



# 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





# 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	
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 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.

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

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

**<For Radio 4 / Bluetooth Functions>**

Only Port 1 can be use 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**

<b>EUT Power Type</b>	From Power Adapter or PoE		
<b>Beamforming Function</b>	<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 x10 <sup>-8</sup>	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	<b>Non-Beamforming Mode</b>		
			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
			<b>Beamforming Mode</b>		
			11ac VHT20	MCS0 Nss1	2, 3TX
			11ac VHT40	MCS0 Nss1	2, 3TX
Maximum Conducted Output Power	Set 1 Set 3 Set 4 Set 5 Set 6	Conducted measurement at transmit chains	<b>Non-Beamforming Mode</b>		
			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
			<b>Beamforming Mode</b>		
			11ac VHT20	MCS0 Nss1	2, 3TX
			11ac VHT40	MCS0 Nss1	2, 3TX
Power Spectral Density	Set 1 Set 3 Set 4 Set 5 Set 6	Conducted measurement at transmit chains	<b>Non-Beamforming Mode</b>		
			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
			<b>Beamforming Mode</b>		
			11ac VHT20	MCS0 Nss1	2, 3TX
			11ac VHT40	MCS0 Nss1	2, 3TX



Emissions in Non-restricted Frequency Bands	Set 1 Set 3 Set 4 Set 5 Set 6	Conducted measurement at transmit chains	<b>Non-Beamforming Mode</b>		
			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
			<b>Beamforming Mode</b>		
			11ac VHT20	MCS0 Nss1	2, 3TX
			11ac VHT40	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	<b>Non-Beamforming Mode</b>		
			11b/CCK	1 Mbps	1, 2, 3TX
			11ac VHT20	MCS0 Nss1	1, 2, 3TX
			11ac VHT40	MCS0 Nss1	1, 2, 3TX
			<b>Beamforming Mode</b>		
			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	<b>Non-Beamforming Mode</b>		
			11b/CCK	1 Mbps	1, 2, 3TX
			11ac VHT20	MCS0 Nss1	1, 2, 3TX
			11ac VHT40	MCS0 Nss1	1, 2, 3TX
			<b>Beamforming Mode</b>		
			11ac VHT20	MCS0 Nss1	2, 3TX
<p>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.</p> <p>2.For emissions in restricted frequency bands&gt;1GHz 11g of mode were exempted from testing because they're covered by 11ac VHT20 mode.</p> <p>3.For Emissions in Restricted Frequency Bands &gt; 1GHz (Harmonic) used higher gain and lowest gain antenna set collocate with maximum power setting to evaluated.</p> <p>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.</p>					



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 of 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 Telent.
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

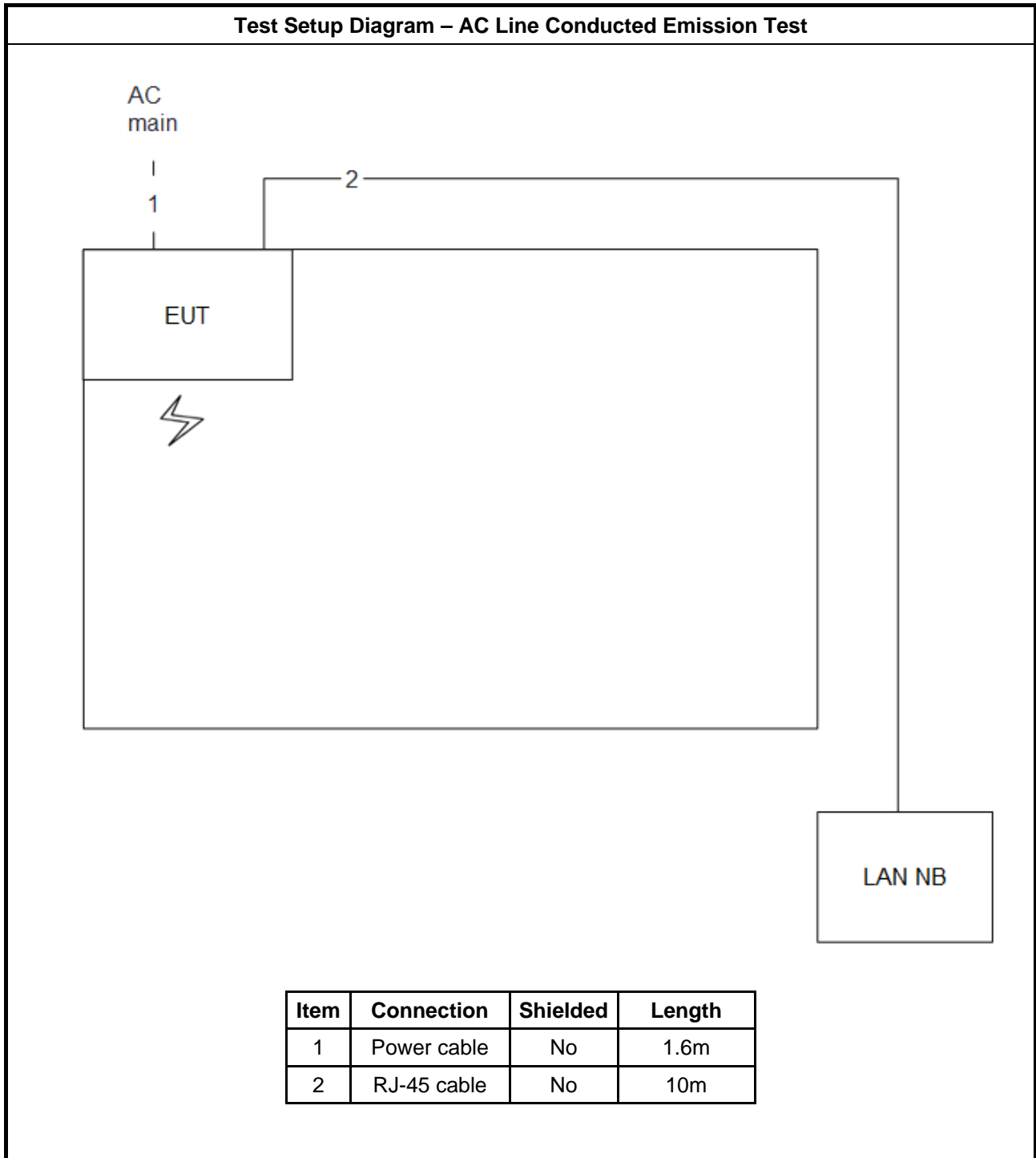
<For Beamforming Mode>

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

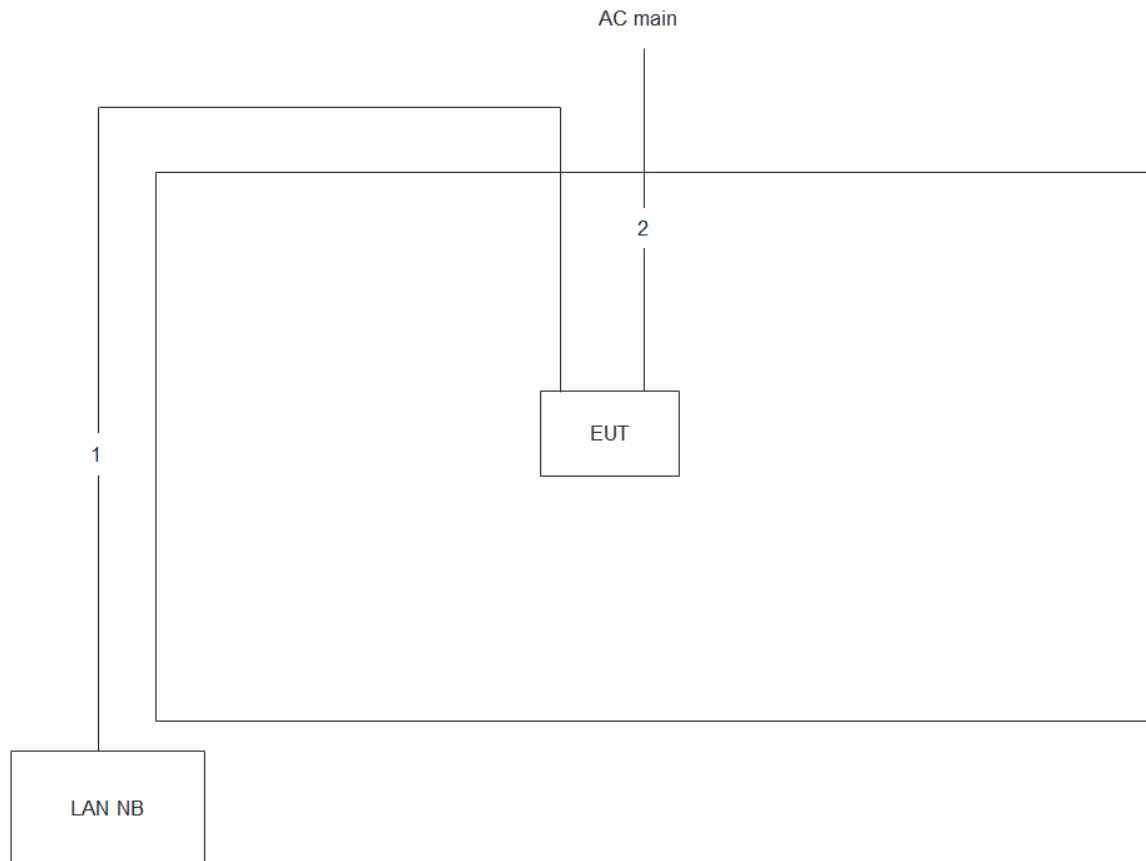
For Test Site No: TH01-CB

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

## 2.6 Test Setup Diagram

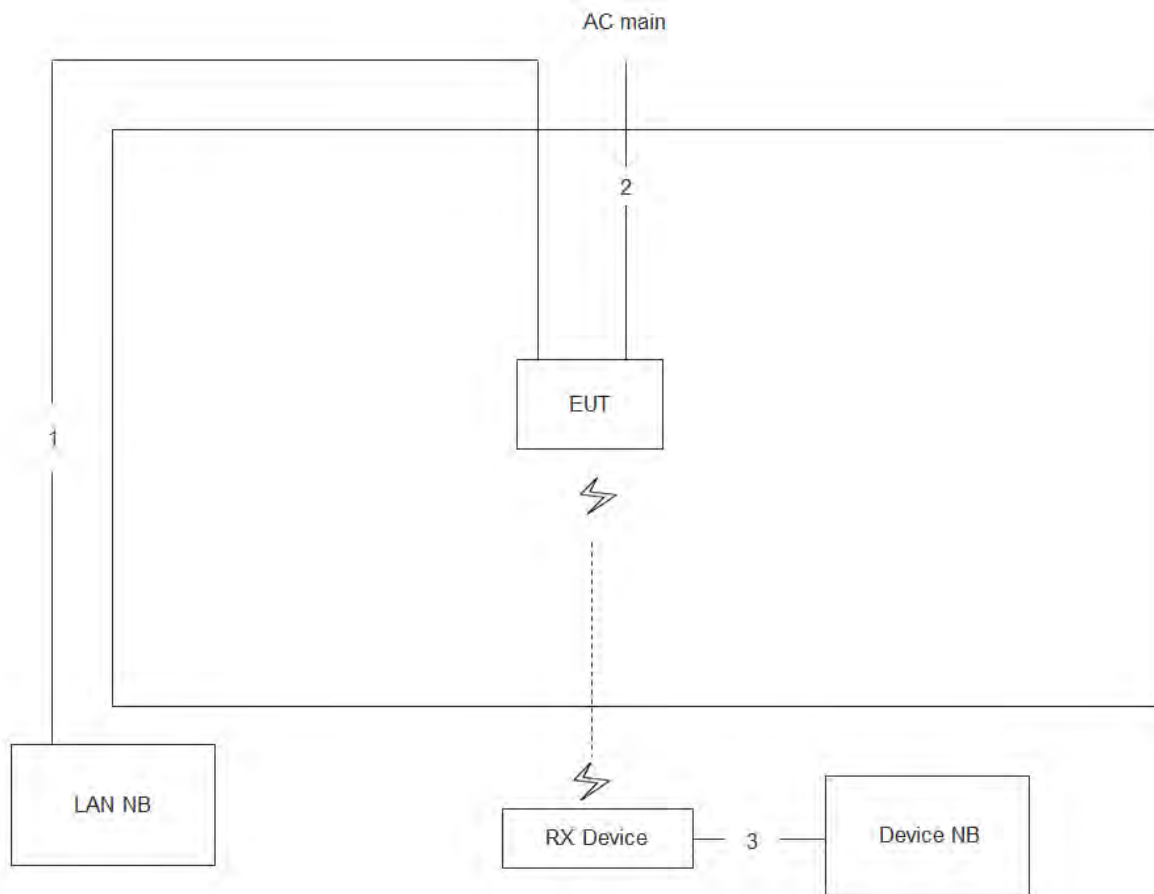


Test Setup Diagram - Radiated Test < 1GHz and Radiated Test > 1GHz Non-Beamforming Mode



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

Test Setup Diagram - Radiated Test > 1GHz Beamforming Mode



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

### 3 Transmitter Test Result

#### 3.1 AC Power-line Conducted Emissions

##### 3.1.1 AC Power-line Conducted Emissions Limit

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

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

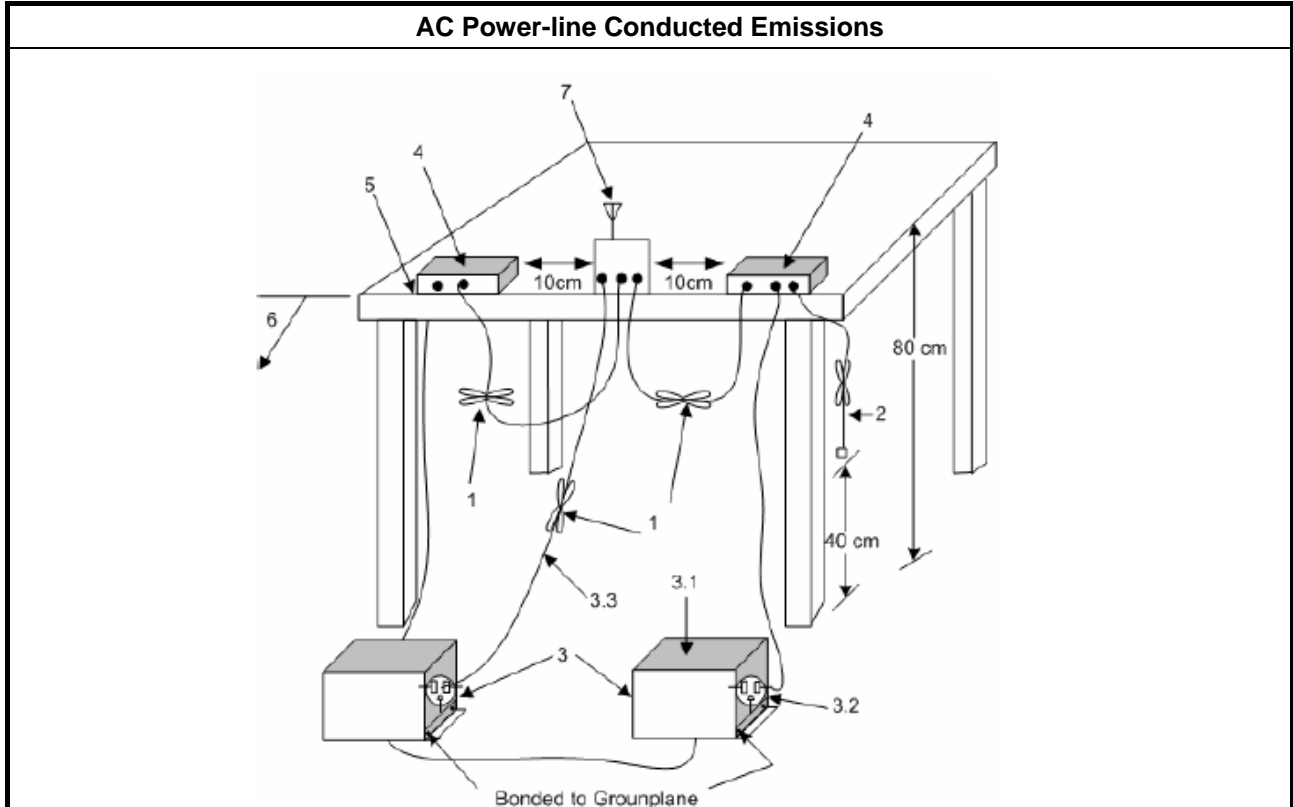
##### 3.1.2 Measuring Instruments

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

##### 3.1.3 Test Procedures

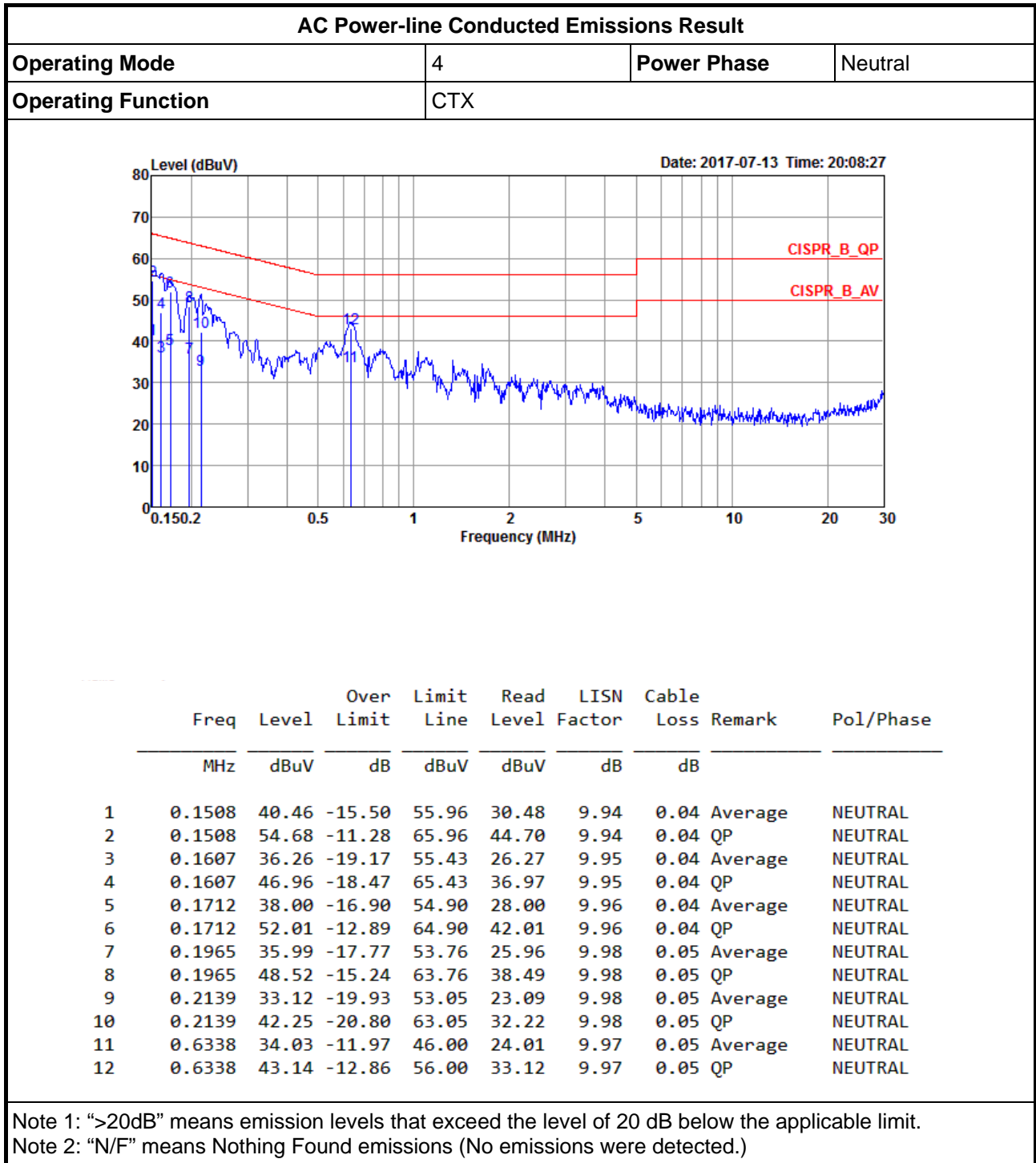
Test Method
<input checked="" type="checkbox"/> Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

##### 3.1.4 Test Setup





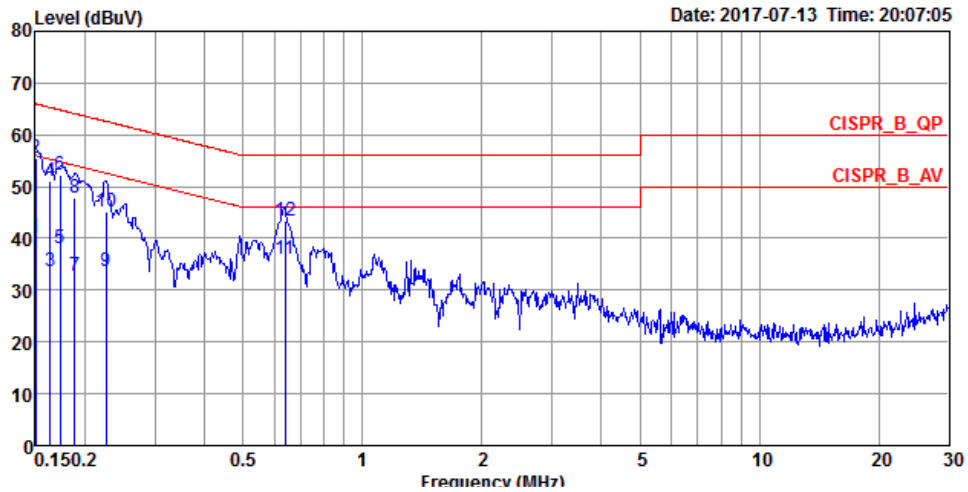
3.1.5 Test Result of AC Power-line Conducted Emissions





AC Power-line Conducted Emissions Result

Operating Mode	4	Power Phase	Line
Operating Function	CTX		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1500	40.10	-15.90	56.00	30.11	9.95	0.04	Average	LINE
2	0.1500	55.56	-10.44	66.00	45.57	9.95	0.04	QP	LINE
3	0.1633	33.71	-21.59	55.30	23.73	9.94	0.04	Average	LINE
4	0.1633	50.97	-14.33	65.30	40.99	9.94	0.04	QP	LINE
5	0.1731	37.97	-16.84	54.81	27.99	9.94	0.04	Average	LINE
6	0.1731	52.27	-12.54	64.81	42.29	9.94	0.04	QP	LINE
7	0.1884	32.72	-21.39	54.11	22.74	9.93	0.05	Average	LINE
8	0.1884	47.89	-16.22	64.11	37.91	9.93	0.05	QP	LINE
9	0.2256	33.60	-19.01	52.61	23.63	9.92	0.05	Average	LINE
10	0.2256	45.14	-17.47	62.61	35.17	9.92	0.05	QP	LINE
11	0.6372	35.89	-10.11	46.00	25.91	9.93	0.05	Average	LINE
12	0.6372	43.44	-12.56	56.00	33.46	9.93	0.05	QP	LINE

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
<b>Systems using digital modulation techniques:</b>
<ul style="list-style-type: none"> <li>▪ 6 dB bandwidth <math>\geq</math> 500 kHz.</li> </ul>

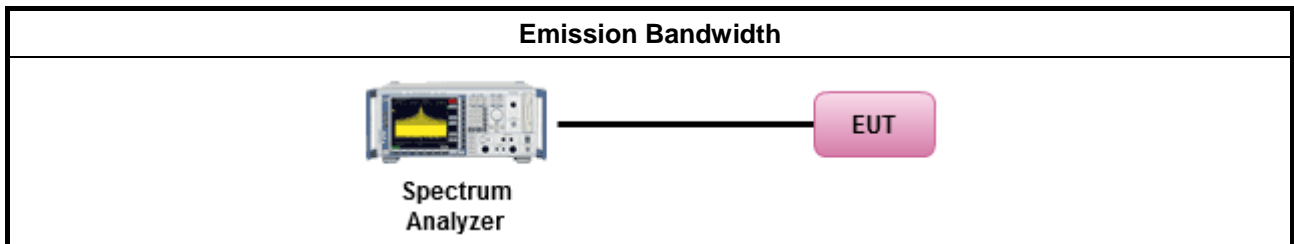
#### 3.2.2 Measuring Instruments

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

#### 3.2.3 Test Procedures

Test Method
<ul style="list-style-type: none"> <li>▪ For the emission bandwidth shall be measured using one of the options below:</li> </ul>
<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

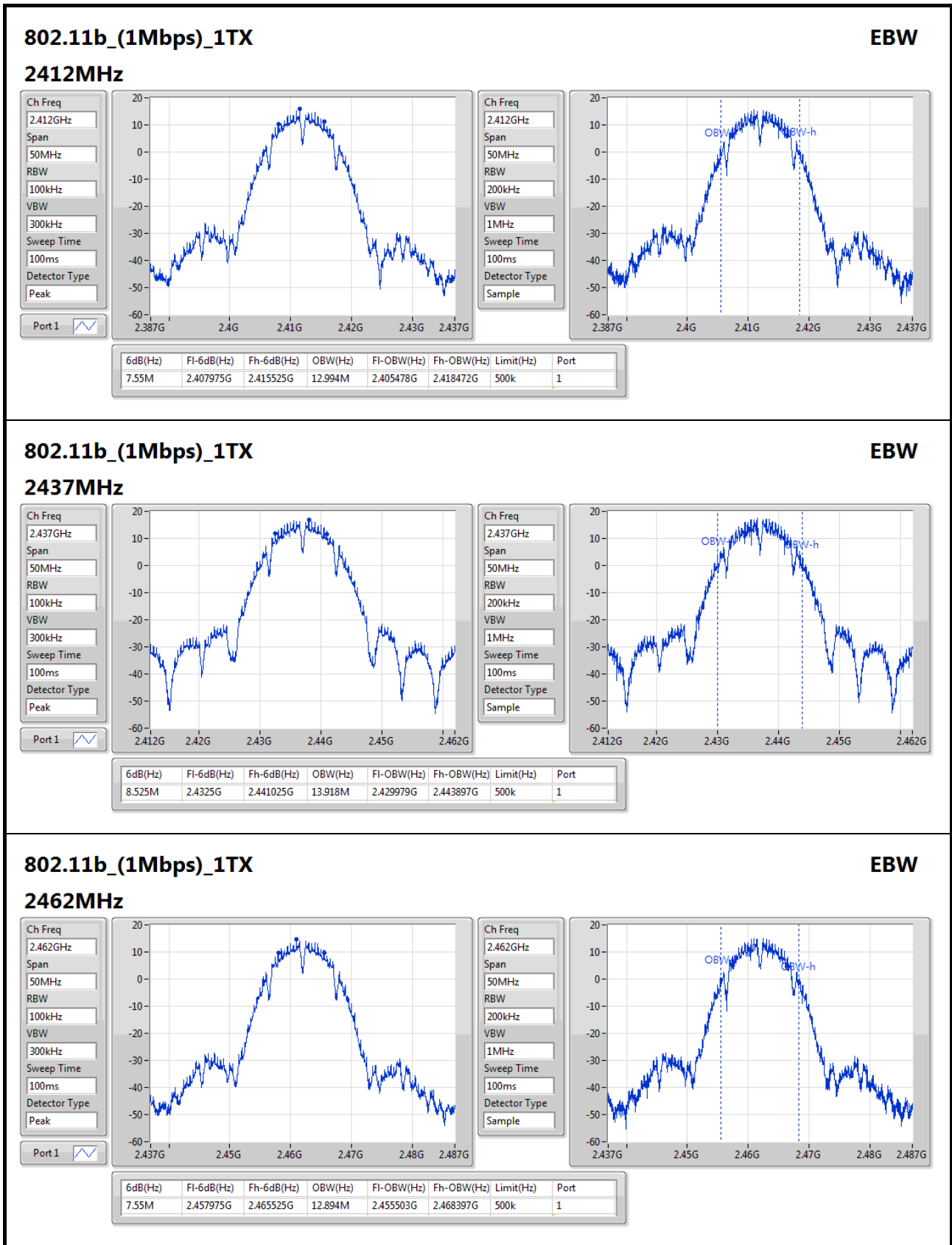
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	8.525M	13.918M	13M9G1D	7.55M	12.894M
802.11g_(6Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	16.325M	16.717M	16M7D1D	16.275M	16.442M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	17.525M	17.916M	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;





### 802.11g\_(6Mbps)\_1TX

EBW

2412MHz

Ch Freq  
2.412GHz

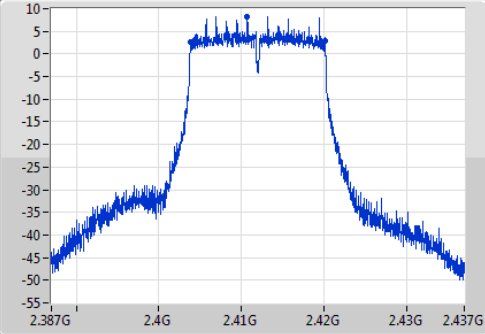
Span  
50MHz

RBW  
100kHz

VBW  
300kHz

Sweep Time  
100ms

Detector Type  
Peak



Ch Freq  
2.412GHz

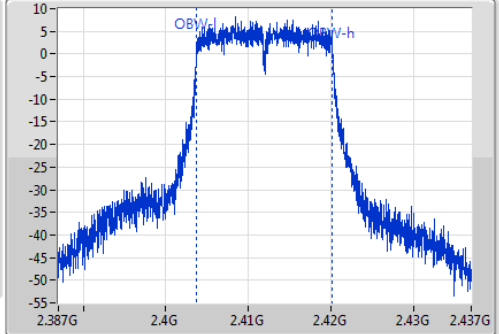
Span  
50MHz

RBW  
200kHz

VBW  
1MHz

Sweep Time  
100ms

Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.403825G	2.42015G	16.442M	2.403754G	2.420196G	500k	1

### 802.11g\_(6Mbps)\_1TX

EBW

2437MHz

Ch Freq  
2.437GHz

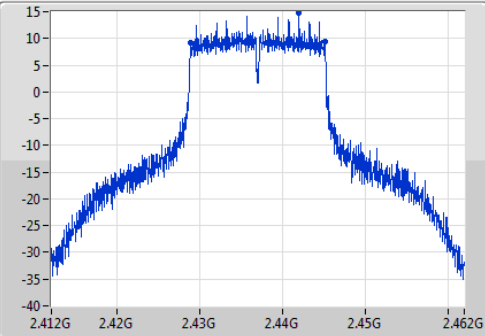
Span  
50MHz

RBW  
100kHz

VBW  
300kHz

Sweep Time  
100ms

Detector Type  
Peak



Ch Freq  
2.437GHz

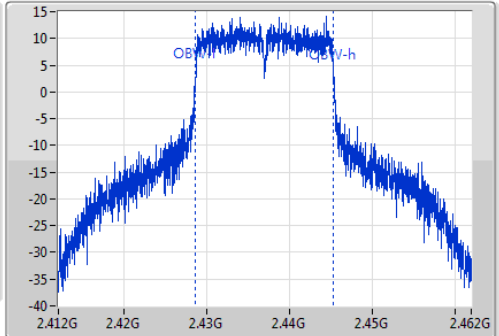
Span  
50MHz

RBW  
200kHz

VBW  
1MHz

Sweep Time  
100ms

Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.275M	2.42885G	2.445125G	16.717M	2.428629G	2.445346G	500k	1

### 802.11g\_(6Mbps)\_1TX

EBW

2462MHz

Ch Freq  
2.462GHz

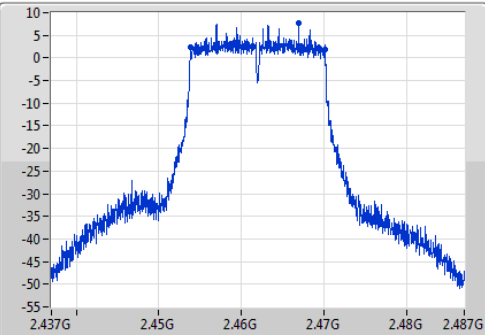
Span  
50MHz

RBW  
100kHz

VBW  
300kHz

Sweep Time  
100ms

Detector Type  
Peak



Ch Freq  
2.462GHz

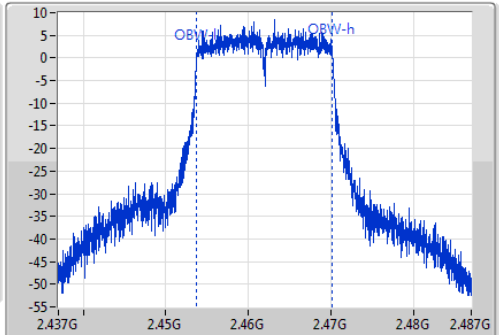
Span  
50MHz

RBW  
200kHz

VBW  
1MHz

Sweep Time  
100ms

Detector Type  
Sample

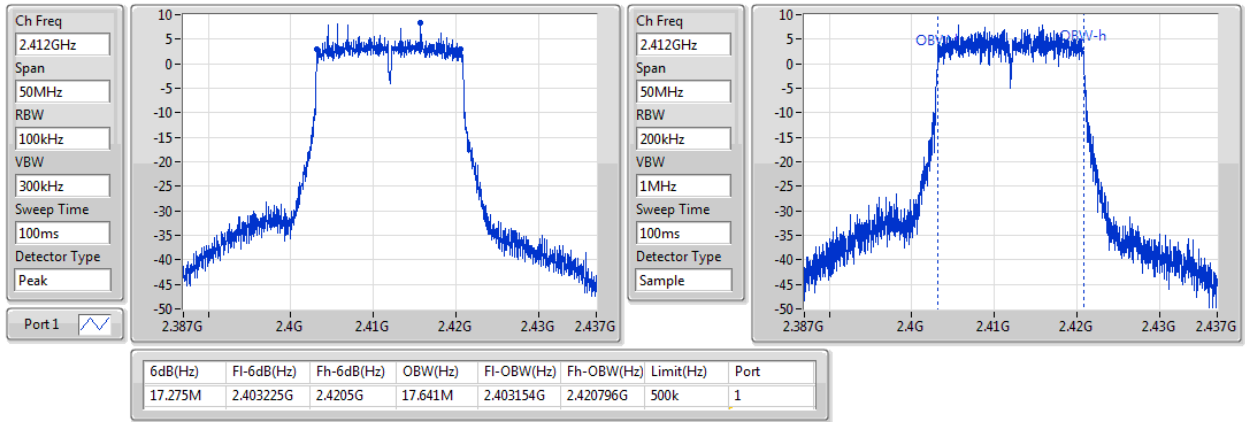


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	2.45385G	2.47015G	16.442M	2.453754G	2.470196G	500k	1

802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

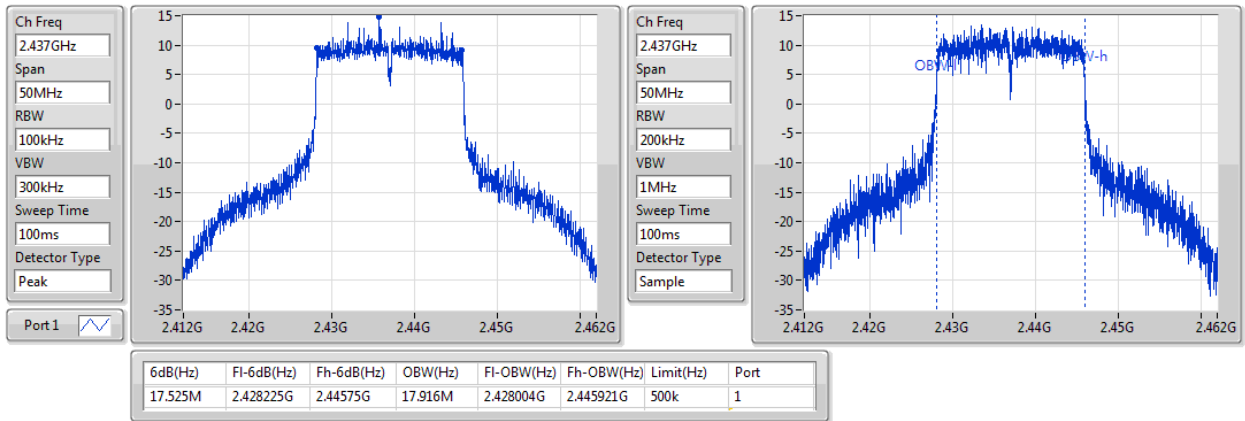
2412MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

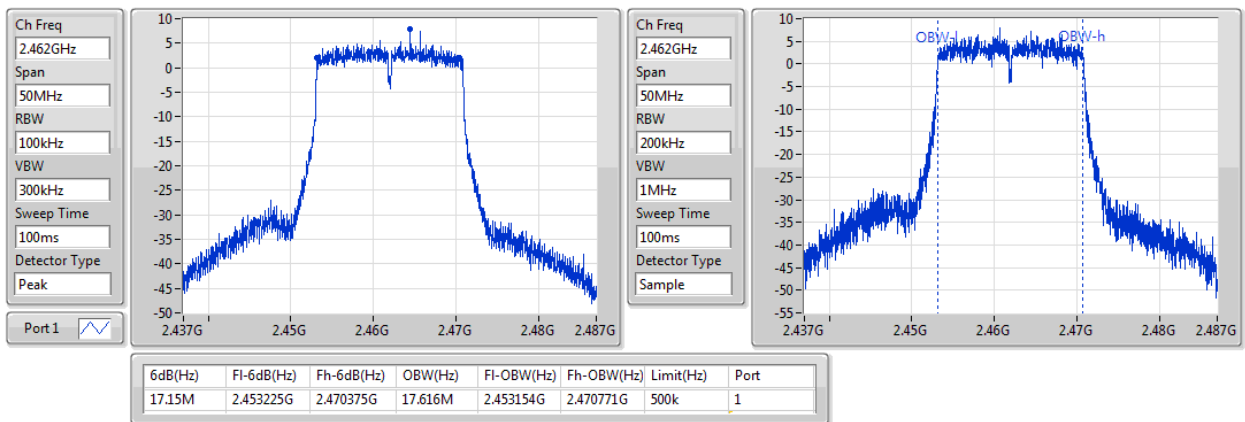
2437MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

2462MHz

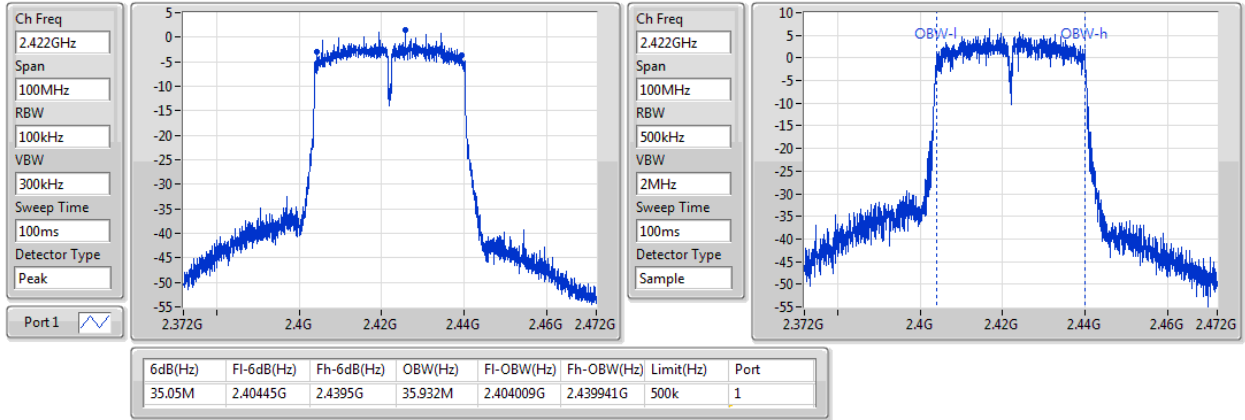




802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

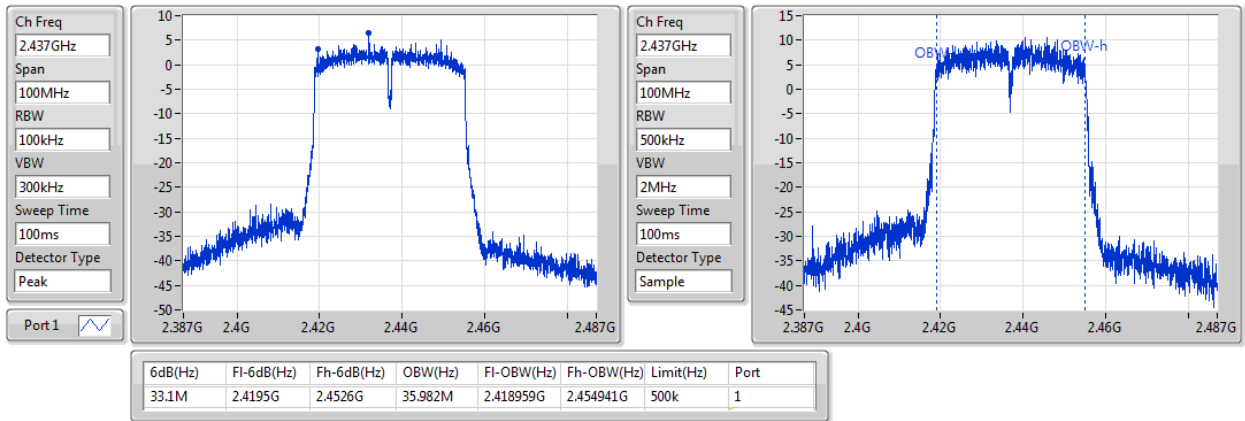
2422MHz



802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

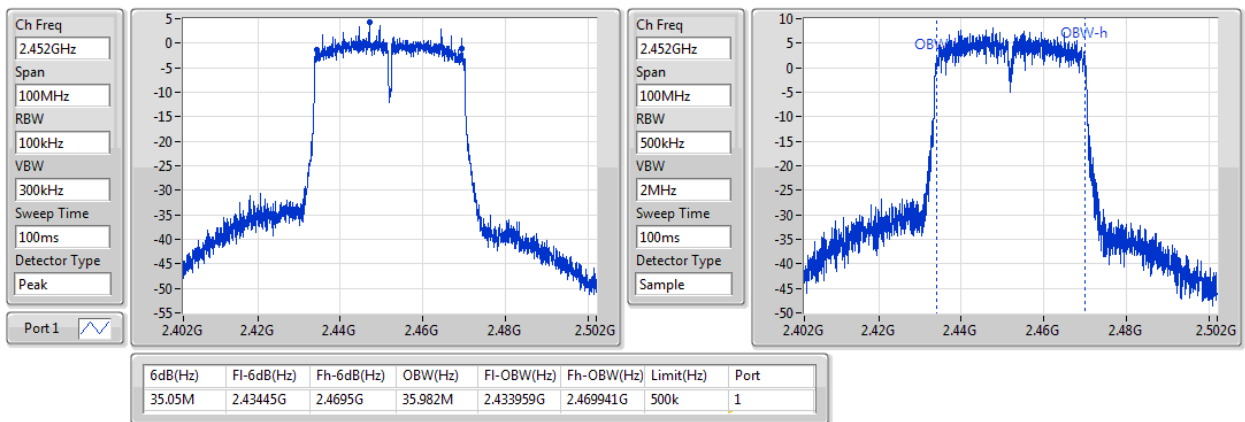
2437MHz



802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

2452MHz





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

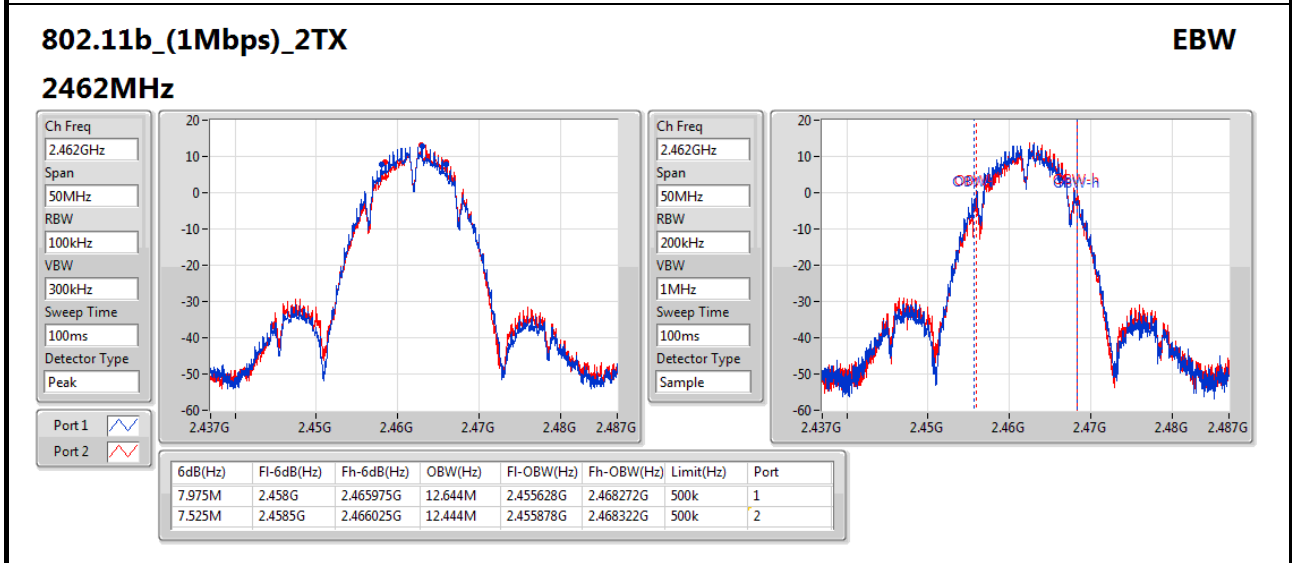
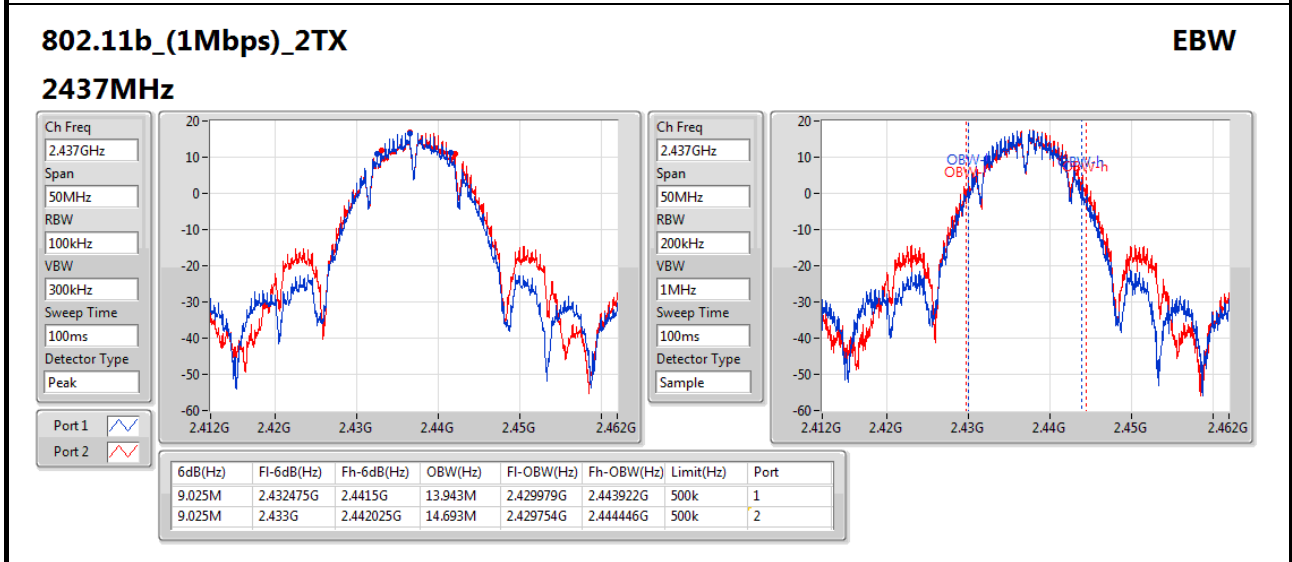
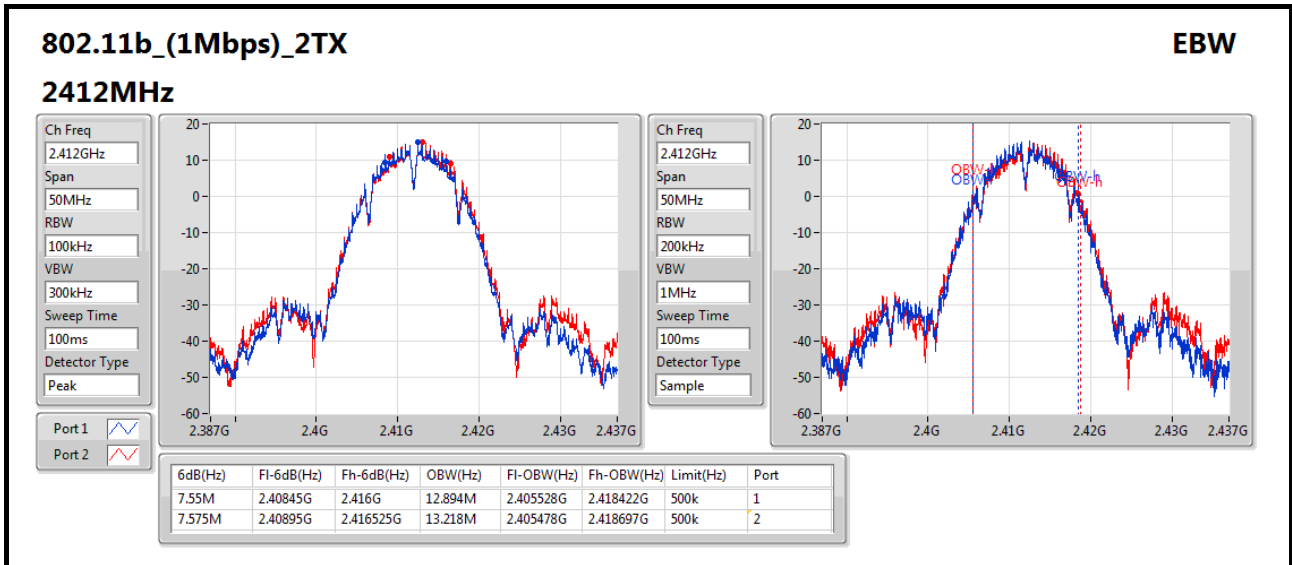
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	9.025M	14.693M	14M7G1D	7.525M	12.444M
802.11g_(6Mbps)_2TX	-	-	-	-	-
2.4-2.4835GHz	16.325M	16.592M	16M6D1D	15.7M	16.392M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-
2.4-2.4835GHz	17.55M	17.741M	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;

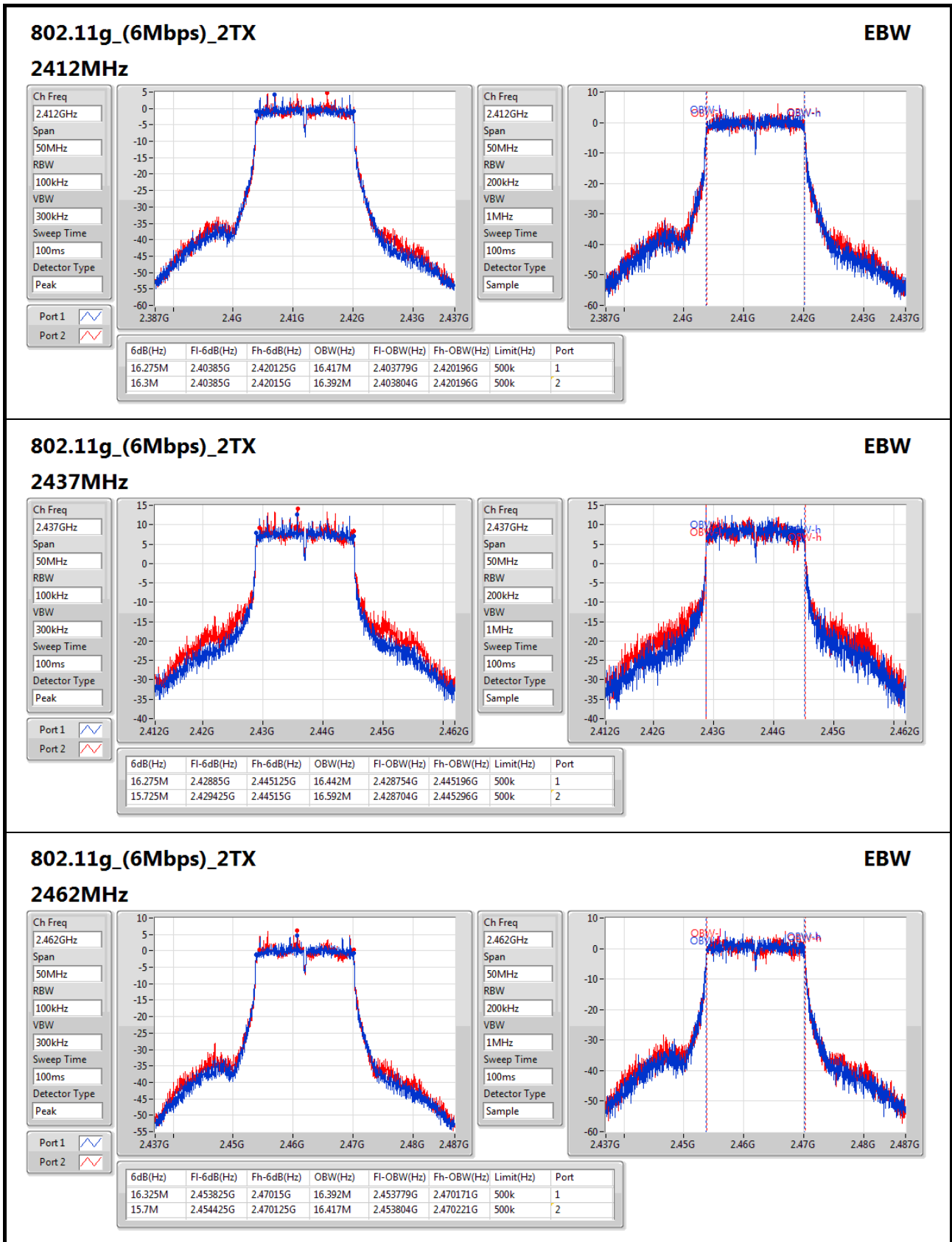
**Result**

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;



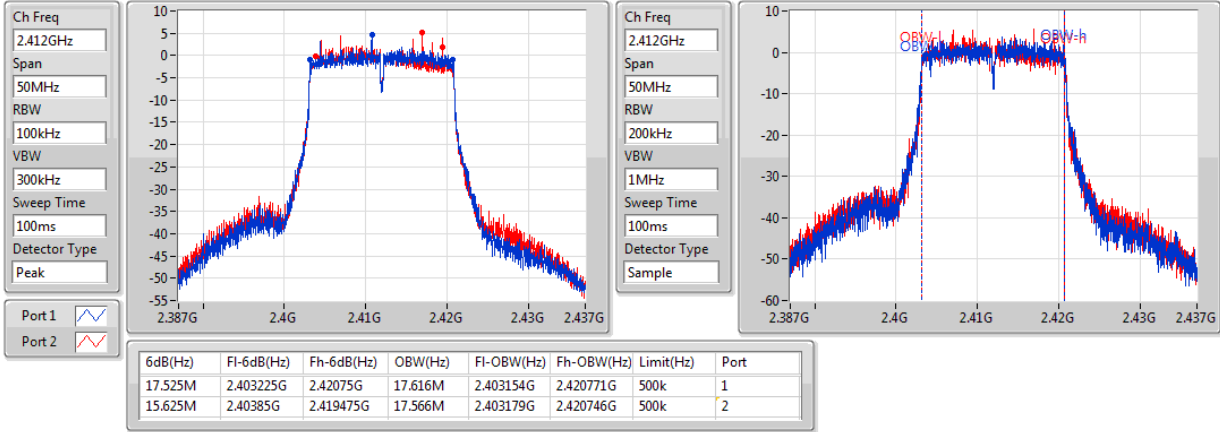




802.11ac VHT20\_Nss1,(MCS0)\_2TX

EBW

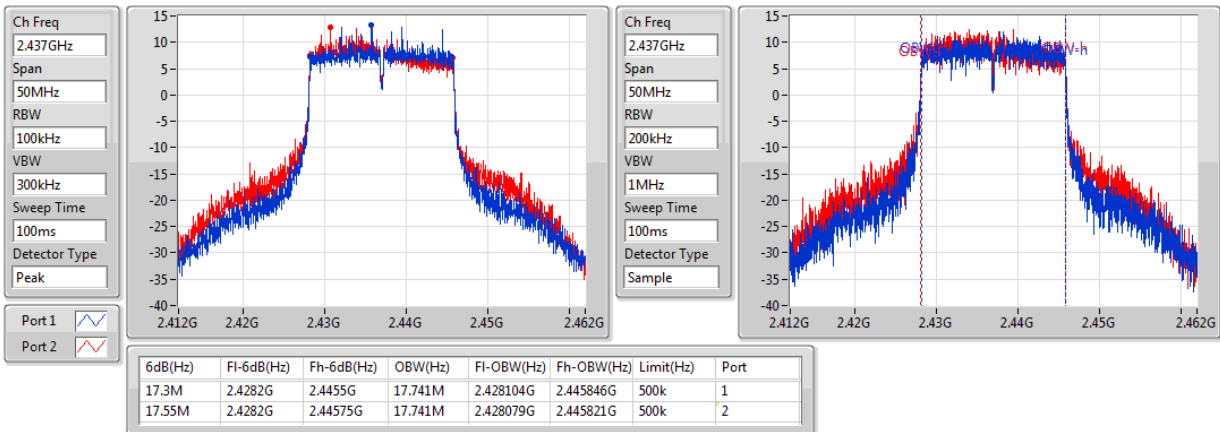
2412MHz



802.11ac VHT20\_Nss1,(MCS0)\_2TX

EBW

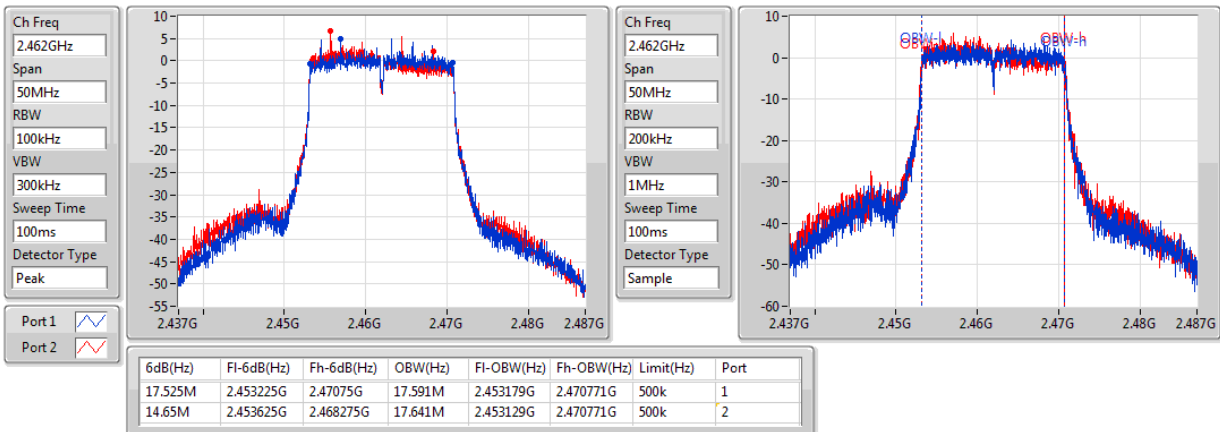
2437MHz

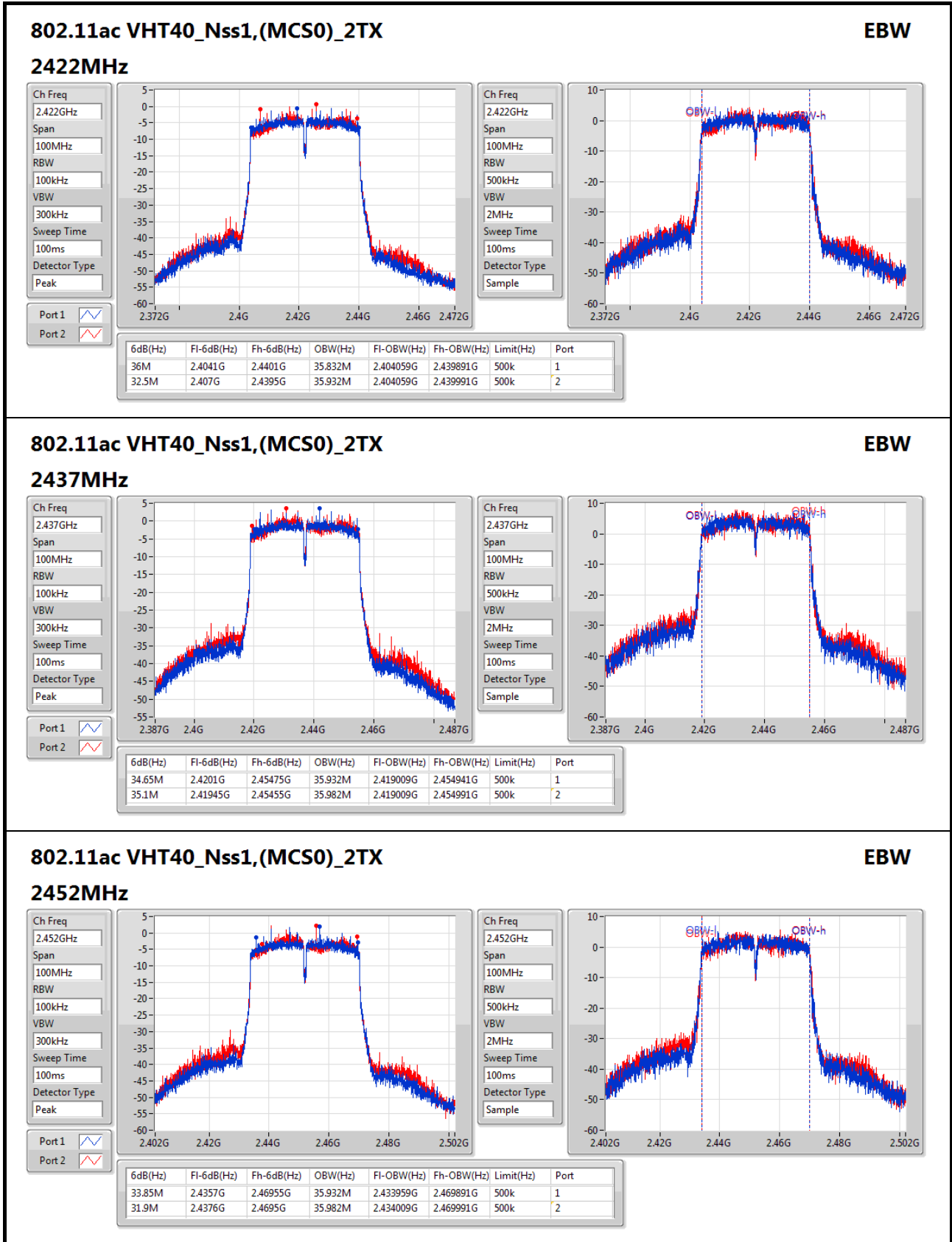


802.11ac VHT20\_Nss1,(MCS0)\_2TX

EBW

2462MHz







<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;

