

FCC Radio Test Report

FCC ID : QXO-AP3000
Equipment : Access Point
Brand Name :  Extreme
networks or Extreme Networks
Model Name : AP3000-WW, AP3000X-WW
Applicant : Extreme Networks, Inc.
2121 RDU Center Drive, Morrisville,
NC 27560, United States
Manufacturer : Extreme Networks, Inc.
2121 RDU Center Drive, Morrisville,
NC 27560, United States
Standard : 47 CFR FCC Part 15.407

The product was received on Apr. 07, 2022, and testing was started from Apr. 25, 2022 and completed on Sep. 12, 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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TEL : 886-3-3273456
FAX : 886-3-3270973
Report Template No.: HE1-D1 Ver4.5
FCC ID: QXO-AP3000

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	15.407(a)	Emission Bandwidth	PASS	-
3.3	15.407(a)	Maximum Conducted Output Power	PASS	-
3.4	15.407(a)	Peak Power Spectral Density	PASS	-
3.5	15.407(b)	Unwanted Emissions	PASS	-

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and explanations:

None

Reviewed by: Barry Hsiao

Report Producer: Ann Hou

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20), ax (HEW20)	5180-5240	36-48 [4]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40), ax (HEW40)	5190-5230	38-46 [2]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80), ax (HEW80)	5210	42 [1]
5725-5850		5775	155 [1]

Non-Beamforming Internal, Omni, Panel

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	1TX(Port2)
5.725-5.85GHz	802.11a	20	1TX(Port2)
5.15-5.25GHz	802.11a	20	2TX
5.725-5.85GHz	802.11a	20	2TX
5.15-5.25GHz	802.11ax HEW20	20	1TX(Port2)
5.725-5.85GHz	802.11ax HEW20	20	1TX(Port2)
5.15-5.25GHz	802.11ax HEW20	20	2TX
5.725-5.85GHz	802.11ax HEW20	20	2TX
5.15-5.25GHz	802.11ax HEW40	40	1TX(Port2)
5.725-5.85GHz	802.11ax HEW40	40	1TX(Port2)
5.15-5.25GHz	802.11ax HEW40	40	2TX
5.725-5.85GHz	802.11ax HEW40	40	2TX
5.15-5.25GHz	802.11ax HEW80	80	1TX(Port2)
5.725-5.85GHz	802.11ax HEW80	80	1TX(Port2)
5.15-5.25GHz	802.11ax HEW80	80	2TX
5.725-5.85GHz	802.11ax HEW80	80	2TX

Non-Beamforming_Dipole

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	1TX(Port1)
5.725-5.85GHz	802.11a	20	1TX(Port1)
5.15-5.25GHz	802.11a	20	2TX
5.725-5.85GHz	802.11a	20	2TX
5.15-5.25GHz	802.11ax HEW20	20	1TX(Port1)
5.725-5.85GHz	802.11ax HEW20	20	1TX(Port1)
5.15-5.25GHz	802.11ax HEW20	20	2TX
5.725-5.85GHz	802.11ax HEW20	20	2TX
5.15-5.25GHz	802.11ax HEW40	40	1TX(Port1)
5.725-5.85GHz	802.11ax HEW40	40	1TX(Port1)
5.15-5.25GHz	802.11ax HEW40	40	2TX
5.725-5.85GHz	802.11ax HEW40	40	2TX
5.15-5.25GHz	802.11ax HEW80	80	1TX(Port1)
5.725-5.85GHz	802.11ax HEW80	80	1TX(Port1)
5.15-5.25GHz	802.11ax HEW80	80	2TX
5.725-5.85GHz	802.11ax HEW80	80	2TX

Beamforming_Internal, Dipole, Omni, Panel

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11ax HEW20-BF	20	2TX
5.725-5.85GHz	802.11ax HEW20-BF	20	2TX
5.15-5.25GHz	802.11ax HEW40-BF	40	2TX
5.725-5.85GHz	802.11ax HEW40-BF	40	2TX
5.15-5.25GHz	802.11ax HEW80-BF	80	2TX
5.725-5.85GHz	802.11ax HEW80-BF	80	2TX

Note:

- 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40, VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- HEW20, HEW40, HEW80 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- BWch is the nominal channel bandwidth.

1.1.2 Antenna Information

Internal Antenna (AP3000)

Ant.	Brand	Model Name	Antenna Type	Connector	Remark
1	Senao	5718A0691300	PIFA	I-PEX	Radio 1_5G+ Radio 2_2.4G
2	Senao	5718A0690300	PIFA	I-PEX	Radio 1_5G+ Radio 2_2.4G
3	Senao	5718A0693300	PIFA	I-PEX	Radio 2_6E
4	Senao	5718A0692300	PIFA	I-PEX	Radio 2_6E
5	Senao	5718A0694300	PIFA	I-PEX	Radio 3_ BT+802.15.4

Ant.	Port	Gain (dBi)				
		2.4G	5G	6E	BT	802.15.4
1	1	4.40	5.14	-	-	-
2	2	4.38	5.13	-	-	-
3	1	-	-	5.22	-	-
4	2	-	-	5.21	-	-
5	1	-	-	-	4.02	4.02

Composite Gain (dBi)			
2.4G		5G	
2T1S	2T2S	2T1S	2T2S
5.85	2.85	4.95	2.52

Note 1: The EUT has five antennas.

For 2.4GHz function:

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

Support diversity function and pre-tested on each single chain, the worst case was Ant. 2(port 2) and it was recorded in this test report.

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

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.

For 5GHz function:

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

Support diversity function and pre-tested on each single chain, the worst case was Ant. 2(port 2) and it was recorded in this test report.

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

Ant. 1 (port 1) and Ant. 2 (port 2) could transmit/receive simultaneously.

For 6GHz function:

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

Support diversity function and pre-tested on each single chain, the worst case was Ant. 4(port 2) and it was recorded in this test report.

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

Ant. 3 (port 1) and Ant. 4 (port 2) could transmit/receive simultaneously.

For BT function:

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

Ant. 5 (port 1) could transmit/receive.

For 802.15.4 function:

For IEEE 802.15.4 mode (1TX/1RX)

Ant. 5 (port 1) could transmit/receive.

External Antenna (AP3000X)

Ant.	Brand	Model Name	Antenna Type	Connector	Remark
1	WNC	ML2452-APA2-02	Dipole	Reverse SMA	Radio 1_5G+ Radio 2_2.4G
2	WNC	ML2452-APA2-02	Dipole	Reverse SMA	Radio 1_5G+ Radio 2_2.4G
3	AWAN	7102A0545000	Dipole	Reverse SMA	Radio 1_5G+ Radio 2_2.4G
4	AWAN	7102A0545000	Dipole	Reverse SMA	Radio 1_5G+ Radio 2_2.4G
5	Extreme	ML-2452-HPAG5A8-01	Omni	N-type	Radio 1_5G+ Radio 2_2.4G
6	Extreme	ML-2452-HPAG5A8-01	Omni	N-type	Radio 1_5G+ Radio 2_2.4G
7	MARS	MA-WC2458-2H	Panel	Reverse SMA	Radio 1_5G+ Radio 2_2.4G
8	AWAN	7102A0547000	Dipole	I-Pex	Radio 2_6E
9	AWAN	7102A0546000	Dipole	I-Pex	Radio 2_6E
10	Senao	5718A0694300	PIFA	I-Pex	Radio 3_ BT+802.15.4
11	Ventev	M603004001D3620DP	Panel	Reverse SMA	Radio 1_5G+ Radio 2_2.4G
12	Ventev	M604006002D2402	Panel	Reverse SMA	Radio 1_5G+ Radio 2_2.4G

Ant.	Gain (dBi)				
	2.4G	5G	6E	BT	802.15.4
1	3.04	4.96	-	-	-
2	3.04	4.96	-	-	-
3	3.23	5.22	-	-	-
4	3.23	5.22	-	-	-
5	5	8	-	-	-
6	5	8	-	-	-
7	7.5	7.5	-	-	-
8	-	-	5.49	-	-
9	-	-	5.49	-	-
10	-	-	-	4.02	4.02
11	2.94	4.62	-	-	-
12	2.97	4.94	-	-	-

Note 1: The EUT has ten antennas.

Note 2: The antenna mentioned above will not be sold with the EUT in the market. (except Dipole Antenna_7102A0545000)



Note 3: EUT can match with above antennas for using. Higher gain in each type of antenna was used to perform the worst configuration and result of that was recorded as the final test result.

For 2.4GHz function:

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

Support diversity function and pre-tested on each single chain, the worst case was Ant. 3 (port 1), Ant. 5 (port 1), Ant. 7 (port 1) and it was recorded in this test report.

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

Ant. 1~2, Ant. 3~4, Ant. 5~6, Ant. 7, Ant 11, Ant 12 could transmit/receive simultaneously.

For 5GHz function:

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

Support diversity function and pre-tested on each single chain, the worst case was Ant. 3 (port 1), Ant. 6 (port 2), Ant. 7 (port 2) and it was recorded in this test report.

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

Ant. 1~2, Ant. 3~4, Ant. 5~6 Ant. 7, Ant 11, Ant 12 could transmit/receive simultaneously.

For 6GHz function:

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

Support diversity function and pre-tested on each single chain, the worst case was Ant. 9 (port 2) and it was recorded in this test report.

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

Ant. 8 and Ant. 9 could transmit/receive simultaneously.

For BT function:

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

Ant. 10 could transmit/receive.

For 802.15.4 function:

For IEEE 802.15.4 mode (1TX/1RX)

Ant. 10 could transmit/receive.

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From AC Adapter		
EUT Function	☐ Outdoor AP	☒	Indoor AP
	☐ Fixed P2P AP	☐	Client
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

Non-Beamforming_Internal

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a_Nss1,(6Mbps)_1TX(Port2)	0.979	0.09	4.464m	300
802.11a_Nss1,(6Mbps)_2TX	0.979	0.09	4.464m	300
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW20_Nss2,(MCS0)_2TX	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW40_Nss2,(MCS0)_2TX	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW80_Nss2,(MCS0)_2TX	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)

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

Non-Beamforming_Dipole

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a_Nss1,(6Mbps)_1TX(Port1)	0.979	0.09	4.064m	300
802.11a_Nss1,(6Mbps)_2TX	0.979	0.09	4.064m	300
802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW20_Nss2,(MCS0)_2TX	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW40_Nss2,(MCS0)_2TX	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW80_Nss1,(MCS0)_1TX(Port1)	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW80_Nss2,(MCS0)_2TX	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)

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

Non-Beamforming_Omni

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a_Nss1,(6Mbps)_1TX(Port2)	0.979	0.09	4.464m	300
802.11a_Nss1,(6Mbps)_2TX	0.979	0.09	4.464m	300
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW20_Nss2,(MCS0)_2TX	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW40_Nss2,(MCS0)_2TX	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW80_Nss2,(MCS0)_2TX	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)

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

Non-Beamforming_Panel

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a_Nss1,(6Mbps)_1TX(Port2)	0.979	0.09	4.464m	300
802.11a_Nss1,(6Mbps)_2TX	0.979	0.09	4.464m	300
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW20_Nss2,(MCS0)_2TX	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW40_Nss2,(MCS0)_2TX	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW80_Nss2,(MCS0)_2TX	0.994	0.03	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)

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

Beamforming_Internal

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.947	0.24	2.925m	1k
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.958	0.19	4.357m	300
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	0.968	0.14	4.141m	300

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

Beamforming_Dipole

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.954	0.2	2.925m	1k
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.953	0.21	4.357m	300
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	0.956	0.2	4.141m	300

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

Beamforming_Omni

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.954	0.2	2.925m	1k
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.953	0.21	4.357m	300
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	0.956	0.2	4.141m	300

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

Beamforming_Panel

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.954	0.2	2.925m	1k
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.953	0.21	4.357m	300
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	0.956	0.2	4.141m	300

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

1.1.5 Table for Multiple Listing

The model names in the following table are all refer to the identical product.

Model Name	Description
AP3000-WW, AP3000X-WW	The "X" in AP3000X-WW SKU indicates that it comes with external antenna

1.2 Testing Applied Standards

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

- ♦ 47 CFR FCC Part 15
- ♦ ANSI C63.10-2013
- ♦ KDB 789033 D02 v02r01

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

- ♦ KDB 662911 D01 v02r01
- ♦ KDB 662911 D03 v01
- ♦ 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	CO01-HY	Jack	22.0~22.5°C / 55~57%	12/May/2022~13/May/2022
RF Conducted	TH01-HY	Johnny	22.3~25.6°C / 51~60%	09/May/2022~12/Sep/2022
Radiated	03CH02-HY	Lego	21.5~22.3°C / 51~56%	25/Apr/2022~06/Sep/2022
Radiated (Co-location)	03CH03-HY	Edward	21.5~22.3°C / 51~56%	22/Aug/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.				

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
AC Power-line Conducted Emissions	4.53 dB	Confidence levels of 95%
Emission Bandwidth	3 MHz	Confidence levels of 95%
Maximum Conducted Output Power	2 dB	Confidence levels of 95%
Power Spectral Density	2 dB	Confidence levels of 95%
Unwanted Emissions	4.8 dB	Confidence levels of 95%
Receiver Radiated Unwanted Emissions	4.8 dB	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Non-Beamforming

Test Software Version	accessMTool_REL_3_2_1_5
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Non-Beamforming_Internal

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX(Port2)	-
5180MHz	81
5200MHz	93
5240MHz	90
5745MHz	95
5785MHz	108
5825MHz	108
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	82
5200MHz	94
5240MHz	88
5745MHz	90
5785MHz	108
5825MHz	108
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	-
5180MHz	76
5200MHz	90
5240MHz	89
5745MHz	92
5785MHz	108
5825MHz	108
802.11ax HEW20_Nss2,(MCS0)_2TX	-
5180MHz	76
5200MHz	89
5240MHz	86
5745MHz	89
5785MHz	108
5825MHz	108
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	-
5190MHz	61
5230MHz	83



Mode	Power Setting
5755MHz	84
5795MHz	91
802.11ax HEW40_Nss2,(MCS0)_2TX	-
5190MHz	65
5230MHz	85
5755MHz	88
5795MHz	93
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	-
5210MHz	59
5775MHz	76
802.11ax HEW80_Nss2,(MCS0)_2TX	-
5210MHz	60
5775MHz	77

Non-Beamforming_Dipole

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX(Port1)	-
5180MHz	83
5200MHz	97
5240MHz	96
5745MHz	96
5785MHz	95
5825MHz	104
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	69
5200MHz	86
5240MHz	90
5745MHz	93
5785MHz	94
5825MHz	95
802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)	-
5180MHz	78
5200MHz	92
5240MHz	95
5745MHz	96
5785MHz	95
5825MHz	96
802.11ax HEW20_Nss2,(MCS0)_2TX	-



Mode	Power Setting
5180MHz	70
5200MHz	85
5240MHz	89
5745MHz	92
5785MHz	92
5825MHz	93
802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)	-
5190MHz	64
5230MHz	86
5755MHz	93
5795MHz	98
802.11ax HEW40_Nss2,(MCS0)_2TX	-
5190MHz	60
5230MHz	82
5755MHz	87
5795MHz	93
802.11ax HEW80_Nss1,(MCS0)_1TX(Port1)	-
5210MHz	53
5775MHz	78
802.11ax HEW80_Nss2,(MCS0)_2TX	-
5210MHz	60
5775MHz	73

Non-Beamforming_Omni

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX(Port2)	-
5180MHz	75
5200MHz	86
5240MHz	90
5745MHz	93
5785MHz	93
5825MHz	94
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	69
5200MHz	86
5240MHz	86
5745MHz	92
5785MHz	94



Mode	Power Setting
5825MHz	95
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	-
5180MHz	71
5200MHz	82
5240MHz	86
5745MHz	92
5785MHz	92
5825MHz	93
802.11ax HEW20_Nss2,(MCS0)_2TX	-
5180MHz	69
5200MHz	85
5240MHz	85
5745MHz	91
5785MHz	92
5825MHz	95
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	-
5190MHz	58
5230MHz	79
5755MHz	86
5795MHz	92
802.11ax HEW40_Nss2,(MCS0)_2TX	-
5190MHz	59
5230MHz	81
5755MHz	84
5795MHz	91
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	-
5210MHz	57
5775MHz	73
802.11ax HEW80_Nss2,(MCS0)_2TX	-
5210MHz	58
5775MHz	69

Non-Beamforming_Panel

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX(Port2)	-
5180MHz	80
5200MHz	93
5240MHz	86



Mode	Power Setting
5745MHz	93
5785MHz	104
5825MHz	104
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	80
5200MHz	89
5240MHz	86
5745MHz	92
5785MHz	104
5825MHz	104
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	-
5180MHz	75
5200MHz	90
5240MHz	86
5745MHz	92
5785MHz	104
5825MHz	104
802.11ax HEW20_Nss2,(MCS0)_2TX	-
5180MHz	76
5200MHz	88
5240MHz	85
5745MHz	92
5785MHz	104
5825MHz	104
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	-
5190MHz	69
5230MHz	82
5755MHz	89
5795MHz	100
802.11ax HEW40_Nss2,(MCS0)_2TX	-
5190MHz	65
5230MHz	82
5755MHz	89
5795MHz	92
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	-
5210MHz	70
5775MHz	83
802.11ax HEW80_Nss2,(MCS0)_2TX	-



Mode	Power Setting
5210MHz	63
5775MHz	77

Beamforming

Test Software Version	Dos 6.1
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Beamforming_Internal

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
5180MHz	77
5200MHz	88
5240MHz	89
5745MHz	89
5785MHz	99
5825MHz	99
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
5190MHz	61
5230MHz	90
5755MHz	87
5795MHz	93
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-
5210MHz	61
5775MHz	74

Beamforming_Dipole

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
5180MHz	70
5200MHz	87
5240MHz	87
5745MHz	90
5785MHz	89
5825MHz	89
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
5190MHz	60
5230MHz	84
5755MHz	83
5795MHz	86
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-



Mode	Power Setting
5210MHz	60
5775MHz	70

Beamforming_Omni

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
5180MHz	68
5200MHz	84
5240MHz	86
5745MHz	83
5785MHz	83
5825MHz	89
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
5190MHz	58
5230MHz	82
5755MHz	82
5795MHz	86
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-
5210MHz	57
5775MHz	68

Beamforming_Panel

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
5180MHz	74
5200MHz	74
5240MHz	87
5745MHz	85
5785MHz	85
5825MHz	97
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
5190MHz	63
5230MHz	63
5755MHz	85
5795MHz	88
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-
5210MHz	60
5775MHz	75

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

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Conducted Output Power Peak Power Spectral Density
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests			
Tests Item	Unwanted Emissions		
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		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT	V (Internal_1TX)	V (Internal_2TX)	V (External)

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Test Condition	Radiated measurement
Operating Mode	CTX
1	5GHz WLAN + 2.4GHz WLAN + Bluetooth
2	5GHz WLAN + 6GHz WLAN + Bluetooth
3	5GHz WLAN + 2.4GHz WLAN + 802.15.4
4	5GHz WLAN + 6GHz WLAN + 802.15.4
Refer to Sporton Test Report No.: FA232478 for Co-location RF Exposure Evaluation and Appendix F for Radiated Emission Co-location.	

2.3 Accessories

Accessories				
SPECIAL WALL BKT	Brand Name	COMING	Model Name	6309Aq493000
Antenna (For AP3000X)	Brand Name	AWAN	Model Name	7102A0545000

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

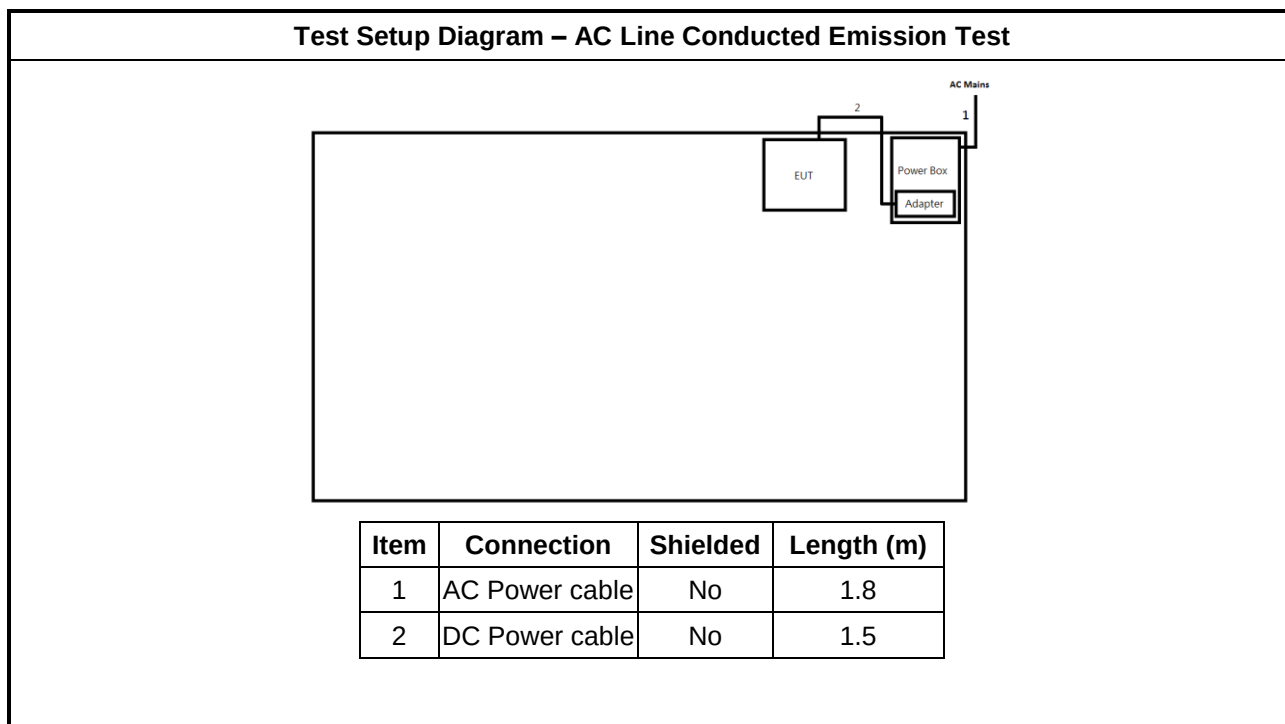
2.4 Support Equipment

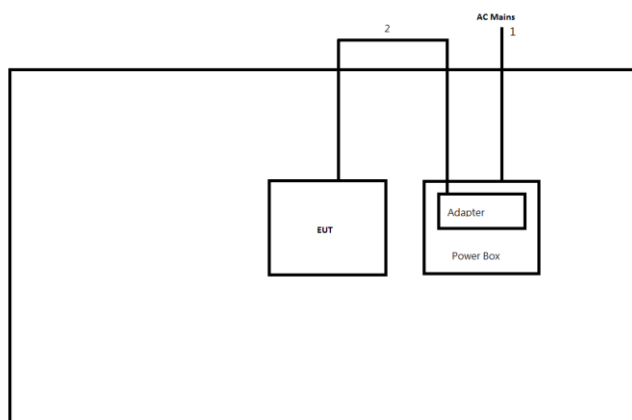
Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	AC Power Cable	Power sync	PW-GPC180-3	-	-
2	AC Adapter	Powertron Electronics Corp.	PA1024-120IB200	-	-

Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-
3	AC Adapter	Powertron Electronics Corp.	PA1024-120IB200	-	-

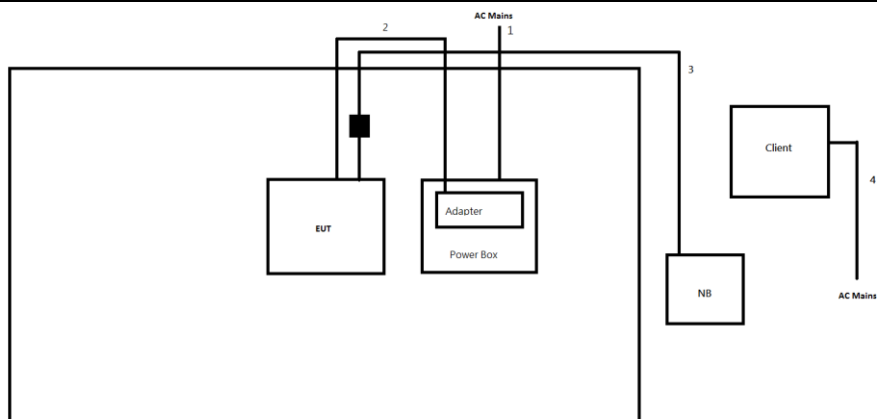
Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	HP	5220M	-	-
2	Adapter for NB	HP	PPP012L-E	-	-
3	Adapter	Powertron Electronics Corp.	PA1024-120IB200	-	-
4	Omni Antenna	Extreme	ML-2452-HPAG5A8-01	-	-
5	Panel Antenna	MARS	MA-WC2458-2H	-	-

2.5 Test Setup Diagram

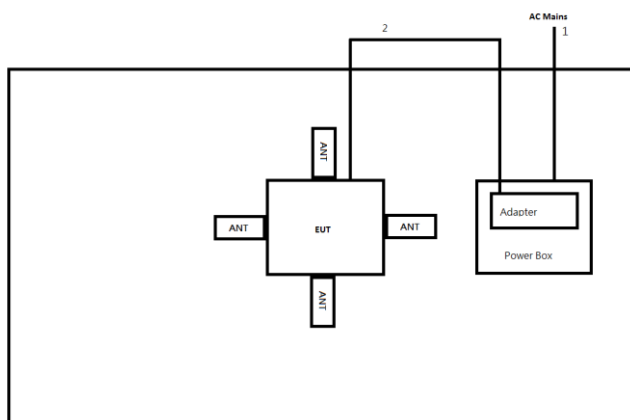


Test Setup Diagram - Radiated Test (Non-Beamforming_Internal)


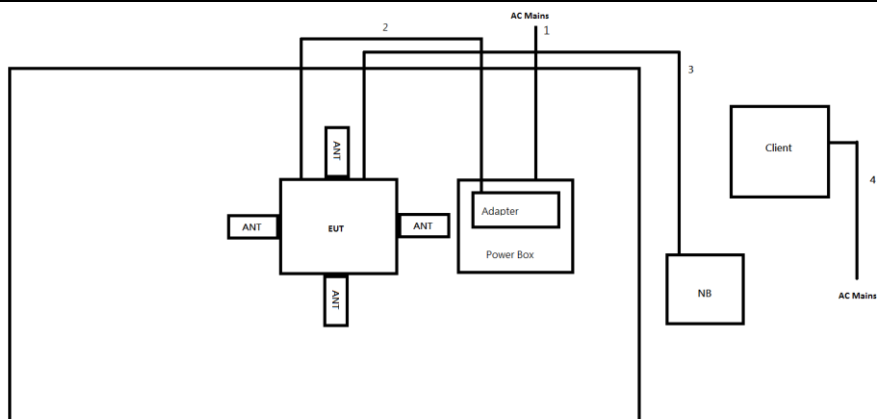
Item	Connection	Shielded	Length (m)
1	AC Power cable	No	1.8
2	DC Power cable	No	1.5

Test Setup Diagram - Radiated Test (Beamforming_Internal)


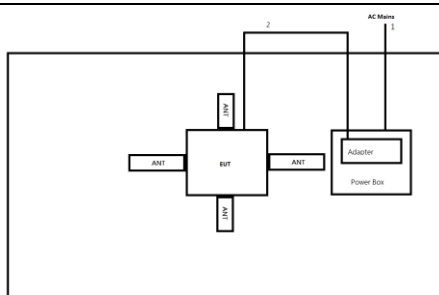
Item	Connection	Shielded	Length (m)
1	AC Power cable	No	1.8
2	DC Power cable	No	1.5
3	RJ45 Cable	No	10.0
4	DC Power cable	No	1.5

Test Setup Diagram - Radiated Test (Non-Beamforming_Dipole)


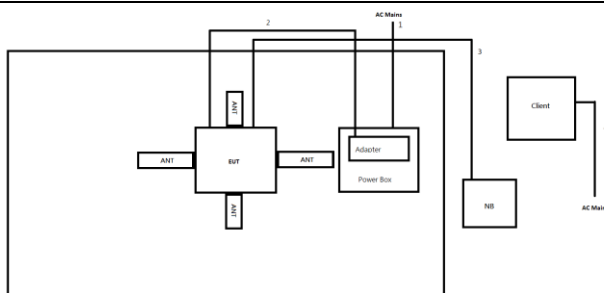
Item	Connection	Shielded	Length (m)
1	AC Power cable	No	1.8
2	DC Power cable	No	1.5

Test Setup Diagram - Radiated Test (Beamforming_Dipole)


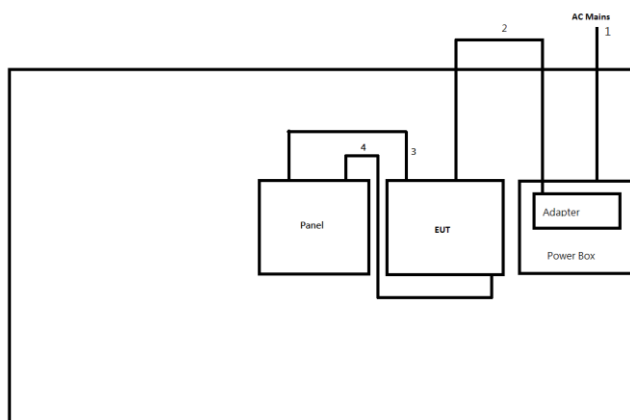
Item	Connection	Shielded	Length (m)
1	AC Power cable	No	1.8
2	DC Power cable	No	1.5
3	RJ45 Cable	No	10.0
4	DC Power cable	No	1.5

Test Setup Diagram - Radiated Test (Non-Beamforming_Omni)


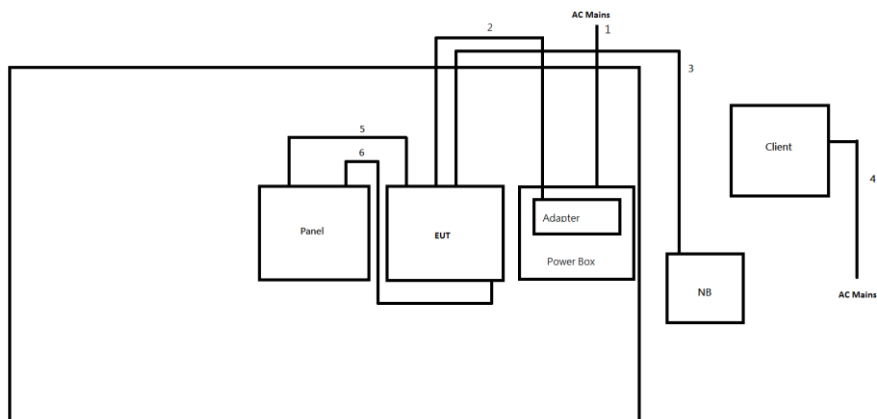
Item	Connection	Shielded	Length (m)
1	AC Power cable	No	1.8
2	DC Power cable	No	1.5

Test Setup Diagram - Radiated Test (Beamforming_Omni)


Item	Connection	Shielded	Length (m)
1	AC Power cable	No	1.8
2	DC Power cable	No	1.5
3	RJ45 Cable	No	10.0
4	DC Power cable	No	1.5

Test Setup Diagram - Radiated Test (Non-Beamforming_Panel)


Item	Connection	Shielded	Length (m)
1	AC Power cable	No	1.8
2	DC Power cable	No	1.5
3	RF Cable	No	1.0
4	RF Cable	No	1.0

Test Setup Diagram - Radiated Test (Beamforming_Panel)


Item	Connection	Shielded	Length (m)
1	AC Power cable	No	1.8
2	DC Power cable	No	1.5
3	RJ45 Cable	No	10.0
4	DC Power cable	No	1.5
5	RF Cable	No	1.0
6	RF Cable	No	1.0

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

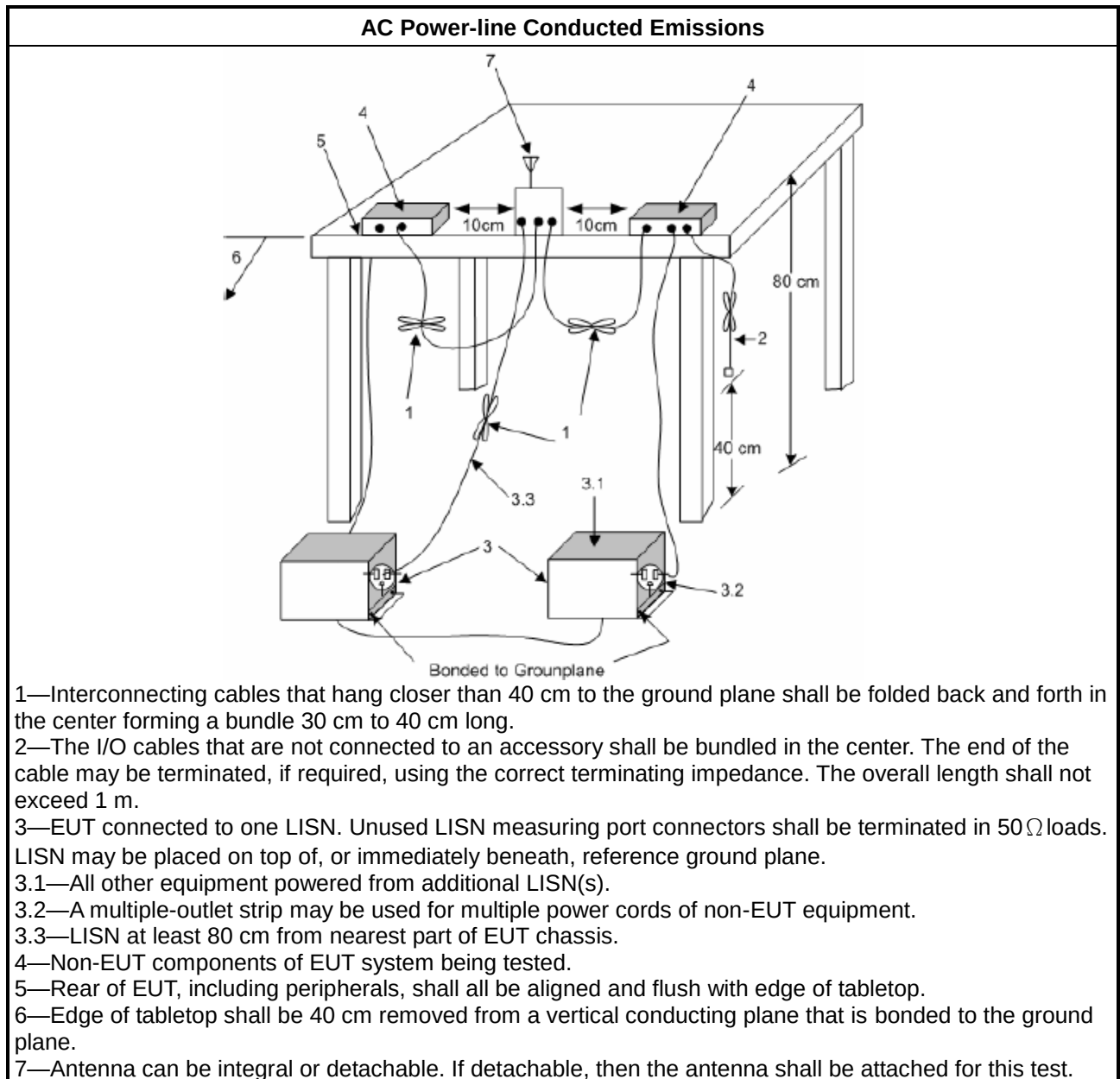
Test Method
☒ Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

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 Emission Bandwidth

3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
☒	For the 5.15-5.25 GHz band, N/A
☐	For the 5.25-5.35 GHz band, N/A
☐	For the 5.47-5.725 GHz band, N/A
☒	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.

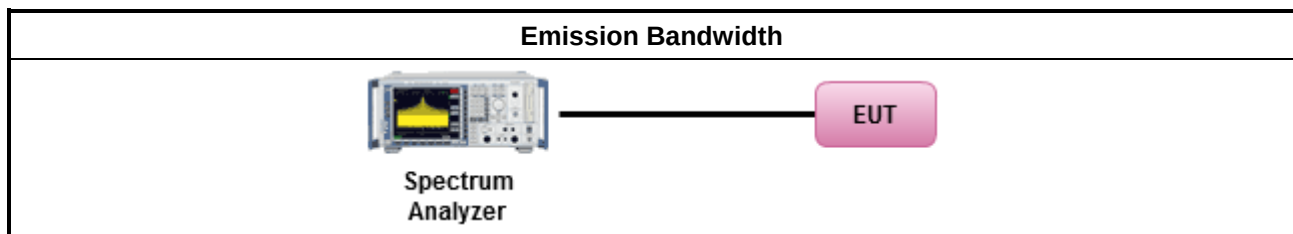
3.2.2 Measuring Instruments

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 789033, clause C for EBW and clause D for OBW measurement.
☐	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.
☐	Refer as IC RSS-Gen, clause 6.7 for 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	
UNII Devices	
☒	For the 5.15-5.25 GHz band:
☐	- Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. e.i.r.p. at any elevation angle above 30 degrees ≤ 125mW [21dBm] - Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ - Point-to-point AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 23$ dBi, then $P_{Out} = 30 - (G_{TX} - 23)$. - Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
☐	For the 5.25-5.35 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
☐	For the 5.47-5.725 GHz band, the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
☒	For the 5.725-5.85 GHz band:
☐	- Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. - Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
P_{Out} = maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

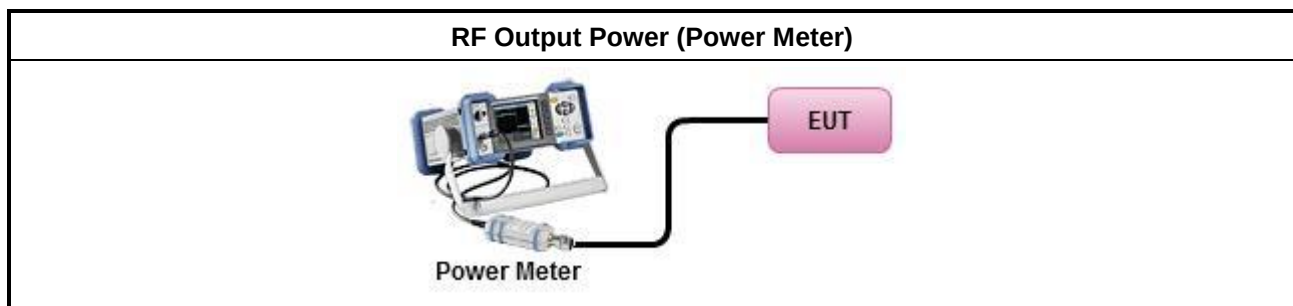
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
Maximum Conducted Output Power	
	Duty cycle $\geq 98\%$
☐	Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).
	Duty cycle $< 98\%$
☐	Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods with duty factor
☒	Refer as KDB 789033, clause E Method PM (using an RF average 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 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
☒ For the 5.15-5.25 GHz band:	
	Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.
	Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 17 - (G_{TX} - 6)$.
	Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If $G_{TX} > 23$ dBi, then $P_{Out} = 17 - (G_{TX} - 23)$.
	Mobile or Portable Client: the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.
☐ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☐ For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$.	
☒ For the 5.725-5.85 GHz band:	
	Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If $G_{TX} > 6$ dBi, then $PPSD = 30 - (G_{TX} - 6)$.
	Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.
PPSD = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz G_{TX} = the maximum transmitting antenna directional gain in dBi.	

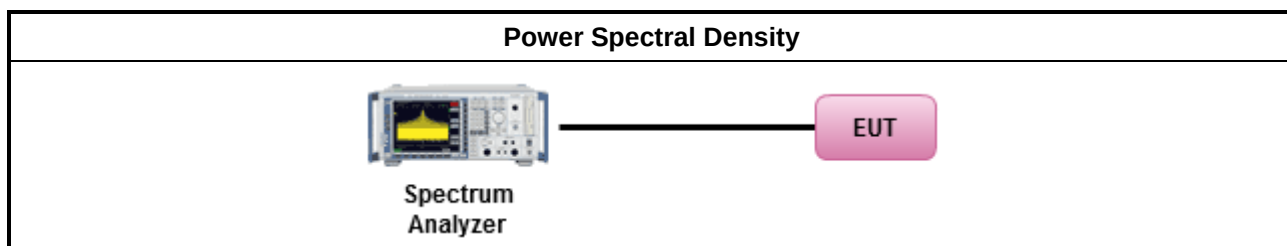
3.4.2 Measuring Instruments

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 shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:	
☐ Refer as KDB 789033, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth Duty cycle ≥ 98%	
☒ Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging). Duty cycle < 98%	
☒ Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)	
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.	
If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$	

3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D

3.5 Unwanted Emissions

3.5.1 Transmitter Radiated Unwanted Emissions Limit

Unwanted emissions below 1 GHz and restricted band emissions above 1GHz 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.

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.85 GHz	5.650-5700 GHz: e.i.r.p. -27 ~ 10 dBm [68.2 ~ 105.2 dBuV/m@3m] 5.700-5720 GHz: e.i.r.p. 10 ~ 15.6 dBm [105.2 ~ 110.8 dBuV/m@3m] 5.720-5725 GHz: e.i.r.p. 15.6 ~ 27 dBm [110.8 ~ 122.2 dBuV/m@3m] 5.850-5.855 GHz: e.i.r.p. 27 ~ 15.6 dBm [122.2 ~ 110.8 dBuV/m@3m] 5.855-5.875 GHz: e.i.r.p. 15.6 ~ 10 dBm [110.8 ~ 105.2 dBuV/m@3m] 5.875-5.925 GHz: e.i.r.p. 10 ~ -27 dBm [105.2 ~ 68.2dBuV/m@3m] Other un-restricted band: e.i.r.p. -27 dBm [68.2 dBuV/m@3m]

Note 1: 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).

3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

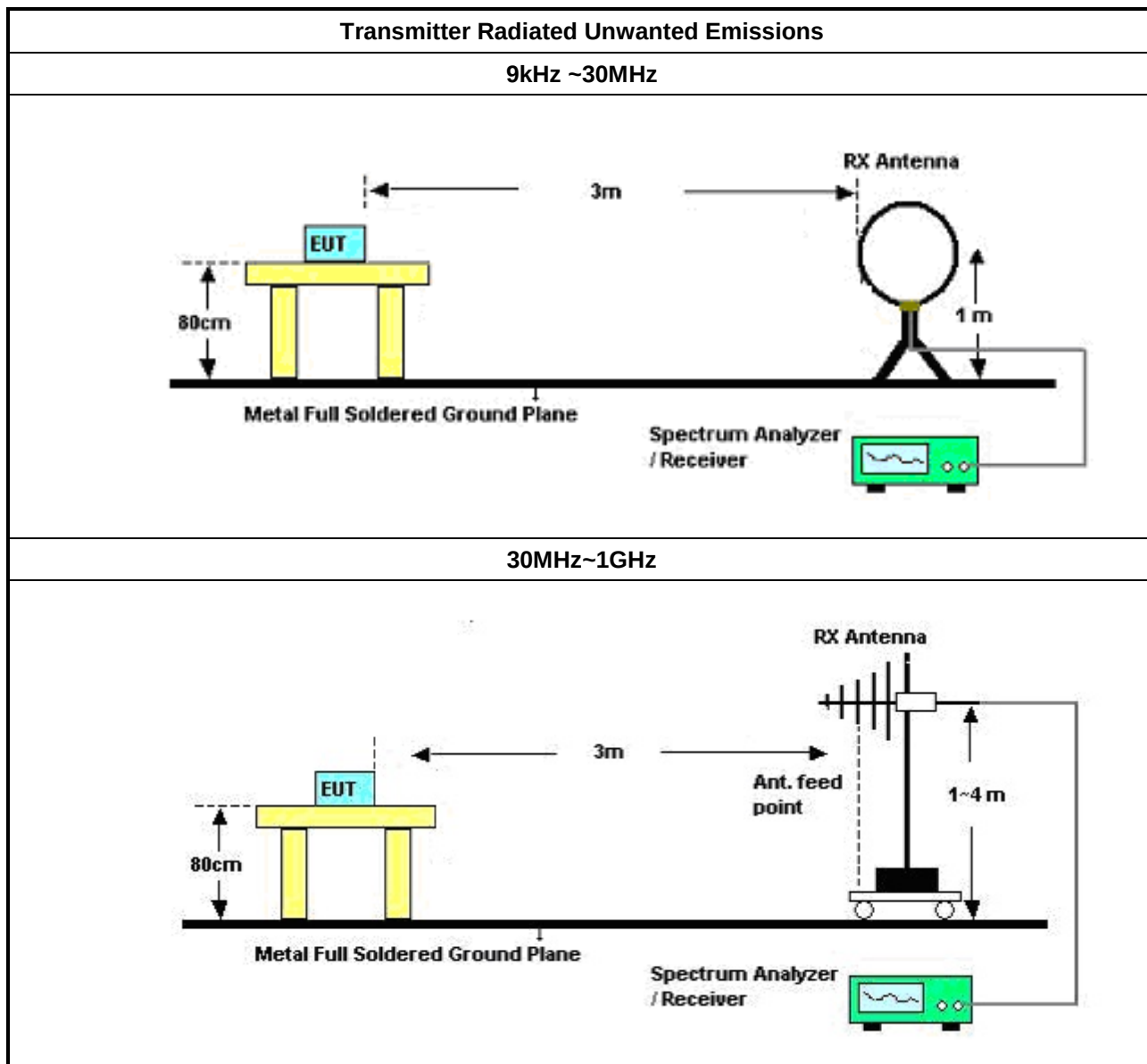
Test Method	
Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. 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).	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.
	Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.
☒	Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.
☒	Refer as KDB 789033, clause G)5) (ANSI C63.10, clause 4.1.4.2.2), measurement procedure peak limit.
For radiated measurement.	
	Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.
	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
The any unwanted emissions level shall not exceed the fundamental emission level.	
All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.	
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.

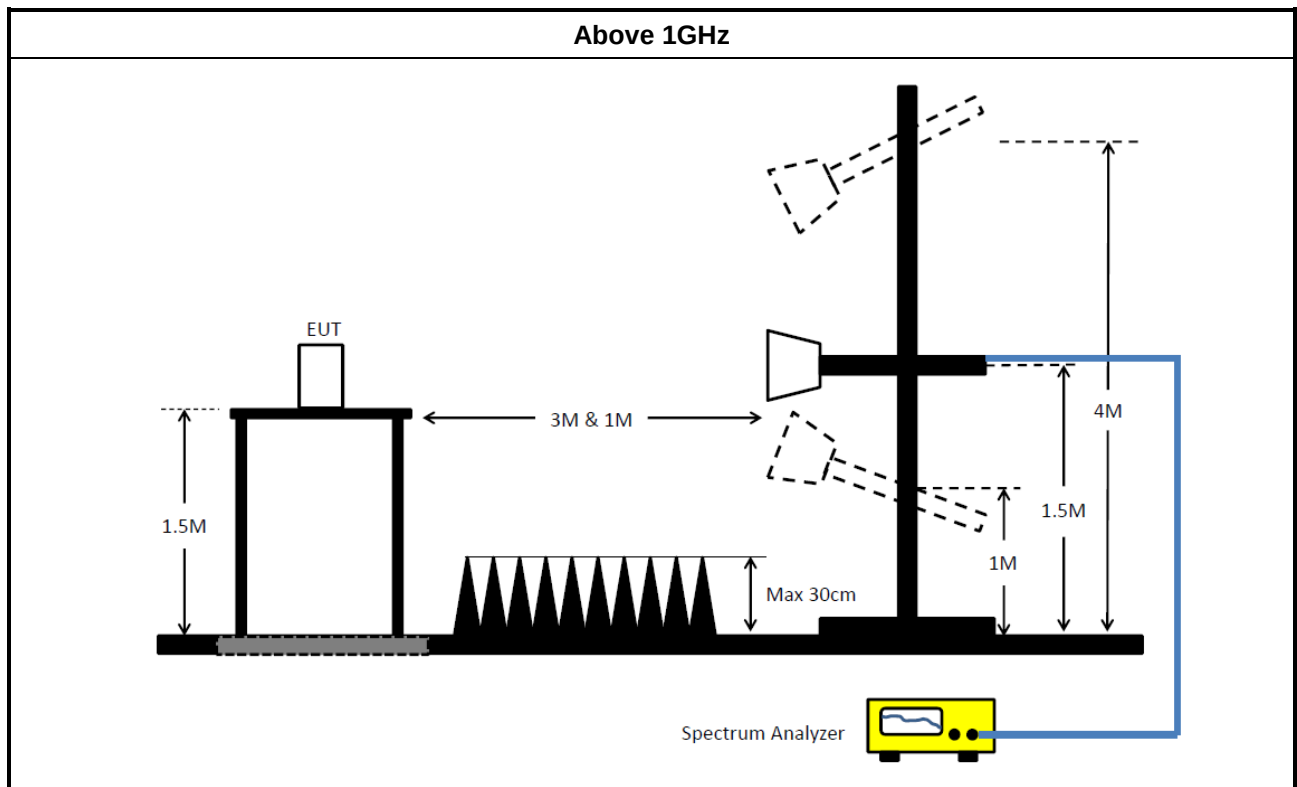
3.5.4 Measurement Results Calculation

The measured Level is calculated using:

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

3.5.5 Test Setup





3.5.6 Transmitter Unwanted Emissions (Below 30MHz)

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

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR	102052	9kHz ~ 3.6GHz	02/Jun/2021	01/Jun/2022
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	12/Jan/2022	11/Jan/2023
Cable	MTJ	RG 142	CO01-cable-01	9 kHz ~ 1GHz	12/Jul/2021	11/Jul/2022
Pulse Limiter	R&S	EHS3-Z2	100920	9kHz ~ 30MHz	29/Oct/2021	28/Oct/2022
Software	Sporton	SENSE-EMI	V5.10.7	-	NCR	NCR

NCR: No Calibration Required

Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101013	10Hz~40GHz	01/Apr/2022	31/Mar/2023
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	21/Oct/2021	20/Oct/2022
Pulse Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	21/Feb/2022	20/Feb/2023
Power Meter	Anritsu	ML2495A	0949003	300MHz~40GHz	21/Feb/2022	20/Feb/2023
SENSE-15407_NII	Sporton	V5.10.8.5	N/A	N/A	N/A	N/A

**Instrument for Radiated Test**

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz~1GHz 3m	02/Aug/2021	01/Aug/2022
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3m	01/Aug/2021	31/Jul/2022
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz~1GHz 3m	31/Jul/2022	30/Jul/2023
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3m	30/Jul/2022	29/Jul/2023
Signal Analyzer	R&S	FSP40	100593	9kHz~40GHz	08/Apr/2022	07/Apr/2023
Amplifier	Agilent	8447D	2944A11149	100kHz~1.3GHz	29/Jun/2021	28/Jun/2022
Amplifier	Agilent	8447D	2944A11149	100kHz~1.3GHz	28/Jun/2022	27/Jun/2023
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~26.5GHz	03/Nov/2021	02/Nov/2022
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02268	1GHz ~18GHz	14/Sep/2021	13/Sep/2022
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz~1GHz	04/Sep/2021	03/Sep/2022
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 01543	1GHz~18GHz	04/Jun/2021	03/Jun/2022
RF Cable	MVE	400LL	MVE-1-0802	9kHz~30MHz	04/May/2022	03/May/2023
RF Cable	MVE	400LL	MVE-1-0802	30MHz~1GHz	04/May/2022	03/May/2023
RF Cable-R03m	HUBER+SUHNER	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
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	18/Mar/2022	17/Mar/2023
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	02/Jun/2021	01/Jun/2022
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	13/May/2022	12/May/2023
SENSE-15407_NII	Sporton	V5.10.8.1	N/A	N/A	N/A	N/A

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	03CH03-HY	1GHz~18GHz 3m	02/Aug/2022	01/Aug/2023
Signal Analyzer	R&S	FSV40	101500	10Hz~40GHz	12/Oct/2021	11/Oct/2022
Microwave Preamplifier	Agilent	8449BA	3008A02326	1 GHz ~ 26.5 GHz	14/Jul/2022	13/Jul/2023
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02267	1GHz ~18GHz	14/Sep/2021	13/Sep/2022
RF CABLE 5+6m	HUBER+SUHNER	SUOFLEX 104	03CH03-cable-01	1GHz~40GHz	27/Jul/2022	26/Jul/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	V5.10.8.6	NA	NA	NA	NA



Conducted Emissions at Powerline

Appendix A

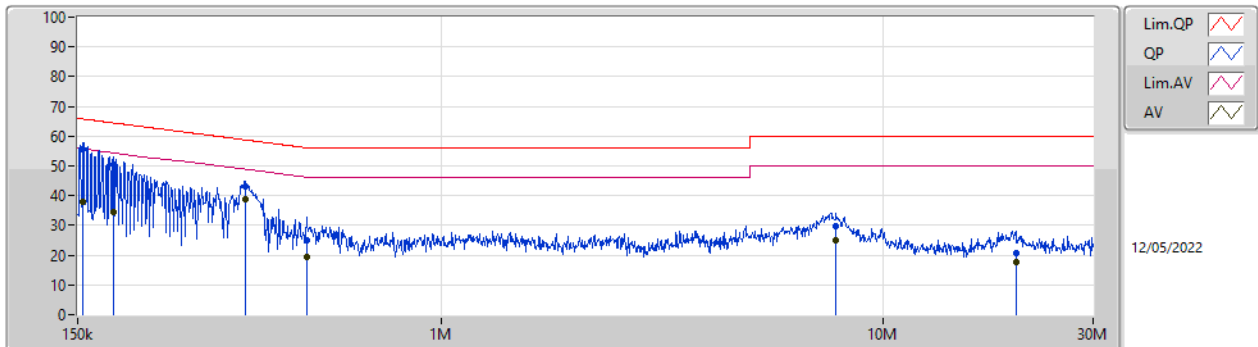
Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	154.868k	55.98	65.73	-9.75	Neutral

Mode Configure

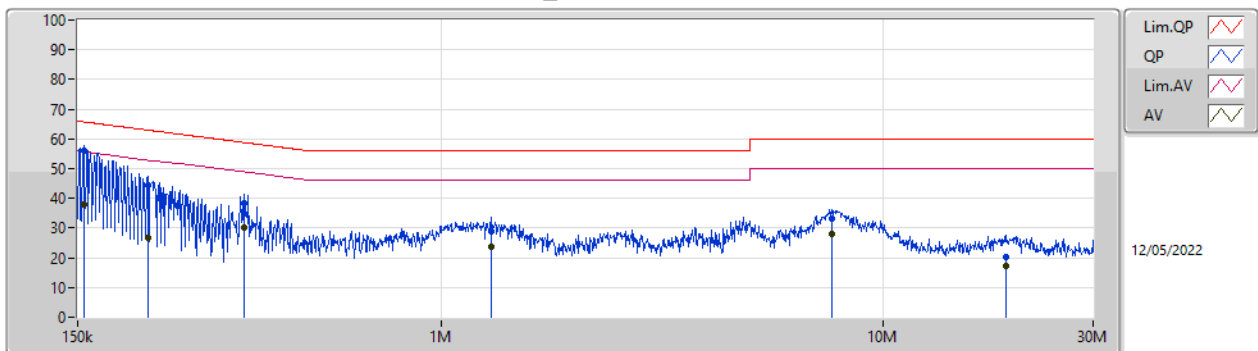
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	154.251k	55.63	65.77	-10.14	Line	-
Mode 1	Pass	AV	154.251k	38.01	55.77	-17.76	Line	-
Mode 1	Pass	QP	180.957k	50.52	64.43	-13.91	Line	-
Mode 1	Pass	AV	180.957k	34.52	54.43	-19.91	Line	-
Mode 1	Pass	QP	359.562k	42.96	58.73	-15.77	Line	-
Mode 1	Pass	AV	359.562k	38.95	48.73	-9.78	Line	-
Mode 1	Pass	QP	494.848k	25.11	56.10	-30.99	Line	-
Mode 1	Pass	AV	494.848k	19.42	46.10	-26.68	Line	-
Mode 1	Pass	QP	7.838M	29.62	60.00	-30.38	Line	-
Mode 1	Pass	AV	7.838M	24.96	50.00	-25.04	Line	-
Mode 1	Pass	QP	20.027M	20.48	60.00	-39.52	Line	-
Mode 1	Pass	AV	20.027M	17.81	50.00	-32.19	Line	-
Mode 1	Pass	QP	154.868k	55.98	65.73	-9.75	Neutral	-
Mode 1	Pass	AV	154.868k	37.73	55.73	-18.00	Neutral	-
Mode 1	Pass	QP	216.567k	44.30	62.94	-18.64	Neutral	-
Mode 1	Pass	AV	216.567k	26.82	52.94	-26.12	Neutral	-
Mode 1	Pass	QP	356.703k	38.54	58.81	-20.27	Neutral	-
Mode 1	Pass	AV	356.703k	30.23	48.81	-18.58	Neutral	-
Mode 1	Pass	QP	1.295M	29.09	56.00	-26.91	Neutral	-
Mode 1	Pass	AV	1.295M	23.80	46.00	-22.20	Neutral	-
Mode 1	Pass	QP	7.652M	33.05	60.00	-26.95	Neutral	-
Mode 1	Pass	AV	7.652M	27.83	50.00	-22.17	Neutral	-
Mode 1	Pass	QP	19.091M	20.10	60.00	-39.90	Neutral	-
Mode 1	Pass	AV	19.091M	17.31	50.00	-32.69	Neutral	-

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)				
QP	154.251k	55.63	65.77	-10.14	19.36	Line	-	36.27	9.60	0.07	9.69				
AV	154.251k	38.01	55.77	-17.76	19.36	Line	-	18.65	9.60	0.07	9.69				
QP	180.957k	50.52	64.43	-13.91	19.37	Line	-	31.15	9.61	0.07	9.69				
AV	180.957k	34.52	54.43	-19.91	19.37	Line	-	15.15	9.61	0.07	9.69				
QP	359.562k	42.96	58.73	-15.77	19.39	Line	-	23.57	9.60	0.09	9.70				
AV	359.562k	38.95	48.73	-9.78	19.39	Line	-	19.56	9.60	0.09	9.70				
QP	494.848k	25.11	56.10	-30.99	19.39	Line	-	5.72	9.60	0.09	9.70				
AV	494.848k	19.42	46.10	-26.68	19.39	Line	-	0.03	9.60	0.09	9.70				
QP	7.838M	29.62	60.00	-30.38	19.56	Line	-	10.06	9.64	0.21	9.71				
AV	7.838M	24.96	50.00	-25.04	19.56	Line	-	5.40	9.64	0.21	9.71				
QP	20.027M	20.48	60.00	-39.52	19.64	Line	-	0.84	9.59	0.32	9.73				
AV	20.027M	17.81	50.00	-32.19	19.64	Line	-	-1.83	9.59	0.32	9.73				

Conducted Emissions at Powerline_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)				
QP	154.868k	55.98	65.73	-9.75	19.35	Neutral	-	36.63	9.59	0.07	9.69				
AV	154.868k	37.73	55.73	-18.00	19.35	Neutral	-	18.38	9.59	0.07	9.69				
QP	216.567k	44.30	62.94	-18.64	19.35	Neutral	-	24.95	9.59	0.07	9.69				
AV	216.567k	26.82	52.94	-26.12	19.35	Neutral	-	7.47	9.59	0.07	9.69				
QP	356.703k	38.54	58.81	-20.27	19.37	Neutral	-	19.17	9.58	0.09	9.70				
AV	356.703k	30.23	48.81	-18.58	19.37	Neutral	-	10.86	9.58	0.09	9.70				
QP	1.295M	29.09	56.00	-26.91	19.39	Neutral	-	9.70	9.59	0.11	9.69				
AV	1.295M	23.80	46.00	-22.20	19.39	Neutral	-	4.41	9.59	0.11	9.69				
QP	7.652M	33.05	60.00	-26.95	19.56	Neutral	-	13.49	9.64	0.21	9.71				
AV	7.652M	27.83	50.00	-22.17	19.56	Neutral	-	8.27	9.64	0.21	9.71				
QP	19.091M	20.10	60.00	-39.90	19.73	Neutral	-	0.37	9.68	0.32	9.73				
AV	19.091M	17.31	50.00	-32.69	19.73	Neutral	-	-2.42	9.68	0.32	9.73				

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	43.23M	26.267M	26M3D1D	36.33M	17.511M
802.11a_Nss1,(6Mbps)_2TX	44.04M	29.925M	29M9D1D	37.86M	17.721M
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	43.74M	24.648M	24M6D1D	26.16M	19.19M
802.11ax HEW20_Nss2,(MCS0)_2TX	45.42M	25.337M	25M3D1D	21.81M	19.28M
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	62.94M	38.441M	38M4D1D	40.14M	37.661M
802.11ax HEW40_Nss2,(MCS0)_2TX	78.78M	39.46M	39M5D1D	39.84M	37.781M
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	81.6M	77.241M	77M2D1D	81.6M	77.241M
802.11ax HEW80_Nss2,(MCS0)_2TX	81.36M	77.601M	77M6D1D	81.24M	77.361M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	16.26M	39.64M	39M6D1D	3.14M	9.115M
802.11a_Nss1,(6Mbps)_2TX	16.56M	42.639M	42M6D1D	3.12M	7.896M
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	18.06M	43.028M	43M0D1D	4.46M	8.236M
802.11ax HEW20_Nss2,(MCS0)_2TX	18.15M	47.526M	47M5D1D	4.36M	5.517M
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	37.02M	59.43M	59M4D1D	3.84M	20.77M
802.11ax HEW40_Nss2,(MCS0)_2TX	37.62M	65.667M	65M7D1D	3.8M	19.79M
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	75.6M	77.361M	77M4D1D	3.82M	31.784M
802.11ax HEW80_Nss2,(MCS0)_2TX	75.96M	77.841M	77M8D1D	3.76M	25.187M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
 Max-OBW = Maximum 99% occupied bandwidth;
 Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
 Min-OBW = Minimum 99% occupied bandwidth

