FCC Test Report

FCC ID	:	**QXO-AP460**
Equipment	:	**Wireless Access Point**
Brand Name	:	**Extreme Networks, Inc.**
Model Name	:	**AP460i, AP460e**
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 Aug. 13, 2019, and testing was started from Aug. 22, 2019 and completed on Nov. 12, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

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

Allen Lin

Approved by: Allen Lin

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

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

Table of Contents

History of this test report

Report No.	Version	Description	Issued Date
FR970235AC	01	Initial issue of report	Dec. 04, 2019

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	-

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: Jenny Yang

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

(AP460i) Internal Antenna

Ant.	Brand	Model Number (P/N)	Antenna Type	Connector	Antenna Gain (dBi)			Remark
					2.4GHz	5GHz	BLE/Thread	
1	SENAO	5718A0462300	PIFA	IPEX	-	5.58	-	Radio 2
2	SENAO	5718A0463300	PIFA	IPEX	-	5.58	-	Radio 2
3	SENAO	5718A0465300	PIFA	IPEX	-	5.58	-	Radio 2
4	SENAO	5718A0464300	PIFA	IPEX	-	5.58	-	Radio 2
5	SENAO	5718A0458300	PIFA	IPEX	4.82	-	-	Radio 1
6	SENAO	5718A0459300	PIFA	IPEX	4.82	-	-	Radio 1
7	SENAO	5718A0460300	PIFA	IPEX	4.87	5.02	-	Radio 3
8	SENAO	5718A0461300	PIFA	IPEX	4.87	5.02	-	Radio 3
9	SENAO	5718A0466300	PIFA	IPEX	-	-	4.65	Radio 4

(AP460e) External Antenna

Group	Brand	Model Number (P/N)	Antenna Type	Connector	Antenna Gain (dBi)		
					2.4GHz	5GHz	BLE/Thread
1	Extreme	ML-2452-APA2-01	Omni	RP SMA male	3.17	4.85	-
2	Extreme	ML-2452-APA2-02	Omni	RP SMA male	3.17	4.85	-
3	Extreme	ML-2452-HPA5-036	Omni	RP SMA male	3.9	5.7	-
4	Extreme	ML-2452-HPAG4A6-01	Omni	N male	4	7.3	-
5	Extreme	ML-2452-PNA5-01R	Panel	Type N-Male	4.5	5	-
6	Extreme	ML-2452-PTA4M4-036	Omni	Rev-Polarity SMA Male 4x	5	6.6	-
7	Extreme	ML-2452-HPAG5A8-01	Omni	N male	5	8	-
8	Extreme	WS-AO-DQ04360N	Omni	N male	5.5	6	-
9	Extreme	AI-DQ04360S	Omni	RP SMA male	5.5	6	-
10	Extreme	ML-2452-SEC6M4-036 / WS-AI-DQ05120	Panel	RP SMA male	6.92	7.23	-
11	Extreme	WS-AI-DE07025	Panel	RP SMA male	7.5	6.5	-
12	Extreme	ML-2452-PNA7-01R	Panel 1	Type N-Male	7.8	10.7	7.8
13	Extreme	WS-AI-DE10055	Panel 2	RP SMA male	10.5	7.5	-
14	Extreme	ML-2499-HPA8-01	Dipole	N male	-	-	8

Note 1: Group 7, 12 and 13 were measured during the test for WLAN 2.4G Mode.
Note 2: Group 12 and 14 were measured during the test for Bluetooth/Thread Mode.
Note 3: Group 7 and 12 were measured during the test for WLAN 5G Mode.

For 2.4GHz function:
For IEEE 802.11 b/g/n/ax mode (1TX/1RX)
Only port 1 can be used as transmitting/receiving antenna.
For IEEE 802.11 b/g/n/ax mode (2TX/2RX)
Port 1 and port 2 could transmit/receive simultaneously.
For BT function:
For IEEE 802.15.1 Bluetooth mode (1TX/1RX)
Only port 1 can be used as transmitting/receiving antenna.
For Thread function:
For IEEE 802.15.4 Thread mode (1TX/1RX)
Only port 1 can be used as transmitting/receiving antenna.
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.
For IEEE 802.11 a/n/ac/ax mode (4TX/4RX)
Port 1, port 2, port 3 and port 4 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	AP460i	The “i” in AP460i indicates that it comes with internal antennas and the “e” in AP460e indicates that the access point comes with external antenna connectors.
2	AP460e	

1.1.5 Mode Test Duty Cycle

Non-Beamforming

Sample 1_Radio 1_1T1S & Sample 2_Radio 1_1T1S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b_Nss1,(1Mbps)_1TX	0.949	0.23	12.422m	100
802.11g_Nss1,(6Mbps)_1TX	0.952	0.21	2.069m	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	0.965	0.15	775u	3k

Sample 1_Radio 1_2T2S & Sample 2_Radio 1_2T2S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b_Nss1,(1Mbps)_2TX	0.955	0.2	12.422m	100
802.11g_Nss1,(6Mbps)_2TX	0.952	0.21	2.069m	1k
VHT20_Nss2,(MCS0)_2TX	0.986	0.06	n/a (DC>=0.98)	n/a (DC>=0.98)
VHT40_Nss2,(MCS0)_2TX	0.972	0.12	955.938u	3k
802.11ax HEW20_Nss2,(MCS0)_2TX	0.981	0.08	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW40_Nss2,(MCS0)_2TX	0.964	0.16	774.375u	3k

Sample 1_Radio 3_1T1S & Sample 2_Radio 3_1T1S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b_Nss1,(1Mbps)_1TX	0.945	0.25	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 3_2T2S & Sample 2_Radio 3_2T2S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11b_Nss1,(1Mbps)_2TX	0.954	0.2	12.418m	100
802.11g_Nss1,(6Mbps)_2TX	0.95	0.22	2.067m	1k
VHT20_Nss2,(MCS0)_2TX	0.974	0.11	990.938u	3k
VHT40_Nss2,(MCS0)_2TX	0.948	0.23	503.125u	3k
802.11ax HEW20_Nss2,(MCS0)_2TX	0.964	0.16	783.125u	3k
802.11ax HEW40_Nss2,(MCS0)_2TX	0.933	0.3	424.375u	3k

Beamforming
Sample 1_Radio 1

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
VHT20-BF_Nss1,(MCS0)_2TX	0.902	0.45	2.233m	1k
VHT40-BF_Nss1,(MCS0)_2TX	0.862	0.64	2.801m	1k
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.886	0.53	2.674m	1k
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.797	0.99	2.219m	1k

Sample 1_Radio 3

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
VHT20-BF_Nss1,(MCS0)_2TX	0.895	0.48	1.95m	1k
VHT40-BF_Nss1,(MCS0)_2TX	0.877	0.57	2.8m	1k
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.87	0.6	1.503m	1k
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.805	0.94	2.225m	1k

Sample 2_Radio 1

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
VHT20-BF_Nss1,(MCS0)_2TX	0.902	0.45	2.233m	1k
VHT40-BF_Nss1,(MCS0)_2TX	0.862	0.64	2.801m	1k
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.886	0.53	2.674m	1k
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.797	0.99	2.219m	1k

Sample 2_Radio 3

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
VHT20-BF_Nss1,(MCS0)_2TX	0.895	0.48	1.95m	1k
VHT40-BF_Nss1,(MCS0)_2TX	0.877	0.57	2.8m	1k
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.87	0.6	1.503m	1k
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.805	0.94	2.225m	1k

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

1.3 Testing Location Information

Testing Location			
☒	HWA YA	ADD : No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)	
		TEL : 886-3-327-3456	FAX : 886-3-327-0973
Test site Designation No. TW1190 with FCC.			
☐	JHUBEI	ADD : No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County, Taiwan (R.O.C.)	
		TEL : 886-3-656-9065	FAX : 886-3-656-9085
Test site Designation No. TW0006 with FCC.			

Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Edward Wang	20.9~22.1°C / 60.4~64.2%	08/Nov/2019~ 12/Nov/2019
RF Conducted	TH06-HY	Tim Chen	23.1~25°C / 61~67%	26/Aug/2019~ 09/Nov/2019
Radiated	03CH03-HY	Edward Wand	22.2~22.2°C / 51.8~51.8%	22/Aug/2019~ 19/Oct/2019
Radiated (Sample 1_ Non Beamforming)	03CH03-HY	Edward Wand	22.2~22.2°C / 62.3~51.8%	21/Aug/2019~ 04/Oct/2019

1.4 Measurement Uncertainty

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

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

Test Software Version	accessMTool_REL_3_1_0_1

Non-Beamforming
Sample 1_Radio 1_1T1S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	14
2442MHz	14
2472MHz	14
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	15.75
2442MHz	16
2472MHz	15.75
VHT20_Nss1,(MCS0)_1TX	-
2412MHz	15.5
2442MHz	15.5
2472MHz	15.5
VHT40_Nss1,(MCS0)_1TX	-
2422MHz	15.25
2442MHz	15.25
2462MHz	15.25
802.11ax HEW20_Nss1,(MCS0)_1TX	-
2412MHz	15.5
2442MHz	15.5
2472MHz	15.5
802.11ax HEW40_Nss1,(MCS0)_1TX	-
2422MHz	15.25
2442MHz	15.25
2462MHz	15.25

Sample 1_Radio 1_2T2S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	10.5
2442MHz	11
2472MHz	11
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	12.25
2442MHz	12.25
2472MHz	12.25
VHT20_Nss2,(MCS0)_2TX	-
2412MHz	12
2442MHz	12
2472MHz	12
VHT40_Nss2,(MCS0)_2TX	-
2422MHz	12
2442MHz	12
2462MHz	12
802.11ax HEW20_Nss2,(MCS0)_2TX	-
2412MHz	12
2442MHz	12
2472MHz	12
802.11ax HEW40_Nss2,(MCS0)_2TX	-
2422MHz	12
2442MHz	12
2462MHz	12

Sample 1_Radio 3_1T1S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	12.25
2442MHz	12.25
2472MHz	12.25
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	15
2442MHz	15
2472MHz	15
VHT20_Nss1,(MCS0)_1TX	-
2412MHz	14.75
2442MHz	14.75
2472MHz	14.75
VHT40_Nss1,(MCS0)_1TX	-
2422MHz	14.75
2442MHz	14.75
2462MHz	14.75
802.11ax HEW20_Nss1,(MCS0)_1TX	-
2412MHz	14.75
2442MHz	14.75
2472MHz	14.75
802.11ax HEW40_Nss1,(MCS0)_1TX	-
2422MHz	14.75
2442MHz	14.75
2462MHz	14.75

Sample 1_Radio 3_2T2S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	10.5
2442MHz	10.5
2472MHz	10.5
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	12.25
2442MHz	12.25
2472MHz	12.25
VHT20_Nss2,(MCS0)_2TX	-
2412MHz	12
2442MHz	12
2472MHz	12
VHT40_Nss2,(MCS0)_2TX	-
2422MHz	12.5
2442MHz	11.75
2462MHz	11.75
802.11ax HEW20_Nss2,(MCS0)_2TX	-
2412MHz	12
2442MHz	12
2472MHz	12
802.11ax HEW40_Nss2,(MCS0)_2TX	-
2422MHz	11.75
2442MHz	11.75
2462MHz	11.75

Sample 2_Radio 1_Omni_1T1S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	13.25
2442MHz	13.25
2472MHz	13.25
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	16.25
2442MHz	16.25
2472MHz	16.25
VHT20_Nss1,(MCS0)_1TX	-
2412MHz	15.75
2442MHz	16
2472MHz	16
VHT40_Nss1,(MCS0)_1TX	-
2422MHz	15.75
2442MHz	15.75
2462MHz	15.75
802.11ax HEW20_Nss1,(MCS0)_1TX	-
2412MHz	15.75
2442MHz	16
2472MHz	16
802.11ax HEW40_Nss1,(MCS0)_1TX	-
2422MHz	15.75
2442MHz	15.75
2462MHz	15.75

Sample 2_Radio 1_Omni_2T2S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	11.5
2442MHz	11.5
2472MHz	11.5
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	13.5
2442MHz	13.5
2472MHz	13.5
VHT20_Nss2,(MCS0)_2TX	-
2412MHz	13.25
2442MHz	13.25
2472MHz	13.25
VHT40_Nss2,(MCS0)_2TX	-
2422MHz	13
2442MHz	13
2462MHz	13
802.11ax HEW20_Nss2,(MCS0)_2TX	-
2412MHz	13.25
2442MHz	13.25
2472MHz	13.25
802.11ax HEW40_Nss2,(MCS0)_2TX	-
2422MHz	13
2442MHz	13
2462MHz	13

Sample 2_Radio 1_Panel 1_1T1S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	10.25
2442MHz	10.25
2472MHz	10.5
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	13
2442MHz	13
2472MHz	13
VHT20_Nss1,(MCS0)_1TX	-
2412MHz	12.5
2442MHz	12.75
2472MHz	12.75
VHT40_Nss1,(MCS0)_1TX	-
2422MHz	12.75
2442MHz	12.5
2462MHz	12.75
802.11ax HEW20_Nss1,(MCS0)_1TX	-
2412MHz	12.5
2442MHz	12.75
2472MHz	12.75
802.11ax HEW40_Nss1,(MCS0)_1TX	-
2422MHz	12.75
2442MHz	12.5
2462MHz	12.75

Sample 2_Radio 1_Panel 1_2T2S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	9.25
2442MHz	9.25
2472MHz	9.25
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	10.5
2442MHz	10.5
2472MHz	10.5
VHT20_Nss2,(MCS0)_2TX	-
2412MHz	10.25
2442MHz	10.25
2472MHz	10.25
VHT40_Nss2,(MCS0)_2TX	-
2422MHz	10.25
2442MHz	10.25
2462MHz	10.25
802.11ax HEW20_Nss2,(MCS0)_2TX	-
2412MHz	10.25
2442MHz	10.25
2472MHz	10.25
802.11ax HEW40_Nss2,(MCS0)_2TX	-
2422MHz	10.25
2442MHz	10.25
2462MHz	10.25

Sample 2_Radio 1_Panel 2_1T1S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	8.75
2442MHz	8.75
2472MHz	8.75
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	10.75
2442MHz	10.75
2472MHz	10.75
VHT20_Nss1,(MCS0)_1TX	-
2412MHz	10.25
2442MHz	10.5
2472MHz	10.25
VHT40_Nss1,(MCS0)_1TX	-
2422MHz	10.25
2442MHz	10.25
2462MHz	10.5
802.11ax HEW20_Nss1,(MCS0)_1TX	-
2412MHz	10.25
2442MHz	10.5
2472MHz	10.25
802.11ax HEW40_Nss1,(MCS0)_1TX	-
2422MHz	10.25
2442MHz	10.25
2462MHz	10.5

Sample 2_Radio 1_Panel 2_2T2S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	6.75
2442MHz	6.75
2472MHz	6.75
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	9.5
2442MHz	9.5
2472MHz	9.5
VHT20_Nss2,(MCS0)_2TX	-
2412MHz	8.75
2442MHz	8.75
2472MHz	8.75
VHT40_Nss2,(MCS0)_2TX	-
2422MHz	8.75
2442MHz	8.75
2462MHz	8.75
802.11ax HEW20_Nss2,(MCS0)_2TX	-
2412MHz	8.75
2442MHz	8.75
2472MHz	8.75
802.11ax HEW40_Nss2,(MCS0)_2TX	-
2422MHz	8.75
2442MHz	8.75
2462MHz	8.75

Sample 2_Radio 3_Omni_1T1S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	12.75
2442MHz	12.5
2472MHz	12.75
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	15.5
2442MHz	15.5
2472MHz	15.5
VHT20_Nss1,(MCS0)_1TX	-
2412MHz	15
2442MHz	15
2472MHz	15
VHT40_Nss1,(MCS0)_1TX	-
2422MHz	15.25
2442MHz	15.25
2462MHz	15.25
802.11ax HEW20_Nss1,(MCS0)_1TX	-
2412MHz	15
2442MHz	15
2472MHz	15
802.11ax HEW40_Nss1,(MCS0)_1TX	-
2422MHz	15.25
2442MHz	15.25
2462MHz	15.25

Sample 2_Radio 3_Omni_2T2S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	11.75
2442MHz	11.75
2472MHz	11.75
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	13
2442MHz	13
2472MHz	13
VHT20_Nss2,(MCS0)_2TX	-
2412MHz	12.5
2442MHz	12.75
2472MHz	12.75
VHT40_Nss2,(MCS0)_2TX	-
2422MHz	12.75
2442MHz	12.75
2462MHz	12.75
802.11ax HEW20_Nss2,(MCS0)_2TX	-
2412MHz	12.5
2442MHz	12.75
2472MHz	12.75
802.11ax HEW40_Nss2,(MCS0)_2TX	-
2422MHz	12.75
2442MHz	12.75
2462MHz	12.75

Sample 2_Radio 3_Panel 1_1T1S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	9.75
2442MHz	9.75
2472MHz	9.75
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	12.25
2442MHz	12.25
2472MHz	12.25
VHT20_Nss1,(MCS0)_1TX	-
2412MHz	12
2442MHz	12
2472MHz	12
VHT40_Nss1,(MCS0)_1TX	-
2422MHz	11.75
2442MHz	11.75
2462MHz	11.75
802.11ax HEW20_Nss1,(MCS0)_1TX	-
2412MHz	12
2442MHz	12
2472MHz	12
802.11ax HEW40_Nss1,(MCS0)_1TX	-
2422MHz	11.75
2442MHz	11.75
2462MHz	11.75

Sample 2_Radio 3_Panel 1_2T2S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	8.75
2442MHz	9.25
2472MHz	9.25
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	9.5
2442MHz	9.75
2472MHz	10
VHT20_Nss2,(MCS0)_2TX	-
2412MHz	9.75
2442MHz	9.75
2472MHz	9.75
VHT40_Nss2,(MCS0)_2TX	-
2422MHz	7
2442MHz	7
2462MHz	7
802.11ax HEW20_Nss2,(MCS0)_2TX	-
2412MHz	9.75
2442MHz	9.75
2472MHz	9.75
802.11ax HEW40_Nss2,(MCS0)_2TX	-
2422MHz	9.75
2442MHz	9.75
2462MHz	9.75

Sample 2_Radio 3_Panel 2_1T1S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	7.25
2442MHz	7.25
2472MHz	7.25
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	10
2442MHz	10
2472MHz	10
VHT20_Nss1,(MCS0)_1TX	-
2412MHz	9.75
2442MHz	9.75
2472MHz	9.75
VHT40_Nss1,(MCS0)_1TX	-
2422MHz	9.75
2442MHz	9.75
2462MHz	9.75
802.11ax HEW20_Nss1,(MCS0)_1TX	-
2412MHz	9.75
2442MHz	9.75
2472MHz	9.75
802.11ax HEW40_Nss1,(MCS0)_1TX	-
2422MHz	9.75
2442MHz	9.75
2462MHz	9.75

Sample 2_Radio 3_Panel 2_2T2S

Mode	Power Setting
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	6.75
2442MHz	6.75
2472MHz	6.75
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	7
2442MHz	7
2472MHz	7.25
VHT20_Nss2,(MCS0)_2TX	-
2412MHz	7.25
2442MHz	7.25
2472MHz	7.25
VHT40_Nss2,(MCS0)_2TX	-
2422MHz	7
2442MHz	7
2462MHz	7
802.11ax HEW20_Nss2,(MCS0)_2TX	-
2412MHz	7.25
2442MHz	7.25
2472MHz	7.25
802.11ax HEW40_Nss2,(MCS0)_2TX	-
2422MHz	7
2442MHz	7
2462MHz	7

Beamforming
Sample 1_Radio 1_2T1S

Mode	Power Setting
VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	9.75
2442MHz	9.75
2472MHz	9.75
VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	9.75
2442MHz	9.75
2462MHz	9.75
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	9.75
2442MHz	9.75
2472MHz	9.75
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	9.75
2442MHz	9.75
2462MHz	9.75

Sample 1_Radio 3_2T1S

Mode	Power Setting
VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	9.25
2442MHz	9.25
2472MHz	9.5
VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	9.25
2442MHz	9.25
2462MHz	9.25
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	9.25
2442MHz	9.25
2472MHz	9.5
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	9.25
2442MHz	9.25
2462MHz	9.25

Sample 2_Radio 1_Omni_2T1S

Mode	Power Setting
VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	10
2442MHz	10
2472MHz	10
VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	10
2442MHz	10
2462MHz	10
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	10
2442MHz	10
2472MHz	10
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	10
2442MHz	10
2462MHz	10

Sample 2_Radio 1_Panel 1_2T1S

Mode	Power Setting
VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	8.25
2442MHz	8.25
2472MHz	8.25
VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	8.25
2442MHz	8.25
2462MHz	8.25
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	8.25
2442MHz	8.25
2472MHz	8.25
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	8.25
2442MHz	8.25
2462MHz	8.25

Sample 2_Radio 1_Panel 2_2T1S

Mode	Power Setting
VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	23
2442MHz	23
2472MHz	23
VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	22
2442MHz	22
2462MHz	22
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	23
2442MHz	23
2472MHz	23
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	22
2442MHz	22
2462MHz	22

Sample 2_Radio 3_Omni_2T1S

Mode	Power Setting
VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	9.75
2442MHz	9.75
2472MHz	9.75
VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	9.75
2442MHz	9.75
2462MHz	9.75
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	9.75
2442MHz	9.75
2472MHz	9.75
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	9.75
2442MHz	9.75
2462MHz	9.75

Sample 2_Radio 3_Panel 1_2T1S

Mode	Power Setting
VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	6.75
2442MHz	6.75
2472MHz	6.75
VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	6.75
2442MHz	6.75
2462MHz	6.75
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	6.75
2442MHz	6.75
2472MHz	6.75
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	6.75
2442MHz	6.75
2462MHz	6.75

Sample 2_Radio 3_Panel 2_2T1S

Mode	Power Setting
VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	4
2442MHz	4
2472MHz	4
VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	4
2442MHz	4
2462MHz	4
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	4
2442MHz	4
2472MHz	4
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	4
2442MHz	4
2462MHz	4

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_Radio1)
2	PoE mode (Non-Beamforming_Sample 1_Radio3)
3	PoE mode (Non-Beamforming_Sample 2_Radio1)
4	PoE mode (Non-Beamforming_Sample 2_Radio3)
5	PoE mode (Beamforming_Sample 1_Radio1)
6	PoE mode (Beamforming_Sample 1_Radio3)
7	PoE mode (Beamforming_Sample 2_Radio1)
8	PoE mode (Beamforming_Sample 2_Radio3)

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 1_Radio 3_1T1S)
4	PoE Mode (Non-Beamforming_Sample 1_Radio 3_2T2S)
5	PoE Mode (Non-Beamforming_Sample 2_Radio 1_Omni_1T1S)
6	PoE Mode (Non-Beamforming_Sample 2_Radio 1_Omni_2T2S)
7	PoE Mode (Non-Beamforming_Sample 2_Radio 1_Panel 1_1T1S)
8	PoE Mode (Non-Beamforming_Sample 2_Radio 1_Panel 1_2T2S)
9	PoE Mode (Non-Beamforming_Sample 2_Radio 1_Panel 2_1T1S)
10	PoE Mode (Non-Beamforming_Sample 2_Radio 1_Panel 2_2T2S)
11	PoE Mode (Non-Beamforming_Sample 2_Radio 3_Omni_1T1S)

12	PoE Mode (Non-Beamforming_Sample 2_Radio 3_Omni_2T2S)		
13	PoE Mode (Non-Beamforming_Sample 2_Radio 3_Panel 1_1T1S)		
14	PoE Mode (Non-Beamforming_Sample 2_Radio 3_Panel 1_2T2S)		
15	PoE Mode (Non-Beamforming_Sample 2_Radio 3_Panel 2_1T1S)		
16	PoE Mode (Non-Beamforming_Sample 2_Radio 3_Panel 2_2T2S)		
17	PoE Mode (Beamforming_Sample 1_Radio 1_2T1S)		
18	PoE Mode (Beamforming_Sample 1_Radio 3_2T1S)		
19	PoE Mode (Beamforming_Sample 2_Radio 1_Omni_2T1S)		
20	PoE Mode (Beamforming_Sample 2_Radio 1_Panel 1_2T1S)		
21	PoE Mode (Beamforming_Sample 2_Radio 1_Panel 2_2T1S)		
22	PoE Mode (Beamforming_Sample 2_Radio 3_Omni_2T1S)		
23	PoE Mode (Beamforming_Sample 2_Radio 3_Panel 1_2T1S)		
24	PoE Mode (Beamforming_Sample 2_Radio 3_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	WLAN 2.4G+ WLAN 5G+ WLAN 2.4G+ Thread
2	WLAN 2.4G+ WLAN 5G+ WLAN 2.4G+ Bluetooth
3	WLAN 2.4G+ WLAN 5G+ WLAN 5G+ Thread
4	WLAN 2.4G+ WLAN 5G+ WLAN 5G+ Bluetooth
Refer to Sporton Test Report No.: FA970235 for Co-location RF Exposure Evaluation.	

2.4 Support Equipment

Support Equipment – AC Conduction				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Load	Sporton	-	-
2	LAN Cable	Power Sync	CAT-6E-01	-
3	LAN Cable	Power Sync	CAT-6E-10	-
4	PoE	EnGenius	EPA5006GP	-
5	AC Power Cable	-	-	-
6	Notebook (remote)	DELL	M-S69	-
7	LAN Cable(remote)	Power Sync	CAT-6E-01	-
8	Adapter for Notebook (remote)	DELL	M-S69	-

Note: Support equipment No.4, 5 were provided by customer.

Support Equipment – RF Conducted				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Notebook	DELL	E5410	DoC
2	Adapter for NB	DELL	HA65NM130	DoC
3	Notebook	DELL	E5410	DoC
4	Adapter for NB	DELL	HA65NM130	DoC
5	PoE	EnGenius	EPA5006GP	-

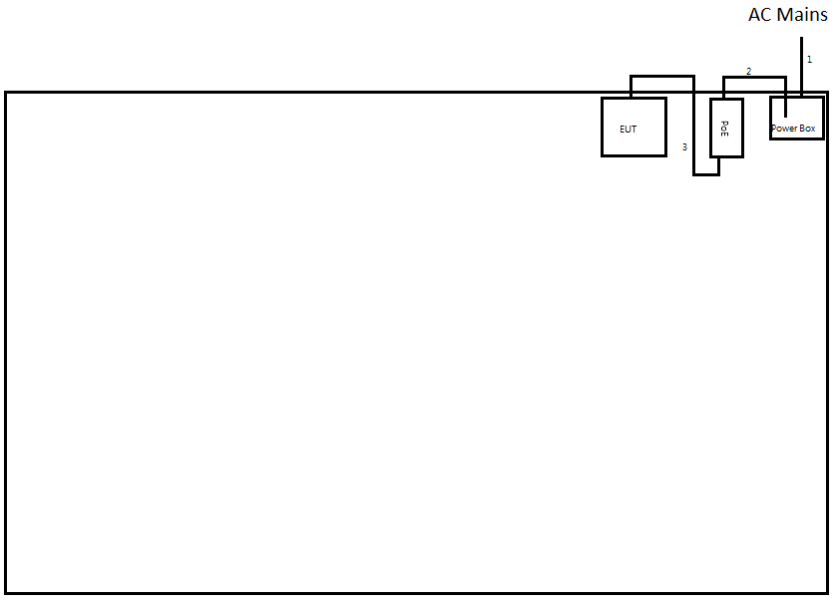
Note: Support equipment No.5 was provided by customer.

Support Equipment – Radiated Emission				
No.	**Equipment**	**Brand Name**	**Model Name**	**FCC ID**
1	Load	Sporton	-	-
2	LAN Cable	Power Sync	CAT-6E-01	-
3	LAN Cable	Power Sync	CAT-6E-10	-
4	PoE (remote)	EnGenius	EPA5006GP	-
5	AC Power Cable (remote)	-	-	-
6	Notebook (remote)	DELL	M-S69	-
7	LAN Cable (remote)	Power Sync	CAT-6E-01	-
8	Adapter for Notebook (remote)	DELL	M-S69	-

Note: Support equipment No.4, 5 were provided by customer.

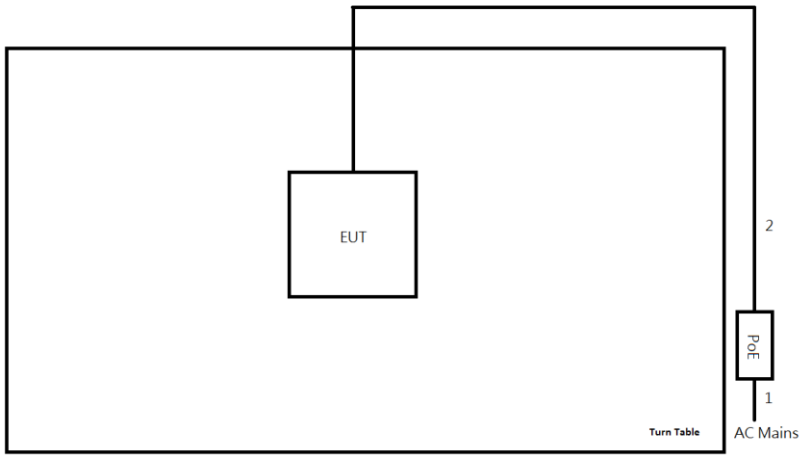
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test



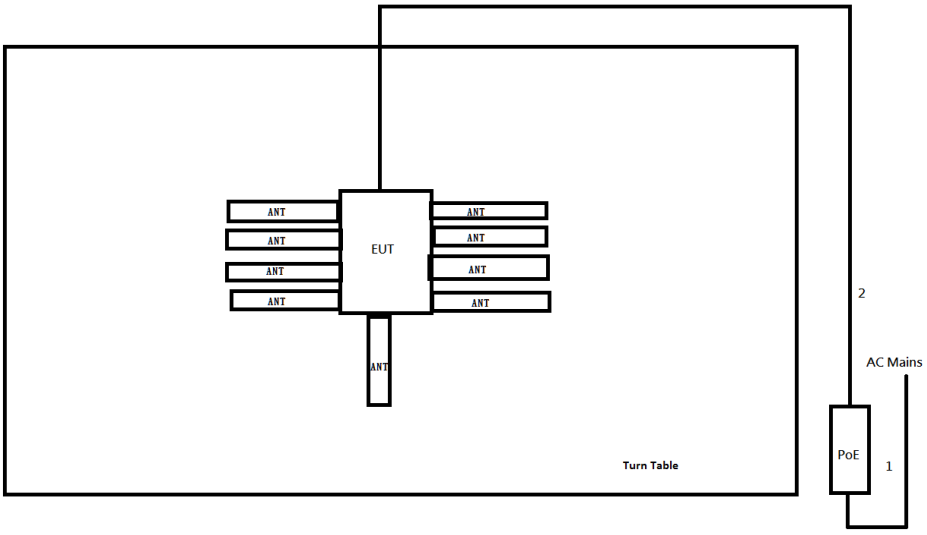
Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	1.8	-
2	AC Power Cable	No	0.5	-
3	LAN Cable	No	1.0	-

Test Setup Diagram - Radiated Test (Sample 1)



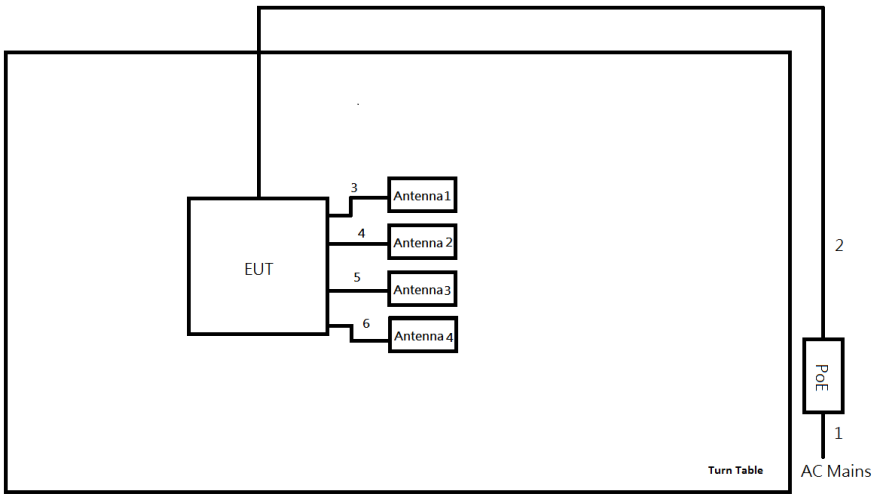
Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	0.5	-
2	LAN Cable	No	10.0	-

Test Setup Diagram - Radiated Test (Sample 2_Omni)



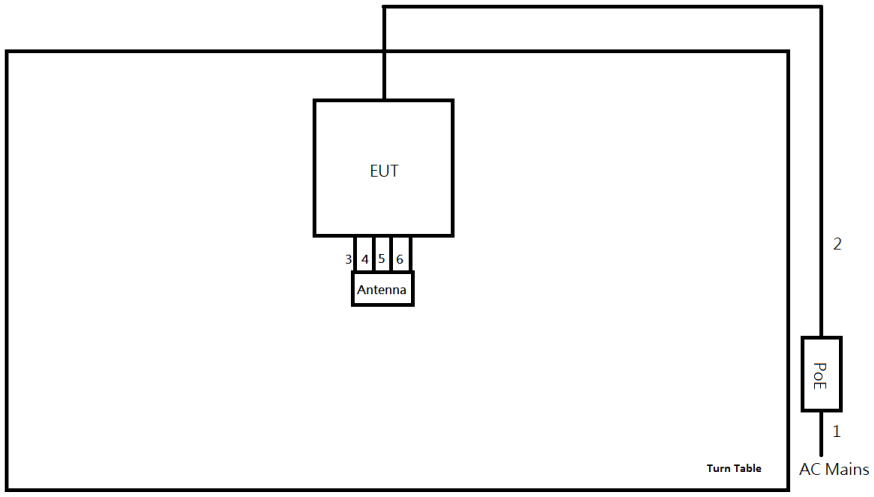
Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	0.5	-
2	LAN Cable	No	10.0	-

Test Setup Diagram - Radiated Test (Sample 2_Panel 1)



Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	0.5	-
2	LAN Cable	No	10.0	-
3	Antenna Cable	No	0.5	-
4	Antenna Cable	No	0.5	-
5	Antenna Cable	No	0.5	-
6	Antenna Cable	No	0.5	-

Test Setup Diagram - Radiated Test (Sample 2_Panel 2)



Item	Connection	Shielded	Length(m)	Remark
1	AC Power Cable	No	0.5	-
2	LAN Cable	No	10.0	-
3	Antenna Cable	No	0.5	-
4	Antenna Cable	No	0.5	-
5	Antenna Cable	No	0.5	-
6	Antenna Cable	No	0.5	-

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

3.1.2 Measuring Instruments

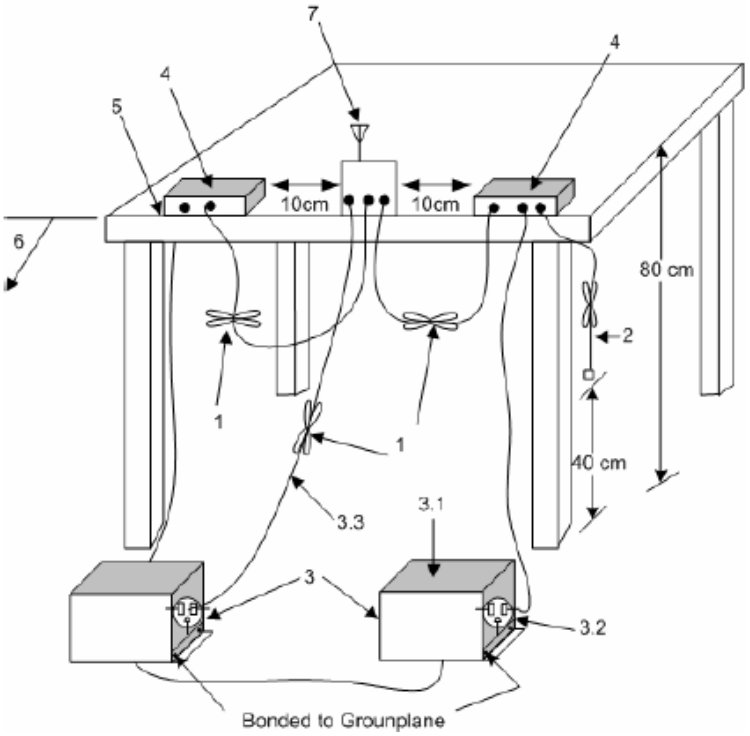
Refer a test equipment and calibration data table in this test report.

3.1.3 Test Procedures

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

3.1.4 Test Setup

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 50Ω 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.

3.1.5 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.

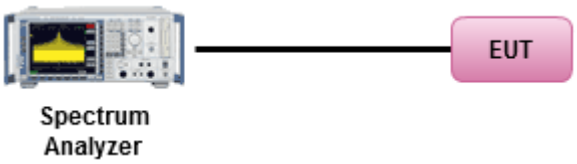
3.2.2 Measuring Instruments

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 $G_{TX} \leq 6$ dBi, then $P_{Out} \leq 30$ dBm (1 W)	
	▪ Point-to-multipoint systems (P2M): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)$ dBm	
	▪ Point-to-point systems (P2P): If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm	
	▪ Smart antenna system (SAS):	
		- Single beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm
		- Overlap beam: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3$ dBm
		- Aggregate power on all beams: If $G_{TX} > 6$ dBi, then $P_{Out} = 30 – (G_{TX} – 6)/3 + 8$dB dBm
e.i.r.p. Power Limit:		
▪ 2400-2483.5 MHz Band		
	▪ Point-to-multipoint systems (P2M): $P_{eirp} \leq 36$ dBm (4 W)	
	▪ Point-to-point systems (P2P): $P_{eirp} \leq MAX(36, [P_{Out} + G_{TX}])$ dBm	
	▪ Smart antenna system (SAS)	
		- Single beam: $P_{eirp} \leq MAX(36, P_{Out} + G_{TX})$ dBm
		- Overlap beam: $P_{eirp} \leq MAX(36, P_{Out} + G_{TX})$ dBm
		- Aggregate power on all beams: $P_{eirp} \leq MAX(36, [P_{Out} + G_{TX} + 8])$ 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

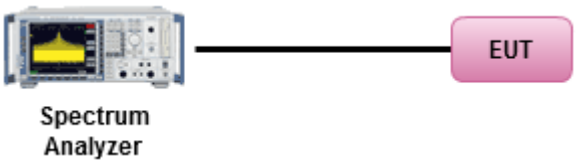
3.4.2 Measuring Instruments

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.	

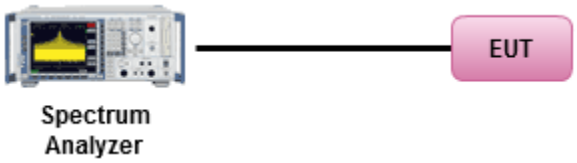
3.5.2 Measuring Instruments

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.

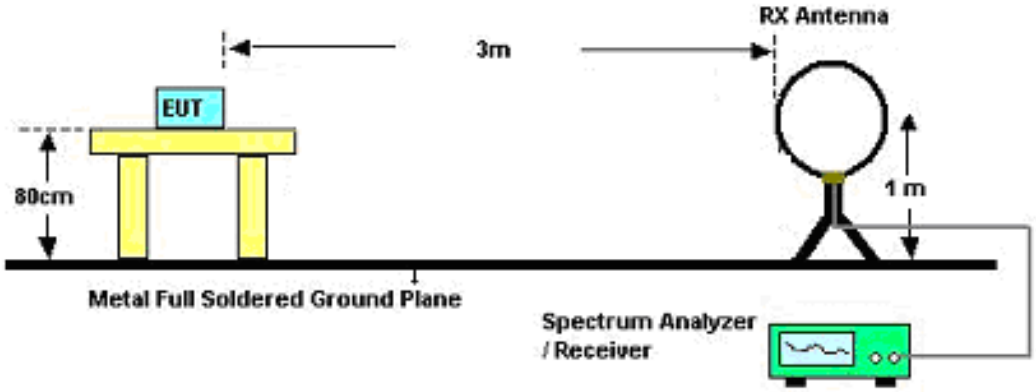
3.6.3 Test Procedures

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.

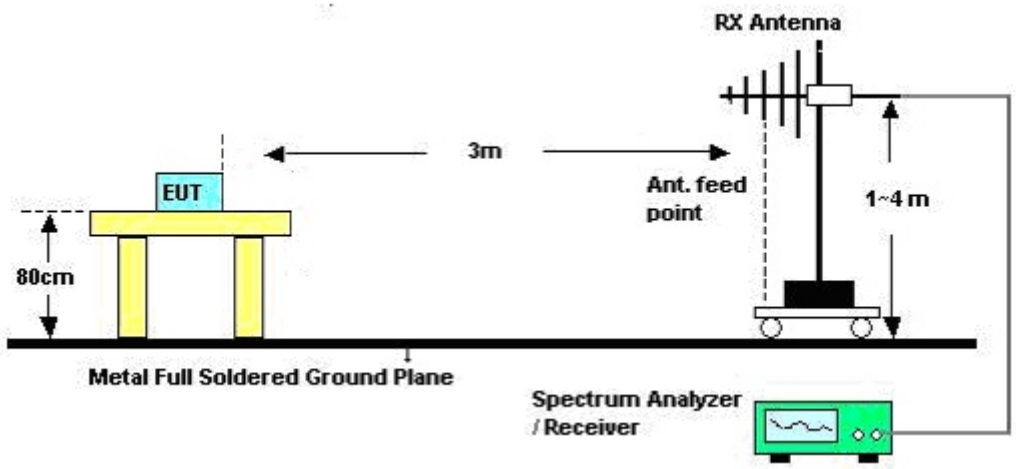
3.6.4 Test Setup

Emissions in Restricted Frequency Bands

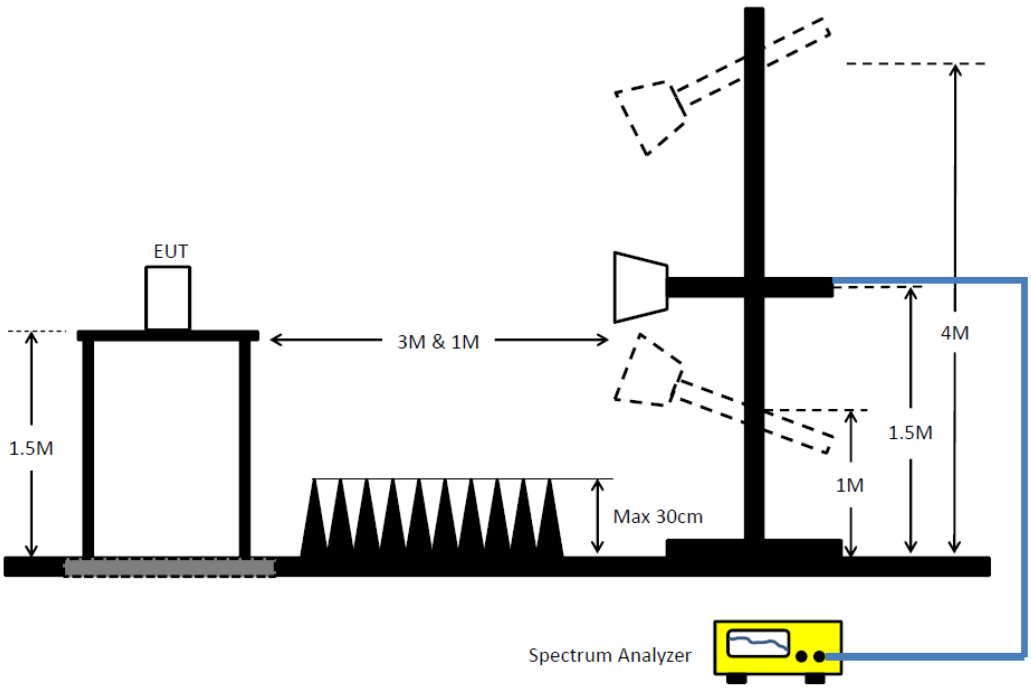
9kHz ~30MHz



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	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	12/Sep/2019	11/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

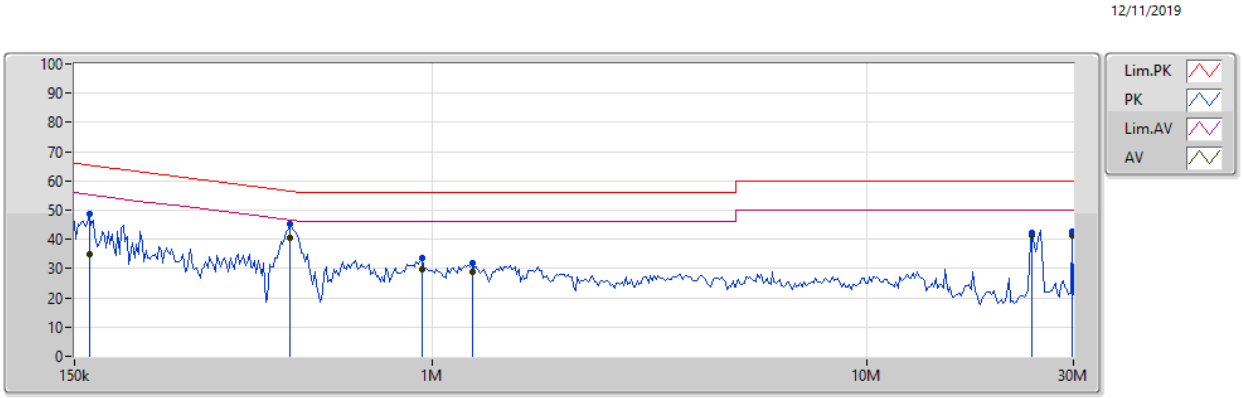
Instrument for Conducted Test

Instrument	Manufacturer	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

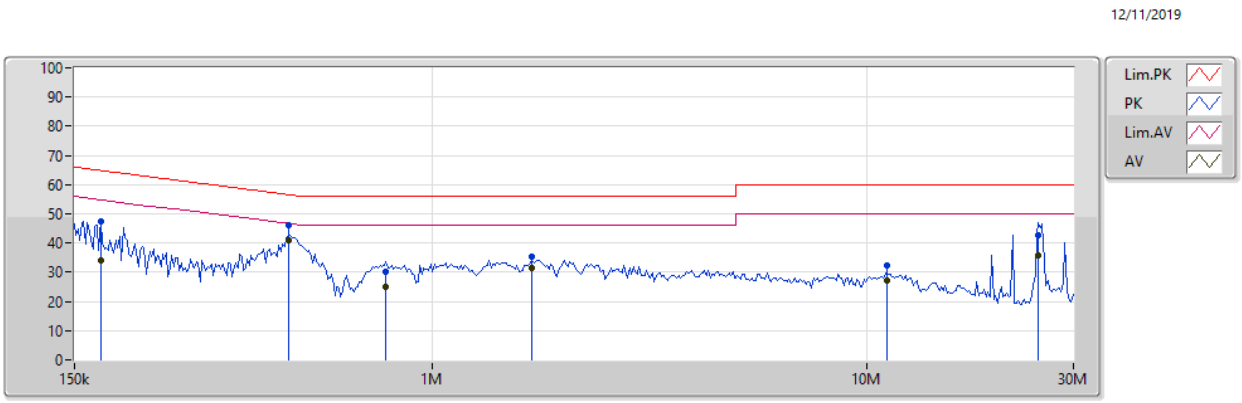
Instrument	Manufacturer	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	30MHz ~ 1GHz 3m	30/Aug/2019	29/Aug/2020
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz ~ 18GHz 3m	30/Aug/2019	29/Aug/2020
Amplifier	HP	8447D	2944A08033	10kHz ~ 1.3GHz	22/Apr/2019	21/Apr/2020
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
Bilog Antenna & 5db Attenuator	SCHAFFNER/MTJ	CBL6112D / MTJ6102-05	2678 / 001	30MHz ~ 2GHz	06/Jul/2019	05/Jul/2020
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz ~ 2GHz	11/Oct/2019	10/Oct/2020
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz ~ 26.5GHz	23/Oct/2018	22/Oct/2019
Microwave System Preamplifier	KEYSIGHT	83017A	MY53270196	1GHz ~ 26.5GHz	09/Sep/2019	08/Sep/2020
Signal Analyzer	R&S	FSP40	100305	9 kHz ~ 40 GHz;-140-+30dBm	10/Jun/2019	09/Jun/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	HUBER+SUHNER	SUOFLEX 104	802378/4	1 GHz ~ 18 GHz	04/Jul/2019	03/Jul/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz ~ 40GHz	22/Mar/2019	21/Mar/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1531	1GHz ~ 18GHz	09/Mar/2019	08/Mar/2020
Loop Antenna	TESEQ	HLA 6120	31244	9k-30MHz	15/Mar/2019	14/Mar/2020

AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Neutral
Operating Function	Non Beamforming ; Sample 1 ; PoE mode ; Radio1 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	48.65	65.33	-16.68	19.48	Neutral	-	29.17	9.60	0.01	9.87
AV	162.429k	34.81	55.33	-20.52	19.48	Neutral	-	15.33	9.60	0.01	9.87
QP	471.031k	45.21	56.50	-11.29	19.48	Neutral	-	25.73	9.59	0.01	9.88
AV	471.031k	40.55	46.50	-5.95	19.48	Neutral	"Worst"	21.07	9.59	0.01	9.88
QP	945.247k	33.71	56.00	-22.29	19.49	Neutral	-	14.22	9.59	0.02	9.88
AV	945.247k	29.87	46.00	-16.13	19.49	Neutral	-	10.38	9.59	0.02	9.88
QP	1.237M	31.85	56.00	-24.15	19.50	Neutral	-	12.35	9.60	0.02	9.88
AV	1.237M	28.71	46.00	-17.29	19.50	Neutral	-	9.21	9.60	0.02	9.88
QP	23.988M	42.45	60.00	-17.55	19.70	Neutral	-	22.75	9.68	0.12	9.90
AV	23.988M	41.38	50.00	-8.62	19.70	Neutral	-	21.68	9.68	0.12	9.90
QP	29.858M	42.66	60.00	-17.34	19.83	Neutral	-	22.83	9.80	0.13	9.90
AV	29.858M	41.21	50.00	-8.79	19.83	Neutral	-	21.38	9.80	0.13	9.90

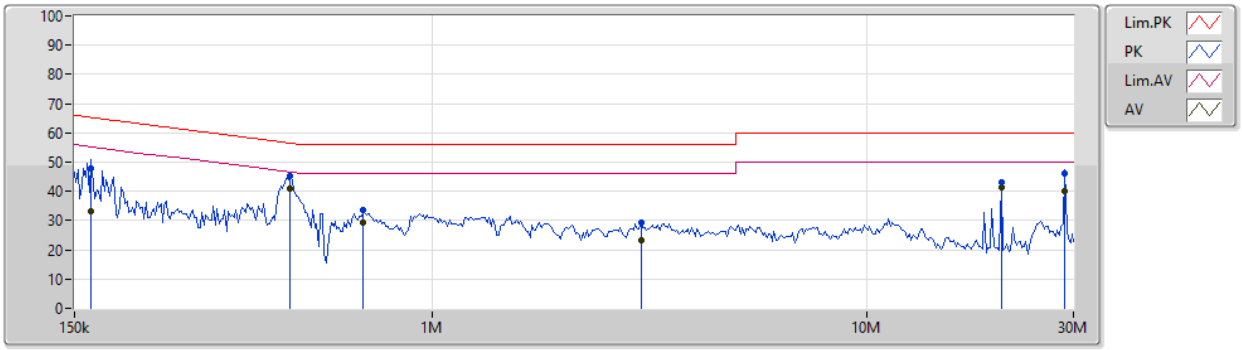
AC Power-line Conducted Emissions Result			
Operating Mode	1	**Power Phase**	Line
Operating Function	Non Beamforming ; Sample 1 ; PoE mode ; Radio1 WIFI 2.4G TX		



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	172.421k	47.22	64.83	-17.61	19.58	Line	-	27.64	9.60	0.11	9.87
AV	172.421k	33.94	54.83	-20.89	19.58	Line	-	14.36	9.60	0.11	9.87
QP	466.367k	46.04	56.57	-10.53	19.59	Line	-	26.45	9.59	0.13	9.87
AV	466.367k	40.78	46.57	-5.79	19.59	Line	"Worst"	21.19	9.59	0.13	9.87
QP	782.419k	30.37	56.00	-25.63	19.59	Line	-	10.78	9.60	0.12	9.87
AV	782.419k	24.80	46.00	-21.20	19.59	Line	-	5.21	9.60	0.12	9.87
QP	1.7M	35.44	56.00	-20.56	19.63	Line	-	15.81	9.62	0.14	9.87
AV	1.7M	31.34	46.00	-14.66	19.63	Line	-	11.71	9.62	0.14	9.87
QP	11.149M	32.15	60.00	-27.85	19.82	Line	-	12.33	9.66	0.28	9.88
AV	11.149M	27.22	50.00	-22.78	19.82	Line	-	7.40	9.66	0.28	9.88
QP	24.962M	42.70	60.00	-17.30	19.86	Line	-	22.84	9.57	0.41	9.88
AV	24.962M	35.75	50.00	-14.25	19.86	Line	-	15.89	9.57	0.41	9.88