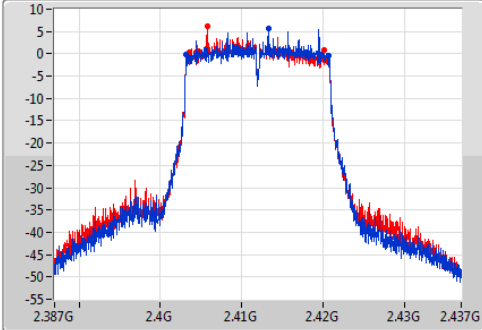


802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

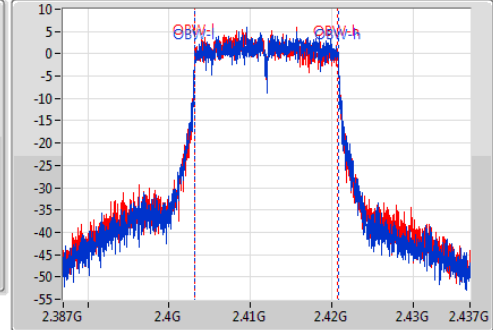
EBW

2412MHz

Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



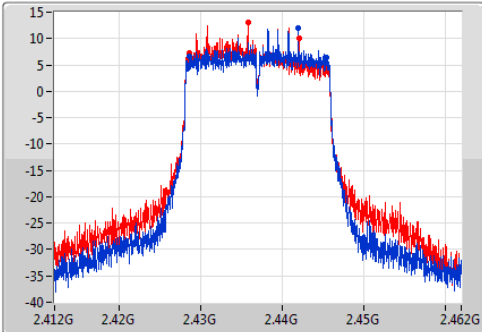
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.525M	2.403225G	2.42075G	17.641M	2.403154G	2.420796G	500k	1
16.525M	2.4036G	2.420125G	17.591M	2.403179G	2.420771G	500k	2

802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

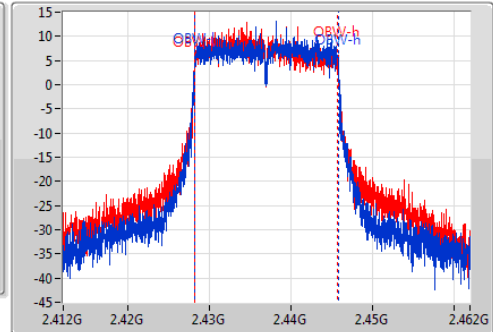
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



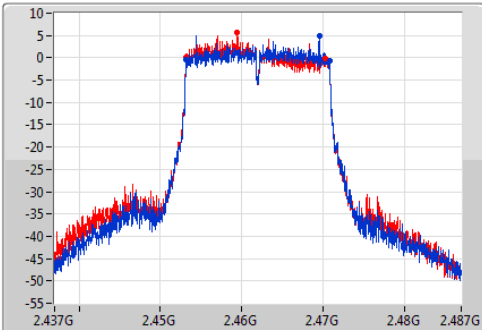
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.75M	2.428625G	2.445375G	17.641M	2.428154G	2.445796G	500k	1
13.45M	2.4286G	2.44205G	17.641M	2.428129G	2.445771G	500k	2

802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

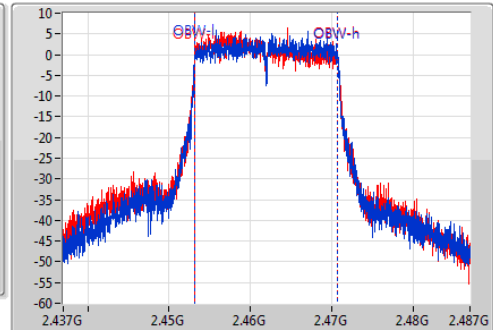
EBW

2462MHz

Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample

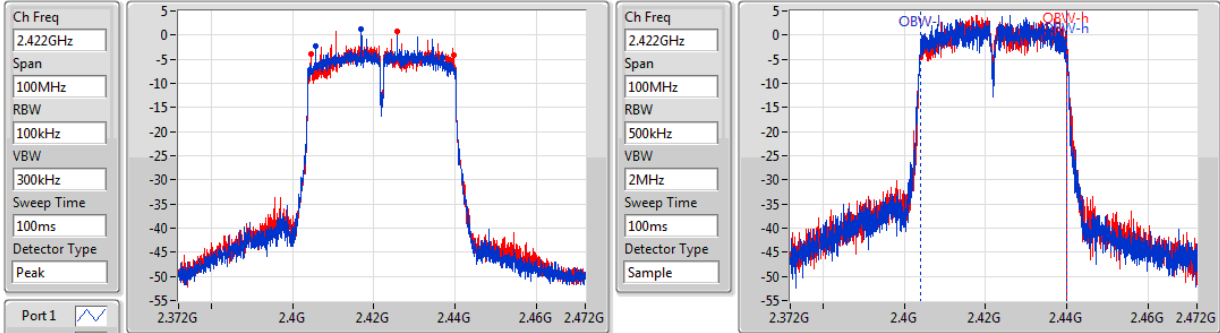


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4532G	2.470775G	17.591M	2.453179G	2.470771G	500k	1
17.15M	2.4532G	2.47035G	17.591M	2.453154G	2.470746G	500k	2

802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

EBW

2422MHz

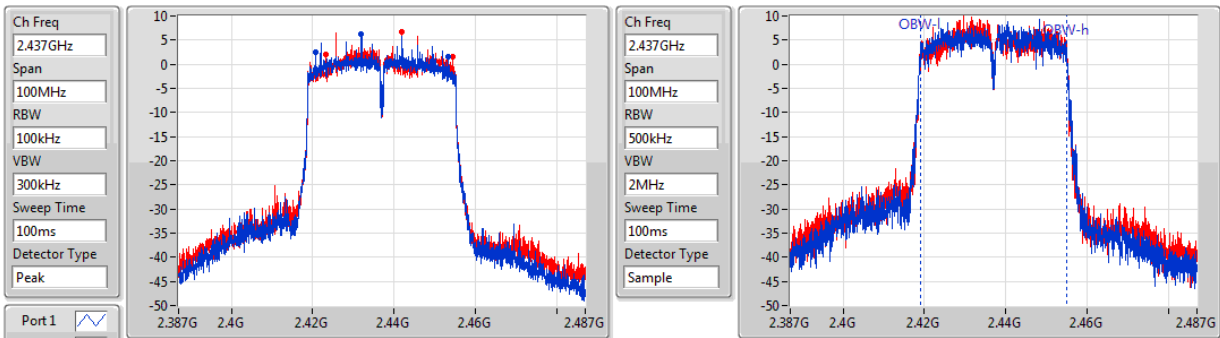


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
31.25M	2.40575G	2.437G	35.932M	2.404009G	2.439941G	500k	1
35.05M	2.4045G	2.43955G	35.932M	2.404059G	2.439991G	500k	2

802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

EBW

2437MHz

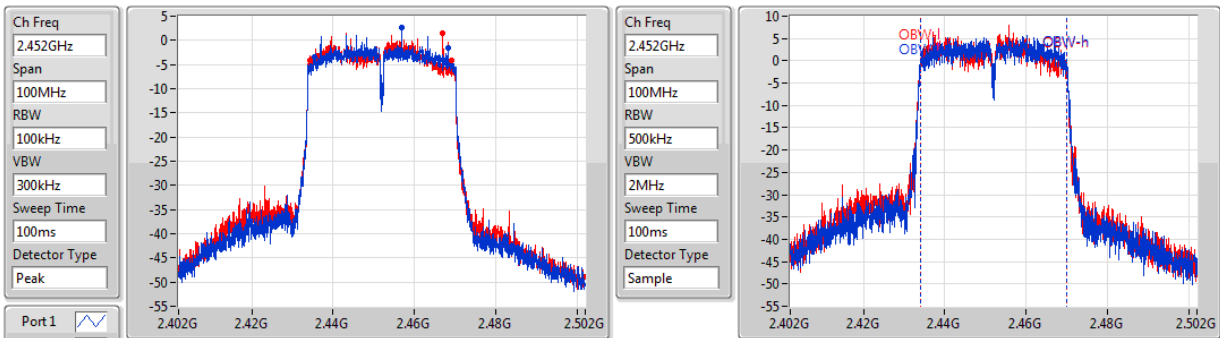


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
32.5M	2.4207G	2.4532G	35.932M	2.419009G	2.454941G	500k	1
31.3M	2.4232G	2.4545G	35.932M	2.419059G	2.454991G	500k	2

802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

EBW

2452MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
32.7M	2.4355G	2.4682G	36.032M	2.433959G	2.469991G	500k	1
34.95M	2.4342G	2.46915G	35.882M	2.433959G	2.469841G	500k	2



**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;

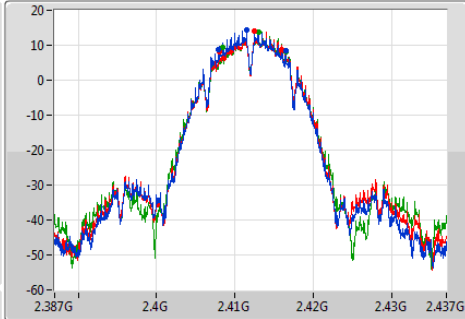


802.11b\_(1Mbps)\_3TX

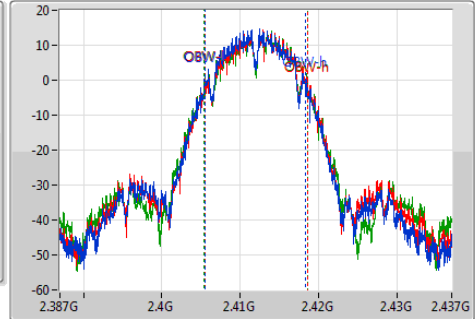
EBW

2412MHz

Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



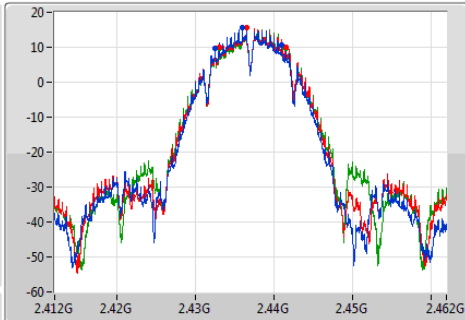
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.55M	2.40795G	2.4165G	12.869M	2.405528G	2.418397G	500k	1
8.05M	2.407975G	2.416025G	13.093M	2.405503G	2.418597G	500k	2
8.025M	2.408475G	2.4165G	13.168M	2.405453G	2.418622G	500k	3

802.11b\_(1Mbps)\_3TX

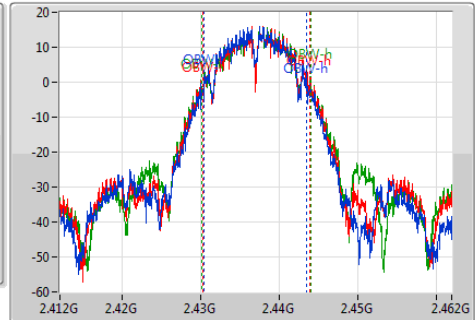
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



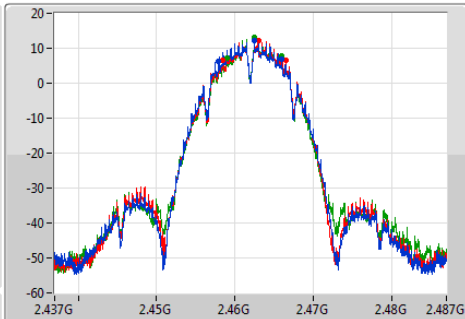
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.5M	2.432475G	2.440975G	13.093M	2.430428G	2.443522G	500k	1
8.525M	2.433G	2.441525G	13.643M	2.430253G	2.443897G	500k	2
8.525M	2.432975G	2.4415G	13.918M	2.430053G	2.443972G	500k	3

802.11b\_(1Mbps)\_3TX

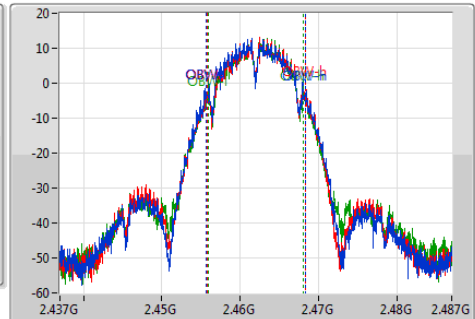
EBW

2462MHz

Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



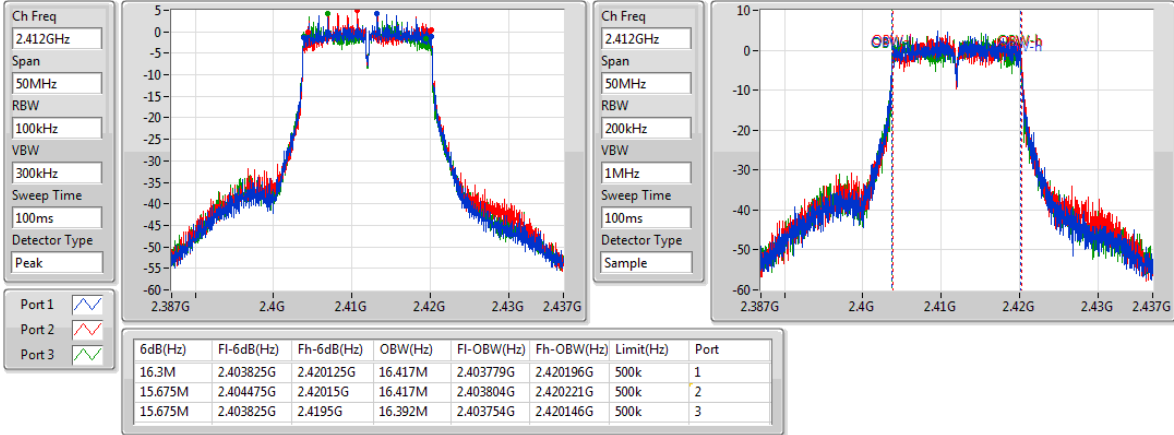
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.05M	2.45795G	2.466G	12.669M	2.455603G	2.468272G	500k	1
8.025M	2.458475G	2.4665G	12.494M	2.455778G	2.468272G	500k	2
7.05M	2.45895G	2.466G	12.194M	2.455903G	2.468097G	500k	3



802.11g\_(6Mbps)\_3TX

EBW

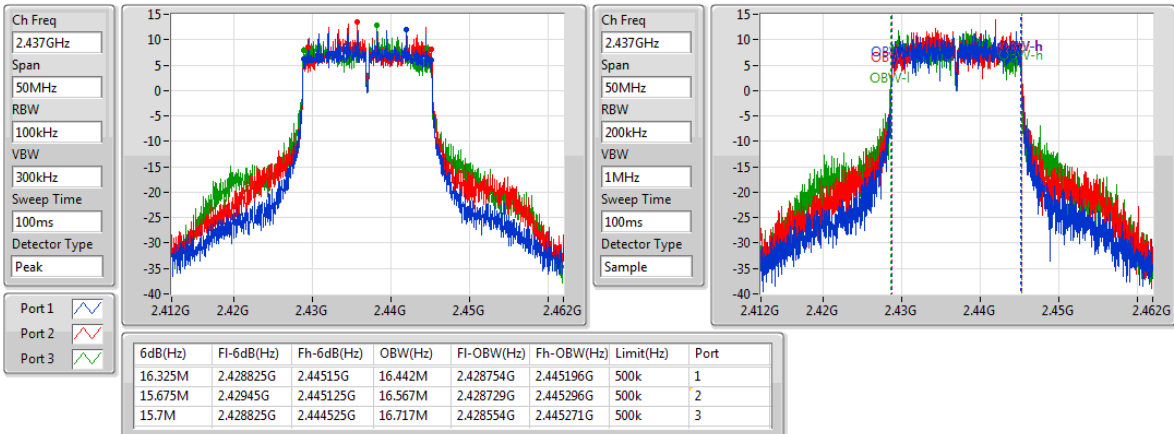
2412MHz



802.11g\_(6Mbps)\_3TX

EBW

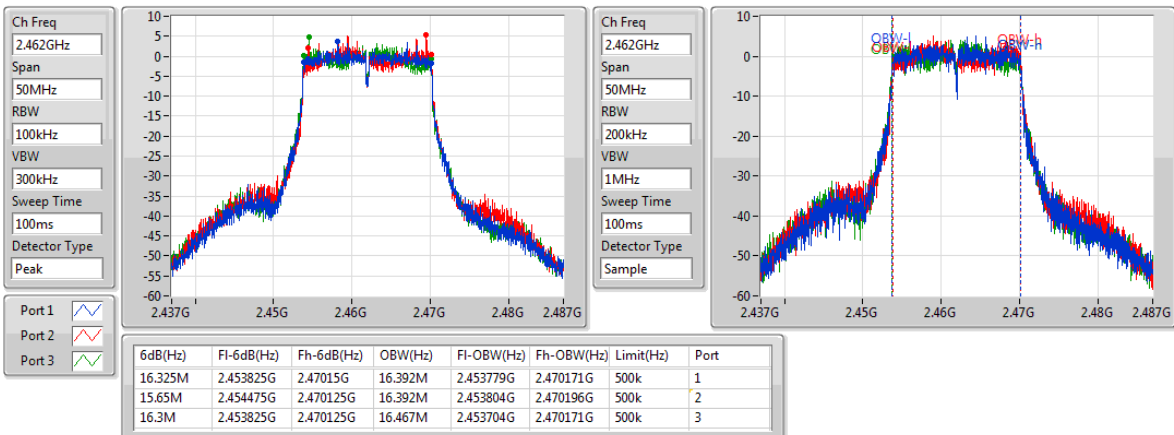
2437MHz



802.11g\_(6Mbps)\_3TX

EBW

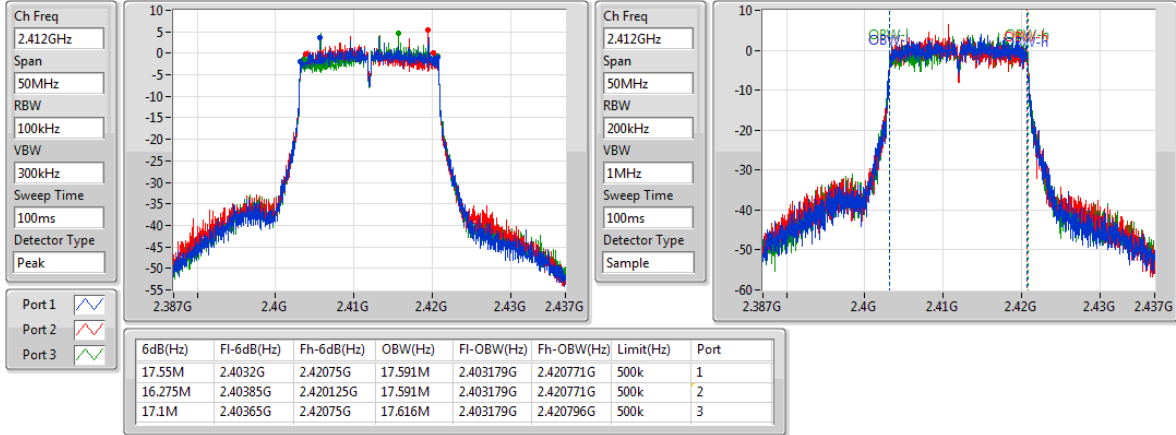
2462MHz



802.11ac VHT20\_Nss1,(MCS0)\_3TX

EBW

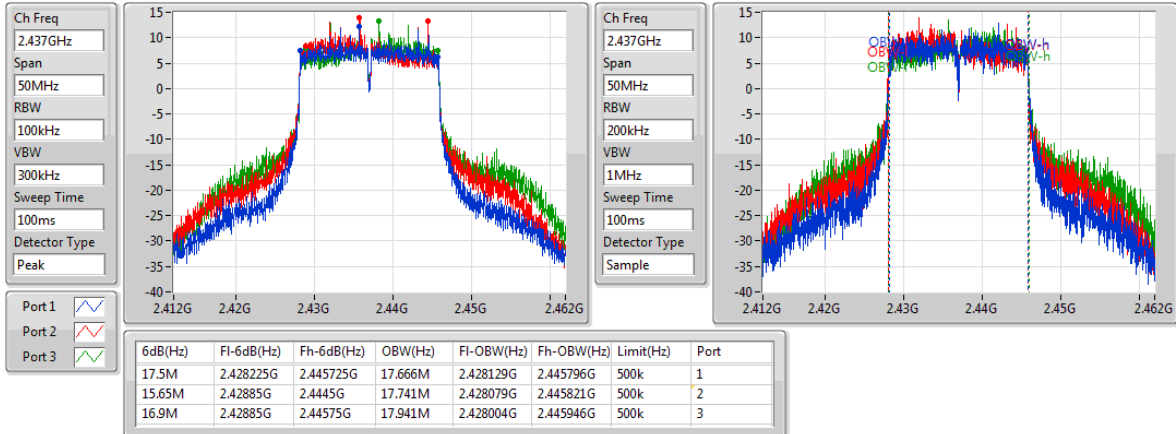
2412MHz



802.11ac VHT20\_Nss1,(MCS0)\_3TX

EBW

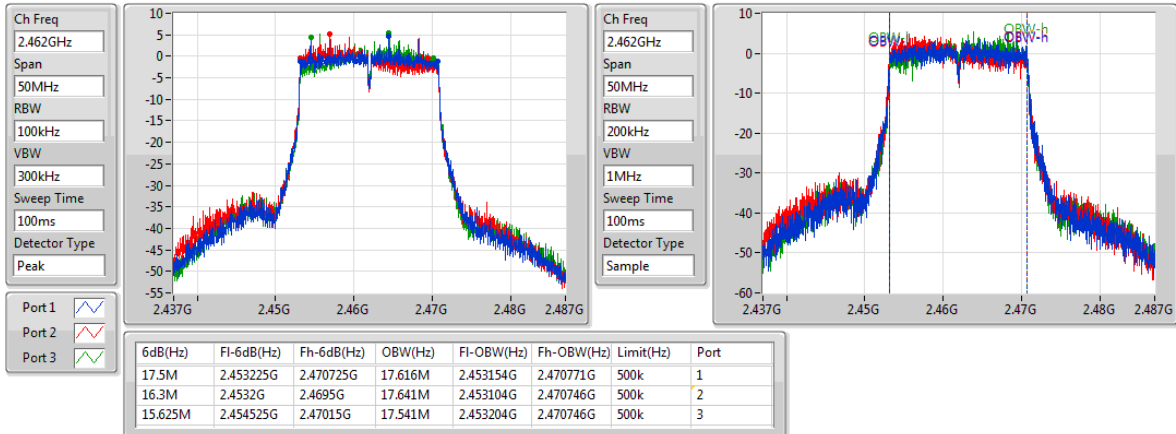
2437MHz



802.11ac VHT20\_Nss1,(MCS0)\_3TX

EBW

2462MHz

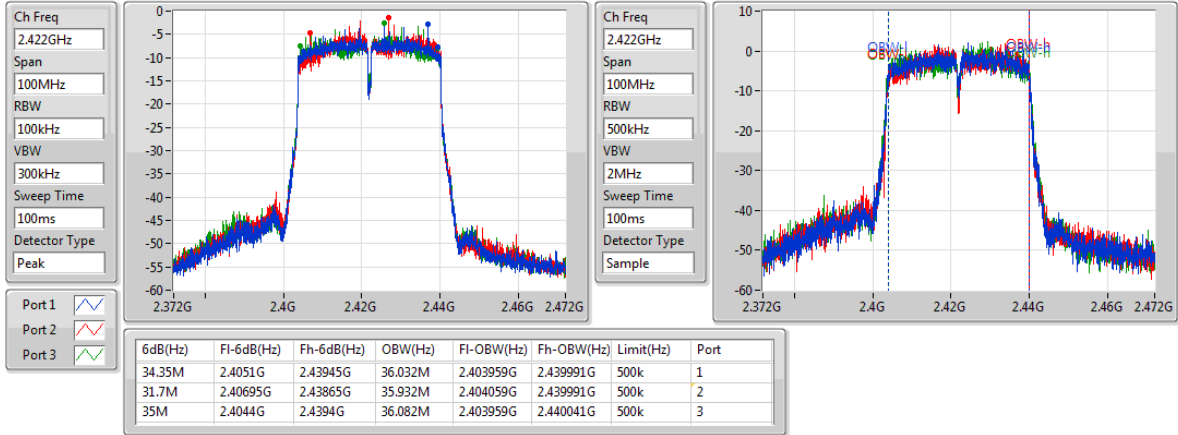




802.11ac VHT40\_Nss1,(MCS0)\_3TX

EBW

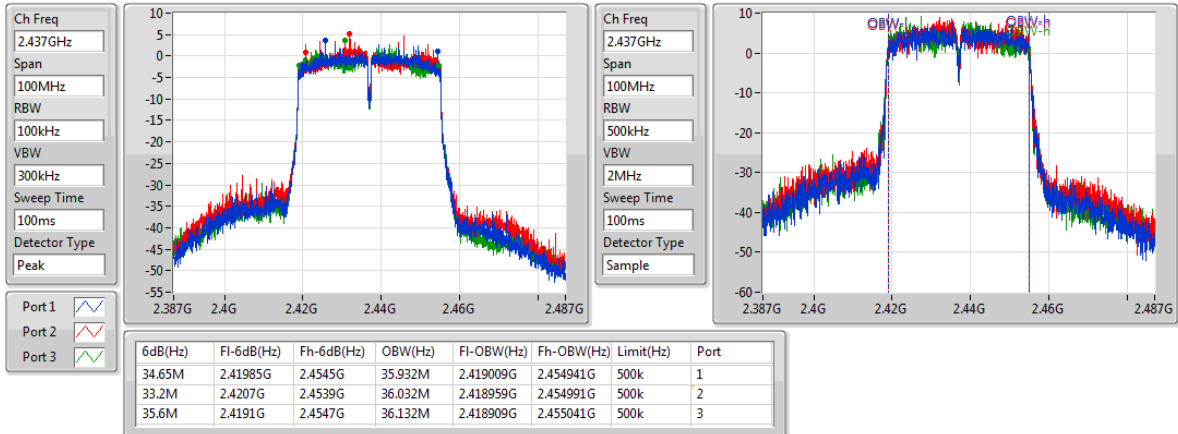
2422MHz



802.11ac VHT40\_Nss1,(MCS0)\_3TX

EBW

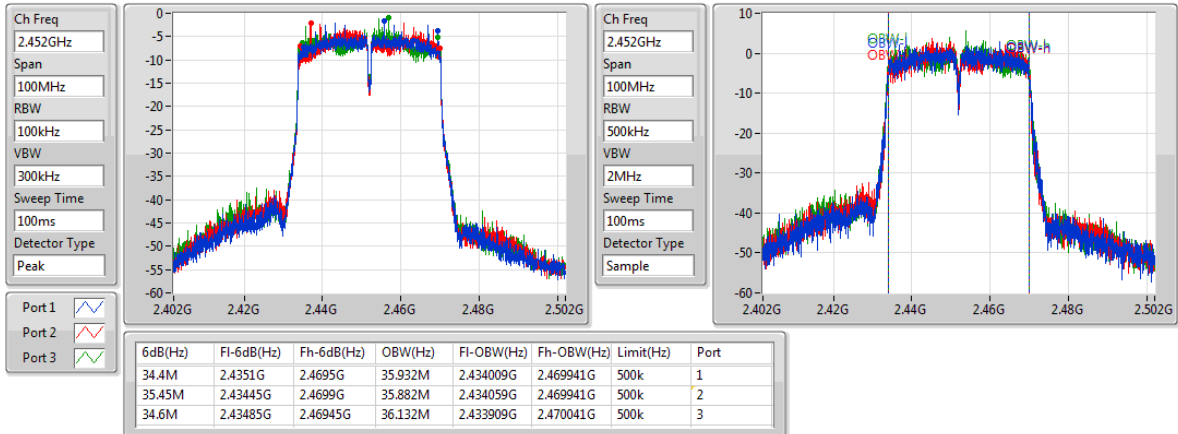
2437MHz



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	17.2M	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

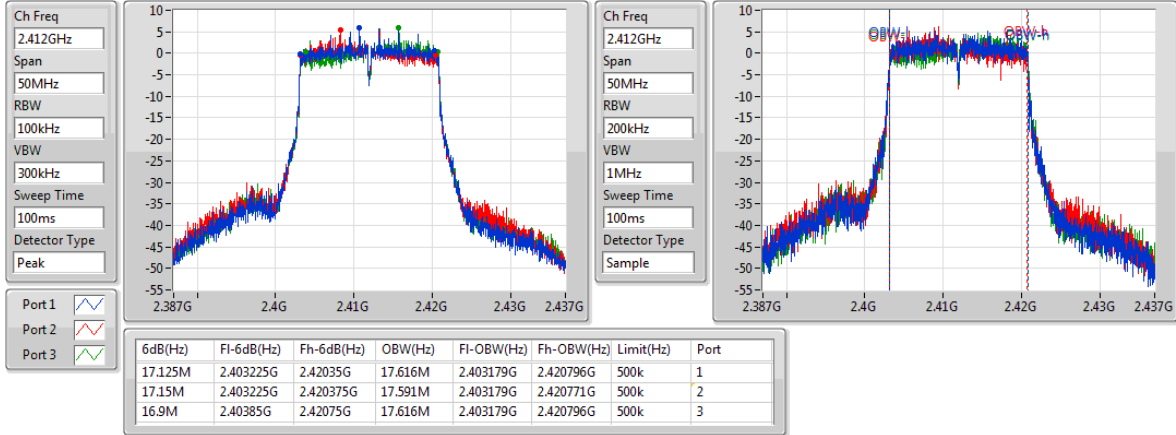
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11ac VHT20-BF\_Nss1,(MCS0)\_3TX

EBW

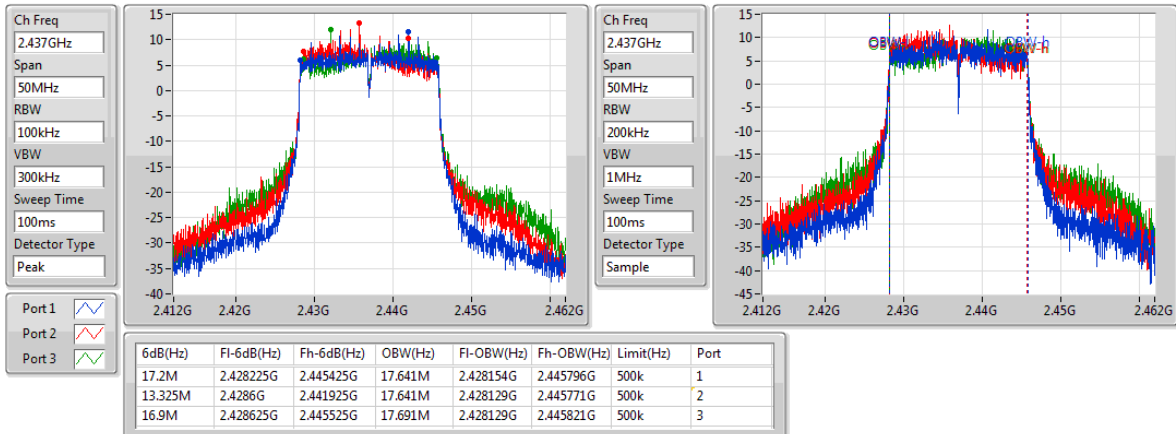
2412MHz



802.11ac VHT20-BF\_Nss1,(MCS0)\_3TX

EBW

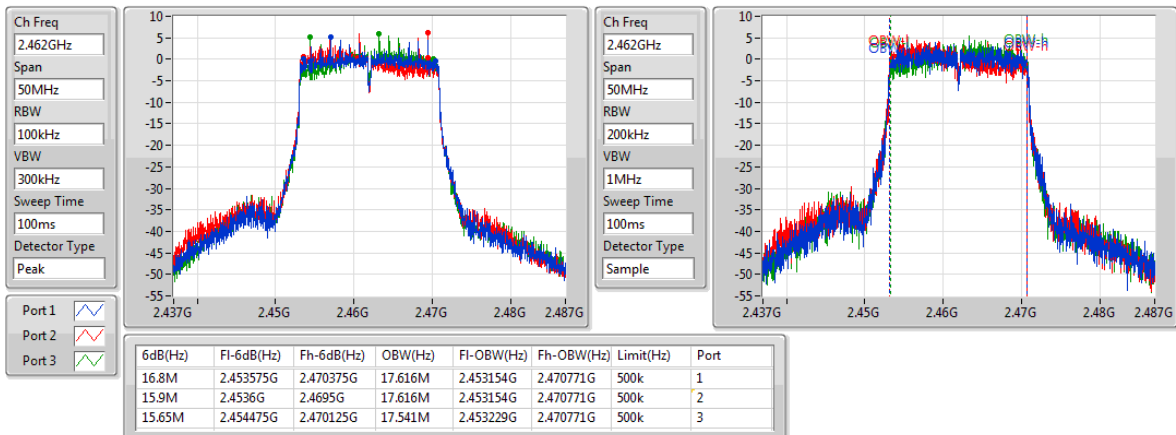
2437MHz



802.11ac VHT20-BF\_Nss1,(MCS0)\_3TX

EBW

2462MHz





802.11ac VHT40-BF\_Nss1,(MCS0)\_3TX

EBW

2422MHz

Ch Freq  
2.422GHz

Span  
100MHz

RBW  
100kHz

VBW  
300kHz

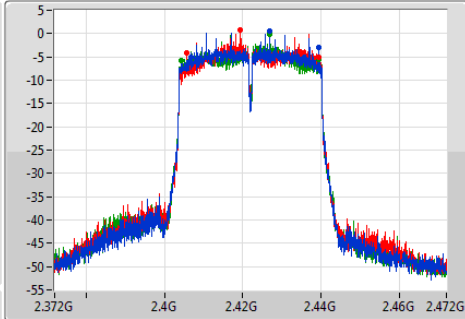
Sweep Time  
100ms

Detector Type  
Peak

Port 1

Port 2

Port 3



Ch Freq  
2.422GHz

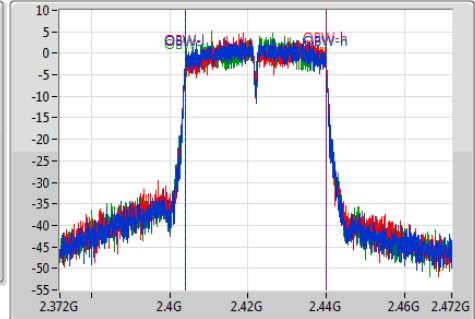
Span  
100MHz

RBW  
500kHz

VBW  
2MHz

Sweep Time  
100ms

Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
32.8M	2.4067G	2.4395G	35.932M	2.404009G	2.439941G	500k	1
33.75M	2.40575G	2.4395G	35.932M	2.404059G	2.439991G	500k	2
35.05M	2.40445G	2.4395G	36.032M	2.403959G	2.439991G	500k	3

802.11ac VHT40-BF\_Nss1,(MCS0)\_3TX

EBW

2437MHz

Ch Freq  
2.437GHz

Span  
100MHz

RBW  
100kHz

VBW  
300kHz

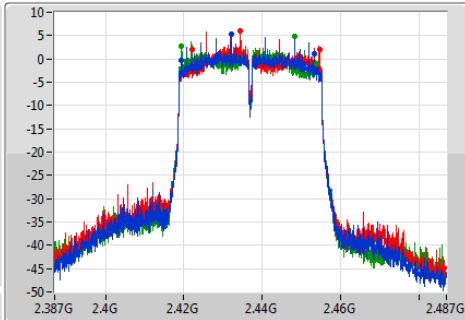
Sweep Time  
100ms

Detector Type  
Peak

Port 1

Port 2

Port 3



Ch Freq  
2.437GHz

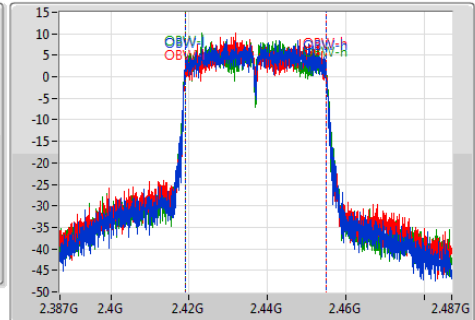
Span  
100MHz

RBW  
500kHz

VBW  
2MHz

Sweep Time  
100ms

Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.85M	2.41945G	2.4533G	35.882M	2.419009G	2.454891G	500k	1
32.55M	2.422G	2.45455G	35.882M	2.419059G	2.454941G	500k	2
34.45M	2.41945G	2.4539G	36.082M	2.418909G	2.454991G	500k	3

802.11ac VHT40-BF\_Nss1,(MCS0)\_3TX

EBW

2452MHz

Ch Freq  
2.452GHz

Span  
100MHz

RBW  
100kHz

VBW  
300kHz

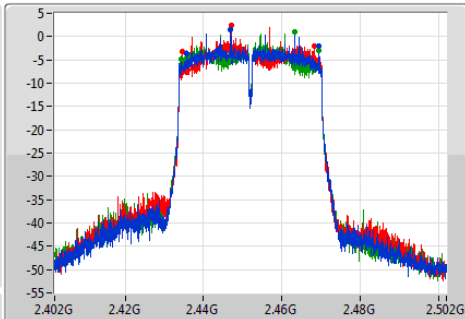
Sweep Time  
100ms

Detector Type  
Peak

Port 1

Port 2

Port 3



Ch Freq  
2.452GHz

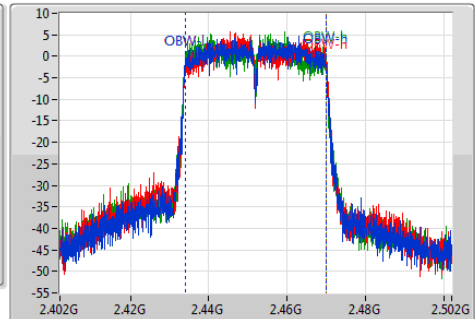
Span  
100MHz

RBW  
500kHz

VBW  
2MHz

Sweep Time  
100ms

Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.75M	2.43575G	2.4695G	35.982M	2.434009G	2.469991G	500k	1
33.75M	2.4345G	2.46825G	35.932M	2.434059G	2.469991G	500k	2
35.25M	2.4342G	2.46945G	36.032M	2.433909G	2.469941G	500k	3



**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

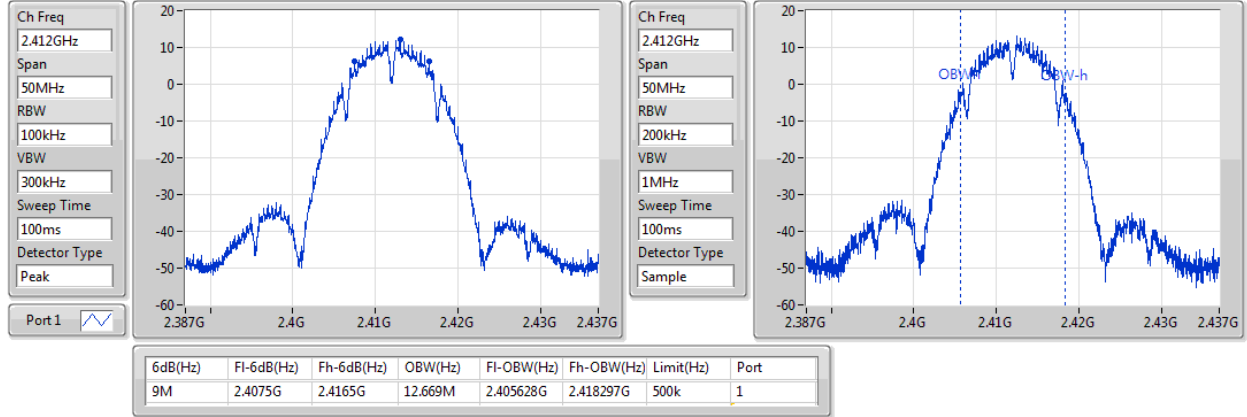
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



### 802.11b\_(1Mbps)\_1TX

EBW

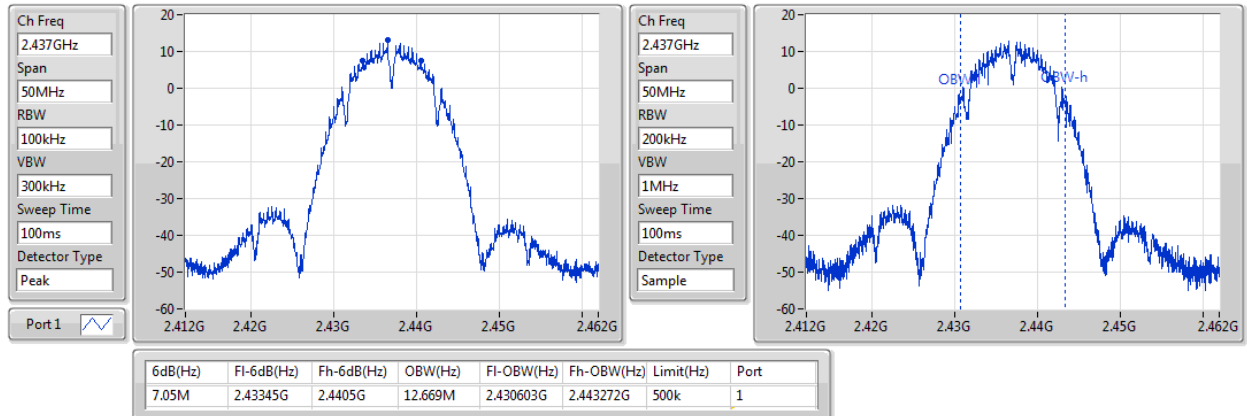
2412MHz



### 802.11b\_(1Mbps)\_1TX

EBW

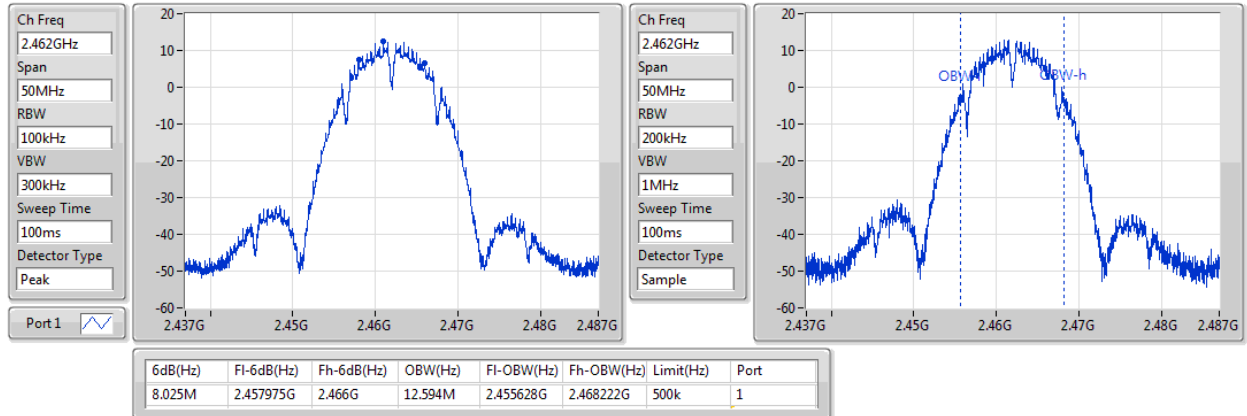
2437MHz



### 802.11b\_(1Mbps)\_1TX

EBW

2462MHz



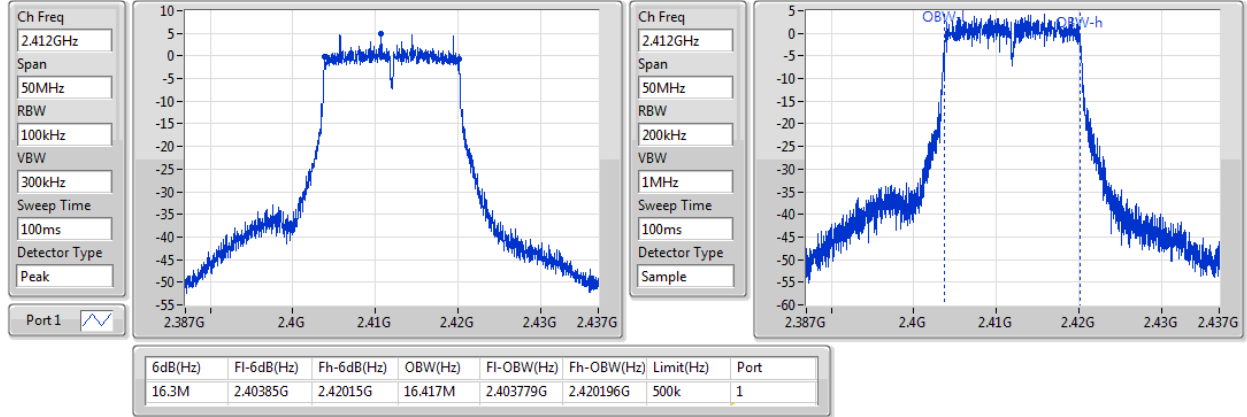




### 802.11g\_(6Mbps)\_1TX

EBW

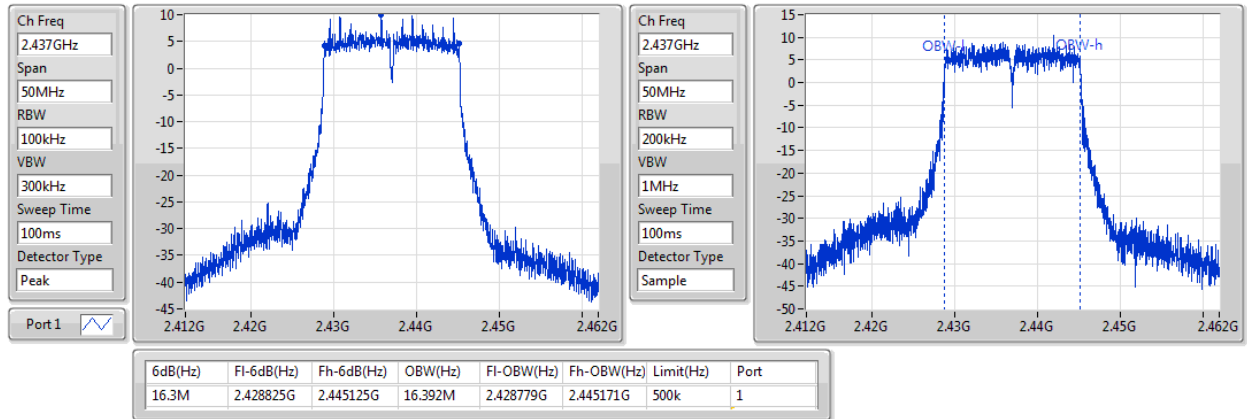
2412MHz



### 802.11g\_(6Mbps)\_1TX

EBW

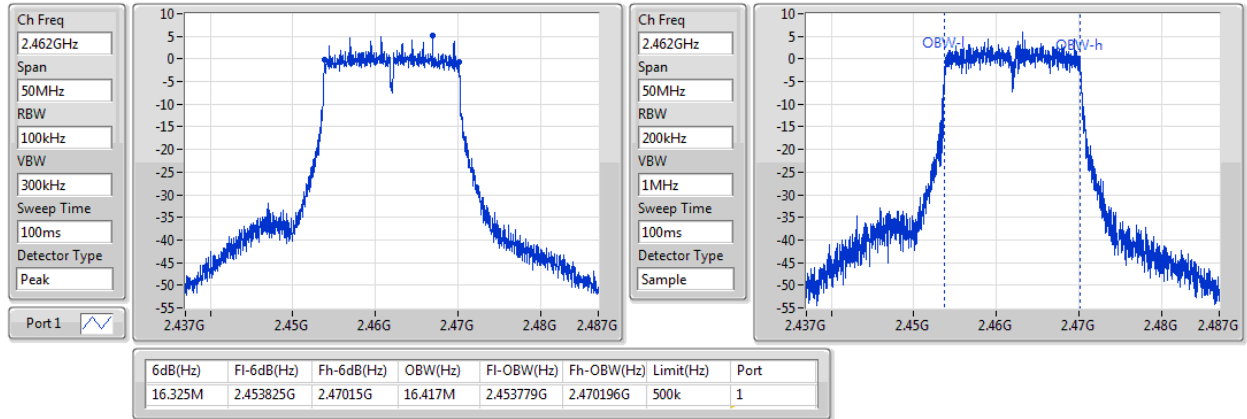
2437MHz



### 802.11g\_(6Mbps)\_1TX

EBW

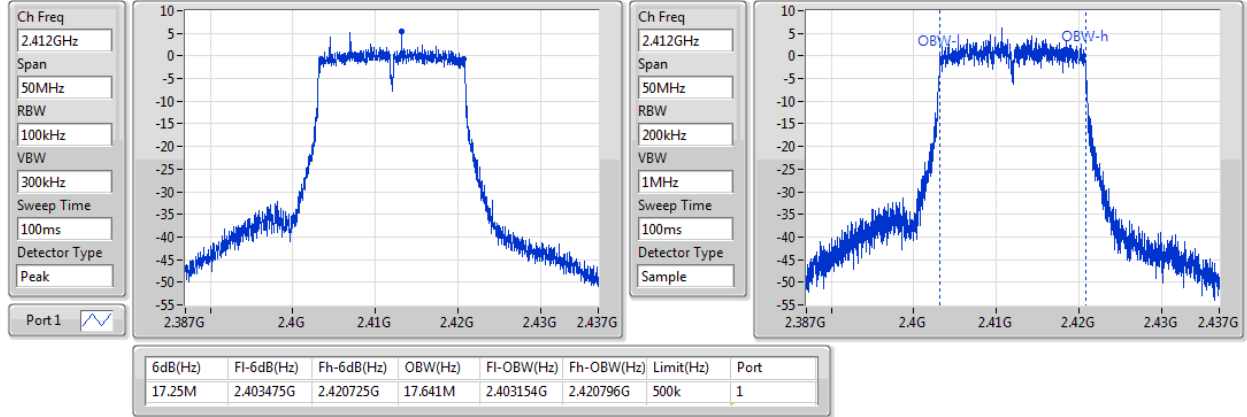
2462MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

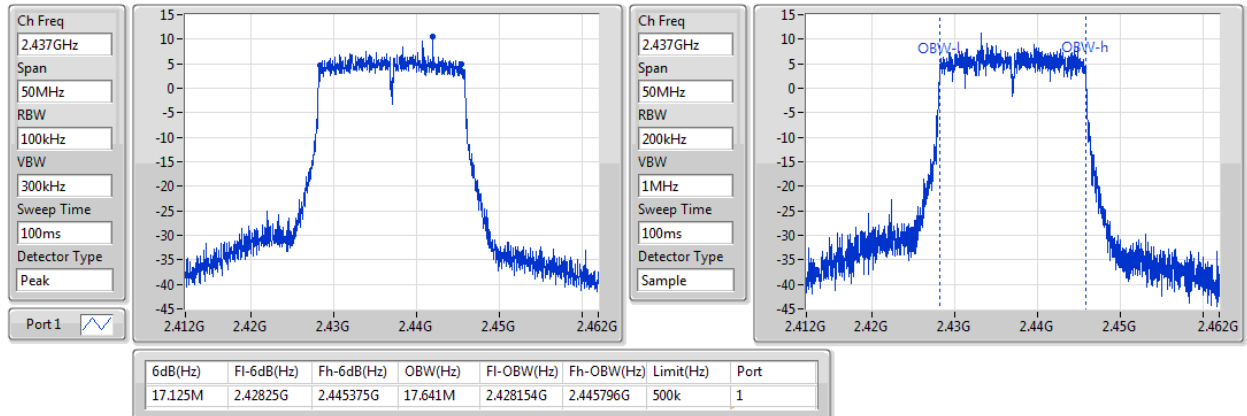
2412MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

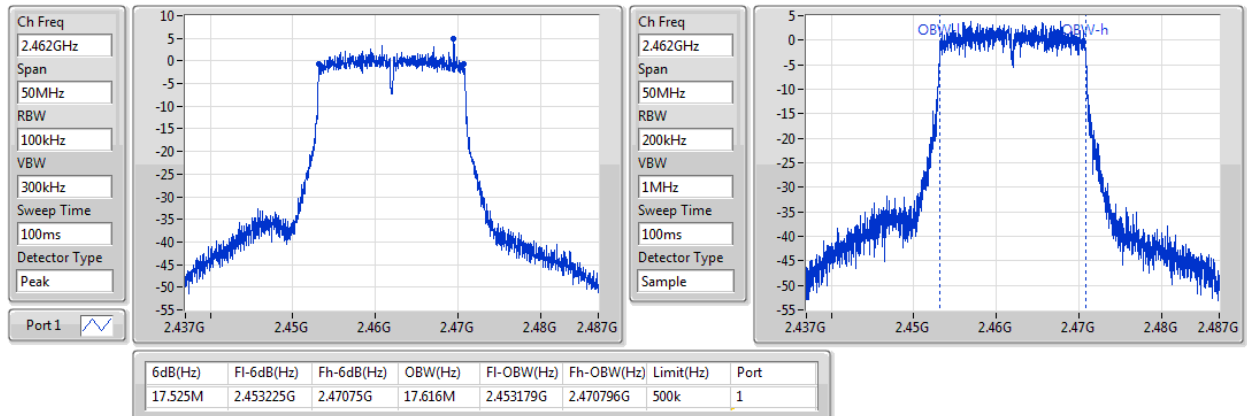
2437MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

2462MHz

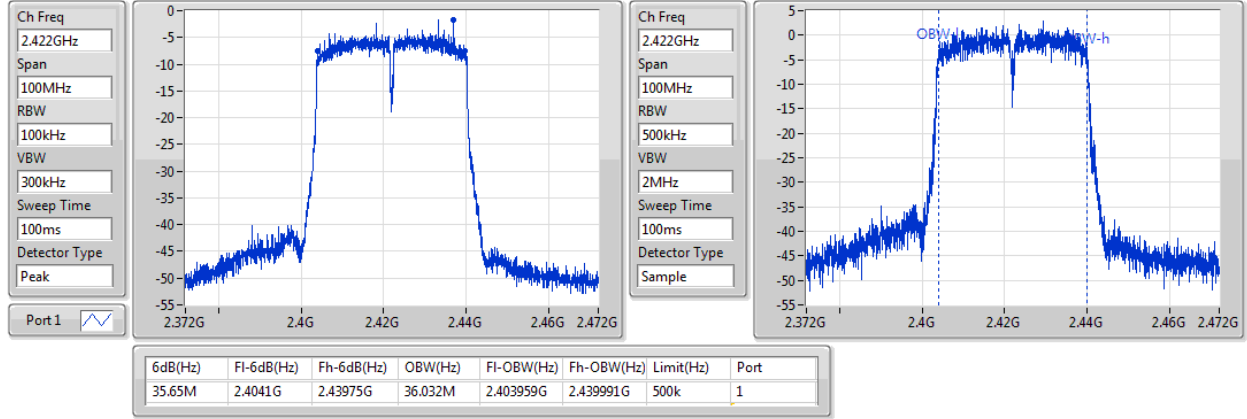




802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

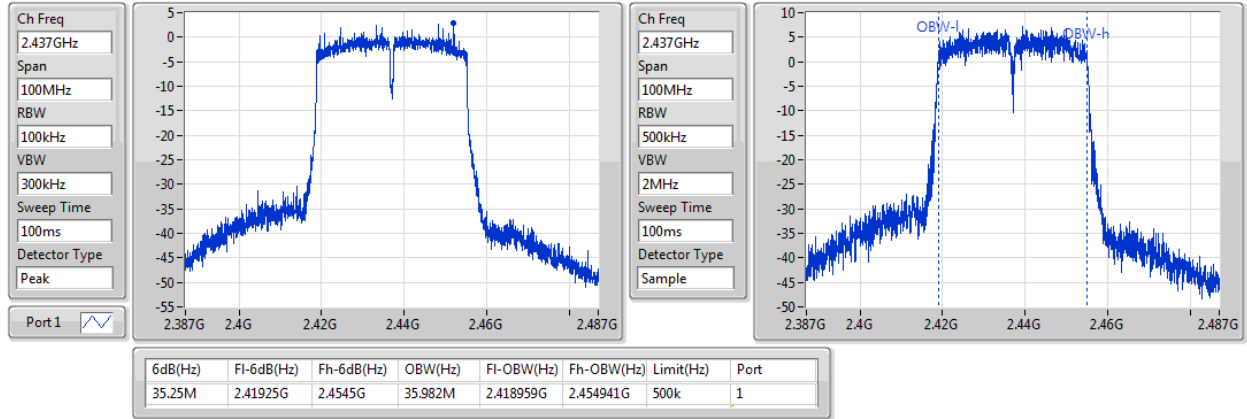
2422MHz



802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

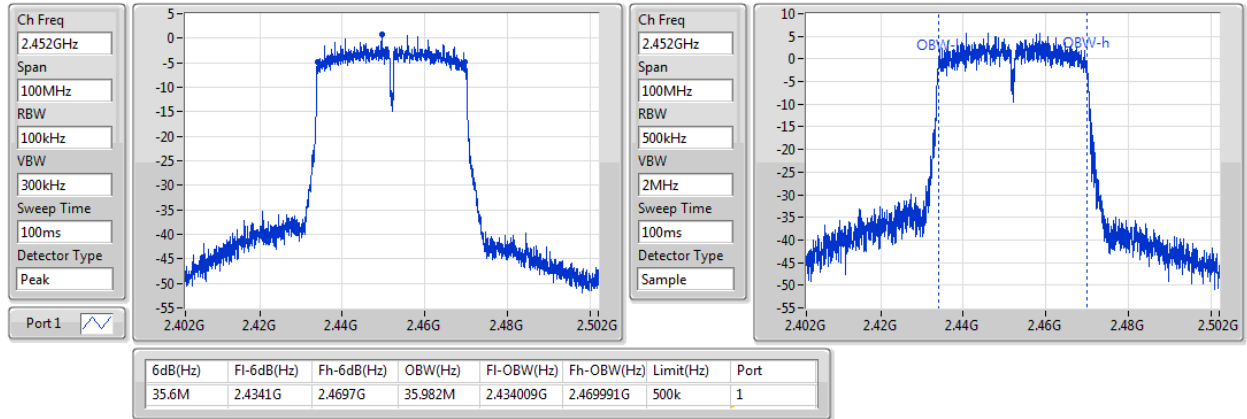
2437MHz



802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

2452MHz





**For Set 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

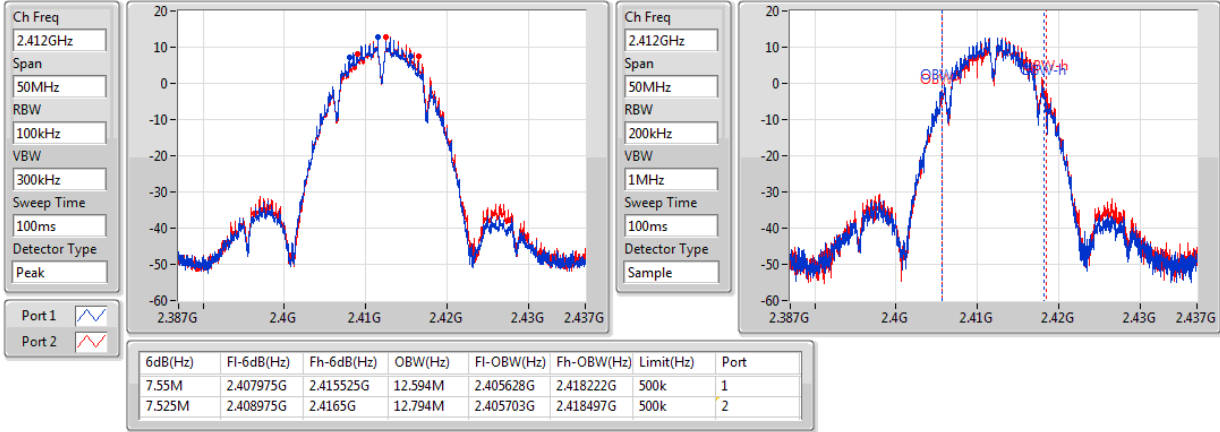
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



