



FCC Test Report

Equipment : Wireless 802.11 a/b/g/n/ac Access Point
Brand Name : CISCO
Model No. : MR42E-HW
FCC ID : UDX-60063010
Standard : 47 CFR FCC Part 15.247
Operating Band : 2400 MHz – 2483.5 MHz
Function : Point-to-multipoint; Point-to-point
Applicant : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA 95134 USA
Manufacturer : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA 95134 USA

The product sample received on Jun. 06, 2017 and completely tested on Sep. 01, 2017. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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


Cliff Chang
SPORTON INTERNATIONAL INC.





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APPENDIX A. TEST RESULTS OF RADIATED EMISSION CO-LOCATION

APPENDIX B. TEST PHOTOS

PHOTOGRAPHS OF EUT V01



Summary of Test Result

Conformance Test Specifications				
Report Clause	Ref. Std. Clause	Description	Limit	Result
1.1.2	15.203	Antenna Requirement	FCC 15.203	Complied
3.1	15.207	AC Power-line Conducted Emissions	FCC 15.207	Complied
3.2	15.247(a)	DTS Bandwidth	≥500kHz	Complied
3.3	15.247(b)	Maximum Conducted Output Power	Power [dBm]:30	Complied
3.4	15.247(e)	Power Spectral Density	PSD [dBm/3kHz]:8	Complied
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	Non-Restricted Bands: > 30 dBc	Complied
3.6	15.247(d)	Emissions in Restricted Frequency Bands	Restricted Bands: FCC 15.209	Complied



Revision History



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20), ac (VHT20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40), ac (VHT40)	2422-2452	3-9 [7]

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	1TX
2.4-2.4835GHz	802.11g	20	1TX
2.4-2.4835GHz	802.11n HT20	20	1TX
2.4-2.4835GHz	802.11ac VHT20	20	1TX
2.4-2.4835GHz	802.11n HT40	40	1TX
2.4-2.4835GHz	802.11ac VHT40	40	1TX
2.4-2.4835GHz	802.11b	20	2TX
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	802.11n HT20	20	2TX
2.4-2.4835GHz	802.11ac VHT20	20	2TX
2.4-2.4835GHz	802.11n HT40	40	2TX
2.4-2.4835GHz	802.11ac VHT40	40	2TX
2.4-2.4835GHz	802.11n HT20-BF	20	2TX
2.4-2.4835GHz	802.11ac VHT20-BF	20	2TX
2.4-2.4835GHz	802.11n HT40-BF	40	2TX
2.4-2.4835GHz	802.11ac VHT40-BF	40	2TX
2.4-2.4835GHz	802.11b	20	3TX
2.4-2.4835GHz	802.11g	20	3TX
2.4-2.4835GHz	802.11n HT20	20	3TX
2.4-2.4835GHz	802.11ac VHT20	20	3TX
2.4-2.4835GHz	802.11n HT40	40	3TX
2.4-2.4835GHz	802.11ac VHT40	40	3TX
2.4-2.4835GHz	802.11n HT20-BF	20	3TX
2.4-2.4835GHz	802.11ac VHT20-BF	20	3TX
2.4-2.4835GHz	802.11n HT40-BF	40	3TX
2.4-2.4835GHz	802.11ac VHT40-BF	40	3TX



Note:

- 11b mode uses a combination of DSSS-DBPSK, DQPSK, CCK modulation.
- 11g, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- BWch is the nominal channel bandwidth.
- Nss-Min is the minimum number of spatial streams.
- Nant is the number of outputs. e.g., 2(2,3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.



1.1.2 Antenna Information

Set	Brand	Official Model Number	Antenna Type	Connector	Gain (dBi)
1	Cisco	MA-ANT-3-A	Dipole Antenna	I-PEX	Note
2	Cisco	MA-ANT-3-B	Dipole Antenna	I-PEX	
3	Cisco	MA-ANT-3-F	Patch Antenna	I-PEX	
4	Cisco	MA-ANT-3-E	Patch Antenna	I-PEX	
5	Cisco	MA-ANT-3-C	Omni Antenna	I-PEX	
6	Cisco	MA-ANT-3-D	Omni Antenna	I-PEX	

Note:

Radio 1 (2.4GHz)									
Set	Antenn Gain (dBi)			Cable Loss (dB)			True Gain (dBi)		
	Port 1	Port 2	Port 3	Port 1 (Red)	Port 2 (Gray)	Port 3 (White)	Port 1	Port 2	Port 3
1	4.9	4.9	4.9	0.8	0.8	1.2	4.1	4.1	3.7
2	4.1	4.1	4.1	0.8	0.8	1.2	3.3	3.3	2.9
3	11.55	11.55	11.55	0.8	0.8	1.2	10.75	10.75	10.35
4	6.7	6.7	6.7	0.8	0.8	1.2	5.9	5.9	5.5
5	5.1	5.1	5.1	0.8	0.8	1.2	4.3	4.3	3.9
6	3.16	3.16	3.16	0.8	0.8	1.2	2.36	2.36	1.96

Radio 2 (5GHz)									
Set	Antenn Gain (dBi)			Cable Loss (dB)			True Gain (dBi)		
	Port 1	Port 2	Port 3	Port 1 (Red)	Port 2 (Gray)	Port 3 (White)	Port 1	Port 2	Port 3
1	6.1	6.1	6.1	1.2	1.2	1.7	4.9	4.9	4.4
2	6.9	6.9	6.9	1.2	1.2	1.7	5.7	5.7	5.2
3	10.94	10.94	10.94	1.2	1.2	1.7	9.74	9.74	9.24
4	6.93	6.93	6.93	1.2	1.2	1.7	5.73	5.73	5.23
5	5.4	5.4	5.4	1.2	1.2	1.7	4.2	4.2	3.7
6	3.95	3.95	3.95	1.2	1.2	1.7	2.75	2.75	2.25



Radio 3 (2.4GHz + 5GHz)						
Set	Antenn Gain (dBi)		Cable Loss (dB)		True Gain (dBi)	
	Port 1		Port 1 (Green)		Port 1	
	2.4GHz	5GHz	2.4GHz	5GHz	2.4GHz	5GHz
1	4.9	6.1	1.2	1.7	3.7	4.4
2	4.1	6.9	1.2	1.7	2.9	5.2
3	11.55	10.94	1.2	1.7	10.35	9.24
4	6.7	6.93	1.2	1.7	5.5	5.23
5	5.1	5.4	1.2	1.7	3.9	3.7
6	3.16	3.95	1.2	1.7	1.96	2.25

Radio 4 (Bluetooth)						
Set	Antenn Gain (dBi)		Cable Loss (dB)		True Gain (dBi)	
	Port 1		Port 1 (Blue)		Port 1	
	2.4GHz	5GHz	2.4GHz	5GHz	2.4GHz	5GHz
1	4.9	-	0.6	-	4.3	-
2	4.1	-	0.6	-	3.5	-
3	11.55	-	0.6	-	10.95	-
4	6.7	-	0.6	-	6.1	-
5	5.1	-	0.6	-	4.5	-
6	3.16	-	0.6	-	2.56	-

3TX Correlated Composite Gain(dBi) for Radio 1 and Radio 2						
Set	Antenn Gain (dBi)		Cable Loss (dB)		True Gain (dBi)	
	2.4GHz	5GHz	2.4GHz	5GHz	2.4GHz	5GHz
1	7.10	-	1.2	-	5.9	-
3	16.43	15.18	1.2	1.2	15.2	14.0
4	10.98	11.52	1.2	1.2	9.8	10.3
5	6.60	7.00	1.2	1.2	5.4	5.8
6	6.40	7.01	1.2	1.2	5.2	5.8
Set	3TX Directional gain (dBi) for Radio 2					
2	10.31					



2TX Correlated Composite Gain(dBi) for Radio 1 and Radio 2						
Set	Antenn Gain (dBi)		Cable Loss (dB)		True Gain (dBi)	
	2.4GHz	5GHz	2.4GHz	5GHz	2.4GHz	5GHz
1	5.70	-	1.2	-	4.5	-
3	14.42	12.17	1.2	1.2	13.2	11.0
4	9.93	10.18	1.2	1.2	8.7	9.0
5	4.80	5.60	1.2	1.2	3.6	4.4
6	5.29	4.85	1.2	1.2	4.1	3.7
Set	2TX Directional gain (dBi) for Radio 2					
2	8.46					

Note: The EUT has six set antennas and there are five antennas for each set.

The EUT has four radios, Radio 1 supports WLAN 2.4GHz, Radio 2 supports WLAN 5GHz, Radio 3 supports WLAN 2.4GHz + 5GHz (scanning radio) and Radio 4 supports Bluetooth function.

Set 1 and Set 2 antennas are the same type antennas, only the higher gain antennas Set 1 for 2.4GHz, Set 2 for 5GHz were tested.

<For Radio 1 (2.4GHz Functions) >

For 1TX/3RX:

Only Port 1 can be use as transmitting antenna

Port 1, Port 2 and Port 3 can be used as receiving antennas.

Port 1, Port 2 and Port 3 could receive simultaneously.

For 2TX/3RX:

Only Port 1 and Port 2 can be use as transmitting antenna

Port 1, Port 2 and Port 3 can be used as receiving antennas.

Port 1, Port 2 and Port 3 could receive simultaneously.

For 3TX/3RX:

Port 1, Port 2 and Port 3 can be use as transmitting antenna

Port 1, Port 2 and Port 3 can be used as receiving antennas.

Port 1, Port 2 and Port 3 could transmit/receive simultaneously.

< Radio 2 (5GHz Functions) >

For 1TX/3RX:

Only Port 1 can be use as transmitting antenna

Port 1, Port 2 and Port 3 can be used as receiving antennas.

Port 1, Port 2 and Port 3 could receive simultaneously.

For 2TX/3RX:

Only Port 2 and Port 3 can be use as transmitting antenna

Port 1, Port 2 and Port 3 can be used as receiving antennas.



Port 1, Port 2 and Port 3 could receive simultaneously.

For 3TX/3RX:

Port 1, Port 2 and Port 3 can be used as transmitting antenna

Port 1, Port 2 and Port 3 can be used as receiving antennas.

Port 1, Port 2 and Port 3 could transmit/receive simultaneously.

<For Radio 3 / 2.4GHz + 5GHz Functions>

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

<For Radio 4 / Bluetooth Functions>

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

1.1.3 Mode Test Duty Cycle

For Radio 1

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.994	0.026	n/a (DC≥=0.98)	n/a (DC≥=0.98)
802.11ac VHT20	0.986	0.061	n/a (DC≥=0.98)	n/a (DC≥=0.98)
802.11ac VHT40	0.968	0.141	2.44m	1k
802.11ac VHT20-BF	0.981	0.083	n/a (DC≥=0.98)	n/a (DC≥=0.98)
802.11ac VHT40-BF	0.962	0.168	2.429m	1k

For Radio 3

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b	0.997	0.013	n/a (DC≥=0.98)	n/a (DC≥=0.98)
802.11ac VHT20	0.962	0.168	1.925m	1k
802.11ac VHT40	0.849	0.711	490u	3k

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter or PoE			
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming for radio 1 and radio 2 802.11n/ac in 2.4GHz/5GHz.	<input type="checkbox"/>	Without beamforming



1.2 Testing Applied Standards

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

- ◆ 47 CFR FCC Part 15
- ◆ ANSI C63.10-2013
- ◆ FCC KDB 558074 D01 v04
- ◆ FCC KDB 662911 D01 v02r01
- ◆ FCC KDB 412172 D01 v01r01

1.3 Testing Location Information

Testing Location					
<input type="checkbox"/>	HWA YA	ADD : No. 52, Hwa Ya 1st Rd., Kwei-Shan Hsiang, Tao Yuan Hsien, Taiwan, R.O.C.	TEL : 886-3-327-3456 FAX : 886-3-318-0055		
<input checked="" type="checkbox"/>	JHUBEI	ADD : No.8, Lane 724, Bo-ai St., Jhubei City, HsinChu County 302, Taiwan, R.O.C.			
TEL : 886-3-656-9065		FAX : 886-3-656-9085			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted	TH01-CB	Eddie Weng, Peter Wu, Gary Chu	25°C / 56%	Jul. 04, 2017 ~ Aug. 21, 2017
Radiated	03CH01-CB	Joy Tseng	22°C / 54%	Jun. 20, 2017 ~ Sep. 01, 2017
AC Conduction	CO01-CB	Deven Huang	23°C / 60%	Jul. 13, 2017

Test site Designation No. TW0006 with FCC.

Test site registered number IC 4086D with Industry Canada.



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)	3.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.7 dB	Confidence levels of 95%
Output Power Measurement	1.33 dB	Confidence levels of 95%
Power Density Measurement	1.27 dB	Confidence levels of 95%
Bandwidth Measurement	9.74×10^{-8}	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

For Radio 1

For Set 1 antennas / 1TX:

Mode	Power Setting
802.11b_(1Mbps)_1TX	-
2412MHz	20.2
2437MHz	20.5
2462MHz	20.5
802.11g_(6Mbps)_1TX	-
2412MHz	19.5
2437MHz	21.5
2462MHz	19
802.11ac VHT20_Nss1,(MCS0)_1TX	-
2412MHz	20
2437MHz	21.5
2462MHz	19.5
802.11ac VHT40_Nss1,(MCS0)_1TX	-
2422MHz	15.5
2437MHz	20
2452MHz	18



For Set 1 antennas / 2TX:

Mode	Power Setting
802.11b_(1Mbps)_2TX	-
2412MHz	20.5
2437MHz	20.5
2462MHz	20.5
802.11g_(6Mbps)_2TX	-
2412MHz	15.5
2437MHz	21
2462MHz	16.5
802.11ac VHT20_Nss1,(MCS0)_2TX	-
2412MHz	16
2437MHz	21.5
2462MHz	17
802.11ac VHT40_Nss1,(MCS0)_2TX	-
2422MHz	13.5
2437MHz	17
2452MHz	15
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	16
2437MHz	21.5
2462MHz	16.5
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	12.5
2437MHz	17.5
2452MHz	14.5



For Set 1 antennas / 3TX:

Mode	Power Setting
802.11b_(1Mbps)_3TX	-
2412MHz	20.5
2437MHz	20.5
2462MHz	20.5
802.11g_(6Mbps)_3TX	-
2412MHz	15.5
2437MHz	20.5
2462MHz	16
802.11ac VHT20_Nss1,(MCS0)_3TX	-
2412MHz	16
2437MHz	20.5
2462MHz	16.5
802.11ac VHT40_Nss1,(MCS0)_3TX	-
2422MHz	11
2437MHz	17.5
2452MHz	12.5
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	16
2437MHz	21
2462MHz	15.5
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	12.5
2437MHz	17
2452MHz	13.5



For Set 3 antennas / 1TX:

Mode	Power Setting
802.11b_(1Mbps)_1TX	-
2412MHz	20.5
2437MHz	20.5
2462MHz	20.5
802.11g_(6Mbps)_1TX	-
2412MHz	16
2437MHz	21
2462MHz	16
802.11ac VHT20_Nss1,(MCS0)_1TX	-
2412MHz	16.5
2437MHz	21.5
2462MHz	16.5
802.11ac VHT40_Nss1,(MCS0)_1TX	-
2422MHz	12
2437MHz	17
2452MHz	15

For Harmonic

Mode	Power Setting
802.11b_(1Mbps)_1TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11g_(6Mbps)_1TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11ac VHT20_Nss1,(MCS0)_1TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11ac VHT40_Nss1,(MCS0)_1TX	-
2422MHz	30
2437MHz	30
2452MHz	30



For Set 3 antennas / 2TX:

Mode	Power Setting
802.11b_(1Mbps)_2TX	-
2412MHz	20
2437MHz	20
2462MHz	20
802.11g_(6Mbps)_2TX	-
2412MHz	12
2437MHz	21
2462MHz	13.5
802.11ac VHT20_Nss1,(MCS0)_2TX	-
2412MHz	12.5
2437MHz	21.5
2462MHz	14
802.11ac VHT40_Nss1,(MCS0)_2TX	-
2422MHz	9
2437MHz	13.5
2452MHz	11.5
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	13
2437MHz	20
2462MHz	13.5
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	10
2437MHz	14
2452MHz	11.5



For Harmonic

Mode	Power Setting
802.11b_(1Mbps)_2TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11g_(6Mbps)_2TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11ac VHT20_Nss1,(MCS0)_2TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11ac VHT40_Nss1,(MCS0)_2TX	-
2422MHz	30
2437MHz	30
2452MHz	30
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	22
2437MHz	22
2462MHz	22
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	22
2437MHz	22
2452MHz	22



For Set 3 antennas / 3TX:

Mode	Power Setting
802.11b_(1Mbps)_3TX	-
2412MHz	19.5
2437MHz	19.5
2462MHz	18.5
802.11g_(6Mbps)_3TX	-
2412MHz	11.5
2437MHz	20
2462MHz	12.5
802.11ac VHT20_Nss1,(MCS0)_3TX	-
2412MHz	12
2437MHz	20.5
2462MHz	13
802.11ac VHT40_Nss1,(MCS0)_3TX	-
2422MHz	7.5
2437MHz	12.5
2452MHz	10.5
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-
2412MHz	12
2437MHz	16
2462MHz	12.5
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-
2422MHz	9
2437MHz	11.5
2452MHz	10



For Harmonic

Mode	Power Setting
802.11b_(1Mbps)_3TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11g_(6Mbps)_3TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11ac VHT20_Nss1,(MCS0)_3TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11ac VHT40_Nss1,(MCS0)_3TX	-
2422MHz	30
2437MHz	30
2452MHz	30
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-
2412MHz	22
2437MHz	22
2462MHz	22
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-
2422MHz	22
2437MHz	22
2452MHz	22



For Set 4 antennas / 1TX:

Mode	Power Setting
802.11b_(1Mbps)_1TX	-
2412MHz	20.5
2437MHz	20.5
2462MHz	20.5
802.11g_(6Mbps)_1TX	-
2412MHz	19
2437MHz	21
2462MHz	18.5
802.11ac VHT20_Nss1,(MCS0)_1TX	-
2412MHz	19.5
2437MHz	21.5
2462MHz	19
802.11ac VHT40_Nss1,(MCS0)_1TX	-
2422MHz	13.5
2437MHz	19
2452MHz	17



For Set 4 antennas / 2TX:

Mode	Power Setting
802.11b_(1Mbps)_2TX	-
2412MHz	20.5
2437MHz	20.5
2462MHz	20.5
802.11g_(6Mbps)_2TX	-
2412MHz	14.5
2437MHz	21
2462MHz	15
802.11ac VHT20_Nss1,(MCS0)_2TX	-
2412MHz	15
2437MHz	21.5
2462MHz	15.5
802.11ac VHT40_Nss1,(MCS0)_2TX	-
2422MHz	11
2437MHz	18
2452MHz	12.5
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	17
2437MHz	21.5
2462MHz	15.5
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	11.5
2437MHz	16.5
2452MHz	12.5



For Set 4 antennas / 3TX:

Mode	Power Setting
802.11b_(1Mbps)_3TX	-
2412MHz	20.5
2437MHz	20.5
2462MHz	20.5
802.11g_(6Mbps)_3TX	-
2412MHz	14
2437MHz	20.5
2462MHz	14
802.11ac VHT20_Nss1,(MCS0)_3TX	-
2412MHz	14.5
2437MHz	21
2462MHz	14.5
802.11ac VHT40_Nss1,(MCS0)_3TX	-
2422MHz	11.5
2437MHz	16
2452MHz	11.5
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-
2412MHz	16.5
2437MHz	20.5
2462MHz	14
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-
2422MHz	11.5
2437MHz	16.5
2452MHz	12.5



For Set 5 antennas / 1TX:

Mode	Power Setting
802.11b_(1Mbps)_1TX	-
2412MHz	20.5
2437MHz	20.5
2462MHz	20.5
802.11g_(6Mbps)_1TX	-
2412MHz	19.5
2437MHz	21
2462MHz	19
802.11ac VHT20_Nss1,(MCS0)_1TX	-
2412MHz	20
2437MHz	21.5
2462MHz	19.5
802.11ac VHT40_Nss1,(MCS0)_1TX	-
2422MHz	16.5
2437MHz	20
2452MHz	19



For Set 5 antennas / 2TX:

Mode	Power Setting
802.11b_(1Mbps)_2TX	-
2412MHz	20.5
2437MHz	20.5
2462MHz	20.5
802.11g_(6Mbps)_2TX	-
2412MHz	15
2437MHz	21
2462MHz	16
802.11ac VHT20_Nss1,(MCS0)_2TX	-
2412MHz	15.5
2437MHz	21.5
2462MHz	16.5
802.11ac VHT40_Nss1,(MCS0)_2TX	-
2422MHz	13
2437MHz	17
2452MHz	15.5
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	19.5
2437MHz	21.5
2462MHz	16
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	15.5
2437MHz	17
2452MHz	15



For Set 5 antennas / 3TX:

Mode	Power Setting
802.11b_(1Mbps)_3TX	-
2412MHz	20.5
2437MHz	20.5
2462MHz	20.5
802.11g_(6Mbps)_3TX	-
2412MHz	15
2437MHz	20.5
2462MHz	15.5
802.11ac VHT20_Nss1,(MCS0)_3TX	-
2412MHz	15.5
2437MHz	21
2462MHz	16
802.11ac VHT40_Nss1,(MCS0)_3TX	-
2422MHz	12.5
2437MHz	16
2452MHz	13.5
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-
2412MHz	15.5
2437MHz	21
2462MHz	15
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-
2422MHz	13.5
2437MHz	15.5
2452MHz	11.5



For Set 6 antennas / 1TX:

Mode	Power Setting
802.11b_(1Mbps)_1TX	-
2412MHz	20.5
2437MHz	20.5
2462MHz	20.5
802.11g_(6Mbps)_1TX	-
2412MHz	19
2437MHz	21
2462MHz	18.5
802.11ac VHT20_Nss1,(MCS0)_1TX	-
2412MHz	19.5
2437MHz	21.5
2462MHz	19
802.11ac VHT40_Nss1,(MCS0)_1TX	-
2422MHz	14.5
2437MHz	18.5
2452MHz	15

For Harmonic

Mode	Power Setting
802.11b_(1Mbps)_1TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11g_(6Mbps)_1TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11ac VHT20_Nss1,(MCS0)_1TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11ac VHT40_Nss1,(MCS0)_1TX	-
2422MHz	30
2437MHz	30
2452MHz	30



For Set 6 antennas / 2TX:

Mode	Power Setting
802.11b_(1Mbps)_2TX	-
2412MHz	20.5
2437MHz	20.5
2462MHz	20.5
802.11g_(6Mbps)_2TX	-
2412MHz	15
2437MHz	21
2462MHz	15.5
802.11ac VHT20_Nss1,(MCS0)_2TX	-
2412MHz	15.5
2437MHz	21.5
2462MHz	16
802.11ac VHT40_Nss1,(MCS0)_2TX	-
2422MHz	13
2437MHz	18
2452MHz	14.5
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	19.5
2437MHz	21.5
2462MHz	18.5
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	15
2437MHz	18.5
2452MHz	14.5



For Harmonic

Mode	Power Setting
802.11b_(1Mbps)_1TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11g_(6Mbps)_1TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11ac VHT20_Nss1,(MCS0)_1TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11ac VHT40_Nss1,(MCS0)_1TX	-
2422MHz	30
2437MHz	30
2452MHz	30
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	22
2437MHz	22
2462MHz	22
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	22
2437MHz	22
2452MHz	22



For Set 6 antennas / 3TX:

Mode	Power Setting
802.11b_(1Mbps)_3TX	-
2412MHz	20.5
2437MHz	20.5
2462MHz	20.5
802.11g_(6Mbps)_3TX	-
2412MHz	13.5
2437MHz	20.5
2462MHz	14
802.11ac VHT20_Nss1,(MCS0)_3TX	-
2412MHz	14
2437MHz	21
2462MHz	14.5
802.11ac VHT40_Nss1,(MCS0)_3TX	-
2422MHz	12
2437MHz	18.5
2452MHz	14
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-
2412MHz	17.5
2437MHz	21
2462MHz	18.5
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-
2422MHz	15.5
2437MHz	18
2452MHz	13.5



For Harmonic

Mode	Power Setting
802.11b_(1Mbps)_1TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11g_(6Mbps)_1TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11ac VHT20_Nss1,(MCS0)_1TX	-
2412MHz	30
2437MHz	30
2462MHz	30
802.11ac VHT40_Nss1,(MCS0)_1TX	-
2422MHz	30
2437MHz	30
2452MHz	30
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	22
2437MHz	22
2462MHz	22
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	22
2437MHz	22
2452MHz	22



Radio 3

For Set 1 antennas / 1TX:

Mode	Power Setting
802.11b_(1Mbps)_1TX	-
2412MHz	21
2437MHz	20
2462MHz	15.5
802.11g_(6Mbps)_1TX	-
2412MHz	18
2437MHz	23.5
2462MHz	15.5
802.11ac VHT20_Nss1,(MCS0)_1TX	-
2412MHz	18
2437MHz	23.5
2462MHz	15.5
802.11ac VHT40_Nss1,(MCS0)_1TX	-
2422MHz	16
2437MHz	19.5
2452MHz	13.5



For Set 3 antennas / 1TX:

Mode	Power Setting
802.11b_(1Mbps)_1TX	-
2412MHz	20
2437MHz	18
2462MHz	16
802.11g_(6Mbps)_1TX	-
2412MHz	17.5
2437MHz	22
2462MHz	13.5
802.11ac VHT20_Nss1,(MCS0)_1TX	-
2412MHz	17.5
2437MHz	22
2462MHz	13.5
802.11ac VHT40_Nss1,(MCS0)_1TX	-
2422MHz	13
2437MHz	16.5
2452MHz	10.5



For Set 4 antennas / 1TX:

Mode	Power Setting
802.11b_(1Mbps)_1TX	-
2412MHz	20.5
2437MHz	18
2462MHz	14
802.11g_(6Mbps)_1TX	-
2412MHz	18.5
2437MHz	23.5
2462MHz	14
802.11ac VHT20_Nss1,(MCS0)_1TX	-
2412MHz	18.5
2437MHz	23.5
2462MHz	14
802.11ac VHT40_Nss1,(MCS0)_1TX	-
2422MHz	14
2437MHz	17
2452MHz	11.5



For Set 5 antennas / 1TX:

Mode	Power Setting
802.11b_(1Mbps)_1TX	-
2412MHz	21.5
2437MHz	19
2462MHz	15
802.11g_(6Mbps)_1TX	-
2412MHz	18.5
2437MHz	23.5
2462MHz	15.5
802.11ac VHT20_Nss1,(MCS0)_1TX	-
2412MHz	18.5
2437MHz	23.5
2462MHz	15.5
802.11ac VHT40_Nss1,(MCS0)_1TX	-
2422MHz	15
2437MHz	18.5
2452MHz	13.5



For Set 6 antennas / 1TX:

Mode	Power Setting
802.11b_(1Mbps)_1TX	-
2412MHz	21.5
2437MHz	21.5
2462MHz	16
802.11g_(6Mbps)_1TX	-
2412MHz	18.5
2437MHz	23.5
2462MHz	16.5
802.11ac VHT20_Nss1,(MCS0)_1TX	-
2412MHz	18.5
2437MHz	23.5
2462MHz	16.5
802.11ac VHT40_Nss1,(MCS0)_1TX	-
2422MHz	15
2437MHz	18
2452MHz	15



2.2 The Worst Case Measurement Configuration

For Radio 1:

The Worst Case Mode for Following Conformance Tests					
Test Item	Antenna	Test Condition	Mode	Data Rate	TX No.
AC power-line conducted emissions	Set 3	AC power-line conducted measurement for line and neutral	CTX	-	3TX
DTS Bandwidth	Set 1 Set 3 Set 4 Set 5 Set 6	Conducted measurement at transmit chains	Non-Beamforming Mode		
			11b/CCK	1 Mbps	1, 2, 3TX
			11g/BPSK	6 Mbps	1, 2, 3TX
			11ac VHT20	MCS0 NSS1	1, 2, 3TX
			11ac VHT40	MCS0 NSS1	1, 2, 3TX
			Beamforming Mode		
			11ac VHT20	MCS0 NSS1	2, 3TX
Maximum Conducted Output Power	Set 1 Set 3 Set 4 Set 5 Set 6	Conducted measurement at transmit chains	Non-Beamforming Mode		
			11b/CCK	1 Mbps	1, 2, 3TX
			11g/BPSK	6 Mbps	1, 2, 3TX
			11ac VHT20	MCS0 NSS1	1, 2, 3TX
			11ac VHT40	MCS0 NSS1	1, 2, 3TX
			Beamforming Mode		
			11ac VHT20	MCS0 NSS1	2, 3TX
Power Spectral Density	Set 1 Set 3 Set 4 Set 5 Set 6	Conducted measurement at transmit chains	Non-Beamforming Mode		
			11b/CCK	1 Mbps	1, 2, 3TX
			11g/BPSK	6 Mbps	1, 2, 3TX
			11ac VHT20	MCS0 NSS1	1, 2, 3TX
			11ac VHT40	MCS0 NSS1	1, 2, 3TX
			Beamforming Mode		
			11ac VHT20	MCS0 NSS1	2, 3TX
			11ac VHT40	MCS0 NSS1	2, 3TX



			Non-Beamforming Mode		
Emissions in Non-restricted Frequency Bands	Set 1 Set 3 Set 4 Set 5 Set 6	Conducted measurement at transmit chains	11b/CCK	1 Mbps	1, 2, 3TX
			11g/BPSK	6 Mbps	1, 2, 3TX
			11ac VHT20	MCS0 NSS1	1, 2, 3TX
			11ac VHT40	MCS0 NSS1	1, 2, 3TX
			Beamforming Mode		
			11ac VHT20	MCS0 NSS1	2, 3TX
Emissions in Restricted Frequency Bands < 1GHz	Set 3	Radiated measurement	CTX	-	3TX
Emissions in Restricted Frequency Bands > 1GHz (Harmonic) (see the Note)	Set 3 Set 6	Radiated measurement	Non-Beamforming Mode		
			11b/CCK	1 Mbps	1, 2, 3TX
			11ac VHT20	MCS0 NSS1	1, 2, 3TX
			11ac VHT40	MCS0 NSS1	1, 2, 3TX
			Beamforming Mode		
			11ac VHT20	MCS0 NSS1	2, 3TX
Emissions in Restricted Frequency Bands > 1GHz (Band Edge Emission)	Set 1 Set 3 Set 4 Set 5 Set 6	Radiated measurement	Non-Beamforming Mode		
			11b/CCK	1 Mbps	1, 2, 3TX
			11ac VHT20	MCS0 NSS1	1, 2, 3TX
			11ac VHT40	MCS0 NSS1	1, 2, 3TX
			Beamforming Mode		
			11ac VHT20	MCS0 NSS1	2, 3TX
			11ac VHT40	MCS0 NSS1	2, 3TX
Note: 1. VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40. 2. For emissions in restricted frequency bands > 1GHz 11g mode were exempted from testing because they're covered by 11ac VHT20 mode. 3. For Emissions in Restricted Frequency Bands > 1GHz (Harmonic) used higher gain and lowest gain antenna set collocate with maximum power setting to evaluated. 4. There are two modes of EUT, one is beamforming mode, and the other is non-beamforming mode for 802.11n/ac. All test results were recorded in the report.					



For Radio 3:

The Worst Case Mode for Following Conformance Tests					
Test Item	Antenna	Test Condition	Mode	Data Rate	TX No.
AC power-line conducted emissions	Set 3	AC power-line conducted measurement for line and neutral	CTX	-	1TX
DTS Bandwidth	Set 1 Set 3 Set 4 Set 5 Set 6	Conducted measurement at transmit chains	11b/CCK	1 Mbps	1TX
			11g/BPSK	6 Mbps	1TX
			11ac VHT20	MCS0 NSS1	1TX
			11ac VHT40	MCS0 NSS1	1TX
Maximum Conducted Output Power	Set 1 Set 3 Set 4 Set 5 Set 6	Conducted measurement at transmit chains	11b/CCK	1 Mbps	1TX
			11g/BPSK	6 Mbps	1TX
			11ac VHT20	MCS0 NSS1	1TX
			11ac VHT40	MCS0 NSS1	1TX
Power Spectral Density	Set 1 Set 3 Set 4 Set 5 Set 6	Conducted measurement at transmit chains	11b/CCK	1 Mbps	1TX
			11g/BPSK	6 Mbps	1TX
			11ac VHT20	MCS0 NSS1	1TX
			11ac VHT40	MCS0 NSS1	1TX
Emissions in Non-restricted Frequency Bands	Set 1 Set 3 Set 4 Set 5 Set 6	Conducted measurement at transmit chains	11b/CCK	1 Mbps	1TX
			11g/BPSK	6 Mbps	1TX
			11ac VHT20	MCS0 NSS1	1TX
			11ac VHT40	MCS0 NSS1	1TX
Emissions in Restricted Frequency Bands < 1GHz	Set 3	Radiated measurement	CTX	-	1TX
Emissions in Restricted Frequency Bands > 1GHz (Harmonic) (see the Note)	Set 1 Set 3 Set 4 Set 5 Set 6	Radiated measurement	11b/CCK	1 Mbps	1TX
			11ac VHT20	MCS0 NSS1	1TX
	Set 3 Set 6		11ac VHT40	MCS0 NSS1	1TX



Emissions in Restricted Frequency Bands > 1GHz (Band Edge Emission)	Set 1 Set 3 Set 4 Set 5 Set 6	Radiated measurement	11b/CCK	1 Mbps	1TX
			11ac VHT20	MCS0 NSS1	1TX
			11ac VHT40	MCS0 NSS1	1TX

Note: 1. VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.
2. For emissions in restricted frequency bands > 1GHz 11g mode were exempted from testing because they're covered by 11ac VHT20 mode.
3. For emissions in restricted frequency bands > 1GHz (Harmonic) used higher gain and lowest gain antenna set collocate with maximum power setting to evaluated at 11ac VHT20 MHz and 11ac VHT40 MHz mode only.
4. After evaluating, the worst case is found 11b mode emissions in restricted frequency bands > 1GHz (Harmonic). It's necessary to use all antennas set to test and all test results in this report.

The following test modes were performed for all tests:

For Conducted Emission test:

Mode 1. EUT with Set 3 antenna + Radio 1 (2.4GHz)

Mode 2. EUT with Set 3 antenna + Radio 2 (5GHz)

Mode 3. EUT with Set 3 antenna + Radio 3 (2.4GHz)

Mode 4. EUT with Set 3 antenna + Radio 3 (5GHz)

Mode 5. EUT with Set 3 antenna + Radio 4 (Bluetooth)

Mode 4 is the worst case, so it was selected to record in this test report.

For Radiated Emission test below 1GHz:

The EUT was performed at X axis and Z axis position for Radiated emission above 1GHz test, and the worst case was found for 2.4GHz at X axis and for 5GHz and Bluetooth at Z axis. So the measurement will follow this same test configuration.

Mode 1. EUT in X axis with Set 3 antenna + Radio 1 (2.4GHz)

Mode 2. EUT in Z axis with Set 3 antenna + Radio 2 (5GHz)

Mode 3. EUT in X axis with Set 3 antenna + Radio 3 (2.4GHz)

Mode 4. EUT in Z axis with Set 3 antenna + Radio 3 (5GHz)

Mode 5. EUT in Z axis with Set 3 antenna + Radio 4 (Bluetooth)

Mode 4 is the worst case, so it was selected to record in this test report.

For Radiated Emission test above 1GHz:

The EUT was performed at X axis and Z axis position for Radiated emission above 1GHz test, and the worst case was found at X axis. So the measurement will follow this same test configuration.

Mode 1. EUT in X axis with Set 1 antenna + Radio 1 (2.4GHz) and Radio 3 (2.4GHz)

Mode 2. EUT in X axis with Set 3 antenna + Radio 1 (2.4GHz) and Radio 3 (2.4GHz)

Mode 3. EUT in X axis with Set 4 antenna + Radio 1 (2.4GHz) and Radio 3 (2.4GHz)

Mode 4. EUT in X axis with Set 5 antenna + Radio 1 (2.4GHz) and Radio 3 (2.4GHz)

Mode 5. EUT in X axis with Set 6 antenna + Radio 1 (2.4GHz) and Radio 3 (2.4GHz)

**For Co-location MPE and Radiated Emission Co-location Test:**

The EUT could be applied with 2.4GHz WLAN function, 5GHz WLAN function and Bluetooth function; therefore Co-location Maximum Permissible Exposure (Please refer to FA760613) and Radiated Emission Co-location (please refer to Appendix A) tests are added for simultaneously transmit between 2.4GHz WLAN function and 5GHz WLAN function collocation with higher gain antenna.

2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

During the test, the following programs under WIN 7 were executed.

The program was executed as follows:

1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under Telenet.
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by RX Device and transmit duty cycle no less than 98%.

2.4 Accessories

Accessories					
No.	Equipment Name	Brand Name	PSU Vendor P/N	Meraki Model	Rating
1	Adapter	CISCO	KSAS0361200250HU	MA-PWR-30W-US	Input: 100-240V ~ 50/60Hz, 1.0A Output: 12V, 2.5A
Other					
Wall-mounted rack*1					



2.5 Support Equipment

For Test Site No: CO01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E6430	DoC

For Test Site No: 03CH01-CB (below 1GHz)

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E4300	DoC

For Test Site No: 03CH01-CB (above 1GHz)

<For Non-Beamforming Mode>

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E4300	DoC

<For Beamforming Mode>

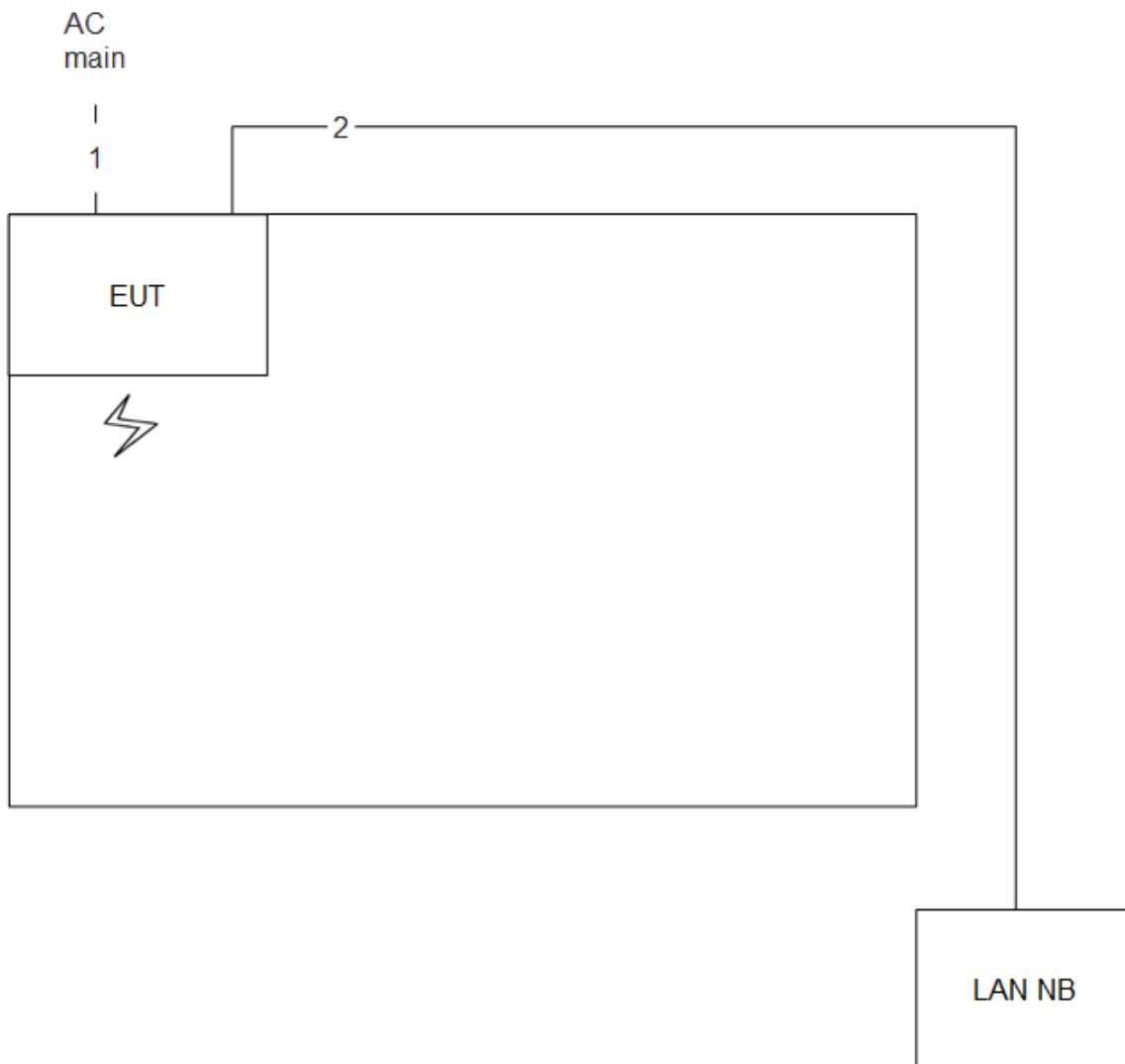
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook*2	DELL	E4300	DoC
2	RX Device	CISCO	MR42E-HW	UDX-60063010

For Test Site No: TH01-CB

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
1	Notebook	DELL	E4300	DoC

2.6 Test Setup Diagram

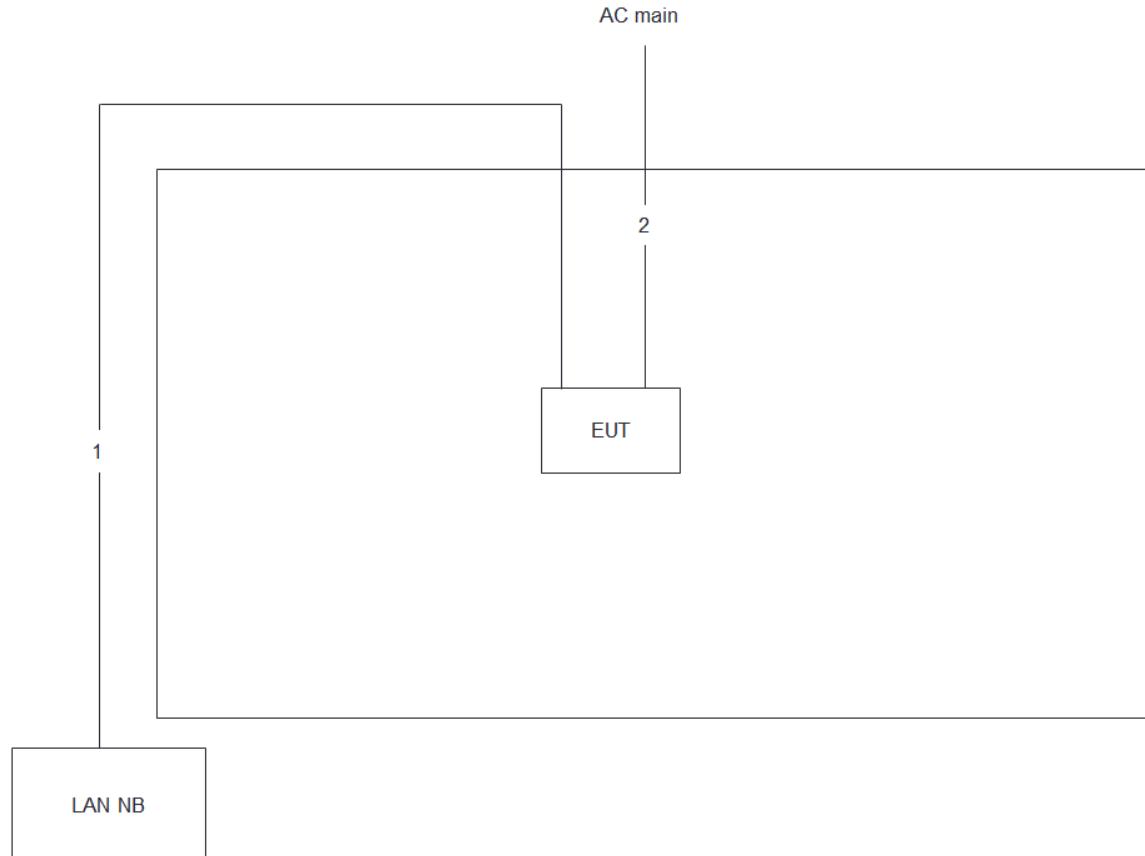
Test Setup Diagram – AC Line Conducted Emission Test



Item	Connection	Shielded	Length
1	Power cable	No	1.6m
2	RJ-45 cable	No	10m

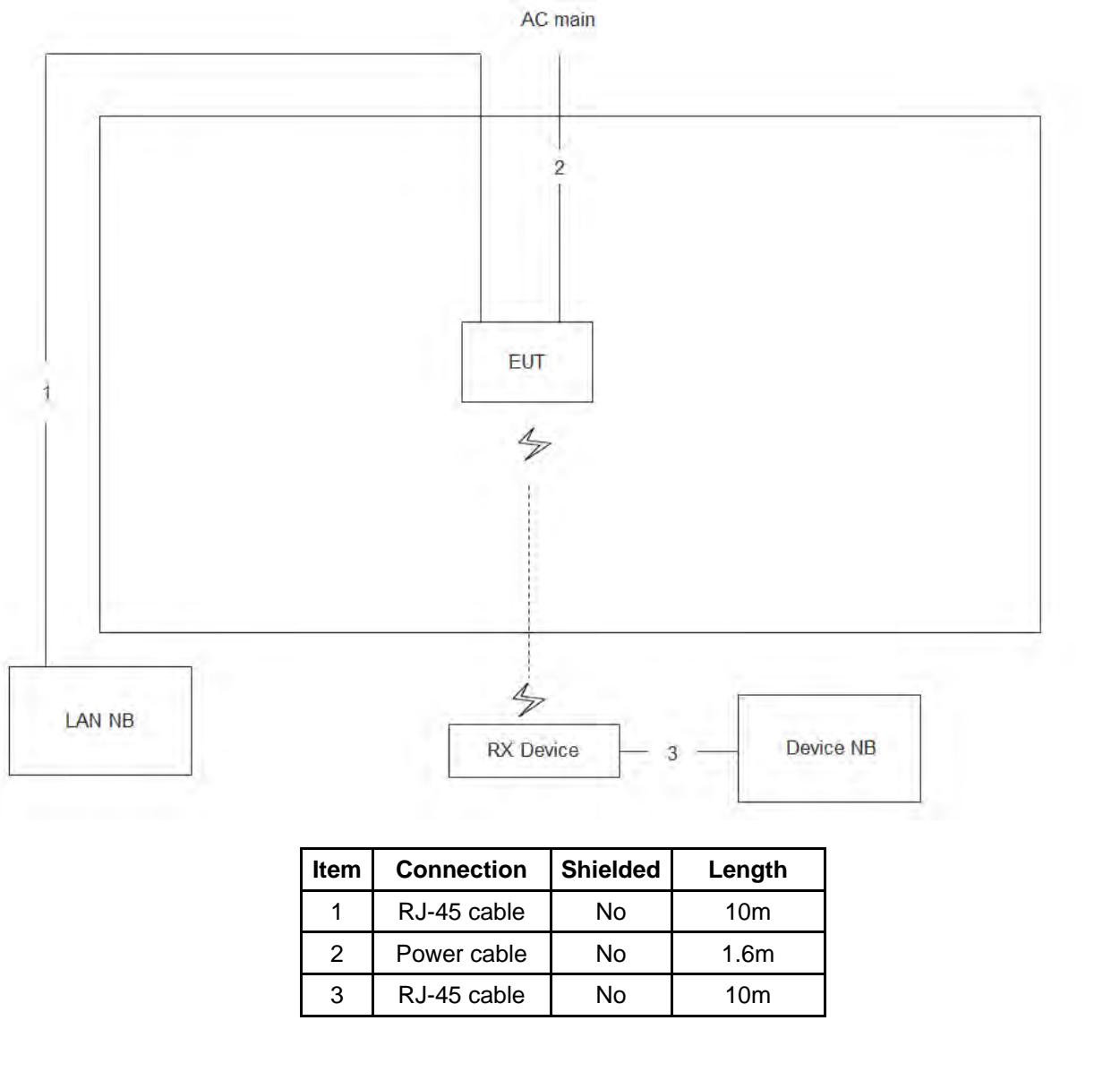


Test Setup Diagram - Radiated Test < 1GHz and Radiated Test > 1GHz Non-Beamforming Mode



Item	Connection	Shielded	Length
1	RJ-45 Cable	No	10m
2	Power cable	No	1.6m

Test Setup Diagram - Radiated Test > 1GHz Beamforming Mode



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.

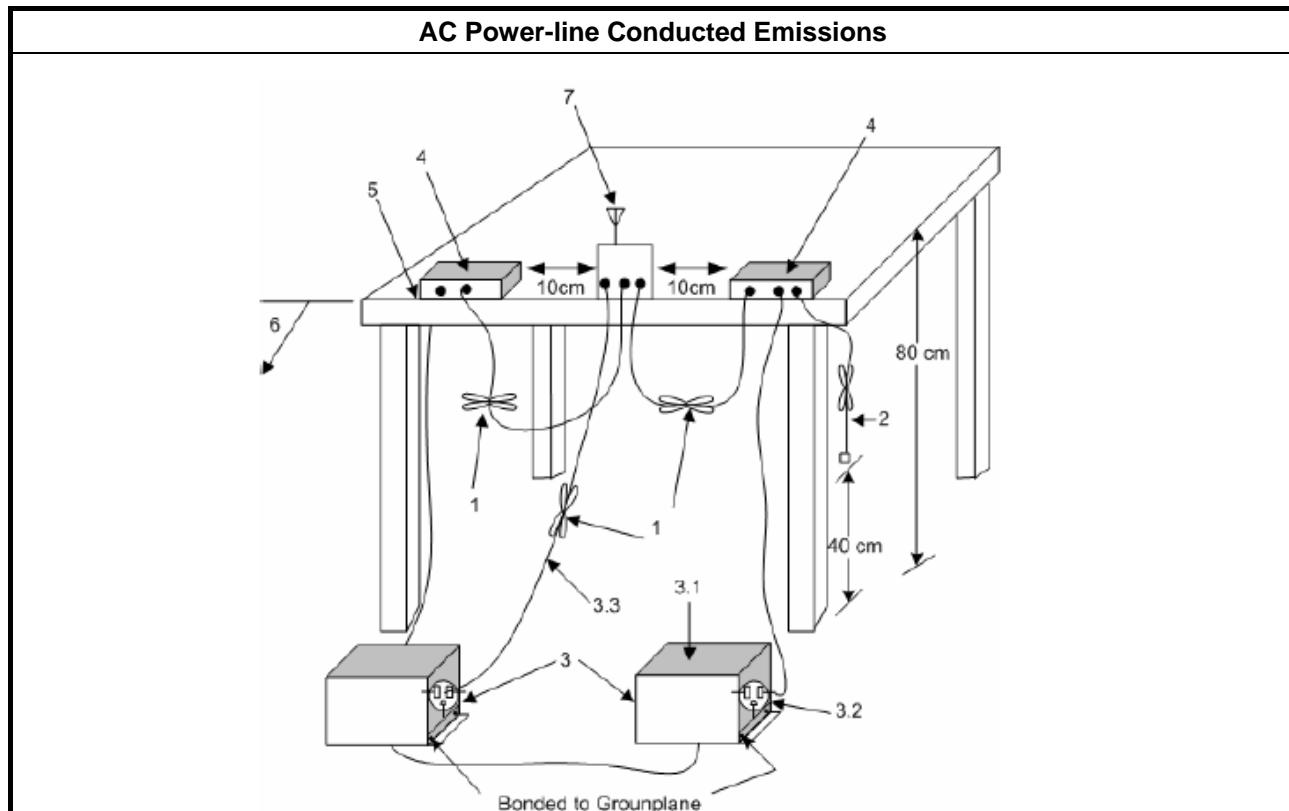
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

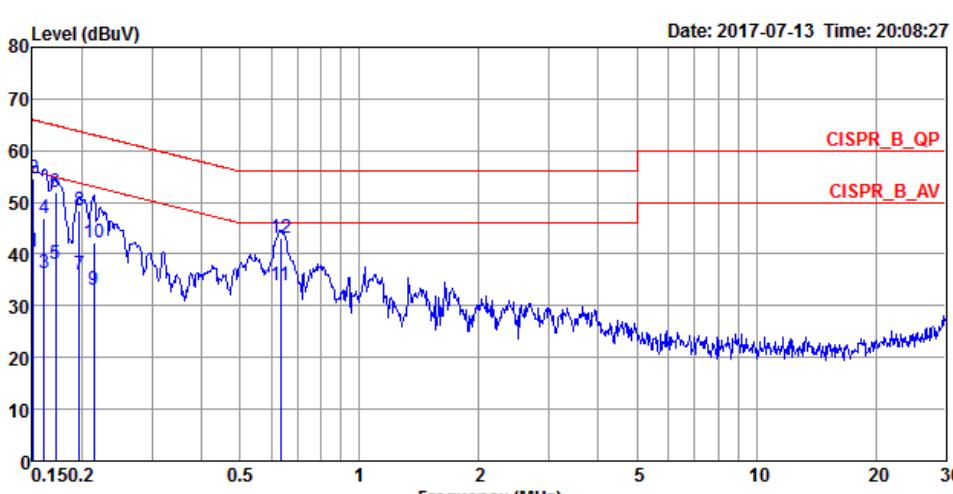
Test Method
<input checked="" type="checkbox"/> Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Test Setup



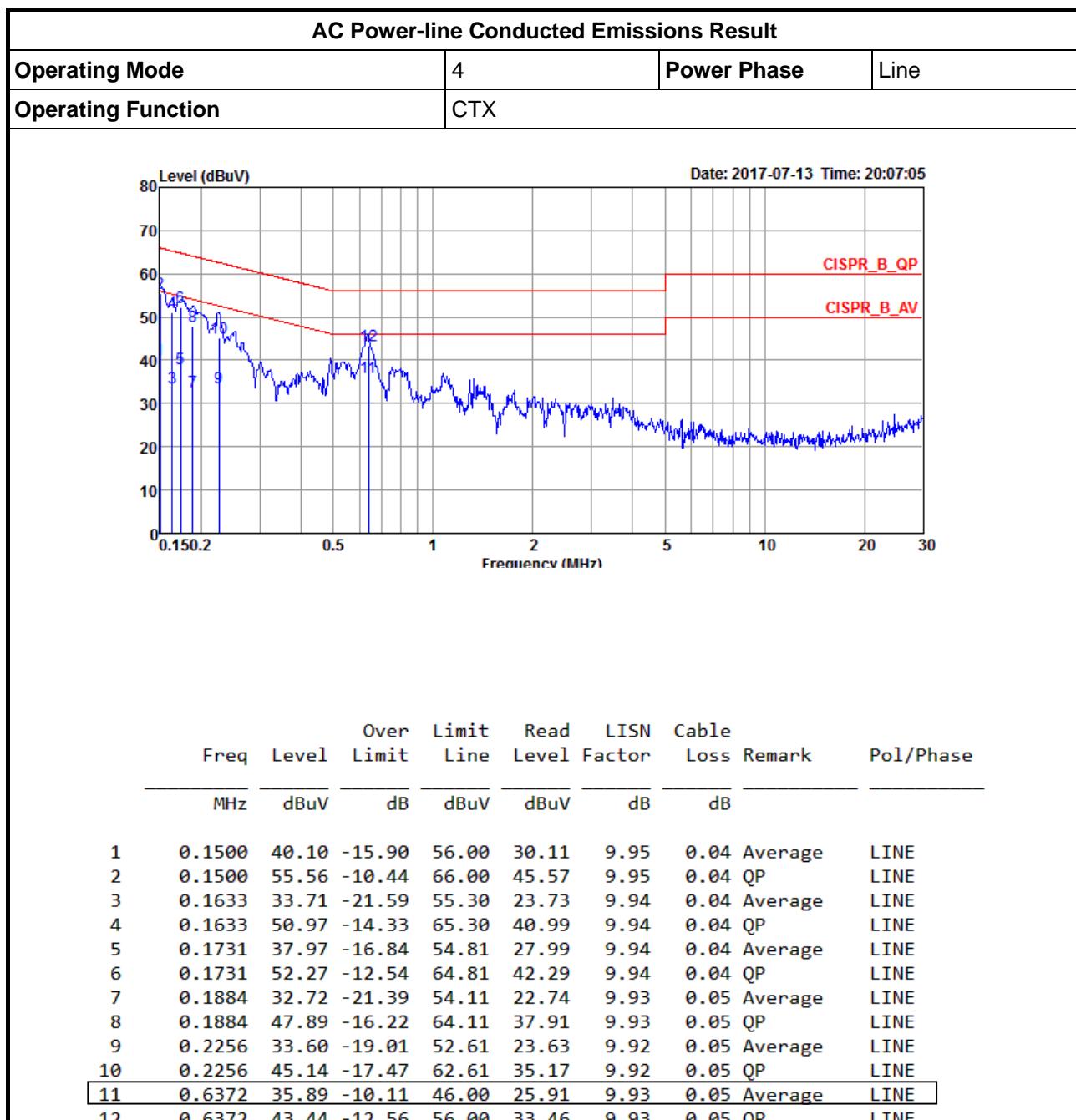


3.1.5 Test Result of AC Power-line Conducted Emissions

AC Power-line Conducted Emissions Result											
Operating Mode		4	Power Phase		Neutral						
Operating Function		CTX									
Date: 2017-07-13 Time: 20:08:27											
											
Emissions Data (dBuV)											
Freq		Over Limit	Limit	Read Line	LISN Factor	Cable Loss	Remark		Pol/Phase		
MHz		dBuV	dB	dBuV	dBuV	dB					
1	0.1508	40.46	-15.50	55.96	30.48	9.94	0.04	Average	NEUTRAL		
2	0.1508	54.68	-11.28	65.96	44.70	9.94	0.04	QP	NEUTRAL		
3	0.1607	36.26	-19.17	55.43	26.27	9.95	0.04	Average	NEUTRAL		
4	0.1607	46.96	-18.47	65.43	36.97	9.95	0.04	QP	NEUTRAL		
5	0.1712	38.00	-16.90	54.90	28.00	9.96	0.04	Average	NEUTRAL		
6	0.1712	52.01	-12.89	64.90	42.01	9.96	0.04	QP	NEUTRAL		
7	0.1965	35.99	-17.77	53.76	25.96	9.98	0.05	Average	NEUTRAL		
8	0.1965	48.52	-15.24	63.76	38.49	9.98	0.05	QP	NEUTRAL		
9	0.2139	33.12	-19.93	53.05	23.09	9.98	0.05	Average	NEUTRAL		
10	0.2139	42.25	-20.80	63.05	32.22	9.98	0.05	QP	NEUTRAL		
11	0.6338	34.03	-11.97	46.00	24.01	9.97	0.05	Average	NEUTRAL		
12	0.6338	43.14	-12.86	56.00	33.12	9.97	0.05	QP	NEUTRAL		

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.)



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.)



3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

6dB Bandwidth Limit
Systems using digital modulation techniques:
▪ 6 dB bandwidth \geq 500 kHz.

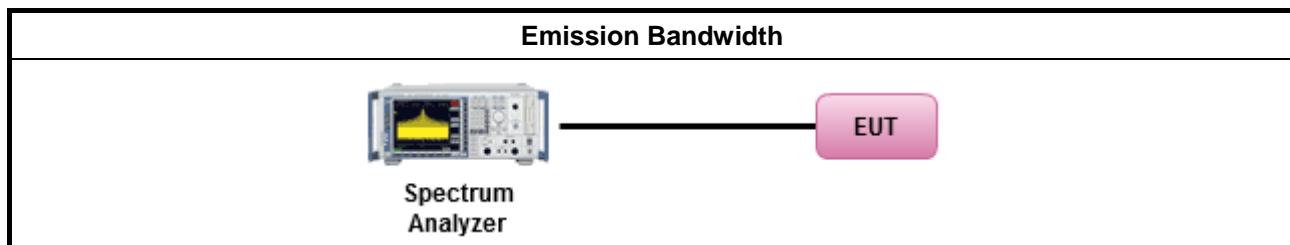
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method
▪ For the emission bandwidth shall be measured using one of the options below:
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 8.1 Option 1 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as FCC KDB 558074, clause 8.2 Option 2 for 6 dB bandwidth measurement.
<input type="checkbox"/> Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.

3.2.4 Test Setup





3.2.5 Test Result of Emission Bandwidth

For Radio 1:

For Set 1 antennas / 1TX:

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	8.525M	13.918M	13M9G1D	7.55M	12.894M
802.11g_(6Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	16.325M	16.717M	16M7D1D	16.275M	16.442M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	17.525M	17.916M	17M9D1D	17.15M	17.616M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	35.05M	35.982M	36M0D1D	33.1M	35.932M

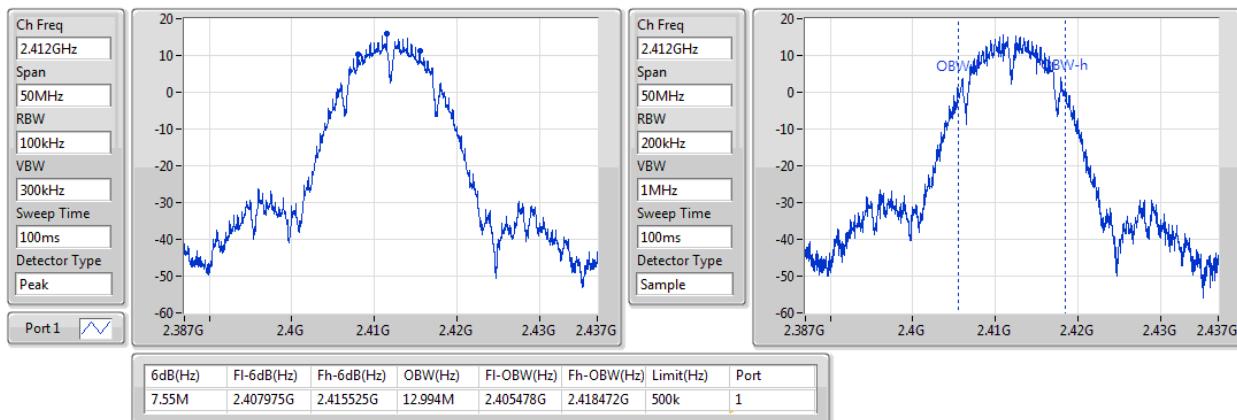
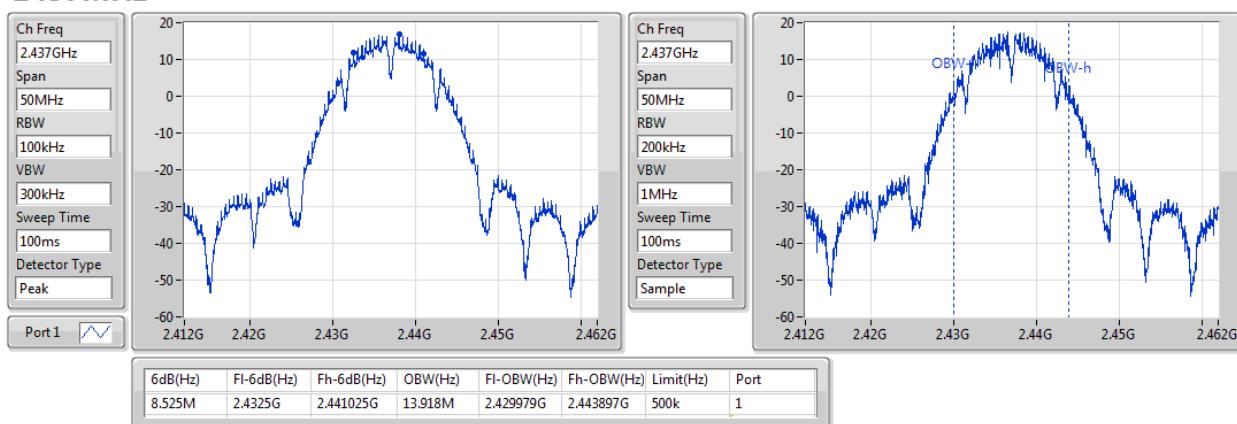
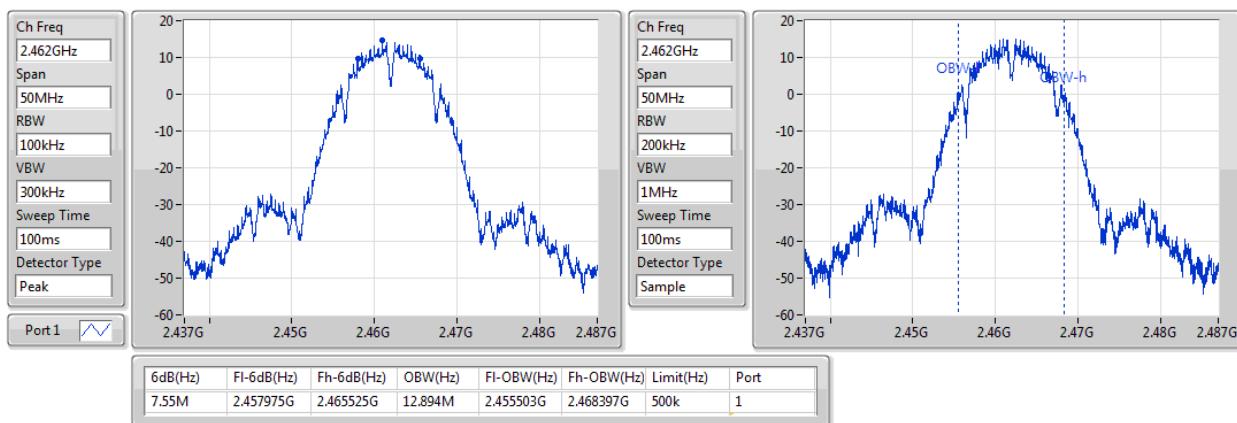
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

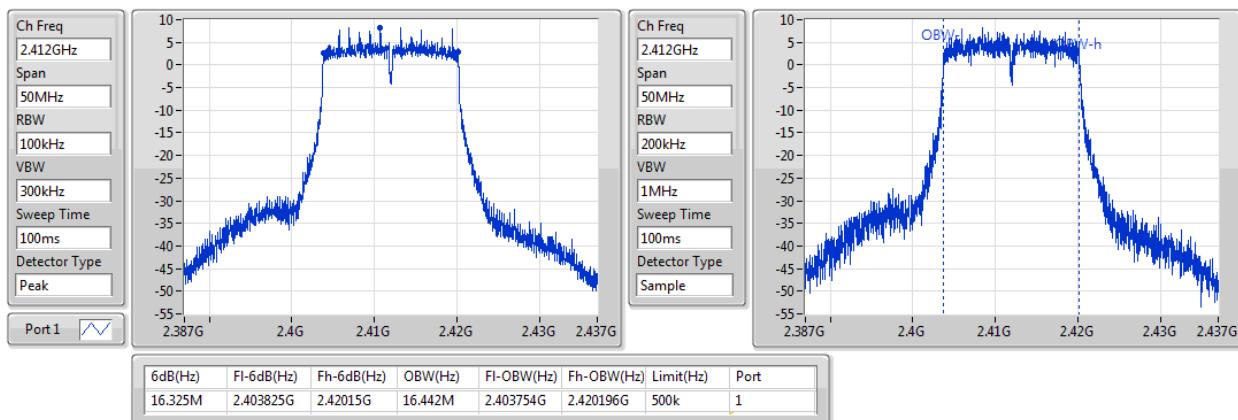
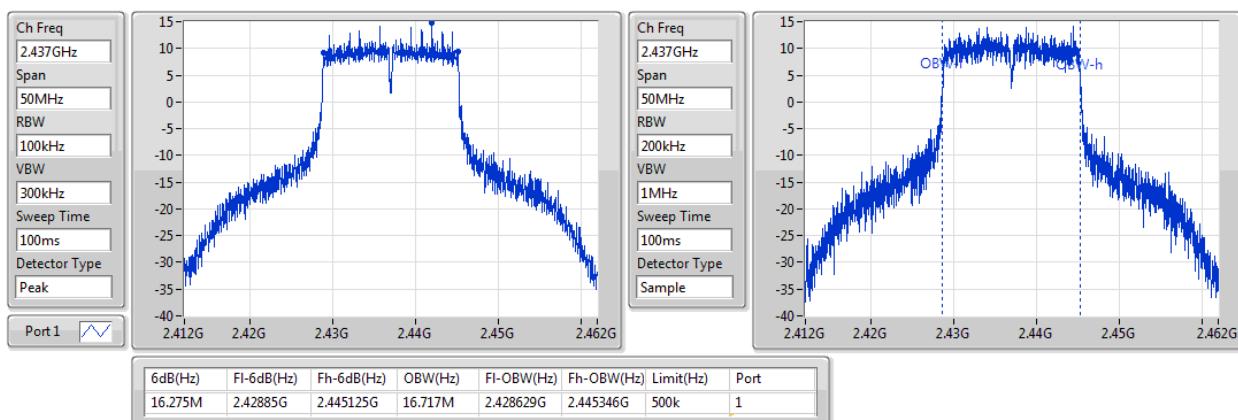
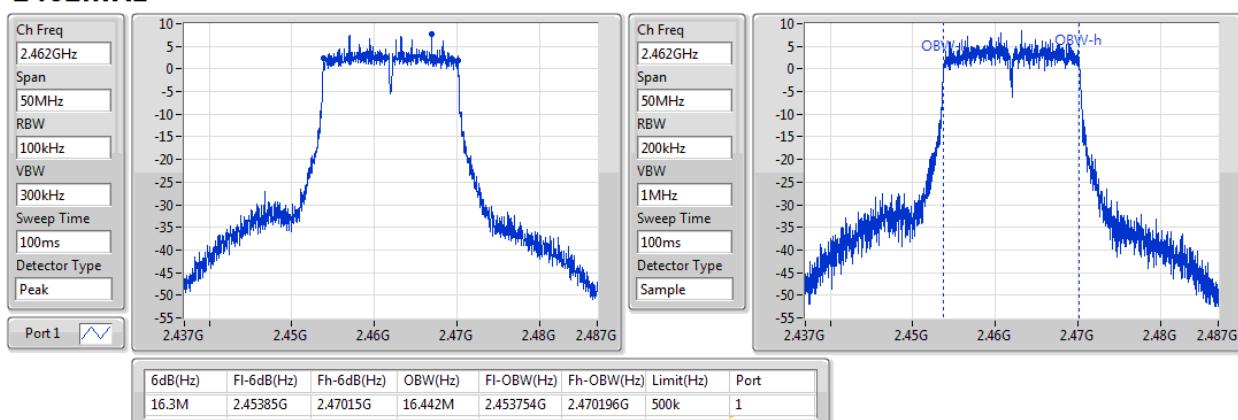
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	7.55M	12.994M
2437MHz	Pass	500k	8.525M	13.918M
2462MHz	Pass	500k	7.55M	12.894M
802.11g_(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.325M	16.442M
2437MHz	Pass	500k	16.275M	16.717M
2462MHz	Pass	500k	16.3M	16.442M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	17.275M	17.641M
2437MHz	Pass	500k	17.525M	17.916M
2462MHz	Pass	500k	17.15M	17.616M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	35.05M	35.932M
2437MHz	Pass	500k	33.1M	35.982M
2452MHz	Pass	500k	35.05M	35.982M

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

**802.11b_(1Mbps)_1TX****EBW****2412MHz****802.11b_(1Mbps)_1TX****EBW****2437MHz****802.11b_(1Mbps)_1TX****EBW****2462MHz**

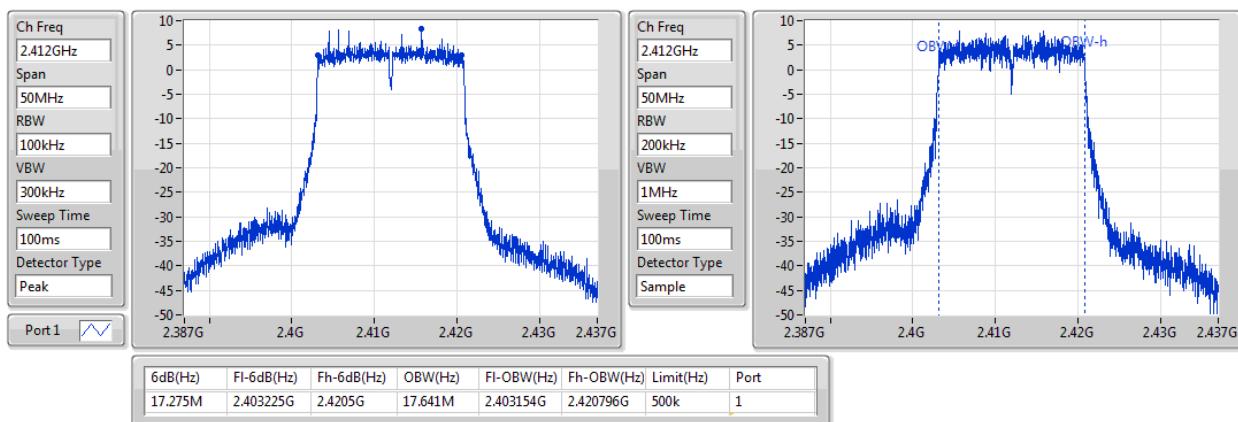
**802.11g_(6Mbps)_1TX****EBW****2412MHz****802.11g_(6Mbps)_1TX****EBW****2437MHz****802.11g_(6Mbps)_1TX****EBW****2462MHz**



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

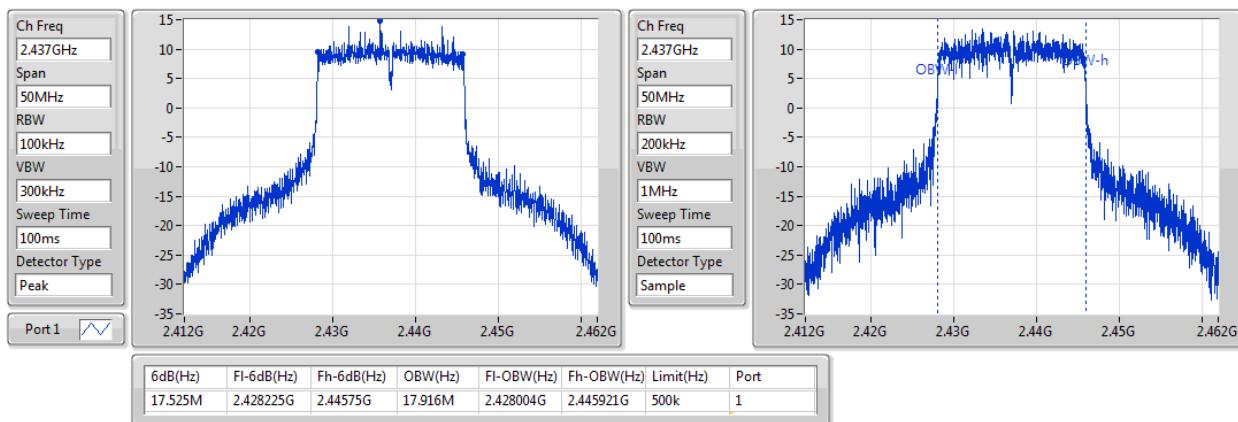
2412MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

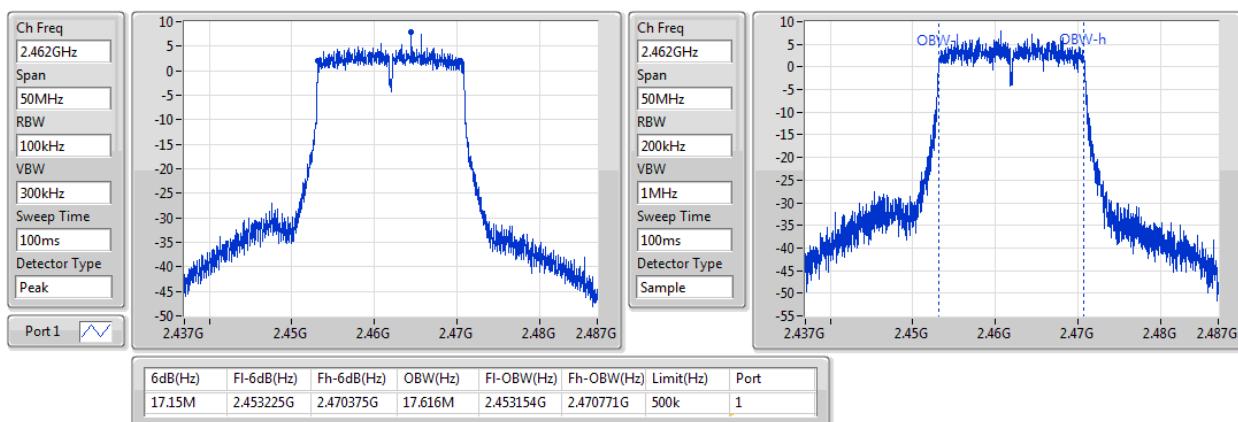
2437MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

2462MHz

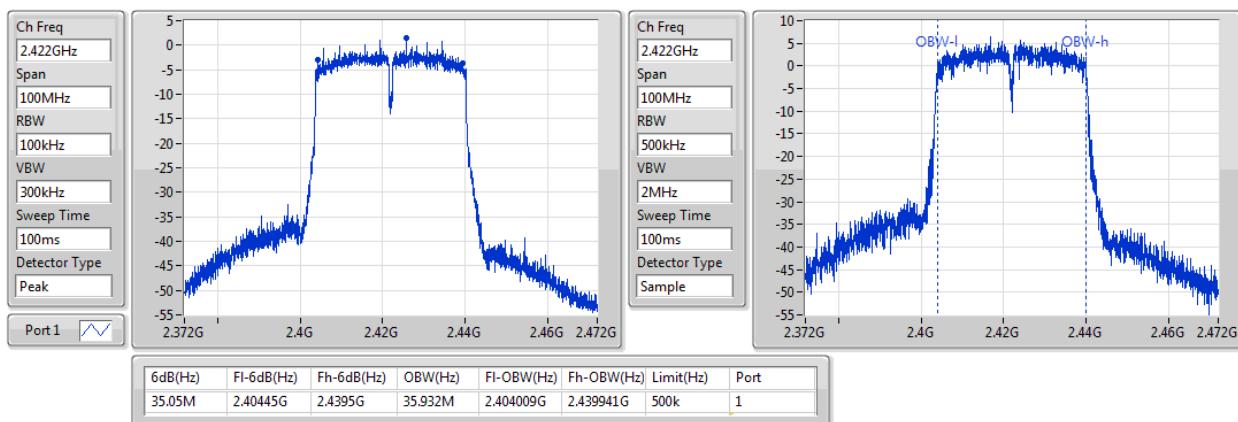




802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

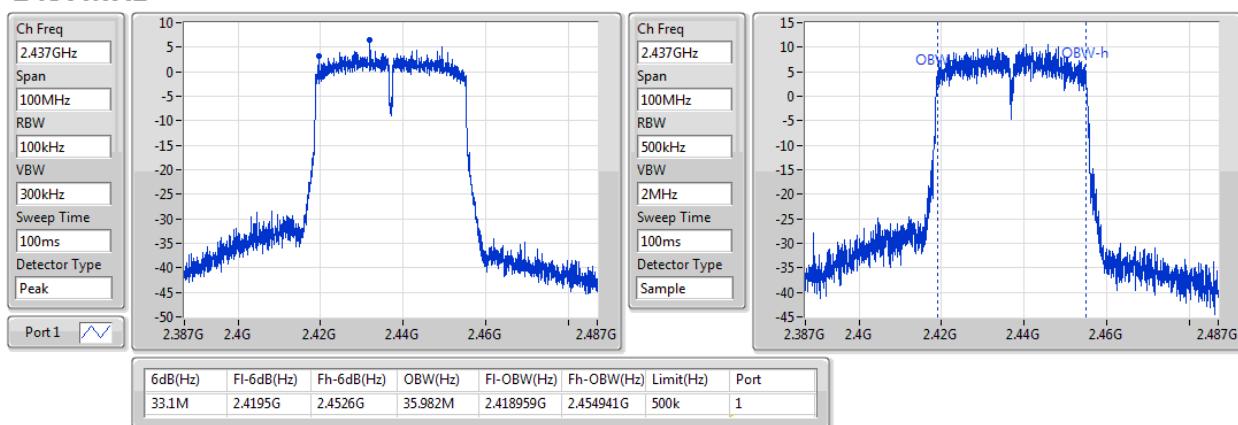
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802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