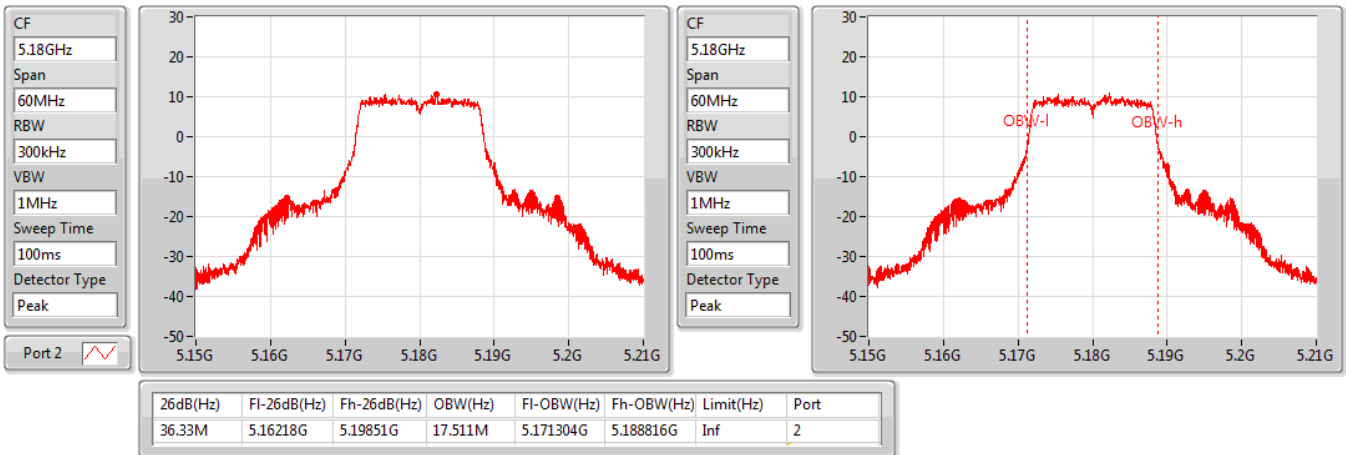
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-
5180MHz	Pass	Inf			36.33M	17.511M
5200MHz	Pass	Inf			43.23M	26.267M
5240MHz	Pass	Inf			37.98M	19.58M
5745MHz	Pass	500k			16.26M	39.64M
5785MHz	Pass	500k			16.05M	39.34M
5825MHz	Pass	500k			16.26M	39.22M
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	37.92M	18.351M	37.86M	17.721M
5200MHz	Pass	Inf	43.68M	29.925M	44.04M	29.385M
5240MHz	Pass	Inf	38.01M	18.921M	38.4M	18.891M
5745MHz	Pass	500k	16.29M	37.391M	16.35M	31.994M
5785MHz	Pass	500k	16.32M	42.189M	16.32M	38.981M
5825MHz	Pass	500k	16.56M	42.639M	16.32M	38.861M
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
5180MHz	Pass	Inf			26.16M	19.19M
5200MHz	Pass	Inf			43.74M	24.648M
5240MHz	Pass	Inf			41.16M	20M
5745MHz	Pass	500k			18.06M	39.58M
5785MHz	Pass	500k			17.97M	42.759M
5825MHz	Pass	500k			17.07M	43.028M
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	36.21M	19.28M	21.81M	19.28M
5200MHz	Pass	Inf	45.42M	25.337M	43.05M	23.148M
5240MHz	Pass	Inf	40.41M	19.64M	35.67M	19.55M
5745MHz	Pass	500k	17.67M	38.771M	18.15M	31.994M
5785MHz	Pass	500k	17.76M	46.447M	17.58M	43.718M
5825MHz	Pass	500k	18.06M	47.526M	17.58M	43.778M
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
5190MHz	Pass	Inf			40.14M	37.661M
5230MHz	Pass	Inf			62.94M	38.441M
5755MHz	Pass	500k			37.02M	38.921M
5795MHz	Pass	500k			36.96M	59.43M
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	39.84M	37.841M	40.02M	37.781M
5230MHz	Pass	Inf	70.5M	39.1M	78.78M	39.46M
5755MHz	Pass	500k	37.5M	52.234M	37.62M	52.474M
5795MHz	Pass	500k	35.16M	65.307M	36.42M	65.667M
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
5210MHz	Pass	Inf			81.6M	77.241M
5775MHz	Pass	500k			75.6M	77.361M
802.11ax HEW80_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81.36M	77.361M	81.24M	77.601M
5775MHz	Pass	500k	75.36M	77.481M	75.96M	77.841M

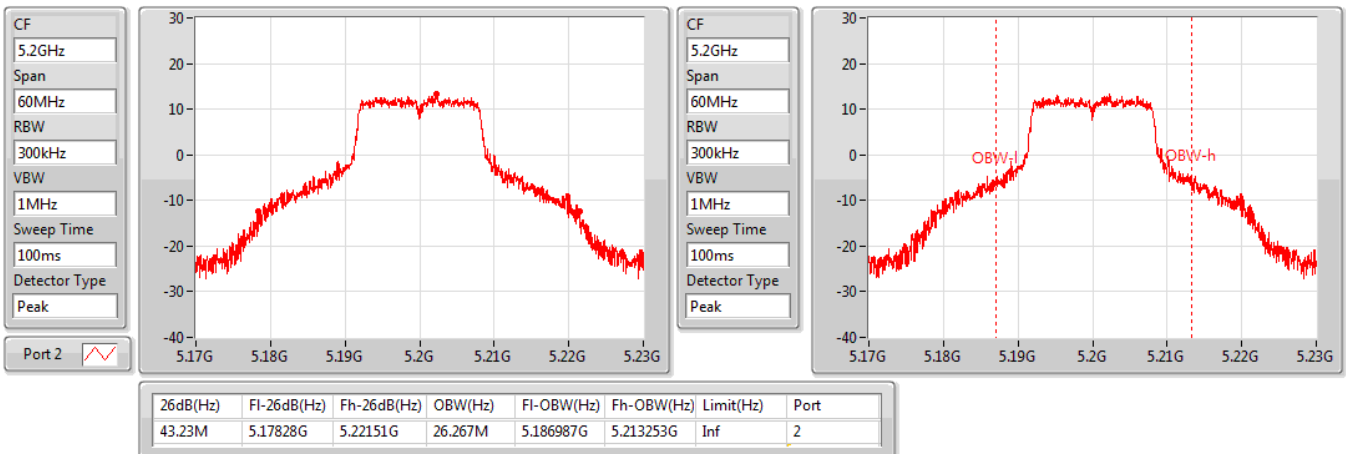
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_1TX(Port2)
EBW
5180MHz

07/06/2022

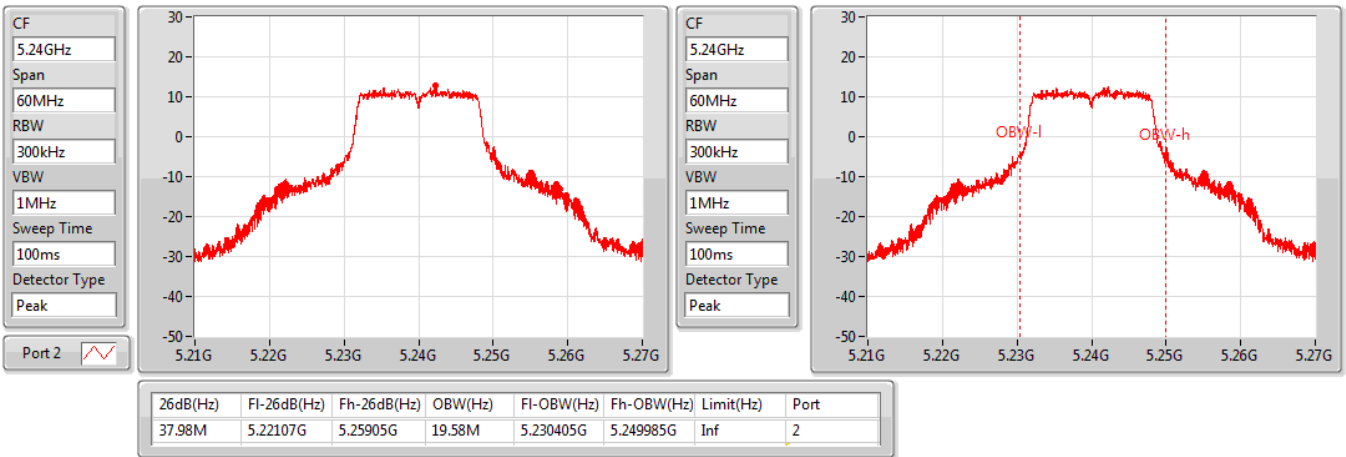

802.11a_Nss1,(6Mbps)_1TX(Port2)
EBW
5200MHz

07/06/2022

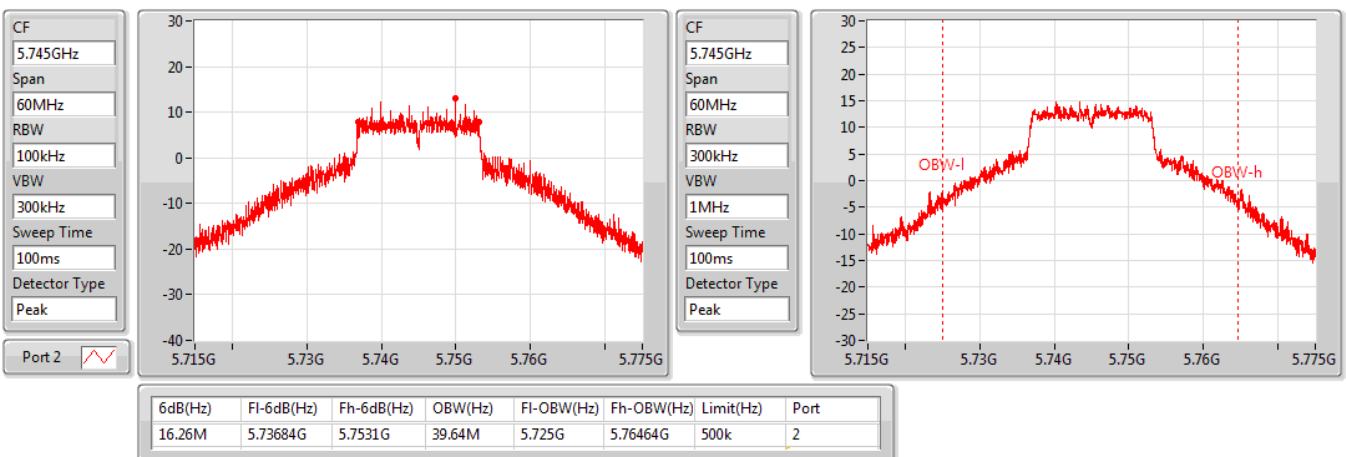


802.11a_Nss1,(6Mbps)_1TX(Port2)
EBW
5240MHz

07/06/2022


802.11a_Nss1,(6Mbps)_1TX(Port2)
EBW
5745MHz

07/06/2022

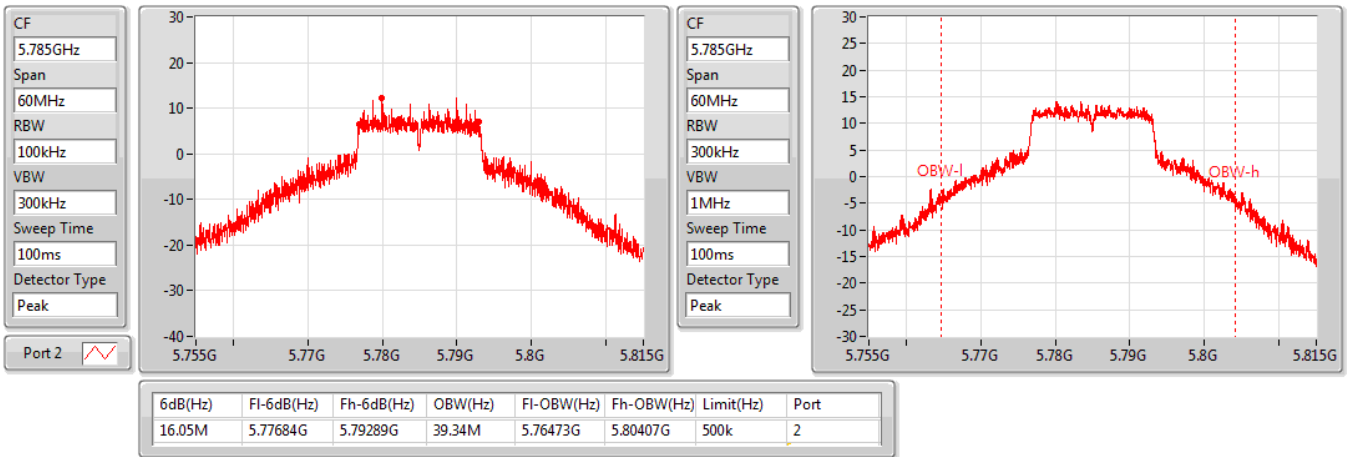


802.11a_Nss1,(6Mbps)_1TX(Port2)

EBW

5785MHz

07/06/2022

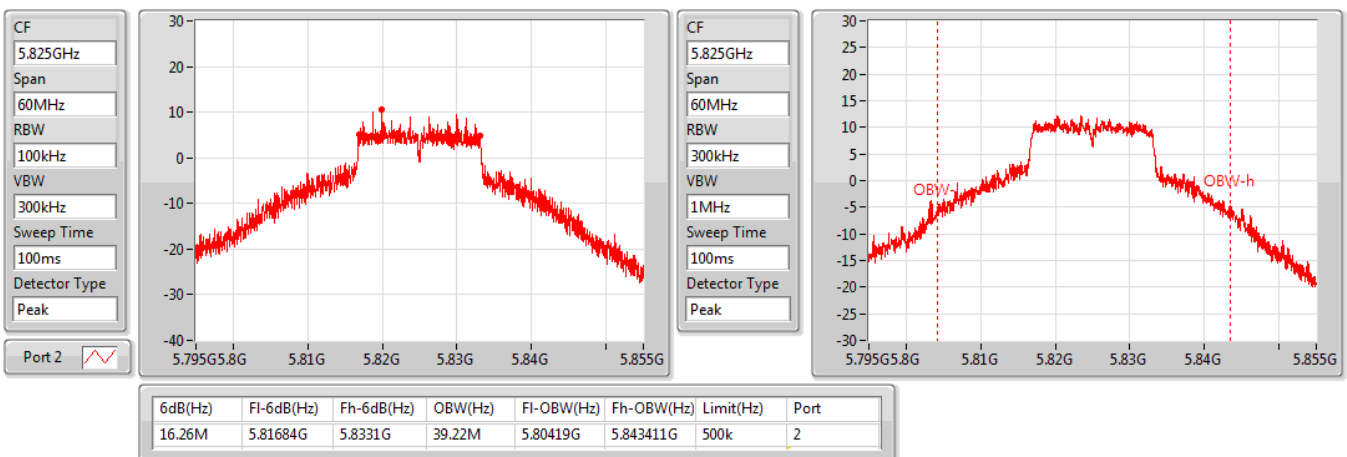


802.11a_Nss1,(6Mbps)_1TX(Port2)