### 802.11b\_(1Mbps)\_2TX

EBW

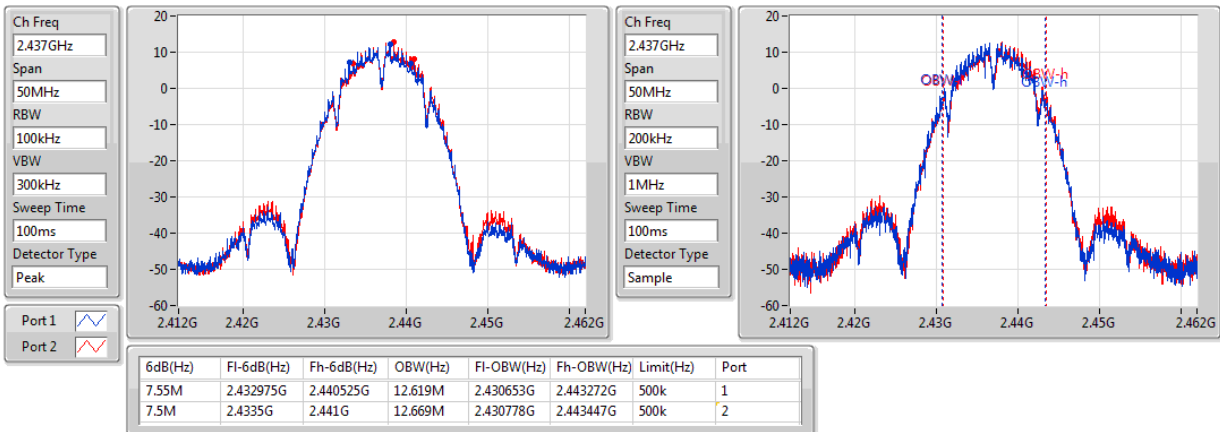
#### 2412MHz



### 802.11b\_(1Mbps)\_2TX

EBW

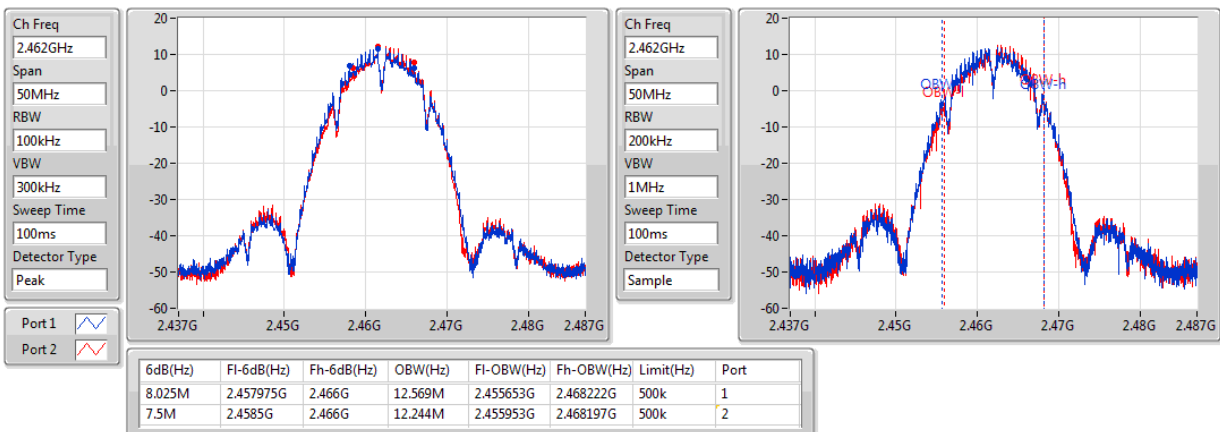
#### 2437MHz

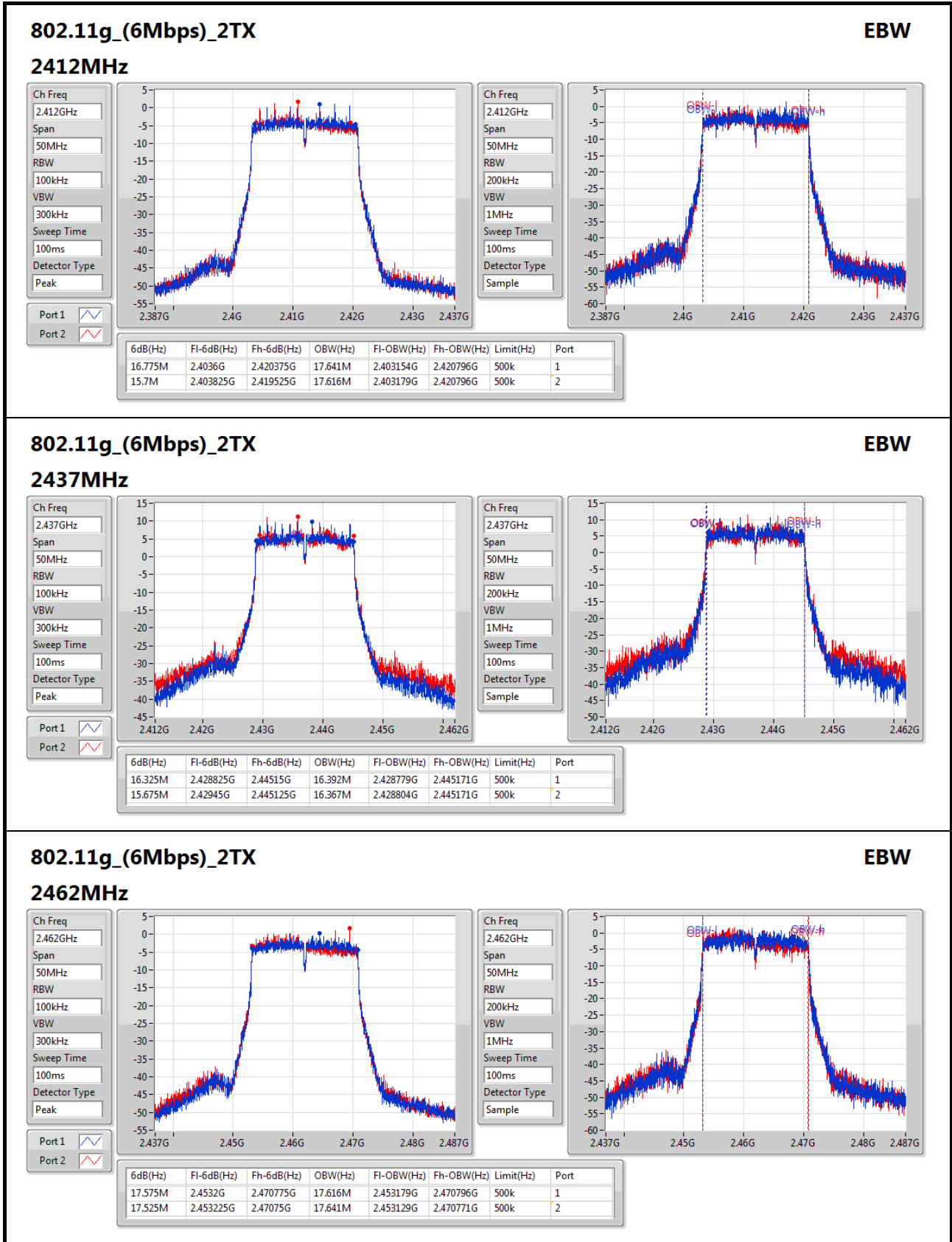


### 802.11b\_(1Mbps)\_2TX

EBW

#### 2462MHz



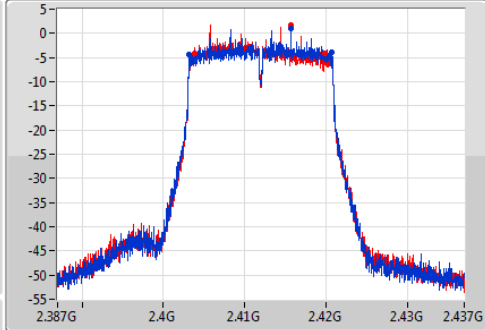


802.11ac VHT20\_Nss1,(MCS0)\_2TX

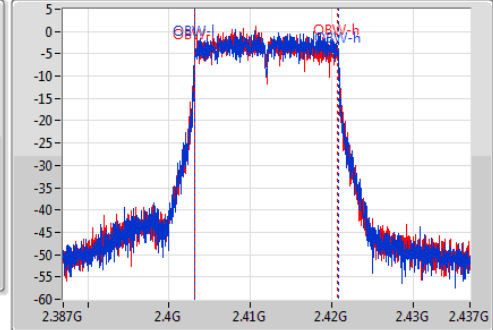
EBW

2412MHz

Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



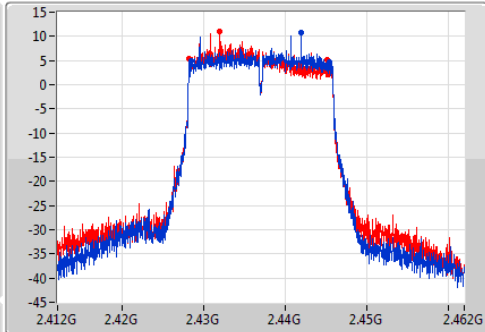
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.525M	2.403225G	2.42075G	17.616M	2.403179G	2.420796G	500k	1
16.05M	2.403825G	2.419875G	17.591M	2.403179G	2.420771G	500k	2

802.11ac VHT20\_Nss1,(MCS0)\_2TX

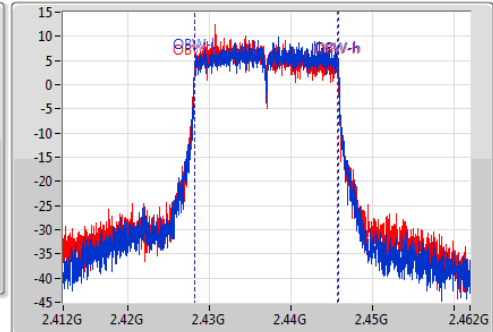
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



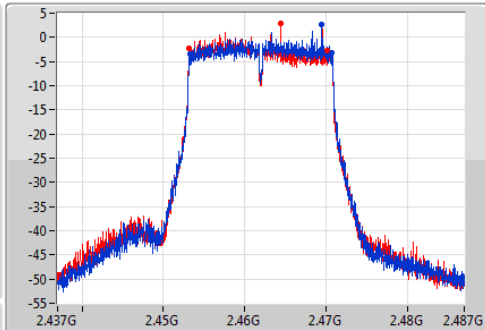
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17M	2.428475G	2.445475G	17.641M	2.428154G	2.445796G	500k	1
16.9M	2.4282G	2.4451G	17.591M	2.428154G	2.445746G	500k	2

802.11ac VHT20\_Nss1,(MCS0)\_2TX

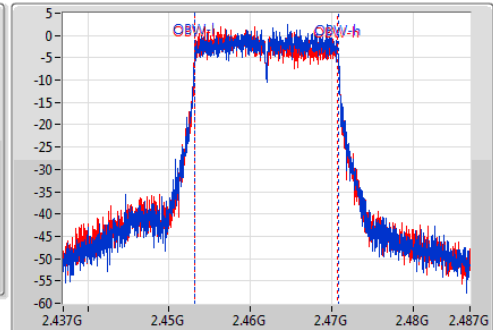
EBW

2462MHz

Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.475M	2.45325G	2.470725G	17.641M	2.453154G	2.470796G	500k	1
16.875M	2.453225G	2.4701G	17.616M	2.453154G	2.470771G	500k	2

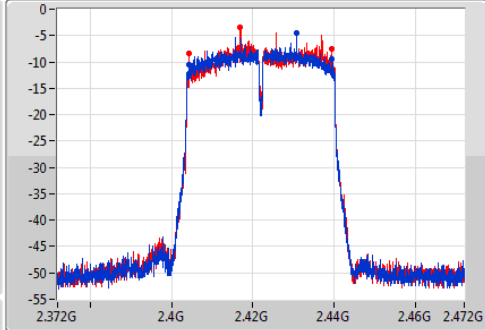


802.11ac VHT40\_Nss1,(MCS0)\_2TX

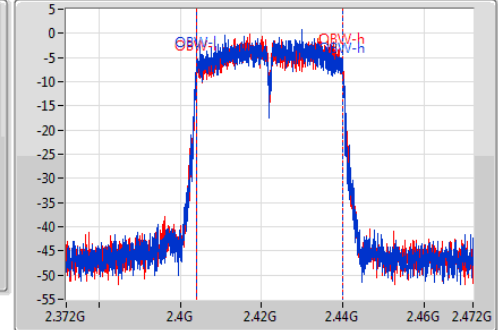
EBW

2422MHz

Ch Freq  
2.422GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.422GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



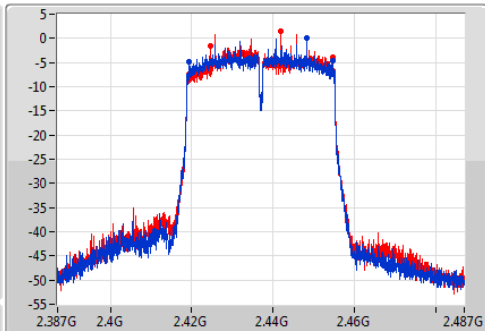
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.3M	2.4042G	2.4395G	35.932M	2.404009G	2.439941G	500k	1
35M	2.40445G	2.43945G	35.932M	2.404059G	2.439991G	500k	2

802.11ac VHT40\_Nss1,(MCS0)\_2TX

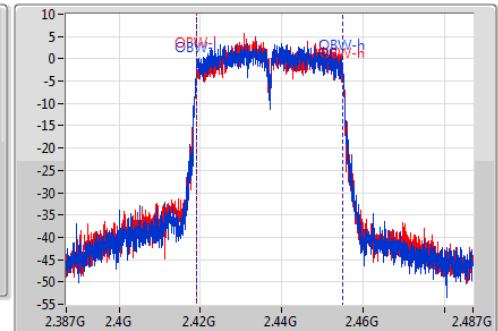
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



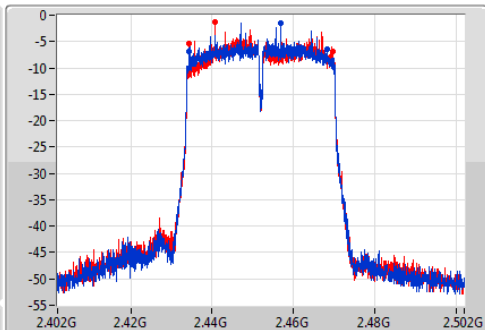
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.1M	2.41945G	2.45455G	35.932M	2.419009G	2.454941G	500k	1
30.05M	2.4245G	2.45455G	35.932M	2.419059G	2.454991G	500k	2

802.11ac VHT40\_Nss1,(MCS0)\_2TX

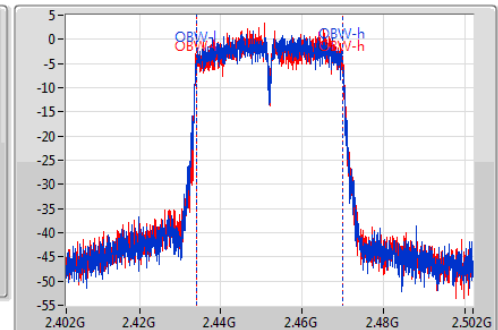
EBW

2452MHz

Ch Freq  
2.452GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.452GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.85M	2.43445G	2.4683G	35.982M	2.433959G	2.469941G	500k	1
35.1M	2.43445G	2.46955G	35.982M	2.433959G	2.469941G	500k	2





<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

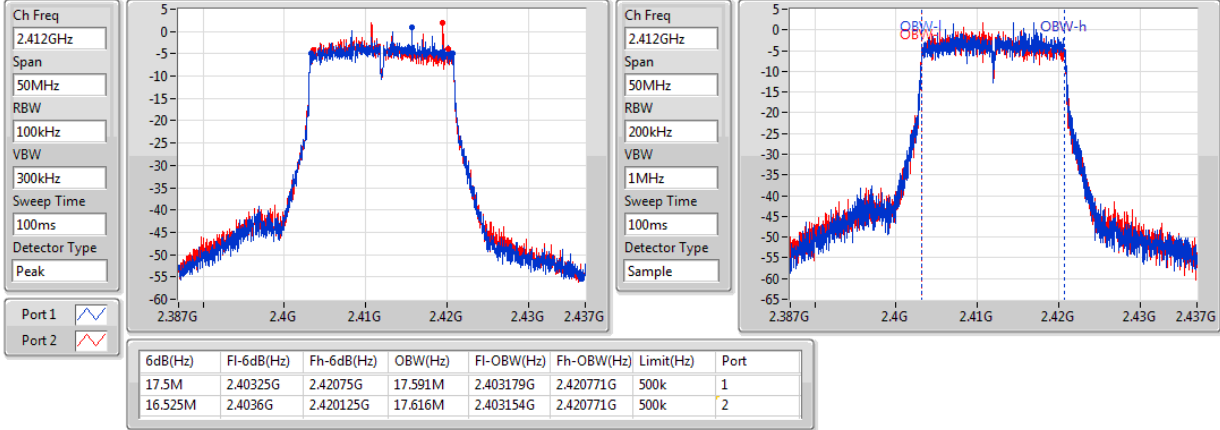
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.5M	17.591M	16.525M	17.616M
2437MHz	Pass	500k	17.3M	17.591M	16.6M	17.591M
2462MHz	Pass	500k	16.9M	17.591M	16.925M	17.641M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
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

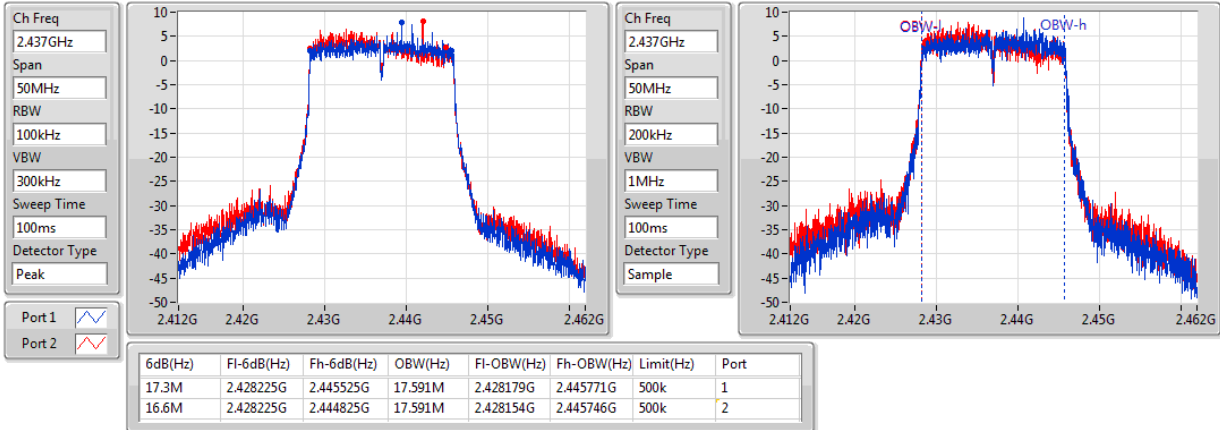
2412MHz



802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

EBW

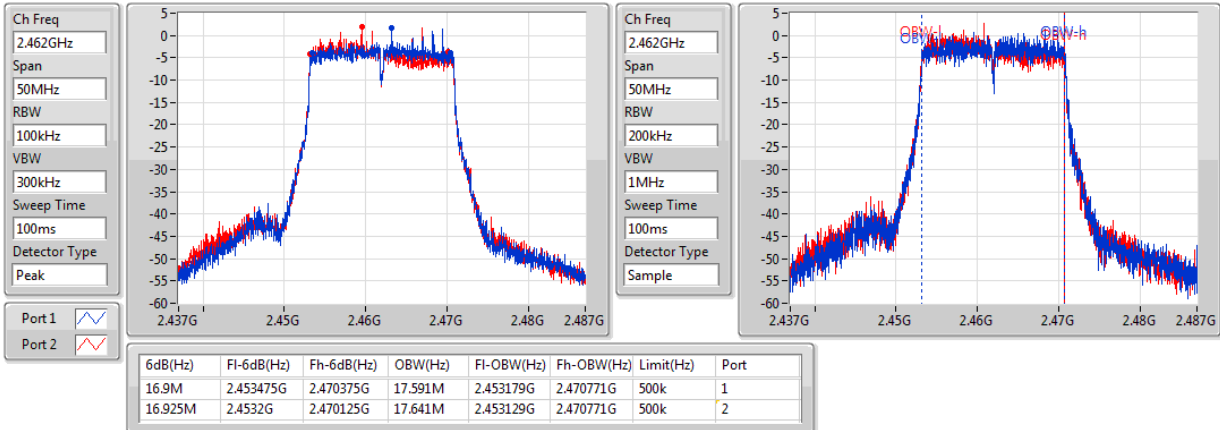
2437MHz



802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

EBW

2462MHz

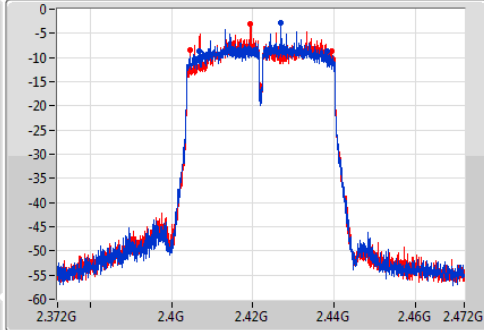


802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

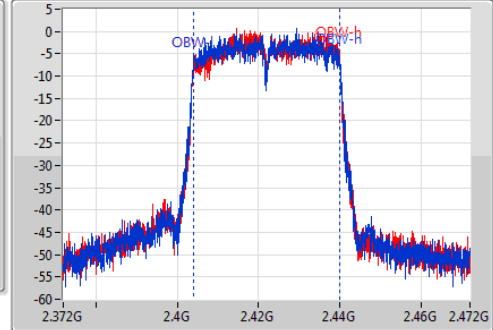
EBW

2422MHz

Ch Freq  
2.422GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.422GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



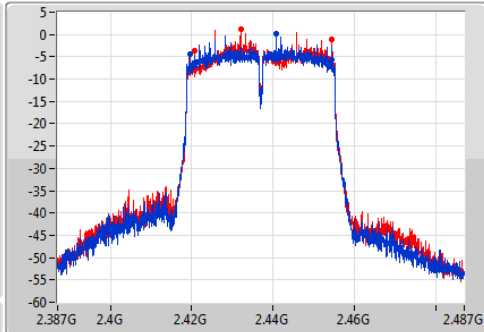
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
31.55M	2.40675G	2.4383G	35.982M	2.404009G	2.439991G	500k	1
34.85M	2.4045G	2.43935G	35.832M	2.404159G	2.439991G	500k	2

802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

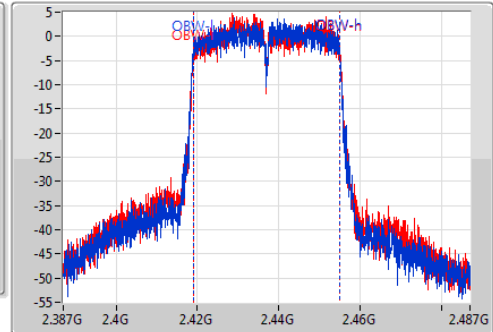
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



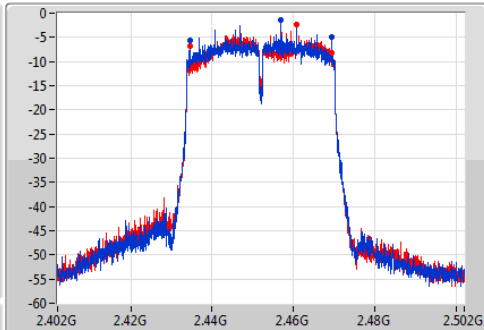
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.95M	2.41955G	2.4545G	35.932M	2.419009G	2.454941G	500k	1
33.8M	2.4207G	2.4545G	35.932M	2.419059G	2.454991G	500k	2

802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

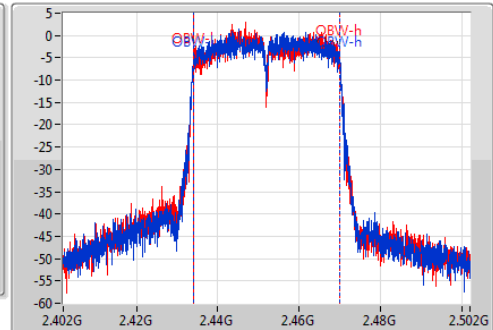
EBW

2452MHz

Ch Freq  
2.452GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.452GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35M	2.4345G	2.4695G	35.882M	2.434059G	2.469941G	500k	1
35M	2.4345G	2.4695G	35.832M	2.434159G	2.469991G	500k	2



**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;

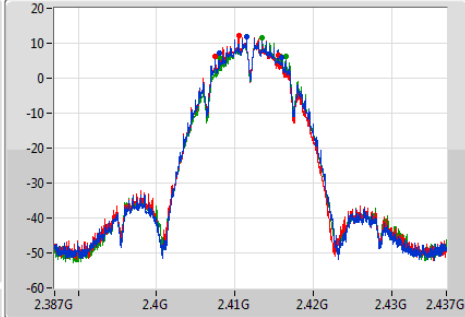


802.11b\_(1Mbps)\_3TX

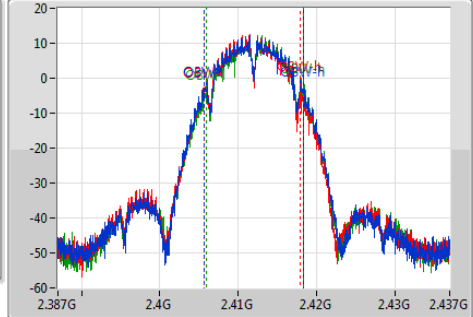
EBW

2412MHz

Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



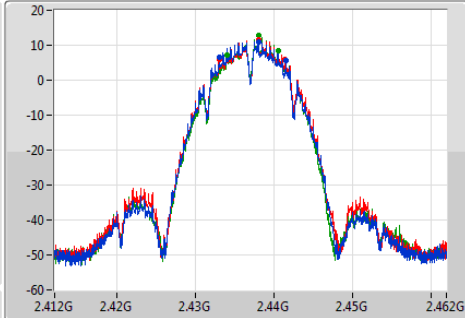
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.975M	2.408G	2.415975G	12.694M	2.405603G	2.418297G	500k	1
8.05M	2.407475G	2.415525G	12.344M	2.405603G	2.417947G	500k	2
8.5M	2.407975G	2.416475G	12.519M	2.405878G	2.418397G	500k	3

802.11b\_(1Mbps)\_3TX

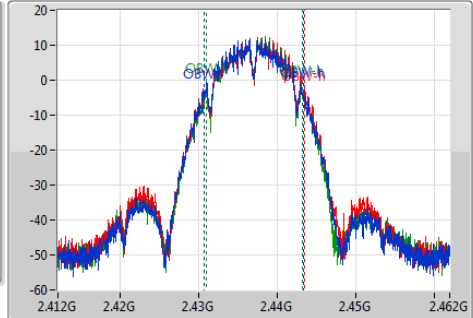
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



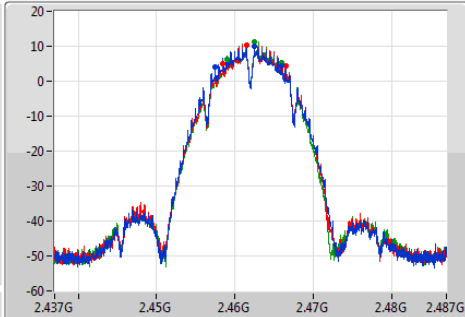
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.5M	2.433G	2.4415G	12.644M	2.430628G	2.443272G	500k	1
8.475M	2.432975G	2.44145G	12.844M	2.430628G	2.443472G	500k	2
6.575M	2.43395G	2.440525G	12.269M	2.430903G	2.443172G	500k	3

802.11b\_(1Mbps)\_3TX

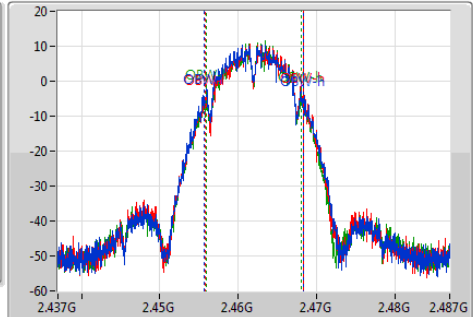
EBW

2462MHz

Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



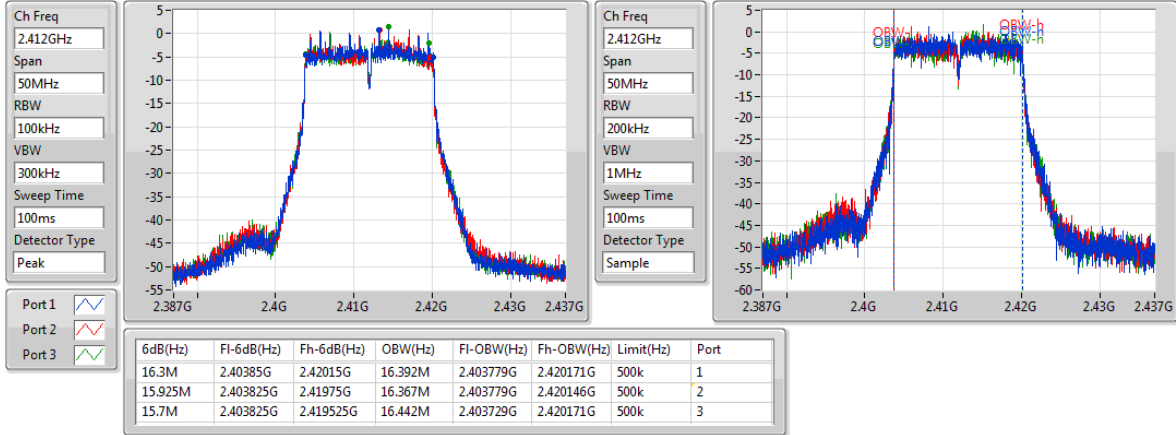
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.525M	2.457475G	2.466G	12.719M	2.455603G	2.468322G	500k	1
8.025M	2.45845G	2.466475G	12.519M	2.455778G	2.468297G	500k	2
6.975M	2.458975G	2.46595G	12.169M	2.455928G	2.468097G	500k	3



802.11g\_(6Mbps)\_3TX

EBW

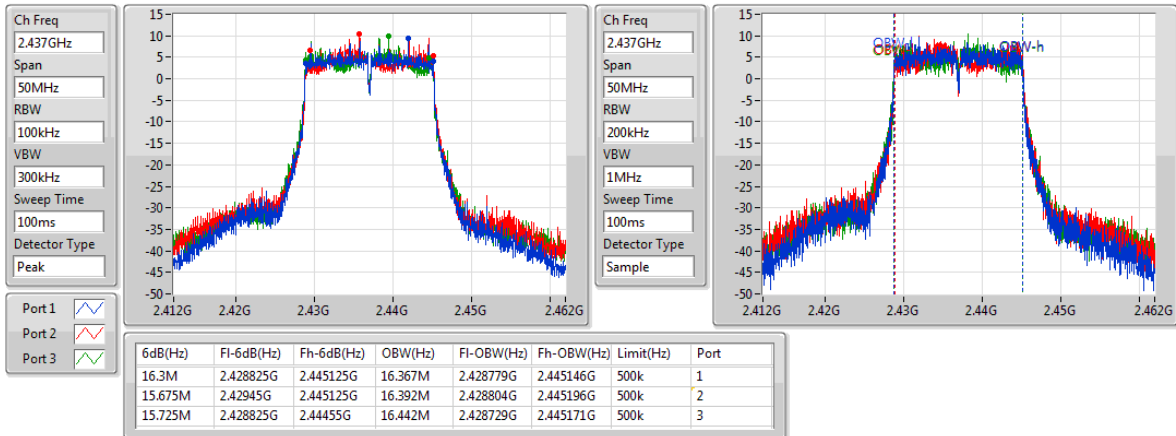
2412MHz



802.11g\_(6Mbps)\_3TX

EBW

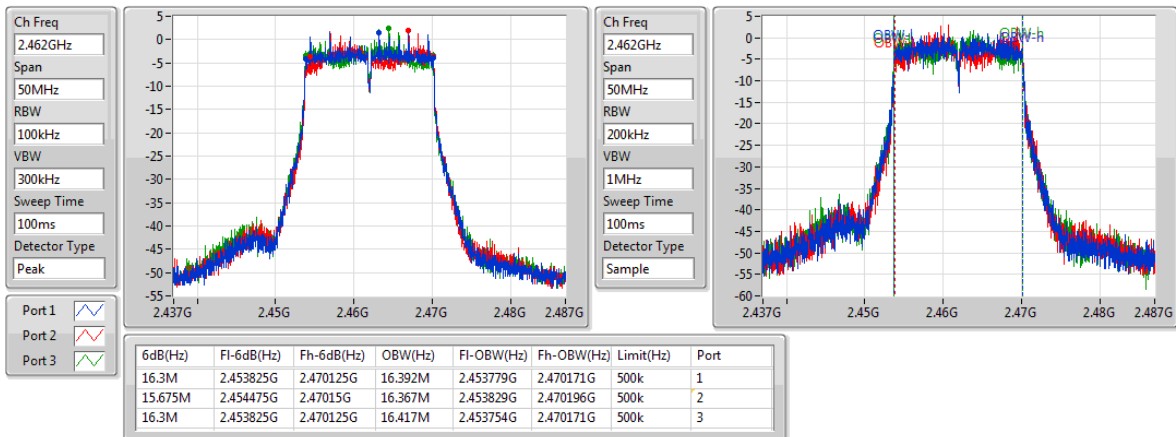
2437MHz



802.11g\_(6Mbps)\_3TX

EBW

2462MHz

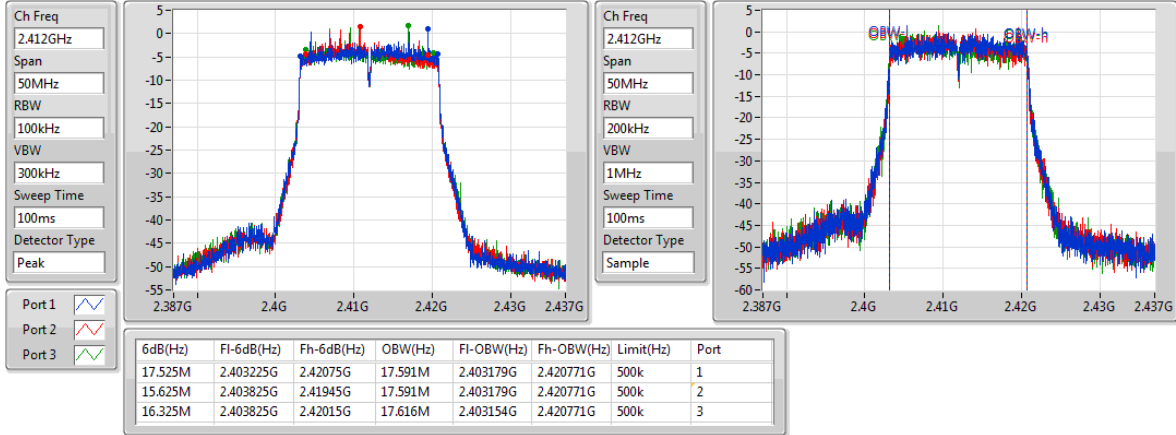




802.11ac VHT20\_Nss1,(MCS0)\_3TX

EBW

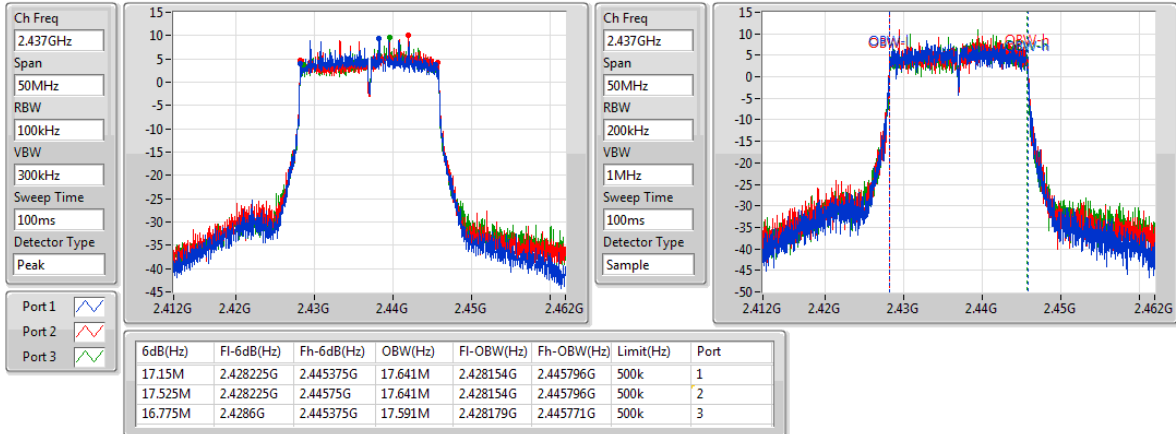
2412MHz



802.11ac VHT20\_Nss1,(MCS0)\_3TX

EBW

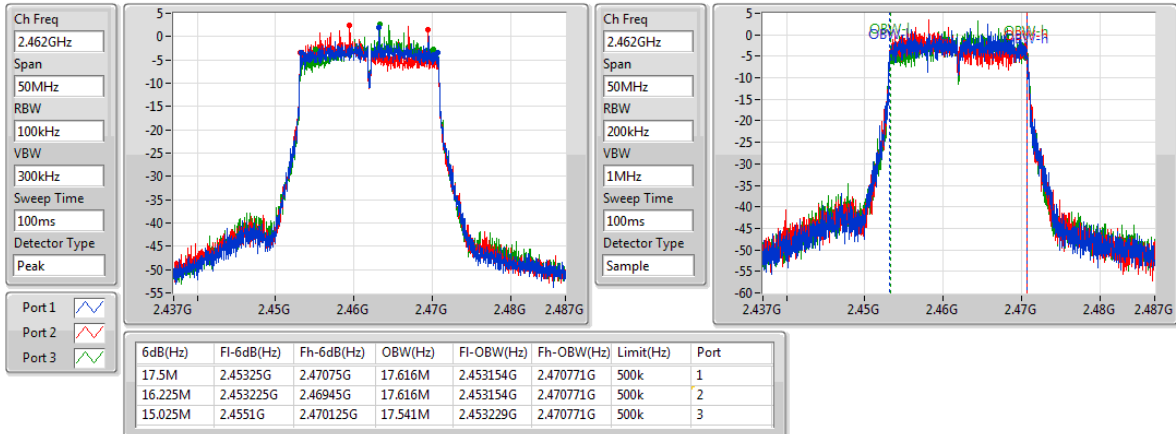
2437MHz



802.11ac VHT20\_Nss1,(MCS0)\_3TX

EBW

2462MHz



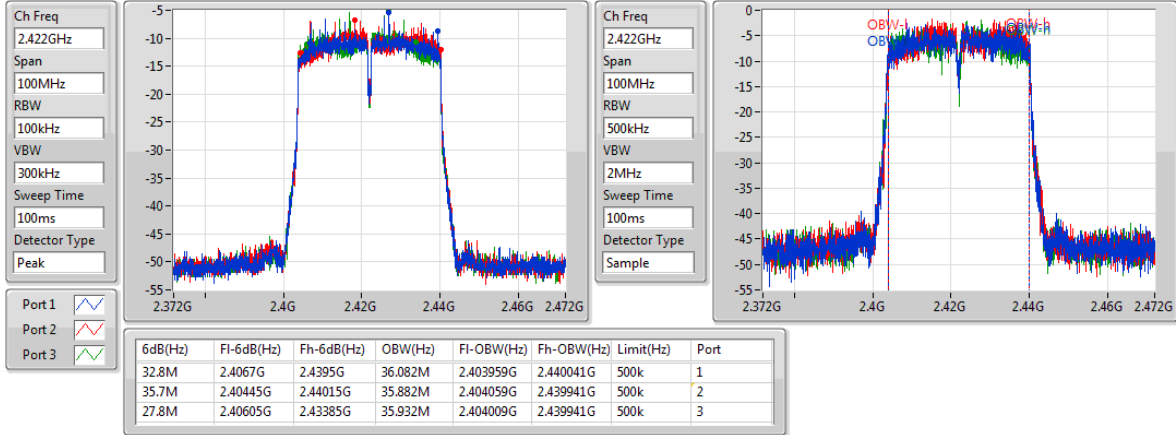




802.11ac VHT40\_Nss1,(MCS0)\_3TX

EBW

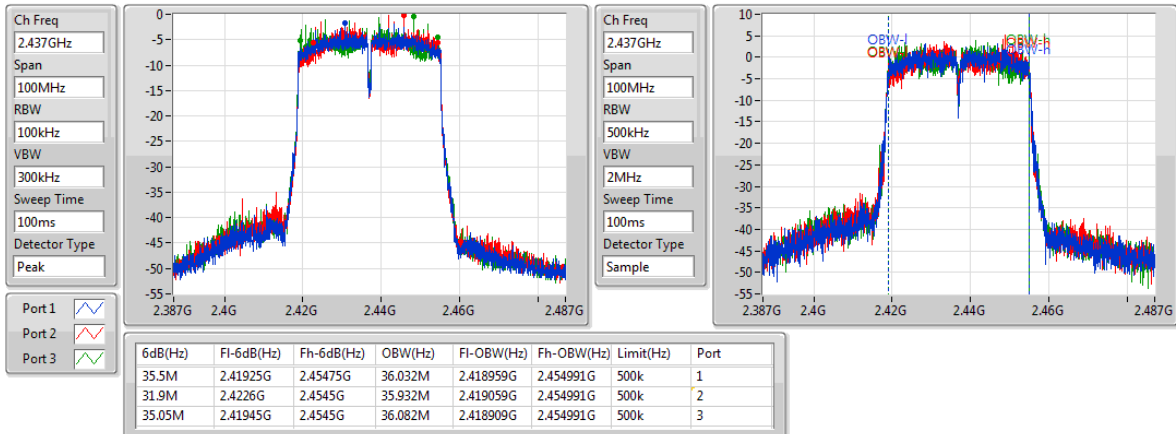
2422MHz



802.11ac VHT40\_Nss1,(MCS0)\_3TX

EBW

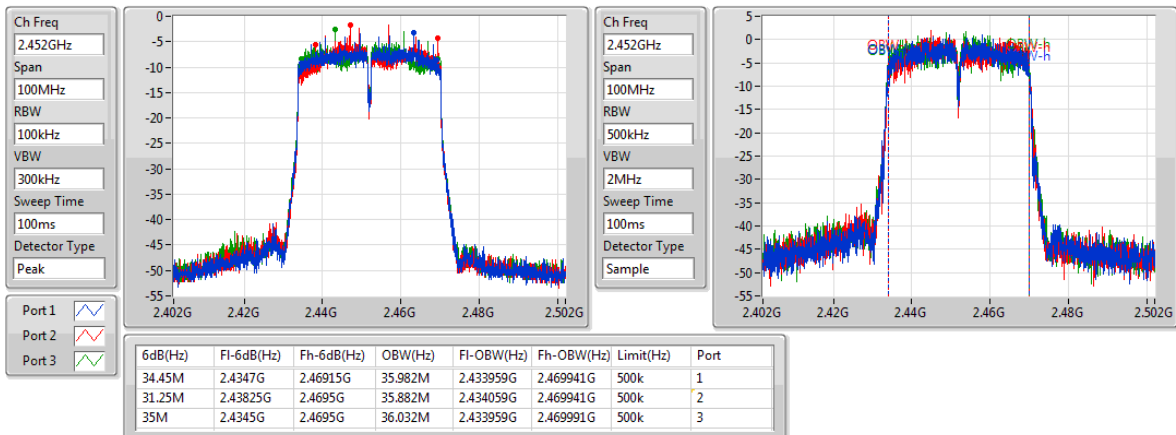
2437MHz



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

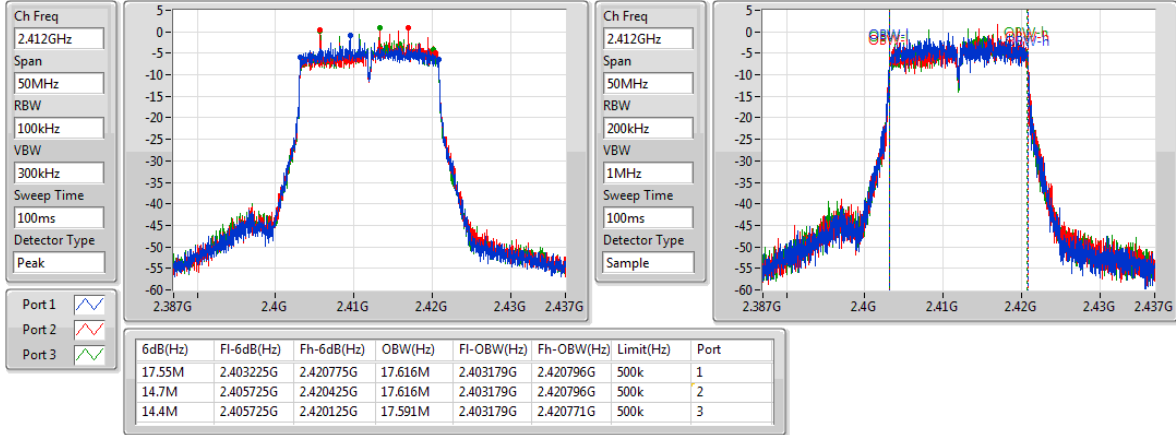
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11ac VHT20-BF\_Nss1,(MCS0)\_3TX

EBW

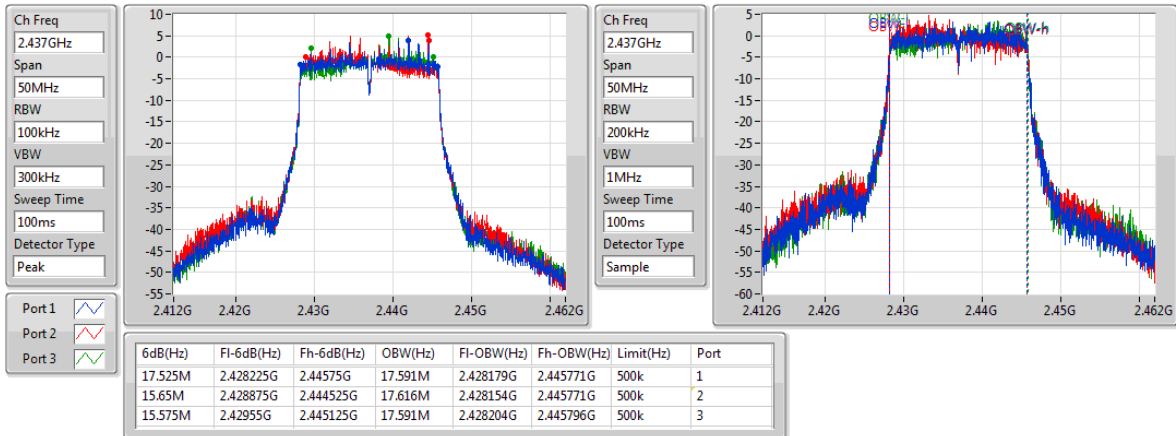
2412MHz



802.11ac VHT20-BF\_Nss1,(MCS0)\_3TX

EBW

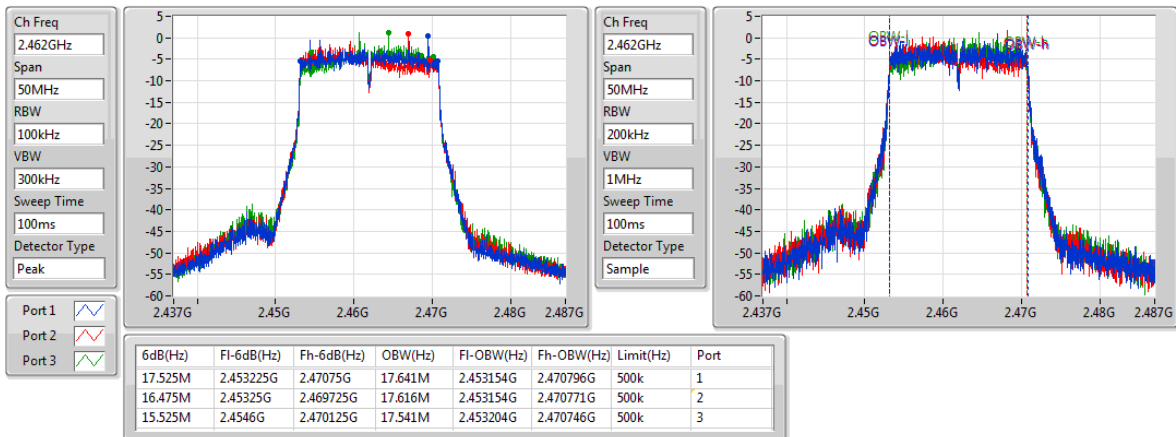
2437MHz



802.11ac VHT20-BF\_Nss1,(MCS0)\_3TX

EBW

2462MHz





802.11ac VHT40-BF\_Nss1,(MCS0)\_3TX

EBW

2422MHz

Ch Freq  
2.422GHz

Span  
100MHz

RBW  
100kHz

VBW  
300kHz

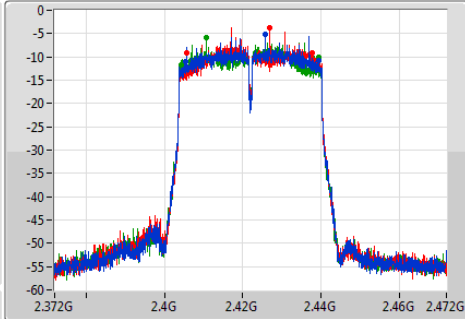
Sweep Time  
100ms

Detector Type  
Peak

Port 1

Port 2

Port 3



Ch Freq  
2.422GHz

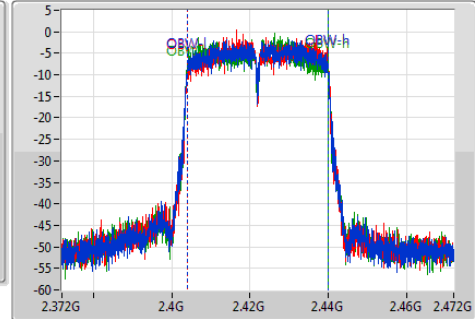
Span  
100MHz

RBW  
500kHz

VBW  
2MHz

Sweep Time  
100ms

Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.15M	2.40535G	2.4395G	35.882M	2.404059G	2.439941G	500k	1
32.15M	2.4057G	2.43785G	35.832M	2.404159G	2.439991G	500k	2
35.3M	2.4042G	2.4395G	35.932M	2.404009G	2.439941G	500k	3

802.11ac VHT40-BF\_Nss1,(MCS0)\_3TX

EBW

2437MHz

Ch Freq  
2.437GHz

Span  
100MHz

RBW  
100kHz

VBW  
300kHz

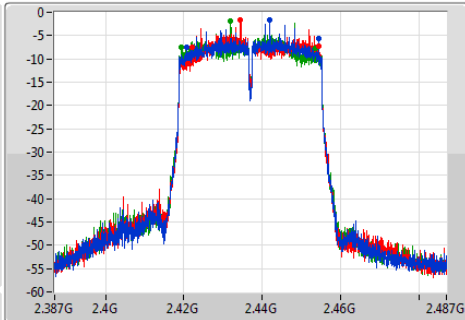
Sweep Time  
100ms

Detector Type  
Peak

Port 1

Port 2

Port 3



Ch Freq  
2.437GHz

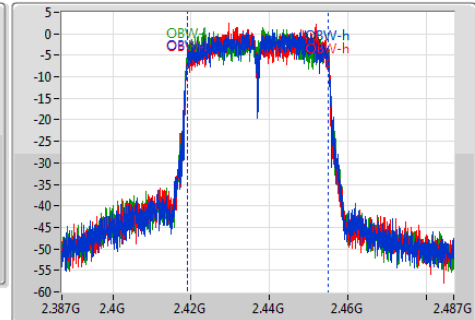
Span  
100MHz

RBW  
500kHz

VBW  
2MHz

Sweep Time  
100ms

Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.7M	2.42075G	2.45445G	35.882M	2.419059G	2.454941G	500k	1
32.4M	2.42205G	2.45445G	35.882M	2.419109G	2.454991G	500k	2
34.1M	2.4194G	2.4535G	36.082M	2.418959G	2.455041G	500k	3

802.11ac VHT40-BF\_Nss1,(MCS0)\_3TX

EBW

2452MHz

Ch Freq  
2.452GHz

Span  
100MHz

RBW  
100kHz

VBW  
300kHz

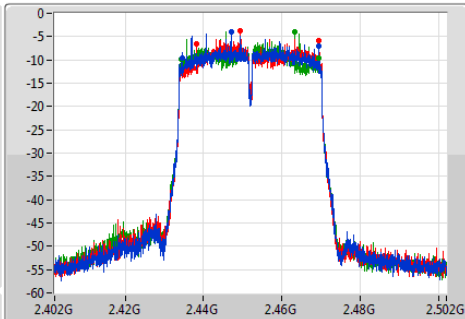
Sweep Time  
100ms

Detector Type  
Peak

Port 1

Port 2

Port 3



Ch Freq  
2.452GHz

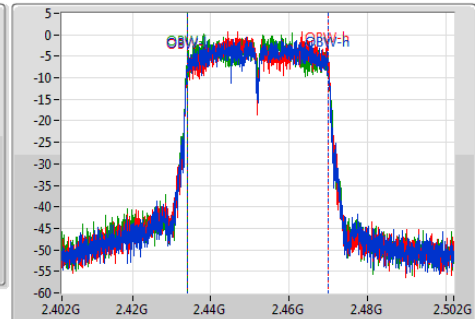
Span  
100MHz

RBW  
500kHz

VBW  
2MHz

Sweep Time  
100ms

Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35M	2.4345G	2.4695G	35.932M	2.434009G	2.469941G	500k	1
31.25M	2.43825G	2.4695G	35.932M	2.434109G	2.470041G	500k	2
35.25M	2.43425G	2.4695G	36.032M	2.433959G	2.469991G	500k	3



**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**

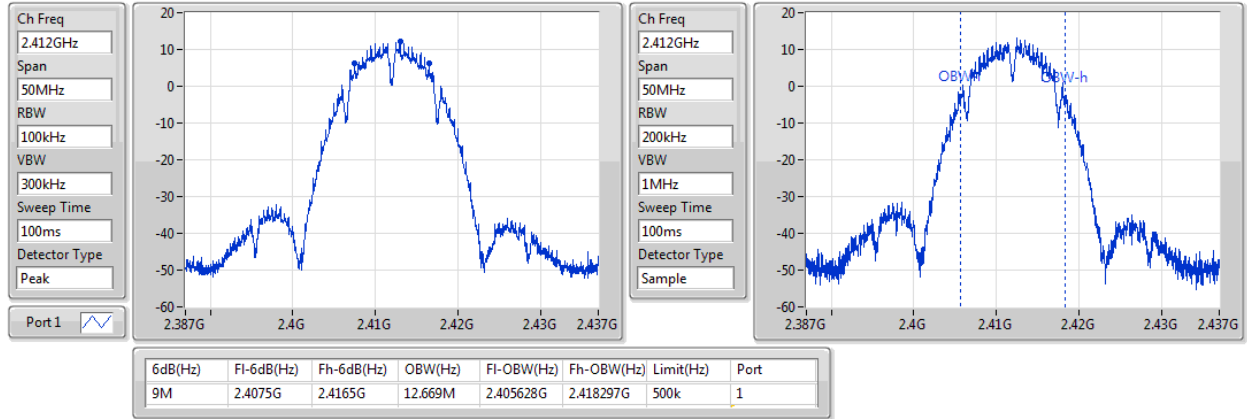
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	9M	12.669M
2437MHz	Pass	500k	7.05M	12.669M
2462MHz	Pass	500k	8.025M	12.594M
802.11g_(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.3M	16.392M
2437MHz	Pass	500k	16.3M	16.392M
2462MHz	Pass	500k	16.325M	16.392M
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

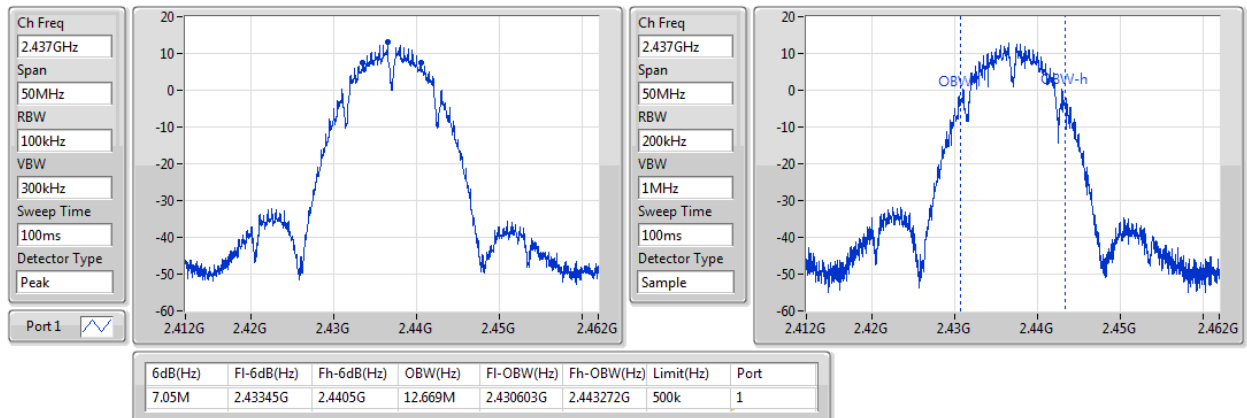
2412MHz



802.11b\_(1Mbps)\_1TX

EBW

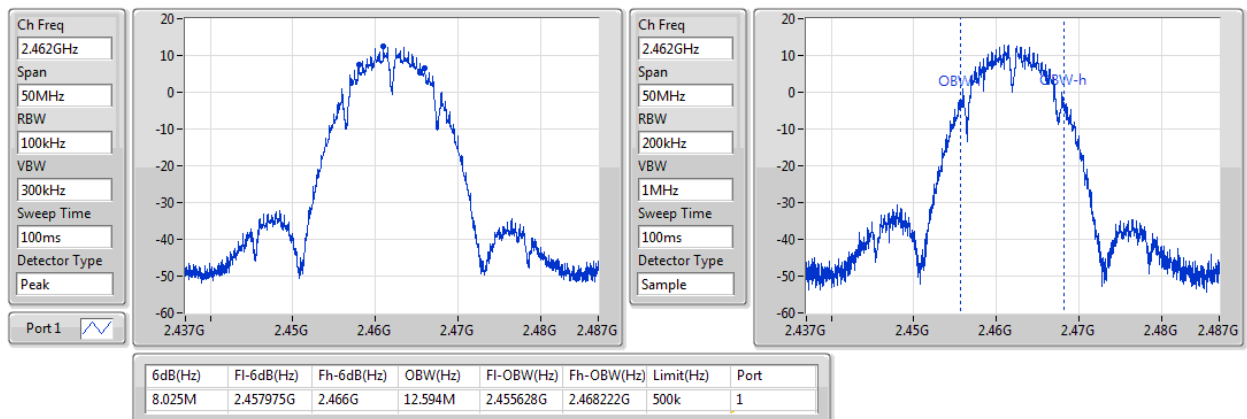
2437MHz



802.11b\_(1Mbps)\_1TX

EBW

2462MHz

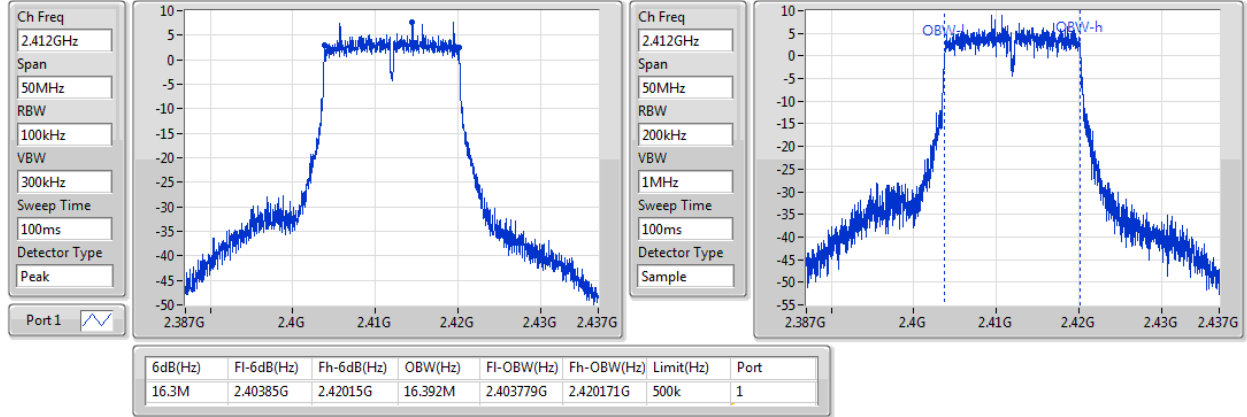




### 802.11g\_(6Mbps)\_1TX

EBW

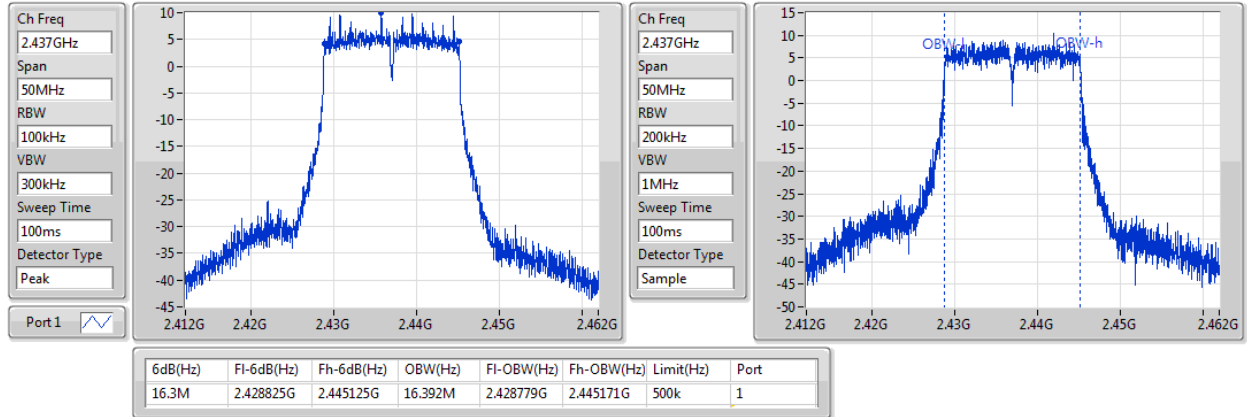
2412MHz



### 802.11g\_(6Mbps)\_1TX

EBW

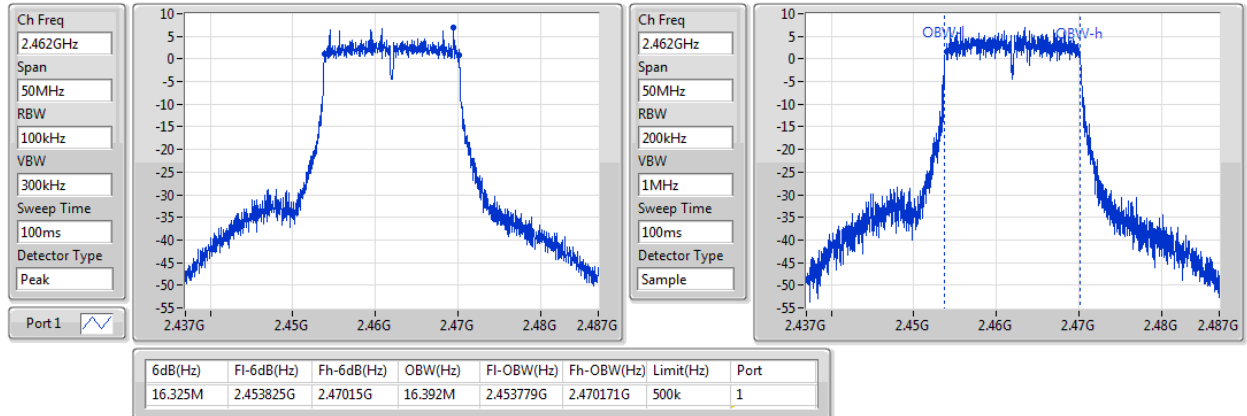
2437MHz



### 802.11g\_(6Mbps)\_1TX

EBW

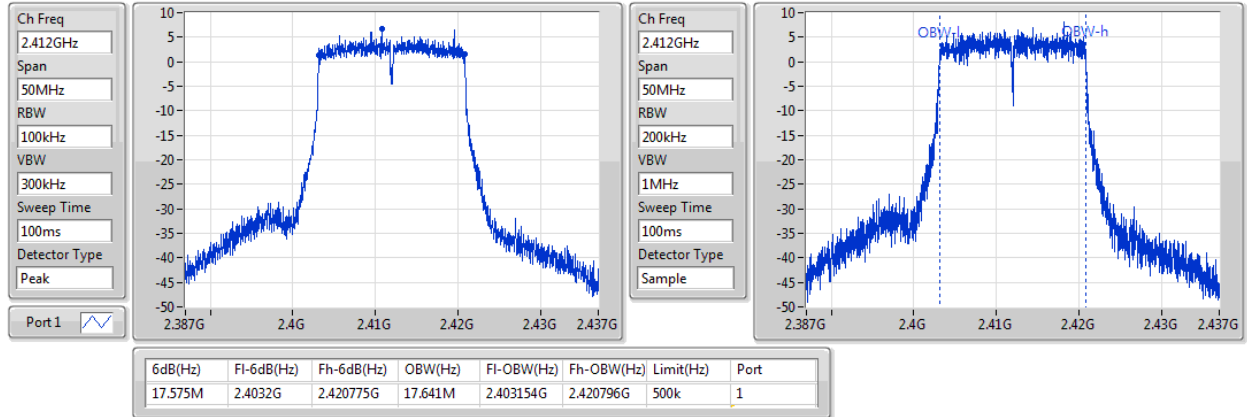
2462MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