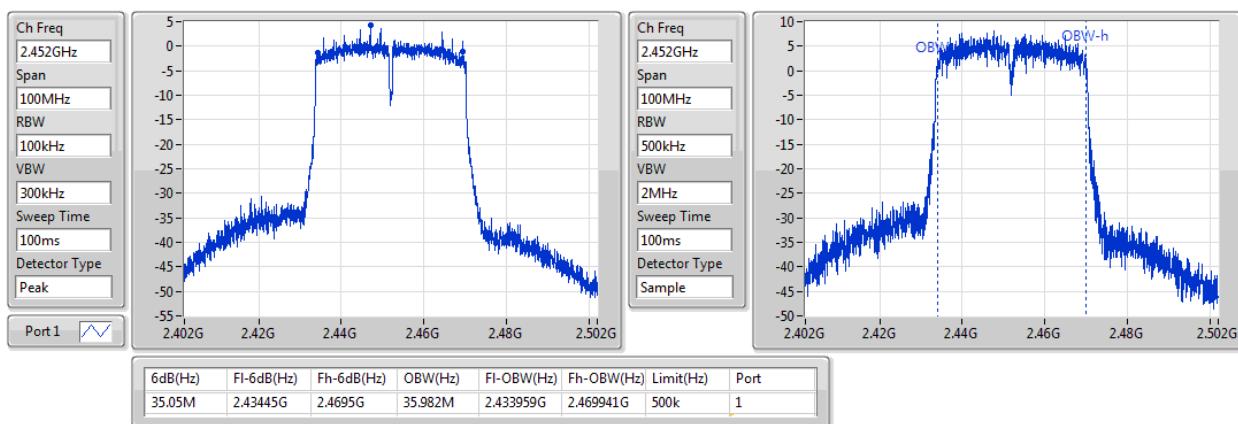
2437MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

2452MHz





For Set 1 antennas / 2TX:
<For Non-Beamforming Mode>
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	9.025M	14.693M	14M7G1D	7.525M	12.444M
802.11g_(6Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	16.325M	16.592M	16M6D1D	15.7M	16.392M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.55M	17.741M	17M7D1D	14.65M	17.566M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	36M	35.982M	36M0D1D	31.9M	35.832M

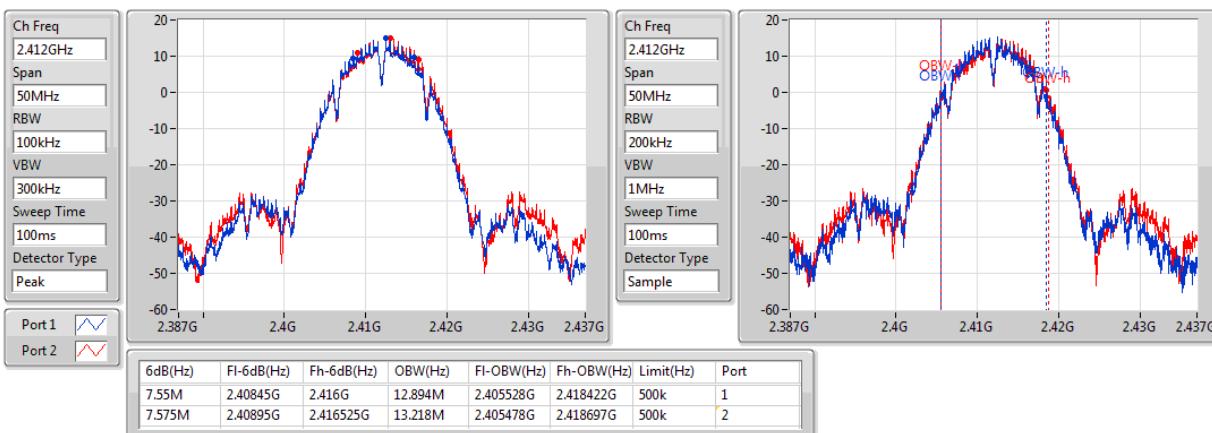
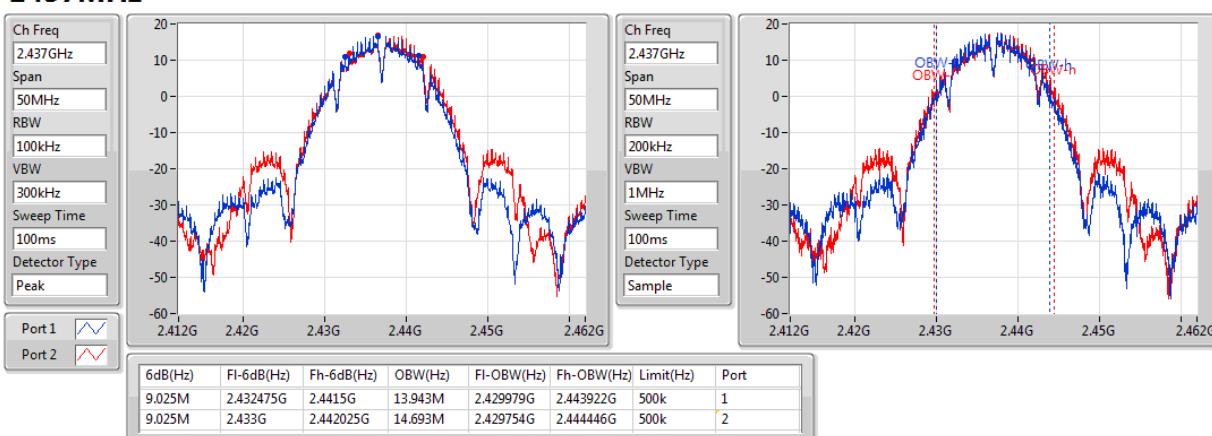
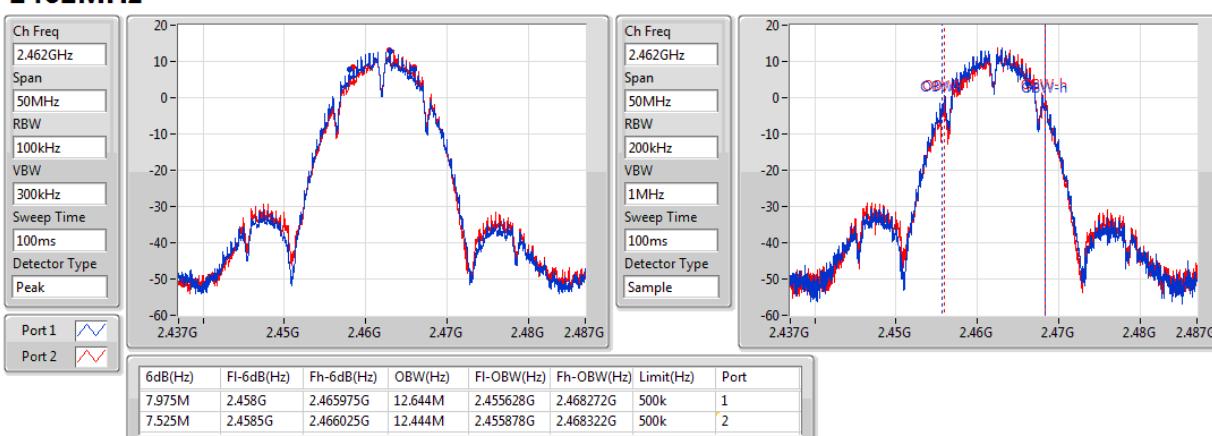
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	7.55M	12.894M	7.575M	13.218M
2437MHz	Pass	500k	9.025M	13.943M	9.025M	14.693M
2462MHz	Pass	500k	7.975M	12.644M	7.525M	12.444M
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.275M	16.417M	16.3M	16.392M
2437MHz	Pass	500k	16.275M	16.442M	15.725M	16.592M
2462MHz	Pass	500k	16.325M	16.392M	15.7M	16.417M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.525M	17.616M	15.625M	17.566M
2437MHz	Pass	500k	17.3M	17.741M	17.55M	17.741M
2462MHz	Pass	500k	17.525M	17.591M	14.65M	17.641M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	36M	35.832M	32.5M	35.932M
2437MHz	Pass	500k	34.65M	35.932M	35.1M	35.982M
2452MHz	Pass	500k	33.85M	35.932M	31.9M	35.982M

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

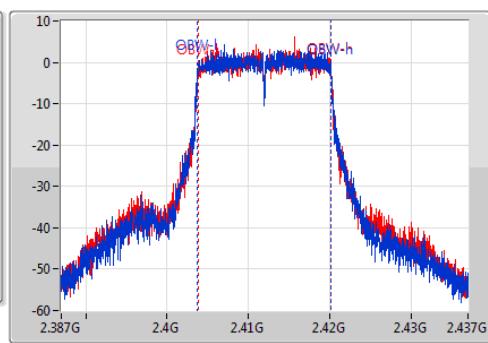
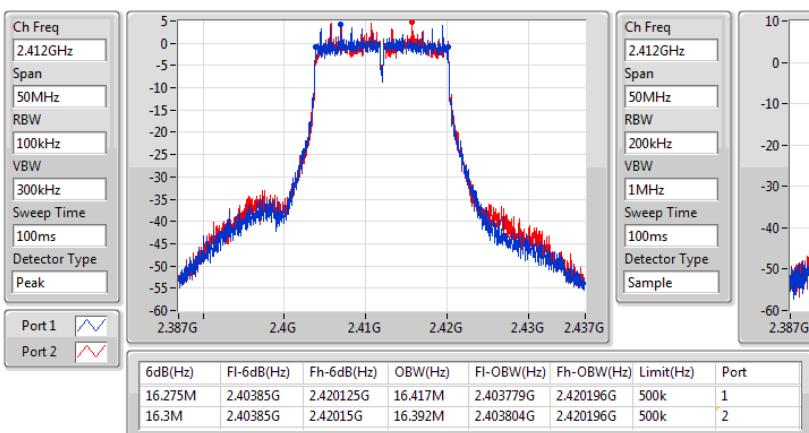
**802.11b_(1Mbps)_2TX****EBW****2412MHz****802.11b_(1Mbps)_2TX****EBW****2437MHz****802.11b_(1Mbps)_2TX****EBW****2462MHz**



802.11g_(6Mbps)_2TX

EBW

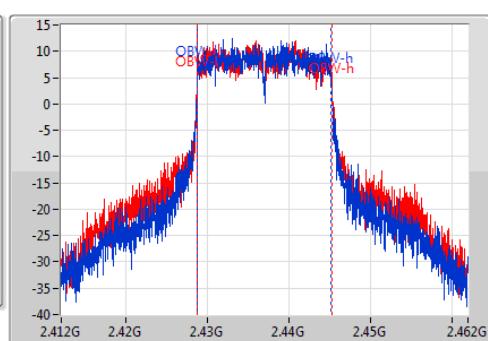
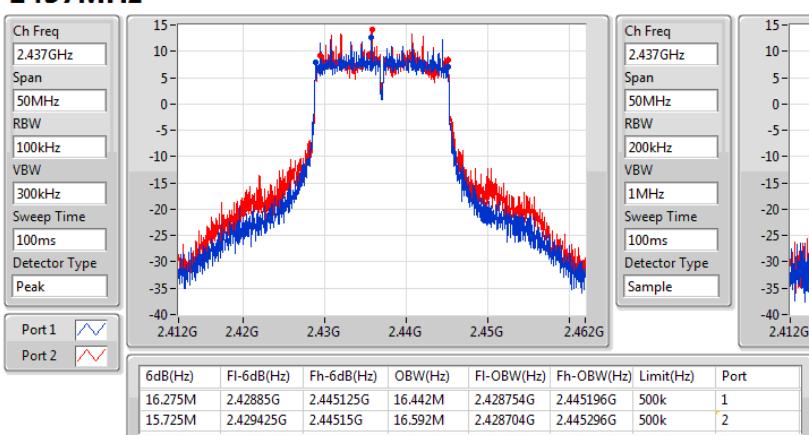
2412MHz



802.11g_(6Mbps)_2TX

EBW

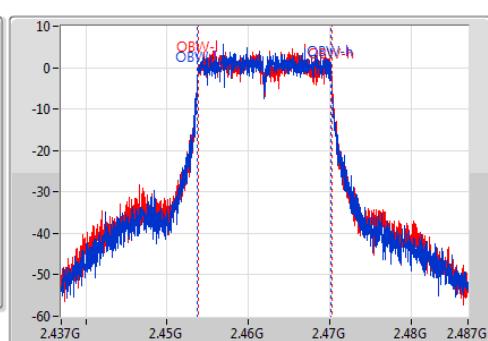
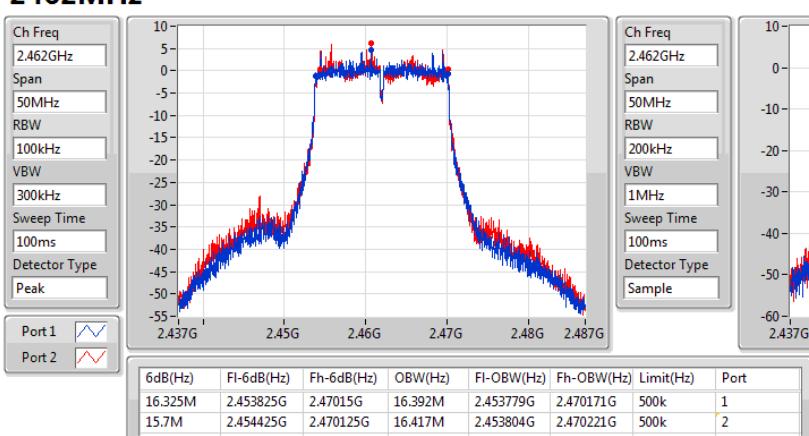
2437MHz



802.11g_(6Mbps)_2TX

EBW

2462MHz

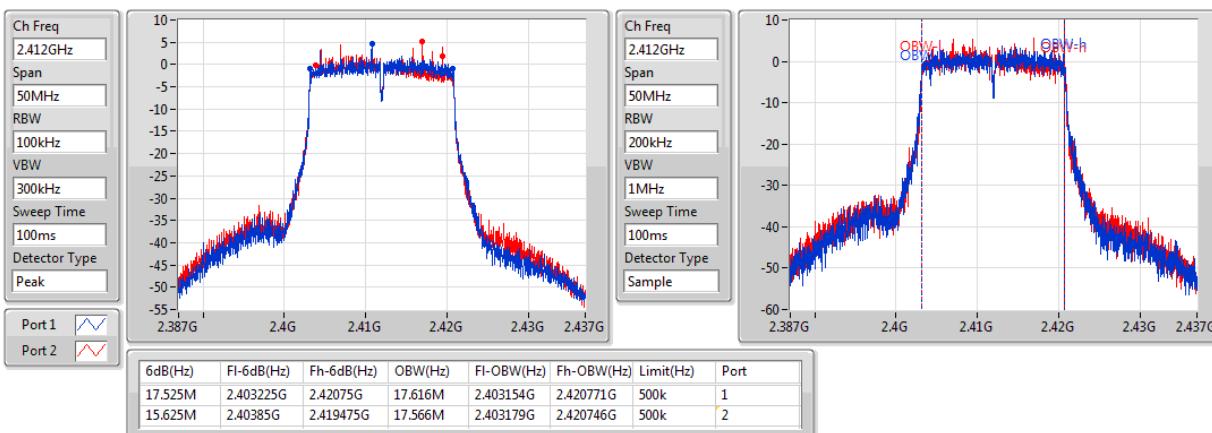




802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

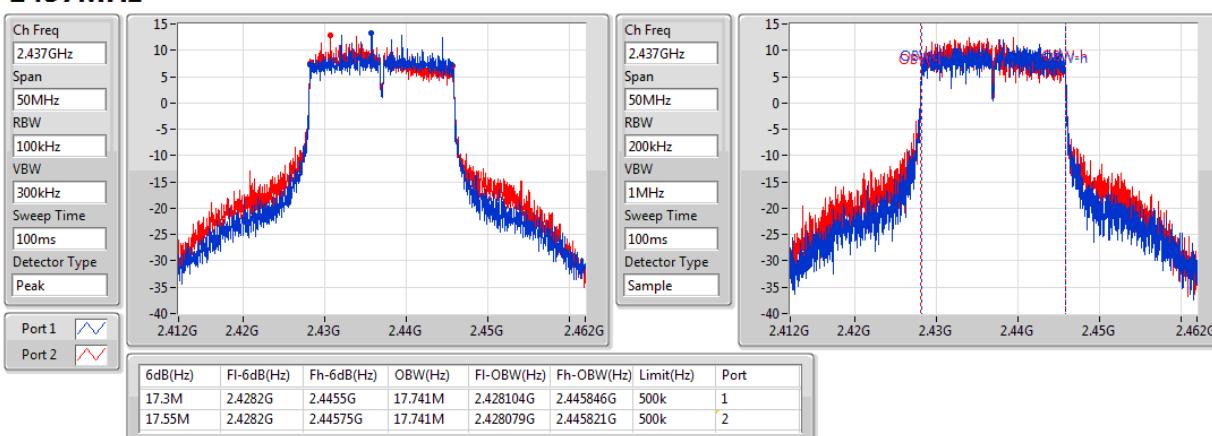
2412MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

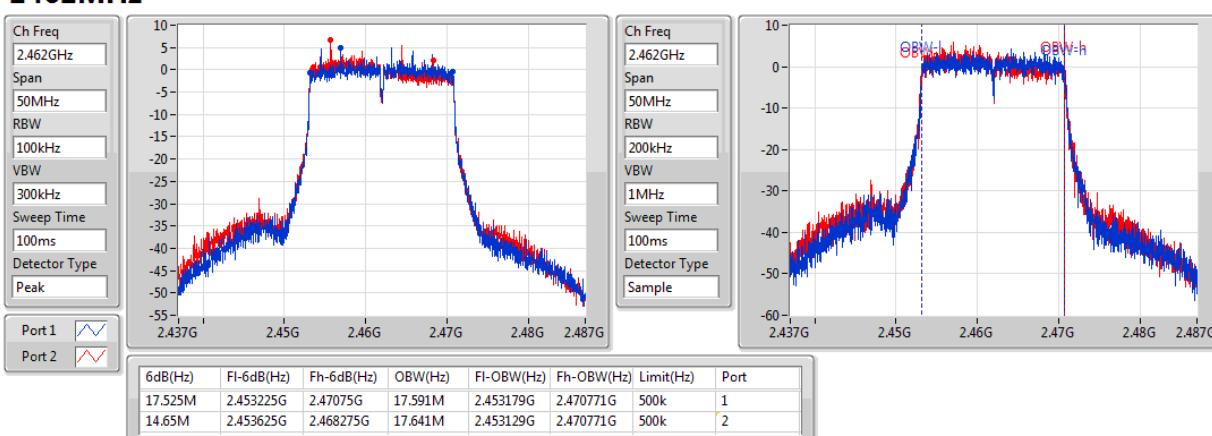
2437MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

2462MHz

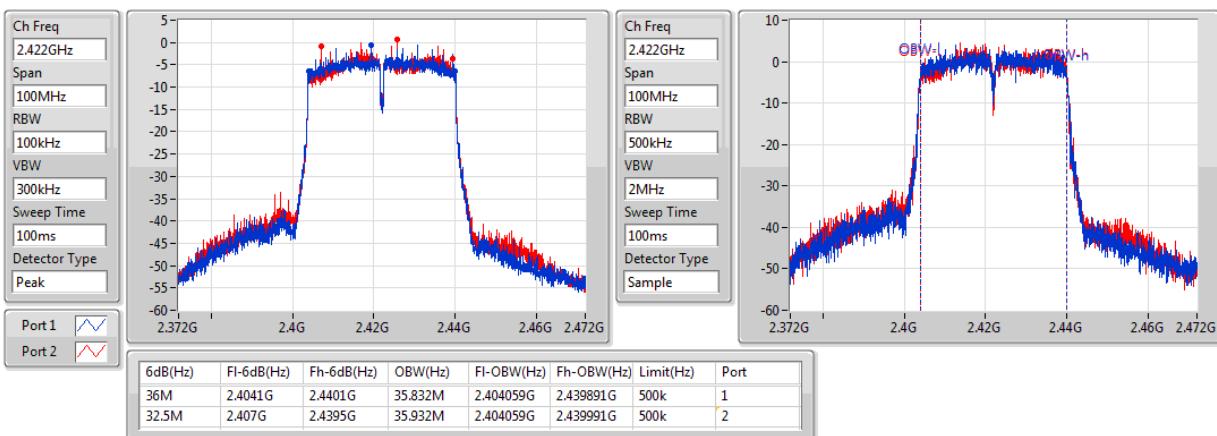




802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

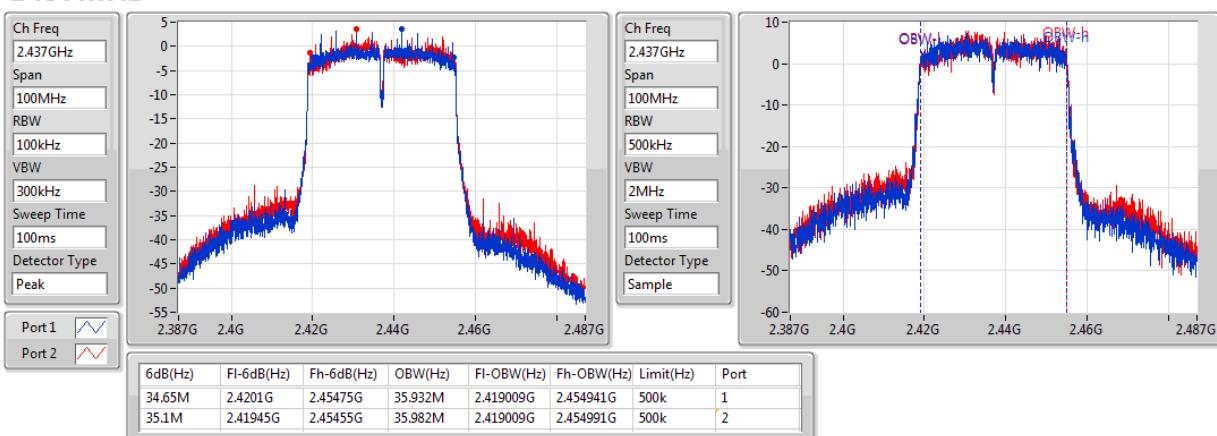
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802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

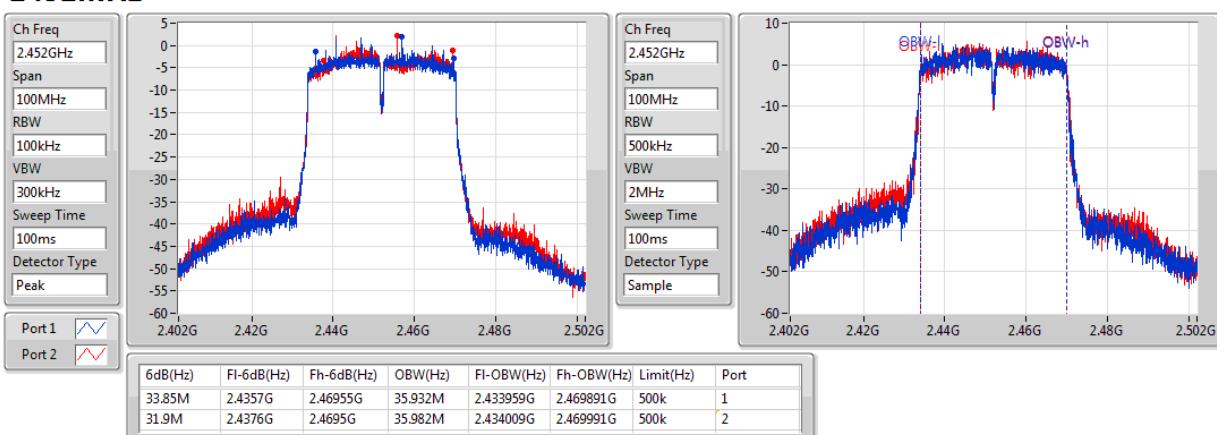
2437MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

2452MHz





<For Beamforming Mode>

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.575M	17.641M	17M6D1D	13.45M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	35.05M	36.032M	36M0D1D	31.25M	35.882M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.525M	17.641M	16.525M	17.591M
2437MHz	Pass	500k	16.75M	17.641M	13.45M	17.641M
2462MHz	Pass	500k	17.575M	17.591M	17.15M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	31.25M	35.932M	35.05M	35.932M
2437MHz	Pass	500k	32.5M	35.932M	31.3M	35.932M
2452MHz	Pass	500k	32.7M	36.032M	34.95M	35.882M

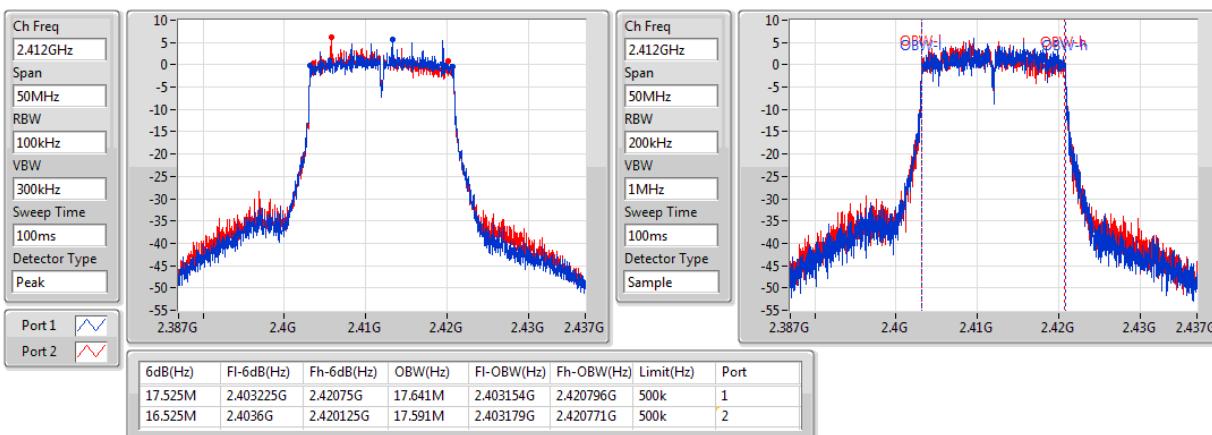
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

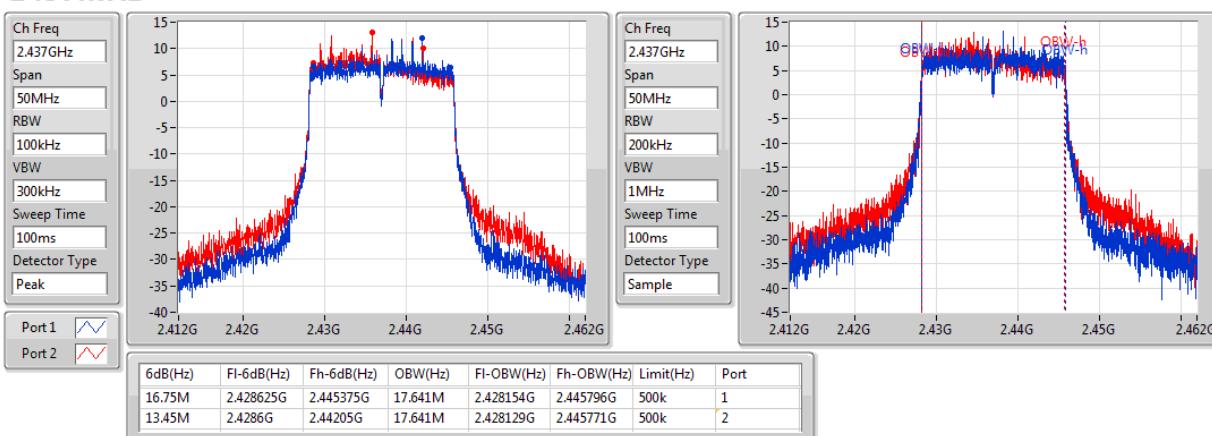
2412MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

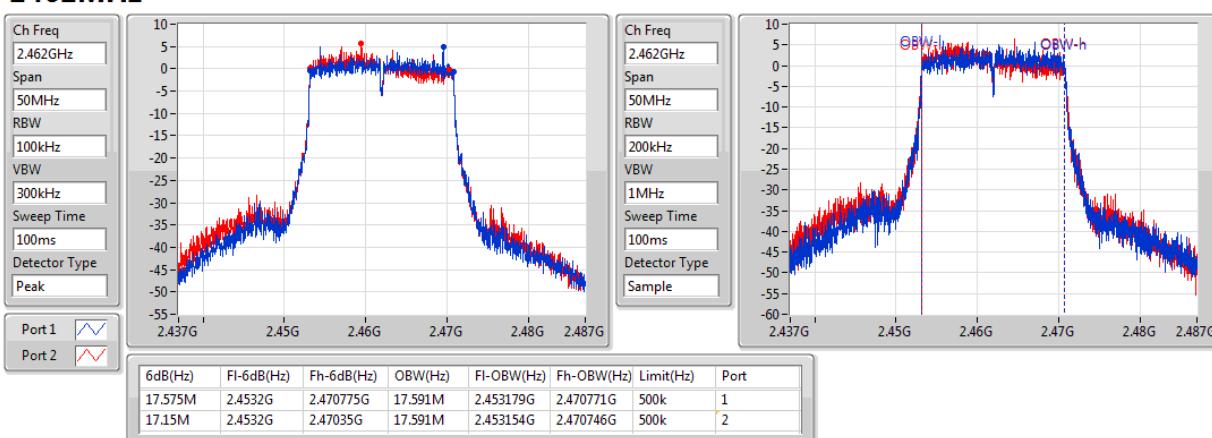
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802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

2462MHz

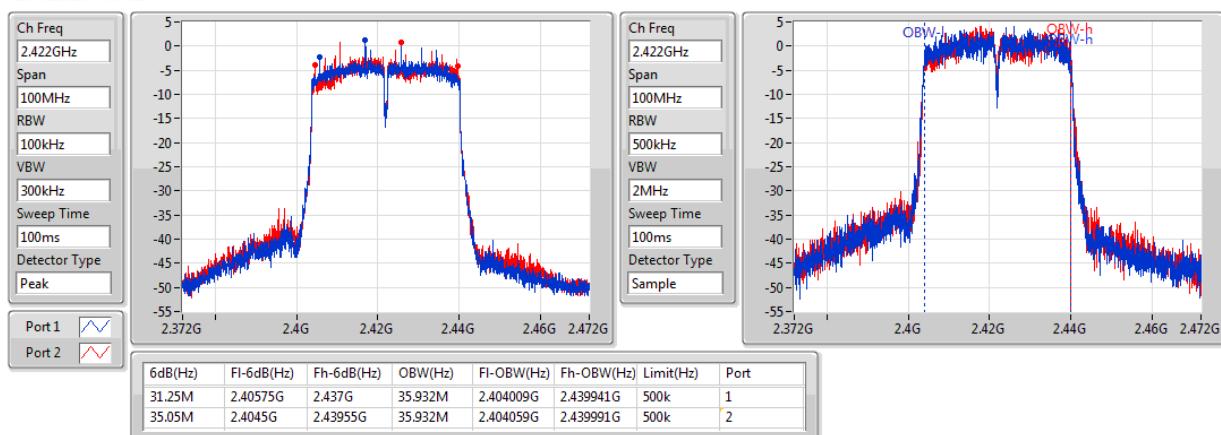




802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

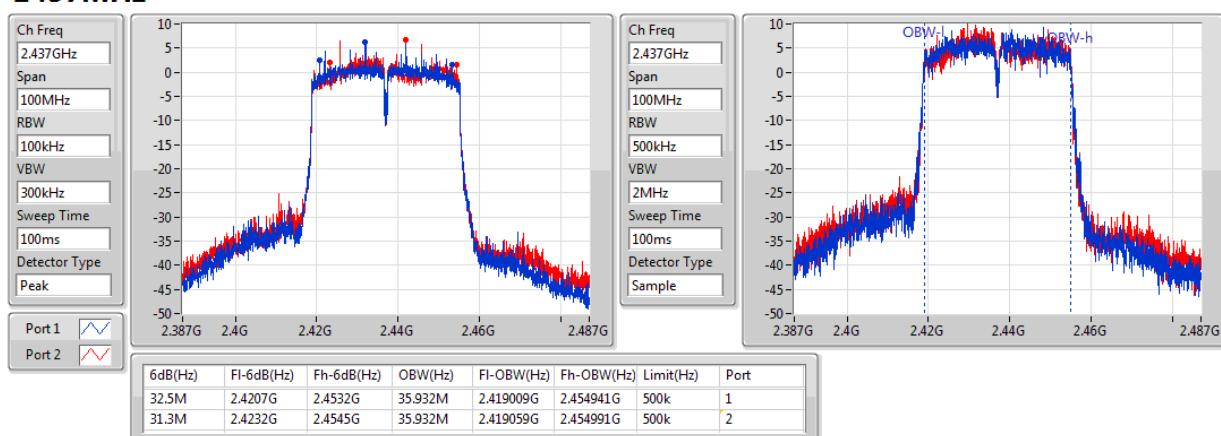
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802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

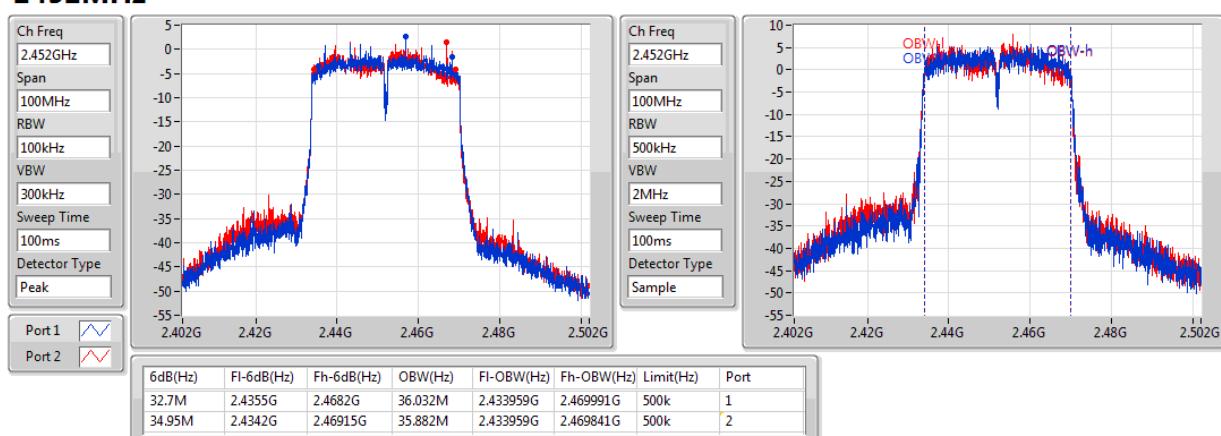
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802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

2452MHz



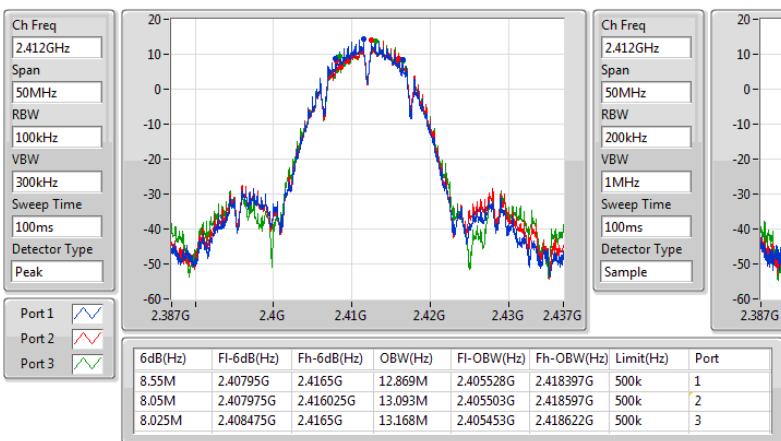
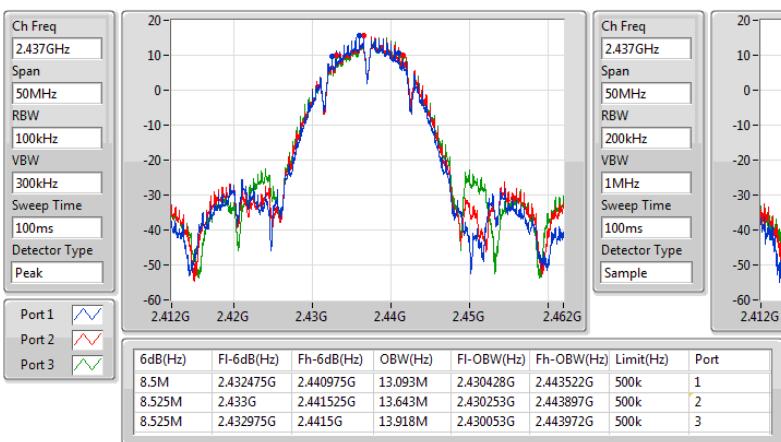
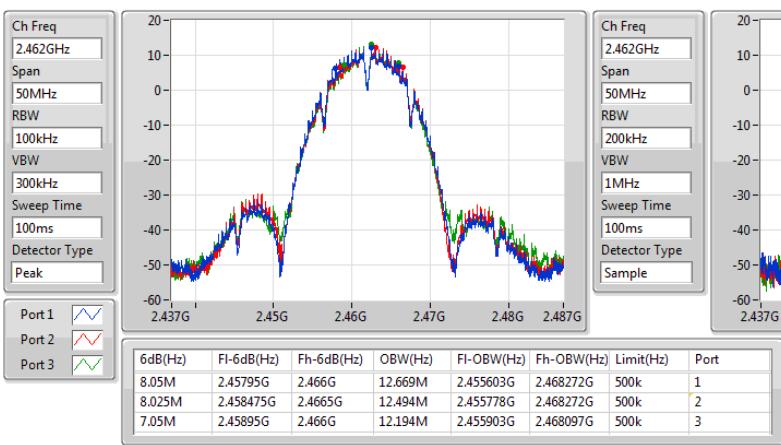
**For Set 1 antennas / 3TX:****<For Non-Beamforming Mode>****Summary**

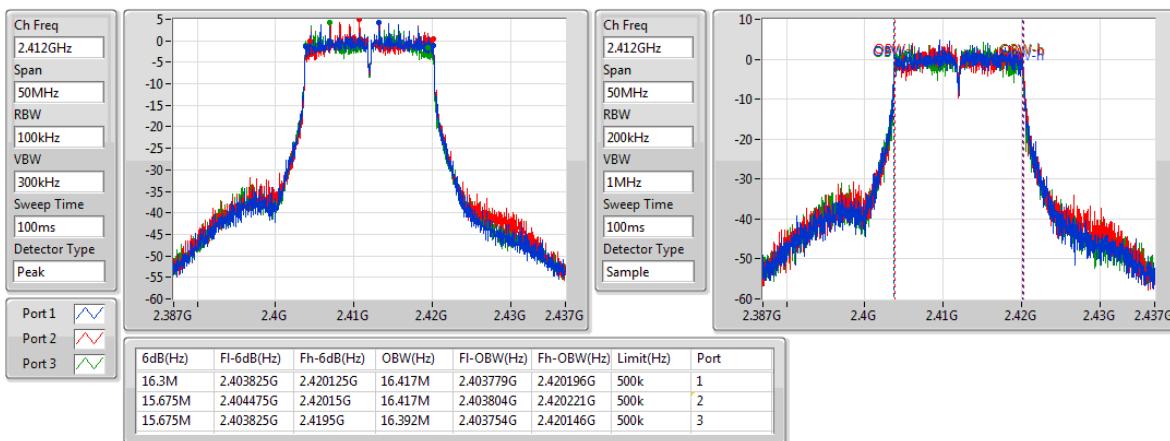
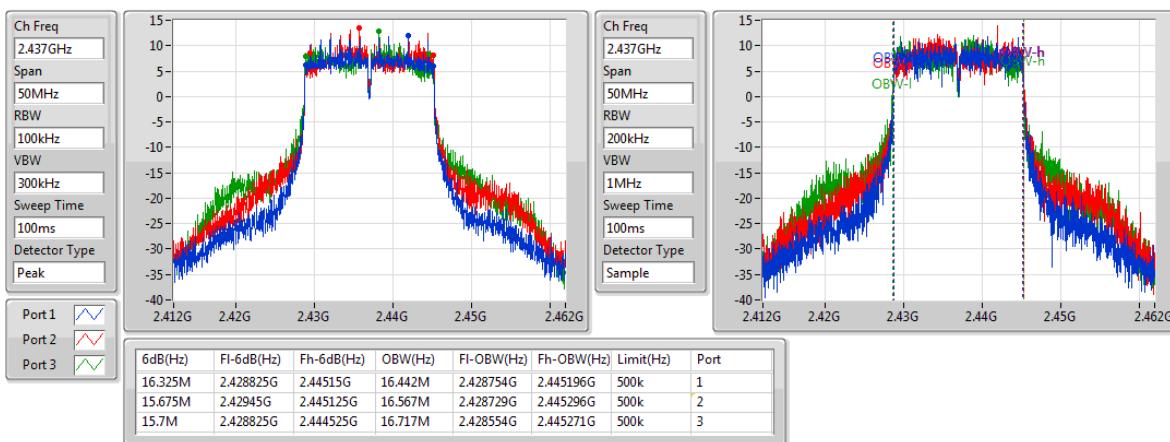
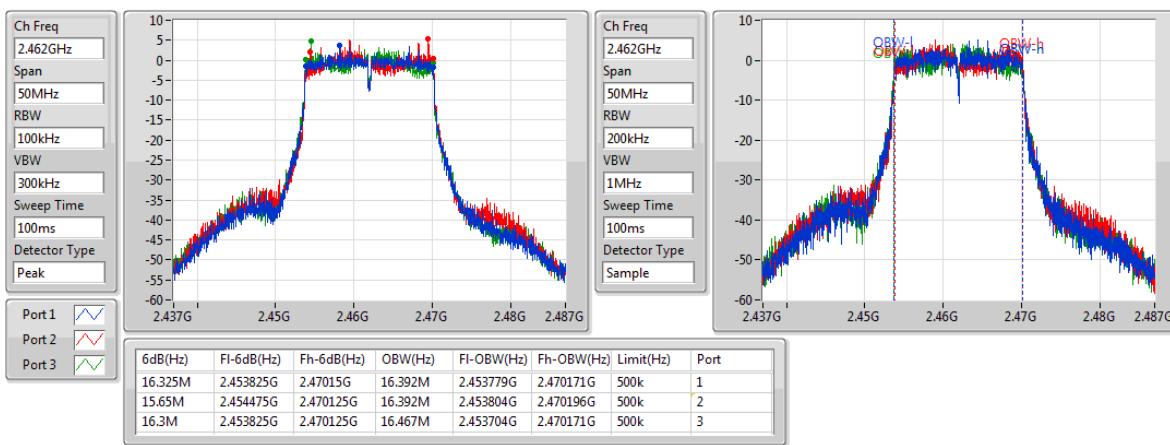
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_3TX	-	-	-	-	-
2.4-2.4835GHz	8.55M	13.918M	13M9G1D	7.05M	12.194M
802.11g_(6Mbps)_3TX	-	-	-	-	-
2.4-2.4835GHz	16.325M	16.717M	16M7D1D	15.65M	16.392M
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	17.55M	17.941M	17M9D1D	15.625M	17.541M
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	35.6M	36.132M	36M1D1D	31.7M	35.882M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;**Min-N dB** = Minimum 6dB down bandwidth; **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)
802.11b_(1Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	8.55M	12.869M	8.05M	13.093M	8.025M	13.168M
2437MHz	Pass	500k	8.5M	13.093M	8.525M	13.643M	8.525M	13.918M
2462MHz	Pass	500k	8.05M	12.669M	8.025M	12.494M	7.05M	12.194M
802.11g_(6Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.3M	16.417M	15.675M	16.417M	15.675M	16.392M
2437MHz	Pass	500k	16.325M	16.442M	15.675M	16.567M	15.7M	16.717M
2462MHz	Pass	500k	16.325M	16.392M	15.65M	16.392M	16.3M	16.467M
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.55M	17.591M	16.275M	17.591M	17.1M	17.616M
2437MHz	Pass	500k	17.5M	17.666M	15.65M	17.741M	16.9M	17.941M
2462MHz	Pass	500k	17.5M	17.616M	16.3M	17.641M	15.625M	17.541M
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	34.35M	36.032M	31.7M	35.932M	35M	36.082M
2437MHz	Pass	500k	34.65M	35.932M	33.2M	36.032M	35.6M	36.132M
2452MHz	Pass	500k	34.4M	35.932M	35.45M	35.882M	34.6M	36.132M

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

**802.11b_(1Mbps)_3TX****EBW****2412MHz****802.11b_(1Mbps)_3TX****EBW****2437MHz****802.11b_(1Mbps)_3TX****EBW****2462MHz**

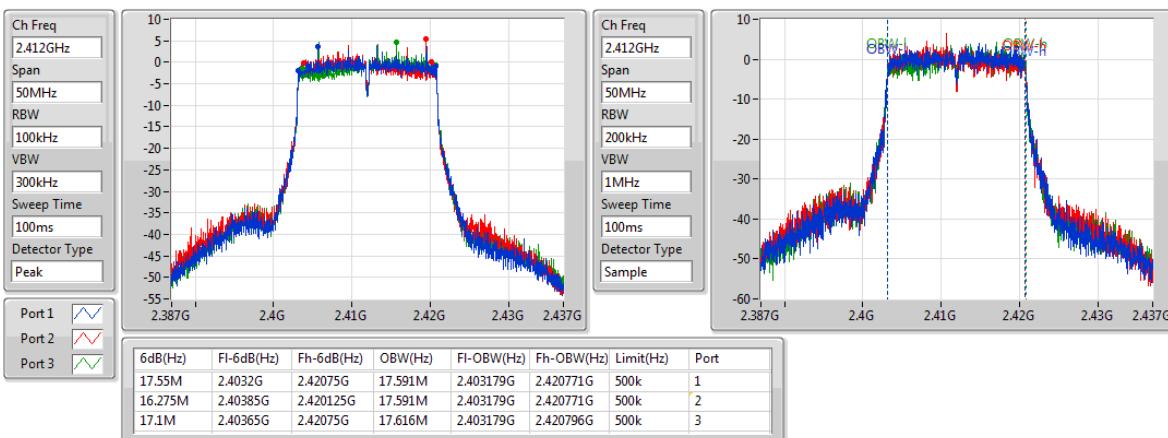
**802.11g_(6Mbps)_3TX****EBW****2412MHz****802.11g_(6Mbps)_3TX****EBW****2437MHz****802.11g_(6Mbps)_3TX****EBW****2462MHz**



802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

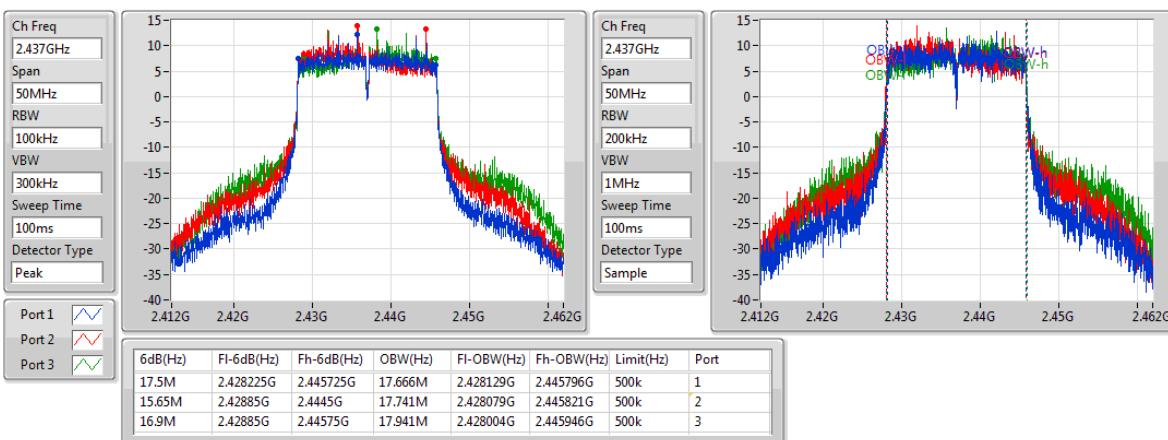
2412MHz



802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

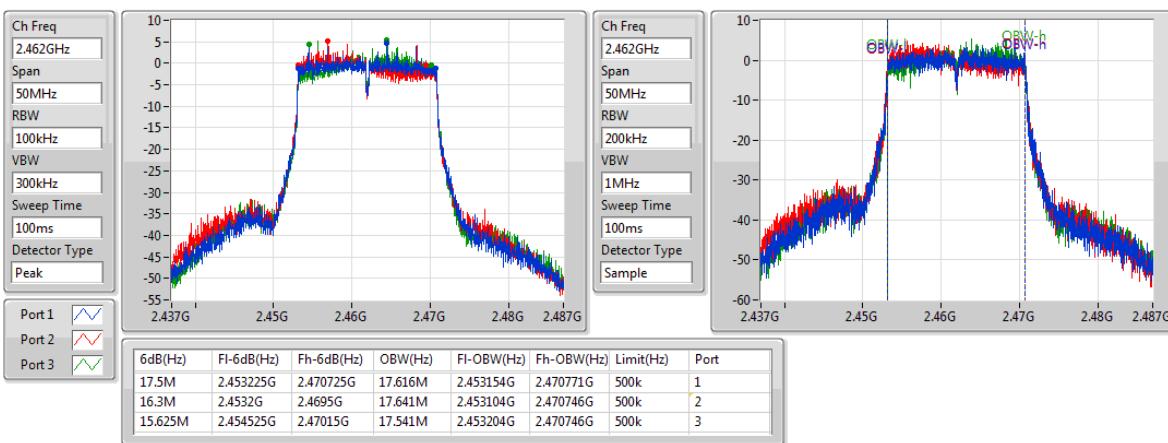
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802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

2462MHz

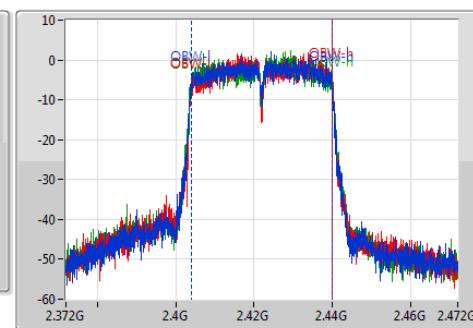
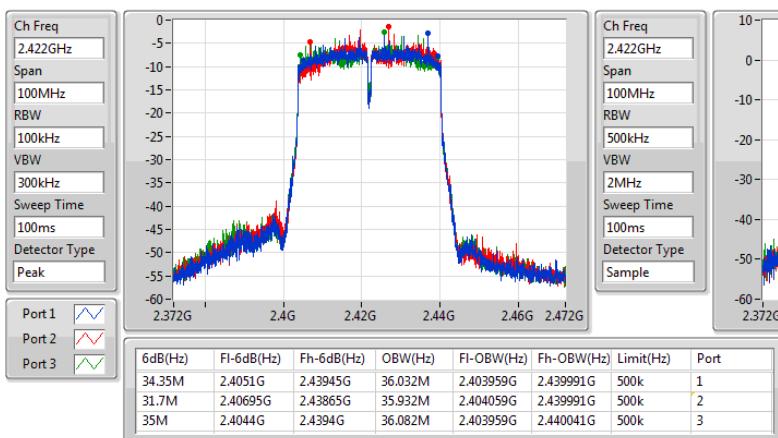




802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

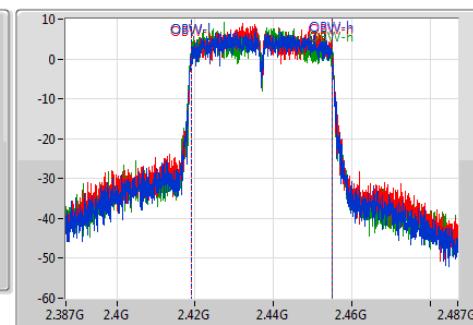
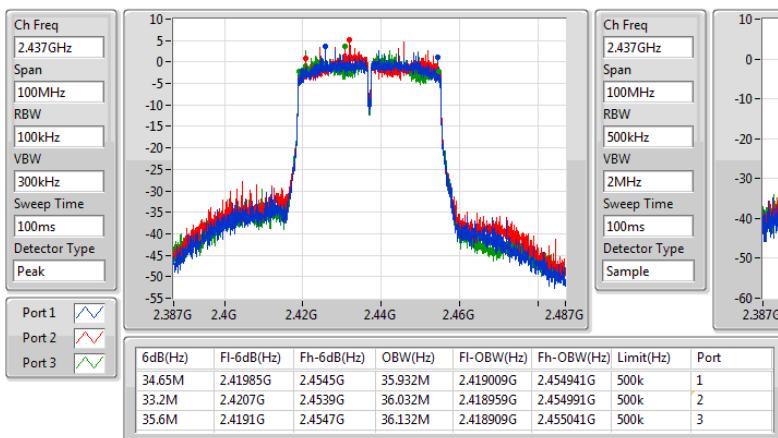
2422MHz



802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

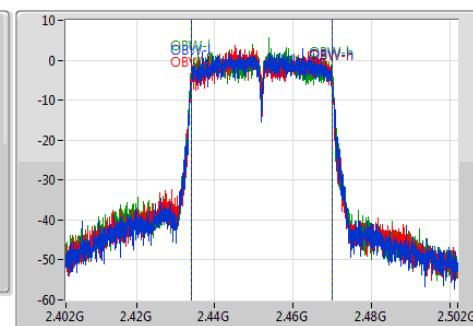
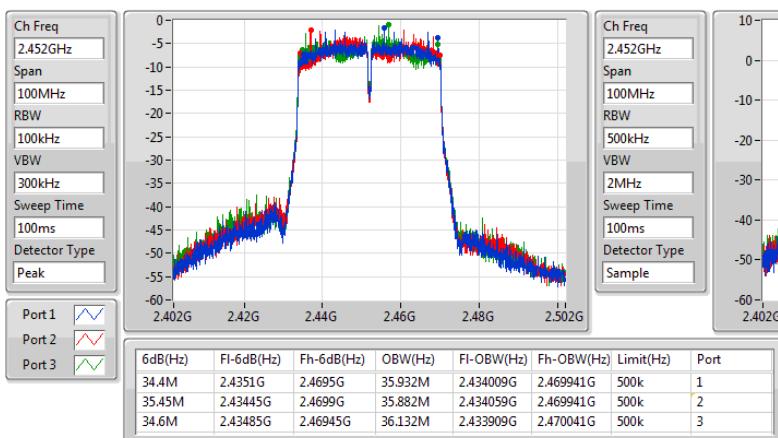
2437MHz



802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

2452MHz



**<For Beamforming Mode>
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	17.2M	17.691M	17M7D1D	13.325M	17.541M
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	35.25M	36.082M	36M1D1D	32.55M	35.882M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;**Min-N dB** = Minimum 6dB down bandwidth; **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)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.125M	17.616M	17.15M	17.591M	16.9M	17.616M
2437MHz	Pass	500k	17.2M	17.641M	13.325M	17.641M	16.9M	17.691M
2462MHz	Pass	500k	16.8M	17.616M	15.9M	17.616M	15.65M	17.541M
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	32.8M	35.932M	33.75M	35.932M	35.05M	36.032M
2437MHz	Pass	500k	33.85M	35.882M	32.55M	35.882M	34.45M	36.082M
2452MHz	Pass	500k	33.75M	35.982M	33.75M	35.932M	35.25M	36.032M

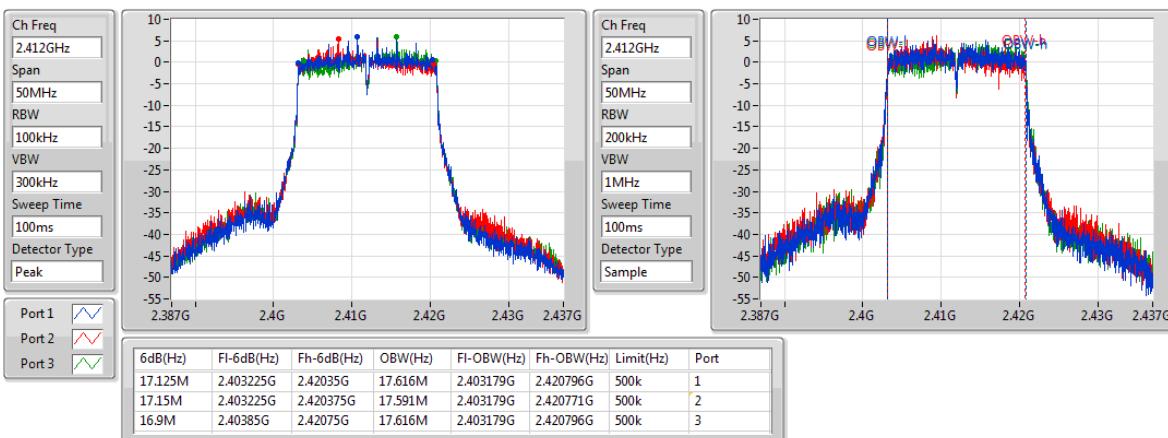
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

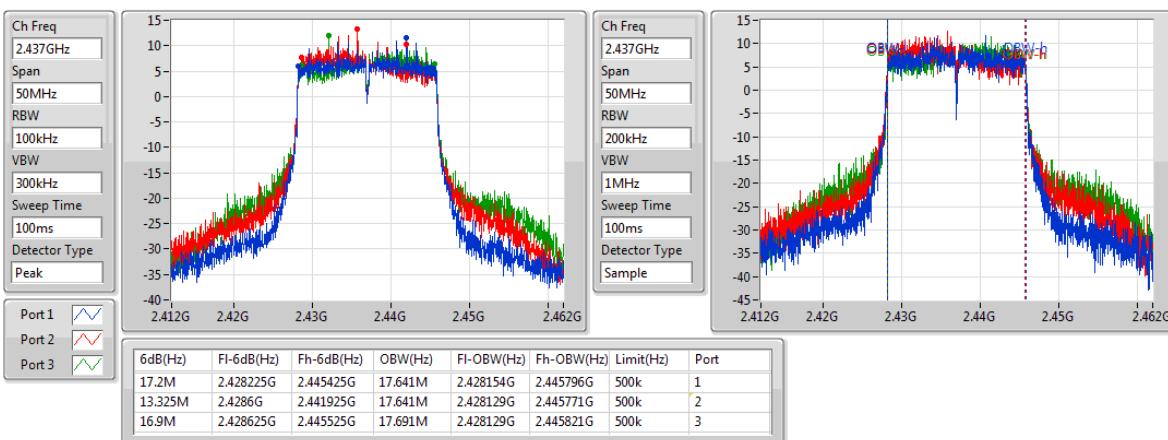
2412MHz



802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

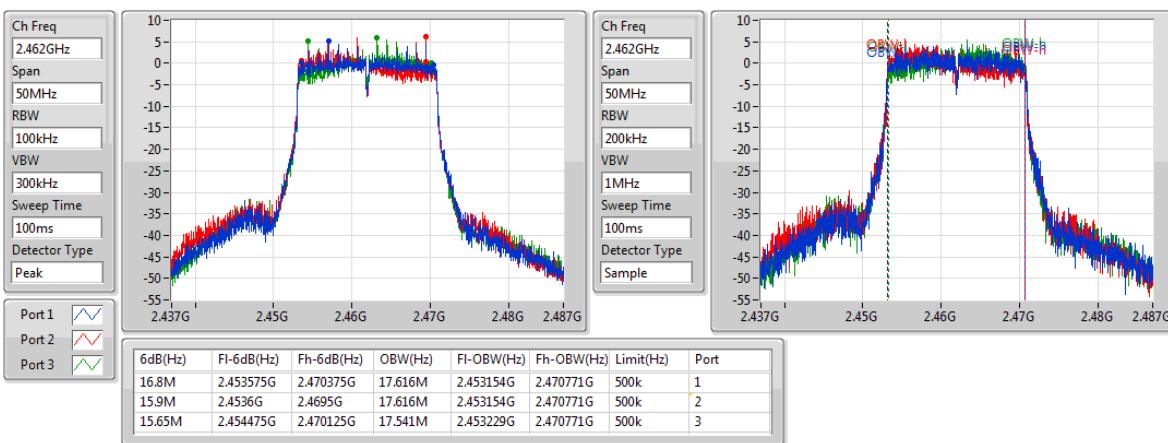
2437MHz



802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

2462MHz

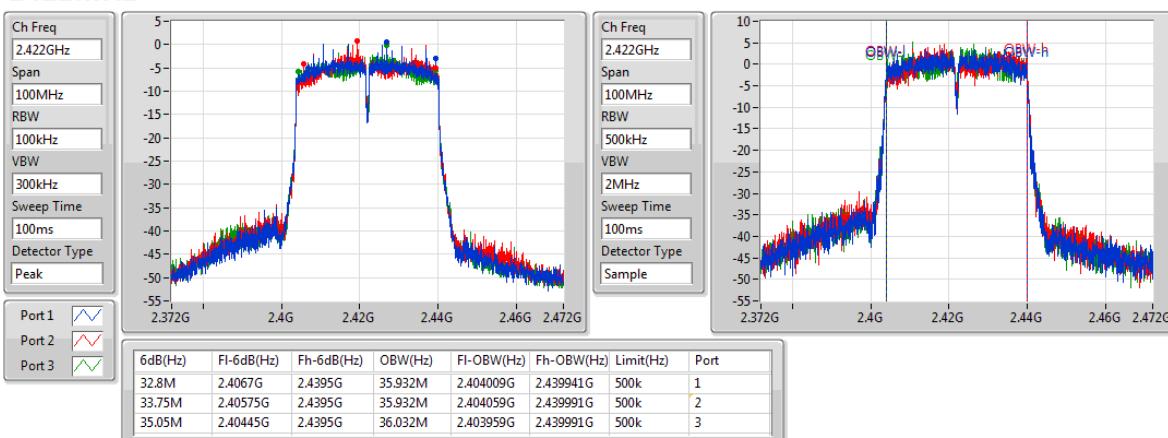




802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

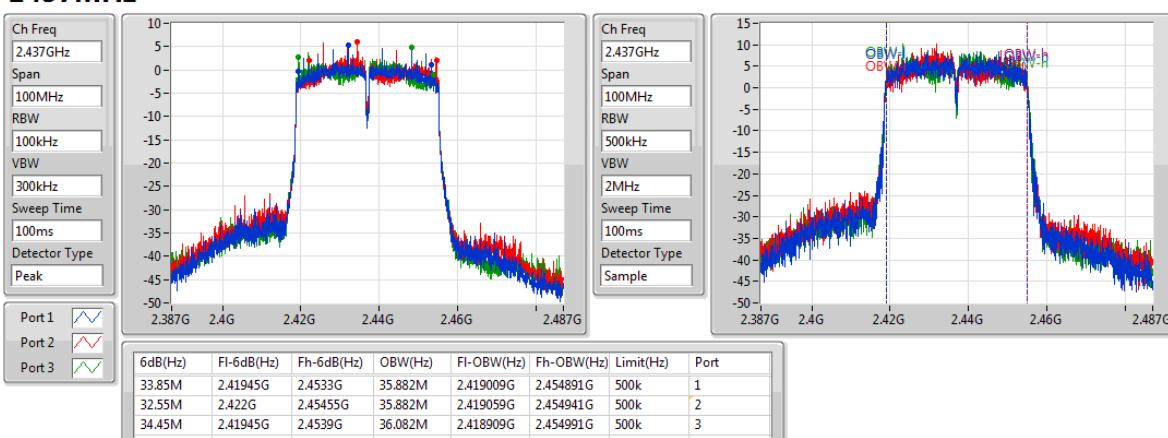
2422MHz



802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

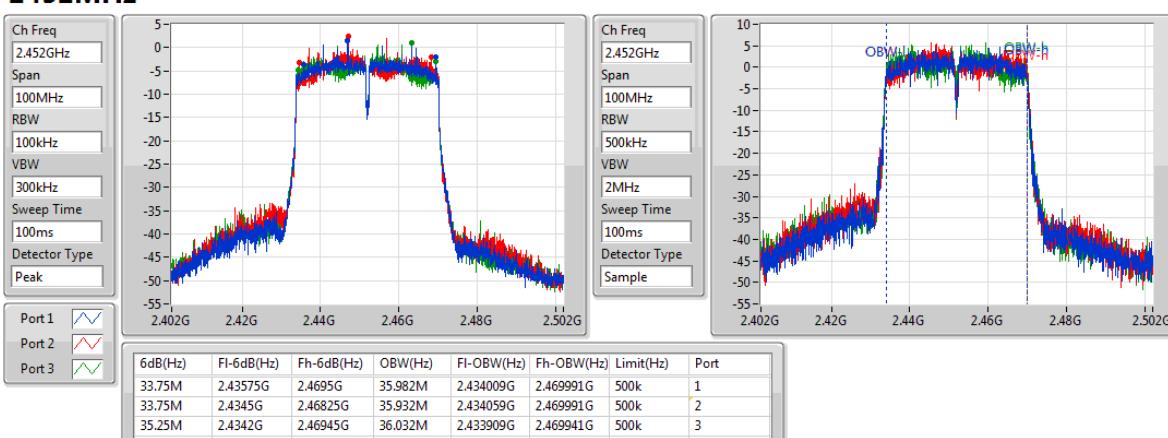
2437MHz



802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

2452MHz





For Set 3 antennas / 1TX:

Summary

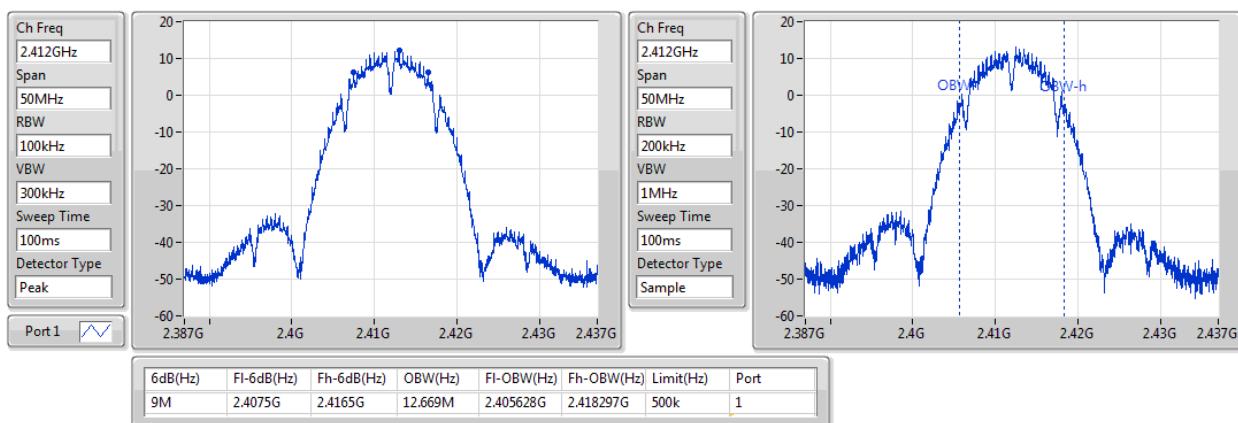
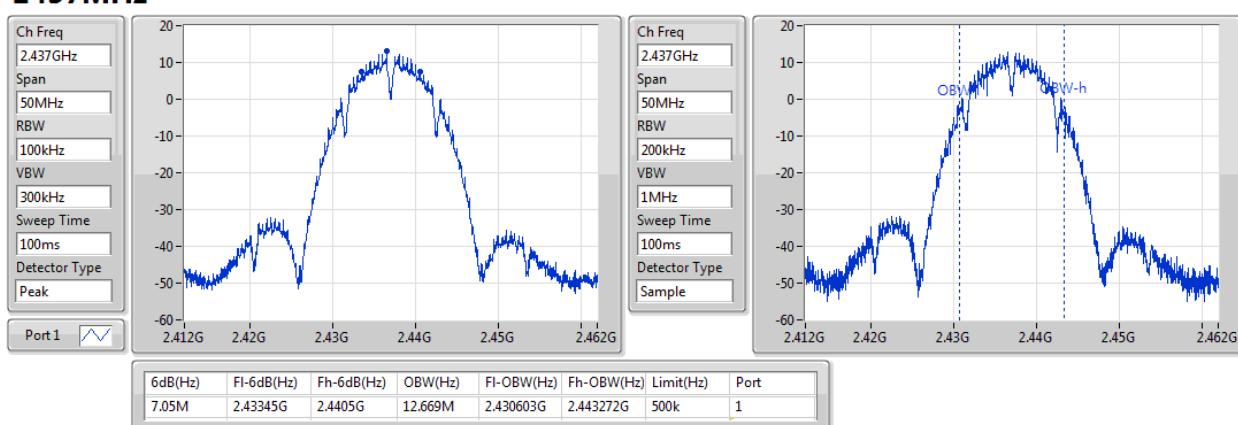
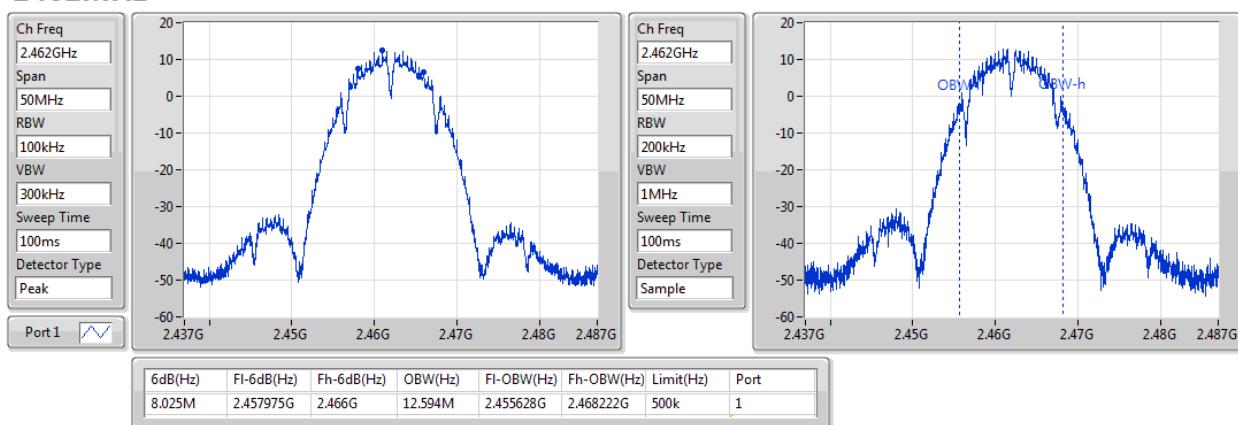
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	9M	12.669M	12M7G1D	7.05M	12.594M
802.11g_(6Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	16.325M	16.417M	16M4D1D	16.3M	16.392M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	17.525M	17.641M	17M6D1D	17.125M	17.616M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	35.65M	36.032M	36M0D1D	35.25M	35.982M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;**Min-N dB** = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	9M	12.669M
2437MHz	Pass	500k	7.05M	12.669M
2462MHz	Pass	500k	8.025M	12.594M
802.11g_(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.3M	16.417M
2437MHz	Pass	500k	16.3M	16.392M
2462MHz	Pass	500k	16.325M	16.417M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	17.25M	17.641M
2437MHz	Pass	500k	17.125M	17.641M
2462MHz	Pass	500k	17.525M	17.616M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	35.65M	36.032M
2437MHz	Pass	500k	35.25M	35.982M
2452MHz	Pass	500k	35.6M	35.982M

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

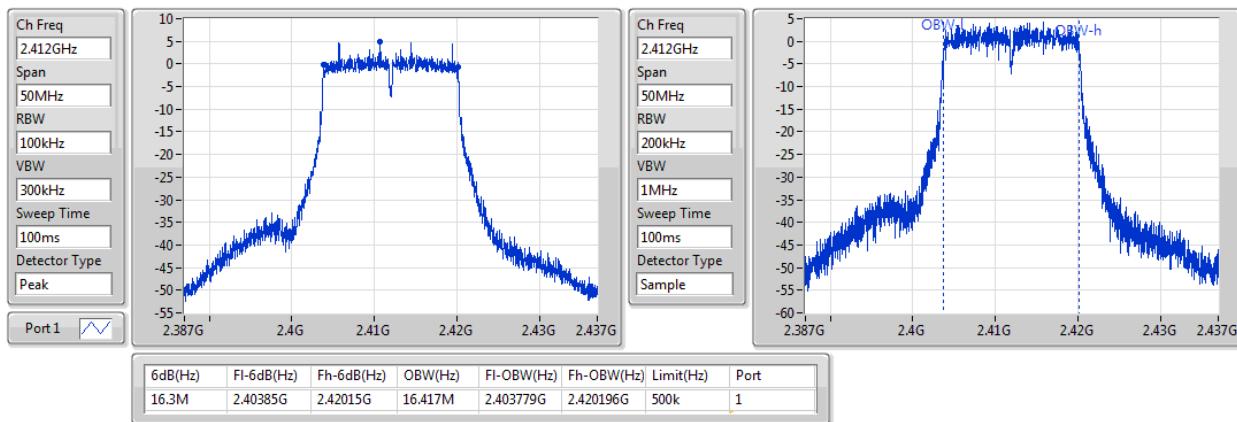
**802.11b_(1Mbps)_1TX****EBW****2412MHz****802.11b_(1Mbps)_1TX****EBW****2437MHz****802.11b_(1Mbps)_1TX****EBW****2462MHz**



802.11g_(6Mbps)_1TX

EBW

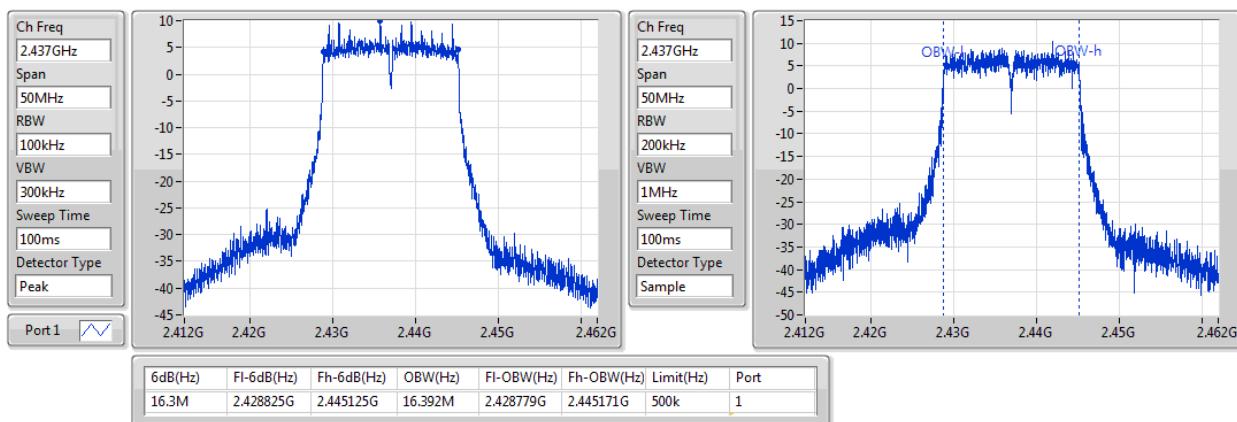
2412MHz



802.11g_(6Mbps)_1TX

EBW

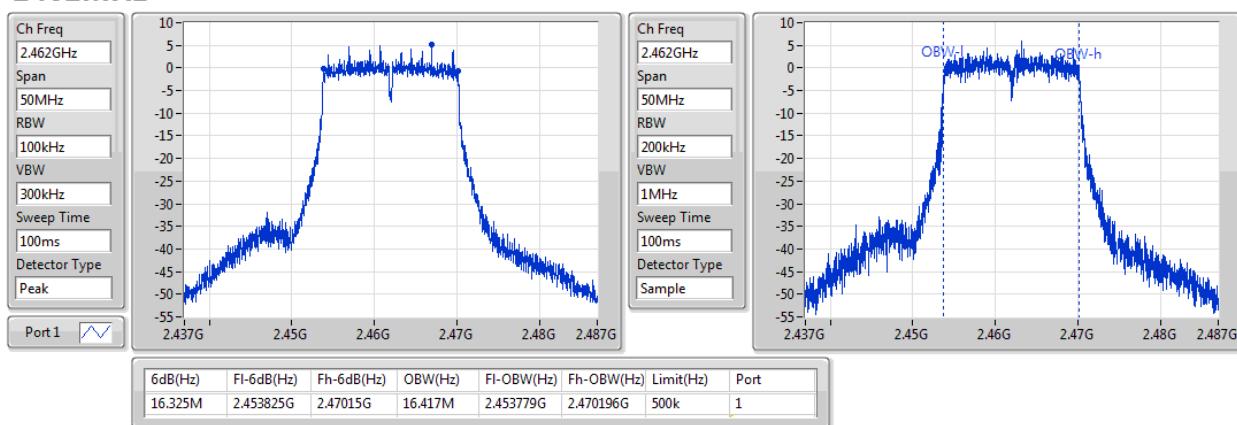
2437MHz



802.11g_(6Mbps)_1TX

EBW

2462MHz

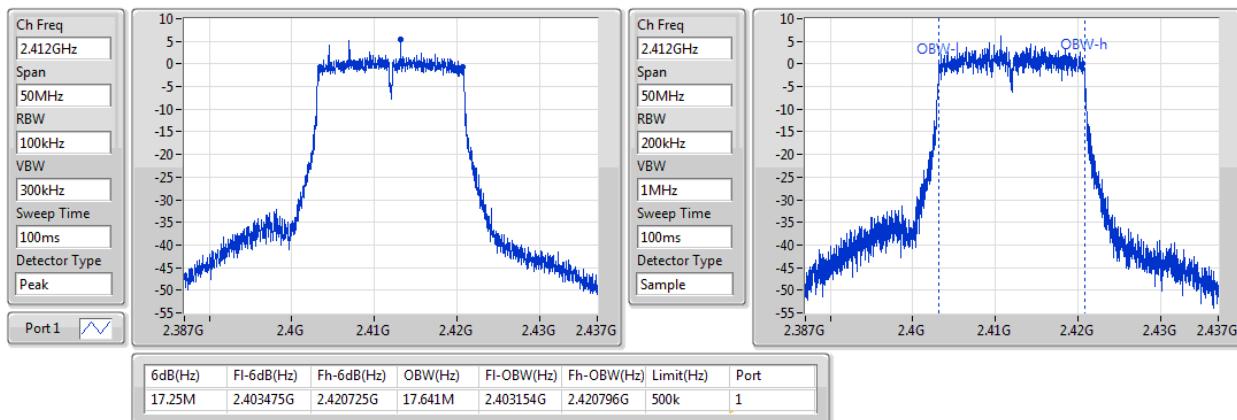




802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

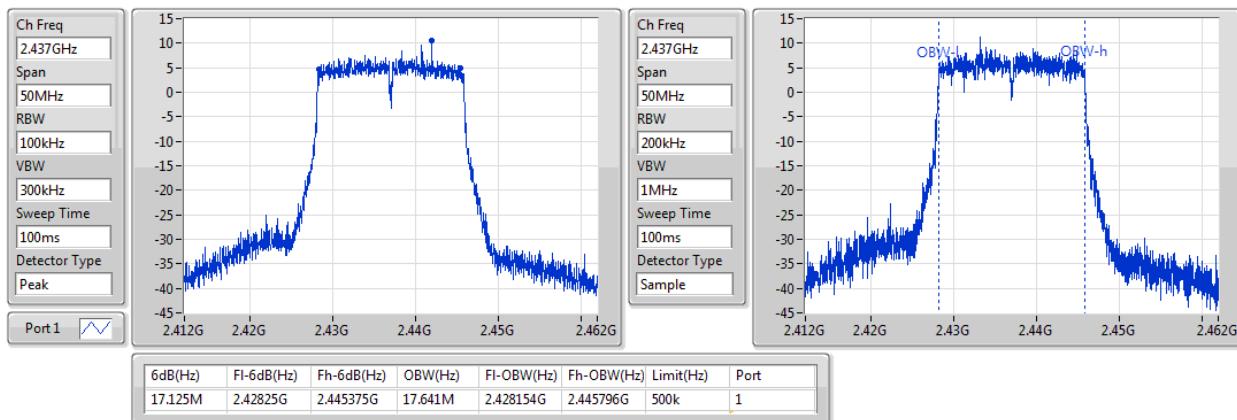
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802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

