Testing Laboratory 3785

FCC Test Report

FCC ID	:	**QXO-AP310NB**
Equipment	:	**Wireless Access Point**
Brand Name	:	Extreme networks or Extreme Networks
Model Name	:	**AP310i, AP310e**
Applicant	:	**Extreme Networks, Inc. 6480 Via Del Oro, San Jose, CA 95119, United States**
Manufacturer	:	**Extreme Networks, Inc. 6480 Via Del Oro, San Jose, CA 95119, United States**
Standard	:	**47 CFR FCC Part 15.247**

The product was received on Oct. 18, 2019, and testing was started from Nov. 01, 2019 and completed on Oct. 22, 2021. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

Approved by: Allen Lin

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

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History of this test report

Report No.	Version	Description	Issued Date
FR992608-08AC	01	Initial issue of report	Nov. 12, 2021

Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.247(a)	DTS Bandwidth	PASS	-
3.3	15.247(b)	Maximum Conducted Output Power	PASS	-
3.4	15.247(e)	Power Spectral Density	PASS	-
3.5	15.247(d)	Emissions in Non-restricted Frequency Bands	PASS	-
3.6	15.247(d)	Emissions in Restricted Frequency Bands	PASS	-

Note 1: From Sproton Project No.: FR992608AC.
Note 2: This is a variant report by removing the BT/Thread module. AC Conduction and Unwanted Emission below 1GHz was verified.

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and explanations:
None

Reviewed by: Sam Tsai

Report Producer: Debby Hung

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),VHT20, ax (HEW 20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40), VHT40, ax (HEW 40)	2422-2452	3-9 [7]

Non-Beamforming

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	VHT20	20	1TX
2.4-2.4835GHz	VHT40	40	1TX
2.4-2.4835GHz	802.11ax HEW20	20	1TX
2.4-2.4835GHz	802.11ax HEW40	40	1TX
2.4-2.4835GHz	802.11b	20	2TX
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	VHT20	20	2TX
2.4-2.4835GHz	VHT40	40	2TX
2.4-2.4835GHz	802.11ax HEW20	20	2TX
2.4-2.4835GHz	802.11ax HEW40	40	2TX

Beamforming

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	VHT20-BF	20	2TX
2.4-2.4835GHz	VHT40-BF	40	2TX
2.4-2.4835GHz	802.11ax HEW20-BF	20	2TX
2.4-2.4835GHz	802.11ax HEW40-BF	40	2TX

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.
- HEW20, HEW40 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- BWch is the nominal channel bandwidth.
- The resource unit of HEW 20, HEW 40 only support full loading.

1.1.2 Antenna Information

(AP310i) Internal Antenna

Ant.	Brand	Model Number (P/N)	Antenna Type	Connector	Antenna Gain (dBi)		Remark
					2.4GHz	5GHz	
1	SENAO	5718A0485300	PIFA	IPEX	4.5	5.17	Radio 1
2	SENAO	5718A0487300	PIFA	IPEX	4.53	5.07	Radio 1
3	SENAO	5718A0486300	PIFA	IPEX	-	4.81	Radio 2
4	SENAO	5718A0488300	PIFA	IPEX	-	4.75	Radio 2

(AP310e) External Antenna

Group	Brand	Model Number (P/N)	Antenna Type	Connector	Antenna Gain (dBi)	
					2.4GHz	5GHz
1	Extreme	ML-2452-APA2-01	Omni	Reverse SMA	3.17	4.85
2	Extreme	ML-2452-HPA5-036	Omni	Reverse SMA	3.9	5.7
3	Extreme	ML-2452-HPAG4A6-01	Omni	N-type	4	7.3
4	Extreme	ML-2452-PTA4M4-036	Omni	Reverse SMA	5	6.6
5	Extreme	ML-2452-HPAG5A8-01	Omni	N-type	5	8
6	Extreme	30724 WS-AO-DQ04360N	Omni	N-type	5.5	6
7	Extreme	AI-DQ04360S	Omni	Reverse SMA	5.5	6
8	Extreme	ML-2452-PNA5-01R	Panel	N-type	4.5	5
9	Extreme	ML-2452-SEC6M4-036, WS-AI-DQ05120 (30702)	Panel	Reverse SMA	6.92	7.23
10	Extreme	30705 WS-AI-DE07025	Panel	Reverse SMA	7.5	6.5
11	Extreme	ML-2452-PNA7-01R	Panel	N-type	7.8	10.7
12	Extreme	30707 WS-AI-DE10055	Panel	Reverse SMA	10.5	7.5
13	Extreme	ML-2452-APA2-02	Omni	Reverse SMA	3.17	4.85

Note 1: Group 5, 11,12 were measured during the test for WLAN 2.4G Mode.
Note 2: Group 5,11 were measured during the test for WLAN 5G Mode.
Note 3: The External antenna mentioned above will not be sold with the EUT in the market.

For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT/ax mode (1TX/1RX)

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

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

Port 1 and port 2 could transmit/receive simultaneously.

For 5GHz function:

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

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

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

Port 1 and port 2 could transmit/receive simultaneously.

1.1.3 EUT Information

Operational Condition				
EUT Power Type	From PoE			
EUT Function	☒	Point-to-multipoint	☐	Point-to-point
Beamforming Function	☒	With beamforming	☐	Without beamforming

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

1.1.4 Table for Multiple Listing

Sample Number	Model Name	Description
1	AP310i (Internal SKU)	The “i” in AP310i indicates that it comes with internal antennas and the “e” in AP310e indicates that the access point comes with external antenna connectors.
2	AP310e (External SKU)	

1.1.5 Mode Test Duty Cycle

Non-Beamforming

Sample 1_Radio 1_1T1S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b_Nss1,(1Mbps)_1TX	0.946	0.24	12.421m	100
802.11g_Nss1,(6Mbps)_1TX	0.952	0.21	2.067m	1k
VHT20_Nss1,(MCS0)_1TX	0.986	0.06	n/a (DC>=0.98)	n/a (DC>=0.98)
VHT40_Nss1,(MCS0)_1TX	0.972	0.12	955.938u	3k
802.11ax HEW20_Nss1,(MCS0)_1TX	0.981	0.08	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW40_Nss1,(MCS0)_1TX	0.964	0.16	774.375u	3k

Sample 1_Radio 1_2T2S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b_Nss1,(1Mbps)_2TX	0.949	0.23	12.422m	100
802.11g_Nss1,(6Mbps)_2TX	0.952	0.21	2.069m	1k
VHT20_Nss2,(MCS0)_2TX	0.973	0.12	990.938u	3k
VHT40_Nss2,(MCS0)_2TX	0.948	0.23	503.125u	3k
802.11ax HEW20_Nss2,(MCS0)_2TX	0.965	0.15	782.5u	3k
802.11ax HEW40_Nss2,(MCS0)_2TX	0.933	0.3	424.375u	3k

Sample 2_Radio 1_1T1S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b_Nss1,(1Mbps)_1TX	0.948	0.23	12.417m	100
802.11g_Nss1,(6Mbps)_1TX	0.951	0.22	2.066m	1k
VHT20_Nss1,(MCS0)_1TX	0.986	0.06	n/a (DC>=0.98)	n/a (DC>=0.98)
VHT40_Nss1,(MCS0)_1TX	0.972	0.12	954.688u	3k
802.11ax HEW20_Nss1,(MCS0)_1TX	0.98	0.09	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW40_Nss1,(MCS0)_1TX	0.963	0.16	775u	3k

Sample 2_Radio 1_ 2T2S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b_Nss1,(1Mbps)_2TX	0.948	0.23	12.417m	100
802.11g_Nss1,(6Mbps)_2TX	0.951	0.22	2.066m	1k
VHT20_Nss2,(MCS0)_2TX	0.972	0.12	990.625u	3k
VHT40_Nss2,(MCS0)_2TX	0.948	0.23	503.125u	3k
802.11ax HEW20_Nss2,(MCS0)_2TX	0.964	0.16	781.25u	3k
802.11ax HEW40_Nss2,(MCS0)_2TX	0.932	0.31	423.438u	3k

Beamforming

Sample 1_Radio 1_2T1S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
VHT20-BF_Nss1,(MCS0)_2TX	0.905	0.43	2.226m	1k
VHT40-BF_Nss1,(MCS0)_2TX	0.905	0.43	2.798m	1k
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.868	0.61	1.503m	1k
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.883	0.54	2.224m	1k

Sample 2_Radio 1_ 2T1S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
VHT20-BF_Nss1,(MCS0)_2TX	0.905	0.43	2.226m	1k
VHT40-BF_Nss1,(MCS0)_2TX	0.905	0.43	2.798m	1k
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.868	0.61	1.503m	1k
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.883	0.54	2.224m	1k

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

1.2 Testing Applied Standards

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

- 47 CFR FCC Part 15
- ANSI C63.10-2013

The following reference test guidance is not within the scope of accreditation of TAF:

- KDB 558074 D01 v05r02
- KDB 662911 D01 v02r01
- KDB 414788 D01 v01r01

1.3 Testing Location Information

Test Lab.：Sporton International Inc. Hsinhua Laboratory				
☒ Hsinhua **(TAF:** 3785**)**	**ADD:** No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
	TEL: 886-3-327-3456		**FAX:** 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	**Test Site No.**	**Test Engineer**	**Test Environment**	**Test Date**
AC Conduction	CO04-HY	Edward	20.3~23.1°C/55.6~67.2%	26/Dec/2019~27/Dec/2019
AC Conduction	CO04-HY	Billy	21.1~21.4°C/60~62%	22/Oct/2021
RF Conducted	TH01-HY	Alan	23.1~25°C/61~67%	01/Nov/2019~02/Jan/2020
Radiated	03CH02-HY	Dexter	22.3~24.6°C/52~56%	06/Nov/2019~26/Dec/2019
Radiated	03CH03-HY	Terry	24.3~25.8°C/49~52%	06/Nov/2019~26/Dec/2019
Radiated below 1GHz	03CH02-HY	Jack	21.5~24.3°C/51~55%	21/Oct/2021
☒ Wen 33rd.St. **(TAF:** 3785**)**	**ADD:** No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)			
	TEL: 886-3-318-0787		**FAX:** 886-3-318-0287	
Test site Designation No. TW0008 with FCC.				
Test Condition	**Test Site No.**	**Test Engineer**	**Test Environment**	**Test Date**
Radiated	03CH09-HY	Daniel	23.2~24.8°C/51~58%	06/Nov/2019~26/Dec/2019

Laboratory number TAF 3785 is a spin-off from the original Laboratory number TAF 1190.

1.4 Measurement Uncertainty

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

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

AC Conducted Emissions and Radiated Emissions below 1GHz

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	0.9 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	2.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.7 dB	Confidence levels of 95%

2 Test Configuration of EUT

2.1 Test Condition

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

2.2 Test Channel Mode

Non-Beamforming

Test Software Version	accessMTool_REL_3_1_0_1

Sample 1_Radio 1_1T1S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	22.5
2417MHz	22.5
2437MHz	23.25
2457MHz	22.5
2462MHz	22.5
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	17.75
2417MHz	20
2437MHz	22
2457MHz	19.75
2462MHz	17
VHT20_Nss1,(MCS0)_1TX	-
2412MHz	17.5
2417MHz	19.25
2437MHz	21.5
2457MHz	19
2462MHz	15.25
VHT40_Nss1,(MCS0)_1TX	-
2422MHz	16.5
2427MHz	17
2437MHz	18.25
2447MHz	18
2452MHz	17.25

Mode	Power Setting
802.11ax HEW20_Nss1,(MCS0)_1TX	-
2412MHz	17.5
2417MHz	19.25
2437MHz	21.5
2457MHz	19
2462MHz	15.25
802.11ax HEW40_Nss1,(MCS0)_1TX	-
2422MHz	16.5
2427MHz	17
2437MHz	18.25
2447MHz	18
2452MHz	17.25

Sample 1_Radio 1_2T2S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	21.75
2417MHz	22
2437MHz	24.25
2457MHz	22
2462MHz	21.5
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	18.75
2417MHz	20
2437MHz	22.25
2457MHz	19.25
2462MHz	16.75
VHT20_Nss2,(MCS0)_2TX	-
2412MHz	17.75
2417MHz	18.5
2437MHz	21
2457MHz	18.5
2462MHz	17.75
VHT40_Nss2,(MCS0)_2TX	-
2422MHz	15.5
2427MHz	16.75
2437MHz	17.25
2447MHz	17
2452MHz	16.75
802.11ax HEW20_Nss2,(MCS0)_2TX	-
2412MHz	17.75
2417MHz	18.5
2437MHz	21
2457MHz	18.5
2462MHz	17.75
802.11ax HEW40_Nss2,(MCS0)_2TX	-
2422MHz	15.5
2427MHz	16.75
2437MHz	17.25
2447MHz	17
2452MHz	16.75

Sample 2_Radio 1_Omni_1T1S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	20
2417MHz	20.25
2437MHz	20.25
2462MHz	20.25
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	16.75
2417MHz	19.25
2437MHz	21.75
2457MHz	18.5
2462MHz	15.75
VHT20_Nss1,(MCS0)_1TX	-
2412MHz	16.25
2417MHz	18.75
2437MHz	20.75
2457MHz	18.25
2462MHz	16.25
VHT40_Nss1,(MCS0)_1TX	-
2422MHz	14.75
2427MHz	15.25
2437MHz	16.75
2447MHz	15.75
2452MHz	15.5
802.11ax HEW20_Nss1,(MCS0)_1TX	-
2412MHz	16.25
2417MHz	18.75
2437MHz	20.75
2457MHz	18.25
2462MHz	16.25
802.11ax HEW40_Nss1,(MCS0)_1TX	-
2422MHz	14.75
2427MHz	15.25
2437MHz	16.75
2447MHz	15.75
2452MHz	15.5

Sample 2_Radio 1_Omni_2T2S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	19
2417MHz	20
2437MHz	20
2457MHz	20
2462MHz	19
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	14
2417MHz	15.75
2437MHz	19.75
2457MHz	15.25
2462MHz	14
VHT20_Nss2,(MCS0)_2TX	-
2412MHz	14
2417MHz	16.25
2437MHz	18.5
2457MHz	15.5
2462MHz	14.5
VHT40_Nss2,(MCS0)_2TX	-
2422MHz	12.5
2427MHz	12.75
2437MHz	14.25
2447MHz	13.75
2452MHz	13.25
802.11ax HEW20_Nss2,(MCS0)_2TX	-
2412MHz	14
2417MHz	16.25
2437MHz	18.5
2457MHz	15.5
2462MHz	14.5
802.11ax HEW40_Nss2,(MCS0)_2TX	-
2422MHz	12.5
2427MHz	12.75
2437MHz	14.25
2447MHz	13.75
2452MHz	13.25

Sample 2_Radio 1_Panel 1_1T1S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	20
2417MHz	20.25
2437MHz	20.5
2457MHz	20.5
2462MHz	20
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	15
2417MHz	17
2437MHz	20.5
2457MHz	16
2462MHz	14.75
VHT20_Nss1,(MCS0)_1TX	-
2412MHz	12
2417MHz	15.5
2437MHz	20
2457MHz	16
2462MHz	11.75
VHT40_Nss1,(MCS0)_1TX	-
2422MHz	14.25
2427MHz	14.25
2437MHz	15.5
2447MHz	14.25
2452MHz	14
802.11ax HEW20_Nss1,(MCS0)_1TX	-
2412MHz	12
2417MHz	15.5
2437MHz	20
2457MHz	16
2462MHz	11.75
802.11ax HEW40_Nss1,(MCS0)_1TX	-
2422MHz	14.25
2427MHz	14.25
2437MHz	15.5
2447MHz	14.25
2452MHz	14

Sample 2_Radio 1_Panel 1_2T2S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	17.75
2437MHz	16.75
2462MHz	17.5
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	13.75
2417MHz	15
2437MHz	19
2457MHz	15
2462MHz	14.25
VHT20_Nss2,(MCS0)_2TX	-
2412MHz	14.5
2417MHz	15.5
2437MHz	18.25
2457MHz	15.75
2462MHz	14.5
VHT40_Nss2,(MCS0)_2TX	-
2422MHz	13.25
2427MHz	13.25
2437MHz	14
2447MHz	14
2452MHz	13.5
802.11ax HEW20_Nss2,(MCS0)_2TX	-
2412MHz	14.5
2417MHz	15.5
2437MHz	18.25
2457MHz	15.75
2462MHz	14.5
802.11ax HEW40_Nss2,(MCS0)_2TX	-
2422MHz	13.25
2427MHz	13.25
2437MHz	14
2447MHz	14
2452MHz	13.5

Sample 2_Radio 1_Panel 2_1T1S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	19.75
2437MHz	19.5
2462MHz	20
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	14.5
2417MHz	16.75
2437MHz	20
2457MHz	16.75
2462MHz	15
VHT20_Nss1,(MCS0)_1TX	-
2412MHz	12
2417MHz	16
2437MHz	19.25
2457MHz	17
2462MHz	12.25
VHT40_Nss1,(MCS0)_1TX	-
2422MHz	14.75
2427MHz	14.25
2437MHz	15.75
2447MHz	14.5
2452MHz	14
802.11ax HEW20_Nss1,(MCS0)_1TX	-
2412MHz	12
2417MHz	16
2437MHz	19.25
2457MHz	17
2462MHz	12.25
802.11ax HEW40_Nss1,(MCS0)_1TX	-
2422MHz	14.75
2427MHz	14.25
2437MHz	15.75
2447MHz	14.5
2452MHz	14

Sample 2_Radio 1_Panel 2_2T2S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	18
2417MHz	18
2437MHz	20.5
2457MHz	19
2462MHz	19
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	13.25
2417MHz	14
2437MHz	18.25
2457MHz	15
2462MHz	13.5
VHT20_Nss2,(MCS0)_2TX	-
2412MHz	12.75
2417MHz	14.75
2437MHz	18
2457MHz	15
2462MHz	14
VHT40_Nss2,(MCS0)_2TX	-
2422MHz	12
2427MHz	12.25
2437MHz	13.75
2447MHz	13.25
2452MHz	12.75
802.11ax HEW20_Nss2,(MCS0)_2TX	-
2412MHz	12.75
2417MHz	14.75
2437MHz	18
2457MHz	15
2462MHz	14
802.11ax HEW40_Nss2,(MCS0)_2TX	-
2422MHz	12
2427MHz	12.25
2437MHz	13.75
2447MHz	13.25
2452MHz	12.75

Beamforming

Test Software Version	Dos

Sample 1_Radio 1_2T1S

Mode	Power Setting
VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	16.25
2417MHz	16.25
2437MHz	21.25
2457MHz	17.25
2462MHz	14
VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	13.5
2427MHz	15.75
2437MHz	15.75
2447MHz	15.75
2452MHz	15.5
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	16.25
2417MHz	16.25
2437MHz	21.25
2457MHz	17.25
2462MHz	14
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	13.5
2427MHz	15.75
2437MHz	15.75
2447MHz	15.75
2452MHz	15.5

Sample 2_Radio 1_Omni_2T1S

Mode	Power Setting
VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	13.25
2417MHz	14.25
2437MHz	20
2457MHz	14.5
2462MHz	13
VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	11
2427MHz	11
2437MHz	12.25
2452MHz	12.25
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	13.25
2417MHz	14.25
2437MHz	20
2457MHz	14.5
2462MHz	13
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	11
2427MHz	11
2437MHz	12.25
2452MHz	12.25

Sample 2_Radio 1_Panel 1_2T1S

Mode	Power Setting
VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	12.25
2417MHz	14.25
2437MHz	19
2457MHz	14
2462MHz	12.25
VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	10.5
2427MHz	10.75
2437MHz	13.75
2447MHz	12.25
2452MHz	12
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	12.25
2417MHz	14.25
2437MHz	19
2457MHz	14
2462MHz	12.25
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	10.5
2427MHz	10.75
2437MHz	13.75
2447MHz	12.25
2452MHz	12

Sample 2_Radio 1_Panel 2_2T1S

Mode	Power Setting
VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	12.5
2417MHz	14.25
2437MHz	18.5
2457MHz	12.75
2462MHz	12
VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	12
2427MHz	12.5
2437MHz	14
2447MHz	12.5
2452MHz	12
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	12.5
2417MHz	14.25
2437MHz	18.5
2457MHz	12.75
2462MHz	12
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	12
2427MHz	12.5
2437MHz	14
2447MHz	12.5
2452MHz	12

2.3 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral
Operating Mode	CTX
1	PoE mode (Non-Beamforming_Sample 1)
2	PoE mode (Non-Beamforming_Sample 2)
3	PoE mode (Beamforming_Sample 1)
4	PoE mode (Beamforming_Sample 2)

The Worst Case Mode for Following Conformance Tests	
Tests Item	DTS Bandwidth Maximum Conducted Output Power Power Spectral Density Emissions in Non-restricted Frequency Bands
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests			
Tests Item	Emissions in Restricted Frequency Bands		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.		
Operating Mode < 1GHz	CTX		
1	PoE Mode (Non-Beamforming_Sample 1_Radio 1_1T1S)		
2	PoE Mode (Non-Beamforming_Sample 1_Radio 1_2T2S)		
3	PoE Mode (Non-Beamforming_Sample 2_Radio 1_Omni_1T1S)		
4	PoE Mode (Non-Beamforming_Sample 2_Radio 1_Omni_2T2S)		
5	PoE Mode (Non-Beamforming_Sample 2_Radio 1_Panel 1_1T1S)		
6	PoE Mode (Non-Beamforming_Sample 2_Radio 1_Panel 1_2T2S)		
7	PoE Mode (Non-Beamforming_Sample 2_Radio 1_Panel 2_1T1S)		
8	PoE Mode (Non-Beamforming_Sample 2_Radio 1_Panel 2_2T2S)		
9	PoE Mode (Beamforming_Sample 1_Radio 1_2T1S)		
10	PoE Mode (Beamforming_Sample 2_Radio 1_Omni_2T1S)		
11	PoE Mode (Beamforming_Sample 2_Radio 1_Panel 1_2T1S)		
12	PoE Mode (Beamforming_Sample 2_Radio 1_Panel 2_2T1S)		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	**X Plane**	**Y Plane**	**Z Plane**
			
Worst Planes of EUT	V	V	V

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	Radio 1 WLAN 2.4G+ Radio 2 WLAN 5G
2	Radio 1 WLAN 5G+ Radio 2 WLAN 5G
Refer to Sporton Test Report No.: FA992608-08 for Co-location RF Exposure Evaluation.	

2.4 Accessories

Accessories				
Mounting bracket	Brand Name	Extreme Networks	Model Name	3PRAAB003S3

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

2.5 Support Equipment

Support Equipment – AC Conduction				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	LAN Cable	Power Sync	CAT-6E-10	-
2	PoE	EnGenius	EPA5006GP	-
3	AC Power Cable	-	-	-
4	PoE for Beamforming	EnGenius	EPA5006GP	-
5	AC Power Cable	-	-	-
6	Notebook	DELL	PP13S	-
7	LAN Cable	Power Sync	CAT-6E-01	-
8	Adapter for NB	DELL	AA90PM111	-
9	AC Power Cable for NB	Power sync	PW-GPC180-3	-
10	Omni Antenna	Extreme	ML-2452-HPAG5A8-01	-
11	Panel1 Antenna	Extreme	ML-2452-PNA7-01R	-
12	Panel2 Antenna	Extreme	30707 WS-AI-DE10055	-
13	PoE	EnGenius	EPA5006GP	-

Note: Support equipment No.2,3,4,5,10,11,12,13 were provided by customer.

Support Equipment – RF Conducted				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Notebook	DELL	PP13S	DOC
2	Adapter for NB	DELL	AA90PM111	DOC
3	Notebook	DELL	PP13S	DOC
4	Adapter for NB	DELL	AA90PM111	DOC
5	PoE	EnGenius	EPA5006GP	-

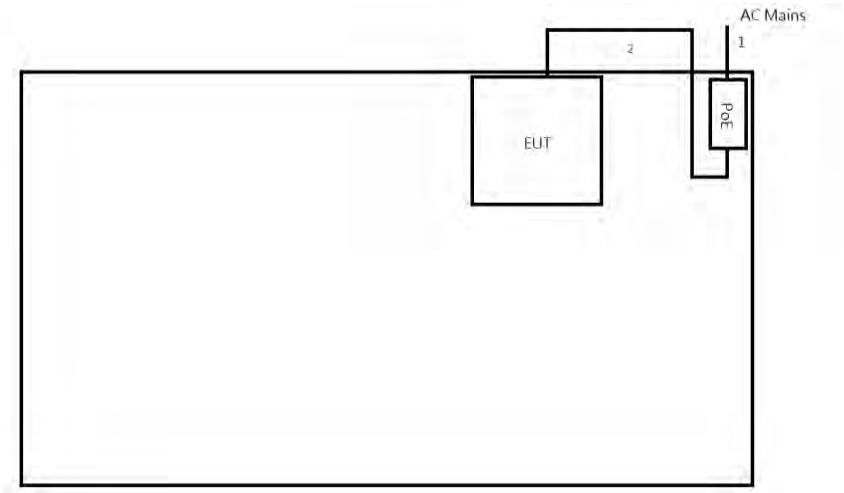
Note: Support equipment No.5 was provided by customer.

Support Equipment – Radiated Emission				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	LAN Cable	Power Sync	CAT-6E-10	-
2	PoE	EnGenius	EPA5006GP	-
3	AC Power Cable	-	-	-
4	Notebook	DELL	M-S69	-
5	LAN Cable	Power Sync	CAT-6E-01	-
6	Adapter for Notebook	DELL	M-S69	-
7	Omni Antenna	Extreme	ML-2452-HPAG5A8-01	-
8	Panel1 Antenna	Extreme	ML-2452-PNA7-01R	-
9	Panel2 Antenna	Extreme	30707 WS-AI-DE10055	-

Note: Support equipment No. 2,3,7,8,9 were provided by customer.

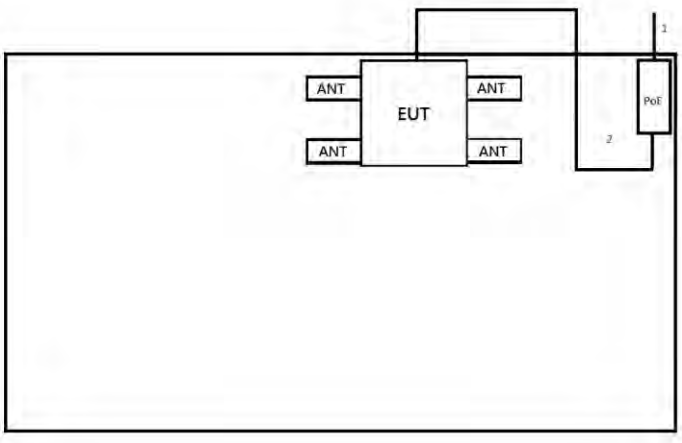
2.6 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test <Sample 1>



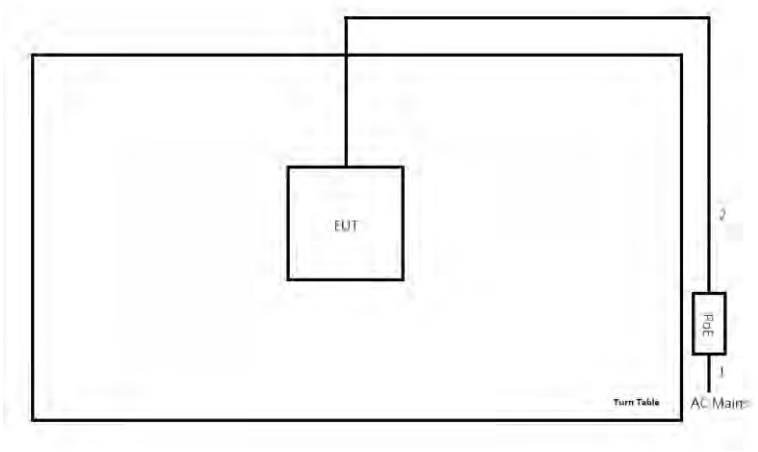
Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	0.5	Client provided
2	LAN Cable	No	10	-

Test Setup Diagram – AC Line Conducted Emission Test <Sample 2>



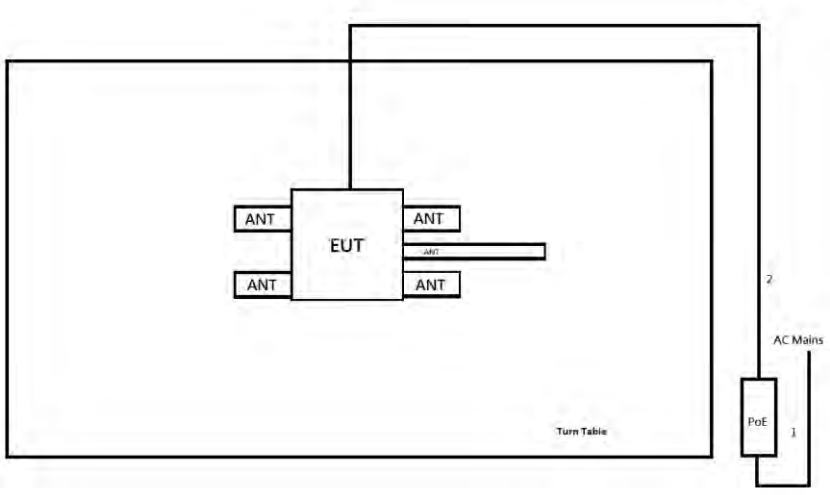
Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	0.5	Client provided
2	LAN Cable	No	10	-

Test Setup Diagram - Radiated Test <Sample 1>



Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	0.5	Client provided
2	LAN Cable	No	10	-

Test Setup Diagram - Radiated Test <Sample 2>



Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	0.5	-
2	LAN Cable	No	10	-

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

AC Power-line Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

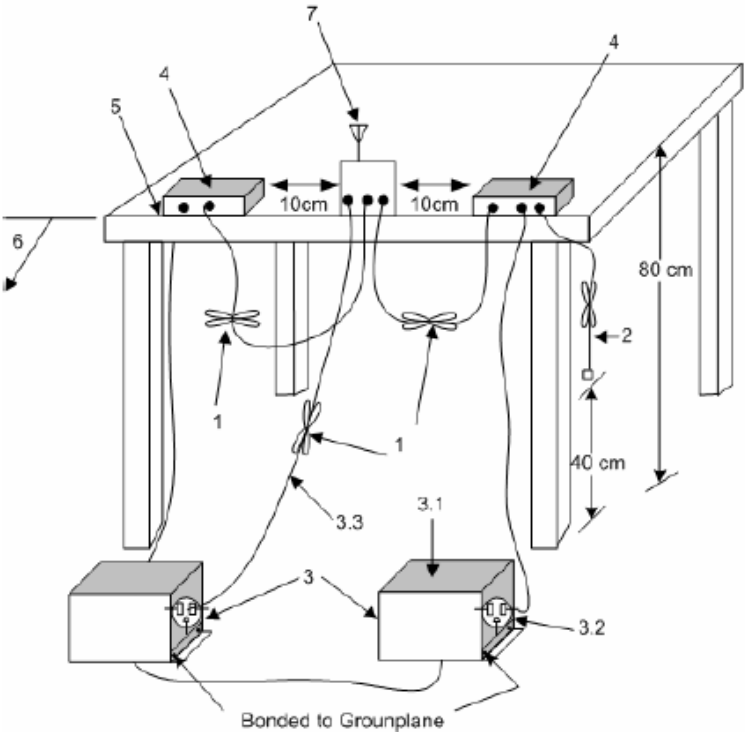
Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Measurement Results Calculation

The measured Level is calculated using:
Corrected Reading: Raw(Read Level) +LISN(LISN Factor) + CL(Cable Loss) + AT(Attenuator).

3.1.5 Test Setup

AC Power-line Conducted Emissions



1—Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.
2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
3.1—All other equipment powered from additional LISN(s).
3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
3.3—LISN at least 80 cm from nearest part of EUT chassis.
4—Non-EUT components of EUT system being tested.
5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.
7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

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

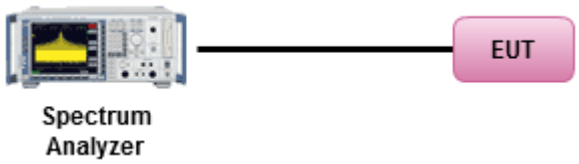
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
	☒ Refer as KDB 558074. clause 8.2 (11.8 of ANSI C63.10) DTS bandwidth measurement.
	☐ Refer as RSS-Gen, clause 6.7 for occupied bandwidth testing.
	☐ Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.

3.2.4 Test Setup

Emission Bandwidth


3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B

3.3 Maximum Conducted Output Power

3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit		
	▪ If G_{TX} ≤ 6 dBi, then P_{Out} ≤ 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 + 8dB dBm
e.i.r.p. Power Limit:		
▪ 2400-2483.5 MHz Band		
	▪ Point-to-multipoint systems (P2M): P_{eirp} ≤ 36 dBm (4 W)	
	▪ Point-to-point systems (P2P): P_{eirp} ≤ MAX(36, [P_{Out} + G_{TX}]) dBm	
	▪ Smart antenna system (SAS)	
		- Single beam: P_{eirp} ≤ MAX(36, P_{Out} + G_{TX}) dBm
		- Overlap beam: P_{eirp} ≤ MAX(36, P_{Out} + G_{TX}) dBm
		- Aggregate power on all beams: P_{eirp} ≤ MAX(36, [P_{Out} + G_{TX} + 8]) dBm
P_{Out} = maximum peak conducted output power or maximum conducted output power in dBm, **G_{TX}** = the maximum transmitting antenna directional gain in dBi.		

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
▪ Maximum Peak Conducted Output Power	
	☐ Refer as KDB 558074, clause 8.3.1.1 (11.9.1.1 of ANSI C63.10) RBW ≥ EBW method.
	☐ Refer as KDB 558074, clause 8.3.1.2 (11.9.1.2 of ANSI C63.10) integrated band power method.
	☐ Refer as KDB 558074, clause 8.3.1.3 (11.9.1.3 of ANSI C63.10) peak power meter.
▪ Maximum Average Conducted Output Power	
	☐ Refer as KDB 558074, clause 8.3.2.2 (11.9.2.2 of ANSI C63.10) using a spectrum analyzer.
	☒ Refer as KDB 558074, clause 8.3.2.3 (11.9.2.3 of ANSI C63.10) using a power meter.
▪ For conducted measurement.	
	▪ If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	▪ If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \ldots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup

Maximum Conducted Output Power (Power Meter)


3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Power Spectral Density

3.4.1 Power Spectral Density Limit

Power Spectral Density Limit
▪ Power Spectral Density (PSD) ≤ 8 dBm/3kHz

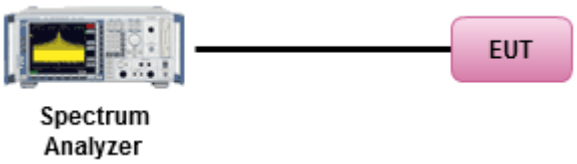
3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method		
▪ Peak power spectral density procedures that the same method as used to determine the conducted output power. If maximum peak conducted output power was measured to demonstrate compliance to the output power limit, then the peak PSD procedure below (Method PKPSD) shall be used. If maximum conducted output power was measured to demonstrate compliance to the output power limit, then one of the average PSD procedures shall be used, as applicable based on the following criteria (the peak PSD procedure is also an acceptable option).		
	☒ Refer as KDB 558074, clause 8.4 (11.10 of ANSI C63.10) Method PKPSD.	
▪ For conducted measurement.		
	▪ If The EUT supports multiple transmit chains using options given below:	
		▪ Measure and sum the spectra across the outputs. Refer as KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.

