



RADIO TEST REPORT

FCC ID : Z3WAIR4970
Equipment : Tri-Band Wi-Fi 6 Smart Mesh Extender
Brand Name : AirTies
Model Name : Air 4970
Applicant : AirTies Wireless Networks
Mithat Uluunlu Sokak No. 23 Esentepe, Sisli
Istanbul, 34394 Turkey
Manufacturer : AirTies Wireless Networks
Mithat Uluunlu Sokak No. 23 Esentepe, Sisli
Istanbul, 34394 Turkey
Standard : 47 CFR FCC Part 15.407

The product was received on Sep. 25, 2021, and testing was started from Oct. 05, 2021 and completed on Dec. 06, 2021. We, Sporton International Inc. Hsinchu 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. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

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History of this test report

TEL : 886-3-656-9065
FAX : 886-3-656-9085
Report Template No.: CB-A12_1 Ver1.4

Page Number : 3 of 50
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Report Version : 01



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 Output Power	PASS	-
3.4	15.407(a)	Power Spectral Density	PASS	-
3.5	15.407(b)	Unwanted Emissions	PASS	-

Note: Reference to Sporton Project No.: 092402 and 092402-01

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:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Sam Chen

Report Producer: Viola Huang



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]
5250-5350		5260-5320	52-64 [4]
5470-5725		5500-5720	100-144 [12]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40), ax (HEW40)	5190-5230	38-46 [2]
5250-5350		5270-5310	54-62 [2]
5470-5725		5510-5710	102-142 [6]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80), ax (HEW80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530-5690	106-138 [3]
5725-5850		5775	155 [1]

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	2TX
5.15-5.25GHz	802.11n HT20	20	2TX
5.15-5.25GHz	802.11ac VHT20	20	2TX
5.15-5.25GHz	802.11ac VHT20-BF	20	2TX
5.15-5.25GHz	802.11ax HEW20	20	2TX
5.15-5.25GHz	802.11ax HEW20-BF	20	2TX
5.15-5.25GHz	802.11n HT40	40	2TX
5.15-5.25GHz	802.11ac VHT40	40	2TX
5.15-5.25GHz	802.11ac VHT40-BF	40	2TX
5.15-5.25GHz	802.11ax HEW40	40	2TX
5.15-5.25GHz	802.11ax HEW40-BF	40	2TX
5.15-5.25GHz	802.11ac VHT80	80	2TX
5.15-5.25GHz	802.11ac VHT80-BF	80	2TX
5.15-5.25GHz	802.11ax HEW80	80	2TX
5.15-5.25GHz	802.11ax HEW80-BF	80	2TX
5.25-5.35GHz	802.11a	20	2TX
5.25-5.35GHz	802.11n HT20	20	2TX
5.25-5.35GHz	802.11ac VHT20	20	2TX



Band	Mode	BWch (MHz)	Nant
5.25-5.35GHz	802.11ac VHT20-BF	20	2TX
5.25-5.35GHz	802.11ax HEW20	20	2TX
5.25-5.35GHz	802.11ax HEW20-BF	20	2TX
5.25-5.35GHz	802.11n HT40	40	2TX
5.25-5.35GHz	802.11ac VHT40	40	2TX
5.25-5.35GHz	802.11ac VHT40-BF	40	2TX
5.25-5.35GHz	802.11ax HEW40	40	2TX
5.25-5.35GHz	802.11ax HEW40-BF	40	2TX
5.25-5.35GHz	802.11ac VHT80	80	2TX
5.25-5.35GHz	802.11ac VHT80-BF	80	2TX
5.25-5.35GHz	802.11ax HEW80	80	2TX
5.25-5.35GHz	802.11ax HEW80-BF	80	2TX
5.47-5.725GHz	802.11a	20	3TX
5.47-5.725GHz	802.11n HT20	20	3TX
5.47-5.725GHz	802.11ac VHT20	20	3TX
5.47-5.725GHz	802.11ac VHT20-BF	20	3TX
5.47-5.725GHz	802.11ax HEW20	20	3TX
5.47-5.725GHz	802.11ax HEW20-BF	20	3TX
5.47-5.725GHz	802.11n HT40	40	3TX
5.47-5.725GHz	802.11ac VHT40	40	3TX
5.47-5.725GHz	802.11ac VHT40-BF	40	3TX
5.47-5.725GHz	802.11ax HEW40	40	3TX
5.47-5.725GHz	802.11ax HEW40-BF	40	3TX
5.47-5.725GHz	802.11ac VHT80	80	3TX
5.47-5.725GHz	802.11ac VHT80-BF	80	3TX
5.47-5.725GHz	802.11ax HEW80	80	3TX
5.47-5.725GHz	802.11ax HEW80-BF	80	3TX
5.725-5.85GHz	802.11a	20	3TX
5.725-5.85GHz	802.11n HT20	20	3TX
5.725-5.85GHz	802.11ac VHT20	20	3TX
5.725-5.85GHz	802.11ac VHT20-BF	20	3TX
5.725-5.85GHz	802.11ax HEW20	20	3TX
5.725-5.85GHz	802.11ax HEW20-BF	20	3TX
5.725-5.85GHz	802.11n HT40	40	3TX
5.725-5.85GHz	802.11ac VHT40	40	3TX
5.725-5.85GHz	802.11ac VHT40-BF	40	3TX
5.725-5.85GHz	802.11ax HEW40	40	3TX
5.725-5.85GHz	802.11ax HEW40-BF	40	3TX
5.725-5.85GHz	802.11ac VHT80	80	3TX
5.725-5.85GHz	802.11ac VHT80-BF	80	3TX



Band	Mode	BWch (MHz)	Nant
5.725-5.85GHz	802.11ax HEW80	80	3TX
5.725-5.85GHz	802.11ax HEW80-BF	80	3TX

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, 1024QAM 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

Ant.	Port	Brand	Model Name	Antenna Type	Connector	Composite Peak Realized Gain (dBi)		
						2.4GHz	5GHz UNII 1	5GHz UNII 2A
1	1	Galtronics	DB-1	Off-Board Internal Dipole-Like Dual-Band	I-PEX	2.38	2.57	2.24
2	2	Galtronics	DB-2	Off-Board Internal Dipole-Like Dual-Band	I-PEX			
Ant.	Port	Brand	Model Name	Antenna Type	Connector	Composite Peak Realized Gain (dBi)		
						5GHz UNII 2C		5GHz UNII 3
3	1	Galtronics	5G-1	Off-Board Internal Dipole-Like Single-Band	I-PEX	1.18	0.99	
4	2	Galtronics	5G-2	Off-Board Internal Dipole-Like Single-Band	I-PEX			
5	3	Galtronics	5G-3	Off-Board Internal Dipole-Like Single-Band	I-PEX			

Note 1: The above information was declared by manufacturer.

For 2.4GHz function, 802.11 b/g/n/VHT/ax mode (2TX/2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

For 5GHz UNII 1 and 5GHz UNII 2A function, 802.11a/n/ac/ax mode (2TX/2RX):

Port 1 and Port 2 can be used as transmitting/receiving antenna.

Port 1 and Port 2 could transmit/receive simultaneously.

For 5GHz UNII 2C and 5GHz UNII 3 function, 802.11a/n/ac/ax mode (3TX/3RX):

Port 1, Port 2 and Port 3 can be used as transmitting/receiving antenna.

Port 1, Port 2 and Port 3 could transmit/receive simultaneously.

Note 2: Directional gain information

Type	Maximum Output Power	Power Spectral Density
Non-BF	Directional gain = Max.gain + array gain. For power measurements on IEEE 802.11 devices Array Gain = 0 dB (i.e., no array gain) for N ANT ≤ 4	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{ANT}} g_{j,k} \right]^2}{N_{ANT}} \right]$
BF	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{ANT}} g_{j,k} \right]^2}{N_{ANT}} \right]$	$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{ANT}} g_{j,k} \right]^2}{N_{ANT}} \right]$

Ex.

Directional Gain (NSS1) formula :

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{ANT}} \left[\sum_{k=1}^{N_{ANT}} g_{j,k} \right]^2}{N_{ANT}} \right]$$

$$NSS1(g1,1) = 10^{G1/20} ; NSS1(g1,2) = 10^{G2/20} ; NSS1(g1,3) = 10^{G3/20}$$

$$g_{j,k} = (NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3))^2$$

$$DG = 10 \log[(NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) / N_{ANT}] \Rightarrow 10 \log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2 / N_{ANT}]$$

Where; G1 = Ant 1 Gain ; G2 = Ant 2 Gain ; G3 = Ant 3 Gain

(NSS1)

2.4GHz DG = 5.39 dBi

5 GHz U-NII-1 DG = 5.58 dBi

5 GHz U-NII-2A DG = 5.25 dBi

5 GHz U-NII-2C DG = 5.95 dBi

5 GHz U-NII-3 DG = 5.76 dBi

(NSS2)

2.4GHz DG = 2.38 dBi

5 GHz U-NII-1 DG = 2.57 dBi

5 GHz U-NII-2C DG = 2.94 dBi

5 GHz U-NII-3 DG = 2.75 dBi

(NSS3)

5 GHz U-NII-2C DG = 1.18 dBi

5 GHz U-NII-3 DG = 0.99 dBi

1.1.3 Mode Test Duty Cycle

For Band 1 and Band 4

For 5GHz Band 1 2T1S and Band 4 3T1S / CDD and Beamforming Mode:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	0.947	0.24	2.065m	1k
802.11ac VHT20	0.986	0.06	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ac VHT20-BF	0.973	0.12	3.838m	300
802.11ac VHT40	0.972	0.12	953.75u	3k
802.11ac VHT40-BF	0.98	0.09	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ac VHT80	0.943	0.25	461.25u	3k
802.11ac VHT80-BF	0.966	0.15	7.113m	300
802.11ax HEW20	0.982	0.08	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW20-BF	0.98	0.09	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW40	0.964	0.16	781.25u	3k
802.11ax HEW40-BF	0.977	0.1	8.145m	300
802.11ax HEW80	0.93	0.32	415u	3k
802.11ax HEW80-BF	0.955	0.2	4.145m	300

For 5GHz Band 1 2T2S SDM Mode:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ac VHT20	0.971	0.13	988.75u	3k
802.11ac VHT40	0.948	0.23	500.625u	3k
802.11ac VHT80	0.896	0.48	256.25u	10k
802.11ax HEW20	0.902	0.45	311.875u	10k
802.11ax HEW40	0.929	0.32	434.375u	3k
802.11ax HEW80	0.902	0.45	300u	10k

For 5GHz Band 4 3T2S / CDD and Beamforming Mode:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ac VHT80	0.804	0.95	121.25u	10k
802.11ax HEW80	0.935	0.29	413u	3k

For 5GHz Band 4 3T3S SDM Mode:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ac VHT80	0.868	0.61	193.125u	10k
802.11ac VHT80-BF	0.692	1.6	885u	3k
802.11ax HEW80	0.879	0.56	204.375u	10k
802.11ax HEW80-BF	0.654	1.84	748.75u	3k

**For Band 2 ~ Band 3**

For non-beamforming mode:

For 5GHz Band 2 2T1S and Band 3 3T1S CDD Mode:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	0.953	0.21	2.068m	1k
802.11ac VHT20	0.987	0.06	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ac VHT40	0.972	0.12	953.75u	3k
802.11ac VHT80	0.942	0.26	460.625u	3k
802.11ax HEW20	0.981	0.08	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ax HEW40	0.964	0.16	781.25u	3k
802.11ax HEW80	0.93	0.32	413.75u	3k

For 5GHz Band 3 3T2S CDD Mode:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ac VHT20	0.972	0.12	990u	3k
802.11ac VHT40	0.946	0.24	501.25u	3k
802.11ac VHT80	0.902	0.45	256.875u	10k
802.11ax HEW20	0.964	0.16	788.75u	3k
802.11ax HEW40	0.931	0.31	435u	3k
802.11ax HEW80	0.884	0.54	243.75u	10k

For 5GHz Band 3 3T3S SDM Mode:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ac VHT20	0.96	0.18	686.25u	3k
802.11ac VHT40	0.927	0.33	357.5u	3k
802.11ac VHT80	0.871	0.6	193.125u	10k
802.11ax HEW20	0.95	0.22	572.5u	3k
802.11ax HEW40	0.911	0.4	327.5u	10k
802.11ax HEW80	0.879	0.56	203.75u	10k



For beamforming mode:

For 5GHz Band 2 2T1S and 5GHz Band 3 3T1S:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ac VHT20-BF	0.98	0.09	n/a (DC $\geq$ 0.98)	n/a (DC $\geq$ 0.98)
802.11ac VHT40-BF	0.97	0.13	3.689m	300
802.11ac VHT80-BF	0.958	0.19	4.59m	300
802.11ax HEW20-BF	0.971	0.13	2.923m	1k
802.11ax HEW40-BF	0.959	0.18	4.35m	300
802.11ax HEW80-BF	0.97	0.13	4.136m	300

For 5GHz Band 3 3T2S:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ac VHT20-BF	0.977	0.1	3.838m	300
802.11ac VHT40-BF	0.978	0.1	4.61m	300
802.11ac VHT80-BF	0.84	0.76	1.163m	1k
802.11ax HEW20-BF	0.974	0.11	4.366m	300
802.11ax HEW40-BF	0.979	0.09	4.358m	300
802.11ax HEW80-BF	0.801	0.96	750u	3k

Note:

- ♦ DC is Duty Cycle.
- ♦ DCF is Duty Cycle Factor.

1.1.4 EUT Operational Condition

EUT Power Type	From Power Adapter			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	For 802.11ax/VHT in 2.4GHz and 802.11ac/ax in 5GHz.			
Weather Band	☒	With 5600~5650MHz	☐	Without 5600~5650MHz
Function	☐	Outdoor P2M	☒	Indoor P2M
	☐	Fixed P2P	☐	Client
TPC Function	☒	With TPC	☐	Without TPC
Test Software Version	For non-beamforming mode: Access Manual Tool 3.2.1.0 For beamforming mode: DOS [ver 6.1.7601]			

Note: The above information was declared by manufacturer.

**1.1.5 EUT Support Function**

Function	WLAN 2.4GHz	WLAN 5G UNII 1	WLAN 5G UNII 2A	WLAN 5G UNII 2C	WLAN 5G UNII 3
AP Mode	V	V	V	-	-
Mesh	-	-	-	V	V

Note: The EUT supports AP mode and mesh mode. The AP mode was tested and recorded in this test report.



1.2 Applicable Standards

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

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

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

- ♦ FCC KDB 662911 D01 v02r01
- ♦ FCC KDB 412172 D01 v01r01
- ♦ FCC KDB 414788 D01 v01r01

1.3 Testing Location Information

Testing Location Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu (TAF: 3787)	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.) TEL: 886-3-656-9065 FAX: 886-3-656-9085 Test site Designation No. TW3787 with FCC. Conformity Assessment Body Identifier (CABID) TW3787 with ISCED.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted (for band 1 and band 4)	TH02-CB	Caster Chang	22.7~23.5 / 58~61	Nov. 06, 2020
RF Conducted (for band 2~band 3)	TH02-CB	Caster Chang	22.7~23.5 / 58~61	Oct. 16, 2020~Oct. 17, 2020
Radiated below 1GHz	03CH05-CB	Kevin Huang	22.8~23.7 / 56~59	Dec. 02, 2021
Radiated co-location	03CH06-CB	Stim Sung	23.2~23.7 / 53~57	Oct. 05, 2020
Radiated above 1GHz (for band 1 and band 4)	03CH01-CB	Gino Huang	24.5~25.9 / 53~55	Oct. 09, 2020~Nov. 05, 2020
Radiated above 1GHz (for band 2 and band 3)	03CH01-CB	Gino Huang	24.4~25.8 / 54~56	Oct. 09, 2020~Oct. 16, 2020
AC Conduction	CO01-CB	Peter Wu	22~23 / 60~62	Dec. 06, 2021



1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	2.0 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	4.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	5.5 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	4.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.6 dB	Confidence levels of 95%
Conducted Emission	2.8 dB	Confidence levels of 95%
Output Power Measurement	1.4 dB	Confidence levels of 95%
Power Density Measurement	2.8 dB	Confidence levels of 95%
Bandwidth Measurement	0.39%	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

For Band 1 and Band 4

For 5GHz Band 1 2T1S and Band 4 3T1S / CDD and Beamforming Mode:

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	85
5200MHz	99
5240MHz	94
802.11a_Nss1,(6Mbps)_3TX	-
5745MHz	96
5785MHz	100
5825MHz	101
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5180MHz	84
5200MHz	98
5240MHz	94
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
5180MHz	88
5200MHz	100
5240MHz	94
802.11ac VHT20_Nss1,(MCS0)_3TX	-
5745MHz	96
5785MHz	99
5825MHz	99
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-
5745MHz	96
5785MHz	99
5825MHz	97
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5180MHz	82
5200MHz	97
5240MHz	94
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
5180MHz	82
5200MHz	98
5240MHz	94
802.11ax HEW20_Nss1,(MCS0)_3TX	-
5745MHz	96



Mode	Power Setting
5785MHz	102
5825MHz	99
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	-
5745MHz	103
5785MHz	105
5825MHz	105
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5190MHz	72
5230MHz	95
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
5190MHz	73
5230MHz	96
802.11ac VHT40_Nss1,(MCS0)_3TX	-
5755MHz	102
5795MHz	104
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-
5755MHz	102
5795MHz	105
802.11ax HEW40_Nss1,(MCS0)_2TX	-
5190MHz	72
5230MHz	96
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
5190MHz	72
5230MHz	96
802.11ax HEW40_Nss1,(MCS0)_3TX	-
5755MHz	99
5795MHz	103
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	-
5755MHz	100
5795MHz	104
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5210MHz	72
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-
5210MHz	73
802.11ac VHT80_Nss1,(MCS0)_3TX	-
5775MHz	91
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	-
5775MHz	92
802.11ax HEW80_Nss1,(MCS0)_2TX	-
5210MHz	72



Mode	Power Setting
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-
5210MHz	71
802.11ax HEW80_Nss1,(MCS0)_3TX	-
5775MHz	91
802.11ax HEW80-BF_Nss1,(MCS0)_3TX	-
5775MHz	92

For 5GHz Band 1 2T2S SDM Mode:

Mode	Power Setting
802.11ac VHT20_Nss2,(MCS0)_2TX	-
5180MHz	84
802.11ac VHT40_Nss2,(MCS0)_2TX	-
5190MHz	76
802.11ac VHT80_Nss2,(MCS0)_2TX	-
5210MHz	74
802.11ax HEW20_Nss2,(MCS0)_2TX	-
5180MHz	77
802.11ax HEW40_Nss2,(MCS0)_2TX	-
5190MHz	72
802.11ax HEW80_Nss2,(MCS0)_2TX	-
5210MHz	70

For 5GHz Band 4 3T2S / CDD and Beamforming Mode:

Mode	Power Setting
802.11ac VHT80_Nss2,(MCS0)_3TX	-
5775MHz	92
802.11ac VHT80-BF_Nss2,(MCS0)_3TX	-
5775MHz	94
802.11ax HEW80_Nss2,(MCS0)_3TX	-
5775MHz	93
802.11ax HEW80-BF_Nss2,(MCS0)_3TX	-
5775MHz	93

For 5GHz Band 4 3T3S SDM Mode:

Mode	Power Setting
802.11ac VHT80_Nss3,(MCS0)_3TX	-
5775MHz	92
802.11ax HEW80_Nss3,(MCS0)_3TX	-
5775MHz	92

**For Band 2~Band 3**

For non-beamforming mode:

For 5GHz Band 2 2T1S and Band 3 3T1S CDD Mode:

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5260MHz	87
5300MHz	88
5320MHz	84
802.11a_Nss1,(6Mbps)_3TX	-
5500MHz	65
5580MHz	74
5620MHz	78
5700MHz	74
5720MHz Straddle 5.47-5.725GHz	77
5720MHz Straddle 5.725-5.85GHz	77
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5260MHz	88
5300MHz	87
5320MHz	83
802.11ac VHT20_Nss1,(MCS0)_3TX	-
5500MHz	69
5580MHz	75
5620MHz	79
5700MHz	72
5720MHz Straddle 5.47-5.725GHz	78
5720MHz Straddle 5.725-5.85GHz	78
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5270MHz	88
5310MHz	67
802.11ac VHT40_Nss1,(MCS0)_3TX	-
5510MHz	63
5550MHz	78
5630MHz	80
5670MHz	77
5710MHz Straddle 5.47-5.725GHz	80
5710MHz Straddle 5.725-5.85GHz	80
802.11ac VHT80_Nss1,(MCS0)_2TX	-
5290MHz	67
802.11ac VHT80_Nss1,(MCS0)_3TX	-
5530MHz	70
5610MHz	81



Mode	Power Setting
5690MHz Straddle 5.47-5.725GHz	79
5690MHz Straddle 5.725-5.85GHz	79
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5260MHz	87
5300MHz	87
5320MHz	83
802.11ax HEW20_Nss1,(MCS0)_3TX	-
5500MHz	66
5580MHz	74
5620MHz	74
5700MHz	64
5720MHz Straddle 5.47-5.725GHz	76
5720MHz Straddle 5.725-5.85GHz	76
802.11ax HEW40_Nss1,(MCS0)_2TX	-
5270MHz	87
5310MHz	67
802.11ax HEW40_Nss1,(MCS0)_3TX	-
5510MHz	64
5550MHz	77
5630MHz	78
5670MHz	78
5710MHz Straddle 5.47-5.725GHz	78
5710MHz Straddle 5.725-5.85GHz	78
802.11ax HEW80_Nss1,(MCS0)_2TX	-
5290MHz	63
802.11ax HEW80_Nss1,(MCS0)_3TX	-
5530MHz	72
5610MHz	80
5690MHz Straddle 5.47-5.725GHz	79
5690MHz Straddle 5.725-5.85GHz	79

**For 5GHz Band 3 3T2S CDD Mode:**

Mode	Power Setting
802.11ac VHT20_Nss2,(MCS0)_3TX	-
5500MHz	75
802.11ac VHT40_Nss2,(MCS0)_3TX	-
5510MHz	72
802.11ac VHT80_Nss2,(MCS0)_3TX	-
5530MHz	73
802.11ax HEW20_Nss2,(MCS0)_3TX	-
5500MHz	75
802.11ax HEW40_Nss2,(MCS0)_3TX	-
5510MHz	70
802.11ax HEW80_Nss2,(MCS0)_3TX	-
5530MHz	73

For 5GHz Band 3 3T3S SDM Mode:

Mode	Power Setting
802.11ac VHT20_Nss3,(MCS0)_3TX	-
5500MHz	75
802.11ac VHT40_Nss3,(MCS0)_3TX	-
5510MHz	69
802.11ac VHT80_Nss3,(MCS0)_3TX	-
5530MHz	71
802.11ax HEW20_Nss3,(MCS0)_3TX	-
5500MHz	73
802.11ax HEW40_Nss3,(MCS0)_3TX	-
5510MHz	67
802.11ax HEW80_Nss3,(MCS0)_3TX	-
5530MHz	73



For beamforming mode:

For 5GHz Band 2 2T1S and Band 3 3T1S Beamforming Mode:

Mode	Power Setting
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-
5260MHz	88
5300MHz	87
5320MHz	83
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-
5500MHz	71
5580MHz	75
5620MHz	79
5700MHz	74
5720MHz Straddle 5.47-5.725GHz	78
5720MHz Straddle 5.725-5.85GHz	78
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-
5270MHz	88
5310MHz	67
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-
5510MHz	66
5550MHz	78
5630MHz	80
5670MHz	77
5710MHz Straddle 5.47-5.725GHz	80
5710MHz Straddle 5.725-5.85GHz	80
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-
5290MHz	67
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	-
5530MHz	69
5610MHz	81
5690MHz Straddle 5.47-5.725GHz	79
5690MHz Straddle 5.725-5.85GHz	79
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
5260MHz	87
5300MHz	87
5320MHz	80
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	-
5500MHz	73
5580MHz	74
5620MHz	74
5700MHz	64
5720MHz Straddle 5.47-5.725GHz	76



Mode	Power Setting
5720MHz Straddle 5.725-5.85GHz	76
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
5270MHz	87
5310MHz	67
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	-
5510MHz	64
5550MHz	77
5630MHz	78
5670MHz	79
5710MHz Straddle 5.47-5.725GHz	78
5710MHz Straddle 5.725-5.85GHz	78
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-
5290MHz	67
802.11ax HEW80-BF_Nss1,(MCS0)_3TX	-
5530MHz	66
5610MHz	80
5690MHz Straddle 5.47-5.725GHz	79
5690MHz Straddle 5.725-5.85GHz	79

**For 5GHz Band 3 3T2S Beamforming Mode:**

Mode	Power Setting
802.11ac VHT20-BF_Nss2,(MCS0)_3TX	-
5500MHz	76
802.11ac VHT40-BF_Nss2,(MCS0)_3TX	-
5510MHz	64
802.11ac VHT80-BF_Nss2,(MCS0)_3TX	-
5530MHz	64
802.11ax HEW20-BF_Nss2,(MCS0)_3TX	-
5500MHz	73
802.11ax HEW40-BF_Nss2,(MCS0)_3TX	-
5510MHz	64
802.11ax HEW80-BF_Nss2,(MCS0)_3TX	-
5530MHz	60

Note:

- ♦ Evaluated HEW20/HEW40/HEW80 mode only, due to similar modulation. The power setting of HT20/HT40/VHT20/VHT40/VHT80 mode are the same or lower than HEW20/HEW40/HEW80.

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	Normal Link
1	EUT (AP Mode) + Adapter

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Output Power Power Spectral Density
Test Condition	Conducted measurement at transmit chains
1	Non beamforming mode: 5GHz Band 1 2T1S and Band 4 3T1S, CDD
2	Beamforming mode: 5GHz Band 1 2T1S and Band 4 3T1S, CDD
3	Non beamforming mode: 5GHz Band 1, 2T2S, SDM
4	Non beamforming mode: 5GHz Band 4 3T2S, CDD
5	Beamforming mode: 5GHz Band 4 3T2S, CDD
6	Non beamforming mode: 5GHz Band 4, 3T3S, SDM
7	Non-beamforming mode: 5GHz Band 2 2T1S and Band 3 3T1S CDD
8	Non-beamforming mode: 5GHz Band 3 3T2S CDD
9	Non-beamforming mode: 5GHz Band 3 3T3S SDM
10	Beamforming mode: 5GHz Band 2 2T1S and Band 3 3T1S Beamforming
11	Beamforming mode: 5GHz Band 3 3T2S Beamforming

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	Normal Link
1	EUT in X axis (AP Mode) + Adapter
2	EUT in Y axis (AP Mode) + Adapter
3	EUT in Z axis (AP Mode) + Adapter
Mode 2 generated the worst test result, so it was recorded in this report.	
Operating Mode > 1GHz	CTX The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found at Y axis. So the measurement will follow this same test configuration.
1	Non beamforming mode: EUT in Y axis-5GHz Band 1 2T1S and Band 4 3T1S, CDD
2	Beamforming mode: EUT in Y axis-5GHz Band 1 2T1S and Band 4 3T1S, CDD
3	Non beamforming mode: EUT in Y axis-5GHz Band 1 2T2S ,SDM
4	Non beamforming mode: EUT in Y axis-5GHz Band 4 3T2S, CDD
5	Beamforming mode: EUT in Y axis-5GHz Band 4 3T2S, CDD
6	Non beamforming mode: EUT in Y axis-5GHz Band 4 3T3S, SDM
7	Non-beamforming mode: EUT in Y axis-5GHz Band 2 2T1S and Band 3 3T1S CDD
8	Non-beamforming mode: EUT in Y axis-5GHz Band 3 3T1S CDD
9	Non-beamforming mode: EUT in Y axis-5GHz Band 3 3T3S SDM
10	Beamforming mode: EUT in Y axis-5GHz Band 2 2T1S and 5GHz Band 3 3T1S Beamforming
11	Beamforming mode: EUT in Y axis-5GHz Band 3 3T2S Beamforming

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Radiated Emission Co-location
Test Condition	Radiated measurement
Operating Mode	Normal Link
2	WLAN 2.4GHz + WLAN 5GHz (UNII 1, 2A)
Refer to Appendix F for Radiated Emission Co-location.	



The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz (UNII 1, 2A) + WLAN 5GHz (UNII 2C, 3)
Refer to Sporton Test Report No.: FA092402-04 for Co-location RF Exposure Evaluation.	

2.3 EUT Operation during Test

For CTX Mode:

non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

During the test, the following programs under WIN XP were executed.

The program was executed as follows:

1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under Telnet.
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by RX Device and transmit duty cycle no less than 98%.

For Normal Link Mode:

During the test, the EUT operation to normal function.



2.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter	MOSO	MS-V1500R120-018 H0-US	INPUT: 100-240V~50/60Hz 0.6A max. OUTPUT: 12.0V, 1.5A
Others			
RJ-45 cable, non-shielded, 1.5m			

2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Ethernet NB	DELL	E6430	N/A
B	5GHz High Band NB	DELL	E6430	N/A
C	2.4GHz NB	DELL	E6430	N/A
D	5GHz Low Band NB	DELL	E6430	N/A

For Radiated (below 1GHz):

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	Notebook	DELL	E4300	N/A
C	Notebook	DELL	E4300	N/A
D	Notebook	DELL	E4300	N/A

For Radiated (above 1GHz):

Non-beamforming mode

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A

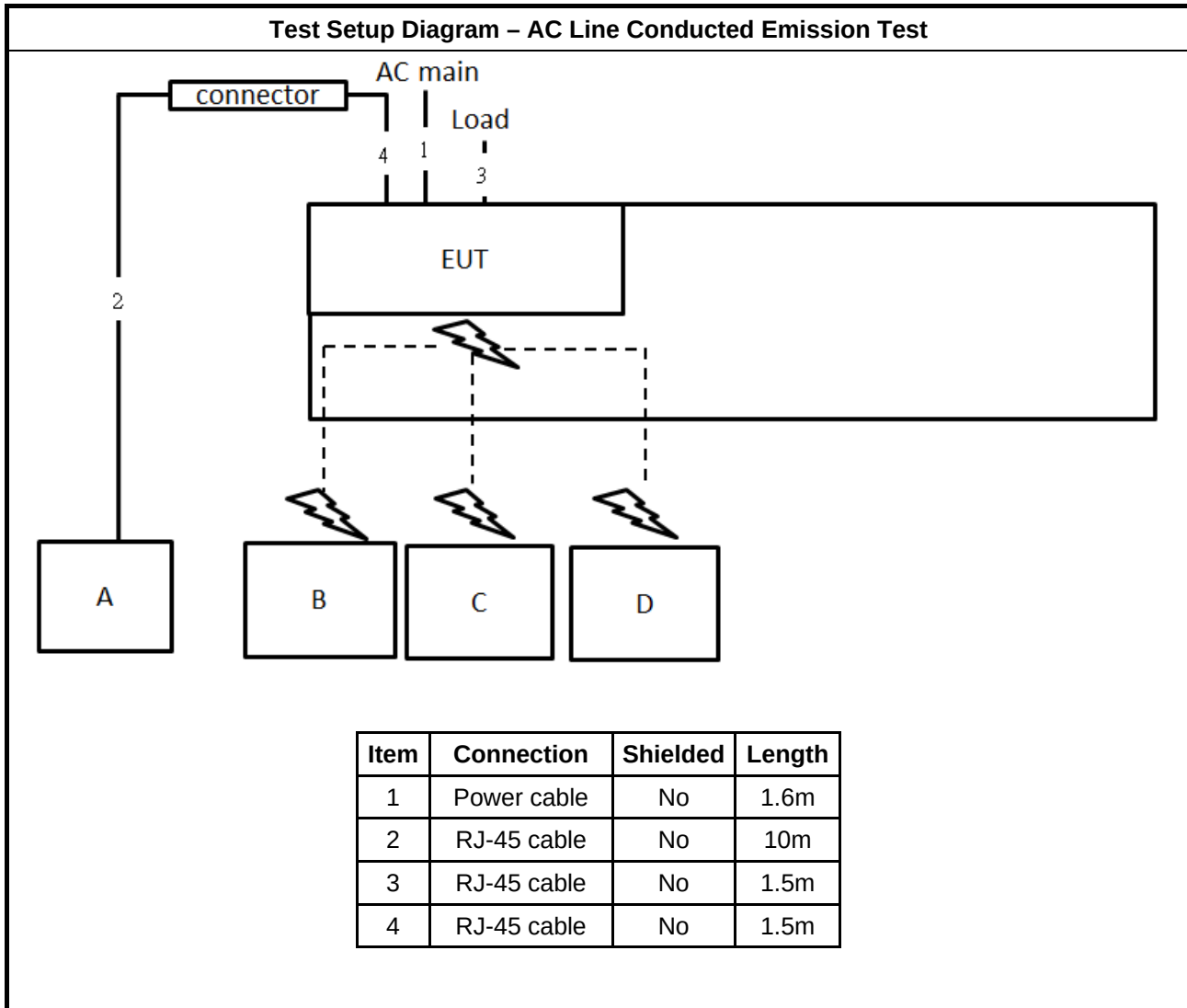
Beamforming mode

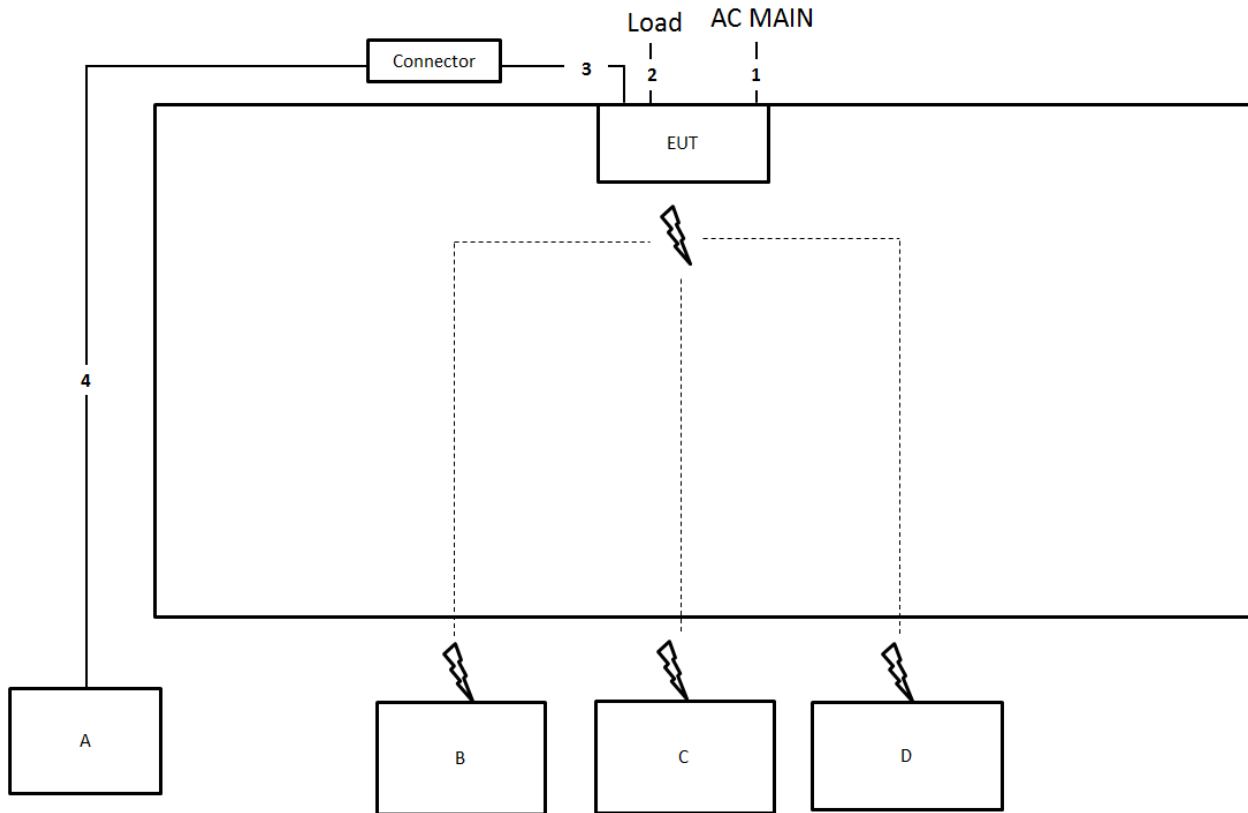
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	Notebook	DELL	E4300	N/A
C	RX Device	ASUS	RT-AX88U	MSQ-RTAXHP00

**For RF Conducted:**

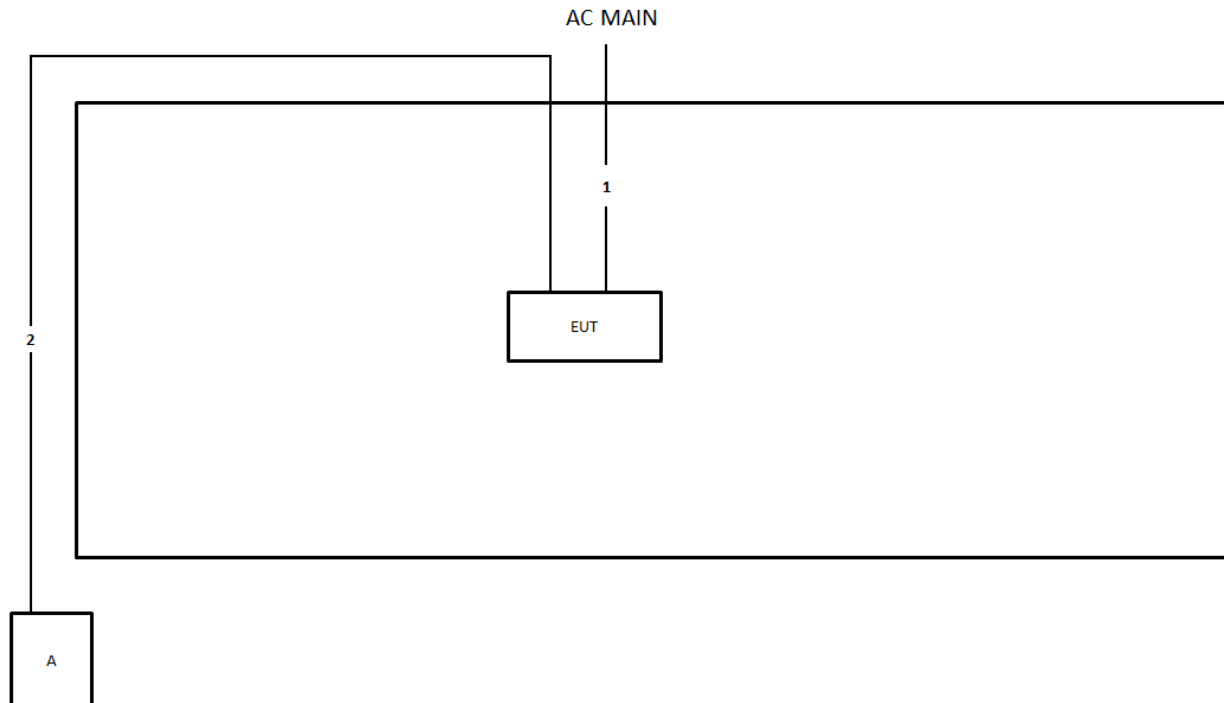
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A

2.6 Test Setup Diagram

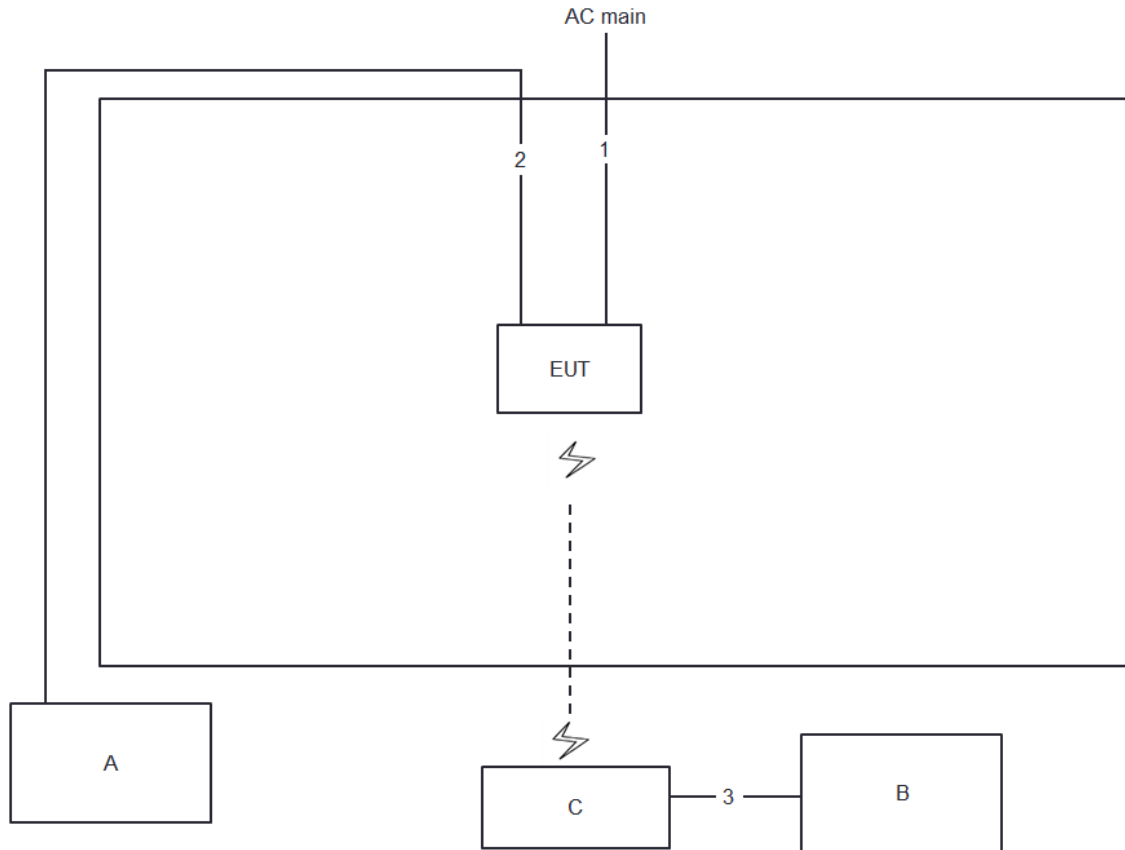


Test Setup Diagram - Radiated Test < 1GHz


Item	Connection	Shielded	Length
1	Power cable	No	1.6m
2	RJ-45 cable	No	1.5m
3	RJ-45 cable	No	1.5m
4	RJ-45 cable	No	10m

Test Setup Diagram - Radiated Test > 1GHz / Non-beamforming mode


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

Test Setup Diagram - Radiated Test > 1GHz / Beamforming mode


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

3 Transmitter Test Result

3.1 AC Power-line Conducted Emissions

3.1.1 AC Power-line Conducted Emissions Limit

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

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

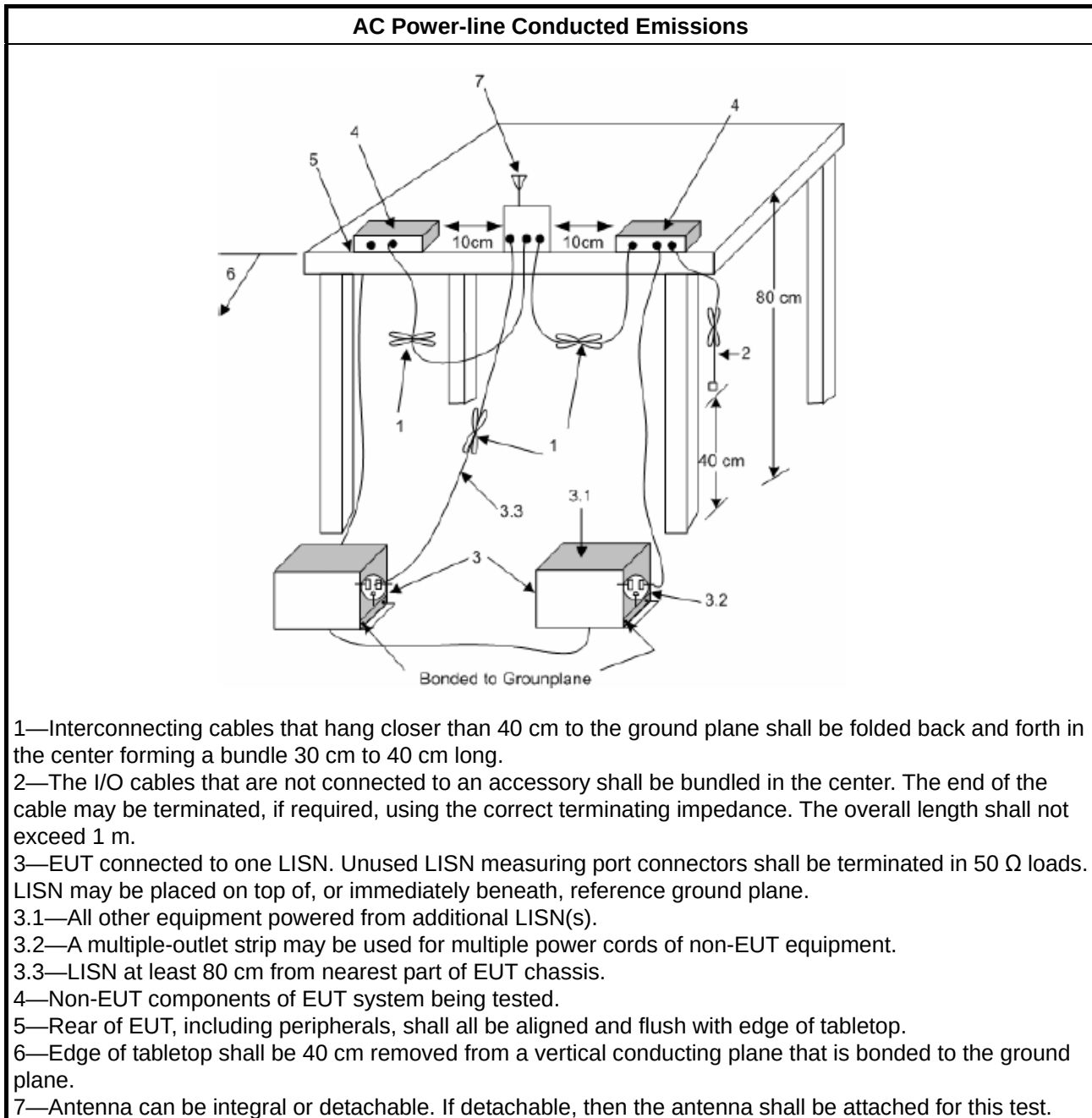
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Measurement Results Calculation

The measured Level is calculated using:

- Corrected Reading: LISN Factor (LISN) + Attenuator (AT/AUX) + Cable Loss (CL) + Read Level (Raw) = Level
- Margin = -Limit + Level

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, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☒	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
☒	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.
☐	For the 5.85-5.895 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.
LE-LAN Devices	
☐	For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
☐	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
☐	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.

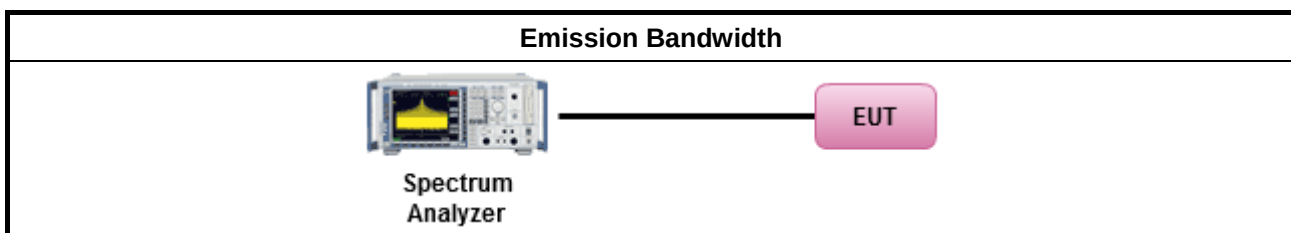
3.2.2 Measuring Instruments

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 FCC KDB 789033 D02, clause C for EBW and clause D for OBW measurement.
☐	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
☐	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

3.2.4 Test Setup



3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



3.3 Maximum Output Power

3.3.1 Limit

Maximum 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 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 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.
Maximum EIRP Limit	
☐ For the 5.85-5.895 GHz band:	
☐	- Indoor AP & subordinate device < 36 dBm - Client device < 30 dBm
LE-LAN Devices	
☐ For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.	
☐ For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
☐ For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz	
☐ 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

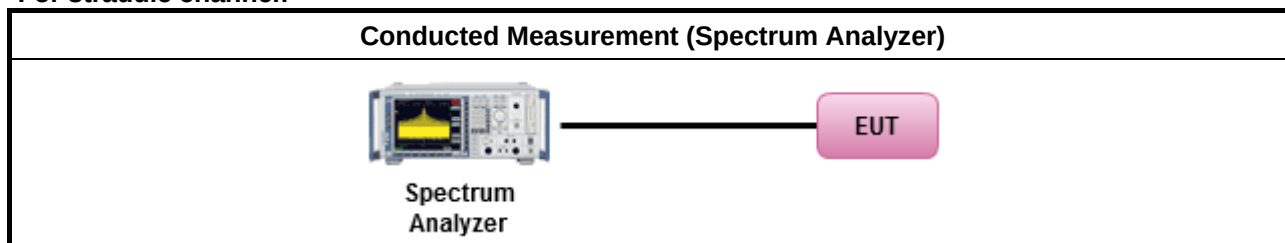
Refer a test equipment and calibration data table in this test report.

3.3.3 Test Procedures

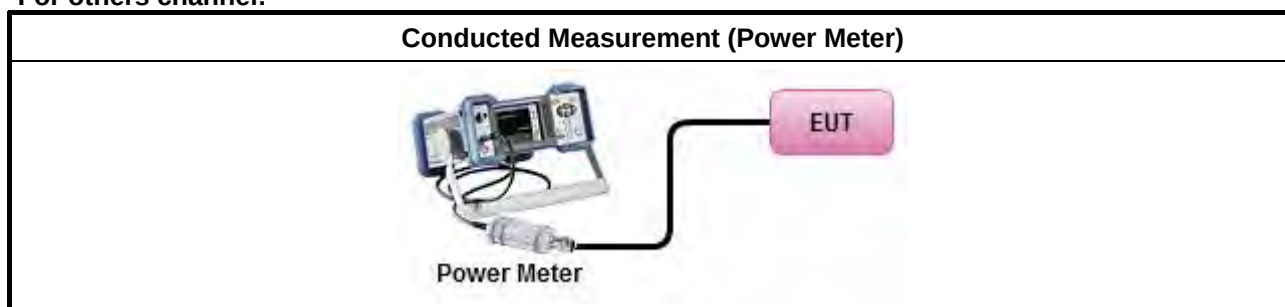
Test Method	
	Average over on/off periods with duty factor
☒	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
☐	Refer as FCC KDB 789033 D02, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods with duty factor
☒	Refer as FCC KDB 789033 D02, clause E Method PM-G (using an RF average power meter).
☒	For conducted measurement.
	If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.
	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]) $EIRP_{total} = P_{total} + DG$
☐	For radiated measurement.
	Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing"
	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
	Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.

3.3.4 Test Setup

For straddle channel:



For others channel:



3.3.5 Test Result of Maximum Output Power

Refer as Appendix C



3.4 Power Spectral Density

3.4.1 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.
EIRP Power Spectral Density Limit	
☐ For the 5.85-5.895 GHz band:	
	- Indoor AP & subordinate device < 20dBm/MHz - Client device < 14dBm/MHz
LE-LAN Devices	
☐ For the 5.15-5.25 GHz band, the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.	
☐ For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.	
	e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for $0^\circ \leq \theta < 8^\circ$; -13 - 0.716 ($\theta - 8$) dBW/MHz for $8^\circ \leq \theta < 40^\circ$ -35.9 - 1.22 ($\theta - 40$) dBW/MHz for $40^\circ \leq \theta \leq 45^\circ$; -42 dBW/MHz for $\theta > 45^\circ$
☐ For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.	
☐ 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 the 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.

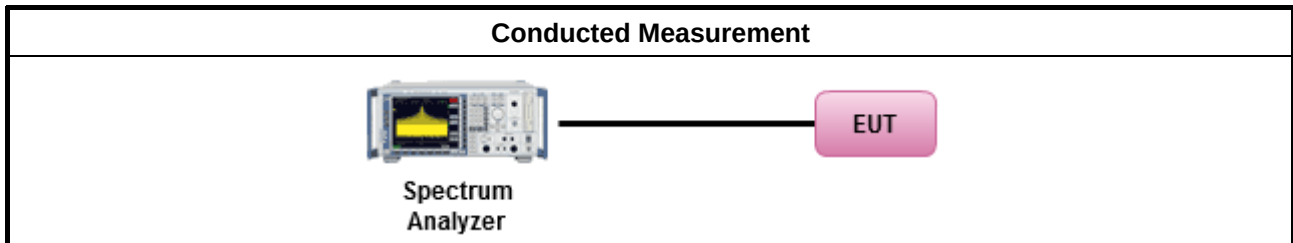


3.4.3 Test Procedures

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 FCC KDB 789033 D02, 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% or external video / power trigger]
☒	Refer as FCC KDB 789033 D02, clause E Method SA-1 (spectral trace averaging).
☐	Refer as FCC KDB 789033 D02, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
duty cycle < 98% and average over on/off periods with duty factor	
☒	Refer as FCC KDB 789033 D02, clause E Method SA-2 (spectral trace averaging).
☐	Refer as FCC KDB 789033 D02, 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:	
☒	Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
☐	Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
☐	Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
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]) $EIRP_{total} = PPSD_{total} + DG$	
☐ For radiated measurement.	
Refer as FCC KDB 789033 D02 clause II A.1.F "Antenna-port Conducted versus Radiated Testing"	
Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.	

Test Method	
	Refer as FCC KDB 412172 D01 clause 2.2 for EIRP calculation.

3.4.4 Test Setup



3.4.5 Test Result of Power Spectral Density

Refer as Appendix D



3.5 Unwanted Emissions

3.5.1 Transmitter 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	all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
☐ 5.85 - 5.895 GHz	(i) For an indoor access point or subordinate device, all emissions at or above 5.895 GHz shall not exceed an e.i.r.p. of 15 dBm/MHz and shall decrease linearly to an e.i.r.p. of - 7 dBm/MHz at or above 5.925 GHz. (ii) For a client device all emissions at or above 5.895 GHz shall not exceed an



	e.i.r.p. of -5 dBm/MHz and shall decrease linearly to an e.i.r.p. of -27 dBm/MHz at or above 5.925 GHz. (iii) For a client device or indoor access point or subordinate device, all emissions below 5.725 GHz shall not exceed an e.i.r.p. of -27 dBm/MHz at 5.65 GHz increasing linearly to 10 dBm/ MHz at 5.7 GHz, and from 5.7 GHz increasing linearly to a level of 15.6 dBm/MHz at 5.72 GHz, and from 5.72 GHz increasing linearly to a level of 27 dBm/MHz at 5.725 GHz.
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 FCC KDB 789033 D02, clause G)2) for unwanted emissions into non-restricted bands.
	Refer as FCC KDB 789033 D02, clause G)1) for unwanted emissions into restricted bands.
	☐ Refer as FCC KDB 789033 D02, G)6) Method AD (Trace Averaging).
	☒ Refer as FCC KDB 789033 D02, G)6) Method VB (Reduced VBW).
	☐ Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW $\geq$ 1/T, where T is pulse time.
	☐ Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	☒ Refer as FCC KDB 789033 D02, clause G)5) measurement procedure peak limit.
☐ Refer as 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.	

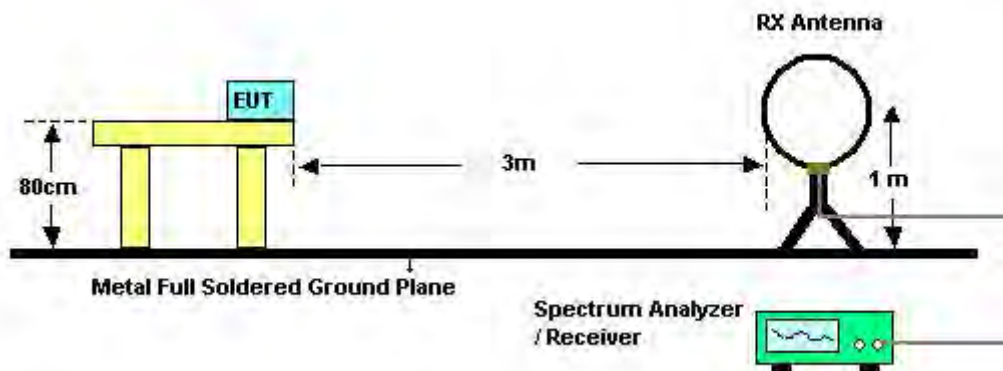
Test Method

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

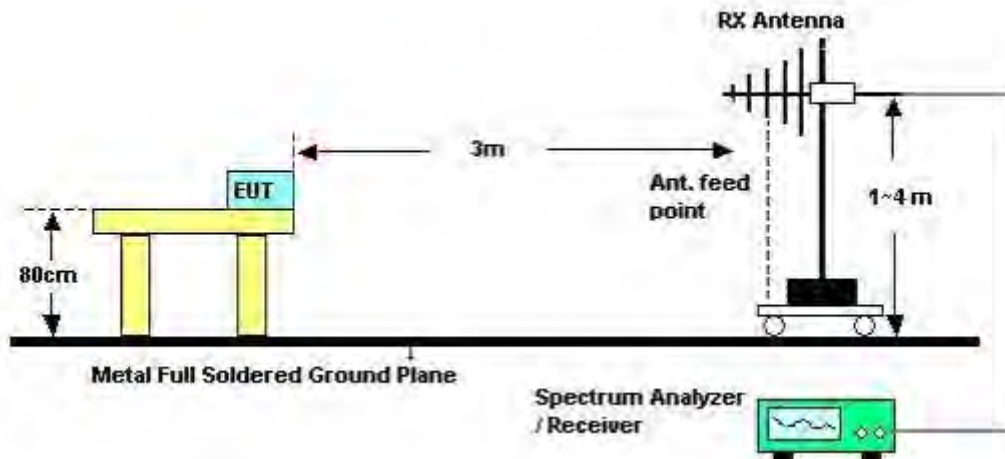
3.5.4 Test Setup

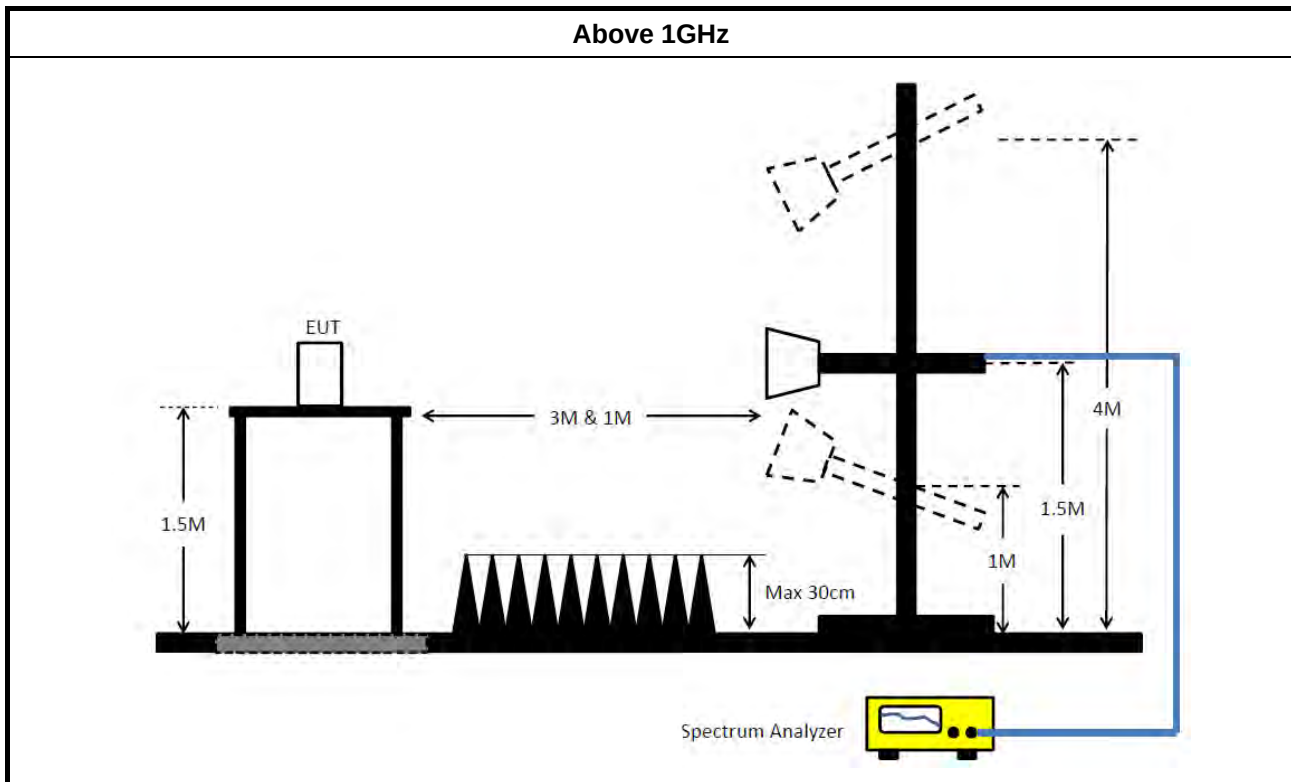
Transmitter Radiated Unwanted Emissions

9kHz ~30MHz



30MHz~1GHz





3.5.5 Measurement Results Calculation

The measured Level is calculated using:

Corrected Reading: Antenna factor (AF) + Cable loss (CL) + Read level (Raw) - Preamp factor (PA)(if applicable) = Level.

3.5.6 Transmitter Unwanted Emissions (Below 30MHz)

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to KDB414788 Radiated Test Site, and the result came out very similar.

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

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10th harmonic or 40 GHz, whichever is appropriate.

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



4 Test Equipment and Calibration Data

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.4GHz	Mar. 03, 2021	Mar. 02, 2022	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-1 6-2	04083	150kHz~100MHz	Jan. 06, 2021	Jan. 05, 2022	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Mar. 07, 2021	Mar. 06, 2022	Conduction (CO01-CB)
Pulse Limiter	Rohde&Schwarz	ESH3-Z2	100430	9kHz ~ 30MHz	Jan. 30, 2021	Jan. 29, 2022	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	9kHz ~ 30MHz	May 19, 2021	May 18, 2022	Conduction (CO01-CB)
Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Apr. 14, 2021	Apr. 13, 2022	Radiation (03CH05-CB)
3m Semi Anechoic Chamber NSA	TDK	SAC-3M	03CH05-CB	30 MHz ~ 1 GHz	Aug. 09, 2021	Aug. 08, 2022	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH05-CB	1GHz ~18GHz 3m	Nov. 07, 2021	Nov. 06, 2022	Radiation (03CH05-CB)
Bilog Antenna with 6dB Attenuator	TESEQ & EMCI	CBL 6112D & N-6-06	35236 & AT-N0610	30MHz ~ 2GHz	Mar. 26, 2021	Mar. 25, 2022	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 27, 2021	Apr. 26, 2022	Radiation (03CH05-CB)
Signal Analyzer	R&S	FSV40	101903	9kHz ~ 40GHz	Mar. 22, 2021	Mar. 21, 2022	Radiation (03CH05-CB)
EMI Test Receiver	R&S	ESCS	826547/017	9kHz ~ 2.75GHz	Jun. 21, 2021	Jun. 20, 2022	Radiation (03CH05-CB)
RF Cable-low	Woken	RG402	Low Cable-04+23	30MHz~1GHz	Oct. 13, 2021	Oct. 12, 2022	Radiation (03CH05-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH05-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH06-CB	1GHz ~18GHz 3m	Oct. 02, 2020	Oct. 01, 2021	Radiation (03CH06-CB)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120D-1292	1GHz~18GHz	Jul. 22, 2020	Jul. 21, 2021	Radiation (03CH06-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2020	Jul. 20, 2021	Radiation (03CH06-CB)
Pre-Amplifier	Agilent	83017A	MY53270064	0.5GHz~26.5GHz	May 07, 2020	May 06, 2021	Radiation (03CH06-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 08, 2020	Jul. 07, 2021	Radiation (03CH06-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Spectrum analyzer	R&S	FSP40	100080	9kHz~40GHz	Oct. 21, 2019	Oct. 20, 2020	Radiation (03CH06-CB)
RF Cable-high	HUBER+SUHNER	RG402	High Cable-05	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH06-CB)
RF Cable-high	HUBER+SUHNER	RG402	High Cable-05+24	1GHz~18GHz	Oct. 07, 2019	Oct. 06, 2020	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH06-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH06-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH06-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH01-CB	1GHz ~18GHz 3m	May 29, 2020	May 28, 2021	Radiation (03CH01-CB)
Horn Antenna	ETS-LINDGR EN	3115	00075790	750MHz ~ 18GHz	Nov. 04, 2019	Nov. 03, 2020	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1370	1GHz~18GHz	Sep. 21, 2020	Sep. 20, 2021	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Jul. 21, 2020	Jul. 20, 2021	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 08, 2020	Jan. 07, 2021	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 08, 2020	Jul. 07, 2021	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Apr. 16, 2020	Apr. 15, 2021	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16	1 GHz ~ 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Jul. 27, 2020	Jul. 26, 2021	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Sep. 11, 2019	Sep. 10, 2020	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1531343	300MHz~40GHz	Aug. 04, 2020	Aug. 03, 2021	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Sep. 11, 2019	Sep. 10, 2020	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1728001	300MHz~40GHz	Aug. 04, 2020	Aug. 03, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz ~26.5 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz –26.5 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-03	1 GHz –26.5 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-03	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz –26.5 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz –26.5 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH02-CB)

Note: Calibration Interval of instruments listed above is one year.