AC Power-line Conducted Emissions Result			
Operating Mode	2	**Power Phase**	Neutral
Operating Function	Non Beamforming ; Sample 1 ; PoE mode; Radio3 WIFI 2.4G TX		

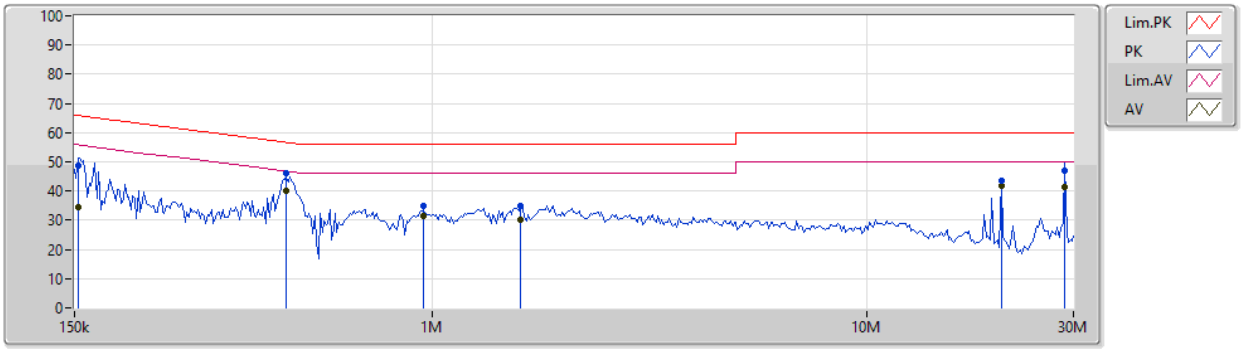
08/11/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	164.053k	48.02	65.25	-17.23	19.58	Neutral	-	28.44	9.60	0.11	9.87
AV	164.053k	32.98	55.25	-22.27	19.58	Neutral	-	13.40	9.60	0.11	9.87
QP	471.031k	45.36	56.50	-11.14	19.59	Neutral	-	25.77	9.59	0.13	9.87
AV	471.031k	40.85	46.50	-5.65	19.59	Neutral	"Worst"	21.26	9.59	0.13	9.87
QP	694.357k	33.82	56.00	-22.18	19.58	Neutral	-	14.24	9.59	0.12	9.87
AV	694.357k	29.43	46.00	-16.57	19.58	Neutral	-	9.85	9.59	0.12	9.87
QP	3.028M	29.20	56.00	-26.80	19.66	Neutral	-	9.54	9.61	0.17	9.88
AV	3.028M	23.26	46.00	-22.74	19.66	Neutral	-	3.60	9.61	0.17	9.88
QP	20.457M	42.97	60.00	-17.03	19.94	Neutral	-	23.03	9.68	0.37	9.89
AV	20.457M	41.39	50.00	-8.61	19.94	Neutral	-	21.45	9.68	0.37	9.89
QP	28.693M	46.28	60.00	-13.72	19.99	Neutral	-	26.29	9.67	0.44	9.88
AV	28.693M	39.91	50.00	-10.09	19.99	Neutral	-	19.92	9.67	0.44	9.88

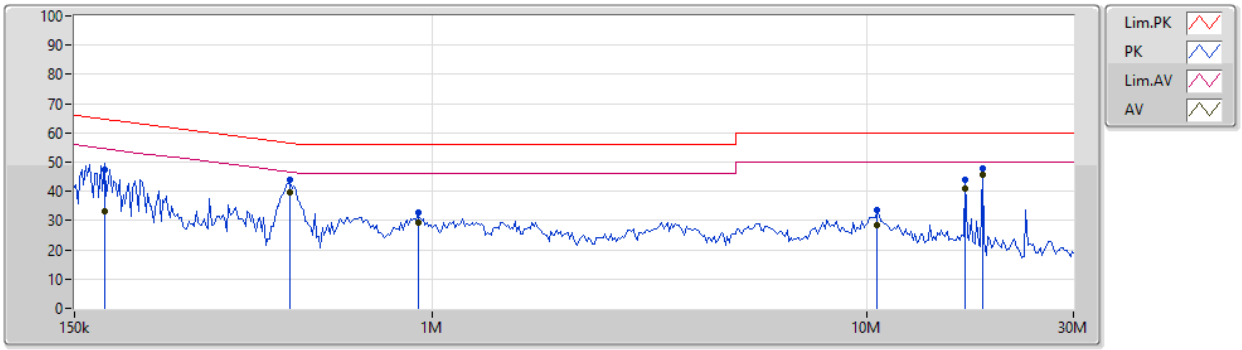
AC Power-line Conducted Emissions Result			
Operating Mode	2	**Power Phase**	Line
Operating Function	Non Beamforming ; Sample 1 ; PoE mode; Radio3 WIFI 2.4G TX		

08/11/2019



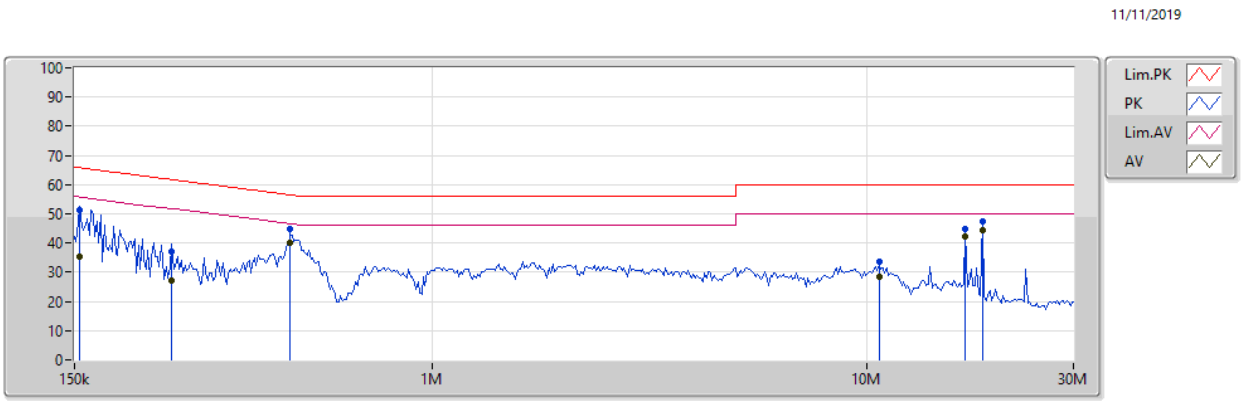
Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	153.015k	48.87	65.83	-16.96	19.58	Line	-	29.29	9.60	0.11	9.87
AV	153.015k	34.46	55.83	-21.37	19.58	Line	-	14.88	9.60	0.11	9.87
QP	461.75k	46.17	56.67	-10.50	19.59	Line	-	26.58	9.59	0.13	9.87
AV	461.75k	40.03	46.67	-6.64	19.59	Line	"Worst"	20.44	9.59	0.13	9.87
QP	954.7k	34.79	56.00	-21.21	19.59	Line	-	15.20	9.60	0.11	9.88
AV	954.7k	31.47	46.00	-14.53	19.59	Line	-	11.88	9.60	0.11	9.88
QP	1.602M	34.84	56.00	-21.16	19.62	Line	-	15.22	9.61	0.14	9.87
AV	1.602M	29.99	46.00	-16.01	19.62	Line	-	10.37	9.61	0.14	9.87
QP	20.457M	43.37	60.00	-16.63	19.89	Line	-	23.48	9.63	0.37	9.89
AV	20.457M	41.71	50.00	-8.29	19.89	Line	-	21.82	9.63	0.37	9.89
QP	28.693M	47.05	60.00	-12.95	19.86	Line	-	27.19	9.54	0.44	9.88
AV	28.693M	41.23	50.00	-8.77	19.86	Line	-	21.37	9.54	0.44	9.88

AC Power-line Conducted Emissions Result			
Operating Mode	3	**Power Phase**	Neutral
Operating Function	Non Beamforming ; Sample 2 ; PoE mode; Radio1 WIFI 2.4G TX		



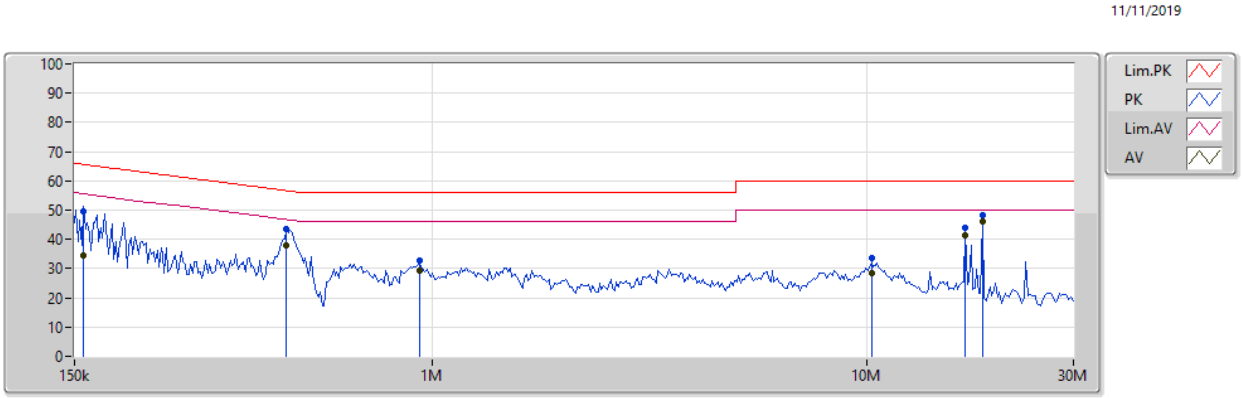
Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	175.887k	47.52	64.68	-17.16	19.57	Neutral	-	27.95	9.59	0.11	9.87
AV	175.887k	33.12	54.68	-21.56	19.57	Neutral	-	13.55	9.59	0.11	9.87
QP	471.031k	44.16	56.50	-12.34	19.59	Neutral	-	24.57	9.59	0.13	9.87
AV	471.031k	39.46	46.50	-7.04	19.59	Neutral	-	19.87	9.59	0.13	9.87
QP	926.622k	32.60	56.00	-23.40	19.58	Neutral	-	13.02	9.59	0.11	9.88
AV	926.622k	29.17	46.00	-16.83	19.58	Neutral	-	9.59	9.59	0.11	9.88
QP	10.608M	33.65	60.00	-26.35	19.83	Neutral	-	13.82	9.67	0.28	9.88
AV	10.608M	28.55	50.00	-21.45	19.83	Neutral	-	8.72	9.67	0.28	9.88
QP	16.933M	44.13	60.00	-15.87	19.89	Neutral	-	24.24	9.68	0.33	9.88
AV	16.933M	41.12	50.00	-8.88	19.89	Neutral	-	21.23	9.68	0.33	9.88
QP	18.52M	48.06	60.00	-11.94	19.92	Neutral	-	28.14	9.68	0.35	9.89
AV	18.52M	45.63	50.00	-4.37	19.92	Neutral	"Worst"	25.71	9.68	0.35	9.89

AC Power-line Conducted Emissions Result			
Operating Mode	3	**Power Phase**	Line
Operating Function	Non Beamforming ; Sample 2 ; PoE mode; Radio1 WIFI 2.4G TX		



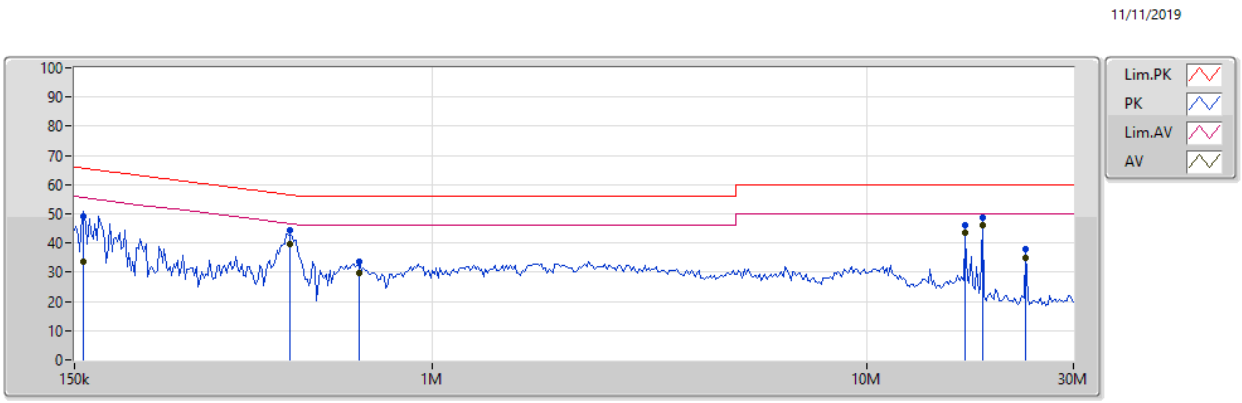
Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	154.545k	51.20	65.75	-14.55	19.58	Line	-	31.62	9.60	0.11	9.87
AV	154.545k	35.23	55.75	-20.52	19.58	Line	-	15.65	9.60	0.11	9.87
QP	251.653k	37.22	61.70	-24.48	19.59	Line	-	17.63	9.60	0.12	9.87
AV	251.653k	27.09	51.70	-24.61	19.59	Line	-	7.50	9.60	0.12	9.87
QP	471.031k	44.73	56.50	-11.77	19.59	Line	-	25.14	9.59	0.13	9.87
AV	471.031k	39.92	46.50	-6.58	19.59	Line	-	20.33	9.59	0.13	9.87
QP	10.714M	33.68	60.00	-26.32	19.82	Line	-	13.86	9.66	0.28	9.88
AV	10.714M	28.36	50.00	-21.64	19.82	Line	-	8.54	9.66	0.28	9.88
QP	16.933M	44.95	60.00	-15.05	19.85	Line	-	25.10	9.64	0.33	9.88
AV	16.933M	42.03	50.00	-7.97	19.85	Line	-	22.18	9.64	0.33	9.88
QP	18.52M	47.38	60.00	-12.62	19.87	Line	-	27.51	9.63	0.35	9.89
AV	18.52M	44.21	50.00	-5.79	19.87	Line	"Worst"	24.34	9.63	0.35	9.89

AC Power-line Conducted Emissions Result			
Operating Mode	4	**Power Phase**	Neutral
Operating Function	Non Beamforming ; Sample 2; PoE mode; Radio3 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	157.652k	49.65	65.58	-15.93	19.58	Neutral	-	30.07	9.60	0.11	9.87
AV	157.652k	34.44	55.58	-21.14	19.58	Neutral	-	14.86	9.60	0.11	9.87
QP	461.75k	43.42	56.67	-13.25	19.59	Neutral	-	23.83	9.59	0.13	9.87
AV	461.75k	37.72	46.67	-8.95	19.59	Neutral	-	18.13	9.59	0.13	9.87
QP	935.888k	32.78	56.00	-23.22	19.58	Neutral	-	13.20	9.59	0.11	9.88
AV	935.888k	29.29	46.00	-16.71	19.58	Neutral	-	9.71	9.59	0.11	9.88
QP	10.296M	33.46	60.00	-26.54	19.82	Neutral	-	13.64	9.67	0.27	9.88
AV	10.296M	28.24	50.00	-21.76	19.82	Neutral	-	8.42	9.67	0.27	9.88
QP	16.933M	44.18	60.00	-15.82	19.89	Neutral	-	24.29	9.68	0.33	9.88
AV	16.933M	41.37	50.00	-8.63	19.89	Neutral	-	21.48	9.68	0.33	9.88
QP	18.52M	48.39	60.00	-11.61	19.92	Neutral	-	28.47	9.68	0.35	9.89
AV	18.52M	46.13	50.00	-3.87	19.92	Neutral	"Worst"	26.21	9.68	0.35	9.89

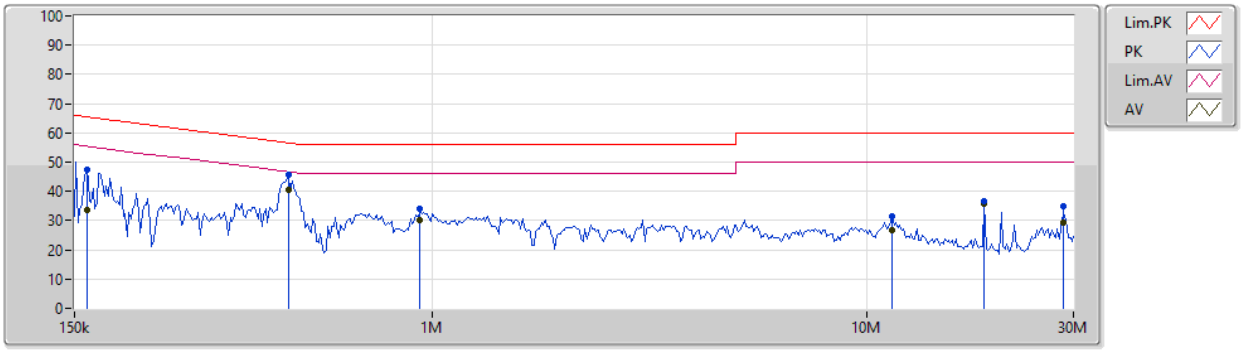
AC Power-line Conducted Emissions Result			
Operating Mode	4	**Power Phase**	Line
Operating Function	Non Beamforming ; Sample 2; PoE mode; Radio3 WIFI 2.4G TX		



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	157.652k	48.96	65.58	-16.62	19.58	Line	-	29.38	9.60	0.11	9.87
AV	157.652k	33.70	55.58	-21.88	19.58	Line	-	14.12	9.60	0.11	9.87
QP	471.031k	44.60	56.50	-11.90	19.59	Line	-	25.01	9.59	0.13	9.87
AV	471.031k	39.77	46.50	-6.73	19.59	Line	-	20.18	9.59	0.13	9.87
QP	680.675k	33.54	56.00	-22.46	19.59	Line	-	13.95	9.60	0.12	9.87
AV	680.675k	29.61	46.00	-16.39	19.59	Line	-	10.02	9.60	0.12	9.87
QP	16.933M	45.93	60.00	-14.07	19.85	Line	-	26.08	9.64	0.33	9.88
AV	16.933M	43.45	50.00	-6.55	19.85	Line	-	23.60	9.64	0.33	9.88
QP	18.52M	48.67	60.00	-11.33	19.87	Line	-	28.80	9.63	0.35	9.89
AV	18.52M	46.22	50.00	-3.78	19.87	Line	"Worst"	26.35	9.63	0.35	9.89
QP	23.282M	38.01	60.00	-21.99	19.87	Line	-	18.14	9.60	0.39	9.88
AV	23.282M	34.91	50.00	-15.09	19.87	Line	-	15.04	9.60	0.39	9.88

AC Power-line Conducted Emissions Result			
Operating Mode	5	**Power Phase**	Neutral
Operating Function	Beamforming ; Sample 1 ; PoE mode; Radio1 WIFI 2.4G TX		

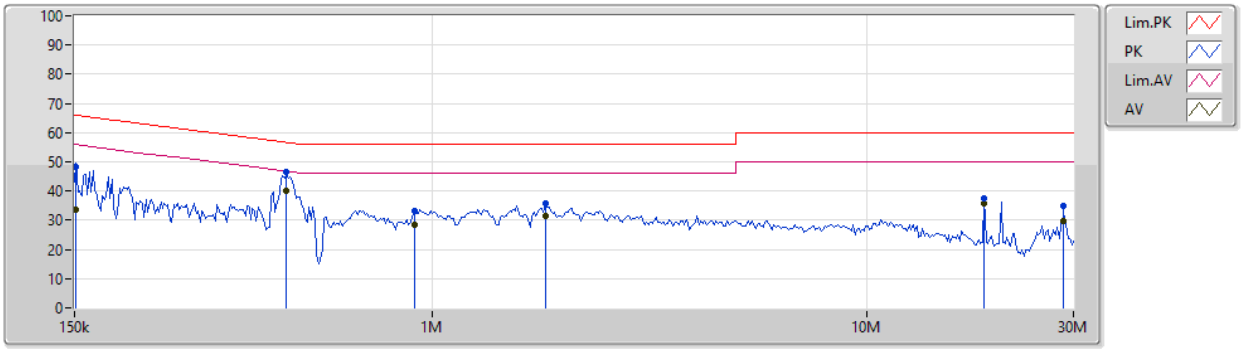
08/11/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	160.82k	47.26	65.43	-18.17	19.58	Neutral	-	27.68	9.60	0.11	9.87
AV	160.82k	33.65	55.43	-21.78	19.58	Neutral	-	14.07	9.60	0.11	9.87
QP	466.367k	45.85	56.57	-10.72	19.59	Neutral	-	26.26	9.59	0.13	9.87
AV	466.367k	40.58	46.57	-5.99	19.59	Neutral	"Worst"	20.99	9.59	0.13	9.87
QP	935.888k	33.99	56.00	-22.01	19.58	Neutral	-	14.41	9.59	0.11	9.88
AV	935.888k	30.30	46.00	-15.70	19.58	Neutral	-	10.72	9.59	0.11	9.88
QP	11.487M	31.66	60.00	-28.34	19.83	Neutral	-	11.83	9.67	0.28	9.88
AV	11.487M	26.71	50.00	-23.29	19.83	Neutral	-	6.88	9.67	0.28	9.88
QP	18.705M	36.58	60.00	-23.42	19.92	Neutral	-	16.66	9.68	0.35	9.89
AV	18.705M	35.76	50.00	-14.24	19.92	Neutral	-	15.84	9.68	0.35	9.89
QP	28.409M	35.04	60.00	-24.96	19.99	Neutral	-	15.05	9.67	0.44	9.88
AV	28.409M	29.48	50.00	-20.52	19.99	Neutral	-	9.49	9.67	0.44	9.88

AC Power-line Conducted Emissions Result			
Operating Mode	5	**Power Phase**	Line
Operating Function	Beamforming ; Sample 1 ; PoE mode; Radio1 WIFI 2.4G TX		

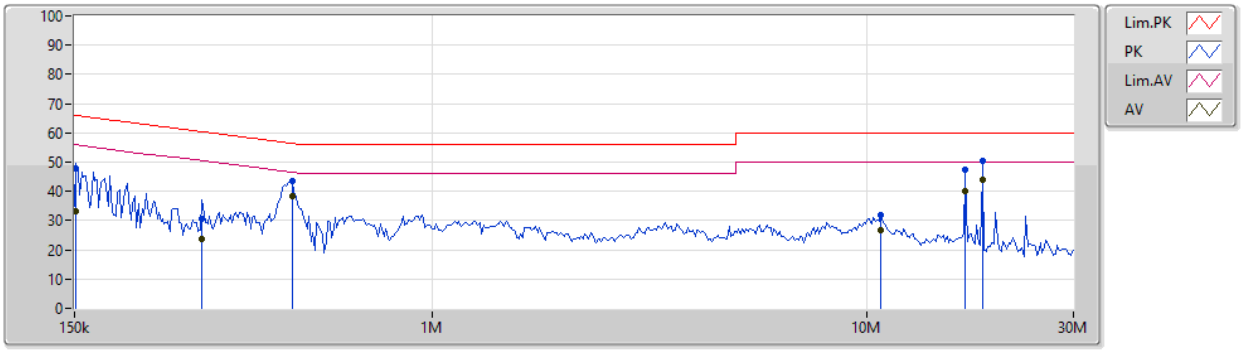
08/11/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	151.5k	48.08	65.92	-17.84	19.58	Line	-	28.50	9.60	0.11	9.87
AV	151.5k	33.49	55.92	-22.43	19.58	Line	-	13.91	9.60	0.11	9.87
QP	461.75k	46.38	56.67	-10.29	19.59	Line	-	26.79	9.59	0.13	9.87
AV	461.75k	40.08	46.67	-6.59	19.59	Line	"Worst"	20.49	9.59	0.13	9.87
QP	908.364k	32.98	56.00	-23.02	19.59	Line	-	13.39	9.60	0.11	9.88
AV	908.364k	28.25	46.00	-17.75	19.59	Line	-	8.66	9.60	0.11	9.88
QP	1.823M	35.84	56.00	-20.16	19.63	Line	-	16.21	9.62	0.14	9.87
AV	1.823M	31.53	46.00	-14.47	19.63	Line	-	11.90	9.62	0.14	9.87
QP	18.705M	37.46	60.00	-22.54	19.87	Line	-	17.59	9.63	0.35	9.89
AV	18.705M	35.95	50.00	-14.05	19.87	Line	-	16.08	9.63	0.35	9.89
QP	28.409M	35.09	60.00	-24.91	19.87	Line	-	15.22	9.55	0.44	9.88
AV	28.409M	29.57	50.00	-20.43	19.87	Line	-	9.70	9.55	0.44	9.88

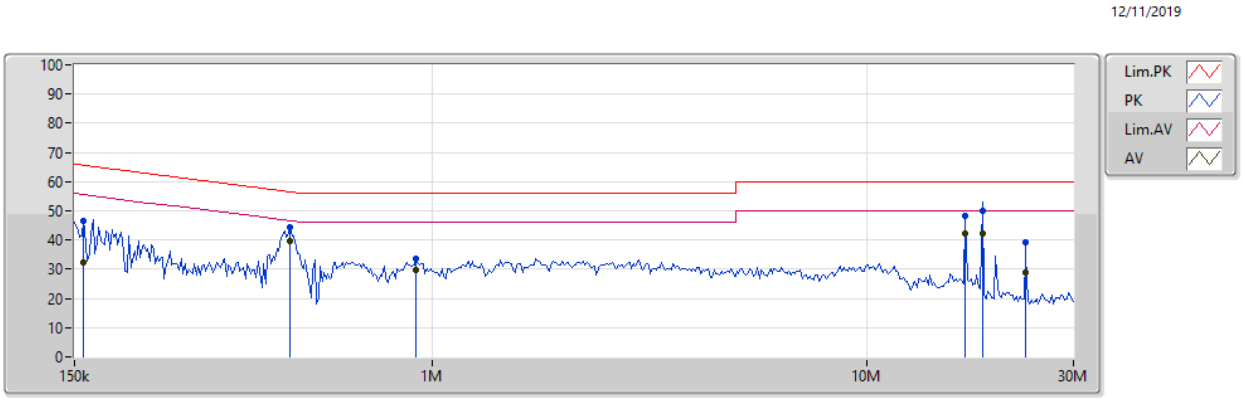
AC Power-line Conducted Emissions Result			
Operating Mode	6	**Power Phase**	Neutral
Operating Function	Beamforming ; Sample 1 ; PoE mode; Radio3 WIFI 2.4G TX		

12/11/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	151.5k	48.06	65.92	-17.86	19.58	Neutral	-	28.48	9.60	0.11	9.87
AV	151.5k	33.31	55.92	-22.61	19.58	Neutral	-	13.73	9.60	0.11	9.87
QP	295.083k	30.56	60.38	-29.82	19.58	Neutral	-	10.98	9.59	0.12	9.87
AV	295.083k	23.87	50.38	-26.51	19.58	Neutral	-	4.29	9.59	0.12	9.87
QP	475.741k	43.57	56.42	-12.85	19.59	Neutral	-	23.98	9.59	0.13	9.87
AV	475.741k	38.45	46.42	-7.97	19.59	Neutral	-	18.86	9.59	0.13	9.87
QP	10.821M	31.91	60.00	-28.09	19.83	Neutral	-	12.08	9.67	0.28	9.88
AV	10.821M	26.86	50.00	-23.14	19.83	Neutral	-	7.03	9.67	0.28	9.88
QP	16.933M	47.21	60.00	-12.79	19.89	Neutral	-	27.32	9.68	0.33	9.88
AV	16.933M	40.24	50.00	-9.76	19.89	Neutral	-	20.35	9.68	0.33	9.88
QP	18.52M	50.27	60.00	-9.73	19.92	Neutral	-	30.35	9.68	0.35	9.89
AV	18.52M	44.12	50.00	-5.88	19.92	Neutral	"Worst"	24.20	9.68	0.35	9.89

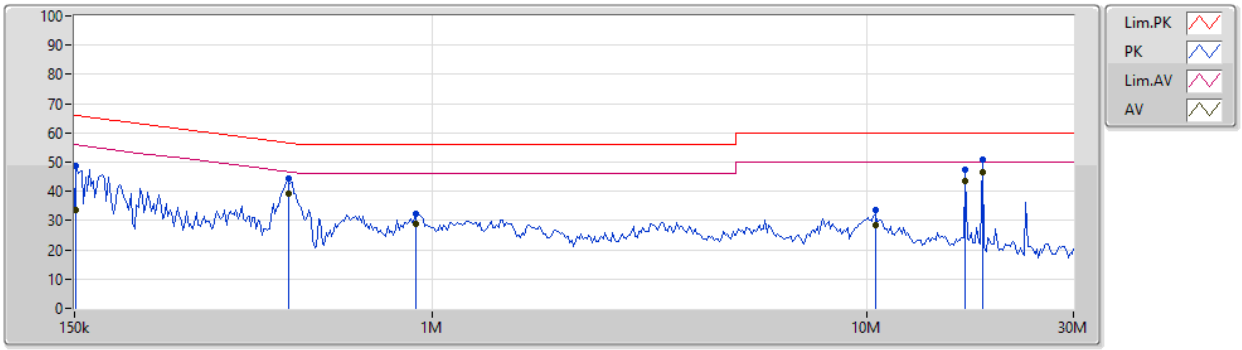
AC Power-line Conducted Emissions Result			
Operating Mode	6	**Power Phase**	Line
Operating Function	Beamforming ; Sample 1 ; PoE mode; Radio3 WIFI 2.4G TX		



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	157.652k	46.74	65.58	-18.84	19.58	Line	-	27.16	9.60	0.11	9.87
AV	157.652k	32.37	55.58	-23.21	19.58	Line	-	12.79	9.60	0.11	9.87
QP	471.031k	44.56	56.50	-11.94	19.59	Line	-	24.97	9.59	0.13	9.87
AV	471.031k	39.75	46.50	-6.75	19.59	Line	"Worst"	20.16	9.59	0.13	9.87
QP	917.448k	33.63	56.00	-22.37	19.59	Line	-	14.04	9.60	0.11	9.88
AV	917.448k	29.93	46.00	-16.07	19.59	Line	-	10.34	9.60	0.11	9.88
QP	16.933M	48.30	60.00	-11.70	19.85	Line	-	28.45	9.64	0.33	9.88
AV	16.933M	42.16	50.00	-7.84	19.85	Line	-	22.31	9.64	0.33	9.88
QP	18.52M	50.21	60.00	-9.79	19.87	Line	-	30.34	9.63	0.35	9.89
AV	18.52M	42.04	50.00	-7.96	19.87	Line	-	22.17	9.63	0.35	9.89
QP	23.282M	39.32	60.00	-20.68	19.87	Line	-	19.45	9.60	0.39	9.88
AV	23.282M	28.75	50.00	-21.25	19.87	Line	-	8.88	9.60	0.39	9.88

AC Power-line Conducted Emissions Result			
Operating Mode	7	**Power Phase**	Neutral
Operating Function	Beamforming ; Sample 2 ; PoE mode; Radio1 WIFI 2.4G TX		

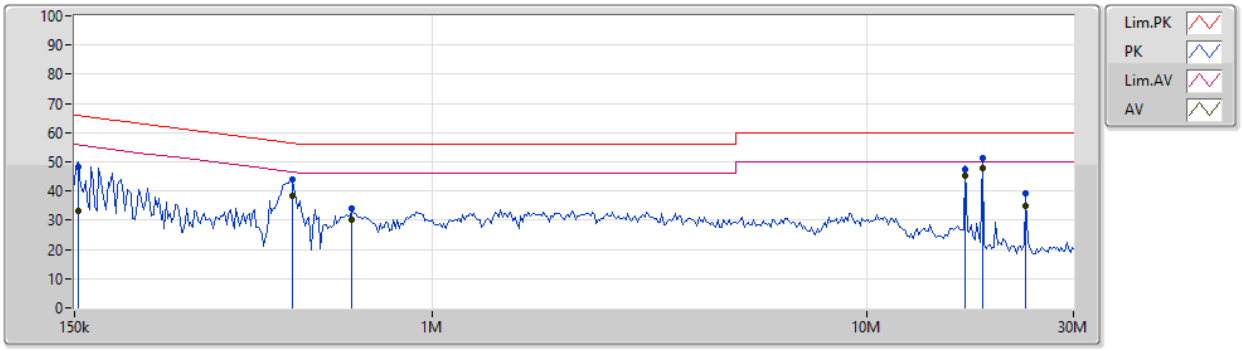
12/11/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	151.5k	48.61	65.92	-17.31	19.58	Neutral	-	29.03	9.60	0.11	9.87
AV	151.5k	33.69	55.92	-22.23	19.58	Neutral	-	14.11	9.60	0.11	9.87
QP	466.367k	44.28	56.57	-12.29	19.59	Neutral	-	24.69	9.59	0.13	9.87
AV	466.367k	39.38	46.57	-7.19	19.59	Neutral	-	19.79	9.59	0.13	9.87
QP	917.448k	32.42	56.00	-23.58	19.58	Neutral	-	12.84	9.59	0.11	9.88
AV	917.448k	28.77	46.00	-17.23	19.58	Neutral	-	9.19	9.59	0.11	9.88
QP	10.503M	33.44	60.00	-26.56	19.82	Neutral	-	13.62	9.67	0.27	9.88
AV	10.503M	28.28	50.00	-21.72	19.82	Neutral	-	8.46	9.67	0.27	9.88
QP	16.933M	47.59	60.00	-12.41	19.89	Neutral	-	27.70	9.68	0.33	9.88
AV	16.933M	43.71	50.00	-6.29	19.89	Neutral	-	23.82	9.68	0.33	9.88
QP	18.52M	50.65	60.00	-9.35	19.92	Neutral	-	30.73	9.68	0.35	9.89
AV	18.52M	46.75	50.00	-3.25	19.92	Neutral	"Worst"	26.83	9.68	0.35	9.89

AC Power-line Conducted Emissions Result			
Operating Mode	7	**Power Phase**	Line
Operating Function	Beamforming ; Sample 2 ; PoE mode; Radio1 WIFI 2.4G TX		

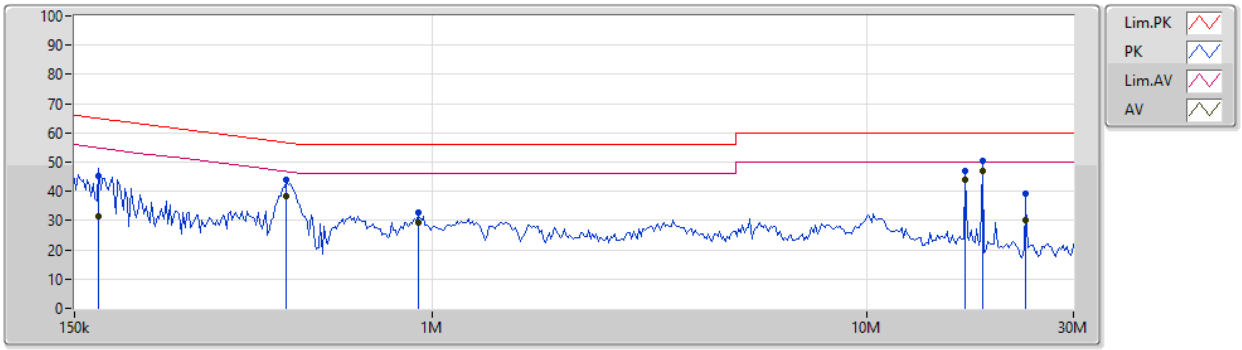
12/11/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	153.015k	48.15	65.83	-17.68	19.58	Line	-	28.57	9.60	0.11	9.87
AV	153.015k	33.16	55.83	-22.67	19.58	Line	-	13.58	9.60	0.11	9.87
QP	475.741k	43.89	56.42	-12.53	19.59	Line	-	24.30	9.59	0.13	9.87
AV	475.741k	38.54	46.42	-7.88	19.59	Line	-	18.95	9.59	0.13	9.87
QP	654.116k	34.19	56.00	-21.81	19.59	Line	-	14.60	9.60	0.12	9.87
AV	654.116k	30.12	46.00	-15.88	19.59	Line	-	10.53	9.60	0.12	9.87
QP	16.933M	47.50	60.00	-12.50	19.85	Line	-	27.65	9.64	0.33	9.88
AV	16.933M	45.27	50.00	-4.73	19.85	Line	-	25.42	9.64	0.33	9.88
QP	18.52M	51.19	60.00	-8.81	19.87	Line	-	31.32	9.63	0.35	9.89
AV	18.52M	47.94	50.00	-2.06	19.87	Line	"Worst"	28.07	9.63	0.35	9.89
QP	23.282M	39.30	60.00	-20.70	19.87	Line	-	19.43	9.60	0.39	9.88
AV	23.282M	34.84	50.00	-15.16	19.87	Line	-	14.97	9.60	0.39	9.88

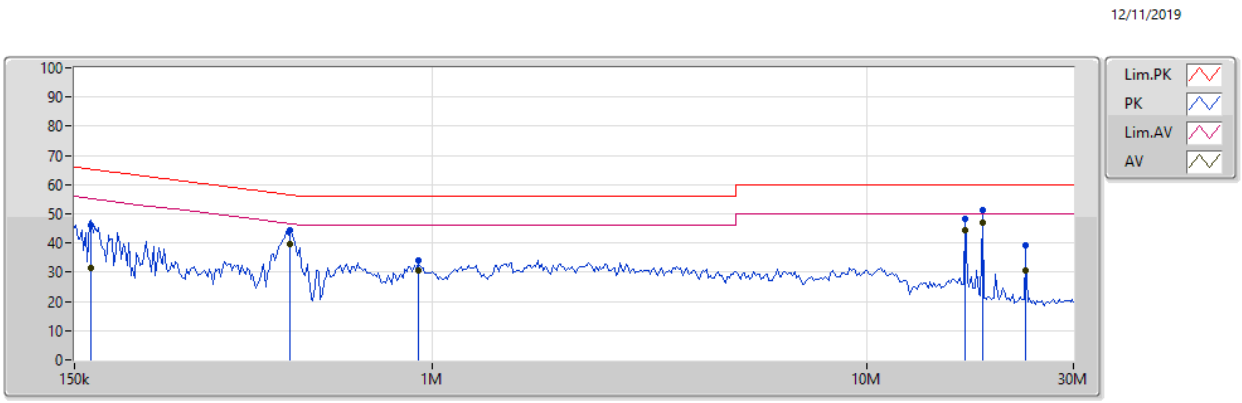
AC Power-line Conducted Emissions Result			
Operating Mode	8	**Power Phase**	Neutral
Operating Function	Beamforming ; Sample 2 ; PoE mode; Radio3 WIFI 2.4G TX		

12/11/2019



Type	Freq	Level	Limit	Margin	Factor	Condition	Comment	Raw	LISN	CL	AT
	(Hz)	(dBuV)	(dBuV)	(dB)	(dB)			(dBuV)	(dB)	(dB)	(dB)
QP	170.714k	45.16	64.93	-19.77	19.58	Neutral	-	25.58	9.60	0.11	9.87
AV	170.714k	31.59	54.93	-23.34	19.58	Neutral	-	12.01	9.60	0.11	9.87
QP	461.75k	43.87	56.67	-12.80	19.59	Neutral	-	24.28	9.59	0.13	9.87
AV	461.75k	38.26	46.67	-8.41	19.59	Neutral	-	18.67	9.59	0.13	9.87
QP	926.622k	32.87	56.00	-23.13	19.58	Neutral	-	13.29	9.59	0.11	9.88
AV	926.622k	29.51	46.00	-16.49	19.58	Neutral	-	9.93	9.59	0.11	9.88
QP	16.933M	47.13	60.00	-12.87	19.89	Neutral	-	27.24	9.68	0.33	9.88
AV	16.933M	44.10	50.00	-5.90	19.89	Neutral	-	24.21	9.68	0.33	9.88
QP	18.52M	50.27	60.00	-9.73	19.92	Neutral	-	30.35	9.68	0.35	9.89
AV	18.52M	46.81	50.00	-3.19	19.92	Neutral	"Worst"	26.89	9.68	0.35	9.89
QP	23.282M	39.10	60.00	-20.90	19.95	Neutral	-	19.15	9.68	0.39	9.88
AV	23.282M	30.32	50.00	-19.68	19.95	Neutral	-	10.37	9.68	0.39	9.88

AC Power-line Conducted Emissions Result			
Operating Mode	8	**Power Phase**	Line
Operating Function	Beamforming ; Sample 2 ; PoE mode; Radio3 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	164.053k	46.27	65.25	-18.98	19.58	Line	-	26.69	9.60	0.11	9.87
AV	164.053k	31.48	55.25	-23.77	19.58	Line	-	11.90	9.60	0.11	9.87
QP	471.031k	44.51	56.50	-11.99	19.59	Line	-	24.92	9.59	0.13	9.87
AV	471.031k	39.73	46.50	-6.77	19.59	Line	-	20.14	9.59	0.13	9.87
QP	926.622k	34.02	56.00	-21.98	19.59	Line	-	14.43	9.60	0.11	9.88
AV	926.622k	30.58	46.00	-15.42	19.59	Line	-	10.99	9.60	0.11	9.88
QP	16.933M	48.19	60.00	-11.81	19.85	Line	-	28.34	9.64	0.33	9.88
AV	16.933M	44.22	50.00	-5.78	19.85	Line	-	24.37	9.64	0.33	9.88
QP	18.52M	51.14	60.00	-8.86	19.87	Line	-	31.27	9.63	0.35	9.89
AV	18.52M	46.85	50.00	-3.15	19.87	Line	"Worst"	26.98	9.63	0.35	9.89
QP	23.282M	39.40	60.00	-20.60	19.87	Line	-	19.53	9.60	0.39	9.88
AV	23.282M	30.77	50.00	-19.23	19.87	Line	-	10.90	9.60	0.39	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	7.05M	12.069M	12M1G1D	6.575M	10.195M
802.11g_Nss1,(6Mbps)_1TX	16.325M	16.717M	16M7D1D	16.325M	16.592M
VHT20_Nss1,(MCS0)_1TX	17.575M	17.816M	17M8D1D	17.575M	17.766M
VHT40_Nss1,(MCS0)_1TX	36.3M	36.282M	36M3D1D	36.3M	36.232M
802.11ax HEW20_Nss1,(MCS0)_1TX	19M	19.04M	19M0D1D	18.875M	18.966M
802.11ax HEW40_Nss1,(MCS0)_1TX	37.5M	37.581M	37M6D1D	37.2M	37.481M

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

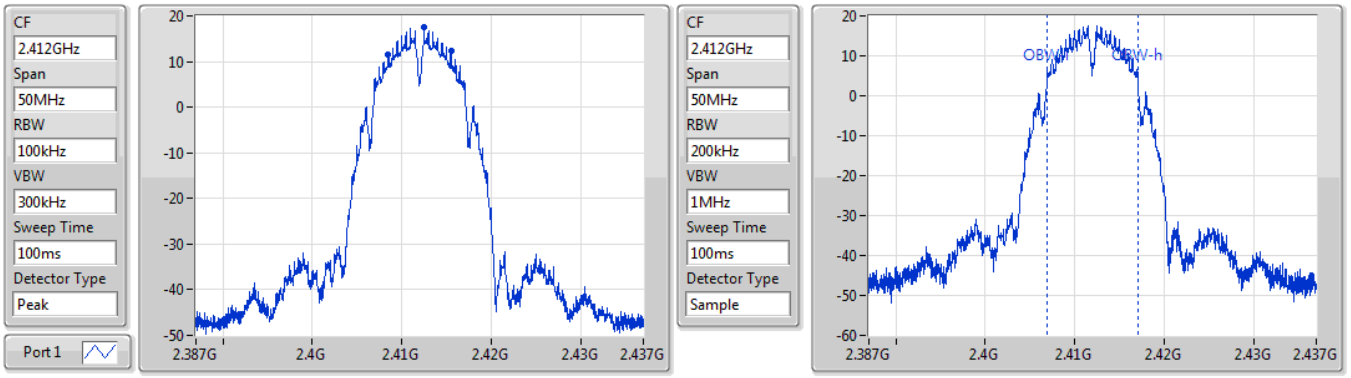
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	7M	10.195M
2437MHz	Pass	500k	7.05M	12.069M
2462MHz	Pass	500k	6.575M	10.37M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.325M	16.592M
2437MHz	Pass	500k	16.325M	16.717M
2462MHz	Pass	500k	16.325M	16.617M
VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	17.575M	17.816M
2437MHz	Pass	500k	17.575M	17.816M
2462MHz	Pass	500k	17.575M	17.766M
VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	36.3M	36.232M
2437MHz	Pass	500k	36.3M	36.232M
2452MHz	Pass	500k	36.3M	36.282M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	18.975M	18.991M
2437MHz	Pass	500k	18.875M	19.04M
2462MHz	Pass	500k	19M	18.966M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	37.25M	37.581M
2437MHz	Pass	500k	37.5M	37.581M
2452MHz	Pass	500k	37.2M	37.481M

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

802.11b_Nss1,(1Mbps)_1TX EBW

2412MHz

09/09/2019

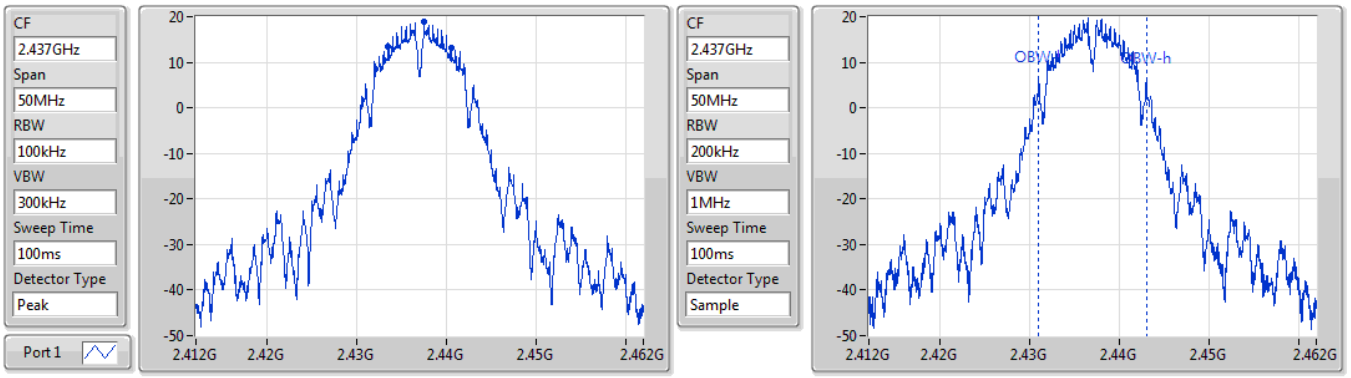


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7M	2.4085G	2.4155G	10.195M	2.406878G	2.417072G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2437MHz

09/09/2019

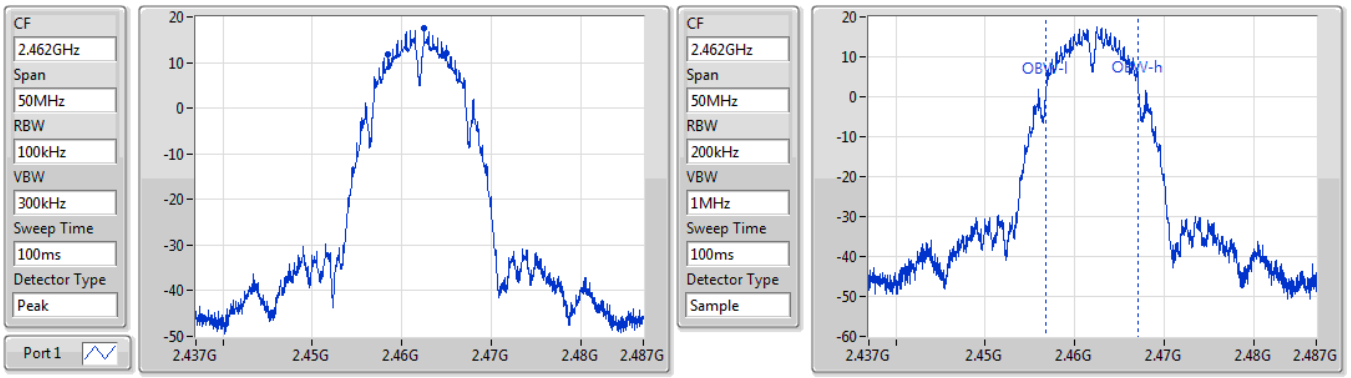


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.43345G	2.4405G	12.069M	2.430953G	2.443022G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2462MHz

09/09/2019

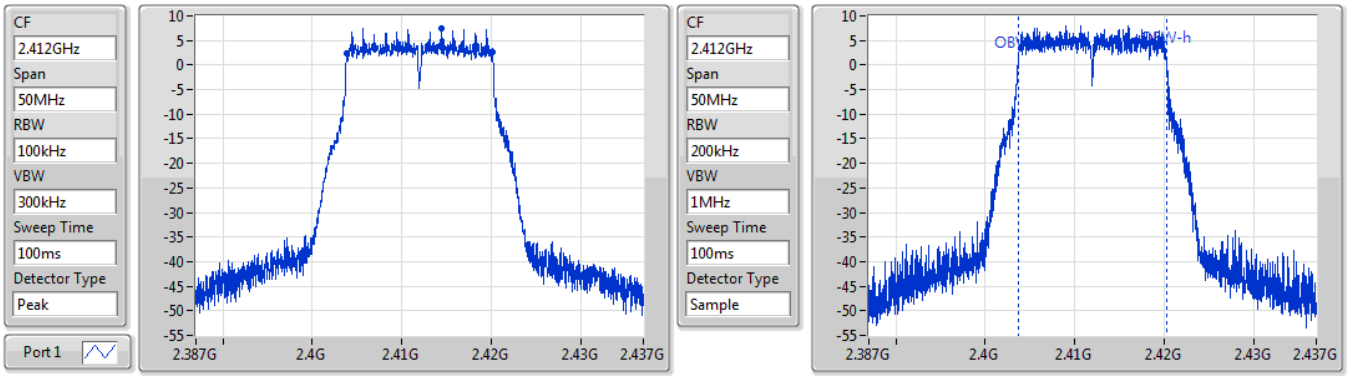


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6.575M	2.45845G	2.465025G	10.37M	2.456778G	2.467147G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2412MHz

09/09/2019

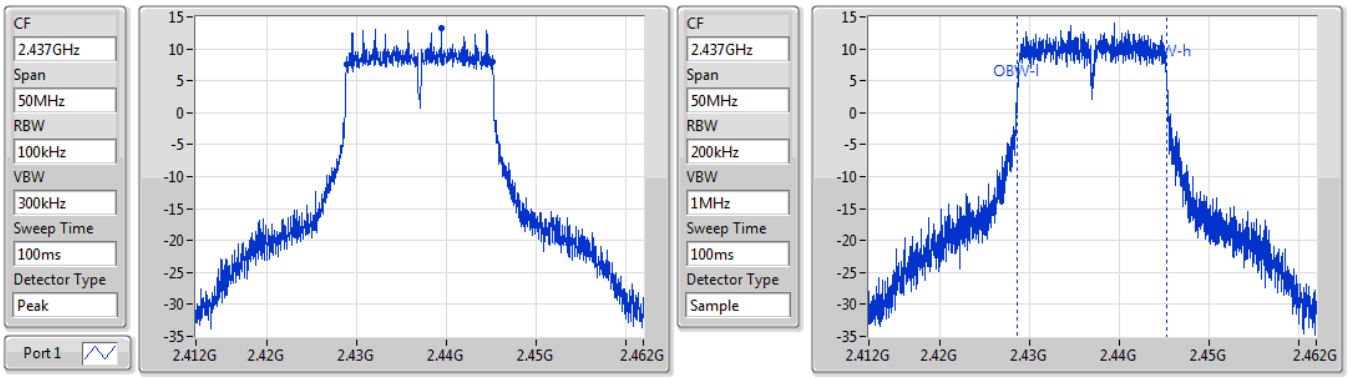


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.403825G	2.42015G	16.592M	2.403679G	2.420271G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2437MHz

09/09/2019

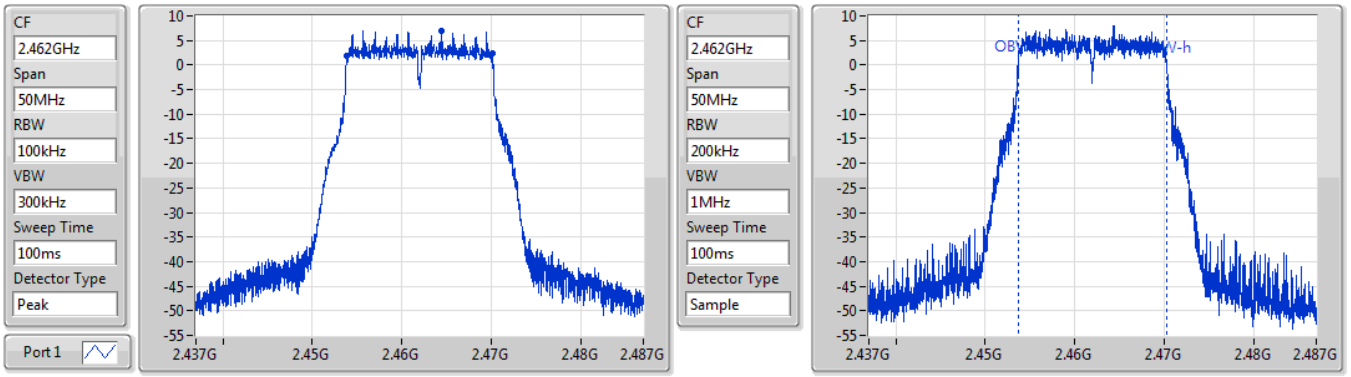


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.428825G	2.44515G	16.717M	2.428629G	2.445346G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2462MHz