3.4.4 Test Setup

Power Spectral Density


3.4.5 Test Result of Power Spectral Density

Refer as Appendix D

3.5 Emissions in Non-restricted Frequency Bands

3.5.1 Emissions in Non-restricted Frequency Bands Limit

Un-restricted Band Emissions Limit	
RF output power procedure	**Limit (dB)**
Peak output power procedure	20
Average output power procedure	30
Note 1: If the peak output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 20 dB relative to the maximum measured in-band peak level. Note 2: If the average output power procedure is used to measure the fundamental emission power to demonstrate compliance to requirements, then the power in any 100 kHz outside of the authorized frequency band shall be attenuated by at least 30 dB relative to the maximum measured in-band average level.	

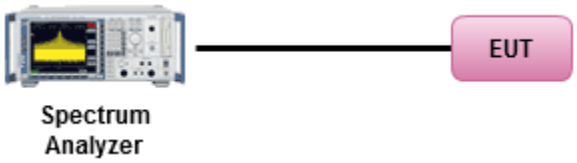
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

Test Method
▪ Refer as KDB 558074, clause 8.5 (11.11 of ANSI C63.10) for non-restricted frequency bands.

3.5.4 Test Setup

Emissions in Non-restricted Frequency Bands


3.5.5 Test Result of Emissions in Non-restricted Frequency Bands

Refer as Appendix E

3.6 Emissions in Restricted Frequency Bands

3.6.1 Emissions in Restricted Frequency Bands Limit

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

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

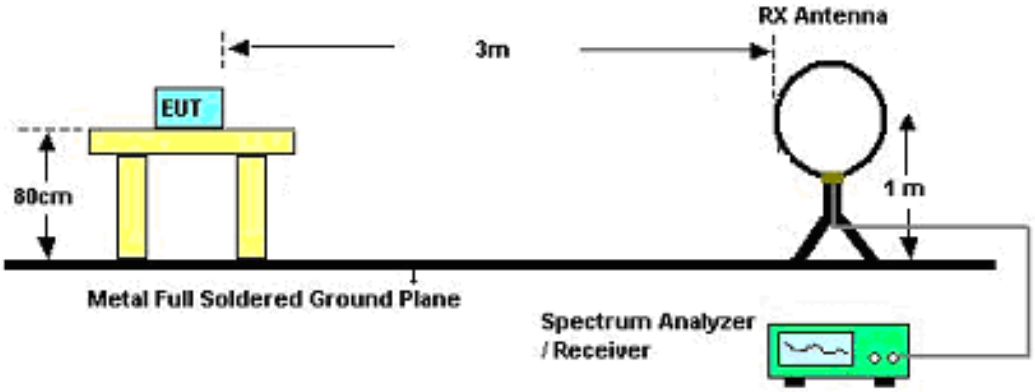
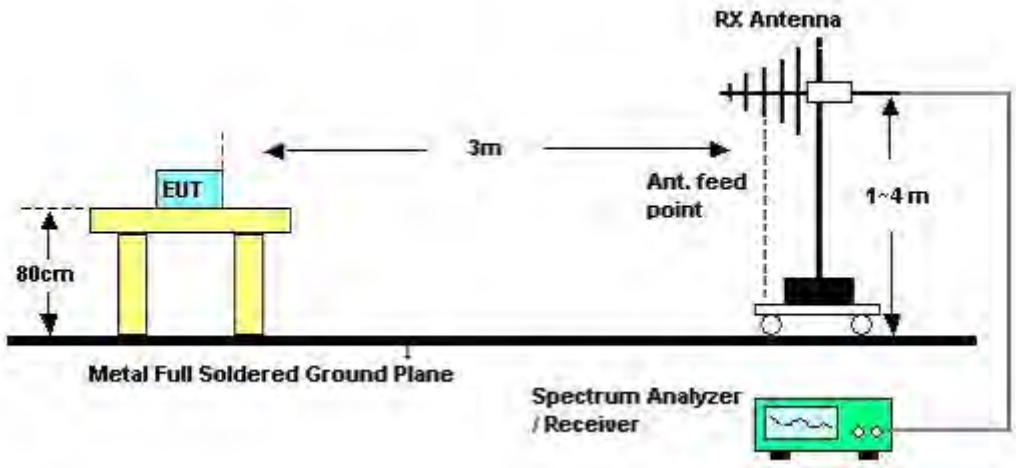
3.6.2 Measuring Instruments

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

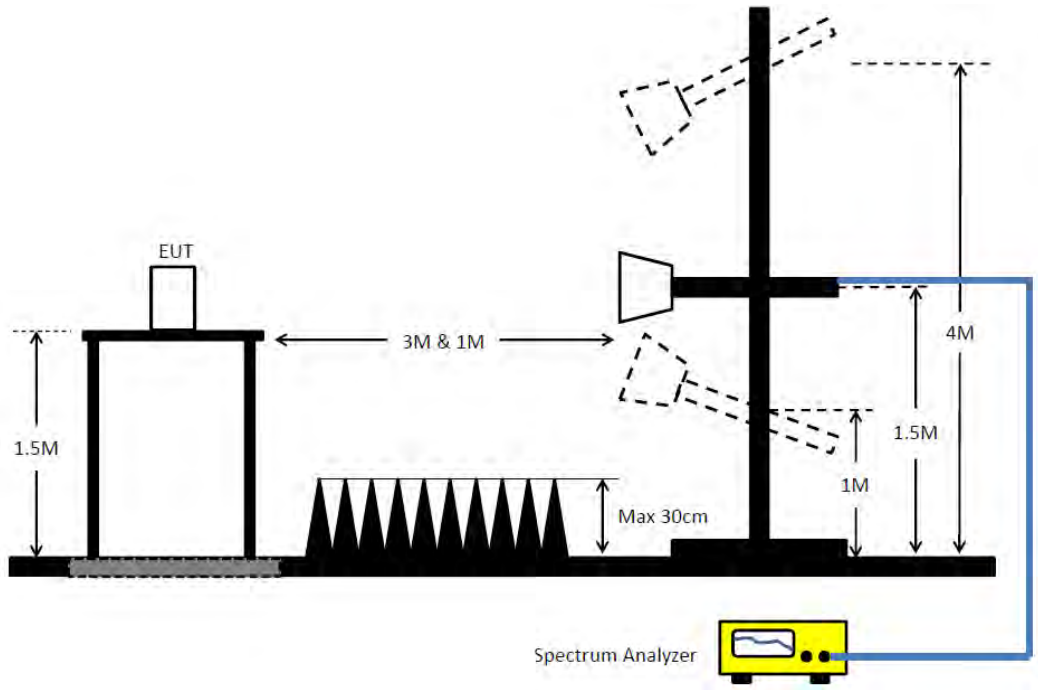
3.6.3 Test Procedures

Test Method	
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].	
▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
▪ For the transmitter unwanted emissions shall be measured using following options below:	
	▪ Refer as KDB 558074, clause 8.6 (11.12 of ANSI C63.10) for restricted frequency bands.
▪ For the transmitter band-edge emissions shall be measured using following options below:	
	▪ Refer as KDB 558074 clause 8.7.1, When the performing peak or average radiated measurements, emissions within 2 MHz of the authorized band edge may be measured using the marker-delta method described below.
	▪ Refer as KDB 558074, clause 8.7.2 (6.10.6 of ANSI C63.10) for marker-delta method for band-edge measurements.
	▪ Refer as KDB 558074, clause 8.7.3 for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels.
▪ Use the following spectrum analyzer settings:	
	▪ Set RBW=100 kHz for f < 1 GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	▪ Set RBW = 1 MHz, VBW= 3MHz for f ≥ 1 GHz for peak measurement. For average measurement, refer as 1.1.4.
▪ KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.	
	▪ Based on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
	▪ Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

3.6.4 Test Setup

Emissions in Restricted Frequency Bands
9kHz ~30MHz

30MHz~1GHz


Above 1GHz



3.6.5 Test Result of Emissions in Restricted Frequency Bands (Below 30MHz)

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

3.6.6 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	21/May/2021	20/May/2022
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	11/Nov/2020	10/Nov/2021
RF Cable 5m	TITAN	TITAN	CO04-cable-01	0.1MHz~200MHz	03/Mar/2021	02/Mar/2022
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	15/Sep/2021	14/Sep/2022

Instrument for AC Conduction

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	05/Nov/2019	04/Nov/2020
RF Cable-CON	MTJ	RG142	CB002-CO	9kHz ~ 200MHz	23/Sep/2019	22/Sep/2020
AC POWER	APC	AFC-11005G	F310050055	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9 kHz ~ 30 MHz	24/Sep/2019	23/Sep/2020

NCR : Non-Calibration Require

Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	13/Mar/2019	12/Mar/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020
Power Sensor	Anritsu	MA2411B	0917017	300MHz ~ 40GHz	19/Feb/2019	18/Feb/2020
Power Meter	Anritsu	ML2495A	0949003	300MHz ~ 40GHz	19/Feb/2019	18/Feb/2020
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz~18G	11/Jan/2019	10/Jan/2020
Cable 0.2m	HUBER	MY10711/4	RF Cable - 02	30MHz~18G	11/Jan/2019	10/Jan/2020
Cable 0.5m	HUBER	MY10714/4	RF Cable – 05	30MHz~1G	11/Jan/2019	10/Jan/2020

Instrument for Radiated Test (03CH03-HY)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz ~ 1GHz 3m	30/Aug/2019	29/Aug/2020
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz ~ 18GHz 3m	30/Aug/2019	29/Aug/2020
Amplifier	HP	8447D	2944A08033	10kHz ~ 1.3GHz	22/Apr/2019	21/Apr/2020
EMC Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	28/May/2019	27/May/2020
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz ~ 1GHz	08/Sep/2019	07/Sep/2020
Microwave System Preamplifier	KEYSIGHT	83017A	MY53270196	1GHz ~ 26.5GHz	09/Sep/2019	08/Sep/2020
Signal Analyzer	R&S	FSV40	101500	10Hz ~ 40GHz	15/Aug/2019	14/Aug/2020
RF Cable-R03m	Jye Bao	RG142	CB021	9kHz ~ 1GHz	22/Mar/2019	21/Mar/2020
RF CABLE 6m	HUBER+SUHNER	SUOFLEX 104	SN 805801/4	1GHz ~ 40GHz	21/Mar/2019	20/Mar/2020
RF CABLE 5m	HUBER+SUHNER	SUOFLEX 104	SN 804300/4	1GHz ~ 40GHz	17/Jun/2019	16/Jun/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz ~ 40GHz	22/Mar2019	21/Mar/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1531	1GHz ~ 18GHz	09/Mar/2019	08/Mar/2020
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	05/Aug/2019	04/Aug/2020
Loop Antenna	TESEQ	HLA 6120	31244	9kHz ~ 30MHz	15/Mar/2019	14/Mar/2020

Instrument for Radiated Test (03CH02-HY)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz ~ 18GHz 3m	29/Aug/2019	28/Aug/2020
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz ~ 26.5GHz	16/Oct/2019	15/Oct/2020
Spectrum Analyzer	Rohde & Schwarz	FSP40	100593	9KHz - 40GHz	27/Dec/2018	26/Dec/2019
RF Cable-high 6m	SUHNER	SUCOFLEX104	SN805193	1GHz~40GHz	09/Apr/2019	08/Apr/2020
RF Cable-high 7m	SUHNER	SUCOFLEX104	SN805192	1GHz~40GHz	09/Apr/2019	08/Apr/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz ~ 40GHz	22/Mar2019	21/Mar/2020
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz ~ 40GHz	05/Aug/2019	04/Aug/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 01543	1GHz ~ 18GHz	03/Jun/2019	02/Jun/2020

Instrument for Radiated Test (03CH09-HY)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz~18GHz	20/Mar/2019	19/Mar/2020
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz~26.5GHz	04/Sep/2019	03/Sep/2020
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz~44GHz	07/Aug/2019	06/Aug/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	22/May/2019	21/May/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz ~ 40GHz	22/Mar2019	21/Mar/2020
Preamplifier	MITEQ	TTA1840-35-HG	1864481	18GHz~40GHz	05/Aug/2019	04/Aug/2020
RF Cable-high	HUBER+SUHNER	SUCOFLEX104	324530/4+171713/4	1GHz~40GHz	03/Jul/2019	02/Jul/2020
RF Cable-high	HUBER+SUHNER	SUCOFLEX104	556626/4+552627	1GHz~40GHz	07/Jul/2019	06/Jul/2020

Instrument for Radiated Test (03CH02-HY)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz~1GHz 3m	02/Aug/2021	01/Aug/2022
Signal Analyzer	R&S	FSP40	100593	9kHz~40GHz	12/Mar/2021	11/Mar/2022
Amplifier	Agilent	8447D	2944A11149	100kHz~1.3GHz	29/Jun/2021	28/Jun/2022
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz~1GHz	04/Sep/2021	03/Sep/2022
RF Cable	MVE	400LL	MVE-1-0802	9kHz~30MHz	05/May/2021	04/May/2022
RF Cable	MVE	400LL	MVE-1-0802	30MHz~1GHz	05/May/2021	04/May/2022
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	16/Mar/2021	15/Mar/2022
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	19/Apr/2021	18/Apr/2022

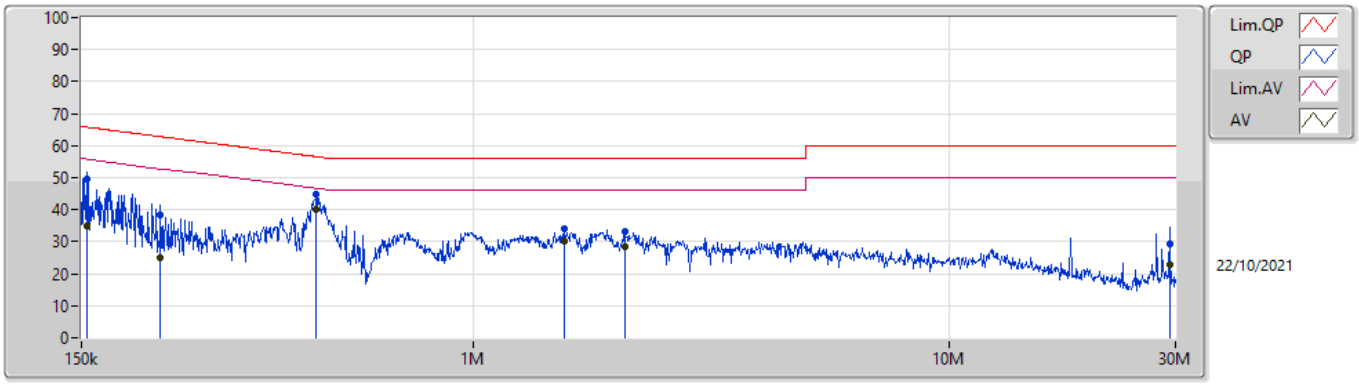
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	467.95k	40.26	46.55	-6.29	Line

Mode config

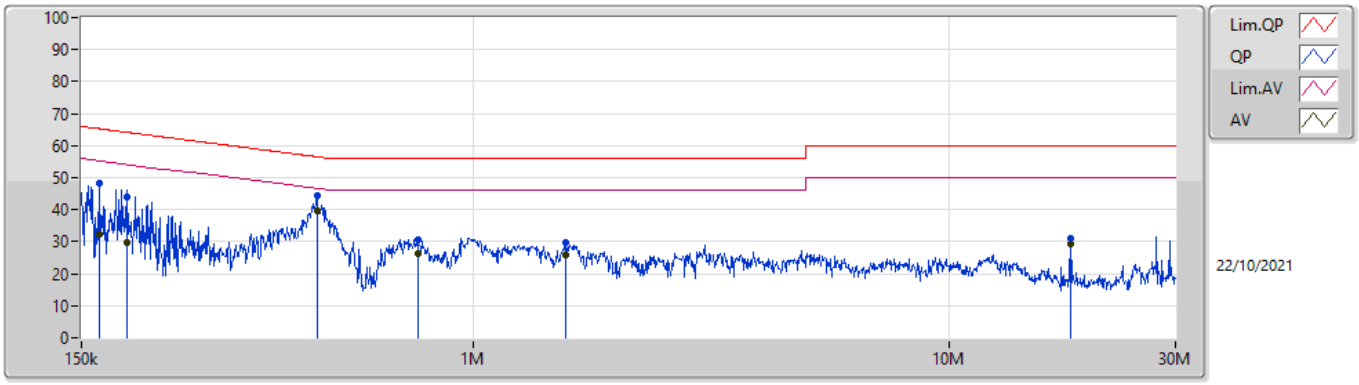
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	153.636k	49.50	65.81	-16.31	Line	-
Mode 1	Pass	AV	153.636k	34.73	55.81	-21.08	Line	-
Mode 1	Pass	QP	220.053k	38.38	62.81	-24.43	Line	-
Mode 1	Pass	AV	220.053k	25.06	52.81	-27.75	Line	-
Mode 1	Pass	QP	467.95k	44.69	56.55	-11.86	Line	-
Mode 1	Pass	AV	467.95k	40.26	46.55	-6.29	Line	-
Mode 1	Pass	QP	1.55M	34.03	56.00	-21.97	Line	-
Mode 1	Pass	AV	1.55M	30.09	46.00	-15.91	Line	-
Mode 1	Pass	QP	2.083M	33.35	56.00	-22.65	Line	-
Mode 1	Pass	AV	2.083M	28.63	46.00	-17.37	Line	-
Mode 1	Pass	QP	29.147M	29.34	60.00	-30.66	Line	-
Mode 1	Pass	AV	29.147M	22.76	50.00	-27.24	Line	-
Mode 1	Pass	QP	163.117k	48.13	65.31	-17.18	Neutral	-
Mode 1	Pass	AV	163.117k	32.51	55.31	-22.80	Neutral	-
Mode 1	Pass	QP	187.577k	44.02	64.15	-20.13	Neutral	-
Mode 1	Pass	AV	187.577k	29.93	54.15	-24.22	Neutral	-
Mode 1	Pass	QP	469.822k	44.24	56.52	-12.28	Neutral	-
Mode 1	Pass	AV	469.822k	39.48	46.52	-7.04	Neutral	-
Mode 1	Pass	QP	764.621k	30.52	56.00	-25.48	Neutral	-
Mode 1	Pass	AV	764.621k	26.37	46.00	-19.63	Neutral	-
Mode 1	Pass	QP	1.569M	29.94	56.00	-26.06	Neutral	-
Mode 1	Pass	AV	1.569M	26.07	46.00	-19.93	Neutral	-
Mode 1	Pass	QP	18.053M	31.23	60.00	-28.77	Neutral	-
Mode 1	Pass	AV	18.053M	29.14	50.00	-20.86	Neutral	-

Conducted Emissions at Powerline_Mode 1



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	153.636k	49.50	65.81	-16.31	19.62	Line	-	29.88	9.69	0.04	9.89
AV	153.636k	34.73	55.81	-21.08	19.62	Line	-	15.11	9.69	0.04	9.89
QP	220.053k	38.38	62.81	-24.43	19.61	Line	-	18.77	9.68	0.04	9.89
AV	220.053k	25.06	52.81	-27.75	19.61	Line	-	5.45	9.68	0.04	9.89
QP	467.95k	44.69	56.55	-11.86	19.62	Line	-	25.07	9.67	0.06	9.89
AV	467.95k	40.26	46.55	-6.29	19.62	Line	-	20.64	9.67	0.06	9.89
QP	1.55M	34.03	56.00	-21.97	19.65	Line	-	14.38	9.68	0.09	9.88
AV	1.55M	30.09	46.00	-15.91	19.65	Line	-	10.44	9.68	0.09	9.88
QP	2.083M	33.35	56.00	-22.65	19.66	Line	-	13.69	9.68	0.10	9.88
AV	2.083M	28.63	46.00	-17.37	19.66	Line	-	8.97	9.68	0.10	9.88
QP	29.147M	29.34	60.00	-30.66	19.78	Line	-	9.56	9.54	0.34	9.90
AV	29.147M	22.76	50.00	-27.24	19.78	Line	-	2.98	9.54	0.34	9.90

Conducted Emissions at Powerline_Mode 1



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	163.117k	48.13	65.31	-17.18	19.62	Neutral	-	28.51	9.69	0.04	9.89
AV	163.117k	32.51	55.31	-22.80	19.62	Neutral	-	12.89	9.69	0.04	9.89
QP	187.577k	44.02	64.15	-20.13	19.61	Neutral	-	24.41	9.68	0.04	9.89
AV	187.577k	29.93	54.15	-24.22	19.61	Neutral	-	10.32	9.68	0.04	9.89
QP	469.822k	44.24	56.52	-12.28	19.62	Neutral	-	24.62	9.67	0.06	9.89
AV	469.822k	39.48	46.52	-7.04	19.62	Neutral	-	19.86	9.67	0.06	9.89
QP	764.621k	30.52	56.00	-25.48	19.63	Neutral	-	10.89	9.67	0.07	9.89
AV	764.621k	26.37	46.00	-19.63	19.63	Neutral	-	6.74	9.67	0.07	9.89
QP	1.569M	29.94	56.00	-26.06	19.65	Neutral	-	10.29	9.68	0.09	9.88
AV	1.569M	26.07	46.00	-19.93	19.65	Neutral	-	6.42	9.68	0.09	9.88
QP	18.053M	31.23	60.00	-28.77	19.92	Neutral	-	11.31	9.75	0.28	9.89
AV	18.053M	29.14	50.00	-20.86	19.92	Neutral	-	9.22	9.75	0.28	9.89

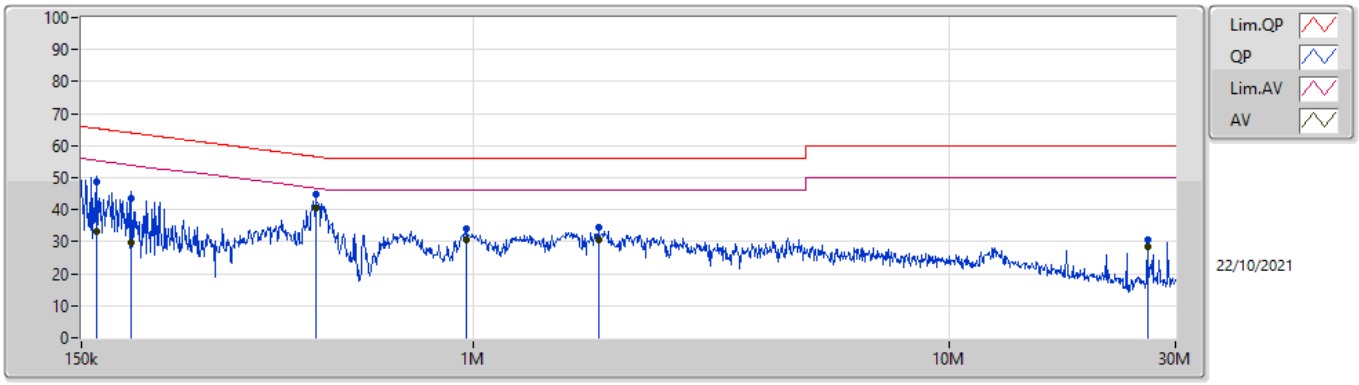
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	466.086k	40.33	46.59	-6.26	Line

Mode config

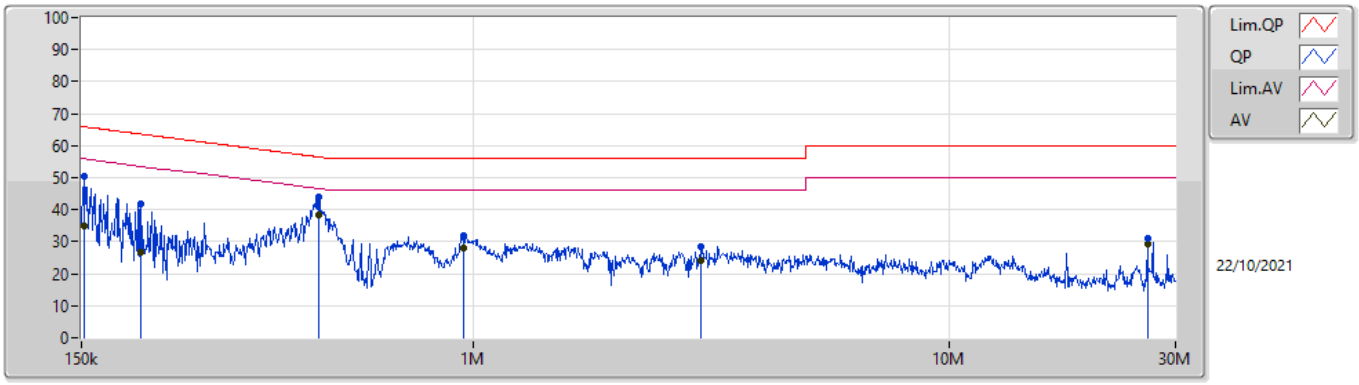
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	161.82k	48.53	65.37	-16.84	Line	-
Mode 1	Pass	AV	161.82k	33.23	55.37	-22.14	Line	-
Mode 1	Pass	QP	191.358k	43.47	63.97	-20.50	Line	-
Mode 1	Pass	AV	191.358k	29.90	53.97	-24.07	Line	-
Mode 1	Pass	QP	466.086k	44.63	56.59	-11.96	Line	-
Mode 1	Pass	AV	466.086k	40.33	46.59	-6.26	Line	-
Mode 1	Pass	QP	967.688k	34.12	56.00	-21.88	Line	-
Mode 1	Pass	AV	967.688k	30.73	46.00	-15.27	Line	-
Mode 1	Pass	QP	1.833M	34.64	56.00	-21.36	Line	-
Mode 1	Pass	AV	1.833M	30.42	46.00	-15.58	Line	-
Mode 1	Pass	QP	26.169M	30.70	60.00	-29.30	Line	-
Mode 1	Pass	AV	26.169M	28.65	50.00	-21.35	Line	-
Mode 1	Pass	QP	152.414k	50.38	65.87	-15.49	Neutral	-
Mode 1	Pass	AV	152.414k	34.99	55.87	-20.88	Neutral	-
Mode 1	Pass	QP	199.949k	42.00	63.61	-21.61	Neutral	-
Mode 1	Pass	AV	199.949k	26.91	53.61	-26.70	Neutral	-
Mode 1	Pass	QP	473.588k	43.97	56.46	-12.49	Neutral	-
Mode 1	Pass	AV	473.588k	38.27	46.46	-8.19	Neutral	-
Mode 1	Pass	QP	952.358k	31.95	56.00	-24.05	Neutral	-
Mode 1	Pass	AV	952.358k	28.15	46.00	-17.85	Neutral	-
Mode 1	Pass	QP	3.019M	28.59	56.00	-27.41	Neutral	-
Mode 1	Pass	AV	3.019M	23.99	46.00	-22.01	Neutral	-
Mode 1	Pass	QP	26.169M	30.82	60.00	-29.18	Neutral	-
Mode 1	Pass	AV	26.169M	29.39	50.00	-20.61	Neutral	-

Conducted Emissions at Powerline_Mode 1



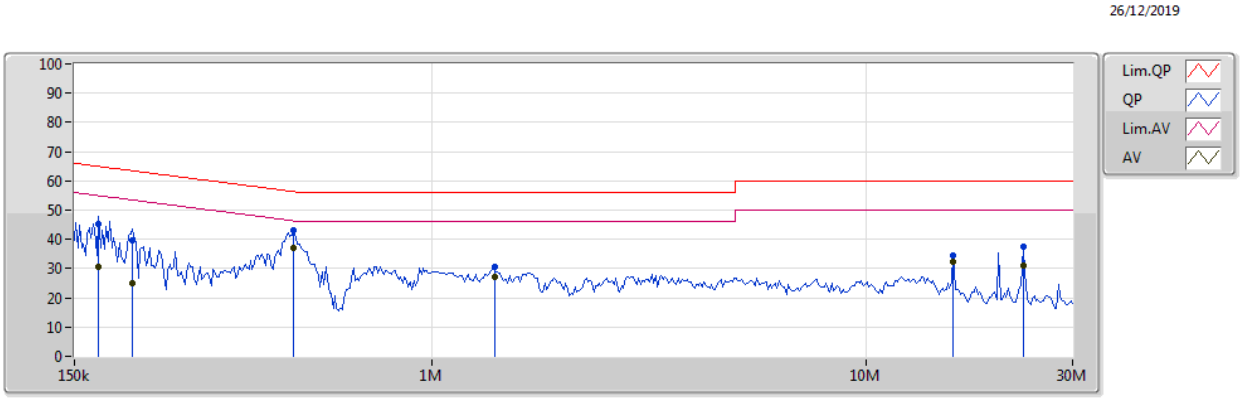
Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	161.82k	48.53	65.37	-16.84	19.62	Line	-	28.91	9.69	0.04	9.89
AV	161.82k	33.23	55.37	-22.14	19.62	Line	-	13.61	9.69	0.04	9.89
QP	191.358k	43.47	63.97	-20.50	19.61	Line	-	23.86	9.68	0.04	9.89
AV	191.358k	29.90	53.97	-24.07	19.61	Line	-	10.29	9.68	0.04	9.89
QP	466.086k	44.63	56.59	-11.96	19.62	Line	-	25.01	9.67	0.06	9.89
AV	466.086k	40.33	46.59	-6.26	19.62	Line	-	20.71	9.67	0.06	9.89
QP	967.688k	34.12	56.00	-21.88	19.64	Line	-	14.48	9.67	0.08	9.89
AV	967.688k	30.73	46.00	-15.27	19.64	Line	-	11.09	9.67	0.08	9.89
QP	1.833M	34.64	56.00	-21.36	19.66	Line	-	14.98	9.68	0.10	9.88
AV	1.833M	30.42	46.00	-15.58	19.66	Line	-	10.76	9.68	0.10	9.88
QP	26.169M	30.70	60.00	-29.30	19.80	Line	-	10.90	9.58	0.33	9.89
AV	26.169M	28.65	50.00	-21.35	19.80	Line	-	8.85	9.58	0.33	9.89

Conducted Emissions at Powerline_Mode 1



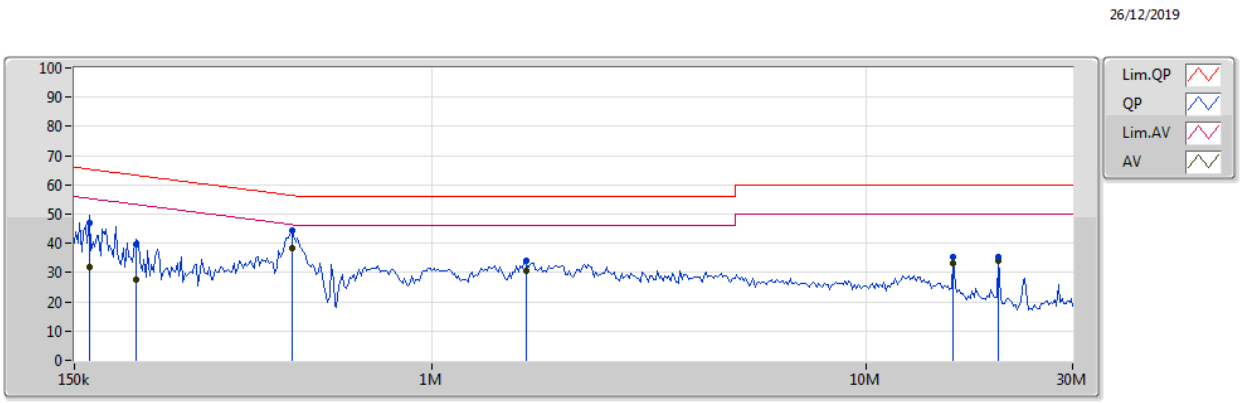
Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	152.414k	50.38	65.87	-15.49	19.62	Neutral	-	30.76	9.69	0.04	9.89
AV	152.414k	34.99	55.87	-20.88	19.62	Neutral	-	15.37	9.69	0.04	9.89
QP	199.949k	42.00	63.61	-21.61	19.61	Neutral	-	22.39	9.68	0.04	9.89
AV	199.949k	26.91	53.61	-26.70	19.61	Neutral	-	7.30	9.68	0.04	9.89
QP	473.588k	43.97	56.46	-12.49	19.62	Neutral	-	24.35	9.67	0.06	9.89
AV	473.588k	38.27	46.46	-8.19	19.62	Neutral	-	18.65	9.67	0.06	9.89
QP	952.358k	31.95	56.00	-24.05	19.64	Neutral	-	12.31	9.67	0.08	9.89
AV	952.358k	28.15	46.00	-17.85	19.64	Neutral	-	8.51	9.67	0.08	9.89
QP	3.019M	28.59	56.00	-27.41	19.70	Neutral	-	8.89	9.69	0.12	9.89
AV	3.019M	23.99	46.00	-22.01	19.70	Neutral	-	4.29	9.69	0.12	9.89
QP	26.169M	30.82	60.00	-29.18	19.94	Neutral	-	10.88	9.72	0.33	9.89
AV	26.169M	29.39	50.00	-20.61	19.94	Neutral	-	9.45	9.72	0.33	9.89

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	Sample 1; PoE mode; WIFI 2.4G TX		



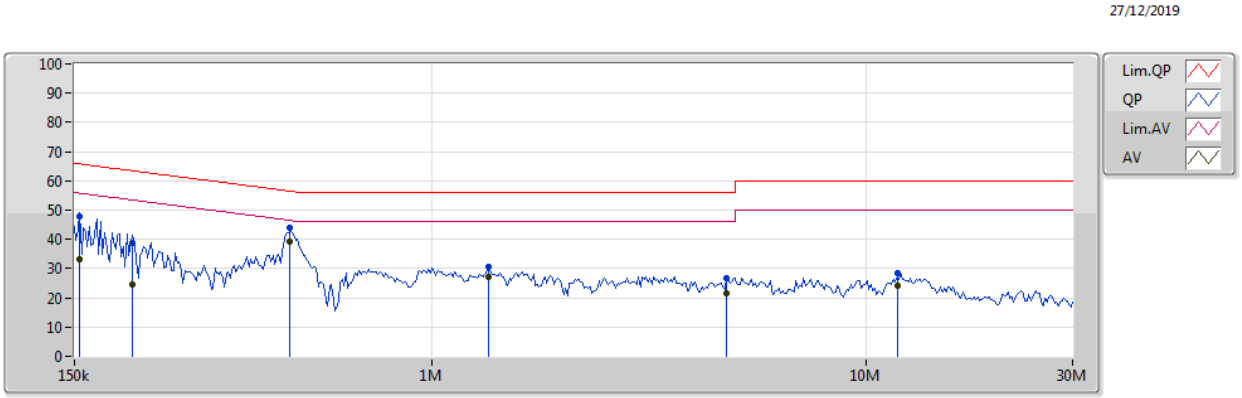
Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	170.714k	45.42	64.93	-19.51	19.63	Neutral	-	25.79	9.65	0.11	9.87
AV	170.714k	30.48	54.93	-24.45	19.63	Neutral	-	10.85	9.65	0.11	9.87
QP	204.199k	39.62	63.44	-23.82	19.62	Neutral	-	20.00	9.64	0.11	9.87
AV	204.199k	25.00	53.44	-28.44	19.62	Neutral	-	5.38	9.64	0.11	9.87
QP	480.498k	42.94	56.33	-13.39	19.63	Neutral	-	23.31	9.63	0.13	9.87
AV	480.498k	37.15	46.33	-9.18	19.63	Neutral	"Worst"	17.52	9.63	0.13	9.87
QP	1.393M	30.65	56.00	-25.35	19.64	Neutral	-	11.01	9.64	0.12	9.88
AV	1.393M	27.33	46.00	-18.67	19.64	Neutral	-	7.69	9.64	0.12	9.88
QP	15.952M	34.48	60.00	-25.52	19.91	Neutral	-	14.57	9.71	0.32	9.88
AV	15.952M	32.21	50.00	-17.79	19.91	Neutral	-	12.30	9.71	0.32	9.88
QP	23.052M	37.53	60.00	-22.47	19.97	Neutral	-	17.56	9.70	0.39	9.88
AV	23.052M	30.90	50.00	-19.10	19.97	Neutral	-	10.93	9.70	0.39	9.88