EBW

5825MHz

07/06/2022

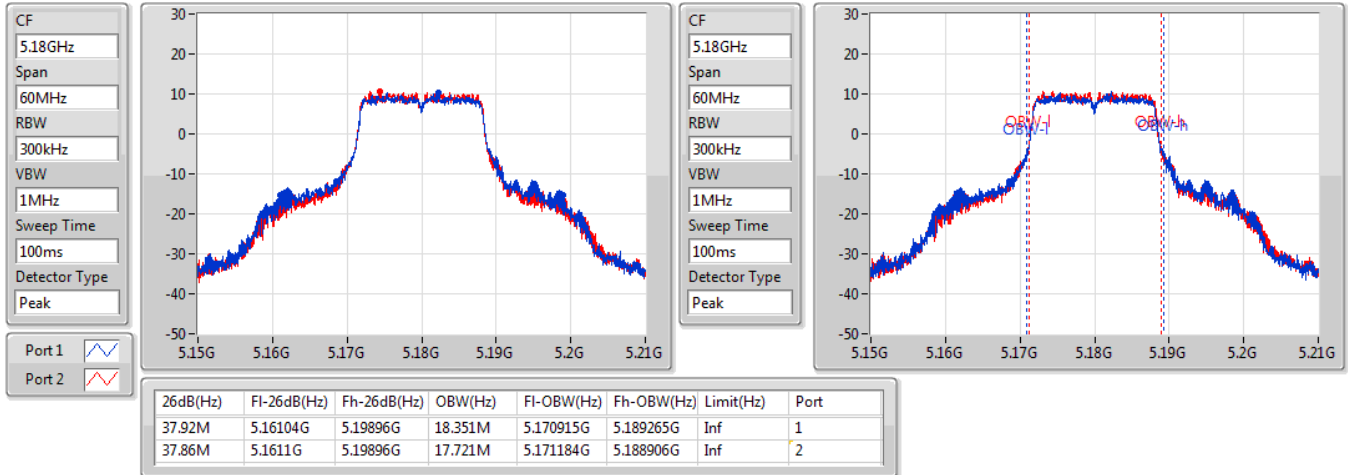


802.11a_Nss1,(6Mbps)_2TX

EBW

5180MHz

07/06/2022

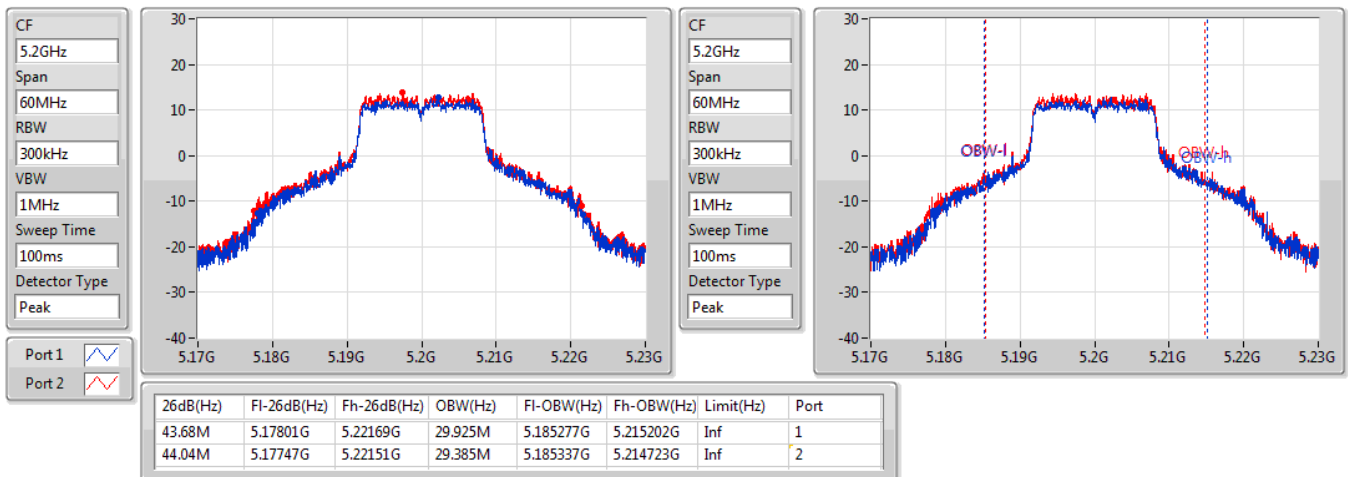


802.11a_Nss1,(6Mbps)_2TX

EBW

5200MHz

07/06/2022

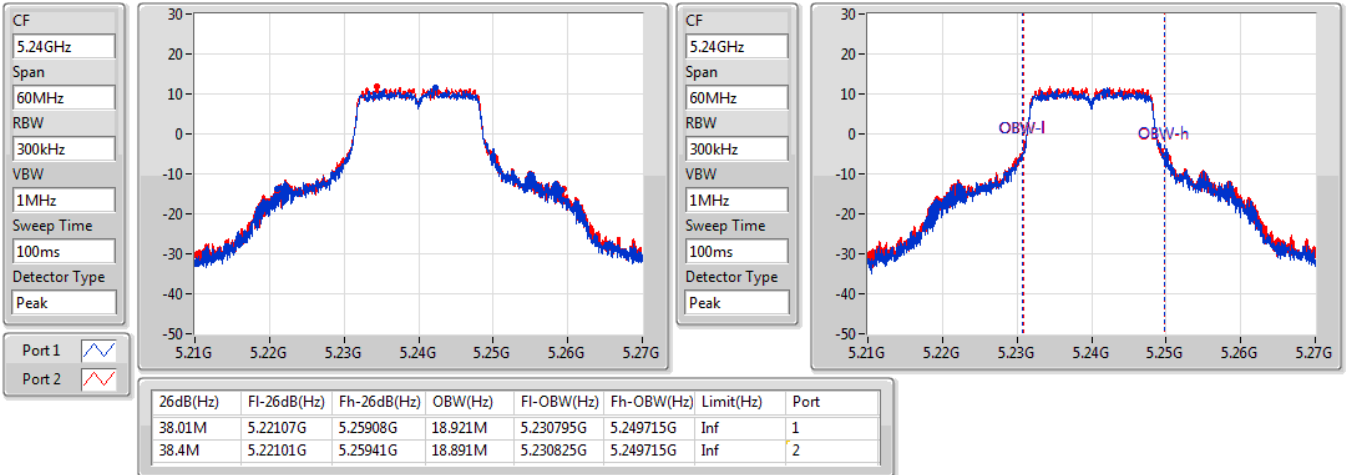


802.11a_Nss1,(6Mbps)_2TX

EBW

5240MHz

07/06/2022

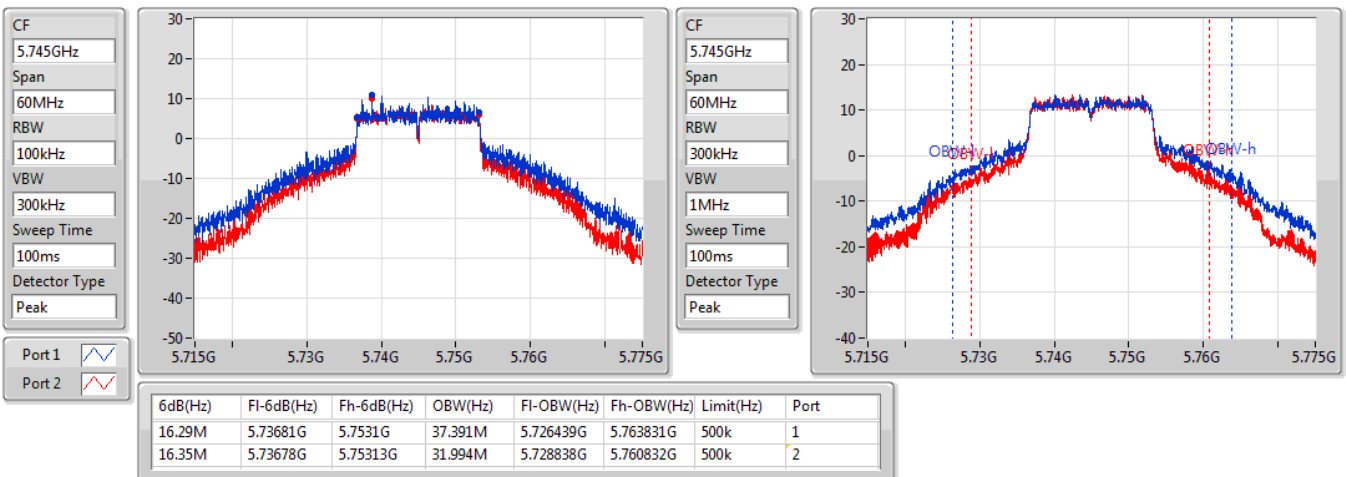


802.11a_Nss1,(6Mbps)_2TX

EBW

5745MHz

07/06/2022

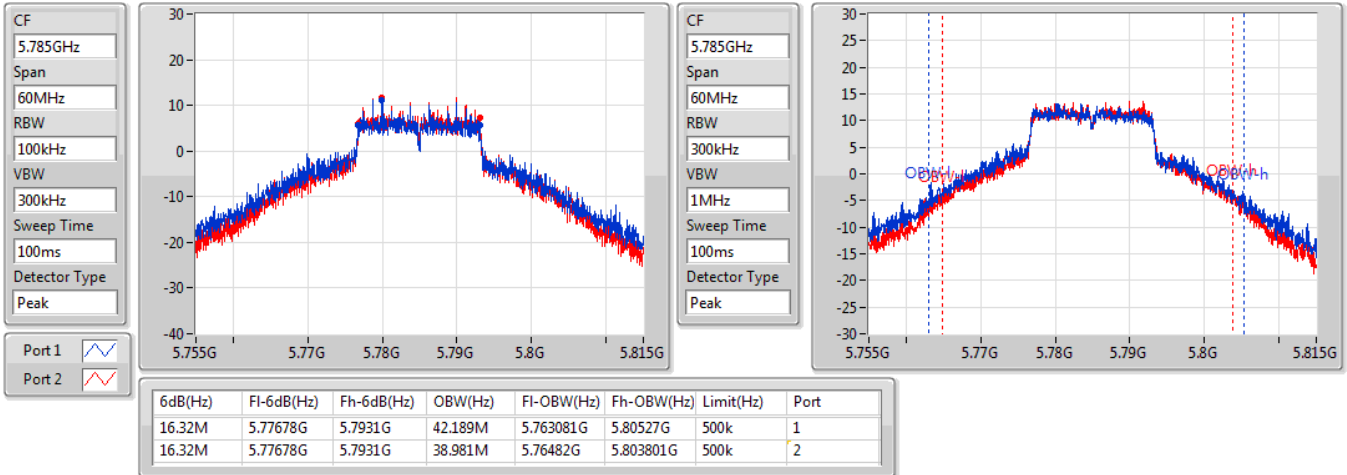


802.11a_Nss1,(6Mbps)_2TX

EBW

5785MHz

07/06/2022

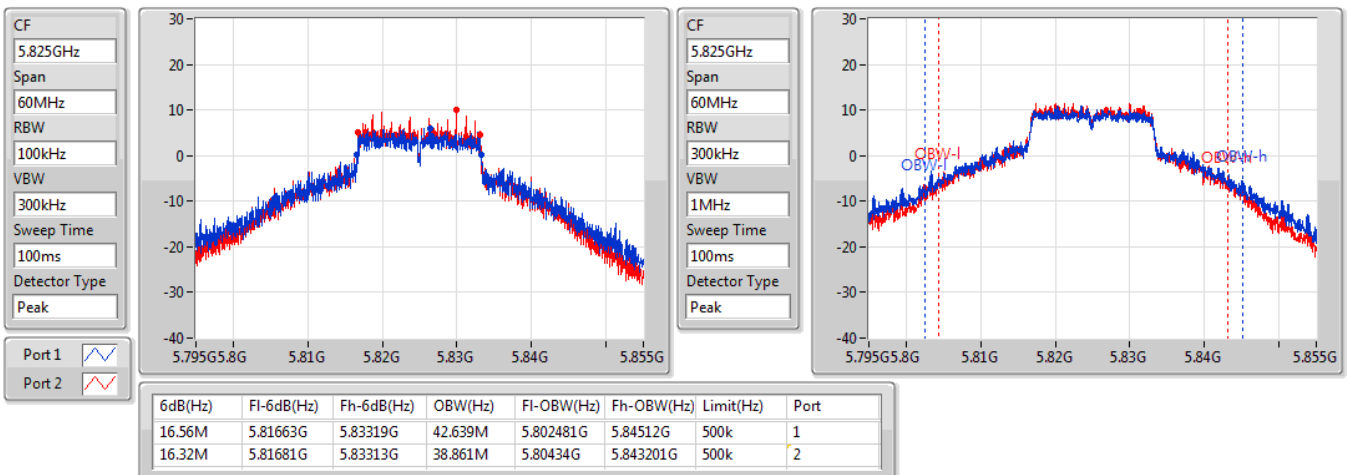


802.11a_Nss1,(6Mbps)_2TX

EBW

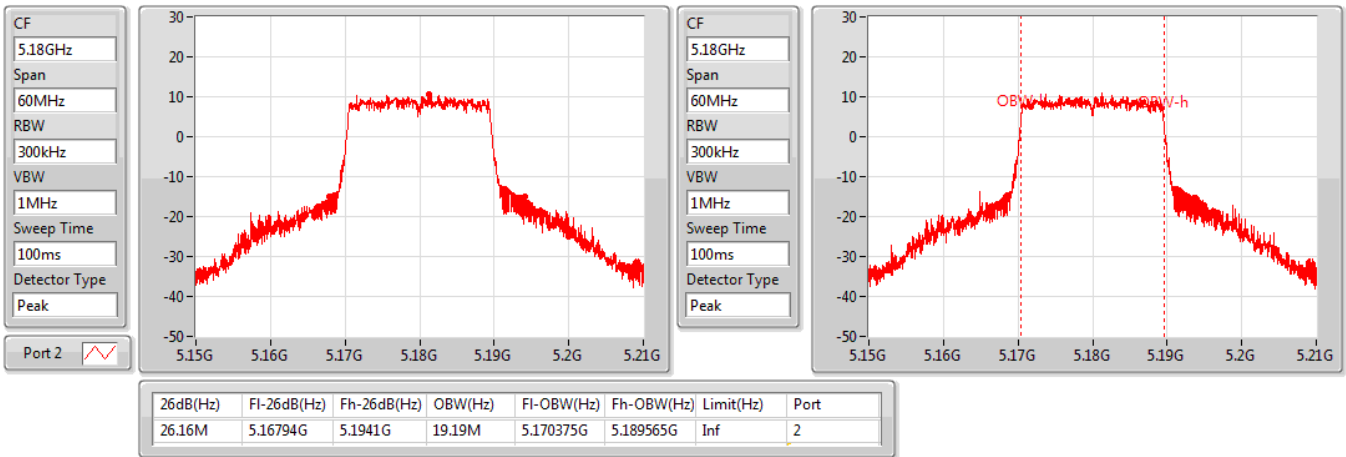
5825MHz

07/06/2022

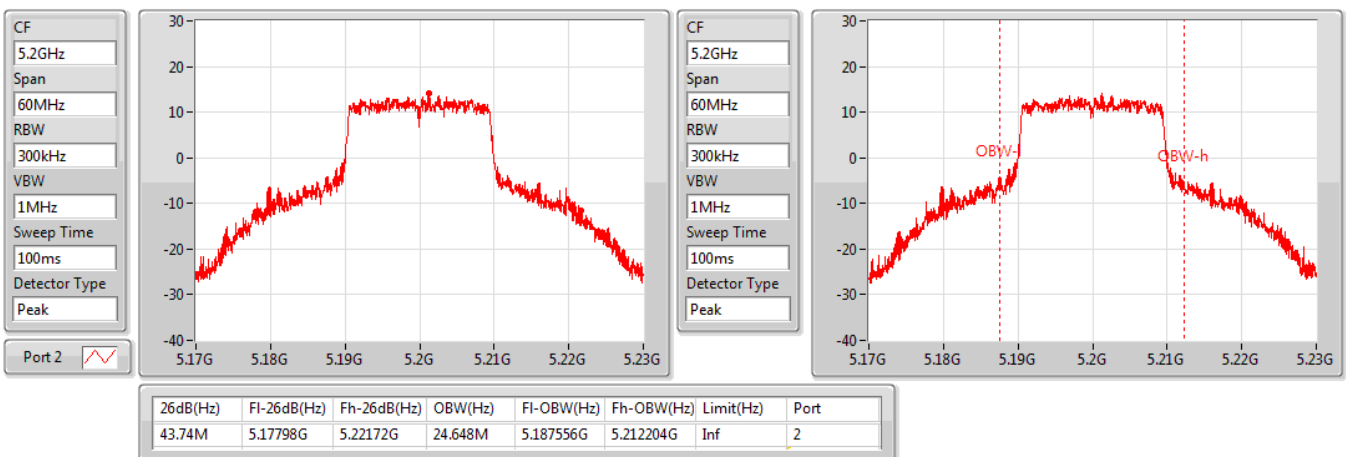


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)
EBW
5180MHz

07/06/2022

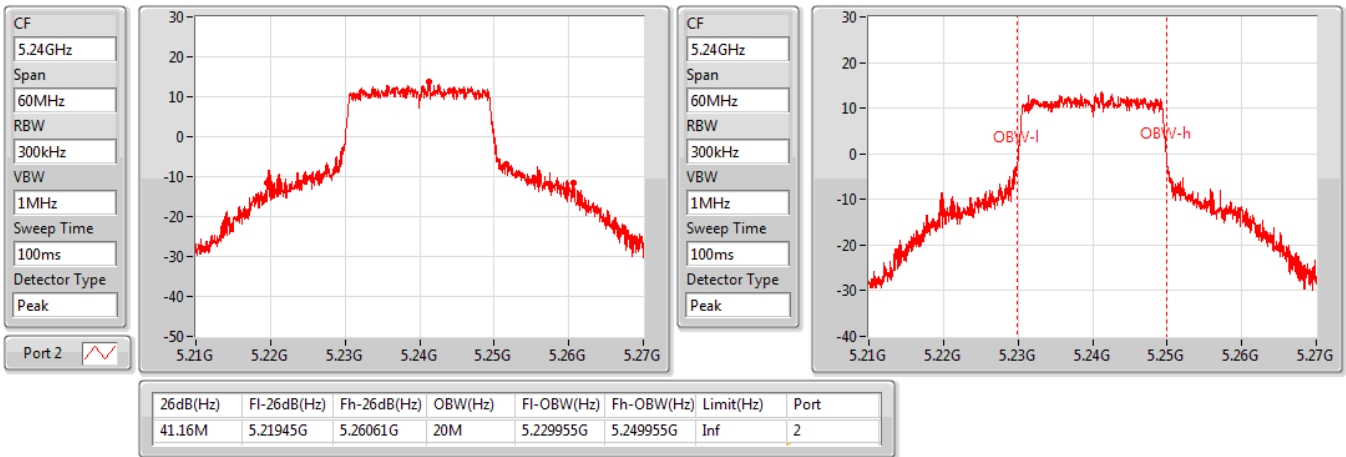

802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)
EBW
5200MHz

07/06/2022

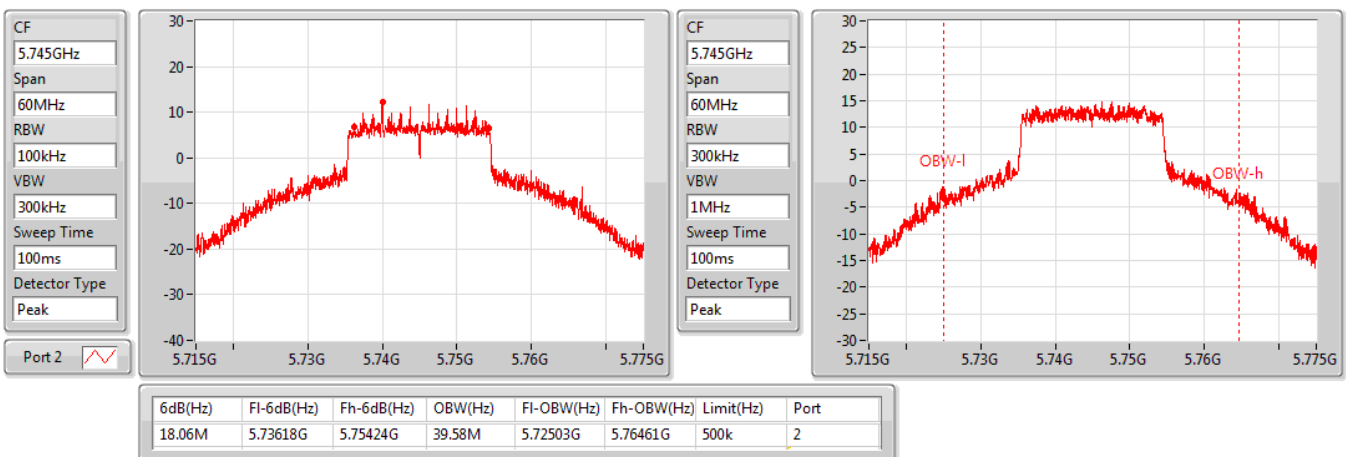


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)
EBW
5240MHz

07/06/2022

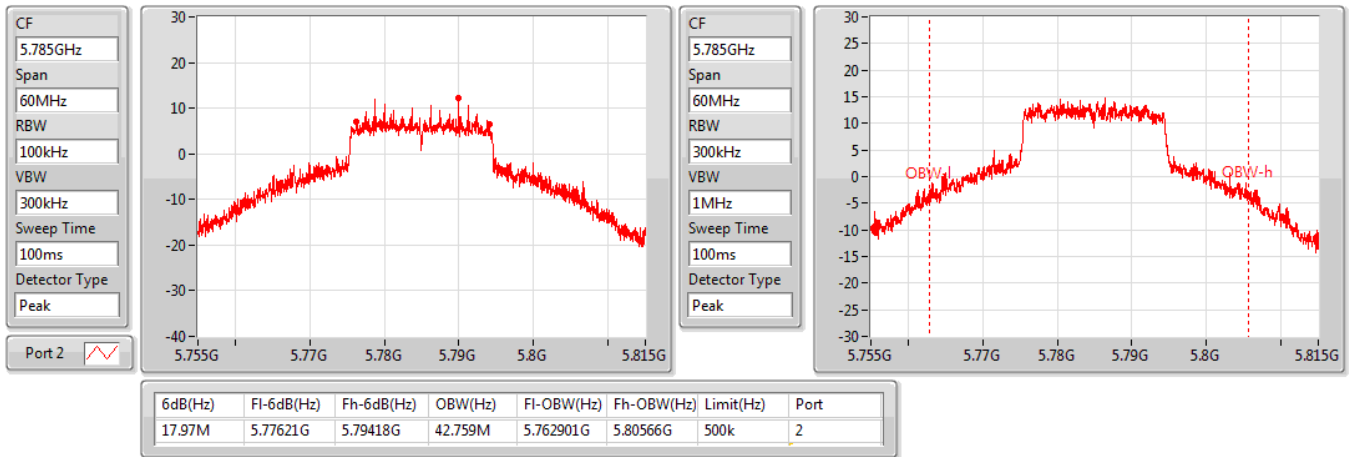

802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)
EBW
5745MHz

07/06/2022

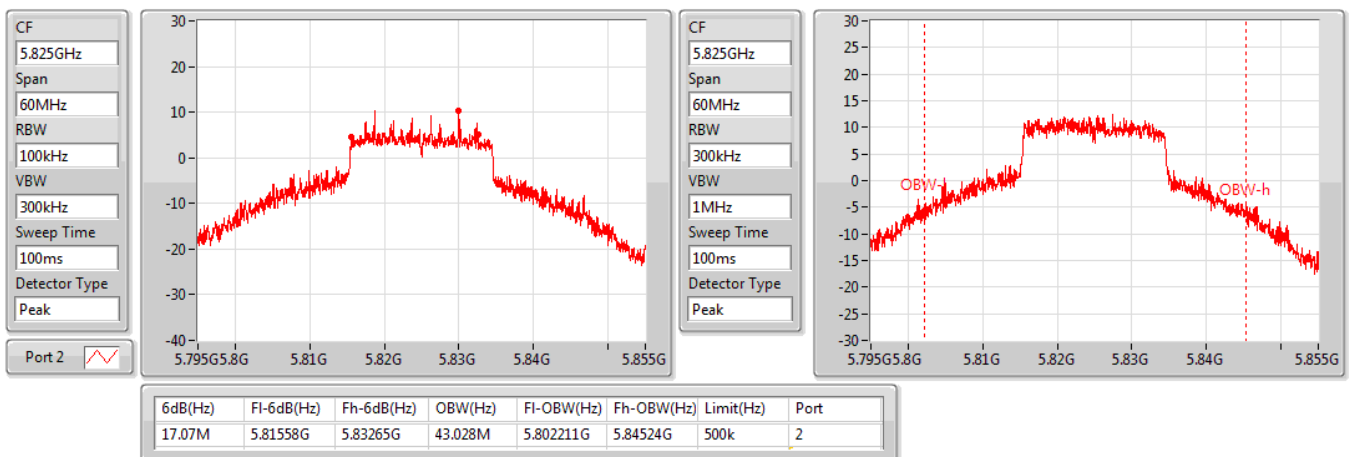


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)
EBW
5785MHz

07/06/2022


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)
EBW
5825MHz

07/06/2022

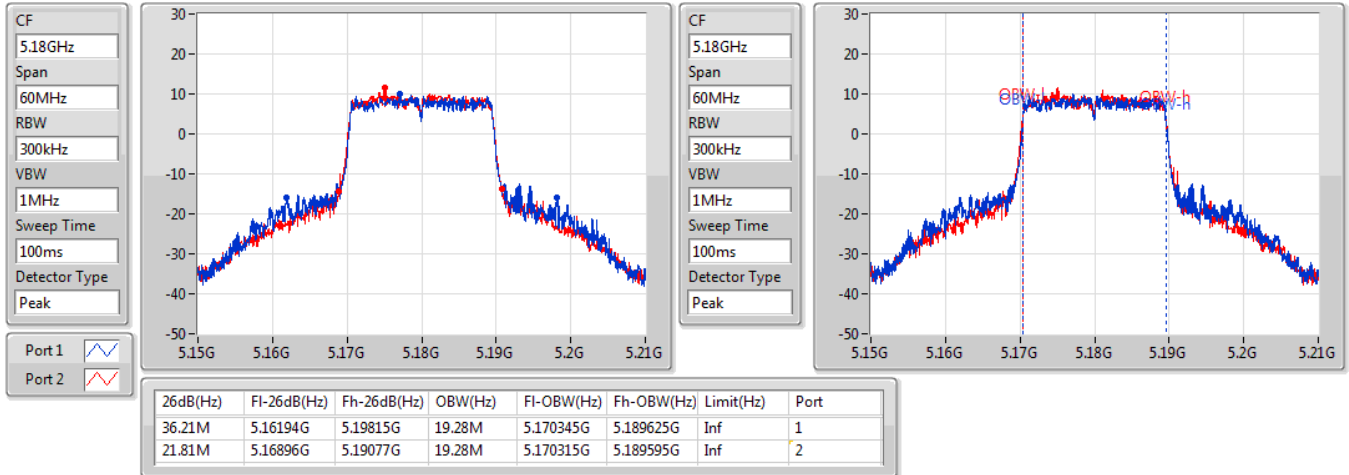


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5180MHz

07/06/2022

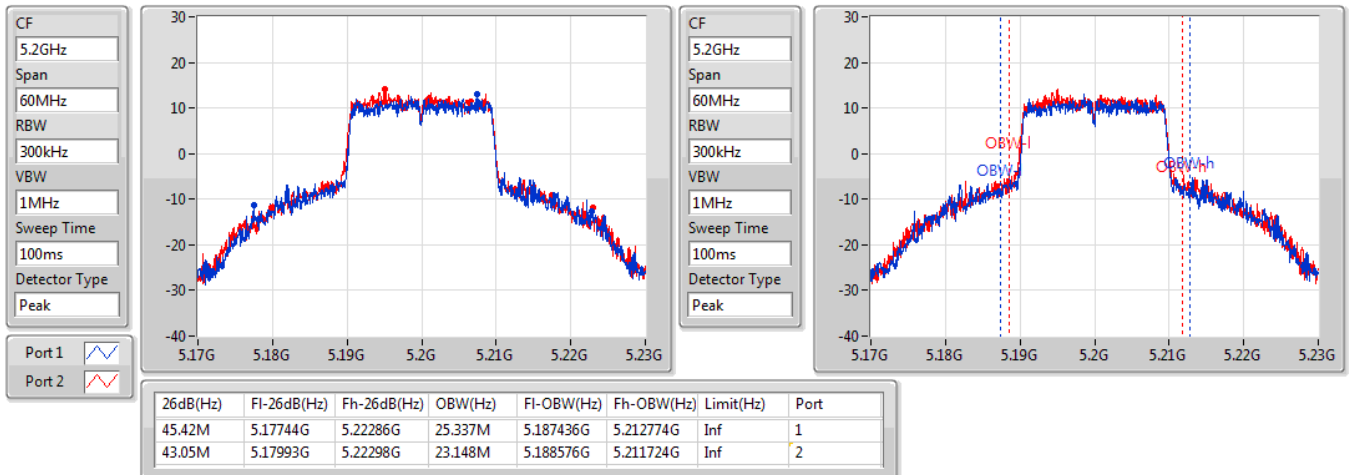


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5200MHz

07/06/2022

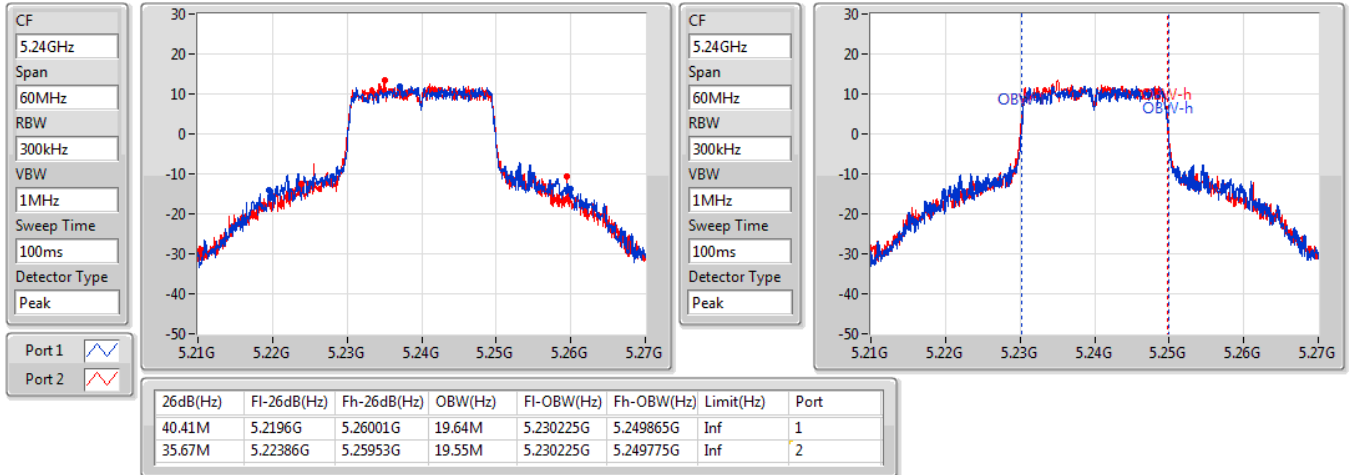


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5240MHz

07/06/2022

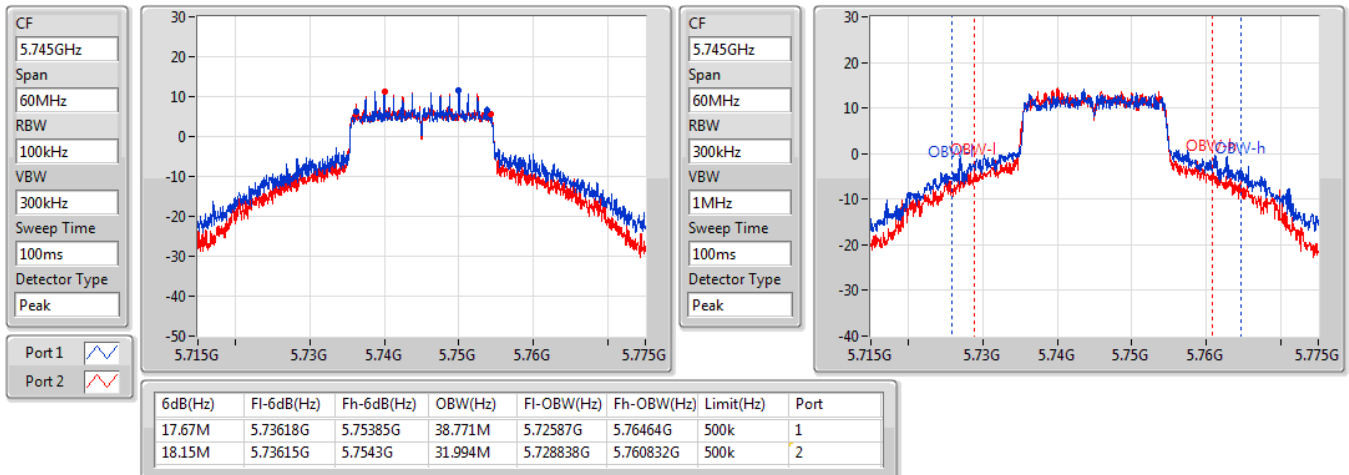


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5745MHz

07/06/2022

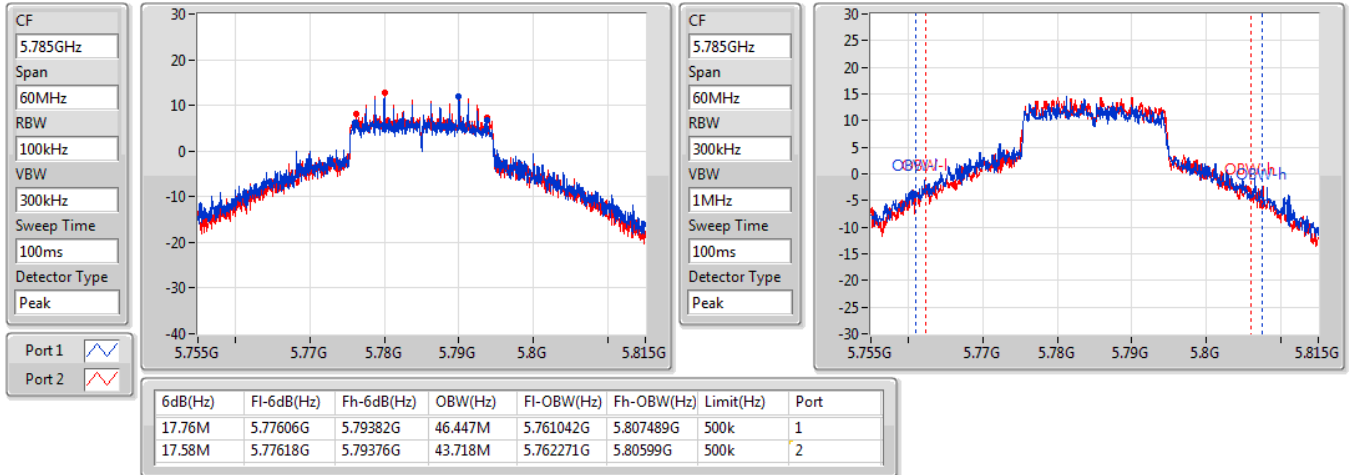


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5785MHz

07/06/2022

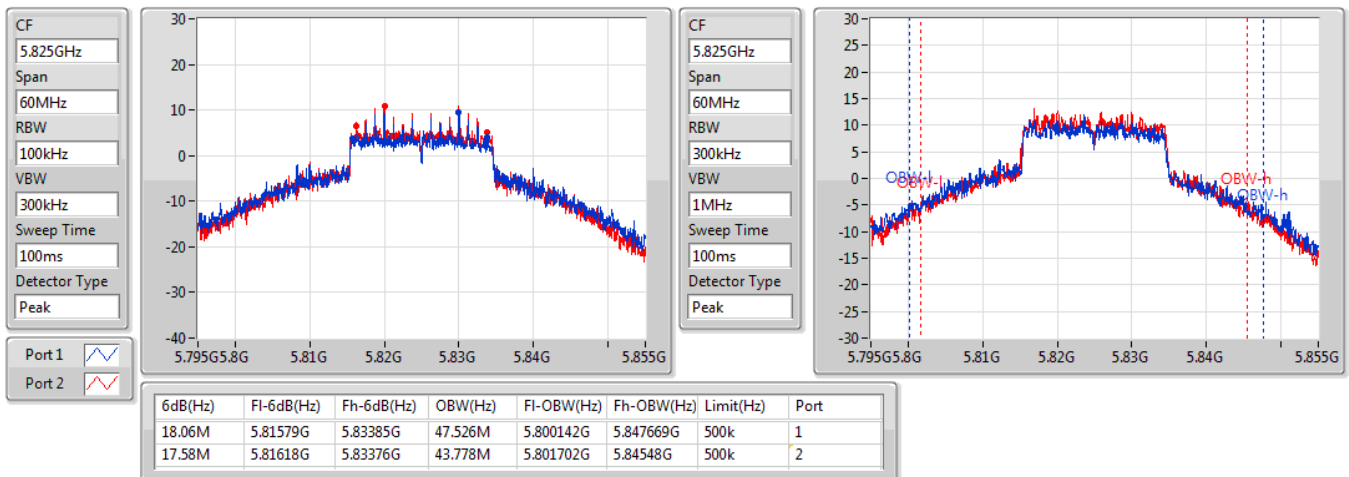


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

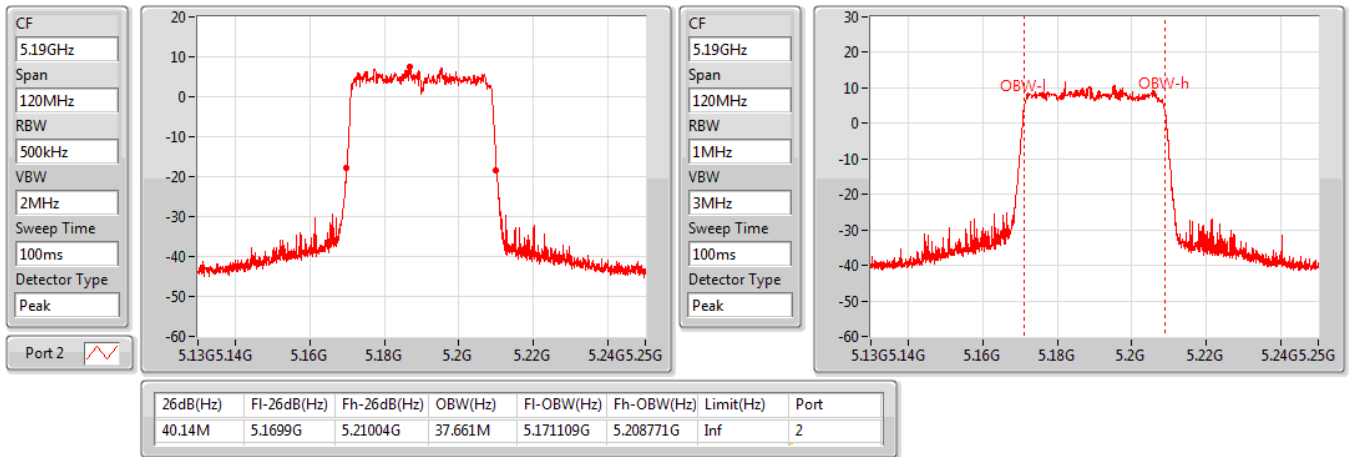
5825MHz

07/06/2022

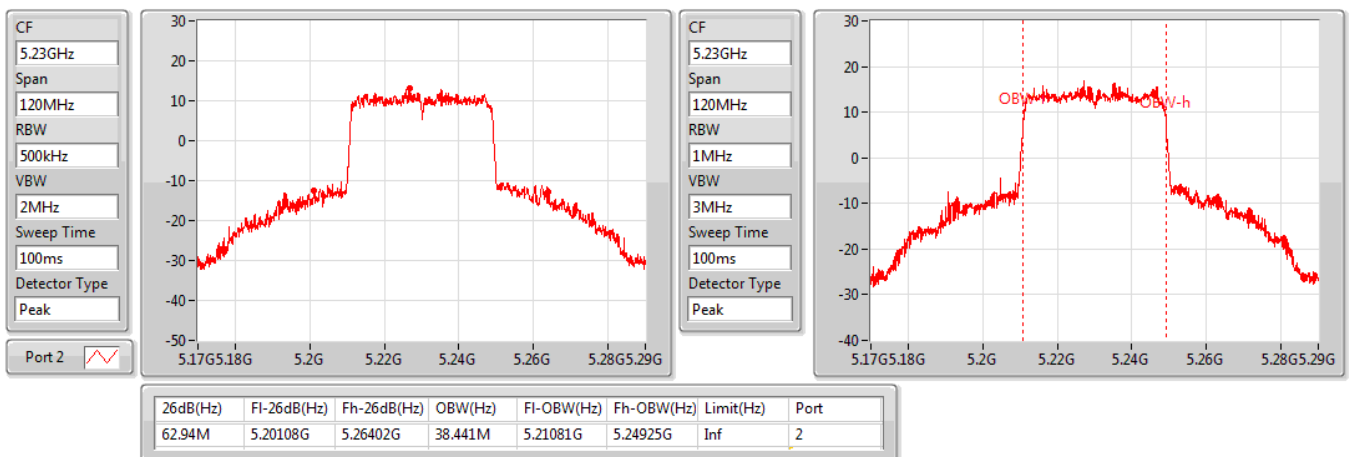


802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)
EBW
5190MHz

07/06/2022

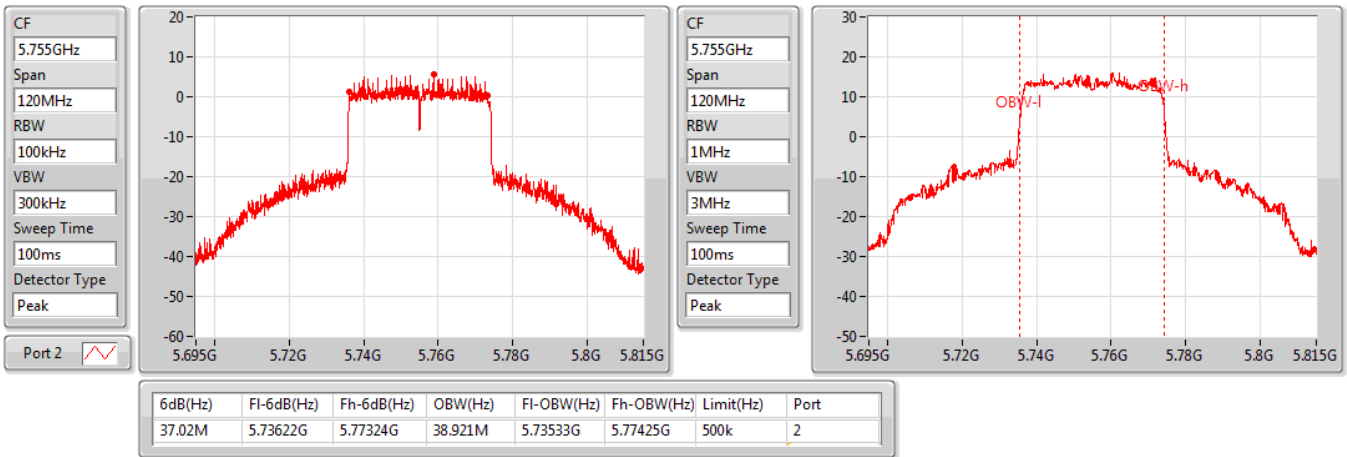

802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)
EBW
5230MHz

07/06/2022

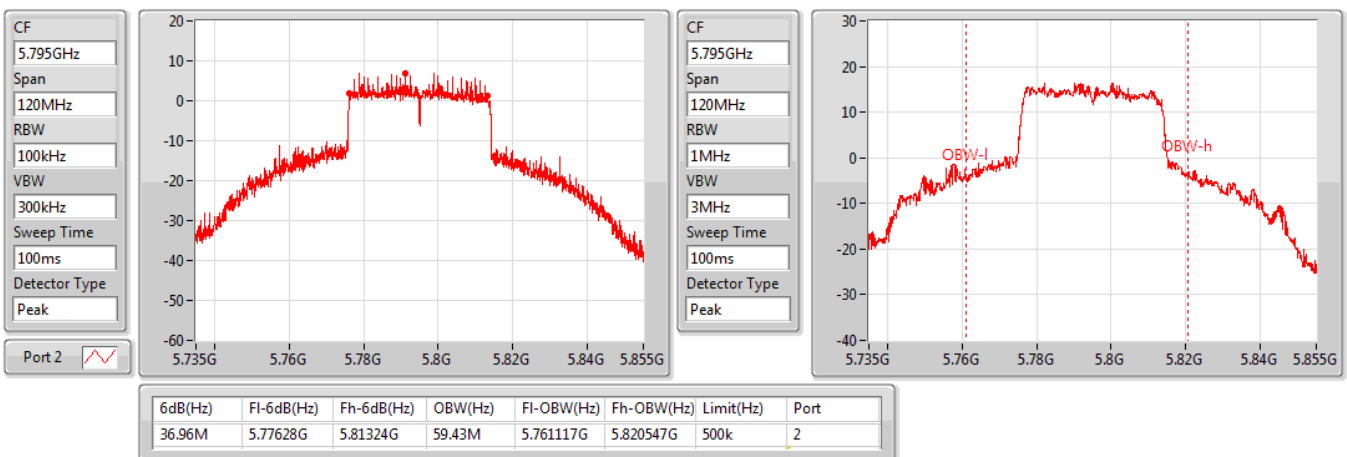


802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)
EBW
5755MHz

07/06/2022


802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)
EBW
5795MHz

07/06/2022

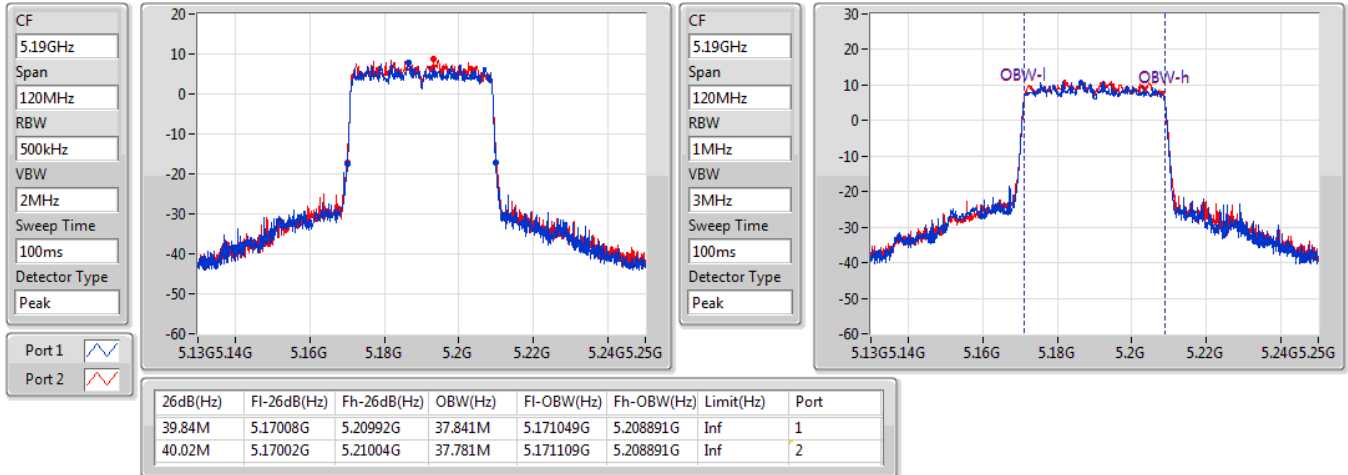


802.11ax HEW40_Nss2,(MCS0)_2TX

EBW

5190MHz

07/06/2022

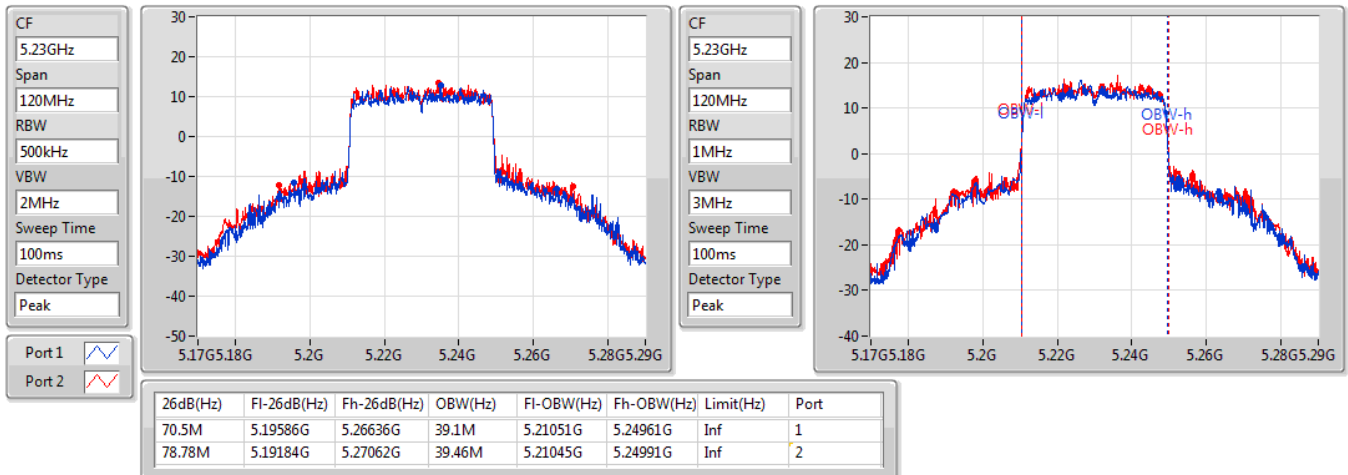


802.11ax HEW40_Nss2,(MCS0)_2TX

EBW

5230MHz

07/06/2022

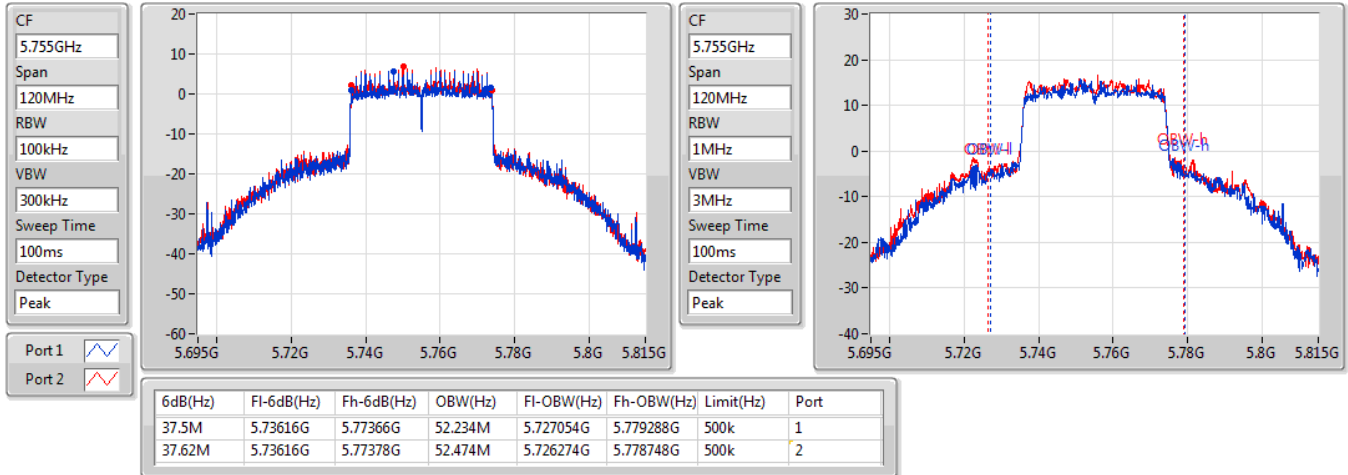


802.11ax HEW40_Nss2,(MCS0)_2TX

EBW

5755MHz

07/06/2022

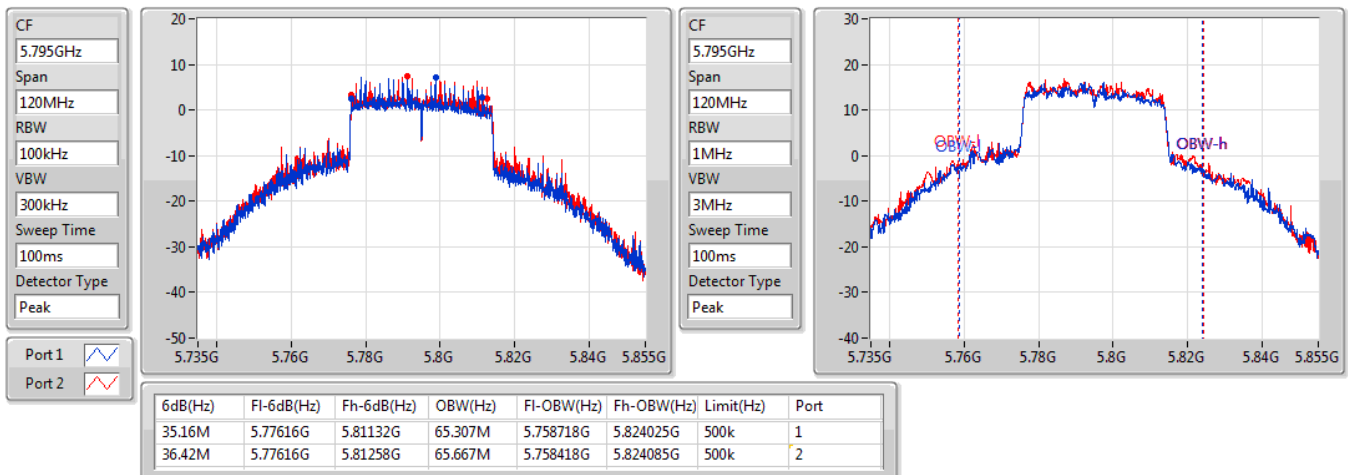


802.11ax HEW40_Nss2,(MCS0)_2TX

EBW

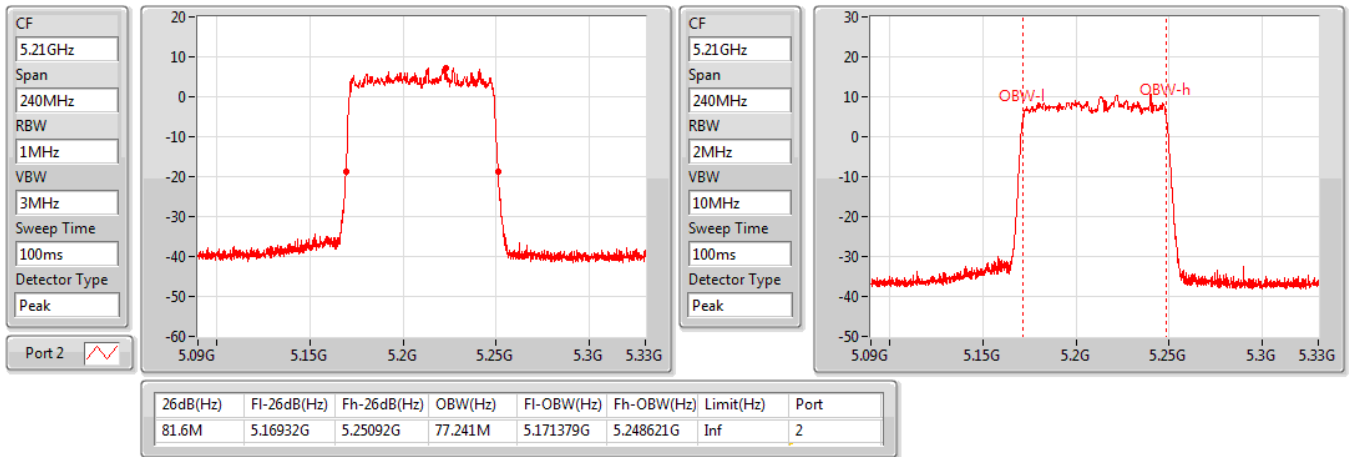
5795MHz

07/06/2022

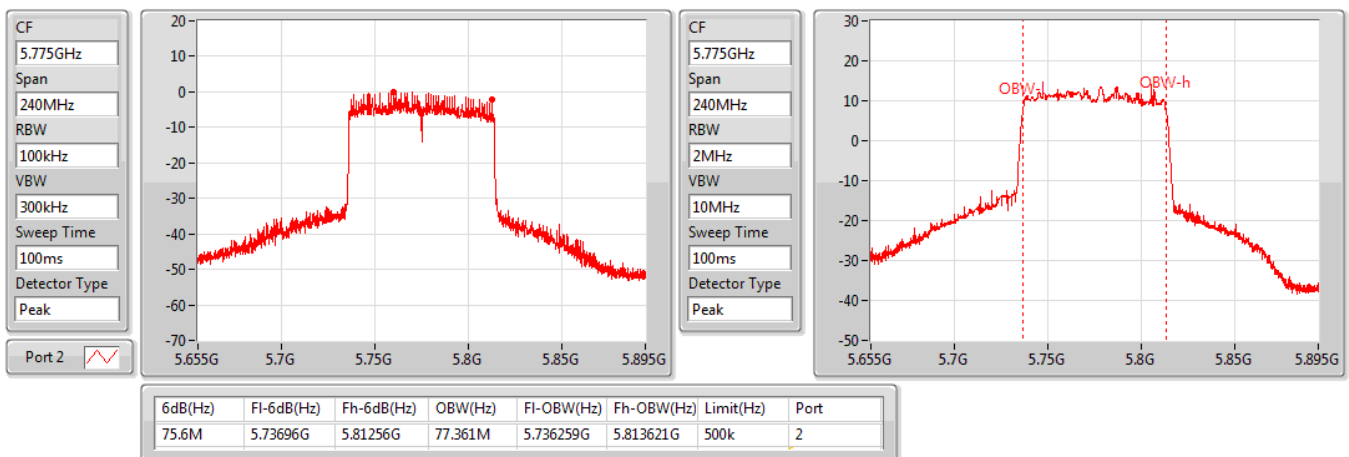


802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)
EBW
5210MHz

07/06/2022


802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)
EBW
5775MHz

07/06/2022

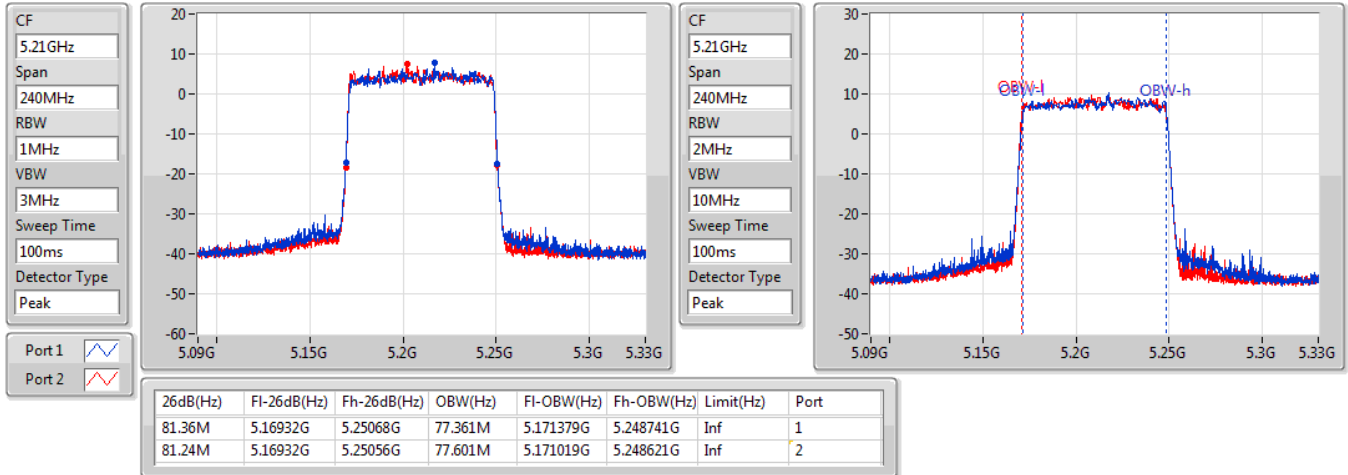


802.11ax HEW80_Nss2,(MCS0)_2TX

EBW

5210MHz

07/06/2022

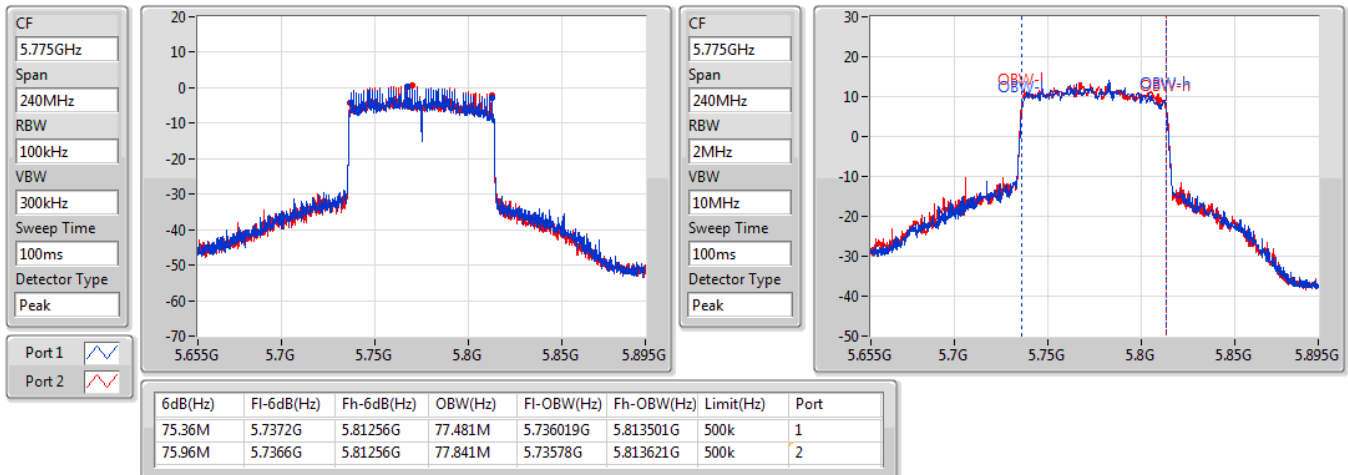


802.11ax HEW80_Nss2,(MCS0)_2TX

EBW

5775MHz

07/06/2022



**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	42.51M	25.577M	25M6D1D	24.9M	17.421M
802.11a_Nss1,(6Mbps)_2TX	40.14M	19.34M	19M4D1D	21.72M	16.912M
802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)	37.77M	19.73M	19M8D1D	22.74M	19.19M
802.11ax HEW20_Nss2,(MCS0)_2TX	46.05M	23.958M	24M0D1D	21.72M	19.13M
802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)	63.12M	38.381M	38M4D1D	39.84M	37.661M
802.11ax HEW40_Nss2,(MCS0)_2TX	76.62M	39.4M	39M4D1D	39.96M	37.781M
802.11ax HEW80_Nss1,(MCS0)_1TX(Port1)	81.84M	77.601M	77M7D1D	81.84M	77.601M
802.11ax HEW80_Nss2,(MCS0)_2TX	81.84M	77.601M	77M7D1D	81.6M	77.481M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	16.29M	43.478M	43M5D1D	16.26M	30.315M
802.11a_Nss1,(6Mbps)_2TX	16.35M	36.402M	36M5D1D	16.29M	25.547M
802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)	18.81M	34.423M	34M5D1D	18.75M	31.124M
802.11ax HEW20_Nss2,(MCS0)_2TX	18.9M	34.423M	34M5D1D	18.3M	24.738M
802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)	37.44M	62.489M	62M5D1D	36.78M	43.058M
802.11ax HEW40_Nss2,(MCS0)_2TX	37.62M	72.504M	72M6D1D	35.1M	39.46M
802.11ax HEW80_Nss1,(MCS0)_1TX(Port1)	77.16M	77.481M	77M5D1D	77.16M	77.481M
802.11ax HEW80_Nss2,(MCS0)_2TX	76.56M	77.361M	77M4D1D	75.12M	77.361M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
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)
802.11a_Nss1,(6Mbps)_1TX(Port1)	-	-	-	-	-	-
5180MHz	Pass	Inf	24.9M	17.421M		
5200MHz	Pass	Inf	42.51M	25.577M		
5240MHz	Pass	Inf	37.92M	19.19M		
5745MHz	Pass	500k	16.29M	31.214M		
5785MHz	Pass	500k	16.26M	30.315M		
5825MHz	Pass	500k	16.26M	43.478M		
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.72M	17.181M	21.81M	16.912M
5200MHz	Pass	Inf	34.05M	17.841M	37.98M	18.801M
5240MHz	Pass	Inf	33.87M	17.901M	40.14M	19.34M
5745MHz	Pass	500k	16.29M	25.547M	16.29M	30.825M
5785MHz	Pass	500k	16.29M	28.126M	16.35M	33.463M
5825MHz	Pass	500k	16.29M	30.165M	16.29M	36.402M
802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-
5180MHz	Pass	Inf	22.74M	19.19M		
5200MHz	Pass	Inf	36.33M	19.73M		
5240MHz	Pass	Inf	37.77M	19.73M		
5745MHz	Pass	500k	18.78M	33.223M		
5785MHz	Pass	500k	18.81M	31.124M		
5825MHz	Pass	500k	18.75M	34.423M		
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.81M	19.13M	21.72M	19.13M
5200MHz	Pass	Inf	46.05M	23.958M	38.85M	19.7M
5240MHz	Pass	Inf	27.3M	19.34M	42.6M	19.82M
5745MHz	Pass	500k	18.66M	24.738M	18.63M	30.465M
5785MHz	Pass	500k	18.78M	25.247M	18.3M	31.244M
5825MHz	Pass	500k	18.9M	28.696M	18.84M	34.423M
802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-
5190MHz	Pass	Inf	39.84M	37.661M		
5230MHz	Pass	Inf	63.12M	38.381M		
5755MHz	Pass	500k	37.44M	43.058M		
5795MHz	Pass	500k	36.78M	62.489M		
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	39.96M	37.781M	40.02M	37.781M
5230MHz	Pass	Inf	76.62M	39.4M	68.76M	38.561M
5755MHz	Pass	500k	37.62M	50.795M	37.44M	39.46M
5795MHz	Pass	500k	35.1M	72.504M	37.62M	59.07M
802.11ax HEW80_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-
5210MHz	Pass	Inf	81.84M	77.601M		
5775MHz	Pass	500k	77.16M	77.481M		
802.11ax HEW80_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81.84M	77.481M	81.6M	77.601M
5775MHz	Pass	500k	76.56M	77.361M	75.12M	77.361M

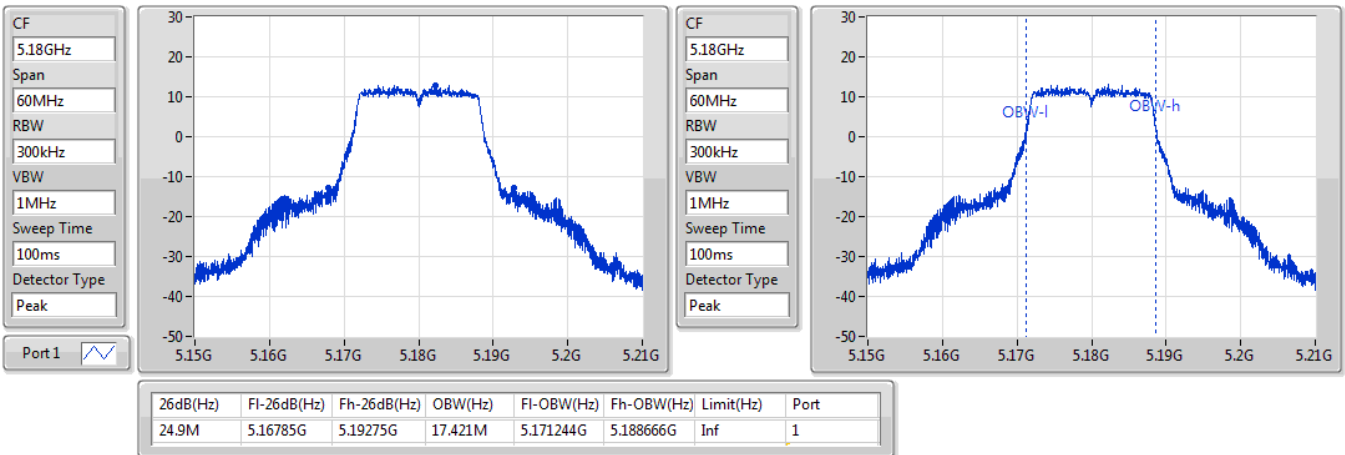
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_1TX(Port1)

EBW

5180MHz

26/07/2022

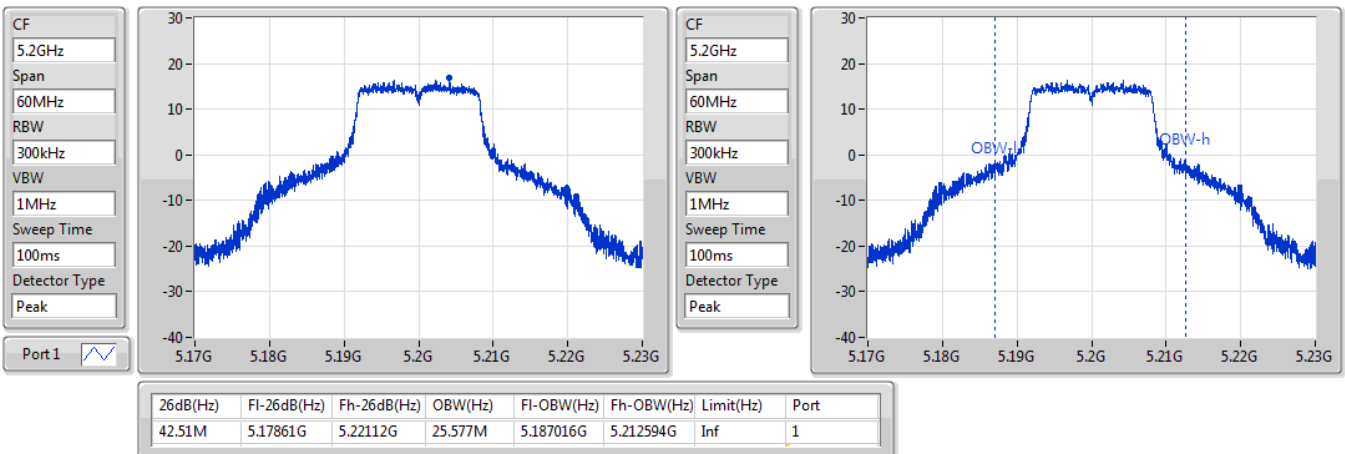


802.11a_Nss1,(6Mbps)_1TX(Port1)