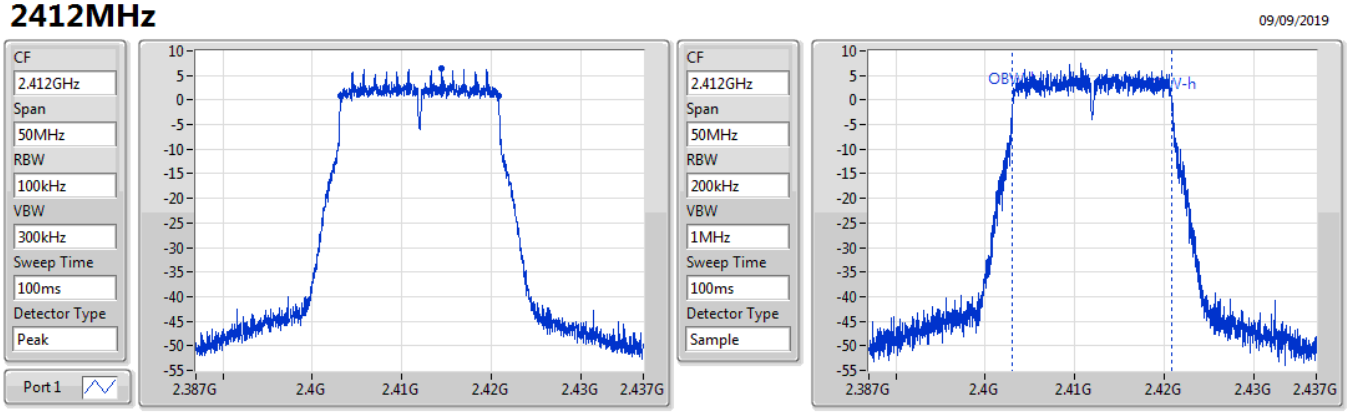
09/09/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.453825G	2.47015G	16.617M	2.453679G	2.470296G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

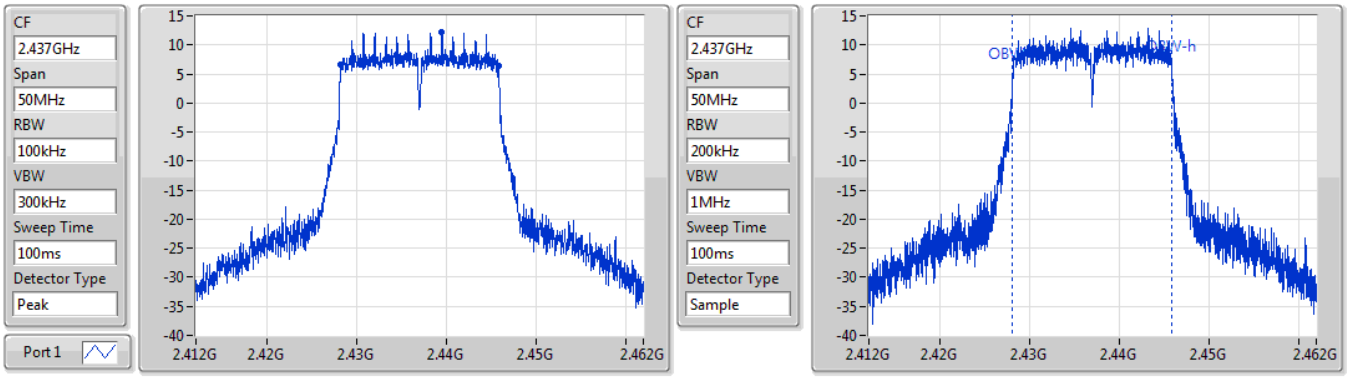
2412MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4032G	2.420775G	17.816M	2.403079G	2.420896G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2437MHz

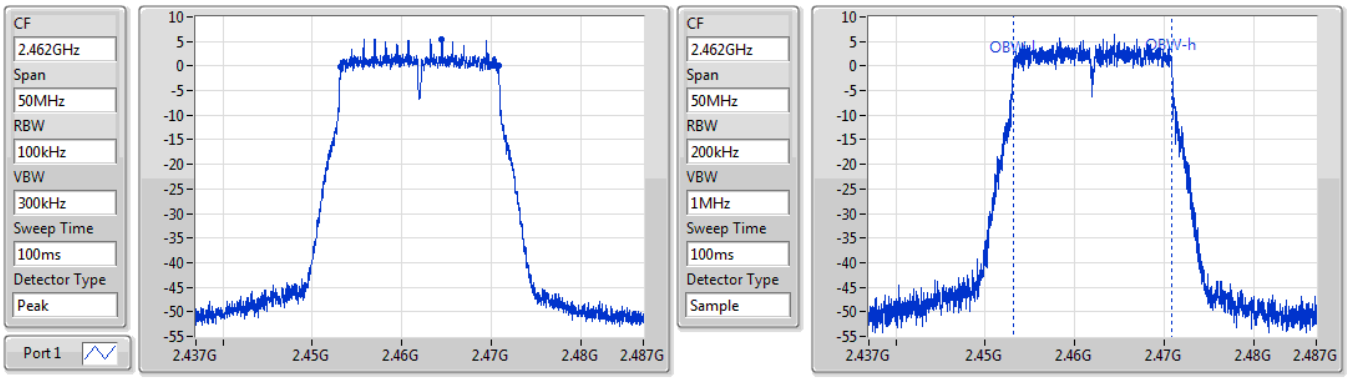


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4282G	2.445775G	17.816M	2.428079G	2.445896G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2462MHz

09/09/2019

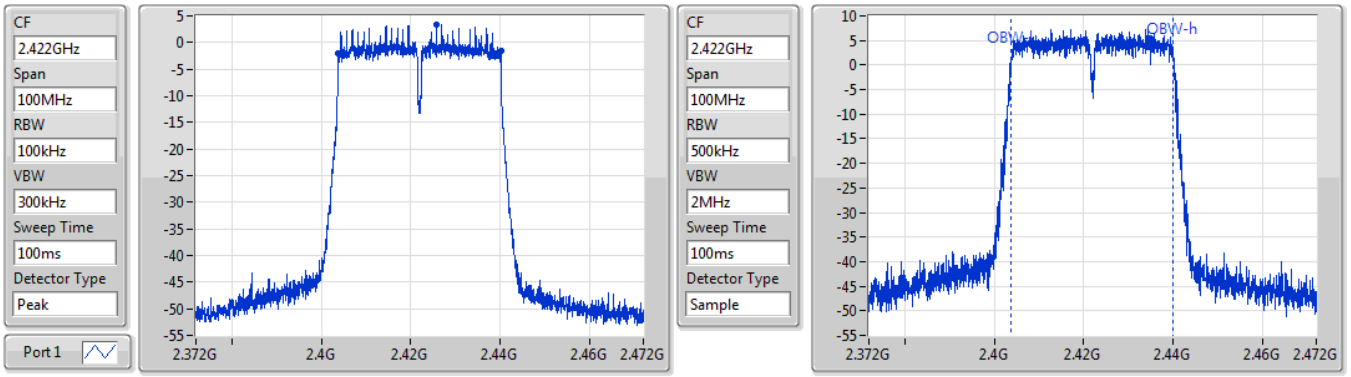


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4532G	2.470775G	17.766M	2.453104G	2.470871G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2422MHz

09/09/2019

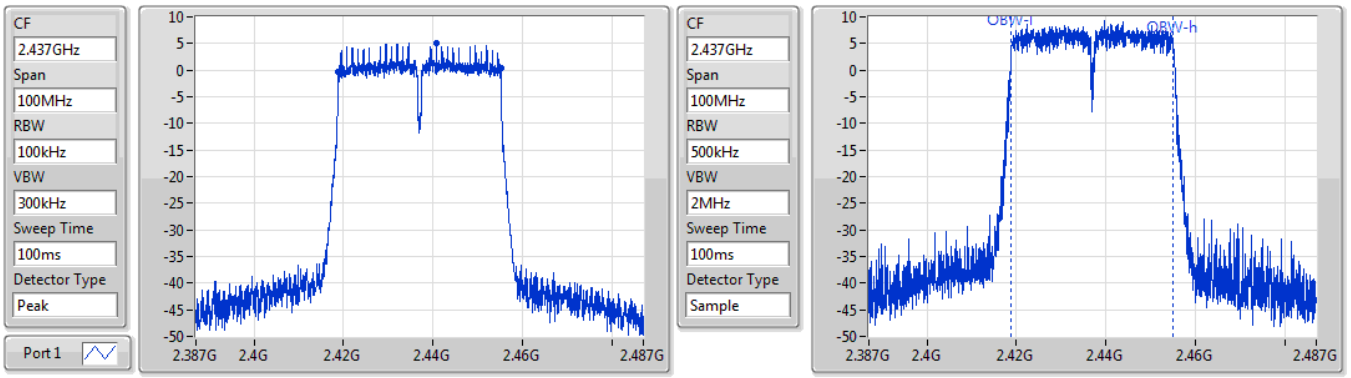


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.40385G	2.44015G	36.232M	2.403859G	2.440091G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2437MHz

09/09/2019

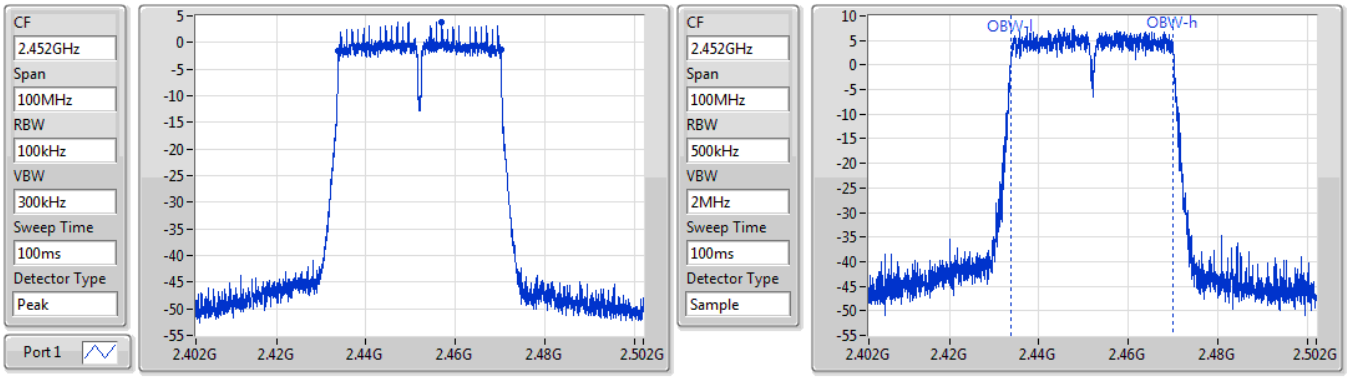


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.41885G	2.45515G	36.232M	2.418859G	2.455091G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2452MHz

09/09/2019

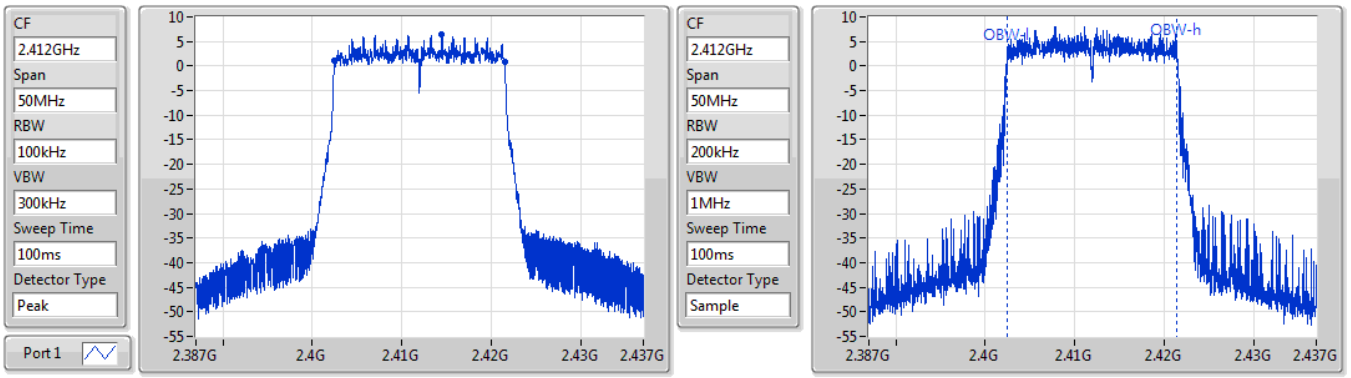


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.43385G	2.47015G	36.282M	2.433809G	2.470091G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2412MHz

09/09/2019

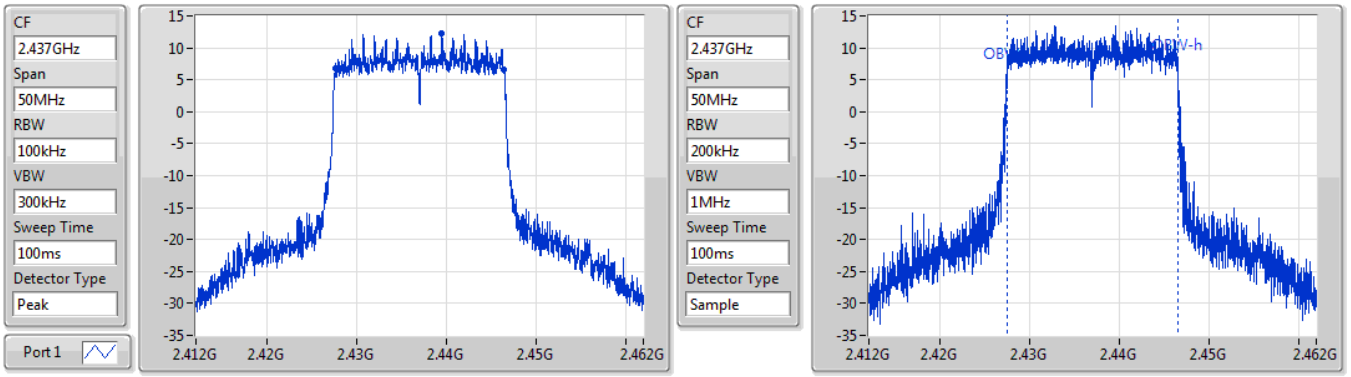


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.4025G	2.421475G	18.991M	2.402455G	2.421445G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2437MHz

09/09/2019

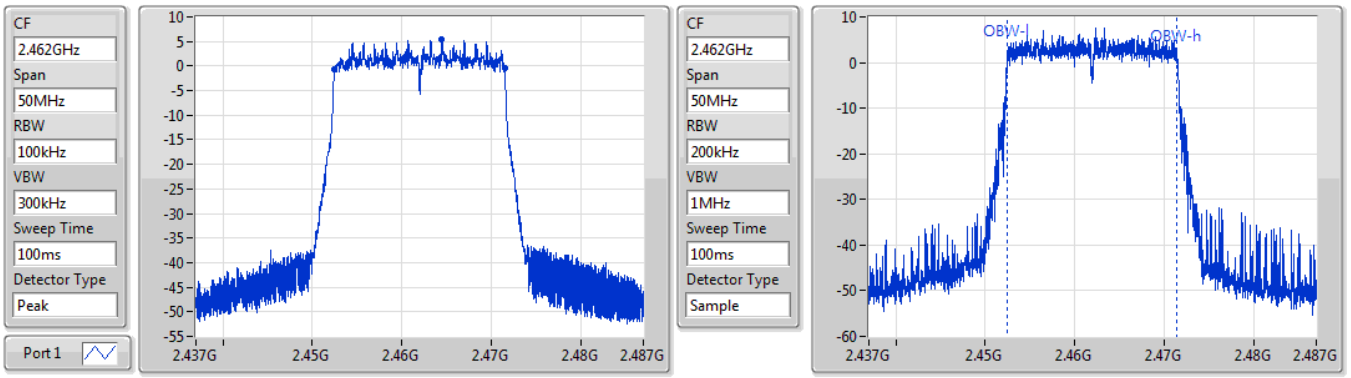


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.875M	2.427575G	2.44645G	19.04M	2.427455G	2.446495G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2462MHz

09/09/2019

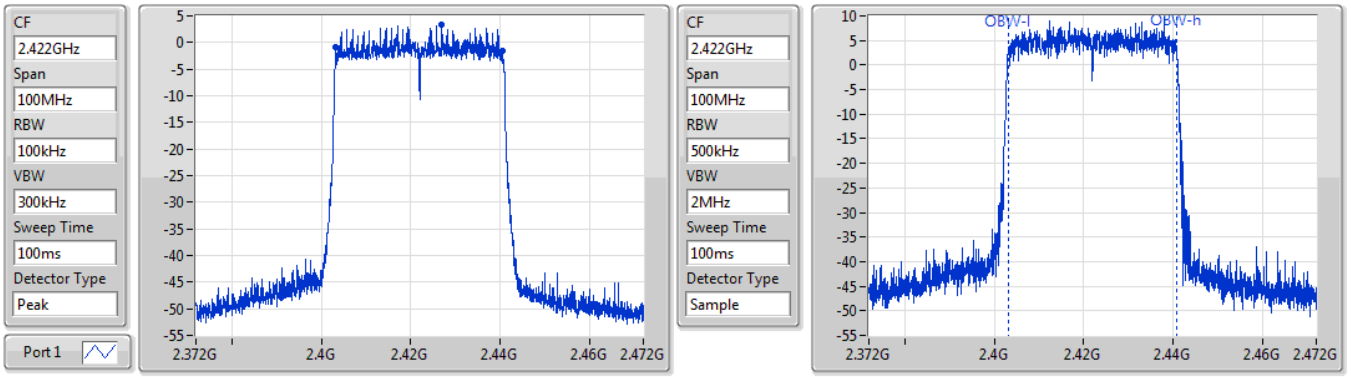


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19M	2.452475G	2.471475G	18.966M	2.45248G	2.471445G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2422MHz

09/09/2019

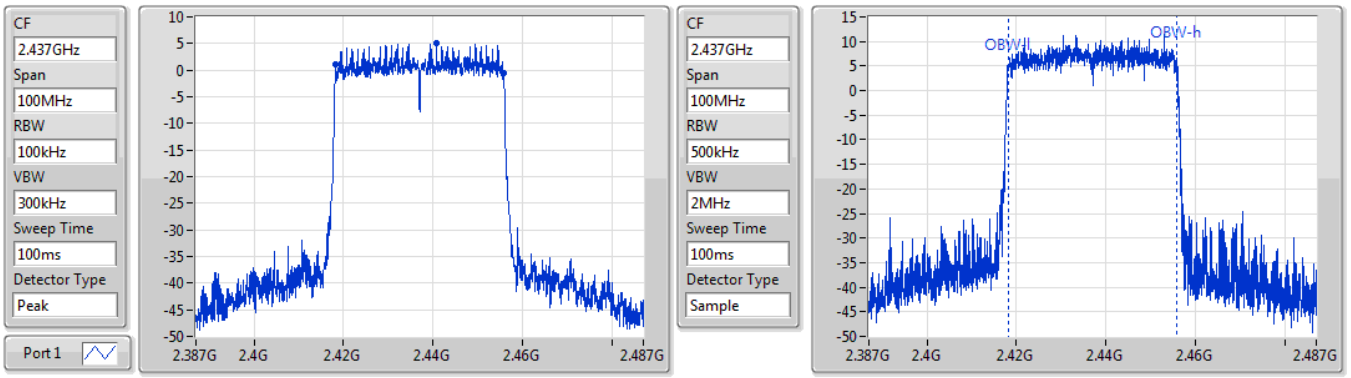


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.25M	2.4032G	2.44045G	37.581M	2.403159G	2.440741G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2437MHz

09/09/2019

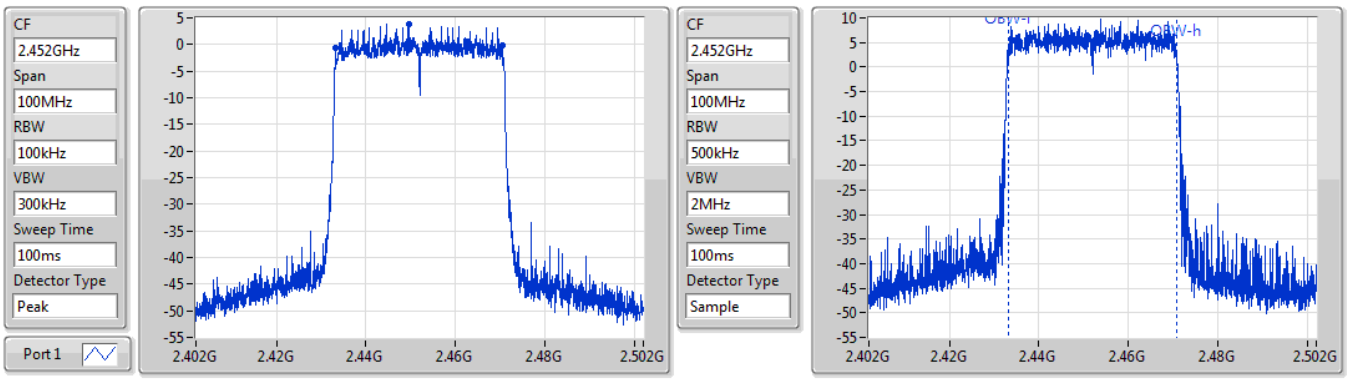


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.5M	2.4182G	2.4557G	37.581M	2.418209G	2.455791G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2452MHz

09/09/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.2M	2.43325G	2.47045G	37.481M	2.433209G	2.470691G	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	10.245M	10M2G1D	6.575M	10.17M
802.11g_Nss1,(6Mbps)_2TX	16.35M	16.642M	16M6D1D	16.325M	16.542M
VHT20_Nss2,(MCS0)_2TX	17.575M	17.791M	17M8D1D	17.575M	17.741M
VHT40_Nss2,(MCS0)_2TX	36.3M	36.282M	36M3D1D	36.3M	36.132M
802.11ax HEW20_Nss2,(MCS0)_2TX	18.975M	18.991M	19M0D1D	18.75M	18.966M
802.11ax HEW40_Nss2,(MCS0)_2TX	37.6M	37.581M	37M6D1D	37.15M	37.481M

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

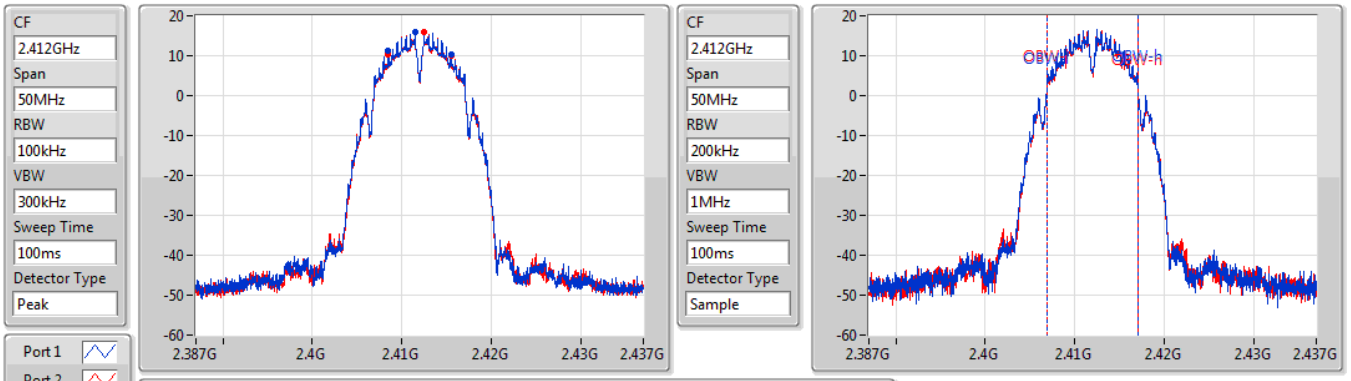
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	7.05M	10.195M	7.05M	10.17M
2437MHz_TnomVnom	Pass	500k	6.575M	10.22M	7M	10.22M
2462MHz_TnomVnom	Pass	500k	7.025M	10.245M	7.05M	10.195M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	16.35M	16.567M	16.35M	16.542M
2437MHz_TnomVnom	Pass	500k	16.35M	16.642M	16.35M	16.642M
2462MHz_TnomVnom	Pass	500k	16.325M	16.592M	16.35M	16.567M
VHT20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	17.575M	17.766M	17.575M	17.766M
2437MHz_TnomVnom	Pass	500k	17.575M	17.791M	17.575M	17.741M
2462MHz_TnomVnom	Pass	500k	17.575M	17.766M	17.575M	17.741M
VHT40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	500k	36.3M	36.232M	36.3M	36.282M
2437MHz_TnomVnom	Pass	500k	36.3M	36.182M	36.3M	36.232M
2452MHz_TnomVnom	Pass	500k	36.3M	36.132M	36.3M	36.232M
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	18.95M	18.991M	18.85M	18.966M
2437MHz_TnomVnom	Pass	500k	18.975M	18.991M	18.925M	18.966M
2462MHz_TnomVnom	Pass	500k	18.975M	18.991M	18.75M	18.991M
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	500k	37.55M	37.581M	37.15M	37.531M
2437MHz_TnomVnom	Pass	500k	37.6M	37.581M	37.25M	37.481M
2452MHz_TnomVnom	Pass	500k	37.6M	37.531M	37.15M	37.481M

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

802.11b_Nss1,(1Mbps)_2TX EBW

2412MHz

27/08/2019

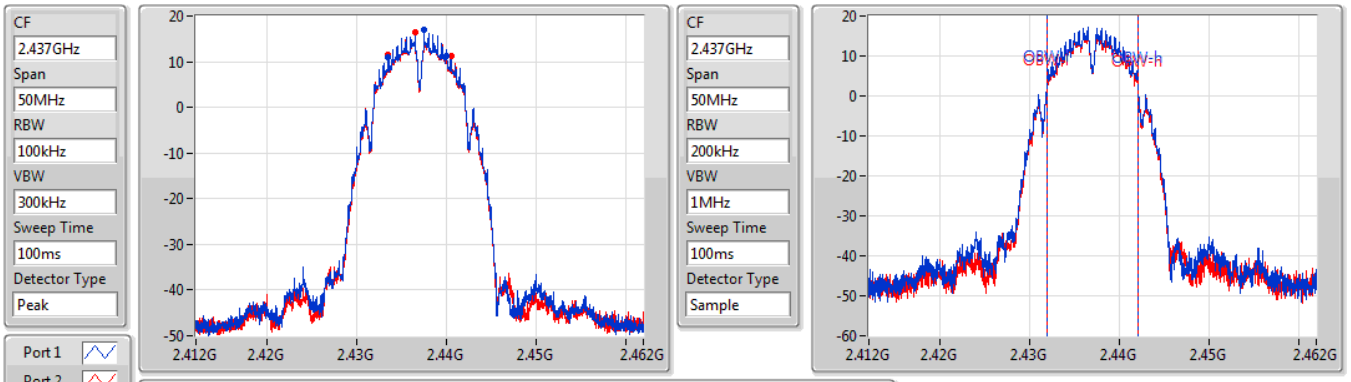


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.408475G	2.415525G	10.195M	2.406878G	2.417072G	500k	1
7.05M	2.408475G	2.415525G	10.17M	2.406903G	2.417072G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2437MHz

27/08/2019

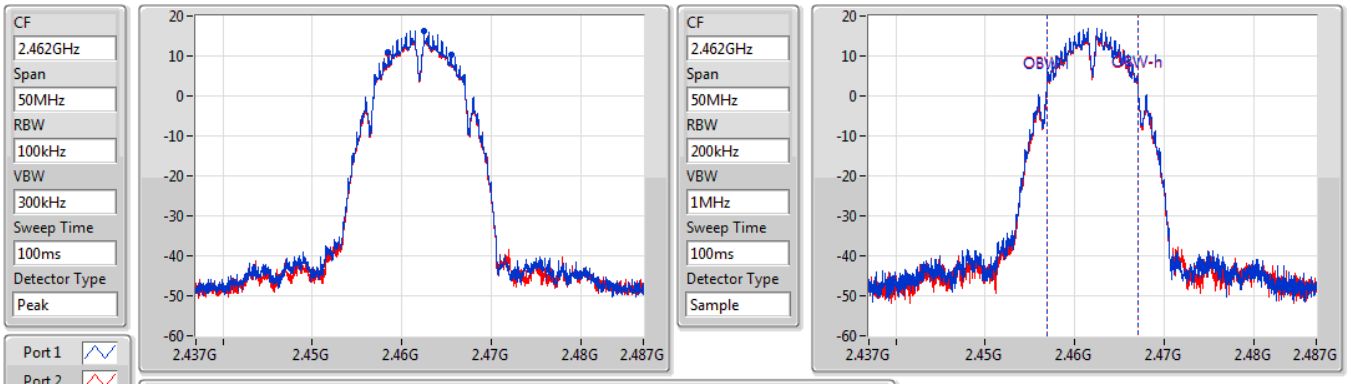


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6.575M	2.433475G	2.44005G	10.22M	2.431878G	2.442097G	500k	1
7M	2.4335G	2.4405G	10.22M	2.431878G	2.442097G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2462MHz

27/08/2019

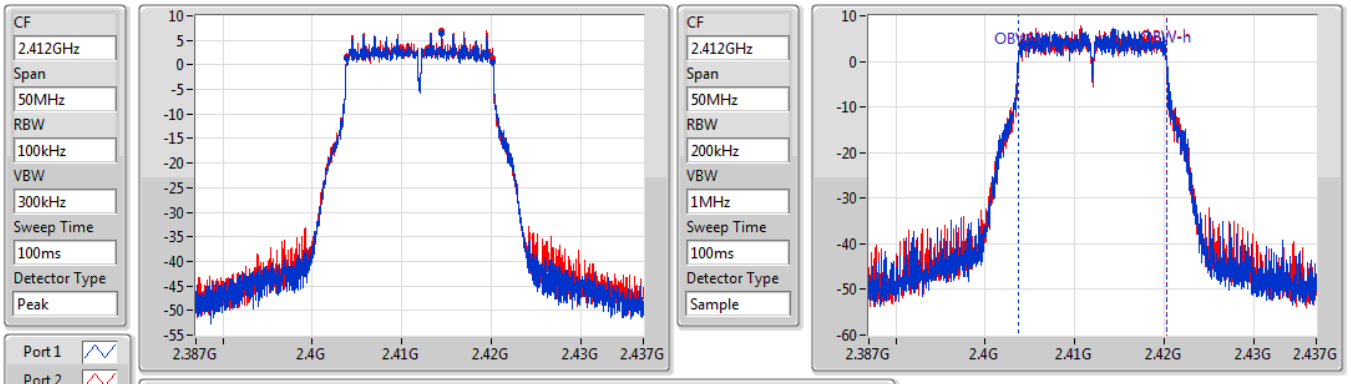


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.025M	2.4585G	2.465525G	10.245M	2.456853G	2.467097G	500k	1
7.05M	2.458475G	2.465525G	10.195M	2.456903G	2.467097G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2412MHz

27/08/2019

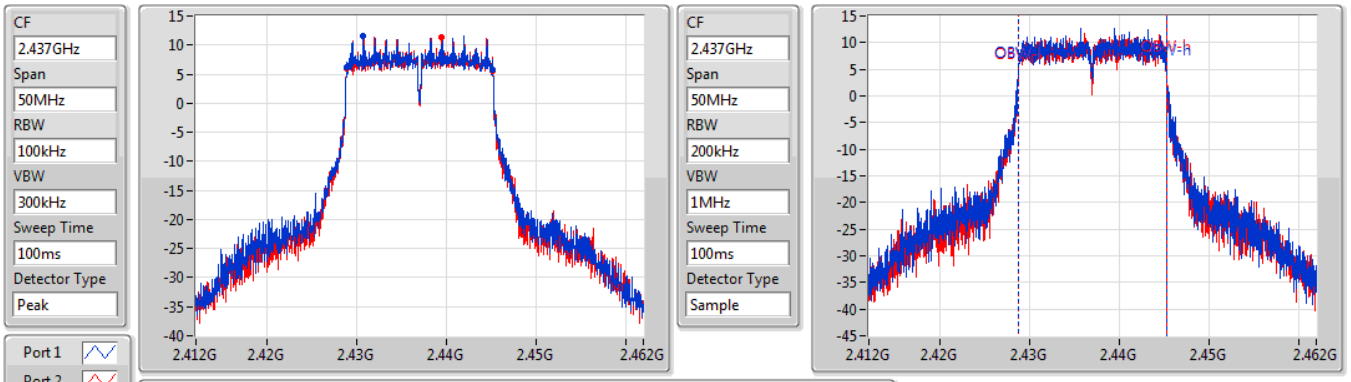


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.403825G	2.420175G	16.567M	2.403704G	2.420271G	500k	1
16.35M	2.403825G	2.420175G	16.542M	2.403729G	2.420271G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2437MHz

27/08/2019

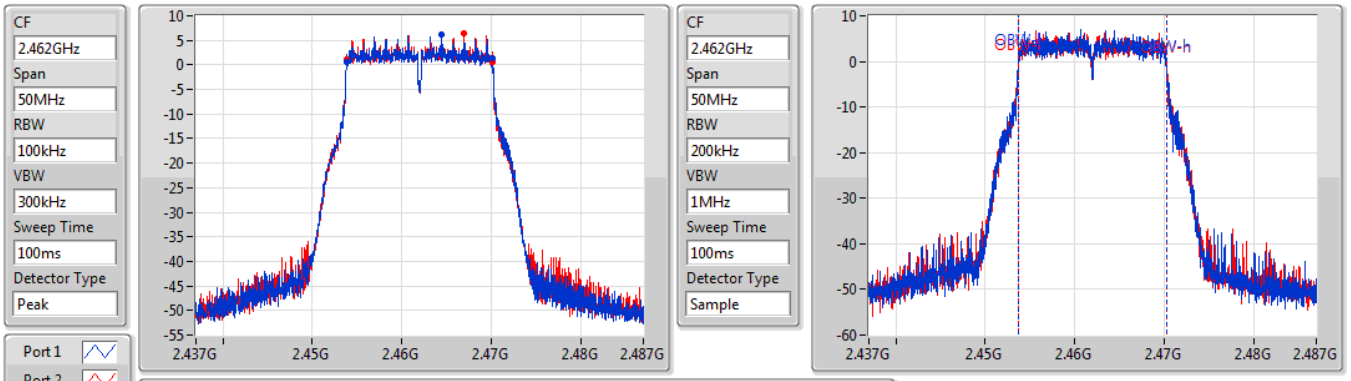


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.428825G	2.445175G	16.642M	2.428679G	2.445321G	500k	1
16.35M	2.428825G	2.445175G	16.642M	2.428679G	2.445321G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2462MHz

27/08/2019

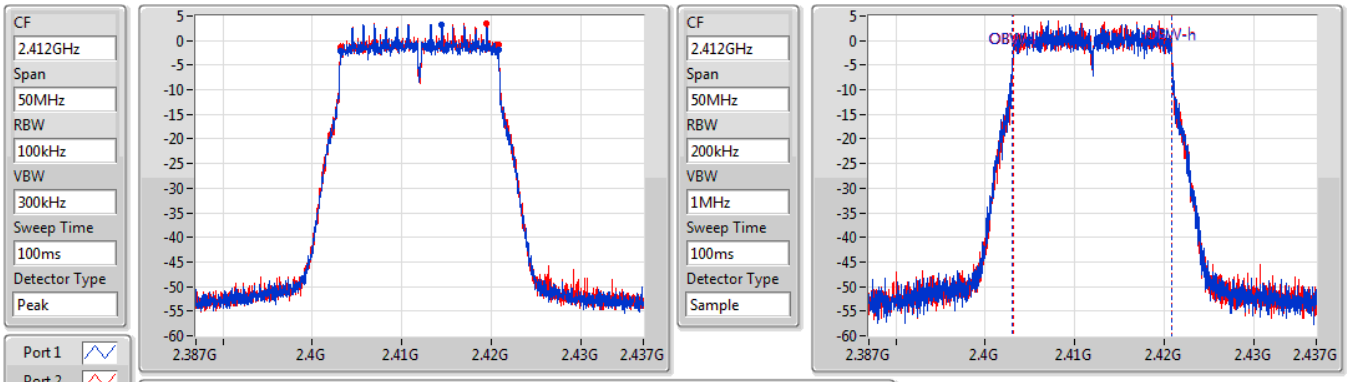


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.453825G	2.47015G	16.592M	2.453679G	2.470271G	500k	1
16.35M	2.453825G	2.470175G	16.567M	2.453704G	2.470271G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2412MHz

04/09/2019

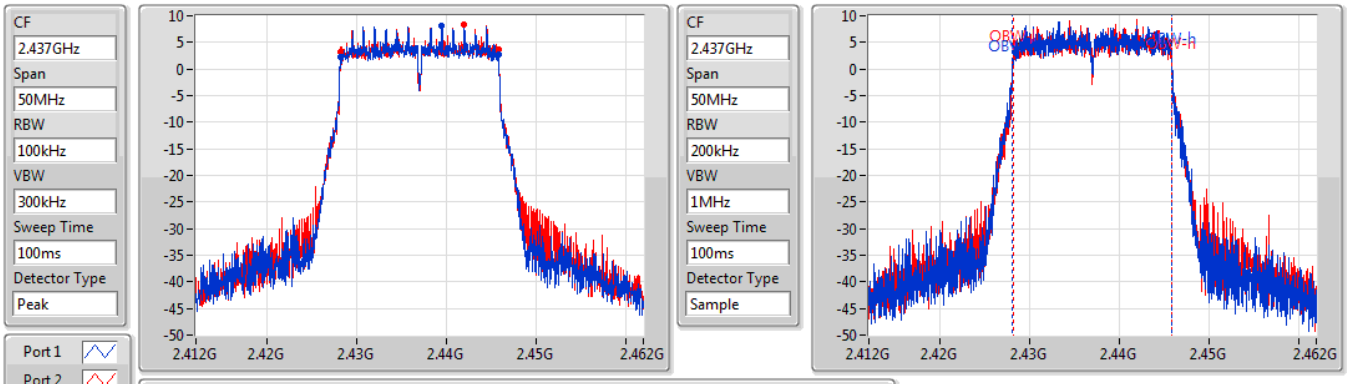


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4032G	2.420775G	17.766M	2.403079G	2.420846G	500k	1
17.575M	2.4032G	2.420775G	17.766M	2.403104G	2.420871G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2437MHz

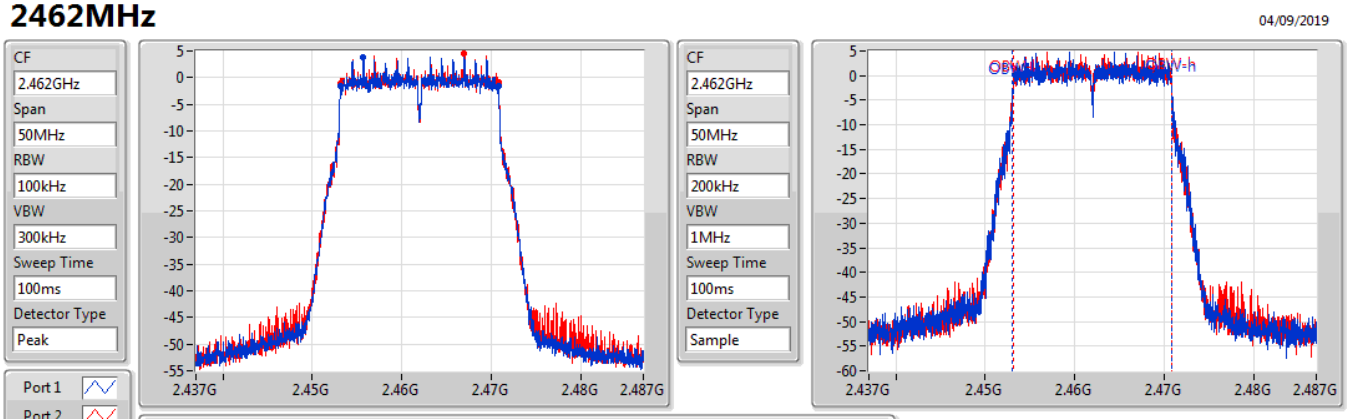
04/09/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4282G	2.445775G	17.791M	2.428054G	2.445846G	500k	1
17.575M	2.4282G	2.445775G	17.741M	2.428104G	2.445846G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

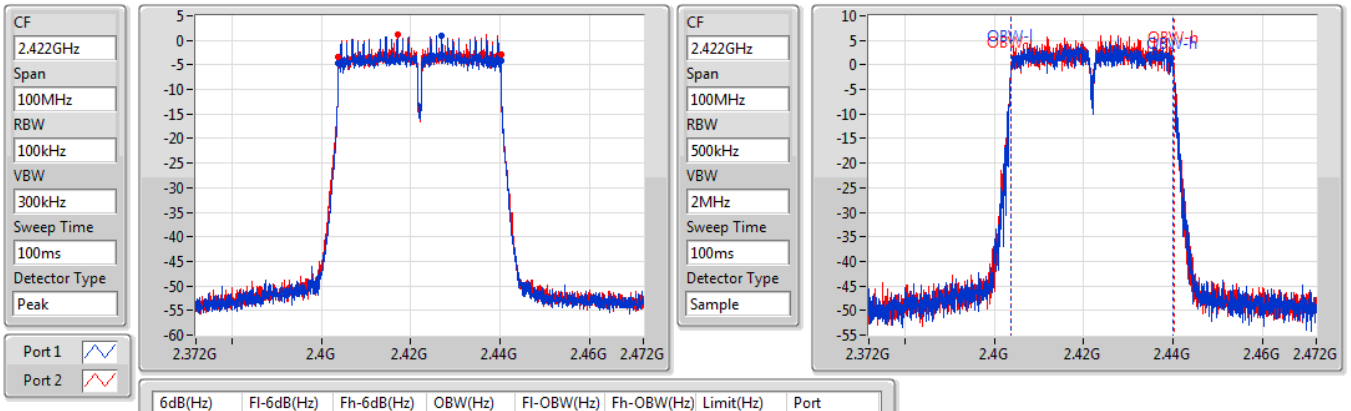
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4532G	2.470775G	17.766M	2.453079G	2.470846G	500k	1
17.575M	2.4532G	2.470775G	17.741M	2.453104G	2.470846G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2422MHz

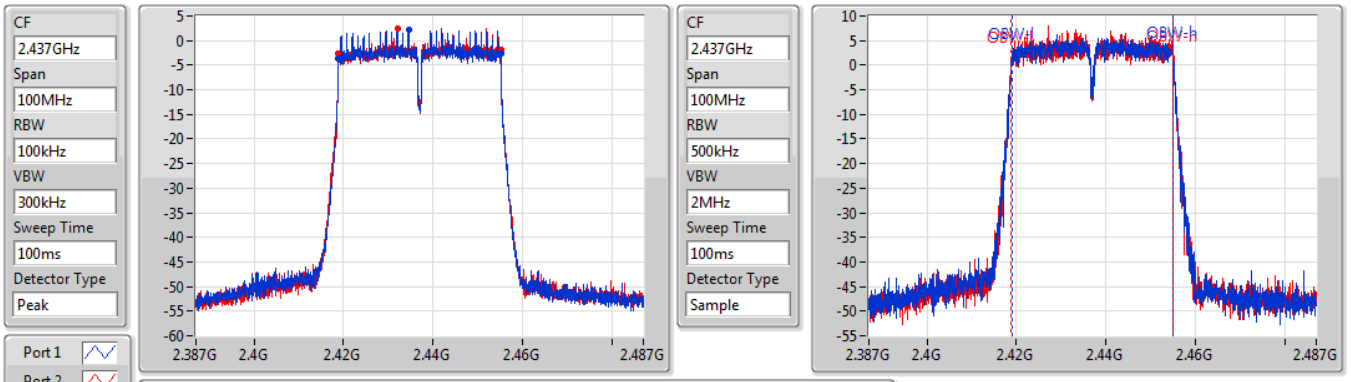


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.40385G	2.44015G	36.232M	2.403859G	2.440091G	500k	1
36.3M	2.40385G	2.44015G	36.282M	2.403859G	2.440141G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2437MHz

04/09/2019

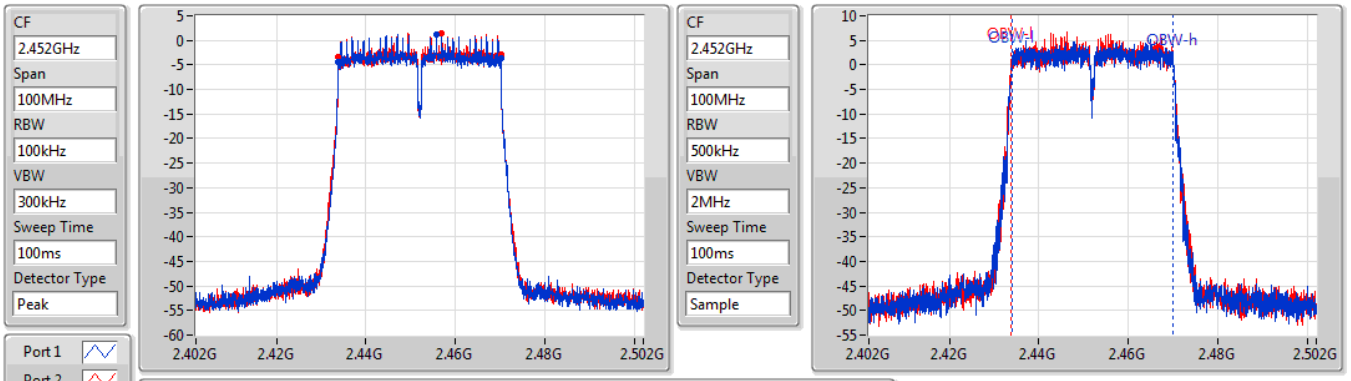


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.41885G	2.45515G	36.182M	2.418909G	2.455091G	500k	1
36.3M	2.41885G	2.45515G	36.232M	2.418859G	2.455091G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2452MHz

04/09/2019

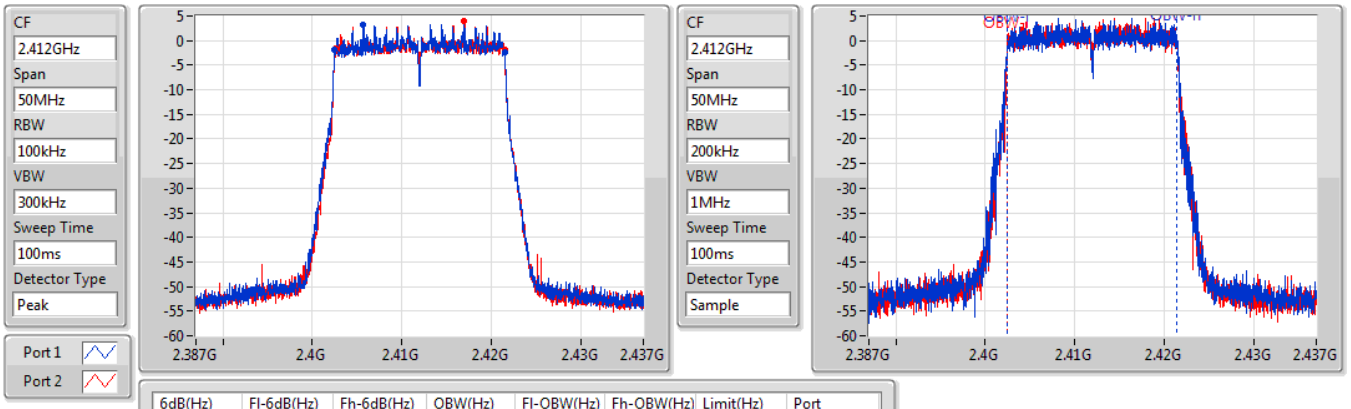


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.43385G	2.47015G	36.132M	2.433909G	2.470041G	500k	1
36.3M	2.43385G	2.47015G	36.232M	2.433859G	2.470091G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2412MHz

04/09/2019

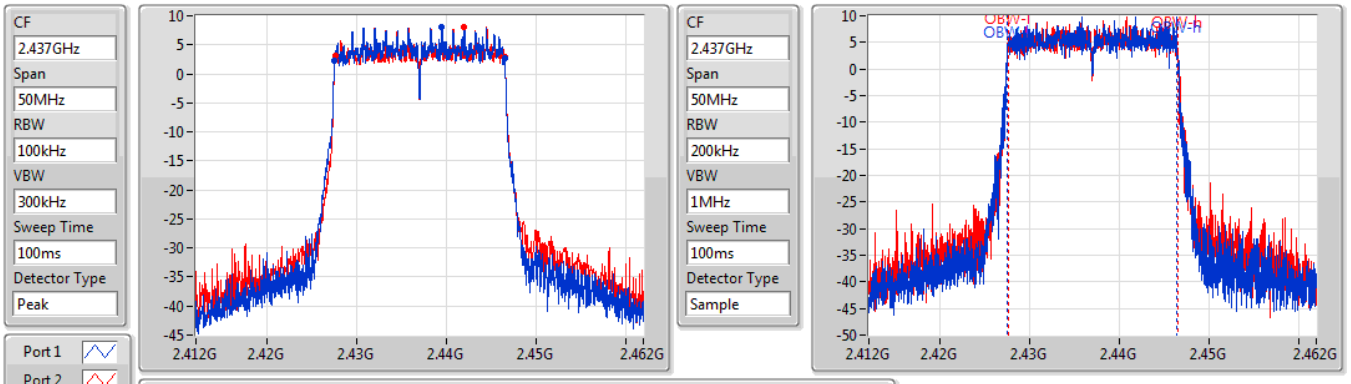


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.95M	2.402525G	2.421475G	18.991M	2.40248G	2.42147G	500k	1
18.85M	2.402625G	2.421475G	18.966M	2.402505G	2.42147G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2437MHz

04/09/2019

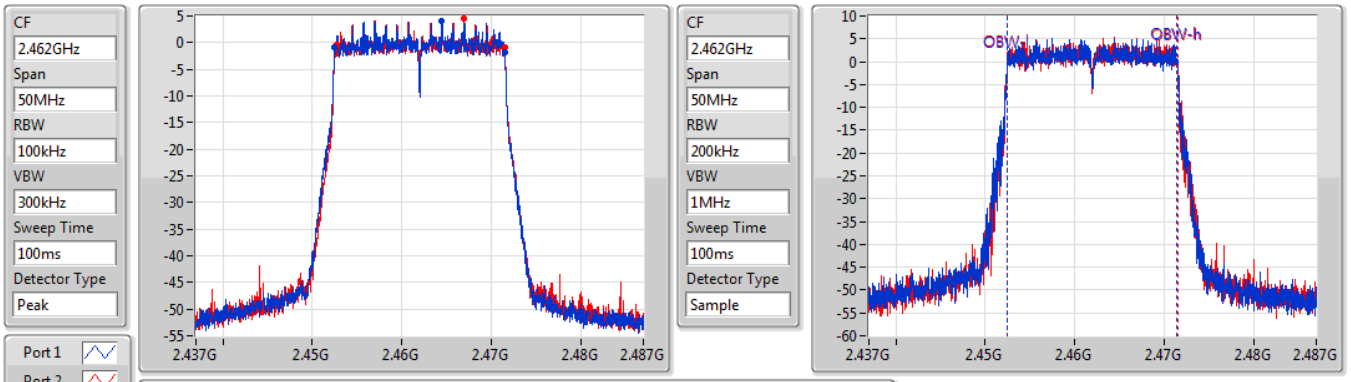


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.4275G	2.446475G	18.991M	2.42748G	2.44647G	500k	1
18.925M	2.42755G	2.446475G	18.966M	2.42753G	2.446495G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2462MHz

