



RADIO TEST REPORT

FCC ID : UDX-600104010
Equipment : Wi-Fi 6E Access Point
Brand Name : Cisco
Model Name : MR57-HW
Applicant : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA 95134 USA
Manufacturer : Cisco Systems, Inc.
170 West Tasman Drive, San Jose, CA 95134 USA
Standard : 47 CFR FCC Part 15.407

The product was received on Oct. 06, 2021, and testing was started from Oct. 16, 2021 and completed on Dec. 23, 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: Cliff Chang

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
Issued Date : Feb. 07, 2022
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	-

Declaration of Conformity:

1. The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to report "Measurement Uncertainty".

Comments and Explanations:

1. The test configuration, test mode and test software were written in this test report are declared by the manufacturer.
2. 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: Jessie Wei**

1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20), ax (HEW20)	5180-5240	36-48 [4]
5725-5850		5745-5825	149-165 [5]
5725-5895		5845-5885	169-177[3]
5150-5250	n (HT40), ac (VHT40), ax (HEW40)	5190-5230	38-46 [2]
5725-5850		5755-5795	151-159 [2]
5725-5895		5835-5875	167-175[2]
5150-5250	ac (VHT80), ax (HEW80)	5210	42 [1]
5725-5850		5775	155 [1]
5725-5895		5855	171[1]

<Radio 1>

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	1TX, 2TX, 4TX / 4RX
5.15-5.25GHz	802.11n HT20	20	1TX, 2TX, 4TX / 4RX
5.15-5.25GHz	802.11n HT20-BF	20	2TX, 4TX / 4RX
5.15-5.25GHz	802.11ac VHT20	20	1TX, 2TX, 4TX / 4RX
5.15-5.25GHz	802.11ac VHT20-BF	20	2TX, 4TX / 4RX
5.15-5.25GHz	802.11ax HEW20	20	1TX, 2TX, 4TX / 4RX
5.15-5.25GHz	802.11ax HEW20-BF	20	2TX, 4TX / 4RX
5.15-5.25GHz	802.11n HT40	40	1TX, 2TX, 4TX / 4RX
5.15-5.25GHz	802.11n HT40-BF	40	2TX, 4TX / 4RX
5.15-5.25GHz	802.11ac VHT40	40	1TX, 2TX, 4TX / 4RX
5.15-5.25GHz	802.11ac VHT40-BF	40	2TX, 4TX / 4RX
5.15-5.25GHz	802.11ax HEW40	40	1TX, 2TX, 4TX / 4RX
5.15-5.25GHz	802.11ax HEW40-BF	40	2TX, 4TX / 4RX
5.15-5.25GHz	802.11ac VHT80	80	1TX, 2TX, 4TX / 4RX
5.15-5.25GHz	802.11ac VHT80-BF	80	2TX, 4TX / 4RX
5.15-5.25GHz	802.11ax HEW80	80	1TX, 2TX, 4TX / 4RX
5.15-5.25GHz	802.11ax HEW80-BF	80	2TX, 4TX / 4RX
5.725-5.85GHz	802.11a	20	1TX, 2TX, 4TX / 4RX



Band	Mode	BWch (MHz)	Nant
5.725-5.85GHz	802.11n HT20	20	1TX, 2TX, 4TX / 4RX
5.725-5.85GHz	802.11n HT20-BF	20	2TX, 4TX / 4RX
5.725-5.85GHz	802.11ac VHT20	20	1TX, 2TX, 4TX / 4RX
5.725-5.85GHz	802.11ac VHT20-BF	20	2TX, 4TX / 4RX
5.725-5.85GHz	802.11ax HEW20	20	1TX, 2TX, 4TX / 4RX
5.725-5.85GHz	802.11ax HEW20-BF	20	2TX, 4TX / 4RX
5.725-5.85GHz	802.11n HT40	40	1TX, 2TX, 4TX / 4RX
5.725-5.85GHz	802.11n HT40-BF	40	2TX, 4TX / 4RX
5.725-5.85GHz	802.11ac VHT40	40	1TX, 2TX, 4TX / 4RX
5.725-5.85GHz	802.11ac VHT40-BF	40	2TX, 4TX / 4RX
5.725-5.85GHz	802.11ax HEW40	40	1TX, 2TX, 4TX / 4RX
5.725-5.85GHz	802.11ax HEW40-BF	40	2TX, 4TX / 4RX
5.725-5.85GHz	802.11ac VHT80	80	1TX, 2TX, 4TX / 4RX
5.725-5.85GHz	802.11ac VHT80-BF	80	2TX, 4TX / 4RX
5.725-5.85GHz	802.11ax HEW80	80	1TX, 2TX, 4TX / 4RX
5.725-5.85GHz	802.11ax HEW80-BF	80	2TX, 4TX / 4RX

<Radio 2>

Band	Mode	BWch (MHz)	Nant
5.725-5.85GHz	802.11a	20	1TX, 2TX, 4TX / 4RX
5.725-5.85GHz	802.11n HT20	20	1TX, 2TX, 4TX / 4RX
5.725-5.85GHz	802.11n HT20-BF	20	2TX, 4TX / 4RX
5.725-5.85GHz	802.11ac VHT20	20	1TX, 2TX, 4TX / 4RX
5.725-5.85GHz	802.11ac VHT20-BF	20	2TX, 4TX / 4RX
5.725-5.85GHz	802.11ax HEW20	20	1TX, 2TX, 4TX / 4RX
5.725-5.85GHz	802.11ax HEW20-BF	20	2TX, 4TX / 4RX
5.725-5.85GHz	802.11n HT40	40	1TX, 2TX, 4TX / 4RX
5.725-5.85GHz	802.11n HT40-BF	40	2TX, 4TX / 4RX
5.725-5.85GHz	802.11ac VHT40	40	1TX, 2TX, 4TX / 4RX
5.725-5.85GHz	802.11ac VHT40-BF	40	2TX, 4TX / 4RX
5.725-5.85GHz	802.11ax HEW40	40	1TX, 2TX, 4TX / 4RX
5.725-5.85GHz	802.11ax HEW40-BF	40	2TX, 4TX / 4RX
5.725-5.85GHz	802.11ac VHT80	80	1TX, 2TX, 4TX / 4RX
5.725-5.85GHz	802.11ac VHT80-BF	80	2TX, 4TX / 4RX
5.725-5.85GHz	802.11ax HEW80	80	1TX, 2TX, 4TX / 4RX

Band	Mode	BWch (MHz)	Nant
5.725-5.85GHz	802.11ax HEW80-BF	80	2TX, 4TX / 4RX
5.725-5.895GHz	802.11a	20	1TX, 2TX, 4TX / 4RX
5.725-5.895GHz	802.11n HT20	20	1TX, 2TX, 4TX / 4RX
5.725-5.895GHz	802.11n HT20-BF	20	2TX, 4TX / 4RX
5.725-5.895GHz	802.11ac VHT20	20	1TX, 2TX, 4TX / 4RX
5.725-5.895GHz	802.11ac VHT20-BF	20	2TX, 4TX / 4RX
5.725-5.895GHz	802.11ax HEW20	20	1TX, 2TX, 4TX / 4RX
5.725-5.895GHz	802.11ax HEW20-BF	20	2TX, 4TX / 4RX
5.725-5.895GHz	802.11n HT40	40	1TX, 2TX, 4TX / 4RX
5.725-5.895GHz	802.11n HT40-BF	40	2TX, 4TX / 4RX
5.725-5.895GHz	802.11ac VHT40	40	1TX, 2TX, 4TX / 4RX
5.725-5.895GHz	802.11ac VHT40-BF	40	2TX, 4TX / 4RX
5.725-5.895GHz	802.11ax HEW40	40	1TX, 2TX, 4TX / 4RX
5.725-5.895GHz	802.11ax HEW40-BF	40	2TX, 4TX / 4RX
5.725-5.895GHz	802.11ac VHT80	80	1TX, 2TX, 4TX / 4RX
5.725-5.895GHz	802.11ac VHT80-BF	80	2TX, 4TX / 4RX
5.725-5.895GHz	802.11ax HEW80	80	1TX, 2TX, 4TX / 4RX
5.725-5.895GHz	802.11ax HEW80-BF	80	2TX, 4TX / 4RX

Note:

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



1.1.2 Antenna Information

Ant.	Port					Brand	P/N	Ant. Type	Connector	Gain (dBi)
	WLAN 2.4GHz	WLAN 5GHz UNII 1~3	WLAN 5GHz UNII 2C~4	WLAN 6GHz UNII 5~8	Bluetooth					
1	4	4	-	-	-	CISCO	95XKAN15.G42	PIFA	I-PEX	Note1
2	3	3	-	-	-	CISCO	95XKAN15.G43	PIFA	I-PEX	
3	2	2	-	-	-	CISCO	95XKAN15.G44	PIFA	I-PEX	
4	1	1	-	-	-	CISCO	95XKAN15.G45	PIFA	I-PEX	
5	-	-	2	2	-	CISCO	95XKAN15.G46	Dipole	I-PEX	
6	-	-	1	1	-	CISCO	95XKAN15.G47	Dipole	I-PEX	
7	-	-	4	4	-	CISCO	95XKAN15.G48	Dipole	I-PEX	
8	-	-	3	3	-	CISCO	95XKAN15.G49	Dipole	I-PEX	
9	1	1	-	-	-	CISCO	95XKAN15.G51	PIFA	I-PEX	
10	-	-	-	-	1	CISCO	95XKAN15.G50	PIFA	I-PEX	

Note1:

Ant.	Antenna Gain (dBi)											Remark
	WLAN 2.4GHz	WLAN 5GHz UNII 1	WLAN 5GHz UNII 2A	WLAN 5GHz UNII 2C	WLAN 5GHz UNII 3	WLAN 5GHz UNII 4	WLAN 6GHz UNII 5	WLAN 6GHz UNII 6	WLAN 6GHz UNII 7	WLAN 6GHz UNII 8	Blue tooth	
1	1.87	4.07	4.09	2.45	1.97	-	-	-	-	-	-	Radio 1
2	2.68	3.7	4.21	3	3.84	-	-	-	-	-	-	Radio 1
3	2.7	3.29	3.51	2.33	3.03	-	-	-	-	-	-	Radio 1
4	1.52	1.8	1.7	1.44	1.61	-	-	-	-	-	-	Radio 1
5	-	-	-	3.52	3.3	4.84	5.05	4.08	4.27	3.47	-	Radio 2
6	-	-	-	3.54	4.33	4.28	4.71	3.72	3.49	4.02	-	Radio 2
7	-	-	-	4.28	4.45	4.6	4.64	4.40	4.31	3.39	-	Radio 2
8	-	-	-	4.13	4.39	4.75	4.76	3.51	4.21	4.03	-	Radio 2
9	3.80	6.29	6.29	6.29	6.29	-	-	-	-	-	-	Radio 3
10	-	-	-	-	-	-	-	-	-	-	3.65	Radio 4

Note2:

Item	Directional Gain (dBi)						Remark
	WLAN 2.4GHz	WLAN 5GHz UNII 1	WLAN 5GHz UNII 2A	WLAN 5GHz UNII 2C	WLAN 5GHz UNII 3	WLAN 5GHz UNII 4	
2T1S	3.93	4.36	4.68	3.36	3.75	-	Radio 1
4T1S	5.7	6.45	6.36	5.06	5.18	-	
2T1S	-	-	-	5.32	6.01	5.57	Radio 2
4T1S	-	-	-	5.65	6.75	6.43	

Note3: Radio 1 (WLAN 2.4/5GHz UNII 1~3), Radio 2 (5GHz UNII 2C, 3, 4): The directional gain is measured which follows the procedure of KDB 662911 D03. The antenna report is provided in the operational description for this application.

This EUT doesn't enable UNII 2A, 2C.

Note4: The above information was declared by manufacturer.

The EUT has ten antennas.

For WLAN 2.4GHz function (Radio 1):

For IEEE 802.11b/g/n/VHT/ax mode (1TX, 2TX, 4TX/4RX):

For 1TX

Only Port 1 can be use as transmitting antenna.

For 2TX

Only Port 1 and Port 2 can be use as transmitting antenna.

Port 1 and Port 2 could transmit simultaneously.

For 4TX

Port 1, Port 2, Port 3 and Port 4 can be use as transmitting antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit simultaneously.

For 4RX

Port 1, Port 2, Port 3 and Port 4 can be used as receiving antennas.

Port 1, Port 2, Port 3 and Port 4 could receive simultaneously.

For WLAN 5GHz function (Radio 1 and Radio 2):

For IEEE 802.11a/n/ac/ax mode (1TX, 2TX, 4TX/4RX):

For 1TX

Only Port 1 can be use as transmitting antenna.

For 2TX

Only Port 1 and Port 2 can be use as transmitting antenna.

Port 1 and Port 2 could transmit simultaneously.

For 4TX

Port 1, Port 2, Port 3 and Port 4 can be use as transmitting antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit simultaneously.

For 4RX

Port 1, Port 2, Port 3 and Port 4 can be used as receiving antennas.

Port 1, Port 2, Port 3 and Port 4 could receive simultaneously.

For 6GHz function (Radio 2):

For IEEE 802.11ax mode (1TX, 2TX, 4TX/4RX):

For 1TX

Only Port 1 can be use as transmitting antenna.

For 2TX

Only Port 1 and Port 2 can be use as transmitting antenna.

Port 1 and Port 2 could transmit simultaneously.

For 4TX

Port 1, Port 2, Port 3 and Port 4 can be use as transmitting antenna.

Port 1, Port 2, Port 3 and Port 4 could transmit simultaneously.

For 4RX

Port 1, Port 2, Port 3 and Port 4 can be used as receiving antennas.

Port 1, Port 2, Port 3 and Port 4 could receive simultaneously.

For Scanning Radio 3:

For WLAN 2.4GHz function

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

Only Port 1 can be used as receiving functions.

For WLAN 5GHz function

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

Only Port 1 can be used as receiving functions.

For Bluetooth function (Radio 4):

For Bluetooth mode (1TX/1RX):

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

1.1.3 Table for Radio function

Function Radio	WLAN 2.4GHz	WLAN 5GHz UNII 1, 3	WLAN 5GHz UNII 3~4	WLAN 6GHz UNII 5~8	Bluetooth
1 (Iron Radio)	V	V	-	-	-
2 (Pine Radio)	-	-	V	V	-
3 (Scanning Radio)	V	V	-	-	-
4	-	-	-	-	V

Note: The above information was declared by manufacturer.

1.1.4 Table for EUT Operation Function

Mode	Operation Function
1	R1: 2.4GHz/5GHz Low Band+R2: 5GHz High band+R3: 2.4GHz+R4: Bluetooth
2	R1: 2.4GHz/5GHz Low Band+R2: 5GHz High band+R3: 5GHz+R4: Bluetooth
3	R1: 2.4GHz/5GHz Full Band+R2: 6E+R3: 2.4GHz+R4: Bluetooth
4	R1: 2.4GHz/5GHz Full Band+R2: 6E+R3: 5GHz+R4: Bluetooth

Note: The above information was declared by manufacturer.

1.1.5 Mode Test Duty Cycle

<Radio 1>

For 1T1S:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	0.929	0.32	1.978m	1k
802.11ax HEW20	0.939	0.27	5.447m	300
802.11ax HEW40	0.952	0.21	5.452m	300
802.11ax HEW80	0.95	0.22	5.449m	300

For 2T1S:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	0.932	0.31	1.977m	1k
802.11ax HEW20	0.939	0.27	5.447m	300
802.11ax HEW40	0.952	0.21	5.452m	300
802.11ax HEW80	0.95	0.22	5.449m	300

For 4T1S:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	0.955	0.2	1.977m	1k
802.11ax HEW20	0.96	0.18	5.445m	300
802.11ax HEW40	0.96	0.18	5.445m	300
802.11ax HEW80	0.958	0.19	5.445m	300

**<Radio 2>****For UNII 3:****For 1T1S:**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	0.96	0.18	1.435m	1k
802.11ax HEW20	0.924	0.34	5.455m	300
802.11ax HEW40	0.848	0.72	5.452m	300
802.11ax HEW80	0.924	0.34	5.454m	300

For 2T1S:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	0.957	0.19	1.435m	1k
802.11ax HEW20	0.947	0.24	5.455m	300
802.11ax HEW40	0.918	0.37	5.455m	300
802.11ax HEW80	0.944	0.25	5.455m	300

For 4T1S:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11a	0.958	0.19	1.434m	1k
802.11ax HEW20	0.939	0.27	5.453m	300
802.11ax HEW40	0.921	0.36	5.453m	300
802.11ax HEW80	0.934	0.3	5.455m	300

**For UNII 4:****For 1T1S:**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.959	0.18	1.434m	1k
802.11ax HEW20	0.953	0.21	5.454m	300
802.11ax HEW40	0.93	0.32	5.452m	300
802.11ax HEW80	0.917	0.38	5.452m	300

For 2T1S:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.959	0.18	1.434m	1k
802.11ax HEW20	0.953	0.21	5.454m	300
802.11ax HEW40	0.93	0.32	5.452m	300
802.11ax HEW80	0.917	0.38	5.452m	300

For 4T1S:

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a	0.959	0.18	1.434m	1k
802.11ax HEW20	0.953	0.21	5.454m	300
802.11ax HEW40	0.93	0.32	5.452m	300
802.11ax HEW80	0.917	0.38	5.452m	300

Note:

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

1.1.6 EUT Operational Condition

EUT Power Type	From Power Adapter or PoE			
Beamforming Function	☒	With beamforming	☐	Without beamforming
	The product has beamforming function for n/VHT/ax in 2.4GHz, n/ac/ax in 5GHz and ax in 6GHz.			
Function	☐	Outdoor P2M	☒	Indoor P2M
	☐	Fixed P2P	☐	Client
Device Type (UNII 4)	☒	Indoor Access Point	☐	Subordinate
	☐	Indoor Client		
Test Software Version	QSRP (Version 5.0-00199) · DOS [ver 6.1.7601]			

Note: The above information was declared by manufacturer.

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 D03 v01
- ♦ FCC KDB 412172 D01 v01r01
- ♦ FCC KDB 414788 D01 v01r01
- ♦ FCC KDB 291074 U-NII-4 - 5.9 Band DR01-44460_Draft

1.3 Testing Location Information

Testing Location Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)
(TAF: 3787)	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	TH03-CB	Owen Hsu	24.8~26.2 / 63~67	Oct. 21, 2021~ Dec. 23, 2021
Radiated below 1GHz	03CH05-CB	Kevin Huang	24.4~25.5 / 55~58	Nov. 11, 2021~ Nov. 12, 2021
Radiated above 1GHz	03CH01-CB	Paul Chen	23.5~24.6 / 55~59	Oct. 16, 2021~ Dec. 13, 2021
	03CH04-CB	Paul Chen	24.4~25.5 / 55~58	
	03CH02-CB	Paul Chen	24.2~26.1 / 55~58	
Radiated Co-location	03CH05-CB	Paul Chen	22.8~23.7 / 55~58	Oct. 16, 2021~ Dec. 13, 2021
AC Conduction	CO01-CB	Peter Wu	22~23 / 59~60	Nov. 17, 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)	4.7 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.2 dB	Confidence levels of 95%
Conducted Emission	2.5 dB	Confidence levels of 95%
Output Power Measurement	1.3 dB	Confidence levels of 95%
Power Density Measurement	2.5 dB	Confidence levels of 95%
Bandwidth Measurement	0.9%	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

<Radio 1>

<Non-Beamforming Mode>

For 1T1S:

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5180MHz	21
5200MHz	23
5240MHz	23
5745MHz	23
5785MHz	23
5825MHz	23
802.11ax HEW20_Nss1,(MCS0)_1TX	-
5180MHz	20.5
5200MHz	23
5240MHz	23
5745MHz	23
5785MHz	23
5825MHz	23
802.11ax HEW40_Nss1,(MCS0)_1TX	-
5190MHz	18
5230MHz	23
5755MHz	23
5795MHz	23
802.11ax HEW80_Nss1,(MCS0)_1TX	-
5210MHz	17.5
5775MHz	21

**For 2T1S:**

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	20.5
5200MHz	23
5240MHz	23
5745MHz	23
5785MHz	23
5825MHz	23
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5180MHz	20.5
5200MHz	23
5240MHz	23
5745MHz	23
5785MHz	23
5825MHz	23
802.11ax HEW40_Nss1,(MCS0)_2TX	-
5190MHz	18
5230MHz	23
5755MHz	23
5795MHz	23
802.11ax HEW80_Nss1,(MCS0)_2TX	-
5210MHz	17.5
5775MHz	19

**For 4T1S:**

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5180MHz	19
5200MHz	23
5240MHz	23
5745MHz	23
5785MHz	23
5825MHz	23
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5180MHz	18.5
5200MHz	23
5240MHz	23
5745MHz	23
5785MHz	23
5825MHz	23
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5190MHz	18
5230MHz	21
5755MHz	21
5795MHz	23
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5210MHz	16
5775MHz	18

**<Beamforming Mode>****For 2T1S:**

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS3)_2TX	-
5180MHz	20.5
5200MHz	23
5240MHz	23
5745MHz	23
5785MHz	23
5825MHz	23
802.11ax HEW40-BF_Nss1,(MCS3)_2TX	-
5190MHz	18
5230MHz	23
5755MHz	23
5795MHz	23
802.11ax HEW80-BF_Nss1,(MCS3)_2TX	-
5210MHz	17.5
5775MHz	19

For 4T1S:

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS3)_4TX	-
5180MHz	18.5
5200MHz	23
5240MHz	23
5745MHz	23
5785MHz	23
5825MHz	23
802.11ax HEW40-BF_Nss1,(MCS3)_4TX	-
5190MHz	18
5230MHz	21
5755MHz	21
5795MHz	23
802.11ax HEW80-BF_Nss1,(MCS3)_4TX	-
5210MHz	16
5775MHz	18

**<Radio 2>****For UNII 3:****<Non-Beamforming Mode>****For 1T1S:**

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5745MHz	24
5785MHz	24
5825MHz	24
802.11ax HEW20_Nss1,(MCS0)_1TX	-
5745MHz	23.5
5785MHz	24
5825MHz	24
802.11ax HEW40_Nss1,(MCS0)_1TX	-
5755MHz	21.5
5795MHz	24
802.11ax HEW80_Nss1,(MCS0)_1TX	-
5775MHz	21

For 2T1S:

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5745MHz	24
5785MHz	24
5825MHz	24
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5745MHz	23.5
5785MHz	24
5825MHz	24
802.11ax HEW40_Nss1,(MCS0)_2TX	-
5755MHz	21.5
5795MHz	22.5
802.11ax HEW80_Nss1,(MCS0)_2TX	-
5775MHz	19

**For 4T1S:**

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5745MHz	24
5785MHz	24
5825MHz	24
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5745MHz	23.5
5785MHz	24
5825MHz	23.5
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5755MHz	20
5795MHz	21
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5775MHz	17.5

<Beamforming Mode>**For 2T1S:**

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS3)_2TX	-
5745MHz	23.5
5785MHz	24
5825MHz	24
802.11ax HEW40-BF_Nss1,(MCS3)_2TX	-
5755MHz	21.5
5795MHz	22.5
802.11ax HEW80-BF_Nss1,(MCS3)_2TX	-
5775MHz	19

For 4T1S:

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS3)_4TX	-
5745MHz	23.5
5785MHz	24
5825MHz	23.5
802.11ax HEW40-BF_Nss1,(MCS3)_4TX	-
5755MHz	20
5795MHz	21
802.11ax HEW80-BF_Nss1,(MCS3)_4TX	-
5775MHz	17.5

**<Radio 2>****For UNII 4:****<Non-Beamforming Mode>****For 1T1S:**

Mode	Power Setting
802.11a_Nss1,(6Mbps)_1TX	-
5845MHz	23
5865MHz	23
5885MHz	20
802.11ax HEW20_Nss1,(MCS0)_1TX	-
5845MHz	23
5865MHz	23
5885MHz	20
802.11ax HEW40_Nss1,(MCS0)_1TX	-
5835MHz	23
5875MHz	19
802.11ax HEW80_Nss1,(MCS0)_1TX	-
5855MHz	19

For 2T1S:

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5845MHz	23
5865MHz	23
5885MHz	20
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5845MHz	23
5865MHz	23
5885MHz	18
802.11ax HEW40_Nss1,(MCS0)_2TX	-
5835MHz	23
5875MHz	19
802.11ax HEW80_Nss1,(MCS0)_2TX	-
5855MHz	19

**For 4T1S:**

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5845MHz	20.5
5865MHz	20.5
5885MHz	19.5
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5845MHz	21
5865MHz	21
5885MHz	19.5
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5835MHz	23
5875MHz	19
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5855MHz	18.5

<Beamforming Mode>**For 2T1S:**

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS3)_2TX	-
5845MHz	23
5865MHz	23
5885MHz	18
802.11ax HEW40-BF_Nss1,(MCS3)_2TX	-
5835MHz	23
5875MHz	19
802.11ax HEW80-BF_Nss1,(MCS3)_2TX	-
5855MHz	19

For 4T1S:

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS3)_4TX	-
5845MHz	21
5865MHz	21
5885MHz	19.5
802.11ax HEW40-BF_Nss1,(MCS3)_4TX	-
5835MHz	23
5875MHz	19
802.11ax HEW80-BF_Nss1,(MCS3)_4TX	-
5855MHz	18.5

Note1: 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.
 Note2: The EUT supports beamforming and CDD modes, and the CDD mode is the worst case. Therefore, all test items are evaluated in the report. The beamforming mode only evaluates the output power.
 Note3: For 802.11ax mode: Non-Beamforming supports MCS0~11 and Beamforming supports MCS3-11.

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	R1:2.4GHz/5GHz Low Band+R2:5GHz High band+R3:2.4GHz+R4:Bluetooth+Adapter
2	R1:2.4GHz/5GHz Low Band+R2:5GHz High band+R3:5GHz+R4:Bluetooth+Adapter
3	R1:2.4GHz/5GHz Full Band+R2:6E+R3:2.4GHz+R4:Bluetooth+Adapter
4	R1:2.4GHz/5GHz Full Band+R2:6E+R3:5GHz+R4:Bluetooth+Adapter
Mode 1 has been evaluated to be the worst case among Mode 1~4, thus measurement for Mode 5~6 will follow this same test mode.	
5	R1: 2.4GHz/5GHz Low Band+R2: 5GHz High band+R3: 2.4GHz+R4: Bluetooth+PoE 1
6	R1: 2.4GHz/5GHz Low Band+R2: 5GHz High band+R3: 2.4GHz+R4: Bluetooth+PoE 2
For operating mode 5 is the worst case and it was record in this test report.	

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
Operating Mode	
1	<Radio 1> 1T1S
2	<Radio 1> 2T1S
3	<Radio 1> 4T1S
4	<Radio 2> 1T1S
5	<Radio 2> 2T1S
6	<Radio 2> 4T1S



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 Z axis-R1: 2.4GHz/5GHz Low Band+R2: 5GHz High band+R3: 2.4GHz+R4: Bluetooth+Adapter
2	EUT in Y axis-R1: 2.4GHz/5GHz Low Band+R2: 5GHz High band+R3: 2.4GHz+R4: Bluetooth+Adapter
3	EUT in X axis-R1: 2.4GHz/5GHz Low Band+R2: 5GHz High band+R3: 2.4GHz+R4: Bluetooth+Adapter
Mode 3 has been evaluated to be the worst case among Mode 1~3, thus measurement for Mode 4~6 will follow this same test mode.	
4	EUT in X axis-R1: 2.4GHz/5GHz Low Band+R2: 5GHz High band+R3: 5GHz+R4: Bluetooth+Adapter
5	EUT in X axis-R1: 2.4GHz/5GHz Full Band+R2: 6E+R3: 2.4GHz+R4: Bluetooth+Adapter
6	EUT in X axis-R1: 2.4GHz/5GHz Full Band+R2: 6E+R3: 5GHz+R4: Bluetooth+Adapter
Mode 3 has been evaluated to be the worst case among Mode 1~6, thus measurement for Mode 7~8 will follow this same test mode.	
7	EUT in X axis-R1: 2.4GHz/5GHz Low Band+R2: 5GHz High band+R3: 2.4GHz+R4: Bluetooth+PoE 1
8	EUT in X axis-R1: 2.4GHz/5GHz Low Band+R2: 5GHz High band+R3: 2.4GHz+R4: Bluetooth+PoE 2
For operating mode 7 is the worst case and it was record in this test report.	
Operating Mode > 1GHz	CTX
The EUT was performed at X axis, Y axis and Z axis position, and the worst case was found as below. So the measurement will follow this same test configuration.	
1	<Radio 1> For 1T1S: EUT in Z axis
2	<Radio 1> For 2T1S: EUT in X axis
3	<Radio 1> For 4T1S: EUT in Z axis
4	<Radio 2> For 1T1S: EUT in X axis
5	<Radio 2> For 2T1S: EUT in X axis
6	<Radio 2> For 4T1S: EUT in X axis

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
The EUT was performed at X axis, Y axis and Z axis position for Unwanted Emissions above 1GHz, and the worst case was found at X axis. So the measurement will follow this same test configuration.	
1	EUT in X axis - R1: 2.4GHz/5GHz Low Band
2	EUT in X axis - R1: 2.4GHz/5GHz Full Band
For operating mode 2 is the worst case and it was record in this test report.	
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	R1: 2.4GHz/5GHz Low Band+R2: 5GHz High band+R4: Bluetooth
2	R1: 2.4GHz/5GHz Full Band+R2: 6E+R4: Bluetooth
Refer to Sporton Test Report No.: FA181947-01 for Co-location RF Exposure Evaluation.	

Note: The Adapter and PoEs are for measurement only, would not be marketed.

Adapter and PoEs information as below:

Power	Brand	Model
Adapter	Cisco	MA-PWR-50WAC
PoE 1	Cisco	MA-INJ-4
PoE 2	PHIHONG	POE60U-1BT-X



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 7 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 DOS [ver 6.1.7601].
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by WLAN AP and transmit duty cycle no less than 98%.

For Normal Link Mode:

During the test, the EUT operation to normal function.

2.4 Accessories

Wall-mounted rack*1

2.5 Support Equipment

For AC Conduction:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	PoE 1	Cisco	MA-INJ-4	N/A
B	PoE PC	DELL	T3400	N/A
C	2.4G NB	DELL	E6430	N/A
D	5G-L NB	DELL	E6430	N/A
E	LAN PC	DELL	T3400	N/A
F	Flash disk3.0	Transcend	JetFlash-700	N/A
G	5G-H NB	DELL	E6430	N/A

**For Radiated (below 1GHz):**

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	2.4G NB	DELL	E4300	N/A
B	5G-L NB	Apple	Mac Book	N/A
C	5G-H NB	Apple	Mac Book	N/A
D	NB	Apple	Mac Book	N/A
E	Flash disk3.0	Silicon Power	B06	N/A
F	PC	HP	SGH8190LP1	N/A
G	PoE 1	Cisco	MA-INJ-4	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
B	Adapter	Cisco	MA-PWR-50WAC	N/A

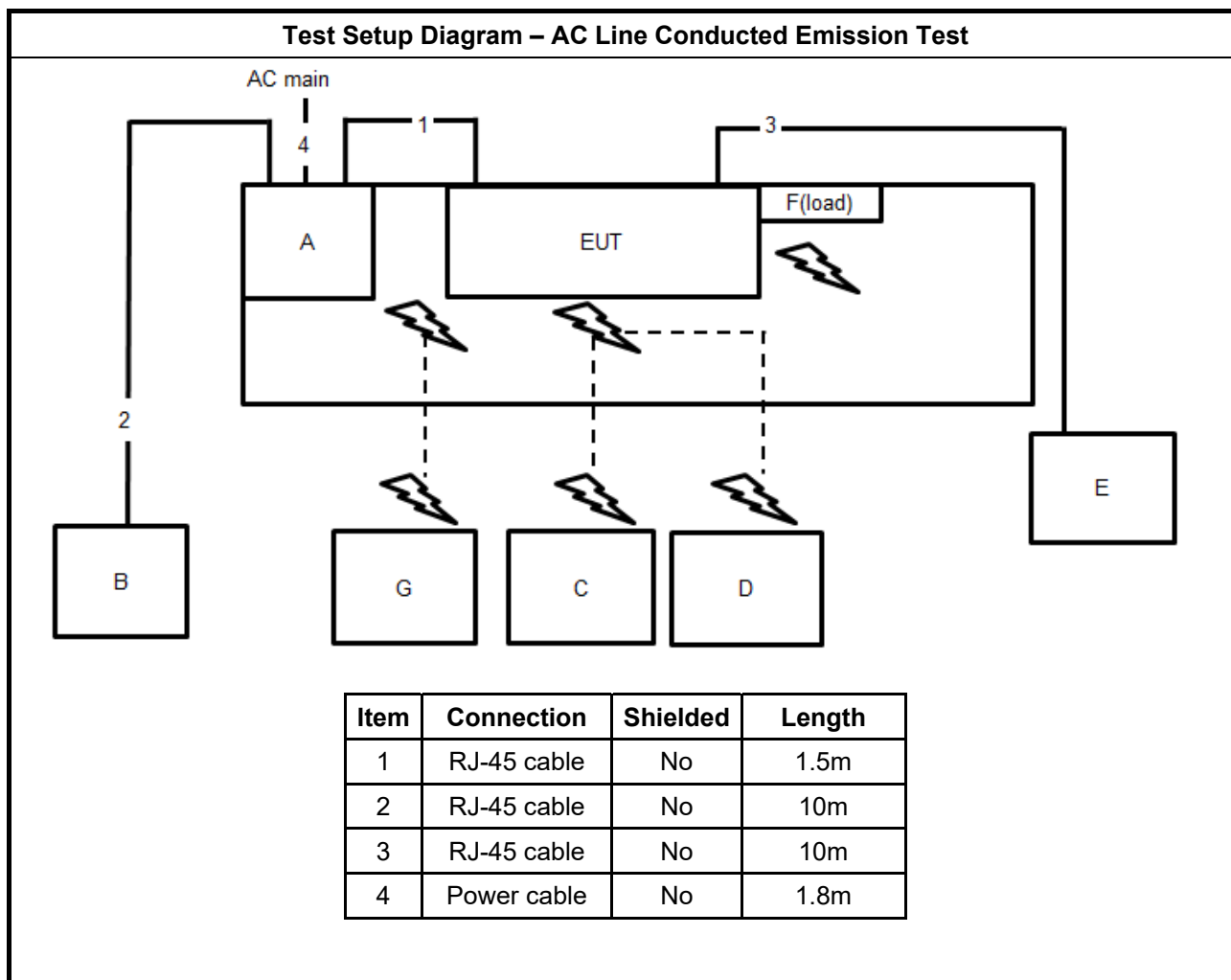
<Beamforming Mode>

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	WLAN AP	WNC	RXAQ-MR1	N/A
C	Notebook	DELL	E4300	N/A
D	Adapter	Cisco	MA-PWR-50WAC	N/A

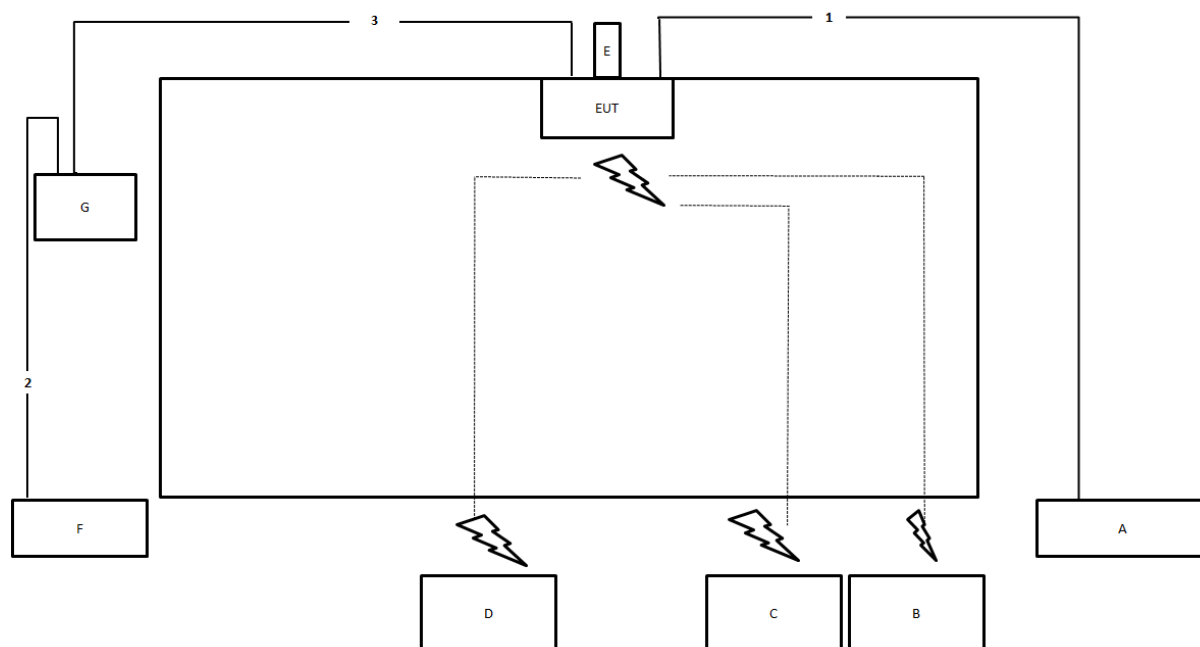
For RF Conducted:

Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	Notebook	DELL	E4300	N/A
B	Adapter	Cisco	MA-PWR-50WAC	N/A