EBW

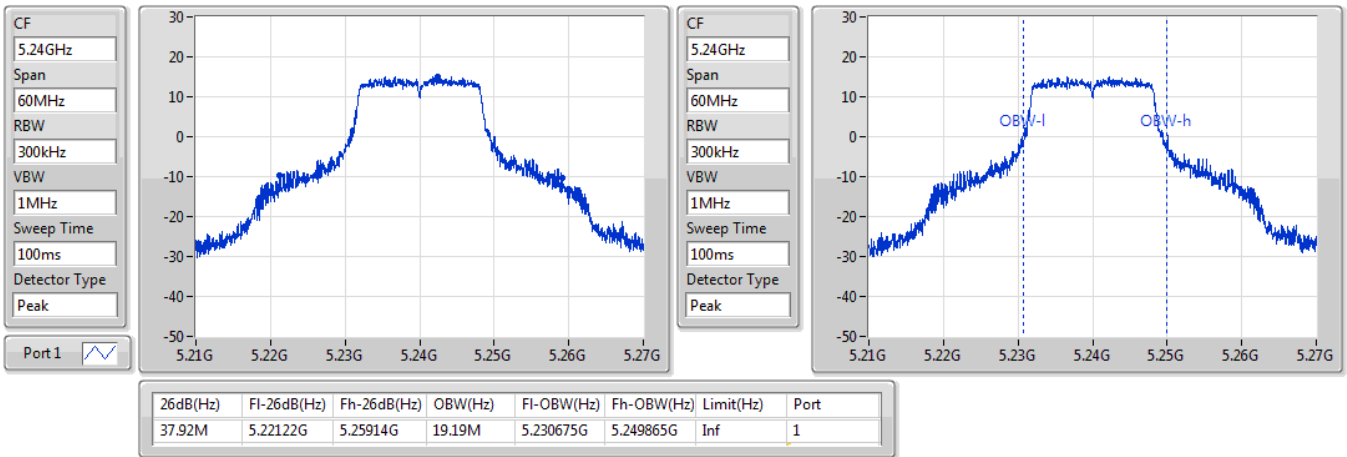
5200MHz

26/07/2022

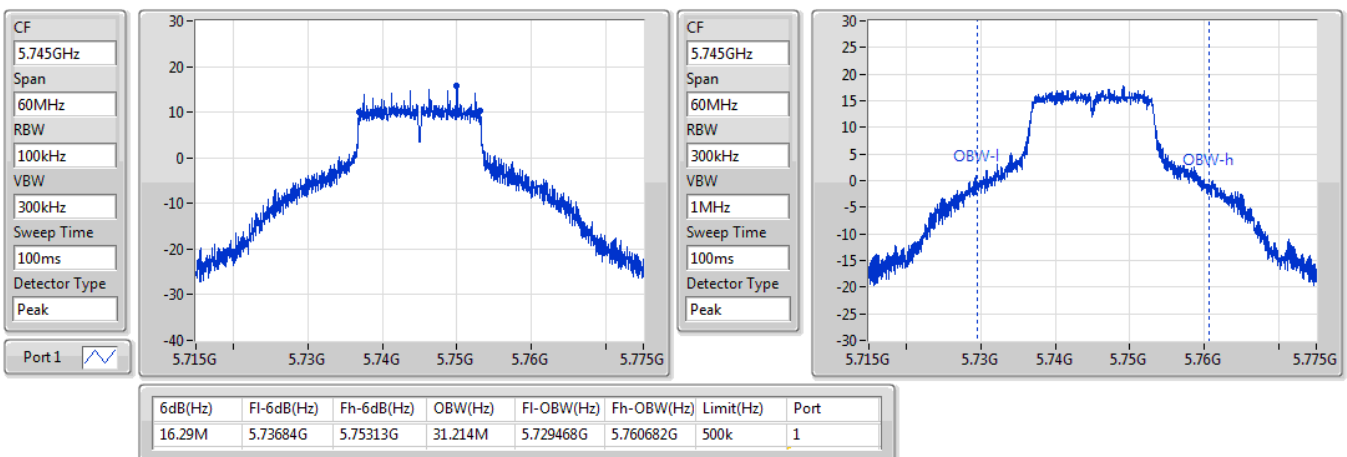


802.11a_Nss1,(6Mbps)_1TX(Port1)
EBW
5240MHz

26/07/2022

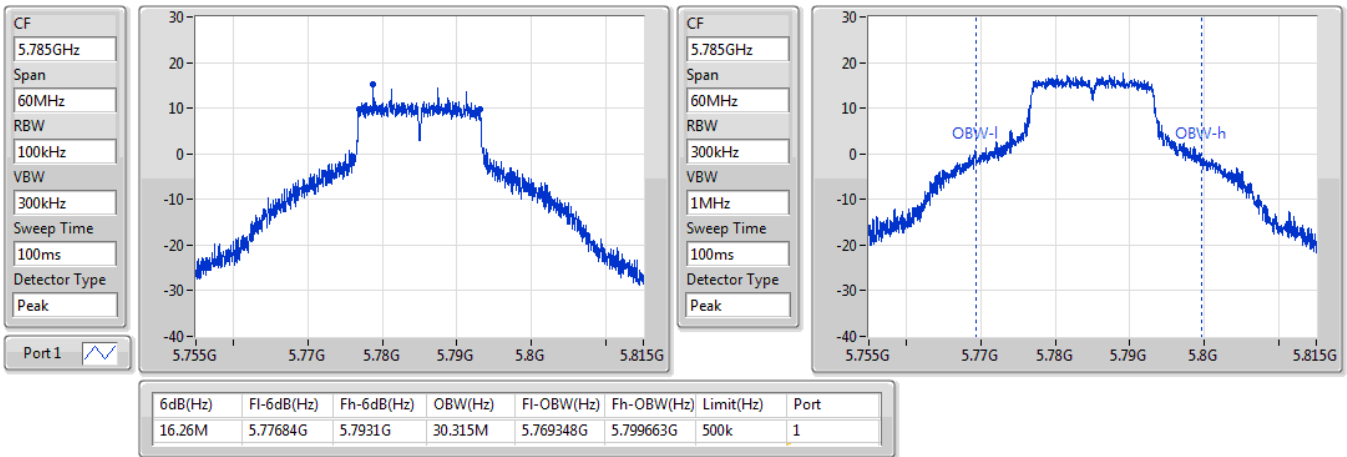

802.11a_Nss1,(6Mbps)_1TX(Port1)
EBW
5745MHz

26/07/2022

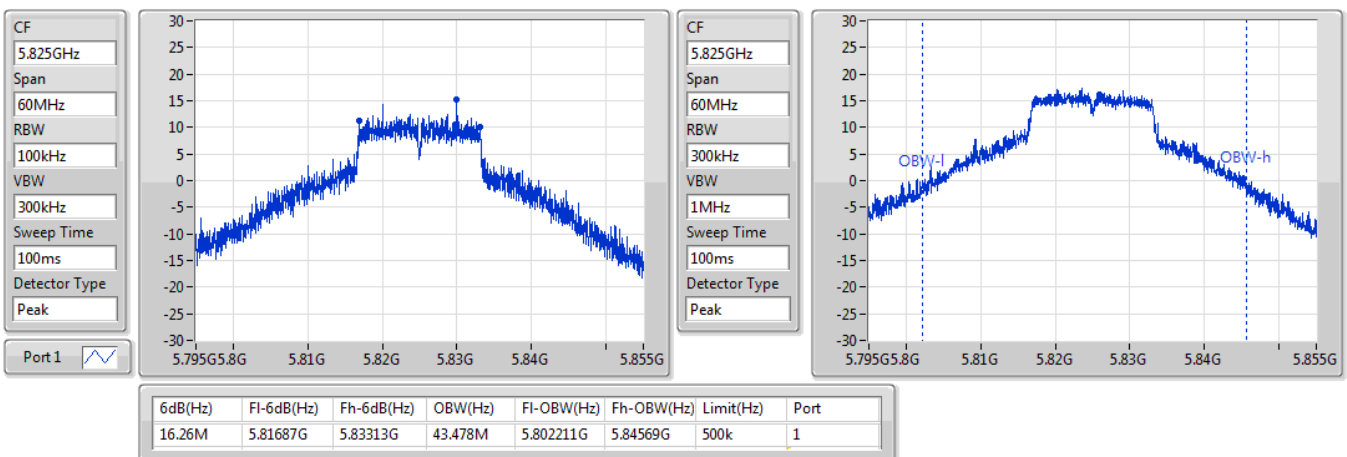


802.11a_Nss1,(6Mbps)_1TX(Port1)
EBW
5785MHz

26/07/2022

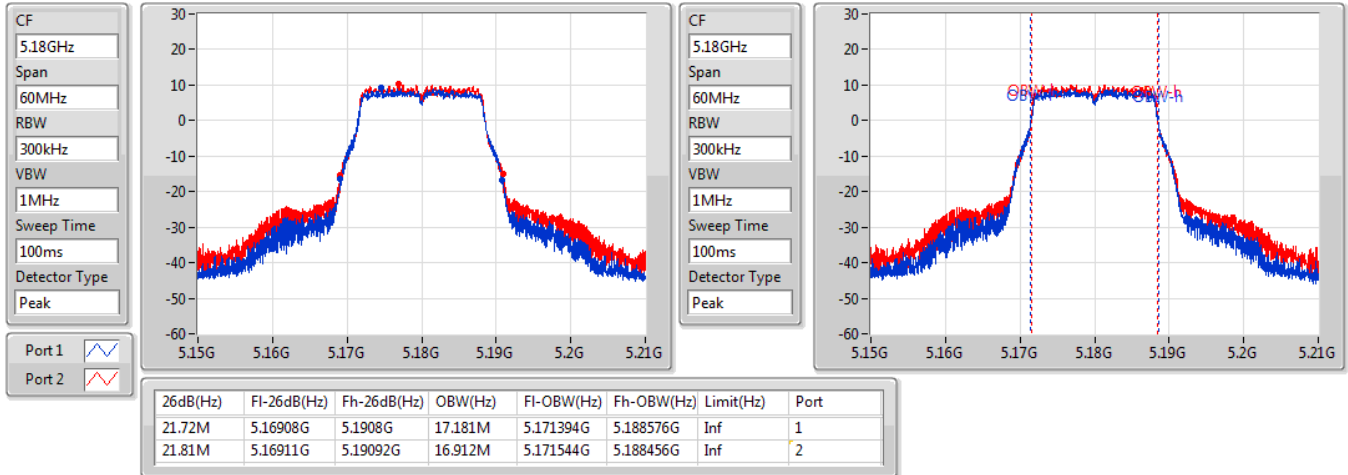

802.11a_Nss1,(6Mbps)_1TX(Port1)
EBW
5825MHz

26/07/2022

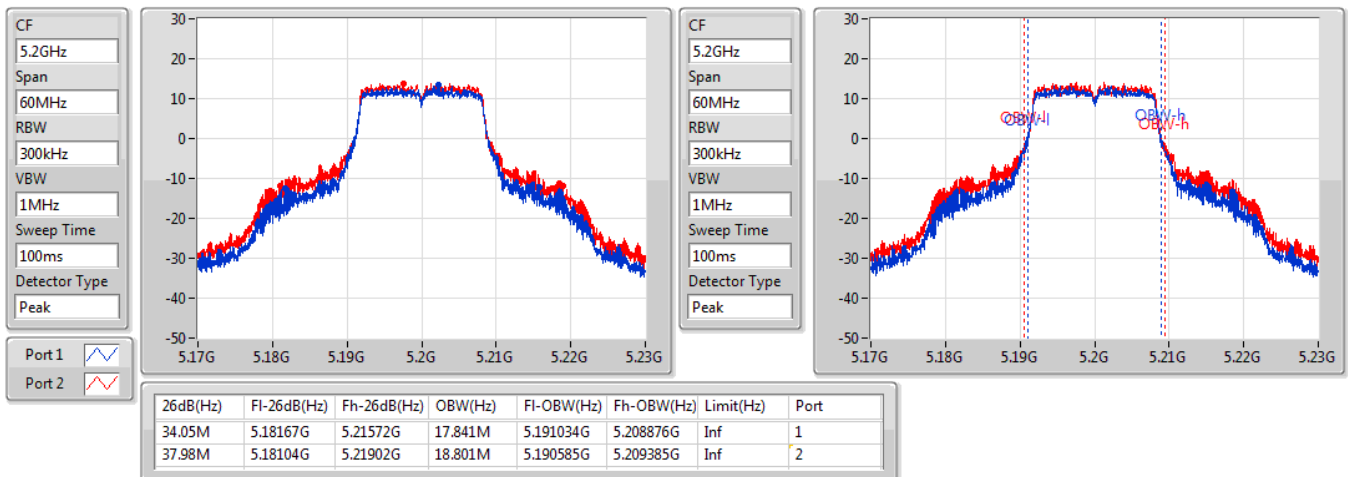


802.11a_Nss1,(6Mbps)_2TX
EBW
5180MHz

26/07/2022


802.11a_Nss1,(6Mbps)_2TX
EBW
5200MHz

26/07/2022

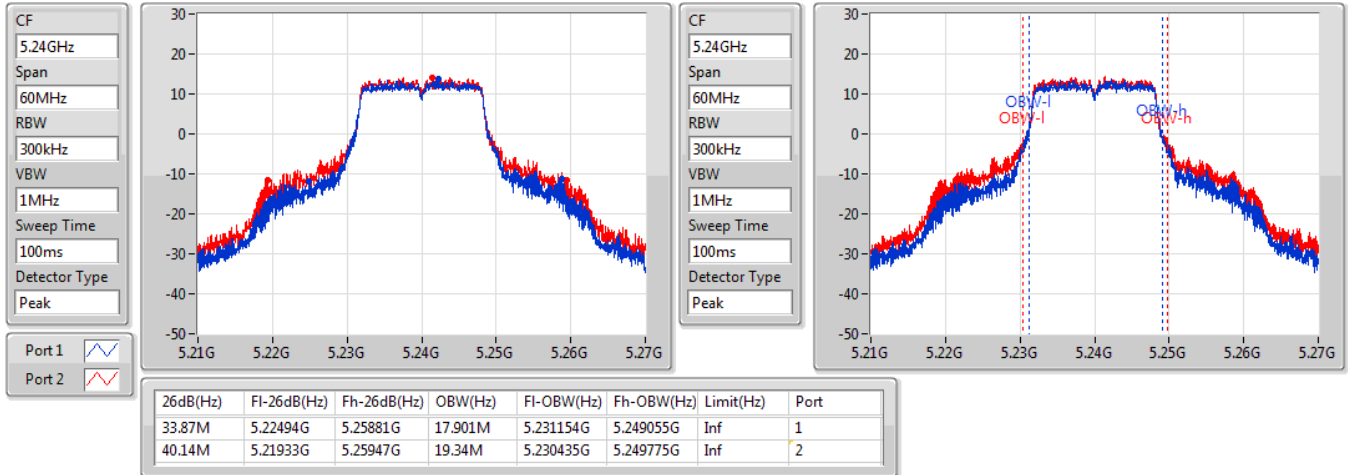


802.11a_Nss1,(6Mbps)_2TX

EBW

5240MHz

26/07/2022

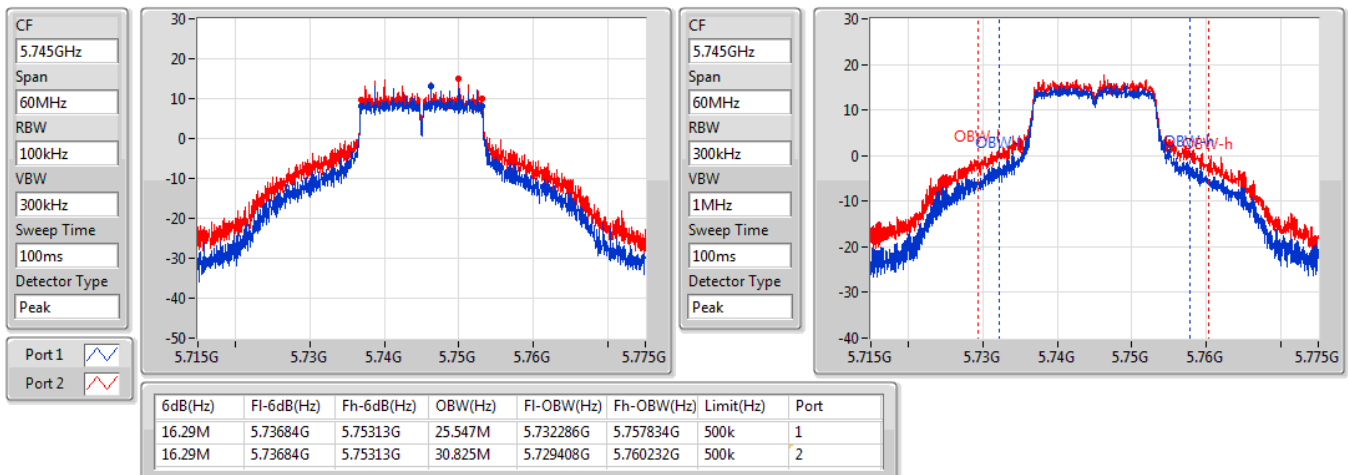


802.11a_Nss1,(6Mbps)_2TX

EBW

5745MHz

27/07/2022

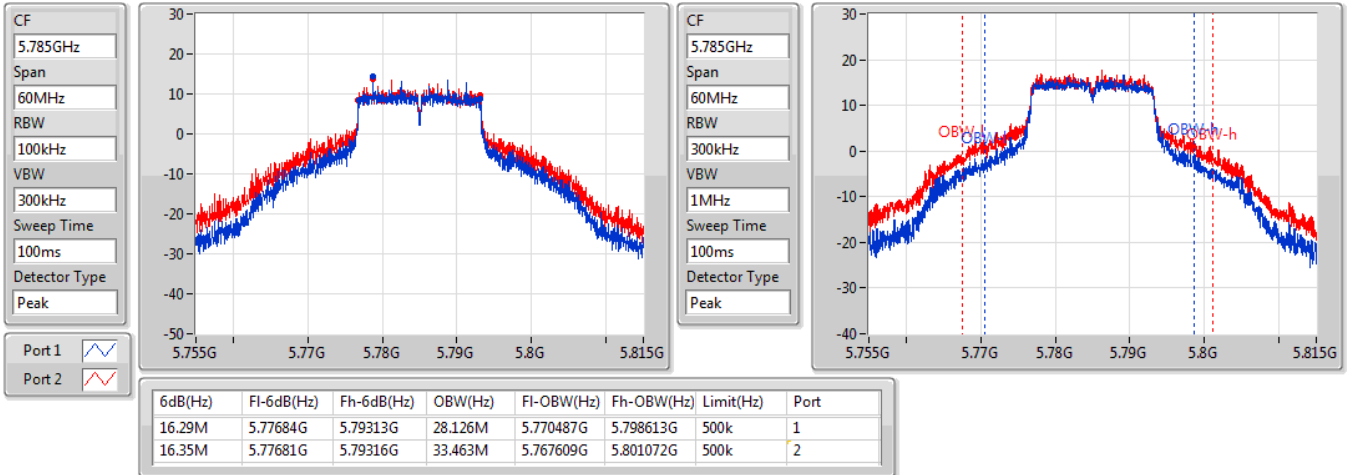


802.11a_Nss1,(6Mbps)_2TX

EBW

5785MHz

27/07/2022

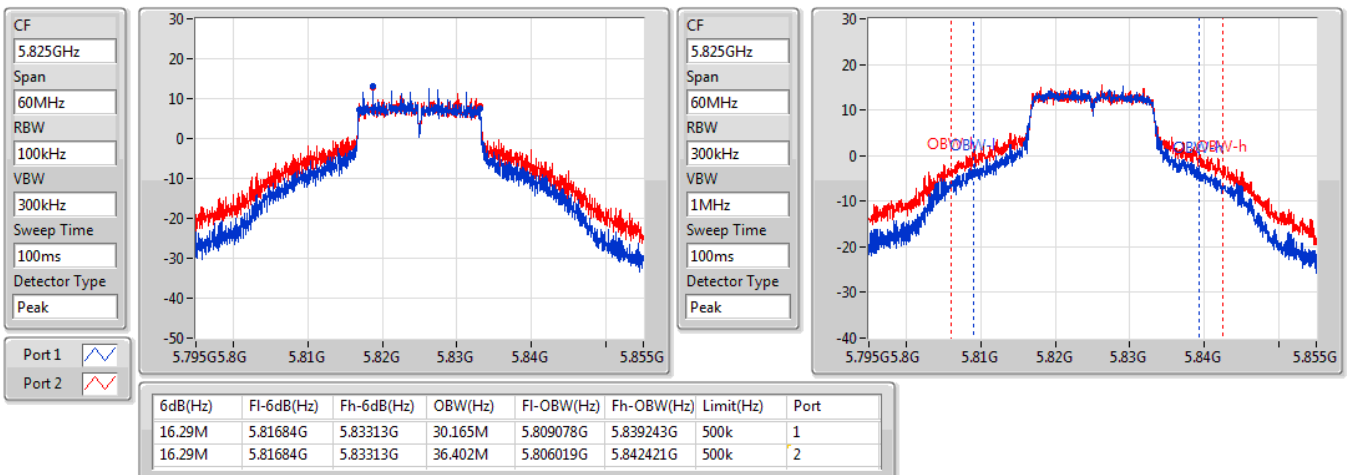


802.11a_Nss1,(6Mbps)_2TX

EBW

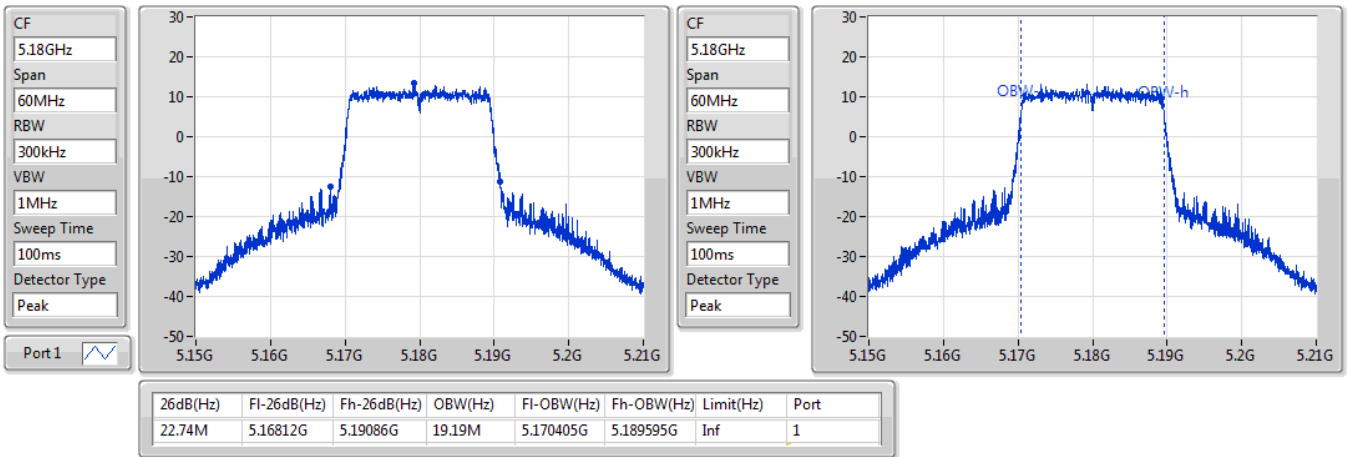
5825MHz

27/07/2022

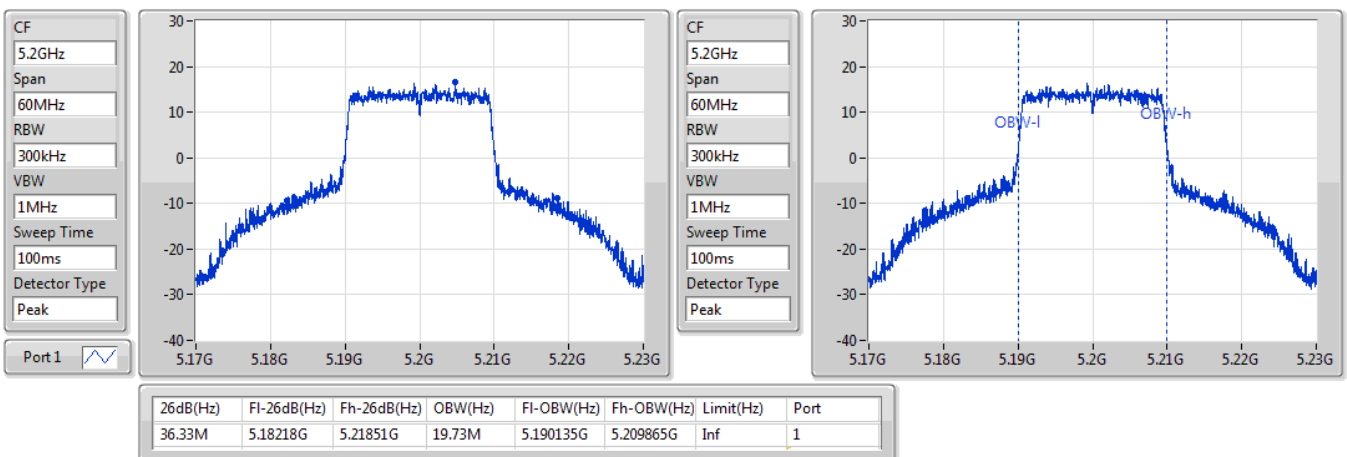


802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)
EBW
5180MHz

27/07/2022

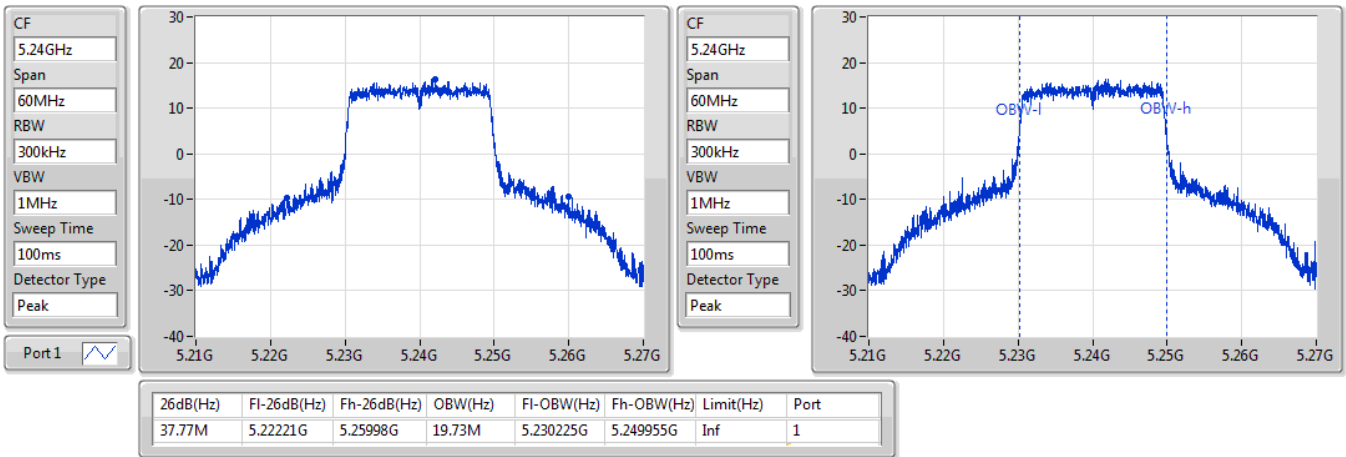

802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)
EBW
5200MHz

27/07/2022

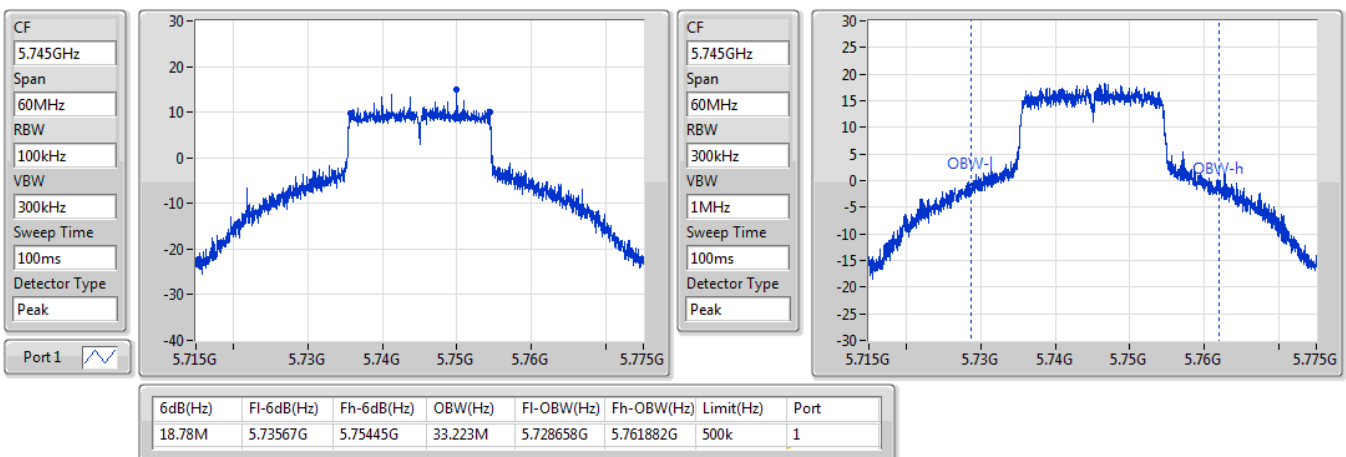


802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)
EBW
5240MHz

27/07/2022

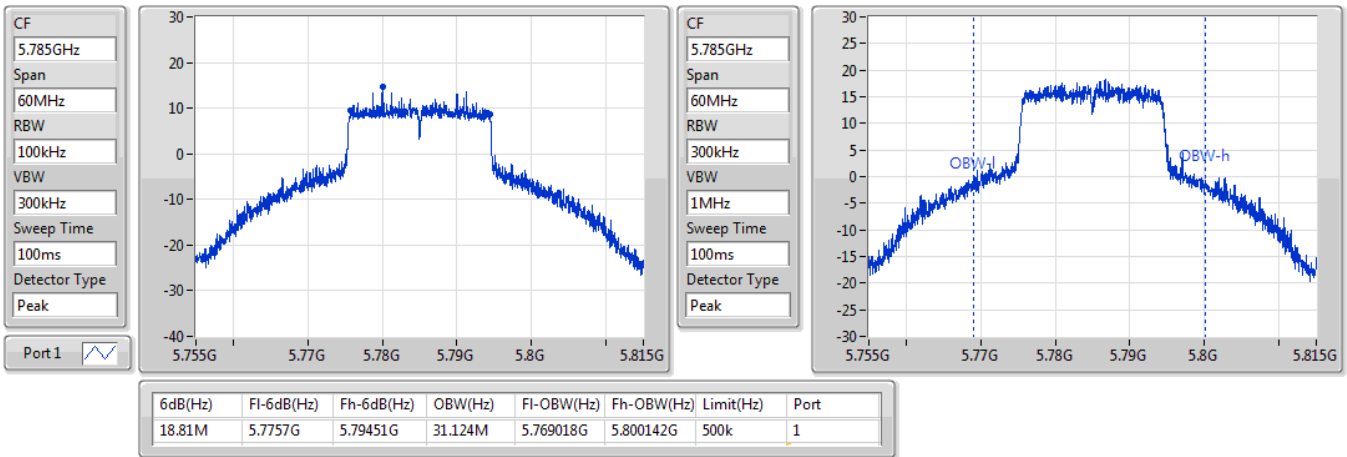

802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)
EBW
5745MHz

27/07/2022

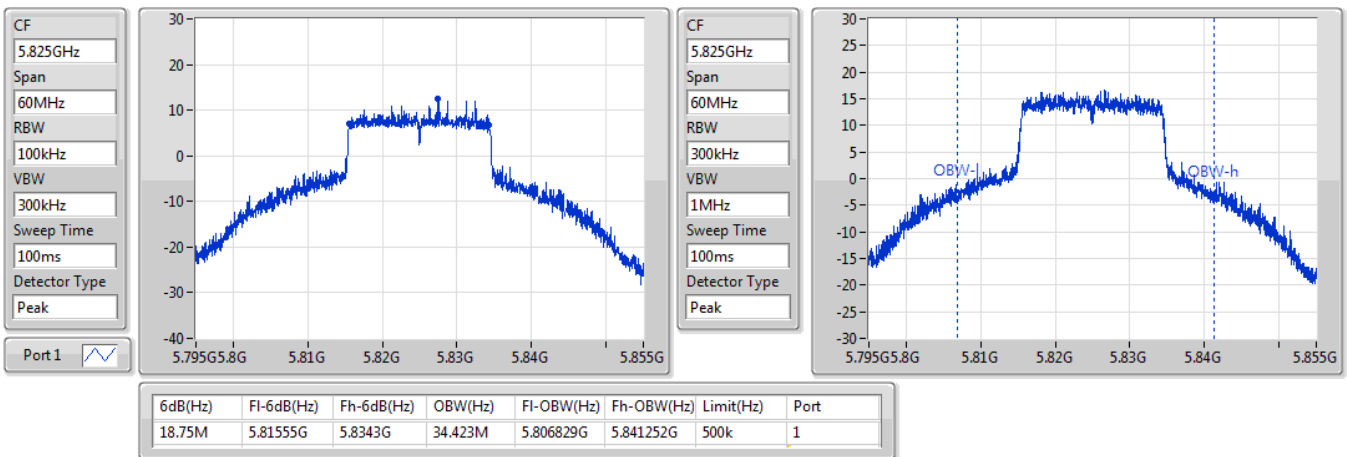


802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)
EBW
5785MHz

27/07/2022


802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)
EBW
5825MHz

27/07/2022

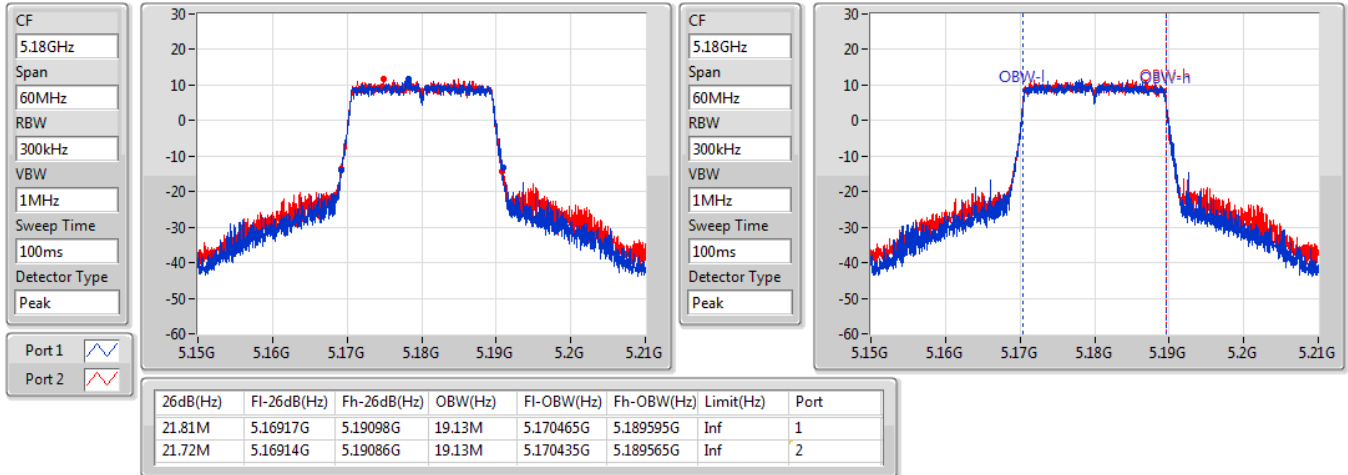


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5180MHz

27/07/2022

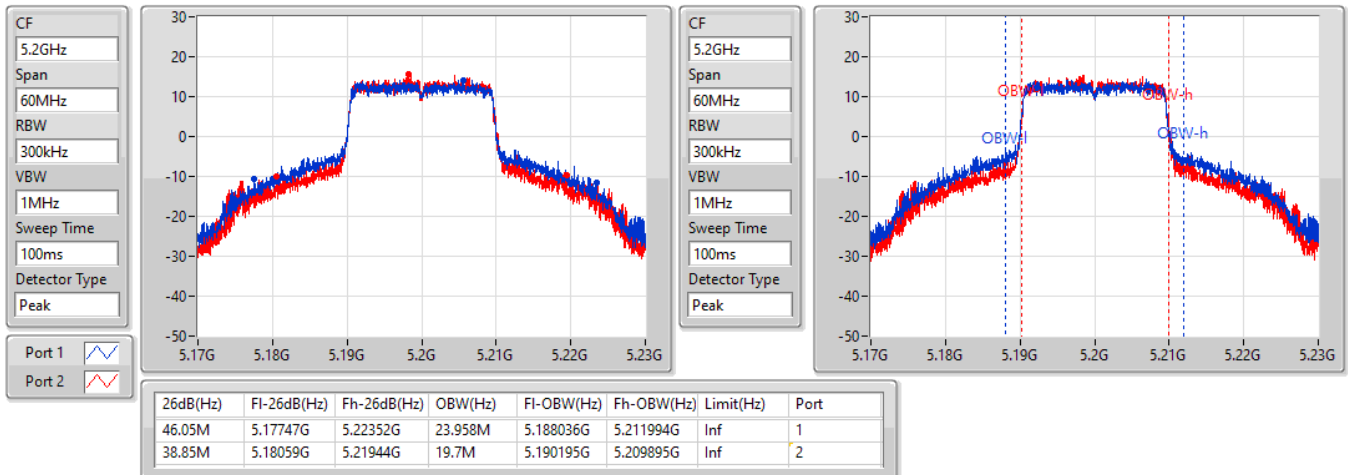


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5200MHz

13/08/2022

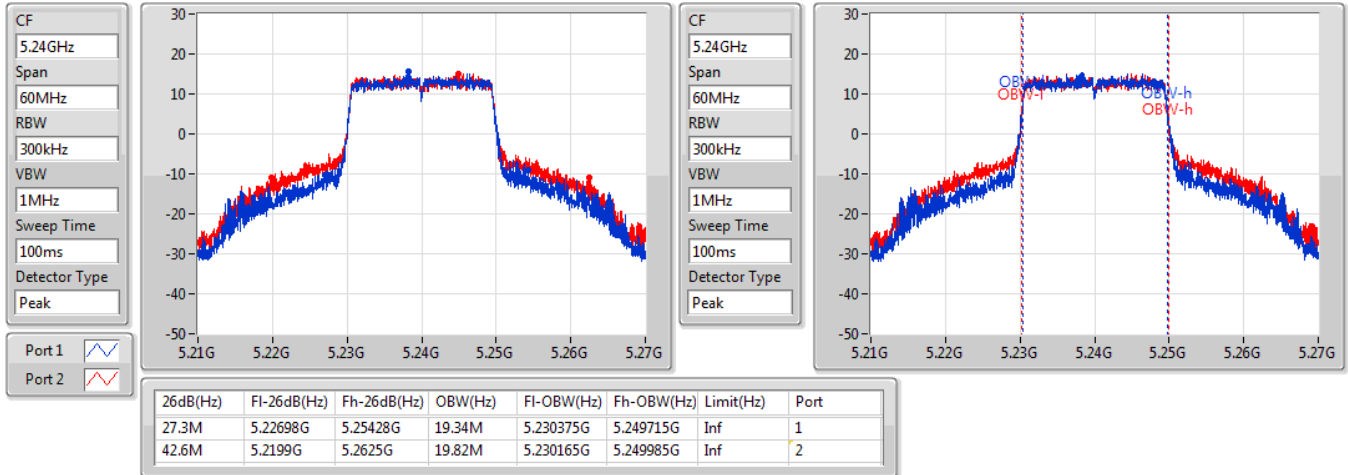


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5240MHz

27/07/2022

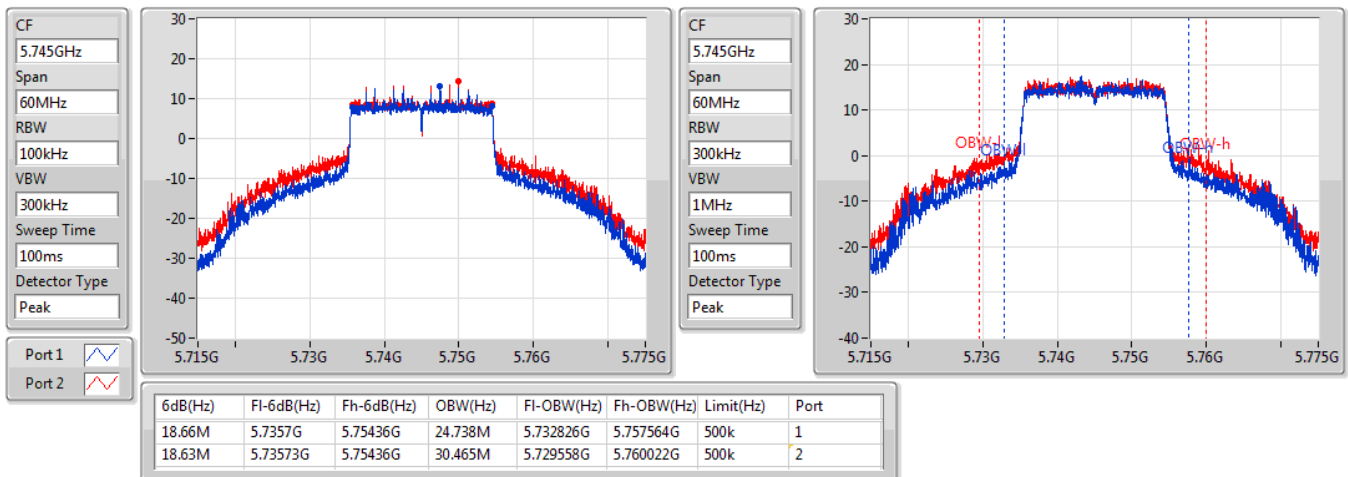


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5745MHz

27/07/2022

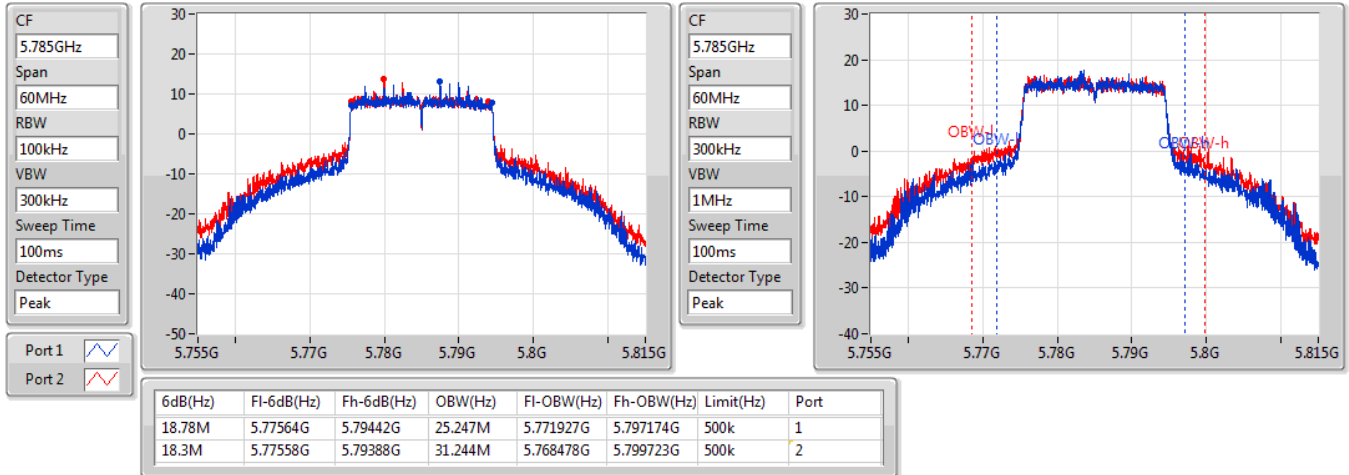


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5785MHz

27/07/2022

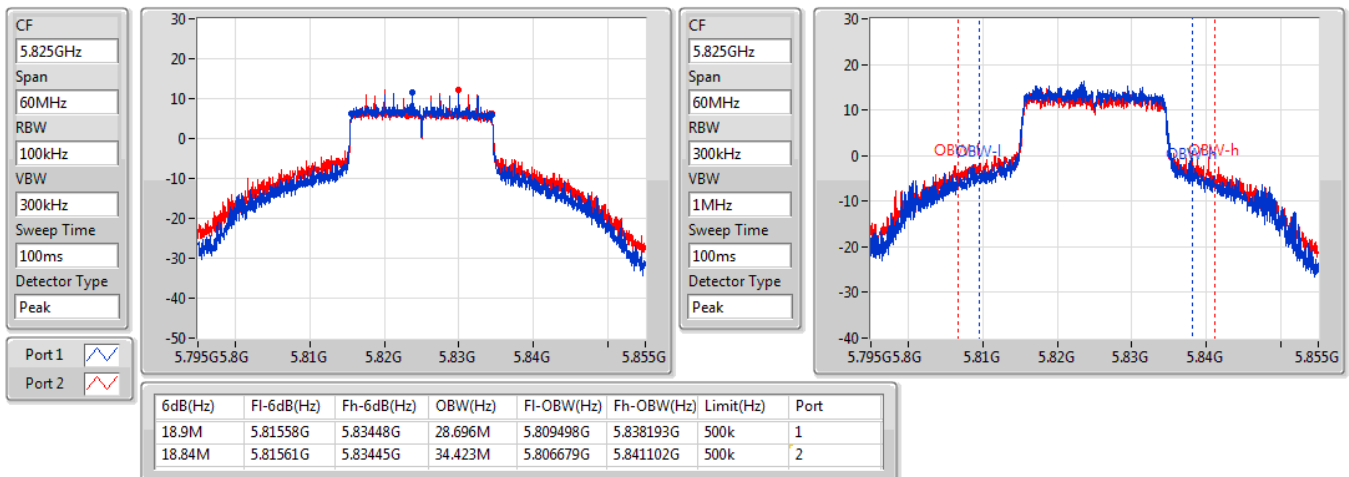


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

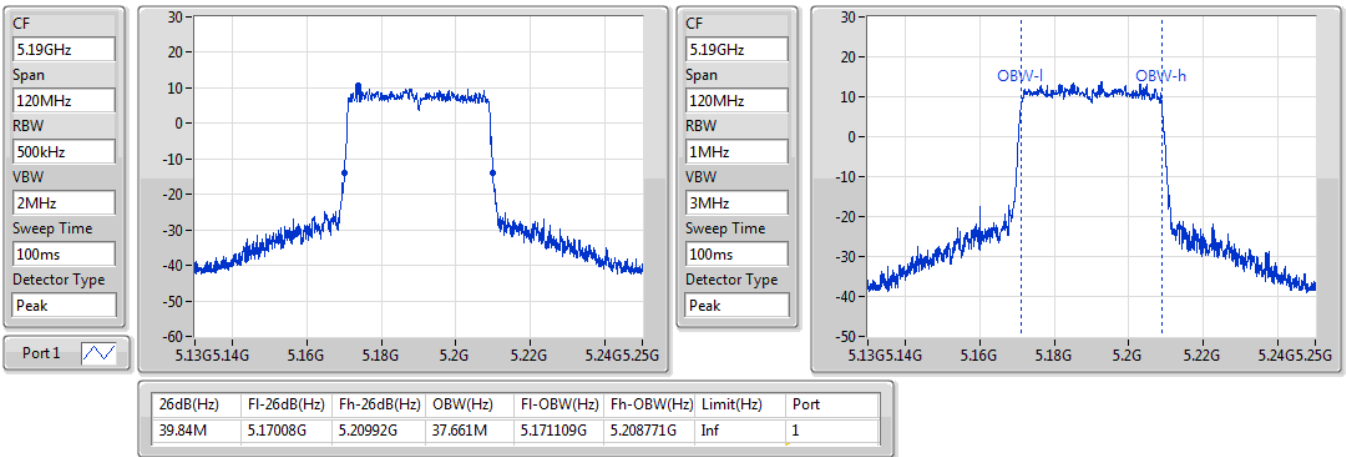
5825MHz

27/07/2022

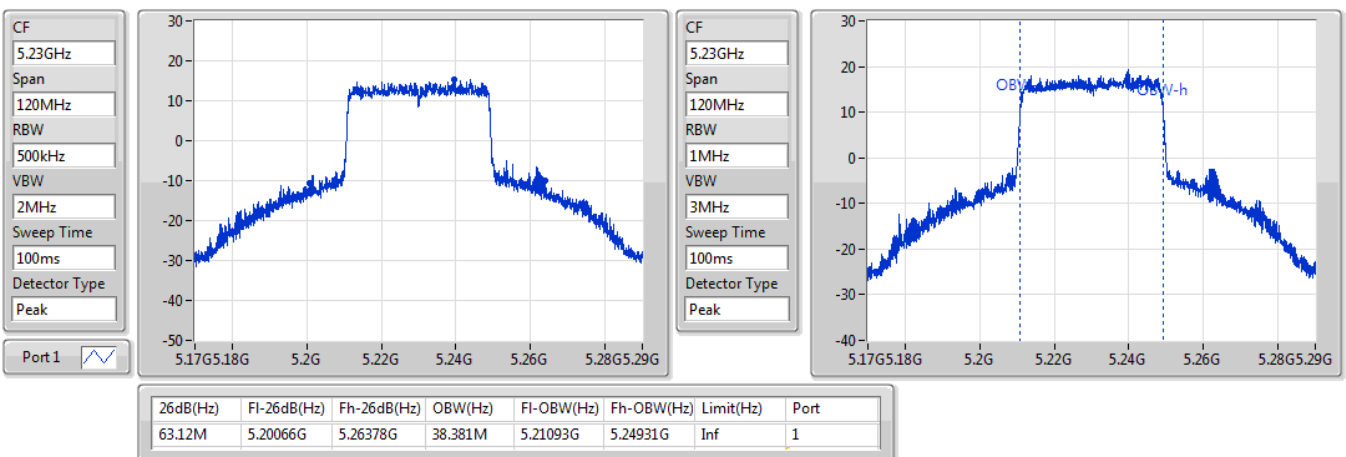


802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)
EBW
5190MHz

27/07/2022

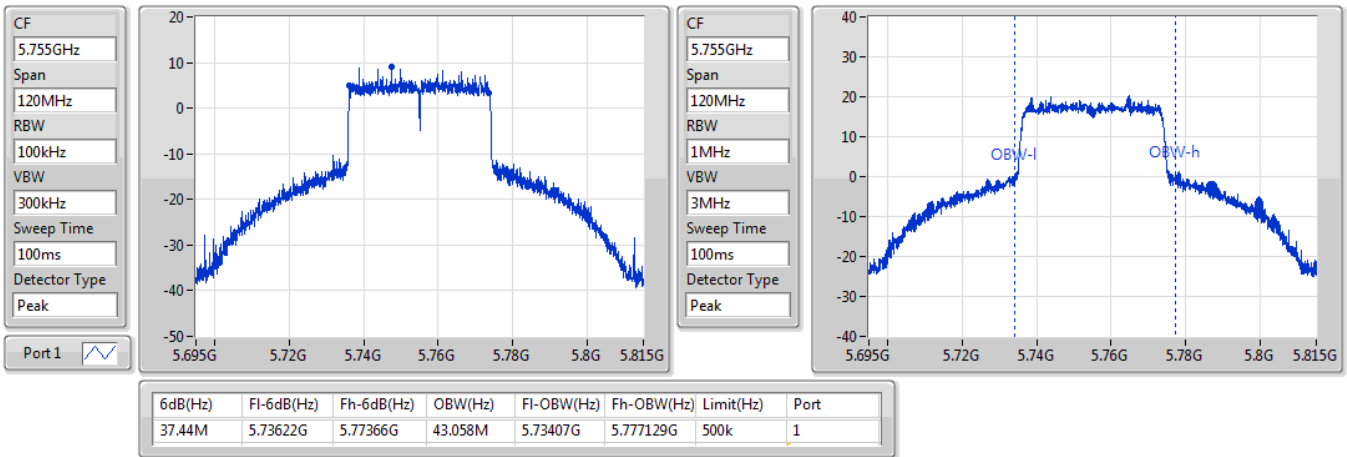

802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)
EBW
5230MHz

27/07/2022

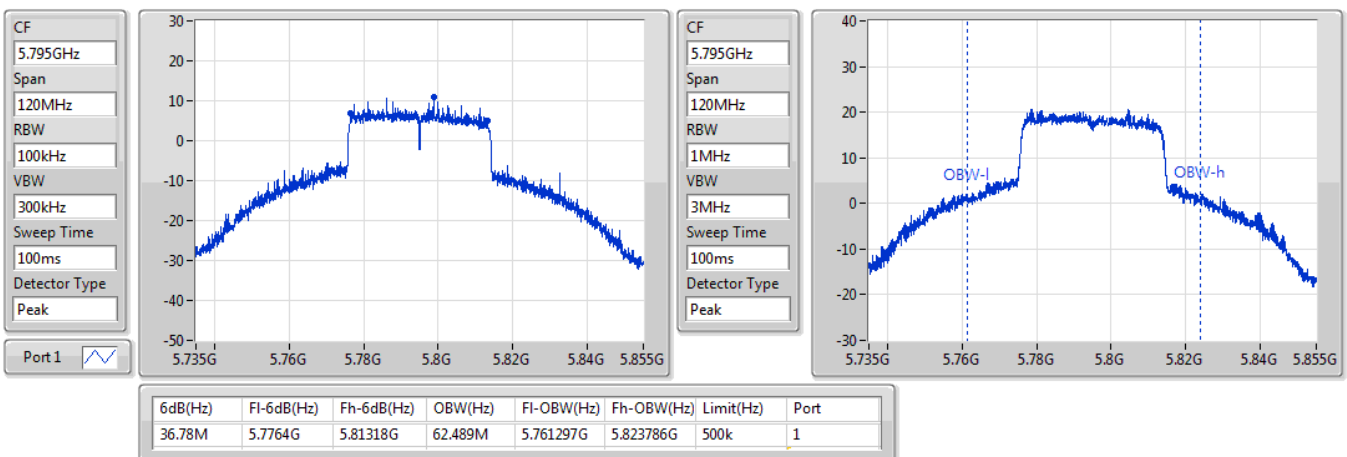


802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)
EBW
5755MHz

27/07/2022


802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)
EBW
5795MHz

27/07/2022

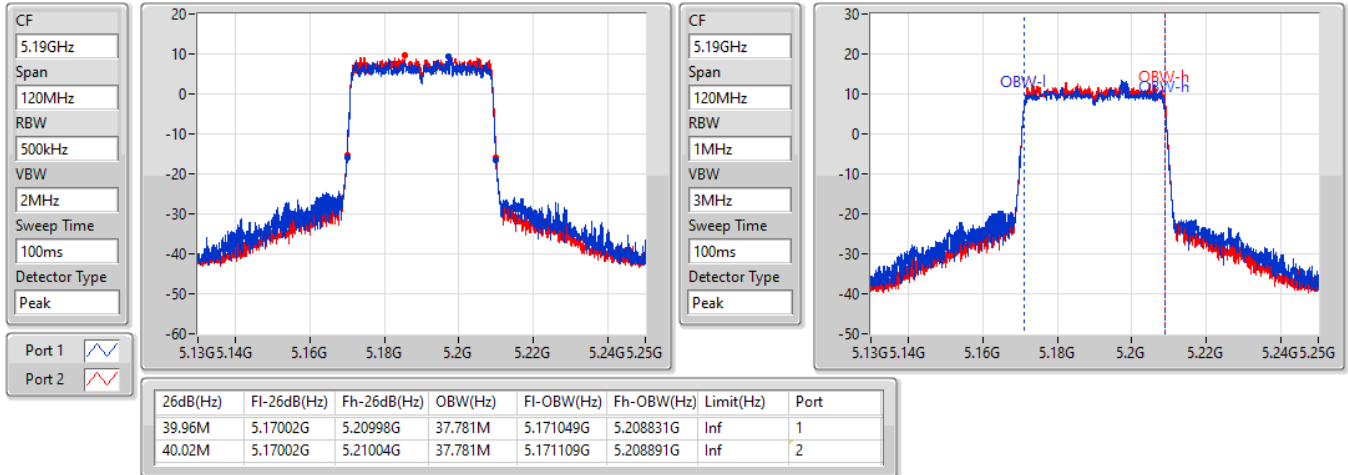


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EBW

5190MHz

13/08/2022

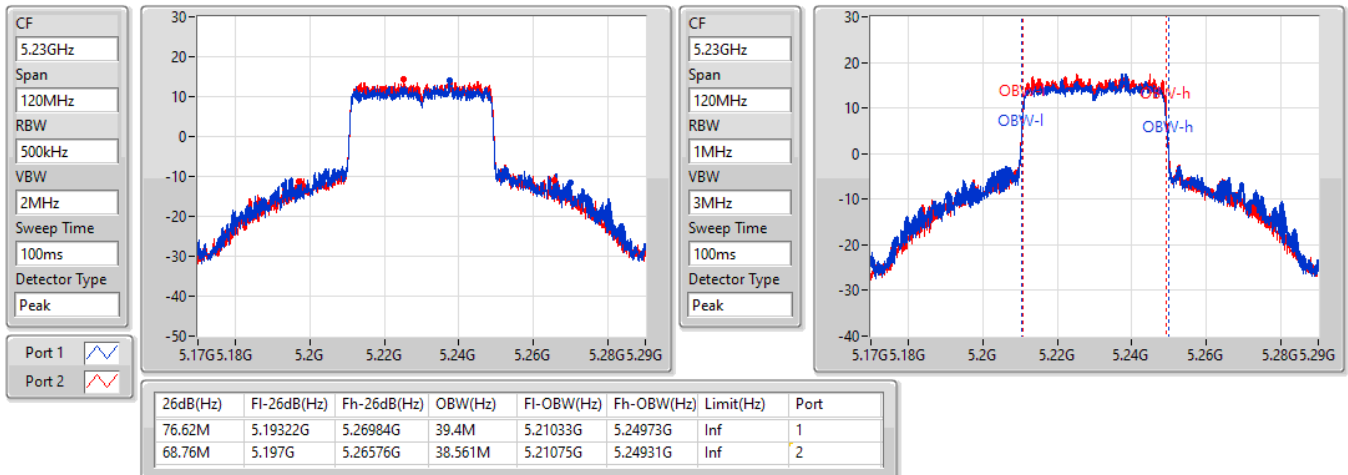


802.11ax HEW40_Nss2,(MCS0)_2TX

EBW

5230MHz

13/08/2022

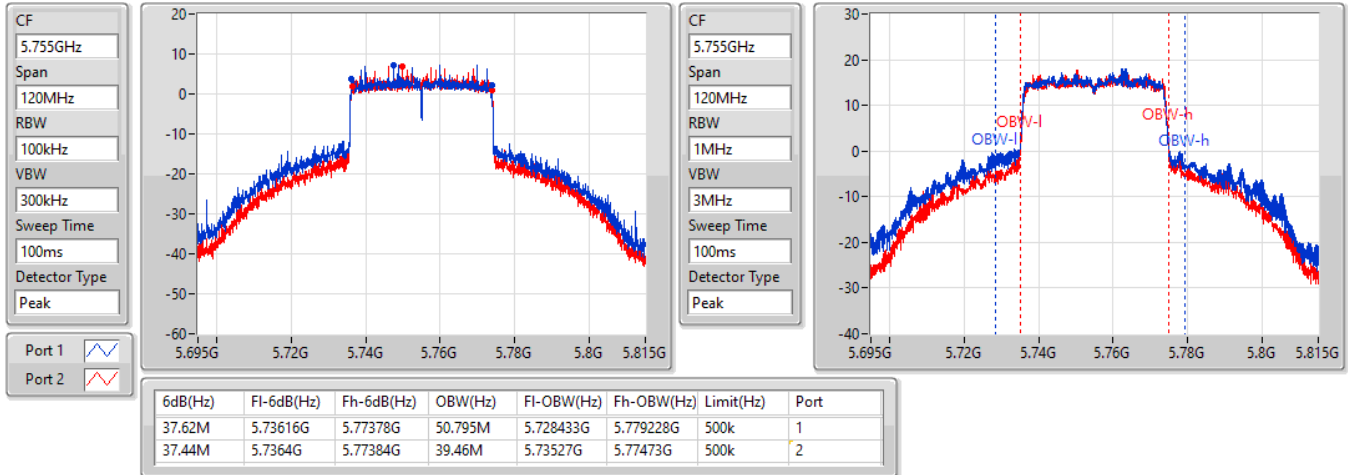


802.11ax HEW40_Nss2,(MCS0)_2TX

EBW

5755MHz

13/08/2022

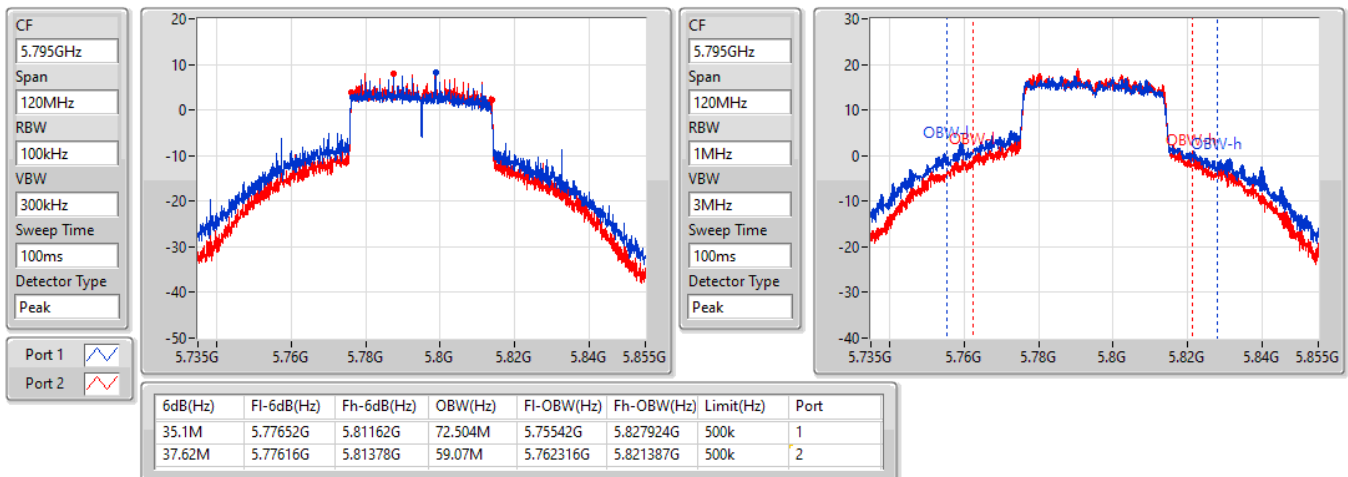


802.11ax HEW40_Nss2,(MCS0)_2TX

EBW

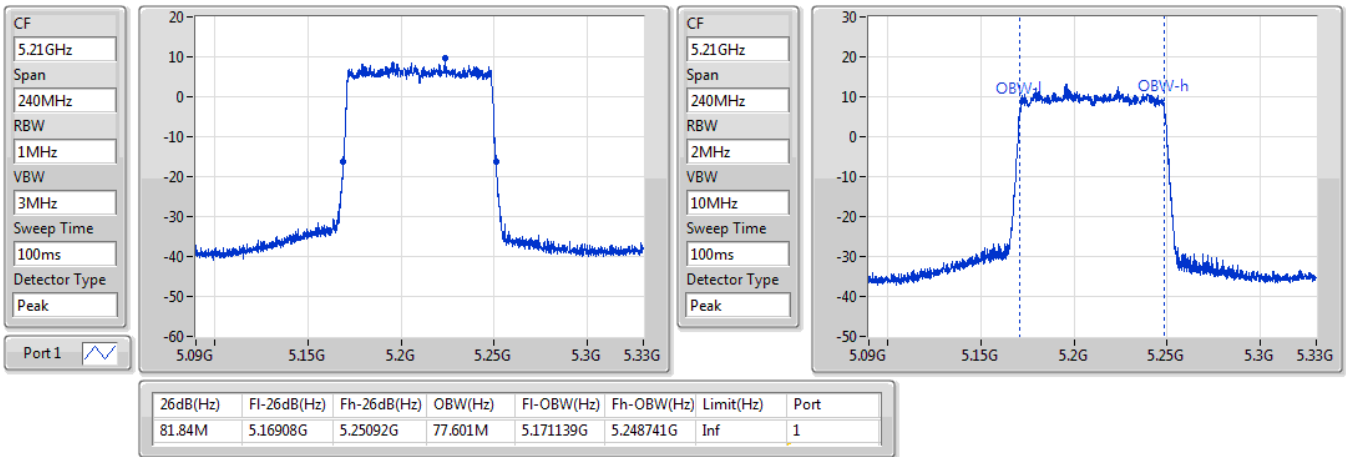
5795MHz

13/08/2022

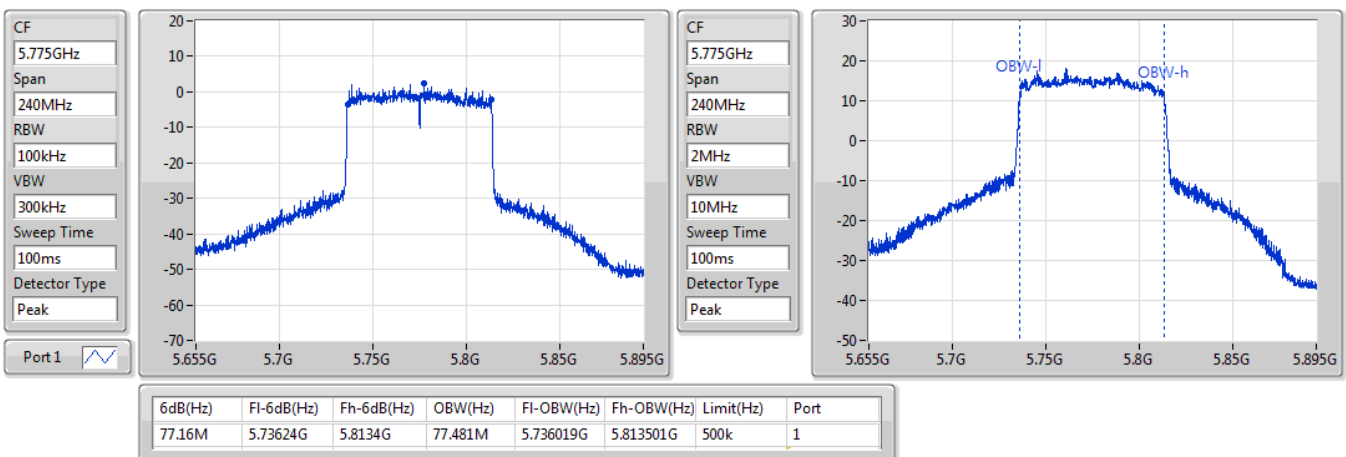


802.11ax HEW80_Nss1,(MCS0)_1TX(Port1)
EBW
5210MHz

27/07/2022


802.11ax HEW80_Nss1,(MCS0)_1TX(Port1)
EBW
5775MHz

27/07/2022

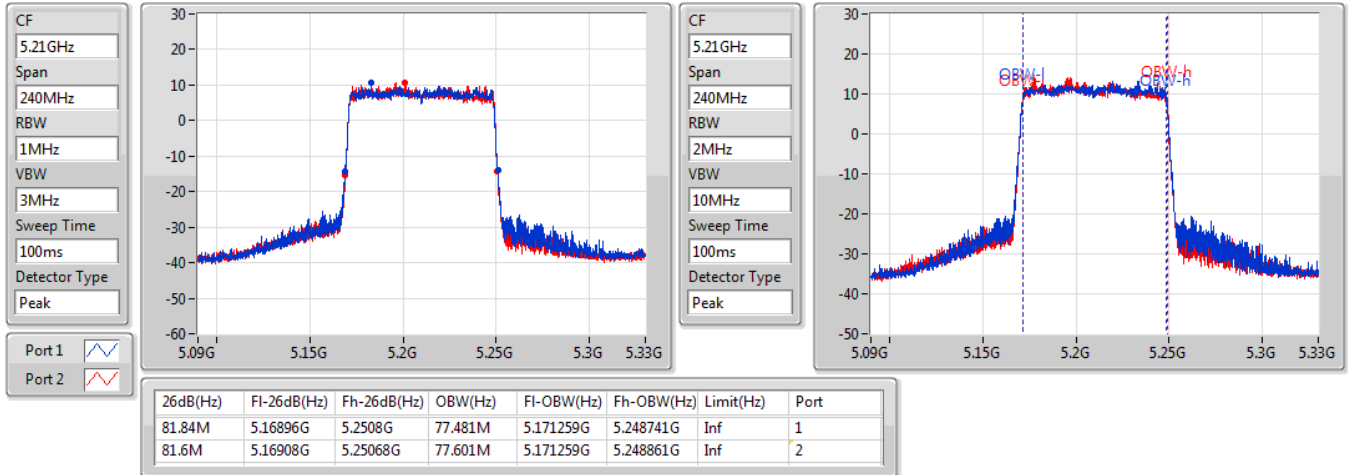


802.11ax HEW80_Nss2,(MCS0)_2TX

EBW

5210MHz

27/07/2022

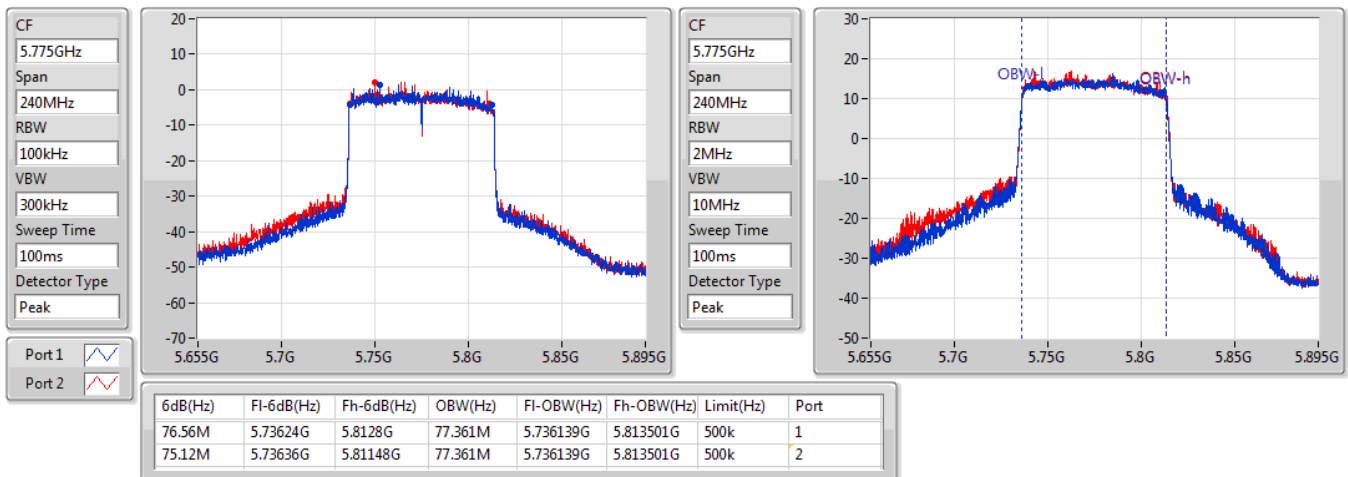


802.11ax HEW80_Nss2,(MCS0)_2TX

EBW

5775MHz

27/07/2022



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	40.41M	21.079M	21M1D1D	25.86M	17.391M
802.11a_Nss1,(6Mbps)_2TX	41.25M	21.799M	21M8D1D	21.69M	16.942M
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	39.12M	19.82M	19M9D1D	22.86M	19.16M
802.11ax HEW20_Nss2,(MCS0)_2TX	42.54M	19.76M	19M8D1D	21.66M	19.1M
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	70.62M	38.321M	38M4D1D	40.14M	37.961M
802.11ax HEW40_Nss2,(MCS0)_2TX	76.56M	39.22M	39M3D1D	40.02M	37.721M
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	81.6M	77.481M	77M5D1D	81.6M	77.481M
802.11ax HEW80_Nss2,(MCS0)_2TX	82.2M	77.601M	77M7D1D	81.12M	77.361M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	16.29M	32.324M	32M4D1D	16.29M	30.225M
802.11a_Nss1,(6Mbps)_2TX	16.41M	44.618M	44M7D1D	16.29M	28.366M
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	18.66M	39.13M	39M2D1D	17.55M	35.772M
802.11ax HEW20_Nss2,(MCS0)_2TX	18.81M	48.636M	48M7D1D	16.29M	29.865M
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	37.74M	65.067M	65M1D1D	37.14M	44.798M
802.11ax HEW40_Nss2,(MCS0)_2TX	37.26M	63.088M	63M1D1D	36.3M	38.441M
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	76.32M	77.601M	77M7D1D	76.32M	77.601M
802.11ax HEW80_Nss2,(MCS0)_2TX	76.92M	77.361M	77M4D1D	76.32M	77.361M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
 Max-OBW = Maximum 99% occupied bandwidth;
 Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
 Min-OBW = Minimum 99% occupied bandwidth

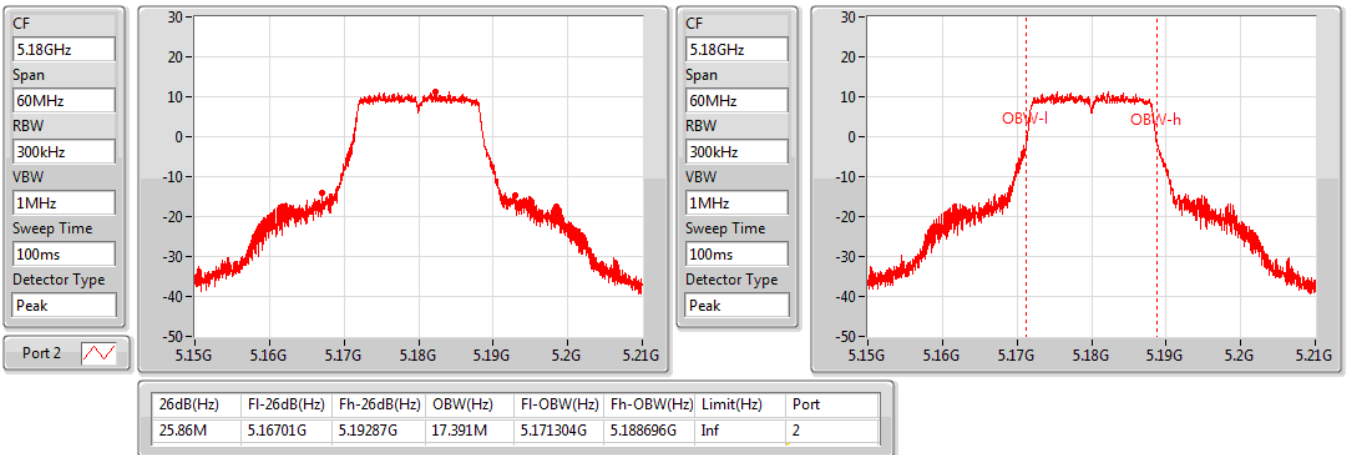
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-
5180MHz	Pass	Inf			25.86M	17.391M
5200MHz	Pass	Inf			40.41M	21.079M
5240MHz	Pass	Inf			37.86M	19.19M
5745MHz	Pass	500k			16.29M	30.375M
5785MHz	Pass	500k			16.29M	30.225M
5825MHz	Pass	500k			16.29M	32.324M
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.69M	17.181M	21.96M	16.942M
5200MHz	Pass	Inf	37.92M	18.831M	41.25M	21.799M
5240MHz	Pass	Inf	36.93M	17.961M	38.19M	19.34M
5745MHz	Pass	500k	16.29M	28.366M	16.29M	34.123M
5785MHz	Pass	500k	16.29M	33.583M	16.32M	42.099M
5825MHz	Pass	500k	16.29M	36.672M	16.41M	44.618M
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
5180MHz	Pass	Inf			22.86M	19.16M
5200MHz	Pass	Inf			39.12M	19.61M
5240MHz	Pass	Inf			38.82M	19.82M
5745MHz	Pass	500k			18.63M	35.892M
5785MHz	Pass	500k			17.55M	35.772M
5825MHz	Pass	500k			18.66M	39.13M
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.66M	19.1M	21.93M	19.13M
5200MHz	Pass	Inf	30.75M	19.37M	42.06M	19.76M
5240MHz	Pass	Inf	31.62M	19.37M	42.54M	19.73M
5745MHz	Pass	500k	18.81M	29.865M	18.6M	34.633M
5785MHz	Pass	500k	18.75M	31.634M	18.66M	39.85M
5825MHz	Pass	500k	18.27M	39.97M	16.29M	48.636M
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
5190MHz	Pass	Inf			40.14M	37.961M
5230MHz	Pass	Inf			70.62M	38.321M
5755MHz	Pass	500k			37.14M	44.798M
5795MHz	Pass	500k			37.74M	65.067M
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	40.14M	37.721M	40.02M	37.781M
5230MHz	Pass	Inf	76.56M	39.22M	68.82M	38.501M
5755MHz	Pass	500k	37.08M	38.441M	37.26M	41.199M
5795MHz	Pass	500k	37.2M	50.375M	36.3M	63.088M
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
5210MHz	Pass	Inf			81.6M	77.481M
5775MHz	Pass	500k			76.32M	77.601M
802.11ax HEW80_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	82.2M	77.601M	81.12M	77.361M
5775MHz	Pass	500k	76.32M	77.361M	76.92M	77.361M

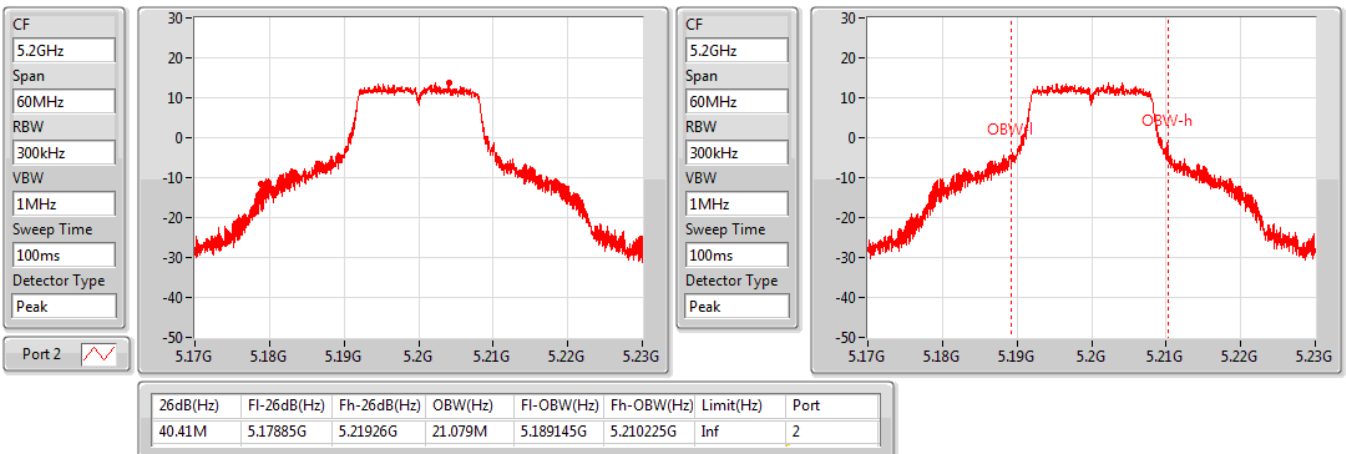
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_1TX(Port2)
EBW
5180MHz

28/07/2022


802.11a_Nss1,(6Mbps)_1TX(Port2)
EBW
5200MHz

28/07/2022

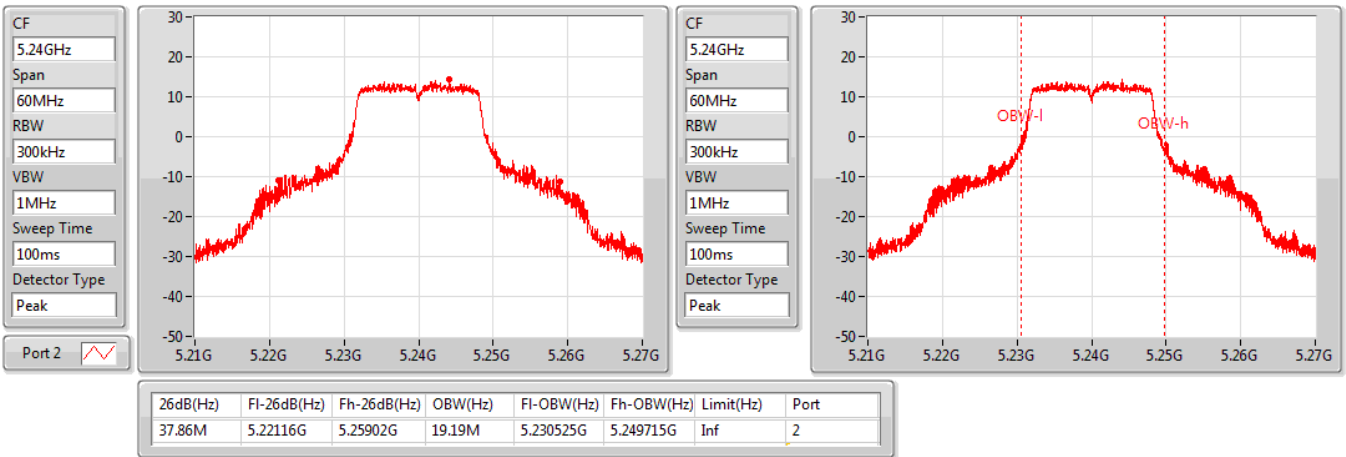


802.11a_Nss1,(6Mbps)_1TX(Port2)

EBW

5240MHz

27/07/2022

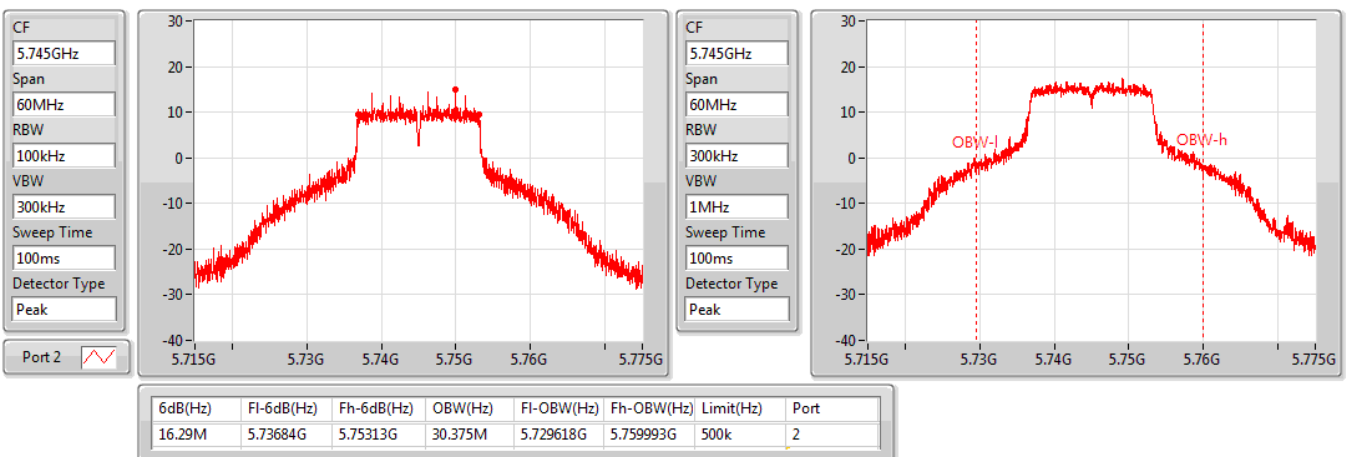


802.11a_Nss1,(6Mbps)_1TX(Port2)

EBW

5745MHz

27/07/2022

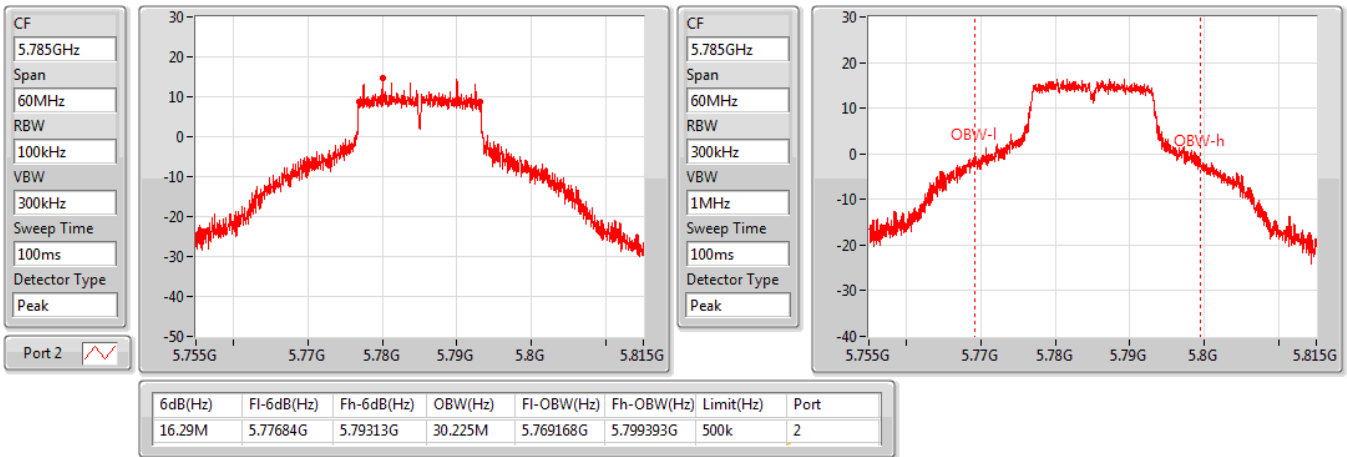


802.11a_Nss1,(6Mbps)_1TX(Port2)

EBW

5785MHz

27/07/2022

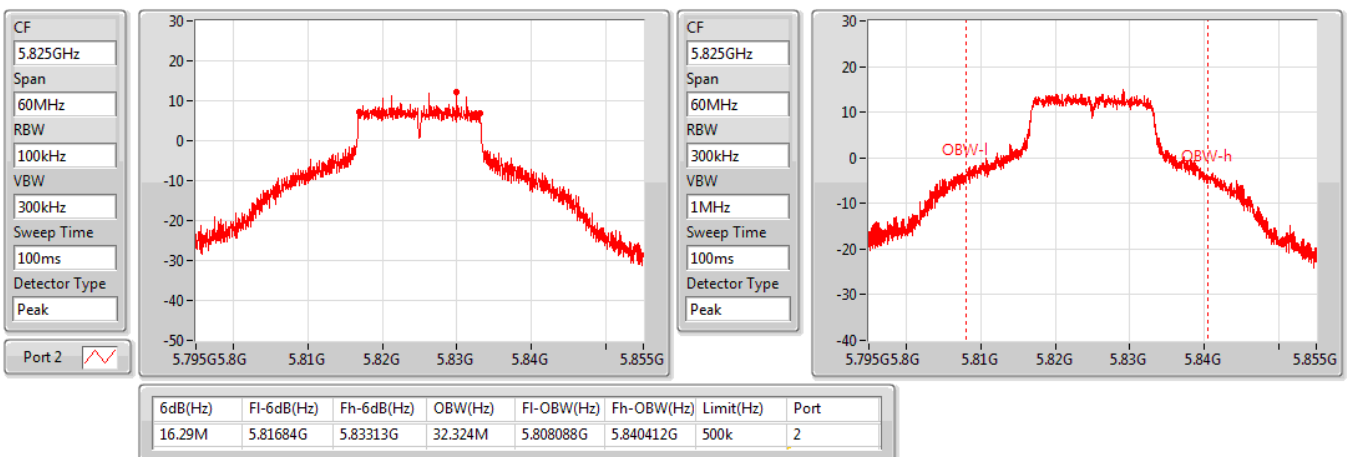


802.11a_Nss1,(6Mbps)_1TX(Port2)

EBW

5825MHz

27/07/2022

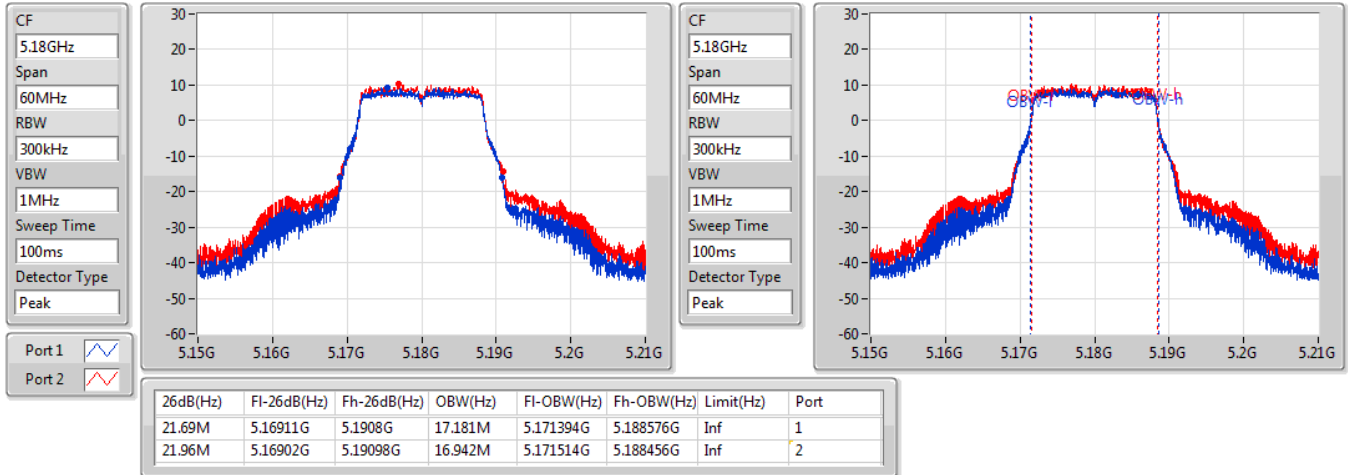


802.11a_Nss1,(6Mbps)_2TX

EBW

5180MHz

28/07/2022

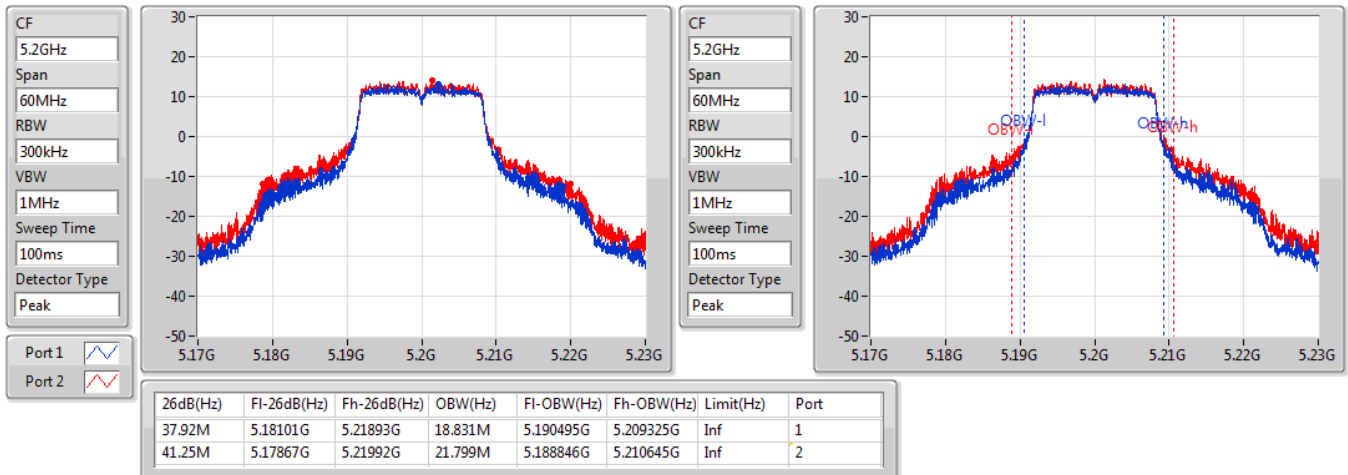


802.11a_Nss1,(6Mbps)_2TX

EBW

5200MHz

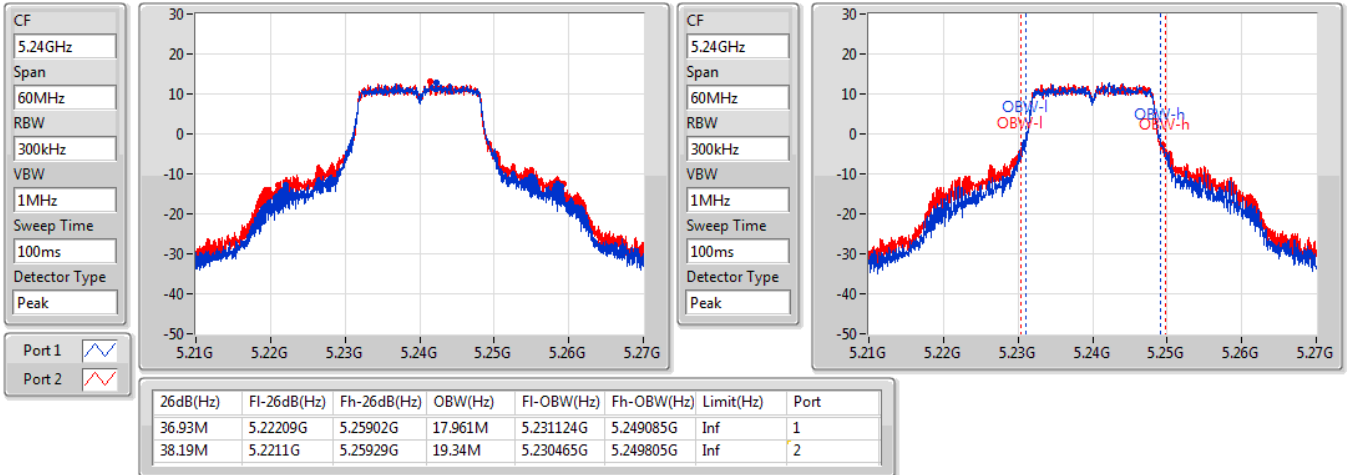
28/07/2022



802.11a_Nss1,(6Mbps)_2TX

5240MHz

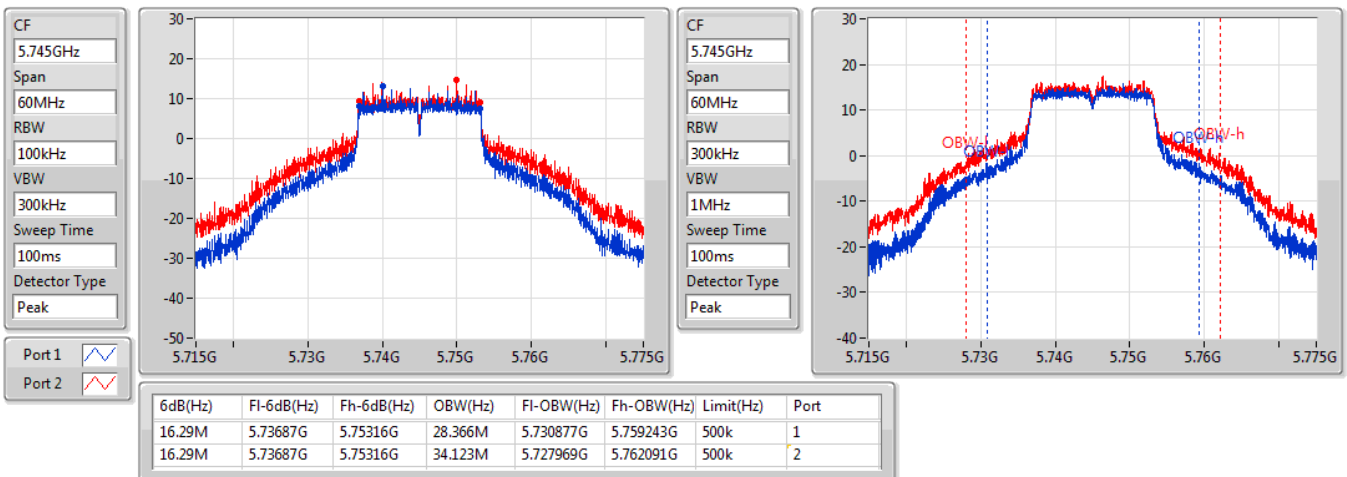
28/07/2022



802.11a_Nss1,(6Mbps)_2TX

5745MHz

28/07/2022

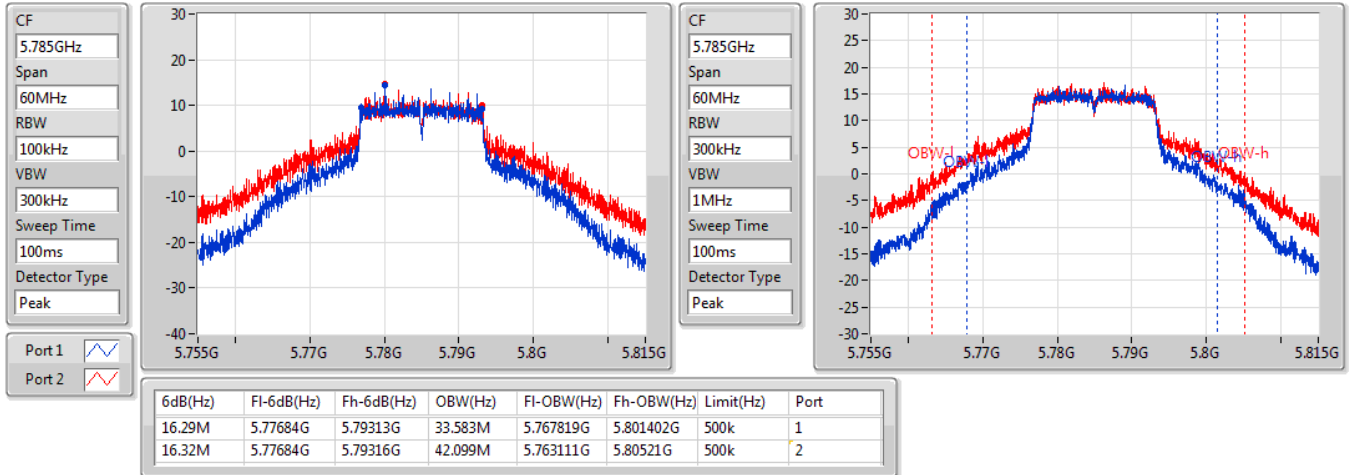


802.11a_Nss1,(6Mbps)_2TX

EBW

5785MHz

28/07/2022

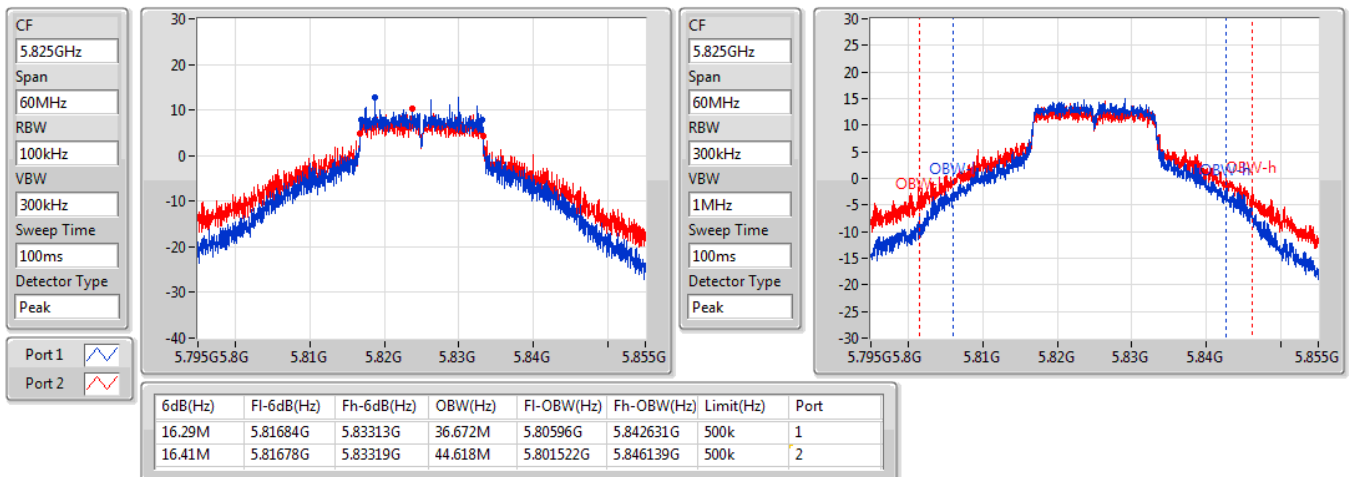


802.11a_Nss1,(6Mbps)_2TX

EBW

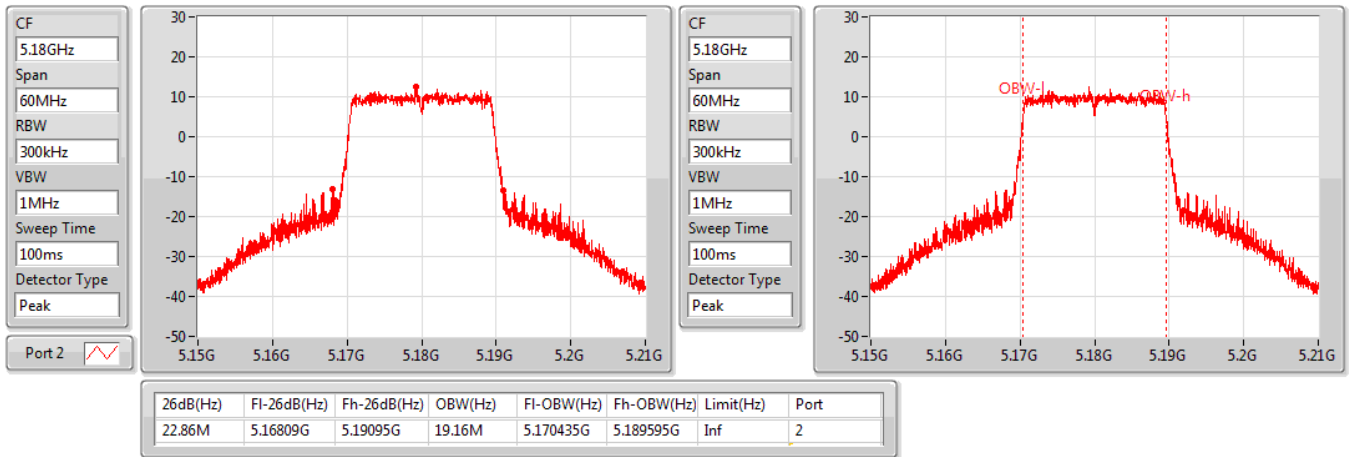
5825MHz

28/07/2022

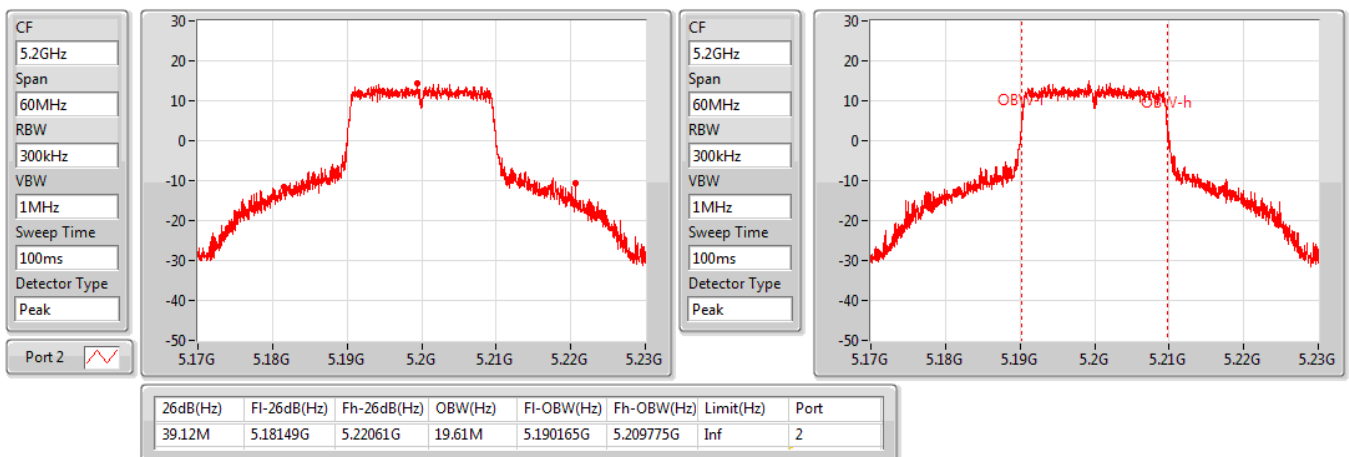


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)
EBW
5180MHz

28/07/2022

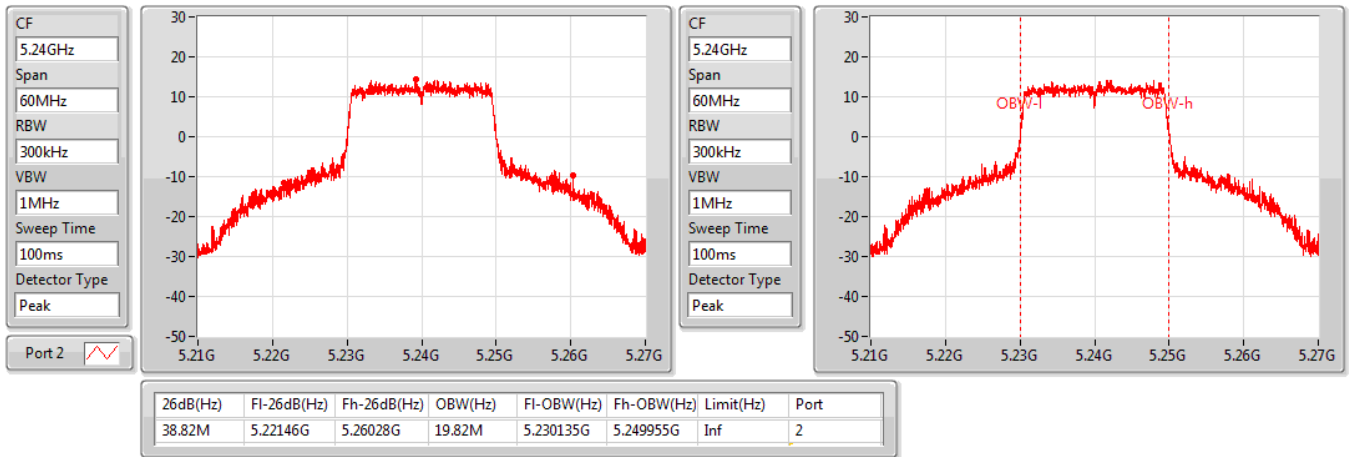

802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)
EBW
5200MHz

28/07/2022

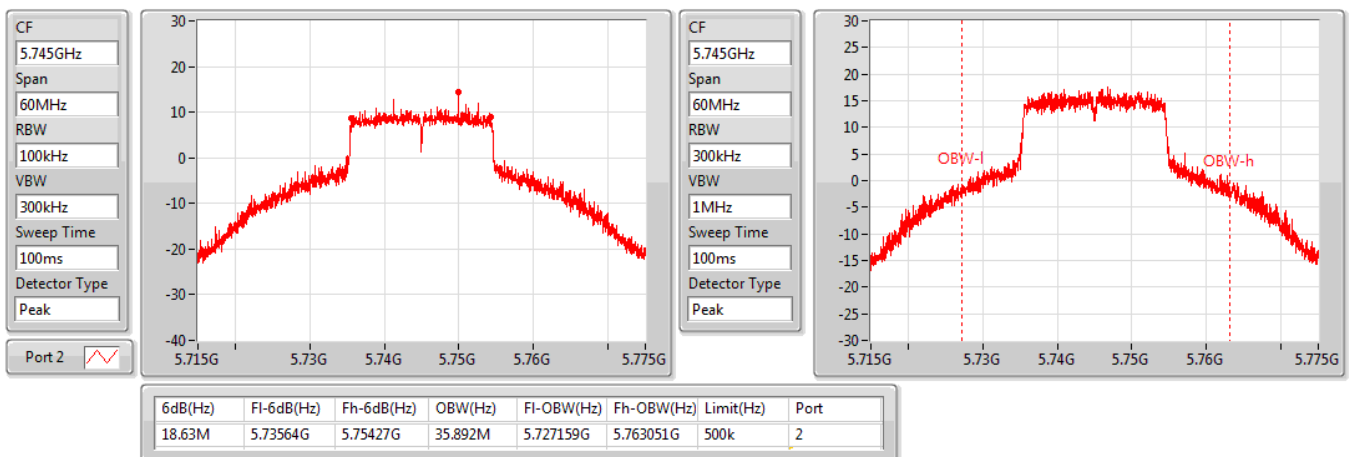


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)
EBW
5240MHz

28/07/2022


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)
EBW
5745MHz

28/07/2022

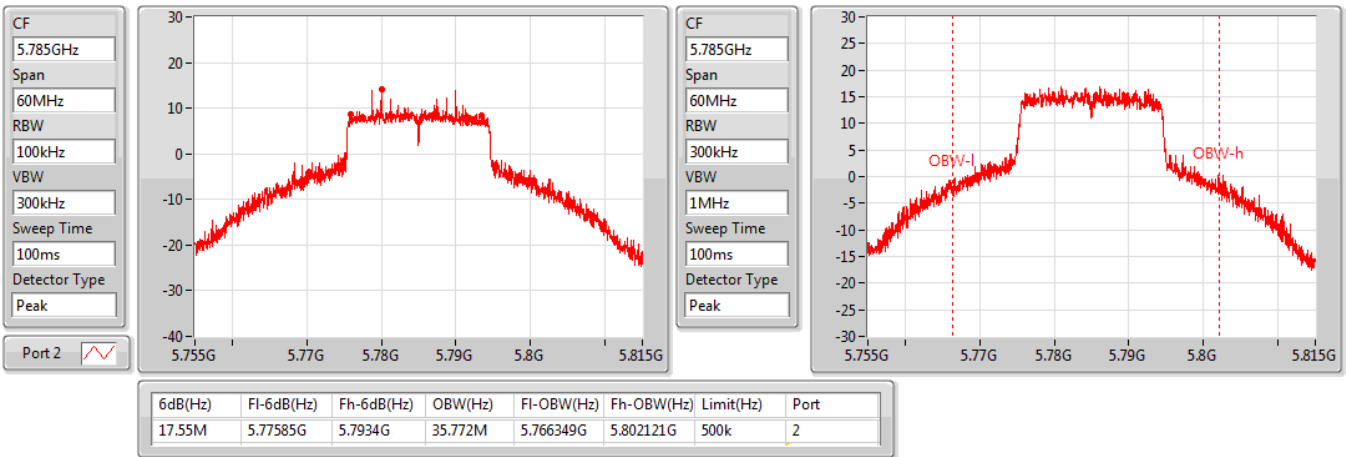


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)