04/09/2019

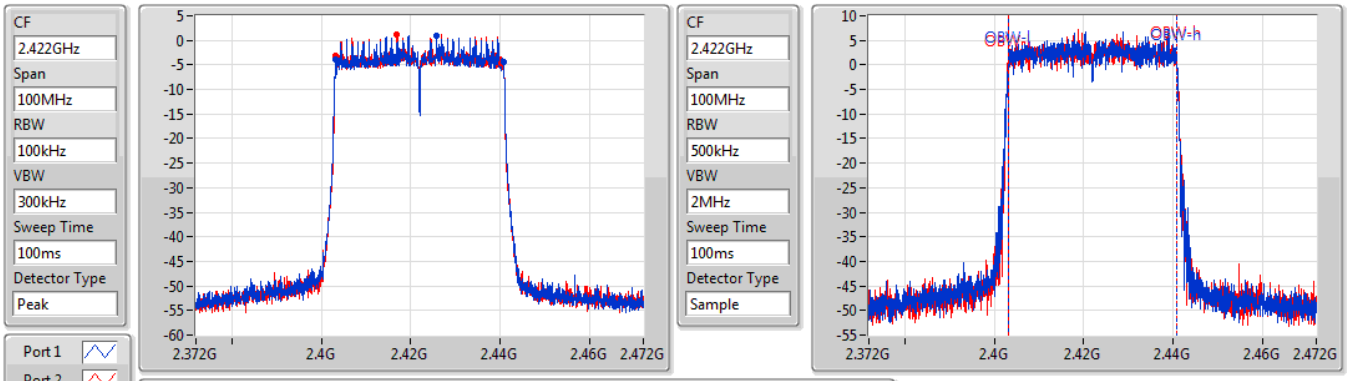


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.452525G	2.4715G	18.991M	2.45248G	2.47147G	500k	1
18.75M	2.452725G	2.471475G	18.991M	2.452505G	2.471495G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

2422MHz

04/09/2019

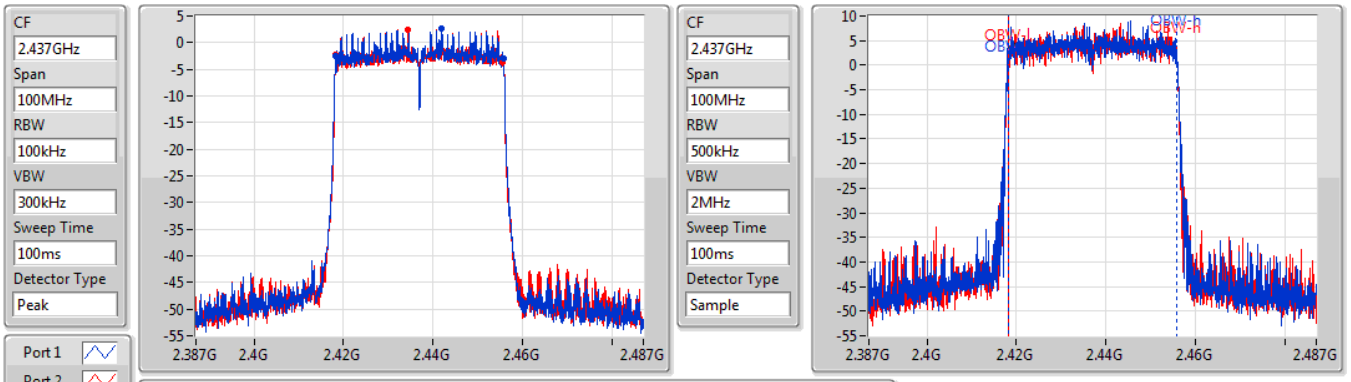


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.55M	2.40315G	2.4407G	37.581M	2.403209G	2.440791G	500k	1
37.15M	2.4032G	2.44035G	37.531M	2.403259G	2.440791G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

2437MHz

04/09/2019

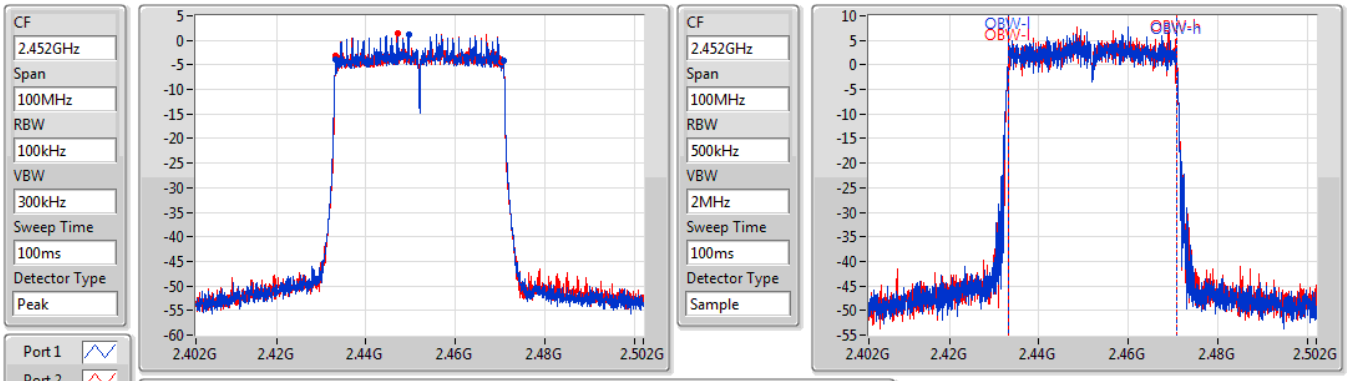


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.6M	2.41815G	2.45575G	37.581M	2.418159G	2.455741G	500k	1
37.25M	2.4182G	2.45545G	37.481M	2.418259G	2.455741G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

2452MHz

04/09/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.6M	2.43315G	2.47075G	37.531M	2.433159G	2.470691G	500k	1
37.15M	2.4332G	2.47035G	37.481M	2.433259G	2.470741G	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	10.345M	10M3G1D	6.525M	10.17M
802.11g_Nss1,(6Mbps)_1TX	16.325M	16.642M	16M6D1D	16.325M	16.592M
VHT20_Nss1,(MCS0)_1TX	17.575M	17.791M	17M8D1D	17.575M	17.766M
VHT40_Nss1,(MCS0)_1TX	36.35M	36.232M	36M2D1D	36.3M	36.182M
802.11ax HEW20_Nss1,(MCS0)_1TX	19M	18.991M	19M0D1D	18.95M	18.991M
802.11ax HEW40_Nss1,(MCS0)_1TX	37.25M	37.531M	37M5D1D	36.9M	37.481M

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

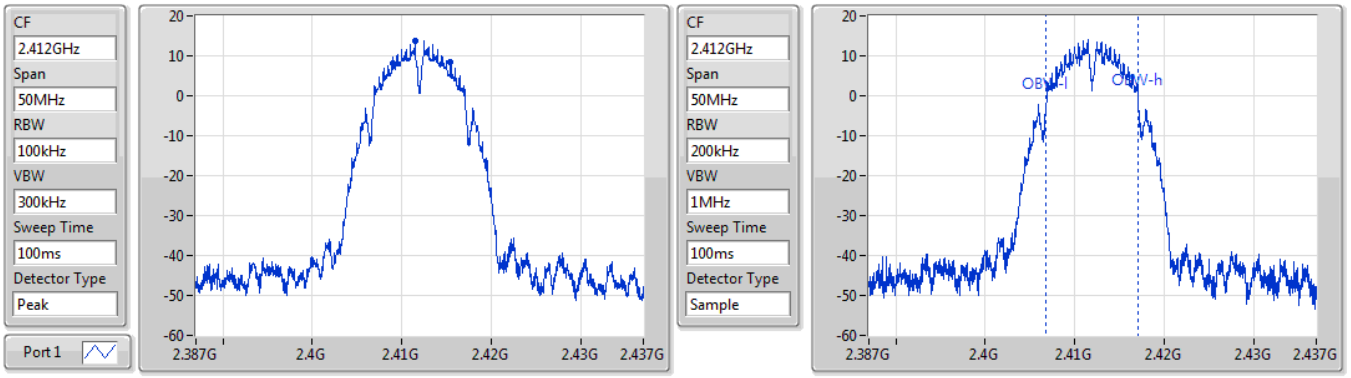
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	6.525M	10.345M
2437MHz	Pass	500k	7.05M	10.27M
2462MHz	Pass	500k	6.975M	10.17M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.325M	16.617M
2437MHz	Pass	500k	16.325M	16.642M
2462MHz	Pass	500k	16.325M	16.592M
VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	17.575M	17.766M
2437MHz	Pass	500k	17.575M	17.766M
2462MHz	Pass	500k	17.575M	17.791M
VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	36.3M	36.182M
2437MHz	Pass	500k	36.3M	36.232M
2452MHz	Pass	500k	36.35M	36.232M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	18.975M	18.991M
2437MHz	Pass	500k	19M	18.991M
2462MHz	Pass	500k	18.95M	18.991M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	37.25M	37.531M
2437MHz	Pass	500k	37.25M	37.481M
2452MHz	Pass	500k	36.9M	37.531M

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

802.11b_Nss1,(1Mbps)_1TX EBW

2412MHz

09/09/2019

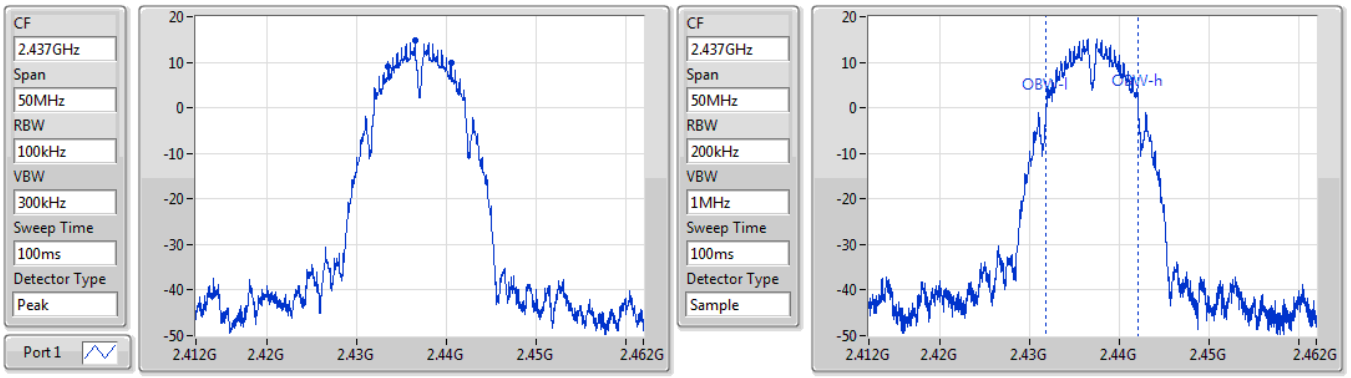


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6.525M	2.40895G	2.415475G	10.345M	2.406778G	2.417122G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2437MHz

09/09/2019

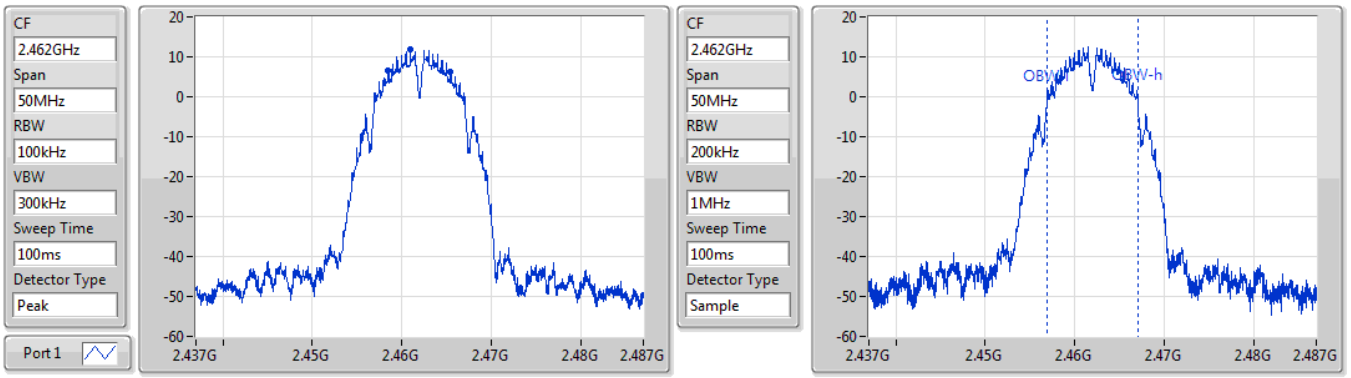


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.43345G	2.4405G	10.27M	2.431828G	2.442097G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2462MHz

09/09/2019

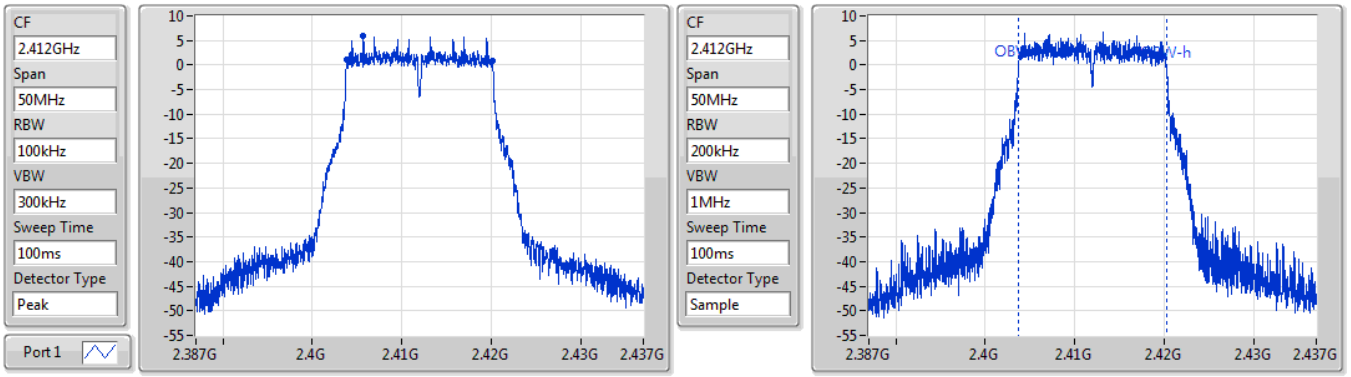


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6.975M	2.4585G	2.465475G	10.17M	2.456878G	2.467047G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2412MHz

09/09/2019

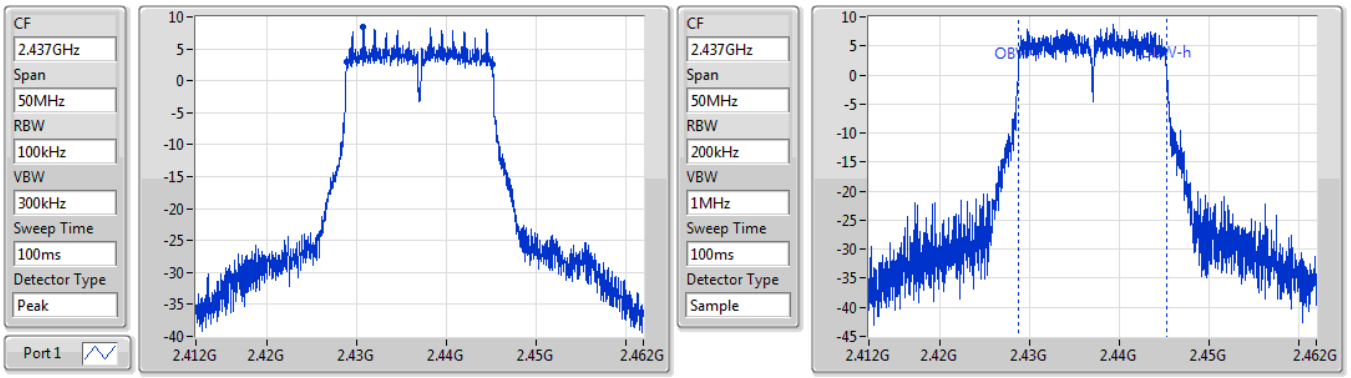


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.403825G	2.42015G	16.617M	2.403679G	2.420296G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2437MHz

09/09/2019

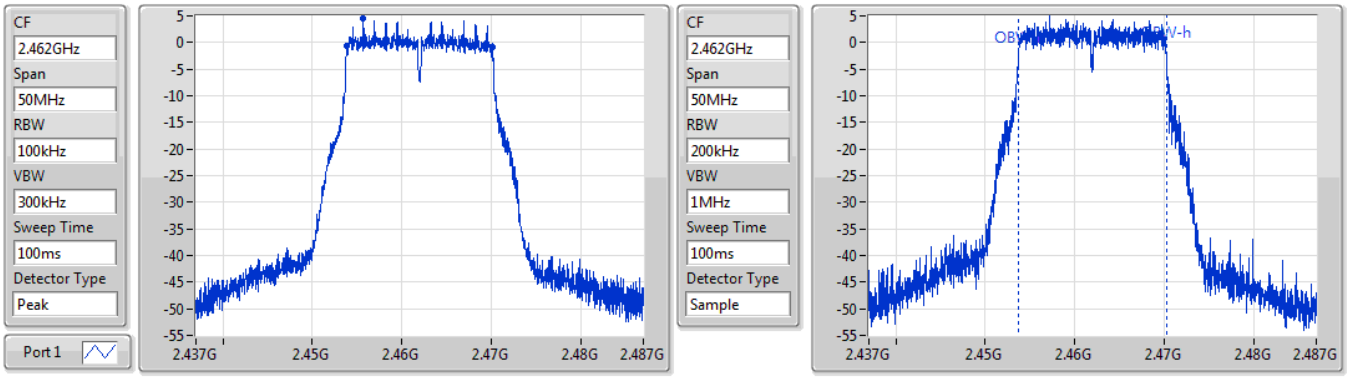


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.428825G	2.44515G	16.642M	2.428679G	2.445321G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2462MHz

09/09/2019

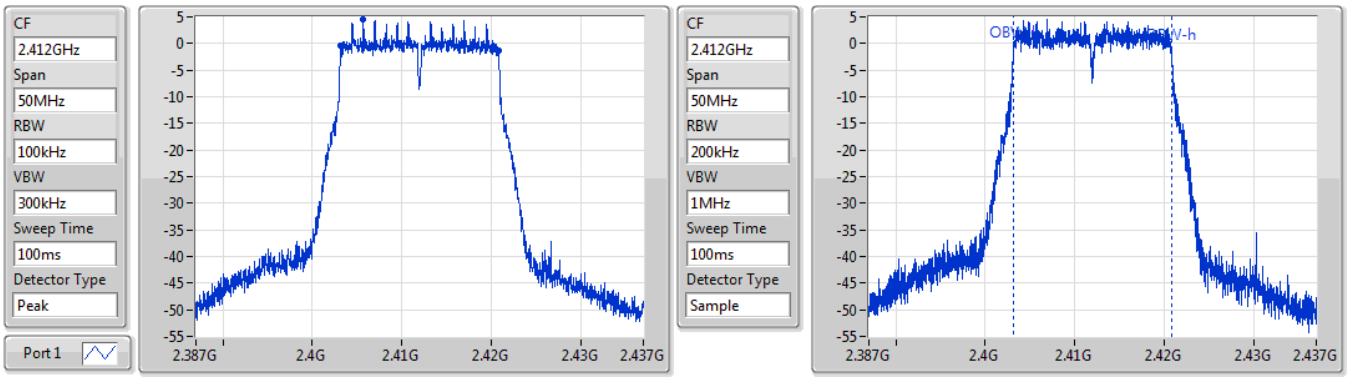


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.453825G	2.47015G	16.592M	2.453679G	2.470271G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2412MHz

09/09/2019

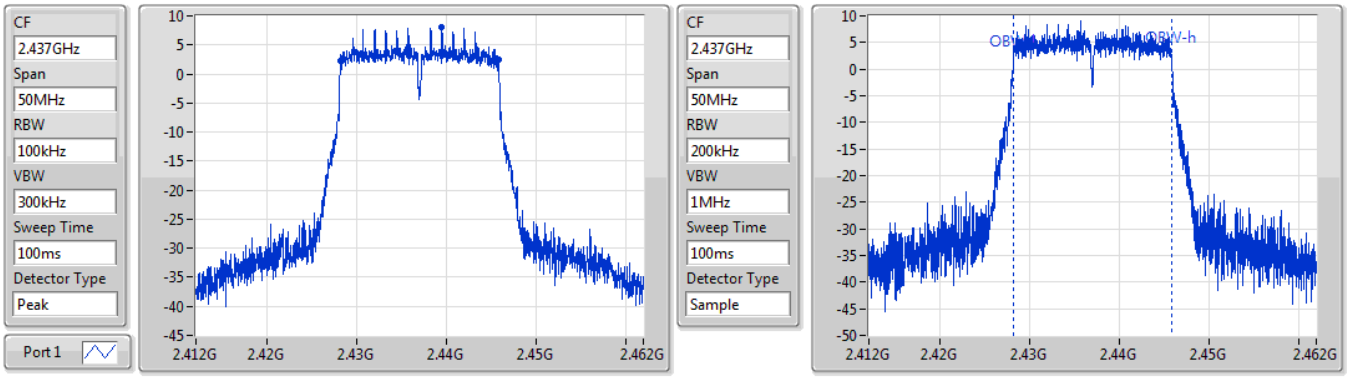


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4032G	2.420775G	17.766M	2.403129G	2.420896G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2437MHz

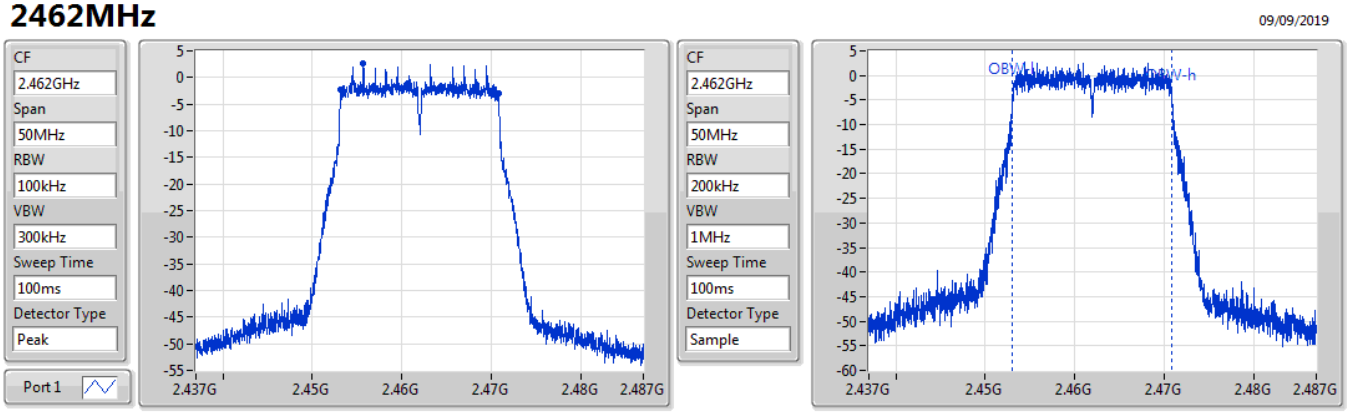
09/09/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4282G	2.445775G	17.766M	2.428104G	2.445871G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

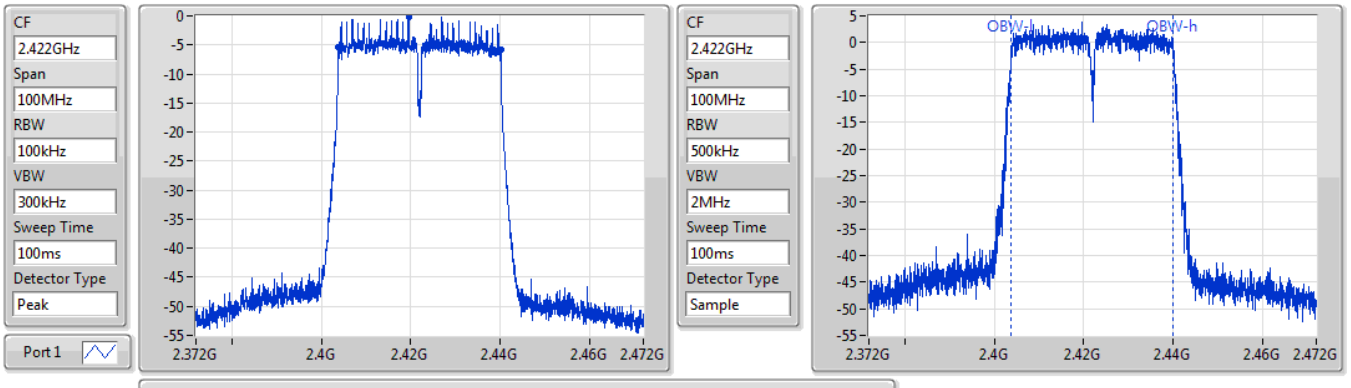
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4532G	2.470775G	17.791M	2.453054G	2.470846G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2422MHz

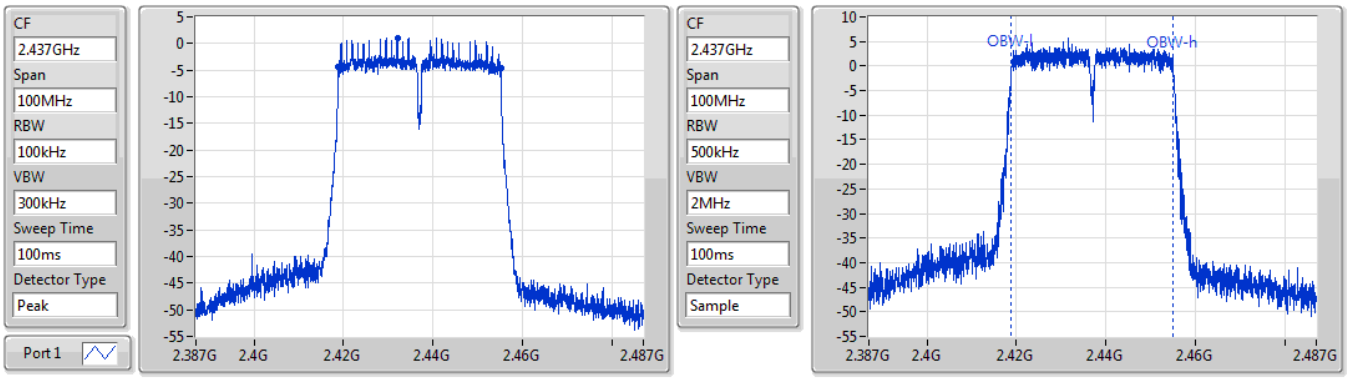


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.40385G	2.44015G	36.182M	2.403859G	2.440041G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2437MHz

09/09/2019

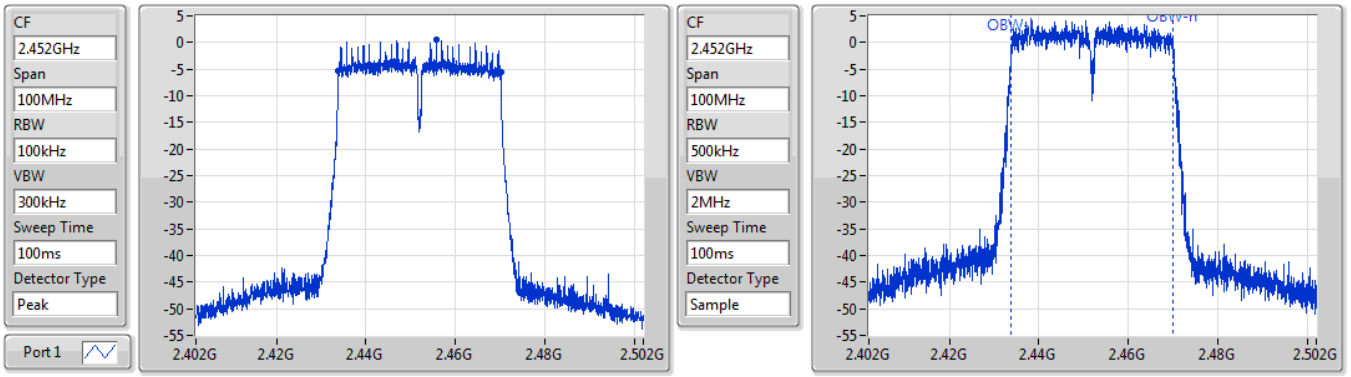


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.41885G	2.45515G	36.232M	2.418809G	2.455041G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2452MHz

09/09/2019

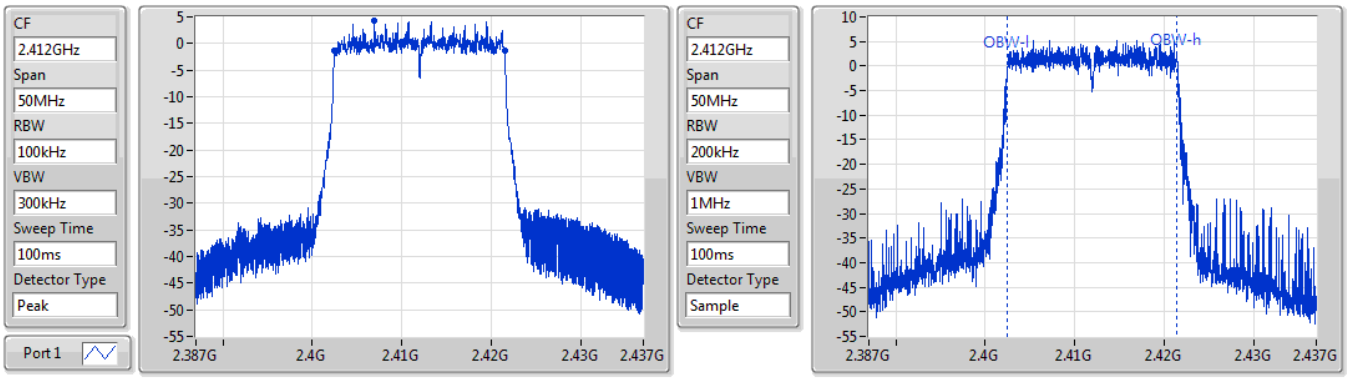


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.35M	2.4338G	2.47015G	36.232M	2.433809G	2.470041G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2412MHz

09/09/2019

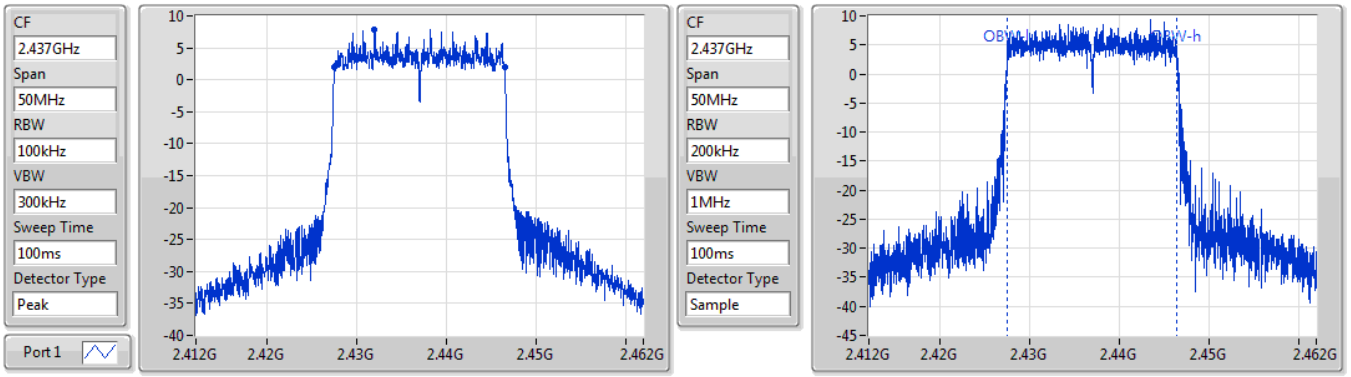


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.4025G	2.421475G	18.991M	2.40248G	2.42147G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2437MHz

09/09/2019

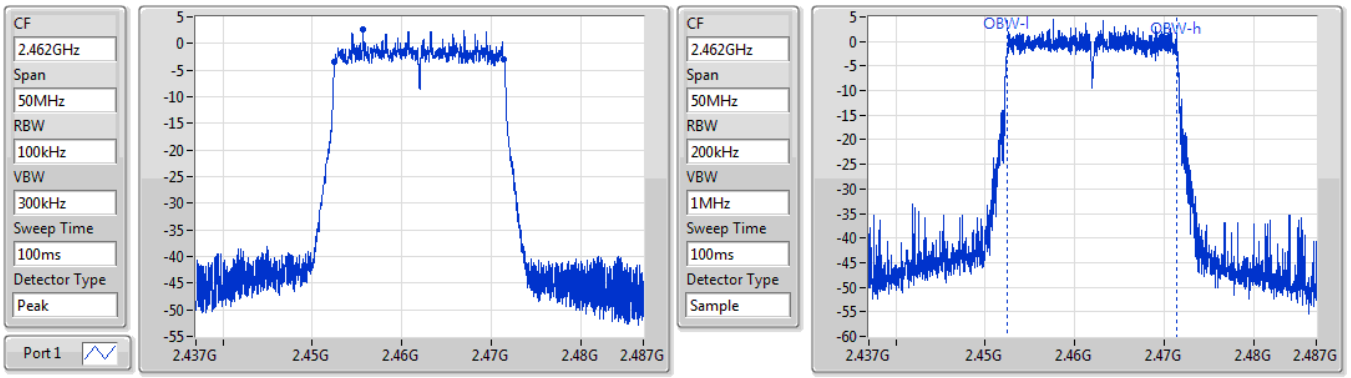


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19M	2.427475G	2.446475G	18.991M	2.42748G	2.44647G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2462MHz

09/09/2019

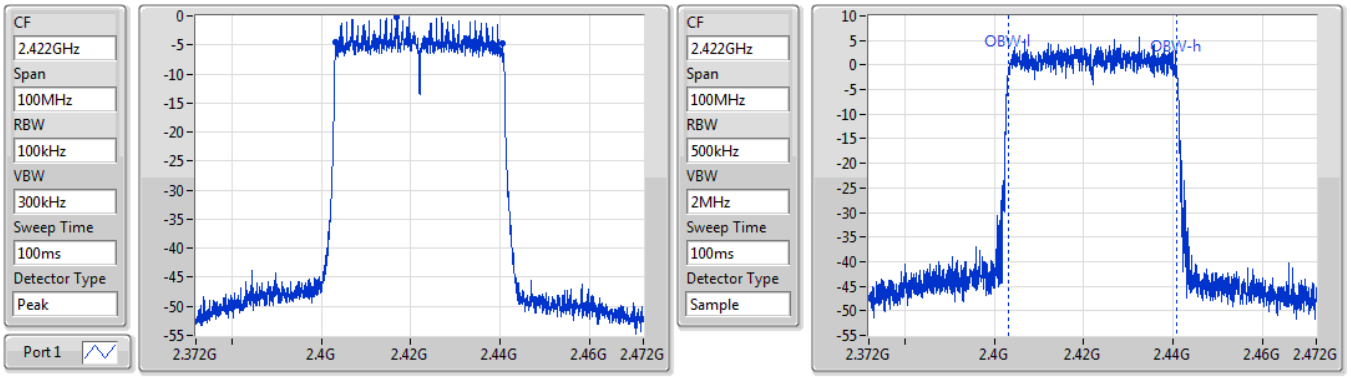


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.95M	2.4525G	2.47145G	18.991M	2.452455G	2.471445G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2422MHz

09/09/2019

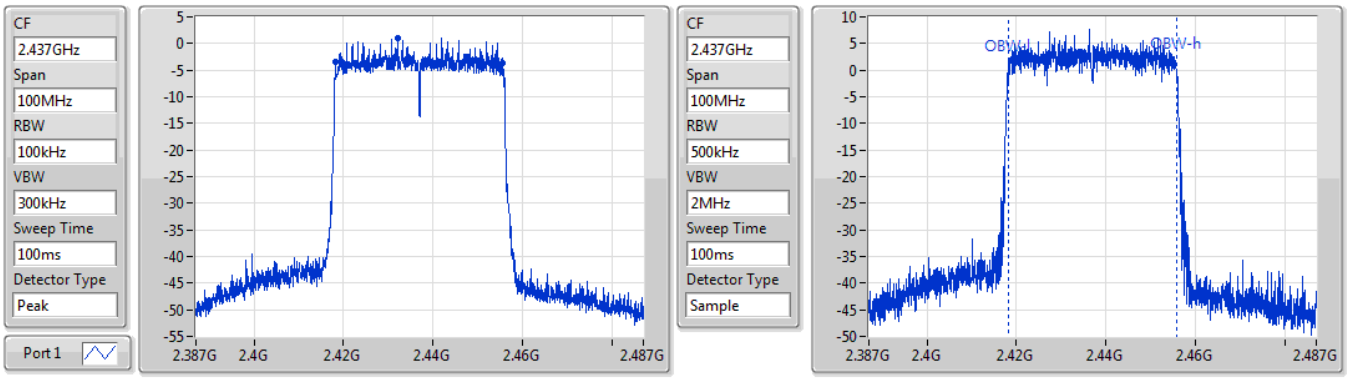


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.25M	2.4032G	2.44045G	37.531M	2.403209G	2.440741G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2437MHz

09/09/2019

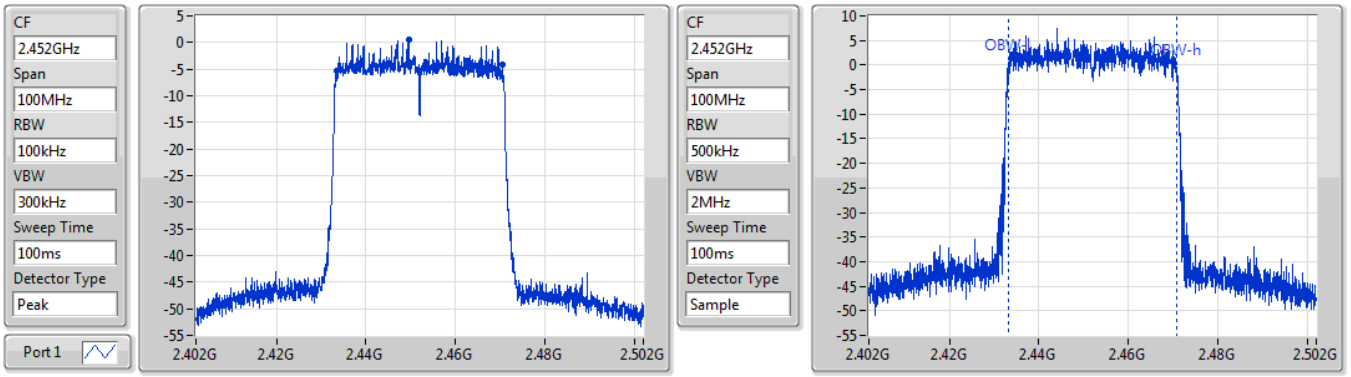


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.25M	2.4182G	2.45545G	37.481M	2.418209G	2.455691G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2452MHz

09/09/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.9M	2.43355G	2.47045G	37.531M	2.433159G	2.470691G	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	10.27M	10M3G1D	7.025M	10.195M
802.11g_Nss1,(6Mbps)_2TX	16.35M	16.617M	16M6D1D	16.325M	16.567M
VHT20_Nss2,(MCS0)_2TX	17.6M	17.791M	17M8D1D	17.55M	17.741M
VHT40_Nss2,(MCS0)_2TX	36.3M	36.232M	36M2D1D	36.3M	36.182M
802.11ax HEW20_Nss2,(MCS0)_2TX	18.975M	19.015M	19M0D1D	18.85M	18.966M
802.11ax HEW40_Nss2,(MCS0)_2TX	37.6M	37.631M	37M6D1D	37M	37.481M

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

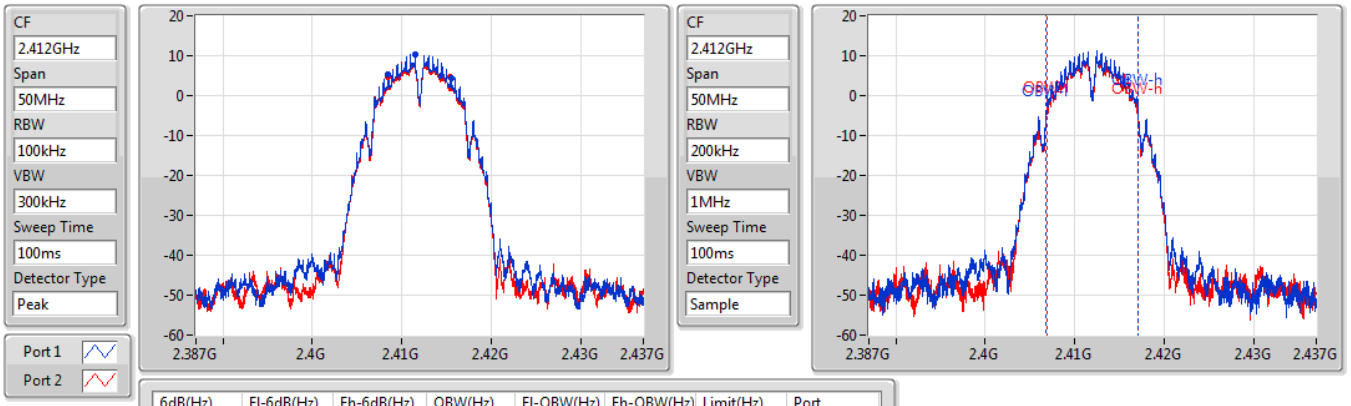
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	7.05M	10.245M	7.025M	10.22M
2437MHz_TnomVnom	Pass	500k	7.025M	10.22M	7.05M	10.195M
2462MHz_TnomVnom	Pass	500k	7.05M	10.27M	7.025M	10.195M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	16.325M	16.592M	16.325M	16.567M
2437MHz_TnomVnom	Pass	500k	16.325M	16.617M	16.35M	16.617M
2462MHz_TnomVnom	Pass	500k	16.325M	16.567M	16.35M	16.592M
VHT20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	17.55M	17.766M	17.575M	17.741M
2437MHz_TnomVnom	Pass	500k	17.575M	17.791M	17.575M	17.766M
2462MHz_TnomVnom	Pass	500k	17.575M	17.791M	17.6M	17.766M
VHT40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	500k	36.3M	36.182M	36.3M	36.232M
2437MHz_TnomVnom	Pass	500k	36.3M	36.232M	36.3M	36.232M
2452MHz_TnomVnom	Pass	500k	36.3M	36.232M	36.3M	36.182M
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	18.95M	19.015M	18.9M	18.966M
2437MHz_TnomVnom	Pass	500k	18.975M	19.015M	18.85M	18.991M
2462MHz_TnomVnom	Pass	500k	18.9M	18.991M	18.925M	18.966M
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	500k	37.6M	37.631M	37M	37.581M
2437MHz_TnomVnom	Pass	500k	37.55M	37.581M	37.05M	37.481M
2452MHz_TnomVnom	Pass	500k	37.6M	37.481M	37M	37.531M

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

802.11b_Nss1,(1Mbps)_2TX EBW

2412MHz

04/09/2019

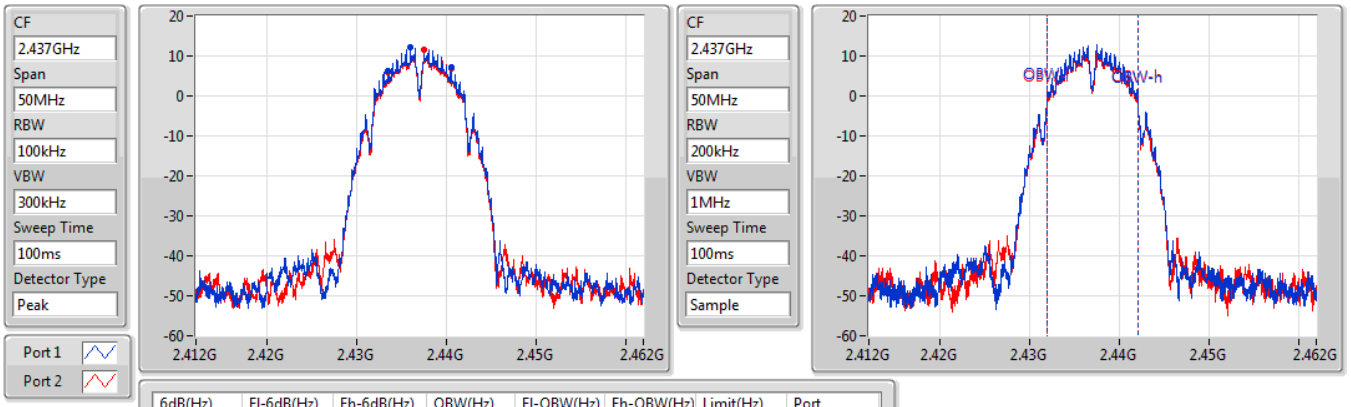


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.408475G	2.415525G	10.245M	2.406828G	2.417072G	500k	1
7.025M	2.40845G	2.415475G	10.22M	2.406853G	2.417072G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2437MHz

04/09/2019

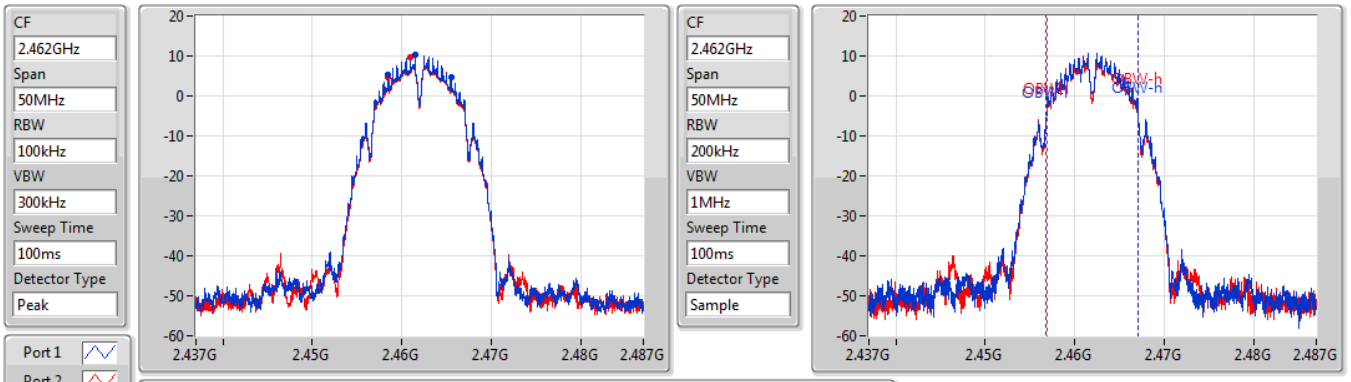


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.025M	2.433475G	2.4405G	10.22M	2.431878G	2.442097G	500k	1
7.05M	2.43345G	2.4405G	10.195M	2.431878G	2.442072G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2462MHz

04/09/2019

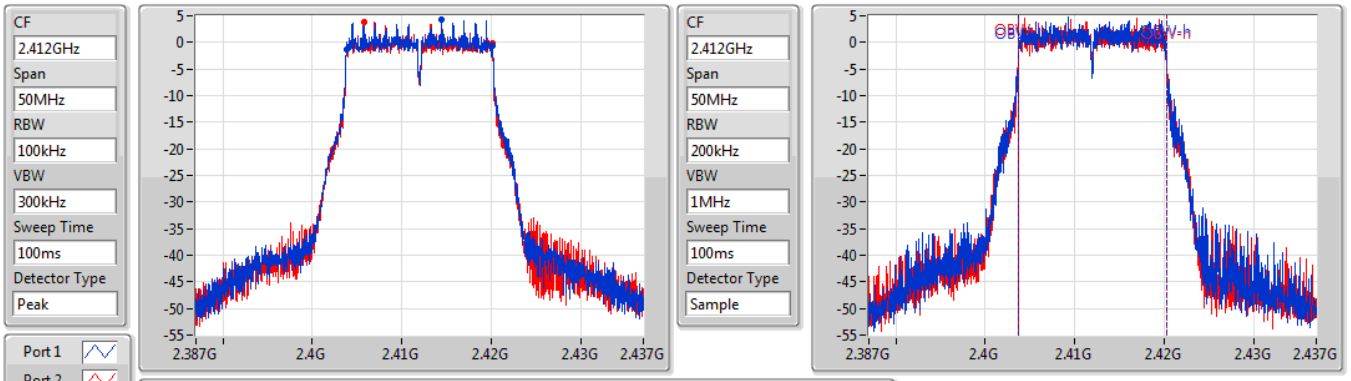


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.458475G	2.465525G	10.27M	2.456828G	2.467097G	500k	1
7.025M	2.458475G	2.4655G	10.195M	2.456853G	2.467047G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2412MHz

04/09/2019

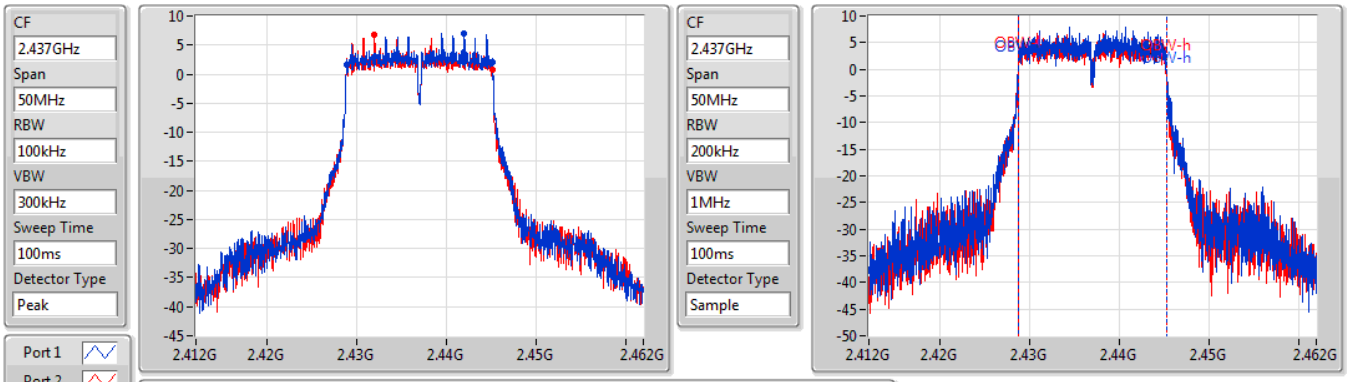


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.403825G	2.42015G	16.592M	2.403679G	2.420271G	500k	1
16.325M	2.403825G	2.42015G	16.567M	2.403679G	2.420246G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2437MHz

04/09/2019

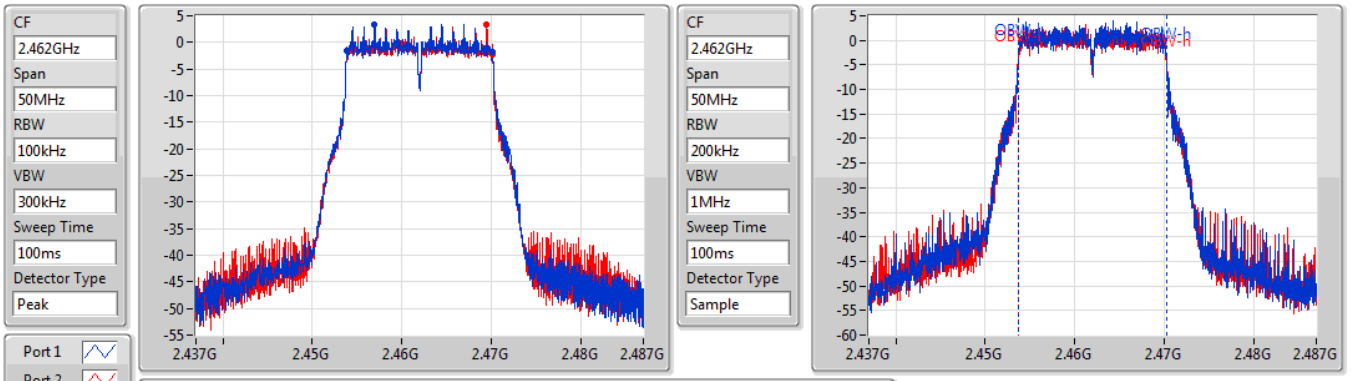


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.428825G	2.44515G	16.617M	2.428679G	2.445296G	500k	1
16.35M	2.428825G	2.445175G	16.617M	2.428654G	2.445271G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2462MHz

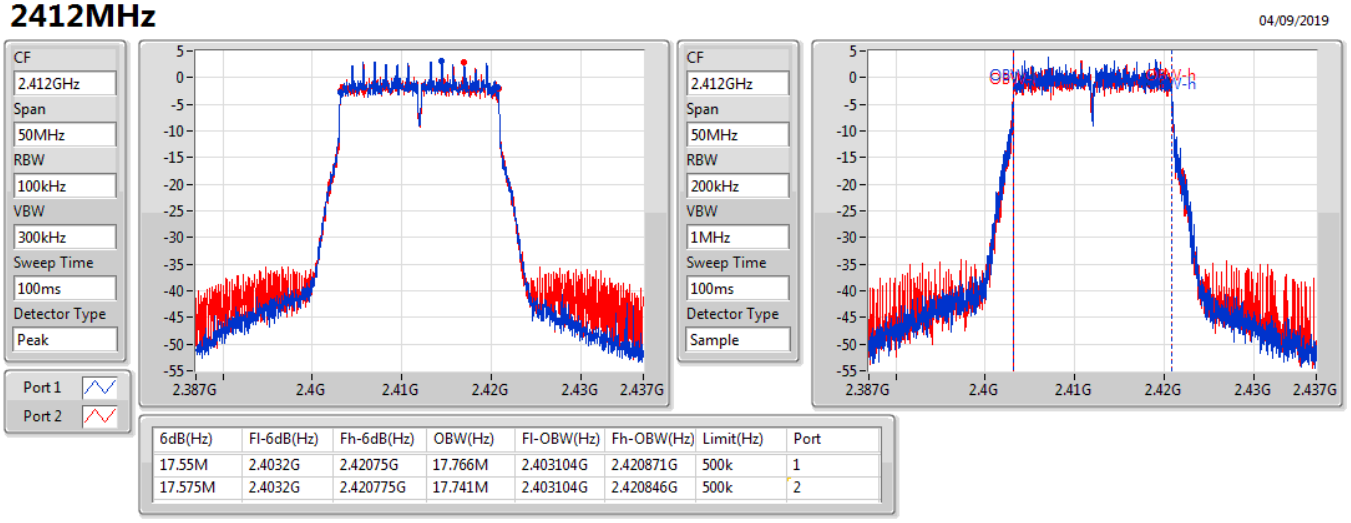
04/09/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.453825G	2.47015G	16.567M	2.453704G	2.470271G	500k	1
16.35M	2.453825G	2.470175G	16.592M	2.453679G	2.470271G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

