

FCC Radio Test Report

FCC ID : UDX-60099011
Equipment : Wi-Fi 6 Access Point
Brand Name : CISCO
Model Name : MR36-HW
Applicant : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA 95134 USA
Manufacturer : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA 95134 USA
Standard : 47 CFR FCC Part 15.247

The product was received on Jun. 20, 2019, and testing was started from Jun. 20, 2019 and completed on Oct. 14, 2022. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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


Approved by: Jackson Tsai

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

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History of this test report

Report No.	Version	Description	Issued Date
FR962029-16AC	01	Initial issue of report	Mar. 03, 2023



Summary of Test Result

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

Note 1: From Sporton Project No.: FR962029-06AC

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: Barry Hsiao

Report Producer: Ann Hou



1 General Description

1.1 Information

1.1.1 RF General Information

< Radio 1 >

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
2400-2483.5	b, g, n (HT20), VHT20, ax(HEW20)	2412-2462	1-11 [11]
2400-2483.5	n (HT40), VHT40, ax(HEW40)	2422-2452	3-9 [7]

Non-Beamforming

Band	Mode	BWch (MHz)	Nant
2.4-2.4835GHz	802.11b	20	2TX
2.4-2.4835GHz	802.11g	20	2TX
2.4-2.4835GHz	802.11n HT20	20	2TX
2.4-2.4835GHz	802.11ac VHT20	20	2TX
2.4-2.4835GHz	802.11ax HEW20	20	2TX
2.4-2.4835GHz	802.11n HT40	40	2TX
2.4-2.4835GHz	802.11ac VHT40	40	2TX
2.4-2.4835GHz	802.11ax HEW40	40	2TX

Beamforming

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



<Radio 2>

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

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	802.11n HT20	20	1TX
2.4-2.4835GHz	802.11ac VHT20	20	1TX
2.4-2.4835GHz	802.11n HT40	40	1TX
2.4-2.4835GHz	802.11ac VHT40	40	1TX

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.

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	Sercomm	Ant 1	PIFA	I-PEX
2	Sercomm	Ant 2	PIFA	I-PEX
3	Sercomm	Ant 3	PIFA	I-PEX
4	Sercomm	Ant 4	PIFA	I-PEX
5	Sercomm	Ant 5	PIFA	I-PEX
6	Sercomm	Ant 6	PIFA	I-PEX

Ant.	Port	Gain (dBi)										
		Radio 1					Radio 2					Radio 3
		2.4G	5G				2.4G	5G				BT
			B1	B2	B3	B4		B1	B2	B3	B4	
1	1	4.22	-	-	-	-	-	-	-	-	-	-
2	2	4.68	-	-	-	-	-	-	-	-	-	-
3	3	-	4.67	4.67	5.29	4.77	-	-	-	-	-	-
4	4	-	4.91	4.91	4.98	4.9	-	-	-	-	-	-
5	5	-	-	-	-	-	3.02	3.06	3.06	2.57	2.38	-
6	6	-	-	-	-	-	-			-		2.91



Note 1: The EUT has six antennas.

For 2.4GHz function:

For IEEE 802.11 b/g/n/ac/ax mode (2TX/2RX) (Radio 1)

Support diversity function and pre-tested on each single chain, Ant. 1 (port 1) and Ant. 2(port 2) can be used as transmitting/receiving antenna.

For IEEE 802.11 b/g/n/ac mode (1TX/1RX) (Radio 2)

Ant. 5 (port 5) can be used as transmitting/receiving antenna.

For 5GHz function:

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

Support diversity function and pre-tested on each single chain, Ant. 3 (port 3) and Ant. 4(port 4) can be used as transmitting/receiving antenna.

For IEEE 802.11 a/n/ac mode (1TX/1RX) (Radio 2)

Ant. 5 (port 5) can be used as transmitting/receiving antenna.

For BT function:

For IEEE 802.15.1 Bluetooth mode (1TX/1RX) (Radio 3)

Ant. 6 (port 6) can be used as transmitting/receiving antenna.

1.1.3 EUT Information

Operational Condition				
EUT Power Type	From AC Adapter / PoE			
EUT Function	☒	Point-to-multipoint	☐	Point-to-point
Beamforming Function	☒	With beamforming	☐	Without beamforming
Resource Unit(802.11ax)	☒	Full RU	☐	Partial RU
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 Mode Test Duty Cycle

Radio 1_Non-Beamforming

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11b	0.755	1.22	650u	3k
802.11g	0.92	0.36	1.434m	1k
802.11ac VHT20	0.95	0.22	5.429m	300
802.11ac VHT40	0.954	0.2	5.43m	300
802.11ax HEW20	0.952	0.21	5.446m	300
802.11ax HEW40	0.954	0.2	5.447m	300

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

Radio 1_Beamforming

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ax HEW20-BF	0.9	0.46	3.146m	1k
802.11ax HEW40-BF	0.875	0.58	1.695m	1k
802.11ac VHT20-BF	0.867	0.62	1.76m	1k
802.11ac VHT40-BF	0.9	0.46	1.695m	1k

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

Radio 2_Non-Beamforming

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11b	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11g	0.963	0.16	2.034m	1k
802.11ac VHT20	0.958	0.19	1.906m	1k
802.11ac VHT40	0.924	0.34	940.625u	3k

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

1.2 Testing Applied Standards

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

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

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

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



1.3 Testing Location Information

Test Lab. : Sporton International Inc. Hsinhua Laboratory				
☒ Hsinhua (TAF: 3785)	ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
	TEL: 886-3-327-3456		FAX: 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction (Non-Beamforming)	CO01-HY	Justin	23.5~24.4°C / 58.3~67.3%	24/Jun/2019~13/Jul/2019
AC Conduction (Beamforming)	CO01-HY	Edward	24.2~25.3°C / 57.8~59.6%	23/Jul/2019
RF Conducted	TH06-HY	Dexter	24.3~25.7°C / 54~58%	25/Jun/2019~31/Jul/2019
Radiated (Non-Beamforming)	03CH02-HY	Terry	22.5~24.7°C / 51~61%	22/Jun/2019~12/Jul/2019
	03CH03-HY	Daniel	22.8~27.3°C / 55~63%	22/Jun/2019~12/Jul/2019
Radiated (Co-location)	03CH02-HY	Henry	21.2~23.8°C / 56~62%	13/Oct/2022~14/Oct/2022
☒ Wen 33rd.St. (TAF: 3785)	ADD: No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)			
	TEL: 886-3-318-0787		FAX: 886-3-318-0287	
Test site Designation No. TW0008 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
Radiated (Non-Beamforming)	03CH09-HY	Lego	23.5~26.9°C / 45~58%	20/Jun/2019~28/Jun/2019
Radiated (Beamforming)	03CH09-HY	Ryan	22.8~23.9°C / 41~57%	18/Jul/2019~19/Jul/2019

Note 1: Laboratory number TAF 3785 is a spin-off from the original Laboratory number TAF 1190.

Note 2: The tested sample of the verified test item was received on Oct. 03, 2022.

1.4 Measurement Uncertainty

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

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

Radiated(Co-location)

Test Items	Uncertainty	Remark
Unwanted Emissions	4.8 dB	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Radio 1_Non-Beamforming

Test Software Version	QRCT V4.0 00123
-----------------------	-----------------

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX(Port1)	-
2412MHz	20
2437MHz	20
2462MHz	20
802.11b_Nss1,(1Mbps)_1TX(Port2)	-
2412MHz	20
2437MHz	20
2462MHz	20
802.11b_Nss1,(1Mbps)_2TX	-
2412MHz	20
2437MHz	20
2462MHz	20
802.11g_Nss1,(6Mbps)_1TX(Port1)	-
2412MHz	18
2417MHz	19.5
2437MHz	20
2457MHz	18.5
2462MHz	17.5
802.11g_Nss1,(6Mbps)_1TX(Port2)	-
2412MHz	17
2417MHz	19
2437MHz	20
2457MHz	19.5
2462MHz	17.5
802.11g_Nss1,(6Mbps)_2TX	-
2412MHz	16.5
2417MHz	18
2437MHz	20
2457MHz	17.5
2462MHz	16.5



Mode	Power Setting
802.11ac VHT20_Nss1,(MCS0)_1TX(Port1)	-
2412MHz	17.5
2417MHz	19.5
2437MHz	20
2457MHz	18.5
2462MHz	17
802.11ac VHT20_Nss1,(MCS0)_1TX(Port2)	-
2412MHz	17
2417MHz	19
2437MHz	20
2457MHz	18.5
2462MHz	17
802.11ac VHT20_Nss1,(MCS0)_2TX	-
2412MHz	17
2417MHz	18
2437MHz	20
2457MHz	17.5
2462MHz	16.5
802.11ac VHT40_Nss1,(MCS0)_1TX(Port1)	-
2422MHz	17.5
2437MHz	17.5
2447MHz	17
2452MHz	16.5
802.11ac VHT40_Nss1,(MCS0)_1TX(Port2)	-
2422MHz	16.5
2427MHz	16.5
2437MHz	17.5
2447MHz	17
2452MHz	16
802.11ac VHT40_Nss1,(MCS0)_2TX	-
2422MHz	16.5
2427MHz	17
2437MHz	17
2447MHz	16.5
2452MHz	15.5
802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)	-



Mode	Power Setting
2412MHz	17.5
2417MHz	19.5
2437MHz	20
2457MHz	18.5
2462MHz	17
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	-
2412MHz	17
2417MHz	19
2437MHz	20
2457MHz	18.5
2462MHz	17
802.11ax HEW20_Nss1,(MCS0)_2TX	-
2412MHz	17
2417MHz	18
2437MHz	20
2457MHz	17.5
2462MHz	16.5
802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)	-
2422MHz	17.5
2437MHz	17.5
2447MHz	17
2452MHz	16.5
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	-
2422MHz	16.5
2427MHz	16.5
2437MHz	17.5
2447MHz	17
2452MHz	16
802.11ax HEW40_Nss1,(MCS0)_2TX	-
2422MHz	16.5
2427MHz	17
2437MHz	17
2447MHz	16.5
2452MHz	15.5

**Radio 1_Beamforming**

Test Software	DoS
Mode	Power Setting
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
2412MHz	17
2437MHz	17
2457MHz	17
2462MHz	17
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
2422MHz	17
2437MHz	17
2452MHz	17
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
2412MHz	17
2437MHz	17
2457MHz	17
2462MHz	17
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
2422MHz	17
2437MHz	17
2452MHz	17

**Radio 2_Non-Beamforming**

Test Software Version	QRCT V4.0 00123
------------------------------	-----------------

Mode	Power Setting
802.11b_Nss1,(1Mbps)_1TX	-
2412MHz	20
2437MHz	20
2462MHz	20
802.11g_Nss1,(6Mbps)_1TX	-
2412MHz	15
2417MHz	19
2437MHz	20
2457MHz	20
2462MHz	16
802.11ac VHT20_Nss1,(MCS0)_1TX	-
2412MHz	14
2417MHz	19
2437MHz	20
2457MHz	19
2462MHz	15
802.11ac VHT40_Nss1,(MCS0)_1TX	-
2422MHz	11
2427MHz	13
2437MHz	18
2447MHz	13
2452MHz	12

2.2 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 Test Voltage: 120Vac / 60Hz
Operating Mode	CTX
1	Adapter mode_Radio 1_Non-Beamforming
2	Adapter mode_Radio 1_Beamforming
3	Adapter mode_Radio 2_Non-Beamforming
4	PoE mode_Radio 1_Non-Beamforming
5	PoE mode_Radio 1_Beamforming
6	PoE mode_Radio 2_Non-Beamforming

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	Adapter mode_Non-Beamforming		
2	Adapter mode_Beamforming		
3	PoE mode_Non-Beamforming		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT		V (Radio 1)	V (Radio 2)



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Operating Mode	CTX
1	WLAN 2.4G (Radio1) + 5G (Radio1) + BT (Radio3) + WLAN 2.4G (Radio2)
2	WLAN 2.4G (Radio1) + 5G (Radio1) + BT (Radio3) + WLAN 5G (Radio2)
Refer to Sporton Test Report No.: FA962029-16 for Co-location RF Exposure Evaluation and Appendix G for Radiated Emission Co-location.	

2.3 Accessories

Accessories				
Mounting bracket	Brand Name	CISCO	Model Name	Bra.1

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

2.4 Support Equipment

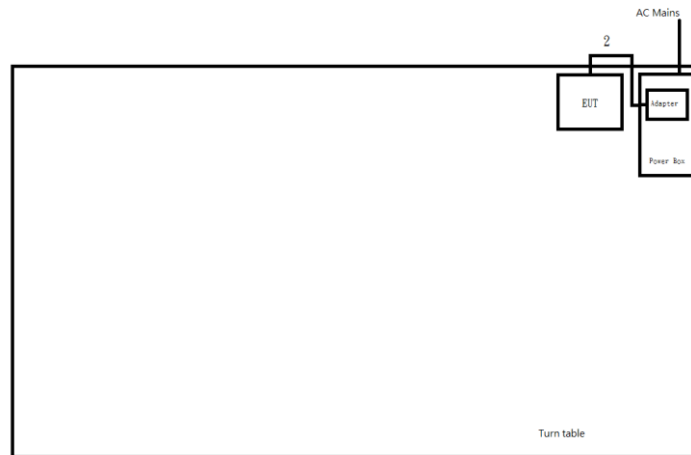
Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	AC adapter	Cisco	MA-PWR-30W-US	-	Provided by Customer
2	PoE	CISCO	MA-INJ-4	-	Provided by Customer
3	Notebook	DELL	E5530	DoC	Remote
4	Client AP	CISCO	AXL	DoC	Provided by Customer; Remote
5	AC Power Cable	Power Sync	TPCMRN0018	-	-

Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	DoC	-
2	Adapter for NB	DELL	HA65NM130	DoC	-
3	AC Power Source	GW	APS-9102	-	-

Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	AC adapter	CISCO	MA-PWR-30W-US	-	Provided by Customer
2	PoE	CISCO	MA-INJ-4	-	Provided by Customer
3	Notebook	DELL	E5530	DoC	Remote
4	Client AP	CISCO	AXL	DoC	Provided by Customer; Remote
5	AC Power Cable	Power Sync	TPCMRN0018	-	-

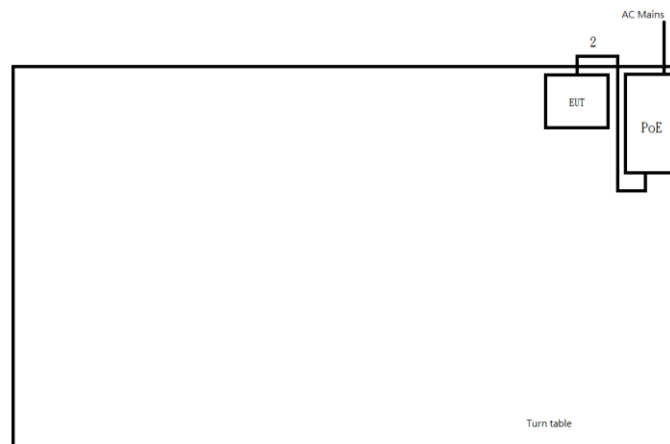
2.5 Test Setup Diagram

Test Setup Diagram – AC Line Conducted Emission Test - Adapter mode

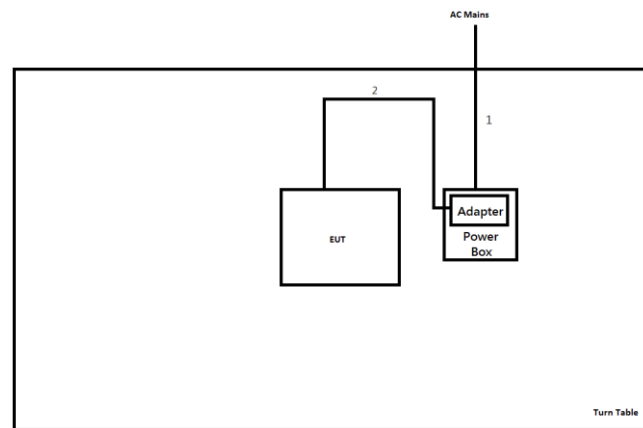


Item	Connection	Shielded	Length(m)
1	AC Power line	No	1.5
2	DC Power line	No	1.5

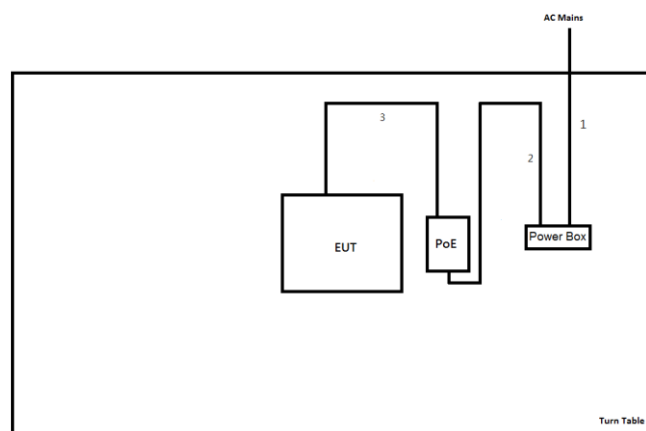
Test Setup Diagram – AC Line Conducted Emission Test - PoE mode



Item	Connection	Shielded	Length(m)
1	AC Power line	No	1.5
2	Lan cable	No	1.5

Test Setup Diagram - Radiated Test - Adapter mode


Item	Connection	Shielded	Length(m)
1	AC Power line	No	1.8
2	DC Power line	No	1.5

Test Setup Diagram - Radiated Test – PoE mode


Item	Connection	Shielded	Length(m)
1	AC Power line	No	1.5
2	AC Power line	No	1.5
3	LAN cable	No	2.0



3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

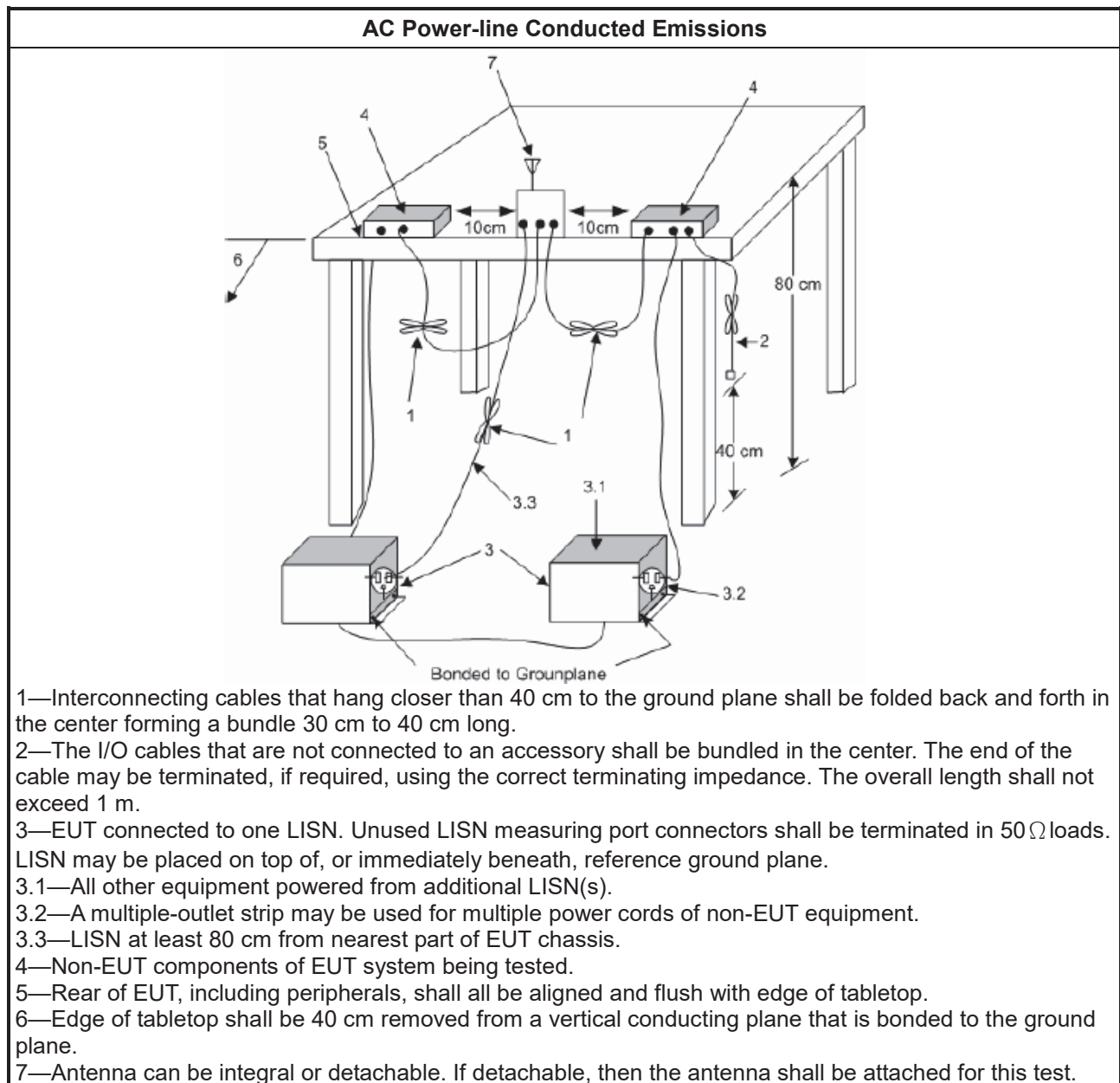
Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

3.1.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + LISN(LISN Factor) + CL(Cable Loss) + AT(Attenuator).

3.1.5 Test Setup



3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

3.2 DTS Bandwidth

3.2.1 6dB Bandwidth Limit

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

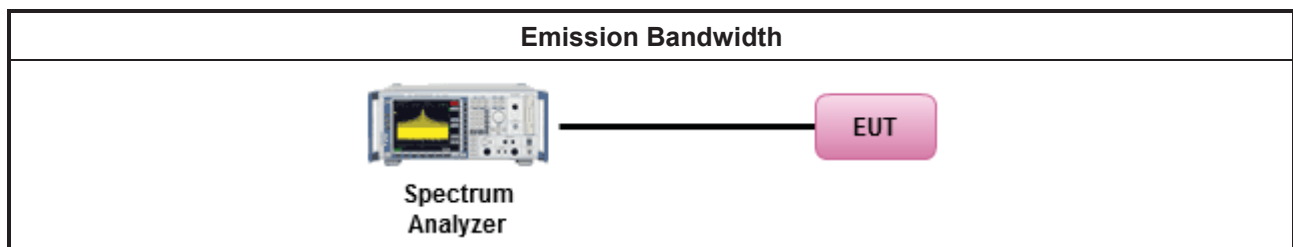
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
▪	For the emission bandwidth shall be measured using one of the options below:
☒	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



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): $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX}])$ dBm	
	Smart antenna system (SAS)	
	-	Single beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	-	Overlap beam: $P_{eirp} \leq \text{MAX}(36, P_{Out} + G_{TX})$ dBm
	-	Aggregate power on all beams: $P_{eirp} \leq \text{MAX}(36, [P_{Out} + G_{TX} + 8])$ 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.		

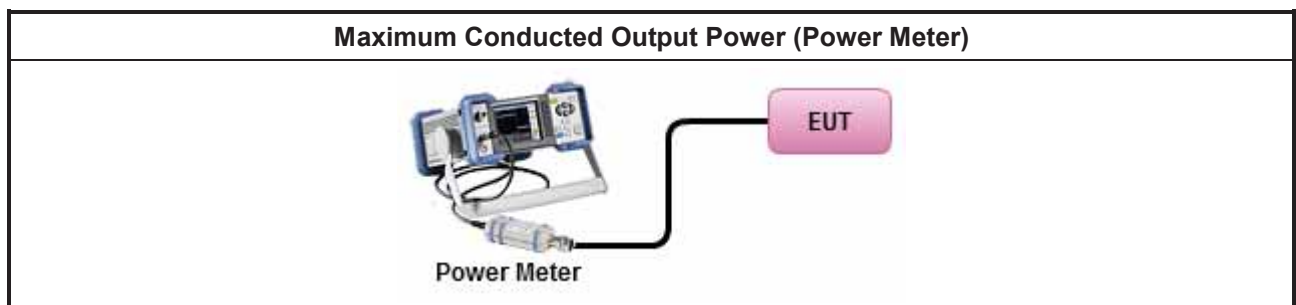
3.3.2 Measuring Instruments

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

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

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

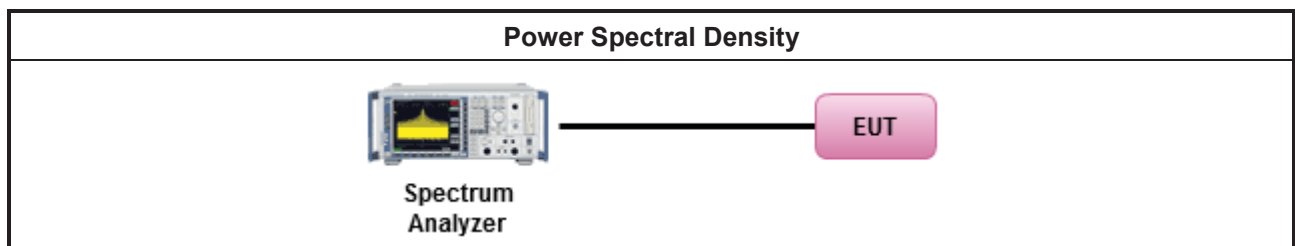
3.4.2 Measuring Instruments

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) Max. PSD.
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



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.	

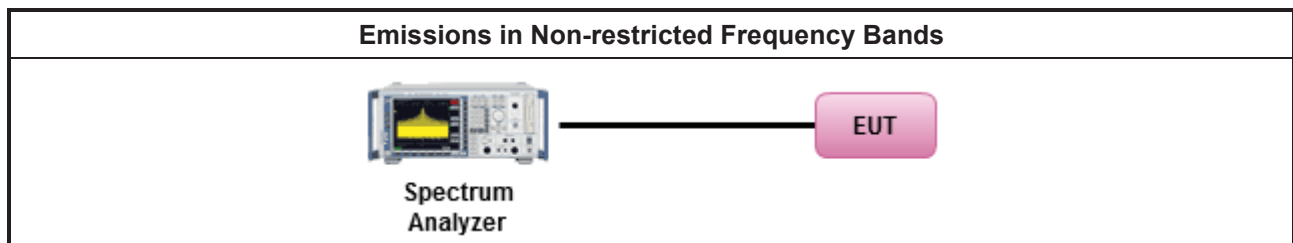
3.5.2 Measuring Instruments

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



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

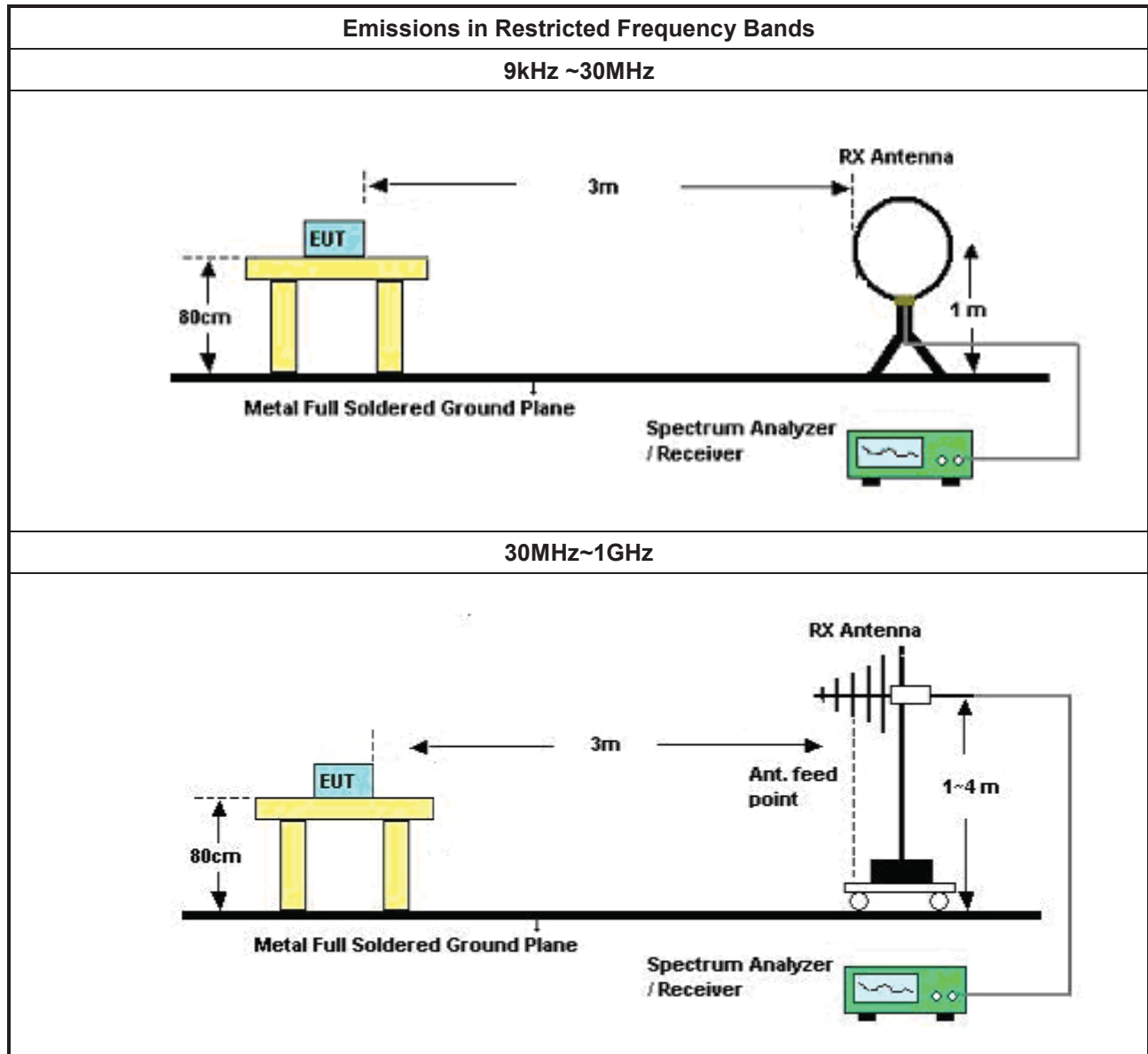
Test Method	
▪ The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].	
▪ Refer as ANSI C63.10, clause 6.10.3 band-edge testing shall be performed at the lowest frequency channel and highest frequency channel within the allowed operating band.	
▪ For the transmitter unwanted 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 $f \geq 1$ 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.

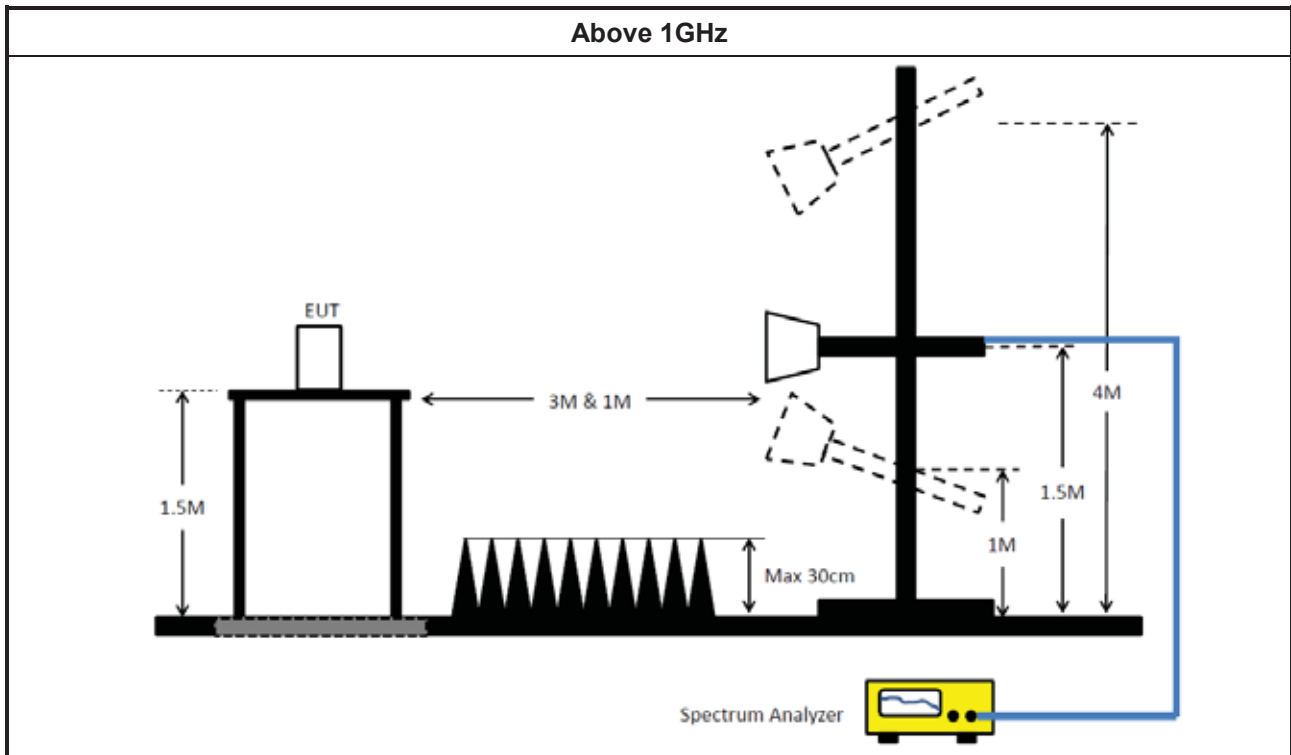
3.6.4 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Raw(Read Level) + AF(Antenna Factor) + CL(Cable Loss) - PA(Preamplifier Factor)

3.6.5 Test Setup





3.6.6 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.

3.6.7 Test Result of Emissions in Restricted Frequency Bands

Refer as Appendix F



4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMC Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
LISN	R&S	ENV 216	101274	9kHz ~ 30MHz	03/Jun/2019	02/Jun/2020
RF Cable-CON	MTJ	RG142	CB001-CO	9kHz ~ 30MHz	17/Sep/2018	16/Sep/2019
AC POWER	APC	AFC-11003G	F308010045	47Hz~63Hz 5~300V	NCR	NCR
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561F	9495	9kHz ~ 30MHz	11/Oct/2018	10/Oct/2019

NCR: No Calibration Required

Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Spectrum Analyzer	R&S	FSV 40	101013	10Hz~40GHz	13/Mar/2019	12/Mar/2020
Power Sensor	Anritsu	MA2411B	1339407	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Power Meter	Anritsu	ML2495A	1517010	300MHz ~ 40GHz	17/Nov/2018	16/Nov/2019
Cable 0.2m	HUBER	MY10710/4	RF Cable - 01	30MHz ~18G	10/Jan/2019	09/Jan/2020
Cable 0.2m	HUBER	MY10711/4	RF Cable - 02	30MHz ~18G	10/Jan/2019	09/Jan/2020
Cable 0.5m	HUBER	MY39470/4	RF Cable - 29	30MHz ~18G	10/Jan/2019	09/Jan/2020
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	12/Nov/2018	10/Nov/2020

Instrument for Radiated Test (03CH02-HY)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz ~ 1GHz 3m	19/Oct/2018	18/Oct/2019
Amplifier	Agilent	8447D	2944A11149	100kHz ~ 1.3GHz	02/Jul/2019	01/Jul/2020
Spectrum Analyzer	Rohde & Schwarz	FSP40	100593	9kHz - 40GHz	27/Dec/2018	26/Dec/2020
EMC Receiver	R&S	ESR3	102051	9kHz ~ 3.6GHz	28/May/2019	27/May/2020
RF Cable-R03m	Jye Bao	RG142	CB017	30MHz ~ 1GHz	26/Mar/2019	25/Mar/2020
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz ~ 1GHz	08/Sep/2018	07/Sep/2019
Loop Antenna	TESEQ	HLA 6120	31244	9k-30MHz	15/Mar/2019	14/Mar/2020

**Instrument for Radiated Test (03CH03-HY)**

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz ~ 18GHz 3m	31/Oct/2018	30/Oct/2019
Microwave System Preamplifier	KEYSIGHT	83017A	MY53270196	1GHz ~ 26.5GHz	05/Sep/2018	04/Sep/2019
Preamplifier	EMCI	EMC12630SE	980383	1GHz ~ 26.5GHz	09/Aug/2018	08/Aug/2019
Signal Analyzer	R&S	FSV40	101500	10Hz ~ 40GHz	18/Jul/2018	17/Jul/2019
RF CABLE 6m	HUBER+SUHNER	SUOFLEX 104	SN 805801/4	1GHz ~ 40GHz	21/Mar/2019	20/Mar/2020
RF CABLE 5m	HUBER+SUHNER	SUOFLEX 104	SN 804300/4	1GHz ~ 40GHz	17/Jun/2019	16/Jun/2020
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1531	1GHz ~ 18GHz	09/Mar/2019	08/Mar/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	22/Mar/2019	21/Mar/2020
Preamplifier	MITEQ	TTA1840-35-H G	1864481	18GHz ~ 40GHz	24/Aug/2018	23/Aug/2019

Instrument for Radiated Test (03CH09-HY)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz ~ 1GHz	30/Mar/2019	29/Mar/2020
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz~18GHz	20/Mar/2019	19/Mar/2020
Pre-Amplifier	EMC	EMC9135	980232	30MHz ~ 1GHz	22/Apr/2019	21/Apr/2020
Microwave Preamplifier	Agilent	8449B	3008A02326	1GHz ~ 18GHz	15/Jul/2019	14/Jul/2020
Microwave Preamplifier with 10 dB Pad	EMC	EMC051845 & WK0602-10	980240 & 01	1GHz ~ 18GHz	11/Jan/2019	10/Jan/2020
EMI Test Receiver	R&S	ESR3	102052	9kHz ~ 3.6GHz	09/Apr/2019	08/Apr/2020
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz ~ 44GHz	31/Jul/2018	30/Jul/2019
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D & MTJ6102-05	35418 / 3	30MHz~1GHz	04/Oct/2018	03/Oct/2019
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	22/May/2019	21/May/2020
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170221	18GHz~40GHz	22/Mar/2019	21/Mar/2020
Preamplifier	MITEQ	TTA1840-35-H G	1864481	18GHz ~ 40GHz	24/Aug/2018	23/Aug/2019
RF Cable	Jye Bao	RG142	CB028	30MHz ~ 1GHz	18/Feb/2019	17/Feb/2020
RF Cable	HUBER+SUHNER	SUCOFLEX104	SN 556626/4 + 556627/4	1GHz ~ 40GHz	13/Mar/2019	12/Mar/2020
RF Cable	HUBER+SUHNER	SUCOFLEX104	324530/4 + 17173/4	1GHz ~ 40GHz	03/Jul/2019	02/Jul/2020
RF Cable	HUBER+SUHNER	SUCOFLEX104	556626/4+552627	1GHz ~ 40GHz	07/Jul/2019	06/Jul/2020

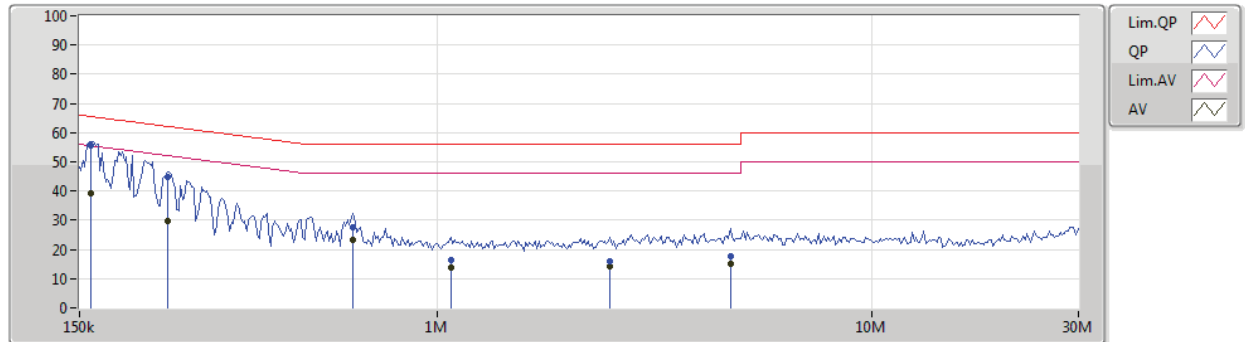
**Instrument for Radiated Test (Co-location)**

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3m	30/Jul/2022	29/Jul/2023
Signal Analyzer	R&S	FSP 40	100305	9kHz~40GHz	21/Mar/2022	20/Mar/2023
Microwave System Premplifier	KEYSIGHT	83017A	MY53270197	1GHz~26.5GHz	30/Nov/2021	29/Nov/2022
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02268	1GHz ~18GHz	27/Sep/2022	26/Sep/2023
RF Cable-R03m	HUBER+SUHNE R	SUCOFLEX104	805193/4+805192 /4	1GHz~40GHz	01/Apr/2022	31/Mar/2023
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz~40GHz	18/Mar/2022	17/Mar/2023
Microwave Premplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz~40GHz	08/Mar/2022	07/Mar/2023
SENSE-EMI	Sporton	V5.10.8.3	N/A	N/A	N/A	N/A

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Adapter mode_Radio 1_Non-Beamforming		

24/06/2019

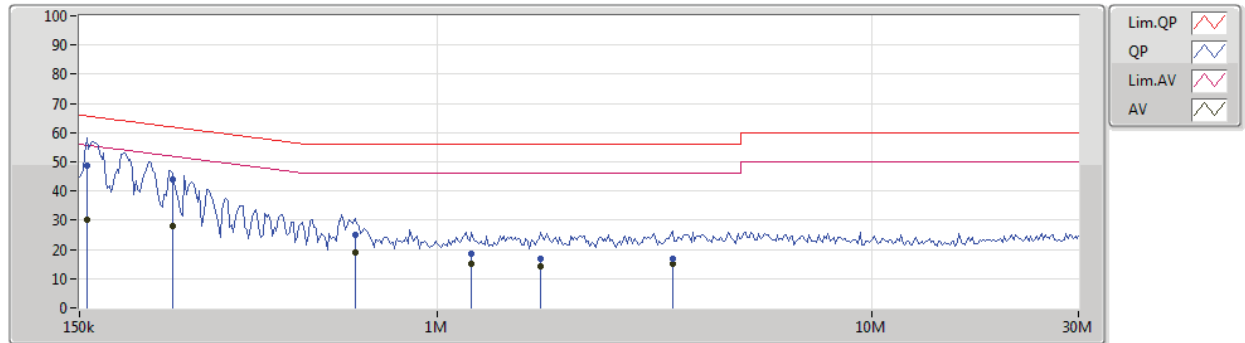


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)				
QP	159.228k	55.61	65.50	-9.89	19.41	Neutral	"Worst"	36.20	9.62	0.01	9.78				
AV	159.228k	39.19	55.50	-16.31	19.41	Neutral	-	19.78	9.62	0.01	9.78				
QP	239.44k	44.90	62.12	-17.22	19.40	Neutral	-	25.50	9.61	0.01	9.78				
AV	239.44k	29.81	52.12	-22.31	19.40	Neutral	-	10.41	9.61	0.01	9.78				
QP	641.227k	27.44	56.00	-28.56	19.40	Neutral	-	8.04	9.61	0.01	9.78				
AV	641.227k	23.46	46.00	-22.54	19.40	Neutral	-	4.06	9.61	0.01	9.78				
QP	1.076M	16.56	56.00	-39.44	19.41	Neutral	-	-2.85	9.61	0.02	9.78				
AV	1.076M	13.83	46.00	-32.17	19.41	Neutral	-	-5.58	9.61	0.02	9.78				
QP	2.506M	15.99	56.00	-40.01	19.45	Neutral	-	-3.46	9.62	0.04	9.79				
AV	2.506M	14.11	46.00	-31.89	19.45	Neutral	-	-5.34	9.62	0.04	9.79				
QP	4.738M	17.46	56.00	-38.54	19.48	Neutral	-	-2.02	9.64	0.05	9.79				
AV	4.738M	15.12	46.00	-30.88	19.48	Neutral	-	-4.36	9.64	0.05	9.79				

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	Adapter mode_Radio 1_Non-Beamforming		

24/06/2019

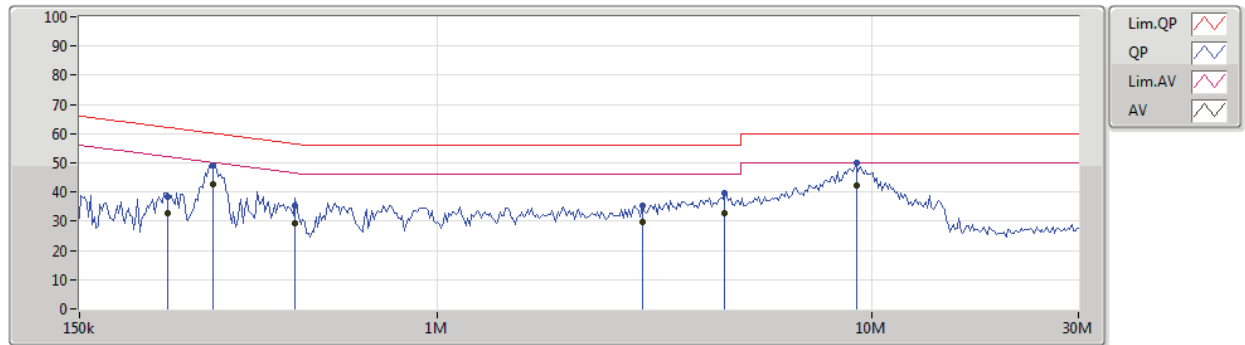


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	156.091k	48.68	65.67	-16.99	19.40	Line	"Worst"	29.28	9.61	0.01	9.78			
AV	156.091k	30.36	55.67	-25.31	19.40	Line	-	10.96	9.61	0.01	9.78			
QP	246.695k	44.06	61.87	-17.81	19.40	Line	-	24.66	9.61	0.01	9.78			
AV	246.695k	27.85	51.87	-24.02	19.40	Line	-	8.45	9.61	0.01	9.78			
QP	647.639k	25.20	56.00	-30.80	19.40	Line	-	5.80	9.61	0.01	9.78			
AV	647.639k	19.08	46.00	-26.92	19.40	Line	-	-0.32	9.61	0.01	9.78			
QP	1.2M	18.44	56.00	-37.56	19.41	Line	-	-0.97	9.61	0.02	9.78			
AV	1.2M	15.08	46.00	-30.92	19.41	Line	-	-4.33	9.61	0.02	9.78			
QP	1.734M	16.91	56.00	-39.09	19.44	Line	-	-2.53	9.62	0.03	9.79			
AV	1.734M	14.36	46.00	-31.64	19.44	Line	-	-5.08	9.62	0.03	9.79			
QP	3.481M	16.77	56.00	-39.23	19.46	Line	-	-2.69	9.63	0.04	9.79			
AV	3.481M	15.04	46.00	-30.96	19.46	Line	-	-4.42	9.63	0.04	9.79			

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Neutral
Operating Function	Adapter mode_Radio 1_Beamforming		

23/07/2019

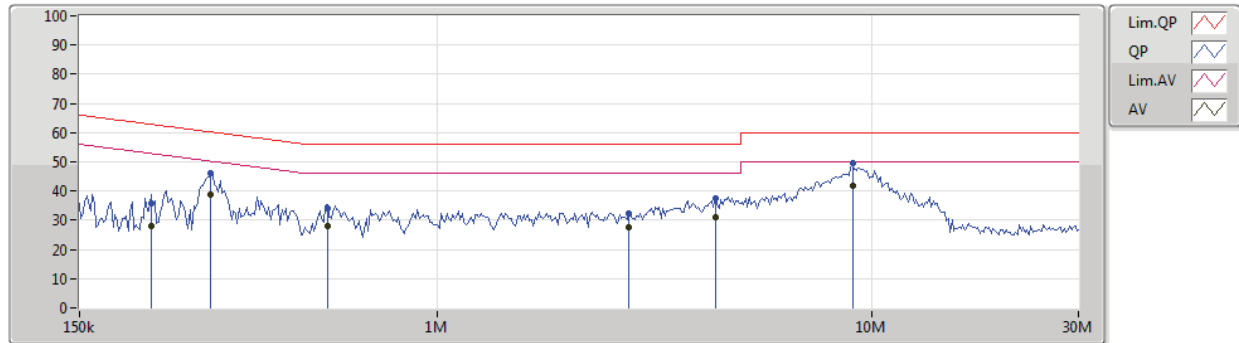


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	239.44k	38.43	62.12	-23.69	19.40	Neutral	-	19.03	9.61	0.01	9.78			
AV	239.44k	32.65	52.12	-19.47	19.40	Neutral	-	13.25	9.61	0.01	9.78			
QP	304.025k	49.29	60.13	-10.84	19.39	Neutral	-	29.90	9.60	0.01	9.78			
AV	304.025k	42.65	50.13	-7.48	19.39	Neutral	"Worst"	23.26	9.60	0.01	9.78			
QP	471.031k	35.32	56.50	-21.18	19.39	Neutral	-	15.93	9.60	0.01	9.78			
AV	471.031k	29.21	46.50	-17.29	19.39	Neutral	-	9.82	9.60	0.01	9.78			
QP	2.968M	35.23	56.00	-20.77	19.46	Neutral	-	15.77	9.63	0.04	9.79			
AV	2.968M	29.69	46.00	-16.31	19.46	Neutral	-	10.23	9.63	0.04	9.79			
QP	4.599M	39.63	56.00	-16.37	19.48	Neutral	-	20.15	9.64	0.05	9.79			
AV	4.599M	32.69	46.00	-13.31	19.48	Neutral	-	13.21	9.64	0.05	9.79			
QP	9.229M	50.06	60.00	-9.94	19.55	Neutral	-	30.51	9.68	0.07	9.80			
AV	9.229M	42.18	50.00	-7.82	19.55	Neutral	-	22.63	9.68	0.07	9.80			

AC Power-line Conducted Emissions Result

Operating Mode	1	Power Phase	Line
Operating Function	Adapter mode_Radio 1_Beamforming		