EBW

5785MHz

28/07/2022

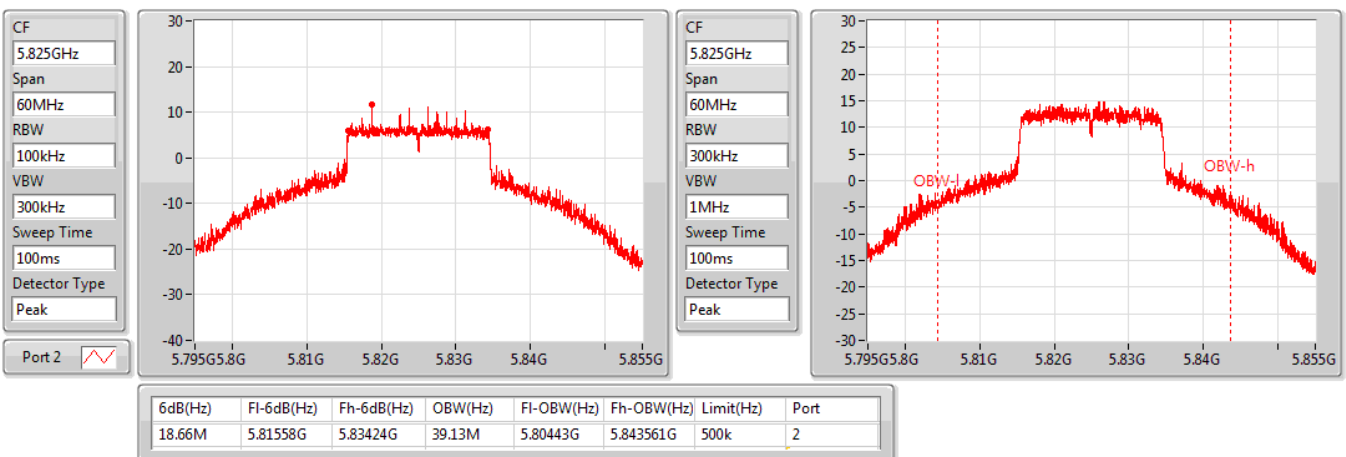


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)

EBW

5825MHz

28/07/2022

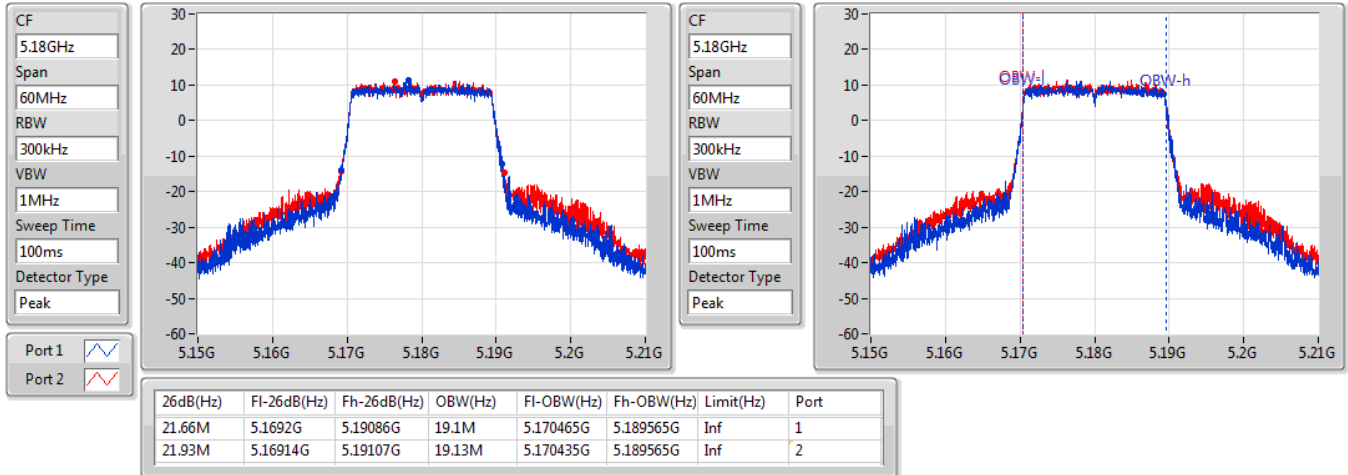


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5180MHz

28/07/2022

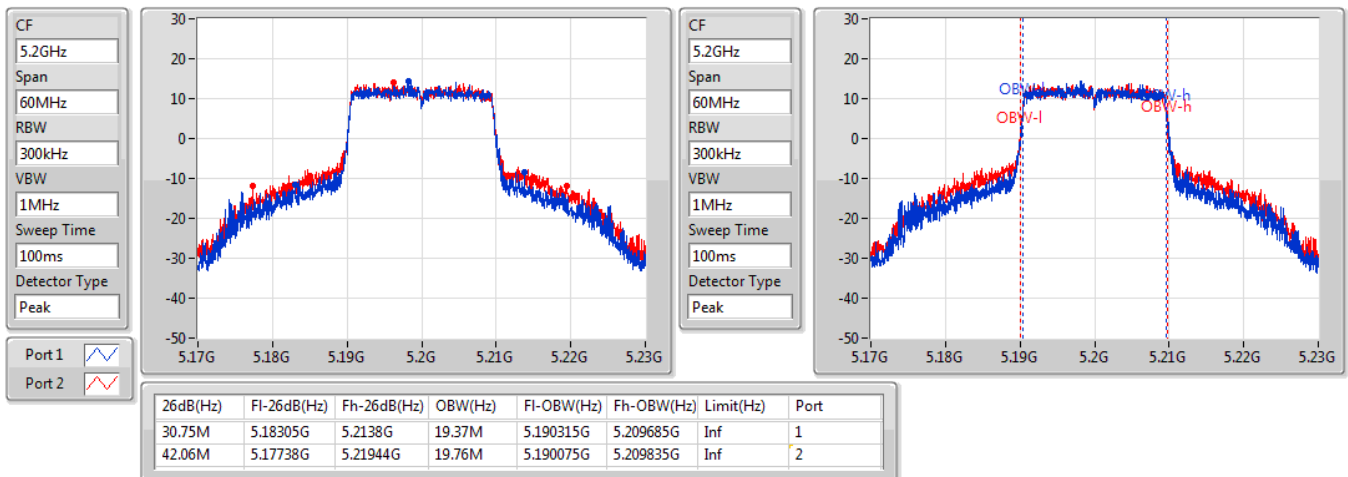


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5200MHz

28/07/2022

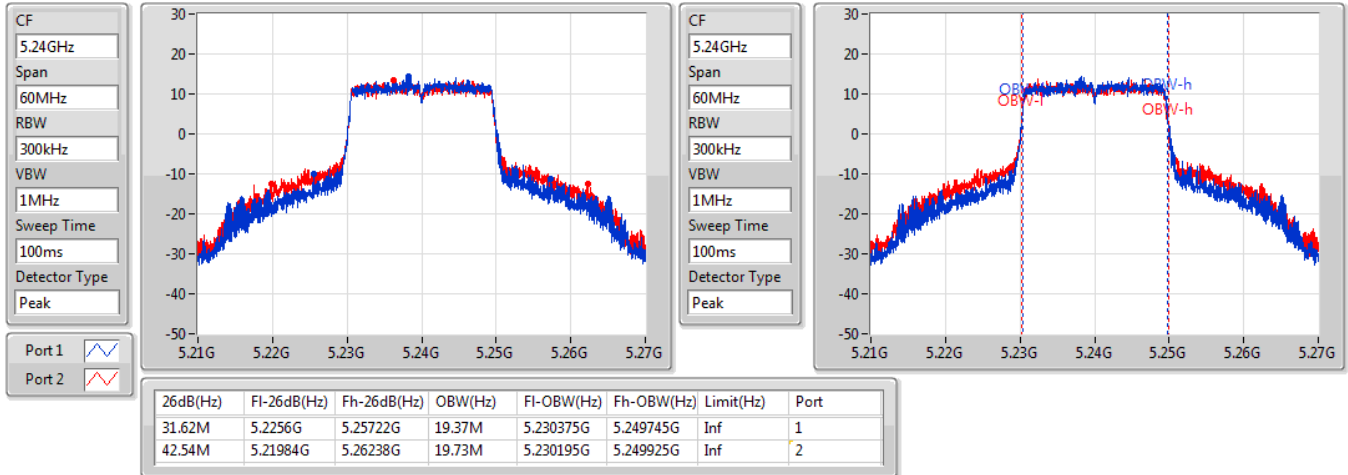


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5240MHz

28/07/2022

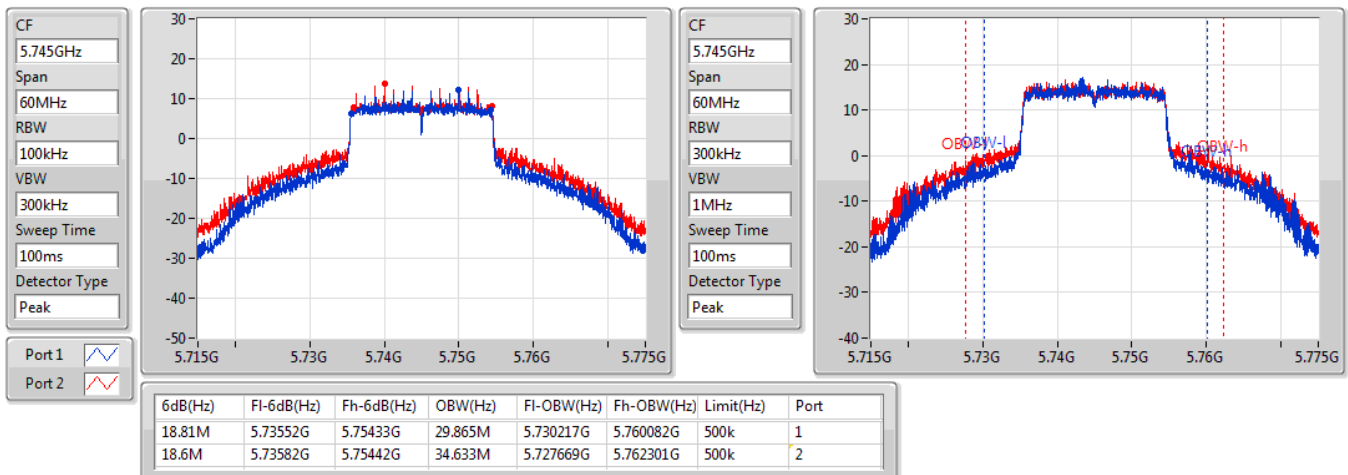


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5745MHz

28/07/2022

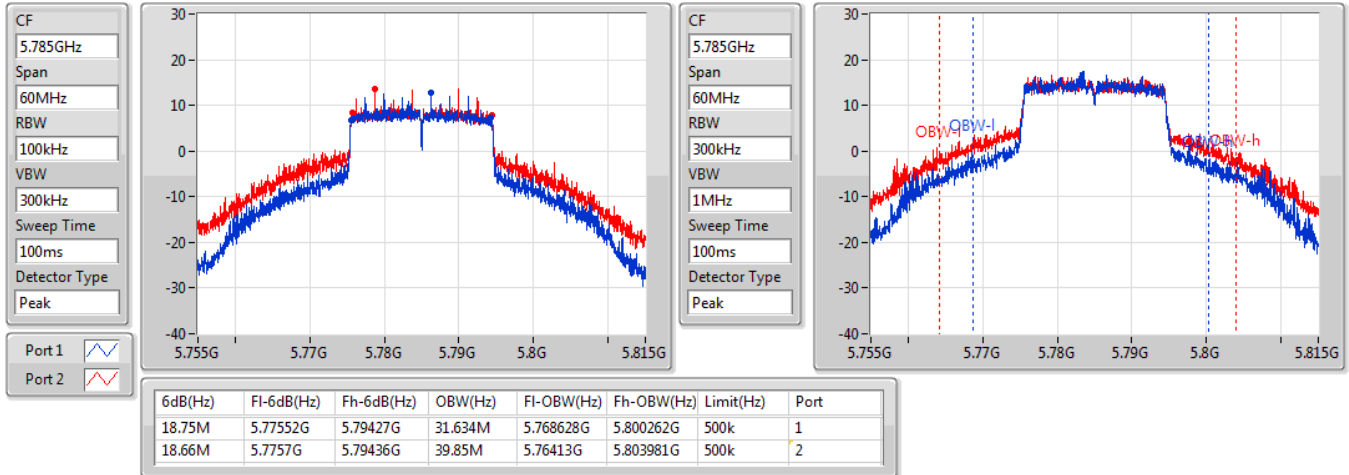


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5785MHz

28/07/2022

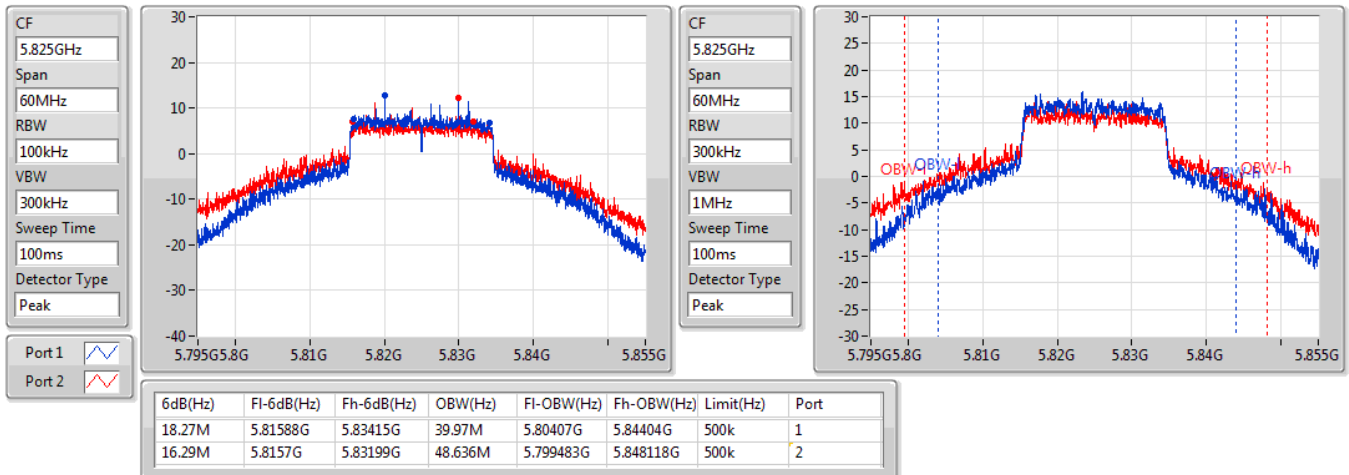


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

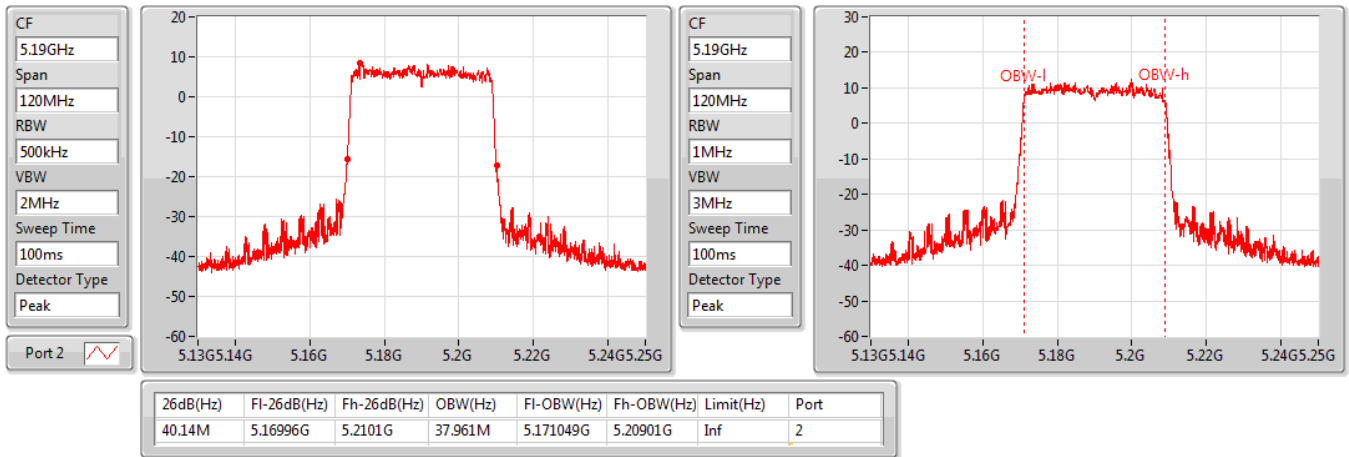
5825MHz

28/07/2022

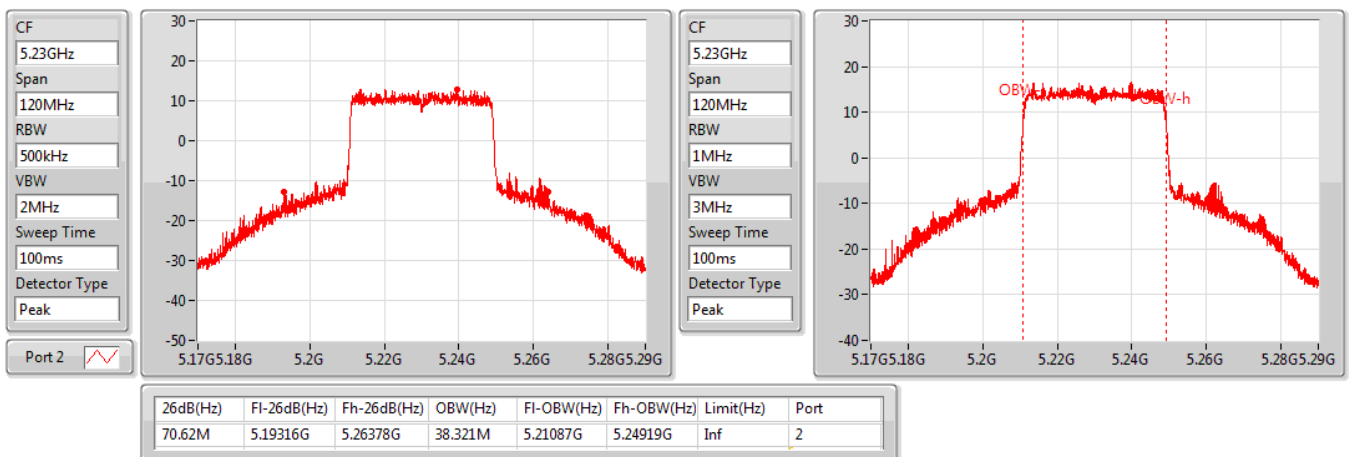


802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)
EBW
5190MHz

28/07/2022


802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)
EBW
5230MHz

28/07/2022

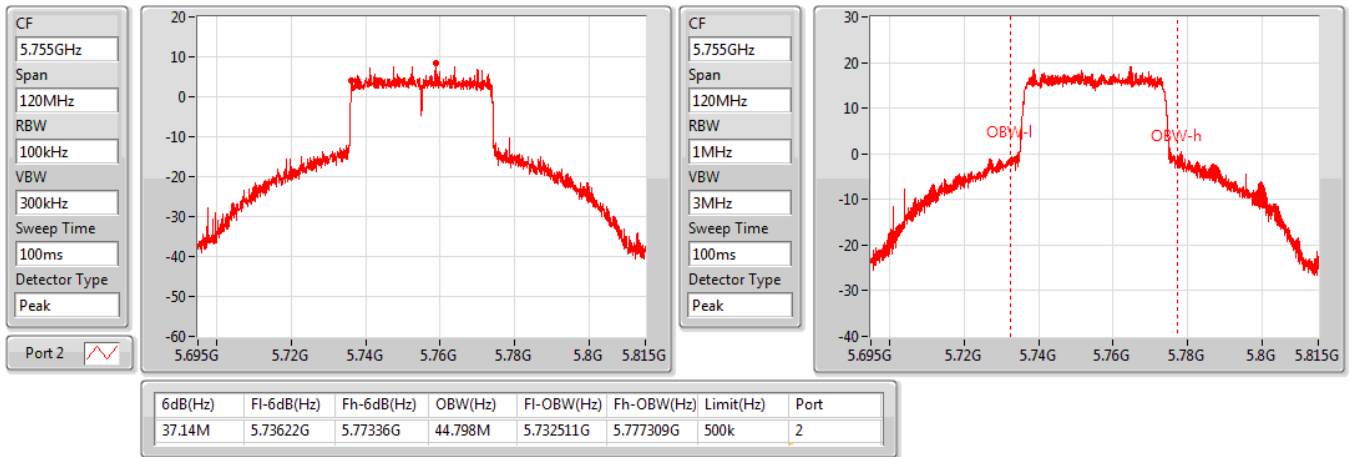


802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)

EBW

5755MHz

28/07/2022

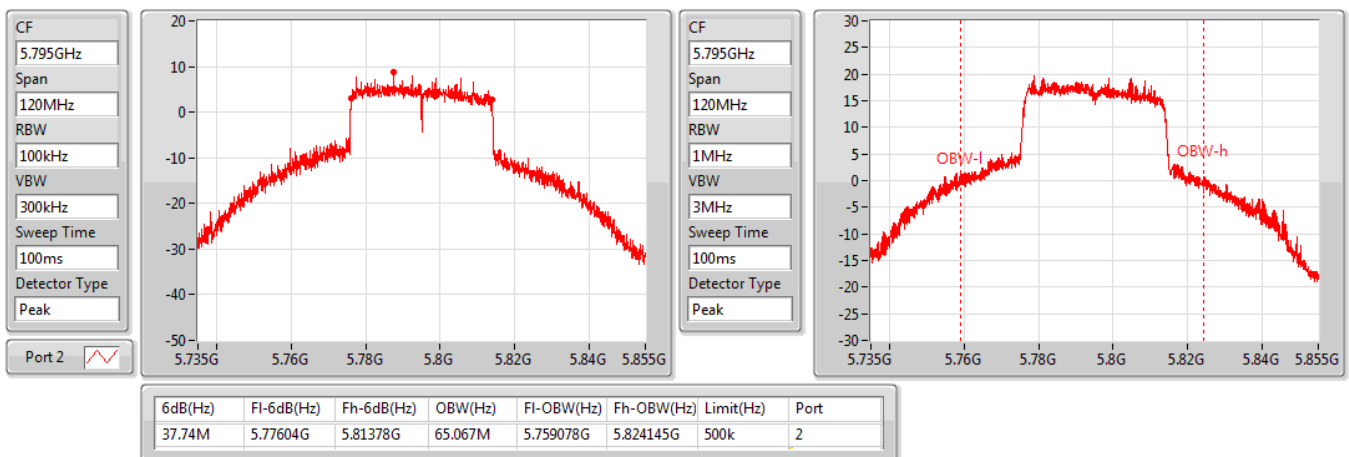


802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)

EBW

5795MHz

28/07/2022

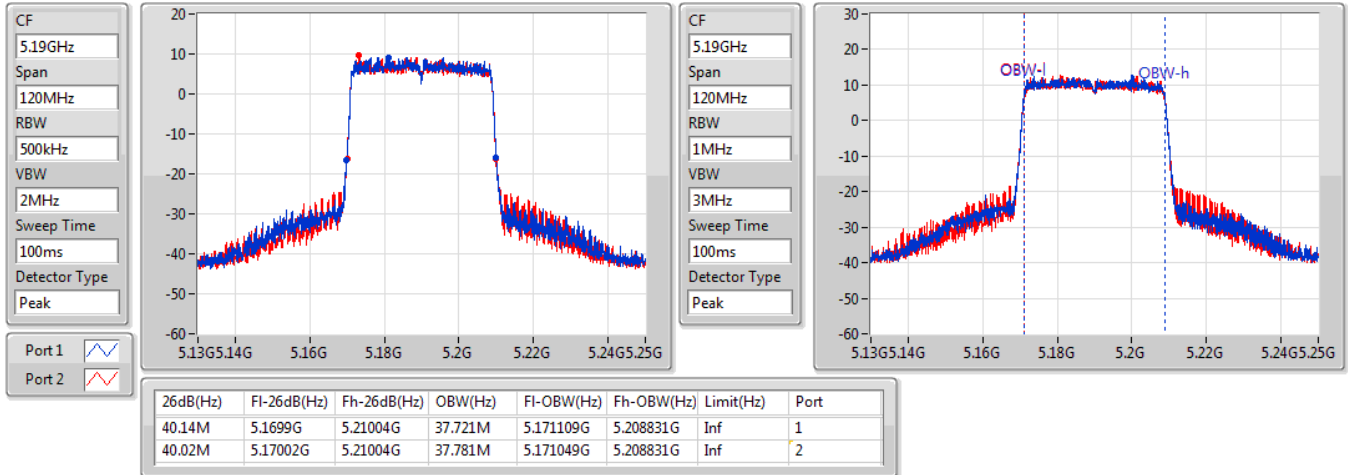


802.11ax HEW40_Nss2,(MCS0)_2TX

EBW

5190MHz

28/07/2022

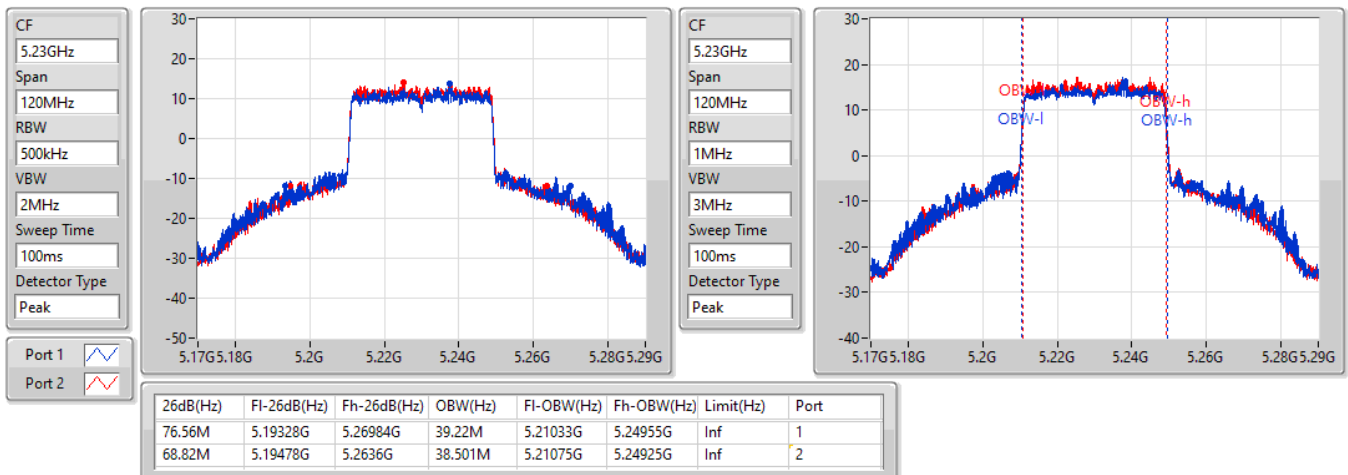


802.11ax HEW40_Nss2,(MCS0)_2TX

EBW

5230MHz

13/08/2022

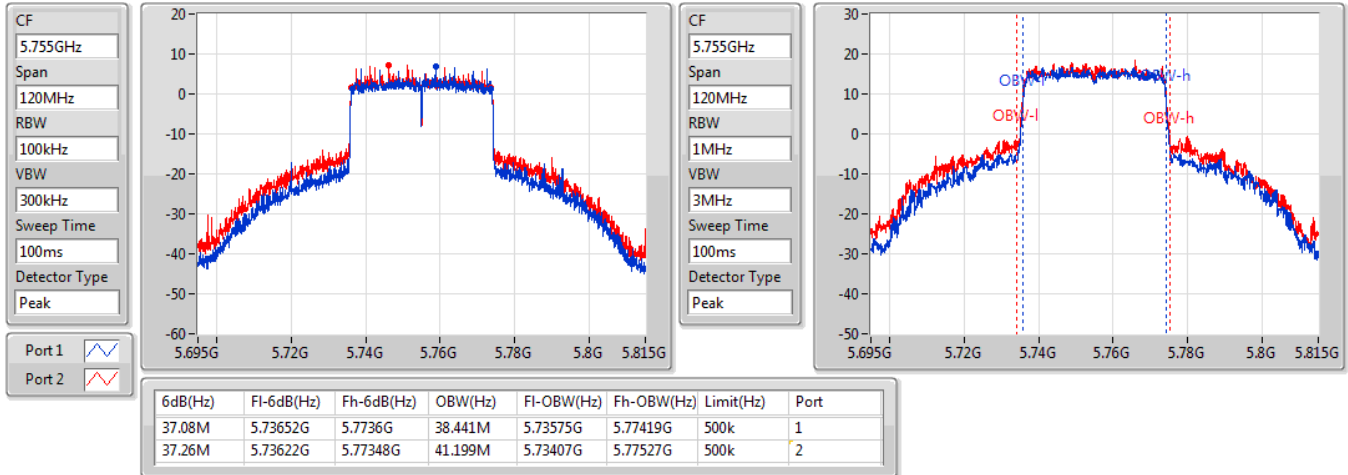


802.11ax HEW40_Nss2,(MCS0)_2TX

EBW

5755MHz

28/07/2022

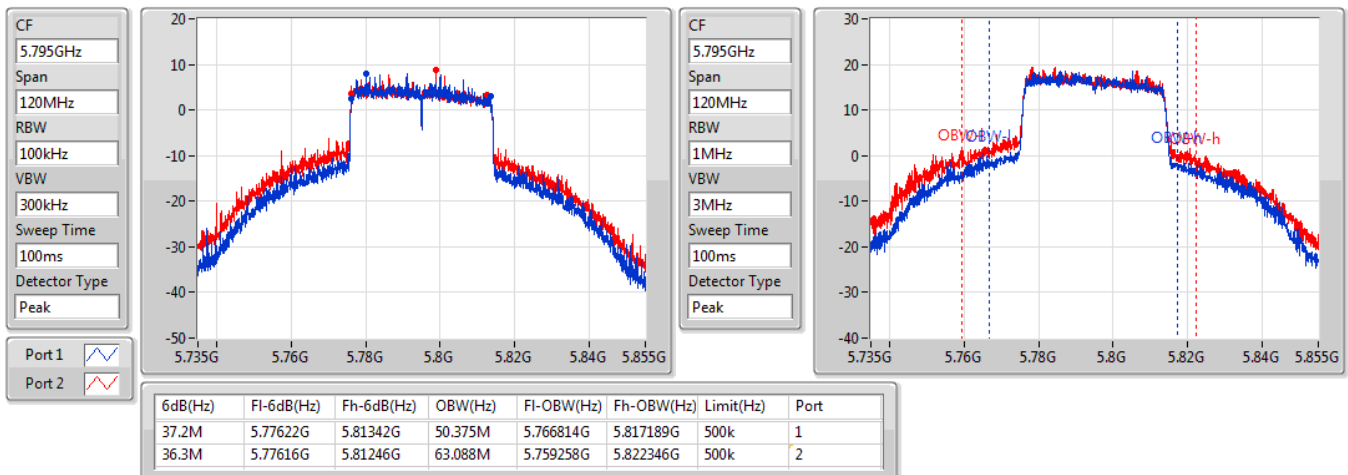


802.11ax HEW40_Nss2,(MCS0)_2TX

EBW

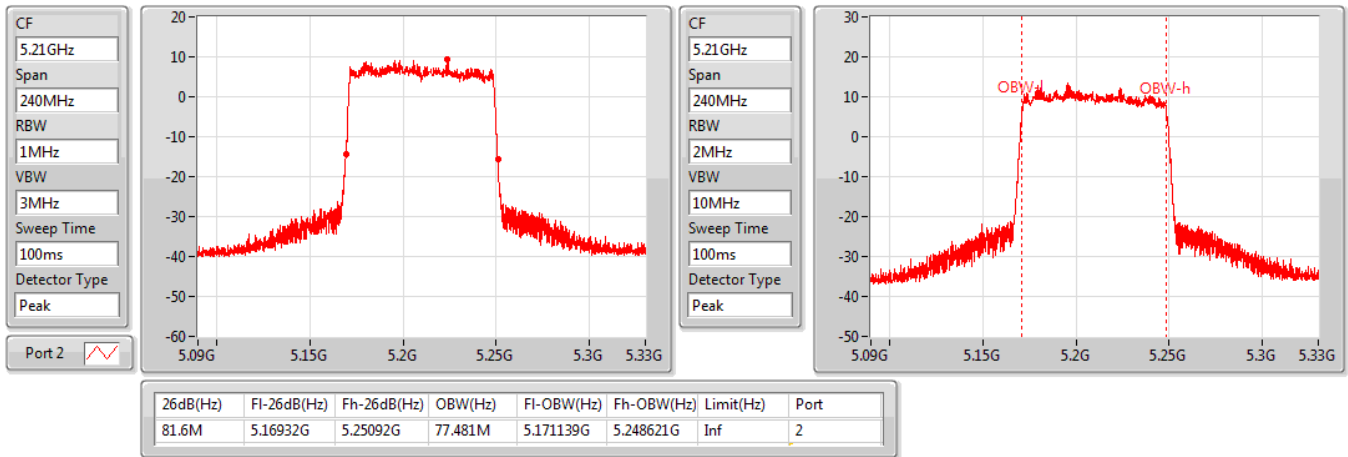
5795MHz

28/07/2022

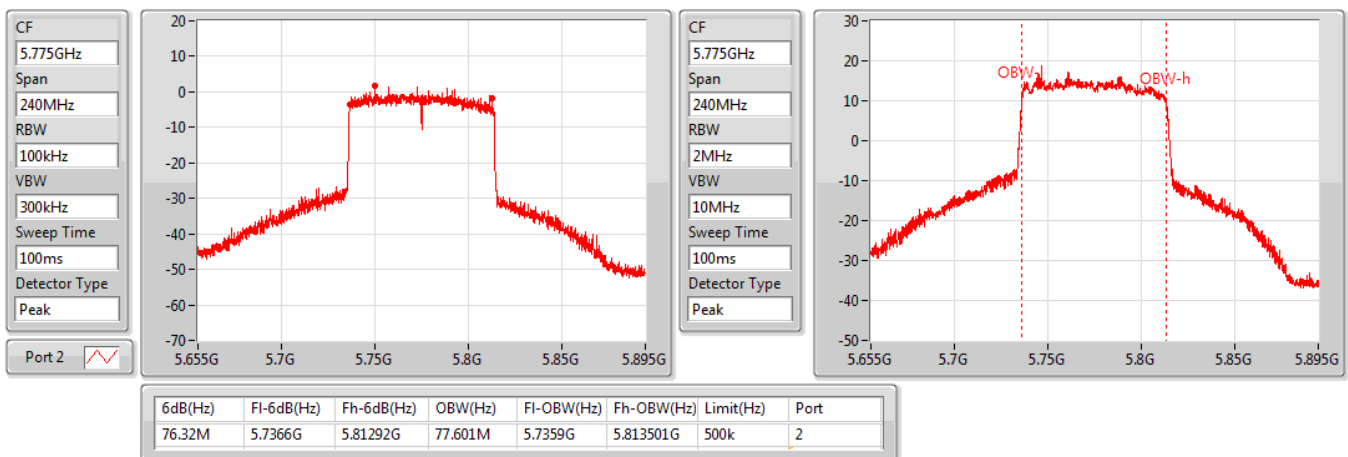


802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)
EBW
5210MHz

28/07/2022

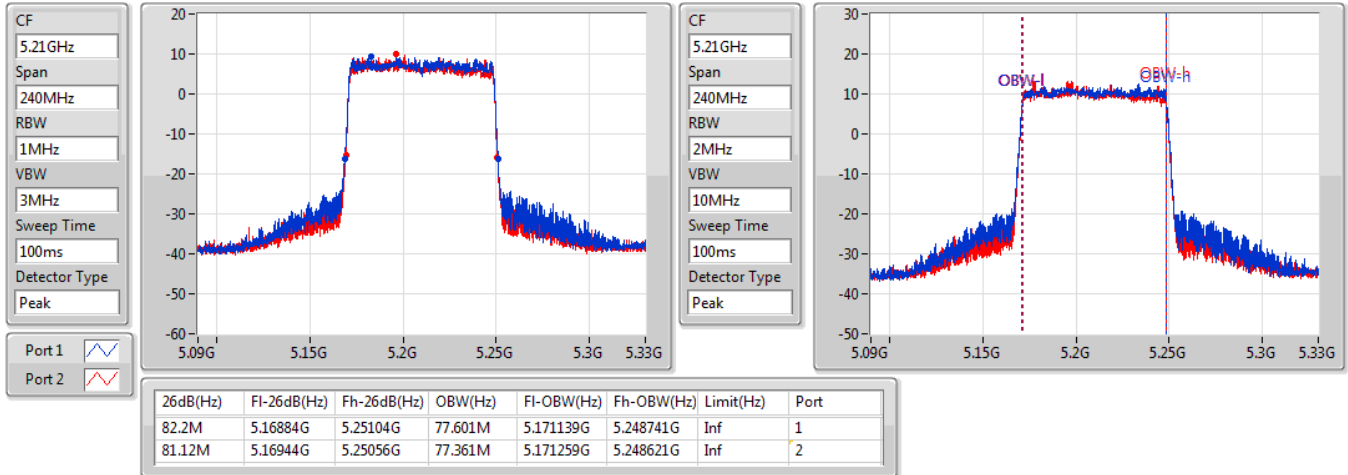

802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)
EBW
5775MHz

28/07/2022

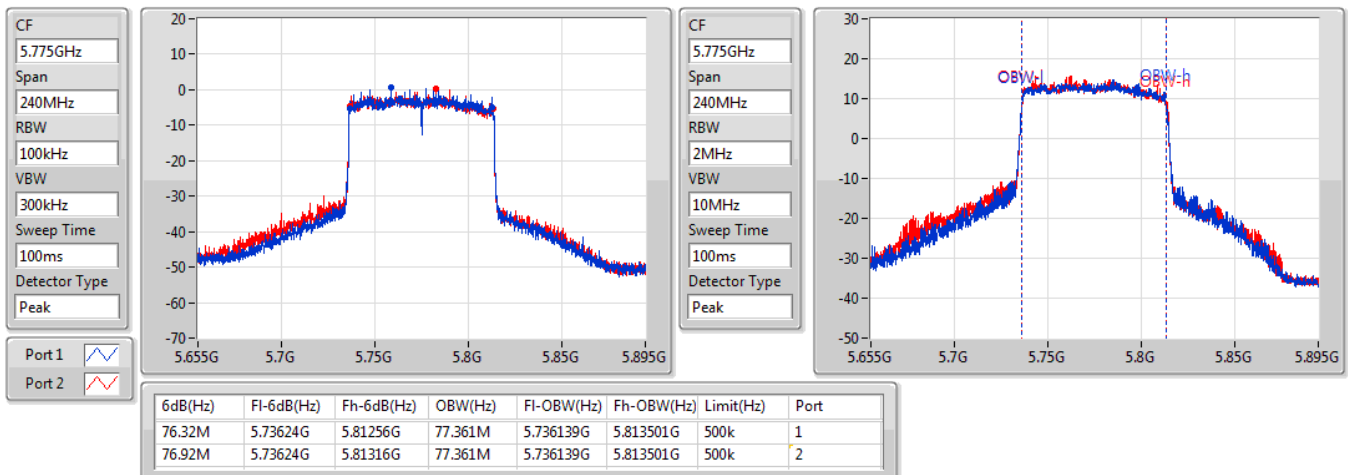


802.11ax HEW80_Nss2,(MCS0)_2TX
EBW
5210MHz

28/07/2022


802.11ax HEW80_Nss2,(MCS0)_2TX
EBW
5775MHz

28/07/2022



**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	43.47M	29.625M	29M7D1D	37.56M	18.081M
802.11a_Nss1,(6Mbps)_2TX	43.11M	25.757M	25M8D1D	29.04M	17.511M
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	46.89M	26.747M	26M8D1D	28.5M	19.19M
802.11ax HEW20_Nss2,(MCS0)_2TX	47.97M	25.817M	25M9D1D	26.31M	19.28M
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	72.36M	39.16M	39M2D1D	42M	37.901M
802.11ax HEW40_Nss2,(MCS0)_2TX	82.08M	39.4M	39M4D1D	40.08M	37.841M
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	81.84M	77.841M	77M9D1D	81.84M	77.841M
802.11ax HEW80_Nss2,(MCS0)_2TX	81.96M	77.601M	77M7D1D	81.36M	77.601M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	16.32M	44.618M	44M7D1D	16.29M	36.912M
802.11a_Nss1,(6Mbps)_2TX	16.44M	45.937M	46M0D1D	16.29M	28.456M
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	19.14M	47.646M	47M7D1D	18.18M	37.121M
802.11ax HEW20_Nss2,(MCS0)_2TX	18.99M	47.226M	47M3D1D	16.68M	31.934M
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	37.62M	90.075M	90M1D1D	37.38M	57.451M
802.11ax HEW40_Nss2,(MCS0)_2TX	37.74M	68.846M	68M9D1D	36.66M	44.078M
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	76.56M	87.676M	87M7D1D	76.56M	87.676M
802.11ax HEW80_Nss2,(MCS0)_2TX	76.08M	78.441M	78M5D1D	74.88M	77.841M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
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)
802.11a_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-
5180MHz	Pass	Inf			37.56M	18.081M
5200MHz	Pass	Inf			43.47M	29.625M
5240MHz	Pass	Inf			37.83M	19.19M
5745MHz	Pass	500k			16.32M	36.912M
5785MHz	Pass	500k			16.29M	42.039M
5825MHz	Pass	500k			16.29M	44.618M
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	29.04M	17.511M	37.71M	17.961M
5200MHz	Pass	Inf	41.46M	21.559M	43.11M	25.757M
5240MHz	Pass	Inf	36.87M	18.081M	38.4M	19.46M
5745MHz	Pass	500k	16.29M	28.456M	16.32M	34.753M
5785MHz	Pass	500k	16.35M	44.378M	16.32M	42.219M
5825MHz	Pass	500k	16.44M	45.937M	16.29M	44.588M
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
5180MHz	Pass	Inf			28.5M	19.19M
5200MHz	Pass	Inf			46.89M	26.747M
5240MHz	Pass	Inf			37.56M	19.76M
5745MHz	Pass	500k			18.51M	37.121M
5785MHz	Pass	500k			18.18M	45.247M
5825MHz	Pass	500k			19.14M	47.646M
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	33.72M	19.37M	26.31M	19.28M
5200MHz	Pass	Inf	47.97M	20.6M	47.19M	25.817M
5240MHz	Pass	Inf	30.36M	19.4M	38.31M	19.79M
5745MHz	Pass	500k	18.87M	31.934M	18.84M	38.081M
5785MHz	Pass	500k	18.48M	46.507M	16.68M	45.847M
5825MHz	Pass	500k	18.99M	47.166M	17.64M	47.226M
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
5190MHz	Pass	Inf			42M	37.901M
5230MHz	Pass	Inf			72.36M	39.16M
5755MHz	Pass	500k			37.62M	57.451M
5795MHz	Pass	500k			37.38M	90.075M
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	40.2M	37.841M	40.08M	37.841M
5230MHz	Pass	Inf	78M	38.621M	82.08M	39.4M
5755MHz	Pass	500k	37.74M	44.078M	36.78M	57.031M
5795MHz	Pass	500k	36.9M	55.652M	36.66M	68.846M
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-
5210MHz	Pass	Inf			81.84M	77.841M
5775MHz	Pass	500k			76.56M	87.676M
802.11ax HEW80_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81.96M	77.601M	81.36M	77.601M
5775MHz	Pass	500k	76.08M	77.841M	74.88M	78.441M

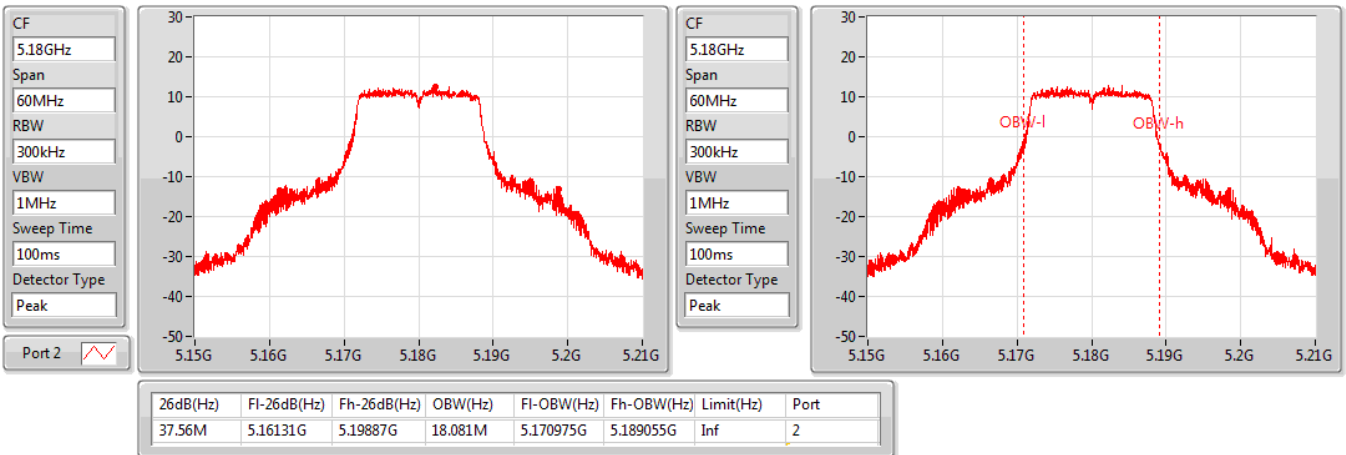
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_1TX(Port2)

EBW

5180MHz

28/07/2022

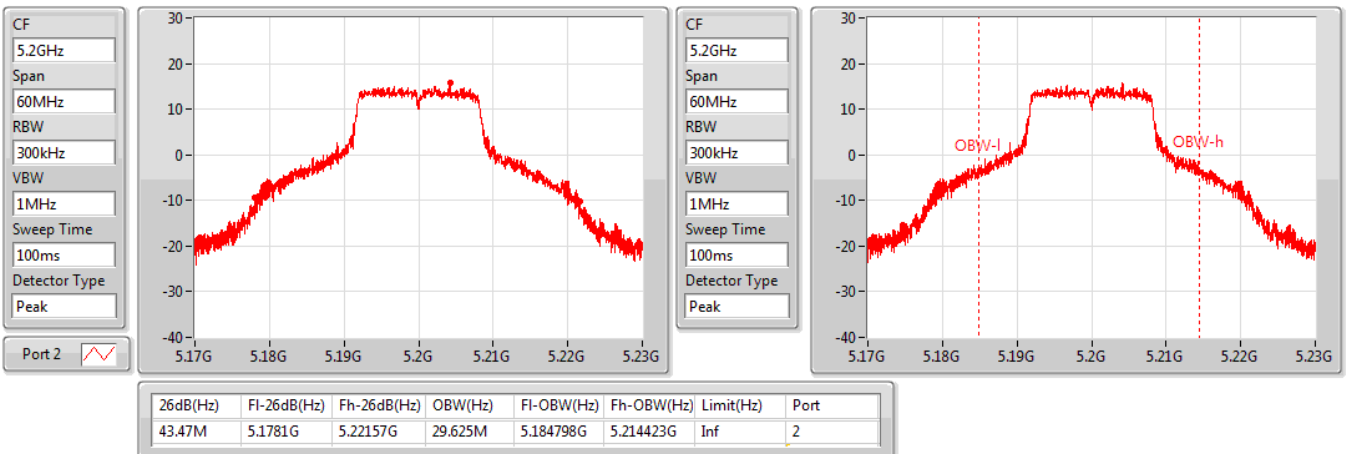


802.11a_Nss1,(6Mbps)_1TX(Port2)