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	Sample 1; PoE mode; WIFI 2.4G TX		



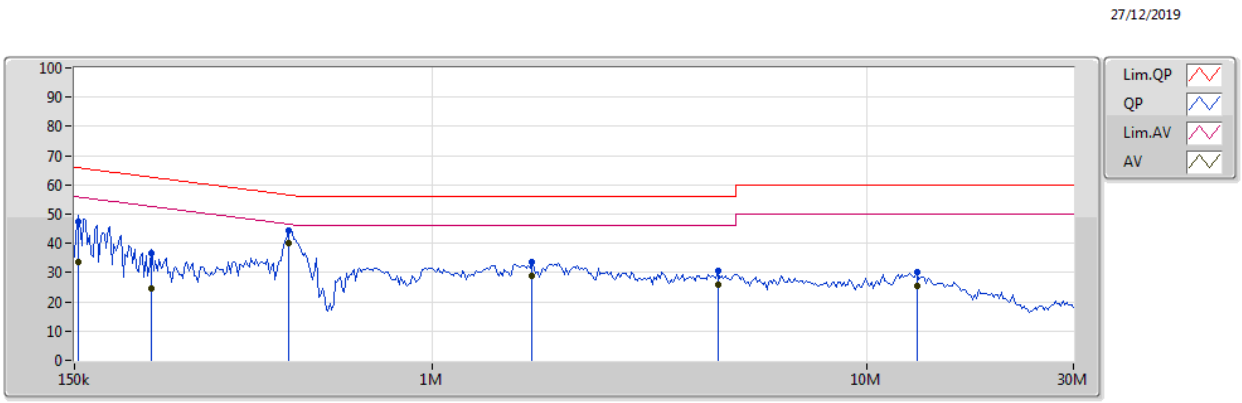
Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	162.429k	46.82	65.33	-18.51	19.64	Line	-	27.18	9.66	0.11	9.87
AV	162.429k	31.97	55.33	-23.36	19.64	Line	-	12.33	9.66	0.11	9.87
QP	208.304k	39.60	63.27	-23.67	19.63	Line	-	19.97	9.65	0.11	9.87
AV	208.304k	27.41	53.27	-25.86	19.63	Line	-	7.78	9.65	0.11	9.87
QP	475.741k	44.26	56.42	-12.16	19.64	Line	-	24.62	9.64	0.13	9.87
AV	475.741k	38.20	46.42	-8.22	19.64	Line	"Worst"	18.56	9.64	0.13	9.87
QP	1.65M	34.04	56.00	-21.96	19.65	Line	-	14.39	9.65	0.13	9.87
AV	1.65M	30.39	46.00	-15.61	19.65	Line	-	10.74	9.65	0.13	9.87
QP	15.952M	35.27	60.00	-24.73	19.86	Line	-	15.41	9.66	0.32	9.88
AV	15.952M	33.28	50.00	-16.72	19.86	Line	-	13.42	9.66	0.32	9.88
QP	20.255M	35.35	60.00	-24.65	19.89	Line	-	15.46	9.64	0.36	9.89
AV	20.255M	33.87	50.00	-16.13	19.89	Line	-	13.98	9.64	0.36	9.89

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	Sample 2; PoE mode; WIFI 2.4G TX		



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	154.545k	47.83	65.75	-17.92	19.63	Neutral	-	28.20	9.65	0.11	9.87
AV	154.545k	33.35	55.75	-22.40	19.63	Neutral	-	13.72	9.65	0.11	9.87
QP	204.199k	38.82	63.44	-24.62	19.62	Neutral	-	19.20	9.64	0.11	9.87
AV	204.199k	24.68	53.44	-28.76	19.62	Neutral	-	5.06	9.64	0.11	9.87
QP	471.031k	44.05	56.50	-12.45	19.63	Neutral	-	24.42	9.63	0.13	9.87
AV	471.031k	39.01	46.50	-7.49	19.63	Neutral	"Worst"	19.38	9.63	0.13	9.87
QP	1.352M	30.65	56.00	-25.35	19.64	Neutral	-	11.01	9.64	0.12	9.88
AV	1.352M	26.95	46.00	-19.05	19.64	Neutral	-	7.31	9.64	0.12	9.88
QP	4.786M	26.64	56.00	-29.36	19.75	Neutral	-	6.89	9.67	0.20	9.88
AV	4.786M	21.55	46.00	-24.45	19.75	Neutral	-	1.80	9.67	0.20	9.88
QP	11.835M	28.43	60.00	-31.57	19.87	Neutral	-	8.56	9.70	0.29	9.88
AV	11.835M	23.96	50.00	-26.04	19.87	Neutral	-	4.09	9.70	0.29	9.88

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	Sample 2; PoE mode; WIFI 2.4G TX		



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	153.015k	47.28	65.83	-18.55	19.64	Line	-	27.64	9.66	0.11	9.87
AV	153.015k	33.70	55.83	-22.13	19.64	Line	-	14.06	9.66	0.11	9.87
QP	225.563k	36.67	62.62	-25.95	19.63	Line	-	17.04	9.65	0.11	9.87
AV	225.563k	24.55	52.62	-28.07	19.63	Line	-	4.92	9.65	0.11	9.87
QP	466.367k	44.24	56.57	-12.33	19.64	Line	-	24.60	9.64	0.13	9.87
AV	466.367k	39.92	46.57	-6.65	19.64	Line	"Worst"	20.28	9.64	0.13	9.87
QP	1.7M	33.46	56.00	-22.54	19.65	Line	-	13.81	9.65	0.13	9.87
AV	1.7M	28.67	46.00	-17.33	19.65	Line	-	9.02	9.65	0.13	9.87
QP	4.553M	30.50	56.00	-25.50	19.73	Line	-	10.77	9.66	0.19	9.88
AV	4.553M	25.75	46.00	-20.25	19.73	Line	-	6.02	9.66	0.19	9.88
QP	13.073M	30.37	60.00	-29.63	19.85	Line	-	10.52	9.67	0.30	9.88
AV	13.073M	25.53	50.00	-24.47	19.85	Line	-	5.68	9.67	0.30	9.88

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	7.525M	11.994M	12M0G1D	6.6M	10.475M
802.11g_Nss1,(6Mbps)_1TX	16.35M	17.591M	17M6D1D	16.325M	16.732M
VHT20_Nss1,(MCS0)_1TX	17.575M	18.271M	18M3D1D	17.575M	17.831M
VHT40_Nss1,(MCS0)_1TX	36.3M	36.502M	36M5D1D	36.25M	36.422M
802.11ax HEW20_Nss1,(MCS0)_1TX	19M	19.27M	19M3D1D	18.9M	19.03M
802.11ax HEW40_Nss1,(MCS0)_1TX	37.3M	37.581M	37M6D1D	37.2M	37.501M

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

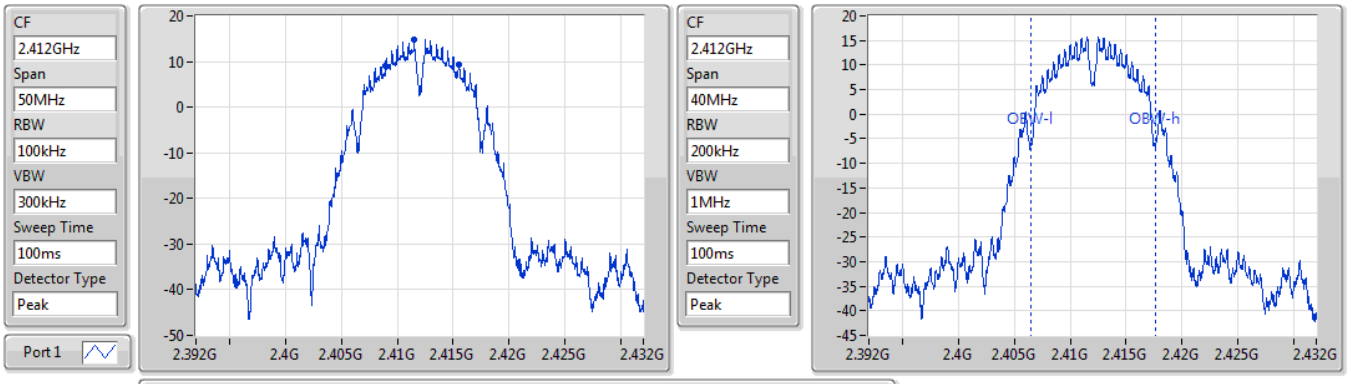
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz_TnomVnom	Pass	500k	6.6M	11.194M
2437MHz_TnomVnom	Pass	500k	7.525M	11.994M
2462MHz_TnomVnom	Pass	500k	7.05M	10.475M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz_TnomVnom	Pass	500k	16.325M	16.752M
2437MHz_TnomVnom	Pass	500k	16.325M	17.591M
2462MHz_TnomVnom	Pass	500k	16.35M	16.732M
VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz_TnomVnom	Pass	500k	17.575M	17.851M
2437MHz_TnomVnom	Pass	500k	17.575M	18.271M
2462MHz_TnomVnom	Pass	500k	17.575M	17.831M
VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz_TnomVnom	Pass	500k	36.3M	36.422M
2437MHz_TnomVnom	Pass	500k	36.25M	36.502M
2452MHz_TnomVnom	Pass	500k	36.3M	36.422M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz_TnomVnom	Pass	500k	18.975M	19.03M
2437MHz_TnomVnom	Pass	500k	18.9M	19.27M
2462MHz_TnomVnom	Pass	500k	19M	19.03M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz_TnomVnom	Pass	500k	37.3M	37.541M
2437MHz_TnomVnom	Pass	500k	37.2M	37.581M
2452MHz_TnomVnom	Pass	500k	37.3M	37.501M

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

802.11b_Nss1,(1Mbps)_1TX EBW

2412MHz

08/11/2019

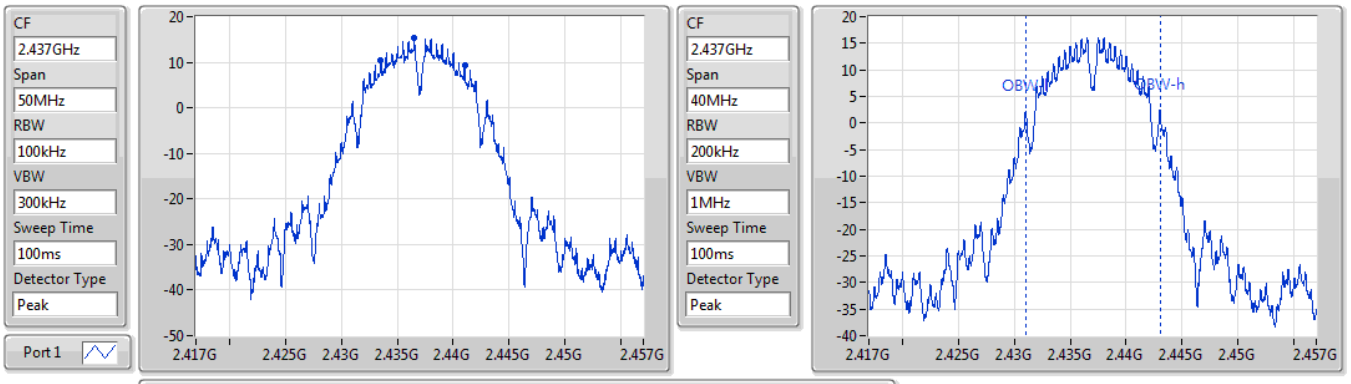


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6.6M	2.40895G	2.41555G	11.194M	2.406483G	2.417677G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2437MHz

08/11/2019

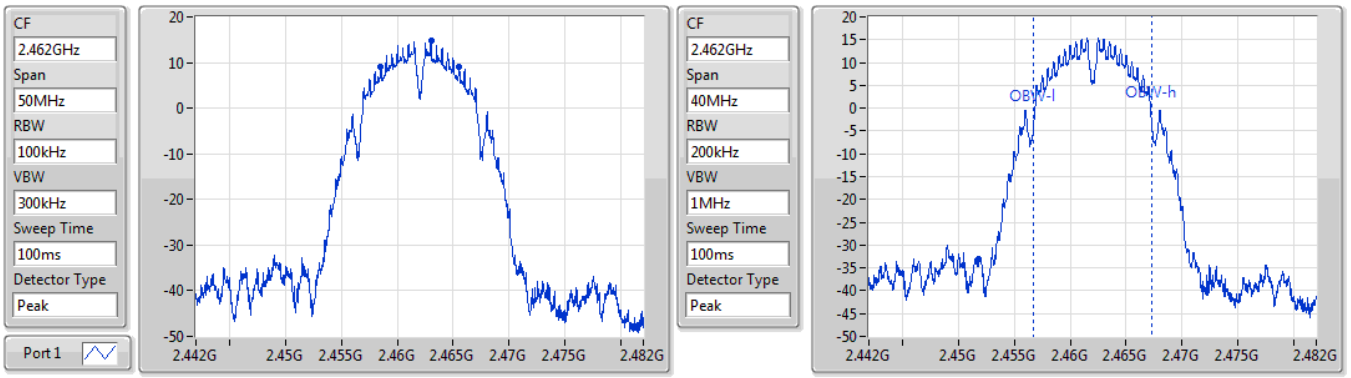


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.525M	2.4335G	2.441025G	11.994M	2.431023G	2.443017G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2462MHz

08/11/2019

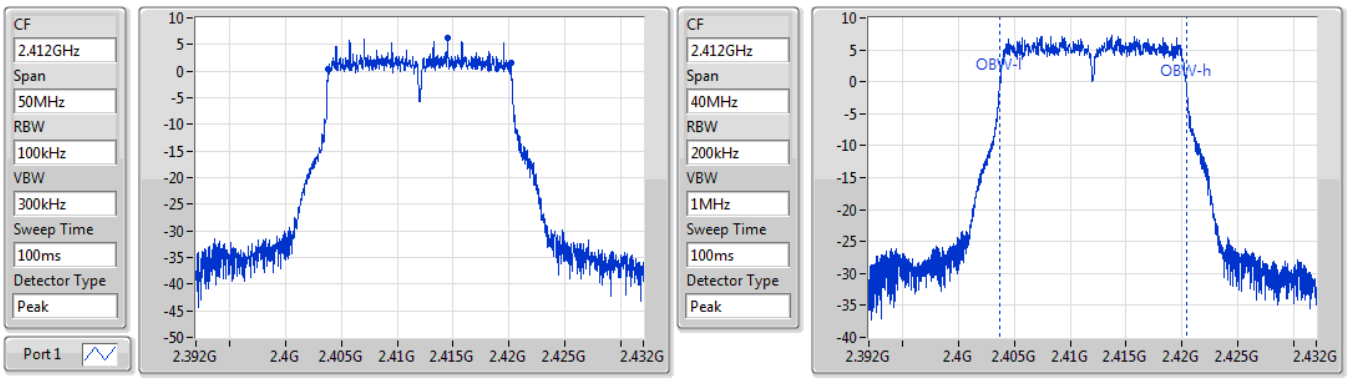


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.4585G	2.46555G	10.475M	2.456763G	2.467237G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2412MHz

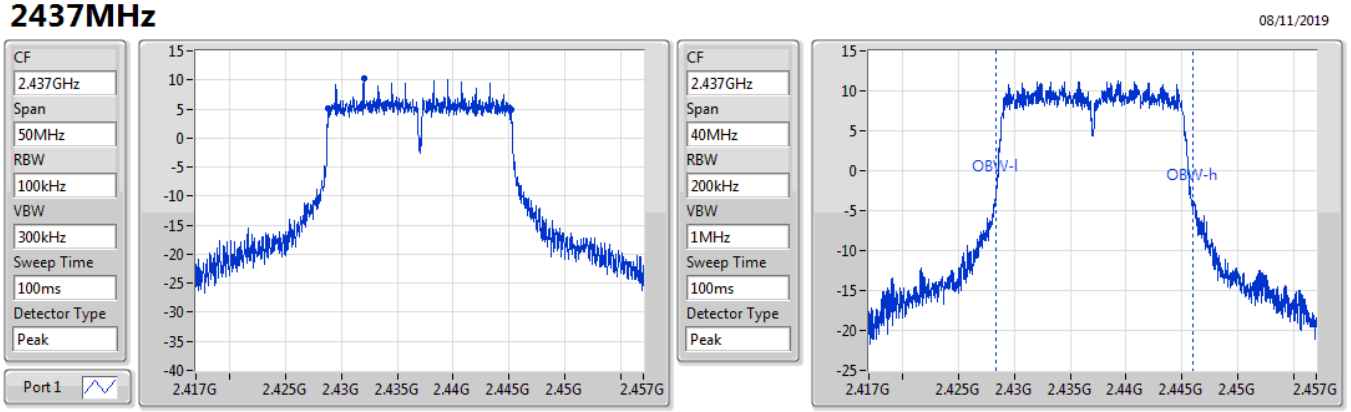
08/11/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.40385G	2.420175G	16.752M	2.403684G	2.420436G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

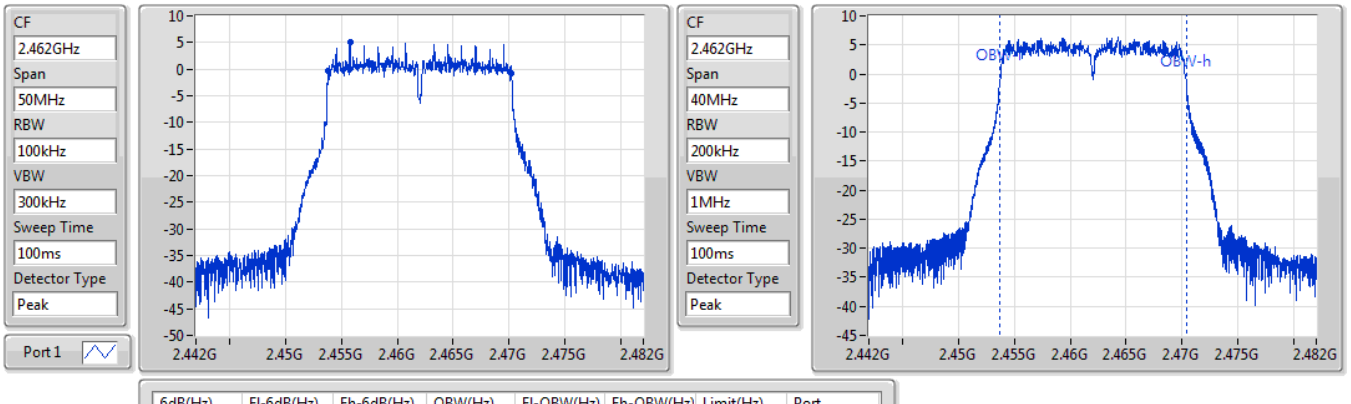
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.42885G	2.445175G	17.591M	2.428364G	2.445956G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

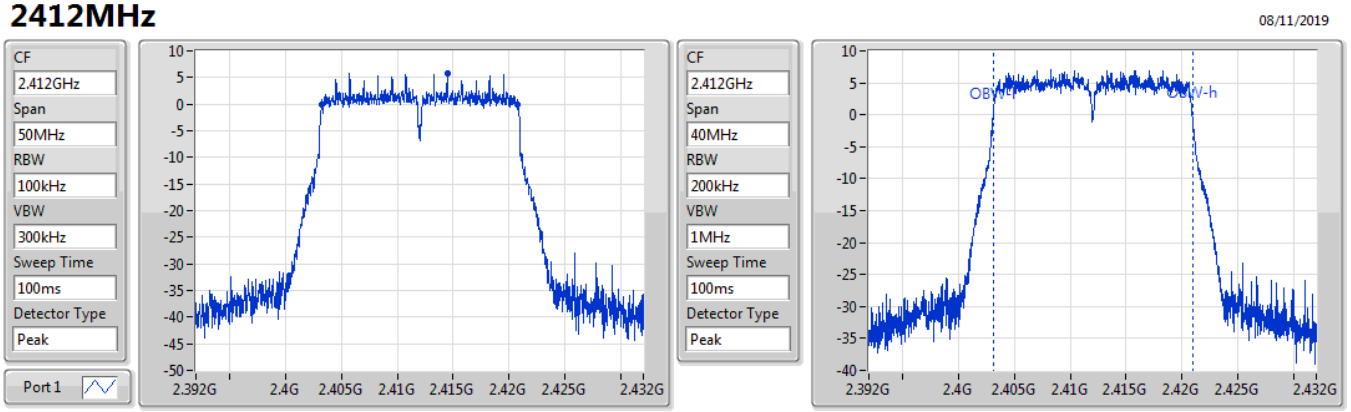
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.45385G	2.4702G	16.732M	2.453684G	2.470416G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

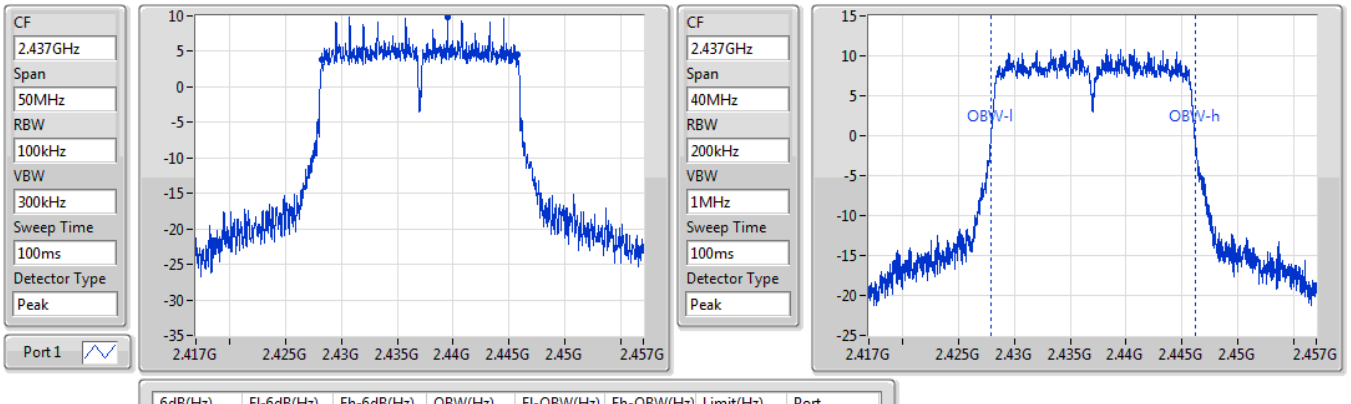
2412MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.403225G	2.4208G	17.851M	2.403104G	2.420956G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

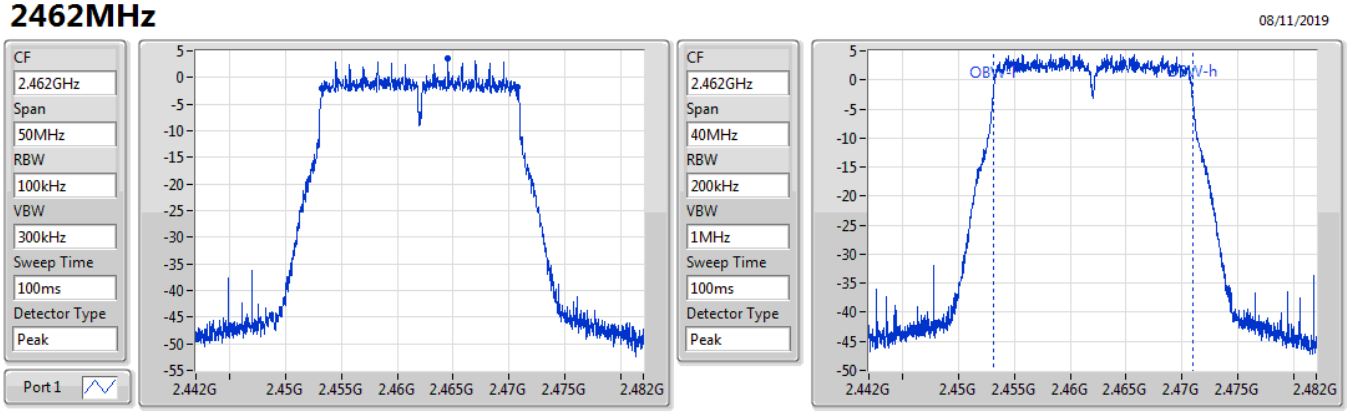
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.428225G	2.4458G	18.271M	2.427905G	2.446175G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

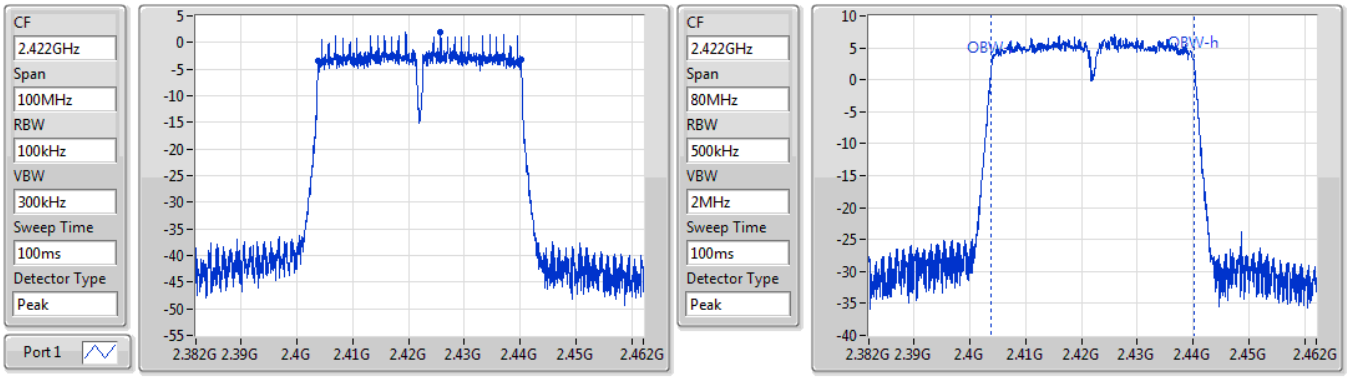
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.453225G	2.4708G	17.831M	2.453104G	2.470936G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2422MHz

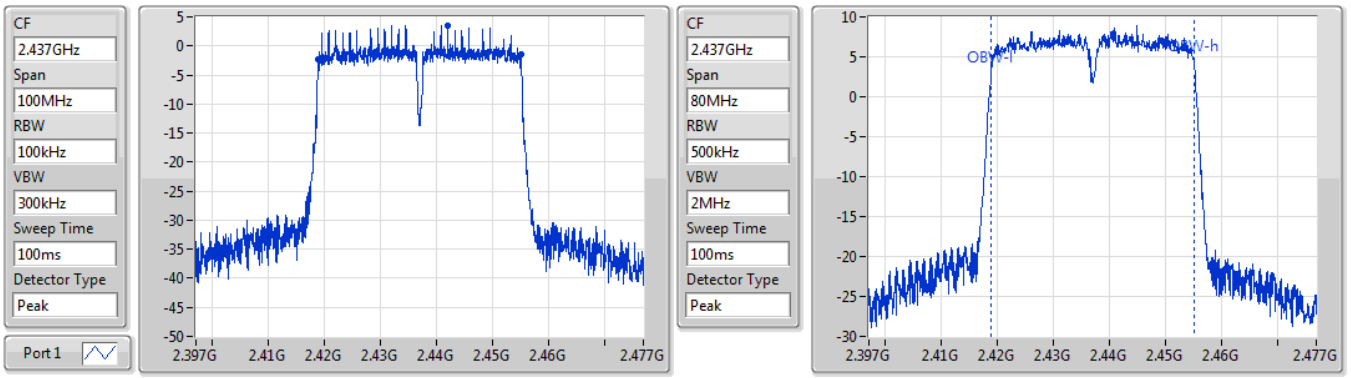


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.40385G	2.44015G	36.422M	2.403809G	2.440231G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2437MHz

08/11/2019

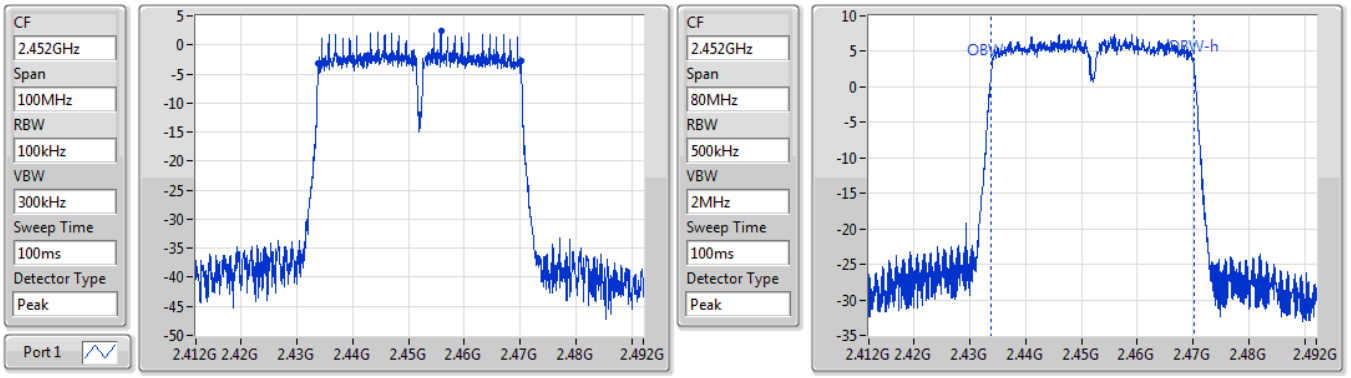


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.25M	2.4189G	2.45515G	36.502M	2.418769G	2.455271G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2452MHz

08/11/2019

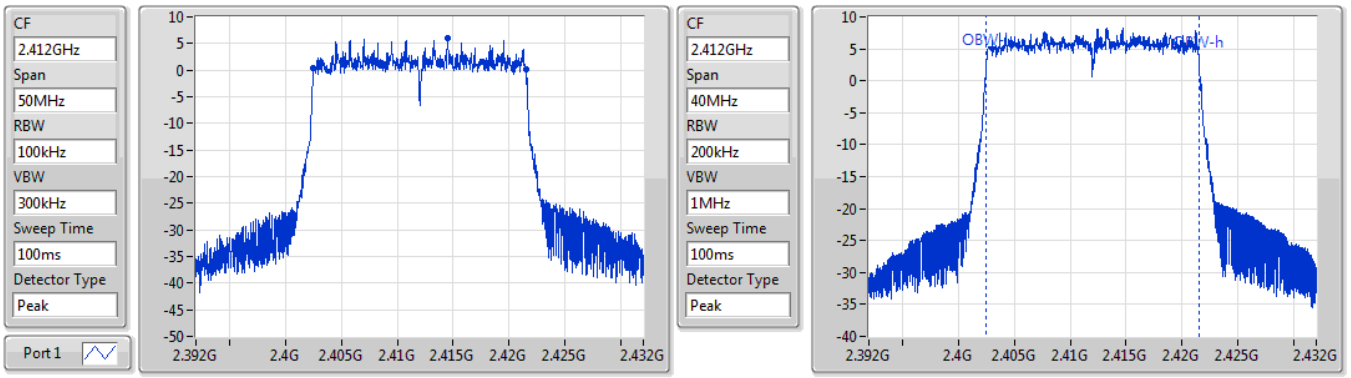


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.43385G	2.47015G	36.422M	2.433809G	2.470231G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2412MHz

08/11/2019

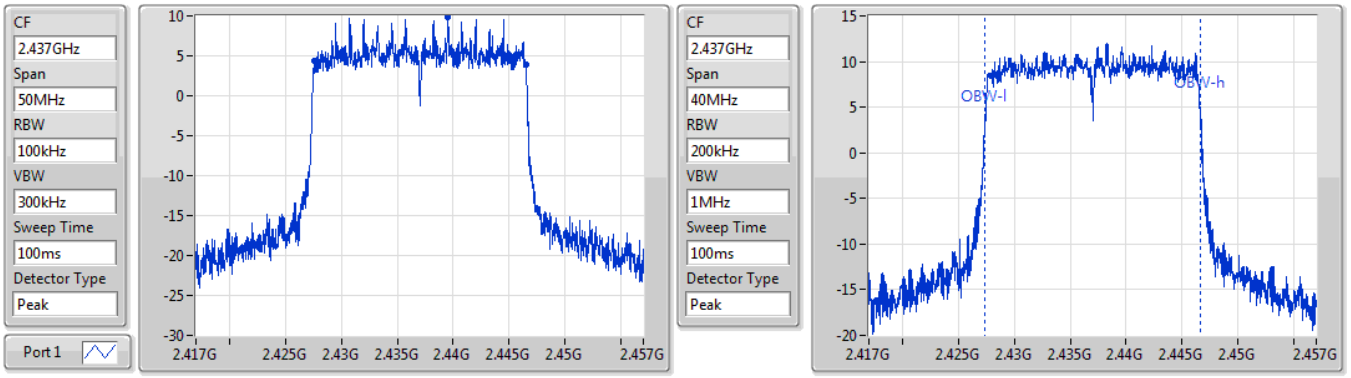


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.402525G	2.4215G	19.03M	2.402505G	2.421535G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2437MHz

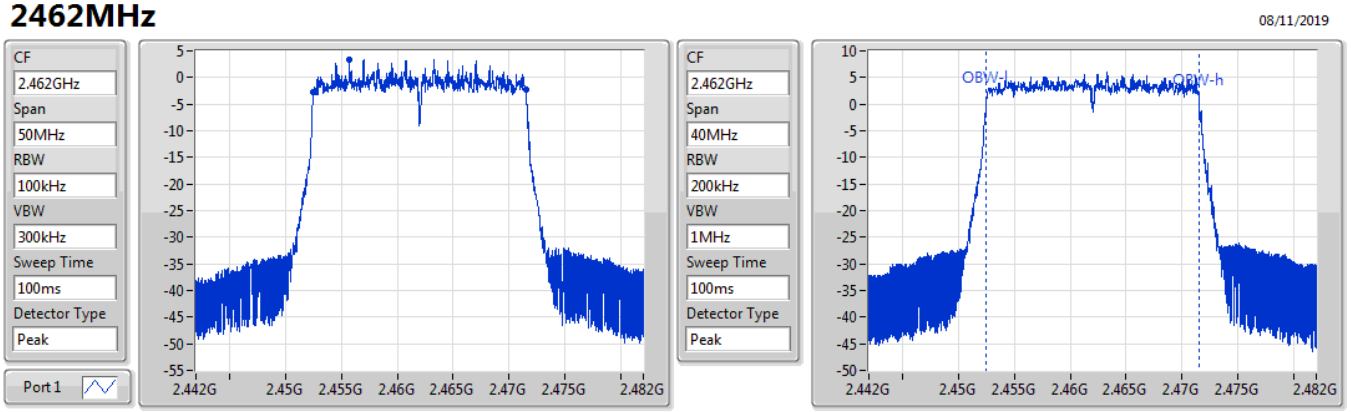
08/11/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.9M	2.4276G	2.4465G	19.27M	2.427385G	2.446655G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