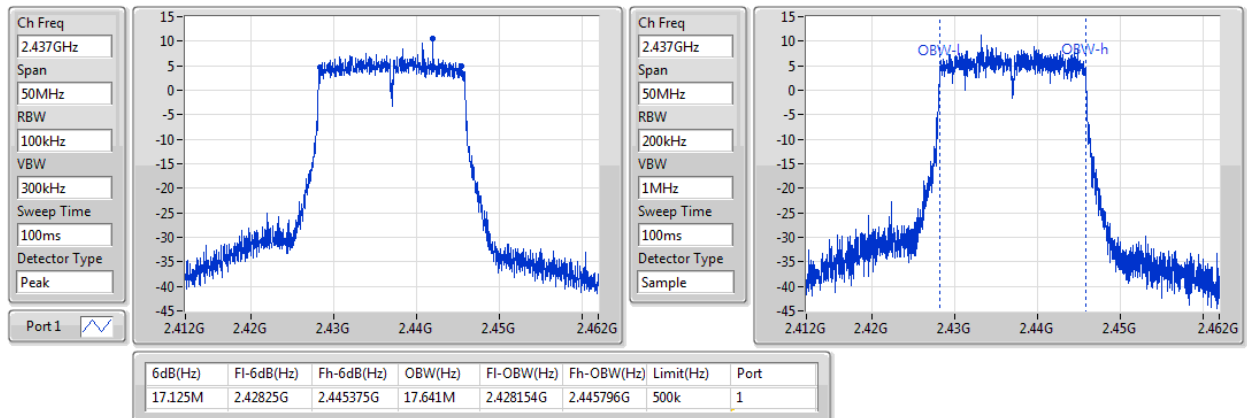
2412MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

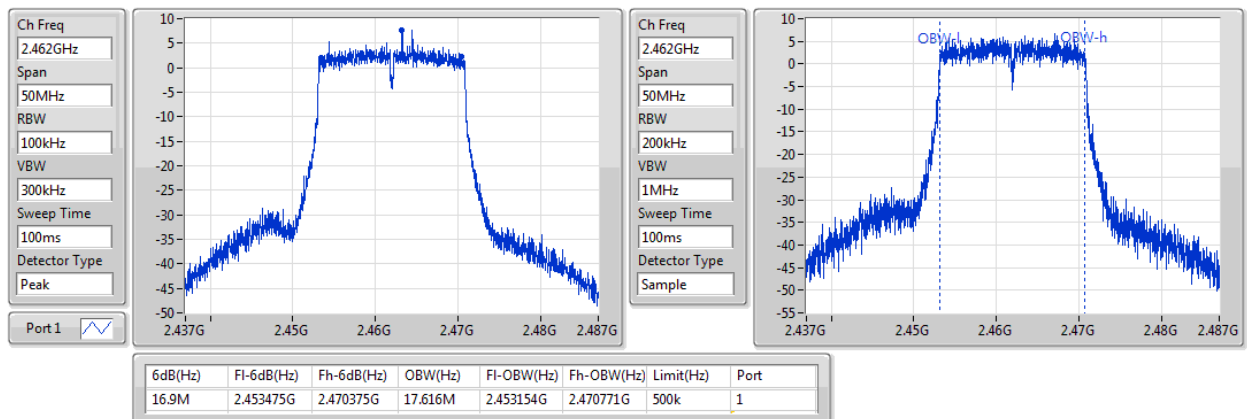
2437MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

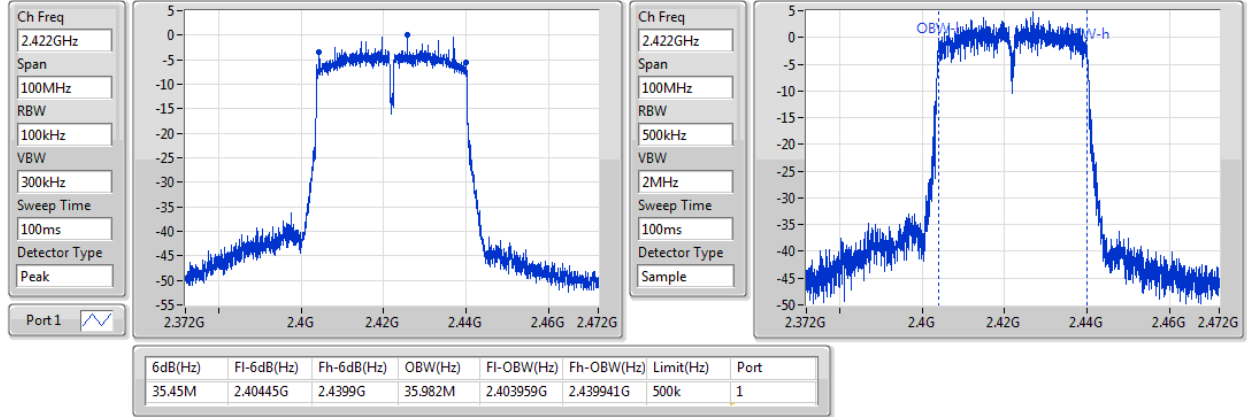
2462MHz



802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

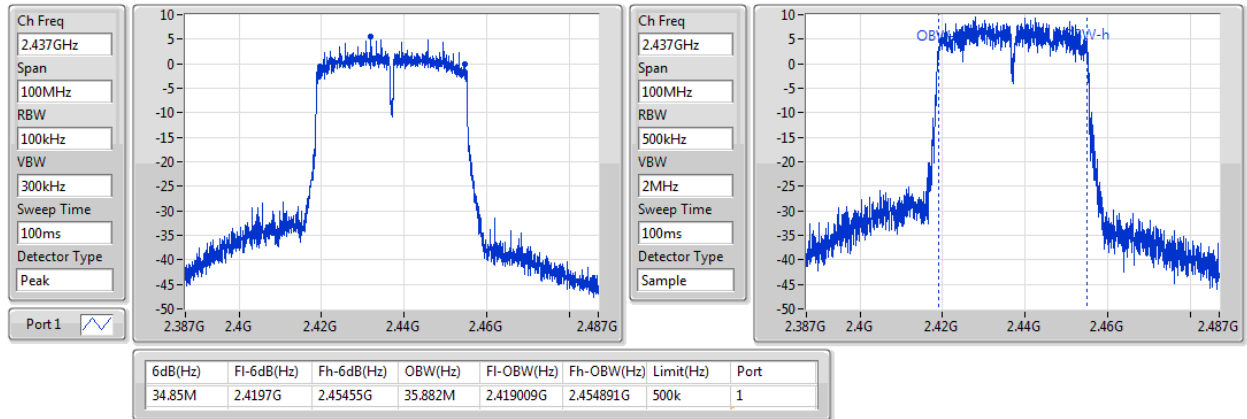
2422MHz



802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

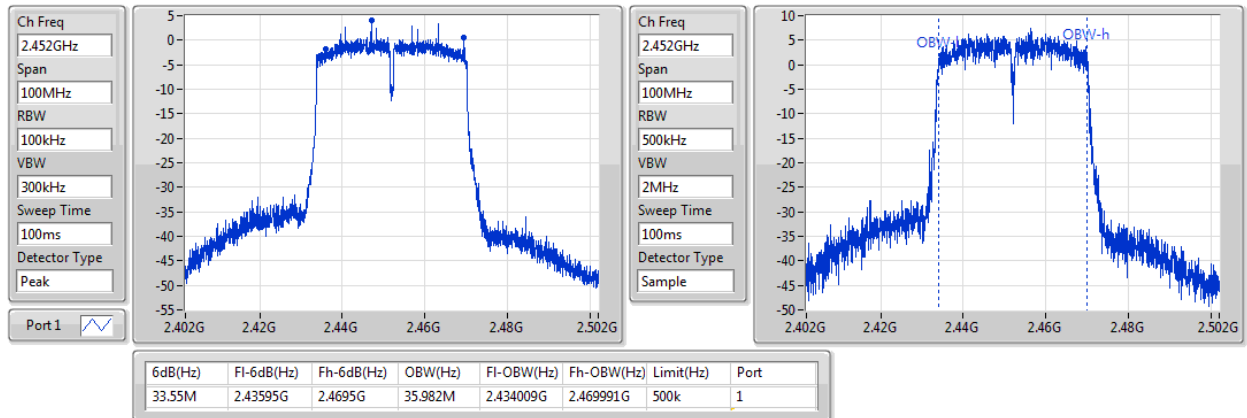
2437MHz



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**

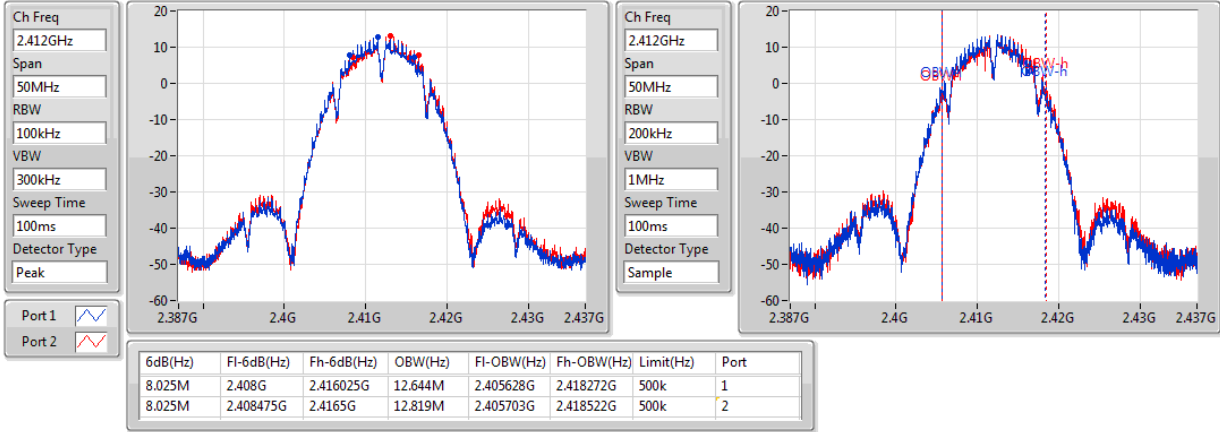
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	8.025M	12.644M	8.025M	12.819M
2437MHz	Pass	500k	8.025M	12.619M	7.5M	12.619M
2462MHz	Pass	500k	8.025M	12.594M	7.55M	12.619M
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	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

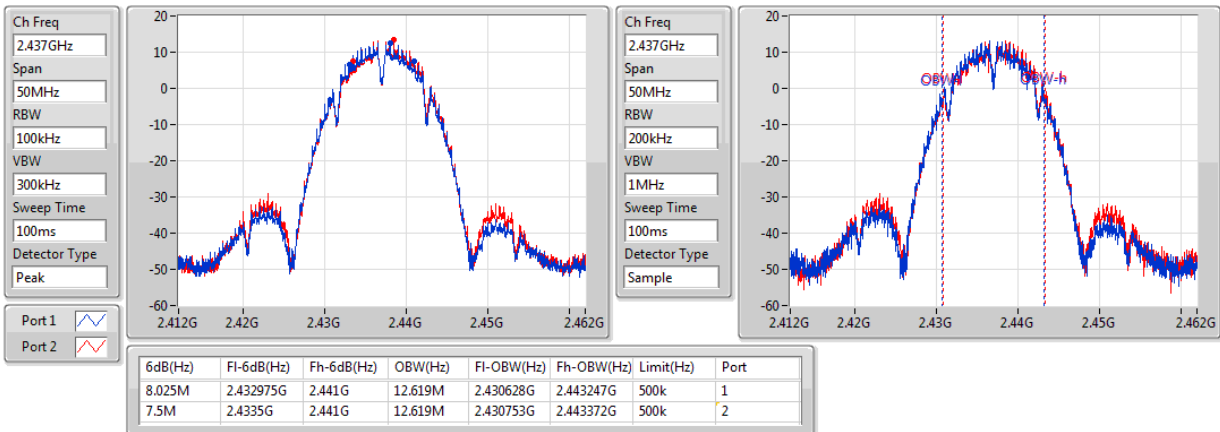
2412MHz



802.11b\_(1Mbps)\_2TX

EBW

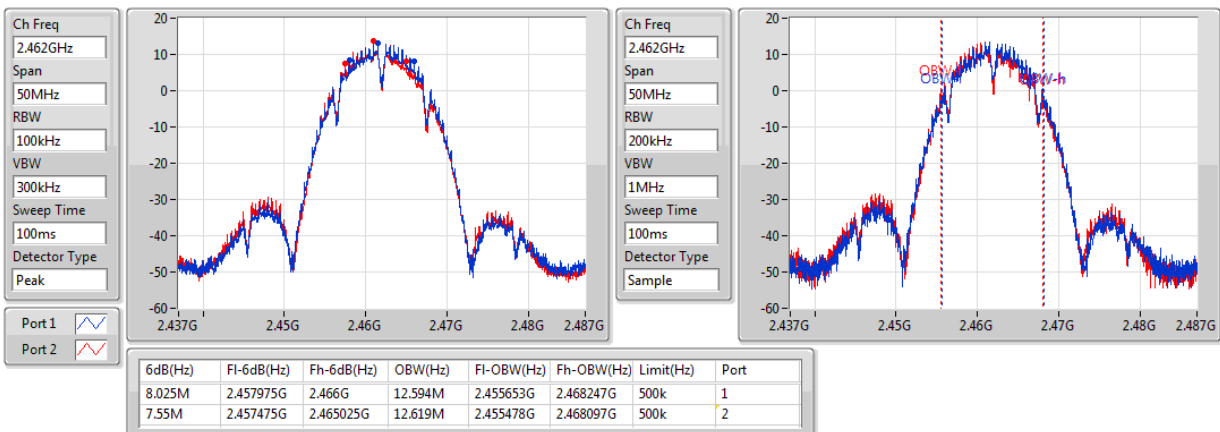
2437MHz

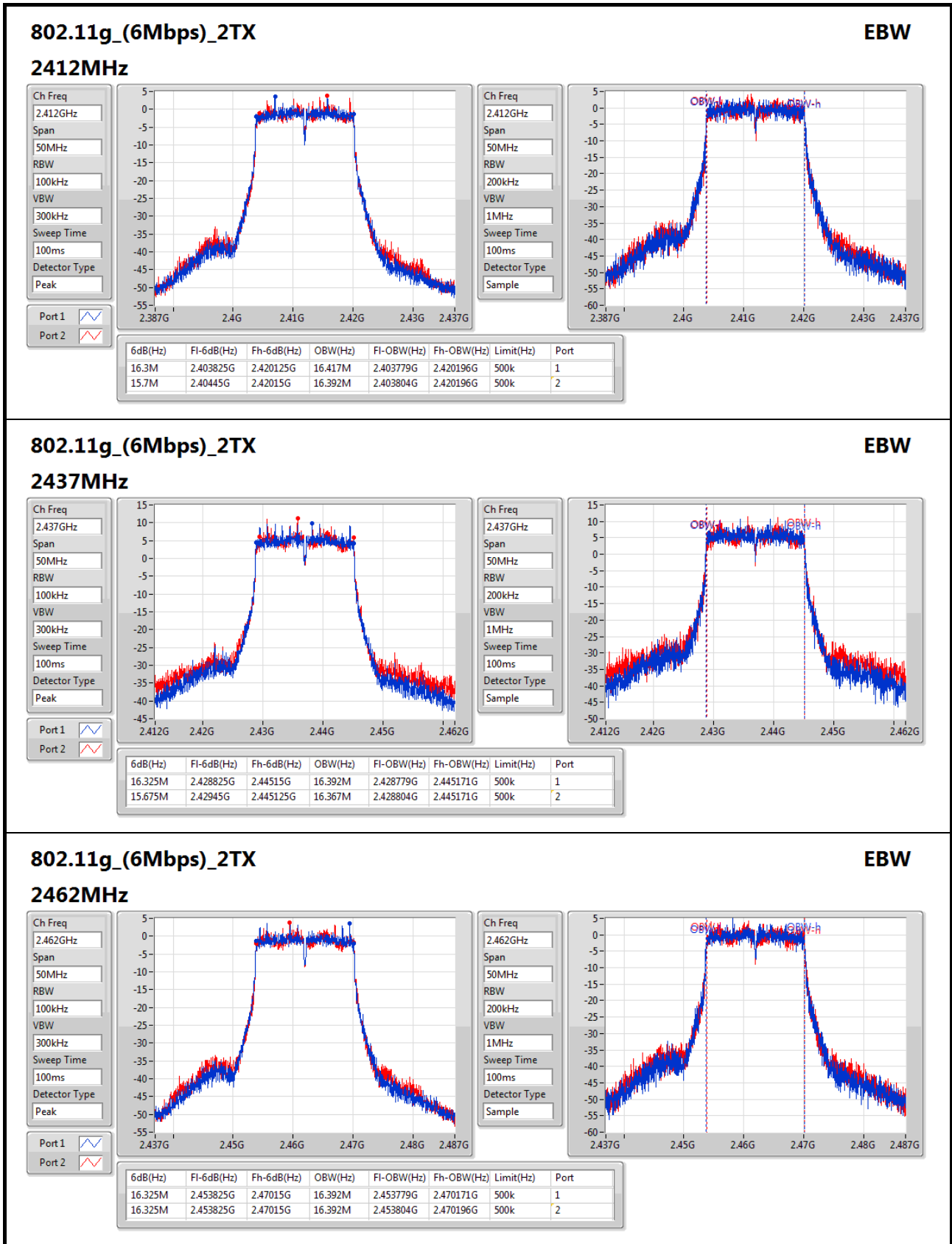


802.11b\_(1Mbps)\_2TX

EBW

2462MHz





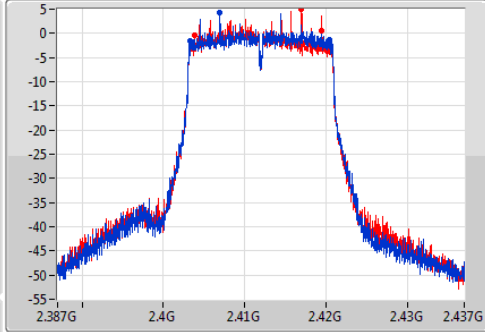


802.11ac VHT20\_Nss1,(MCS0)\_2TX

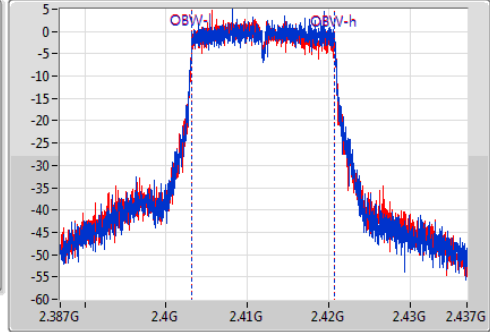
EBW

2412MHz

Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



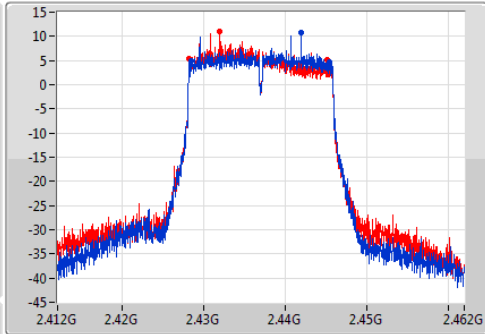
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.125M	2.40325G	2.420375G	17.591M	2.403179G	2.420771G	500k	1
15.65M	2.40385G	2.4195G	17.616M	2.403154G	2.420771G	500k	2

802.11ac VHT20\_Nss1,(MCS0)\_2TX

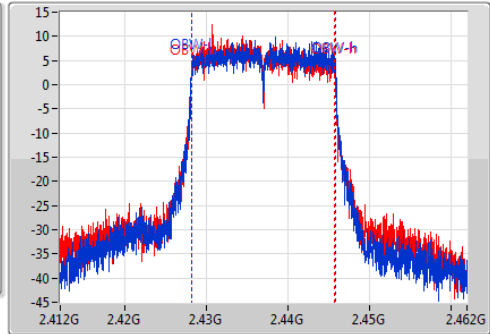
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



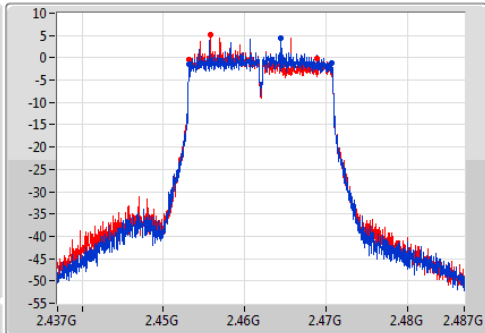
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17M	2.428475G	2.445475G	17.641M	2.428154G	2.445796G	500k	1
16.9M	2.4282G	2.4451G	17.591M	2.428154G	2.445746G	500k	2

802.11ac VHT20\_Nss1,(MCS0)\_2TX

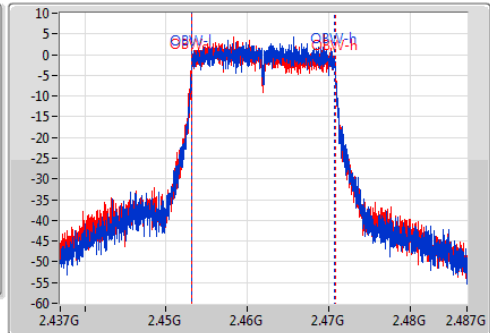
EBW

2462MHz

Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.525M	2.4532G	2.470725G	17.616M	2.453154G	2.470771G	500k	1
15.625M	2.453225G	2.46885G	17.666M	2.453129G	2.470796G	500k	2

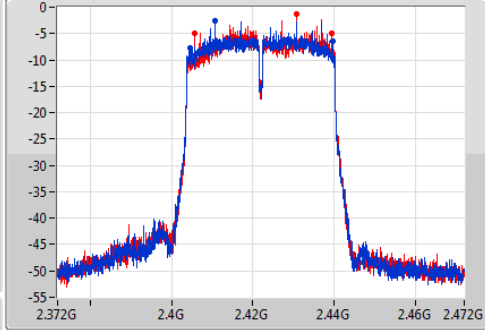


802.11ac VHT40\_Nss1,(MCS0)\_2TX

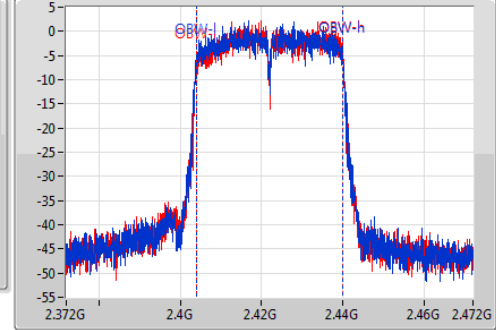
EBW

2422MHz

Ch Freq  
2.422GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.422GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



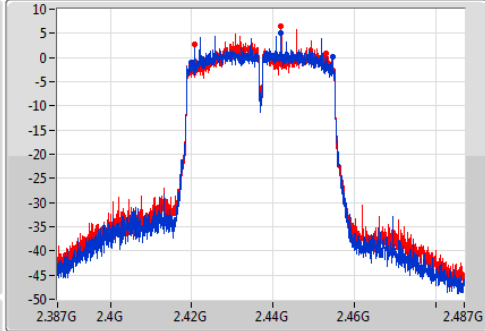
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.05M	2.4045G	2.43955G	35.982M	2.404009G	2.439991G	500k	1
33.75M	2.4057G	2.43945G	35.882M	2.404109G	2.439991G	500k	2

802.11ac VHT40\_Nss1,(MCS0)\_2TX

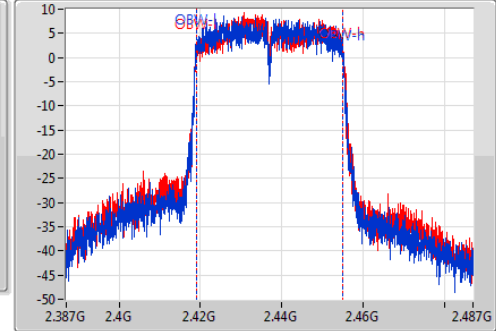
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



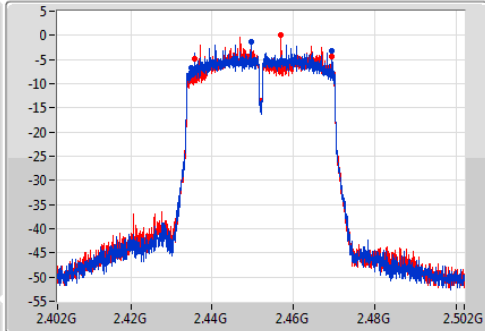
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.7M	2.41985G	2.45455G	35.932M	2.419009G	2.454941G	500k	1
32.3M	2.4207G	2.453G	35.982M	2.419009G	2.454991G	500k	2

802.11ac VHT40\_Nss1,(MCS0)\_2TX

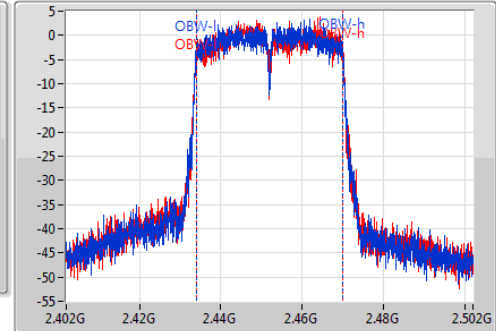
EBW

2452MHz

Ch Freq  
2.452GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.452GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.65M	2.43485G	2.4695G	36.032M	2.433959G	2.469991G	500k	1
33.65M	2.4358G	2.46945G	35.882M	2.434059G	2.469941G	500k	2



<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

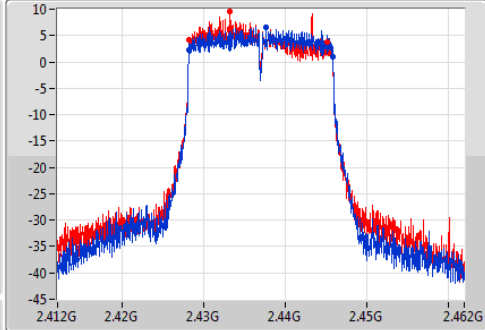
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

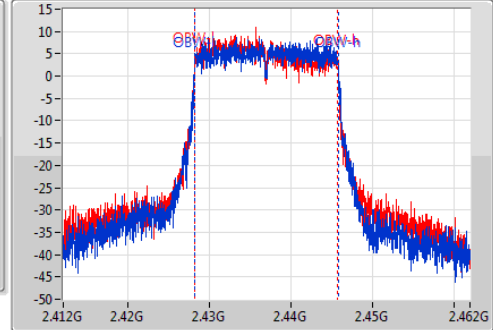
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



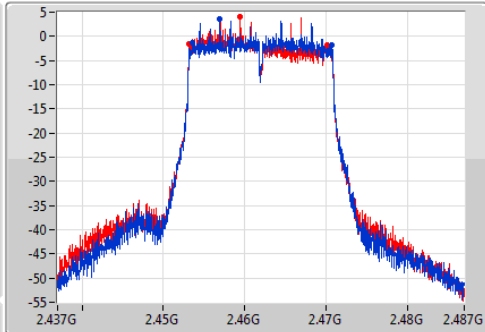
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.625M	2.428175G	2.4458G	17.641M	2.428154G	2.445796G	500k	1
16.925M	2.4282G	2.445125G	17.616M	2.428154G	2.445771G	500k	2

802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

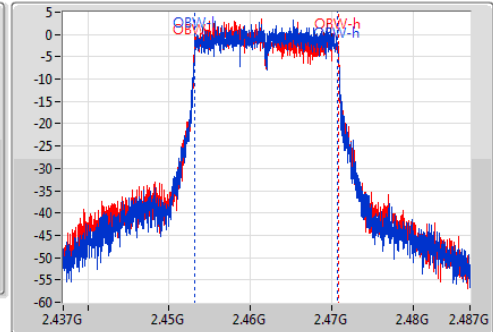
EBW

2462MHz

Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



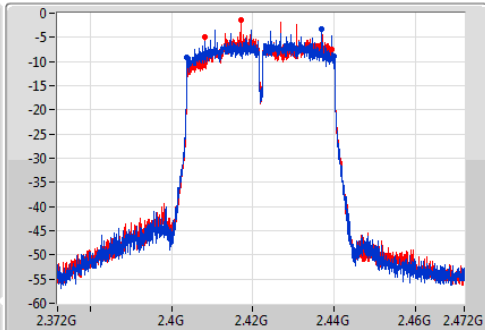
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.15M	2.4536G	2.47075G	17.591M	2.453179G	2.470771G	500k	1
16.9M	2.453225G	2.470125G	17.666M	2.453129G	2.470796G	500k	2

802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

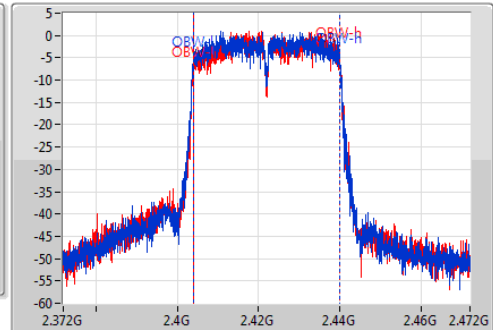
EBW

2422MHz

Ch Freq  
2.422GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.422GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.25M	2.40385G	2.4401G	35.932M	2.404059G	2.439991G	500k	1
31.3M	2.4082G	2.4395G	35.932M	2.404109G	2.440041G	500k	2

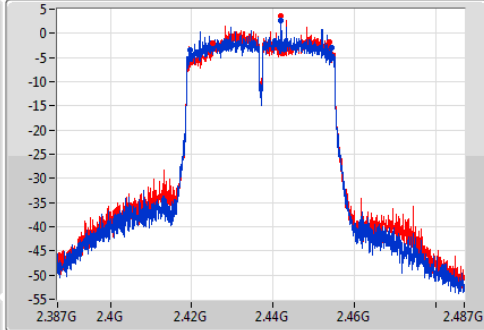


802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

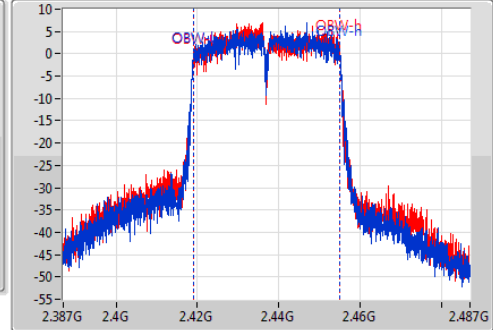
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



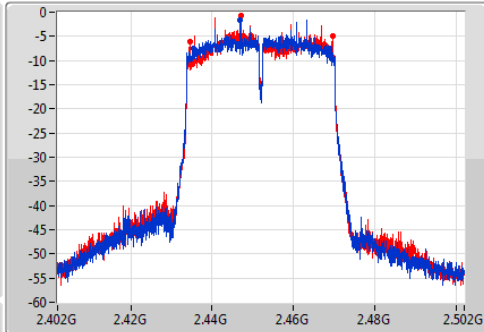
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.95M	2.4195G	2.45445G	35.932M	2.419009G	2.454941G	500k	1
28.75M	2.4251G	2.45385G	35.982M	2.419059G	2.455041G	500k	2

802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

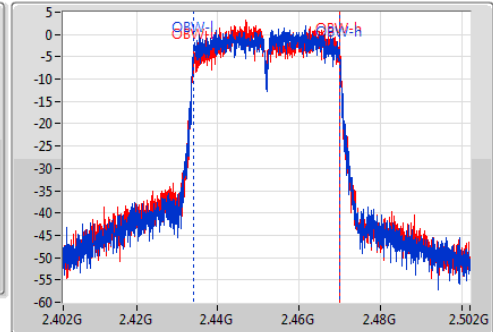
EBW

2452MHz

Ch Freq  
2.452GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.452GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.35M	2.4355G	2.46885G	35.982M	2.434009G	2.469991G	500k	1
35.05M	2.4345G	2.46955G	35.832M	2.434159G	2.469991G	500k	2





**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

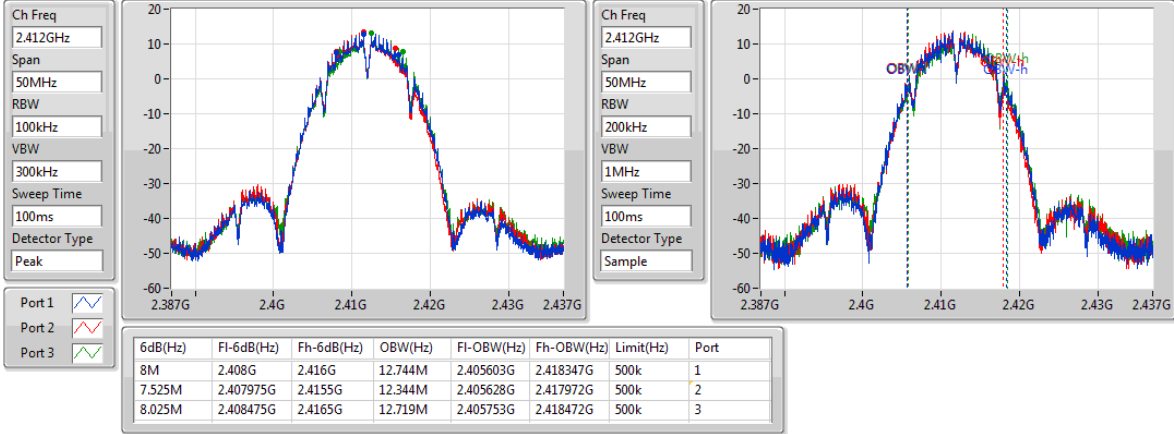
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11b\_(1Mbps)\_3TX

EBW

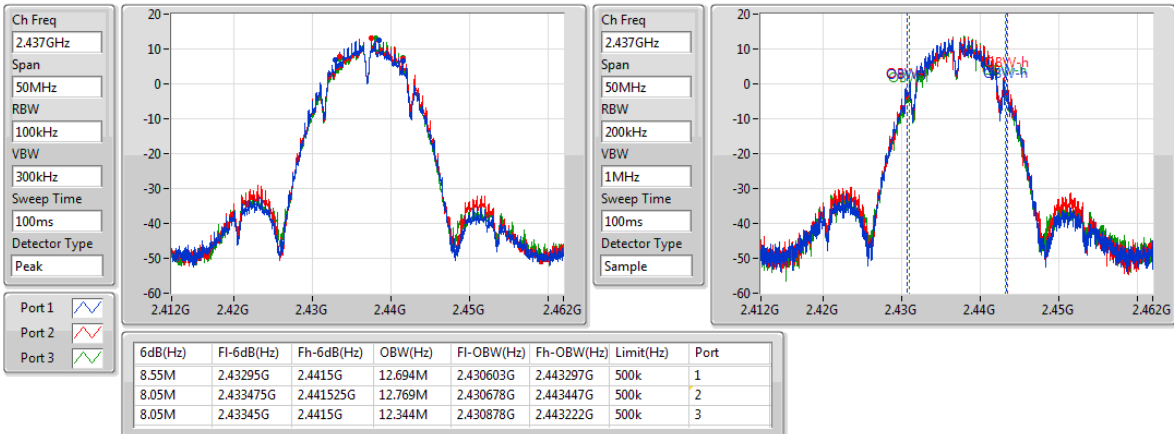
2412MHz



802.11b\_(1Mbps)\_3TX

EBW

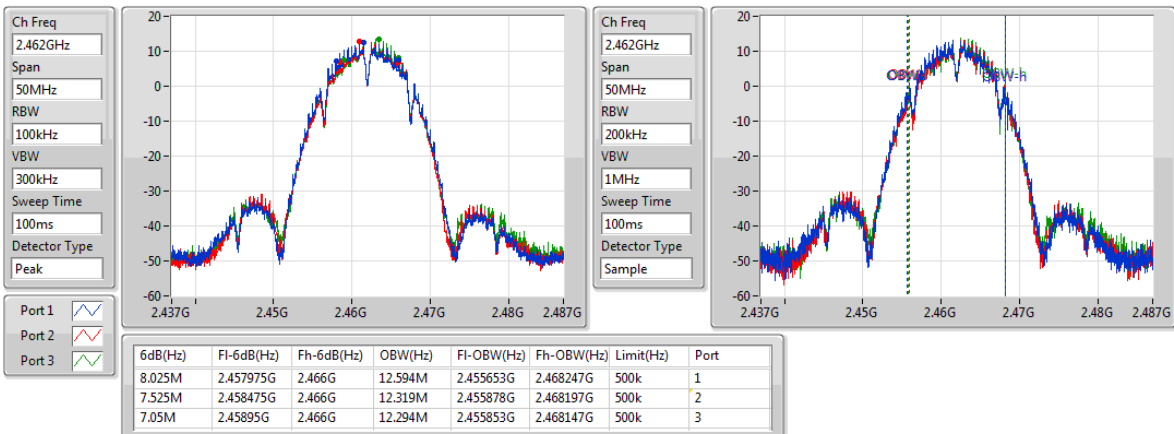
2437MHz



802.11b\_(1Mbps)\_3TX

EBW

2462MHz

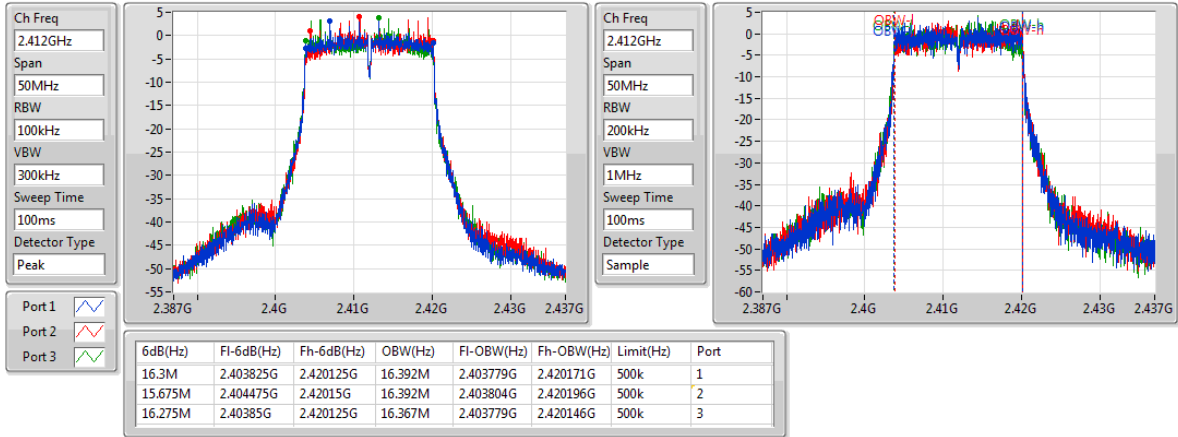




802.11g\_(6Mbps)\_3TX

EBW

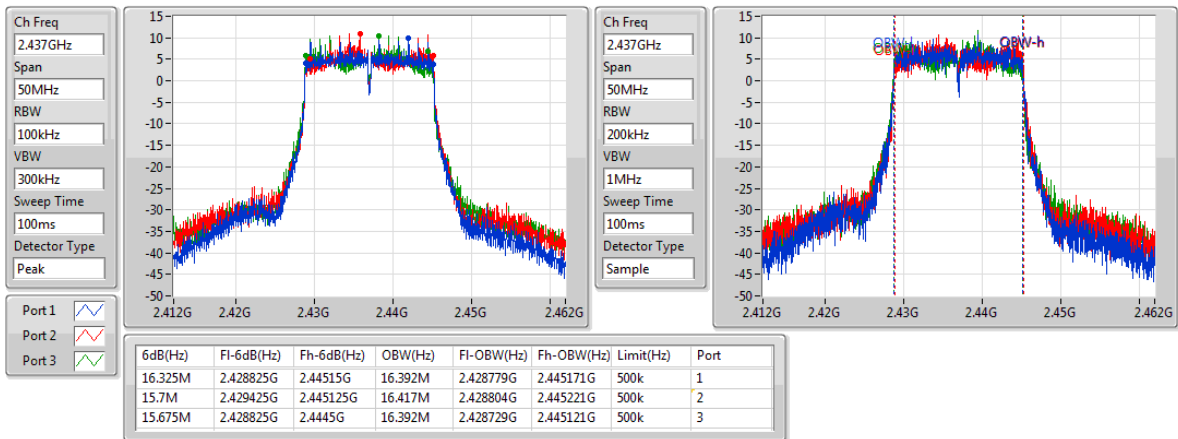
2412MHz



802.11g\_(6Mbps)\_3TX

EBW

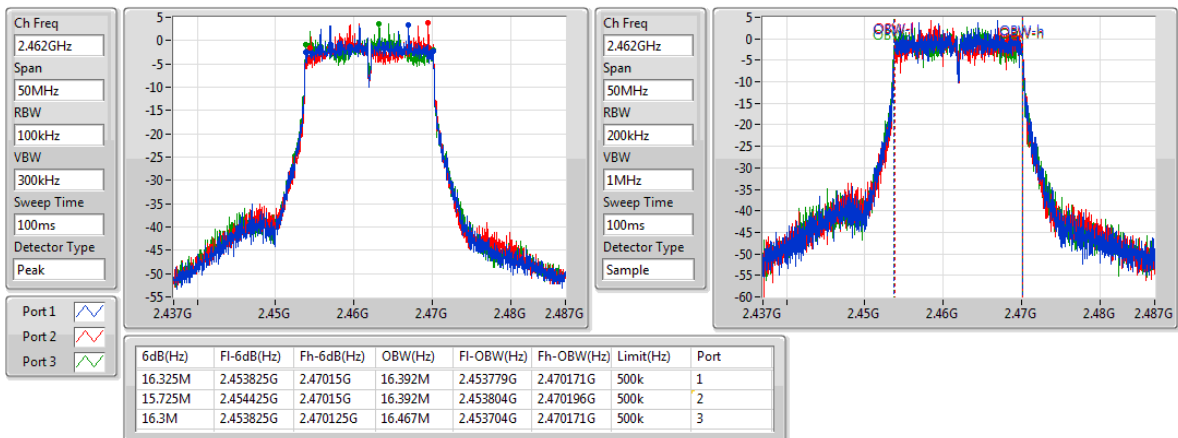
2437MHz



802.11g\_(6Mbps)\_3TX

EBW

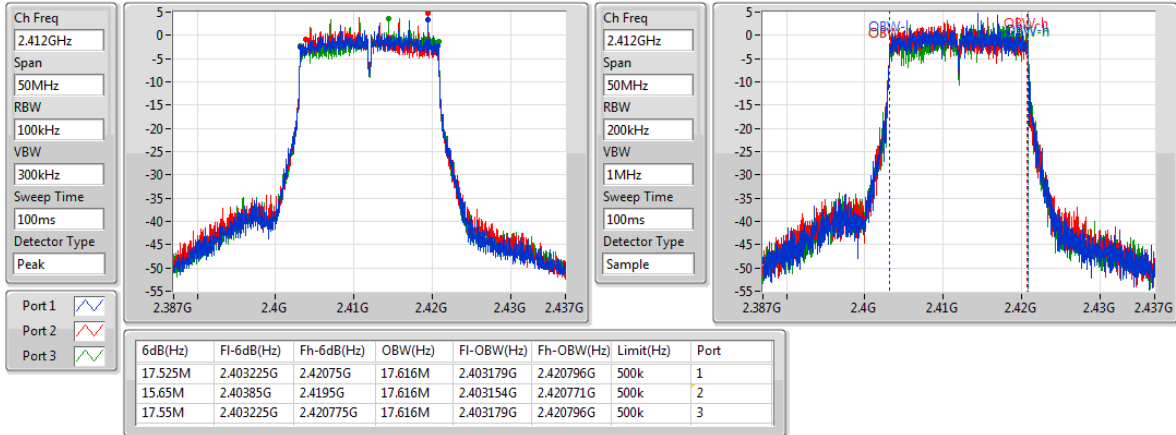
2462MHz



802.11ac VHT20\_Nss1,(MCS0)\_3TX

EBW

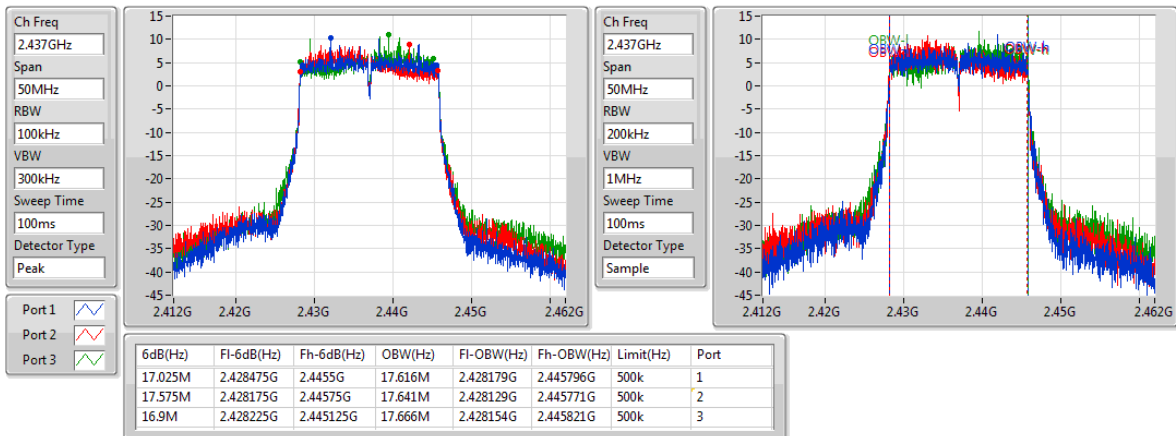
2412MHz



802.11ac VHT20\_Nss1,(MCS0)\_3TX

EBW

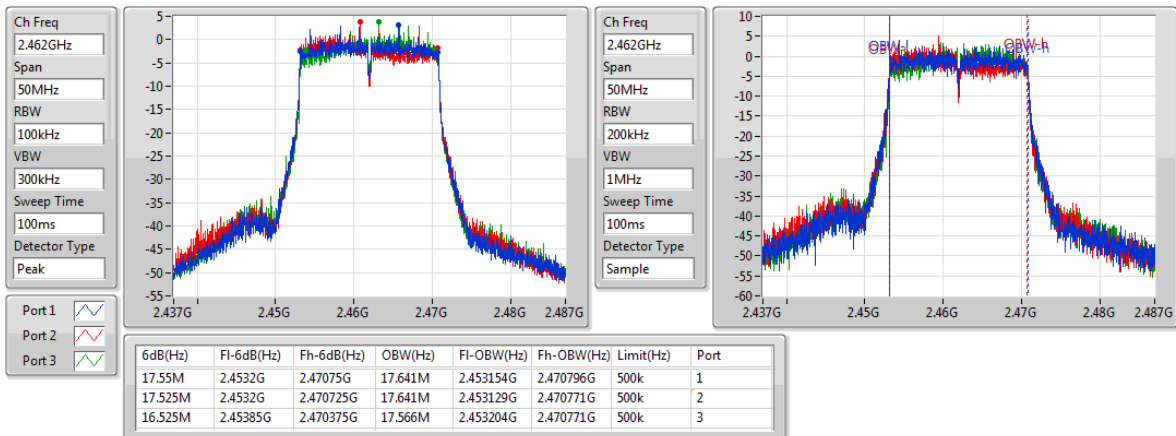
2437MHz



802.11ac VHT20\_Nss1,(MCS0)\_3TX

EBW

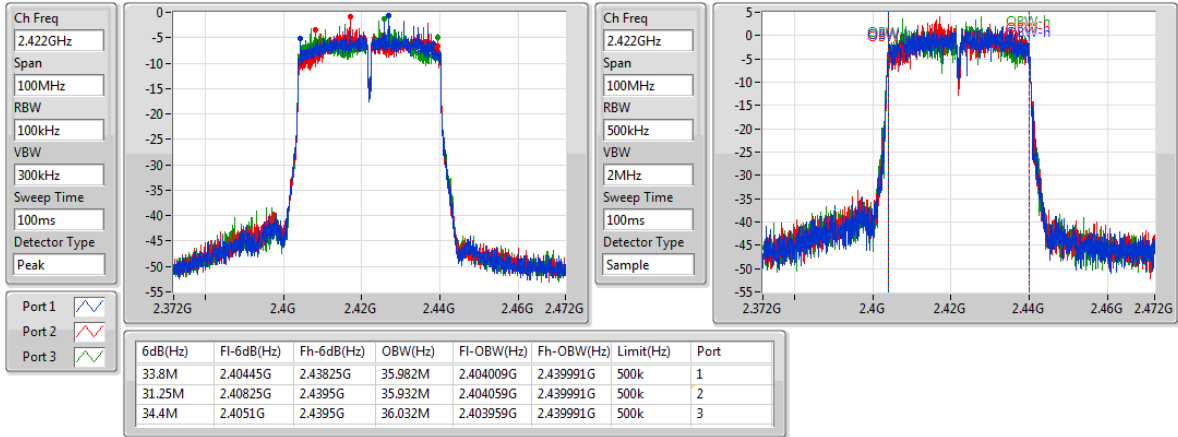
2462MHz



802.11ac VHT40\_Nss1,(MCS0)\_3TX

EBW

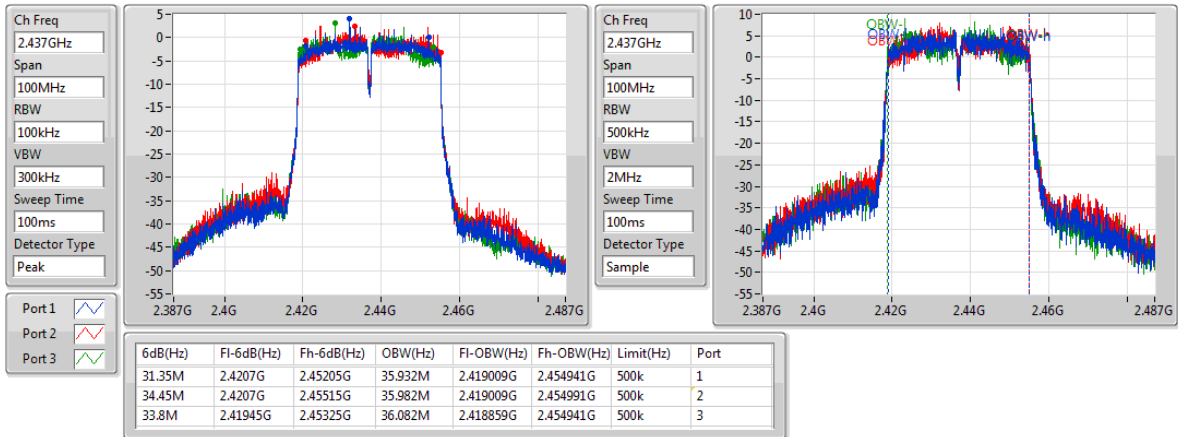
2422MHz



802.11ac VHT40\_Nss1,(MCS0)\_3TX

EBW

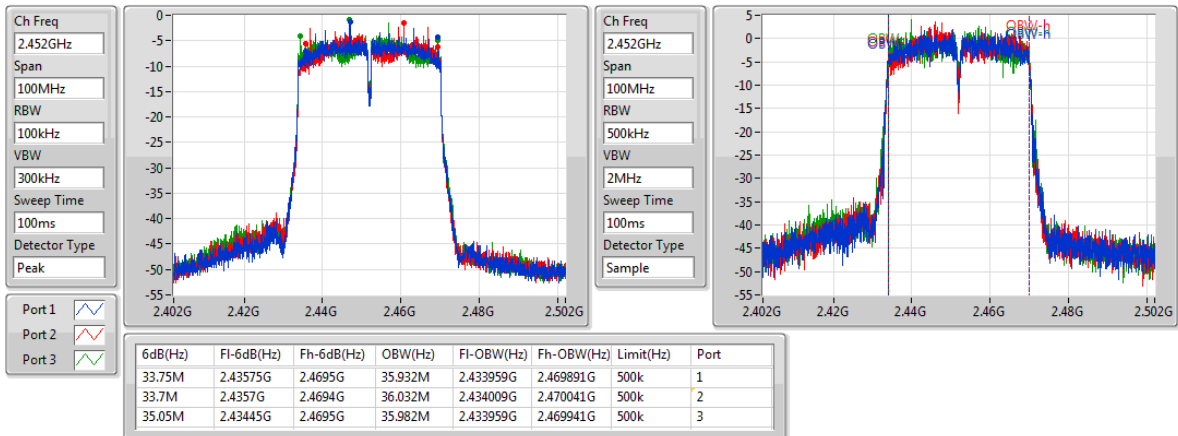
2437MHz



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	17.6M	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

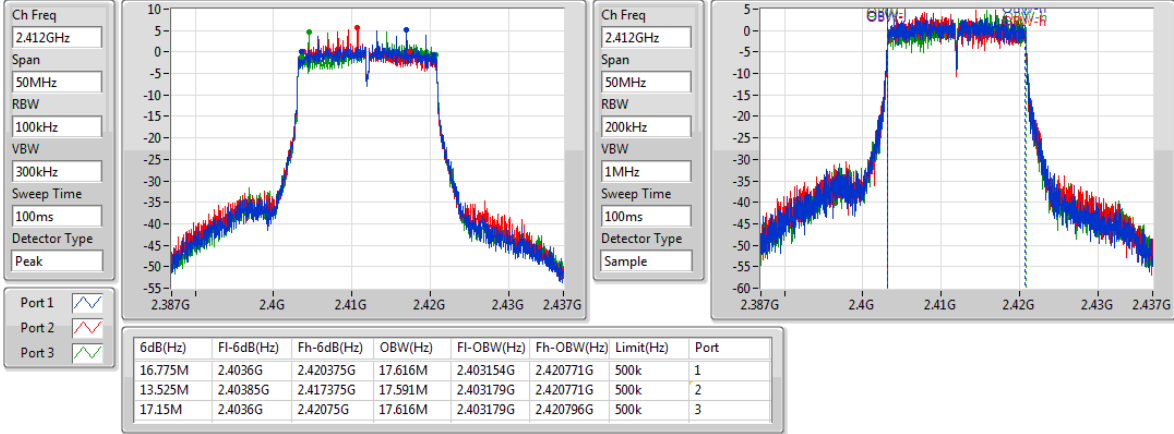
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11ac VHT20-BF\_Nss1,(MCS0)\_3TX

EBW

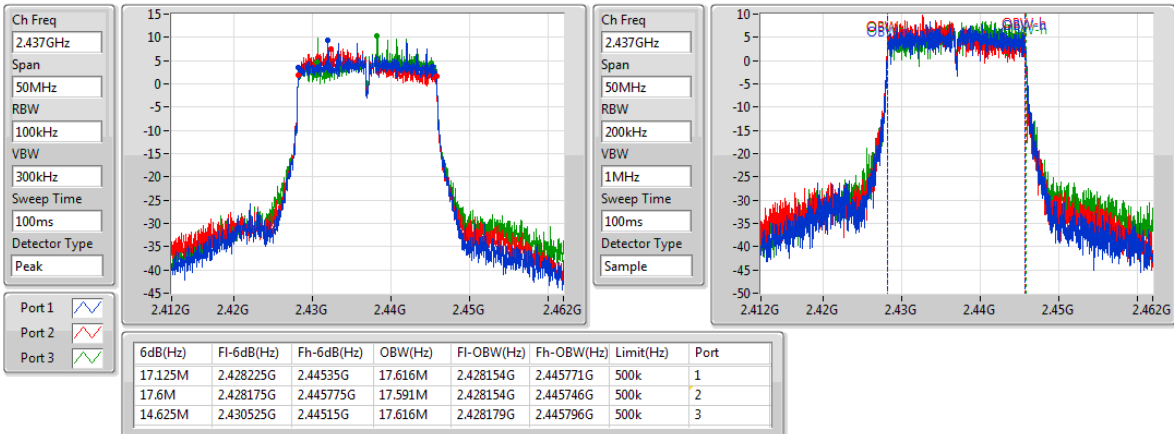
2412MHz



802.11ac VHT20-BF\_Nss1,(MCS0)\_3TX

EBW

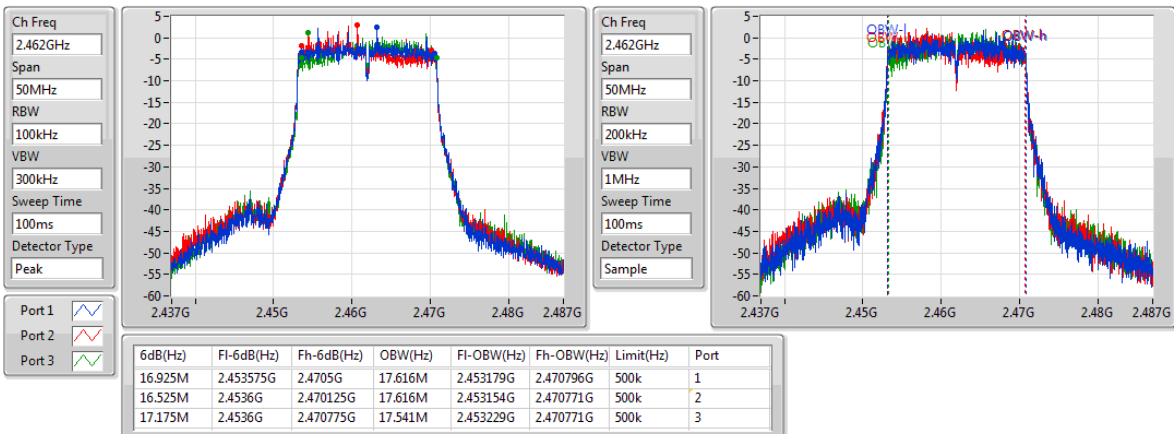
2437MHz



802.11ac VHT20-BF\_Nss1,(MCS0)\_3TX

EBW

2462MHz



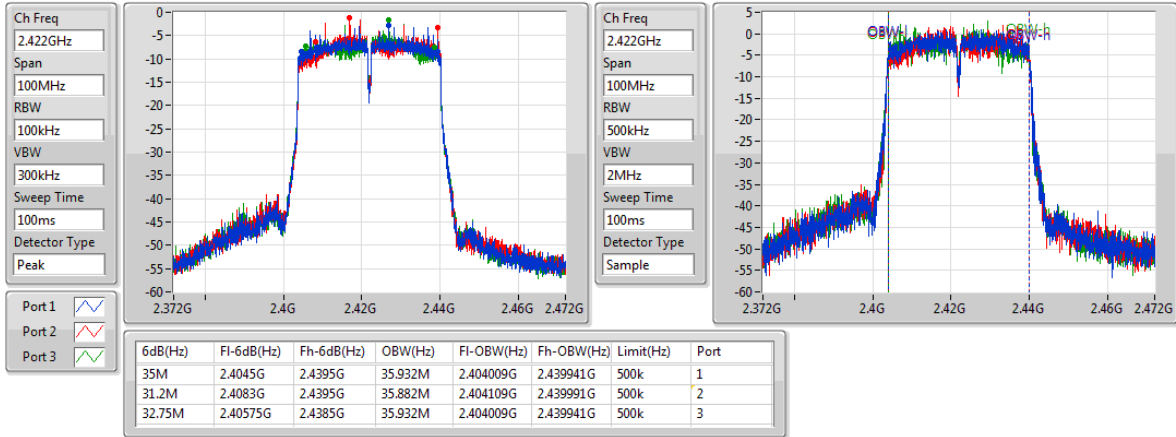




802.11ac VHT40-BF\_Nss1,(MCS0)\_3TX

EBW

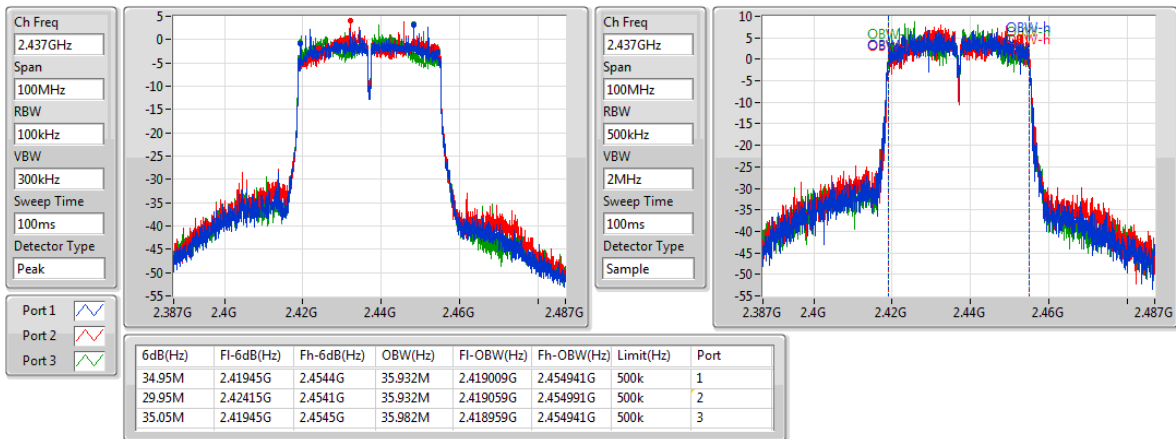
2422MHz



802.11ac VHT40-BF\_Nss1,(MCS0)\_3TX

EBW

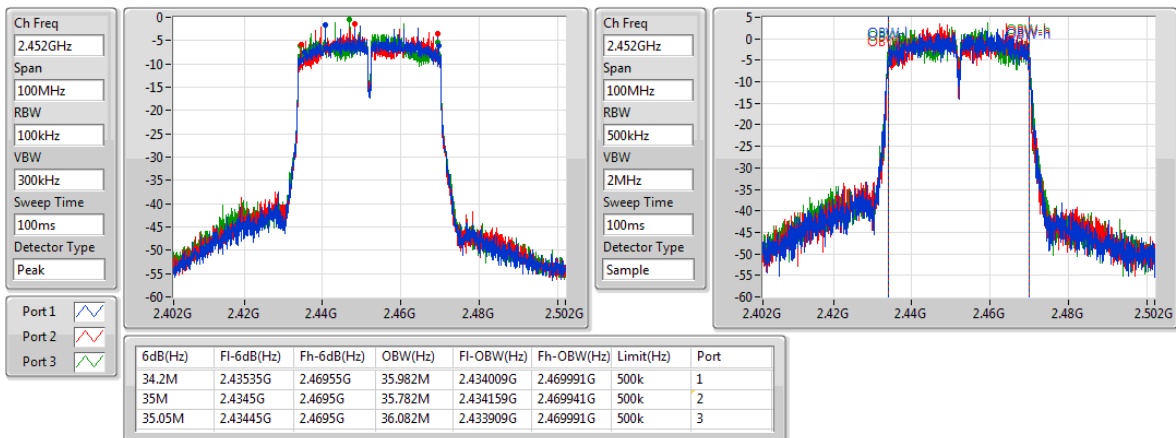
2437MHz



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**

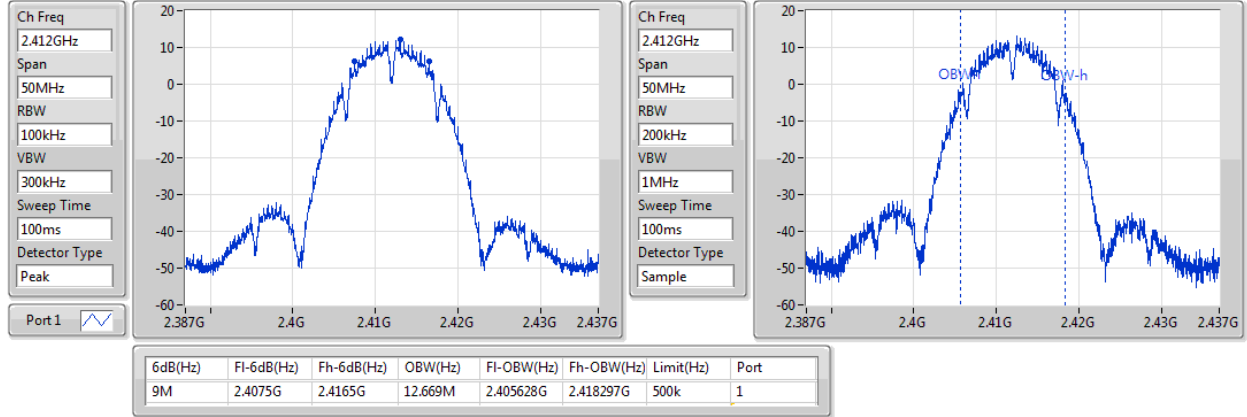
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	9M	12.669M
2437MHz	Pass	500k	7.05M	12.669M
2462MHz	Pass	500k	8.025M	12.594M
802.11g_(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.325M	16.417M
2437MHz	Pass	500k	16.3M	16.392M
2462MHz	Pass	500k	16.325M	16.417M
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