23/07/2019

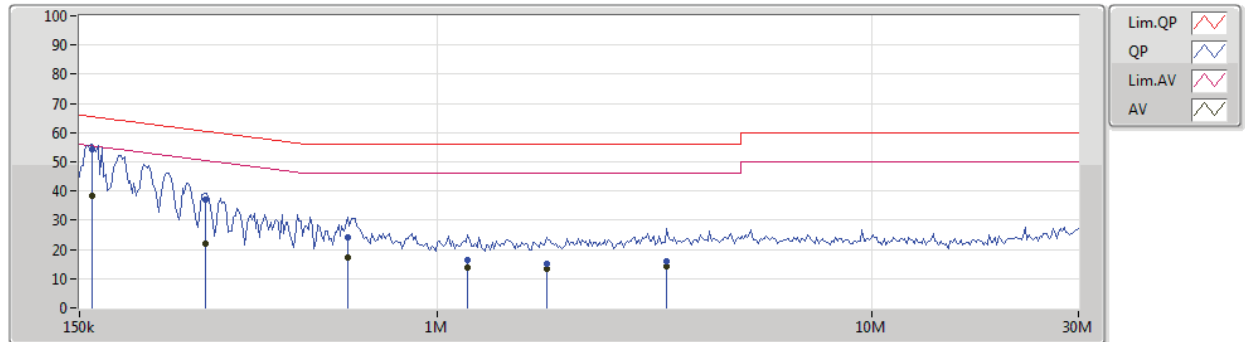


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	218.929k	35.64	62.86	-27.22	19.40	Line	-	16.24	9.61	0.01	9.78			
AV	218.929k	28.16	52.86	-24.70	19.40	Line	-	8.76	9.61	0.01	9.78			
QP	301.015k	46.04	60.21	-14.17	19.39	Line	-	26.65	9.60	0.01	9.78			
AV	301.015k	38.71	50.21	-11.50	19.39	Line	-	19.32	9.60	0.01	9.78			
QP	557.844k	33.88	56.00	-22.12	19.39	Line	-	14.49	9.60	0.01	9.78			
AV	557.844k	27.82	46.00	-18.18	19.39	Line	-	8.43	9.60	0.01	9.78			
QP	2.769M	32.21	56.00	-23.79	19.45	Line	-	12.76	9.62	0.04	9.79			
AV	2.769M	27.48	46.00	-18.52	19.45	Line	-	8.03	9.62	0.04	9.79			
QP	4.376M	37.68	56.00	-18.32	19.47	Line	-	18.21	9.63	0.05	9.79			
AV	4.376M	30.84	46.00	-15.16	19.47	Line	-	11.37	9.63	0.05	9.79			
QP	9.047M	49.78	60.00	-10.22	19.54	Line	-	30.24	9.67	0.07	9.80			
AV	9.047M	41.68	50.00	-8.32	19.54	Line	"Worst"	22.14	9.67	0.07	9.80			

AC Power-line Conducted Emissions Result

Operating Mode	2	Power Phase	Neutral
Operating Function	Adapter mode_Radio 2_Non-Beamforming		

13/07/2019

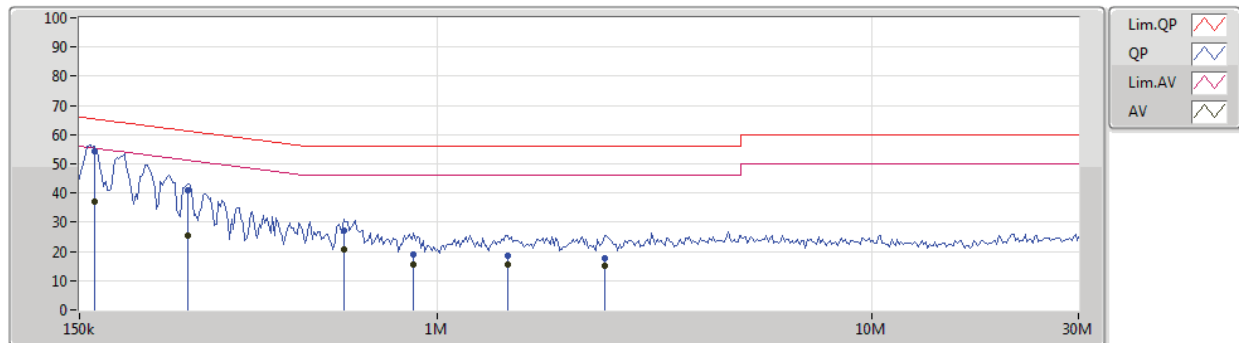


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)				
QP	160.82k	54.49	65.43	-10.94	19.41	Neutral	-	35.08	9.62	0.01	9.78				
AV	160.82k	38.26	55.43	-17.17	19.41	Neutral	-	18.85	9.62	0.01	9.78				
QP	292.162k	37.02	60.46	-23.44	19.39	Neutral	-	17.63	9.60	0.01	9.78				
AV	292.162k	22.14	50.46	-28.32	19.39	Neutral	-	2.75	9.60	0.01	9.78				
QP	622.369k	24.29	56.00	-31.71	19.39	Neutral	-	4.90	9.60	0.01	9.78				
AV	622.369k	17.07	46.00	-28.93	19.39	Neutral	-	-2.32	9.60	0.01	9.78				
QP	1.177M	16.34	56.00	-39.66	19.41	Neutral	-	-3.07	9.61	0.02	9.78				
AV	1.177M	13.77	46.00	-32.23	19.41	Neutral	-	-5.64	9.61	0.02	9.78				
QP	1.787M	15.24	56.00	-40.76	19.44	Neutral	-	-4.20	9.62	0.03	9.79				
AV	1.787M	13.45	46.00	-32.55	19.44	Neutral	-	-5.99	9.62	0.03	9.79				
QP	3.378M	15.83	56.00	-40.17	19.46	Neutral	-	-3.63	9.63	0.04	9.79				
AV	3.378M	14.32	46.00	-31.68	19.46	Neutral	-	-5.14	9.63	0.04	9.79				

AC Power-line Conducted Emissions Result

Operating Mode	2	Power Phase	Line
Operating Function	Adapter mode_Radio 2_Non-Beamforming		

13/07/2019

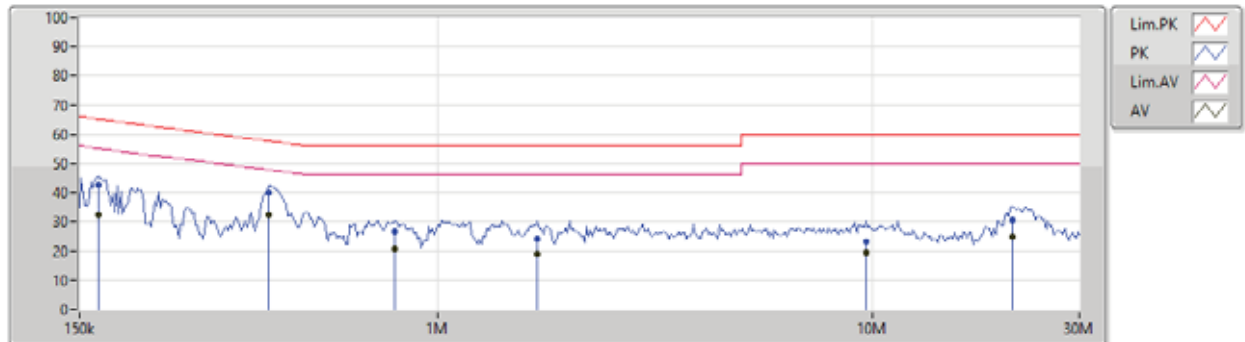


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	162.429k	54.33	65.33	-11.00	19.40	Line	"Worst"	34.93	9.61	0.01	9.78			
AV	162.429k	37.08	55.33	-18.25	19.40	Line	-	17.68	9.61	0.01	9.78			
QP	267.135k	40.98	61.20	-20.22	19.40	Line	-	21.58	9.61	0.01	9.78			
AV	267.135k	25.25	51.20	-25.95	19.40	Line	-	5.85	9.61	0.01	9.78			
QP	610.106k	27.00	56.00	-29.00	19.39	Line	-	7.61	9.60	0.01	9.78			
AV	610.106k	20.84	46.00	-25.16	19.39	Line	-	1.45	9.60	0.01	9.78			
QP	881.649k	18.87	56.00	-37.13	19.41	Line	-	-0.54	9.61	0.02	9.78			
AV	881.649k	15.65	46.00	-30.35	19.41	Line	-	-3.76	9.61	0.02	9.78			
QP	1.45M	18.45	56.00	-37.55	19.44	Line	-	-0.99	9.62	0.03	9.79			
AV	1.45M	15.37	46.00	-30.63	19.44	Line	-	-4.07	9.62	0.03	9.79			
QP	2.433M	17.47	56.00	-38.53	19.45	Line	-	-1.98	9.62	0.04	9.79			
AV	2.433M	15.07	46.00	-30.93	19.45	Line	-	-4.38	9.62	0.04	9.79			

AC Power-line Conducted Emissions Result

Operating Mode	3	Power Phase	Neutral
Operating Function	PoE mode_Radio 1_Non-Beamforming		

13/07/2019

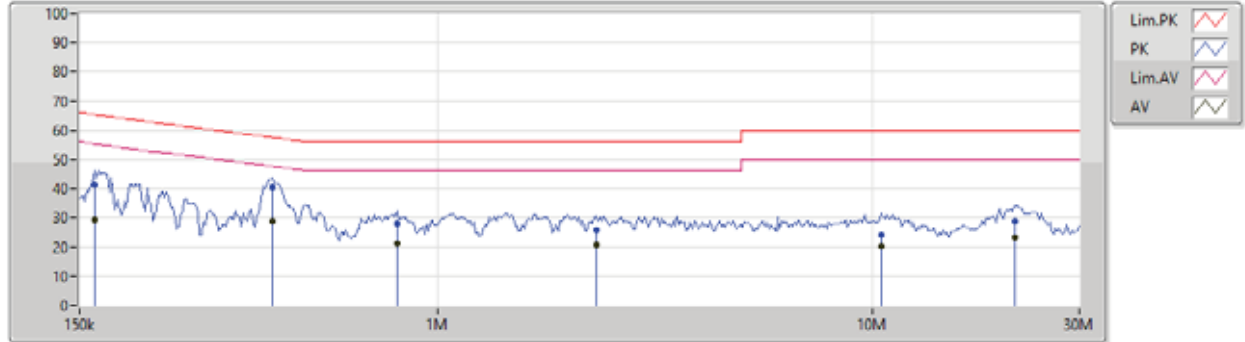


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	165.693k	42.64	65.18	-22.54	19.41	Neutral	-	23.23	9.62	0.01	9.78			
AV	165.693k	32.05	55.18	-23.13	19.41	Neutral	-	12.64	9.62	0.01	9.78			
QP	409.779k	39.86	57.64	-17.78	19.39	Neutral	-	20.47	9.60	0.01	9.78			
AV	409.779k	32.30	47.64	-15.34	19.39	Neutral	"Worst"	12.91	9.60	0.01	9.78			
QP	798.145k	26.49	56.00	-29.51	19.41	Neutral	-	7.08	9.61	0.02	9.78			
AV	798.145k	20.69	46.00	-25.31	19.41	Neutral	-	1.28	9.61	0.02	9.78			
QP	1.7M	24.22	56.00	-31.78	19.44	Neutral	-	4.78	9.62	0.03	9.79			
AV	1.7M	18.90	46.00	-27.10	19.44	Neutral	-	-0.54	9.62	0.03	9.79			
QP	9.699M	23.33	60.00	-36.67	19.55	Neutral	-	3.78	9.68	0.07	9.80			
AV	9.699M	19.31	50.00	-30.69	19.55	Neutral	-	-0.24	9.68	0.07	9.80			
QP	21.077M	30.40	60.00	-29.60	19.62	Neutral	-	10.78	9.69	0.11	9.82			
AV	21.077M	24.69	50.00	-25.31	19.62	Neutral	-	5.07	9.69	0.11	9.82			

AC Power-line Conducted Emissions Result

Operating Mode	3	Power Phase	Line
Operating Function	PoE mode_Radio 1_Non-Beamforming		

13/07/2019

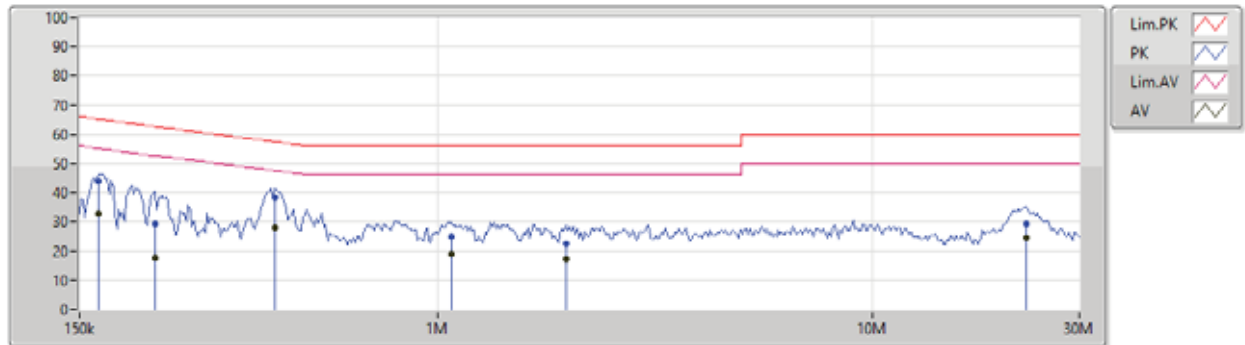


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	162.429k	41.37	65.33	-23.96	19.40	Line	-	21.97	9.61	0.01	9.78			
AV	162.429k	29.21	55.33	-26.12	19.40	Line	-	9.81	9.61	0.01	9.78			
QP	418.016k	40.45	57.49	-17.04	19.39	Line	"Worst"	21.06	9.60	0.01	9.78			
AV	418.016k	28.87	47.49	-18.62	19.39	Line	-	9.48	9.60	0.01	9.78			
QP	806.127k	27.83	56.00	-28.17	19.41	Line	-	8.42	9.61	0.02	9.78			
AV	806.127k	20.86	46.00	-25.14	19.41	Line	-	1.45	9.61	0.02	9.78			
QP	2.315M	25.63	56.00	-30.37	19.45	Line	-	6.18	9.62	0.04	9.79			
AV	2.315M	20.51	46.00	-25.49	19.45	Line	-	1.06	9.62	0.04	9.79			
QP	10.503M	24.15	60.00	-35.85	19.54	Line	-	4.61	9.67	0.07	9.80			
AV	10.503M	20.18	50.00	-29.82	19.54	Line	-	0.64	9.67	0.07	9.80			
QP	21.288M	28.76	60.00	-31.24	19.56	Line	-	9.20	9.63	0.11	9.82			
AV	21.288M	23.35	50.00	-26.65	19.56	Line	-	3.79	9.63	0.11	9.82			

AC Power-line Conducted Emissions Result

Operating Mode	4	Power Phase	Neutral
Operating Function	PoE mode_Radio 2_Non-Beamforming		

13/07/2019

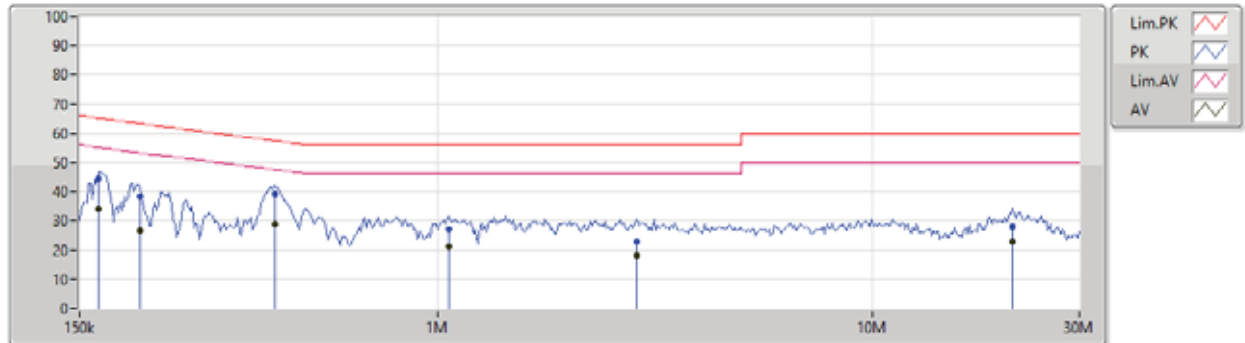


Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)				
QP	165.693k	43.78	65.18	-21.40	19.41	Neutral	-	24.37	9.62	0.01	9.78				
AV	165.693k	32.72	55.18	-22.46	19.41	Neutral	-	13.31	9.62	0.01	9.78				
QP	223.33k	29.12	62.69	-33.57	19.40	Neutral	-	9.72	9.61	0.01	9.78				
AV	223.33k	17.77	52.69	-34.92	19.40	Neutral	-	-1.63	9.61	0.01	9.78				
QP	422.196k	38.35	57.40	-19.05	19.39	Neutral	"Worst"	18.96	9.60	0.01	9.78				
AV	422.196k	27.74	47.40	-19.66	19.39	Neutral	-	8.35	9.60	0.01	9.78				
QP	1.076M	25.08	56.00	-30.92	19.41	Neutral	-	5.67	9.61	0.02	9.78				
AV	1.076M	18.86	46.00	-27.14	19.41	Neutral	-	-0.55	9.61	0.02	9.78				
QP	1.974M	22.21	56.00	-33.79	19.44	Neutral	-	2.77	9.62	0.03	9.79				
AV	1.974M	17.20	46.00	-28.80	19.44	Neutral	-	-2.24	9.62	0.03	9.79				
QP	22.598M	29.31	60.00	-30.69	19.62	Neutral	-	9.69	9.68	0.12	9.82				
AV	22.598M	24.57	50.00	-25.43	19.62	Neutral	-	4.95	9.68	0.12	9.82				

AC Power-line Conducted Emissions Result

Operating Mode	4	Power Phase	Line
Operating Function	PoE mode_Radio 2_Non-Beamforming		

13/07/2019



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	165.693k	44.52	65.18	-20.66	19.40	Line	-	25.12	9.61	0.01	9.78			
AV	165.693k	33.94	55.18	-21.24	19.40	Line	-	14.54	9.61	0.01	9.78			
QP	206.241k	38.38	63.36	-24.98	19.40	Line	-	18.98	9.61	0.01	9.78			
AV	206.241k	26.46	53.36	-26.90	19.40	Line	-	7.06	9.61	0.01	9.78			
QP	422.196k	39.18	57.40	-18.22	19.39	Line	"Worst"	19.79	9.60	0.01	9.78			
AV	422.196k	28.58	47.40	-18.82	19.39	Line	-	9.19	9.60	0.01	9.78			
QP	1.065M	27.13	56.00	-28.87	19.41	Line	-	7.72	9.61	0.02	9.78			
AV	1.065M	20.93	46.00	-25.07	19.41	Line	-	1.52	9.61	0.02	9.78			
QP	2.881M	22.85	56.00	-33.15	19.46	Line	-	3.39	9.63	0.04	9.79			
AV	2.881M	17.99	46.00	-28.01	19.46	Line	-	-1.47	9.63	0.04	9.79			
QP	21.077M	27.93	60.00	-32.07	19.56	Line	-	8.37	9.63	0.11	9.82			
AV	21.077M	22.69	50.00	-27.31	19.56	Line	-	3.13	9.63	0.11	9.82			

**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(Port1)	7.55M	12.894M	12M9G1D	7.525M	12.844M
802.11b_Nss1,(1Mbps)_1TX(Port2)	8.025M	12.969M	13M0G1D	7.075M	12.919M
802.11b_Nss1,(1Mbps)_2TX	8.025M	12.994M	13M0G1D	7.525M	12.869M
802.11g_Nss1,(6Mbps)_1TX(Port1)	16.3M	16.642M	16M6D1D	16.3M	16.392M
802.11g_Nss1,(6Mbps)_1TX(Port2)	16.325M	16.692M	16M7D1D	16.275M	16.392M
802.11g_Nss1,(6Mbps)_2TX	16.325M	16.667M	16M7D1D	15.875M	16.367M
802.11ac_VHT20_Nss1,(MCS0)_1TX(Port1)	17.575M	17.766M	17M8D1D	17.025M	17.591M
802.11ac_VHT20_Nss1,(MCS0)_1TX(Port2)	17.55M	17.841M	17M8D1D	17.5M	17.566M
802.11ac_VHT20_Nss1,(MCS0)_2TX	17.525M	17.816M	17M8D1D	16.9M	17.566M
802.11ac_VHT40_Nss1,(MCS0)_1TX(Port1)	36.3M	36.132M	36M1D1D	35.6M	36.082M
802.11ac_VHT40_Nss1,(MCS0)_1TX(Port2)	36.35M	36.182M	36M2D1D	36.3M	36.082M
802.11ac_VHT40_Nss1,(MCS0)_2TX	36.3M	36.182M	36M2D1D	35.4M	35.982M
802.11ax_HEW20_Nss1,(MCS0)_1TX(Port1)	18.925M	19.04M	19M0D1D	18.775M	18.891M
802.11ax_HEW20_Nss1,(MCS0)_1TX(Port2)	18.875M	19.065M	19M1D1D	18.675M	18.941M
802.11ax_HEW20_Nss1,(MCS0)_2TX	18.9M	19.065M	19M1D1D	18.5M	18.891M
802.11ax_HEW40_Nss1,(MCS0)_1TX(Port1)	38M	37.831M	37M8D1D	37.7M	37.731M
802.11ax_HEW40_Nss1,(MCS0)_1TX(Port2)	38.05M	37.731M	37M7D1D	37.7M	37.731M
802.11ax_HEW40_Nss1,(MCS0)_2TX	37.95M	37.781M	37M8D1D	37.6M	37.681M

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)_1TX(Port1)	-	-	-	-	-	-
2412MHz	Pass	500k	7.525M	12.844M		
2437MHz	Pass	500k	7.55M	12.869M		
2462MHz	Pass	500k	7.525M	12.894M		
802.11b_Nss1,(1Mbps)_1TX(Port2)	-	-	-	-	-	-
2412MHz	Pass	500k			7.6M	12.919M
2437MHz	Pass	500k			8.025M	12.919M
2462MHz	Pass	500k			7.075M	12.969M
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	8.025M	12.869M	8M	12.944M
2437MHz	Pass	500k	7.975M	12.944M	7.525M	12.994M
2462MHz	Pass	500k	7.525M	12.869M	8.025M	12.969M
802.11g_Nss1,(6Mbps)_1TX(Port1)	-	-	-	-	-	-
2412MHz	Pass	500k	16.3M	16.417M		
2437MHz	Pass	500k	16.3M	16.642M		
2462MHz	Pass	500k	16.3M	16.392M		
802.11g_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-
2412MHz	Pass	500k			16.3M	16.392M
2437MHz	Pass	500k			16.325M	16.692M
2462MHz	Pass	500k			16.275M	16.392M
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.325M	16.367M	16.3M	16.392M
2437MHz	Pass	500k	16.025M	16.642M	15.875M	16.667M
2462MHz	Pass	500k	16.275M	16.392M	16.325M	16.392M
802.11ac_VHT20_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-
2412MHz	Pass	500k	17.55M	17.616M		
2437MHz	Pass	500k	17.575M	17.766M		
2462MHz	Pass	500k	17.025M	17.591M		
802.11ac_VHT20_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
2412MHz	Pass	500k			17.55M	17.566M
2437MHz	Pass	500k			17.5M	17.841M
2462MHz	Pass	500k			17.55M	17.591M
802.11ac_VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	17.275M	17.591M	17.5M	17.591M
2437MHz	Pass	500k	17.525M	17.816M	17.5M	17.816M
2462MHz	Pass	500k	16.9M	17.566M	17.525M	17.616M
802.11ac_VHT40_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-
2422MHz	Pass	500k	36.3M	36.132M		
2437MHz	Pass	500k	36.3M	36.132M		
2452MHz	Pass	500k	35.6M	36.082M		
802.11ac_VHT40_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
2422MHz	Pass	500k			36.35M	36.132M
2437MHz	Pass	500k			36.3M	36.182M
2452MHz	Pass	500k			36.3M	36.082M



EBW_Radio 1_Non-Beamforming

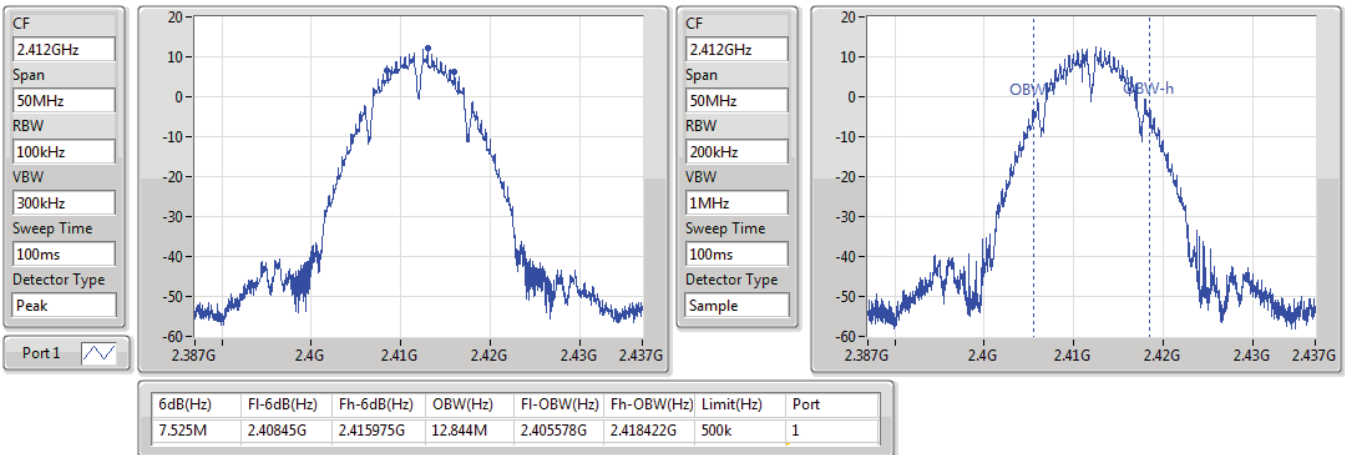
Appendix B.1

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	36.3M	36.032M	35.4M	36.082M
2437MHz	Pass	500k	36.3M	36.132M	35.4M	36.182M
2452MHz	Pass	500k	35.95M	35.982M	36.3M	36.132M
802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-
2412MHz	Pass	500k	18.925M	18.891M		
2437MHz	Pass	500k	18.775M	19.04M		
2462MHz	Pass	500k	18.925M	18.916M		
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
2412MHz	Pass	500k			18.875M	18.941M
2437MHz	Pass	500k			18.675M	19.065M
2462MHz	Pass	500k			18.7M	18.966M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	18.675M	18.916M	18.9M	18.966M
2437MHz	Pass	500k	18.5M	19.04M	18.75M	19.065M
2462MHz	Pass	500k	18.825M	18.891M	18.8M	18.941M
802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-
2422MHz	Pass	500k	37.7M	37.731M		
2437MHz	Pass	500k	37.85M	37.731M		
2452MHz	Pass	500k	38M	37.831M		
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
2422MHz	Pass	500k			37.7M	37.731M
2437MHz	Pass	500k			37.85M	37.731M
2452MHz	Pass	500k			38.05M	37.731M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	37.95M	37.731M	37.75M	37.781M
2437MHz	Pass	500k	37.85M	37.731M	37.6M	37.731M
2452MHz	Pass	500k	37.7M	37.681M	37.8M	37.731M

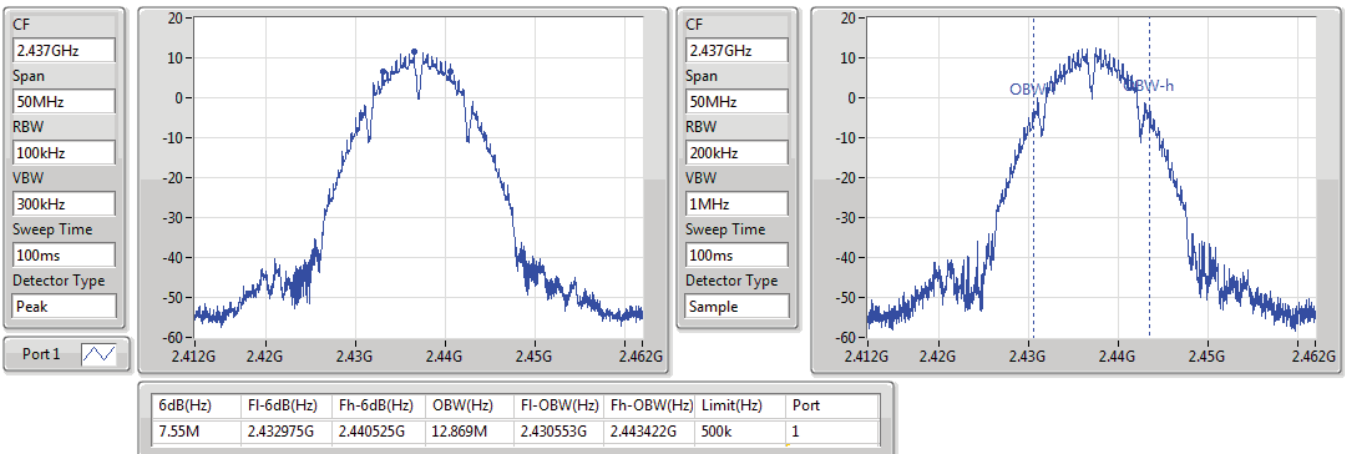
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11b_Nss1,(1Mbps)_1TX(Port1)
EBW
2412MHz

25/06/2019


802.11b_Nss1,(1Mbps)_1TX(Port1)
EBW
2437MHz

25/06/2019

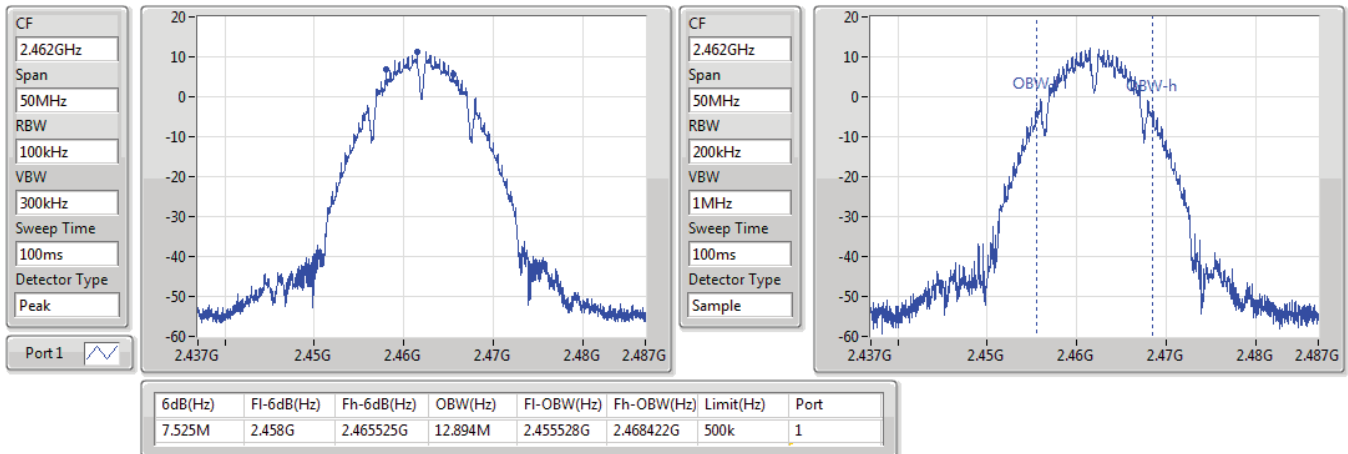


802.11b_Nss1,(1Mbps)_1TX(Port1)

EBW

2462MHz

25/06/2019

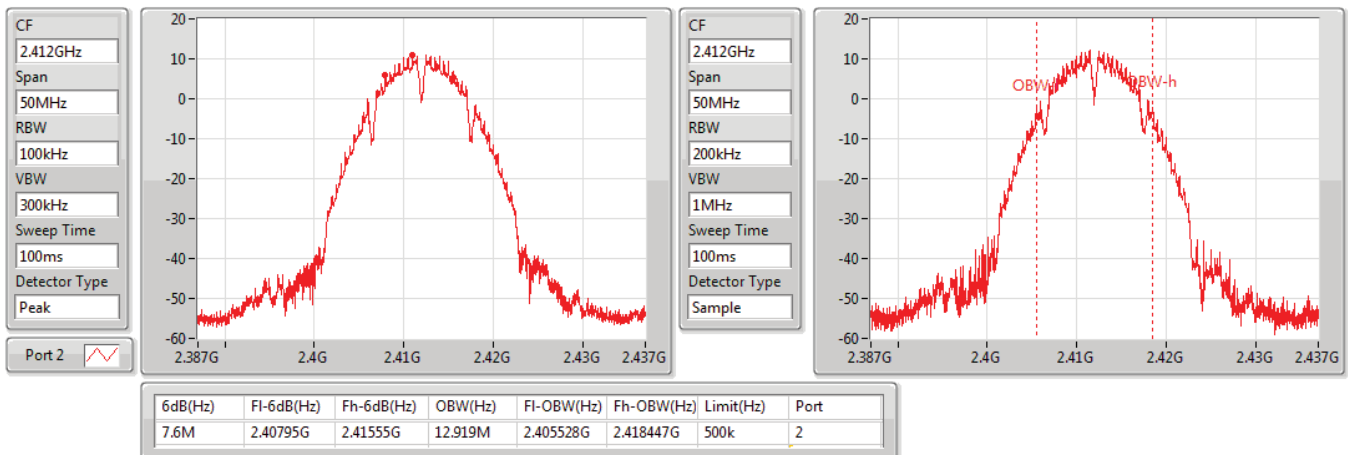


802.11b_Nss1,(1Mbps)_1TX(Port2)

EBW

2412MHz

25/06/2019

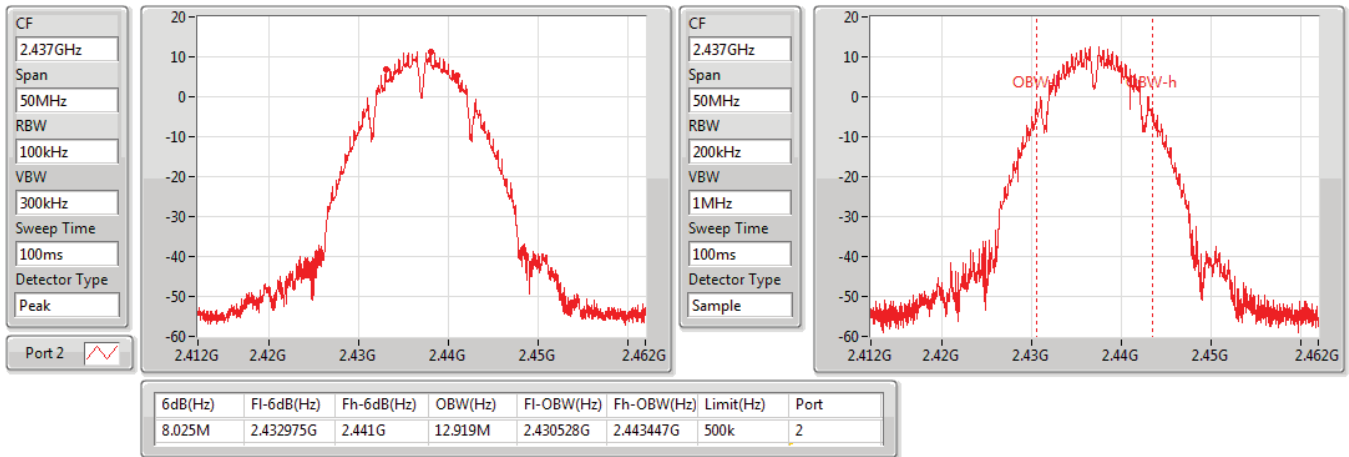


802.11b_Nss1,(1Mbps)_1TX(Port2)

EBW

2437MHz

25/06/2019

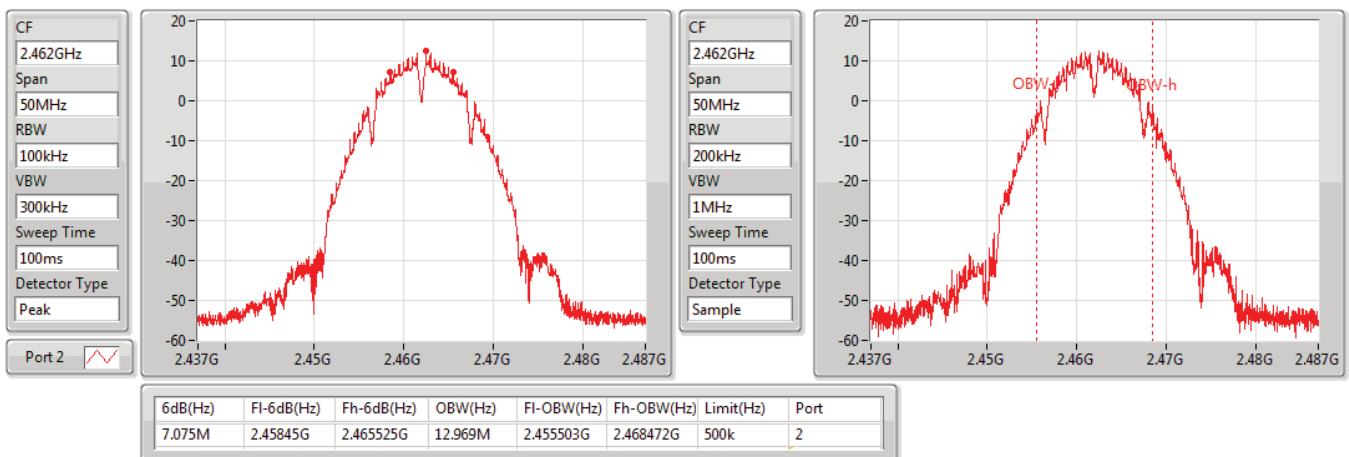


802.11b_Nss1,(1Mbps)_1TX(Port2)

EBW

2462MHz

25/06/2019

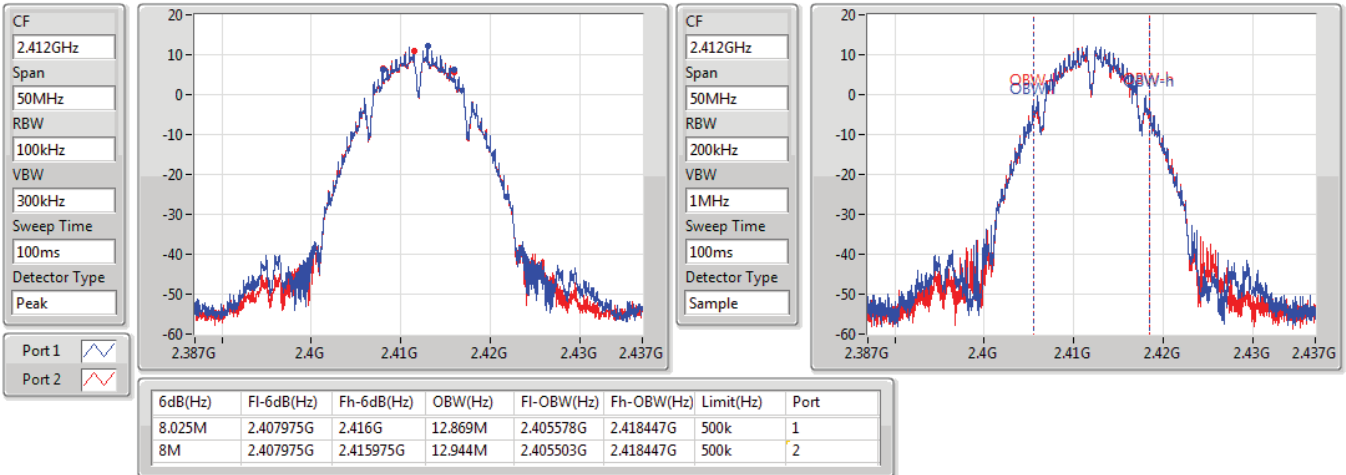


802.11b_Nss1,(1Mbps)_2TX

EBW

2412MHz

25/06/2019

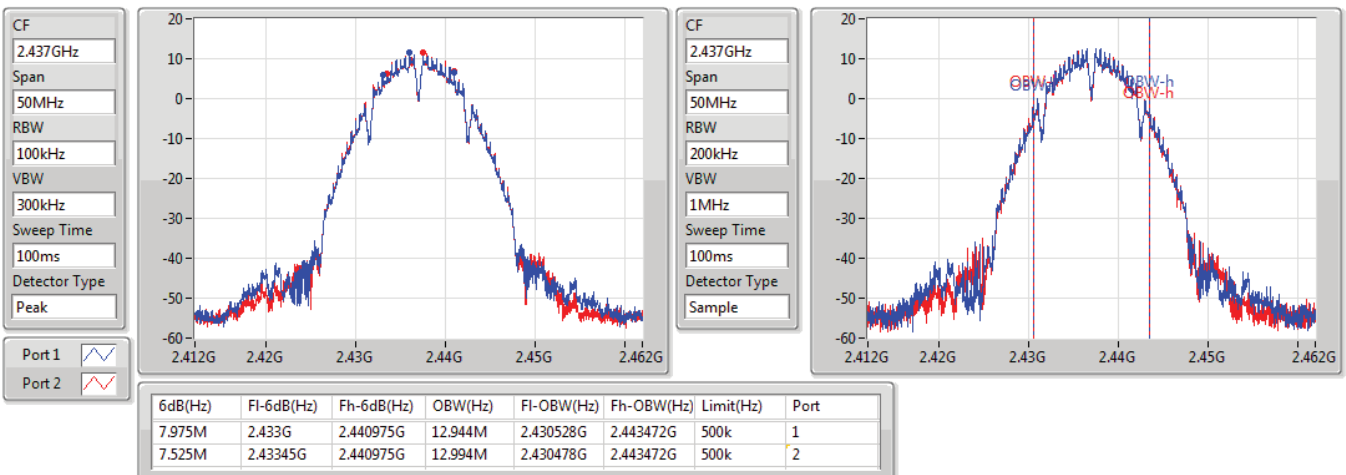


802.11b_Nss1,(1Mbps)_2TX

EBW

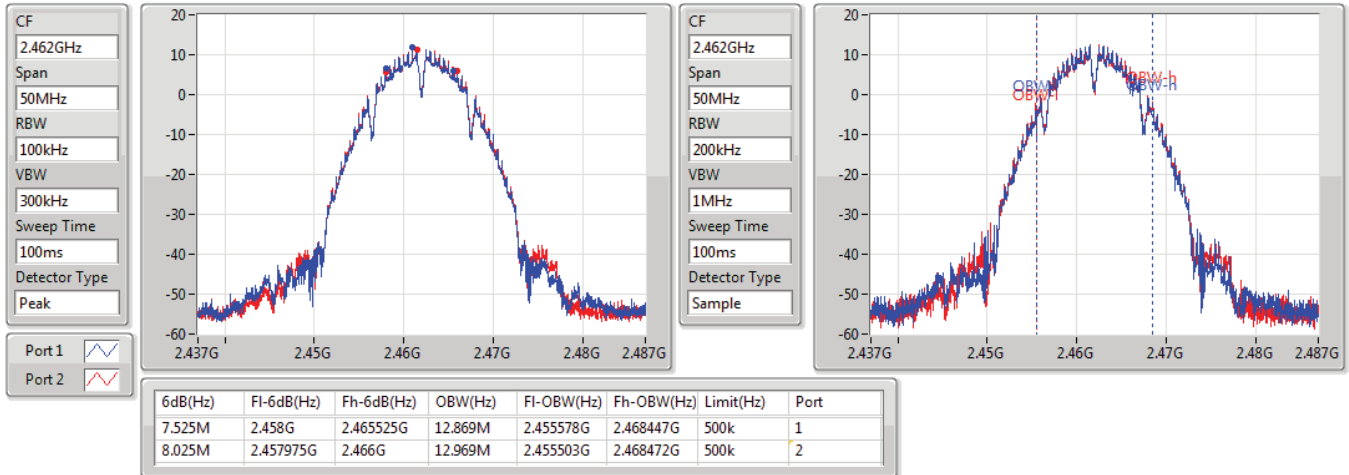
2437MHz

25/06/2019

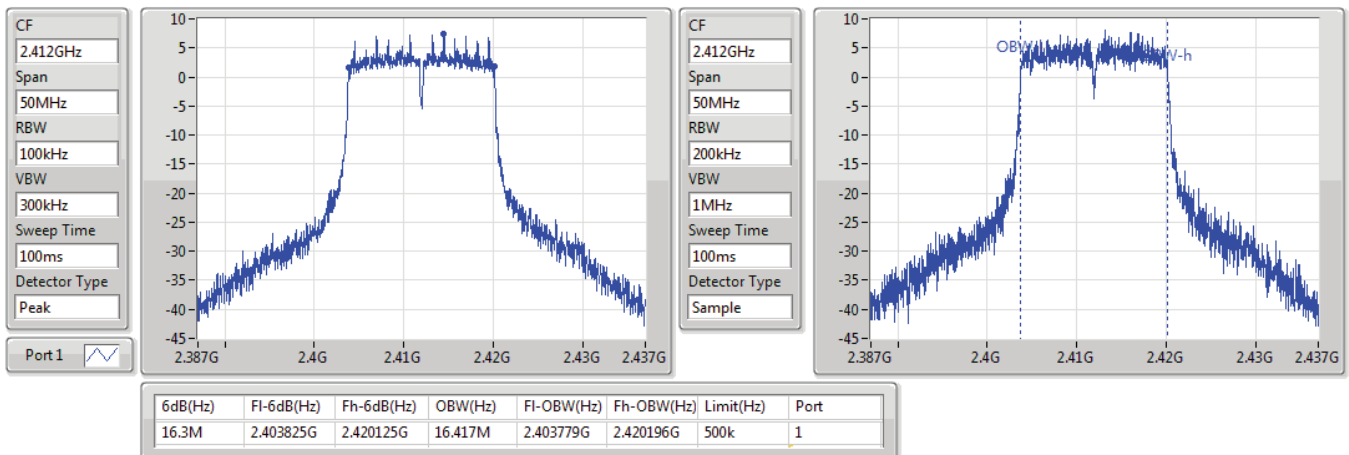


802.11b_Nss1,(1Mbps)_2TX
EBW
2462MHz

25/06/2019


802.11g_Nss1,(6Mbps)_1TX(Port1)
EBW
2412MHz

25/06/2019

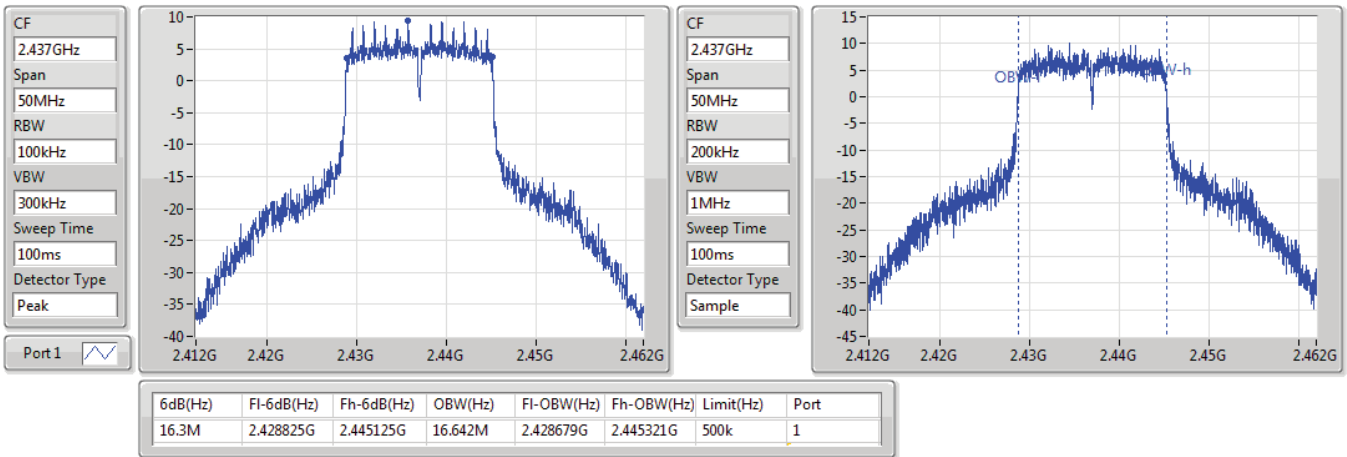


802.11g_Nss1,(6Mbps)_1TX(Port1)

EBW

2437MHz

25/06/2019

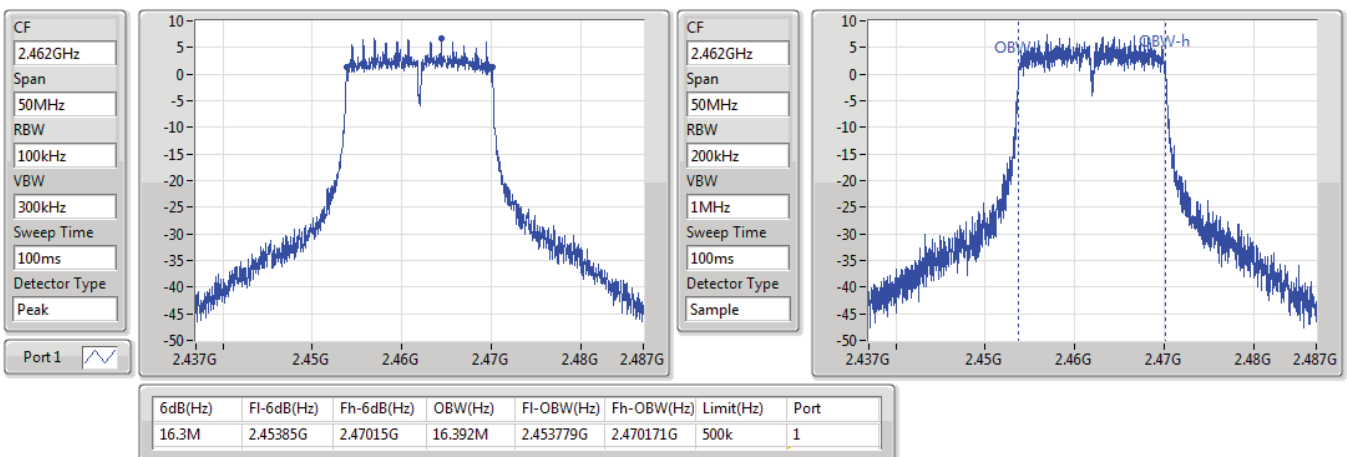


802.11g_Nss1,(6Mbps)_1TX(Port1)

EBW

2462MHz

25/06/2019

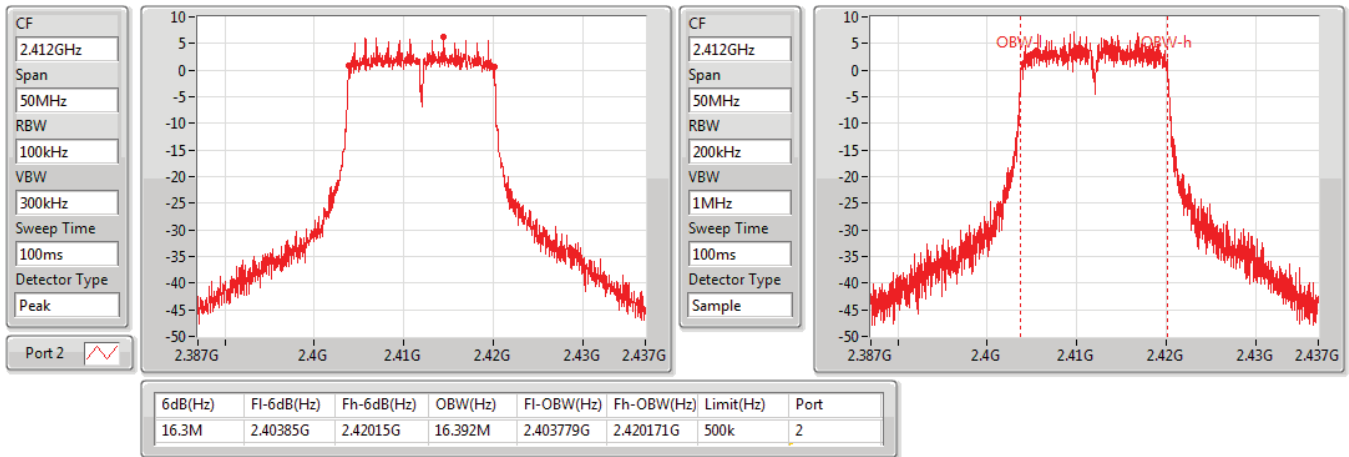


802.11g_Nss1,(6Mbps)_1TX(Port2)