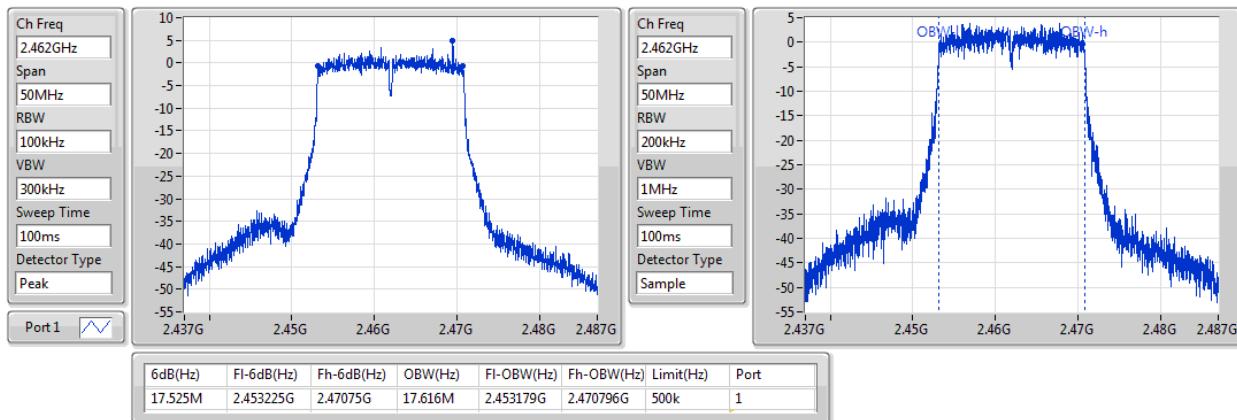
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802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

2462MHz

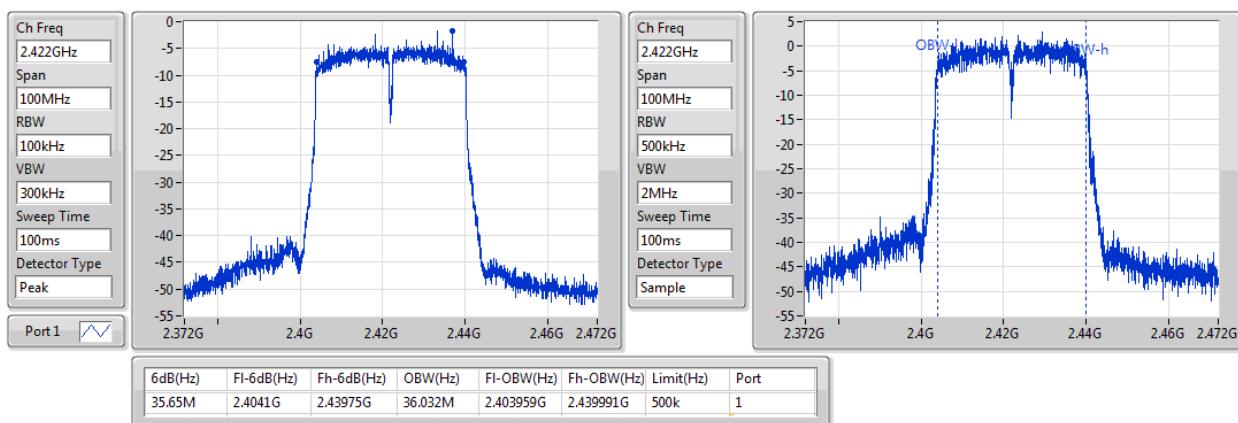




802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

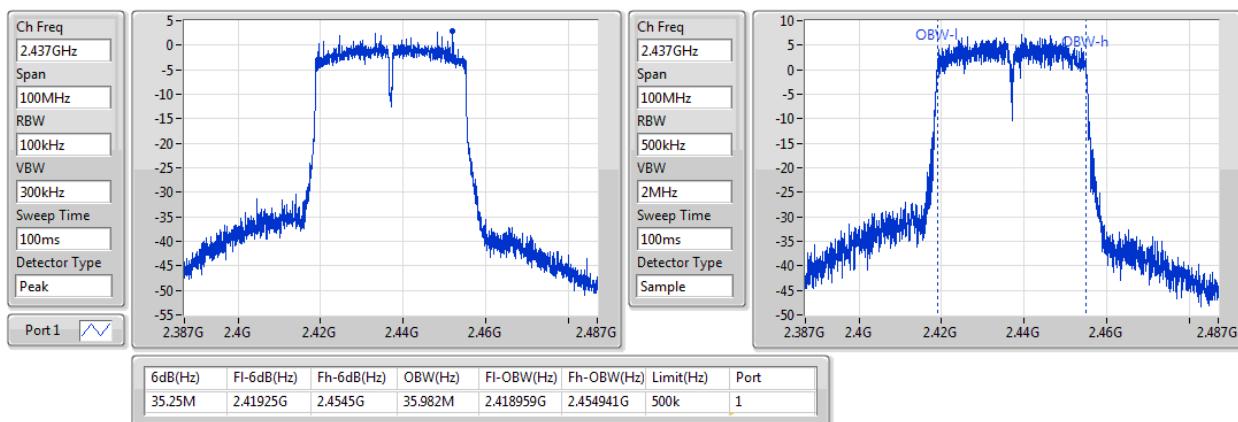
2422MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

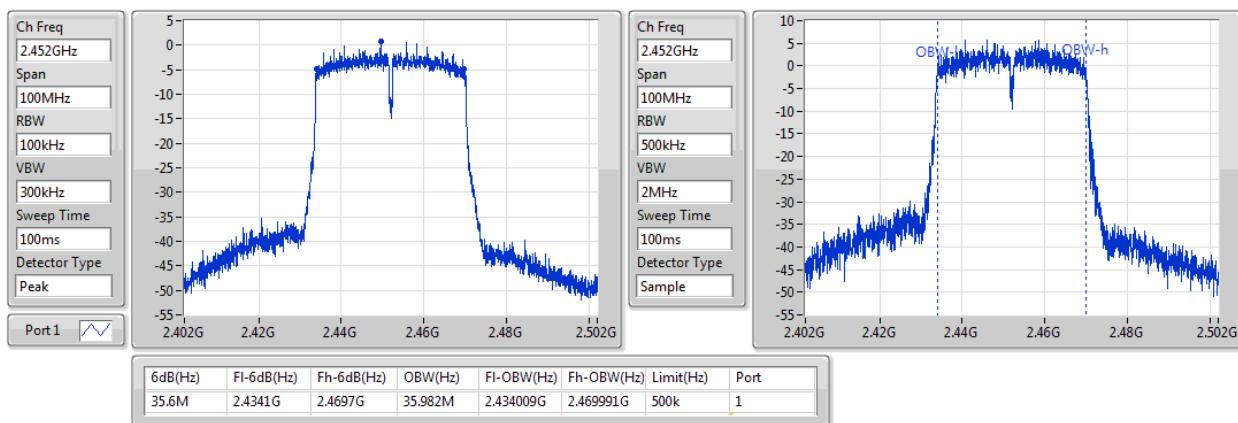
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802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

2452MHz





For Set 3 antennas / 2TX:
<For Non-Beamforming Mode>
Summary

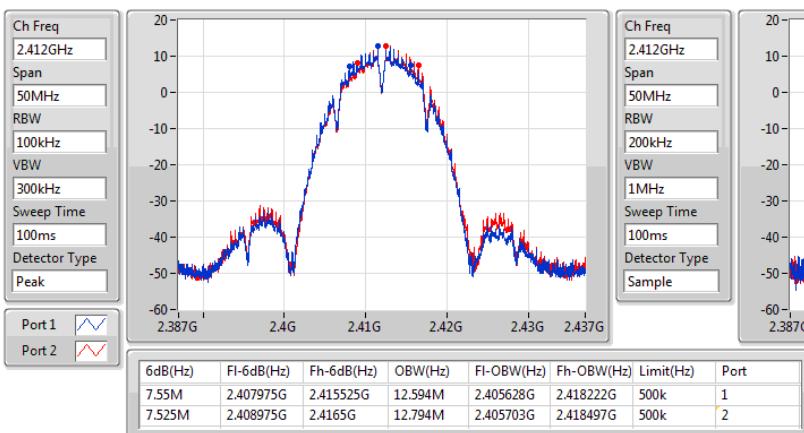
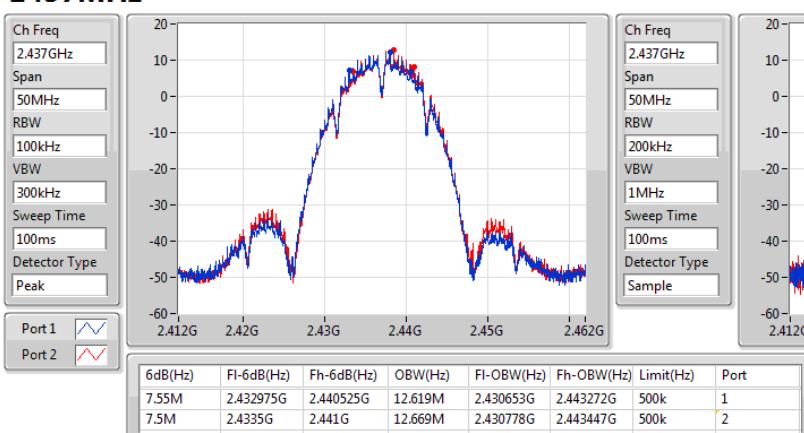
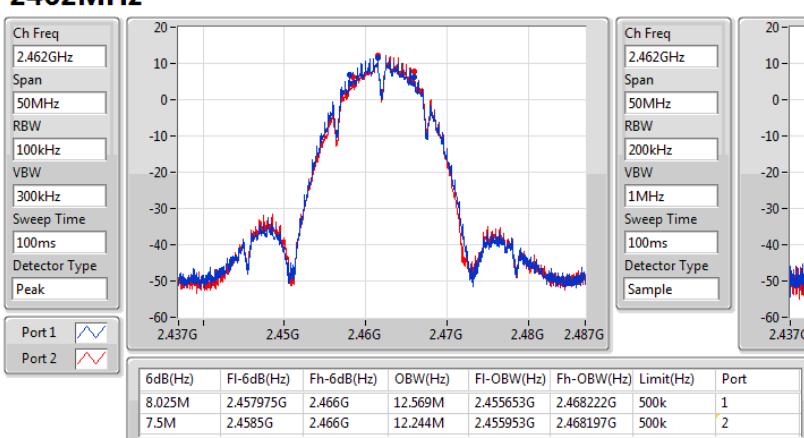
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	8.025M	12.794M	12M8G1D	7.5M	12.244M
802.11g_(6Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.575M	17.641M	17M6D1D	15.675M	16.367M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.525M	17.641M	17M6D1D	16.05M	17.591M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	35.3M	35.982M	36M0D1D	30.05M	35.932M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	7.55M	12.594M	7.525M	12.794M
2437MHz	Pass	500k	7.55M	12.619M	7.5M	12.669M
2462MHz	Pass	500k	8.025M	12.569M	7.5M	12.244M
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.775M	17.641M	15.7M	17.616M
2437MHz	Pass	500k	16.325M	16.392M	15.675M	16.367M
2462MHz	Pass	500k	17.575M	17.616M	17.525M	17.641M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.525M	17.616M	16.05M	17.591M
2437MHz	Pass	500k	17M	17.641M	16.9M	17.591M
2462MHz	Pass	500k	17.475M	17.641M	16.875M	17.616M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	35.3M	35.932M	35M	35.932M
2437MHz	Pass	500k	35.1M	35.932M	30.05M	35.932M
2452MHz	Pass	500k	33.85M	35.982M	35.1M	35.982M

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

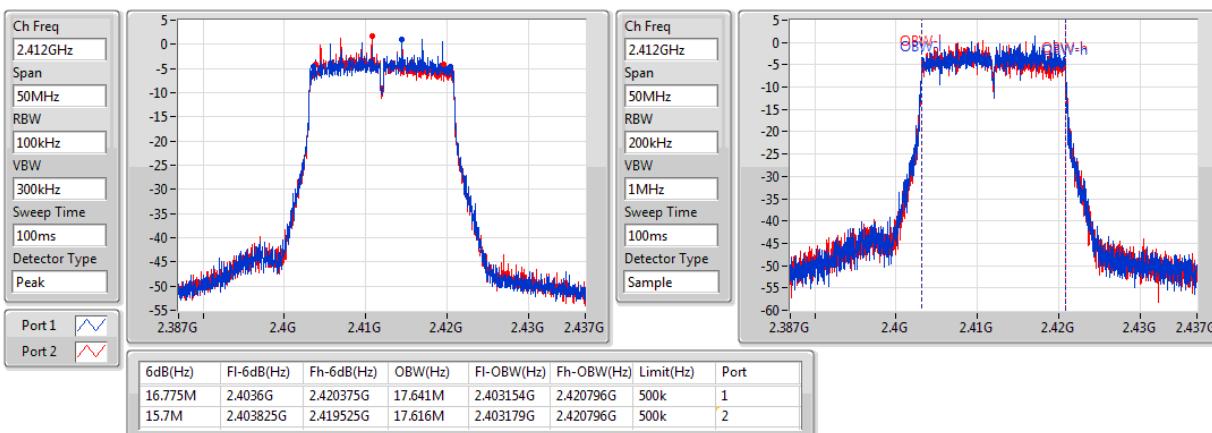
**802.11b_(1Mbps)_2TX****EBW****2412MHz****802.11b_(1Mbps)_2TX****EBW****2437MHz****802.11b_(1Mbps)_2TX****EBW****2462MHz**



802.11g_(6Mbps)_2TX

EBW

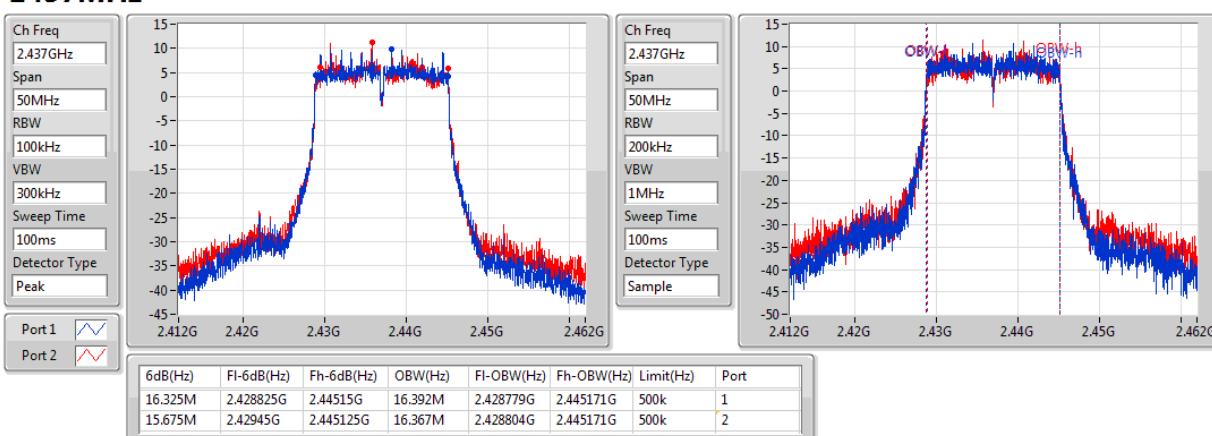
2412MHz



802.11g_(6Mbps)_2TX

EBW

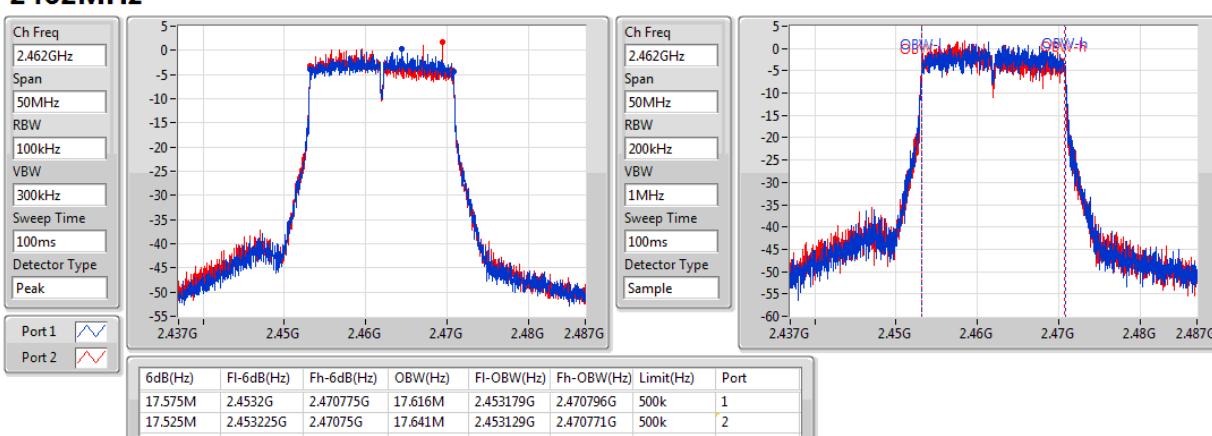
2437MHz



802.11g_(6Mbps)_2TX

EBW

2462MHz

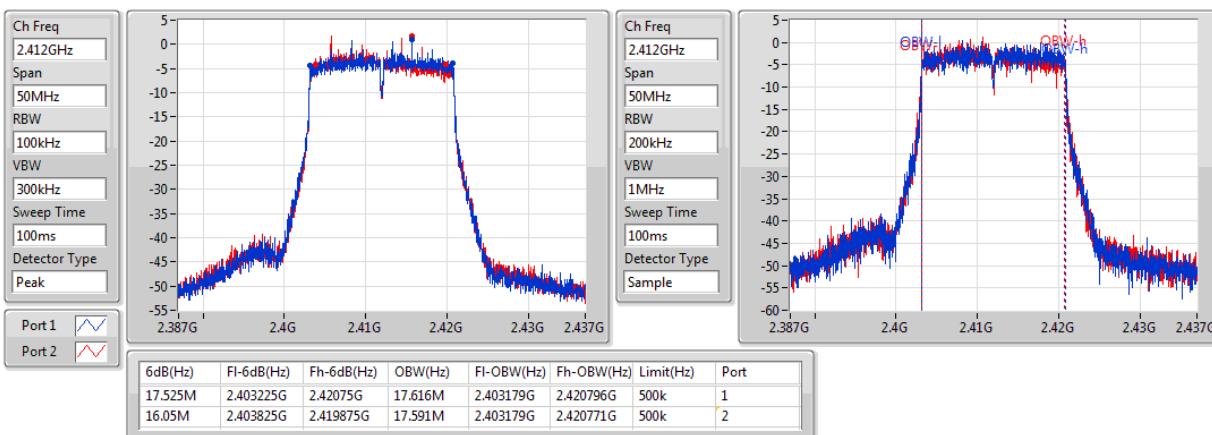




802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

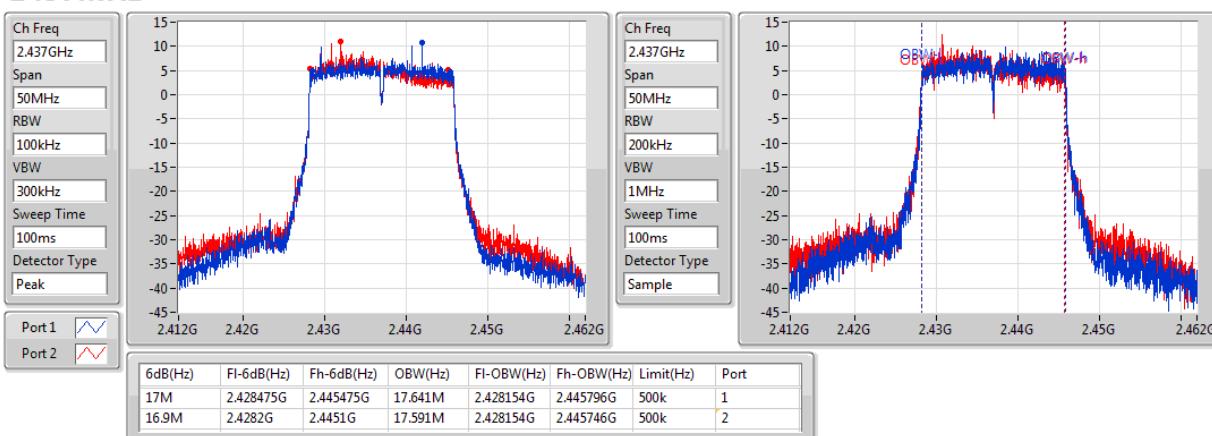
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802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

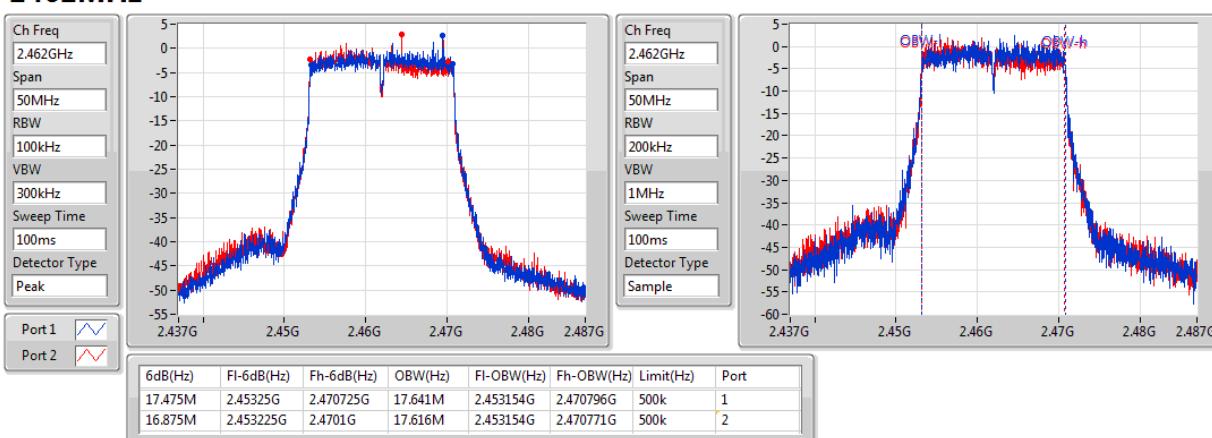
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802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

2462MHz

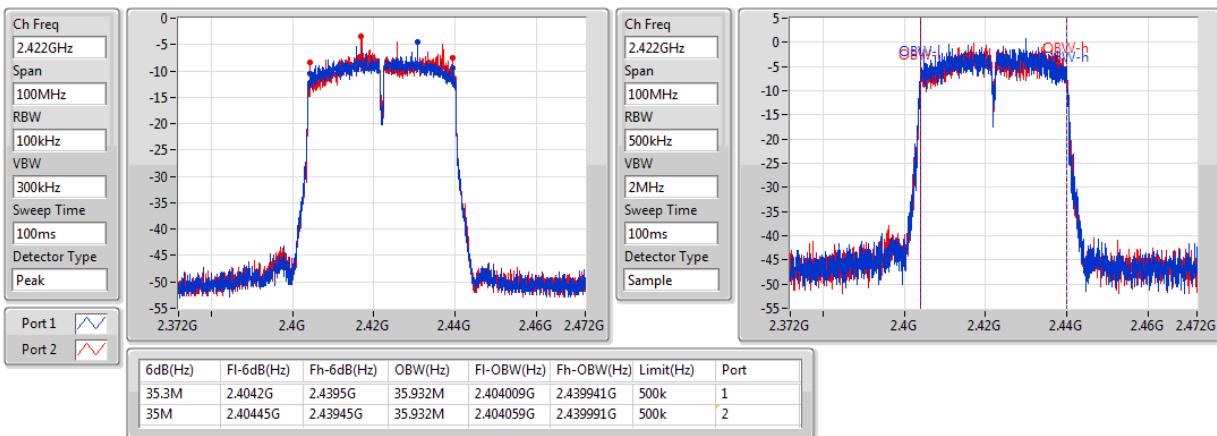




802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

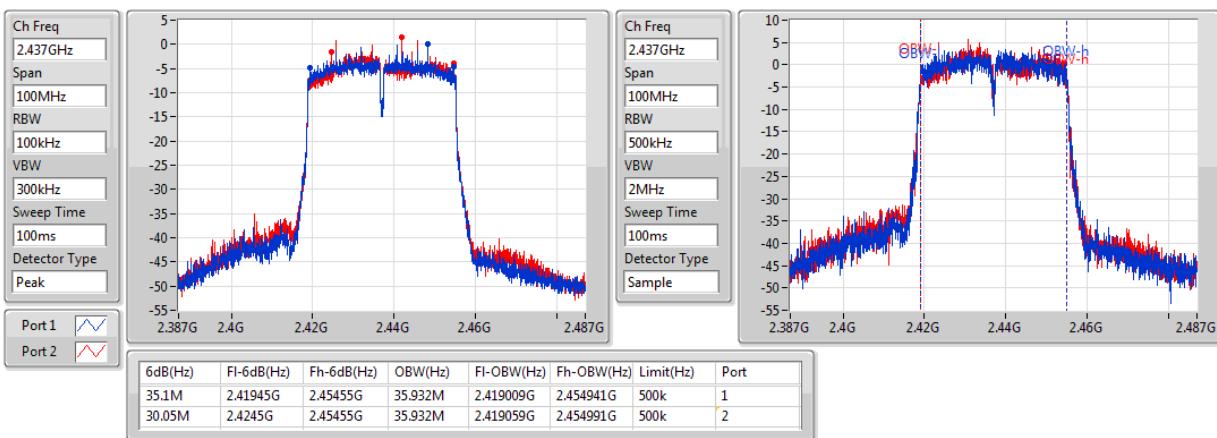
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802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

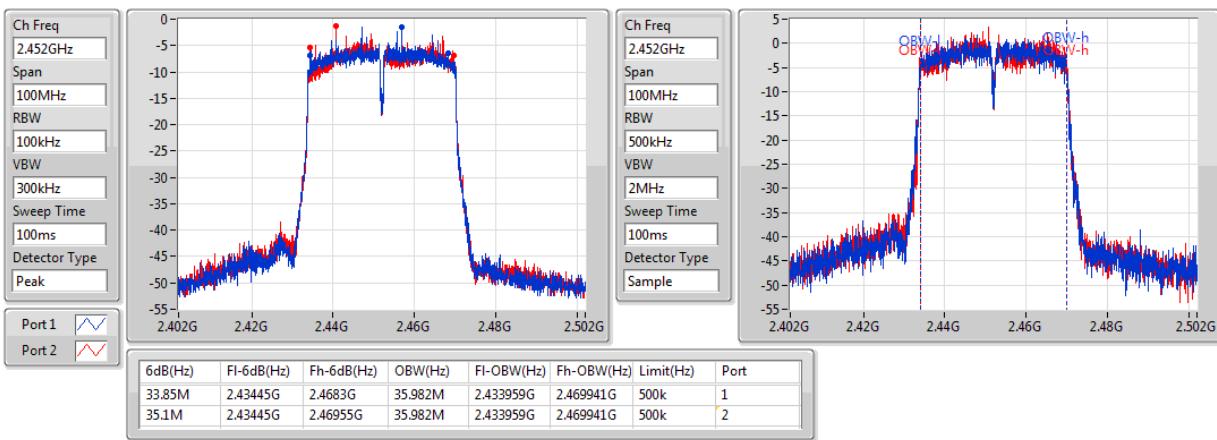
2437MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

2452MHz





<For Beamforming Mode>
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.5M	17.641M	17M6D1D	16.525M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	35M	35.982M	36M0D1D	31.55M	35.832M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.5M	17.591M	16.525M	17.616M
2437MHz	Pass	500k	17.3M	17.591M	16.6M	17.591M
2462MHz	Pass	500k	16.9M	17.591M	16.925M	17.641M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	31.55M	35.982M	34.85M	35.832M
2437MHz	Pass	500k	34.95M	35.932M	33.8M	35.932M
2452MHz	Pass	500k	35M	35.882M	35M	35.832M

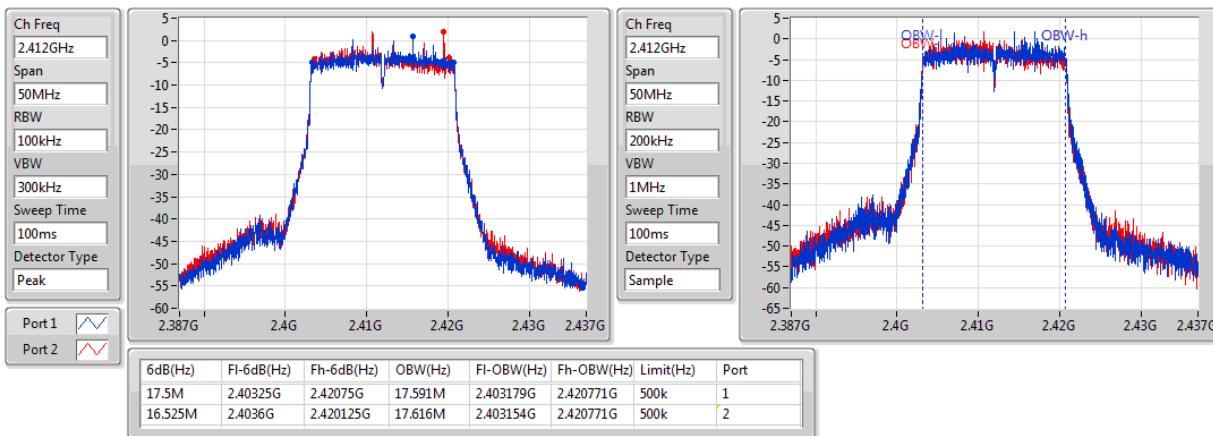
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

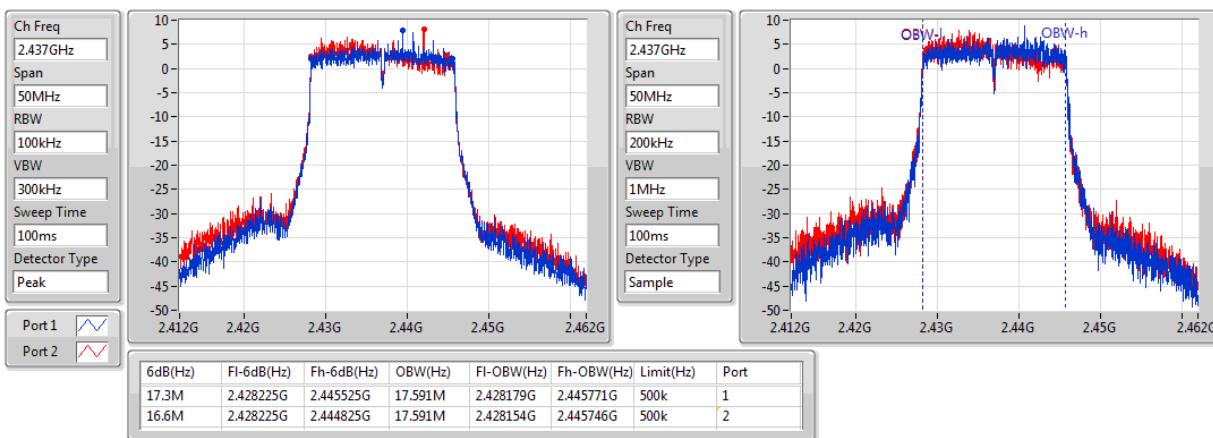
2412MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

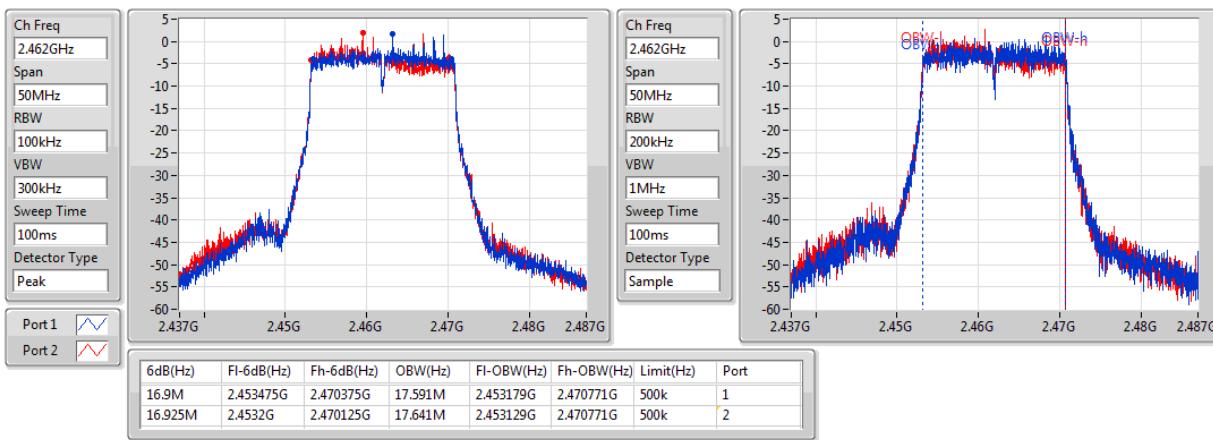
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802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

2462MHz

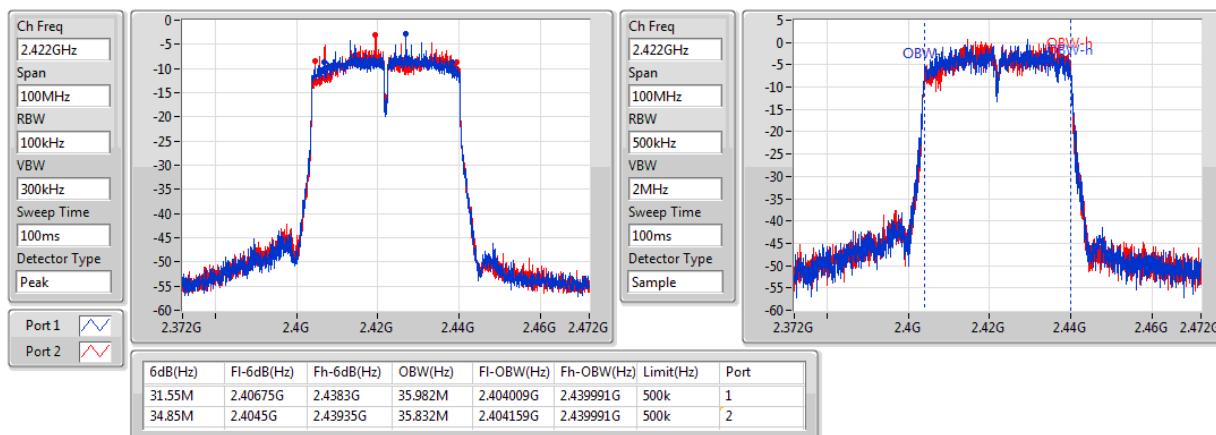




802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

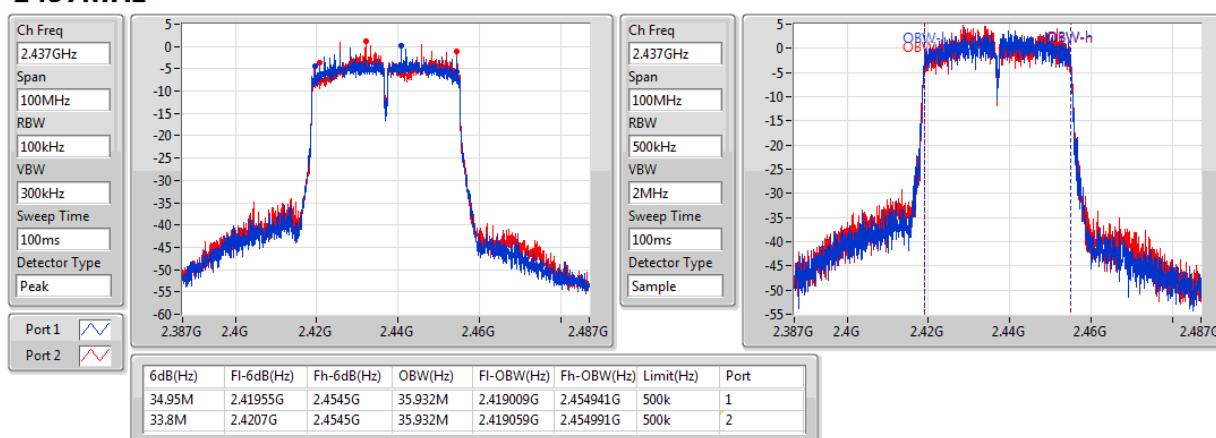
2422MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

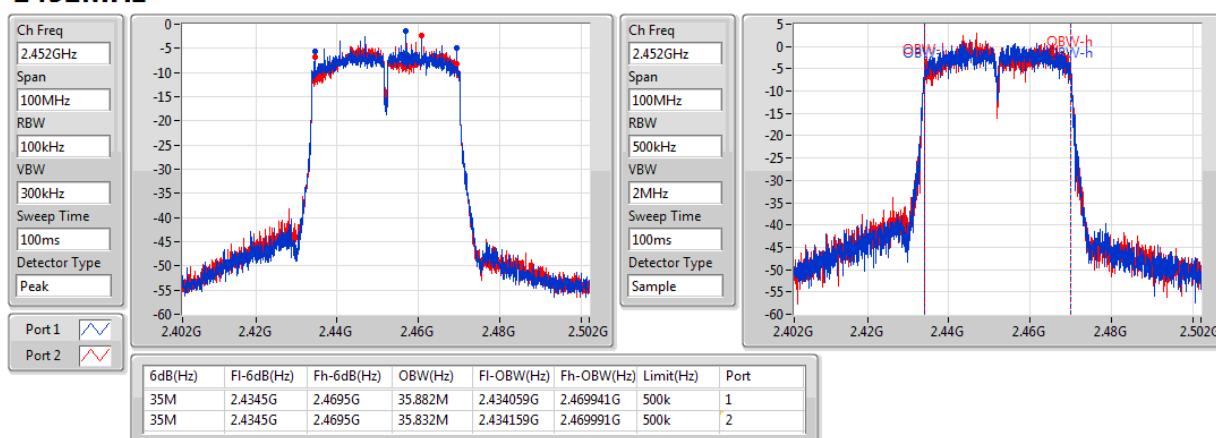
2437MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

2452MHz





For Set 3 antennas / 3TX:
<For Non-Beamforming Mode>
Summary

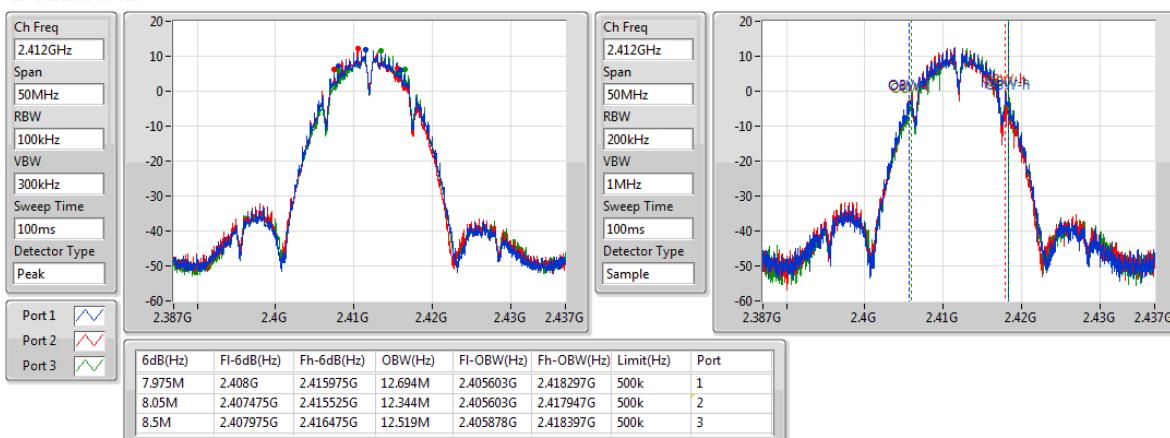
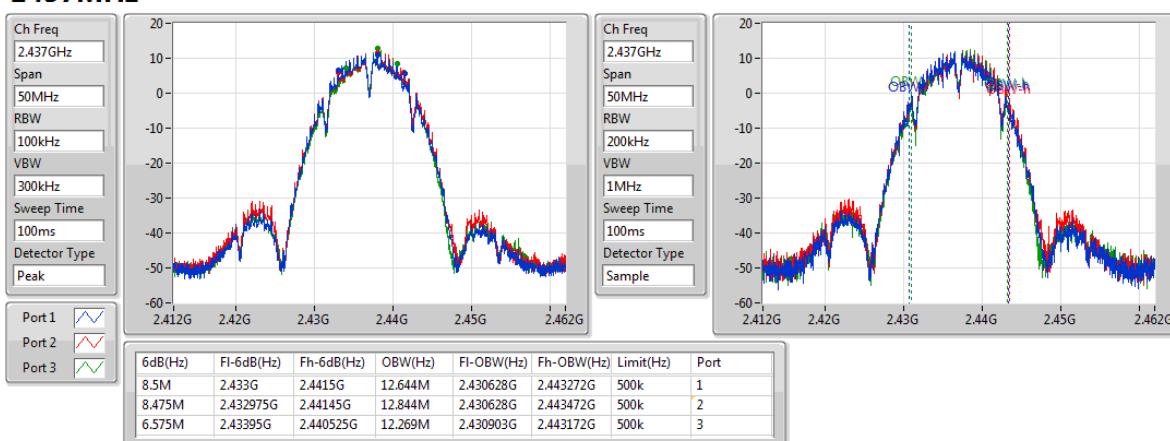
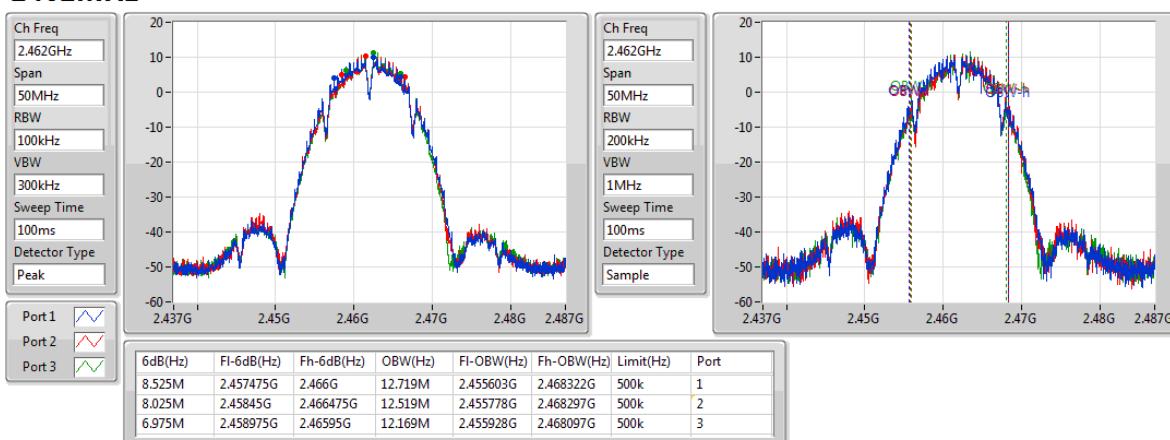
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_3TX	-	-	-	-	-
2.4-2.4835GHz	8.525M	12.844M	12M8G1D	6.575M	12.169M
802.11g_(6Mbps)_3TX	-	-	-	-	-
2.4-2.4835GHz	16.3M	16.442M	16M4D1D	15.675M	16.367M
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	17.525M	17.641M	17M6D1D	15.025M	17.541M
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	35.7M	36.082M	36M1D1D	27.8M	35.882M

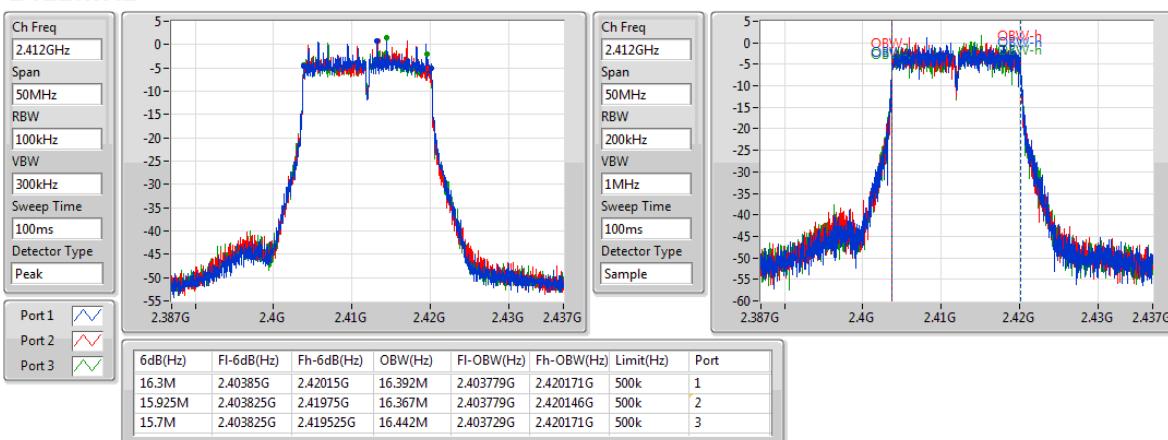
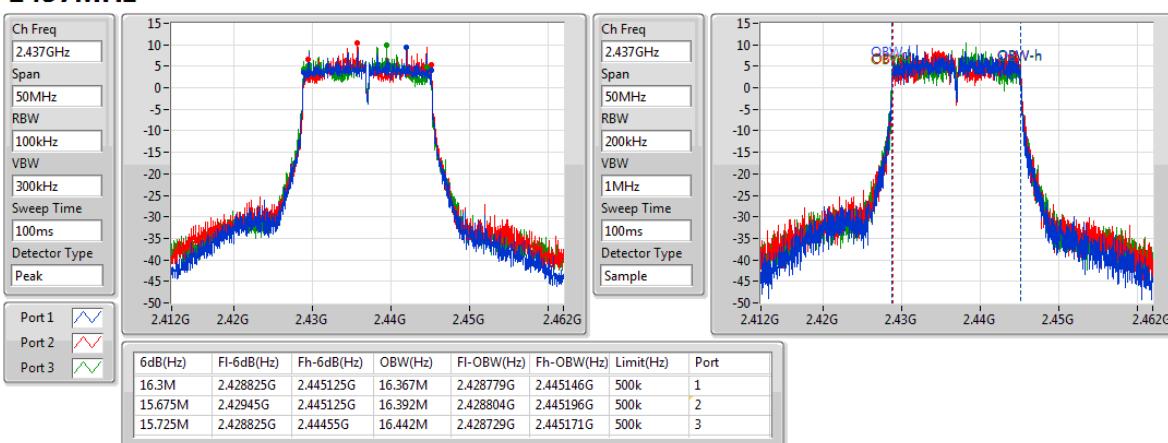
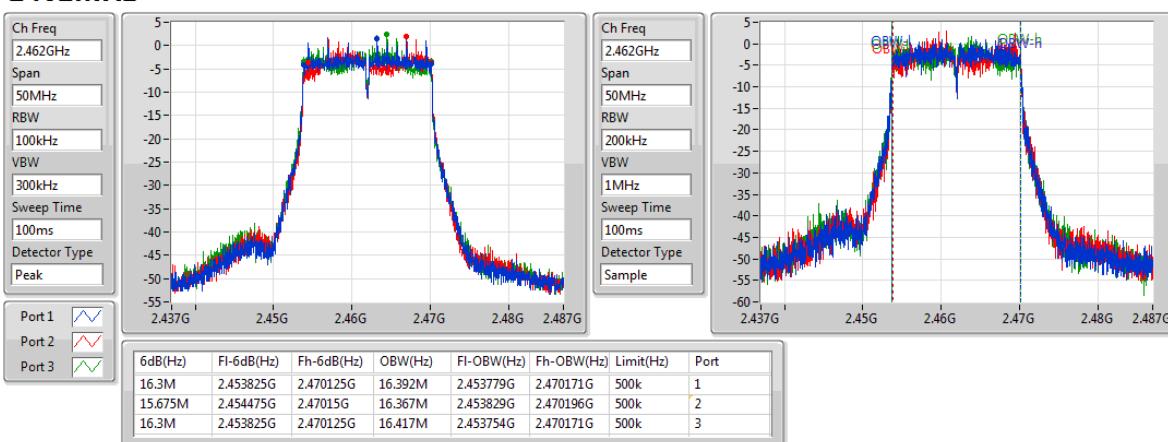
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

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)
802.11b_(1Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	7.975M	12.694M	8.05M	12.344M	8.5M	12.519M
2437MHz	Pass	500k	8.5M	12.644M	8.475M	12.844M	6.575M	12.269M
2462MHz	Pass	500k	8.525M	12.719M	8.025M	12.519M	6.975M	12.169M
802.11g_(6Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.3M	16.392M	15.925M	16.367M	15.7M	16.442M
2437MHz	Pass	500k	16.3M	16.367M	15.675M	16.392M	15.725M	16.442M
2462MHz	Pass	500k	16.3M	16.392M	15.675M	16.367M	16.3M	16.417M
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.525M	17.591M	15.625M	17.591M	16.325M	17.616M
2437MHz	Pass	500k	17.15M	17.641M	17.525M	17.641M	16.775M	17.591M
2462MHz	Pass	500k	17.5M	17.616M	16.225M	17.616M	15.025M	17.541M
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	32.8M	36.082M	35.7M	35.882M	27.8M	35.932M
2437MHz	Pass	500k	35.5M	36.032M	31.9M	35.932M	35.05M	36.082M
2452MHz	Pass	500k	34.45M	35.982M	31.25M	35.882M	35M	36.032M

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

**802.11b_(1Mbps)_3TX****EBW****2412MHz****802.11b_(1Mbps)_3TX****EBW****2437MHz****802.11b_(1Mbps)_3TX****EBW****2462MHz**

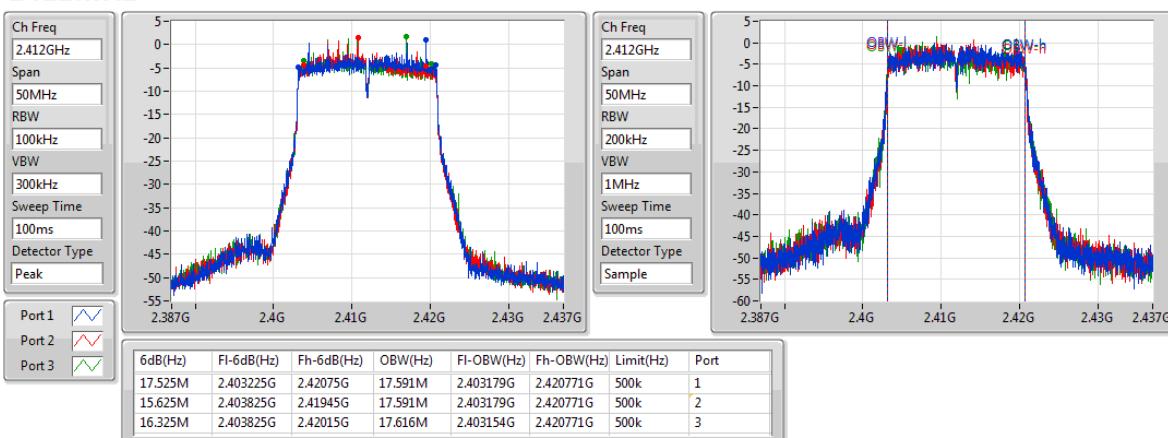
**802.11g_(6Mbps)_3TX****EBW****2412MHz****802.11g_(6Mbps)_3TX****EBW****2437MHz****802.11g_(6Mbps)_3TX****EBW****2462MHz**



802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

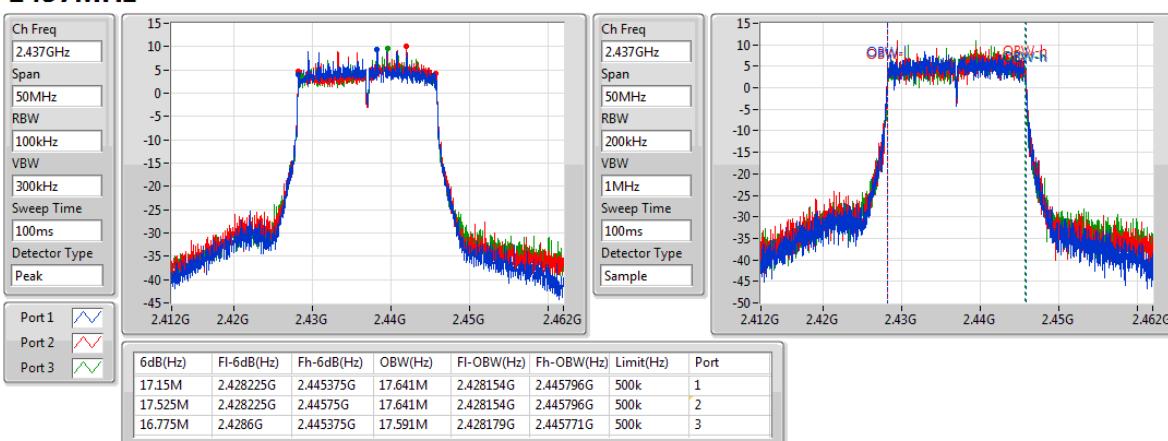
2412MHz



802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

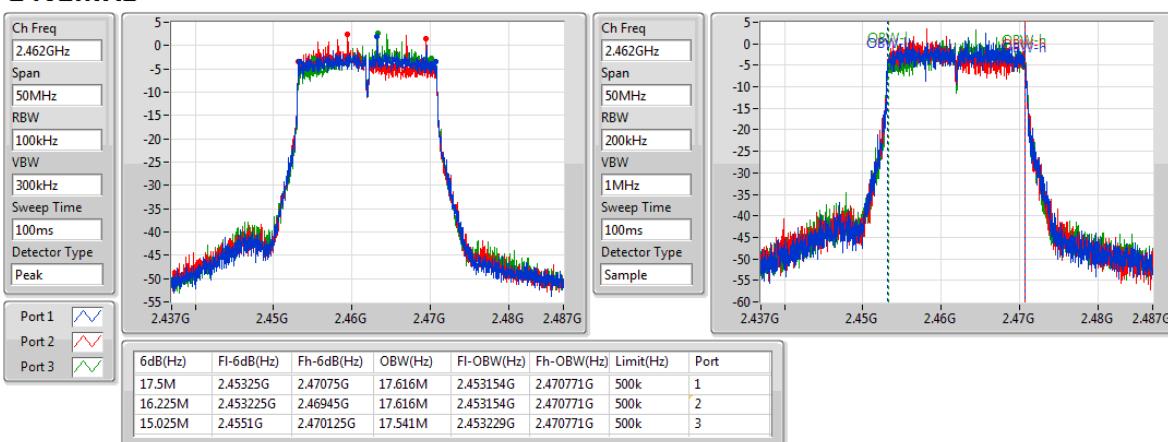
2437MHz



802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

2462MHz

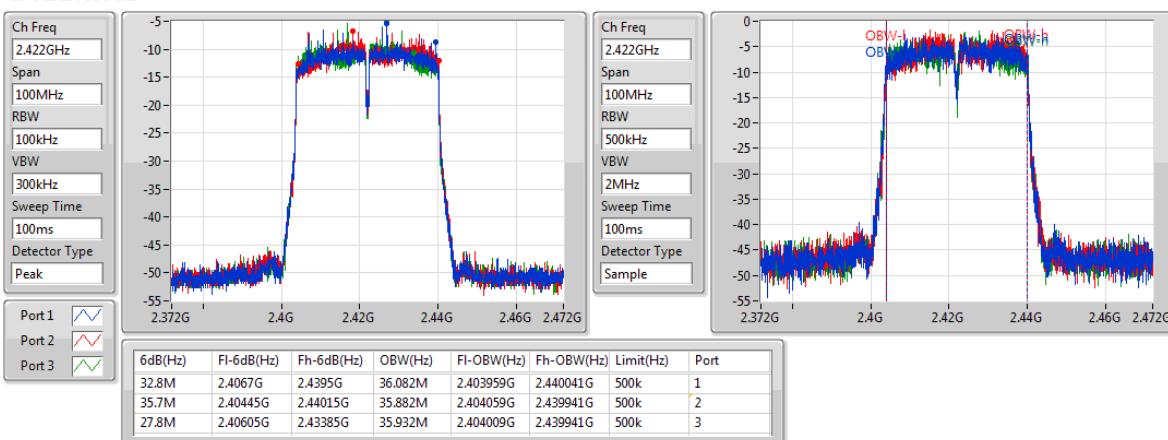




802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

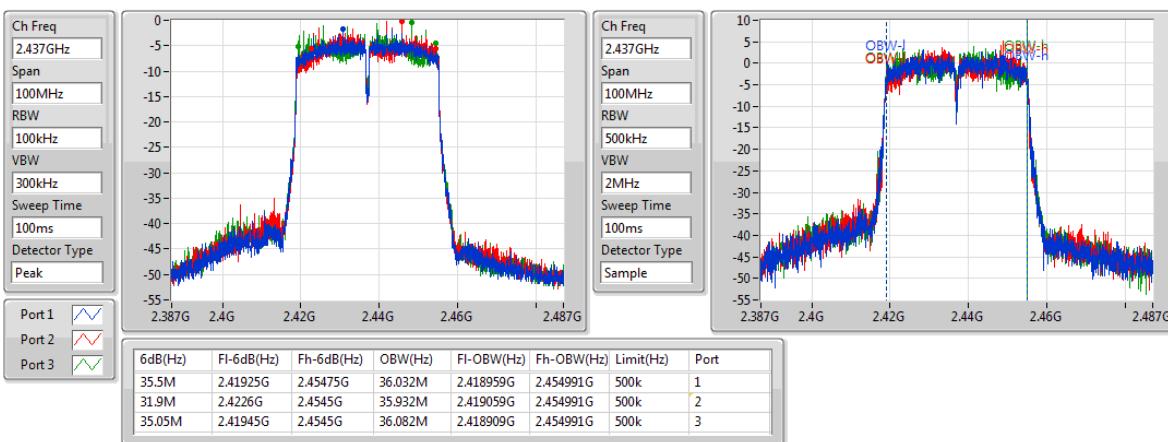
2422MHz



802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

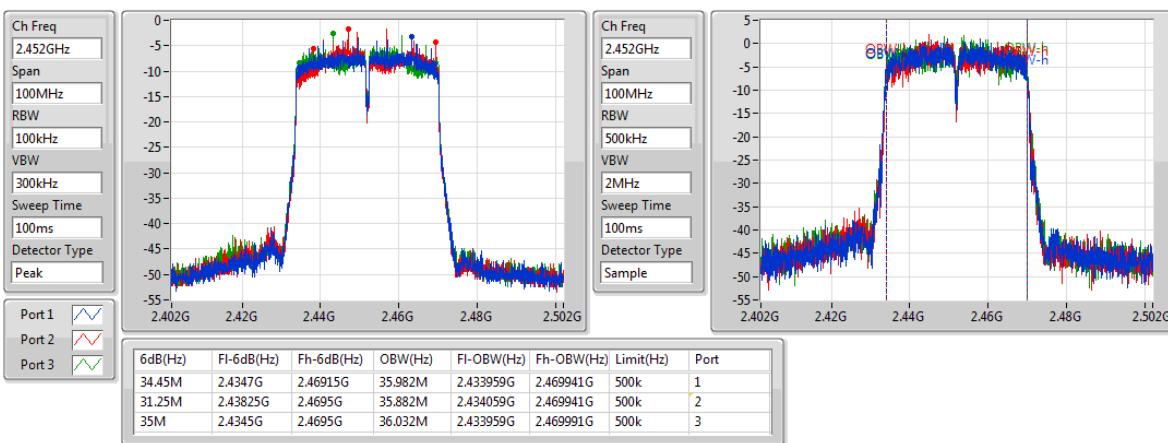
2437MHz



802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

2452MHz





<For Beamforming Mode>
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	17.55M	17.641M	17M6D1D	14.4M	17.541M
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	35.3M	36.082M	36M1D1D	31.25M	35.832M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **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)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.55M	17.616M	14.7M	17.616M	14.4M	17.591M
2437MHz	Pass	500k	17.525M	17.591M	15.65M	17.616M	15.575M	17.591M
2462MHz	Pass	500k	17.525M	17.641M	16.475M	17.616M	15.525M	17.541M
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	34.15M	35.882M	32.15M	35.832M	35.3M	35.932M
2437MHz	Pass	500k	33.7M	35.882M	32.4M	35.882M	34.1M	36.082M
2452MHz	Pass	500k	35M	35.932M	31.25M	35.932M	35.25M	36.032M

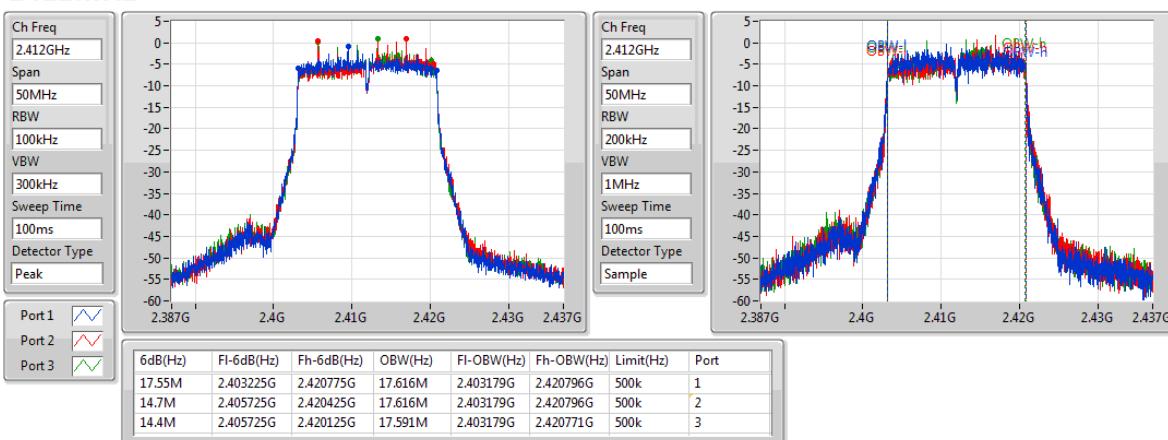
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

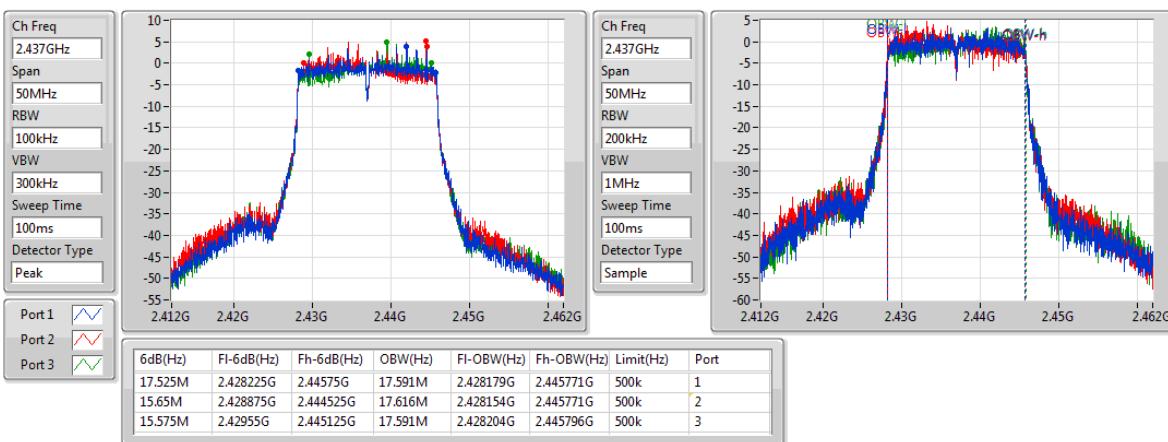
2412MHz



802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

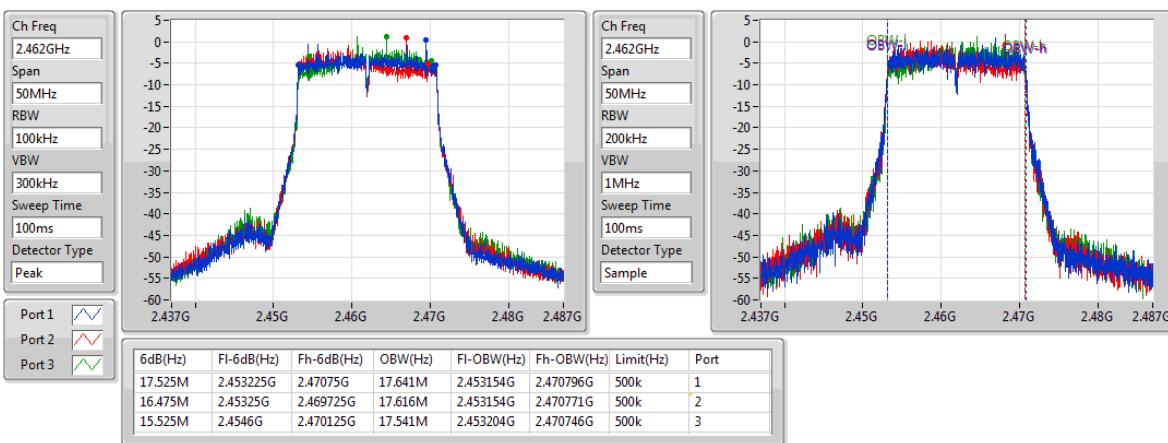
2437MHz



802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

2462MHz

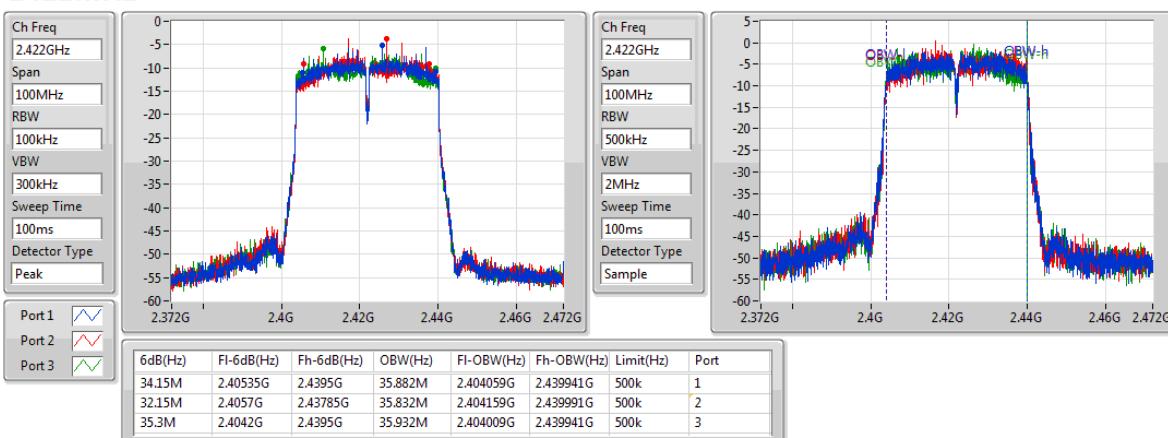




802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

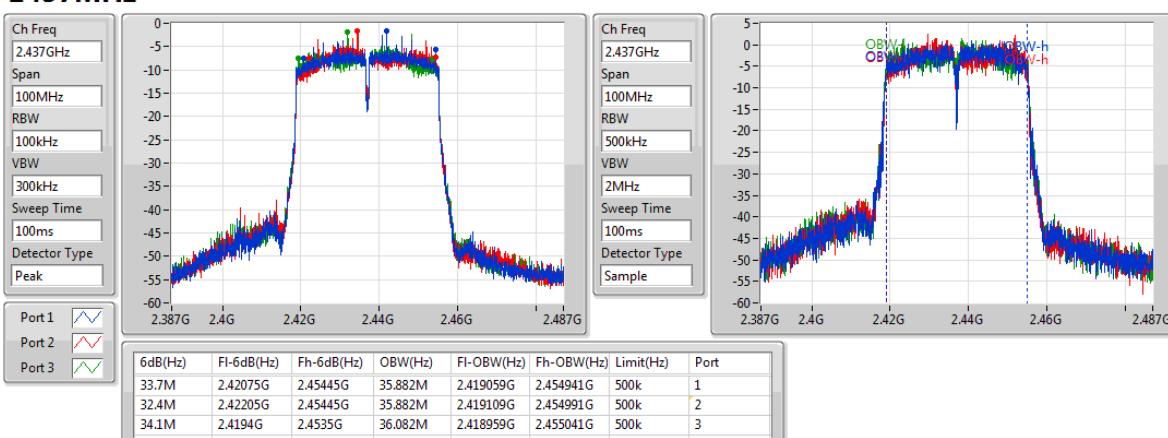
2422MHz



802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

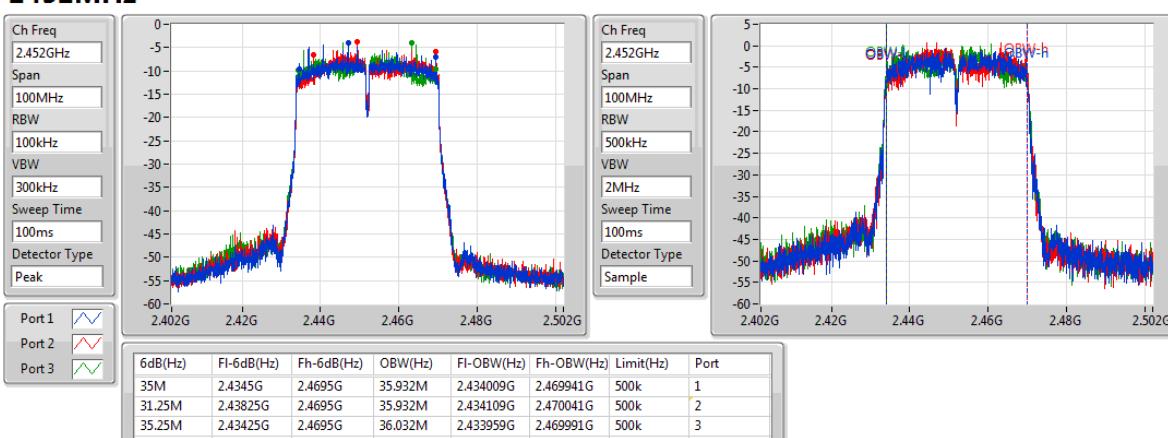
2437MHz



802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

2452MHz





For Set 4 antennas / 1TX:
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	9M	12.669M	12M7G1D	7.05M	12.594M
802.11g_(6Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	16.325M	16.392M	16M4D1D	16.3M	16.392M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	17.575M	17.641M	17M6D1D	16.9M	17.616M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	35.45M	35.982M	36M0D1D	33.55M	35.882M

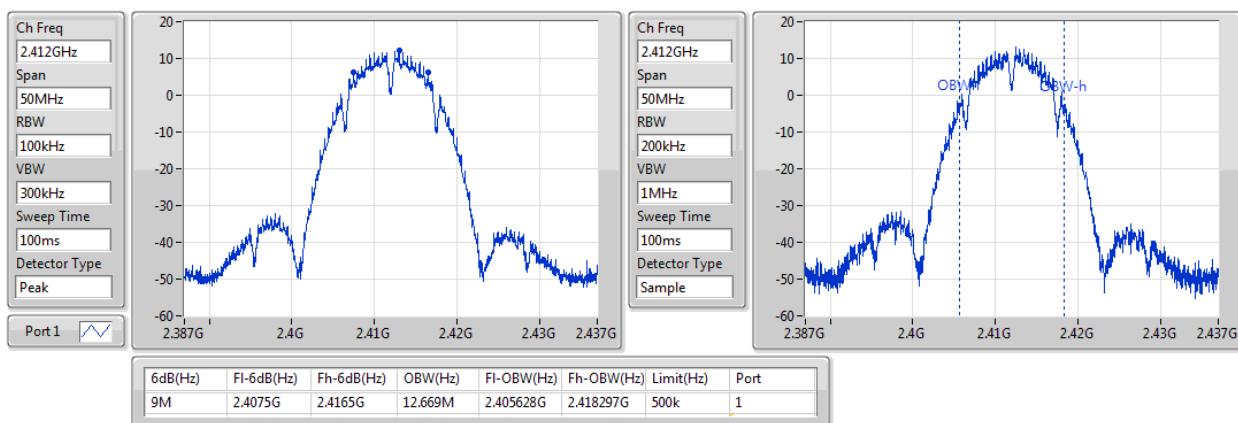
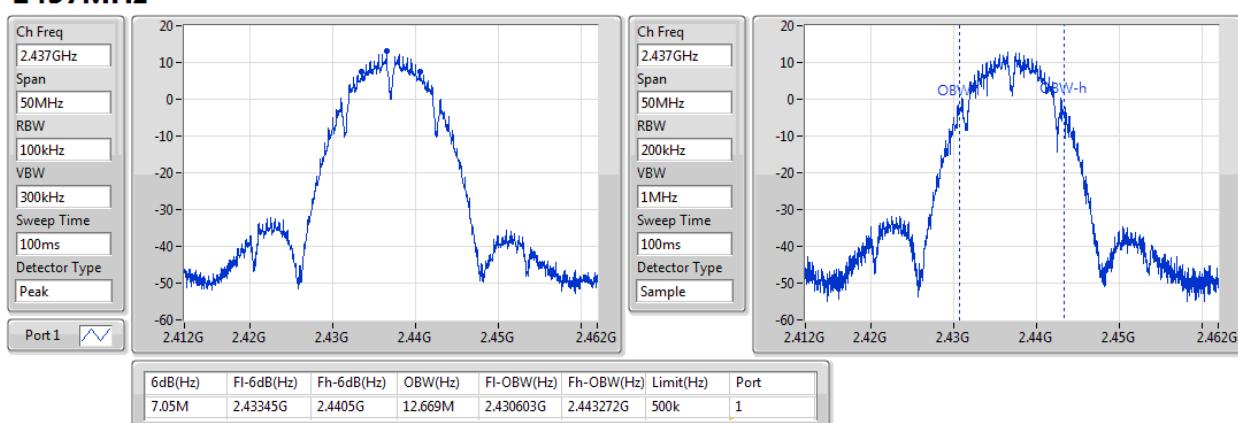
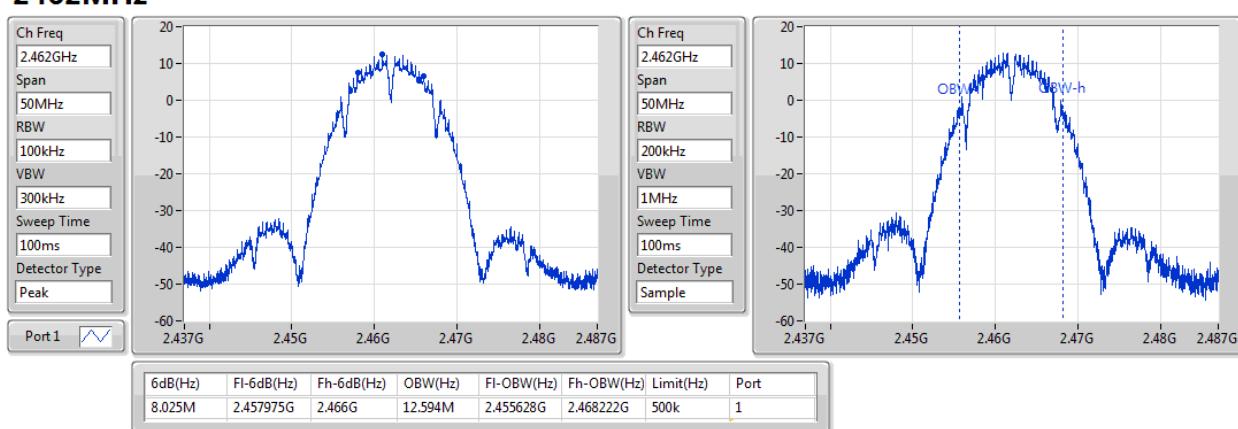
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	9M	12.669M
2437MHz	Pass	500k	7.05M	12.669M
2462MHz	Pass	500k	8.025M	12.594M
802.11g_(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.3M	16.392M
2437MHz	Pass	500k	16.3M	16.392M
2462MHz	Pass	500k	16.325M	16.392M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	17.575M	17.641M
2437MHz	Pass	500k	17.125M	17.641M
2462MHz	Pass	500k	16.9M	17.616M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	35.45M	35.982M
2437MHz	Pass	500k	34.85M	35.882M
2452MHz	Pass	500k	33.55M	35.982M