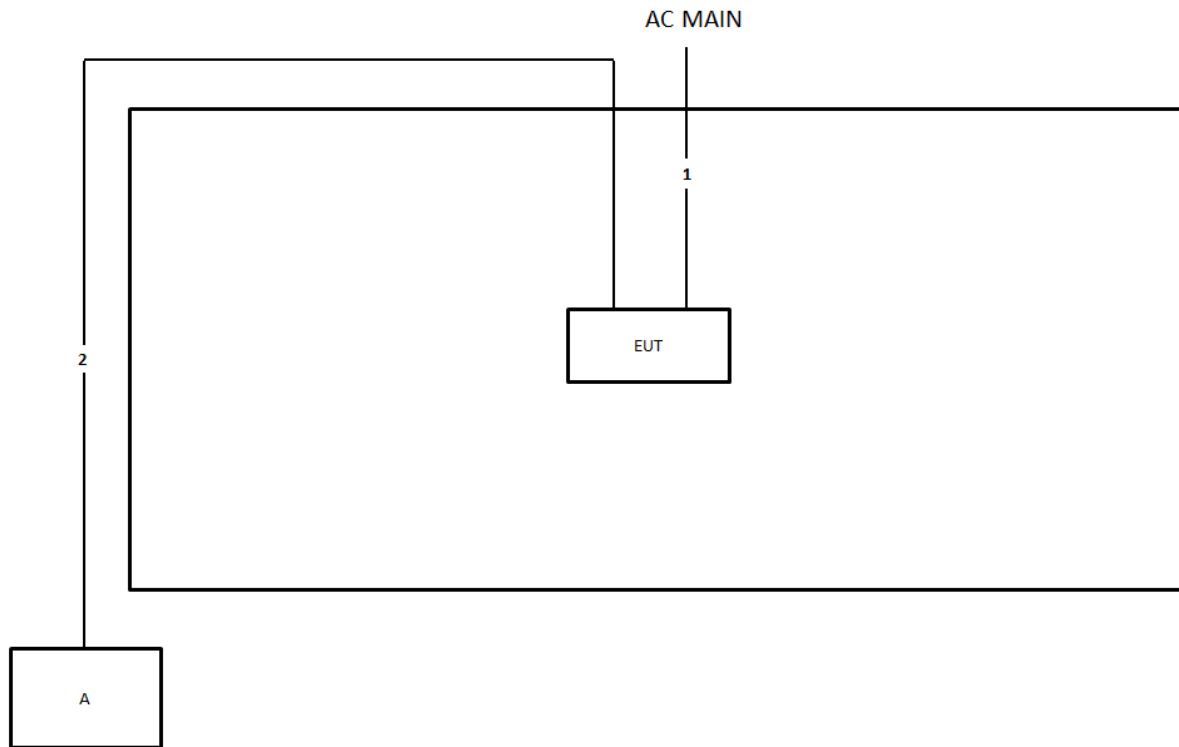
2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test < 1GHz

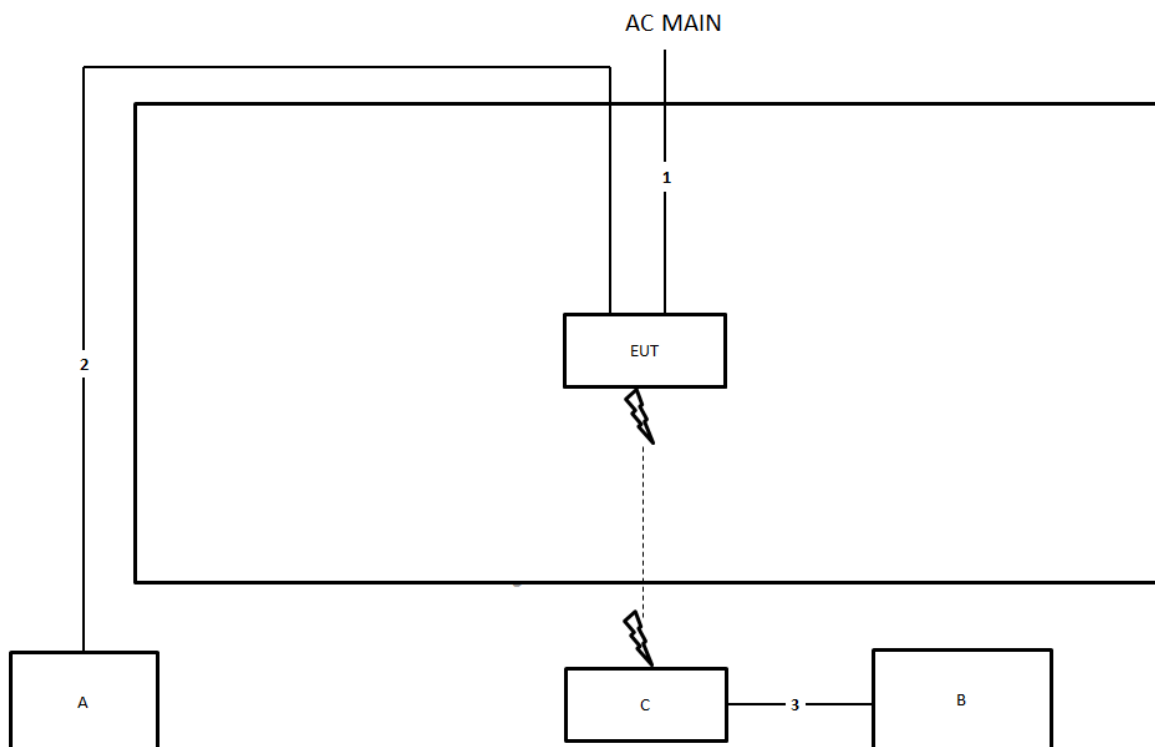


Item	Connection	Shielded	Length
1	RJ-45 cable	No	10m
2	RJ-45 cable	No	1.5m
3	RJ-45 cable	No	10m

Test Setup Diagram - Radiated Test > 1GHz / <Non-Beamforming Mode>


Item	Connection	Shielded	Length
1	Power cable	No	3.4m
2	RJ-45 cable	No	10m

Test Setup Diagram - Radiated Test > 1GHz / <Beamforming Mode>



Item	Connection	Shielded	Length
1	Power cable	No	3.4m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m

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.

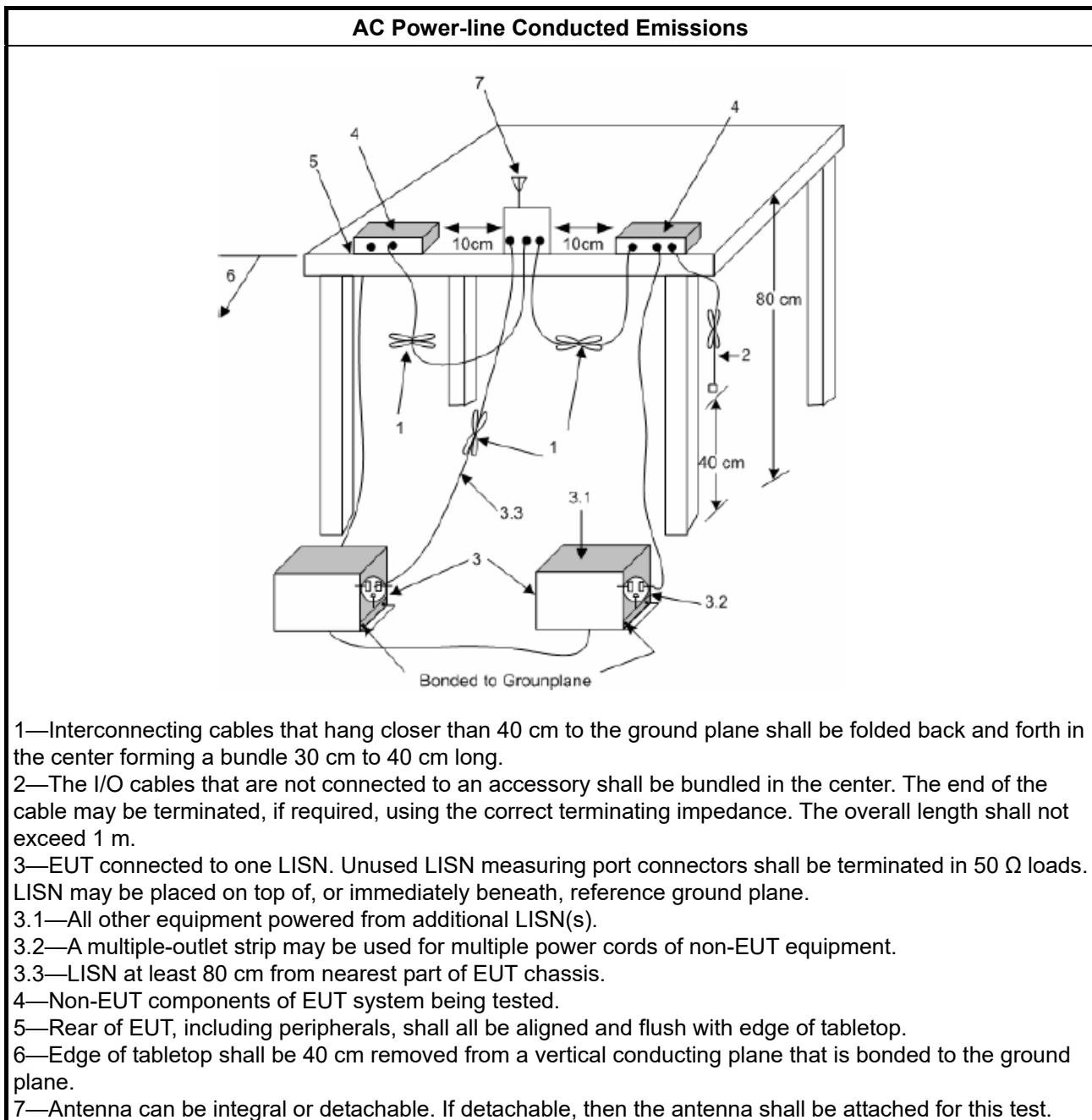
3.1.2 Measuring Instruments

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 $11 \text{ dBm} + 10 \log B$, 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 $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in MHz.
☒	For the 5.725-5.85 GHz band, 26 dB emission bandwidth ,N/A. 6 dB emission bandwidth $\geq 500\text{kHz}$.
☒	For the 5.85-5.895 GHz band, 26 dB emission bandwidth ,N/A. 6 dB emission bandwidth $\geq 500\text{kHz}$.
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 $\geq 500\text{kHz}$.

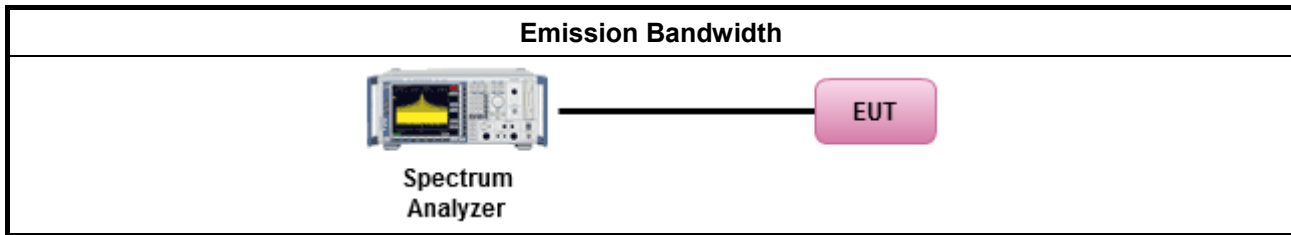
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

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

lesser of 1 W.

P_{Out} = maximum conducted output power in dBm,

G_{TX} = the maximum transmitting antenna directional gain in dBi.

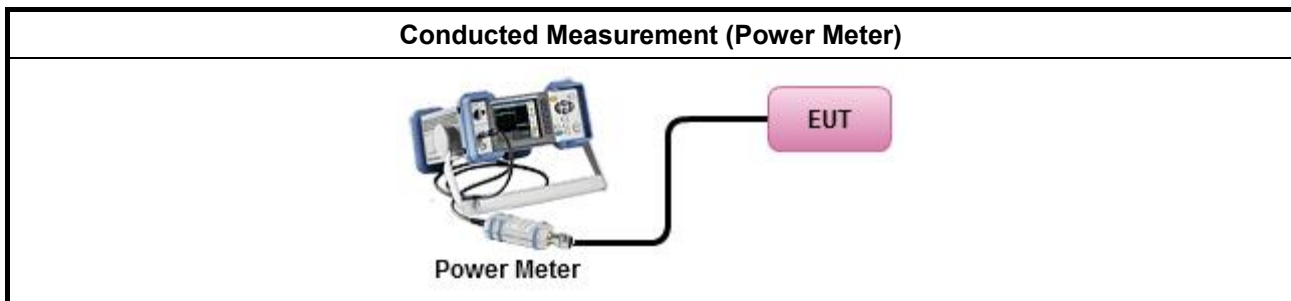
3.3.2 Measuring Instruments

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



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

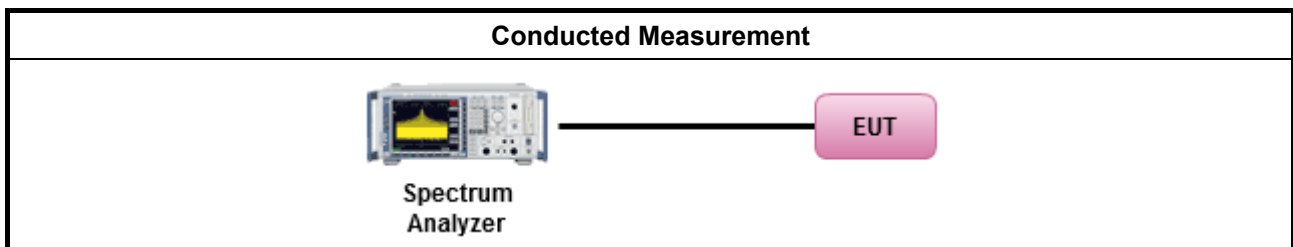
Refer a test equipment and calibration data table in this test report.

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])	

Test Method	
	$EIRP_{total} = PPSD_{total} + DG$
☐	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.
	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

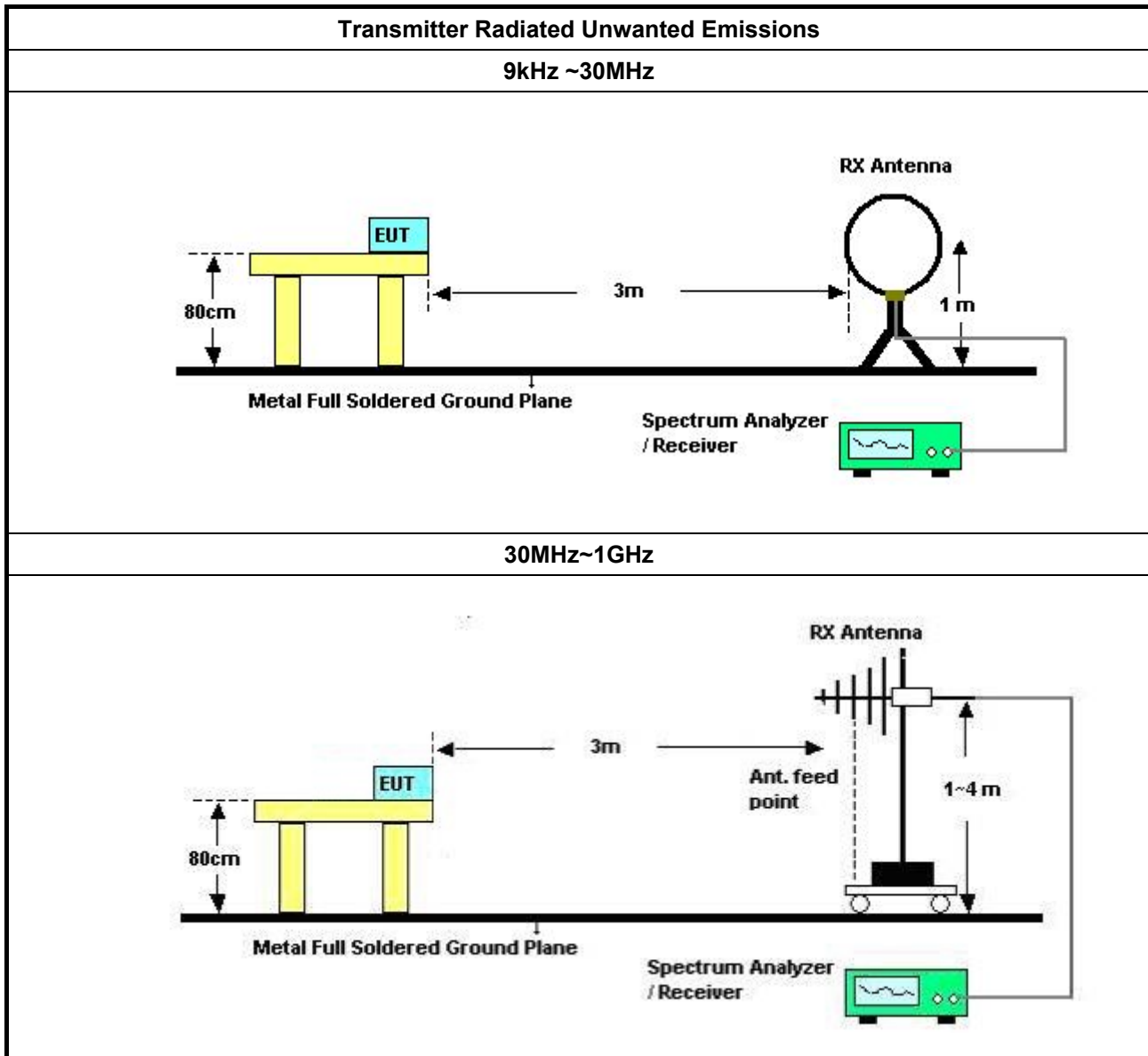
Refer a test equipment and calibration data table in this test report.

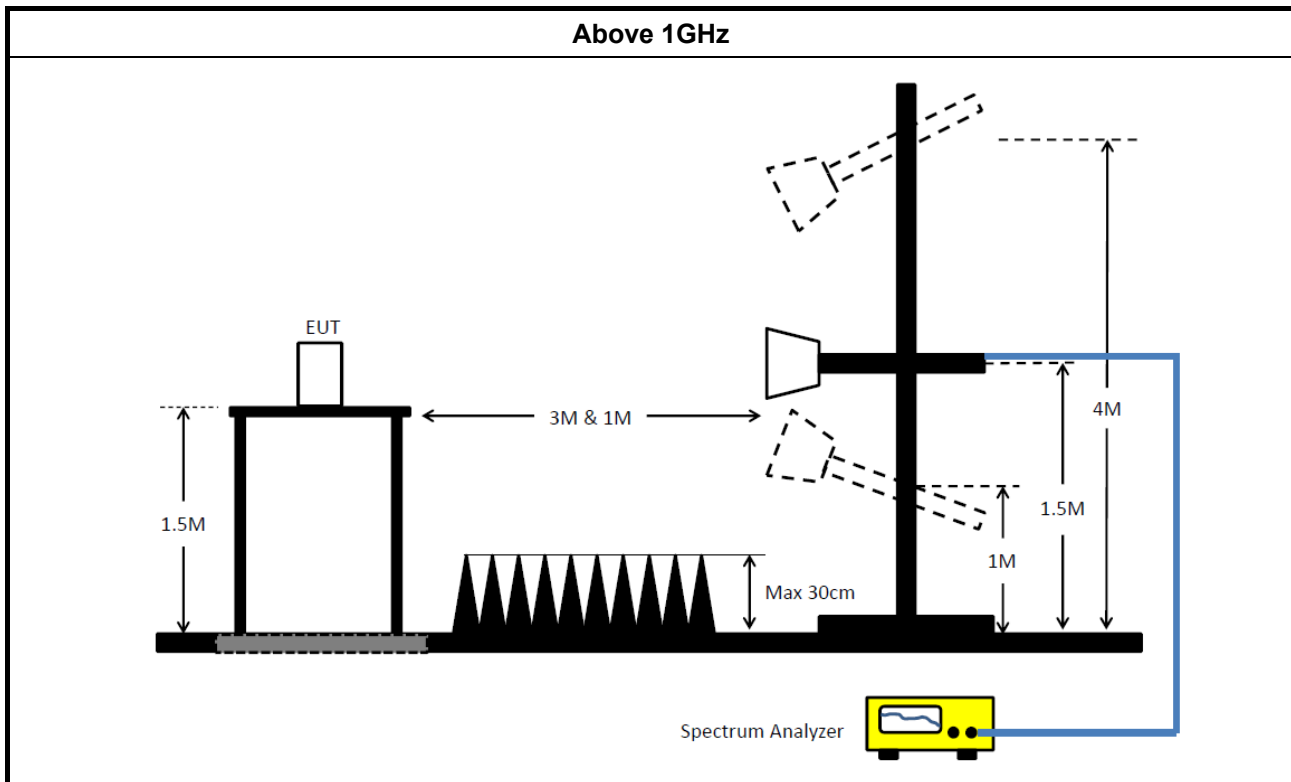


3.5.3 Test Procedures

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.	
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





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	Brand	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. 08, 2020	Nov. 07, 2021	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)
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA 9120 D-1291	1GHz~18GHz	Oct. 14, 2021	Oct. 13, 2022	Radiation (03CH05-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC330N	980331	20MHz ~ 3GHz	Apr. 27, 2021	Apr. 26, 2022	Radiation (03CH05-CB)
Pre-Amplifier	EMCI	EMC12630SE	980287	1GHz ~ 26.5GHz	Jul. 02, 2021	Jul. 01, 2022	Radiation (03CH05-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 13, 2021	Jul. 12, 2022	Radiation (03CH05-CB)
Spectrum Analyzer	R&S	FSP40	100304	9kHz ~ 40GHz	Nov. 10, 2020	Nov. 09, 2021	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. 04, 2021	Oct. 03, 2022	Radiation (03CH05-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-28	1GHz~18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-04+28	1GHz~18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 15, 2021	Jul. 14, 2022	Radiation (03CH05-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 15, 2021	Jul. 14, 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	03CH01-CB	1GHz ~18GHz 3m	May 07, 2021	May 06, 2022	Radiation (03CH01-CB)
Horn Antenna	ETS-LINDGREN	3115	00075790	750MHz ~ 18GHz	Nov. 06, 2020	Nov. 05, 2021	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1370	1GHz~18GHz	Sep. 14, 2021	Sep. 13, 2022	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02121	1GHz ~ 26.5GHz	May 20, 2021	May 19, 2022	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 13, 2021	Jul. 12, 2022	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	May 03, 2021	May 02, 2022	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16	1 GHz ~ 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 15, 2021	Jul. 14, 2022	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 15, 2021	Jul. 14, 2022	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH01-CB)
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH04-CB	1GHz ~18GHz 3m	Feb. 25, 2021	Feb. 24, 2022	Radiation (03CH04-CB)
Horn Antenna	ETS · Lindgren	3115	00143147	750MHz~18GHz	Oct. 23, 2020	Oct. 22, 2021	Radiation (03CH04-CB)
Horn Antenna	COM-POWER	AH-118	071028	1GHz ~ 18GHz	Jun. 23, 2021	Jun. 22, 2022	Radiation (03CH04-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH04-CB)
Pre-Amplifier	Agilent	83017A	MY53270063	0.5GHz ~ 26.5GHz	Jul. 12, 2021	Jul. 11, 2022	Radiation (03CH04-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 13, 2021	Jul. 12, 2022	Radiation (03CH04-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
Spectrum Analyzer	R&S	FSP40	100142	9kHz~40GHz	Feb. 19, 2021	Feb. 18, 2022	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21	1GHz - 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-21+67	1GHz - 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 15, 2021	Jul. 14, 2022	Radiation (03CH04-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 15, 2021	Jul. 14, 2022	Radiation (03CH04-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH04-CB)
3m Semi Anechoic Chamber VSWR	RIKEN	SAC-3M	03CH02-CB	1GHz ~18GHz 3m	Mar. 27, 2021	Mar. 26, 2022	Radiation (03CH02-CB)
Horn Antenna	EMCO	3115	9610-4976	1GHz ~ 18GHz	May 04, 2021	May 03, 2022	Radiation (03CH02-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170252	15GHz ~ 40GHz	Aug. 05, 2021	Aug. 04, 2022	Radiation (03CH02-CB)
Pre-Amplifier	Agilent	83017A	MY39501305	1GHz ~ 26.5GHz	Jul. 12, 2021	Jul. 11, 2022	Radiation (03CH02-CB)
Pre-Amplifier	MITEQ	TTA1840-35-HG	1864479	18GHz ~ 40GHz	Jul. 13, 2021	Jul. 12, 2022	Radiation (03CH02-CB)
Signal Analyzer	R&S	FSV40	101903	9kHz ~ 40GHz	Mar. 22, 2021	Mar. 21, 2022	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-18+19	1GHz ~ 18GHz	Oct. 04, 2021	Oct. 03, 2022	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 15, 2021	Jul. 14, 2022	Radiation (03CH02-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 15, 2021	Jul. 14, 2022	Radiation (03CH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH02-CB)
Spectrum analyzer	R&S	FSV40	101028	9kHz~40GHz	Dec. 31, 2020	Dec. 30, 2021	Conducted (TH03-CB)
Power Sensor	Anritsu	MA2411B	1726195	300MHz~40GHz	Aug. 22, 2021	Aug. 21, 2022	Conducted (TH03-CB)
Power Meter	Anritsu	ML2495A	1035008	300MHz~40GHz	Aug. 22, 2021	Aug. 21, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-11	1 GHz ~18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-12	1 GHz ~18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-13	1 GHz ~18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	High Cable-14	1 GHz ~18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)



Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
RF Cable-high	Woken	RG402	High Cable-15	1 GHz –18 GHz	Oct. 04, 2021	Oct. 03, 2022	Conducted (TH03-CB)
Switch	SPTCB	SP-SWI	SWI-03	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P1	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P2	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P3	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P4	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
RF Cable-high	Woken	RG402	SWI-03-P5	1 GHz –26.5 GHz	Dec. 13, 2021	Dec. 12, 2022	Conducted (TH03-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH03-CB)

Note: Calibration Interval of instruments listed above is one year.
NCR means Non-Calibration required.



Conducted Emissions at Powerline

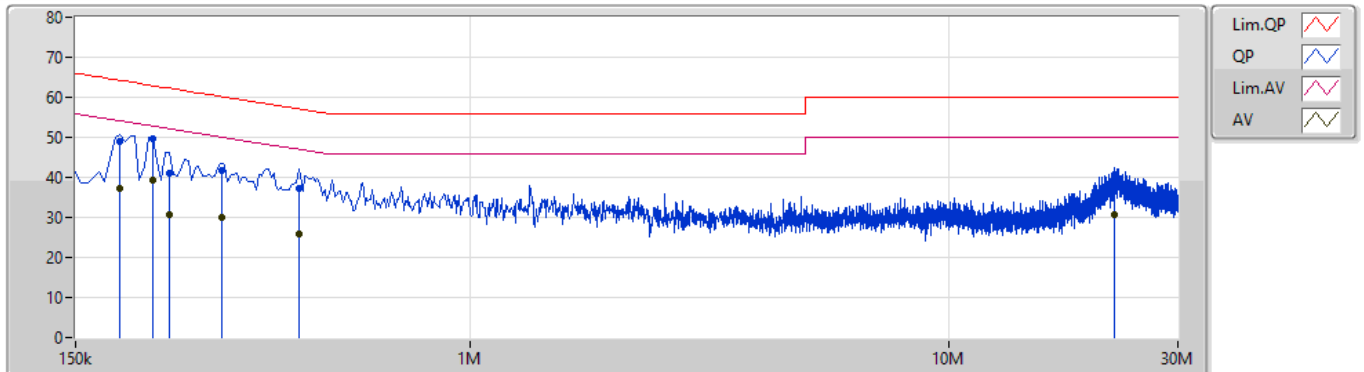
Appendix A

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 5	Pass	QP	217.5k	52.77	62.92	-10.15	Neutral

Mode 5

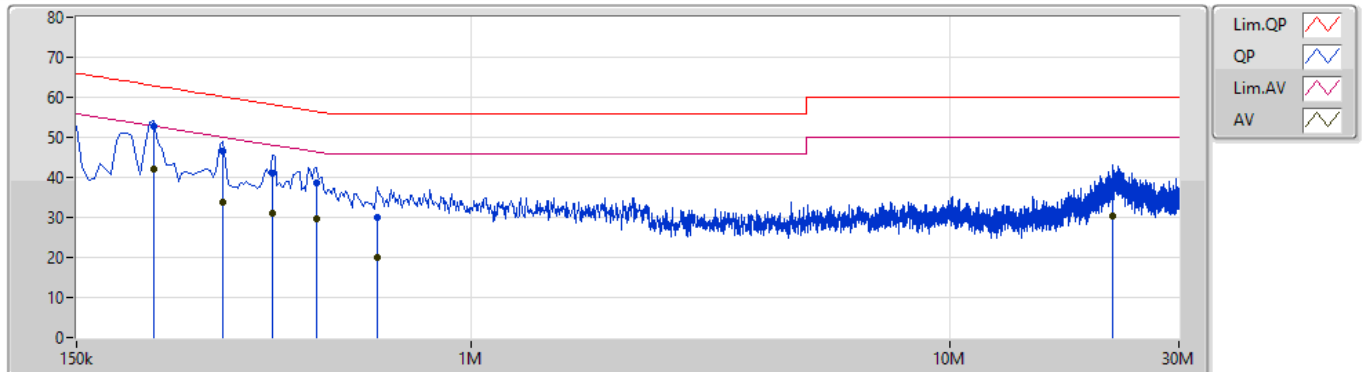
17/11/2021



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	186k	48.91	64.20	-15.29	9.89	Line	-	39.02	0.04	0.04	9.81			
AV	186k	37.25	54.20	-16.95	9.89	Line	-	27.36	0.04	0.04	9.81			
QP	217.5k	49.69	62.92	-13.23	9.89	Line	"Worst"	39.80	0.04	0.04	9.81			
AV	217.5k	39.26	52.92	-13.66	9.89	Line	-	29.37	0.04	0.04	9.81			
QP	235.5k	41.17	62.25	-21.08	9.89	Line	-	31.28	0.04	0.04	9.81			
AV	235.5k	30.67	52.25	-21.58	9.89	Line	-	20.78	0.04	0.04	9.81			
QP	303k	41.70	60.17	-18.47	9.90	Line	-	31.80	0.04	0.04	9.82			
AV	303k	30.00	50.17	-20.17	9.90	Line	-	20.10	0.04	0.04	9.82			
QP	438k	37.30	57.11	-19.81	9.90	Line	-	27.40	0.04	0.04	9.82			
AV	438k	25.89	47.11	-21.22	9.90	Line	-	15.99	0.04	0.04	9.82			
QP	22.137M	37.90	60.00	-22.10	10.58	Line	-	27.32	0.33	0.25	10.00			
AV	22.137M	30.75	50.00	-19.25	10.58	Line	-	20.17	0.33	0.25	10.00			

Mode 5

17/11/2021



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)			
QP	217.5k	52.77	62.92	-10.15	9.88	Neutral	"Worst"	42.89	0.03	0.04	9.81			
AV	217.5k	42.14	52.92	-10.78	9.88	Neutral	-	32.26	0.03	0.04	9.81			
QP	303k	46.44	60.17	-13.73	9.89	Neutral	-	36.55	0.03	0.04	9.82			
AV	303k	33.88	50.17	-16.29	9.89	Neutral	-	23.99	0.03	0.04	9.82			
QP	384k	41.02	58.20	-17.18	9.89	Neutral	-	31.13	0.03	0.04	9.82			
AV	384k	31.12	48.20	-17.08	9.89	Neutral	-	21.23	0.03	0.04	9.82			
QP	474k	38.58	56.44	-17.86	9.89	Neutral	-	28.69	0.03	0.04	9.82			
AV	474k	29.57	46.44	-16.87	9.89	Neutral	-	19.68	0.03	0.04	9.82			
QP	636k	29.94	56.00	-26.06	9.91	Neutral	-	20.03	0.04	0.04	9.83			
AV	636k	20.11	46.00	-25.89	9.91	Neutral	-	10.20	0.04	0.04	9.83			
QP	21.881M	37.32	60.00	-22.68	10.56	Neutral	-	26.76	0.32	0.24	10.00			
AV	21.881M	30.21	50.00	-19.79	10.56	Neutral	-	19.65	0.32	0.24	10.00			

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	34.41M	18.111M	18M1D1D	22.83M	16.642M
802.11ax HEW20_Nss1,(MCS0)_1TX	34.38M	19.28M	19M3D1D	22.23M	19.04M
802.11ax HEW40_Nss1,(MCS0)_1TX	70.38M	38.741M	38M7D1D	41.4M	38.021M
802.11ax HEW80_Nss1,(MCS0)_1TX	82.32M	77.481M	77M5D1D	82.32M	77.481M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	16.29M	31.064M	31M1D1D	15.72M	25.007M
802.11ax HEW20_Nss1,(MCS0)_1TX	18.81M	30.465M	30M5D1D	18.63M	21.799M
802.11ax HEW40_Nss1,(MCS0)_1TX	37.74M	51.034M	51M0D1D	37.68M	44.978M
802.11ax HEW80_Nss1,(MCS0)_1TX	77.88M	86.597M	86M6D1D	77.88M	86.597M

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

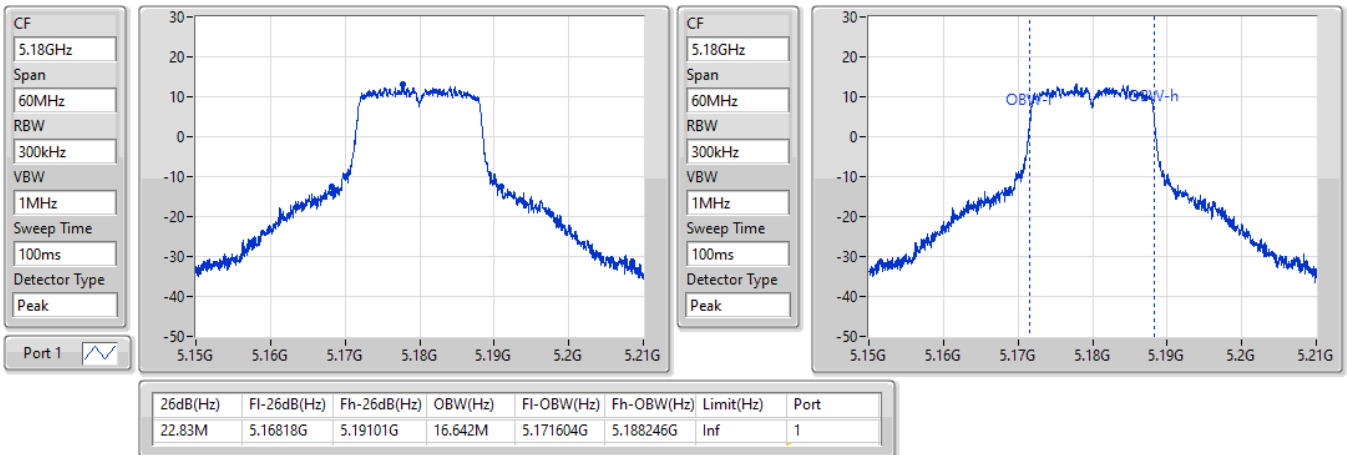
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5180MHz	Pass	Inf	22.83M	16.642M
5200MHz	Pass	Inf	34.23M	17.601M
5240MHz	Pass	Inf	34.41M	18.111M
5745MHz	Pass	500k	16.02M	25.007M
5785MHz	Pass	500k	15.72M	26.957M
5825MHz	Pass	500k	16.29M	31.064M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-
5180MHz	Pass	Inf	22.23M	19.04M
5200MHz	Pass	Inf	34.38M	19.22M
5240MHz	Pass	Inf	30.39M	19.28M
5745MHz	Pass	500k	18.63M	21.799M
5785MHz	Pass	500k	18.81M	24.678M
5825MHz	Pass	500k	18.69M	30.465M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-
5190MHz	Pass	Inf	41.4M	38.021M
5230MHz	Pass	Inf	70.38M	38.741M
5755MHz	Pass	500k	37.68M	44.978M
5795MHz	Pass	500k	37.74M	51.034M
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-
5210MHz	Pass	Inf	82.32M	77.481M
5775MHz	Pass	500k	77.88M	86.597M

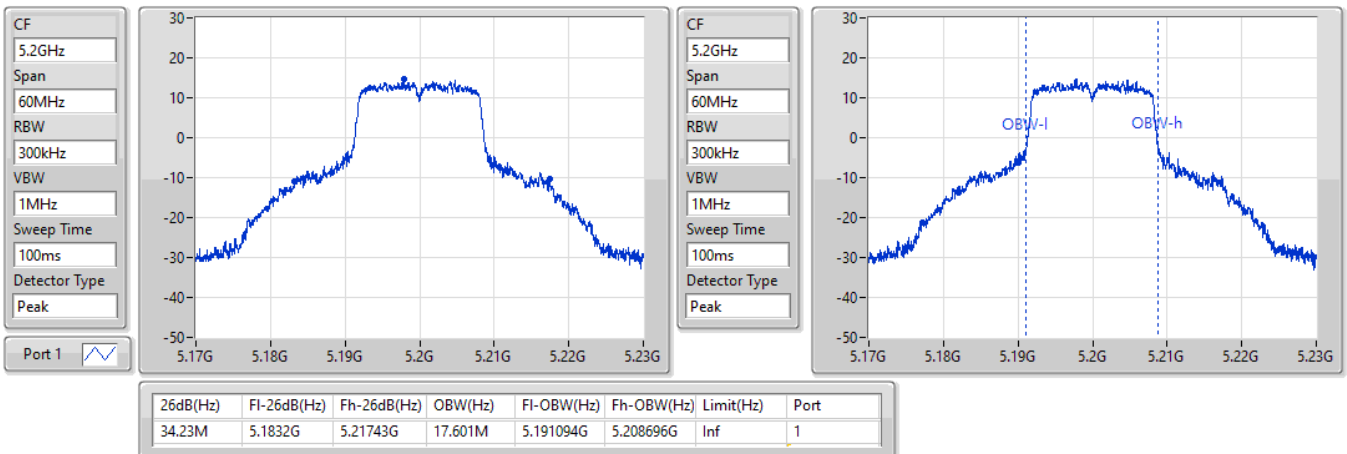
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_1TX
EBW
5180MHz