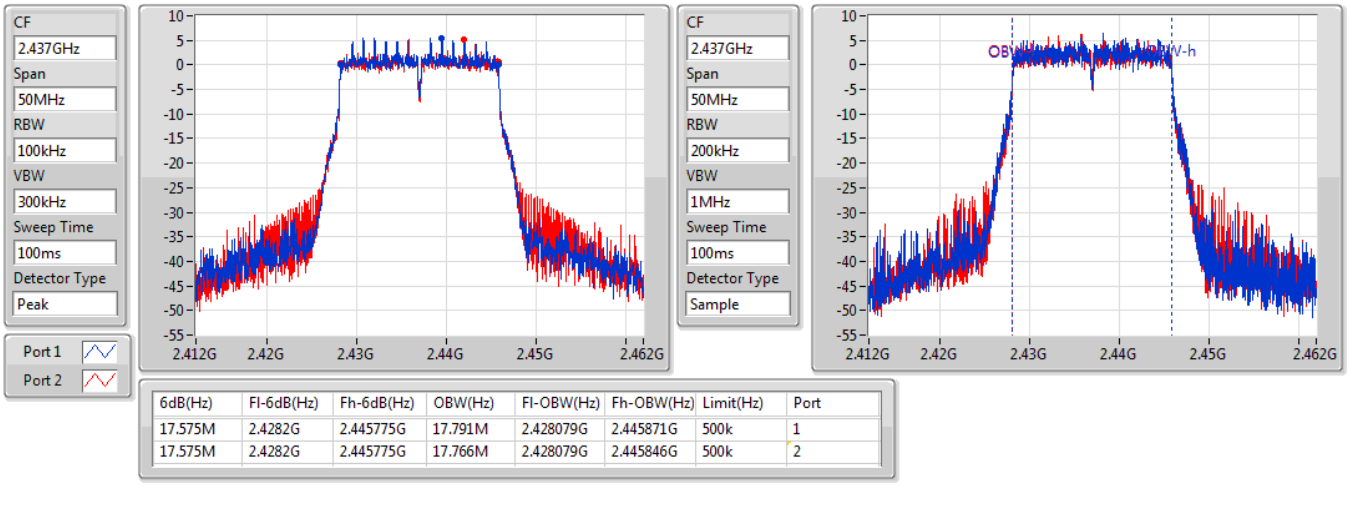
2412MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.4032G	2.42075G	17.766M	2.403104G	2.420871G	500k	1
17.575M	2.4032G	2.420775G	17.741M	2.403104G	2.420846G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2437MHz

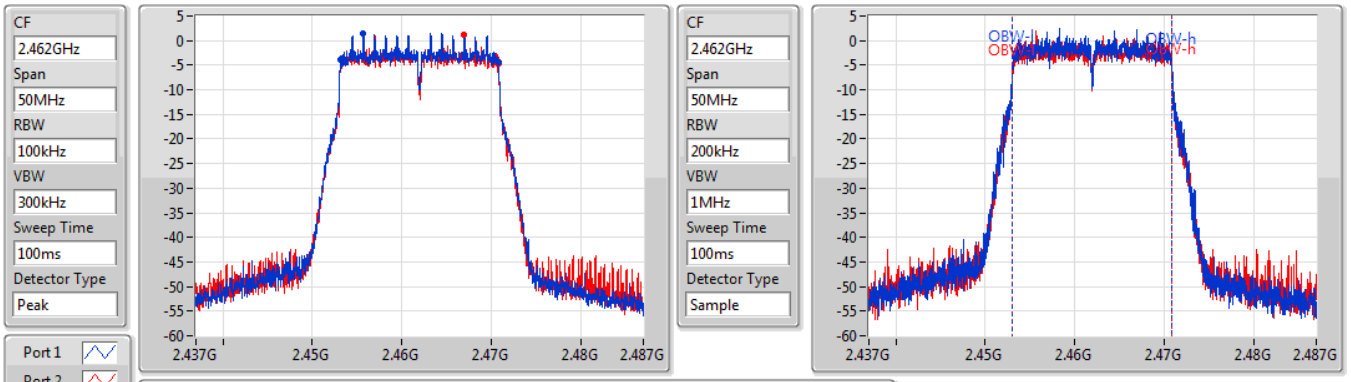


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4282G	2.445775G	17.791M	2.428079G	2.445871G	500k	1
17.575M	2.4282G	2.445775G	17.766M	2.428079G	2.445846G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2462MHz

04/09/2019

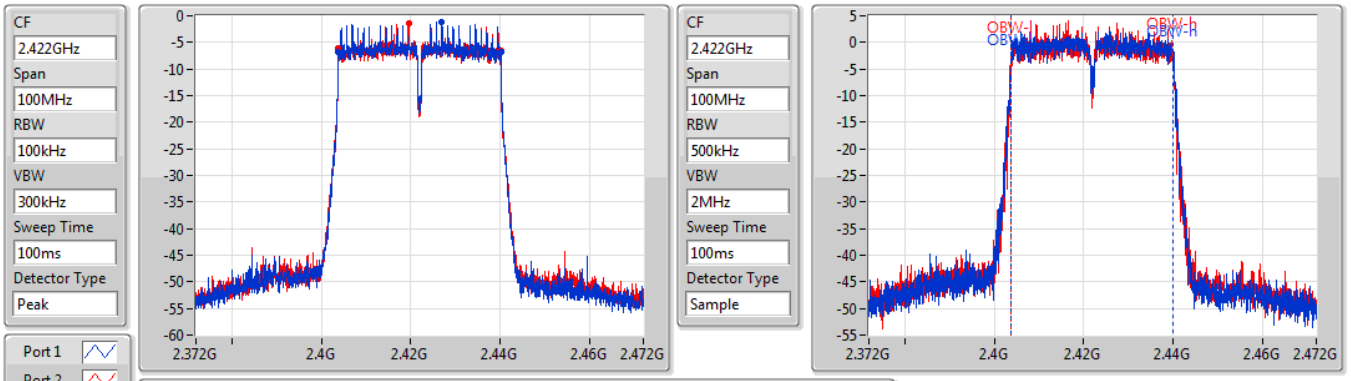


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4532G	2.470775G	17.791M	2.453054G	2.470846G	500k	1
17.6M	2.4532G	2.4708G	17.766M	2.453079G	2.470846G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2422MHz

04/09/2019

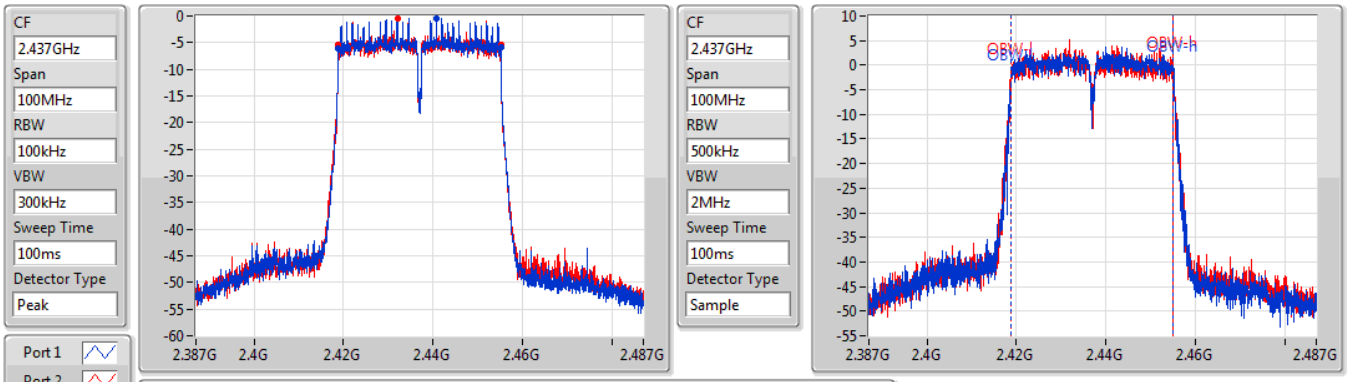


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.40385G	2.44015G	36.182M	2.403859G	2.440041G	500k	1
36.3M	2.40385G	2.44015G	36.232M	2.403859G	2.440091G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2437MHz

04/09/2019

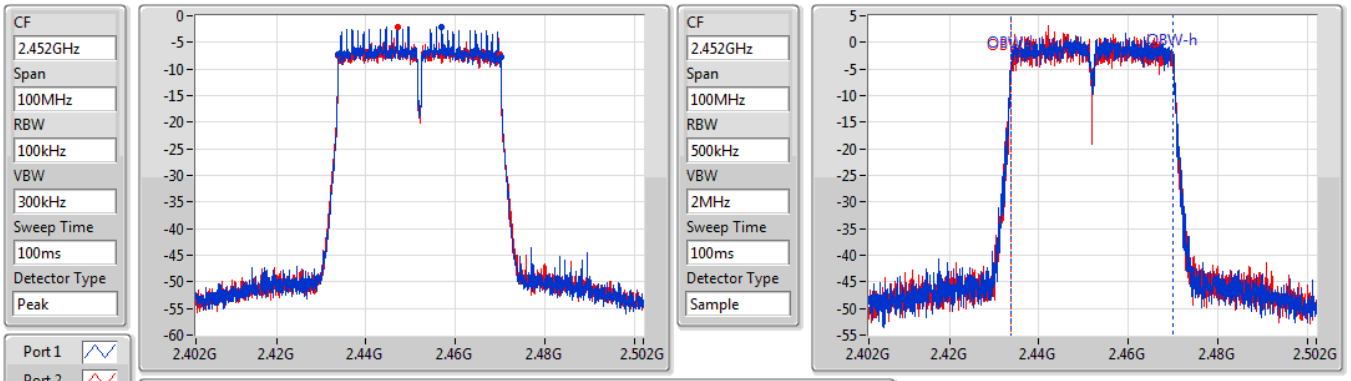


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.41885G	2.45515G	36.232M	2.418859G	2.455091G	500k	1
36.3M	2.41885G	2.45515G	36.232M	2.418859G	2.455091G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2452MHz

04/09/2019

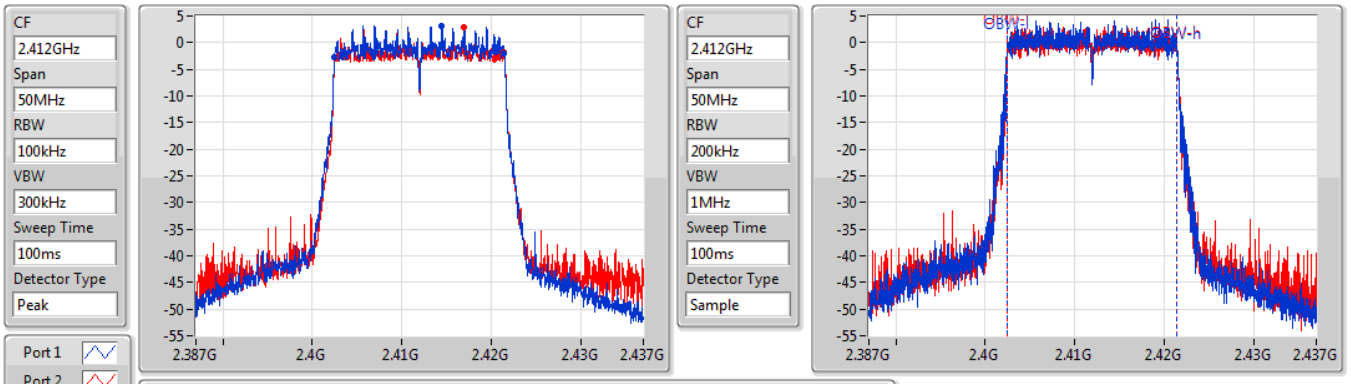


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.43385G	2.47015G	36.232M	2.433859G	2.470091G	500k	1
36.3M	2.4338G	2.4701G	36.182M	2.433859G	2.470041G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2412MHz

04/09/2019

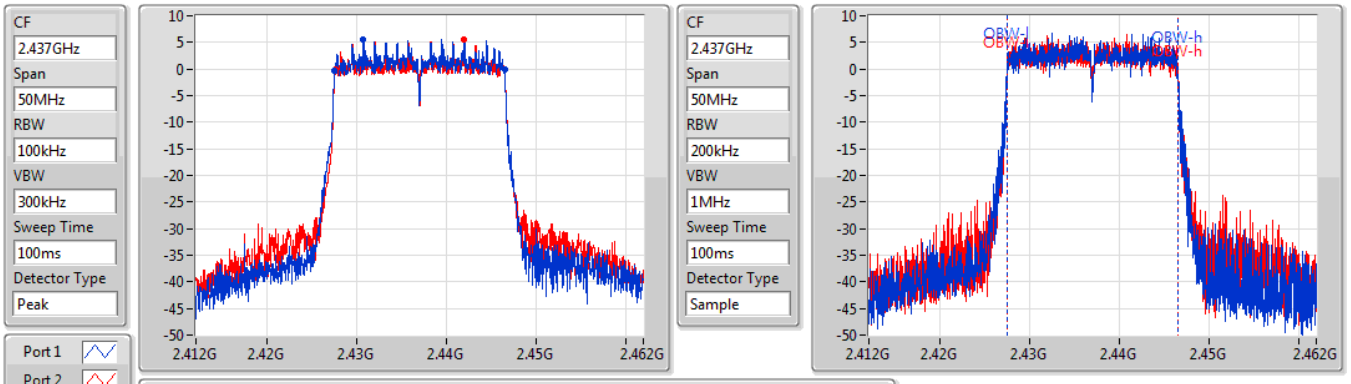


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.95M	2.4025G	2.42145G	19.015M	2.402455G	2.42147G	500k	1
18.9M	2.40255G	2.42145G	18.966M	2.402505G	2.42147G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2437MHz

04/09/2019

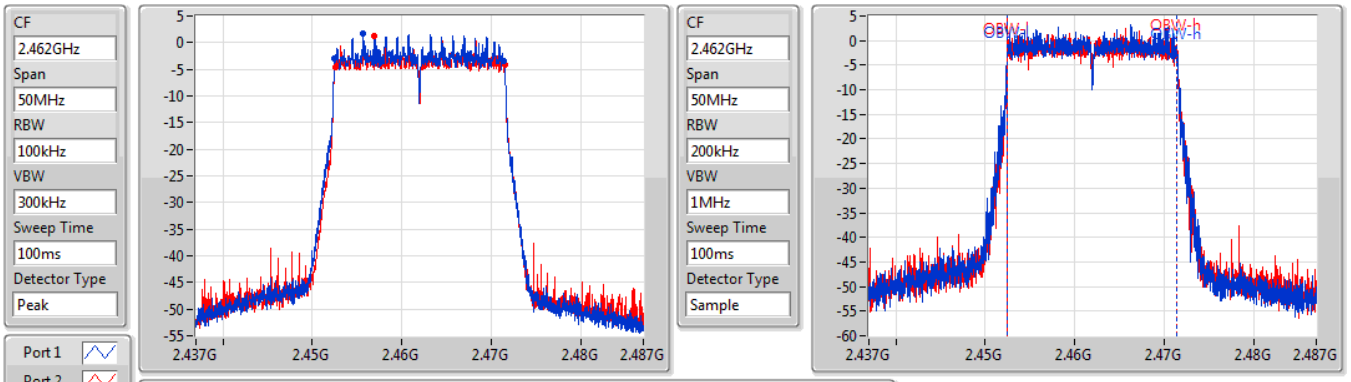


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.4275G	2.446475G	19.015M	2.42748G	2.446495G	500k	1
18.85M	2.427625G	2.446475G	18.991M	2.427505G	2.446495G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2462MHz

04/09/2019

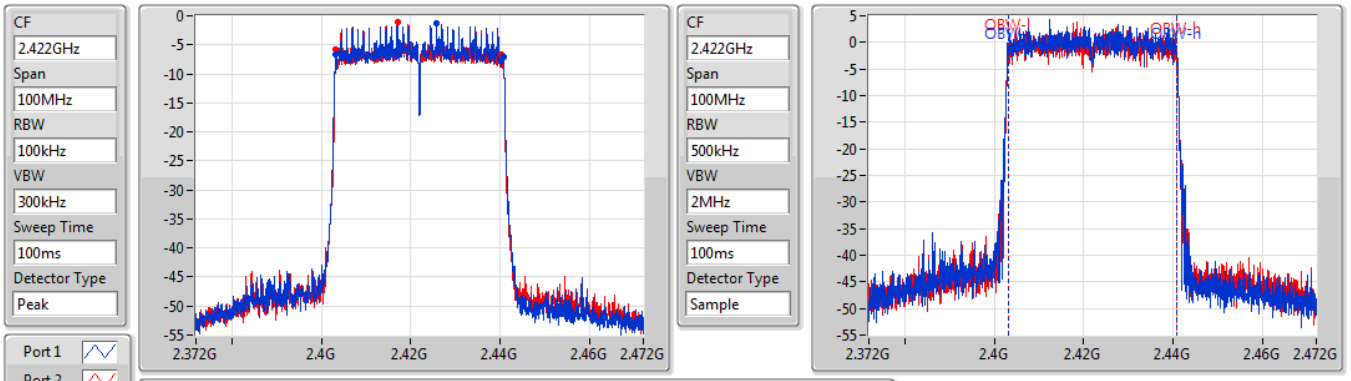


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.9M	2.452525G	2.471425G	18.991M	2.45248G	2.47147G	500k	1
18.925M	2.45255G	2.471475G	18.966M	2.452505G	2.47147G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

2422MHz

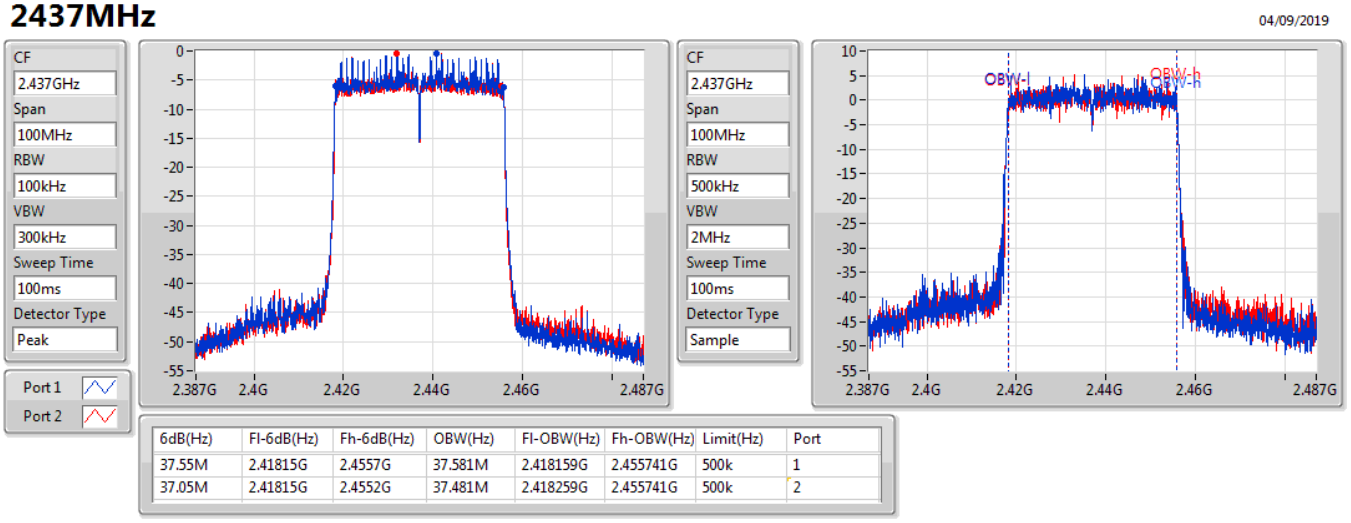
04/09/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.6M	2.40315G	2.44075G	37.631M	2.403109G	2.440741G	500k	1
37M	2.4032G	2.4402G	37.581M	2.403159G	2.440741G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

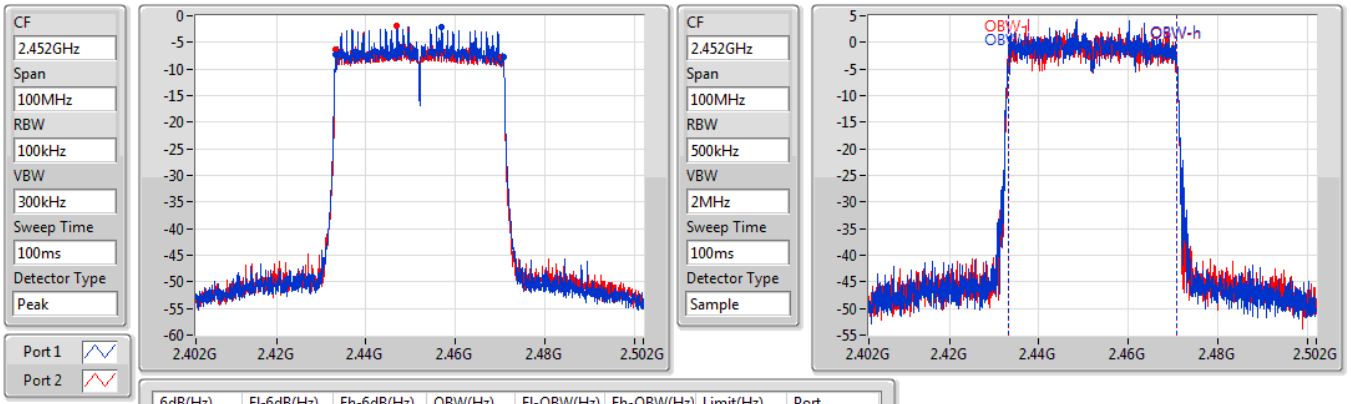
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.55M	2.41815G	2.4557G	37.581M	2.418159G	2.455741G	500k	1
37.05M	2.41815G	2.4552G	37.481M	2.418259G	2.455741G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

2452MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.6M	2.43315G	2.47075G	37.481M	2.433209G	2.470691G	500k	1
37M	2.4332G	2.4702G	37.531M	2.433209G	2.470741G	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	9.025M	15.142M	15M1G1D	7.025M	10.87M
802.11g_Nss1,(6Mbps)_1TX	16.35M	16.792M	16M8D1D	16.325M	16.592M
VHT20_Nss1,(MCS0)_1TX	17.575M	17.966M	18M0D1D	17.55M	17.791M
VHT40_Nss1,(MCS0)_1TX	36.3M	36.282M	36M3D1D	36.3M	36.182M
802.11ax HEW20_Nss1,(MCS0)_1TX	18.975M	19.04M	19M0D1D	18.875M	18.966M
802.11ax HEW40_Nss1,(MCS0)_1TX	37.7M	37.631M	37M6D1D	37.2M	37.531M

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

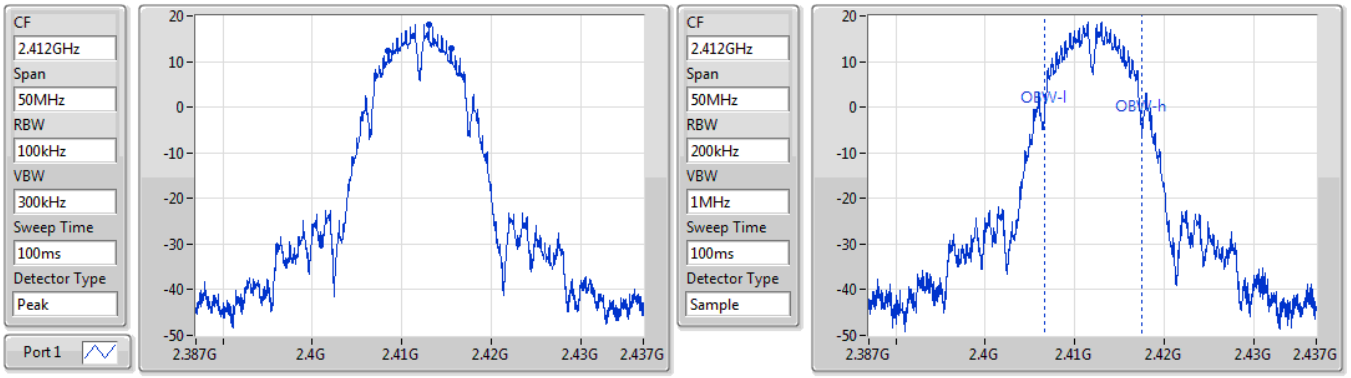
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	7.05M	10.87M
2437MHz	Pass	500k	9.025M	15.142M
2462MHz	Pass	500k	7.025M	11.169M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.35M	16.592M
2437MHz	Pass	500k	16.325M	16.792M
2462MHz	Pass	500k	16.35M	16.592M
VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	17.55M	17.816M
2437MHz	Pass	500k	17.55M	17.966M
2462MHz	Pass	500k	17.575M	17.791M
VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	36.3M	36.232M
2437MHz	Pass	500k	36.3M	36.282M
2452MHz	Pass	500k	36.3M	36.182M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	18.975M	18.966M
2437MHz	Pass	500k	18.875M	19.04M
2462MHz	Pass	500k	18.975M	18.966M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	37.7M	37.531M
2437MHz	Pass	500k	37.45M	37.581M
2452MHz	Pass	500k	37.2M	37.631M

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

802.11b_Nss1,(1Mbps)_1TX EBW

2412MHz

12/09/2019

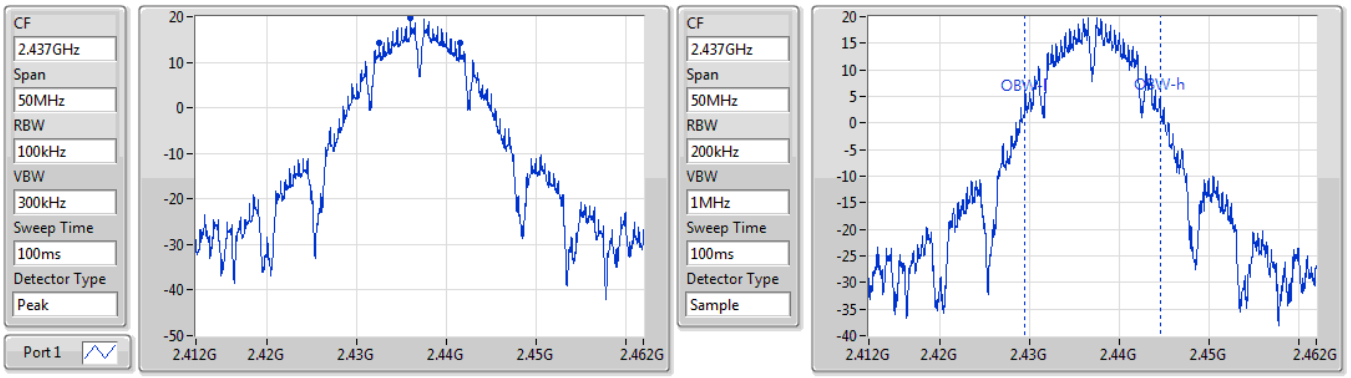


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.40845G	2.4155G	10.87M	2.406603G	2.417472G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2437MHz

11/09/2019

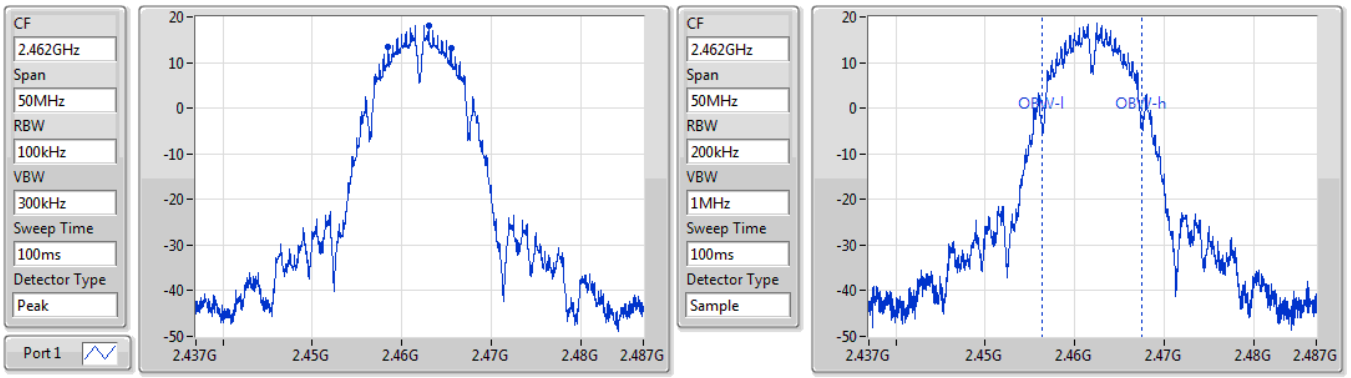


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
9.025M	2.432475G	2.4415G	15.142M	2.429429G	2.444571G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2462MHz

12/09/2019

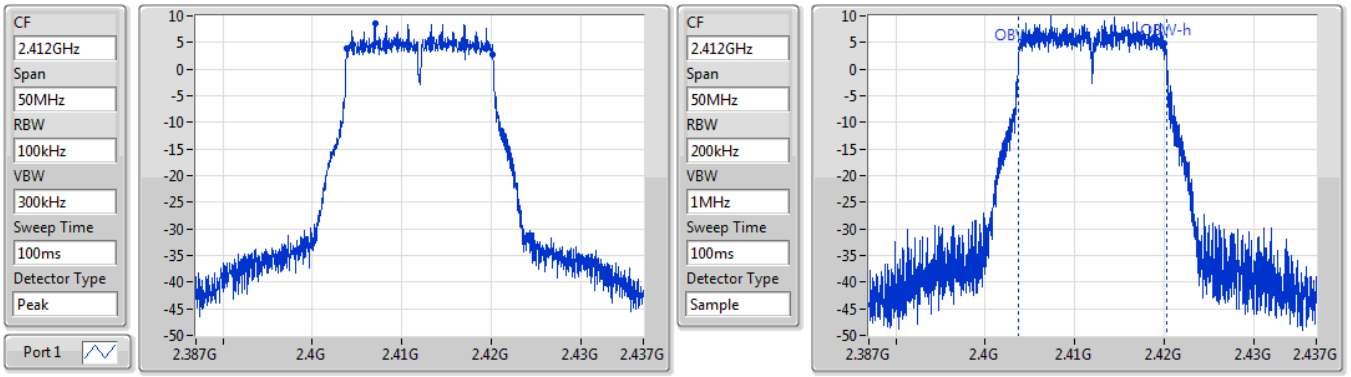


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.025M	2.458475G	2.4655G	11.169M	2.456353G	2.467522G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2412MHz

12/09/2019

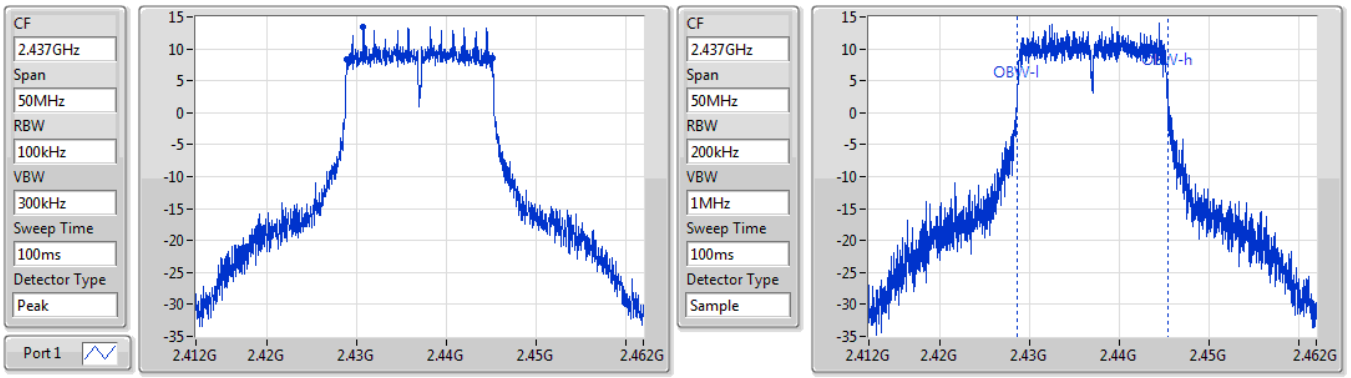


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.403825G	2.420175G	16.592M	2.403704G	2.420296G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2437MHz

12/09/2019

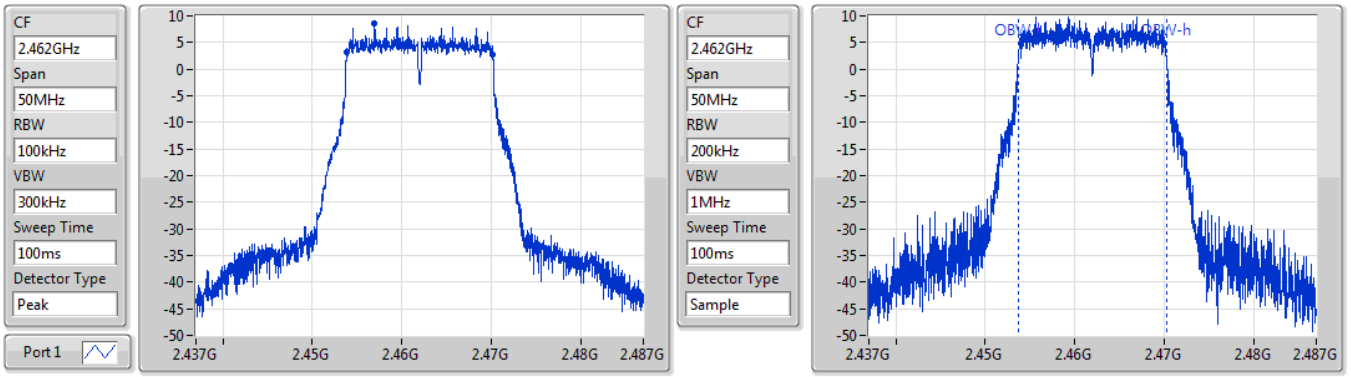


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.428825G	2.44515G	16.792M	2.428604G	2.445396G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2462MHz

12/09/2019

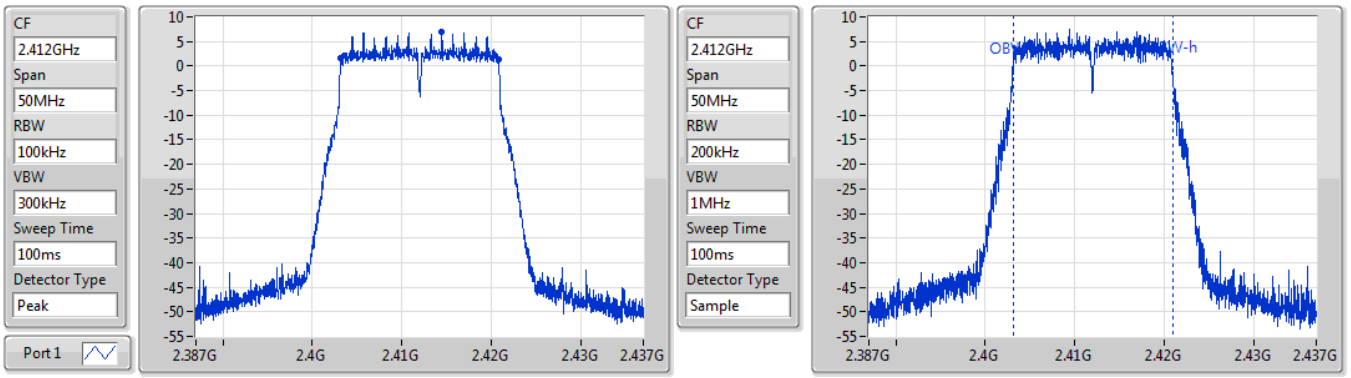


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.453825G	2.470175G	16.592M	2.453679G	2.470271G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2412MHz

12/09/2019

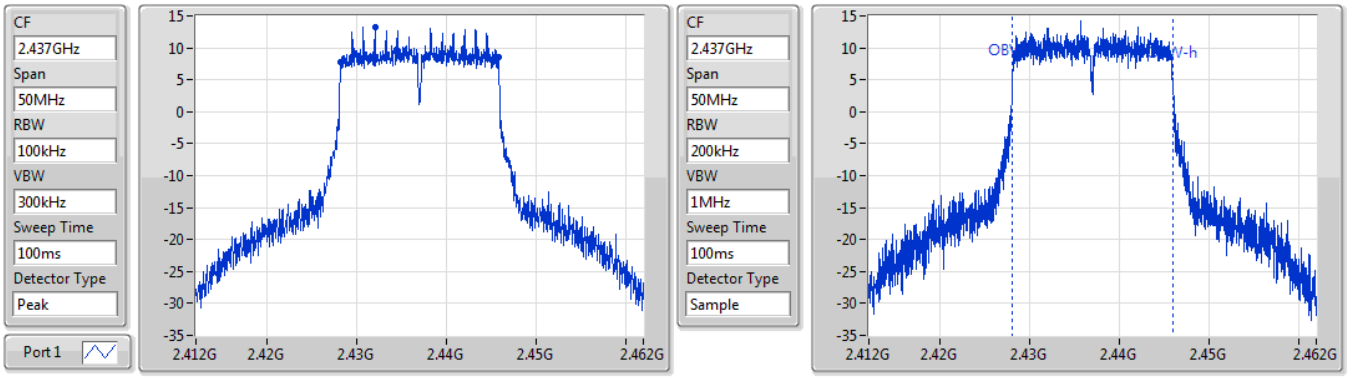


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.403225G	2.420775G	17.816M	2.403104G	2.420921G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2437MHz

12/09/2019

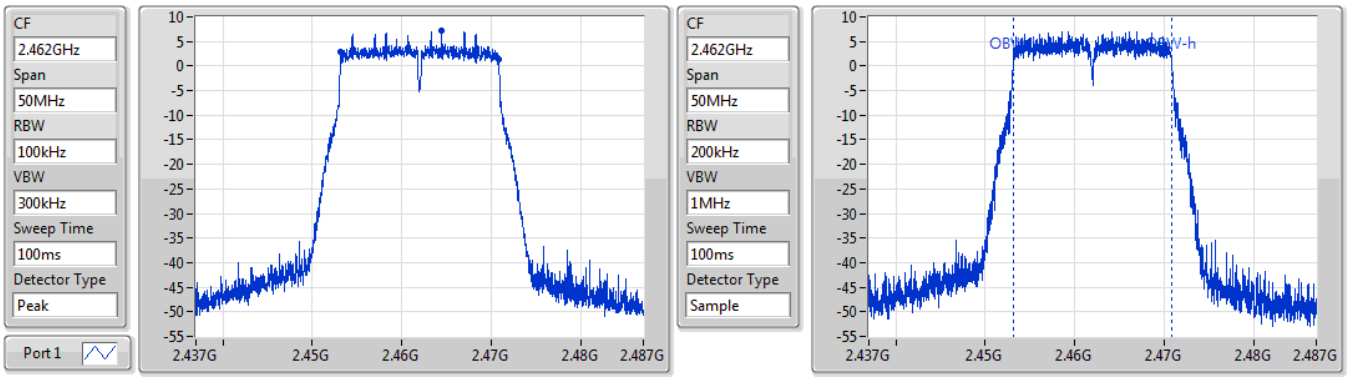


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.428225G	2.445775G	17.966M	2.428029G	2.445996G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2462MHz

12/09/2019

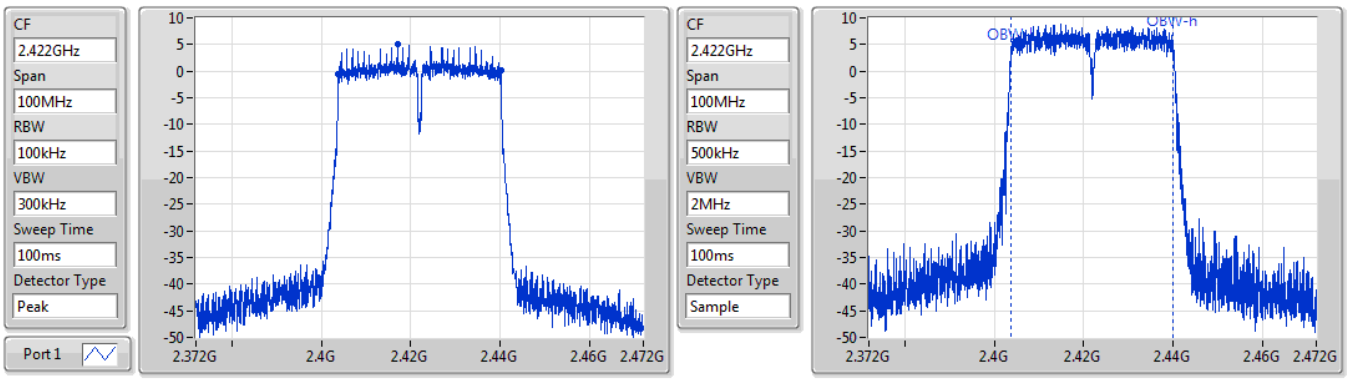


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.453225G	2.4708G	17.791M	2.453104G	2.470896G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2422MHz

12/09/2019

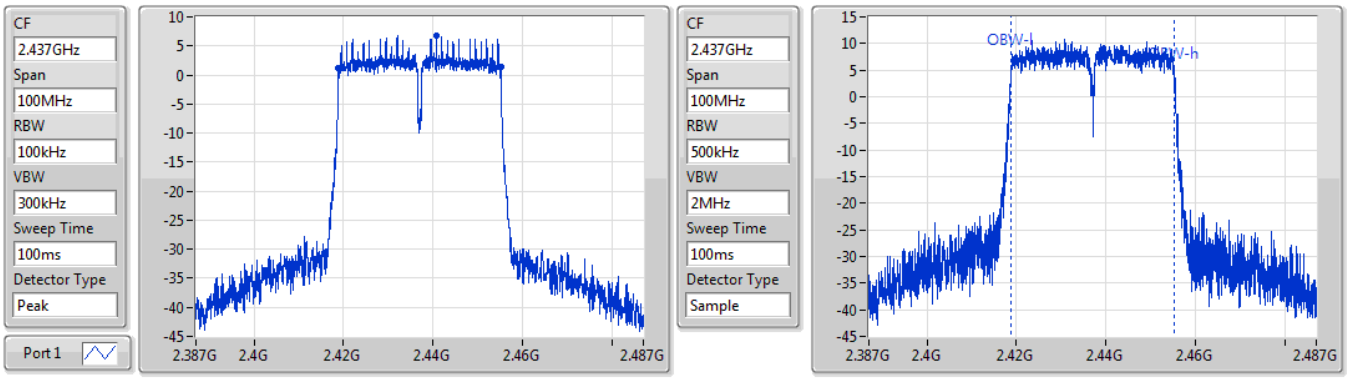


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.40385G	2.44015G	36.232M	2.403859G	2.440091G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2437MHz

12/09/2019

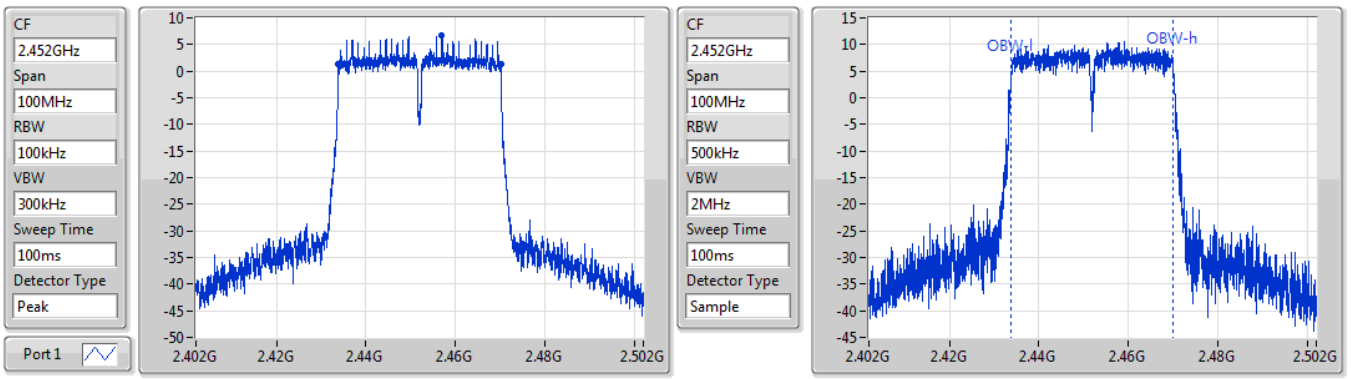


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.41885G	2.45515G	36.282M	2.418859G	2.455141G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2452MHz

12/09/2019

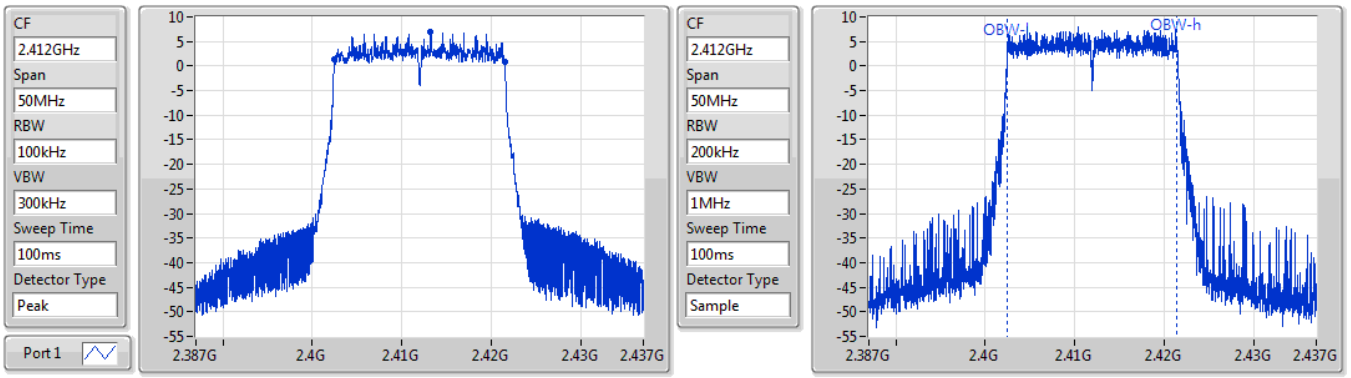


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.43385G	2.47015G	36.182M	2.433859G	2.470041G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2412MHz

12/09/2019

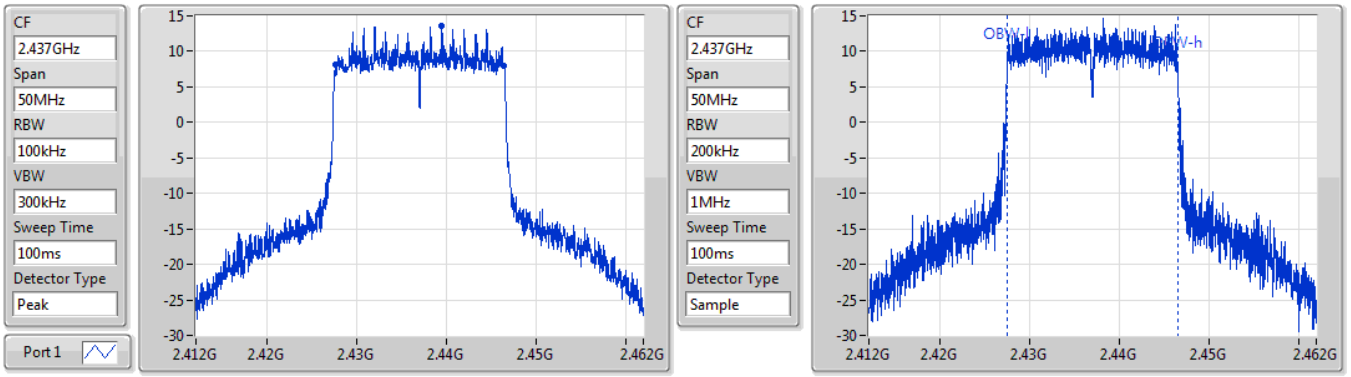


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.4025G	2.421475G	18.966M	2.402505G	2.42147G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2437MHz

12/09/2019

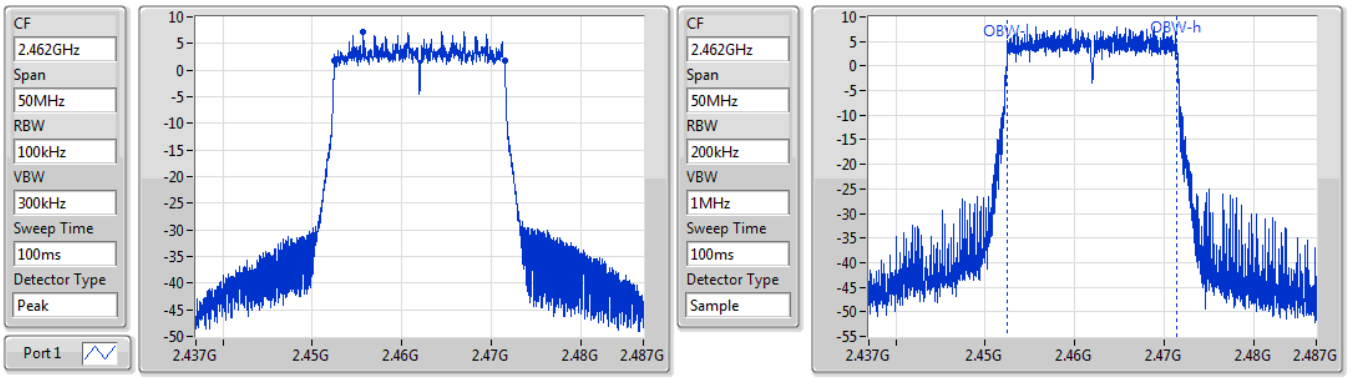


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.875M	2.427575G	2.44645G	19.04M	2.427455G	2.446495G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2462MHz

12/09/2019

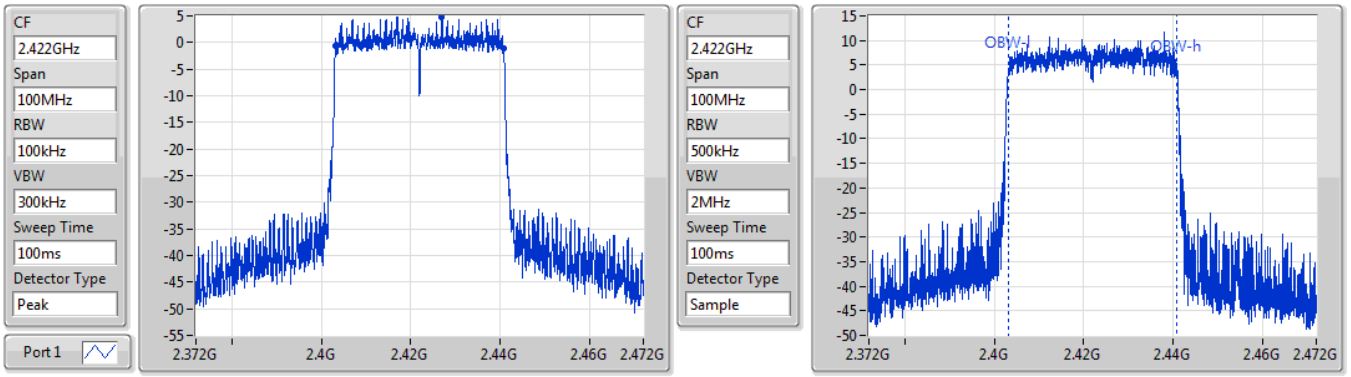


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.4525G	2.471475G	18.966M	2.45248G	2.471445G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2422MHz