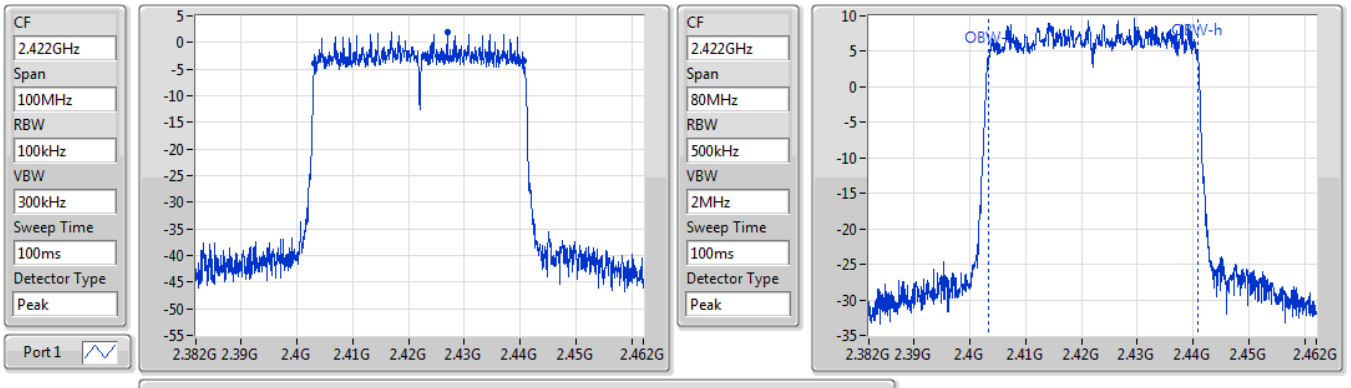
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19M	2.4525G	2.4715G	19.03M	2.452505G	2.471535G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

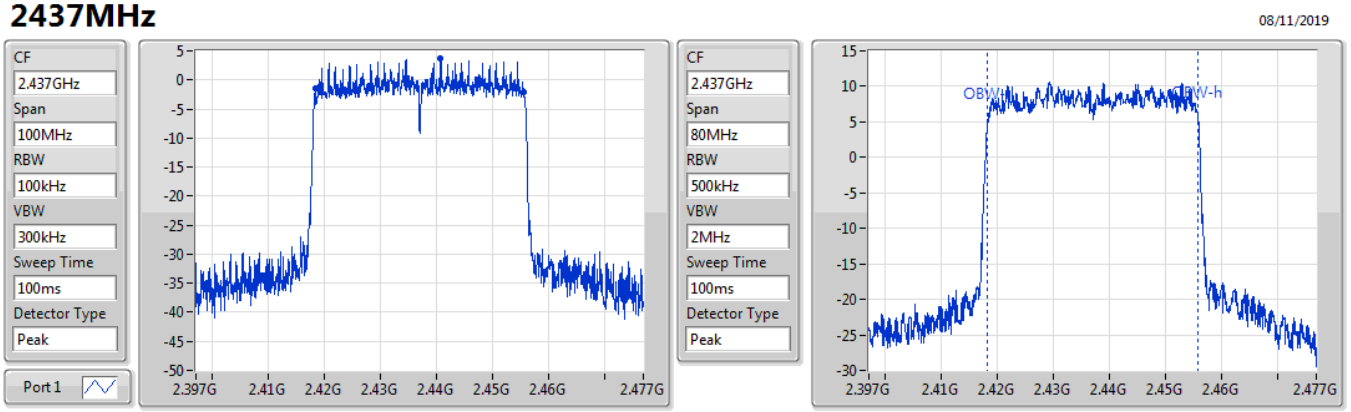
2422MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.3M	2.4032G	2.4405G	37.541M	2.403289G	2.440831G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

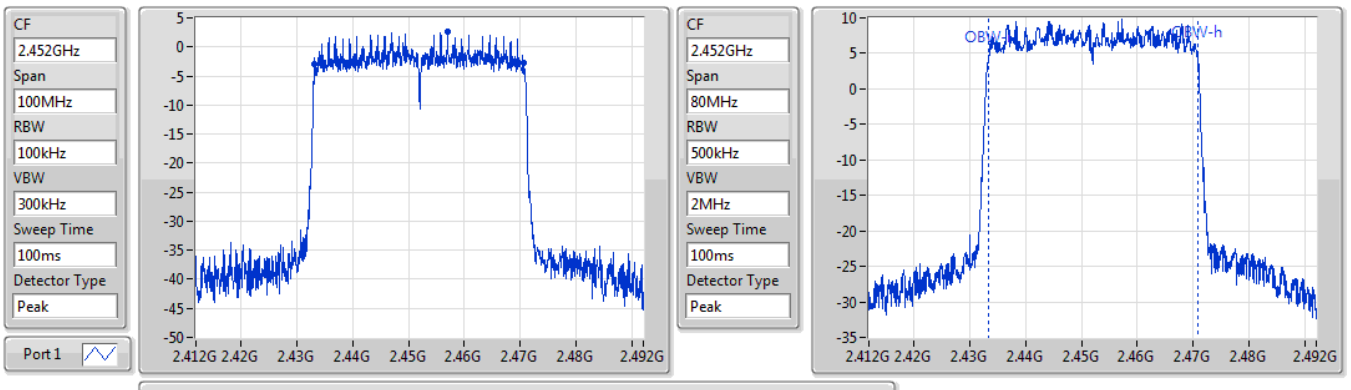
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.2M	2.4183G	2.4555G	37.581M	2.418249G	2.455831G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2452MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.3M	2.4332G	2.4705G	37.501M	2.433289G	2.470791G	500k	1

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	7.55M	13.713M	13M7G1D	7.025M	10.175M
802.11g_Nss1,(6Mbps)_2TX	16.325M	19.79M	19M8D1D	16.325M	16.692M
VHT20_Nss2,(MCS0)_2TX	17.575M	18.231M	18M2D1D	17.575M	17.831M
VHT40_Nss2,(MCS0)_2TX	36.35M	36.382M	36M4D1D	36.25M	36.342M
802.11ax HEW20_Nss2,(MCS0)_2TX	19M	19.21M	19M2D1D	18.6M	19.03M
802.11ax HEW40_Nss2,(MCS0)_2TX	37.5M	37.661M	37M7D1D	36.95M	37.541M

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

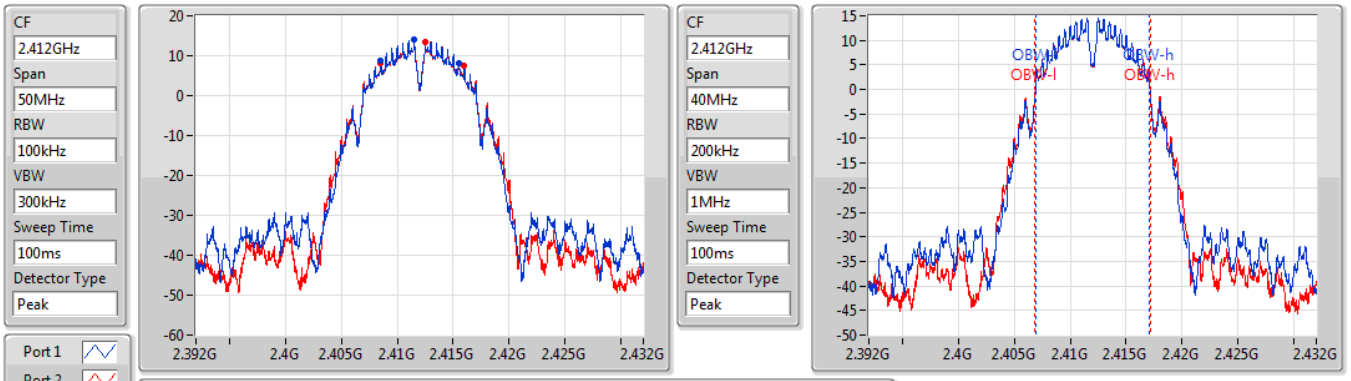
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	7.025M	10.175M	7.525M	10.375M
2437MHz_TnomVnom	Pass	500k	7.025M	13.133M	7.05M	13.713M
2462MHz_TnomVnom	Pass	500k	7.55M	10.875M	7.5M	10.535M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	16.325M	16.792M	16.325M	16.792M
2437MHz_TnomVnom	Pass	500k	16.325M	19.79M	16.325M	17.991M
2462MHz_TnomVnom	Pass	500k	16.325M	16.692M	16.325M	16.752M
VHT20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	17.575M	17.831M	17.575M	17.891M
2437MHz_TnomVnom	Pass	500k	17.575M	18.231M	17.575M	18.231M
2462MHz_TnomVnom	Pass	500k	17.575M	17.851M	17.575M	17.891M
VHT40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	500k	36.35M	36.342M	36.35M	36.342M
2437MHz_TnomVnom	Pass	500k	36.35M	36.342M	36.25M	36.382M
2452MHz_TnomVnom	Pass	500k	36.35M	36.342M	36.25M	36.382M
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	18.975M	19.07M	19M	19.05M
2437MHz_TnomVnom	Pass	500k	18.6M	19.21M	18.95M	19.15M
2462MHz_TnomVnom	Pass	500k	18.8M	19.09M	18.975M	19.03M
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	500k	36.95M	37.541M	37.5M	37.621M
2437MHz_TnomVnom	Pass	500k	37M	37.581M	37.5M	37.661M
2452MHz_TnomVnom	Pass	500k	36.95M	37.621M	37.5M	37.661M

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

802.11b_Nss1,(1Mbps)_2TX EBW

2412MHz

08/11/2019

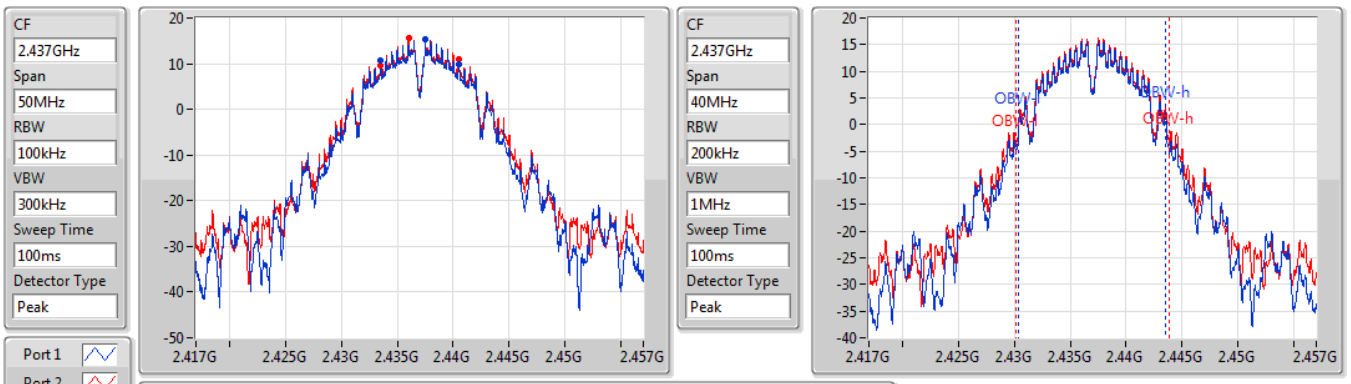


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.025M	2.4085G	2.415525G	10.175M	2.406923G	2.417097G	500k	1
7.525M	2.408475G	2.416G	10.375M	2.406823G	2.417197G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2437MHz

08/11/2019

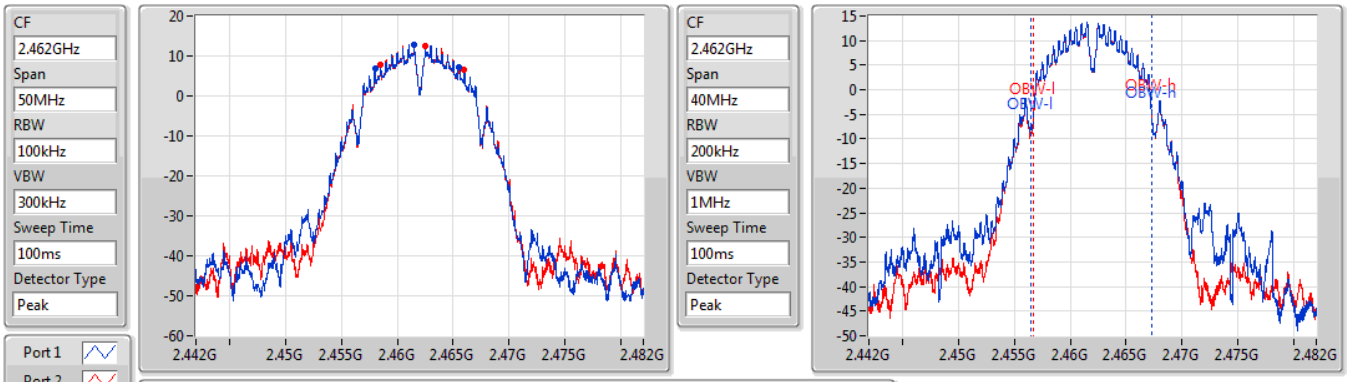


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.025M	2.4335G	2.440525G	13.133M	2.430423G	2.443557G	500k	1
7.05M	2.433475G	2.440525G	13.713M	2.430183G	2.443897G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2462MHz

08/11/2019

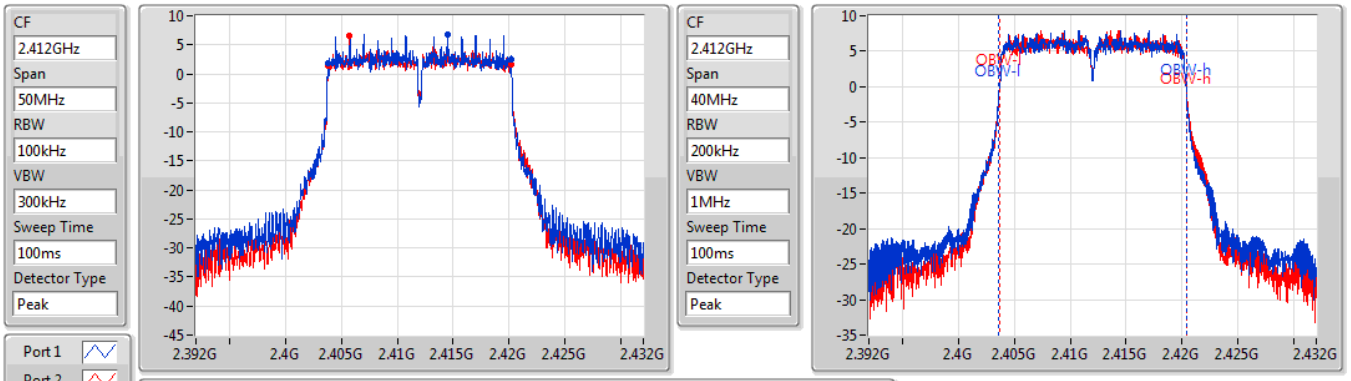


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.55M	2.458G	2.46555G	10.875M	2.456443G	2.467317G	500k	1
7.5M	2.4585G	2.466G	10.535M	2.456723G	2.467257G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2412MHz

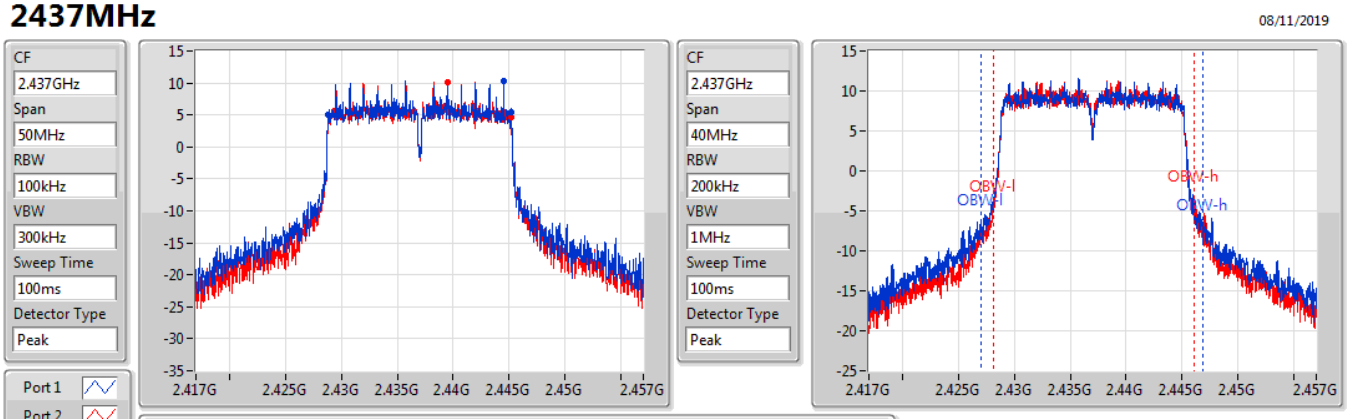
08/11/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.40385G	2.420175G	16.792M	2.403604G	2.420396G	500k	1
16.325M	2.40385G	2.420175G	16.792M	2.403664G	2.420456G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

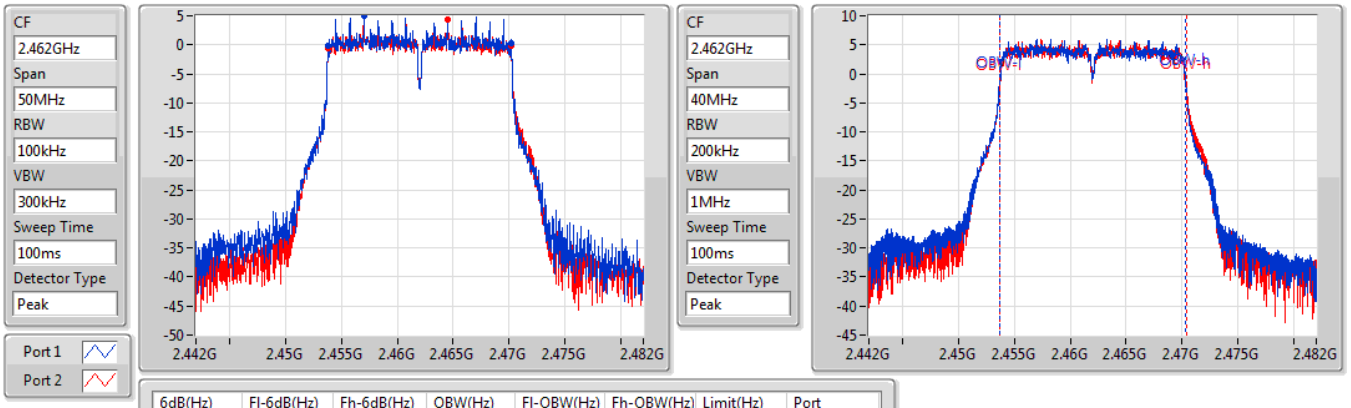
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.42885G	2.445175G	19.79M	2.427065G	2.446855G	500k	1
16.325M	2.42885G	2.445175G	17.991M	2.428144G	2.446135G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2462MHz

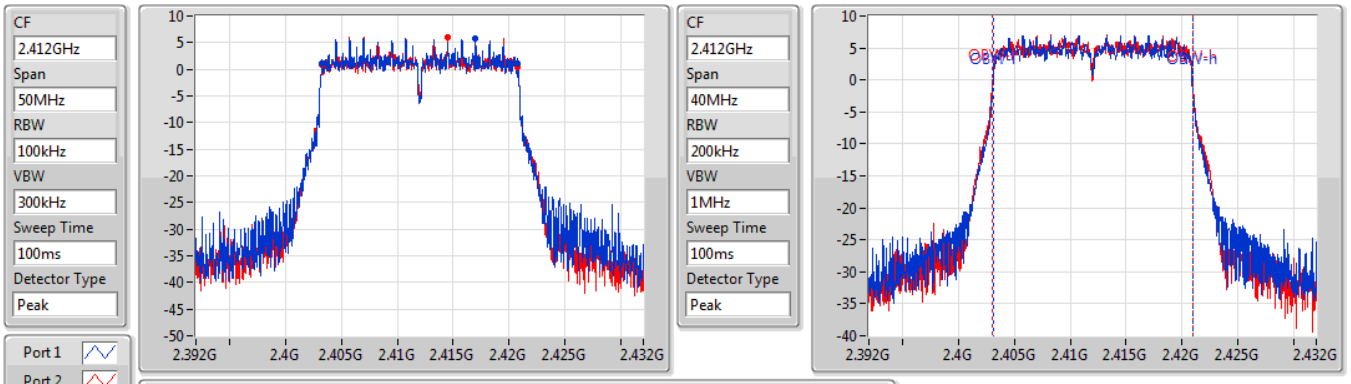


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.45385G	2.470175G	16.692M	2.453644G	2.470336G	500k	1
16.325M	2.45385G	2.470175G	16.752M	2.453664G	2.470416G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2412MHz

08/11/2019

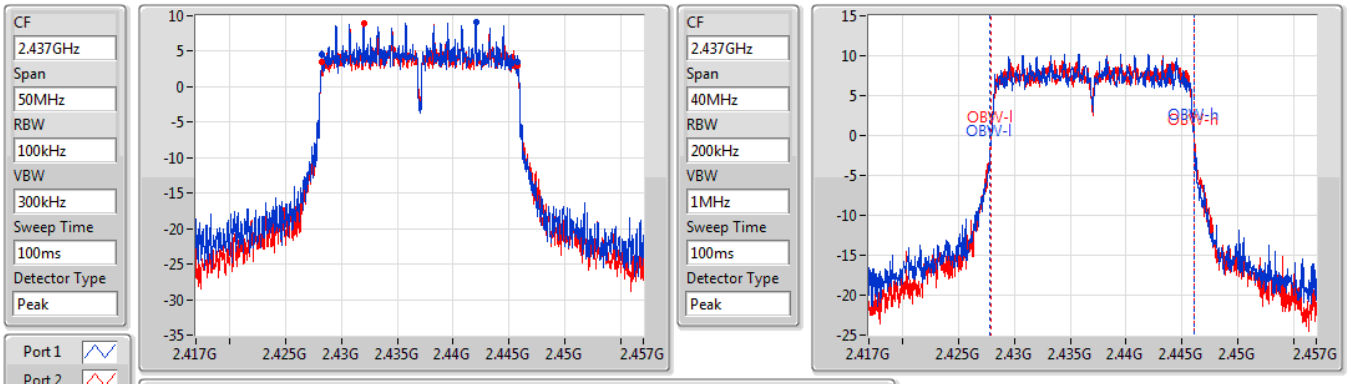


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.403225G	2.4208G	17.831M	2.403104G	2.420936G	500k	1
17.575M	2.403225G	2.4208G	17.891M	2.403064G	2.420956G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2437MHz

08/11/2019

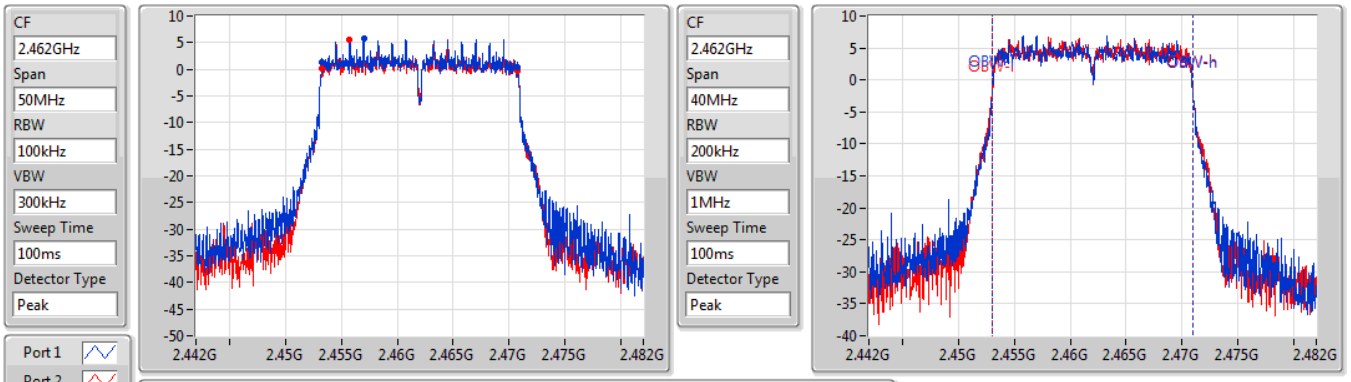


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.428225G	2.4458G	18.231M	2.427825G	2.446055G	500k	1
17.575M	2.428225G	2.4458G	18.231M	2.427905G	2.446135G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2462MHz

08/11/2019

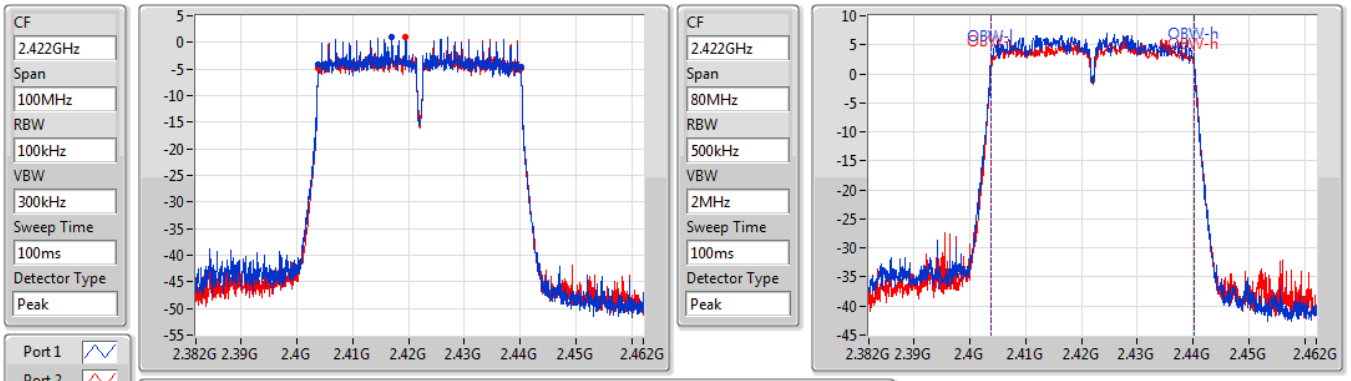


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.453225G	2.4708G	17.851M	2.453064G	2.470916G	500k	1
17.575M	2.453225G	2.4708G	17.891M	2.453044G	2.470936G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2422MHz

08/11/2019

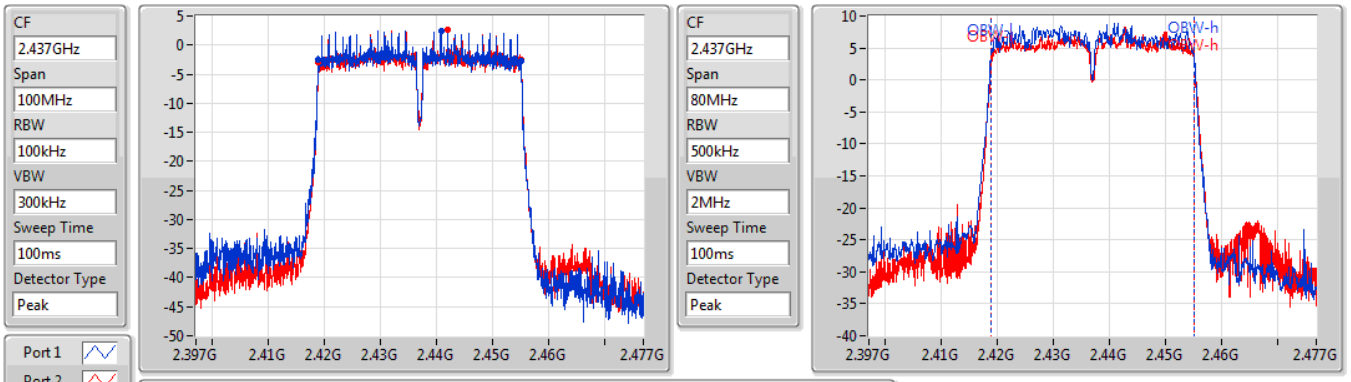


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.35M	2.40385G	2.4402G	36.342M	2.403809G	2.440151G	500k	1
36.35M	2.40385G	2.4402G	36.342M	2.403889G	2.440231G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2437MHz

08/11/2019

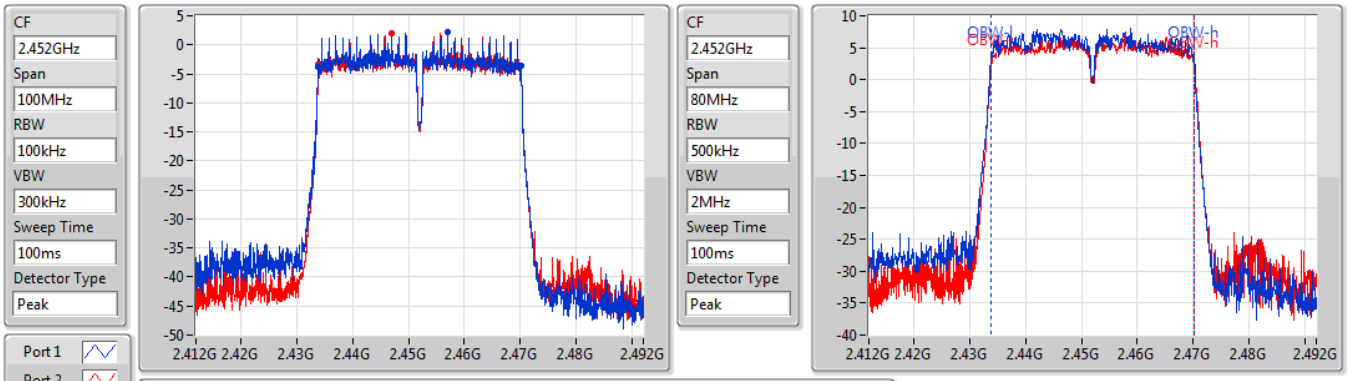


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.35M	2.41885G	2.4552G	36.342M	2.418809G	2.455151G	500k	1
36.25M	2.4189G	2.45515G	36.382M	2.418889G	2.455271G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2452MHz

08/11/2019

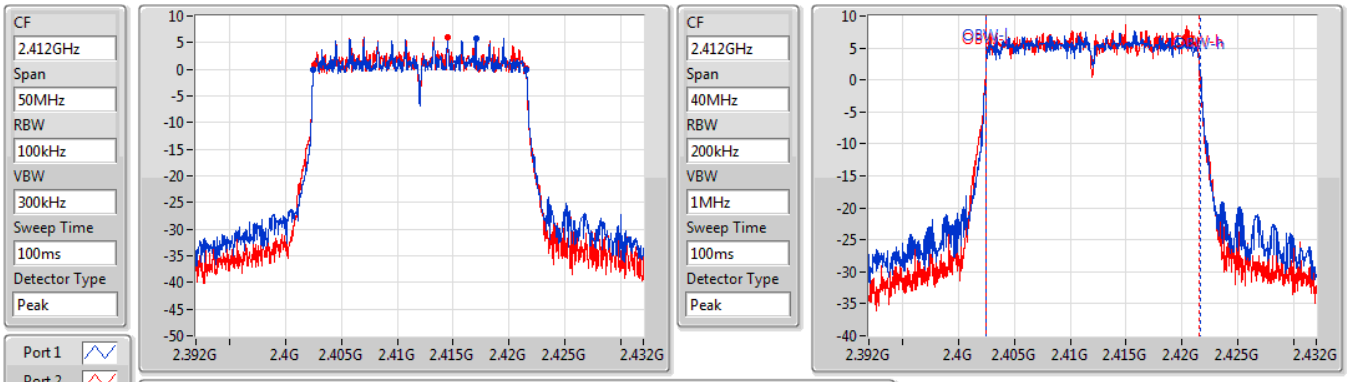


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.35M	2.43385G	2.4702G	36.342M	2.433809G	2.470151G	500k	1
36.25M	2.4339G	2.47015G	36.382M	2.433849G	2.470231G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2412MHz

08/11/2019

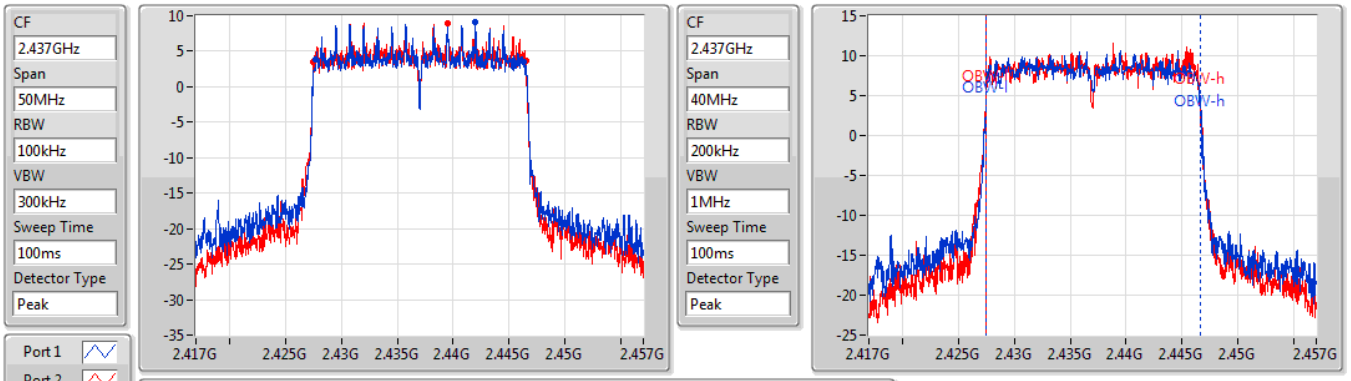


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.402525G	2.4215G	19.07M	2.402525G	2.421595G	500k	1
19M	2.40255G	2.42155G	19.05M	2.402485G	2.421535G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2437MHz

08/11/2019

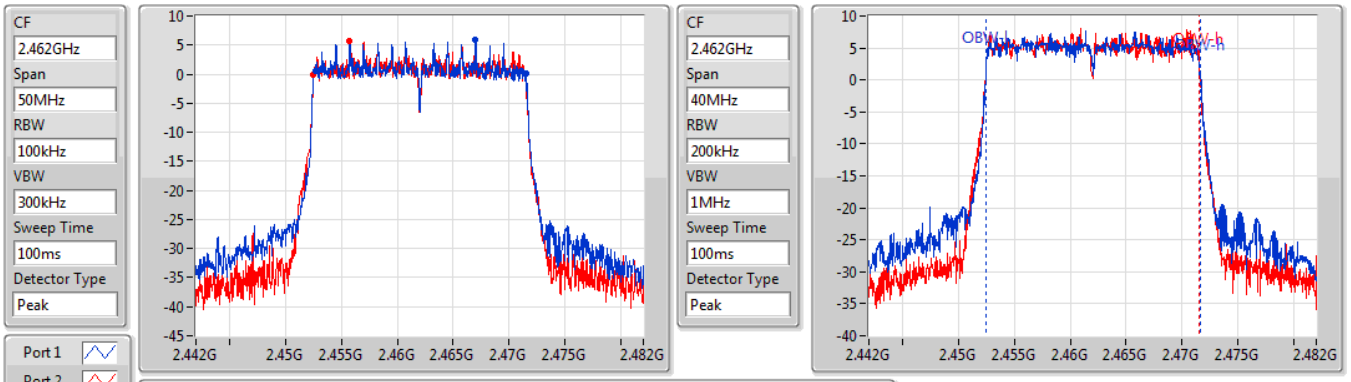


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.6M	2.427725G	2.446325G	19.21M	2.427445G	2.446655G	500k	1
18.95M	2.427525G	2.446475G	19.15M	2.427445G	2.446595G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2462MHz