30/10/2021

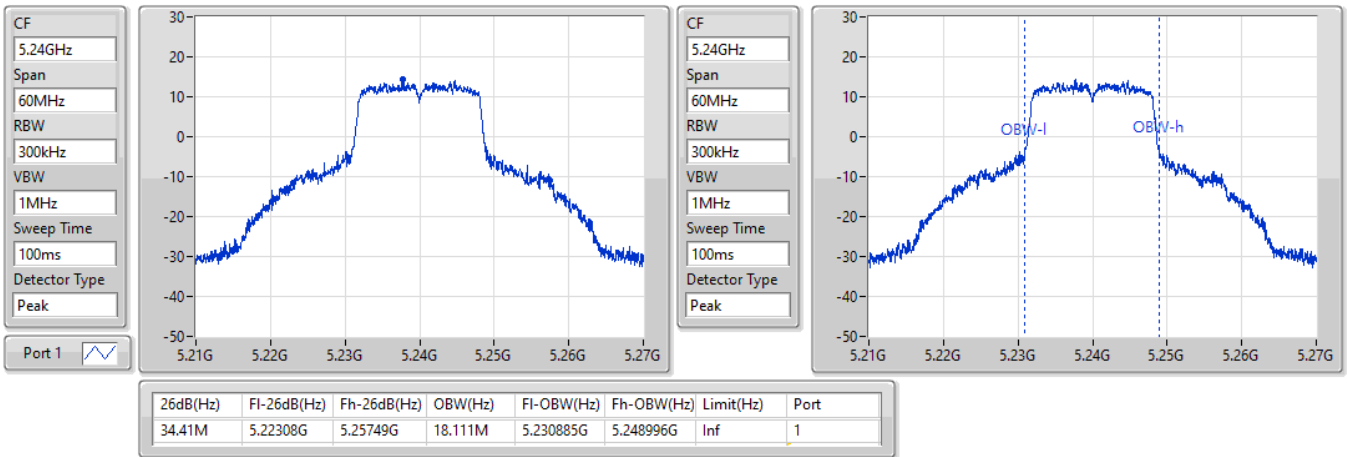

802.11a_Nss1,(6Mbps)_1TX
EBW
5200MHz

30/10/2021

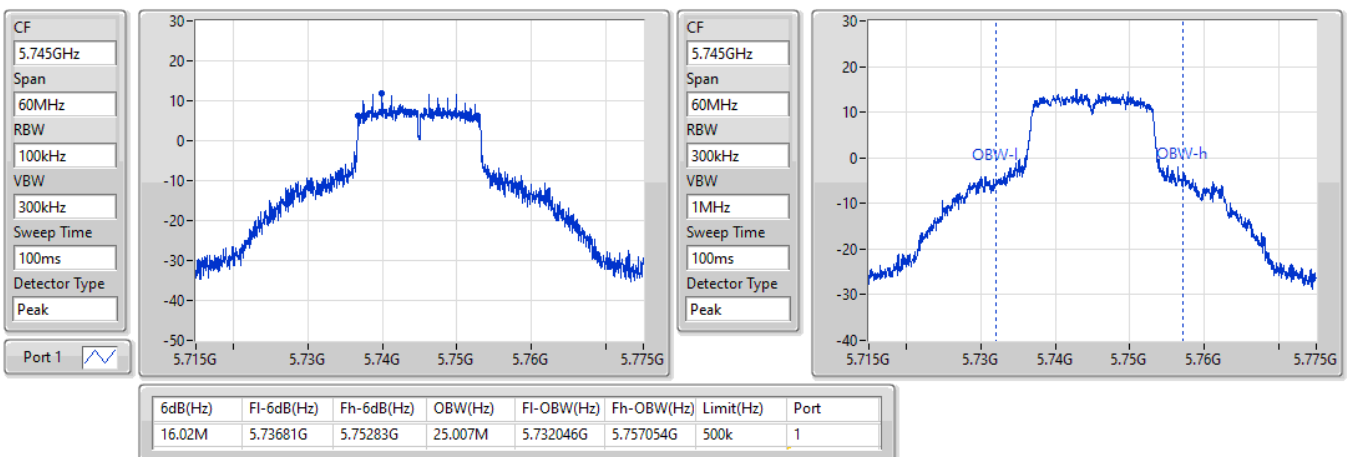


802.11a_Nss1,(6Mbps)_1TX
EBW
5240MHz

30/10/2021

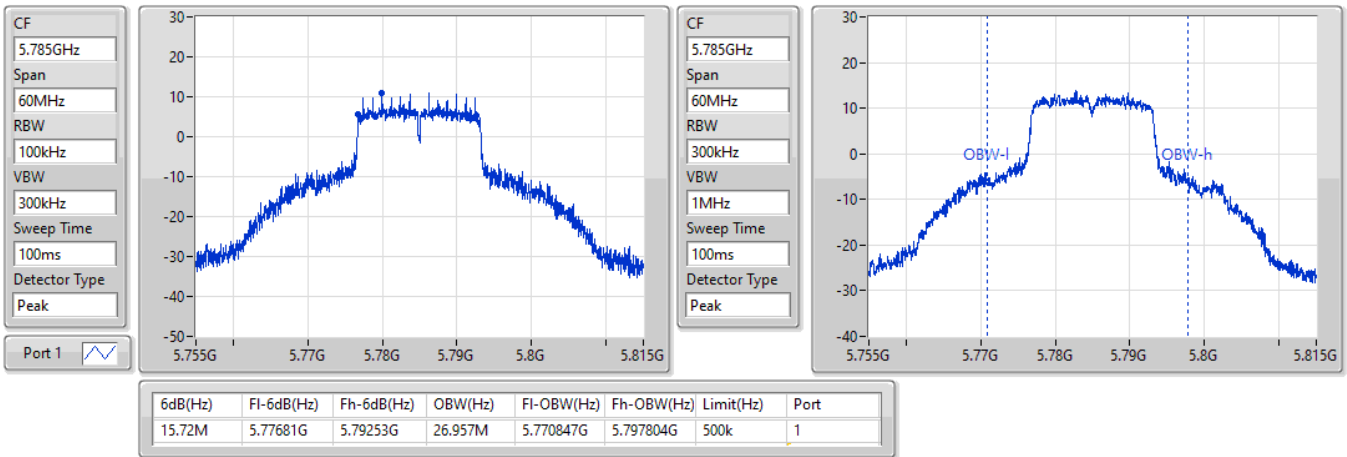

802.11a_Nss1,(6Mbps)_1TX
EBW
5745MHz

30/10/2021

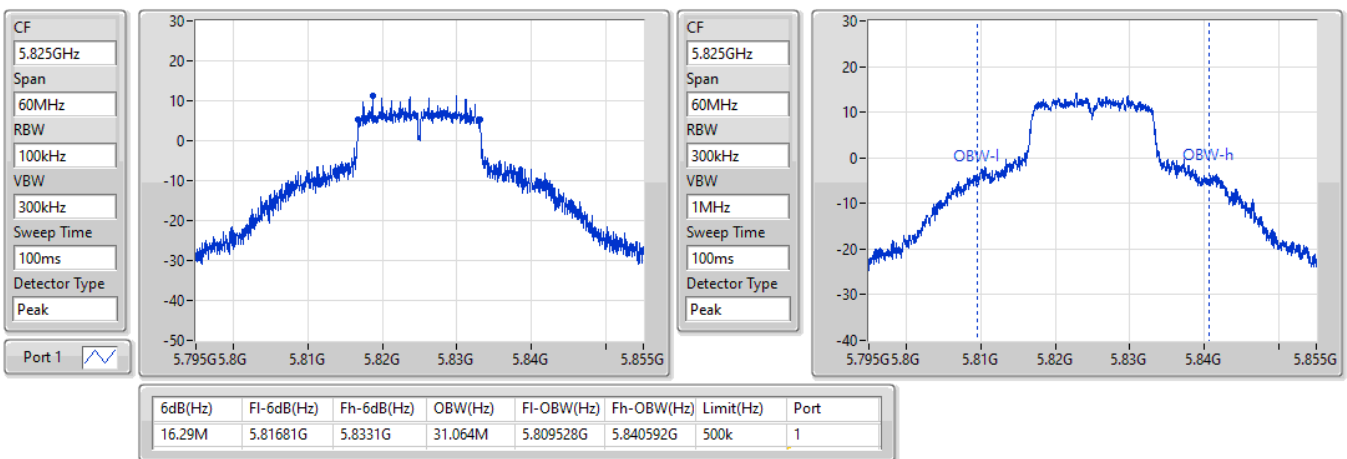


802.11a_Nss1,(6Mbps)_1TX
EBW
5785MHz

30/10/2021

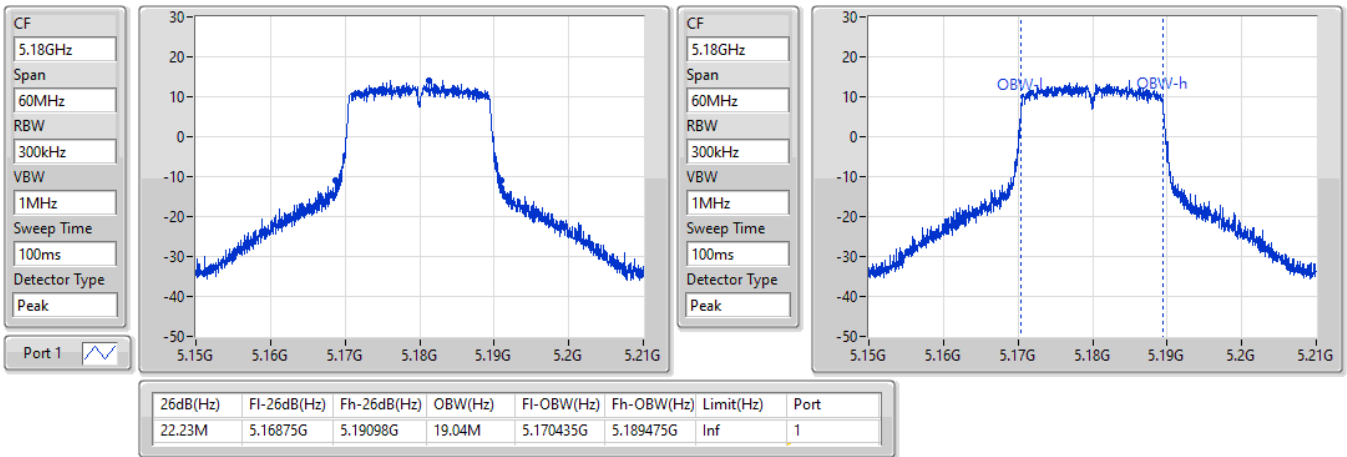

802.11a_Nss1,(6Mbps)_1TX
EBW
5825MHz

30/10/2021

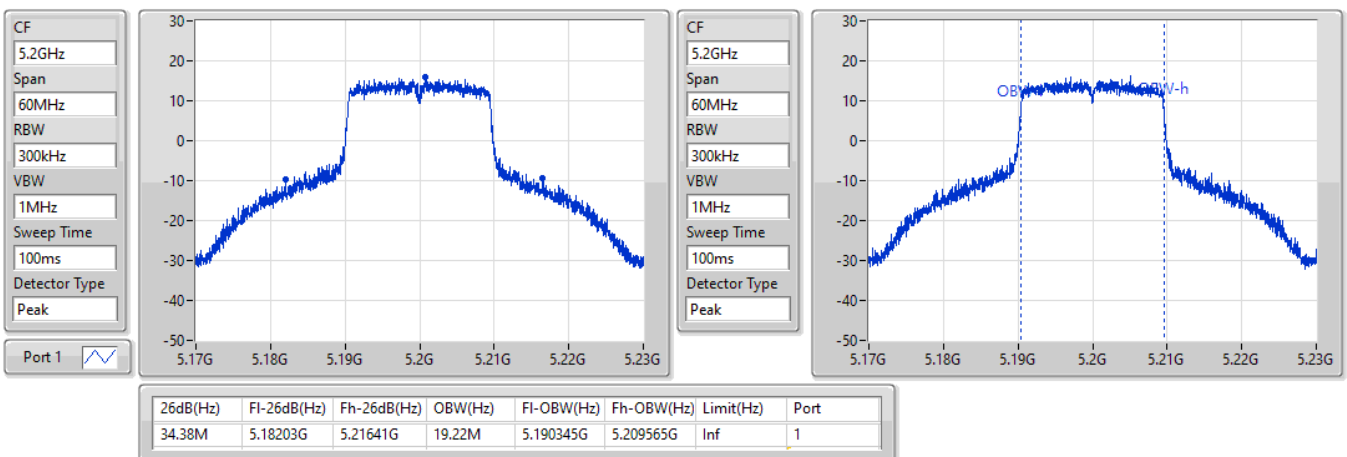


802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5180MHz

30/10/2021

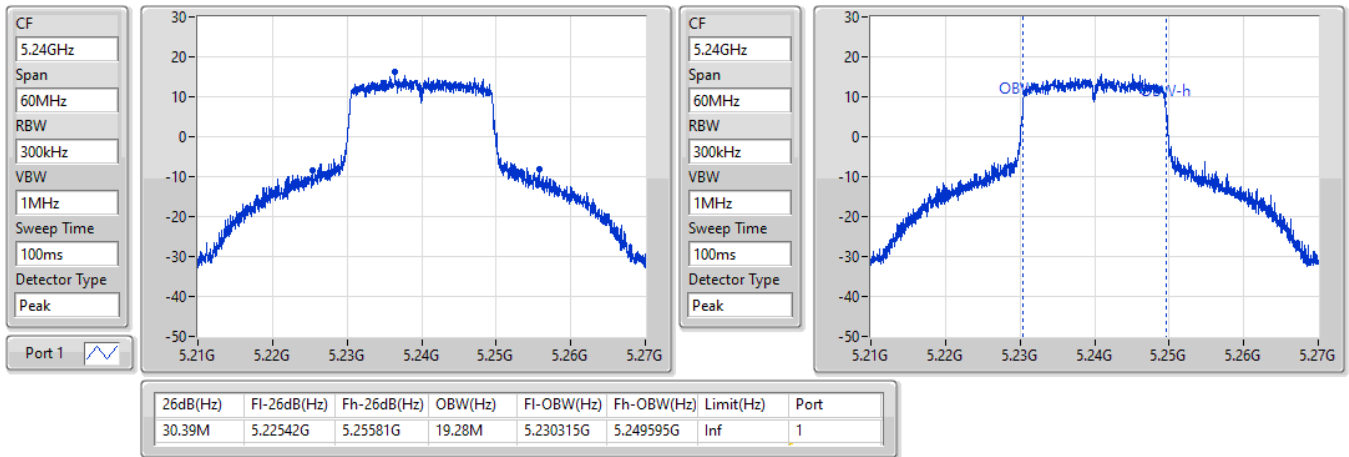

802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5200MHz

30/10/2021

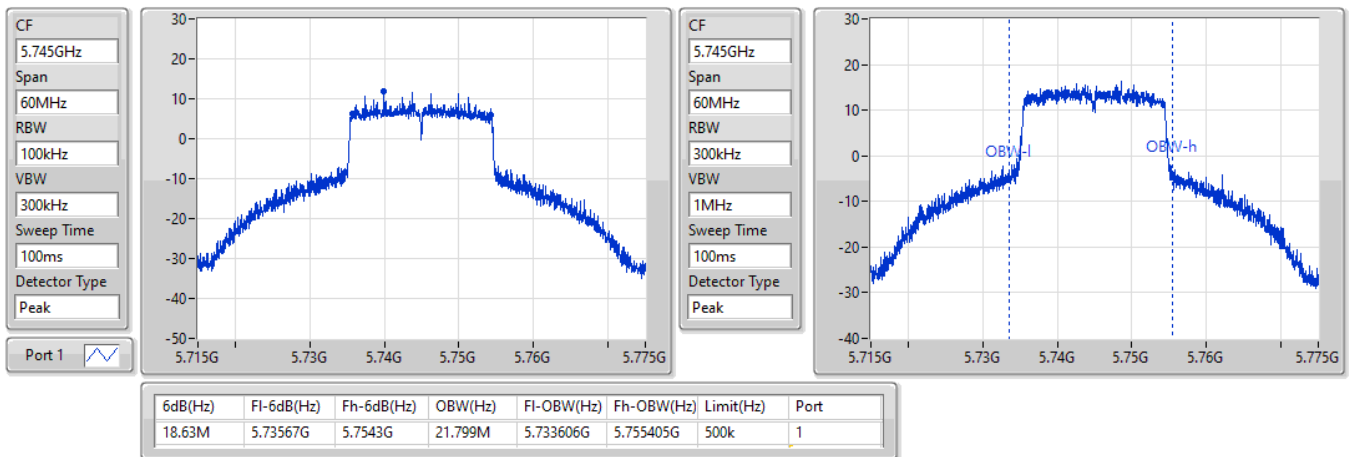


802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5240MHz

30/10/2021

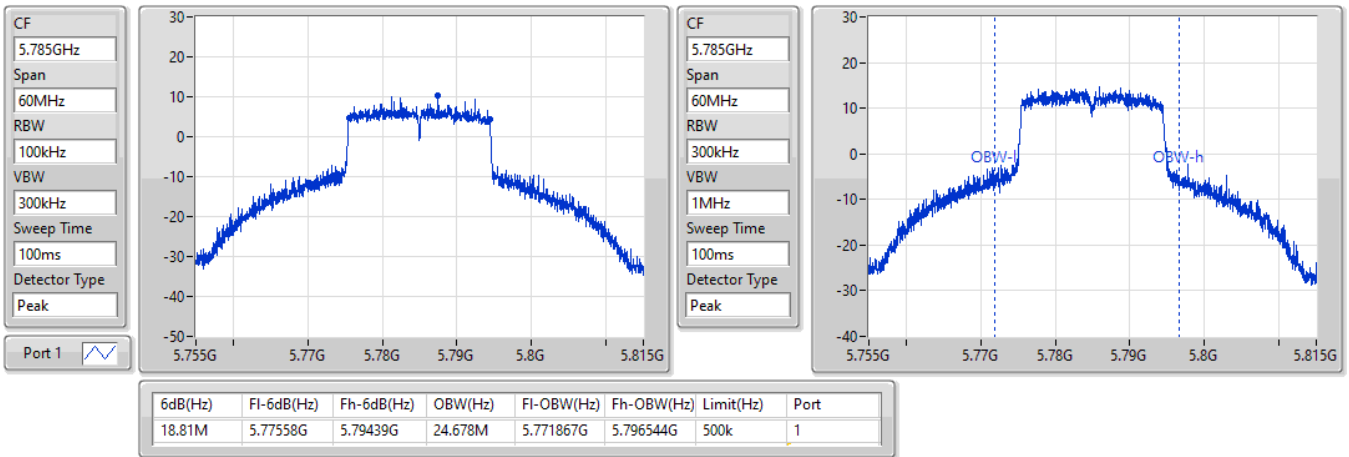

802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5745MHz

30/10/2021

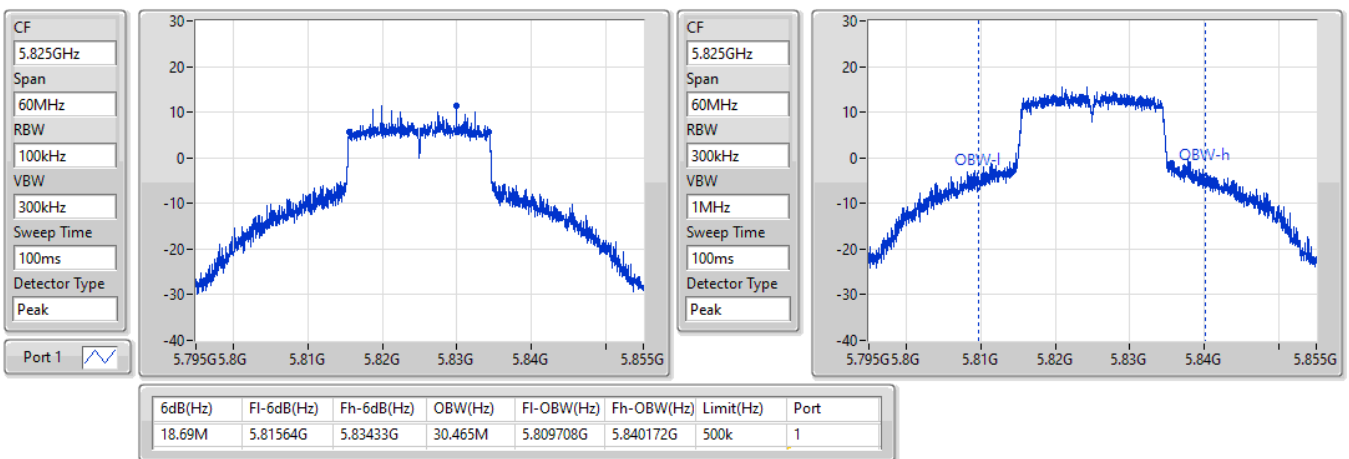


802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5785MHz

30/10/2021

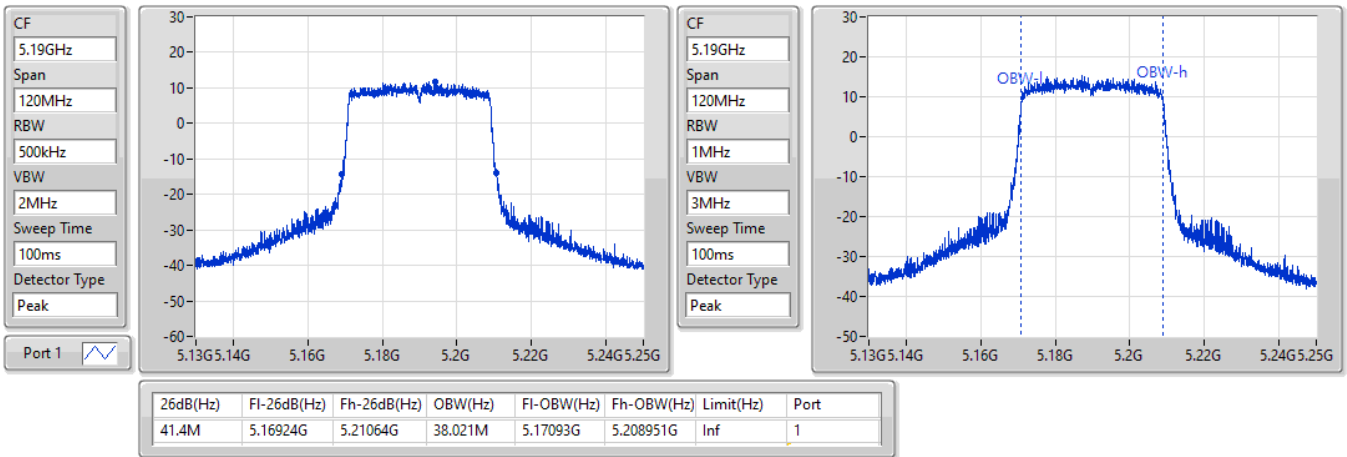

802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5825MHz

30/10/2021

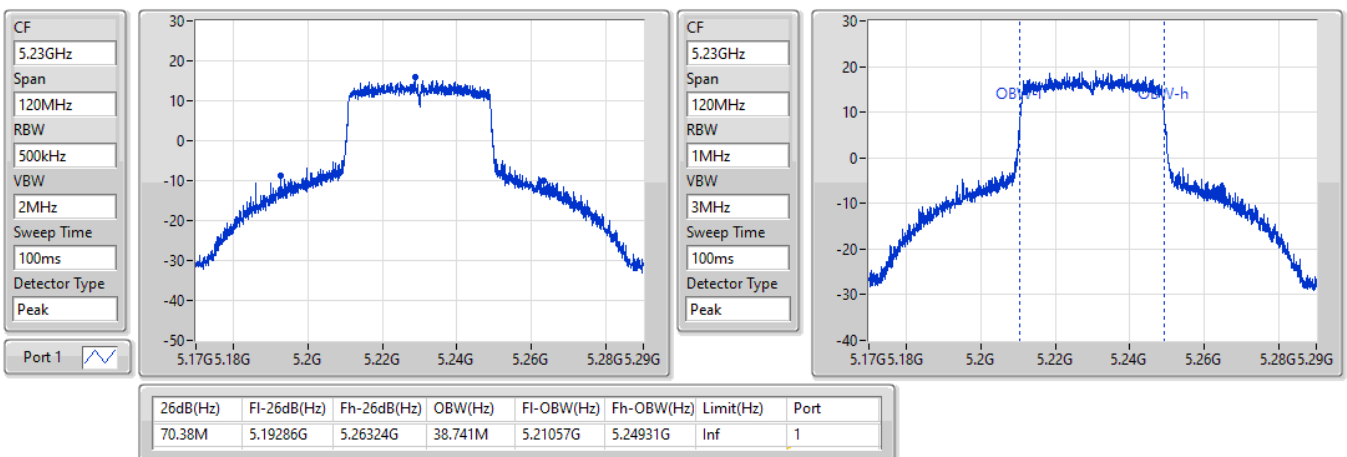


802.11ax HEW40_Nss1,(MCS0)_1TX
EBW
5190MHz

30/10/2021

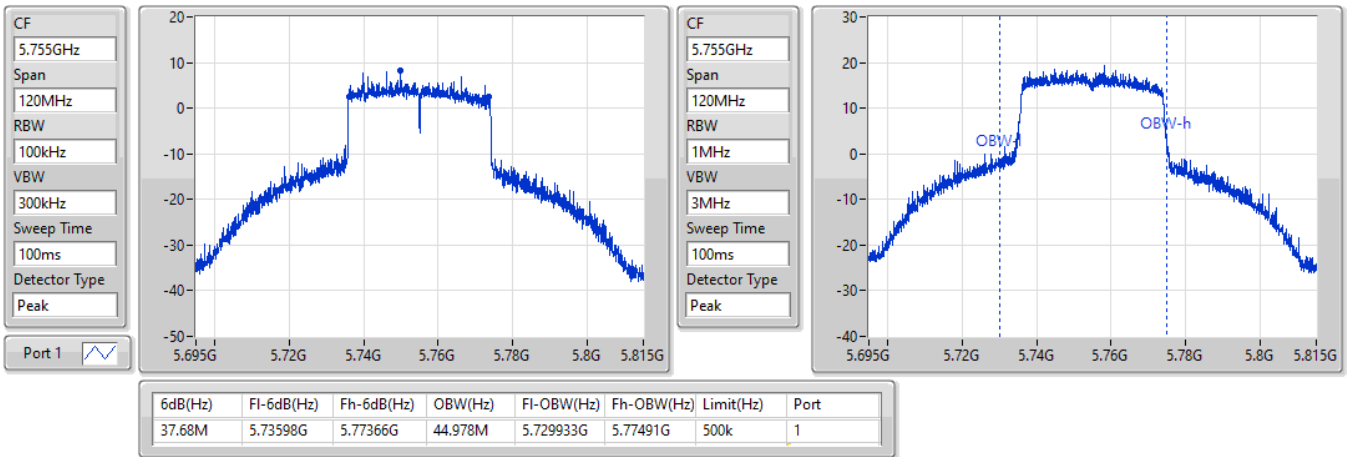

802.11ax HEW40_Nss1,(MCS0)_1TX
EBW
5230MHz

30/10/2021

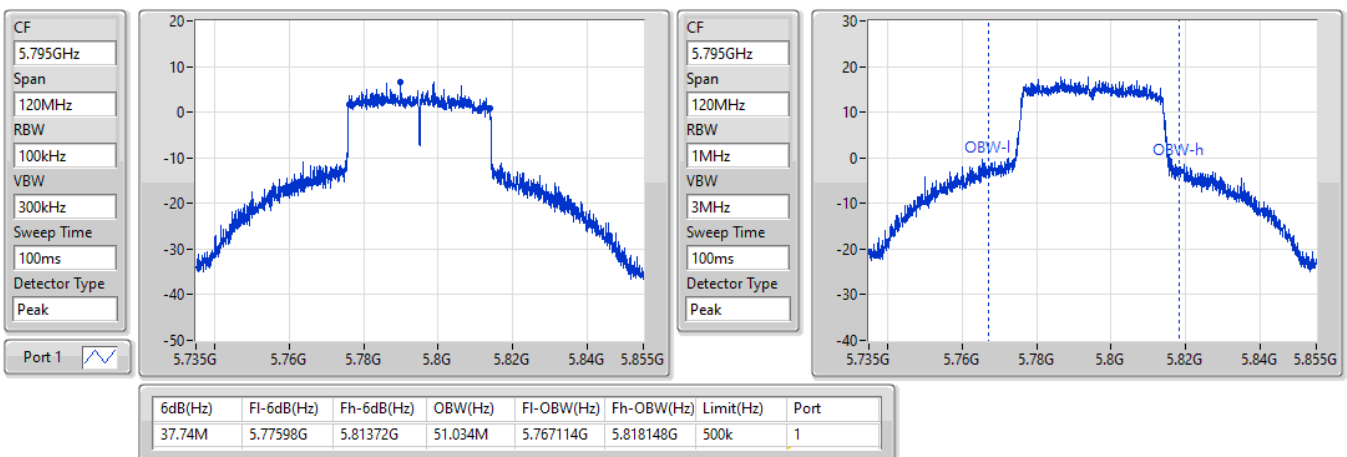


802.11ax HEW40_Nss1,(MCS0)_1TX
EBW
5755MHz

30/10/2021

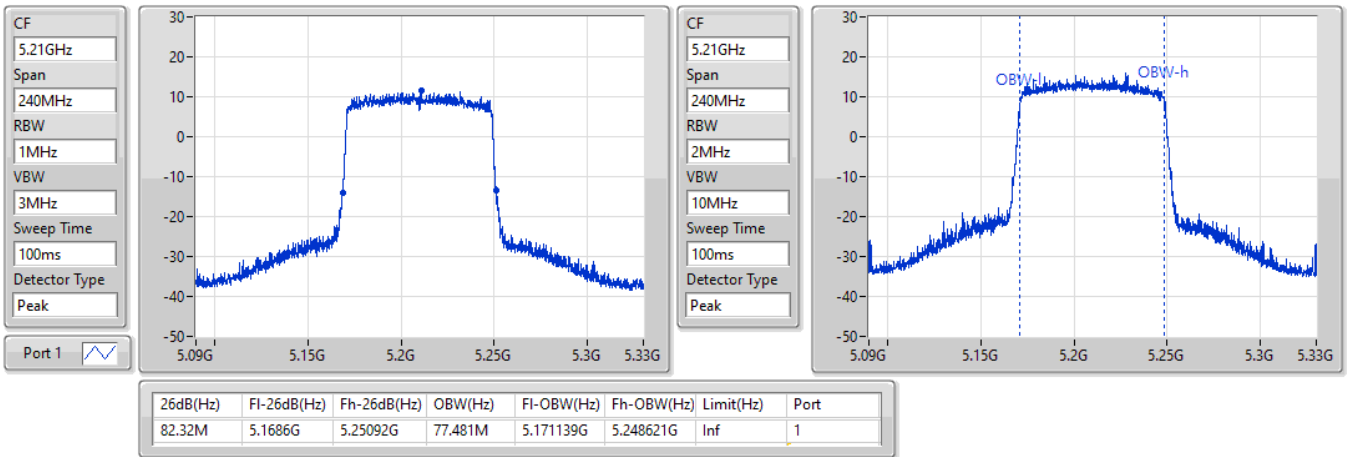

802.11ax HEW40_Nss1,(MCS0)_1TX
EBW
5795MHz

08/12/2021

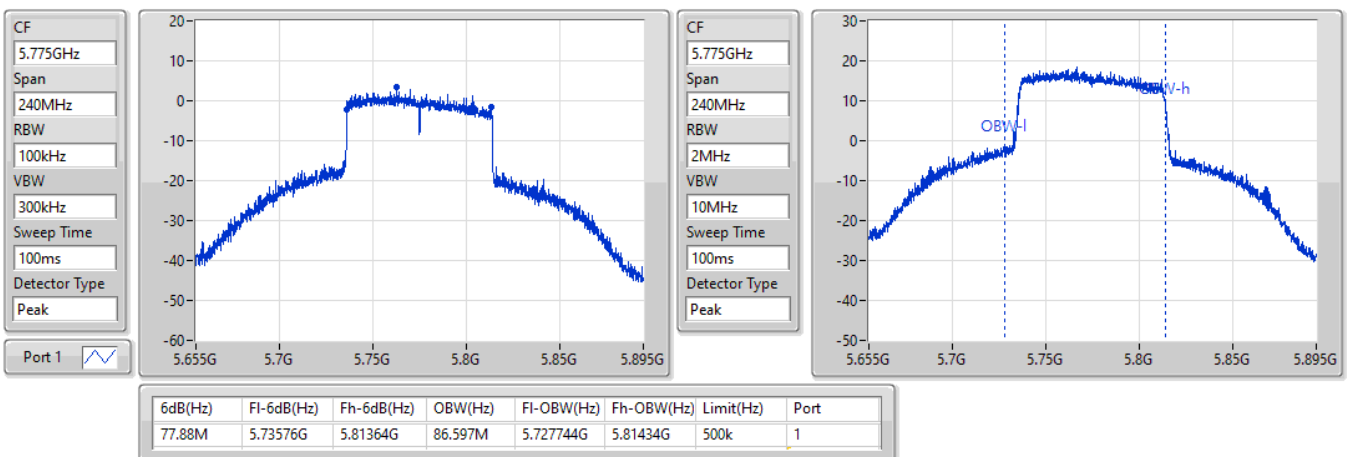


802.11ax HEW80_Nss1,(MCS0)_1TX
EBW
5210MHz

30/10/2021


802.11ax HEW80_Nss1,(MCS0)_1TX
EBW
5775MHz

30/10/2021



Summary

Mode	Max-	ITU-Code	Min-
5.725-5.85GHz	-	-	-
802.11a_Nss1,(6Mbps)_1TX	43.14M	43M1D1D	36.72M
802.11ax HEW20_Nss1,(MCS0)_1TX	49.62M	49M7D1D	38.1M
802.11ax HEW40_Nss1,(MCS0)_1TX	88.62M	88M6D1D	84.66M
802.11ax HEW80_Nss1,(MCS0)_1TX	131.64M	131M6D1D	131.64M

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

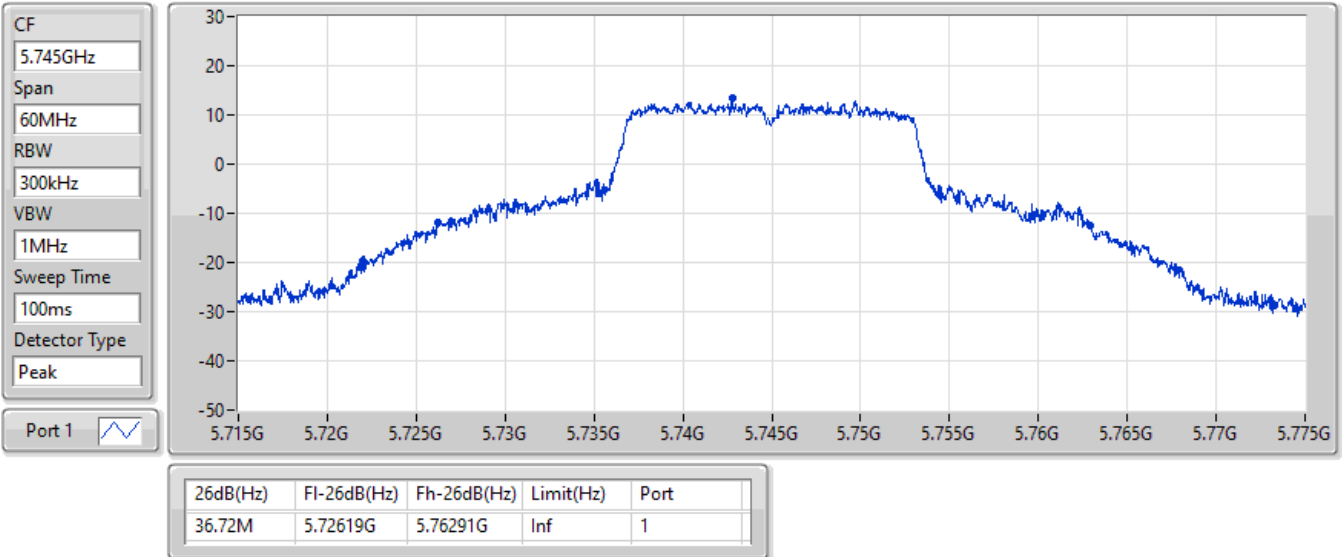
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-
5745MHz	Pass	Inf	36.72M
5785MHz	Pass	Inf	38.13M
5825MHz	Pass	Inf	43.14M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-
5745MHz	Pass	Inf	38.1M
5785MHz	Pass	Inf	43.2M
5825MHz	Pass	Inf	49.62M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-
5755MHz	Pass	Inf	84.66M
5795MHz	Pass	Inf	88.62M
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-
5775MHz	Pass	Inf	131.64M