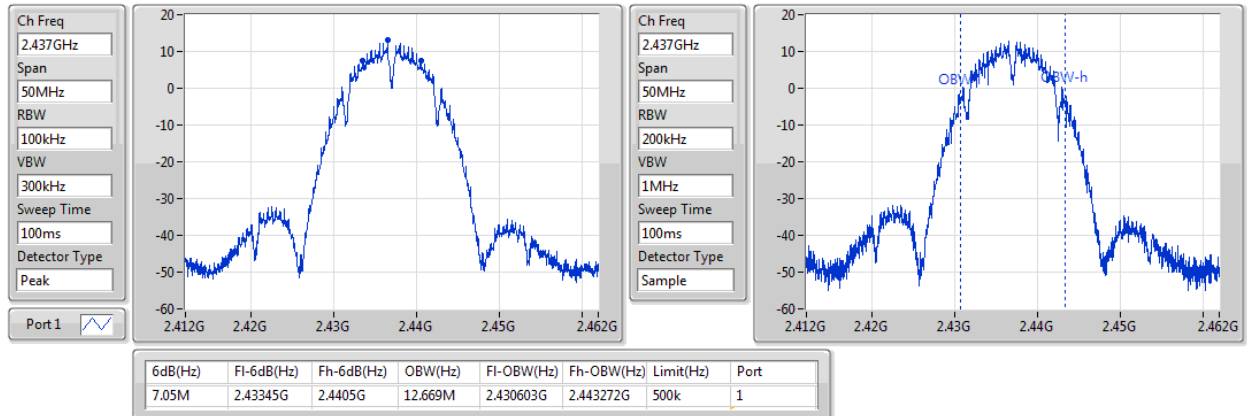
2412MHz



802.11b\_(1Mbps)\_1TX

EBW

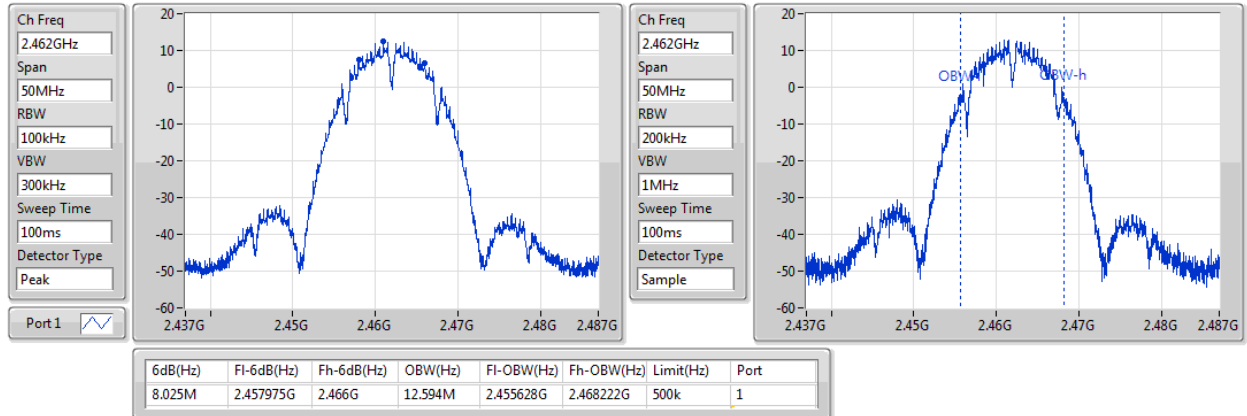
2437MHz



802.11b\_(1Mbps)\_1TX

EBW

2462MHz

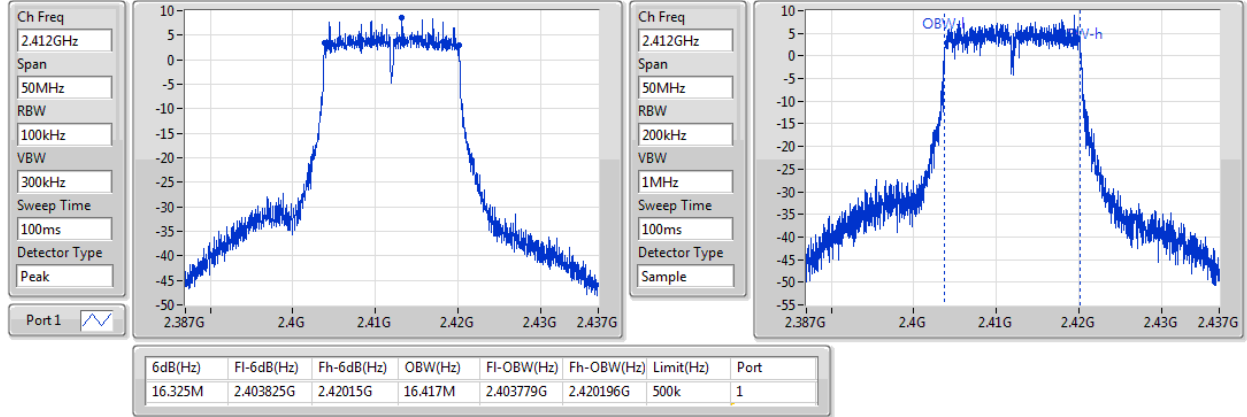




### 802.11g\_(6Mbps)\_1TX

EBW

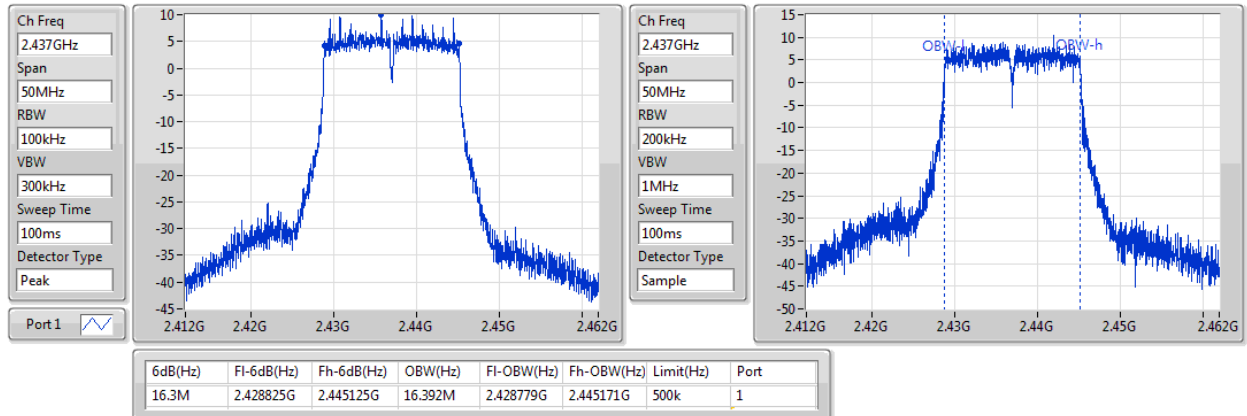
2412MHz



### 802.11g\_(6Mbps)\_1TX

EBW

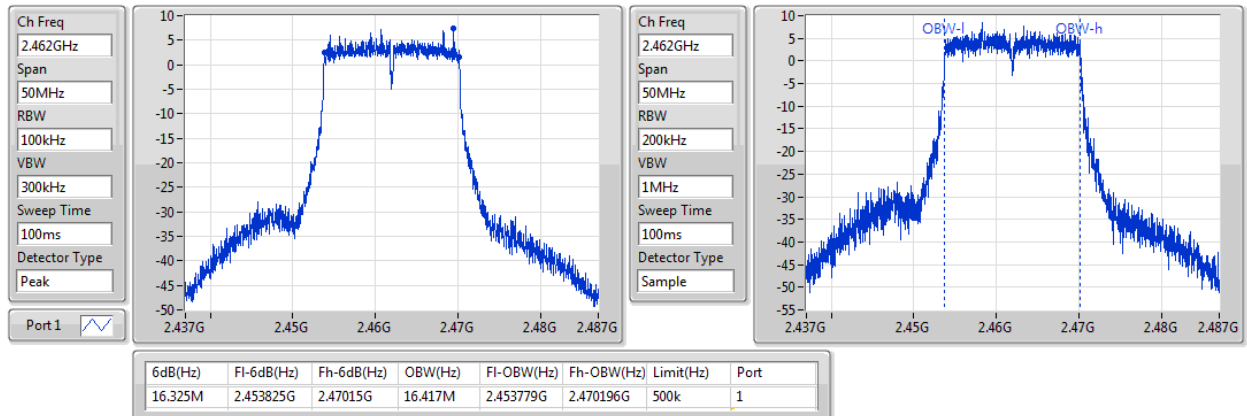
2437MHz



### 802.11g\_(6Mbps)\_1TX

EBW

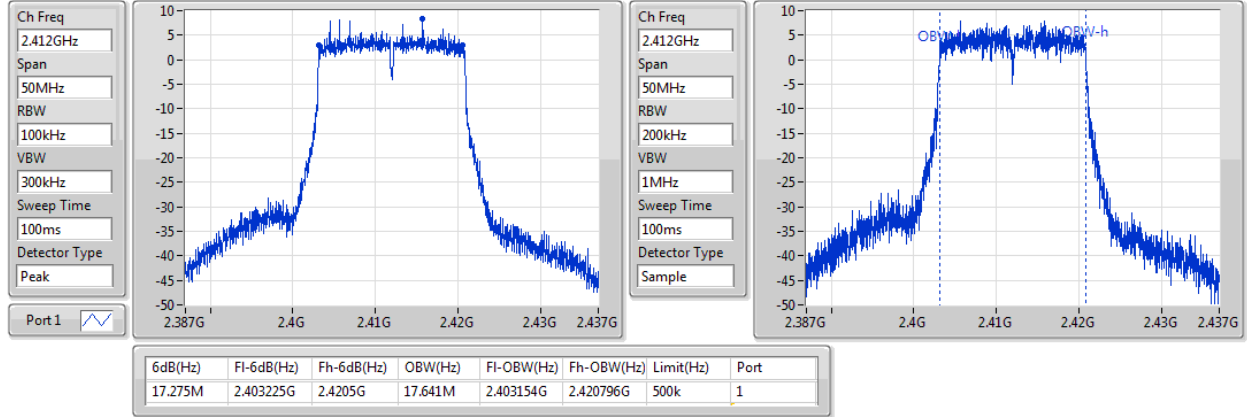
2462MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

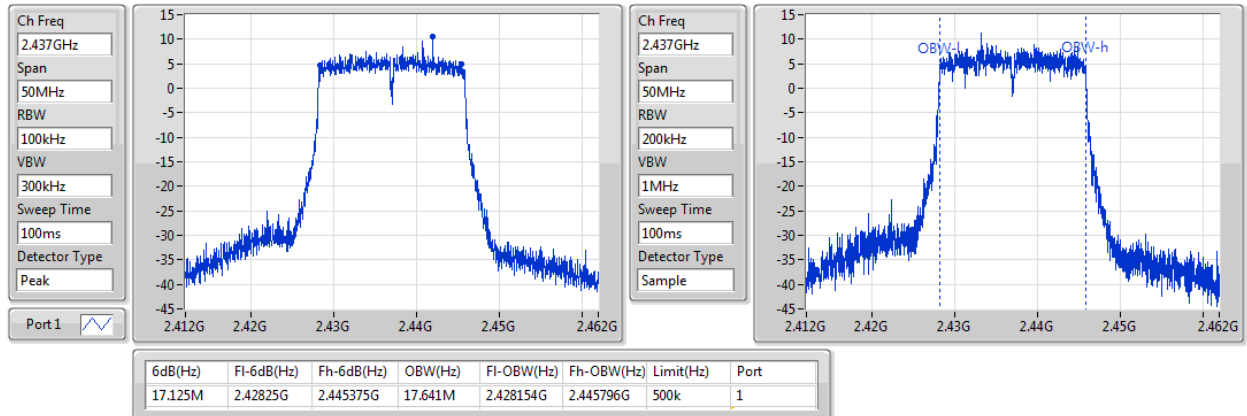
2412MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

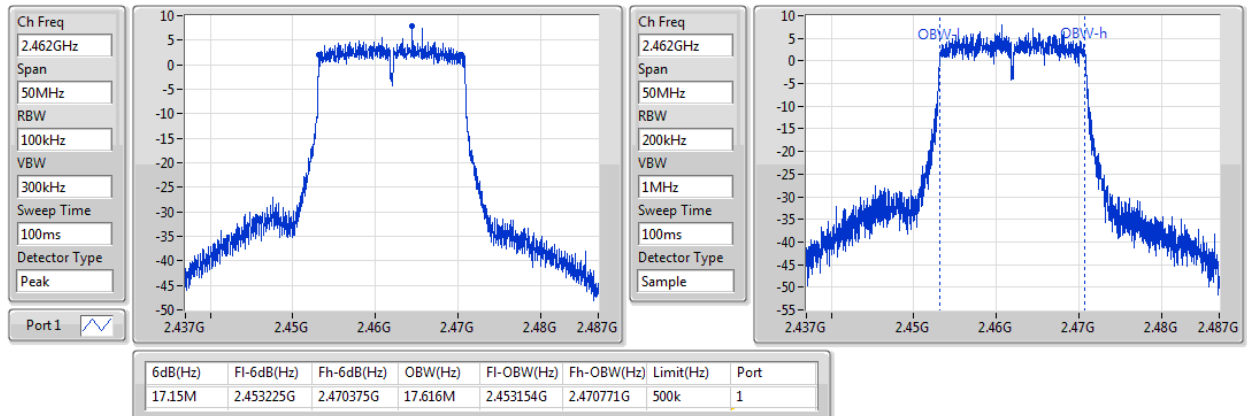
2437MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

2462MHz

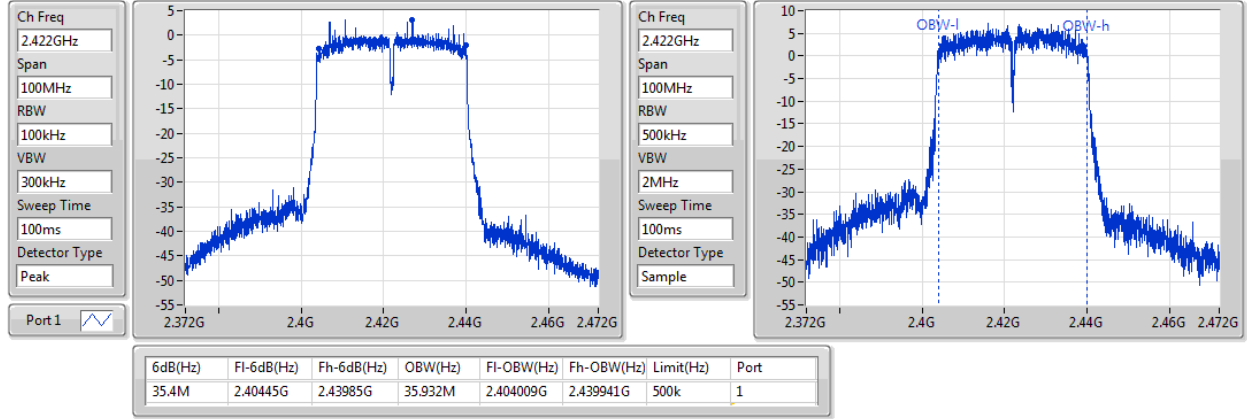




802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

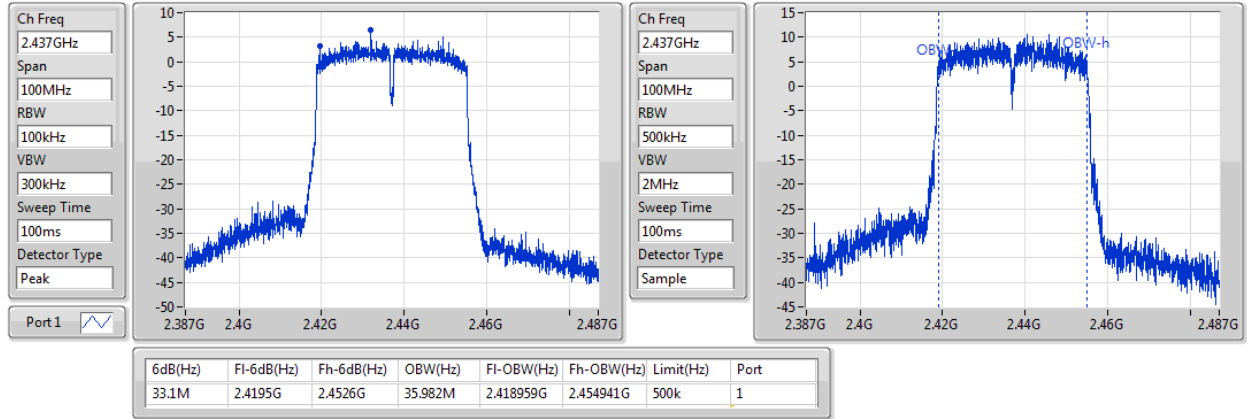
2422MHz



802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

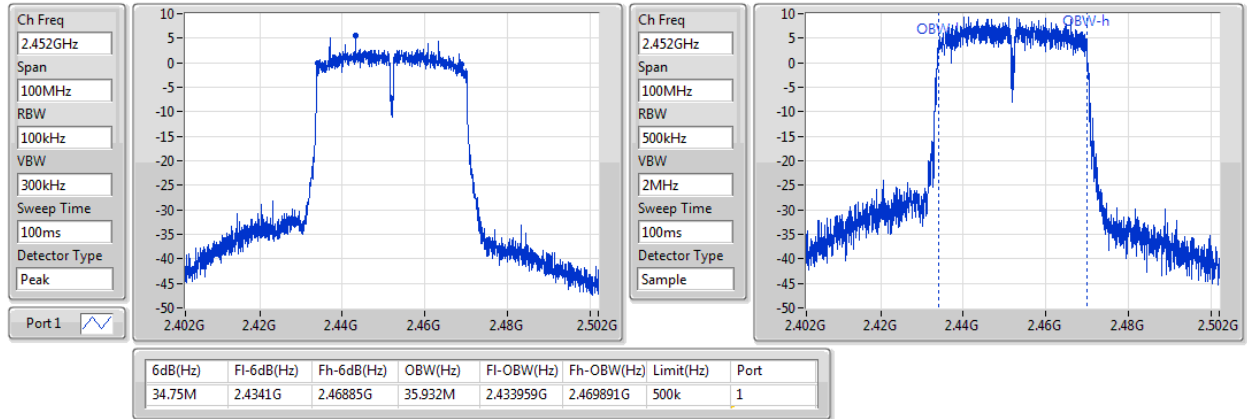
2437MHz



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

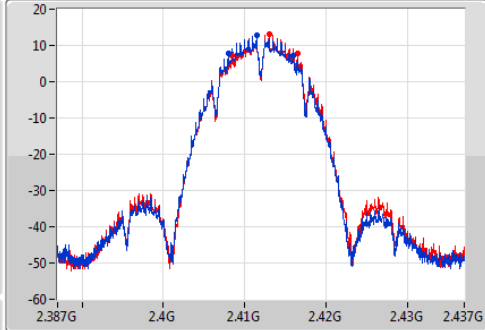
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11b\_(1Mbps)\_2TX

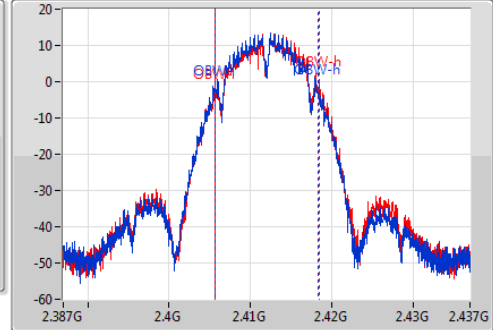
EBW

2412MHz

Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



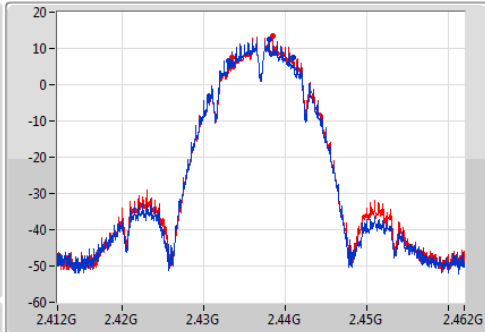
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.025M	2.408G	2.416025G	12.644M	2.405628G	2.418272G	500k	1
8.025M	2.408475G	2.4165G	12.819M	2.405703G	2.418522G	500k	2

802.11b\_(1Mbps)\_2TX

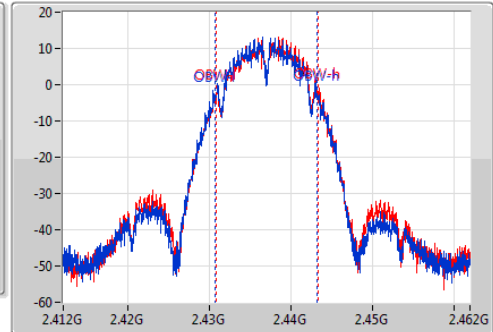
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



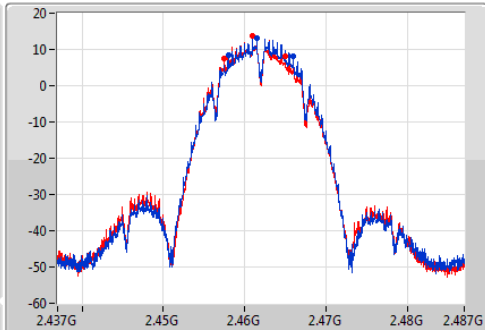
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.025M	2.432975G	2.441G	12.619M	2.430628G	2.443247G	500k	1
7.5M	2.4335G	2.441G	12.619M	2.430753G	2.443372G	500k	2

802.11b\_(1Mbps)\_2TX

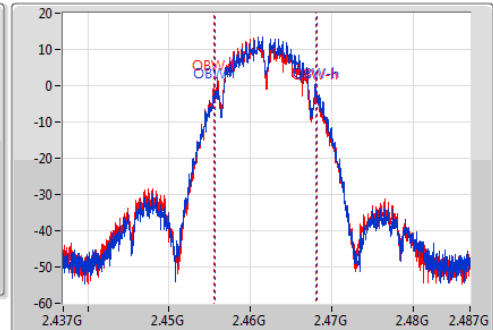
EBW

2462MHz

Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.025M	2.457975G	2.466G	12.594M	2.455653G	2.468247G	500k	1
7.55M	2.457475G	2.465025G	12.619M	2.455478G	2.468097G	500k	2

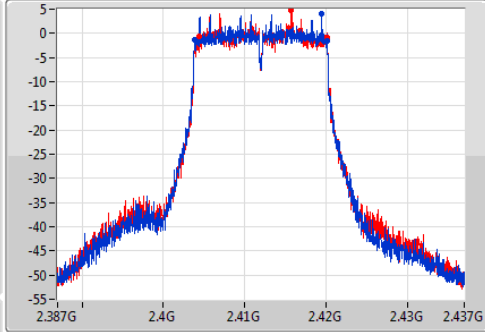


### 802.11g\_(6Mbps)\_2TX

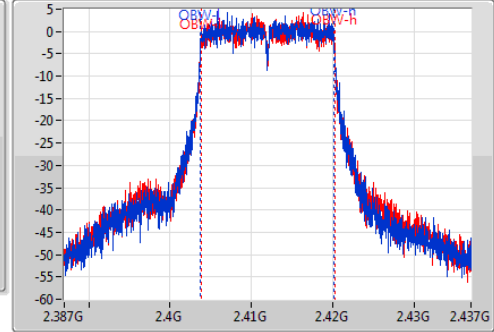
EBW

#### 2412MHz

Ch Freq: 2.412GHz  
 Span: 50MHz  
 RBW: 100kHz  
 VBW: 300kHz  
 Sweep Time: 100ms  
 Detector Type: Peak



Ch Freq: 2.412GHz  
 Span: 50MHz  
 RBW: 200kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Sample



Port 1: [Waveform icon]  
 Port 2: [Waveform icon]

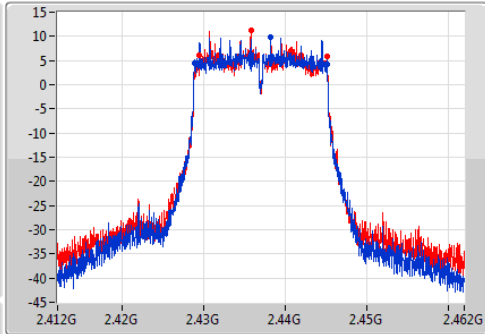
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.403825G	2.42015G	16.417M	2.403754G	2.420171G	500k	1
15.675M	2.404475G	2.42015G	16.417M	2.403804G	2.420221G	500k	2

### 802.11g\_(6Mbps)\_2TX

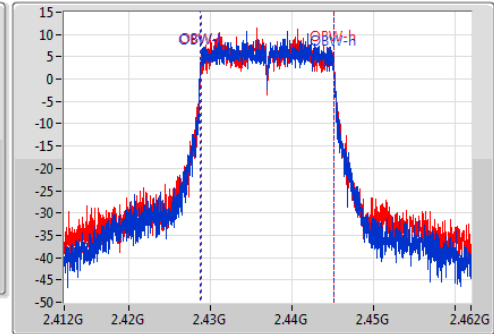
EBW

#### 2437MHz

Ch Freq: 2.437GHz  
 Span: 50MHz  
 RBW: 100kHz  
 VBW: 300kHz  
 Sweep Time: 100ms  
 Detector Type: Peak



Ch Freq: 2.437GHz  
 Span: 50MHz  
 RBW: 200kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Sample



Port 1: [Waveform icon]  
 Port 2: [Waveform icon]

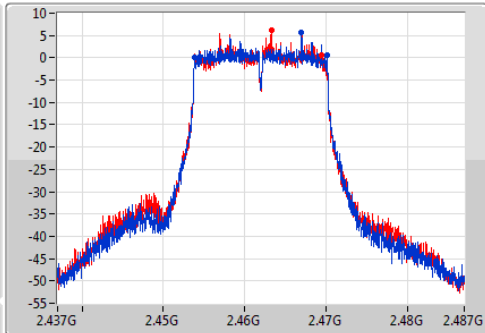
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.428825G	2.44515G	16.392M	2.428779G	2.445171G	500k	1
15.675M	2.42945G	2.445125G	16.367M	2.428804G	2.445171G	500k	2

### 802.11g\_(6Mbps)\_2TX

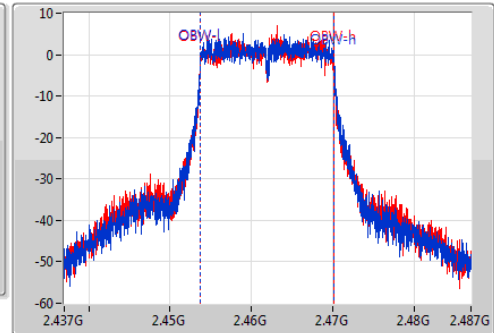
EBW

#### 2462MHz

Ch Freq: 2.462GHz  
 Span: 50MHz  
 RBW: 100kHz  
 VBW: 300kHz  
 Sweep Time: 100ms  
 Detector Type: Peak



Ch Freq: 2.462GHz  
 Span: 50MHz  
 RBW: 200kHz  
 VBW: 1MHz  
 Sweep Time: 100ms  
 Detector Type: Sample



Port 1: [Waveform icon]  
 Port 2: [Waveform icon]

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.275M	2.45385G	2.470125G	16.392M	2.453779G	2.470171G	500k	1
15.65M	2.453825G	2.469475G	16.367M	2.453779G	2.470146G	500k	2



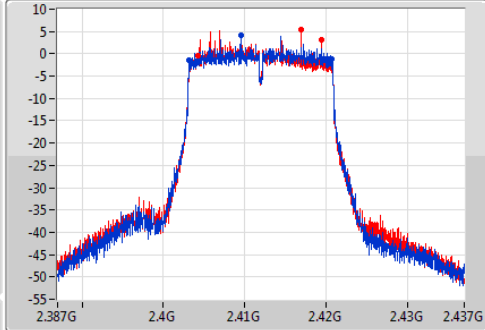


802.11ac VHT20\_Nss1,(MCS0)\_2TX

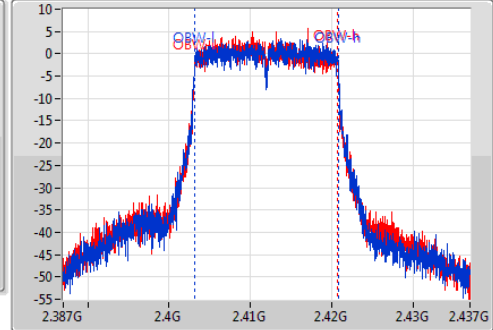
EBW

2412MHz

Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



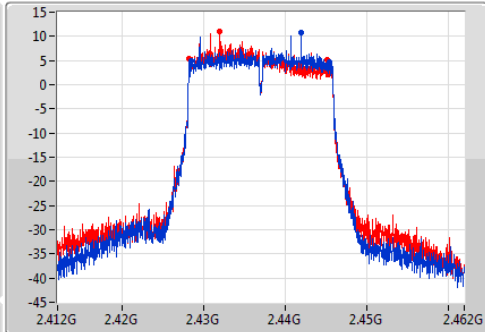
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.4032G	2.42075G	17.641M	2.403154G	2.420796G	500k	1
15.2M	2.40425G	2.41945G	17.566M	2.403179G	2.420746G	500k	2

802.11ac VHT20\_Nss1,(MCS0)\_2TX

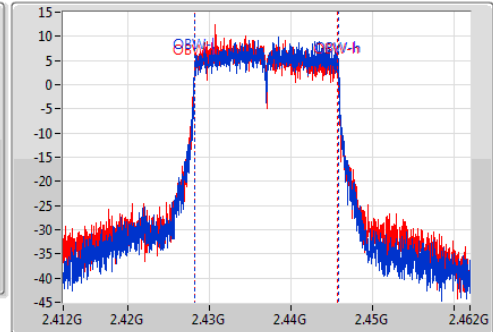
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



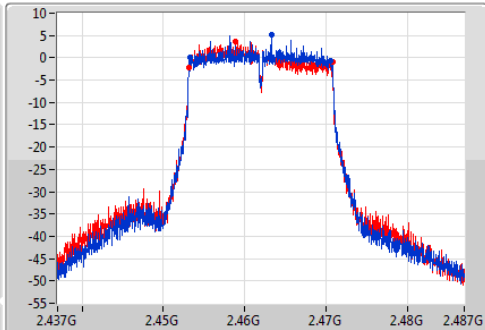
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17M	2.428475G	2.445475G	17.641M	2.428154G	2.445796G	500k	1
16.9M	2.4282G	2.4451G	17.591M	2.428154G	2.445746G	500k	2

802.11ac VHT20\_Nss1,(MCS0)\_2TX

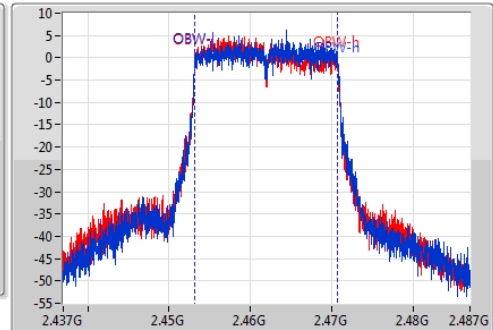
EBW

2462MHz

Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



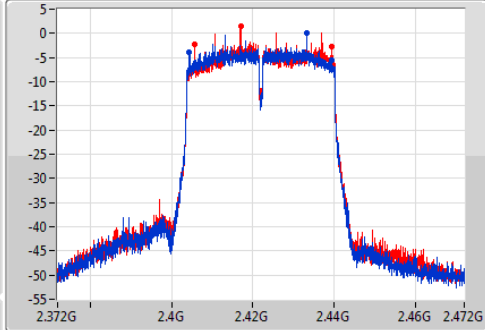
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.25M	2.45325G	2.4705G	17.616M	2.453154G	2.470771G	500k	1
17.6M	2.453175G	2.470775G	17.616M	2.453154G	2.470771G	500k	2

802.11ac VHT40\_Nss1,(MCS0)\_2TX

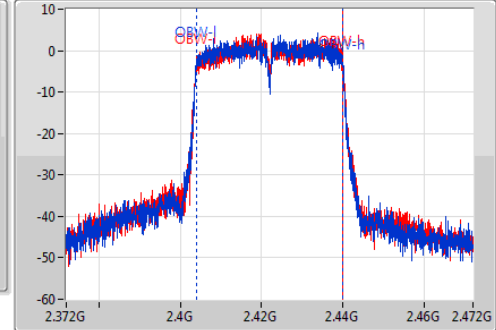
EBW

2422MHz

Ch Freq  
2.422GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.422GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



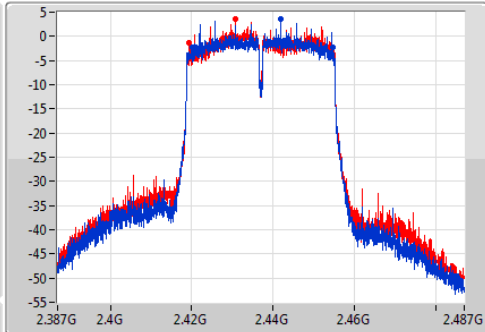
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.05M	2.40445G	2.4395G	36.032M	2.403959G	2.439991G	500k	1
33.8M	2.4057G	2.4395G	35.932M	2.404059G	2.439991G	500k	2

802.11ac VHT40\_Nss1,(MCS0)\_2TX

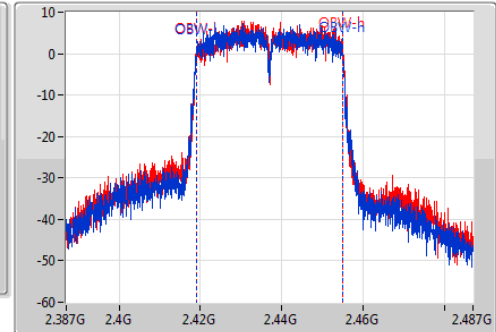
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



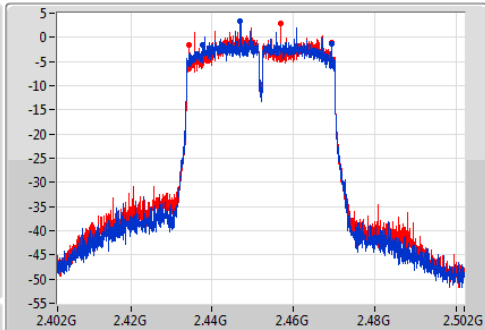
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.65M	2.4201G	2.45475G	35.932M	2.419009G	2.454941G	500k	1
35.1M	2.41945G	2.45455G	35.982M	2.419009G	2.454991G	500k	2

802.11ac VHT40\_Nss1,(MCS0)\_2TX

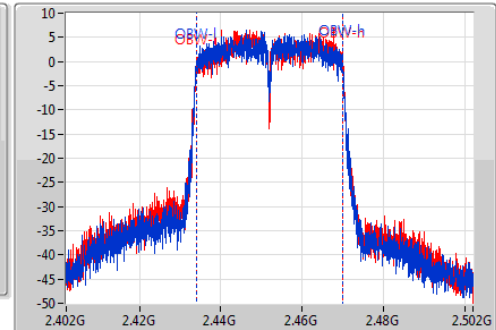
EBW

2452MHz

Ch Freq  
2.452GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.452GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
31.85M	2.4376G	2.46945G	36.032M	2.433959G	2.469991G	500k	1
35M	2.43445G	2.46945G	35.882M	2.434059G	2.469941G	500k	2



<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

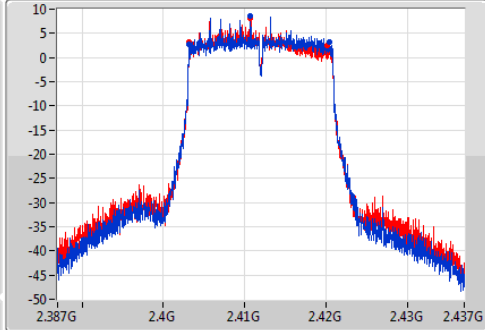
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

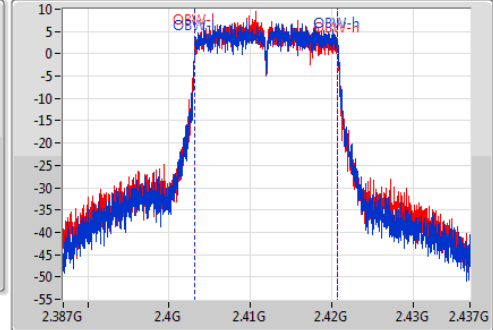
EBW

2412MHz

Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



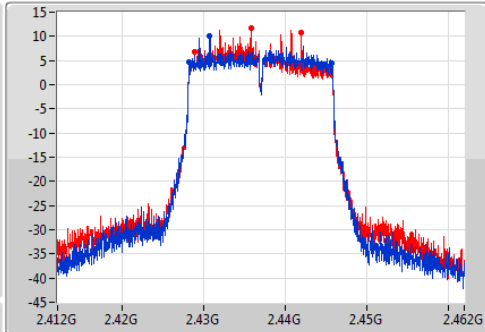
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.175M	2.403225G	2.4204G	17.591M	2.403179G	2.420771G	500k	1
16.925M	2.403225G	2.42015G	17.566M	2.403179G	2.420746G	500k	2

802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

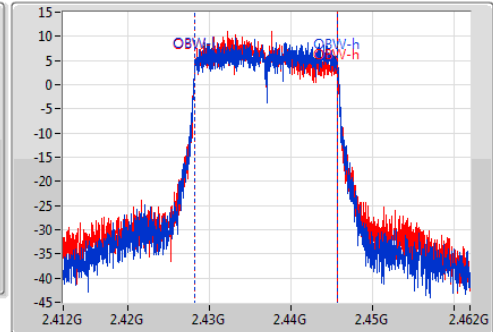
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



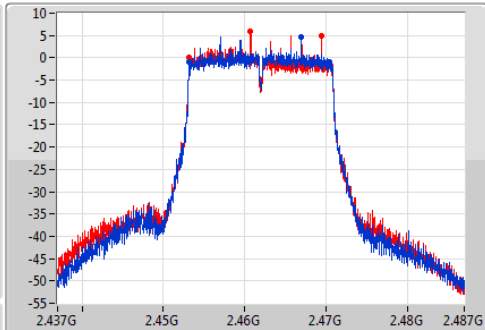
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.525M	2.428225G	2.44575G	17.616M	2.428154G	2.445771G	500k	1
13.15M	2.42885G	2.442G	17.591M	2.428154G	2.445746G	500k	2

802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

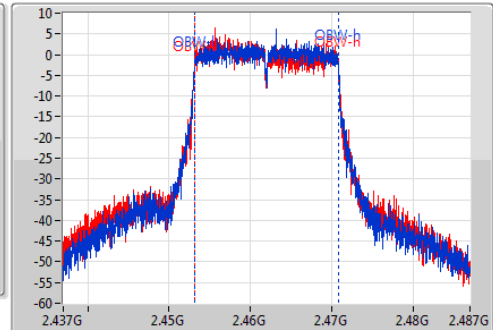
EBW

2462MHz

Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample

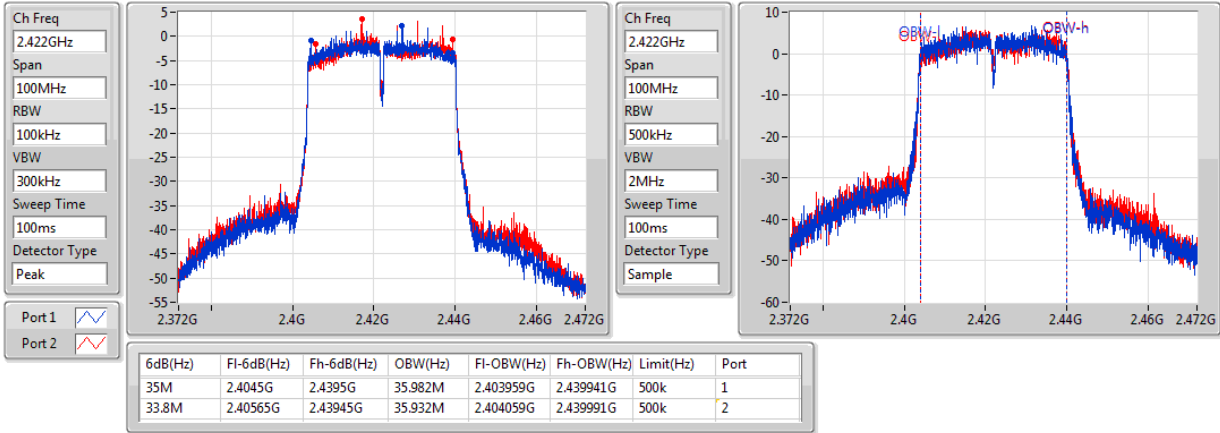


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.25M	2.453225G	2.470475G	17.641M	2.453154G	2.470796G	500k	1
16.25M	2.453225G	2.469475G	17.666M	2.453129G	2.470796G	500k	2

802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

EBW

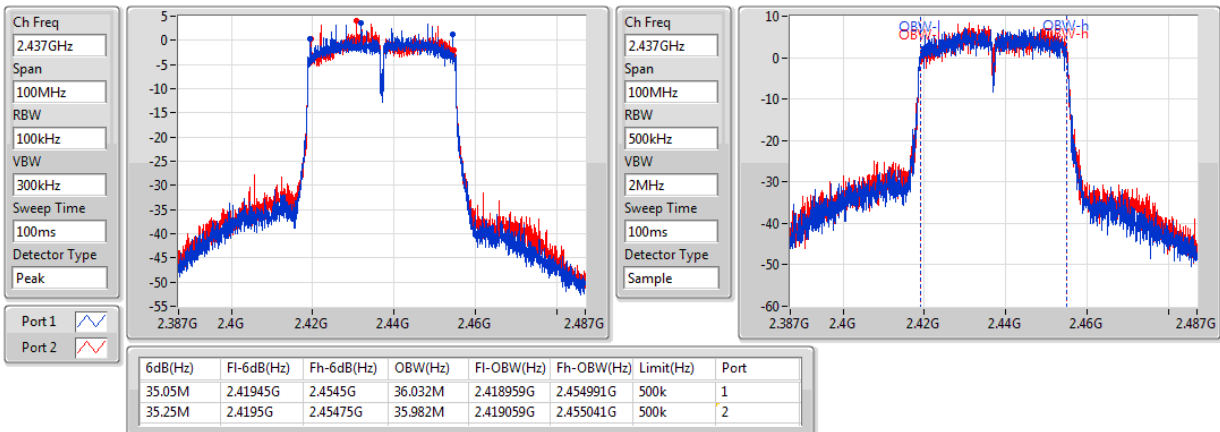
2422MHz



802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

EBW

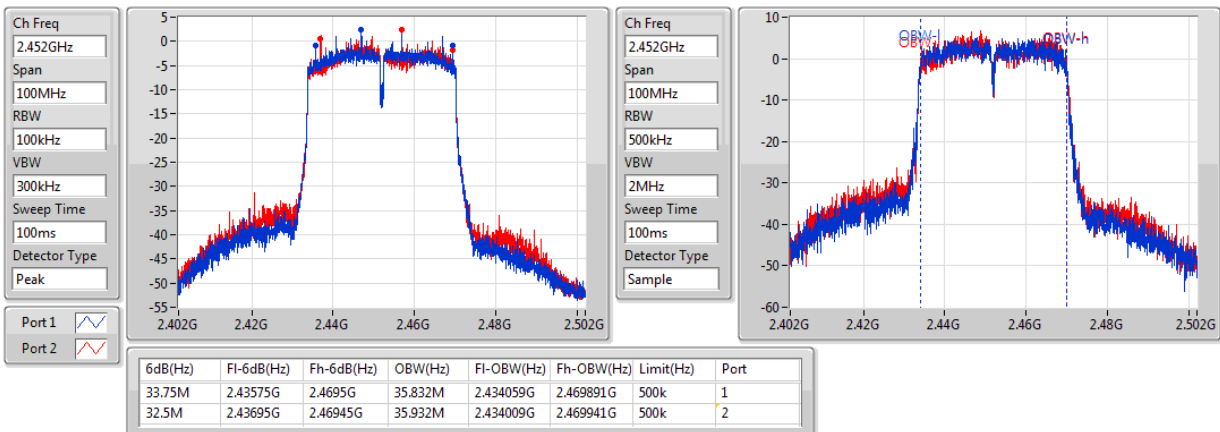
2437MHz



802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

EBW

2452MHz





**For Set 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

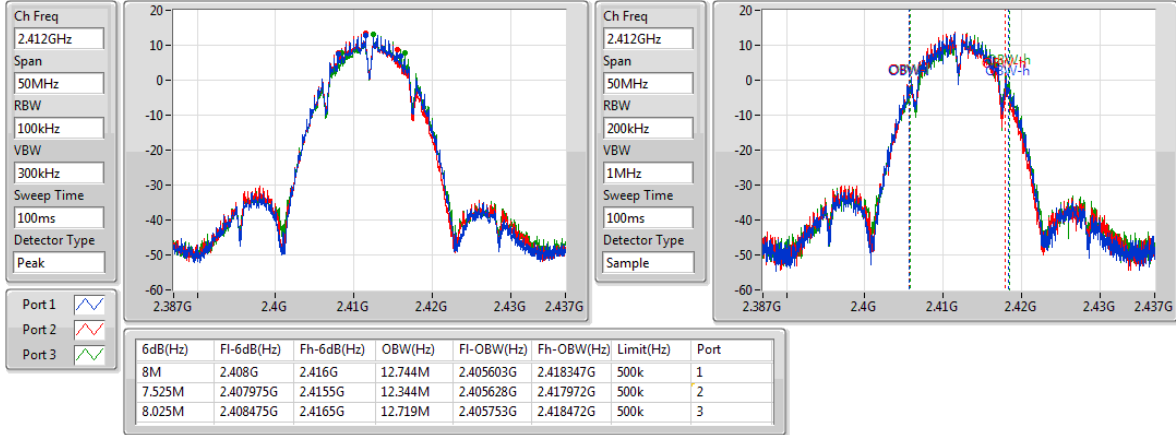
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11b\_(1Mbps)\_3TX

EBW

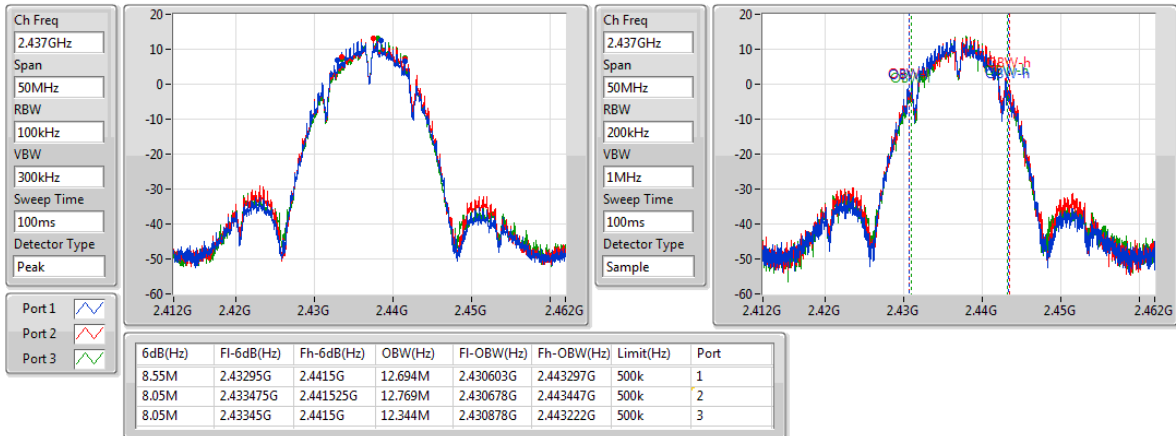
2412MHz



802.11b\_(1Mbps)\_3TX

EBW

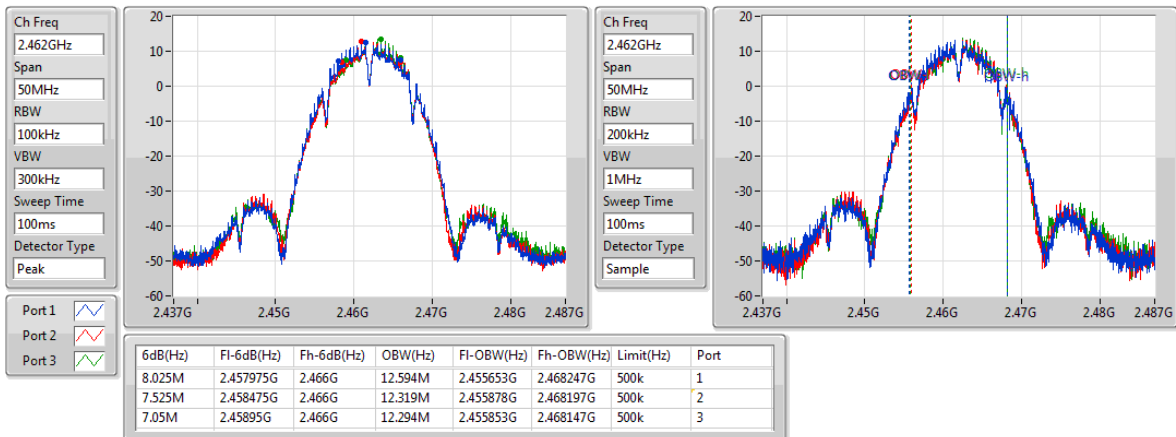
2437MHz



802.11b\_(1Mbps)\_3TX

EBW

2462MHz

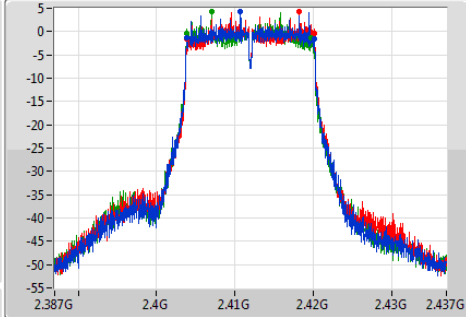


802.11g\_(6Mbps)\_3TX

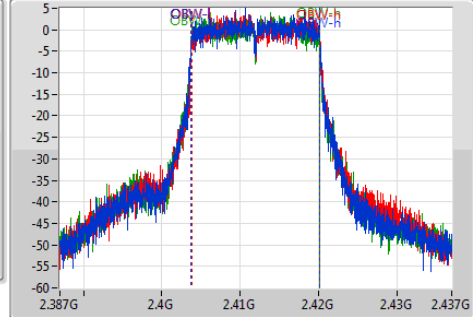
EBW

2412MHz

Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



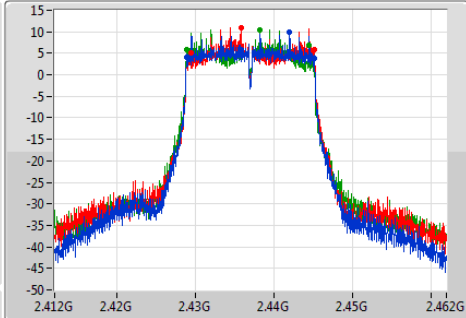
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.403825G	2.42015G	16.417M	2.403779G	2.420196G	500k	1
16.3M	2.40385G	2.42015G	16.392M	2.403804G	2.420196G	500k	2
15.925M	2.403825G	2.41975G	16.342M	2.403779G	2.420121G	500k	3

802.11g\_(6Mbps)\_3TX

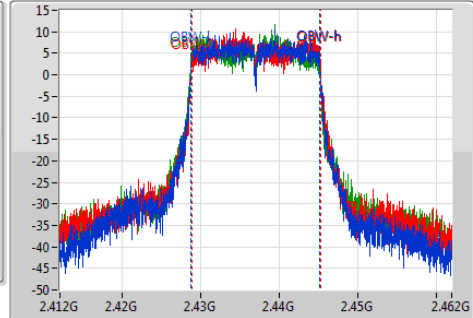
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



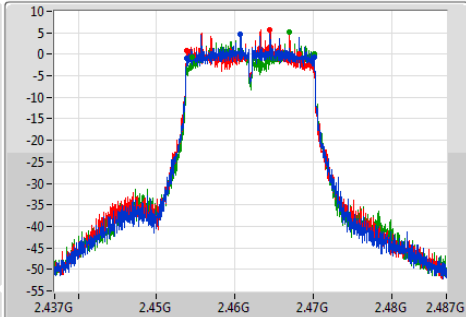
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.428825G	2.44515G	16.392M	2.428779G	2.445171G	500k	1
15.7M	2.429425G	2.445125G	16.417M	2.428804G	2.445221G	500k	2
15.675M	2.428825G	2.4445G	16.392M	2.428729G	2.445121G	500k	3

802.11g\_(6Mbps)\_3TX

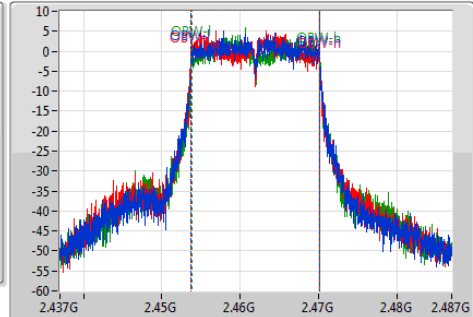
EBW

2462MHz

Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.453825G	2.47015G	16.442M	2.453754G	2.470196G	500k	1
14.425M	2.453825G	2.46825G	16.417M	2.453729G	2.470146G	500k	2
15.625M	2.4545G	2.470125G	16.392M	2.453804G	2.470196G	500k	3

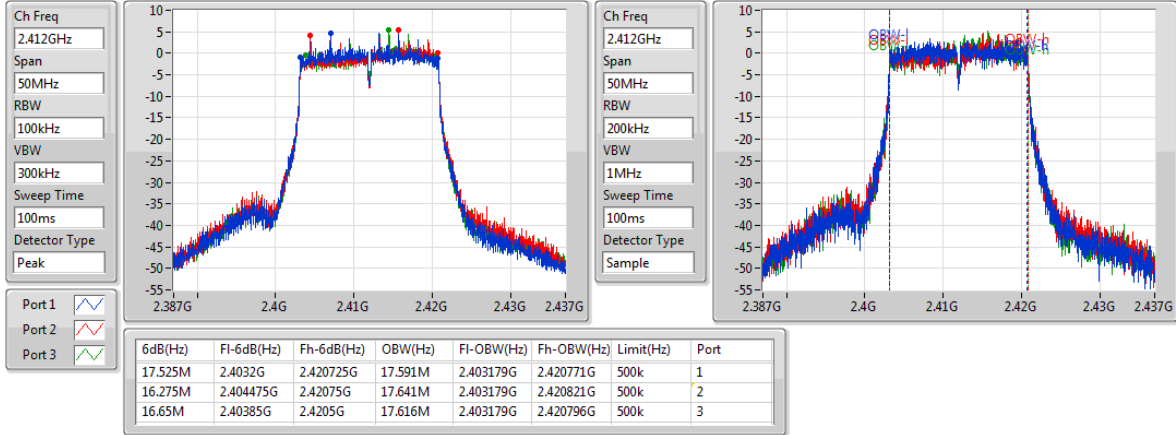




802.11ac VHT20\_Nss1,(MCS0)\_3TX

EBW

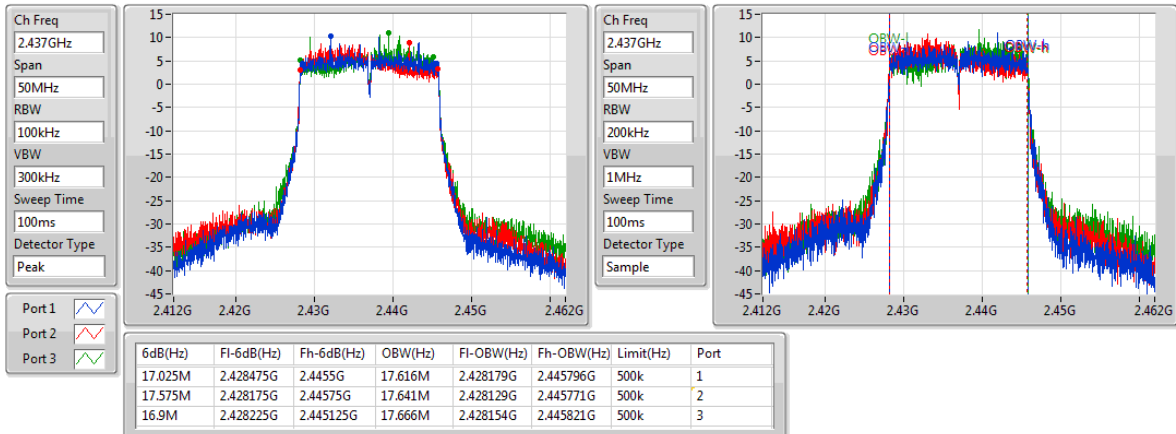
2412MHz



802.11ac VHT20\_Nss1,(MCS0)\_3TX

EBW

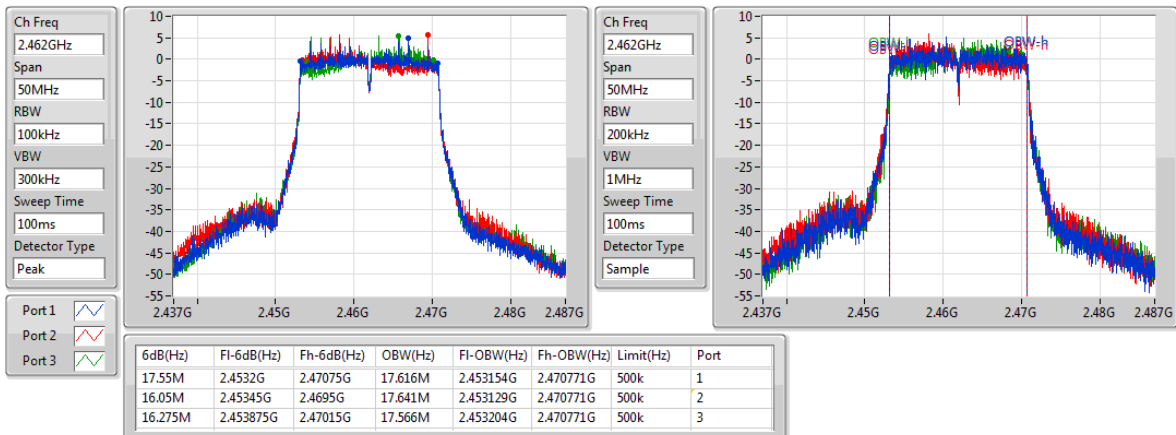
2437MHz



802.11ac VHT20\_Nss1,(MCS0)\_3TX

EBW

2462MHz



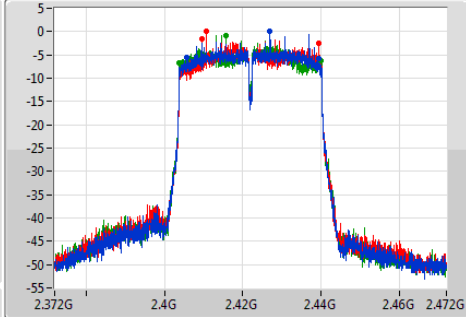


802.11ac VHT40\_Nss1,(MCS0)\_3TX

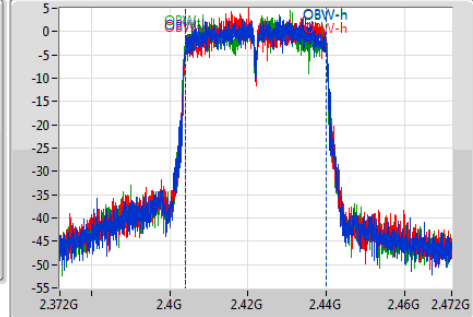
EBW

2422MHz

Ch Freq  
2.422GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak  
Port 1  
Port 2  
Port 3