08/11/2019

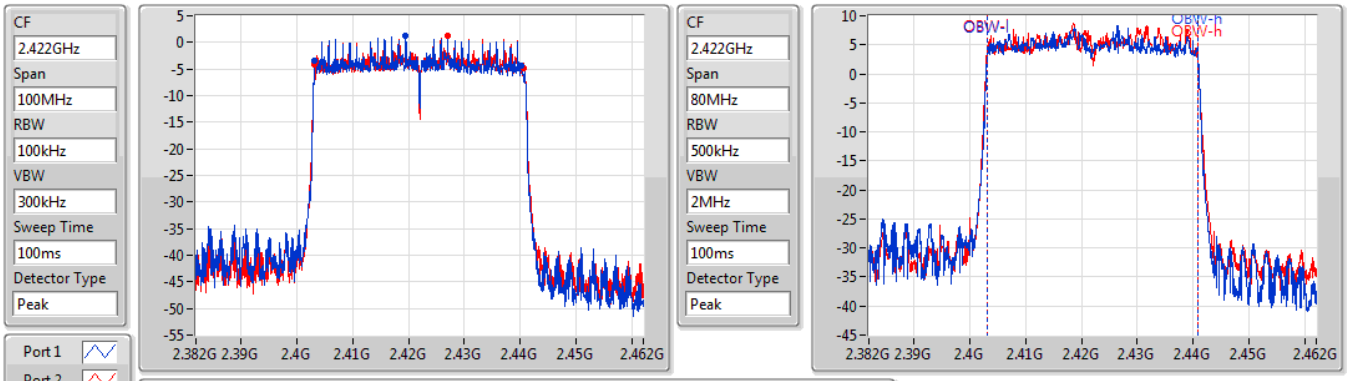


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.8M	2.452675G	2.471475G	19.09M	2.452505G	2.471595G	500k	1
18.975M	2.4525G	2.471475G	19.03M	2.452485G	2.471515G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

2422MHz

08/11/2019

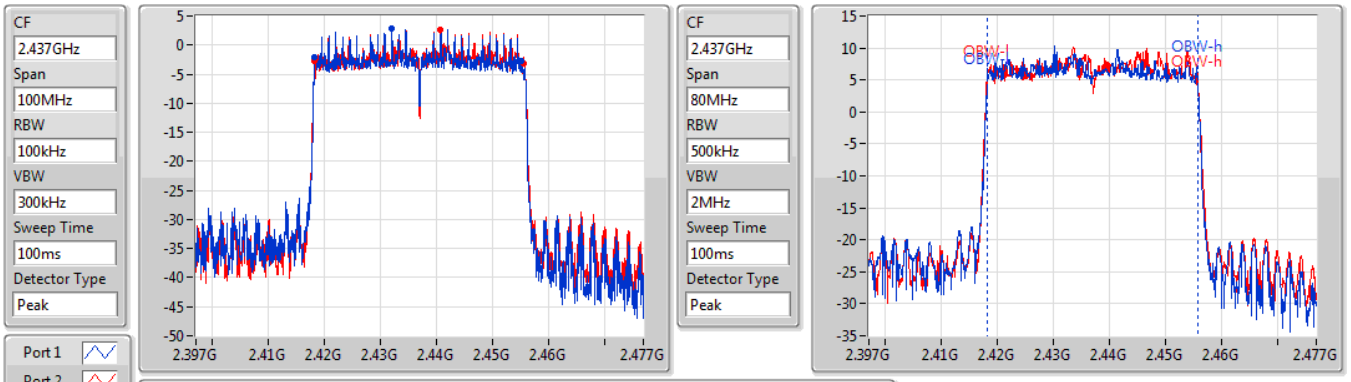


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.95M	2.4032G	2.44015G	37.541M	2.403209G	2.440751G	500k	1
37.5M	2.4032G	2.4407G	37.621M	2.403129G	2.440751G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

2437MHz

08/11/2019

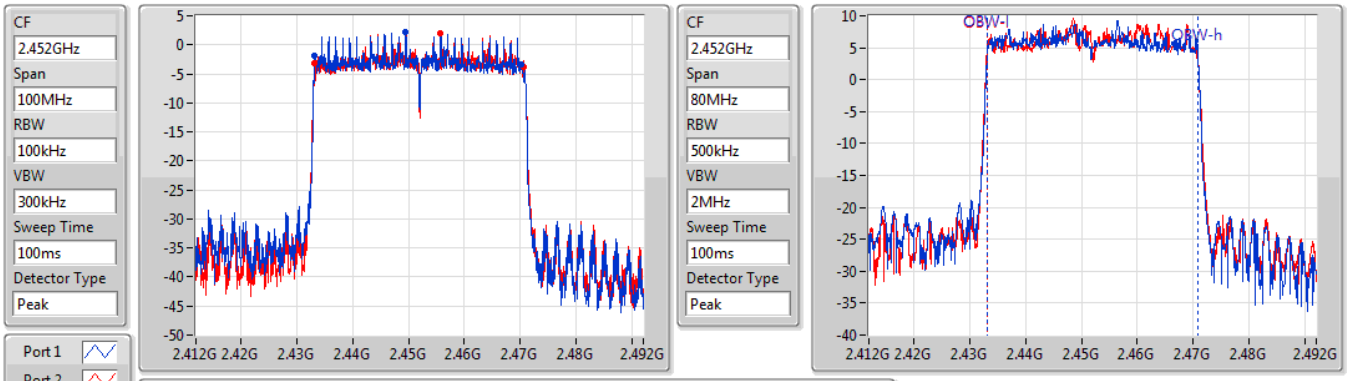


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37M	2.4182G	2.4552G	37.581M	2.418209G	2.455791G	500k	1
37.5M	2.4182G	2.4557G	37.661M	2.418129G	2.455791G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

2452MHz

08/11/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.95M	2.43325G	2.4702G	37.621M	2.433169G	2.470791G	500k	1
37.5M	2.4332G	2.4707G	37.661M	2.433129G	2.470791G	500k	2

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	7.05M	10.435M	10M4G1D	6.525M	10.275M
802.11g_Nss1,(6Mbps)_1TX	16.35M	19.91M	19M9D1D	16.325M	16.712M
VHT20_Nss1,(MCS0)_1TX	17.575M	18.471M	18M5D1D	17.55M	17.851M
VHT40_Nss1,(MCS0)_1TX	36.35M	36.502M	36M5D1D	36.25M	36.422M
802.11ax HEW20_Nss1,(MCS0)_1TX	18.975M	19.35M	19M3D1D	18.85M	19.01M
802.11ax HEW40_Nss1,(MCS0)_1TX	36.35M	36.502M	36M5D1D	36.25M	36.422M

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

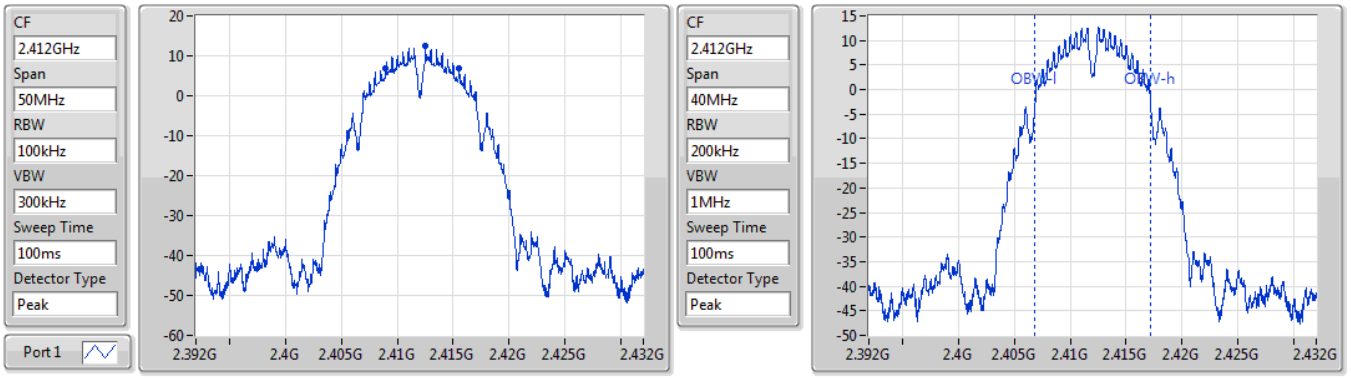
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	6.525M	10.315M
2437MHz	Pass	500k	7.05M	10.275M
2462MHz	Pass	500k	7M	10.435M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.35M	16.792M
2437MHz	Pass	500k	16.325M	19.91M
2462MHz	Pass	500k	16.325M	16.712M
VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	17.575M	17.851M
2437MHz	Pass	500k	17.55M	18.471M
2462MHz	Pass	500k	17.575M	17.851M
VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	36.35M	36.422M
2437MHz	Pass	500k	36.25M	36.502M
2452MHz	Pass	500k	36.3M	36.422M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	18.975M	19.03M
2437MHz	Pass	500k	18.85M	19.35M
2462MHz	Pass	500k	18.925M	19.01M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	36.25M	36.422M
2437MHz	Pass	500k	36.35M	36.502M
2452MHz	Pass	500k	36.35M	36.462M

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

802.11b_Nss1,(1Mbps)_1TX EBW

2412MHz

11/11/2019

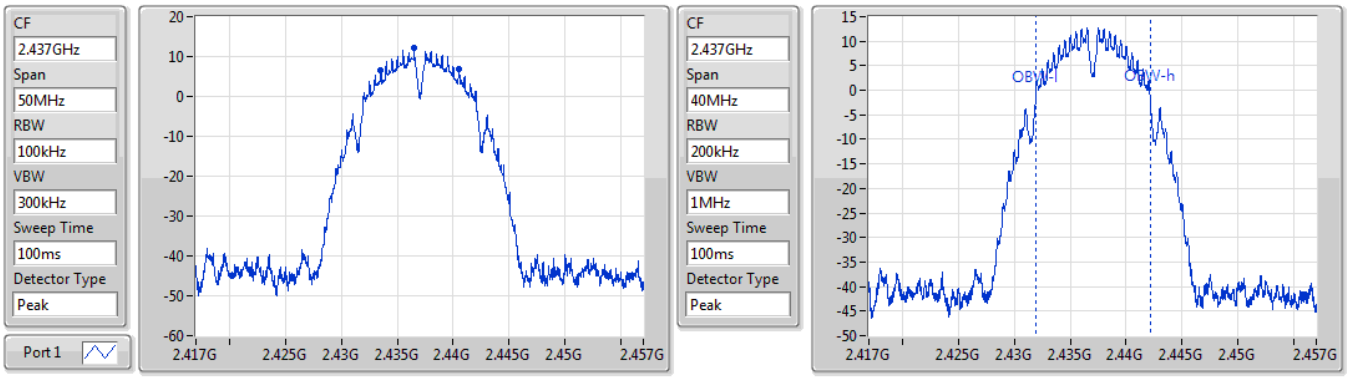


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6.525M	2.408975G	2.4155G	10.315M	2.406863G	2.417177G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2437MHz

11/11/2019

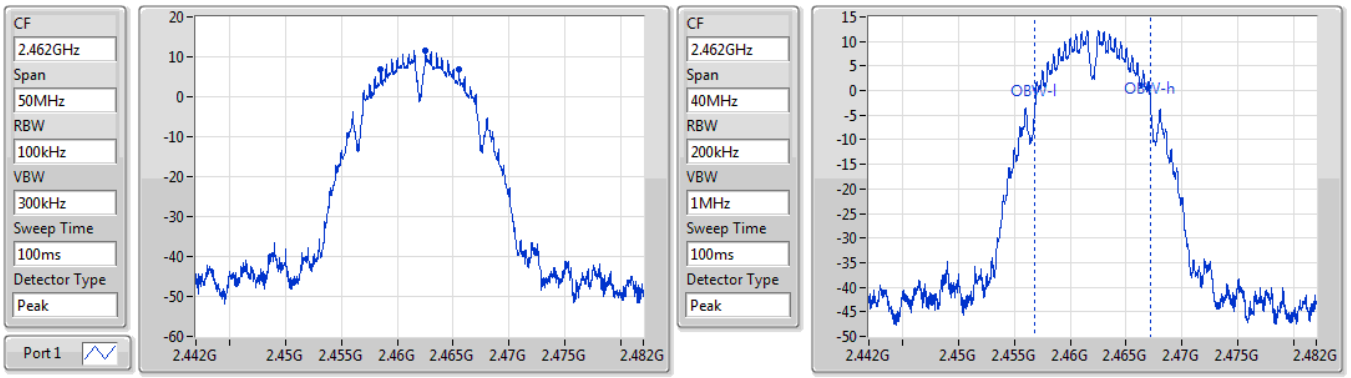


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.4335G	2.44055G	10.275M	2.431883G	2.442157G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2462MHz

11/11/2019

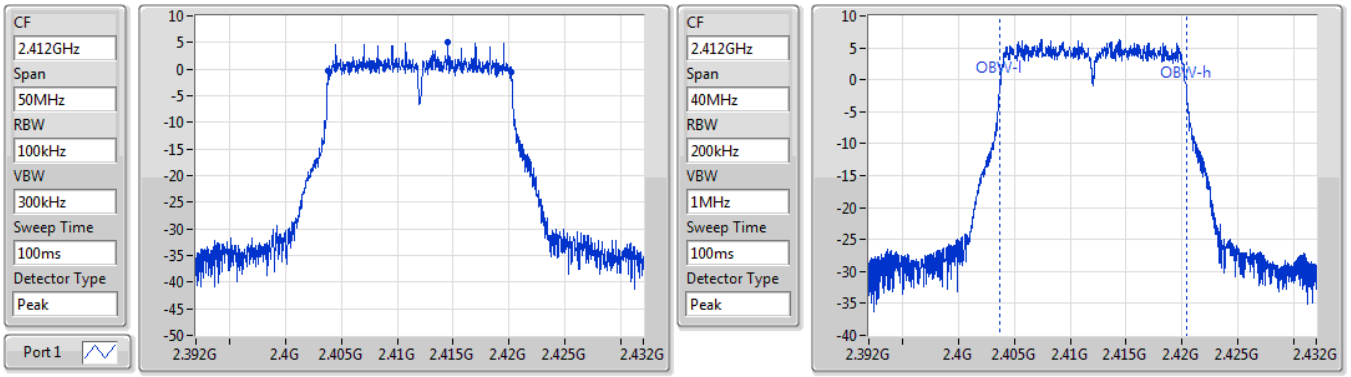


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7M	2.458525G	2.465525G	10.435M	2.456783G	2.467217G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2412MHz

11/11/2019

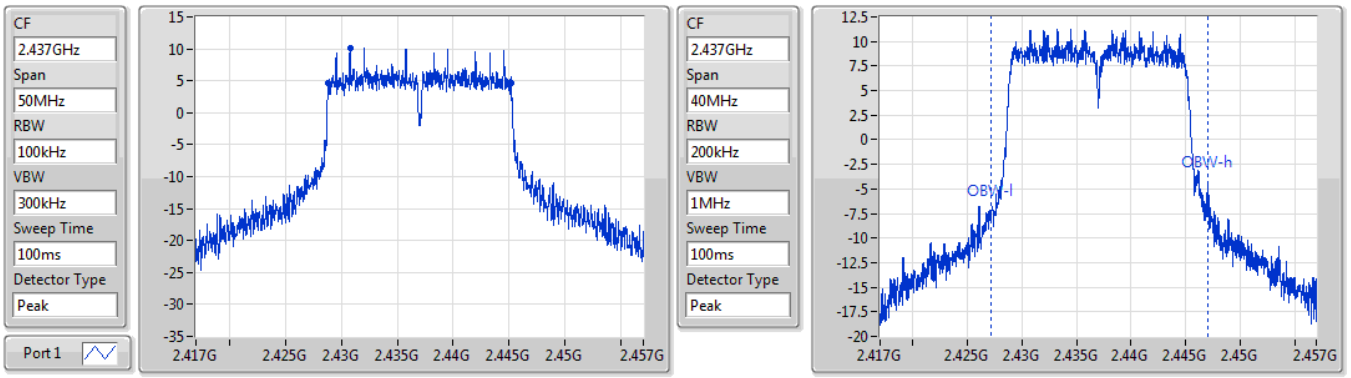


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.40385G	2.4202G	16.792M	2.403664G	2.420456G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2437MHz

11/11/2019

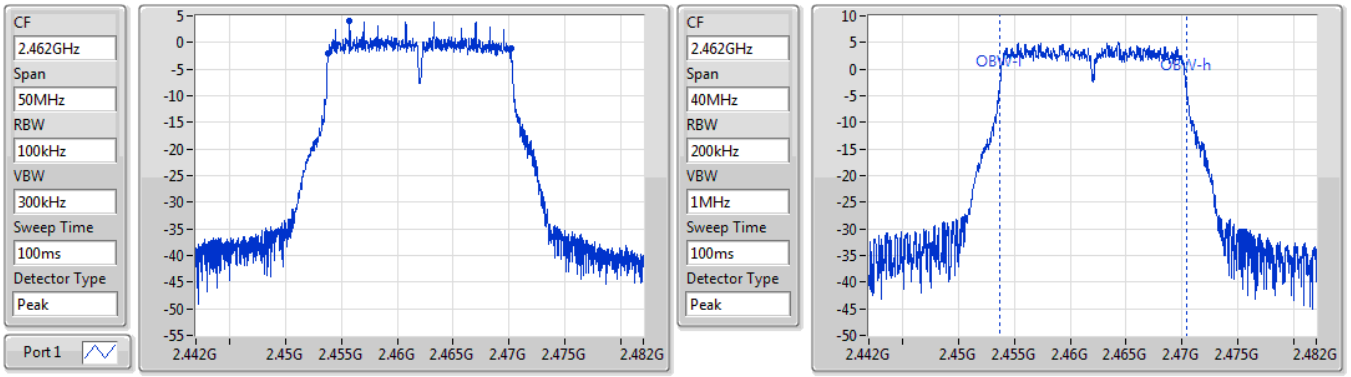


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.42885G	2.445175G	19.91M	2.427185G	2.447095G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2462MHz

11/11/2019

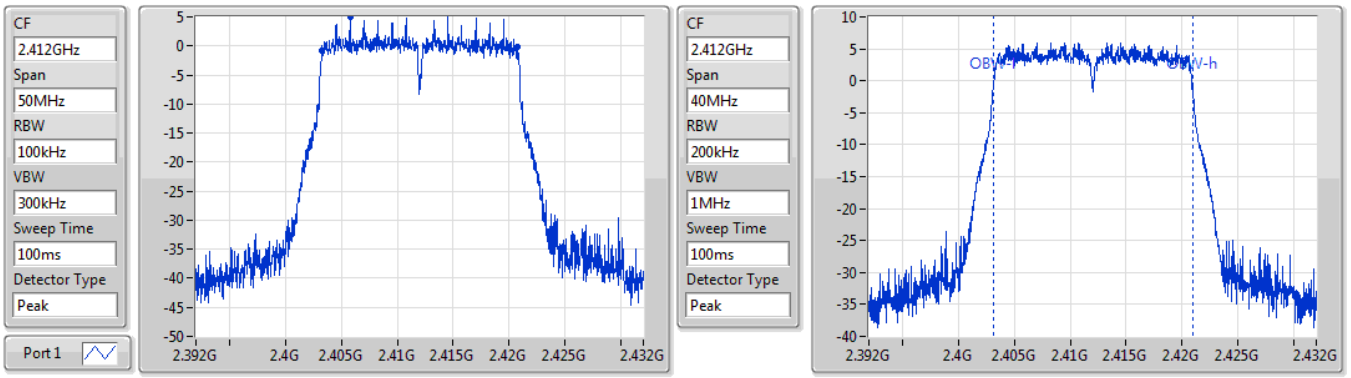


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.45385G	2.470175G	16.712M	2.453684G	2.470396G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2412MHz

11/11/2019

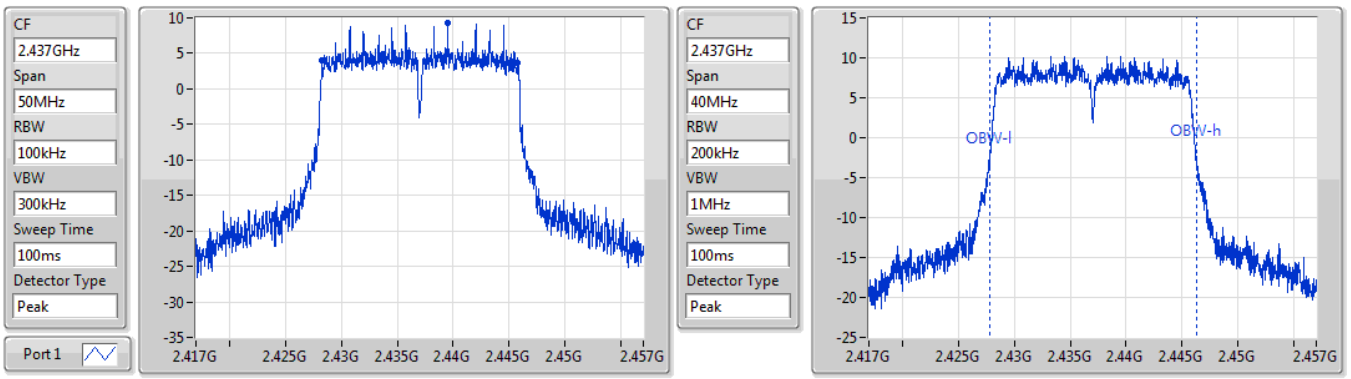


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.403225G	2.4208G	17.851M	2.403104G	2.420956G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2437MHz

11/11/2019

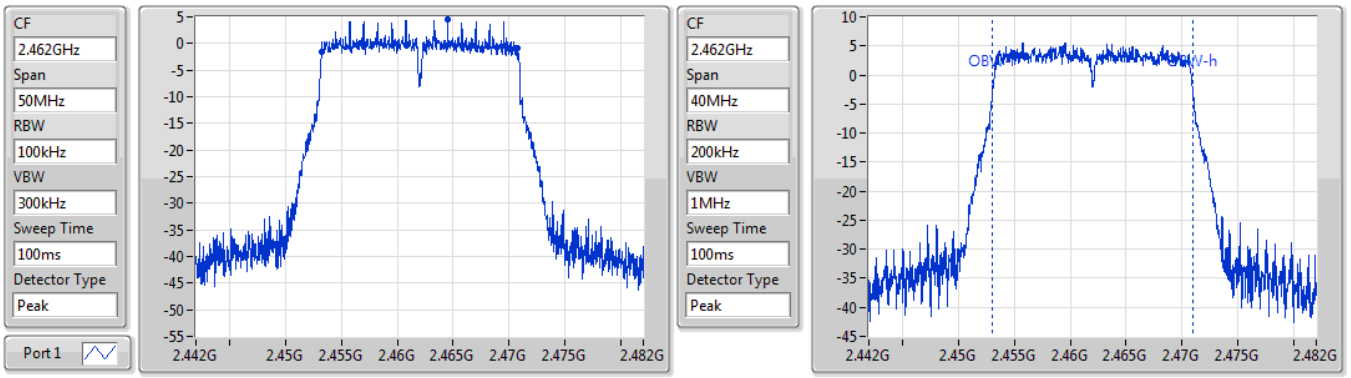


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.42825G	2.4458G	18.471M	2.427805G	2.446275G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2462MHz

11/11/2019

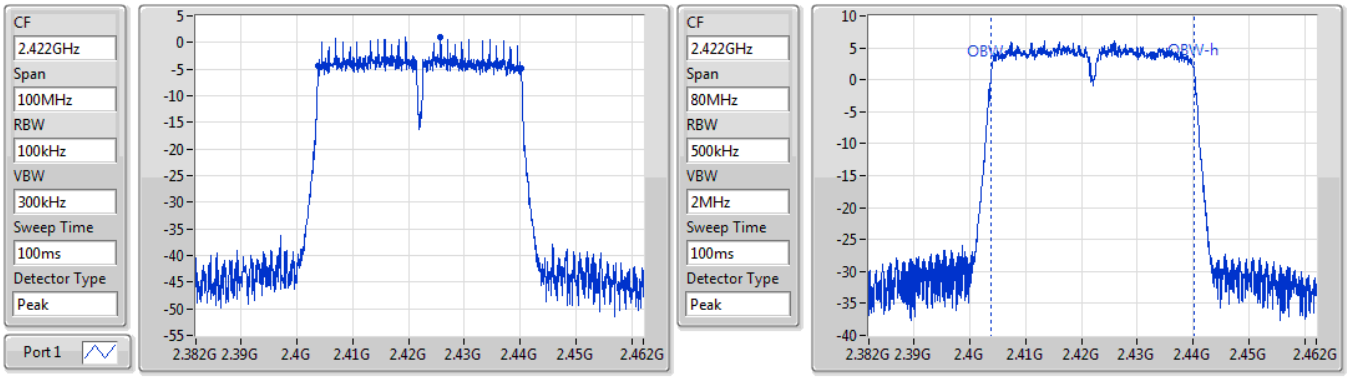


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.453225G	2.4708G	17.851M	2.453084G	2.470936G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2422MHz

11/11/2019

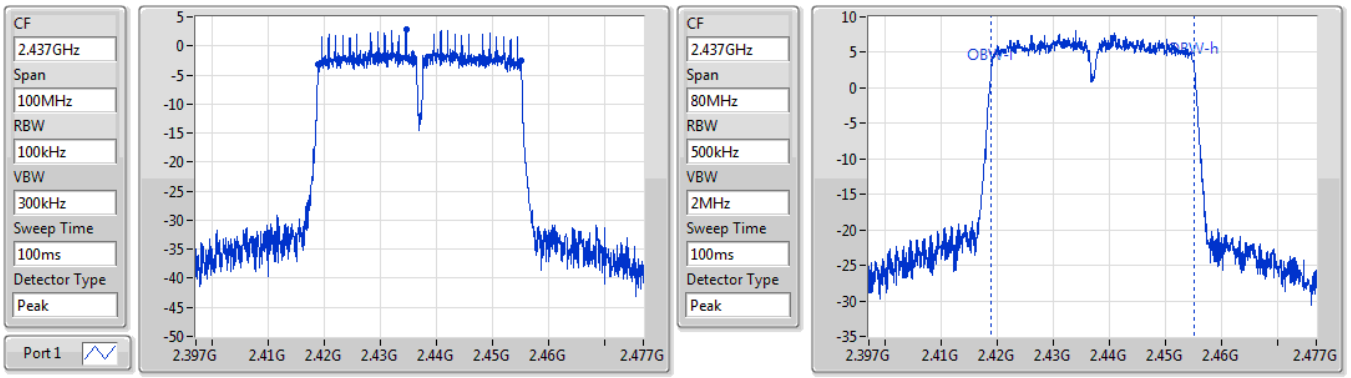


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.35M	2.40385G	2.4402G	36.422M	2.403809G	2.440231G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2437MHz

11/11/2019

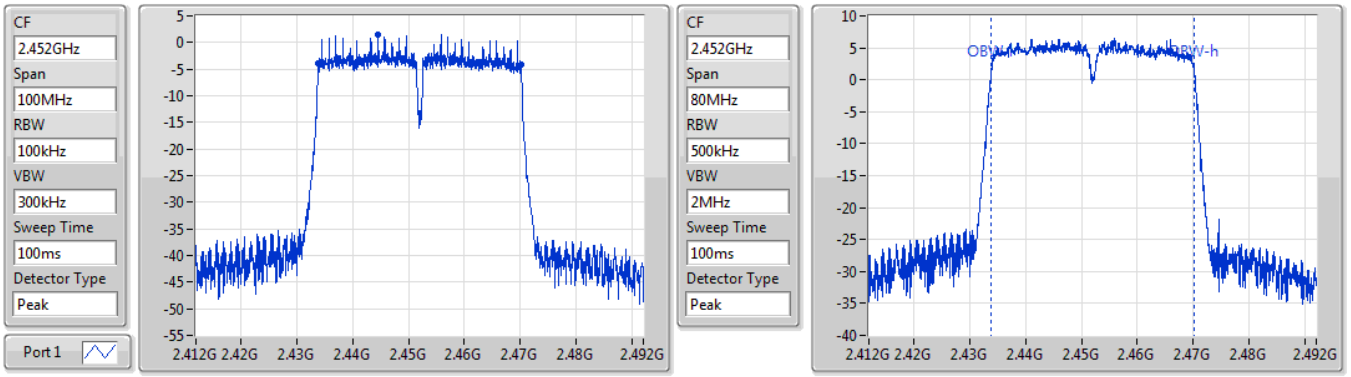


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.25M	2.4189G	2.45515G	36.502M	2.418769G	2.455271G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2452MHz

11/11/2019

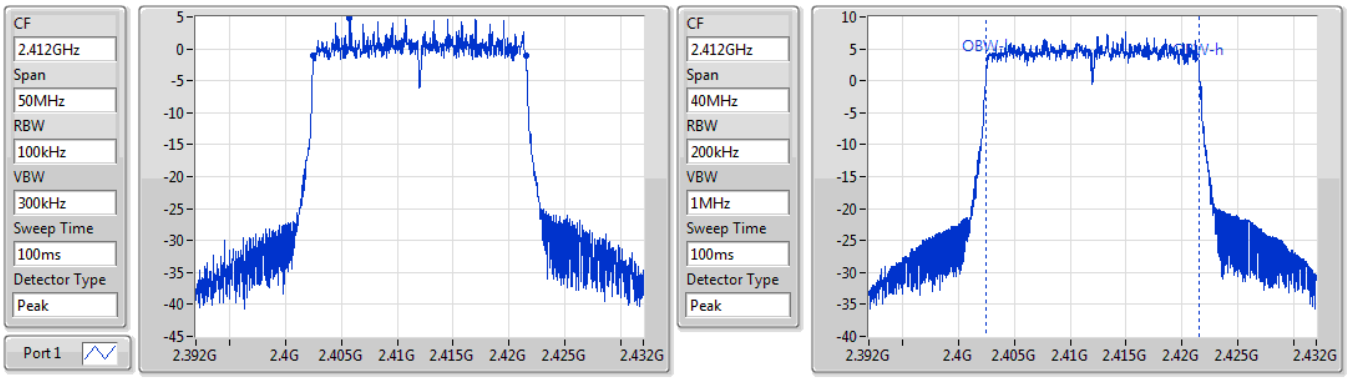


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.43385G	2.47015G	36.422M	2.433809G	2.470231G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2412MHz

11/11/2019

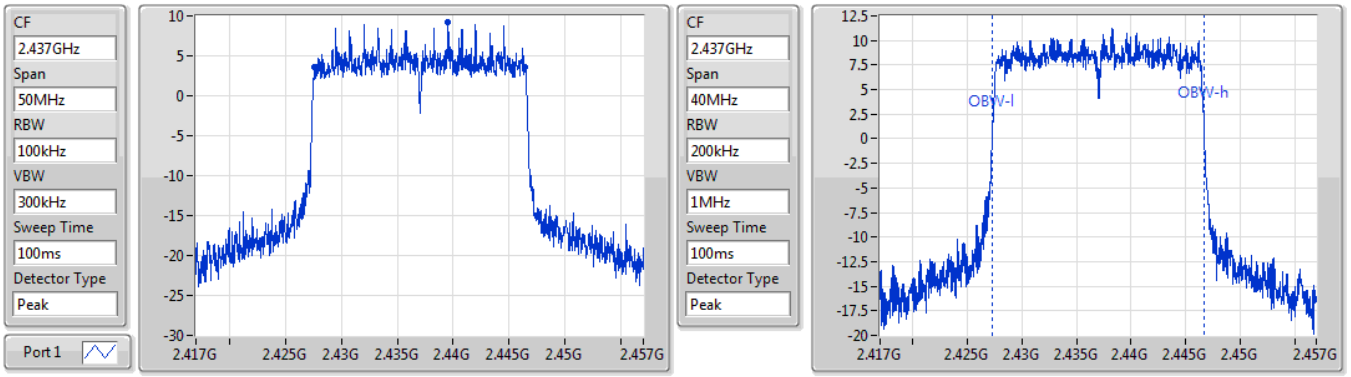


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.402525G	2.4215G	19.03M	2.402505G	2.421535G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2437MHz

11/11/2019

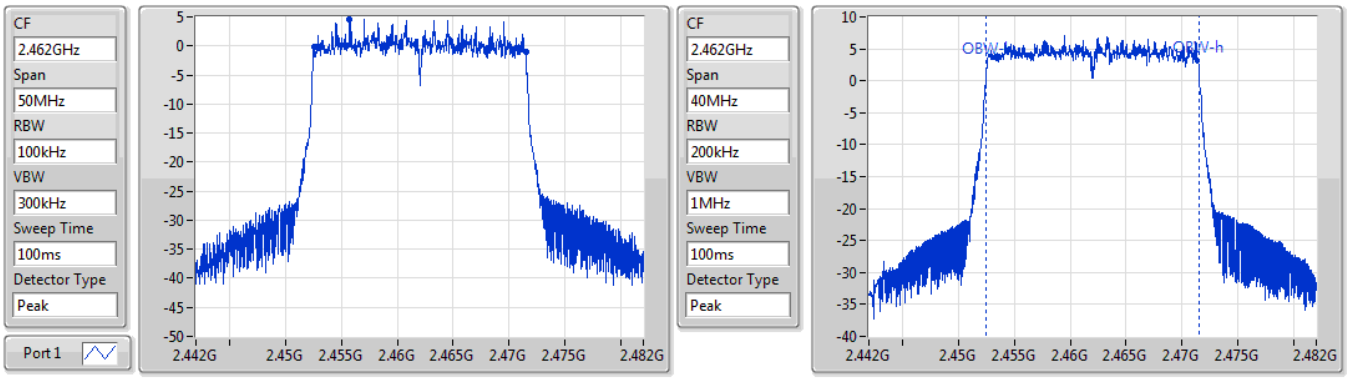


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.85M	2.4276G	2.44645G	19.35M	2.427325G	2.446675G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2462MHz

11/11/2019

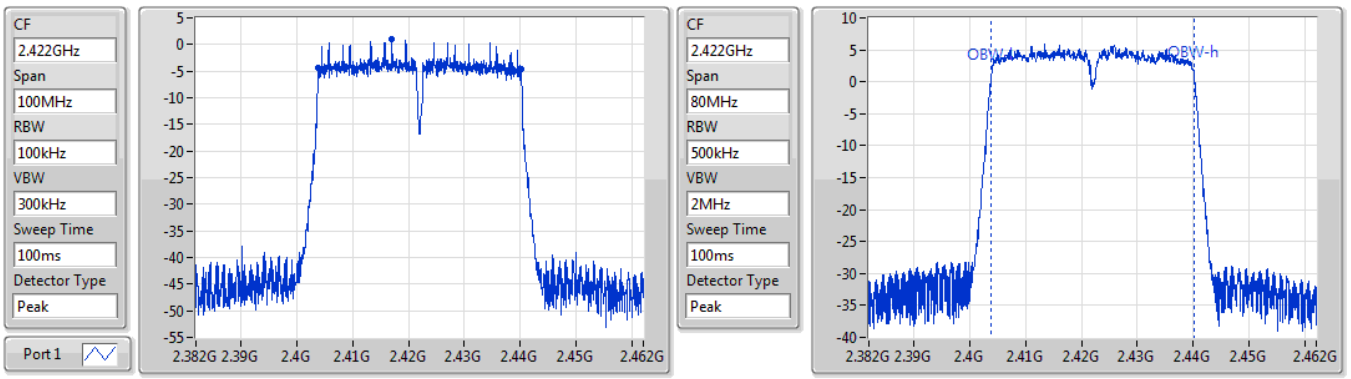


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.925M	2.45255G	2.471475G	19.01M	2.452505G	2.471515G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2422MHz