N.C.R. means Non-Calibration required.



Conducted Emissions at Powerline

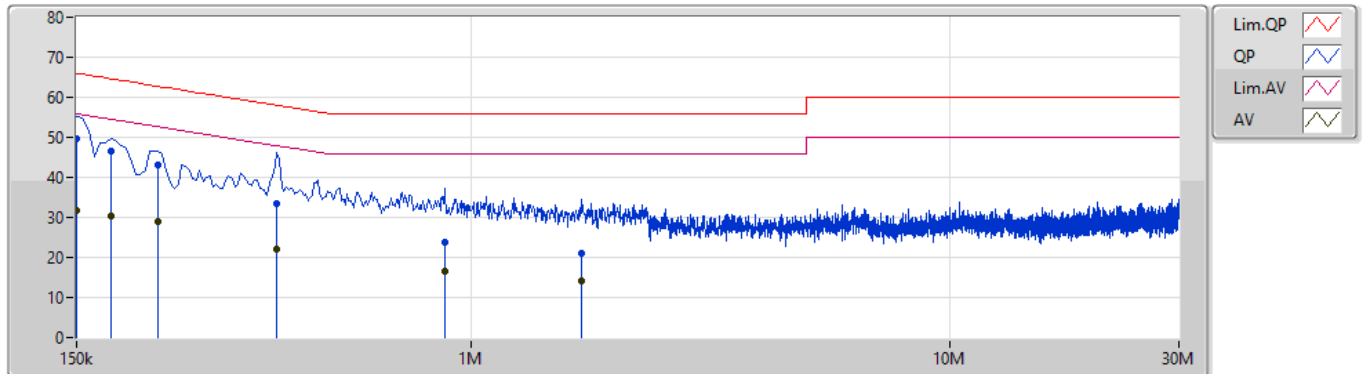
Appendix A.

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	QP	303k	48.68	60.17	-11.49	Neutral

Mode 1

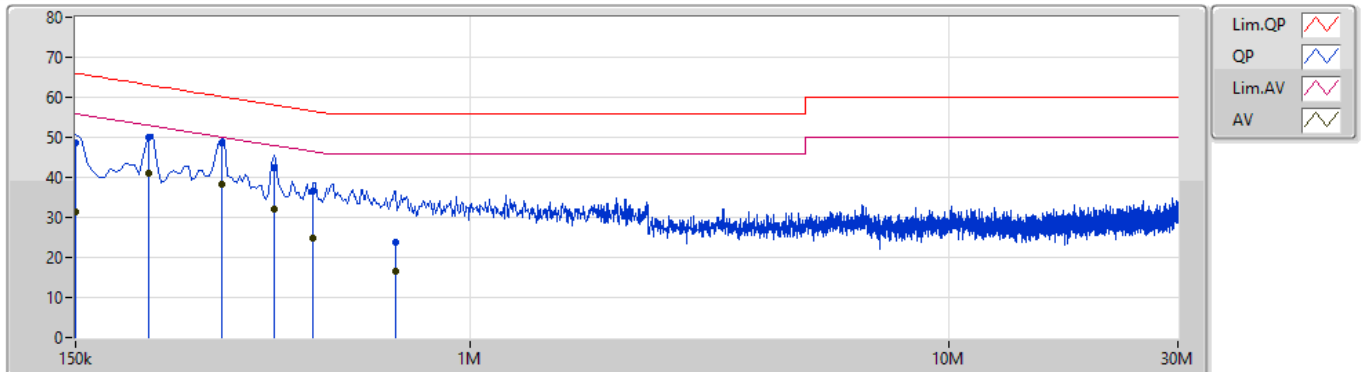
06/12/2021



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	150k	49.63	66.00	-16.37	9.89	Line	"Worst"	39.74	0.04	0.04	9.81			
AV	150k	31.84	56.00	-24.16	9.89	Line	-	21.95	0.04	0.04	9.81			
QP	177k	46.48	64.62	-18.14	9.89	Line	-	36.59	0.04	0.04	9.81			
AV	177k	30.20	54.62	-24.42	9.89	Line	-	20.31	0.04	0.04	9.81			
QP	222k	43.17	62.75	-19.58	9.89	Line	-	33.28	0.04	0.04	9.81			
AV	222k	29.11	52.75	-23.64	9.89	Line	-	19.22	0.04	0.04	9.81			
QP	393k	33.39	58.01	-24.62	9.90	Line	-	23.49	0.04	0.04	9.82			
AV	393k	22.19	48.01	-25.82	9.90	Line	-	12.29	0.04	0.04	9.82			
QP	879k	23.74	56.00	-32.26	9.93	Line	-	13.81	0.06	0.04	9.83			
AV	879k	16.61	46.00	-29.39	9.93	Line	-	6.68	0.06	0.04	9.83			
QP	1.694M	21.09	56.00	-34.91	9.96	Line	-	11.13	0.08	0.06	9.82			
AV	1.694M	14.13	46.00	-31.87	9.96	Line	-	4.17	0.08	0.06	9.82			

Mode 1

06/12/2021



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	150k	48.79	66.00	-17.21	9.88	Neutral	-	38.91	0.03	0.04	9.81			
AV	150k	31.42	56.00	-24.58	9.88	Neutral	-	21.54	0.03	0.04	9.81			
QP	213k	50.03	63.09	-13.06	9.88	Neutral	-	40.15	0.03	0.04	9.81			
AV	213k	41.06	53.09	-12.03	9.88	Neutral	-	31.18	0.03	0.04	9.81			
QP	303k	48.68	60.17	-11.49	9.89	Neutral	"Worst"	38.79	0.03	0.04	9.82			
AV	303k	38.14	50.17	-12.03	9.89	Neutral	-	28.25	0.03	0.04	9.82			
QP	388.5k	42.53	58.10	-15.57	9.89	Neutral	-	32.64	0.03	0.04	9.82			
AV	388.5k	32.07	48.10	-16.03	9.89	Neutral	-	22.18	0.03	0.04	9.82			
QP	469.5k	36.48	56.52	-20.04	9.89	Neutral	-	26.59	0.03	0.04	9.82			
AV	469.5k	24.71	46.52	-21.81	9.89	Neutral	-	14.82	0.03	0.04	9.82			
QP	699k	23.84	56.00	-32.16	9.91	Neutral	-	13.93	0.04	0.04	9.83			
AV	699k	16.53	46.00	-29.47	9.91	Neutral	-	6.62	0.04	0.04	9.83			

**Mode 1, Non-beamforming mode: 5GHz Band 1 2T1S and Band 4 3T1S CDD
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)_2TX	40.98M	25.127M	25M1D1D	24.42M	16.852M
802.11ac VHT20_Nss1,(MCS0)_2TX	43.02M	24.948M	24M9D1D	22.17M	17.901M
802.11ac VHT40_Nss1,(MCS0)_2TX	76.32M	37.961M	38M0D1D	39.9M	36.342M
802.11ac VHT80_Nss1,(MCS0)_2TX	81.96M	75.802M	75M8D1D	81.36M	75.682M
802.11ax HEW20_Nss1,(MCS0)_2TX	42.09M	23.838M	23M8D1D	22.77M	19.1M
802.11ax HEW40_Nss1,(MCS0)_2TX	81.6M	42.099M	42M1D1D	39.84M	37.481M
802.11ax HEW80_Nss1,(MCS0)_2TX	81.48M	76.882M	76M9D1D	81.12M	76.762M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_3TX	16.47M	22.999M	23M0D1D	16.26M	17.631M
802.11ac VHT20_Nss1,(MCS0)_3TX	17.58M	21.889M	21M9D1D	17.49M	18.321M
802.11ac VHT40_Nss1,(MCS0)_3TX	36.36M	63.268M	63M3D1D	36M	42.279M
802.11ac VHT80_Nss1,(MCS0)_3TX	75.96M	76.522M	76M5D1D	75.72M	76.042M
802.11ax HEW20_Nss1,(MCS0)_3TX	18.96M	27.886M	27M9D1D	18.51M	19.37M
802.11ax HEW40_Nss1,(MCS0)_3TX	37.62M	57.991M	58M0D1D	36.36M	38.501M
802.11ax HEW80_Nss1,(MCS0)_3TX	76.2M	77.481M	77M5D1D	75.24M	77.121M

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)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	26.76M	16.942M	24.42M	16.852M		
5200MHz	Pass	Inf	39.84M	24.138M	40.98M	25.127M		
5240MHz	Pass	Inf	34.11M	17.571M	37.23M	19.04M		
802.11a_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-
5745MHz	Pass	500k	16.32M	19.64M	16.35M	17.631M	16.32M	20.48M
5785MHz	Pass	500k	16.32M	21.889M	16.35M	18.711M	16.26M	22.369M
5825MHz	Pass	500k	16.47M	22.549M	16.32M	18.171M	16.44M	22.999M
802.11ac_VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	23.58M	17.991M	22.17M	17.901M		
5200MHz	Pass	Inf	42.12M	23.988M	43.02M	24.948M		
5240MHz	Pass	Inf	34.65M	18.591M	37.23M	19.82M		
802.11ac_VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5745MHz	Pass	500k	17.52M	20.06M	17.58M	18.411M	17.55M	20.66M
5785MHz	Pass	500k	17.49M	20.48M	17.58M	18.891M	17.55M	21.889M
5825MHz	Pass	500k	17.55M	20.66M	17.55M	18.321M	17.55M	21.289M
802.11ac_VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.08M	36.462M	39.9M	36.342M		
5230MHz	Pass	Inf	72.96M	37.061M	76.32M	37.961M		
802.11ac_VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5755MHz	Pass	500k	36.06M	63.268M	36.36M	45.337M	36.3M	59.37M
5795MHz	Pass	500k	36M	62.669M	36.36M	42.279M	36.36M	59.13M
802.11ac_VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.96M	75.802M	81.36M	75.682M		
802.11ac_VHT80_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	75.72M	76.522M	75.96M	76.042M	75.72M	76.282M
802.11ax_HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	24.33M	19.13M	22.77M	19.1M		
5200MHz	Pass	Inf	41.16M	22.459M	42.09M	23.838M		
5240MHz	Pass	Inf	37.68M	19.43M	41.01M	20.3M		
802.11ax_HEW20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5745MHz	Pass	500k	18.81M	21.769M	18.51M	19.43M	18.9M	21.739M
5785MHz	Pass	500k	18.78M	26.597M	18.72M	22.129M	18.69M	27.886M
5825MHz	Pass	500k	18.96M	21.109M	18.96M	19.37M	18.9M	21.319M
802.11ax_HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.08M	37.481M	39.84M	37.541M		
5230MHz	Pass	Inf	68.16M	37.901M	81.6M	42.099M		
802.11ax_HEW40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5755MHz	Pass	500k	37.38M	52.234M	36.78M	38.501M	37.62M	52.174M
5795MHz	Pass	500k	37.5M	57.991M	37.62M	40.84M	36.36M	55.532M
802.11ax_HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.48M	76.762M	81.12M	76.882M		
802.11ax_HEW80_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	75.24M	77.361M	76.2M	77.121M	75.24M	77.481M

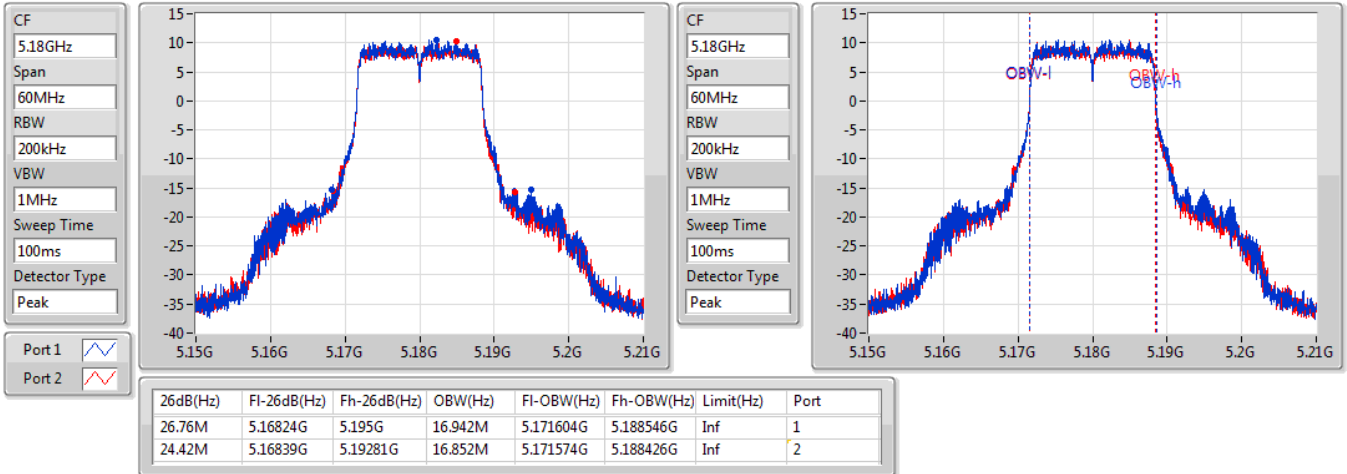


Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

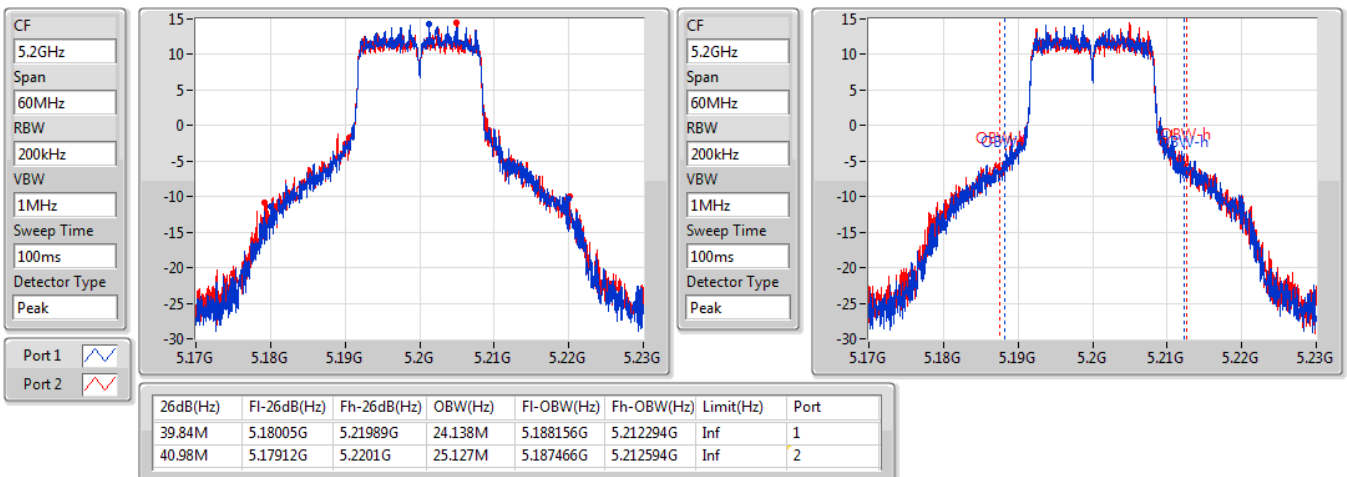
Port X-OBW = Port X 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_2TX
EBW
5180MHz

06/11/2020


802.11a_Nss1,(6Mbps)_2TX
EBW
5200MHz

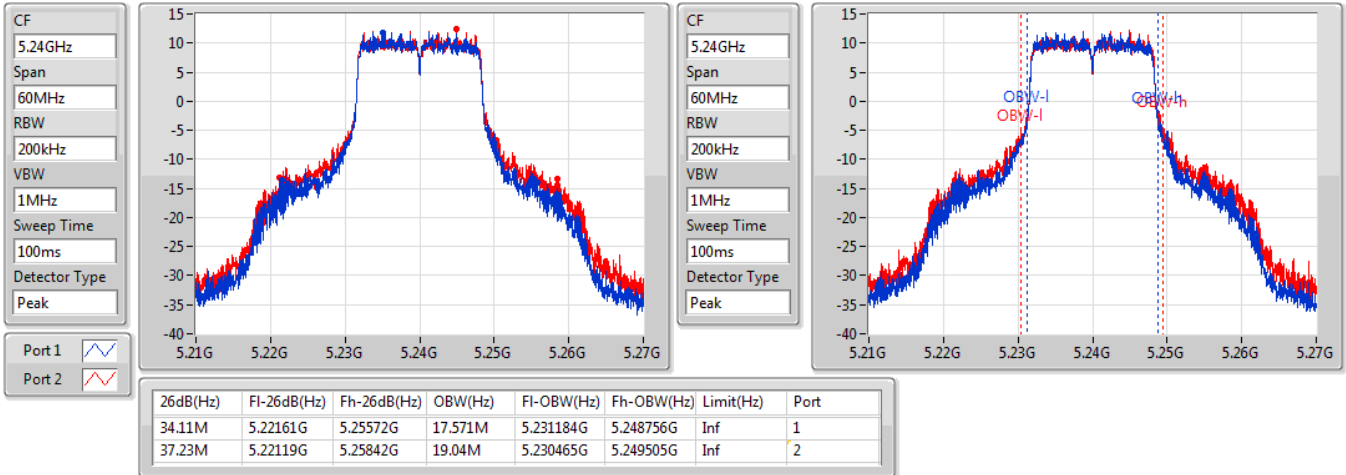
06/11/2020



802.11a_Nss1,(6Mbps)_2TX

EBW
5240MHz

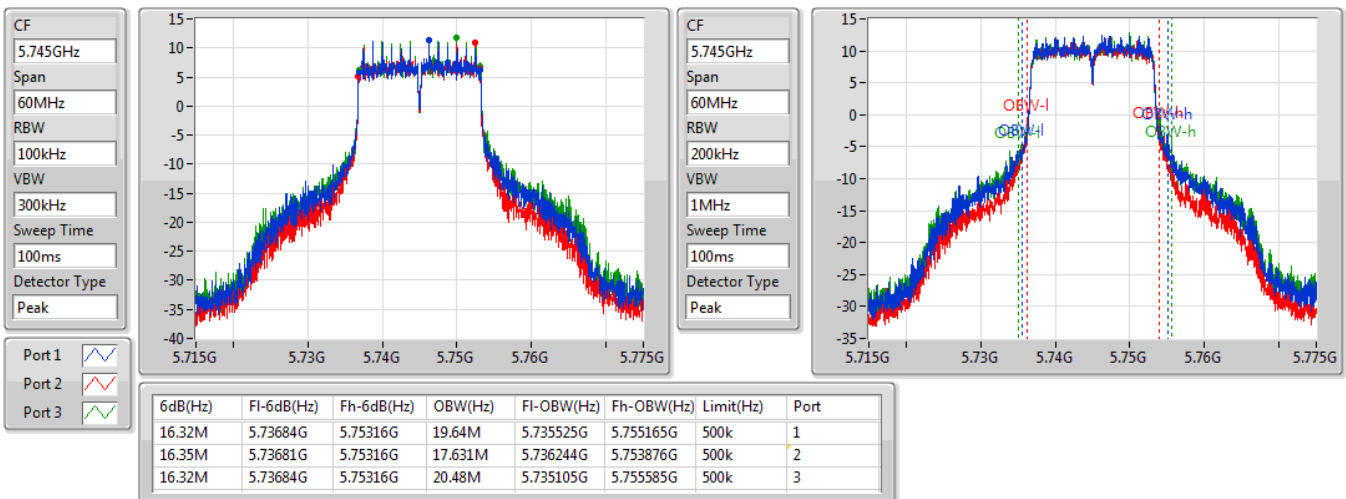
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802.11a_Nss1,(6Mbps)_3TX

EBW
5745MHz

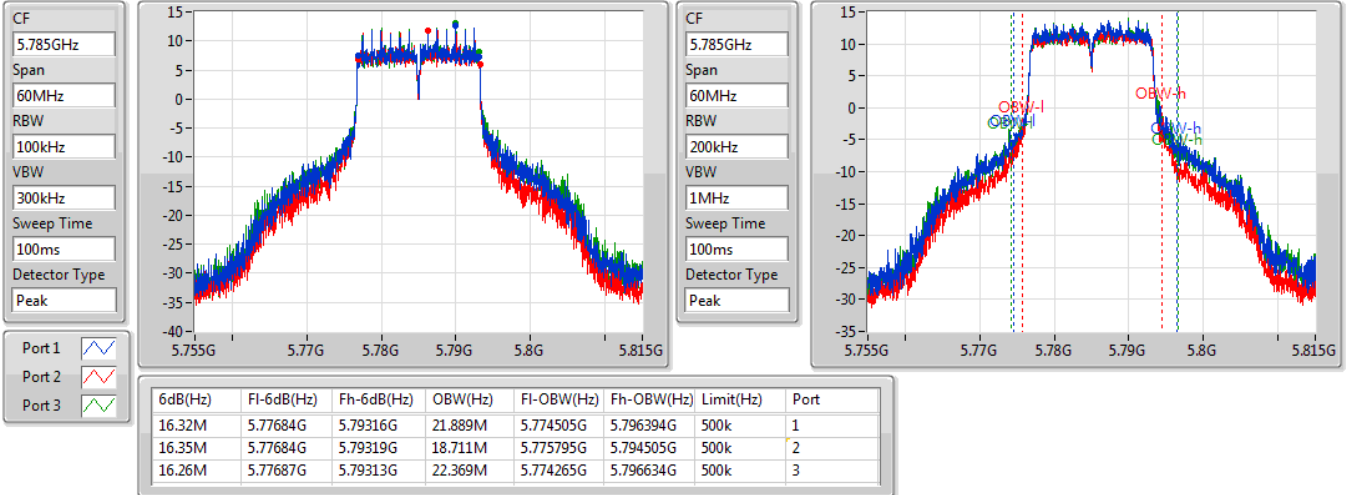
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802.11a_Nss1,(6Mbps)_3TX