Ch Freq  
2.422GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



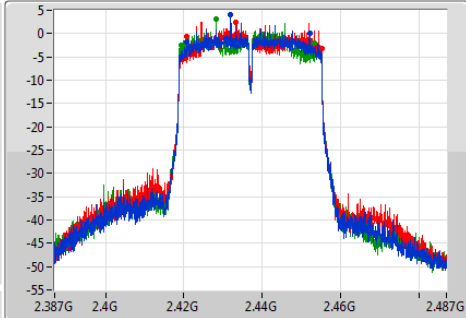
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.7M	2.40575G	2.43945G	35.982M	2.404009G	2.439991G	500k	1
30M	2.4095G	2.4395G	35.932M	2.404059G	2.439991G	500k	2
36.25M	2.40385G	2.4401G	36.032M	2.403959G	2.439991G	500k	3

802.11ac VHT40\_Nss1,(MCS0)\_3TX

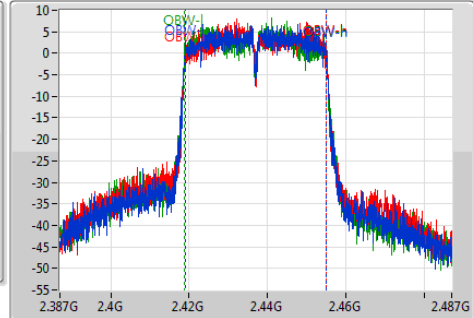
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak  
Port 1  
Port 2  
Port 3



Ch Freq  
2.437GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



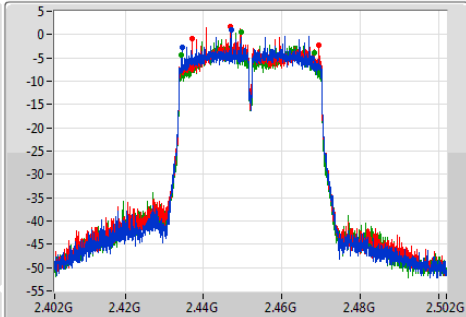
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
31.35M	2.4207G	2.45205G	35.932M	2.419009G	2.454941G	500k	1
34.45M	2.4207G	2.45515G	35.982M	2.419009G	2.454991G	500k	2
33.8M	2.41945G	2.45325G	36.082M	2.418859G	2.454941G	500k	3

802.11ac VHT40\_Nss1,(MCS0)\_3TX

EBW

2452MHz

Ch Freq  
2.452GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak  
Port 1  
Port 2  
Port 3



Ch Freq  
2.452GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.15M	2.4345G	2.46765G	35.982M	2.433959G	2.469941G	500k	1
32.5M	2.437G	2.4695G	35.932M	2.434009G	2.469941G	500k	2
33.85M	2.43445G	2.4683G	35.782M	2.434059G	2.469841G	500k	3



<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

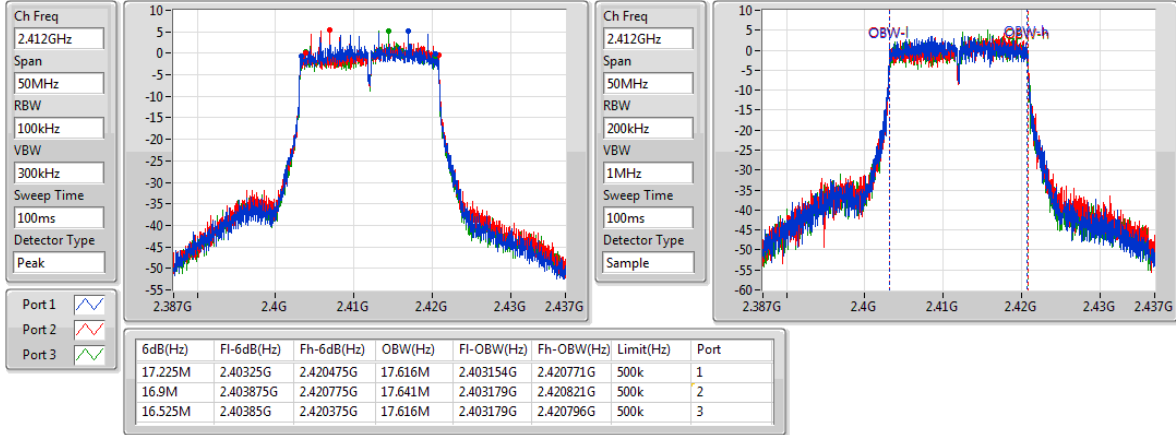
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11ac VHT20-BF\_Nss1,(MCS0)\_3TX

EBW

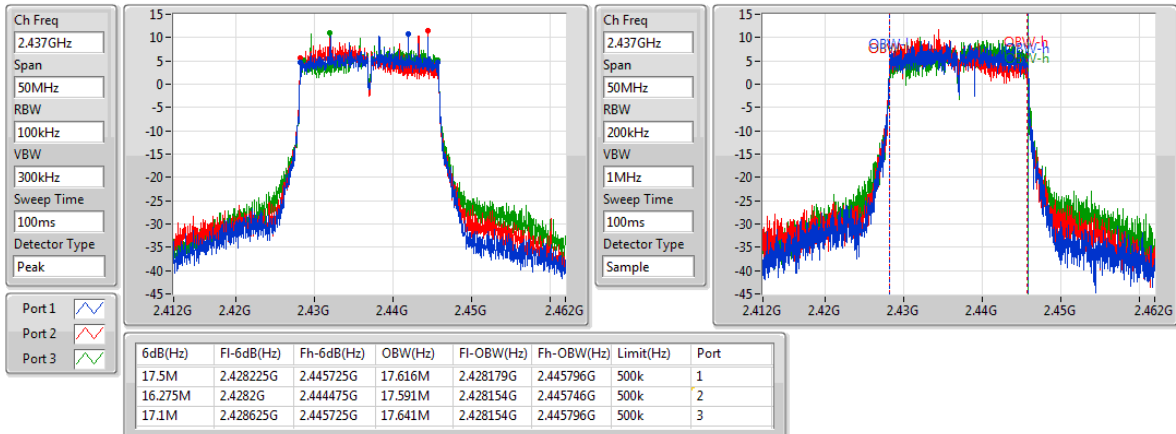
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802.11ac VHT20-BF\_Nss1,(MCS0)\_3TX

EBW

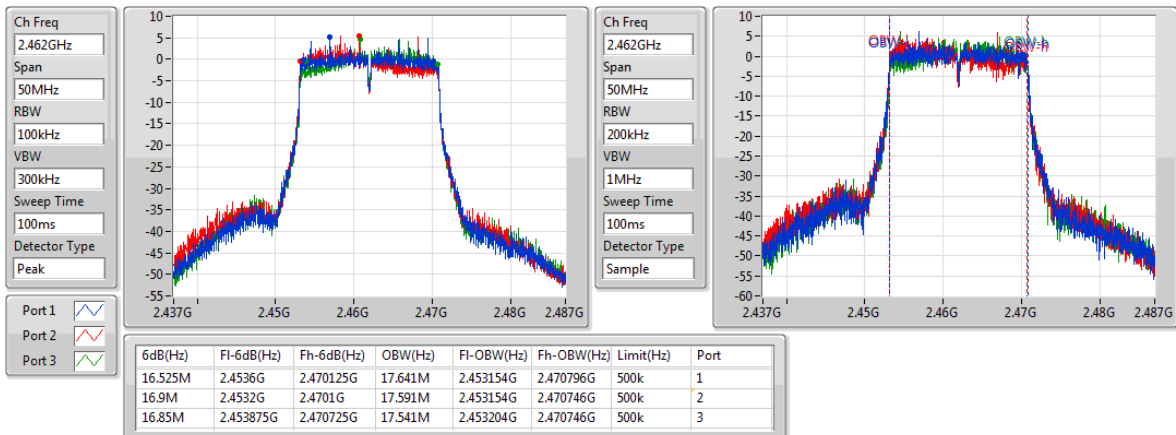
2437MHz



802.11ac VHT20-BF\_Nss1,(MCS0)\_3TX

EBW

2462MHz





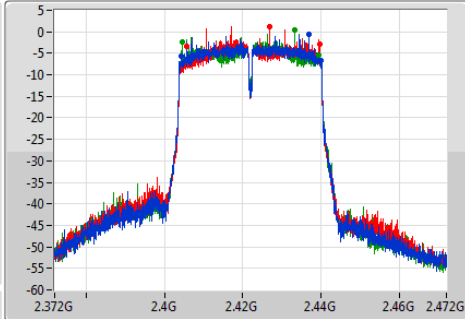
802.11ac VHT40-BF\_Nss1,(MCS0)\_3TX

EBW

2422MHz

Ch Freq: 2.422GHz  
 Span: 100MHz  
 RBW: 100kHz  
 VBW: 300kHz  
 Sweep Time: 100ms  
 Detector Type: Peak

Port 1: [Waveform]  
 Port 2: [Waveform]  
 Port 3: [Waveform]



Ch Freq: 2.422GHz  
 Span: 100MHz  
 RBW: 500kHz  
 VBW: 2MHz  
 Sweep Time: 100ms  
 Detector Type: Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.65M	2.40445G	2.4401G	36.032M	2.403959G	2.439991G	500k	1
33.8M	2.40575G	2.43955G	35.882M	2.404109G	2.439991G	500k	2
35M	2.4045G	2.4395G	35.982M	2.404009G	2.439991G	500k	3

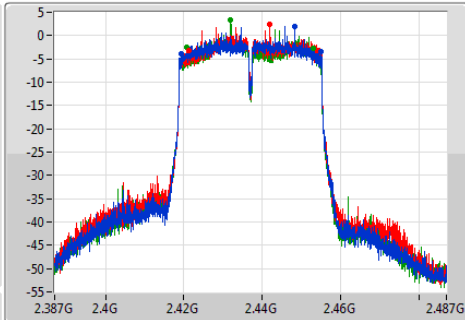
802.11ac VHT40-BF\_Nss1,(MCS0)\_3TX

EBW

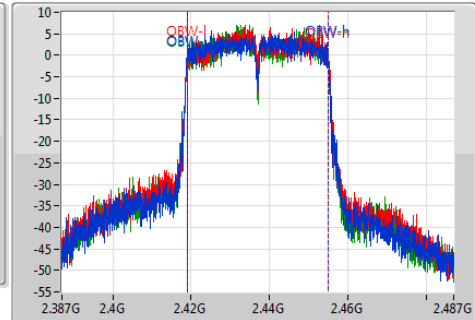
2437MHz

Ch Freq: 2.437GHz  
 Span: 100MHz  
 RBW: 100kHz  
 VBW: 300kHz  
 Sweep Time: 100ms  
 Detector Type: Peak

Port 1: [Waveform]  
 Port 2: [Waveform]  
 Port 3: [Waveform]



Ch Freq: 2.437GHz  
 Span: 100MHz  
 RBW: 500kHz  
 VBW: 2MHz  
 Sweep Time: 100ms  
 Detector Type: Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.45M	2.4194G	2.45485G	35.932M	2.419009G	2.454941G	500k	1
33.15M	2.42135G	2.4545G	35.982M	2.419009G	2.454991G	500k	2
32.15M	2.42075G	2.4529G	35.782M	2.419059G	2.454841G	500k	3

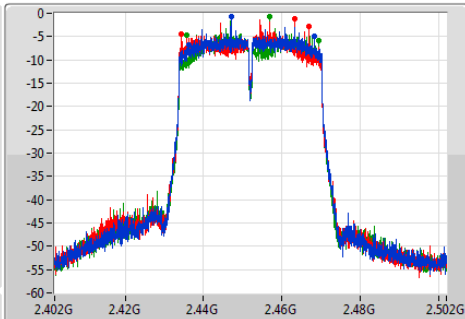
802.11ac VHT40-BF\_Nss1,(MCS0)\_3TX

EBW

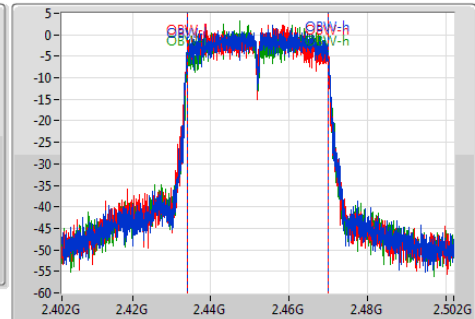
2452MHz

Ch Freq: 2.452GHz  
 Span: 100MHz  
 RBW: 100kHz  
 VBW: 300kHz  
 Sweep Time: 100ms  
 Detector Type: Peak

Port 1: [Waveform]  
 Port 2: [Waveform]  
 Port 3: [Waveform]



Ch Freq: 2.452GHz  
 Span: 100MHz  
 RBW: 500kHz  
 VBW: 2MHz  
 Sweep Time: 100ms  
 Detector Type: Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
31.95M	2.43635G	2.4683G	35.932M	2.434009G	2.469941G	500k	1
32.55M	2.43445G	2.467G	35.932M	2.433959G	2.469891G	500k	2
33.75M	2.4357G	2.46945G	35.732M	2.434159G	2.469891G	500k	3



**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**

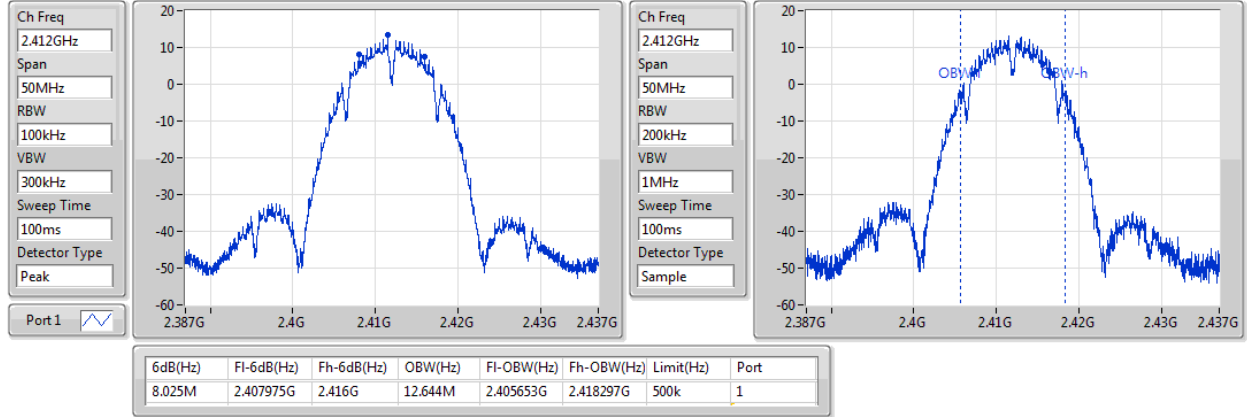
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	8.025M	12.644M
2437MHz	Pass	500k	8M	12.569M
2462MHz	Pass	500k	8.025M	12.619M
802.11g_(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.3M	16.392M
2437MHz	Pass	500k	16.3M	16.392M
2462MHz	Pass	500k	16.3M	16.392M
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

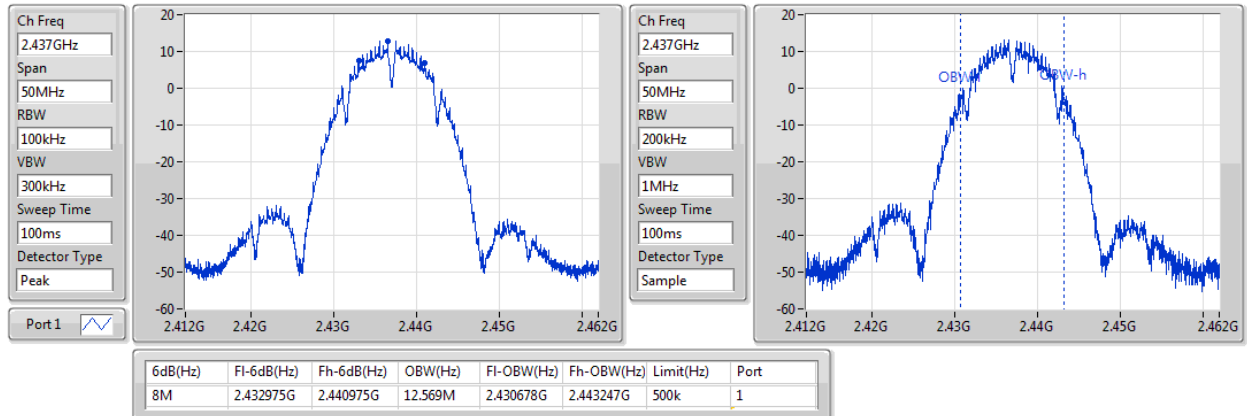
2412MHz



802.11b\_(1Mbps)\_1TX

EBW

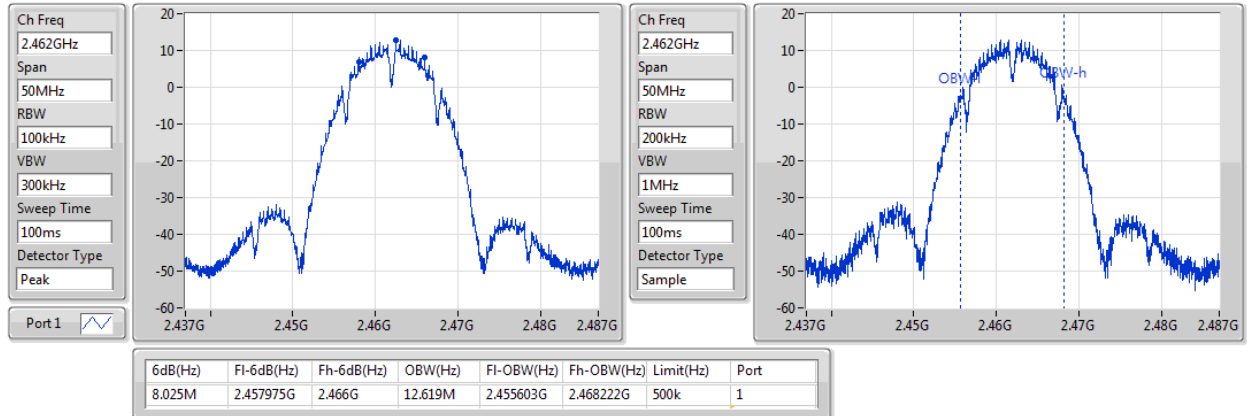
2437MHz



802.11b\_(1Mbps)\_1TX

EBW

2462MHz

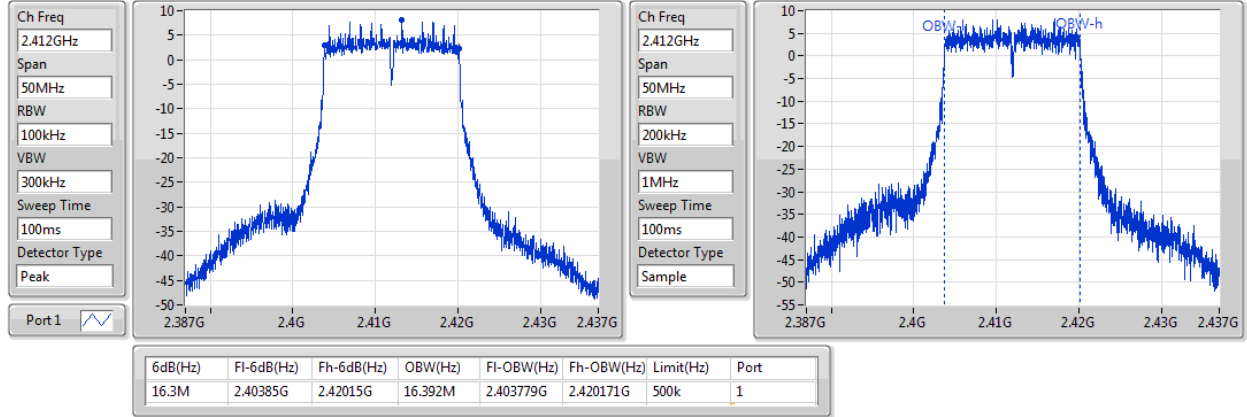




### 802.11g\_(6Mbps)\_1TX

EBW

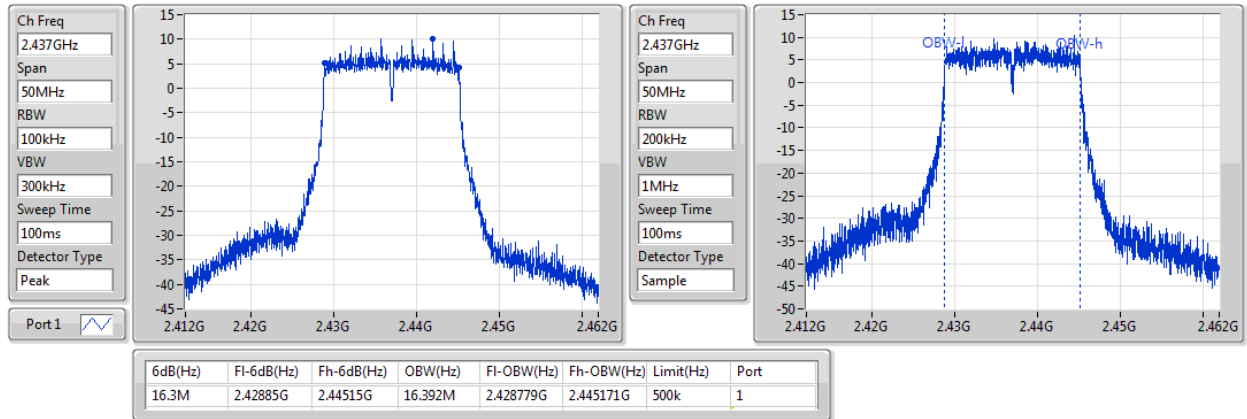
2412MHz



### 802.11g\_(6Mbps)\_1TX

EBW

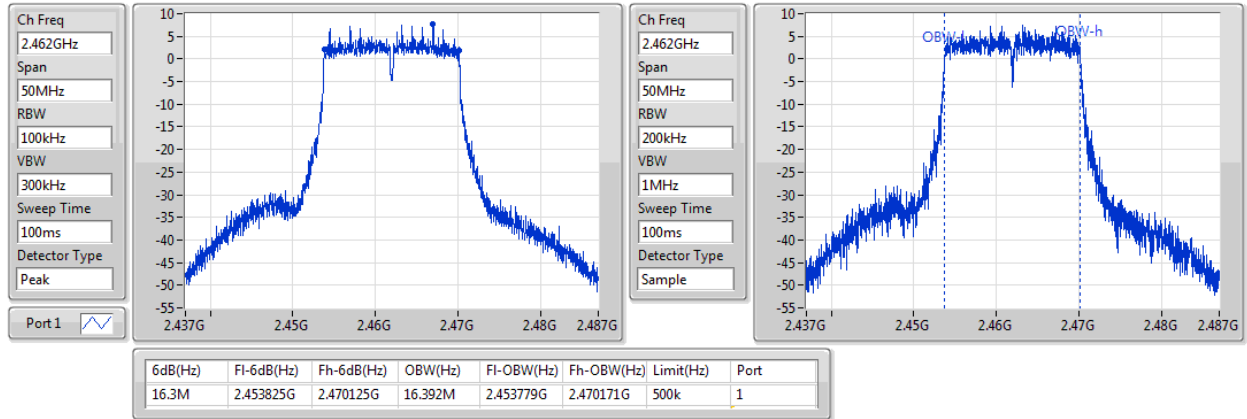
2437MHz



### 802.11g\_(6Mbps)\_1TX

EBW

2462MHz

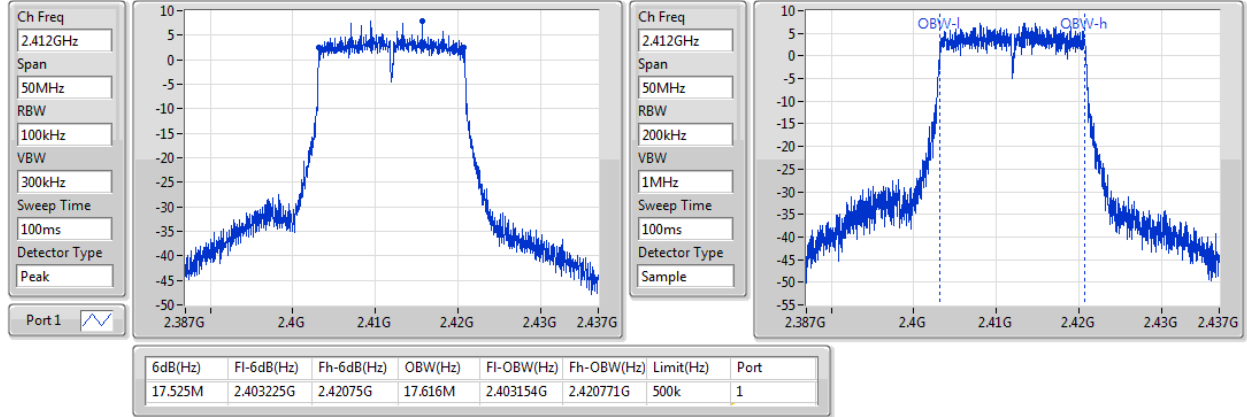




802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

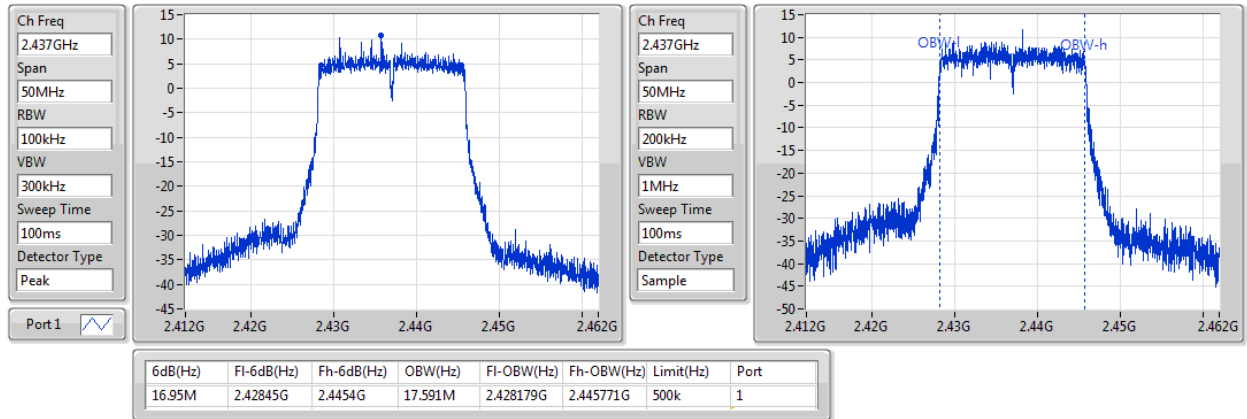
2412MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

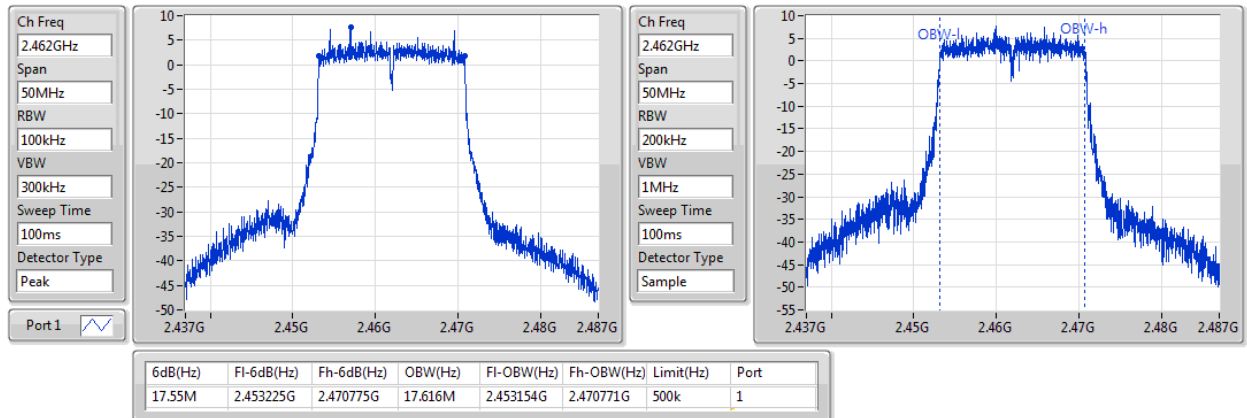
2437MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

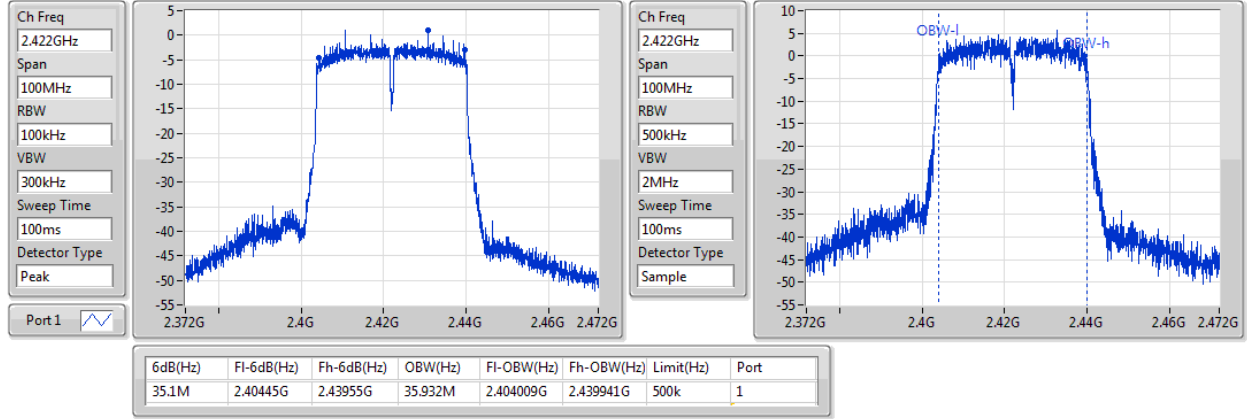
2462MHz



802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

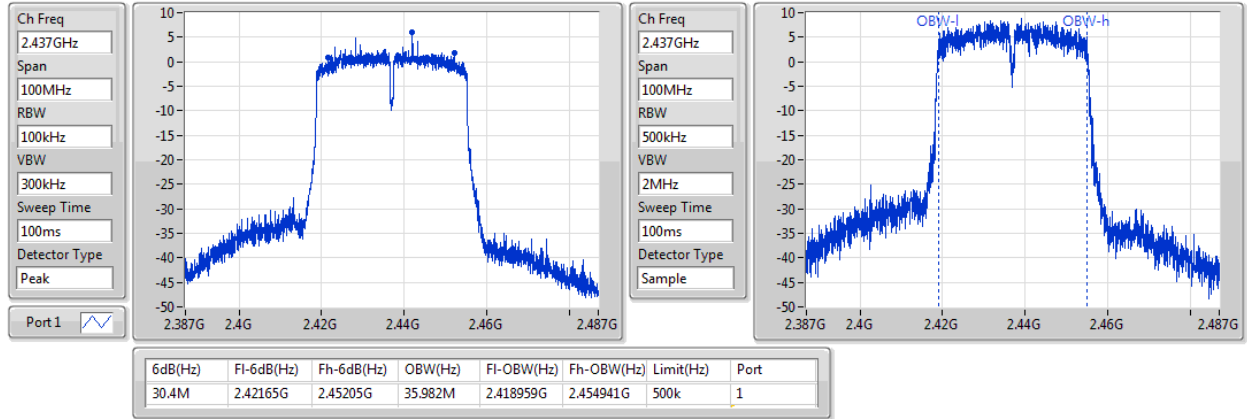
2422MHz



802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

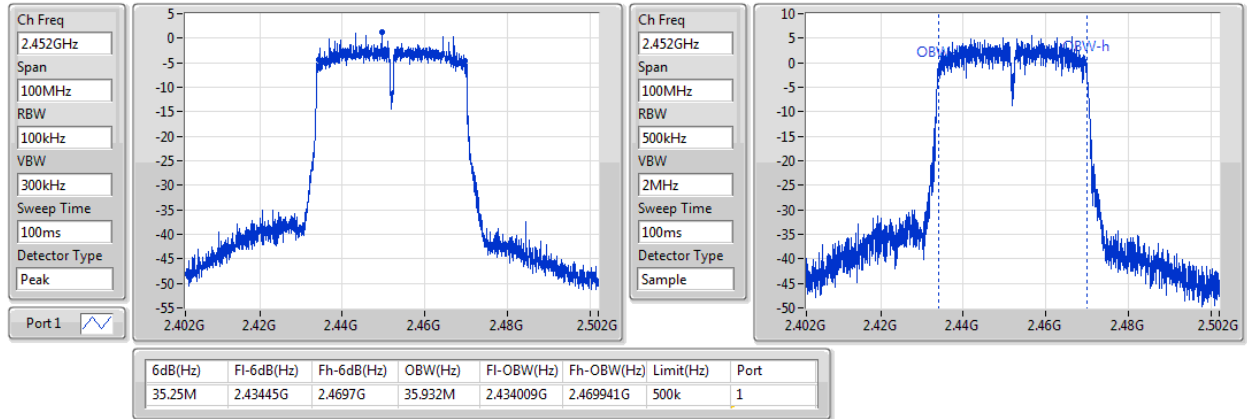
2437MHz



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**

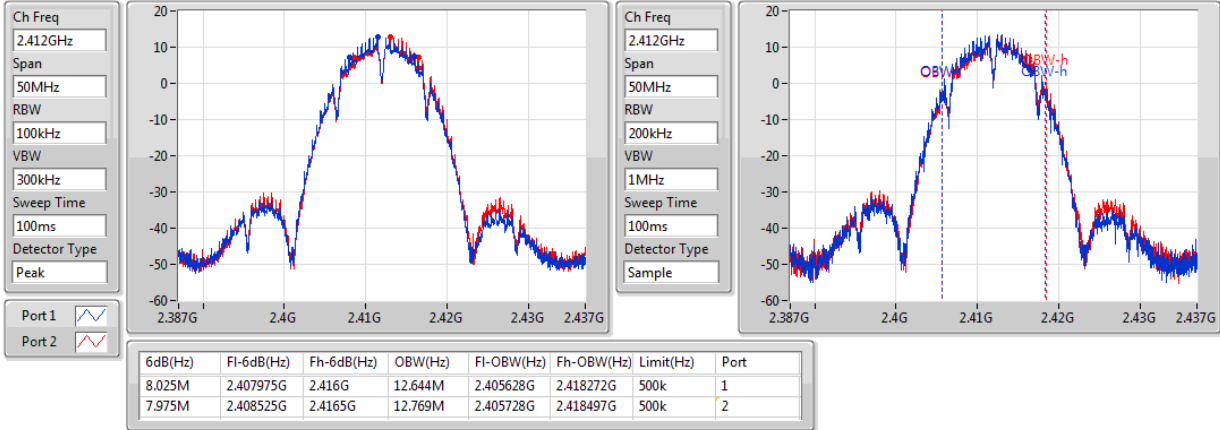
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	8.025M	12.644M	7.975M	12.769M
2437MHz	Pass	500k	8.025M	12.644M	7.55M	12.644M
2462MHz	Pass	500k	8.05M	12.594M	7.05M	12.144M
802.11g_(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	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

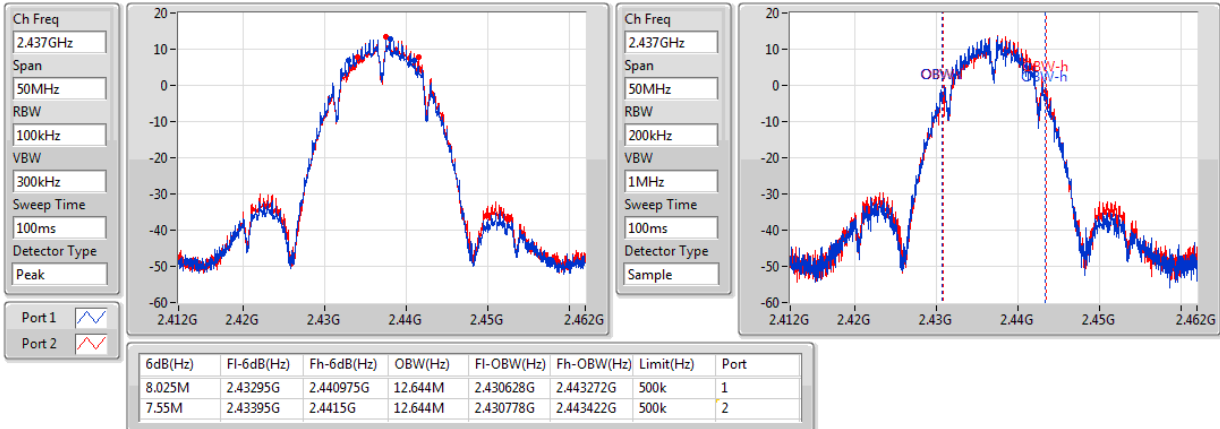
2412MHz



802.11b\_(1Mbps)\_2TX

EBW

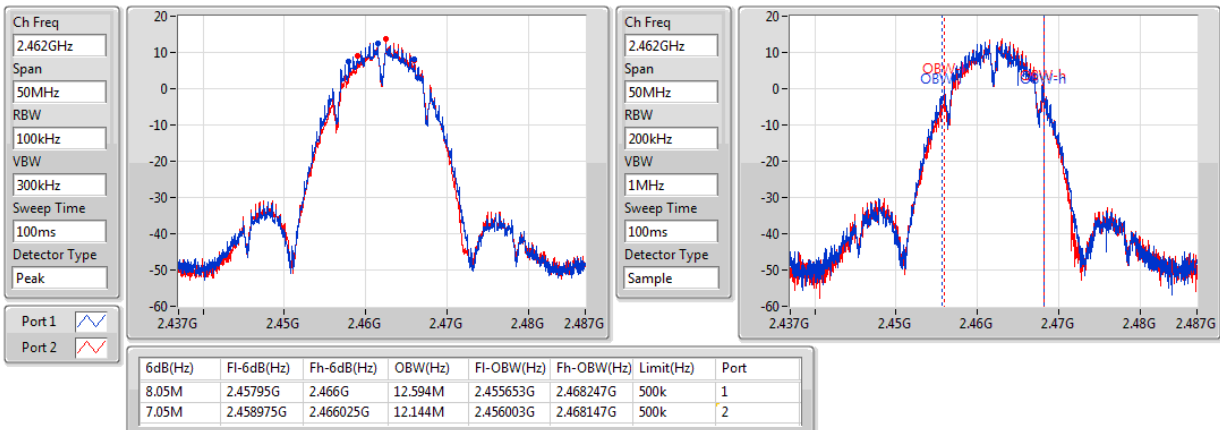
2437MHz

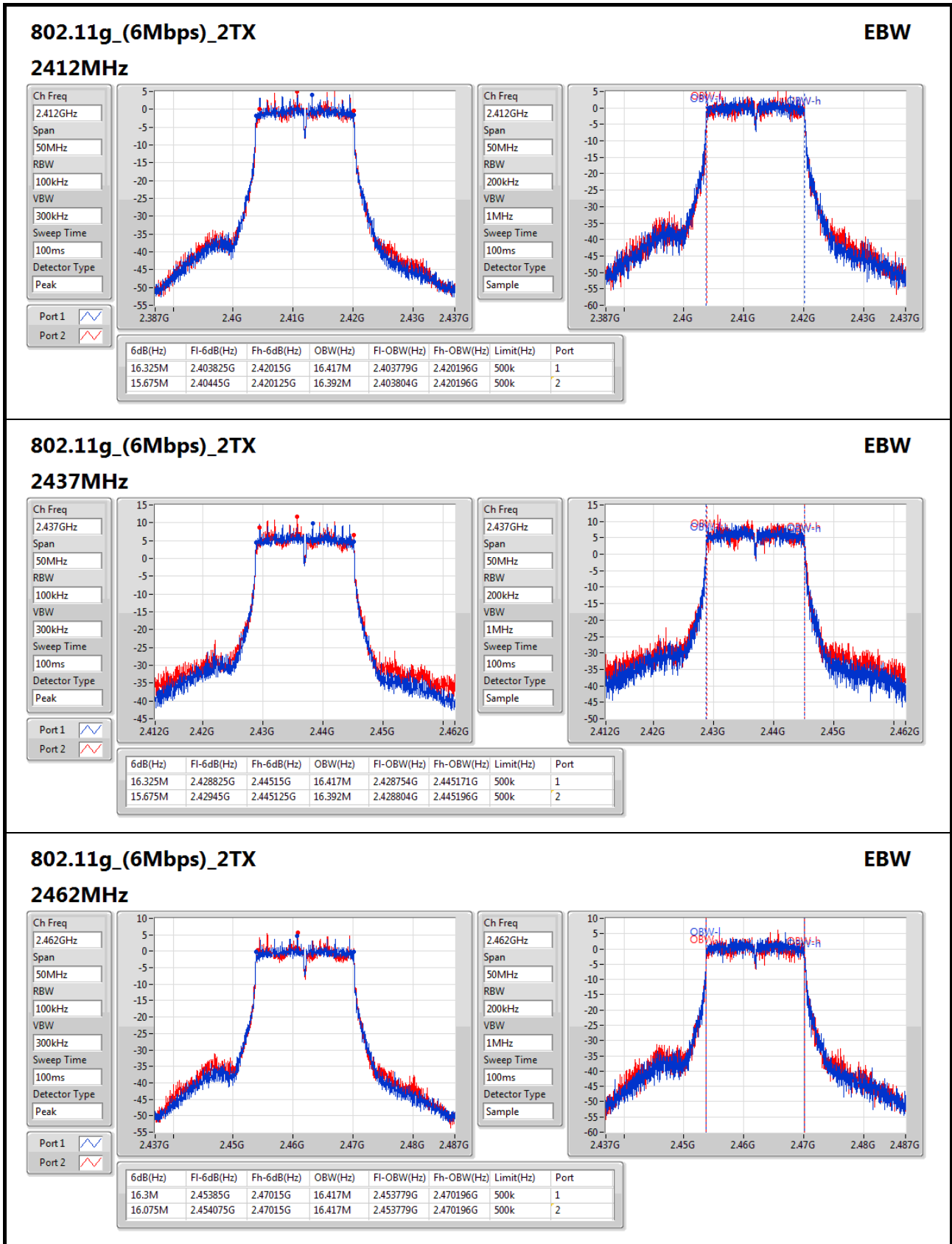


802.11b\_(1Mbps)\_2TX

EBW

2462MHz



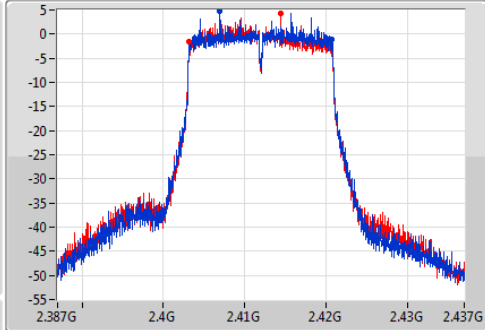


802.11ac VHT20\_Nss1,(MCS0)\_2TX

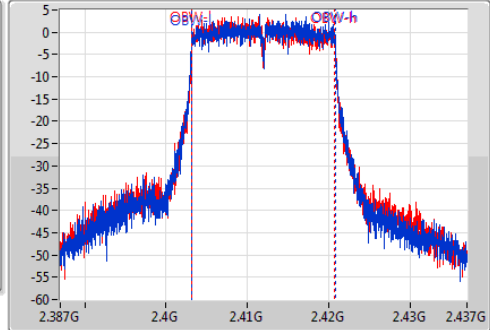
EBW

2412MHz

Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



Port1  
Port2

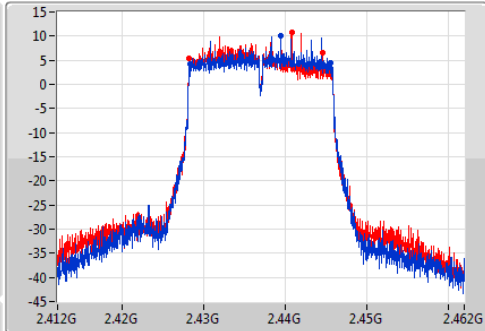
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.9M	2.403825G	2.420725G	17.641M	2.403154G	2.420796G	500k	1
17.525M	2.403225G	2.42075G	17.591M	2.403179G	2.420771G	500k	2

802.11ac VHT20\_Nss1,(MCS0)\_2TX

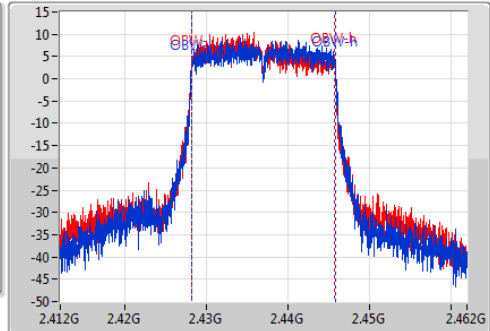
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



Port1  
Port2

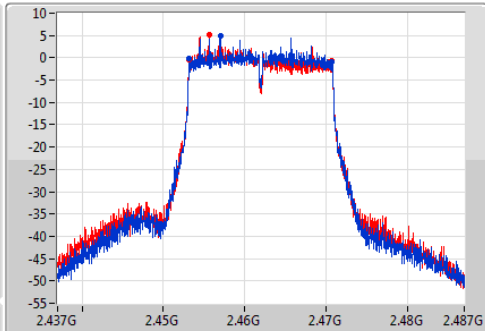
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.275M	2.42825G	2.445525G	17.641M	2.428154G	2.445796G	500k	1
16.325M	2.428225G	2.44455G	17.591M	2.428154G	2.445746G	500k	2

802.11ac VHT20\_Nss1,(MCS0)\_2TX

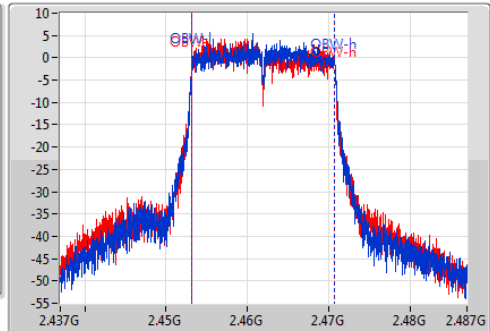
EBW

2462MHz

Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



Port1  
Port2

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.525M	2.453225G	2.47075G	17.616M	2.453154G	2.470771G	500k	1
17.525M	2.453225G	2.47075G	17.641M	2.453129G	2.470771G	500k	2



802.11ac VHT40\_Nss1,(MCS0)\_2TX

EBW

2422MHz

Ch Freq  
2.422GHz

Span  
100MHz

RBW  
100kHz

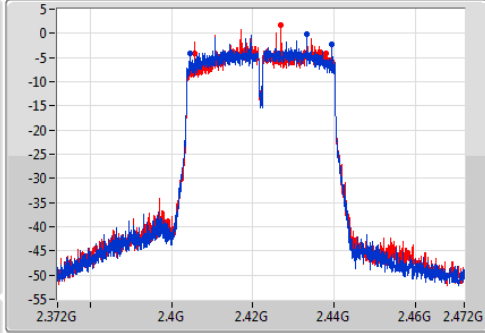
VBW  
300kHz

Sweep Time  
100ms

Detector Type  
Peak

Port 1

Port 2



Ch Freq  
2.422GHz

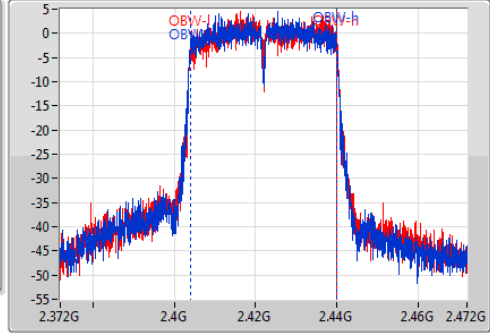
Span  
100MHz

RBW  
500kHz

VBW  
2MHz

Sweep Time  
100ms

Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35M	2.4045G	2.4395G	35.982M	2.404009G	2.439991G	500k	1
32.2M	2.4057G	2.4379G	35.982M	2.404059G	2.440041G	500k	2

802.11ac VHT40\_Nss1,(MCS0)\_2TX

EBW

2437MHz

Ch Freq  
2.437GHz

Span  
100MHz

RBW  
100kHz

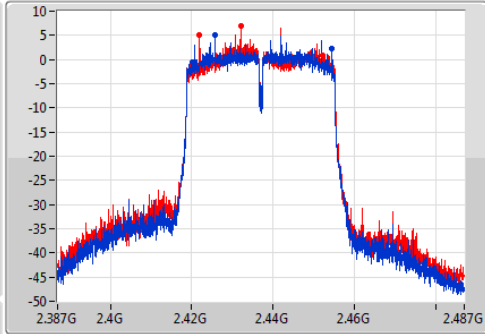
VBW  
300kHz

Sweep Time  
100ms

Detector Type  
Peak

Port 1

Port 2



Ch Freq  
2.437GHz

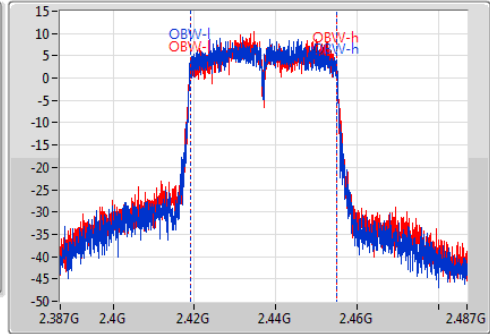
Span  
100MHz

RBW  
500kHz

VBW  
2MHz

Sweep Time  
100ms

Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.4M	2.4201G	2.4545G	36.032M	2.418909G	2.454941G	500k	1
30.35M	2.42195G	2.4523G	35.932M	2.419009G	2.454941G	500k	2

802.11ac VHT40\_Nss1,(MCS0)\_2TX

EBW

2452MHz

Ch Freq  
2.452GHz

Span  
100MHz

RBW  
100kHz

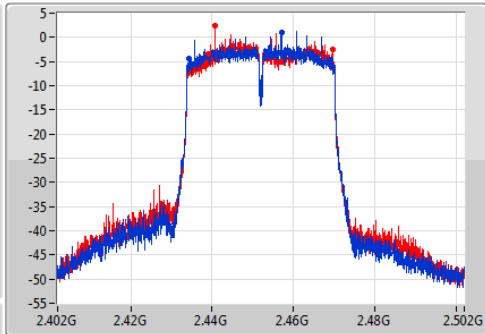
VBW  
300kHz

Sweep Time  
100ms

Detector Type  
Peak

Port 1

Port 2



Ch Freq  
2.452GHz

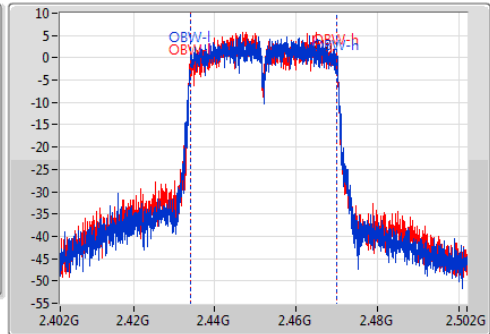
Span  
100MHz

RBW  
500kHz

VBW  
2MHz

Sweep Time  
100ms

Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.05M	2.4342G	2.46925G	36.032M	2.434009G	2.470041G	500k	1
30.45M	2.4391G	2.46955G	36.032M	2.433959G	2.469991G	500k	2



<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

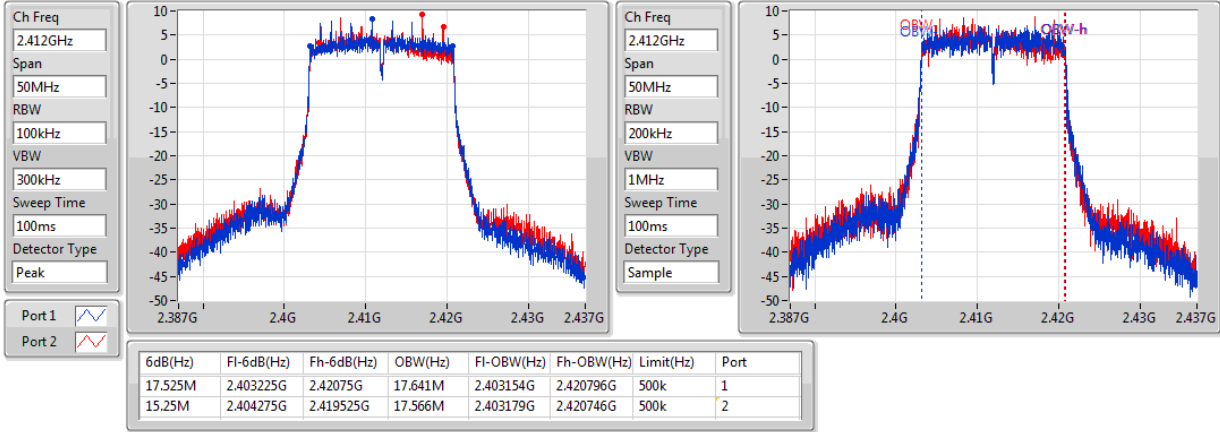
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

EBW

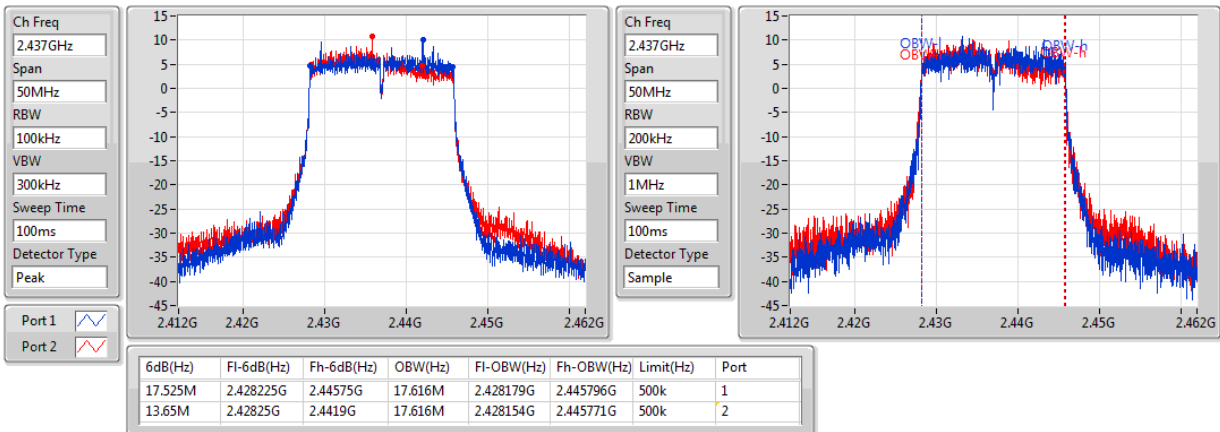
2412MHz



802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

EBW

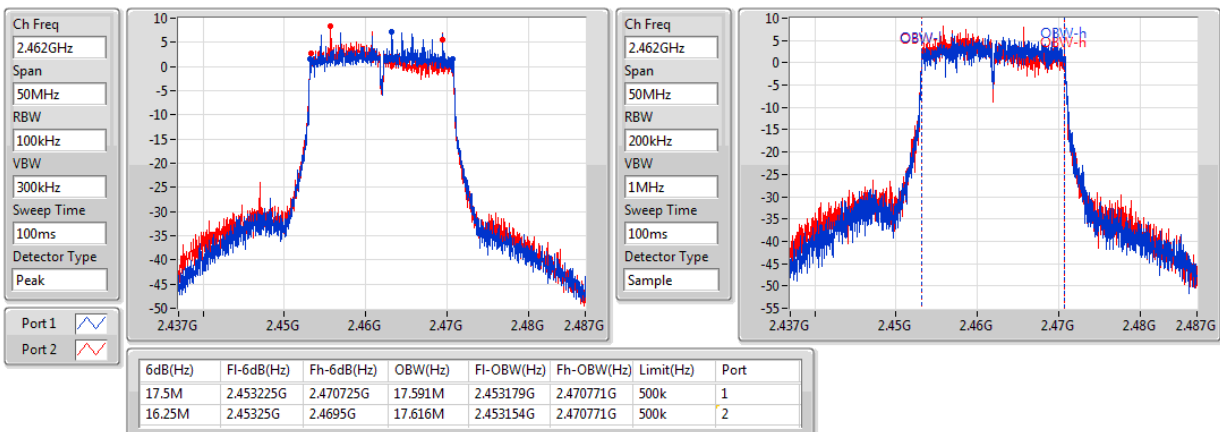
2437MHz



802.11ac VHT20-BF\_Nss1,(MCS0)\_2TX

EBW

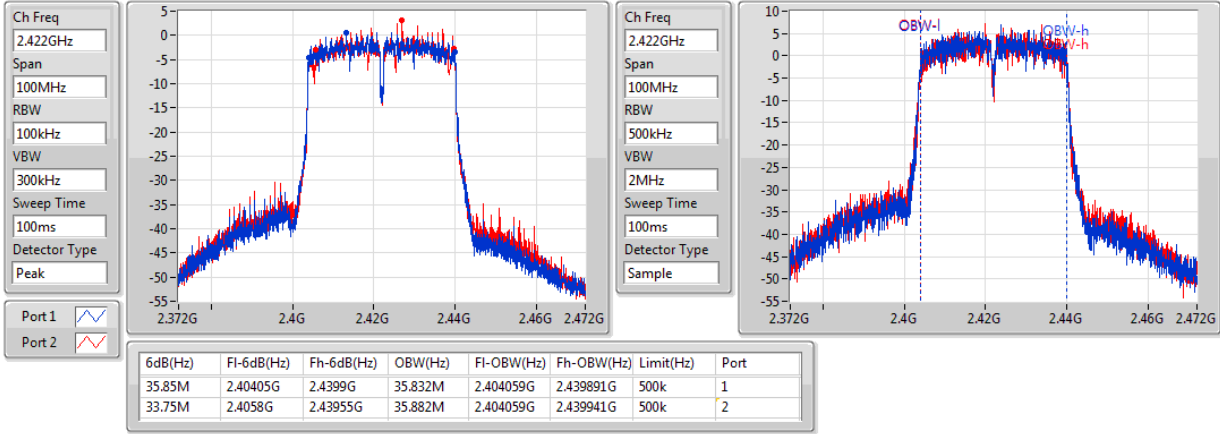
2462MHz



802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

EBW

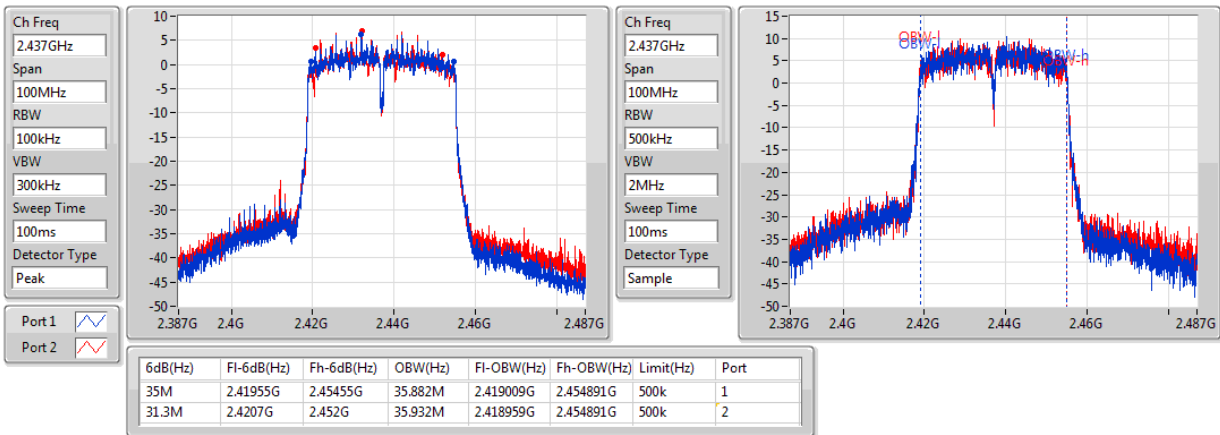
2422MHz



802.11ac VHT40-BF\_Nss1,(MCS0)\_2TX

EBW

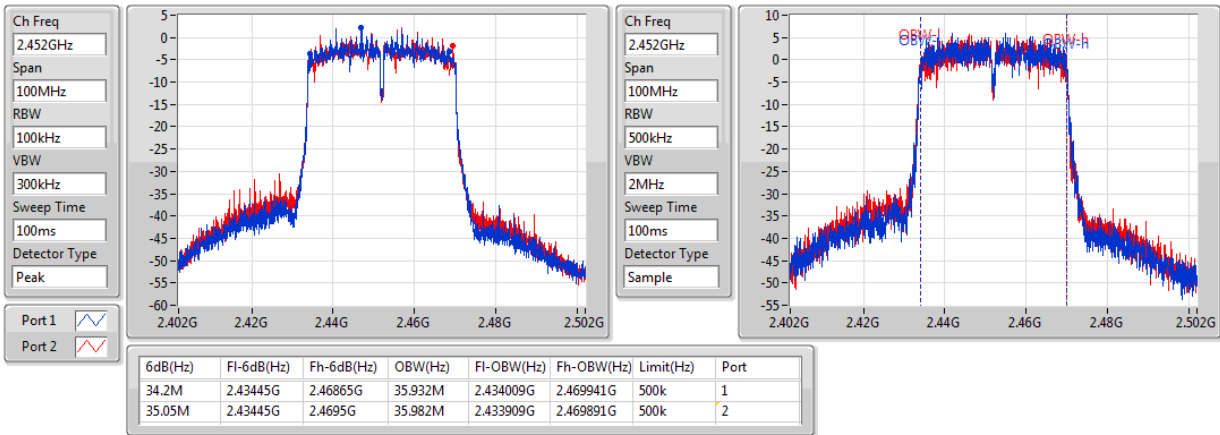
2437MHz



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;

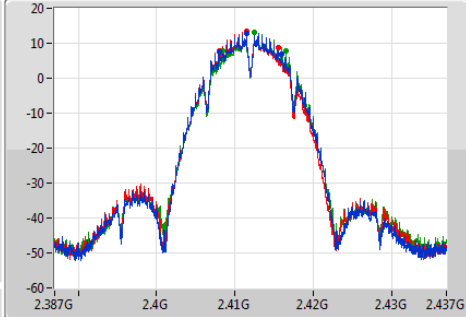


802.11b\_(1Mbps)\_3TX

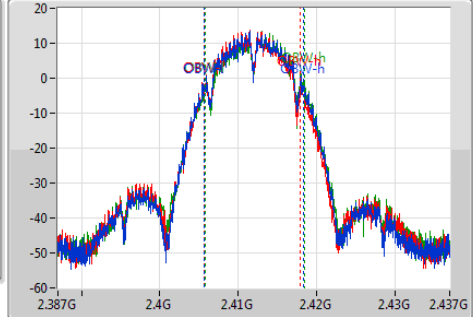
EBW

2412MHz

Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



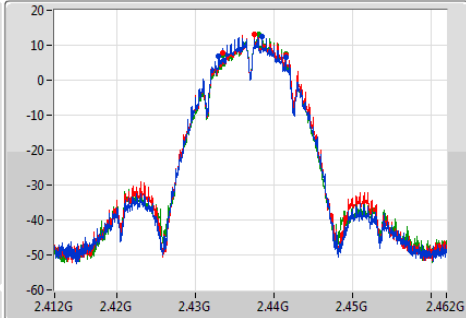
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8M	2.408G	2.416G	12.744M	2.405603G	2.418347G	500k	1
7.525M	2.407975G	2.4155G	12.344M	2.405628G	2.417972G	500k	2
8.025M	2.408475G	2.4165G	12.719M	2.405753G	2.418472G	500k	3