11/11/2019

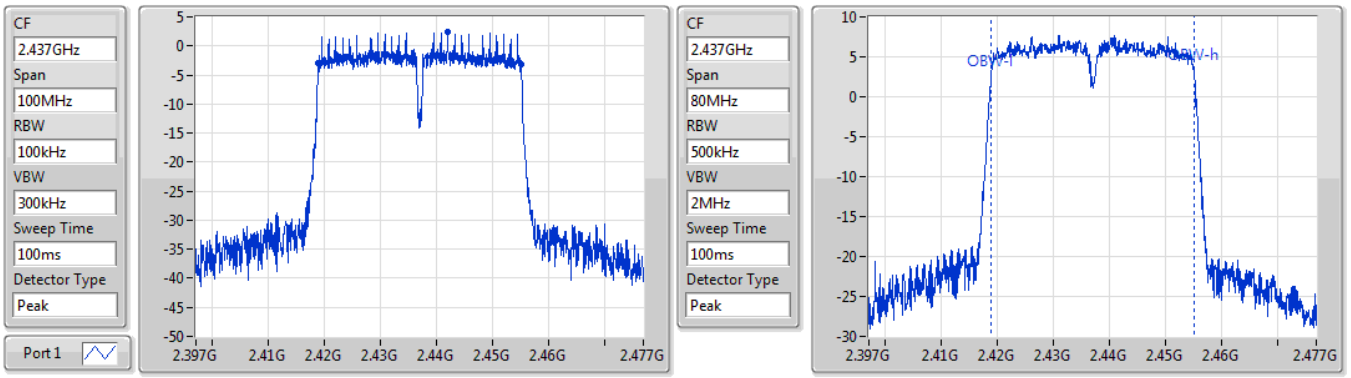


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.25M	2.4039G	2.44015G	36.422M	2.403809G	2.440231G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2437MHz

11/11/2019

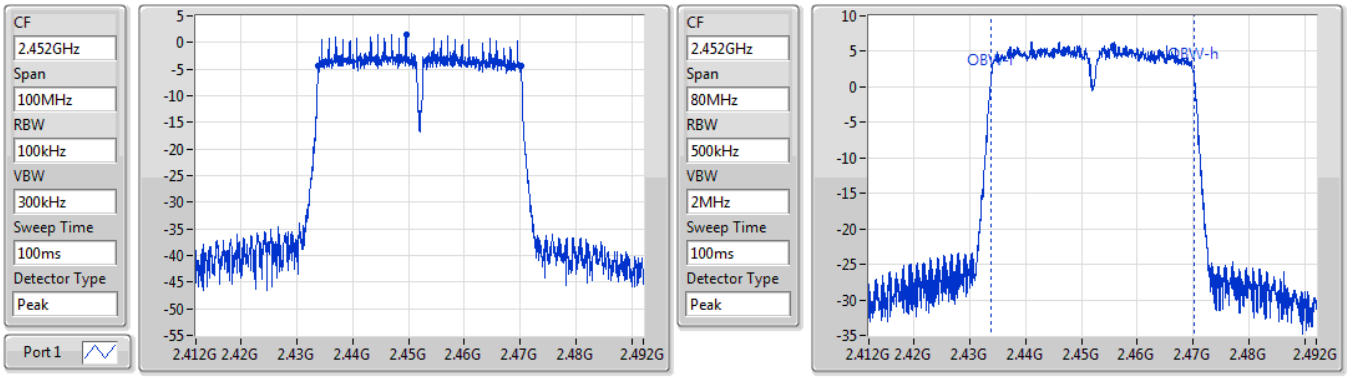


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.35M	2.41885G	2.4552G	36.502M	2.418769G	2.455271G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2452MHz

11/11/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.35M	2.43385G	2.4702G	36.462M	2.433769G	2.470231G	500k	1

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	7.525M	10.455M	10M5G1D	6.525M	10.235M
802.11g_Nss1,(6Mbps)_2TX	16.35M	17.111M	17M1D1D	16.325M	16.652M
VHT20_Nss2,(MCS0)_2TX	17.6M	18.031M	18M0D1D	17.55M	17.791M
VHT40_Nss2,(MCS0)_2TX	36.35M	36.342M	36M3D1D	35.75M	36.262M
802.11ax HEW20_Nss2,(MCS0)_2TX	18.975M	19.11M	19M1D1D	18.85M	19.03M
802.11ax HEW40_Nss2,(MCS0)_2TX	37.65M	37.621M	37M6D1D	36.45M	37.501M

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

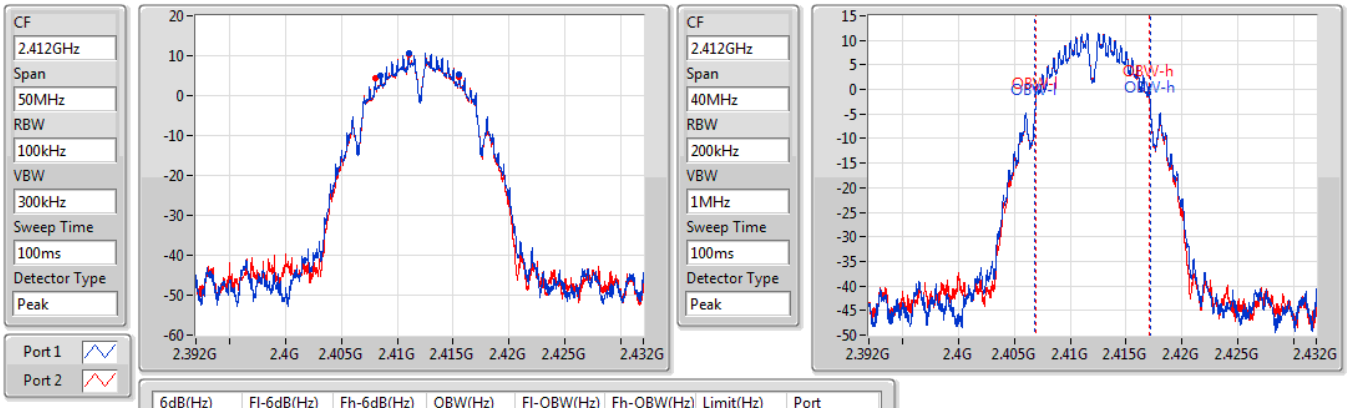
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	6.975M	10.355M	7.525M	10.235M
2437MHz	Pass	500k	7.025M	10.275M	6.525M	10.455M
2462MHz	Pass	500k	7.05M	10.415M	7.05M	10.295M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.35M	16.752M	16.35M	16.652M
2437MHz	Pass	500k	16.35M	17.111M	16.325M	17.091M
2462MHz	Pass	500k	16.325M	16.732M	16.325M	16.652M
VHT20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.575M	17.871M	17.6M	17.791M
2437MHz	Pass	500k	17.55M	18.031M	17.6M	17.911M
2462MHz	Pass	500k	17.55M	17.871M	17.575M	17.791M
VHT40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	36.3M	36.342M	35.75M	36.262M
2437MHz	Pass	500k	36.25M	36.342M	36.35M	36.302M
2452MHz	Pass	500k	36.3M	36.342M	36.35M	36.302M
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	18.95M	19.03M	18.85M	19.03M
2437MHz	Pass	500k	18.95M	19.07M	18.975M	19.11M
2462MHz	Pass	500k	18.95M	19.03M	18.925M	19.03M
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	37.5M	37.621M	36.45M	37.501M
2437MHz	Pass	500k	37.35M	37.621M	36.95M	37.541M
2452MHz	Pass	500k	37.65M	37.621M	37M	37.541M

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

802.11b_Nss1,(1Mbps)_2TX EBW

2412MHz

11/11/2019

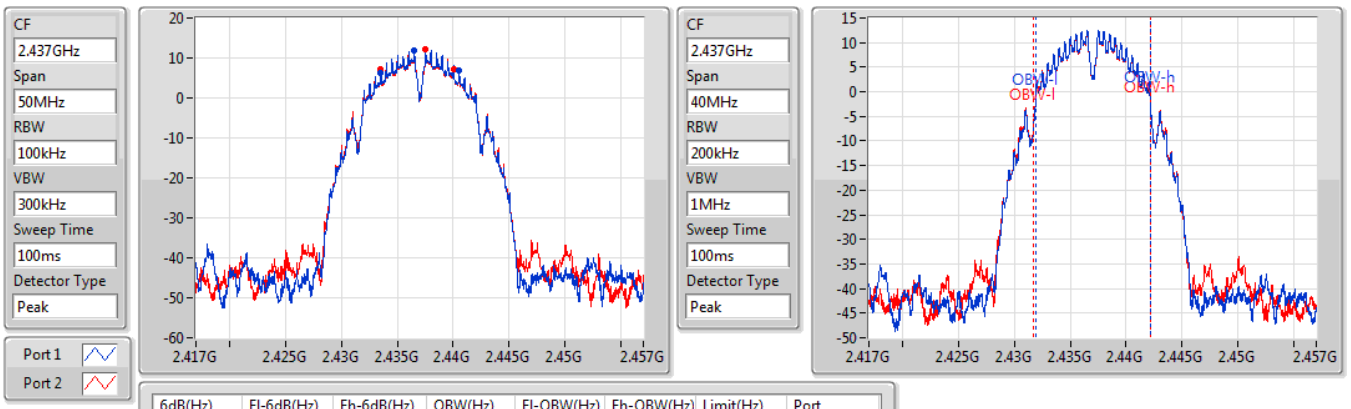


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6.975M	2.408525G	2.4155G	10.355M	2.406843G	2.417197G	500k	1
7.525M	2.408025G	2.41555G	10.235M	2.406883G	2.417117G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2437MHz

11/11/2019

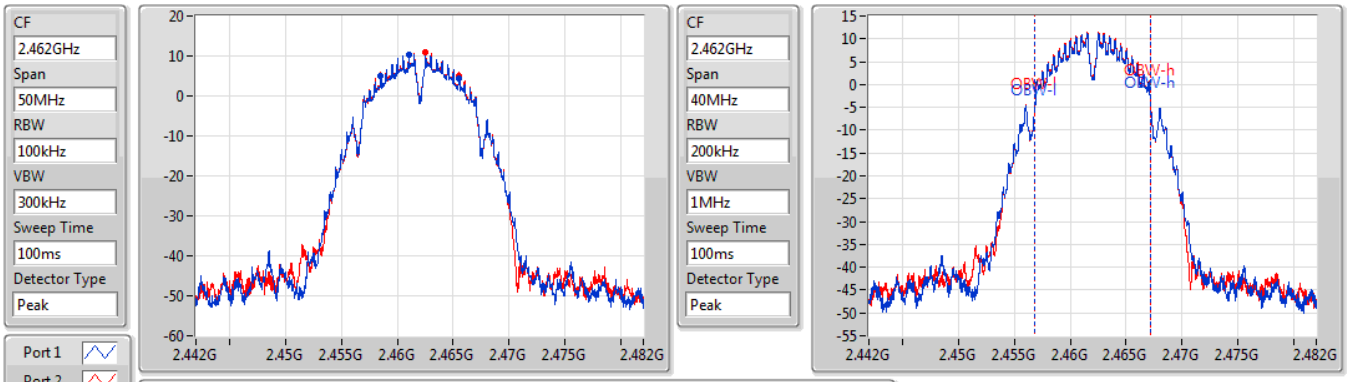


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.025M	2.4335G	2.440525G	10.275M	2.431883G	2.442157G	500k	1
6.525M	2.433525G	2.44005G	10.455M	2.431763G	2.442217G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2462MHz

11/11/2019

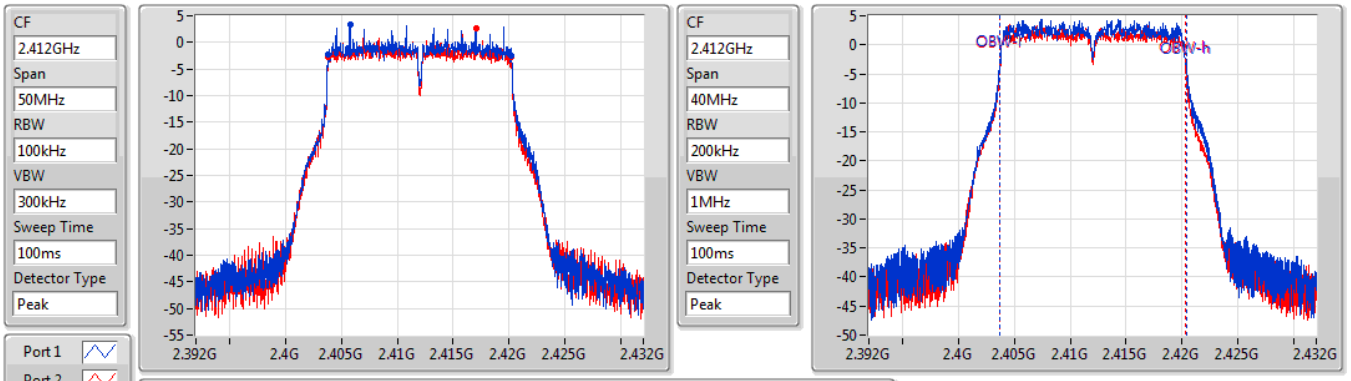


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.4585G	2.46555G	10.415M	2.456783G	2.467197G	500k	1
7.05M	2.4585G	2.46555G	10.295M	2.456843G	2.467137G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2412MHz

11/11/2019

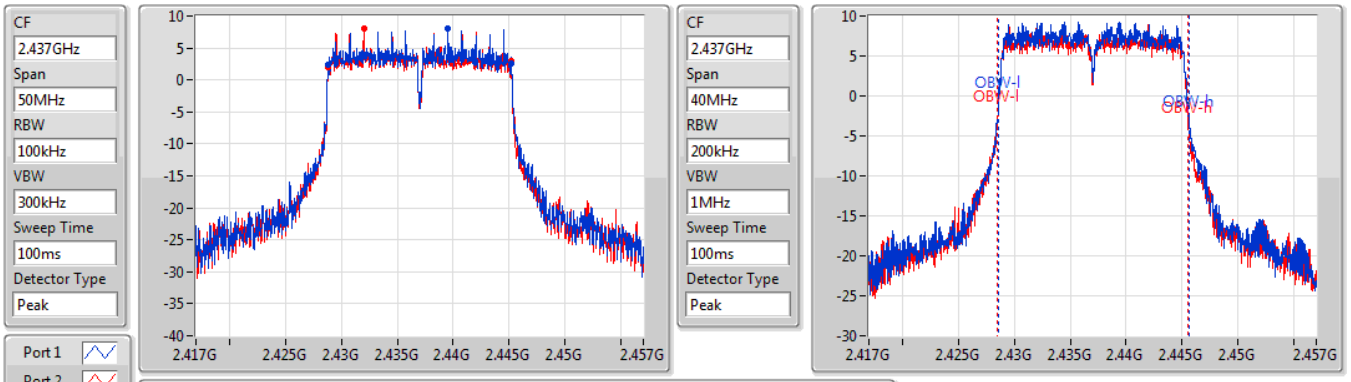


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.40385G	2.4202G	16.752M	2.403684G	2.420436G	500k	1
16.35M	2.40385G	2.4202G	16.652M	2.403684G	2.420336G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2437MHz

11/11/2019

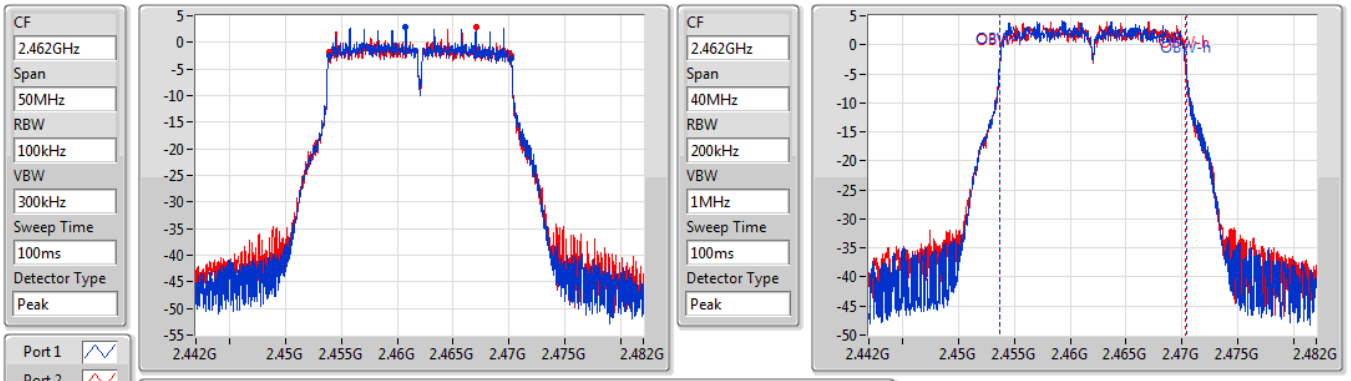


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.42885G	2.4452G	17.111M	2.428544G	2.445656G	500k	1
16.325M	2.42885G	2.445175G	17.091M	2.428484G	2.445576G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2462MHz

11/11/2019

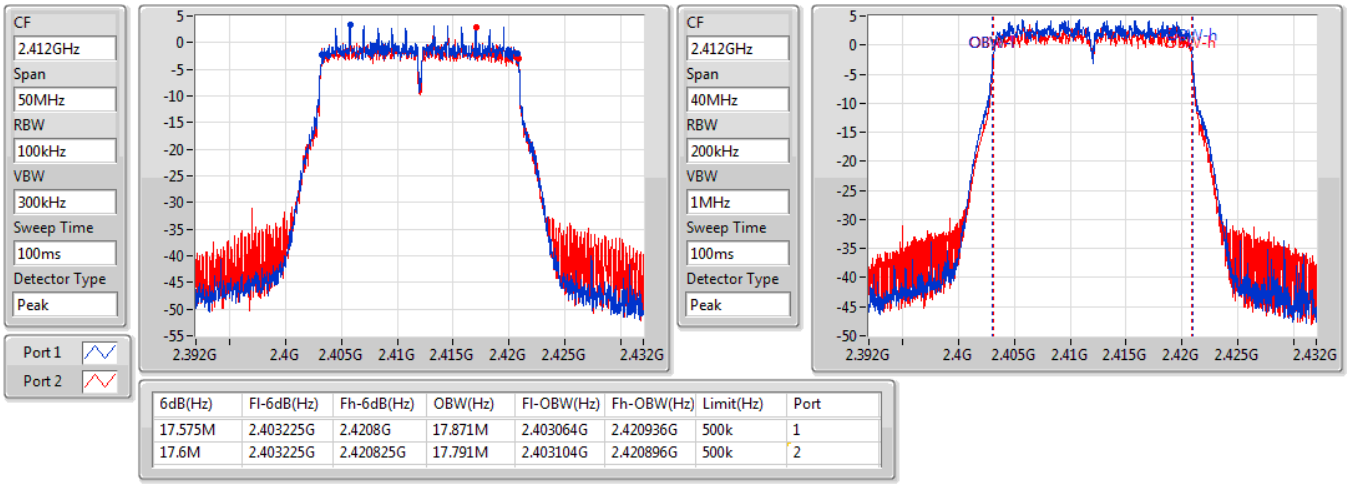


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.453875G	2.4702G	16.732M	2.453684G	2.470416G	500k	1
16.325M	2.453875G	2.4702G	16.652M	2.453684G	2.470336G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2412MHz

11/11/2019

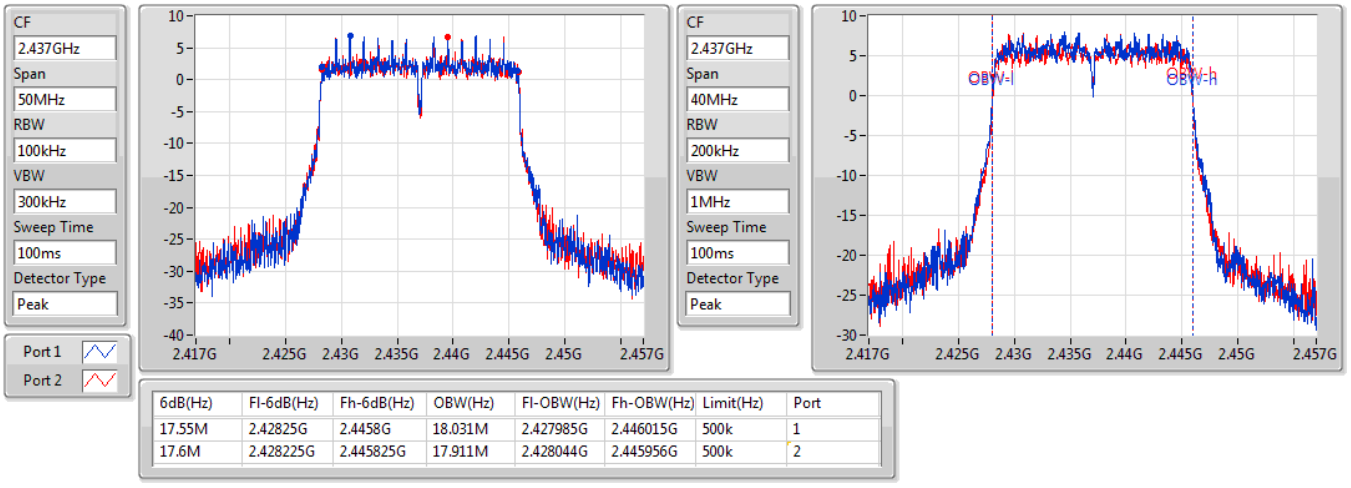


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.403225G	2.4208G	17.871M	2.403064G	2.420936G	500k	1
17.6M	2.403225G	2.420825G	17.791M	2.403104G	2.420896G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2437MHz

11/11/2019

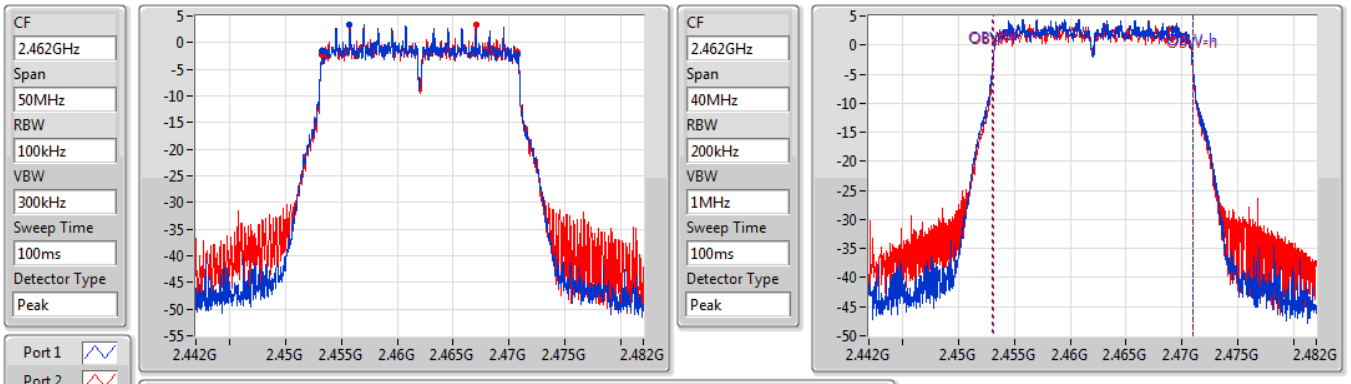


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.42825G	2.4458G	18.031M	2.427985G	2.446015G	500k	1
17.6M	2.428225G	2.445825G	17.911M	2.428044G	2.445956G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2462MHz

11/11/2019

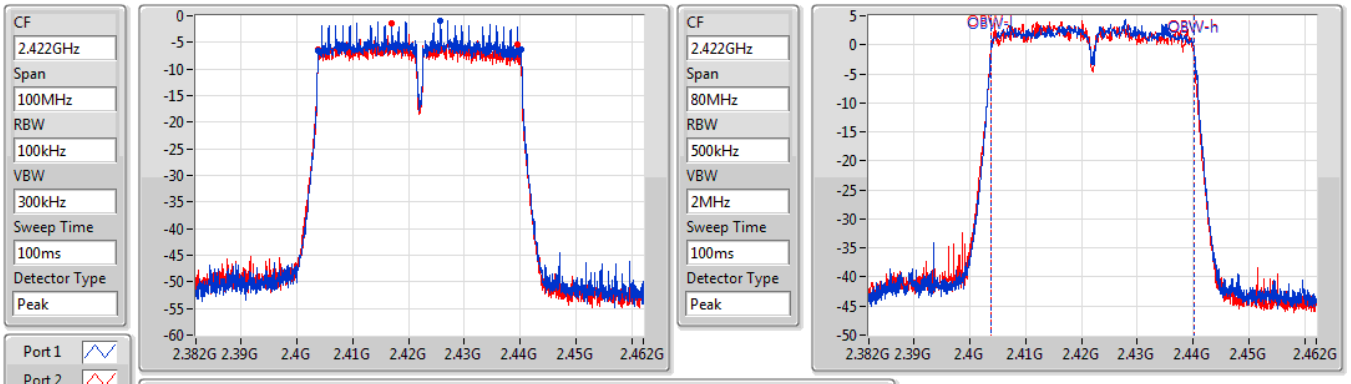


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.45325G	2.4708G	17.871M	2.453064G	2.470936G	500k	1
17.575M	2.453225G	2.4708G	17.791M	2.453124G	2.470916G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2422MHz

11/11/2019

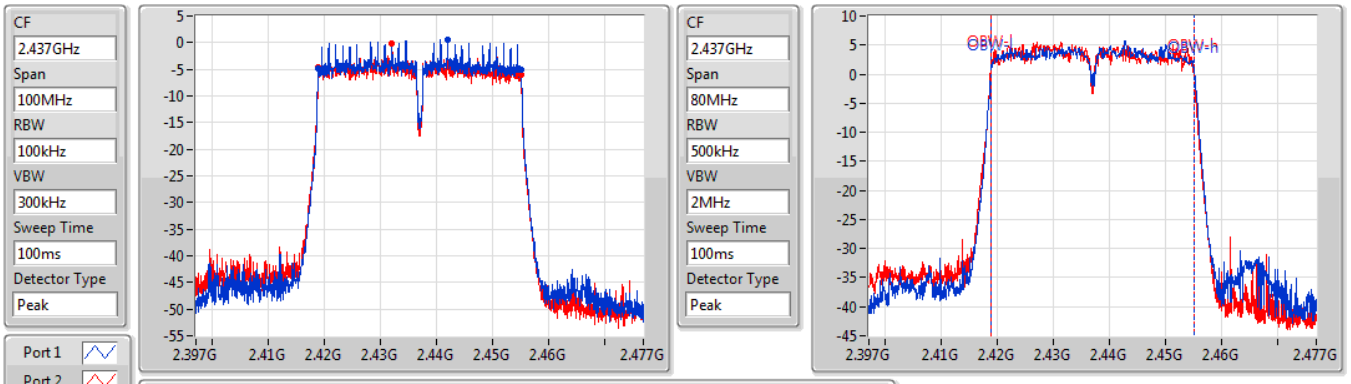


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.40385G	2.44015G	36.342M	2.403889G	2.440231G	500k	1
35.75M	2.40385G	2.4396G	36.262M	2.403809G	2.440071G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2437MHz

11/11/2019

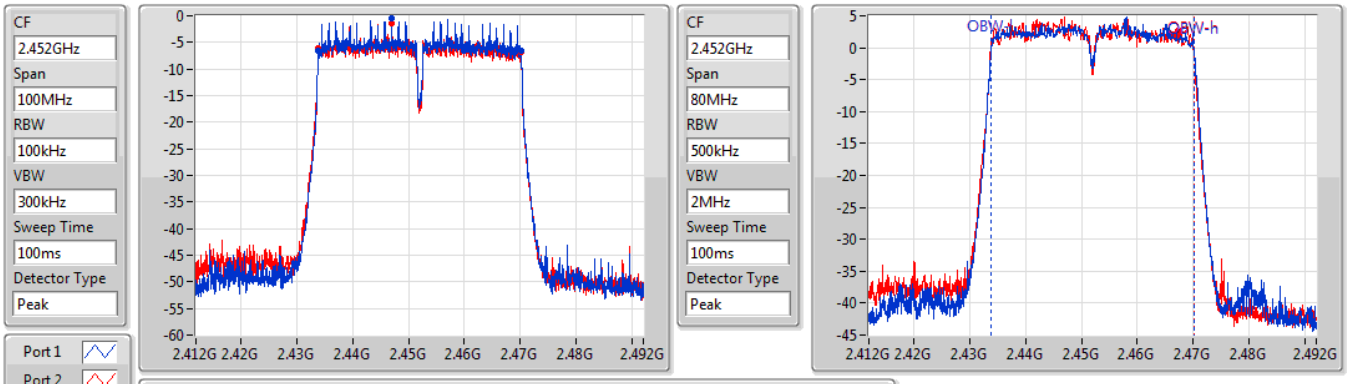


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.25M	2.4189G	2.45515G	36.342M	2.418889G	2.455231G	500k	1
36.35M	2.41885G	2.4552G	36.302M	2.418809G	2.455111G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2452MHz

11/11/2019

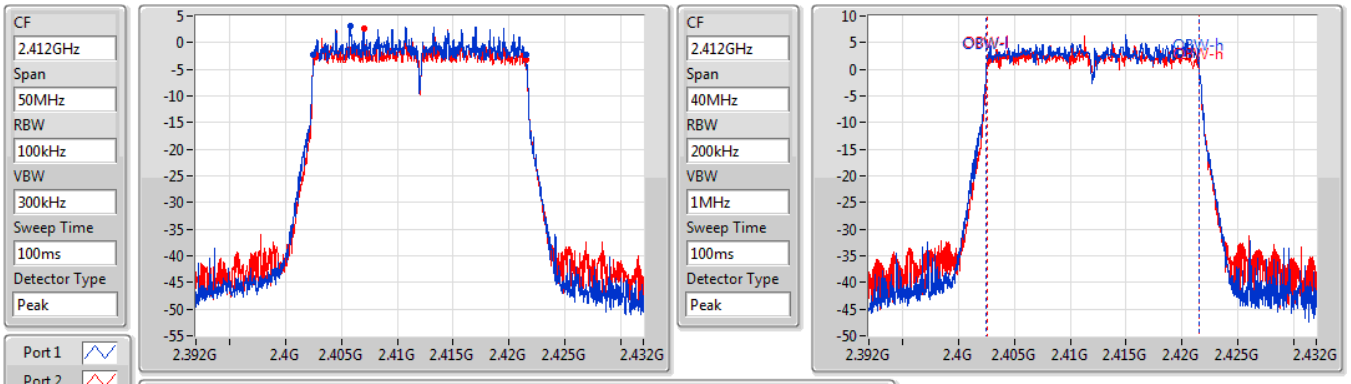


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.43385G	2.47015G	36.342M	2.433849G	2.470191G	500k	1
36.35M	2.43385G	2.4702G	36.302M	2.433809G	2.470111G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2412MHz

11/11/2019

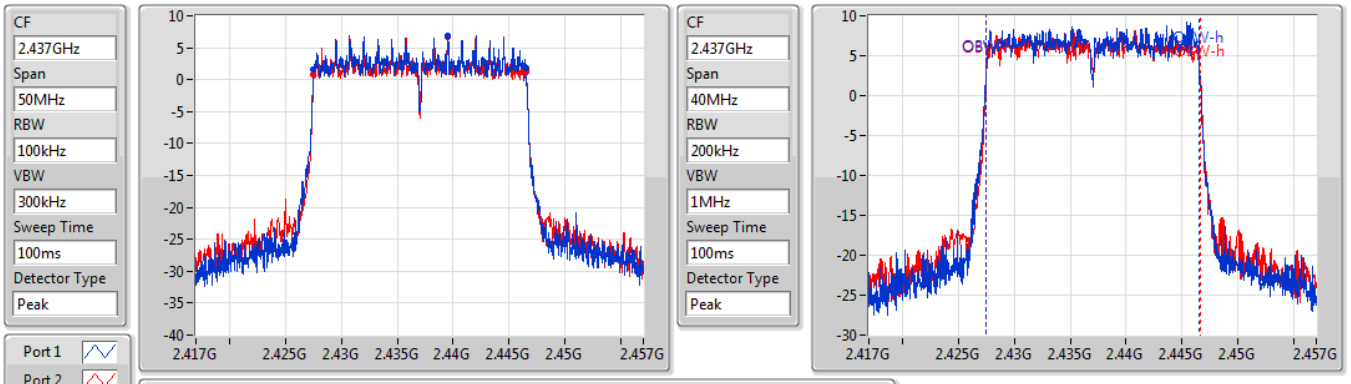


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.95M	2.402525G	2.421475G	19.03M	2.402505G	2.421535G	500k	1
18.85M	2.40265G	2.4215G	19.03M	2.402545G	2.421575G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2437MHz

11/11/2019

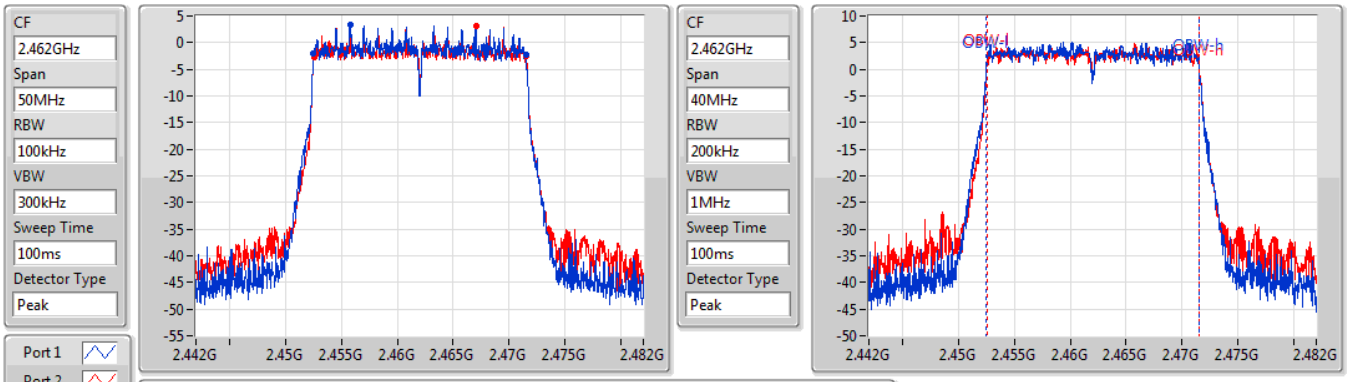


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.95M	2.427525G	2.446475G	19.07M	2.427485G	2.446555G	500k	1
18.975M	2.427525G	2.4465G	19.11M	2.427505G	2.446615G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2462MHz