EBW

2412MHz

25/06/2019

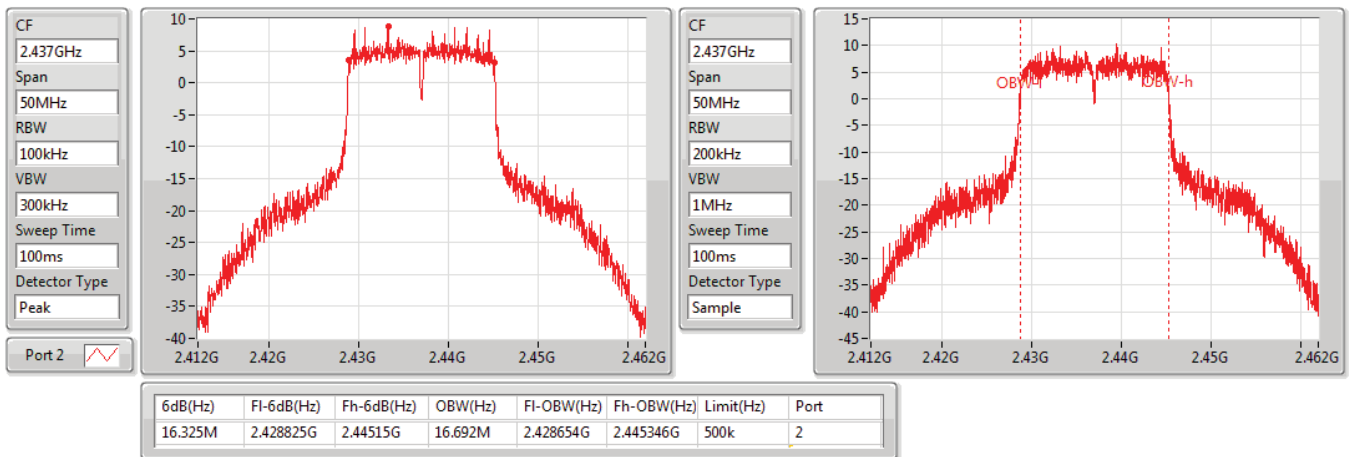


802.11g_Nss1,(6Mbps)_1TX(Port2)

EBW

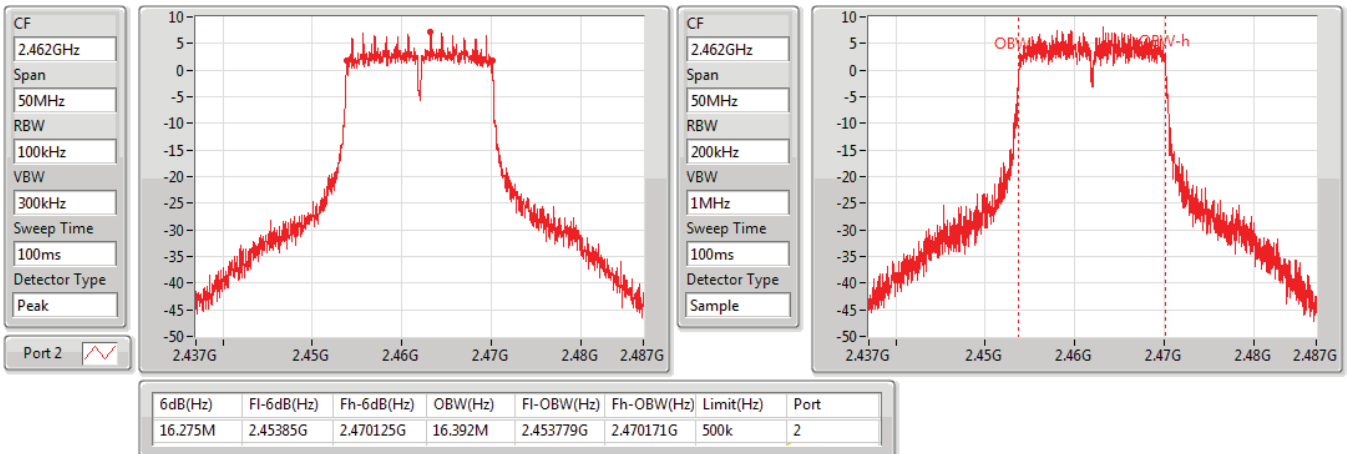
2437MHz

25/06/2019

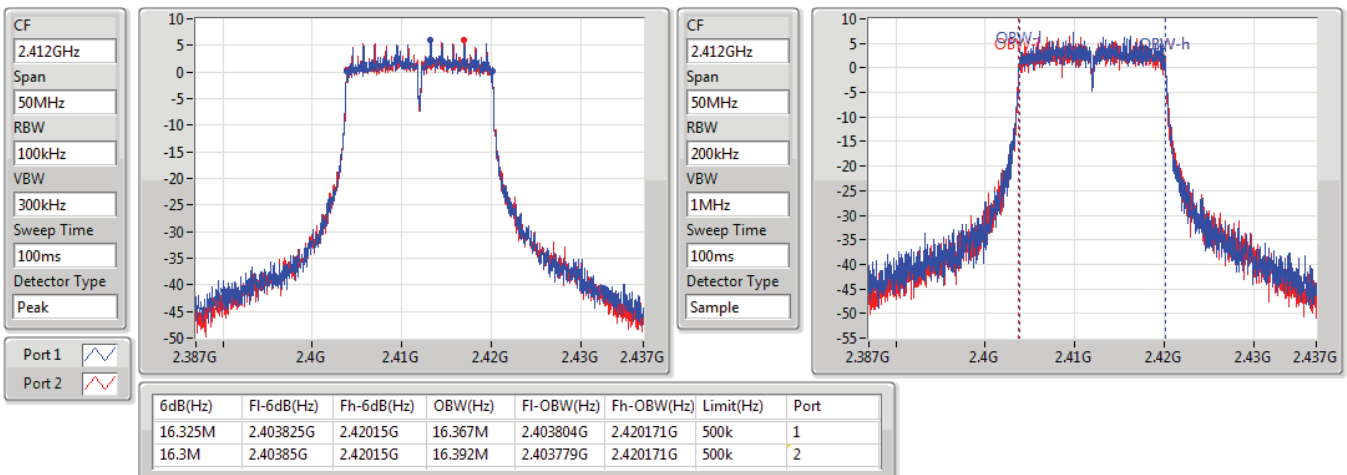


802.11g_Nss1,(6Mbps)_1TX(Port2)
EBW
2462MHz

25/06/2019


802.11g_Nss1,(6Mbps)_2TX
EBW
2412MHz

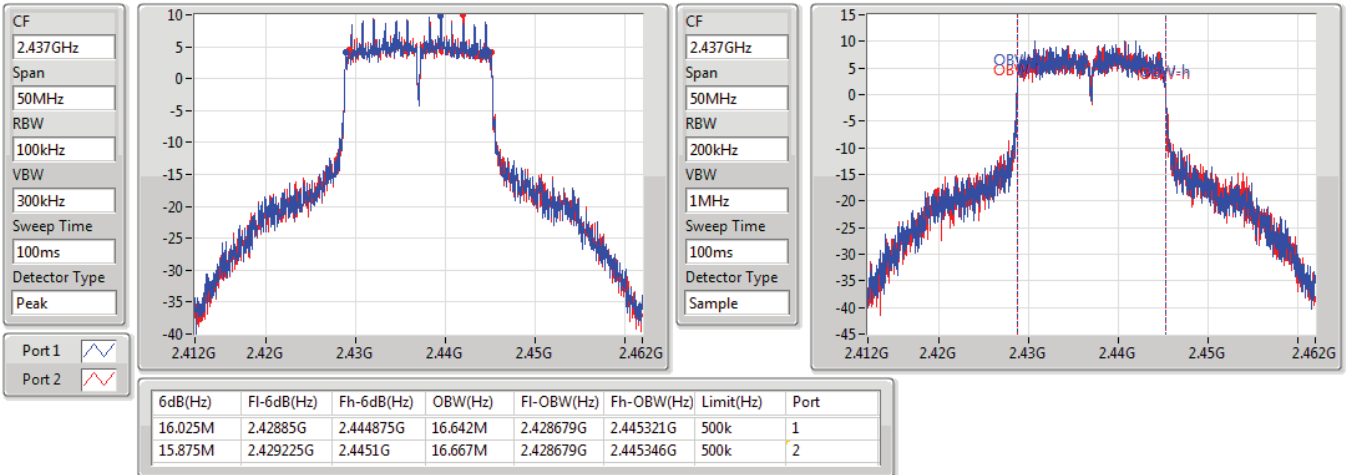
25/06/2019



802.11g_Nss1,(6Mbps)_2TX

2437MHz

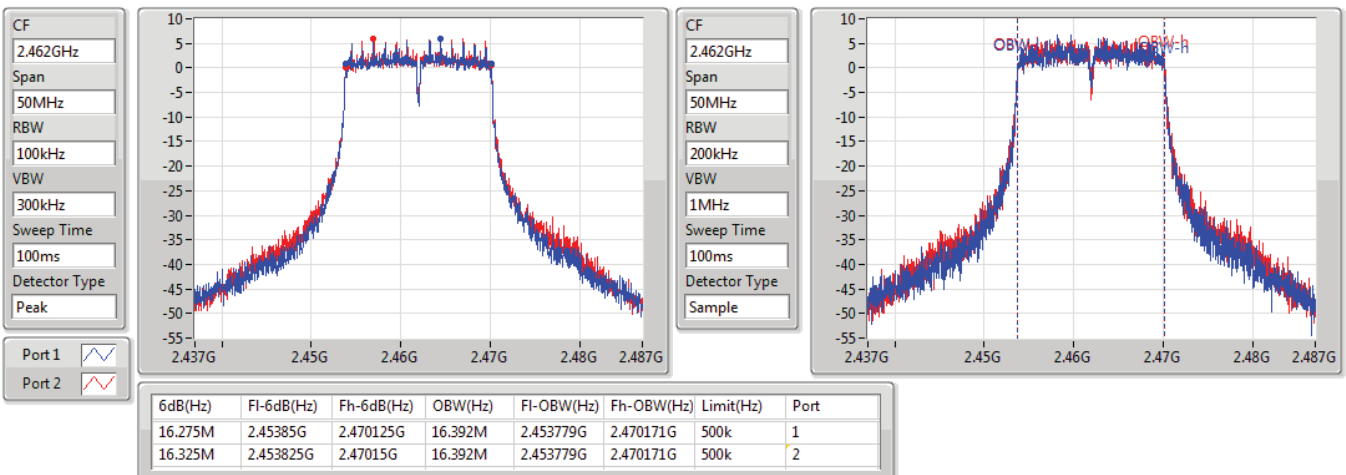
25/06/2019



802.11g_Nss1,(6Mbps)_2TX

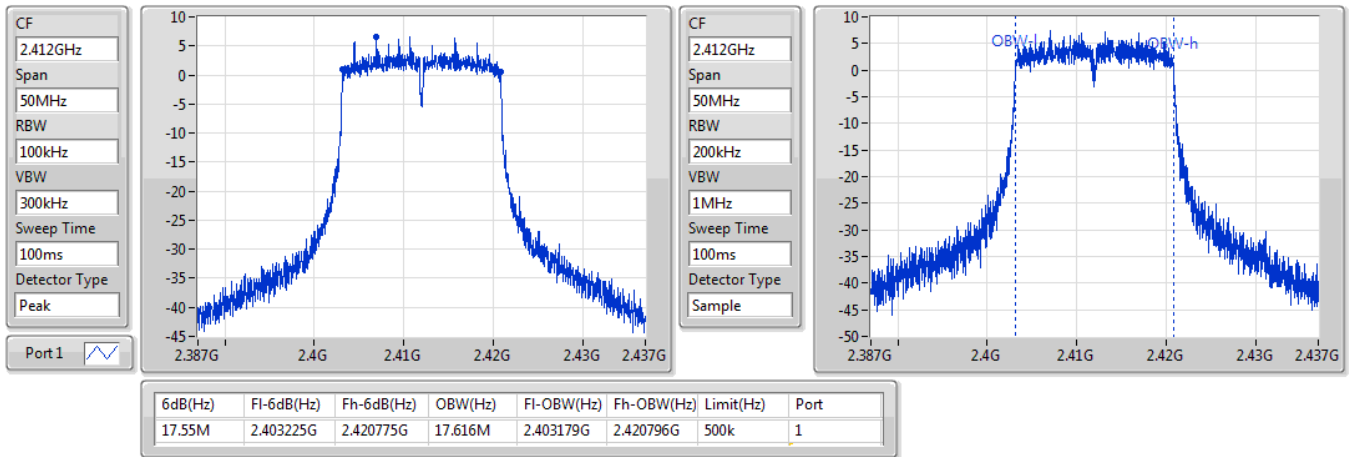
2462MHz

25/06/2019

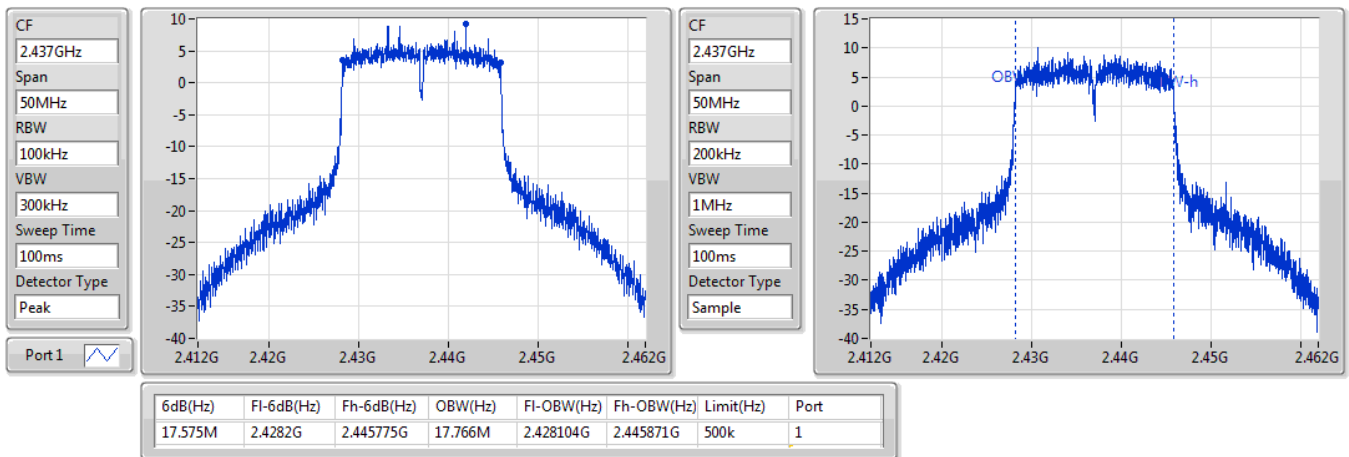


802.11ac VHT20_Nss1,(MCS0)_1TX(Port1)
2412MHz
EBW

25/06/2019

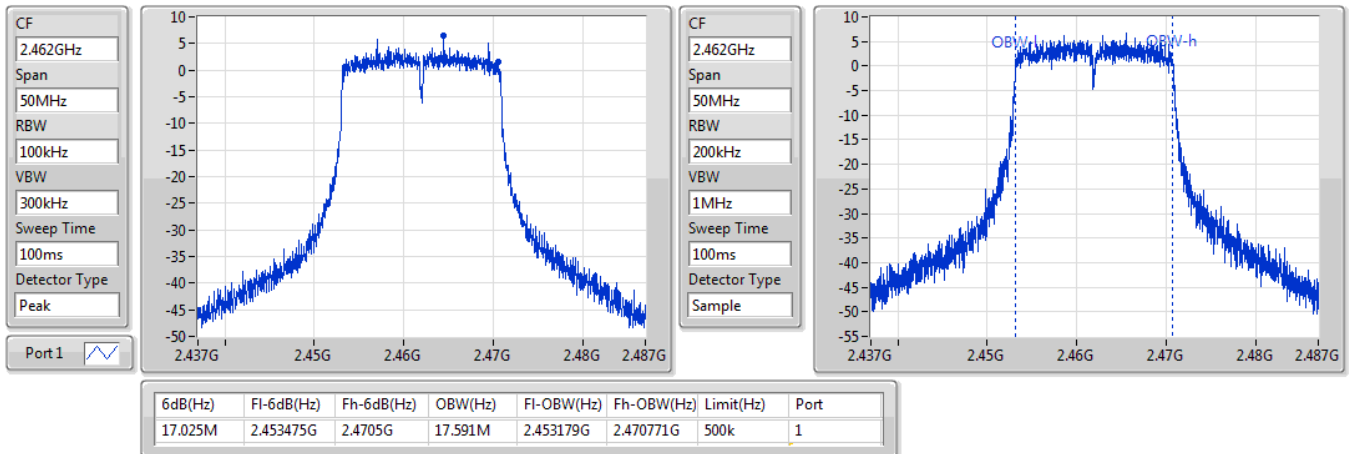

802.11ac VHT20_Nss1,(MCS0)_1TX(Port1)
2437MHz
EBW

25/06/2019

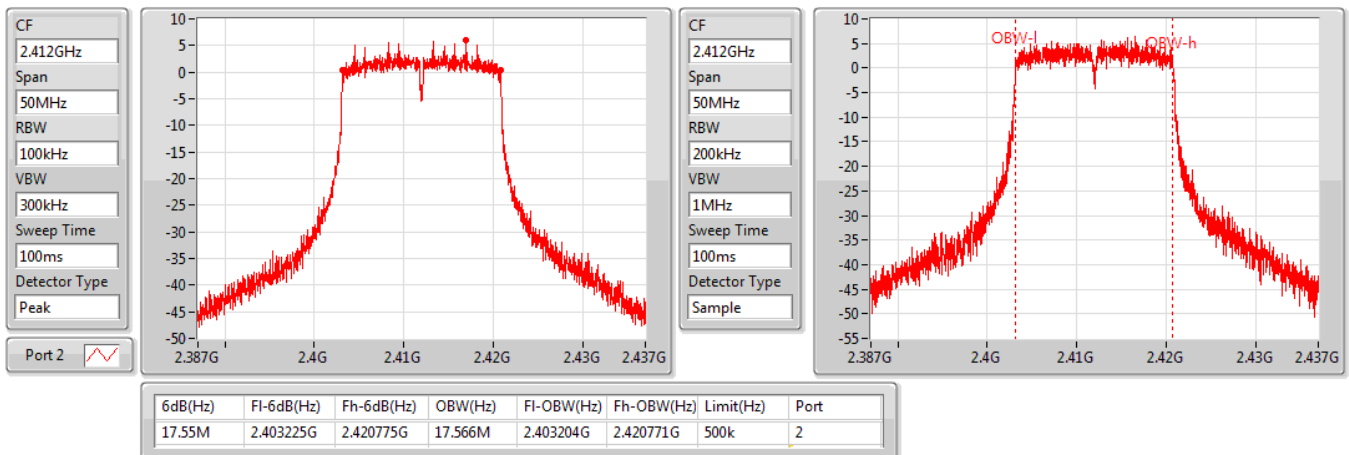


802.11ac VHT20_Nss1,(MCS0)_1TX(Port1)
2462MHz
EBW

25/06/2019

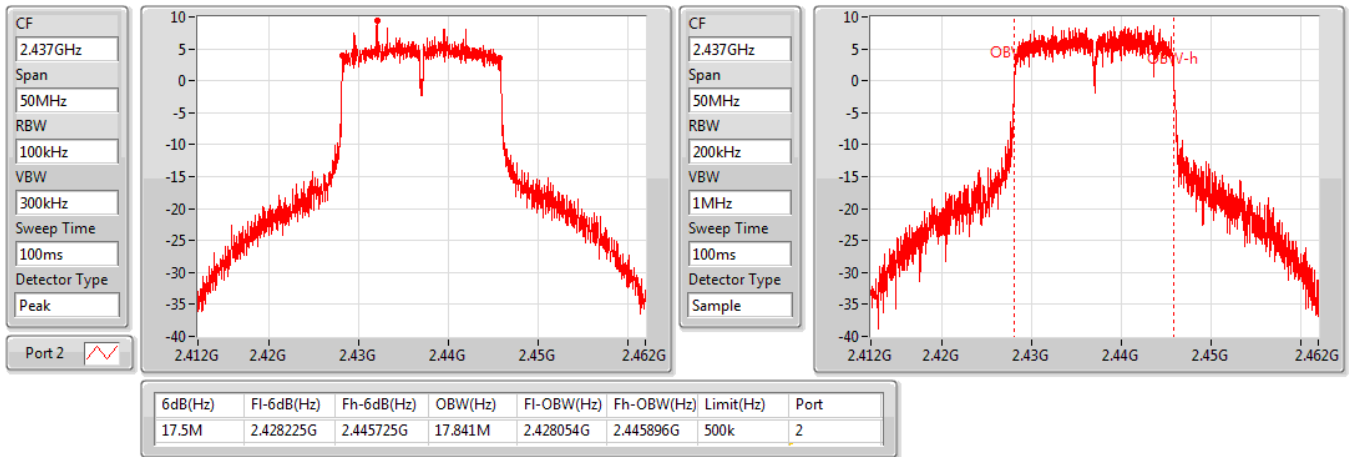

802.11ac VHT20_Nss1,(MCS0)_1TX(Port2)
2412MHz
EBW

25/06/2019

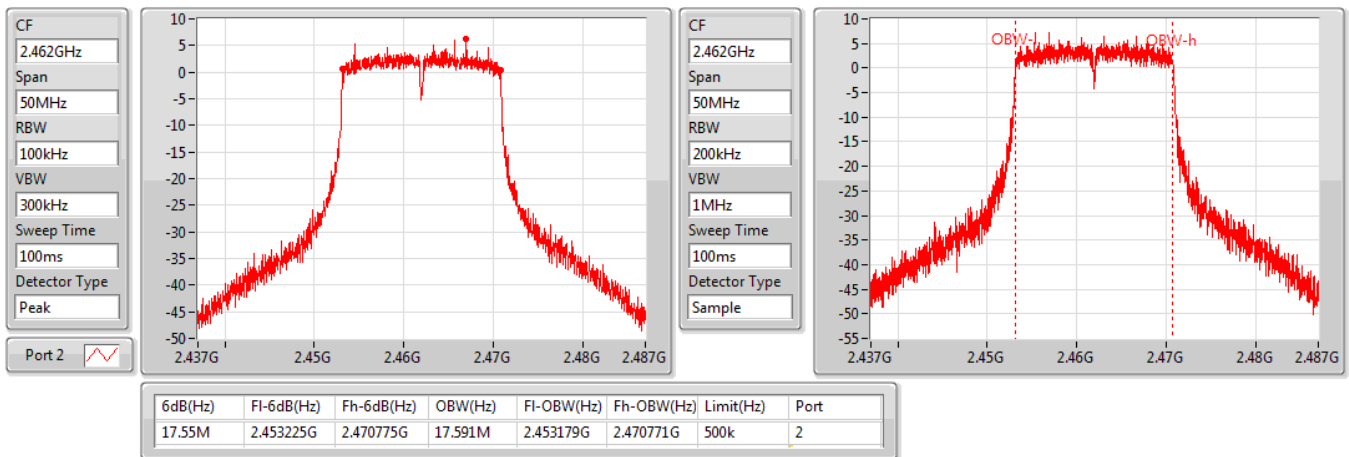


802.11ac VHT20_Nss1,(MCS0)_1TX(Port2)
2437MHz
EBW

25/06/2019


802.11ac VHT20_Nss1,(MCS0)_1TX(Port2)
2462MHz
EBW

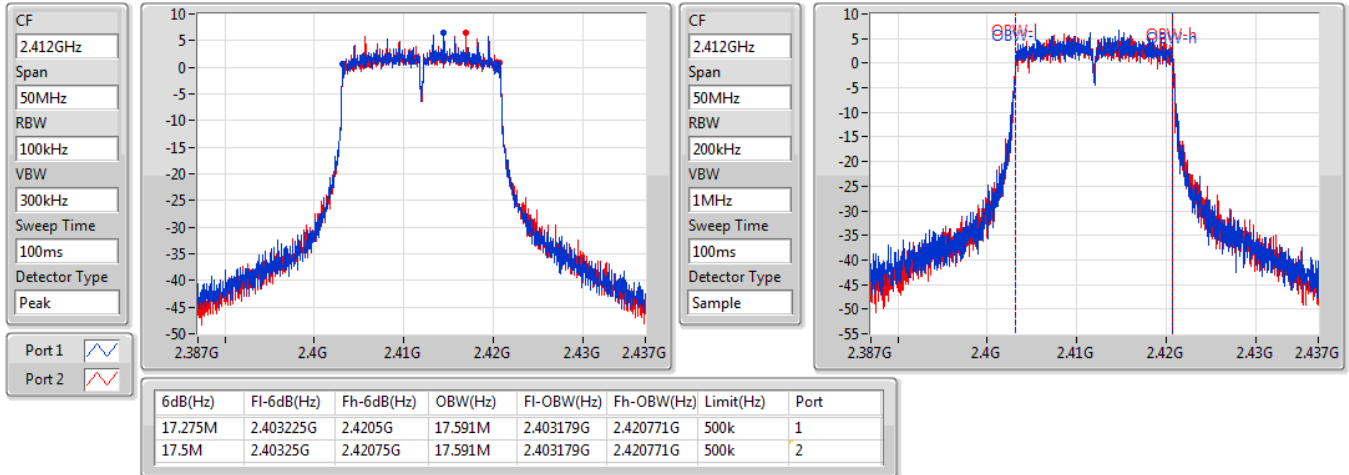
25/06/2019



802.11ac VHT20_Nss1,(MCS0)_2TX 2412MHz

EBW

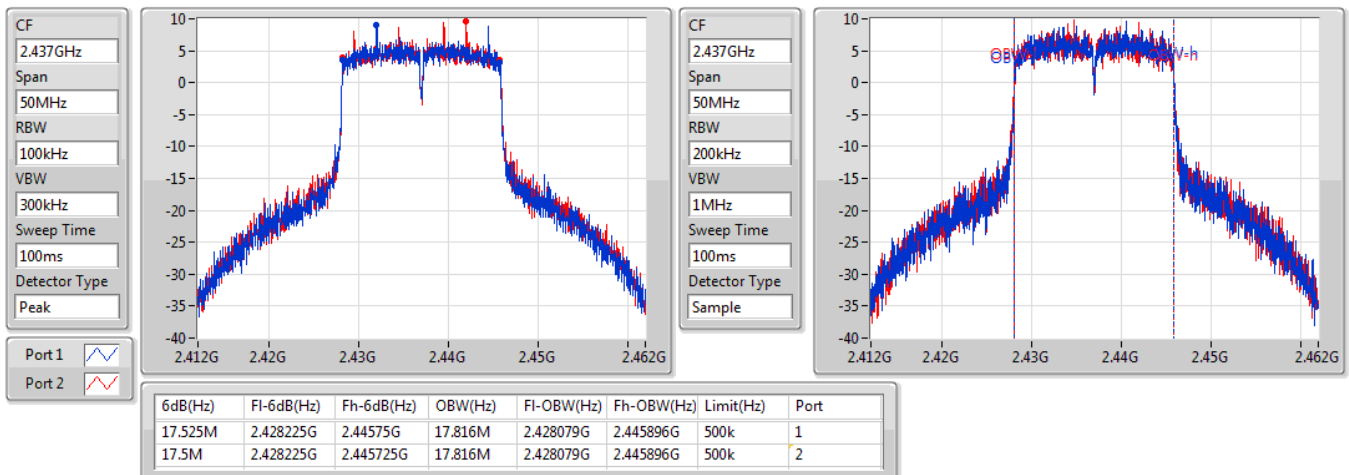
25/06/2019



802.11ac VHT20_Nss1,(MCS0)_2TX 2437MHz

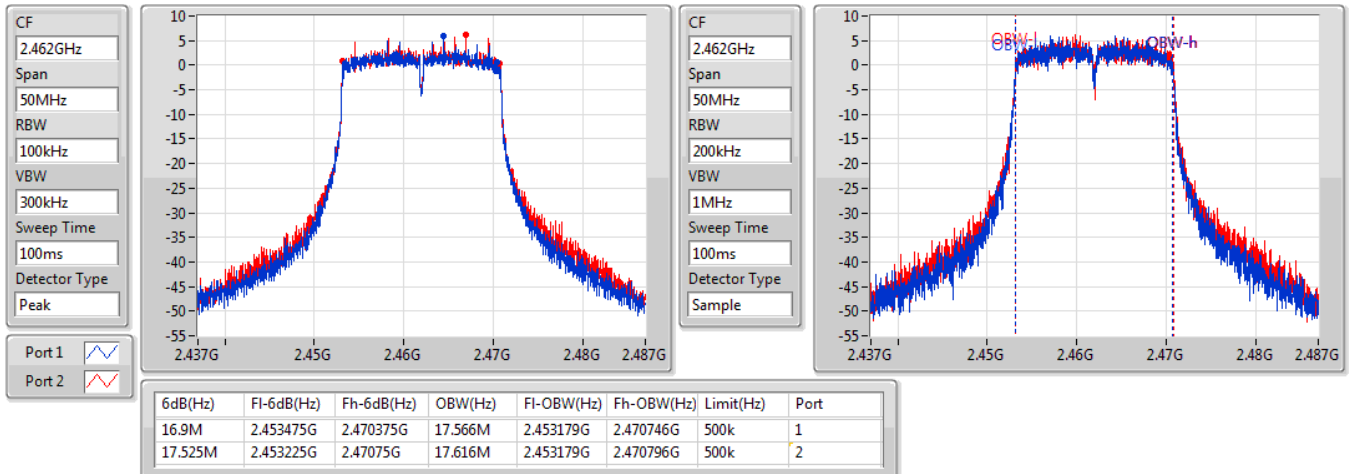
EBW

25/06/2019

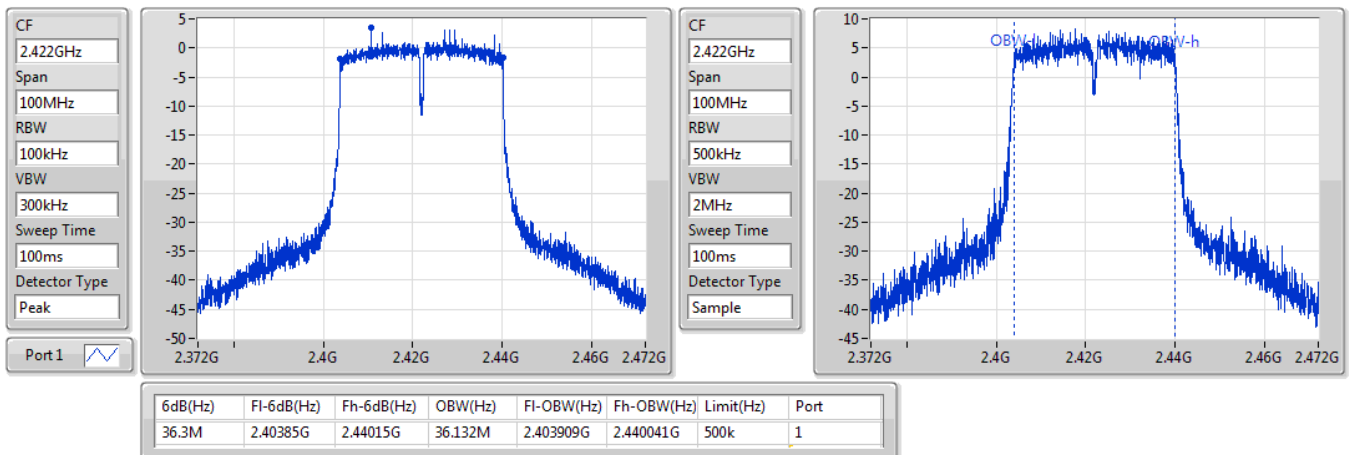


**802.11ac VHT20_Nss1,(MCS0)_2TX
2462MHz**
EBW

25/06/2019

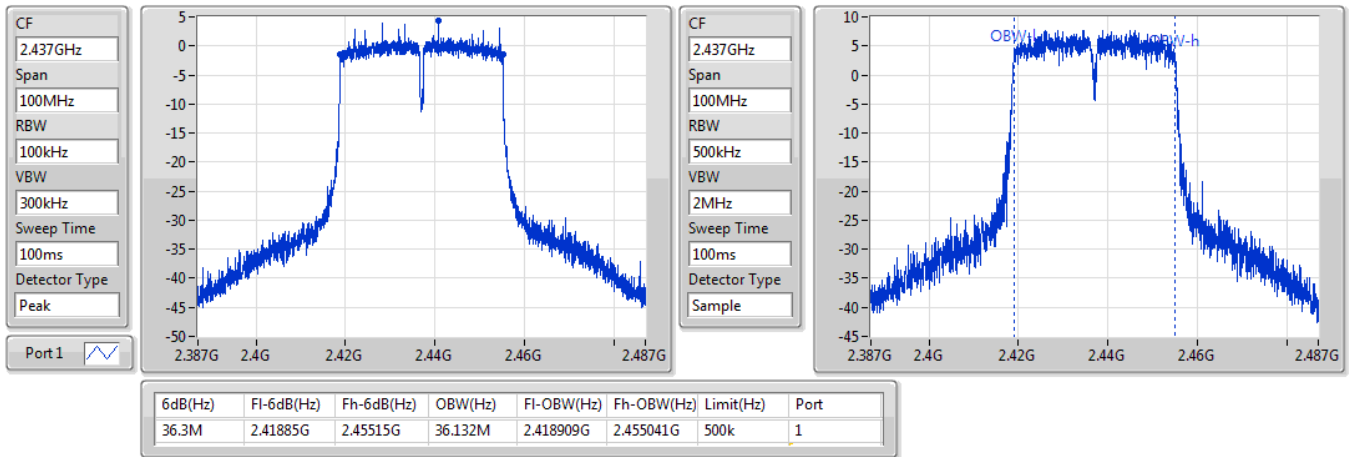

**802.11ac VHT40_Nss1,(MCS0)_1TX(Port1)
2422MHz**
EBW

25/06/2019

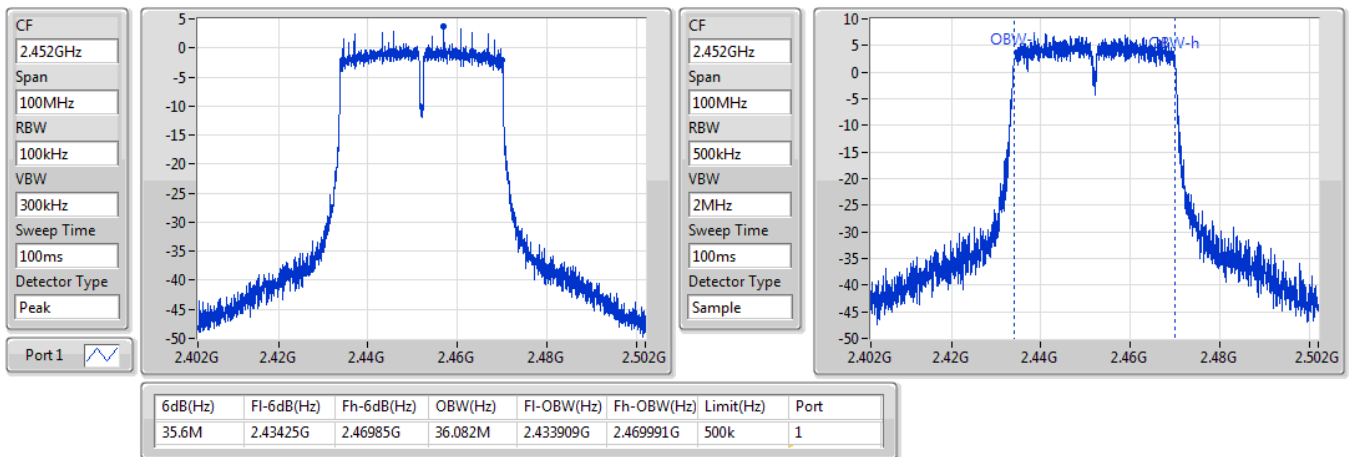


802.11ac VHT40_Nss1,(MCS0)_1TX(Port1)
2437MHz
EBW

25/06/2019

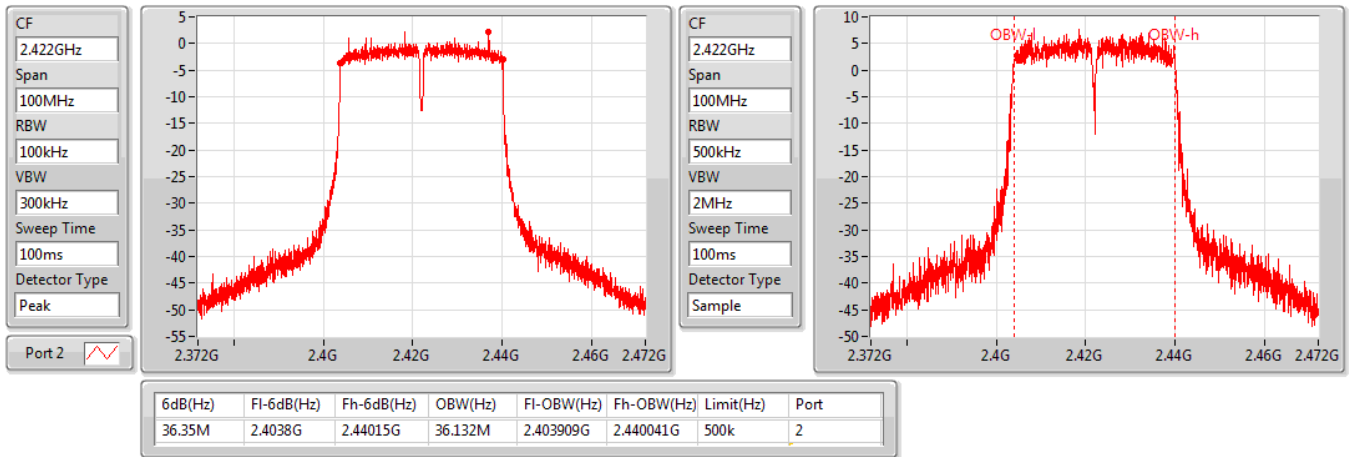

802.11ac VHT40_Nss1,(MCS0)_1TX(Port1)
2452MHz
EBW

25/06/2019

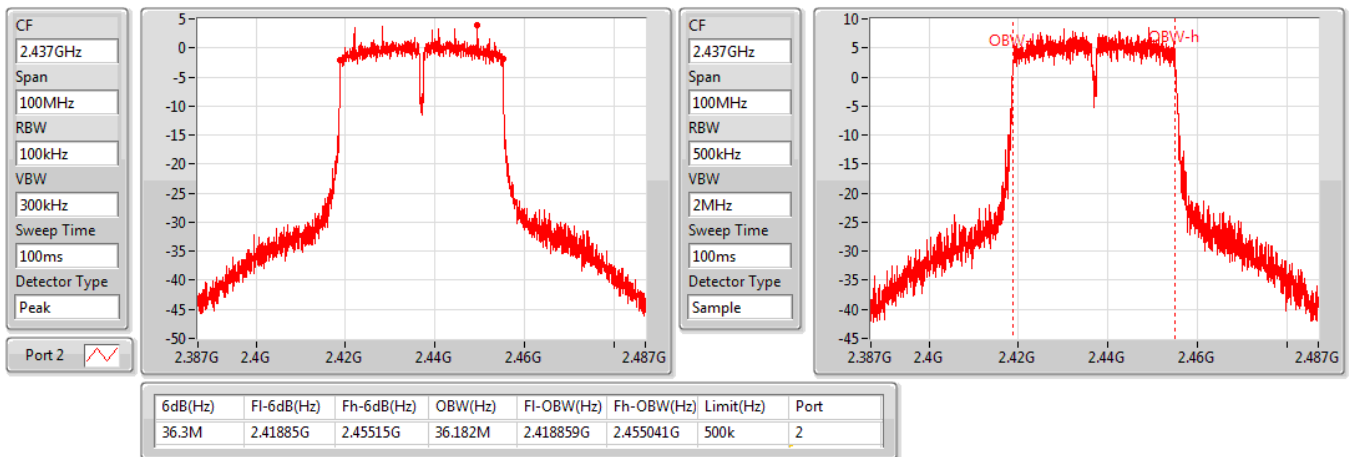


802.11ac VHT40_Nss1,(MCS0)_1TX(Port2)
2422MHz
EBW

25/06/2019

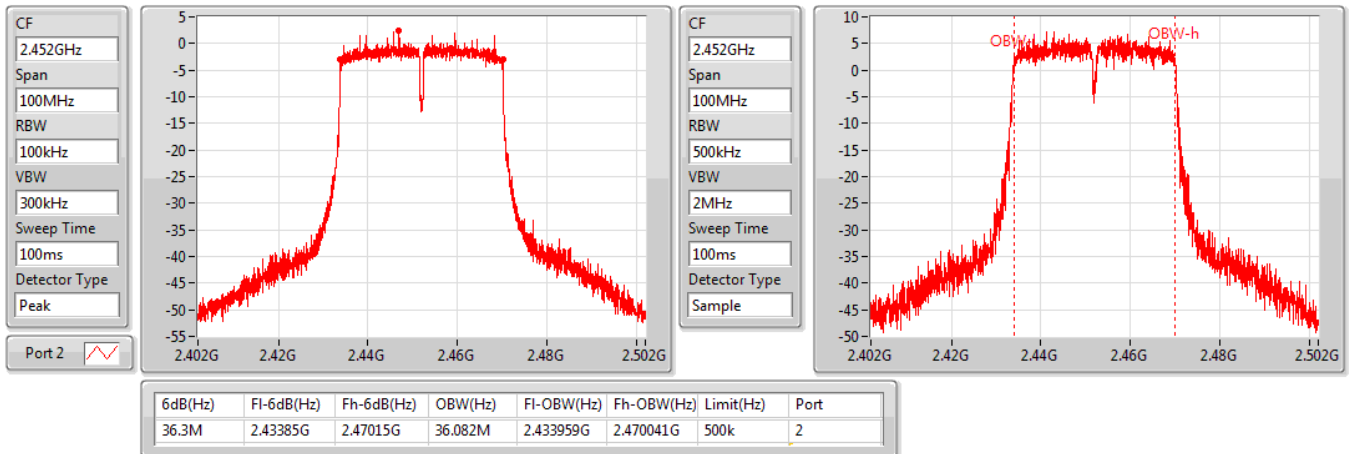

802.11ac VHT40_Nss1,(MCS0)_1TX(Port2)
2437MHz
EBW

25/06/2019

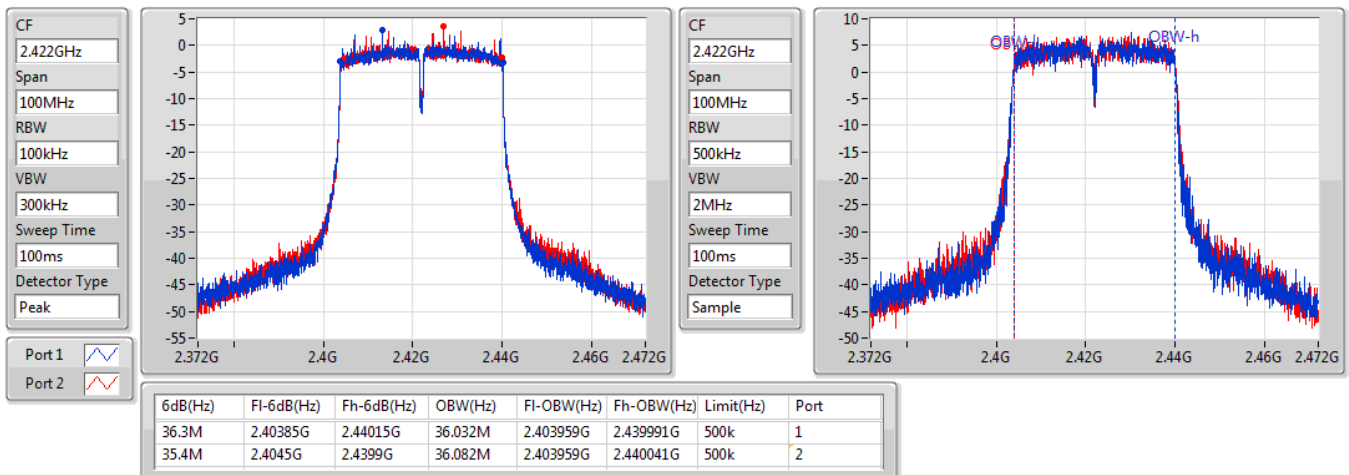


802.11ac VHT40_Nss1,(MCS0)_1TX(Port2)
2452MHz
EBW

25/06/2019


802.11ac VHT40_Nss1,(MCS0)_2TX
2422MHz
EBW

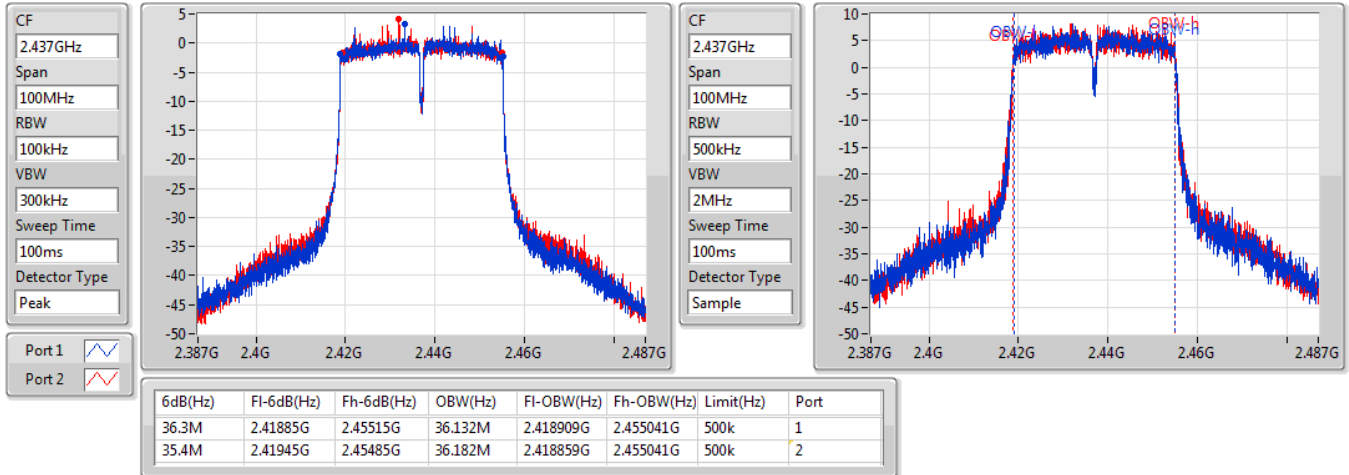
25/06/2019



802.11ac VHT40_Nss1,(MCS0)_2TX 2437MHz

EBW

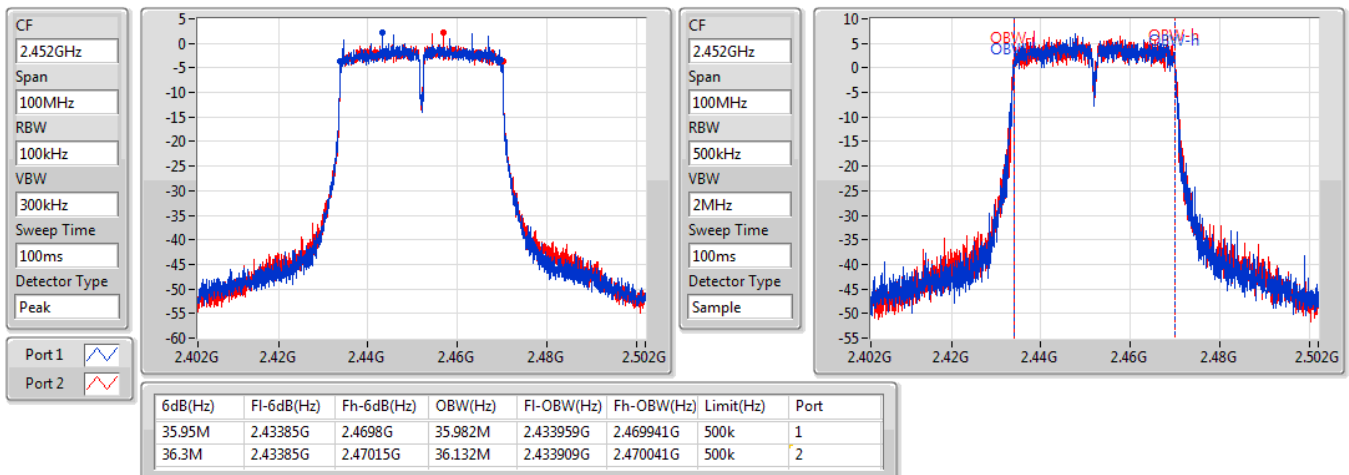
25/06/2019



802.11ac VHT40_Nss1,(MCS0)_2TX 2452MHz

EBW

25/06/2019

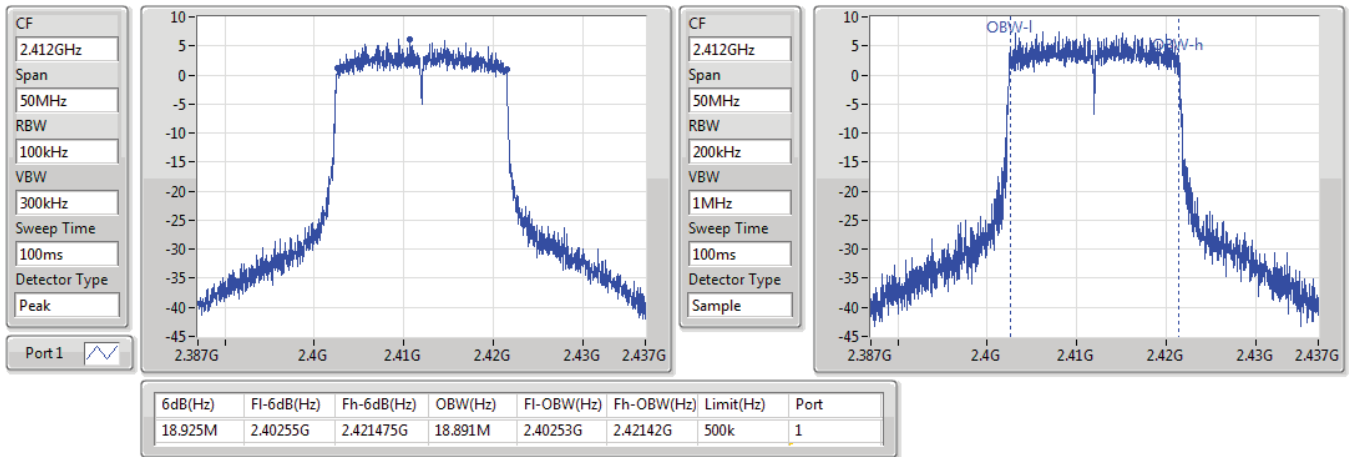


802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)