802.11b\_(1Mbps)\_3TX

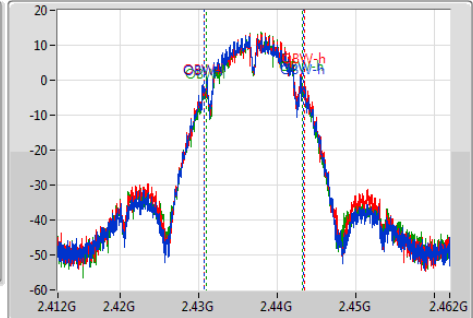
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



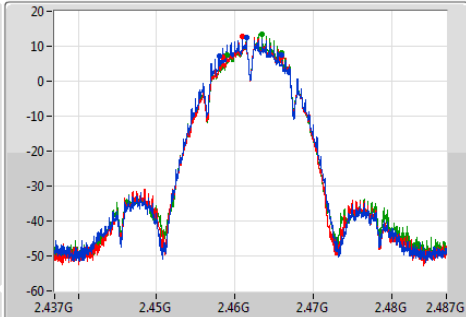
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.55M	2.43295G	2.4415G	12.694M	2.430603G	2.443297G	500k	1
8.05M	2.433475G	2.441525G	12.769M	2.430678G	2.443447G	500k	2
8.05M	2.43345G	2.4415G	12.344M	2.430878G	2.443222G	500k	3

802.11b\_(1Mbps)\_3TX

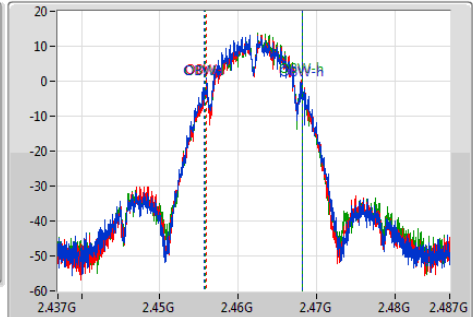
EBW

2462MHz

Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
8.025M	2.457975G	2.466G	12.594M	2.455653G	2.468247G	500k	1
7.525M	2.458475G	2.466G	12.319M	2.455878G	2.468197G	500k	2
7.05M	2.45895G	2.466G	12.294M	2.455853G	2.468147G	500k	3

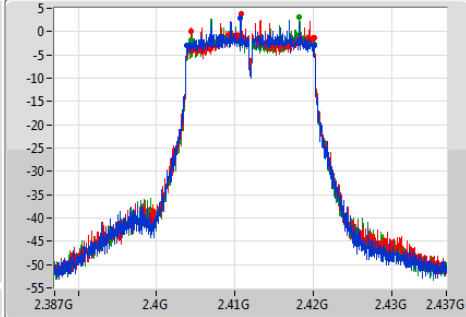


802.11g\_(6Mbps)\_3TX

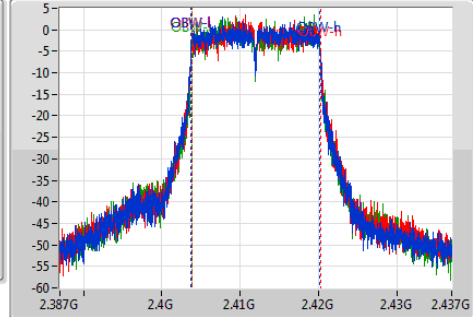
EBW

2412MHz

Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak  
Port 1  
Port 2  
Port 3



Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



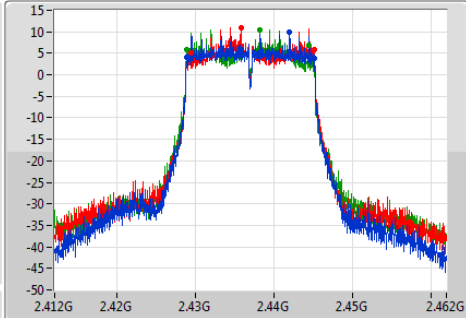
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	2.40385G	2.42015G	16.392M	2.403779G	2.420171G	500k	1
15.7M	2.40445G	2.42015G	16.417M	2.403804G	2.420221G	500k	2
15.725M	2.404425G	2.42015G	16.392M	2.403804G	2.420196G	500k	3

802.11g\_(6Mbps)\_3TX

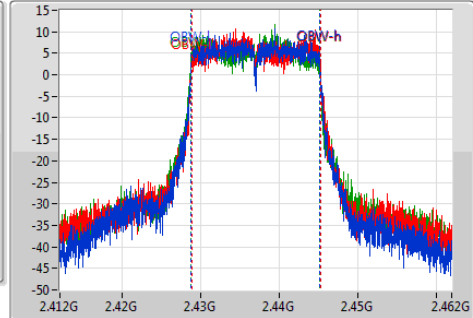
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak  
Port 1  
Port 2  
Port 3



Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



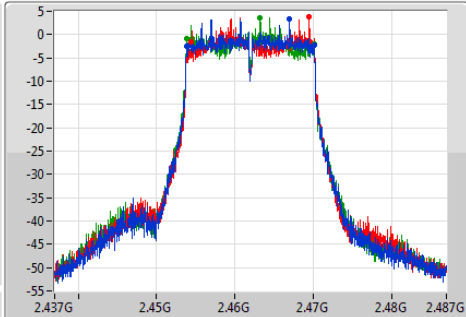
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.428825G	2.44515G	16.392M	2.428779G	2.445171G	500k	1
15.7M	2.429425G	2.445125G	16.417M	2.428804G	2.445221G	500k	2
15.675M	2.428825G	2.4445G	16.392M	2.428729G	2.445121G	500k	3

802.11g\_(6Mbps)\_3TX

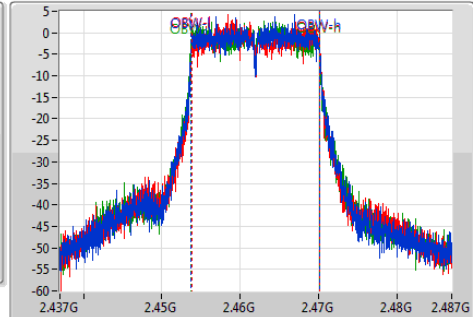
EBW

2462MHz

Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak  
Port 1  
Port 2  
Port 3



Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.453825G	2.47015G	16.392M	2.453779G	2.470171G	500k	1
15.725M	2.454425G	2.47015G	16.392M	2.453804G	2.470196G	500k	2
16.3M	2.453825G	2.470125G	16.467M	2.453704G	2.470171G	500k	3

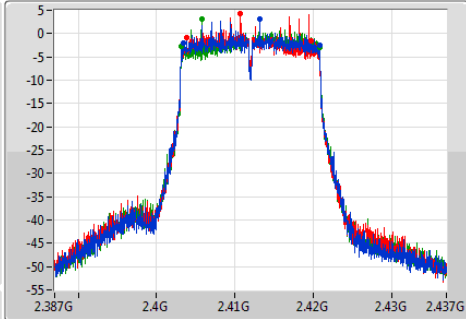


802.11ac VHT20\_Nss1,(MCS0)\_3TX

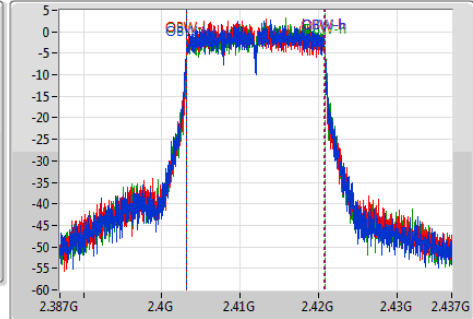
EBW

2412MHz

Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak  
Port 1  
Port 2  
Port 3



Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



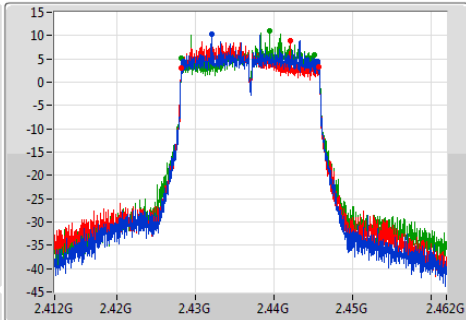
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.3M	2.403475G	2.420775G	17.641M	2.403154G	2.420796G	500k	1
15.9M	2.40385G	2.41975G	17.566M	2.403179G	2.420746G	500k	2
17.55M	2.403225G	2.420775G	17.591M	2.403204G	2.420796G	500k	3

802.11ac VHT20\_Nss1,(MCS0)\_3TX

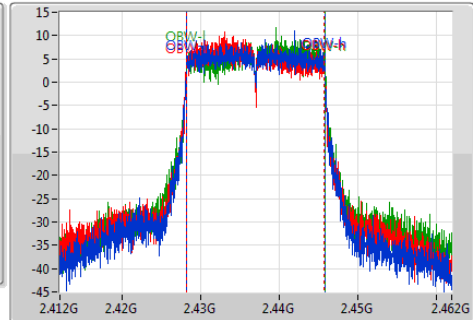
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak  
Port 1  
Port 2  
Port 3



Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



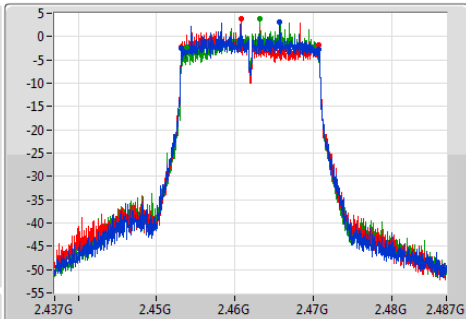
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.025M	2.428475G	2.4455G	17.616M	2.428179G	2.445796G	500k	1
17.575M	2.428175G	2.44575G	17.641M	2.428129G	2.445771G	500k	2
16.9M	2.428225G	2.445125G	17.666M	2.428154G	2.445821G	500k	3

802.11ac VHT20\_Nss1,(MCS0)\_3TX

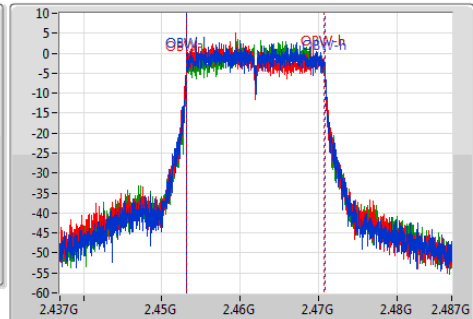
EBW

2462MHz

Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak  
Port 1  
Port 2  
Port 3



Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



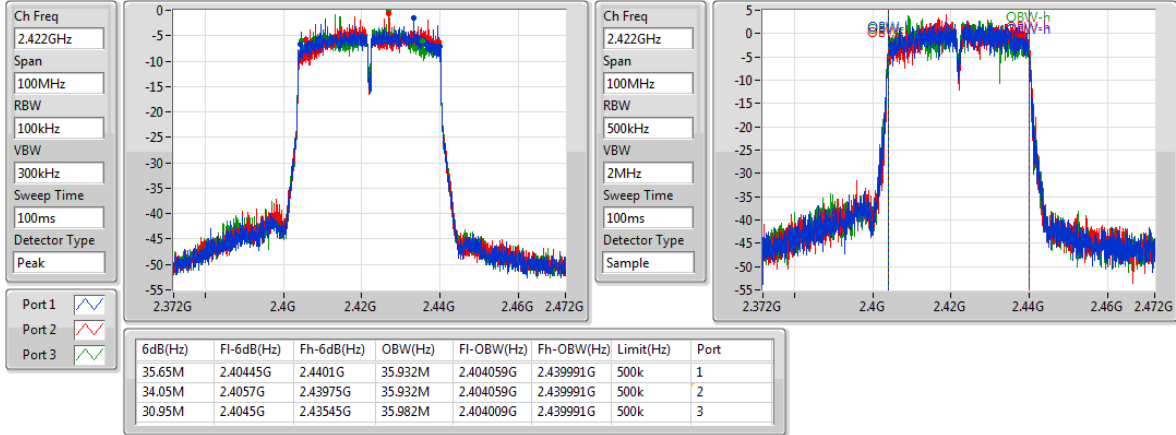
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.4532G	2.47075G	17.641M	2.453154G	2.470796G	500k	1
17.525M	2.4532G	2.470725G	17.641M	2.453129G	2.470771G	500k	2
16.525M	2.45385G	2.470375G	17.566M	2.453204G	2.470771G	500k	3



802.11ac VHT40\_Nss1,(MCS0)\_3TX

EBW

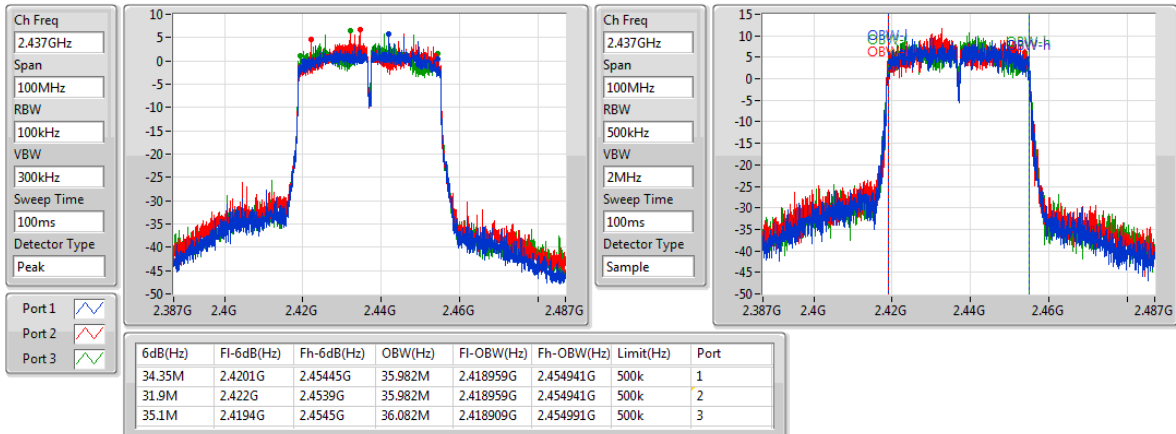
2422MHz



802.11ac VHT40\_Nss1,(MCS0)\_3TX

EBW

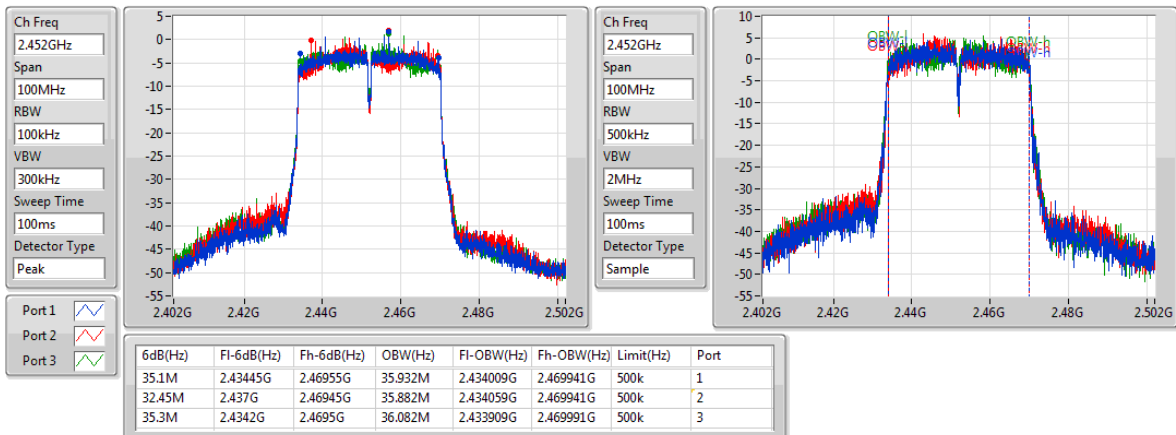
2437MHz



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;

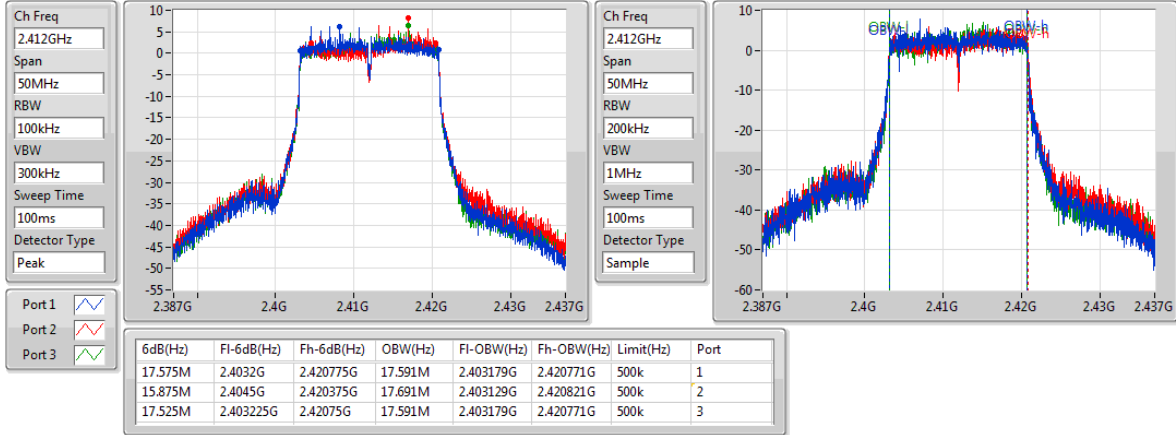




802.11ac VHT20-BF\_Nss1,(MCS0)\_3TX

EBW

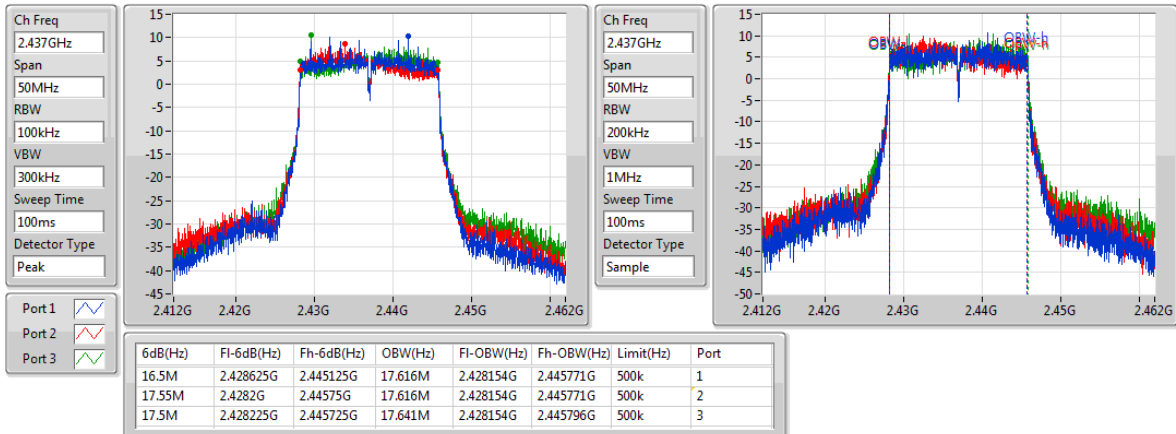
2412MHz



802.11ac VHT20-BF\_Nss1,(MCS0)\_3TX

EBW

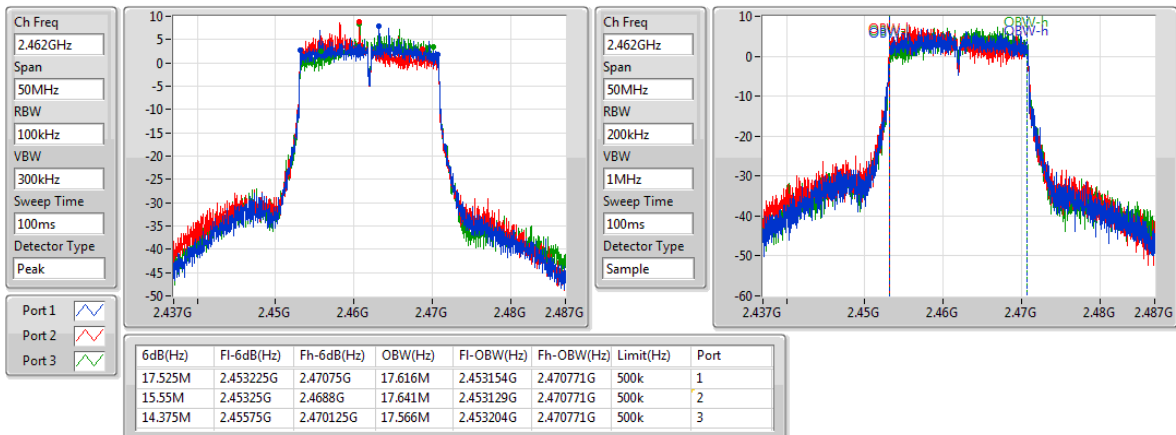
2437MHz



802.11ac VHT20-BF\_Nss1,(MCS0)\_3TX

EBW

2462MHz



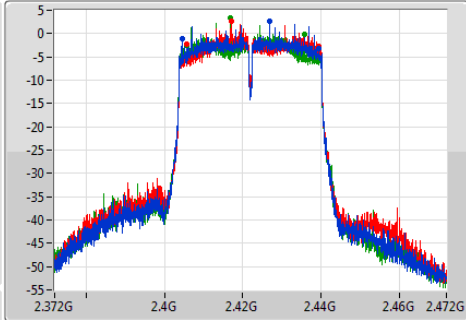


802.11ac VHT40-BF\_Nss1,(MCS0)\_3TX

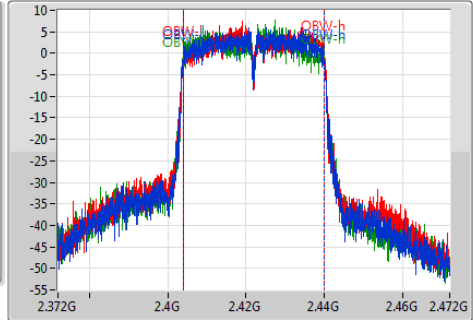
EBW

2422MHz

Ch Freq  
2.422GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.422GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



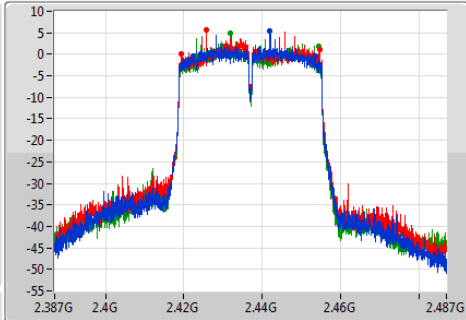
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.9M	2.4045G	2.4394G	35.932M	2.404009G	2.439941G	500k	1
33.8M	2.4057G	2.4395G	35.932M	2.404059G	2.439991G	500k	2
30.05M	2.40565G	2.4357G	36.032M	2.403959G	2.439991G	500k	3

802.11ac VHT40-BF\_Nss1,(MCS0)\_3TX

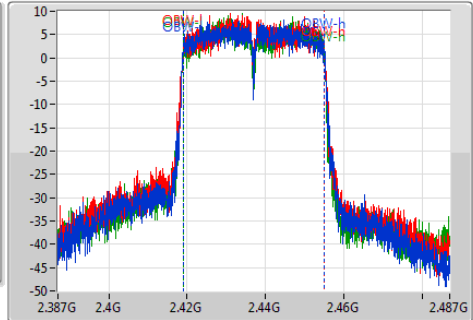
EBW

2437MHz

Ch Freq  
2.437GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



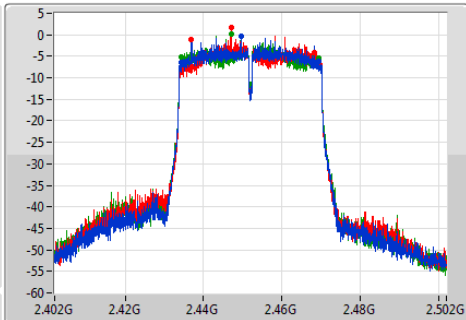
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
31.15M	2.42235G	2.4535G	35.932M	2.419009G	2.454941G	500k	1
35.1M	2.41945G	2.45455G	35.932M	2.419059G	2.454991G	500k	2
31.5M	2.423G	2.4545G	35.932M	2.418959G	2.454891G	500k	3

802.11ac VHT40-BF\_Nss1,(MCS0)\_3TX

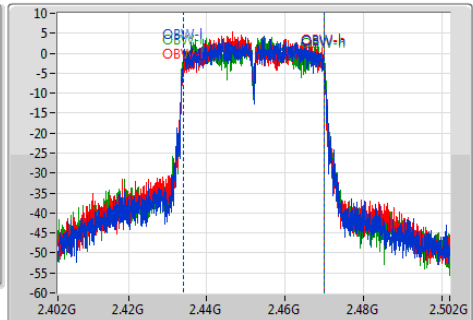
EBW

2452MHz

Ch Freq  
2.452GHz  
Span  
100MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.452GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.05M	2.43445G	2.4695G	35.882M	2.434059G	2.469941G	500k	1
31.3M	2.43695G	2.46825G	35.882M	2.434059G	2.469941G	500k	2
35.05M	2.43445G	2.4695G	36.082M	2.433909G	2.469991G	500k	3



**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

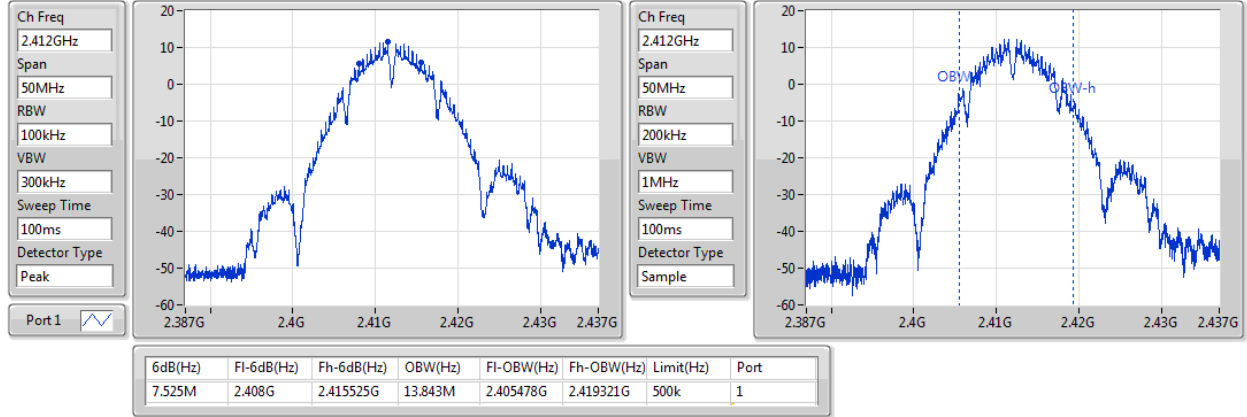
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



### 802.11b\_(1Mbps)\_1TX

EBW

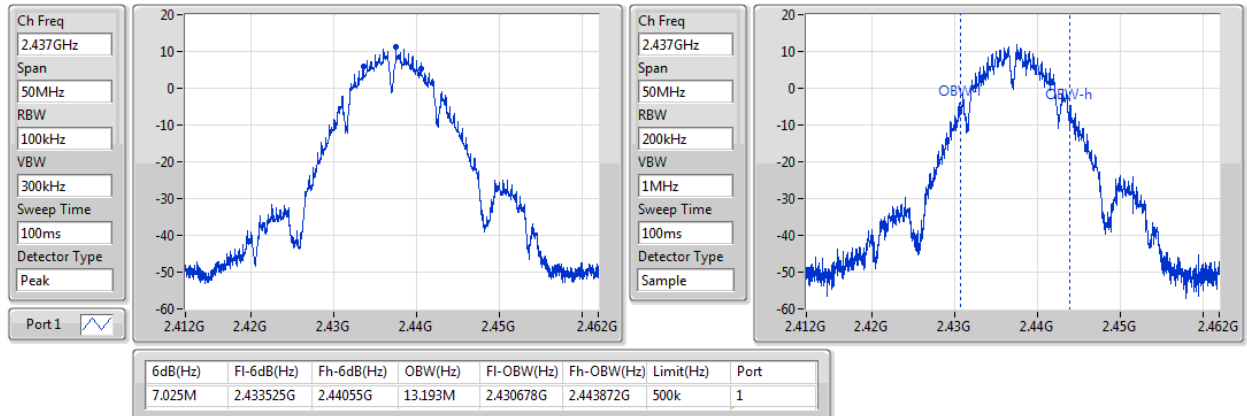
2412MHz



### 802.11b\_(1Mbps)\_1TX

EBW

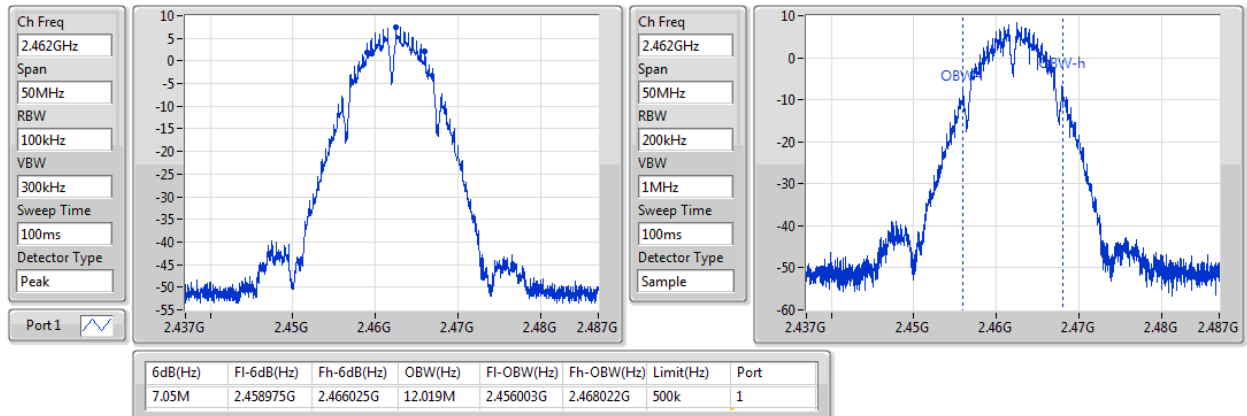
2437MHz



### 802.11b\_(1Mbps)\_1TX

EBW

2462MHz

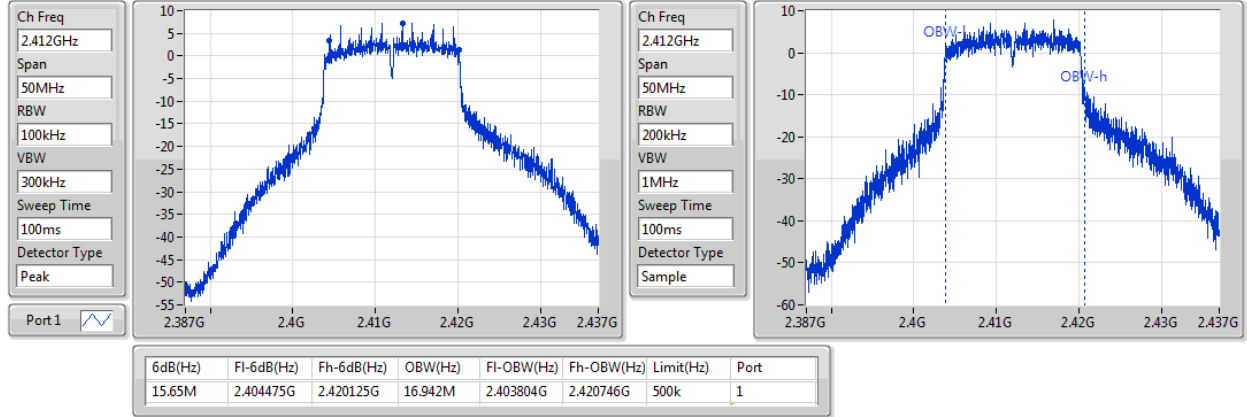




### 802.11g\_(6Mbps)\_1TX

EBW

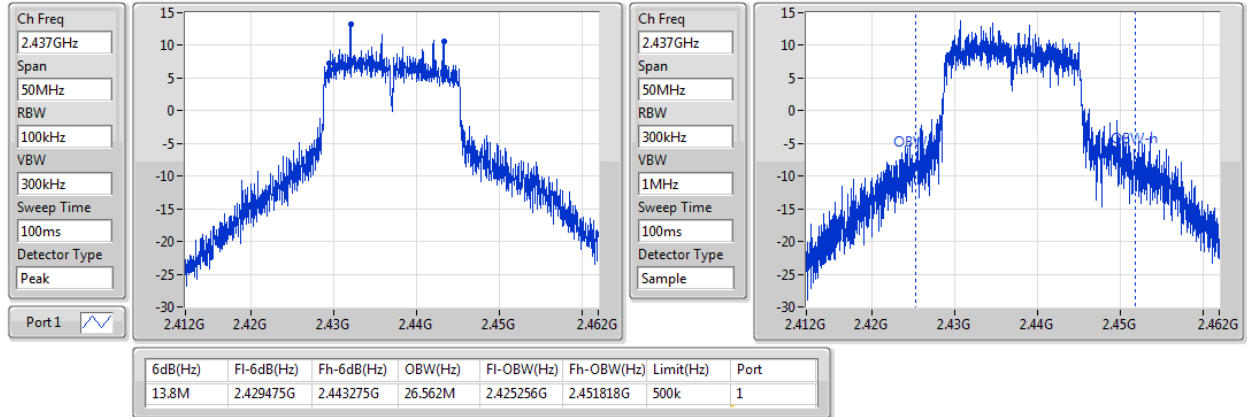
2412MHz



### 802.11g\_(6Mbps)\_1TX

EBW

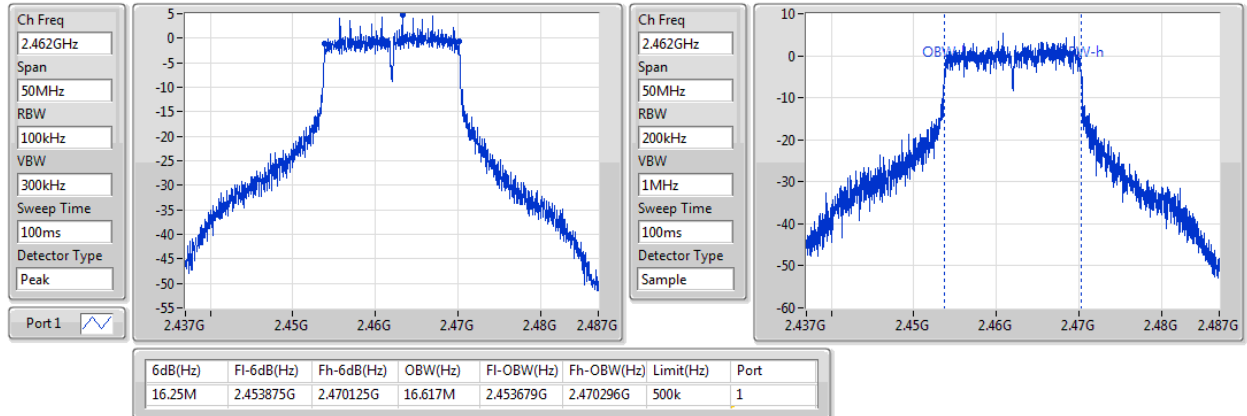
2437MHz



### 802.11g\_(6Mbps)\_1TX

EBW

2462MHz

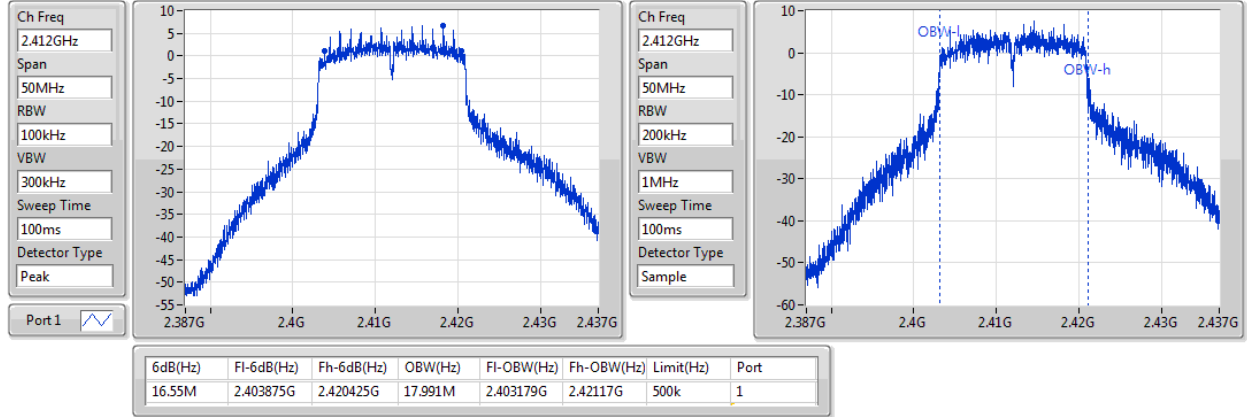




802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

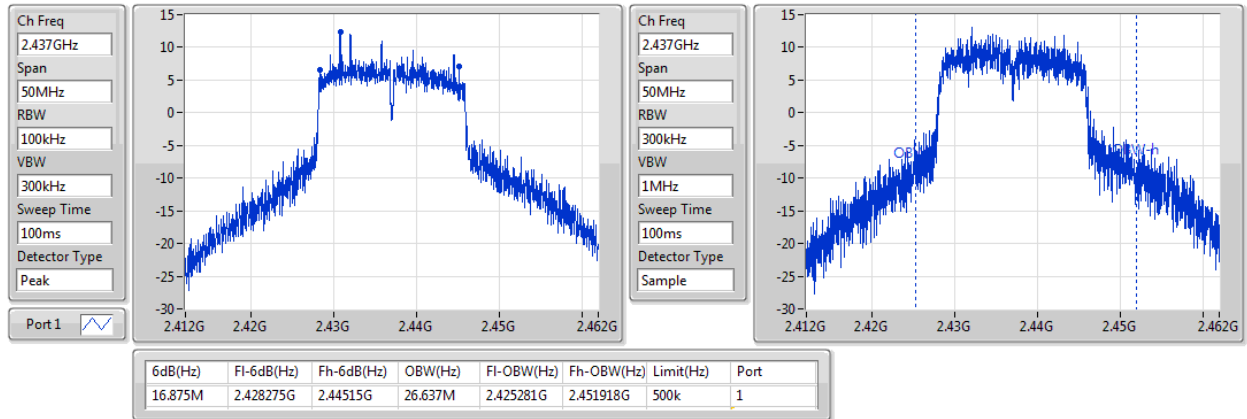
2412MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

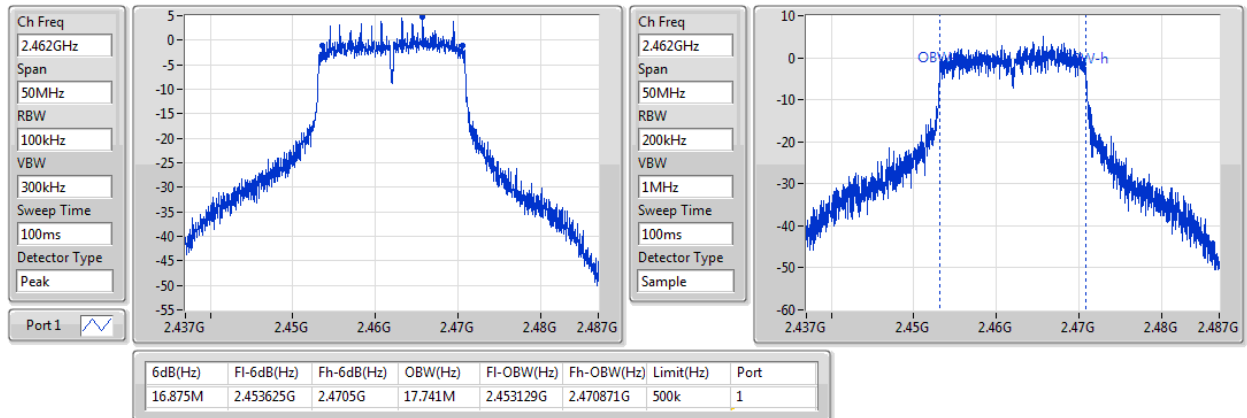
2437MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

2462MHz

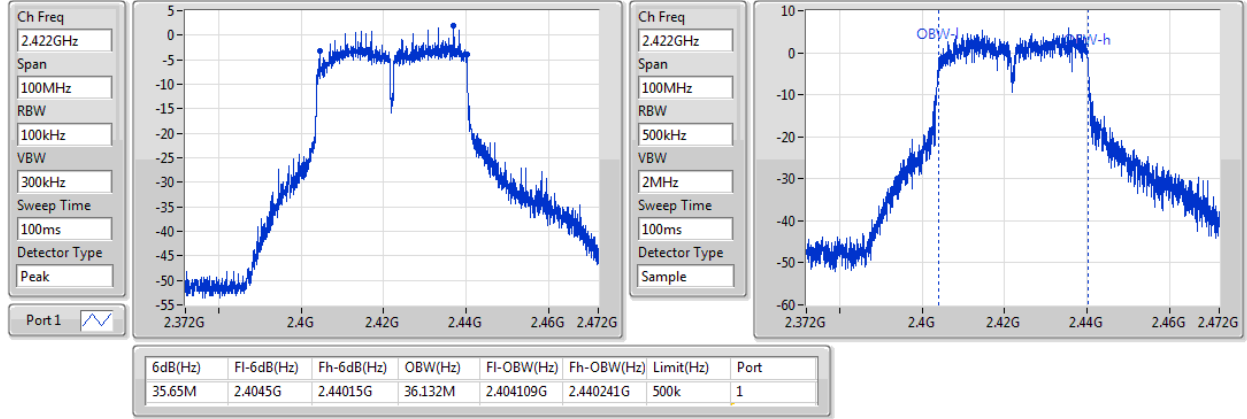




802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

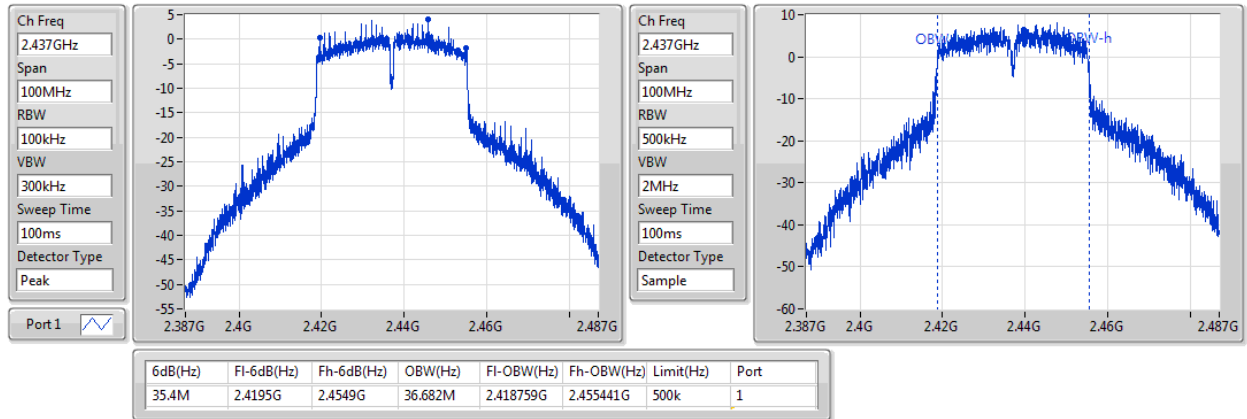
2422MHz



802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

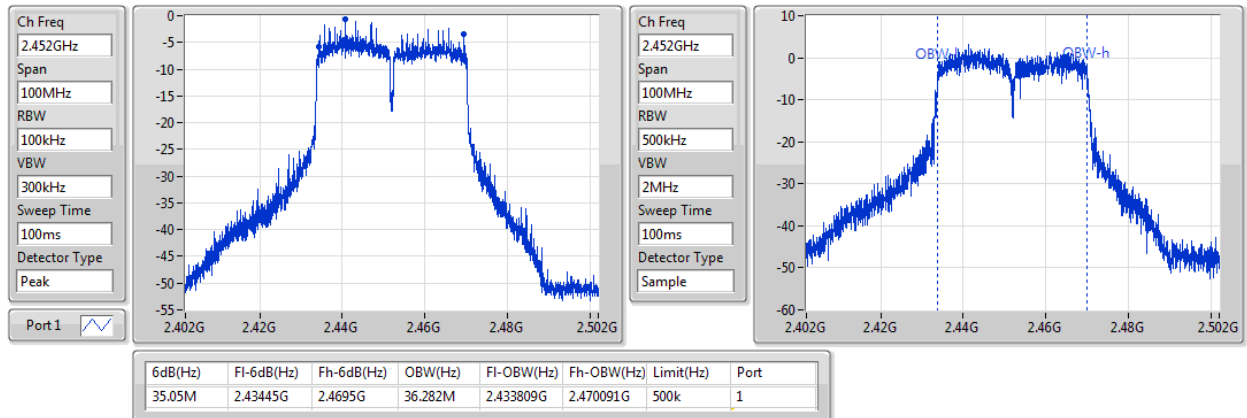
2437MHz



802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

2452MHz





**For Set 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

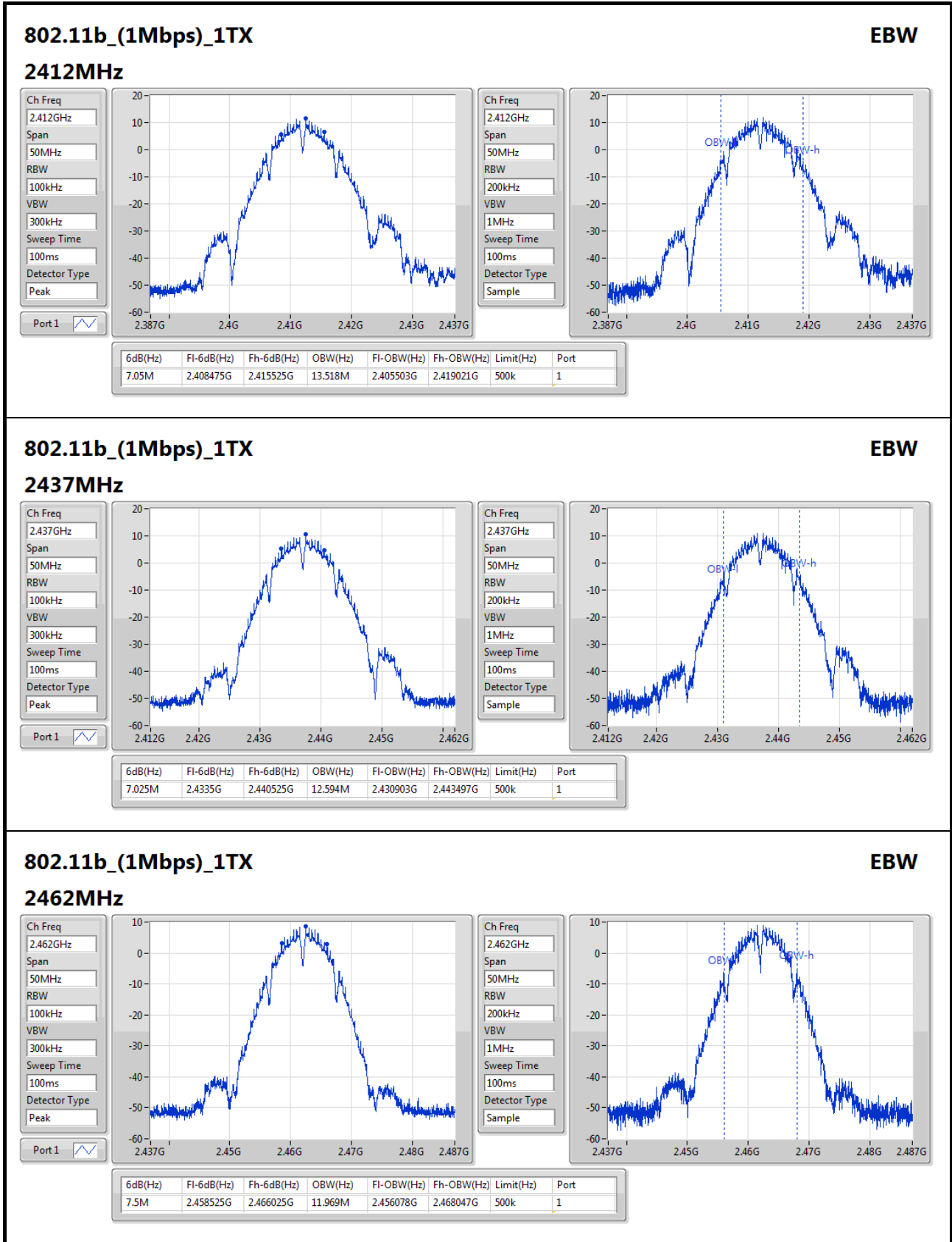
**Max-N dB** = Maximum 6dB down bandwidth; **Max-OBW** = Maximum 99% occupied bandwidth;  
**Min-N dB** = Minimum 6dB down bandwidth; **Min-OBW** = Minimum 99% occupied bandwidth;

**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;



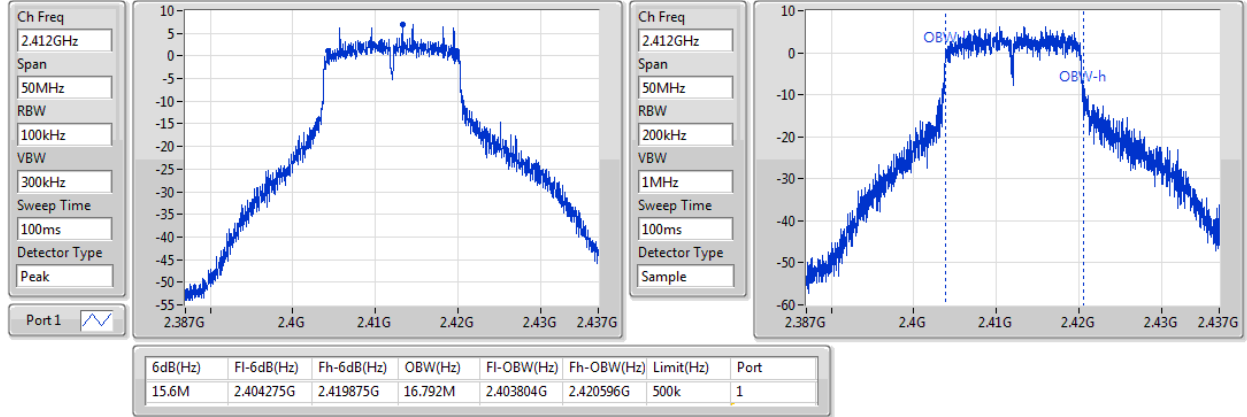




### 802.11g\_(6Mbps)\_1TX

EBW

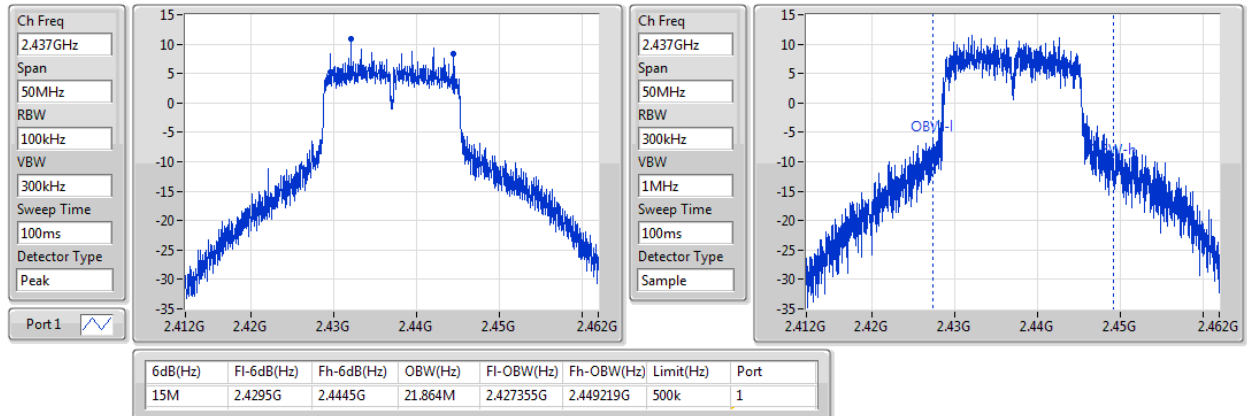
2412MHz



### 802.11g\_(6Mbps)\_1TX

EBW

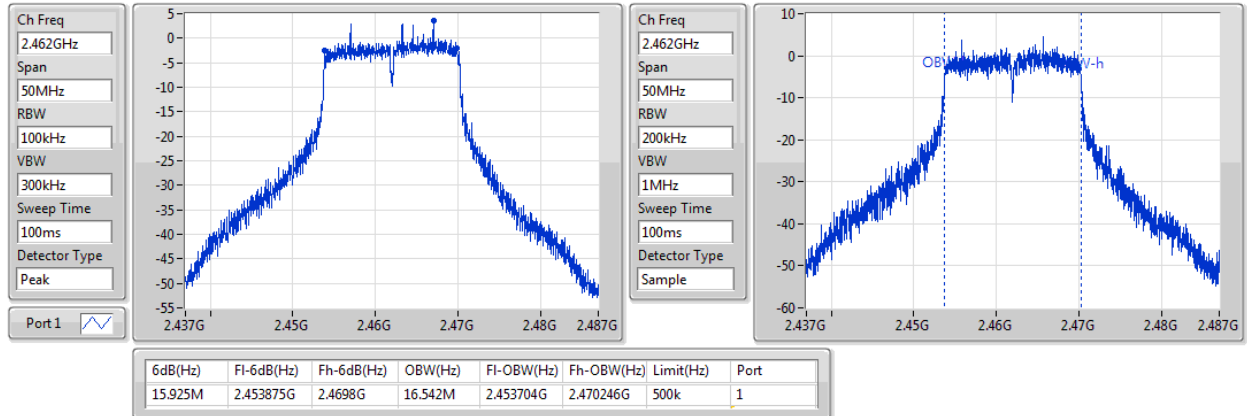
2437MHz



### 802.11g\_(6Mbps)\_1TX

EBW

2462MHz

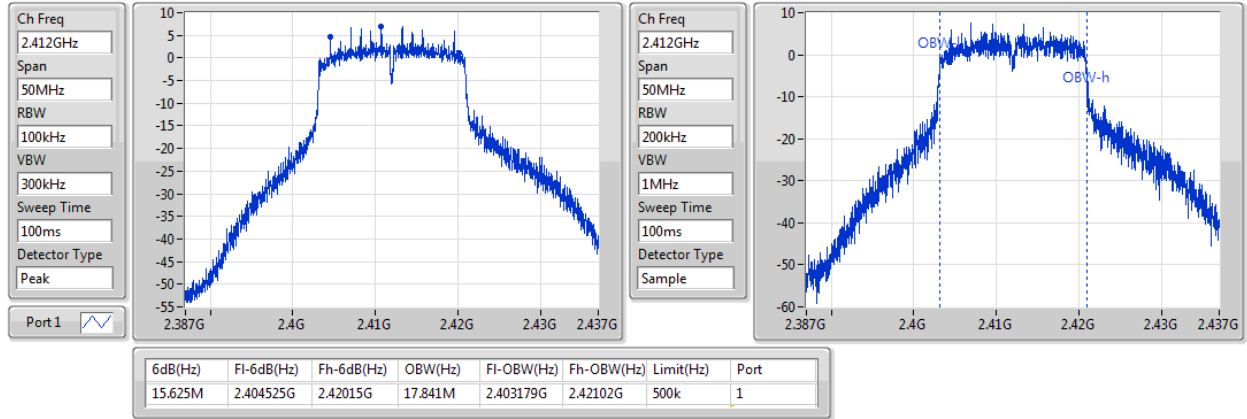




802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

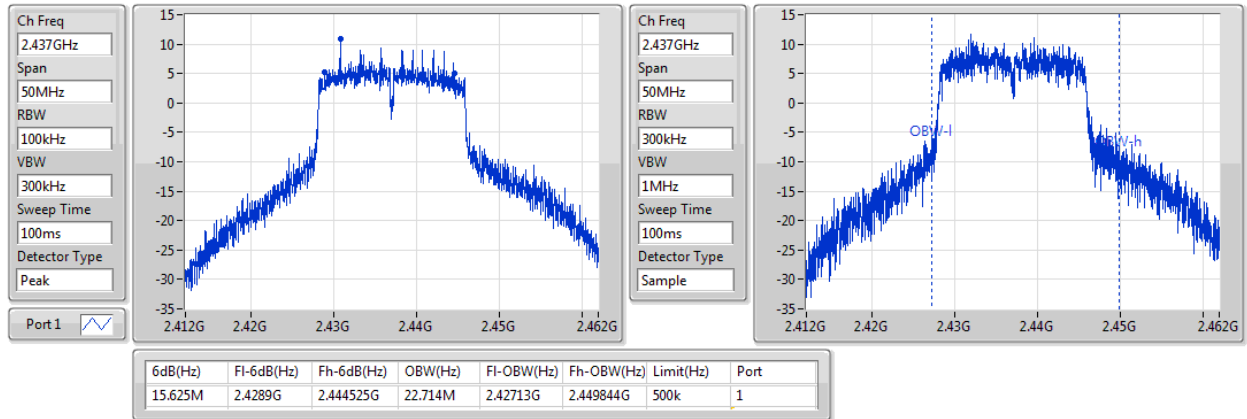
2412MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

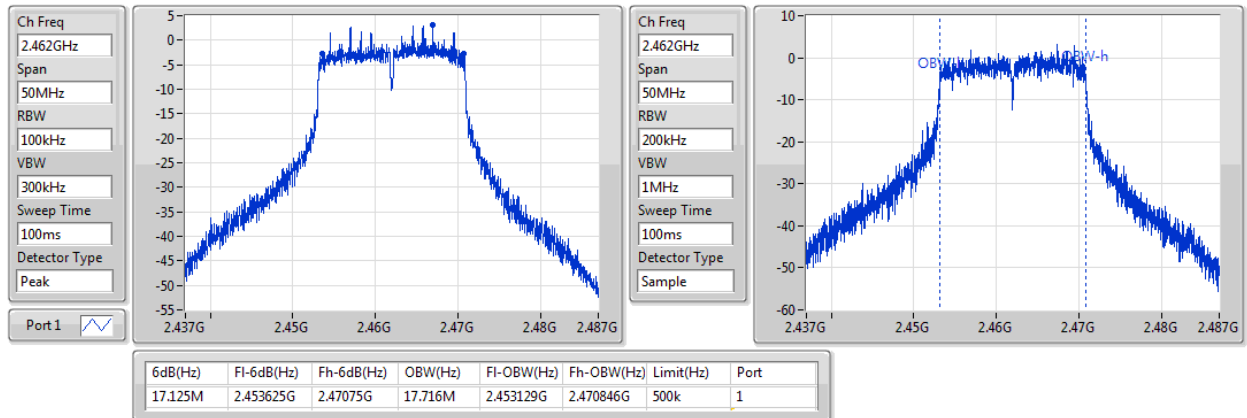
2437MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