EBW
5785MHz

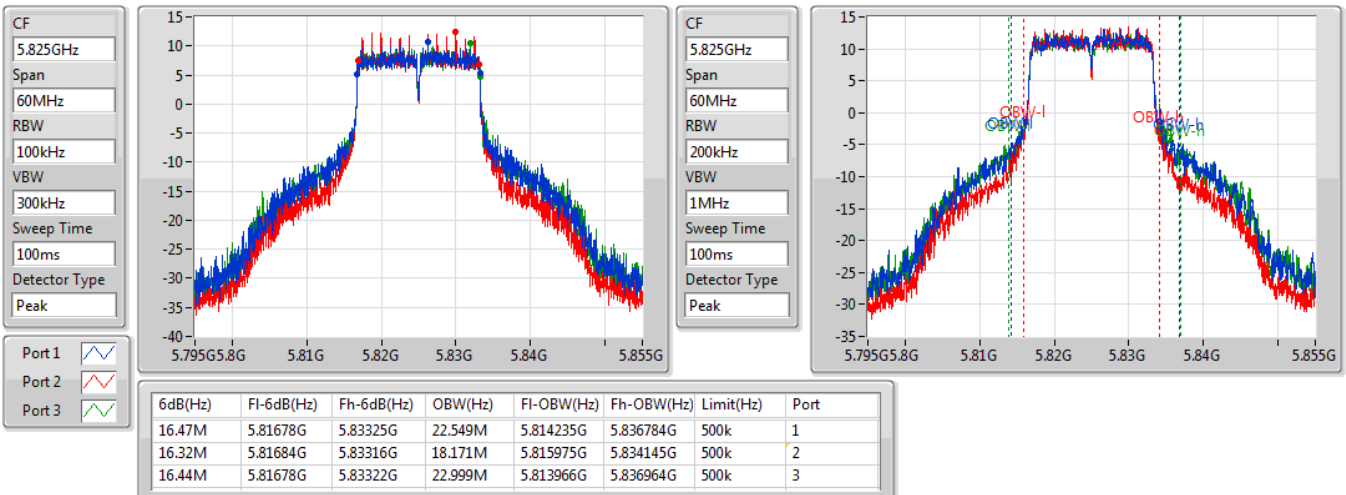
06/11/2020



802.11a_Nss1,(6Mbps)_3TX

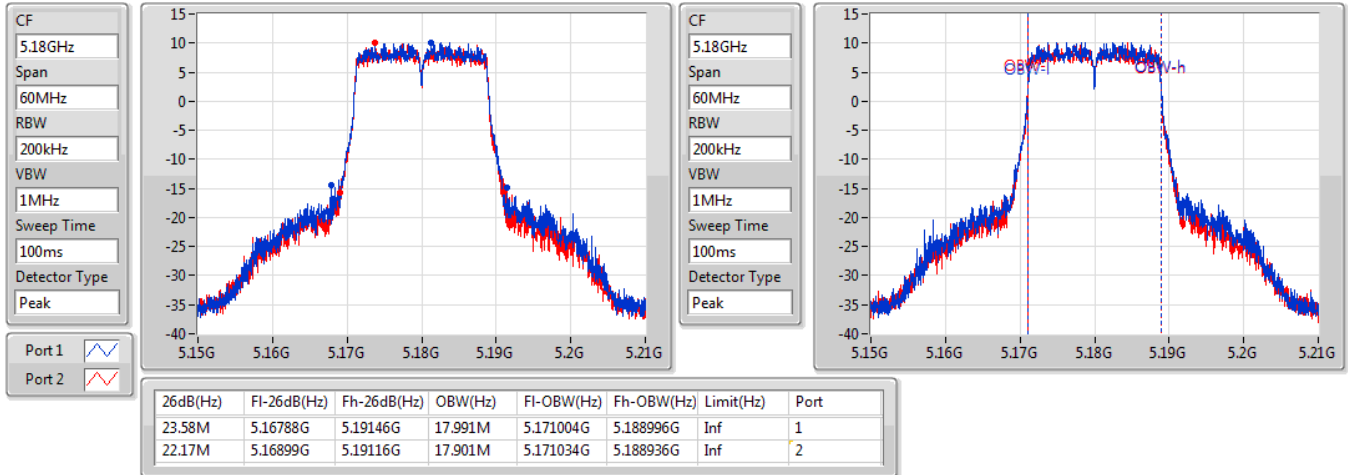
EBW
5825MHz

06/11/2020

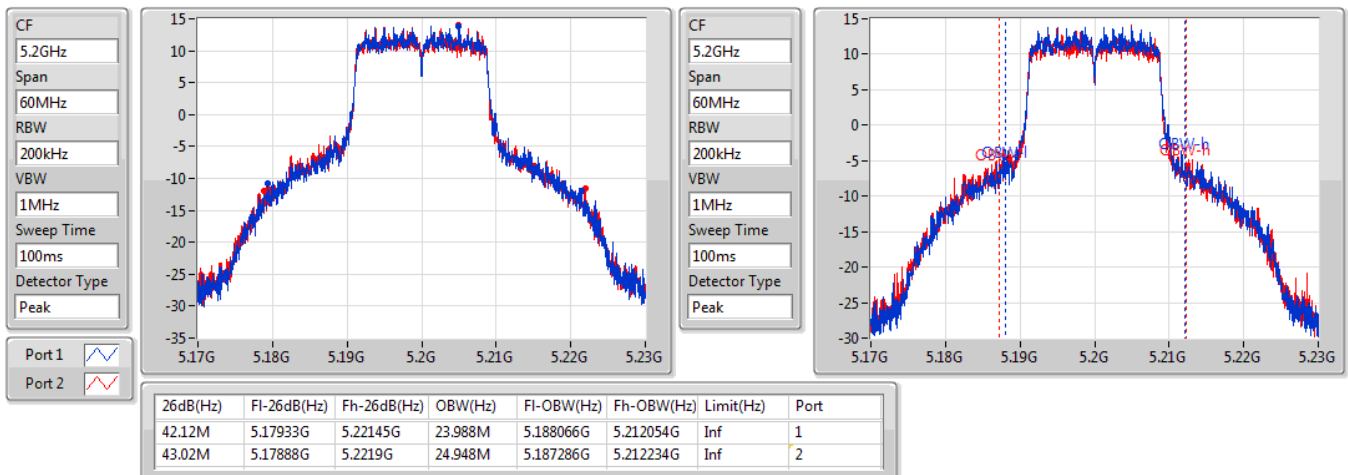


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5180MHz

06/11/2020


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5200MHz

06/11/2020

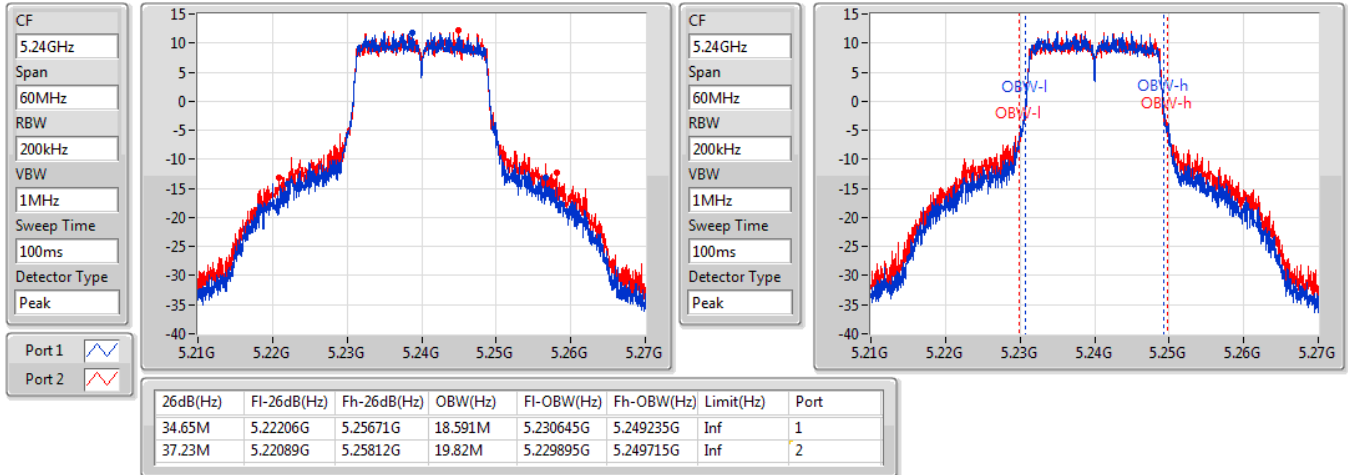


802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

5240MHz

06/11/2020

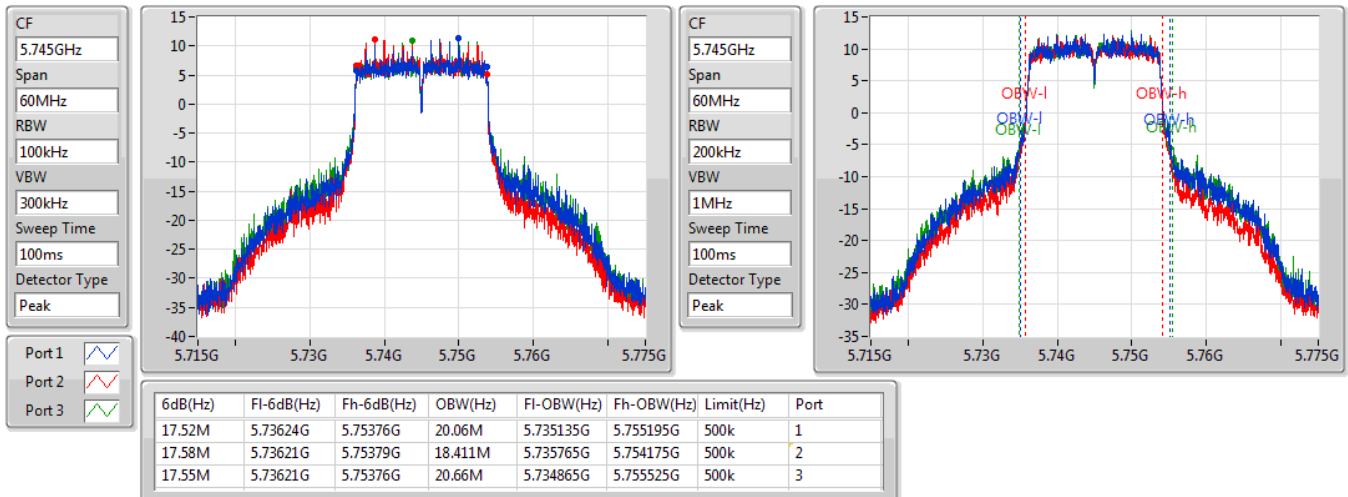


802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

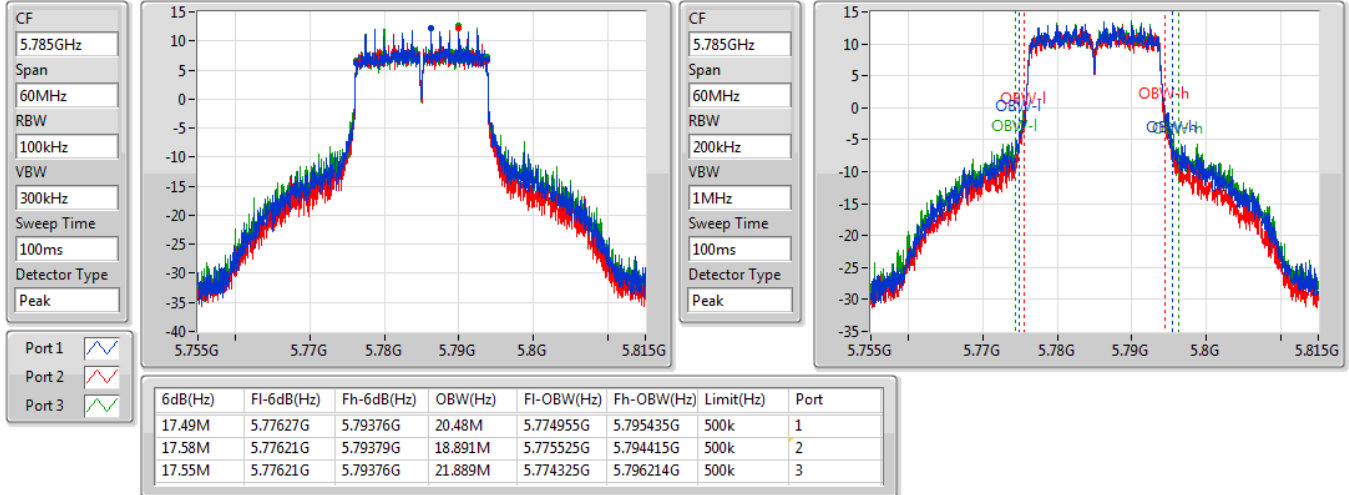
5745MHz

06/11/2020

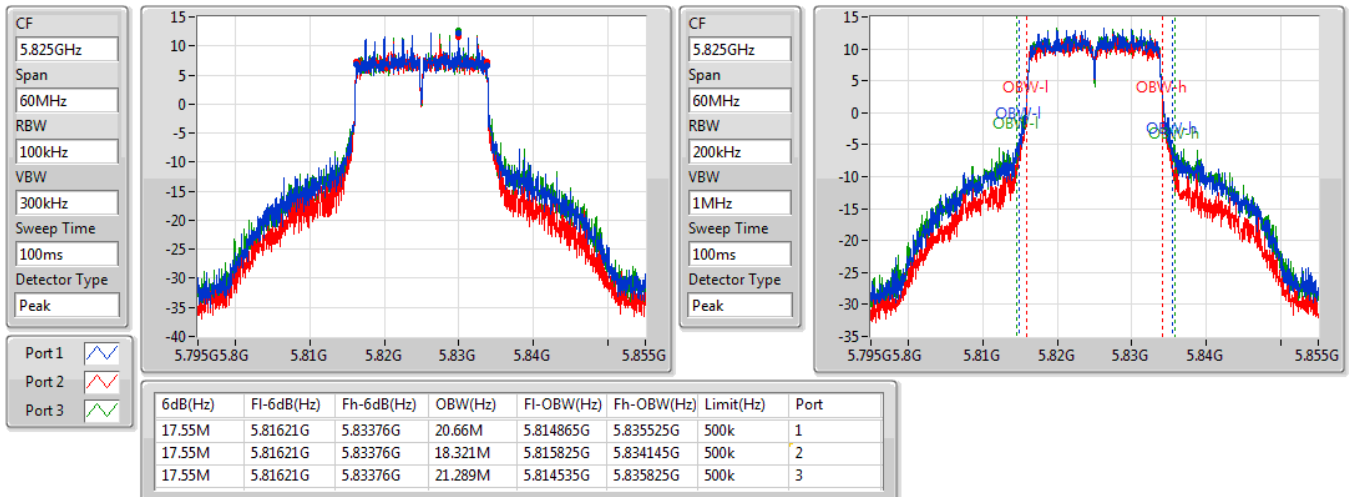


802.11ac VHT20_Nss1,(MCS0)_3TX
EBW
5785MHz

06/11/2020


802.11ac VHT20_Nss1,(MCS0)_3TX
EBW
5825MHz

06/11/2020

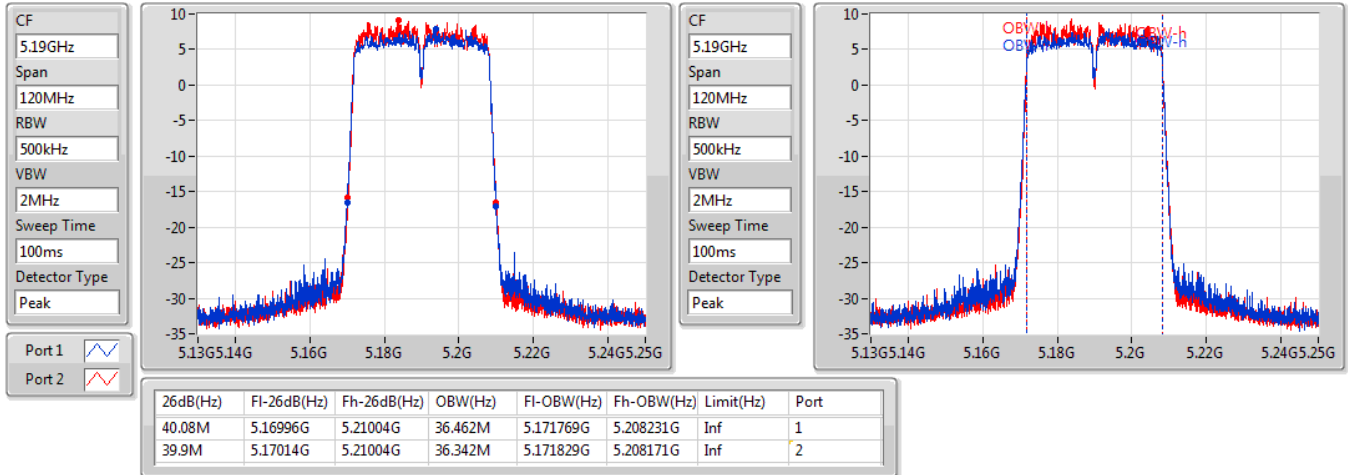


802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

5190MHz

06/11/2020

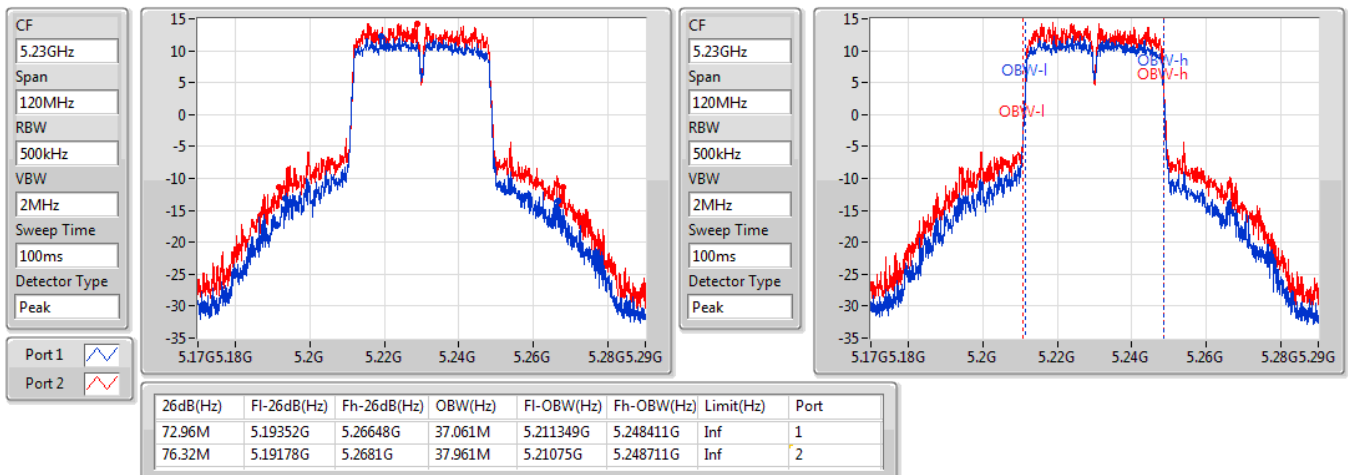


802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

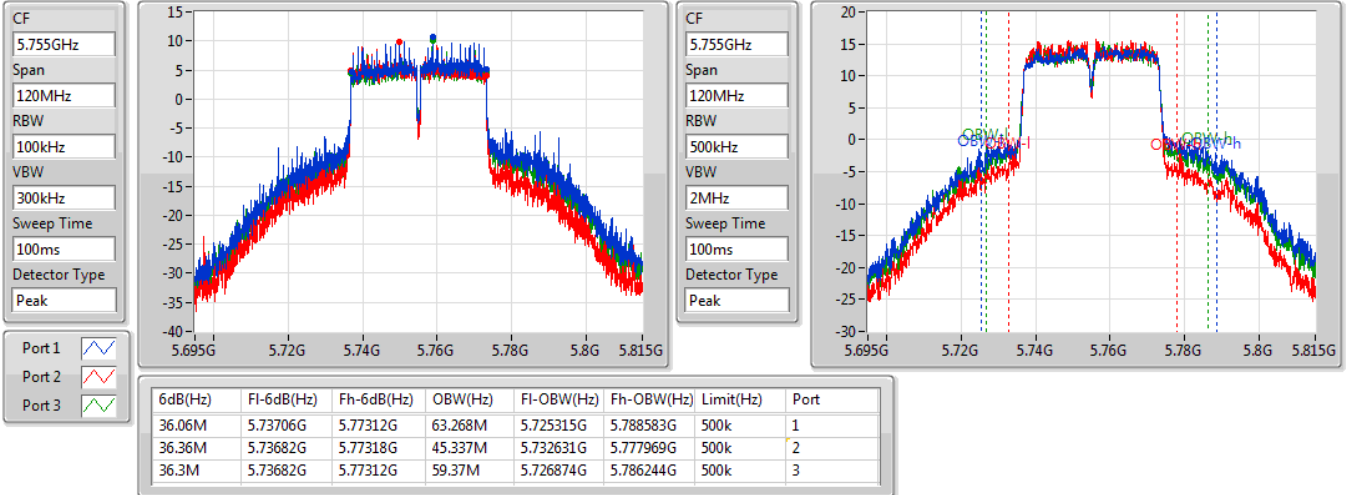
5230MHz

06/11/2020

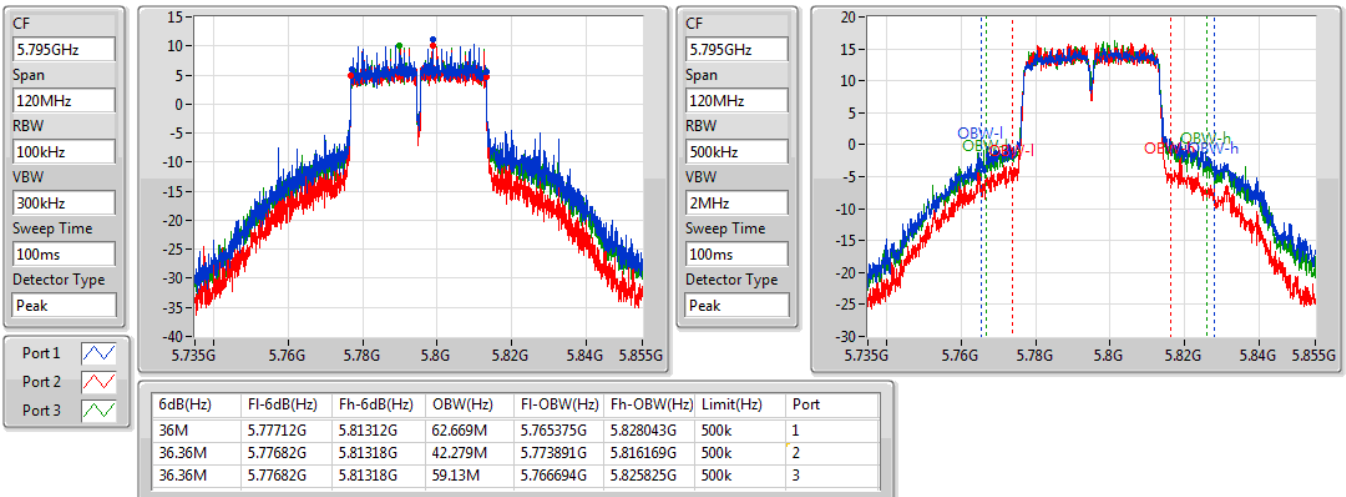


802.11ac VHT40_Nss1,(MCS0)_3TX
EBW
5755MHz

06/11/2020

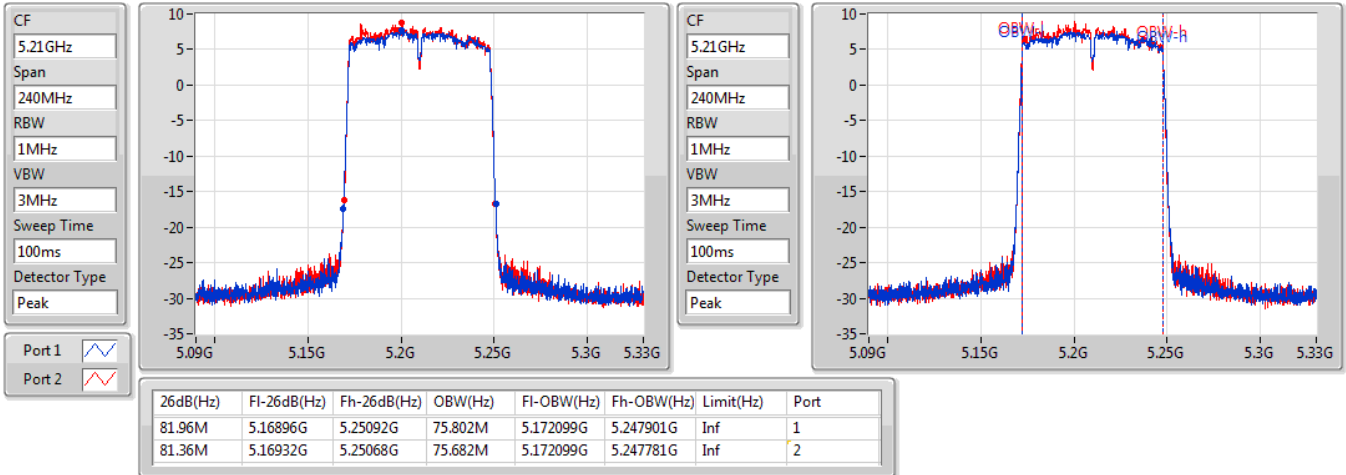

802.11ac VHT40_Nss1,(MCS0)_3TX
EBW
5795MHz

06/11/2020

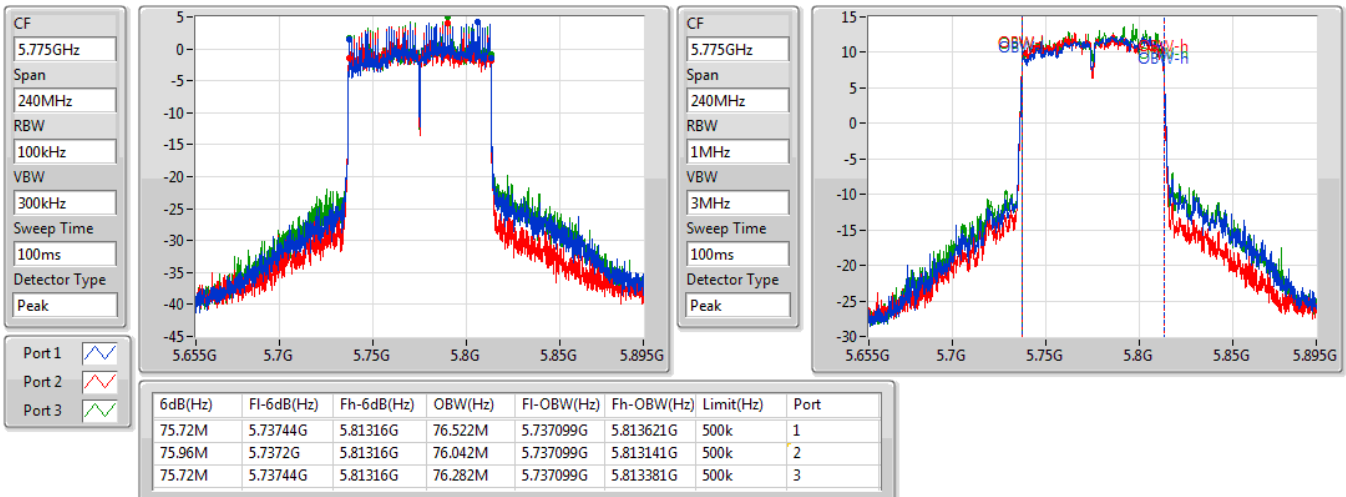


802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5210MHz

06/11/2020

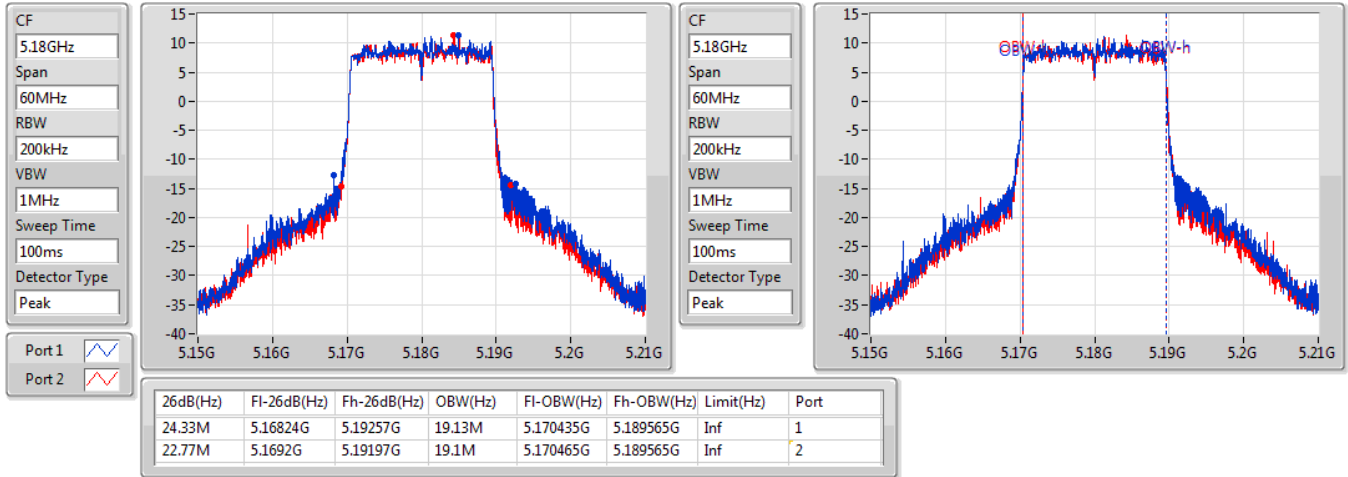

802.11ac VHT80_Nss1,(MCS0)_3TX
EBW
5775MHz

06/11/2020

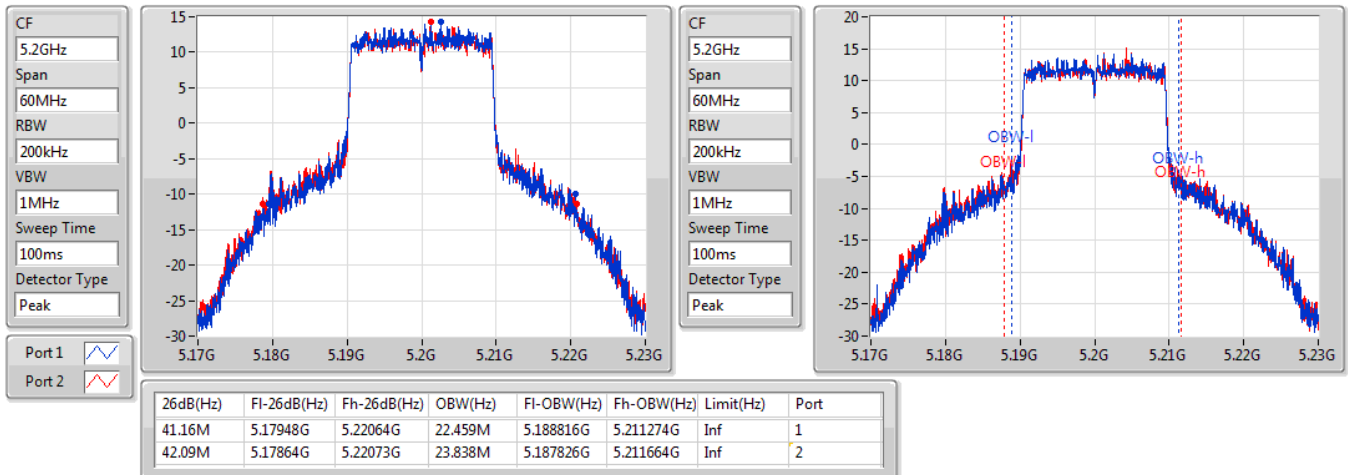


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5180MHz

06/11/2020


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5200MHz

06/11/2020

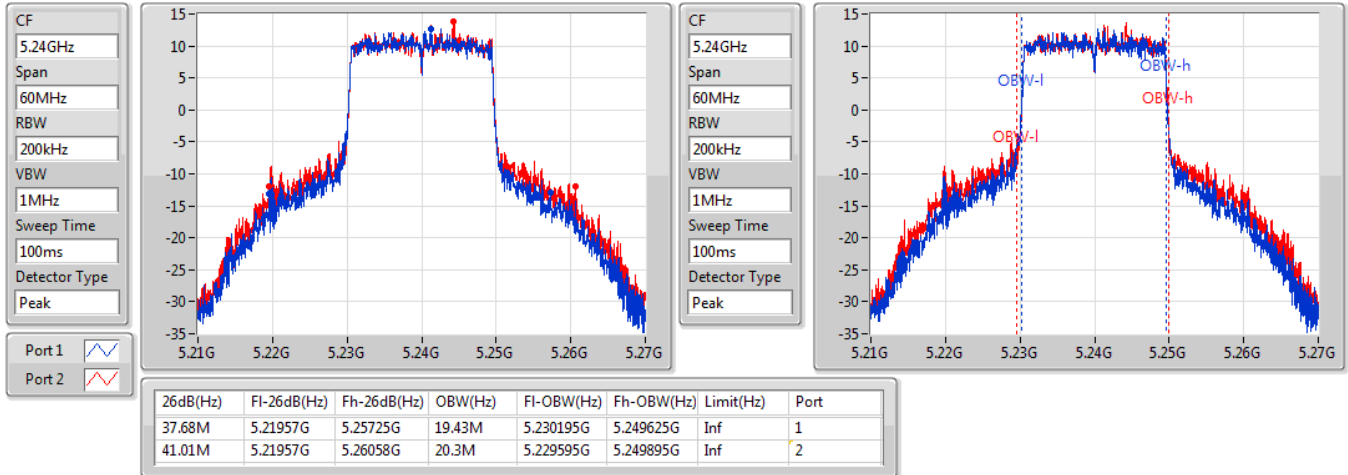


802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

5240MHz

06/11/2020

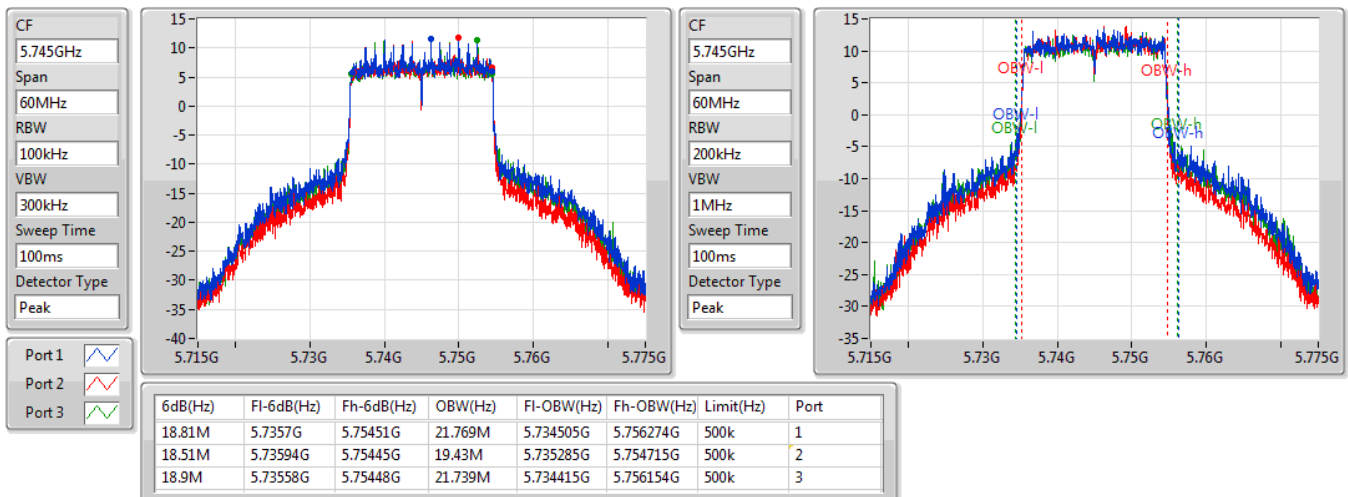


802.11ax HEW20_Nss1,(MCS0)_3TX

EBW

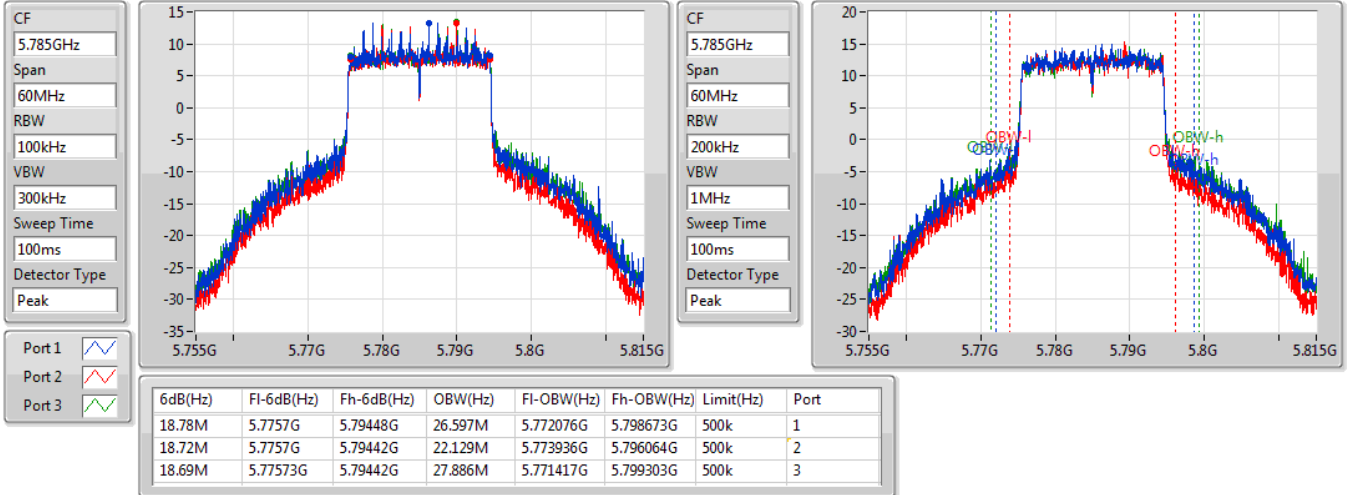
5745MHz

06/11/2020

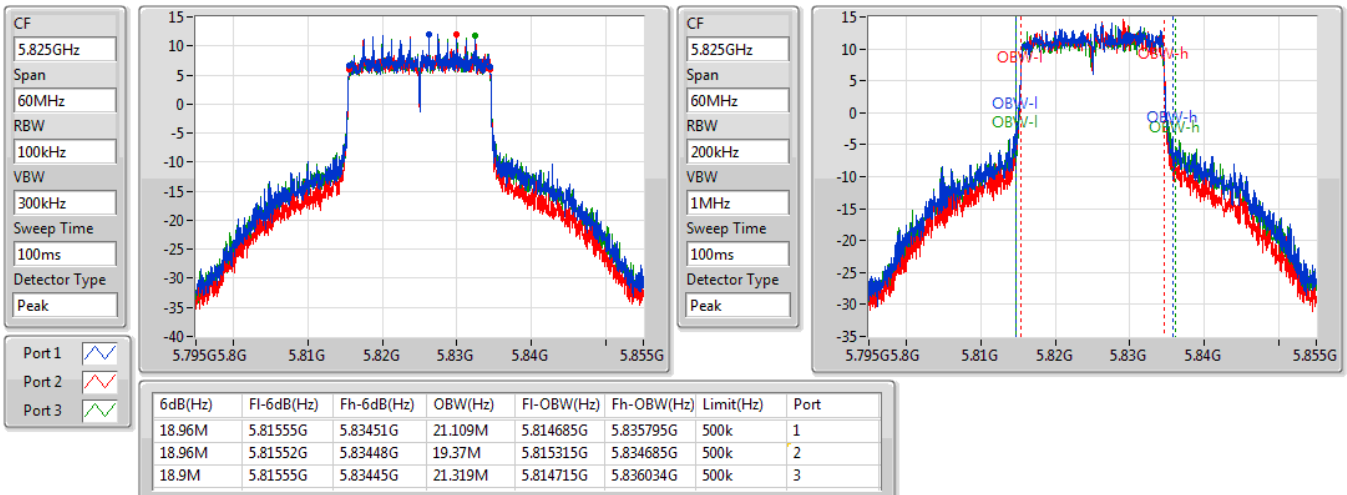


802.11ax HEW20_Nss1,(MCS0)_3TX
EBW
5785MHz

06/11/2020

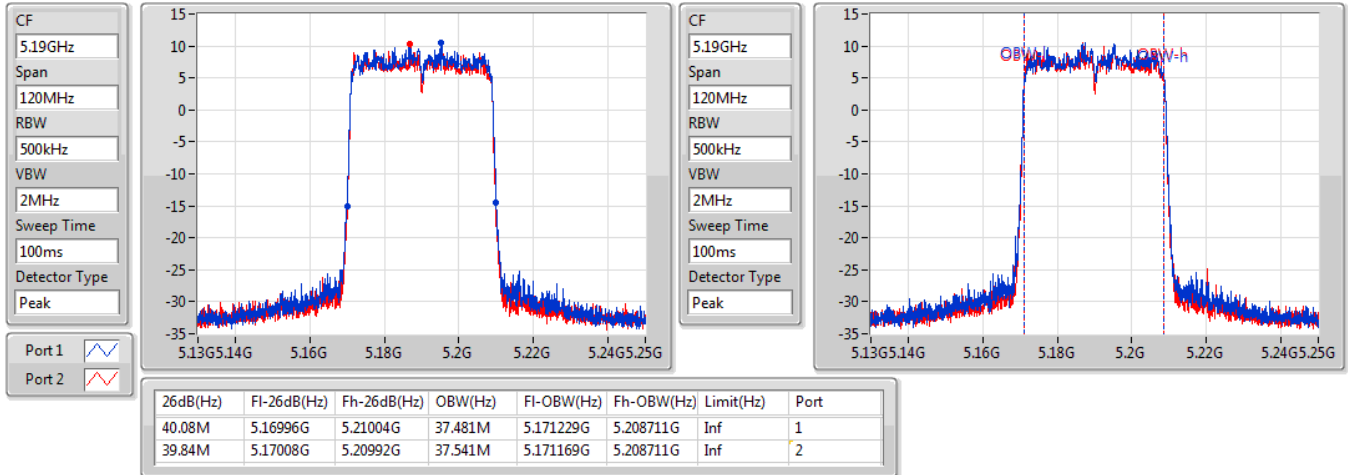

802.11ax HEW20_Nss1,(MCS0)_3TX
EBW
5825MHz

06/11/2020

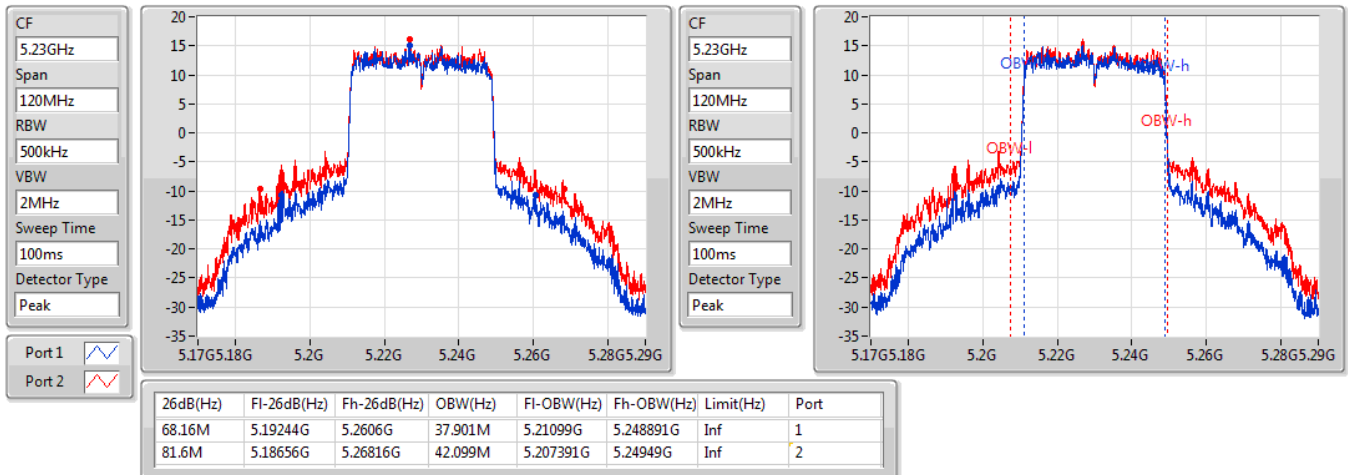


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5190MHz

06/11/2020


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5230MHz

06/11/2020

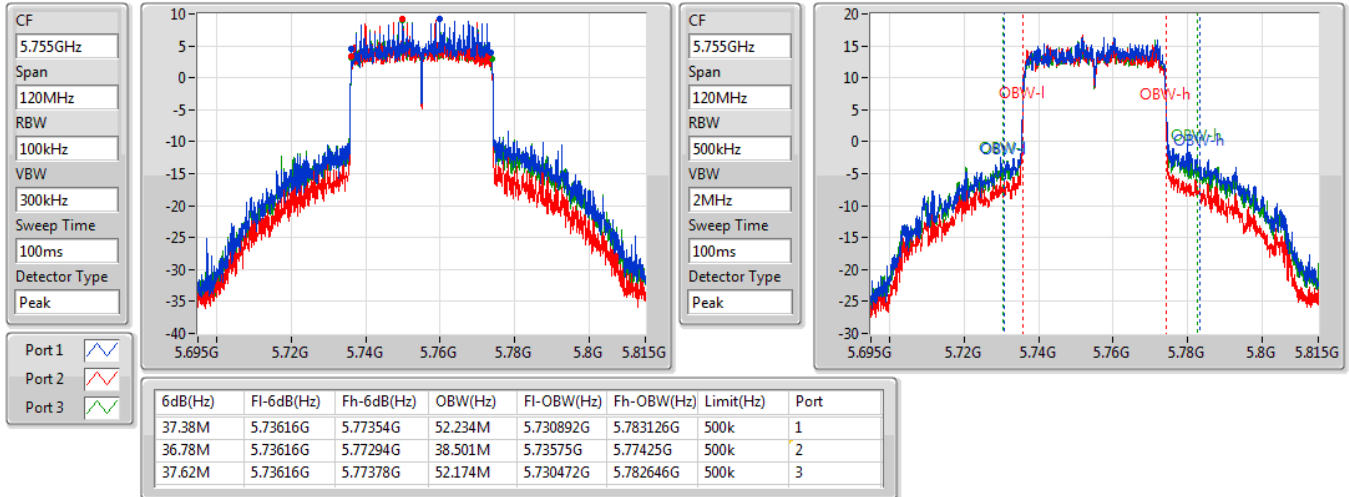


802.11ax HEW40_Nss1,(MCS0)_3TX

EBW

5755MHz

06/11/2020

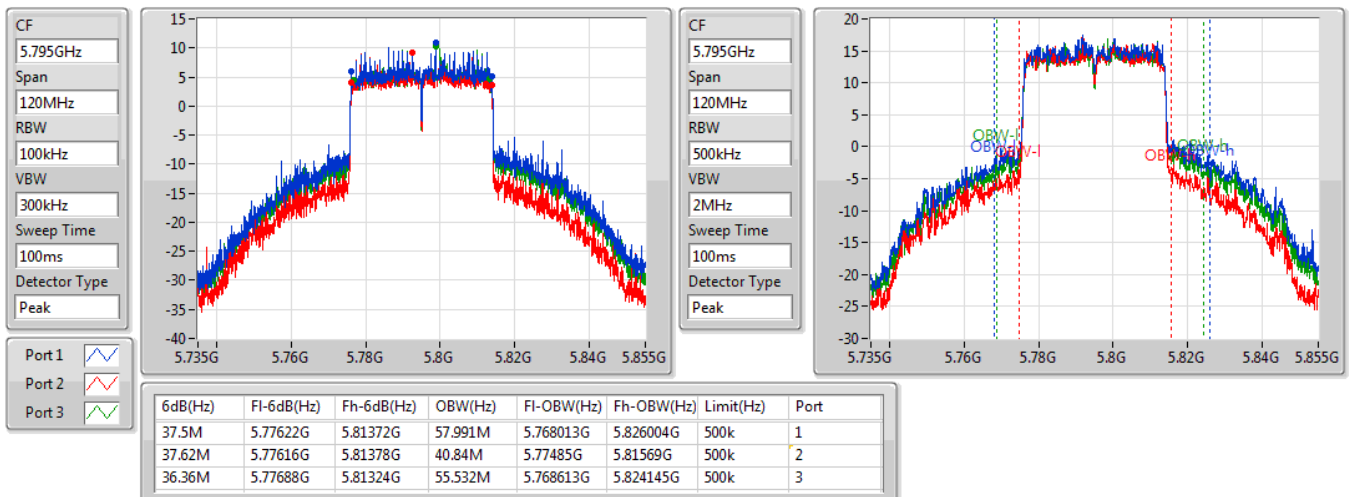


802.11ax HEW40_Nss1,(MCS0)_3TX

EBW

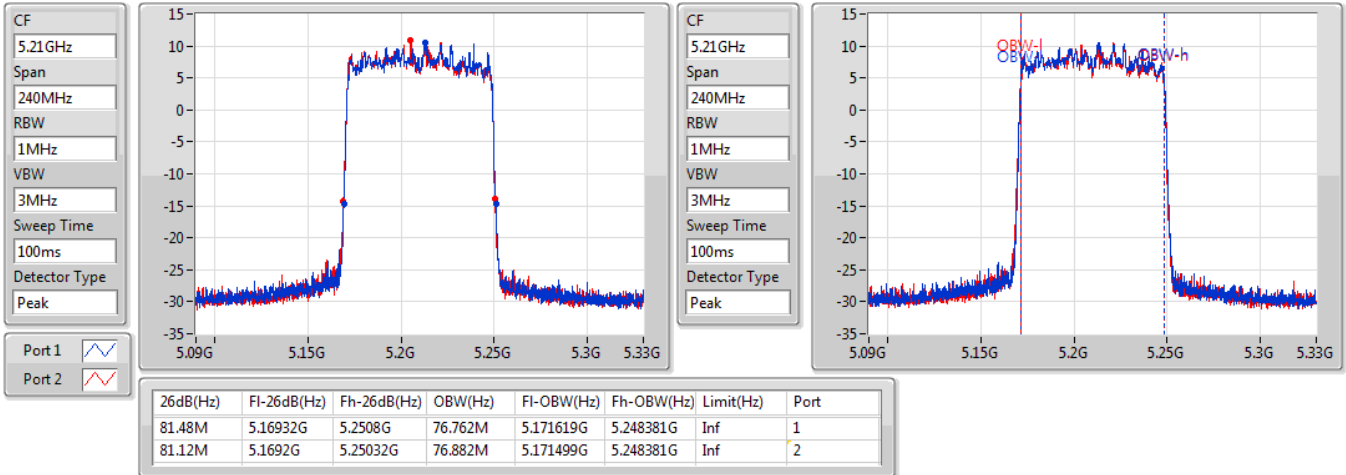
5795MHz

06/11/2020

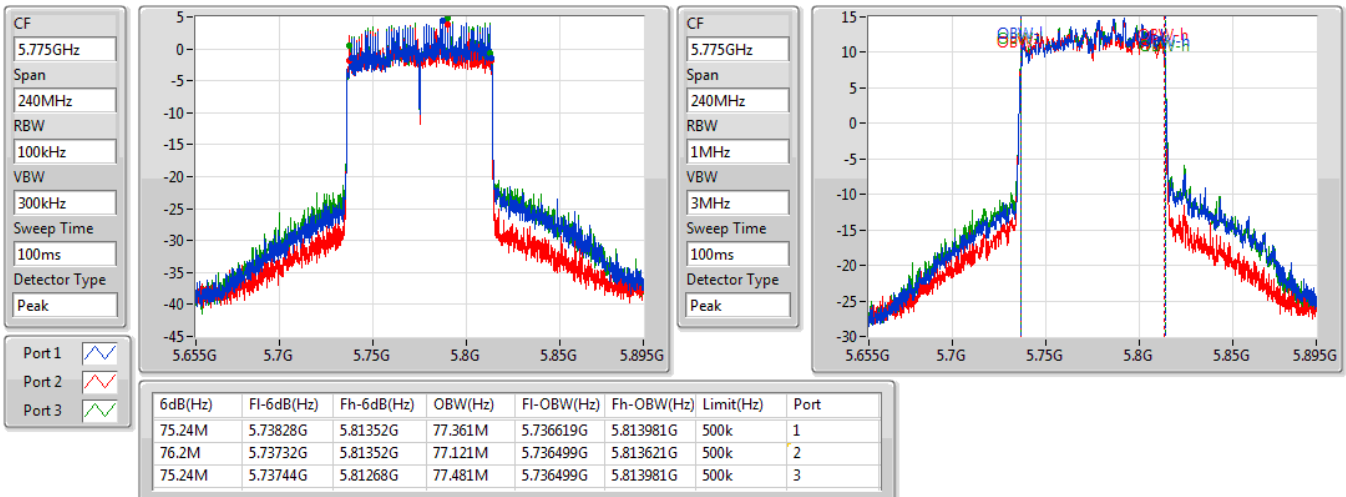


802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
5210MHz

06/11/2020


802.11ax HEW80_Nss1,(MCS0)_3TX
EBW
5775MHz

06/11/2020



**Mode 2, Beamforming mode: 5GHz Band 1 2T1S and Band 4 3T1S CDD
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	45.81M	30.075M	30M1D1D	28.44M	18.081M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	77.34M	40.3M	40M3D1D	39.9M	36.342M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	81.84M	75.802M	75M8D1D	81.36M	75.682M
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	44.01M	26.267M	26M3D1D	23.34M	19.1M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	81.6M	41.499M	41M5D1D	39.96M	37.481M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	81.6M	76.762M	76M8D1D	81.48M	76.762M
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	17.58M	21.709M	21M7D1D	17.55M	18.171M
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	36.36M	65.127M	65M1D1D	36.06M	45.697M
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	76.32M	76.762M	76M8D1D	75.72M	76.162M
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	18.99M	32.354M	32M4D1D	18.48M	24.768M
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	37.62M	60.45M	60M4D1D	35.94M	39.1M
802.11ax HEW80-BF_Nss1,(MCS0)_3TX	77.28M	77.601M	77M6D1D	76.08M	77.121M

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

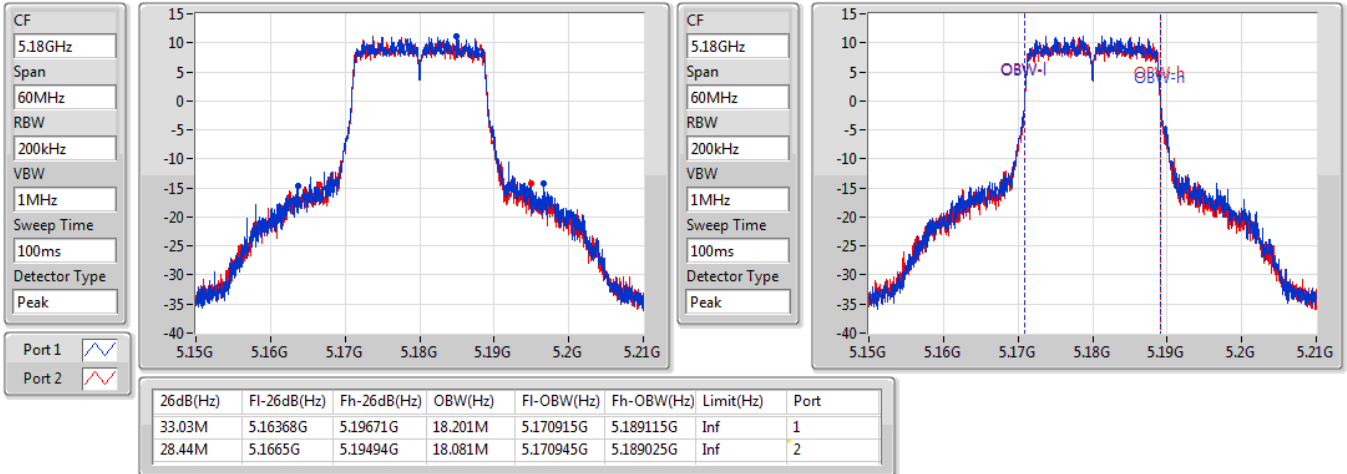
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	33.03M	18.201M	28.44M	18.081M		
5200MHz	Pass	Inf	44.43M	27.076M	45.81M	30.075M		
5240MHz	Pass	Inf	34.71M	18.591M	37.5M	19.85M		
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5745MHz	Pass	500k	17.55M	20.93M	17.58M	18.561M	17.58M	20.9M
5785MHz	Pass	500k	17.55M	20.42M	17.58M	18.981M	17.55M	21.709M
5825MHz	Pass	500k	17.58M	19.37M	17.58M	18.171M	17.55M	19.22M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.2M	36.462M	39.9M	36.342M		
5230MHz	Pass	Inf	73.08M	37.181M	77.34M	40.3M		
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5755MHz	Pass	500k	36.06M	63.868M	36.3M	45.697M	36.3M	59.43M
5795MHz	Pass	500k	36.24M	65.127M	36.36M	47.556M	36.3M	61.109M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.84M	75.802M	81.36M	75.682M		
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	75.72M	76.762M	76.32M	76.162M	75.72M	76.642M
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	25.56M	19.1M	23.34M	19.1M		
5200MHz	Pass	Inf	44.01M	25.187M	43.95M	26.267M		
5240MHz	Pass	Inf	37.71M	19.43M	41.13M	20.36M		
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5745MHz	Pass	500k	18.6M	32.024M	18.75M	27.046M	18.48M	31.934M
5785MHz	Pass	500k	18.93M	31.004M	18.69M	26.897M	18.6M	32.354M
5825MHz	Pass	500k	18.99M	31.154M	18.75M	24.768M	18.54M	30.705M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.2M	37.481M	39.96M	37.541M		
5230MHz	Pass	Inf	61.14M	37.901M	81.6M	41.499M		
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5755MHz	Pass	500k	37.62M	55.172M	36.78M	39.1M	37.5M	52.774M
5795MHz	Pass	500k	35.94M	60.45M	36.96M	42.699M	37.5M	57.571M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.48M	76.762M	81.6M	76.762M		
802.11ax HEW80-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	76.08M	77.361M	77.28M	77.121M	76.32M	77.601M

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

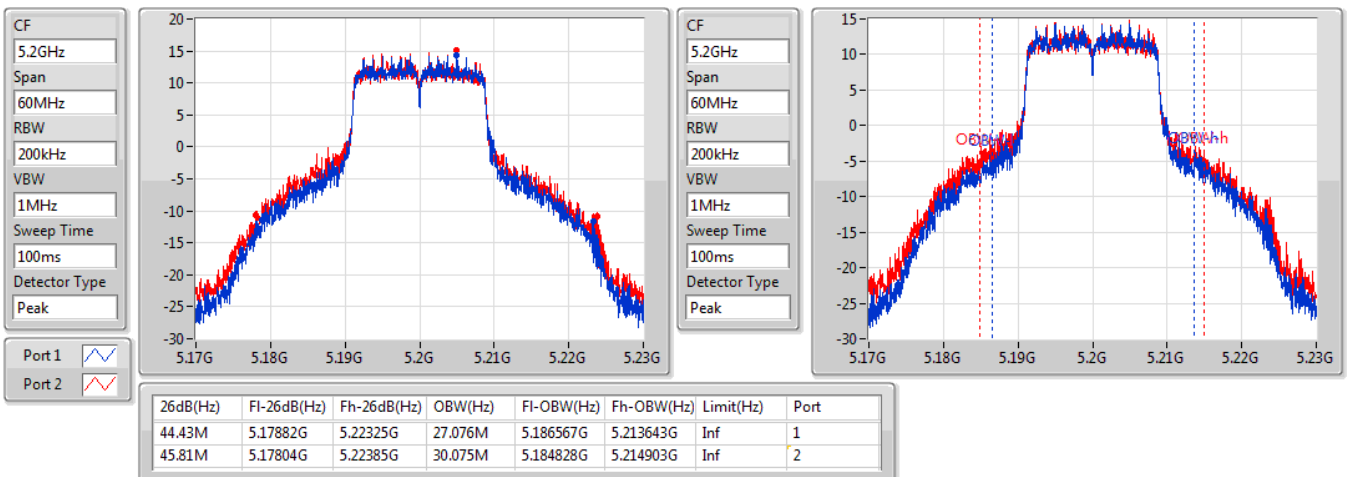
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5180MHz

06/11/2020

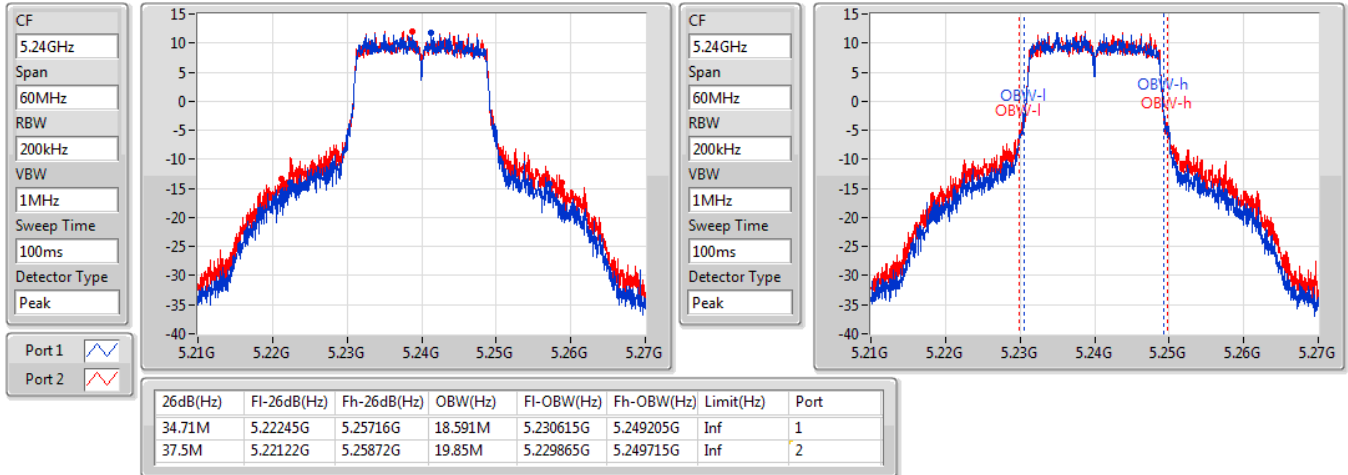

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5200MHz

06/11/2020

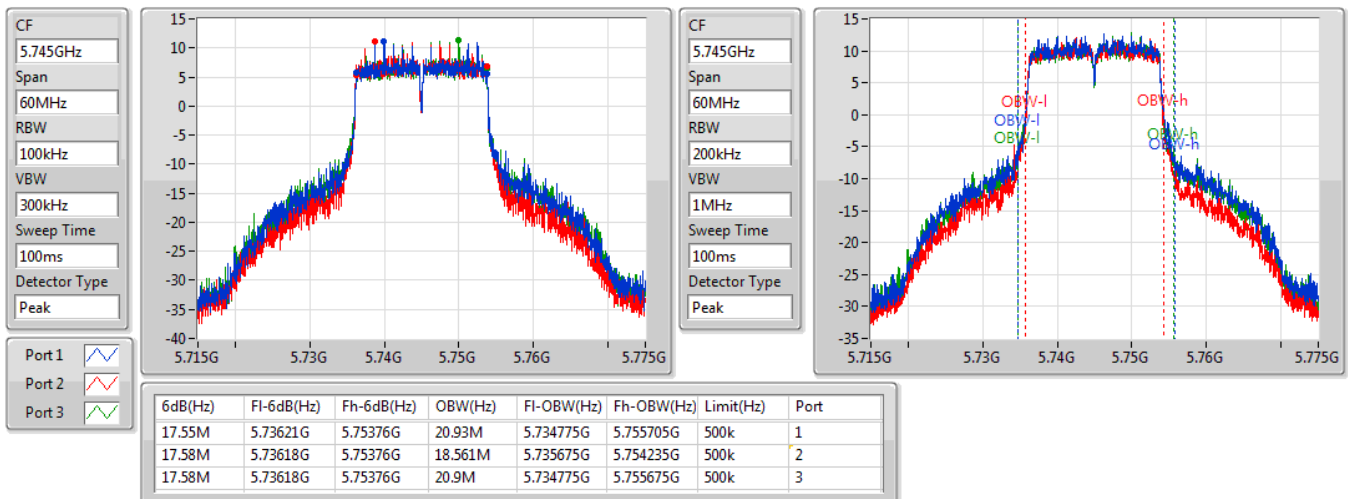


802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5240MHz

06/11/2020

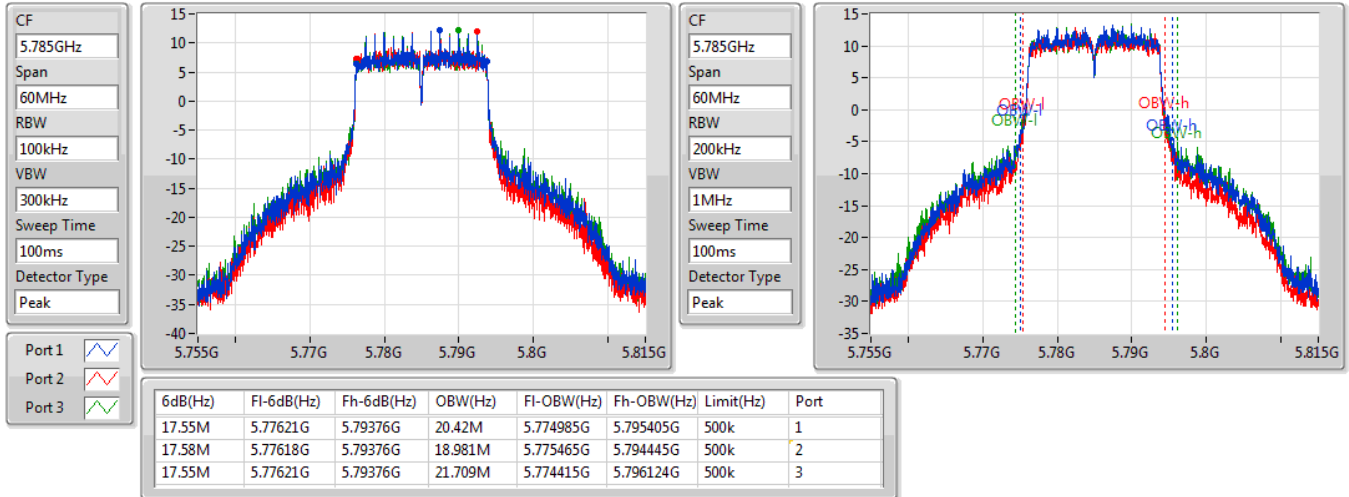

802.11ac VHT20-BF_Nss1,(MCS0)_3TX
EBW
5745MHz

06/11/2020

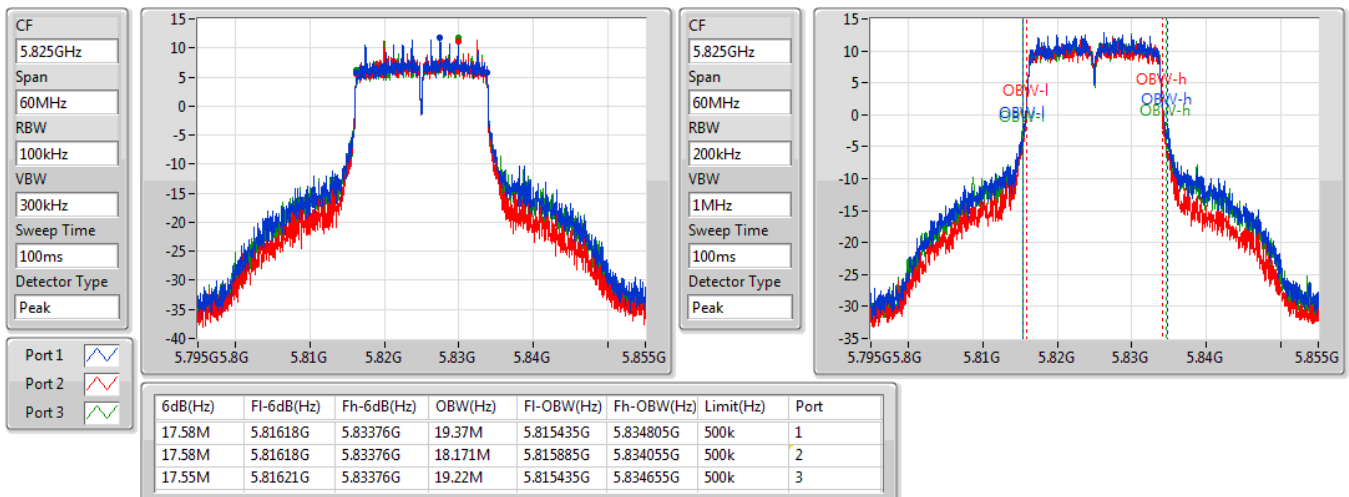


802.11ac VHT20-BF_Nss1,(MCS0)_3TX
EBW
5785MHz

06/11/2020


802.11ac VHT20-BF_Nss1,(MCS0)_3TX
EBW
5825MHz

06/11/2020

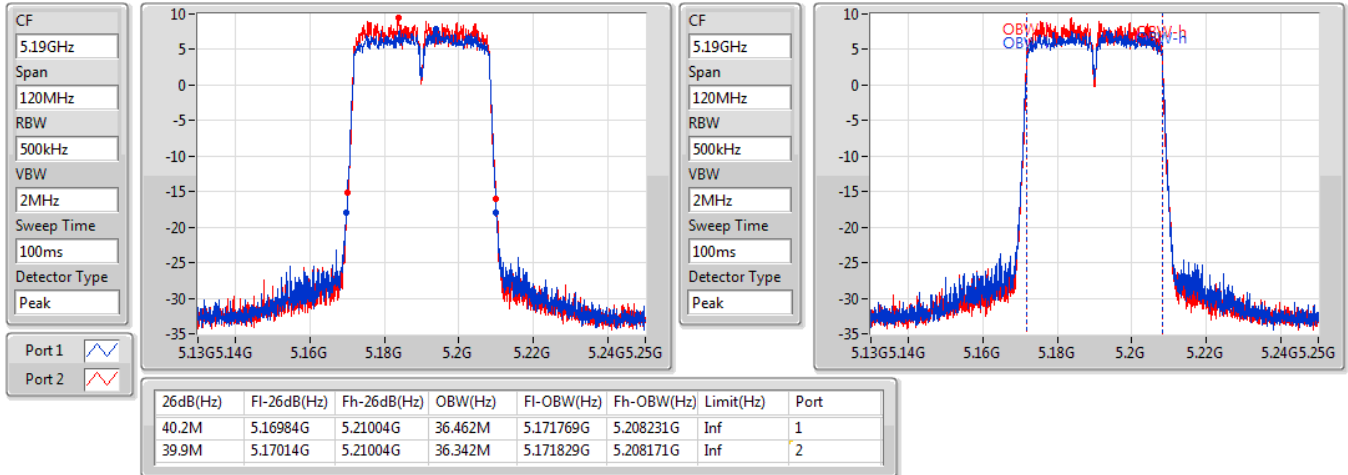


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

5190MHz

06/11/2020

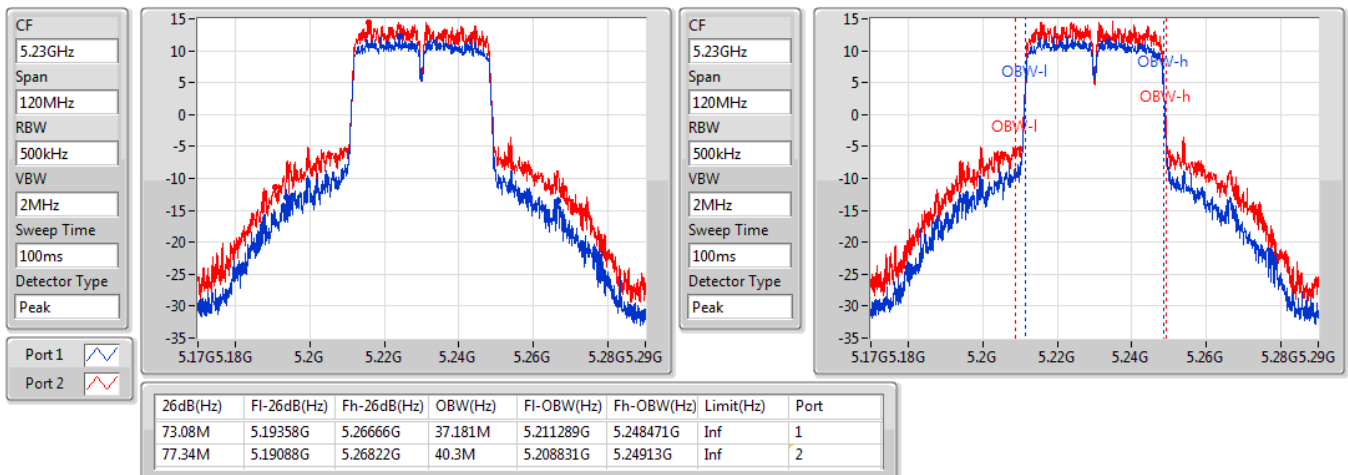


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

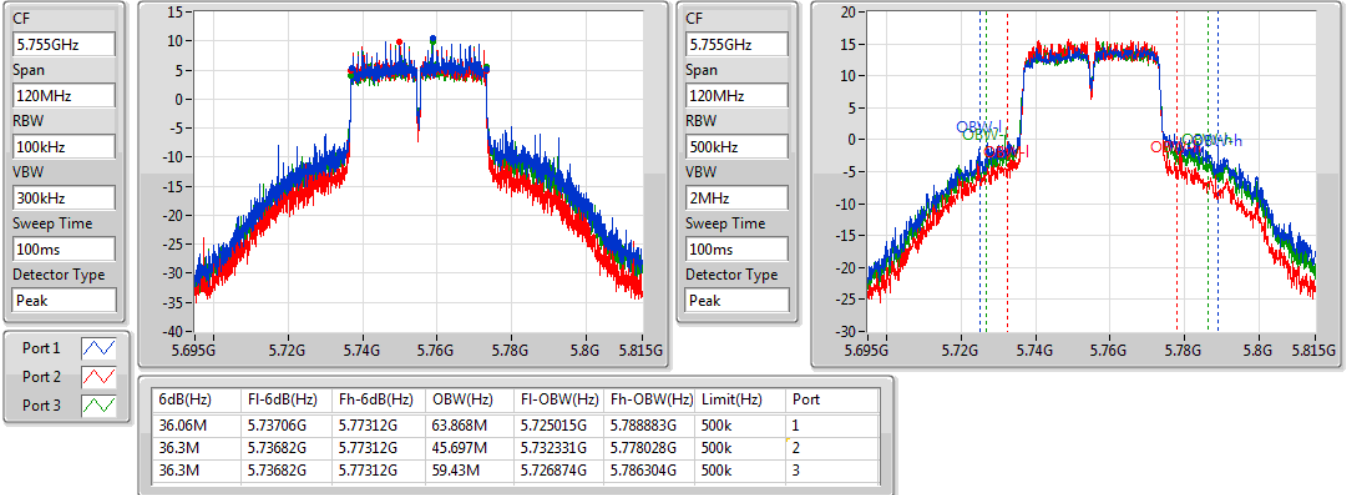
5230MHz

06/11/2020

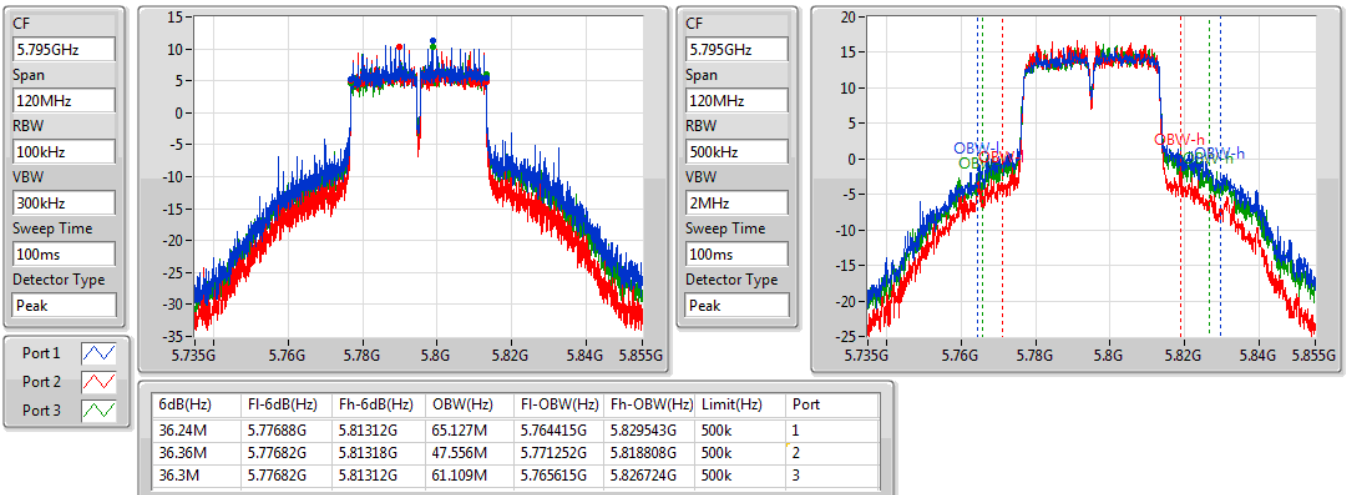


802.11ac VHT40-BF_Nss1,(MCS0)_3TX
EBW
5755MHz

06/11/2020

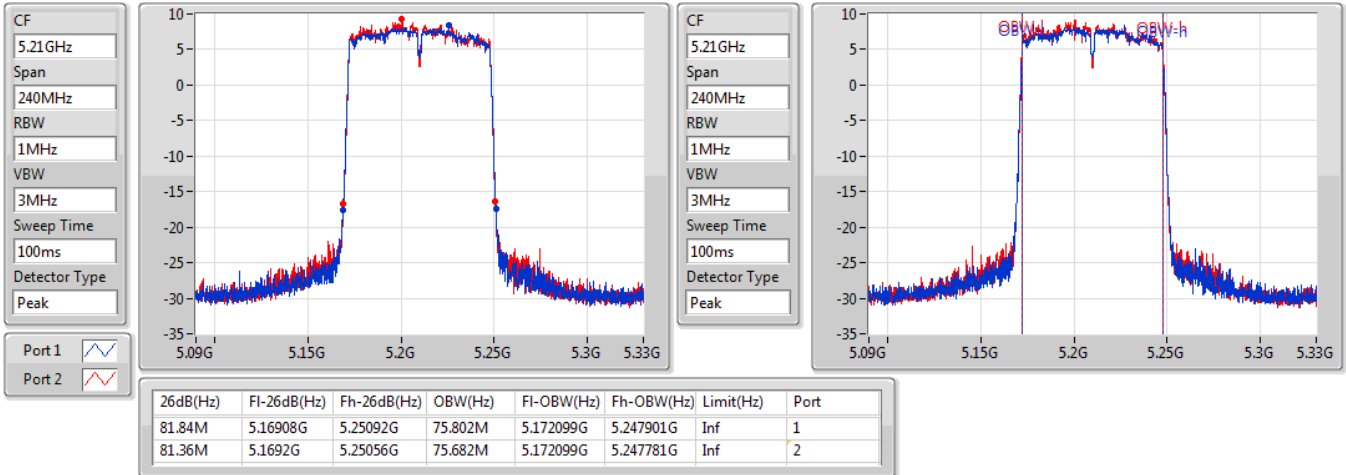

802.11ac VHT40-BF_Nss1,(MCS0)_3TX
EBW
5795MHz

06/11/2020

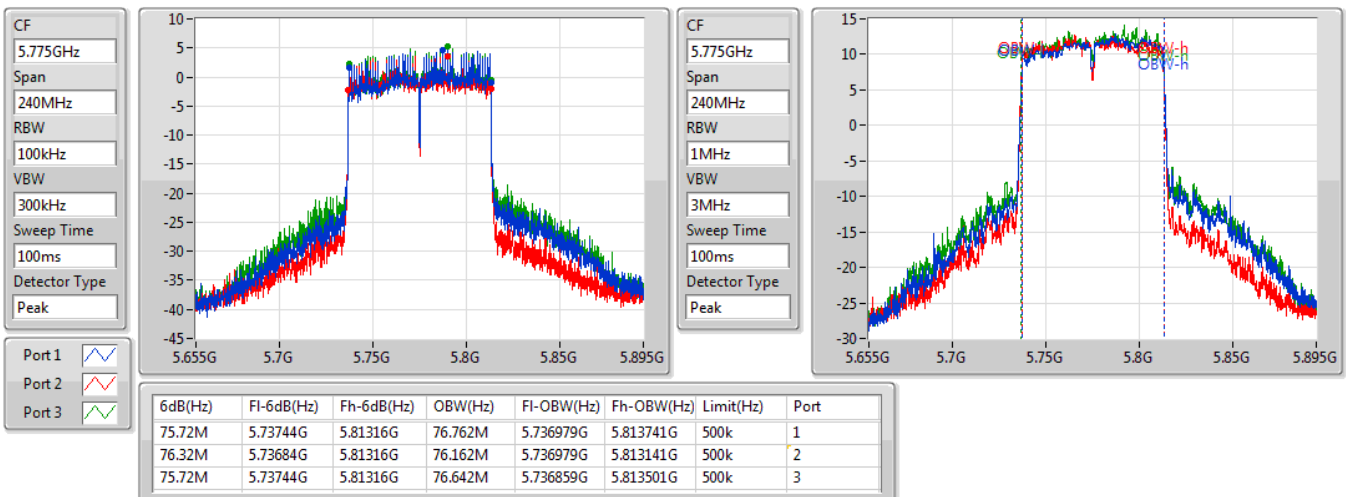


802.11ac VHT80-BF_Nss1,(MCS0)_2TX
EBW
5210MHz

06/11/2020

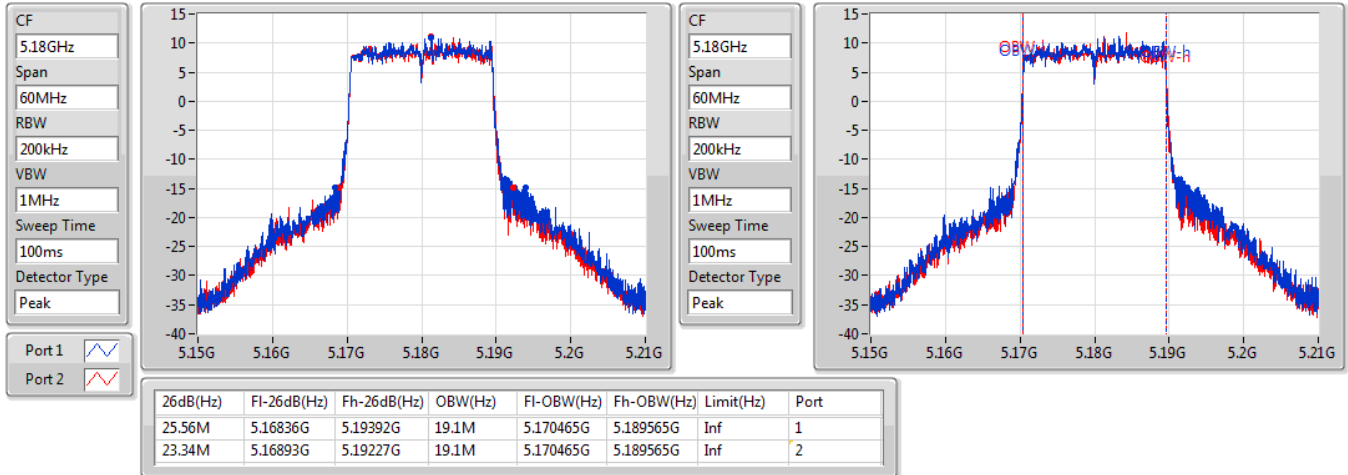

802.11ac VHT80-BF_Nss1,(MCS0)_3TX
EBW
5775MHz

06/11/2020

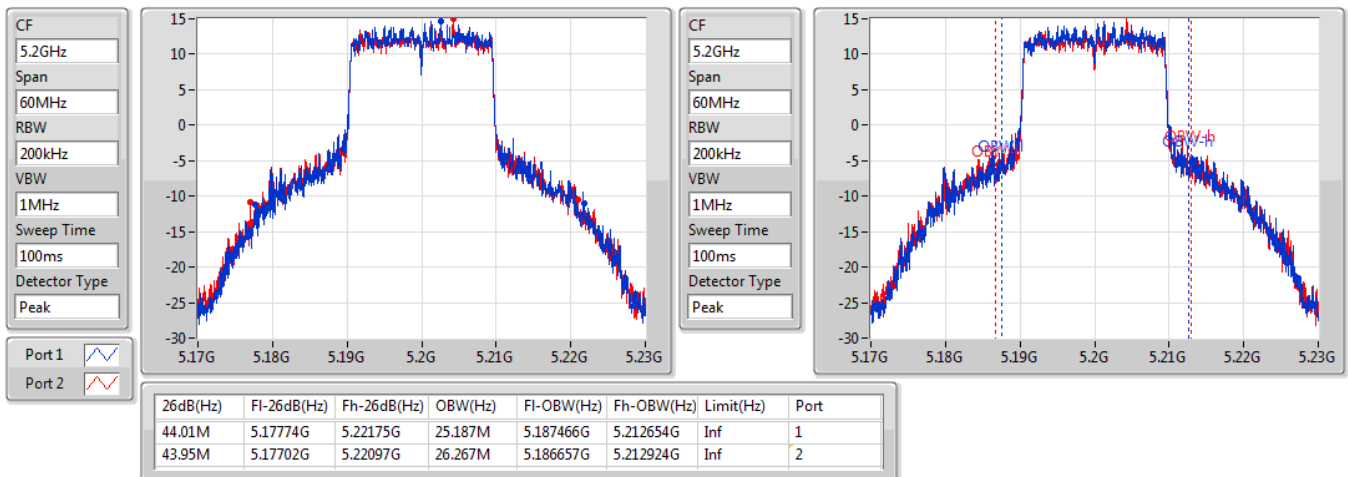


802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5180MHz

06/11/2020


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

06/11/2020

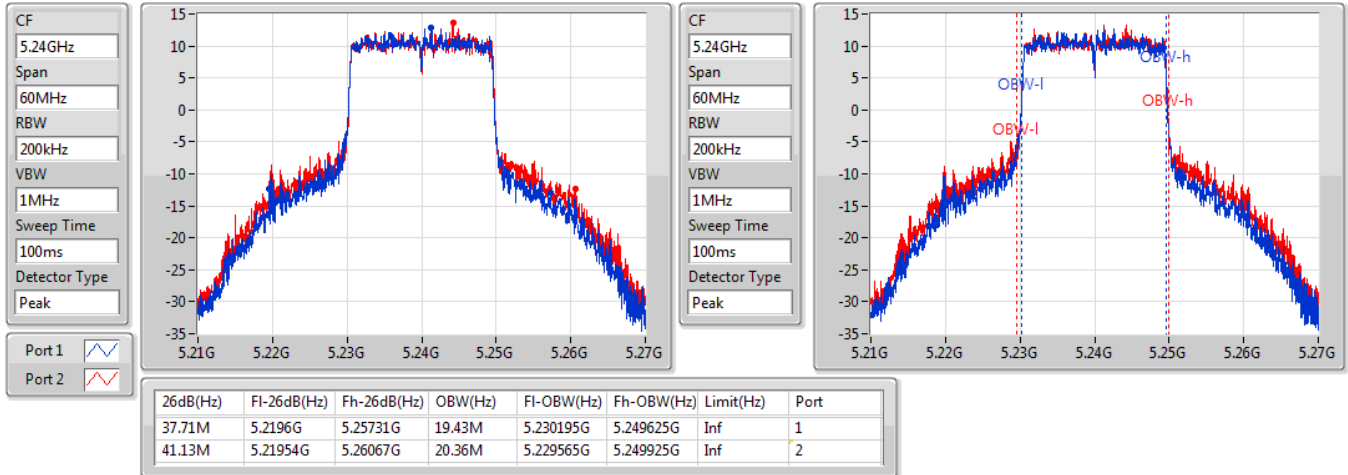


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

5240MHz

06/11/2020

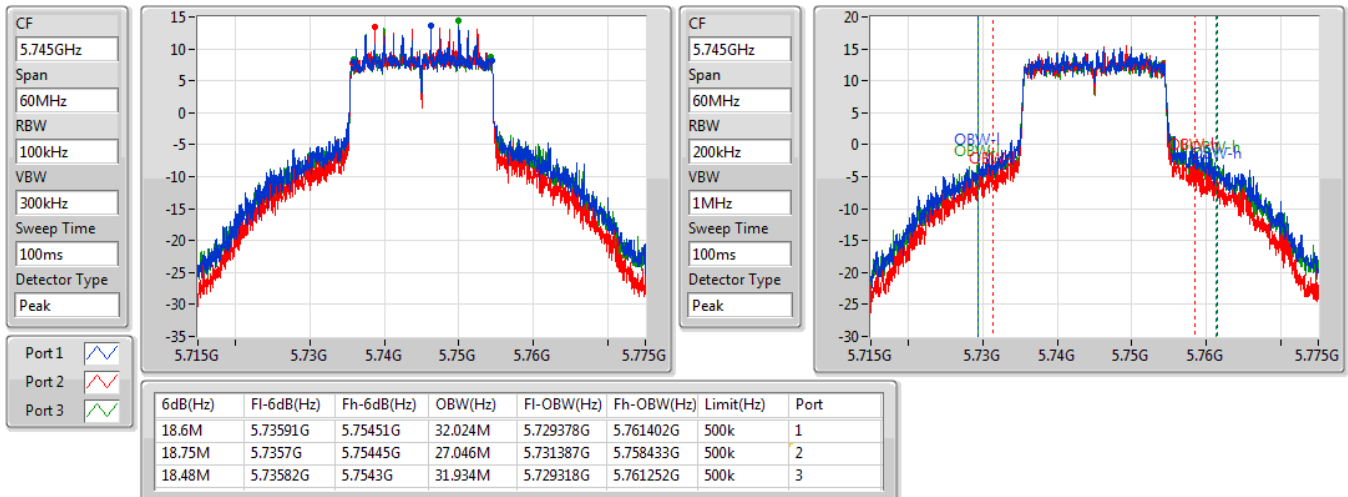


802.11ax HEW20-BF_Nss1,(MCS0)_3TX

EBW

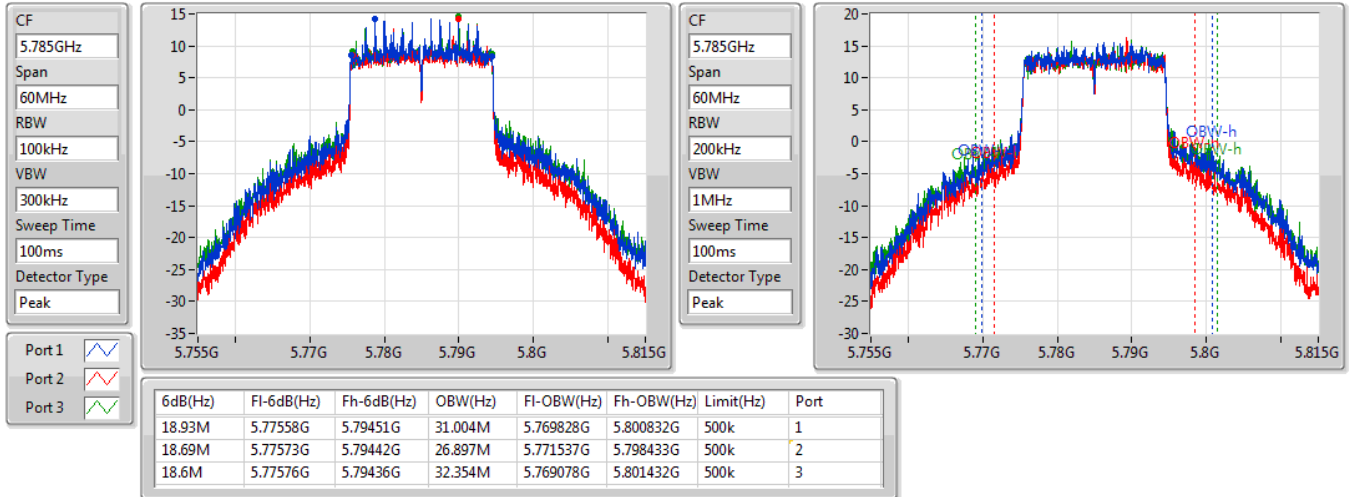
5745MHz

06/11/2020

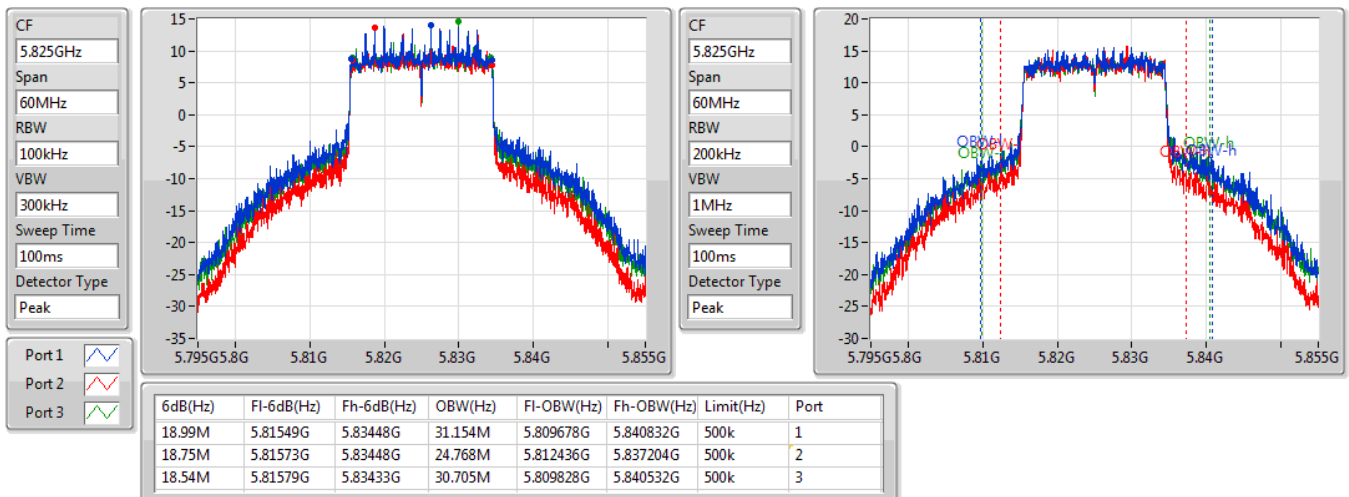


802.11ax HEW20-BF_Nss1,(MCS0)_3TX
EBW
5785MHz

06/11/2020

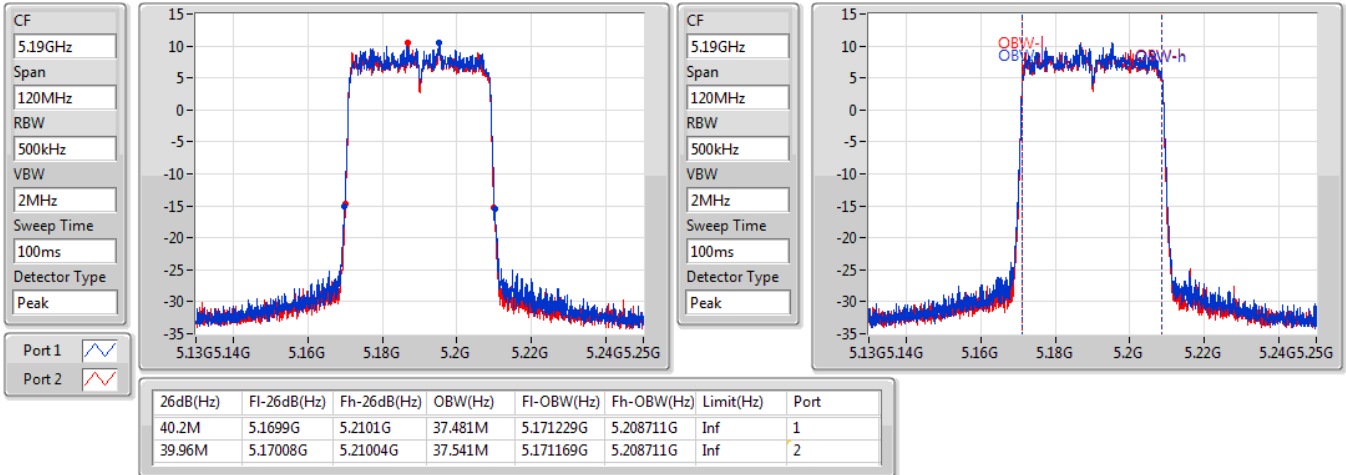

802.11ax HEW20-BF_Nss1,(MCS0)_3TX
EBW
5825MHz

06/11/2020

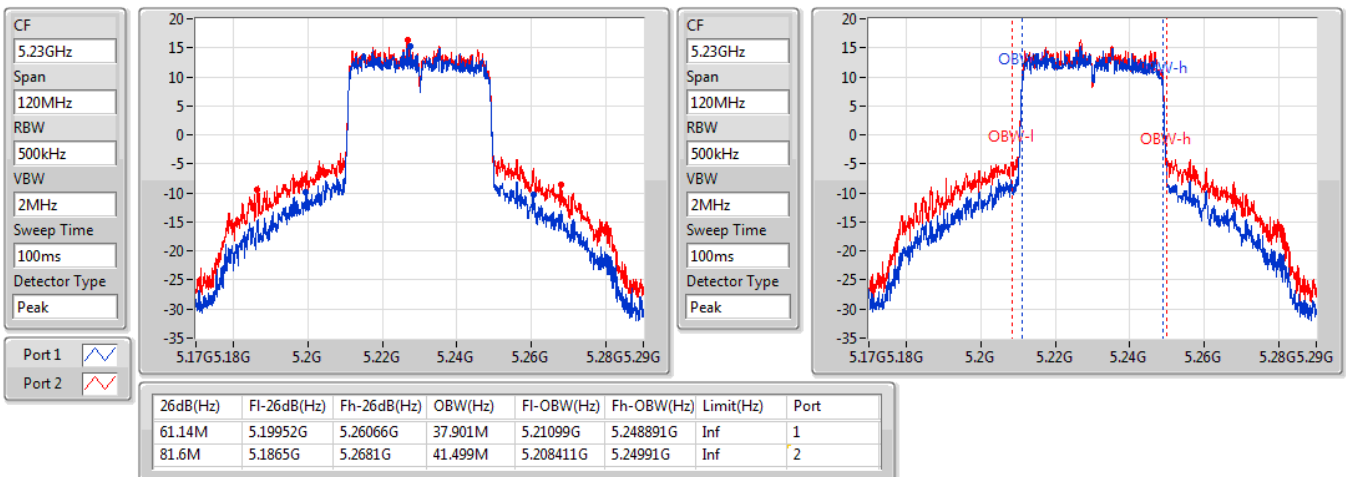


802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
5190MHz

06/11/2020

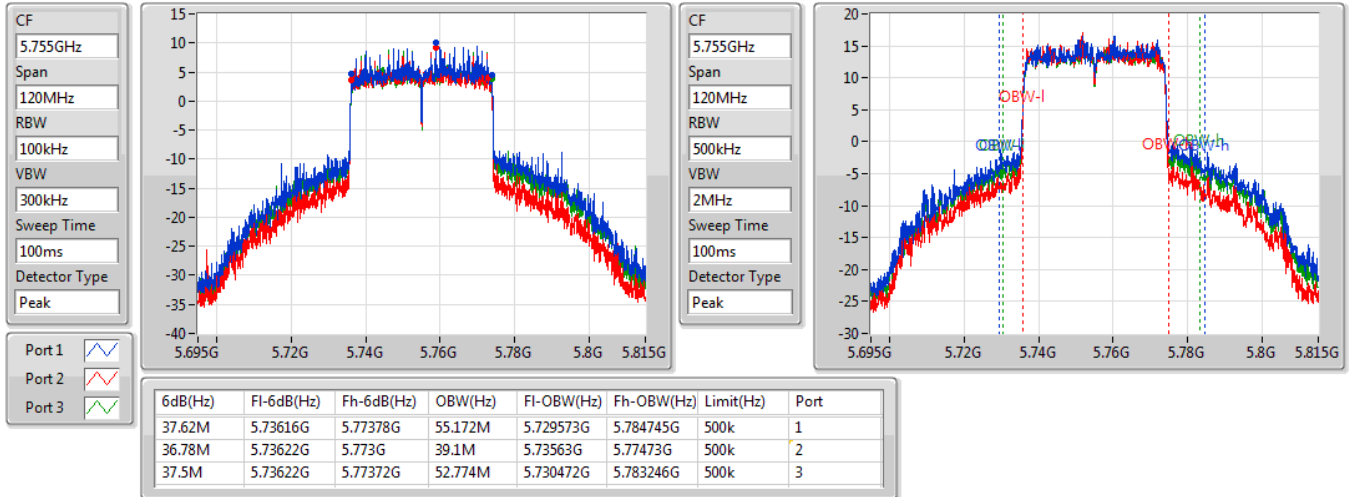

802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
5230MHz

06/11/2020

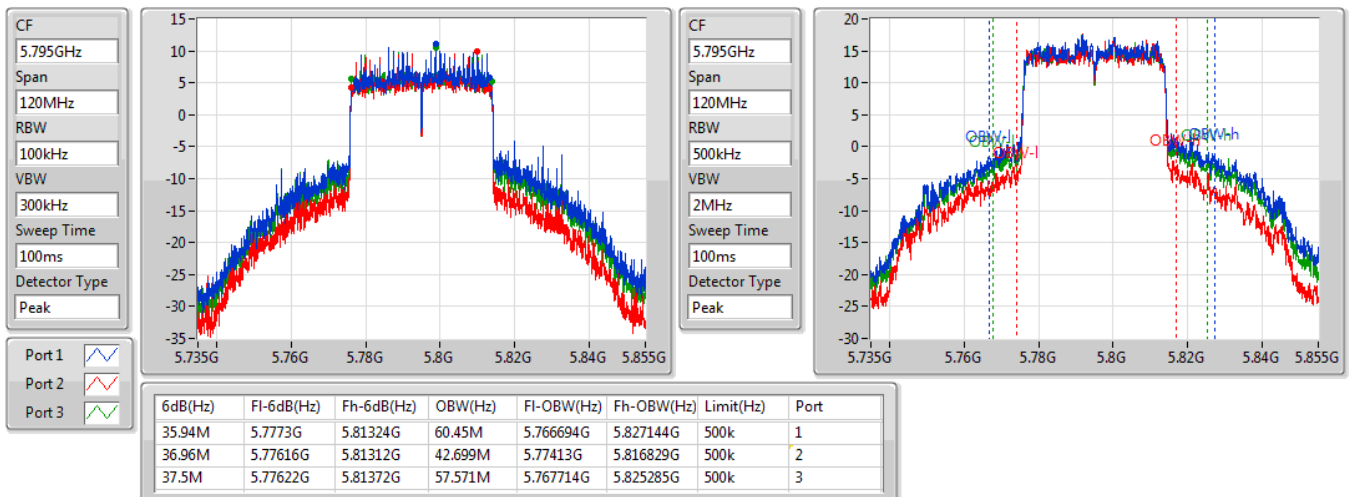


802.11ax HEW40-BF_Nss1,(MCS0)_3TX
EBW
5755MHz

06/11/2020

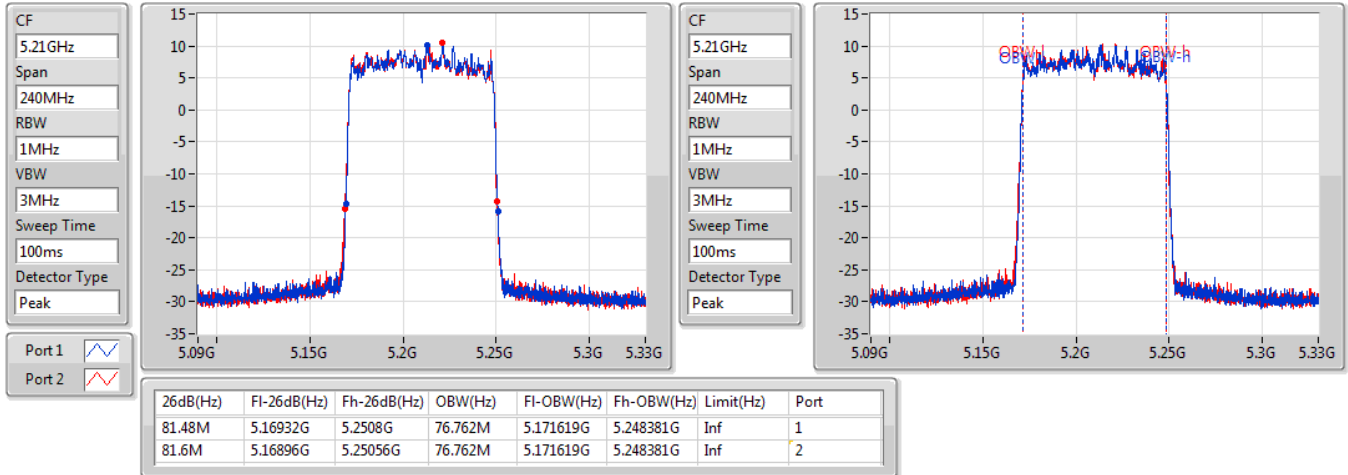

802.11ax HEW40-BF_Nss1,(MCS0)_3TX
EBW
5795MHz

06/11/2020

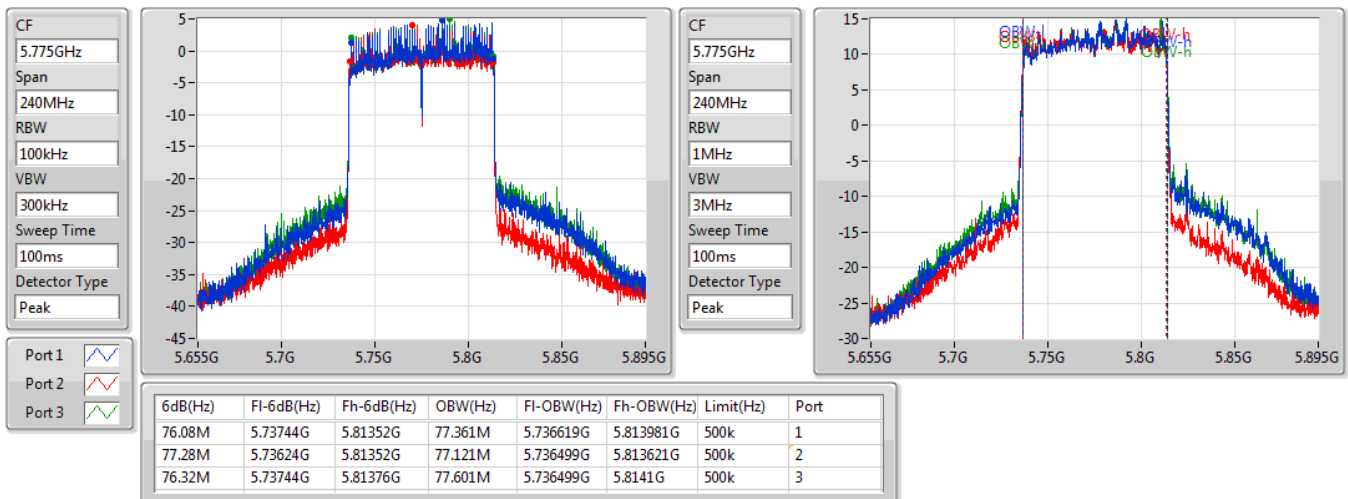


802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
5210MHz

06/11/2020


802.11ax HEW80-BF_Nss1,(MCS0)_3TX
EBW
5775MHz

06/11/2020



**Mode 3, Non-beamforming mode: 5GHz Band 1 2T2S SDM
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ac VHT20_Nss2,(MCS0)_2TX	29.49M	18.021M	18M0D1D	25.77M	17.901M
802.11ac VHT40_Nss2,(MCS0)_2TX	40.14M	36.402M	36M4D1D	39.96M	36.342M
802.11ac VHT80_Nss2,(MCS0)_2TX	81.48M	75.802M	75M8D1D	81.48M	75.802M
802.11ax HEW20_Nss2,(MCS0)_2TX	21.42M	19.1M	19M1D1D	21.39M	19.07M
802.11ax HEW40_Nss2,(MCS0)_2TX	40.08M	37.601M	37M6D1D	39.72M	37.601M
802.11ax HEW80_Nss2,(MCS0)_2TX	81.36M	77.121M	77M1D1D	81.24M	76.882M