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

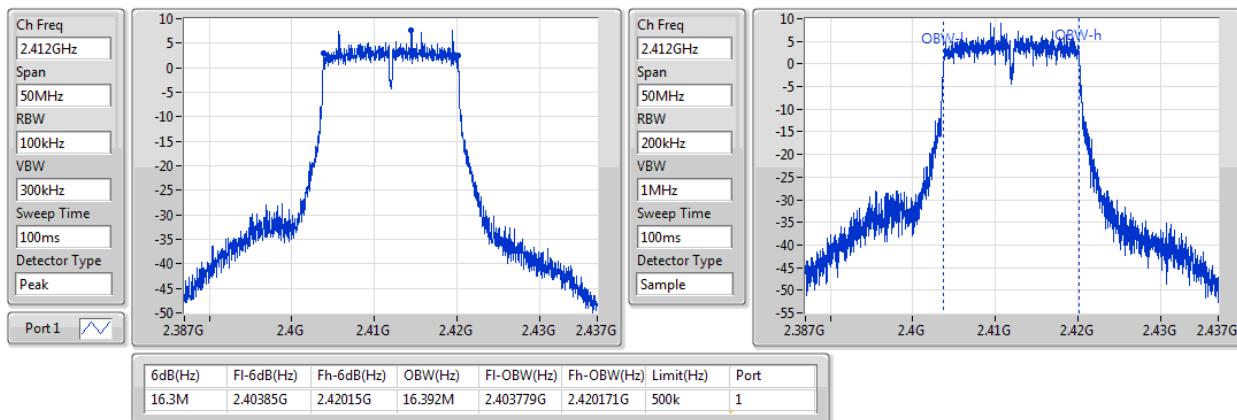
**802.11b_(1Mbps)_1TX****EBW****2412MHz****802.11b_(1Mbps)_1TX****EBW****2437MHz****802.11b_(1Mbps)_1TX****EBW****2462MHz**



802.11g_(6Mbps)_1TX

EBW

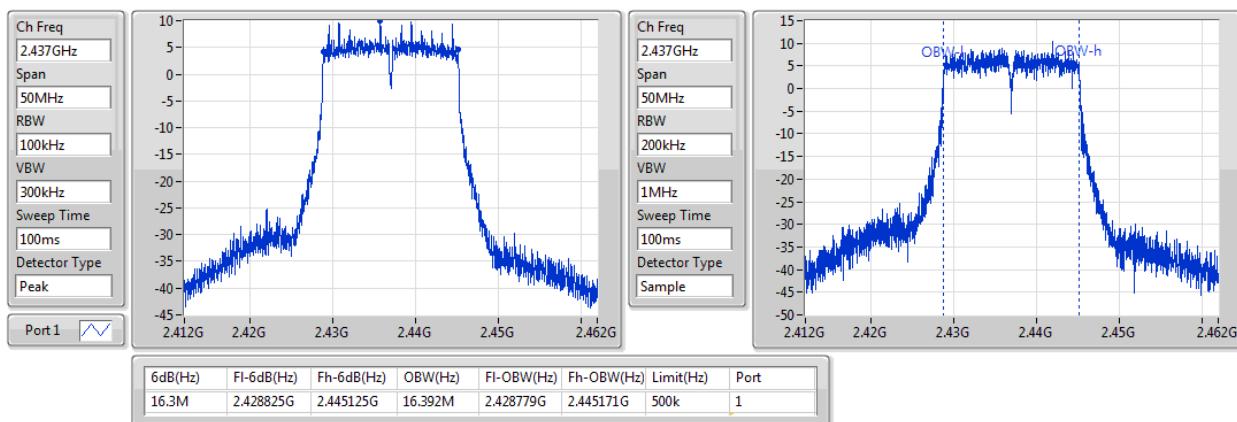
2412MHz



802.11g_(6Mbps)_1TX

EBW

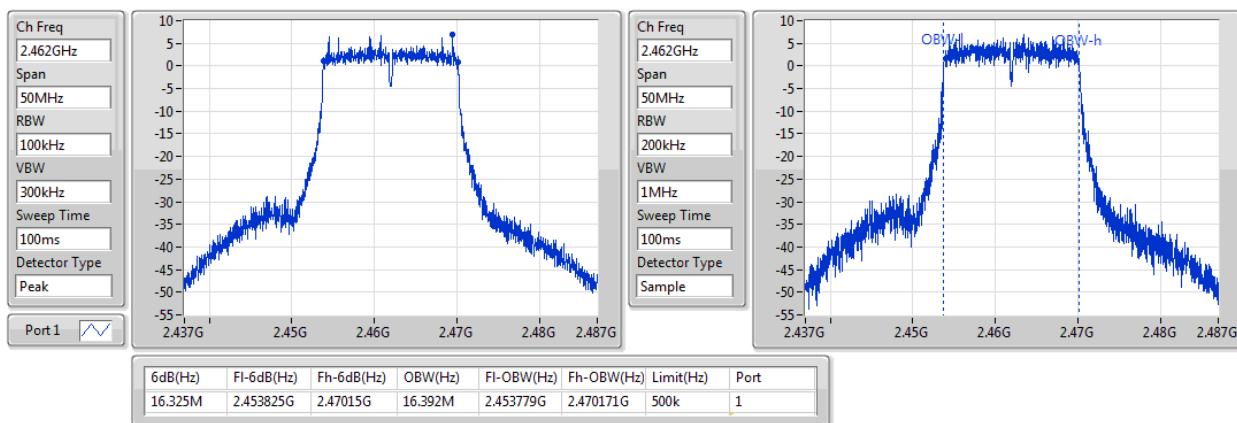
2437MHz



802.11g_(6Mbps)_1TX

EBW

2462MHz

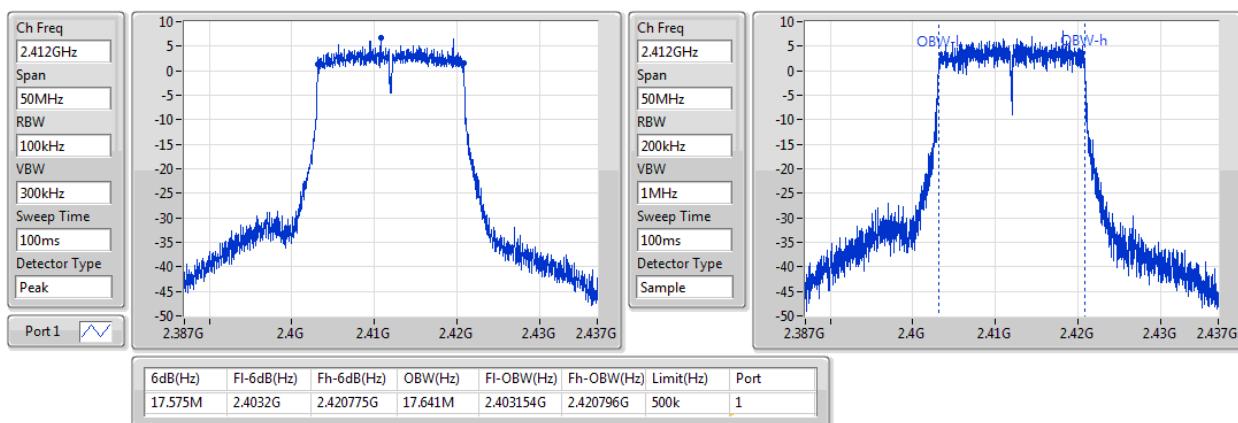




802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

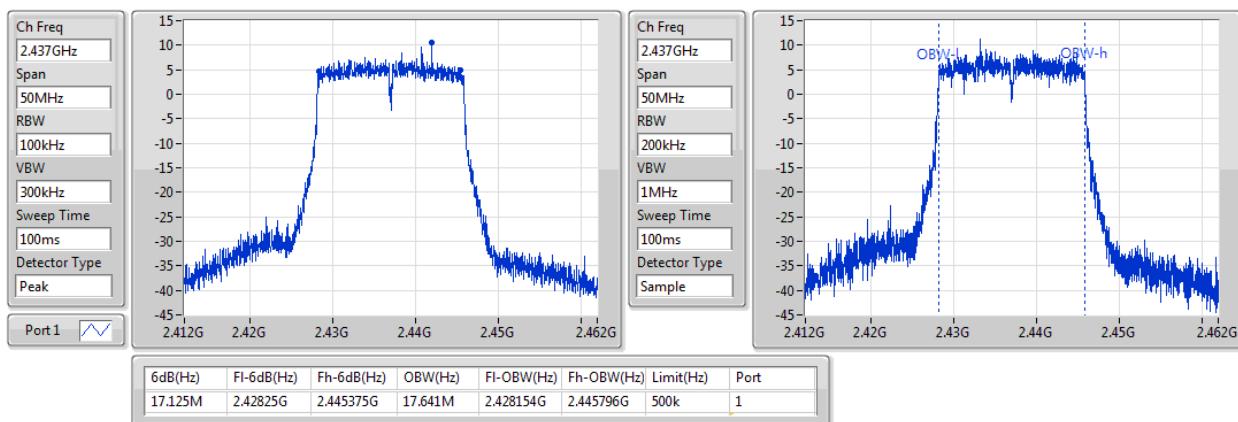
2412MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

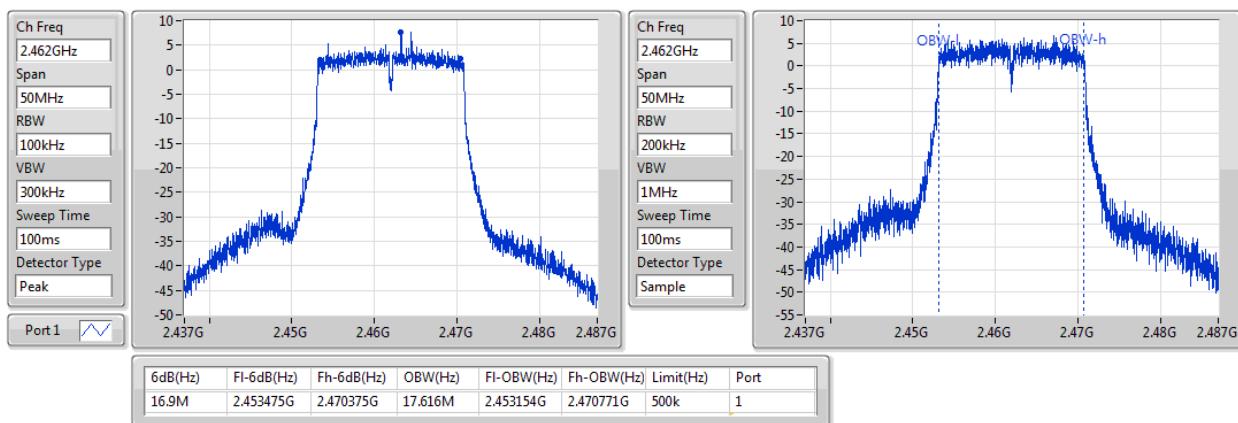
2437MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

2462MHz

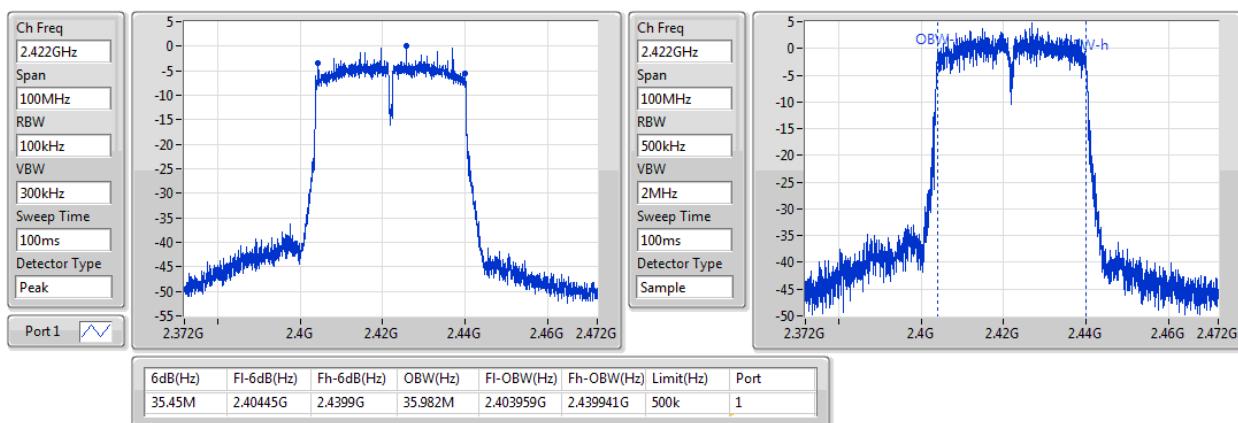




802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

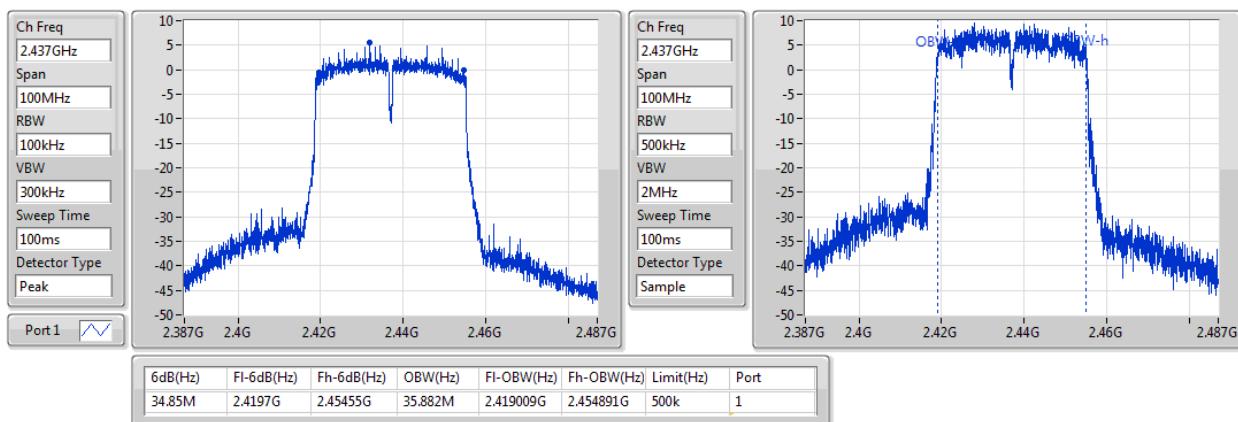
2422MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

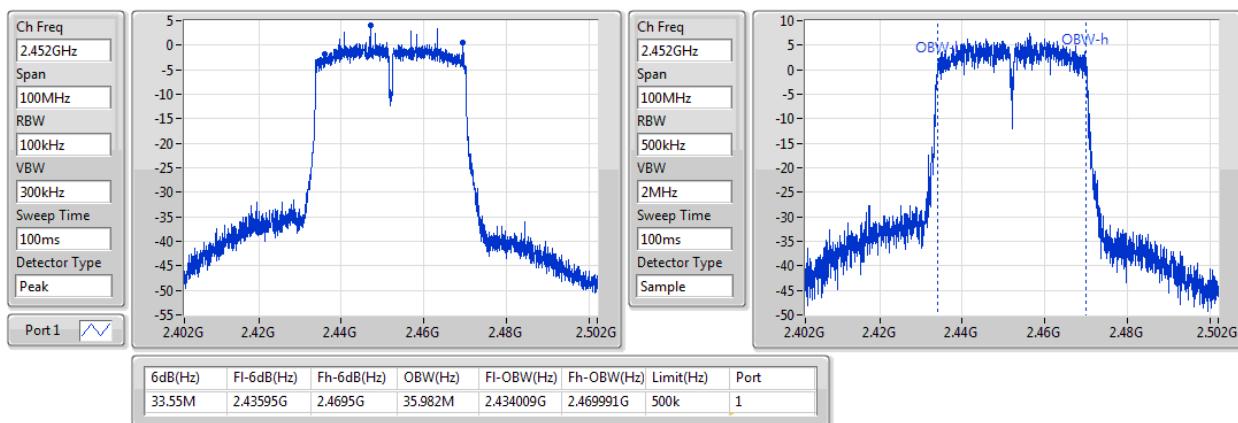
2437MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

2452MHz





For Set 4 antennas / 2TX:
<For Non-Beamforming Mode>
Summary

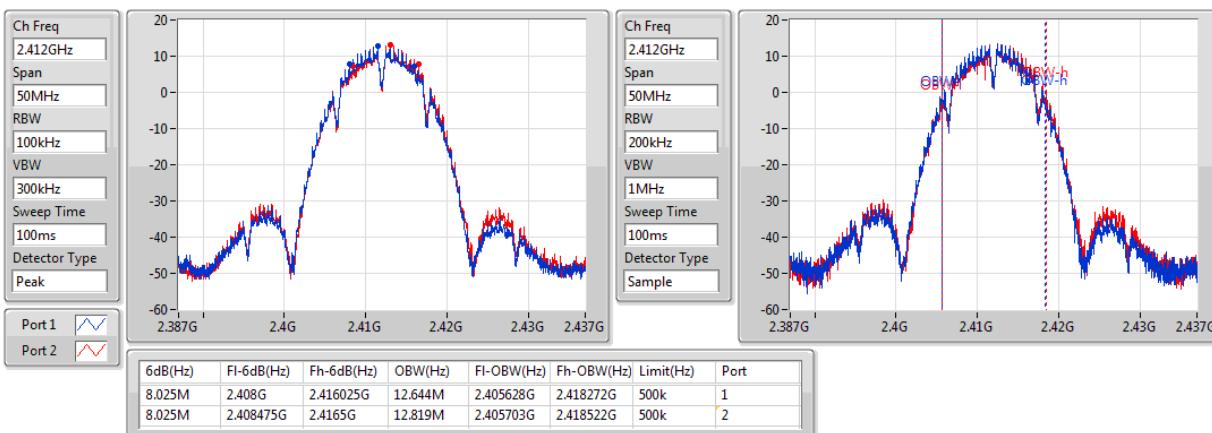
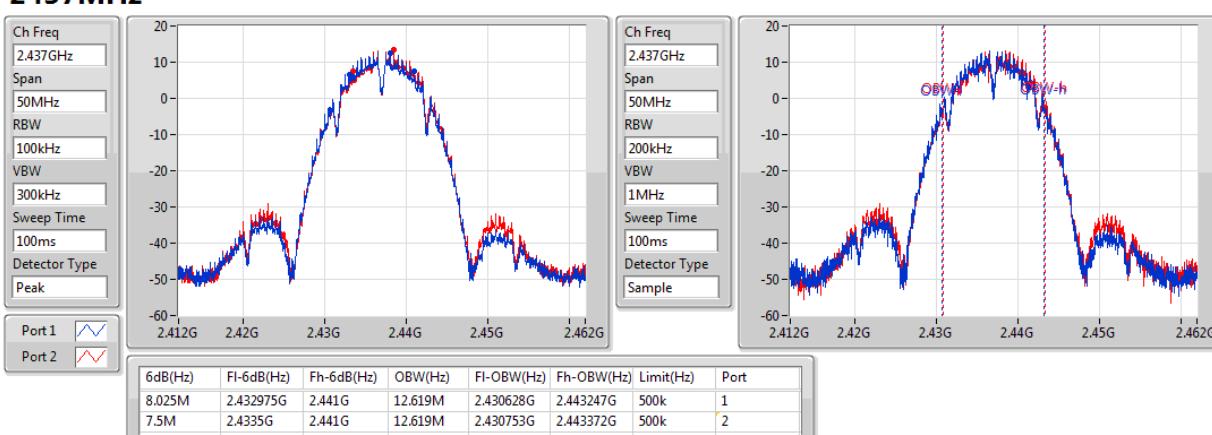
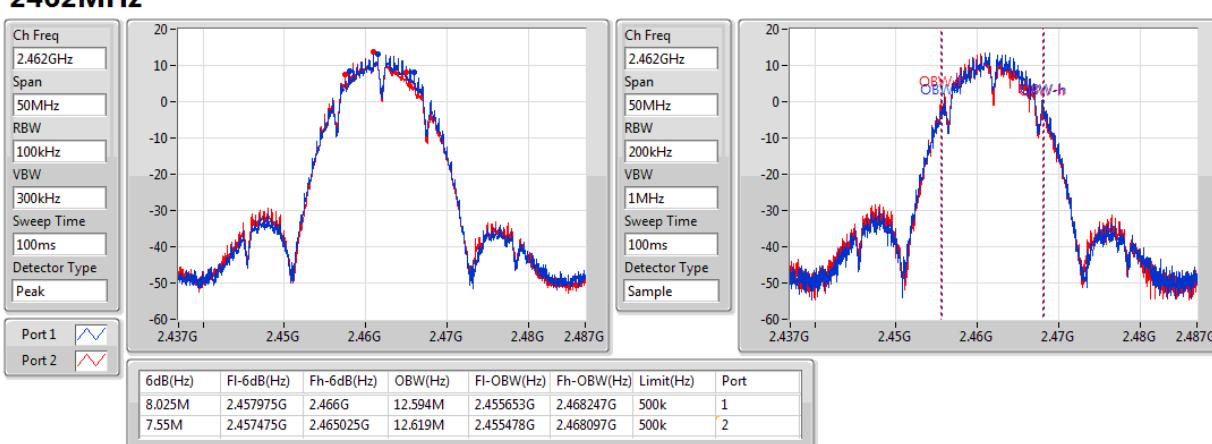
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	8.025M	12.819M	12M8G1D	7.5M	12.594M
802.11g_(6Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	16.325M	16.417M	16M4D1D	15.675M	16.367M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.525M	17.666M	17M7D1D	15.625M	17.591M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	35.05M	36.032M	36M0D1D	32.3M	35.882M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	8.025M	12.644M	8.025M	12.819M
2437MHz	Pass	500k	8.025M	12.619M	7.5M	12.619M
2462MHz	Pass	500k	8.025M	12.594M	7.55M	12.619M
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.3M	16.417M	15.7M	16.392M
2437MHz	Pass	500k	16.325M	16.392M	15.675M	16.367M
2462MHz	Pass	500k	16.325M	16.392M	16.325M	16.392M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.125M	17.591M	15.65M	17.616M
2437MHz	Pass	500k	17M	17.641M	16.9M	17.591M
2462MHz	Pass	500k	17.525M	17.616M	15.625M	17.666M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	35.05M	35.982M	33.75M	35.882M
2437MHz	Pass	500k	34.7M	35.932M	32.3M	35.982M
2452MHz	Pass	500k	34.65M	36.032M	33.65M	35.882M

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

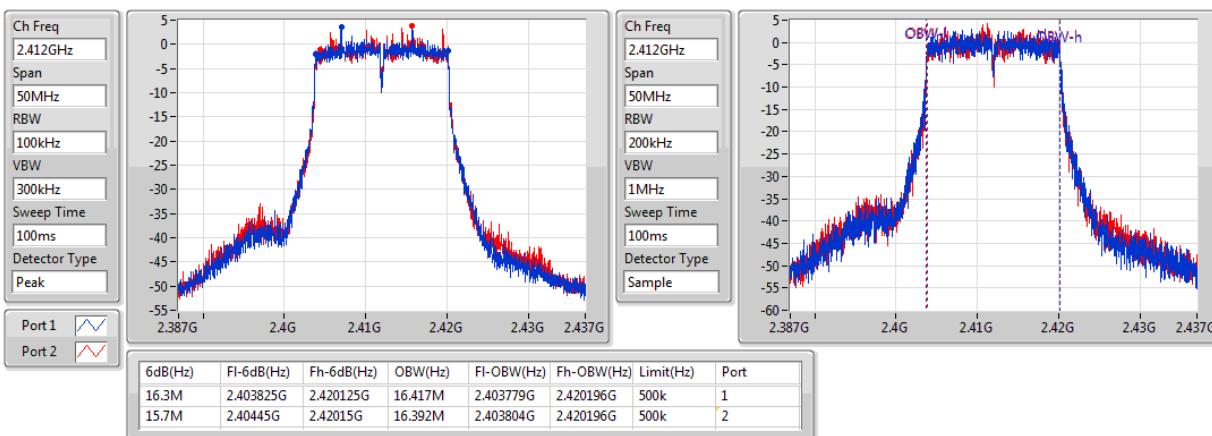
**802.11b_(1Mbps)_2TX****EBW****2412MHz****802.11b_(1Mbps)_2TX****EBW****2437MHz****802.11b_(1Mbps)_2TX****EBW****2462MHz**



802.11g_(6Mbps)_2TX

EBW

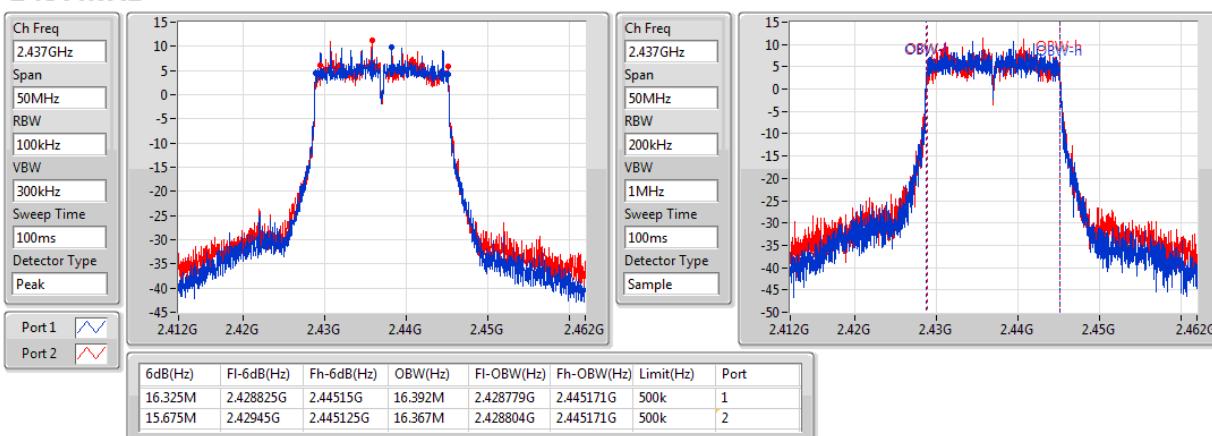
2412MHz



802.11g_(6Mbps)_2TX

EBW

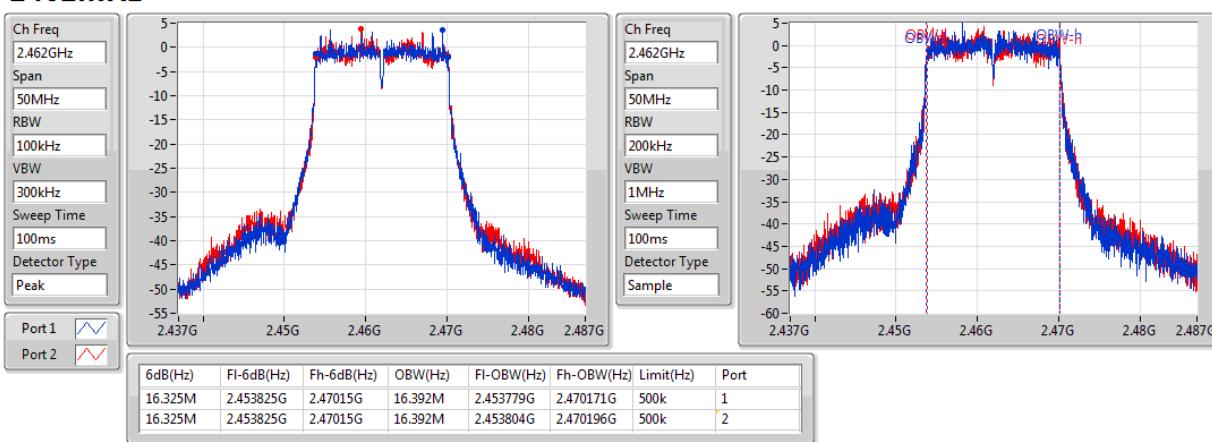
2437MHz



802.11g_(6Mbps)_2TX

EBW

2462MHz

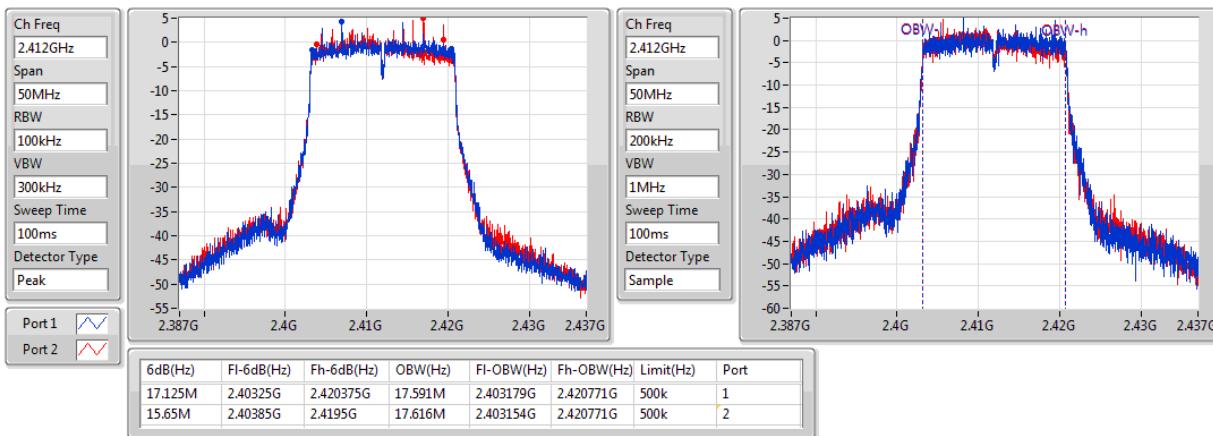




802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

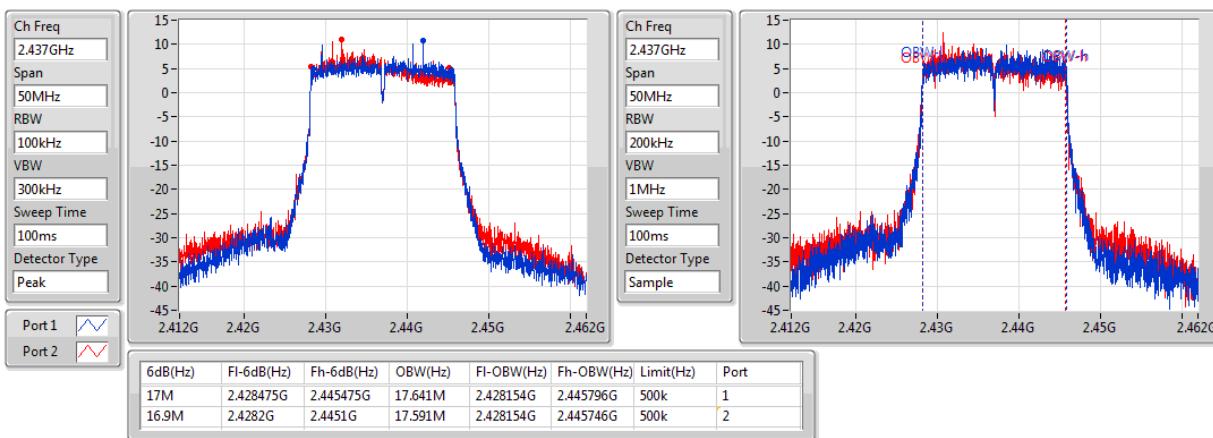
2412MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

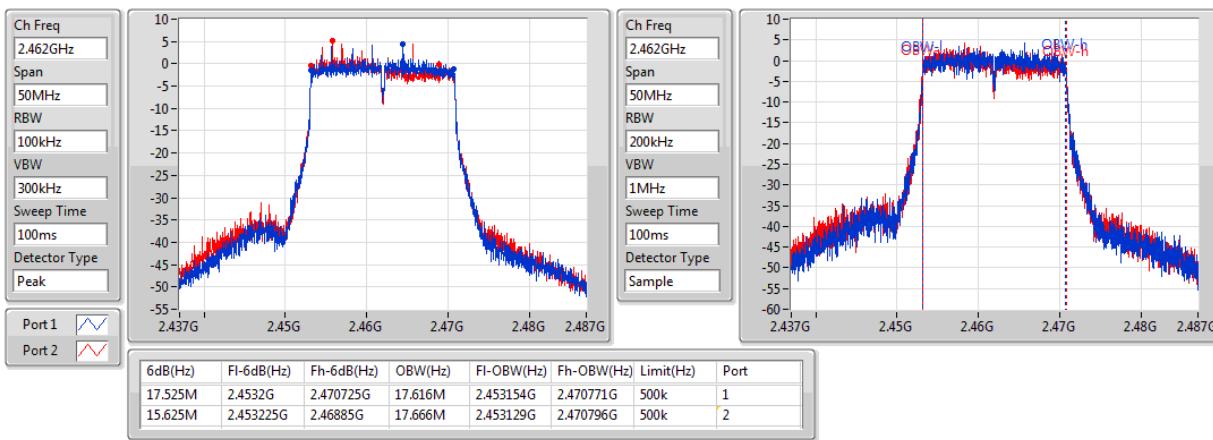
2437MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

2462MHz

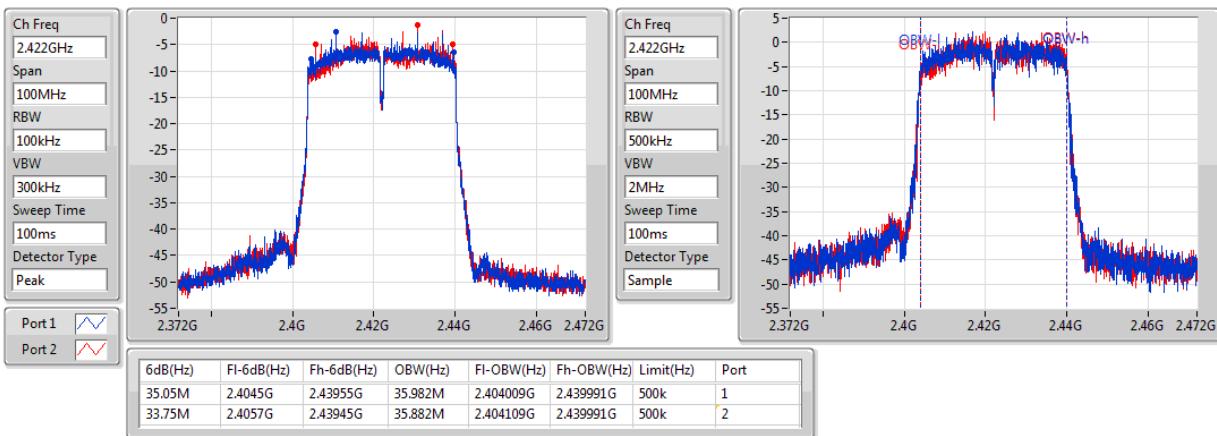




802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

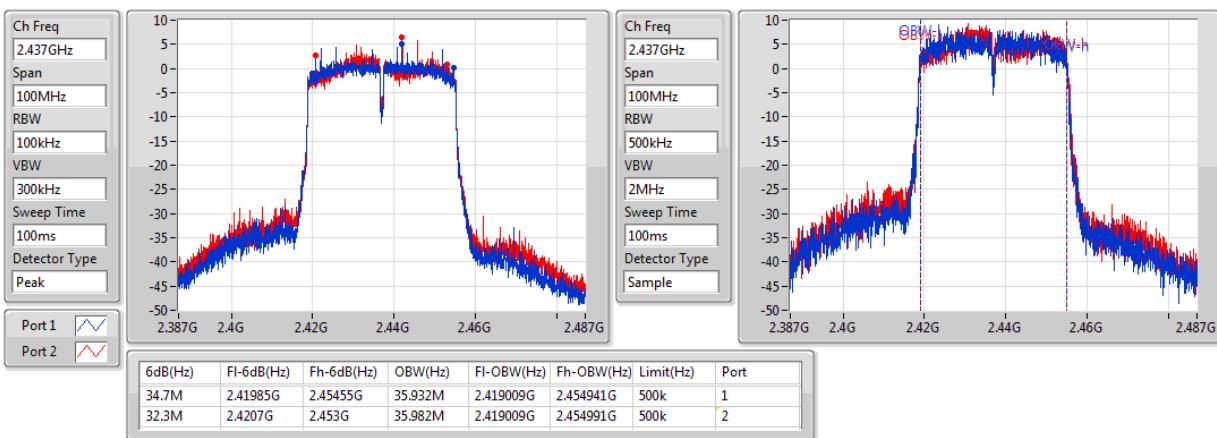
2422MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

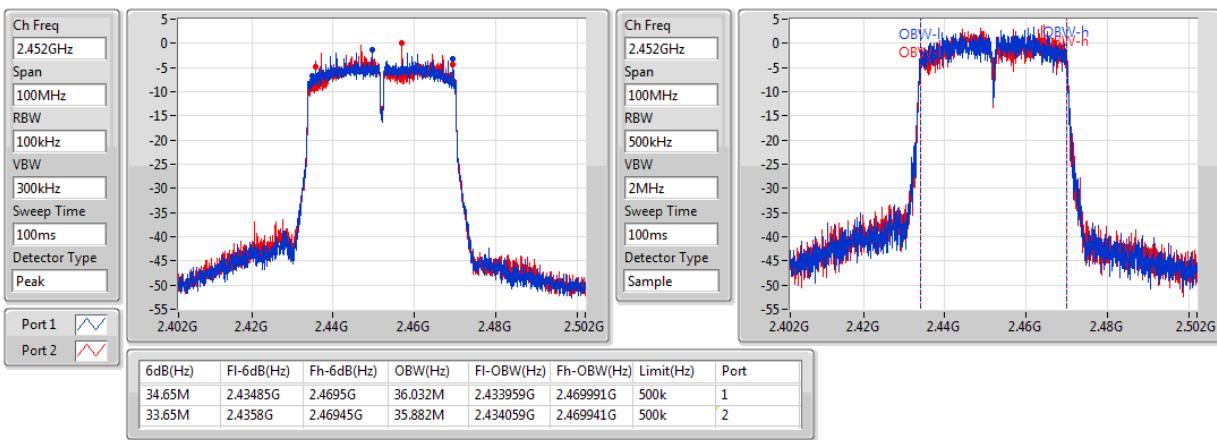
2437MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

2452MHz





<For Beamforming Mode>
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.625M	17.666M	17M7D1D	16.9M	17.591M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	36.25M	35.982M	36M0D1D	28.75M	35.832M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz						
2437MHz	Pass	500k	17.625M	17.641M	16.925M	17.616M
2462MHz	Pass	500k	17.15M	17.591M	16.9M	17.666M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	36.25M	35.932M	31.3M	35.932M
2437MHz	Pass	500k	34.95M	35.932M	28.75M	35.982M
2452MHz	Pass	500k	33.35M	35.982M	35.05M	35.832M

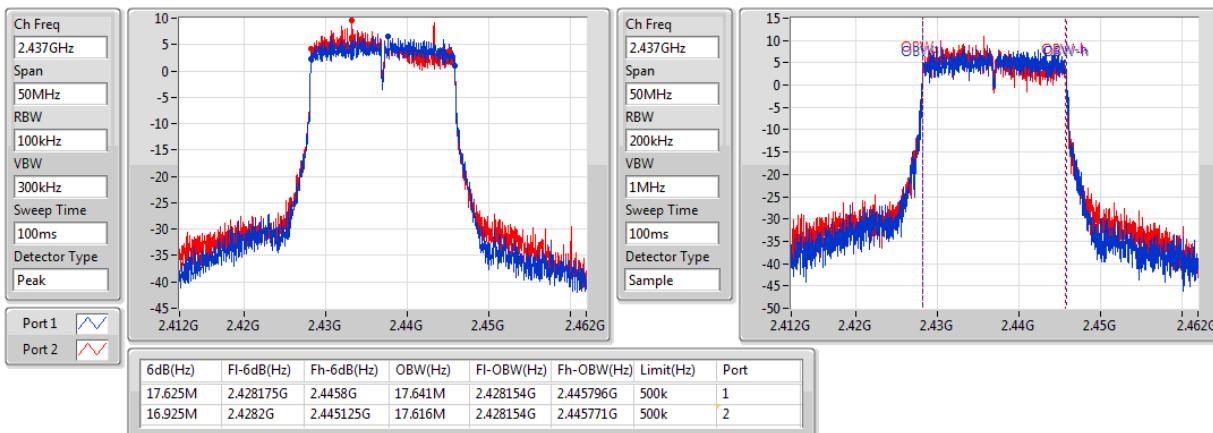
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

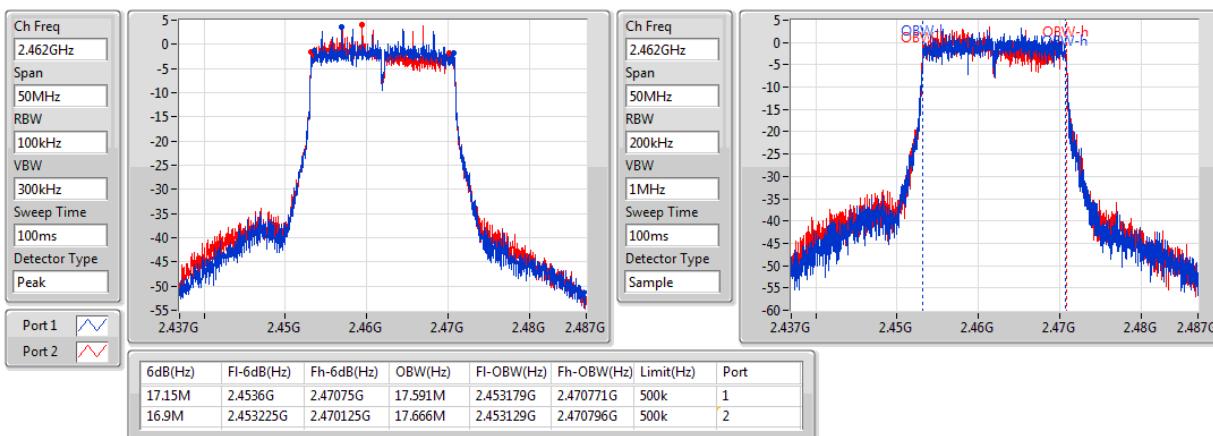
2437MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

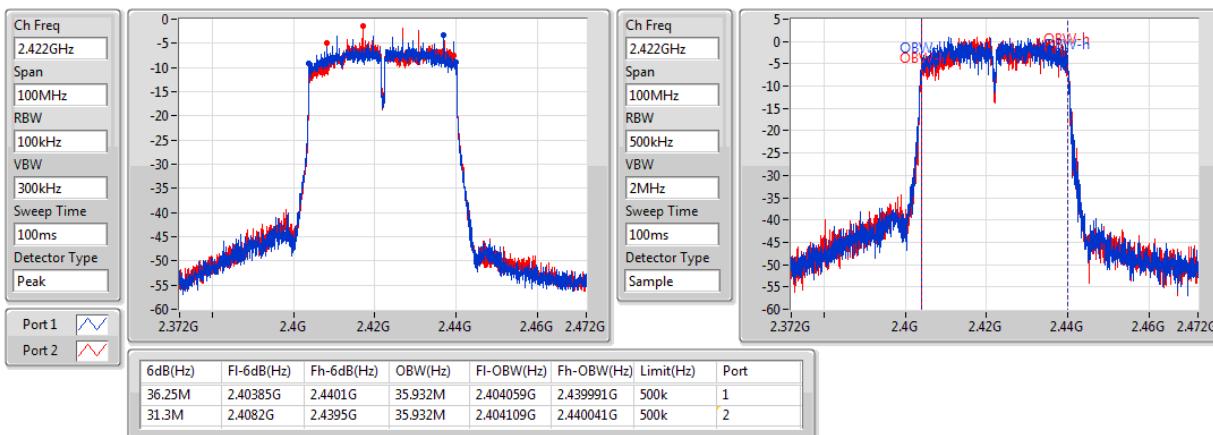
2462MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

2422MHz

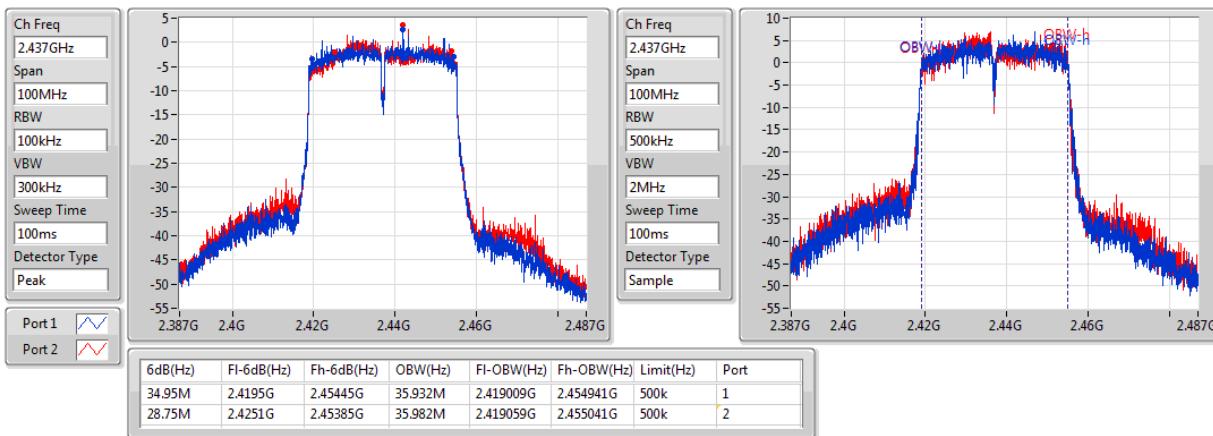




802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

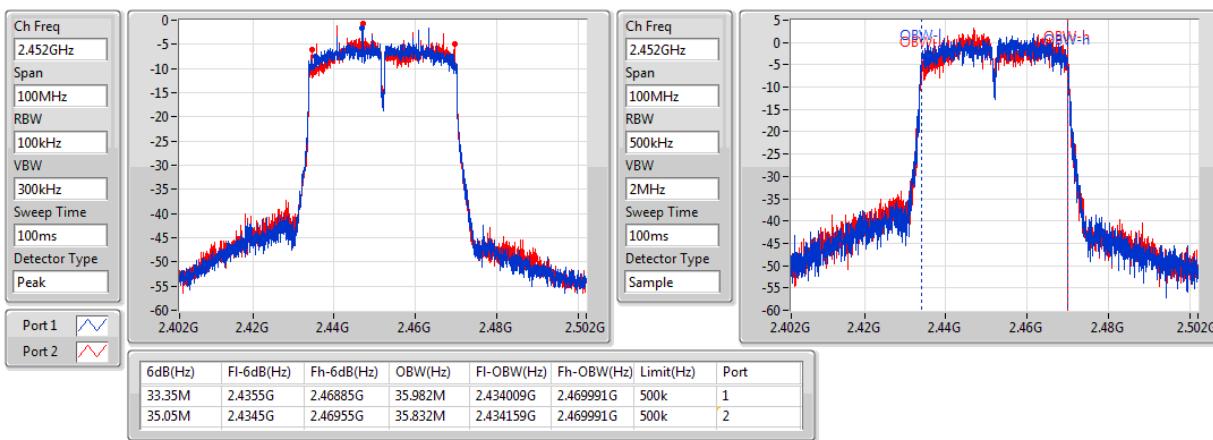
2437MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

2452MHz





For Set 4 antennas / 3TX:
<For Non-Beamforming Mode>
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_3TX	-	-	-	-	-
2.4-2.4835GHz	8.55M	12.769M	12M8G1D	7.05M	12.294M
802.11g_(6Mbps)_3TX	-	-	-	-	-
2.4-2.4835GHz	16.325M	16.467M	16M5D1D	15.675M	16.367M
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	17.575M	17.666M	17M7D1D	15.65M	17.566M
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	35.05M	36.082M	36M1D1D	31.25M	35.932M

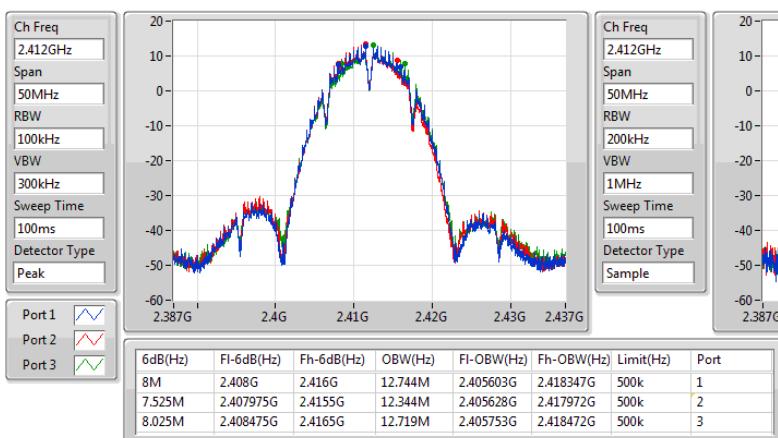
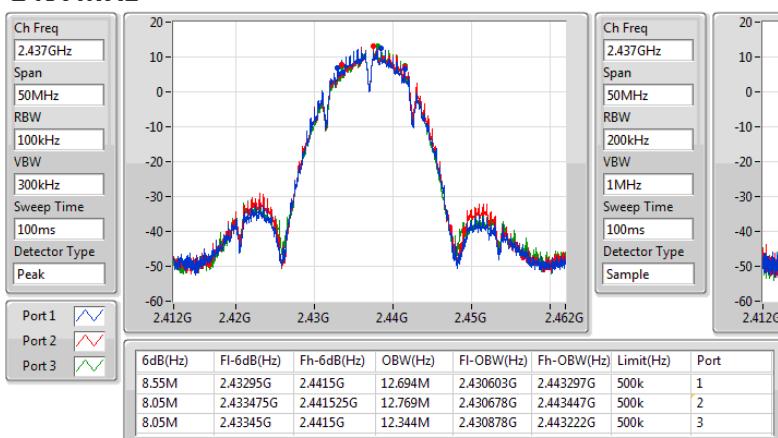
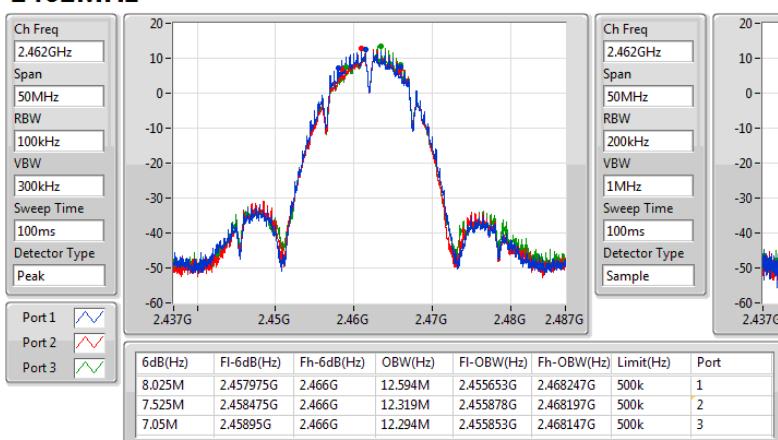
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **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)
802.11b_(1Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	8M	12.744M	7.525M	12.344M	8.025M	12.719M
2437MHz	Pass	500k	8.55M	12.694M	8.05M	12.769M	8.05M	12.344M
2462MHz	Pass	500k	8.025M	12.594M	7.525M	12.319M	7.05M	12.294M
802.11g_(6Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.3M	16.392M	15.675M	16.392M	16.275M	16.367M
2437MHz	Pass	500k	16.325M	16.392M	15.7M	16.417M	15.675M	16.392M
2462MHz	Pass	500k	16.325M	16.392M	15.725M	16.392M	16.3M	16.467M
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.525M	17.616M	15.65M	17.616M	17.55M	17.616M
2437MHz	Pass	500k	17.025M	17.616M	17.575M	17.641M	16.9M	17.666M
2462MHz	Pass	500k	17.55M	17.641M	17.525M	17.641M	16.525M	17.566M
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	33.8M	35.982M	31.25M	35.932M	34.4M	36.032M
2437MHz	Pass	500k	31.35M	35.932M	34.45M	35.982M	33.8M	36.082M
2452MHz	Pass	500k	33.75M	35.932M	33.7M	36.032M	35.05M	35.982M

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

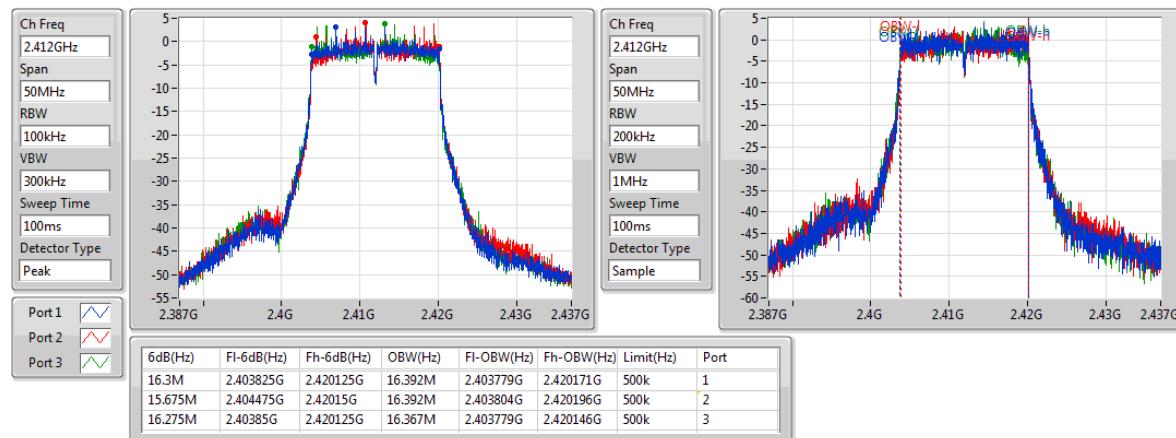
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802.11g_(6Mbps)_3TX

EBW

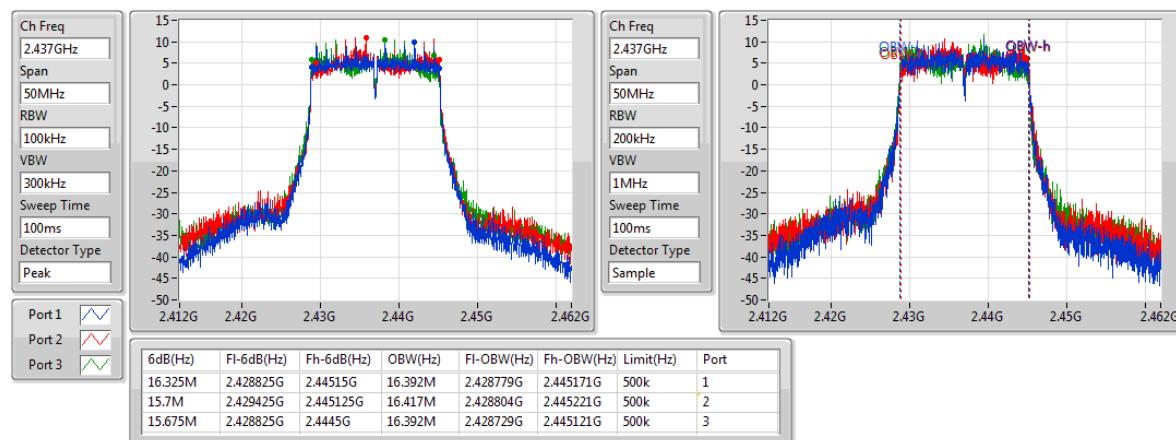
2412MHz



802.11g_(6Mbps)_3TX

EBW

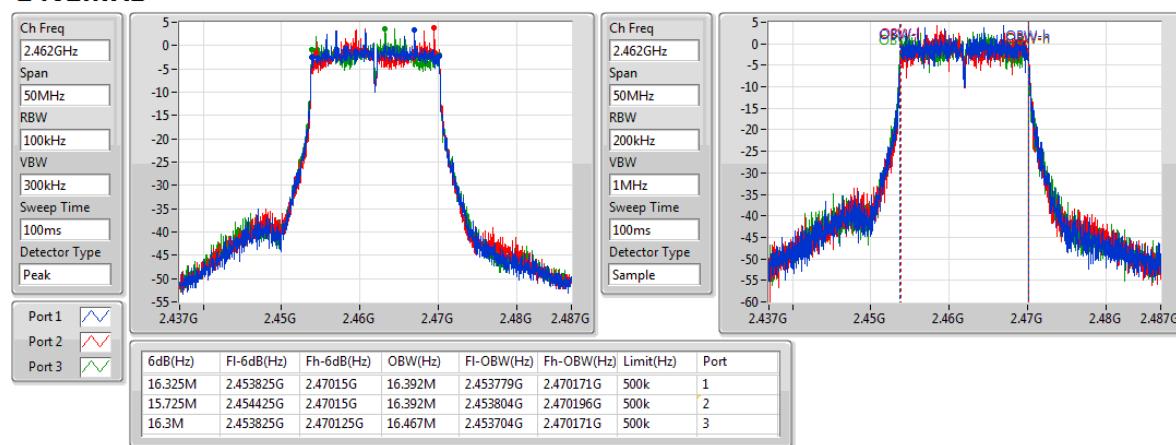
2437MHz



802.11g_(6Mbps)_3TX

EBW

2462MHz

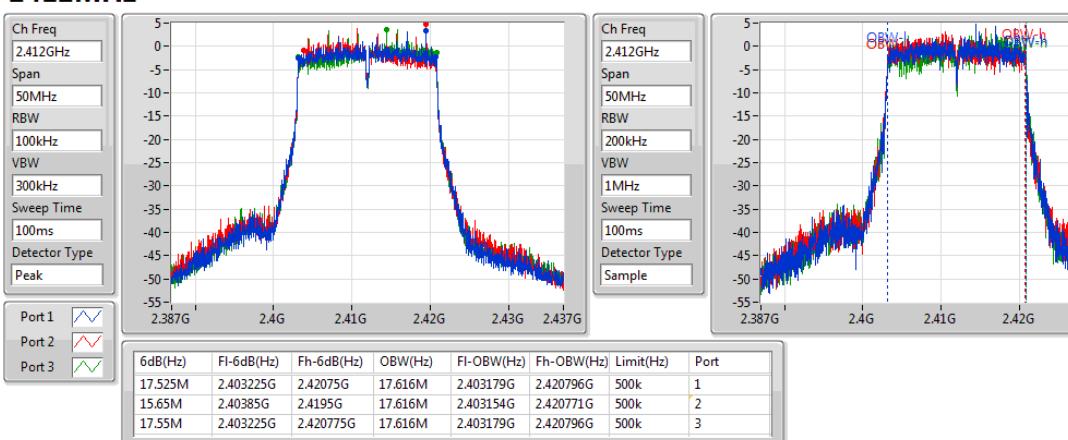




802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

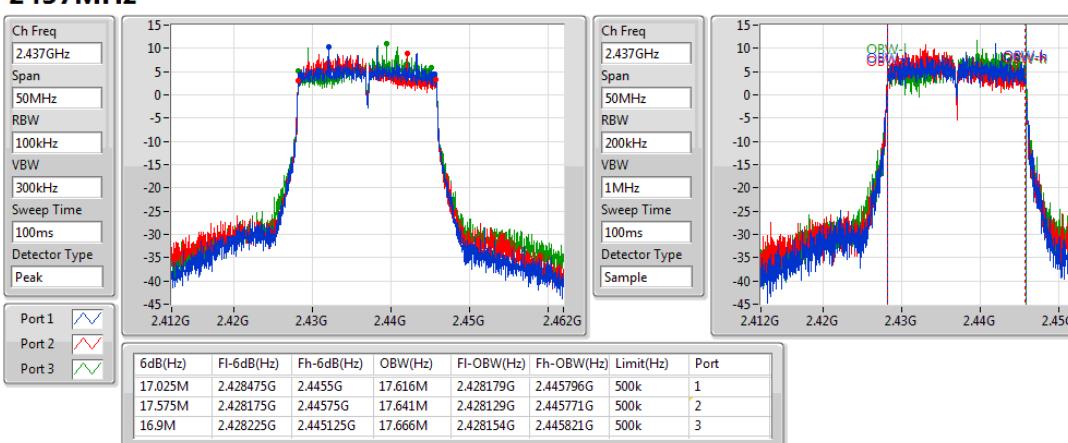
2412MHz



802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

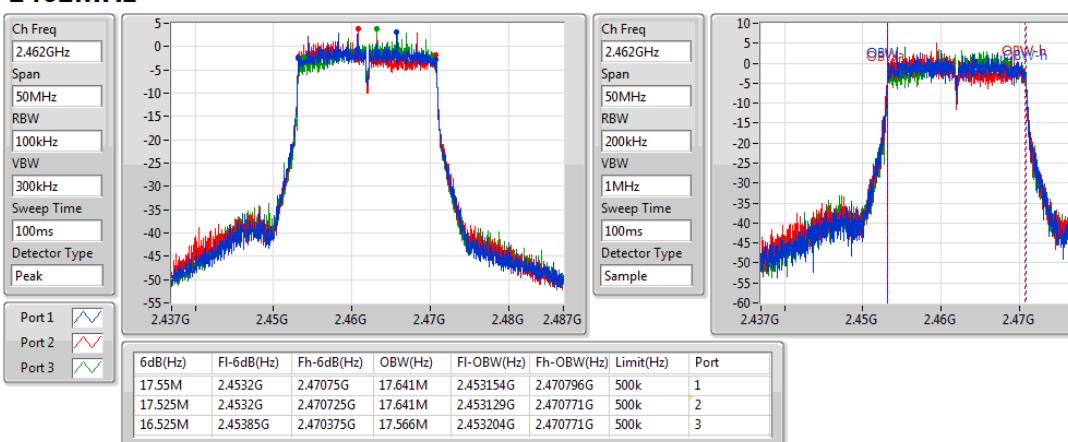
2437MHz



802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

2462MHz

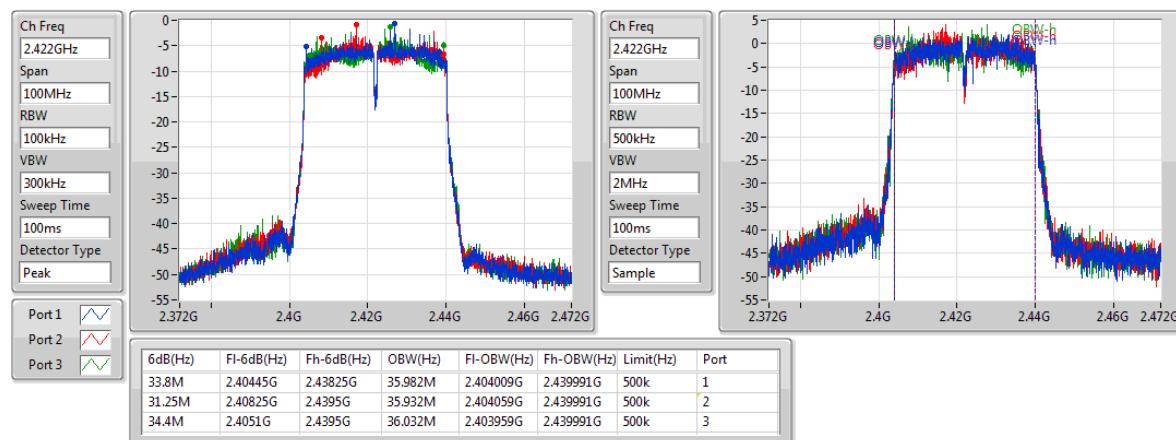




802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

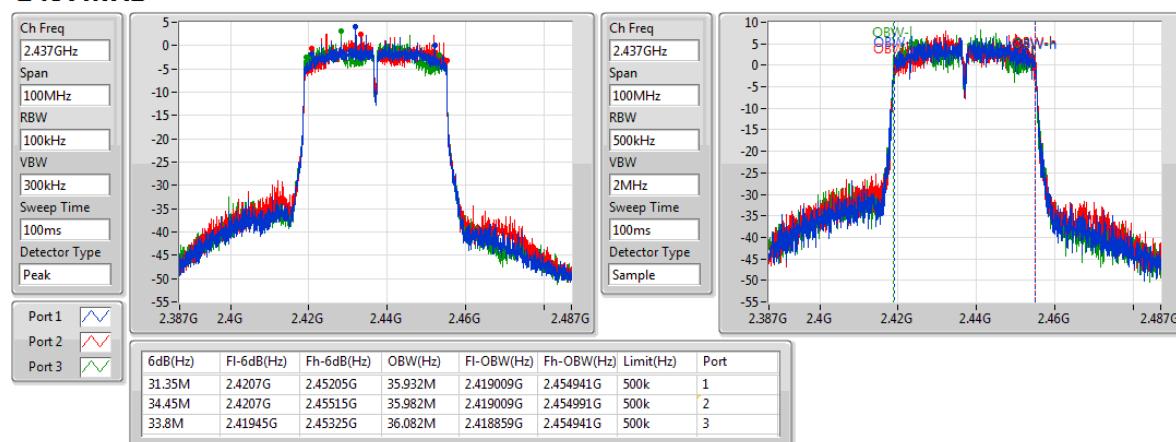
2422MHz



802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

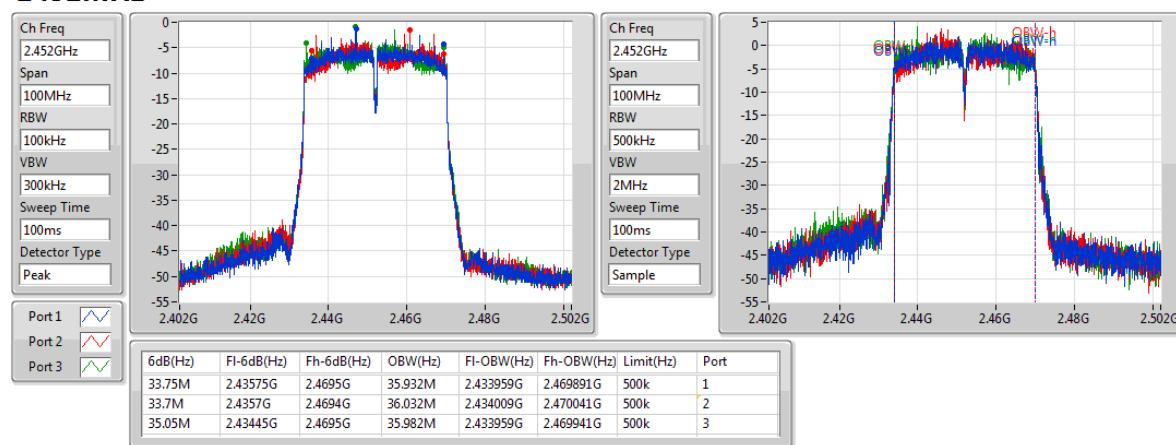
2437MHz



802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

2452MHz





<For Beamforming Mode>

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	17.6M	17.616M	17M6D1D	13.525M	17.541M
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	35.05M	36.082M	36M1D1D	29.95M	35.782M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;**Min-N dB** = Minimum 6dB down bandwidth; **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)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.775M	17.616M	13.525M	17.591M	17.15M	17.616M
2437MHz	Pass	500k	17.125M	17.616M	17.6M	17.591M	14.625M	17.616M
2462MHz	Pass	500k	16.925M	17.616M	16.525M	17.616M	17.175M	17.541M
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	35M	35.932M	31.2M	35.882M	32.75M	35.932M
2437MHz	Pass	500k	34.95M	35.932M	29.95M	35.932M	35.05M	35.982M
2452MHz	Pass	500k	34.2M	35.982M	35M	35.782M	35.05M	36.082M

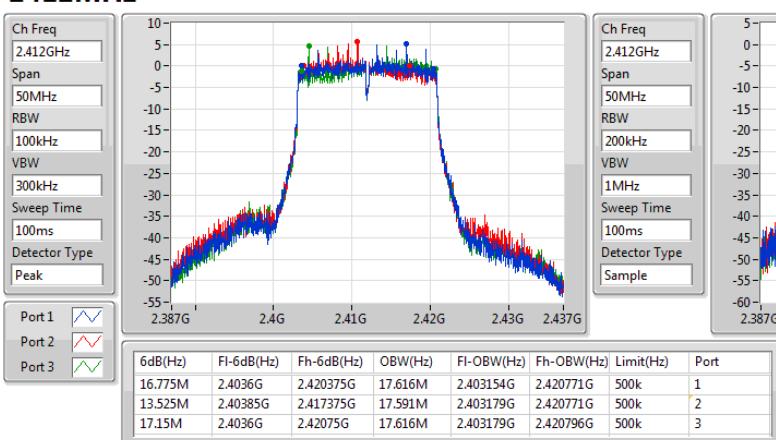
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

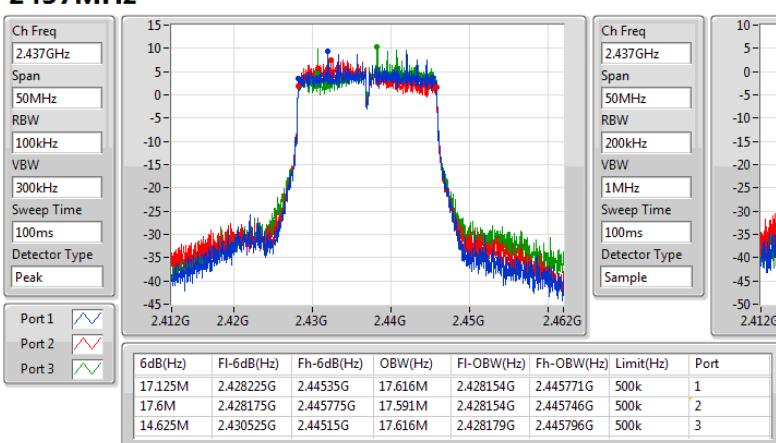
2412MHz



802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

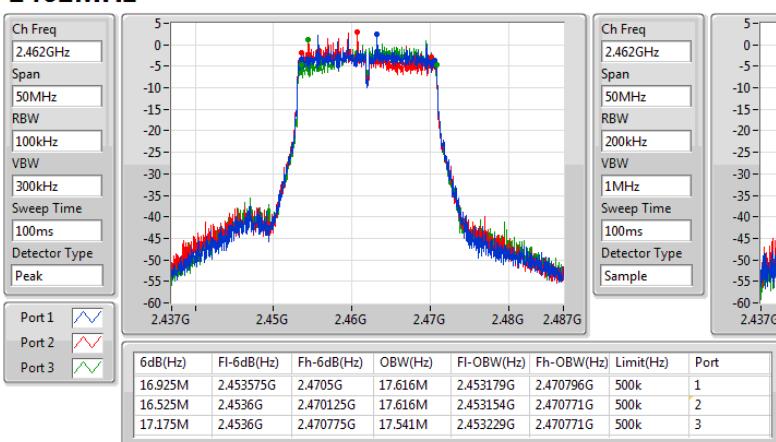
2437MHz



802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

2462MHz

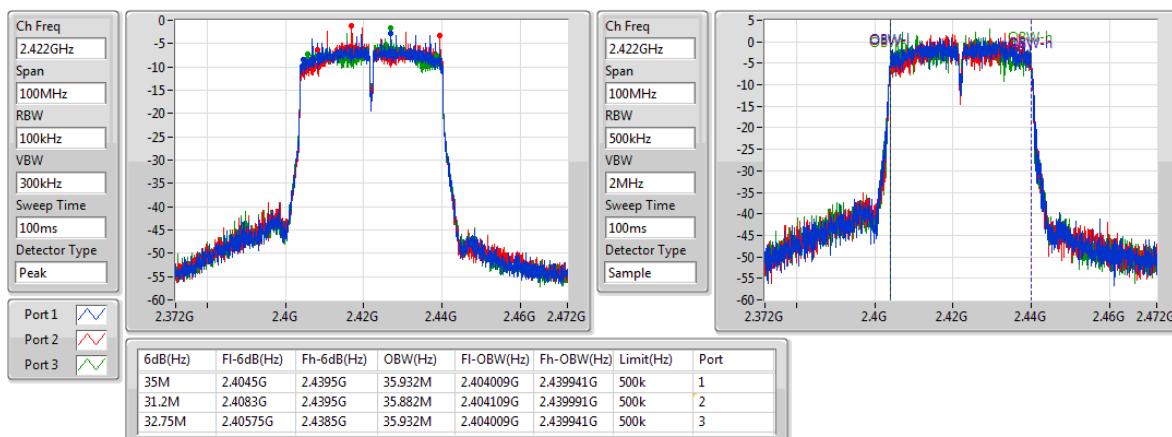




802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

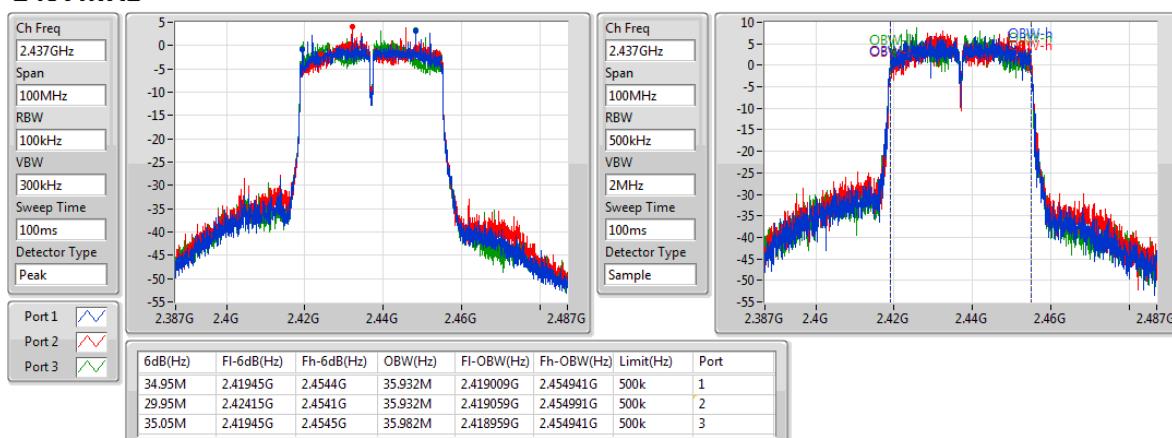
2422MHz



802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

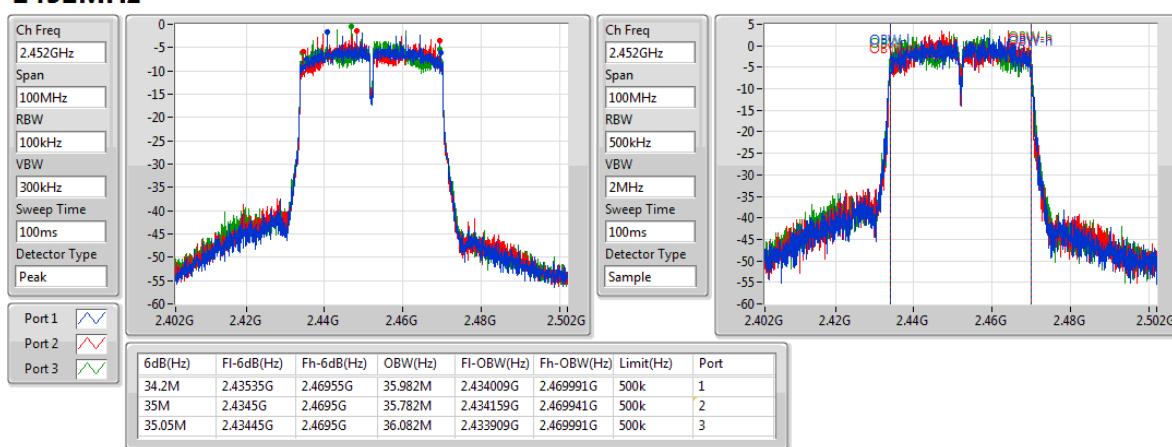
2437MHz



802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

2452MHz





For Set 5 antennas / 1TX:

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	9M	12.669M	12M7G1D	7.05M	12.594M
802.11g_(6Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	16.325M	16.417M	16M4D1D	16.3M	16.392M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	17.275M	17.641M	17M6D1D	17.125M	17.616M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	35.4M	35.982M	36M0D1D	33.1M	35.932M