2462MHz

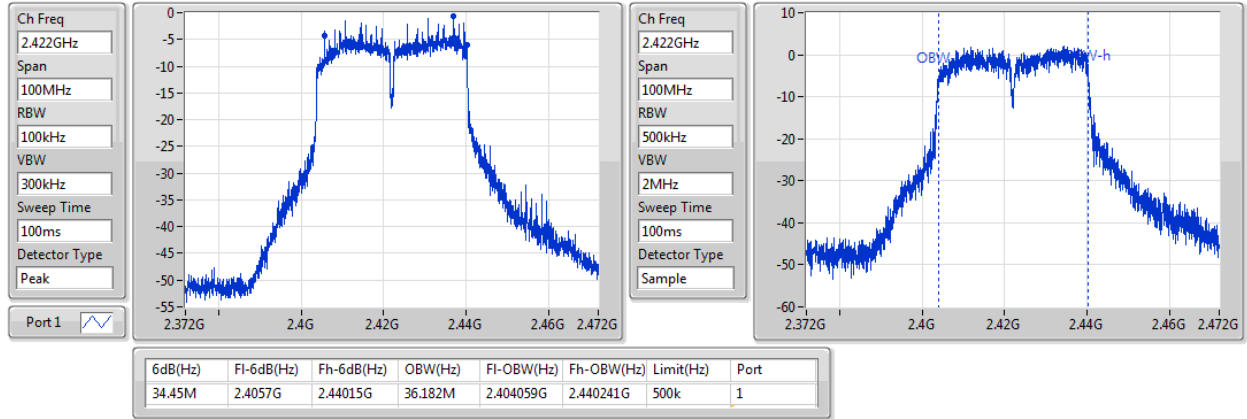




802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

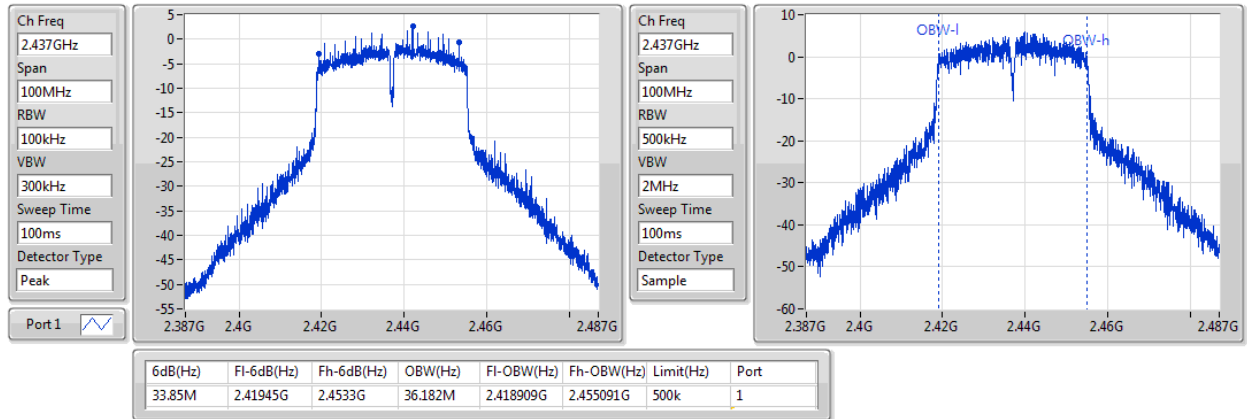
2422MHz



802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

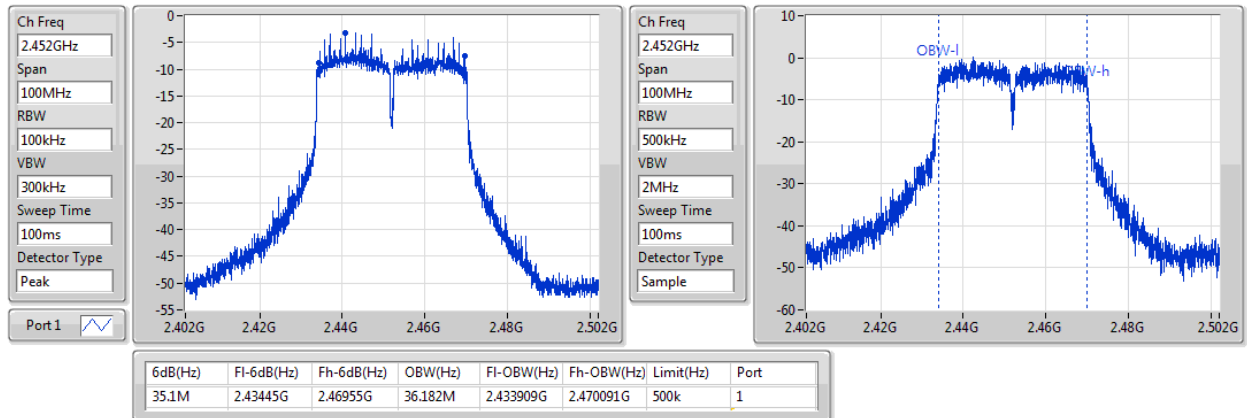
2437MHz



802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

2452MHz





**For Set 4 antennas / 1TX:  
Summary**

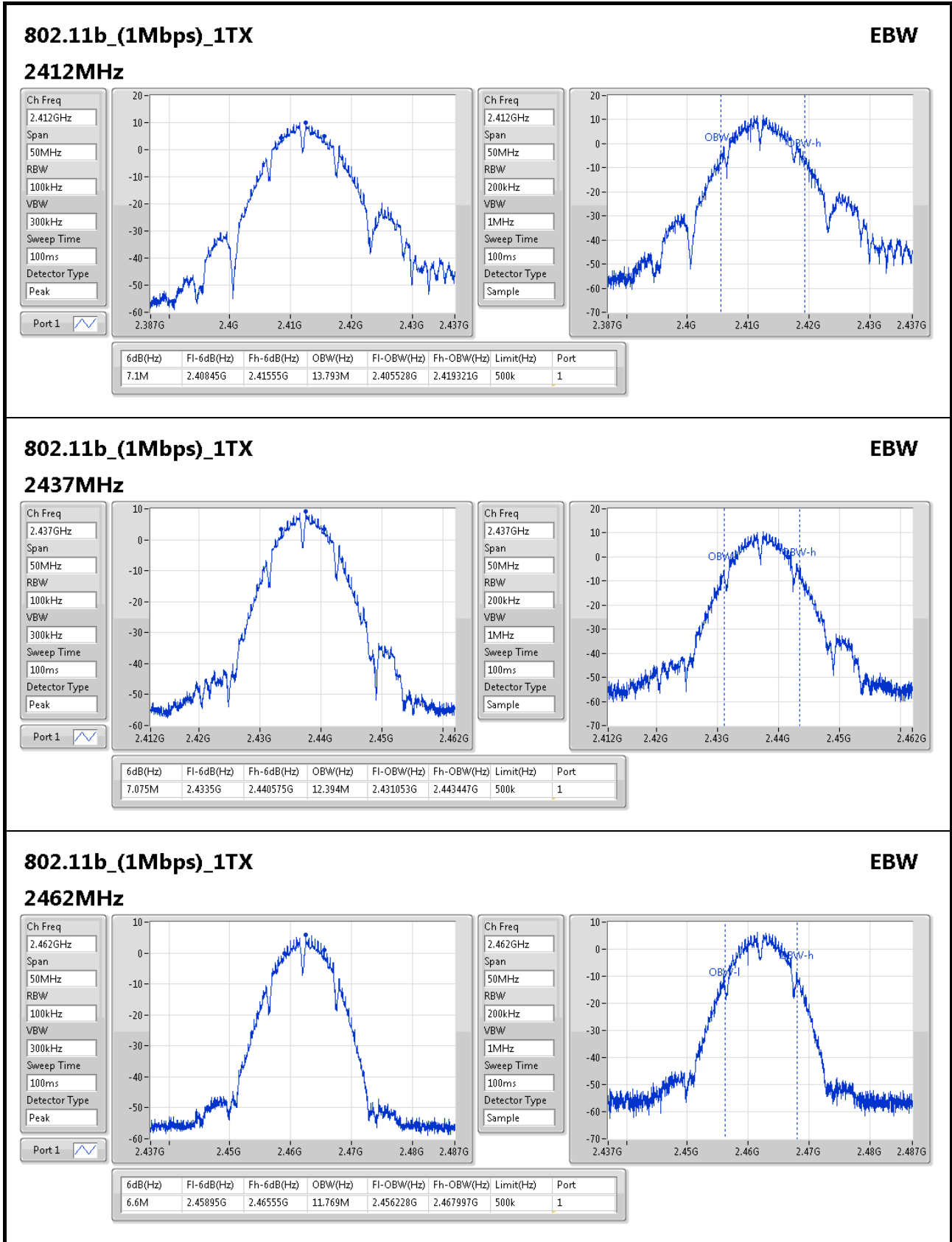
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	7.1M	13.793M	13M8G1D	6.6M	11.769M
802.11g_(6Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	16.3M	24.438M	24M4D1D	14.95M	16.567M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	16.5M	25.287M	25M3D1D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

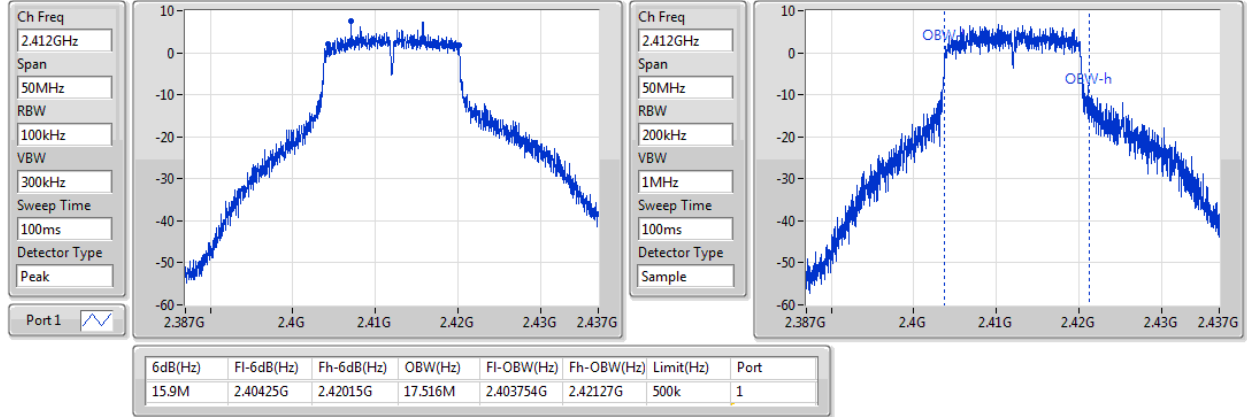




### 802.11g\_(6Mbps)\_1TX

EBW

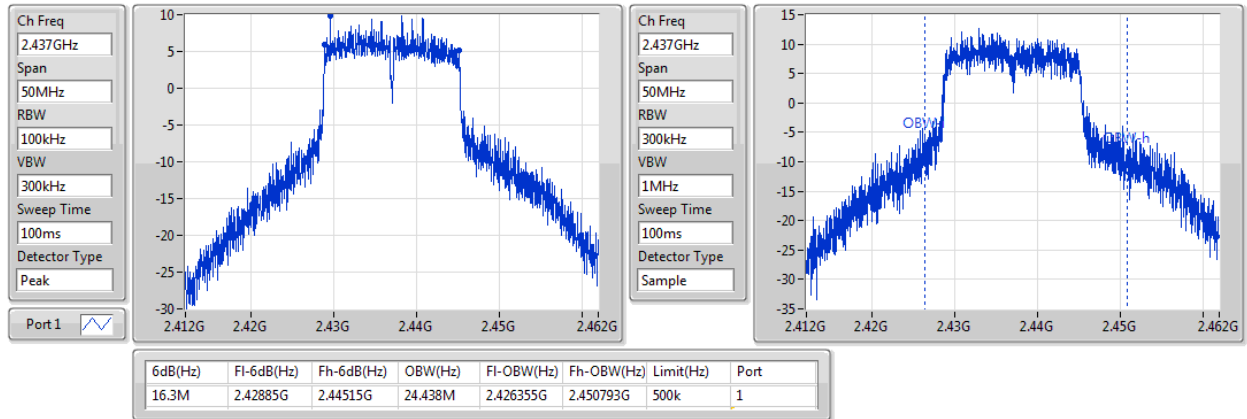
2412MHz



### 802.11g\_(6Mbps)\_1TX

EBW

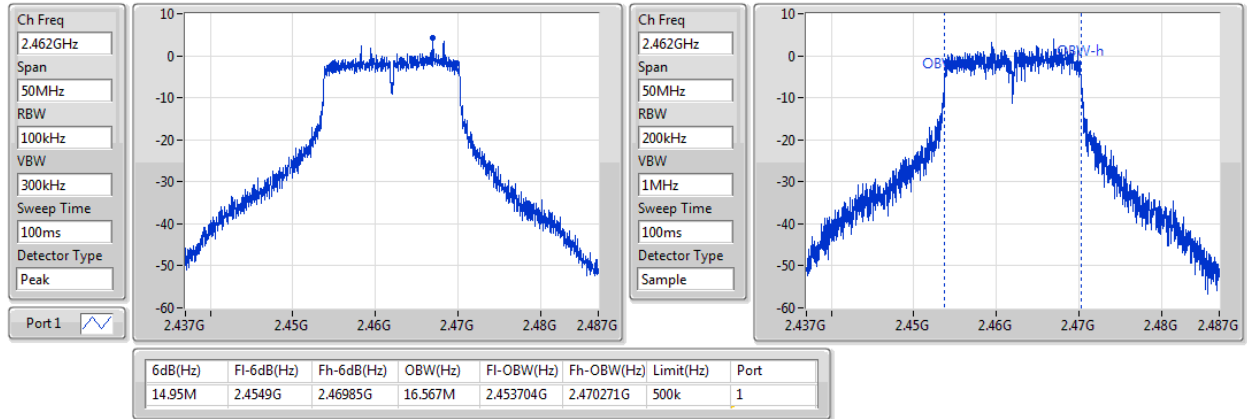
2437MHz



### 802.11g\_(6Mbps)\_1TX

EBW

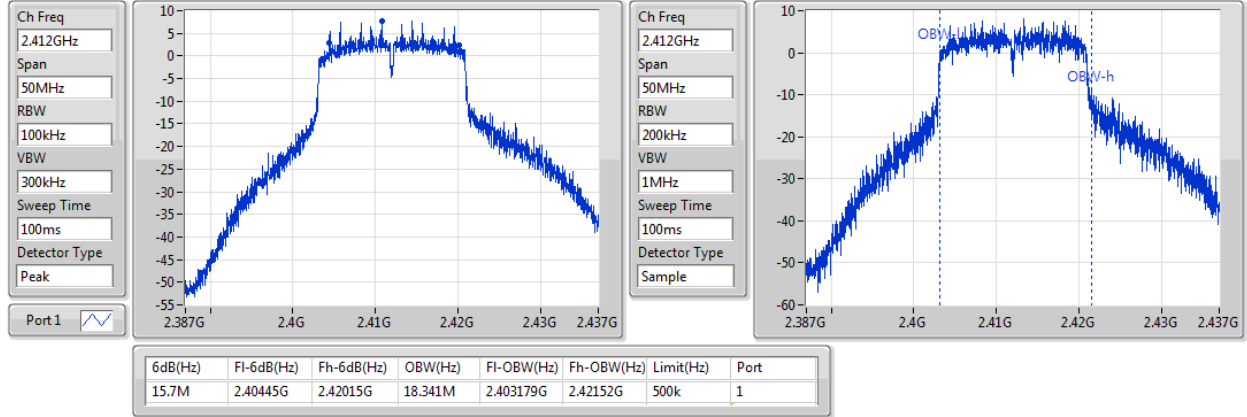
2462MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

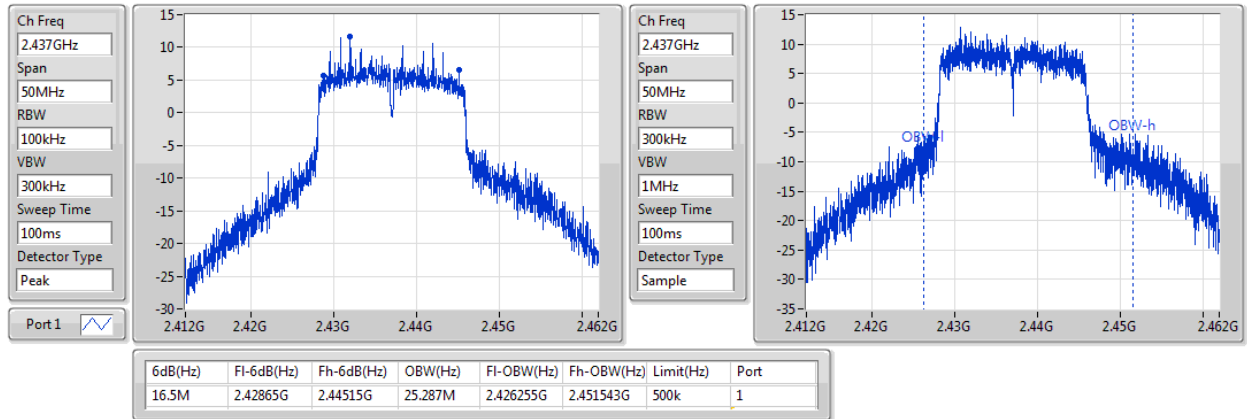
2412MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

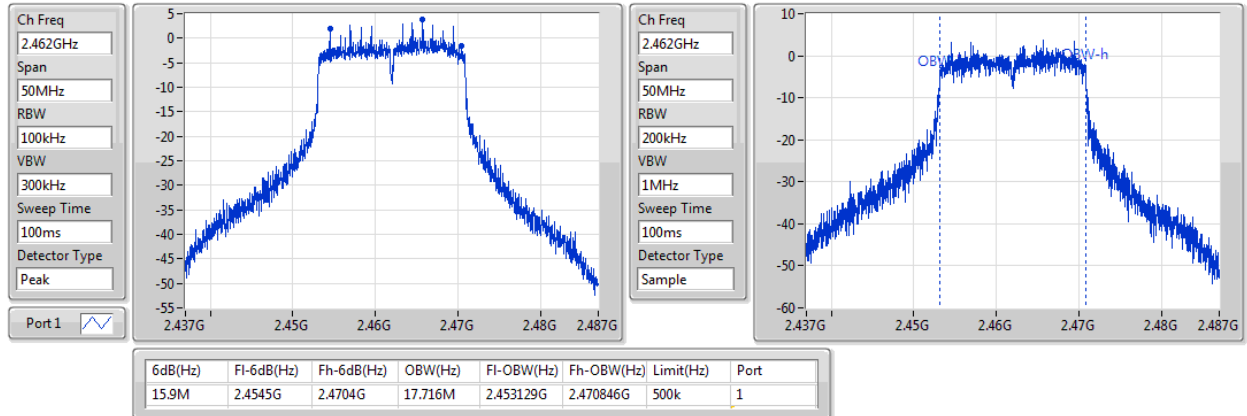
2437MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

2462MHz



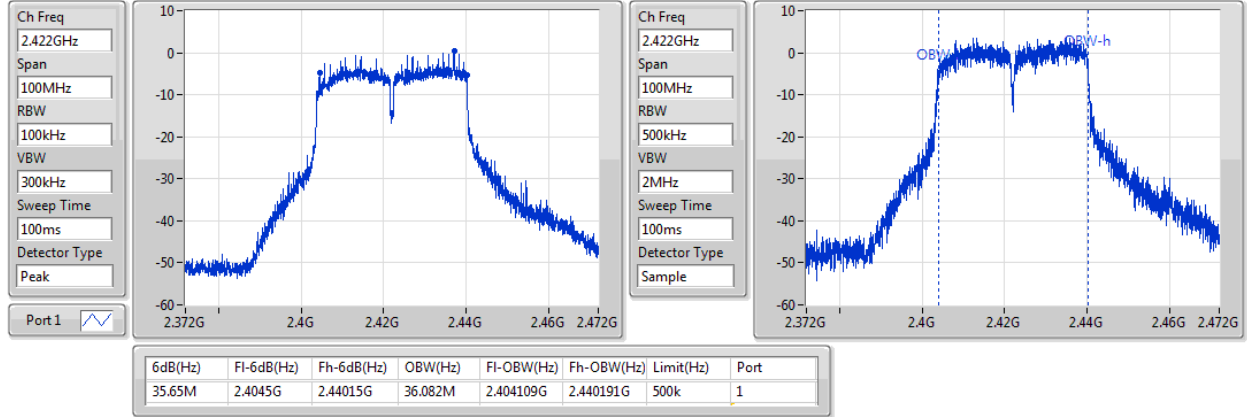




802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

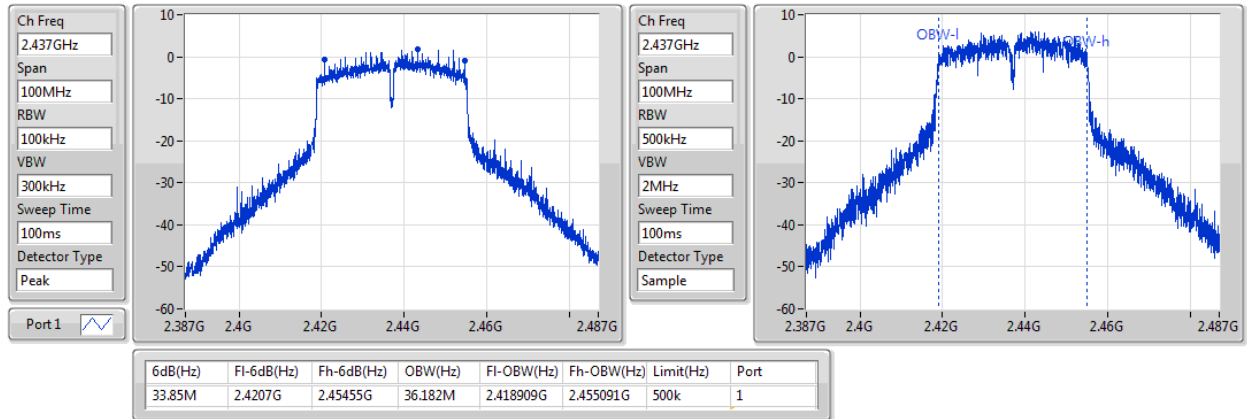
2422MHz



802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

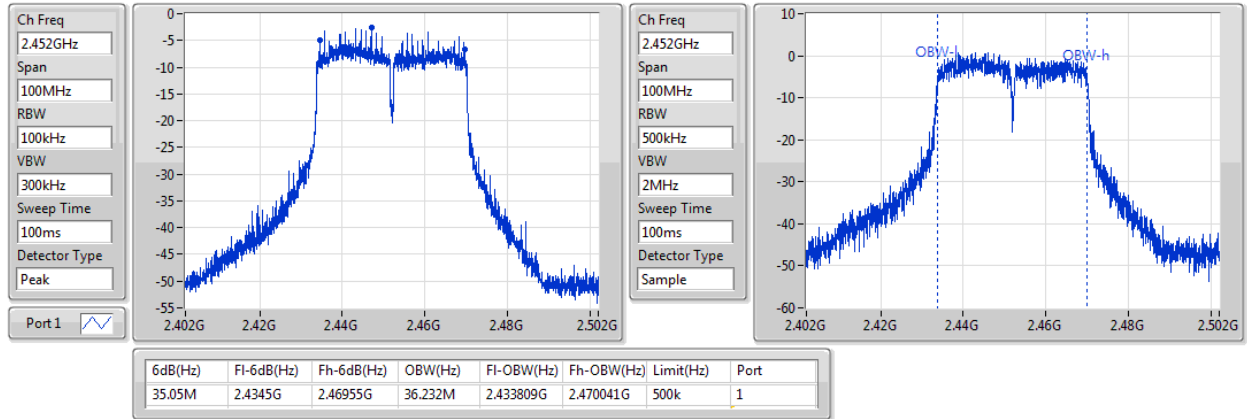
2437MHz



802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

2452MHz





**For Set 5 antennas / 1TX:  
Summary**

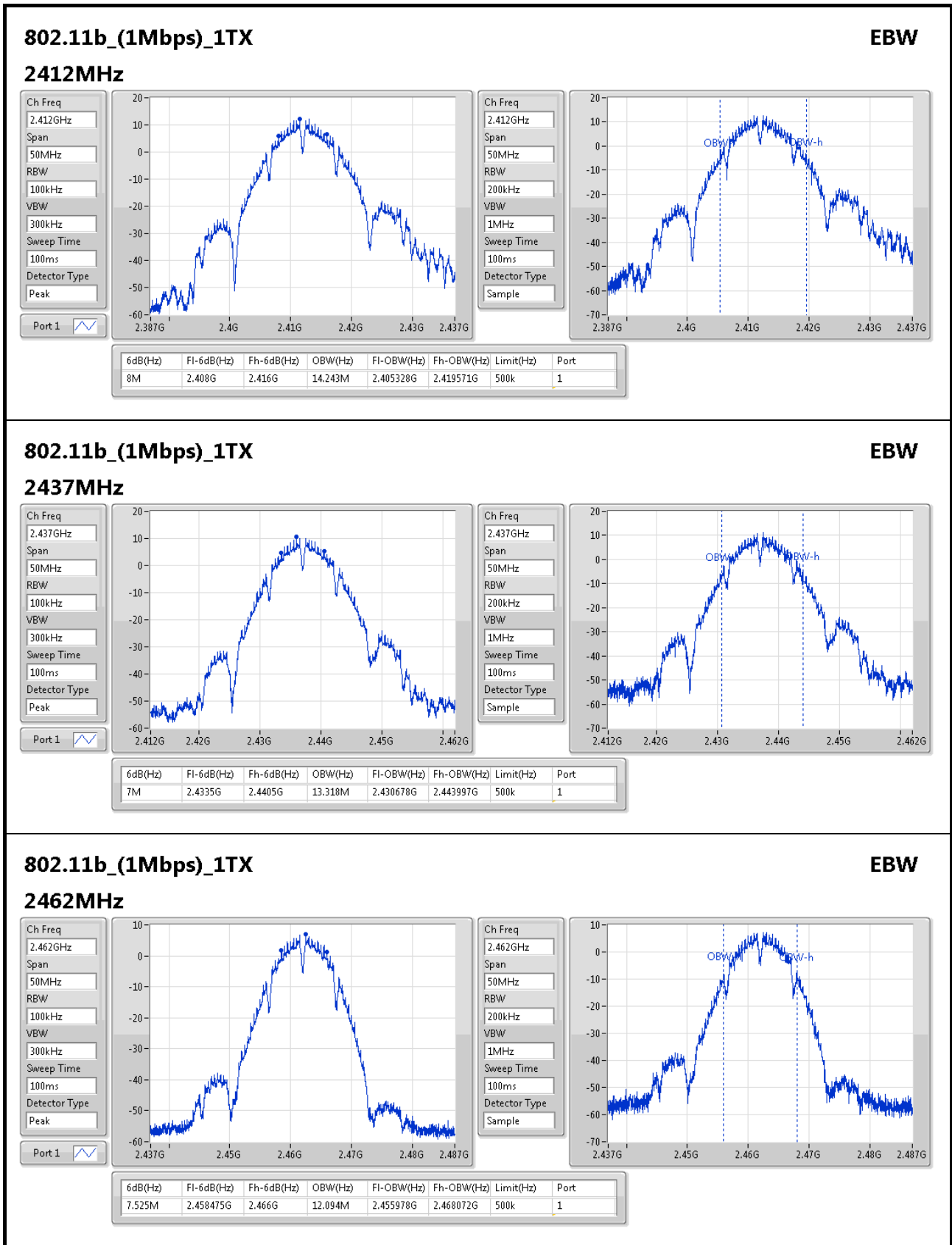
Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
802.11b_(1Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	8M	14.243M	14M2G1D	7M	12.094M
802.11g_(6Mbps)_1TX	-	-	-	-	-
2.4-2.4835GHz	15.95M	24.638M	24M6D1D	15.75M	16.592M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2.4-2.4835GHz	15.675M	24.913M	24M9D1D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

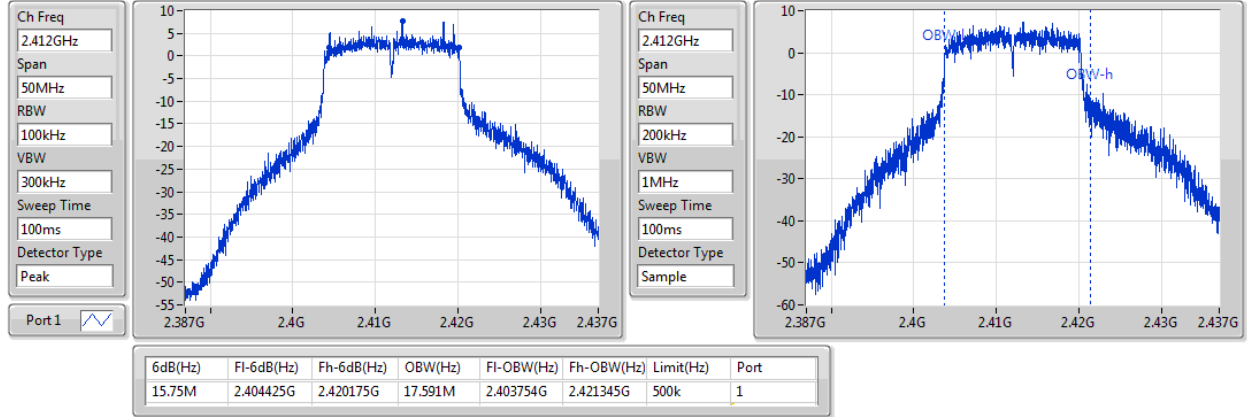




### 802.11g\_(6Mbps)\_1TX

EBW

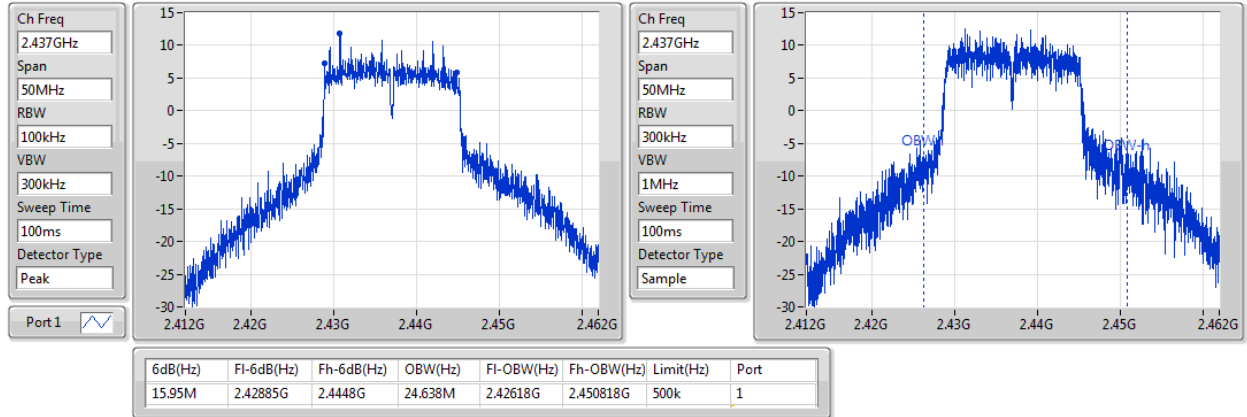
2412MHz



### 802.11g\_(6Mbps)\_1TX

EBW

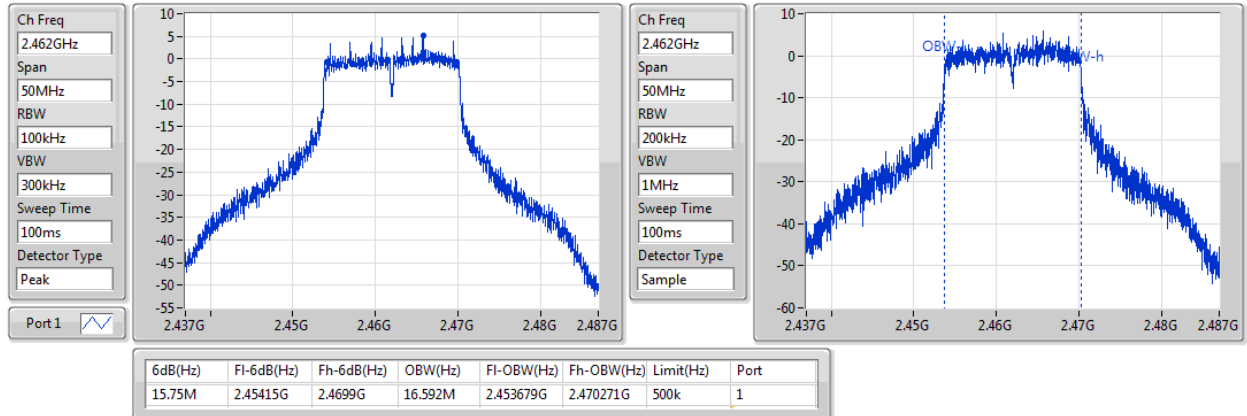
2437MHz



### 802.11g\_(6Mbps)\_1TX

EBW

2462MHz

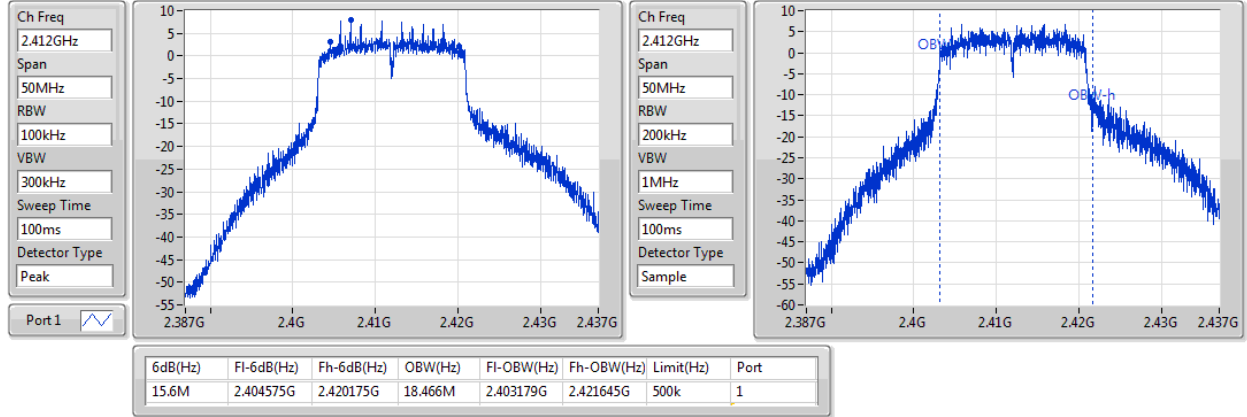




802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

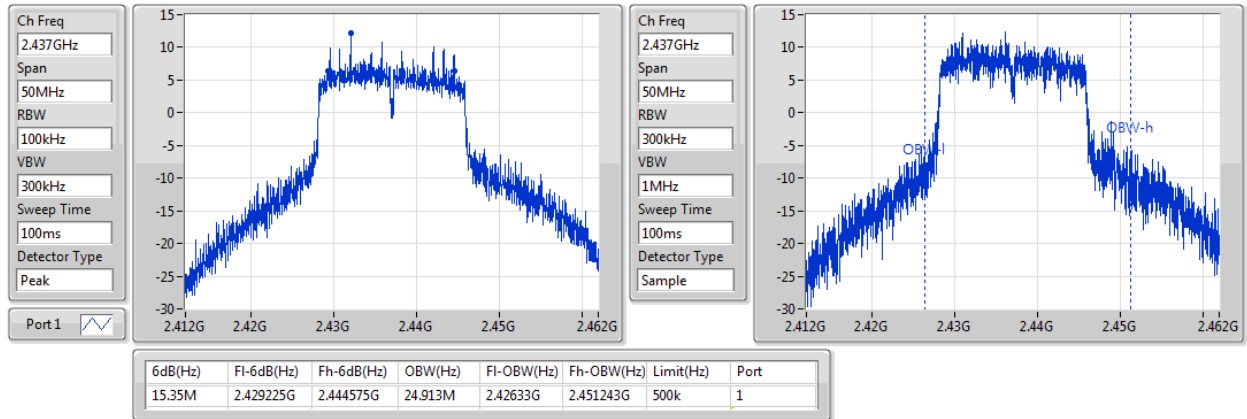
2412MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

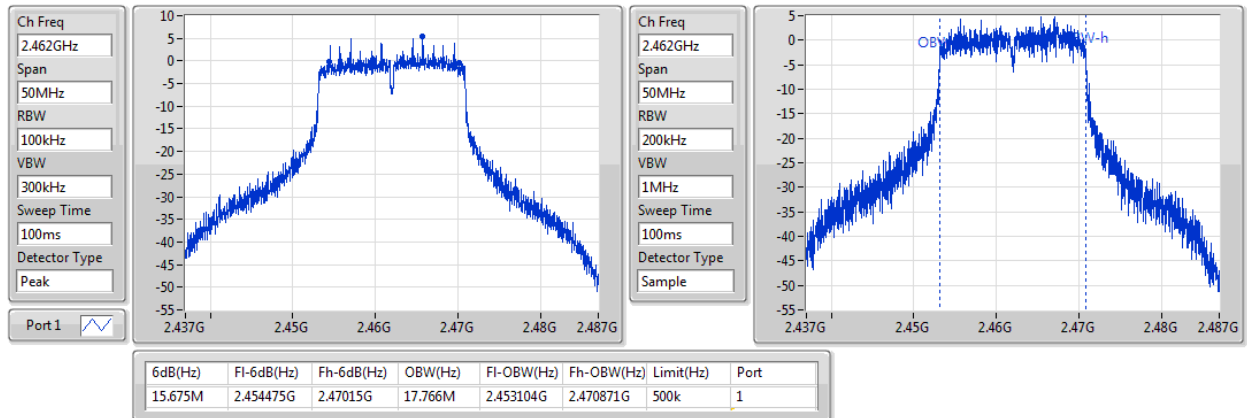
2437MHz



802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

2462MHz

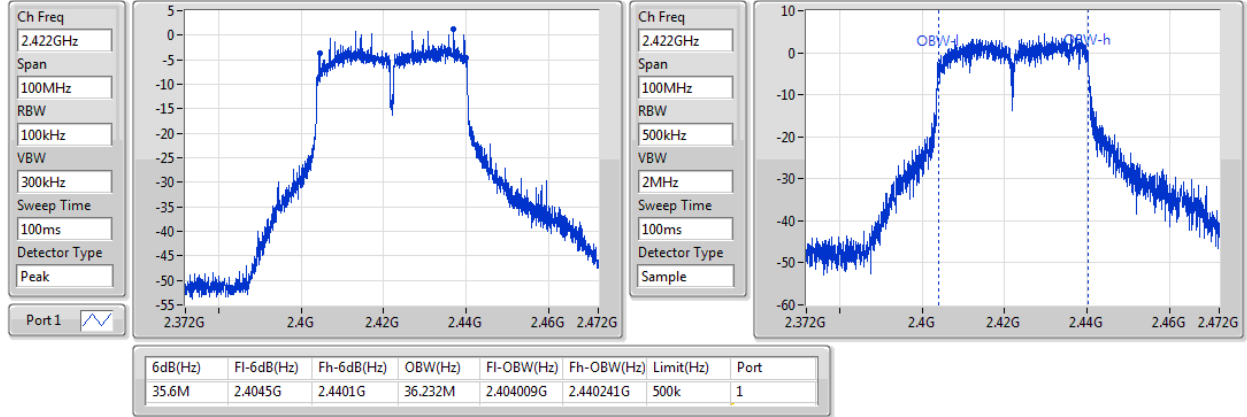




802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

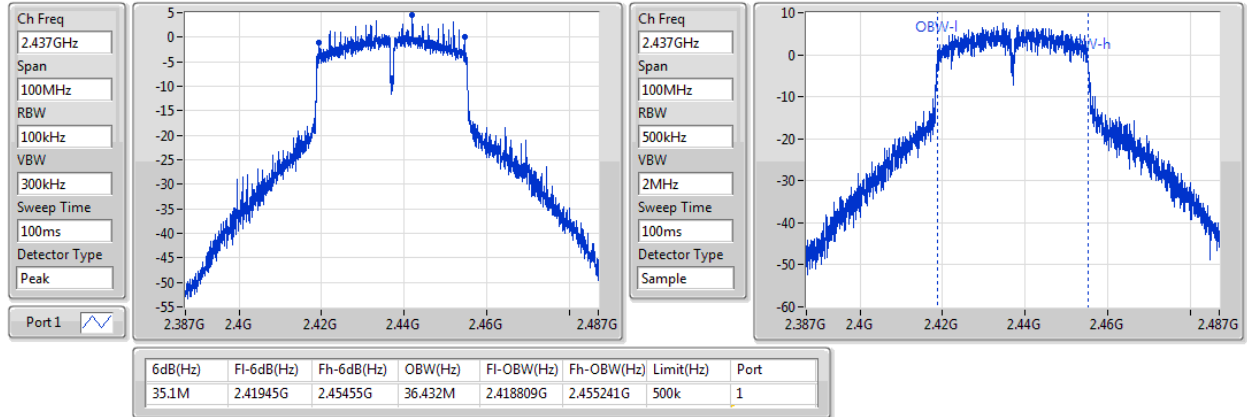
2422MHz



802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

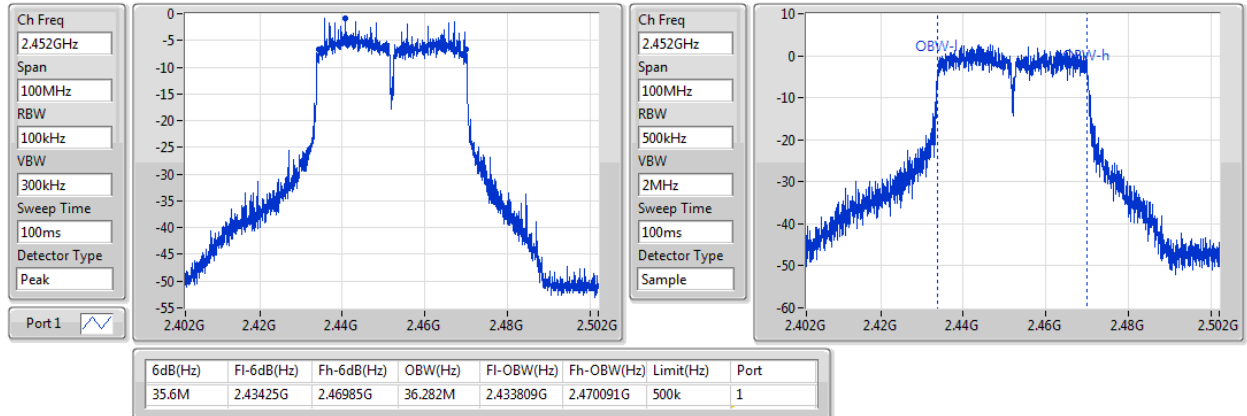
2437MHz



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

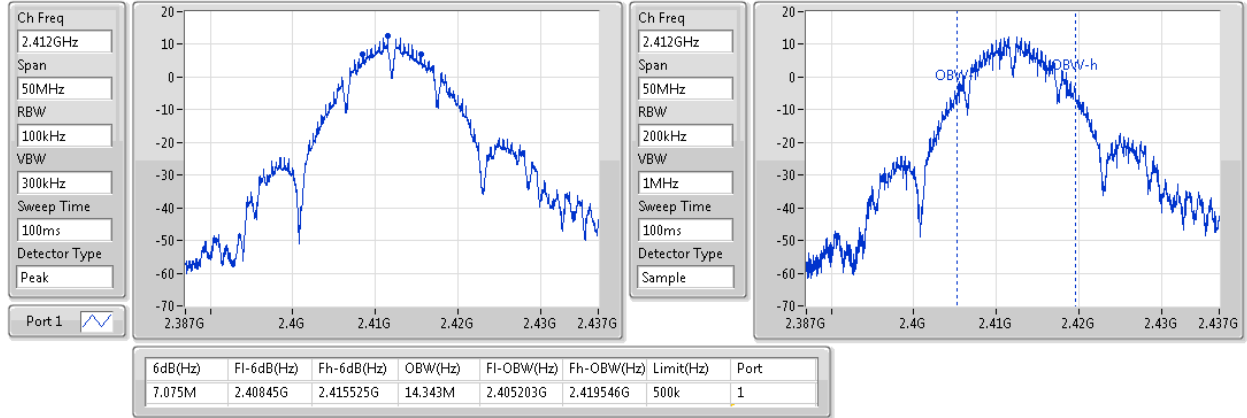
**Port X-N dB** = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;



802.11b\_(1Mbps)\_1TX

EBW

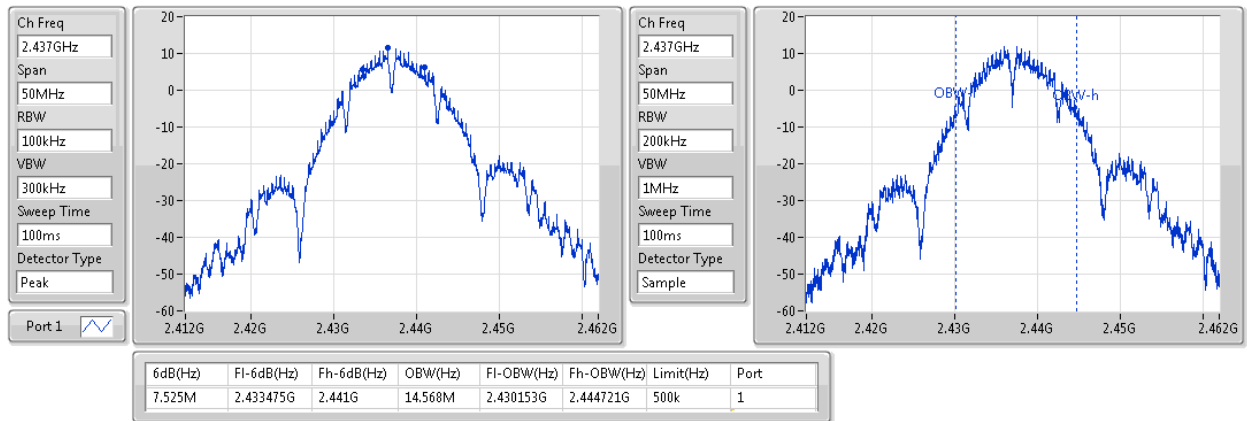
2412MHz



802.11b\_(1Mbps)\_1TX

EBW

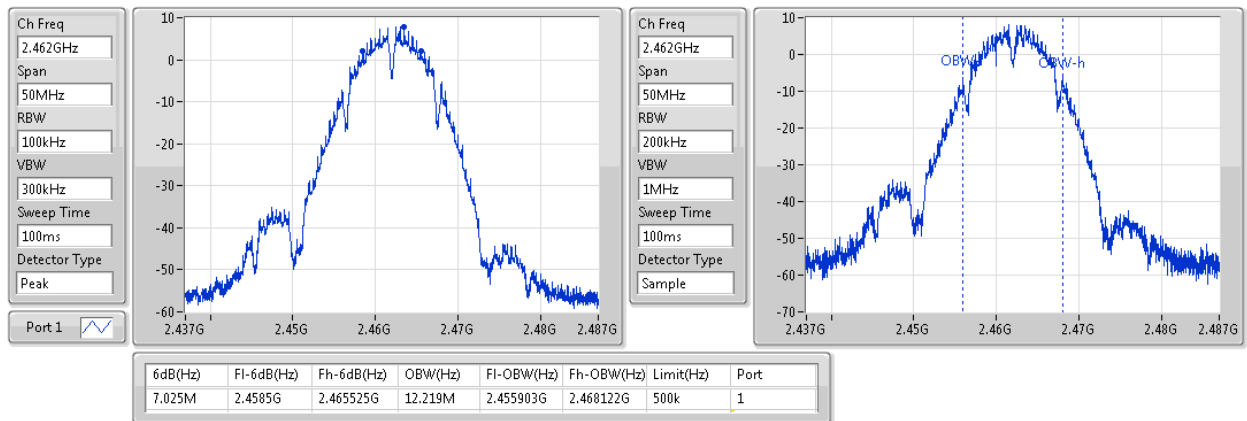
2437MHz



802.11b\_(1Mbps)\_1TX

EBW

2462MHz





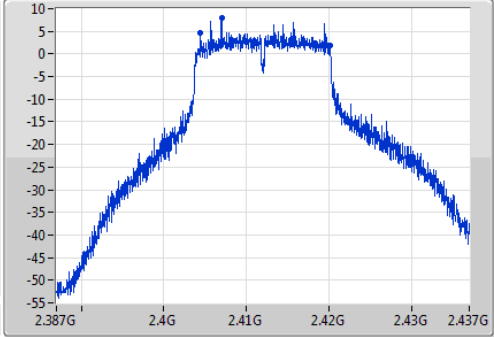


### 802.11g\_(6Mbps)\_1TX

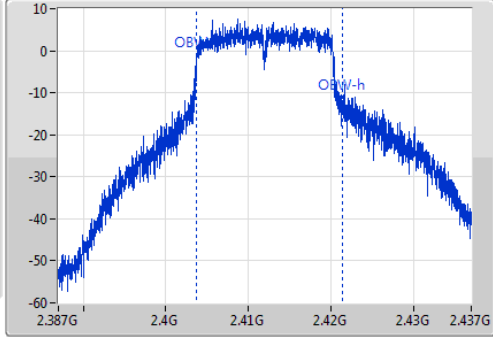
EBW

#### 2412MHz

Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.412GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



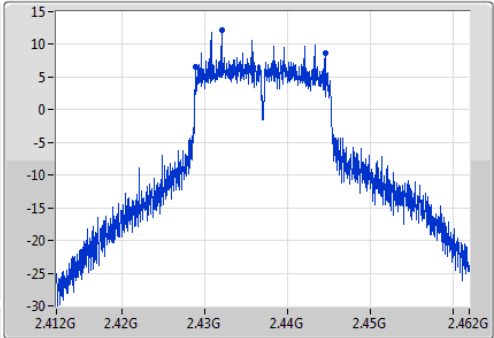
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.65M	2.404475G	2.420125G	17.641M	2.403704G	2.421345G	500k	1

### 802.11g\_(6Mbps)\_1TX

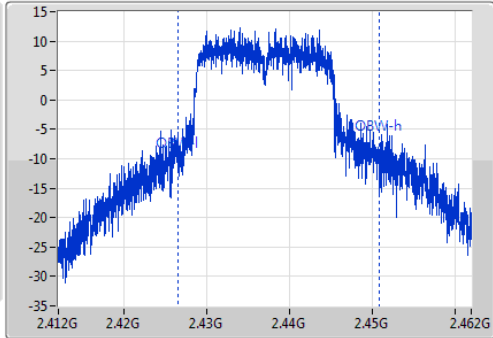
EBW

#### 2437MHz

Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.437GHz  
Span  
50MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



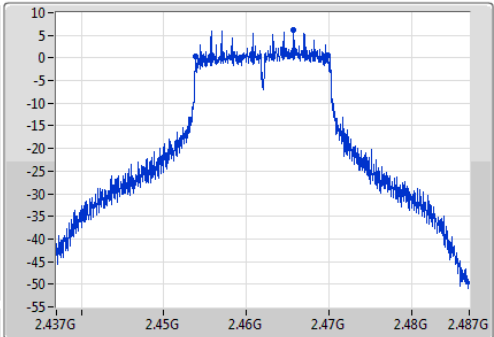
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.65M	2.428875G	2.444525G	24.363M	2.42643G	2.450793G	500k	1

### 802.11g\_(6Mbps)\_1TX

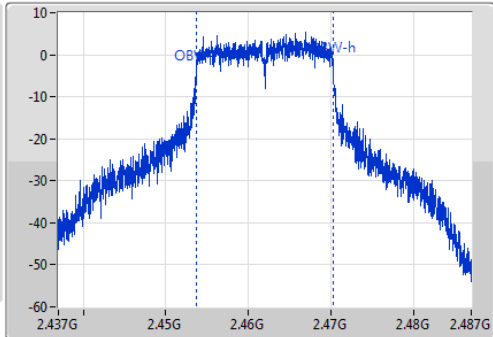
EBW

#### 2462MHz

Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



Ch Freq  
2.462GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.025M	2.453875G	2.4699G	16.667M	2.453654G	2.470321G	500k	1



### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

#### 2412MHz

Ch Freq  
2.412GHz

Span  
50MHz

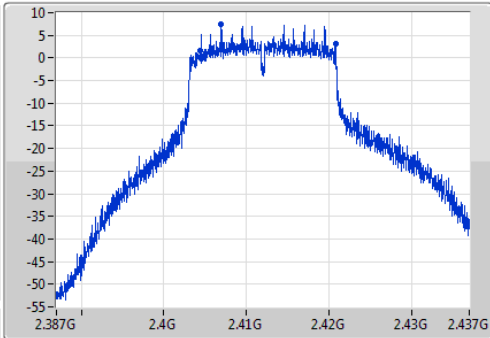
RBW  
100kHz

VBW  
300kHz

Sweep Time  
100ms

Detector Type  
Peak

Port 1



Ch Freq  
2.412GHz

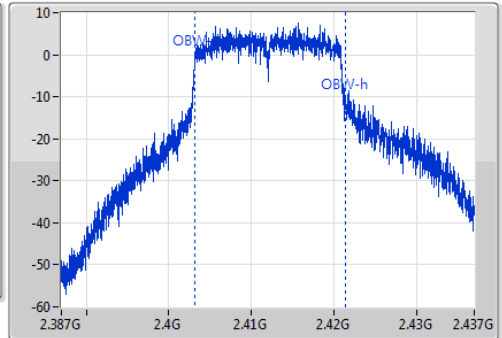
Span  
50MHz

RBW  
200kHz

VBW  
1MHz

Sweep Time  
100ms

Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	2.404475G	2.420775G	18.291M	2.403154G	2.421445G	500k	1

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

#### 2437MHz

Ch Freq  
2.437GHz

Span  
50MHz

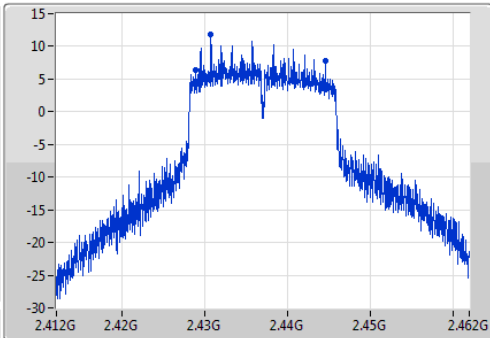
RBW  
100kHz

VBW  
300kHz

Sweep Time  
100ms

Detector Type  
Peak

Port 1



Ch Freq  
2.437GHz

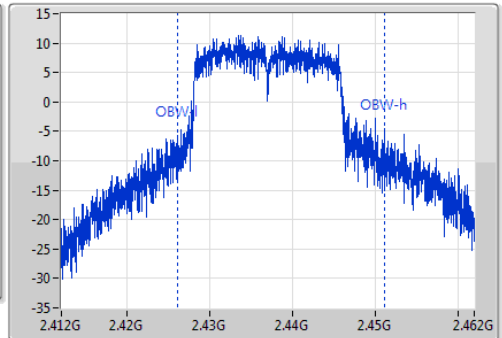
Span  
50MHz

RBW  
300kHz

VBW  
1MHz

Sweep Time  
100ms

Detector Type  
Sample



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.675M	2.428875G	2.44455G	25.187M	2.426005G	2.451193G	500k	1

### 802.11ac VHT20\_Nss1,(MCS0)\_1TX

EBW

#### 2462MHz

Ch Freq  
2.462GHz

Span  
50MHz

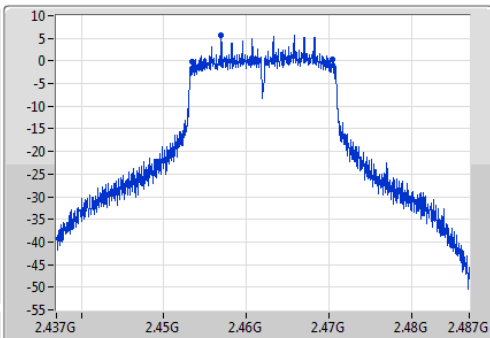
RBW  
100kHz

VBW  
300kHz

Sweep Time  
100ms

Detector Type  
Peak

Port 1



Ch Freq  
2.462GHz

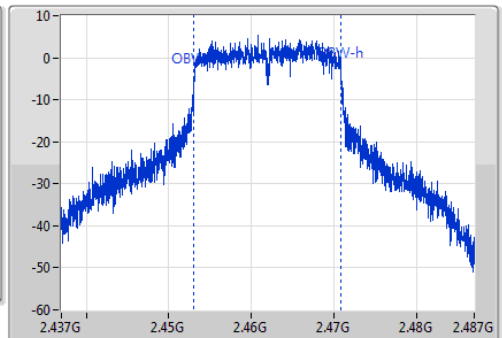
Span  
50MHz

RBW  
200kHz

VBW  
1MHz

Sweep Time  
100ms

Detector Type  
Sample



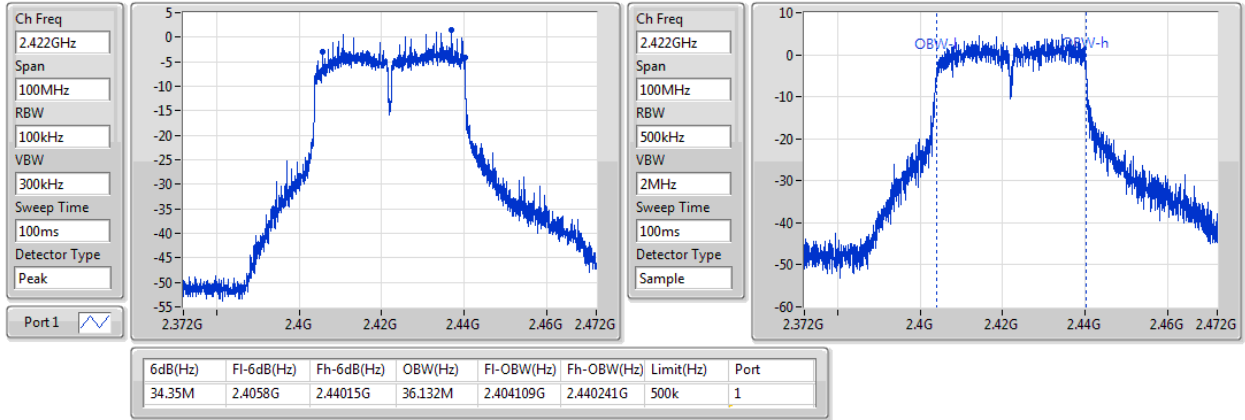
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.9M	2.4535G	2.4704G	17.791M	2.453079G	2.470871G	500k	1



### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

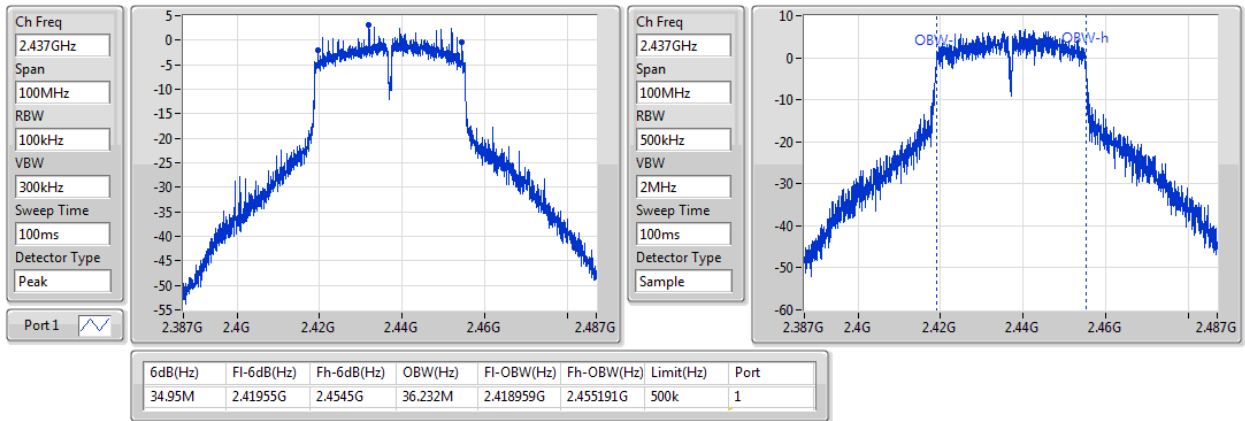
2422MHz



### 802.11ac VHT40\_Nss1,(MCS0)\_1TX

EBW

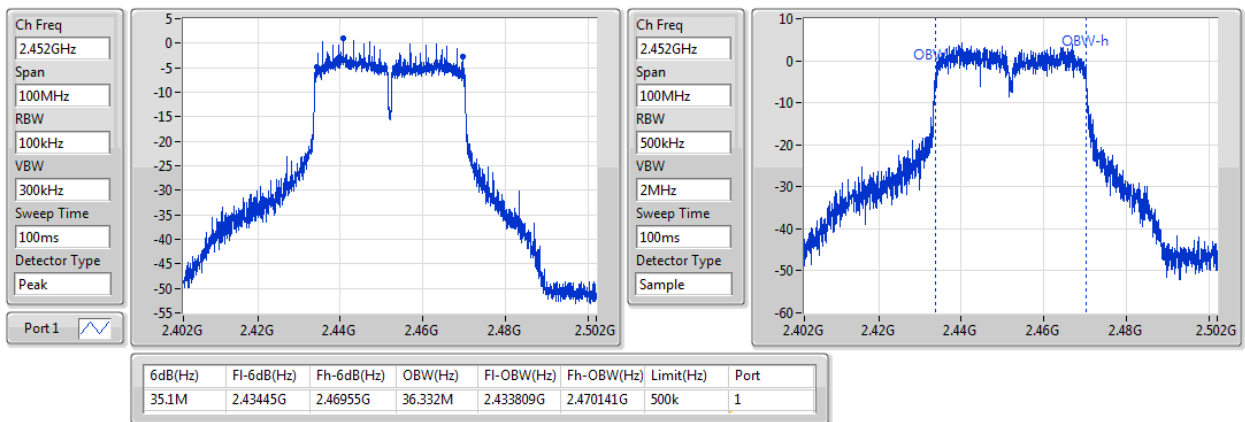
2437MHz



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

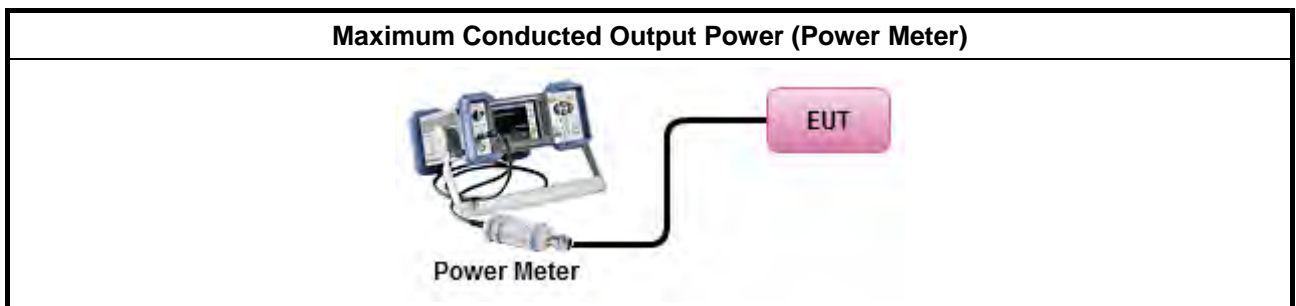
#### 3.3.2 Measuring Instruments

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

### 3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>Maximum Peak Conducted Output Power</li> </ul>	
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.1.1 Option 1 (RBW ≥ EBW method).
<input type="checkbox"/>	Refer as FCC KDB 558074, clause 9.1.2 Option 2 (peak power meter for VBW ≥ DTS BW)
<ul style="list-style-type: none"> <li>Maximum Conducted Output Power</li> </ul>	
[duty cycle ≥ 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.
<ul style="list-style-type: none"> <li>For conducted measurement.</li> </ul>	
<ul style="list-style-type: none"> <li>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.</li> </ul>	
<ul style="list-style-type: none"> <li>If multiple transmit chains, EIRP calculation could be following as methods:  <math display="block">P_{total} = P_1 + P_2 + \dots + P_n</math>                     (calculated in linear unit [mW] and transfer to log unit [dBm])  <math display="block">EIRP_{total} = P_{total} + DG</math> </li> </ul>	

### 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
<ul style="list-style-type: none"> <li>▪ Power Spectral Density (PSD) <math>\leq</math> 8 dBm/3kHz</li> </ul>

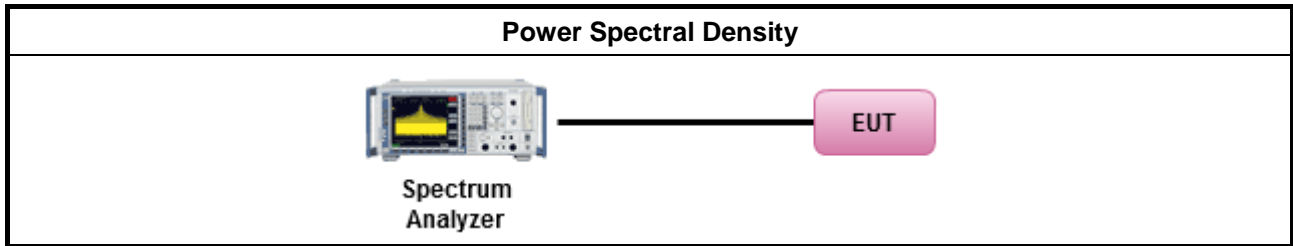
#### 3.4.2 Measuring Instruments

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

#### 3.4.3 Test Procedures

Test Method
<ul style="list-style-type: none"> <li>▪ 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).</li> </ul>
<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)
<ul style="list-style-type: none"> <li>▪ For conducted measurement.</li> </ul>
<ul style="list-style-type: none"> <li>▪ If The EUT supports multiple transmit chains using options given below:           <ul style="list-style-type: none"> <li> <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.               </li> <li> <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,               </li> <li> <input type="checkbox"/> Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.               </li> </ul> </li> </ul>

### 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;