EBW

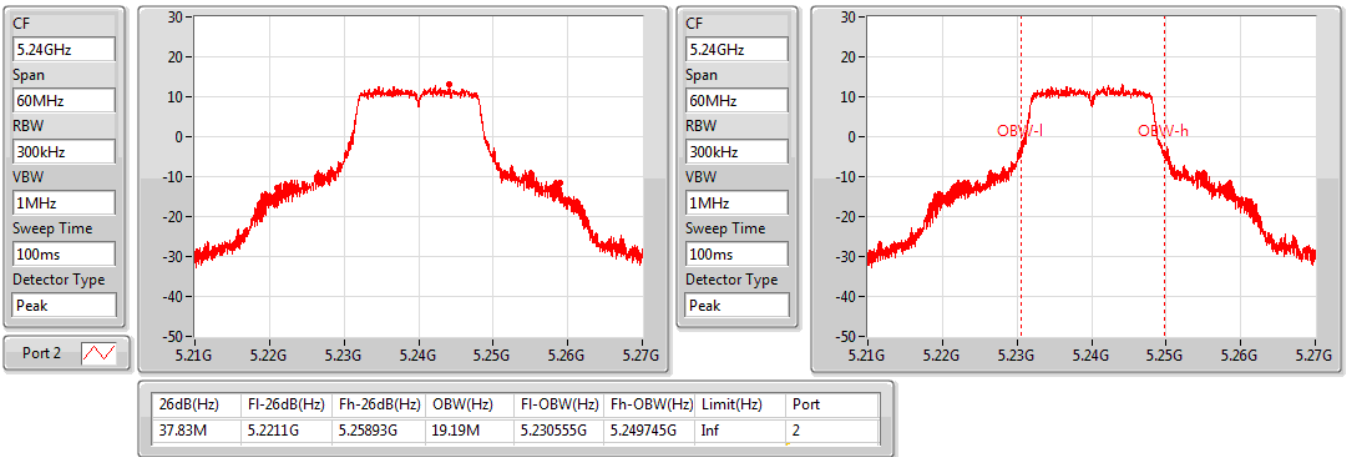
5200MHz

28/07/2022

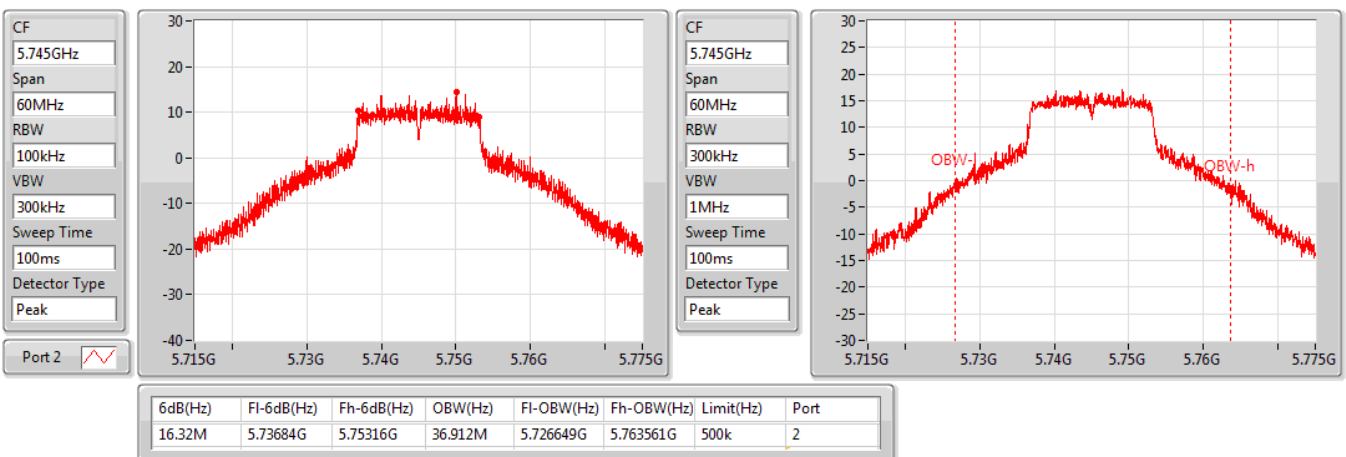


802.11a_Nss1,(6Mbps)_1TX(Port2)
EBW
5240MHz

28/07/2022

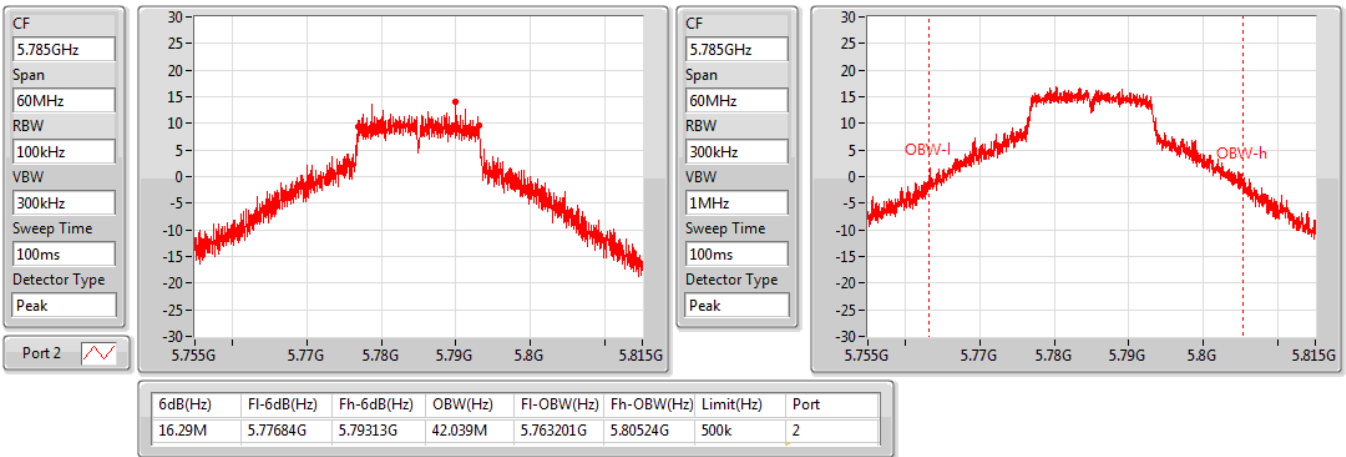

802.11a_Nss1,(6Mbps)_1TX(Port2)
EBW
5745MHz

28/07/2022

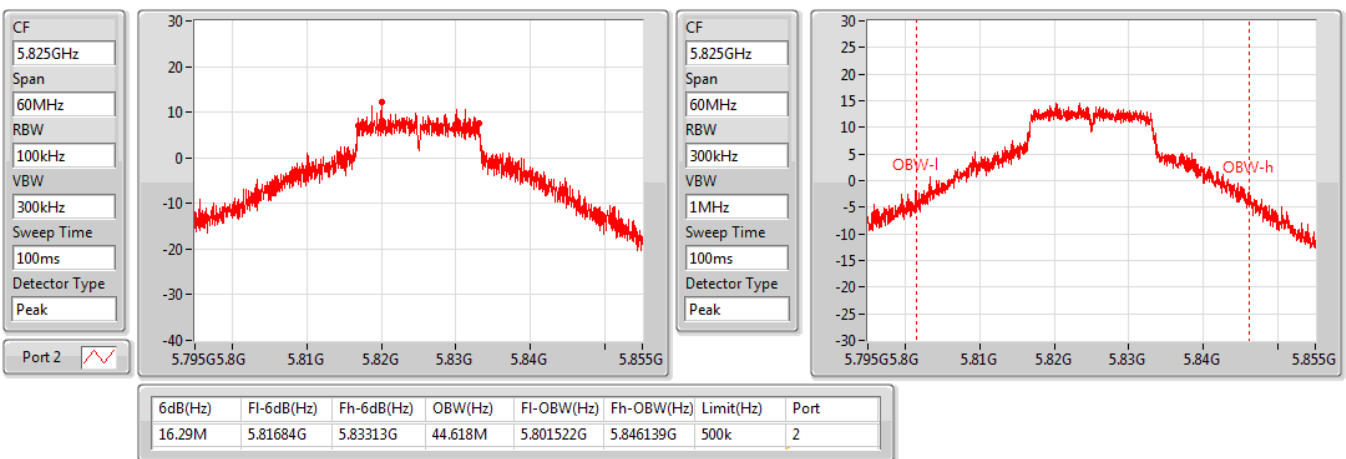


802.11a_Nss1,(6Mbps)_1TX(Port2)
EBW
5785MHz

28/07/2022

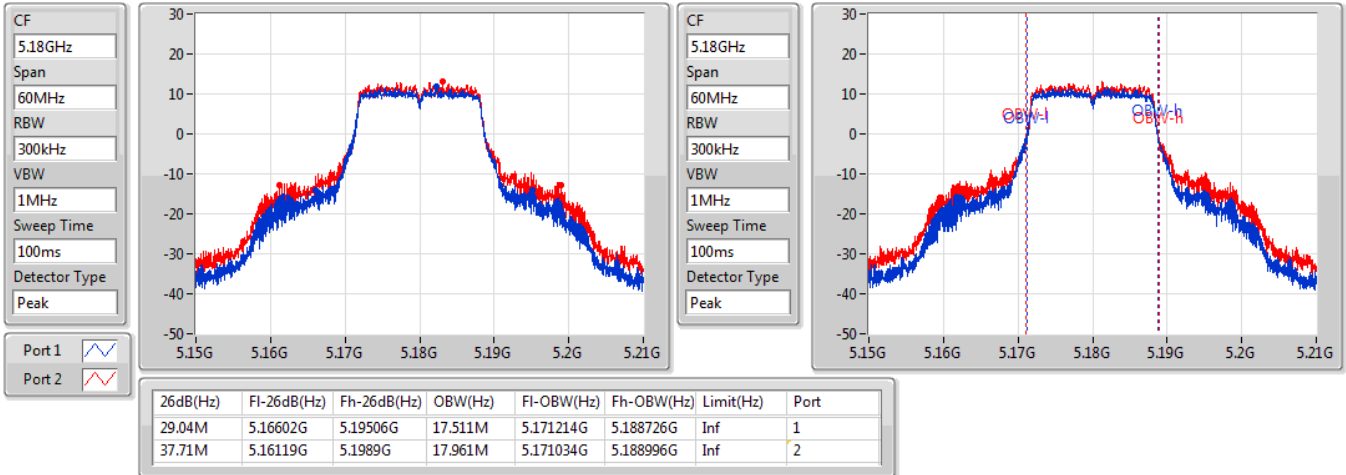

802.11a_Nss1,(6Mbps)_1TX(Port2)
EBW
5825MHz

28/07/2022

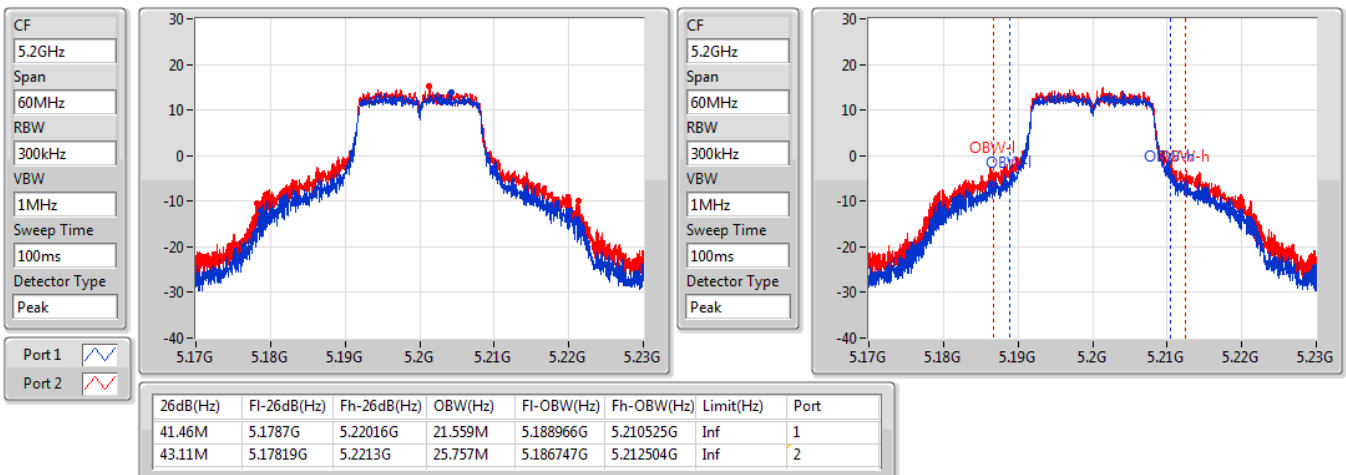


802.11a_Nss1,(6Mbps)_2TX
EBW
5180MHz

28/07/2022


802.11a_Nss1,(6Mbps)_2TX
EBW
5200MHz

28/07/2022

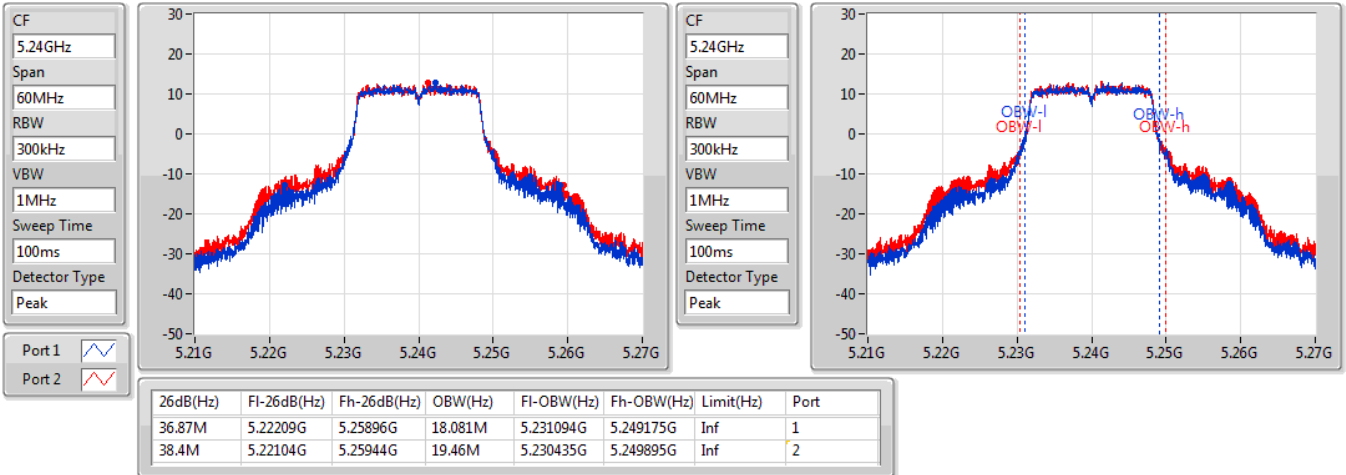


802.11a_Nss1,(6Mbps)_2TX

EBW

5240MHz

28/07/2022

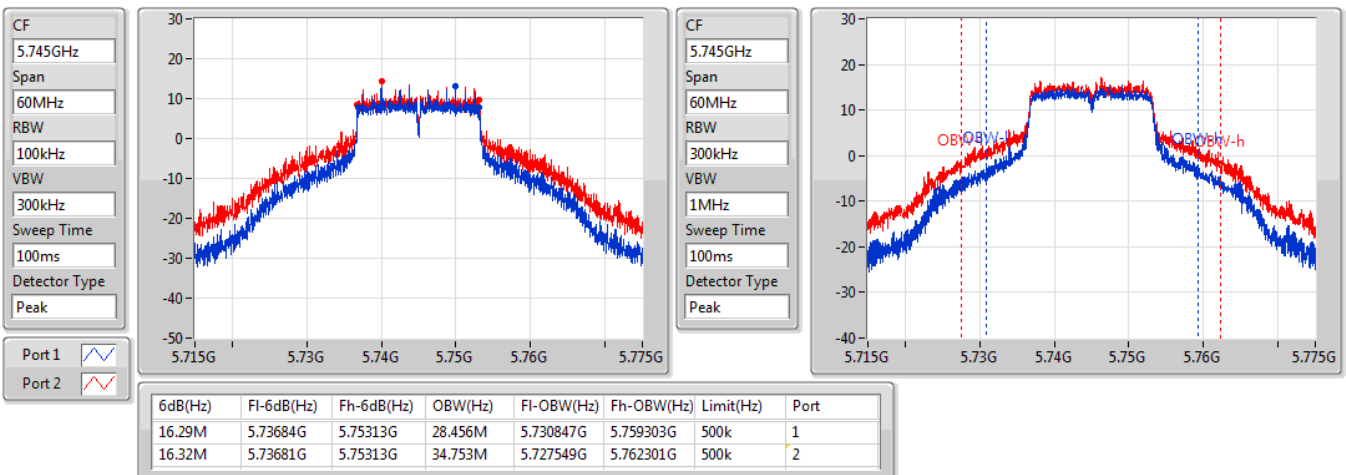


802.11a_Nss1,(6Mbps)_2TX

EBW

5745MHz

28/07/2022

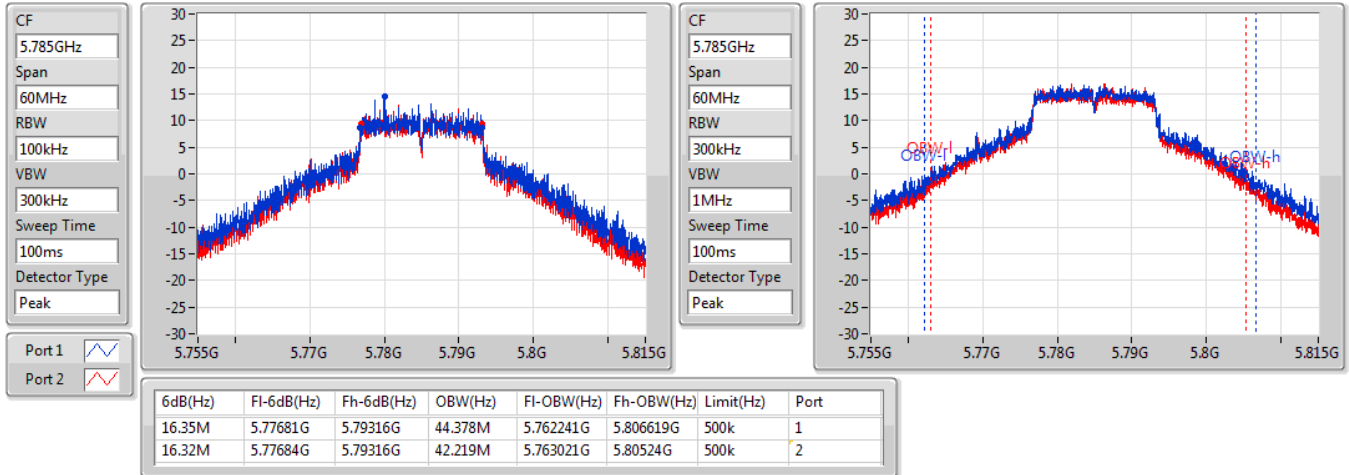


802.11a_Nss1,(6Mbps)_2TX

EBW

5785MHz

28/07/2022

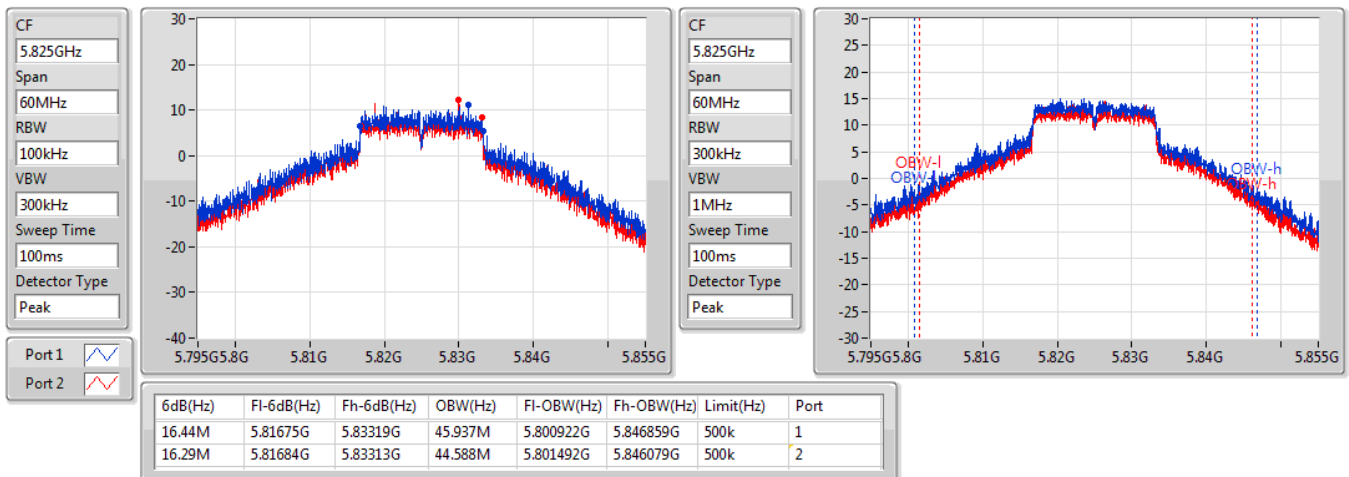


802.11a_Nss1,(6Mbps)_2TX

EBW

5825MHz

28/07/2022

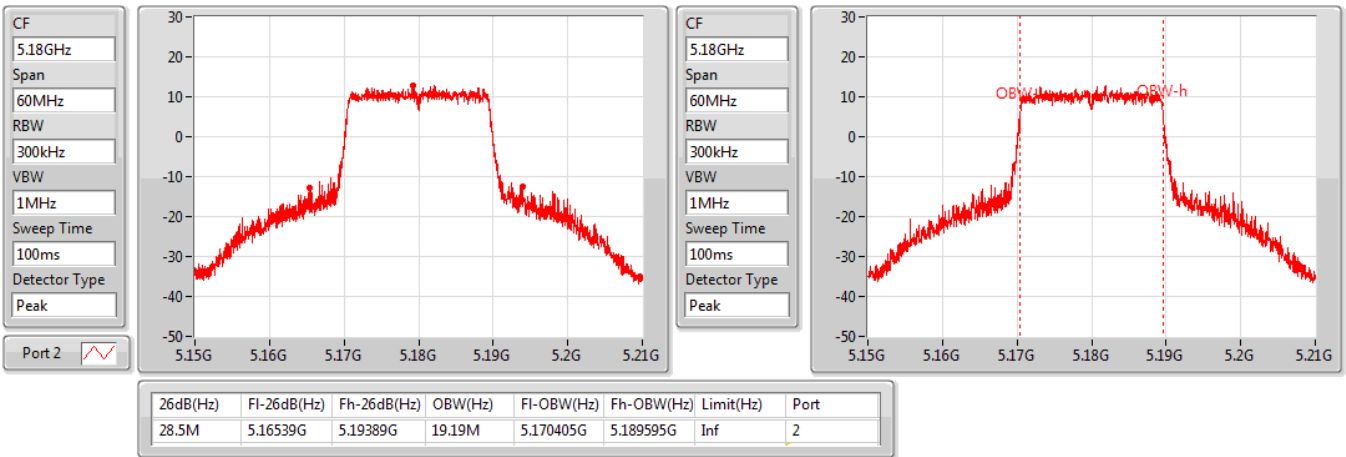


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)

EBW

5180MHz

28/07/2022

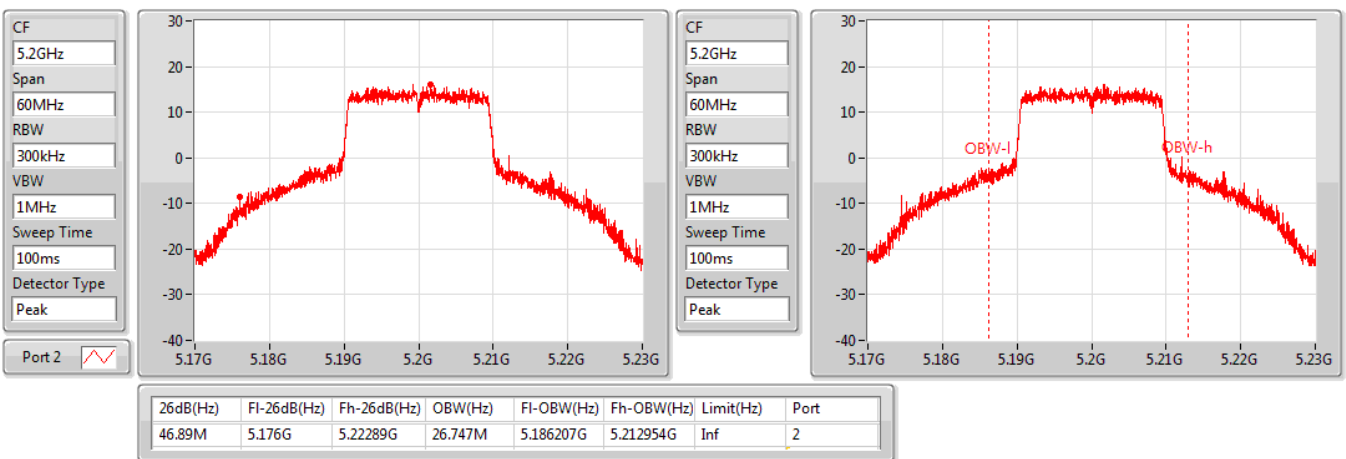


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)

EBW

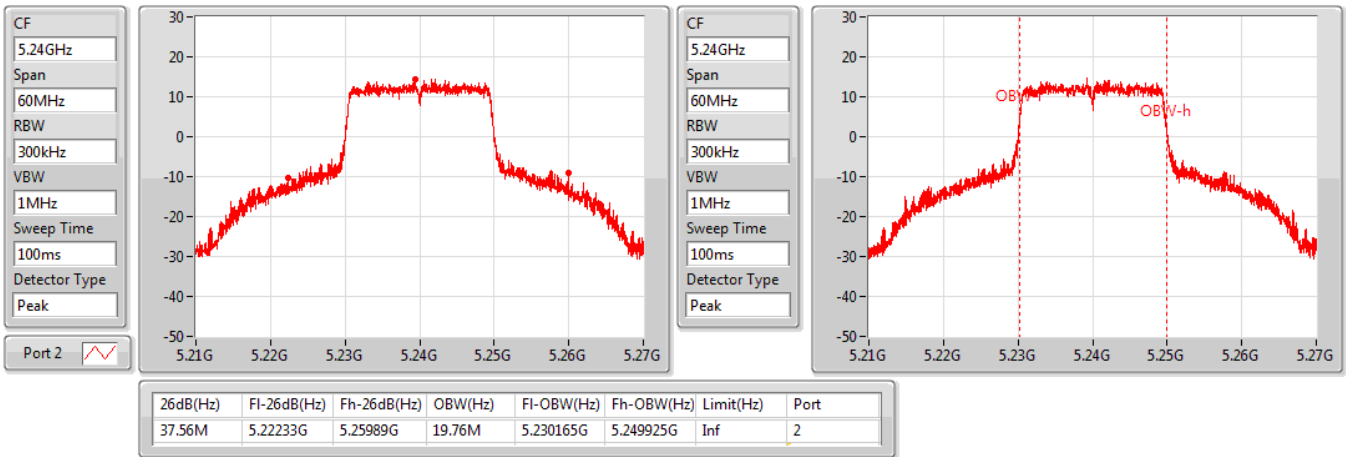
5200MHz

28/07/2022

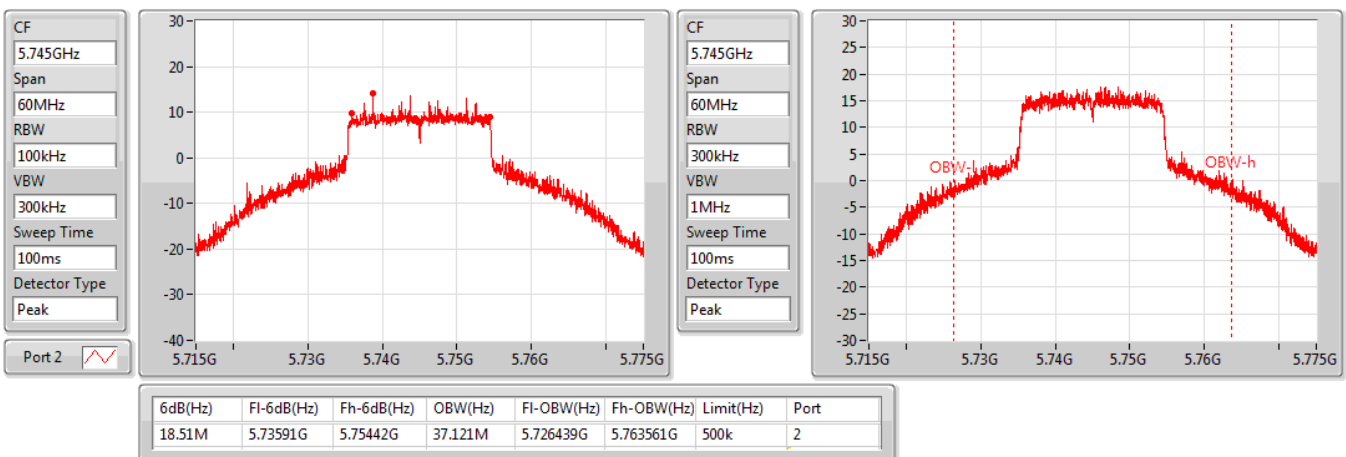


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)
EBW
5240MHz

28/07/2022

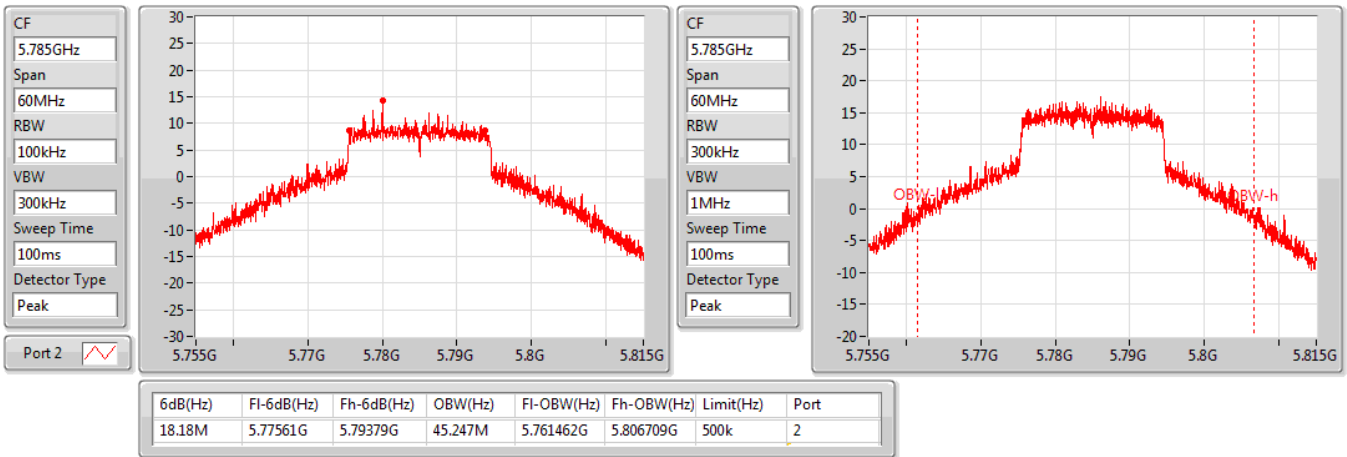

802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)
EBW
5745MHz

28/07/2022

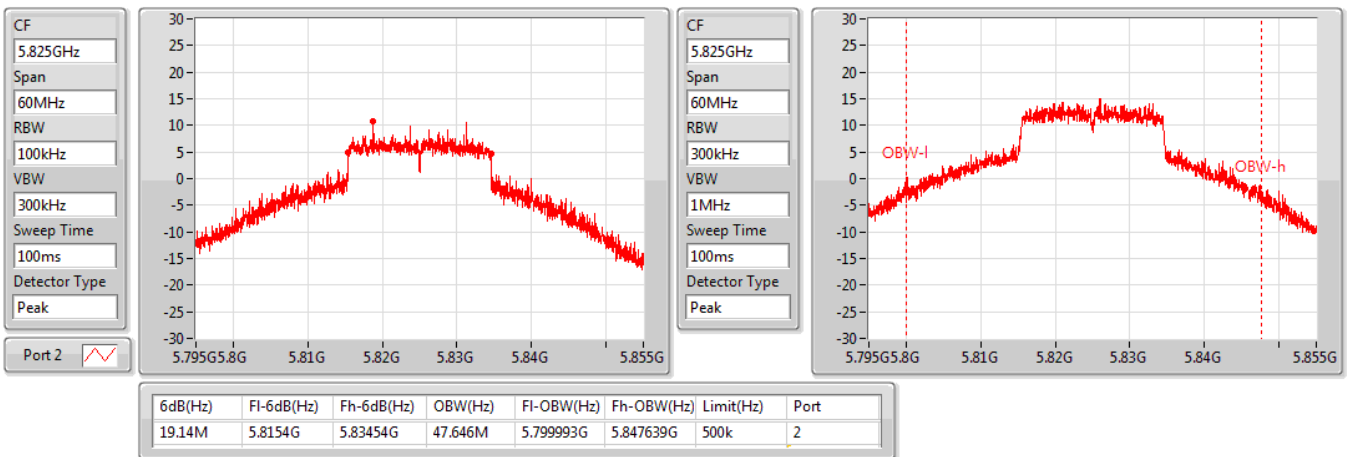


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)
EBW
5785MHz

28/07/2022


802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)
EBW
5825MHz

28/07/2022

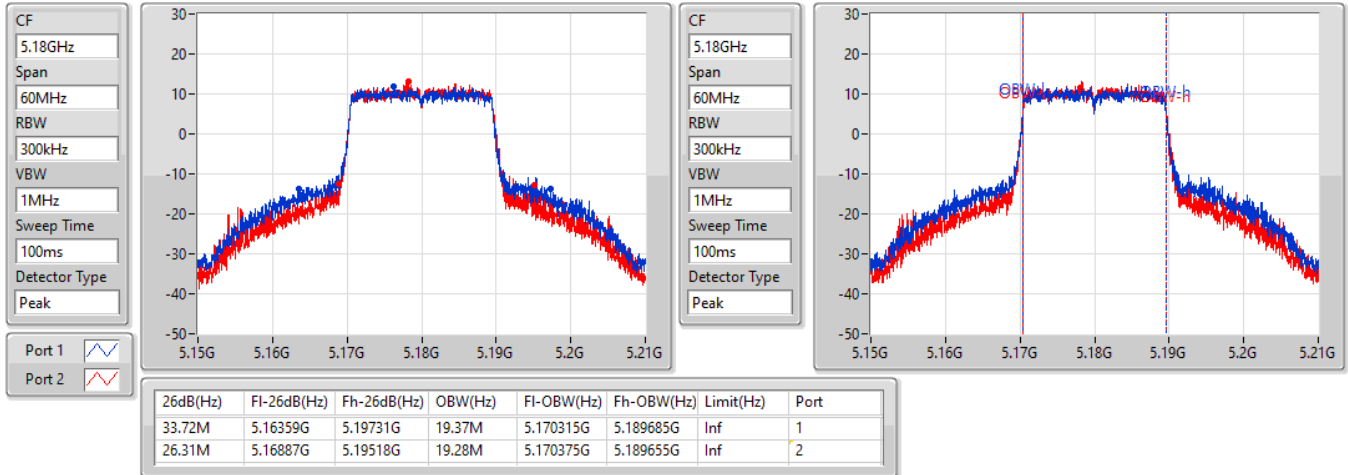


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5180MHz

13/08/2022

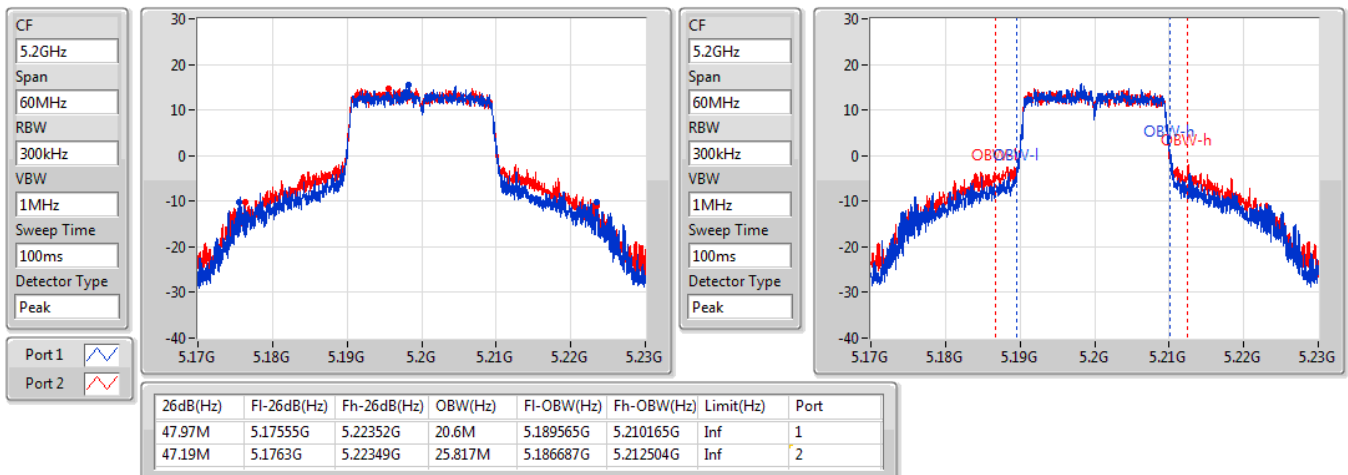


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5200MHz

28/07/2022

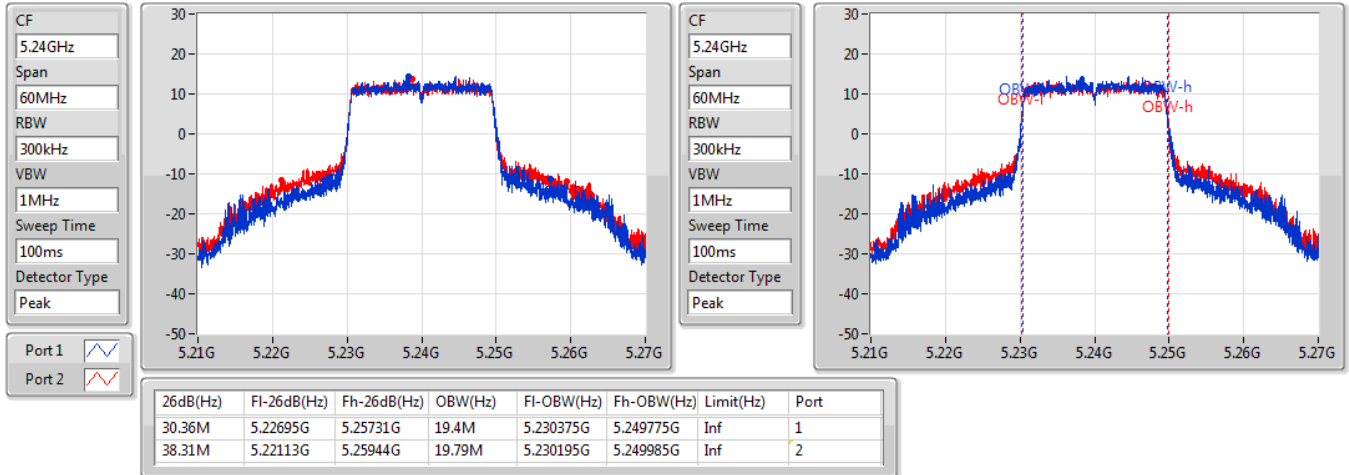


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5240MHz

28/07/2022

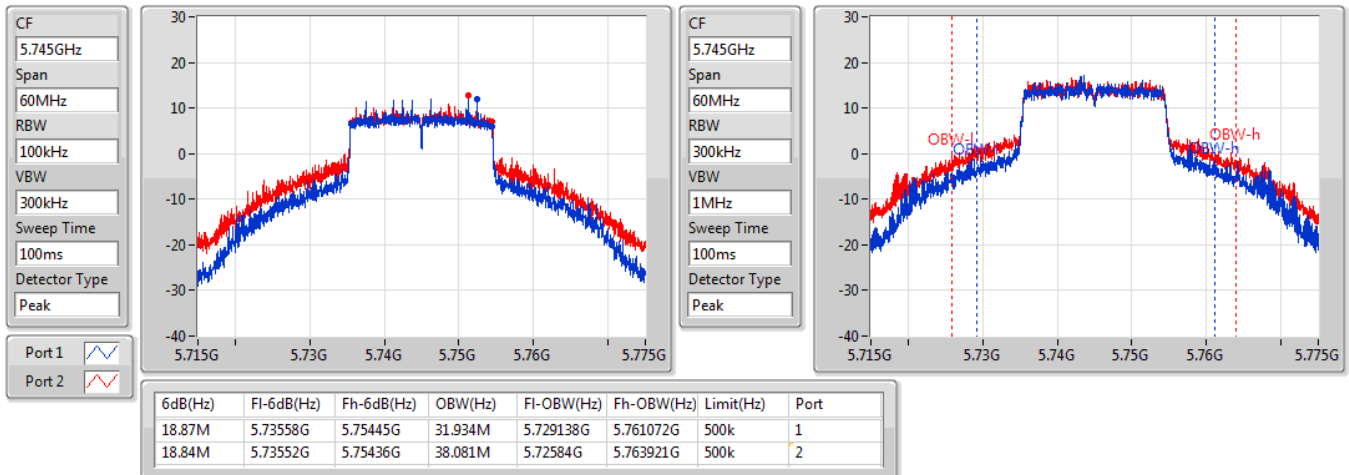


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5745MHz

28/07/2022

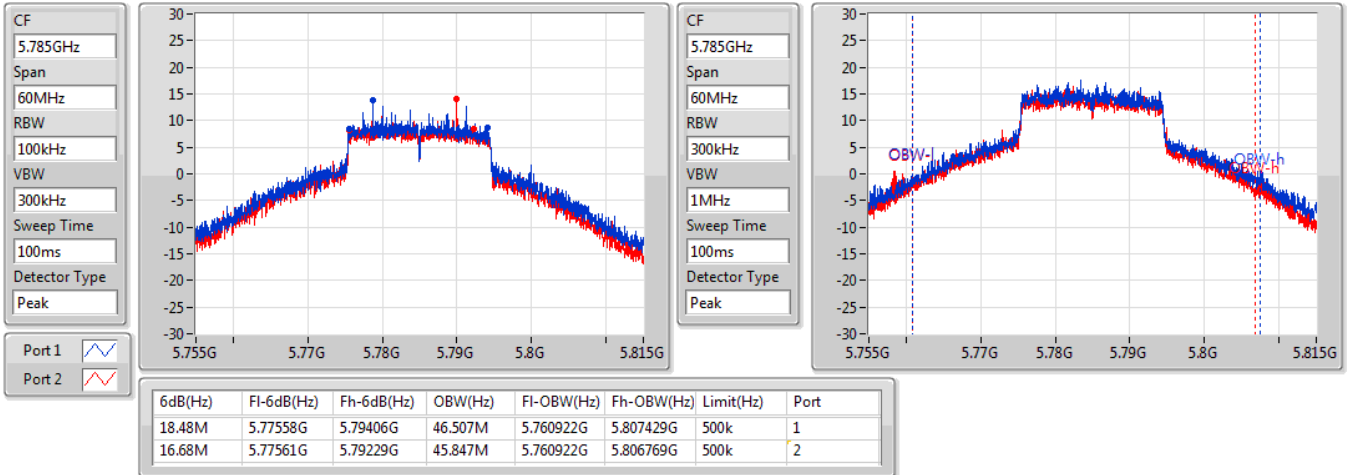


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

5785MHz

28/07/2022

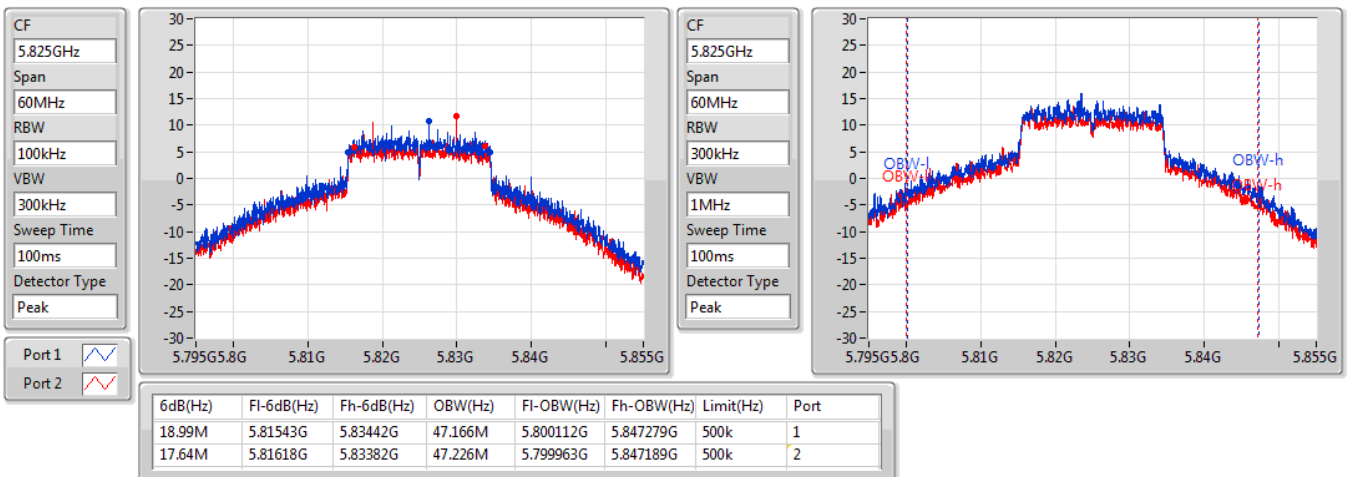


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

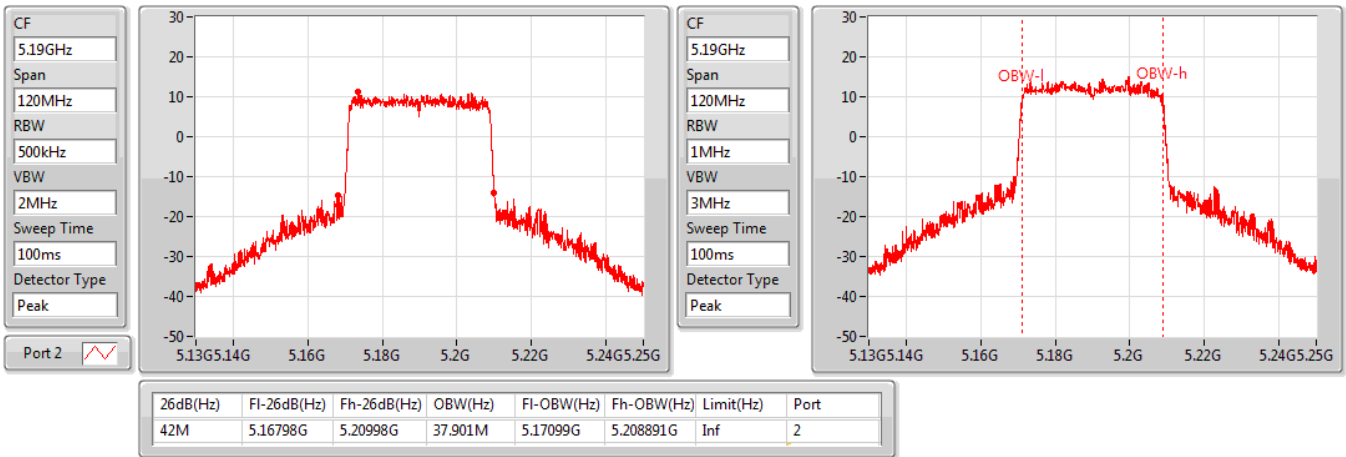
5825MHz

28/07/2022

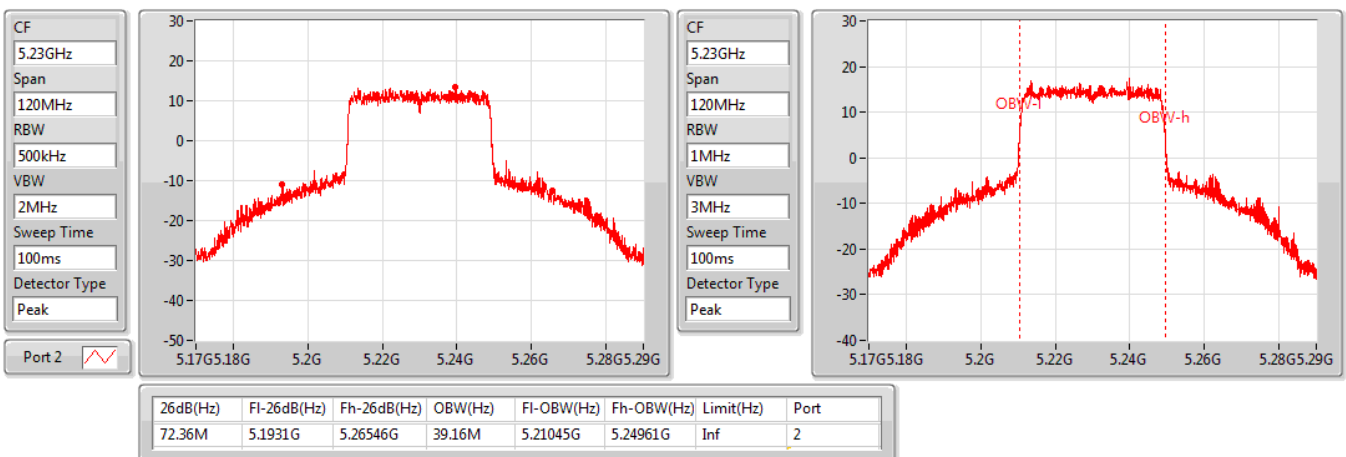


802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)
EBW
5190MHz

28/07/2022

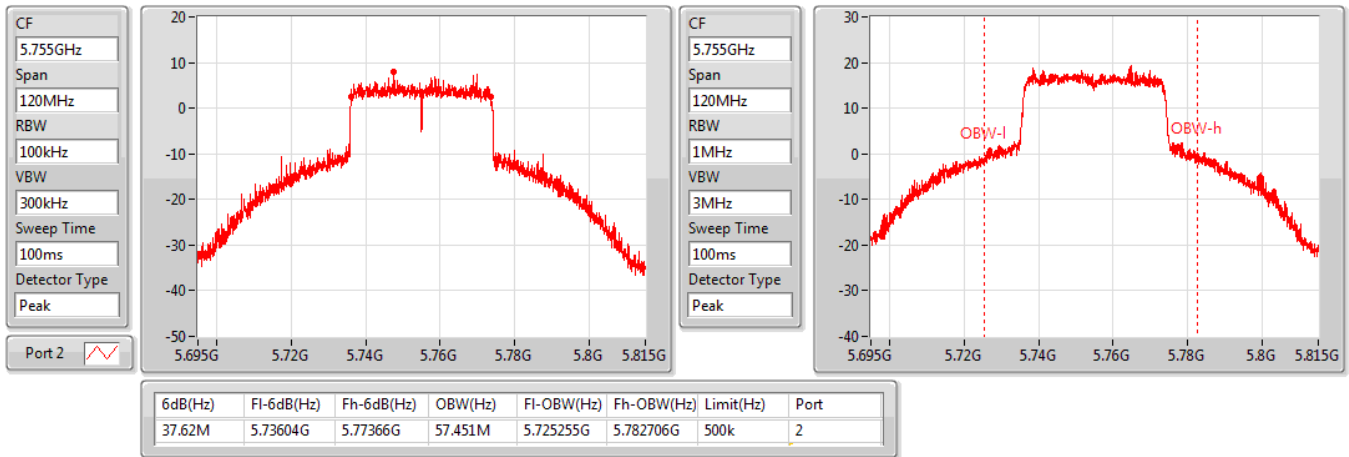

802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)
EBW
5230MHz

28/07/2022

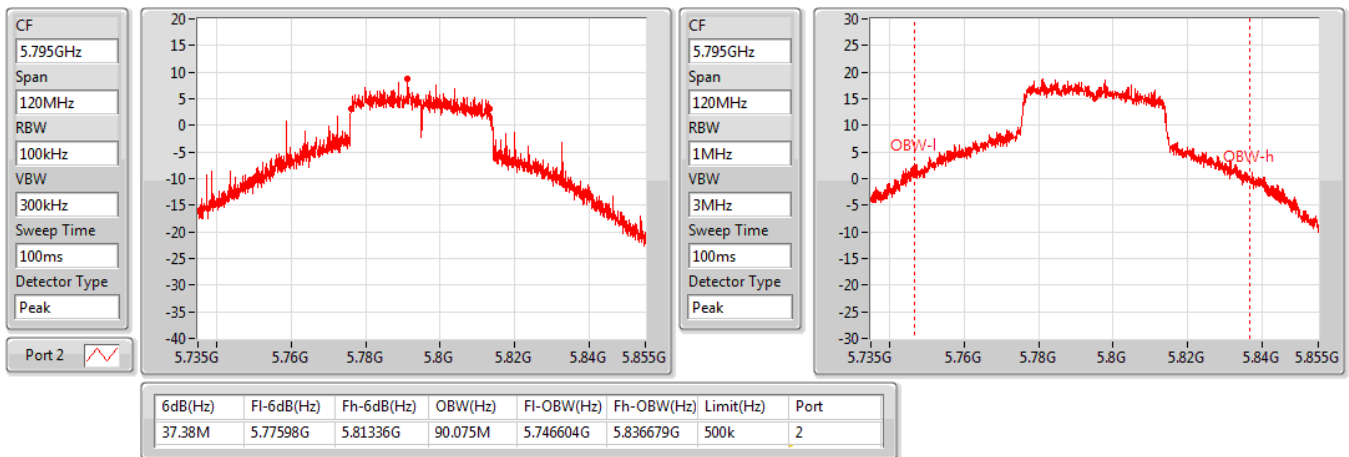


802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)
EBW
5755MHz

28/07/2022


802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)
EBW
5795MHz

28/07/2022

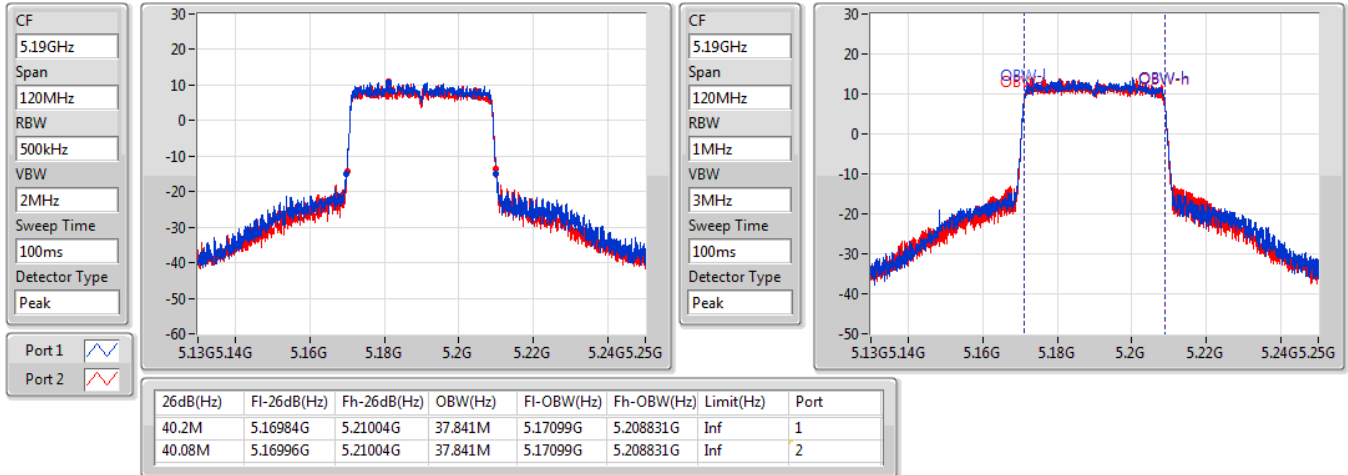


802.11ax HEW40_Nss2,(MCS0)_2TX

EBW

5190MHz

28/07/2022

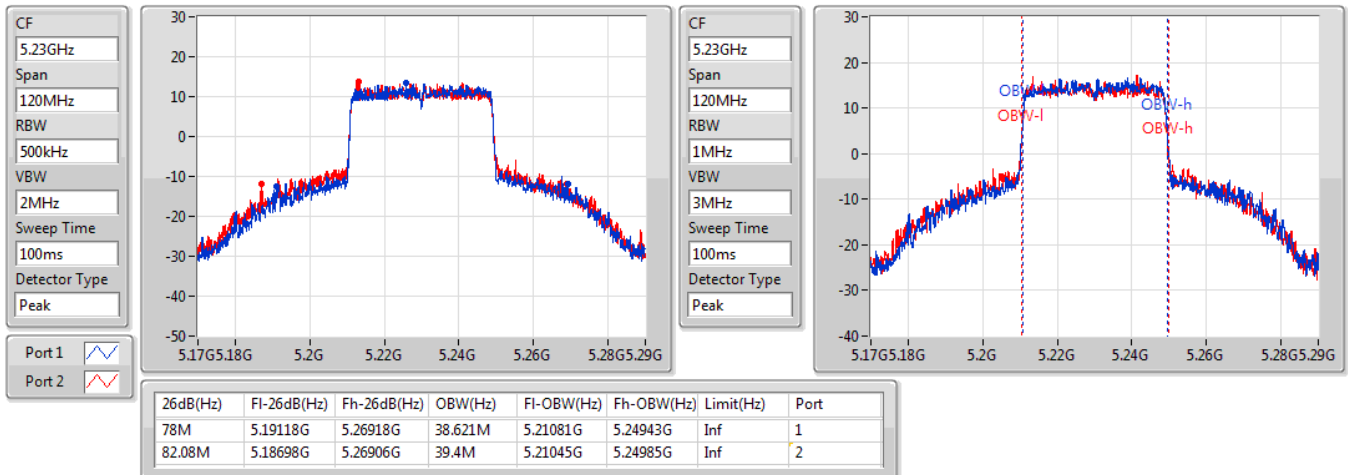


802.11ax HEW40_Nss2,(MCS0)_2TX

EBW

5230MHz

28/07/2022

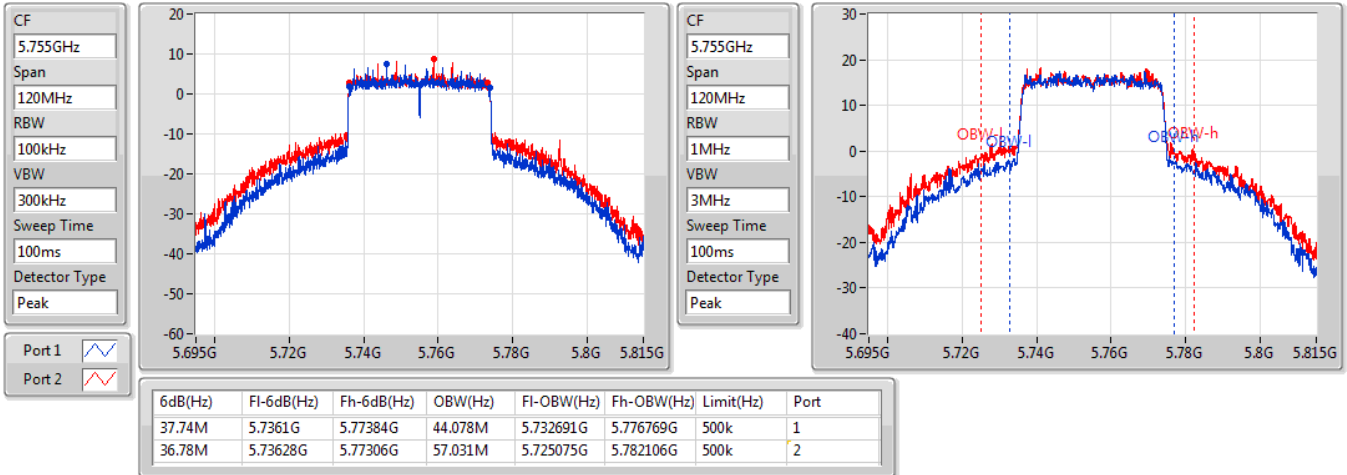


802.11ax HEW40_Nss2,(MCS0)_2TX

EBW

5755MHz

28/07/2022

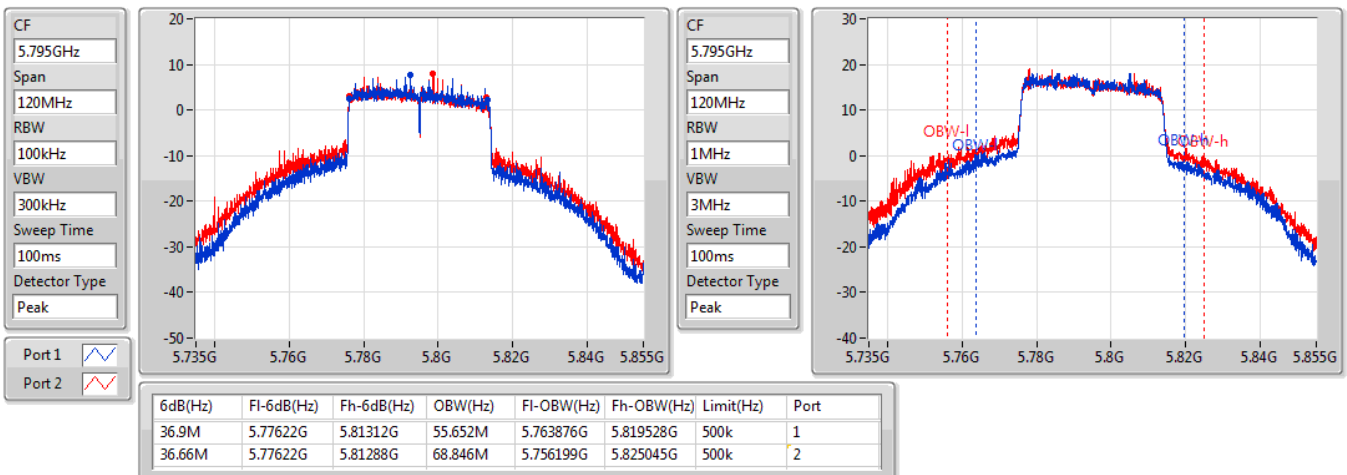


802.11ax HEW40_Nss2,(MCS0)_2TX

EBW

5795MHz

28/07/2022

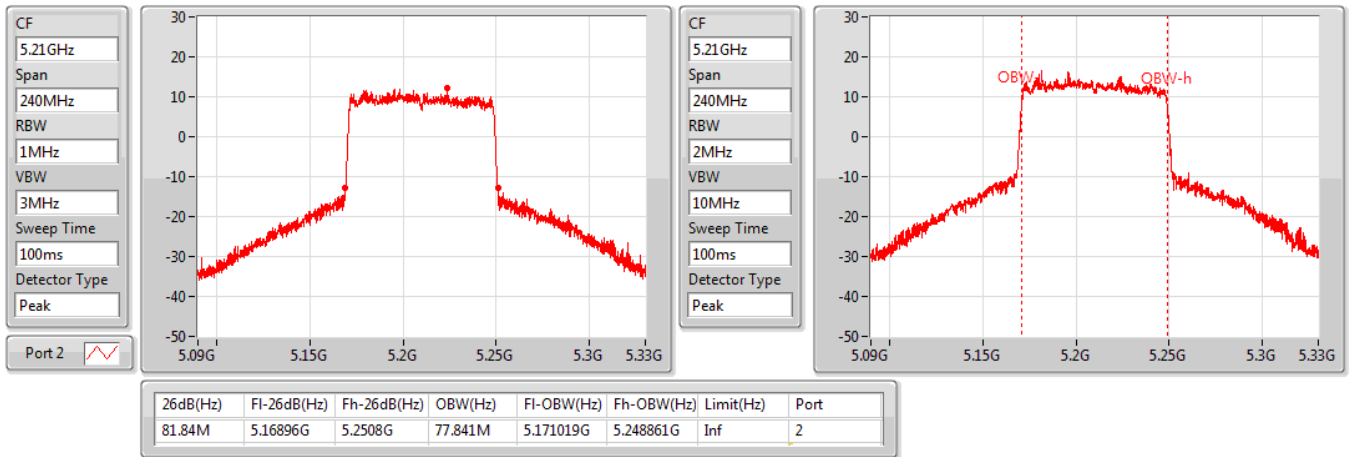


802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)

EBW

5210MHz

28/07/2022

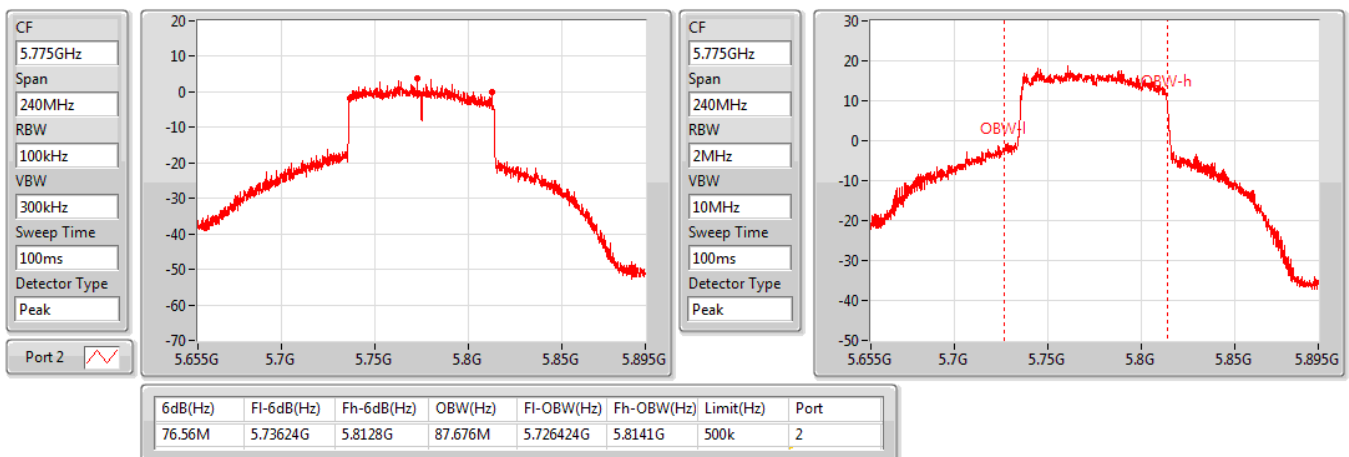


802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)

EBW

5775MHz

28/07/2022

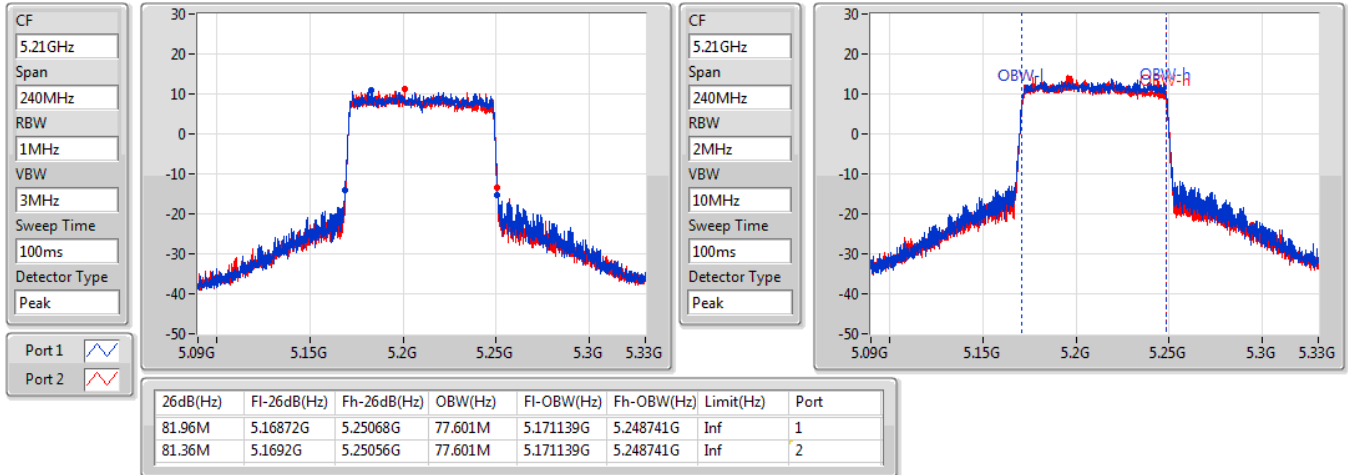


802.11ax HEW80_Nss2,(MCS0)_2TX

EBW

5210MHz

28/07/2022

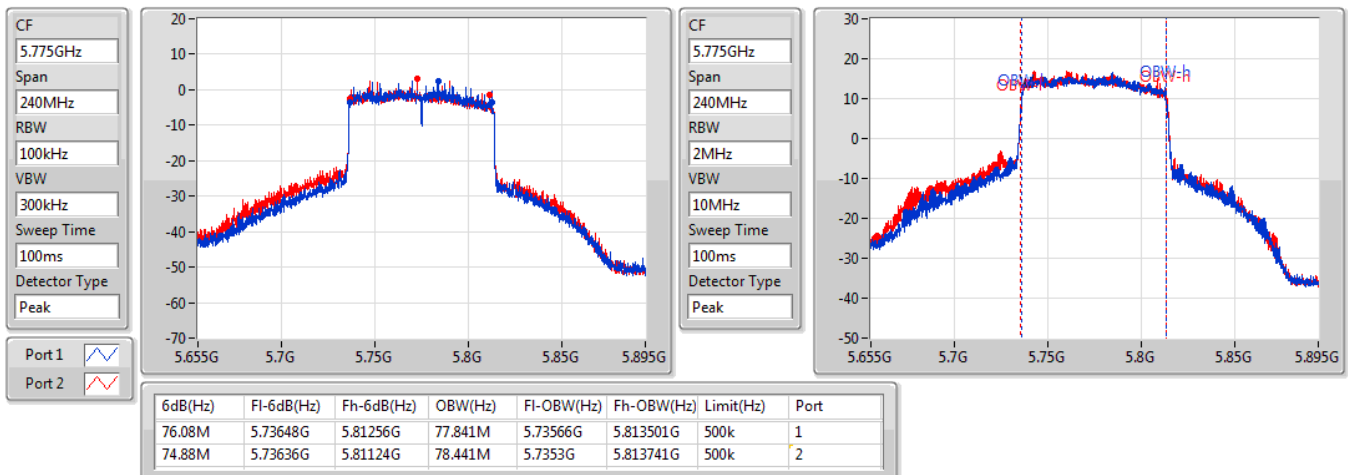


802.11ax HEW80_Nss2,(MCS0)_2TX

EBW

5775MHz

28/07/2022



**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	42.45M	20.57M	20M6D1D	27.24M	19.16M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	71.7M	39.28M	39M3D1D	40.02M	37.781M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	81.6M	77.361M	77M4D1D	81M	77.241M
5.725-5.85GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	18.63M	45.517M	45M6D1D	17.19M	33.403M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	37.62M	66.207M	66M3D1D	36.24M	45.637M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	74.28M	77.841M	77M9D1D	69.72M	77.001M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Min-OBW = Minimum 99% occupied bandwidth

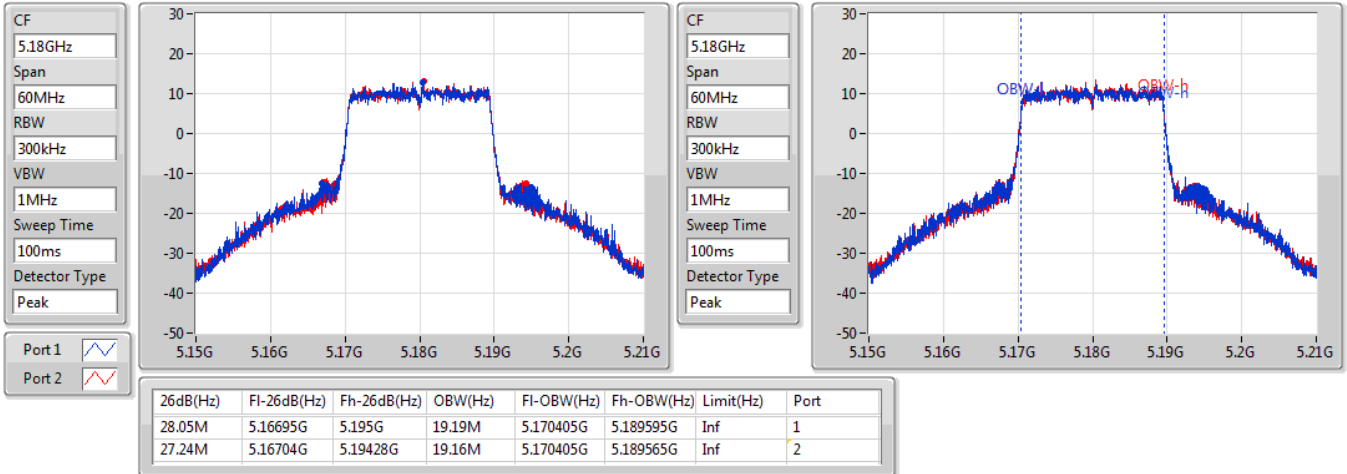
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	28.05M	19.19M	27.24M	19.16M
5200MHz	Pass	Inf	42.45M	20.57M	36.63M	20.09M
5240MHz	Pass	Inf	31.2M	19.25M	33.18M	19.4M
5745MHz	Pass	500k	18.36M	37.661M	18.63M	33.403M
5785MHz	Pass	500k	17.64M	45.517M	17.19M	41.109M
5825MHz	Pass	500k	18.18M	41.019M	18.21M	43.538M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	40.02M	37.781M	40.2M	37.781M
5230MHz	Pass	Inf	55.08M	38.441M	71.7M	39.28M
5755MHz	Pass	500k	37.26M	45.637M	37.62M	55.172M
5795MHz	Pass	500k	36.9M	51.634M	36.24M	66.207M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81M	77.241M	81.6M	77.361M
5775MHz	Pass	500k	74.28M	77.001M	69.72M	77.841M

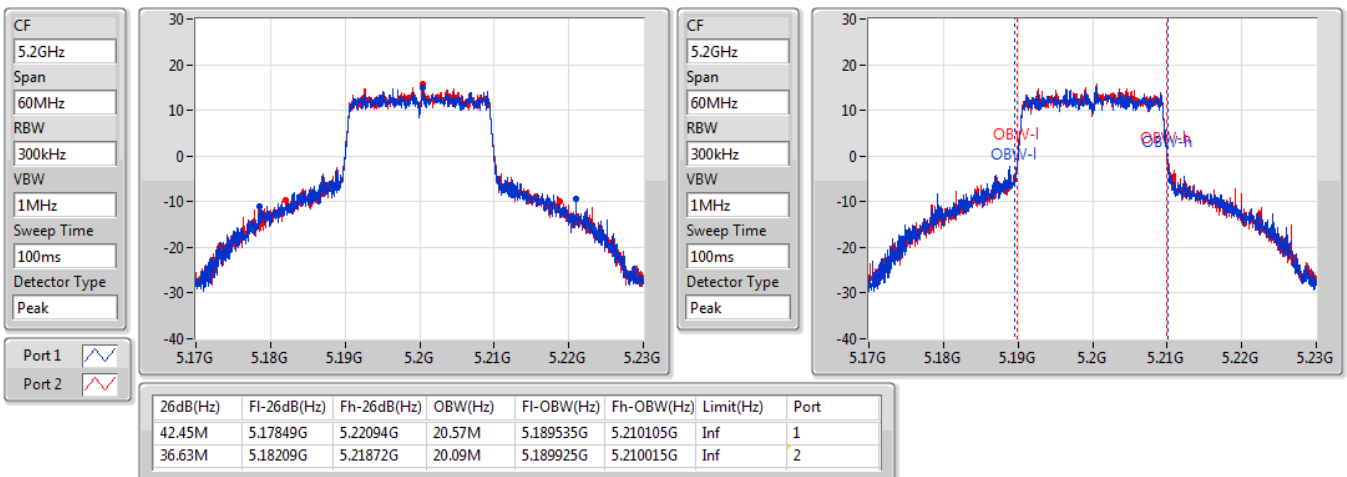
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5180MHz