EBW

2412MHz

25/06/2019

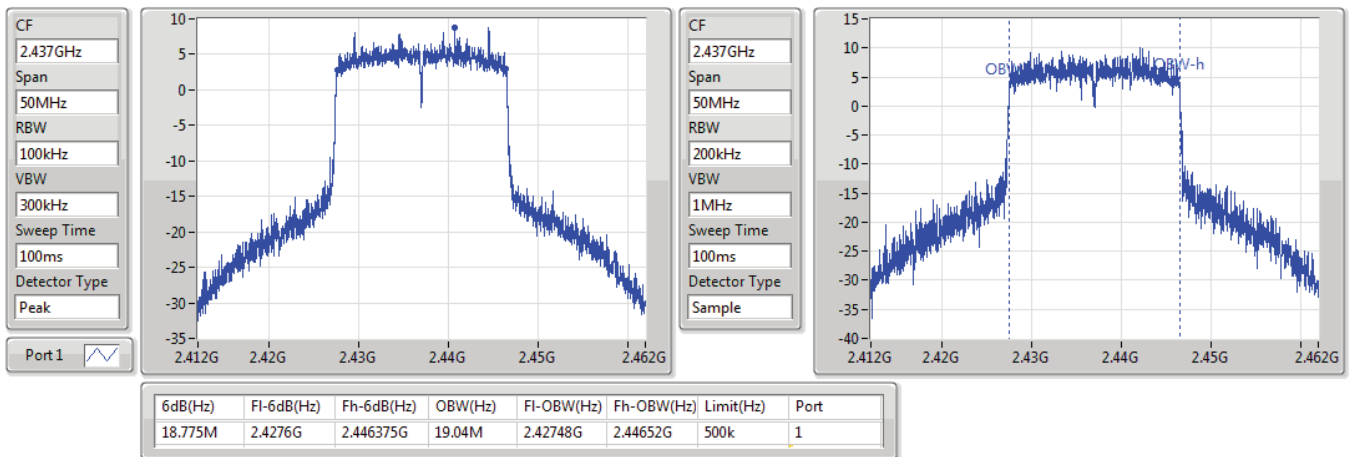


802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)

EBW

2437MHz

25/06/2019

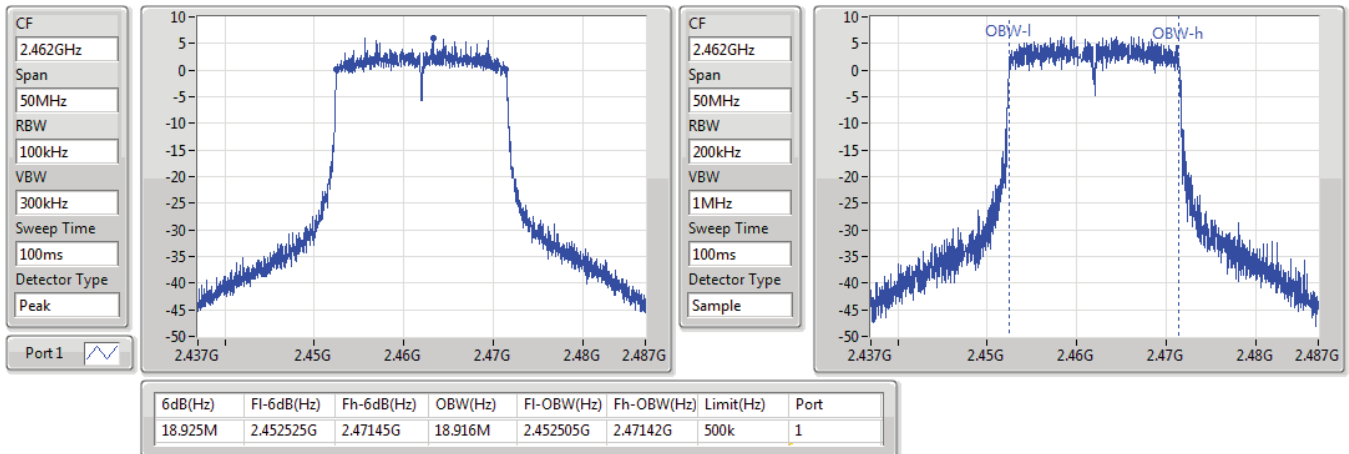


802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)

EBW

2462MHz

25/06/2019

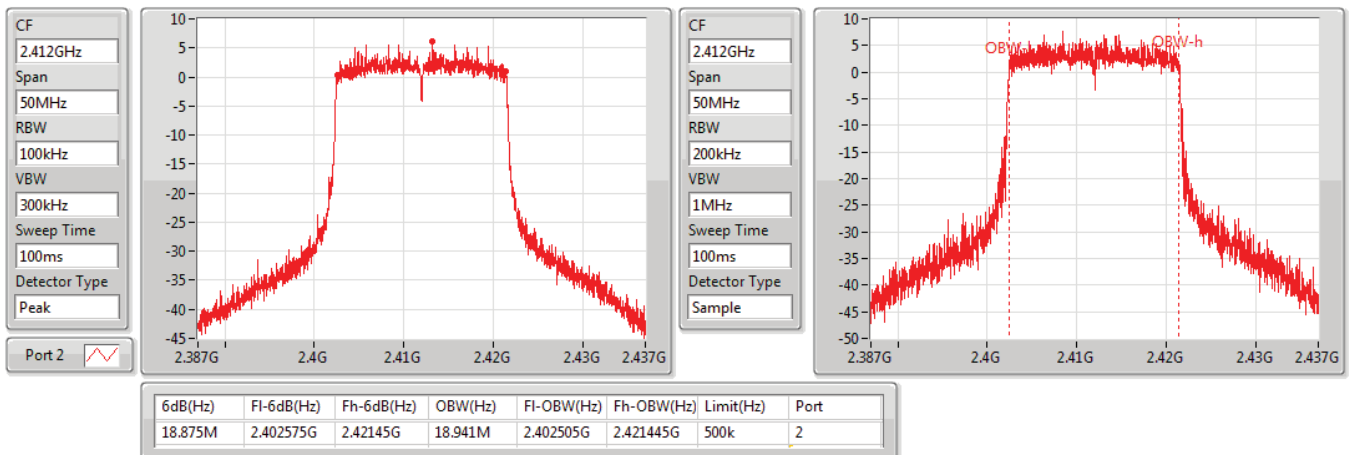


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)

EBW

2412MHz

25/06/2019

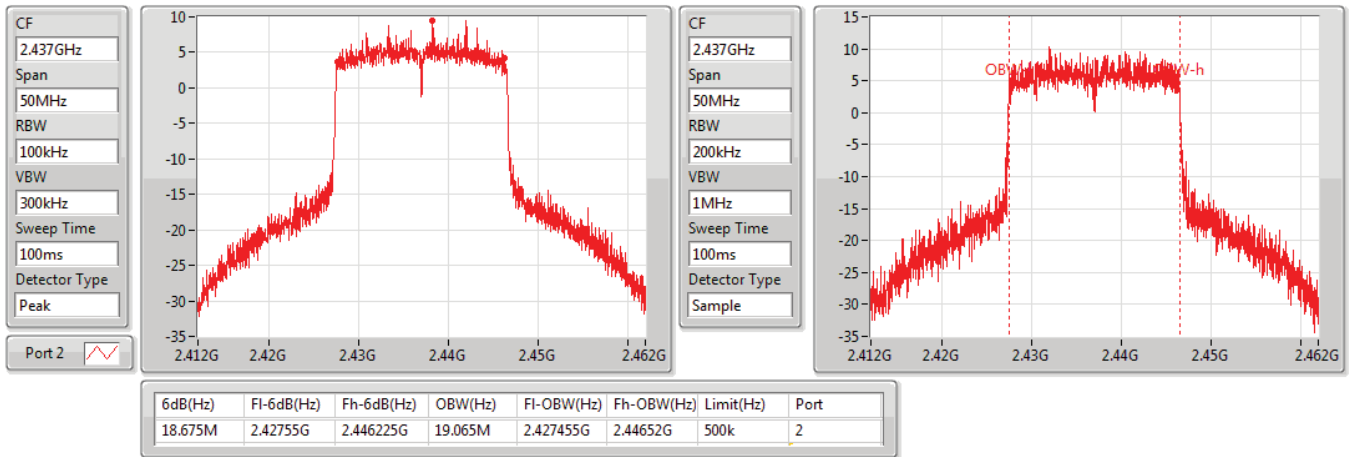


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)

EBW

2437MHz

25/06/2019

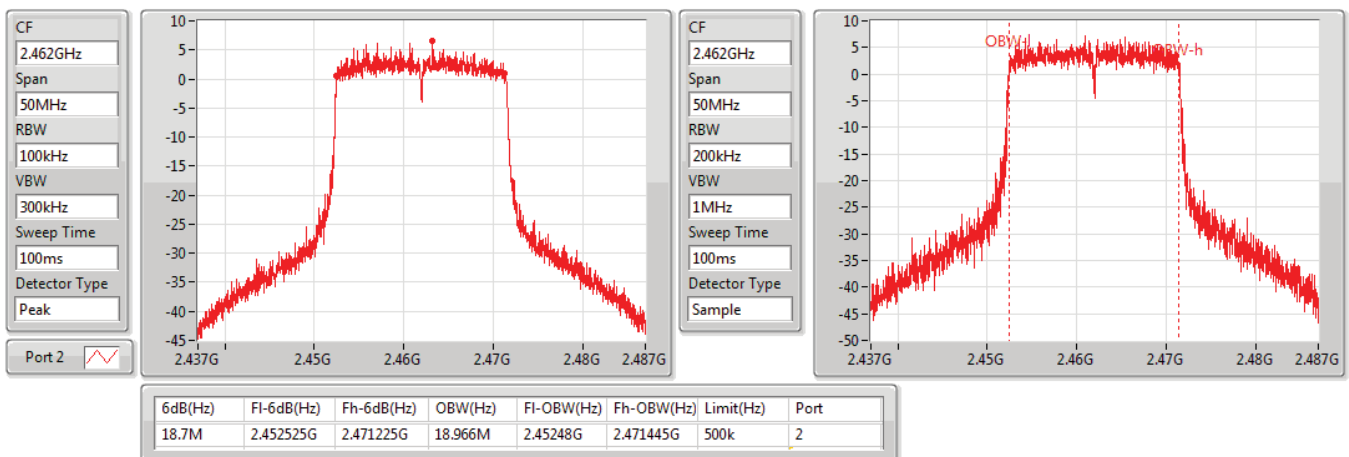


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)

EBW

2462MHz

25/06/2019

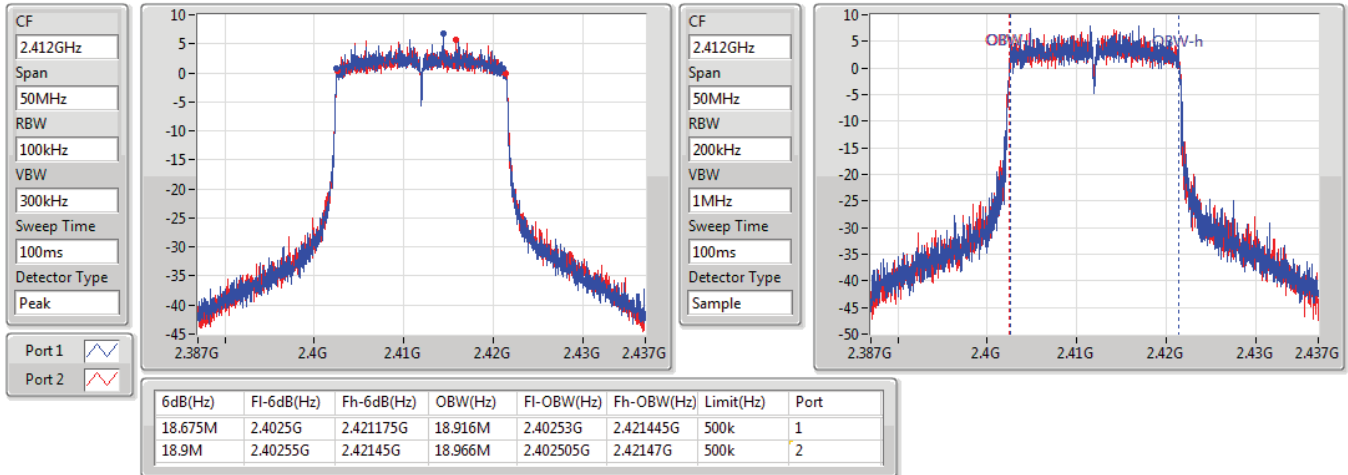


802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

2412MHz

25/06/2019

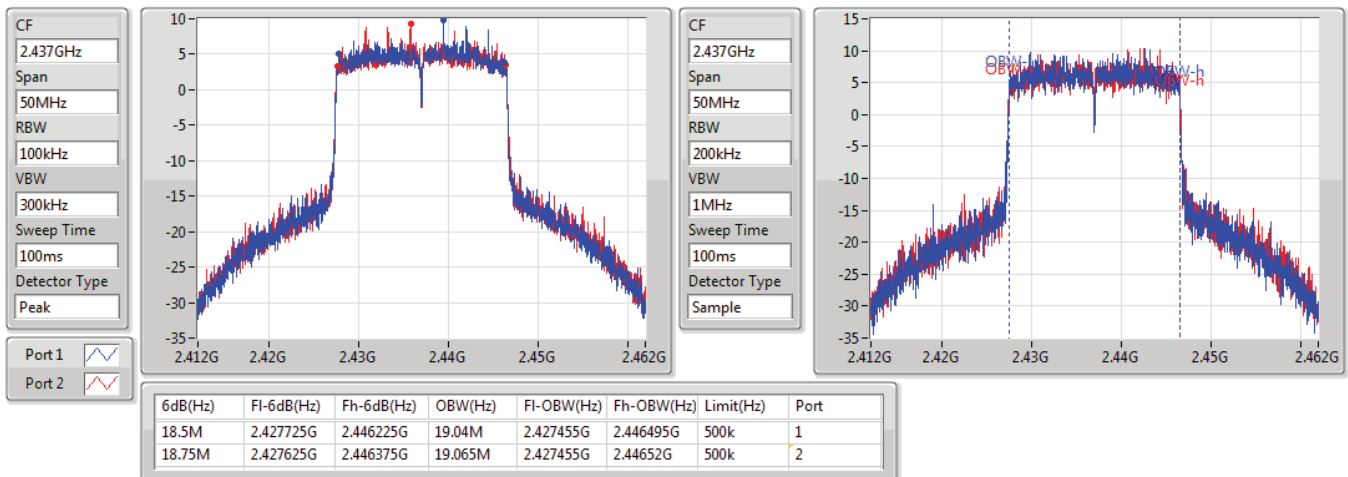


802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

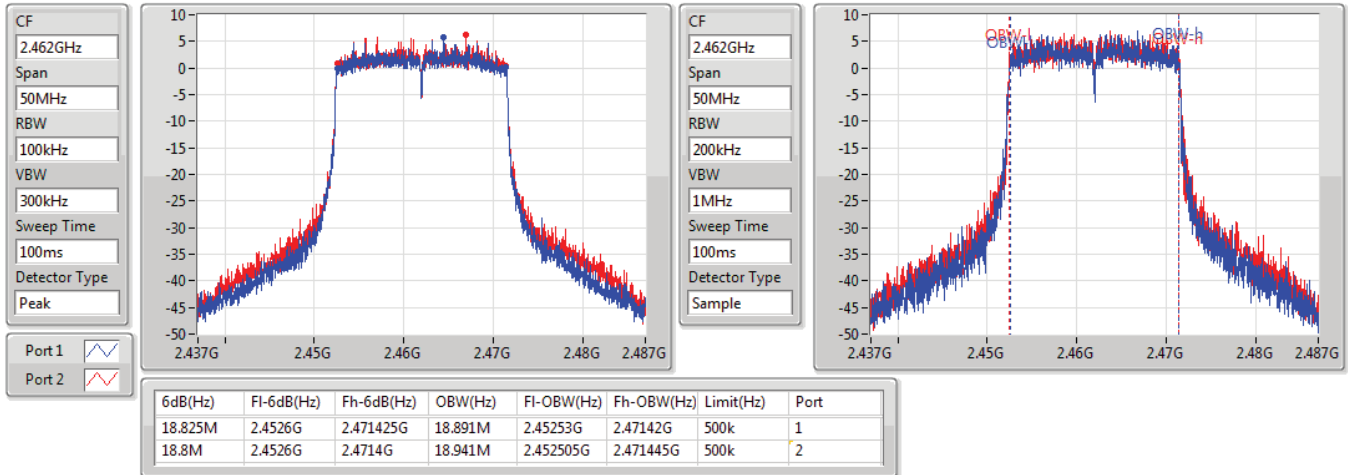
2437MHz

25/06/2019

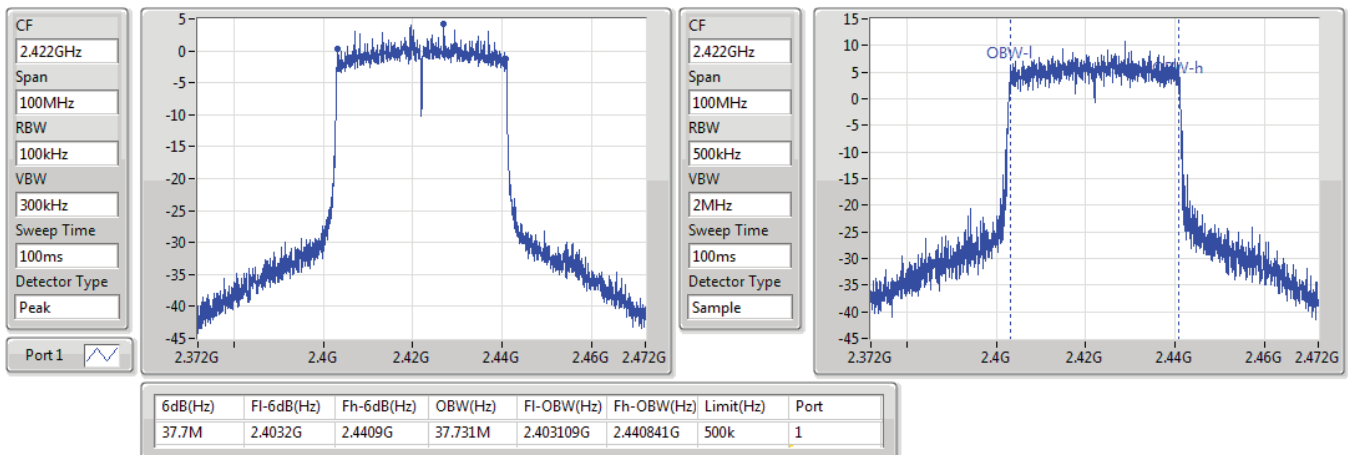


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
2462MHz

25/06/2019


802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)
EBW
2422MHz

25/06/2019

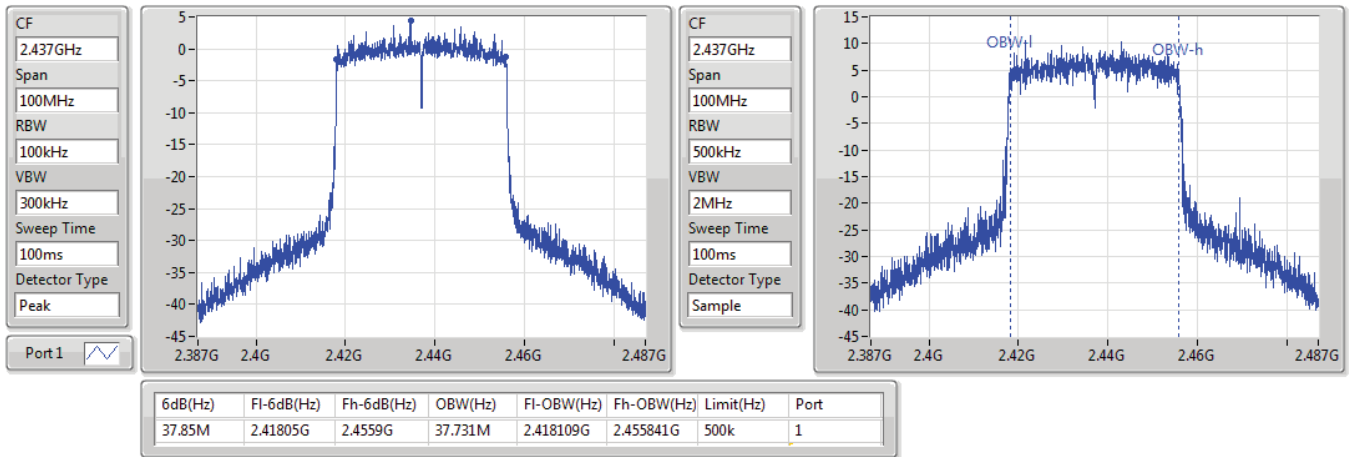


802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)

EBW

2437MHz

25/06/2019

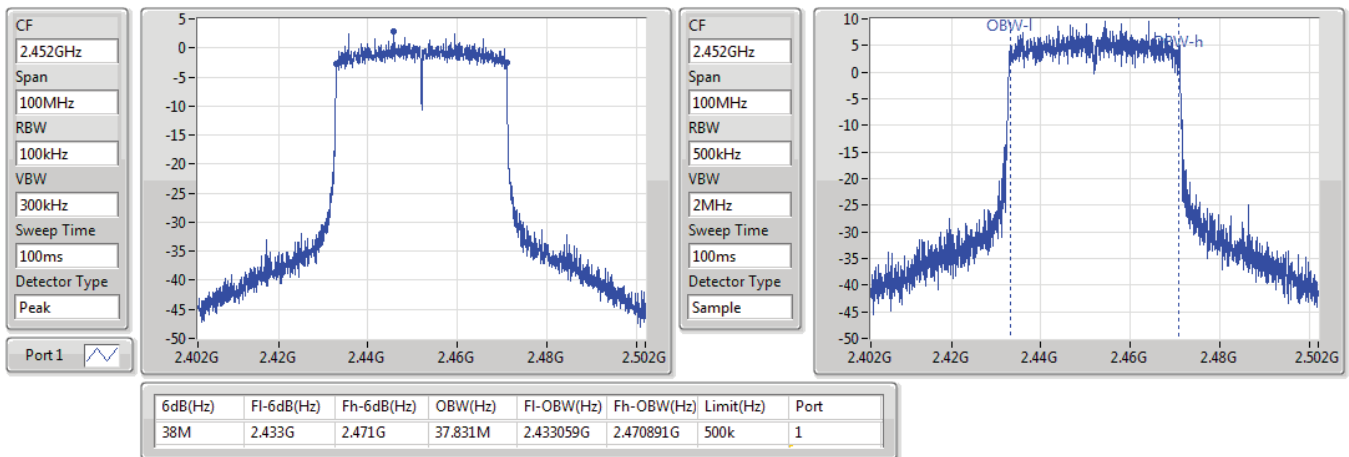


802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)

EBW

2452MHz

25/06/2019

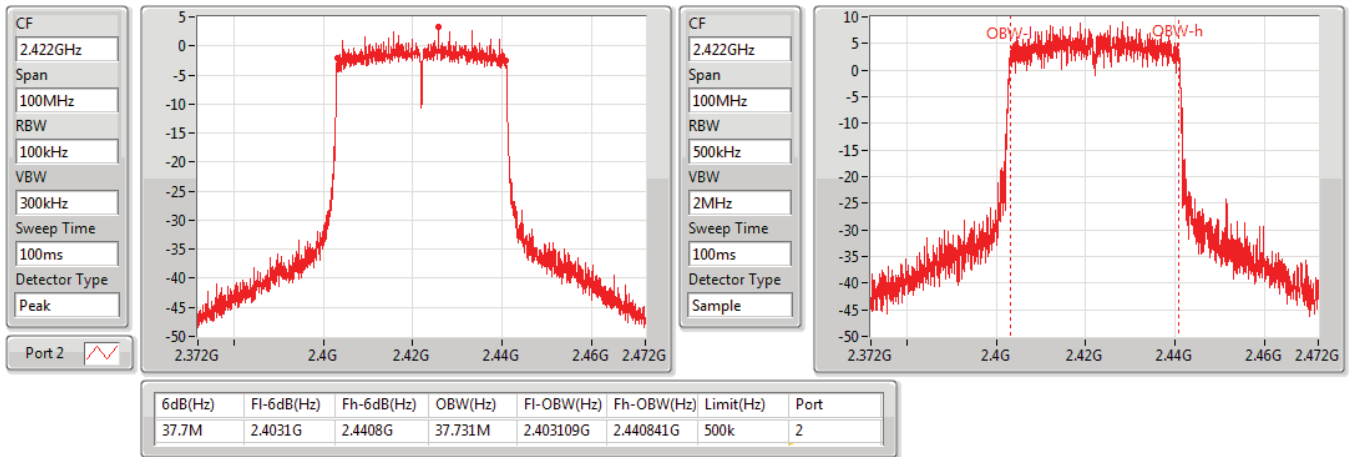


802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)

EBW

2422MHz

25/06/2019

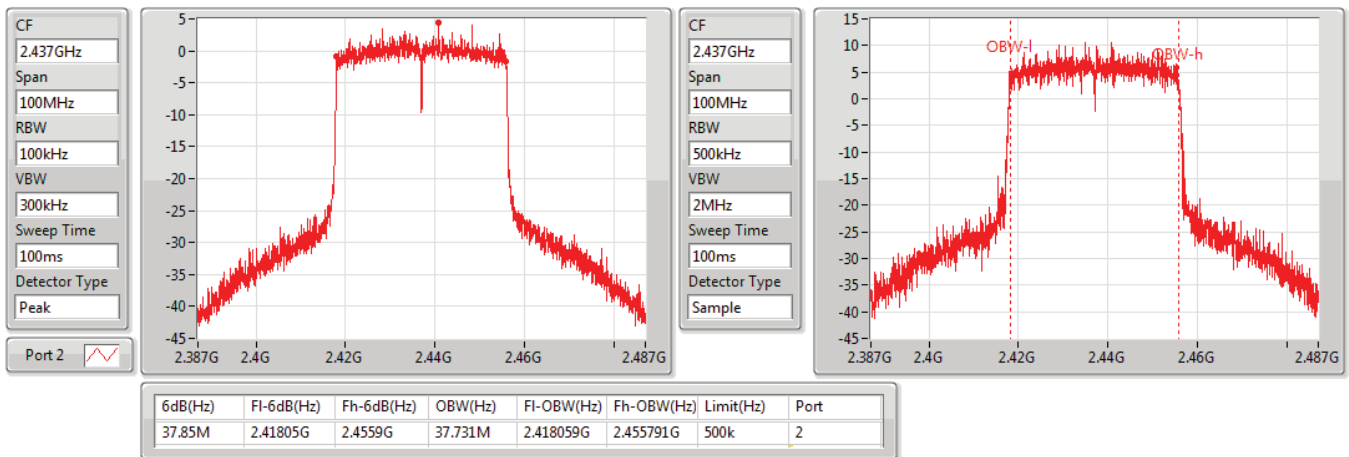


802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)

EBW

2437MHz

25/06/2019

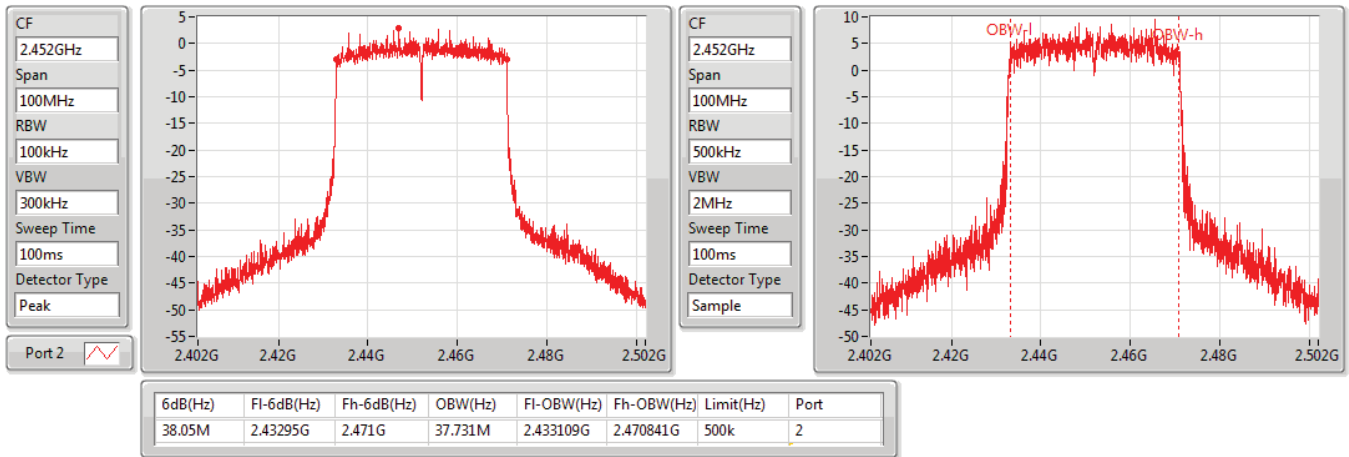


802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)

EBW

2452MHz

25/06/2019

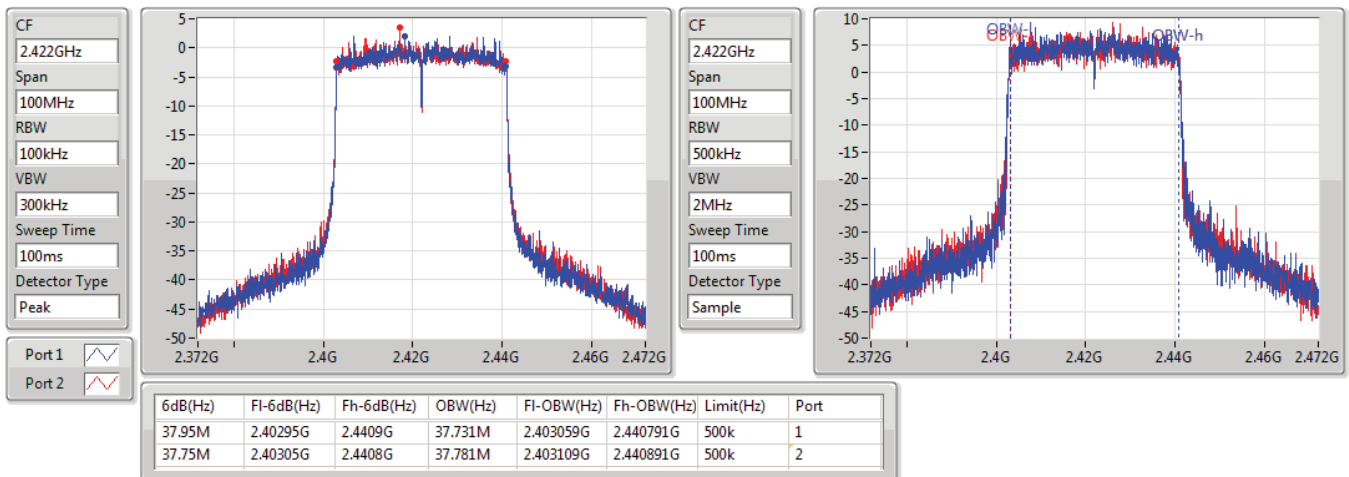


802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

2422MHz

25/06/2019

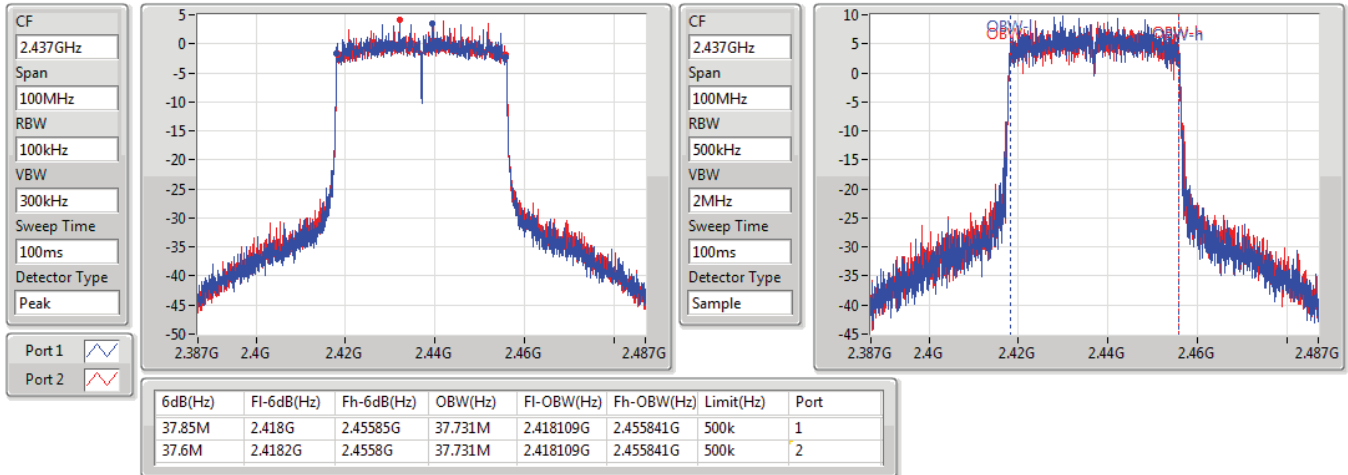


802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

2437MHz

25/06/2019

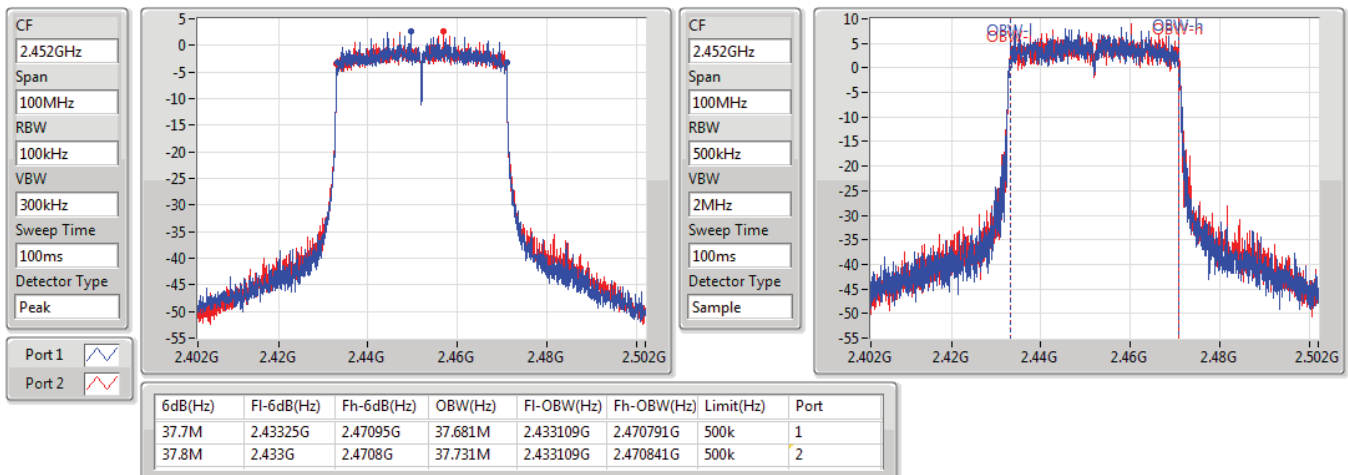


802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

2452MHz

25/06/2019



**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
2.4-2.4835GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	17.2M	17.616M	17M6D1D	14.075M	17.566M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	33.75M	36.182M	36M2D1D	25.55M	36.032M
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	16.1M	17.591M	17M6D1D	14.95M	17.516M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	35.6M	36.082M	36M1D1D	27.25M	35.982M

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

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

**Result**

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	16.775M	17.591M	16.85M	17.566M
2437MHz	Pass	500k	17.2M	17.591M	14.075M	17.616M
2462MHz	Pass	500k	16.925M	17.566M	16.6M	17.566M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	31.3M	36.082M	33.75M	36.182M
2437MHz	Pass	500k	31.3M	36.082M	25.55M	36.082M
2452MHz	Pass	500k	26.25M	36.032M	31.3M	36.082M
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	500k	15M	17.566M	15.575M	17.566M
2437MHz	Pass	500k	15.1M	17.516M	14.95M	17.591M
2462MHz	Pass	500k	16.1M	17.566M	16.1M	17.591M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	500k	27.25M	36.082M	33.75M	36.082M
2437MHz	Pass	500k	35.05M	36.032M	33.75M	36.082M
2452MHz	Pass	500k	35.05M	36.082M	35.6M	35.982M

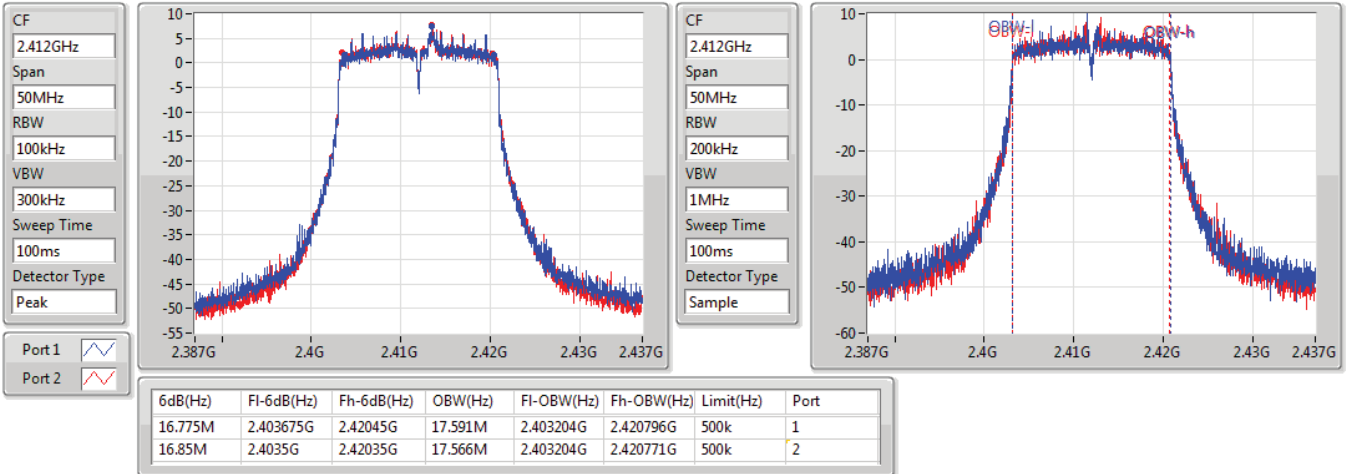
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