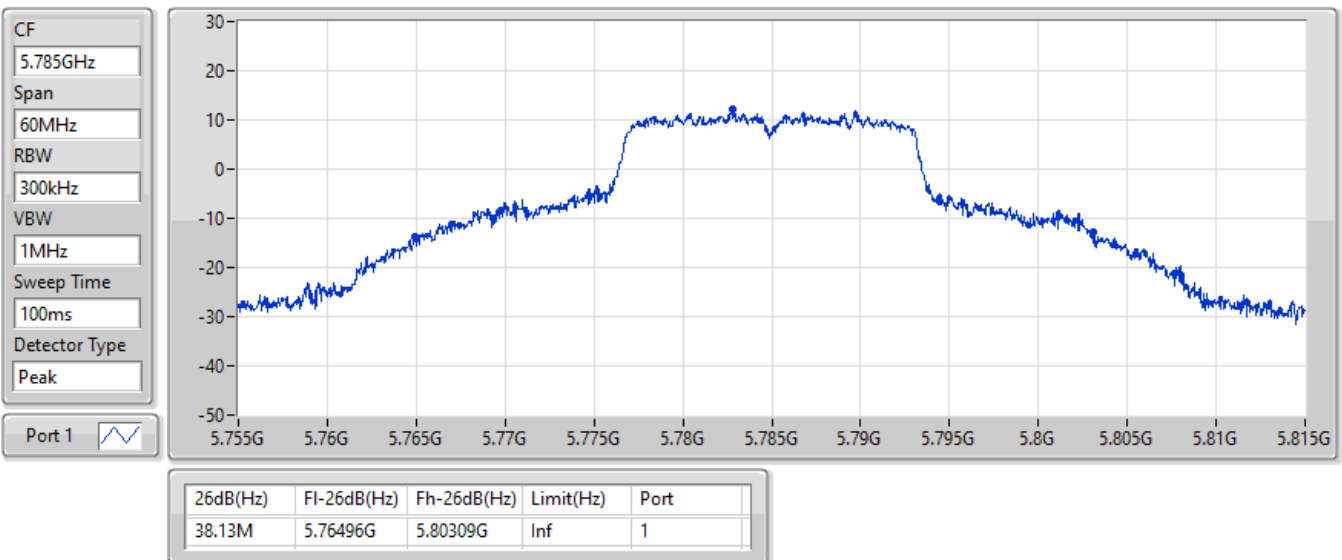
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_1TX
EBW
5745MHz

16/12/2021


802.11a_Nss1,(6Mbps)_1TX
EBW
5785MHz

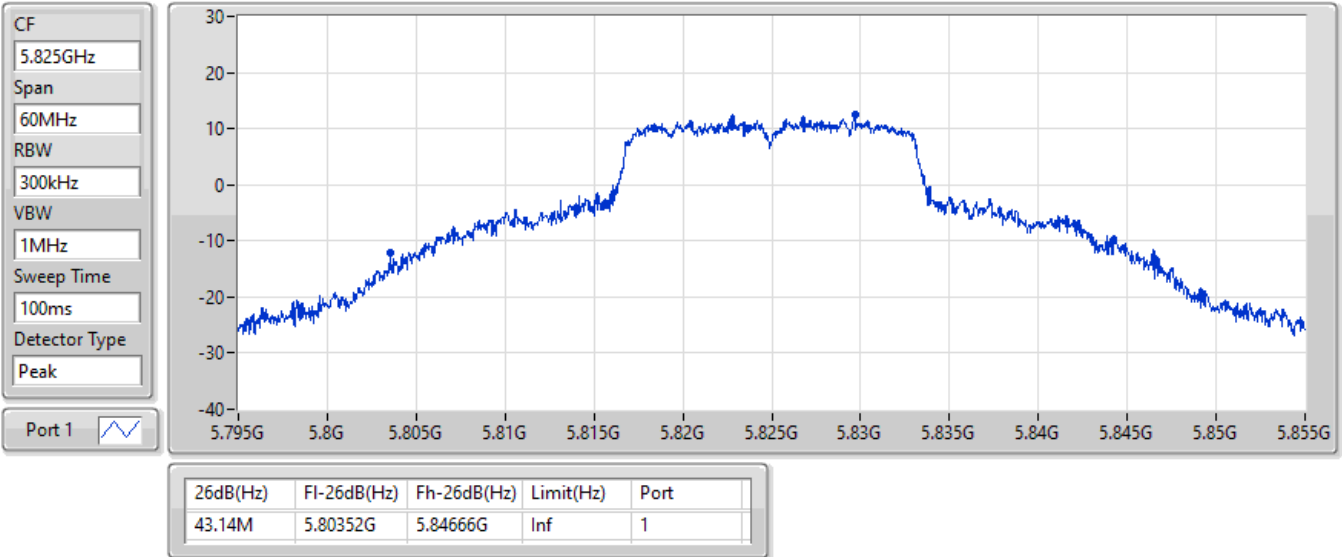
16/12/2021



802.11a_Nss1,(6Mbps)_1TX

EBW
5825MHz

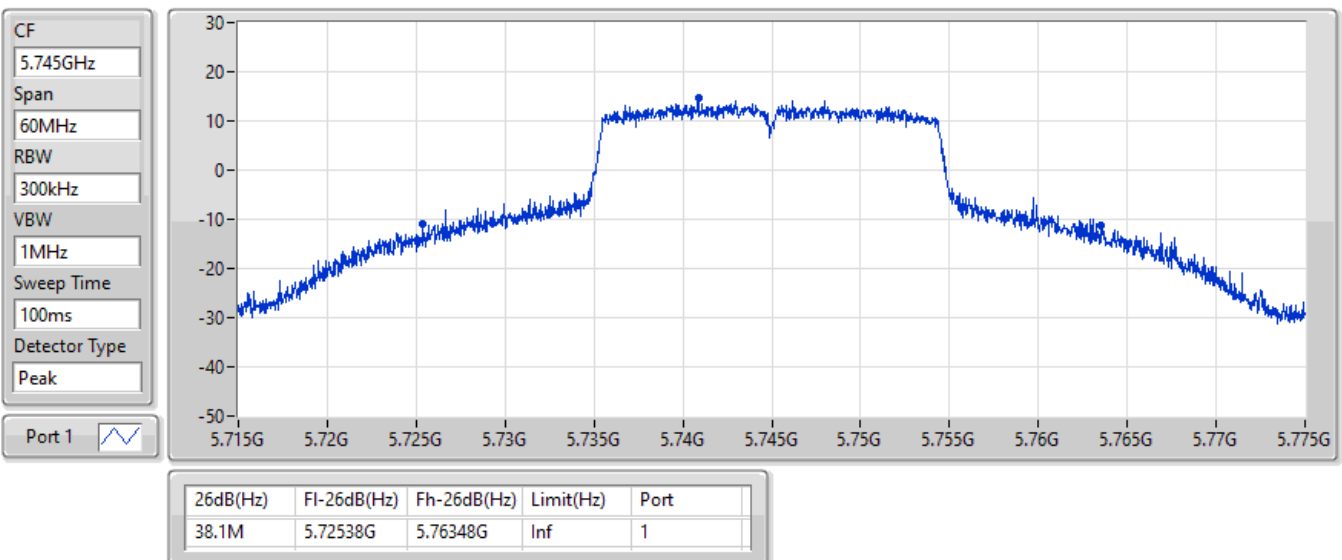
16/12/2021



802.11ax HEW20_Nss1,(MCS0)_1TX

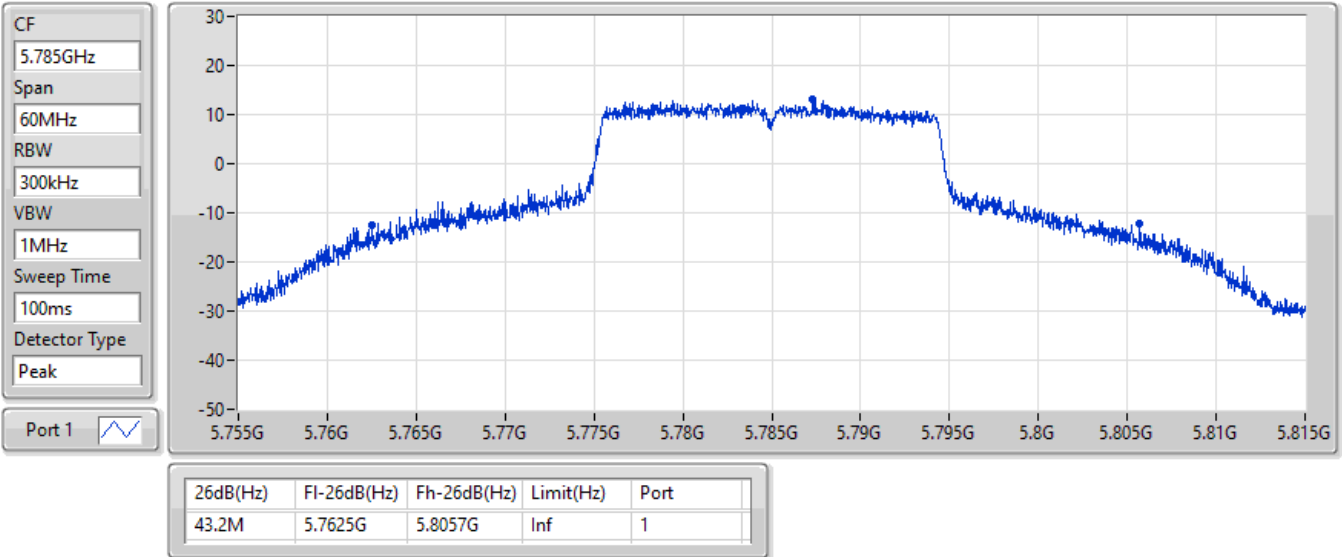
EBW
5745MHz

16/12/2021

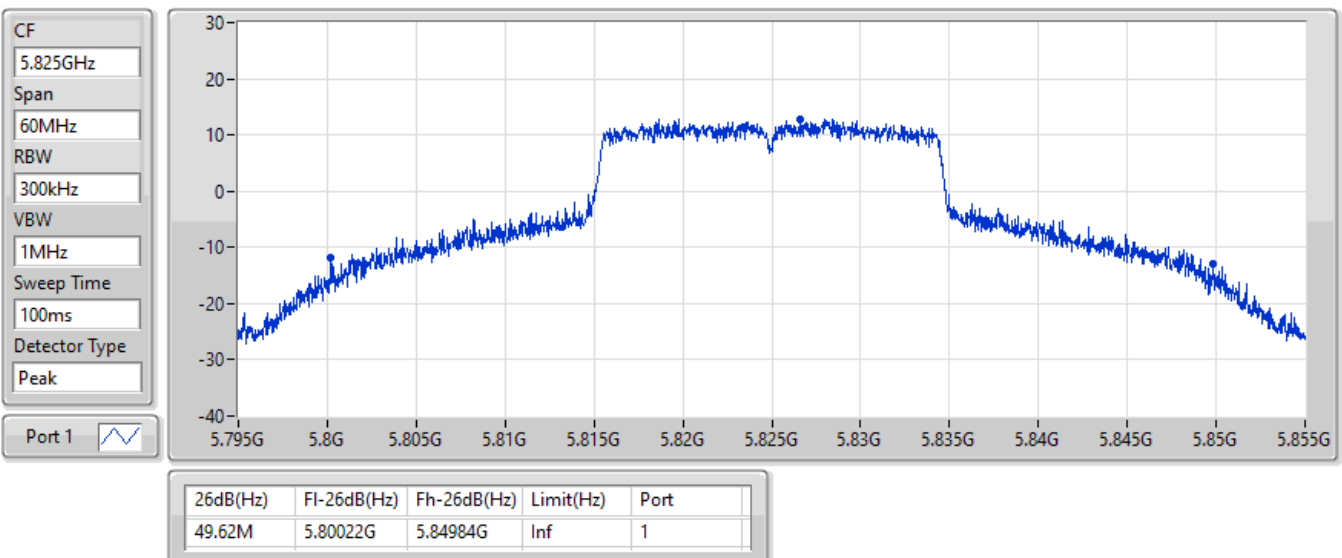


802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5785MHz

16/12/2021

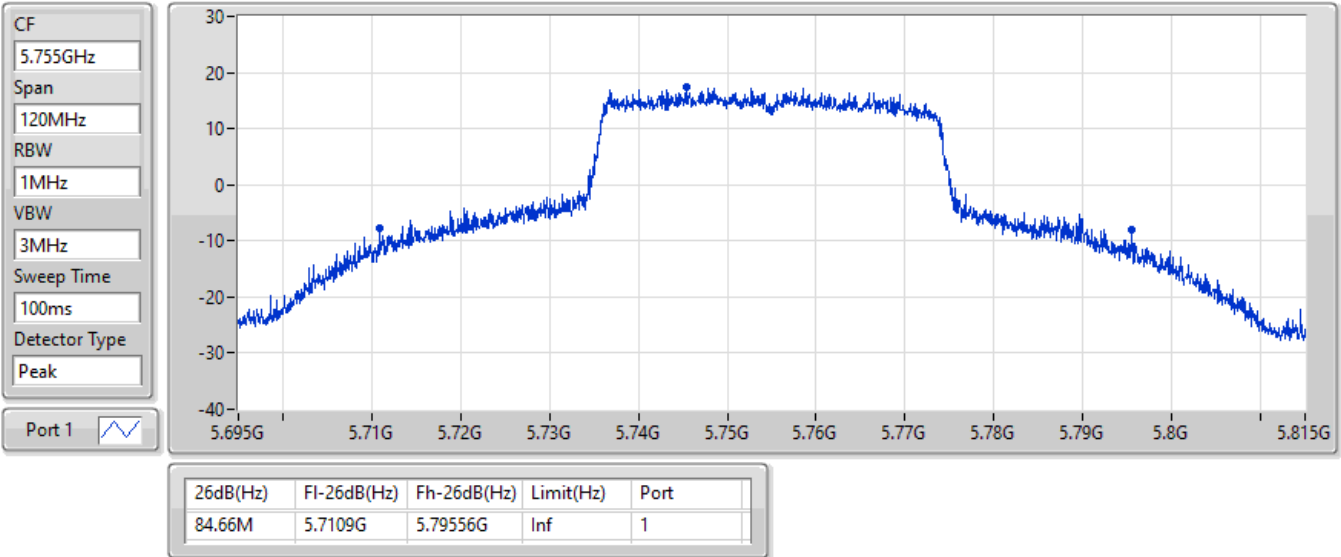

802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5825MHz

16/12/2021

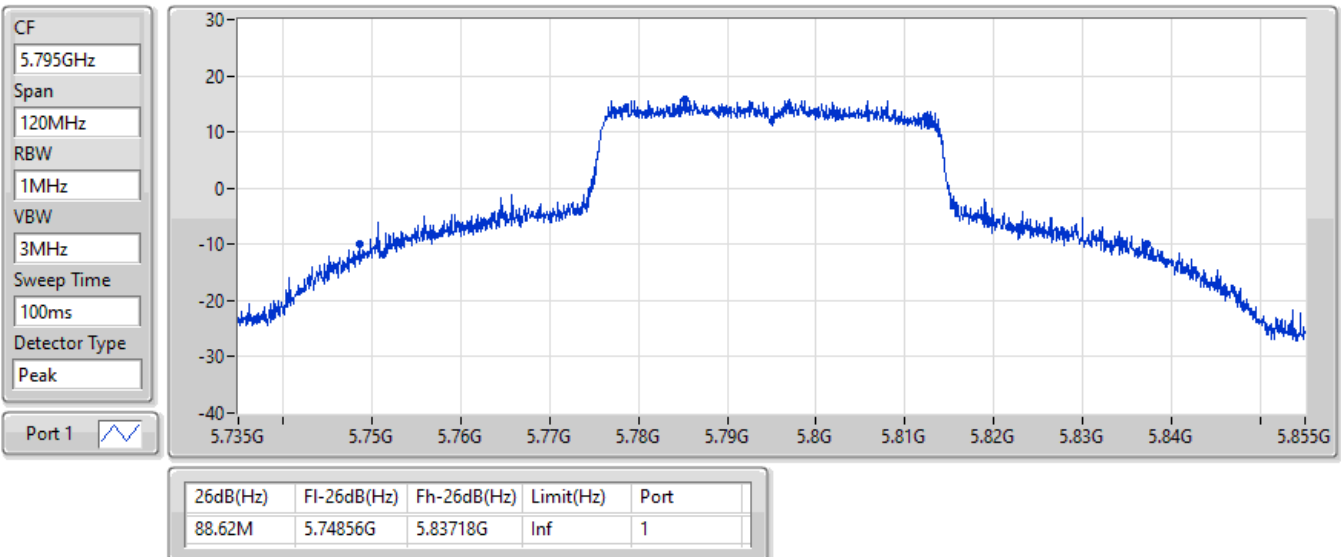


802.11ax HEW40_Nss1,(MCS0)_1TX
EBW
5755MHz

16/12/2021


802.11ax HEW40_Nss1,(MCS0)_1TX
EBW
5795MHz

16/12/2021

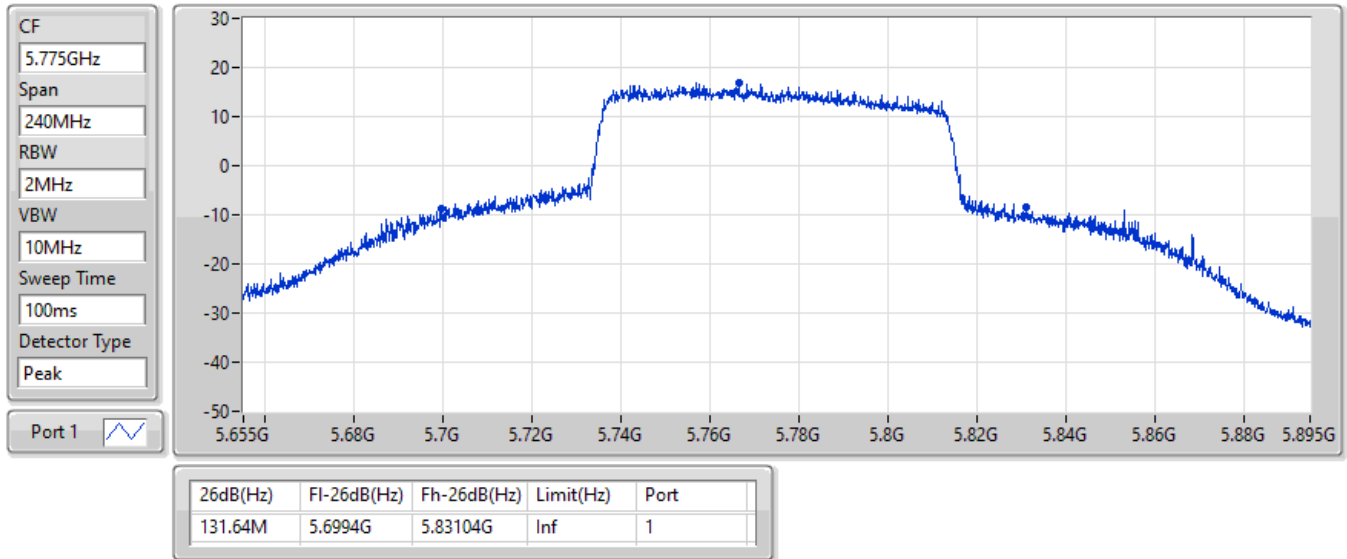


802.11ax HEW80_Nss1,(MCS0)_1TX

EBW

5775MHz

16/12/2021



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	35.49M	17.991M	18M0D1D	20.55M	16.462M
802.11ax HEW20_Nss1,(MCS0)_2TX	34.2M	19.28M	19M3D1D	21.42M	18.951M
802.11ax HEW40_Nss1,(MCS0)_2TX	68.4M	38.681M	38M7D1D	40.68M	37.961M
802.11ax HEW80_Nss1,(MCS0)_2TX	82.92M	77.481M	77M5D1D	82.2M	77.361M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.32M	30.675M	30M7D1D	15.63M	21.439M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.9M	29.745M	29M7D1D	18.72M	19.64M
802.11ax HEW40_Nss1,(MCS0)_2TX	38.1M	49.415M	49M4D1D	37.62M	40.9M
802.11ax HEW80_Nss1,(MCS0)_2TX	76.92M	78.201M	78M2D1D	75.24M	78.081M

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

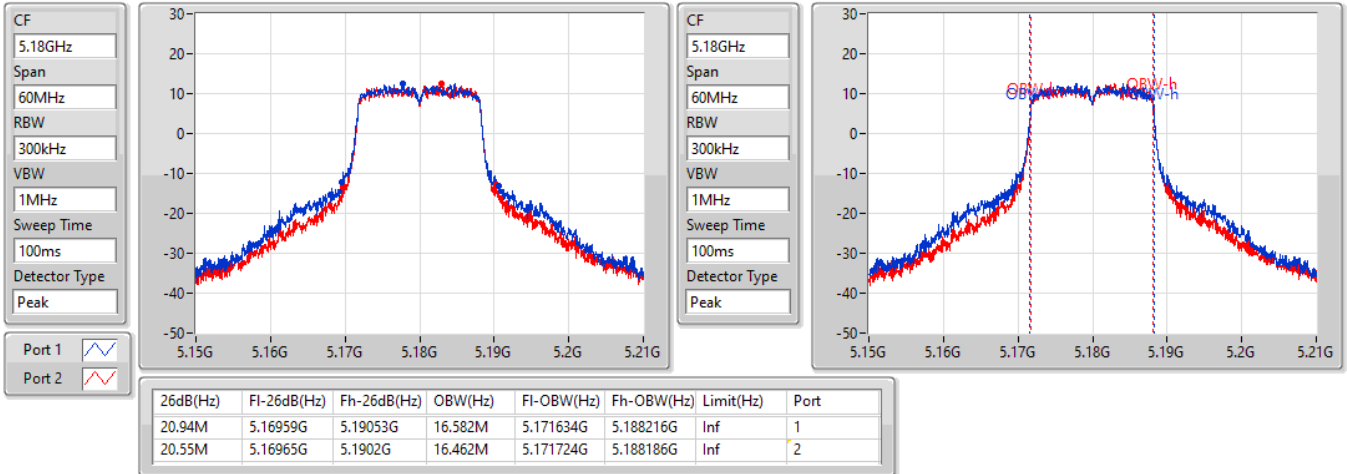
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	20.94M	16.582M	20.55M	16.462M
5200MHz	Pass	Inf	35.49M	17.361M	32.82M	16.852M
5240MHz	Pass	Inf	34.32M	17.991M	34.23M	17.241M
5745MHz	Pass	500k	16.29M	24.198M	16.32M	21.439M
5785MHz	Pass	500k	16.26M	26.657M	16.29M	23.178M
5825MHz	Pass	500k	16.26M	30.675M	15.63M	22.849M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	22.44M	19.01M	21.42M	18.951M
5200MHz	Pass	Inf	34.2M	19.19M	26.94M	19.07M
5240MHz	Pass	Inf	29.79M	19.28M	32.79M	19.22M
5745MHz	Pass	500k	18.9M	21.139M	18.75M	19.64M
5785MHz	Pass	500k	18.87M	23.748M	18.84M	20.66M
5825MHz	Pass	500k	18.72M	29.745M	18.75M	20.42M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	41.04M	37.961M	40.68M	37.961M
5230MHz	Pass	Inf	68.4M	38.681M	65.7M	38.621M
5755MHz	Pass	500k	37.62M	44.258M	37.74M	40.9M
5795MHz	Pass	500k	38.1M	49.415M	38.04M	44.018M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	82.92M	77.481M	82.2M	77.361M
5775MHz	Pass	500k	75.24M	78.081M	76.92M	78.201M

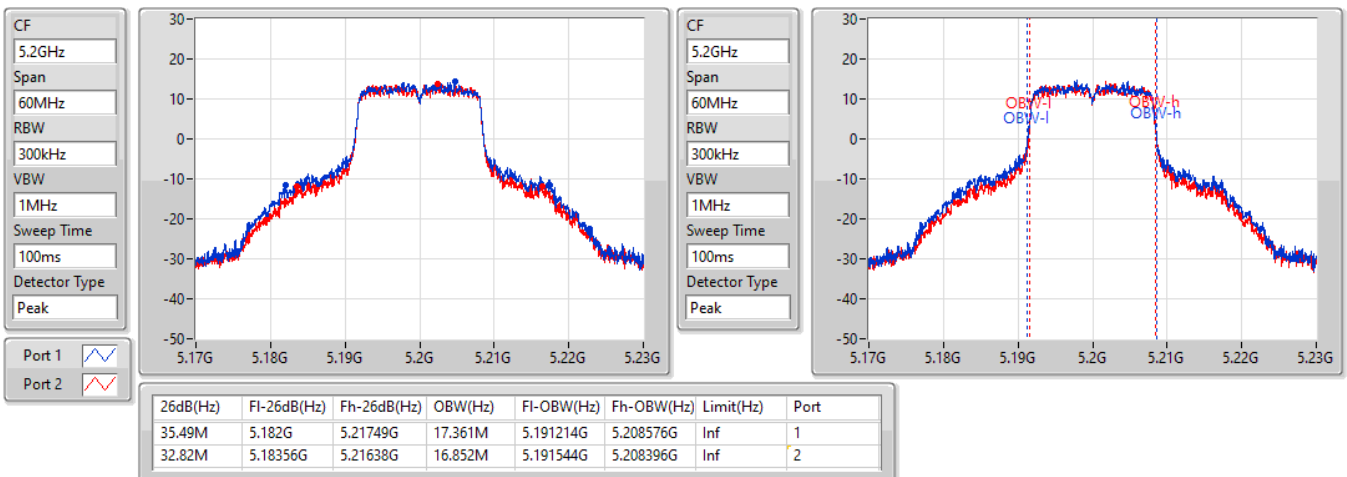
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_2TX
EBW
5180MHz