11/11/2019

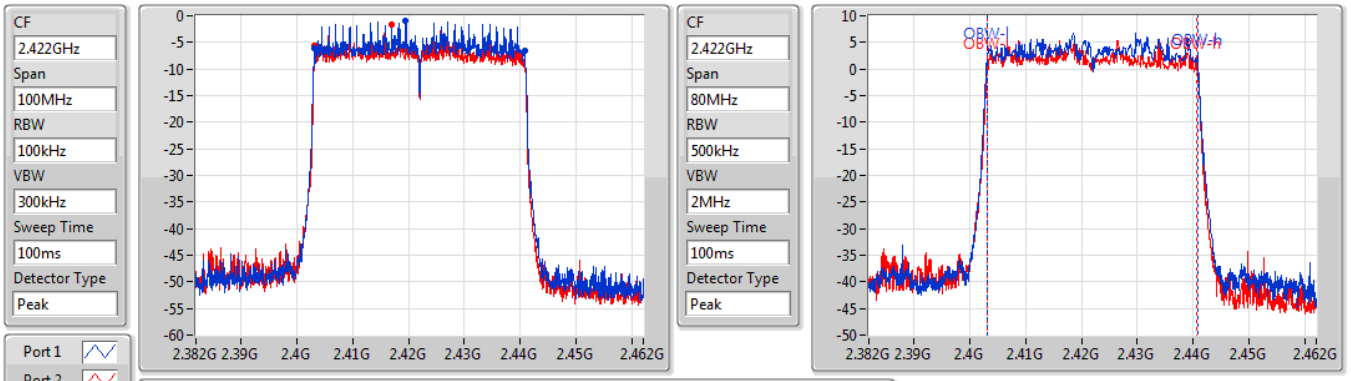


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.95M	2.452525G	2.471475G	19.03M	2.452505G	2.471535G	500k	1
18.925M	2.452575G	2.4715G	19.03M	2.452545G	2.471575G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

2422MHz

11/11/2019

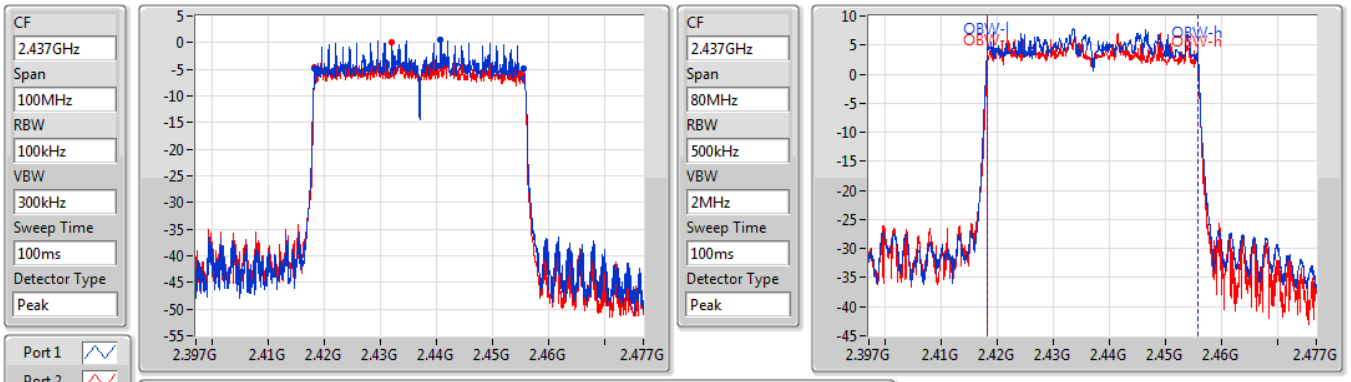


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.5M	2.40325G	2.44075G	37.621M	2.403129G	2.440751G	500k	1
36.45M	2.40325G	2.4397G	37.501M	2.403209G	2.440711G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

2437MHz

11/11/2019

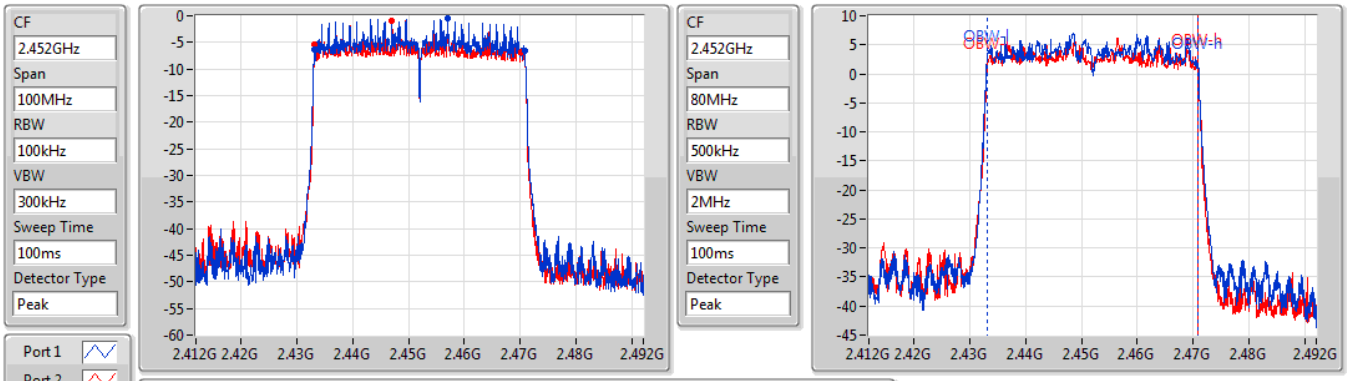


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.35M	2.4182G	2.45555G	37.621M	2.418129G	2.455751G	500k	1
36.95M	2.41825G	2.4552G	37.541M	2.418209G	2.455751G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

2452MHz

11/11/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.65M	2.43315G	2.4708G	37.621M	2.433129G	2.470751G	500k	1
37M	2.4332G	2.4702G	37.541M	2.433209G	2.470751G	500k	2

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX	7.05M	10.415M	10M4G1D	7.025M	10.395M
802.11g_Nss1,(6Mbps)_1TX	16.35M	17.471M	17M5D1D	16.3M	16.732M
VHT20_Nss1,(MCS0)_1TX	17.575M	18.151M	18M2D1D	17.575M	17.831M
VHT40_Nss1,(MCS0)_1TX	36.35M	36.422M	36M4D1D	36.25M	36.422M
802.11ax HEW20_Nss1,(MCS0)_1TX	18.95M	19.21M	19M2D1D	18.9M	18.991M
802.11ax HEW40_Nss1,(MCS0)_1TX	37.35M	37.541M	37M5D1D	37.3M	37.501M

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

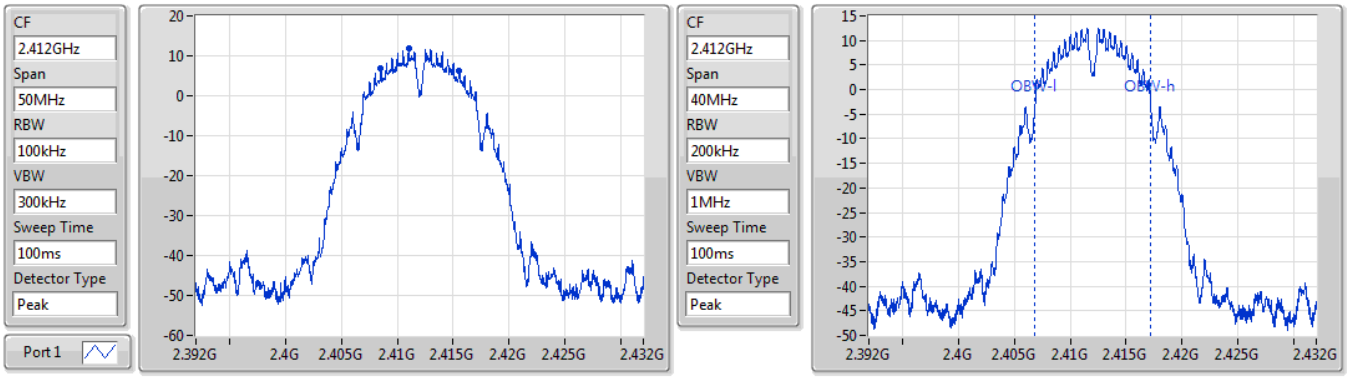
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	7.05M	10.395M
2437MHz	Pass	500k	7.025M	10.415M
2462MHz	Pass	500k	7.025M	10.415M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.35M	16.752M
2437MHz	Pass	500k	16.3M	17.471M
2462MHz	Pass	500k	16.35M	16.732M
VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	17.575M	17.851M
2437MHz	Pass	500k	17.575M	18.151M
2462MHz	Pass	500k	17.575M	17.831M
VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	36.35M	36.422M
2437MHz	Pass	500k	36.25M	36.422M
2452MHz	Pass	500k	36.3M	36.422M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	18.95M	18.991M
2437MHz	Pass	500k	18.925M	19.21M
2462MHz	Pass	500k	18.9M	18.991M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	37.3M	37.501M
2437MHz	Pass	500k	37.3M	37.541M
2452MHz	Pass	500k	37.35M	37.501M

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

802.11b_Nss1,(1Mbps)_1TX EBW

2412MHz

11/11/2019

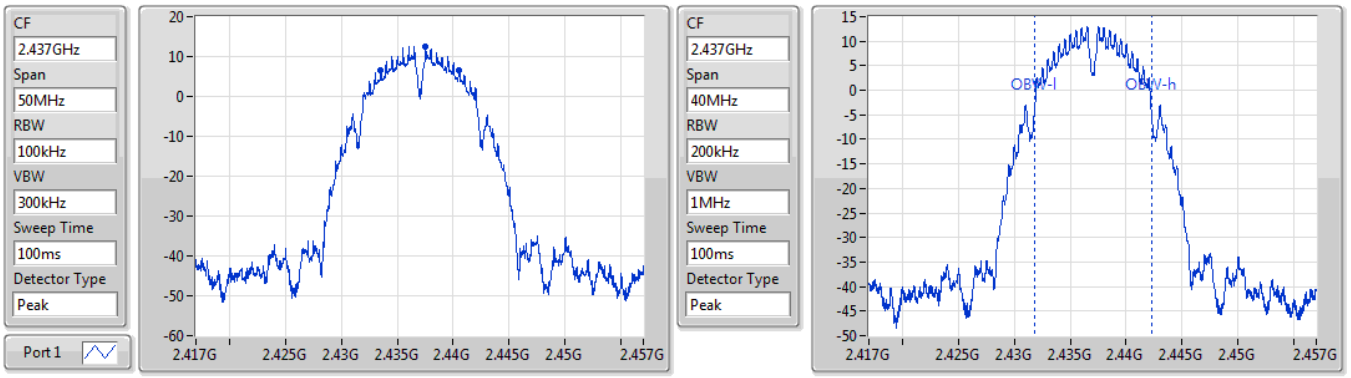


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.4085G	2.41555G	10.395M	2.406823G	2.417217G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2437MHz

11/11/2019

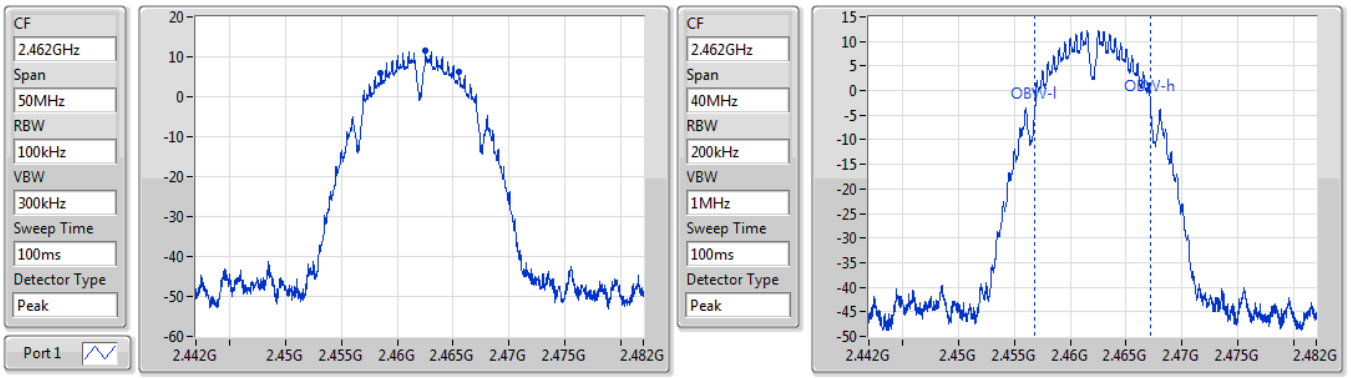


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.025M	2.433525G	2.44055G	10.415M	2.431823G	2.442237G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2462MHz

11/11/2019

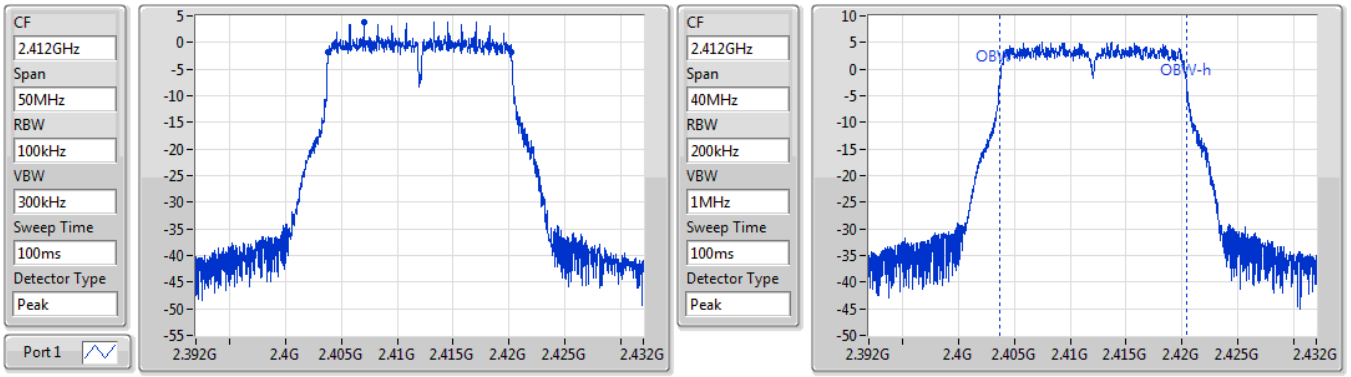


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.025M	2.4585G	2.465525G	10.415M	2.456783G	2.467197G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2412MHz

11/11/2019

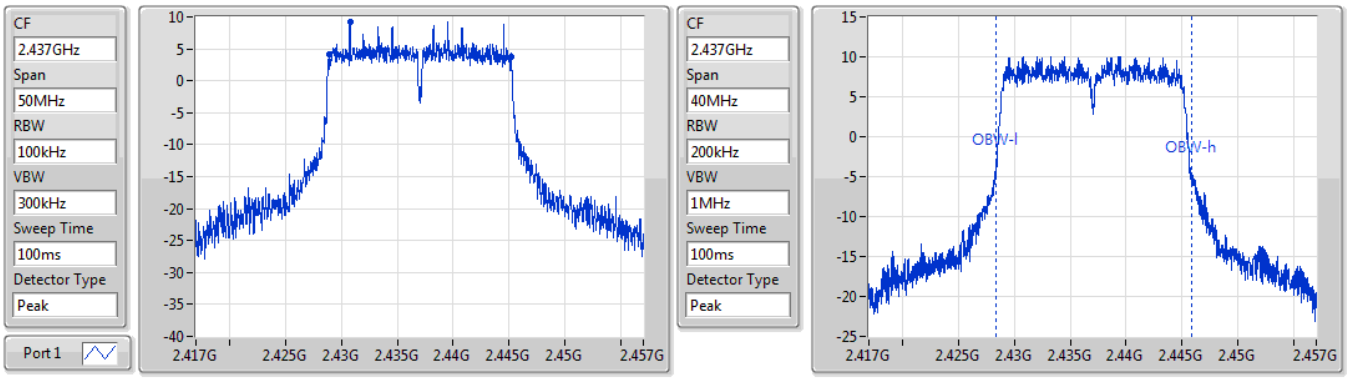


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.40385G	2.4202G	16.752M	2.403684G	2.420436G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2437MHz

11/11/2019

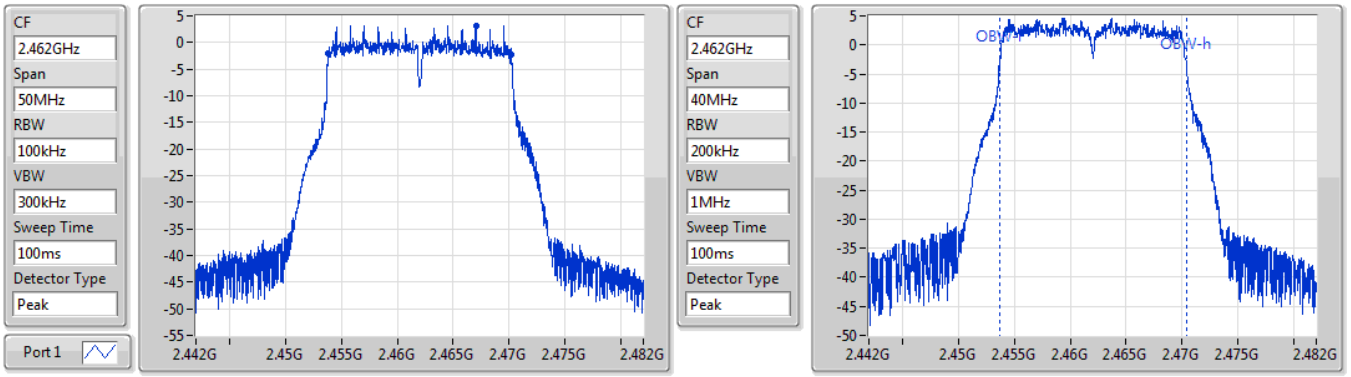


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.3M	2.428875G	2.445175G	17.471M	2.428384G	2.445856G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2462MHz

11/11/2019

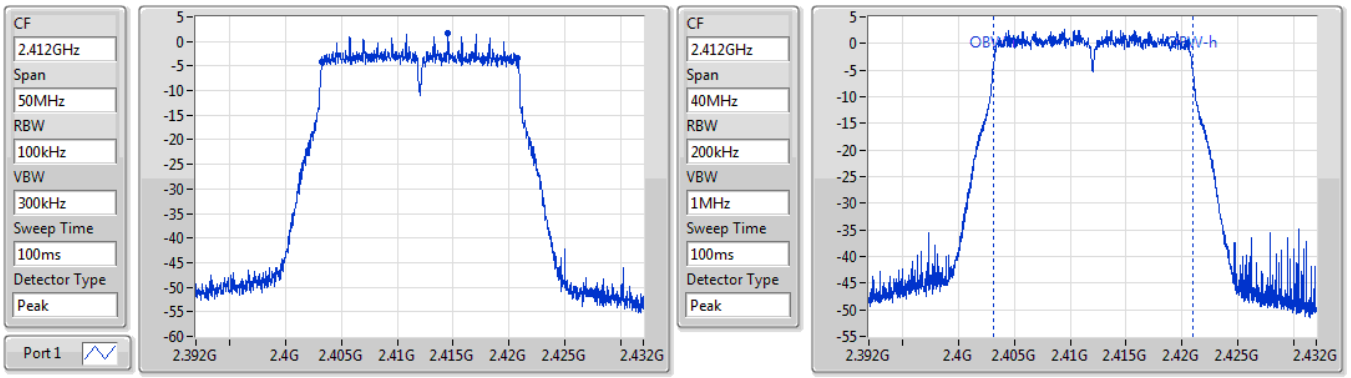


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.45385G	2.4702G	16.732M	2.453684G	2.470416G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2412MHz

11/11/2019

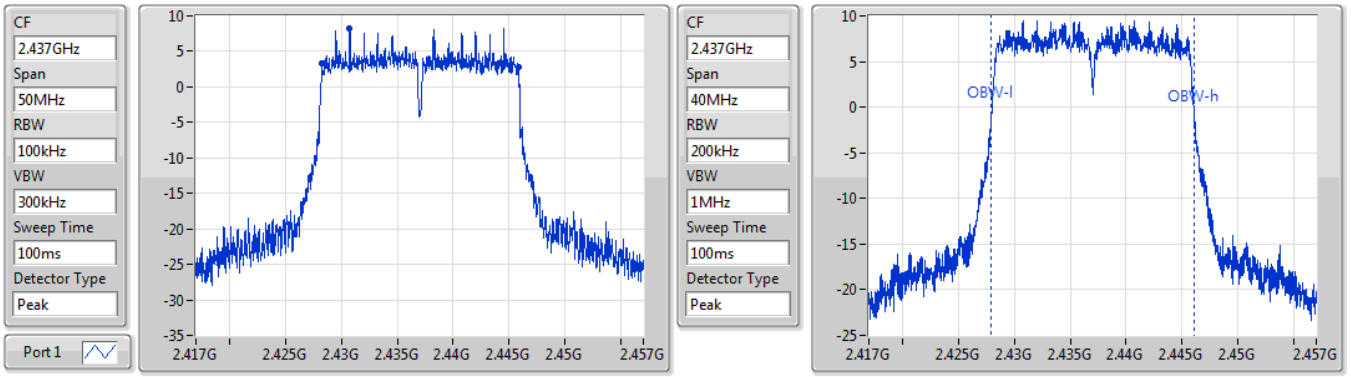


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.403225G	2.4208G	17.851M	2.403104G	2.420956G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2437MHz

11/11/2019

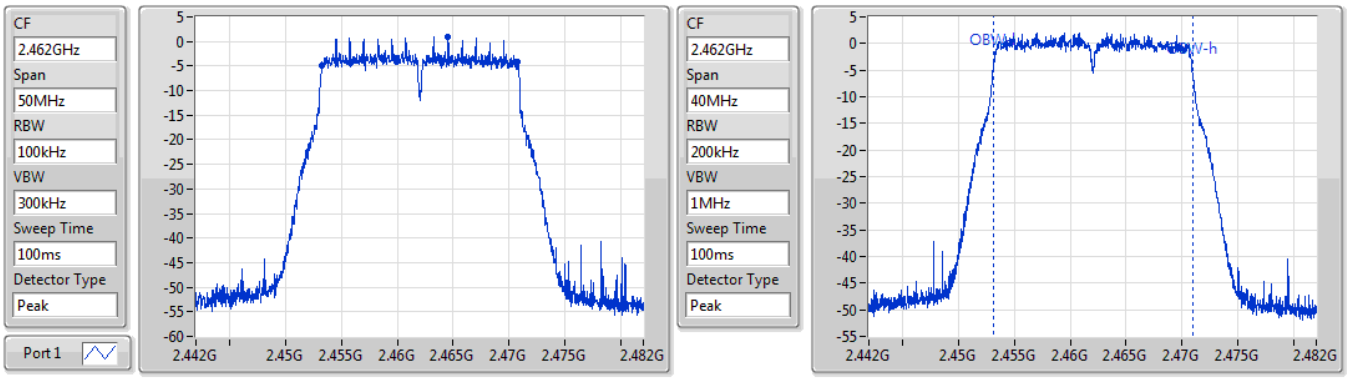


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.42825G	2.445825G	18.151M	2.427965G	2.446115G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2462MHz

11/11/2019

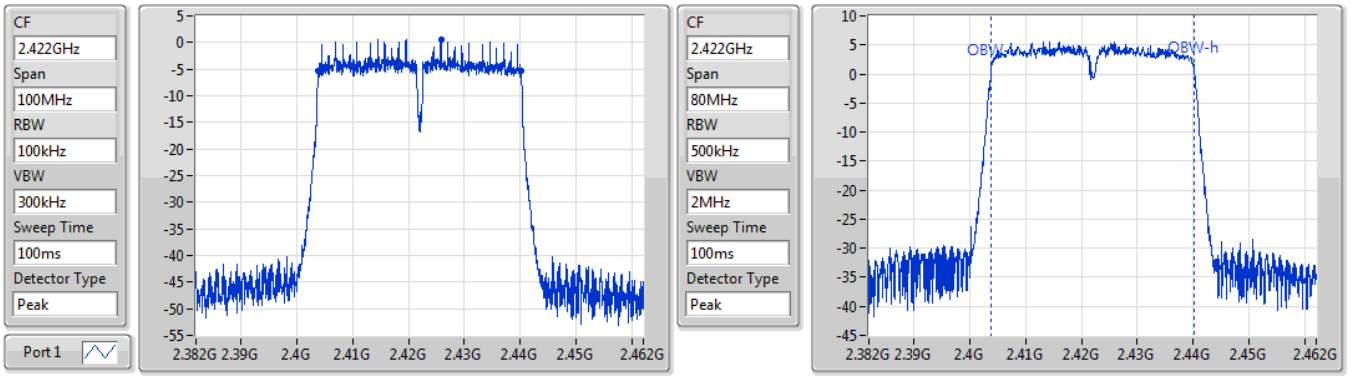


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.453225G	2.4708G	17.831M	2.453104G	2.470936G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2422MHz

11/11/2019

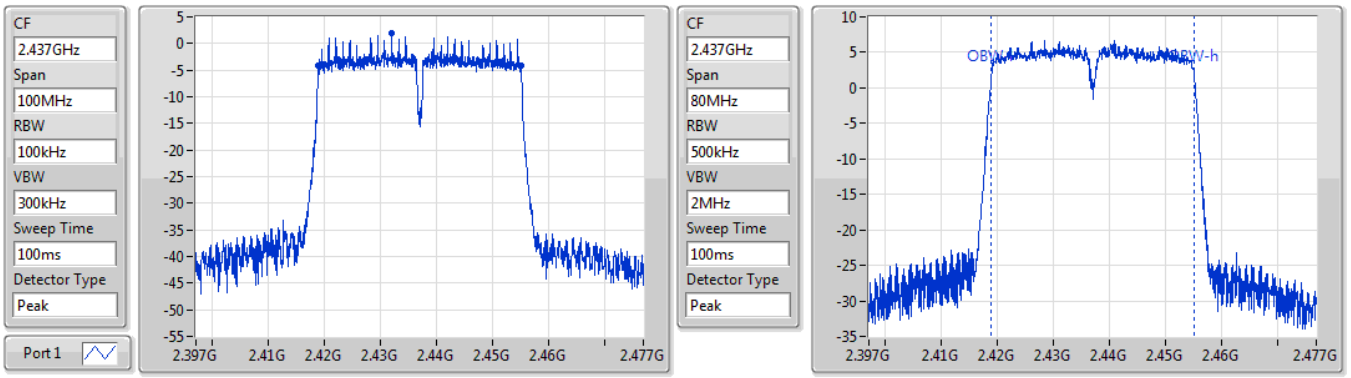


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.35M	2.40385G	2.4402G	36.422M	2.403809G	2.440231G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2437MHz

11/11/2019

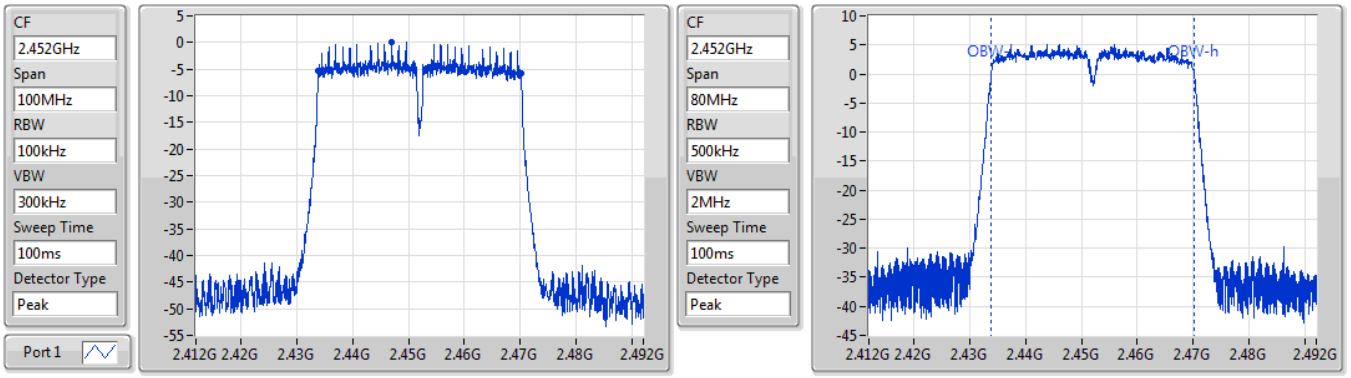


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.25M	2.4189G	2.45515G	36.422M	2.418809G	2.455231G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2452MHz

11/11/2019

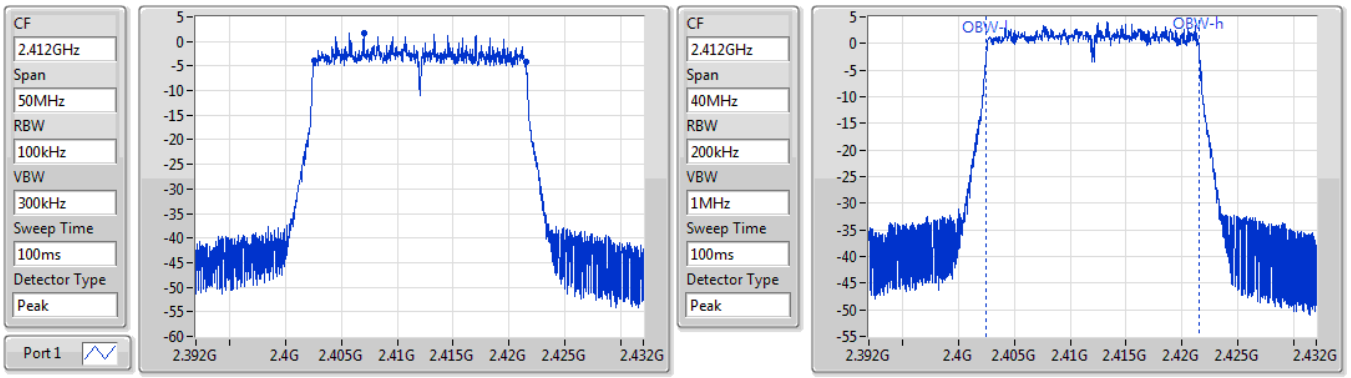


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.43385G	2.47015G	36.422M	2.433809G	2.470231G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2412MHz

11/11/2019

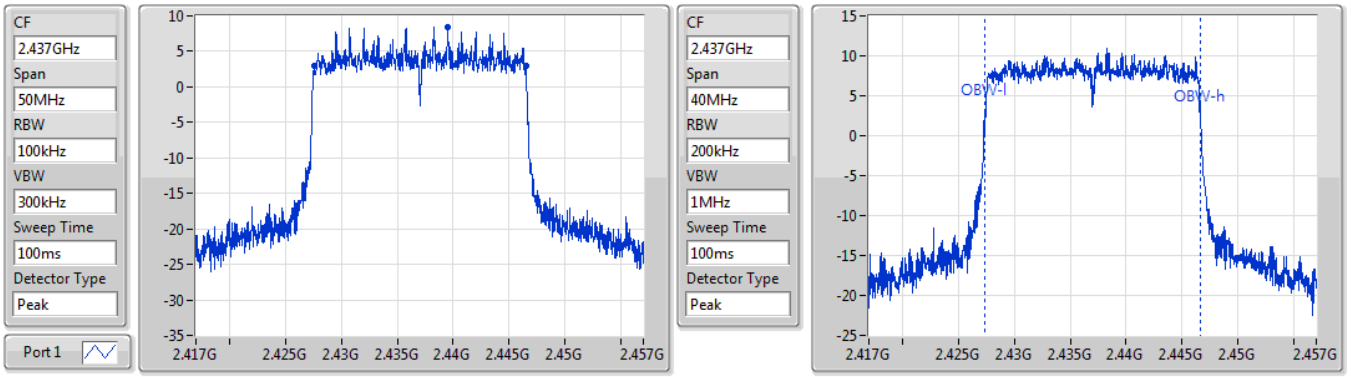


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.95M	2.40255G	2.4215G	18.991M	2.402525G	2.421515G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2437MHz

11/11/2019

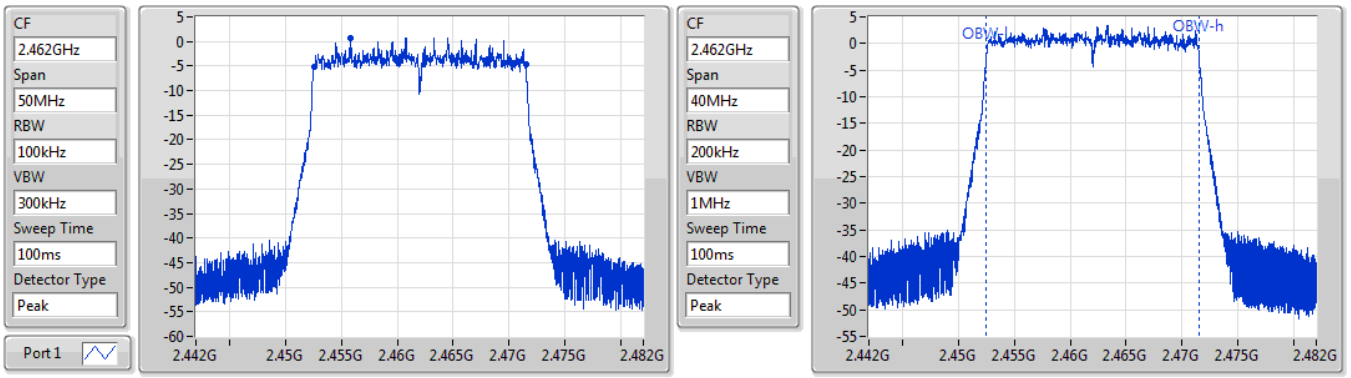


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.925M	2.42755G	2.446475G	19.21M	2.427405G	2.446615G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2462MHz

11/11/2019

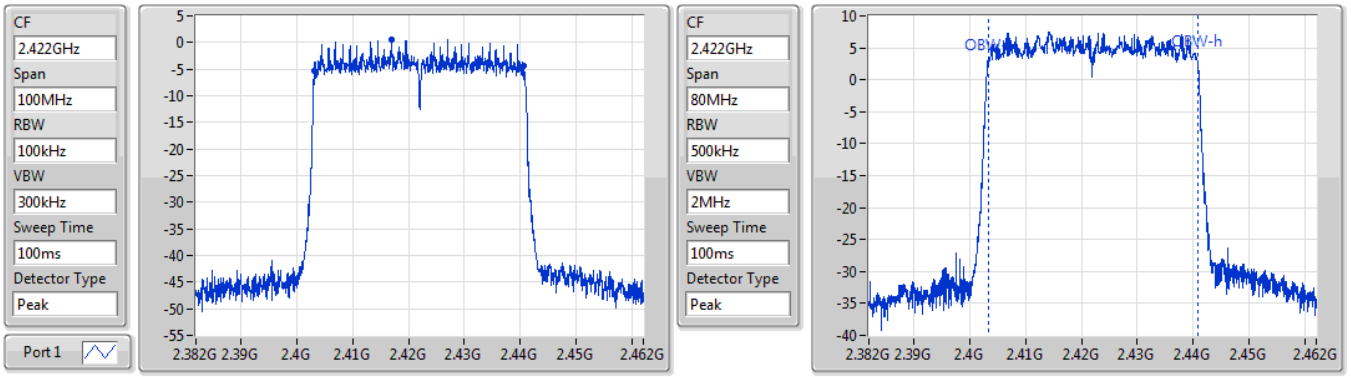


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.9M	2.4526G	2.4715G	18.991M	2.452505G	2.471495G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2422MHz