2412MHz

22/07/2019

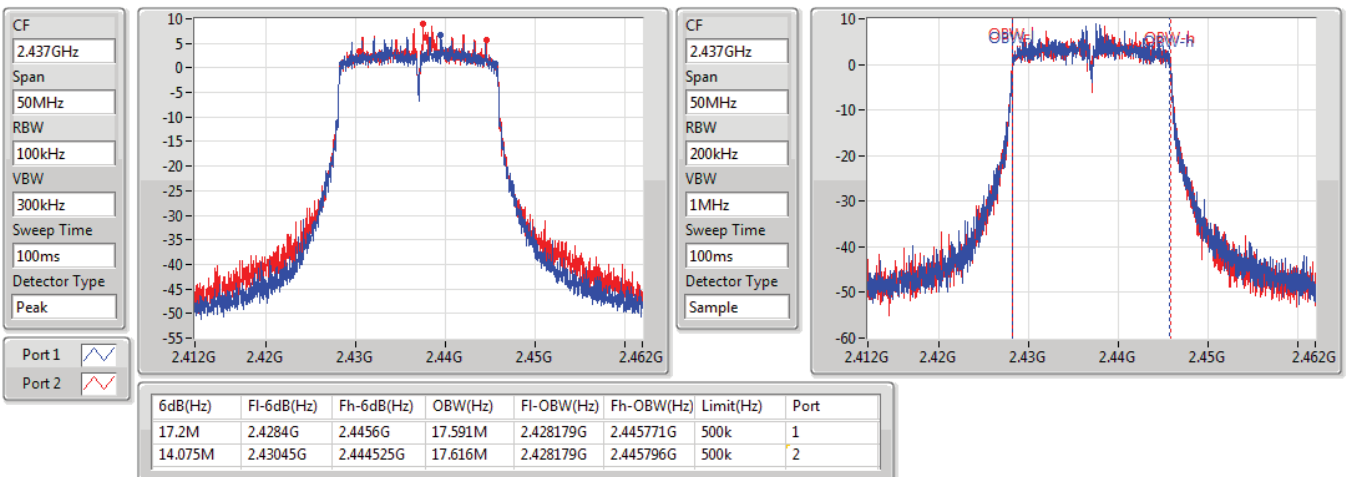


802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

2437MHz

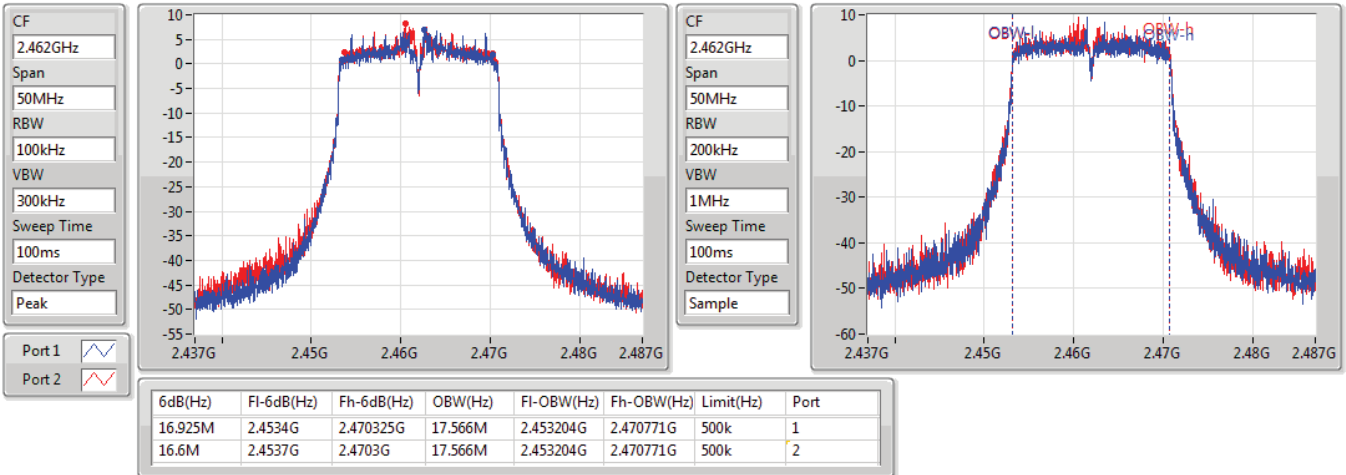
22/07/2019



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

2462MHz

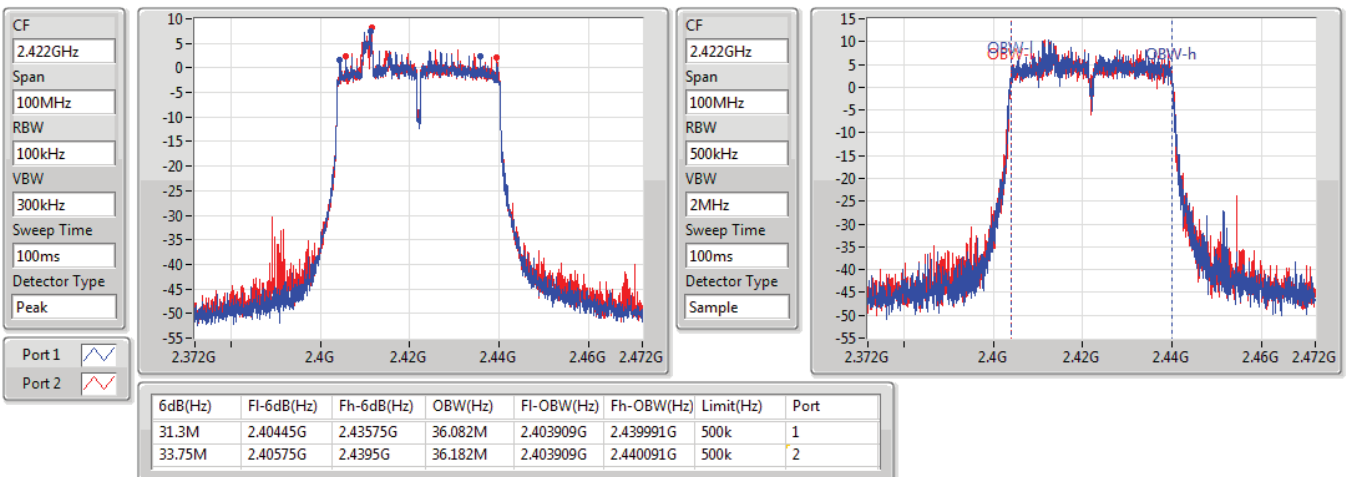
22/07/2019



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

2422MHz

22/07/2019

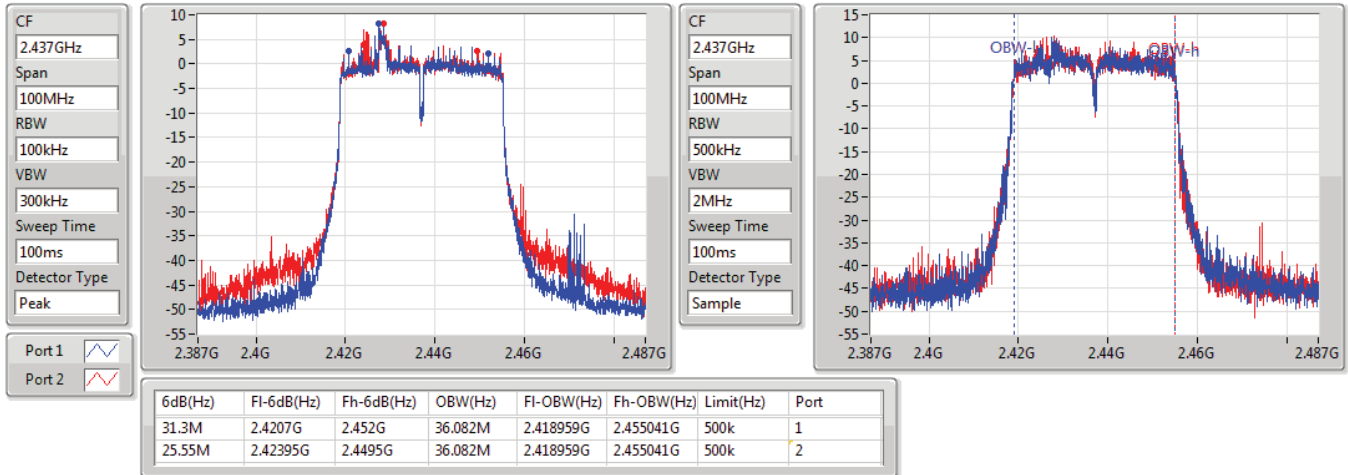


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

2437MHz

22/07/2019

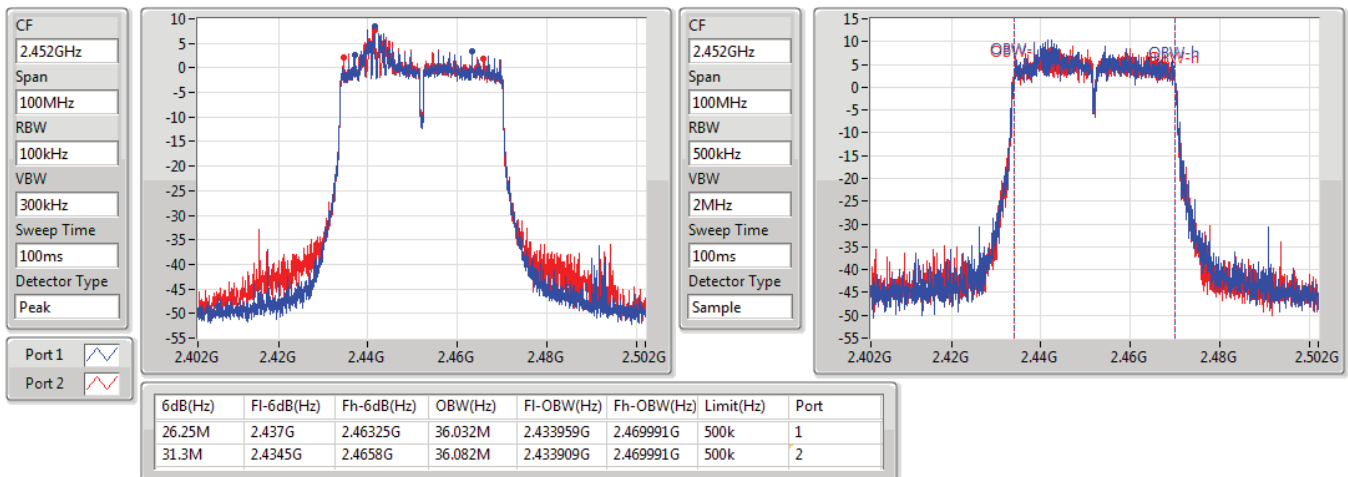


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

2452MHz

22/07/2019

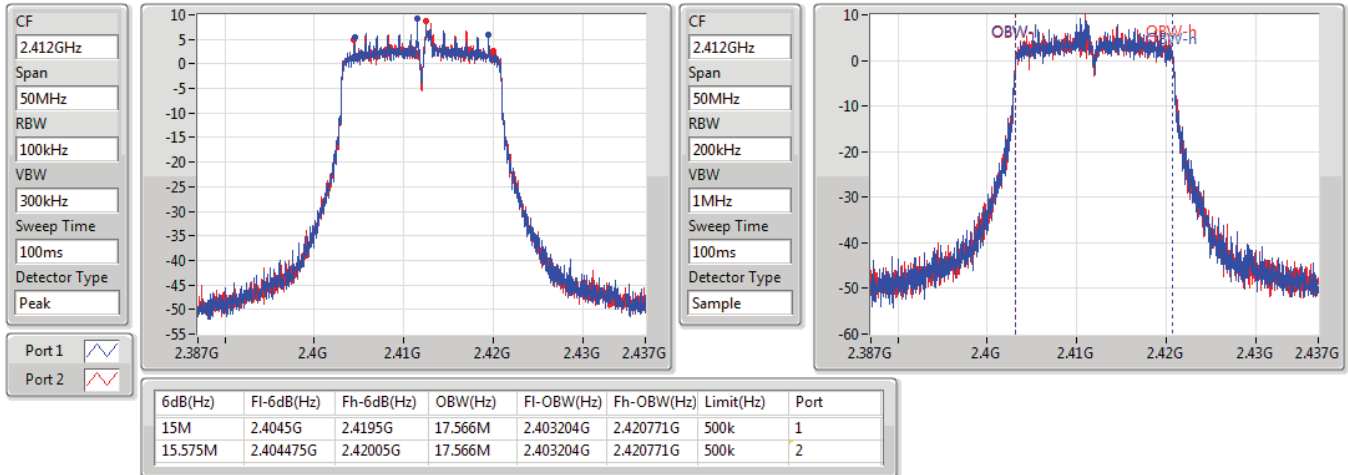


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

2412MHz

22/07/2019

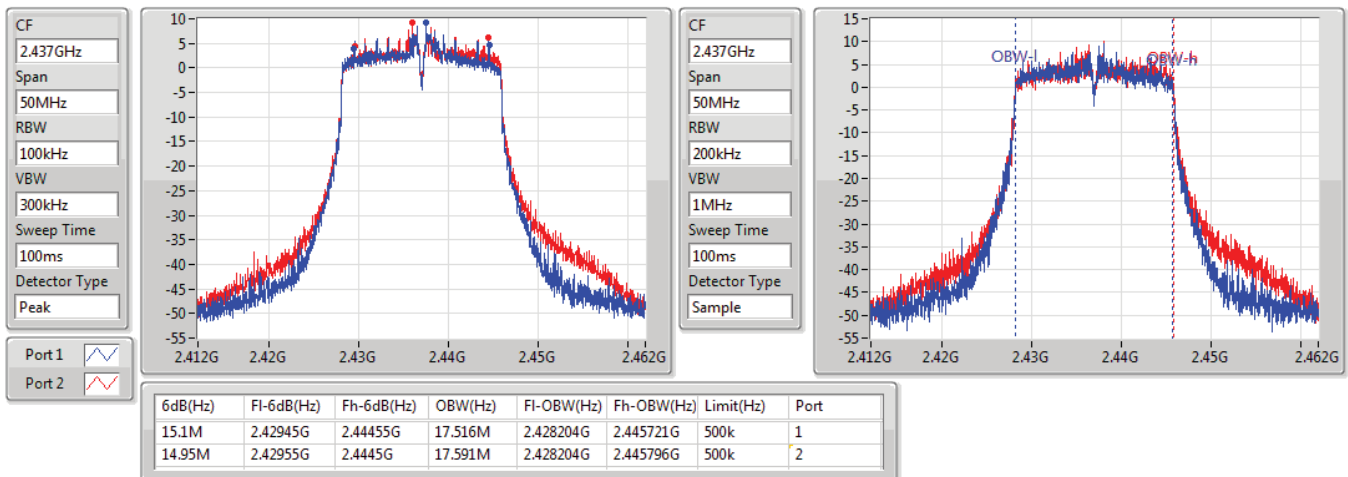


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

2437MHz

22/07/2019

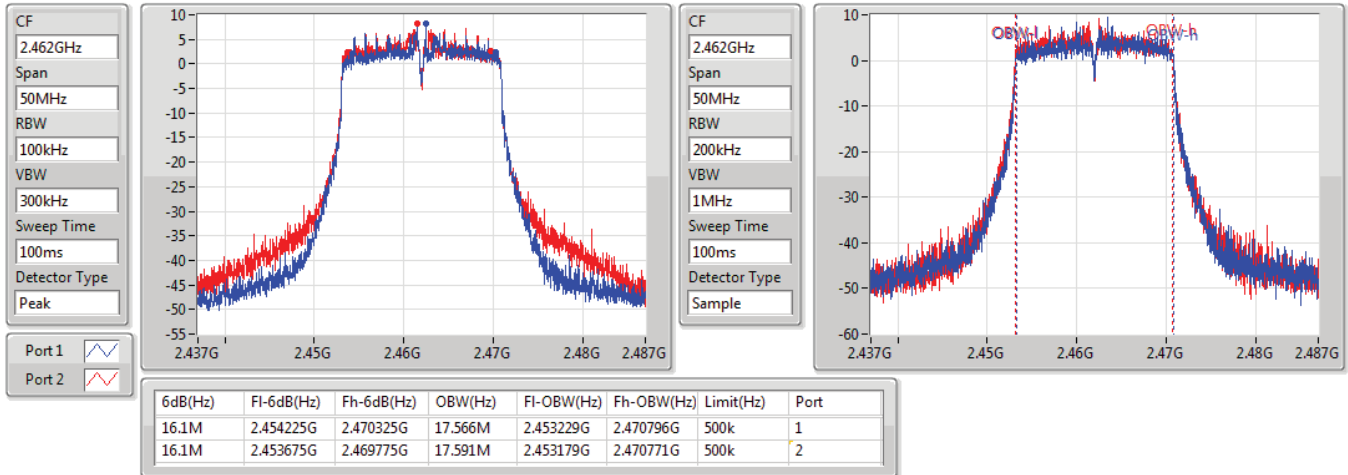


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

2462MHz

22/07/2019

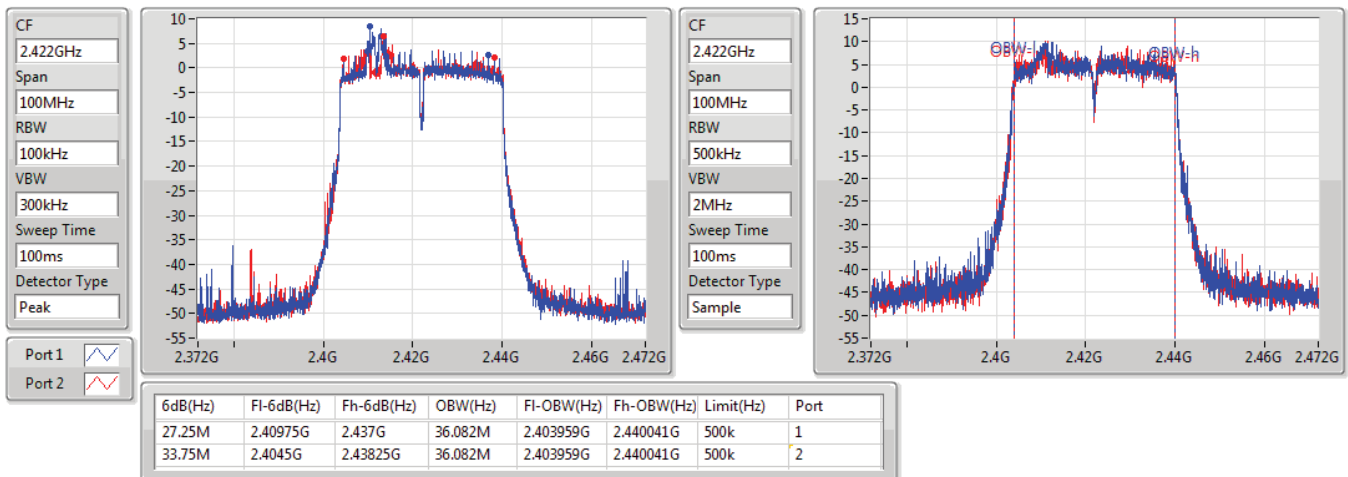


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

EBW

2422MHz

22/07/2019

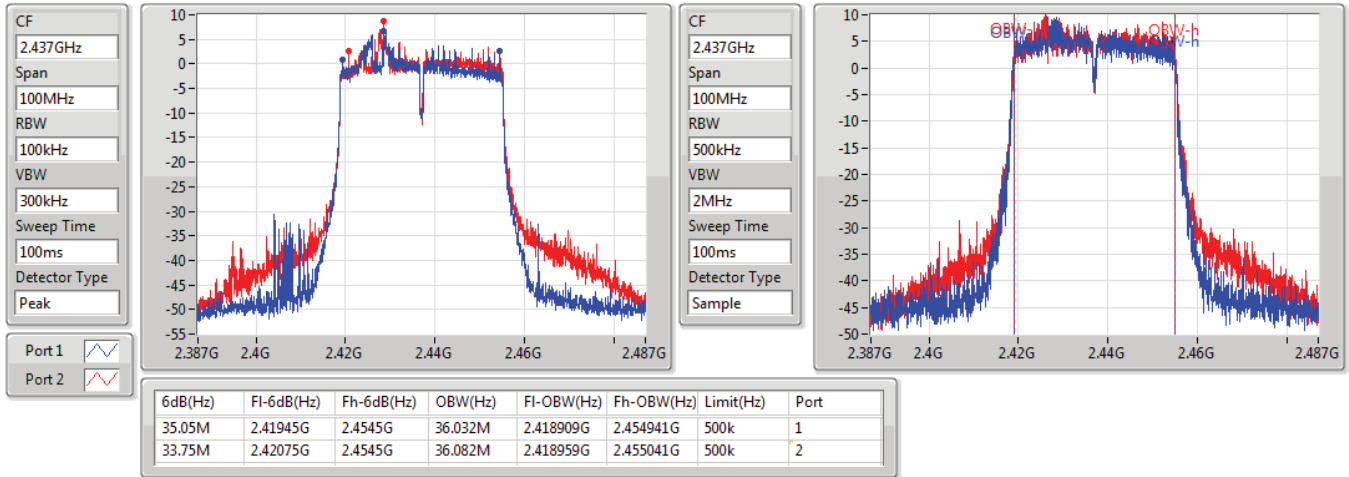


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

EBW

2437MHz

22/07/2019

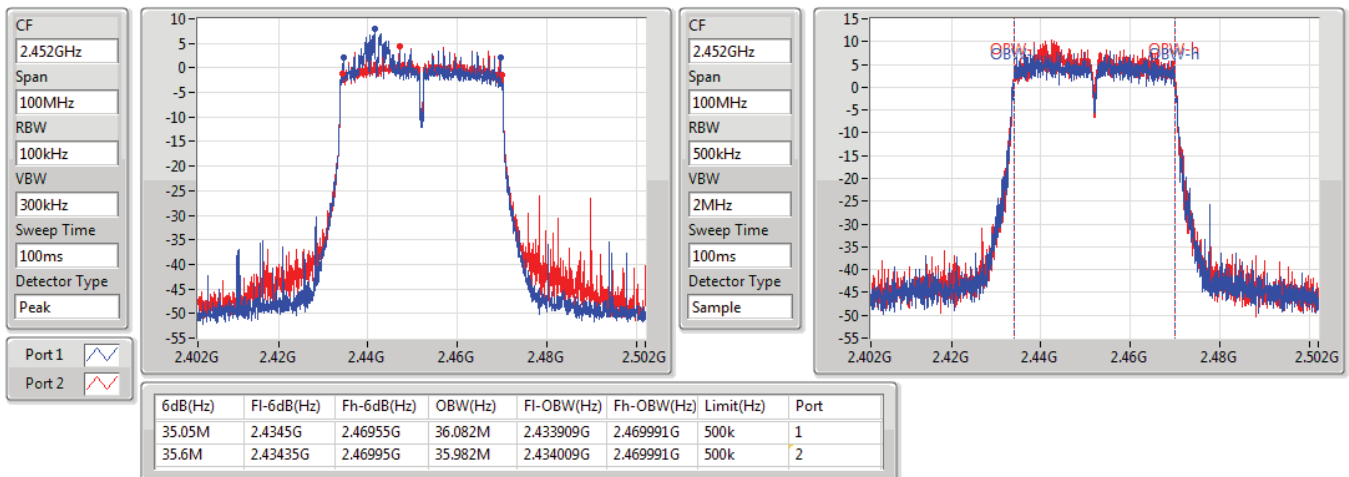


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

EBW

2452MHz

22/07/2019



**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	7.975M	13.818M	13M8G1D	7M	12.619M
802.11g_Nss1,(6Mbps)_1TX	16.3M	18.166M	18M2D1D	16.275M	16.592M
802.11ac VHT20_Nss1,(MCS0)_1TX	17.5M	18.791M	18M8D1D	16.875M	17.716M
802.11ac VHT40_Nss1,(MCS0)_1TX	35.7M	36.382M	36M4D1D	35.05M	36.132M

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

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

**Result**

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	7.05M	12.619M
2437MHz	Pass	500k	7M	12.819M
2462MHz	Pass	500k	7.975M	13.818M
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-
2412MHz	Pass	500k	16.275M	16.592M
2437MHz	Pass	500k	16.275M	18.166M
2462MHz	Pass	500k	16.3M	16.842M
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-
2412MHz	Pass	500k	16.875M	17.716M
2437MHz	Pass	500k	16.9M	18.791M
2462MHz	Pass	500k	17.5M	17.866M
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-
2422MHz	Pass	500k	35.7M	36.182M
2437MHz	Pass	500k	35.65M	36.382M
2452MHz	Pass	500k	35.05M	36.132M

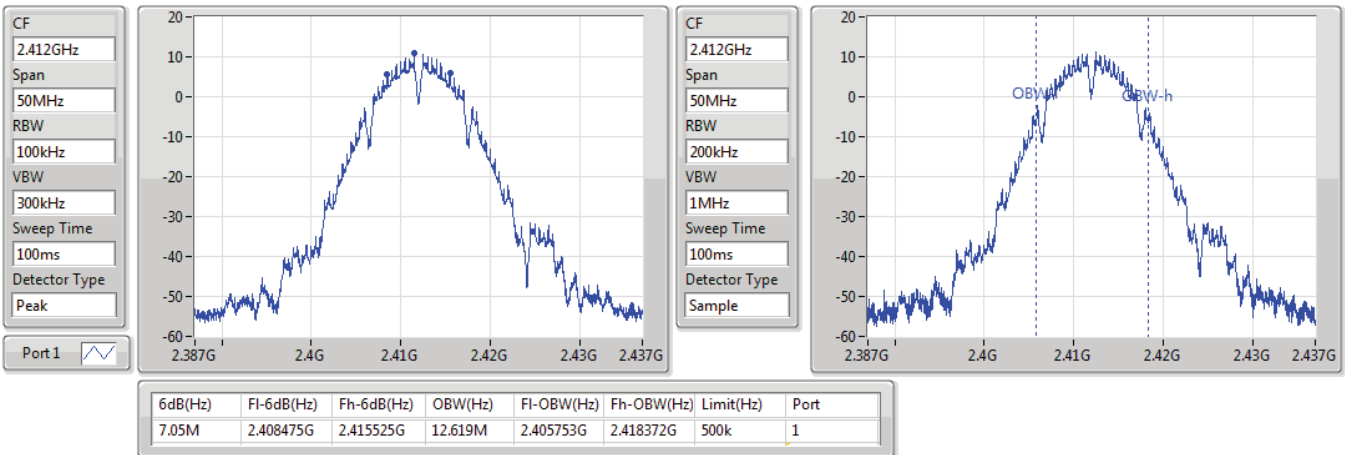
Port X-N dB = Port X 6dB down bandwidth; **Port X-OBW** = Port X 99% occupied bandwidth;

802.11b_Nss1,(1Mbps)_1TX

EBW

2412MHz

28/06/2019

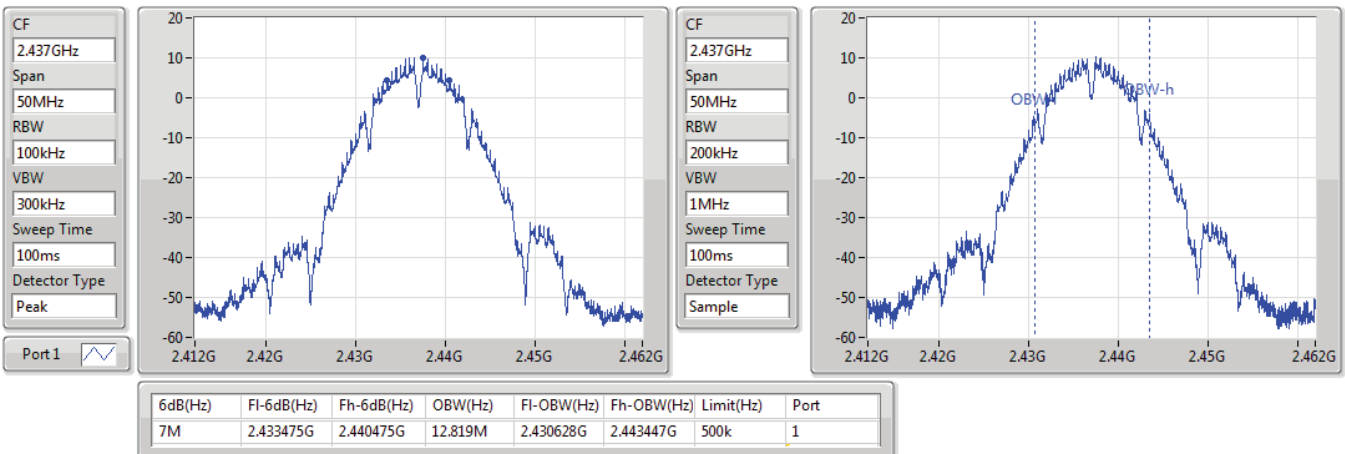


802.11b_Nss1,(1Mbps)_1TX

EBW

2437MHz

28/06/2019

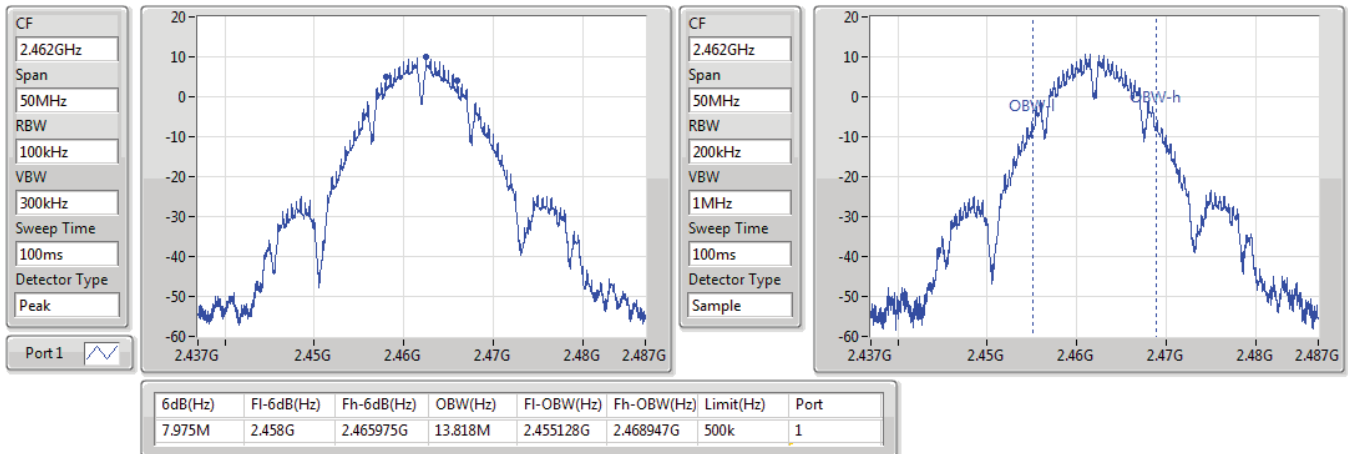


802.11b_Nss1,(1Mbps)_1TX

EBW

2462MHz

28/06/2019

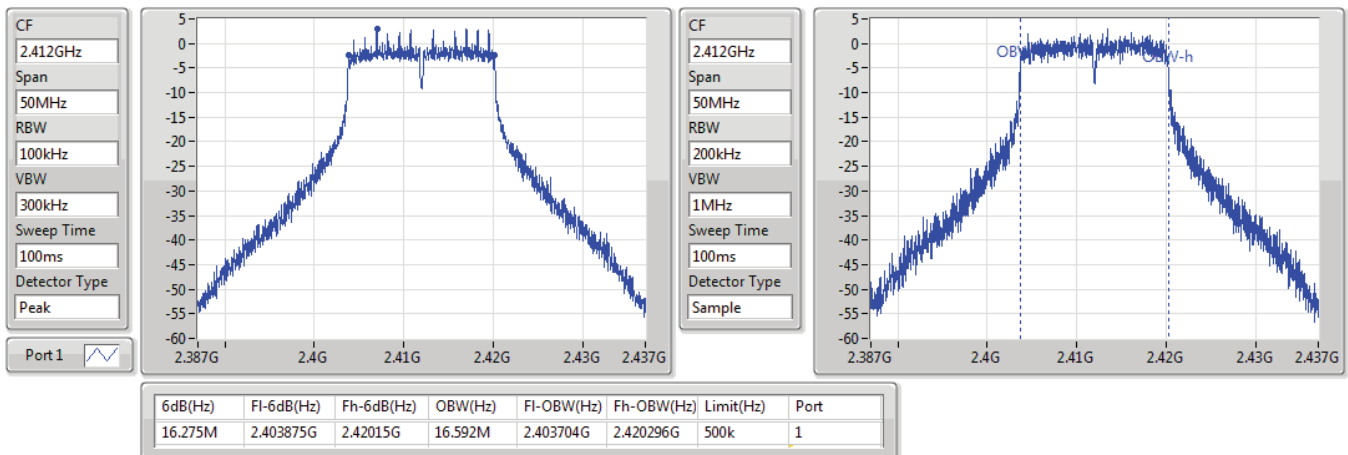


802.11g_Nss1,(6Mbps)_1TX

EBW

2412MHz

28/06/2019

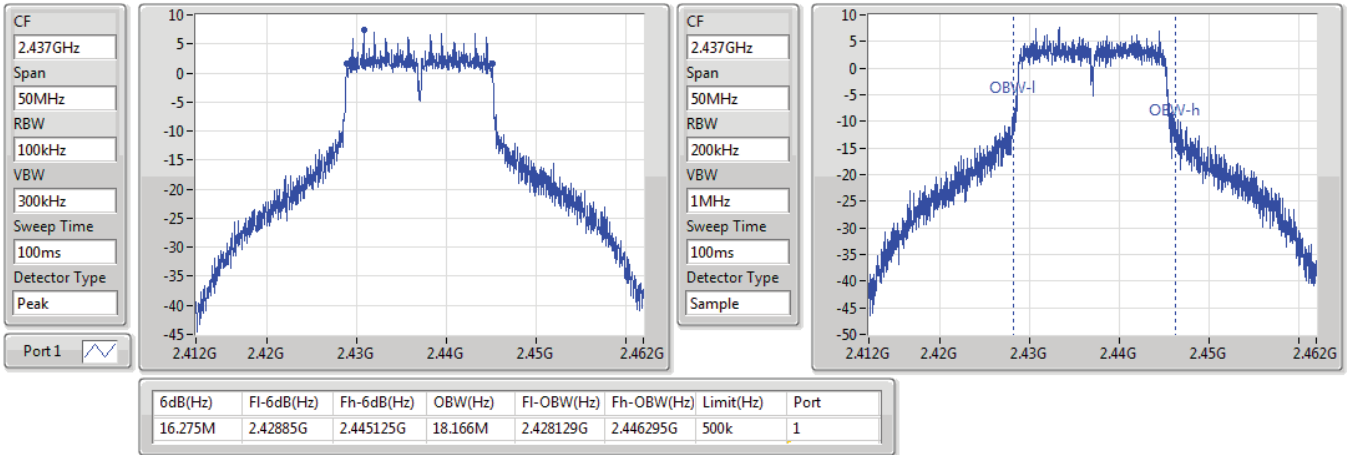


802.11g_Nss1,(6Mbps)_1TX

EBW

2437MHz

28/06/2019

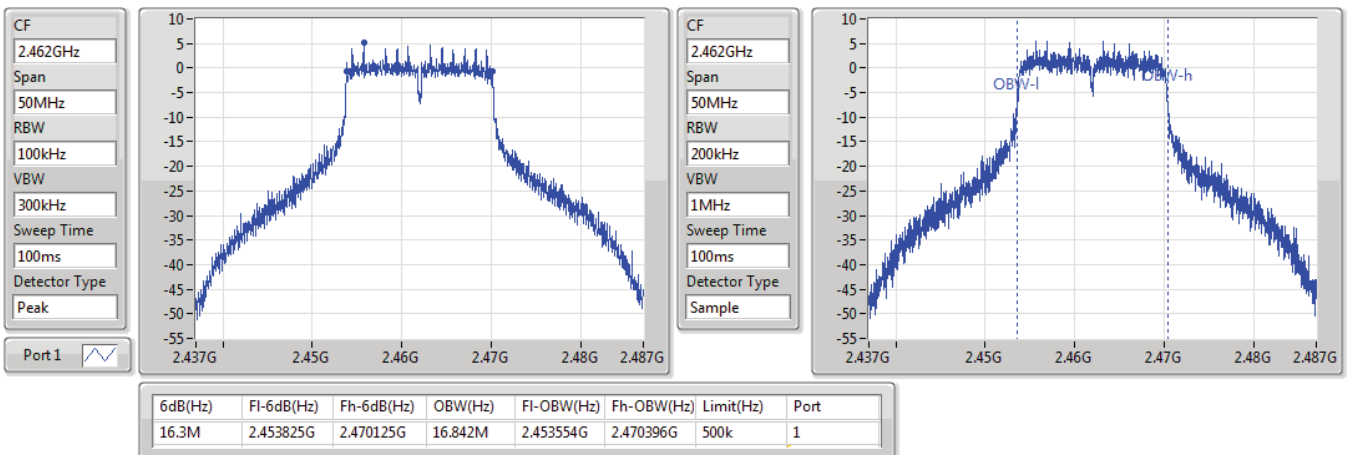


802.11g_Nss1,(6Mbps)_1TX

EBW

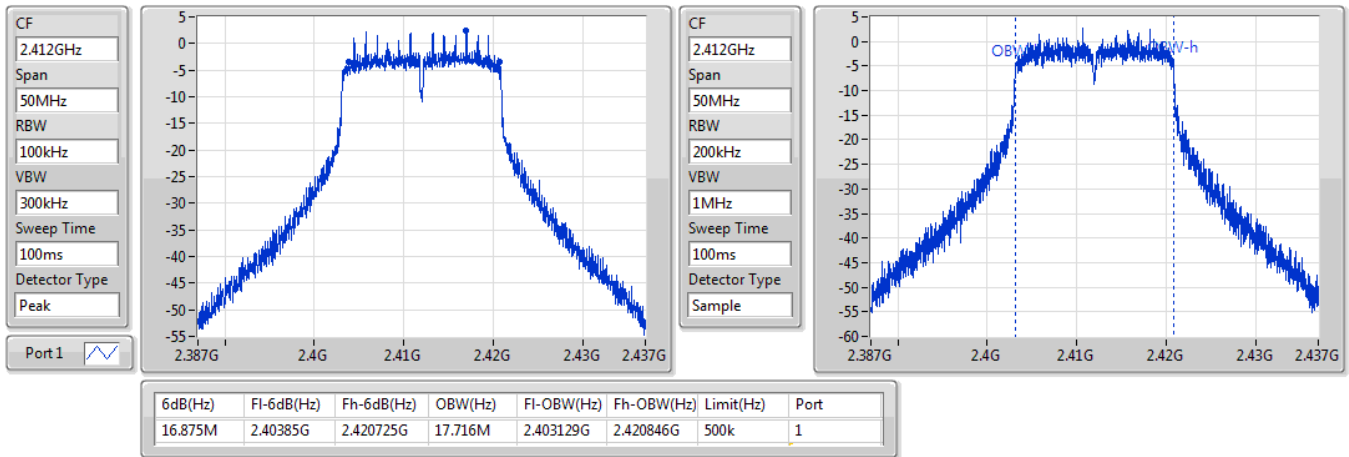
2462MHz

28/06/2019

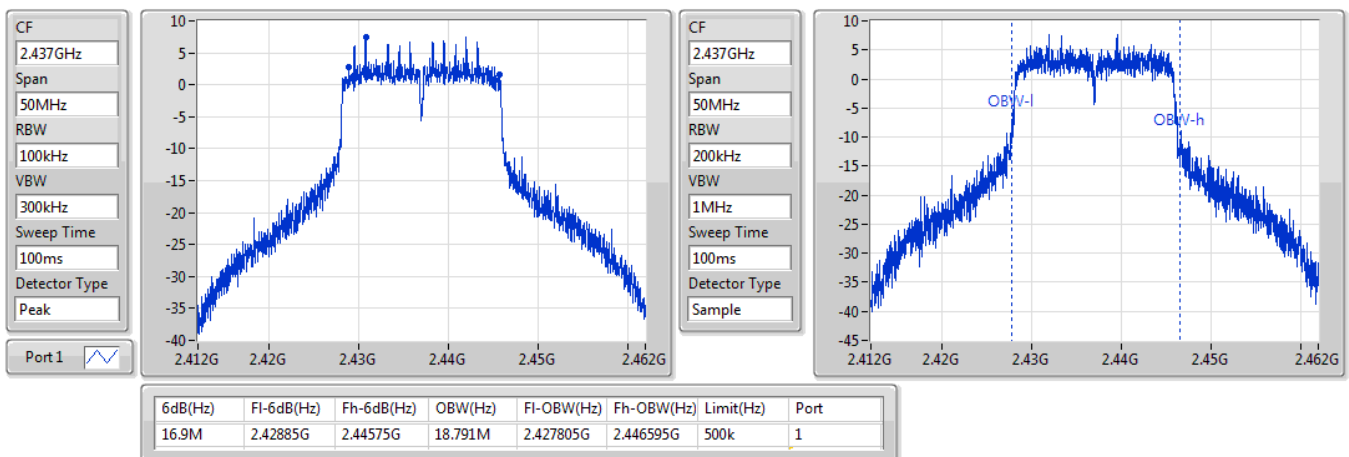


**802.11ac VHT20_Nss1,(MCS0)_1TX
2412MHz**
EBW

28/06/2019

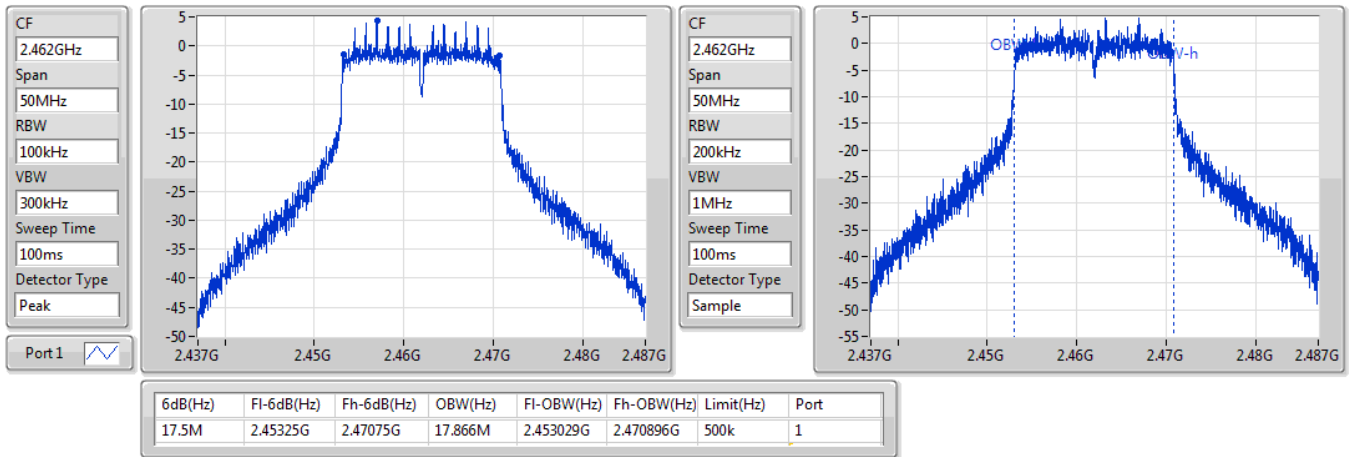

**802.11ac VHT20_Nss1,(MCS0)_1TX
2437MHz**
EBW

28/06/2019

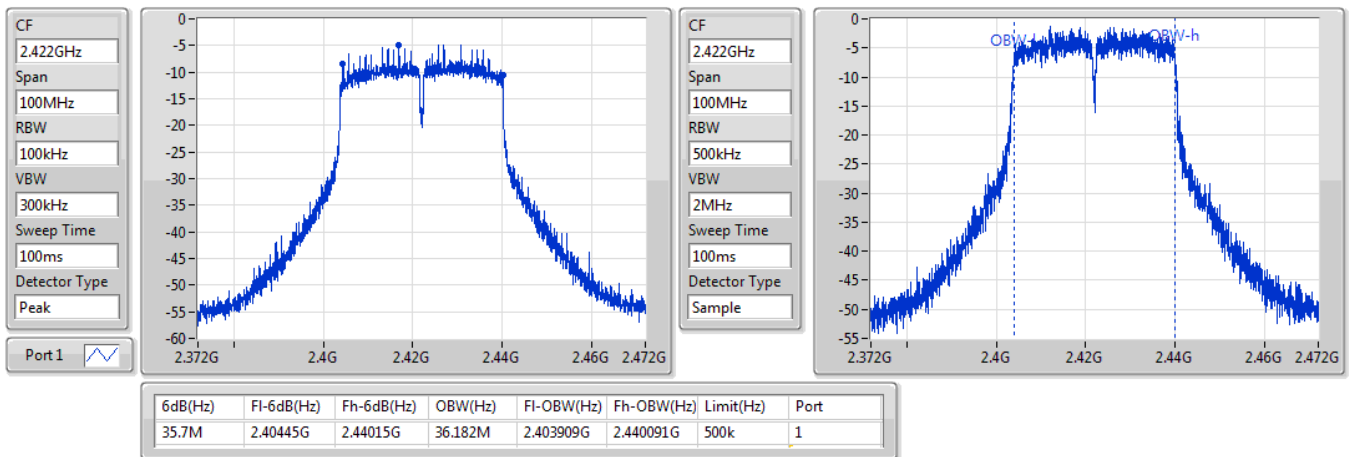


**802.11ac VHT20_Nss1,(MCS0)_1TX
2462MHz**
EBW

28/06/2019

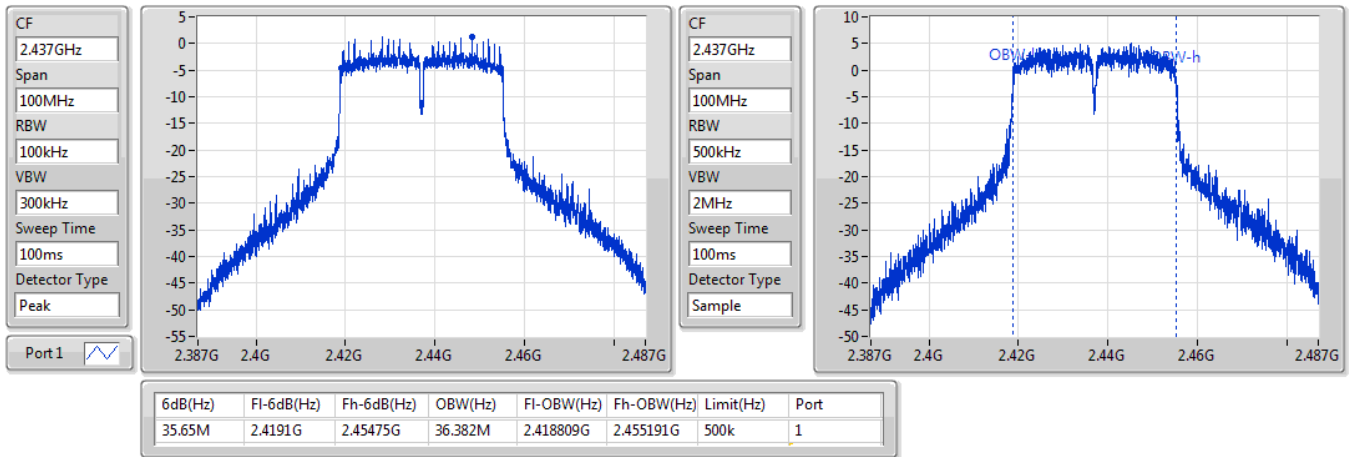

**802.11ac VHT40_Nss1,(MCS0)_1TX
2422MHz**
EBW

28/06/2019

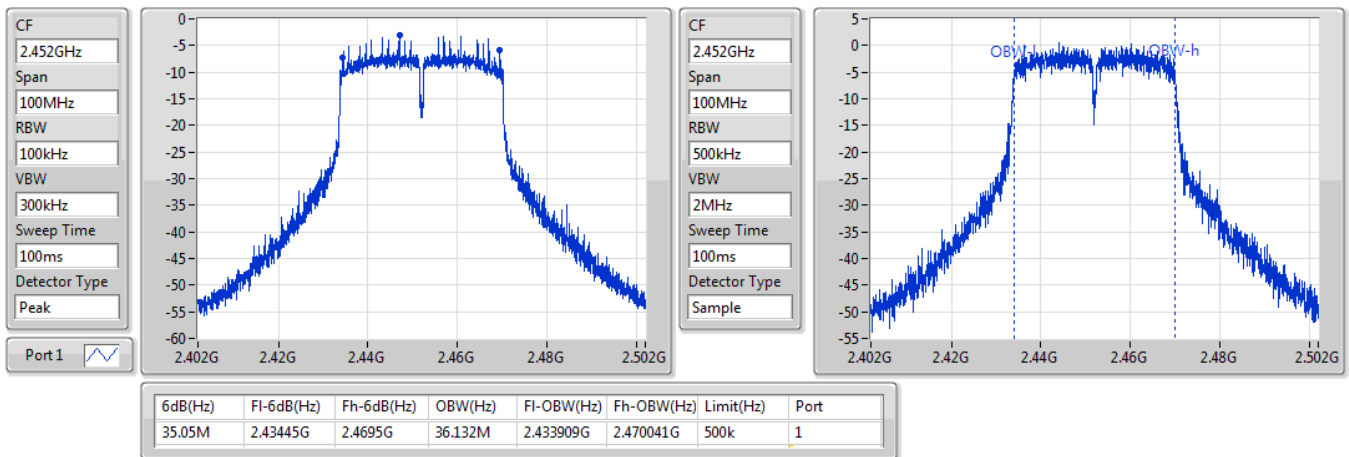


**802.11ac VHT40_Nss1,(MCS0)_1TX
2437MHz**
EBW

28/06/2019


**802.11ac VHT40_Nss1,(MCS0)_1TX
2452MHz**
EBW

28/06/2019



**Summary**

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX(Port1)	20.14	0.10328
802.11b_Nss1,(1Mbps)_1TX(Port2)	20.18	0.10423
802.11b_Nss1,(1Mbps)_2TX	23.13	0.20559
802.11g_Nss1,(6Mbps)_1TX(Port1)	20.41	0.10990
802.11g_Nss1,(6Mbps)_1TX(Port2)	20.40	0.10965
802.11g_Nss1,(6Mbps)_2TX	23.40	0.21878
802.11ac VHT20_Nss1,(MCS0)_1TX(Port1)	20.30	0.10715
802.11ac VHT20_Nss1,(MCS0)_1TX(Port2)	20.35	0.10839
802.11ac VHT20_Nss1,(MCS0)_2TX	23.39	0.21827
802.11ac VHT40_Nss1,(MCS0)_1TX(Port1)	18.43	0.06966
802.11ac VHT40_Nss1,(MCS0)_1TX(Port2)	18.46	0.07015
802.11ac VHT40_Nss1,(MCS0)_2TX	20.94	0.12417
802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)	20.48	0.11169
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	20.53	0.11298
802.11ax HEW20_Nss1,(MCS0)_2TX	23.54	0.22594
802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)	18.55	0.07161
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	18.65	0.07328
802.11ax HEW40_Nss1,(MCS0)_2TX	21.06	0.12764

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX(Port1)	-	-	-	-	-	-
2412MHz	Pass	4.22	19.93		19.93	30.00
2437MHz	Pass	4.22	20.14		20.14	30.00
2462MHz	Pass	4.22	19.85		19.85	30.00
802.11b_Nss1,(1Mbps)_1TX(Port2)	-	-	-	-	-	-
2412MHz	Pass	4.68		19.97	19.97	30.00
2437MHz	Pass	4.68		20.18	20.18	30.00
2462MHz	Pass	4.68		20.16	20.16	30.00
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.68	19.83	19.89	22.87	30.00
2437MHz	Pass	4.68	20.10	20.13	23.13	30.00
2462MHz	Pass	4.68	19.87	20.11	23.00	30.00
802.11g_Nss1,(6Mbps)_1TX(Port1)	-	-	-	-	-	-
2412MHz	Pass	4.22	18.56		18.56	30.00
2417MHz	Pass	4.22	19.91		19.91	30.00
2437MHz	Pass	4.22	20.41		20.41	30.00
2457MHz	Pass	4.22	19.25		19.25	30.00
2462MHz	Pass	4.22	18.02		18.02	30.00
802.11g_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-
2412MHz	Pass	4.68		17.53	17.53	30.00
2417MHz	Pass	4.68		19.41	19.41	30.00
2437MHz	Pass	4.68		20.40	20.40	30.00
2457MHz	Pass	4.68		20.16	20.16	30.00
2462MHz	Pass	4.68		18.34	18.34	30.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.68	17.24	17.04	20.15	30.00
2417MHz	Pass	4.68	18.55	18.44	21.51	30.00
2437MHz	Pass	4.68	20.38	20.39	23.40	30.00
2457MHz	Pass	4.68	18.39	18.38	21.40	30.00
2462MHz	Pass	4.68	17.12	17.40	20.27	30.00
802.11ac_VHT20_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-
2412MHz	Pass	4.22	17.94		17.94	30.00
2417MHz	Pass	4.22	19.83		19.83	30.00
2437MHz	Pass	4.22	20.30		20.30	30.00
2457MHz	Pass	4.22	19.09		19.09	30.00
2462MHz	Pass	4.22	17.44		17.44	30.00
802.11ac_VHT20_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
2412MHz	Pass	4.68		17.45	17.45	30.00
2417MHz	Pass	4.68		19.32	19.32	30.00
2437MHz	Pass	4.68		20.35	20.35	30.00
2457MHz	Pass	4.68		19.25	19.25	30.00
2462MHz	Pass	4.68		17.78	17.78	30.00
802.11ac_VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.68	17.56	17.42	20.50	30.00



Average Power_Radio 1_Non-Beamforming

Appendix C.1

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
2417MHz	Pass	4.68	18.49	18.36	21.44	30.00
2437MHz	Pass	4.68	20.33	20.42	23.39	30.00
2457MHz	Pass	4.68	18.34	18.29	21.33	30.00
2462MHz	Pass	4.68	16.91	17.29	20.11	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-
2422MHz	Pass	4.22	18.22		18.22	30.00
2437MHz	Pass	4.22	18.43		18.43	30.00
2447MHz	Pass	4.22	17.87		17.87	30.00
2452MHz	Pass	4.22	17.63		17.63	30.00
802.11ac VHT40_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
2422MHz	Pass	4.68		17.21	17.21	30.00
2427MHz	Pass	4.68		17.18	17.18	30.00
2437MHz	Pass	4.68		18.46	18.46	30.00
2447MHz	Pass	4.68		17.99	17.99	30.00
2452MHz	Pass	4.68		17.22	17.22	30.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.68	17.24	17.26	20.26	30.00
2427MHz	Pass	4.68	17.69	17.67	20.69	30.00
2437MHz	Pass	4.68	17.92	17.94	20.94	30.00
2447MHz	Pass	4.68	17.38	17.37	20.39	30.00
2452MHz	Pass	4.68	16.65	16.68	19.68	30.00
802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-
2412MHz	Pass	4.22	18.24		18.24	30.00
2417MHz	Pass	4.22	20.04		20.04	30.00
2437MHz	Pass	4.22	20.48		20.48	30.00
2457MHz	Pass	4.22	19.38		19.38	30.00
2462MHz	Pass	4.22	17.67		17.67	30.00
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
2412MHz	Pass	4.68		17.71	17.71	30.00
2417MHz	Pass	4.68		19.55	19.55	30.00
2437MHz	Pass	4.68		20.53	20.53	30.00
2457MHz	Pass	4.68		19.37	19.37	30.00
2462MHz	Pass	4.68		18.02	18.02	30.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	4.68	17.82	17.72	20.78	30.00
2417MHz	Pass	4.68	18.70	18.61	21.67	30.00
2437MHz	Pass	4.68	20.49	20.57	23.54	30.00
2457MHz	Pass	4.68	18.48	18.56	21.53	30.00
2462MHz	Pass	4.68	17.19	17.53	20.37	30.00
802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-
2422MHz	Pass	4.22	18.35		18.35	30.00
2437MHz	Pass	4.22	18.55		18.55	30.00
2447MHz	Pass	4.22	17.98		17.98	30.00
2452MHz	Pass	4.22	17.74		17.74	30.00
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-



Average Power_Radio 1_Non-Beamforming

Appendix C.1

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
2422MHz	Pass	4.68		17.37	17.37	30.00
2427MHz	Pass	4.68		17.41	17.41	30.00
2437MHz	Pass	4.68		18.65	18.65	30.00
2447MHz	Pass	4.68		18.09	18.09	30.00
2452MHz	Pass	4.68		17.31	17.31	30.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	4.68	17.44	17.32	20.39	30.00
2427MHz	Pass	4.68	17.82	17.80	20.82	30.00
2437MHz	Pass	4.68	18.04	18.06	21.06	30.00
2447MHz	Pass	4.68	17.54	17.59	20.58	30.00
2452MHz	Pass	4.68	16.83	16.81	19.83	30.00

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



Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	20.71	0.11776
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	20.74	0.11858
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	20.73	0.11830
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	20.77	0.11940



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	7.46	17.32	17.52	20.43	28.54
2437MHz	Pass	7.46	17.49	17.90	20.71	28.54
2457MHz	Pass	7.46	17.51	17.69	20.61	28.54
2462MHz	Pass	7.46	17.38	17.61	20.51	28.54
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	7.46	17.65	17.81	20.74	28.54
2437MHz	Pass	7.46	17.59	17.86	20.74	28.54
2452MHz	Pass	7.46	17.59	17.71	20.66	28.54
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	7.46	17.57	17.43	20.51	28.54
2437MHz	Pass	7.46	17.46	17.96	20.73	28.54
2457MHz	Pass	7.46	17.27	17.99	20.66	28.54
2462MHz	Pass	7.46	17.26	18.13	20.73	28.54
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	7.46	17.62	17.88	20.76	28.54
2437MHz	Pass	7.46	17.56	17.95	20.77	28.54
2452MHz	Pass	7.46	17.22	18.11	20.70	28.54

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



Summary

Mode	Total Power (dBm)	Total Power (W)
2.4-2.4835GHz	-	-
802.11b_Nss1,(1Mbps)_1TX	18.74	0.07482
802.11g_Nss1,(6Mbps)_1TX	18.28	0.06730
802.11ac VHT20_Nss1,(MCS0)_1TX	17.72	0.05916
802.11ac VHT40_Nss1,(MCS0)_1TX	15.64	0.03664

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	3.02	18.74	18.74	30.00
2437MHz	Pass	3.02	18.07	18.07	30.00
2462MHz	Pass	3.02	18.57	18.57	30.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	3.02	13.90	13.90	30.00
2417MHz	Pass	3.02	17.50	17.50	30.00
2437MHz	Pass	3.02	17.78	17.78	30.00
2457MHz	Pass	3.02	18.28	18.28	30.00
2462MHz	Pass	3.02	15.63	15.63	30.00
802.11ac_VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	3.02	12.74	12.74	30.00
2417MHz	Pass	3.02	17.34	17.34	30.00
2437MHz	Pass	3.02	17.72	17.72	30.00
2457MHz	Pass	3.02	17.50	17.50	30.00
2462MHz	Pass	3.02	14.72	14.72	30.00
802.11ac_VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	3.02	9.27	9.27	30.00
2427MHz	Pass	3.02	11.09	11.09	30.00
2437MHz	Pass	3.02	15.64	15.64	30.00
2447MHz	Pass	3.02	11.48	11.48	30.00
2452MHz	Pass	3.02	10.92	10.92	30.00

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

**Summary**

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX(Port1)	-2.85
802.11b_Nss1,(1Mbps)_1TX(Port2)	-2.05
802.11b_Nss1,(1Mbps)_2TX	-0.47
802.11g_Nss1,(6Mbps)_1TX(Port1)	-6.99
802.11g_Nss1,(6Mbps)_1TX(Port2)	-6.11
802.11g_Nss1,(6Mbps)_2TX	-5.70
802.11ac_VHT20_Nss1,(MCS0)_1TX(Port1)	-5.19
802.11ac_VHT20_Nss1,(MCS0)_1TX(Port2)	-5.95
802.11ac_VHT20_Nss1,(MCS0)_2TX	-3.98
802.11ac_VHT40_Nss1,(MCS0)_1TX(Port1)	-9.53
802.11ac_VHT40_Nss1,(MCS0)_1TX(Port2)	-9.89
802.11ac_VHT40_Nss1,(MCS0)_2TX	-9.23
802.11ax_HEW20_Nss1,(MCS0)_1TX(Port1)	-6.83
802.11ax_HEW20_Nss1,(MCS0)_1TX(Port2)	-5.10
802.11ax_HEW20_Nss1,(MCS0)_2TX	-4.75
802.11ax_HEW40_Nss1,(MCS0)_1TX(Port1)	-10.23
802.11ax_HEW40_Nss1,(MCS0)_1TX(Port2)	-11.07
802.11ax_HEW40_Nss1,(MCS0)_2TX	-9.77

RBW=3 kHz.