30/10/2021

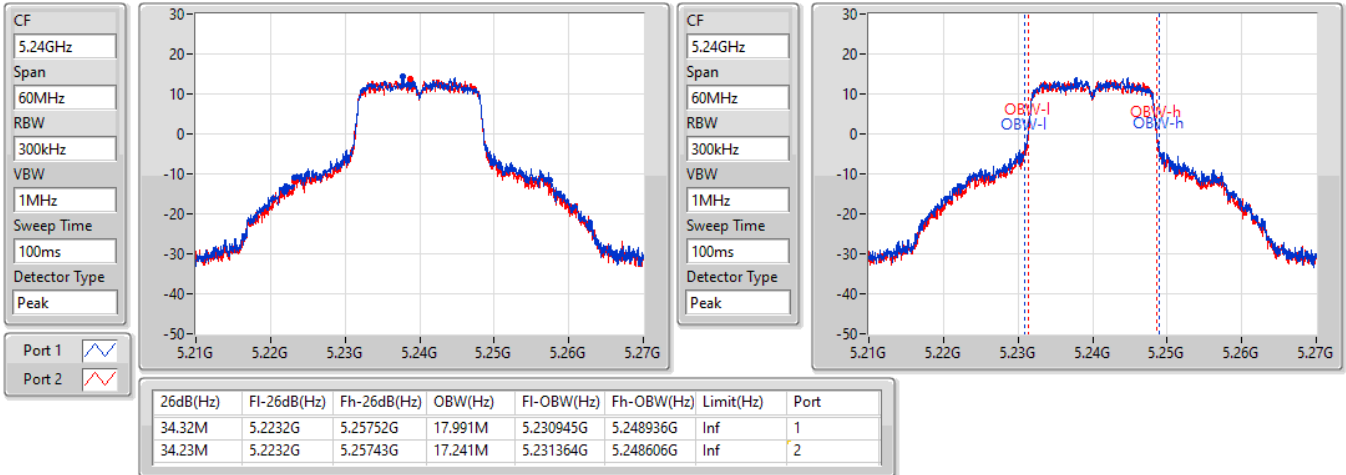

802.11a_Nss1,(6Mbps)_2TX
EBW
5200MHz

30/10/2021

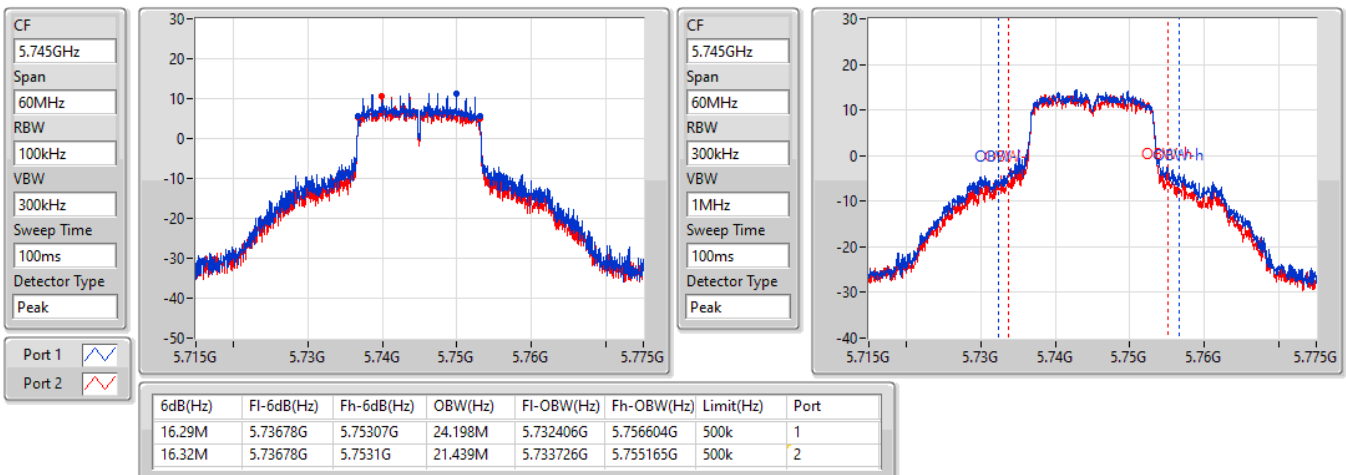


802.11a_Nss1,(6Mbps)_2TX
EBW
5240MHz

30/10/2021

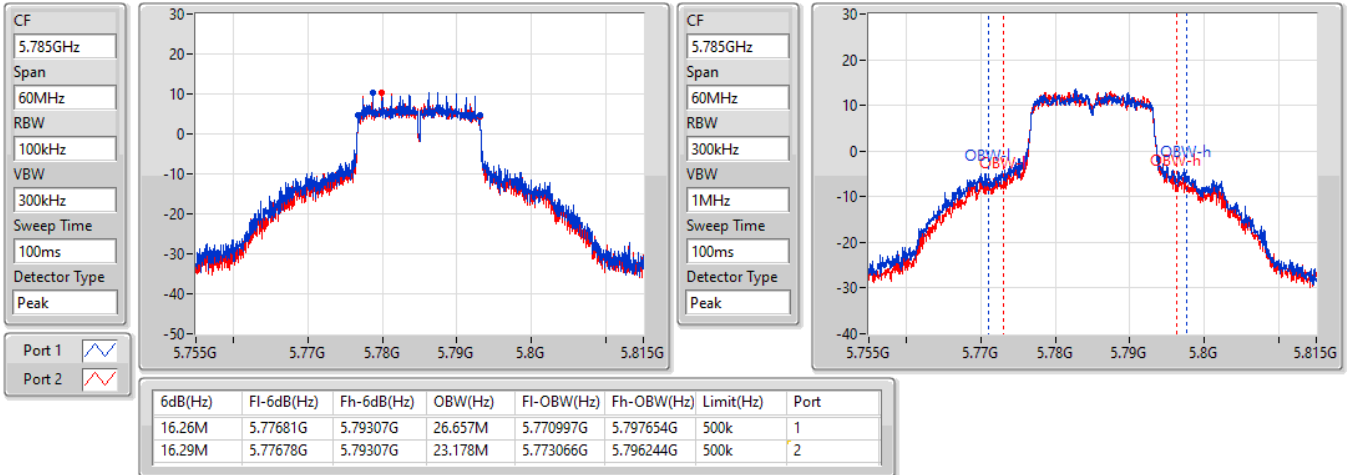

802.11a_Nss1,(6Mbps)_2TX
EBW
5745MHz

30/10/2021

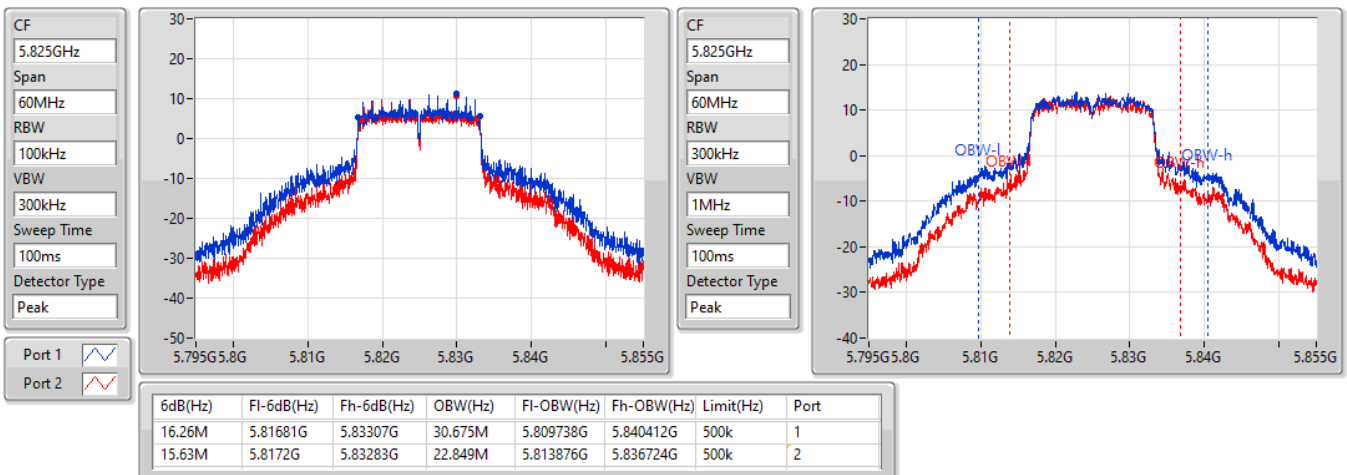


802.11a_Nss1,(6Mbps)_2TX
EBW
5785MHz

30/10/2021

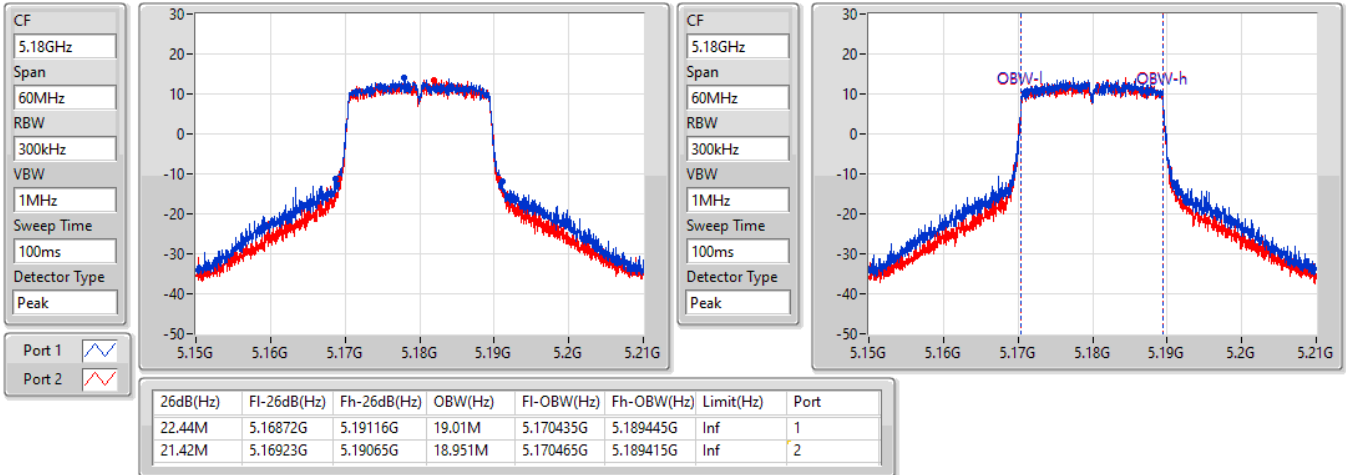

802.11a_Nss1,(6Mbps)_2TX
EBW
5825MHz

30/10/2021

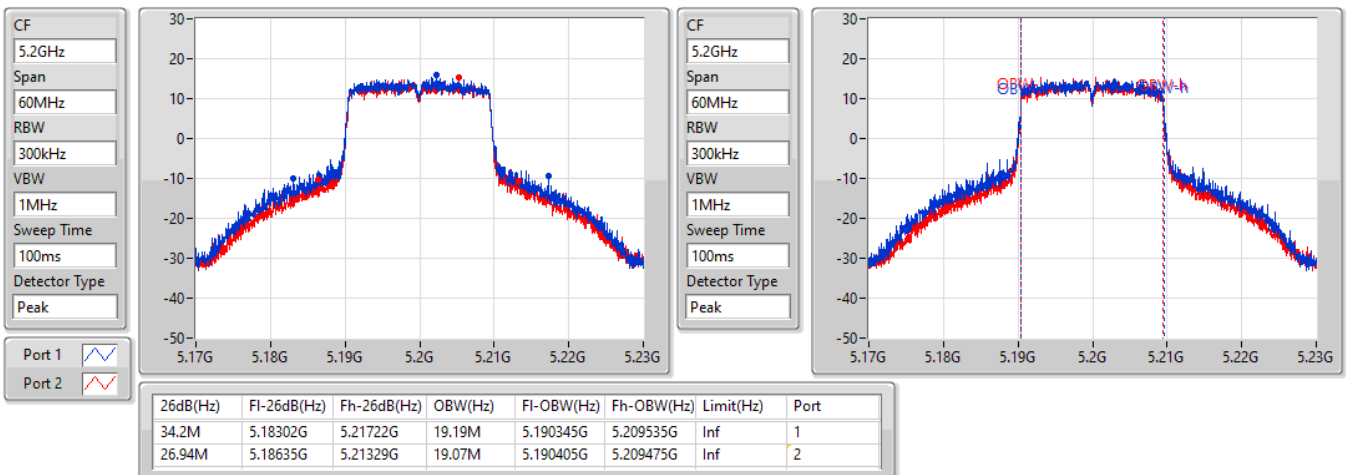


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5180MHz

30/10/2021

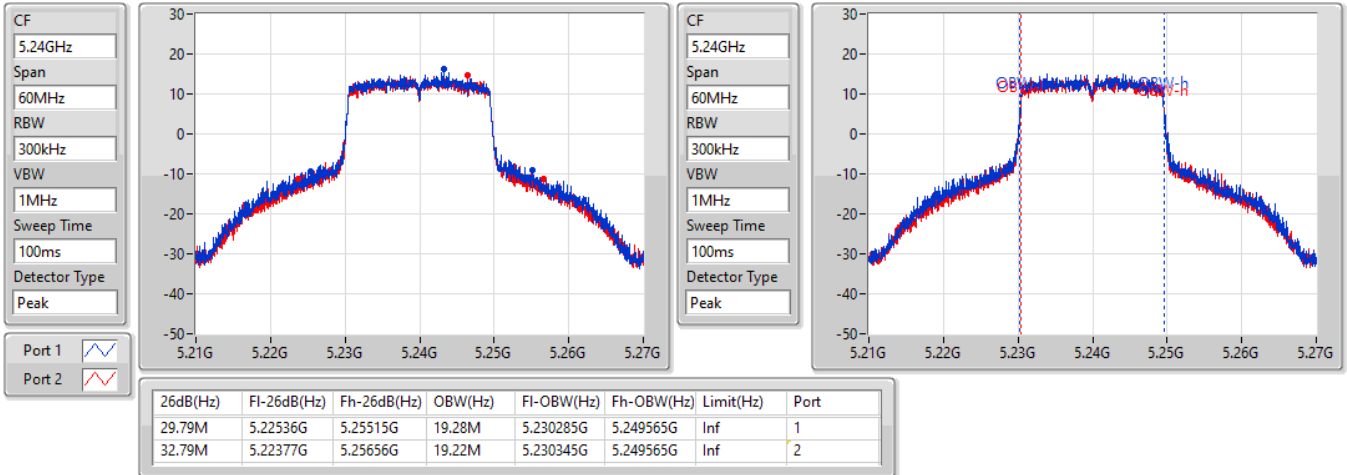

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5200MHz

30/10/2021

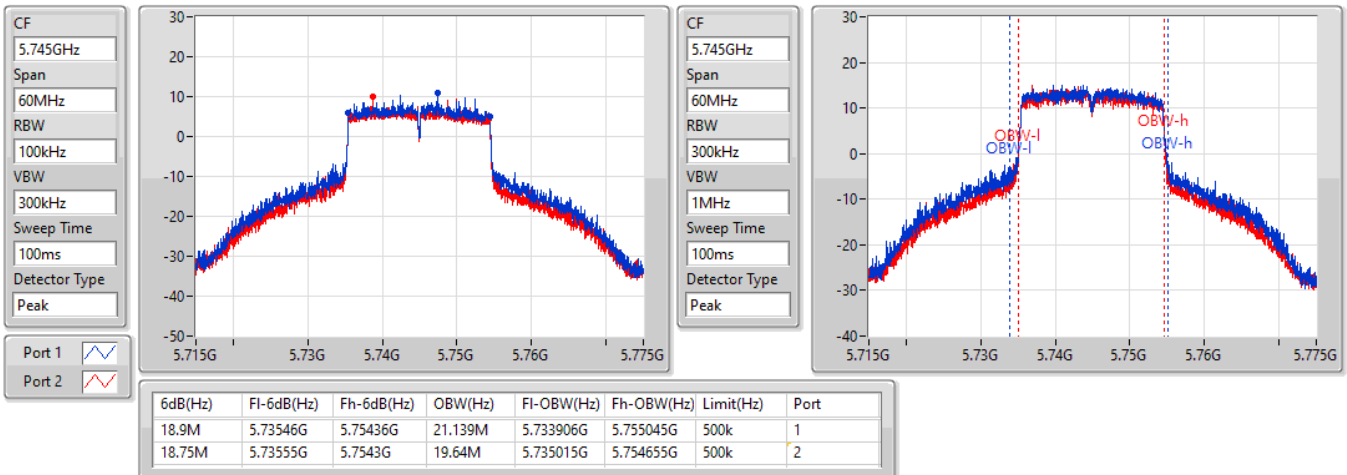


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5240MHz

30/10/2021

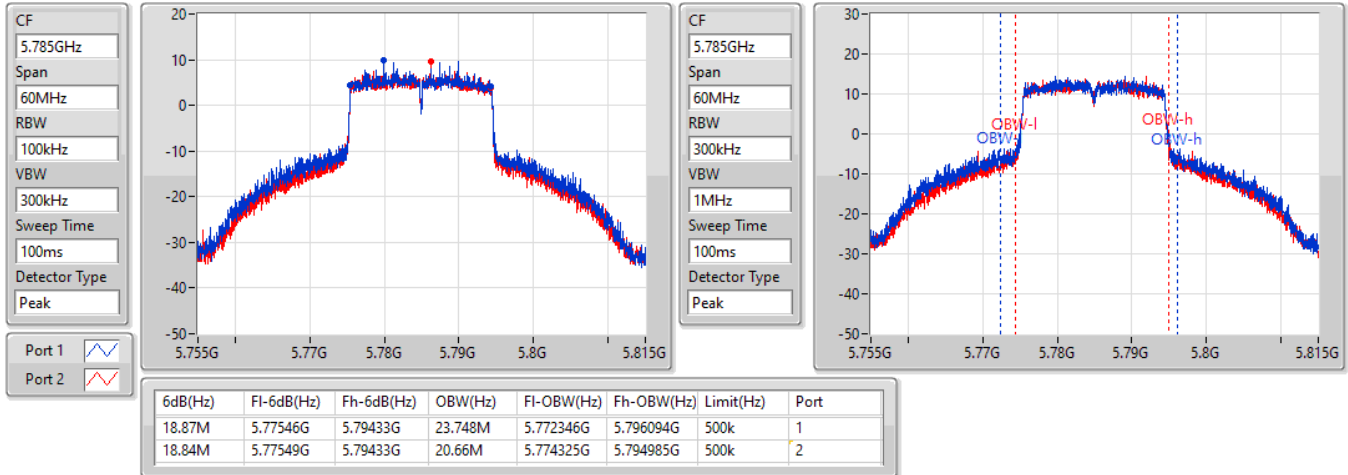

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5745MHz

30/10/2021

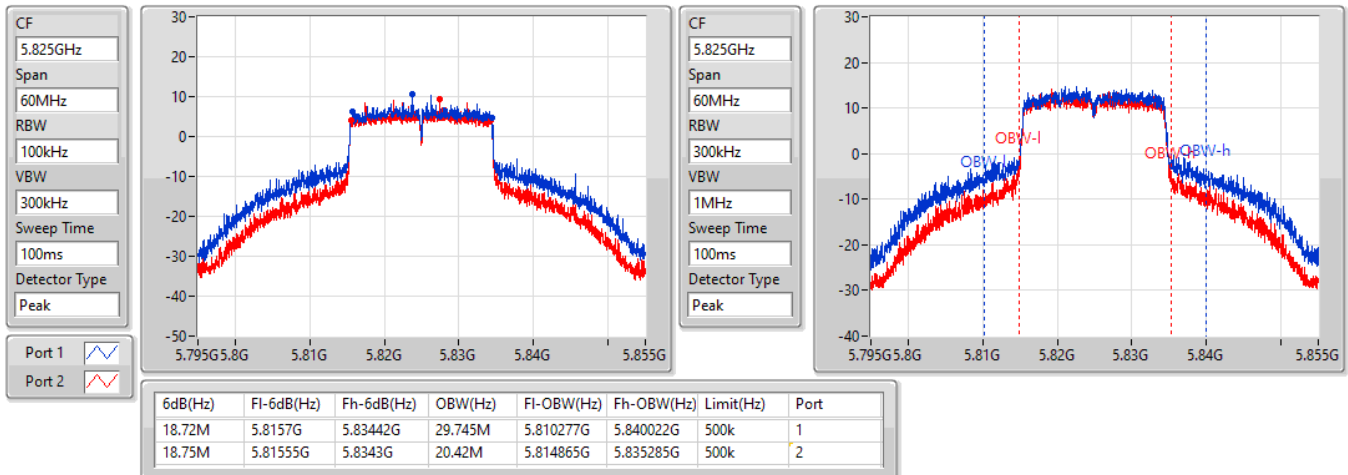


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5785MHz

30/10/2021

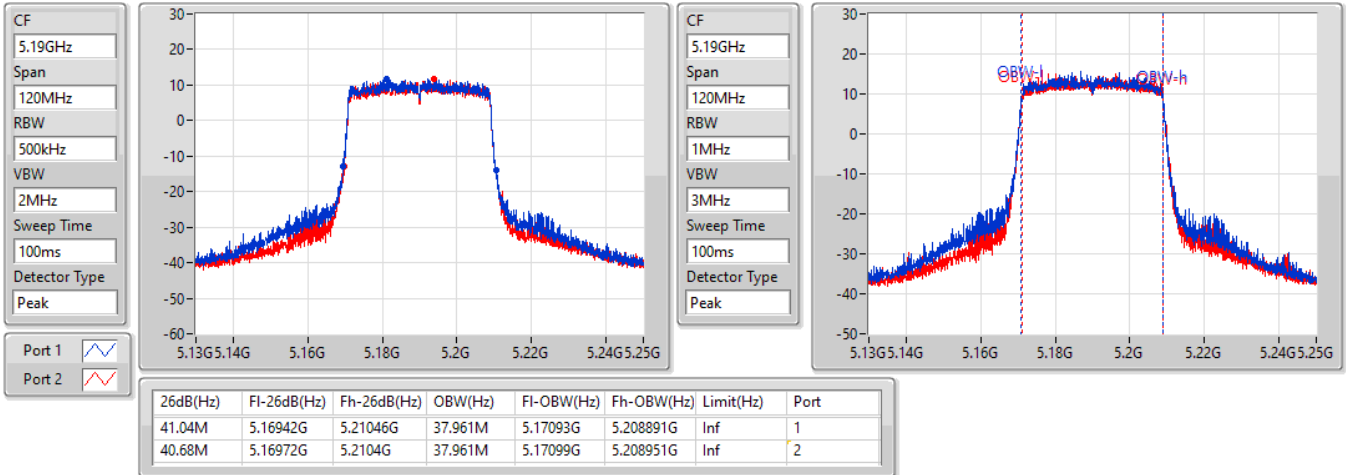

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5825MHz

30/10/2021

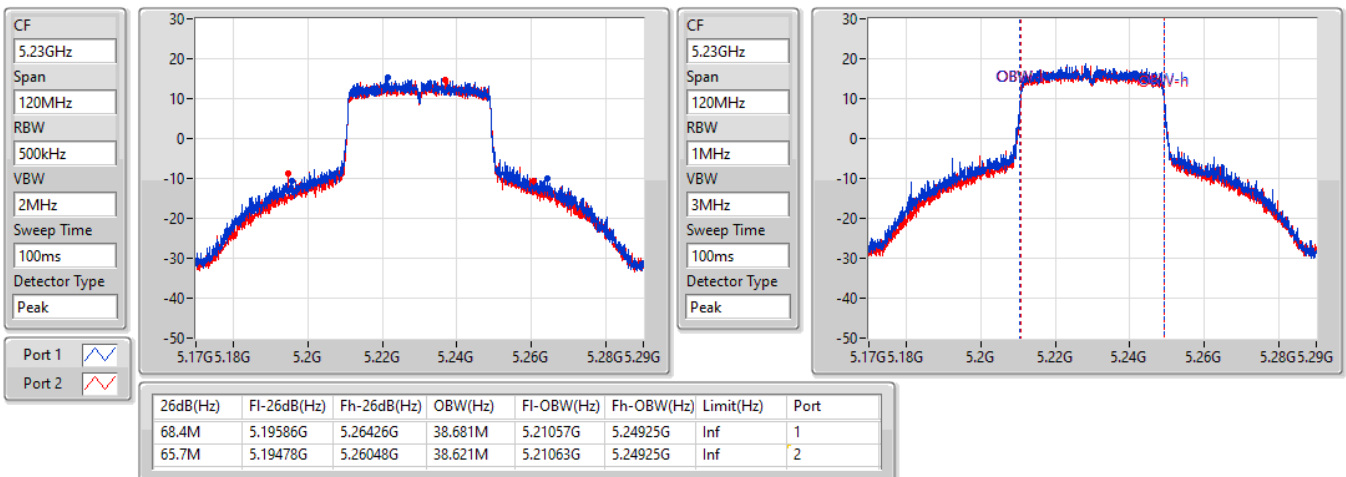


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5190MHz

30/10/2021

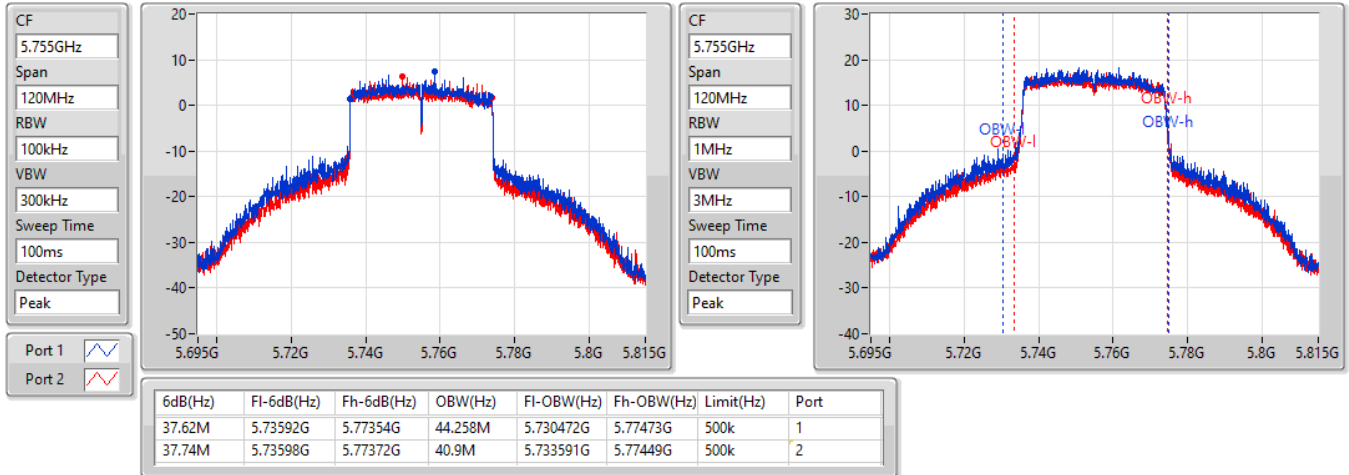

802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5230MHz

30/10/2021

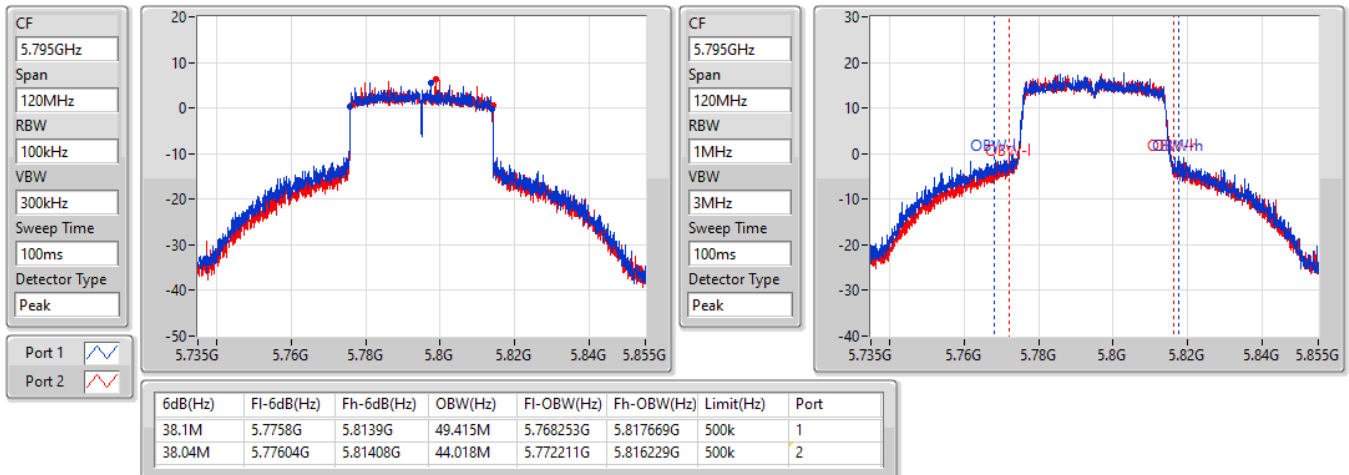


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5755MHz

30/10/2021

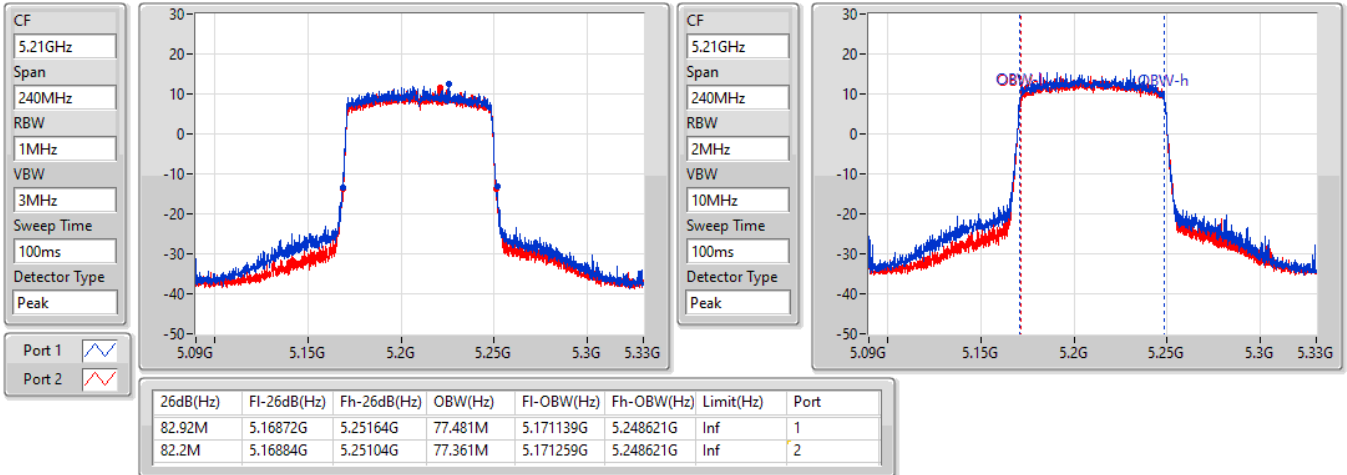

802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5795MHz

30/10/2021

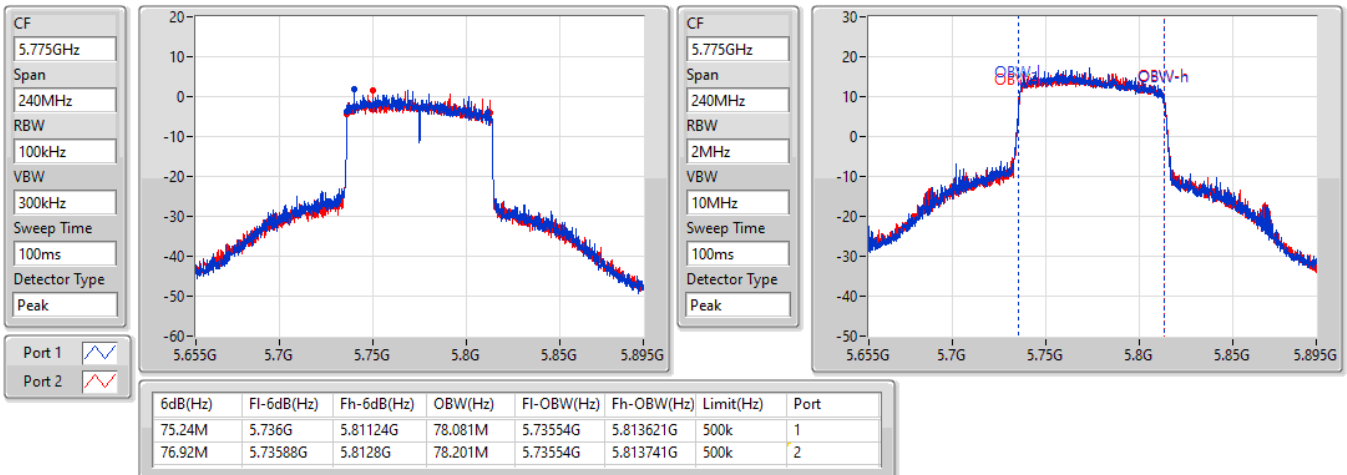


802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
5210MHz

30/10/2021


802.11ax HEW80_Nss1,(MCS0)_2TX
EBW
5775MHz

30/10/2021



Summary

Mode	Max-N dB (Hz)	ITU-Code	Min-N dB (Hz)
5.725-5.85GHz	-	-	-
802.11a_Nss1,(6Mbps)_2TX	42.87M	42M9D1D	36.6M
802.11ax HEW20_Nss1,(MCS0)_2TX	47.22M	47M2D1D	35.25M
802.11ax HEW40_Nss1,(MCS0)_2TX	86.82M	86M8D1D	77.94M
802.11ax HEW80_Nss1,(MCS0)_2TX	138M	138MD1D	125.28M

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

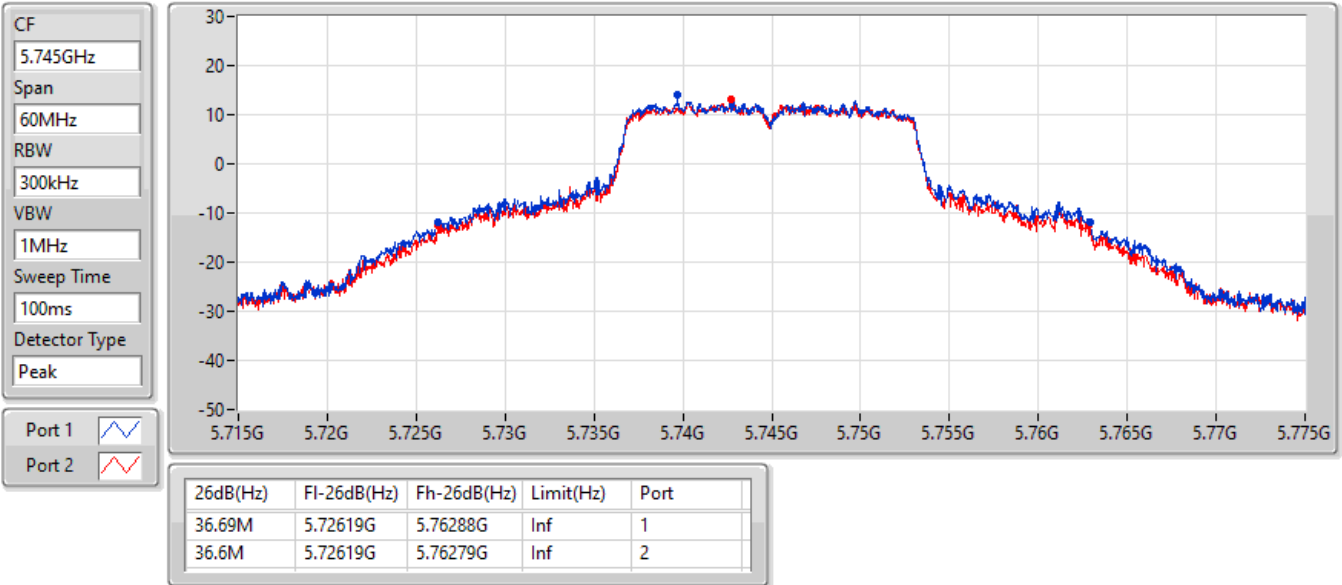
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 2-N dB (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-
5745MHz	Pass	Inf	36.69M	36.6M
5785MHz	Pass	Inf	39.12M	37.26M
5825MHz	Pass	Inf	42.87M	36.78M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-
5745MHz	Pass	Inf	38.52M	35.25M
5785MHz	Pass	Inf	41.1M	38.1M
5825MHz	Pass	Inf	47.22M	41.49M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-
5755MHz	Pass	Inf	80.34M	77.94M
5795MHz	Pass	Inf	86.82M	85.98M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-
5775MHz	Pass	Inf	125.28M	138M