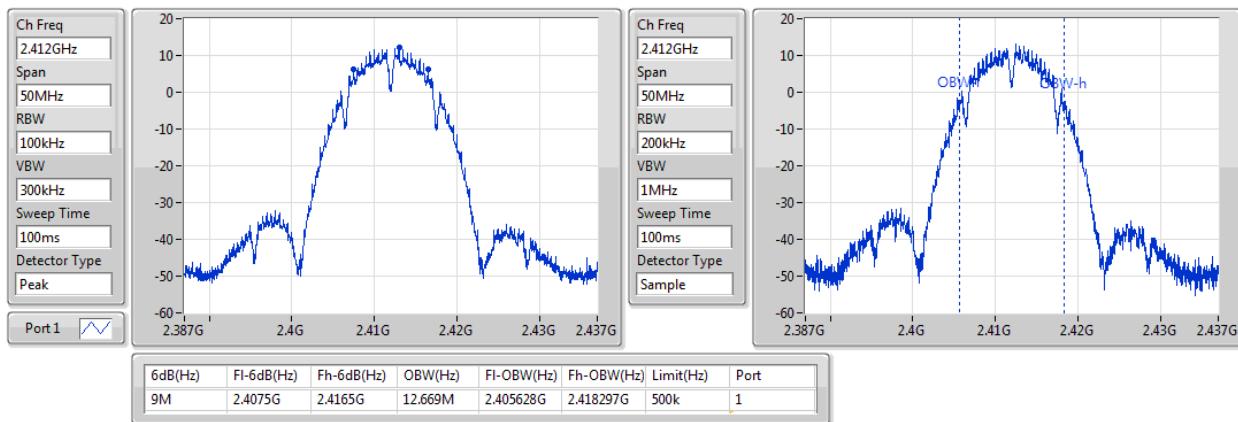
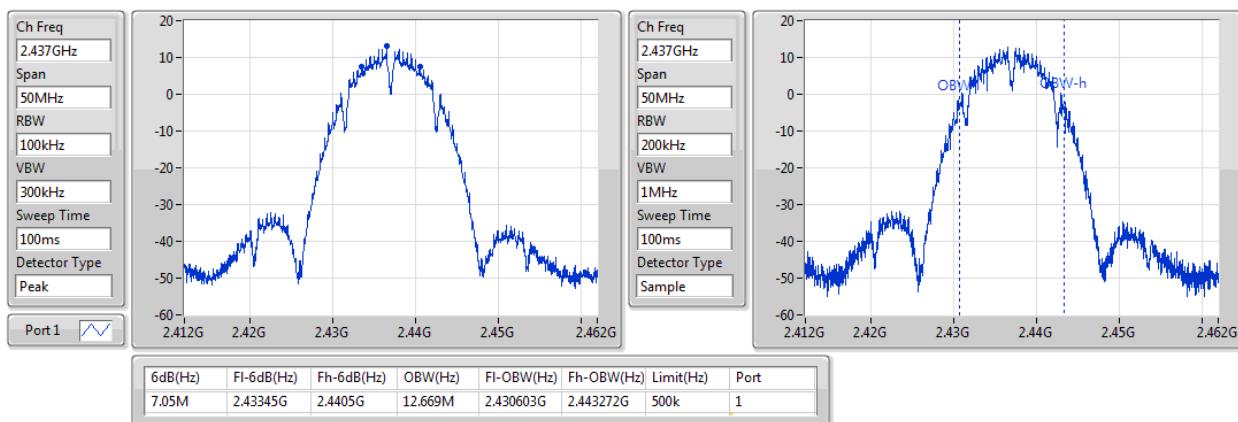
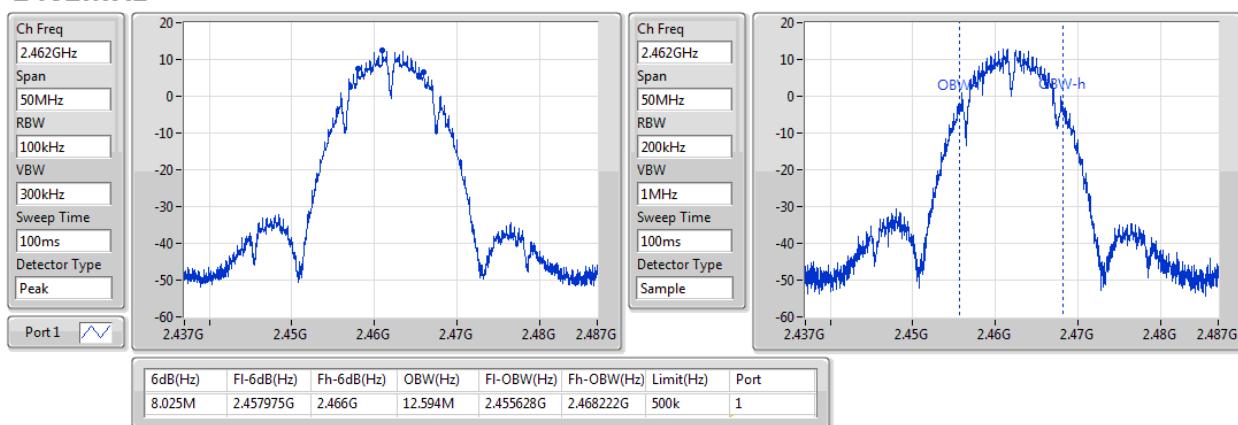
Max-N dB = Maximum 6dB down bandwidth; Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; Min-OBW = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	9M	12.669M
2437MHz	Pass	500k	7.05M	12.669M
2462MHz	Pass	500k	8.025M	12.594M
802.11g_(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.325M	16.417M
2437MHz	Pass	500k	16.3M	16.392M
2462MHz	Pass	500k	16.325M	16.417M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	17.275M	17.641M
2437MHz	Pass	500k	17.125M	17.641M
2462MHz	Pass	500k	17.15M	17.616M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	35.4M	35.932M
2437MHz	Pass	500k	33.1M	35.982M
2452MHz	Pass	500k	34.75M	35.932M

Port X-N dB = Port X 6dB down bandwidth; Port X-OBW = Port X 99% occupied bandwidth;

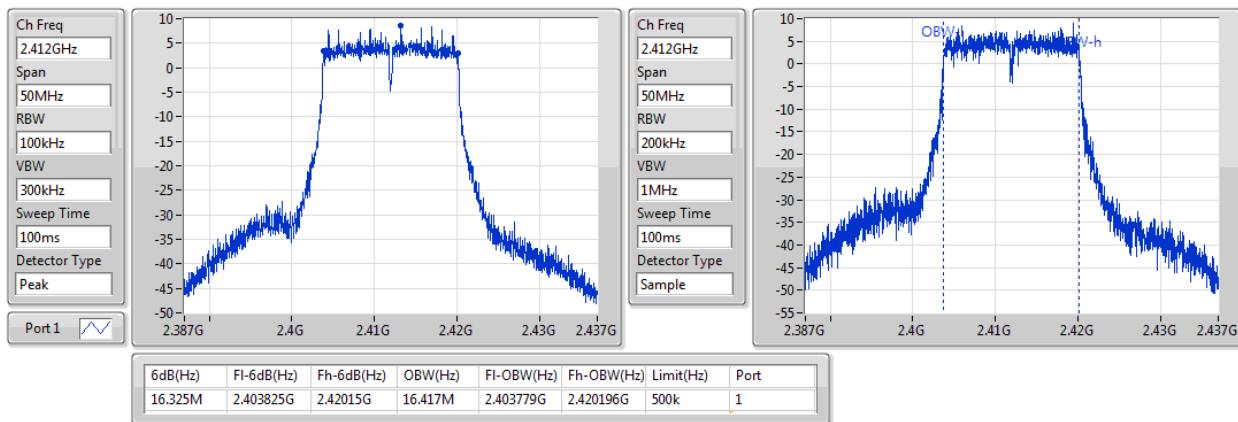
**802.11b_(1Mbps)_1TX****EBW****2412MHz****802.11b_(1Mbps)_1TX****EBW****2437MHz****802.11b_(1Mbps)_1TX****EBW****2462MHz**



802.11g_(6Mbps)_1TX

EBW

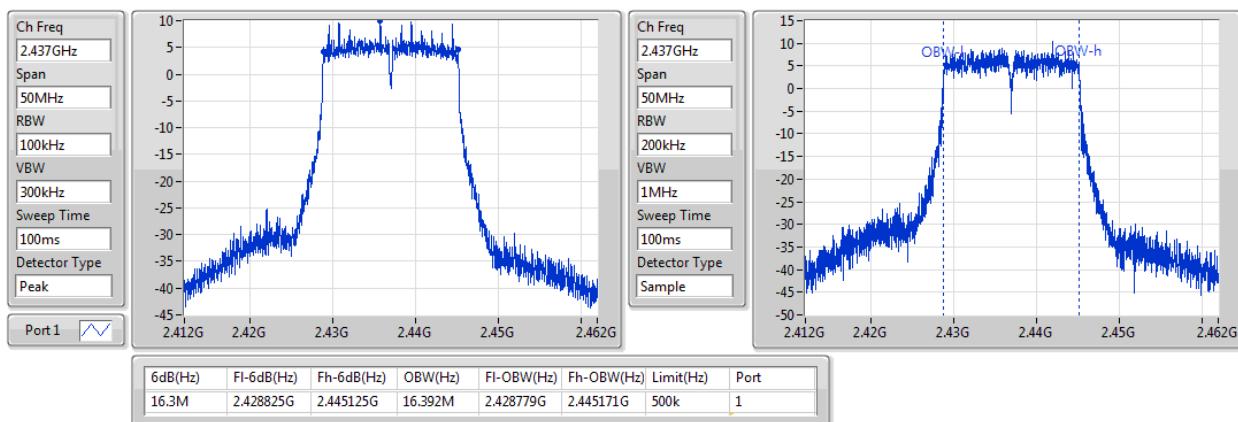
2412MHz



802.11g_(6Mbps)_1TX

EBW

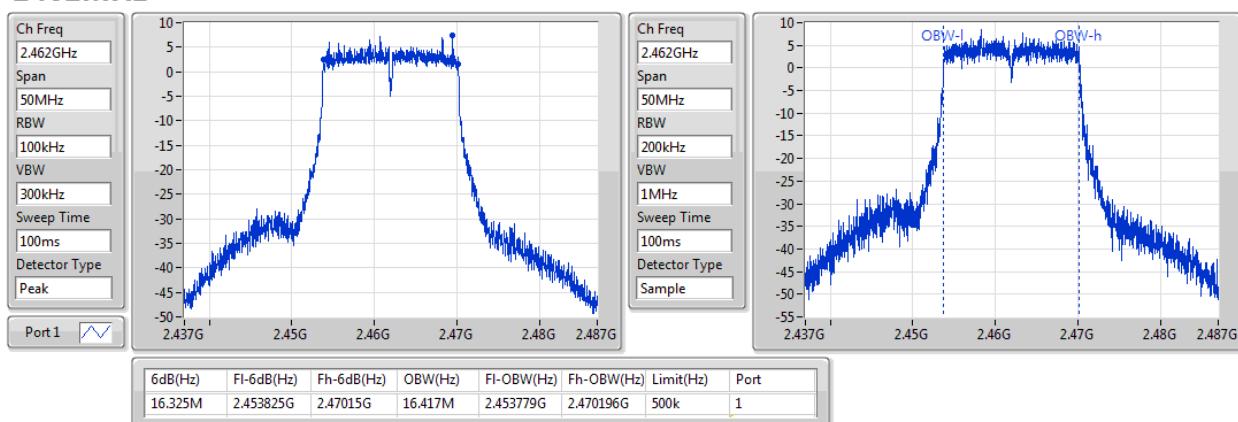
2437MHz



802.11g_(6Mbps)_1TX

EBW

2462MHz

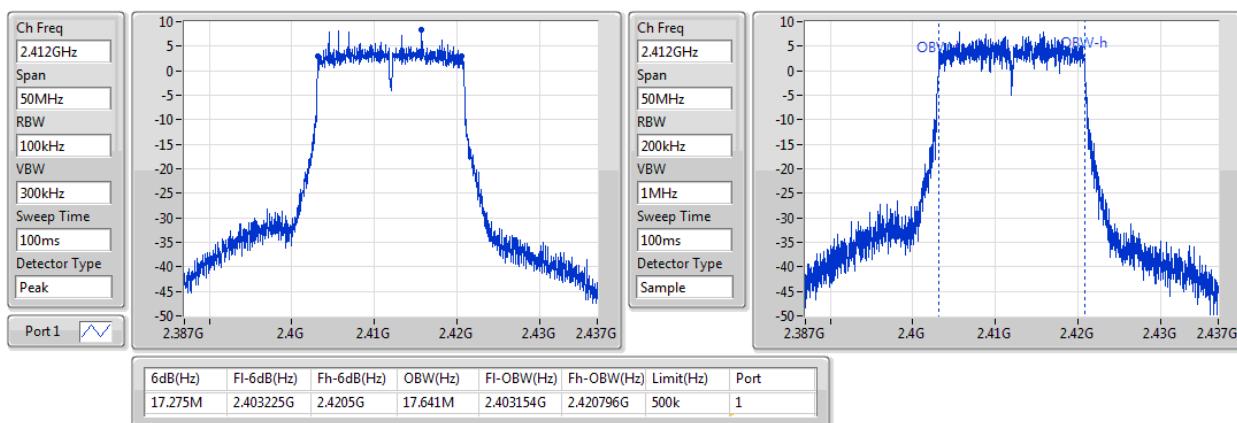




802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

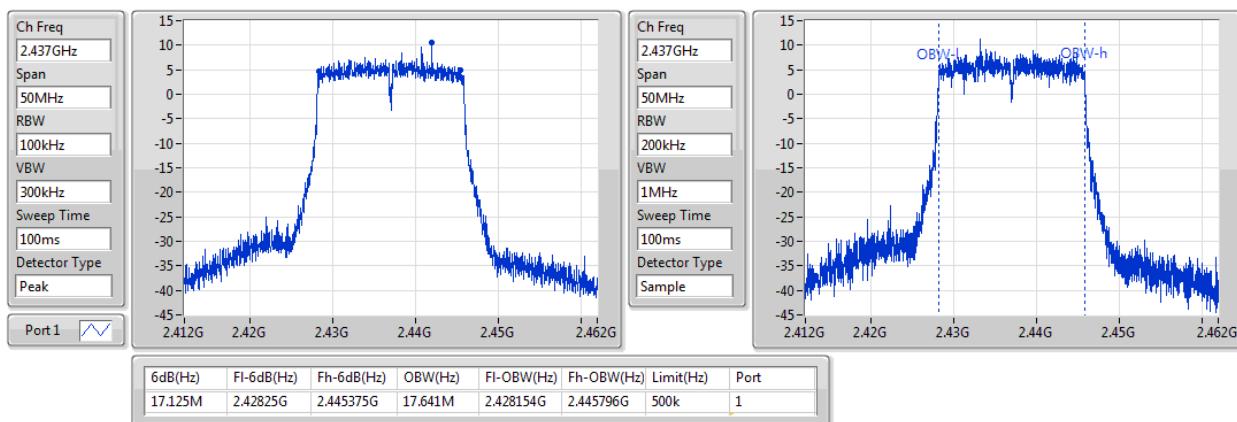
2412MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

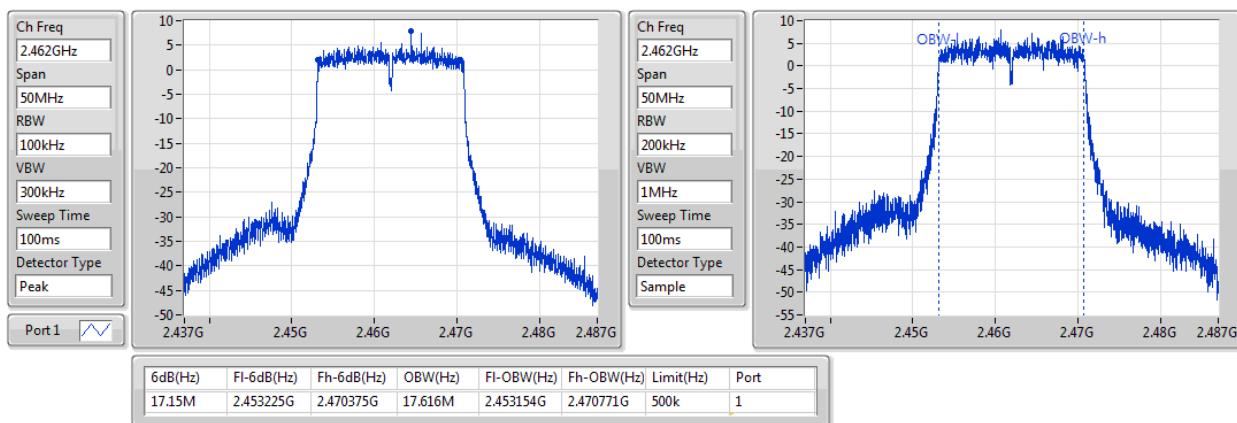
2437MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

2462MHz

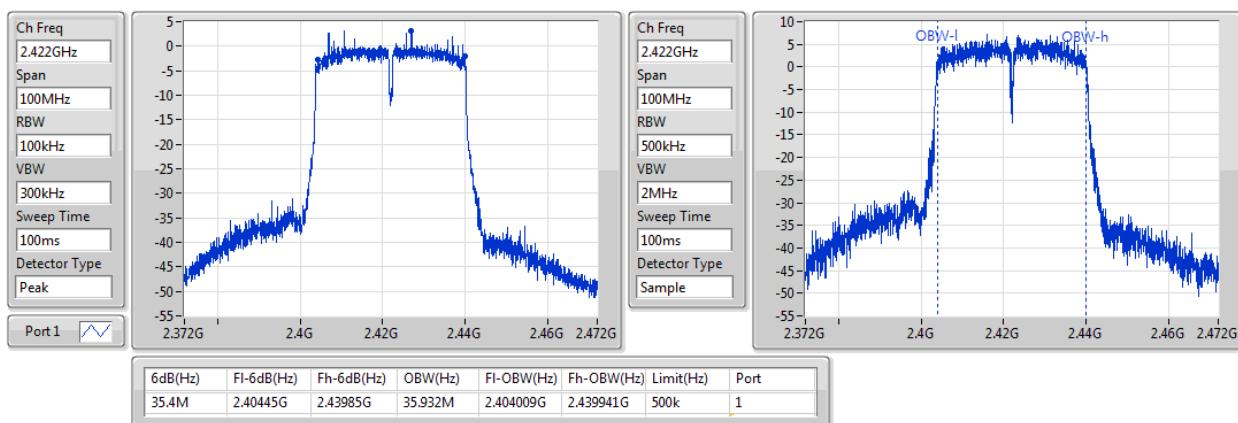




802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

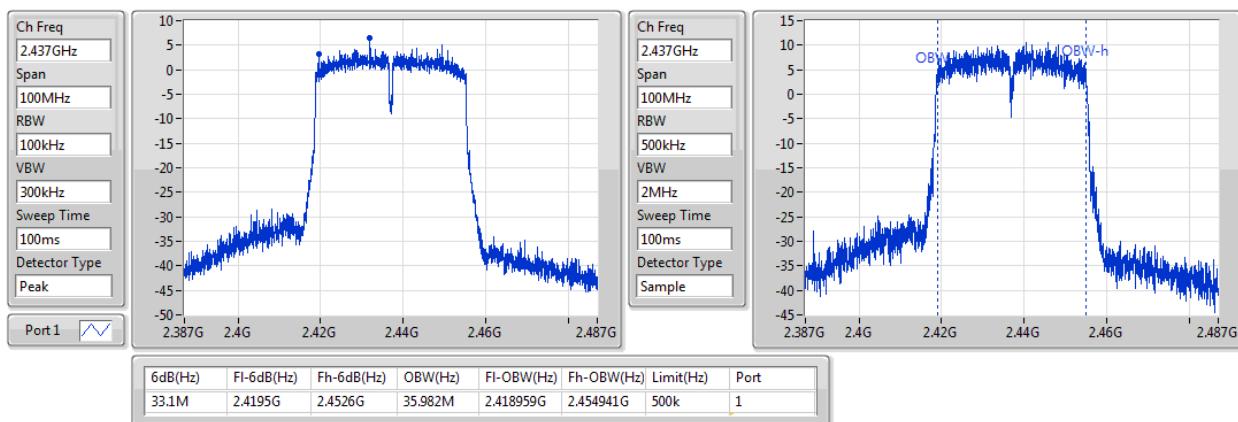
2422MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

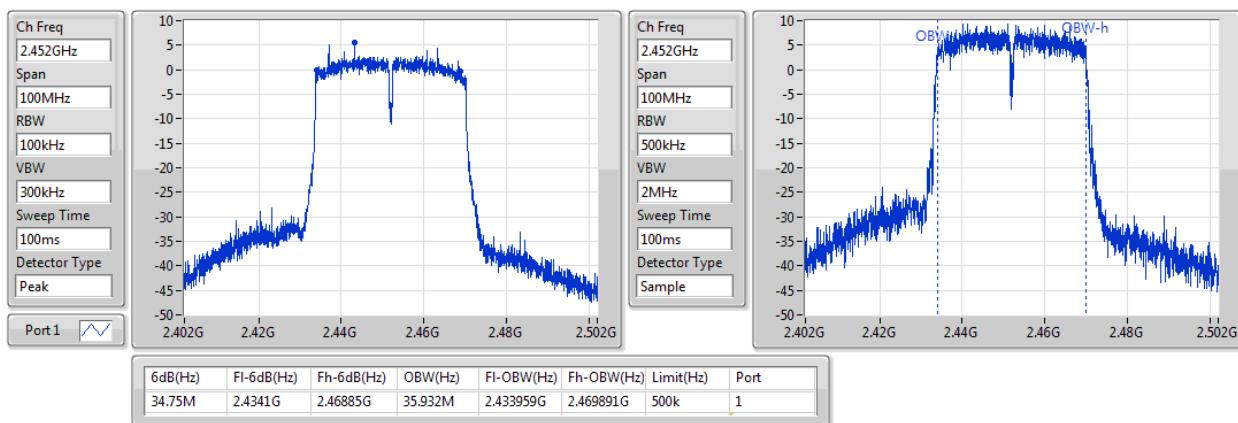
2437MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

2452MHz





For Set 5 antennas / 2TX:
<For Non-Beamforming Mode>
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	8.025M	12.819M	12M8G1D	7.5M	12.594M
802.11g_(6Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	16.325M	16.417M	16M4D1D	15.65M	16.367M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.6M	17.641M	17M6D1D	15.2M	17.566M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	35.1M	36.032M	36M0D1D	31.85M	35.882M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	8.025M	12.644M	8.025M	12.819M
2437MHz	Pass	500k	8.025M	12.619M	7.5M	12.619M
2462MHz	Pass	500k	8.025M	12.594M	7.55M	12.619M
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	16.417M	15.675M	16.417M
2437MHz	Pass	500k	16.325M	16.392M	15.675M	16.367M
2462MHz	Pass	500k	16.275M	16.392M	15.65M	16.367M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.55M	17.641M	15.2M	17.566M
2437MHz	Pass	500k	17M	17.641M	16.9M	17.591M
2462MHz	Pass	500k	17.25M	17.616M	17.6M	17.616M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	35.05M	36.032M	33.8M	35.932M
2437MHz	Pass	500k	34.65M	35.932M	35.1M	35.982M
2452MHz	Pass	500k	31.85M	36.032M	35M	35.882M

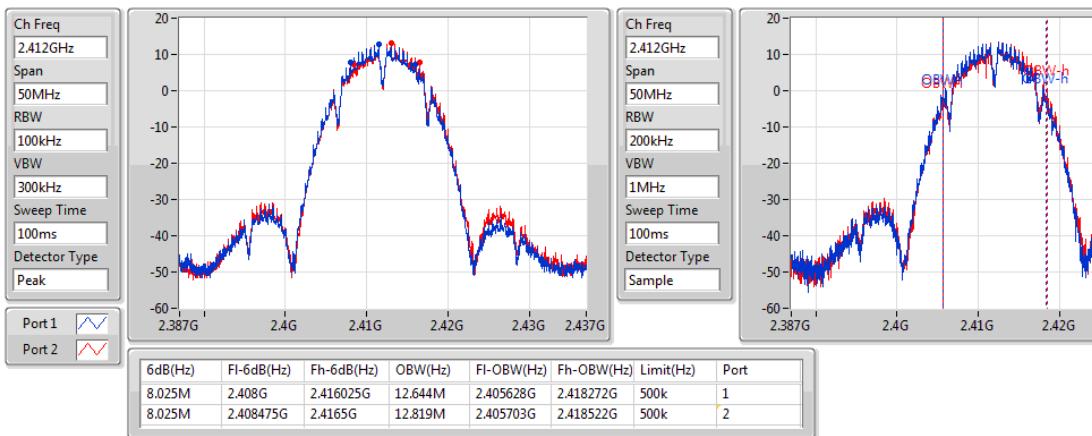
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11b_(1Mbps)_2TX

EBW

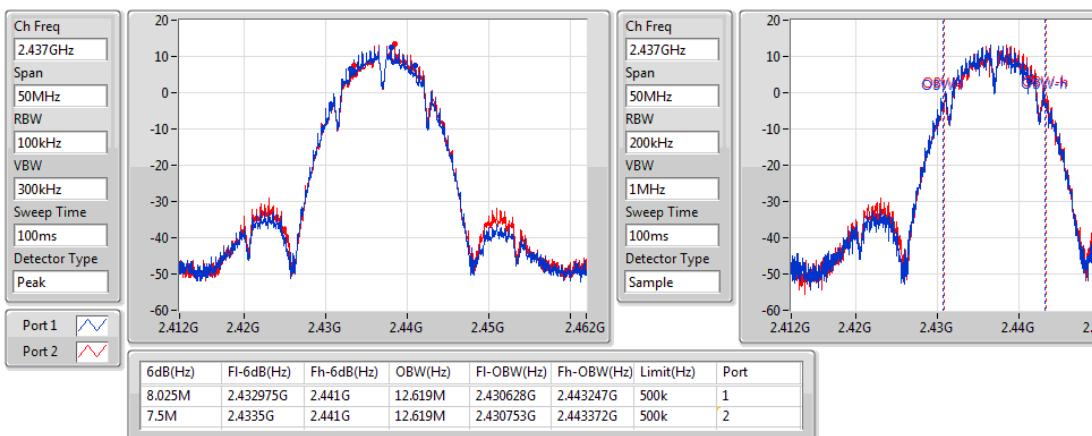
2412MHz



802.11b_(1Mbps)_2TX

EBW

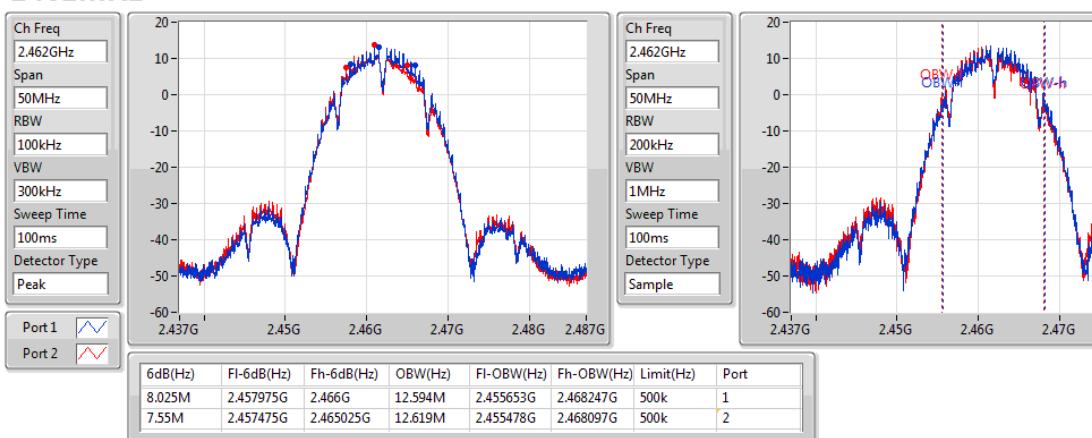
2437MHz



802.11b_(1Mbps)_2TX

EBW

2462MHz

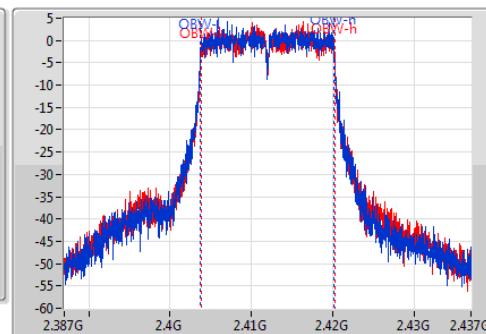
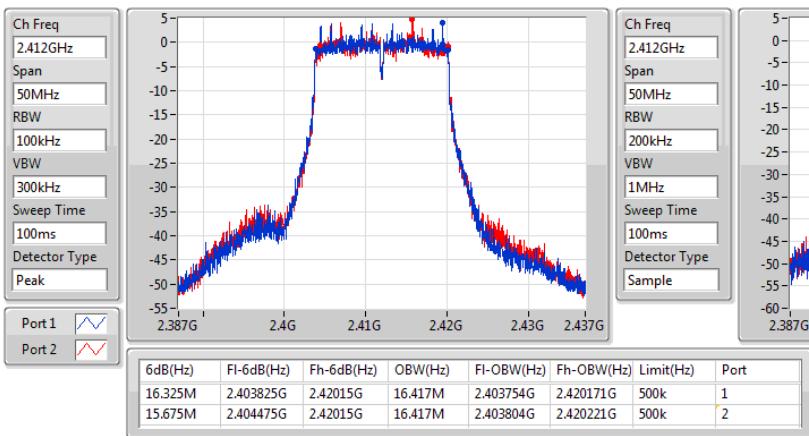




802.11g_(6Mbps)_2TX

EBW

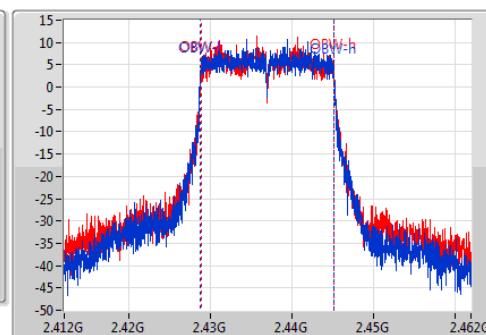
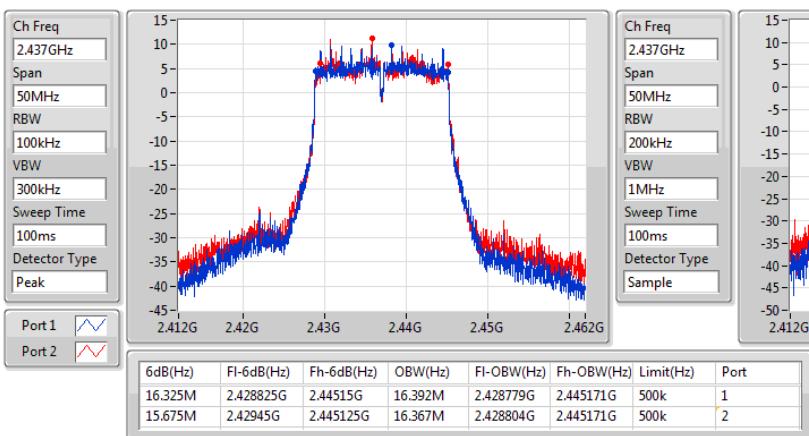
2412MHz



802.11g_(6Mbps)_2TX

EBW

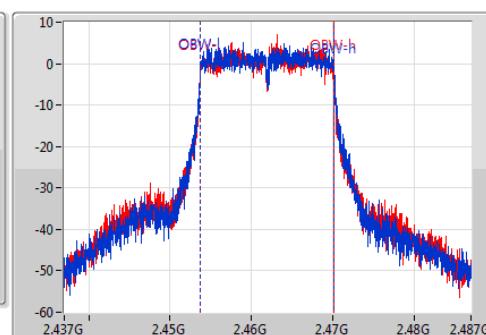
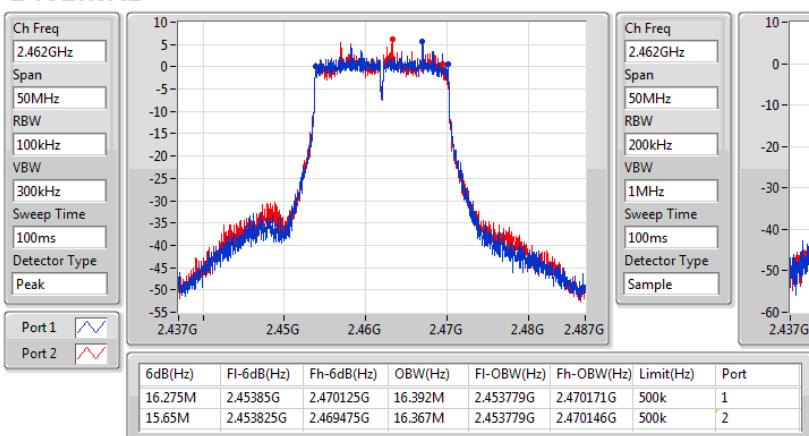
2437MHz



802.11g_(6Mbps)_2TX

EBW

2462MHz

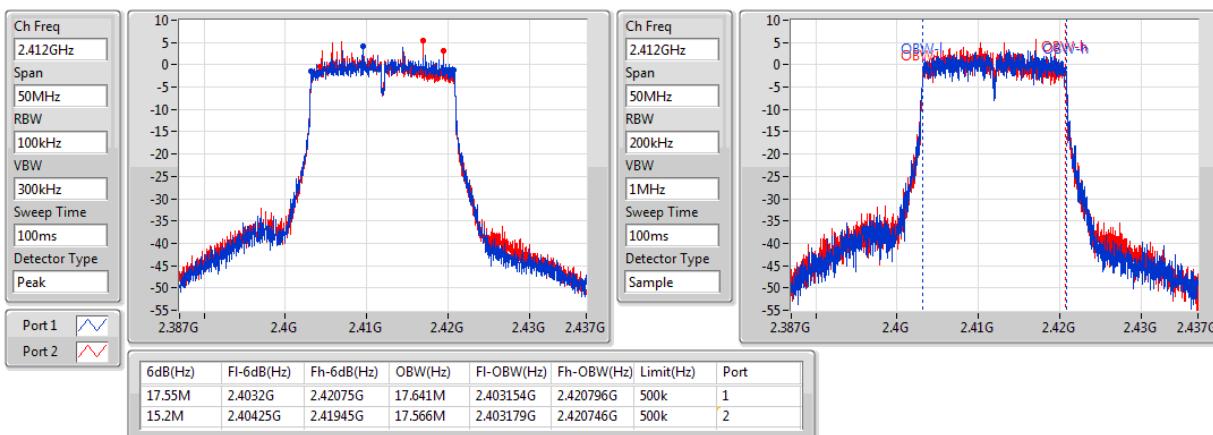




802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

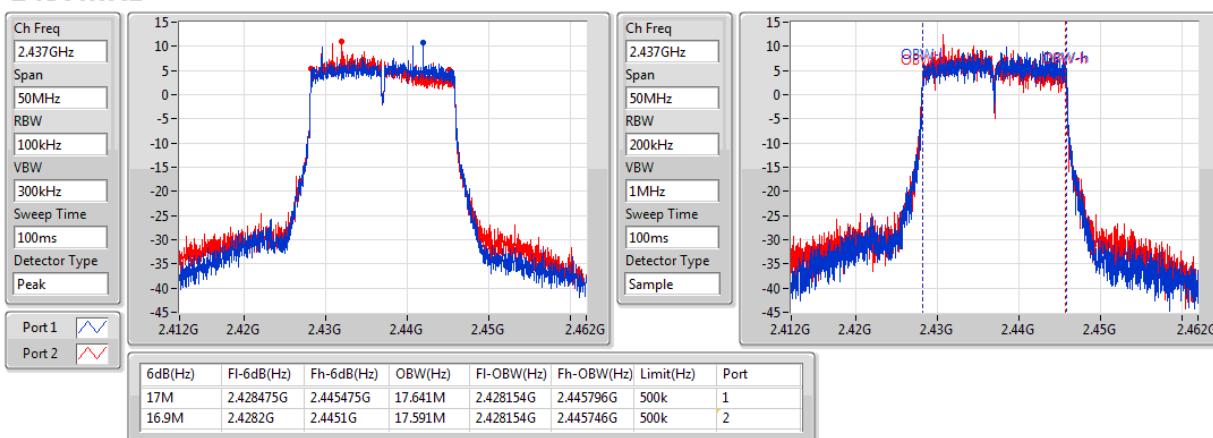
2412MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

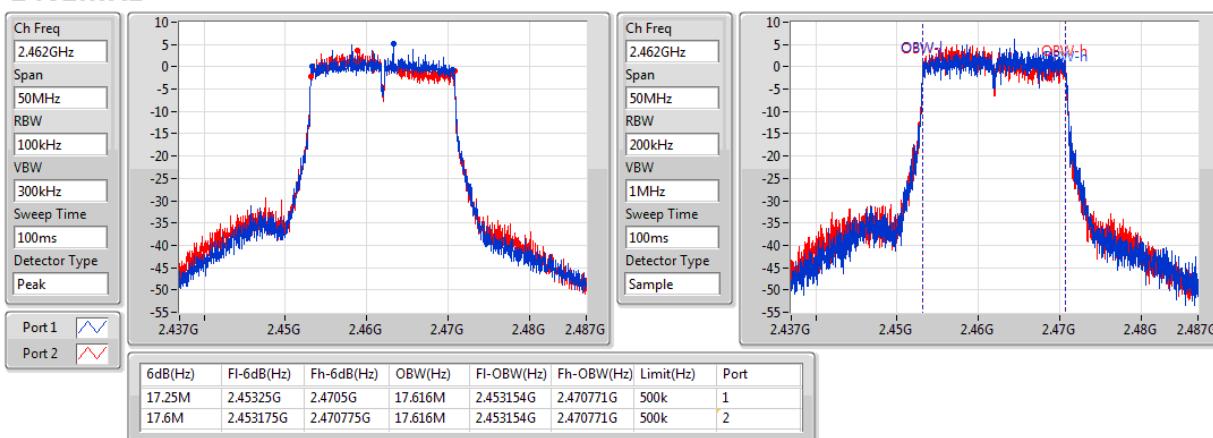
2437MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

2462MHz

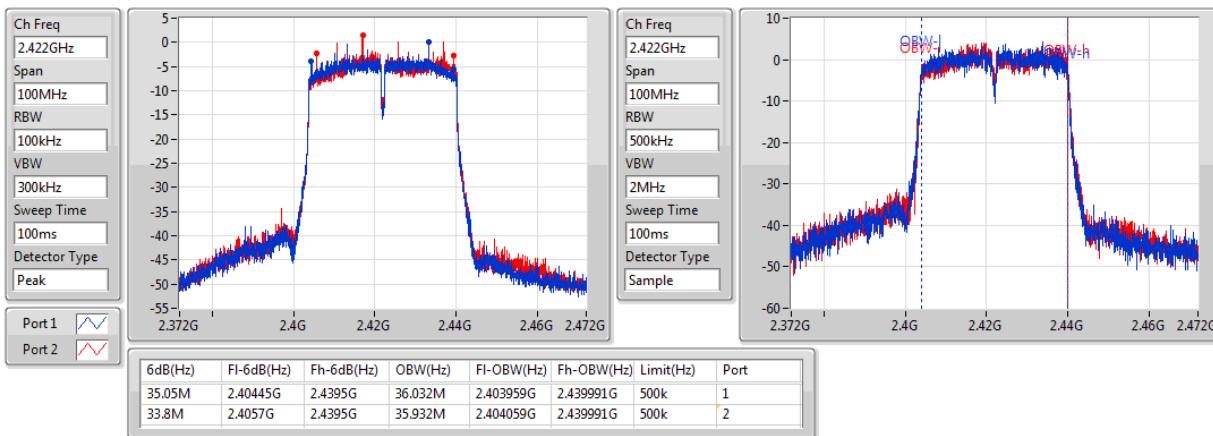




802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

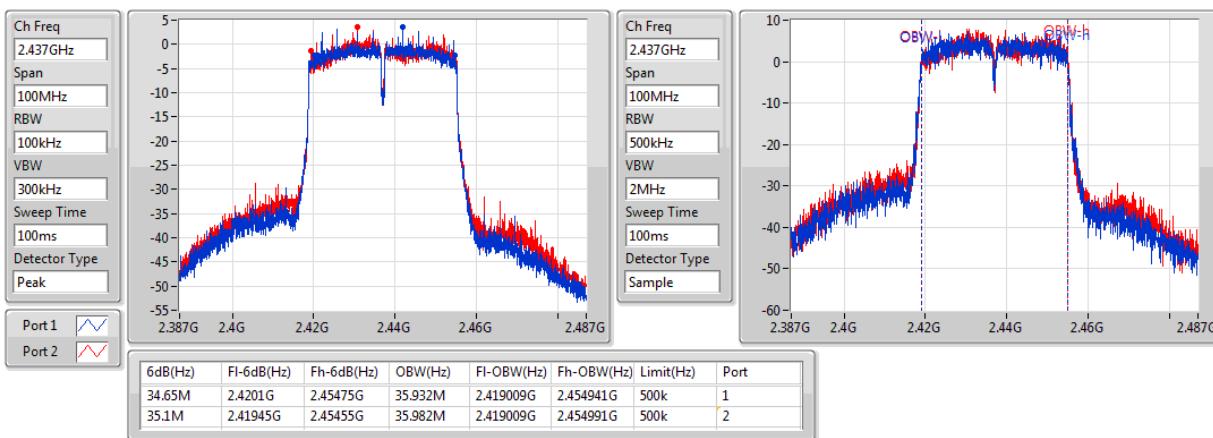
2422MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

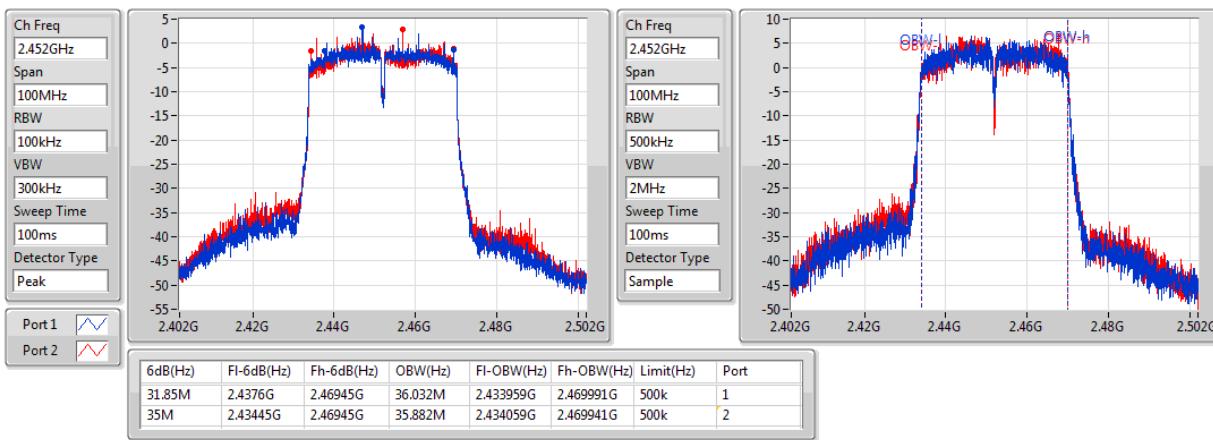
2437MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

2452MHz





<For Beamforming Mode>
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.525M	17.666M	17M7D1D	13.15M	17.566M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	35.25M	36.032M	36M0D1D	32.5M	35.832M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.175M	17.591M	16.925M	17.566M
2437MHz	Pass	500k	17.525M	17.616M	13.15M	17.591M
2462MHz	Pass	500k	17.25M	17.641M	16.25M	17.666M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	35M	35.982M	33.8M	35.932M
2437MHz	Pass	500k	35.05M	36.032M	35.25M	35.982M
2452MHz	Pass	500k	33.75M	35.832M	32.5M	35.932M

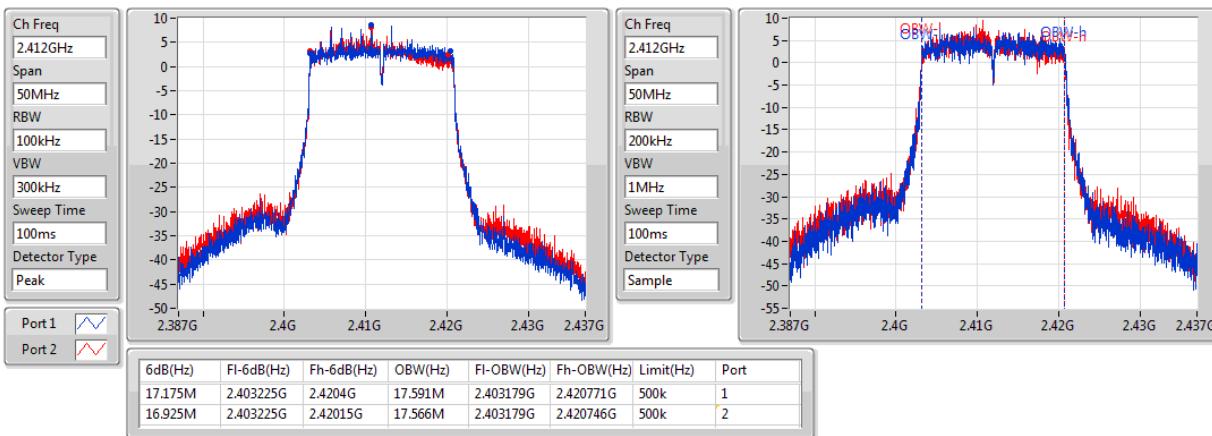
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

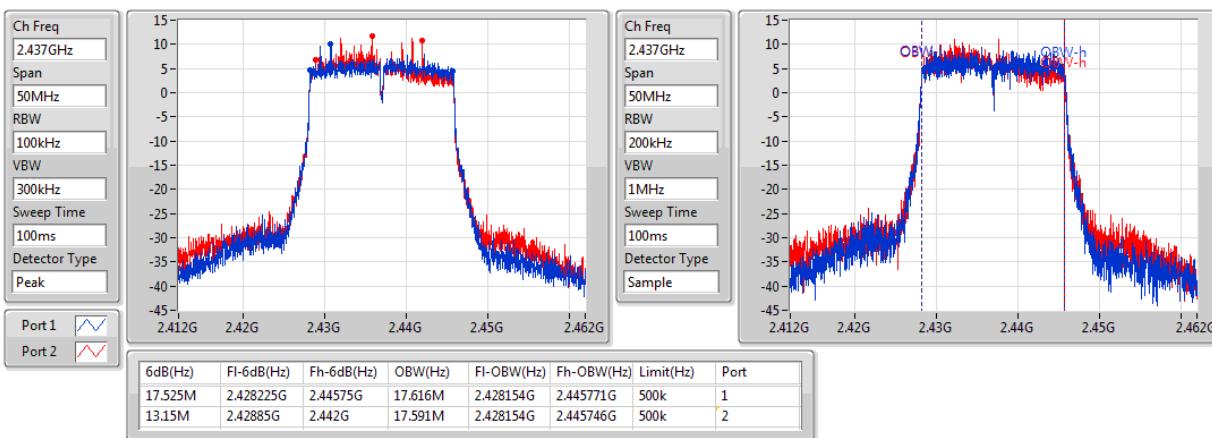
2412MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

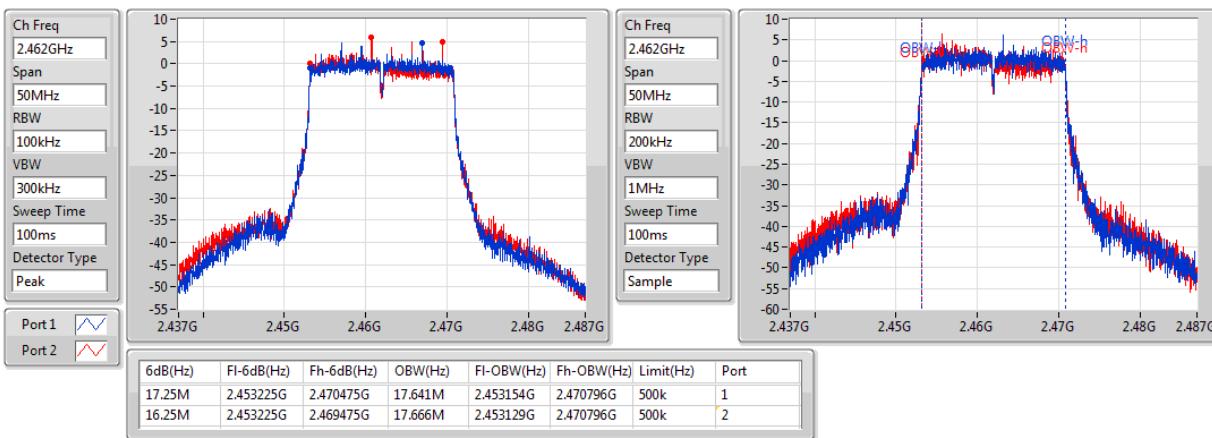
2437MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

2462MHz

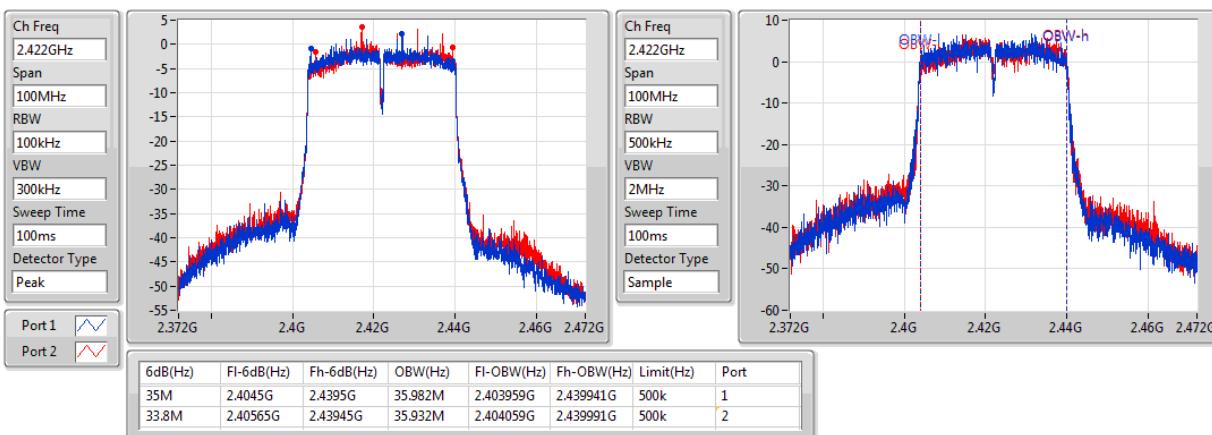




802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

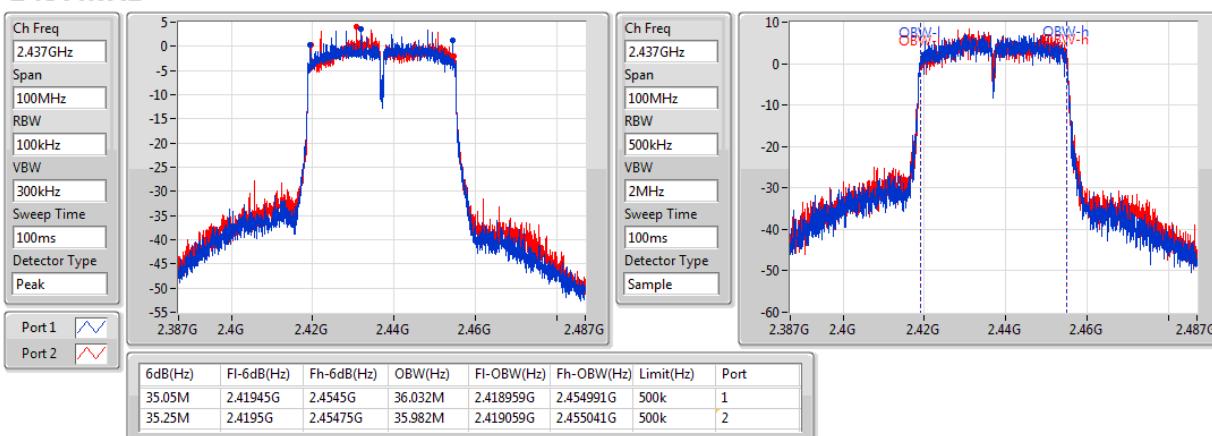
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802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

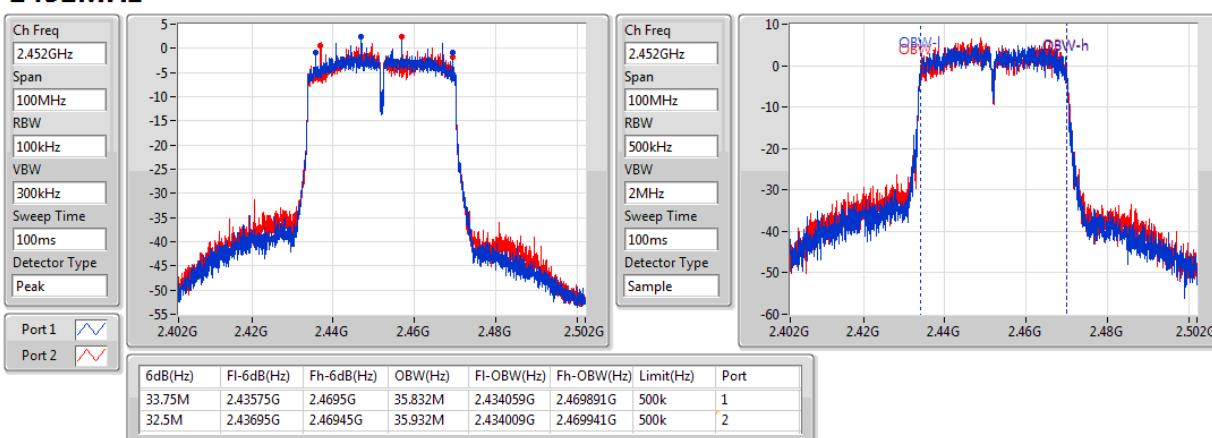
2437MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

2452MHz





For Set 5 antennas / 3TX:
<For Non-Beamforming Mode>
Summary

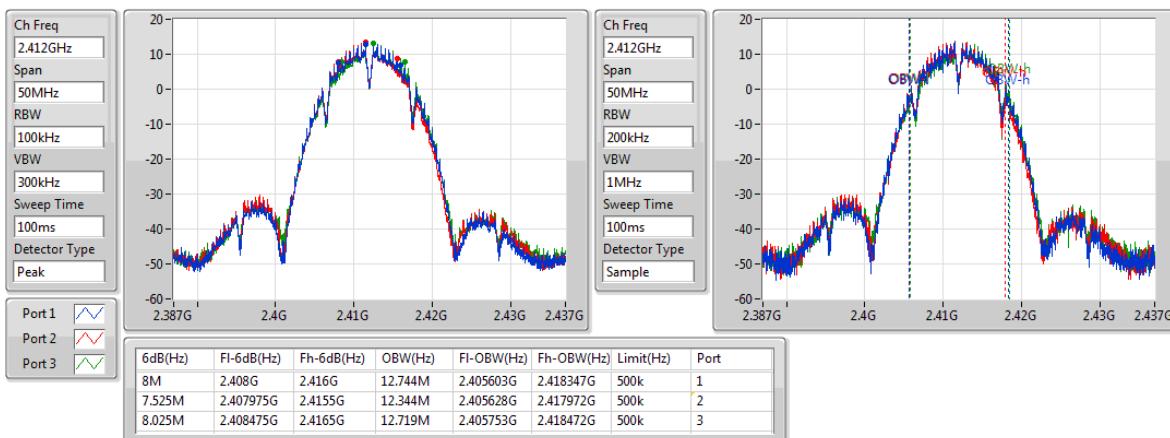
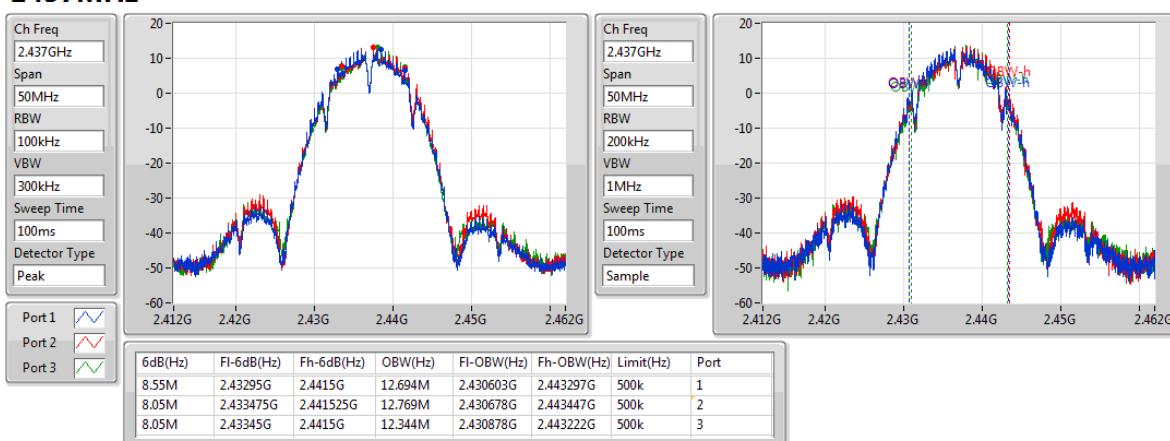
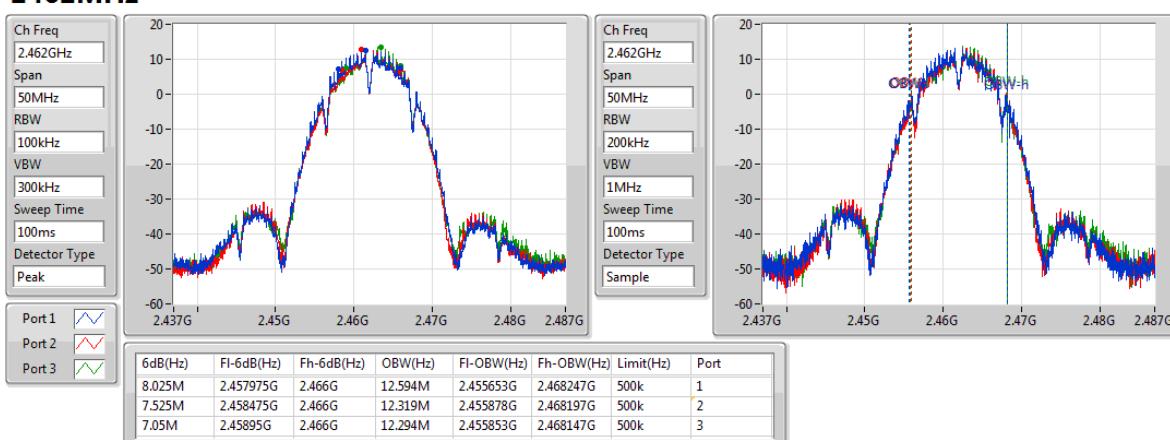
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_3TX	-	-	-	-	-
2.4-2.4835GHz	8.55M	12.769M	12M8G1D	7.05M	12.294M
802.11g_(6Mbps)_3TX	-	-	-	-	-
2.4-2.4835GHz	16.325M	16.442M	16M4D1D	14.425M	16.342M
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	17.575M	17.666M	17M7D1D	16.05M	17.566M
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	36.25M	36.082M	36M1D1D	30M	35.782M

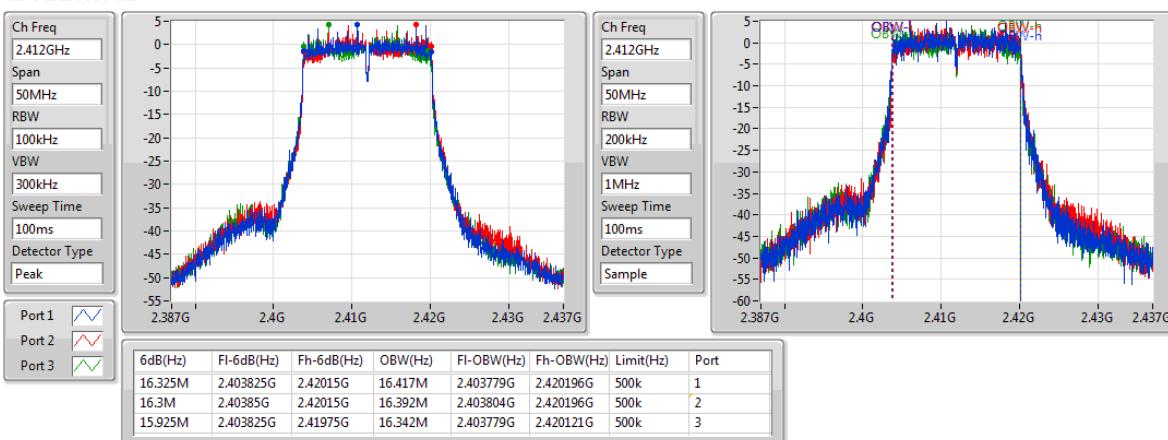
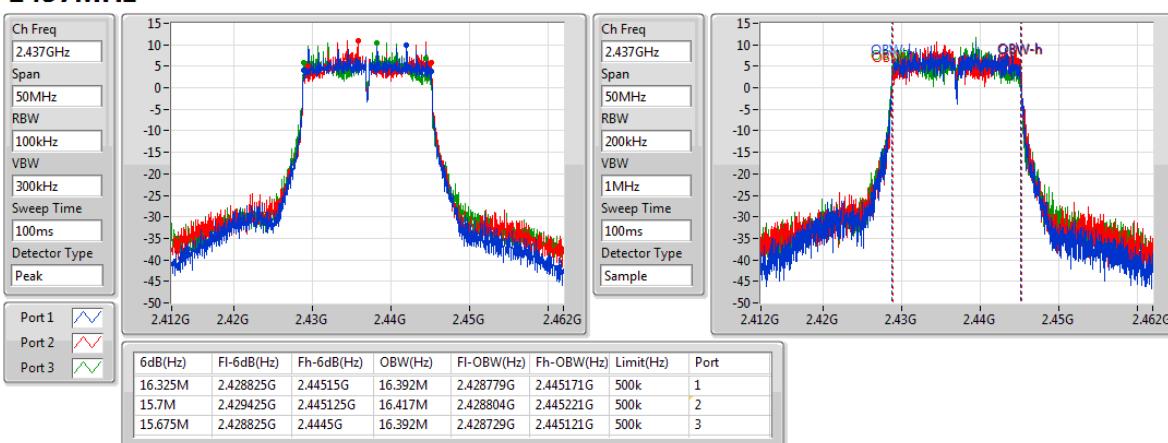
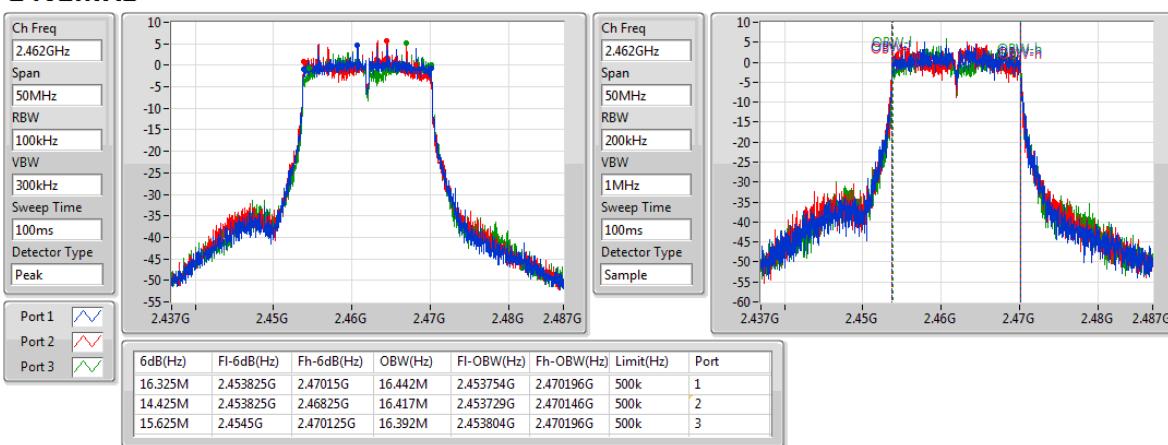
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

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)
802.11b_(1Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	8M	12.744M	7.525M	12.344M	8.025M	12.719M
2437MHz	Pass	500k	8.55M	12.694M	8.05M	12.769M	8.05M	12.344M
2462MHz	Pass	500k	8.025M	12.594M	7.525M	12.319M	7.05M	12.294M
802.11g_(6Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	16.417M	16.3M	16.392M	15.925M	16.342M
2437MHz	Pass	500k	16.325M	16.392M	15.7M	16.417M	15.675M	16.392M
2462MHz	Pass	500k	16.325M	16.442M	14.425M	16.417M	15.625M	16.392M
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.525M	17.591M	16.275M	17.641M	16.65M	17.616M
2437MHz	Pass	500k	17.025M	17.616M	17.575M	17.641M	16.9M	17.666M
2462MHz	Pass	500k	17.55M	17.616M	16.05M	17.641M	16.275M	17.566M
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	33.7M	35.982M	30M	35.932M	36.25M	36.032M
2437MHz	Pass	500k	31.35M	35.932M	34.45M	35.982M	33.8M	36.082M
2452MHz	Pass	500k	33.15M	35.982M	32.5M	35.932M	33.85M	35.782M

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

**802.11b_(1Mbps)_3TX****EBW****2412MHz****802.11b_(1Mbps)_3TX****EBW****2437MHz****802.11b_(1Mbps)_3TX****EBW****2462MHz**

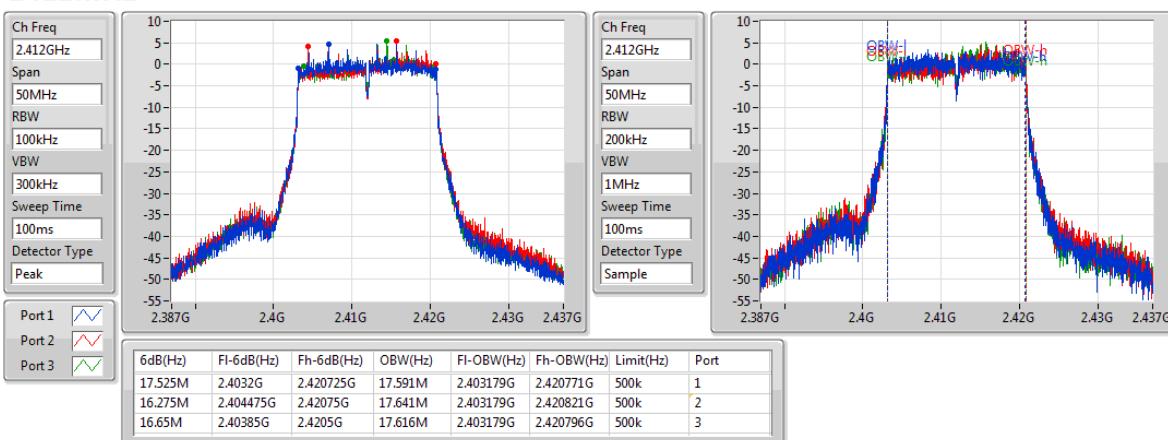
**802.11g_(6Mbps)_3TX****EBW****2412MHz****802.11g_(6Mbps)_3TX****EBW****2437MHz****802.11g_(6Mbps)_3TX****EBW****2462MHz**



802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

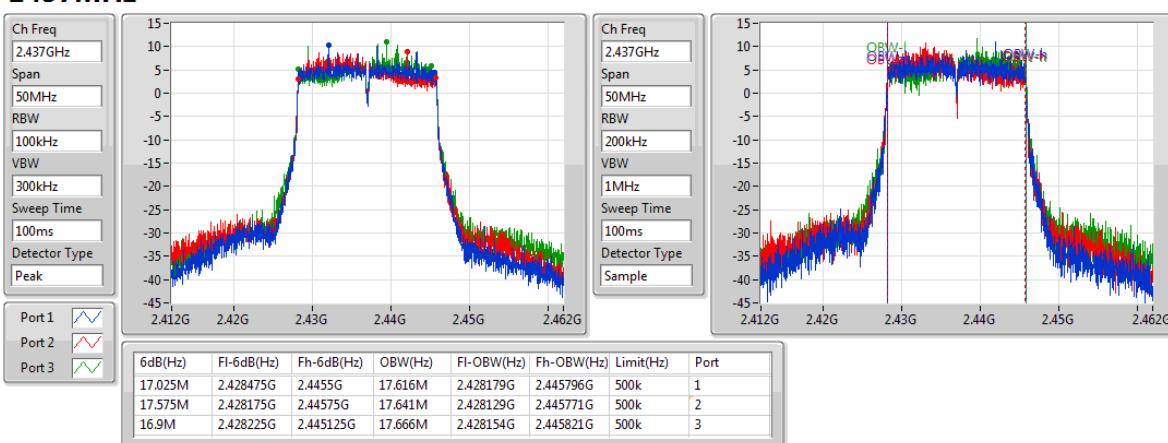
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802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

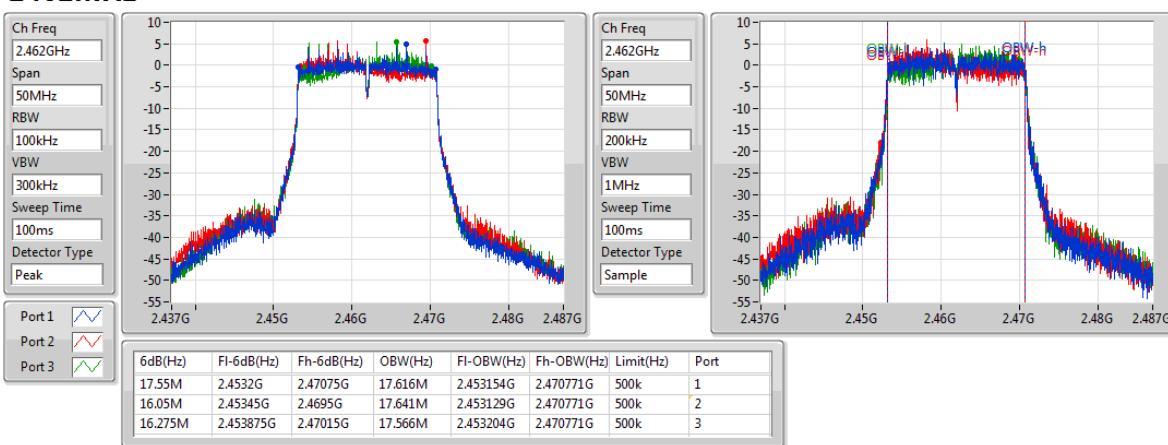
2437MHz



802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

2462MHz

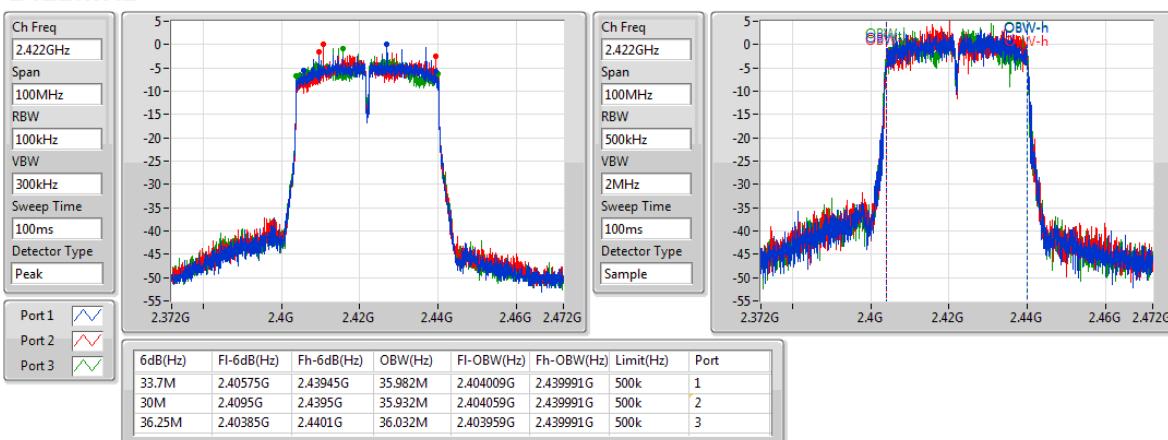




802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

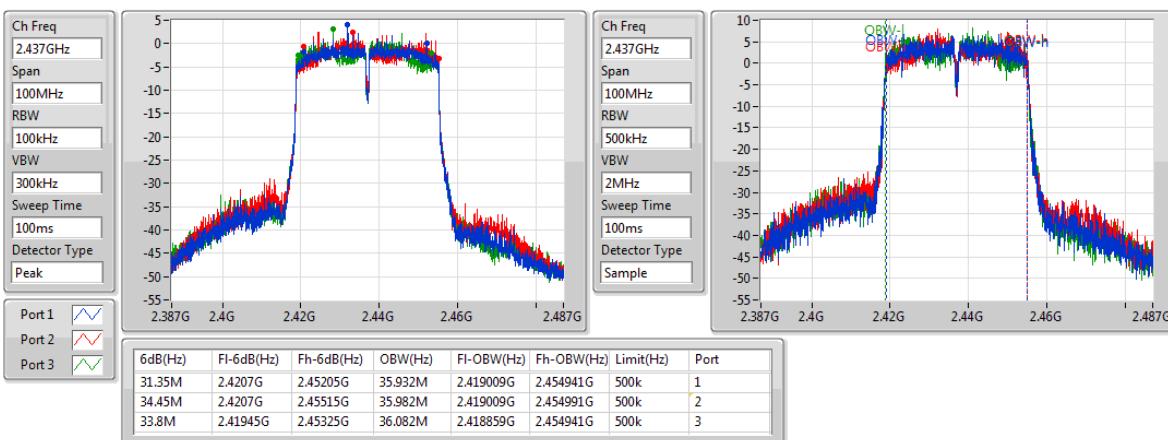
2422MHz



802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

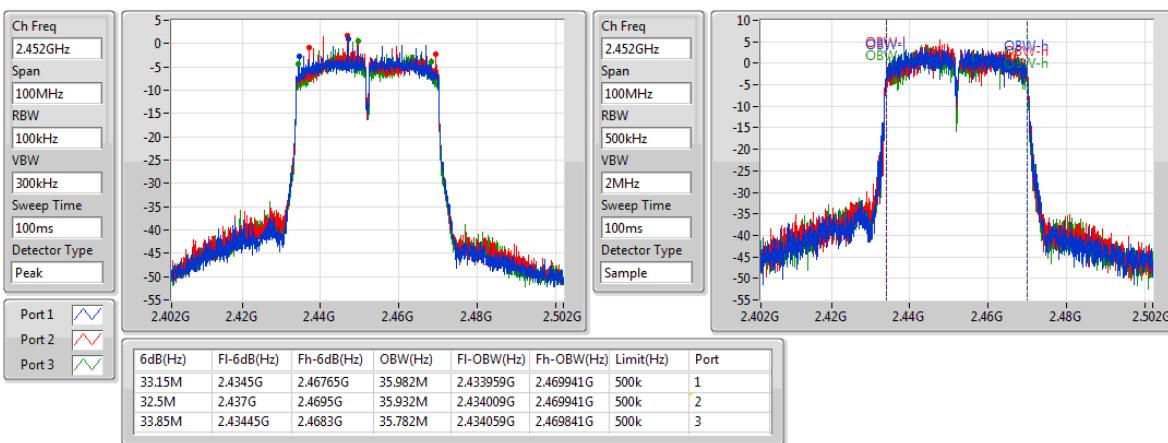
2437MHz



802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

2452MHz





<For Beamforming Mode>
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	17.5M	17.641M	17M6D1D	16.275M	17.541M
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	35.65M	36.032M	36M0D1D	31.95M	35.732M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **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)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.225M	17.616M	16.9M	17.641M	16.525M	17.616M
2437MHz	Pass	500k	17.5M	17.616M	16.275M	17.591M	17.1M	17.641M
2462MHz	Pass	500k	16.525M	17.641M	16.9M	17.591M	16.85M	17.541M
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	35.65M	36.032M	33.8M	35.882M	35M	35.982M
2437MHz	Pass	500k	35.45M	35.932M	33.15M	35.982M	32.15M	35.782M
2452MHz	Pass	500k	31.95M	35.932M	32.55M	35.932M	33.75M	35.732M

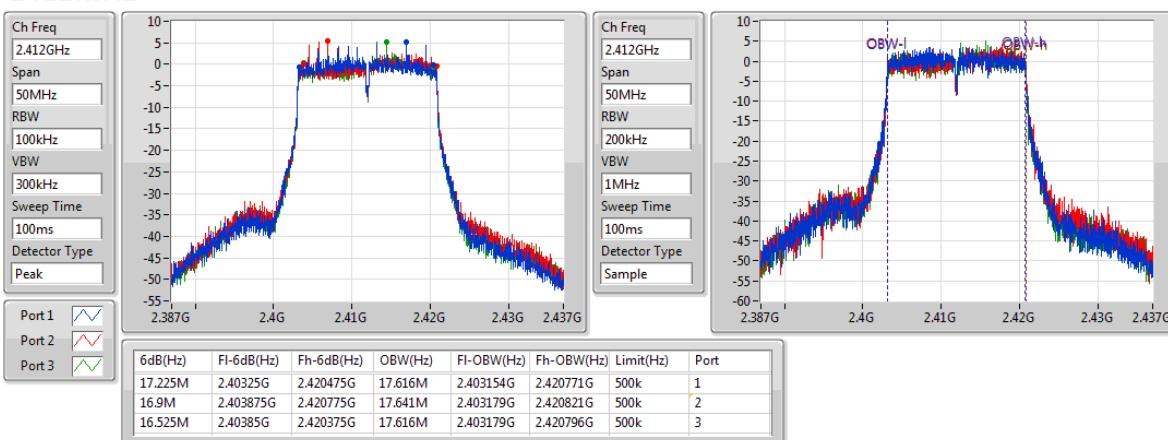
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

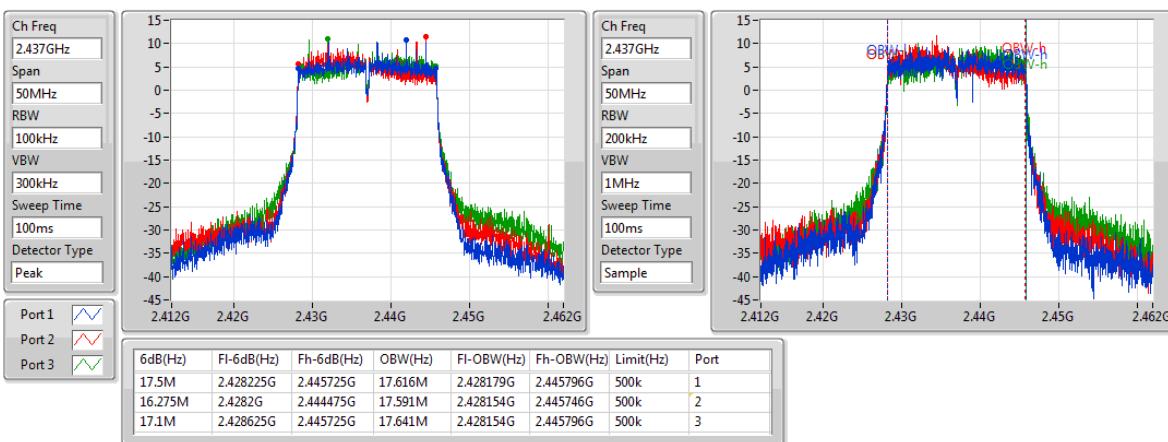
2412MHz



802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

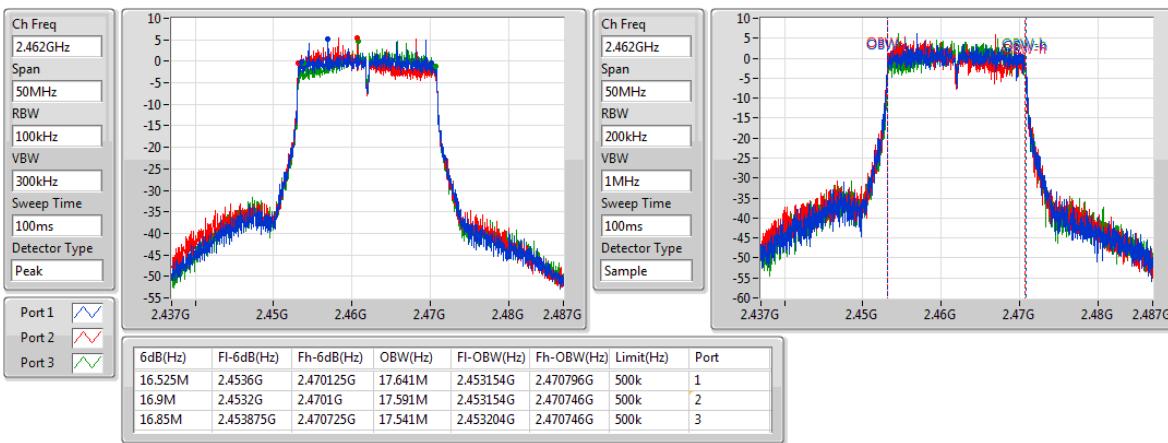
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802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