11/11/2019

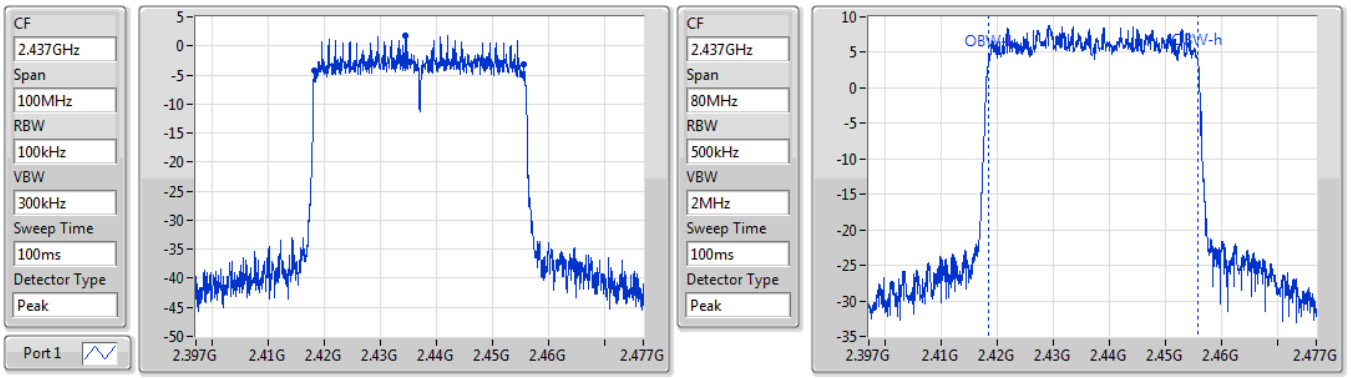


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.3M	2.4032G	2.4405G	37.501M	2.403289G	2.440791G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2437MHz

11/11/2019

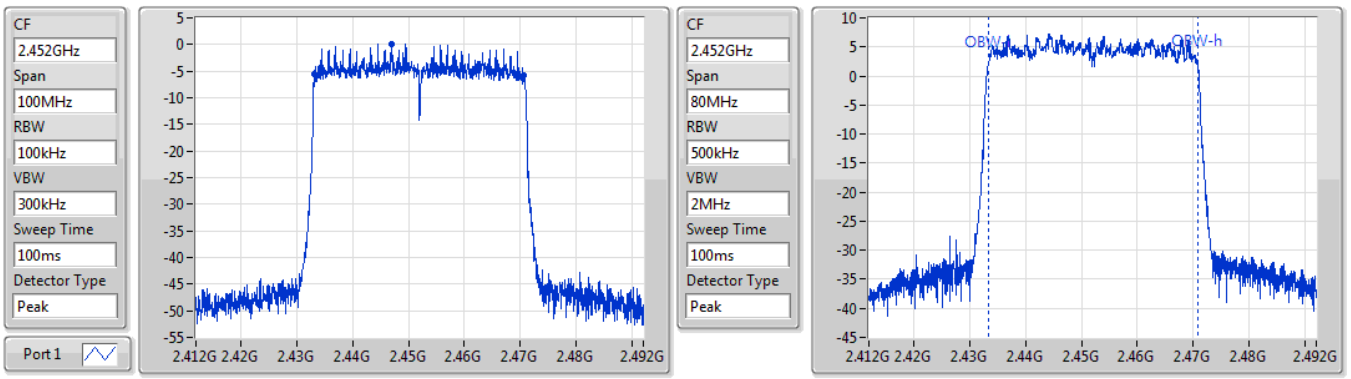


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.3M	2.4182G	2.4555G	37.541M	2.418289G	2.455831G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2452MHz

11/11/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.35M	2.43325G	2.4706G	37.501M	2.433289G	2.470791G	500k	1

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11b_Nss1,(1Mbps)_2TX	7.05M	10.295M	10M3G1D	6.525M	10.235M
802.11g_Nss1,(6Mbps)_2TX	16.35M	16.912M	16M9D1D	16.3M	16.652M
VHT20_Nss2,(MCS0)_2TX	17.6M	17.971M	18M0D1D	17.55M	17.791M
VHT40_Nss2,(MCS0)_2TX	36.35M	36.382M	36M4D1D	35.9M	36.262M
802.11ax HEW20_Nss2,(MCS0)_2TX	18.975M	19.11M	19M1D1D	18.85M	19.03M
802.11ax HEW40_Nss2,(MCS0)_2TX	37.6M	37.661M	37M7D1D	37M	37.501M

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

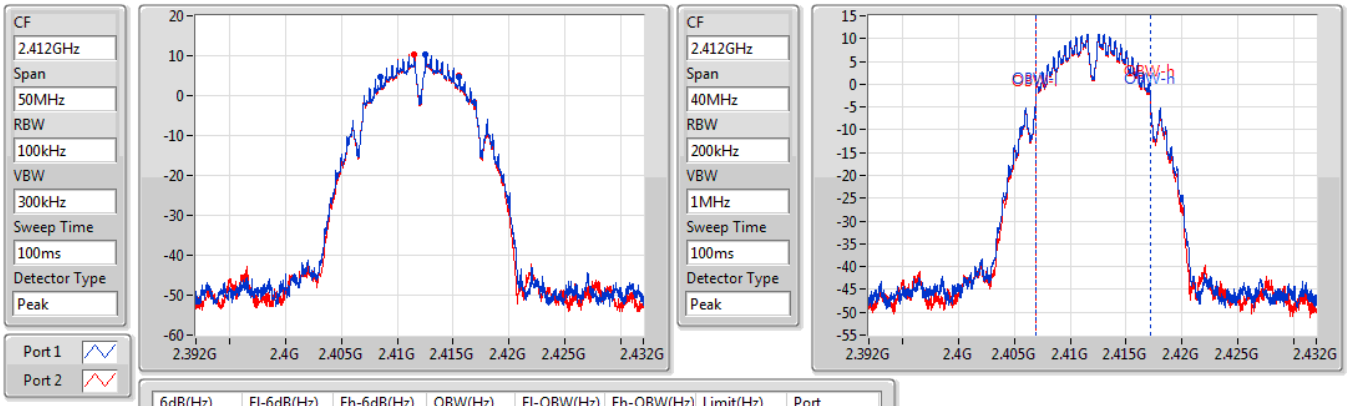
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	7.05M	10.295M	7.05M	10.255M
2437MHz	Pass	500k	6.525M	10.275M	7.05M	10.235M
2462MHz	Pass	500k	7.05M	10.235M	7.025M	10.255M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.35M	16.732M	16.35M	16.652M
2437MHz	Pass	500k	16.325M	16.912M	16.3M	16.872M
2462MHz	Pass	500k	16.35M	16.712M	16.35M	16.672M
VHT20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.575M	17.871M	17.6M	17.811M
2437MHz	Pass	500k	17.55M	17.971M	17.6M	17.871M
2462MHz	Pass	500k	17.575M	17.871M	17.575M	17.791M
VHT40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	36.35M	36.382M	36.35M	36.302M
2437MHz	Pass	500k	36.3M	36.342M	36.35M	36.302M
2452MHz	Pass	500k	36.3M	36.342M	35.9M	36.262M
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	18.975M	19.03M	18.975M	19.03M
2437MHz	Pass	500k	18.975M	19.09M	18.85M	19.11M
2462MHz	Pass	500k	18.95M	19.03M	18.95M	19.03M
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	37.55M	37.621M	37.05M	37.541M
2437MHz	Pass	500k	37.6M	37.661M	37M	37.501M
2452MHz	Pass	500k	37.55M	37.621M	37M	37.501M

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

802.11b_Nss1,(1Mbps)_2TX EBW

2412MHz

13/11/2019

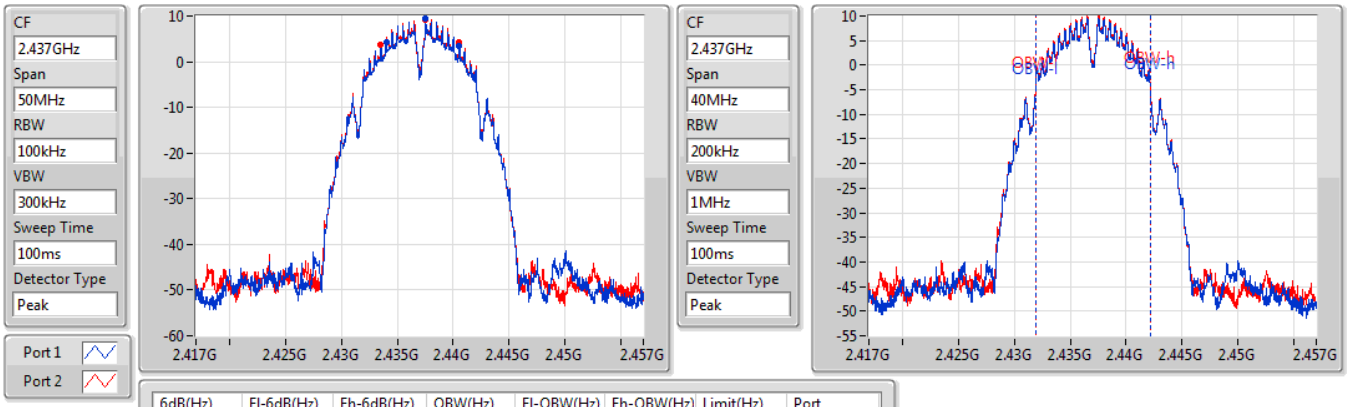


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.4085G	2.41555G	10.295M	2.406883G	2.417177G	500k	1
7.05M	2.4085G	2.41555G	10.255M	2.406883G	2.417137G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2437MHz

13/11/2019

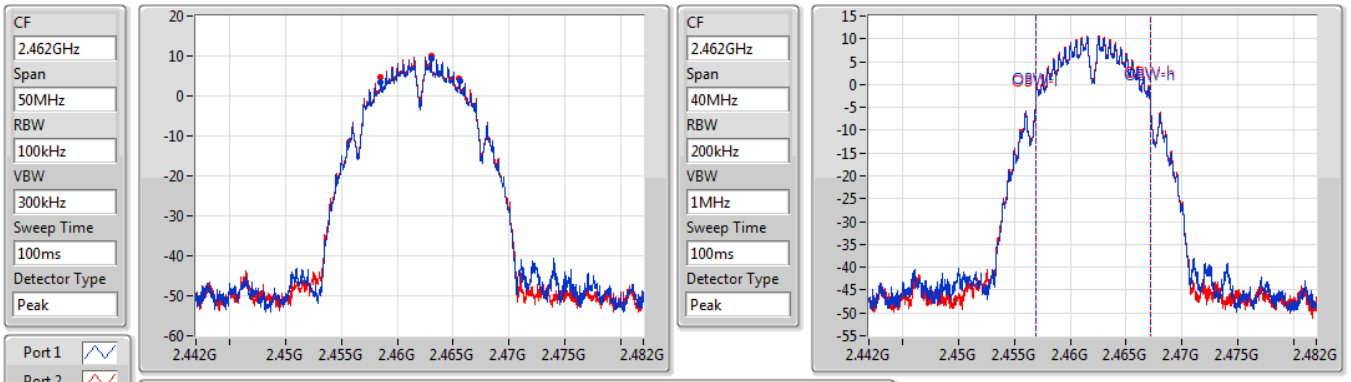


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6.525M	2.434G	2.440525G	10.275M	2.431883G	2.442157G	500k	1
7.05M	2.4335G	2.44055G	10.235M	2.431903G	2.442137G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2462MHz

13/11/2019

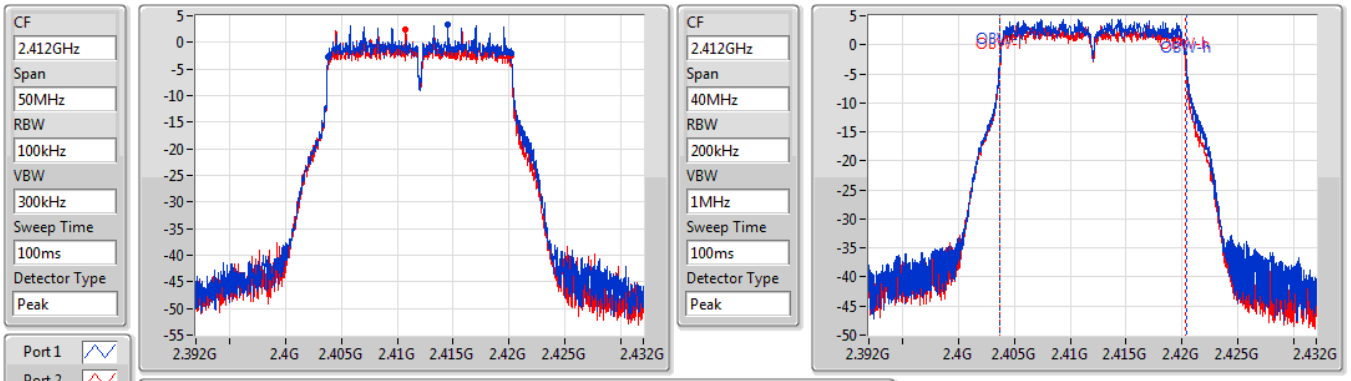


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.458525G	2.465575G	10.235M	2.456903G	2.467137G	500k	1
7.025M	2.4585G	2.465525G	10.255M	2.456883G	2.467137G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2412MHz

13/11/2019

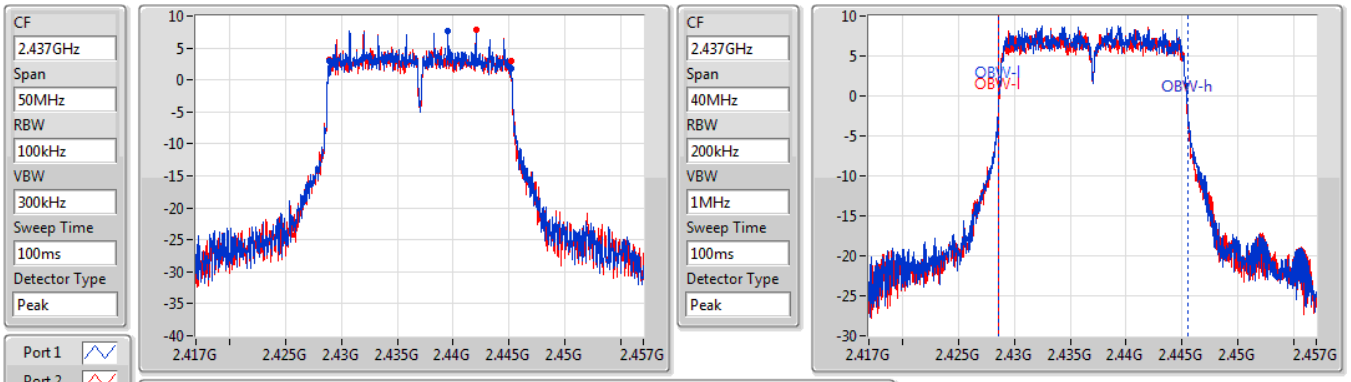


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.40385G	2.4202G	16.732M	2.403704G	2.420436G	500k	1
16.35M	2.40385G	2.4202G	16.652M	2.403684G	2.420336G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2437MHz

13/11/2019

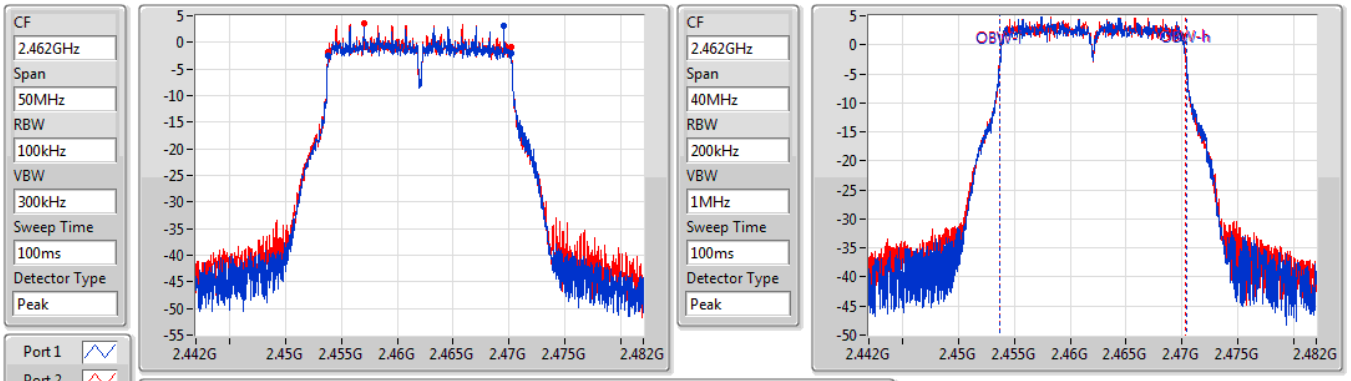


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.428875G	2.4452G	16.912M	2.428624G	2.445536G	500k	1
16.3M	2.428875G	2.445175G	16.872M	2.428604G	2.445476G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2462MHz

13/11/2019

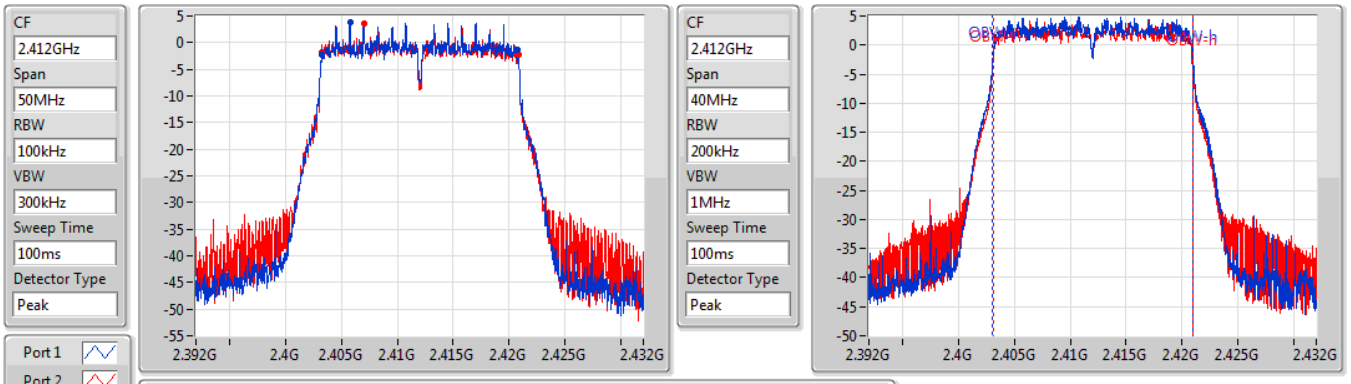


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.45385G	2.4702G	16.712M	2.453684G	2.470396G	500k	1
16.35M	2.45385G	2.4702G	16.672M	2.453684G	2.470356G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2412MHz

13/11/2019

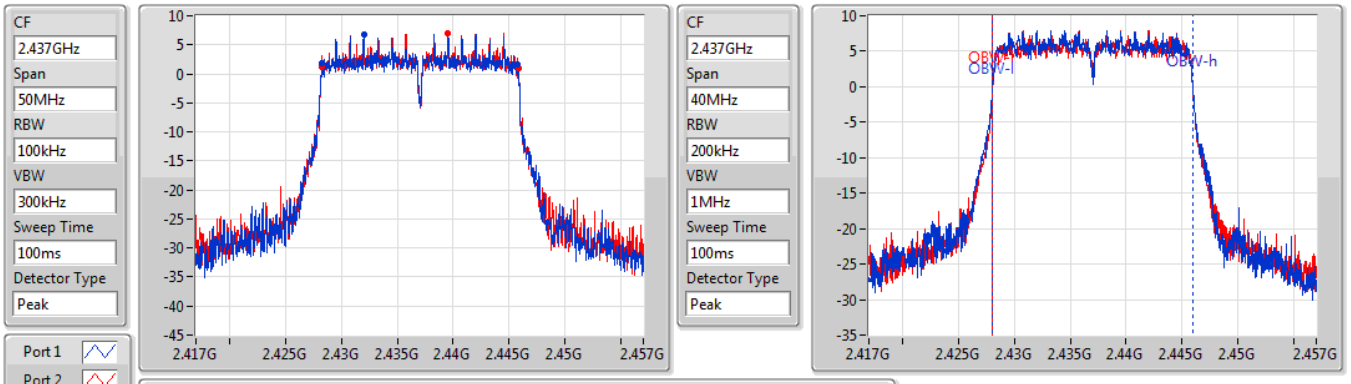


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.403225G	2.4208G	17.871M	2.403084G	2.420956G	500k	1
17.6M	2.403225G	2.420825G	17.811M	2.403104G	2.420916G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2437MHz

13/11/2019

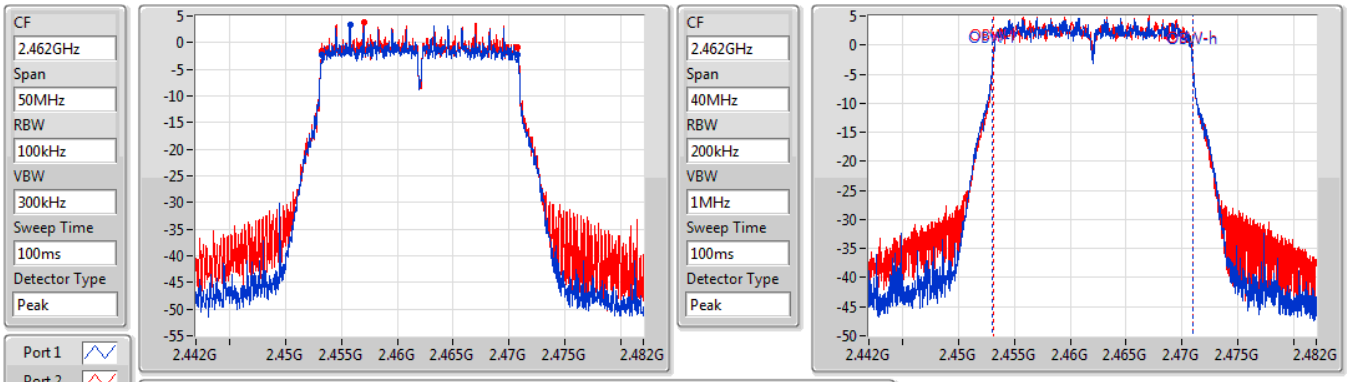


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.42825G	2.4458G	17.971M	2.428004G	2.445976G	500k	1
17.6M	2.428225G	2.445825G	17.871M	2.428084G	2.445956G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2462MHz

13/11/2019

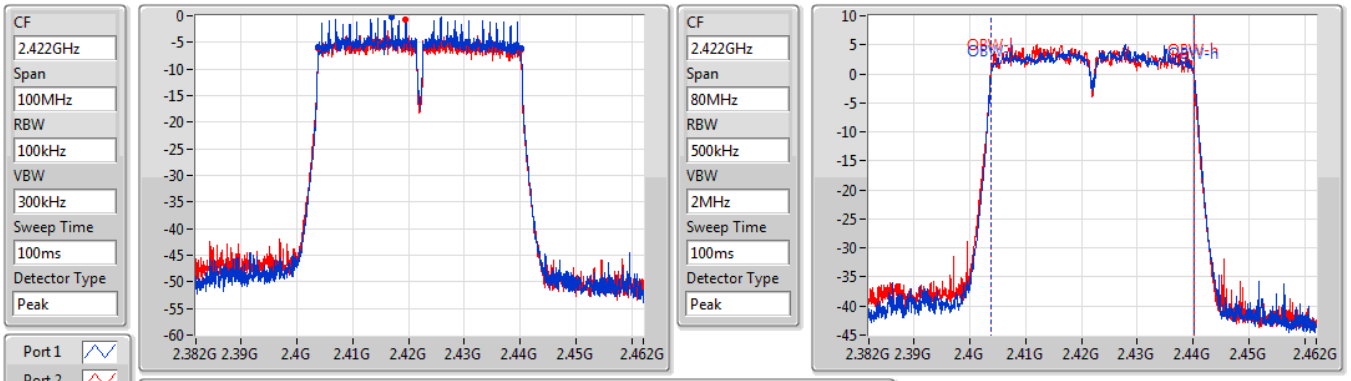


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.453225G	2.4708G	17.871M	2.453064G	2.470936G	500k	1
17.575M	2.453225G	2.4708G	17.791M	2.453124G	2.470916G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2422MHz

13/11/2019

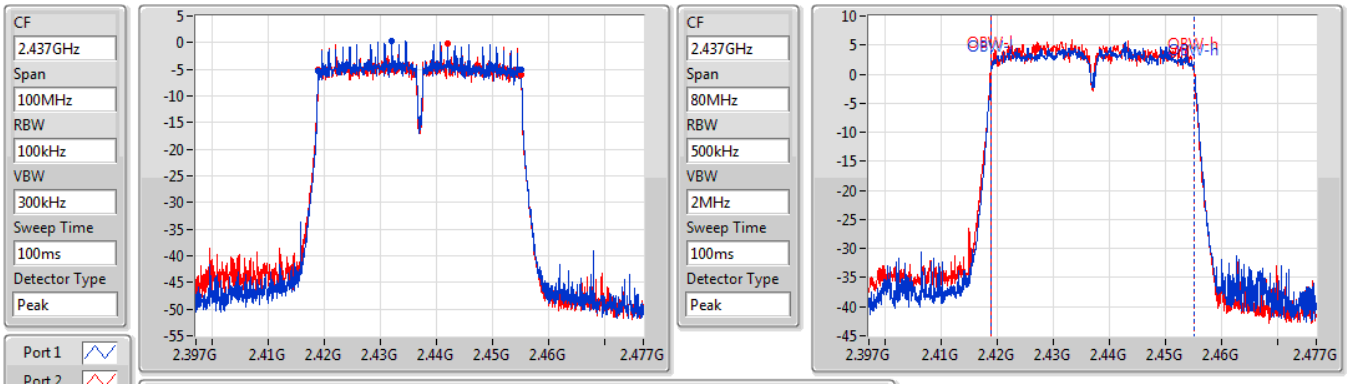


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.35M	2.40385G	2.4402G	36.382M	2.403849G	2.440231G	500k	1
36.35M	2.40385G	2.4402G	36.302M	2.403809G	2.440111G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2437MHz

13/11/2019

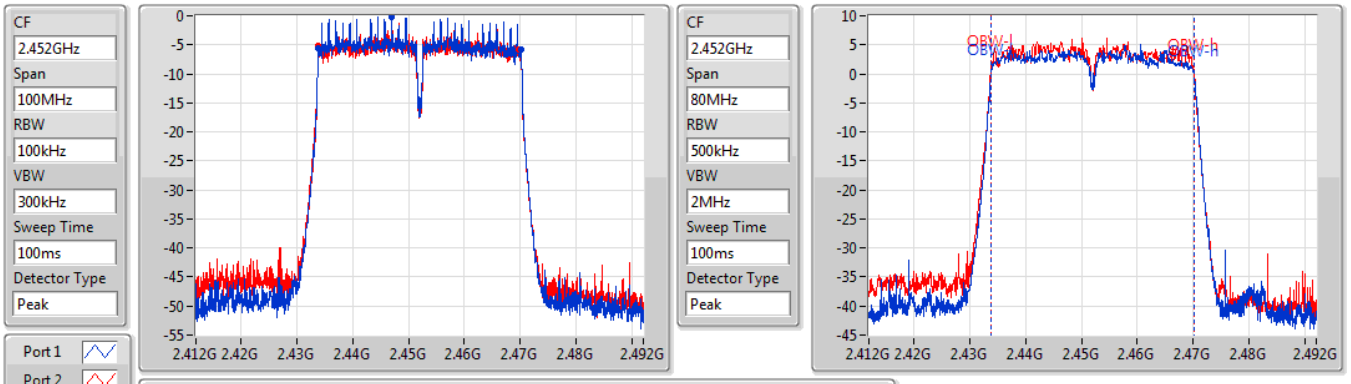


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.41885G	2.45515G	36.342M	2.418889G	2.455231G	500k	1
36.35M	2.41885G	2.4552G	36.302M	2.418809G	2.455111G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2452MHz

13/11/2019

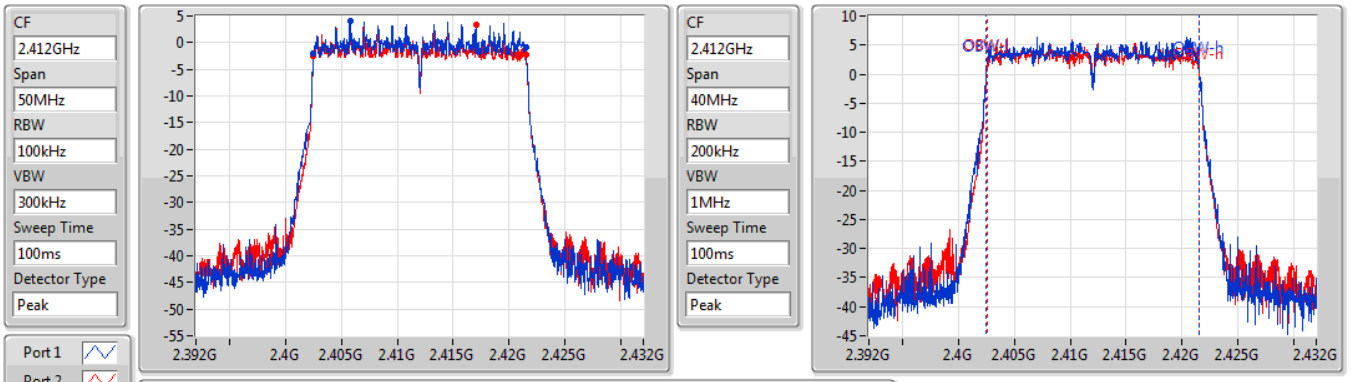


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.43385G	2.47015G	36.342M	2.433849G	2.470191G	500k	1
35.9M	2.4339G	2.4698G	36.262M	2.433849G	2.470111G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2412MHz

13/11/2019

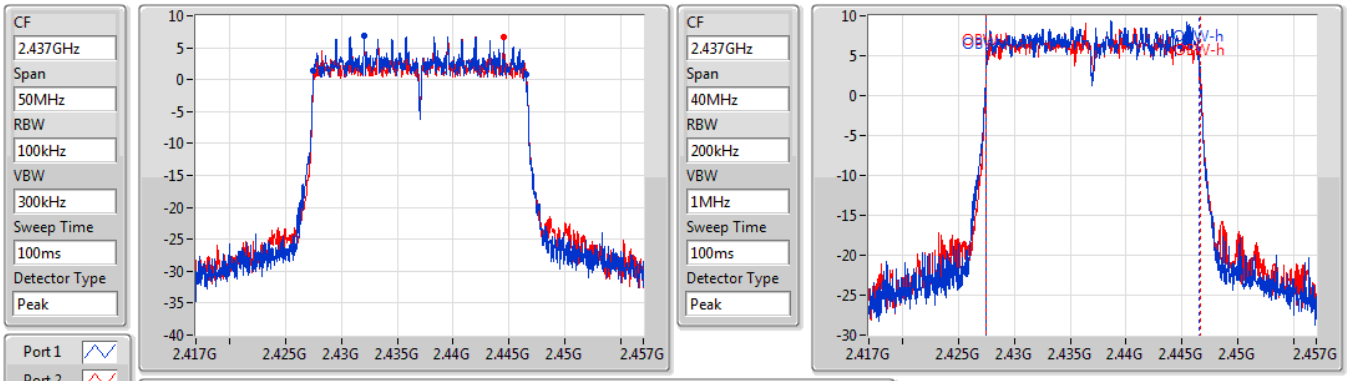


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.402525G	2.4215G	19.03M	2.402505G	2.421535G	500k	1
18.975M	2.402525G	2.4215G	19.03M	2.402545G	2.421575G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2437MHz

13/11/2019

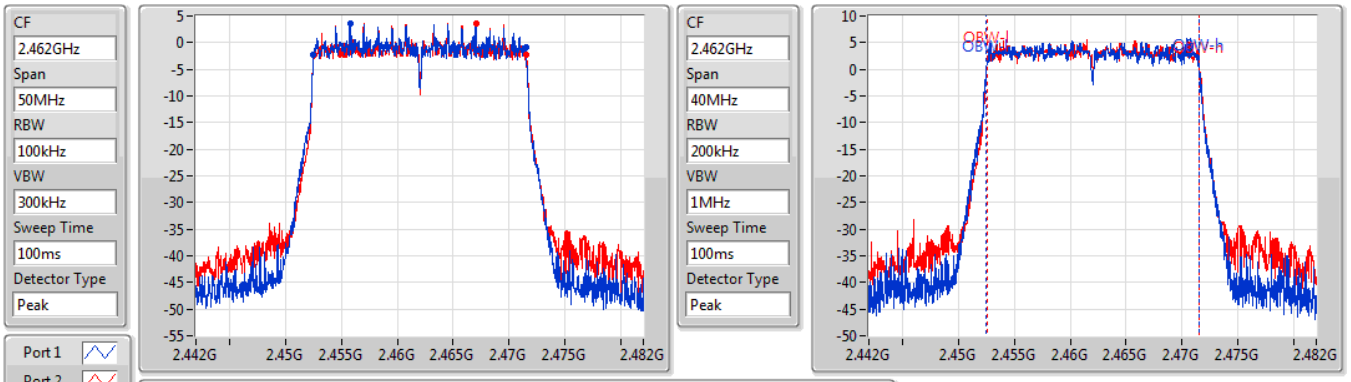


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.427525G	2.4465G	19.09M	2.427485G	2.446575G	500k	1
18.85M	2.427675G	2.446525G	19.11M	2.427525G	2.446635G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2462MHz

13/11/2019

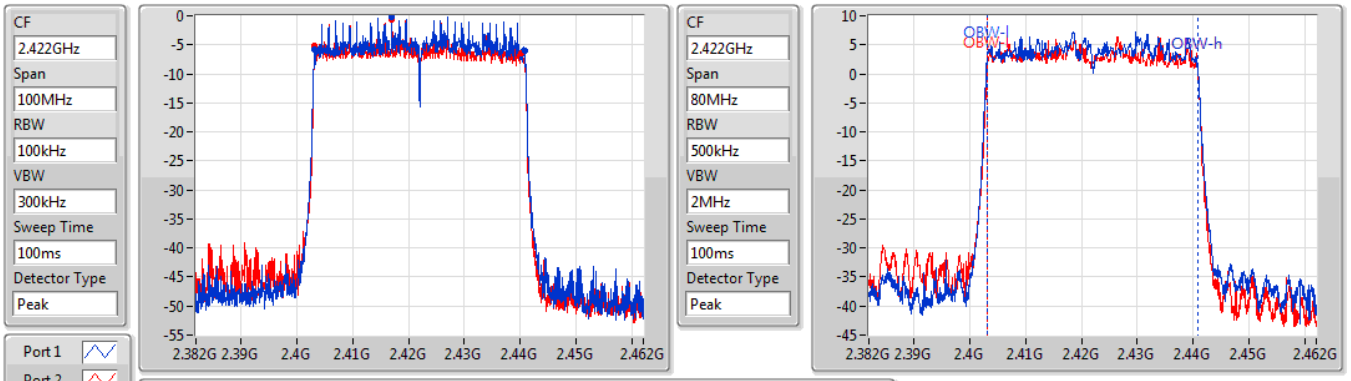


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.95M	2.452525G	2.471475G	19.03M	2.452505G	2.471535G	500k	1
18.95M	2.452575G	2.471525G	19.03M	2.452545G	2.471575G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

2422MHz

13/11/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.55M	2.40325G	2.4408G	37.621M	2.403129G	2.440751G	500k	1
37.05M	2.4032G	2.44025G	37.541M	2.403209G	2.440751G	500k	2