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
5745MHz

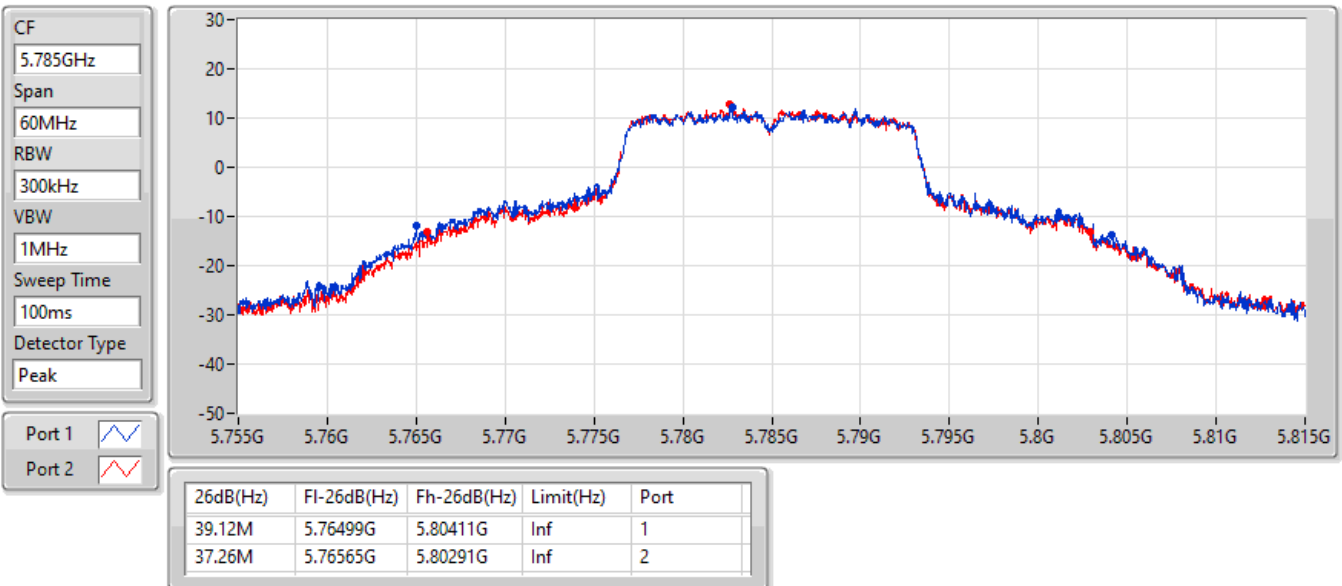
16/12/2021



802.11a_Nss1,(6Mbps)_2TX

EBW
5785MHz

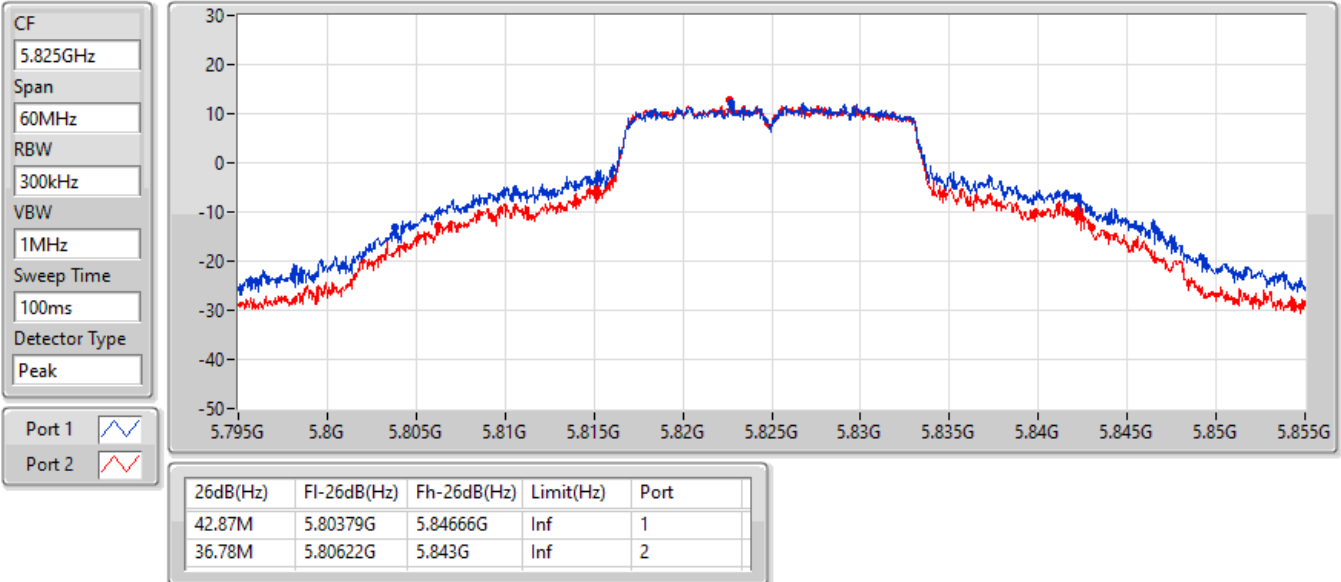
16/12/2021



802.11a_Nss1,(6Mbps)_2TX

EBW
5825MHz

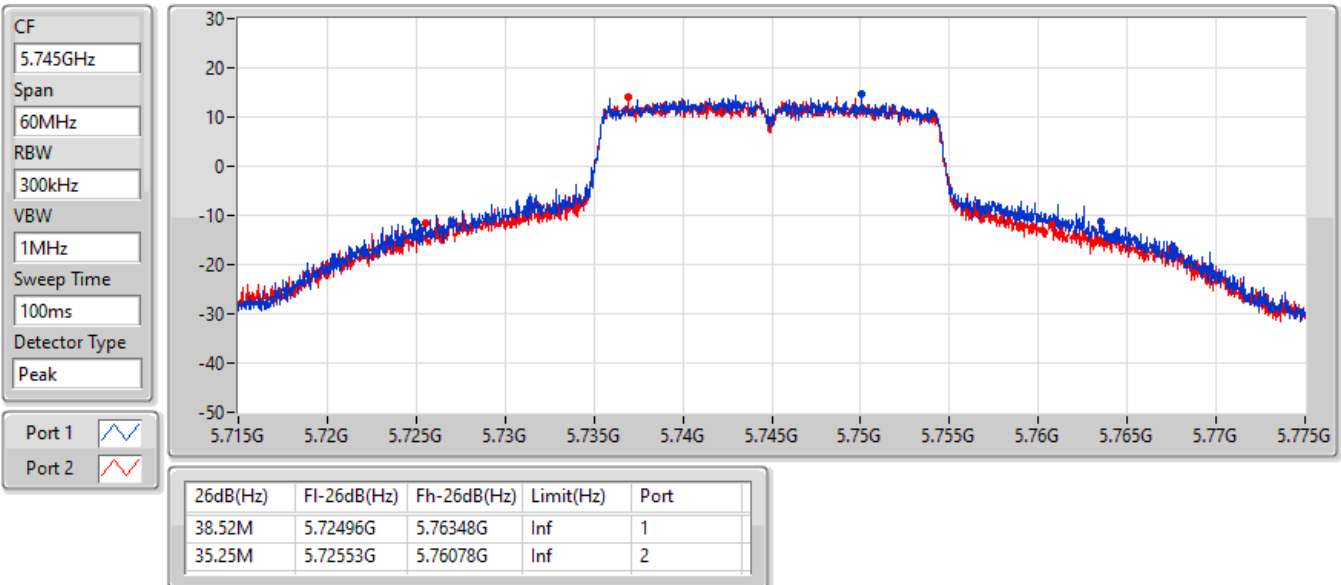
16/12/2021



802.11ax HEW20_Nss1,(MCS0)_2TX

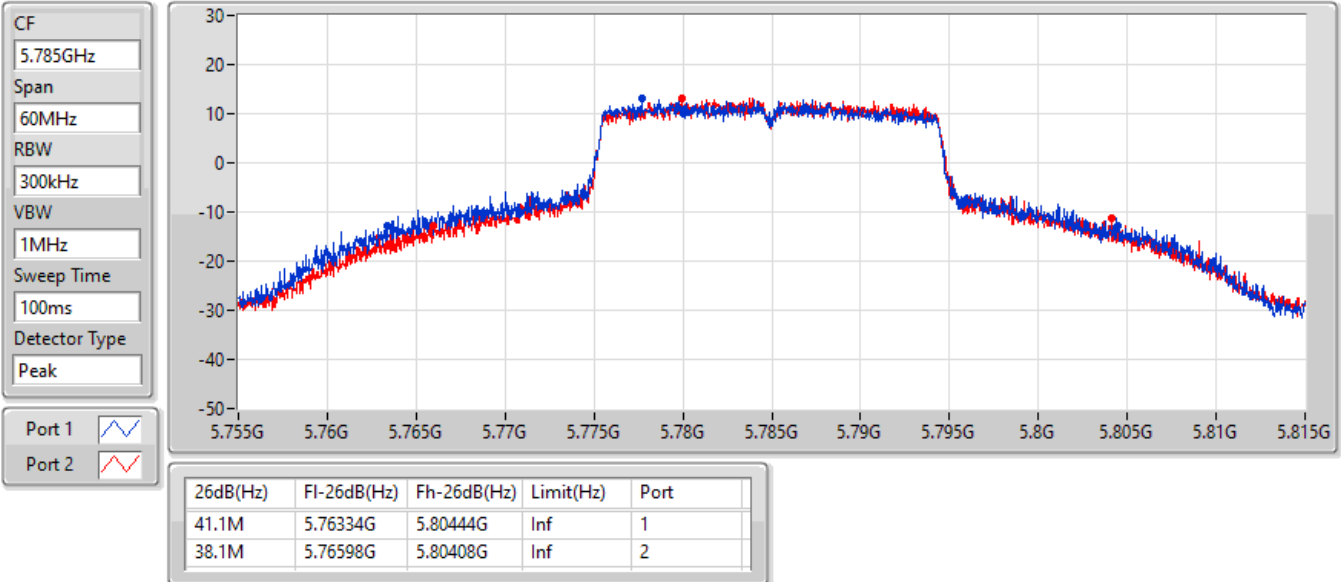
EBW
5745MHz

16/12/2021

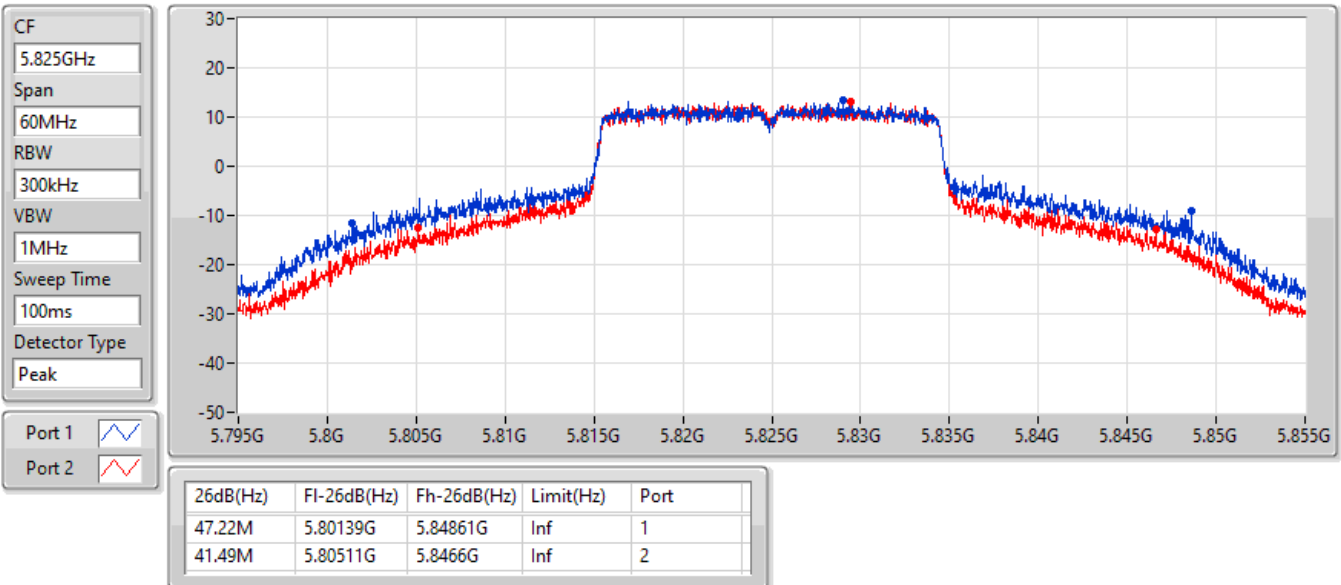


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5785MHz

16/12/2021

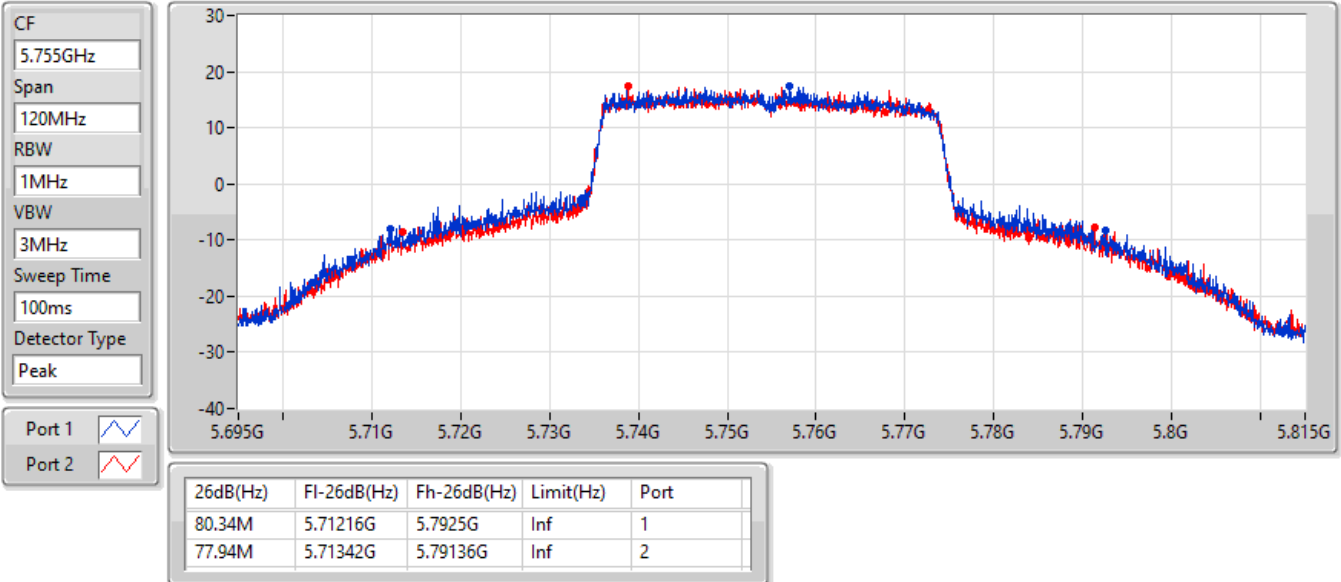

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5825MHz

16/12/2021

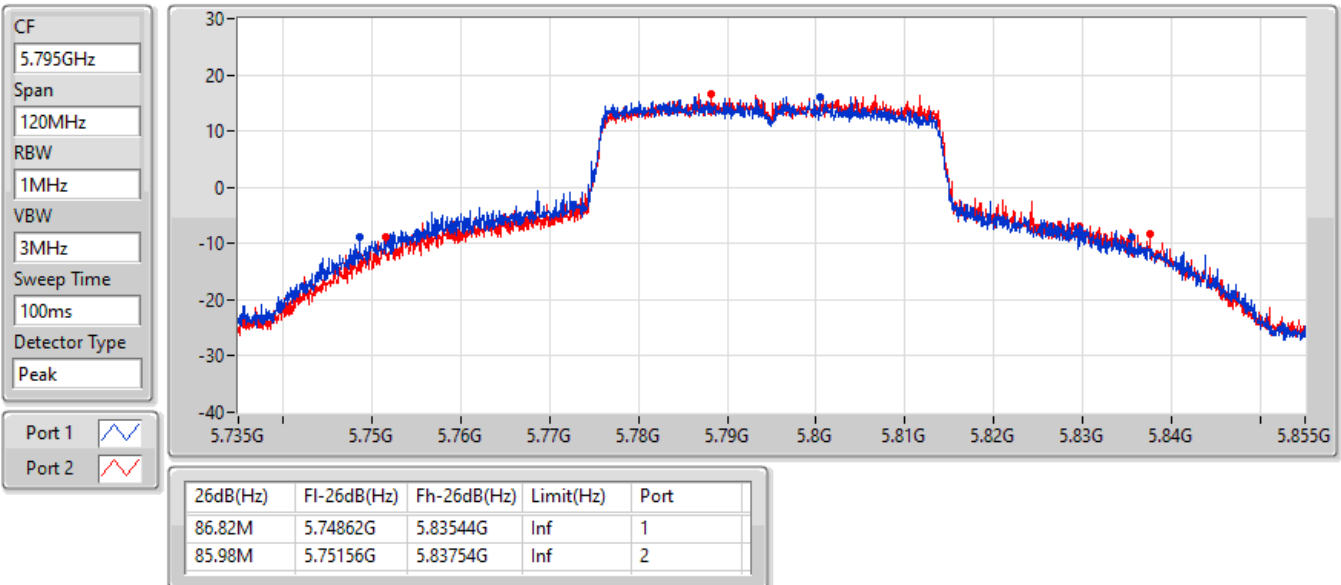


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5755MHz

16/12/2021


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5795MHz

16/12/2021

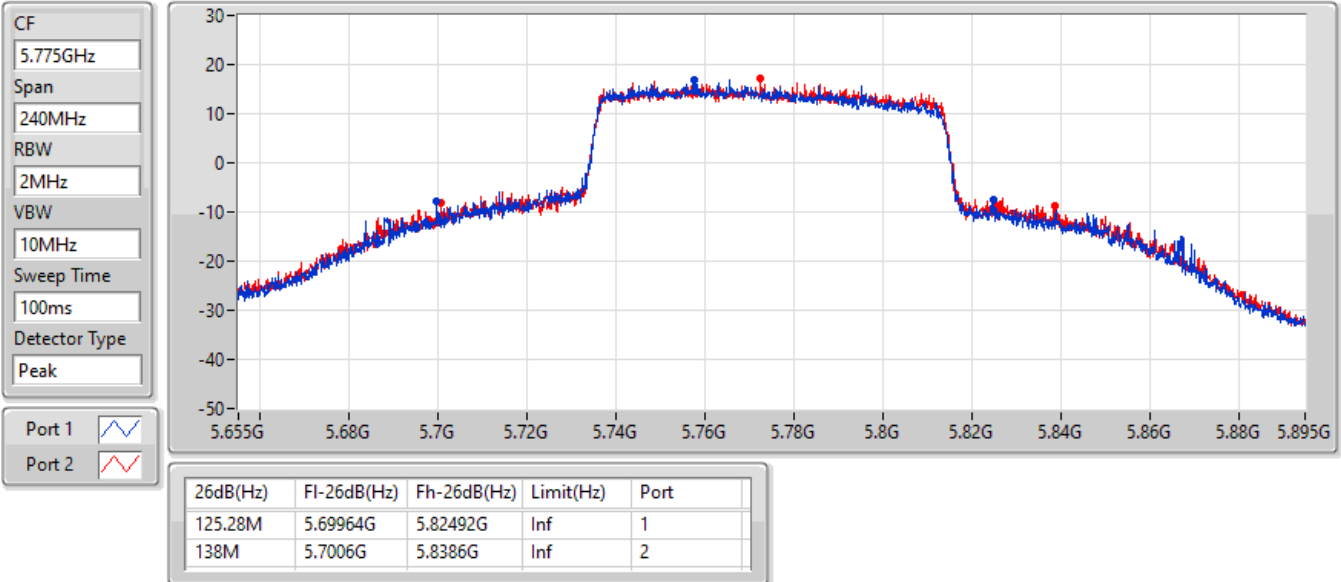


802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

5775MHz

16/12/2021



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)_4TX	35.88M	19.46M	19M5D1D	19.35M	16.432M
802.11ax HEW20_Nss1,(MCS0)_4TX	37.95M	19.7M	19M7D1D	21M	18.891M
802.11ax HEW40_Nss1,(MCS0)_4TX	69.96M	38.621M	38M6D1D	40.8M	37.901M
802.11ax HEW80_Nss1,(MCS0)_4TX	82.32M	77.361M	77M4D1D	81.96M	77.241M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.32M	30.825M	30M8D1D	16.02M	21.739M
802.11ax HEW20_Nss1,(MCS0)_4TX	18.93M	29.535M	29M5D1D	18.48M	19.43M
802.11ax HEW40_Nss1,(MCS0)_4TX	38.16M	58.051M	58M1D1D	37.2M	39.58M
802.11ax HEW80_Nss1,(MCS0)_4TX	77.04M	77.841M	77M8D1D	71.88M	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

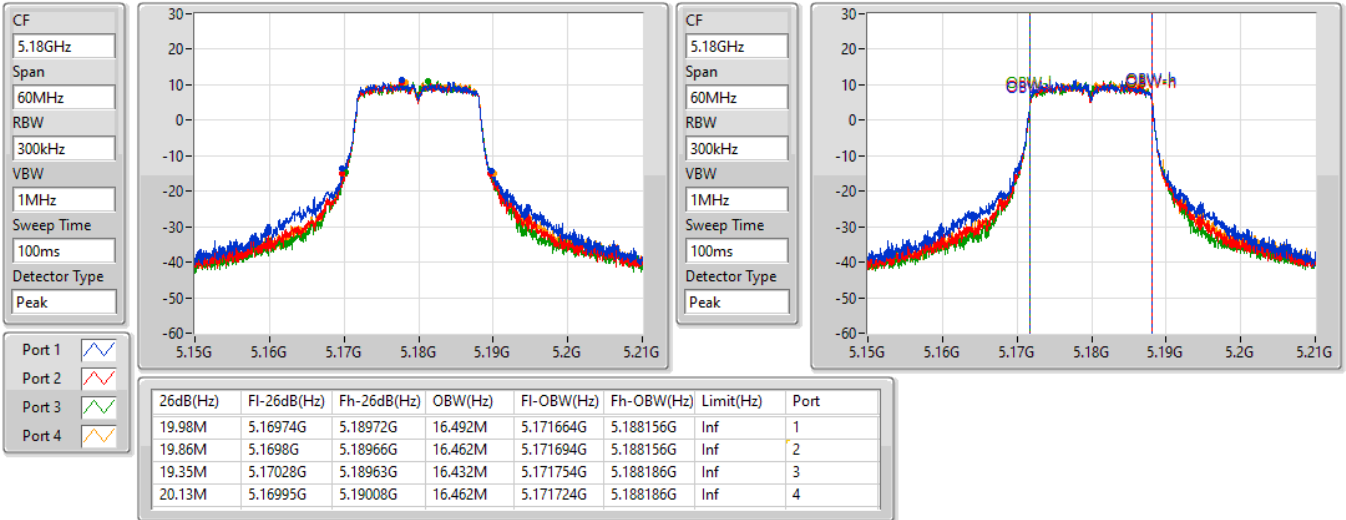
Result

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)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	19.98M	16.492M	19.86M	16.462M	19.35M	16.432M	20.13M	16.462M
5200MHz	Pass	Inf	34.23M	17.451M	32.64M	17.001M	32.25M	16.852M	34.02M	17.571M
5240MHz	Pass	Inf	34.8M	18.051M	34.05M	17.481M	34.08M	17.181M	35.88M	19.46M
5745MHz	Pass	500k	16.29M	24.168M	16.02M	21.739M	16.29M	24.828M	16.29M	28.756M
5785MHz	Pass	500k	16.32M	25.667M	16.29M	23.058M	16.29M	27.466M	16.29M	29.265M
5825MHz	Pass	500k	16.32M	30.615M	16.29M	23.358M	16.32M	30.825M	16.29M	28.936M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	21.57M	18.951M	21.15M	18.921M	21.39M	18.921M	21M	18.891M
5200MHz	Pass	Inf	32.64M	19.13M	28.32M	19.1M	33.15M	19.1M	35.97M	19.34M
5240MHz	Pass	Inf	30.12M	19.22M	29.7M	19.13M	34.26M	19.25M	37.95M	19.7M
5745MHz	Pass	500k	18.69M	20.66M	18.75M	19.43M	18.9M	21.019M	18.9M	27.556M
5785MHz	Pass	500k	18.69M	22.789M	18.81M	19.85M	18.48M	24.888M	18.78M	28.426M
5825MHz	Pass	500k	18.78M	29.535M	18.81M	20.09M	18.93M	28.756M	18.6M	27.406M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	41.04M	38.021M	41.04M	37.961M	41.1M	37.901M	40.8M	37.961M
5230MHz	Pass	Inf	69.96M	38.621M	59.64M	38.381M	44.22M	38.141M	55.2M	38.321M
5755MHz	Pass	500k	37.92M	42.759M	38.16M	39.58M	37.92M	42.519M	37.2M	53.313M
5795MHz	Pass	500k	38.04M	46.717M	38.1M	41.859M	37.56M	52.114M	37.86M	58.051M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.96M	77.361M	82.32M	77.361M	82.32M	77.241M	82.2M	77.361M
5775MHz	Pass	500k	75.24M	77.841M	76.8M	77.841M	71.88M	77.481M	77.04M	77.841M

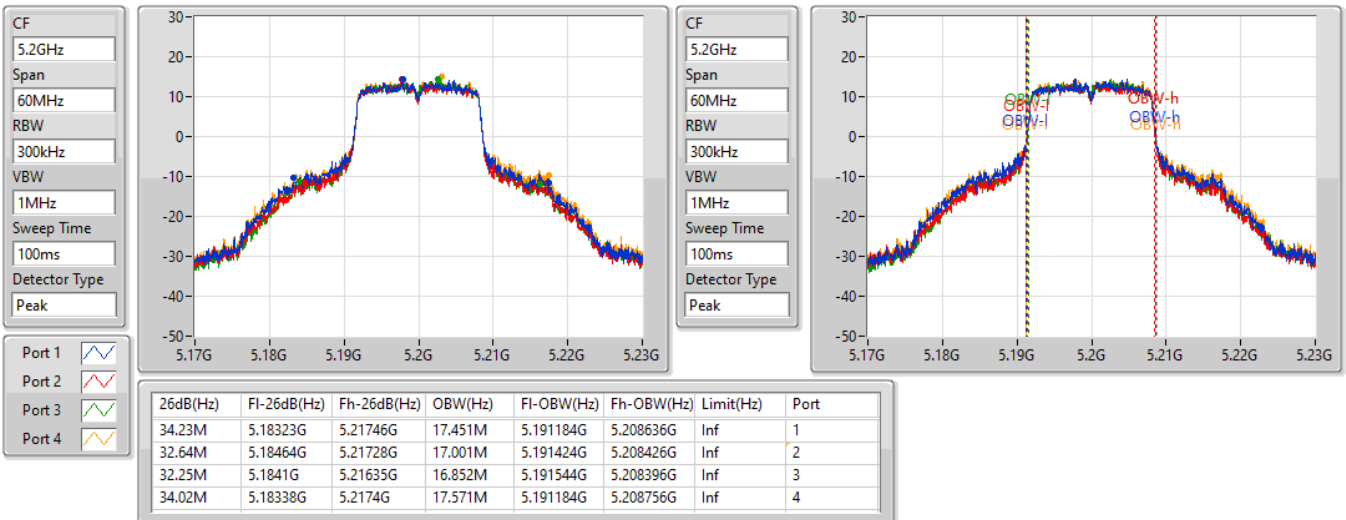
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_4TX
EBW
5180MHz