08/06/2022


802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5200MHz

08/06/2022

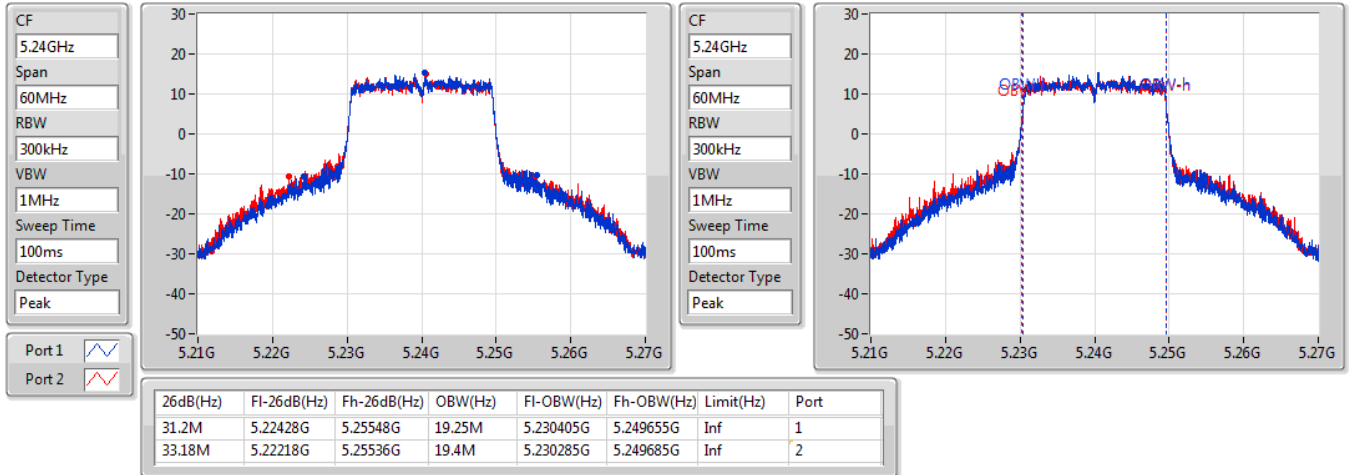


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

5240MHz

08/06/2022

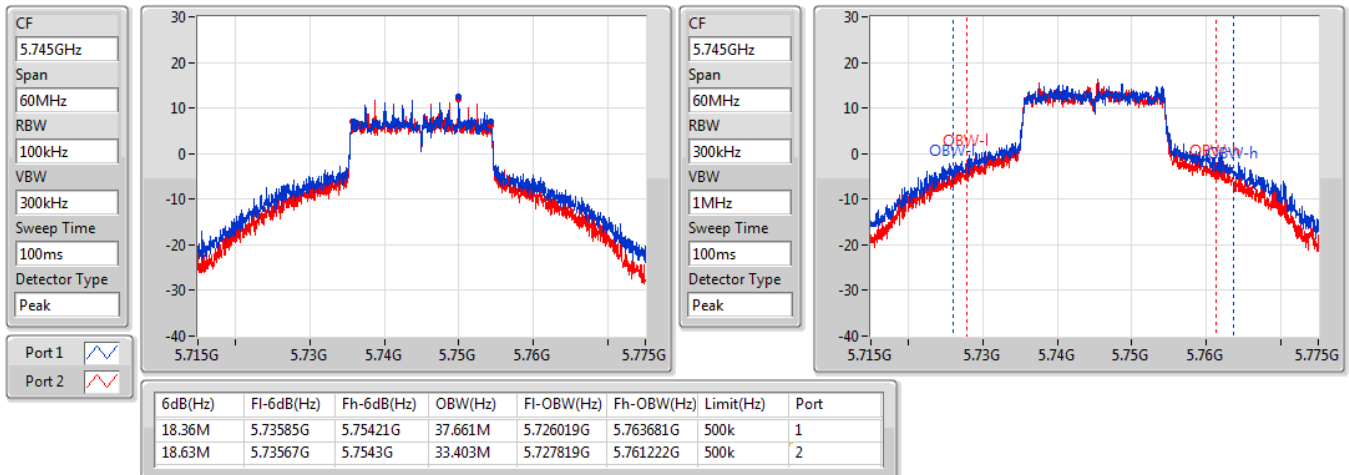


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

5745MHz

08/06/2022

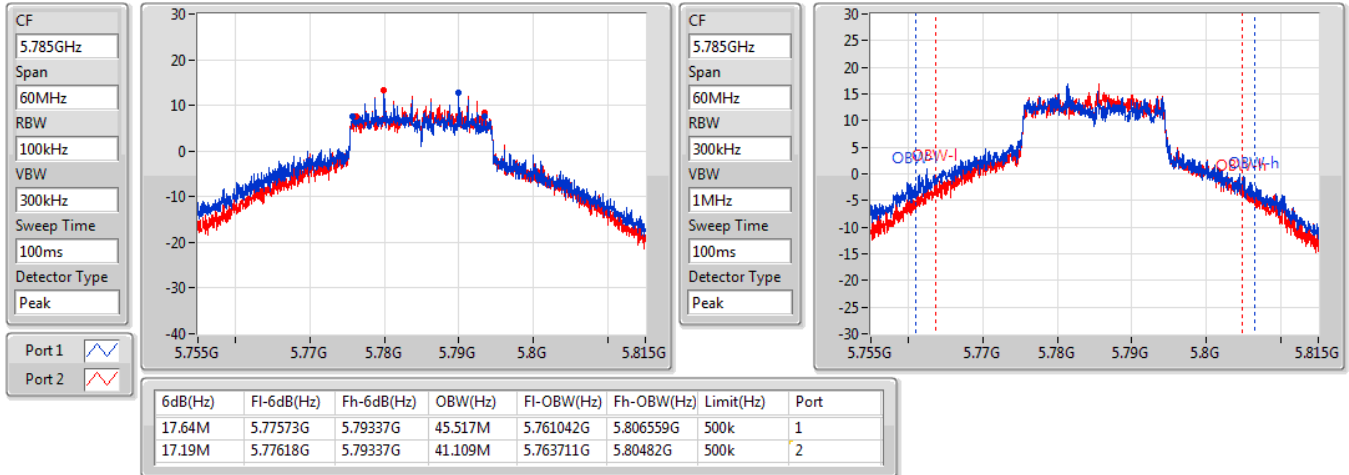


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

5785MHz

08/06/2022

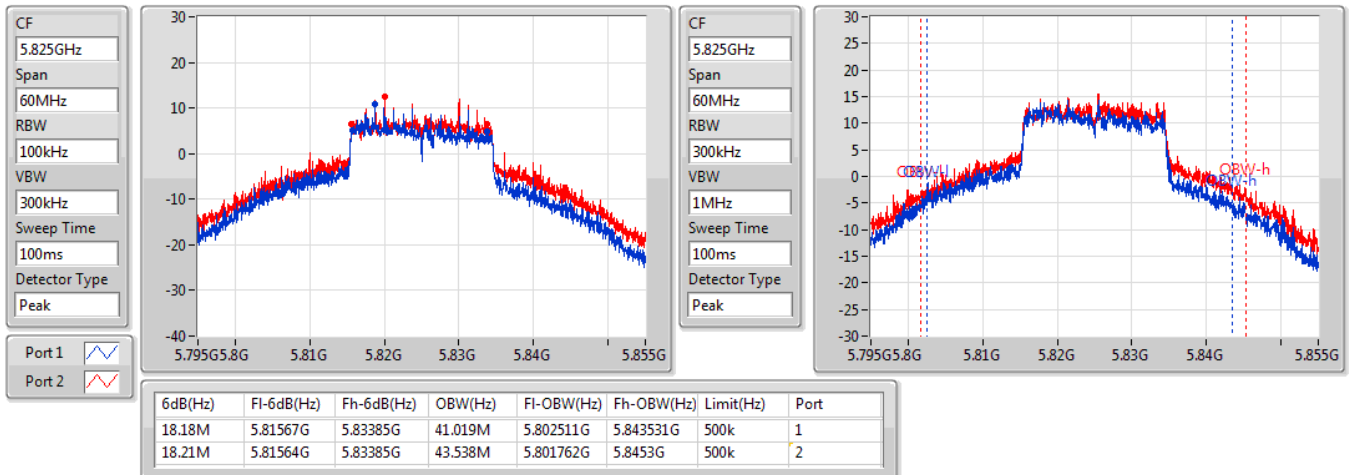


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

5825MHz

08/06/2022

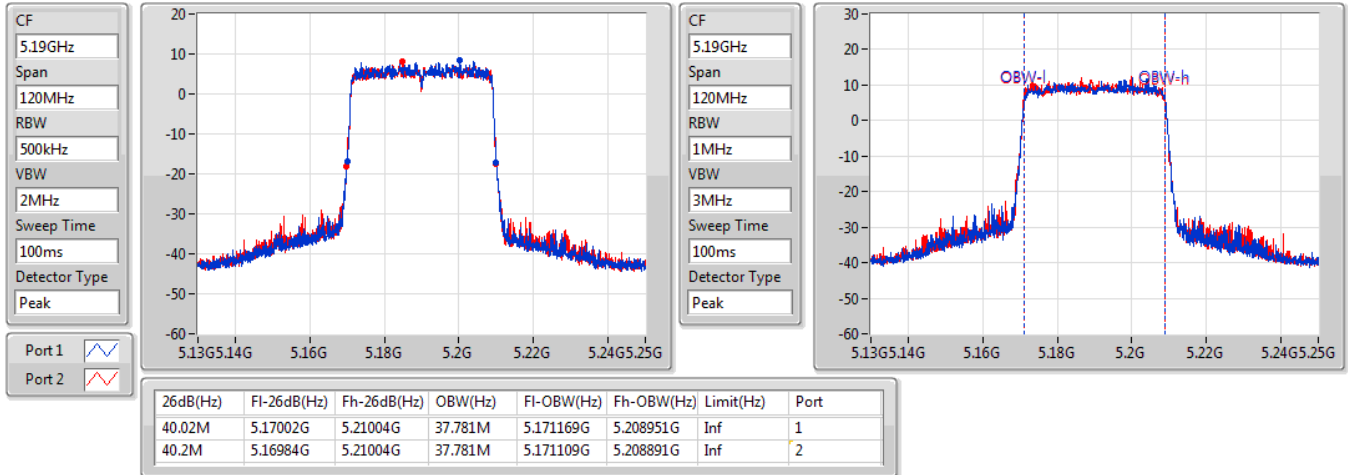


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

EBW

5190MHz

08/06/2022

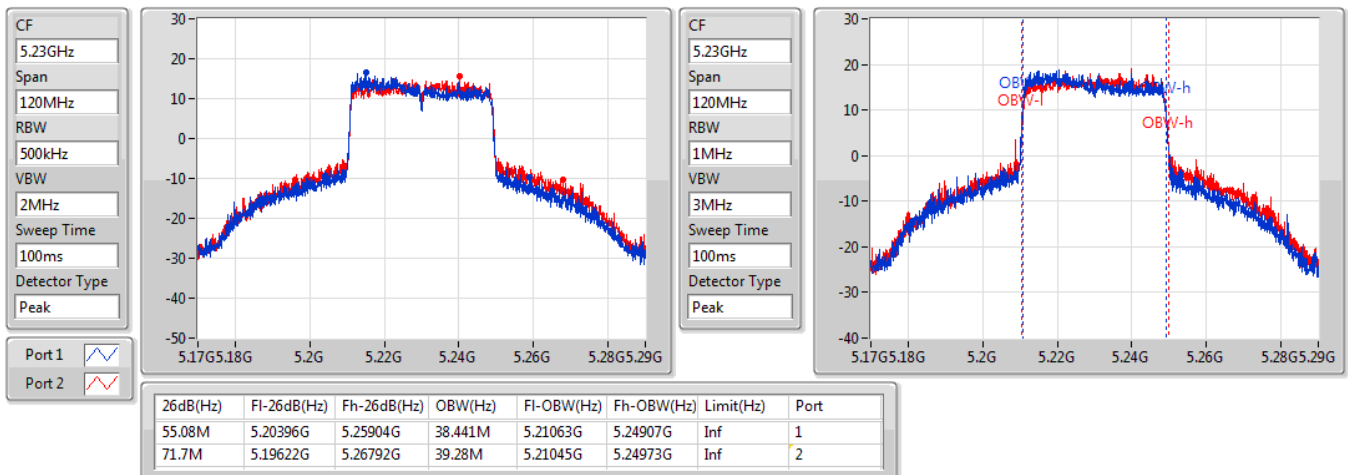


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

EBW

5230MHz

08/06/2022

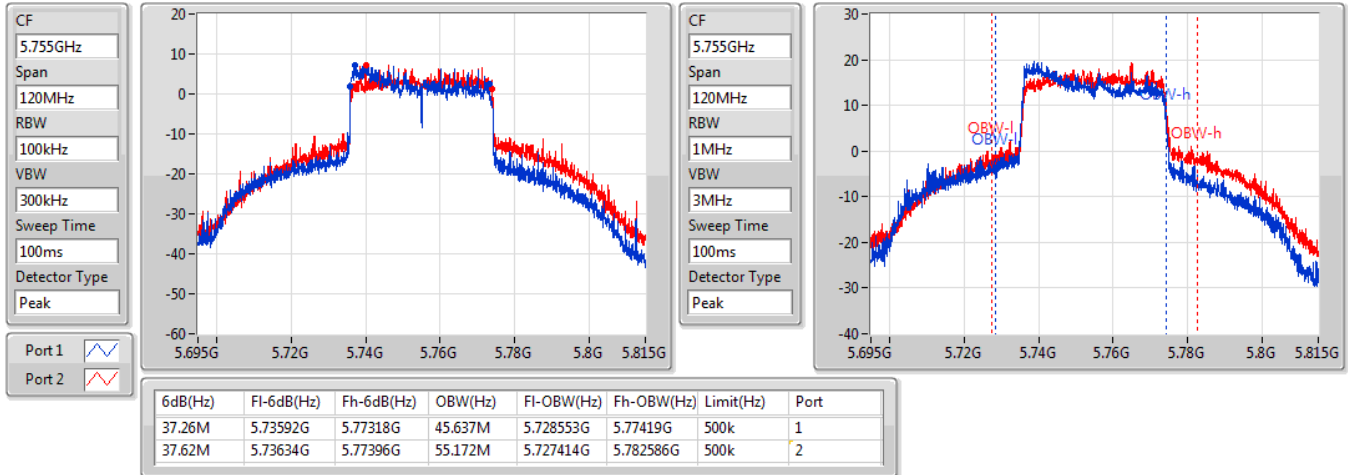


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

EBW

5755MHz

08/06/2022

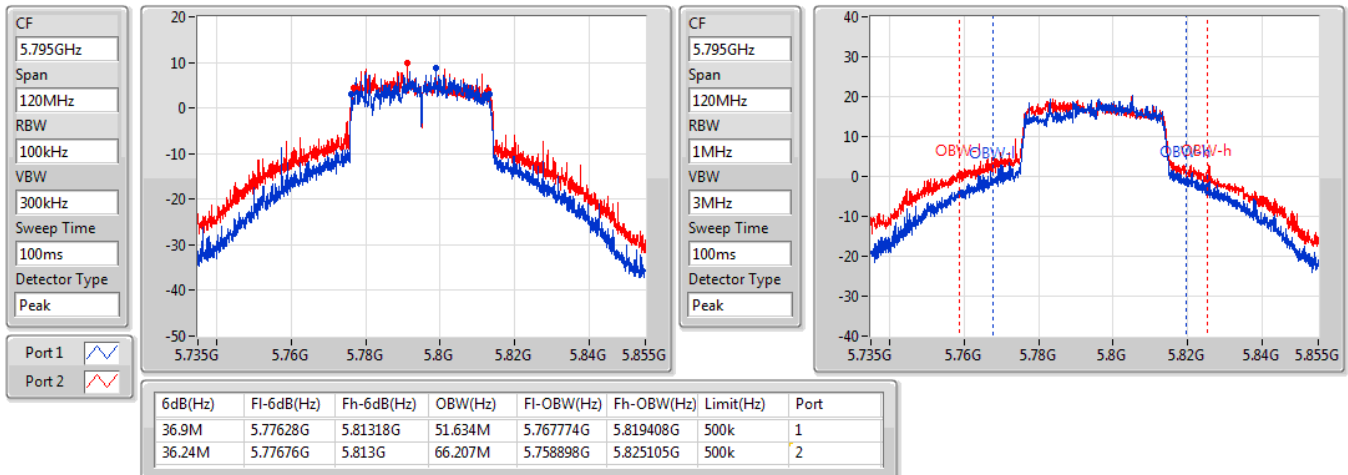


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

EBW

5795MHz

08/06/2022

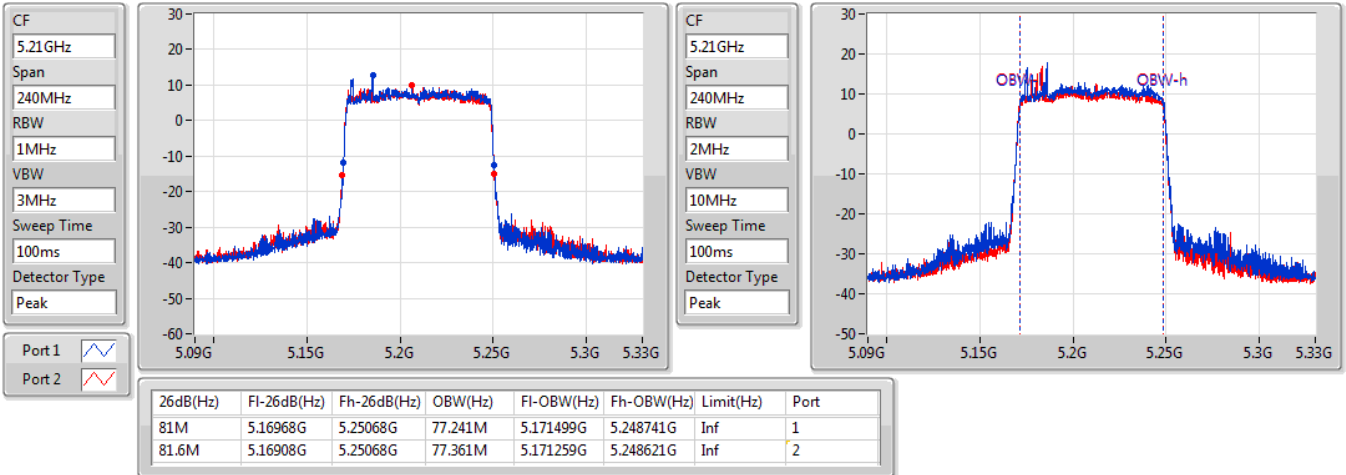


802.11ax HEW80-BF_Nss1,(MCS0)_2TX

EBW

5210MHz

08/06/2022

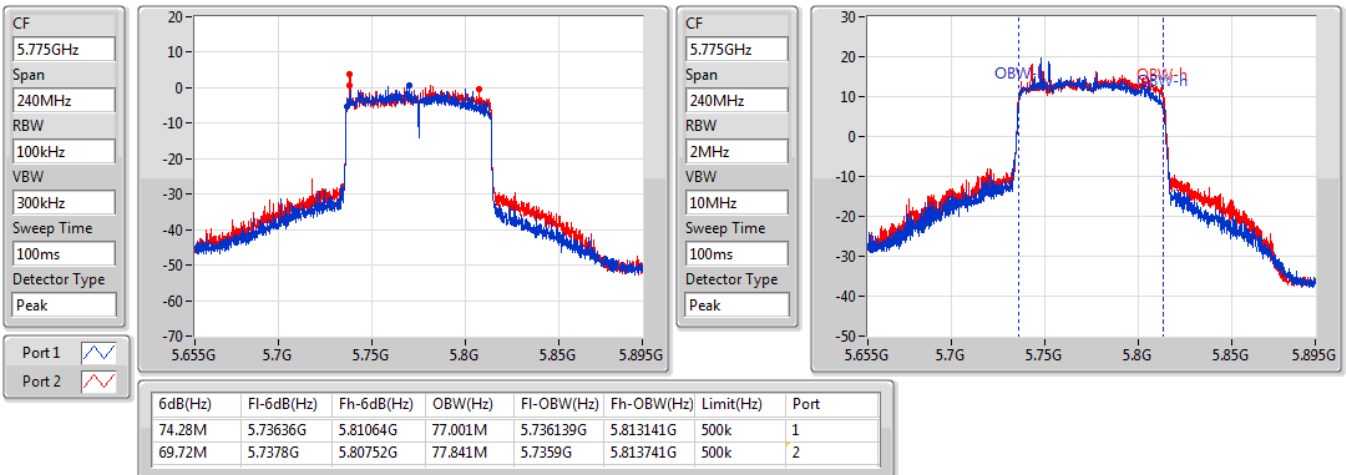


802.11ax HEW80-BF_Nss1,(MCS0)_2TX

EBW

5775MHz

08/06/2022



**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	42.42M	23.088M	23M1D1D	21.63M	19.1M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	74.1M	39.82M	39M9D1D	39.96M	37.721M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	81.24M	77.601M	77M7D1D	80.88M	77.361M
5.725-5.85GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	18.87M	31.634M	31M7D1D	18.45M	26.327M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	37.5M	47.136M	47M2D1D	34.2M	38.261M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	63.96M	77.481M	77M5D1D	11.28M	77.361M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Min-OBW = Minimum 99% occupied bandwidth

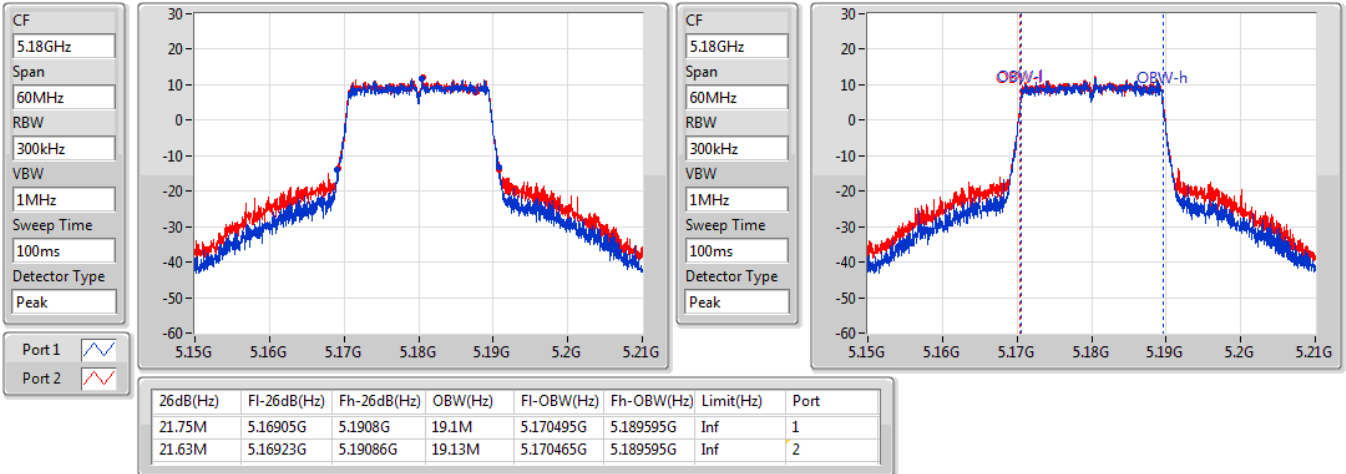
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.75M	19.1M	21.63M	19.13M
5200MHz	Pass	Inf	34.62M	19.49M	42.42M	23.088M
5240MHz	Pass	Inf	33.84M	19.37M	42.18M	19.94M
5745MHz	Pass	500k	18.51M	26.327M	18.63M	31.634M
5785MHz	Pass	500k	18.54M	26.597M	18.45M	31.634M
5825MHz	Pass	500k	18.63M	27.076M	18.87M	30.765M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	39.96M	37.721M	40.14M	37.781M
5230MHz	Pass	Inf	74.1M	38.741M	74.04M	39.82M
5755MHz	Pass	500k	37.5M	38.261M	34.2M	39.16M
5795MHz	Pass	500k	37.26M	41.799M	35.04M	47.136M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	80.88M	77.361M	81.24M	77.601M
5775MHz	Pass	500k	11.28M	77.361M	63.96M	77.481M

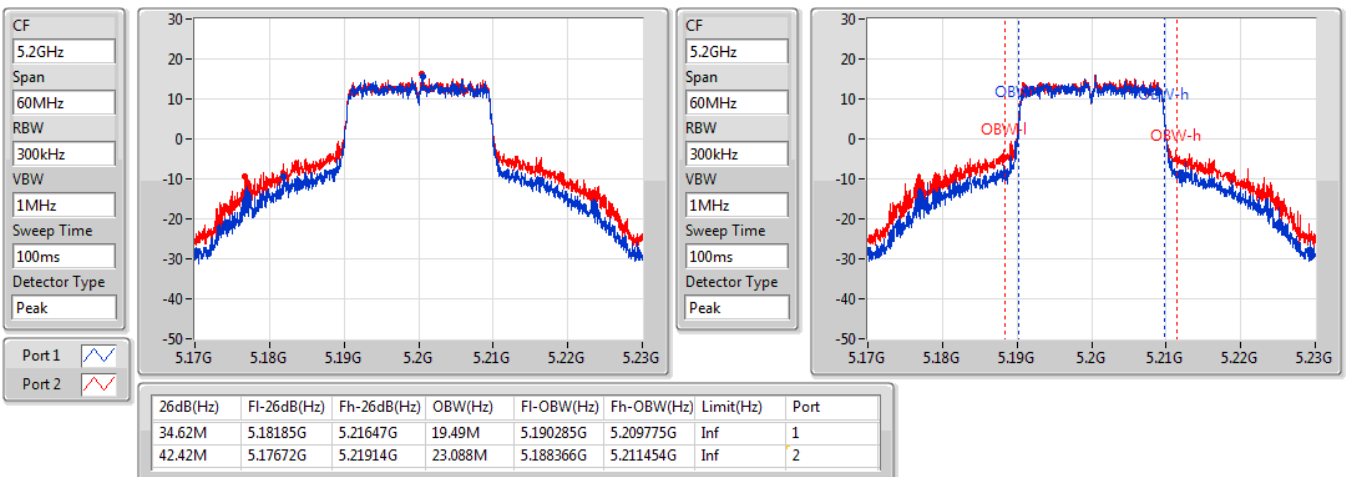
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5180MHz

08/08/2022

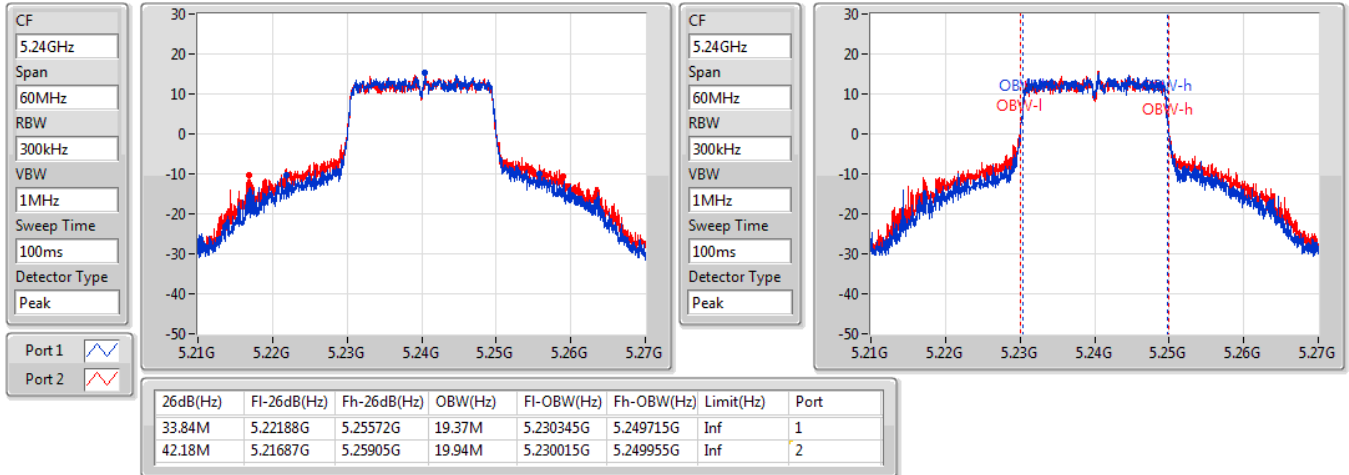

802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5200MHz

08/08/2022

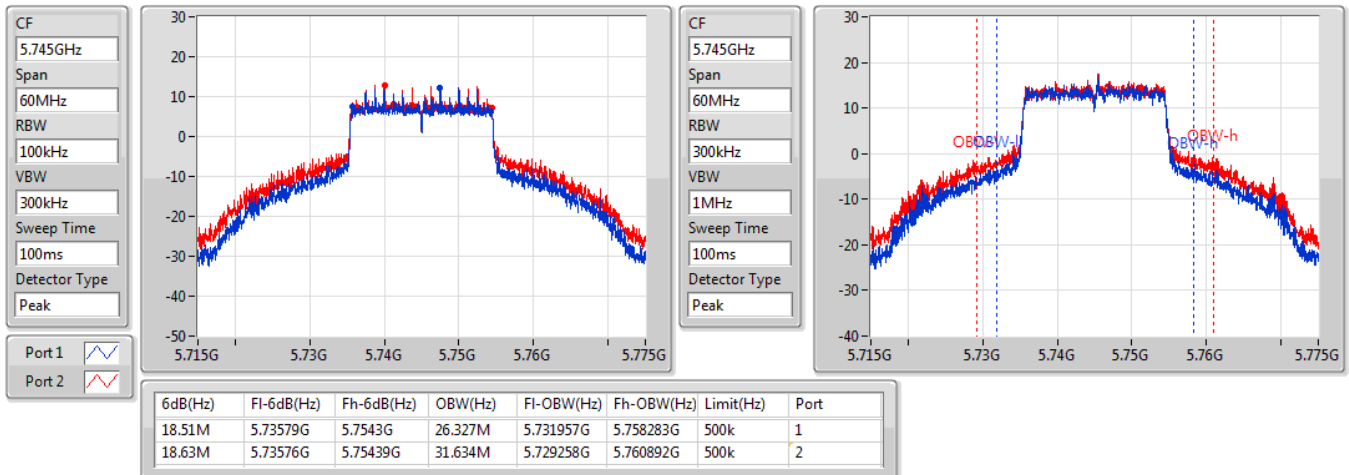


802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5240MHz

08/08/2022


802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5745MHz

08/08/2022

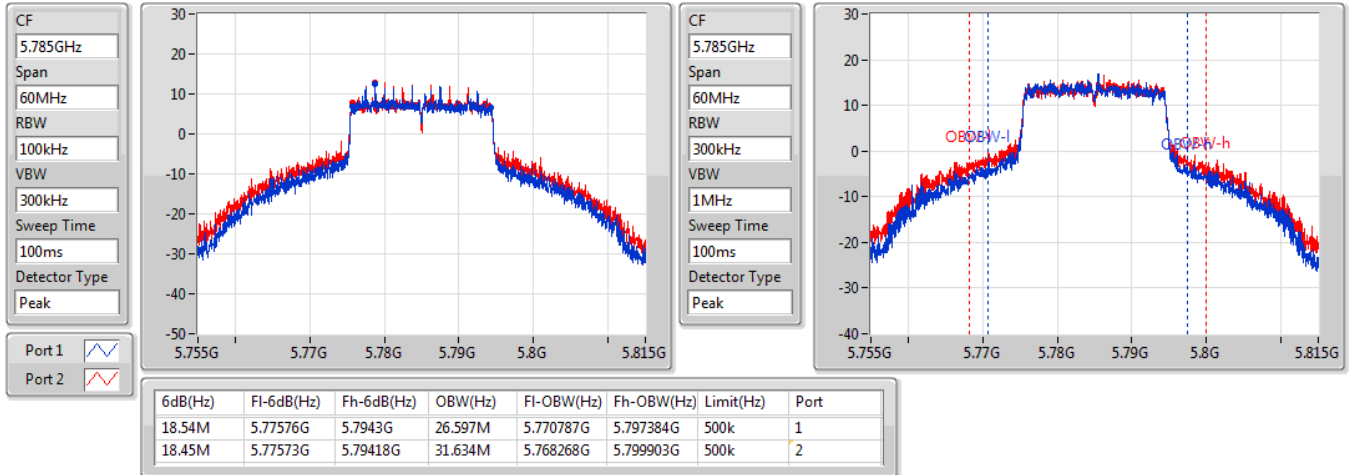


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

5785MHz

08/08/2022

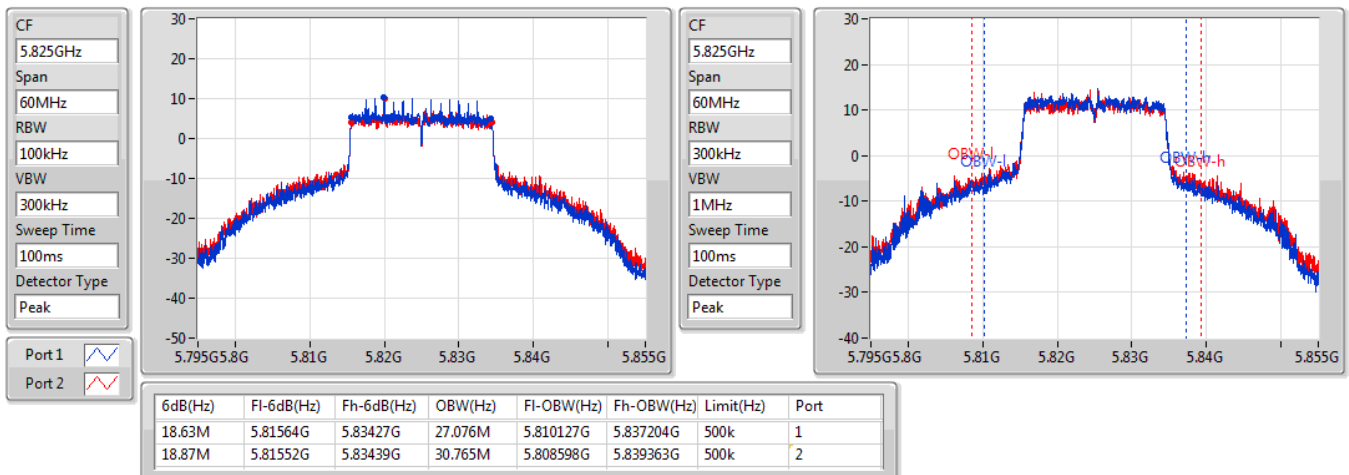


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

5825MHz

08/08/2022

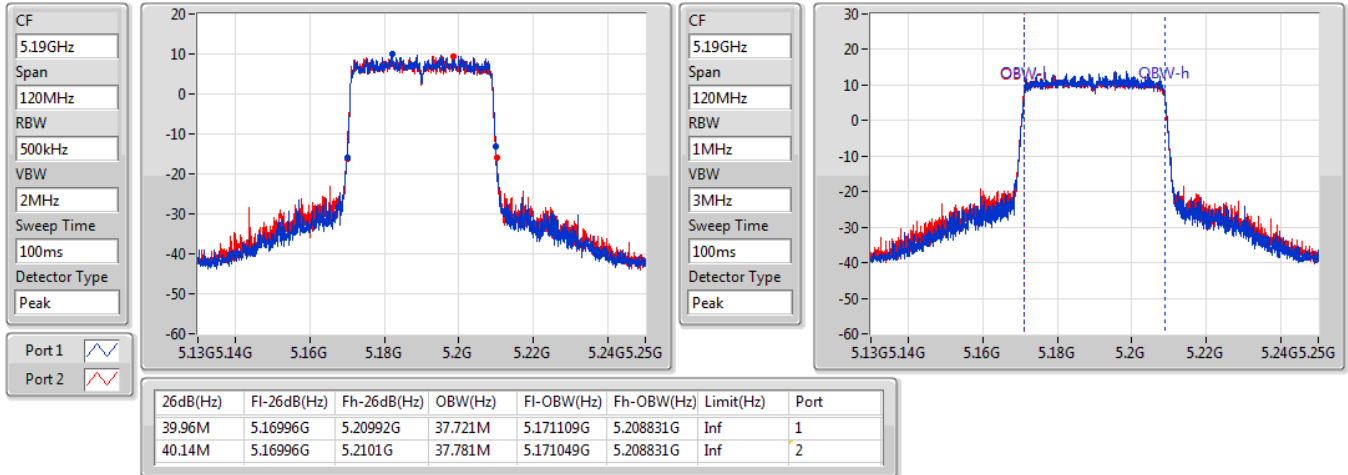


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

EBW

5190MHz

08/08/2022

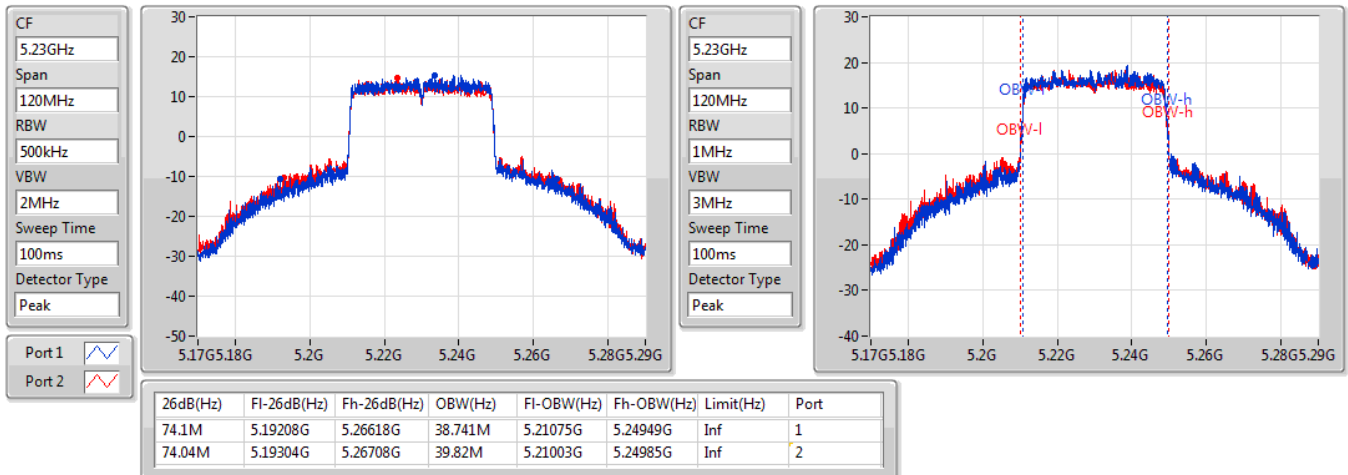


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

EBW

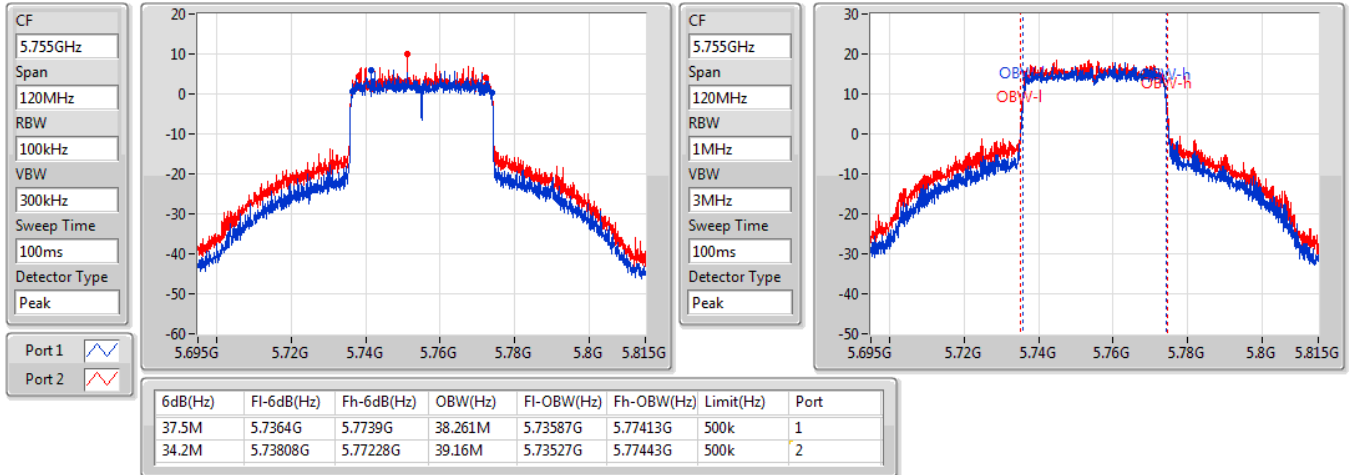
5230MHz

08/08/2022

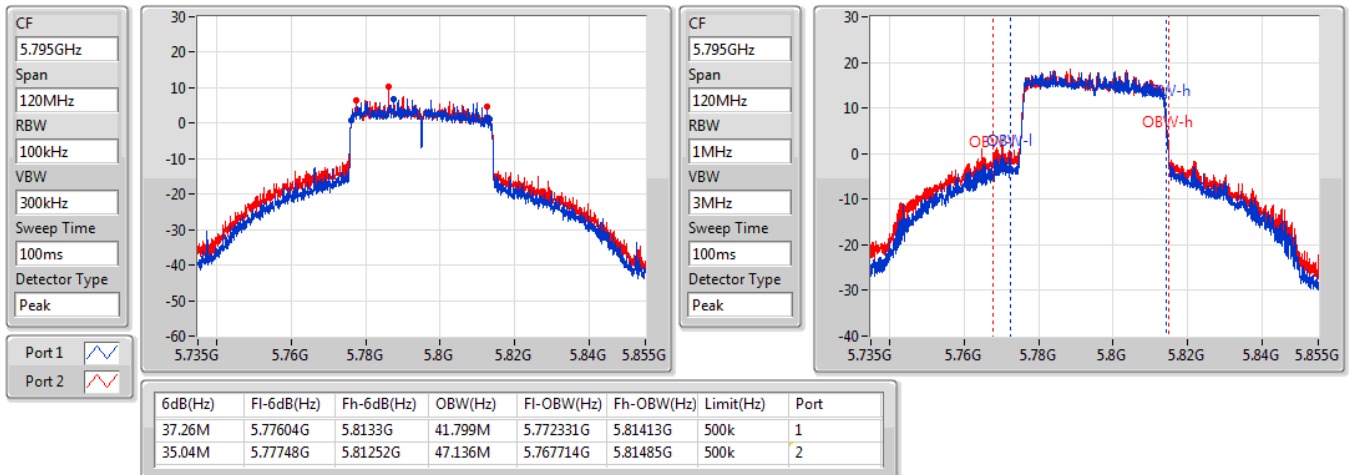


802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
5755MHz

08/08/2022

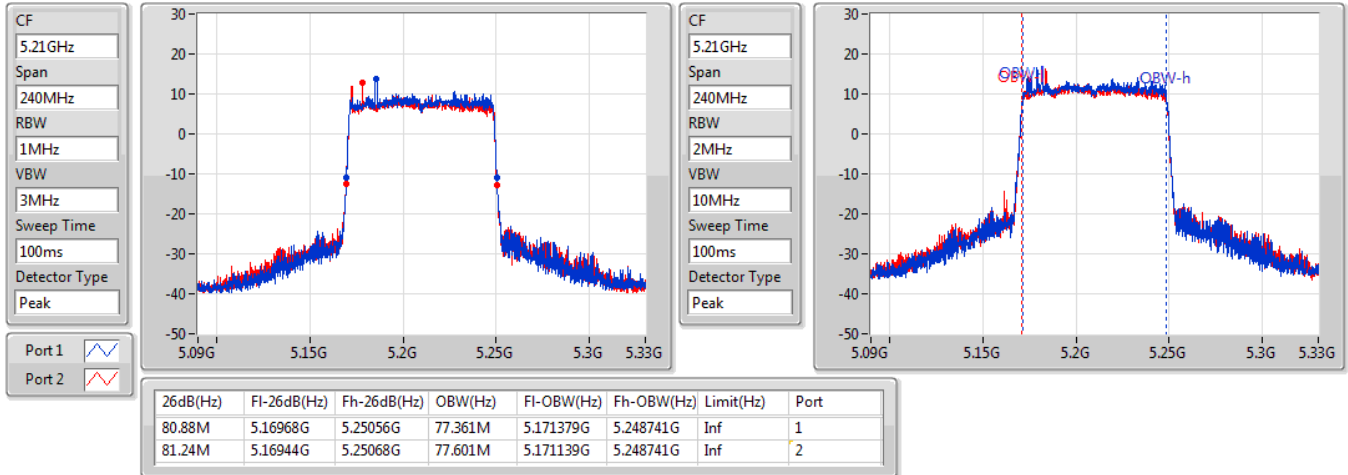

802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
5795MHz

08/08/2022

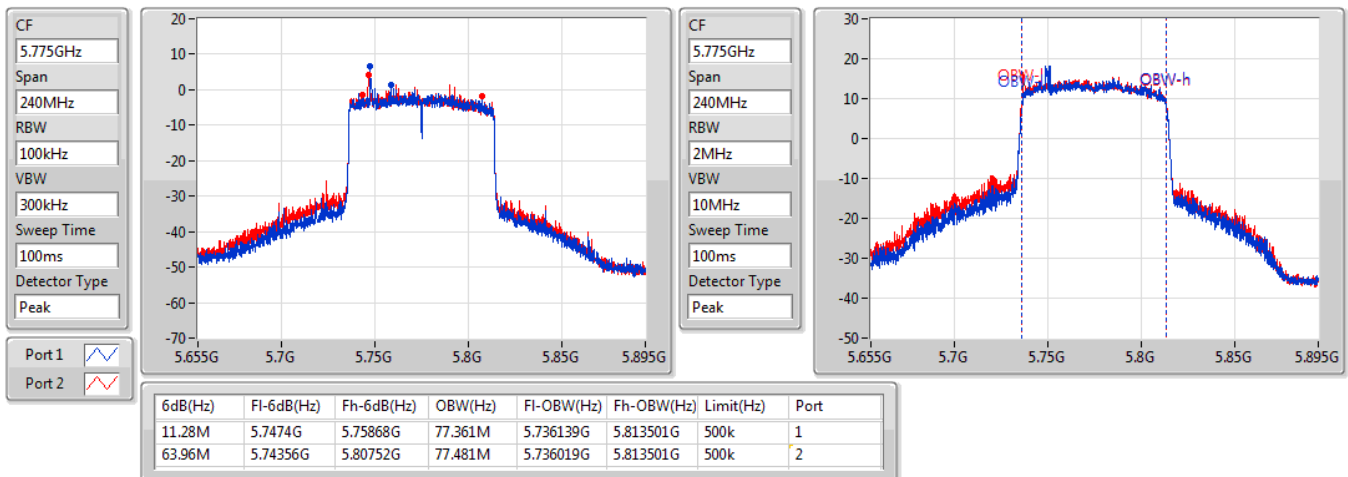


802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
5210MHz

08/08/2022


802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
5775MHz

08/08/2022



**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	35.76M	19.88M	19M9D1D	21.48M	19.04M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	72.84M	38.801M	38M9D1D	40.2M	37.721M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	81M	77.601M	77M7D1D	81M	77.361M
5.725-5.85GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	18.93M	30.945M	31M0D1D	18.48M	19.4M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	37.62M	47.016M	47M0D1D	36.66M	38.321M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	72.12M	77.601M	77M7D1D	68.76M	77.361M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Min-OBW = Minimum 99% occupied bandwidth

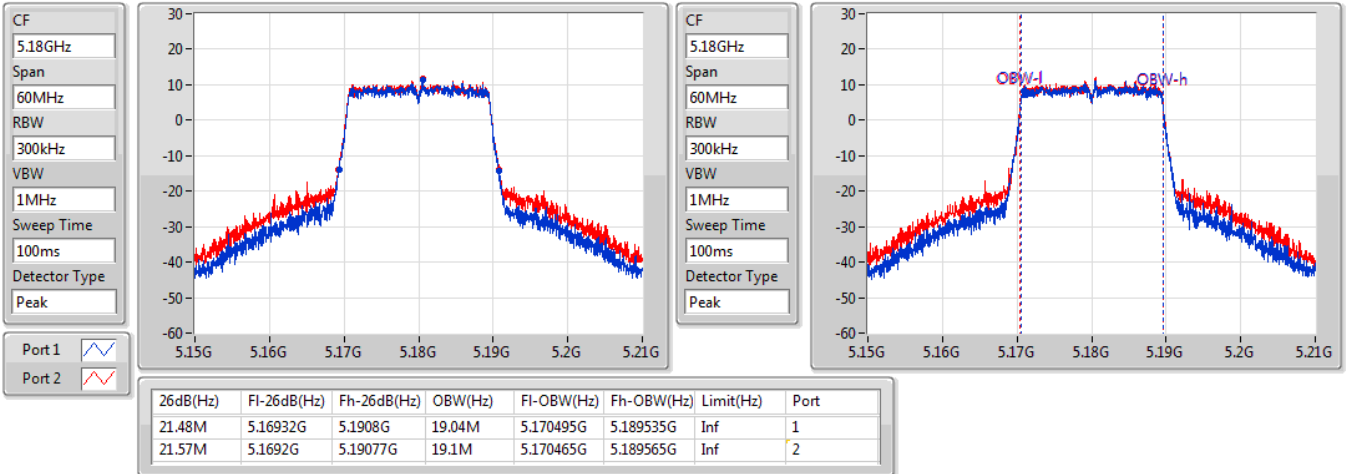
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.48M	19.04M	21.57M	19.1M
5200MHz	Pass	Inf	34.86M	19.31M	35.76M	19.88M
5240MHz	Pass	Inf	31.29M	19.28M	35.22M	19.64M
5745MHz	Pass	500k	18.93M	19.4M	18.48M	19.91M
5785MHz	Pass	500k	18.9M	19.55M	18.75M	20.96M
5825MHz	Pass	500k	18.54M	27.166M	18.75M	30.945M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	40.2M	37.721M	40.32M	37.721M
5230MHz	Pass	Inf	65.46M	38.501M	72.84M	38.801M
5755MHz	Pass	500k	37.62M	38.321M	37.5M	38.861M
5795MHz	Pass	500k	36.66M	41.199M	36.9M	47.016M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81M	77.601M	81M	77.361M
5775MHz	Pass	500k	68.76M	77.361M	72.12M	77.601M

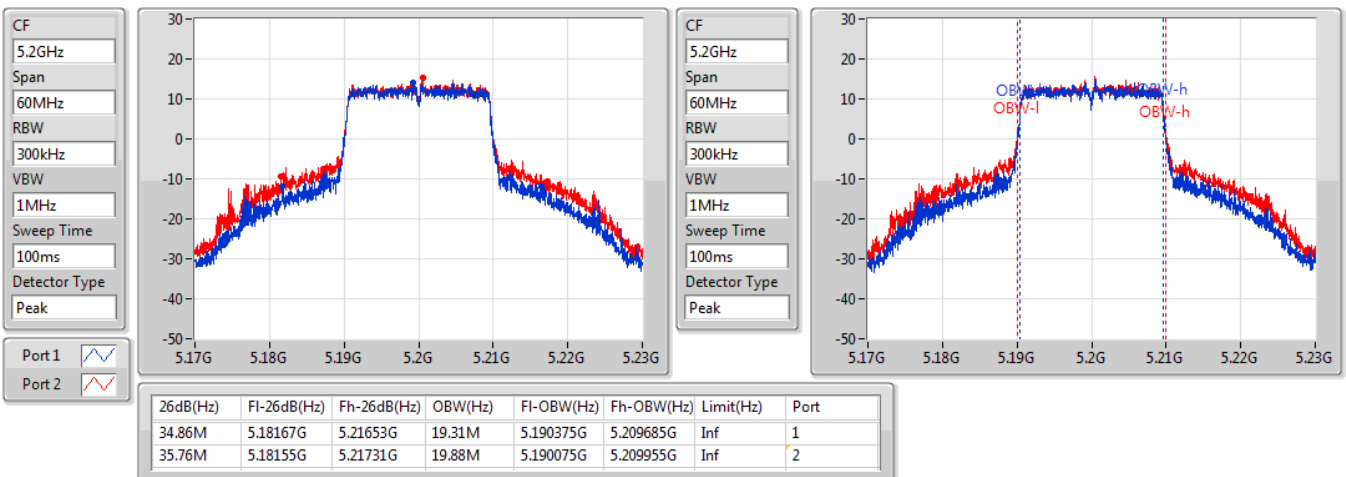
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5180MHz