2462MHz

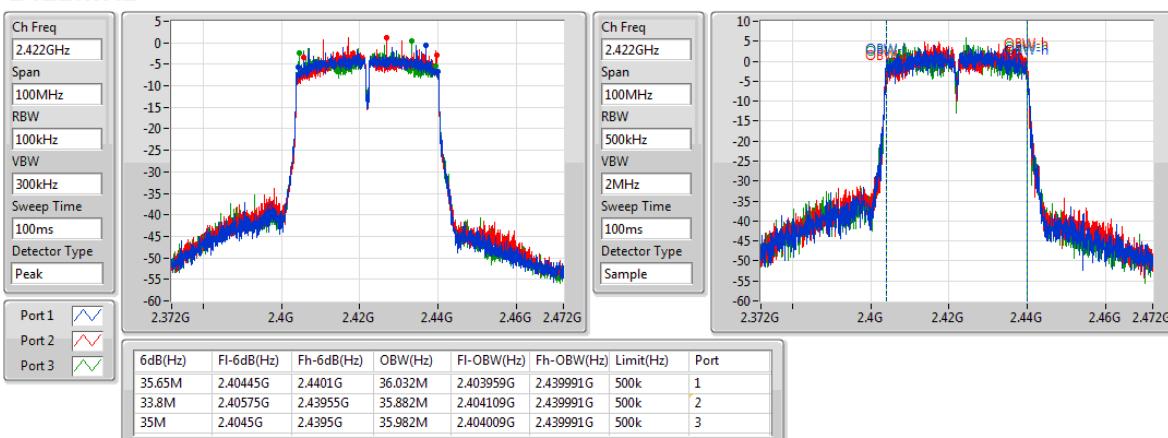




802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

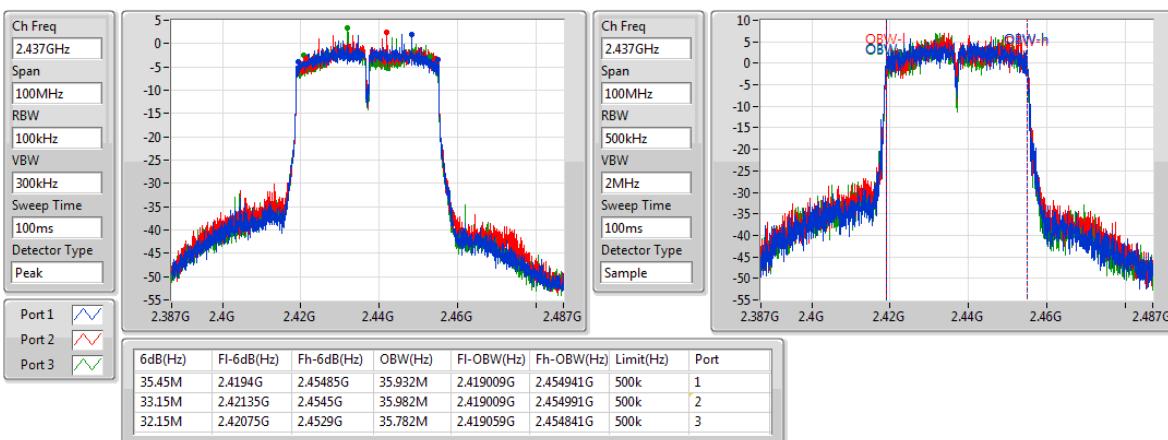
2422MHz



802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

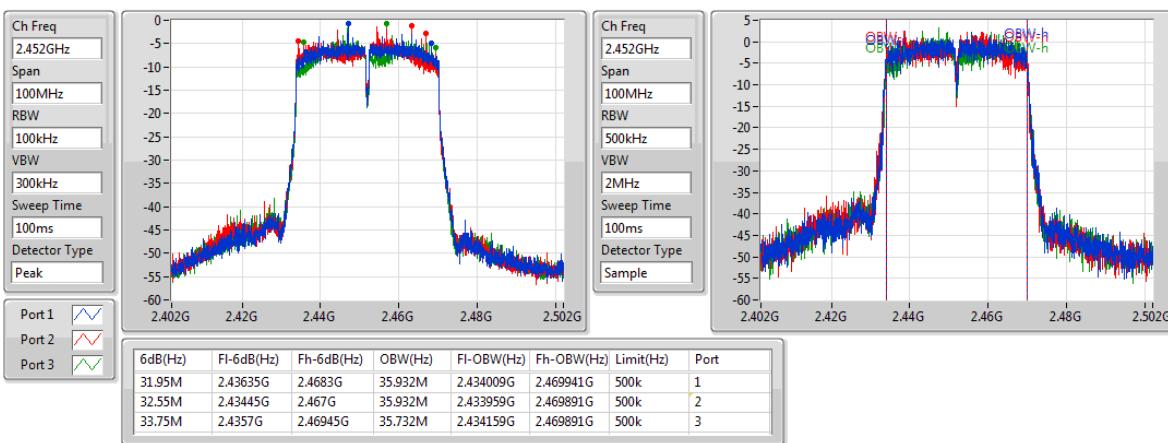
2437MHz



802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

2452MHz





For Set 6 antennas / 1TX:
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	8.025M	12.644M	12M6G1D	8M	12.569M
802.11g_(6Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	16.3M	16.392M	16M4D1D	16.3M	16.392M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	17.55M	17.616M	17M6D1D	16.95M	17.591M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	35.25M	35.982M	36M0D1D	30.4M	35.932M

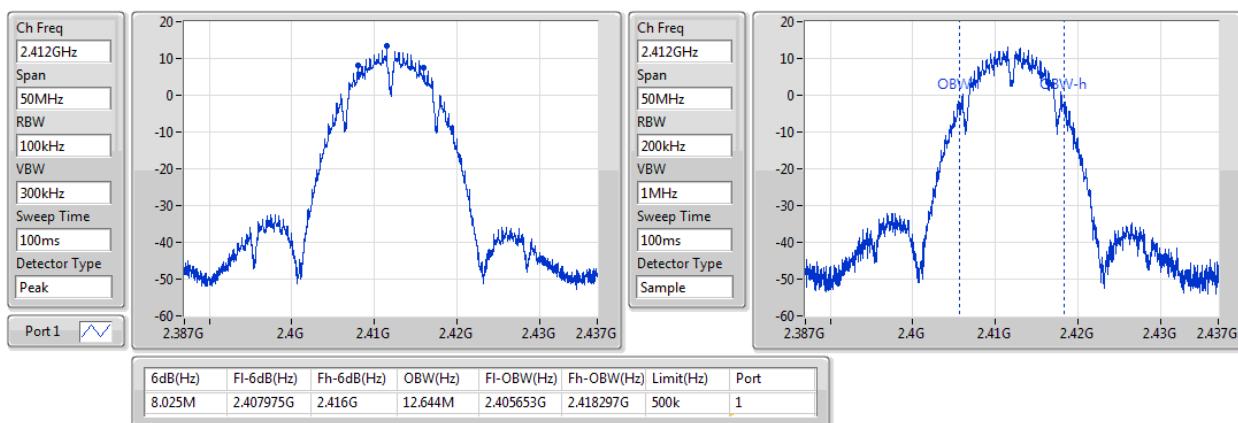
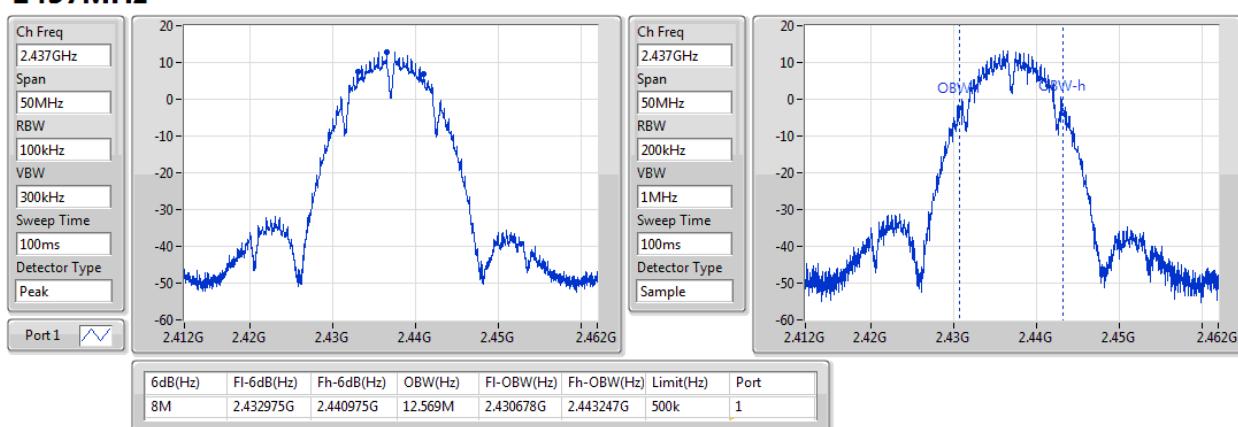
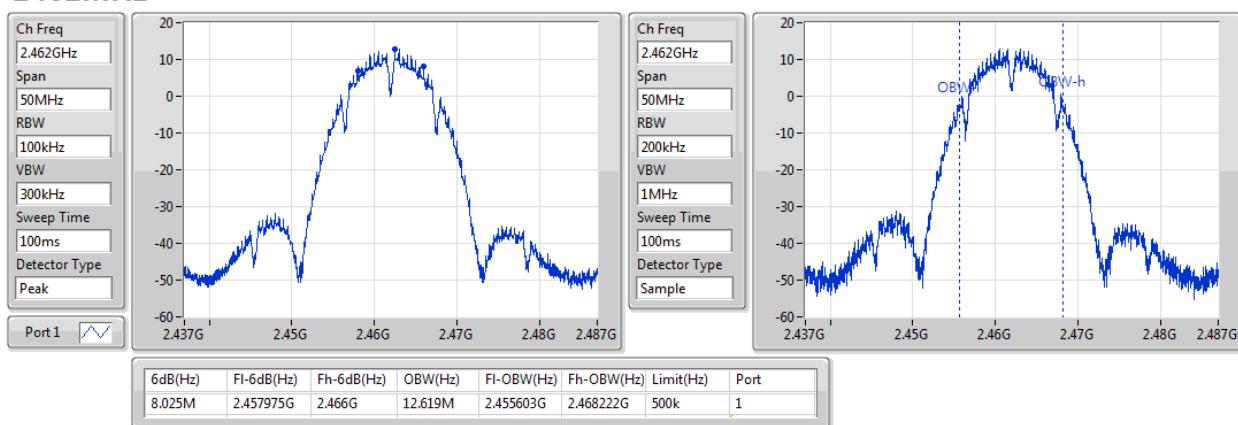
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	8.025M	12.644M
2437MHz	Pass	500k	8M	12.569M
2462MHz	Pass	500k	8.025M	12.619M
802.11g_(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.3M	16.392M
2437MHz	Pass	500k	16.3M	16.392M
2462MHz	Pass	500k	16.3M	16.392M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	17.525M	17.616M
2437MHz	Pass	500k	16.95M	17.591M
2462MHz	Pass	500k	17.55M	17.616M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	35.1M	35.932M
2437MHz	Pass	500k	30.4M	35.982M
2452MHz	Pass	500k	35.25M	35.932M

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

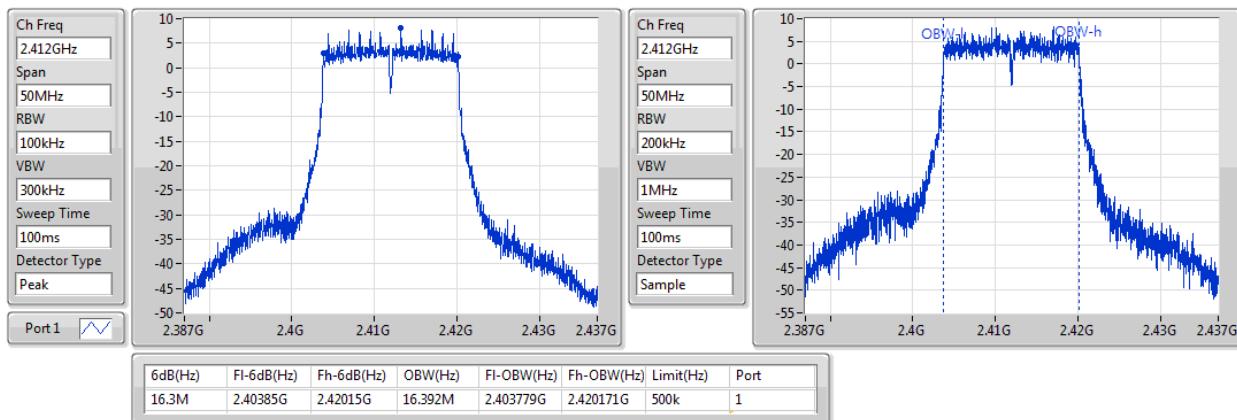
**802.11b_(1Mbps)_1TX****EBW****2412MHz****802.11b_(1Mbps)_1TX****EBW****2437MHz****802.11b_(1Mbps)_1TX****EBW****2462MHz**



802.11g_(6Mbps)_1TX

EBW

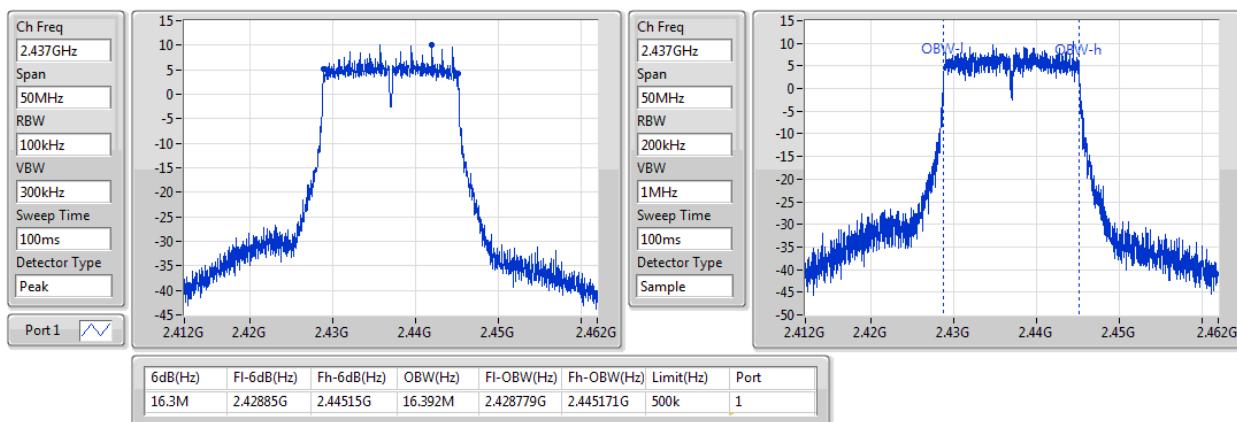
2412MHz



802.11g_(6Mbps)_1TX

EBW

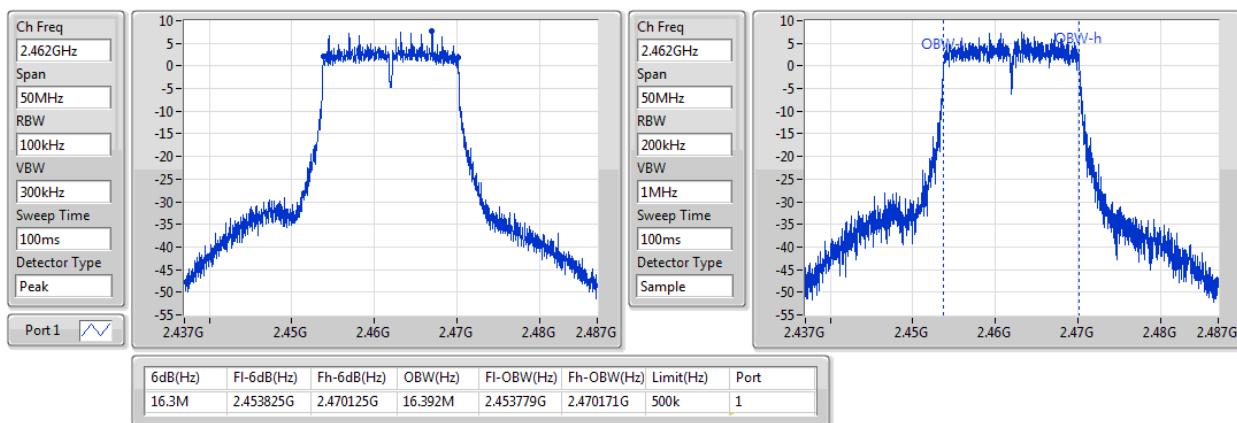
2437MHz



802.11g_(6Mbps)_1TX

EBW

2462MHz

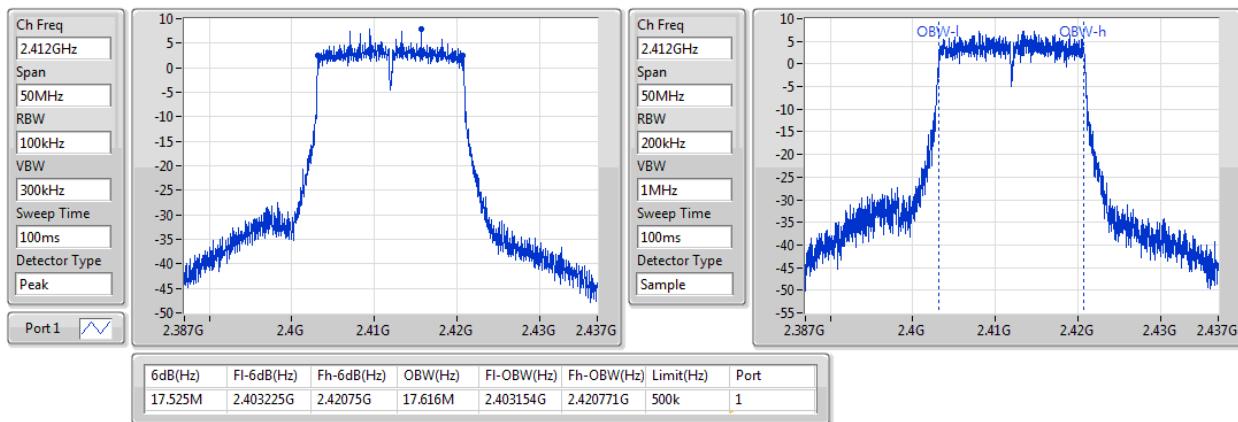




802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

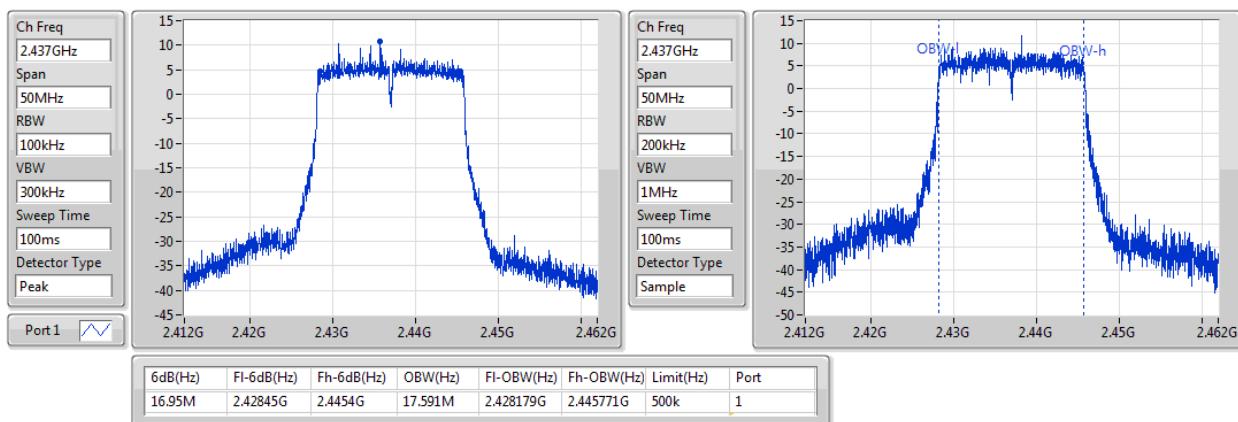
2412MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

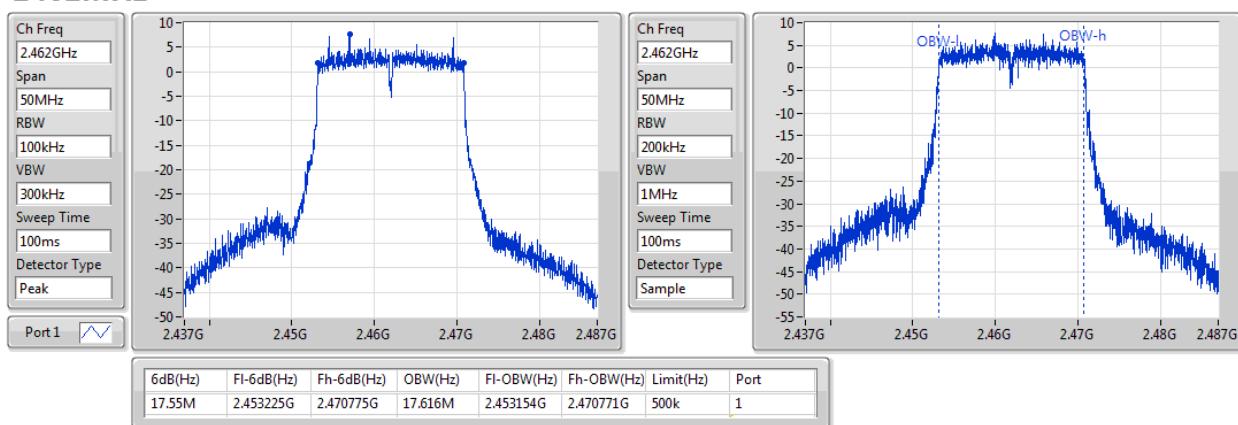
2437MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

2462MHz

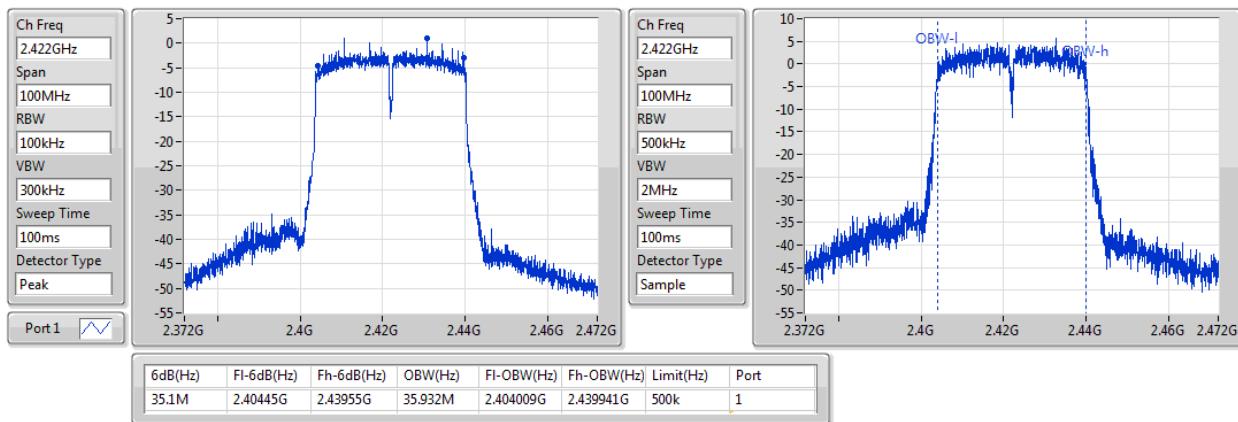




802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

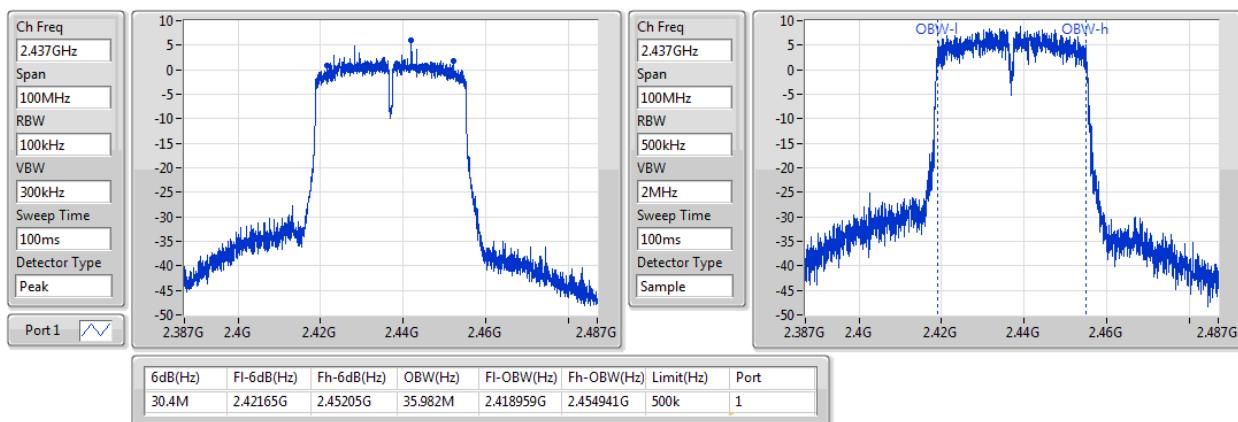
2422MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

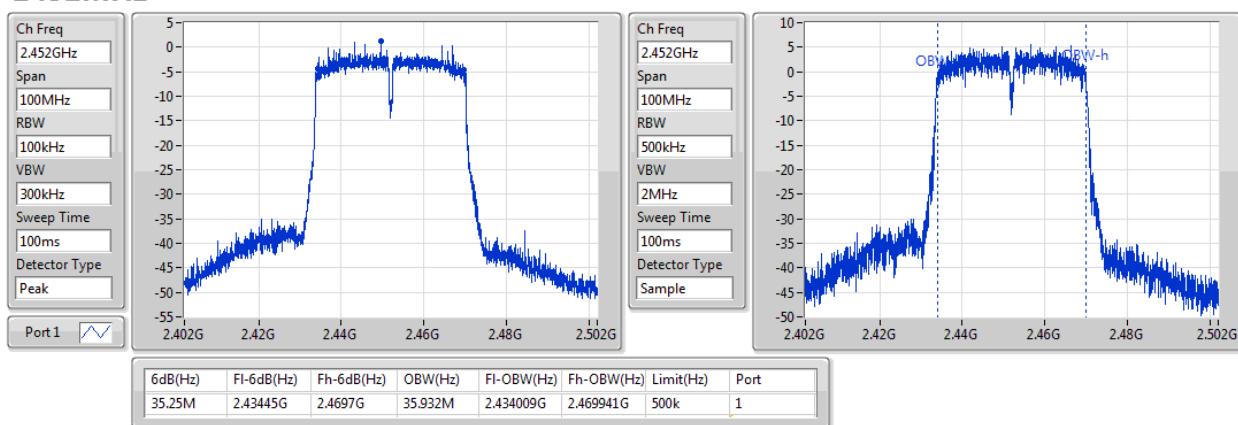
2437MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

2452MHz





For Set 6 antennas / 2TX:
<For Non-Beamforming Mode>
Summary

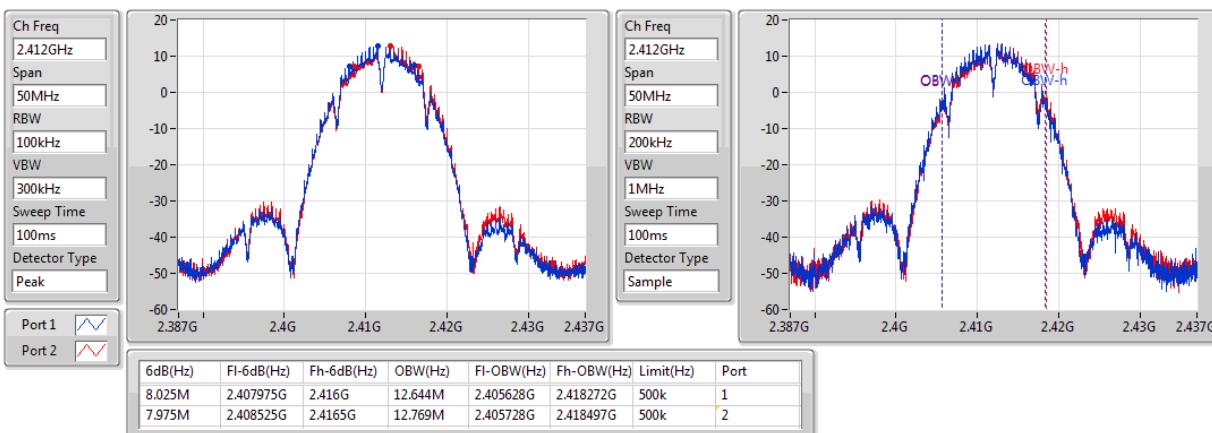
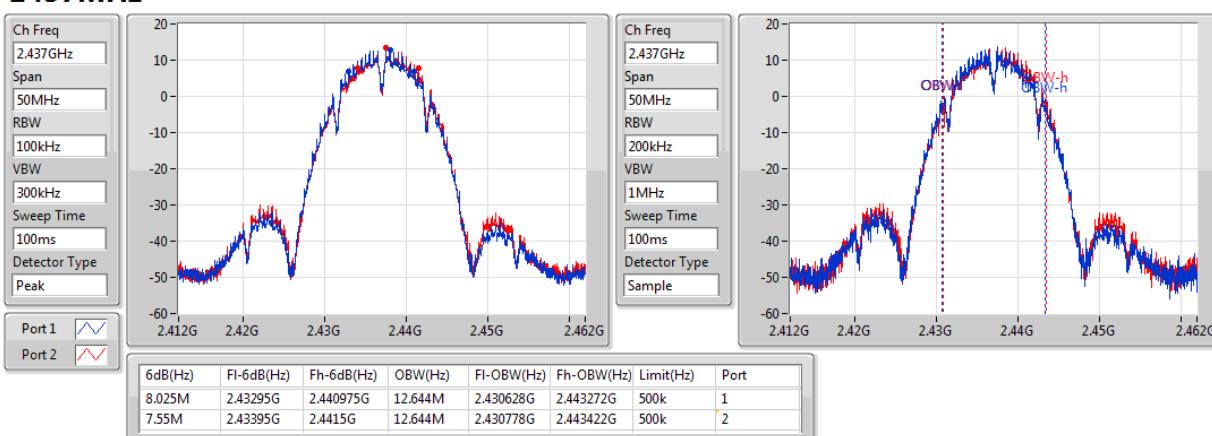
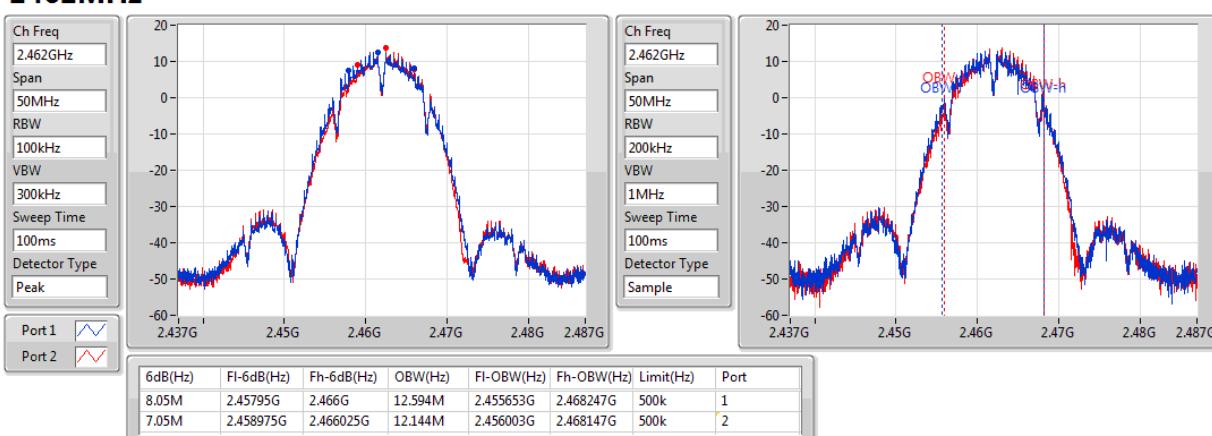
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	8.05M	12.769M	12M8G1D	7.05M	12.144M
802.11g_(6Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	16.325M	16.417M	16M4D1D	15.675M	16.392M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.525M	17.641M	17M6D1D	16.325M	17.591M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	35.05M	36.032M	36M0D1D	30.35M	35.932M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	8.025M	12.644M	7.975M	12.769M
2437MHz	Pass	500k	8.025M	12.644M	7.55M	12.644M
2462MHz	Pass	500k	8.05M	12.594M	7.05M	12.144M
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	16.417M	15.675M	16.392M
2437MHz	Pass	500k	16.325M	16.417M	15.675M	16.392M
2462MHz	Pass	500k	16.3M	16.417M	16.075M	16.417M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.9M	17.641M	17.525M	17.591M
2437MHz	Pass	500k	17.275M	17.641M	16.325M	17.591M
2462MHz	Pass	500k	17.525M	17.616M	17.525M	17.641M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	35M	35.982M	32.2M	35.982M
2437MHz	Pass	500k	34.4M	36.032M	30.35M	35.932M
2452MHz	Pass	500k	35.05M	36.032M	30.45M	36.032M

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

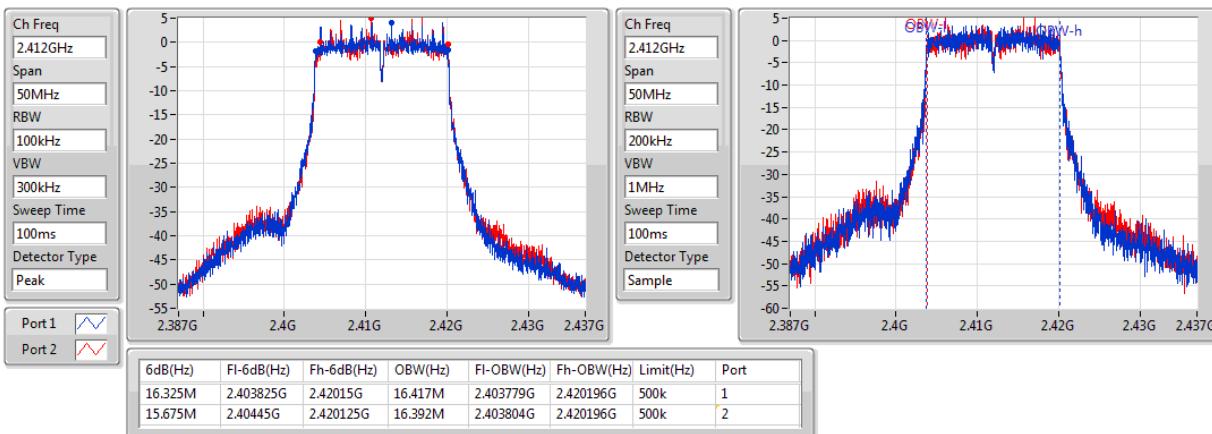
**802.11b_(1Mbps)_2TX****EBW****2412MHz****802.11b_(1Mbps)_2TX****EBW****2437MHz****802.11b_(1Mbps)_2TX****EBW****2462MHz**



802.11g_(6Mbps)_2TX

EBW

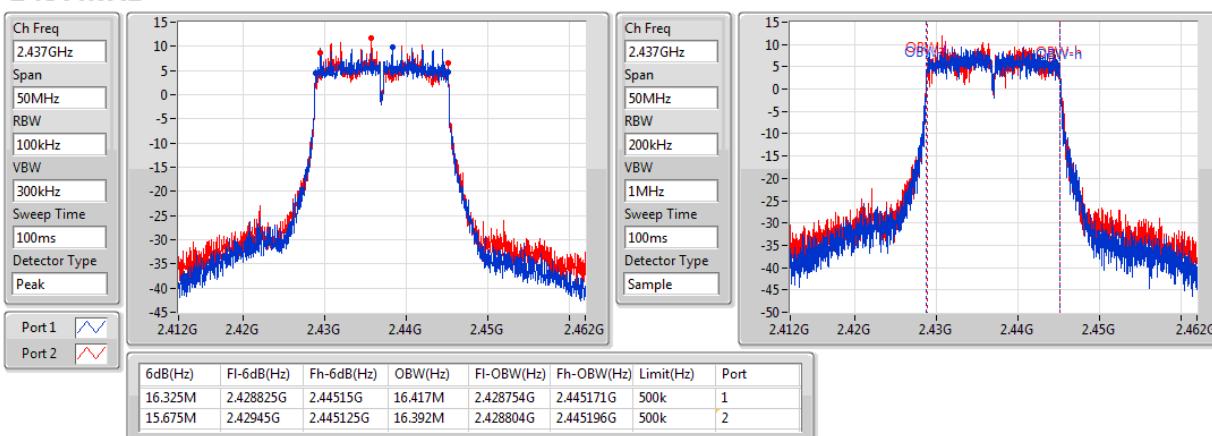
2412MHz



802.11g_(6Mbps)_2TX

EBW

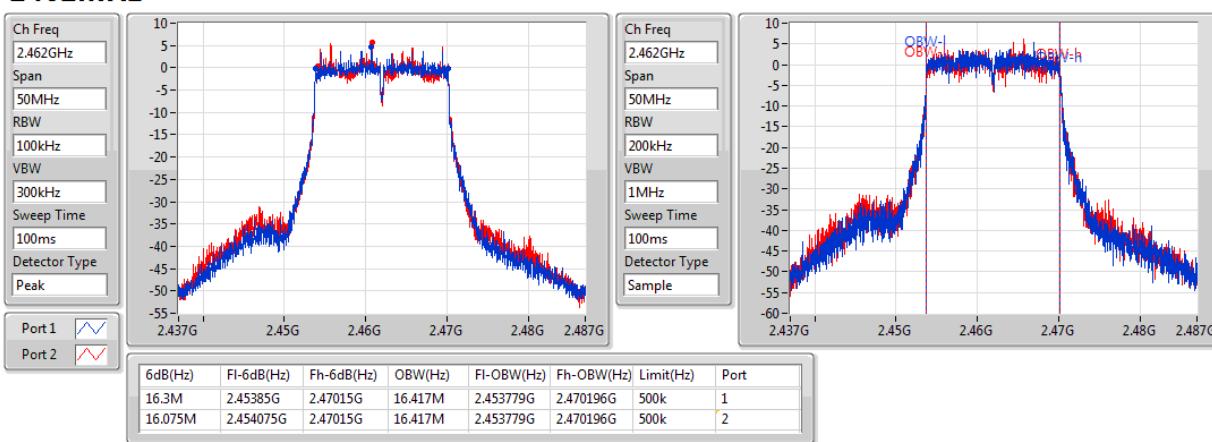
2437MHz



802.11g_(6Mbps)_2TX

EBW

2462MHz

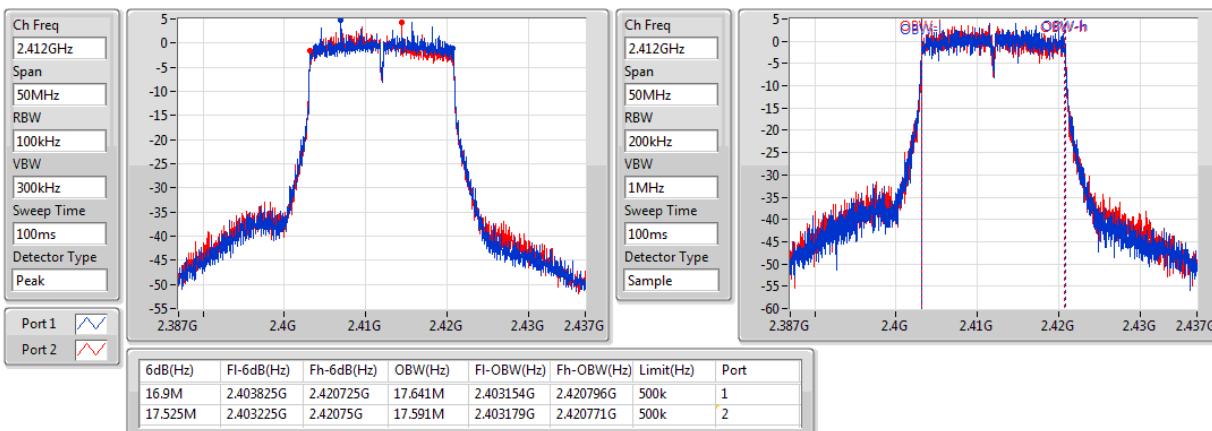




802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

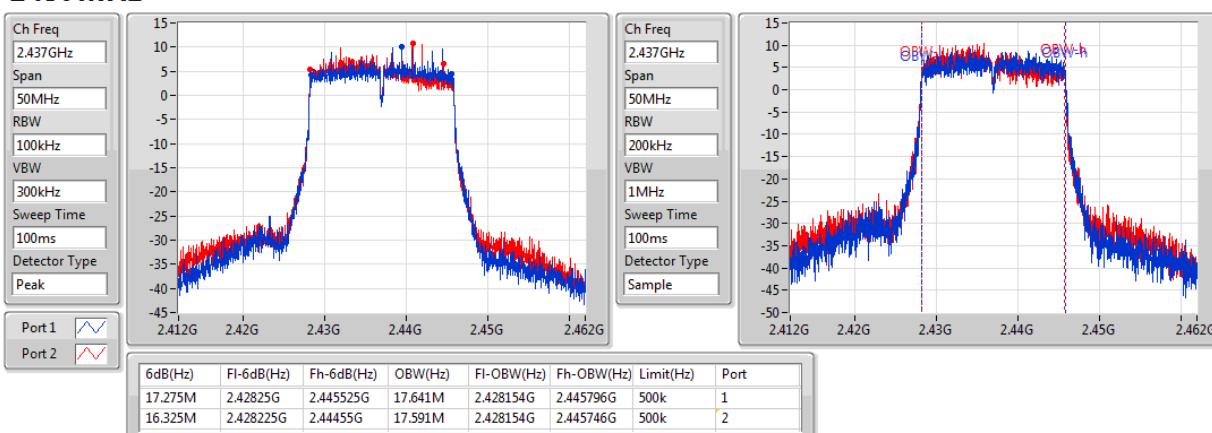
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802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

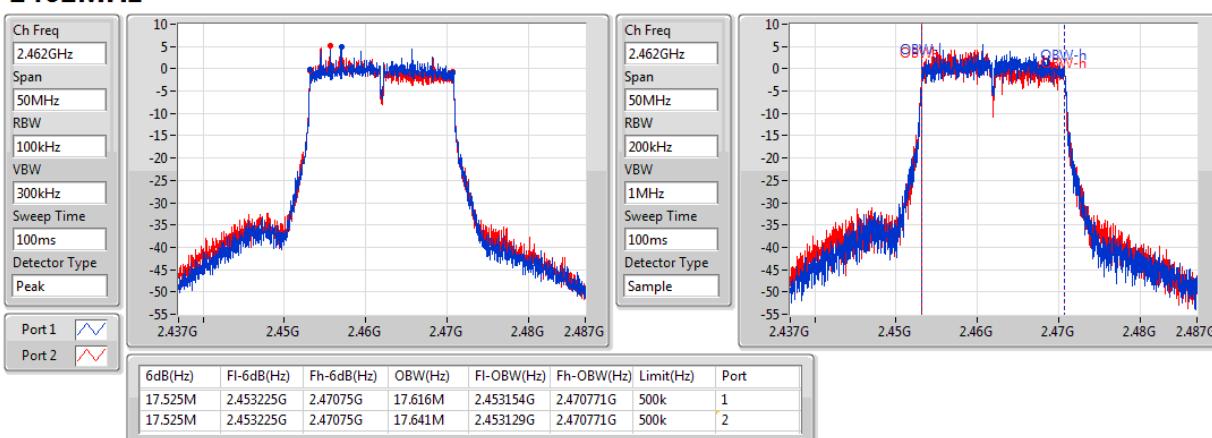
2437MHz

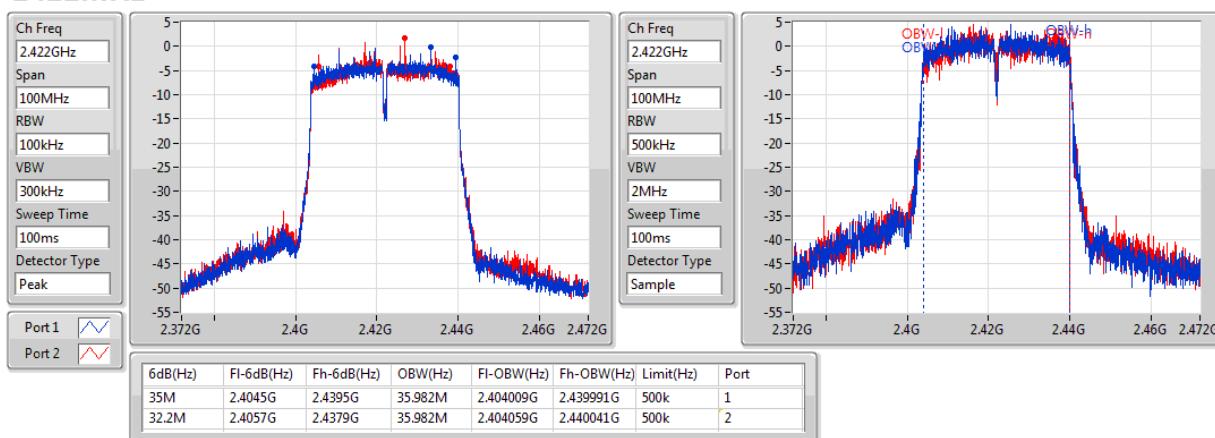
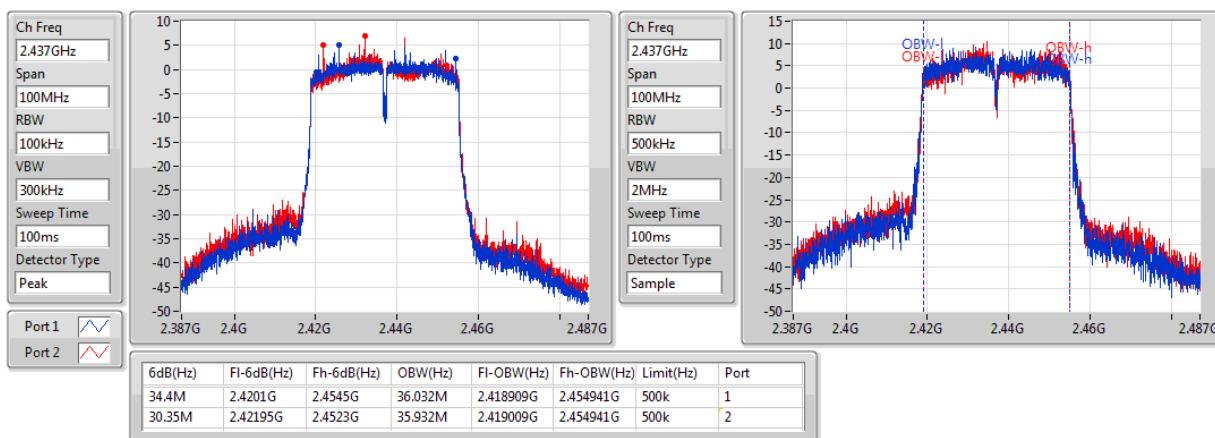
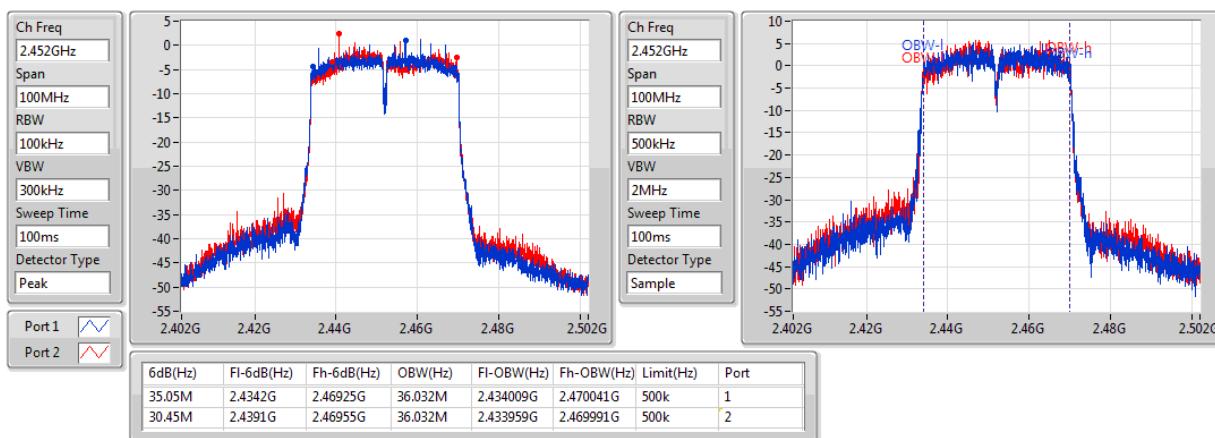


802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

2462MHz



**802.11ac VHT40_Nss1,(MCS0)_2TX****EBW****2422MHz****802.11ac VHT40_Nss1,(MCS0)_2TX****EBW****2437MHz****802.11ac VHT40_Nss1,(MCS0)_2TX****EBW****2452MHz**



<For Beamforming Mode>

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.525M	17.641M	17M6D1D	13.65M	17.566M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	35.85M	35.982M	36M0D1D	31.3M	35.832M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.525M	17.641M	15.25M	17.566M
2437MHz	Pass	500k	17.525M	17.616M	13.65M	17.616M
2462MHz	Pass	500k	17.5M	17.591M	16.25M	17.616M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	35.85M	35.832M	33.75M	35.882M
2437MHz	Pass	500k	35M	35.882M	31.3M	35.932M
2452MHz	Pass	500k	34.2M	35.932M	35.05M	35.982M

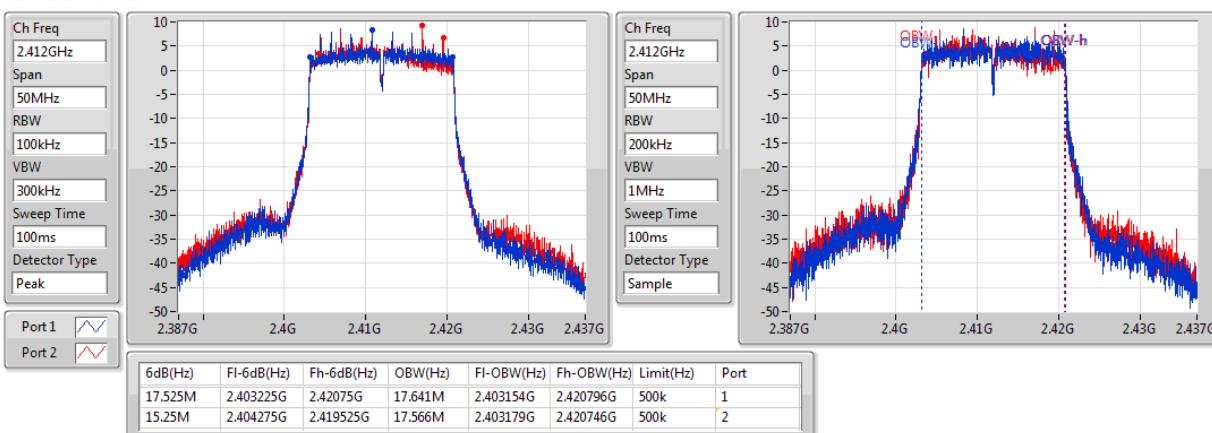
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

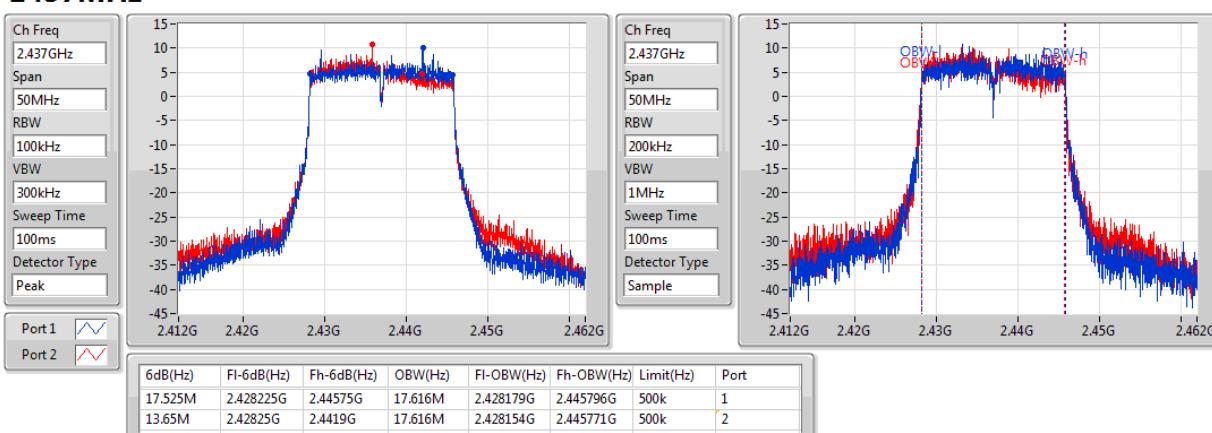
2412MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

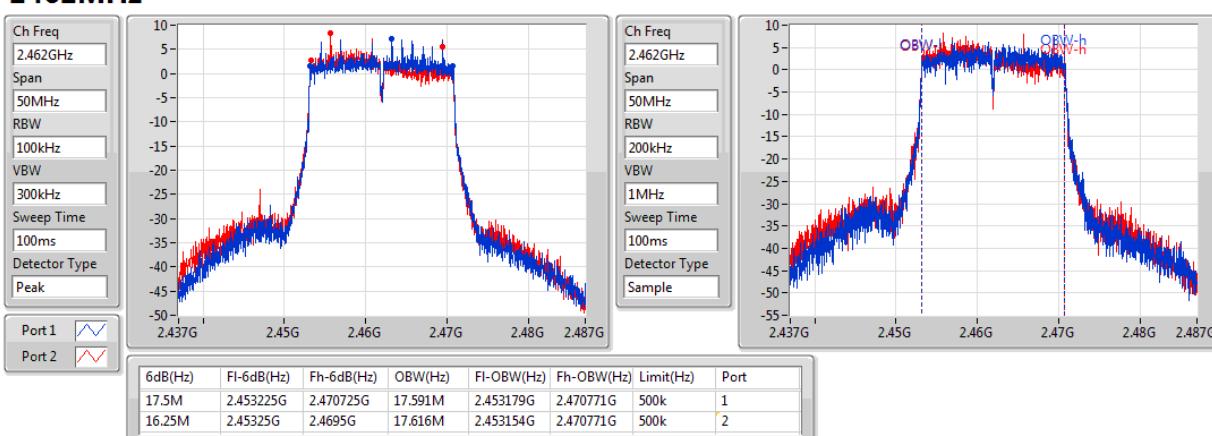
2437MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

2462MHz

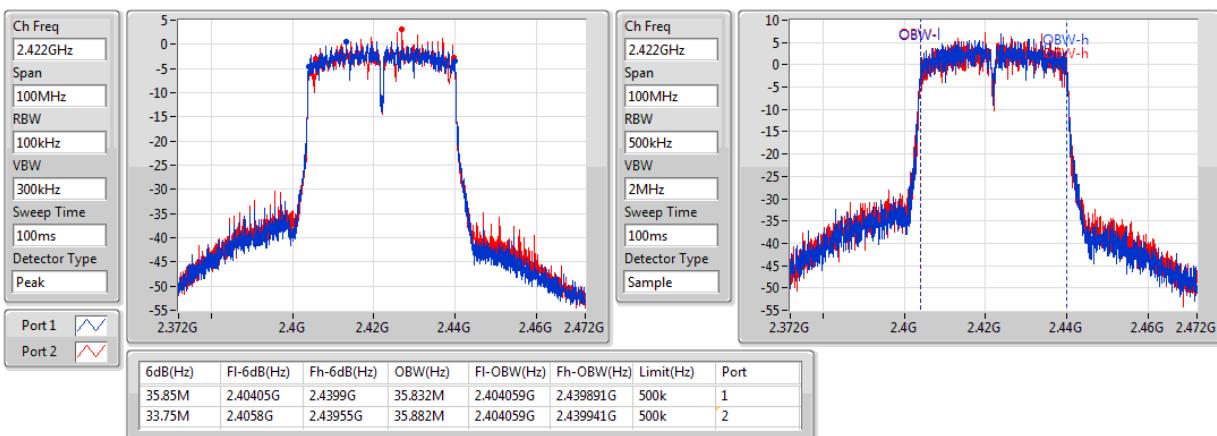




802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

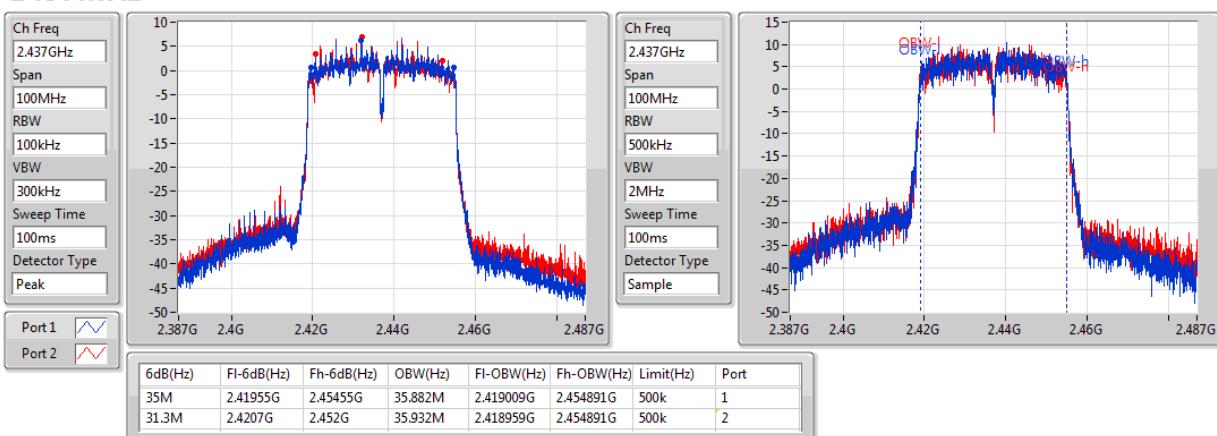
2422MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

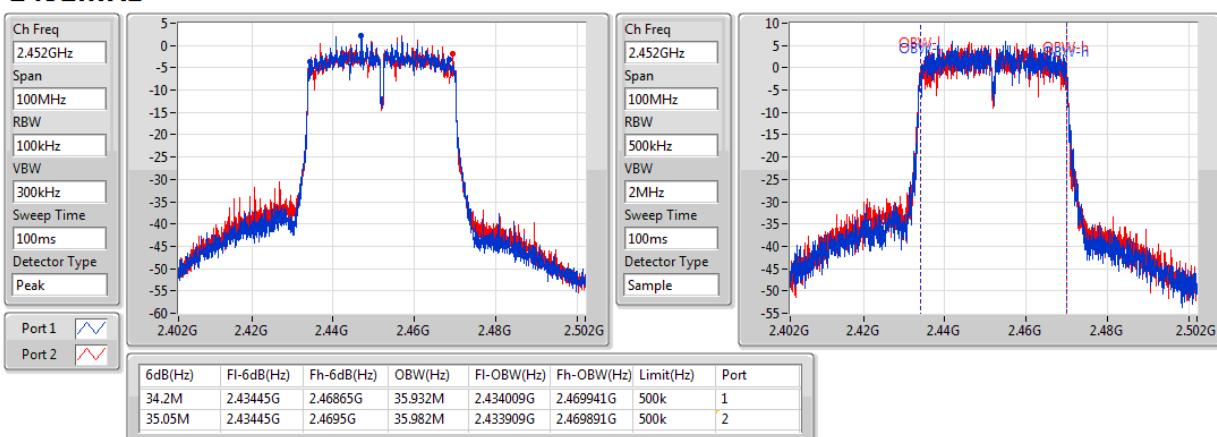
2437MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

2452MHz



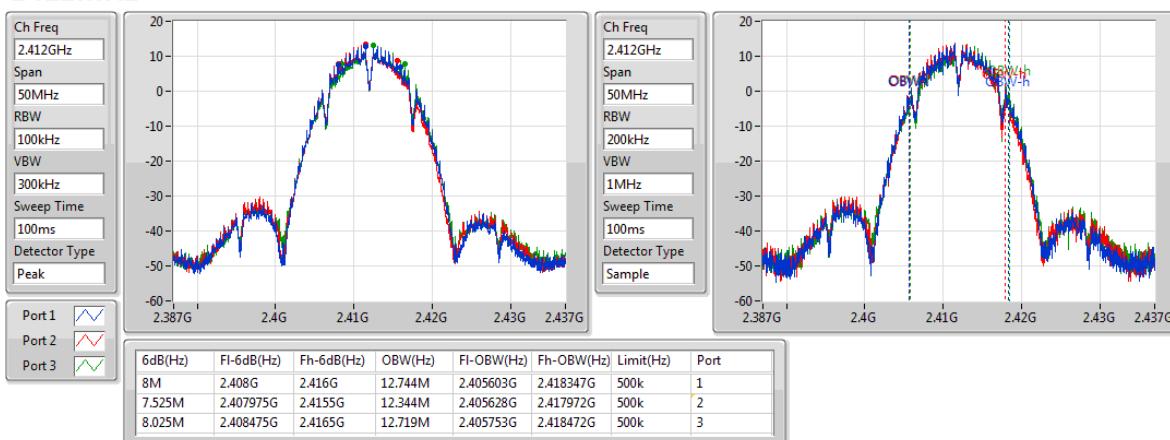
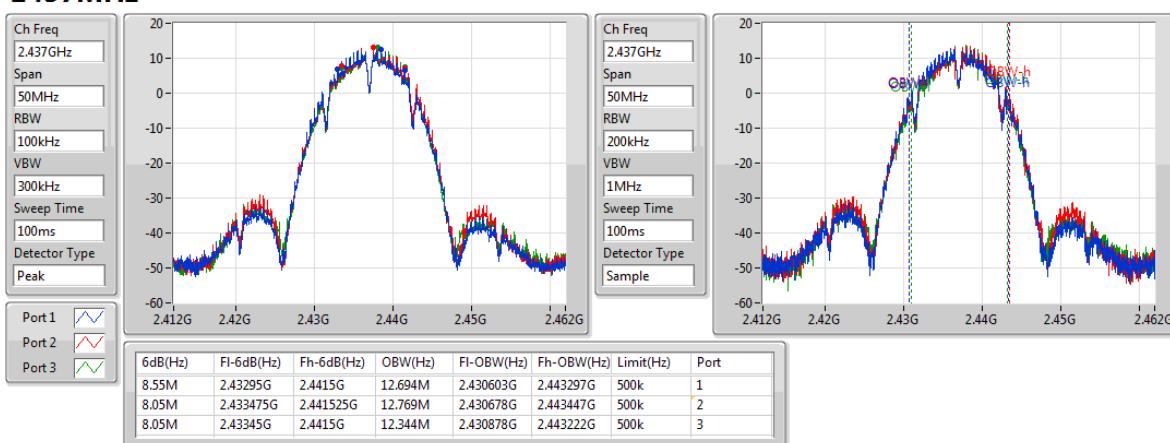
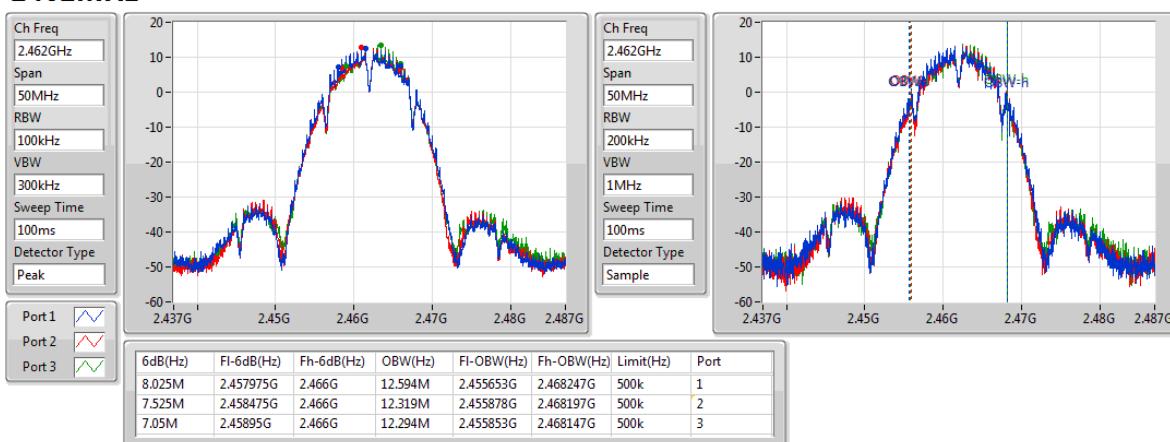
**For Set 6 antennas / 3TX:****<For Non-Beamforming Mode>****Summary**

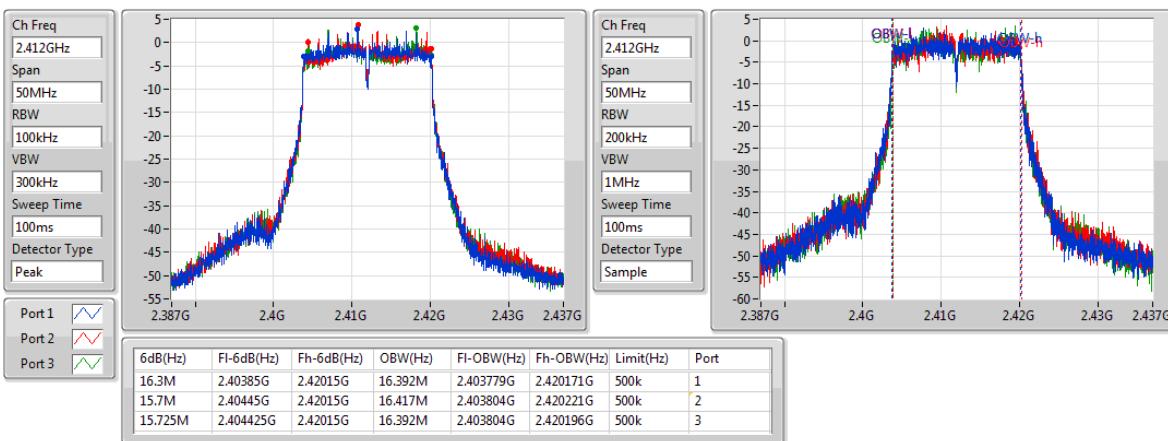
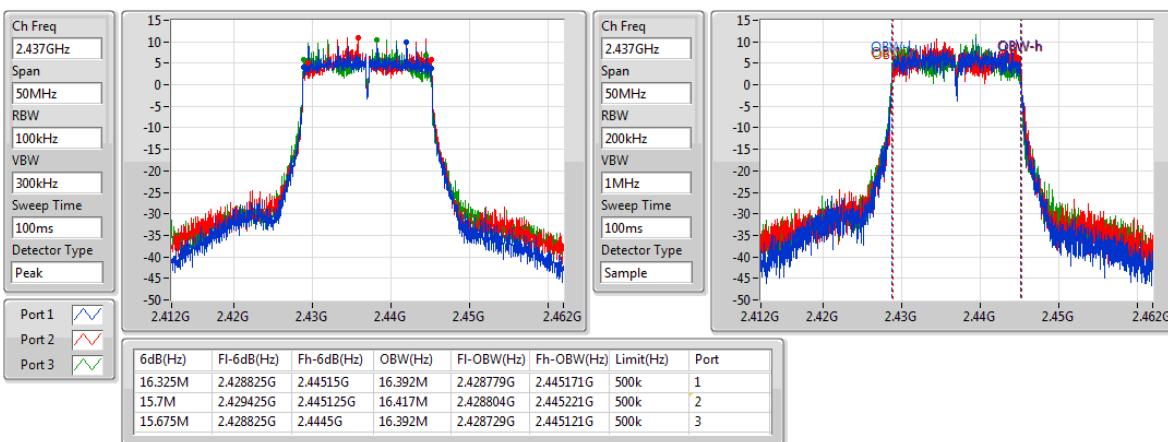
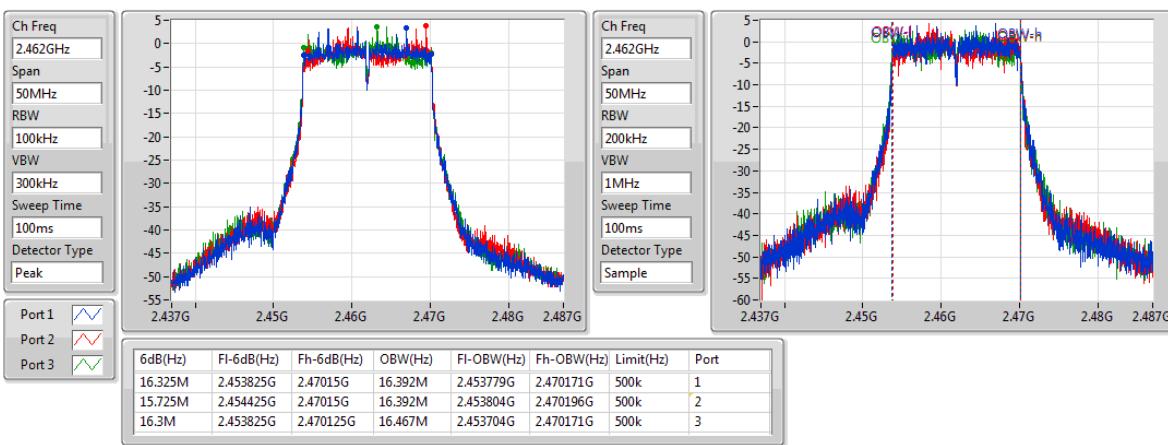
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_3TX	-	-	-	-	-
2.4-2.4835GHz	8.55M	12.769M	12M8G1D	7.05M	12.294M
802.11g_(6Mbps)_3TX	-	-	-	-	-
2.4-2.4835GHz	16.325M	16.467M	16M5D1D	15.675M	16.392M
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	17.575M	17.666M	17M7D1D	15.9M	17.566M
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	35.65M	36.082M	36M1D1D	30.95M	35.882M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;**Min-N dB** = Minimum 6dB down bandwidth; **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)
802.11b_(1Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	8M	12.744M	7.525M	12.344M	8.025M	12.719M
2437MHz	Pass	500k	8.55M	12.694M	8.05M	12.769M	8.05M	12.344M
2462MHz	Pass	500k	8.025M	12.594M	7.525M	12.319M	7.05M	12.294M
802.11g_(6Mbps)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	16.3M	16.392M	15.7M	16.417M	15.725M	16.392M
2437MHz	Pass	500k	16.325M	16.392M	15.7M	16.417M	15.675M	16.392M
2462MHz	Pass	500k	16.325M	16.392M	15.725M	16.392M	16.3M	16.467M
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.3M	17.641M	15.9M	17.566M	17.55M	17.591M
2437MHz	Pass	500k	17.025M	17.616M	17.575M	17.641M	16.9M	17.666M
2462MHz	Pass	500k	17.55M	17.641M	17.525M	17.641M	16.525M	17.566M
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	35.65M	35.932M	34.05M	35.932M	30.95M	35.982M
2437MHz	Pass	500k	34.35M	35.982M	31.9M	35.982M	35.1M	36.082M
2452MHz	Pass	500k	35.1M	35.932M	32.45M	35.882M	35.3M	36.082M

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

**802.11b_(1Mbps)_3TX****EBW****2412MHz****802.11b_(1Mbps)_3TX****EBW****2437MHz****802.11b_(1Mbps)_3TX****EBW****2462MHz**

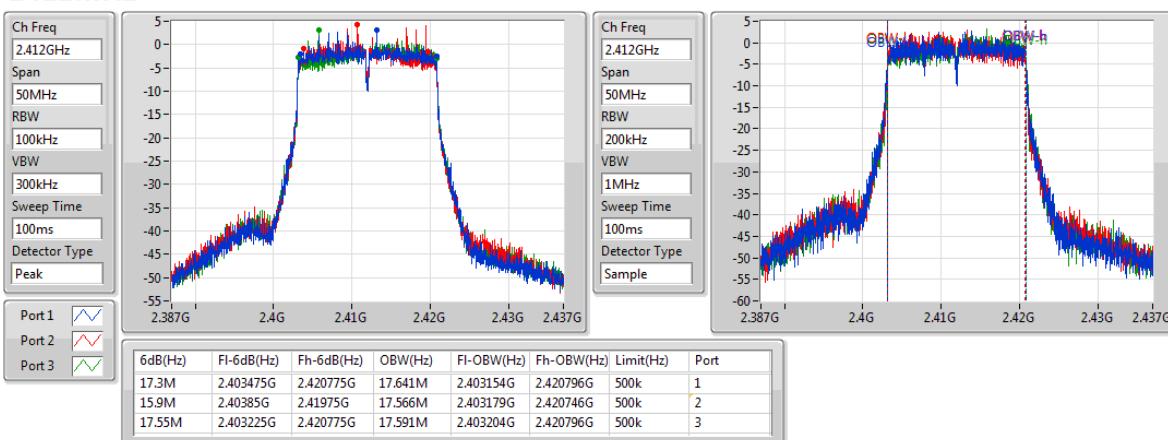
**802.11g_(6Mbps)_3TX****EBW****2412MHz****802.11g_(6Mbps)_3TX****EBW****2437MHz****802.11g_(6Mbps)_3TX****EBW****2462MHz**



802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

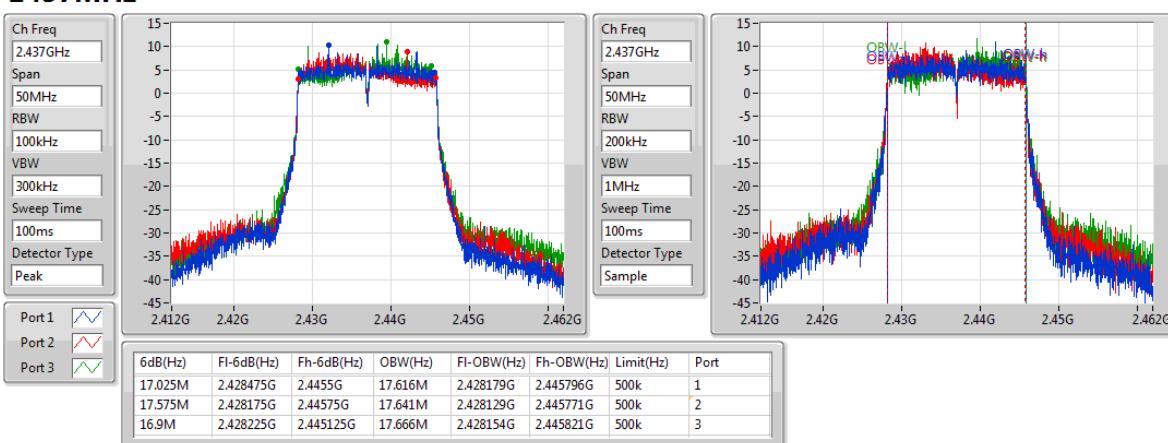
2412MHz



802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

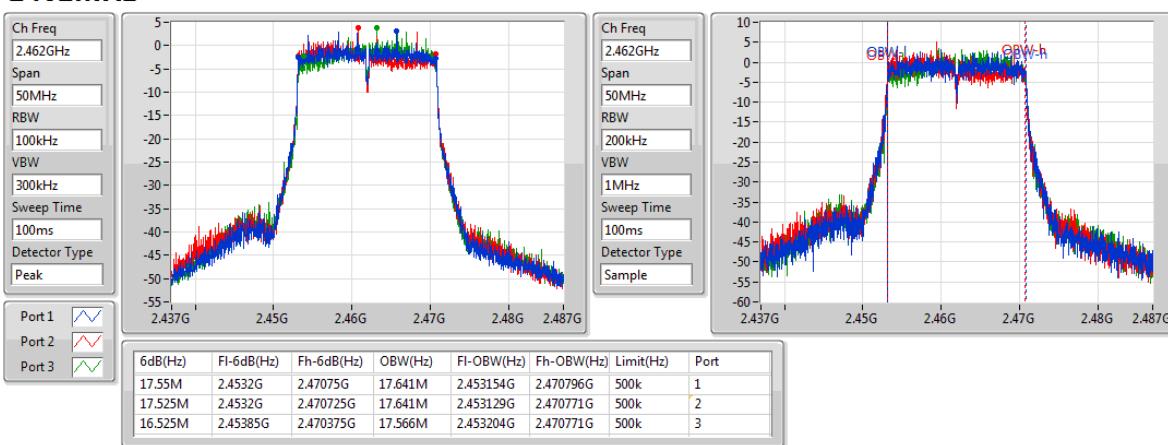
2437MHz



802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

2462MHz

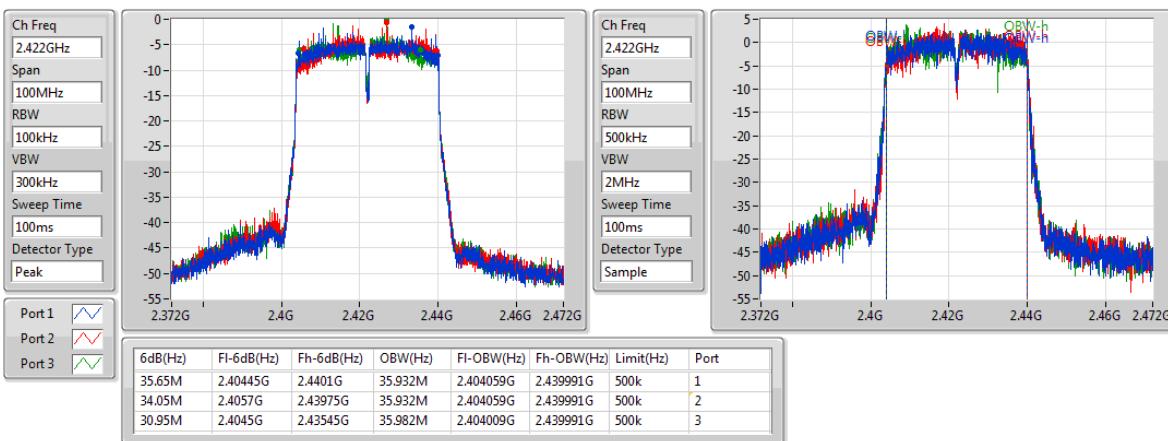




802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

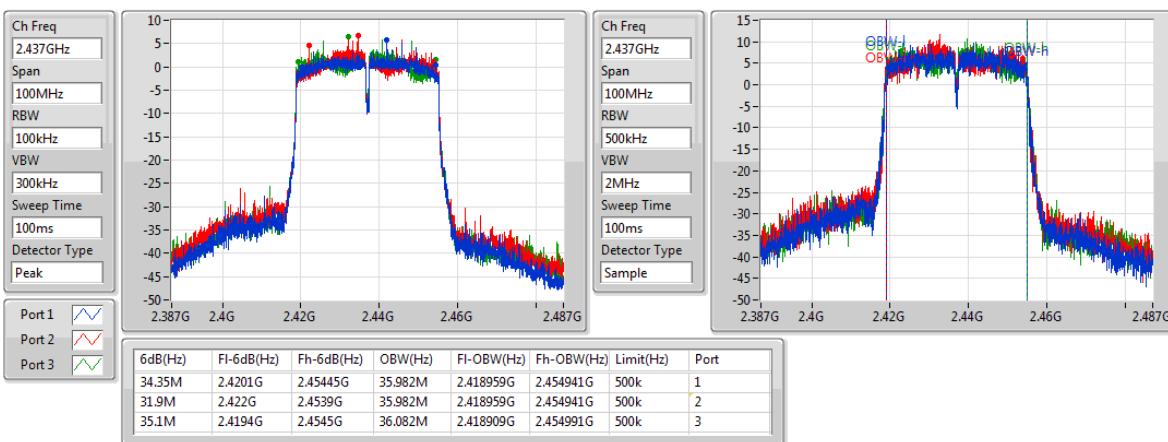
2422MHz



802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

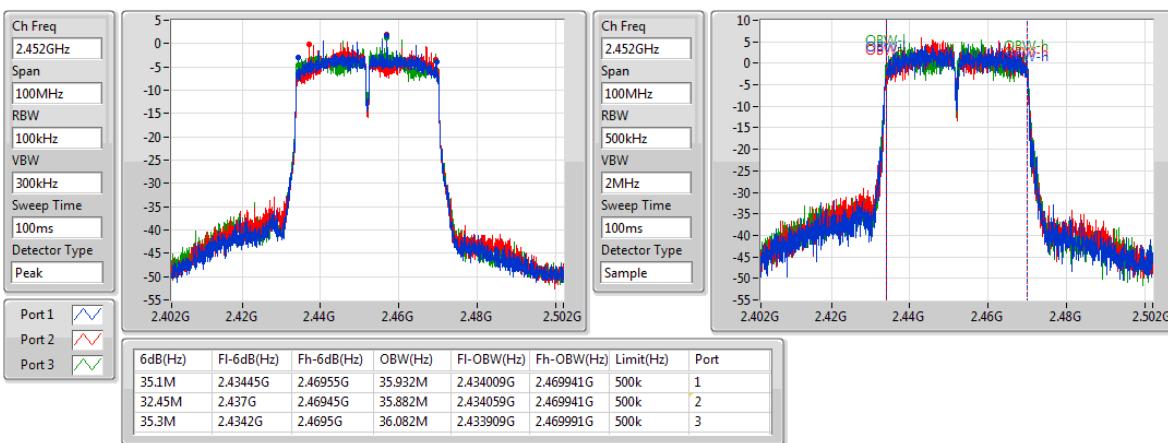
2437MHz



802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

2452MHz





<For Beamforming Mode>
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	17.575M	17.691M	17M7D1D	14.375M	17.566M
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-
2.4-2.4835GHz	35.1M	36.082M	36M1D1D	30.05M	35.882M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **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)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2412MHz	Pass	500k	17.575M	17.591M	15.875M	17.691M	17.525M	17.591M
2437MHz	Pass	500k	16.5M	17.616M	17.55M	17.616M	17.5M	17.641M
2462MHz	Pass	500k	17.525M	17.616M	15.55M	17.641M	14.375M	17.566M
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
2422MHz	Pass	500k	34.9M	35.932M	33.8M	35.932M	30.05M	36.032M
2437MHz	Pass	500k	31.15M	35.932M	35.1M	35.932M	31.5M	35.932M
2452MHz	Pass	500k	35.05M	35.882M	31.3M	35.882M	35.05M	36.082M