30/10/2021

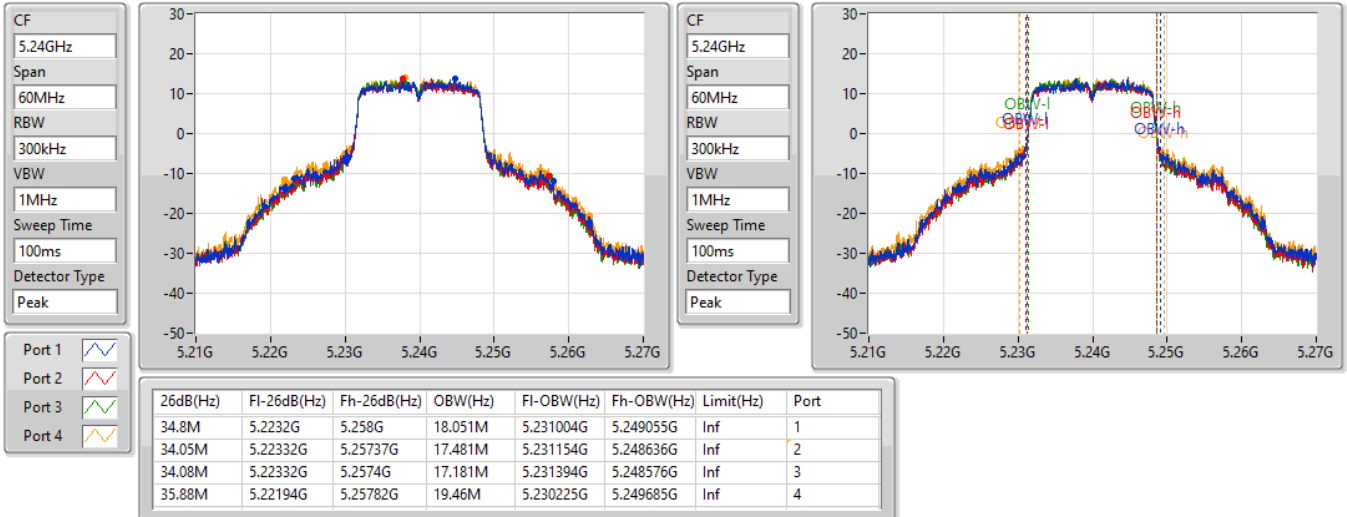

802.11a_Nss1,(6Mbps)_4TX
EBW
5200MHz

30/10/2021

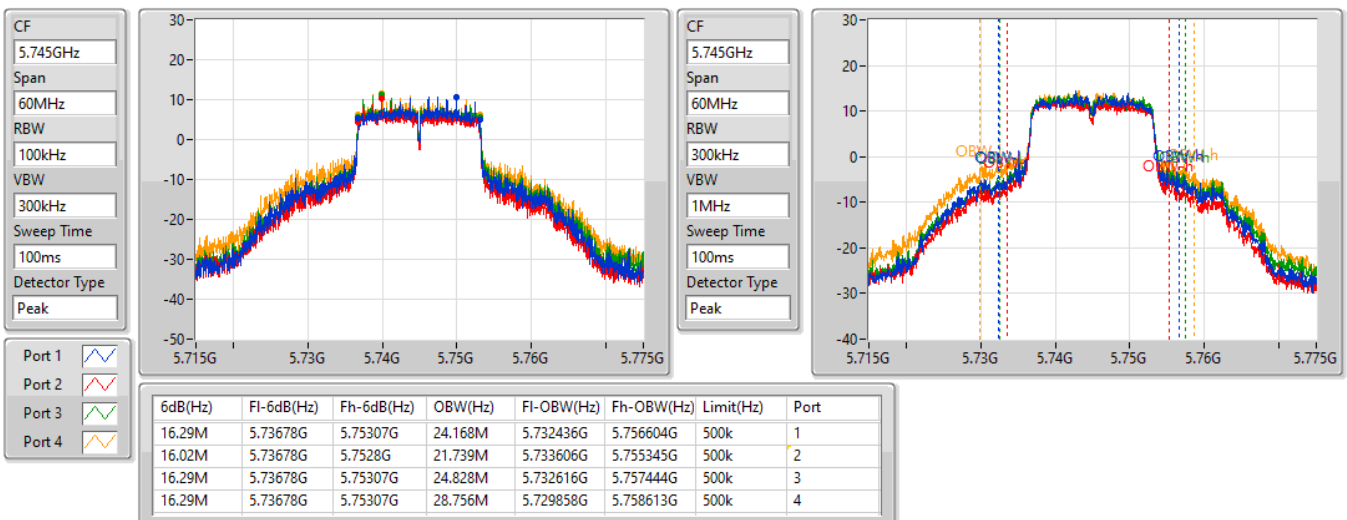


802.11a_Nss1,(6Mbps)_4TX
EBW
5240MHz

30/10/2021

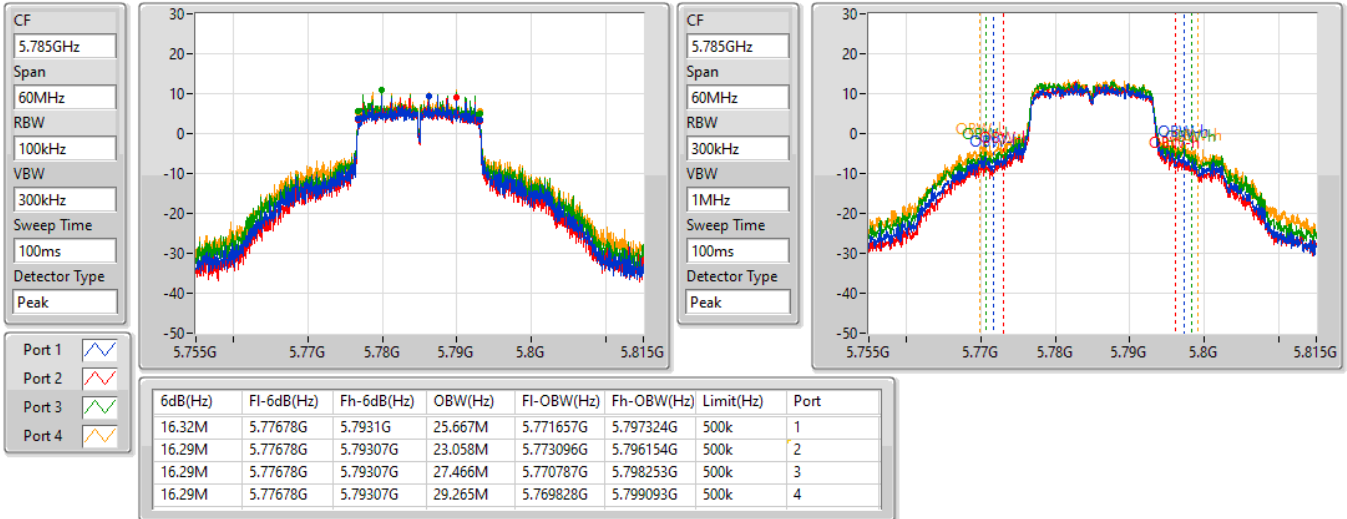

802.11a_Nss1,(6Mbps)_4TX
EBW
5745MHz

30/10/2021

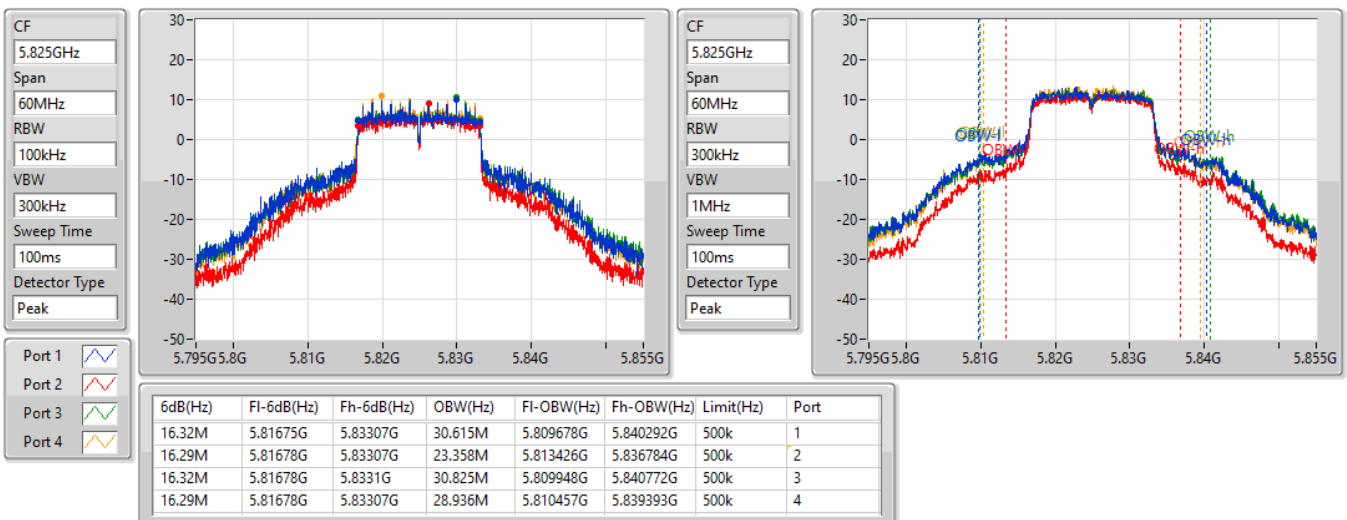


802.11a_Nss1,(6Mbps)_4TX
EBW
5785MHz

30/10/2021

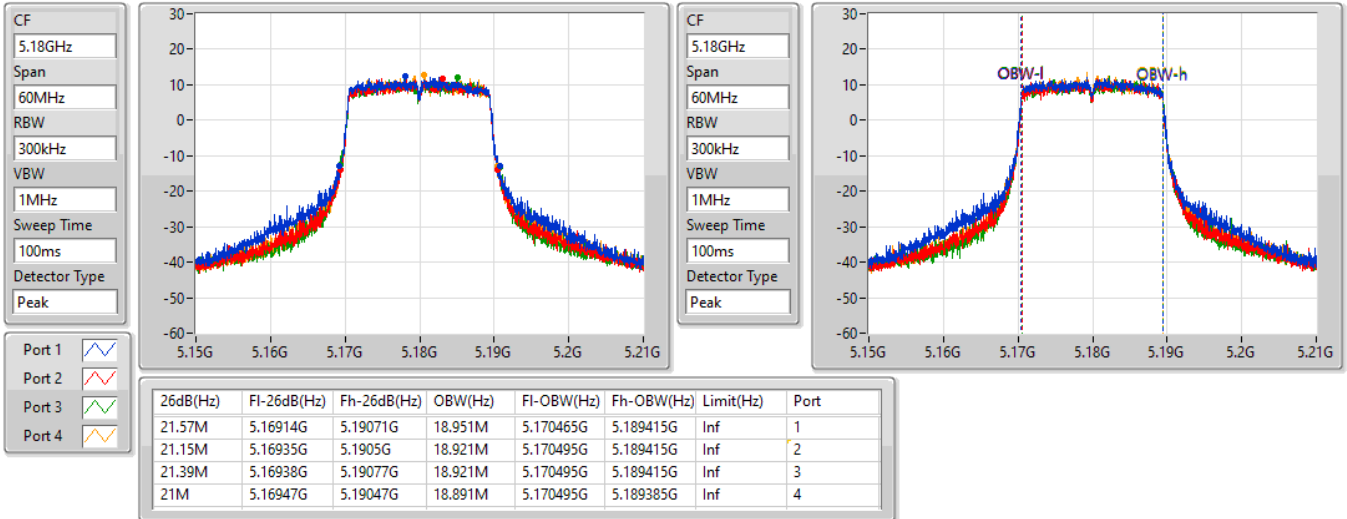

802.11a_Nss1,(6Mbps)_4TX
EBW
5825MHz

30/10/2021

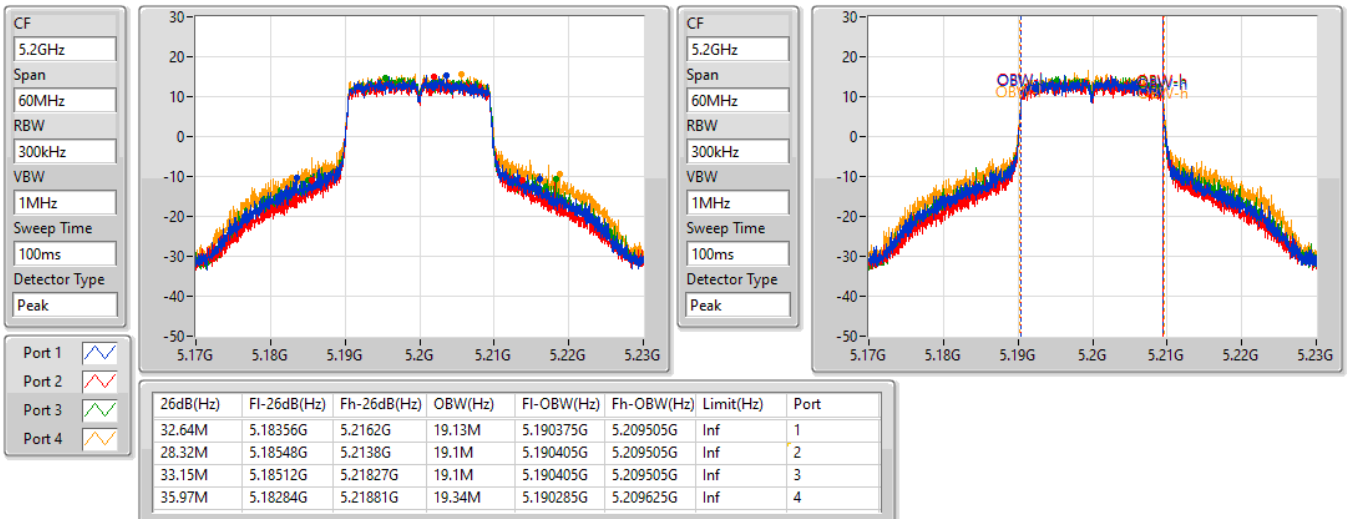


802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5180MHz

30/10/2021


802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5200MHz

30/10/2021

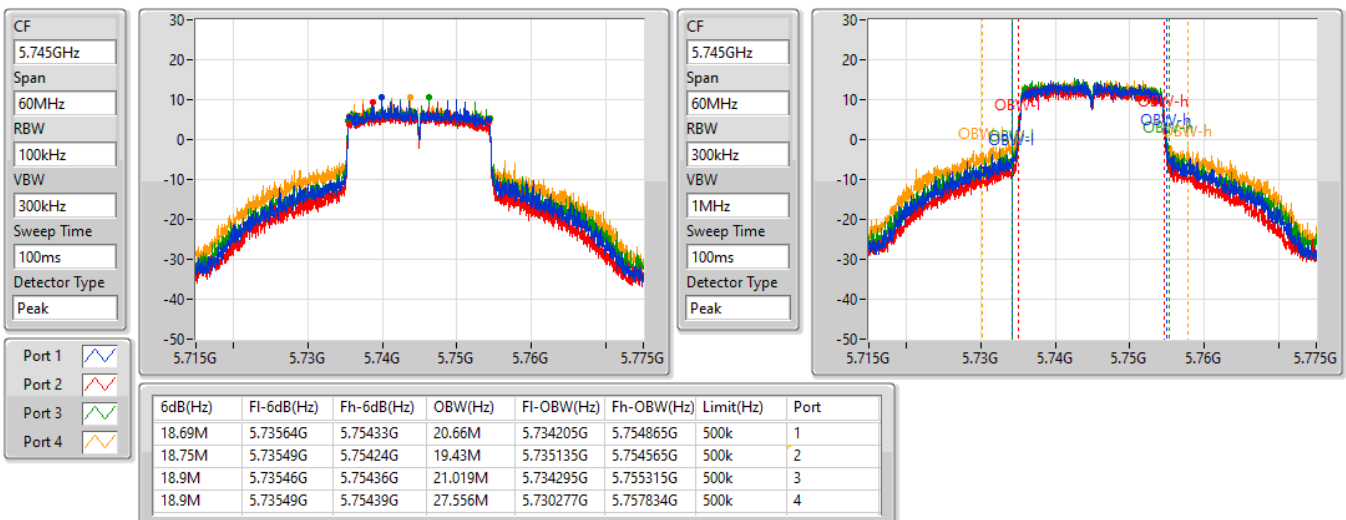


802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5240MHz

30/10/2021

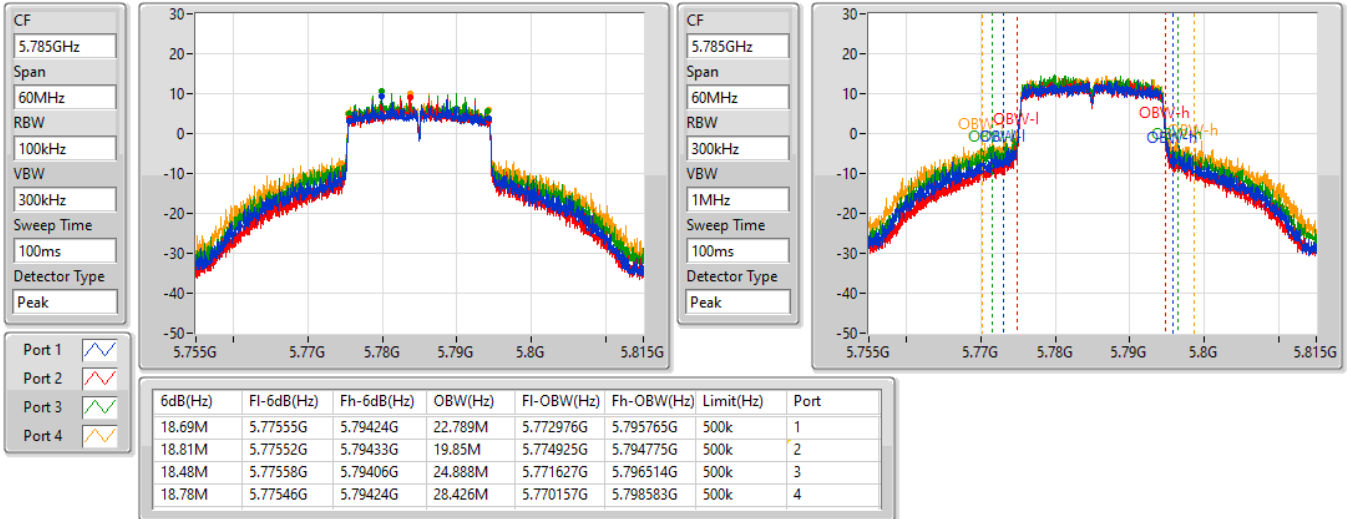

802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5745MHz

30/10/2021

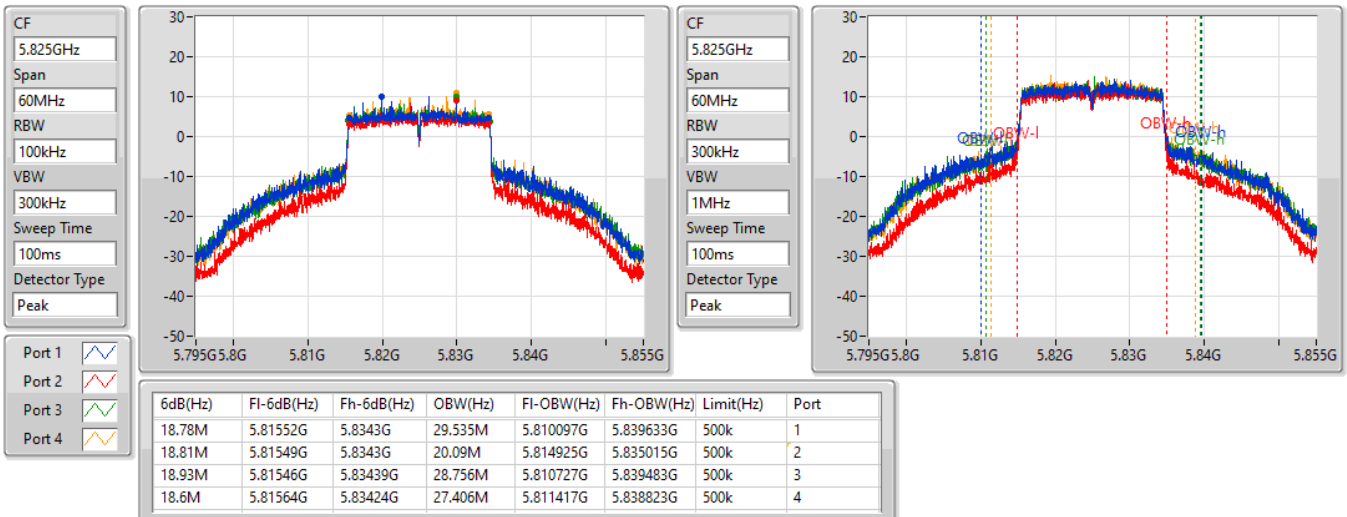


802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5785MHz

30/10/2021

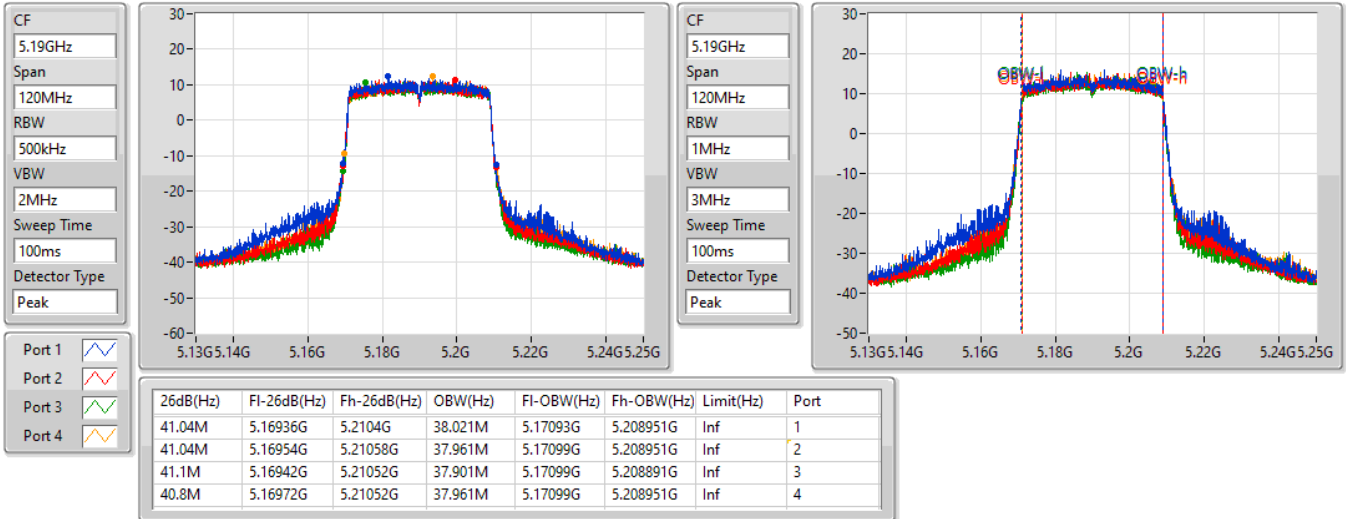

802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5825MHz

30/10/2021

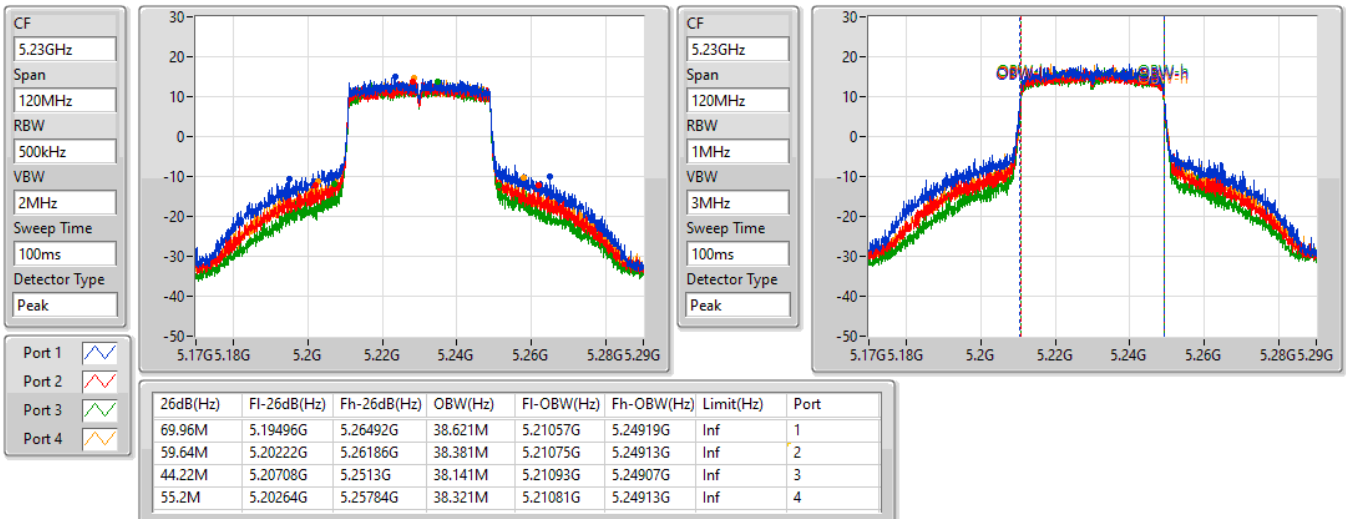


802.11ax HEW40_Nss1,(MCS0)_4TX
EBW
5190MHz

30/10/2021

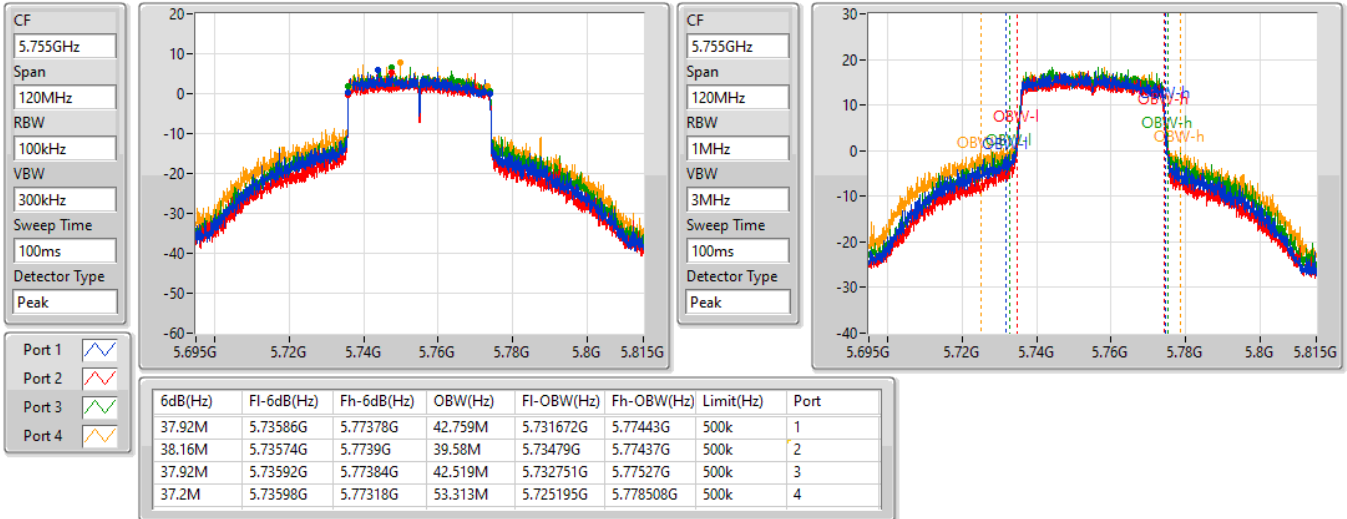

802.11ax HEW40_Nss1,(MCS0)_4TX
EBW
5230MHz

30/10/2021

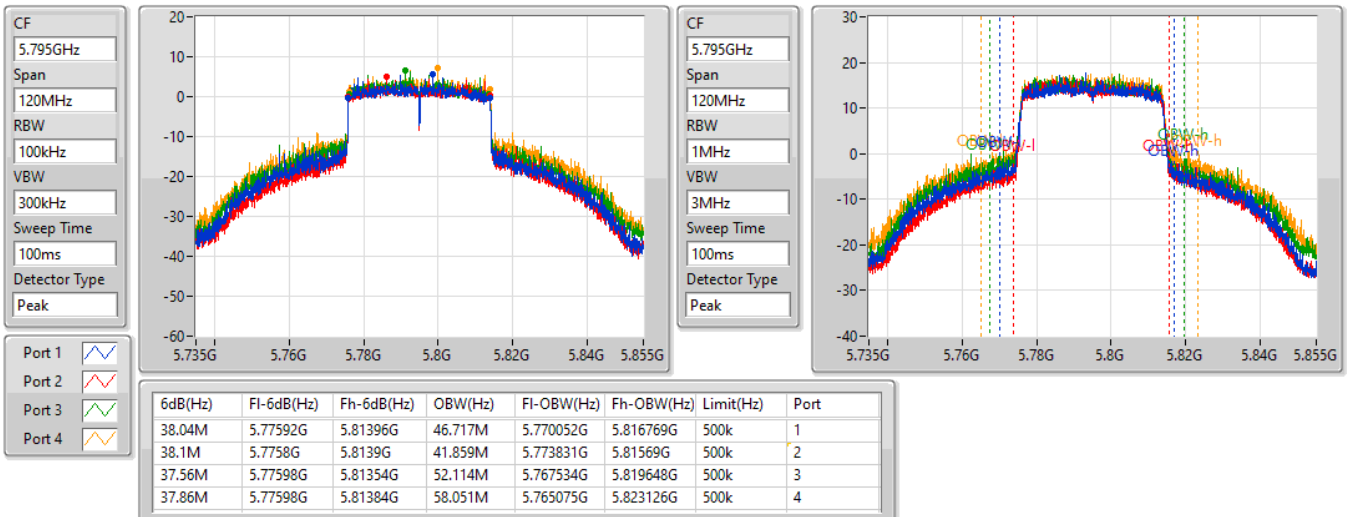


802.11ax HEW40_Nss1,(MCS0)_4TX
EBW
5755MHz

30/10/2021

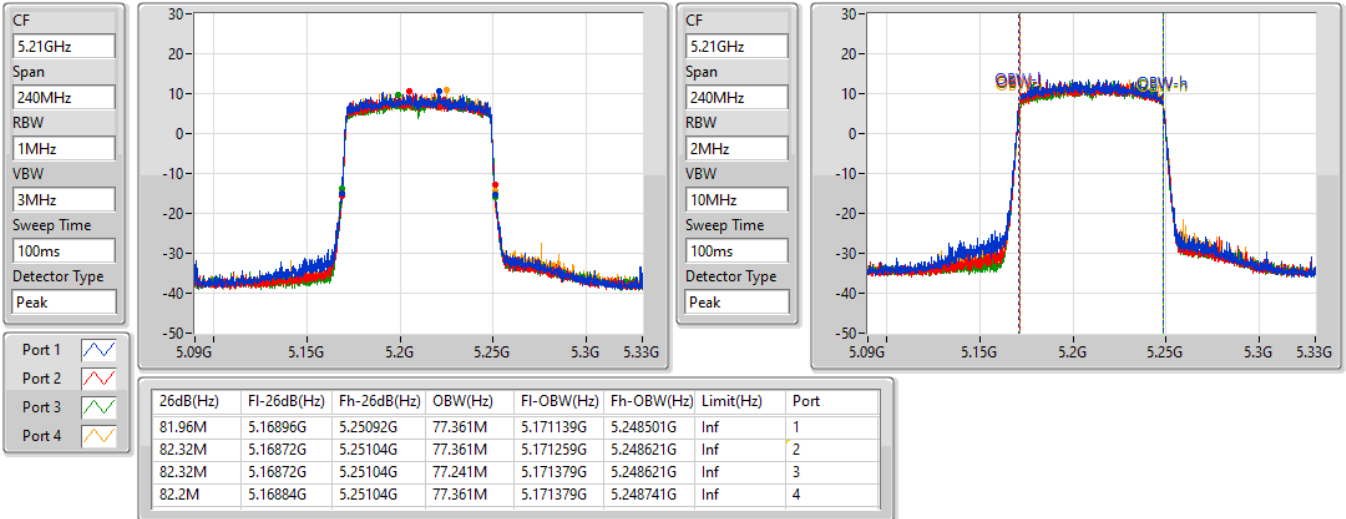

802.11ax HEW40_Nss1,(MCS0)_4TX
EBW
5795MHz

30/10/2021



802.11ax HEW80_Nss1,(MCS0)_4TX
EBW
5210MHz

30/10/2021


802.11ax HEW80_Nss1,(MCS0)_4TX
EBW
5775MHz

30/10/2021



Summary

Mode	Max-N dB (Hz)	ITU-Code	Min-N dB (Hz)
5.725-5.85GHz	-	-	-
802.11a_Nss1,(6Mbps)_4TX	43.02M	43M0D1D	36.6M
802.11ax HEW20_Nss1,(MCS0)_4TX	46.8M	46M8D1D	37.38M
802.11ax HEW40_Nss1,(MCS0)_4TX	98.82M	98M8D1D	77.76M
802.11ax HEW80_Nss1,(MCS0)_4TX	146.76M	147MD1D	131.16M

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

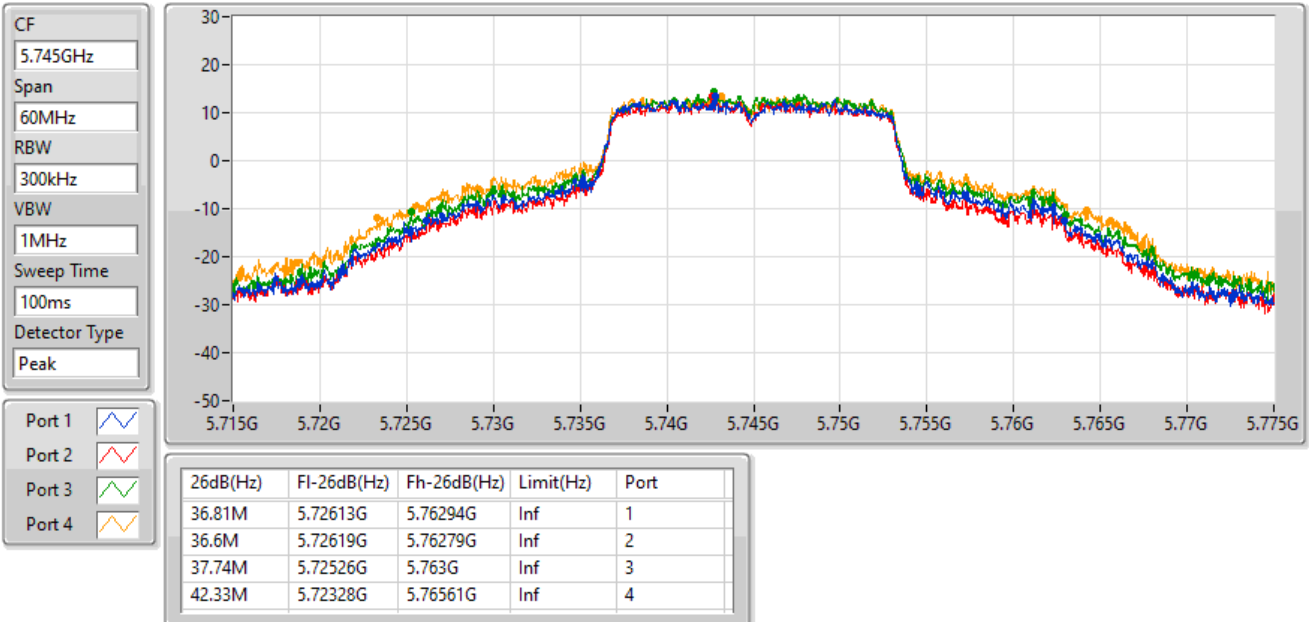
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 2-N dB (Hz)	Port 3-N dB (Hz)	Port 4-N dB (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-
5745MHz	Pass	Inf	36.81M	36.6M	37.74M	42.33M
5785MHz	Pass	Inf	38.55M	36.66M	42.81M	42M
5825MHz	Pass	Inf	43.02M	36.75M	42.24M	42.48M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-
5745MHz	Pass	Inf	40.08M	37.38M	40.89M	46.8M
5785MHz	Pass	Inf	41.58M	40.77M	42.18M	46.26M
5825MHz	Pass	Inf	45.84M	41.25M	46.65M	46.59M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-
5755MHz	Pass	Inf	78.54M	77.76M	83.52M	98.82M
5795MHz	Pass	Inf	86.94M	85.98M	91.26M	91.2M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-
5775MHz	Pass	Inf	135.6M	146.76M	141.36M	131.16M

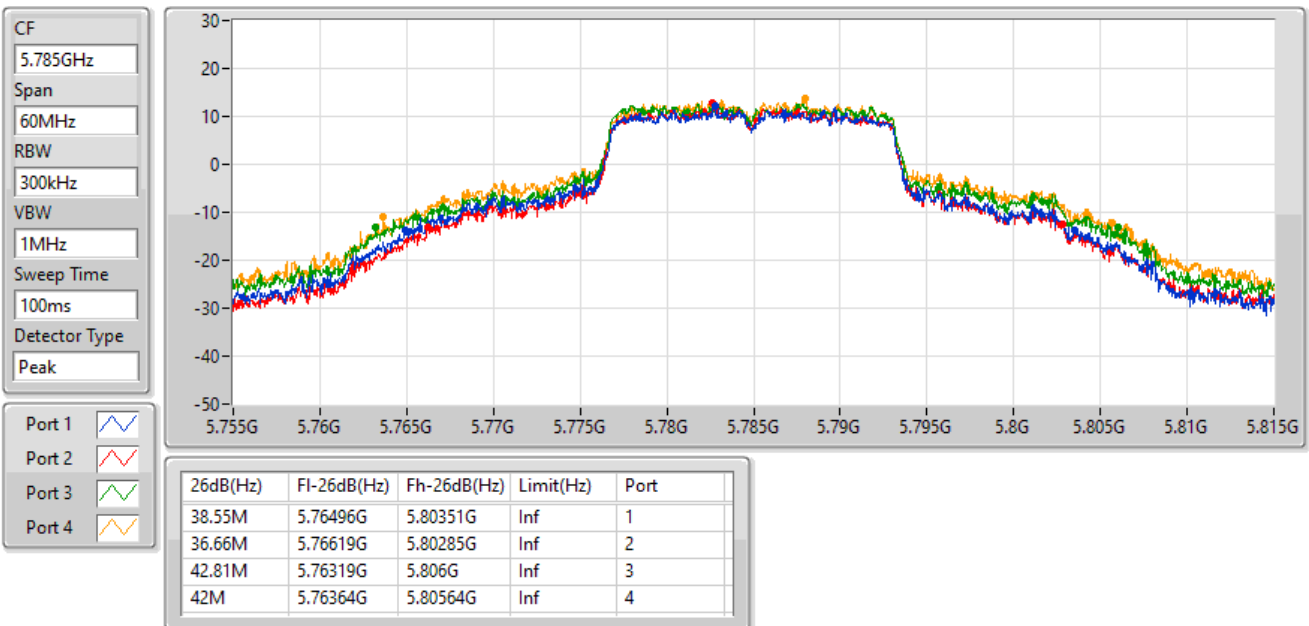
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_4TX
EBW
5745MHz

16/12/2021

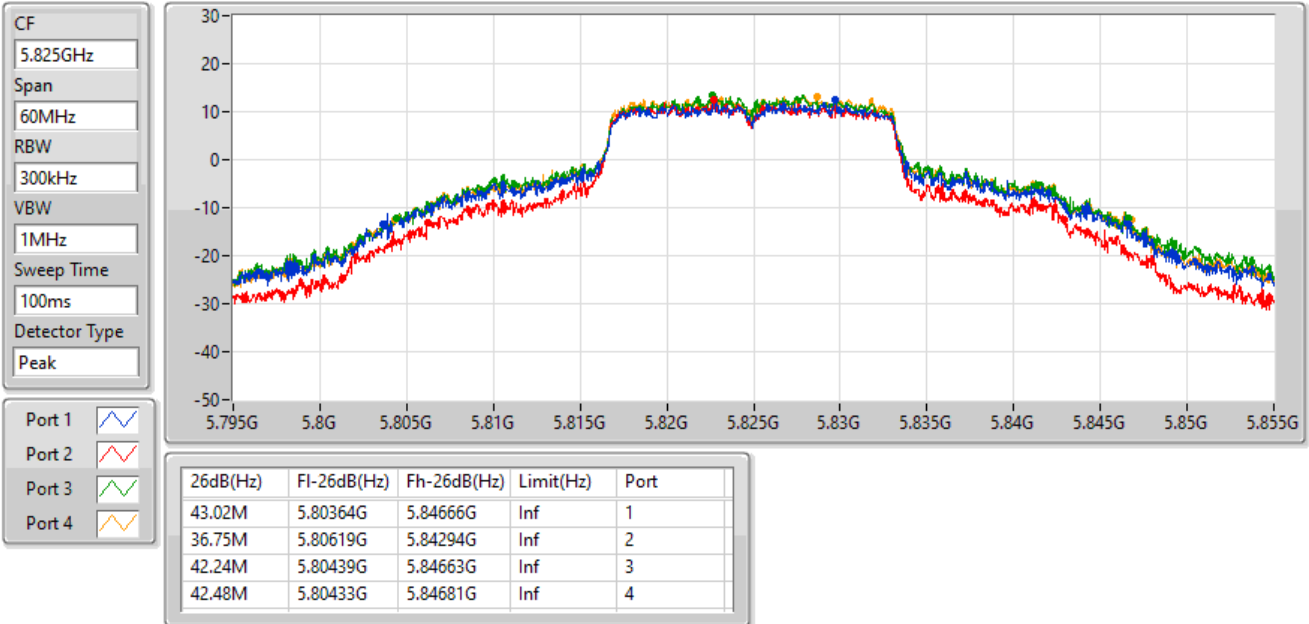

802.11a_Nss1,(6Mbps)_4TX
EBW
5785MHz

16/12/2021

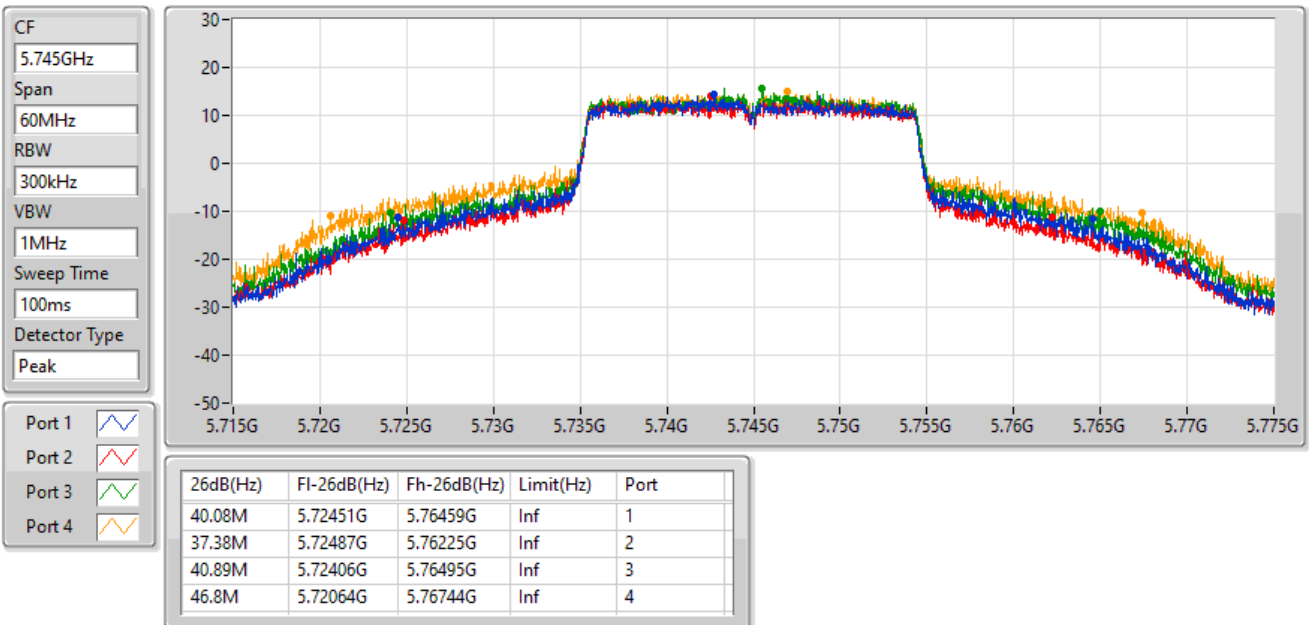


802.11a_Nss1,(6Mbps)_4TX
EBW
5825MHz

16/12/2021

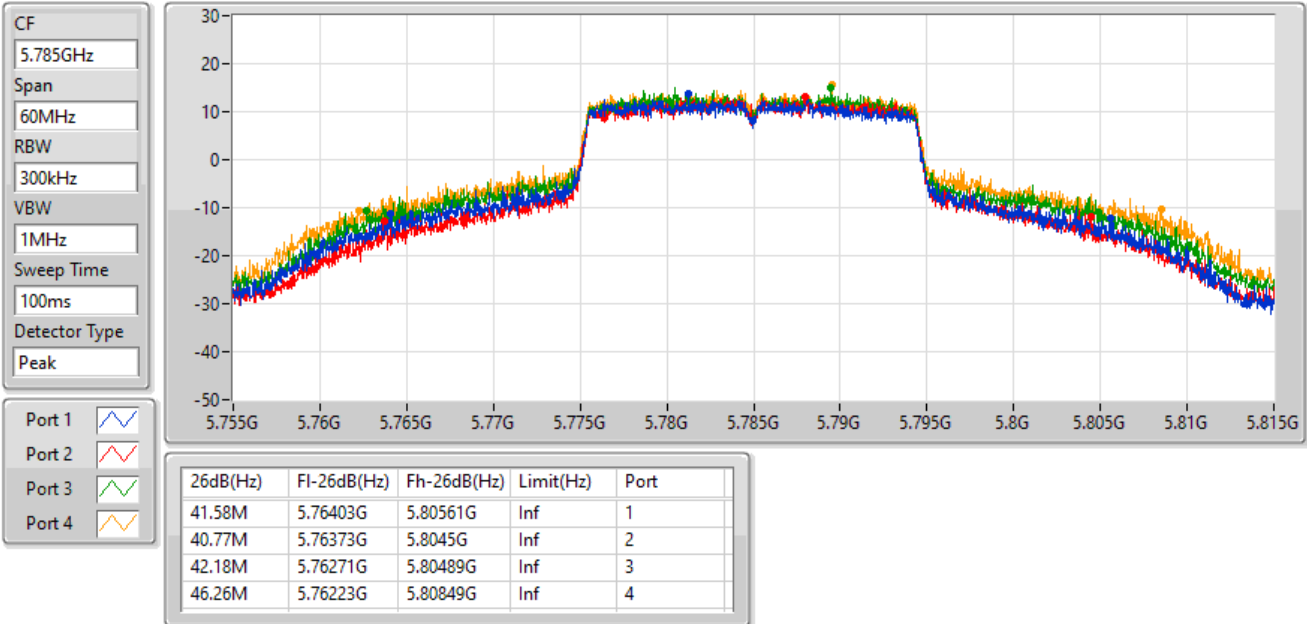

802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5745MHz

16/12/2021

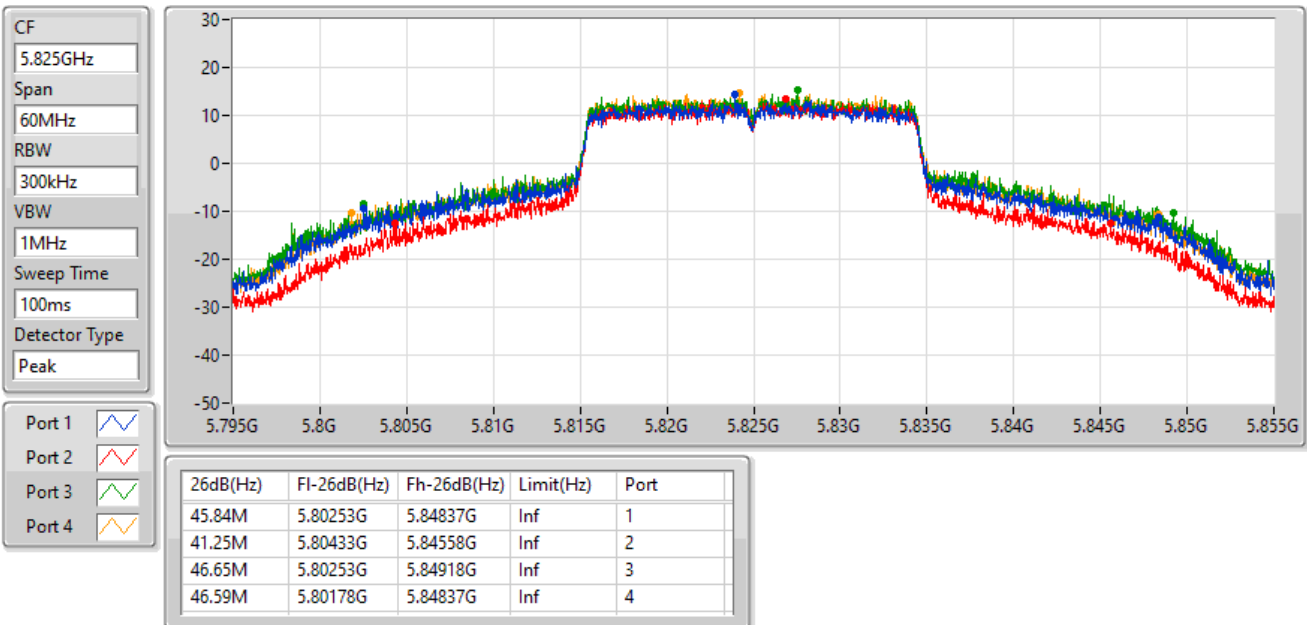


802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5785MHz

16/12/2021

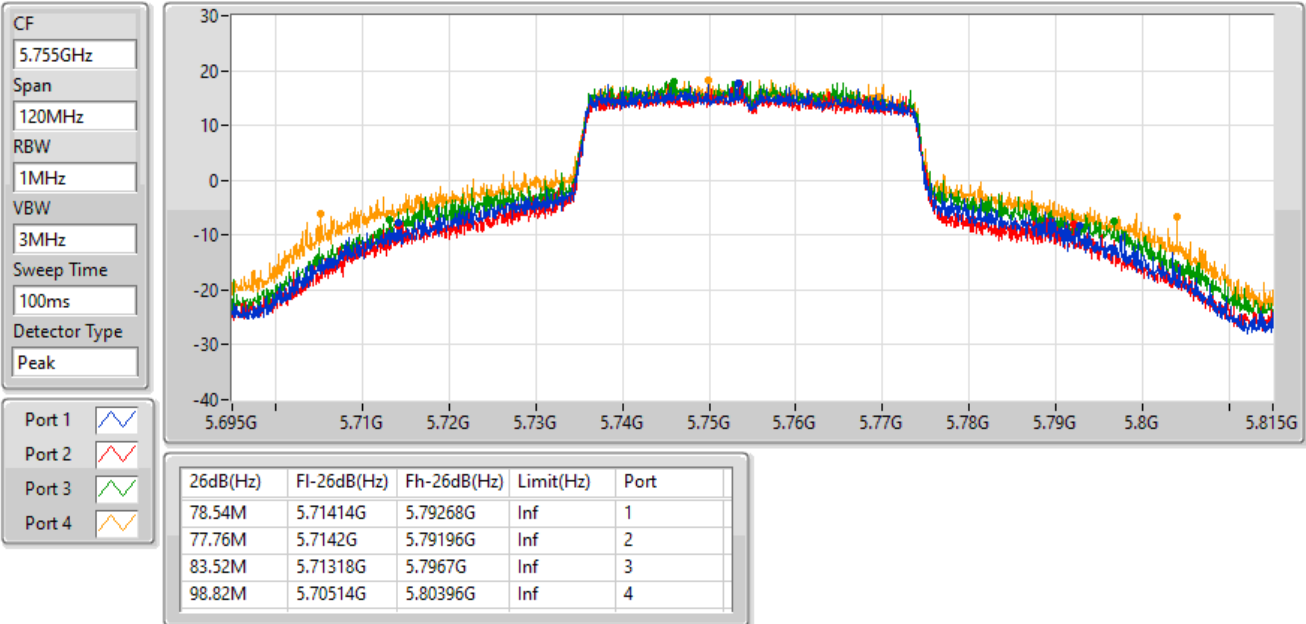

802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5825MHz

16/12/2021

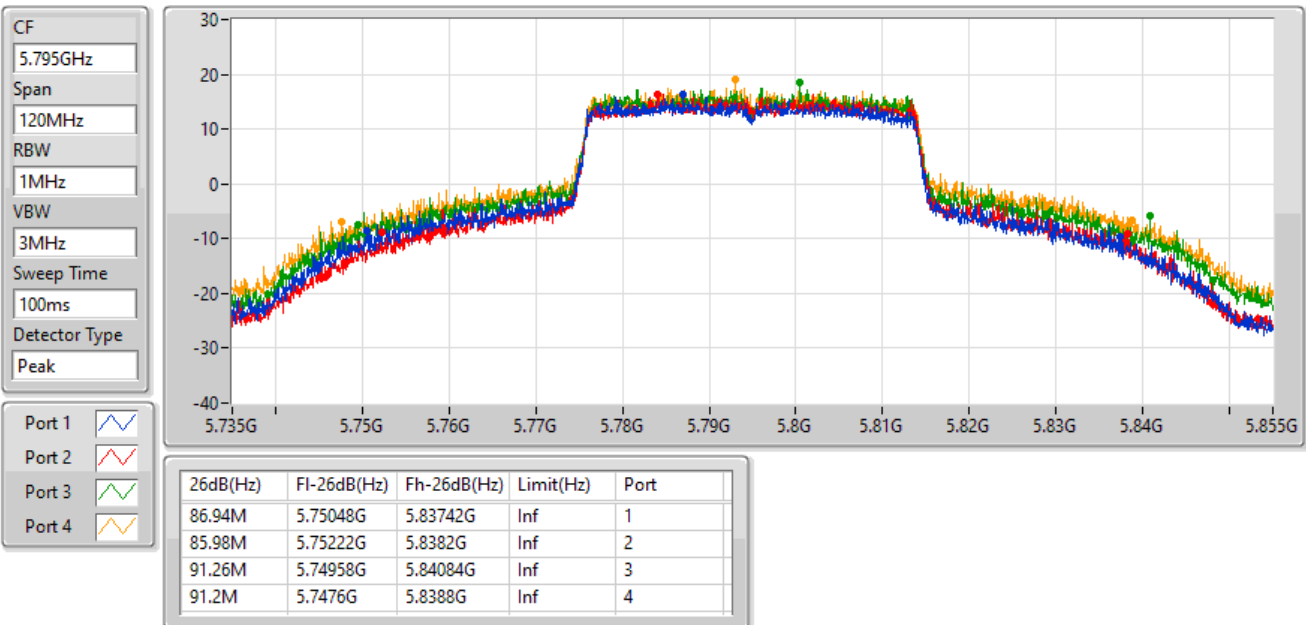


802.11ax HEW40_Nss1,(MCS0)_4TX
EBW
5755MHz

16/12/2021


802.11ax HEW40_Nss1,(MCS0)_4TX
EBW
5795MHz

16/12/2021

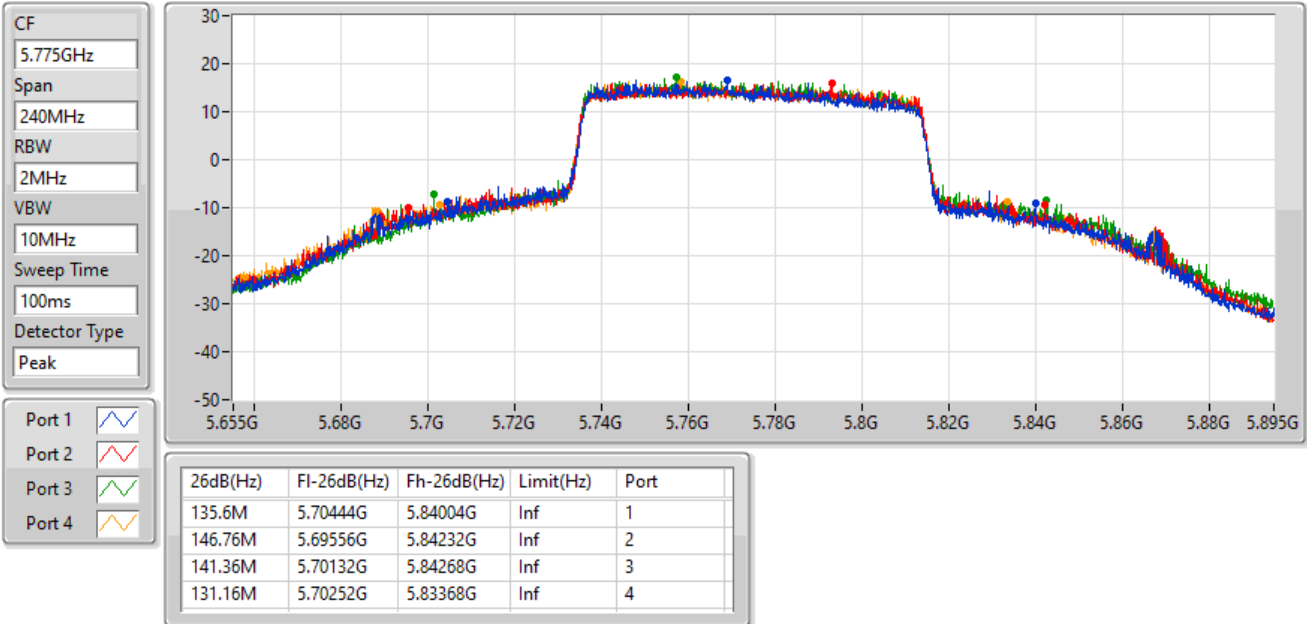


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

5775MHz

16/12/2021



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	16.35M	36.492M	36M5D1D	16.32M	36.042M
802.11ax HEW20_Nss1,(MCS0)_1TX	18.99M	40.51M	40M5D1D	18.9M	38.591M
802.11ax HEW40_Nss1,(MCS0)_1TX	37.56M	71.004M	71M0D1D	35.82M	55.352M
802.11ax HEW80_Nss1,(MCS0)_1TX	71.76M	93.313M	93M3D1D	71.76M	93.313M

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

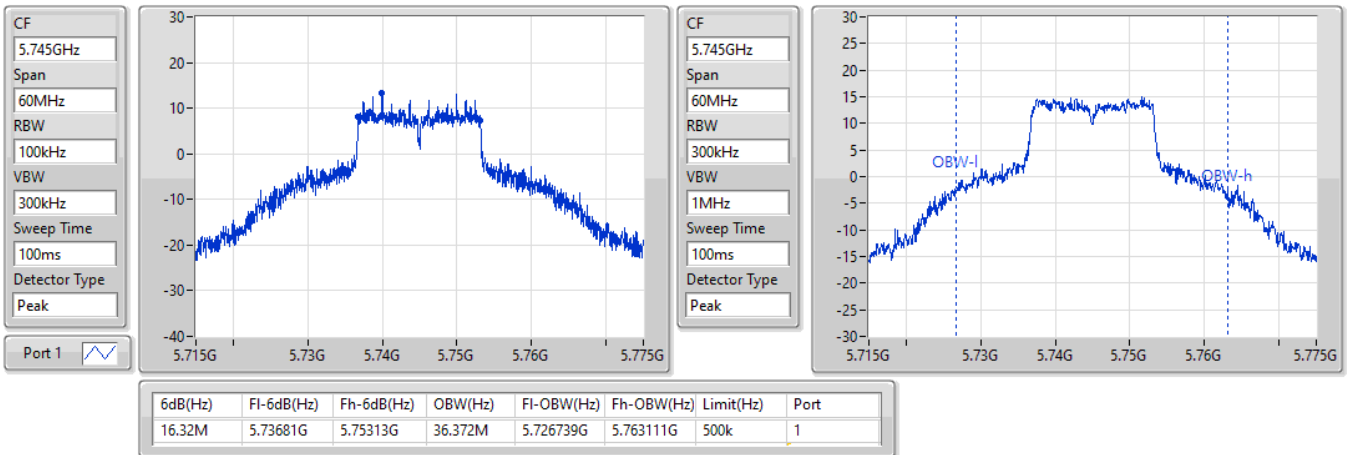
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5745MHz	Pass	500k	16.32M	36.372M
5785MHz	Pass	500k	16.35M	36.042M
5825MHz	Pass	500k	16.35M	36.492M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-
5745MHz	Pass	500k	18.99M	38.591M
5785MHz	Pass	500k	18.93M	39.91M
5825MHz	Pass	500k	18.9M	40.51M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-
5755MHz	Pass	500k	37.56M	55.352M
5795MHz	Pass	500k	35.82M	71.004M
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-
5775MHz	Pass	500k	71.76M	93.313M