09/08/2022

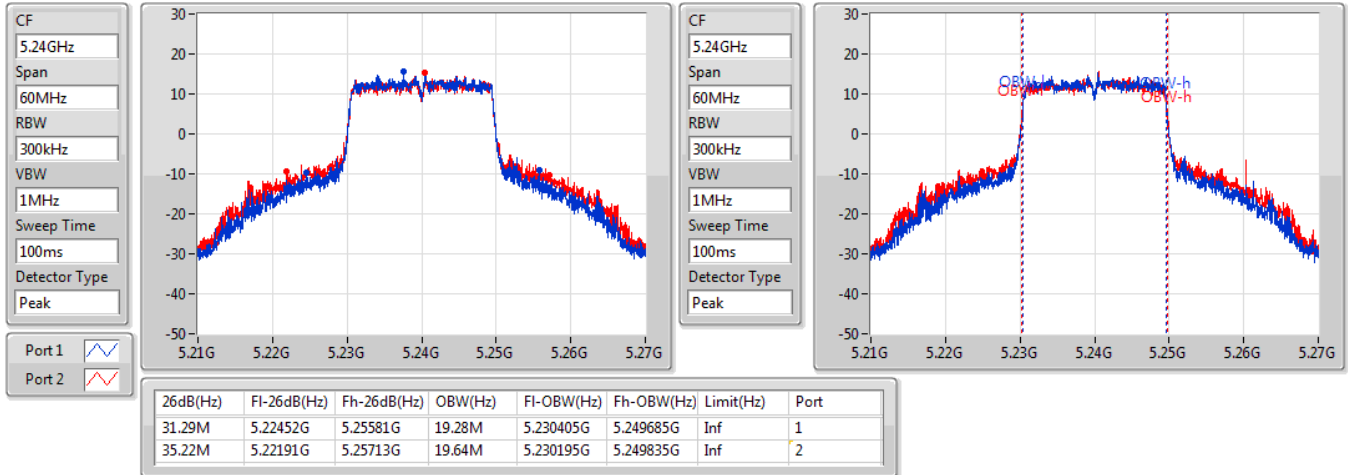

802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5200MHz

09/08/2022

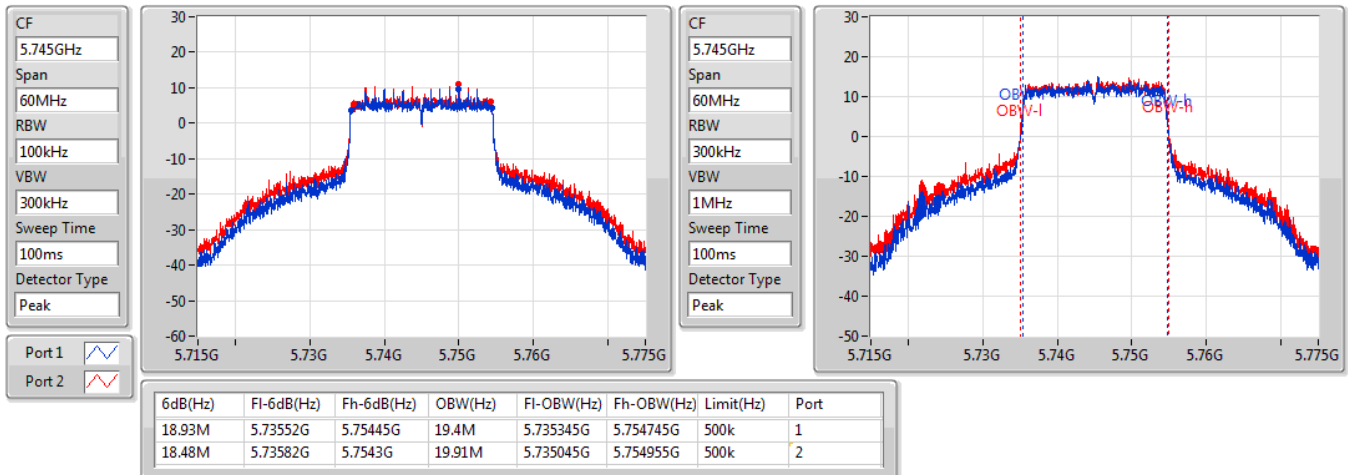


802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5240MHz

09/08/2022


802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5745MHz

09/08/2022

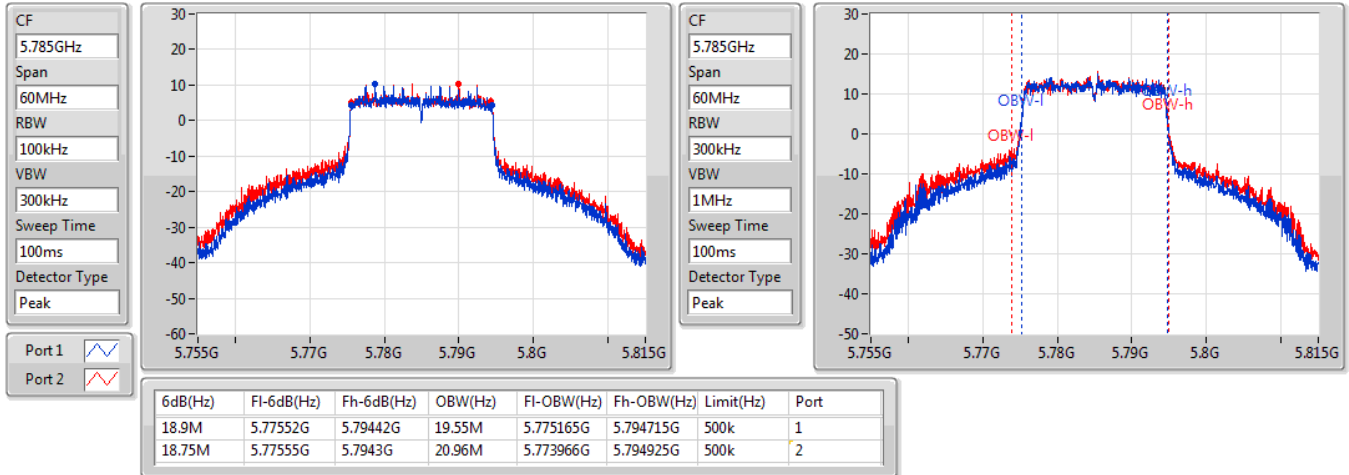


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

5785MHz

09/08/2022

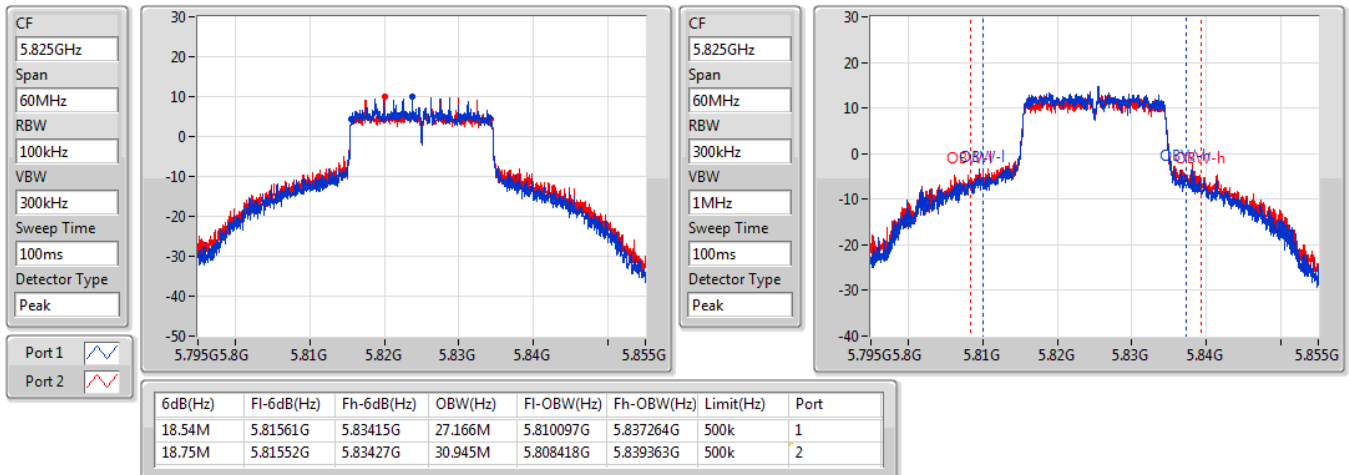


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

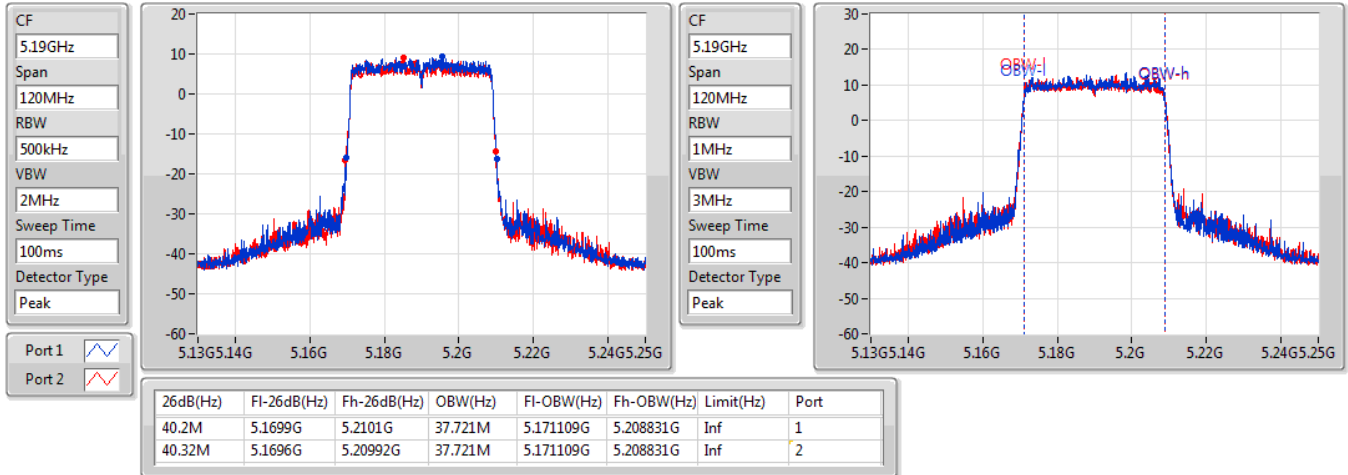
5825MHz

09/08/2022

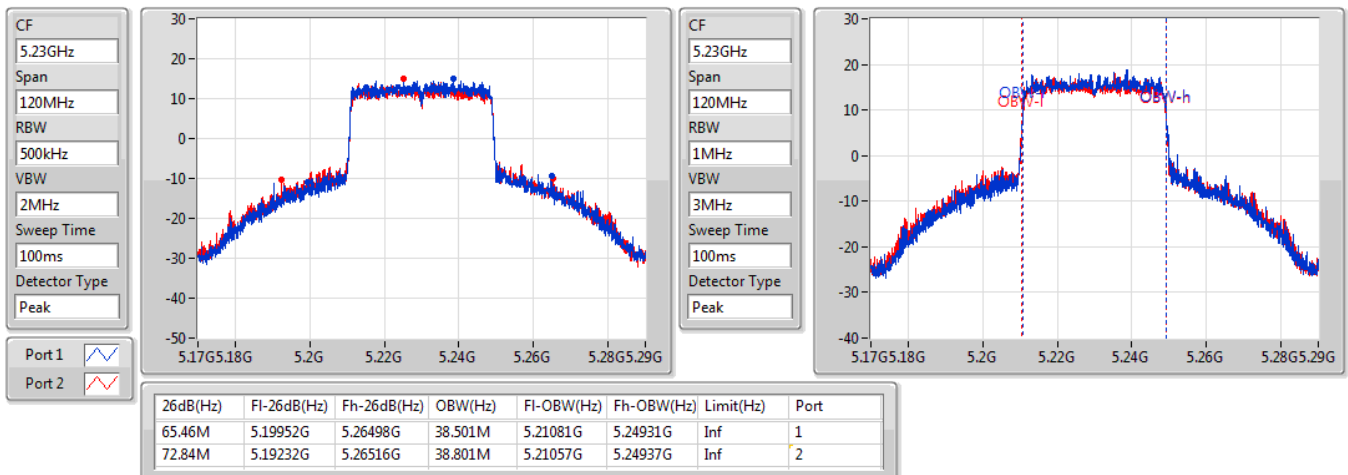


802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
5190MHz

09/08/2022


802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
5230MHz

09/08/2022

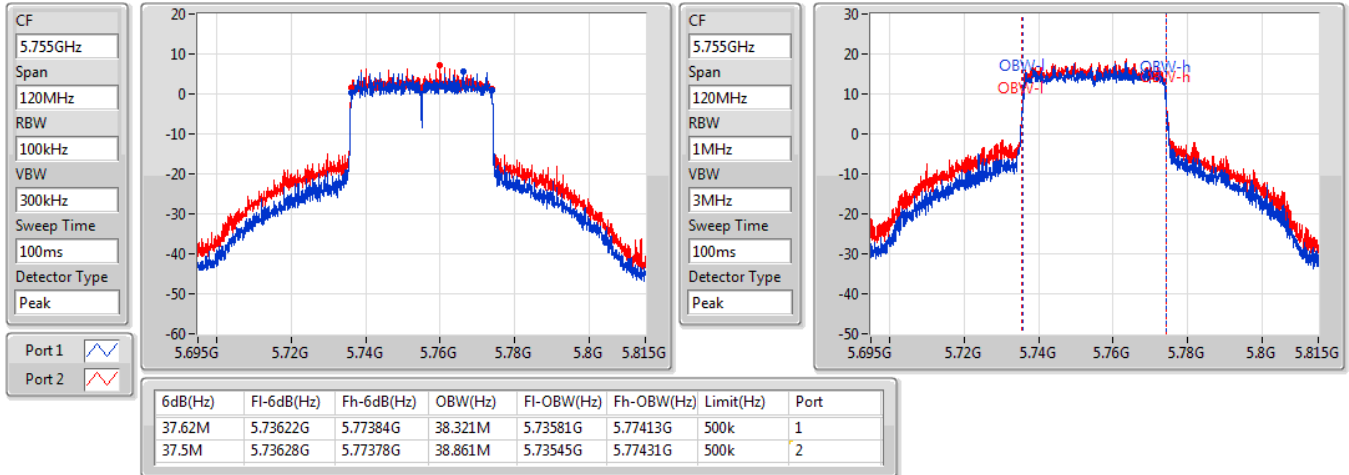


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

EBW

5755MHz

09/08/2022

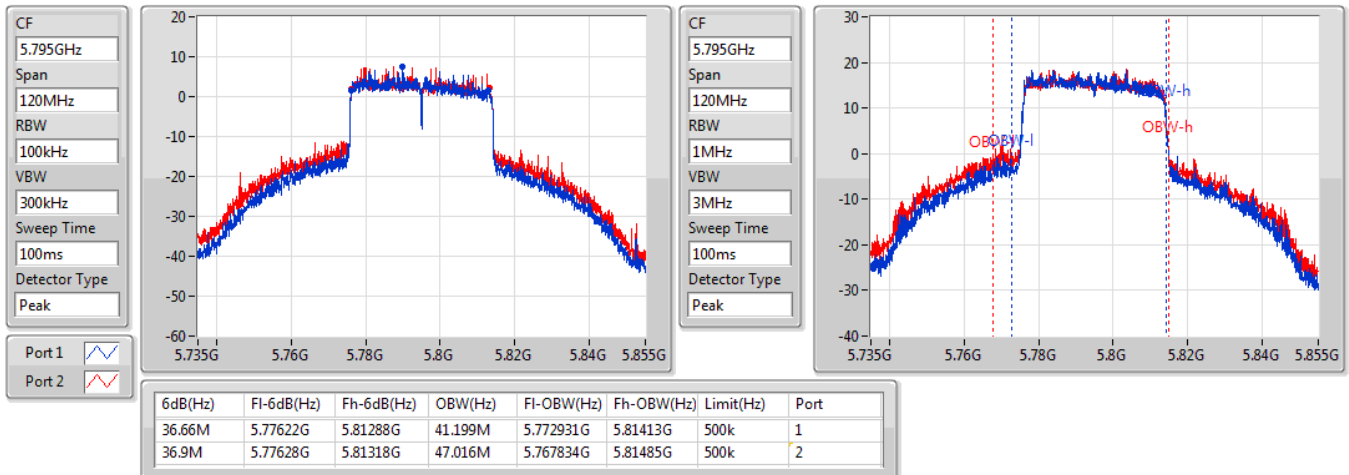


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

EBW

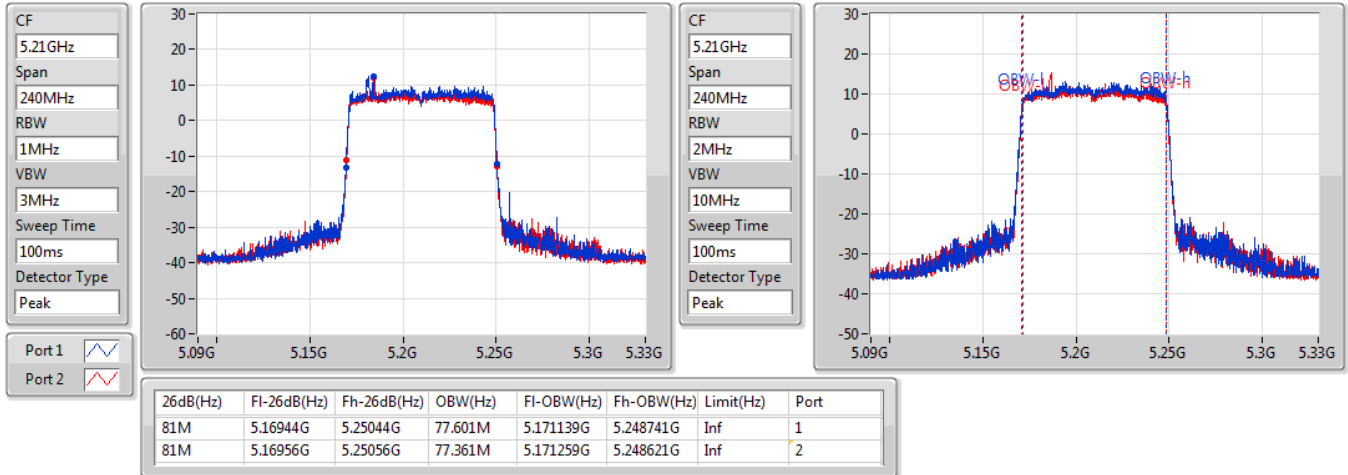
5795MHz

09/08/2022

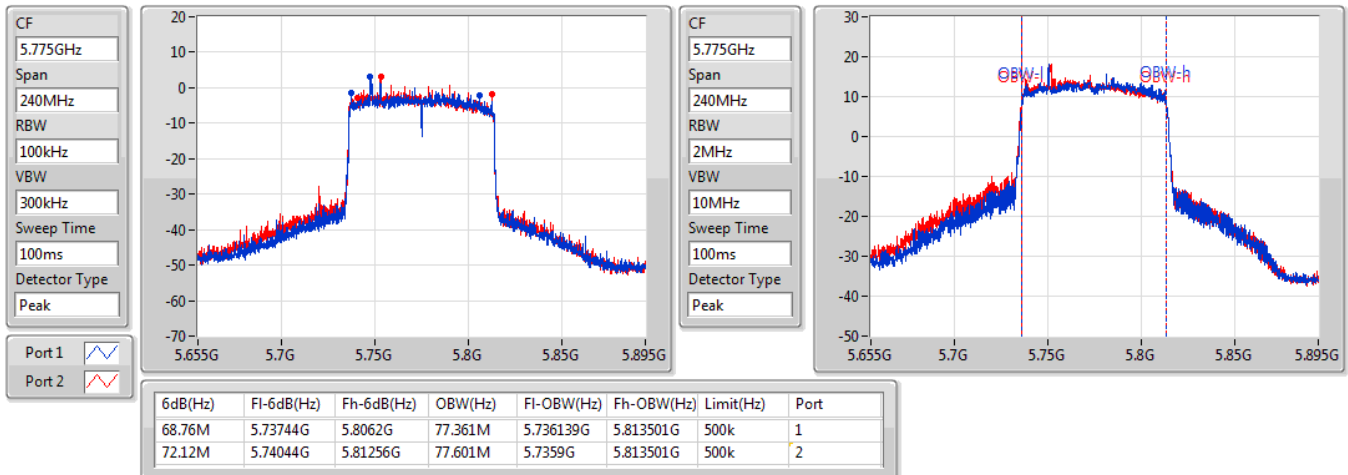


802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
5210MHz

09/08/2022


802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
5775MHz

09/08/2022



**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	39.93M	19.91M	20M0D1D	21.48M	19.1M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	40.2M	37.841M	37M9D1D	40.08M	37.781M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	81M	77.601M	77M7D1D	80.88M	77.481M
5.725-5.85GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	18.93M	48.666M	48M7D1D	18.03M	19.61M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	37.68M	53.313M	53M4D1D	33.84M	38.621M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	71.64M	77.841M	77M9D1D	64.92M	77.601M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Min-OBW = Minimum 99% occupied bandwidth

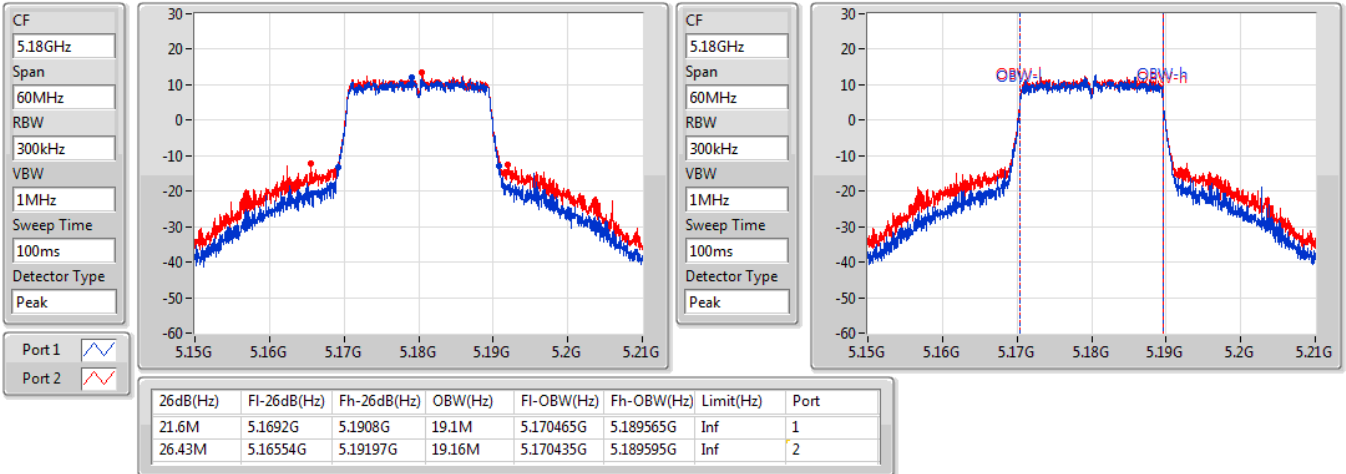
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.6M	19.1M	26.43M	19.16M
5200MHz	Pass	Inf	21.48M	19.1M	26.13M	19.19M
5240MHz	Pass	Inf	31.35M	19.34M	39.93M	19.91M
5745MHz	Pass	500k	18.93M	19.61M	18.48M	21.079M
5785MHz	Pass	500k	18.87M	20.15M	18.78M	23.778M
5825MHz	Pass	500k	18.51M	48.666M	18.03M	47.256M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	40.08M	37.781M	40.14M	37.781M
5230MHz	Pass	Inf	40.2M	37.841M	40.2M	37.781M
5755MHz	Pass	500k	37.68M	38.621M	37.68M	42.939M
5795MHz	Pass	500k	37.2M	43.358M	33.84M	53.313M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81M	77.601M	80.88M	77.481M
5775MHz	Pass	500k	64.92M	77.601M	71.64M	77.841M

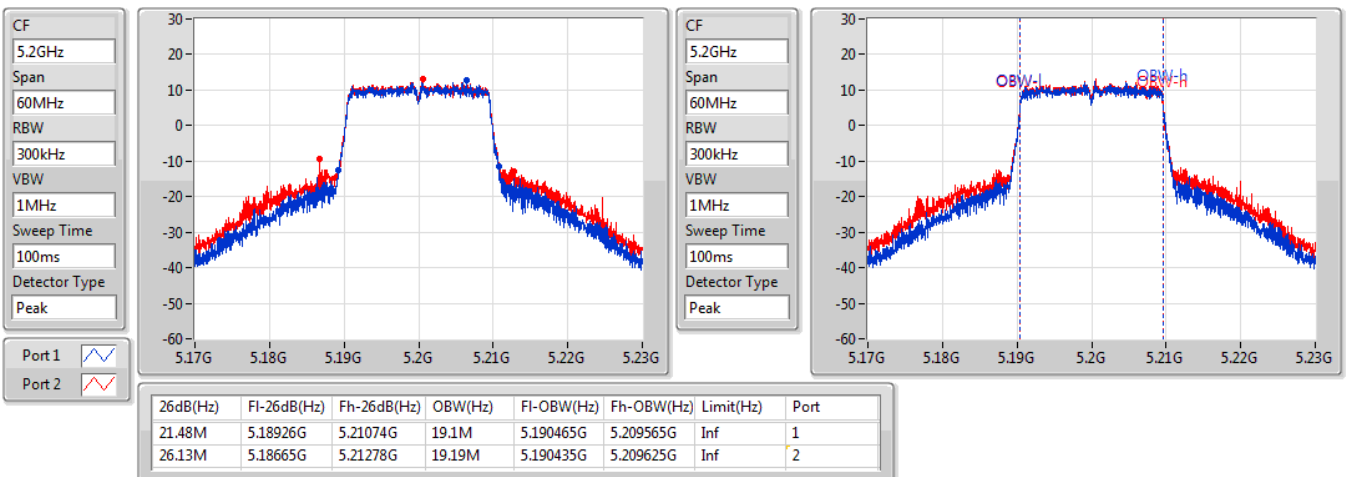
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5180MHz

09/08/2022


802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5200MHz

09/08/2022

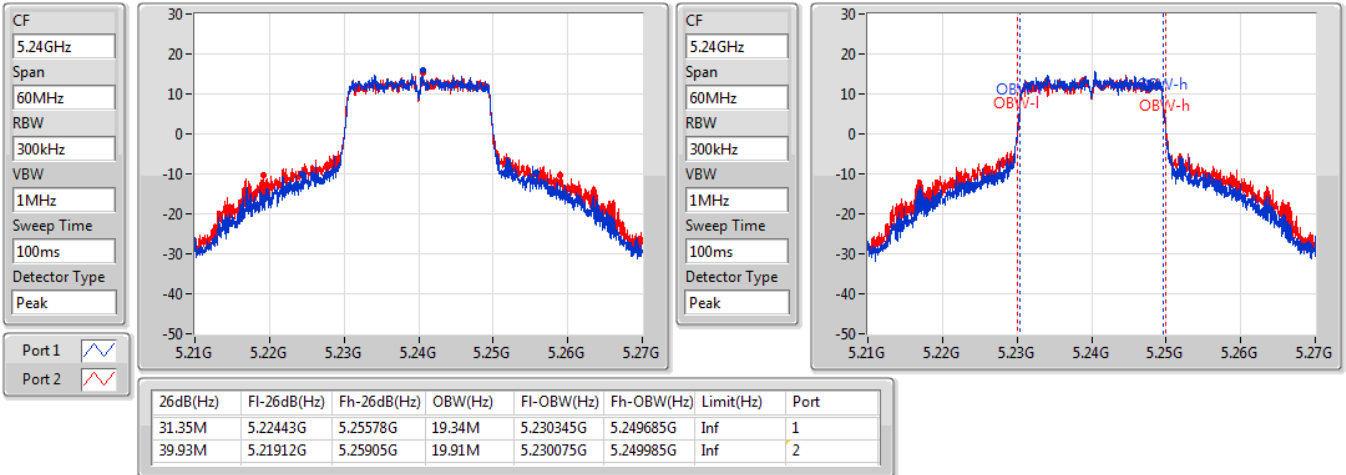


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

5240MHz

09/08/2022

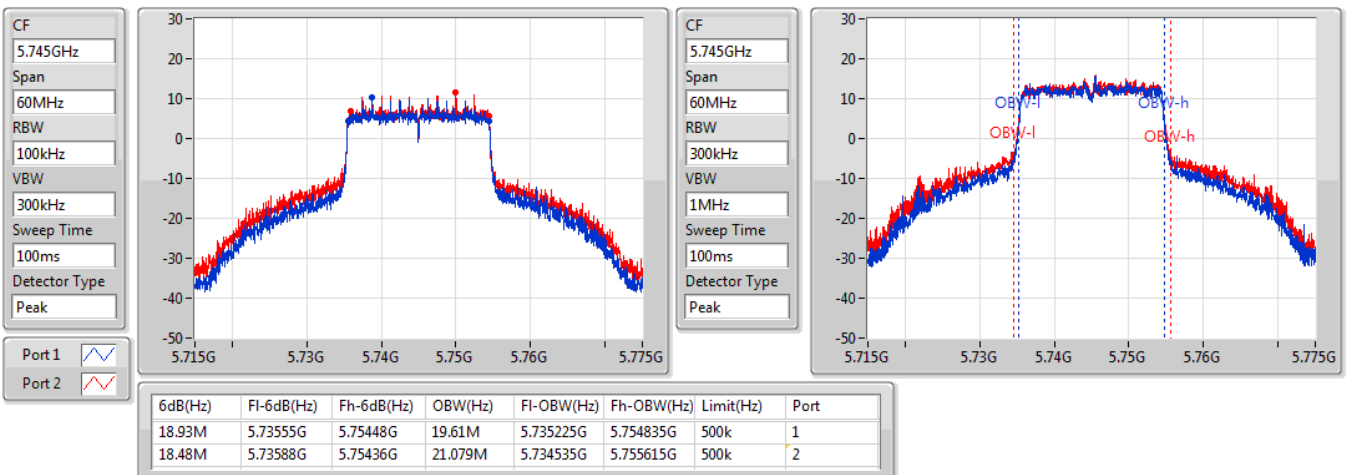


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

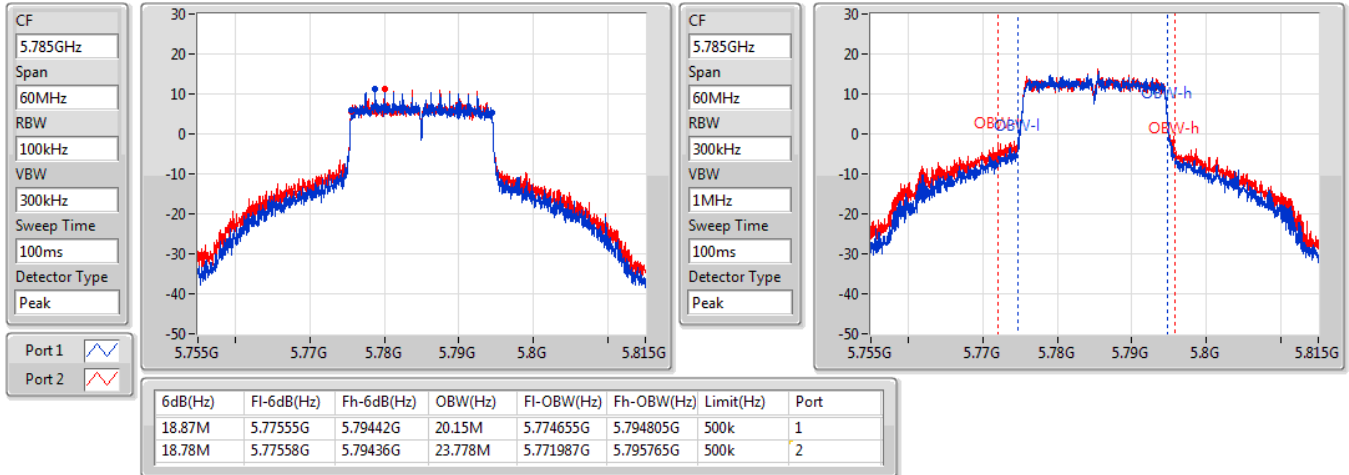
5745MHz

09/08/2022

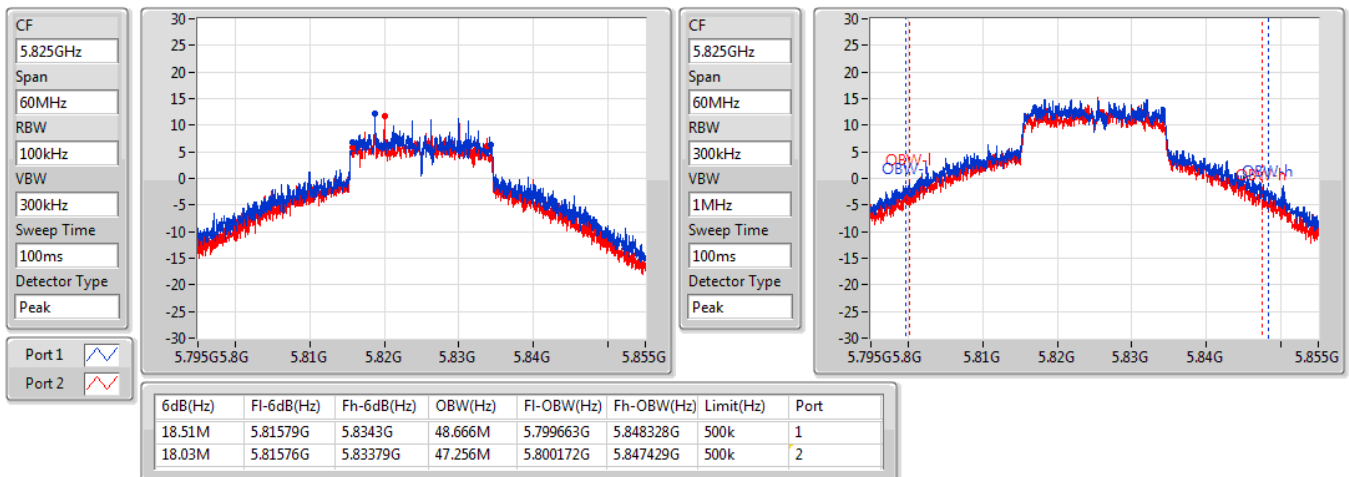


802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5785MHz

09/08/2022

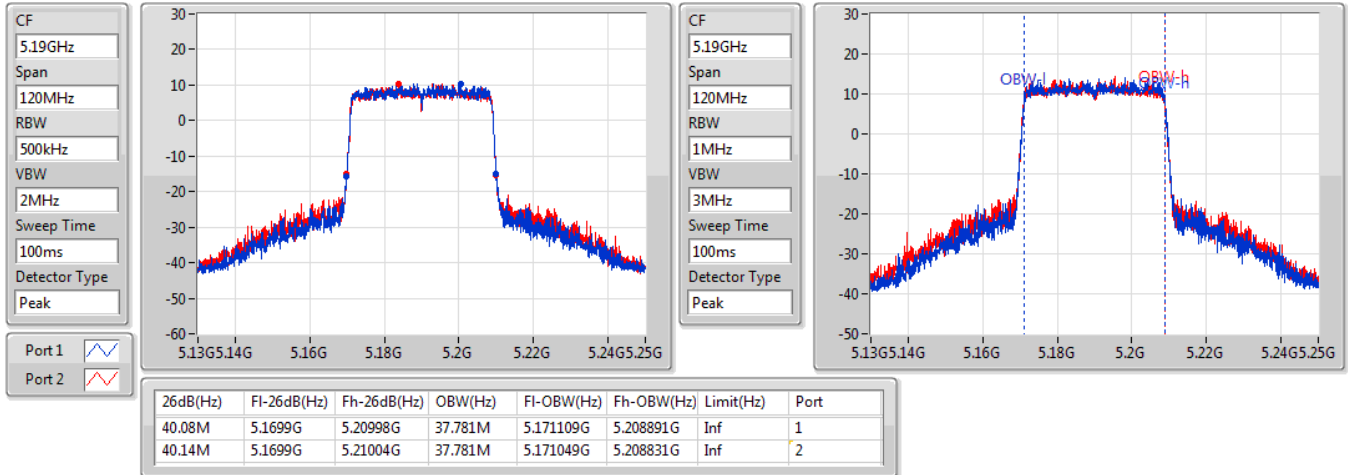

802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5825MHz

09/08/2022

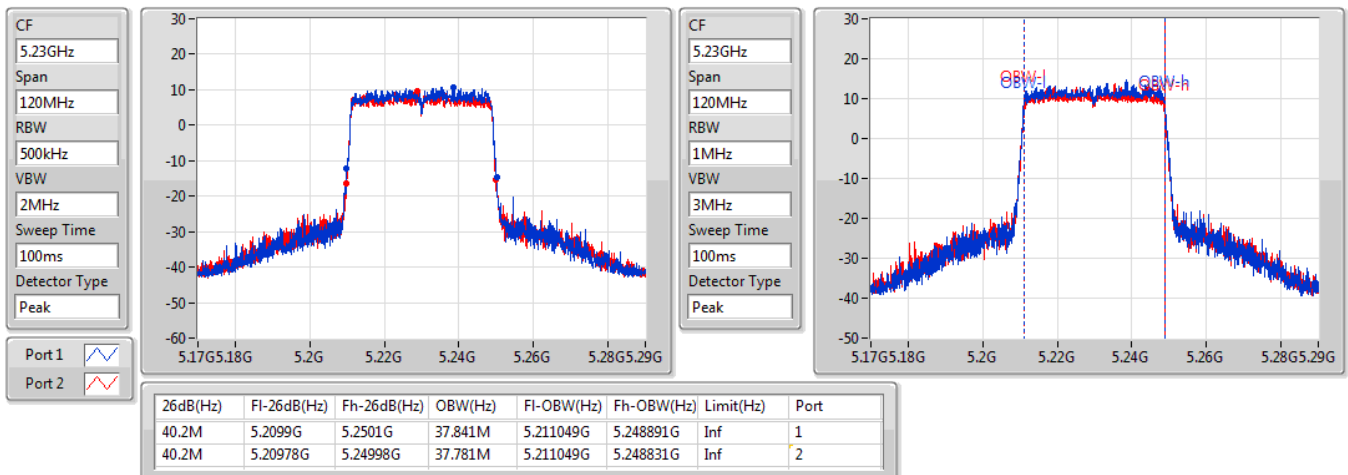


802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
5190MHz

09/08/2022


802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
5230MHz

09/08/2022

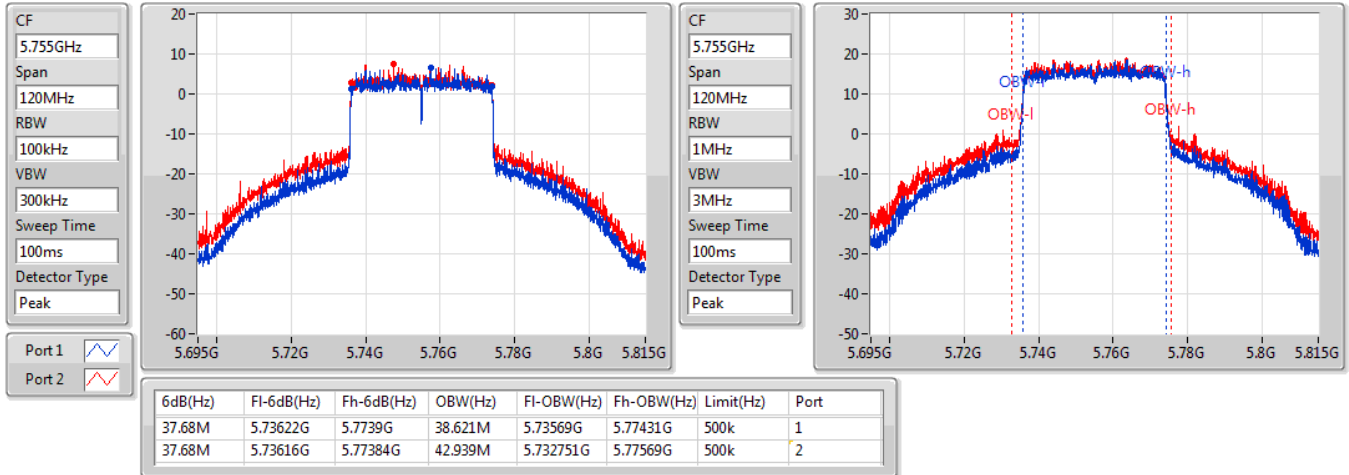


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

EBW

5755MHz

09/08/2022

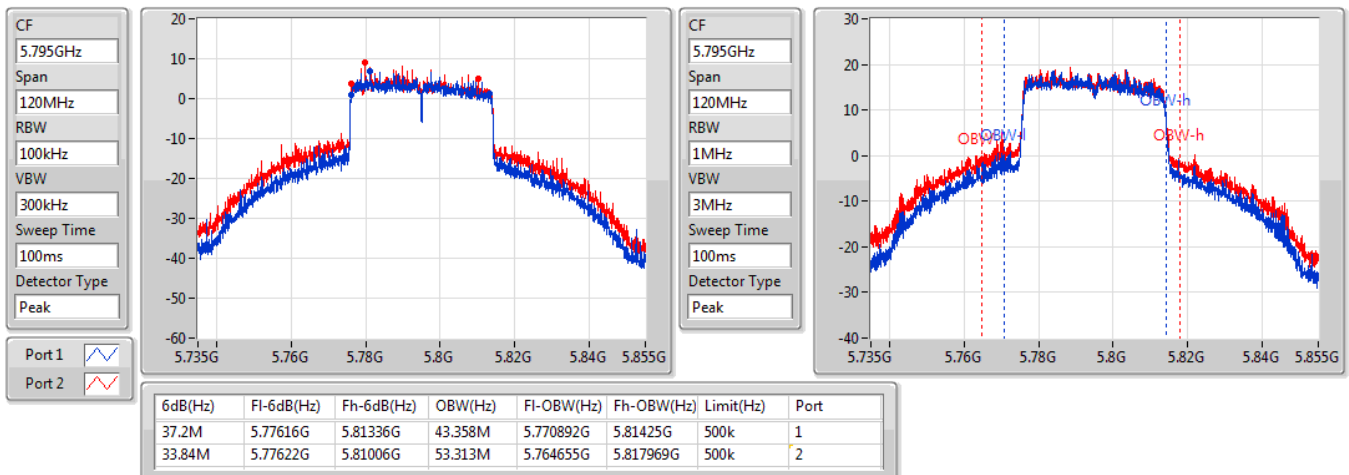


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

EBW

5795MHz

09/08/2022

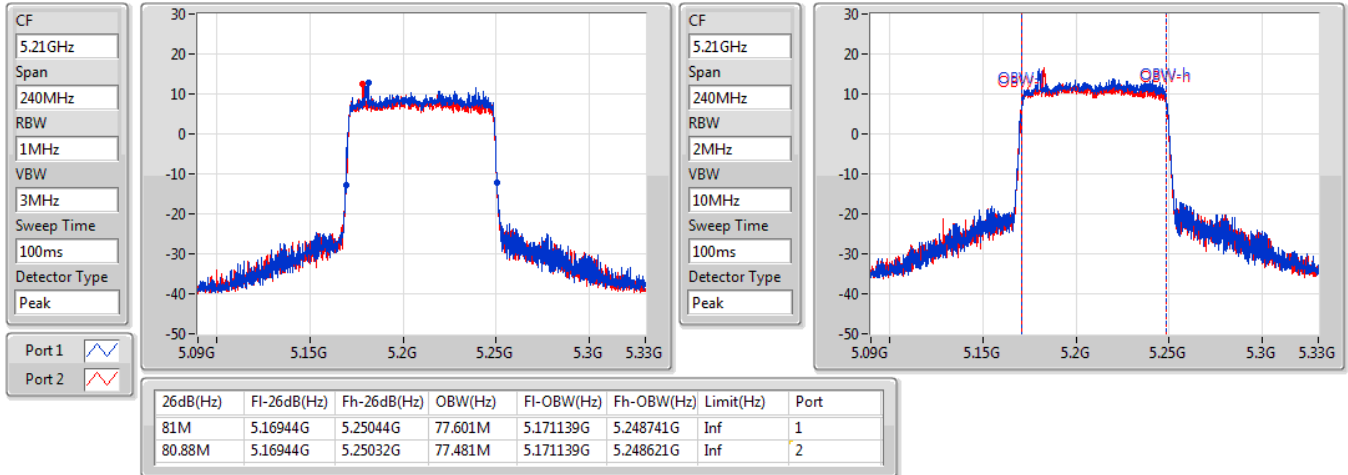


802.11ax HEW80-BF_Nss1,(MCS0)_2TX

EBW

5210MHz

09/08/2022

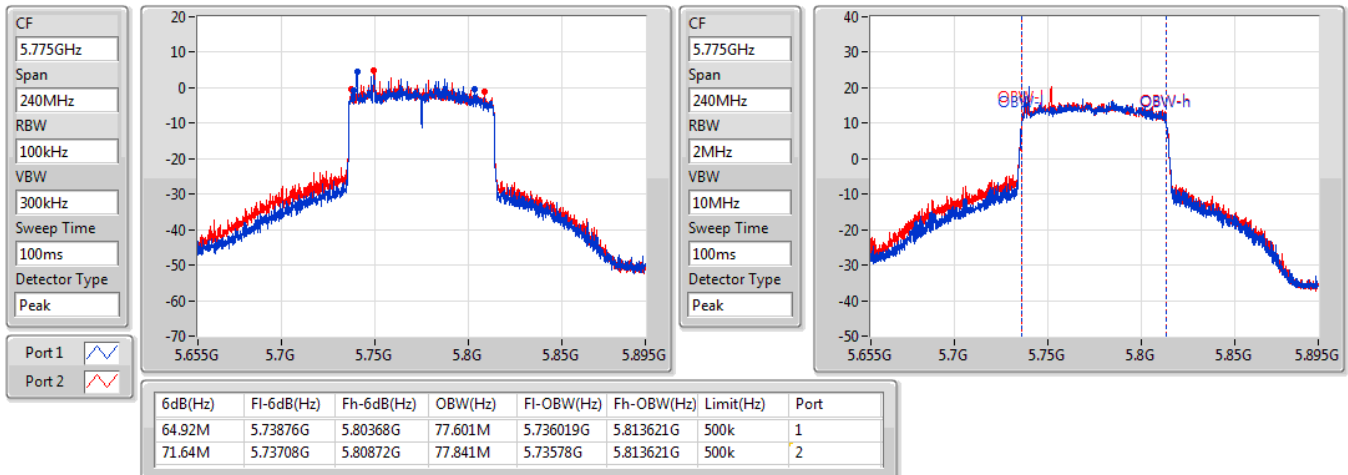


802.11ax HEW80-BF_Nss1,(MCS0)_2TX

EBW

5775MHz

09/08/2022





Average Power_Non-Beamforming_Internal

Appendix C.1

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	21.57	0.14355	26.71	0.46881
802.11a_Nss1,(6Mbps)_2TX	24.25	0.26607	29.39	0.86896
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	21.05	0.12735	26.19	0.41591
802.11ax HEW20_Nss2,(MCS0)_2TX	23.39	0.21827	25.91	0.38994
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	19.92	0.09817	25.06	0.32063
802.11ax HEW40_Nss2,(MCS0)_2TX	22.99	0.19907	25.51	0.35563
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	13.98	0.02500	19.12	0.08166
802.11ax HEW80_Nss2,(MCS0)_2TX	17.11	0.05140	19.63	0.09183
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	22.30	0.16982	27.44	0.55463
802.11a_Nss1,(6Mbps)_2TX	24.04	0.25351	29.18	0.82794
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	22.05	0.16032	27.19	0.52360
802.11ax HEW20_Nss2,(MCS0)_2TX	24.51	0.28249	27.03	0.50466
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	20.75	0.11885	25.89	0.38815
802.11ax HEW40_Nss2,(MCS0)_2TX	23.61	0.22961	26.13	0.41020
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	17.16	0.05200	22.30	0.16982
802.11ax HEW80_Nss2,(MCS0)_2TX	20.21	0.10495	22.73	0.18750

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-	-	-
5180MHz	Pass	5.14	-	18.94	18.94	30.00	24.08	36.00
5200MHz	Pass	5.14	-	21.57	21.57	30.00	26.71	36.00
5240MHz	Pass	5.14	-	20.72	20.72	30.00	25.86	36.00
5745MHz	Pass	5.14	-	22.30	22.30	30.00	27.44	36.00
5785MHz	Pass	5.14	-	21.67	21.67	30.00	26.81	36.00
5825MHz	Pass	5.14	-	19.87	19.87	30.00	25.01	36.00
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.14	18.58	19.02	21.82	30.00	26.96	36.00
5200MHz	Pass	5.14	20.76	21.68	24.25	30.00	29.39	36.00
5240MHz	Pass	5.14	19.68	20.20	22.96	30.00	28.10	36.00
5745MHz	Pass	5.14	20.99	21.07	24.04	30.00	29.18	36.00
5785MHz	Pass	5.14	20.67	21.09	23.90	30.00	29.04	36.00
5825MHz	Pass	5.14	18.47	19.23	21.88	30.00	27.02	36.00
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-	-	-
5180MHz	Pass	5.14	-	18.03	18.03	30.00	23.17	36.00
5200MHz	Pass	5.14	-	21.05	21.05	30.00	26.19	36.00
5240MHz	Pass	5.14	-	20.76	20.76	30.00	25.90	36.00
5745MHz	Pass	5.14	-	22.05	22.05	30.00	27.19	36.00
5785MHz	Pass	5.14	-	21.66	21.66	30.00	26.80	36.00
5825MHz	Pass	5.14	-	19.91	19.91	30.00	25.05	36.00
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	2.52	17.51	18.02	20.78	30.00	23.30	36.00
5200MHz	Pass	2.52	19.96	20.76	23.39	30.00	25.91	36.00
5240MHz	Pass	2.52	19.60	20.10	22.87	30.00	25.39	36.00
5745MHz	Pass	2.52	21.07	21.39	24.24	30.00	26.76	36.00
5785MHz	Pass	2.52	21.18	21.79	24.51	30.00	27.03	36.00
5825MHz	Pass	2.52	18.96	20.04	22.54	30.00	25.06	36.00
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-	-	-
5190MHz	Pass	5.14	-	14.54	14.54	30.00	19.68	36.00
5230MHz	Pass	5.14	-	19.92	19.92	30.00	25.06	36.00
5755MHz	Pass	5.14	-	19.68	19.68	30.00	24.82	36.00
5795MHz	Pass	5.14	-	20.75	20.75	30.00	25.89	36.00
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	2.52	14.95	15.64	18.32	30.00	20.84	36.00
5230MHz	Pass	2.52	19.62	20.32	22.99	30.00	25.51	36.00
5755MHz	Pass	2.52	19.74	20.51	23.15	30.00	25.67	36.00
5795MHz	Pass	2.52	20.32	20.86	23.61	30.00	26.13	36.00
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-	-	-
5210MHz	Pass	5.14	-	13.98	13.98	30.00	19.12	36.00
5775MHz	Pass	5.14	-	17.16	17.16	30.00	22.30	36.00
802.11ax HEW80_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	2.52	14.02	14.17	17.11	30.00	19.63	36.00
5775MHz	Pass	2.52	17.05	17.34	20.21	30.00	22.73	36.00

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



Average Power_Non-Beamforming_Dipole

Appendix C.2

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	23.72	0.23550	28.94	0.78343
802.11a_Nss1,(6Mbps)_2TX	24.69	0.29444	29.91	0.97949
802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)	22.99	0.19907	28.21	0.66222
802.11ax HEW20_Nss2,(MCS0)_2TX	24.88	0.30761	30.10	1.02329
802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)	21.97	0.15740	27.19	0.52360
802.11ax HEW40_Nss2,(MCS0)_2TX	23.82	0.24099	29.04	0.80168
802.11ax HEW80_Nss1,(MCS0)_1TX(Port1)	15.18	0.03296	20.40	0.10965
802.11ax HEW80_Nss2,(MCS0)_2TX	19.36	0.08630	24.58	0.28708
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port1)	24.77	0.29992	29.99	0.99770
802.11a_Nss1,(6Mbps)_2TX	27.08	0.51050	32.30	1.69824
802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)	24.79	0.30130	30.01	1.00231
802.11ax HEW20_Nss2,(MCS0)_2TX	26.78	0.47643	32.00	1.58489
802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)	24.22	0.26424	29.44	0.87902
802.11ax HEW40_Nss2,(MCS0)_2TX	24.75	0.29854	29.97	0.99312
802.11ax HEW80_Nss1,(MCS0)_1TX(Port1)	19.93	0.09840	25.15	0.32734
802.11ax HEW80_Nss2,(MCS0)_2TX	21.93	0.15596	27.15	0.51880

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_1TX(Port1)	-	-	-	-	-	-	-	-
5180MHz	Pass	5.22	20.72		20.72	30.00	25.94	36.00
5200MHz	Pass	5.22	23.72		23.72	30.00	28.94	36.00
5240MHz	Pass	5.22	22.87		22.87	30.00	28.09	36.00
5745MHz	Pass	5.22	24.77		24.77	30.00	29.99	36.00
5785MHz	Pass	5.22	24.64		24.64	30.00	29.86	36.00
5825MHz	Pass	5.22	23.83		23.83	30.00	29.05	36.00
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.22	17.29	18.02	20.68	30.00	25.90	36.00
5200MHz	Pass	5.22	21.29	21.94	24.64	30.00	29.86	36.00
5240MHz	Pass	5.22	21.52	21.83	24.69	30.00	29.91	36.00
5745MHz	Pass	5.22	23.49	24.41	26.98	30.00	32.20	36.00
5785MHz	Pass	5.22	23.88	24.25	27.08	30.00	32.30	36.00
5825MHz	Pass	5.22	22.43	22.17	25.31	30.00	30.53	36.00
802.11ax HEW20_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-	-	-
5180MHz	Pass	5.22	19.67		19.67	30.00	24.89	36.00
5200MHz	Pass	5.22	22.74		22.74	30.00	27.96	36.00
5240MHz	Pass	5.22	22.99		22.99	30.00	28.21	36.00
5745MHz	Pass	5.22	24.79		24.79	30.00	30.01	36.00
5785MHz	Pass	5.22	24.62		24.62	30.00	29.84	36.00
5825MHz	Pass	5.22	23.17		23.17	30.00	28.39	36.00
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.22	18.03	18.75	21.42	30.00	26.64	36.00
5200MHz	Pass	5.22	21.54	21.76	24.66	30.00	29.88	36.00
5240MHz	Pass	5.22	21.67	22.06	24.88	30.00	30.10	36.00
5745MHz	Pass	5.22	23.36	24.15	26.78	30.00	32.00	36.00
5785MHz	Pass	5.22	23.39	23.77	26.59	30.00	31.81	36.00
5825MHz	Pass	5.22	21.95	21.75	24.86	30.00	30.08	36.00
802.11ax HEW40_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-	-	-
5190MHz	Pass	5.22	17.38		17.38	30.00	22.60	36.00
5230MHz	Pass	5.22	21.97		21.97	30.00	27.19	36.00
5755MHz	Pass	5.22	21.92		21.92	30.00	27.14	36.00
5795MHz	Pass	5.22	24.22		24.22	30.00	29.44	36.00
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	5.22	15.77	16.60	19.22	30.00	24.44	36.00
5230MHz	Pass	5.22	20.38	21.20	23.82	30.00	29.04	36.00
5755MHz	Pass	5.22	21.57	21.10	24.35	30.00	29.57	36.00
5795MHz	Pass	5.22	21.53	21.94	24.75	30.00	29.97	36.00
802.11ax HEW80_Nss1,(MCS0)_1TX(Port1)	-	-	-	-	-	-	-	-
5210MHz	Pass	5.22	15.18		15.18	30.00	20.40	36.00
5775MHz	Pass	5.22	19.93		19.93	30.00	25.15	36.00
802.11ax HEW80_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	5.22	16.45	16.25	19.36	30.00	24.58	36.00
5775MHz	Pass	5.22	18.78	19.05	21.93	30.00	27.15	36.00

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

**Summary**

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	22.01	0.15885	30.01	1.00231
802.11a_Nss1,(6Mbps)_2TX	24.26	0.26669	32.26	1.68267
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	21.11	0.12912	29.11	0.81470
802.11ax HEW20_Nss2,(MCS0)_2TX	23.78	0.23878	31.78	1.50661
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	19.73	0.09397	27.73	0.59293
802.11ax HEW40_Nss2,(MCS0)_2TX	23.40	0.21878	31.40	1.38038
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	15.22	0.03327	23.22	0.20989
802.11ax HEW80_Nss2,(MCS0)_2TX	18.63	0.07295	26.63	0.46026
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	24.60	0.28840	32.60	1.81970
802.11a_Nss1,(6Mbps)_2TX	26.71	0.46881	34.71	2.95801
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	23.91	0.24604	31.91	1.55239
802.11ax HEW20_Nss2,(MCS0)_2TX	26.35	0.43152	34.35	2.72270
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	22.72	0.18707	30.72	1.18032
802.11ax HEW40_Nss2,(MCS0)_2TX	25.07	0.32137	33.07	2.02768
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	18.99	0.07925	26.99	0.50003
802.11ax HEW80_Nss2,(MCS0)_2TX	20.89	0.12274	28.89	0.77446

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-	-	-
5180MHz	Pass	8.00	-	19.24	19.24	28.00	27.24	36.00
5200MHz	Pass	8.00	-	21.44	21.44	28.00	29.44	36.00
5240MHz	Pass	8.00	-	22.01	22.01	28.00	30.01	36.00
5745MHz	Pass	8.00	-	24.60	24.60	28.00	32.60	36.00
5785MHz	Pass	8.00	-	24.16	24.16	28.00	32.16	36.00
5825MHz	Pass	8.00	-	22.09	22.09	28.00	30.09	36.00
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	8.00	17.27	17.88	20.60	28.00	28.60	36.00
5200MHz	Pass	8.00	20.88	21.59	24.26	28.00	32.26	36.00
5240MHz	Pass	8.00	20.44	20.58	23.52	28.00	31.52	36.00
5745MHz	Pass	8.00	23.04	23.75	26.42	28.00	34.42	36.00
5785MHz	Pass	8.00	23.88	23.52	26.71	28.00	34.71	36.00
5825MHz	Pass	8.00	22.16	21.08	24.66	28.00	32.66	36.00
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-	-	-
5180MHz	Pass	8.00	-	18.64	18.64	28.00	26.64	36.00
5200MHz	Pass	8.00	-	21.11	21.11	28.00	29.11	36.00
5240MHz	Pass	8.00	-	20.99	20.99	28.00	28.99	36.00
5745MHz	Pass	8.00	-	23.91	23.91	28.00	31.91	36.00
5785MHz	Pass	8.00	-	23.29	23.29	28.00	31.29	36.00
5825MHz	Pass	8.00	-	21.35	21.35	28.00	29.35	36.00
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	8.00	17.52	18.13	20.85	28.00	28.85	36.00
5200MHz	Pass	8.00	20.46	21.05	23.78	28.00	31.78	36.00
5240MHz	Pass	8.00	20.54	20.57	23.57	28.00	31.57	36.00
5745MHz	Pass	8.00	23.01	23.45	26.25	28.00	34.25	36.00
5785MHz	Pass	8.00	23.17	23.51	26.35	28.00	34.35	36.00
5825MHz	Pass	8.00	22.05	20.93	24.54	28.00	32.54	36.00
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-	-	-
5190MHz	Pass	8.00	-	15.64	15.64	28.00	23.64	36.00
5230MHz	Pass	8.00	-	19.73	19.73	28.00	27.73	36.00
5755MHz	Pass	8.00	-	21.97	21.97	28.00	29.97	36.00
5795MHz	Pass	8.00	-	22.72	22.72	28.00	30.72	36.00
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	8.00	16.06	15.93	19.01	28.00	27.01	36.00
5230MHz	Pass	8.00	19.96	20.78	23.40	28.00	31.40	36.00
5755MHz	Pass	8.00	20.86	21.47	24.19	28.00	32.19	36.00
5795MHz	Pass	8.00	21.96	22.16	25.07	28.00	33.07	36.00
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-	-	-
5210MHz	Pass	8.00	-	15.22	15.22	28.00	23.22	36.00
5775MHz	Pass	8.00	-	18.99	18.99	28.00	26.99	36.00
802.11ax HEW80_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	8.00	15.91	15.30	18.63	28.00	26.63	36.00
5775MHz	Pass	8.00	17.77	17.99	20.89	28.00	28.89	36.00

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



Average Power_Non-Beamforming_Panel

Appendix C.4

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	23.09	0.20370	30.59	1.14551
802.11a_Nss1,(6Mbps)_2TX	24.98	0.31477	32.48	1.77011
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	22.63	0.18323	30.13	1.03039
802.11ax HEW20_Nss2,(MCS0)_2TX	24.98	0.31477	32.48	1.77011
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	20.17	0.10399	27.67	0.58479
802.11ax HEW40_Nss2,(MCS0)_2TX	23.24	0.21086	30.74	1.18577
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	18.09	0.06442	25.59	0.36224
802.11ax HEW80_Nss2,(MCS0)_2TX	19.83	0.09616	27.33	0.54075
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	24.15	0.26002	31.65	1.46218
802.11a_Nss1,(6Mbps)_2TX	26.54	0.45082	34.04	2.53513
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	23.86	0.24322	31.36	1.36773
802.11ax HEW20_Nss2,(MCS0)_2TX	25.99	0.39719	33.49	2.23357
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	22.33	0.17100	29.83	0.96161
802.11ax HEW40_Nss2,(MCS0)_2TX	24.68	0.29376	32.18	1.65196
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	20.94	0.12417	28.44	0.69823
802.11ax HEW80_Nss2,(MCS0)_2TX	22.33	0.17100	29.83	0.96161

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-	-	-
5180MHz	Pass	7.50	-	20.54	20.54	28.50	28.04	36.00
5200MHz	Pass	7.50	-	23.09	23.09	28.50	30.59	36.00
5240MHz	Pass	7.50	-	20.63	20.63	28.50	28.13	36.00
5745MHz	Pass	7.50	-	24.15	24.15	28.50	31.65	36.00
5785MHz	Pass	7.50	-	23.76	23.76	28.50	31.26	36.00
5825MHz	Pass	7.50	-	21.43	21.43	28.50	28.93	36.00
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	7.50	19.64	20.38	23.04	28.50	30.54	36.00
5200MHz	Pass	7.50	21.72	22.20	24.98	28.50	32.48	36.00
5240MHz	Pass	7.50	20.55	20.46	23.52	28.50	31.02	36.00
5745MHz	Pass	7.50	22.91	23.58	26.27	28.50	33.77	36.00
5785MHz	Pass	7.50	23.75	23.29	26.54	28.50	34.04	36.00
5825MHz	Pass	7.50	22.01	20.93	24.51	28.50	32.01	36.00
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-	-	-
5180MHz	Pass	7.50	-	19.52	19.52	28.50	27.02	36.00
5200MHz	Pass	7.50	-	22.63	22.63	28.50	30.13	36.00
5240MHz	Pass	7.50	-	20.88	20.88	28.50	28.38	36.00
5745MHz	Pass	7.50	-	23.86	23.86	28.50	31.36	36.00
5785MHz	Pass	7.50	-	23.59	23.59	28.50	31.09	36.00
5825MHz	Pass	7.50	-	21.26	21.26	28.50	28.76	36.00
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	7.50	19.02	19.40	22.22	28.50	29.72	36.00
5200MHz	Pass	7.50	21.63	22.28	24.98	28.50	32.48	36.00
5240MHz	Pass	7.50	20.56	20.59	23.59	28.50	31.09	36.00
5745MHz	Pass	7.50	22.72	23.23	25.99	28.50	33.49	36.00
5785MHz	Pass	7.50	23.26	22.65	25.98	28.50	33.48	36.00
5825MHz	Pass	7.50	21.30	20.15	23.77	28.50	31.27	36.00
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-	-	-
5190MHz	Pass	7.50	-	18.08	18.08	28.50	25.58	36.00
5230MHz	Pass	7.50	-	20.17	20.17	28.50	27.67	36.00
5755MHz	Pass	7.50	-	22.27	22.27	28.50	29.77	36.00
5795MHz	Pass	7.50	-	22.33	22.33	28.50	29.83	36.00
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	7.50	17.47	16.92	20.21	28.50	27.71	36.00
5230MHz	Pass	7.50	20.37	20.08	23.24	28.50	30.74	36.00
5755MHz	Pass	7.50	21.38	21.94	24.68	28.50	32.18	36.00
5795MHz	Pass	7.50	21.44	21.37	24.42	28.50	31.92	36.00
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-	-	-
5210MHz	Pass	7.50	-	18.09	18.09	28.50	25.59	36.00
5775MHz	Pass	7.50	-	20.94	20.94	28.50	28.44	36.00
802.11ax HEW80_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	7.50	16.97	16.66	19.83	28.50	27.33	36.00
5775MHz	Pass	7.50	19.30	19.34	22.33	28.50	29.83	36.00

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



Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	24.33	0.27102	29.28	0.84723
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	24.46	0.27925	29.41	0.87297
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	18.43	0.06966	23.38	0.21777
5.725-5.85GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	25.20	0.33113	30.15	1.03514
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	25.77	0.37757	30.72	1.18032
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	21.46	0.13996	26.41	0.43752



Average Power_Beamforming_Internal

Appendix C.5

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	4.95	18.55	19.01	21.80	30.00	26.75	36.00
5200MHz	Pass	4.95	20.91	21.69	24.33	30.00	29.28	36.00
5240MHz	Pass	4.95	21.23	20.92	24.09	30.00	29.04	36.00
5745MHz	Pass	4.95	22.18	21.68	24.95	30.00	29.90	36.00
5785MHz	Pass	4.95	21.93	22.44	25.20	30.00	30.15	36.00
5825MHz	Pass	4.95	20.58	21.57	24.11	30.00	29.06	36.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	4.95	14.80	15.09	17.96	30.00	22.91	36.00
5230MHz	Pass	4.95	21.22	21.67	24.46	30.00	29.41	36.00
5755MHz	Pass	4.95	21.36	21.44	24.41	30.00	29.36	36.00
5795MHz	Pass	4.95	22.29	23.19	25.77	30.00	30.72	36.00
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	4.95	15.71	15.11	18.43	30.00	23.38	36.00
5775MHz	Pass	4.95	18.11	18.77	21.46	30.00	26.41	36.00

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



Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	25.10	0.32359	33.33	2.15278
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	24.43	0.27733	32.66	1.84502
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	19.75	0.09441	27.98	0.62806
5.725-5.85GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	26.12	0.40926	34.35	2.72270
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	24.41	0.27606	32.64	1.83654
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	21.00	0.12589	29.23	0.83753

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	8.23	17.94	17.99	20.98	27.77	29.21	36.00
5200MHz	Pass	8.23	22.22	21.96	25.10	27.77	33.33	36.00
5240MHz	Pass	8.23	22.01	21.03	24.56	27.77	32.79	36.00
5745MHz	Pass	8.23	23.14	23.07	26.12	27.77	34.35	36.00
5785MHz	Pass	8.23	22.74	22.78	25.77	27.77	34.00	36.00
5825MHz	Pass	8.23	21.23	20.82	24.04	27.77	32.27	36.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	8.23	17.27	16.91	20.10	27.77	28.33	36.00
5230MHz	Pass	8.23	21.47	21.37	24.43	27.77	32.66	36.00
5755MHz	Pass	8.23	21.02	21.74	24.41	27.77	32.64	36.00
5795MHz	Pass	8.23	20.76	20.94	23.86	27.77	32.09	36.00
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	8.23	16.57	16.90	19.75	27.77	27.98	36.00
5775MHz	Pass	8.23	17.84	18.13	21.00	27.77	29.23	36.00

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

**Summary**

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	24.48	0.28054	35.49	3.53997
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	24.33	0.27102	35.34	3.41979
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	19.42	0.08750	30.43	1.10408
5.725-5.85GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	24.27	0.26730	35.28	3.37287
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	24.21	0.26363	35.22	3.32660
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	20.76	0.11912	31.77	1.50314



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	11.01	18.10	18.52	21.33	24.99	32.34	36.00
5200MHz	Pass	11.01	20.82	21.44	24.15	24.99	35.16	36.00
5240MHz	Pass	11.01	21.80	21.12	24.48	24.99	35.49	36.00
5745MHz	Pass	11.01	20.89	21.60	24.27	24.99	35.28	36.00
5785MHz	Pass	11.01	21.13	21.33	24.24	24.99	35.25	36.00
5825MHz	Pass	11.01	20.64	20.75	23.71	24.99	34.72	36.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	11.01	16.75	15.75	19.29	24.99	30.30	36.00
5230MHz	Pass	11.01	21.96	20.58	24.33	24.99	35.34	36.00
5755MHz	Pass	11.01	20.05	20.96	23.54	24.99	34.55	36.00
5795MHz	Pass	11.01	21.45	20.93	24.21	24.99	35.22	36.00
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	11.01	16.68	16.12	19.42	24.99	30.43	36.00
5775MHz	Pass	11.01	18.08	17.39	20.76	24.99	31.77	36.00

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



Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	24.73	0.29717	35.24	3.34195
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	20.40	0.10965	30.91	1.23310
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	19.91	0.09795	30.42	1.10154
5.725-5.85GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	24.96	0.31333	35.47	3.52371
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	24.67	0.29309	35.18	3.29610
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	22.57	0.18072	33.08	2.03236

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	10.51	19.44	19.39	22.43	25.49	32.94	36.00
5200MHz	Pass	10.51	19.48	19.32	22.41	25.49	32.92	36.00
5240MHz	Pass	10.51	22.06	21.35	24.73	25.49	35.24	36.00
5745MHz	Pass	10.51	22.02	21.70	24.87	25.49	35.38	36.00
5785MHz	Pass	10.51	22.10	21.80	24.96	25.49	35.47	36.00
5825MHz	Pass	10.51	21.49	21.46	24.49	25.49	35.00	36.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	10.51	17.00	16.68	19.85	25.49	30.36	36.00
5230MHz	Pass	10.51	17.76	16.99	20.40	25.49	30.91	36.00
5755MHz	Pass	10.51	21.45	21.36	24.42	25.49	34.93	36.00
5795MHz	Pass	10.51	21.84	21.48	24.67	25.49	35.18	36.00
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	10.51	16.89	16.90	19.91	25.49	30.42	36.00
5775MHz	Pass	10.51	19.22	19.88	22.57	25.49	33.08	36.00

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

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	8.74	13.88
802.11a_Nss1,(6Mbps)_2TX	11.43	16.38
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	7.67	12.81
802.11ax HEW20_Nss2,(MCS0)_2TX	10.03	12.55
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	3.85	8.99
802.11ax HEW40_Nss2,(MCS0)_2TX	6.91	9.43
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	-5.19	-0.05
802.11ax HEW80_Nss2,(MCS0)_2TX	-1.95	0.57
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_1TX(Port2)	7.71	12.85
802.11a_Nss1,(6Mbps)_2TX	9.41	14.36
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	7.13	12.27
802.11ax HEW20_Nss2,(MCS0)_2TX	9.34	11.86
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	3.05	8.19
802.11ax HEW40_Nss2,(MCS0)_2TX	6.06	8.58
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	-1.81	3.33
802.11ax HEW80_Nss2,(MCS0)_2TX	0.10	2.62

RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_1TX(Port2)	-	-	-	-	-	-	-	-
5180MHz	Pass	5.14	-	6.10	6.10	17.00	11.24	23.00
5200MHz	Pass	5.14	-	8.74	8.74	17.00	13.88	23.00
5240MHz	Pass	5.14	-	7.94	7.94	17.00	13.08	23.00
5745MHz	Pass	5.14	-	7.71	7.71	30.00	12.85	36.00
5785MHz	Pass	5.14	-	7.06	7.06	30.00	12.20	36.00
5825MHz	Pass	5.14	-	5.21	5.21	30.00	10.35	36.00
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	4.95	5.85	6.31	9.03	17.00	13.98	23.00
5200MHz	Pass	4.95	8.12	8.91	11.43	17.00	16.38	23.00
5240MHz	Pass	4.95	6.97	7.42	10.16	17.00	15.11	23.00
5745MHz	Pass	4.95	6.33	6.72	9.41	30.00	14.36	36.00
5785MHz	Pass	4.95	6.11	6.42	9.21	30.00	14.16	36.00
5825MHz	Pass	4.95	3.66	4.64	7.14	30.00	12.09	36.00
802.11ax HEW20_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-	-	-
5180MHz	Pass	5.14	-	4.61	4.61	17.00	9.75	23.00
5200MHz	Pass	5.14	-	7.67	7.67	17.00	12.81	23.00
5240MHz	Pass	5.14	-	7.28	7.28	17.00	12.42	23.00
5745MHz	Pass	5.14	-	7.13	7.13	30.00	12.27	36.00
5785MHz	Pass	5.14	-	6.48	6.48	30.00	11.62	36.00
5825MHz	Pass	5.14	-	4.65	4.65	30.00	9.79	36.00
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	2.52	4.17	4.64	7.37	17.00	9.89	23.00
5200MHz	Pass	2.52	6.70	7.44	10.03	17.00	12.55	23.00
5240MHz	Pass	2.52	6.42	6.84	9.64	17.00	12.16	23.00
5745MHz	Pass	2.52	6.17	6.55	9.34	30.00	11.86	36.00
5785MHz	Pass	2.52	5.94	6.79	9.33	30.00	11.85	36.00
5825MHz	Pass	2.52	3.53	5.05	7.20	30.00	9.72	36.00
802.11ax HEW40_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-	-	-
5190MHz	Pass	5.14	-	-1.70	-1.70	17.00	3.44	23.00
5230MHz	Pass	5.14	-	3.85	3.85	17.00	8.99	23.00
5755MHz	Pass	5.14	-	2.13	2.13	30.00	7.27	36.00
5795MHz	Pass	5.14	-	3.05	3.05	30.00	8.19	36.00
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	2.52	-1.28	-0.48	2.10	17.00	4.62	23.00
5230MHz	Pass	2.52	3.57	4.28	6.91	17.00	9.43	23.00
5755MHz	Pass	2.52	2.17	2.85	5.44	30.00	7.96	36.00
5795MHz	Pass	2.52	2.89	3.28	6.06	30.00	8.58	36.00
802.11ax HEW80_Nss1,(MCS0)_1TX(Port2)	-	-	-	-	-	-	-	-
5210MHz	Pass	5.14	-	-5.19	-5.19	17.00	-0.05	23.00
5775MHz	Pass	5.14	-	-2.84	-2.84	30.00	2.30	36.00
802.11ax HEW80_Nss2,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	2.52	-4.92	-4.82	-1.95	17.00	0.57	23.00
5775MHz	Pass	2.52	-2.89	-2.71	0.10	30.00	2.62	36.00

DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;