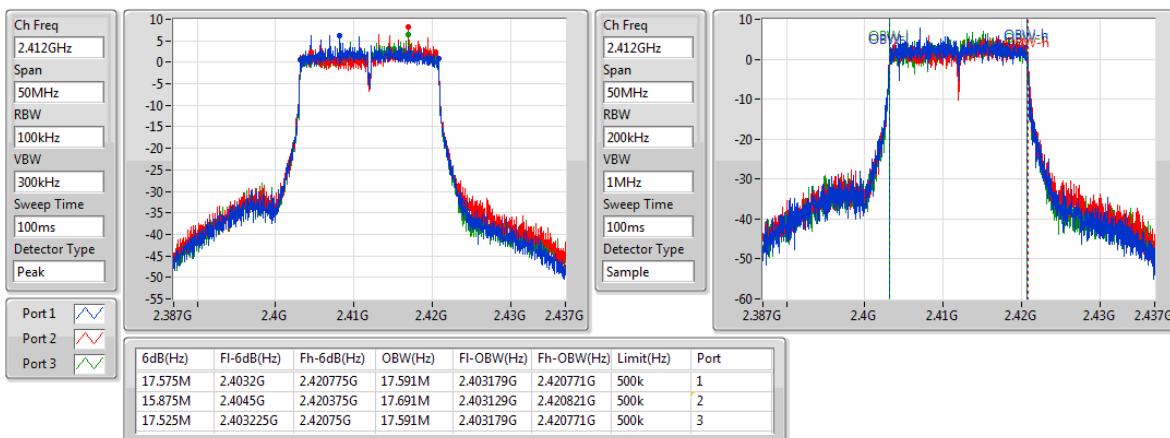
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

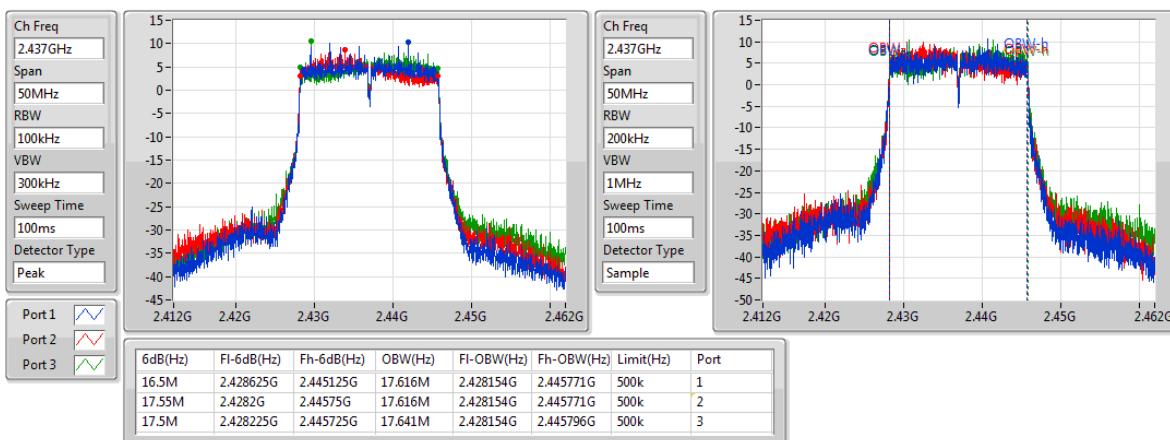
2412MHz



802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

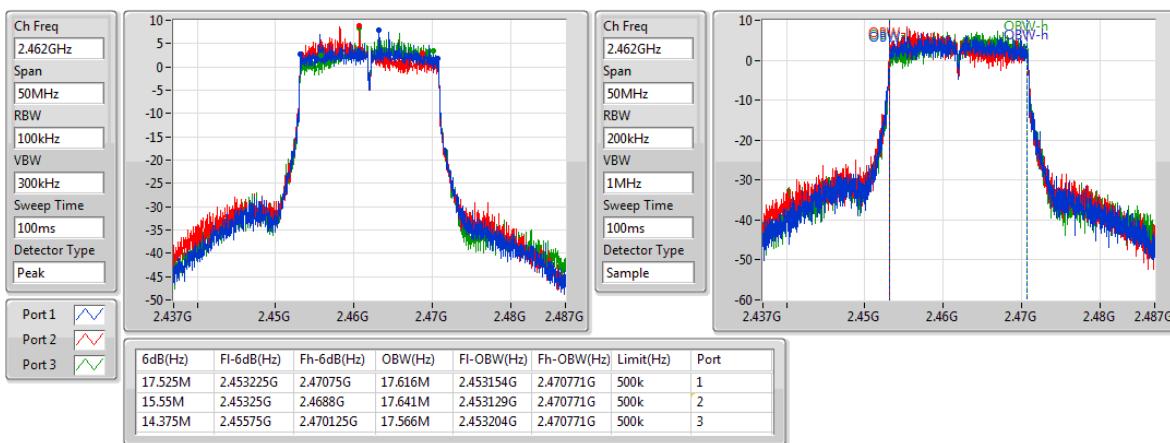
2437MHz



802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

2462MHz

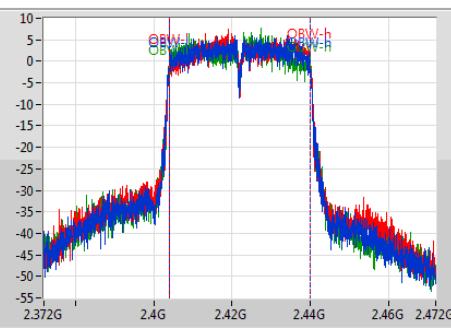
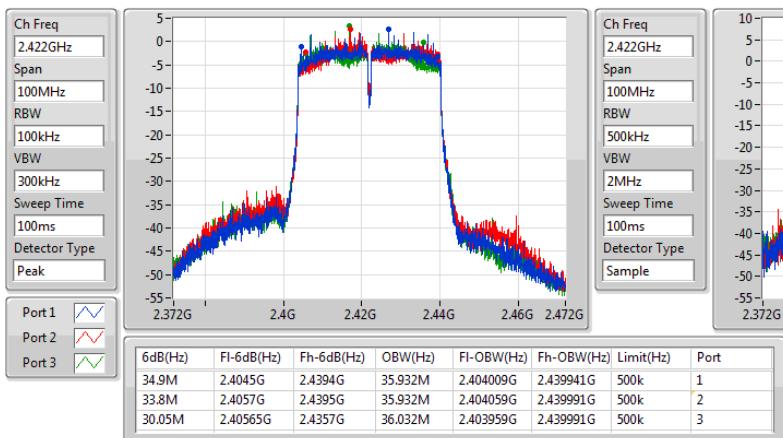




802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

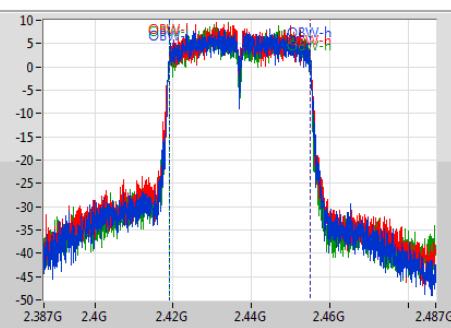
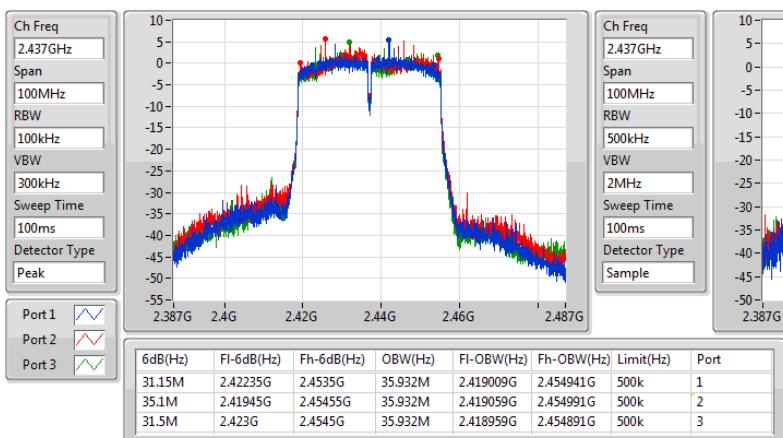
2422MHz



802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

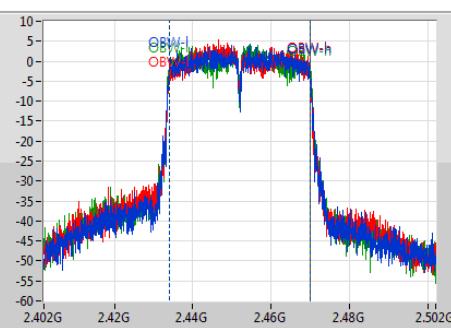
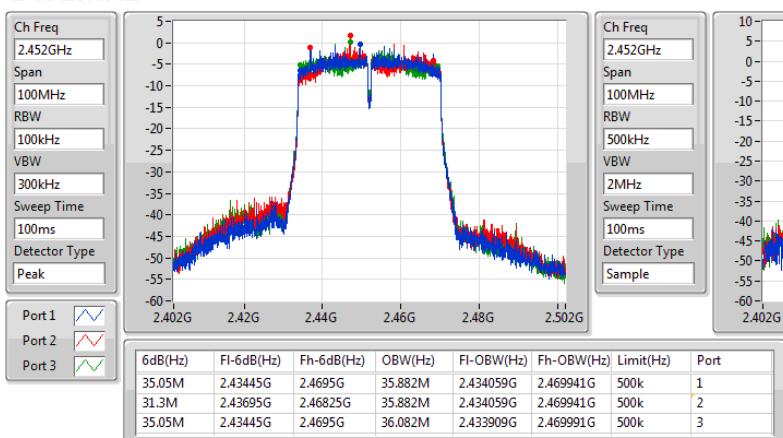
2437MHz



802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

2452MHz





For Radio 3:
For Set 1 antennas / 1TX:
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	7.525M	13.843M	13M8G1D	7.025M	12.019M
802.11g_(6Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	16.25M	26.562M	26M6D1D	13.8M	16.617M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	16.875M	26.637M	26M6D1D	16.55M	17.741M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	35.65M	36.682M	36M7D1D	35.05M	36.132M

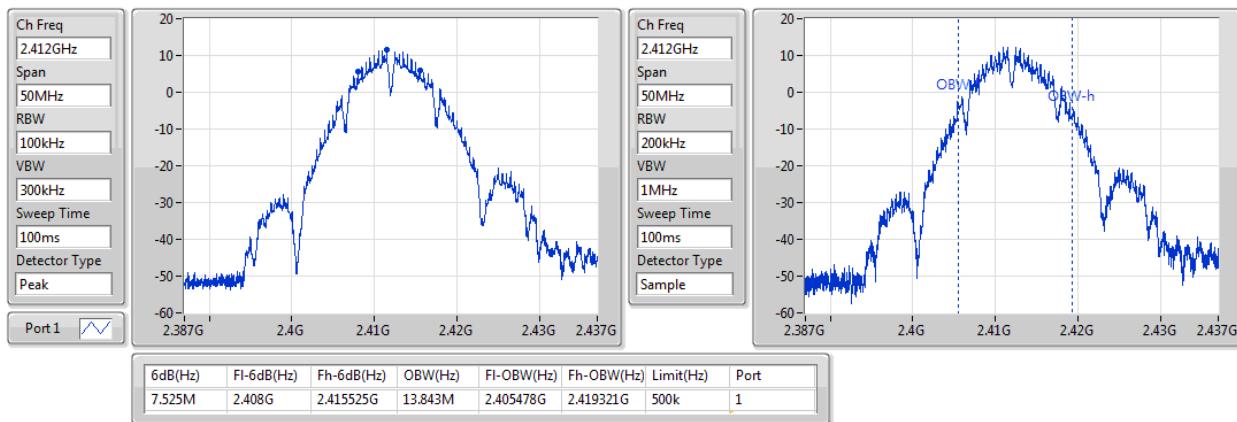
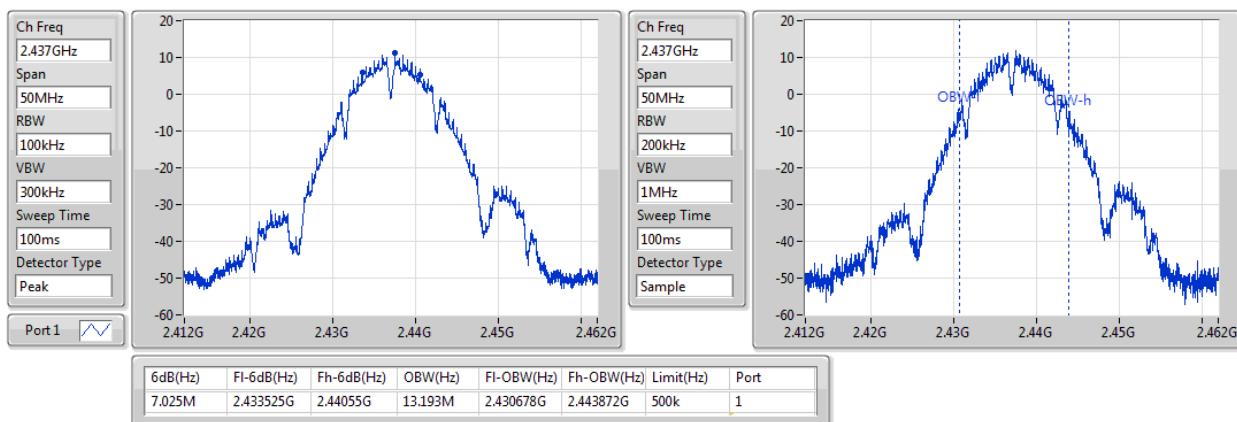
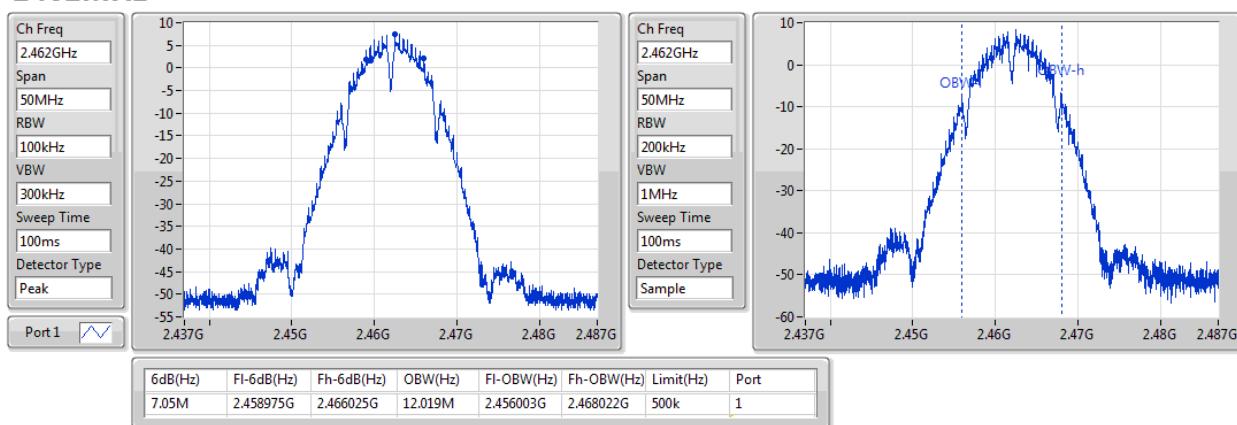
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	7.525M	13.843M
2437MHz	Pass	500k	7.025M	13.193M
2462MHz	Pass	500k	7.05M	12.019M
802.11g_(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	15.65M	16.942M
2437MHz	Pass	500k	13.8M	26.562M
2462MHz	Pass	500k	16.25M	16.617M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	16.55M	17.991M
2437MHz	Pass	500k	16.875M	26.637M
2462MHz	Pass	500k	16.875M	17.741M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	35.65M	36.132M
2437MHz	Pass	500k	35.4M	36.682M
2452MHz	Pass	500k	35.05M	36.282M

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

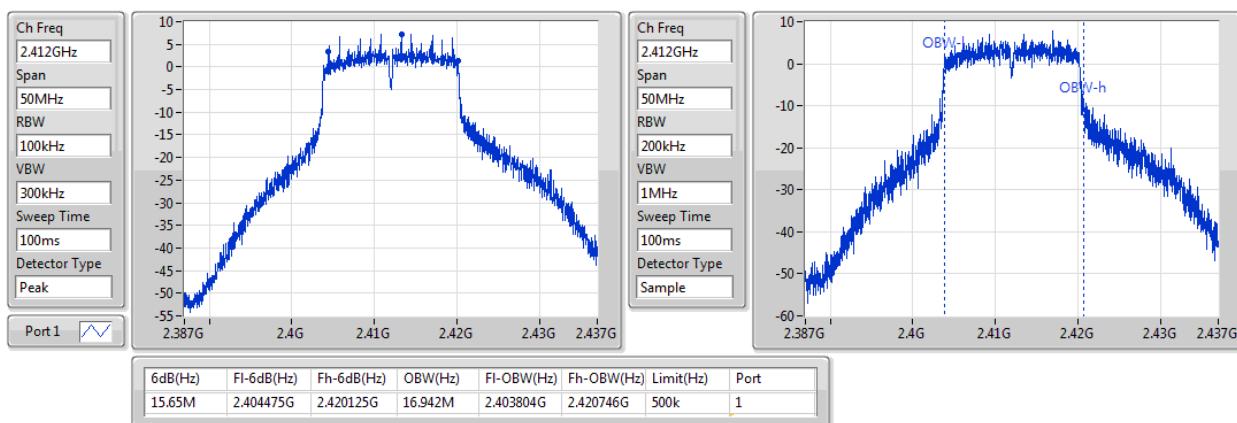
**802.11b_(1Mbps)_1TX****EBW****2412MHz****802.11b_(1Mbps)_1TX****EBW****2437MHz****802.11b_(1Mbps)_1TX****EBW****2462MHz**



802.11g_(6Mbps)_1TX

EBW

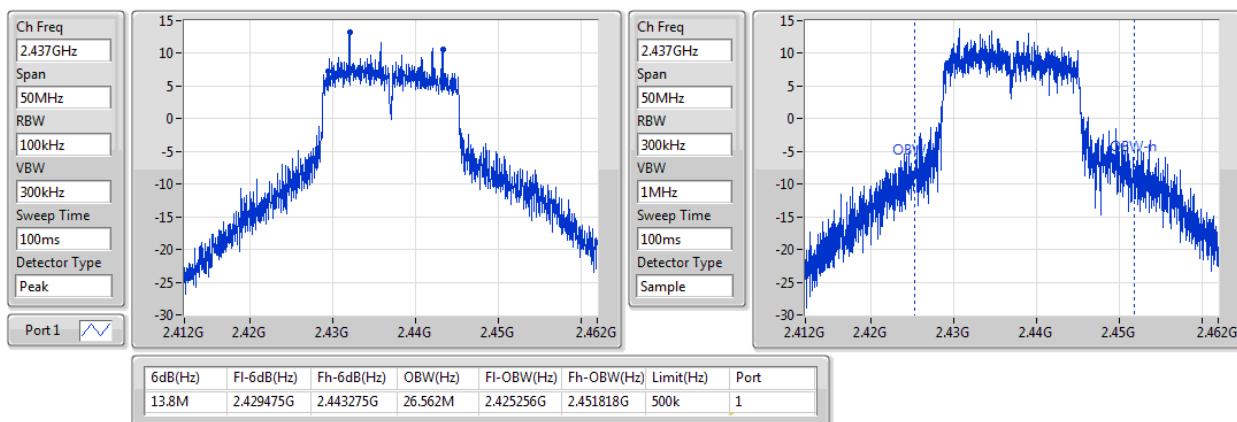
2412MHz



802.11g_(6Mbps)_1TX

EBW

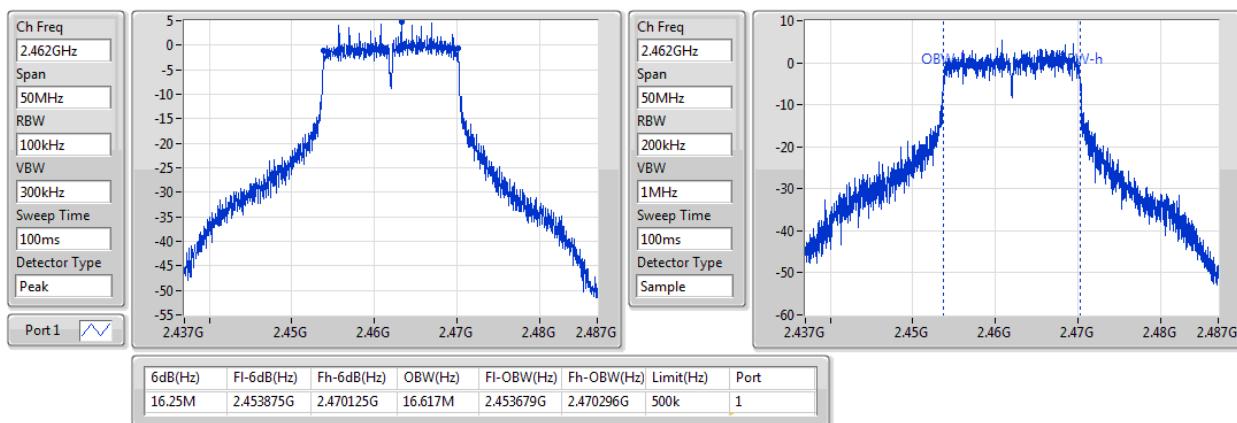
2437MHz



802.11g_(6Mbps)_1TX

EBW

2462MHz

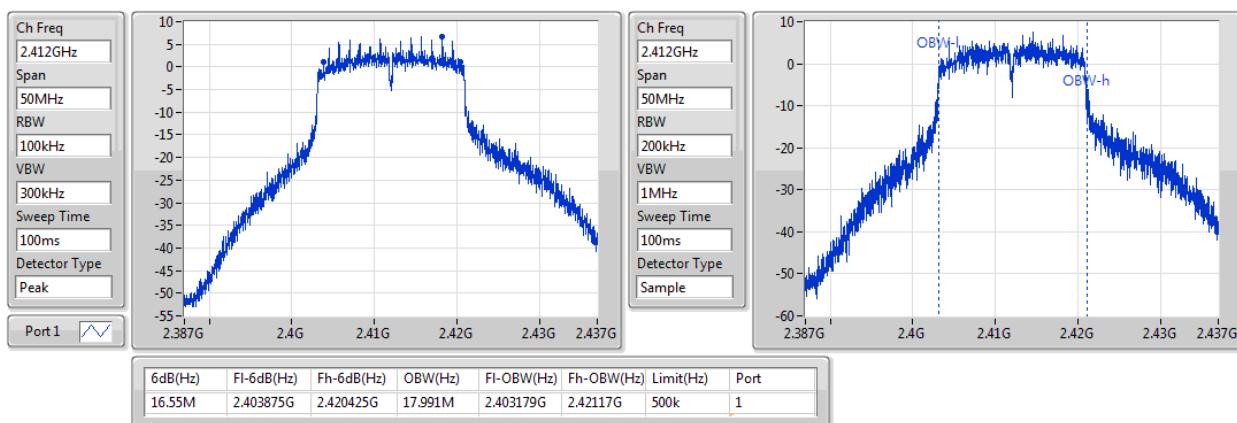




802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

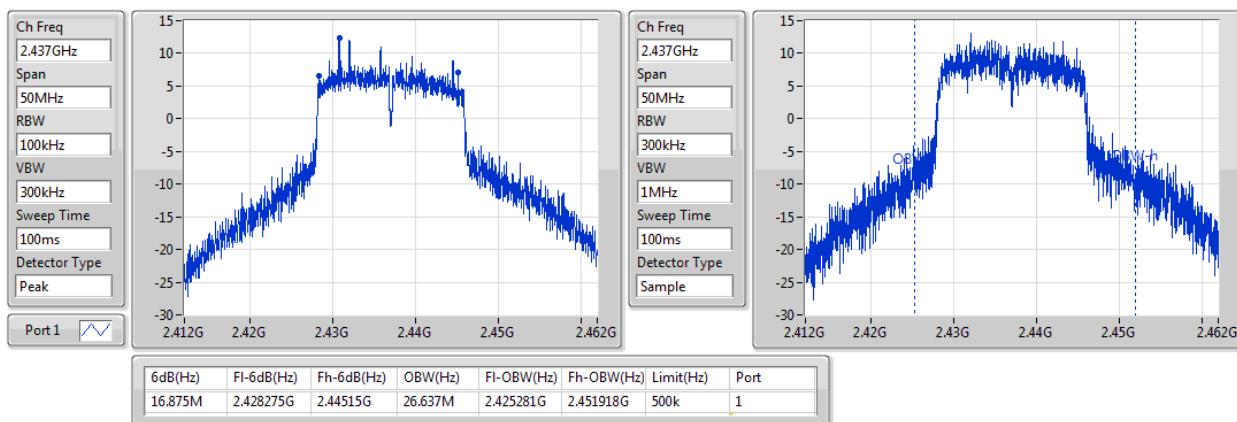
2412MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

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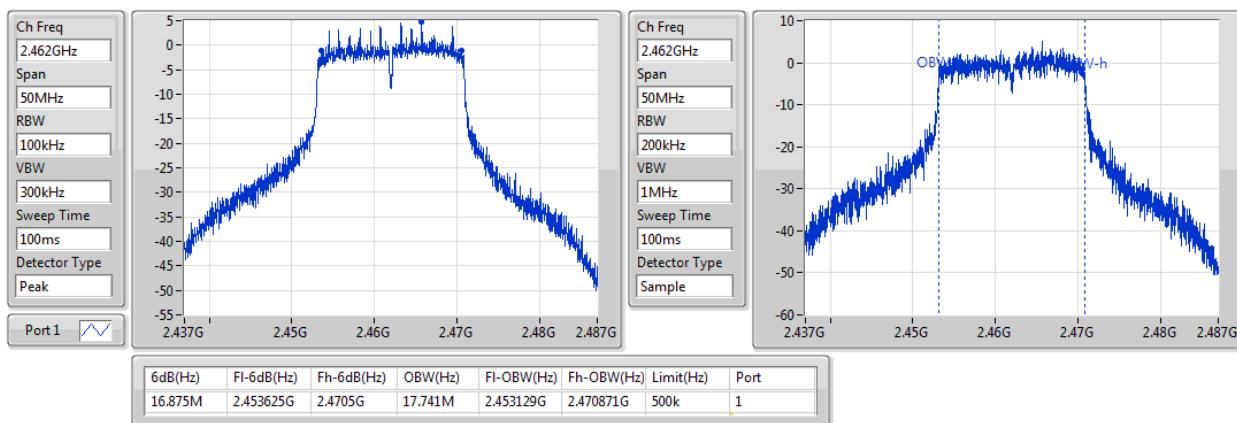
2437MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

2462MHz

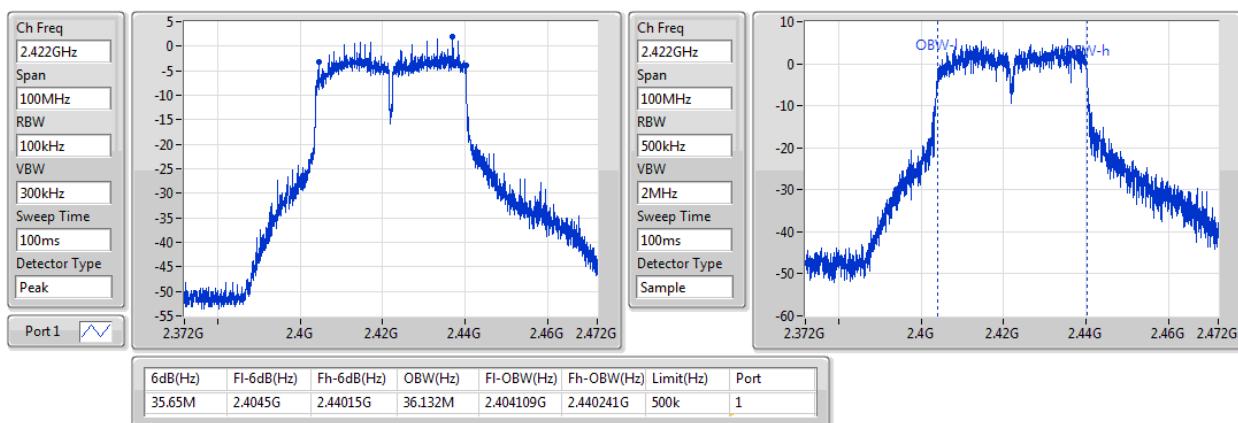




802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

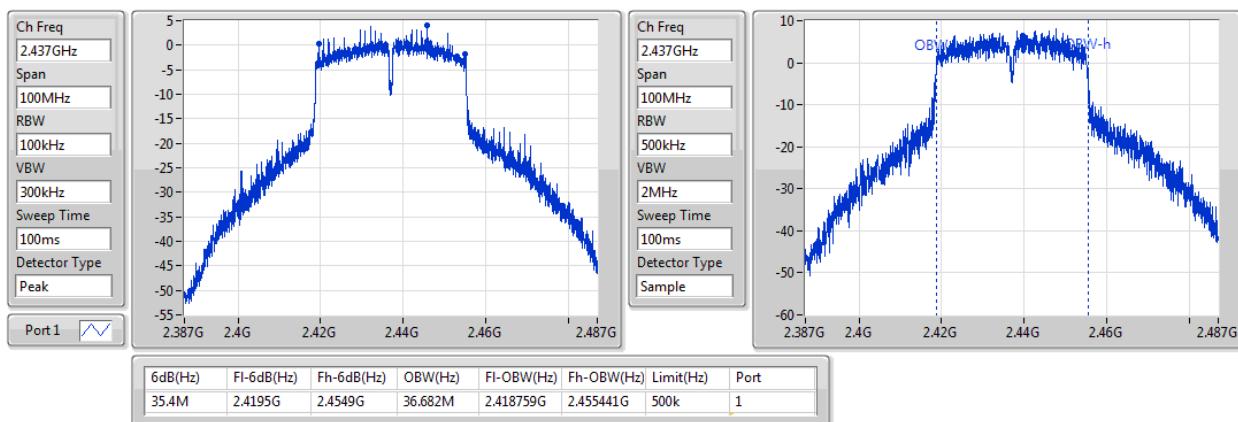
2422MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

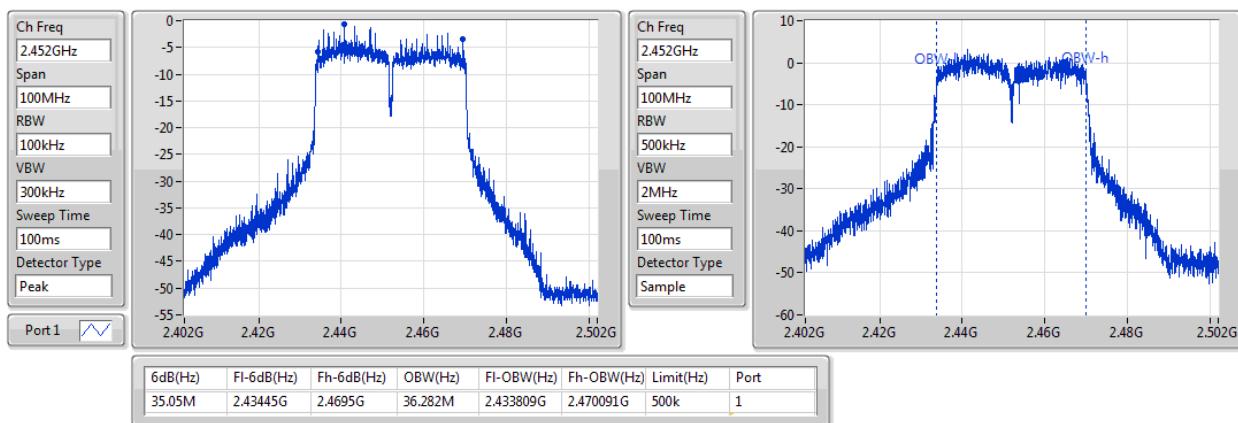
2437MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

2452MHz





For Set 3 antennas / 1TX:
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	7.5M	13.518M	13M5G1D	7.025M	11.969M
802.11g_(6Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	15.925M	21.864M	21M9D1D	15M	16.542M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	17.125M	22.714M	22M7D1D	15.625M	17.716M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	35.1M	36.182M	36M2D1D	33.85M	36.182M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	7.05M	13.518M
2437MHz	Pass	500k	7.025M	12.594M
2462MHz	Pass	500k	7.5M	11.969M
802.11g_(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	15.6M	16.792M
2437MHz	Pass	500k	15M	21.864M
2462MHz	Pass	500k	15.925M	16.542M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	15.625M	17.841M
2437MHz	Pass	500k	15.625M	22.714M
2462MHz	Pass	500k	17.125M	17.716M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	34.45M	36.182M
2437MHz	Pass	500k	33.85M	36.182M
2452MHz	Pass	500k	35.1M	36.182M

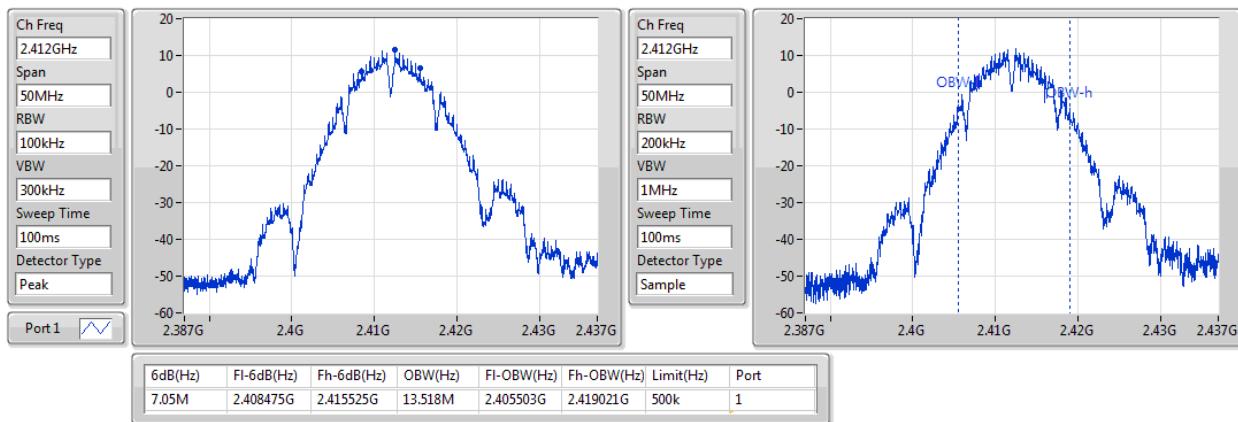
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11b_(1Mbps)_1TX

EBW

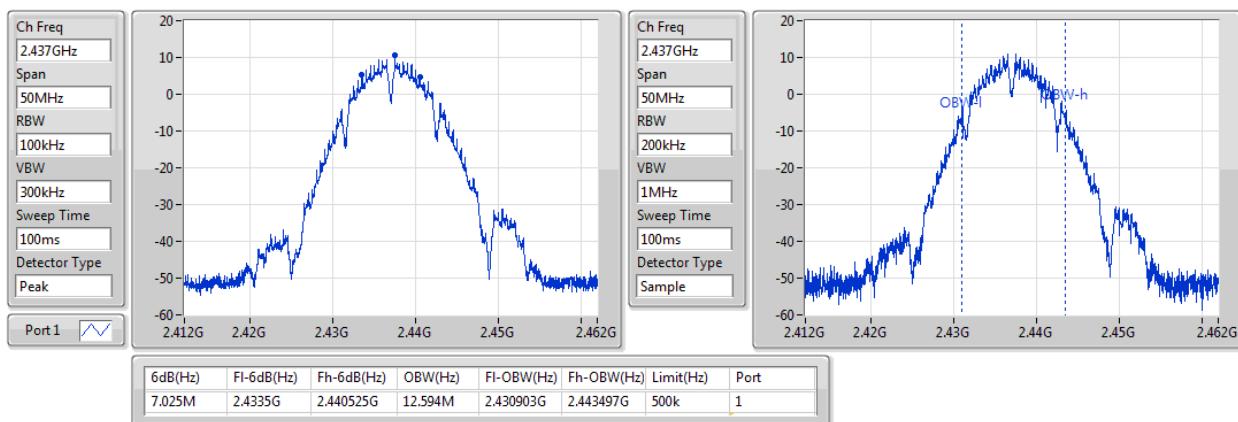
2412MHz



802.11b_(1Mbps)_1TX

EBW

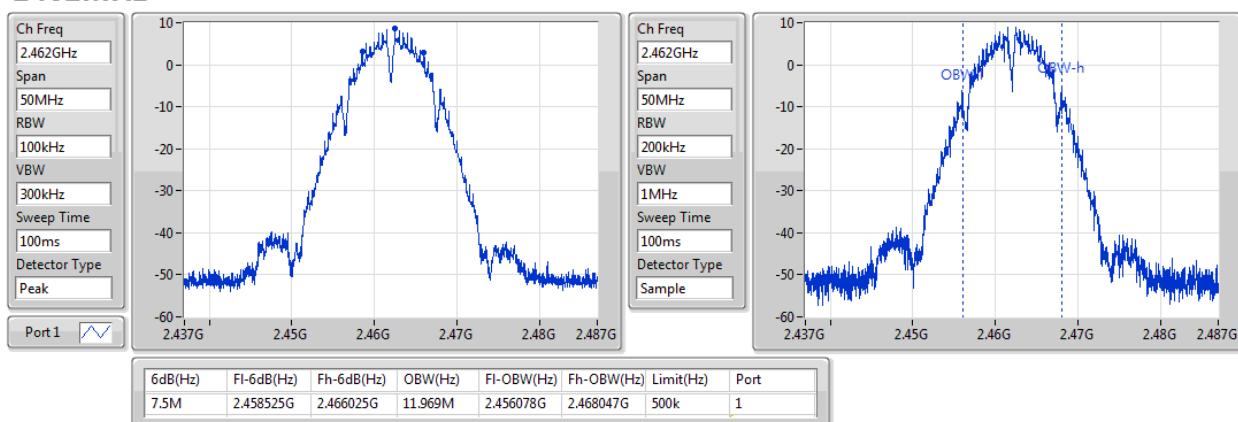
2437MHz



802.11b_(1Mbps)_1TX

EBW

2462MHz

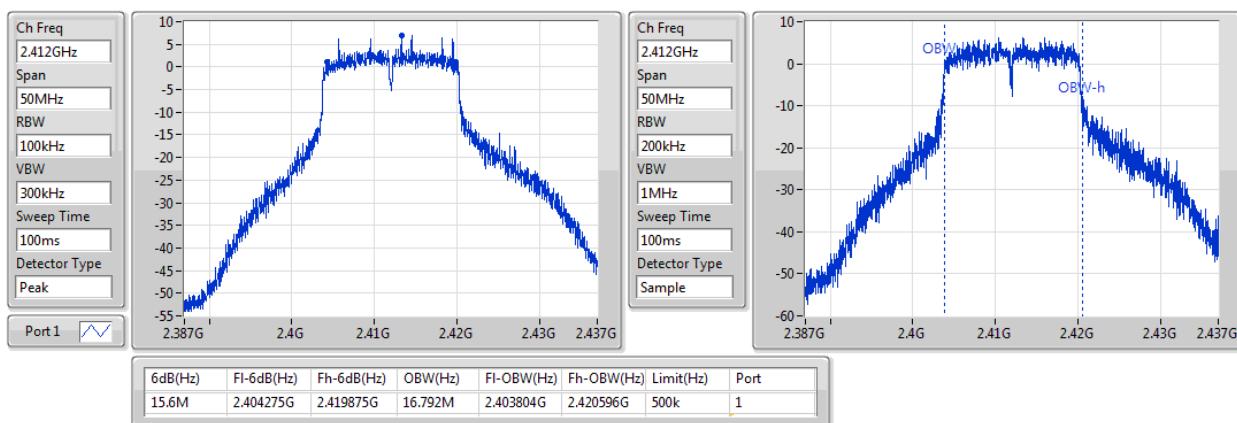




802.11g_(6Mbps)_1TX

EBW

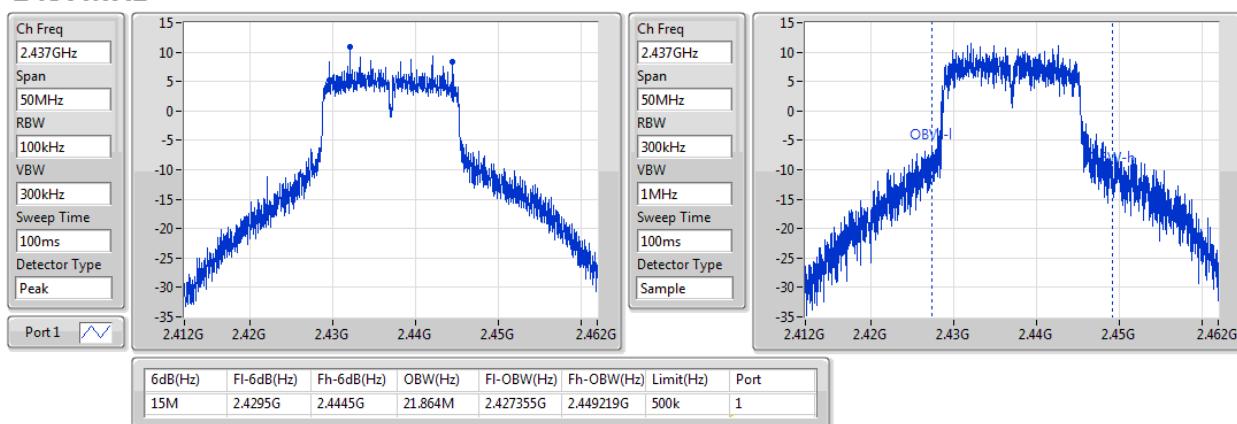
2412MHz



802.11g_(6Mbps)_1TX

EBW

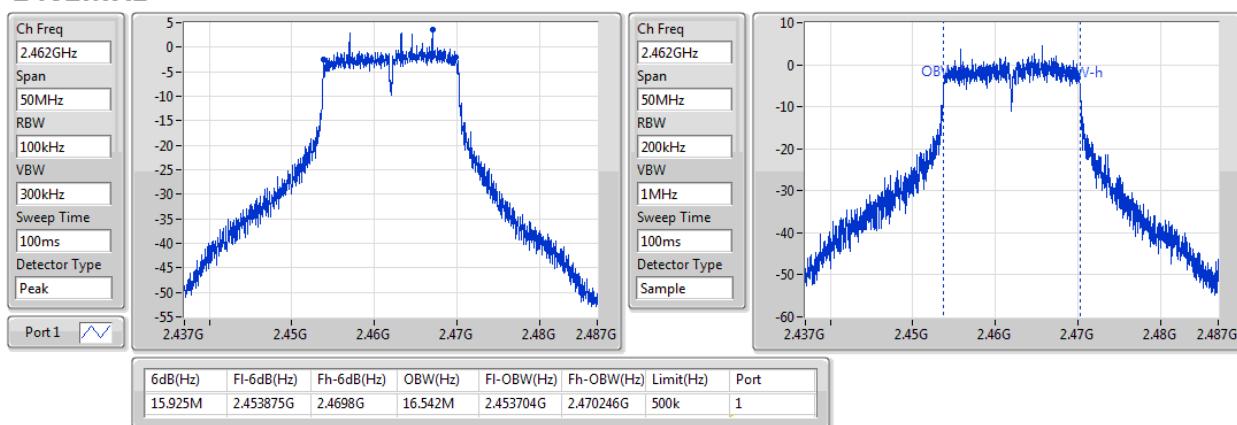
2437MHz



802.11g_(6Mbps)_1TX

EBW

2462MHz

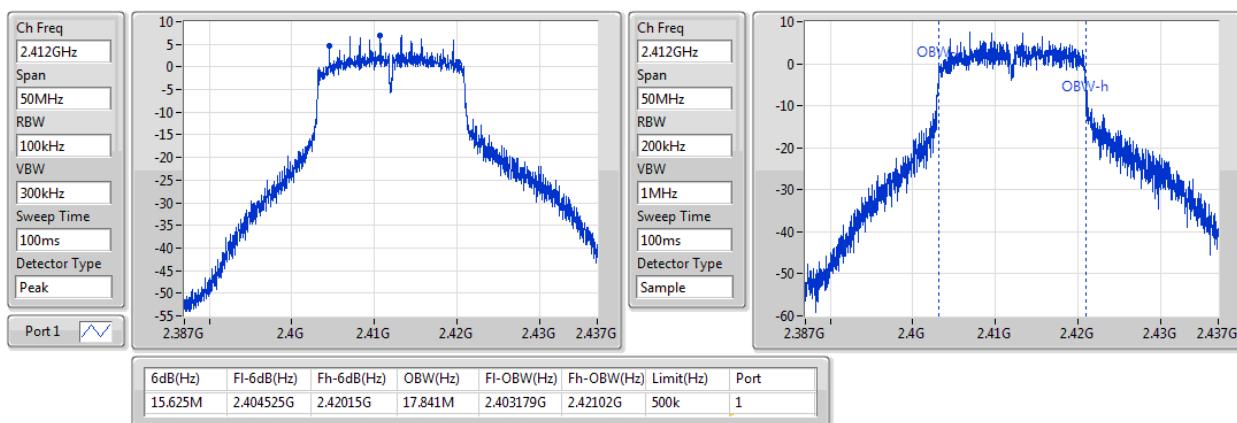




802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

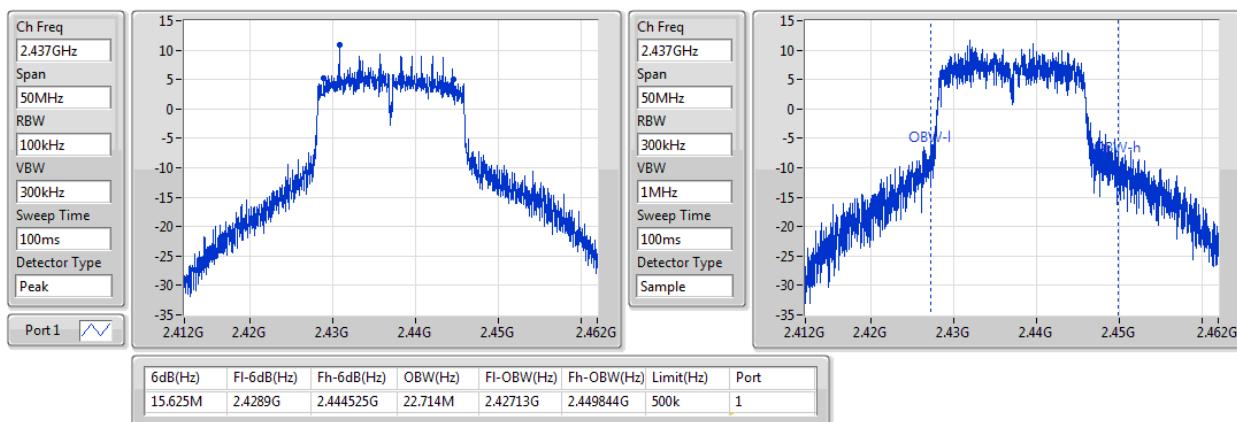
2412MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

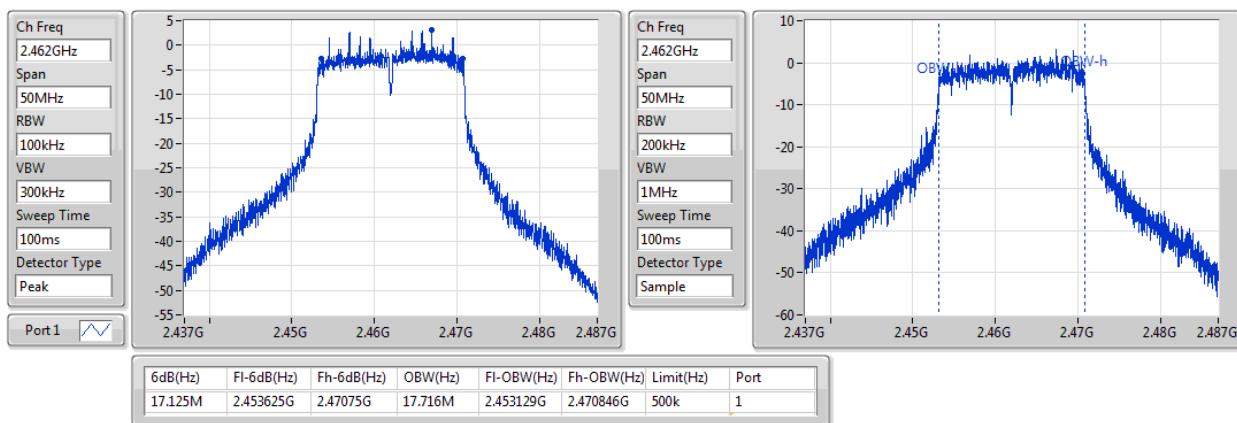
2437MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

2462MHz

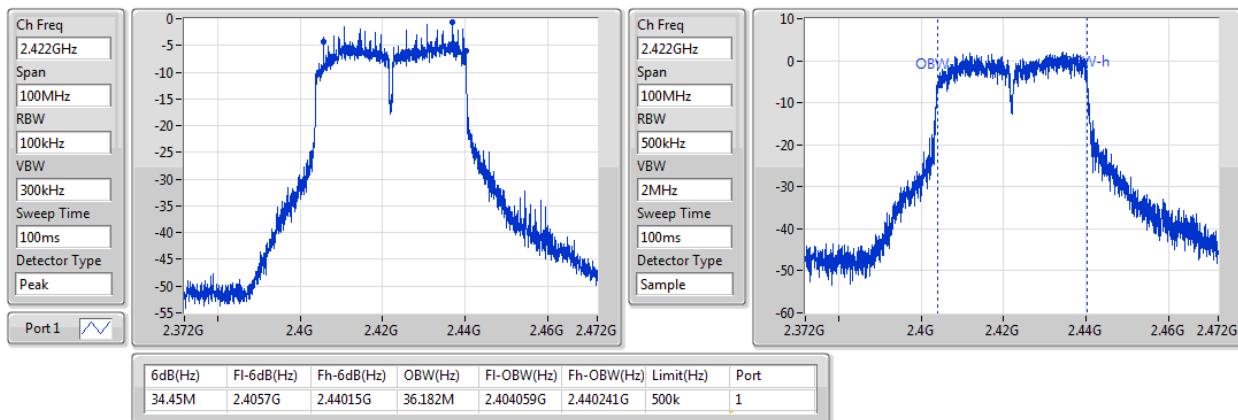




802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

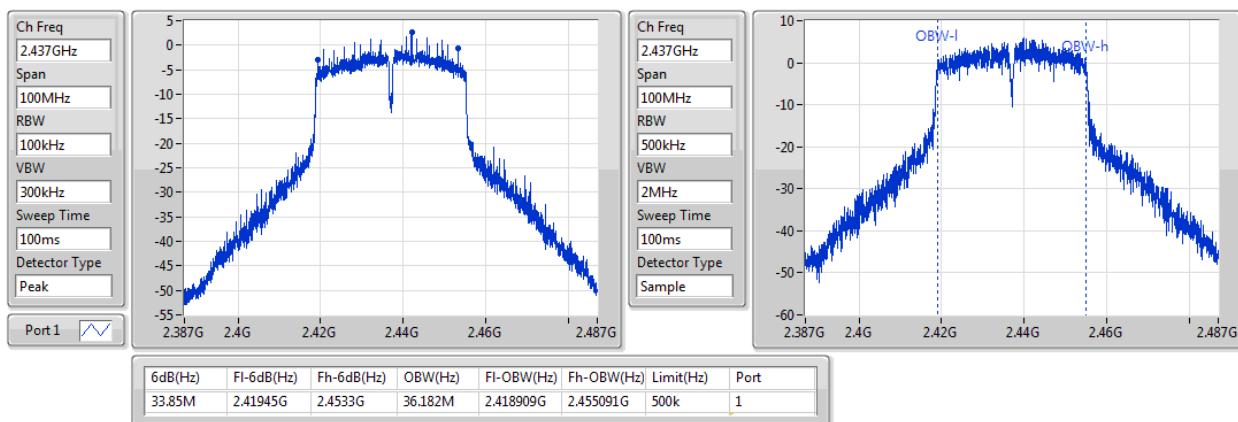
2422MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

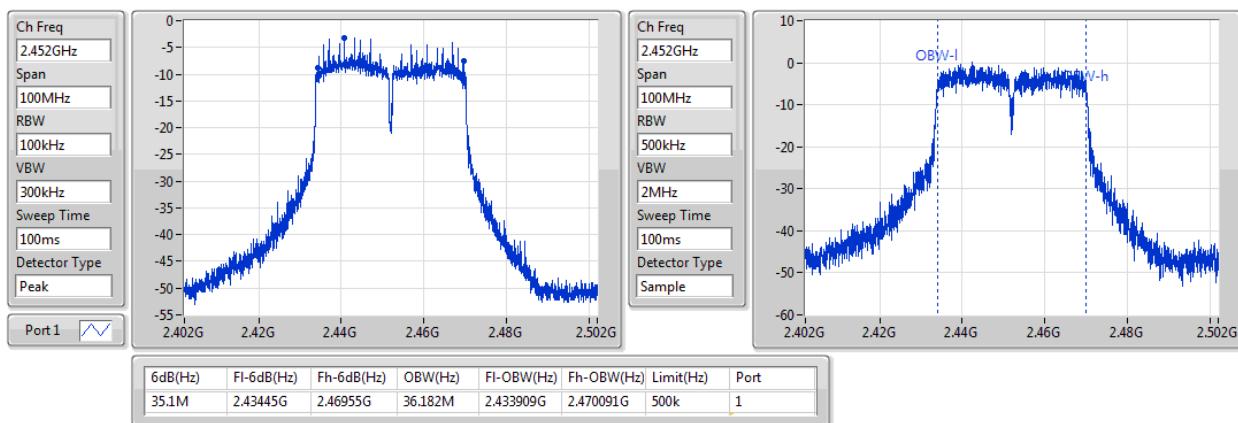
2437MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

2452MHz





For Set 4 antennas / 1TX:
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	7.1M	13.793M	13M8G1D	6.6M	11.769M
802.11g_(6Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	16.3M	24.438M	24M4D1D	14.95M	16.567M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	16.5M	25.287M	25M3D1D	15.7M	17.716M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	35.65M	36.232M	36M2D1D	33.85M	36.082M

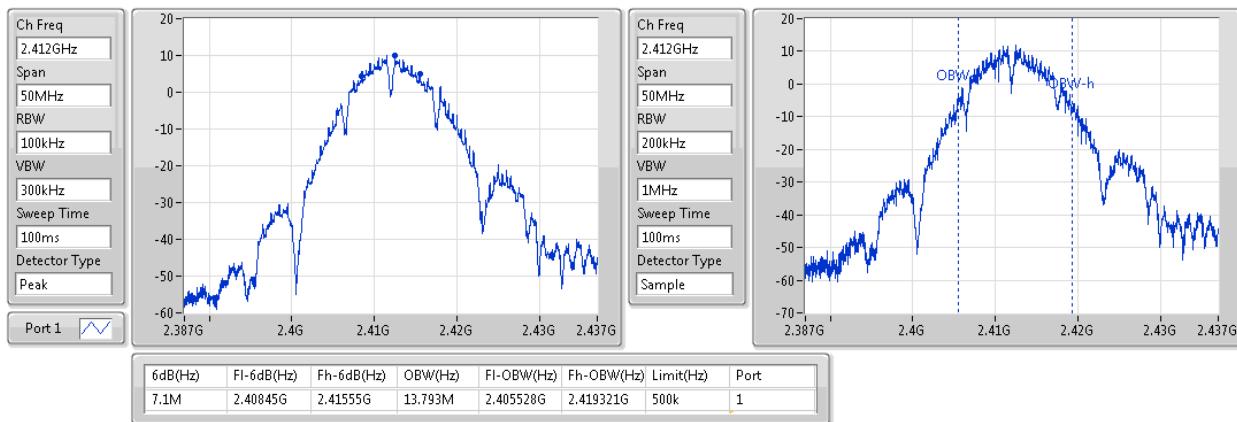
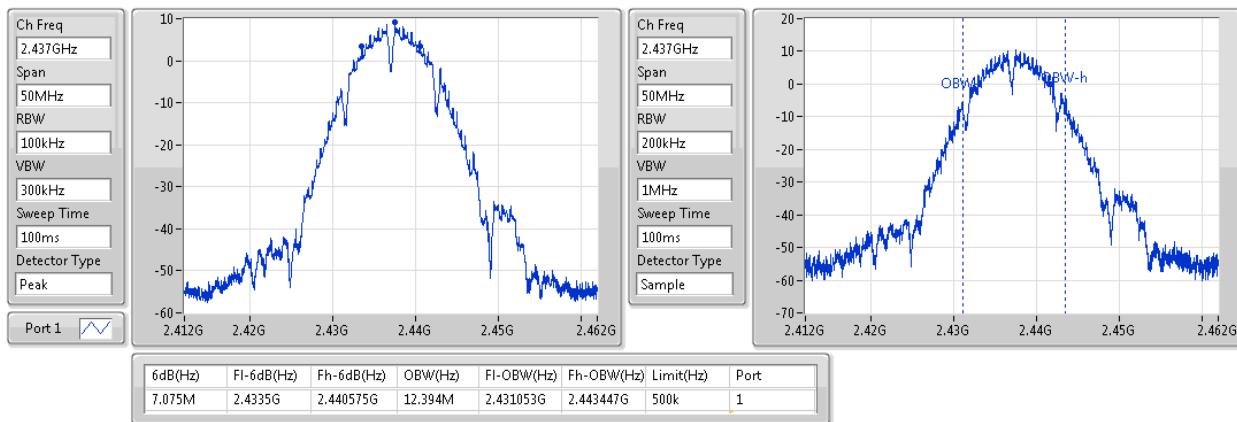
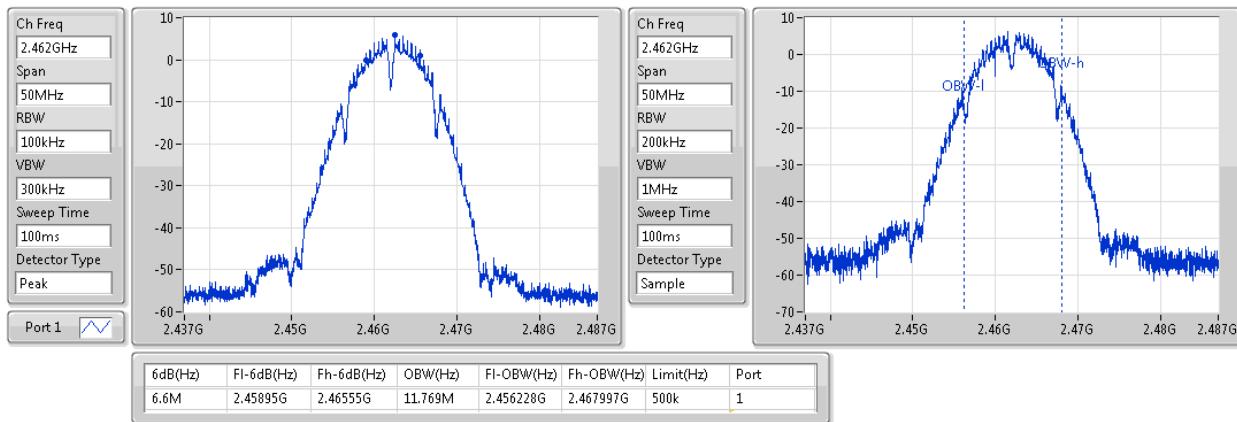
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	7.1M	13.793M
2437MHz	Pass	500k	7.075M	12.394M
2462MHz	Pass	500k	6.6M	11.769M
802.11g_(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	15.9M	17.516M
2437MHz	Pass	500k	16.3M	24.438M
2462MHz	Pass	500k	14.95M	16.567M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	15.7M	18.341M
2437MHz	Pass	500k	16.5M	25.287M
2462MHz	Pass	500k	15.9M	17.716M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	35.65M	36.082M
2437MHz	Pass	500k	33.85M	36.182M
2452MHz	Pass	500k	35.05M	36.232M

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

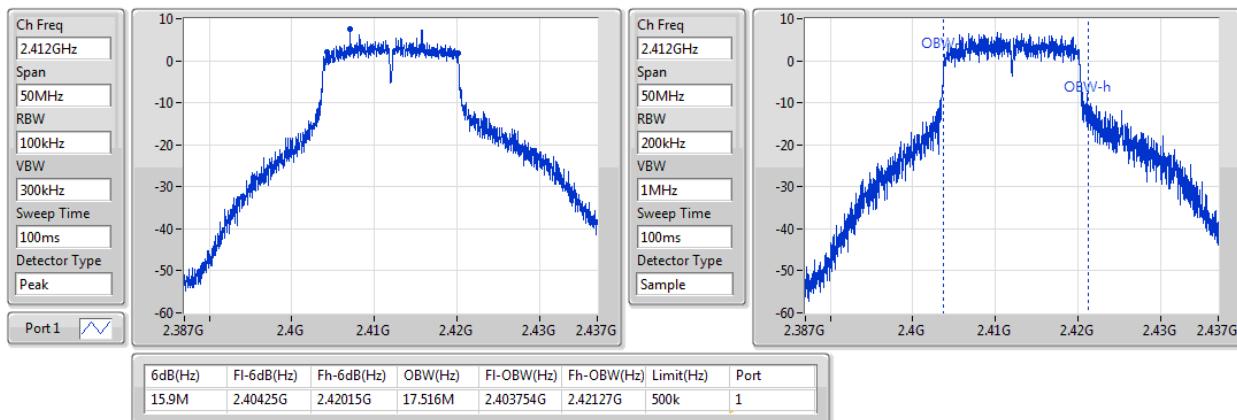
**802.11b_(1Mbps)_1TX****EBW****2412MHz****802.11b_(1Mbps)_1TX****EBW****2437MHz****802.11b_(1Mbps)_1TX****EBW****2462MHz**



802.11g_(6Mbps)_1TX

EBW

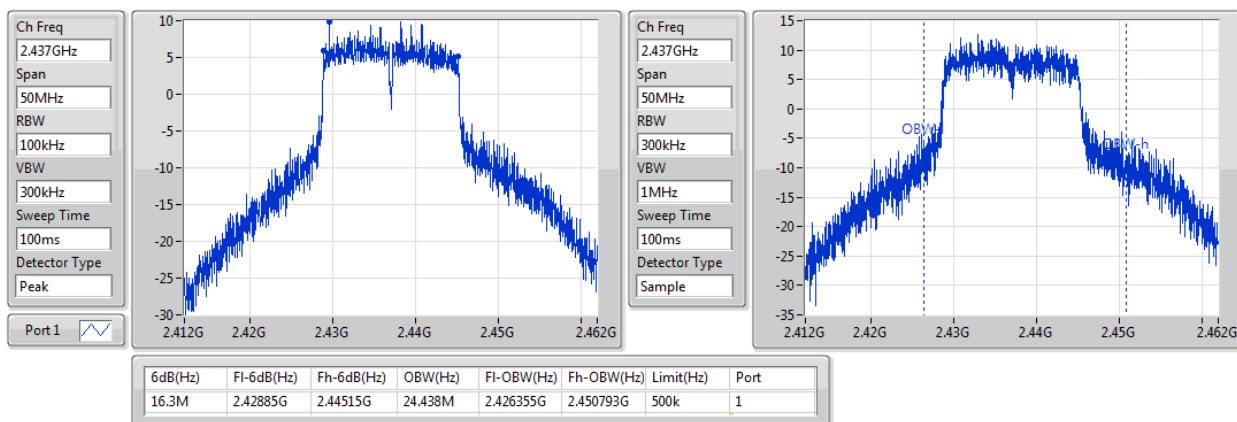
2412MHz



802.11g_(6Mbps)_1TX

EBW

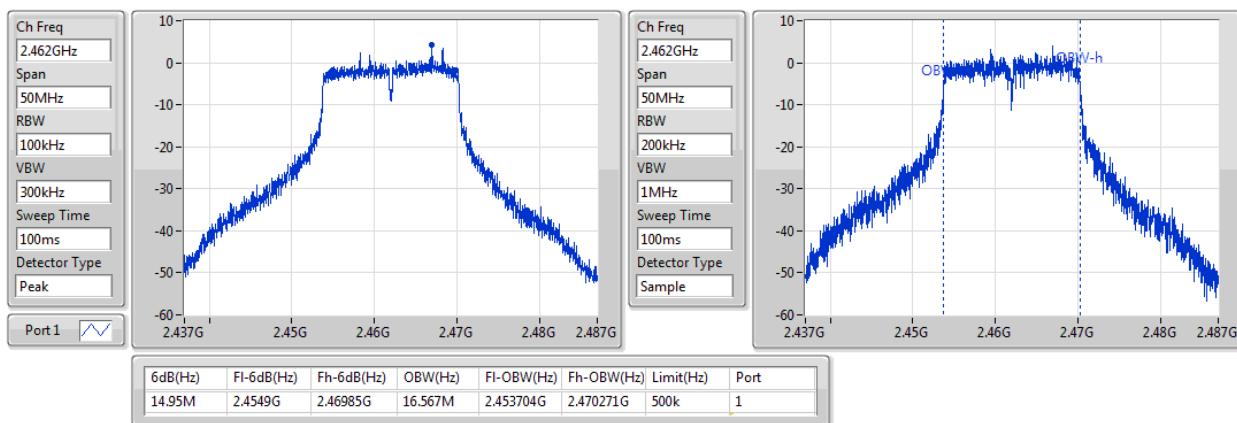
2437MHz



802.11g_(6Mbps)_1TX

EBW

2462MHz

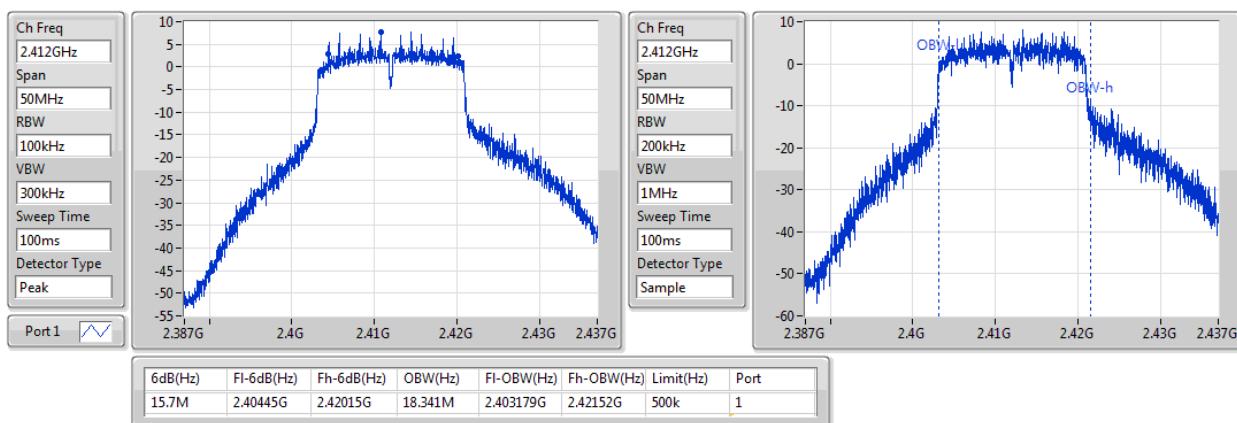




802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

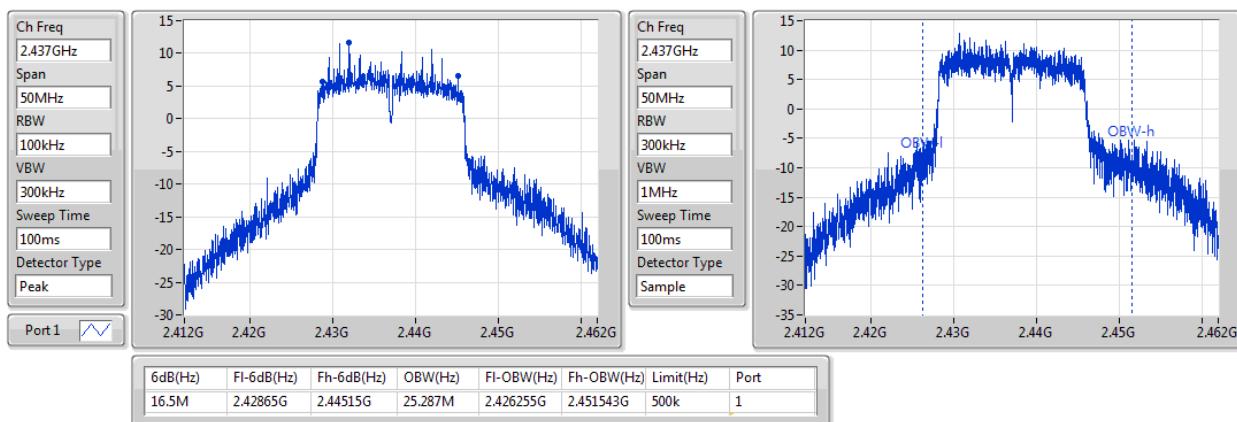
2412MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

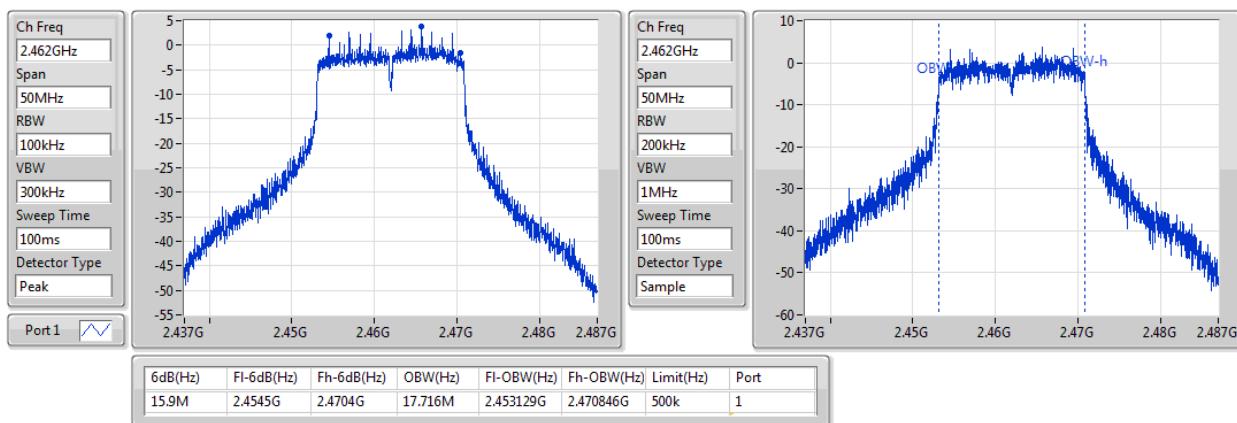
2437MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

2462MHz

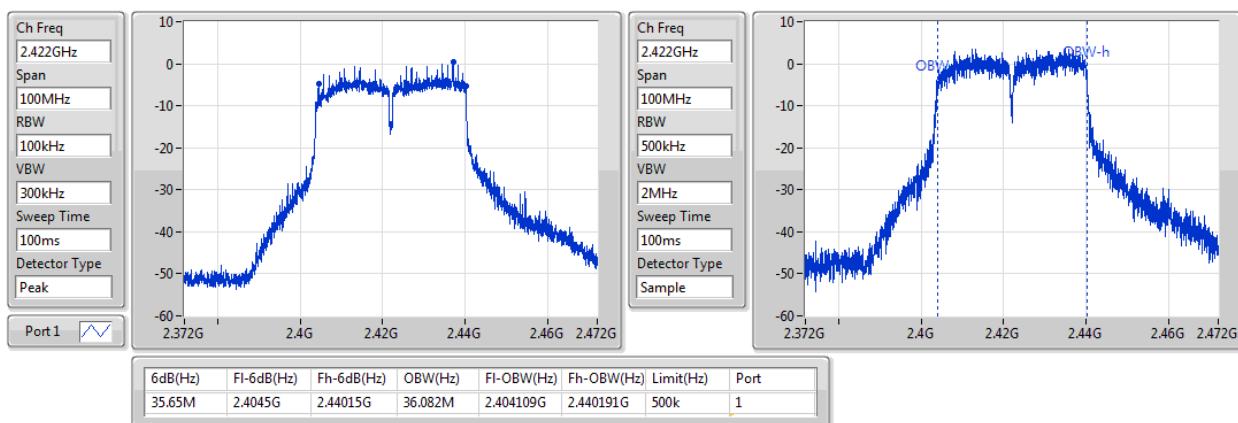




802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

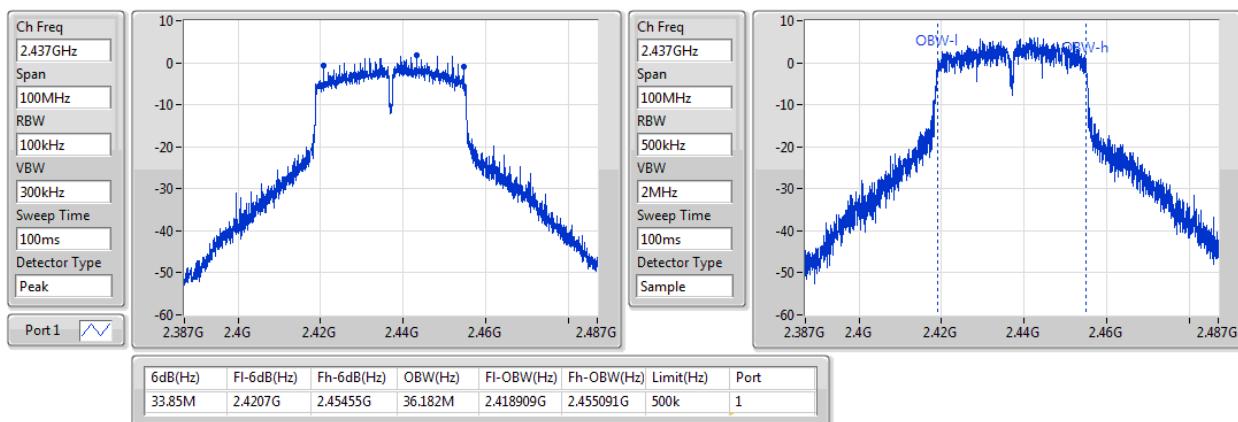
2422MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