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

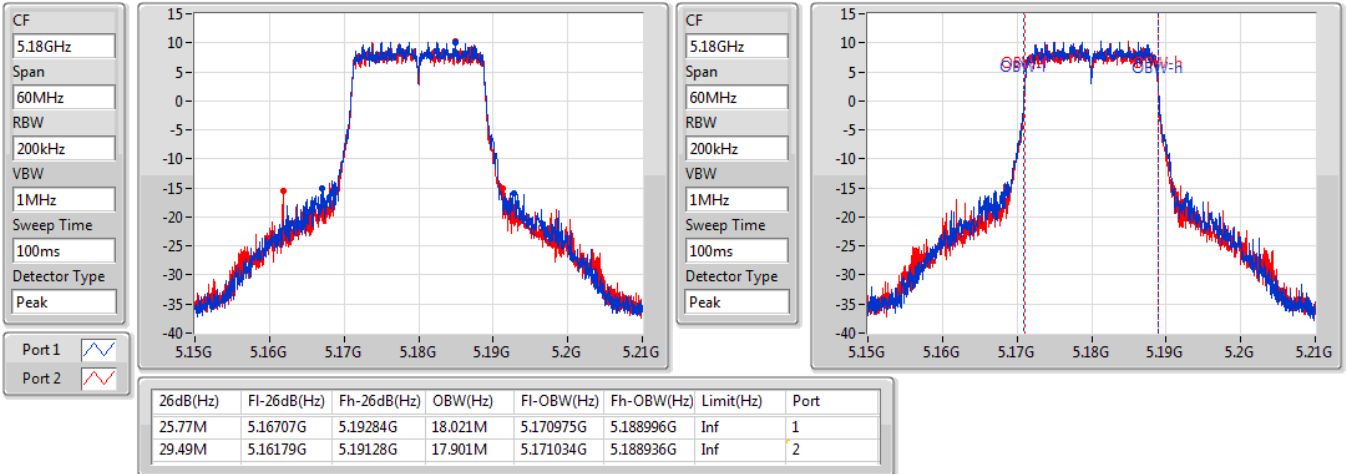
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ac VHT20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	25.77M	18.021M	29.49M	17.901M
802.11ac VHT40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	39.96M	36.402M	40.14M	36.342M
802.11ac VHT80_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81.48M	75.802M	81.48M	75.802M
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.42M	19.07M	21.39M	19.1M
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	39.72M	37.601M	40.08M	37.601M
802.11ax HEW80_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81.24M	76.882M	81.36M	77.121M

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

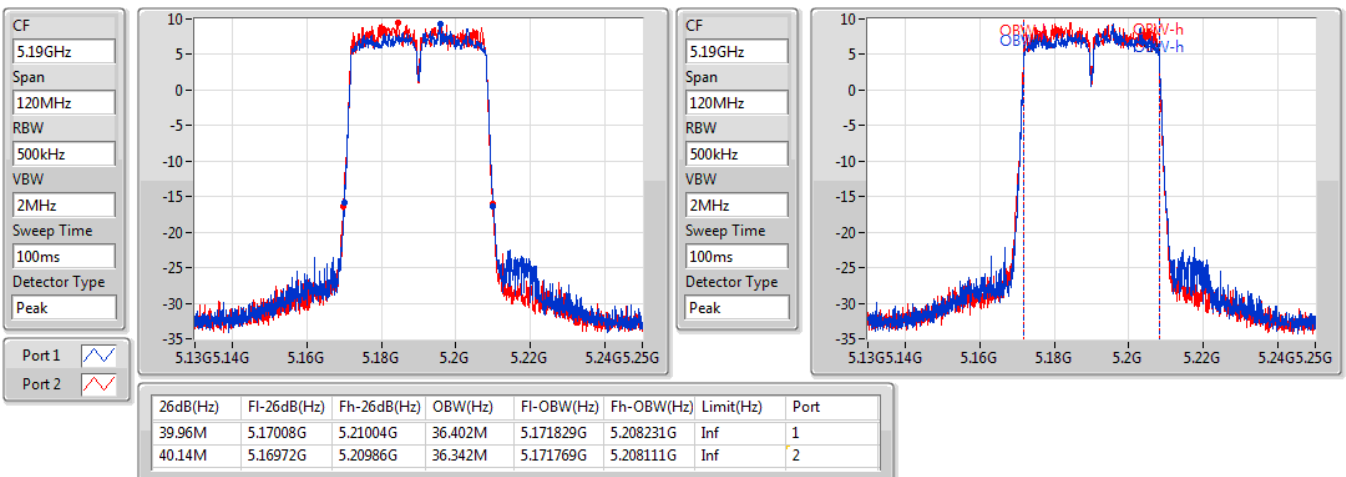
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20_Nss2,(MCS0)_2TX
EBW
5180MHz

06/11/2020


802.11ac VHT40_Nss2,(MCS0)_2TX
EBW
5190MHz

06/11/2020

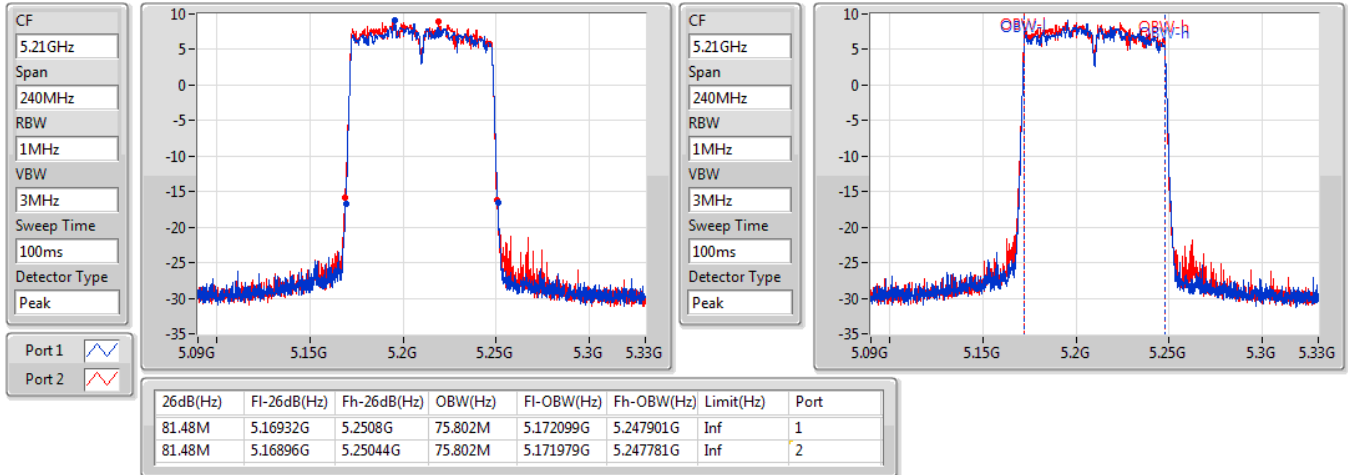


802.11ac VHT80_Nss2,(MCS0)_2TX

EBW

5210MHz

06/11/2020

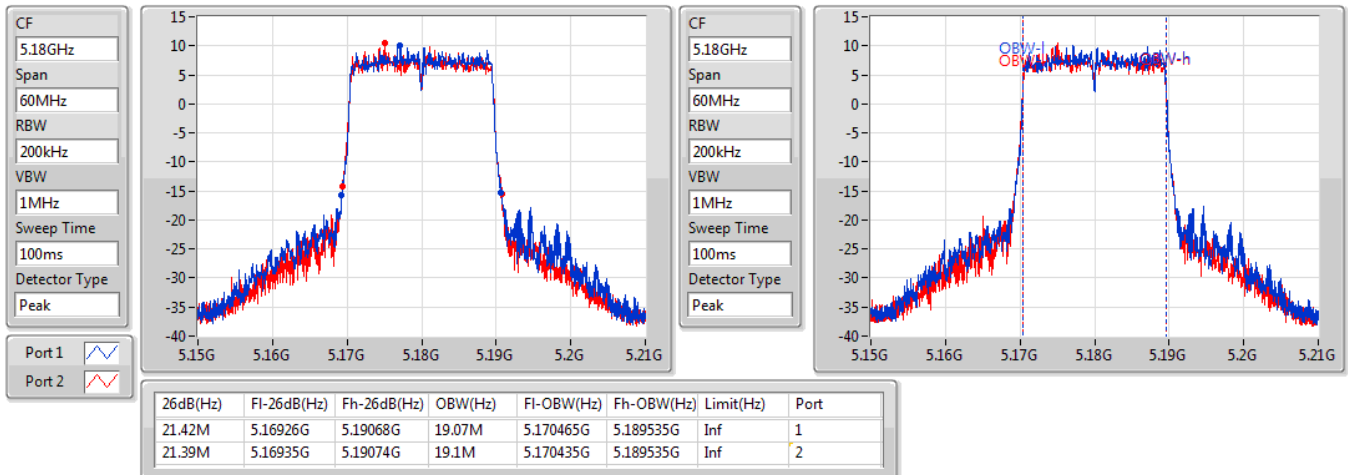


802.11ax HEW20_Nss2,(MCS0)_2TX

EBW

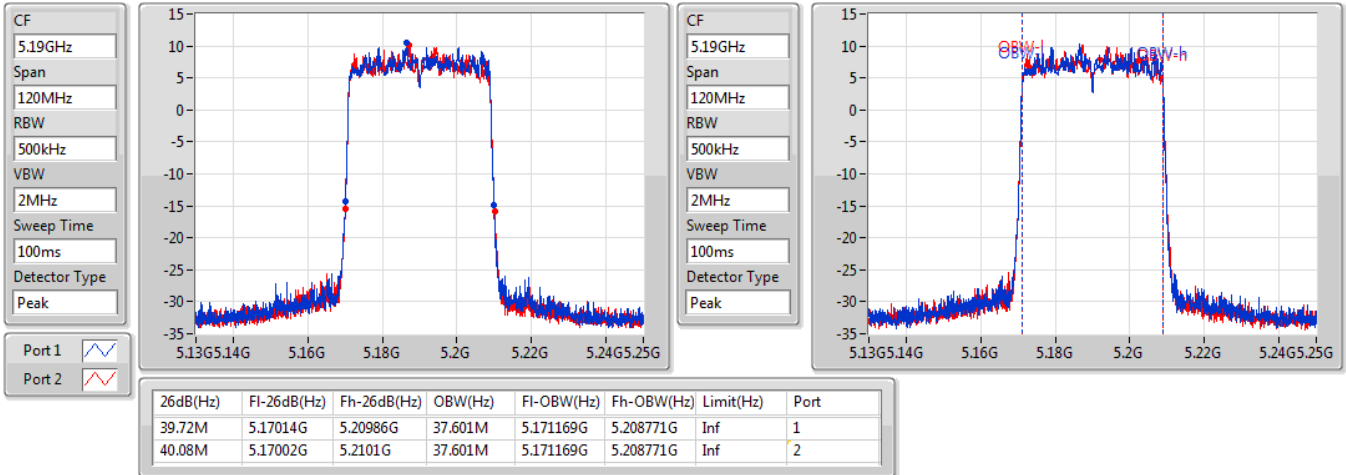
5180MHz

06/11/2020

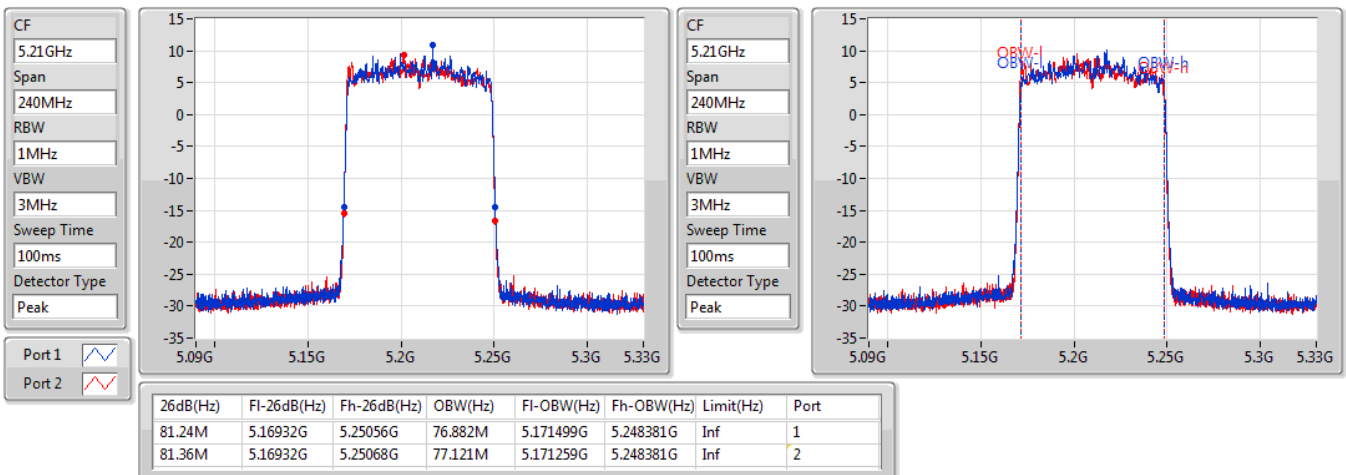


802.11ax HEW40_Nss2,(MCS0)_2TX
EBW
5190MHz

06/11/2020


802.11ax HEW80_Nss2,(MCS0)_2TX
EBW
5210MHz

06/11/2020



**Mode 4, Non beamforming mode: 5GHz Band 4 3T2S, CDD
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT80_Nss2,(MCS0)_3TX	75.96M	76.522M	76M5D1D	75.36M	76.162M
802.11ax HEW80_Nss2,(MCS0)_3TX	77.64M	77.961M	78M0D1D	75.48M	77.481M

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)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11ac VHT80_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	75.36M	76.282M	75.96M	76.162M	75.48M	76.522M
802.11ax HEW80_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	75.48M	77.721M	76.32M	77.481M	77.64M	77.961M

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

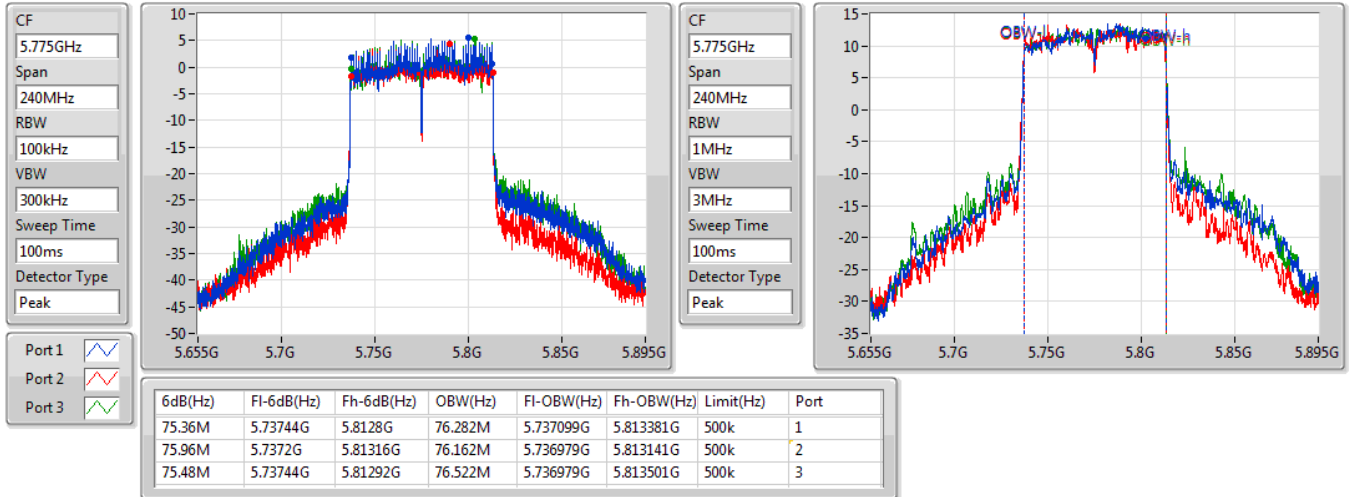
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT80_Nss2,(MCS0)_3TX

EBW

5775MHz

06/11/2020

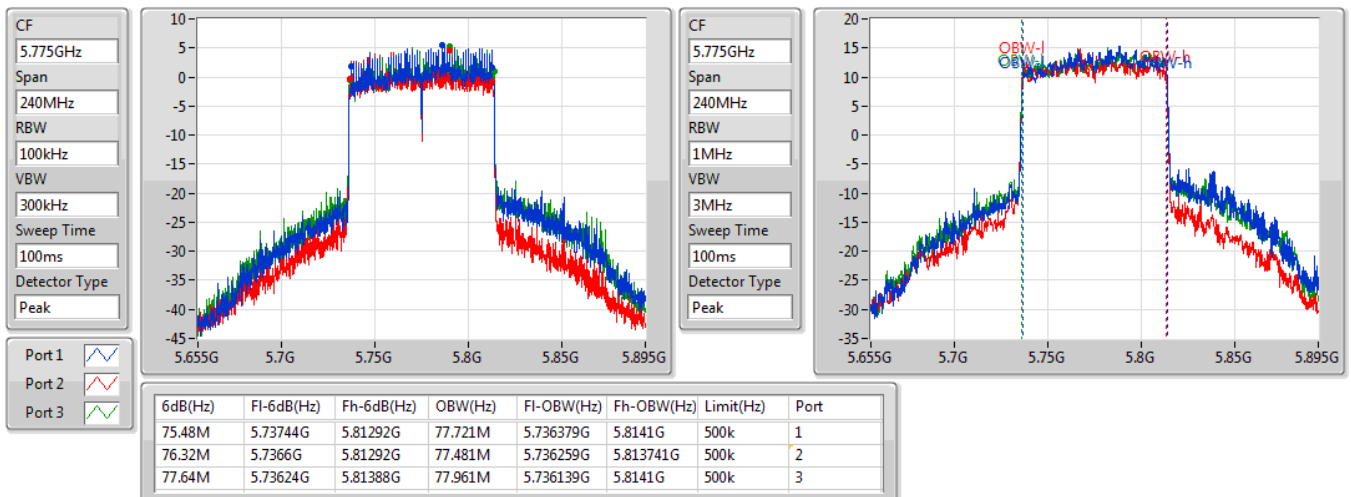


802.11ax HEW80_Nss2,(MCS0)_3TX

EBW

5775MHz

06/11/2020



**Mode 5, Beamforming mode: 5GHz Band 4 3T2S, CDD
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT80-BF_Nss2,(MCS0)_3TX	75.72M	76.882M	76M9D1D	75.36M	76.282M
802.11ax HEW80-BF_Nss2,(MCS0)_3TX	76.32M	77.961M	78M0D1D	75.48M	77.481M

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

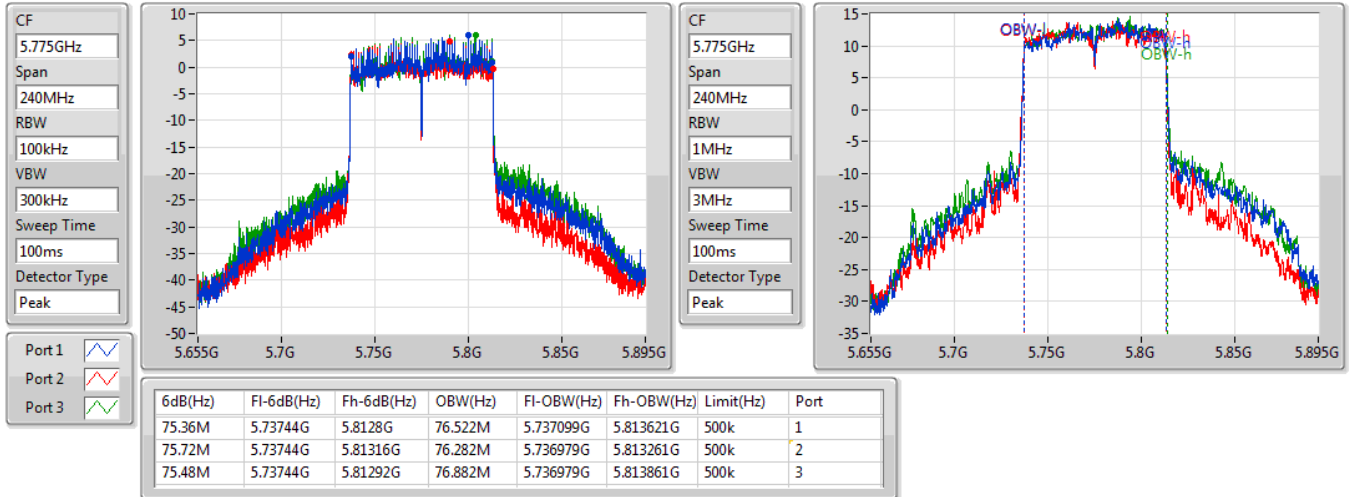
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11ac VHT80-BF_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	75.36M	76.522M	75.72M	76.282M	75.48M	76.882M
802.11ax HEW80-BF_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	75.48M	77.721M	76.32M	77.481M	76.32M	77.961M

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

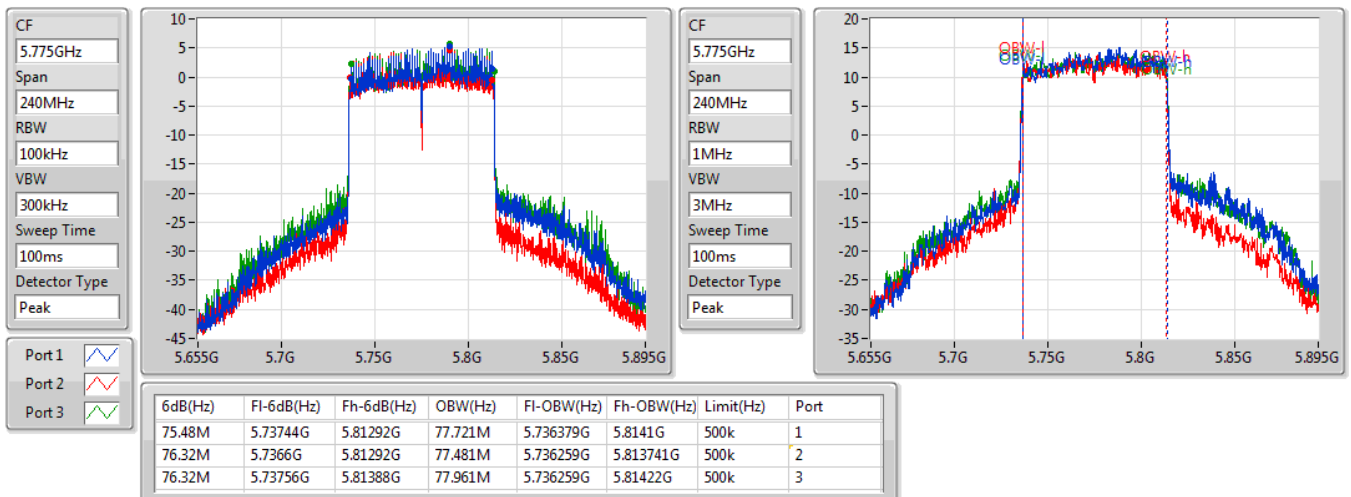
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT80-BF_Nss2,(MCS0)_3TX
EBW
5775MHz

06/11/2020


802.11ax HEW80-BF_Nss2,(MCS0)_3TX
EBW
5775MHz

06/11/2020



**Mode 6, Non beamforming mode: 5GHz Band 4, 3T3S, SDM
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT80_Nss3,(MCS0)_3TX	75.96M	77.001M	77M0D1D	75.36M	76.162M
802.11ax HEW80_Nss3,(MCS0)_3TX	76.32M	78.201M	78M2D1D	75.48M	77.481M

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)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11ac VHT80_Nss3,(MCS0)_3TX	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	75.72M	76.402M	75.96M	76.162M	75.36M	77.001M
802.11ax HEW80_Nss3,(MCS0)_3TX	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	75.48M	77.721M	75.84M	77.481M	76.32M	78.201M

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

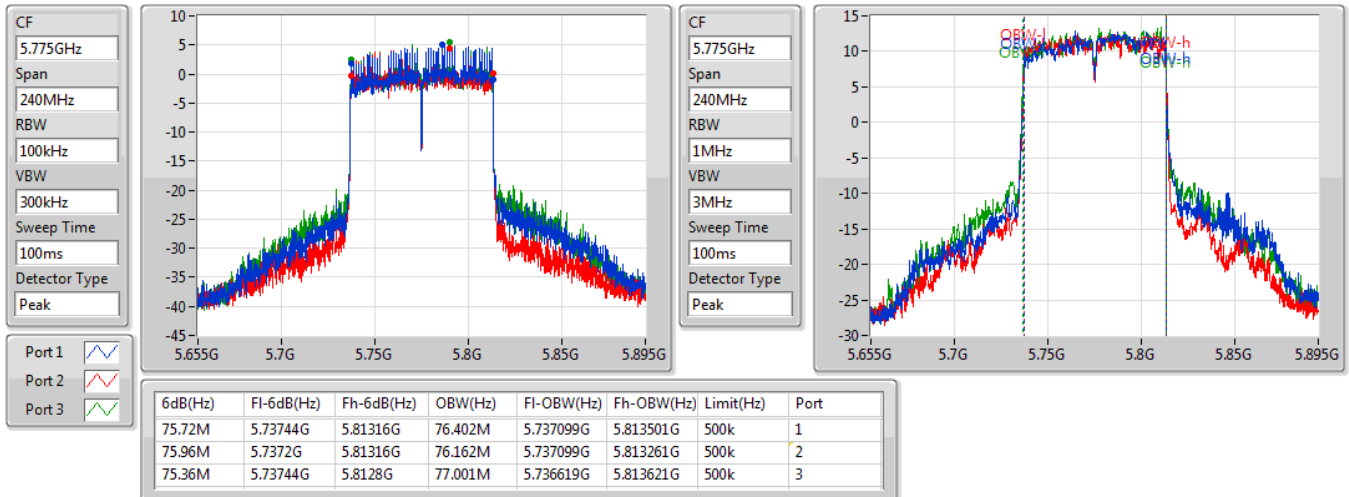
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT80_Nss3,(MCS0)_3TX

EBW

5775MHz

06/11/2020

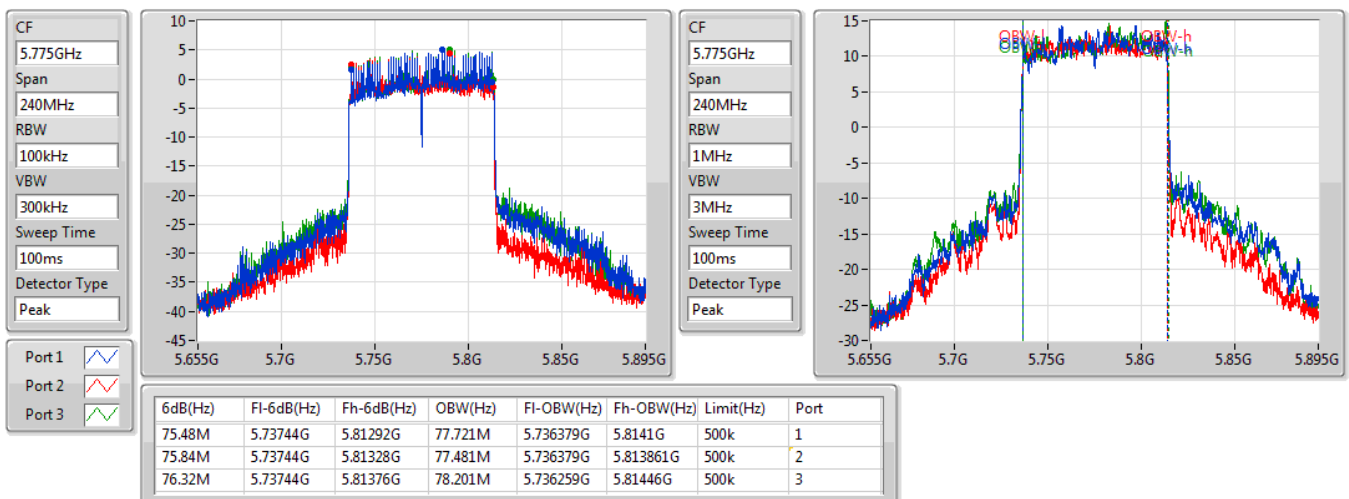


802.11ax HEW80_Nss3,(MCS0)_3TX

EBW

5775MHz

06/11/2020



**Mode 7, Non-beamforming mode: 5GHz Band 2 2T1S and Band 3 3T1S CDD
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	37.47M	19.64M	19M6D1D	27.36M	17.001M
802.11ac VHT20_Nss1,(MCS0)_2TX	38.88M	19.49M	19M5D1D	25.92M	18.081M
802.11ac VHT40_Nss1,(MCS0)_2TX	70.08M	38.081M	38M1D1D	39.48M	36.282M
802.11ac VHT80_Nss1,(MCS0)_2TX	82.08M	75.802M	75M8D1D	81.6M	75.802M
802.11ax HEW20_Nss1,(MCS0)_2TX	40.17M	19.79M	19M8D1D	25.41M	19.13M
802.11ax HEW40_Nss1,(MCS0)_2TX	77.22M	38.501M	38M5D1D	39.96M	37.601M
802.11ax HEW80_Nss1,(MCS0)_2TX	81.6M	76.882M	76M9D1D	81.48M	76.762M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_3TX	21.99M	16.822M	16M8D1D	15.628M	13.381M
802.11ac VHT20_Nss1,(MCS0)_3TX	22.17M	17.991M	18M0D1D	15.715M	13.888M
802.11ac VHT40_Nss1,(MCS0)_3TX	40.62M	36.582M	36M6D1D	34.95M	33.021M
802.11ac VHT80_Nss1,(MCS0)_3TX	91.683M	75.922M	75M9D1D	75.33M	72.349M
802.11ax HEW20_Nss1,(MCS0)_3TX	21.63M	19.1M	19M1D1D	15.61M	14.483M
802.11ax HEW40_Nss1,(MCS0)_3TX	41.76M	37.661M	37M7D1D	34.875M	33.583M
802.11ax HEW80_Nss1,(MCS0)_3TX	81.6M	76.882M	76M9D1D	75.64M	72.891M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_3TX	3.195M	5.112M	5M11D1D	3.18M	4.378M
802.11ac VHT20_Nss1,(MCS0)_3TX	3.825M	5.142M	5M14D1D	3.81M	4.528M
802.11ac VHT40_Nss1,(MCS0)_3TX	3.18M	12.789M	12M8D1D	3.18M	4.168M
802.11ac VHT80_Nss1,(MCS0)_3TX	3.18M	15.532M	15M5D1D	3.165M	4.003M
802.11ax HEW20_Nss1,(MCS0)_3TX	4.53M	5.217M	5M22D1D	4.5M	4.843M
802.11ax HEW40_Nss1,(MCS0)_3TX	3.87M	9.355M	9M36D1D	3.6M	4.168M
802.11ax HEW80_Nss1,(MCS0)_3TX	3.84M	14.963M	15M0D1D	3.63M	4.213M

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)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	30.36M	17.001M	37.32M	19.16M		
5300MHz	Pass	Inf	33.93M	17.361M	37.47M	19.64M		
5320MHz	Pass	Inf	27.36M	17.001M	33.84M	17.211M		
802.11a_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.24M	16.762M	21.39M	16.762M	21.24M	16.642M
5580MHz	Pass	Inf	21.18M	16.762M	21.81M	16.822M	21.48M	16.642M
5620MHz	Pass	Inf	21.45M	16.792M	21.39M	16.792M	21.69M	16.672M
5700MHz	Pass	Inf	21.36M	16.762M	21.39M	16.762M	21.99M	16.702M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	17.413M	13.503M	15.908M	13.451M	15.628M	13.381M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.195M	5.112M	3.18M	4.378M	3.195M	4.483M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	25.92M	18.111M	38.82M	19.49M		
5300MHz	Pass	Inf	27.96M	18.261M	38.88M	19.4M		
5320MHz	Pass	Inf	26.28M	18.081M	28.98M	18.081M		
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.51M	17.901M	21.27M	17.781M	21.3M	17.811M
5580MHz	Pass	Inf	21.48M	17.931M	22.17M	17.811M	21.36M	17.811M
5620MHz	Pass	Inf	21.51M	17.991M	21.51M	17.811M	21.42M	17.781M
5700MHz	Pass	Inf	21.57M	17.901M	21.36M	17.781M	21.36M	17.811M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	17.273M	14.063M	15.715M	13.906M	16.38M	13.888M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.81M	5.142M	3.825M	4.528M	3.81M	4.588M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	69.84M	37.241M	70.08M	38.081M		
5310MHz	Pass	Inf	40.2M	36.462M	39.48M	36.282M		
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	40.2M	36.462M	39.54M	36.282M	39.78M	36.342M
5550MHz	Pass	Inf	40.08M	36.522M	39.72M	36.342M	40.2M	36.402M
5630MHz	Pass	Inf	40.44M	36.582M	39.6M	36.282M	40.2M	36.402M
5670MHz	Pass	Inf	40.62M	36.582M	39.6M	36.282M	39.9M	36.342M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	40.463M	33.283M	34.95M	33.021M	34.95M	33.096M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.18M	12.789M	3.18M	4.168M	3.18M	7.871M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	82.08M	75.802M	81.6M	75.802M		
802.11ac VHT80_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	82.08M	75.802M	81.36M	75.682M	81.24M	75.682M
5610MHz	Pass	Inf	83.88M	75.922M	81.24M	75.682M	81.36M	75.802M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	91.683M	72.581M	75.33M	72.349M	75.408M	72.426M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.165M	15.532M	3.18M	4.003M	3.18M	9.4M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	25.41M	19.13M	36.51M	19.46M		
5300MHz	Pass	Inf	36.69M	19.28M	40.17M	19.79M		
5320MHz	Pass	Inf	26.52M	19.13M	31.65M	19.25M		
802.11ax HEW20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-

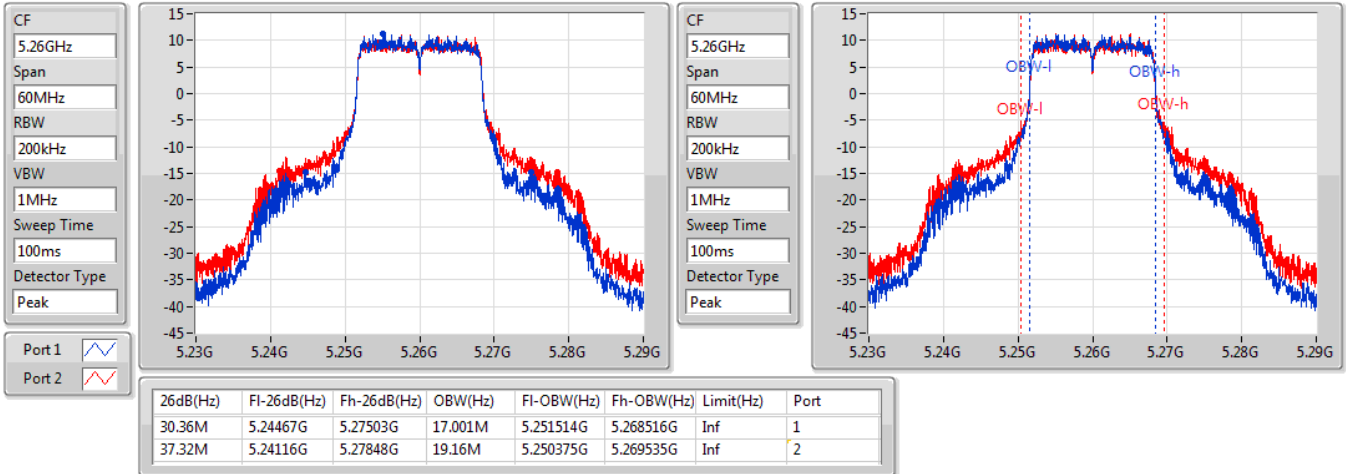
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
5500MHz	Pass	Inf	21.48M	19.04M	21.24M	19.07M	21.54M	19.07M
5580MHz	Pass	Inf	21.63M	19.01M	21.42M	19.1M	21.45M	19.07M
5620MHz	Pass	Inf	21.57M	19.04M	21.36M	19.07M	21.45M	19.1M
5700MHz	Pass	Inf	21.6M	19.04M	21.45M	19.04M	21.54M	19.07M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.768M	14.518M	15.61M	14.483M	15.733M	14.5M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.515M	5.217M	4.53M	4.843M	4.5M	4.858M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	66.06M	37.961M	77.22M	38.501M		
5310MHz	Pass	Inf	40.32M	37.601M	39.96M	37.601M		
802.11ax HEW40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	40.2M	37.541M	40.02M	37.481M	40.02M	37.541M
5550MHz	Pass	Inf	40.2M	37.541M	39.9M	37.661M	40.02M	37.661M
5630MHz	Pass	Inf	40.32M	37.601M	39.72M	37.601M	40.08M	37.541M
5670MHz	Pass	Inf	41.76M	37.661M	39.96M	37.541M	40.02M	37.601M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.1M	33.658M	34.988M	33.583M	34.875M	33.621M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.87M	9.355M	3.81M	4.168M	3.6M	4.603M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	81.6M	76.762M	81.48M	76.882M		
802.11ax HEW80_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	81.6M	76.882M	81.36M	76.762M	81.36M	76.642M
5610MHz	Pass	Inf	81.48M	76.882M	81.24M	76.762M	81.6M	76.882M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.64M	72.969M	75.795M	72.891M	75.795M	72.891M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.84M	14.963M	3.63M	4.213M	3.84M	7.526M

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

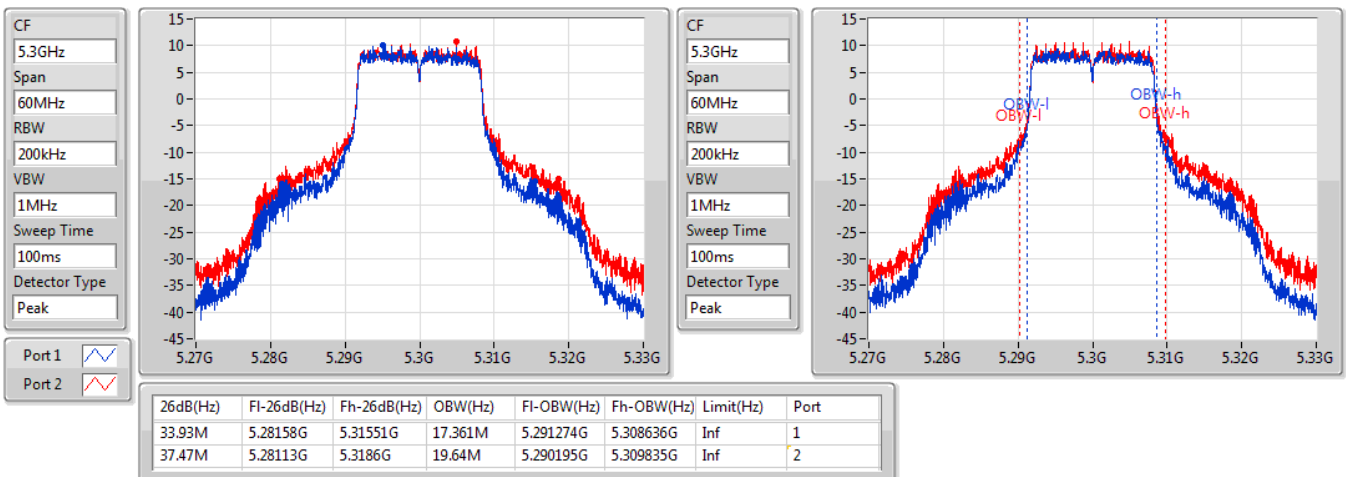
Port X-OBW = Port X 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_2TX
EBW
5260MHz