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX(Port1)	-	-	-	-	-	-
2412MHz	Pass	4.22	-3.63		-3.63	8.00
2437MHz	Pass	4.22	-2.85		-2.85	8.00
2462MHz	Pass	4.22	-3.46		-3.46	8.00
802.11b_Nss1,(1Mbps)_1TX(Port2)	-	-	-	-	-	-
2412MHz	Pass	4.68		-3.50	-3.50	8.00
2437MHz	Pass	4.68		-3.58	-3.58	8.00
2462MHz	Pass	4.68		-2.05	-2.05	8.00
802.11b_Nss1,(1Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	7.46	-3.36	-2.79	-0.47	6.54
2437MHz	Pass	7.46	-3.13	-3.19	-0.82	6.54
2462MHz	Pass	7.46	-3.22	-3.36	-0.52	6.54
802.11g_Nss1,(6Mbps)_1TX(Port1)	-	-	-	-	-	-
2412MHz	Pass	4.22	-7.86		-7.86	8.00
2437MHz	Pass	4.22	-6.99		-6.99	8.00
2462MHz	Pass	4.22	-9.65		-9.65	8.00
802.11g_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-
2412MHz	Pass	4.68		-9.77	-9.77	8.00
2437MHz	Pass	4.68		-6.11	-6.11	8.00
2462MHz	Pass	4.68		-9.44	-9.44	8.00
802.11g_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
2412MHz	Pass	7.46	-10.74	-10.27	-8.65	6.54
2437MHz	Pass	7.46	-7.15	-7.33	-5.70	6.54
2462MHz	Pass	7.46	-10.79	-9.93	-8.64	6.54
802.11ac_VHT20_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-
2412MHz	Pass	4.22	-8.68		-8.68	8.00
2437MHz	Pass	4.22	-5.19		-5.19	8.00
2462MHz	Pass	4.22	-8.80		-8.80	8.00
802.11ac_VHT20_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
2412MHz	Pass	4.68		-8.52	-8.52	8.00
2437MHz	Pass	4.68		-5.95	-5.95	8.00
2462MHz	Pass	4.68		-8.88	-8.88	8.00
802.11ac_VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	7.46	-8.88	-8.00	-6.88	6.54
2437MHz	Pass	7.46	-5.63	-4.97	-3.98	6.54
2462MHz	Pass	7.46	-9.44	-9.13	-7.18	6.54
802.11ac_VHT40_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-
2422MHz	Pass	4.22	-10.16		-10.16	8.00
2437MHz	Pass	4.22	-9.53		-9.53	8.00
2452MHz	Pass	4.22	-11.25		-11.25	8.00
802.11ac_VHT40_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
2422MHz	Pass	4.68		-9.89	-9.89	8.00
2437MHz	Pass	4.68		-10.17	-10.17	8.00
2452MHz	Pass	4.68		-11.37	-11.37	8.00



PSD_Radio 1_Non-Beamforming

Appendix D.1

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	7.46	-12.48	-12.01	-10.11	6.54
2437MHz	Pass	7.46	-10.34	-10.59	-9.23	6.54
2452MHz	Pass	7.46	-12.12	-12.70	-10.55	6.54
802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-
2412MHz	Pass	4.22	-8.66		-8.66	8.00
2437MHz	Pass	4.22	-6.83		-6.83	8.00
2462MHz	Pass	4.22	-8.32		-8.32	8.00
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
2412MHz	Pass	4.68		-9.41	-9.41	8.00
2437MHz	Pass	4.68		-5.10	-5.10	8.00
2462MHz	Pass	4.68		-9.01	-9.01	8.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	7.46	-10.20	-9.24	-7.77	6.54
2437MHz	Pass	7.46	-6.25	-6.28	-4.75	6.54
2462MHz	Pass	7.46	-9.20	-9.49	-7.70	6.54
802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-
2422MHz	Pass	4.22	-10.23		-10.23	8.00
2437MHz	Pass	4.22	-10.73		-10.73	8.00
2452MHz	Pass	4.22	-11.31		-11.31	8.00
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
2422MHz	Pass	4.68		-12.04	-12.04	8.00
2437MHz	Pass	4.68		-11.07	-11.07	8.00
2452MHz	Pass	4.68		-11.70	-11.70	8.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	7.46	-12.85	-12.09	-10.20	6.54
2437MHz	Pass	7.46	-11.39	-10.37	-9.77	6.54
2452MHz	Pass	7.46	-12.64	-12.09	-9.92	6.54

DG = Directional Gain; RBW=3 kHz;

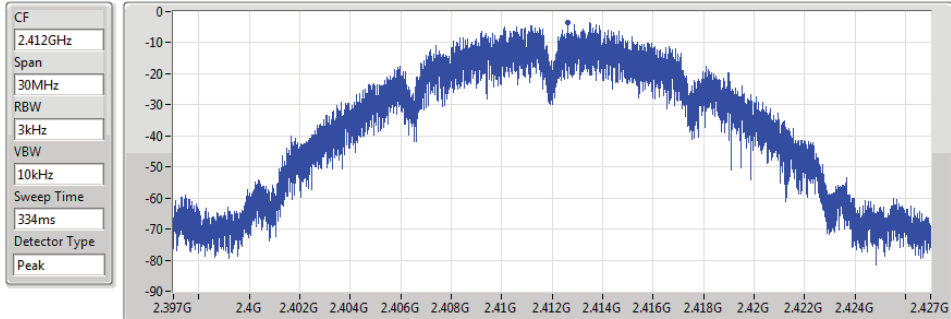
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11b_Nss1,(1Mbps)_1TX(Port1)

PSD

2412MHz

25/06/2019



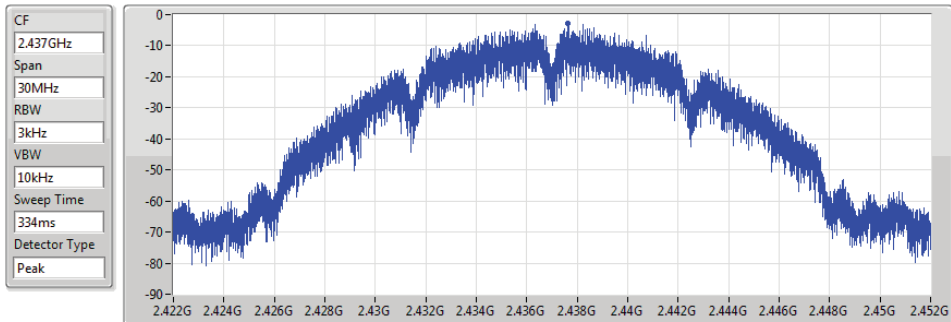
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-3.63	-3.63	-3.63

802.11b_Nss1,(1Mbps)_1TX(Port1)

PSD

2437MHz

25/06/2019



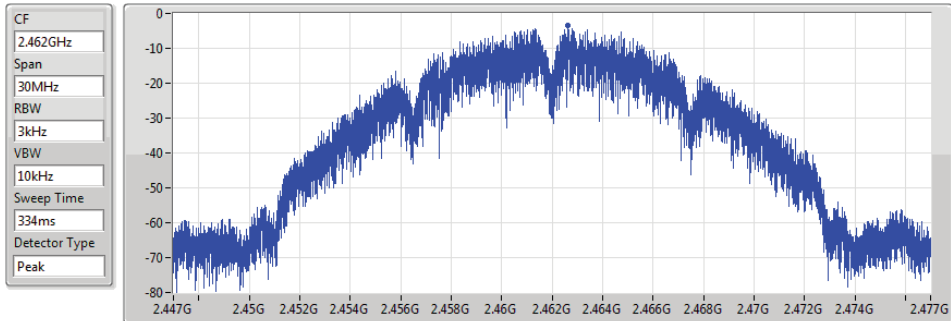
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-2.85	-2.85	-2.85

802.11b_Nss1,(1Mbps)_1TX(Port1)

PSD

2462MHz

25/06/2019



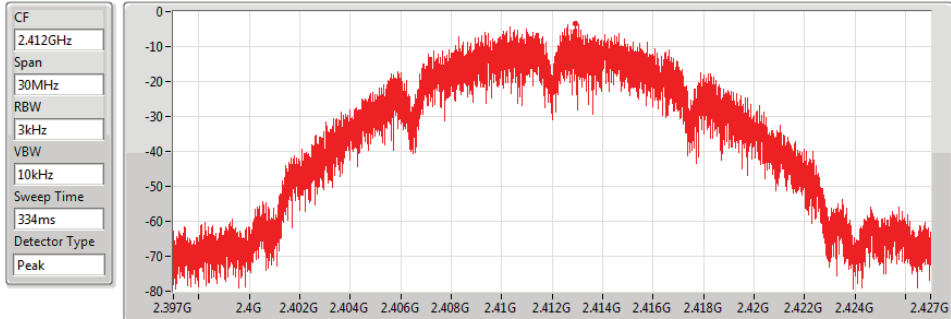
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-3.46	-3.46	-3.46

802.11b_Nss1,(1Mbps)_1TX(Port2)

PSD

2412MHz

25/06/2019



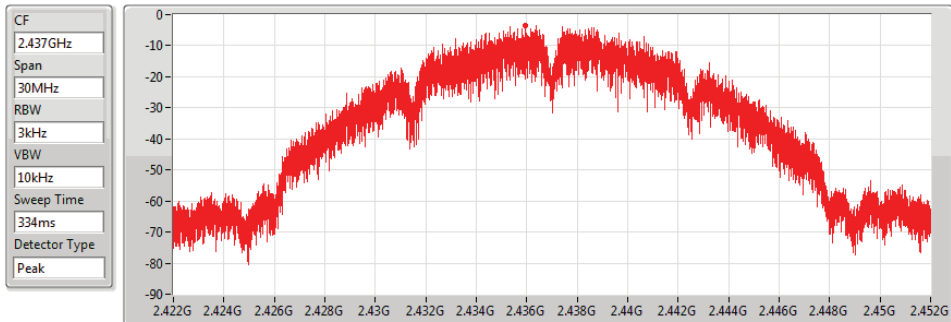
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-3.50	-3.50		-3.50

802.11b_Nss1,(1Mbps)_1TX(Port2)

PSD

2437MHz

25/06/2019



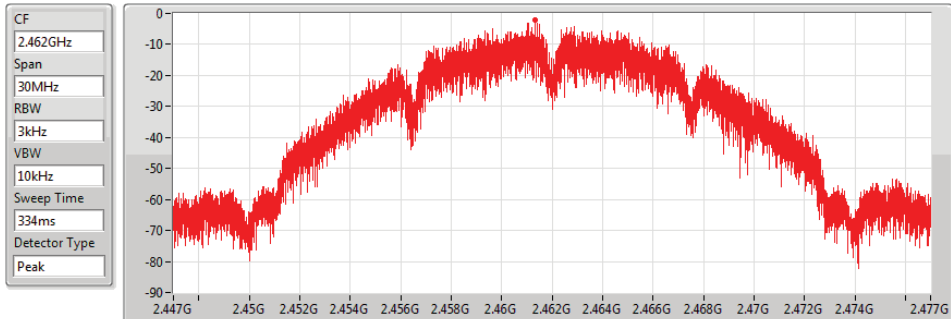
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-3.58	-3.58		-3.58

802.11b_Nss1,(1Mbps)_1TX(Port2)

PSD

2462MHz

25/06/2019



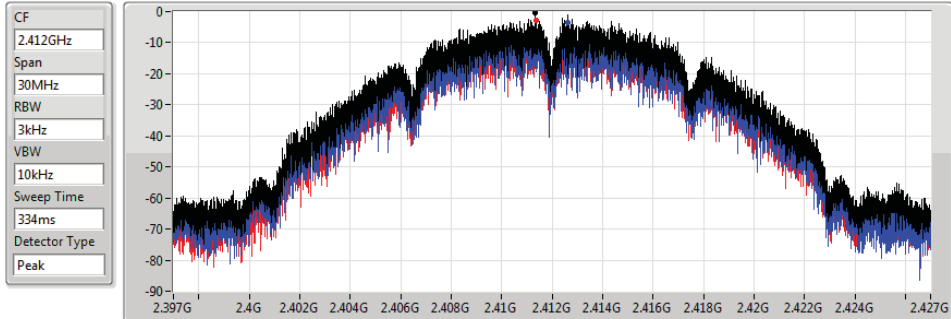
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-2.05	-2.05		-2.05

802.11b_Nss1,(1Mbps)_2TX

PSD

2412MHz

25/06/2019



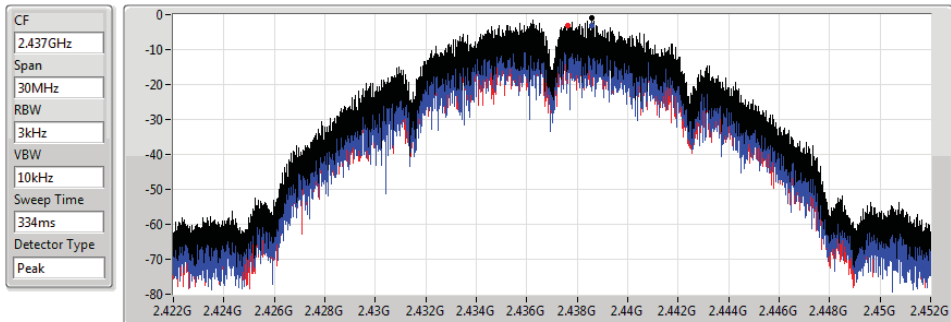
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-0.47	-0.47	-3.36	-2.79

802.11b_Nss1,(1Mbps)_2TX

PSD

2437MHz

25/06/2019



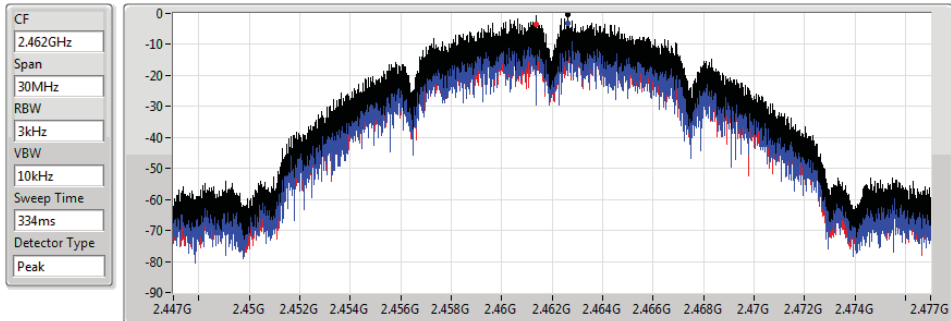
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-0.82	-0.82	-3.13	-3.19

802.11b_Nss1,(1Mbps)_2TX

PSD

2462MHz

25/06/2019



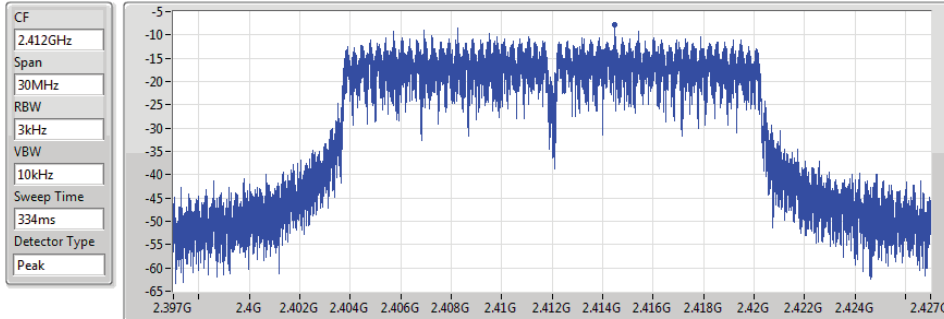
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-0.52	-0.52	-3.22	-3.36

802.11g_Nss1,(6Mbps)_1TX(Port1)

PSD

2412MHz

25/06/2019



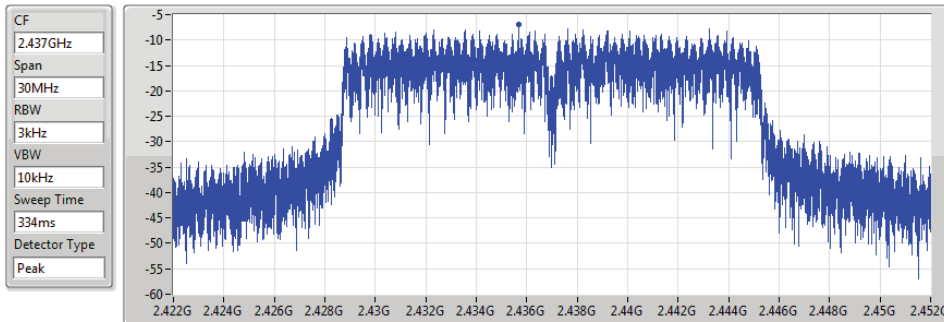
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-7.86	-7.86	-7.86

802.11g_Nss1,(6Mbps)_1TX(Port1)

PSD

2437MHz

25/06/2019



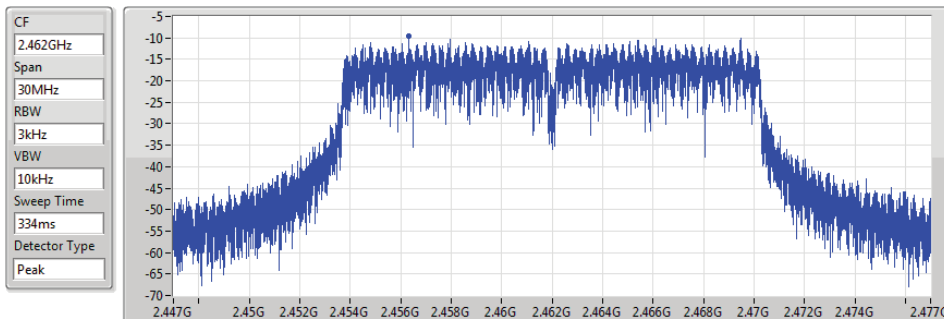
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-6.99	-6.99	-6.99

802.11g_Nss1,(6Mbps)_1TX(Port1)

PSD

2462MHz

25/06/2019



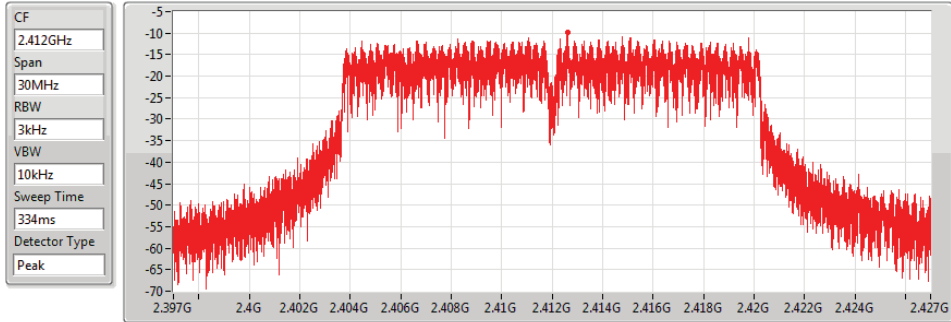
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-9.65	-9.65	-9.65

802.11g_Nss1,(6Mbps)_1TX(Port2)

PSD

2412MHz

25/06/2019



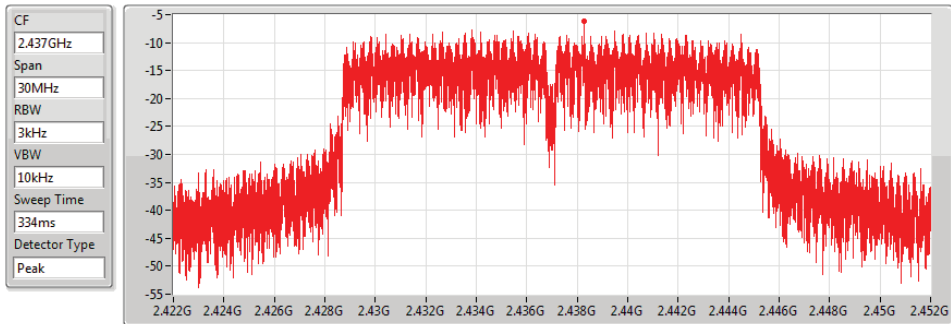
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.77	-9.77		-9.77

802.11g_Nss1,(6Mbps)_1TX(Port2)

PSD

2437MHz

25/06/2019



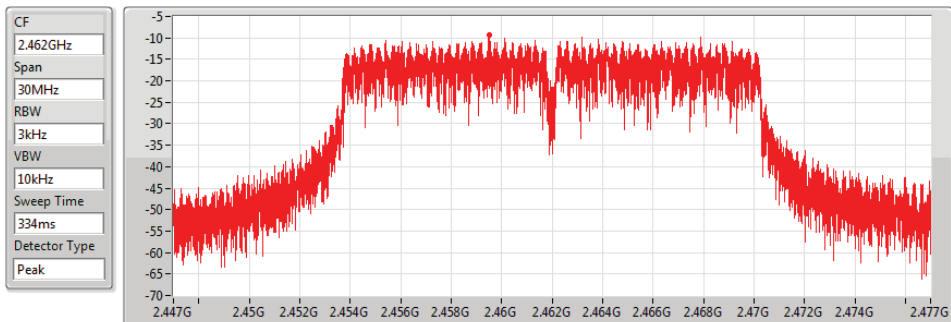
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.11	-6.11		-6.11

802.11g_Nss1,(6Mbps)_1TX(Port2)

PSD

2462MHz

25/06/2019



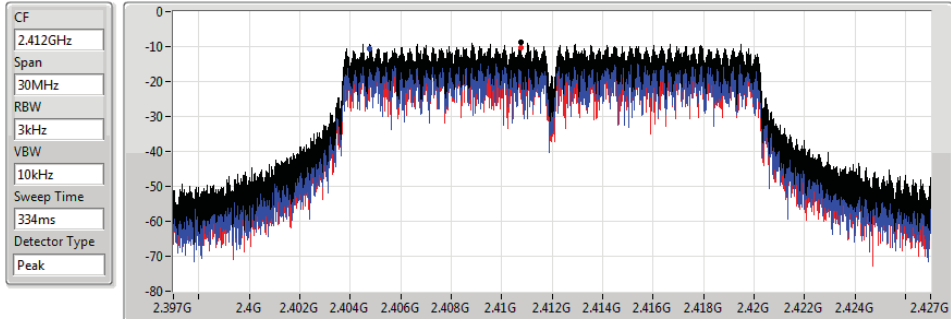
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-9.44	-9.44		-9.44

802.11g_Nss1,(6Mbps)_2TX

PSD

2412MHz

25/06/2019



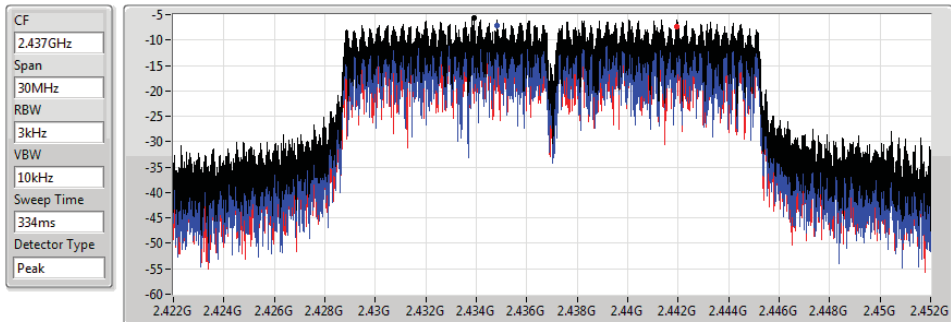
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-8.65	-8.65	-10.74	-10.27

802.11g_Nss1,(6Mbps)_2TX

PSD

2437MHz

25/06/2019



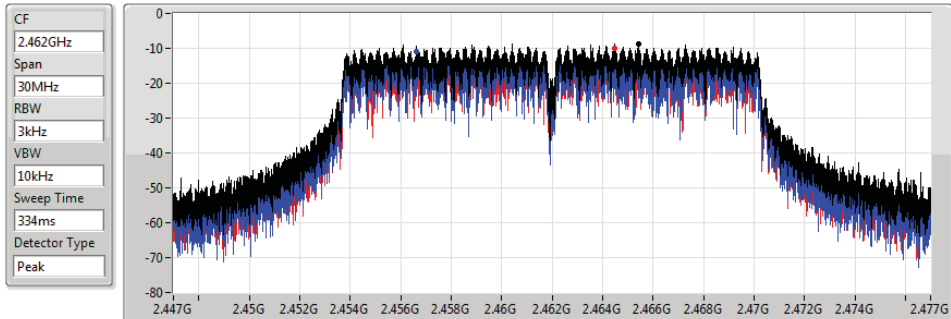
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-5.70	-5.70	-7.15	-7.33

802.11g_Nss1,(6Mbps)_2TX

PSD

2462MHz

25/06/2019



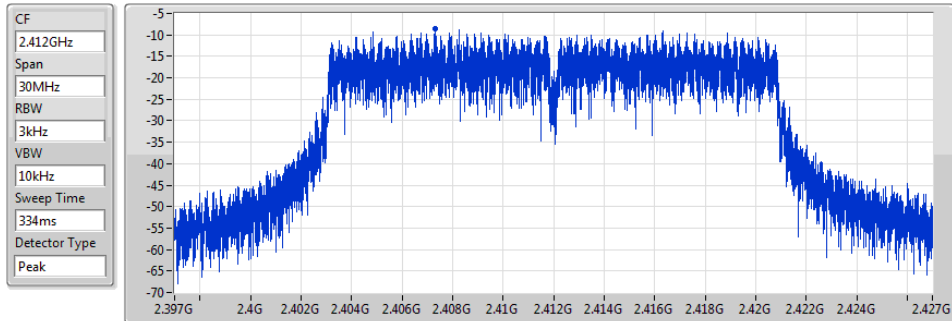
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-8.64	-8.64	-10.79	-9.93

802.11ac VHT20_Nss1,(MCS0)_1TX(Port1)

2412MHz

PSD

25/06/2019



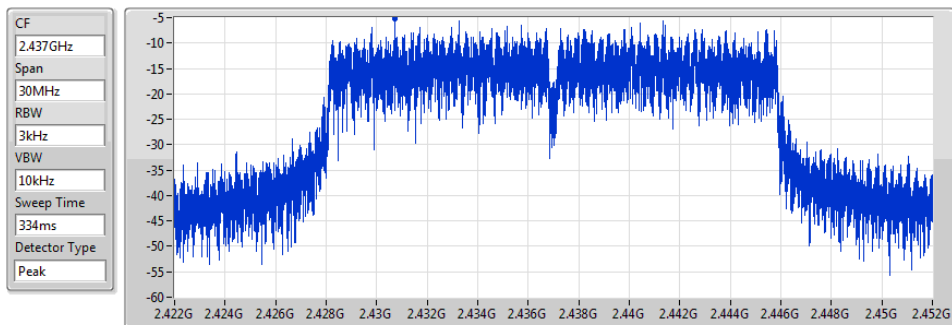
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-8.68	-8.68	-8.68

802.11ac VHT20_Nss1,(MCS0)_1TX(Port1)

2437MHz

PSD

25/06/2019



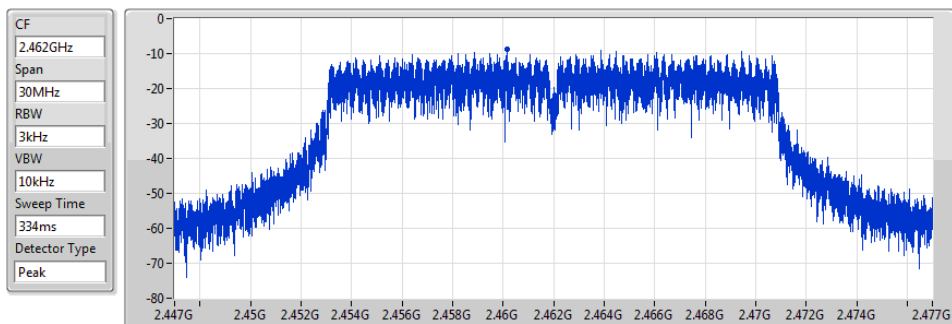
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-5.19	-5.19	-5.19

802.11ac VHT20_Nss1,(MCS0)_1TX(Port1)

2462MHz

PSD

25/06/2019



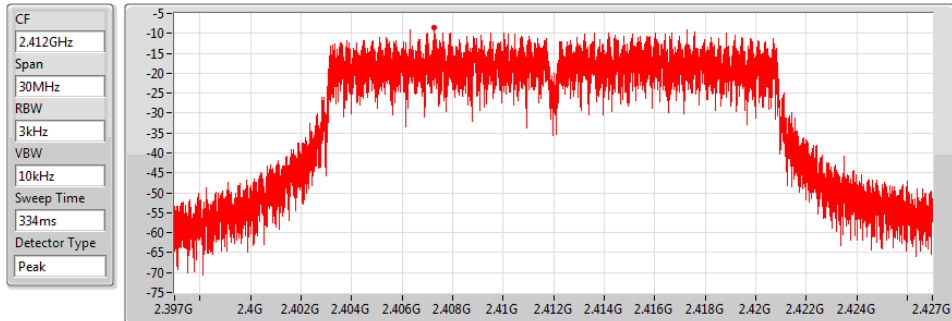
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-8.80	-8.80	-8.80

802.11ac VHT20_Nss1,(MCS0)_1TX(Port2)

2412MHz

PSD

25/06/2019



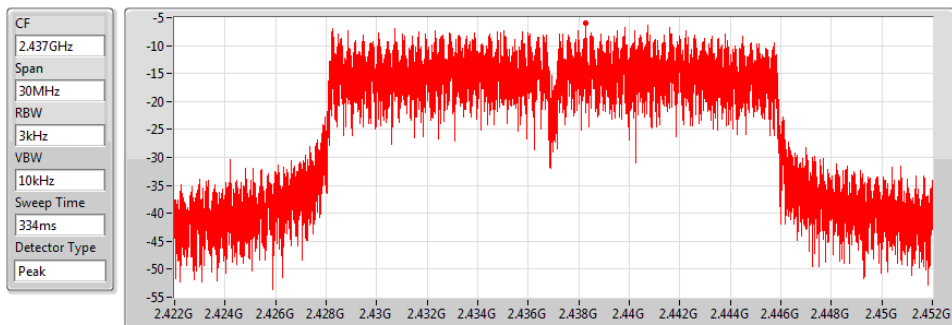
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-8.52	-8.52		-8.52

802.11ac VHT20_Nss1,(MCS0)_1TX(Port2)

2437MHz

PSD

25/06/2019



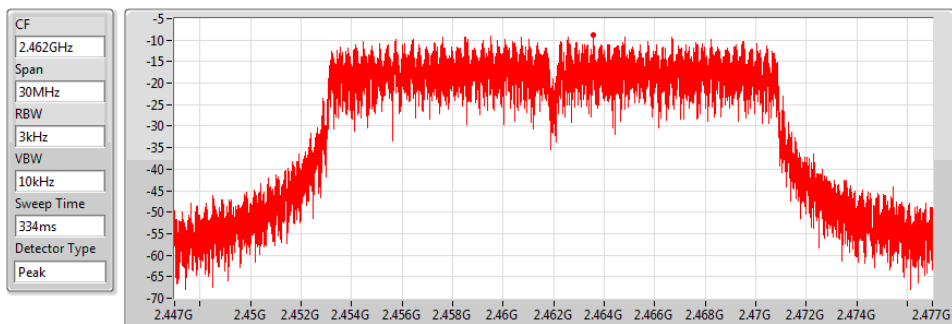
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-5.95	-5.95		-5.95

802.11ac VHT20_Nss1,(MCS0)_1TX(Port2)

2462MHz

PSD

25/06/2019

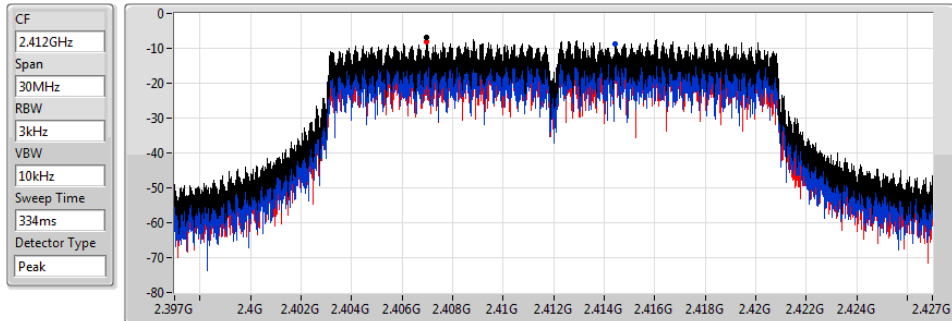


Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-8.88	-8.88		-8.88

802.11ac VHT20_Nss1,(MCS0)_2TX
2412MHz

PSD

25/06/2019

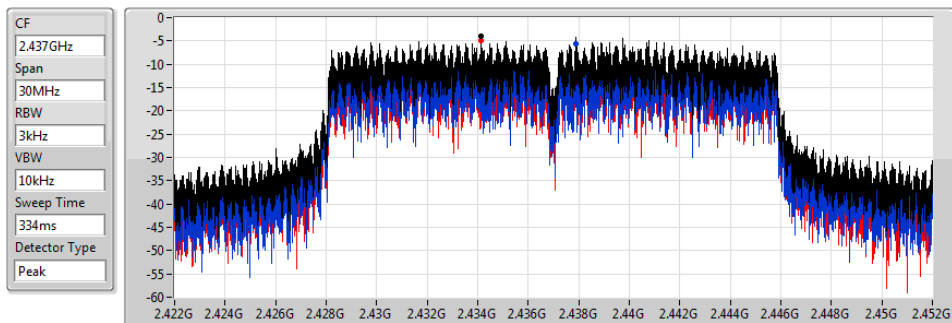


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.88	-6.88	-8.88	-8.00

802.11ac VHT20_Nss1,(MCS0)_2TX
2437MHz

PSD

25/06/2019

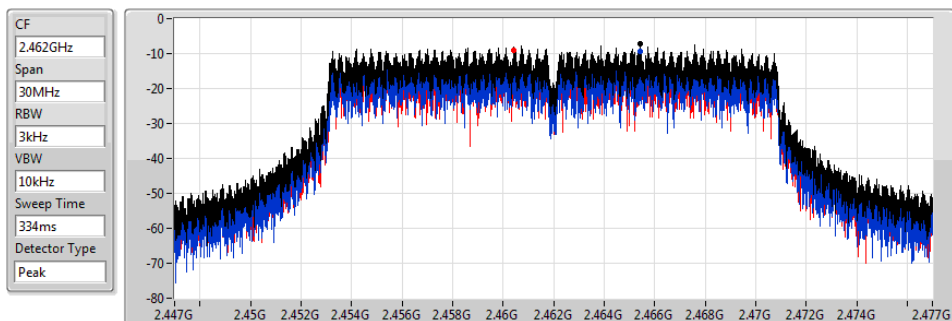


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.98	-3.98	-5.63	-4.97

802.11ac VHT20_Nss1,(MCS0)_2TX
2462MHz

PSD

25/06/2019



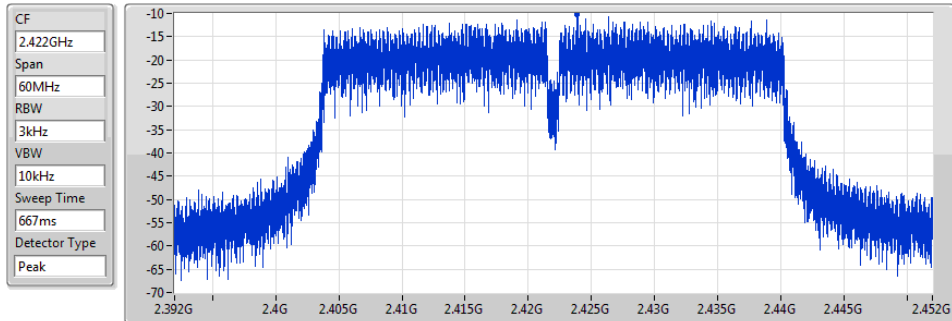
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.18	-7.18	-9.44	-9.13

802.11ac VHT40_Nss1,(MCS0)_1TX(Port1)

2422MHz

PSD

25/06/2019



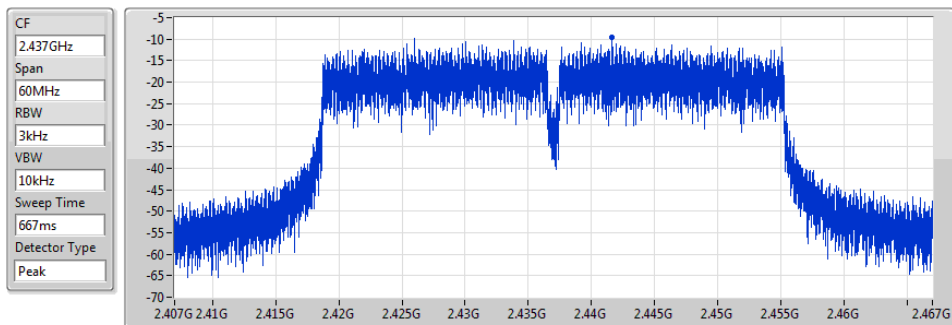
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-10.16	-10.16	-10.16

802.11ac VHT40_Nss1,(MCS0)_1TX(Port1)

2437MHz

PSD

25/06/2019



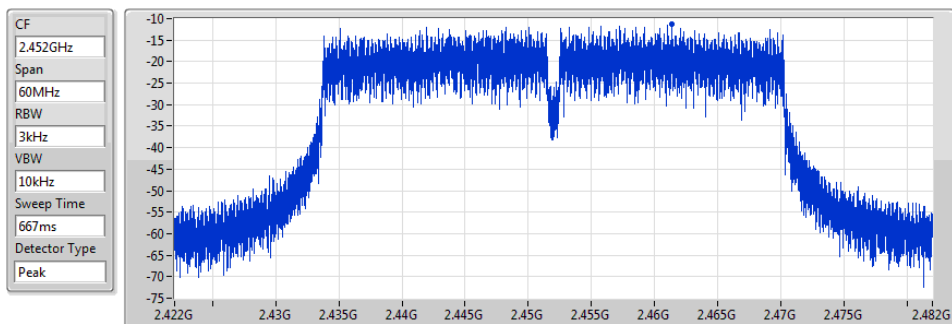
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-9.53	-9.53	-9.53

802.11ac VHT40_Nss1,(MCS0)_1TX(Port1)

2452MHz

PSD

25/06/2019



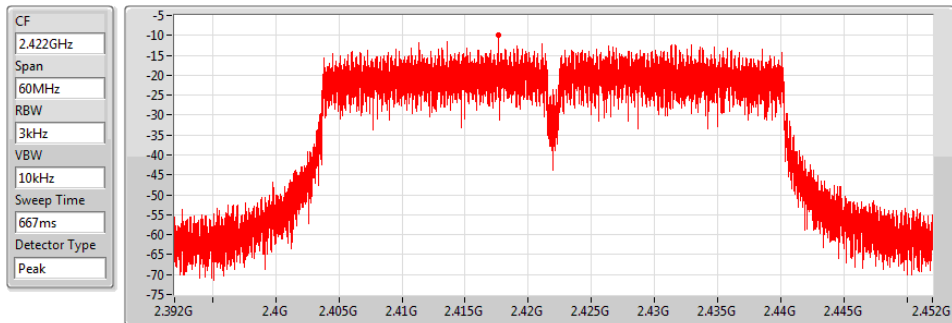
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-11.25	-11.25	-11.25

802.11ac VHT40_Nss1,(MCS0)_1TX(Port2)

2422MHz

PSD

25/06/2019



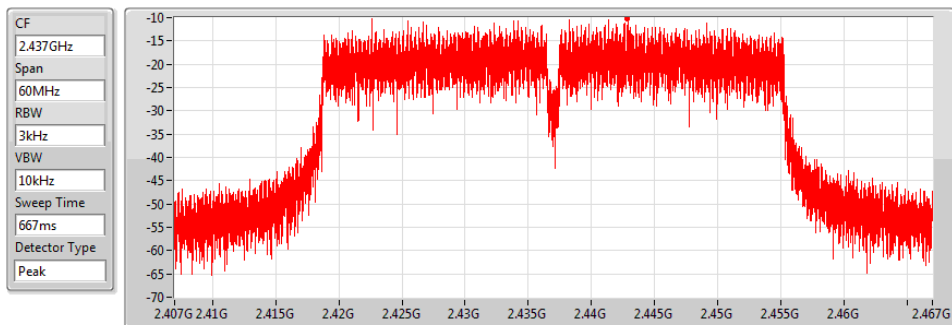
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-9.89	-9.89		-9.89

802.11ac VHT40_Nss1,(MCS0)_1TX(Port2)

2437MHz

PSD

25/06/2019



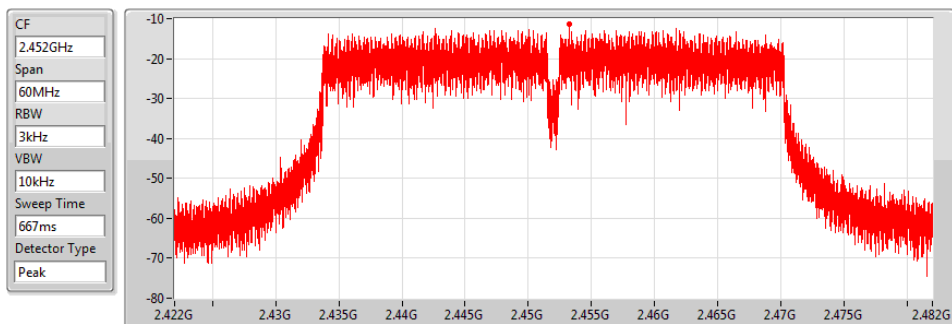
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-10.17	-10.17		-10.17

802.11ac VHT40_Nss1,(MCS0)_1TX(Port2)

2452MHz

PSD

25/06/2019

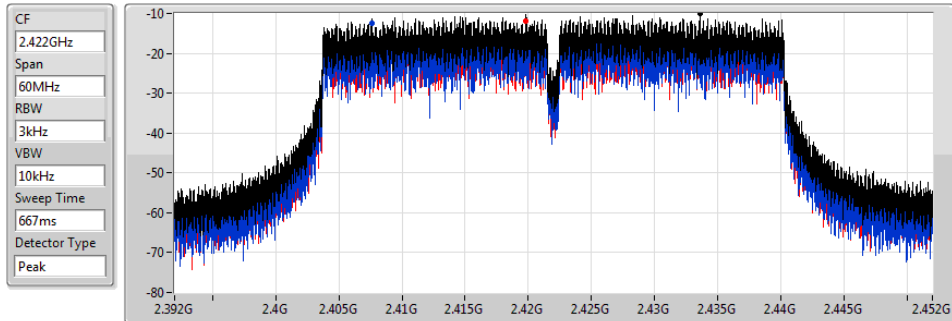


Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-11.37	-11.37		-11.37

802.11ac VHT40_Nss1,(MCS0)_2TX
2422MHz

PSD

25/06/2019

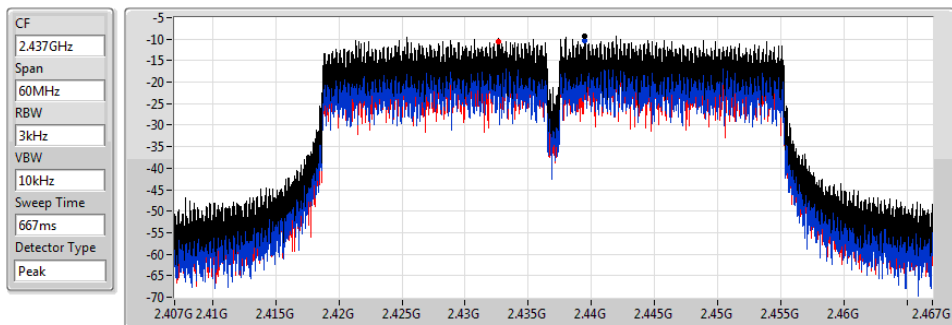


Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-10.11	-10.11	-12.48	-12.01

802.11ac VHT40_Nss1,(MCS0)_2TX
2437MHz

PSD

25/06/2019

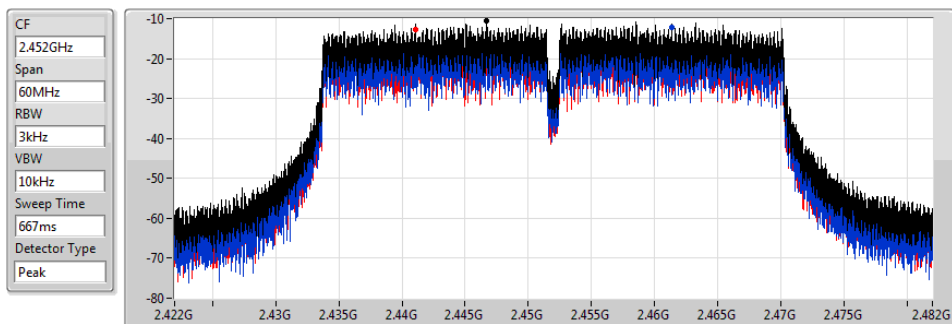


Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-9.23	-9.23	-10.34	-10.59

802.11ac VHT40_Nss1,(MCS0)_2TX
2452MHz

PSD

25/06/2019



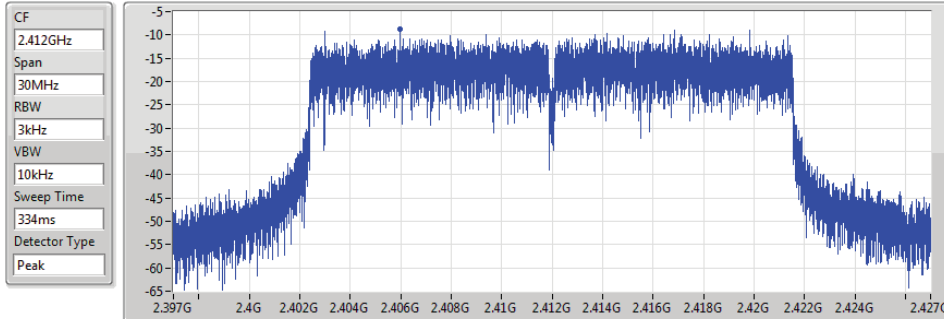
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-10.55	-10.55	-12.12	-12.70

802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)

PSD

2412MHz

25/06/2019



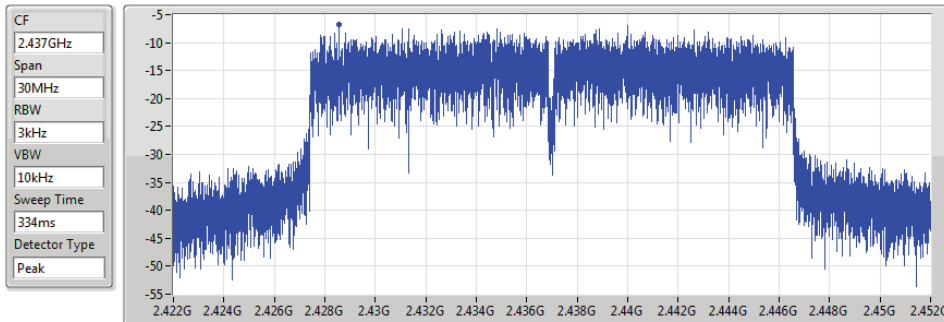
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-8.66	-8.66	-8.66

802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)

PSD

2437MHz

25/06/2019



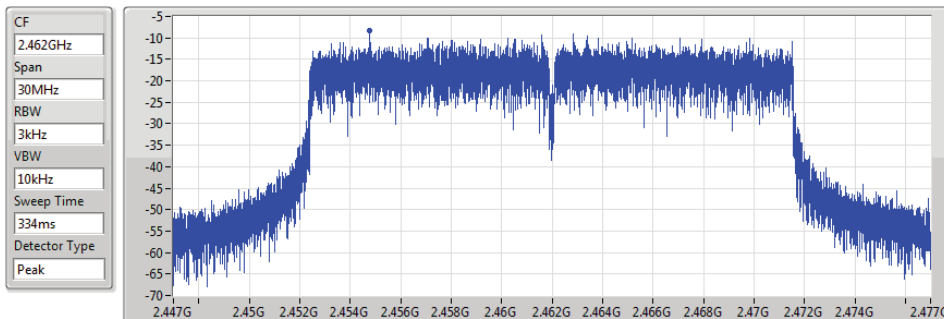
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-6.83	-6.83	-6.83

802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)

PSD

2462MHz

25/06/2019



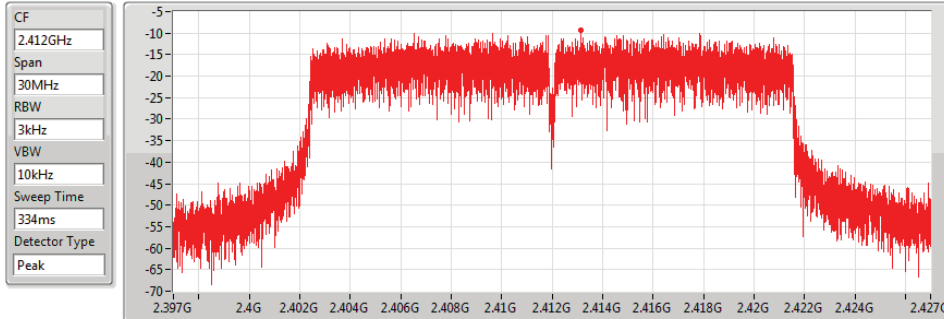
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-8.32	-8.32	-8.32

802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)

PSD

2412MHz

25/06/2019



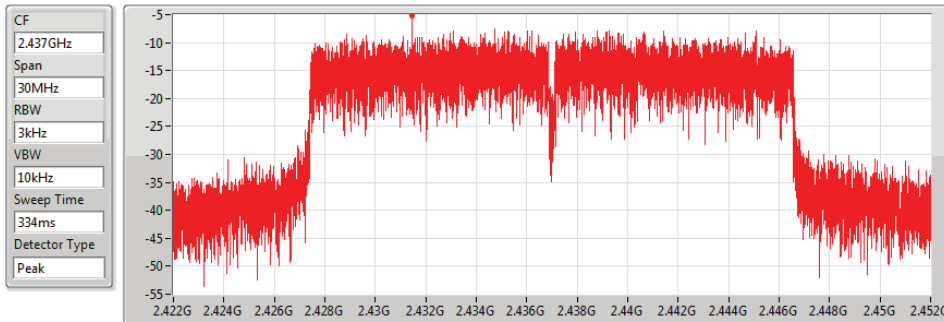
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-9.41	-9.41		-9.41

802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)

PSD

2437MHz

25/06/2019



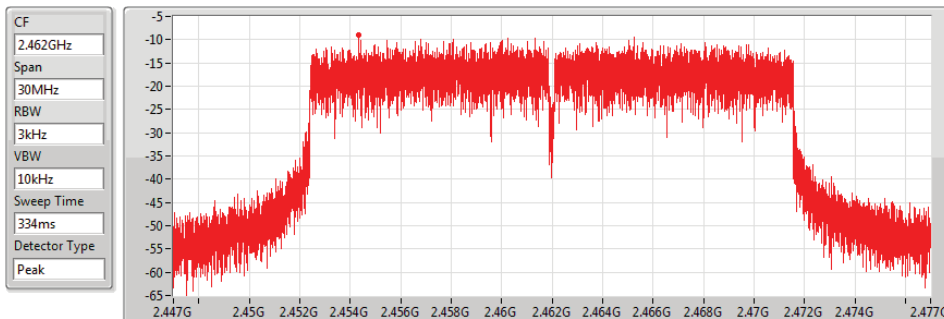
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-5.10	-5.10		-5.10

802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)

PSD

2462MHz

25/06/2019



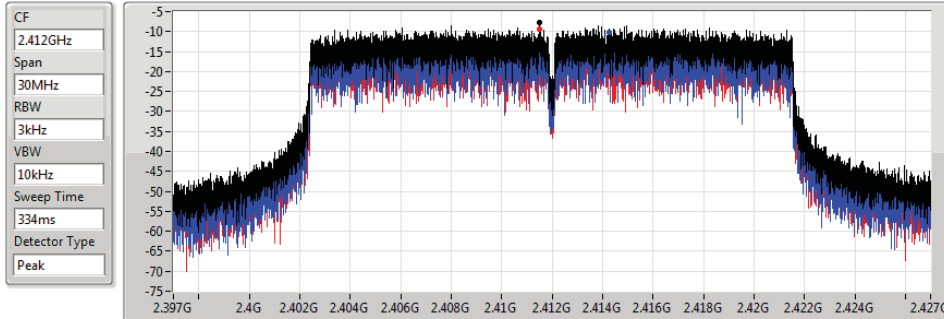
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-9.01	-9.01		-9.01

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

2412MHz

25/06/2019



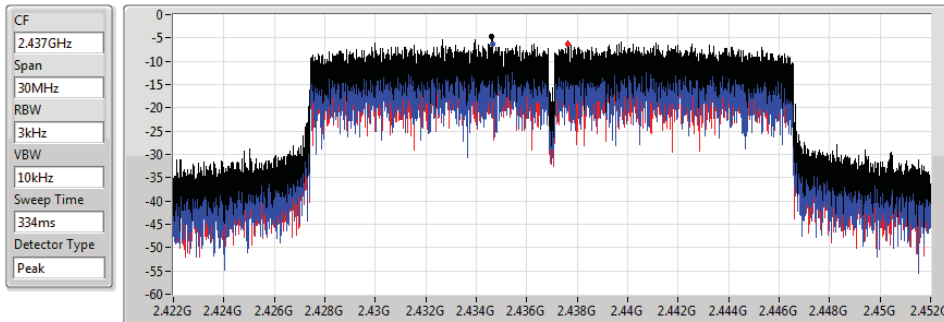
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-7.77	-7.77	-10.20	-9.24