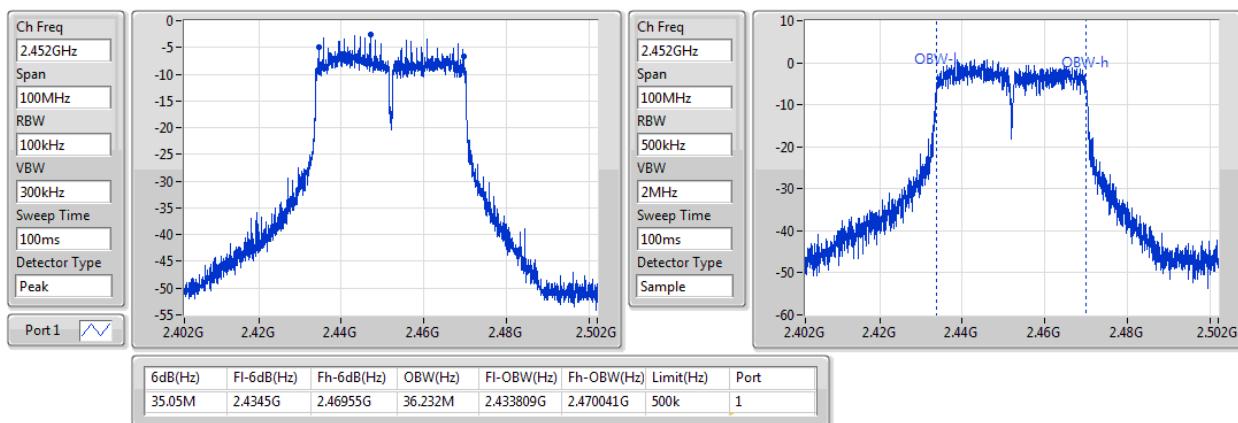
2437MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

2452MHz





For Set 5 antennas / 1TX:
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	8M	14.243M	14M2G1D	7M	12.094M
802.11g_(6Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	15.95M	24.638M	24M6D1D	15.75M	16.592M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	15.675M	24.913M	24M9D1D	15.35M	17.766M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	35.6M	36.432M	36M4D1D	35.1M	36.232M

Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	8M	14.243M
2437MHz	Pass	500k	7M	13.318M
2462MHz	Pass	500k	7.525M	12.094M
802.11g_(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	15.75M	17.591M
2437MHz	Pass	500k	15.95M	24.638M
2462MHz	Pass	500k	15.75M	16.592M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	15.6M	18.466M
2437MHz	Pass	500k	15.35M	24.913M
2462MHz	Pass	500k	15.675M	17.766M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	35.6M	36.232M
2437MHz	Pass	500k	35.1M	36.432M
2452MHz	Pass	500k	35.6M	36.282M

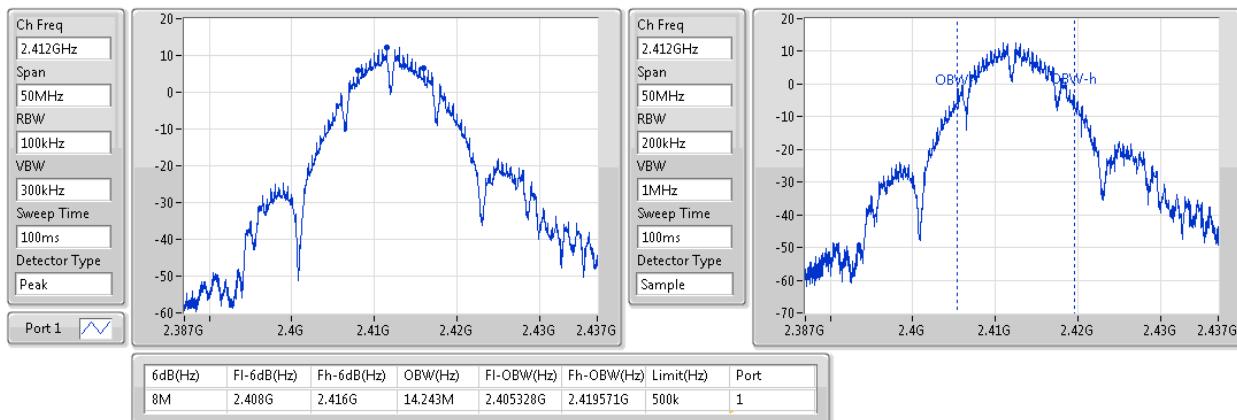
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11b_(1Mbps)_1TX

EBW

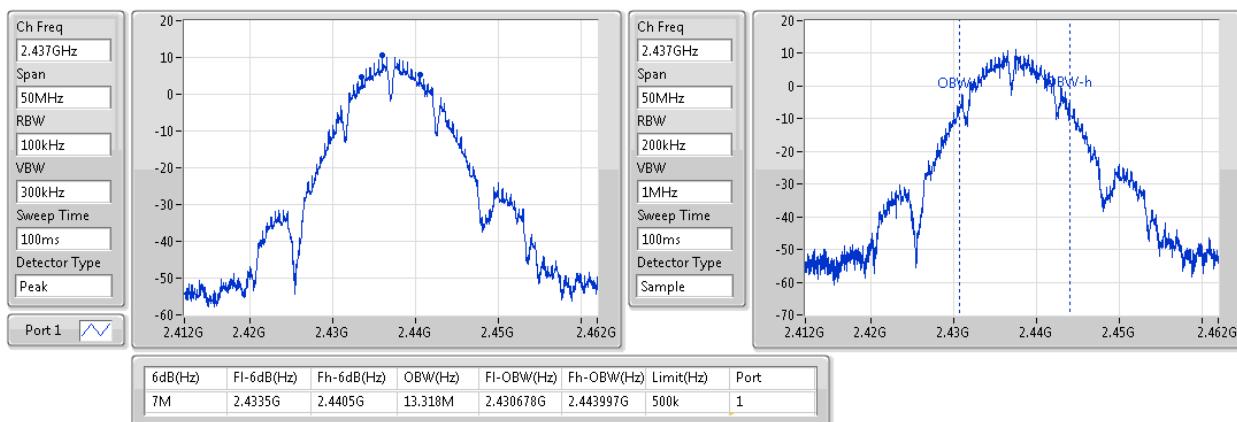
2412MHz



802.11b_(1Mbps)_1TX

EBW

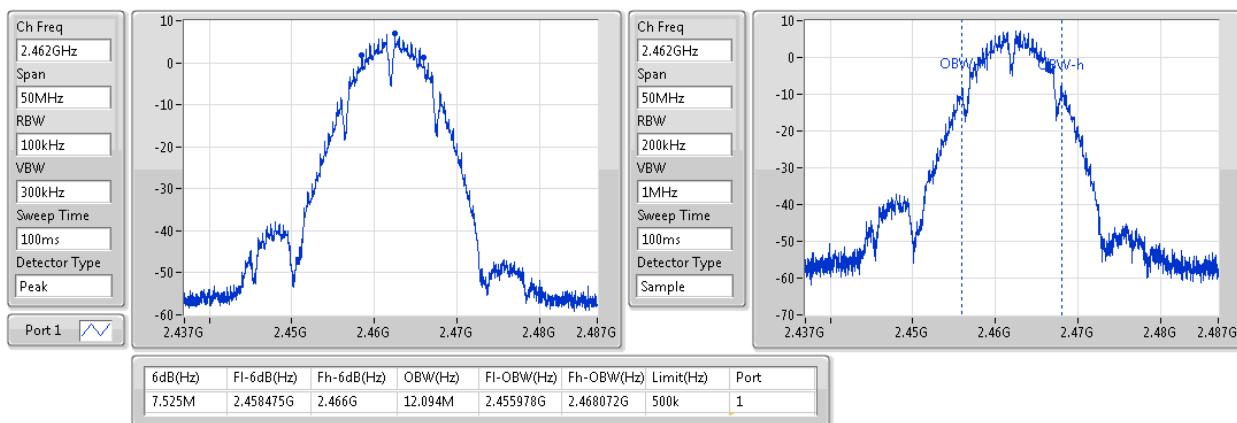
2437MHz



802.11b_(1Mbps)_1TX

EBW

2462MHz

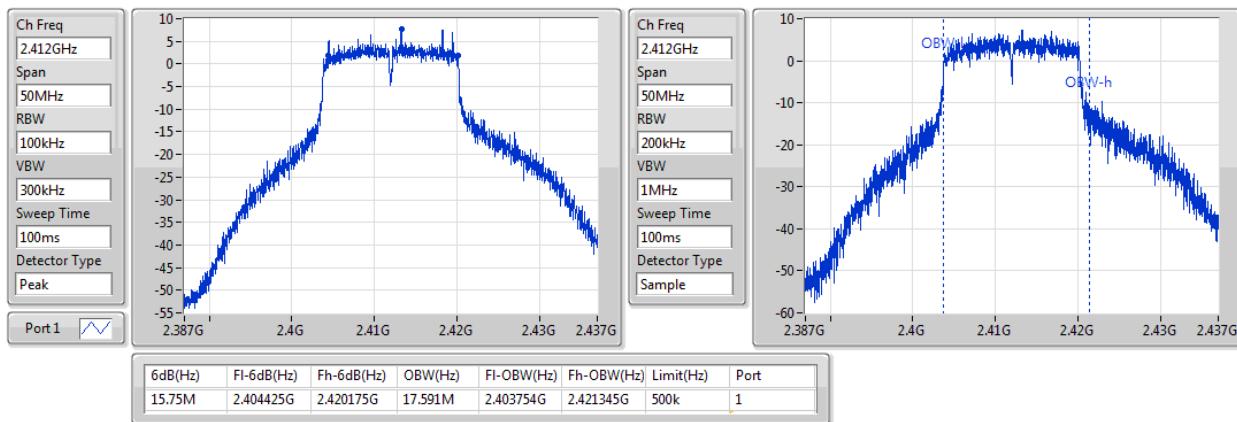




802.11g_(6Mbps)_1TX

EBW

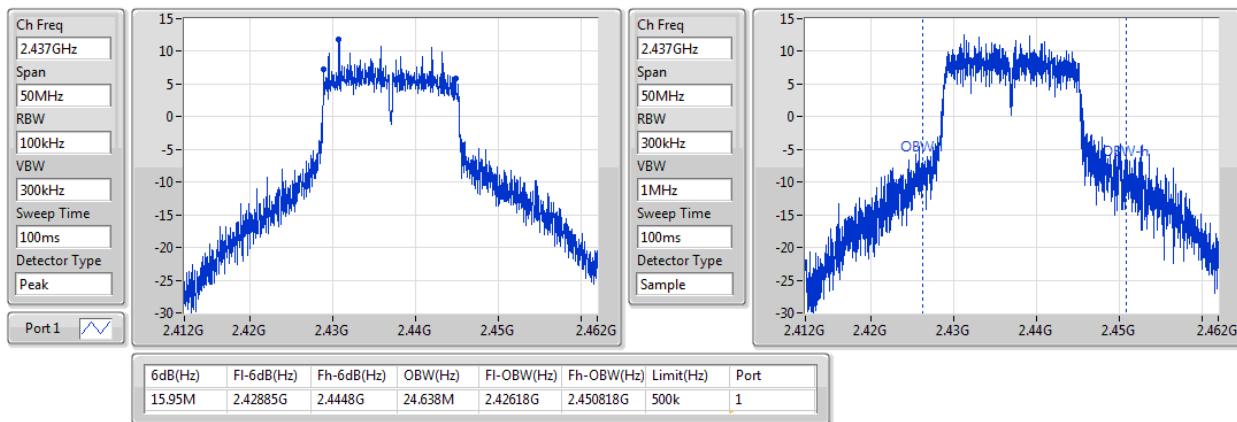
2412MHz



802.11g_(6Mbps)_1TX

EBW

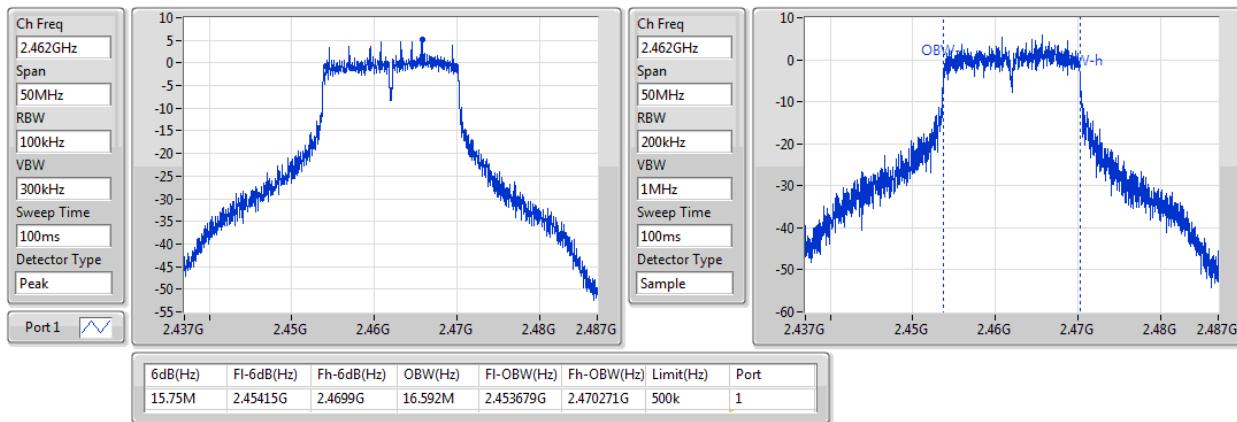
2437MHz



802.11g_(6Mbps)_1TX

EBW

2462MHz

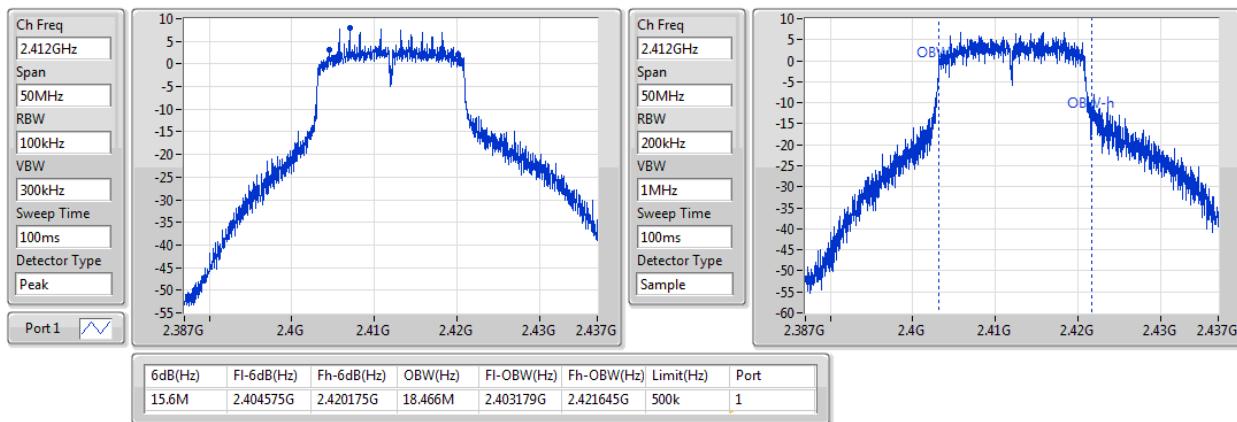




802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

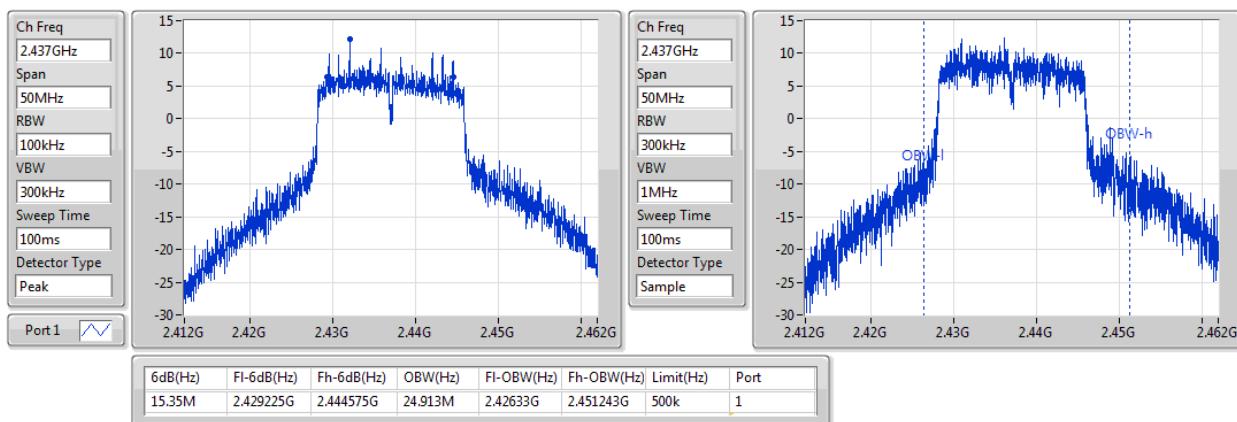
2412MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

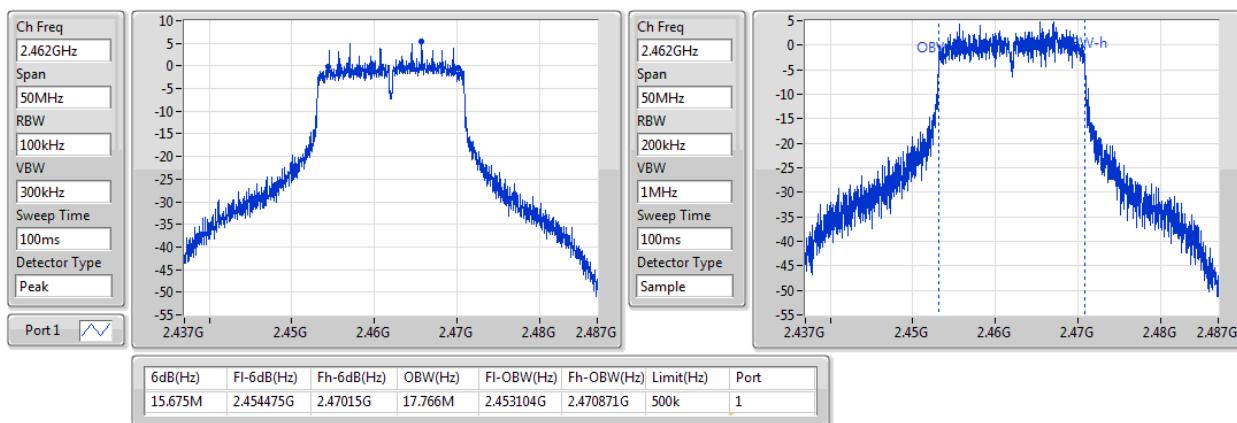
2437MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

2462MHz

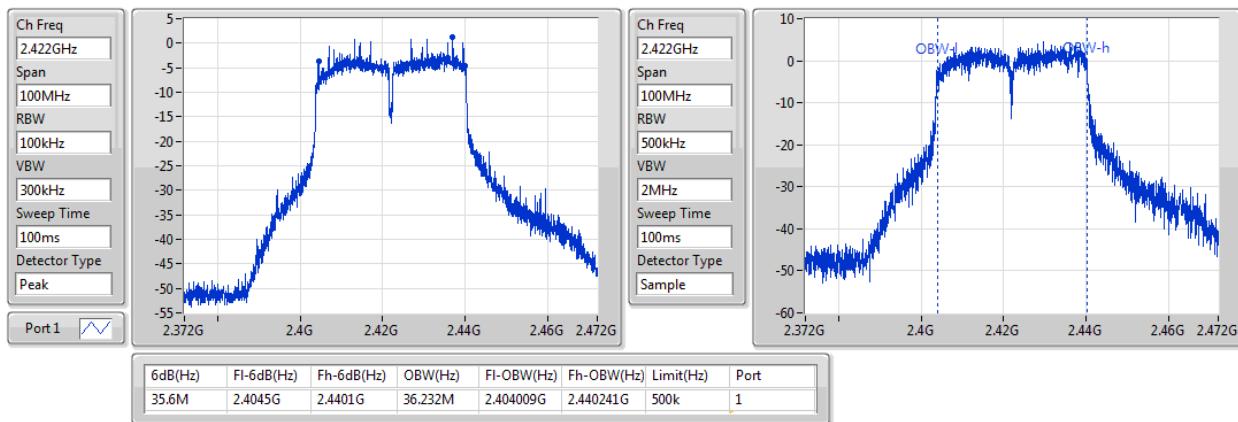




802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

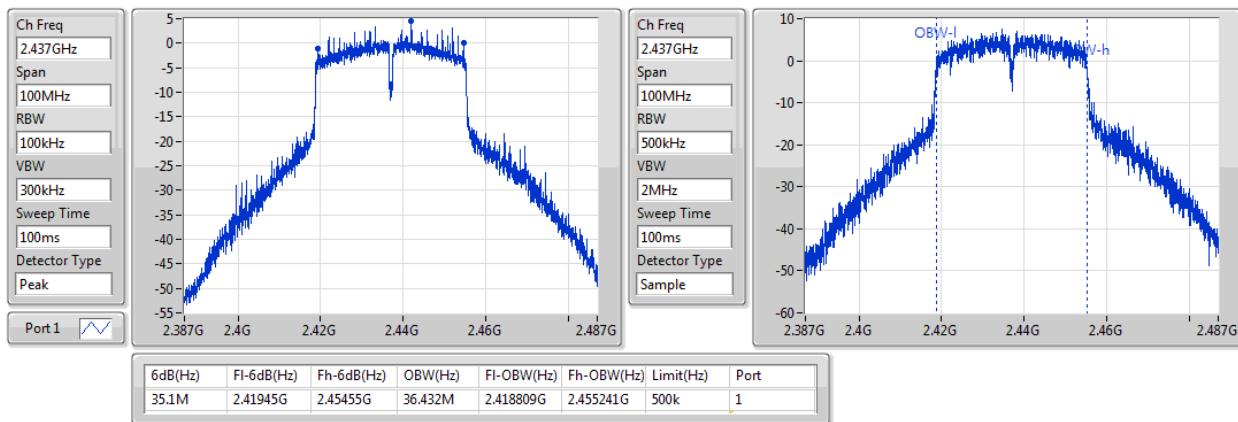
2422MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

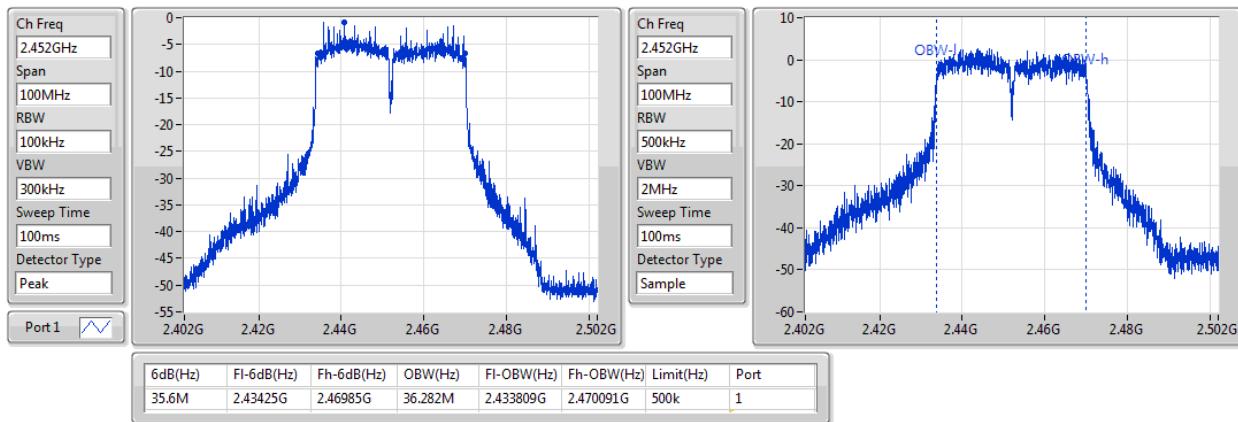
2437MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

2452MHz





For Set 6 antennas / 1TX:
Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	7.525M	14.568M	14M6G1D	7.025M	12.219M
802.11g_(6Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	16.025M	24.363M	24M4D1D	15.65M	16.667M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	16.9M	25.187M	25M2D1D	15.675M	17.791M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	35.1M	36.332M	36M3D1D	34.35M	36.132M

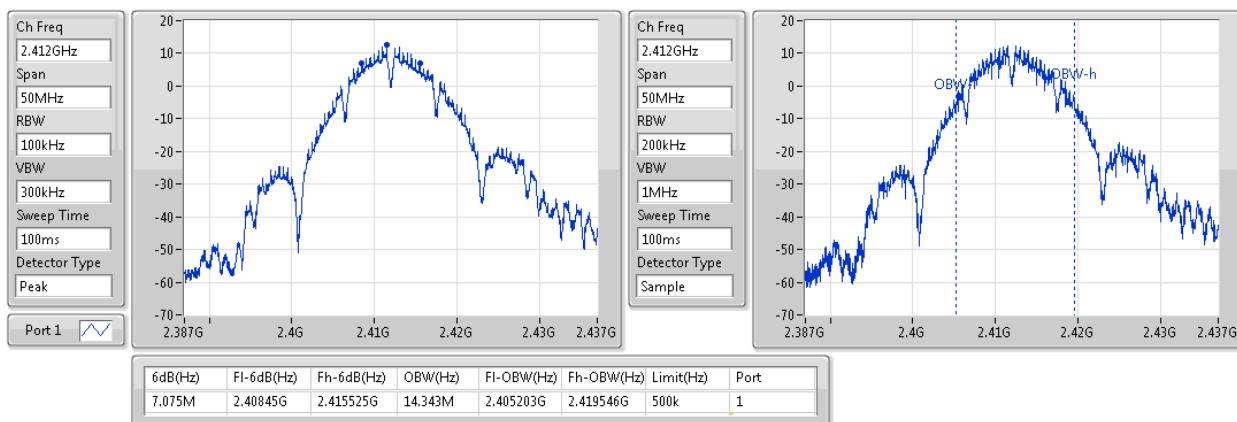
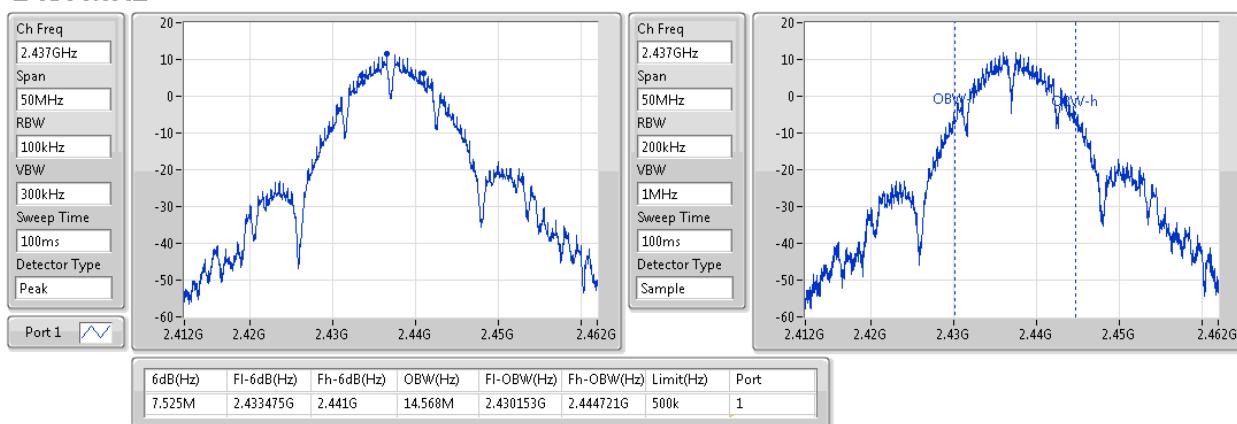
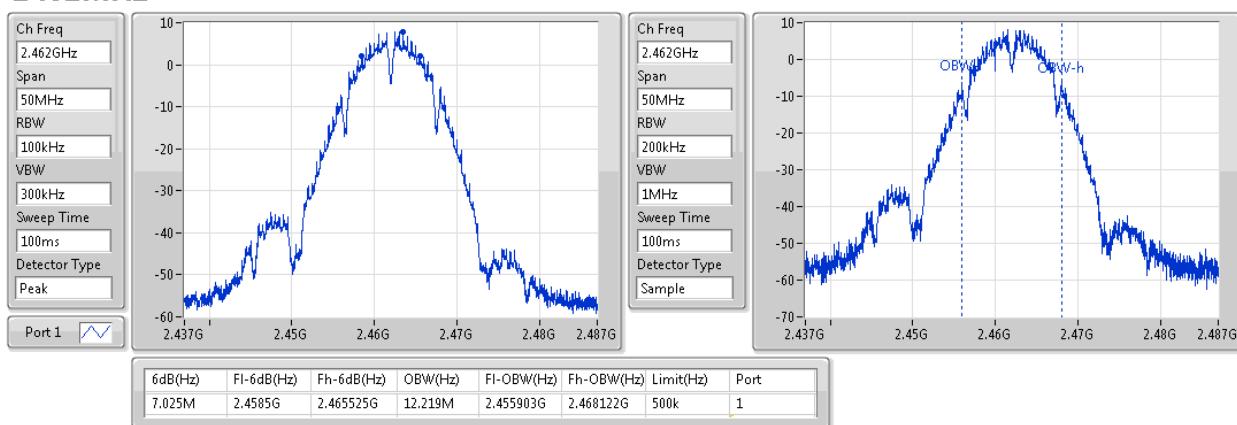
Max-N dB = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;

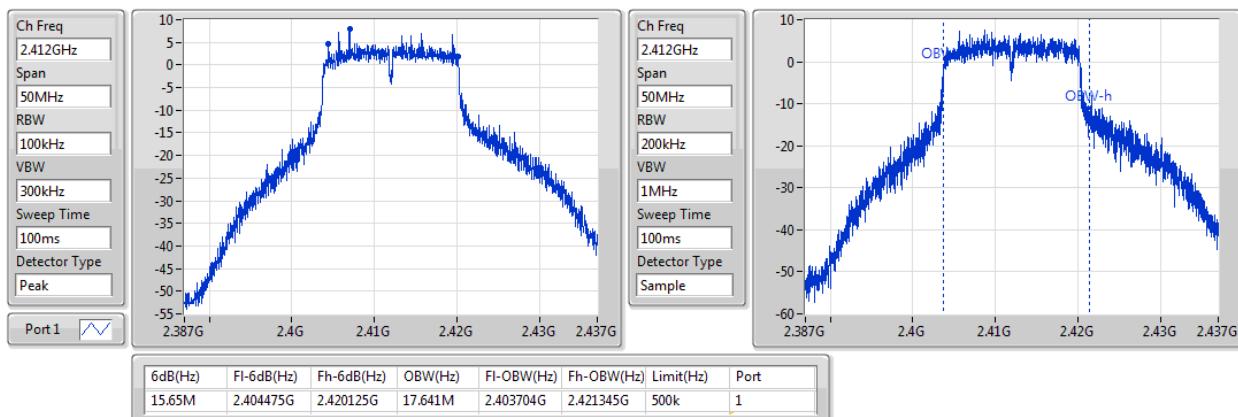
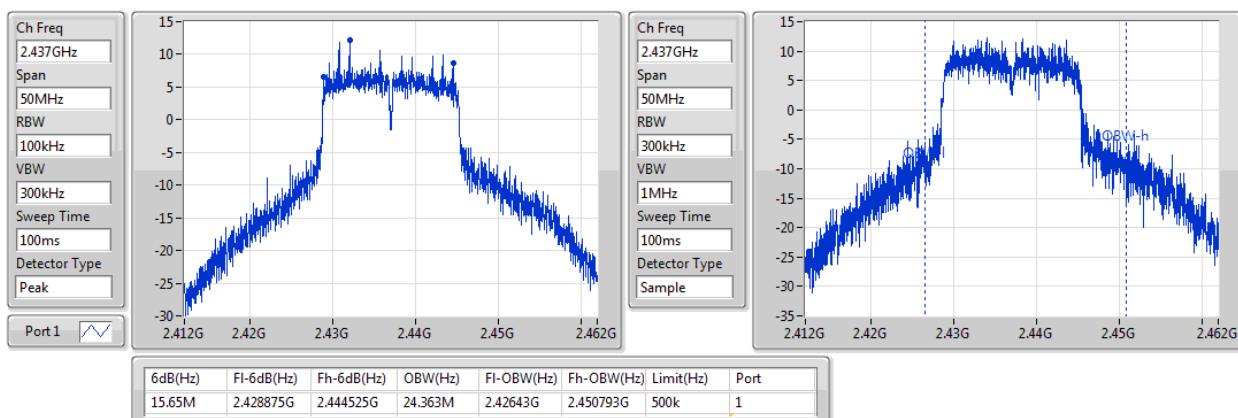
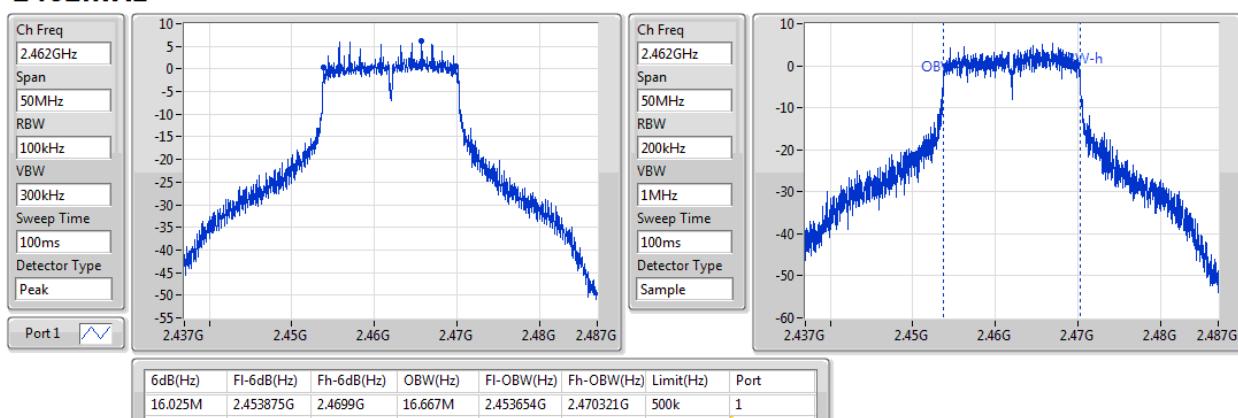
Min-N dB = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	7.075M	14.343M
2437MHz	Pass	500k	7.525M	14.568M
2462MHz	Pass	500k	7.025M	12.219M
802.11g_(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	15.65M	17.641M
2437MHz	Pass	500k	15.65M	24.363M
2462MHz	Pass	500k	16.025M	16.667M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	16.3M	18.291M
2437MHz	Pass	500k	15.675M	25.187M
2462MHz	Pass	500k	16.9M	17.791M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	34.35M	36.132M
2437MHz	Pass	500k	34.95M	36.232M
2452MHz	Pass	500k	35.1M	36.332M

Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

**802.11b_(1Mbps)_1TX****EBW****2412MHz****802.11b_(1Mbps)_1TX****EBW****2437MHz****802.11b_(1Mbps)_1TX****EBW****2462MHz**

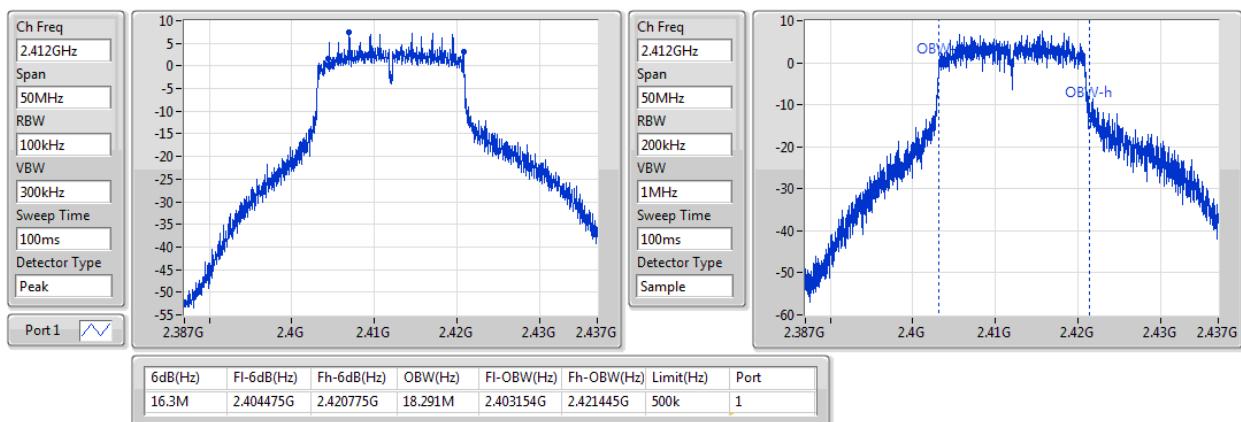
**802.11g_(6Mbps)_1TX****EBW****2412MHz****802.11g_(6Mbps)_1TX****EBW****2437MHz****802.11g_(6Mbps)_1TX****EBW****2462MHz**



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

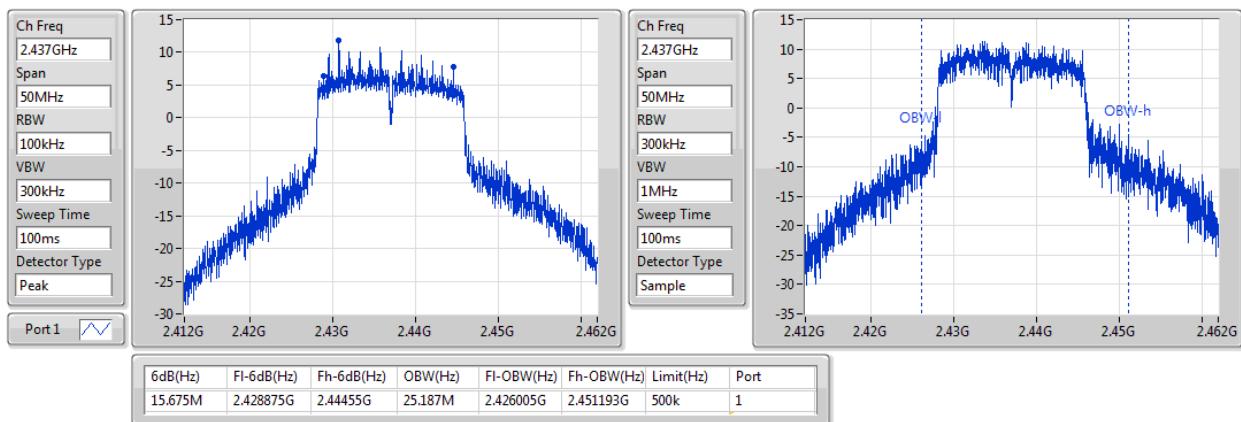
2412MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

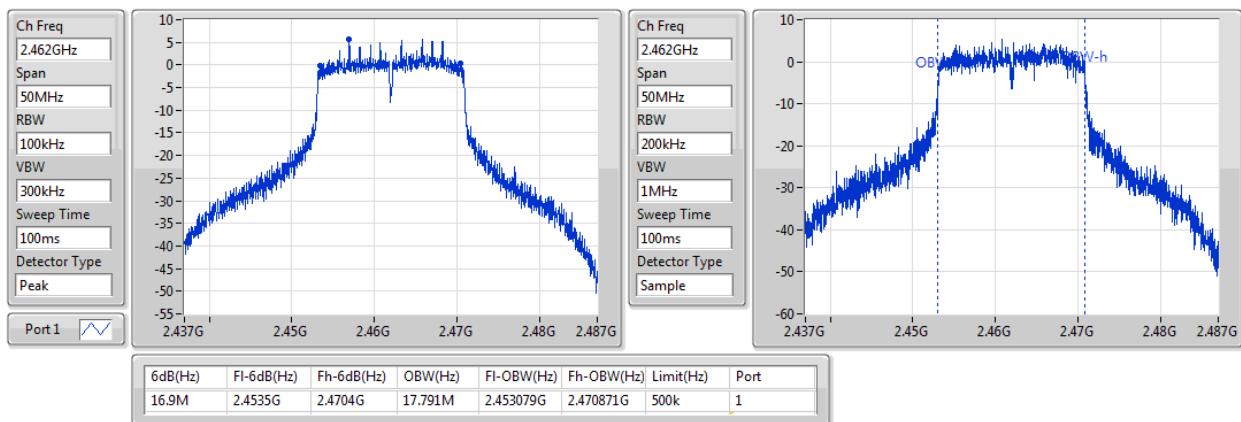
2437MHz



802.11ac VHT20_Nss1,(MCS0)_1TX

EBW

2462MHz

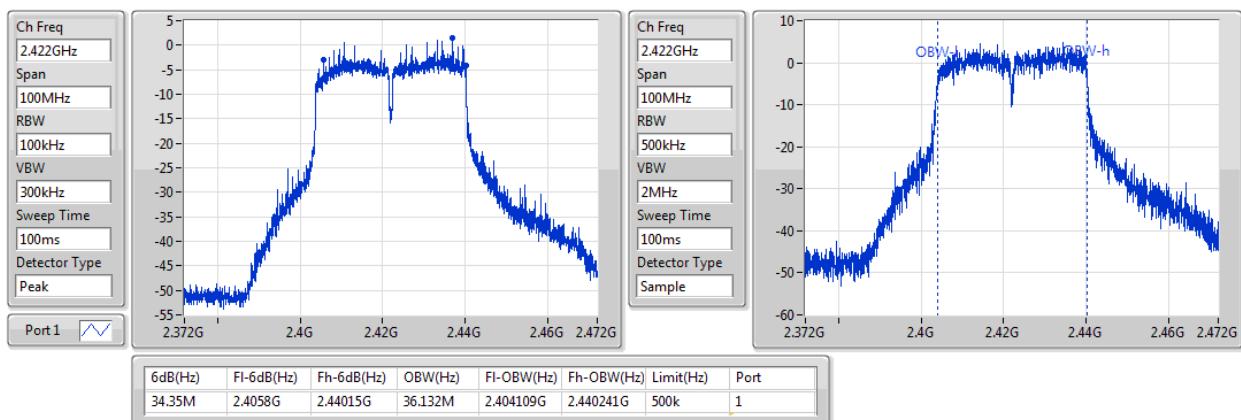




802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

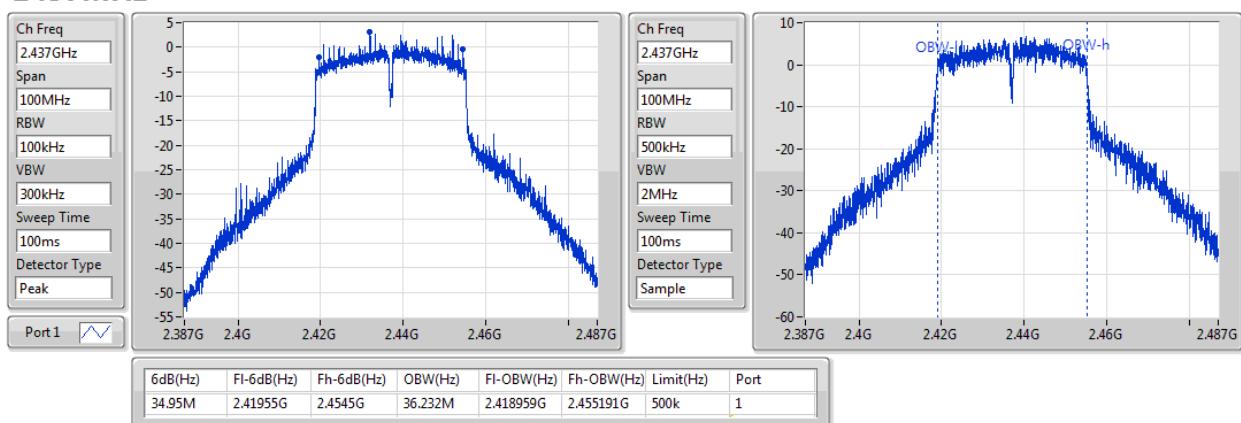
2422MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

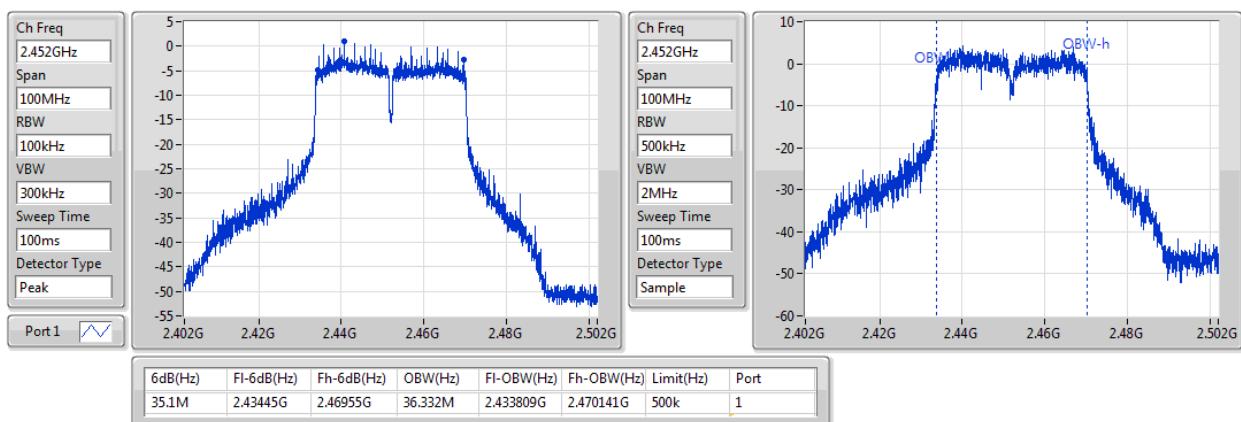
2437MHz



802.11ac VHT40_Nss1,(MCS0)_1TX

EBW

2452MHz





3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
▪ If $G_{TX} \leq 6 \text{ dBi}$, then $P_{Out} \leq 30 \text{ dBm}$ (1 W)	
▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6 \text{ dBi}$, then $P_{Out} = 30 - (G_{TX} - 6) \text{ dBm}$	
▪ Point-to-point systems (P2P): If $G_{TX} > 6 \text{ dBi}$, then $P_{Out} = 30 - (G_{TX} - 6)/3 \text{ dBm}$	
▪ Smart antenna system (SAS):	
- Single beam: If $G_{TX} > 6 \text{ dBi}$, then $P_{Out} = 30 - (G_{TX} - 6)/3 \text{ dBm}$	
- Overlap beam: If $G_{TX} > 6 \text{ dBi}$, then $P_{Out} = 30 - (G_{TX} - 6)/3 \text{ dBm}$	
- Aggregate power on all beams: If $G_{TX} > 6 \text{ dBi}$, then $P_{Out} = 30 - (G_{TX} - 6)/3 + 8 \text{ dB dBm}$	

P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm,

G_{TX} = the maximum transmitting antenna directional gain in dBi.

3.3.2 Measuring Instruments

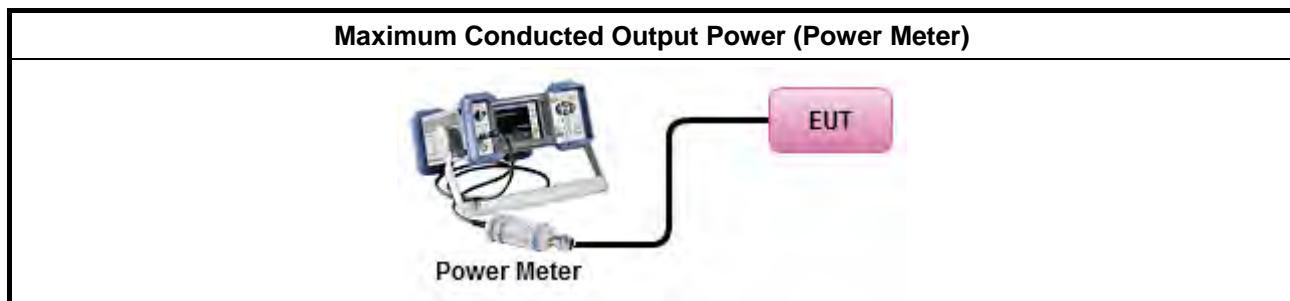
Refer a test equipment and calibration data table in this test report.



3.3.3 Test Procedures

Test Method	
▪ Maximum Peak Conducted Output Power	<input type="checkbox"/> Refer as FCC KDB 558074, clause 9.1.1 Option 1 (RBW \geq EBW method). <input type="checkbox"/> Refer as FCC KDB 558074, clause 9.1.2 Option 2 (peak power meter for VBW \geq DTS BW)
▪ Maximum Conducted Output Power	[duty cycle \geq 98% or external video / power trigger] <input type="checkbox"/> Refer as FCC KDB 558074, clause 9.2.2.2 Method AVGSA-1 (spectral trace averaging). <input type="checkbox"/> Refer as FCC KDB 558074, clause 9.2.2.3 Method AVGSA-1 Alt. (slow sweep speed) duty cycle < 98% and average over on/off periods with duty factor <input type="checkbox"/> Refer as FCC KDB 558074, clause 9.2.2.4 Method AVGSA-2 (spectral trace averaging). <input type="checkbox"/> Refer as FCC KDB 558074, clause 9.2.2.5 Method AVGSA-2 Alt. (slow sweep speed) RF power meter and average over on/off periods with duty factor or gated trigger <input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 9.2.3 Method AVGPM-G (using an RF average power meter). <input type="checkbox"/> Refer as FCC KDB 558074, clause 9.1.2 PKPM1 Peak power meter method.
▪ For conducted measurement.	<ul style="list-style-type: none">▪ If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup





3.3.5 Test Result of Maximum Conducted Output Power

For Radio 1:

For Set 1 antennas / 1TX:

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_1TX	-	-
2.4-2.4835GHz	21.14	0.13002
802.11g_(6Mbps)_1TX	-	-
2.4-2.4835GHz	21.06	0.12764
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	21.06	0.12764
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	20.78	0.11967

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	4.10	21.12	21.12	30.00
2437MHz	Pass	4.10	21.14	21.14	30.00
2462MHz	Pass	4.10	21.08	21.08	30.00
802.11g_(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	4.10	19.53	19.53	30.00
2437MHz	Pass	4.10	21.06	21.06	30.00
2462MHz	Pass	4.10	18.81	18.81	30.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	4.10	19.62	19.62	30.00
2437MHz	Pass	4.10	21.06	21.06	30.00
2462MHz	Pass	4.10	19.07	19.07	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	4.10	16.37	16.37	30.00
2437MHz	Pass	4.10	20.78	20.78	30.00
2452MHz	Pass	4.10	18.61	18.61	30.00

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



For Set 1 antennas / 2TX:
<For Non-Beamforming Mode>
Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_2TX	-	-
2.4-2.4835GHz	24.27	0.26730
802.11g_(6Mbps)_2TX	-	-
2.4-2.4835GHz	23.75	0.23714
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	24.21	0.26363
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	20.79	0.11995

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.10	21.12	21.22	24.18	30.00
2437MHz	Pass	4.10	21.21	21.31	24.27	30.00
2462MHz	Pass	4.10	21.33	21.12	24.24	30.00
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.10	15.60	15.58	18.60	30.00
2437MHz	Pass	4.10	20.61	20.87	23.75	30.00
2462MHz	Pass	4.10	16.42	16.55	19.50	30.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.10	15.74	15.82	18.79	30.00
2437MHz	Pass	4.10	21.11	21.29	24.21	30.00
2462MHz	Pass	4.10	16.33	16.68	19.52	30.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.10	14.34	14.44	17.40	30.00
2437MHz	Pass	4.10	17.64	17.91	20.79	30.00
2452MHz	Pass	4.10	15.66	15.53	18.61	30.00

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



<For Beamforming Mode>

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	24.17	0.26122
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	21.32	0.13552

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.50	15.70	15.87	18.80	30.00
2437MHz	Pass	4.50	21.07	21.24	24.17	30.00
2462MHz	Pass	4.50	16.32	16.48	19.41	30.00
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.50	13.43	13.26	16.36	30.00
2437MHz	Pass	4.50	18.16	18.46	21.32	30.00
2452MHz	Pass	4.50	15.13	15.09	18.12	30.00

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



For Set 1 antennas / 3TX:
<For Non-Beamforming Mode>
Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_3TX	-	-
2.4-2.4835GHz	25.98	0.39628
802.11g_(6Mbps)_3TX	-	-
2.4-2.4835GHz	25.43	0.34914
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	25.59	0.36224
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	23.24	0.21086

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	4.10	21.22	21.24	21.11	25.96	30.00
2437MHz	Pass	4.10	21.01	21.34	21.28	25.98	30.00
2462MHz	Pass	4.10	21.02	20.94	21.13	25.80	30.00
802.11g_(6Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	4.10	15.66	15.69	15.42	20.36	30.00
2437MHz	Pass	4.10	20.39	20.91	20.66	25.43	30.00
2462MHz	Pass	4.10	15.94	16.00	15.98	20.74	30.00
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	4.10	15.68	15.70	15.54	20.41	30.00
2437MHz	Pass	4.10	20.69	20.83	20.94	25.59	30.00
2462MHz	Pass	4.10	16.01	16.04	16.34	20.90	30.00
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	4.10	11.86	11.94	11.83	16.65	30.00
2437MHz	Pass	4.10	18.20	18.71	18.48	23.24	30.00
2452MHz	Pass	4.10	13.15	13.33	13.33	18.04	30.00

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



<For Beamforming Mode>

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	25.91	0.38994
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	22.53	0.17906

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	5.90	16.80	16.85	16.64	21.54	30.00
2437MHz	Pass	5.90	20.97	21.23	21.20	25.91	30.00
2462MHz	Pass	5.90	16.98	16.32	16.54	21.39	30.00
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	5.90	13.22	13.08	13.05	17.89	30.00
2437MHz	Pass	5.90	17.66	17.94	17.66	22.53	30.00
2452MHz	Pass	5.90	14.13	14.30	14.11	18.95	30.00

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



For Set 3 antennas / 1TX:

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_1TX	-	-
2.4-2.4835GHz	21.14	0.13002
802.11g_(6Mbps)_1TX	-	-
2.4-2.4835GHz	20.61	0.11508
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	21.06	0.12764
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	17.62	0.05781

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	10.75	21.12	21.12	25.25
2437MHz	Pass	10.75	21.14	21.14	25.25
2462MHz	Pass	10.75	21.08	21.08	25.25
802.11g_(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	10.75	15.79	15.79	25.25
2437MHz	Pass	10.75	20.61	20.61	25.25
2462MHz	Pass	10.75	15.82	15.82	25.25
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	10.75	16.19	16.19	25.25
2437MHz	Pass	10.75	21.06	21.06	25.25
2462MHz	Pass	10.75	16.26	16.26	25.25
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	10.75	12.90	12.90	25.25
2437MHz	Pass	10.75	17.62	17.62	25.25
2452MHz	Pass	10.75	15.75	15.75	25.25

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



For Set 3 antennas / 2TX:
<For Non-Beamforming Mode>
Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_2TX	-	-
2.4-2.4835GHz	23.67	0.23281
802.11g_(6Mbps)_2TX	-	-
2.4-2.4835GHz	23.75	0.23714
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	24.21	0.26363
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	17.44	0.05546

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	10.75	20.55	20.62	23.60	25.25
2437MHz	Pass	10.75	20.53	20.79	23.67	25.25
2462MHz	Pass	10.75	20.45	20.59	23.53	25.25
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	10.75	11.73	11.72	14.74	25.25
2437MHz	Pass	10.75	20.61	20.87	23.75	25.25
2462MHz	Pass	10.75	13.17	13.13	16.16	25.25
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	10.75	12.31	12.20	15.27	25.25
2437MHz	Pass	10.75	21.11	21.29	24.21	25.25
2462MHz	Pass	10.75	13.46	13.45	16.47	25.25
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	10.75	9.79	9.82	12.82	25.25
2437MHz	Pass	10.75	14.41	14.45	17.44	25.25
2452MHz	Pass	10.75	12.29	12.23	15.27	25.25

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



<For Beamforming Mode>

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	22.79	0.19011
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	17.75	0.05957

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	13.20	12.65	12.79	15.73	22.80
2437MHz	Pass	13.20	19.49	20.05	22.79	22.80
2462MHz	Pass	13.20	13.09	13.26	16.19	22.80
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	13.20	10.57	10.86	13.73	22.80
2437MHz	Pass	13.20	14.62	14.86	17.75	22.80
2452MHz	Pass	13.20	11.98	12.11	15.06	22.80

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



For Set 3 antennas / 3TX:
<For Non-Beamforming Mode>
Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_3TX	-	-
2.4-2.4835GHz	24.92	0.31046
802.11g_(6Mbps)_3TX	-	-
2.4-2.4835GHz	24.90	0.30903
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	25.10	0.32359
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	18.19	0.06592

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	10.75	20.09	20.22	20.05	24.89	25.25
2437MHz	Pass	10.75	20.04	20.09	20.30	24.92	25.25
2462MHz	Pass	10.75	18.77	18.84	19.05	23.66	25.25
802.11g_(6Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	10.75	11.61	11.66	11.64	16.41	25.25
2437MHz	Pass	10.75	20.03	20.27	20.10	24.90	25.25
2462MHz	Pass	10.75	12.62	12.35	12.57	17.28	25.25
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	10.75	11.86	11.72	11.64	16.51	25.25
2437MHz	Pass	10.75	20.28	20.29	20.41	25.10	25.25
2462MHz	Pass	10.75	12.51	12.46	12.91	17.40	25.25
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	10.75	7.80	8.46	7.96	12.85	25.25
2437MHz	Pass	10.75	13.31	13.39	13.56	18.19	25.25
2452MHz	Pass	10.75	11.18	11.39	11.45	16.11	25.25

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



<For Beamforming Mode>

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	20.63	0.11561
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	16.90	0.04898

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	15.20	11.61	11.72	11.87	16.51	20.80
2437MHz	Pass	15.20	15.75	15.98	15.85	20.63	20.80
2462MHz	Pass	15.20	12.16	11.79	12.36	16.88	20.80
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	15.20	9.75	10.00	9.62	14.56	20.80
2437MHz	Pass	15.20	12.19	12.45	11.72	16.90	20.80
2452MHz	Pass	15.20	10.65	10.73	10.68	15.46	20.80

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



For Set 4 antennas / 1TX:

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_1TX	-	-
2.4-2.4835GHz	21.14	0.13002
802.11g_(6Mbps)_1TX	-	-
2.4-2.4835GHz	20.61	0.11508
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	21.06	0.12764
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	19.53	0.08974

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	5.90	21.12	21.12	30.00
2437MHz	Pass	5.90	21.14	21.14	30.00
2462MHz	Pass	5.90	21.08	21.08	30.00
802.11g_(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	5.90	18.71	18.71	30.00
2437MHz	Pass	5.90	20.61	20.61	30.00
2462MHz	Pass	5.90	18.15	18.15	30.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	5.90	19.13	19.13	30.00
2437MHz	Pass	5.90	21.06	21.06	30.00
2462MHz	Pass	5.90	18.60	18.60	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	5.90	14.27	14.27	30.00
2437MHz	Pass	5.90	19.53	19.53	30.00
2452MHz	Pass	5.90	17.68	17.68	30.00

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



For Set 4 antennas / 2TX:
<For Non-Beamforming Mode>
Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_2TX	-	-
2.4-2.4835GHz	24.27	0.26730
802.11g_(6Mbps)_2TX	-	-
2.4-2.4835GHz	23.75	0.23714
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	24.21	0.26363
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	22.02	0.15922

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.90	21.12	21.22	24.18	30.00
2437MHz	Pass	5.90	21.21	21.31	24.27	30.00
2462MHz	Pass	5.90	21.33	21.12	24.24	30.00
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.90	14.42	14.61	17.53	30.00
2437MHz	Pass	5.90	20.61	20.87	23.75	30.00
2462MHz	Pass	5.90	14.94	15.01	17.99	30.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	5.90	14.80	14.59	17.71	30.00
2437MHz	Pass	5.90	21.11	21.29	24.21	30.00
2462MHz	Pass	5.90	15.24	15.03	18.15	30.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	5.90	11.91	11.89	14.91	30.00
2437MHz	Pass	5.90	18.97	19.06	22.02	30.00
2452MHz	Pass	5.90	13.22	13.39	16.32	30.00

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



<For Beamforming Mode>

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	24.15	0.26002
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	20.39	0.10940

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	8.70	16.64	16.75	19.71	27.30
2437MHz	Pass	8.70	21.05	21.22	24.15	27.30
2462MHz	Pass	8.70	15.06	15.41	18.25	27.30
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	8.70	12.28	12.43	15.37	27.30
2437MHz	Pass	8.70	17.24	17.52	20.39	27.30
2452MHz	Pass	8.70	13.07	13.14	16.12	27.30

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



For Set 4 antennas / 3TX:
<For Non-Beamforming Mode>
Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_3TX	-	-
2.4-2.4835GHz	25.98	0.39628
802.11g_(6Mbps)_3TX	-	-
2.4-2.4835GHz	25.43	0.34914
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	25.59	0.36224
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	21.65	0.14622

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	5.90	21.22	21.24	21.11	25.96	30.00
2437MHz	Pass	5.90	21.01	21.34	21.28	25.98	30.00
2462MHz	Pass	5.90	21.02	20.94	21.13	25.80	30.00
802.11g_(6Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	5.90	14.21	14.16	14.14	18.94	30.00
2437MHz	Pass	5.90	20.39	20.91	20.66	25.43	30.00
2462MHz	Pass	5.90	14.11	13.98	13.94	18.78	30.00
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	5.90	14.32	14.38	14.19	19.07	30.00
2437MHz	Pass	5.90	20.69	20.83	20.94	25.59	30.00
2462MHz	Pass	5.90	14.20	14.16	14.43	19.04	30.00
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	5.90	12.41	12.67	12.16	17.19	30.00
2437MHz	Pass	5.90	16.77	17.12	16.74	21.65	30.00
2452MHz	Pass	5.90	12.19	12.33	12.34	17.06	30.00

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



<For Beamforming Mode>

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	25.67	0.36898
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	21.60	0.14454

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	9.80	16.64	16.26	16.99	21.41	26.20
2437MHz	Pass	9.80	20.80	20.77	21.11	25.67	26.20
2462MHz	Pass	9.80	13.95	13.81	14.23	18.77	26.20
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	9.80	12.02	11.62	12.16	16.71	26.20
2437MHz	Pass	9.80	16.89	16.52	17.06	21.60	26.20
2452MHz	Pass	9.80	13.02	12.55	12.91	17.60	26.20

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



For Set 5 antennas / 1TX:

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_1TX	-	-
2.4-2.4835GHz	21.14	0.13002
802.11g_(6Mbps)_1TX	-	-
2.4-2.4835GHz	20.61	0.11508
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	21.06	0.12764
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	20.78	0.11967

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	4.30	21.12	21.12	30.00
2437MHz	Pass	4.30	21.14	21.14	30.00
2462MHz	Pass	4.30	21.08	21.08	30.00
802.11g_(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	4.30	19.44	19.44	30.00
2437MHz	Pass	4.30	20.61	20.61	30.00
2462MHz	Pass	4.30	18.91	18.91	30.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	4.30	19.62	19.62	30.00
2437MHz	Pass	4.30	21.06	21.06	30.00
2462MHz	Pass	4.30	19.07	19.07	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	4.30	16.96	16.96	30.00
2437MHz	Pass	4.30	20.78	20.78	30.00
2452MHz	Pass	4.30	19.71	19.71	30.00

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



For Set 5 antennas / 2TX:
<For Non-Beamforming Mode>
Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_2TX	-	-
2.4-2.4835GHz	24.27	0.26730
802.11g_(6Mbps)_2TX	-	-
2.4-2.4835GHz	23.75	0.23714
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	24.21	0.26363
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	20.79	0.11995

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.30	21.12	21.22	24.18	30.00
2437MHz	Pass	4.30	21.21	21.31	24.27	30.00
2462MHz	Pass	4.30	21.33	21.12	24.24	30.00
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.30	15.23	15.02	18.14	30.00
2437MHz	Pass	4.30	20.61	20.87	23.75	30.00
2462MHz	Pass	4.30	16.08	16.11	19.11	30.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.30	15.33	15.41	18.38	30.00
2437MHz	Pass	4.30	21.11	21.29	24.21	30.00
2462MHz	Pass	4.30	16.13	16.14	19.15	30.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.30	13.92	14.03	16.99	30.00
2437MHz	Pass	4.30	17.64	17.91	20.79	30.00
2452MHz	Pass	4.30	16.28	16.42	19.36	30.00

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



<For Beamforming Mode>

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	24.17	0.26122
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	20.84	0.12134

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	3.60	19.16	19.26	22.22	30.00
2437MHz	Pass	3.60	21.07	21.24	24.17	30.00
2462MHz	Pass	3.60	15.57	15.50	18.55	30.00
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	3.60	16.27	16.41	19.35	30.00
2437MHz	Pass	3.60	17.70	17.96	20.84	30.00
2452MHz	Pass	3.60	15.70	15.82	18.77	30.00

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



For Set 5 antennas / 3TX:
<For Non-Beamforming Mode>
Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_3TX	-	-
2.4-2.4835GHz	25.98	0.39628
802.11g_(6Mbps)_3TX	-	-
2.4-2.4835GHz	25.43	0.34914
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	25.59	0.36224
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	21.65	0.14622

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	4.30	21.22	21.24	21.11	25.96	30.00
2437MHz	Pass	4.30	21.01	21.34	21.28	25.98	30.00
2462MHz	Pass	4.30	21.02	20.94	21.13	25.80	30.00
802.11g_(6Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	4.30	15.15	15.16	15.08	19.90	30.00
2437MHz	Pass	4.30	20.39	20.91	20.66	25.43	30.00
2462MHz	Pass	4.30	15.67	15.56	15.35	20.30	30.00
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	4.30	15.24	15.12	15.26	19.98	30.00
2437MHz	Pass	4.30	20.69	20.83	20.94	25.59	30.00
2462MHz	Pass	4.30	15.65	15.57	15.91	20.48	30.00
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	4.30	13.37	13.57	13.51	18.26	30.00
2437MHz	Pass	4.30	16.77	17.12	16.74	21.65	30.00
2452MHz	Pass	4.30	14.21	14.37	14.05	18.98	30.00

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



<For Beamforming Mode>

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	25.91	0.38994
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	20.93	0.12388

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	5.40	16.56	16.65	16.40	21.31	30.00
2437MHz	Pass	5.40	20.97	21.23	21.20	25.91	30.00
2462MHz	Pass	5.40	15.99	16.03	15.98	20.77	30.00
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	5.40	14.33	14.38	14.04	19.02	30.00
2437MHz	Pass	5.40	16.15	16.39	15.92	20.93	30.00
2452MHz	Pass	5.40	12.28	12.21	11.91	16.91	30.00

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



For Set 6 antennas / 1TX:

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_1TX	-	-
2.4-2.4835GHz	21.14	0.13002
802.11g_(6Mbps)_1TX	-	-
2.4-2.4835GHz	20.61	0.11508
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	21.06	0.12764
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	19.22	0.08356

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.36	21.12	21.12	30.00
2437MHz	Pass	2.36	21.14	21.14	30.00
2462MHz	Pass	2.36	21.08	21.08	30.00
802.11g_(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	2.36	18.71	18.71	30.00
2437MHz	Pass	2.36	20.61	20.61	30.00
2462MHz	Pass	2.36	18.15	18.15	30.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	2.36	19.13	19.13	30.00
2437MHz	Pass	2.36	21.06	21.06	30.00
2462MHz	Pass	2.36	18.60	18.60	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	2.36	15.14	15.14	30.00
2437MHz	Pass	2.36	19.22	19.22	30.00
2452MHz	Pass	2.36	15.75	15.75	30.00

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



For Set 6 antennas / 2TX:
<For Non-Beamforming Mode>
Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_2TX	-	-
2.4-2.4835GHz	24.27	0.26730
802.11g_(6Mbps)_2TX	-	-
2.4-2.4835GHz	23.75	0.23714
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	24.21	0.26363
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	22.03	0.15959

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.36	21.12	21.22	24.18	30.00
2437MHz	Pass	2.36	21.21	21.31	24.27	30.00
2462MHz	Pass	2.36	21.33	21.12	24.24	30.00
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.36	15.23	15.02	18.14	30.00
2437MHz	Pass	2.36	20.61	20.87	23.75	30.00
2462MHz	Pass	2.36	15.37	15.28	18.34	30.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	2.36	15.33	15.41	18.38	30.00
2437MHz	Pass	2.36	21.11	21.29	24.21	30.00
2462MHz	Pass	2.36	15.42	15.31	18.38	30.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	2.36	13.92	14.03	16.99	30.00
2437MHz	Pass	2.36	18.97	19.06	22.03	30.00
2452MHz	Pass	2.36	15.13	15.14	18.15	30.00

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



<For Beamforming Mode>

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	24.17	0.26122
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-
2.4-2.4835GHz	22.32	0.17061

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.10	19.16	19.26	22.22	30.00
2437MHz	Pass	4.10	21.07	21.24	24.17	30.00
2462MHz	Pass	4.10	17.94	17.95	20.96	30.00
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.10	15.75	15.65	18.71	30.00
2437MHz	Pass	4.10	19.32	19.31	22.32	30.00
2452MHz	Pass	4.10	15.13	15.09	18.12	30.00

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



For Set 6 antennas / 3TX:
<For Non-Beamforming Mode>
Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_3TX	-	-
2.4-2.4835GHz	25.98	0.39628
802.11g_(6Mbps)_3TX	-	-
2.4-2.4835GHz	25.43	0.34914
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	25.59	0.36224
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	24.31	0.26977

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	2.36	21.22	21.24	21.11	25.96	30.00
2437MHz	Pass	2.36	21.01	21.34	21.28	25.98	30.00
2462MHz	Pass	2.36	21.02	20.94	21.13	25.80	30.00
802.11g_(6Mbps)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	2.36	13.27	13.52	13.51	18.21	30.00
2437MHz	Pass	2.36	20.39	20.91	20.66	25.43	30.00
2462MHz	Pass	2.36	14.11	13.98	13.94	18.78	30.00
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	2.36	13.79	13.89	13.94	18.64	30.00
2437MHz	Pass	2.36	20.69	20.83	20.94	25.59	30.00
2462MHz	Pass	2.36	14.20	14.16	14.43	19.04	30.00
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	2.36	12.81	12.95	12.87	17.65	30.00
2437MHz	Pass	2.36	19.28	19.69	19.63	24.31	30.00
2452MHz	Pass	2.36	14.52	14.91	14.72	19.49	30.00

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



<For Beamforming Mode>

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	25.91	0.38994
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-
2.4-2.4835GHz	23.55	0.22646

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2412MHz	Pass	5.20	17.62	17.38	17.76	22.36	30.00
2437MHz	Pass	5.20	20.97	21.23	21.20	25.91	30.00
2462MHz	Pass	5.20	18.50	18.59	18.86	23.42	30.00
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
2422MHz	Pass	5.20	16.31	16.49	16.20	21.11	30.00
2437MHz	Pass	5.20	18.69	19.09	18.55	23.55	30.00
2452MHz	Pass	5.20	14.13	14.30	14.11	18.95	30.00

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



For Radio 3:
For Set 1 antennas / 1TX:
Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_1TX	-	-
2.4-2.4835GHz	19.71	0.09354
802.11g_(6Mbps)_1TX	-	-
2.4-2.4835GHz	20.92	0.12359
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	20.92	0.12359
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	17.99	0.06295

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	3.70	19.71	19.71	30.00
2437MHz	Pass	3.70	19.17	19.17	30.00
2462MHz	Pass	3.70	15.68	15.68	30.00
802.11g_(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	3.70	17.53	17.53	30.00
2437MHz	Pass	3.70	20.92	20.92	30.00
2462MHz	Pass	3.70	15.24	15.24	30.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	3.70	17.62	17.62	30.00
2437MHz	Pass	3.70	20.92	20.92	30.00
2462MHz	Pass	3.70	15.26	15.26	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	3.70	15.38	15.38	30.00
2437MHz	Pass	3.70	17.99	17.99	30.00
2452MHz	Pass	3.70	13.03	13.03	30.00

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



For Set 3 antennas / 1TX:

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_1TX	-	-
2.4-2.4835GHz	19.07	0.08072
802.11g_(6Mbps)_1TX	-	-
2.4-2.4835GHz	20.14	0.10328
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	20.04	0.10093
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	15.22	0.03327

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	10.35	19.07	19.07	25.65
2437MHz	Pass	10.35	17.89	17.89	25.65
2462MHz	Pass	10.35	16.13	16.13	25.65
802.11g_(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	10.35	17.11	17.11	25.65
2437MHz	Pass	10.35	20.14	20.14	25.65
2462MHz	Pass	10.35	13.35	13.35	25.65
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	10.35	16.99	16.99	25.65
2437MHz	Pass	10.35	20.04	20.04	25.65
2462MHz	Pass	10.35	13.12	13.12	25.65
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	10.35	12.44	12.44	25.65
2437MHz	Pass	10.35	15.22	15.22	25.65
2452MHz	Pass	10.35	9.85	9.85	25.65

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



For Set 4 antennas / 1TX:

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_1TX	-	-
2.4-2.4835GHz	19.48	0.08872
802.11g_(6Mbps)_1TX	-	-
2.4-2.4835GHz	20.92	0.12359
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	20.92	0.12359
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	15.66	0.03681

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	5.50	19.48	19.48	30.00
2437MHz	Pass	5.50	17.89	17.89	30.00
2462MHz	Pass	5.50	14.05	14.05	30.00
802.11g_(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	5.50	17.70	17.70	30.00
2437MHz	Pass	5.50	20.92	20.92	30.00
2462MHz	Pass	5.50	13.81	13.81	30.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	5.50	17.78	17.78	30.00
2437MHz	Pass	5.50	20.92	20.92	30.00
2462MHz	Pass	5.50	13.66	13.66	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	5.50	13.34	13.34	30.00
2437MHz	Pass	5.50	15.66	15.66	30.00
2452MHz	Pass	5.50	10.85	10.85	30.00

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



For Set 5 antennas / 1TX:

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_1TX	-	-
2.4-2.4835GHz	20.05	0.10116
802.11g_(6Mbps)_1TX	-	-
2.4-2.4835GHz	20.92	0.12359
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	20.92	0.12359
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	17.12	0.05152

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	3.90	20.05	20.05	30.00
2437MHz	Pass	3.90	18.08	18.08	30.00
2462MHz	Pass	3.90	15.03	15.03	30.00
802.11g_(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	3.90	17.90	17.90	30.00
2437MHz	Pass	3.90	20.92	20.92	30.00
2462MHz	Pass	3.90	15.24	15.24	30.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	3.90	17.78	17.78	30.00
2437MHz	Pass	3.90	20.92	20.92	30.00
2462MHz	Pass	3.90	15.26	15.26	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	3.90	14.33	14.33	30.00
2437MHz	Pass	3.90	17.12	17.12	30.00
2452MHz	Pass	3.90	13.03	13.03	30.00

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



For Set 6 antennas / 1TX:

Summary

Mode	Total Power (dBm)	Total Power (W)
802.11b_(1Mbps)_1TX	-	-
2.4-2.4835GHz	20.09	0.10209
802.11g_(6Mbps)_1TX	-	-
2.4-2.4835GHz	20.92	0.12359
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	20.92	0.12359
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-
2.4-2.4835GHz	16.33	0.04295

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	1.96	20.05	20.05	30.00
2437MHz	Pass	1.96	20.09	20.09	30.00
2462MHz	Pass	1.96	15.96	15.96	30.00
802.11g_(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	1.96	17.90	17.90	30.00
2437MHz	Pass	1.96	20.92	20.92	30.00
2462MHz	Pass	1.96	16.02	16.02	30.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	1.96	17.78	17.78	30.00
2437MHz	Pass	1.96	20.92	20.92	30.00
2462MHz	Pass	1.96	15.92	15.92	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	1.96	14.33	14.33	30.00
2437MHz	Pass	1.96	16.33	16.33	30.00
2452MHz	Pass	1.96	14.04	14.04	30.00

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



3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
▪ Power Spectral Density (PSD) $\leq 8 \text{ dBm}/3\text{kHz}$

3.4.2 Measuring Instruments

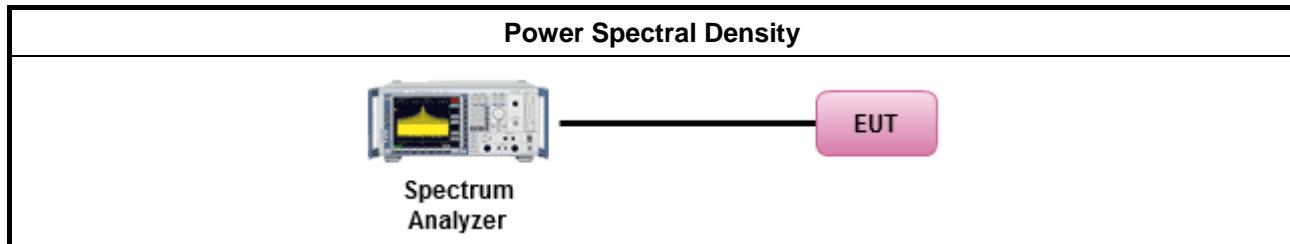
Refer a test equipment and calibration data table in this test report.

3.4.3 Test Procedures

Test Method
▪ Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).
<input checked="" type="checkbox"/> Refer as FCC KDB 558074, clause 10.2 Method PKPSD (RBW=3-100kHz; Detector=peak). [duty cycle $\geq 98\%$ or external video / power trigger]
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.3 Method AVGPSD-1 (spectral trace averaging).
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.4 Method AVGPSD-2 (slow sweep speed)
duty cycle $< 98\%$ and average over on/off periods with duty factor
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.5 Method AVGPSD-1 Alt (spectral trace averaging).
<input type="checkbox"/> Refer as FCC KDB 558074, clause 10.6 Method AVGPSD-2 Alt. (slow sweep speed)
▪ For conducted measurement.
▪ If The EUT supports multiple transmit chains using options given below:
<input checked="" type="checkbox"/> Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
<input type="checkbox"/> Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
<input type="checkbox"/> Option 3: Measure and add $10 \log(N) \text{ dB}$, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with $10 \log(N)$. Or each transmit chains shall be add $10 \log(N)$ to compared with the limit.



3.4.4 Test Setup





3.4.5 Test Result of Power Spectral Density

For Radio 1:

For Set 1 antennas / 1TX:

Summary

Mode	PD (dBm/RBW)
802.11b_(1Mbps)_1TX	-
2.4-2.4835GHz	4.29
802.11g_(6Mbps)_1TX	-
2.4-2.4835GHz	0.10
802.11ac VHT20_Nss1,(MCS0)_1TX	-
2.4-2.4835GHz	-1.11
802.11ac VHT40_Nss1,(MCS0)_1TX	-
2.4-2.4835GHz	-6.76

RBW=3kHz.

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	4.10	1.26	1.26	8.00
2437MHz	Pass	4.10	4.29	4.29	8.00
2462MHz	Pass	4.10	0.42	0.42	8.00
802.11g_(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	4.10	-6.64	-6.64	8.00
2437MHz	Pass	4.10	0.10	0.10	8.00
2462MHz	Pass	4.10	-7.74	-7.74	8.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	4.10	-7.27	-7.27	8.00
2437MHz	Pass	4.10	-1.11	-1.11	8.00
2462MHz	Pass	4.10	-6.56	-6.56	8.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	4.10	-11.25	-11.25	8.00
2437MHz	Pass	4.10	-6.76	-6.76	8.00
2452MHz	Pass	4.10	-8.87	-8.87	8.00

DG = Directional Gain; **RBW**=3kHz;

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