16/10/2020

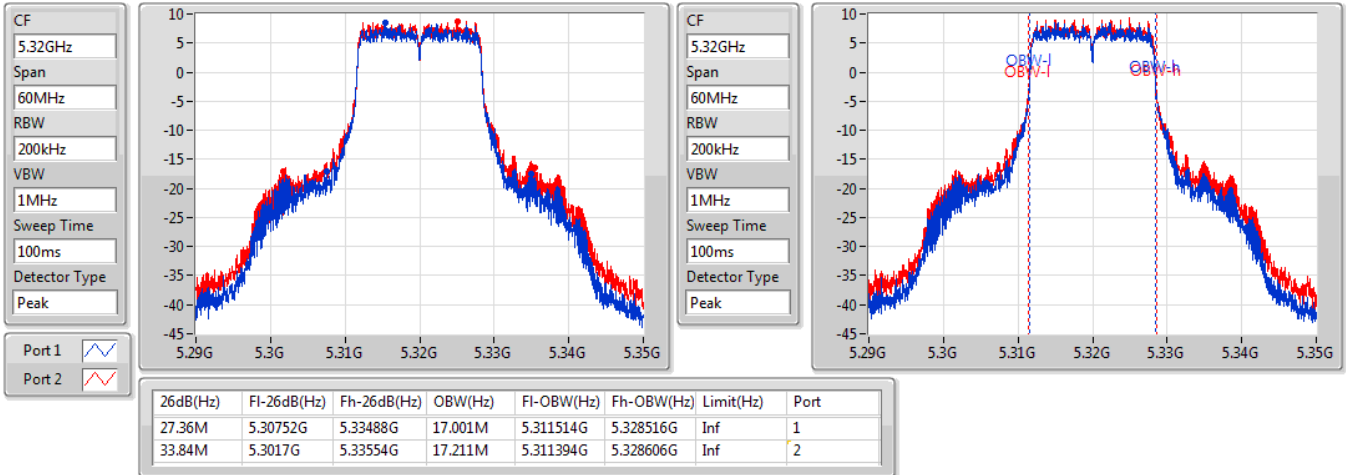

802.11a_Nss1,(6Mbps)_2TX
EBW
5300MHz

16/10/2020

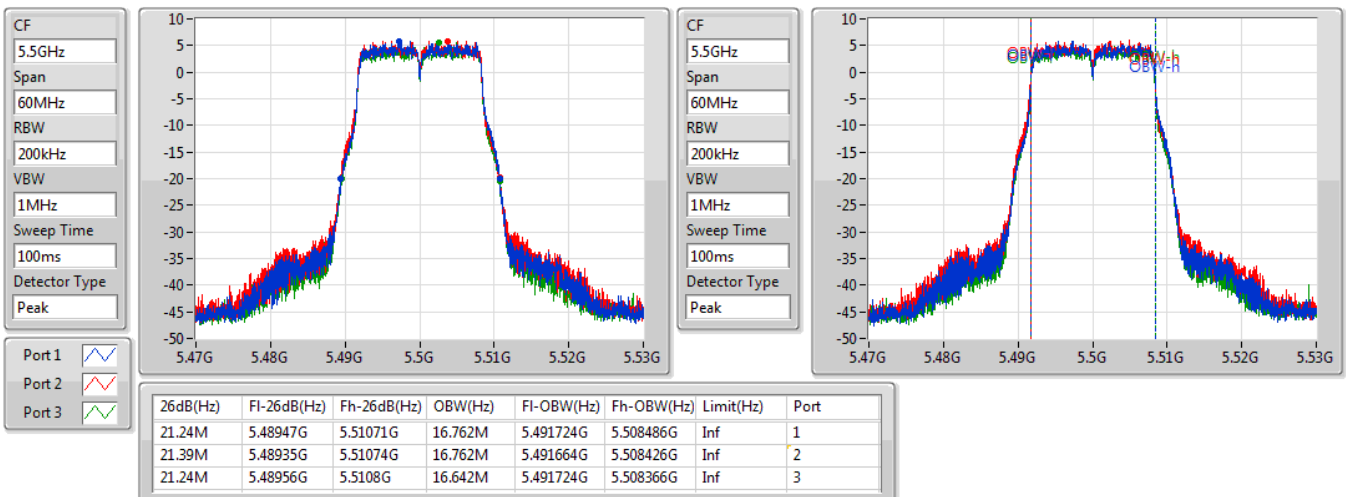


802.11a_Nss1,(6Mbps)_2TX
EBW
5320MHz

16/10/2020

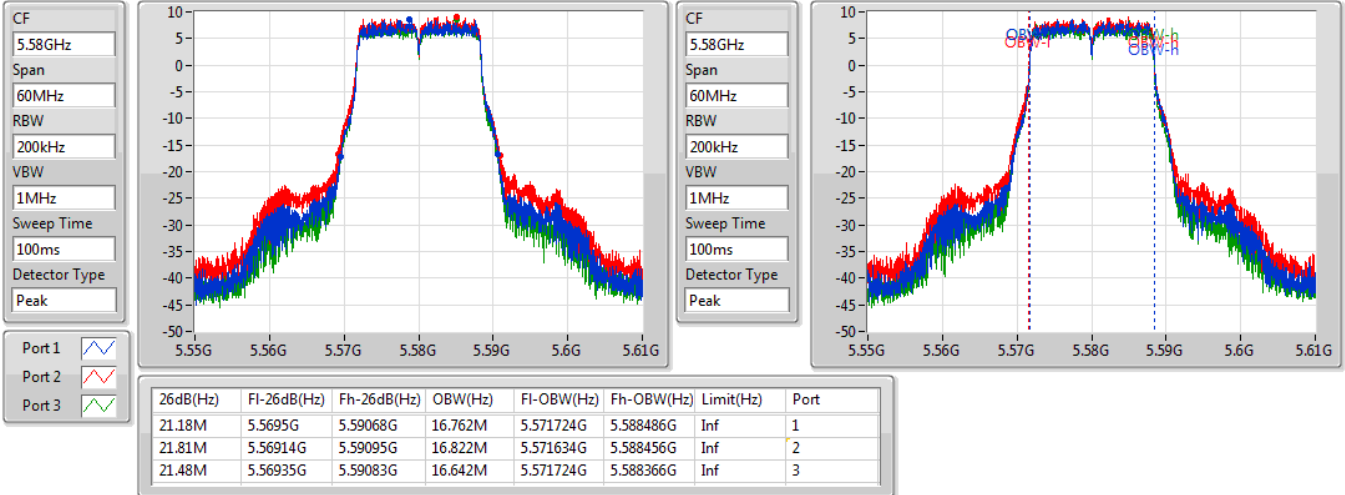

802.11a_Nss1,(6Mbps)_3TX
EBW
5500MHz

16/10/2020

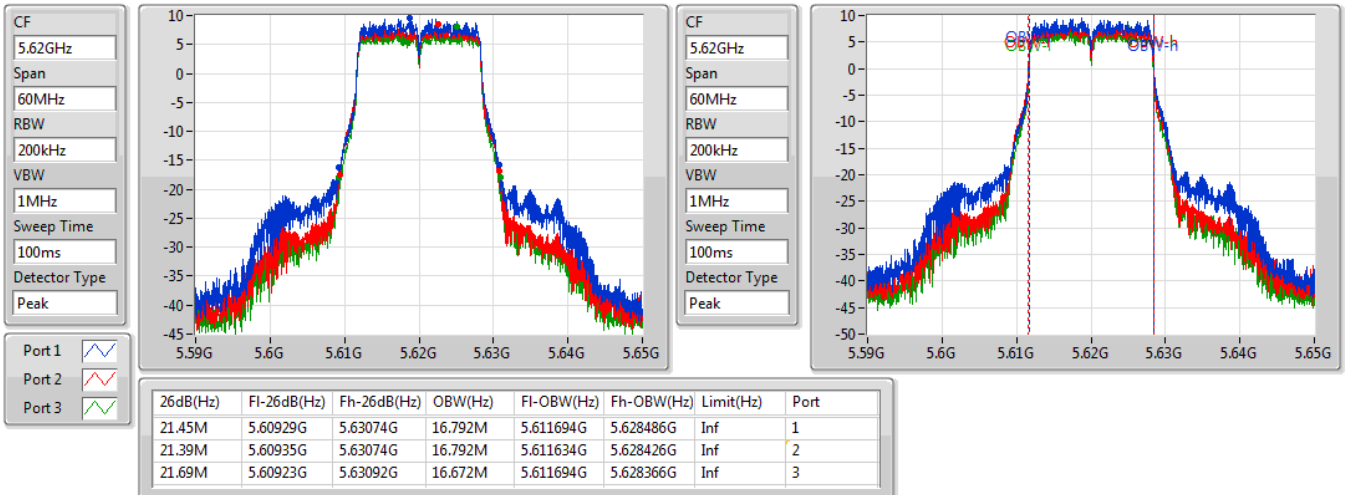


802.11a_Nss1,(6Mbps)_3TX
EBW
5580MHz

16/10/2020

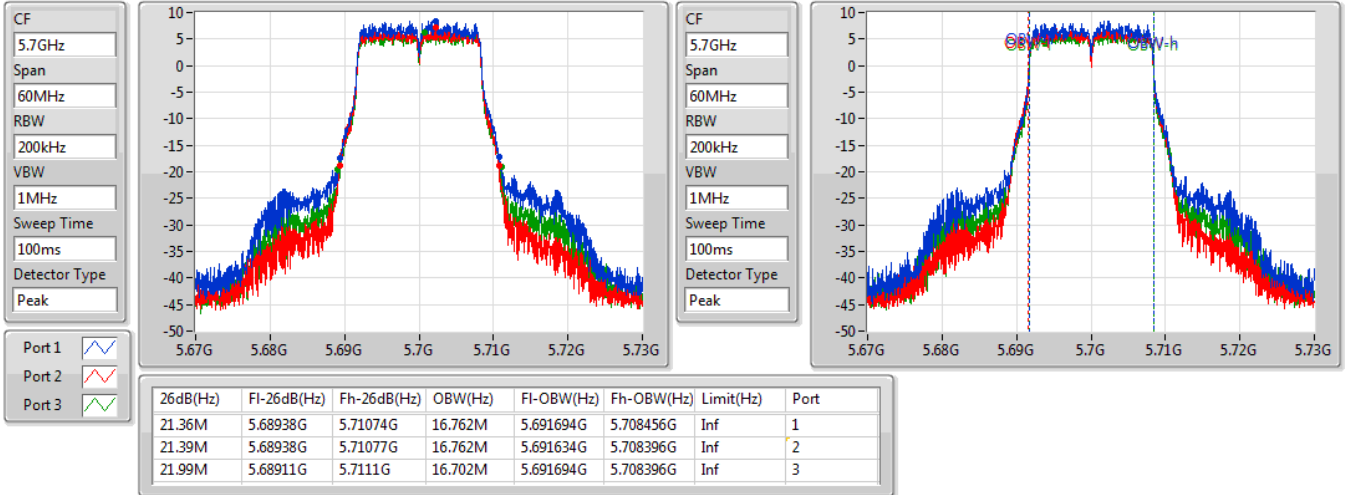

802.11a_Nss1,(6Mbps)_3TX
EBW
5620MHz

16/10/2020

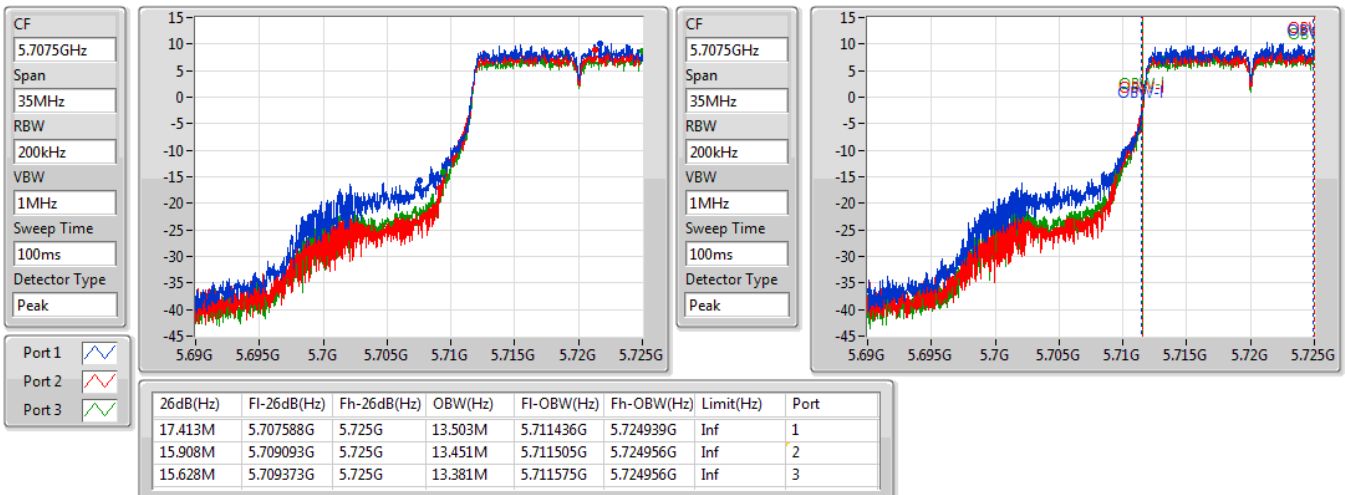


802.11a_Nss1,(6Mbps)_3TX
EBW
5700MHz

16/10/2020

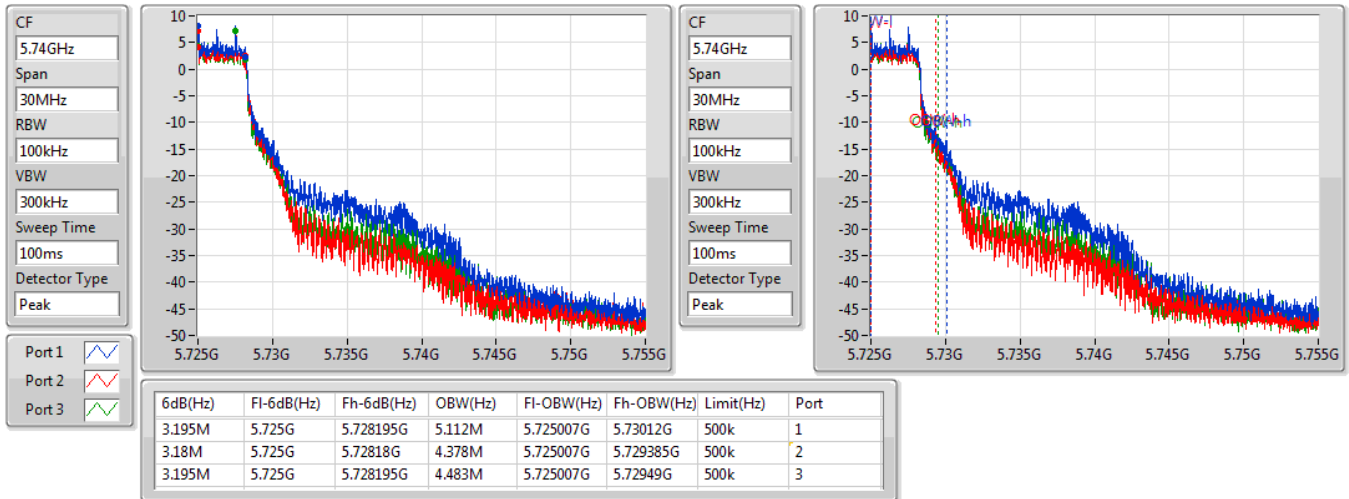

802.11a_Nss1,(6Mbps)_3TX
EBW
5720MHz Straddle 5.47-5.725GHz

16/10/2020

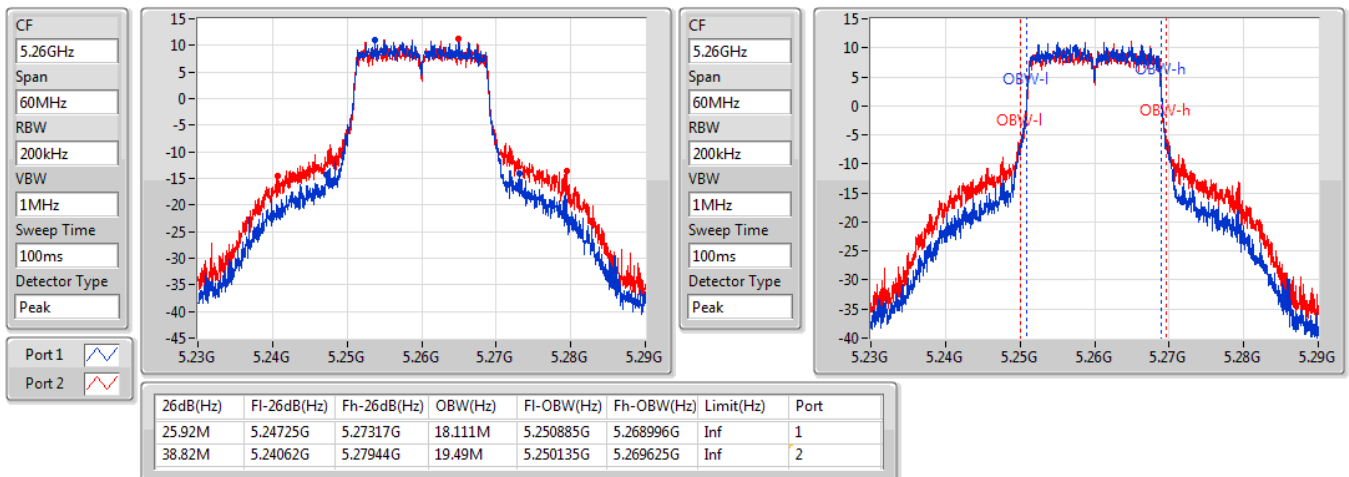


802.11a_Nss1,(6Mbps)_3TX
EBW
5720MHz Straddle 5.725-5.85GHz

16/10/2020

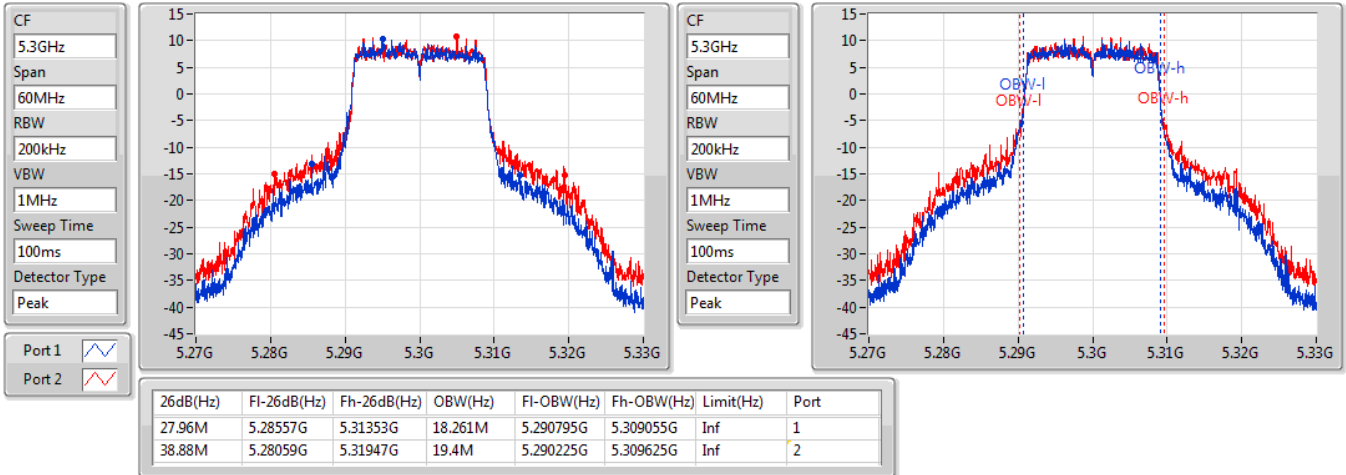

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5260MHz

16/10/2020

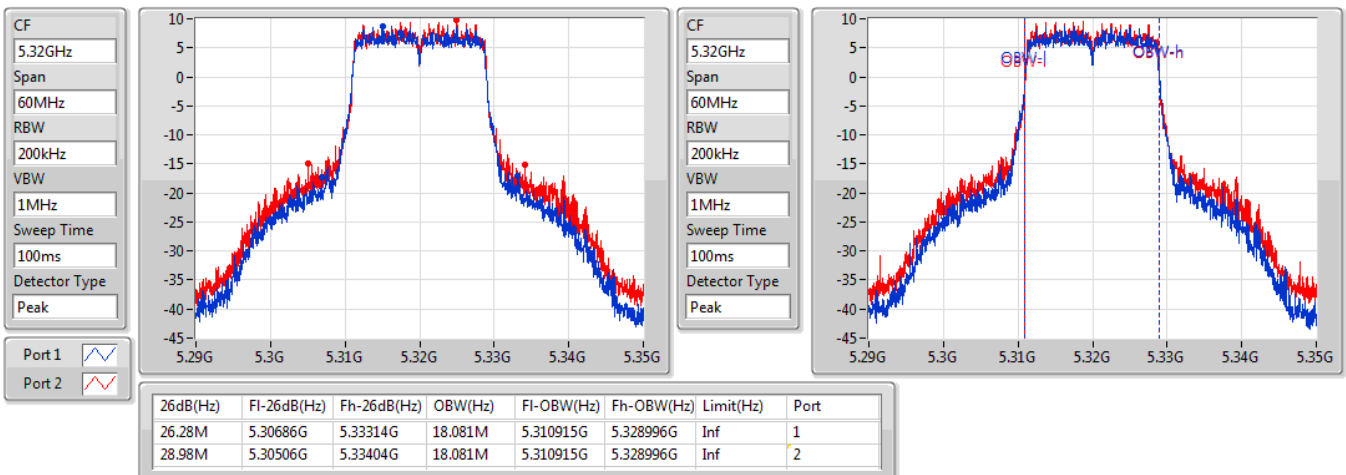


802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5300MHz

16/10/2020

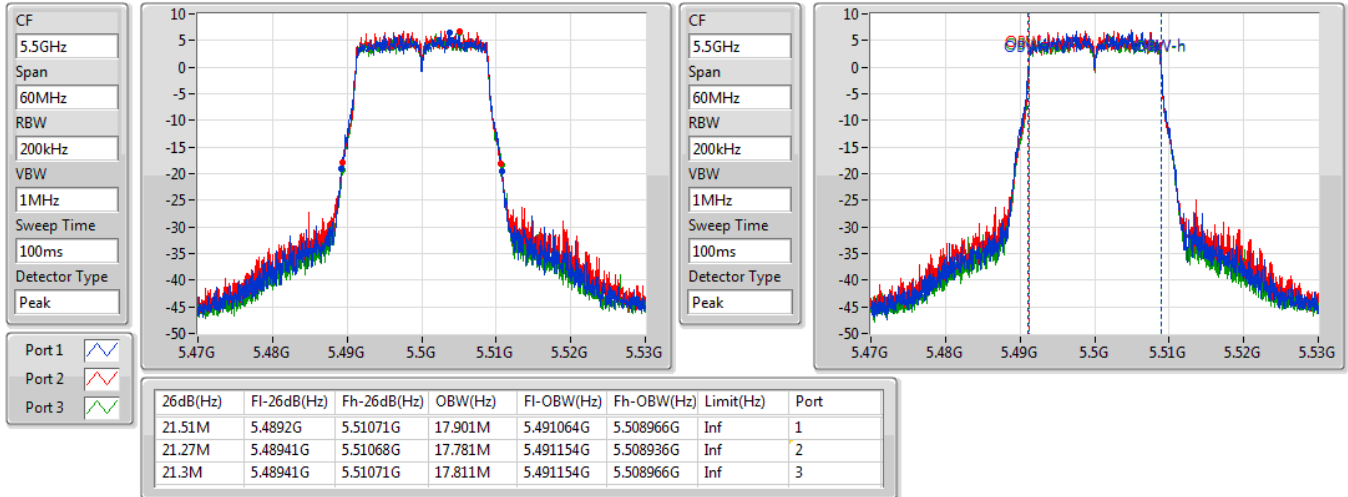

802.11ac VHT20_Nss1,(MCS0)_2TX
EBW
5320MHz

16/10/2020

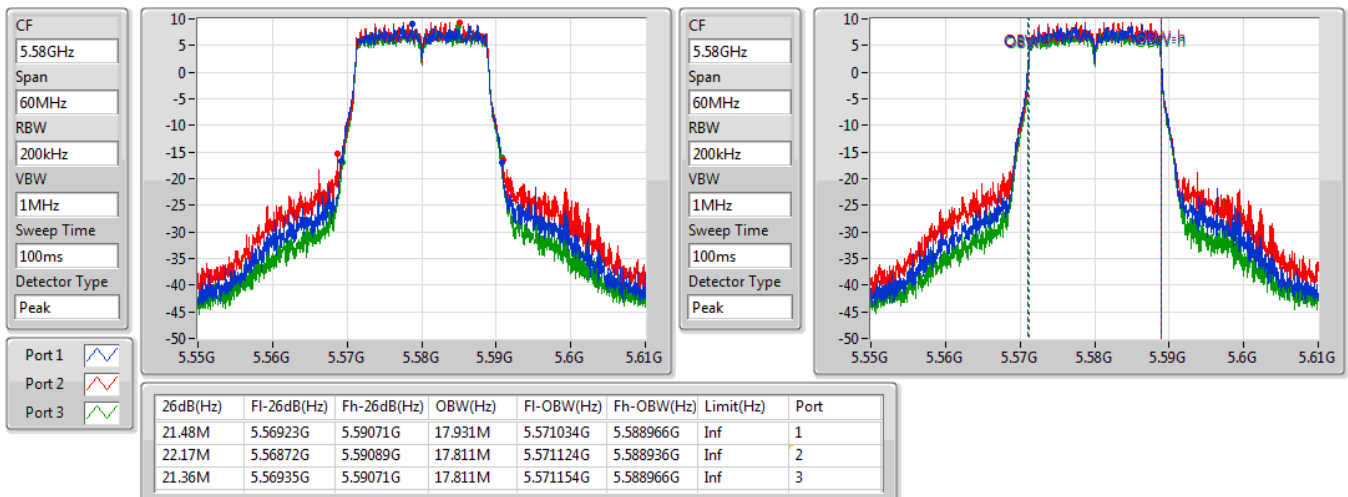


802.11ac VHT20_Nss1,(MCS0)_3TX
EBW
5500MHz

16/10/2020

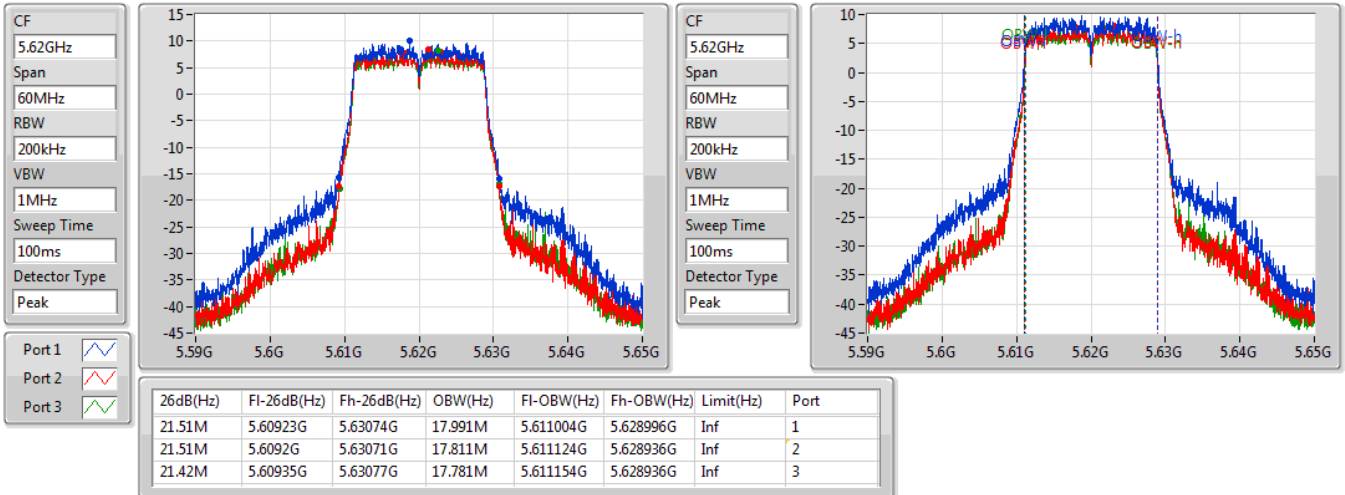

802.11ac VHT20_Nss1,(MCS0)_3TX
EBW
5580MHz

16/10/2020

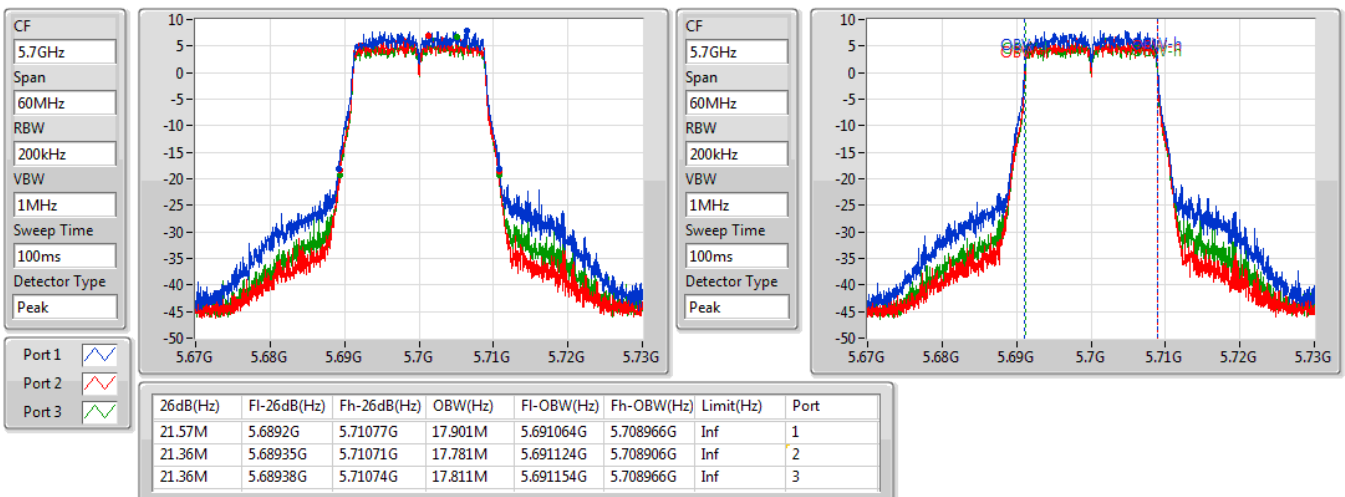


802.11ac VHT20_Nss1,(MCS0)_3TX
EBW
5620MHz

16/10/2020

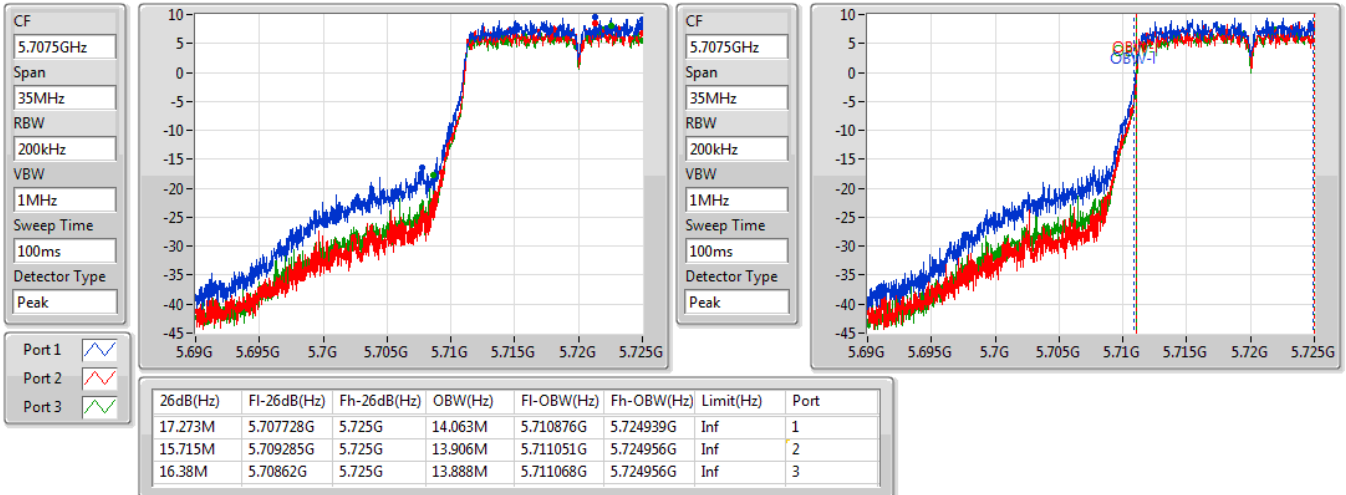

802.11ac VHT20_Nss1,(MCS0)_3TX
EBW
5700MHz

16/10/2020

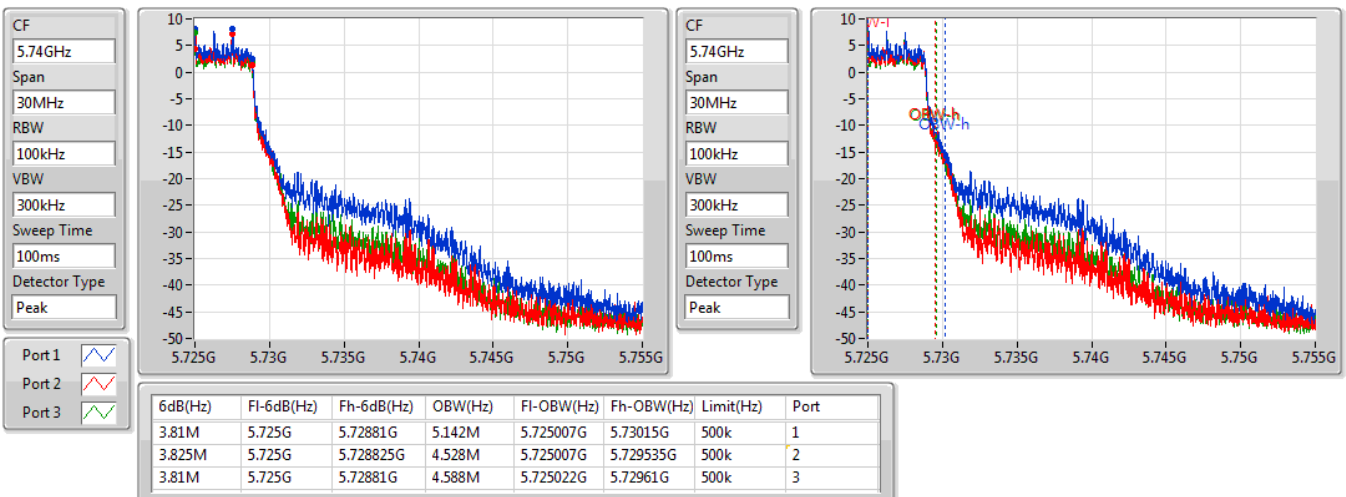


802.11ac VHT20_Nss1,(MCS0)_3TX
EBW
5720MHz Straddle 5.47-5.725GHz

16/10/2020

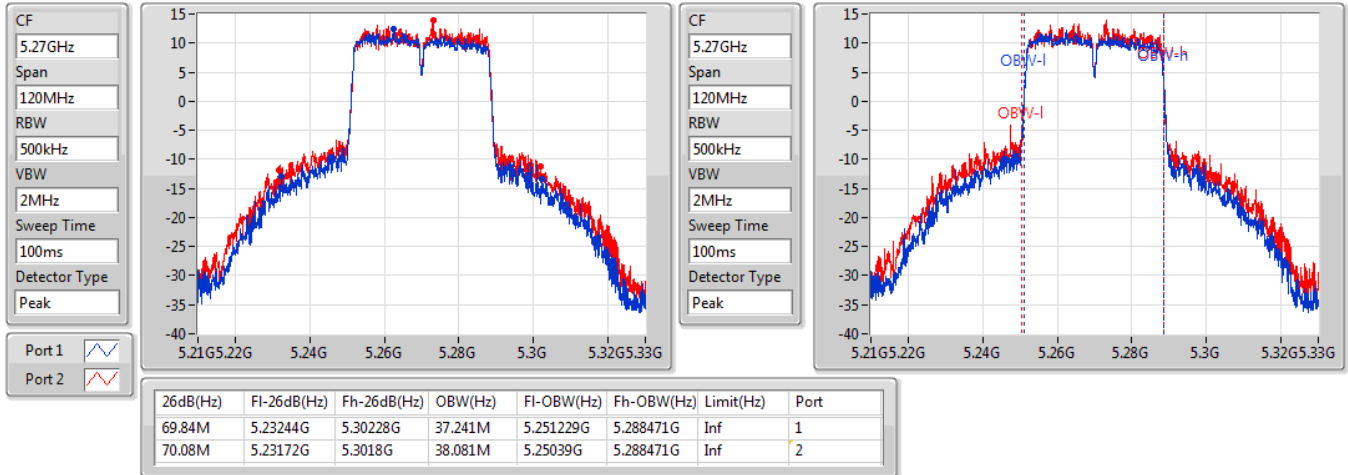

802.11ac VHT20_Nss1,(MCS0)_3TX
EBW
5720MHz Straddle 5.725-5.85GHz

16/10/2020

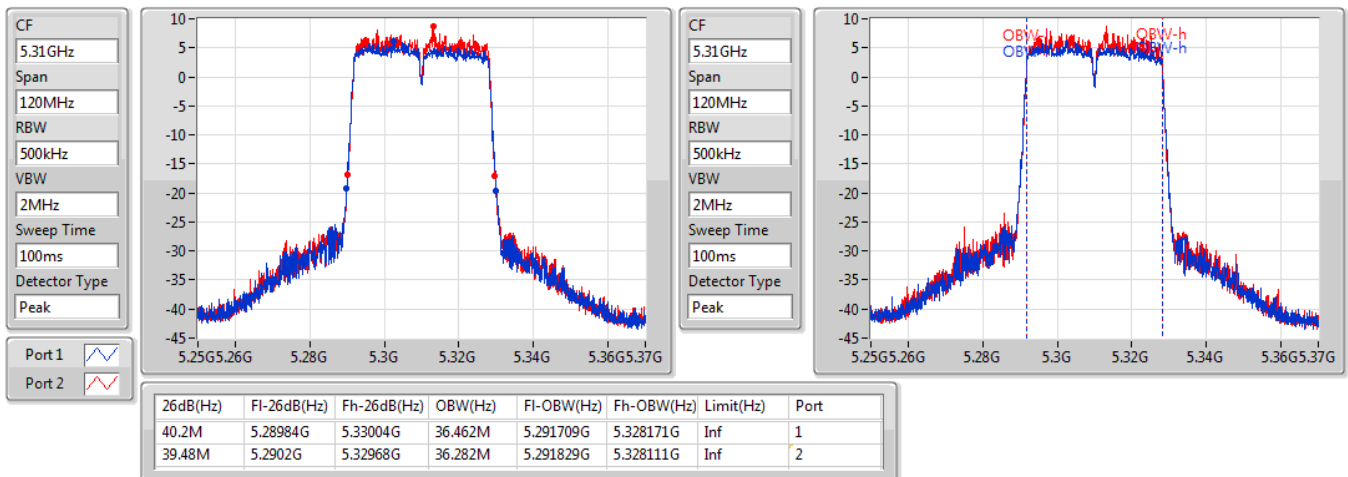


802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5270MHz

16/10/2020

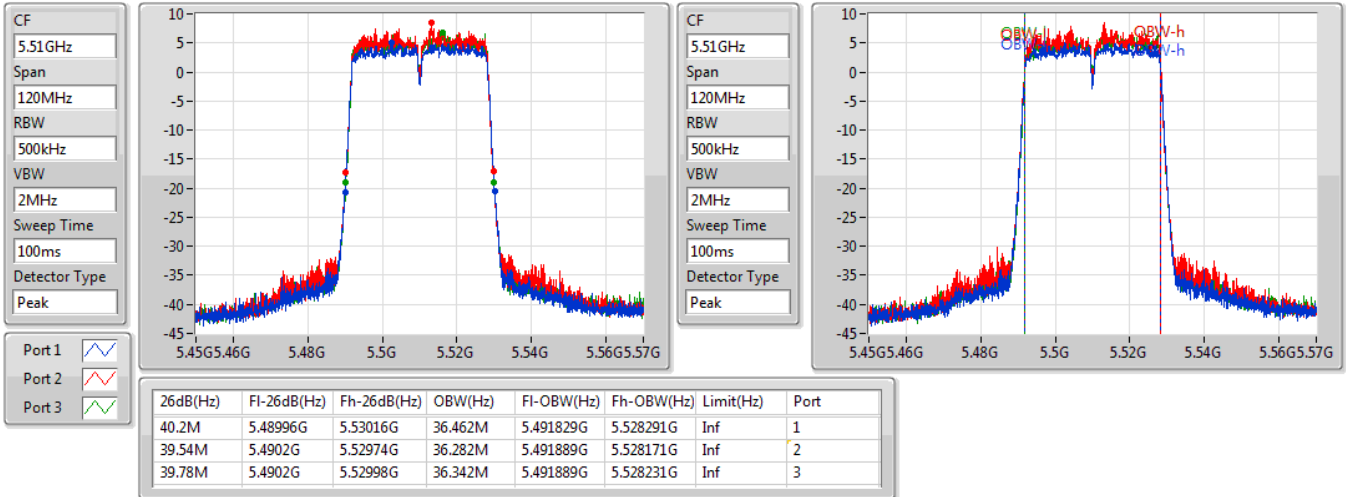

802.11ac VHT40_Nss1,(MCS0)_2TX
EBW
5310MHz

16/10/2020

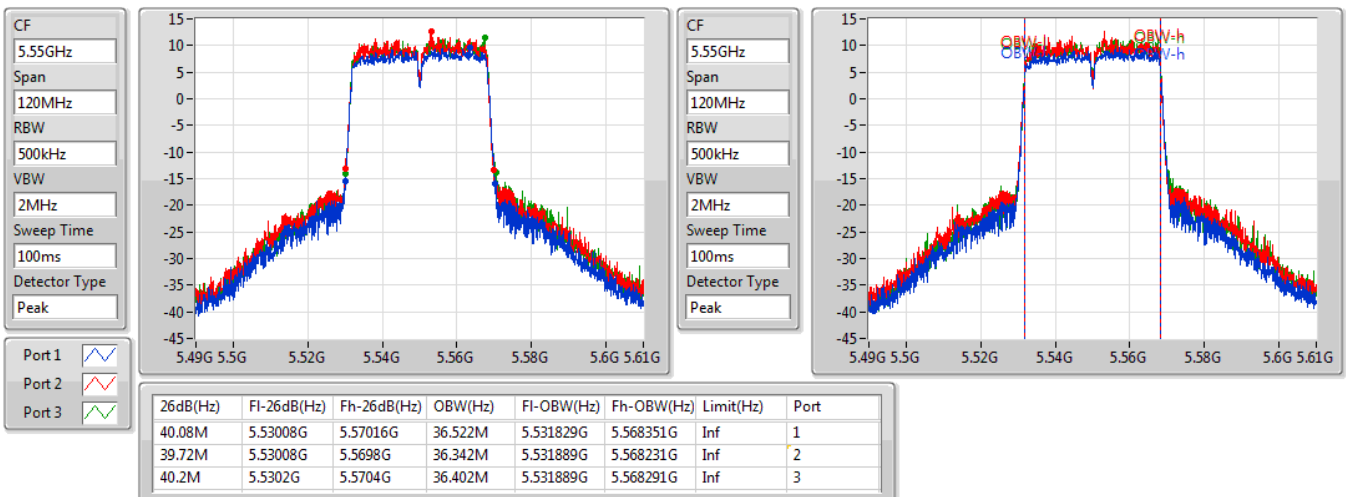


802.11ac VHT40_Nss1,(MCS0)_3TX
EBW
5510MHz

16/10/2020

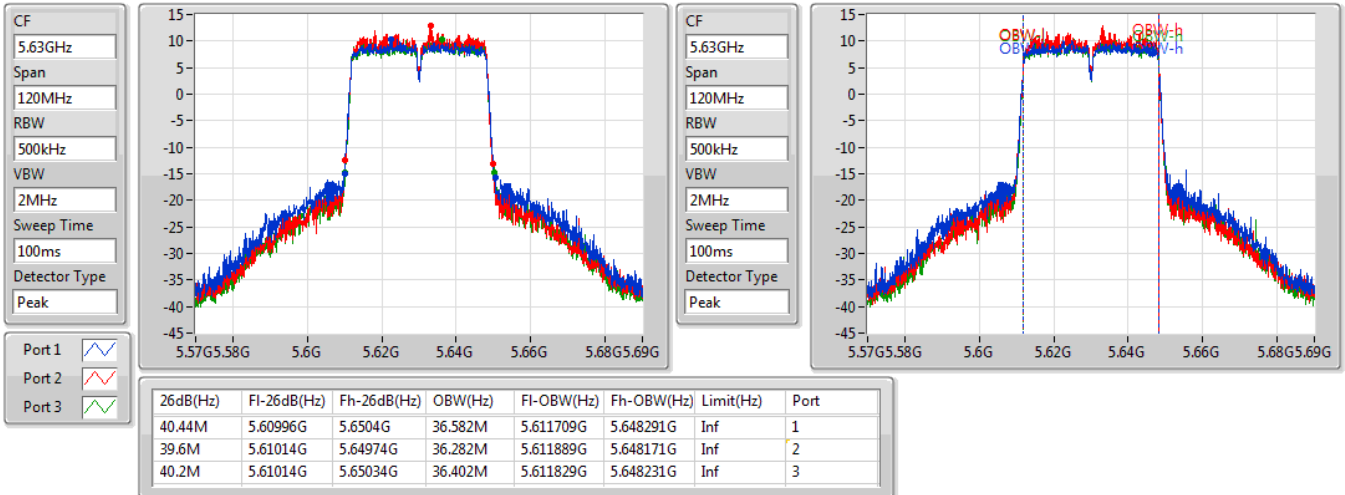

802.11ac VHT40_Nss1,(MCS0)_3TX
EBW
5550MHz

16/10/2020

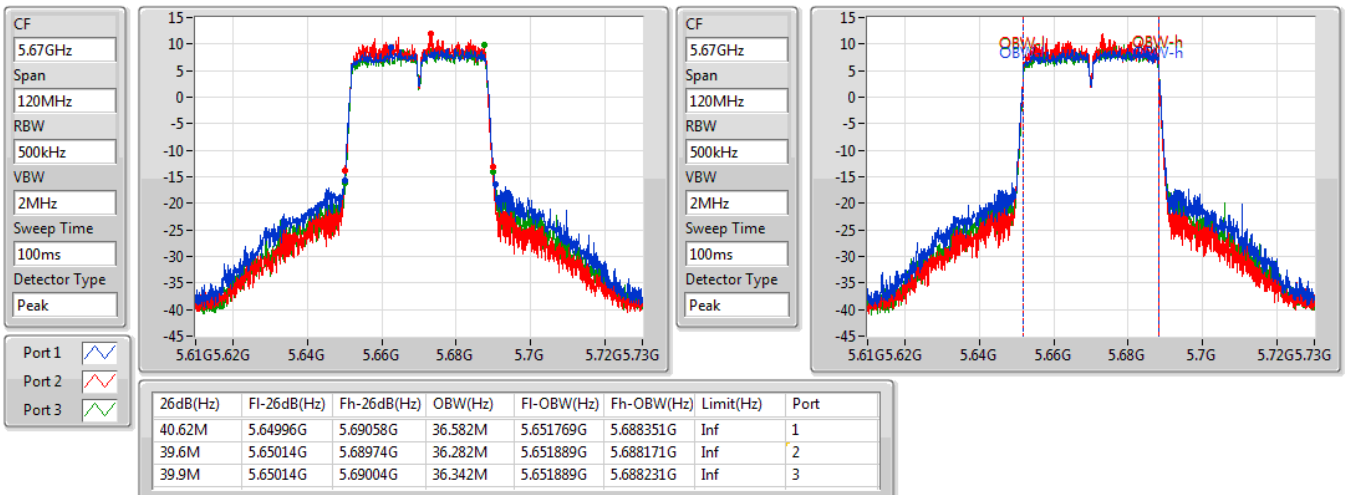


802.11ac VHT40_Nss1,(MCS0)_3TX
EBW
5630MHz

16/10/2020

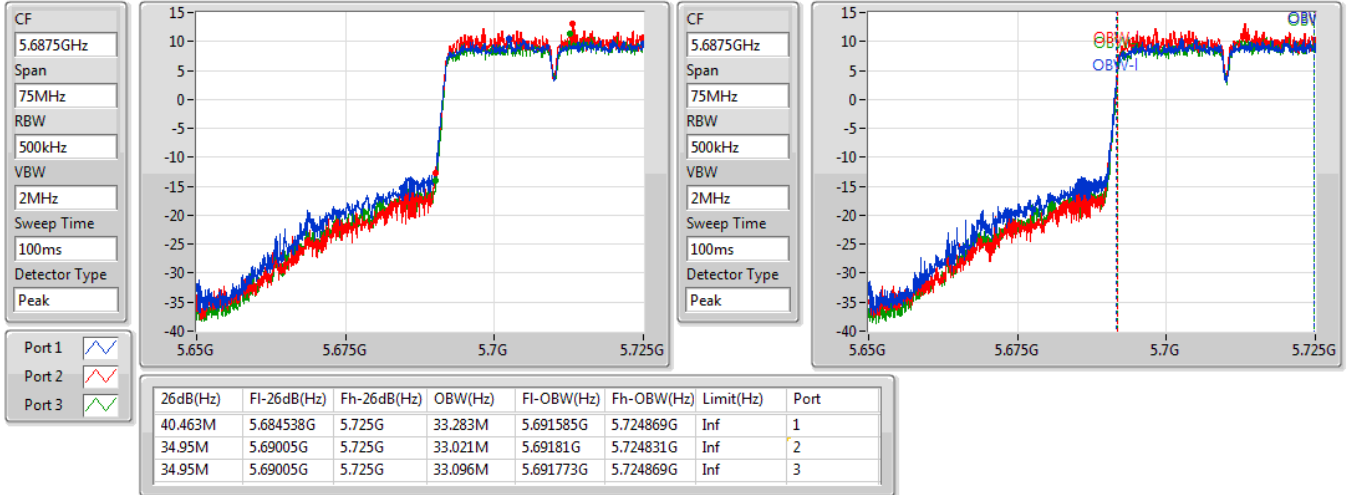

802.11ac VHT40_Nss1,(MCS0)_3TX
EBW
5670MHz

16/10/2020

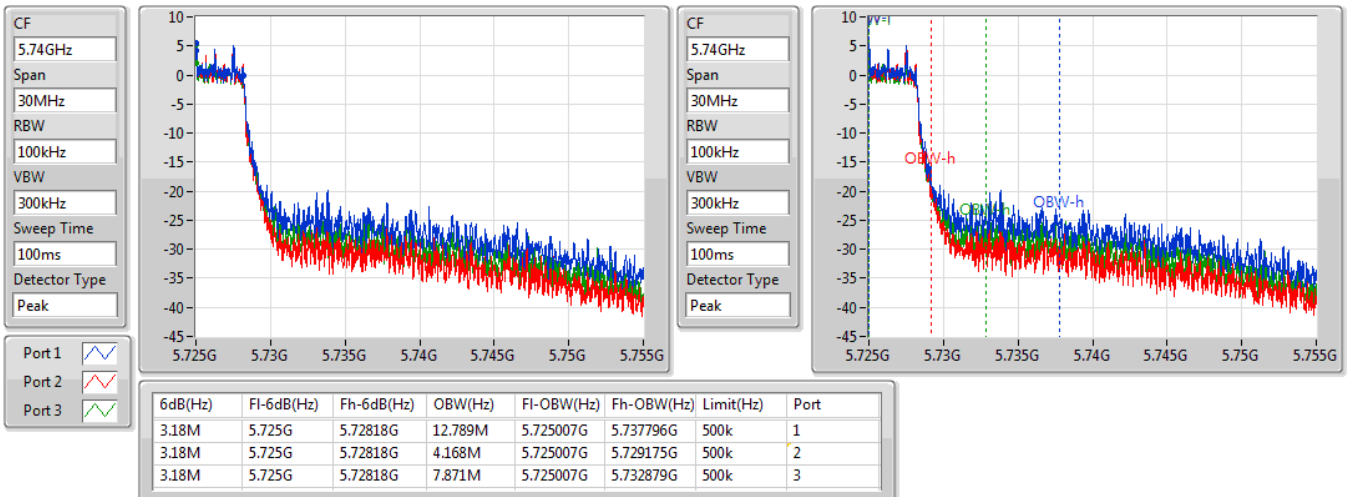


802.11ac VHT40_Nss1,(MCS0)_3TX
EBW
5710MHz Straddle 5.47-5.725GHz

16/10/2020

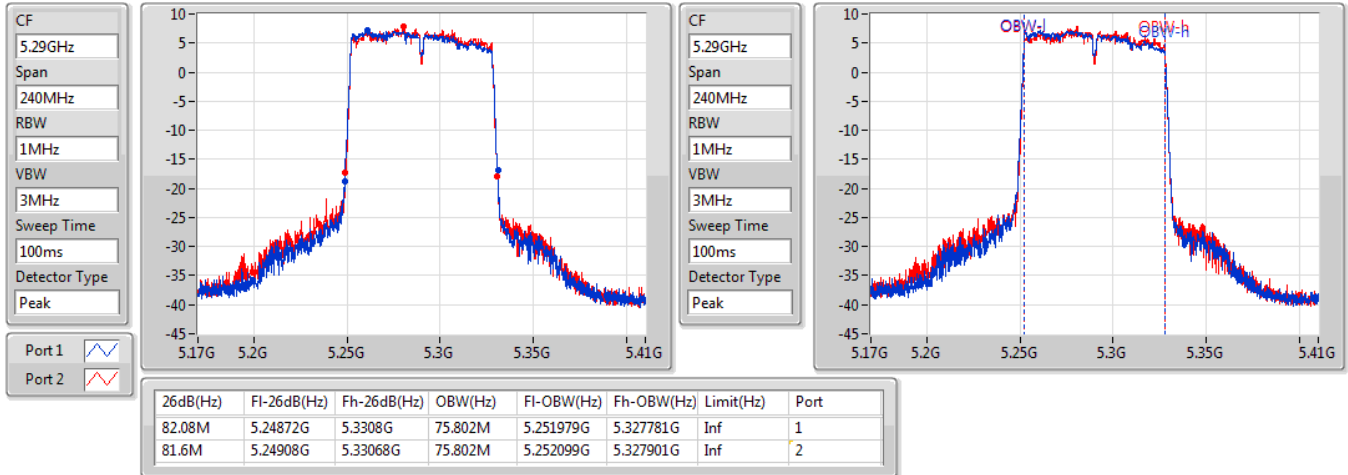

802.11ac VHT40_Nss1,(MCS0)_3TX
EBW
5710MHz Straddle 5.725-5.85GHz

16/10/2020

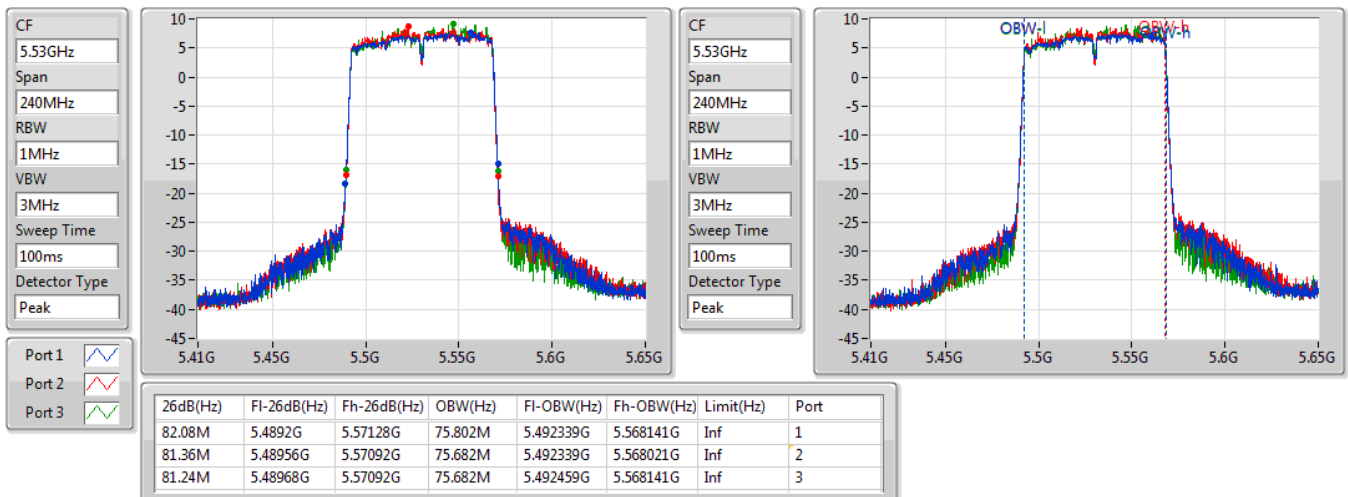


802.11ac VHT80_Nss1,(MCS0)_2TX
EBW
5290MHz

16/10/2020

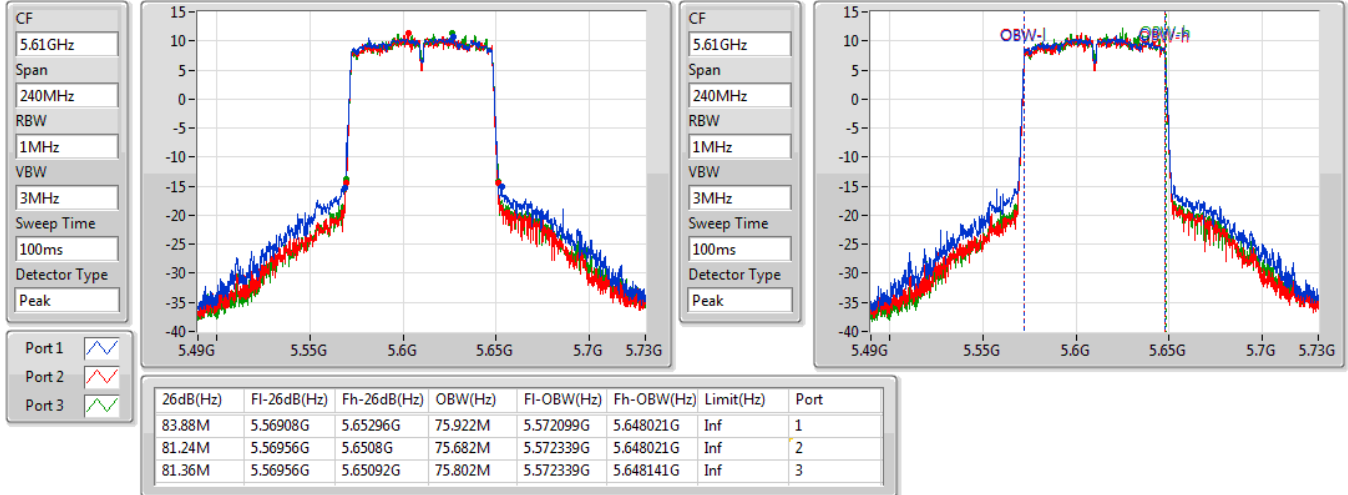

802.11ac VHT80_Nss1,(MCS0)_3TX
EBW
5530MHz

16/10/2020

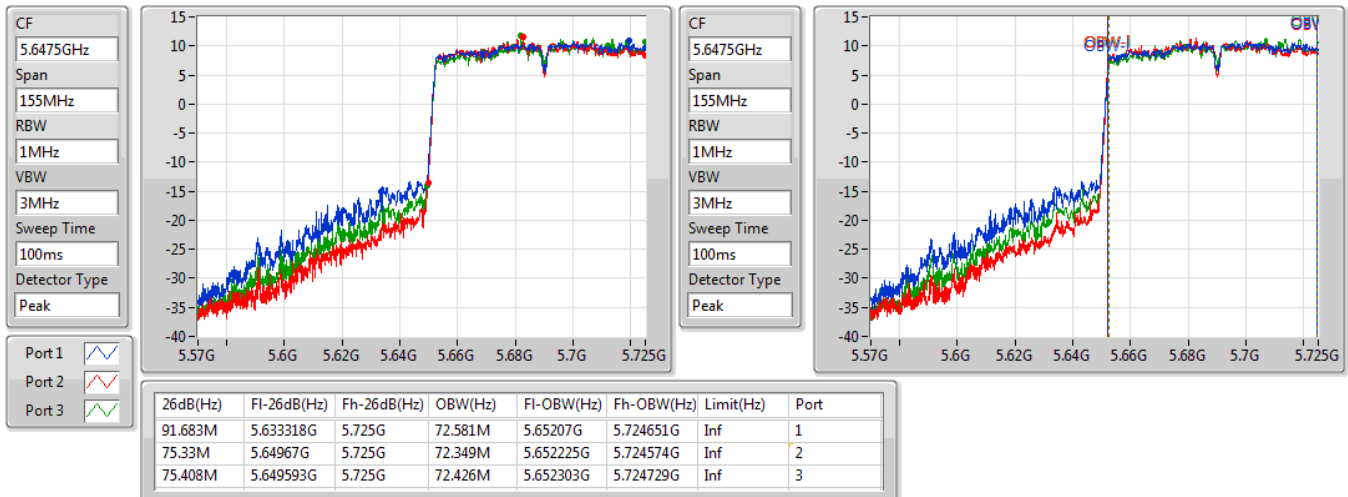


802.11ac VHT80_Nss1,(MCS0)_3TX
EBW
5610MHz

16/10/2020

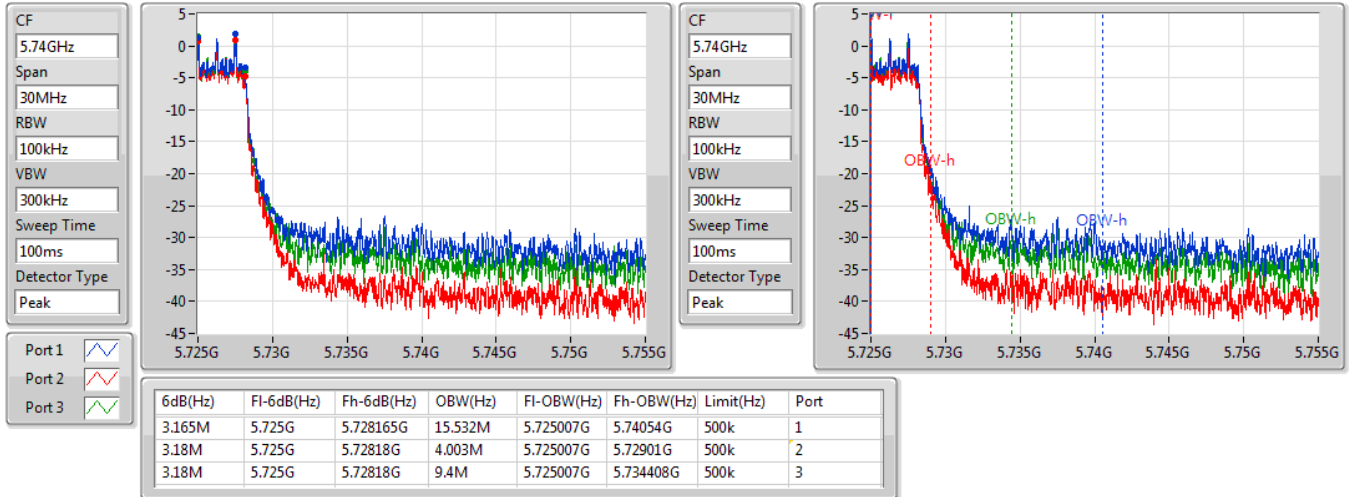

802.11ac VHT80_Nss1,(MCS0)_3TX
EBW
5690MHz Straddle 5.47-5.725GHz

16/10/2020

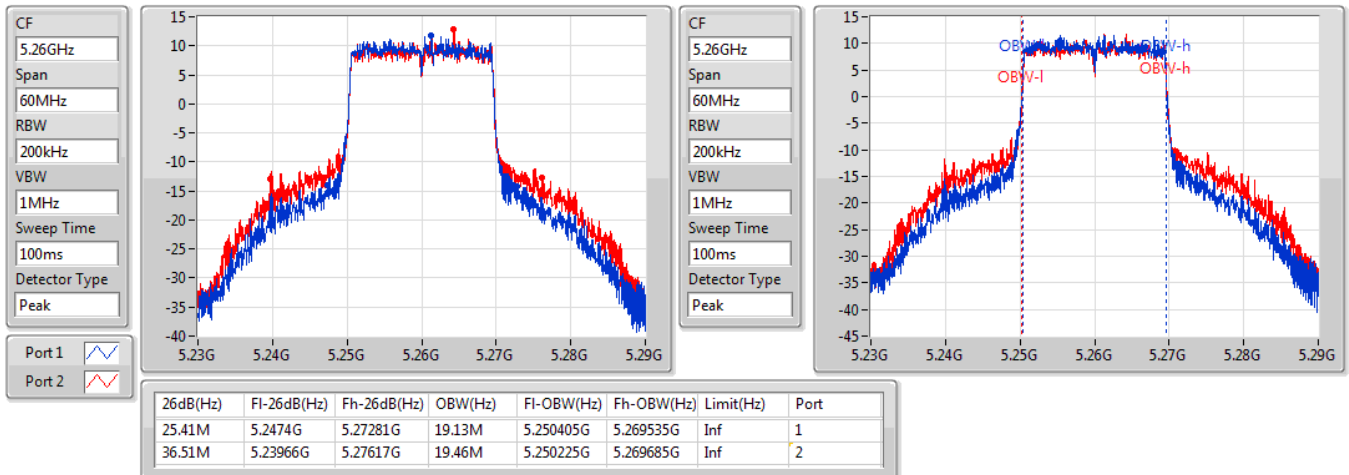


802.11ac VHT80_Nss1,(MCS0)_3TX
EBW
5690MHz Straddle 5.725-5.85GHz

16/10/2020

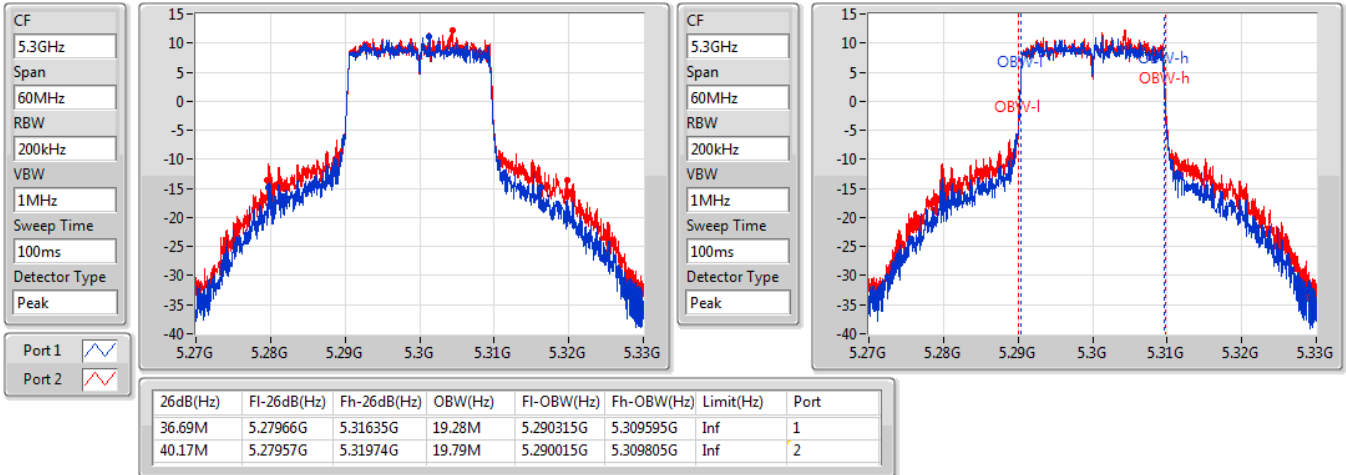

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5260MHz

16/10/2020

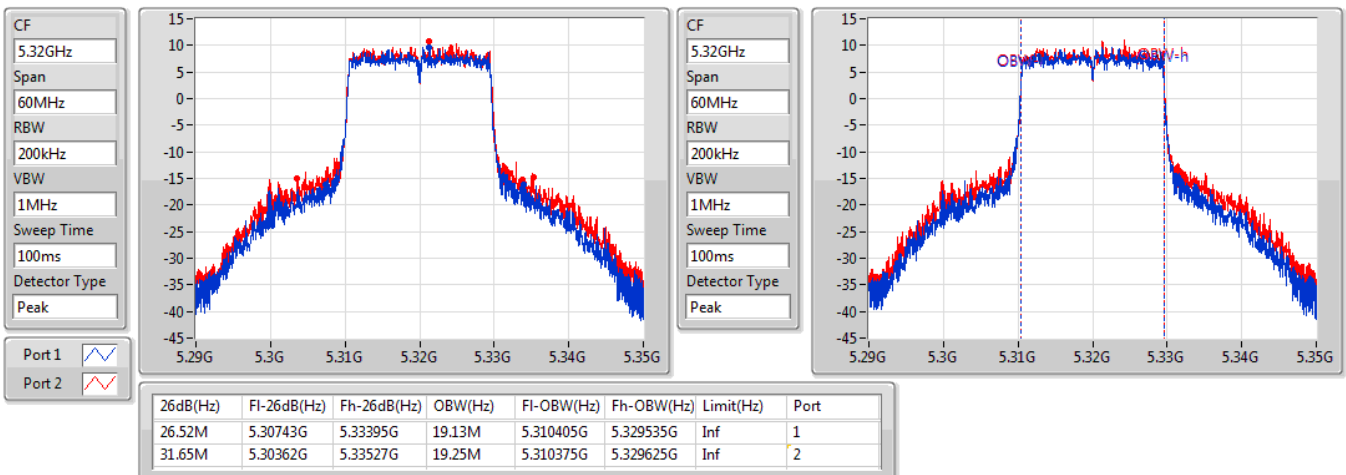


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5300MHz

16/10/2020

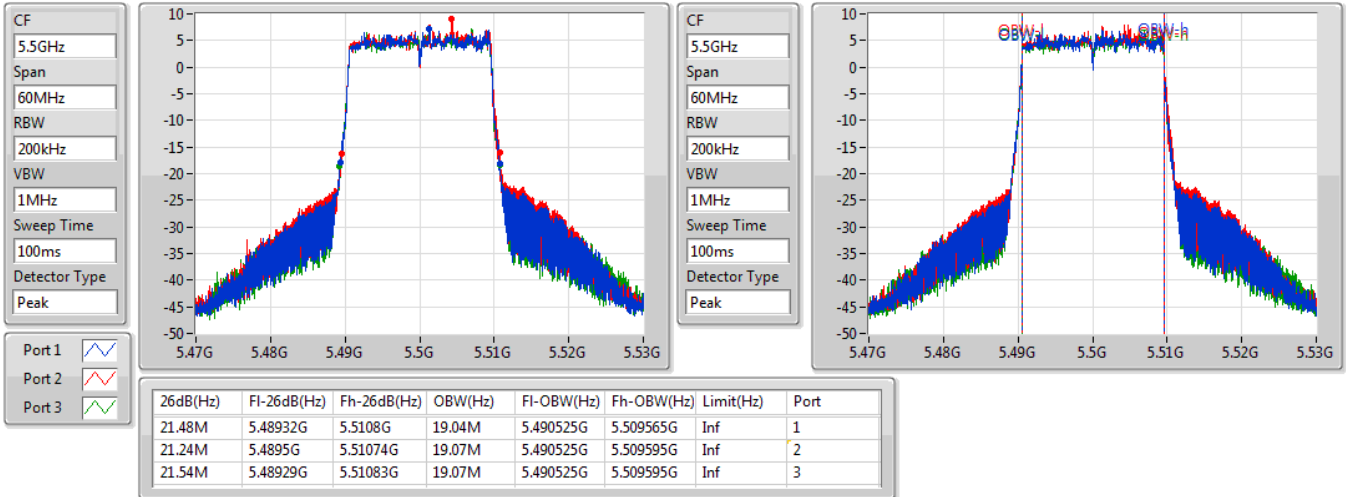

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5320MHz

16/10/2020

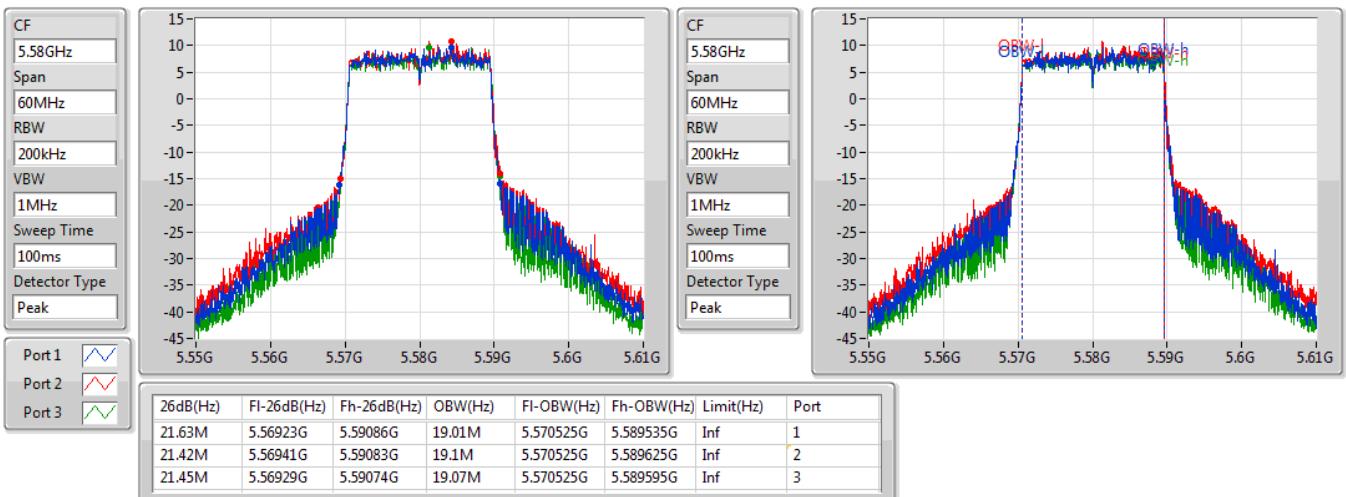


802.11ax HEW20_Nss1,(MCS0)_3TX
EBW
5500MHz

16/10/2020

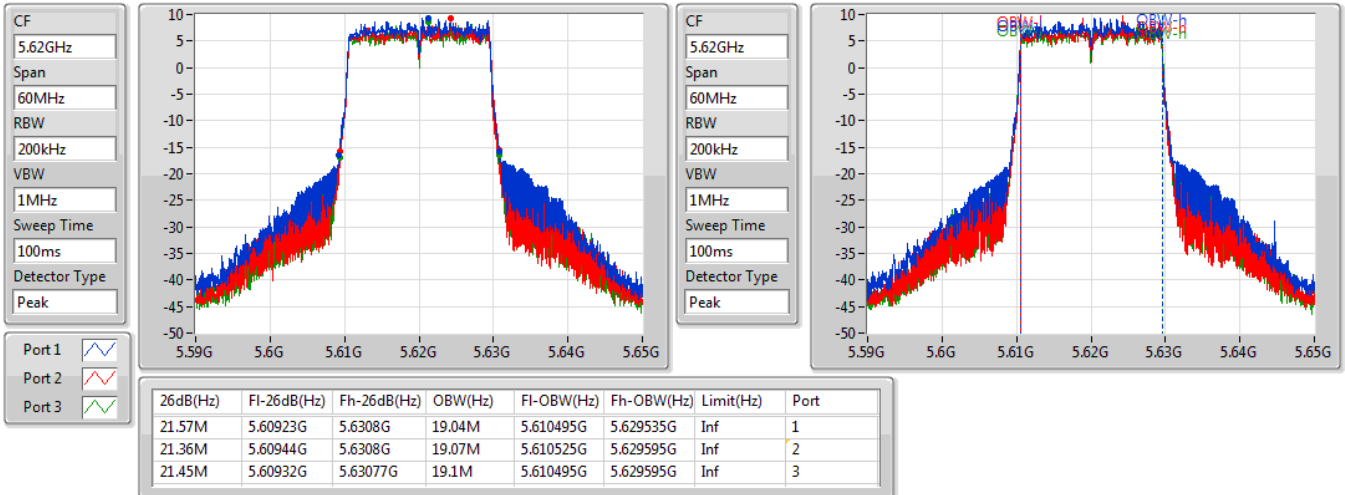

802.11ax HEW20_Nss1,(MCS0)_3TX
EBW
5580MHz

16/10/2020

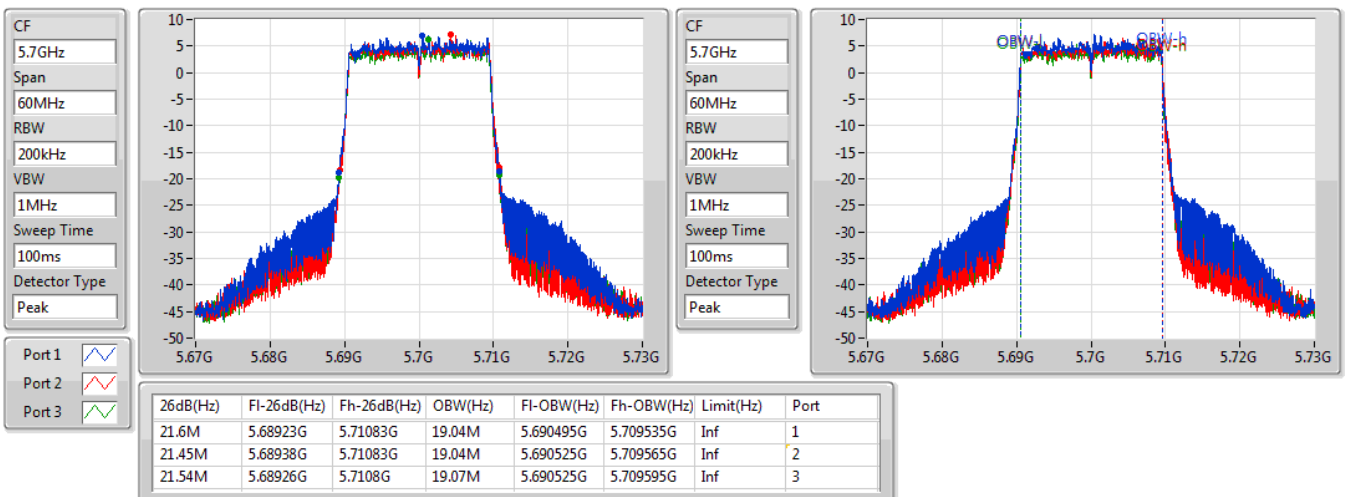


802.11ax HEW20_Nss1,(MCS0)_3TX
EBW
5620MHz

16/10/2020

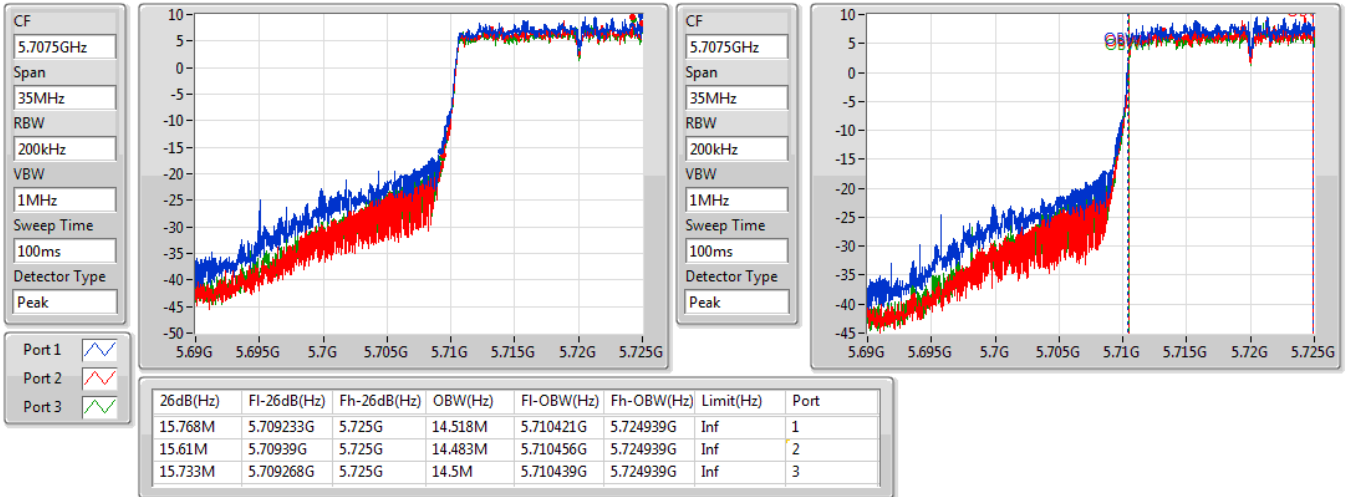

802.11ax HEW20_Nss1,(MCS0)_3TX
EBW
5700MHz

16/10/2020

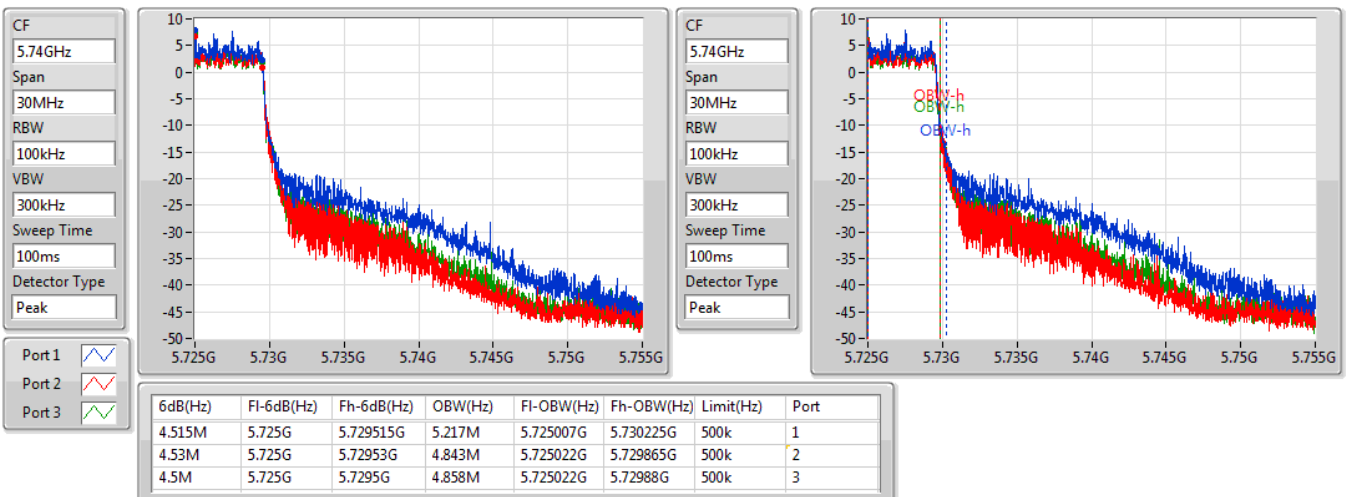


802.11ax HEW20_Nss1,(MCS0)_3TX
EBW
5720MHz Straddle 5.47-5.725GHz

16/10/2020

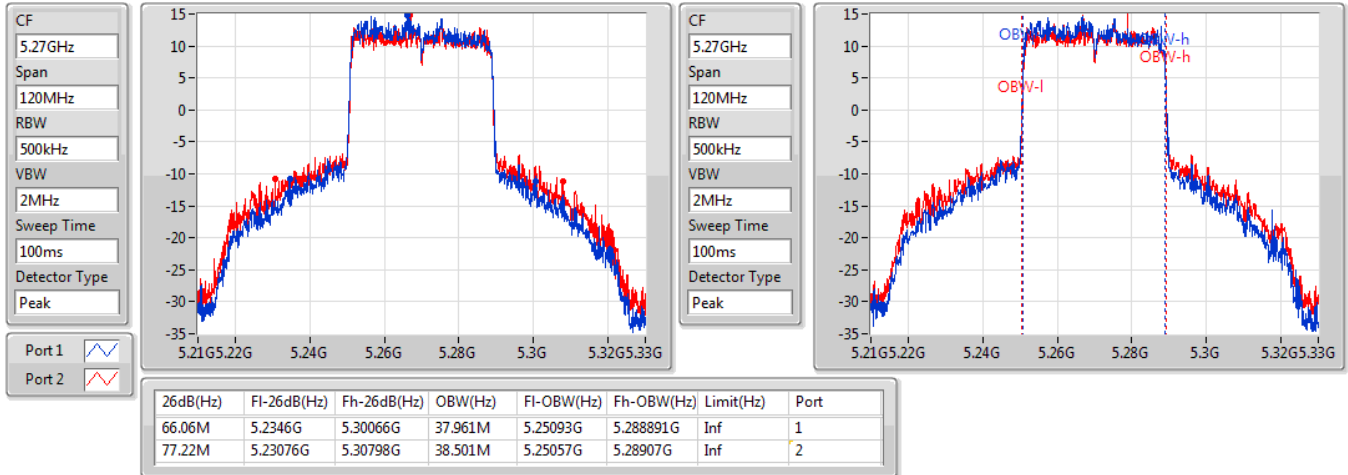

802.11ax HEW20_Nss1,(MCS0)_3TX
EBW
5720MHz Straddle 5.725-5.85GHz

16/10/2020

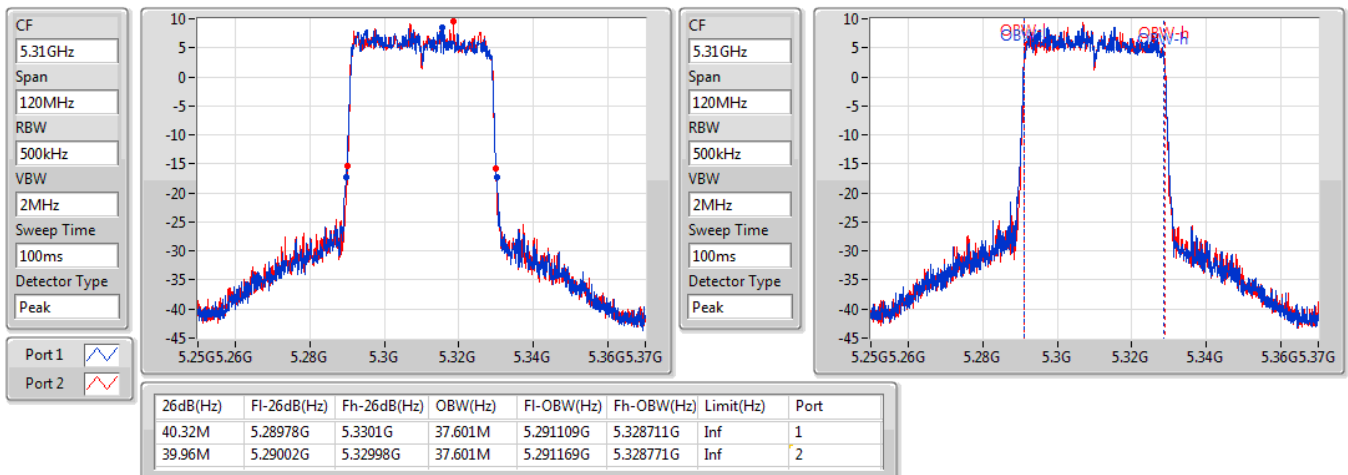


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5270MHz

16/10/2020

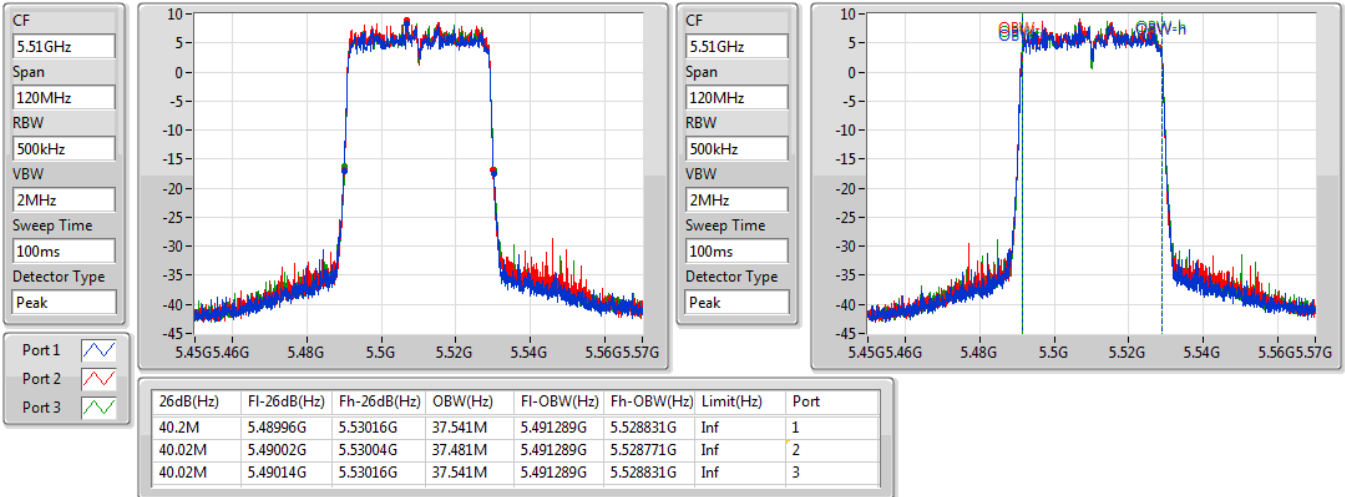

802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5310MHz

16/10/2020

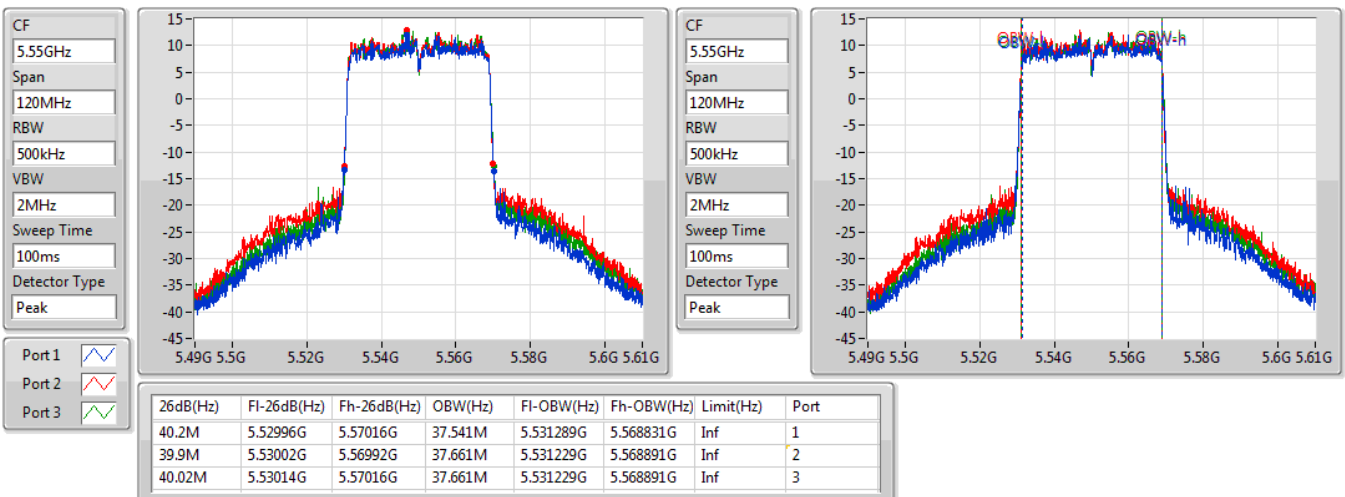


802.11ax HEW40_Nss1,(MCS0)_3TX
EBW
5510MHz

16/10/2020

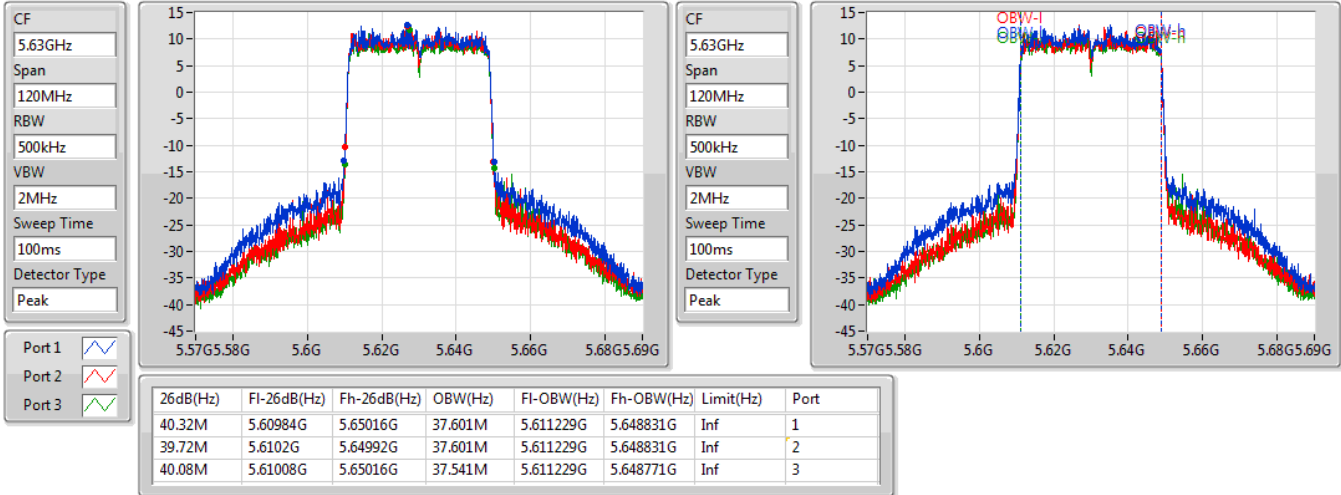

802.11ax HEW40_Nss1,(MCS0)_3TX
EBW
5550MHz

16/10/2020

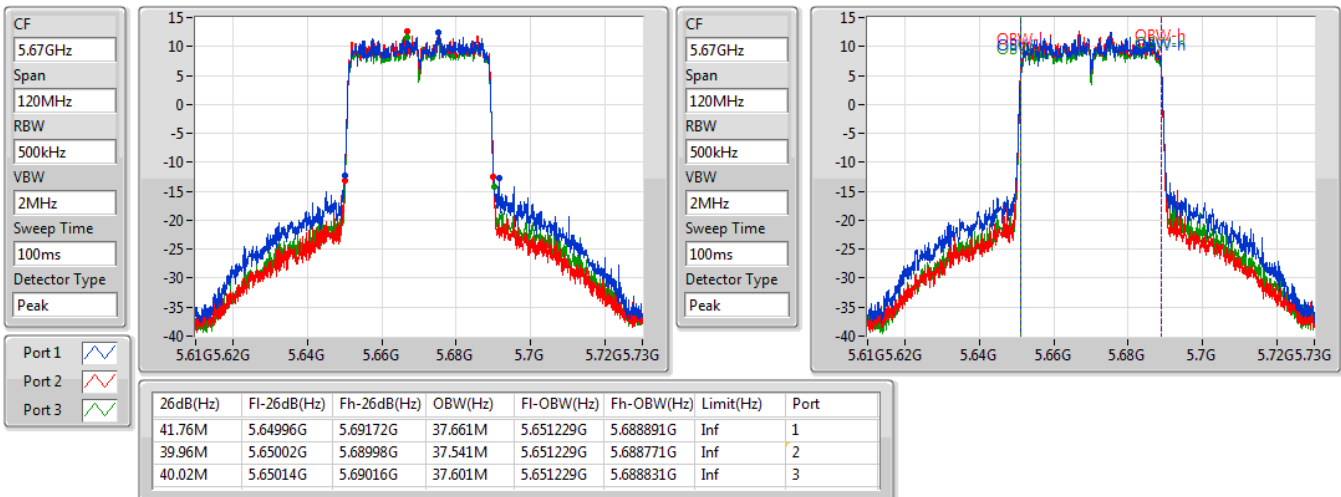


802.11ax HEW40_Nss1,(MCS0)_3TX
EBW
5630MHz

16/10/2020

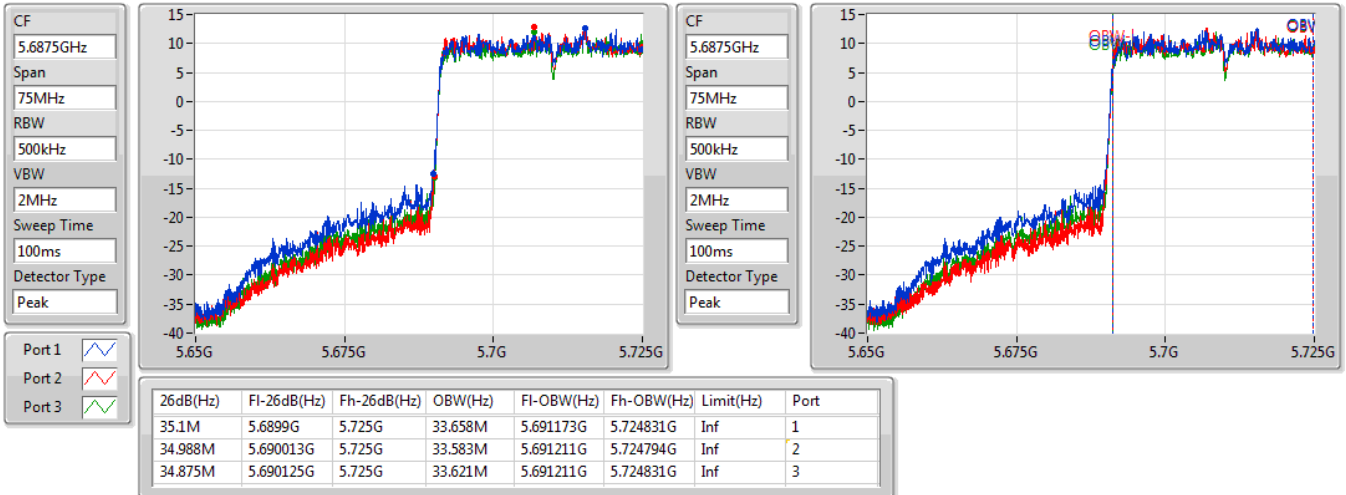

802.11ax HEW40_Nss1,(MCS0)_3TX
EBW
5670MHz

16/10/2020

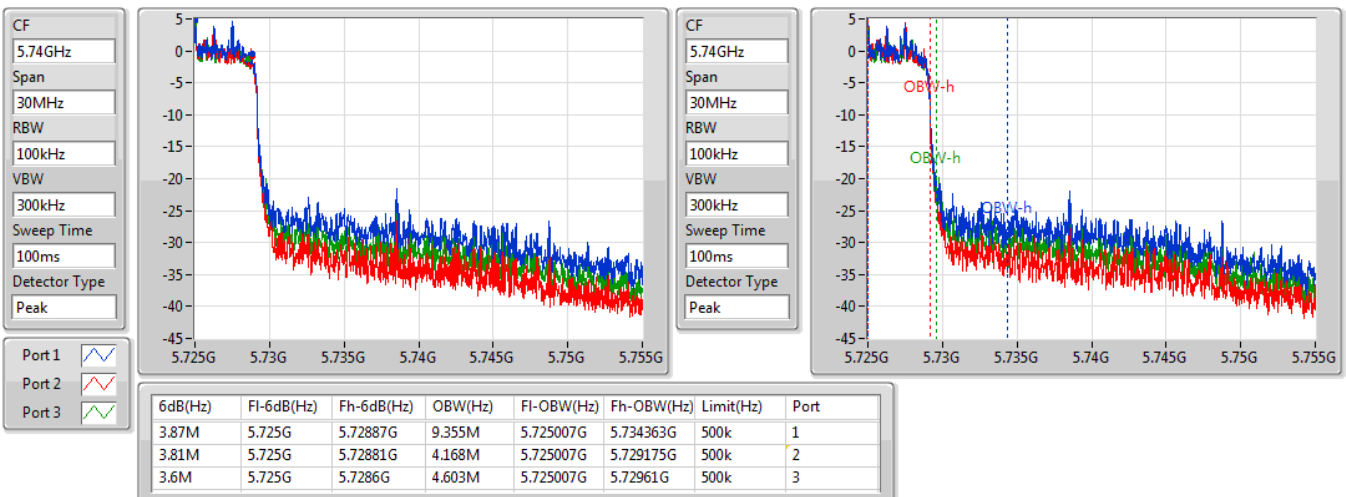


802.11ax HEW40_Nss1,(MCS0)_3TX
EBW
5710MHz Straddle 5.47-5.725GHz

16/10/2020

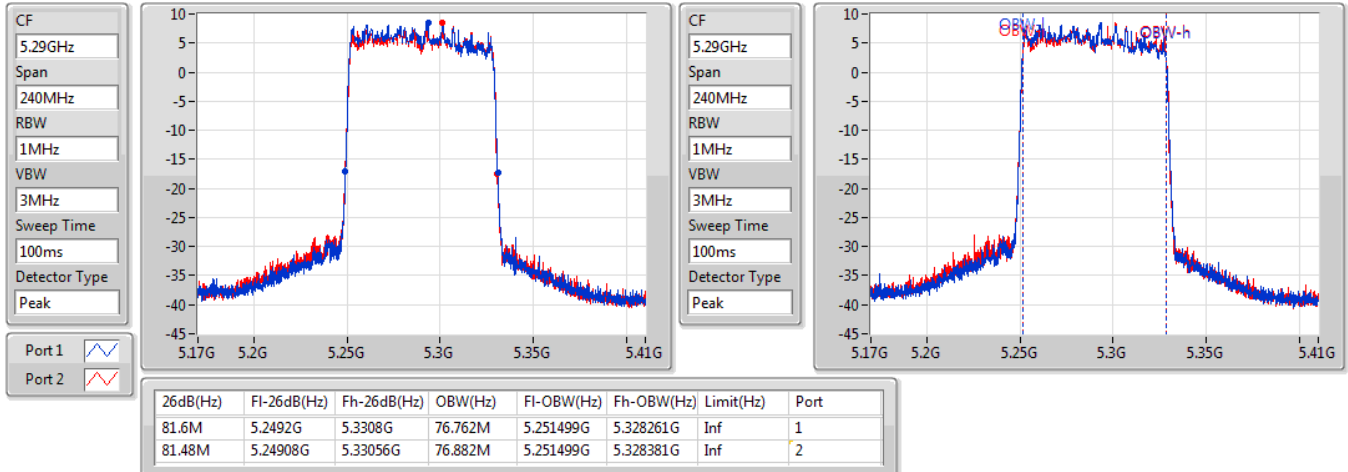

802.11ax HEW40_Nss1,(MCS0)_3TX
EBW
5710MHz Straddle 5.725-5.85GHz

16/10/2020

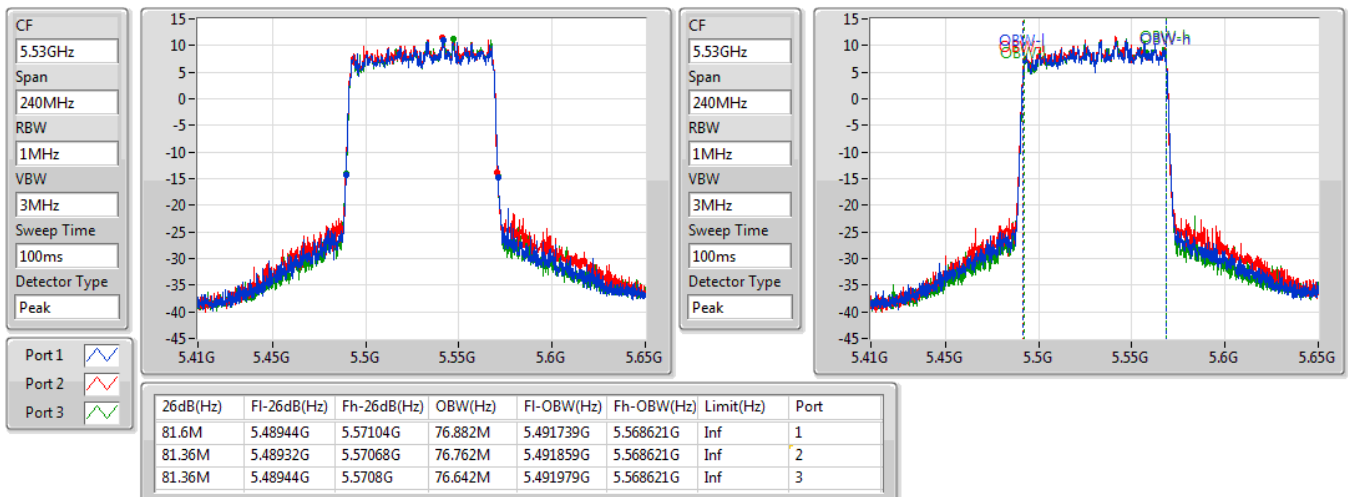


802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
5290MHz

16/10/2020

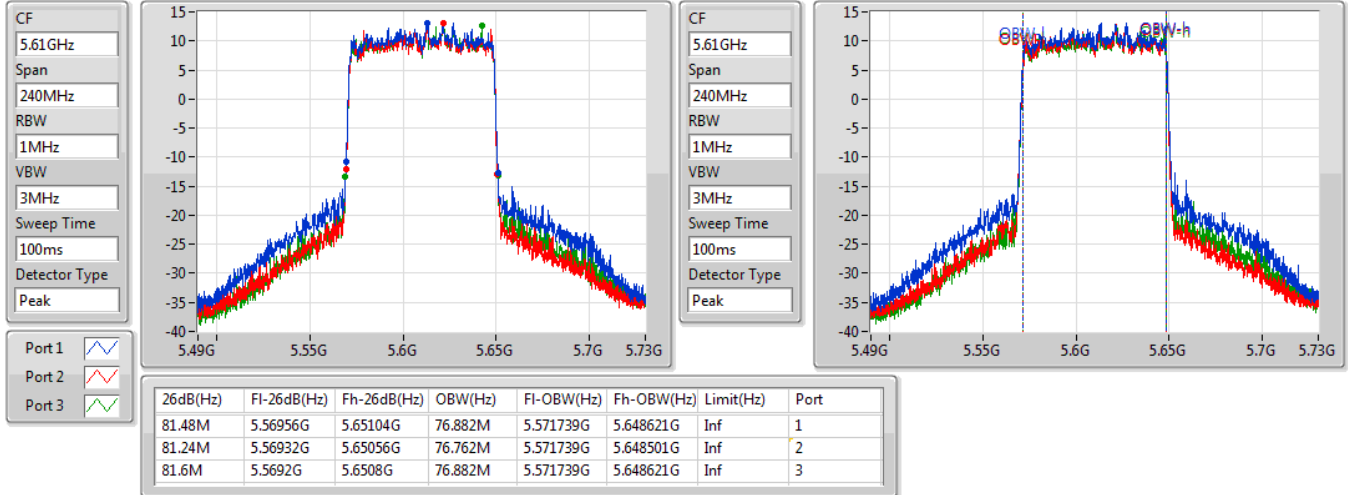

802.11ax HEW80_Nss1,(MCS0)_3TX
EBW
5530MHz

16/10/2020

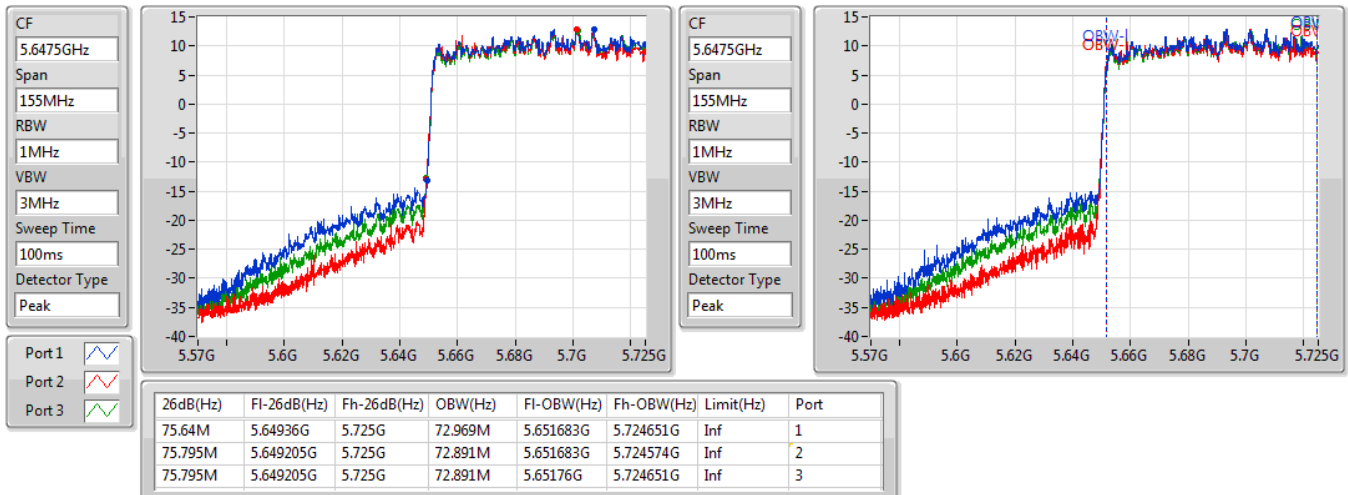


802.11ax HEW80_Nss1,(MCS0)_3TX
EBW
5610MHz

16/10/2020


802.11ax HEW80_Nss1,(MCS0)_3TX
EBW
5690MHz Straddle 5.47-5.725GHz

16/10/2020

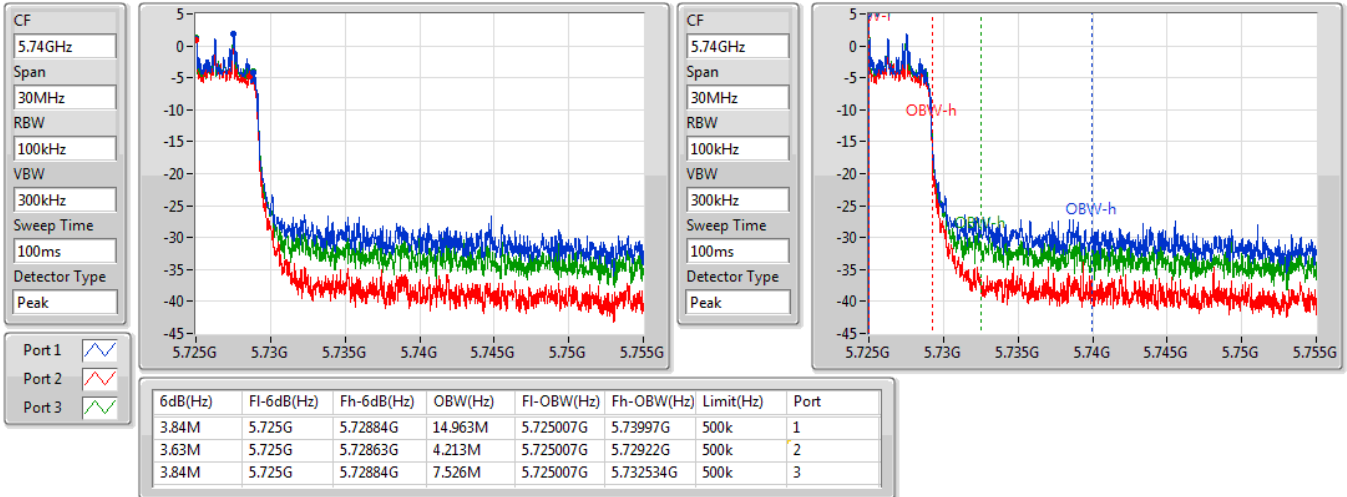


802.11ax HEW80_Nss1,(MCS0)_3TX

EBW

5690MHz Straddle 5.725-5.85GHz

16/10/2020



**Mode 8, Non-beamforming mode: 5GHz Band 3 3T2S CDD
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20_Nss2,(MCS0)_3TX	21.75M	17.931M	17M9D1D	21.21M	17.871M
802.11ac VHT40_Nss2,(MCS0)_3TX	40.2M	36.522M	36M5D1D	39.72M	36.282M
802.11ac VHT80_Nss2,(MCS0)_3TX	81.84M	75.802M	75M8D1D	81.36M	75.802M
802.11ax HEW20_Nss2,(MCS0)_3TX	21.69M	17.931M	17M9D1D	21.51M	17.901M
802.11ax HEW40_Nss2,(MCS0)_3TX	40.02M	37.661M	37M7D1D	39.96M	37.601M
802.11ax HEW80_Nss2,(MCS0)_3TX	81.72M	77.241M	77M2D1D	81.36M	77.121M

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

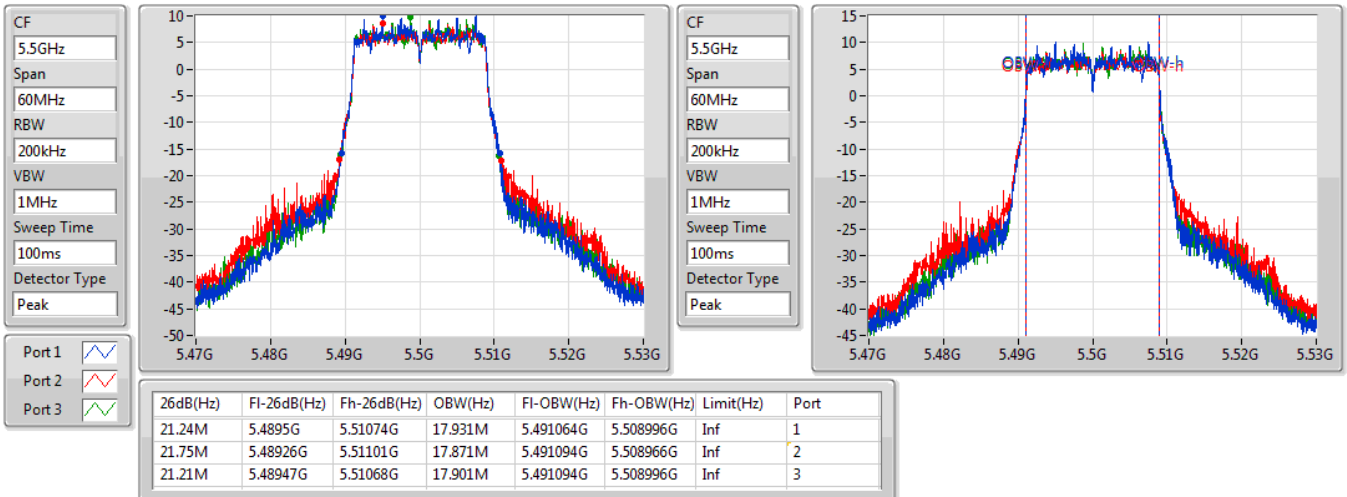
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11ac VHT20_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.24M	17.931M	21.75M	17.871M	21.21M	17.901M
802.11ac VHT40_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	40.2M	36.462M	39.72M	36.282M	39.96M	36.522M
802.11ac VHT80_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	81.36M	75.802M	81.84M	75.802M	81.36M	75.802M
802.11ax HEW20_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.51M	17.901M	21.69M	17.901M	21.57M	17.931M
802.11ax HEW40_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	40.02M	37.661M	40.02M	37.601M	39.96M	37.661M
802.11ax HEW80_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	81.36M	77.121M	81.6M	77.241M	81.72M	77.241M

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

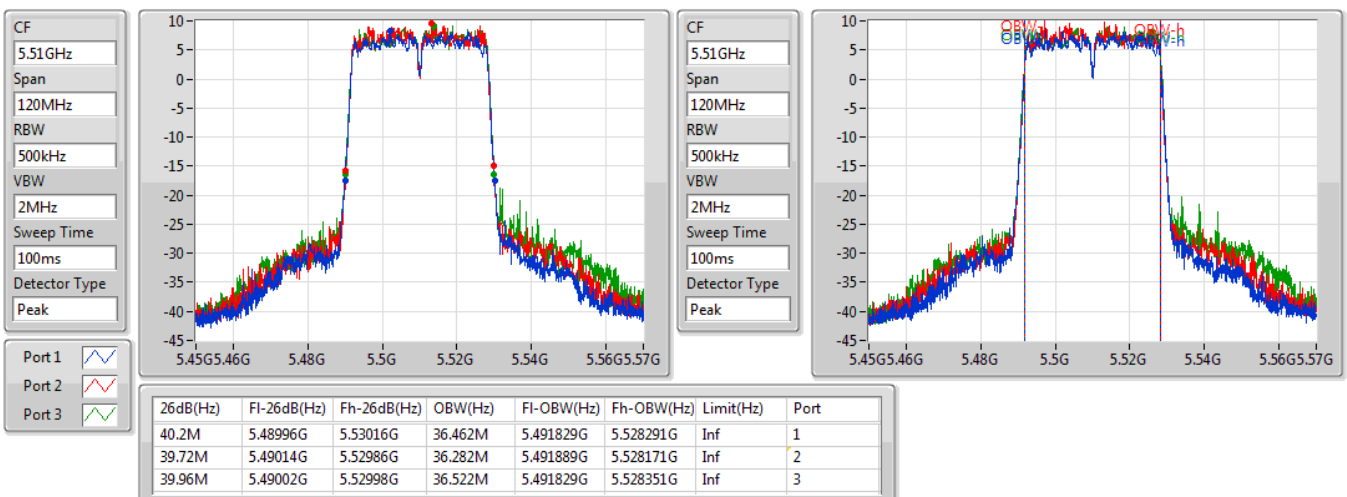
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20_Nss2,(MCS0)_3TX
EBW
5500MHz

16/10/2020

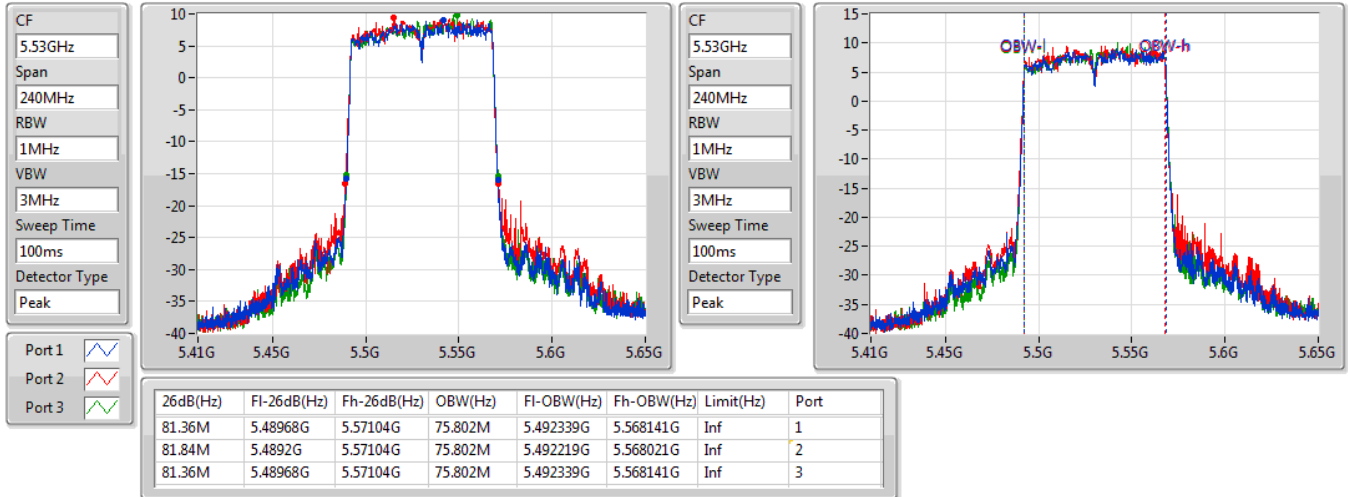

802.11ac VHT40_Nss2,(MCS0)_3TX
EBW
5510MHz

16/10/2020

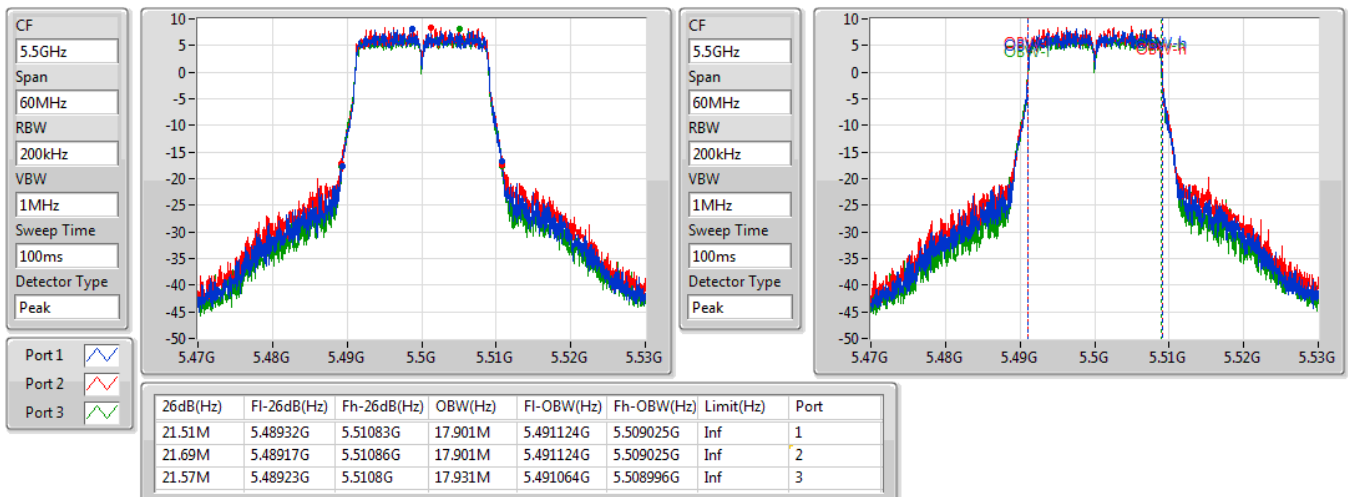


802.11ac VHT80_Nss2,(MCS0)_3TX
EBW
5530MHz

16/10/2020

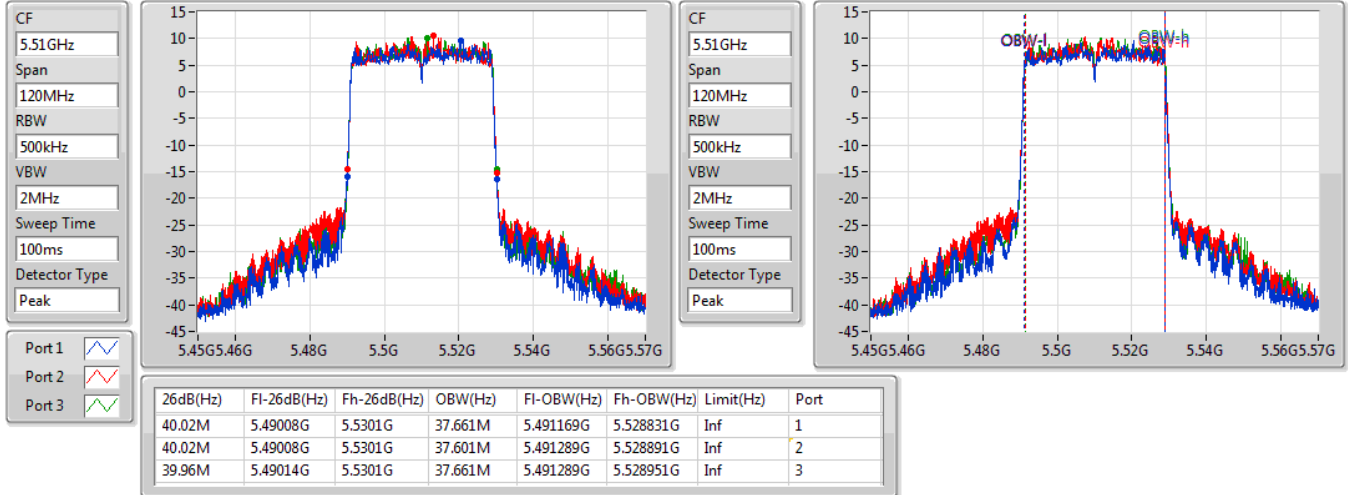

802.11ax HEW20_Nss2,(MCS0)_3TX
EBW
5500MHz

16/10/2020

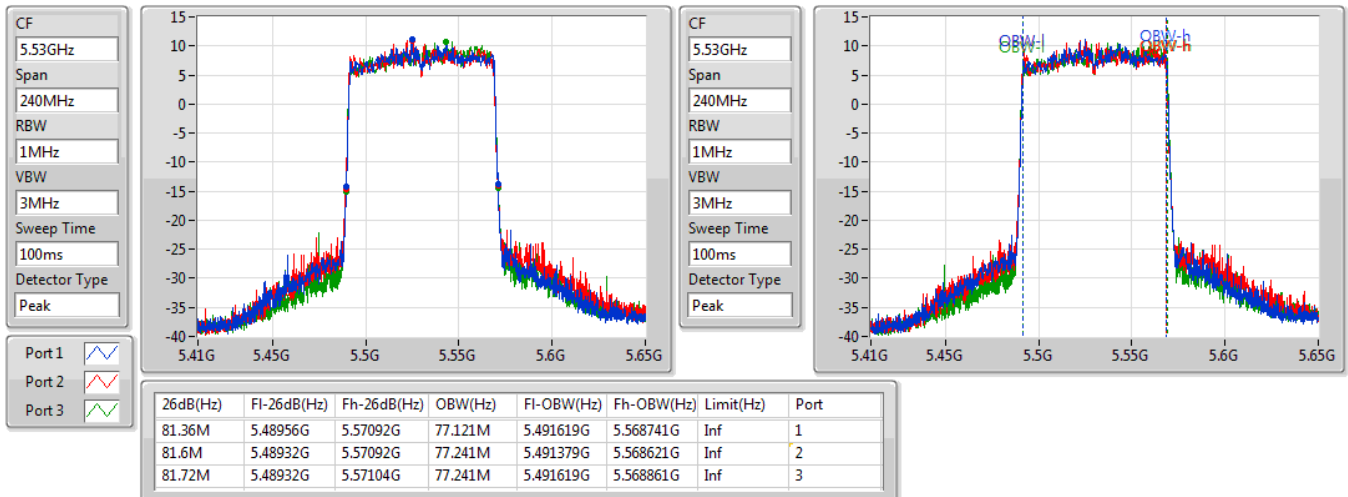


802.11ax HEW40_Nss2,(MCS0)_3TX
EBW
5510MHz

17/10/2020


802.11ax HEW80_Nss2,(MCS0)_3TX