12/09/2019

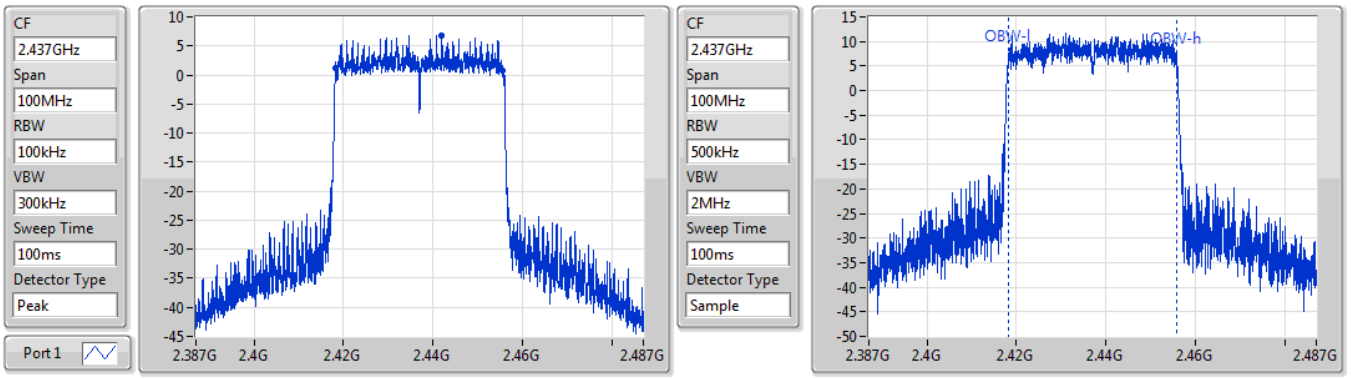


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.7M	2.40315G	2.44085G	37.531M	2.403259G	2.440791G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2437MHz

12/09/2019

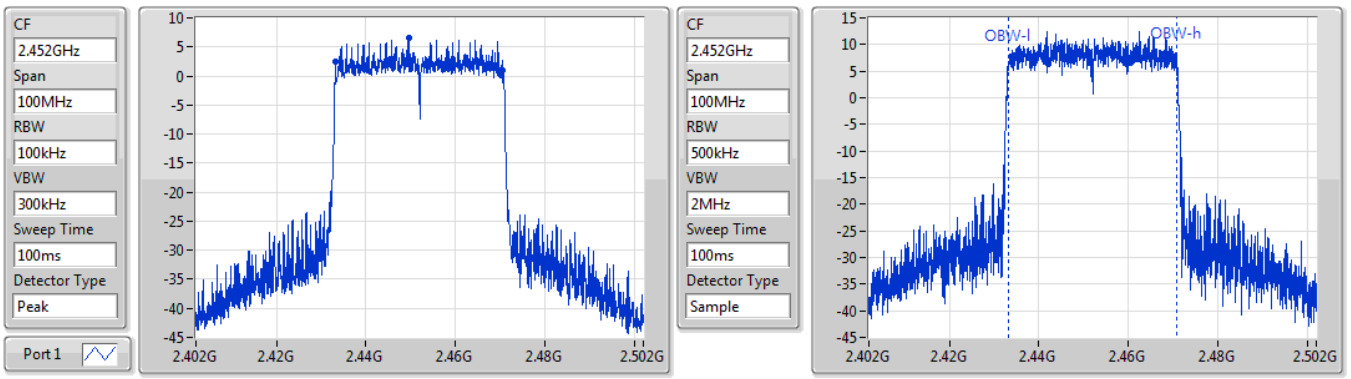


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.45M	2.4182G	2.45565G	37.581M	2.418159G	2.455741G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2452MHz

12/09/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.2M	2.43325G	2.47045G	37.631M	2.433159G	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	10.42M	10M4G1D	6.55M	10.195M
802.11g_Nss1,(6Mbps)_2TX	16.35M	16.792M	16M8D1D	16.325M	16.542M
VHT20_Nss1,(MCS0)_2TX	17.575M	17.841M	17M8D1D	17.55M	17.741M
VHT40_Nss1,(MCS0)_2TX	36.3M	36.332M	36M3D1D	36.3M	36.182M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.975M	19.015M	19M0D1D	18.9M	18.966M
802.11ax HEW40_Nss1,(MCS0)_2TX	37.6M	37.581M	37M6D1D	37.3M	37.531M

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

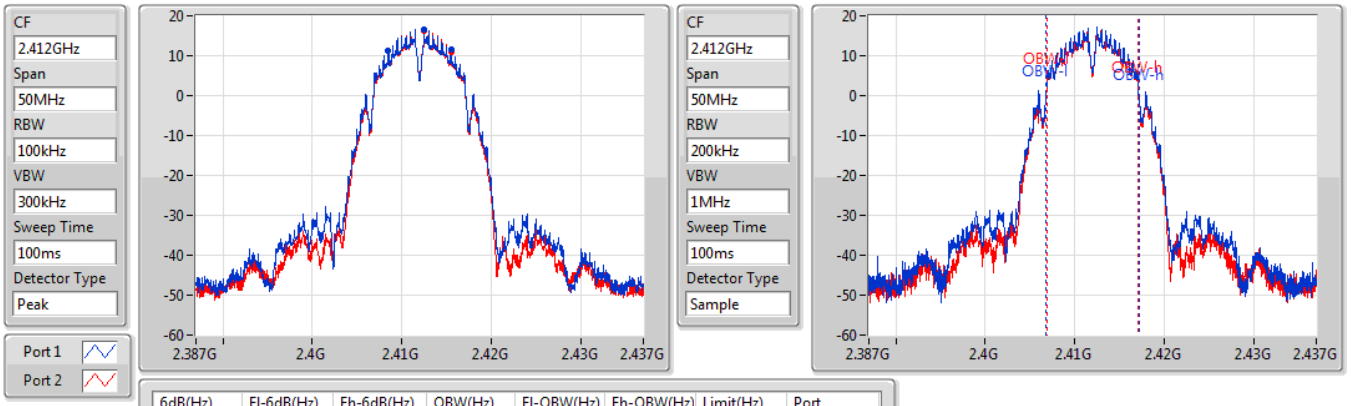
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	7.025M	10.42M	7M	10.245M
2437MHz_TnomVnom	Pass	500k	7.05M	10.245M	7.05M	10.22M
2462MHz_TnomVnom	Pass	500k	7.05M	10.195M	6.55M	10.22M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	16.35M	16.617M	16.35M	16.617M
2437MHz_TnomVnom	Pass	500k	16.35M	16.792M	16.325M	16.717M
2462MHz_TnomVnom	Pass	500k	16.35M	16.567M	16.35M	16.542M
VHT20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	17.55M	17.816M	17.575M	17.741M
2437MHz_TnomVnom	Pass	500k	17.575M	17.841M	17.575M	17.816M
2462MHz_TnomVnom	Pass	500k	17.575M	17.766M	17.575M	17.766M
VHT40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	500k	36.3M	36.182M	36.3M	36.332M
2437MHz_TnomVnom	Pass	500k	36.3M	36.282M	36.3M	36.232M
2452MHz_TnomVnom	Pass	500k	36.3M	36.332M	36.3M	36.232M
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	18.975M	18.966M	18.975M	18.966M
2437MHz_TnomVnom	Pass	500k	18.975M	19.015M	18.9M	19.015M
2462MHz_TnomVnom	Pass	500k	18.975M	18.966M	18.975M	18.991M
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	500k	37.55M	37.531M	37.3M	37.531M
2437MHz_TnomVnom	Pass	500k	37.6M	37.531M	37.5M	37.581M
2452MHz_TnomVnom	Pass	500k	37.55M	37.531M	37.45M	37.581M

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

802.11b_Nss1,(1Mbps)_2TX EBW

2412MHz

27/08/2019

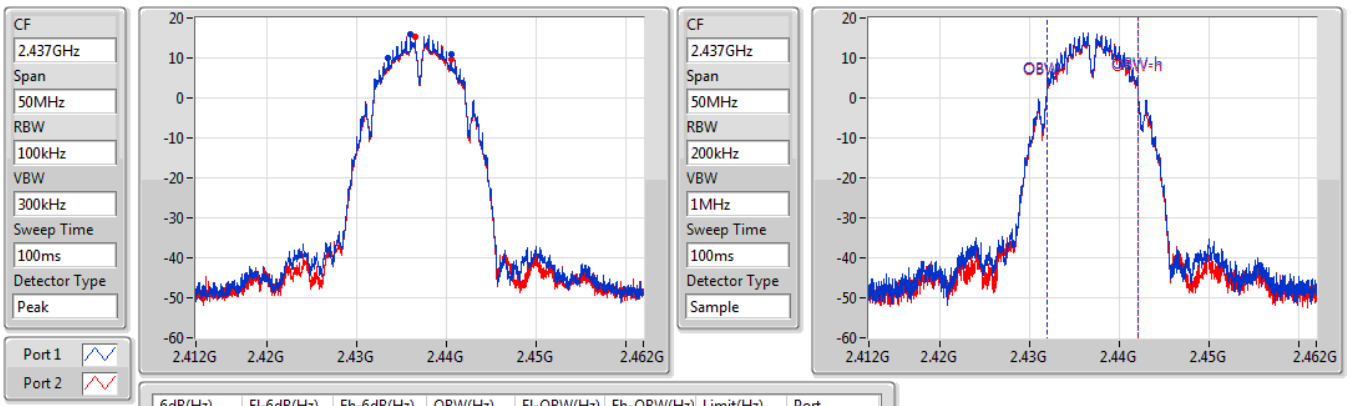


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.025M	2.4085G	2.415525G	10.42M	2.406778G	2.417197G	500k	1
7M	2.4085G	2.4155G	10.245M	2.406878G	2.417122G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2437MHz

27/08/2019

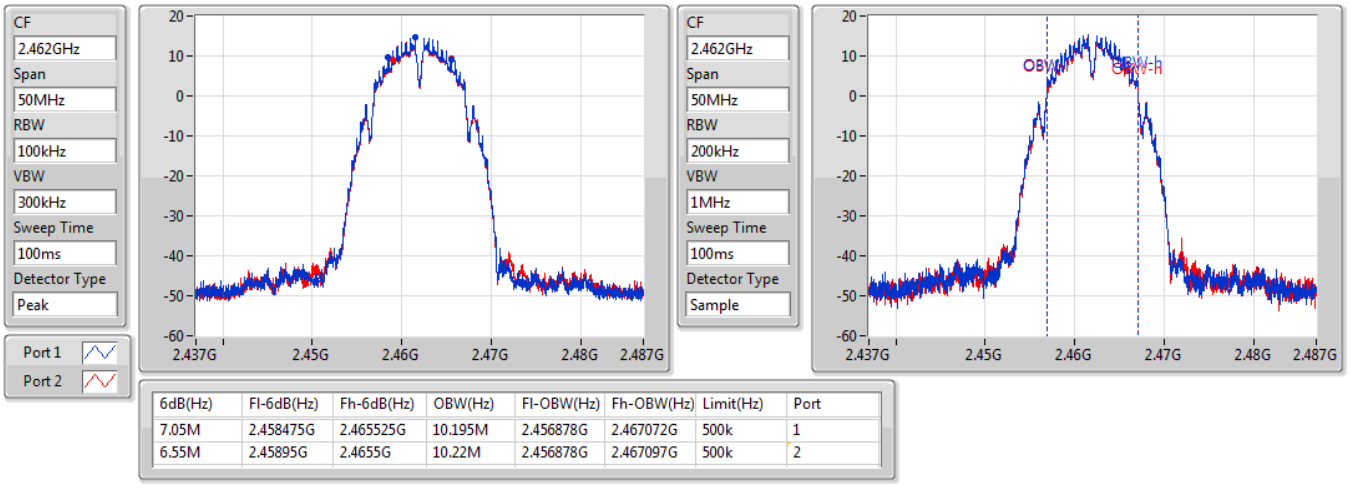


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.433475G	2.440525G	10.245M	2.431853G	2.442097G	500k	1
7.05M	2.433475G	2.440525G	10.22M	2.431878G	2.442097G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2462MHz

27/08/2019

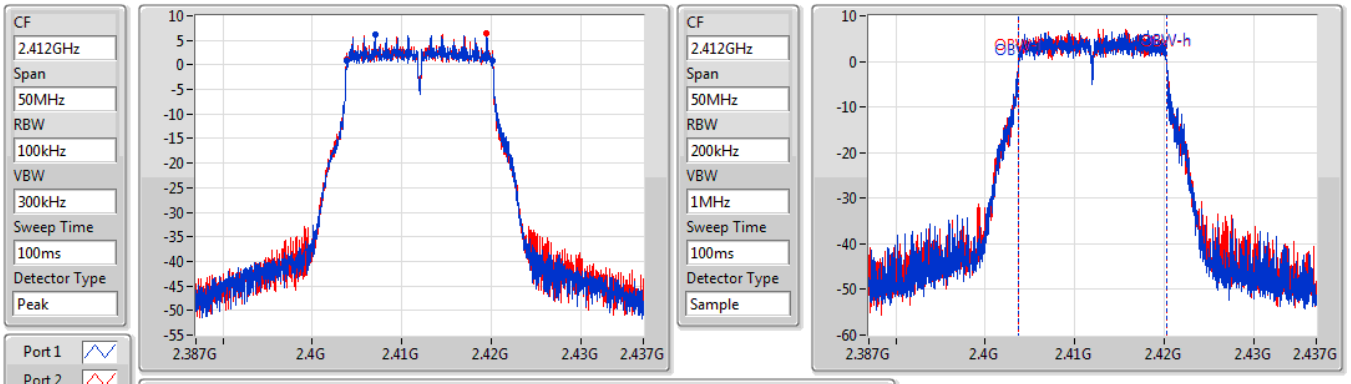


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.458475G	2.465525G	10.195M	2.456878G	2.467072G	500k	1
6.55M	2.45895G	2.4655G	10.22M	2.456878G	2.467097G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2412MHz

27/08/2019

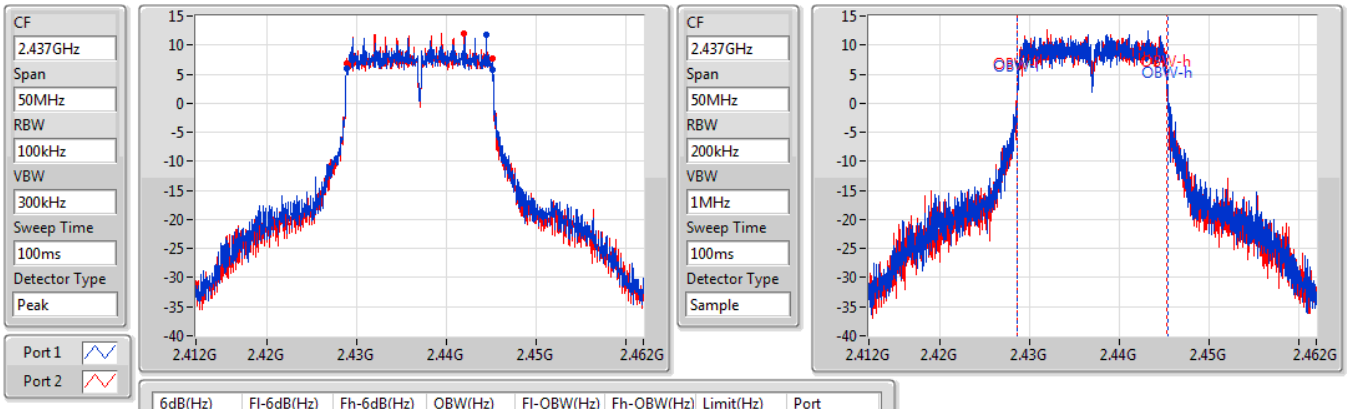


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.403825G	2.420175G	16.617M	2.403679G	2.420296G	500k	1
16.35M	2.403825G	2.420175G	16.617M	2.403679G	2.420296G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2437MHz

27/08/2019

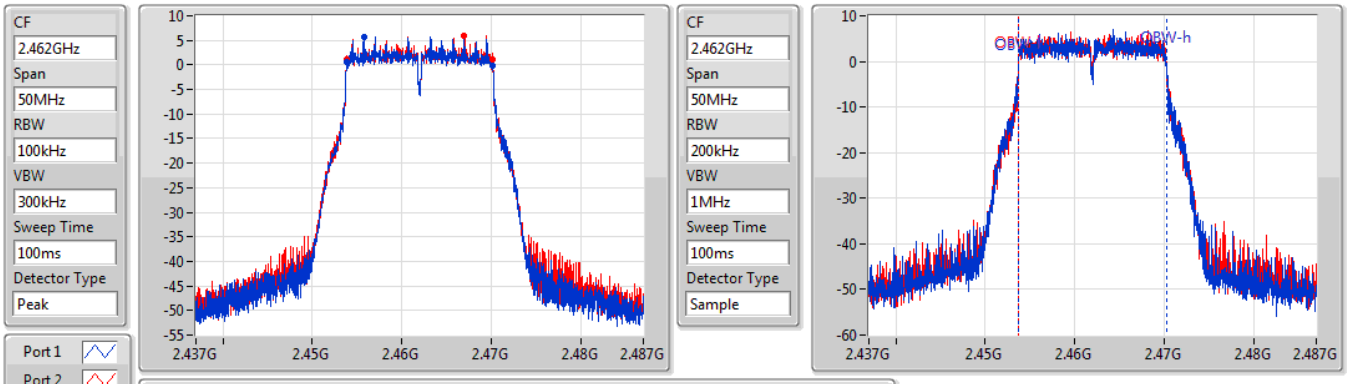


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.428825G	2.445175G	16.792M	2.428604G	2.445396G	500k	1
16.325M	2.428825G	2.44515G	16.717M	2.428629G	2.445346G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2462MHz

27/08/2019

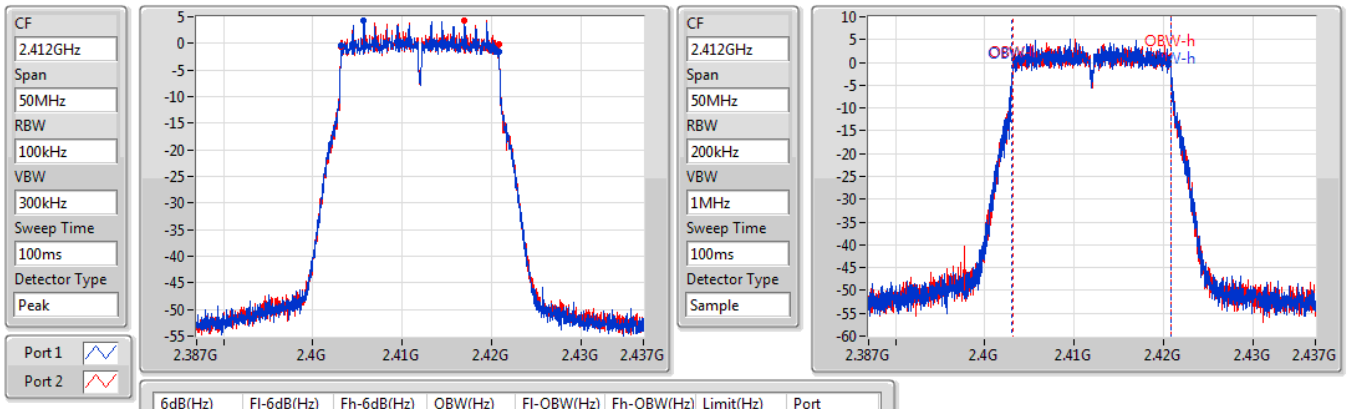


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.453825G	2.470175G	16.567M	2.453704G	2.470271G	500k	1
16.35M	2.453825G	2.470175G	16.542M	2.453704G	2.470246G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2412MHz

27/08/2019

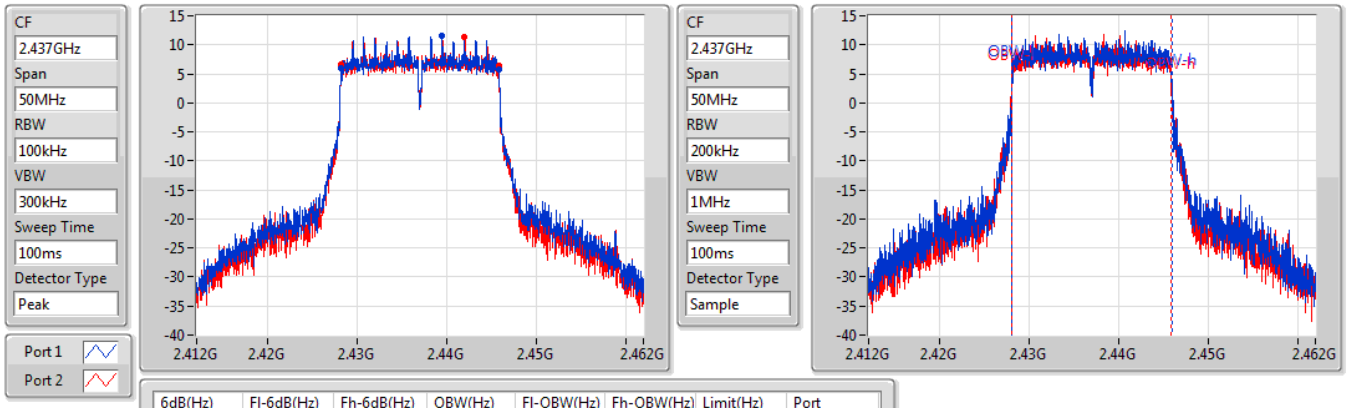


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.55M	2.403225G	2.420775G	17.816M	2.403079G	2.420896G	500k	1
17.575M	2.4032G	2.420775G	17.741M	2.403104G	2.420846G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2437MHz

27/08/2019

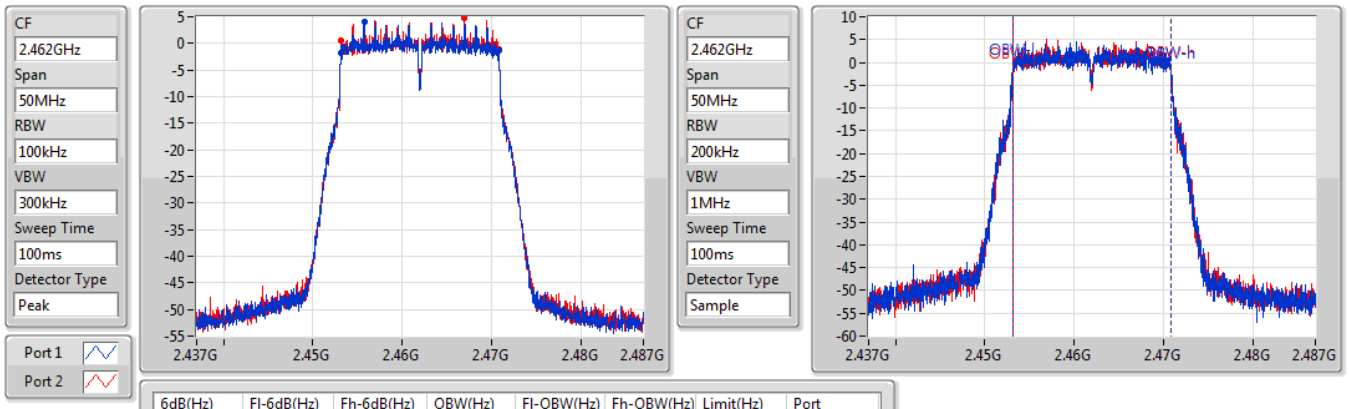


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4282G	2.445775G	17.841M	2.428079G	2.445921G	500k	1
17.575M	2.4282G	2.445775G	17.816M	2.428054G	2.445871G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2462MHz

27/08/2019

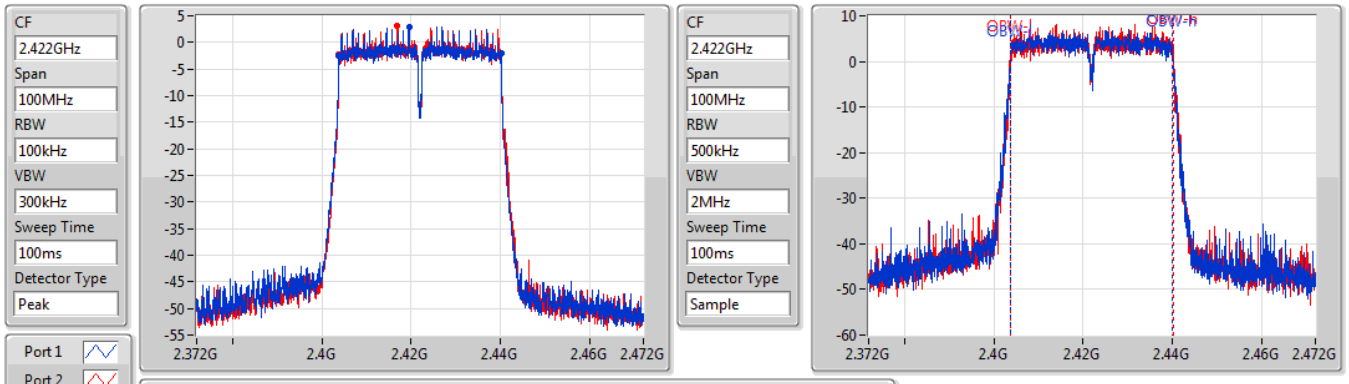


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4532G	2.470775G	17.766M	2.453129G	2.470896G	500k	1
17.575M	2.453225G	2.4708G	17.766M	2.453104G	2.470871G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2422MHz

27/08/2019

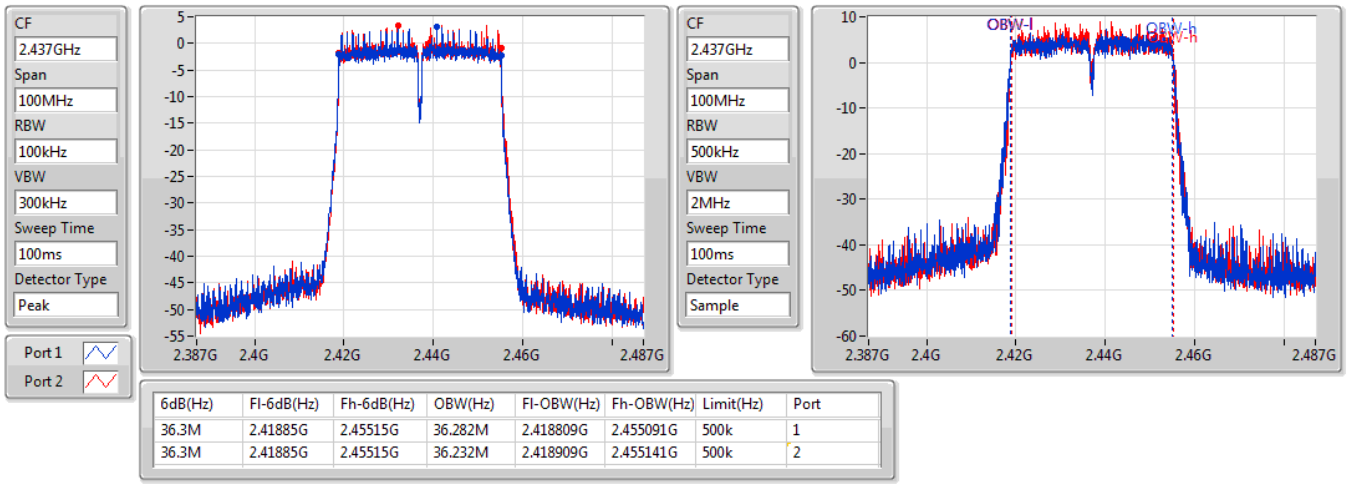


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.40385G	2.44015G	36.182M	2.403859G	2.440041G	500k	1
36.3M	2.40385G	2.44015G	36.332M	2.403809G	2.440141G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2437MHz

27/08/2019

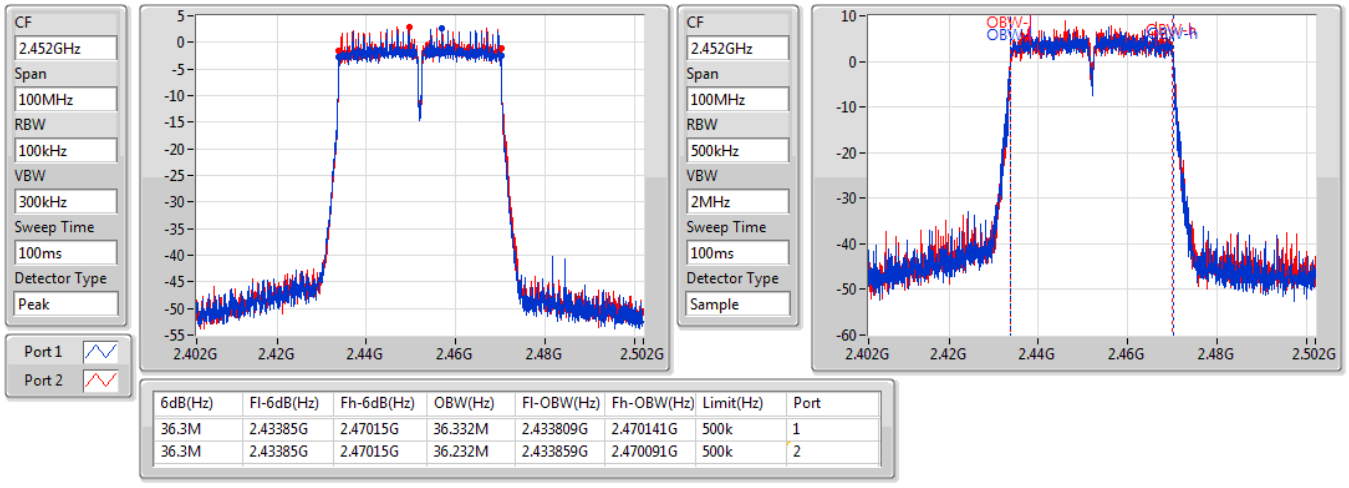


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.41885G	2.45515G	36.282M	2.418809G	2.455091G	500k	1
36.3M	2.41885G	2.45515G	36.232M	2.418909G	2.455141G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2452MHz

27/08/2019

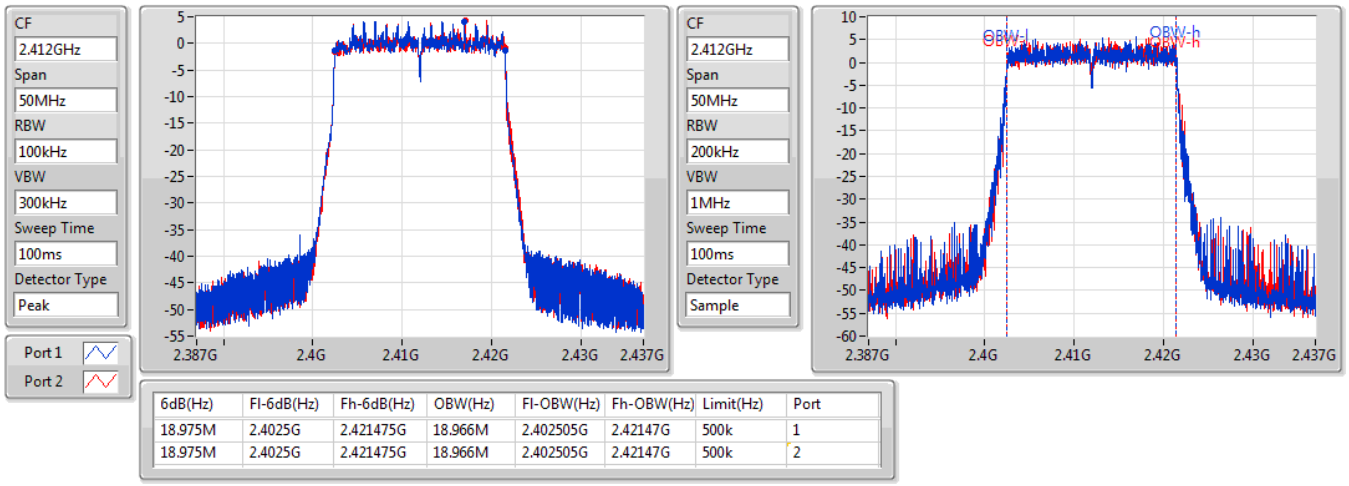


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.43385G	2.47015G	36.332M	2.433809G	2.470141G	500k	1
36.3M	2.43385G	2.47015G	36.232M	2.433859G	2.470091G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2412MHz

27/08/2019

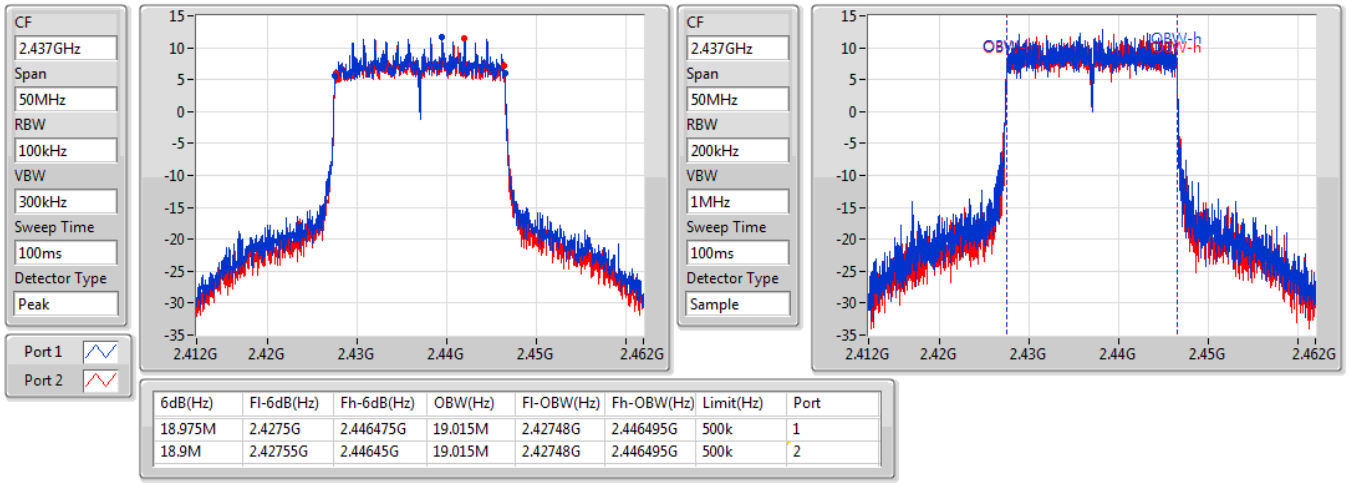


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.4025G	2.421475G	18.966M	2.402505G	2.42147G	500k	1
18.975M	2.4025G	2.421475G	18.966M	2.402505G	2.42147G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2437MHz

27/08/2019



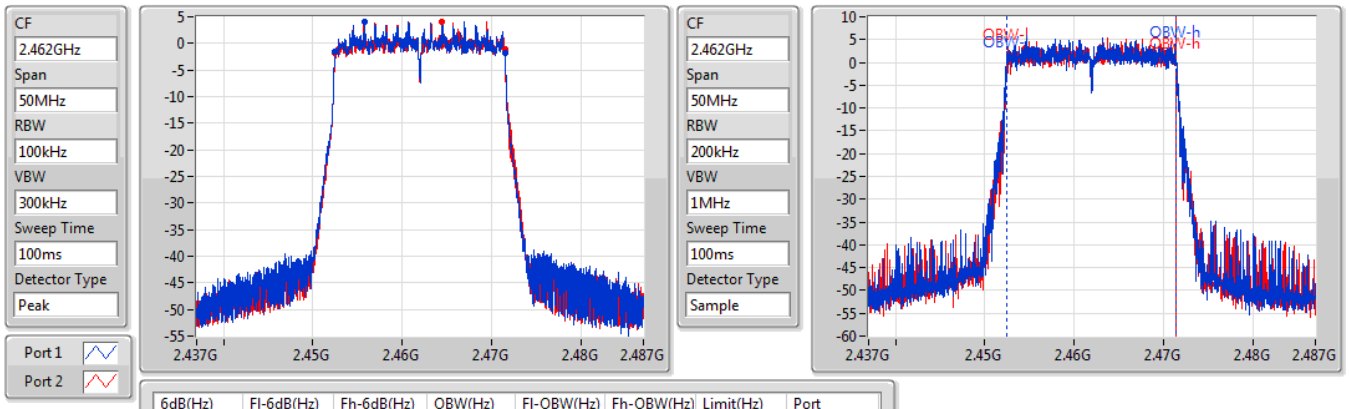
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.4275G	2.446475G	19.015M	2.42748G	2.446495G	500k	1
18.9M	2.42755G	2.44645G	19.015M	2.42748G	2.446495G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

2462MHz

27/08/2019



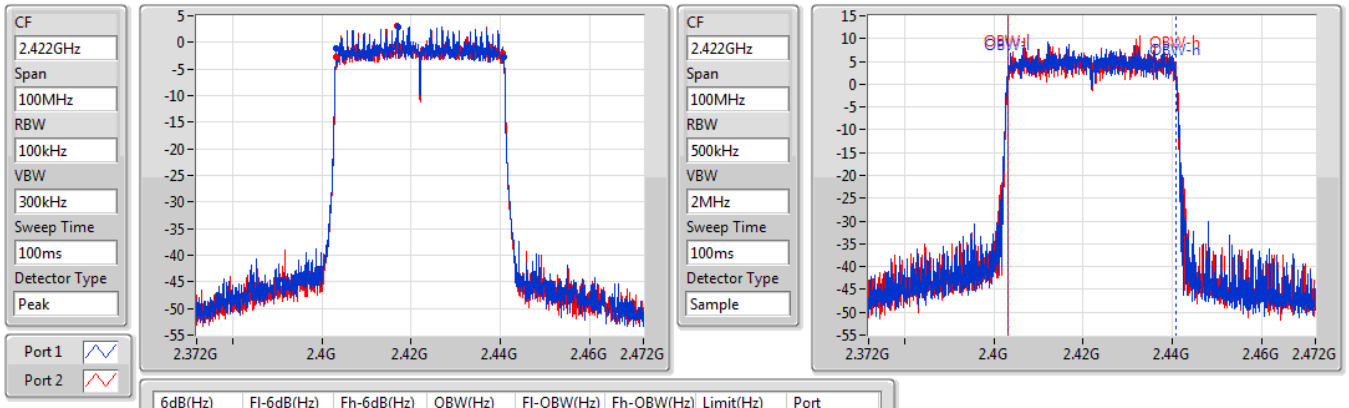
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.4525G	2.471475G	18.966M	2.45248G	2.471445G	500k	1
18.975M	2.4525G	2.471475G	18.991M	2.45248G	2.47147G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX

EBW

2422MHz

27/08/2019

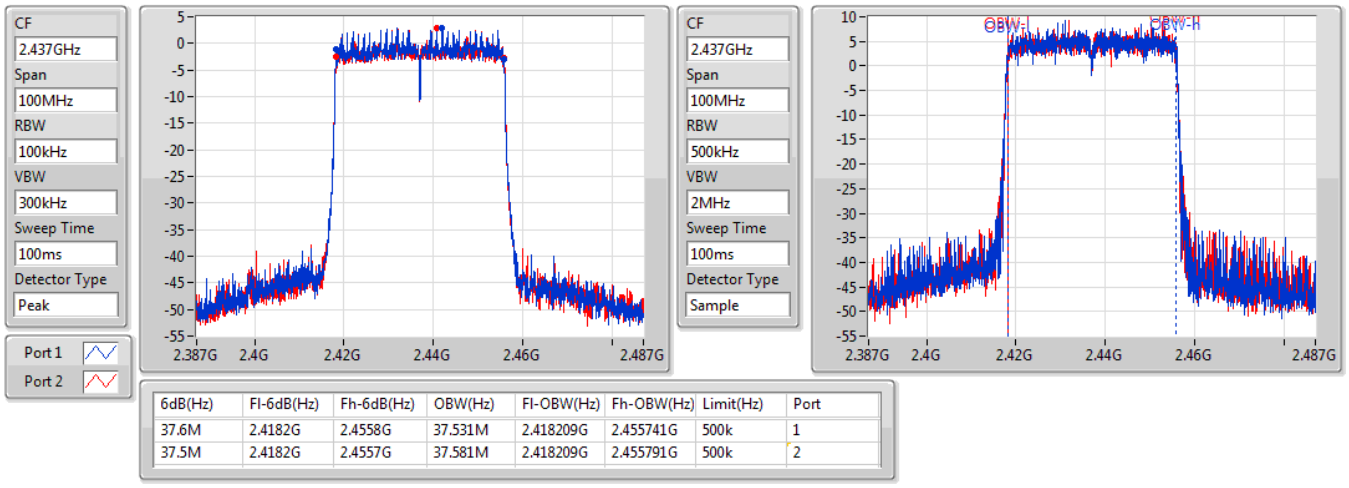


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.55M	2.4032G	2.44075G	37.531M	2.403159G	2.440691G	500k	1
37.3M	2.4032G	2.4405G	37.531M	2.403209G	2.440741G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

2437MHz

27/08/2019

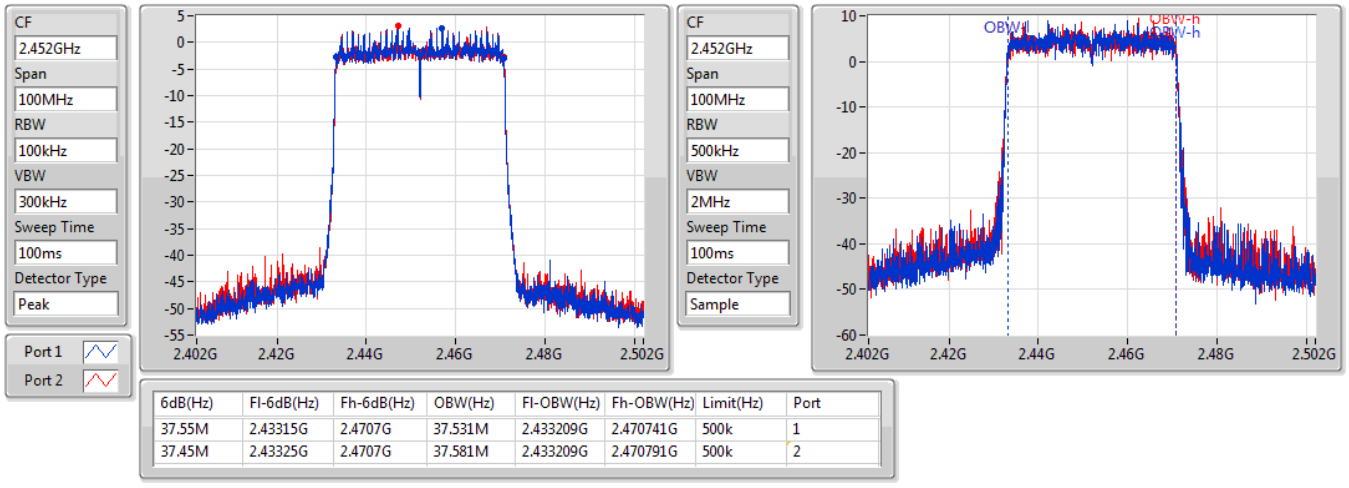


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.6M	2.4182G	2.4558G	37.531M	2.418209G	2.455741G	500k	1
37.5M	2.4182G	2.4557G	37.581M	2.418209G	2.455791G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

2452MHz

27/08/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.55M	2.43315G	2.4707G	37.531M	2.433209G	2.470741G	500k	1
37.45M	2.43325G	2.4707G	37.581M	2.433209G	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	7.55M	10.97M	11M0G1D	7.025M	10.295M
802.11g_Nss1,(6Mbps)_1TX	16.35M	16.667M	16M7D1D	16.325M	16.567M
VHT20_Nss1,(MCS0)_1TX	17.575M	17.841M	17M8D1D	17.575M	17.766M
VHT40_Nss1,(MCS0)_1TX	36.35M	36.332M	36M3D1D	36.3M	36.182M
802.11ax HEW20_Nss1,(MCS0)_1TX	18.975M	19.015M	19M0D1D	18.95M	18.941M
802.11ax HEW40_Nss1,(MCS0)_1TX	37.55M	37.531M	37M5D1D	37.5M	37.481M

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

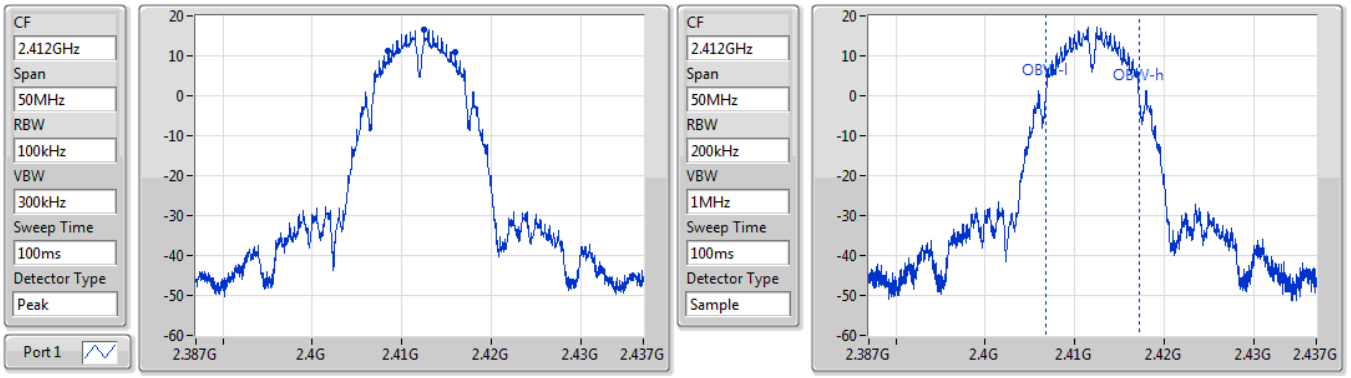
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz_TnomVnom	Pass	500k	7.55M	10.47M
2437MHz_TnomVnom	Pass	500k	7.025M	10.97M
2462MHz_TnomVnom	Pass	500k	7.025M	10.295M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz_TnomVnom	Pass	500k	16.35M	16.567M
2437MHz_TnomVnom	Pass	500k	16.325M	16.667M
2462MHz_TnomVnom	Pass	500k	16.325M	16.592M
VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz_TnomVnom	Pass	500k	17.575M	17.791M
2437MHz_TnomVnom	Pass	500k	17.575M	17.841M
2462MHz_TnomVnom	Pass	500k	17.575M	17.766M
VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz_TnomVnom	Pass	500k	36.3M	36.332M
2437MHz_TnomVnom	Pass	500k	36.3M	36.182M
2452MHz_TnomVnom	Pass	500k	36.35M	36.282M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz_TnomVnom	Pass	500k	18.95M	18.941M
2437MHz_TnomVnom	Pass	500k	18.975M	19.015M
2462MHz_TnomVnom	Pass	500k	18.95M	18.991M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz_TnomVnom	Pass	500k	37.55M	37.531M
2437MHz_TnomVnom	Pass	500k	37.55M	37.481M
2452MHz_TnomVnom	Pass	500k	37.5M	37.531M

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

802.11b_Nss1,(1Mbps)_1TX EBW

2412MHz

15/10/2019

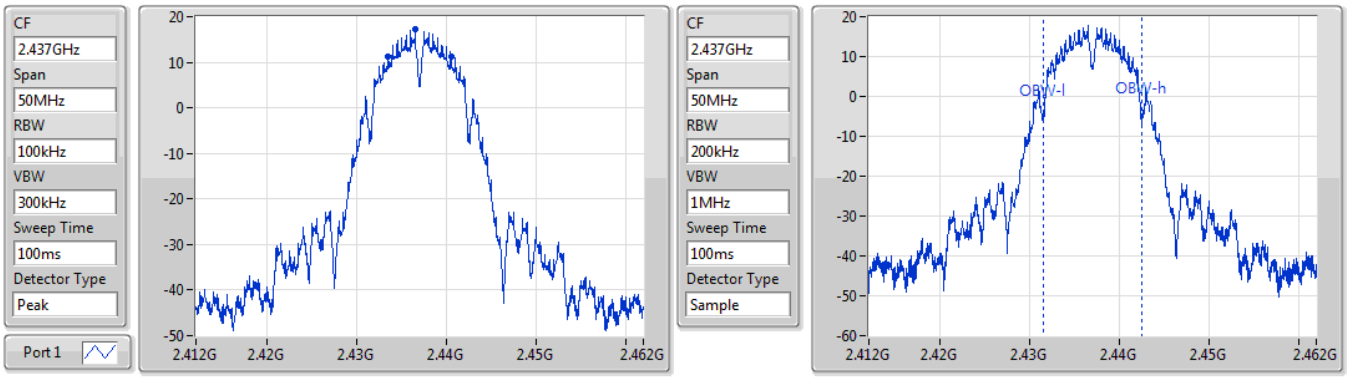


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.55M	2.40845G	2.416G	10.47M	2.406778G	2.417247G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2437MHz

15/10/2019

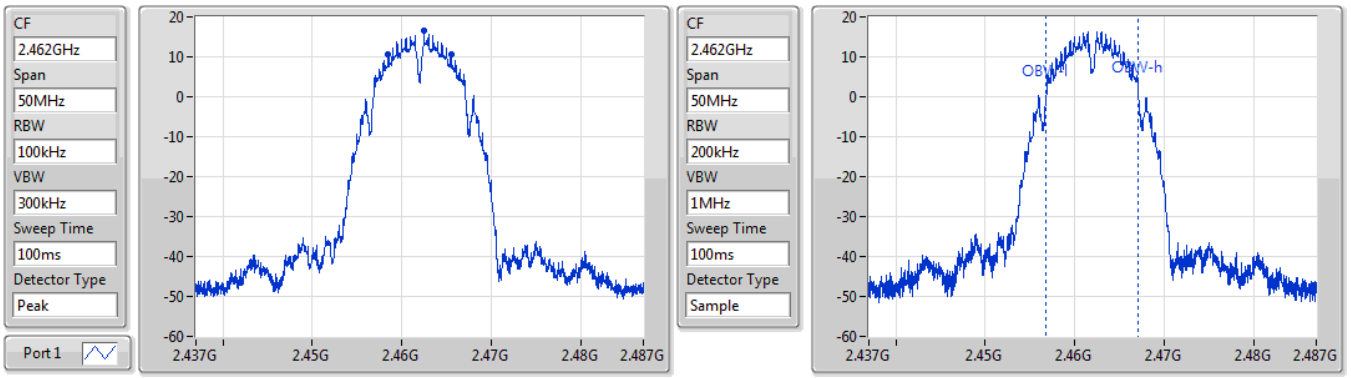


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.025M	2.433475G	2.4405G	10.97M	2.431553G	2.442522G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2462MHz

15/10/2019

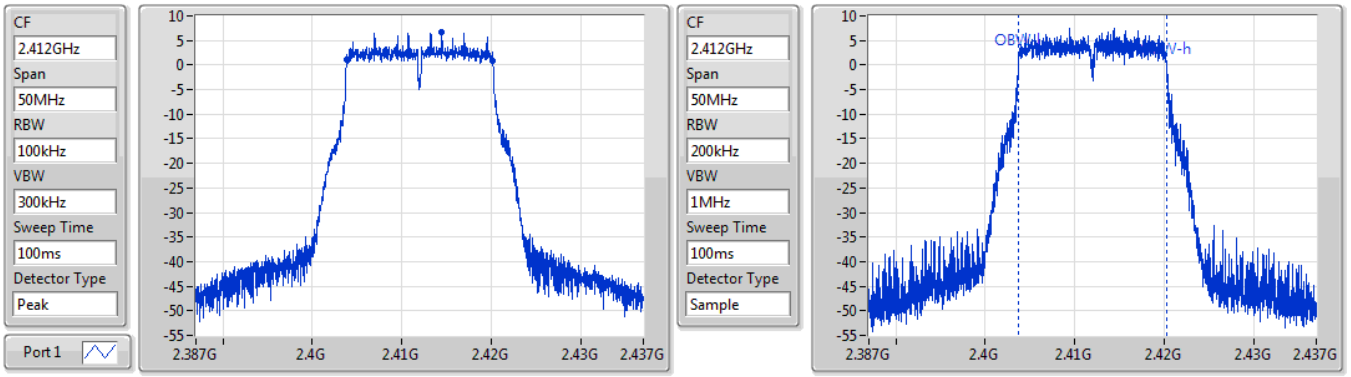


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.025M	2.458475G	2.4655G	10.295M	2.456828G	2.467122G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2412MHz

15/10/2019

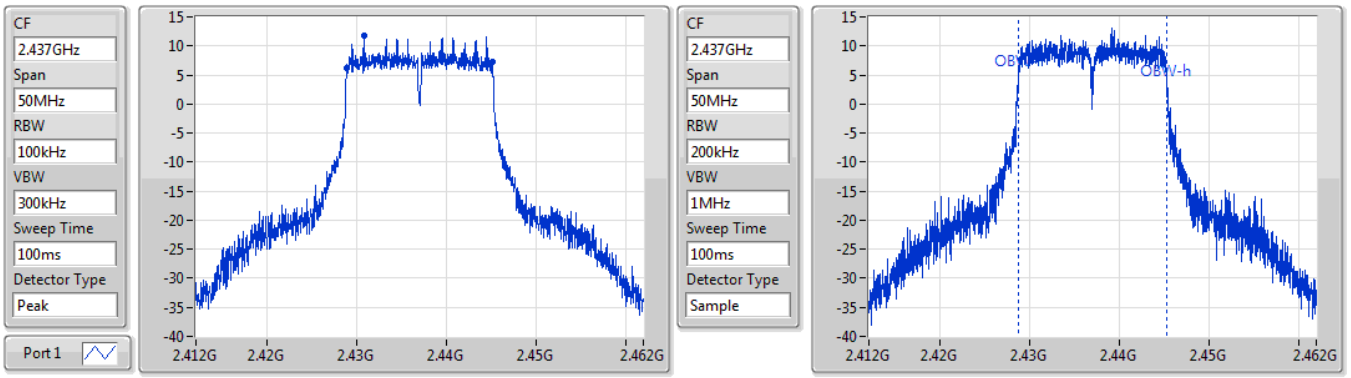


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.403825G	2.420175G	16.567M	2.403704G	2.420271G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2437MHz