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

2437MHz

25/06/2019



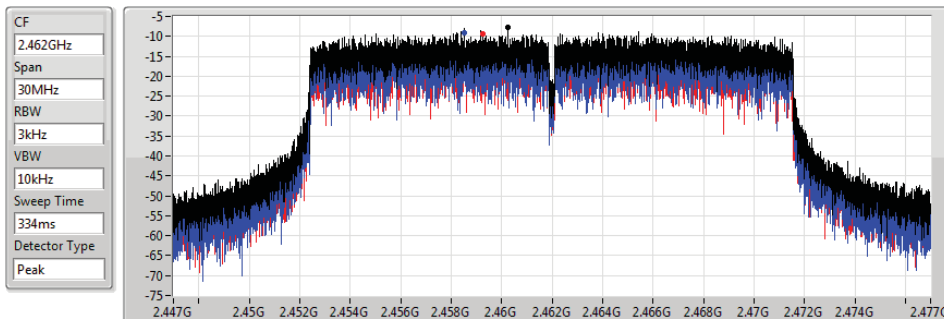
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-4.75	-4.75	-6.25	-6.28

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

2462MHz

25/06/2019



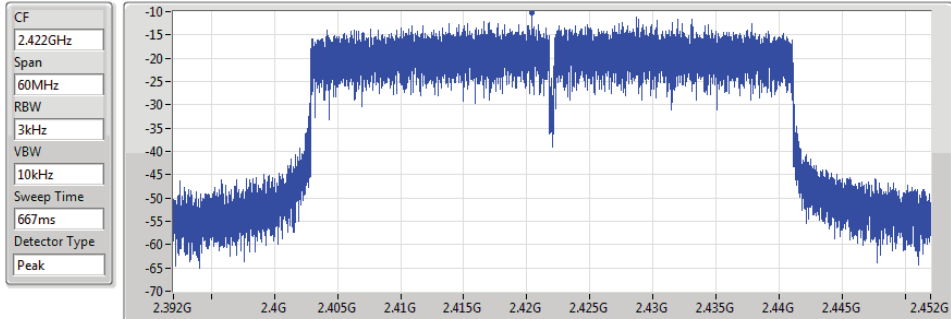
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-7.70	-7.70	-9.20	-9.49

802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)

PSD

2422MHz

25/06/2019



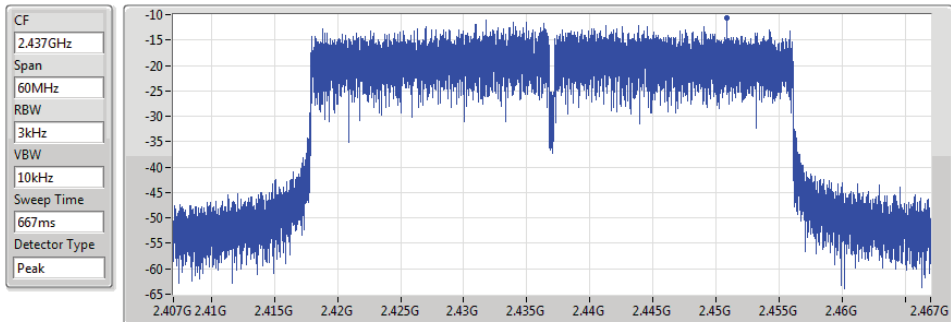
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-10.23	-10.23	-10.23

802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)

PSD

2437MHz

25/06/2019



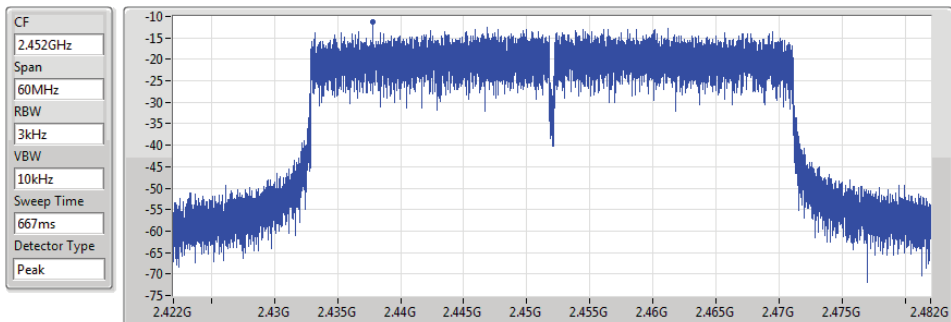
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-10.73	-10.73	-10.73

802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)

PSD

2452MHz

25/06/2019



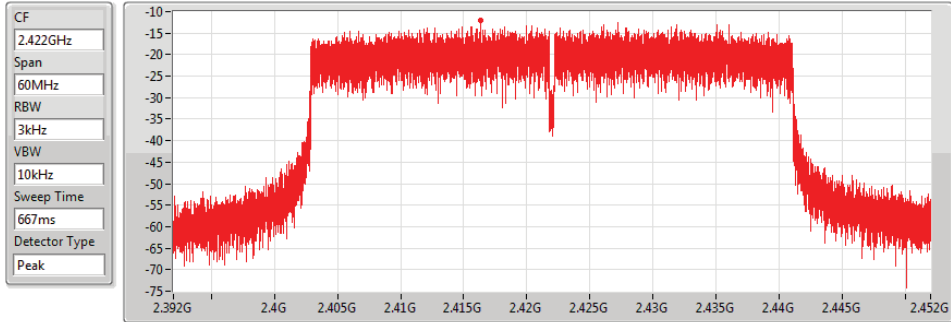
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-11.31	-11.31	-11.31

802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)

PSD

2422MHz

25/06/2019



Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-12.04	-12.04		-12.04

802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)

PSD

2437MHz

25/06/2019



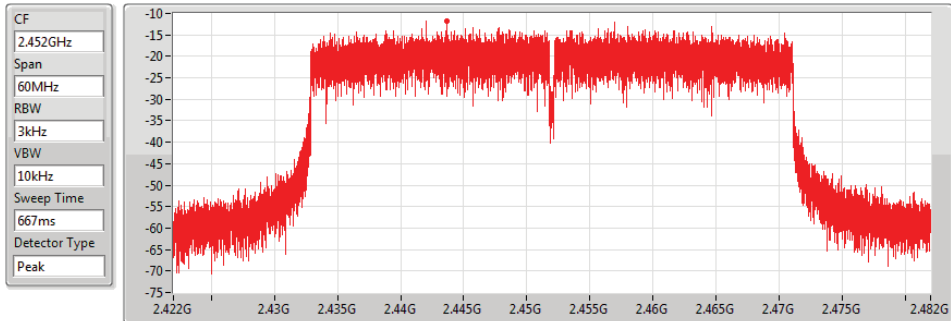
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-11.07	-11.07		-11.07

802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)

PSD

2452MHz

25/06/2019



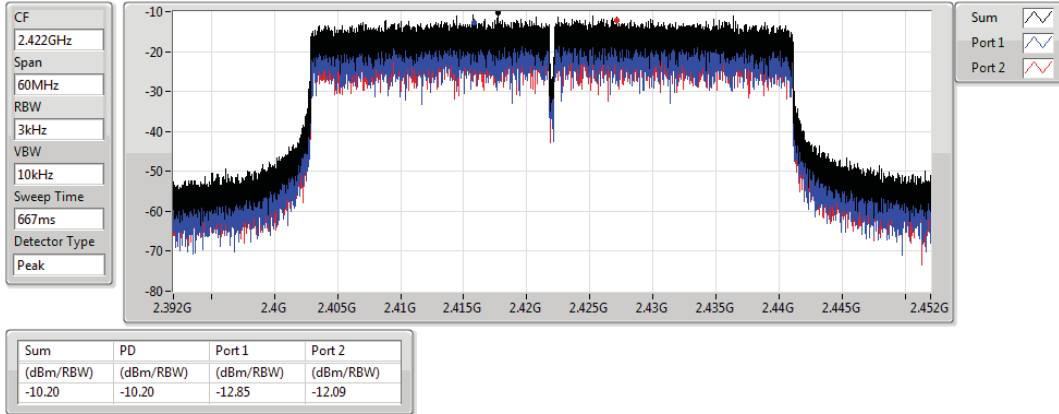
Sum	PD	Port 1	Port 2
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-11.70	-11.70		-11.70

802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

2422MHz

25/06/2019

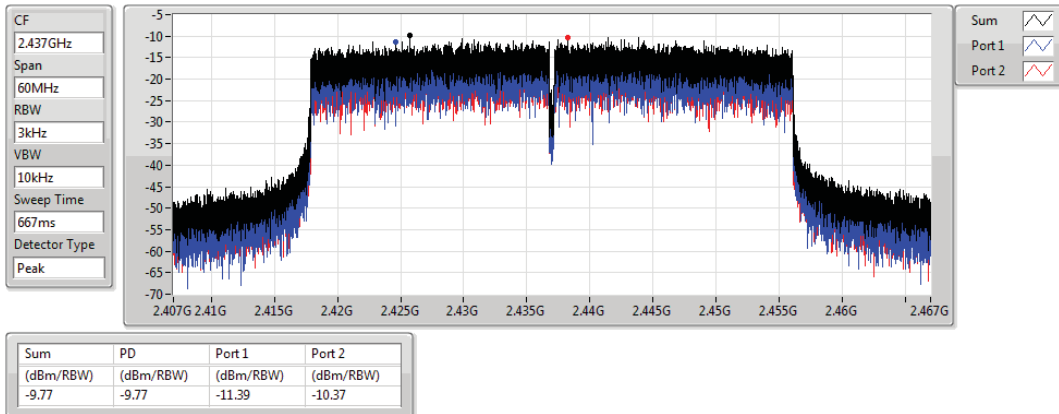


802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

2437MHz

25/06/2019

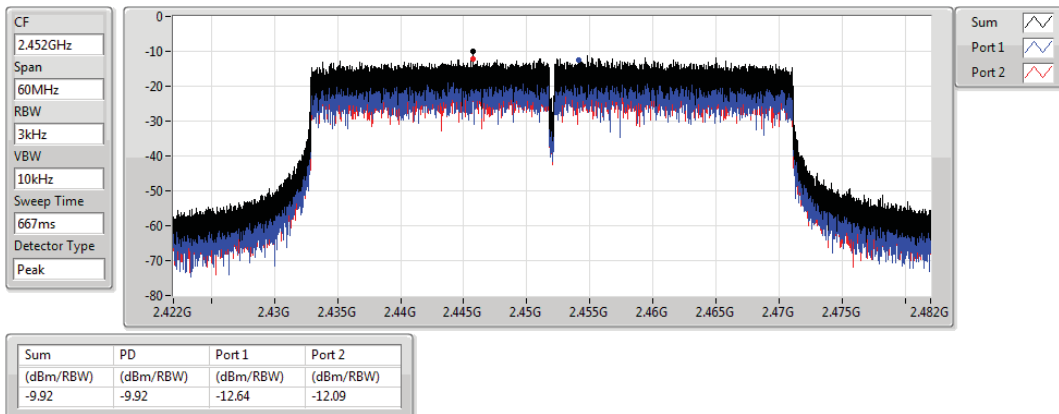


802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

2452MHz

25/06/2019





Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-4.03
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-6.92
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-6.05
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-6.80

RBW=3 kHz.

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	7.46	-8.81	-5.90	-5.84	6.54
2437MHz	Pass	7.46	-6.06	-8.19	-5.70	6.54
2462MHz	Pass	7.46	-5.97	-7.80	-4.03	6.54
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	7.46	-7.37	-8.31	-6.92	6.54
2437MHz	Pass	7.46	-10.46	-8.37	-8.19	6.54
2452MHz	Pass	7.46	-10.93	-10.49	-9.66	6.54
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2412MHz	Pass	7.46	-7.04	-8.21	-6.05	6.54
2437MHz	Pass	7.46	-9.27	-8.51	-6.88	6.54
2462MHz	Pass	7.46	-8.43	-7.81	-7.11	6.54
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
2422MHz	Pass	7.46	-7.21	-9.89	-6.80	6.54
2437MHz	Pass	7.46	-8.84	-8.26	-7.97	6.54
2452MHz	Pass	7.46	-9.09	-10.34	-8.65	6.54

DG = Directional Gain; RBW=3 kHz;

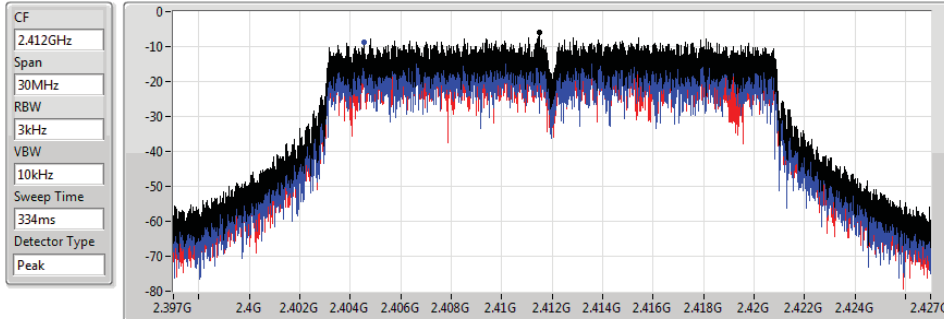
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

2412MHz

22/07/2019



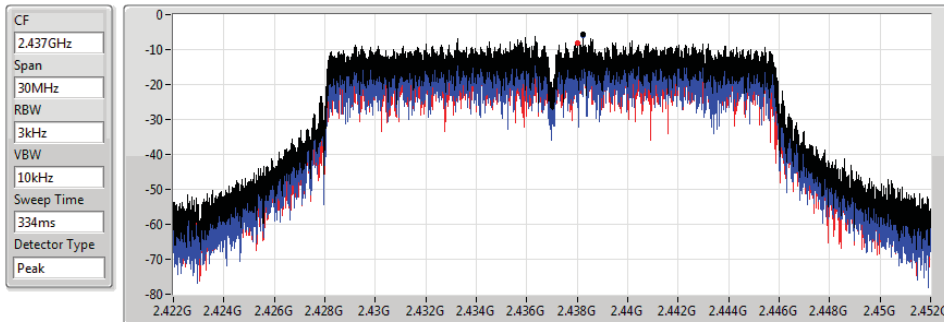
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.84	-5.84	-8.81	-5.90

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

2437MHz

22/07/2019



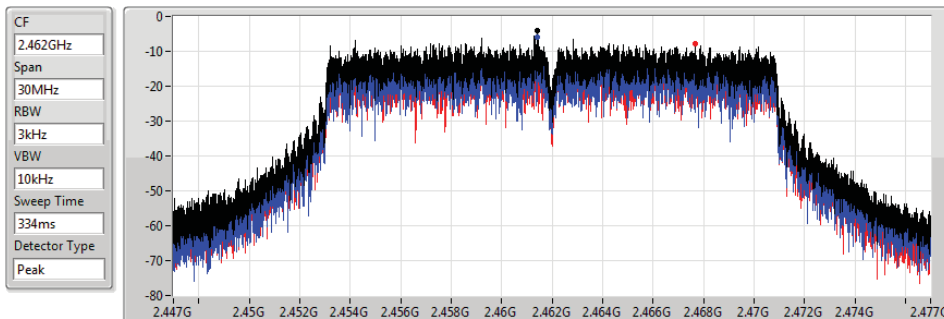
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.70	-5.70	-6.06	-8.19

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

2462MHz

22/07/2019



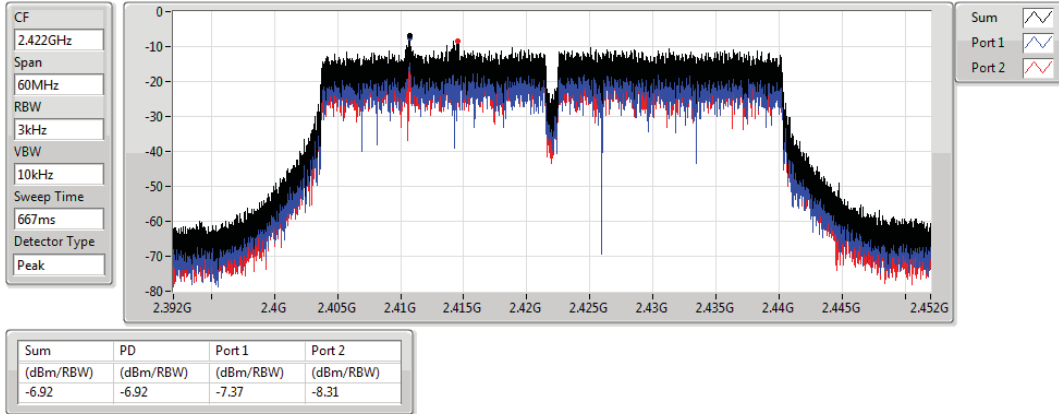
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.03	-4.03	-5.97	-7.80

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

2422MHz

22/07/2019

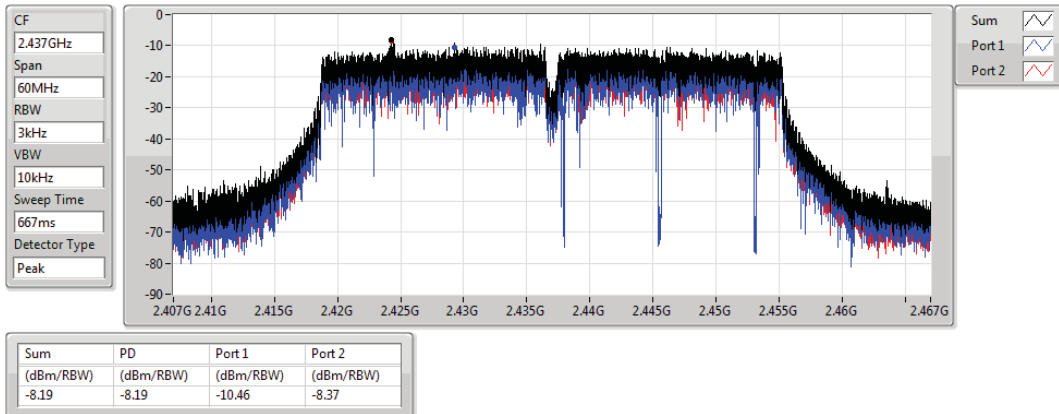


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

2437MHz

22/07/2019

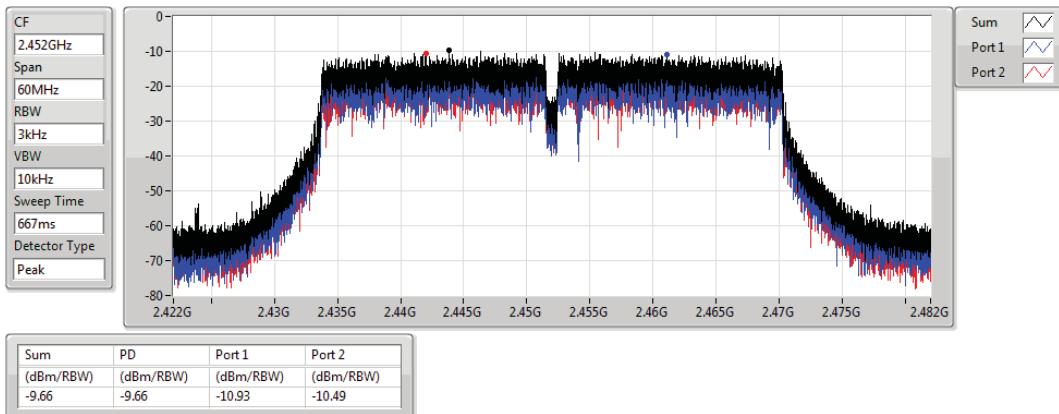


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

2452MHz

22/07/2019

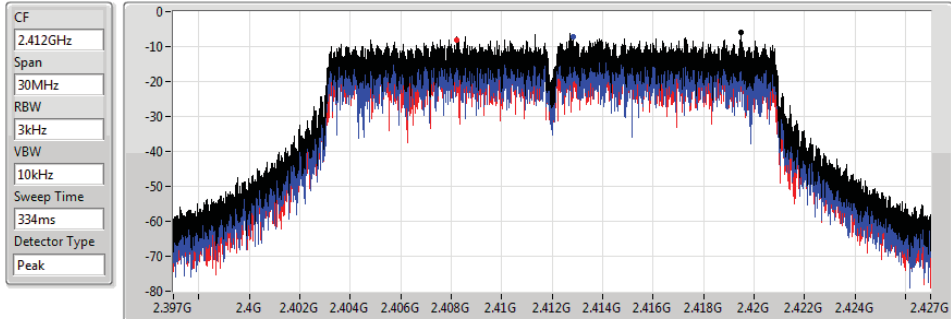


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

PSD

2412MHz

22/07/2019



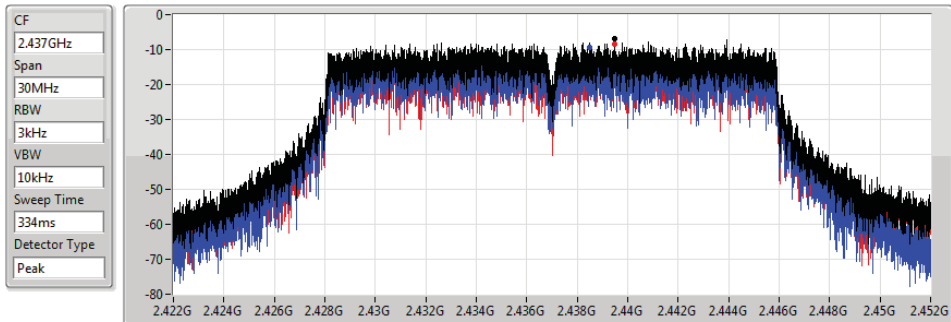
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.05	-6.05	-7.04	-8.21

802.11ax HEW20-BF_Nss1,(MCS0)_2TX

PSD

2437MHz

22/07/2019



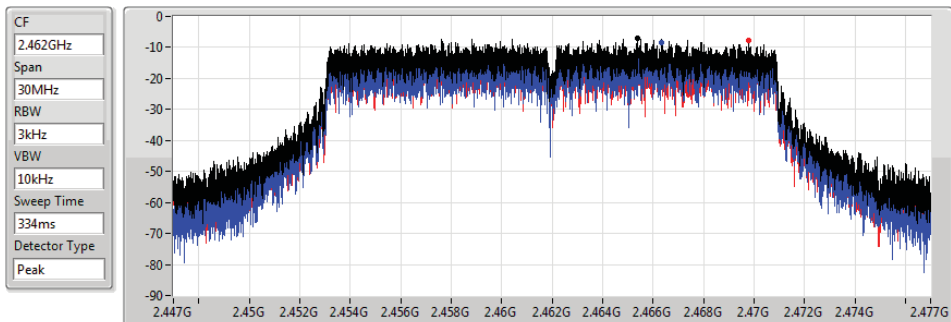
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.88	-6.88	-9.27	-8.51

802.11ax HEW20-BF_Nss1,(MCS0)_2TX

PSD

2462MHz

22/07/2019



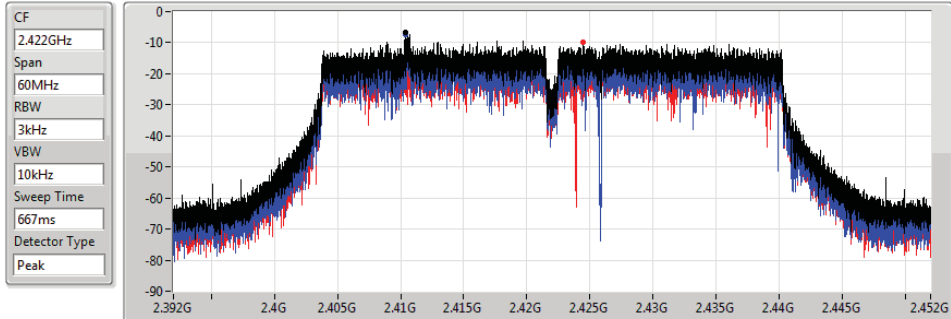
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.11	-7.11	-8.43	-7.81

802.11ax HEW40-BF_Nss1,(MCS0)_2TX

PSD

2422MHz

22/07/2019



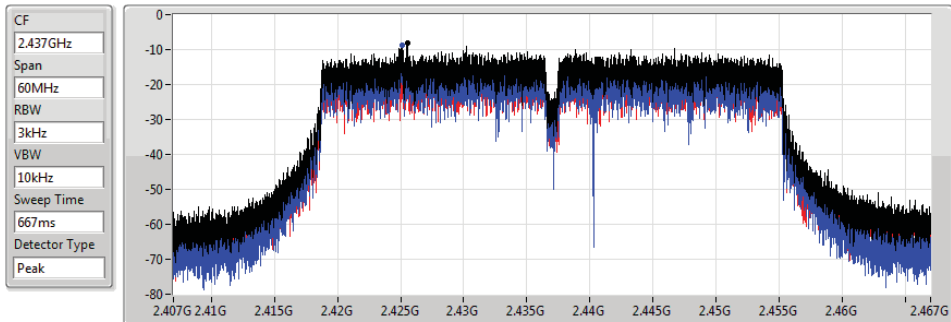
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-6.80	-6.80	-7.21	-9.89

802.11ax HEW40-BF_Nss1,(MCS0)_2TX

PSD

2437MHz

22/07/2019



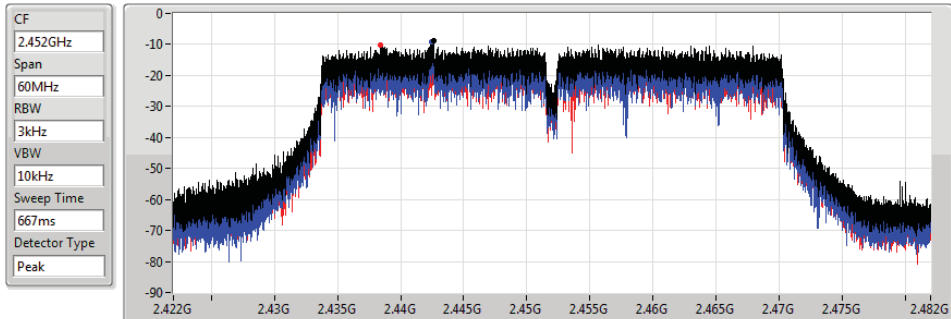
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-7.97	-7.97	-8.84	-8.26

802.11ax HEW40-BF_Nss1,(MCS0)_2TX

PSD

2452MHz

22/07/2019



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-8.65	-8.65	-9.09	-10.34



Summary

Mode	PD (dBm/RBW)
2.4-2.4835GHz	-
802.11b_Nss1,(1Mbps)_1TX	-4.45
802.11g_Nss1,(6Mbps)_1TX	-8.52
802.11ac VHT20_Nss1,(MCS0)_1TX	-9.25
802.11ac VHT40_Nss1,(MCS0)_1TX	-13.70

RBW=3 kHz.

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11b_Nss1,(1Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	3.02	-4.45	-4.45	8.00
2437MHz	Pass	3.02	-4.57	-4.57	8.00
2462MHz	Pass	3.02	-5.14	-5.14	8.00
802.11g_Nss1,(6Mbps)_1TX	-	-	-	-	-
2412MHz	Pass	3.02	-11.75	-11.75	8.00
2437MHz	Pass	3.02	-8.52	-8.52	8.00
2462MHz	Pass	3.02	-10.72	-10.72	8.00
802.11ac VHT20_Nss1,(MCS0)_1TX	-	-	-	-	-
2412MHz	Pass	3.02	-13.88	-13.88	8.00
2437MHz	Pass	3.02	-9.25	-9.25	8.00
2462MHz	Pass	3.02	-12.74	-12.74	8.00
802.11ac VHT40_Nss1,(MCS0)_1TX	-	-	-	-	-
2422MHz	Pass	3.02	-19.93	-19.93	8.00
2437MHz	Pass	3.02	-13.70	-13.70	8.00
2452MHz	Pass	3.02	-18.80	-18.80	8.00

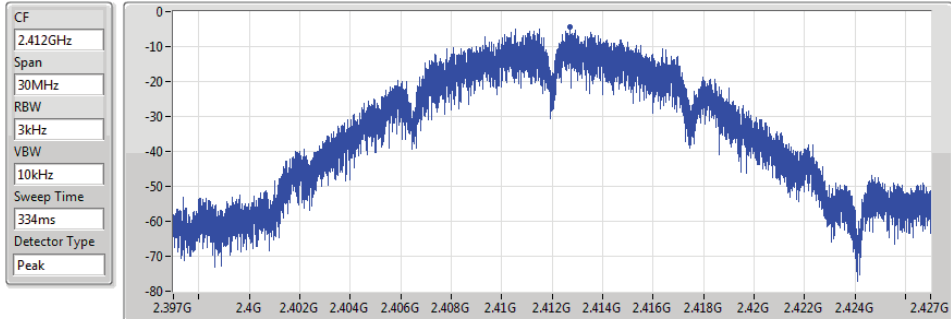
DG = Directional Gain; RBW=3 kHz;**PD** = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

802.11b_Nss1,(1Mbps)_1TX

PSD

2412MHz

28/06/2019



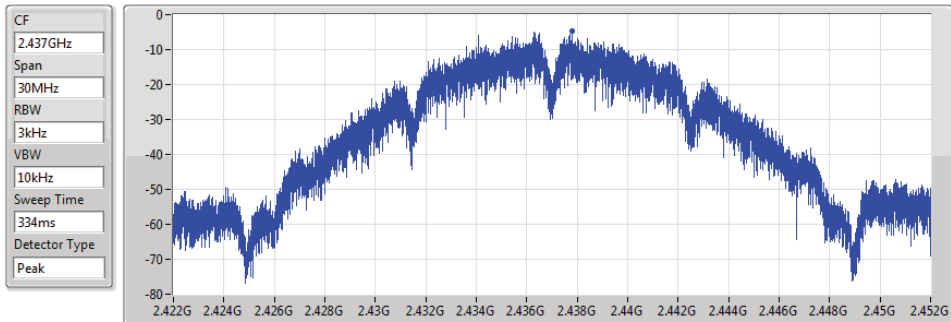
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.45	-4.45	-4.45

802.11b_Nss1,(1Mbps)_1TX

PSD

2437MHz

28/06/2019



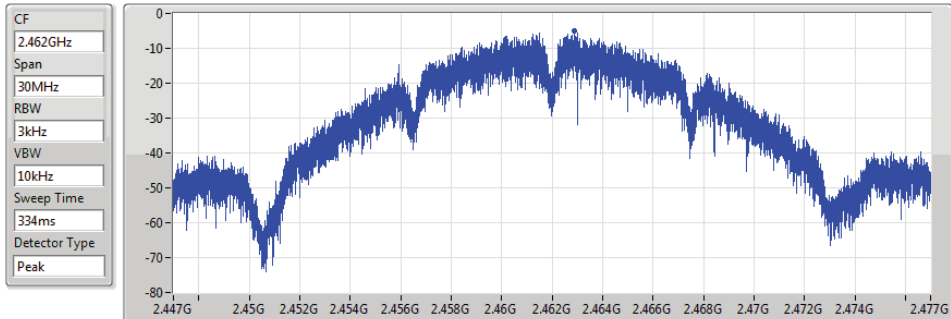
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.57	-4.57	-4.57

802.11b_Nss1,(1Mbps)_1TX

PSD

2462MHz

28/06/2019



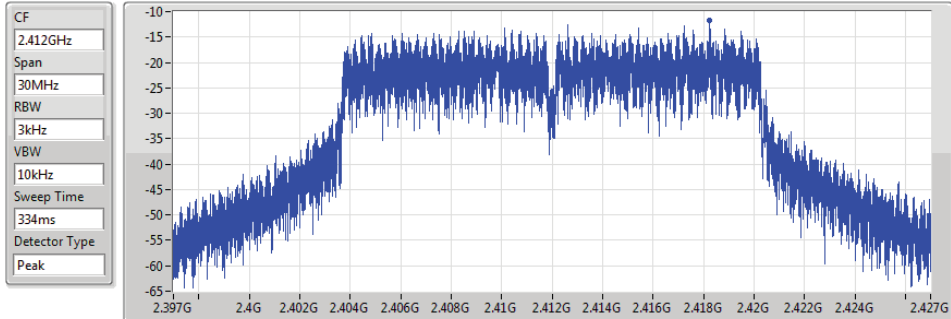
Sum	PD	Port 1
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-5.14	-5.14	-5.14

802.11g_Nss1,(6Mbps)_1TX

PSD

2412MHz

28/06/2019



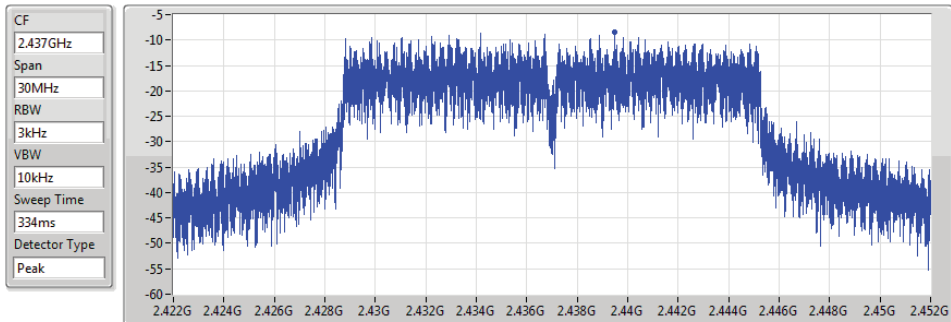
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-11.75	-11.75	-11.75

802.11g_Nss1,(6Mbps)_1TX

PSD

2437MHz

28/06/2019



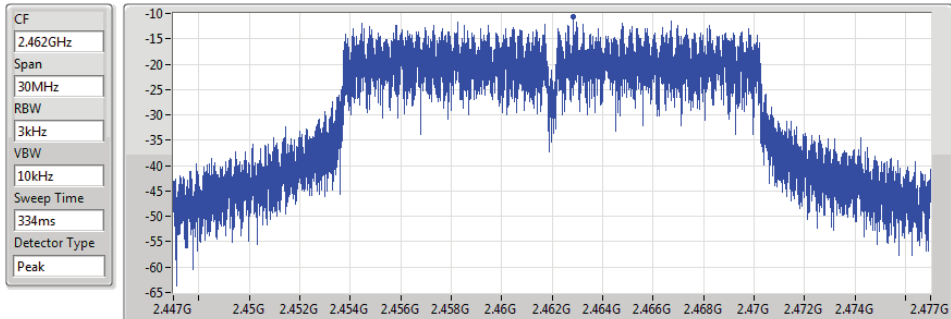
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-8.52	-8.52	-8.52

802.11g_Nss1,(6Mbps)_1TX

PSD

2462MHz

28/06/2019

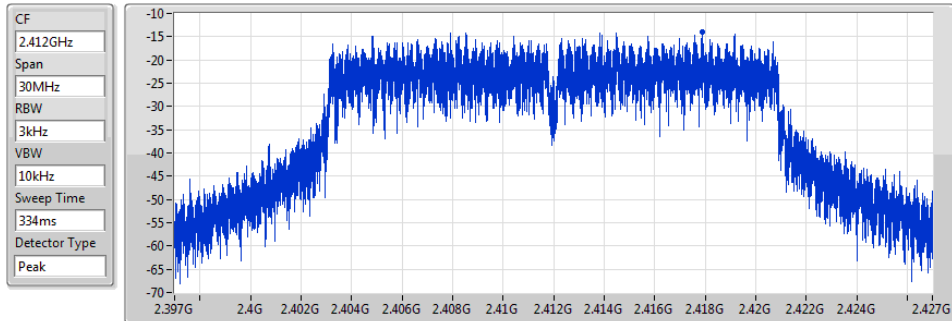


Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-10.72	-10.72	-10.72

802.11ac VHT20_Nss1,(MCS0)_1TX
2412MHz

PSD

28/06/2019



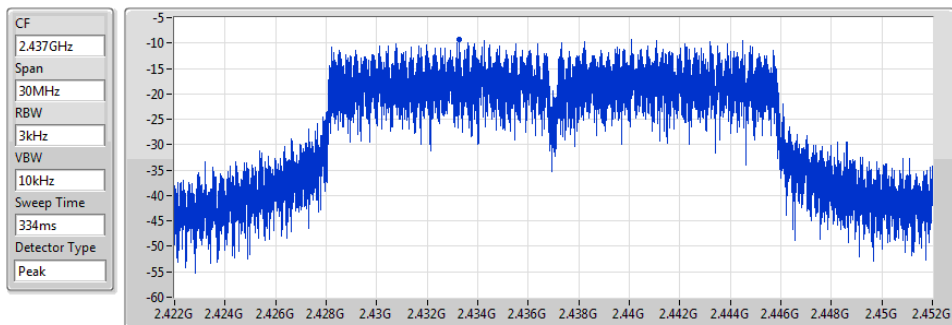
Port 1

Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-13.88	-13.88	-13.88

802.11ac VHT20_Nss1,(MCS0)_1TX
2437MHz

PSD

28/06/2019



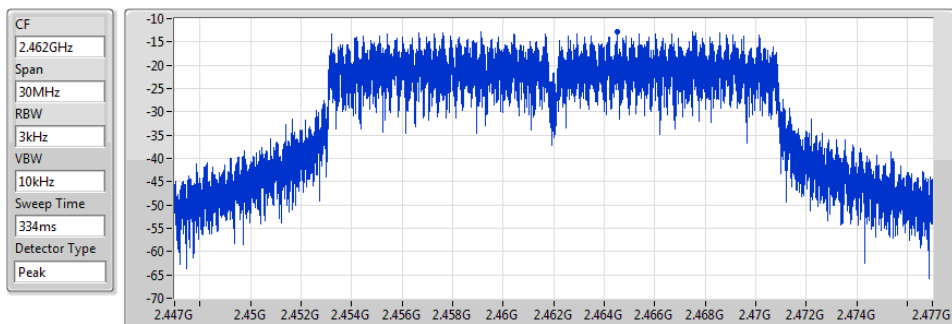
Port 1

Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-9.25	-9.25	-9.25

802.11ac VHT20_Nss1,(MCS0)_1TX
2462MHz

PSD

28/06/2019



Port 1

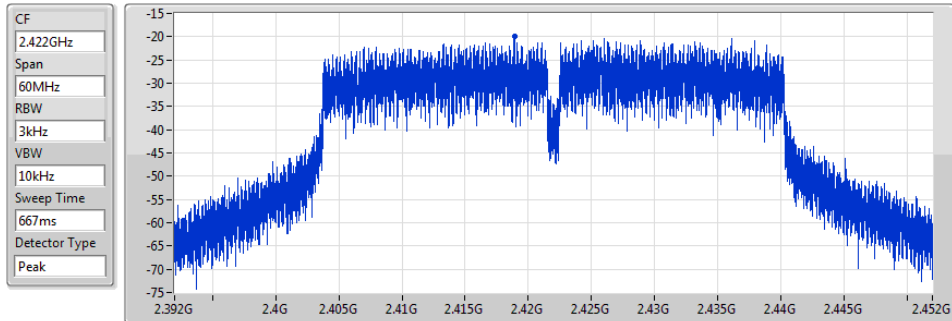
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-12.74	-12.74	-12.74

802.11ac VHT40_Nss1,(MCS0)_1TX

2422MHz

PSD

28/06/2019



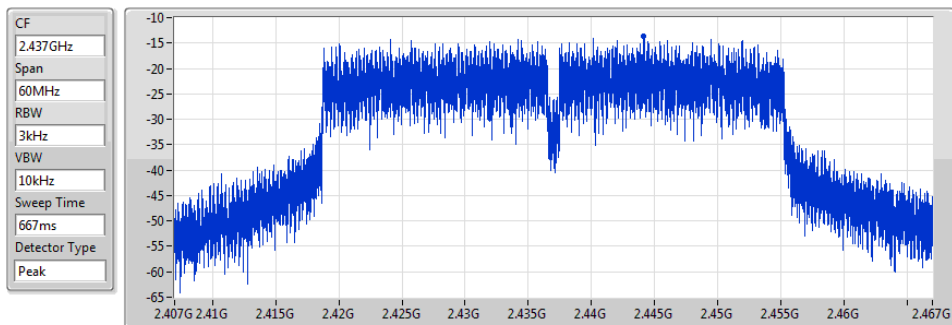
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-19.93	-19.93	-19.93

802.11ac VHT40_Nss1,(MCS0)_1TX

2437MHz

PSD

28/06/2019



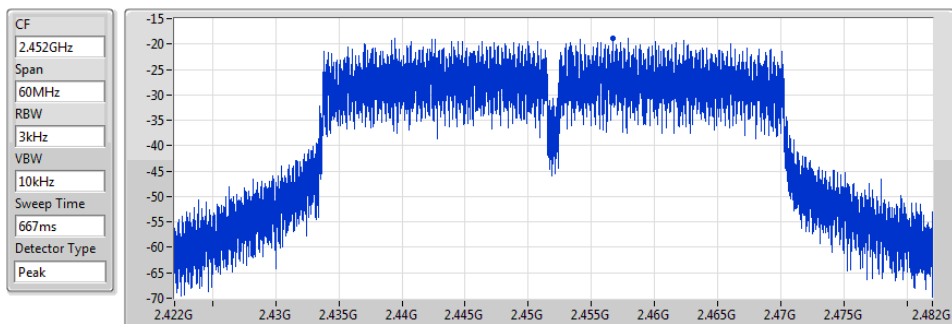
Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-13.70	-13.70	-13.70

802.11ac VHT40_Nss1,(MCS0)_1TX

2452MHz

PSD

28/06/2019



Sum	PD	Port 1
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-18.80	-18.80	-18.80

**Summary**

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2.4-2.4835GHz	-	-	-	-	-	-	-	-	-	-	-	-	-
802.11b_Nss1,(1Mbps)_1TX(Port1)	Pass	2.43749G	11.35	-18.65	2.18467G	-54.22	2.39996G	-39.50	2.496G	-51.87	21.54424G	-41.11	1
802.11b_Nss1,(1Mbps)_1TX(Port2)	Pass	2.43749G	11.46	-18.54	1.86051G	-55.21	2.39998G	-40.66	2.49892G	-52.09	16.62188G	-41.76	2
802.11b_Nss1,(1Mbps)_2TX	Pass	2.43799G	11.92	-18.08	2.16312G	-55.01	2.39998G	-38.99	2.50712G	-51.81	17.5968G	-41.91	1
802.11g_Nss1,(6Mbps)_1TX(Port1)	Pass	2.4395G	9.70	-20.30	2.19399G	-54.27	2.39948G	-25.46	2.50906G	-51.68	24.81738G	-41.53	1
802.11g_Nss1,(6Mbps)_1TX(Port2)	Pass	2.43824G	9.60	-20.40	2.30641G	-54.70	2.39976G	-29.47	2.4928G	-51.12	16.2735G	-41.96	2
802.11g_Nss1,(6Mbps)_2TX	Pass	2.442G	10.02	-19.98	2.30117G	-54.69	2.39964G	-31.13	2.50754G	-52.14	16.22012G	-41.68	1
802.11ac VHT20_Nss1,(MCS0)_1TX(Port1)	Pass	2.4357G	9.19	-20.81	775.02M	-55.24	2.39922G	-27.71	2.49604G	-50.43	24.93538G	-41.64	1
802.11ac VHT20_Nss1,(MCS0)_1TX(Port2)	Pass	2.43574G	9.45	-20.55	2.30816G	-54.11	2.39984G	-29.14	2.4983G	-51.87	16.20045G	-41.44	2
802.11ac VHT20_Nss1,(MCS0)_2TX	Pass	2.43574G	9.32	-20.68	2.19282G	-54.74	2.39884G	-27.75	2.49774G	-51.57	16.81855G	-41.34	2
802.11ac VHT40_Nss1,(MCS0)_1TX(Port1)	Pass	2.44071G	4.59	-25.41	2.30082G	-47.45	2.39976G	-28.69	2.54154G	-44.43	23.32568G	-42.28	1
802.11ac VHT40_Nss1,(MCS0)_1TX(Port2)	Pass	2.43198G	4.43	-25.57	2.10989G	-53.17	2.39988G	-32.91	2.50074G	-50.55	23.29202G	-41.54	2
802.11ac VHT40_Nss1,(MCS0)_2TX	Pass	2.45198G	3.74	-26.26	2.30769G	-54.02	2.39972G	-33.40	2.48546G	-50.42	23.30324G	-42.15	2
802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)	Pass	2.44196G	9.33	-20.67	2.30379G	-54.53	2.39976G	-25.06	2.4965G	-50.79	16.29317G	-41.90	1
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	Pass	2.43574G	9.22	-20.78	2.10021G	-54.87	2.3999G	-27.00	2.48382G	-50.54	24.65723G	-41.85	2
802.11ax HEW20_Nss1,(MCS0)_2TX	Pass	2.442G	9.91	-20.09	2.30233G	-53.98	2.39938G	-25.87	2.51504G	-51.70	17.61928G	-41.16	2
802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)	Pass	2.43449G	4.30	-25.70	2.30311G	-47.22	2.39936G	-28.06	2.4875G	-44.52	23.28361G	-41.41	1
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	Pass	2.43198G	4.35	-25.65	2.01314G	-53.58	2.39816G	-32.00	2.48462G	-36.95	16.88921G	-41.41	2
802.11ax HEW40_Nss1,(MCS0)_2TX	Pass	2.44075G	3.85	-26.15	2.30569G	-54.34	2.39976G	-31.80	2.48502G	-49.53	23.32007G	-40.82	2

**Result**

Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
802.11b_Nss1.(1Mbps)_1TX(Port1)	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43749G	11.35	-18.65	2.18467G	-54.22	2.39996G	-39.50	2.496G	-51.87	21.54424G	-41.11	1
2437MHz	Pass	2.43749G	11.35	-18.65	857.73M	-54.45	2.3922G	-52.34	2.51594G	-52.19	23.24683G	-42.14	1
2462MHz	Pass	2.43749G	11.35	-18.65	707.45M	-55.38	2.39402G	-53.33	2.49178G	-51.74	24.06723G	-42.56	1
802.11b_Nss1.(1Mbps)_1TX(Port2)	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43749G	11.46	-18.54	1.86051G	-55.21	2.39998G	-40.66	2.49892G	-52.09	16.62188G	-41.76	2
2437MHz	Pass	2.43749G	11.46	-18.54	844.34M	-55.15	2.3919G	-53.03	2.50376G	-50.93	17.44509G	-42.27	2
2462MHz	Pass	2.43749G	11.46	-18.54	935.21M	-54.63	2.39698G	-53.17	2.486G	-51.85	17.45632G	-42.14	2
802.11b_Nss1.(1Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43799G	11.92	-18.08	2.16312G	-55.01	2.39998G	-38.99	2.50712G	-51.81	17.5968G	-41.91	1
2412MHz	Pass	2.43799G	11.92	-18.08	2.30641G	-54.73	2.39982G	-40.91	2.5056G	-52.31	14.92491G	-42.18	2
2437MHz	Pass	2.43799G	11.92	-18.08	2.30641G	-54.73	2.39936G	-52.94	2.49598G	-51.71	17.48161G	-41.69	1
2437MHz	Pass	2.43799G	11.92	-18.08	2.30583G	-55.24	2.3929G	-52.58	2.4916G	-52.23	24.58138G	-42.22	2
2462MHz	Pass	2.43799G	11.92	-18.08	2.17593G	-55.01	2.39434G	-52.71	2.49274G	-51.77	16.5966G	-40.96	1
2462MHz	Pass	2.43799G	11.92	-18.08	2.02885G	-55.75	2.39044G	-52.86	2.4933G	-51.12	24.55047G	-41.90	2
802.11g_Nss1.(6Mbps)_1TX(Port1)	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4395G	9.70	-20.30	2.19399G	-54.27	2.39948G	-25.46	2.50906G	-51.68	24.81738G	-41.53	1
2437MHz	Pass	2.4395G	9.70	-20.30	2.18292G	-53.46	2.3995G	-40.10	2.48948G	-48.41	24.89324G	-41.13	1
2462MHz	Pass	2.4395G	9.70	-20.30	2.30059G	-54.44	2.39874G	-52.11	2.48446G	-37.37	16.22574G	-41.00	1
802.11g_Nss1.(6Mbps)_1TX(Port2)	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43824G	9.60	-20.40	2.30641G	-54.70	2.39976G	-29.47	2.4928G	-51.12	16.2735G	-41.96	2
2437MHz	Pass	2.43824G	9.60	-20.40	2.1771G	-54.62	2.3995G	-40.64	2.48576G	-47.59	14.76476G	-42.30	2
2462MHz	Pass	2.43824G	9.60	-20.40	1.99361G	-54.04	2.3963G	-52.47	2.4845G	-36.58	16.24259G	-41.16	2
802.11g_Nss1.(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.442G	10.02	-19.98	2.30117G	-54.69	2.39964G	-31.13	2.50754G	-52.14	16.22012G	-41.68	1
2412MHz	Pass	2.442G	10.02	-19.98	2.14943G	-54.65	2.39964G	-31.26	2.50198G	-51.54	23.28617G	-41.26	2
2437MHz	Pass	2.442G	10.02	-19.98	2.19486G	-54.41	2.3995G	-39.93	2.48574G	-47.99	24.33413G	-41.38	1
2437MHz	Pass	2.442G	10.02	-19.98	2.30583G	-54.24	2.3995G	-41.41	2.48362G	-47.42	24.88481G	-40.70	2
2462MHz	Pass	2.442G	10.02	-19.98	2.16137G	-54.73	2.3972G	-52.49	2.48422G	-42.74	16.22574G	-41.75	1
2462MHz	Pass	2.442G	10.02	-19.98	2.1302G	-55.00	2.39018G	-52.67	2.48352G	-41.81	23.24402G	-41.74	2
802.11ac_VHT20_Nss1.(MCS0)_1TX(Port1)	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.4357G	9.19	-20.81	775.02M	-55.24	2.39922G	-27.71	2.49604G	-50.43	24.93538G	-41.64	1
2437MHz	Pass	2.4357G	9.19	-20.81	2.15409G	-53.80	2.39974G	-42.03	2.48388G	-48.28	16.3606G	-41.73	1
2462MHz	Pass	2.4357G	9.19	-20.81	2.30728G	-55.16	2.39448G	-52.02	2.48414G	-41.05	23.29179G	-42.04	1
802.11ac_VHT20_Nss1.(MCS0)_1TX(Port2)	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43574G	9.45	-20.55	2.30816G	-54.11	2.39984G	-29.14	2.4983G	-51.87	16.20045G	-41.44	2
2437MHz	Pass	2.43574G	9.45	-20.55	1.96623G	-53.79	2.3995G	-41.54	2.48452G	-47.69	17.23718G	-42.19	2
2462MHz	Pass	2.43574G	9.45	-20.55	2.19457G	-53.46	2.3978G	-52.17	2.48352G	-38.93	24.9129G	-42.24	2
802.11ac_VHT20_Nss1.(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43574G	9.32	-20.68	2.30903G	-53.96	2.39986G	-28.63	2.496G	-50.73	24.31166G	-42.26	1
2412MHz	Pass	2.43574G	9.32	-20.68	2.19282G	-54.74	2.39884G	-27.75	2.49774G	-51.57	16.81855G	-41.34	2
2437MHz	Pass	2.43574G	9.32	-20.68	2.13545G	-54.16	2.3995G	-40.33	2.48424G	-47.67	17.28213G	-41.30	1
2437MHz	Pass	2.43574G	9.32	-20.68	2.30117G	-54.20	2.39886G	-41.90	2.48444G	-47.62	21.48243G	-42.24	2
2462MHz	Pass	2.43574G	9.32	-20.68	2.30758G	-53.72	2.39418G	-53.16	2.48384G	-43.00	17.57152G	-41.92	1
2462MHz	Pass	2.43574G	9.32	-20.68	2.16049G	-54.74	2.39906G	-52.49	2.48424G	-42.05	24.85952G	-41.56	2
802.11ac_VHT40_Nss1.(MCS0)_1TX(Port1)	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.44071G	4.59	-25.41	2.30082G	-47.45	2.39976G	-28.69	2.54154G	-44.43	23.32568G	-42.28	1
2437MHz	Pass	2.44071G	4.59	-25.41	2.30884G	-54.50	2.39952G	-35.23	2.4845G	-38.73	24.55127G	-41.80	1