EBW
5530MHz

17/10/2020



**Mode 9, Non-beamforming mode: 5GHz Band 3 3T3S SDM
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20_Nss3,(MCS0)_3TX	21.63M	18.051M	18M1D1D	21.27M	17.811M
802.11ac VHT40_Nss3,(MCS0)_3TX	40.38M	36.582M	36M6D1D	39.6M	36.342M
802.11ac VHT80_Nss3,(MCS0)_3TX	82.08M	75.922M	75M9D1D	81.36M	75.682M
802.11ax HEW20_Nss3,(MCS0)_3TX	21.66M	17.901M	17M9D1D	21.42M	17.871M
802.11ax HEW40_Nss3,(MCS0)_3TX	40.32M	36.462M	36M5D1D	39.78M	36.282M
802.11ax HEW80_Nss3,(MCS0)_3TX	81.36M	77.241M	77M2D1D	81M	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

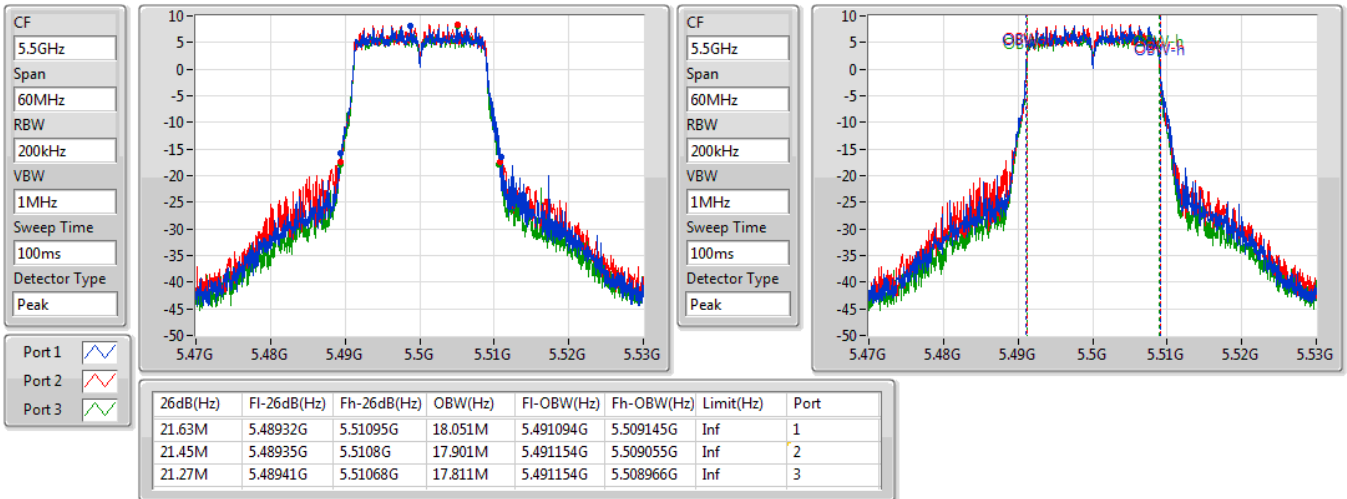
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11ac VHT20_Nss3,(MCS0)_3TX	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.63M	18.051M	21.45M	17.901M	21.27M	17.811M
802.11ac VHT40_Nss3,(MCS0)_3TX	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	40.38M	36.582M	39.96M	36.402M	39.6M	36.342M
802.11ac VHT80_Nss3,(MCS0)_3TX	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	82.08M	75.802M	81.48M	75.922M	81.36M	75.682M
802.11ax HEW20_Nss3,(MCS0)_3TX	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.66M	17.901M	21.6M	17.871M	21.42M	17.871M
802.11ax HEW40_Nss3,(MCS0)_3TX	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	40.32M	36.462M	39.78M	36.282M	39.96M	36.342M
802.11ax HEW80_Nss3,(MCS0)_3TX	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	81.36M	77.001M	81M	77.001M	81.24M	77.241M

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

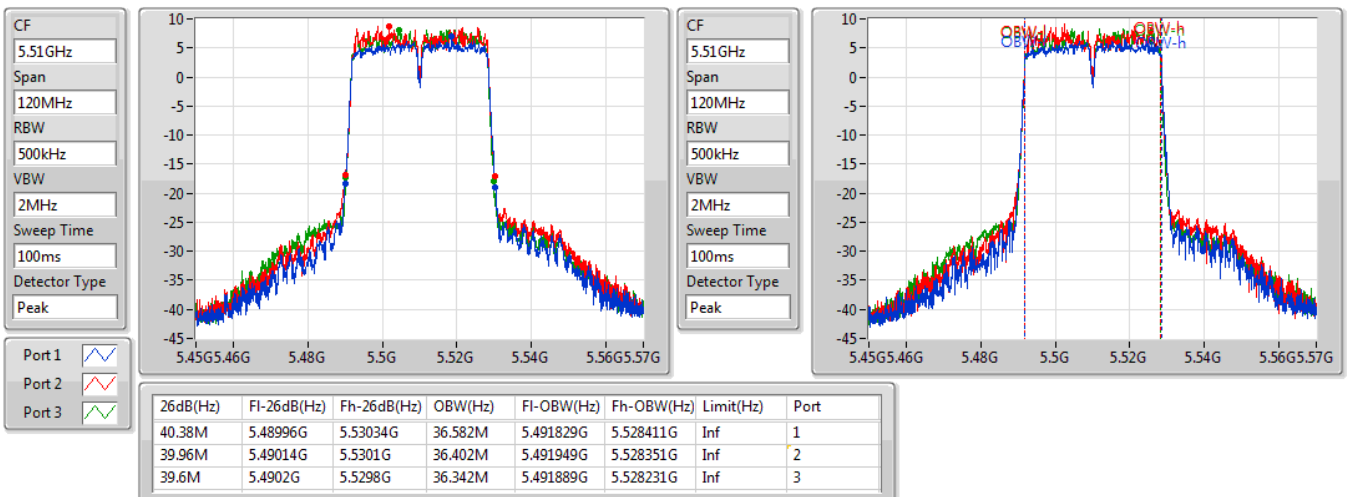
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20_Nss3,(MCS0)_3TX
EBW
5500MHz

17/10/2020

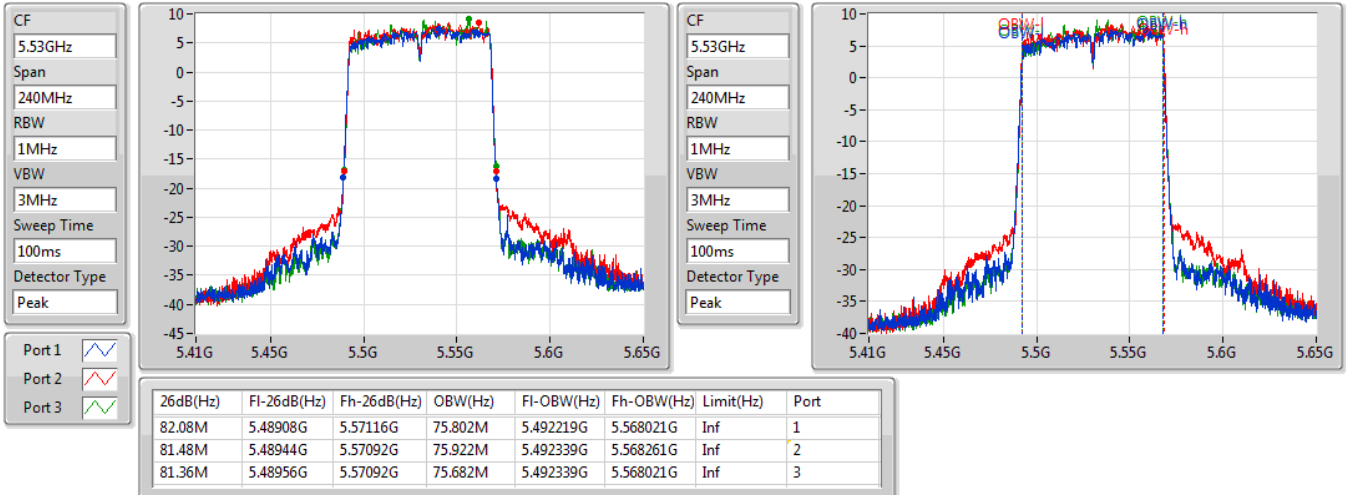

802.11ac VHT40_Nss3,(MCS0)_3TX
EBW
5510MHz

17/10/2020

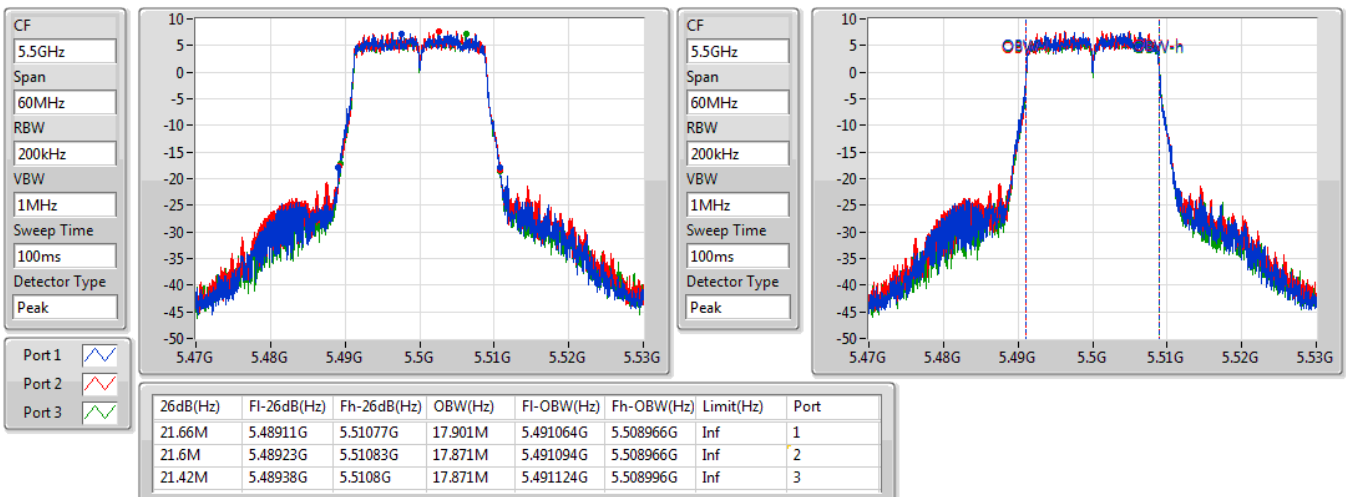


802.11ac VHT80_Nss3,(MCS0)_3TX
EBW
5530MHz

17/10/2020

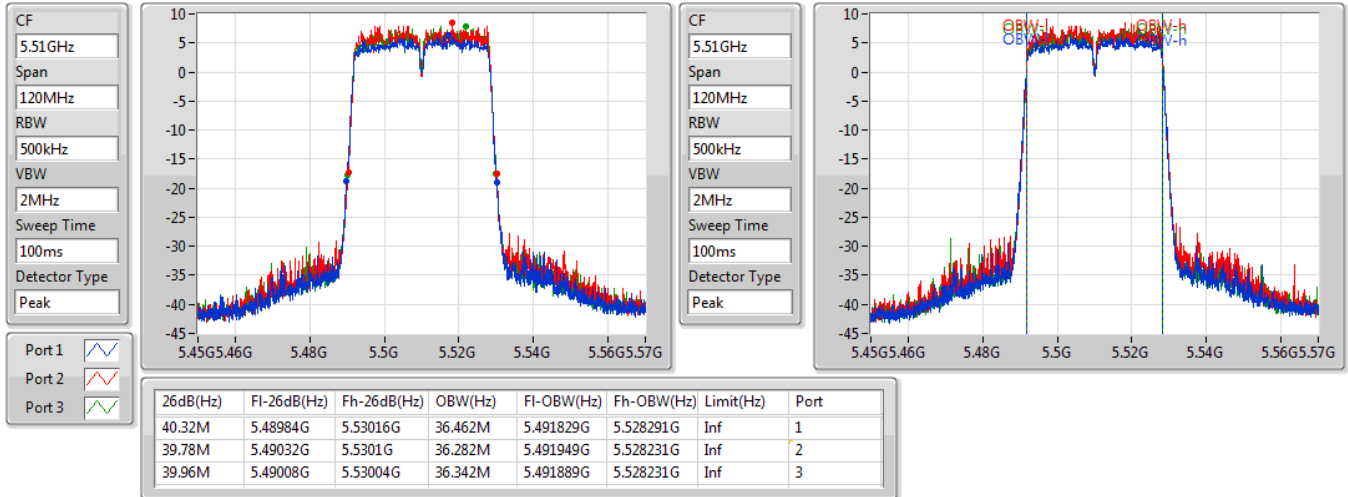

802.11ax HEW20_Nss3,(MCS0)_3TX
EBW
5500MHz

17/10/2020

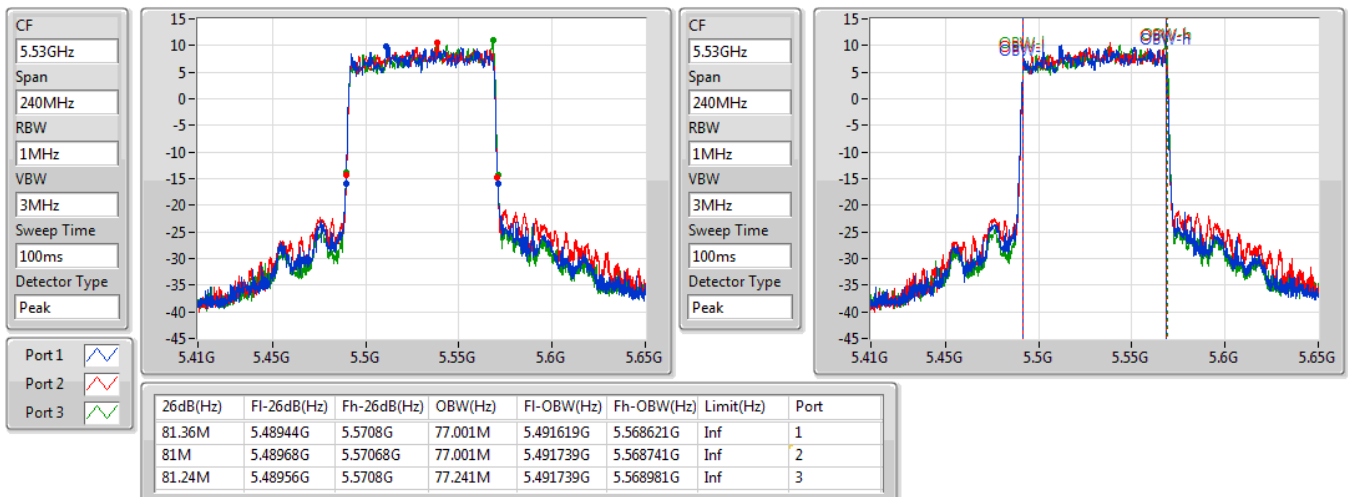


802.11ax HEW40_Nss3,(MCS0)_3TX
EBW
5510MHz

17/10/2020


802.11ax HEW80_Nss3,(MCS0)_3TX
EBW
5530MHz

17/10/2020



Mode 10, Beamforming mode: 5GHz Band 2 2T1S and Band 3 3T1S Beamforming Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.25-5.35GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	38.82M	19.43M	19M4D1D	25.92M	18.081M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	72.54M	38.021M	38M0D1D	39.6M	36.282M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	82.2M	75.802M	75M8D1D	81.36M	75.682M
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	40.14M	19.73M	19M7D1D	22.86M	19.1M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	81.24M	38.501M	38M5D1D	39.9M	37.481M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	81.48M	76.882M	76M9D1D	81.36M	76.762M
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	21.69M	17.961M	18M0D1D	15.663M	13.888M
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	42.48M	36.642M	36M6D1D	34.875M	33.058M
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	87.6M	75.922M	75M9D1D	75.485M	72.349M
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	21.99M	19.1M	19M1D1D	15.645M	14.5M
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	42M	37.661M	37M7D1D	34.875M	33.621M
802.11ax HEW80-BF_Nss1,(MCS0)_3TX	84.6M	76.882M	76M9D1D	75.64M	72.891M
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	3.81M	5.142M	5M14D1D	3.795M	4.498M
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	3.18M	12.654M	12M7D1D	3.18M	4.108M
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	3.18M	15.322M	15M3D1D	3.165M	3.973M
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	4.53M	5.217M	5M22D1D	4.485M	4.843M
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	3.84M	8.921M	8M92D1D	3.78M	4.168M
802.11ax HEW80-BF_Nss1,(MCS0)_3TX	3.84M	14.978M	15M0D1D	3.645M	4.198M

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)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	25.92M	18.111M	38.82M	19.43M		
5300MHz	Pass	Inf	27.57M	18.231M	38.67M	19.4M		
5320MHz	Pass	Inf	27.3M	18.081M	26.7M	18.081M		
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.42M	17.901M	21.33M	17.781M	21.42M	17.781M
5580MHz	Pass	Inf	21.45M	17.931M	21.48M	17.811M	21.39M	17.781M
5620MHz	Pass	Inf	21.69M	17.961M	21.39M	17.781M	21.42M	17.781M
5700MHz	Pass	Inf	21.54M	17.931M	21.42M	17.781M	21.33M	17.811M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	18.69M	14.063M	15.733M	13.888M	15.663M	13.888M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.795M	5.142M	3.81M	4.498M	3.81M	4.603M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	72M	37.361M	72.54M	38.021M		
5310MHz	Pass	Inf	40.08M	36.522M	39.6M	36.282M		
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	40.26M	36.462M	39.6M	36.282M	39.78M	36.342M
5550MHz	Pass	Inf	40.2M	36.522M	39.54M	36.342M	40.44M	36.342M
5630MHz	Pass	Inf	41.88M	36.642M	39.6M	36.282M	40.14M	36.402M
5670MHz	Pass	Inf	40.38M	36.642M	39.66M	36.282M	42.48M	36.402M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	40.238M	33.283M	34.875M	33.058M	35.288M	33.058M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.18M	12.654M	3.18M	4.108M	3.18M	7.901M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	82.2M	75.802M	81.36M	75.682M		
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	82.08M	75.802M	81.36M	75.682M	81.36M	75.682M
5610MHz	Pass	Inf	87.6M	75.922M	81.48M	75.802M	81.24M	75.682M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	85.638M	72.504M	75.485M	72.349M	75.563M	72.426M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.165M	15.322M	3.18M	3.973M	3.165M	10.93M
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	25.68M	19.13M	37.62M	19.46M		
5300MHz	Pass	Inf	36.48M	19.25M	40.14M	19.73M		
5320MHz	Pass	Inf	22.86M	19.1M	23.16M	19.16M		
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.57M	19.04M	21.42M	19.07M	21.51M	19.1M
5580MHz	Pass	Inf	21.51M	19.04M	21.99M	19.07M	21.45M	19.07M
5620MHz	Pass	Inf	21.57M	19.04M	21.45M	19.04M	21.51M	19.1M
5700MHz	Pass	Inf	21.57M	19.04M	21.51M	19.04M	21.45M	19.07M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	16.538M	14.535M	15.645M	14.5M	15.715M	14.518M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.53M	5.217M	4.5M	4.843M	4.485M	4.918M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	64.56M	37.961M	81.24M	38.501M		
5310MHz	Pass	Inf	40.26M	37.541M	39.9M	37.481M		
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	40.14M	37.541M	40.08M	37.601M	40.02M	37.541M

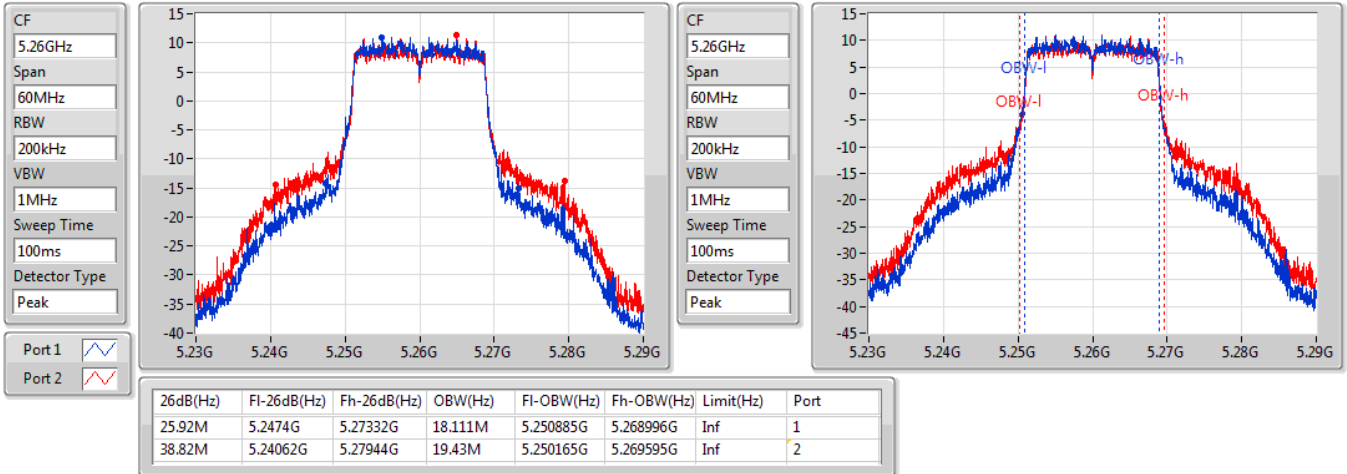
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
5550MHz	Pass	Inf	40.2M	37.541M	40.02M	37.541M	40.02M	37.541M
5630MHz	Pass	Inf	40.14M	37.541M	39.78M	37.541M	40.08M	37.541M
5670MHz	Pass	Inf	42M	37.661M	40.02M	37.601M	40.08M	37.601M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.138M	33.658M	34.988M	33.621M	34.875M	33.658M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.84M	8.921M	3.81M	4.168M	3.78M	4.573M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	81.48M	76.762M	81.36M	76.882M		
802.11ax HEW80-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	81.48M	76.762M	81.36M	76.762M	81.48M	76.642M
5610MHz	Pass	Inf	84.6M	76.882M	81.24M	76.762M	81.48M	76.882M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.64M	72.969M	75.795M	72.891M	75.795M	72.891M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.84M	14.978M	3.645M	4.198M	3.825M	7.526M

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

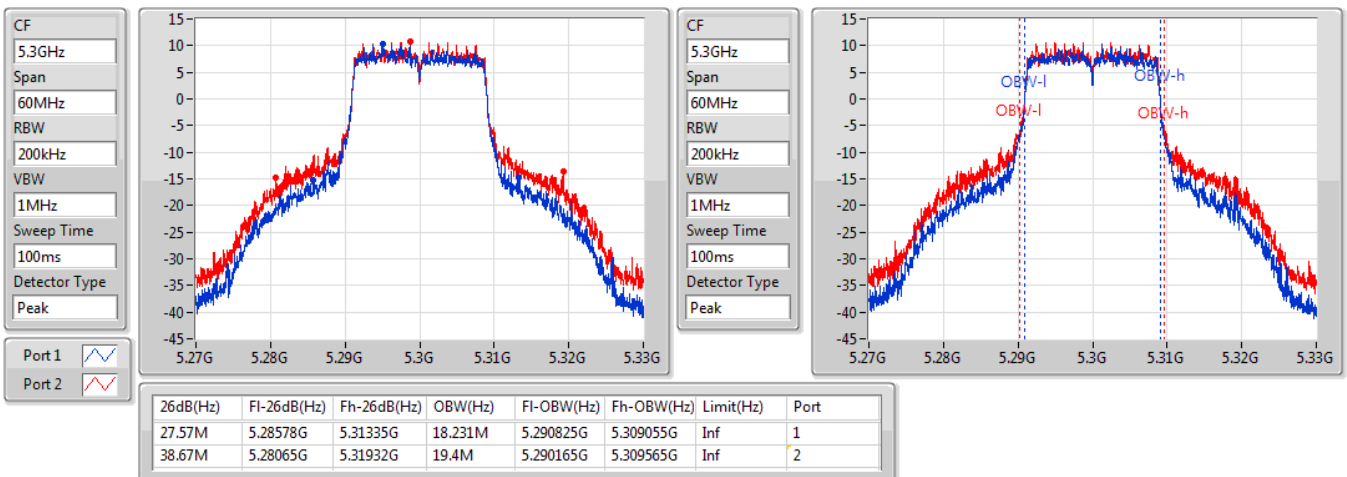
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5260MHz