15/10/2019

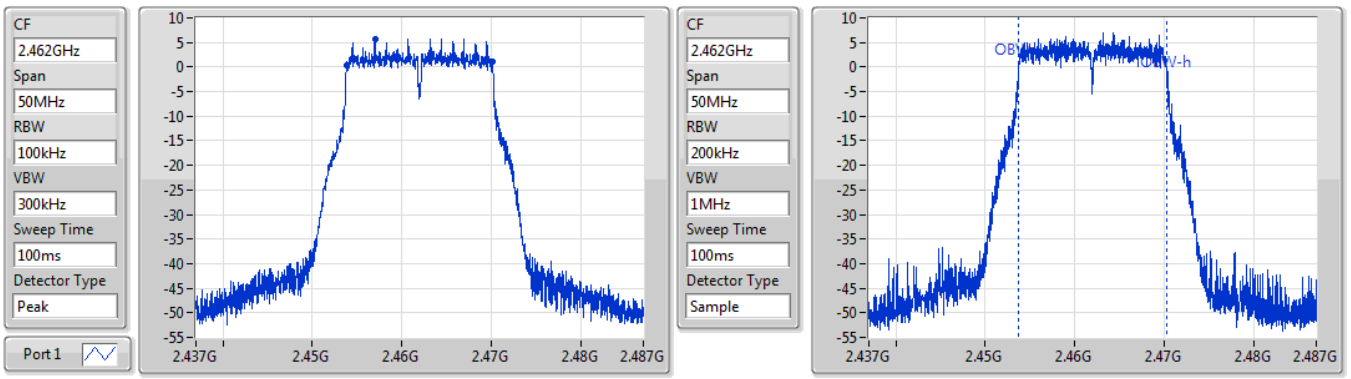


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.428825G	2.44515G	16.667M	2.428679G	2.445346G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2462MHz

15/10/2019

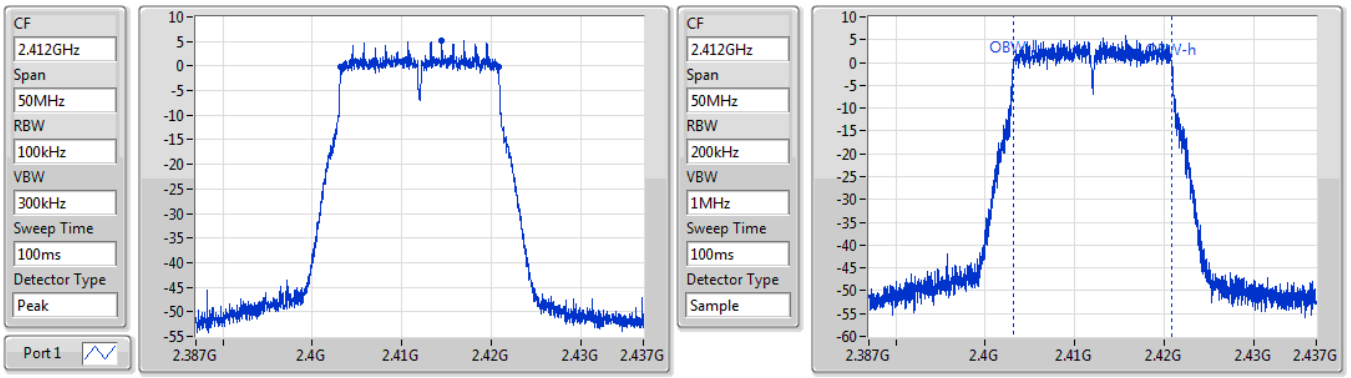


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.453825G	2.47015G	16.592M	2.453704G	2.470296G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2412MHz

15/10/2019

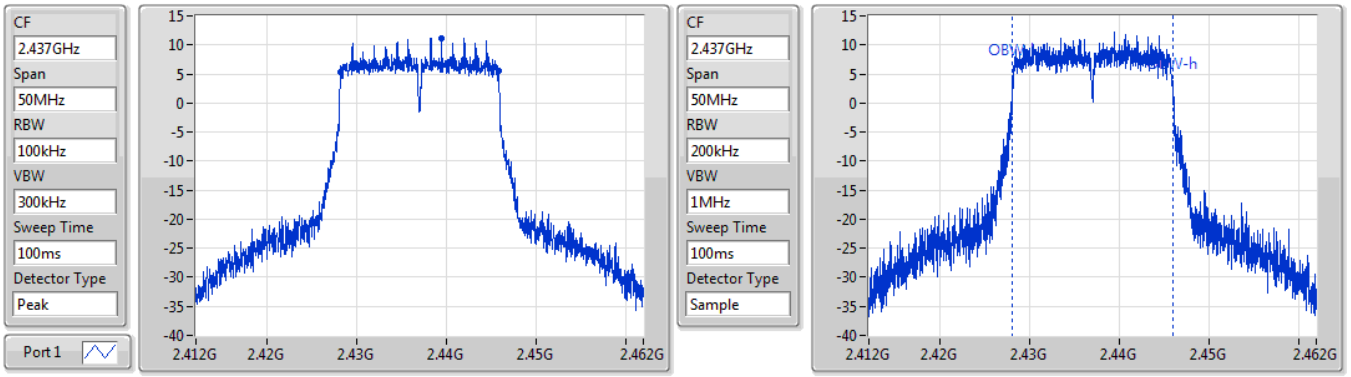


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4032G	2.420775G	17.791M	2.403104G	2.420896G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2437MHz

15/10/2019

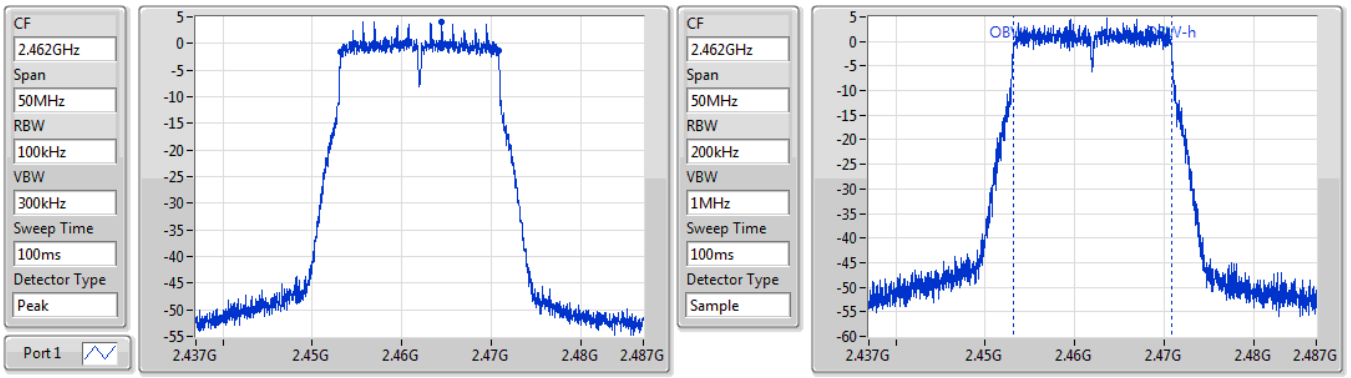


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4282G	2.445775G	17.841M	2.428079G	2.445921G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2462MHz

15/10/2019

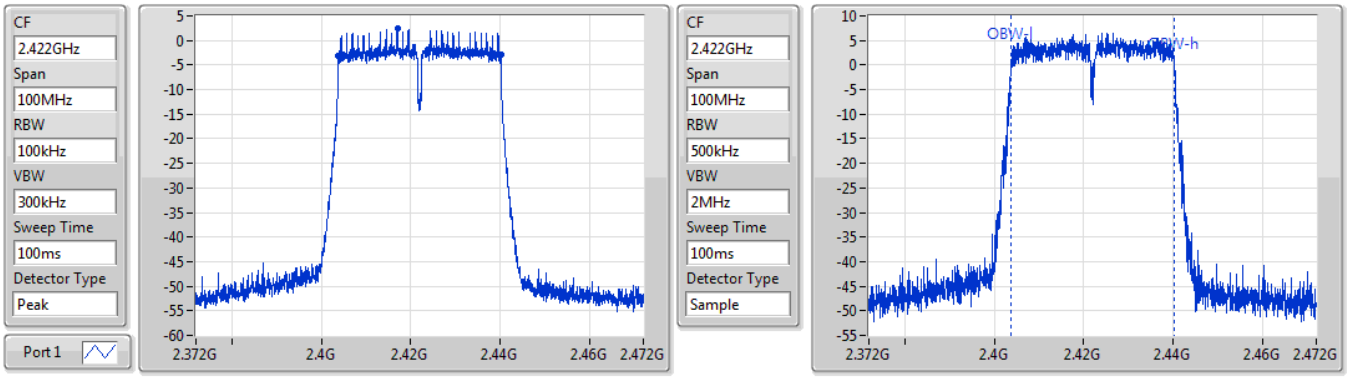


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4532G	2.470775G	17.766M	2.453104G	2.470871G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2422MHz

15/10/2019

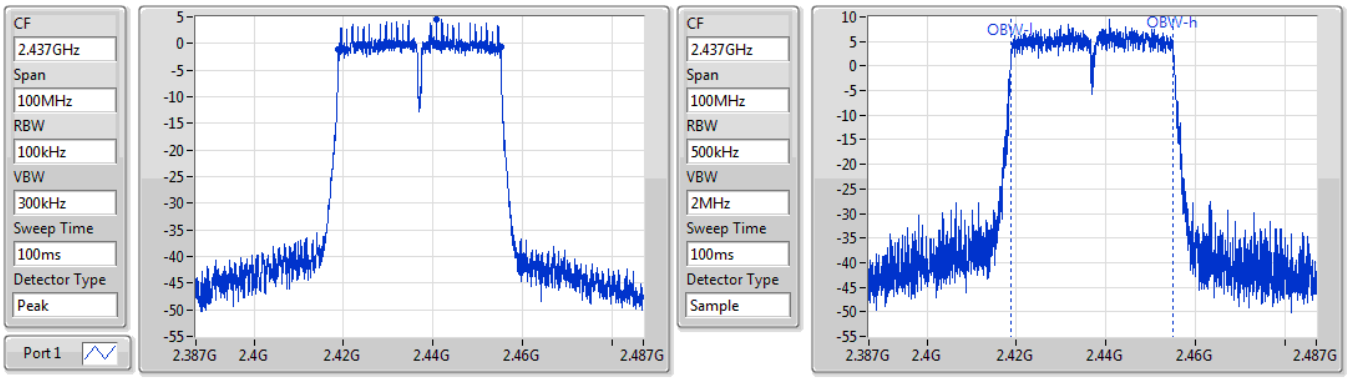


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.40385G	2.44015G	36.332M	2.403859G	2.440191G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2437MHz

15/10/2019

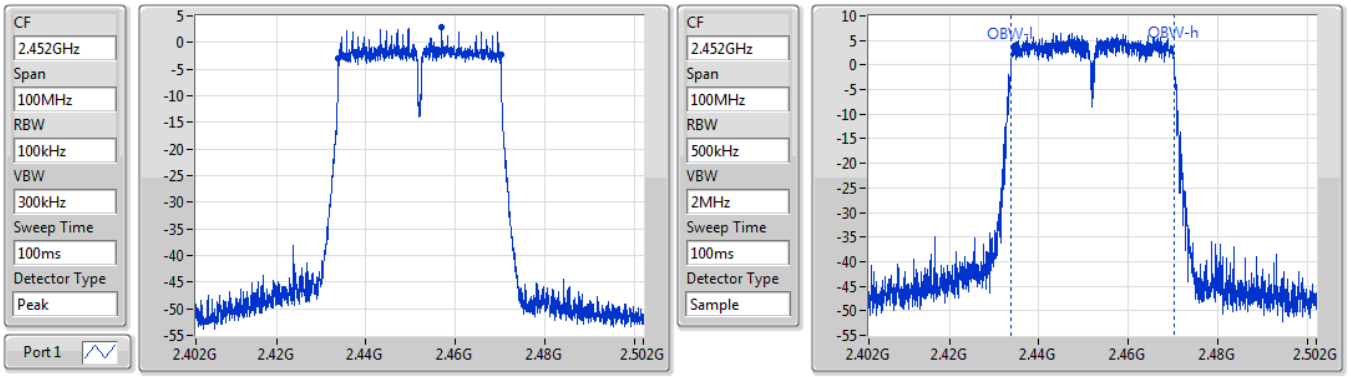


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.41885G	2.45515G	36.182M	2.418859G	2.455041G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2452MHz

15/10/2019

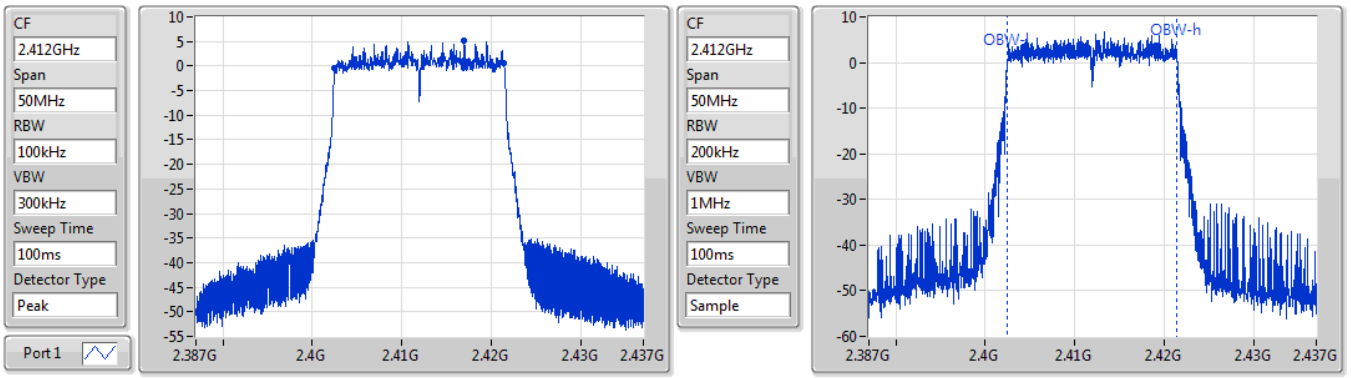


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.35M	2.4338G	2.47015G	36.282M	2.433859G	2.470141G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2412MHz

15/10/2019

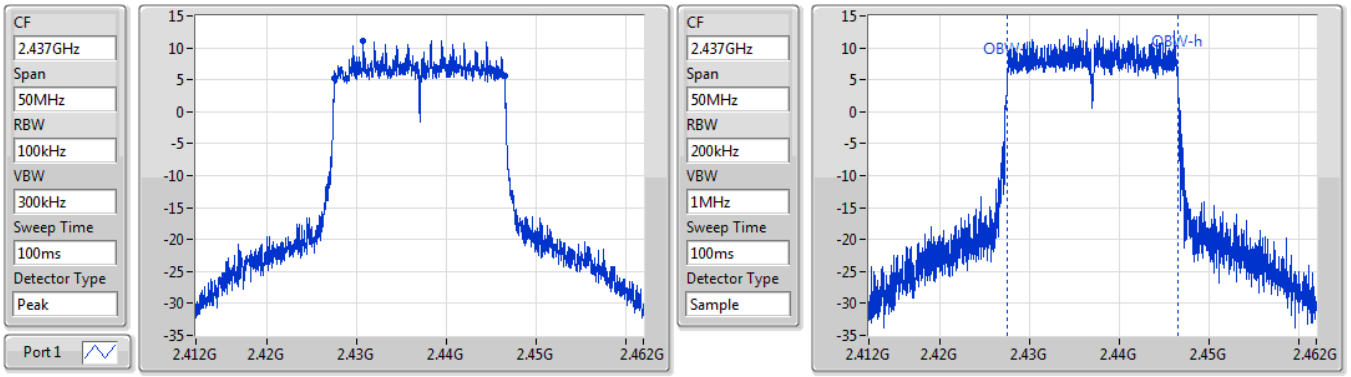


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.95M	2.4025G	2.42145G	18.941M	2.402505G	2.421445G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2437MHz

15/10/2019

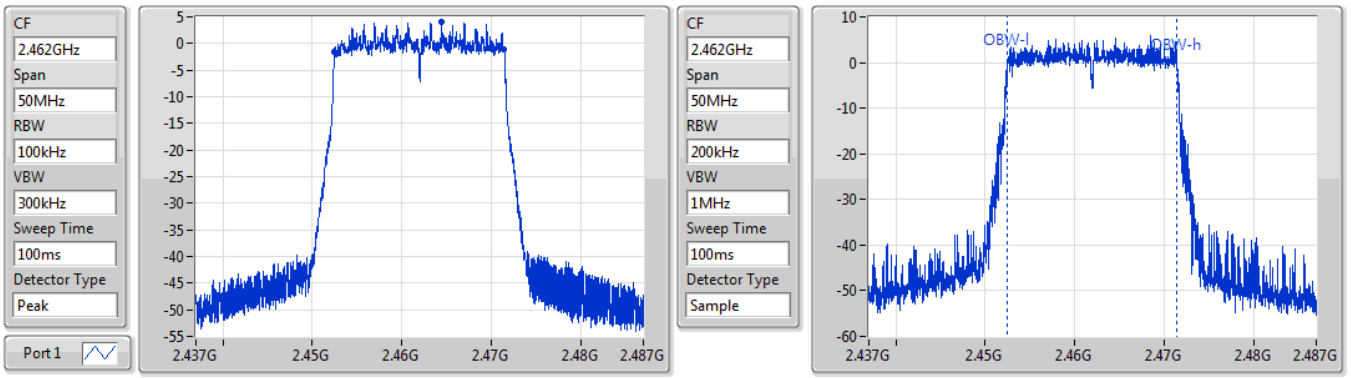


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.4275G	2.446475G	19.015M	2.42748G	2.446495G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2462MHz

15/10/2019

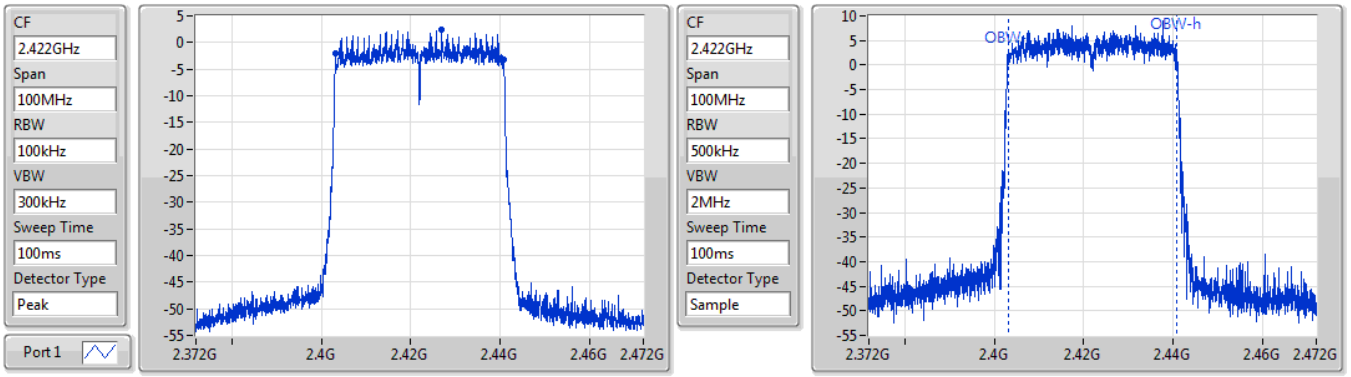


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.95M	2.4525G	2.47145G	18.991M	2.452455G	2.471445G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2422MHz

15/10/2019

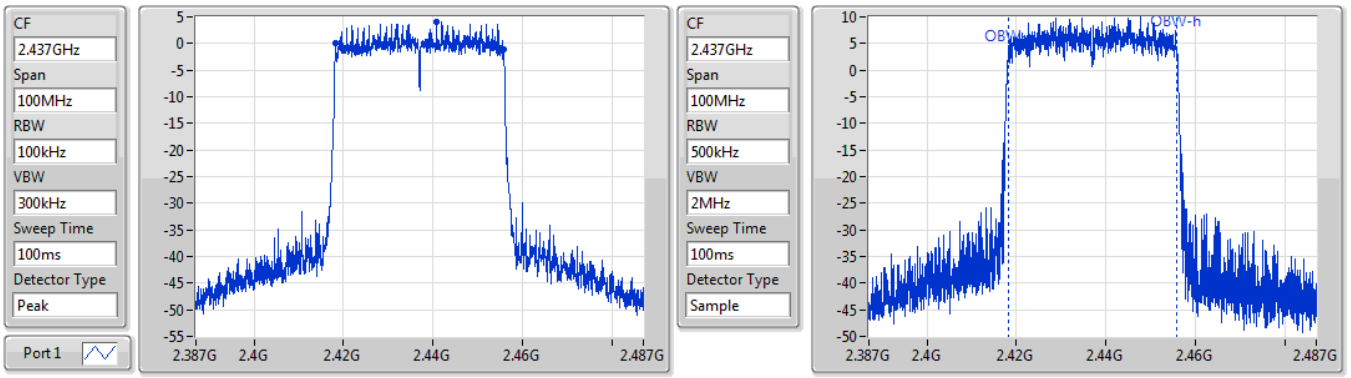


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.55M	2.4032G	2.44075G	37.531M	2.403209G	2.440741G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2437MHz

15/10/2019

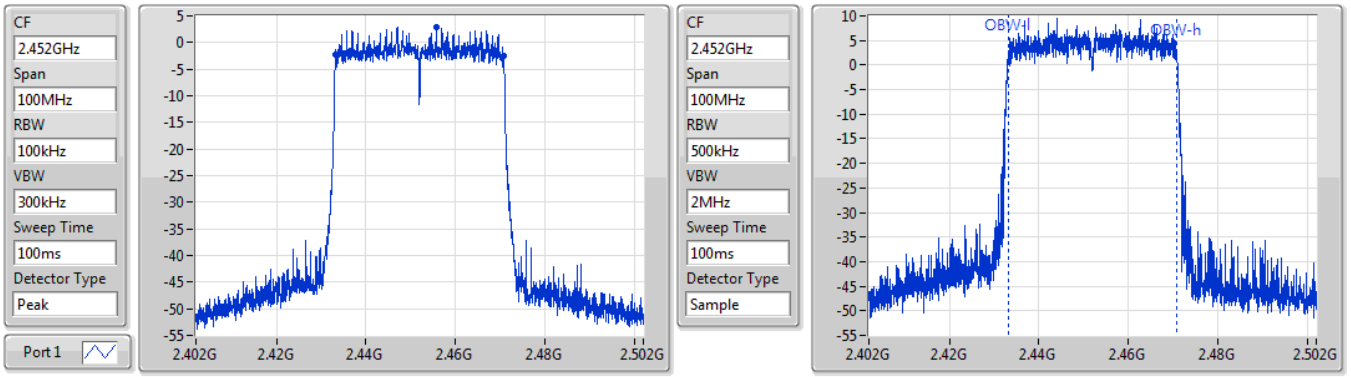


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.55M	2.4182G	2.45575G	37.481M	2.418259G	2.455741G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2452MHz

15/10/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.5M	2.4332G	2.4707G	37.531M	2.433209G	2.470741G	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	10.245M	10M2G1D	6.975M	10.195M
802.11g_Nss1,(6Mbps)_2TX	16.35M	16.667M	16M7D1D	16.325M	16.592M
VHT20_Nss2,(MCS0)_2TX	17.575M	17.741M	17M7D1D	17.575M	17.741M
VHT40_Nss2,(MCS0)_2TX	36.3M	36.332M	36M3D1D	36.3M	36.132M
802.11ax HEW20_Nss2,(MCS0)_2TX	19M	18.991M	19M0D1D	18.8M	18.941M
802.11ax HEW40_Nss2,(MCS0)_2TX	37.65M	37.631M	37M6D1D	37.45M	37.481M

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

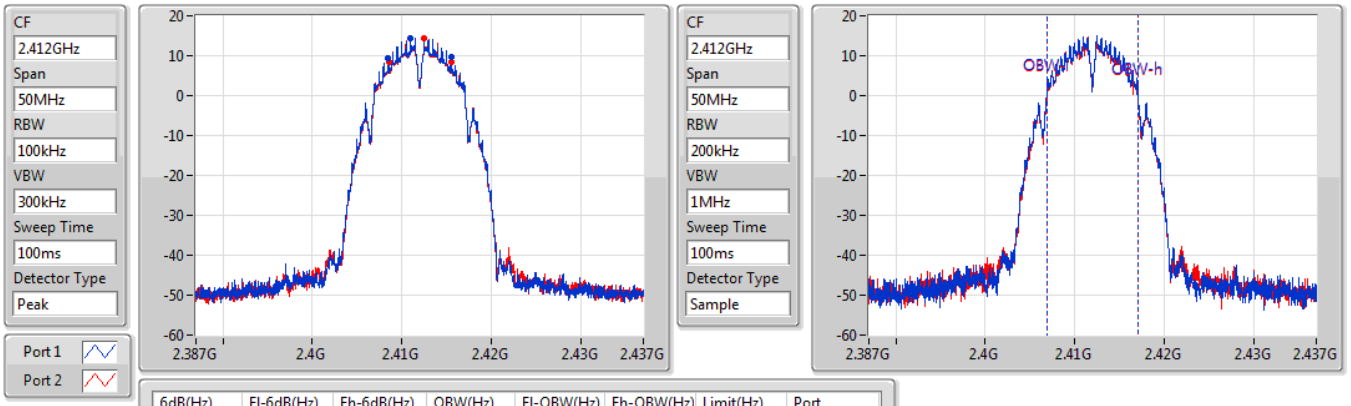
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	7.025M	10.22M	6.975M	10.22M
2437MHz_TnomVnom	Pass	500k	7.025M	10.245M	7.025M	10.195M
2462MHz_TnomVnom	Pass	500k	7.05M	10.22M	7.05M	10.195M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	16.35M	16.592M	16.35M	16.592M
2437MHz_TnomVnom	Pass	500k	16.325M	16.667M	16.325M	16.642M
2462MHz_TnomVnom	Pass	500k	16.325M	16.617M	16.325M	16.592M
VHT20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	17.575M	17.741M	17.575M	17.741M
2437MHz_TnomVnom	Pass	500k	17.575M	17.741M	17.575M	17.741M
2462MHz_TnomVnom	Pass	500k	17.575M	17.741M	17.575M	17.741M
VHT40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	500k	36.3M	36.232M	36.3M	36.182M
2437MHz_TnomVnom	Pass	500k	36.3M	36.132M	36.3M	36.232M
2452MHz_TnomVnom	Pass	500k	36.3M	36.232M	36.3M	36.332M
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	18.975M	18.991M	18.85M	18.966M
2437MHz_TnomVnom	Pass	500k	19M	18.966M	18.9M	18.941M
2462MHz_TnomVnom	Pass	500k	18.95M	18.991M	18.8M	18.966M
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	500k	37.45M	37.581M	37.65M	37.531M
2437MHz_TnomVnom	Pass	500k	37.5M	37.631M	37.6M	37.531M
2452MHz_TnomVnom	Pass	500k	37.5M	37.481M	37.6M	37.531M

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

802.11b_Nss1,(1Mbps)_2TX EBW

2412MHz

27/08/2019

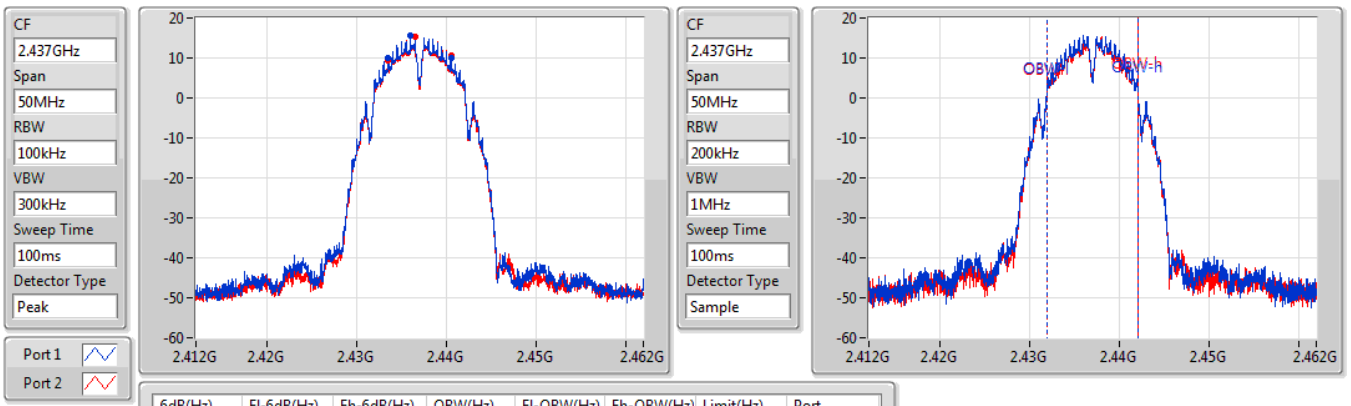


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.025M	2.408475G	2.4155G	10.22M	2.406878G	2.417097G	500k	1
6.975M	2.408525G	2.4155G	10.22M	2.406878G	2.417097G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2437MHz

27/08/2019



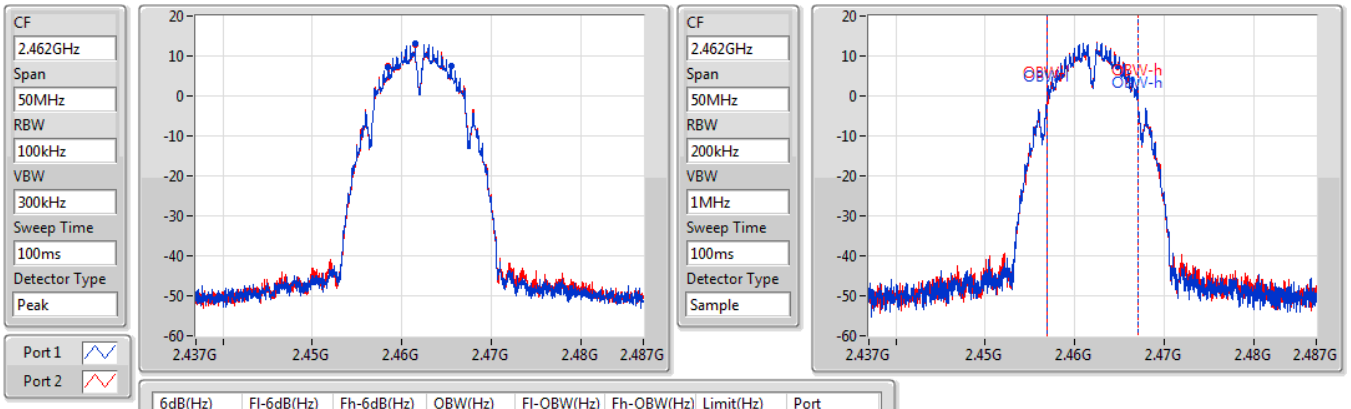
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.025M	2.4335G	2.440525G	10.245M	2.431853G	2.442097G	500k	1
7.025M	2.433475G	2.4405G	10.195M	2.431878G	2.442072G	500k	2

802.11b_Nss1,(1Mbps)_2TX

EBW

2462MHz

27/08/2019



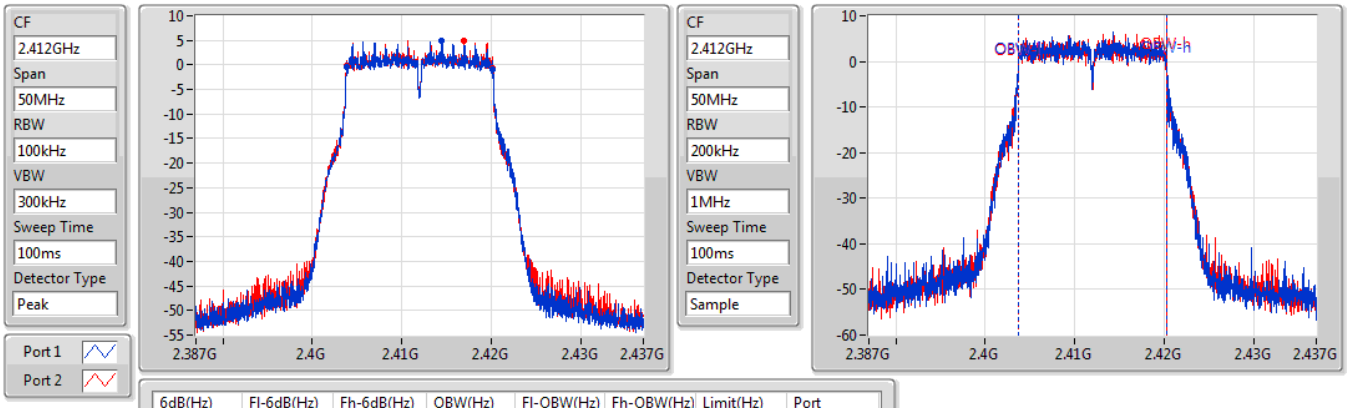
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.458475G	2.465525G	10.22M	2.456853G	2.467072G	500k	1
7.05M	2.458475G	2.465525G	10.195M	2.456878G	2.467072G	500k	2

802.11g_Nss1,(6Mbps)_2TX

EBW

2412MHz

27/08/2019

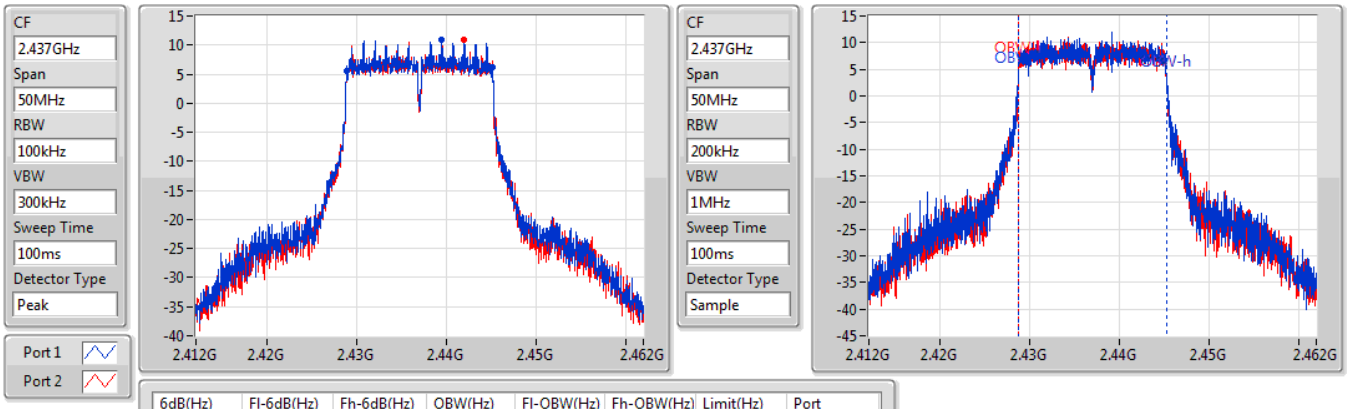


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.403825G	2.420175G	16.592M	2.403679G	2.420271G	500k	1
16.35M	2.403825G	2.420175G	16.592M	2.403679G	2.420271G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2437MHz

27/08/2019

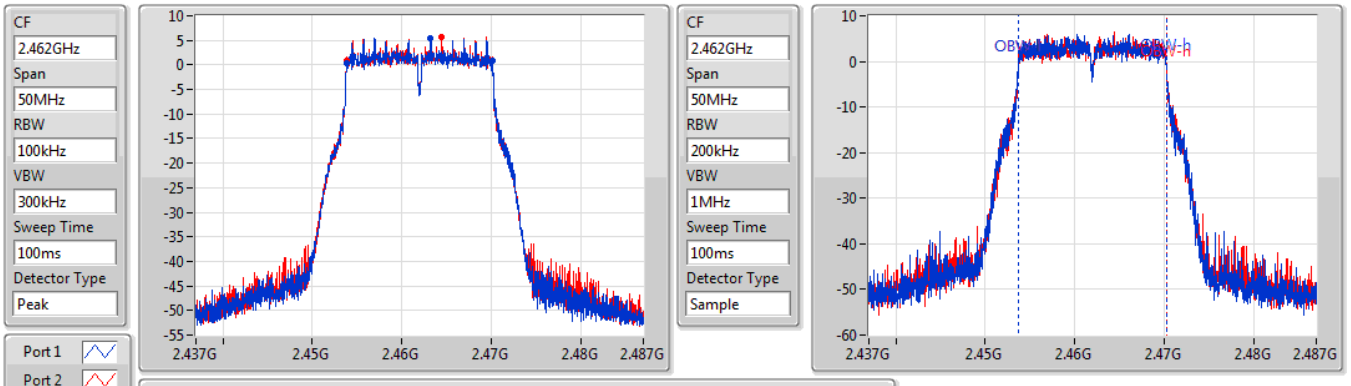


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.428825G	2.44515G	16.667M	2.428654G	2.445321G	500k	1
16.325M	2.428825G	2.44515G	16.642M	2.428679G	2.445321G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2462MHz

27/08/2019

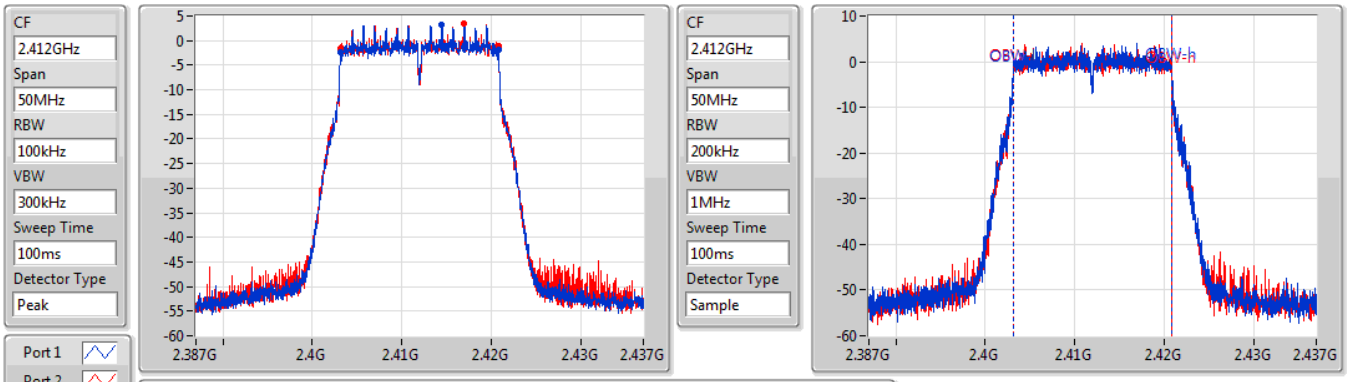


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.453825G	2.47015G	16.617M	2.453654G	2.470271G	500k	1
16.325M	2.453825G	2.47015G	16.592M	2.453679G	2.470271G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2412MHz

04/09/2019

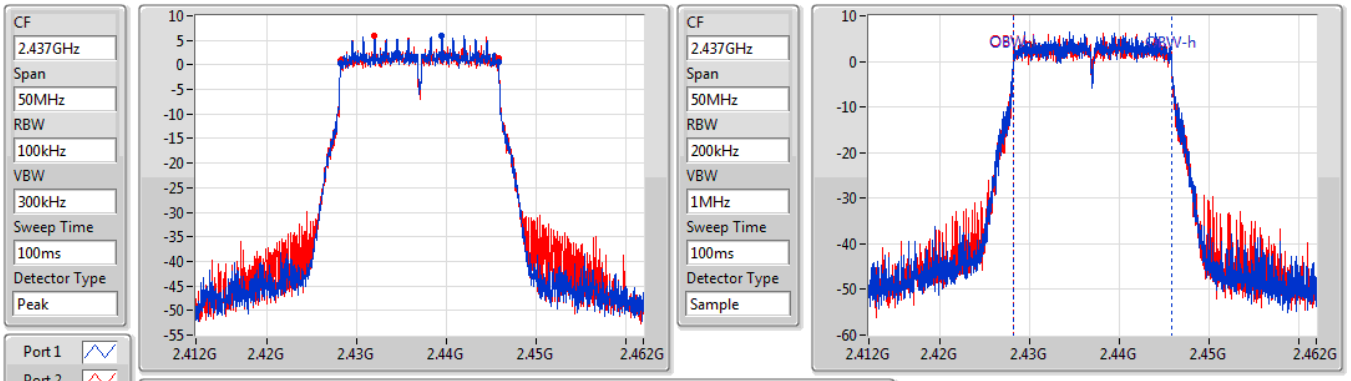


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4032G	2.420775G	17.741M	2.403104G	2.420846G	500k	1
17.575M	2.4032G	2.420775G	17.741M	2.403104G	2.420846G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

2437MHz

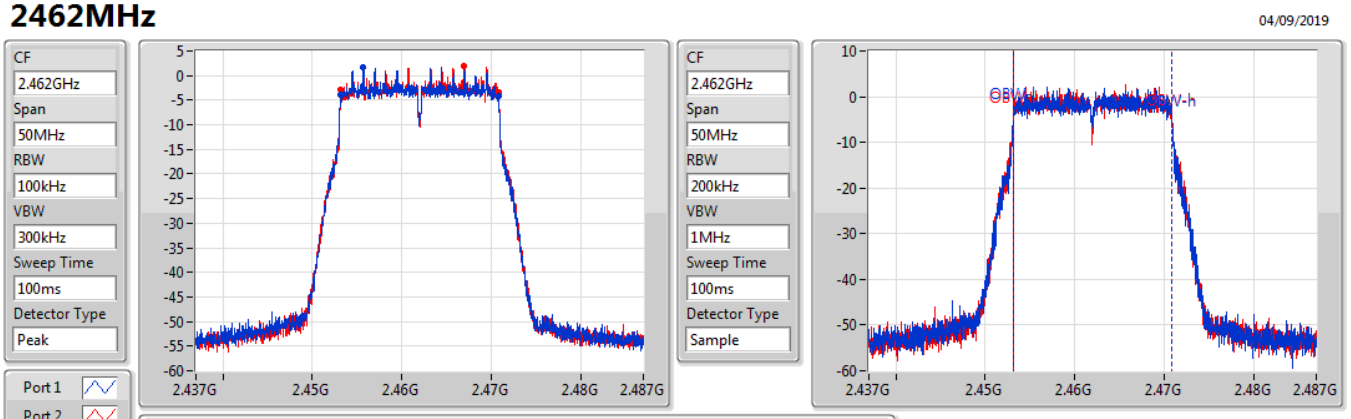
04/09/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4282G	2.445775G	17.741M	2.428129G	2.445871G	500k	1
17.575M	2.4282G	2.445775G	17.741M	2.428104G	2.445846G	500k	2

VHT20_Nss2,(MCS0)_2TX EBW

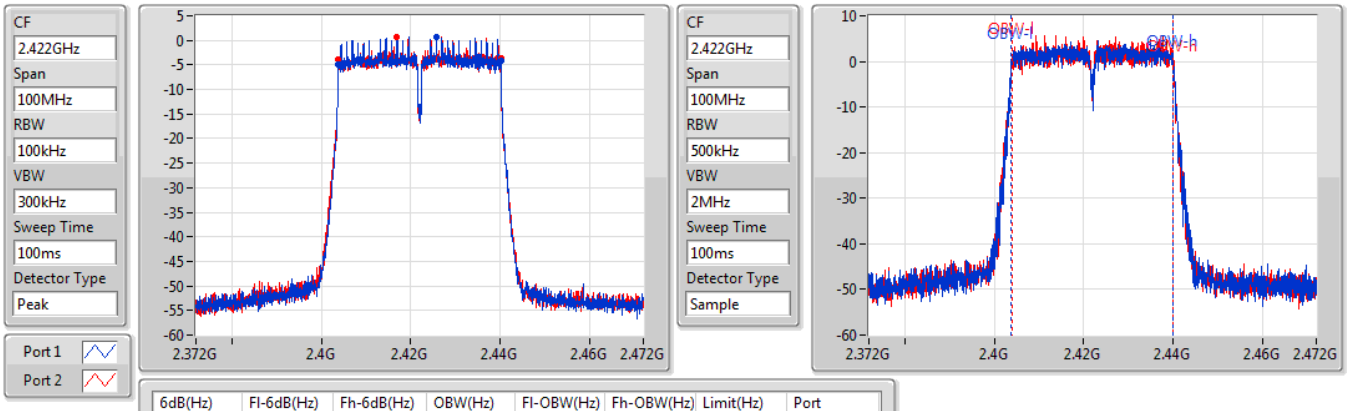
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4532G	2.470775G	17.741M	2.453129G	2.470871G	500k	1
17.575M	2.4532G	2.470775G	17.741M	2.453129G	2.470871G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

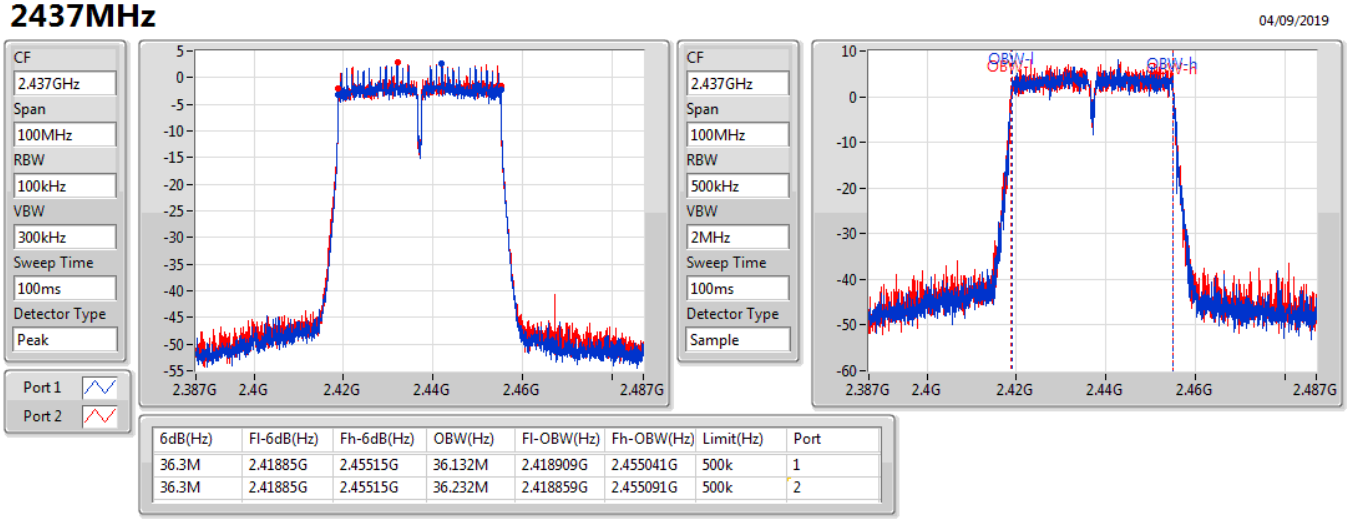
2422MHz



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	36.232M	2.403859G	2.440091G	500k	1
36.3M	2.40385G	2.44015G	36.182M	2.403909G	2.440091G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

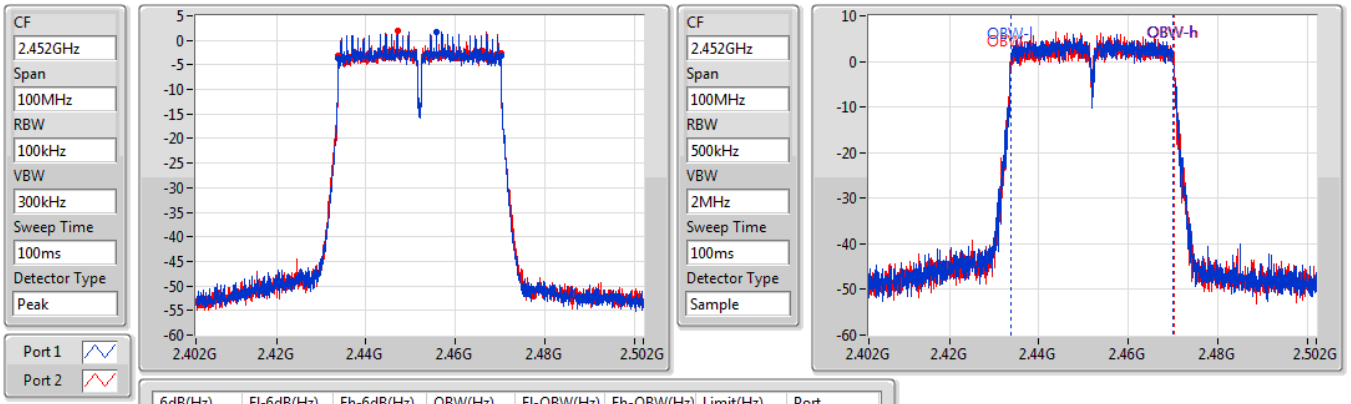
2437MHz



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	36.132M	2.418909G	2.455041G	500k	1
36.3M	2.41885G	2.45515G	36.232M	2.418859G	2.455091G	500k	2

VHT40_Nss2,(MCS0)_2TX EBW

2452MHz

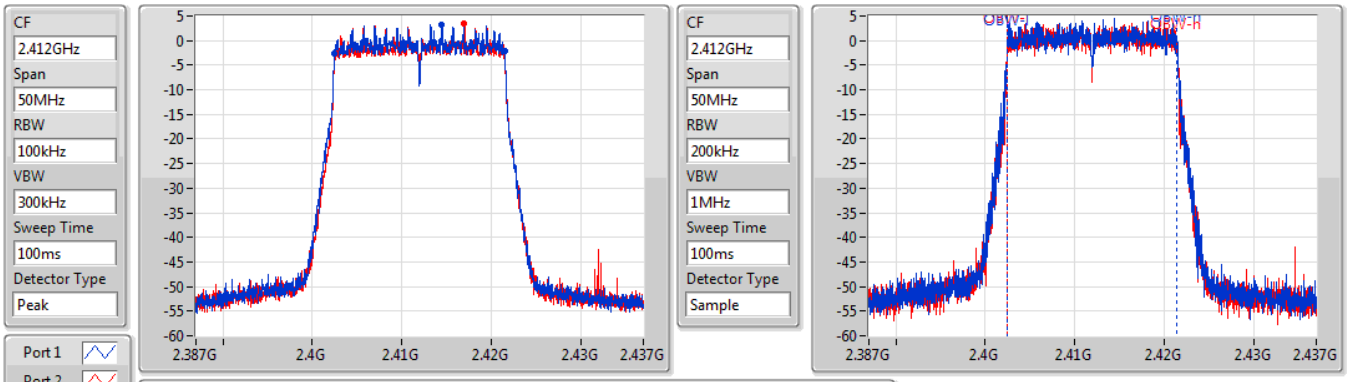


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.43385G	2.47015G	36.232M	2.433859G	2.470091G	500k	1
36.3M	2.43385G	2.47015G	36.332M	2.433809G	2.470141G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2412MHz

04/09/2019

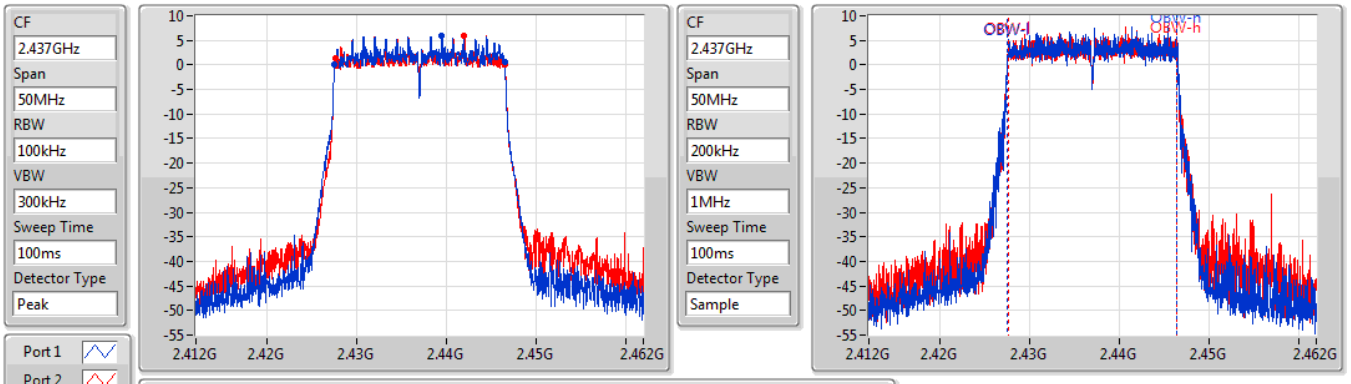


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.4025G	2.421475G	18.991M	2.40248G	2.42147G	500k	1
18.85M	2.402625G	2.421475G	18.966M	2.402505G	2.42147G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2437MHz