CSE(Non-restricted Band) _Radio 1_Non-Beamforming

Appendix E.1

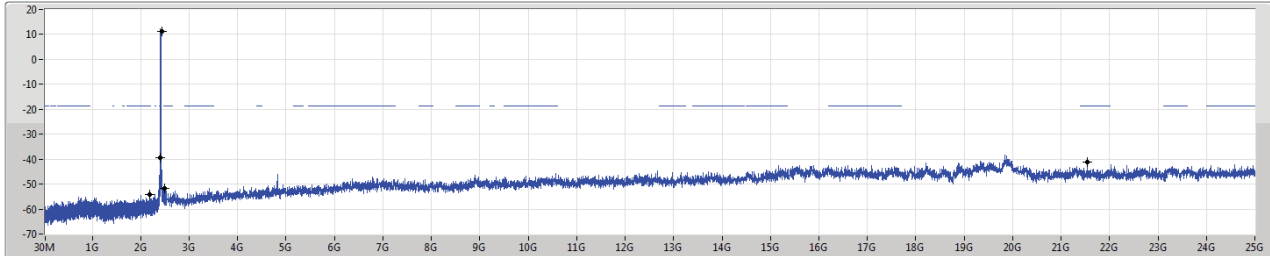
Mode	Result	Ref (Hz)	Ref (dBm)	Limit (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Freq (Hz)	Level (dBm)	Port
2452MHz	Pass	2.44071G	4.59	-25.41	2.02888G	-54.99	2.39572G	-44.69	2.48498G	-37.44	15.14196G	-42.33	1
802.11ac VHT40_Nss1.(MCS0)_1TX(Port2)	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43198G	4.43	-25.57	2.10989G	-53.17	2.39988G	-32.91	2.50074G	-50.55	23.29202G	-41.54	2
2437MHz	Pass	2.43198G	4.43	-25.57	2.30855G	-53.32	2.39924G	-33.92	2.4857G	-38.73	24.13059G	-42.17	2
2452MHz	Pass	2.43198G	4.43	-25.57	2.1451G	-54.44	2.39452G	-48.29	2.48574G	-36.55	16.49657G	-42.20	2
802.11ac VHT40_Nss1.(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.45198G	3.74	-26.26	2.30912G	-55.01	2.39972G	-35.10	2.5425G	-46.41	16.21891G	-41.59	1
2422MHz	Pass	2.45198G	3.74	-26.26	2.30769G	-54.02	2.39972G	-33.40	2.48546G	-50.42	23.30324G	-42.15	2
2437MHz	Pass	2.45198G	3.74	-26.26	2.18317G	-54.40	2.39888G	-36.75	2.48894G	-41.04	17.51462G	-41.67	1
2437MHz	Pass	2.45198G	3.74	-26.26	2.10903G	-54.19	2.39976G	-35.34	2.48606G	-42.34	16.25818G	-41.05	2
2452MHz	Pass	2.45198G	3.74	-26.26	2.17029G	-54.50	2.3954G	-49.03	2.4851G	-42.88	23.27239G	-41.08	1
2452MHz	Pass	2.45198G	3.74	-26.26	2.30025G	-55.06	2.39876G	-50.23	2.48634G	-41.10	17.64924G	-41.01	2
802.11ax HEW20_Nss1.(MCS0)_1TX(Port1)	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.44196G	9.33	-20.67	2.30379G	-54.53	2.39976G	-25.06	2.4965G	-50.79	16.29317G	-41.90	1
2437MHz	Pass	2.44196G	9.33	-20.67	2.30845G	-53.38	2.39668G	-37.06	2.48378G	-45.02	24.33132G	-41.83	1
2462MHz	Pass	2.44196G	9.33	-20.67	2.30583G	-55.29	2.39448G	-52.61	2.48402G	-37.55	23.42665G	-41.46	1
802.11ax HEW20_Nss1.(MCS0)_1TX(Port2)	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.43574G	9.22	-20.78	2.10021G	-54.87	2.3999G	-27.00	2.48382G	-50.54	24.65723G	-41.85	2
2437MHz	Pass	2.43574G	9.22	-20.78	2.30059G	-53.95	2.39742G	-39.62	2.48536G	-45.59	16.21169G	-41.36	2
2462MHz	Pass	2.43574G	9.22	-20.78	2.30845G	-55.03	2.39384G	-52.97	2.4841G	-36.78	23.24683G	-42.51	2
802.11ax HEW20_Nss1.(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2412MHz	Pass	2.442G	9.91	-20.09	1.80226G	-55.16	2.39924G	-28.20	2.49598G	-51.06	16.55165G	-41.62	1
2412MHz	Pass	2.442G	9.91	-20.09	2.30233G	-53.98	2.39938G	-25.87	2.51504G	-51.70	17.61928G	-41.16	2
2437MHz	Pass	2.442G	9.91	-20.09	2.10137G	-54.78	2.39906G	-38.92	2.48388G	-46.07	17.61647G	-41.97	1
2437MHz	Pass	2.442G	9.91	-20.09	2.18933G	-54.00	2.39928G	-40.12	2.48378G	-45.19	17.5069G	-41.99	2
2462MHz	Pass	2.442G	9.91	-20.09	2.01574G	-55.01	2.39146G	-51.83	2.48442G	-39.01	16.87194G	-41.17	1
2462MHz	Pass	2.442G	9.91	-20.09	2.30408G	-53.02	2.39622G	-52.35	2.48444G	-36.37	23.25526G	-41.62	2
802.11ax HEW40_Nss1.(MCS0)_1TX(Port1)	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43449G	4.30	-25.70	2.30311G	-47.22	2.39936G	-28.06	2.4875G	-44.52	23.28361G	-41.41	1
2437MHz	Pass	2.43449G	4.30	-25.70	908.79M	-55.10	2.39904G	-33.06	2.48458G	-37.45	23.4014G	-41.13	1
2452MHz	Pass	2.43449G	4.30	-25.70	2.30683G	-53.89	2.3976G	-42.78	2.48746G	-34.93	23.27519G	-42.18	1
802.11ax HEW40_Nss1.(MCS0)_1TX(Port2)	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.43198G	4.35	-25.65	2.19663G	-54.65	2.39752G	-32.20	2.48698G	-48.32	16.84714G	-42.08	2
2437MHz	Pass	2.43198G	4.35	-25.65	2.01314G	-53.58	2.39816G	-32.00	2.48462G	-36.95	16.88921G	-41.41	2
2452MHz	Pass	2.43198G	4.35	-25.65	1.9682G	-54.25	2.39924G	-47.41	2.48358G	-35.68	17.60437G	-41.38	2
802.11ax HEW40_Nss1.(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-	-	-	-
2422MHz	Pass	2.44075G	3.85	-26.15	1.96705G	-53.07	2.39516G	-33.40	2.48478G	-47.24	24.06047G	-42.03	1
2422MHz	Pass	2.44075G	3.85	-26.15	2.30569G	-54.34	2.39976G	-31.80	2.48502G	-49.53	23.32007G	-40.82	2
2437MHz	Pass	2.44075G	3.85	-26.15	2.30426G	-53.02	2.3994G	-36.63	2.48382G	-40.00	16.30025G	-42.08	1
2437MHz	Pass	2.44075G	3.85	-26.15	2.00255G	-54.41	2.39604G	-35.11	2.48374G	-40.10	16.63119G	-42.14	2
2452MHz	Pass	2.44075G	3.85	-26.15	2.30626G	-52.89	2.39624G	-47.26	2.48446G	-37.00	16.89481G	-42.21	1
2452MHz	Pass	2.44075G	3.85	-26.15	1.95246G	-55.09	2.39188G	-49.14	2.48494G	-39.59	16.86116G	-42.02	2

802.11b_Nss1,(1Mbps)_1TX(Port1)

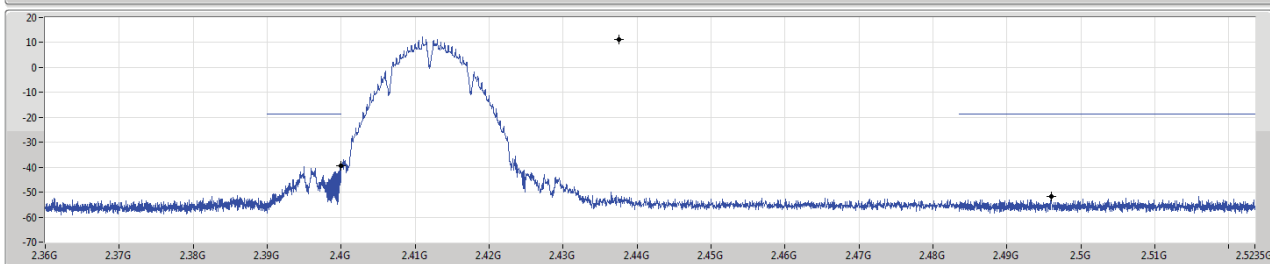
CSE NdB

2412MHz

25/06/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

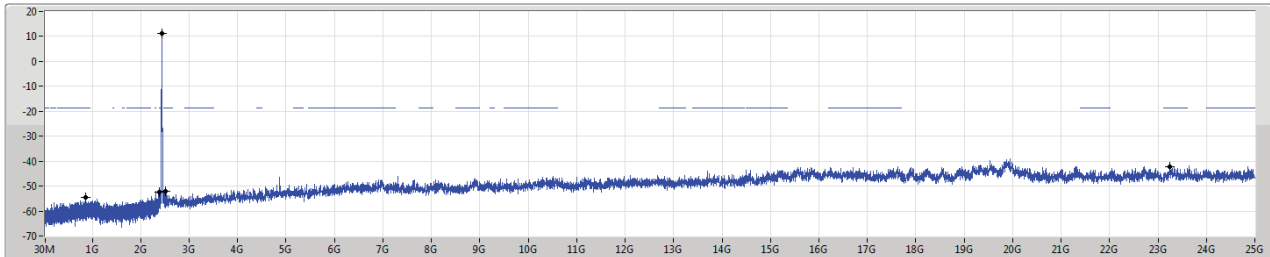
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43749G	11.35	-18.65	2.18467G	-54.22	2.39996G	-39.50	2.496G	-51.87	2.1.54424G	-41.11	1

802.11b_Nss1,(1Mbps)_1TX(Port1)

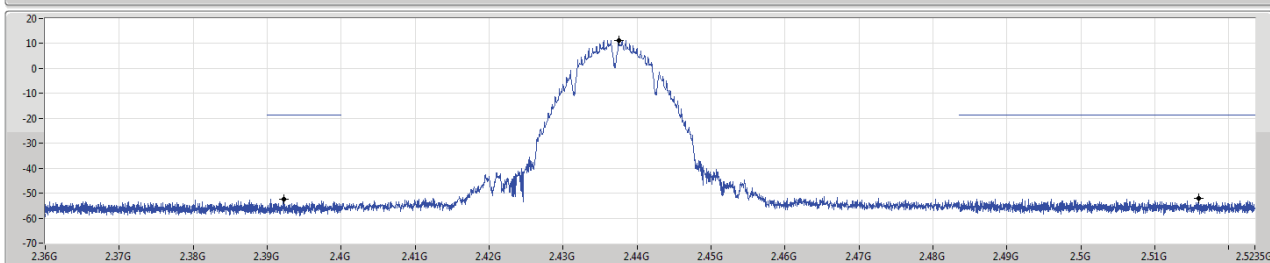
CSE NdB

2437MHz

25/06/2019



Port1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

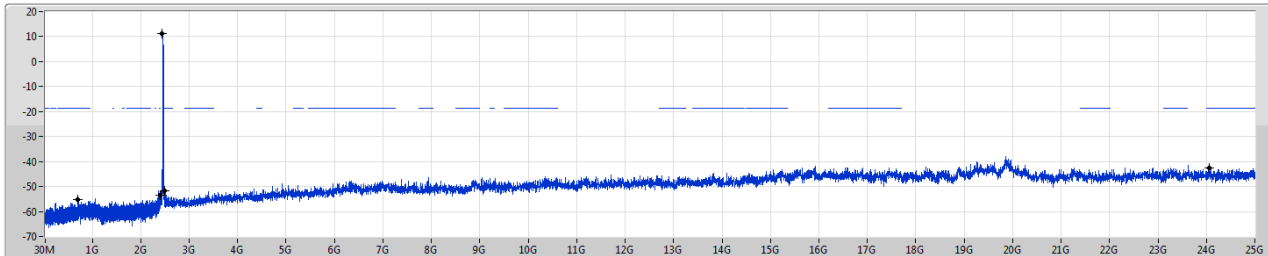
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43749G	11.35	-18.65	857.73M	-54.45	2.3922G	-52.34	2.51594G	-52.19	2.3.24683G	-42.14	1

802.11b_Nss1,(1Mbps)_1TX(Port1)

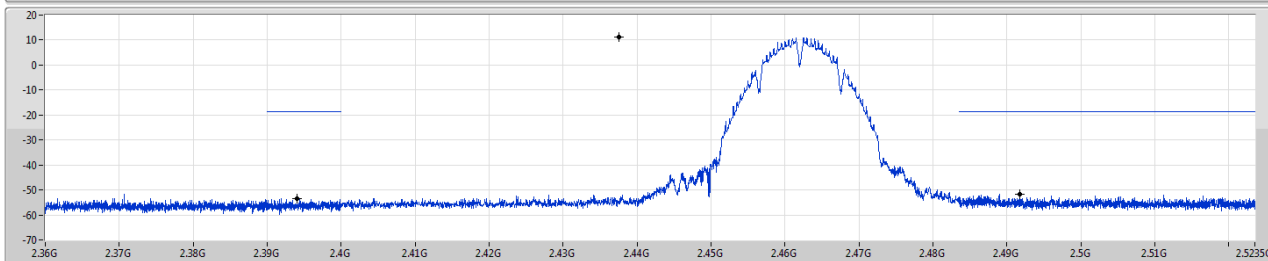
CSE NdB

2462MHz

25/06/2019



Port 1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

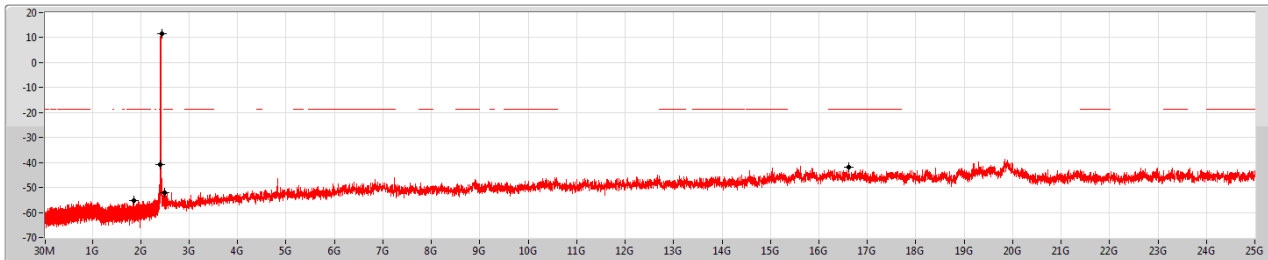
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43749G	11.35	-18.65	707.45M	-55.38	2.39402G	-53.33	2.49178G	-51.74	24.06723G	-42.56	1

802.11b_Nss1,(1Mbps)_1TX(Port2)

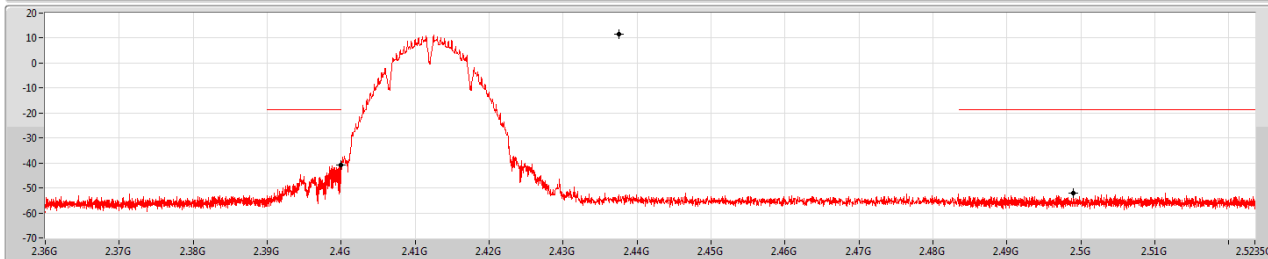
CSE NdB

2412MHz

25/06/2019



Port 2



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

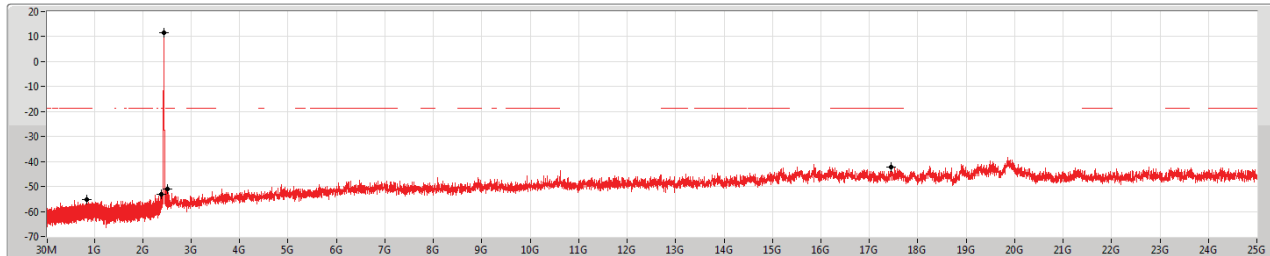
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43749G	11.46	-18.54	1.86051G	-55.21	2.39998G	-40.66	2.49892G	-52.09	16.62188G	-41.76	2

802.11b_Nss1,(1Mbps)_1TX(Port2)

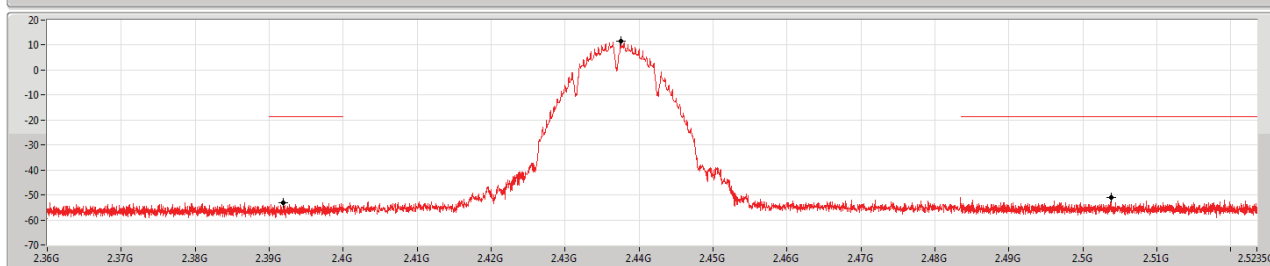
CSE NdB

2437MHz

25/06/2019



Port 2



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

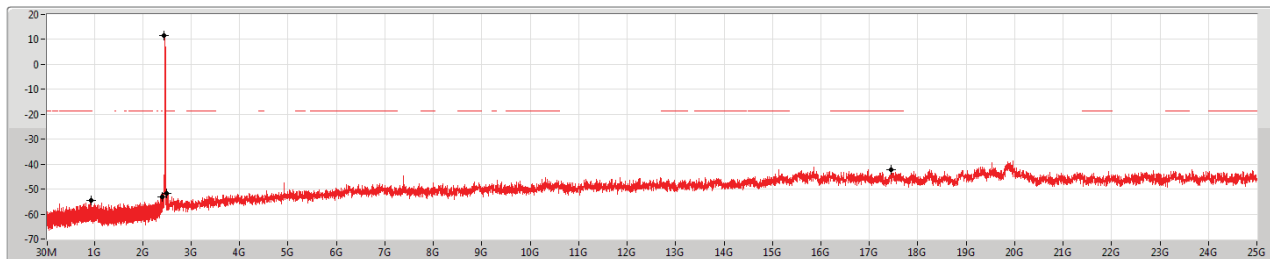
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43749G	11.46	-18.54	844.34M	-55.15	2.3919G	-53.03	2.50376G	-50.93	17.44509G	-42.27	2

802.11b_Nss1,(1Mbps)_1TX(Port2)

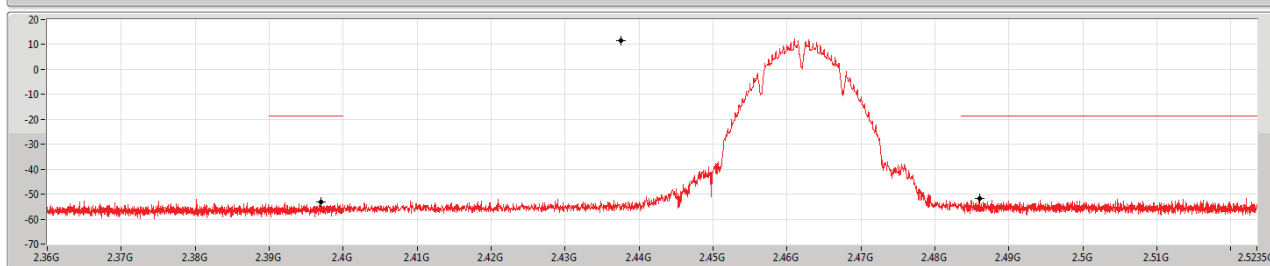
CSE NdB

2462MHz

25/06/2019



Port 2



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

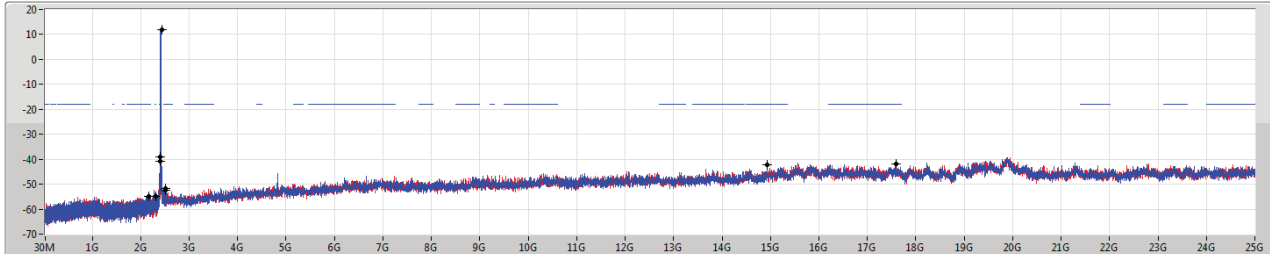
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43749G	11.46	-18.54	935.21M	-54.63	2.39698G	-53.17	2.486G	-51.85	17.45632G	-42.14	2

802.11b_Nss1,(1Mbps)_2TX

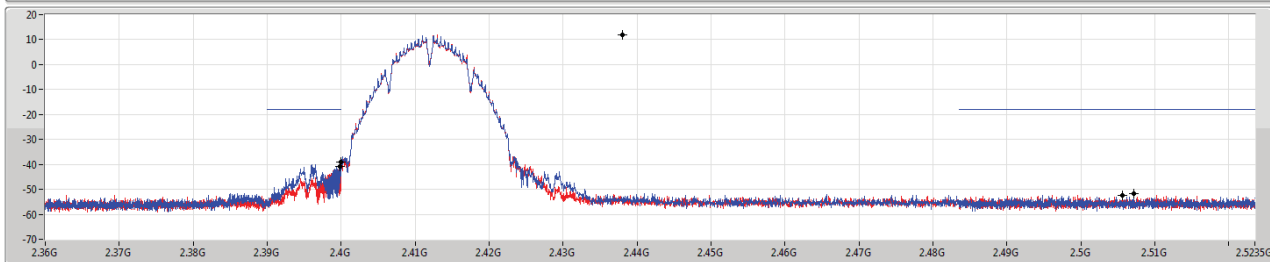
2412MHz

CSE NdB

25/06/2019



Port 1
Port 2



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

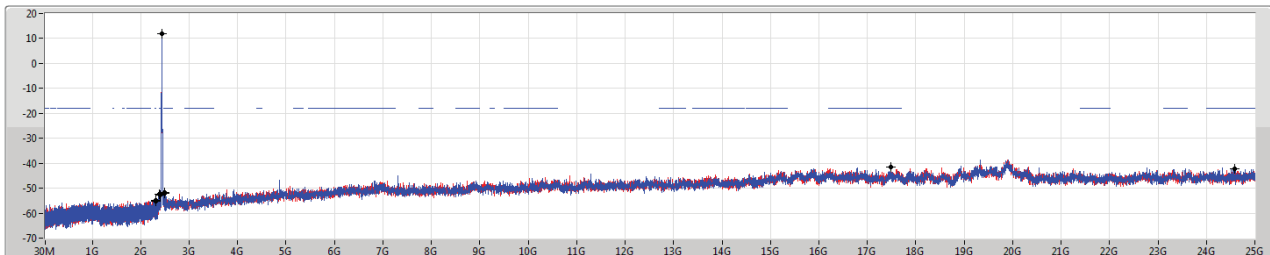
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43799G	11.92	-18.08	2.16312G	-55.01	2.39998G	-38.99	2.50712G	-51.81	17.5968G	-41.91	1
2.43799G	11.92	-18.08	2.30641G	-54.73	2.39982G	-40.91	2.5056G	-52.31	14.92491G	-42.18	2

802.11b_Nss1,(1Mbps)_2TX

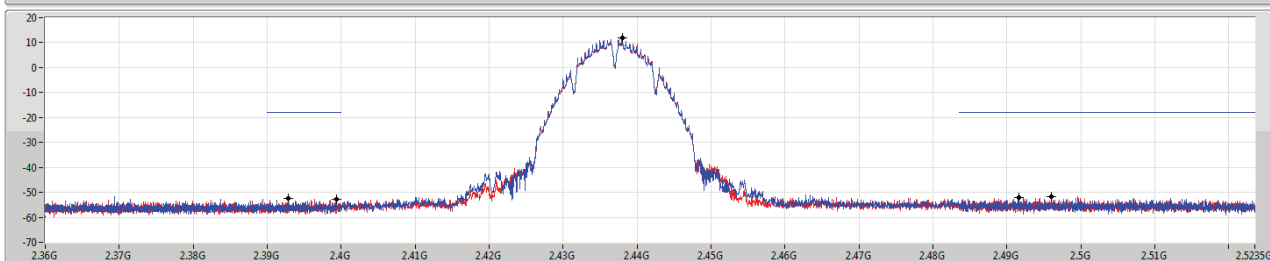
2437MHz

CSE NdB

25/06/2019



Port 1
Port 2



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

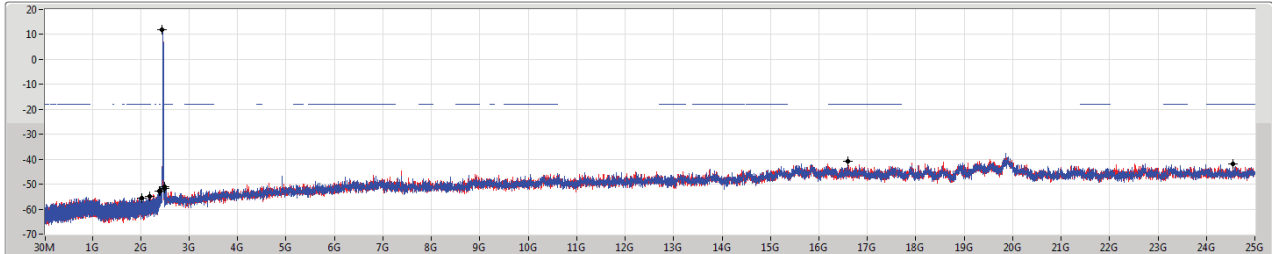
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43799G	11.92	-18.08	2.30641G	-54.73	2.39936G	-52.94	2.49598G	-51.71	17.48161G	-41.69	1
2.43799G	11.92	-18.08	2.30583G	-55.24	2.39929G	-52.58	2.4916G	-52.23	24.58138G	-42.22	2

802.11b_Nss1,(1Mbps)_2TX

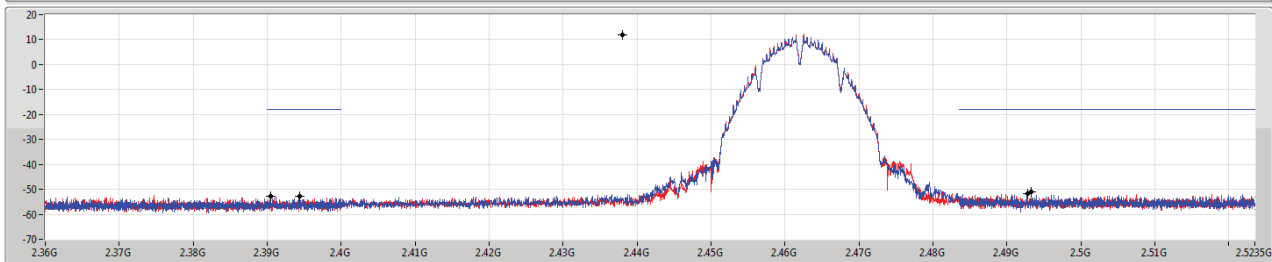
2462MHz

CSE NdB

25/06/2019



Port 1
Port 2



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

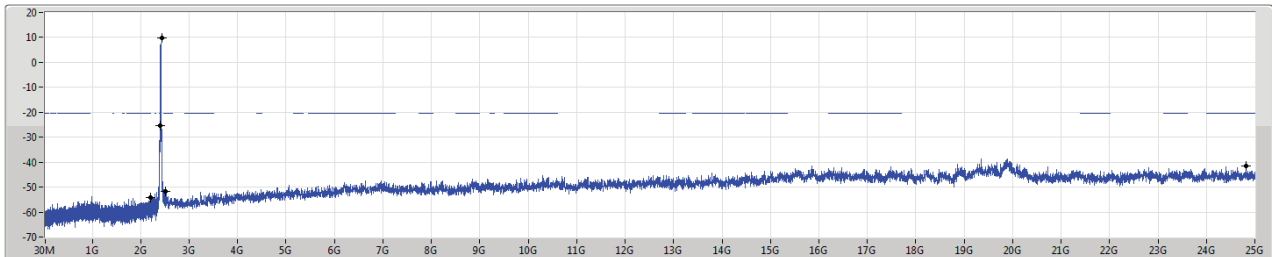
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.43799G	11.92	-18.08	2.17593G	-55.01	2.39434G	-52.71	2.49274G	-51.77	16.5966G	-40.96	1
2.43799G	11.92	-18.08	2.02885G	-55.75	2.39044G	-52.86	2.4933G	-51.12	24.55047G	-41.90	2

802.11g_Nss1,(6Mbps)_1TX(Port1)

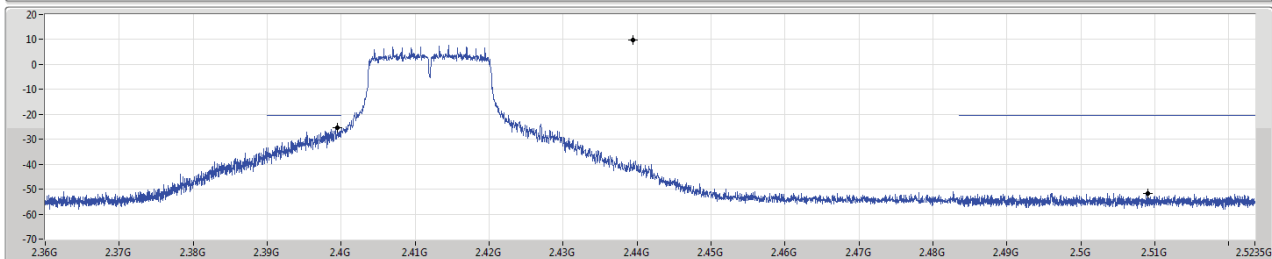
2412MHz

CSE NdB

25/06/2019



Port 1



RBW (Hz)
100k
VBW (Hz)
300k
Detector
Peak

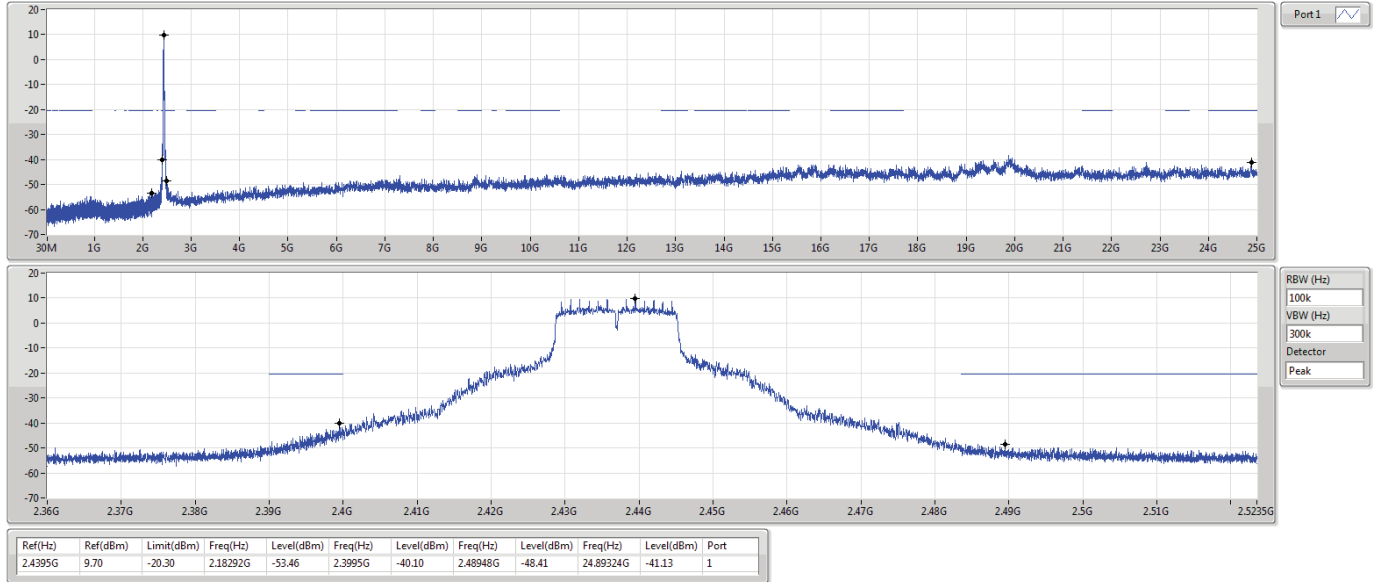
Ref(Hz)	Ref(dBm)	Limit(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Freq(Hz)	Level(dBm)	Port
2.4395G	9.70	-20.30	2.19399G	-54.27	2.39948G	-25.46	2.50906G	-51.68	24.81738G	-41.53	1



802.11g_Nss1,(6Mbps)_1TX(Port1)

CSE NdB

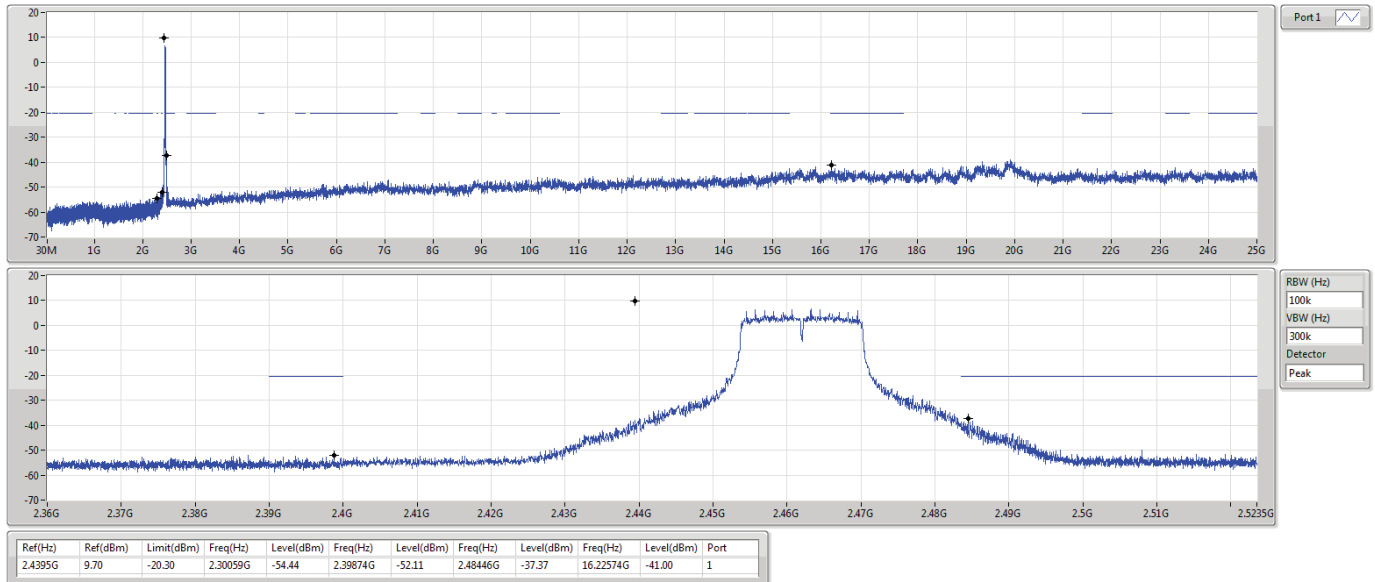
2437MHz



802.11g_Nss1,(6Mbps)_1TX(Port1)

CSE NdB

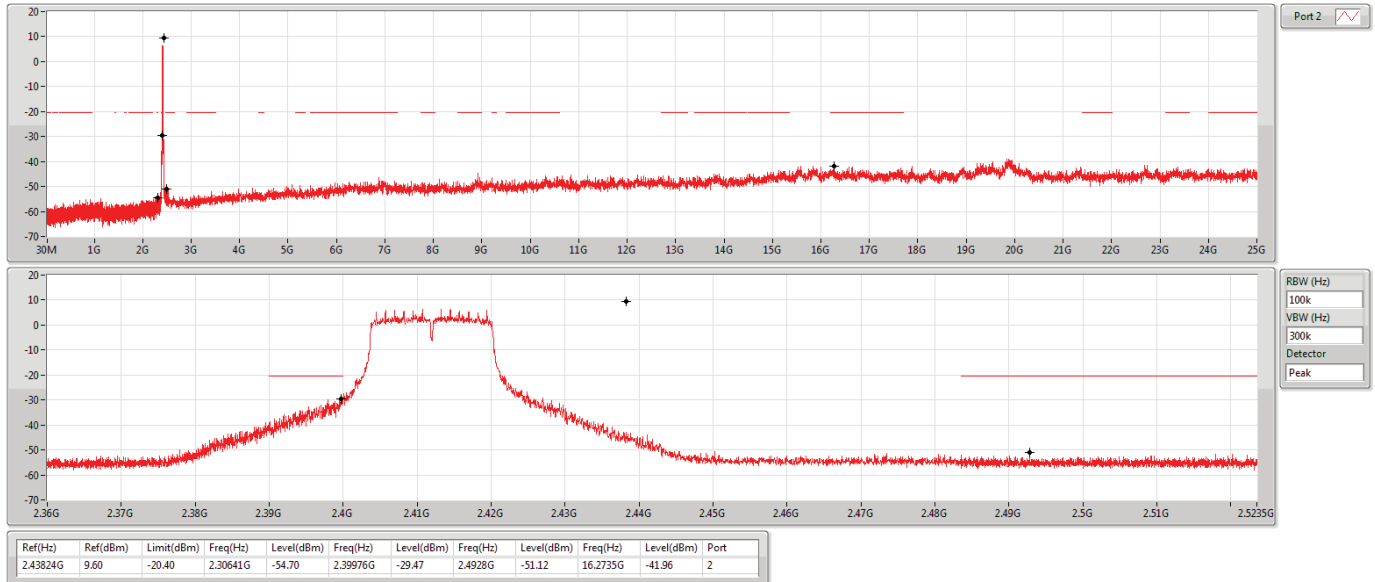
2462MHz



802.11g_Nss1,(6Mbps)_1TX(Port2)

CSE NdB

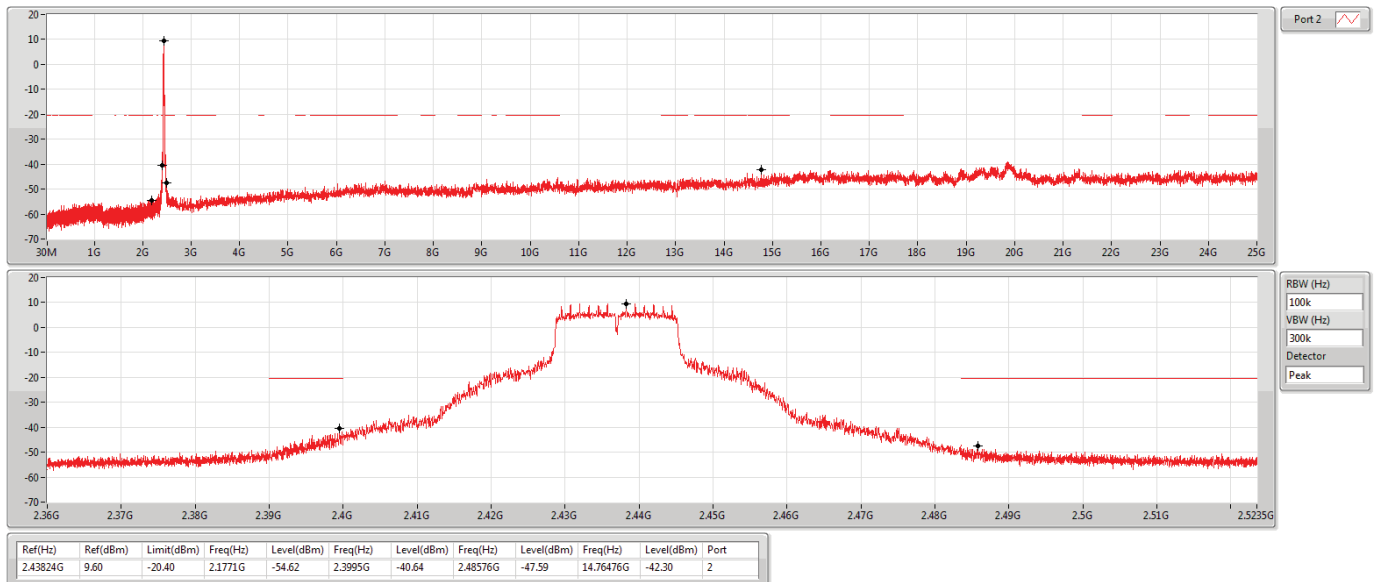
2412MHz



802.11g_Nss1,(6Mbps)_1TX(Port2)

CSE NdB

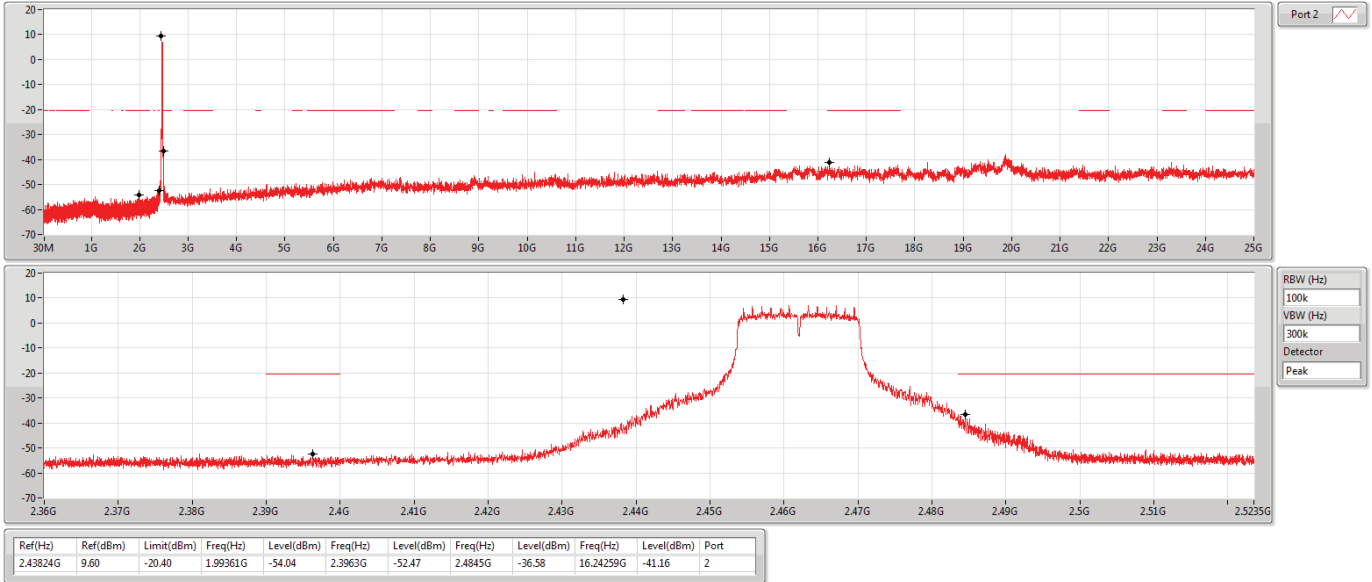
2437MHz



802.11g_Nss1,(6Mbps)_1TX(Port2)

CSE NdB

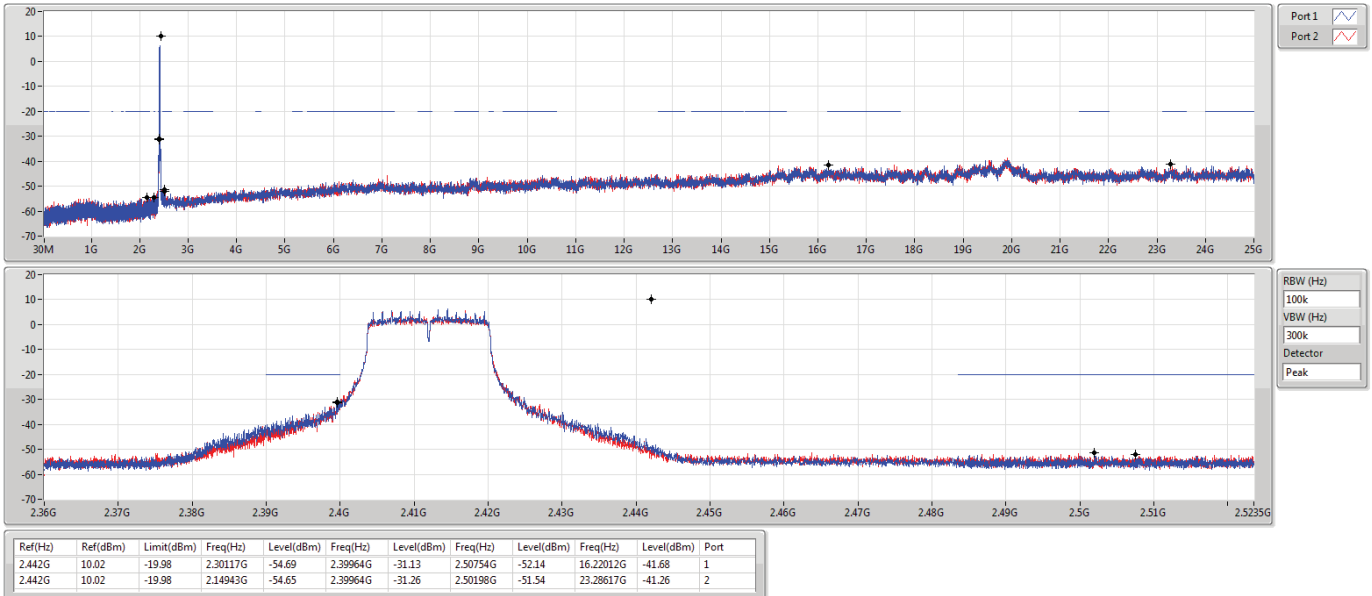
2462MHz



802.11g_Nss1,(6Mbps)_2TX

CSE NdB

2412MHz

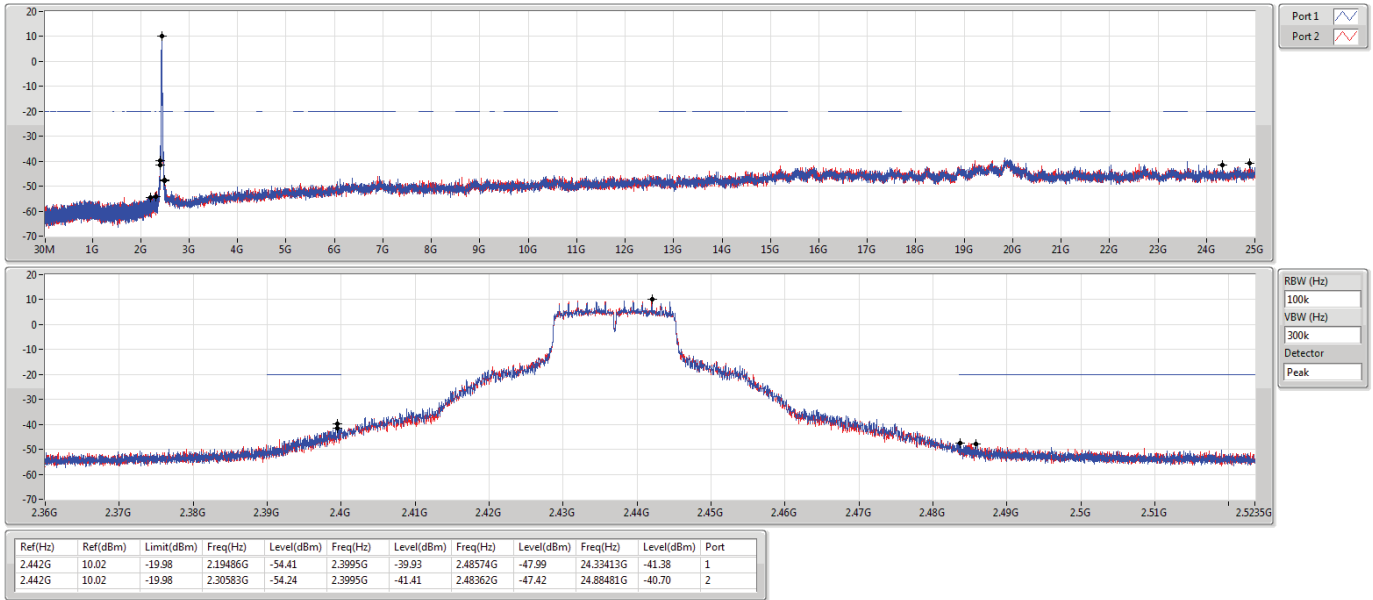


802.11g_Nss1,(6Mbps)_2TX

2437MHz

CSE NdB

25/06/2019



802.11g_Nss1,(6Mbps)_2TX

2462MHz

CSE NdB

25/06/2019