16/10/2020

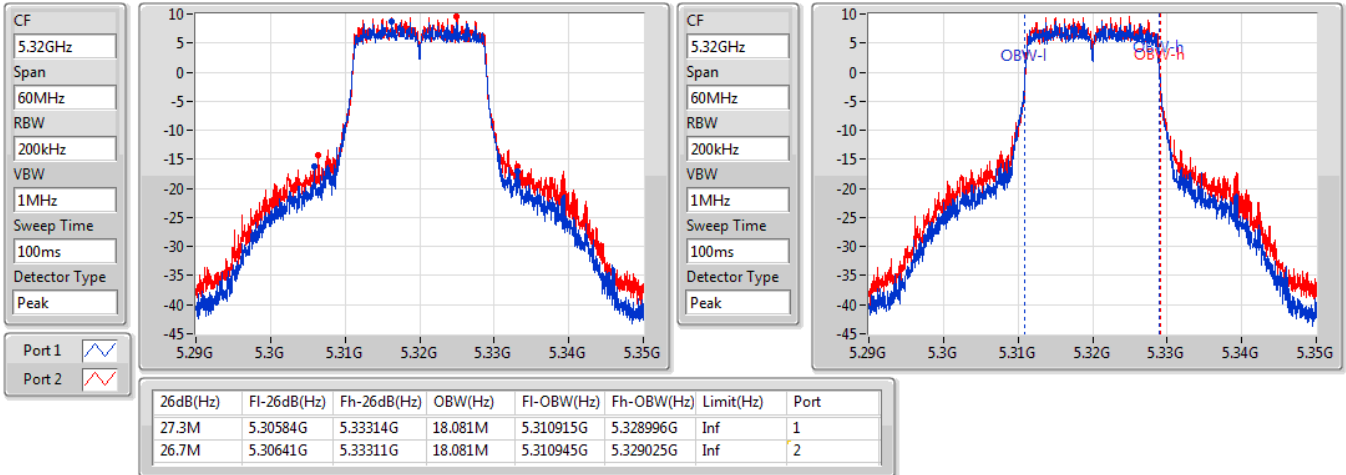

802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5300MHz

16/10/2020

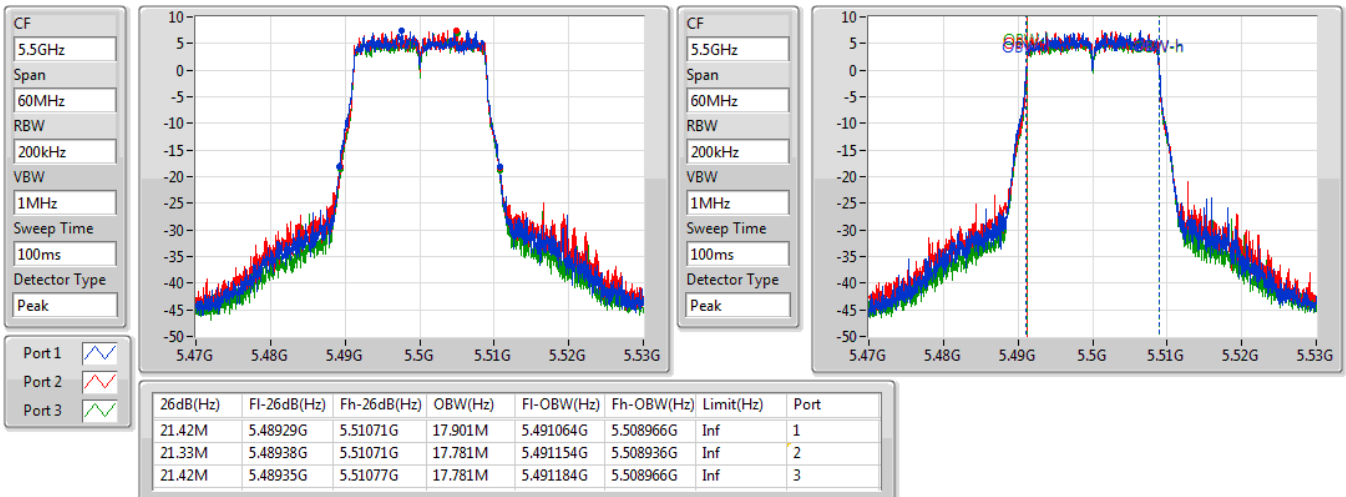


802.11ac VHT20-BF_Nss1,(MCS0)_2TX
EBW
5320MHz

16/10/2020

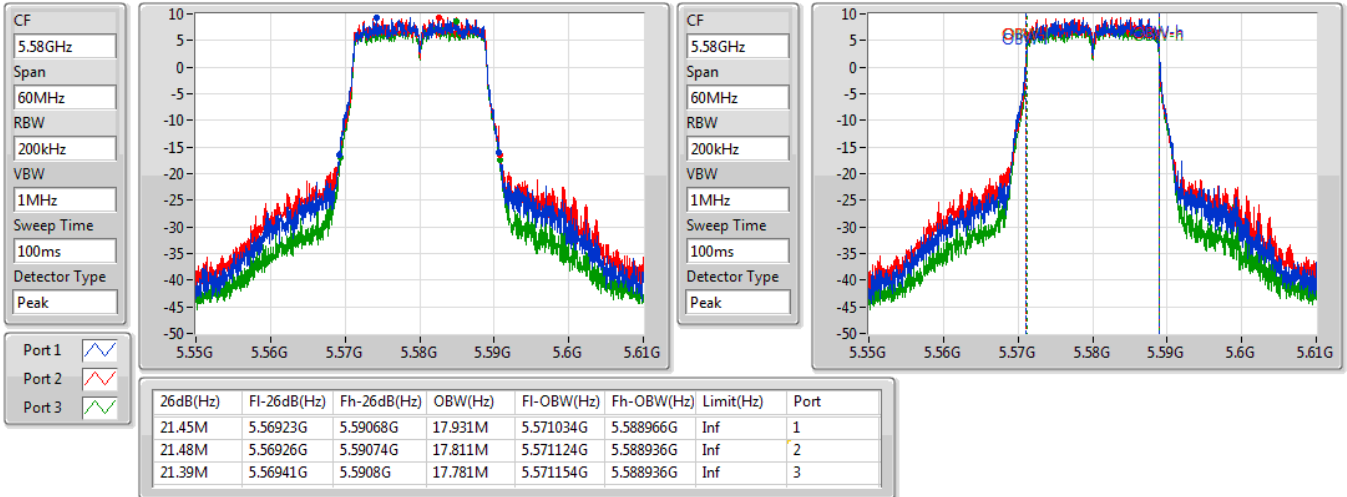

802.11ac VHT20-BF_Nss1,(MCS0)_3TX
EBW
5500MHz

16/10/2020

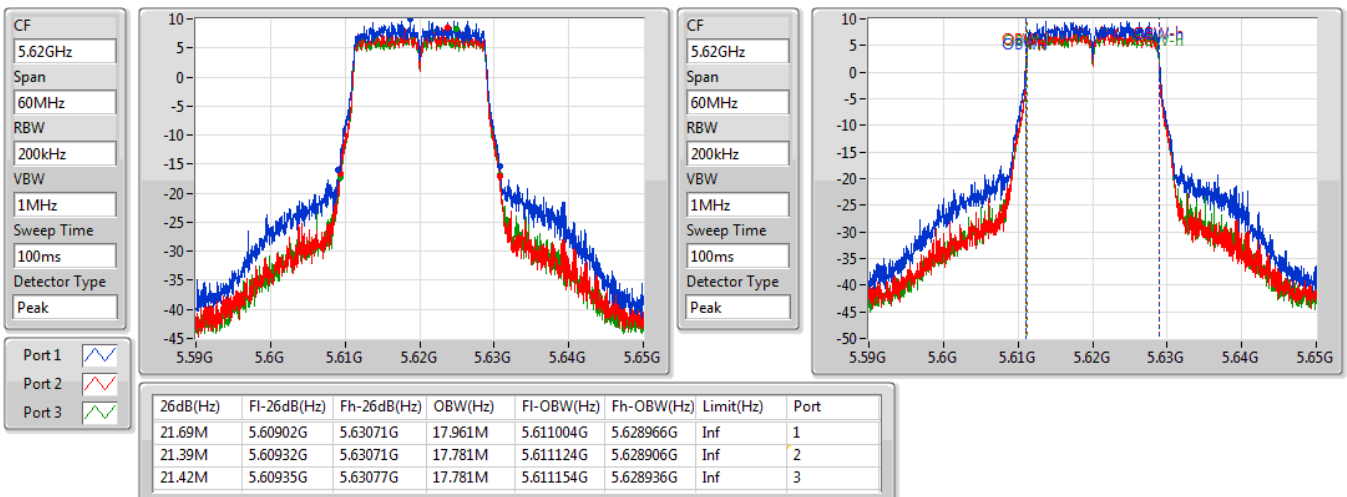


802.11ac VHT20-BF_Nss1,(MCS0)_3TX
EBW
5580MHz

16/10/2020

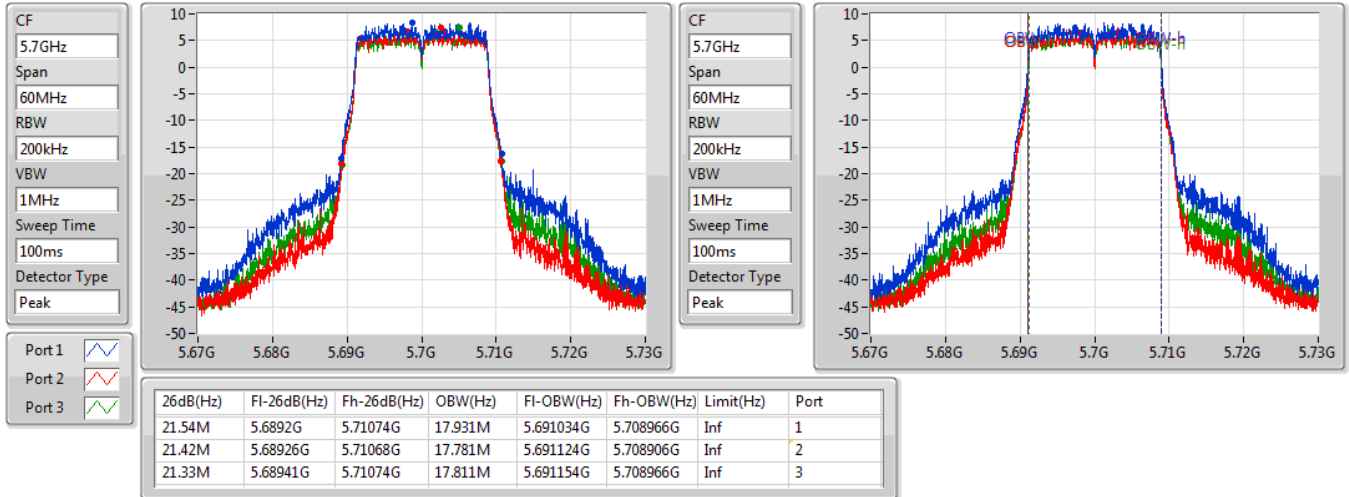

802.11ac VHT20-BF_Nss1,(MCS0)_3TX
EBW
5620MHz

16/10/2020

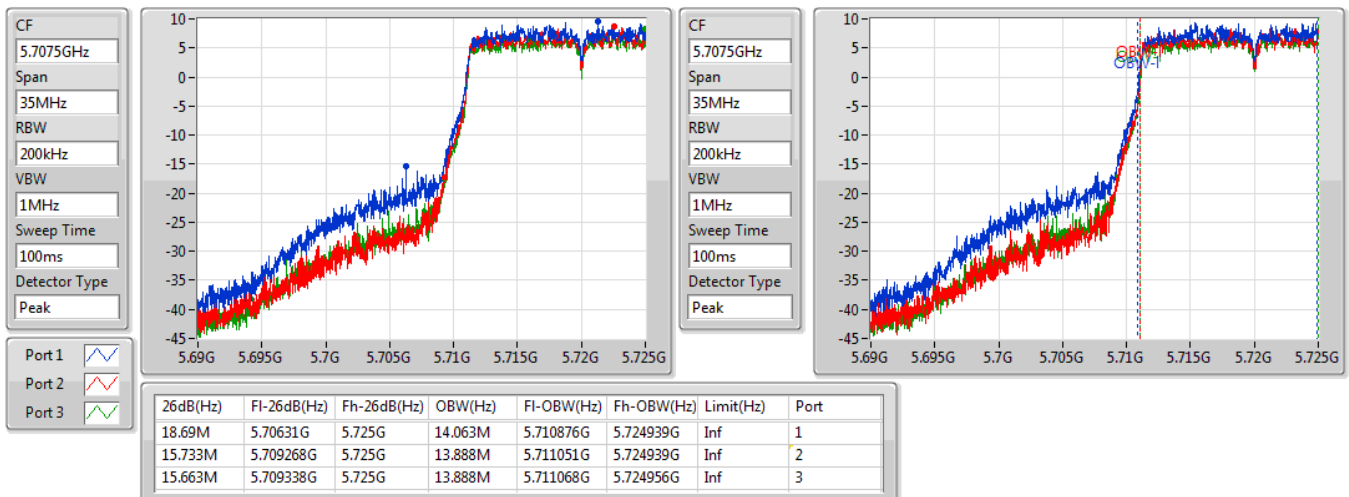


802.11ac VHT20-BF_Nss1,(MCS0)_3TX
EBW
5700MHz

16/10/2020

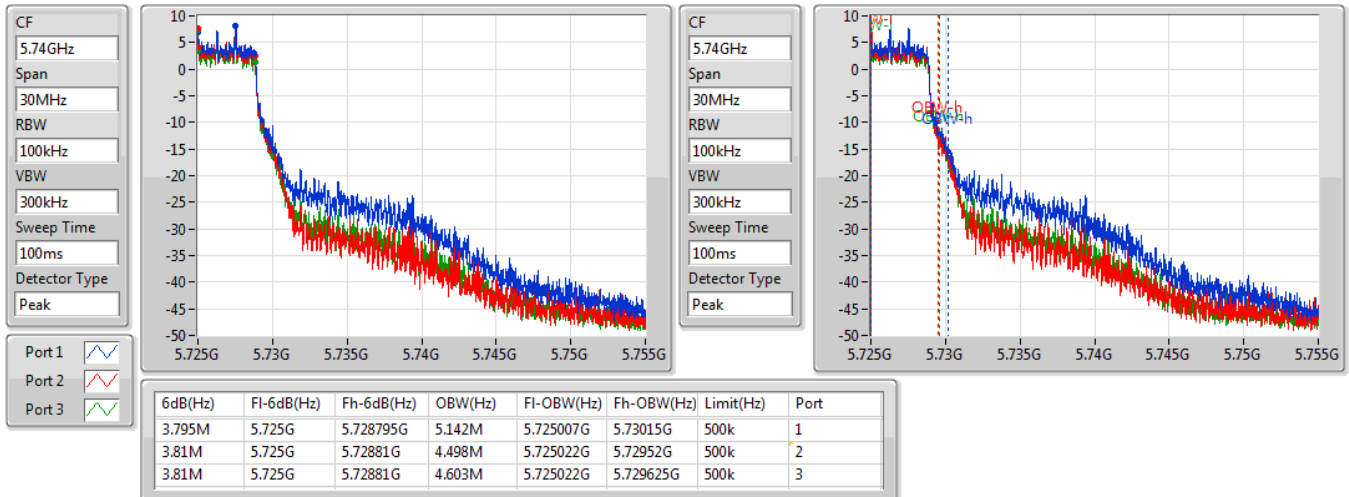

802.11ac VHT20-BF_Nss1,(MCS0)_3TX
EBW
5720MHz Straddle 5.47-5.725GHz

16/10/2020

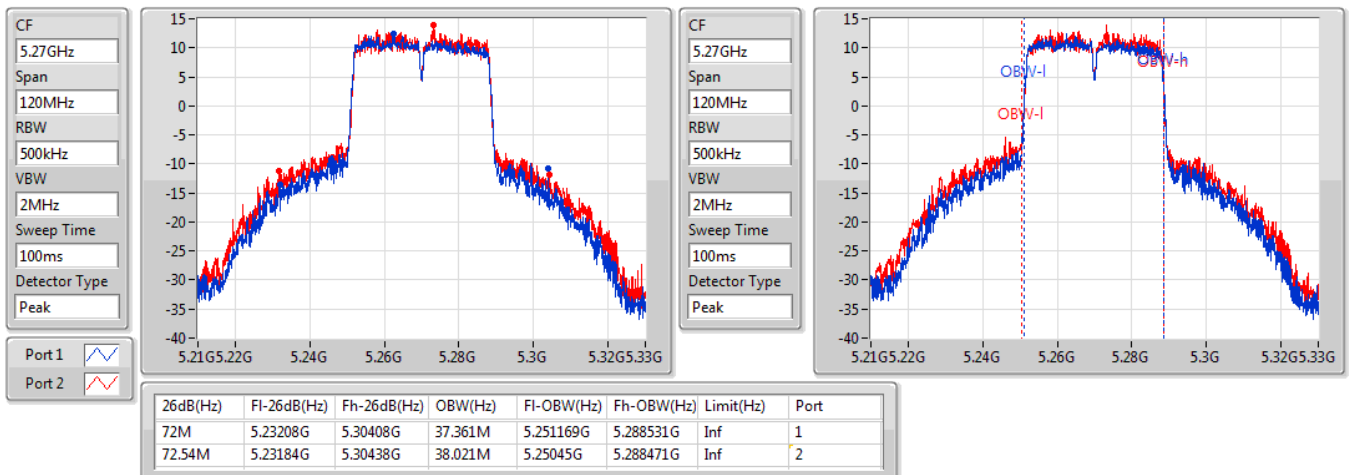


802.11ac VHT20-BF_Nss1,(MCS0)_3TX
EBW
5720MHz Straddle 5.725-5.85GHz

16/10/2020

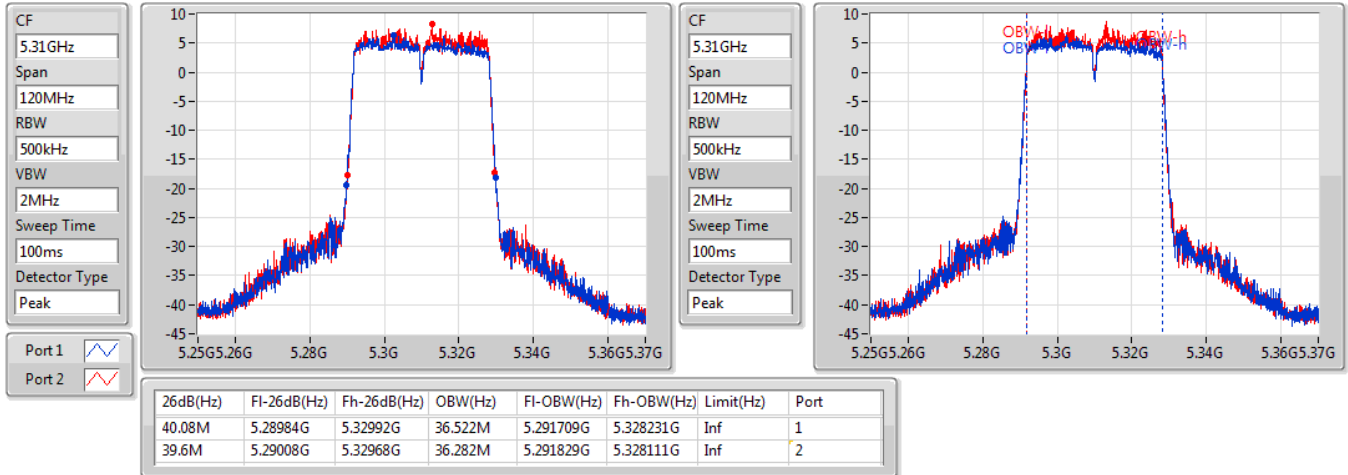

802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
5270MHz

16/10/2020

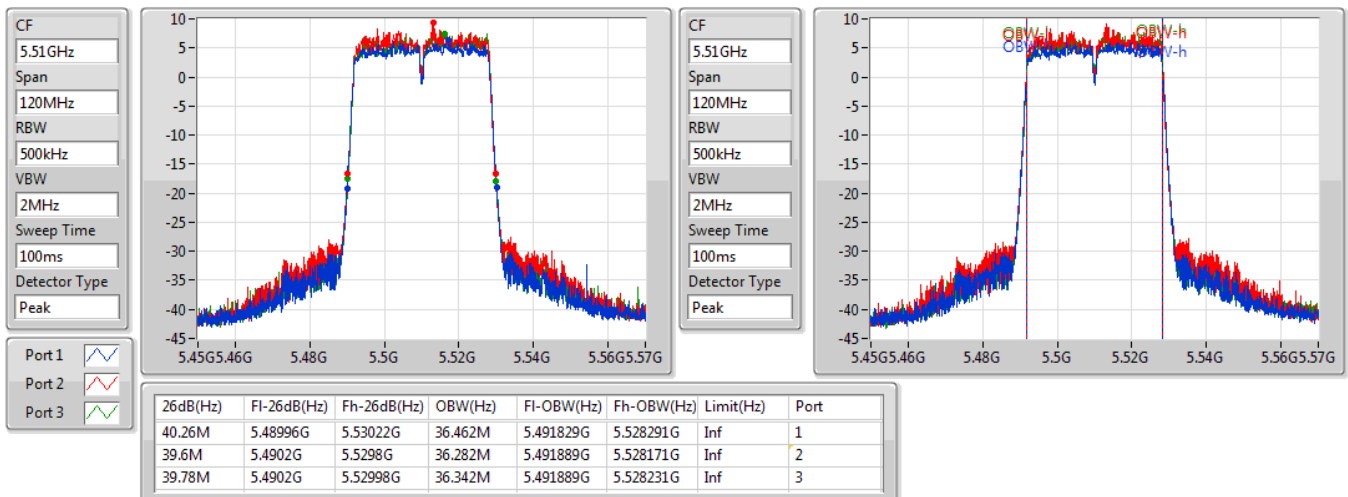


802.11ac VHT40-BF_Nss1,(MCS0)_2TX
EBW
5310MHz

16/10/2020

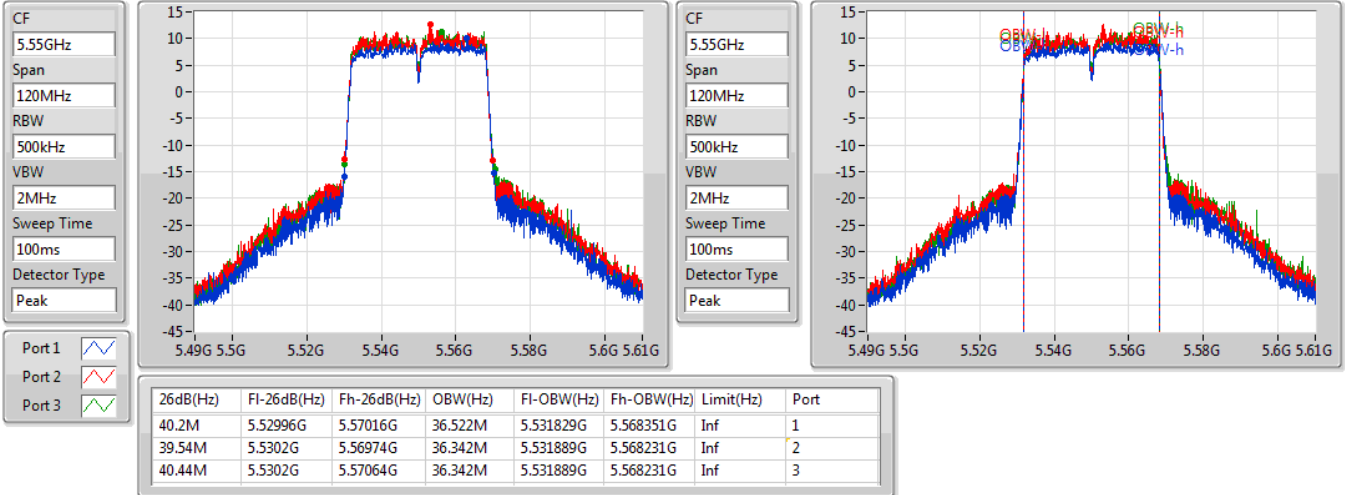

802.11ac VHT40-BF_Nss1,(MCS0)_3TX
EBW
5510MHz

16/10/2020

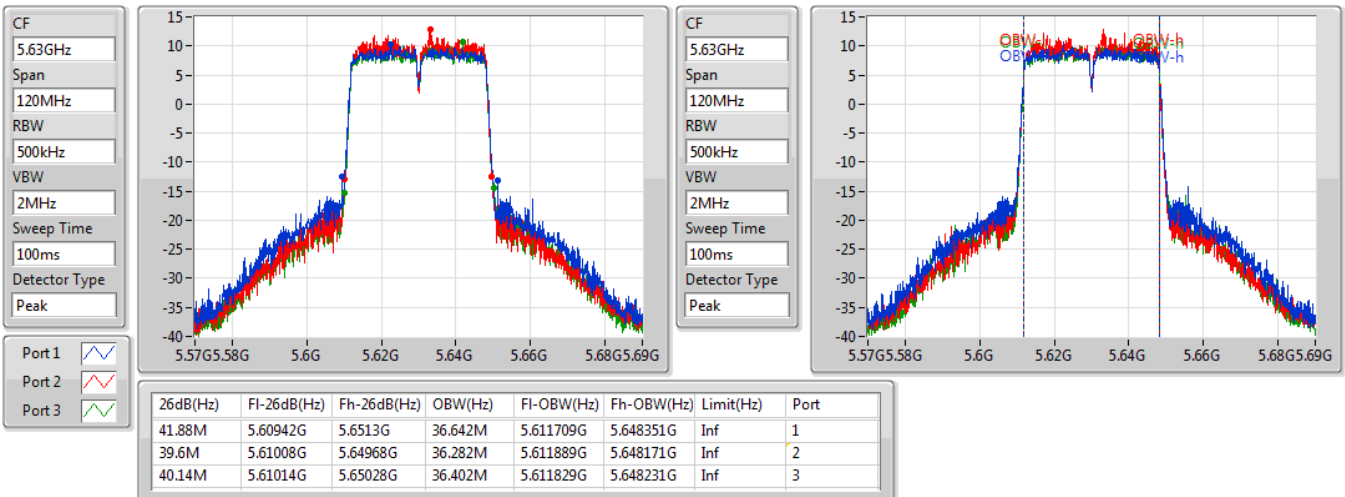


802.11ac VHT40-BF_Nss1,(MCS0)_3TX
EBW
5550MHz

16/10/2020

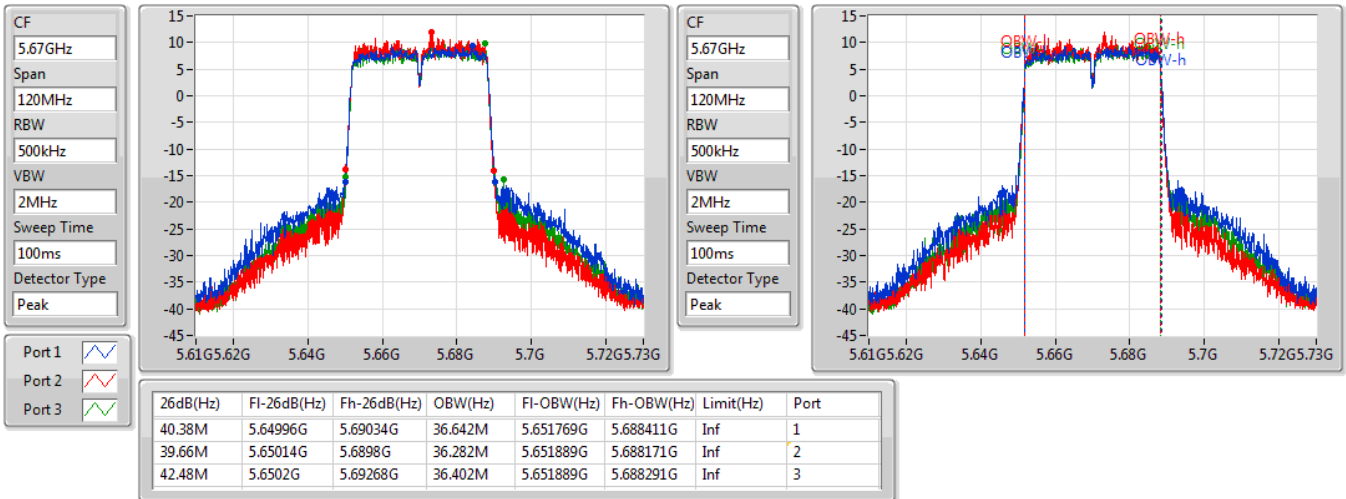

802.11ac VHT40-BF_Nss1,(MCS0)_3TX
EBW
5630MHz

16/10/2020

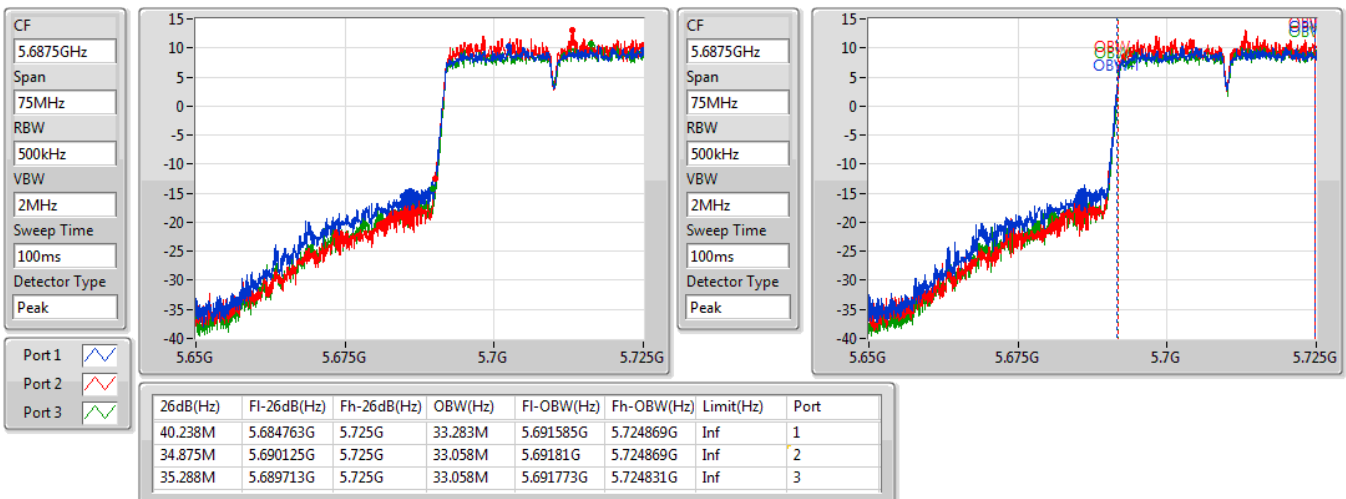


802.11ac VHT40-BF_Nss1,(MCS0)_3TX
EBW
5670MHz

16/10/2020

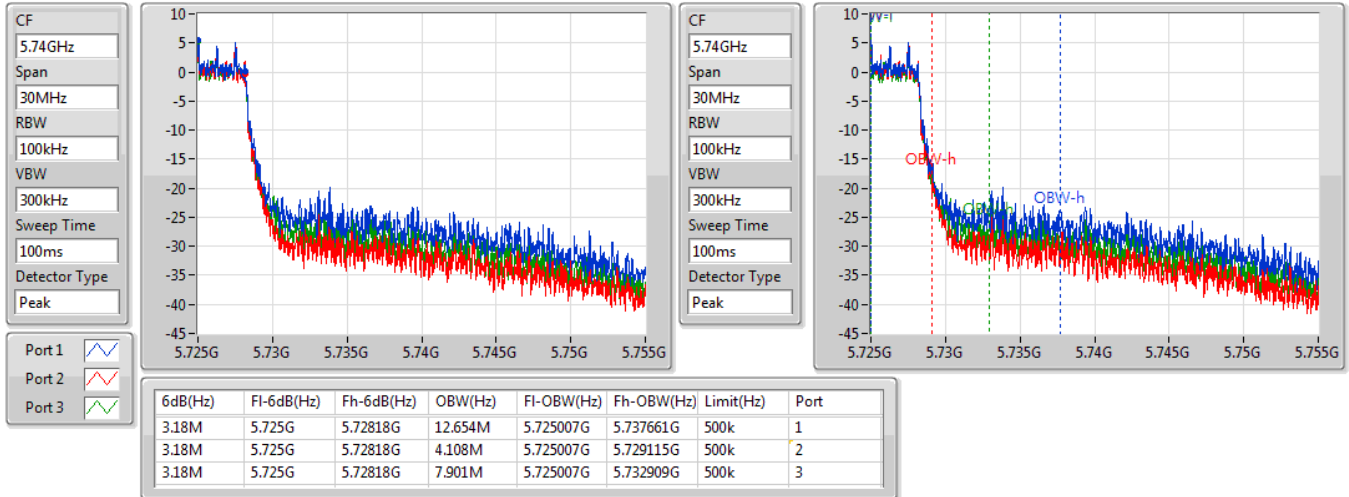

802.11ac VHT40-BF_Nss1,(MCS0)_3TX
EBW
5710MHz Straddle 5.47-5.725GHz

16/10/2020

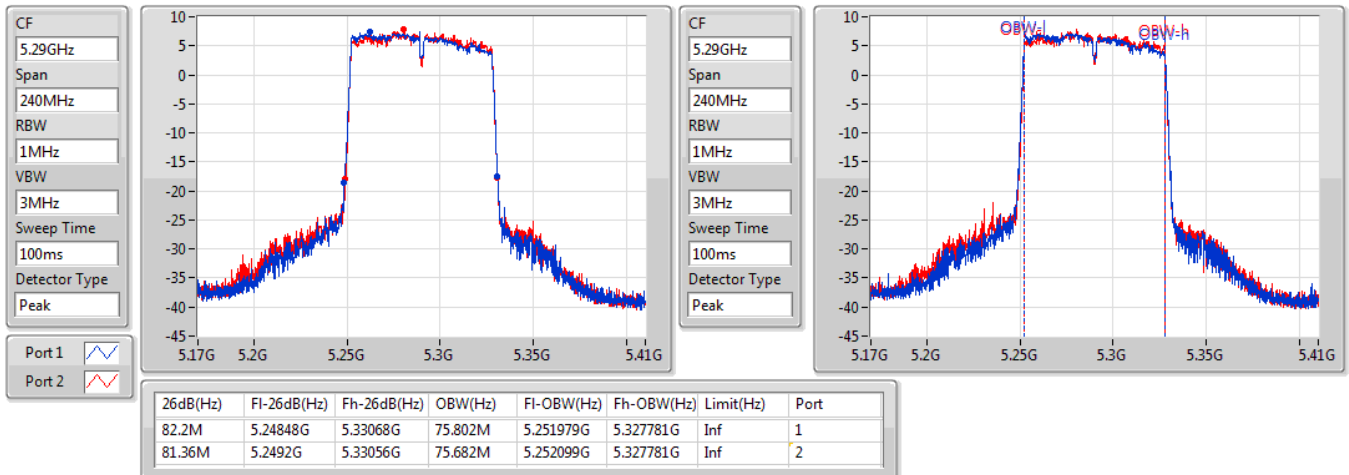


802.11ac VHT40-BF_Nss1,(MCS0)_3TX
EBW
5710MHz Straddle 5.725-5.85GHz

16/10/2020

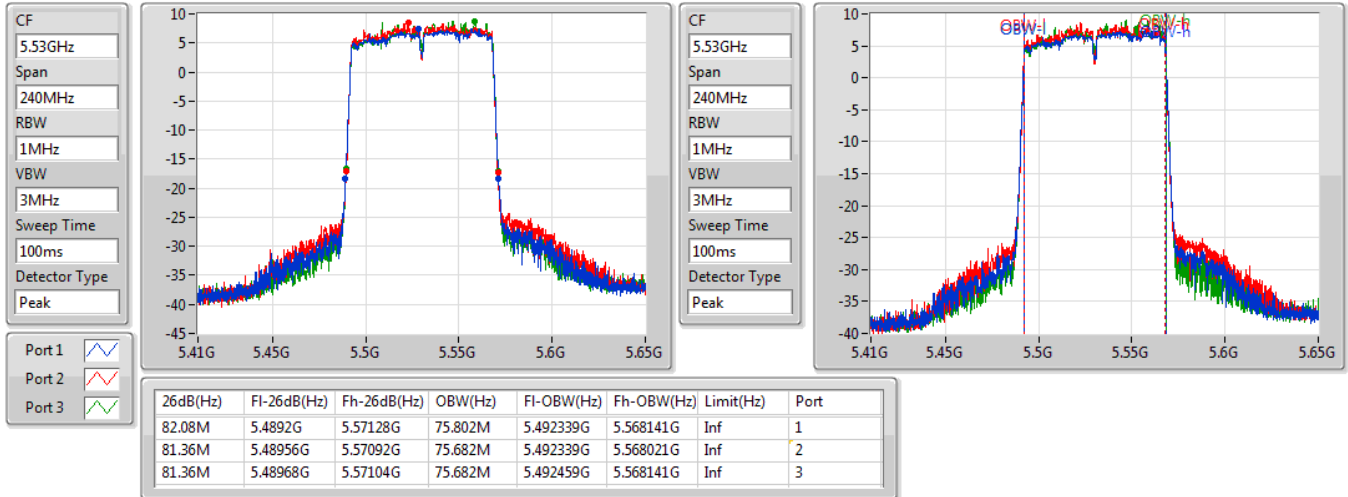

802.11ac VHT80-BF_Nss1,(MCS0)_2TX
EBW
5290MHz

16/10/2020

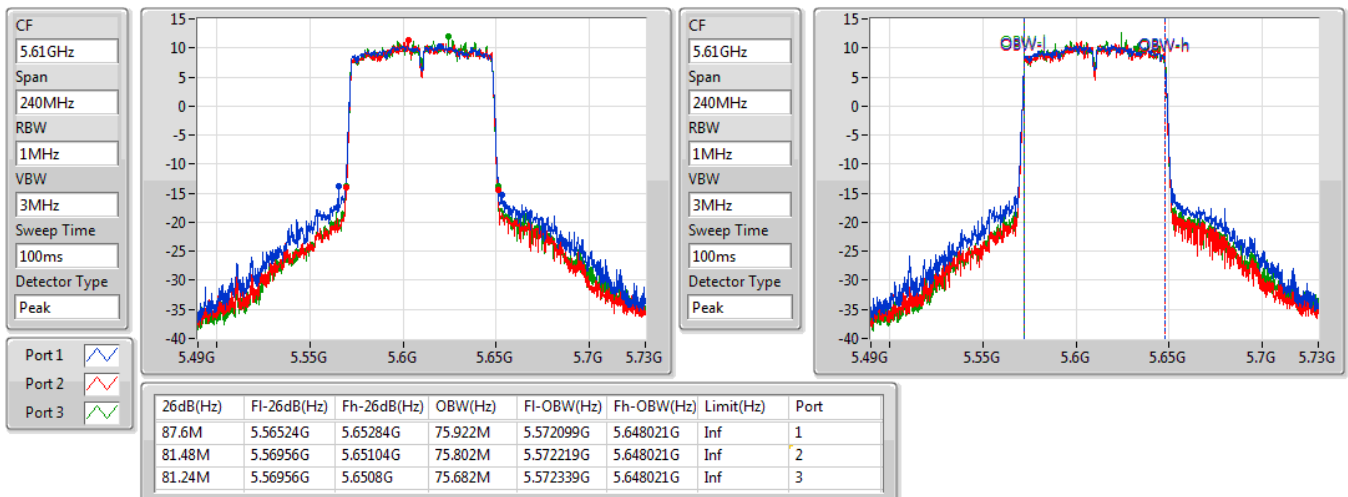


802.11ac VHT80-BF_Nss1,(MCS0)_3TX
EBW
5530MHz

16/10/2020

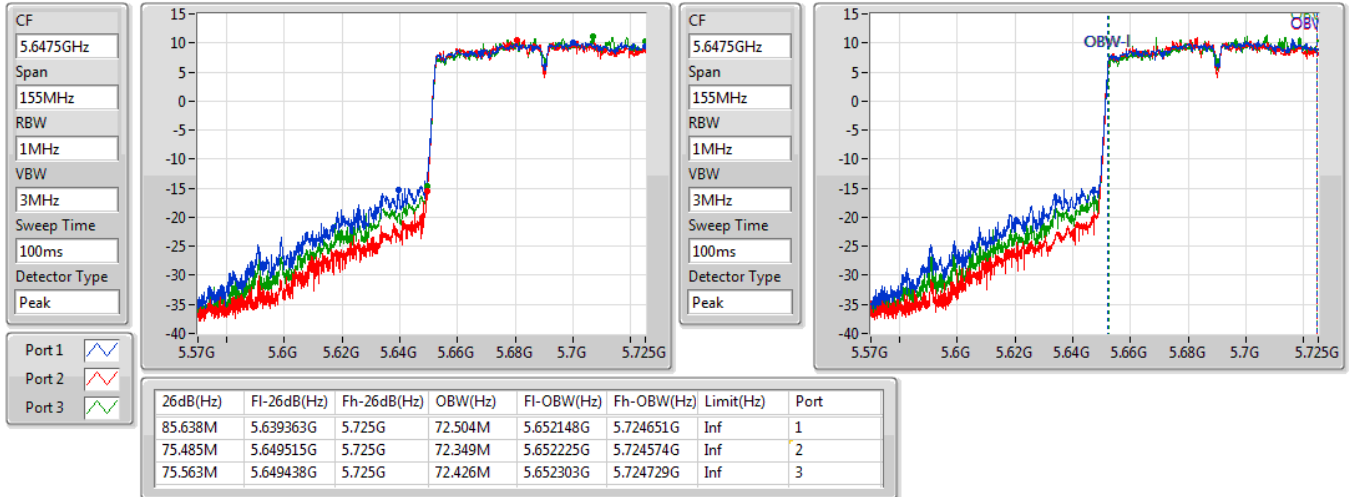

802.11ac VHT80-BF_Nss1,(MCS0)_3TX
EBW
5610MHz

16/10/2020

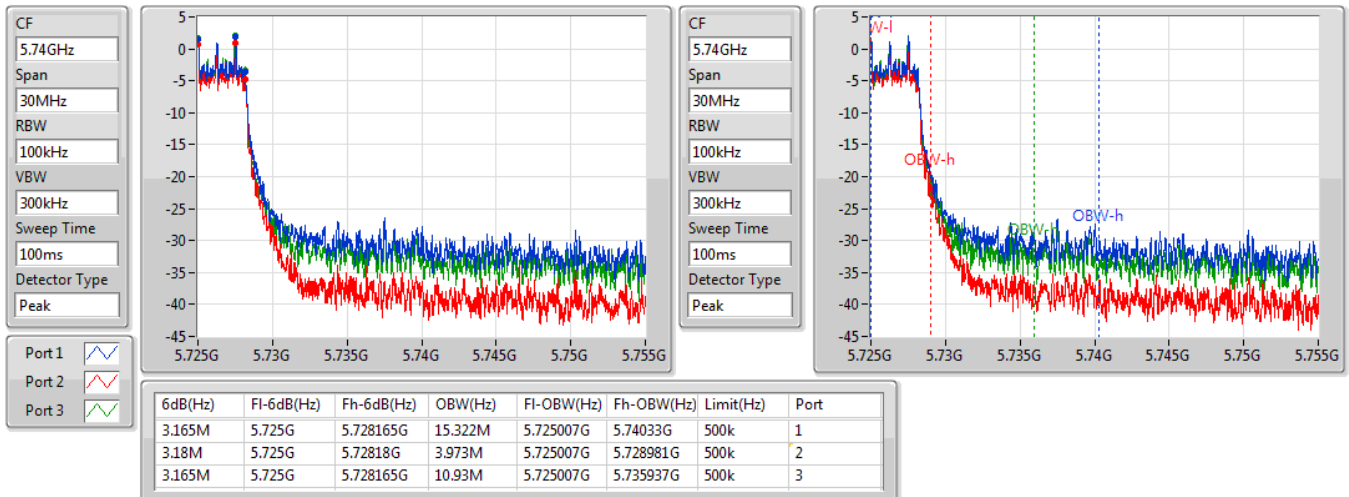


802.11ac VHT80-BF_Nss1,(MCS0)_3TX
EBW
5690MHz Straddle 5.47-5.725GHz

16/10/2020

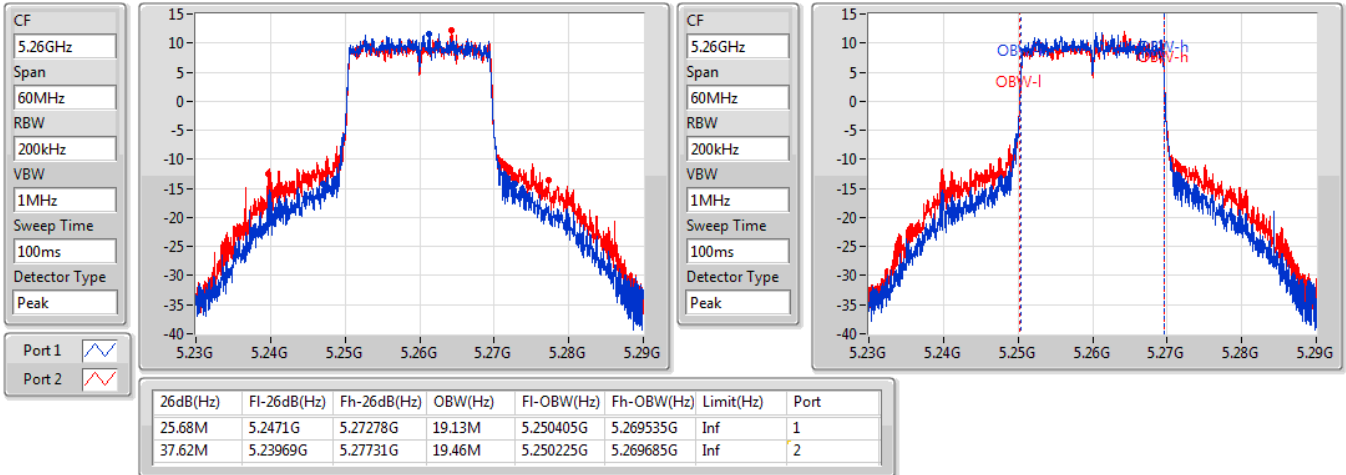

802.11ac VHT80-BF_Nss1,(MCS0)_3TX
EBW
5690MHz Straddle 5.725-5.85GHz

16/10/2020

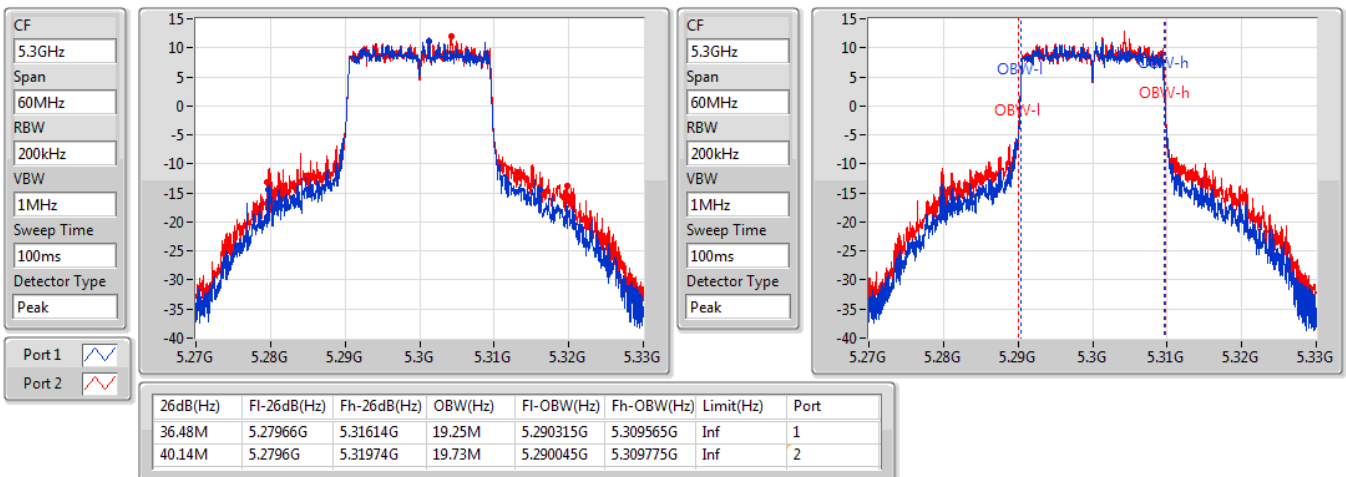


802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5260MHz

16/10/2020

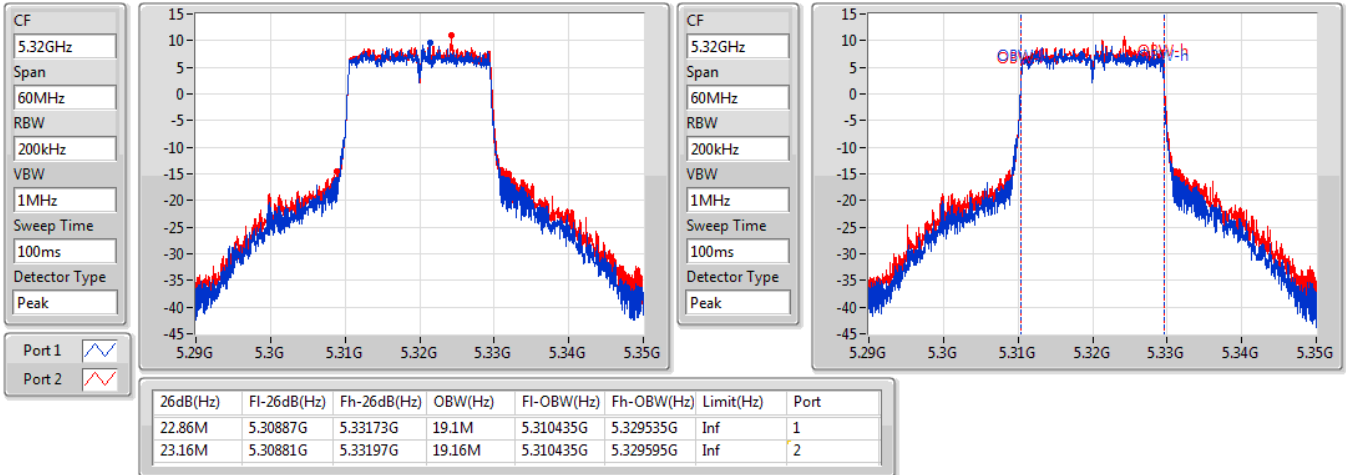

802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5300MHz

16/10/2020

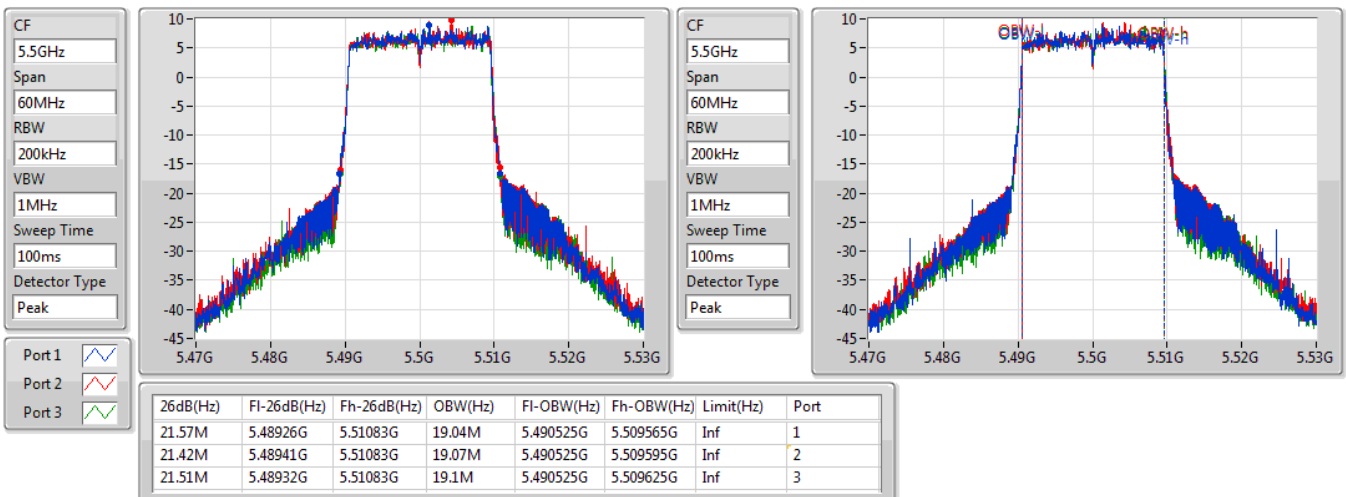


802.11ax HEW20-BF_Nss1,(MCS0)_2TX
EBW
5320MHz

16/10/2020

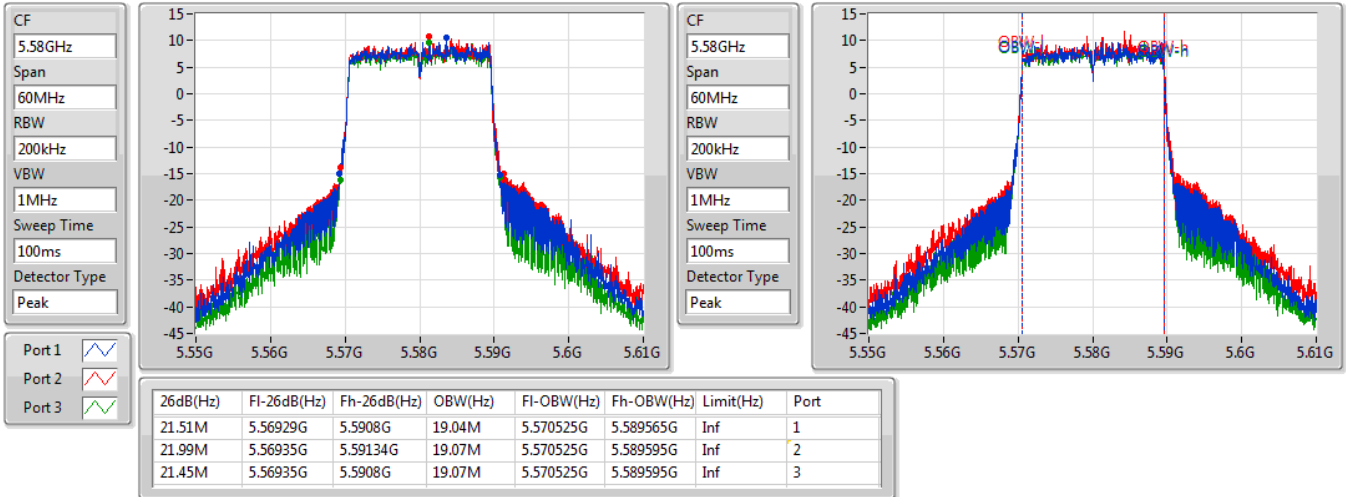

802.11ax HEW20-BF_Nss1,(MCS0)_3TX
EBW
5500MHz

16/10/2020

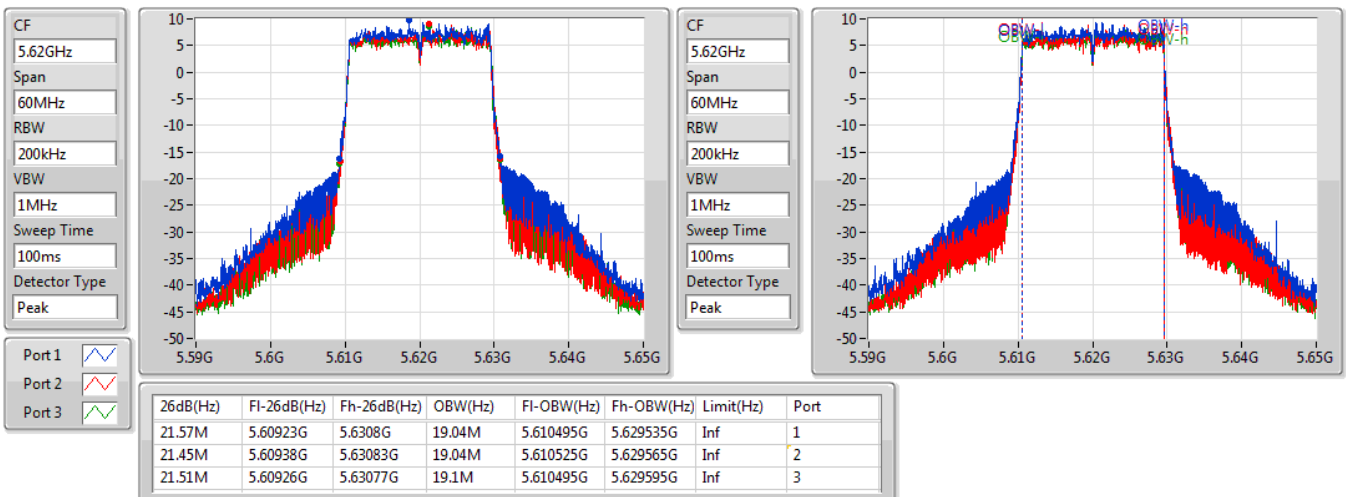


802.11ax HEW20-BF_Nss1,(MCS0)_3TX
EBW
5580MHz

16/10/2020

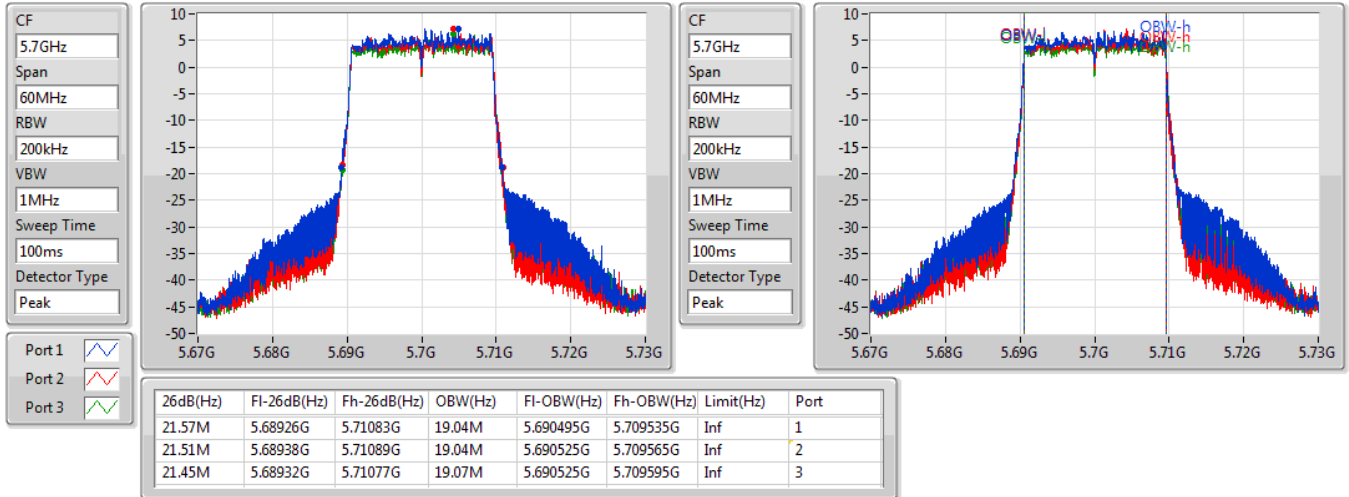

802.11ax HEW20-BF_Nss1,(MCS0)_3TX
EBW
5620MHz

16/10/2020

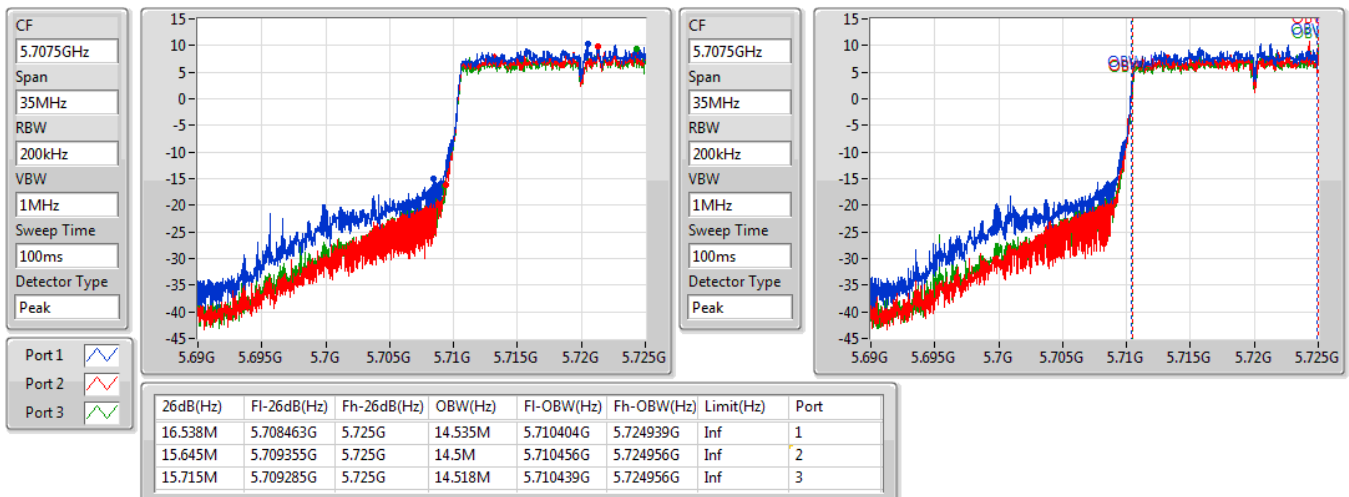


802.11ax HEW20-BF_Nss1,(MCS0)_3TX
EBW
5700MHz

16/10/2020

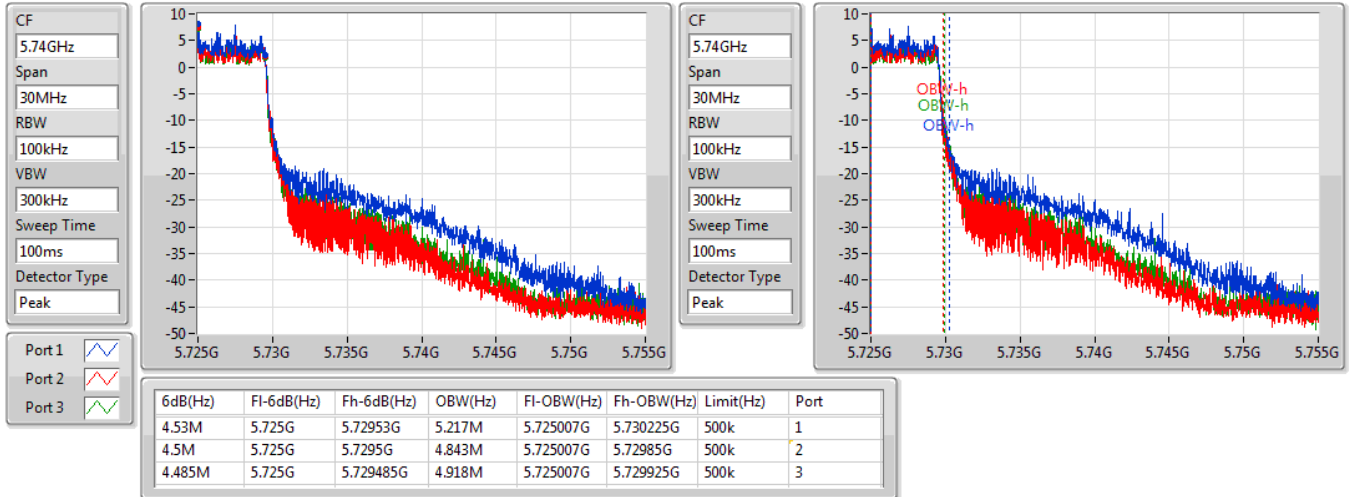

802.11ax HEW20-BF_Nss1,(MCS0)_3TX
EBW
5720MHz Straddle 5.47-5.725GHz

16/10/2020

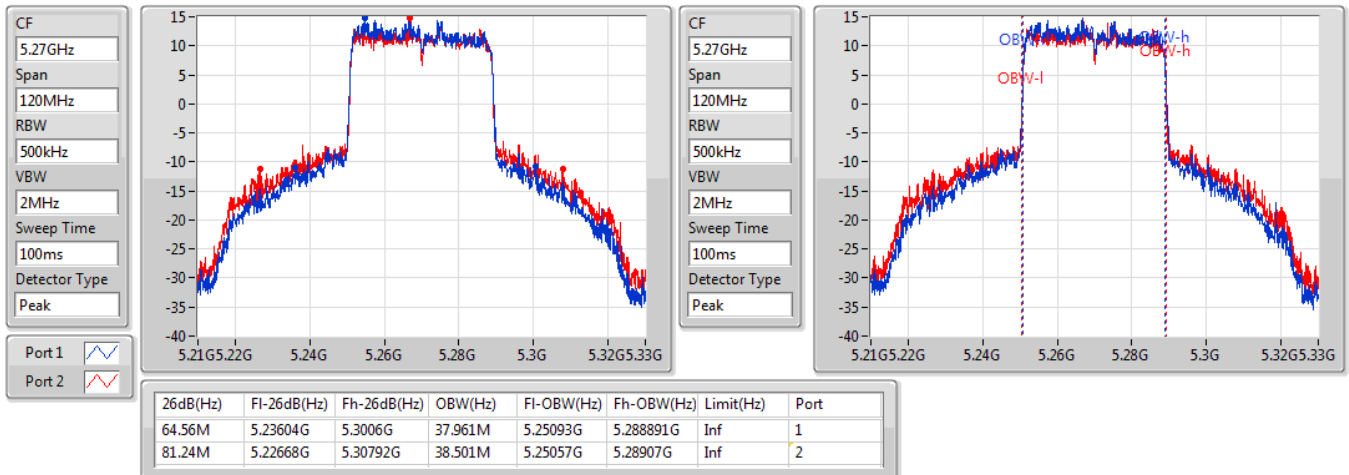


802.11ax HEW20-BF_Nss1,(MCS0)_3TX
EBW
5720MHz Straddle 5.725-5.85GHz

16/10/2020

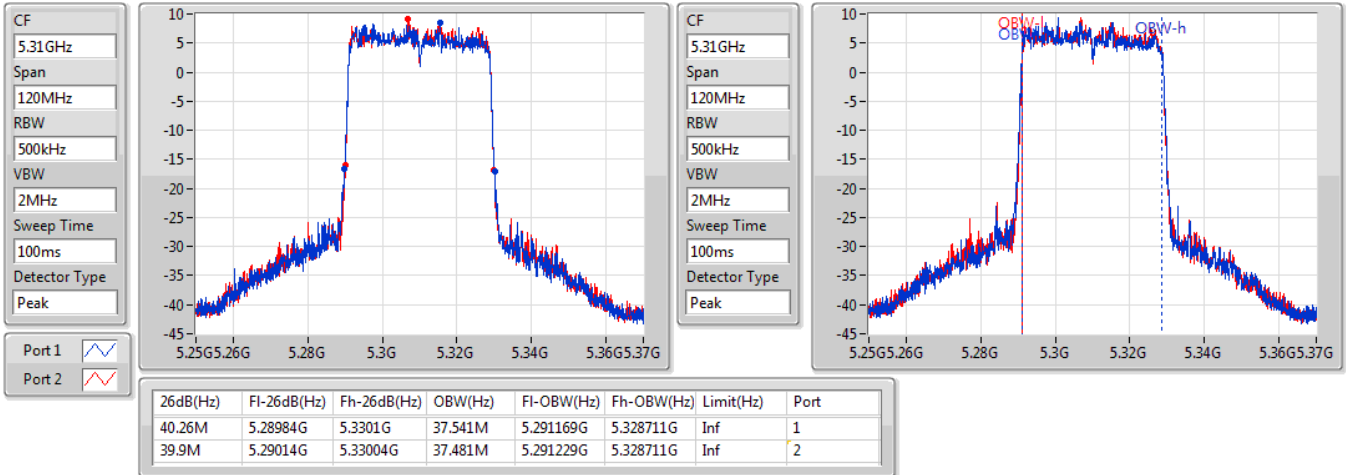

802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
5270MHz

16/10/2020

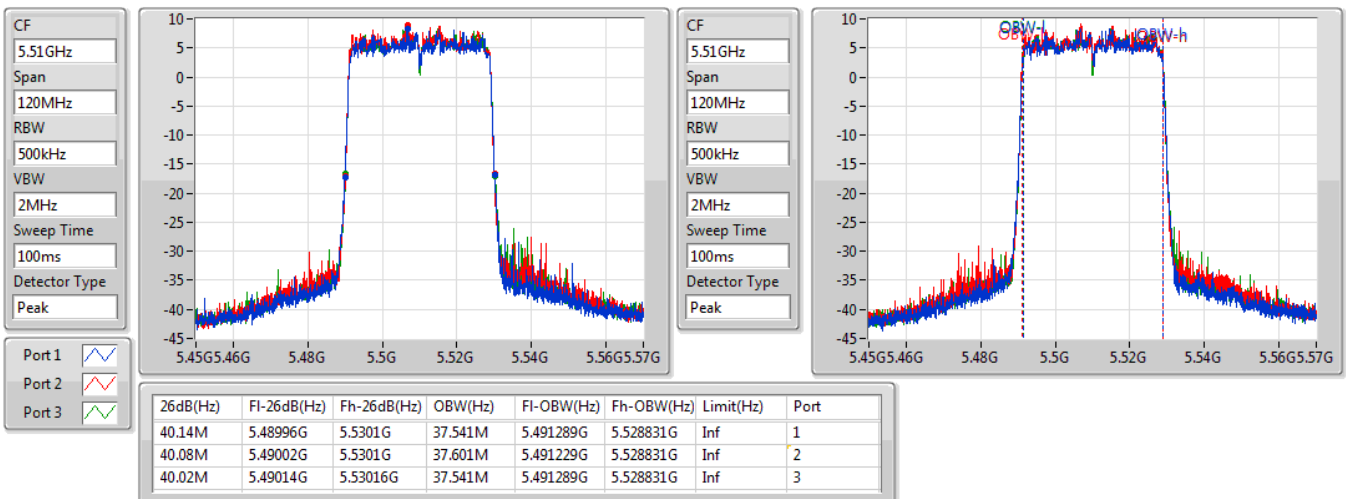


802.11ax HEW40-BF_Nss1,(MCS0)_2TX
EBW
5310MHz

16/10/2020

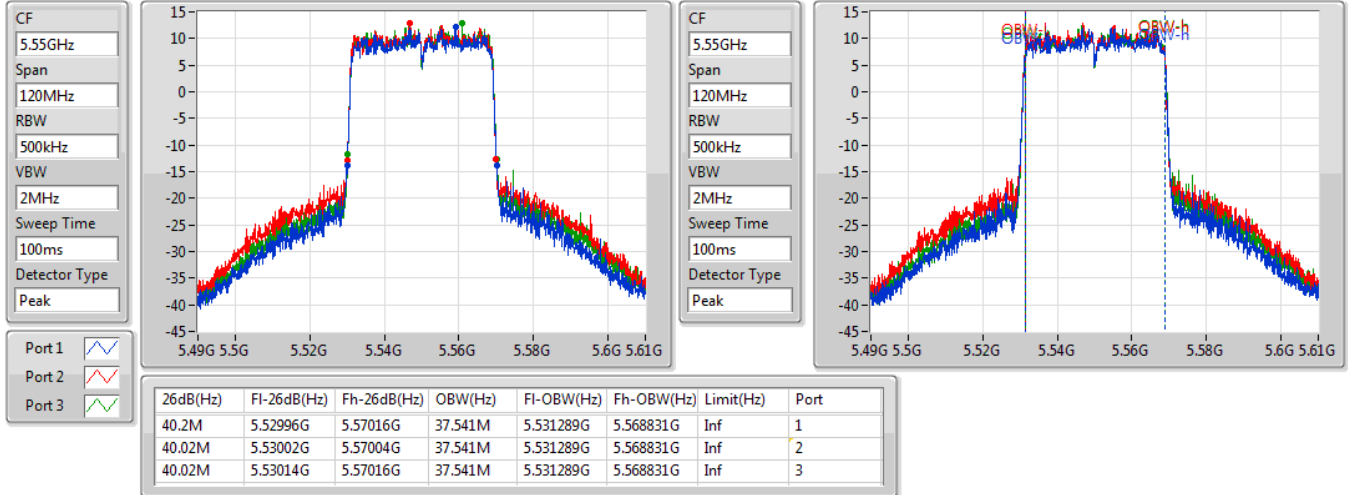

802.11ax HEW40-BF_Nss1,(MCS0)_3TX
EBW
5510MHz

16/10/2020

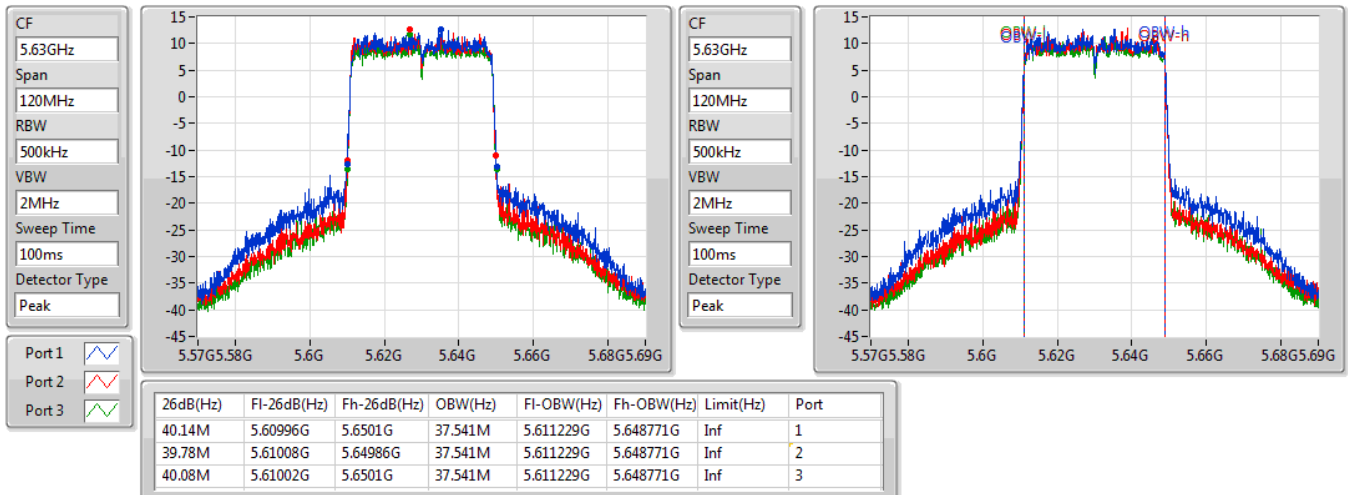


802.11ax HEW40-BF_Nss1,(MCS0)_3TX
EBW
5550MHz

16/10/2020

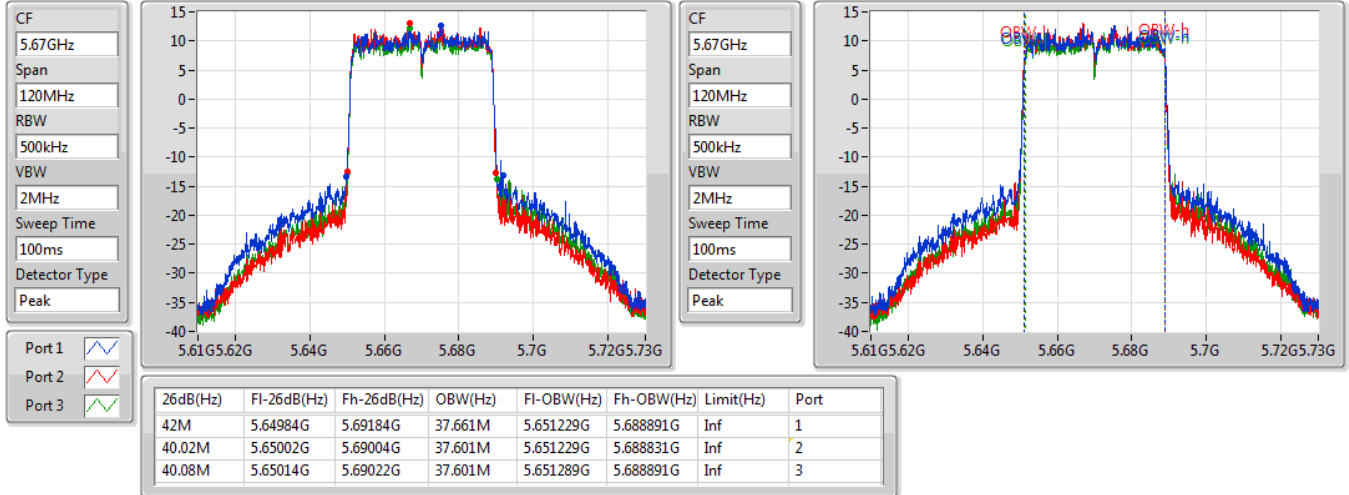

802.11ax HEW40-BF_Nss1,(MCS0)_3TX
EBW
5630MHz

16/10/2020

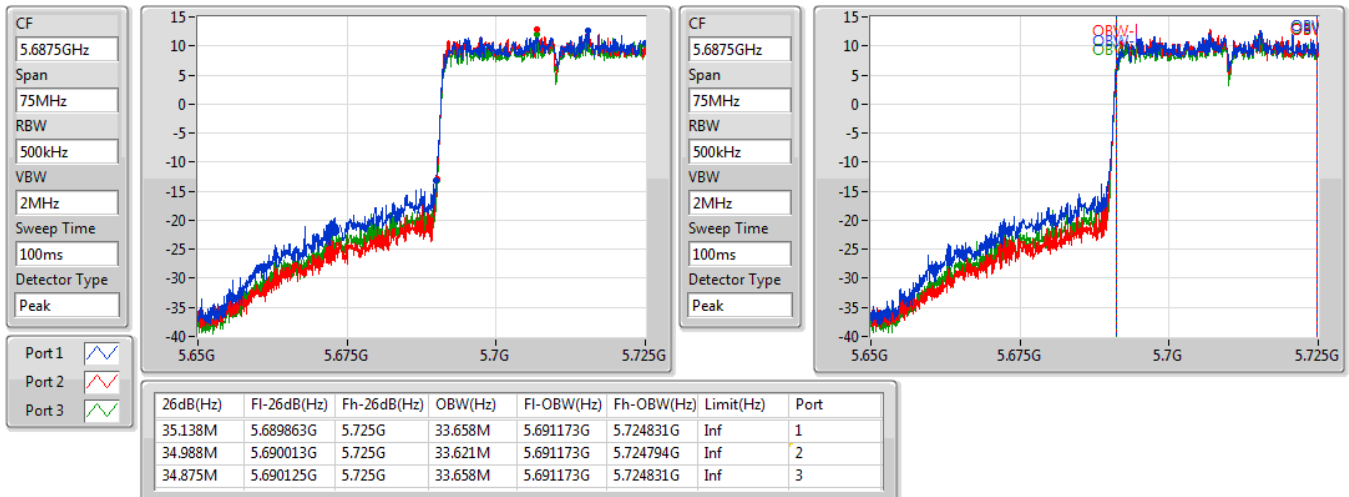


802.11ax HEW40-BF_Nss1,(MCS0)_3TX
EBW
5670MHz

16/10/2020

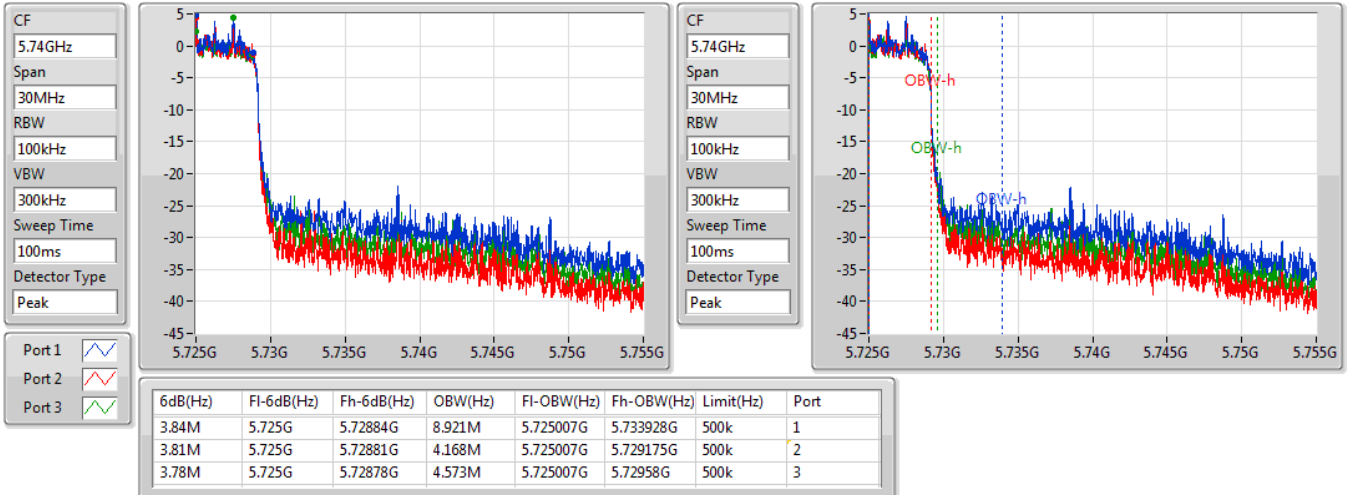

802.11ax HEW40-BF_Nss1,(MCS0)_3TX
EBW
5710MHz Straddle 5.47-5.725GHz

16/10/2020

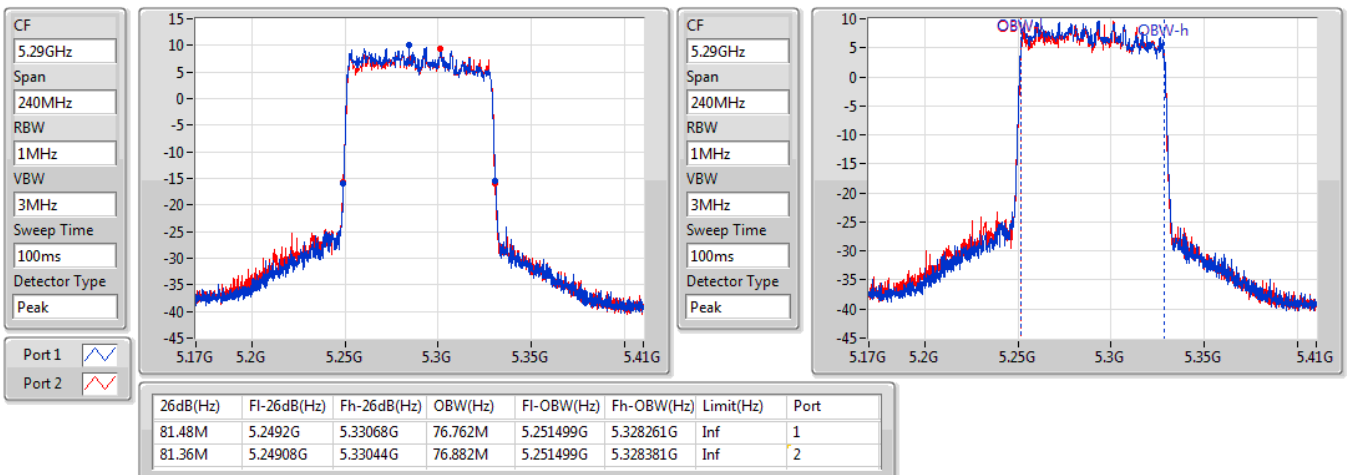


802.11ax HEW40-BF_Nss1,(MCS0)_3TX
EBW
5710MHz Straddle 5.725-5.85GHz

16/10/2020

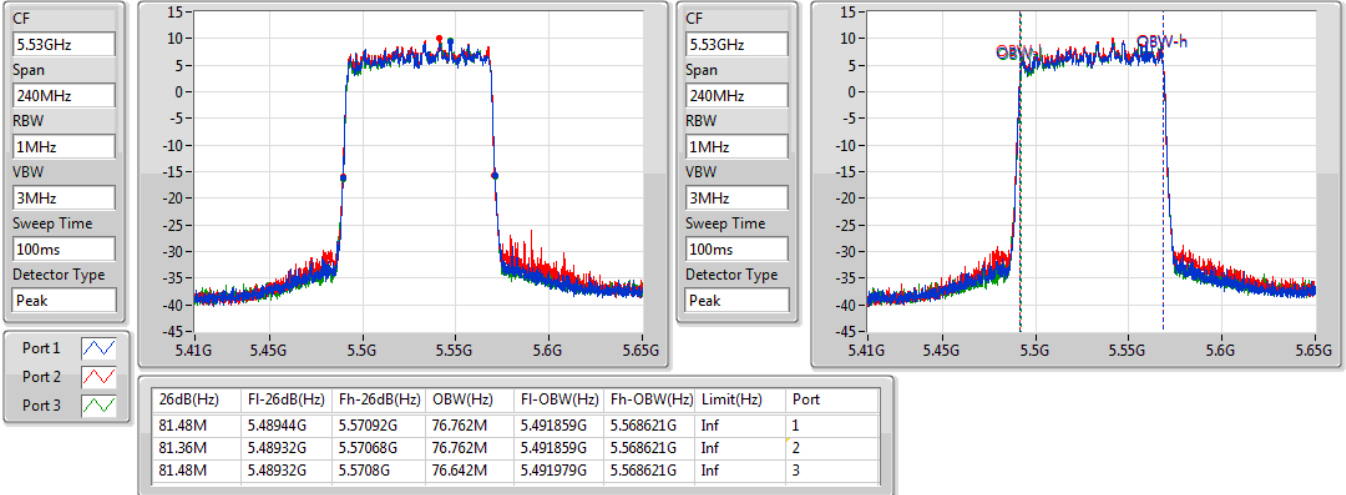

802.11ax HEW80-BF_Nss1,(MCS0)_2TX
EBW
5290MHz

16/10/2020

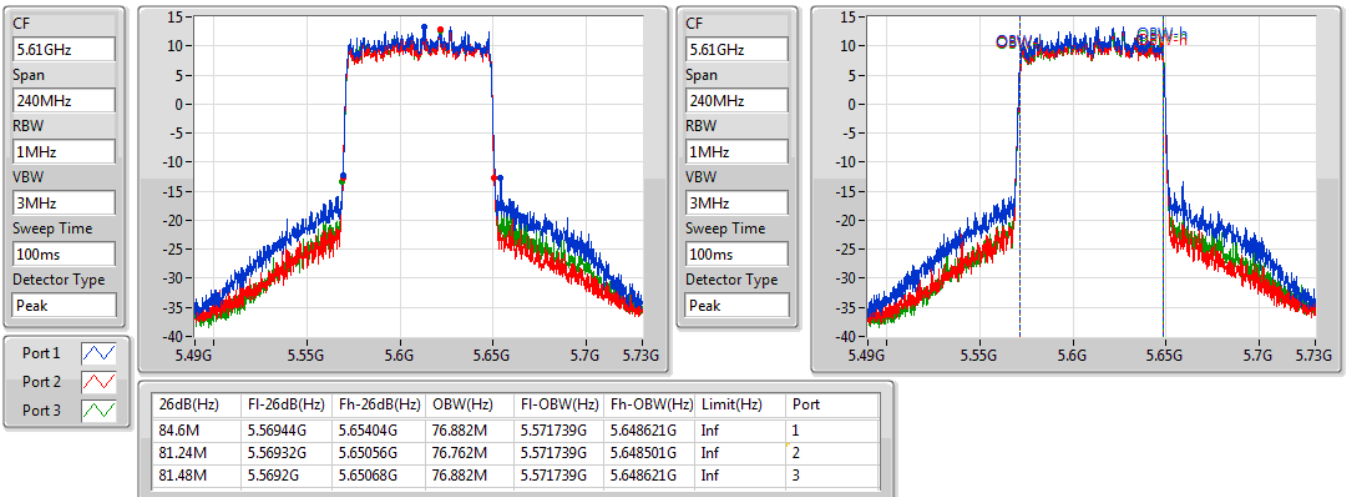


802.11ax HEW80-BF_Nss1,(MCS0)_3TX
EBW
5530MHz

16/10/2020

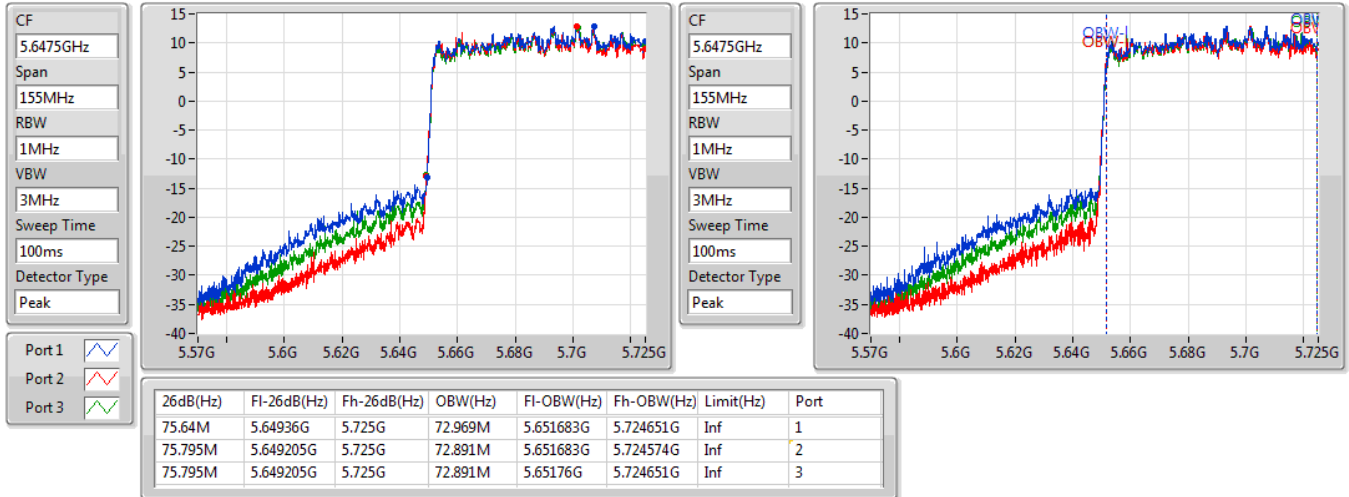

802.11ax HEW80-BF_Nss1,(MCS0)_3TX
EBW
5610MHz

16/10/2020

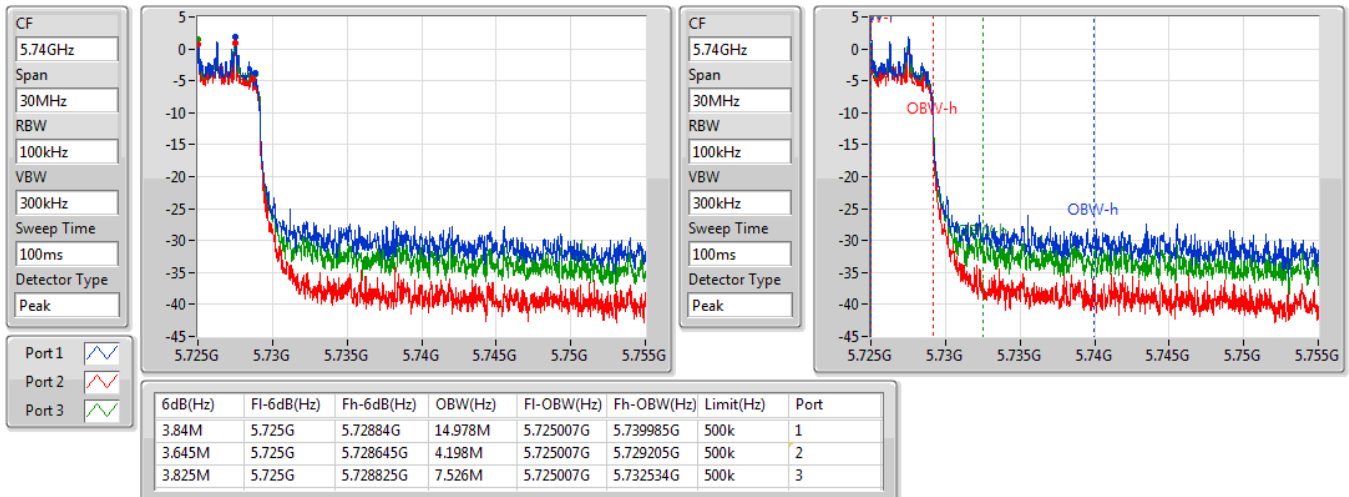


802.11ax HEW80-BF_Nss1,(MCS0)_3TX
EBW
5690MHz Straddle 5.47-5.725GHz

16/10/2020


802.11ax HEW80-BF_Nss1,(MCS0)_3TX
EBW
5690MHz Straddle 5.725-5.85GHz

16/10/2020



**Mode 11, Beamforming mode: 5GHz Band 3 3T2S Beamforming
Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss2,(MCS0)_3TX	21.9M	17.901M	17M9D1D	21.24M	17.901M
802.11ac VHT40-BF_Nss2,(MCS0)_3TX	40.2M	36.462M	36M5D1D	39.78M	36.282M
802.11ac VHT80-BF_Nss2,(MCS0)_3TX	81.72M	75.802M	75M8D1D	81.48M	75.802M
802.11ax HEW20-BF_Nss2,(MCS0)_3TX	21.75M	17.901M	17M9D1D	21.54M	17.841M
802.11ax HEW40-BF_Nss2,(MCS0)_3TX	40.38M	36.402M	36M4D1D	39.9M	36.342M
802.11ax HEW80-BF_Nss2,(MCS0)_3TX	81.6M	77.121M	77M1D1D	81.24M	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

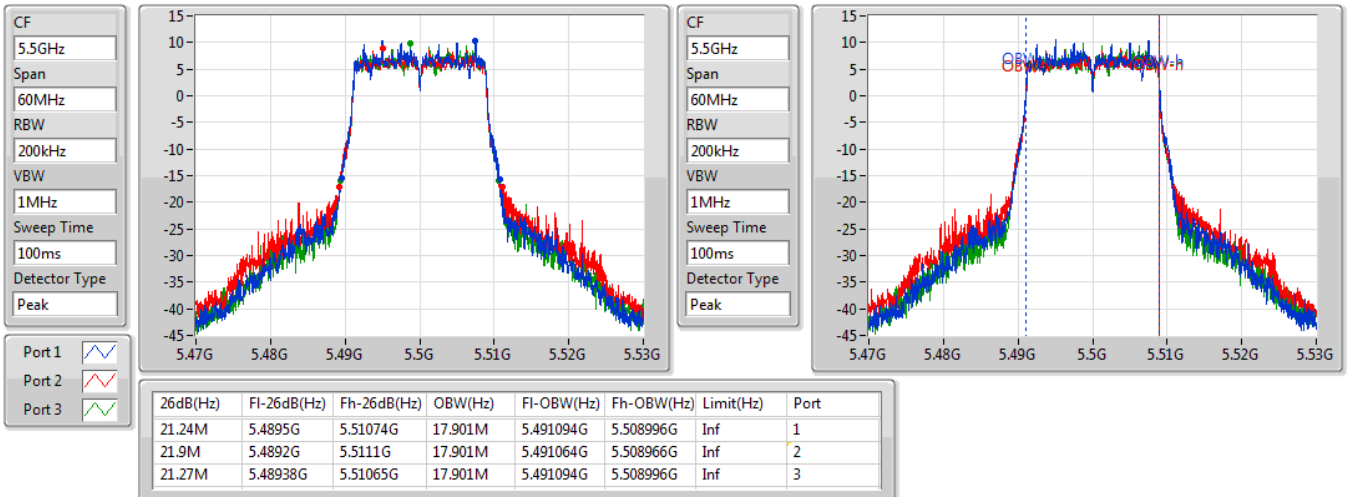
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11ac VHT20-BF_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.24M	17.901M	21.9M	17.901M	21.27M	17.901M
802.11ac VHT40-BF_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	40.2M	36.462M	39.78M	36.282M	40.02M	36.462M
802.11ac VHT80-BF_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	81.48M	75.802M	81.72M	75.802M	81.72M	75.802M
802.11ax HEW20-BF_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.54M	17.901M	21.75M	17.841M	21.6M	17.901M
802.11ax HEW40-BF_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	40.38M	36.402M	39.96M	36.342M	39.9M	36.402M
802.11ax HEW80-BF_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	81.6M	77.001M	81.24M	77.121M	81.6M	77.121M

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

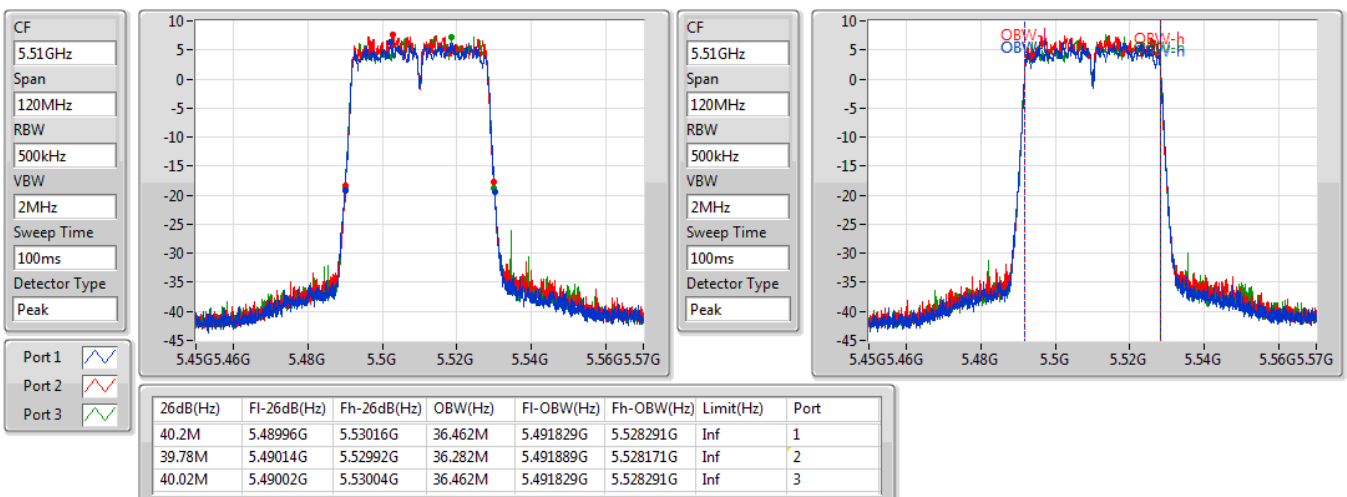
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20-BF_Nss2,(MCS0)_3TX
EBW
5500MHz

16/10/2020

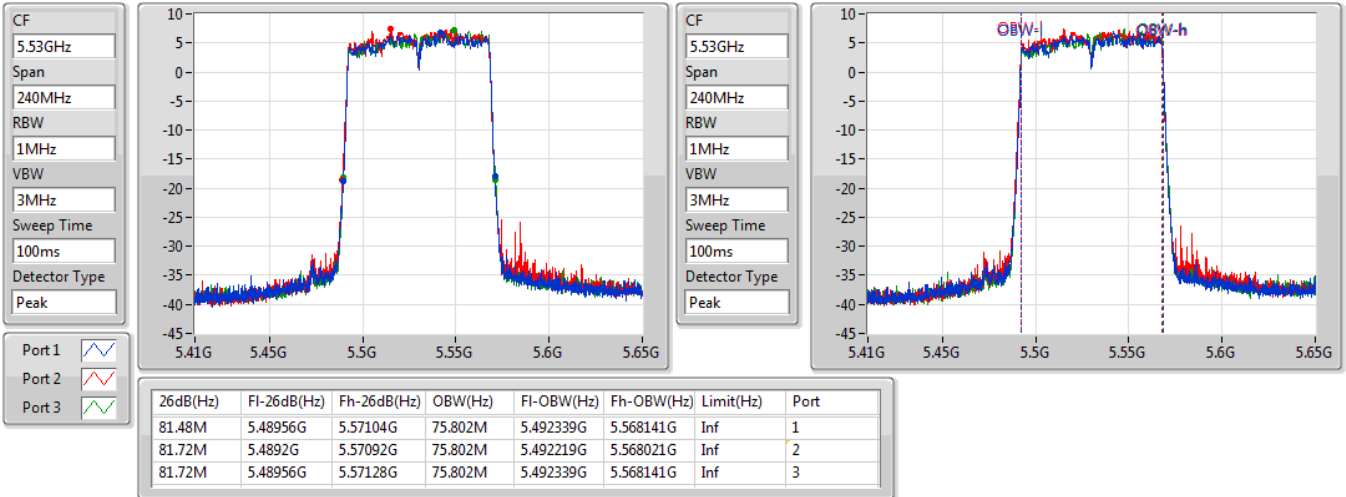

802.11ac VHT40-BF_Nss2,(MCS0)_3TX
EBW
5510MHz

16/10/2020

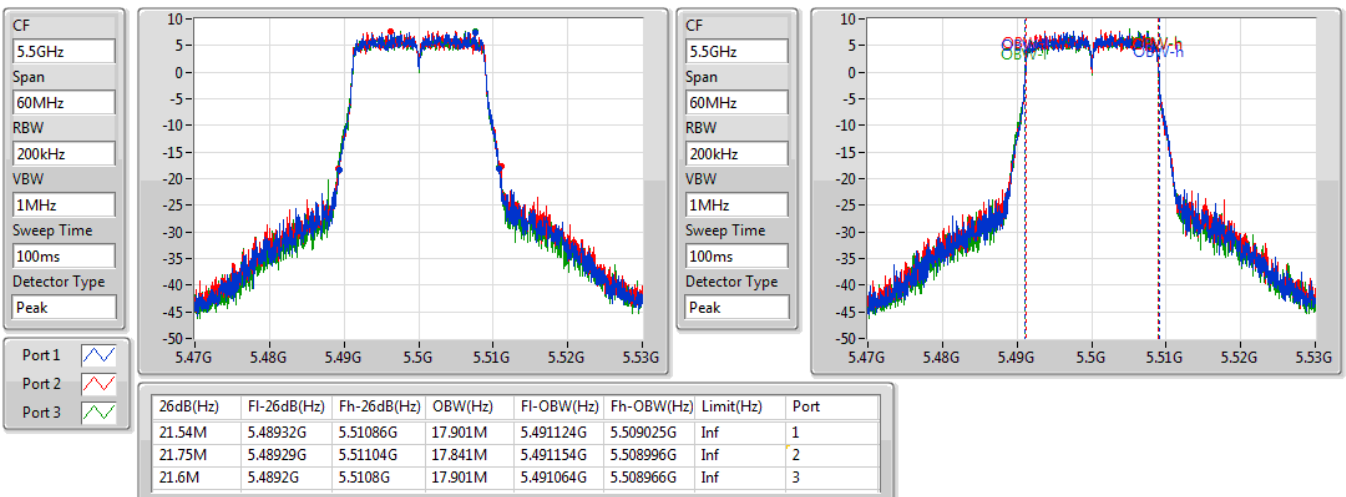


802.11ac VHT80-BF_Nss2,(MCS0)_3TX
EBW
5530MHz

16/10/2020

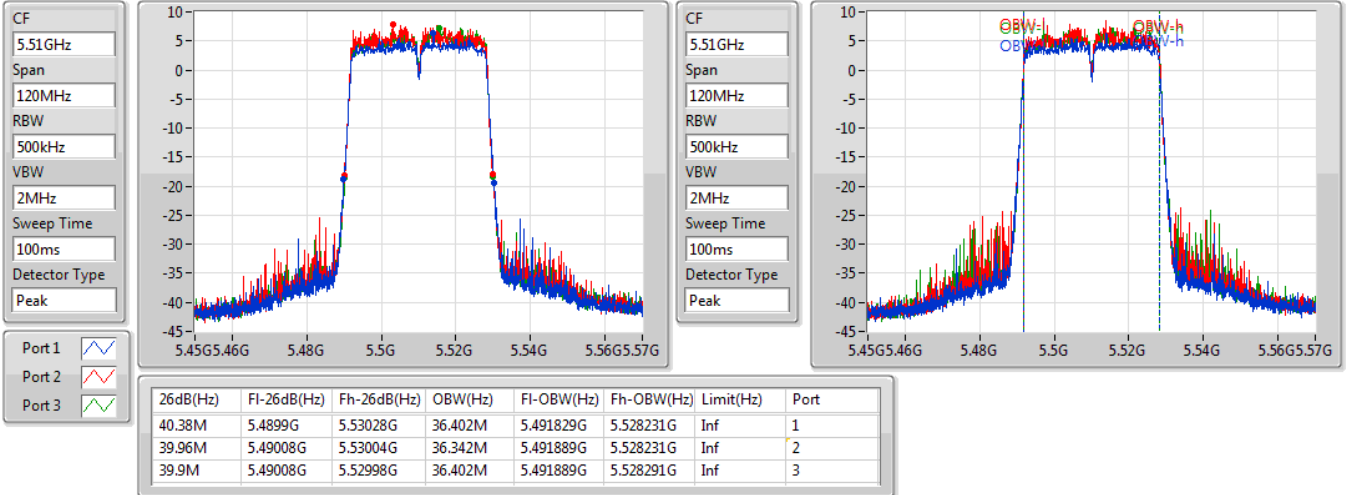

802.11ax HEW20-BF_Nss2,(MCS0)_3TX
EBW
5500MHz

17/10/2020

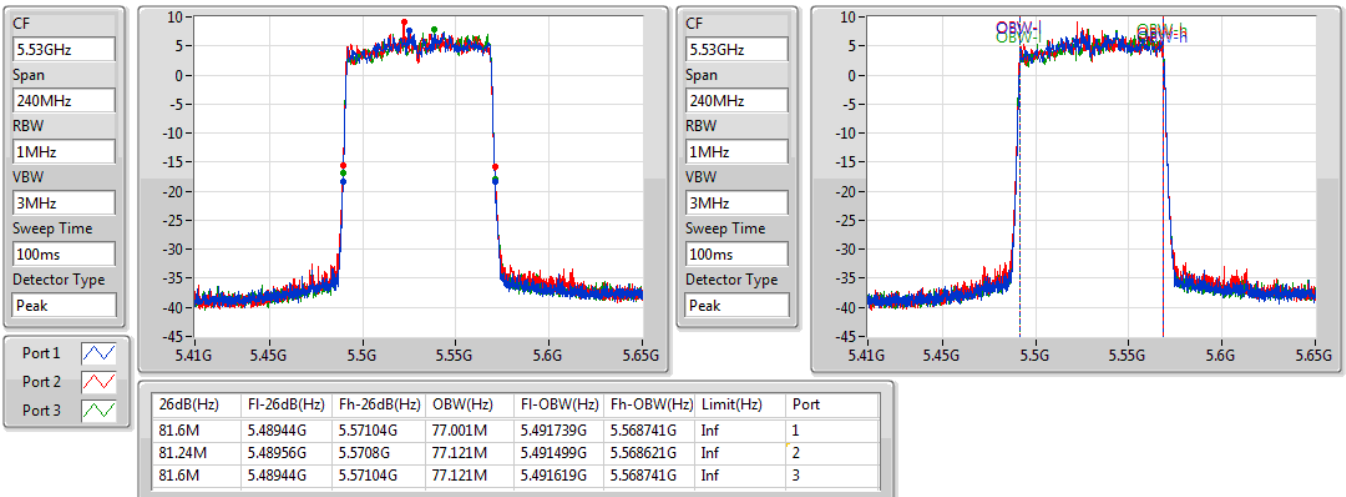


802.11ax HEW40-BF_Nss2,(MCS0)_3TX
EBW
5510MHz

17/10/2020


802.11ax HEW80-BF_Nss2,(MCS0)_3TX
EBW
5530MHz

17/10/2020



**Mode 1, Non-beamforming mode: 5GHz Band 1 2T1S and Band 4 3T1S CDD
Summary**

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	26.98	0.49888
802.11ac VHT20_Nss1,(MCS0)_2TX	26.74	0.47206
802.11ac VHT40_Nss1,(MCS0)_2TX	24.99	0.31550
802.11ac VHT80_Nss1,(MCS0)_2TX	20.12	0.10280
802.11ax HEW20_Nss1,(MCS0)_2TX	26.58	0.45499
802.11ax HEW40_Nss1,(MCS0)_2TX	25.43	0.34914
802.11ax HEW80_Nss1,(MCS0)_2TX	20.23	0.10544
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_3TX	28.46	0.70146
802.11ac VHT20_Nss1,(MCS0)_3TX	28.13	0.65013
802.11ac VHT40_Nss1,(MCS0)_3TX	29.23	0.83753
802.11ac VHT80_Nss1,(MCS0)_3TX	26.01	0.39902
802.11ax HEW20_Nss1,(MCS0)_3TX	28.94	0.78343
802.11ax HEW40_Nss1,(MCS0)_3TX	29.20	0.83176
802.11ax HEW80_Nss1,(MCS0)_3TX	26.18	0.41495

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-
5180MHz	Pass	2.57	21.02	20.97	-	24.01	30.00
5200MHz	Pass	2.57	23.95	23.98	-	26.98	30.00
5240MHz	Pass	2.57	21.94	22.25	-	25.11	30.00
802.11a_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
5745MHz	Pass	0.99	22.54	22.57	22.61	27.34	30.00
5785MHz	Pass	0.99	23.82	23.43	23.53	28.37	30.00
5825MHz	Pass	0.99	23.88	23.56	23.63	28.46	30.00
802.11ac_VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5180MHz	Pass	2.57	20.79	20.63	-	23.72	30.00
5200MHz	Pass	2.57	23.74	23.71	-	26.74	30.00
5240MHz	Pass	2.57	22.08	22.21	-	25.16	30.00
802.11ac_VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5745MHz	Pass	0.99	22.49	22.57	22.46	27.28	30.00
5785MHz	Pass	0.99	23.45	23.34	23.29	28.13	30.00
5825MHz	Pass	0.99	23.31	23.08	23.12	27.94	30.00
802.11ac_VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5190MHz	Pass	2.57	17.35	17.16	-	20.27	30.00
5230MHz	Pass	2.57	21.73	22.21	-	24.99	30.00
802.11ac_VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5755MHz	Pass	0.99	24.14	23.81	23.76	28.68	30.00
5795MHz	Pass	0.99	24.77	24.11	24.48	29.23	30.00
802.11ac_VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5210MHz	Pass	2.57	17.15	17.07	-	20.12	30.00
802.11ac_VHT80_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5775MHz	Pass	0.99	21.38	21.04	21.29	26.01	30.00
802.11ax_HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5180MHz	Pass	2.57	20.59	20.51	-	23.56	30.00
5200MHz	Pass	2.57	23.65	23.48	-	26.58	30.00
5240MHz	Pass	2.57	22.13	22.37	-	25.26	30.00
802.11ax_HEW20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5745MHz	Pass	0.99	22.73	22.89	22.67	27.54	30.00
5785MHz	Pass	0.99	24.25	24.11	24.16	28.94	30.00
5825MHz	Pass	0.99	23.49	23.21	23.33	28.12	30.00
802.11ax_HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5190MHz	Pass	2.57	17.48	17.32	-	20.41	30.00
5230MHz	Pass	2.57	22.14	22.69	-	25.43	30.00
802.11ax_HEW40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5755MHz	Pass	0.99	23.68	23.17	23.25	28.14	30.00
5795MHz	Pass	0.99	24.65	24.28	24.34	29.20	30.00
802.11ax_HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5210MHz	Pass	2.57	17.25	17.19	-	20.23	30.00
802.11ax_HEW80_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5775MHz	Pass	0.99	21.53	21.13	21.56	26.18	30.00

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



**Mode 2, Beamforming mode: 5GHz Band 1 2T1S and Band 4 3T1S CDD
Summary**

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	27.23	0.52845
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	25.20	0.33113
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	20.36	0.10864
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	26.90	0.48978
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	25.43	0.34914
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	19.95	0.09886
5.725-5.85GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	28.13	0.65013
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	29.34	0.85901
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	26.24	0.42073