04/09/2019

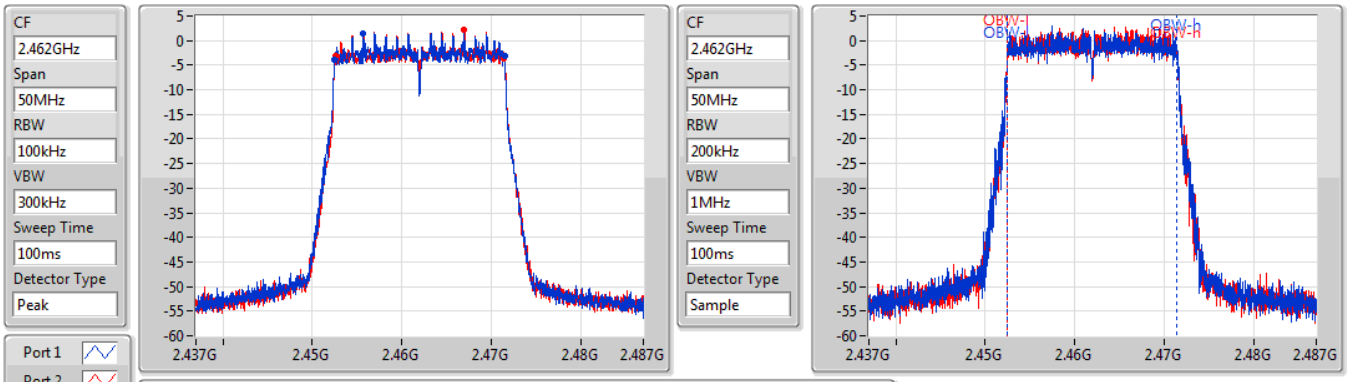


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19M	2.4275G	2.4465G	18.966M	2.427505G	2.44647G	500k	1
18.9M	2.4276G	2.4465G	18.941M	2.42753G	2.44647G	500k	2

802.11ax HEW20_Nss2,(MCS0)_2TX EBW

2462MHz

04/09/2019

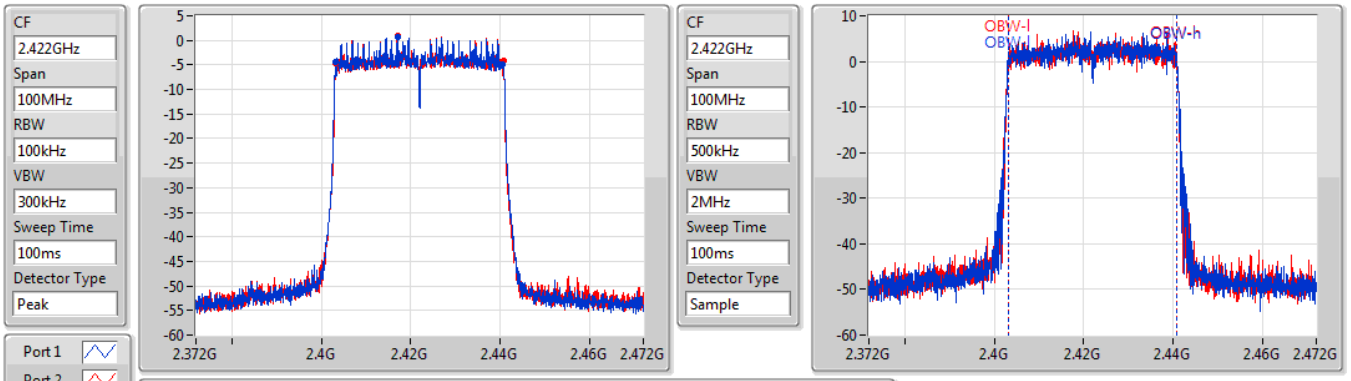


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.95M	2.452525G	2.471475G	18.991M	2.45248G	2.47147G	500k	1
18.8M	2.45265G	2.47145G	18.966M	2.452505G	2.47147G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

2422MHz

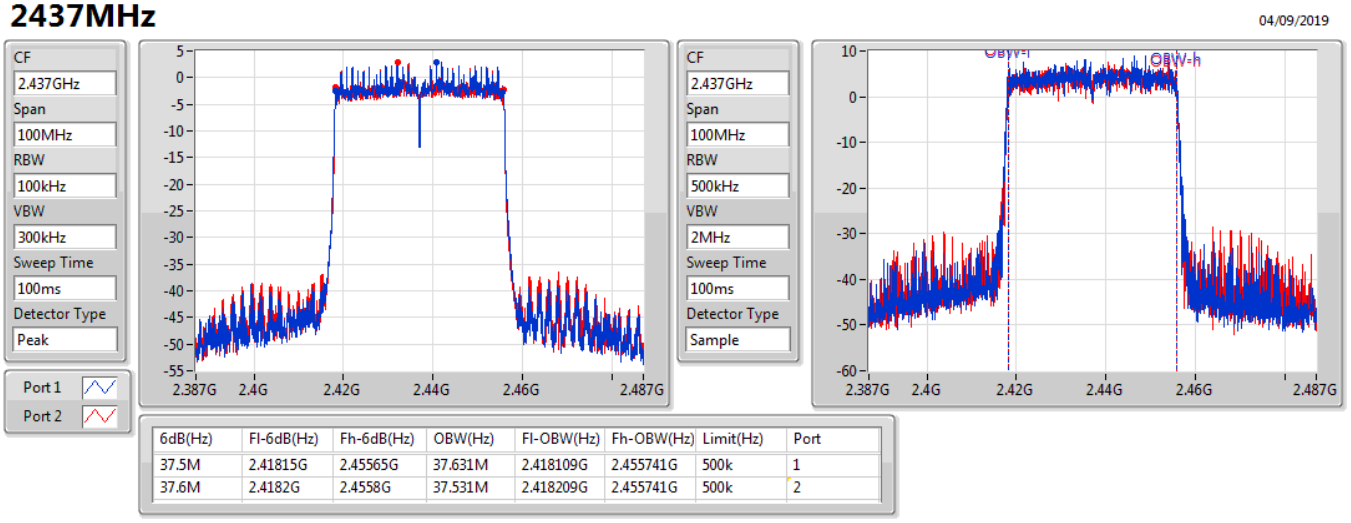
04/09/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.45M	2.4032G	2.44065G	37.581M	2.403209G	2.440791G	500k	1
37.65M	2.40315G	2.4408G	37.531M	2.403209G	2.440741G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

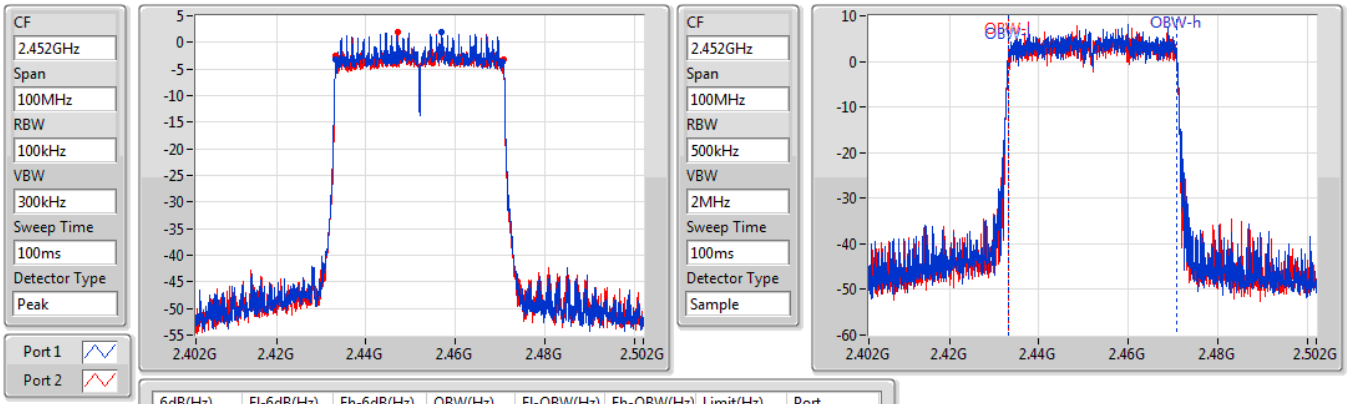
2437MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.5M	2.41815G	2.45565G	37.631M	2.418109G	2.455741G	500k	1
37.6M	2.4182G	2.4558G	37.531M	2.418209G	2.455741G	500k	2

802.11ax HEW40_Nss2,(MCS0)_2TX EBW

2452MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.5M	2.43315G	2.47065G	37.481M	2.433259G	2.470741G	500k	1
37.6M	2.4332G	2.4708G	37.531M	2.433209G	2.470741G	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	7.5M	10.645M	10M6G1D	7M	10.345M
802.11g_Nss1,(6Mbps)_1TX	16.35M	17.316M	17M3D1D	16.325M	16.592M
VHT20_Nss1,(MCS0)_1TX	17.575M	18.091M	18M1D1D	17.575M	17.741M
VHT40_Nss1,(MCS0)_1TX	36.35M	36.232M	36M2D1D	36.3M	36.182M
802.11ax HEW20_Nss1,(MCS0)_1TX	18.975M	19.19M	19M2D1D	18.9M	18.991M
802.11ax HEW40_Nss1,(MCS0)_1TX	37.55M	37.581M	37M6D1D	37.25M	37.531M

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

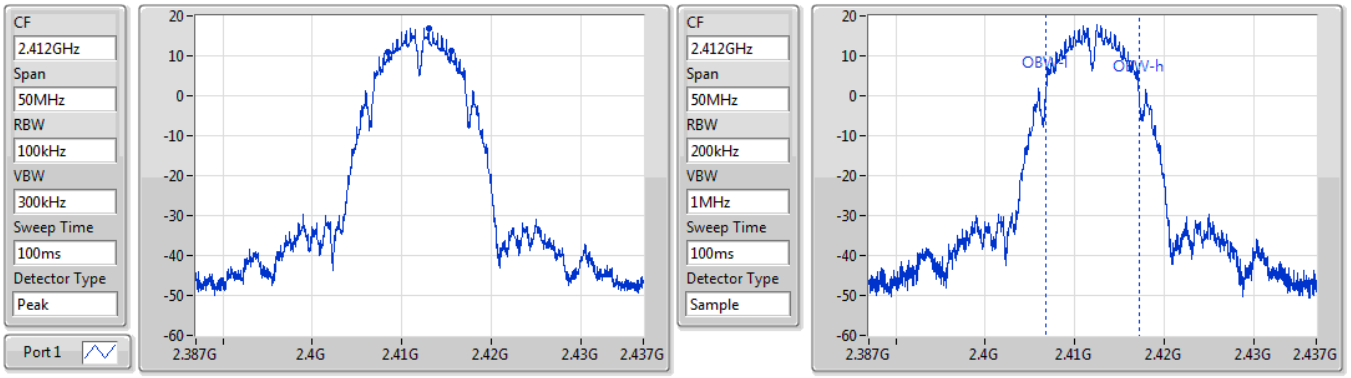
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	7.075M	10.345M
2437MHz	Pass	500k	7M	10.645M
2462MHz	Pass	500k	7.5M	10.52M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.325M	16.667M
2437MHz	Pass	500k	16.325M	17.316M
2462MHz	Pass	500k	16.35M	16.592M
VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	17.575M	17.766M
2437MHz	Pass	500k	17.575M	18.091M
2462MHz	Pass	500k	17.575M	17.741M
VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	36.3M	36.232M
2437MHz	Pass	500k	36.35M	36.232M
2452MHz	Pass	500k	36.3M	36.182M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	18.975M	18.991M
2437MHz	Pass	500k	18.9M	19.19M
2462MHz	Pass	500k	18.975M	18.991M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	37.25M	37.531M
2437MHz	Pass	500k	37.55M	37.581M
2452MHz	Pass	500k	37.5M	37.531M

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

802.11b_Nss1,(1Mbps)_1TX EBW

2412MHz

17/09/2019

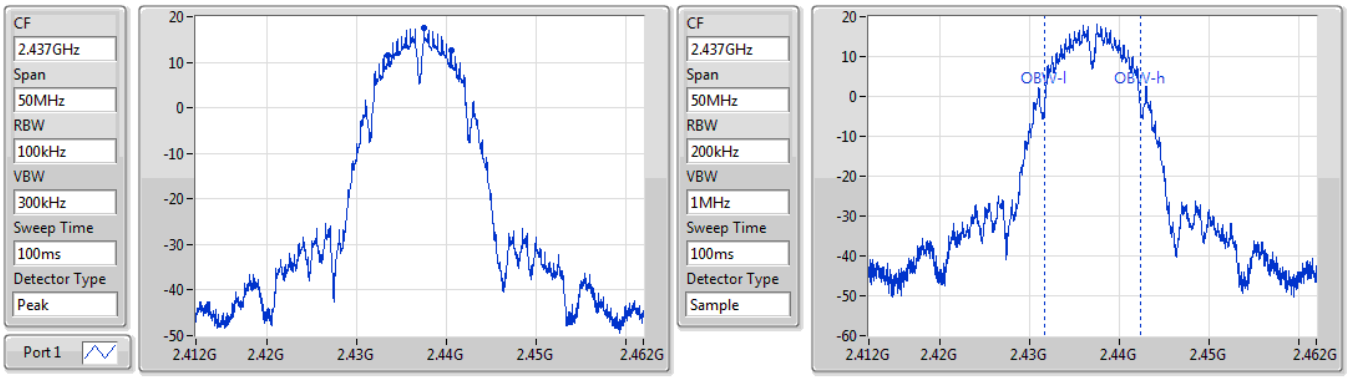


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.075M	2.40845G	2.415525G	10.345M	2.406828G	2.417172G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2437MHz

17/09/2019

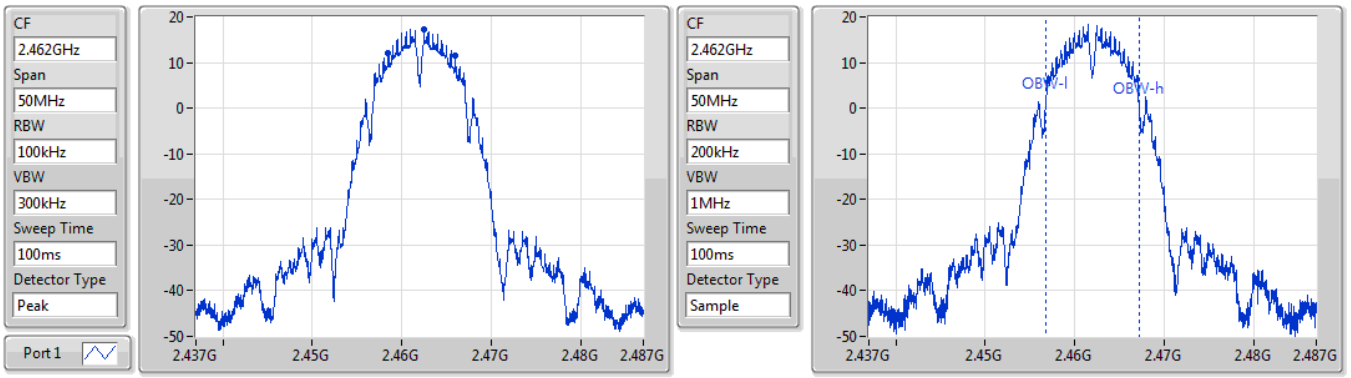


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7M	2.4335G	2.4405G	10.645M	2.431653G	2.442297G	500k	1

802.11b_Nss1,(1Mbps)_1TX EBW

2462MHz

17/09/2019

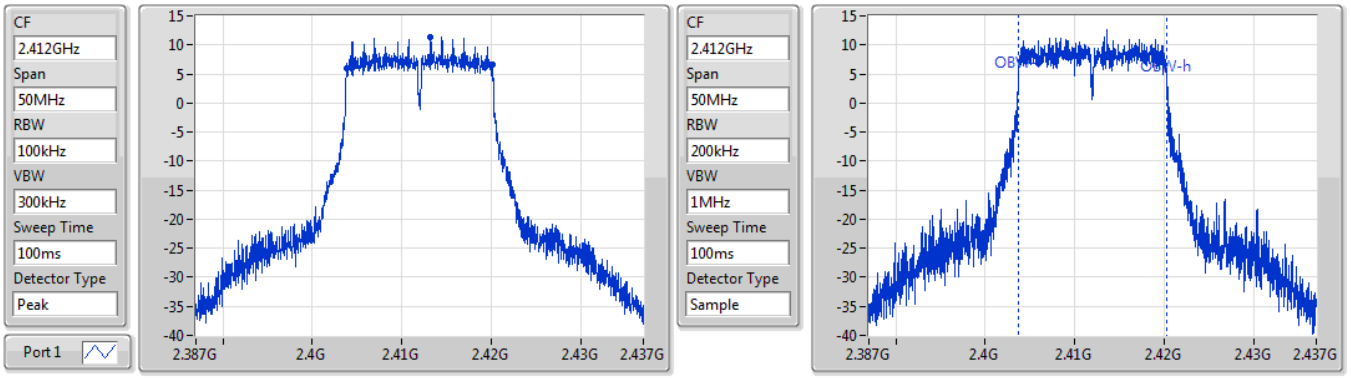


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.5M	2.458475G	2.465975G	10.52M	2.456753G	2.467272G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2412MHz

17/09/2019

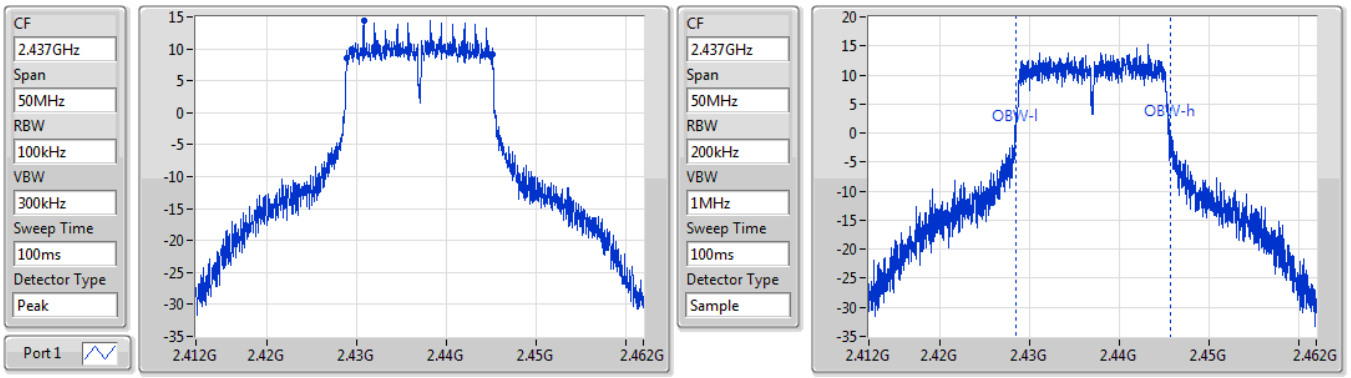


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.403825G	2.42015G	16.667M	2.403679G	2.420346G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2437MHz

17/09/2019

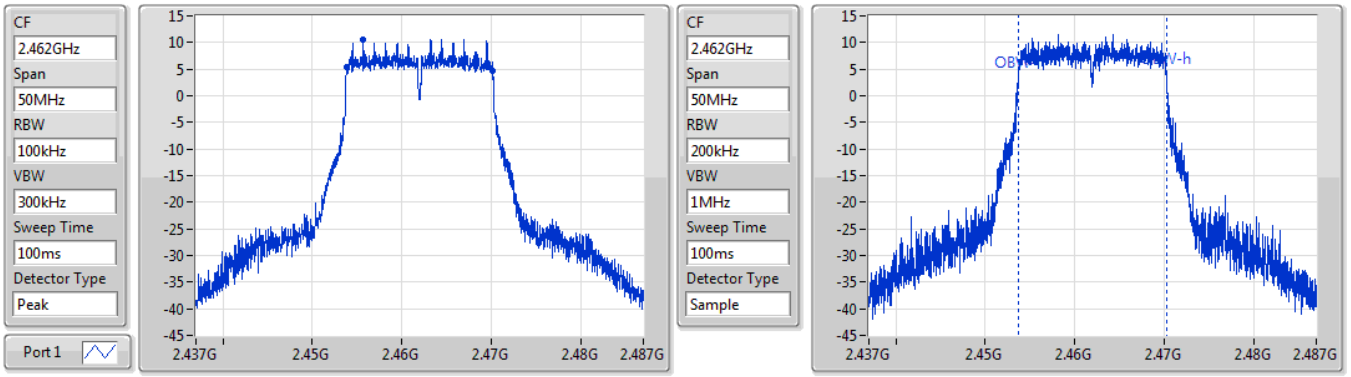


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.428825G	2.44515G	17.316M	2.428379G	2.445696G	500k	1

802.11g_Nss1,(6Mbps)_1TX EBW

2462MHz

17/09/2019

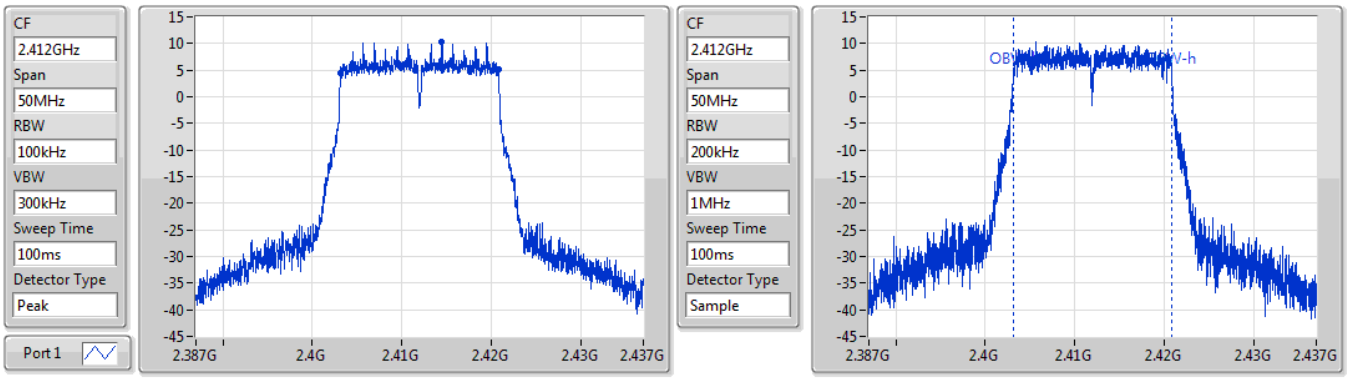


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	2.453825G	2.470175G	16.592M	2.453679G	2.470271G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2412MHz

17/09/2019

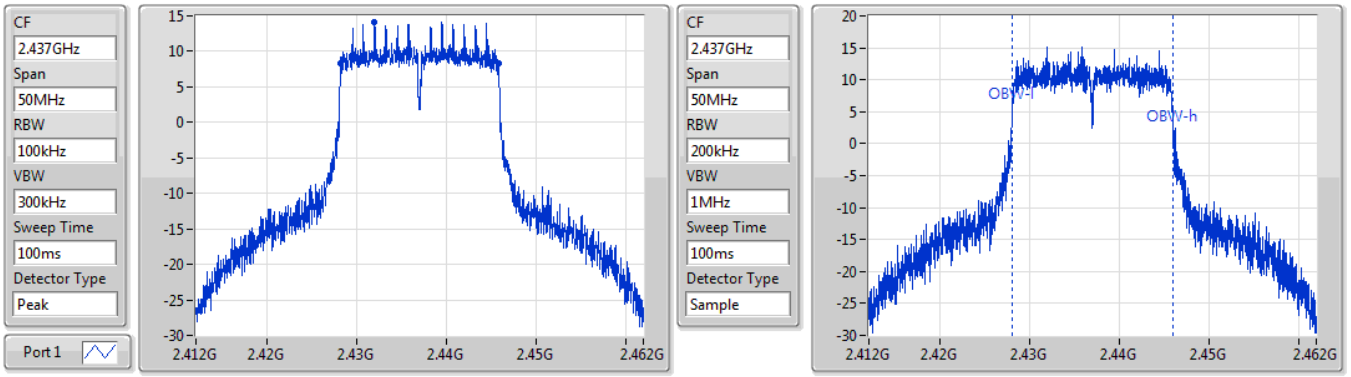


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4032G	2.420775G	17.766M	2.403104G	2.420871G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

2437MHz

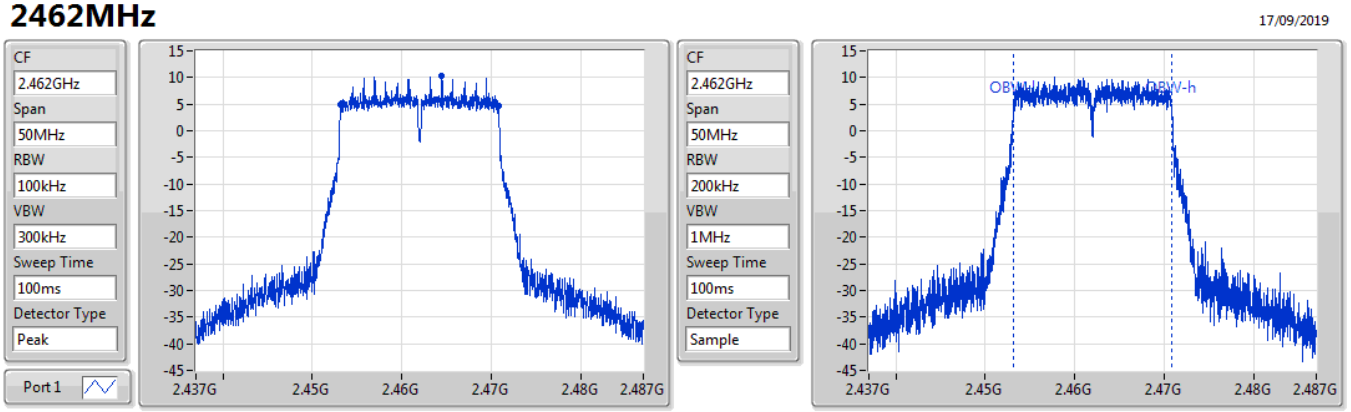
17/09/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4282G	2.445775G	18.091M	2.427955G	2.446045G	500k	1

VHT20_Nss1,(MCS0)_1TX EBW

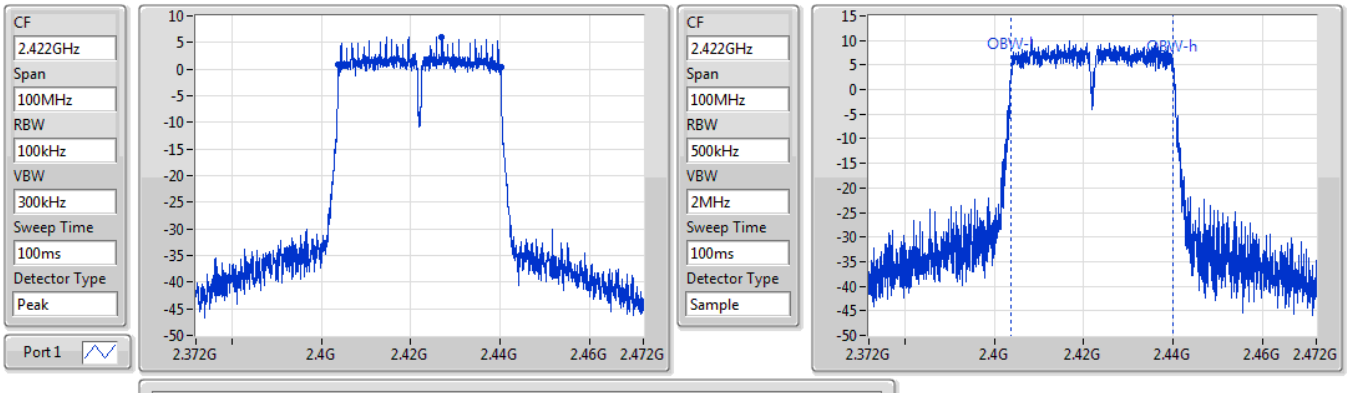
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.575M	2.4532G	2.470775G	17.741M	2.453129G	2.470871G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2422MHz

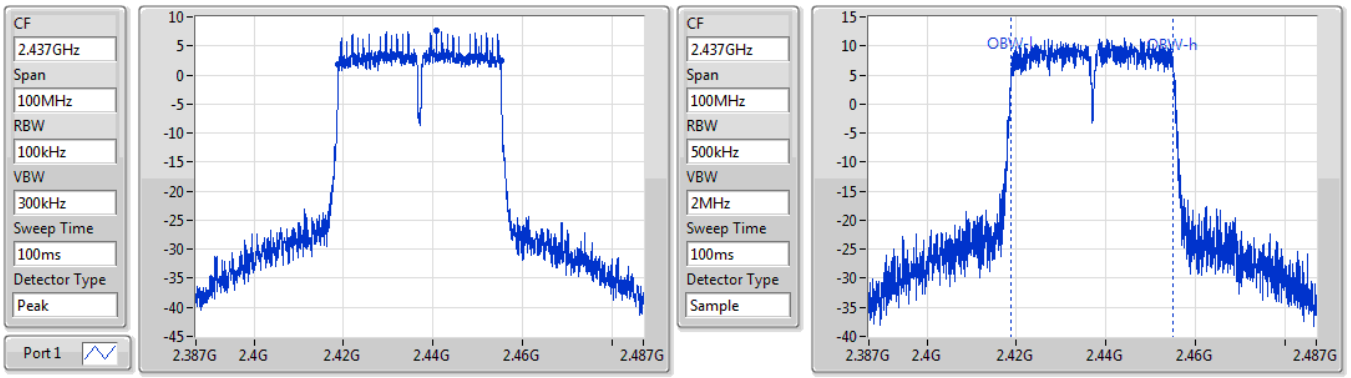


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.40385G	2.44015G	36.232M	2.403859G	2.440091G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2437MHz

17/09/2019

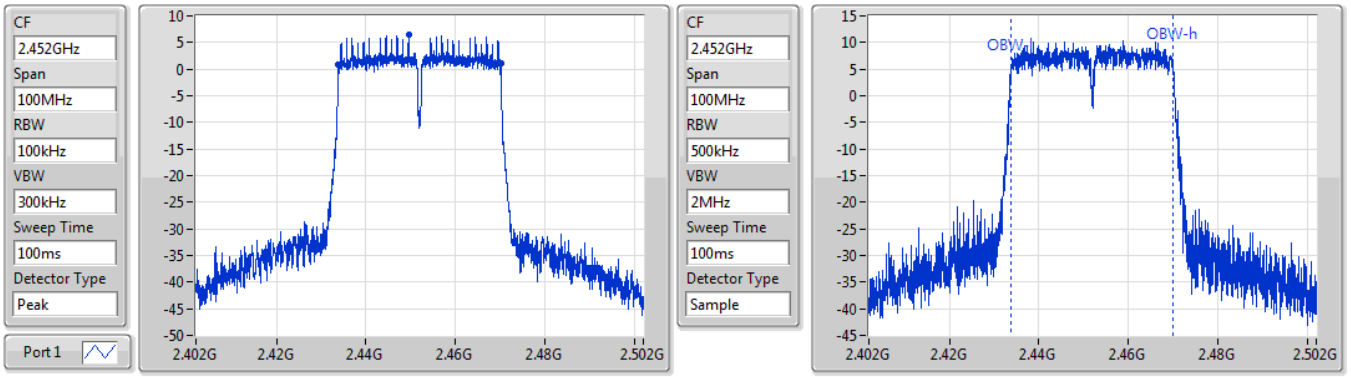


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.35M	2.4188G	2.45515G	36.232M	2.418859G	2.455091G	500k	1

VHT40_Nss1,(MCS0)_1TX EBW

2452MHz

17/09/2019

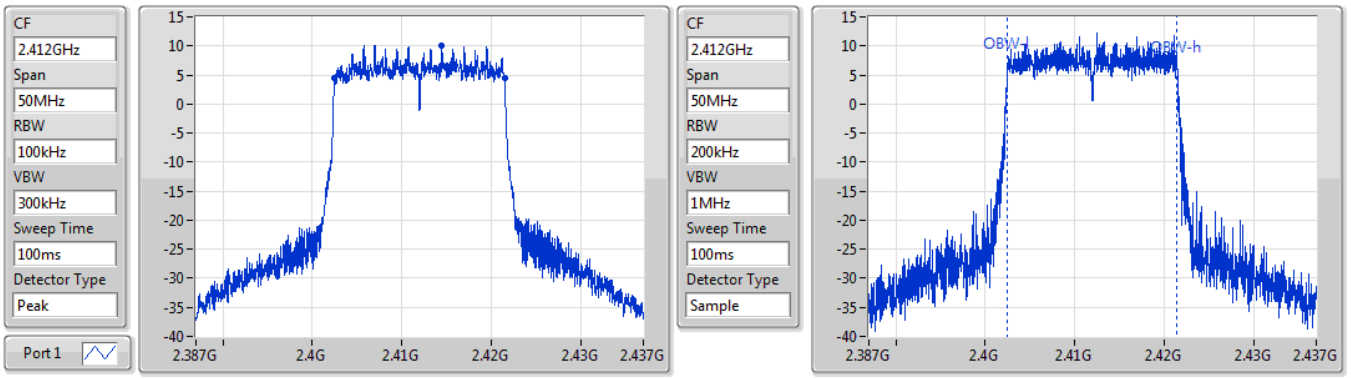


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.3M	2.43385G	2.47015G	36.182M	2.433859G	2.470041G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2412MHz

17/09/2019

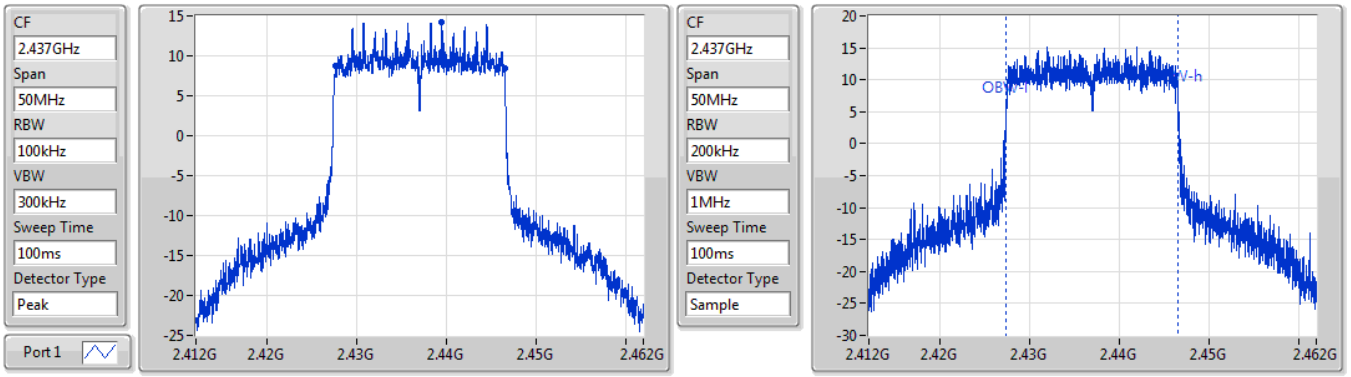


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.4025G	2.421475G	18.991M	2.40248G	2.42147G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

2437MHz

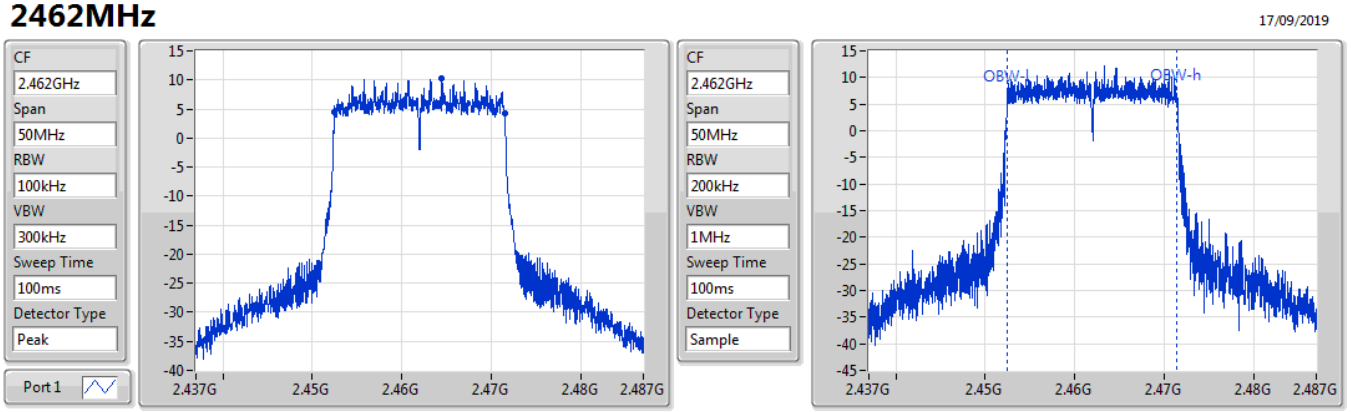
17/09/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.9M	2.427575G	2.446475G	19.19M	2.42738G	2.44657G	500k	1

802.11ax HEW20_Nss1,(MCS0)_1TX EBW

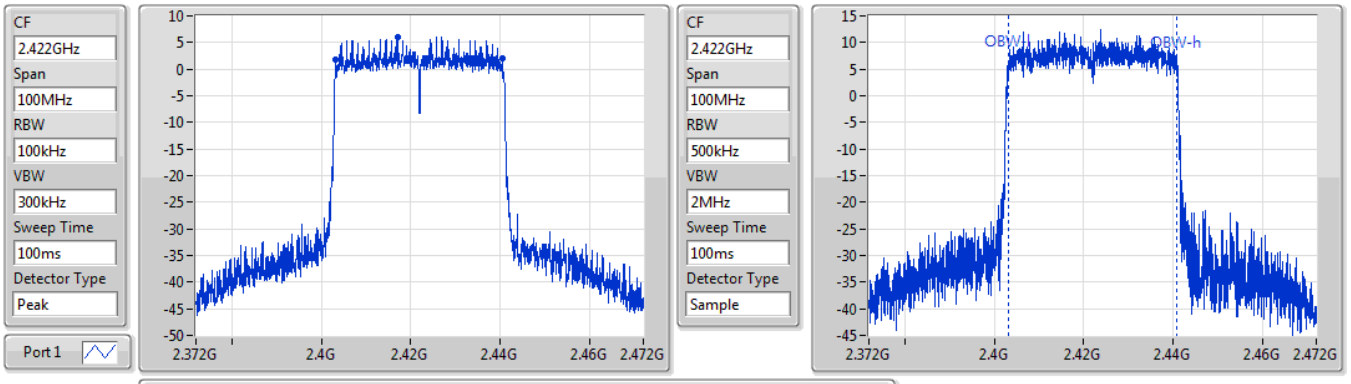
2462MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.975M	2.4525G	2.471475G	18.991M	2.45248G	2.47147G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2422MHz

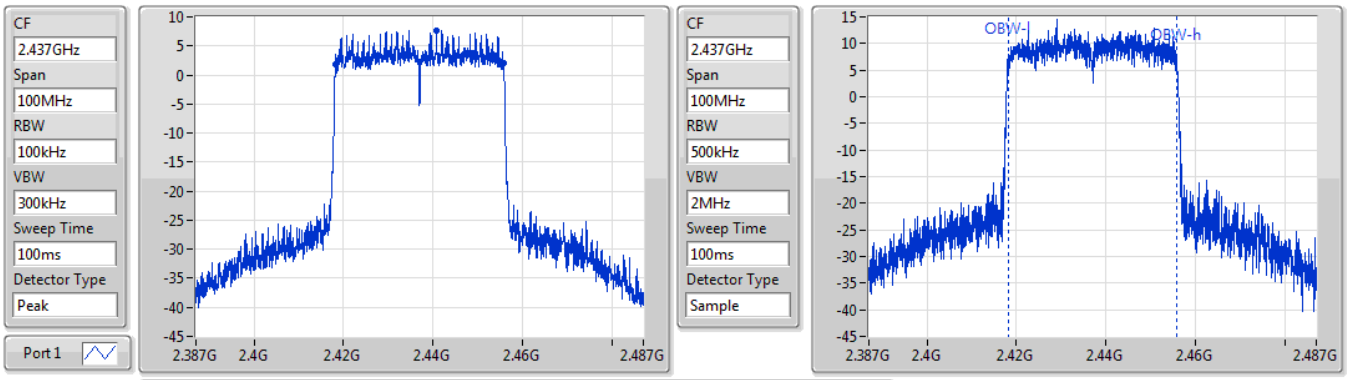


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.25M	2.4032G	2.44045G	37.531M	2.403209G	2.440741G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2437MHz

17/09/2019

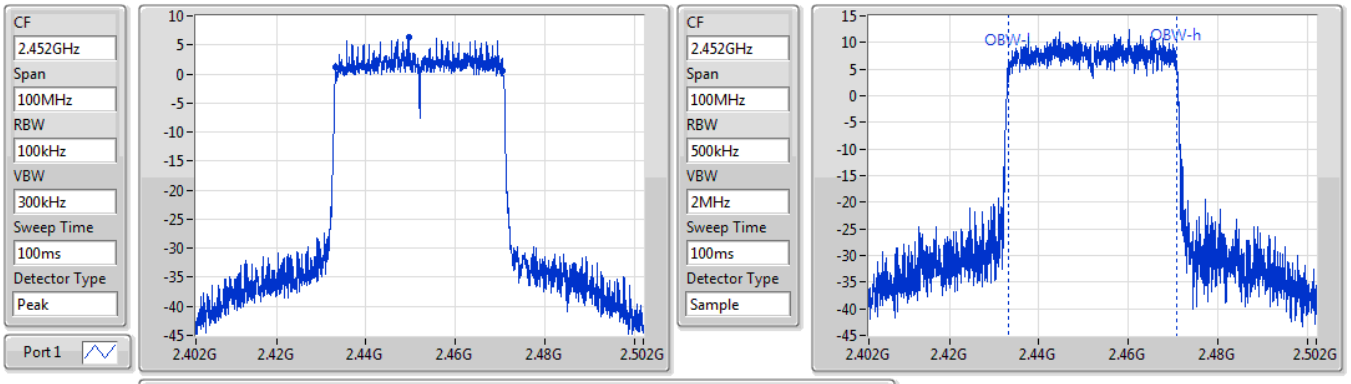


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.55M	2.41815G	2.4557G	37.581M	2.418209G	2.455791G	500k	1

802.11ax HEW40_Nss1,(MCS0)_1TX EBW

2452MHz

17/09/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.5M	2.43315G	2.47065G	37.531M	2.433209G	2.470741G	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	10.245M	10M2G1D	6.55M	10.195M
802.11g_Nss1,(6Mbps)_2TX	16.35M	16.642M	16M6D1D	16.325M	16.567M
VHT20_Nss2,(MCS0)_2TX	17.6M	17.816M	17M8D1D	17.575M	17.741M
VHT40_Nss2,(MCS0)_2TX	36.35M	36.332M	36M3D1D	36.3M	36.182M
802.11ax HEW20_Nss2,(MCS0)_2TX	19M	19.015M	19M0D1D	18.75M	18.966M
802.11ax HEW40_Nss2,(MCS0)_2TX	37.65M	37.631M	37M6D1D	37.5M	37.481M

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

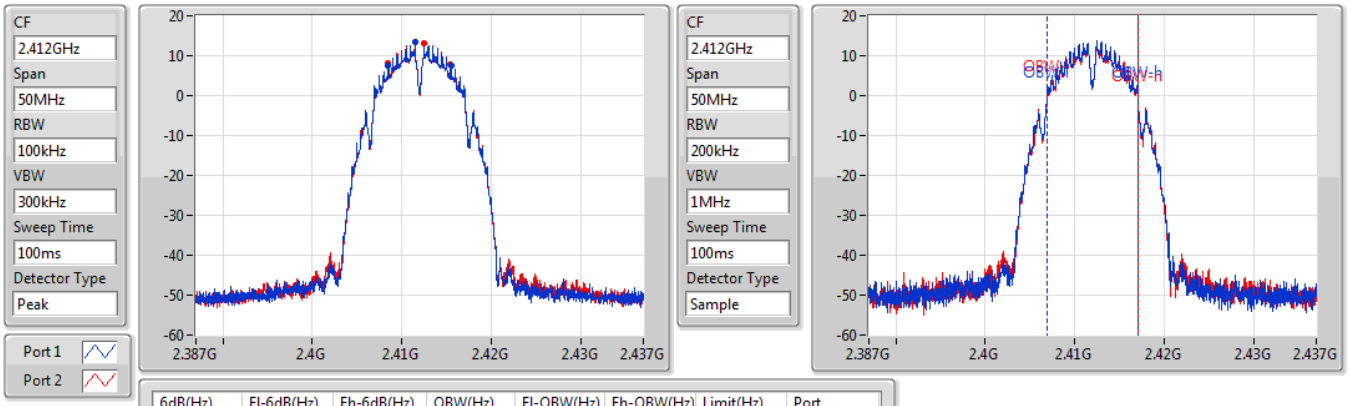
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	7M	10.195M	6.975M	10.195M
2437MHz_TnomVnom	Pass	500k	6.55M	10.22M	7.05M	10.22M
2462MHz_TnomVnom	Pass	500k	7.05M	10.245M	7.025M	10.22M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	16.325M	16.592M	16.325M	16.642M
2437MHz_TnomVnom	Pass	500k	16.325M	16.617M	16.35M	16.567M
2462MHz_TnomVnom	Pass	500k	16.325M	16.617M	16.35M	16.592M
VHT20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	17.6M	17.816M	17.575M	17.741M
2437MHz_TnomVnom	Pass	500k	17.575M	17.791M	17.575M	17.791M
2462MHz_TnomVnom	Pass	500k	17.575M	17.741M	17.575M	17.766M
VHT40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	500k	36.3M	36.232M	36.35M	36.332M
2437MHz_TnomVnom	Pass	500k	36.3M	36.182M	36.35M	36.282M
2452MHz_TnomVnom	Pass	500k	36.3M	36.232M	36.3M	36.282M
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2412MHz_TnomVnom	Pass	500k	18.875M	18.991M	18.8M	18.966M
2437MHz_TnomVnom	Pass	500k	18.95M	18.991M	18.75M	19.015M
2462MHz_TnomVnom	Pass	500k	19M	18.991M	18.825M	18.991M
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
2422MHz_TnomVnom	Pass	500k	37.55M	37.631M	37.65M	37.531M
2437MHz_TnomVnom	Pass	500k	37.5M	37.481M	37.6M	37.631M
2452MHz_TnomVnom	Pass	500k	37.5M	37.631M	37.65M	37.481M

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

802.11b_Nss1,(1Mbps)_2TX EBW

2412MHz

27/08/2019

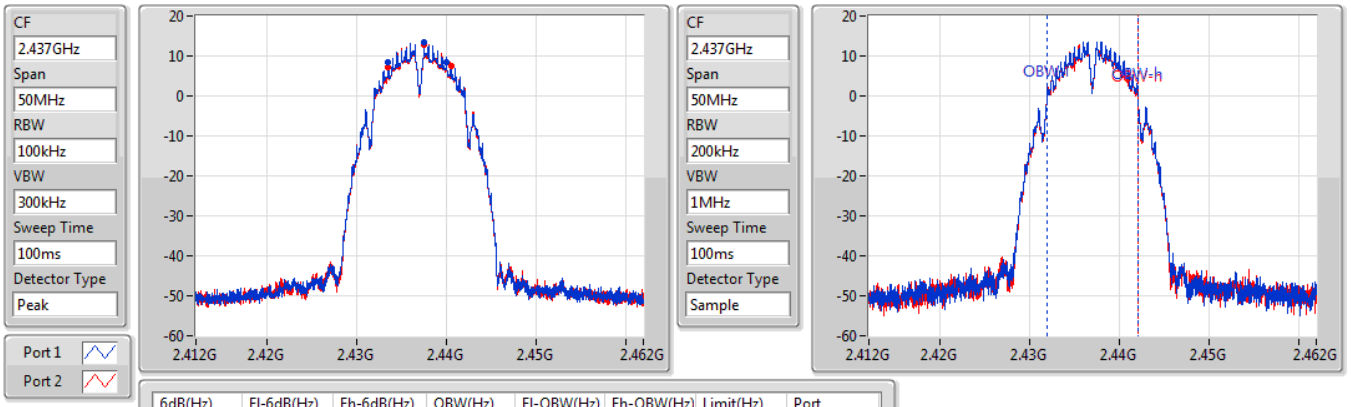


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7M	2.4085G	2.4155G	10.195M	2.406878G	2.417072G	500k	1
6.975M	2.4085G	2.415475G	10.195M	2.406903G	2.417097G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2437MHz

27/08/2019

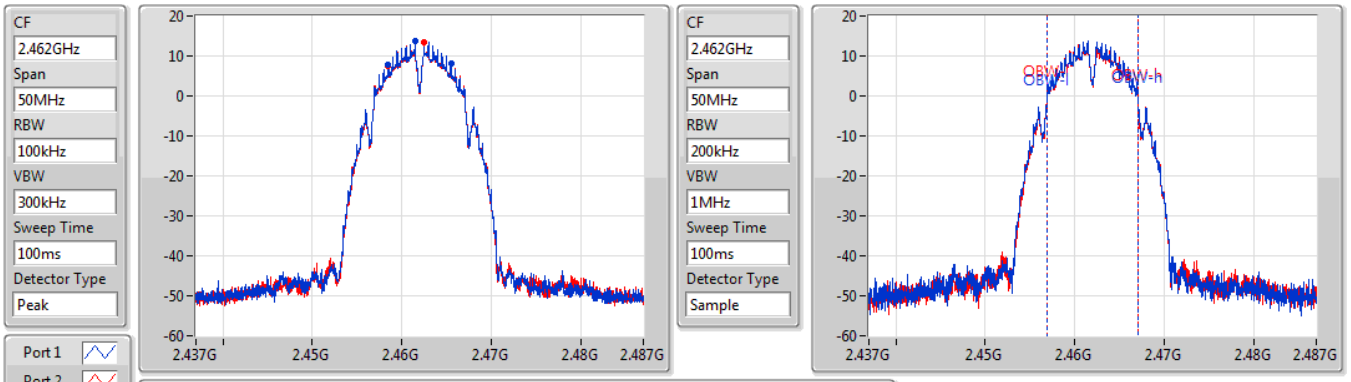


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
6.55M	2.433475G	2.440025G	10.22M	2.431878G	2.442097G	500k	1
7.05M	2.433475G	2.440525G	10.22M	2.431878G	2.442097G	500k	2

802.11b_Nss1,(1Mbps)_2TX EBW

2462MHz

27/08/2019

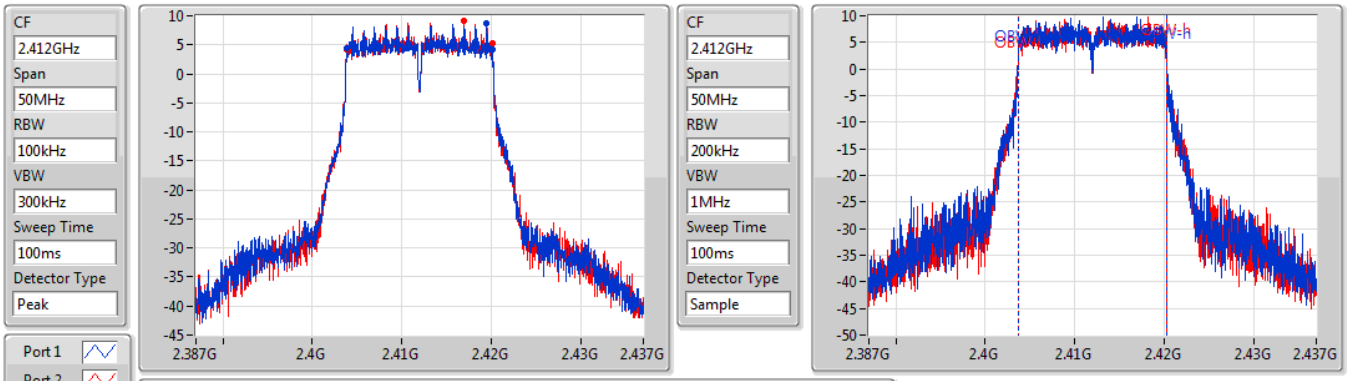


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
7.05M	2.458475G	2.465525G	10.245M	2.456853G	2.467097G	500k	1
7.025M	2.458475G	2.4655G	10.22M	2.456878G	2.467097G	500k	2

802.11g_Nss1,(6Mbps)_2TX EBW

2412MHz

27/08/2019



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.325M	2.403825G	2.42015G	16.592M	2.403704G	2.420296G	500k	1
16.325M	2.403825G	2.42015G	16.642M	2.403654G	2.420296G	500k	2