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	29.67	0.92683
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	29.42	0.87498
802.11ax HEW80-BF_Nss1,(MCS0)_3TX	26.41	0.43752

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5180MHz	Pass	5.58	21.53	21.47	-	24.51	30.00
5200MHz	Pass	5.58	24.17	24.27	-	27.23	30.00
5240MHz	Pass	5.58	22.08	22.21	-	25.16	30.00
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5745MHz	Pass	5.76	22.49	22.57	22.46	27.28	30.00
5785MHz	Pass	5.76	23.45	23.34	23.29	28.13	30.00
5825MHz	Pass	5.76	22.96	22.69	22.58	27.52	30.00
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5190MHz	Pass	5.58	17.56	17.39	-	20.49	30.00
5230MHz	Pass	5.58	21.93	22.43	-	25.20	30.00
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5755MHz	Pass	5.76	24.14	23.81	23.76	28.68	30.00
5795MHz	Pass	5.76	24.87	24.29	24.54	29.34	30.00
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5210MHz	Pass	5.58	17.38	17.31	-	20.36	30.00
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5775MHz	Pass	5.76	21.63	21.27	21.51	26.24	30.00
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5180MHz	Pass	5.58	20.59	20.51	-	23.56	30.00
5200MHz	Pass	5.58	23.98	23.79	-	26.90	30.00
5240MHz	Pass	5.58	22.13	22.37	-	25.26	30.00
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5745MHz	Pass	5.76	24.36	24.48	24.25	29.14	30.00
5785MHz	Pass	5.76	24.96	24.83	24.91	29.67	30.00
5825MHz	Pass	5.76	24.94	24.72	24.65	29.54	30.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5190MHz	Pass	5.58	17.48	17.32	-	20.41	30.00
5230MHz	Pass	5.58	22.14	22.69	-	25.43	30.00
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5755MHz	Pass	5.76	23.97	23.43	23.48	28.40	30.00
5795MHz	Pass	5.76	24.88	24.49	24.56	29.42	30.00
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5210MHz	Pass	5.58	16.96	16.91	-	19.95	30.00
802.11ax HEW80-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5775MHz	Pass	5.76	21.75	21.37	21.79	26.41	30.00

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



**Mode 3, Non-beamforming mode: 5GHz Band 1 2T2S SDM
Summary**

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11ac VHT20_Nss2,(MCS0)_2TX	23.65	0.23174
802.11ac VHT40_Nss2,(MCS0)_2TX	21.12	0.12942
802.11ac VHT80_Nss2,(MCS0)_2TX	20.32	0.10765
802.11ax HEW20_Nss2,(MCS0)_2TX	22.32	0.17061
802.11ax HEW40_Nss2,(MCS0)_2TX	20.24	0.10568
802.11ax HEW80_Nss2,(MCS0)_2TX	19.76	0.09462

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	2.57	20.75	20.52	23.65	30.00
802.11ac VHT40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	2.57	18.23	17.98	21.12	30.00
802.11ac VHT80_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	2.57	17.38	17.23	20.32	30.00
802.11ax HEW20_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	2.57	19.40	19.21	22.32	30.00
802.11ax HEW40_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	2.57	17.31	17.14	20.24	30.00
802.11ax HEW80_Nss2,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	2.57	16.82	16.67	19.76	30.00

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



Average Power

Appendix C.4

Mode 4, Non beamforming mode: 5GHz Band 4 3T2S, CDD Summary

Mode	Total Power (dBm)	Total Power (W)
5.725-5.85GHz	-	-
802.11ac VHT80_Nss2,(MCS0)_3TX	26.04	0.40179
802.11ax HEW80_Nss2,(MCS0)_3TX	26.62	0.45920



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT80_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5775MHz	Pass	0.99	21.38	21.06	21.35	26.04	30.00
802.11ax HEW80_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5775MHz	Pass	0.99	21.96	21.63	21.94	26.62	30.00

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



**Mode 5, Beamforming mode: 5GHz Band 4 3T2S, CDD
Summary**

Mode	Total Power (dBm)	Total Power (W)
5.725-5.85GHz	-	-
802.11ac VHT80-BF_Nss2,(MCS0)_3TX	26.51	0.44771
802.11ax HEW80-BF_Nss2,(MCS0)_3TX	26.62	0.45920



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT80-BF_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5775MHz	Pass	2.75	21.87	21.52	21.82	26.51	30.00
802.11ax HEW80-BF_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5775MHz	Pass	2.75	21.96	21.63	21.94	26.62	30.00

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



Average Power

Appendix C.6

Mode 6, Non beamforming mode: 5GHz Band 4, 3T3S, SDM Summary

Mode	Total Power (dBm)	Total Power (W)
5.725-5.85GHz	-	-
802.11ac VHT80_Nss3,(MCS0)_3TX	26.15	0.41210
802.11ax HEW80_Nss3,(MCS0)_3TX	26.33	0.42954



Average Power

Appendix C.6

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT80_Nss3,(MCS0)_3TX	-	-	-	-	-	-	-
5775MHz	Pass	0.99	21.43	21.13	21.56	26.15	30.00
802.11ax HEW80_Nss3,(MCS0)_3TX	-	-	-	-	-	-	-
5775MHz	Pass	0.99	21.65	21.34	21.68	26.33	30.00

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

**Mode 7, Non-beamforming mode: 5GHz Band 2 2T1S and Band 3 3T1S CDD
Summary**

Mode	Total Power (dBm)	Total Power (W)
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	23.54	0.22594
802.11ac VHT20_Nss1,(MCS0)_2TX	23.72	0.23550
802.11ac VHT40_Nss1,(MCS0)_2TX	23.81	0.24044
802.11ac VHT80_Nss1,(MCS0)_2TX	18.80	0.07586
802.11ax HEW20_Nss1,(MCS0)_2TX	23.71	0.23496
802.11ax HEW40_Nss1,(MCS0)_2TX	23.83	0.24155
802.11ax HEW80_Nss1,(MCS0)_2TX	18.05	0.06383
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_3TX	23.68	0.23335
802.11ac VHT20_Nss1,(MCS0)_3TX	23.91	0.24604
802.11ac VHT40_Nss1,(MCS0)_3TX	23.95	0.24831
802.11ac VHT80_Nss1,(MCS0)_3TX	23.79	0.23933
802.11ax HEW20_Nss1,(MCS0)_3TX	23.87	0.24378
802.11ax HEW40_Nss1,(MCS0)_3TX	23.88	0.24434
802.11ax HEW80_Nss1,(MCS0)_3TX	23.93	0.24717
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_3TX	16.99	0.05000
802.11ac VHT20_Nss1,(MCS0)_3TX	17.46	0.05572
802.11ac VHT40_Nss1,(MCS0)_3TX	13.96	0.02489
802.11ac VHT80_Nss1,(MCS0)_3TX	10.46	0.01112
802.11ax HEW20_Nss1,(MCS0)_3TX	17.93	0.06209
802.11ax HEW40_Nss1,(MCS0)_3TX	14.51	0.02825
802.11ax HEW80_Nss1,(MCS0)_3TX	11.36	0.01368



Average Power Result

Appendix C.7

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-
5260MHz	Pass	2.24	20.66	20.39		23.54	23.98
5300MHz	Pass	2.24	19.94	20.51		23.24	23.98
5320MHz	Pass	2.24	18.83	19.45		22.16	23.98
802.11a_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
5500MHz	Pass	1.18	15.96	16.33	15.88	20.83	23.98
5580MHz	Pass	1.18	18.65	19.35	18.70	23.68	23.98
5620MHz	Pass	1.18	19.48	18.67	18.11	23.56	23.98
5700MHz	Pass	1.18	18.40	17.66	17.35	22.60	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	1.18	18.75	17.98	17.54	22.89	22.94
5720MHz Straddle 5.725-5.85GHz	Pass	0.99	12.87	11.91	11.79	16.99	30.00
802.11ac_VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5260MHz	Pass	2.24	20.73	20.69		23.72	23.98
5300MHz	Pass	2.24	19.96	20.51		23.25	23.98
5320MHz	Pass	2.24	18.74	19.43		22.11	23.98
802.11ac_VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5500MHz	Pass	1.18	16.51	17.11	16.63	21.53	23.98
5580MHz	Pass	1.18	19.00	19.68	18.69	23.91	23.98
5620MHz	Pass	1.18	19.87	18.89	18.50	23.90	23.98
5700MHz	Pass	1.18	18.04	17.28	16.69	22.14	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	1.18	18.58	17.87	17.45	22.76	22.96
5720MHz Straddle 5.725-5.85GHz	Pass	0.99	13.36	12.38	12.25	17.46	30.00
802.11ac_VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5270MHz	Pass	2.24	20.91	20.68		23.81	23.98
5310MHz	Pass	2.24	15.20	15.45		18.34	23.98
802.11ac_VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5510MHz	Pass	1.18	14.52	15.21	15.00	19.69	23.98
5550MHz	Pass	1.18	18.74	19.26	19.22	23.85	23.98
5630MHz	Pass	1.18	19.35	19.34	18.82	23.95	23.98
5670MHz	Pass	1.18	18.65	18.63	17.96	23.20	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	1.18	19.29	19.36	18.66	23.89	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	0.99	9.48	9.11	8.95	13.96	30.00
802.11ac_VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5290MHz	Pass	2.24	15.90	15.68		18.80	23.98
802.11ac_VHT80_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5530MHz	Pass	1.18	16.46	16.55	16.59	21.30	23.98
5610MHz	Pass	1.18	19.44	18.60	18.91	23.77	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	1.18	19.37	18.87	18.79	23.79	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	0.99	6.13	4.96	5.89	10.46	30.00
802.11ax_HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5260MHz	Pass	2.24	20.80	20.60		23.71	23.98
5300MHz	Pass	2.24	20.22	20.72		23.49	23.98
5320MHz	Pass	2.24	18.99	19.72		22.38	23.98
802.11ax_HEW20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-

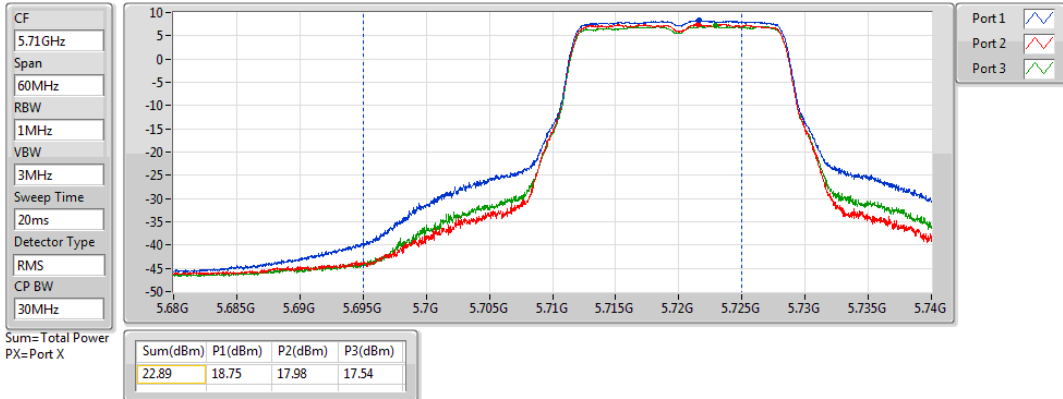
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
5500MHz	Pass	1.18	16.40	16.79	16.38	21.30	23.98
5580MHz	Pass	1.18	19.04	19.47	18.75	23.87	23.98
5620MHz	Pass	1.18	18.61	17.90	17.76	22.88	23.98
5700MHz	Pass	1.18	16.34	15.94	15.40	20.68	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	1.18	18.63	17.85	17.53	22.80	22.93
5720MHz Straddle 5.725-5.85GHz	Pass	0.99	13.83	12.82	12.75	17.93	30.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5270MHz	Pass	2.24	21.02	20.60		23.83	23.98
5310MHz	Pass	2.24	15.67	15.79		18.74	23.98
802.11ax HEW40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5510MHz	Pass	1.18	15.22	15.67	15.71	20.31	23.98
5550MHz	Pass	1.18	18.72	19.43	19.14	23.88	23.98
5630MHz	Pass	1.18	19.24	19.26	18.53	23.79	23.98
5670MHz	Pass	1.18	19.21	19.08	18.52	23.72	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	1.18	19.21	19.24	18.68	23.82	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	0.99	9.98	9.65	9.57	14.51	30.00
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5290MHz	Pass	2.24	15.16	14.92		18.05	23.98
802.11ax HEW80_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5530MHz	Pass	1.18	17.34	17.64	17.44	22.25	23.98
5610MHz	Pass	1.18	19.31	18.88	18.94	23.82	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	1.18	19.45	18.93	19.09	23.93	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	0.99	7.04	5.93	6.71	11.36	30.00

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

802.11a_Nss1,(6Mbps)_3TX

AV Power

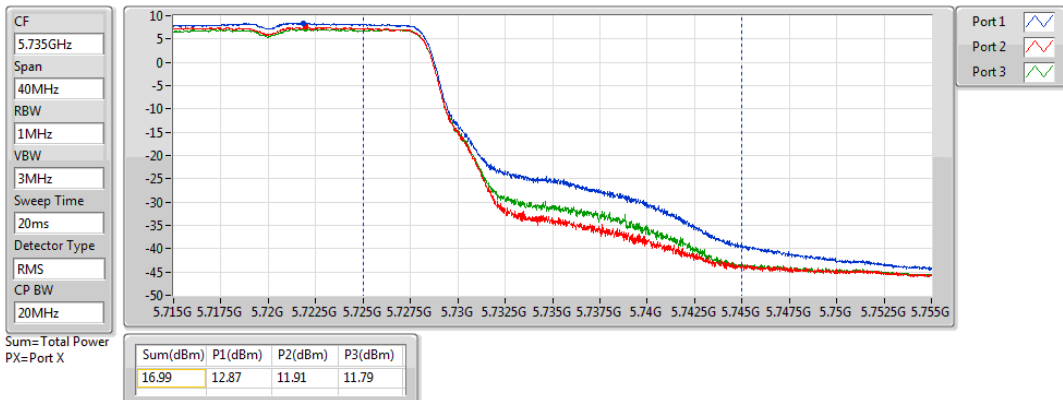
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802.11a_Nss1,(6Mbps)_3TX

AV Power

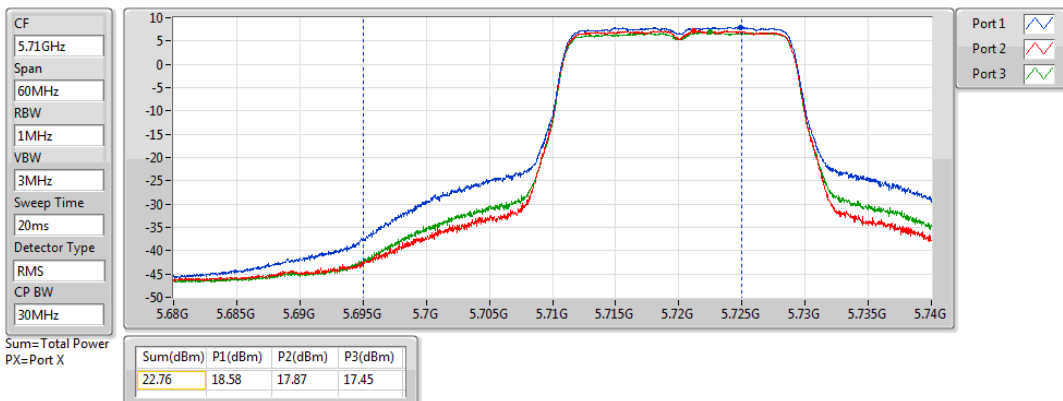
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802.11ac VHT20_Nss1,(MCS0)_3TX

AV Power

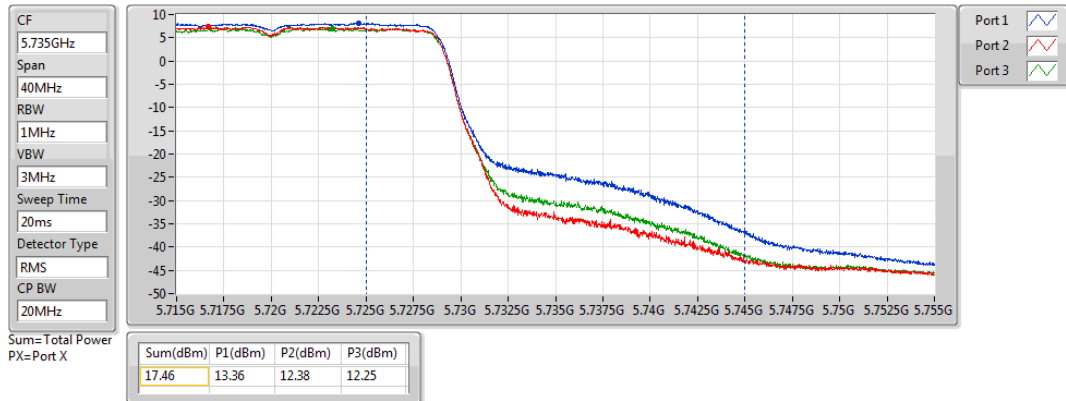
5720MHz Straddle 5.47-5.725GHz



802.11ac VHT20_Nss1,(MCS0)_3TX

AV Power

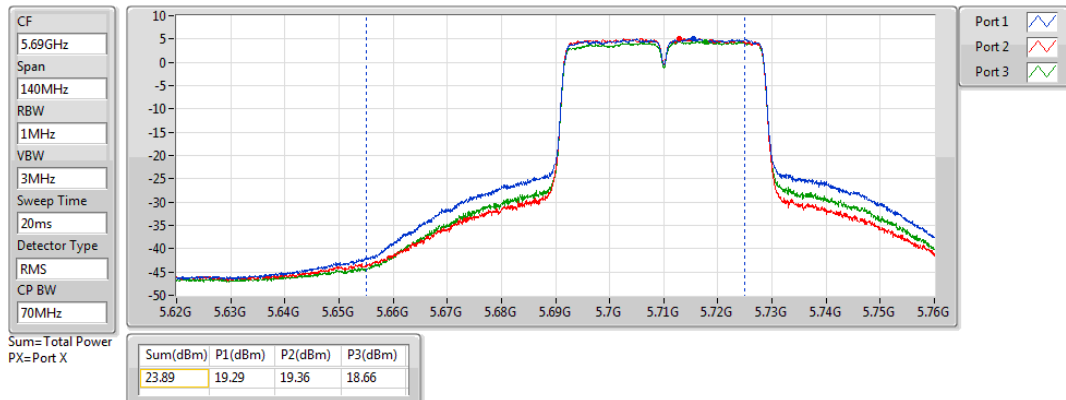
5720MHz Straddle 5.725-5.85GHz



802.11ac VHT40_Nss1,(MCS0)_3TX

AV Power

5710MHz Straddle 5.47-5.725GHz



802.11ac VHT40_Nss1,(MCS0)_3TX

AV Power

5710MHz Straddle 5.725-5.85GHz