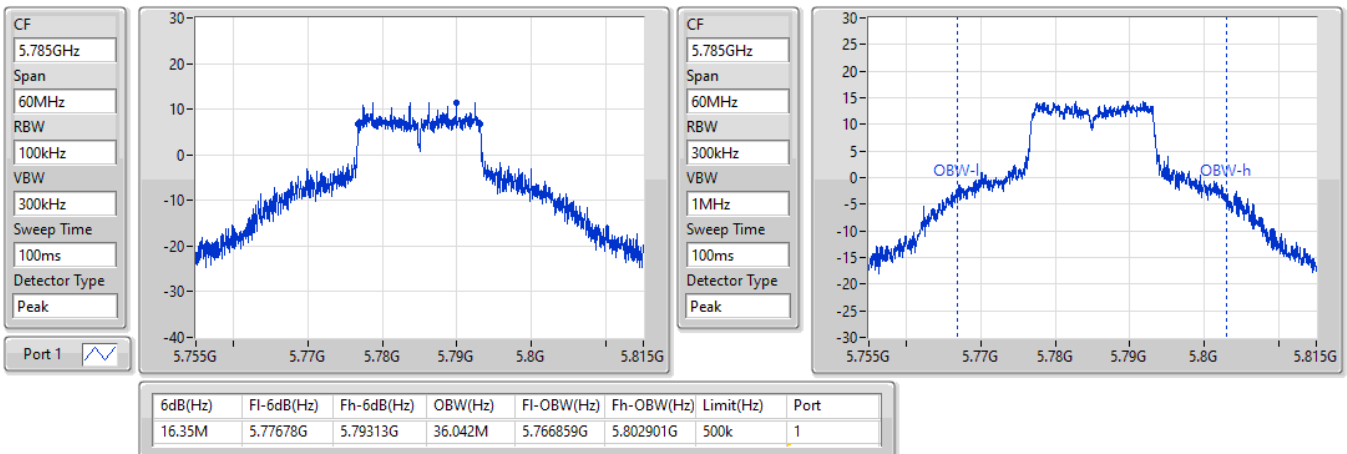
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_1TX
EBW
5745MHz

13/11/2021

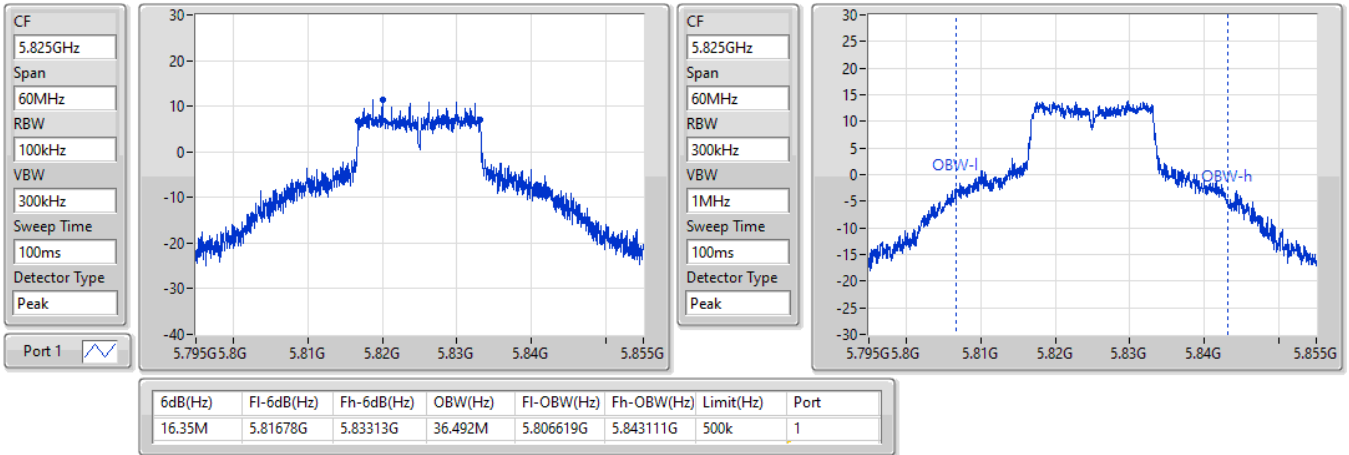

802.11a_Nss1,(6Mbps)_1TX
EBW
5785MHz

13/11/2021

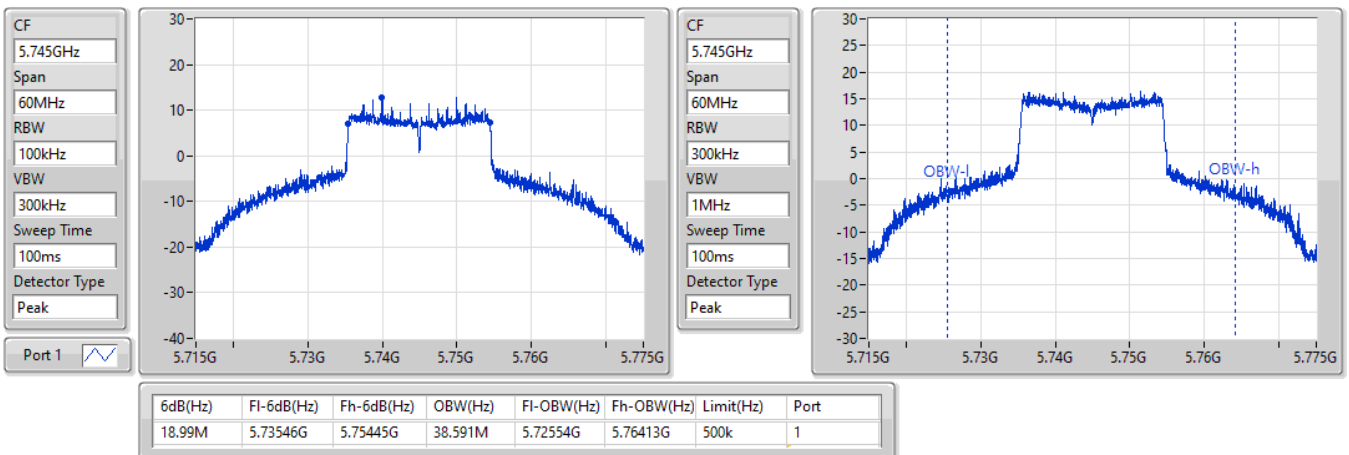


802.11a_Nss1,(6Mbps)_1TX
EBW
5825MHz

13/11/2021

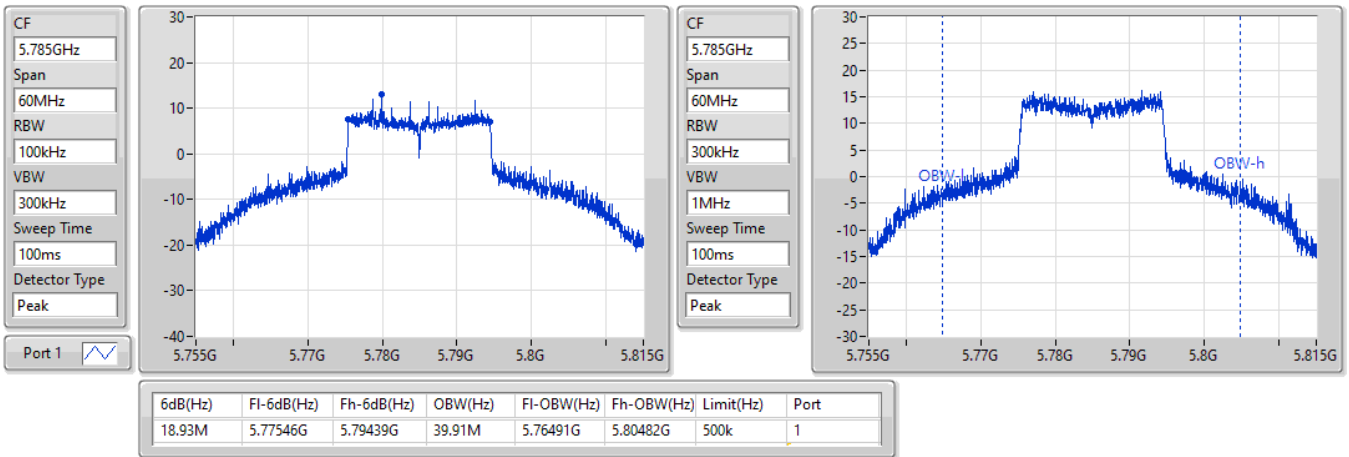

802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5745MHz

13/11/2021

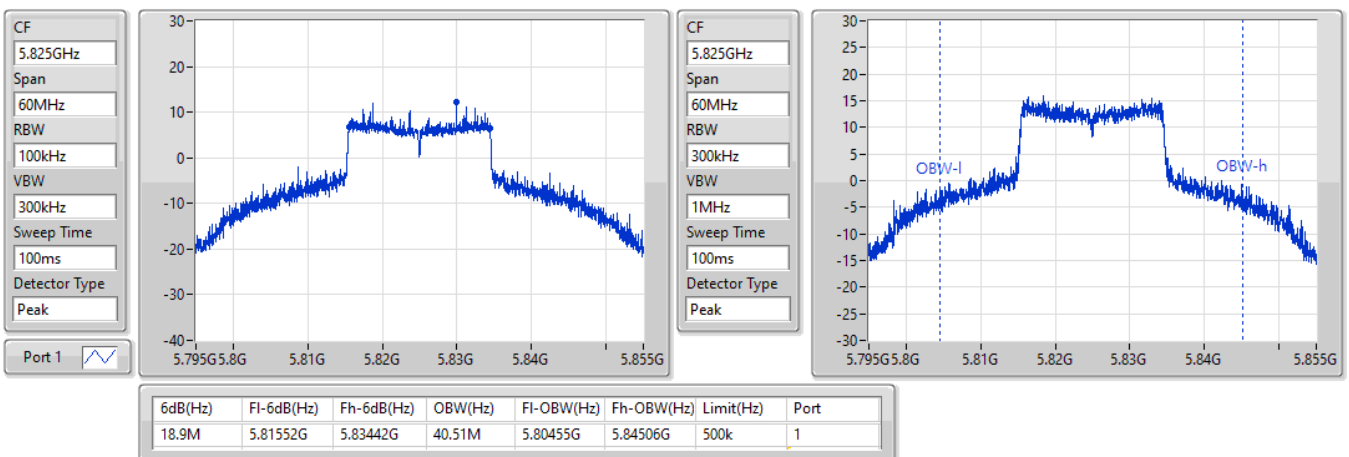


802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5785MHz

13/11/2021

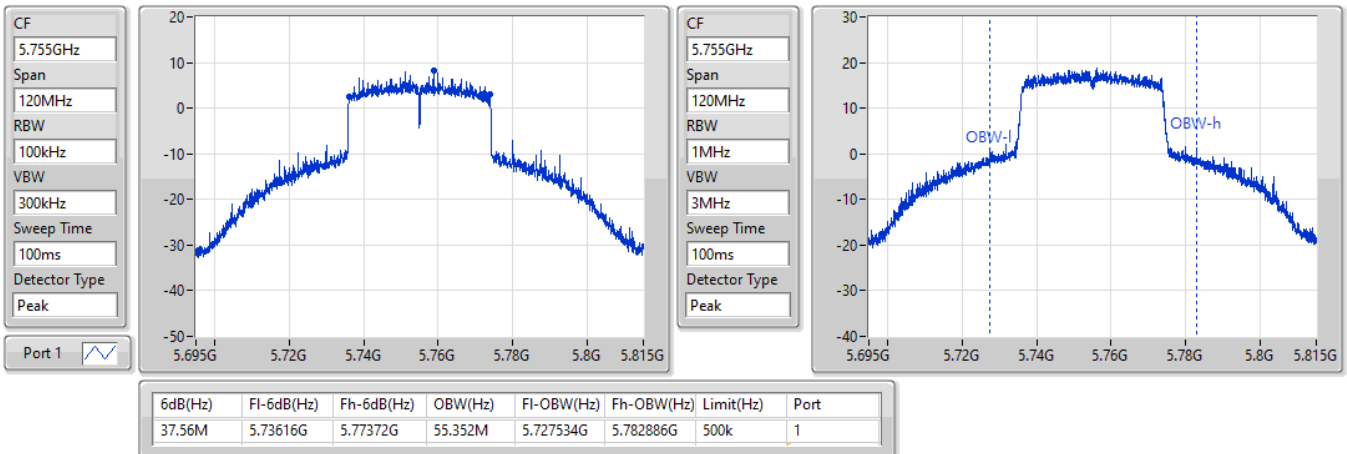

802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5825MHz

13/11/2021

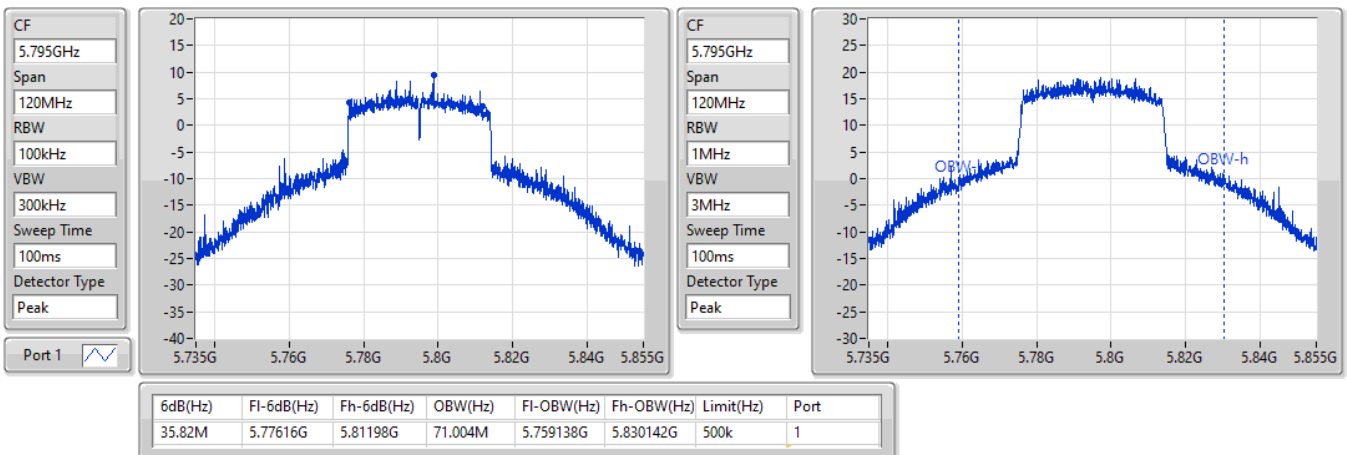


802.11ax HEW40_Nss1,(MCS0)_1TX
EBW
5755MHz

13/11/2021


802.11ax HEW40_Nss1,(MCS0)_1TX
EBW
5795MHz

13/11/2021

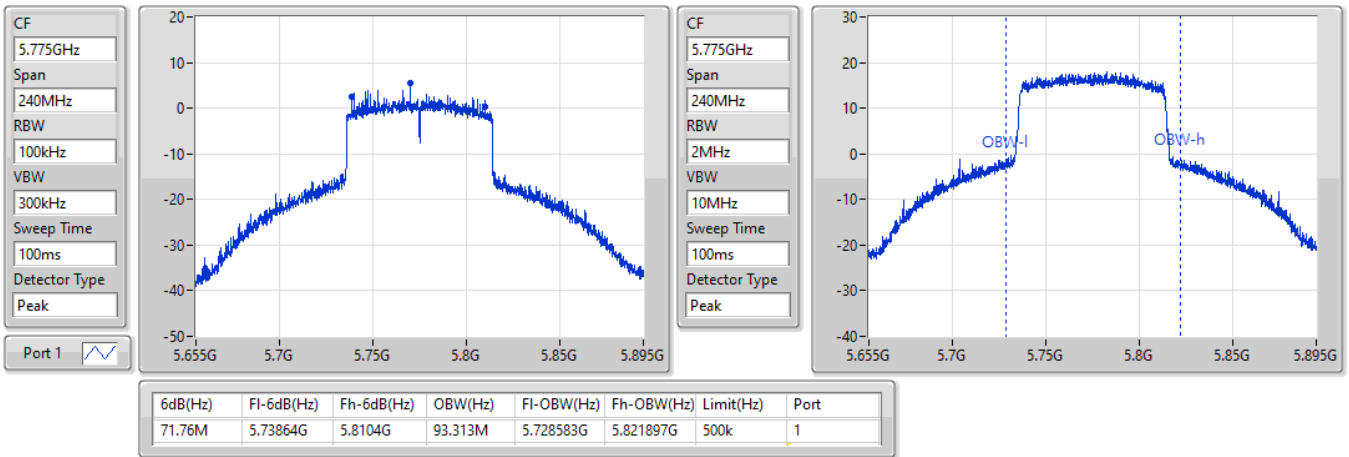


802.11ax HEW80_Nss1,(MCS0)_1TX

EBW

5775MHz

13/11/2021



Summary

Mode	Max-	ITU-Code	Min-
5.725-5.85GHz	-	-	-
802.11a_Nss1,(6Mbps)_1TX	45.27M	45M3D1D	44.91M
802.11ax HEW20_Nss1,(MCS0)_1TX	53.16M	53M2D1D	51.6M
802.11ax HEW40_Nss1,(MCS0)_1TX	102.36M	102M4D1D	81.66M
802.11ax HEW80_Nss1,(MCS0)_1TX	162.36M	162M3D1D	162.36M

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

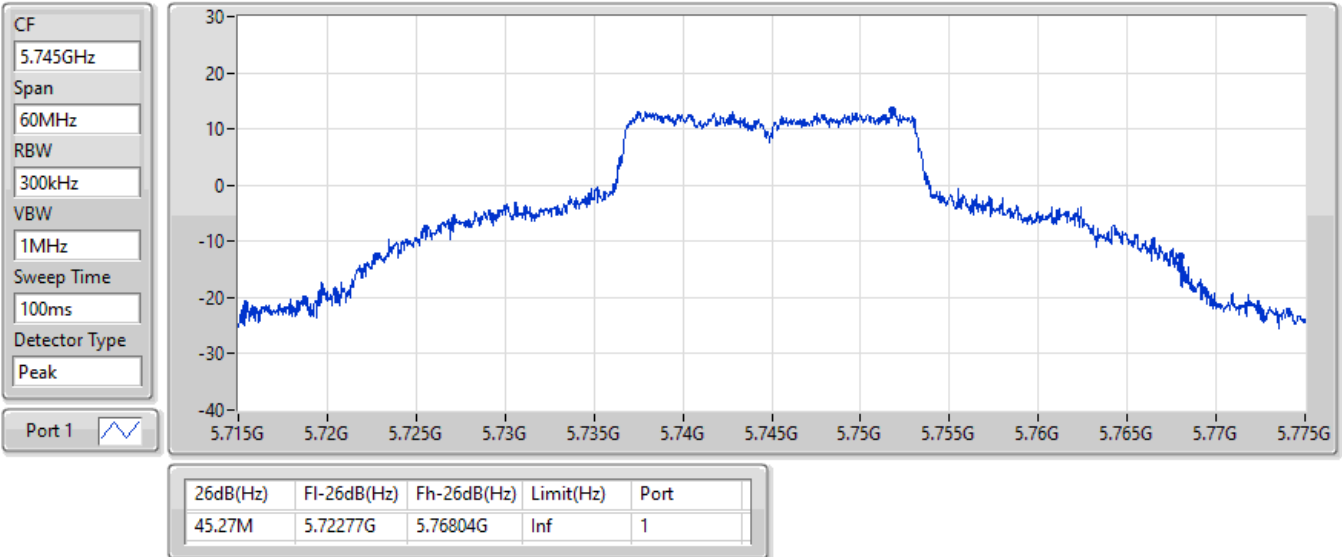
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-
5745MHz	Pass	Inf	45.27M
5785MHz	Pass	Inf	44.91M
5825MHz	Pass	Inf	44.91M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-
5745MHz	Pass	Inf	51.6M
5785MHz	Pass	Inf	53.16M
5825MHz	Pass	Inf	52.14M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-
5755MHz	Pass	Inf	81.66M
5795MHz	Pass	Inf	102.36M
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-
5775MHz	Pass	Inf	162.36M

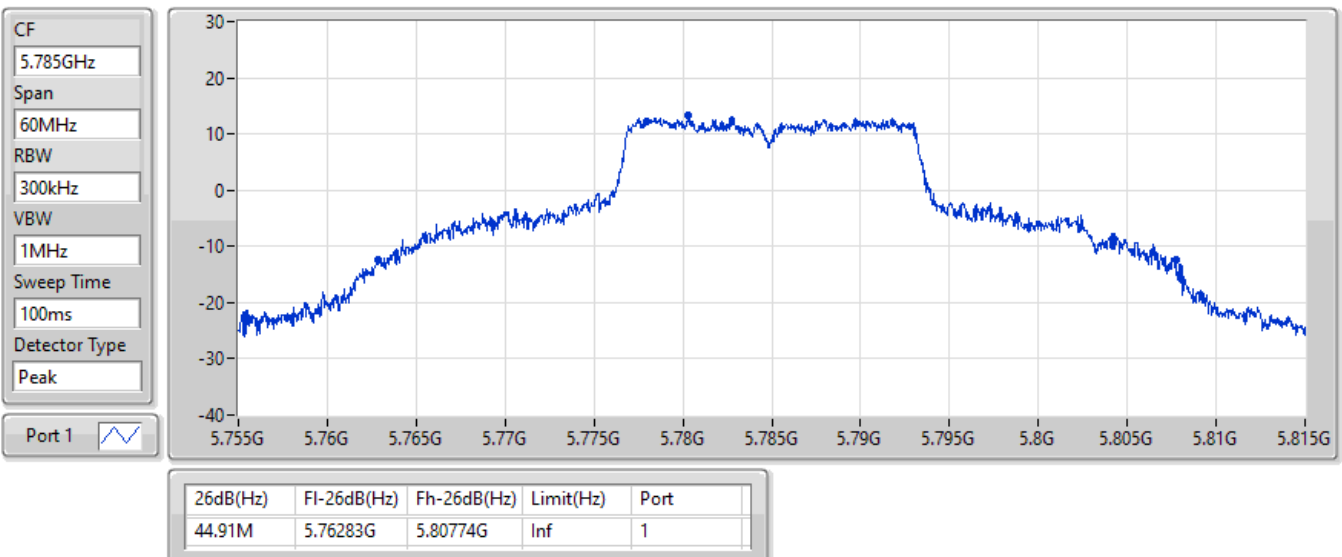
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_1TX
EBW
5745MHz

16/12/2021


802.11a_Nss1,(6Mbps)_1TX
EBW
5785MHz

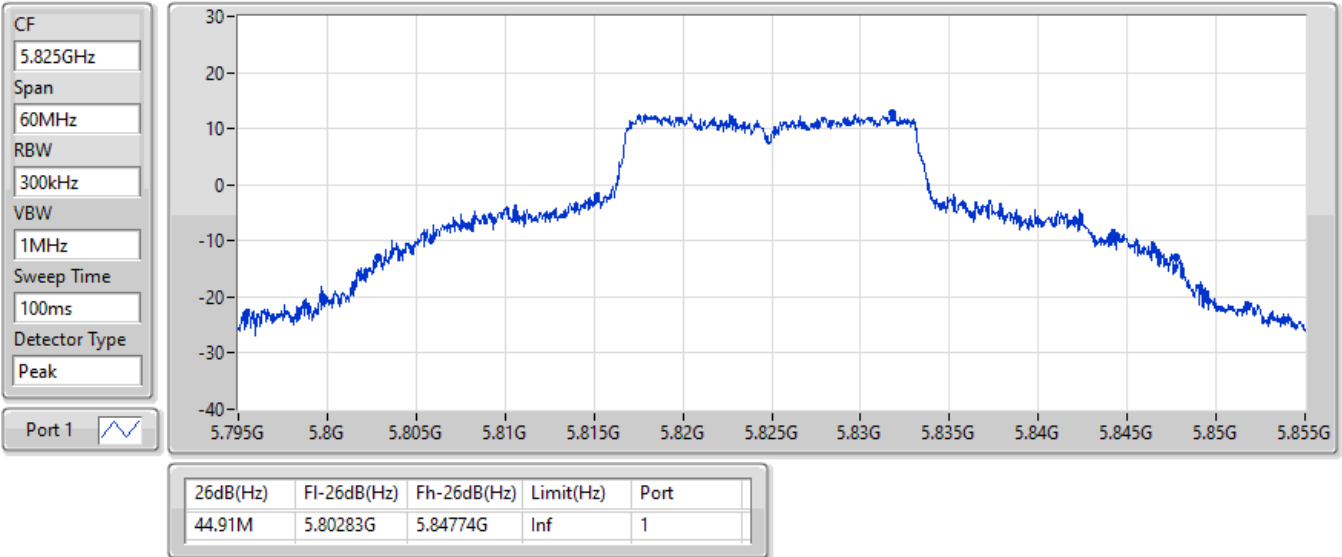
16/12/2021



802.11a_Nss1,(6Mbps)_1TX

EBW
5825MHz

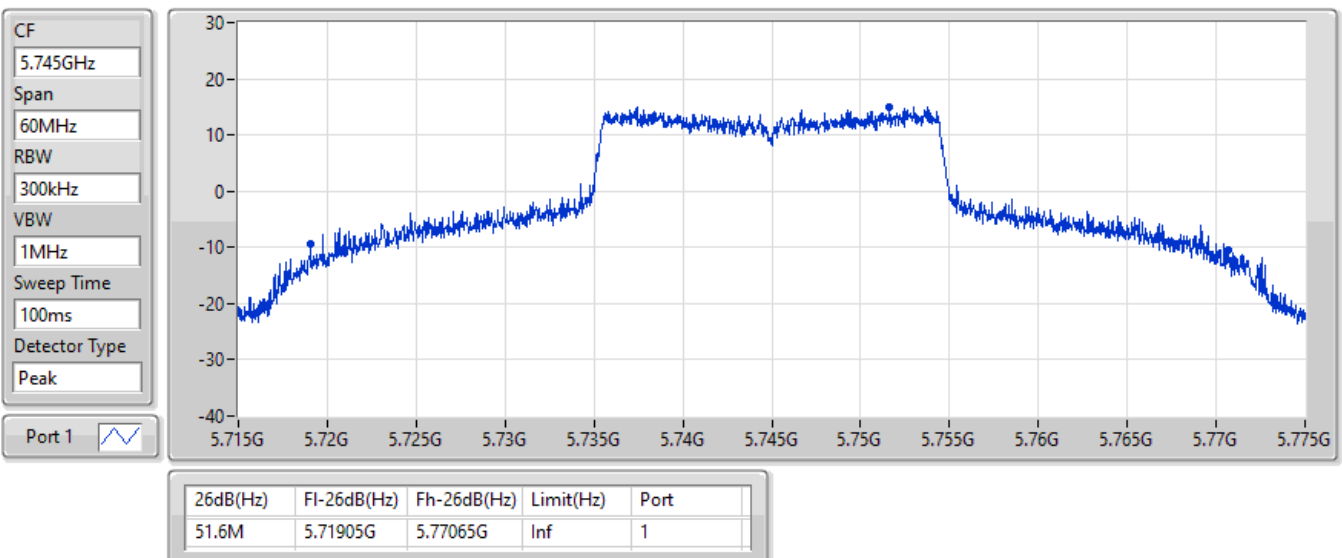
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802.11ax HEW20_Nss1,(MCS0)_1TX

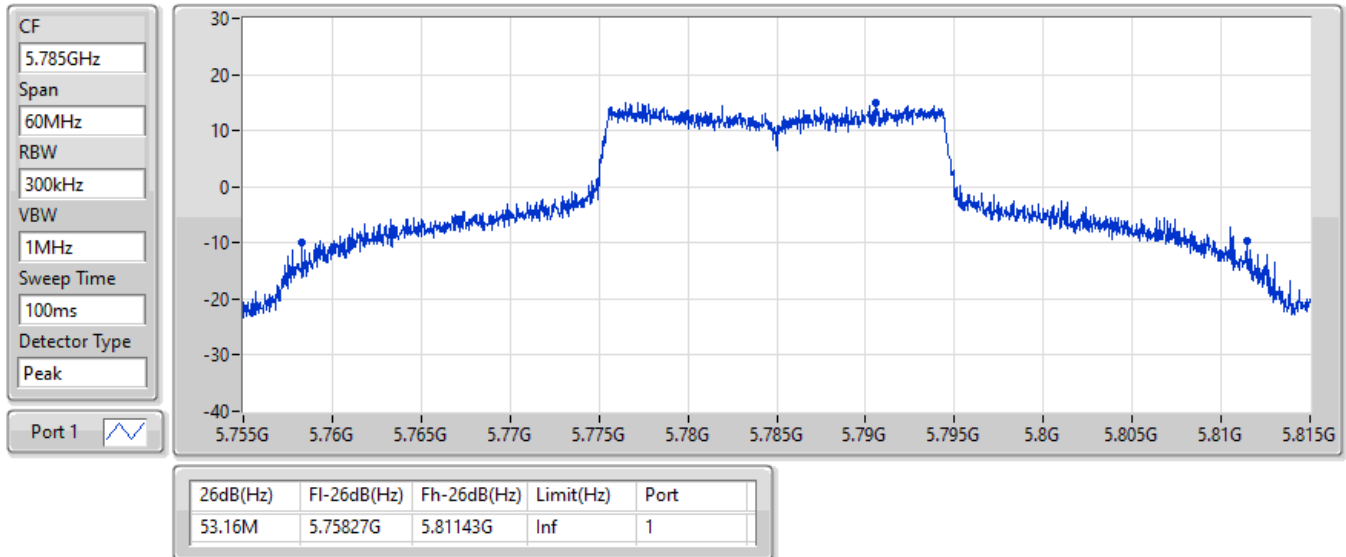
EBW
5745MHz

16/12/2021

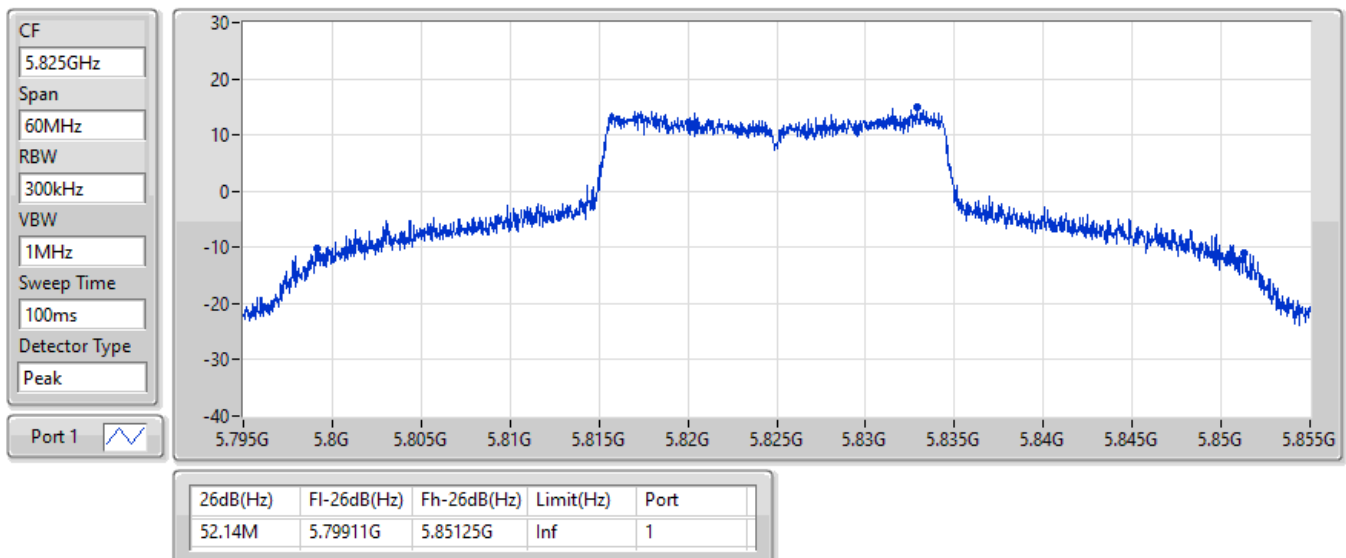


802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5785MHz

16/12/2021

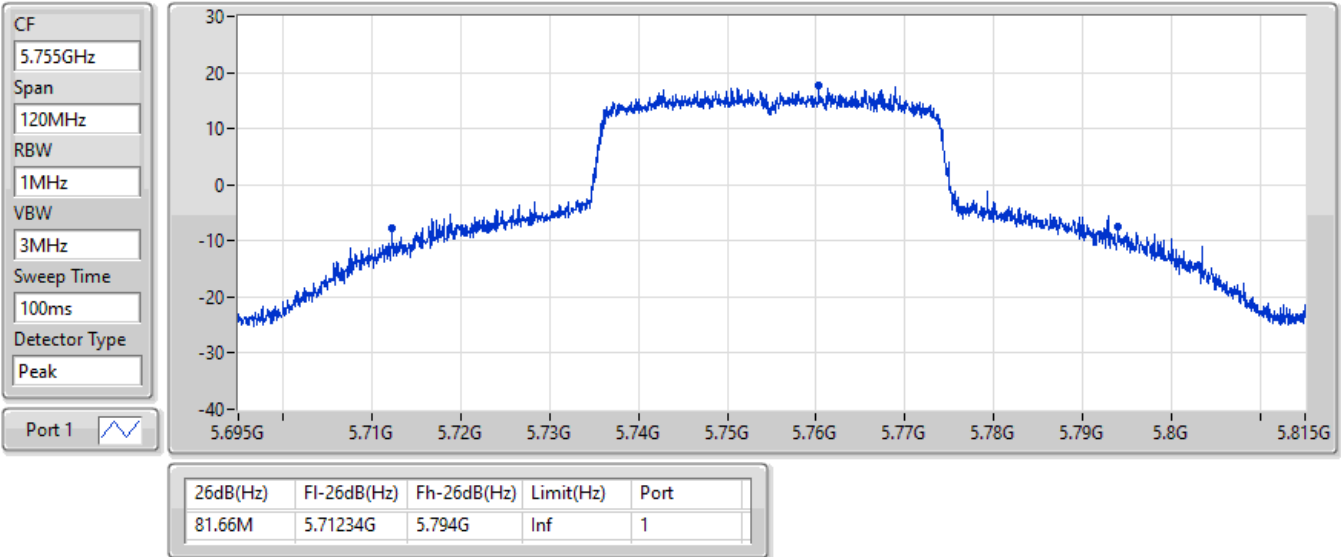

802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5825MHz

16/12/2021

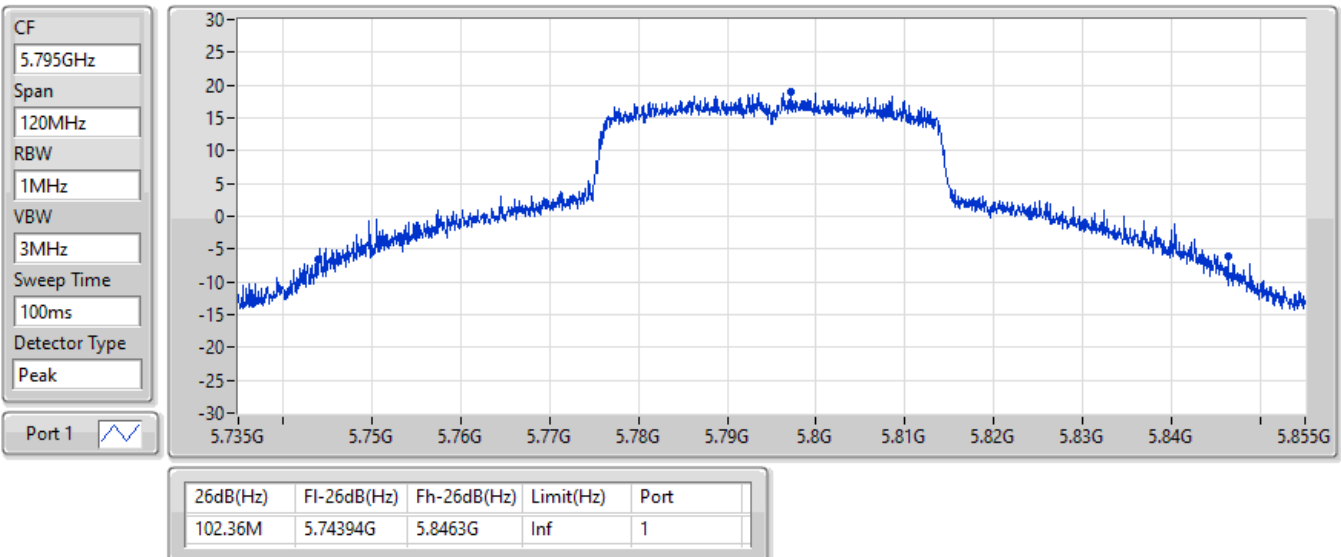


802.11ax HEW40_Nss1,(MCS0)_1TX
EBW
5755MHz

16/12/2021


802.11ax HEW40_Nss1,(MCS0)_1TX
EBW
5795MHz

16/12/2021

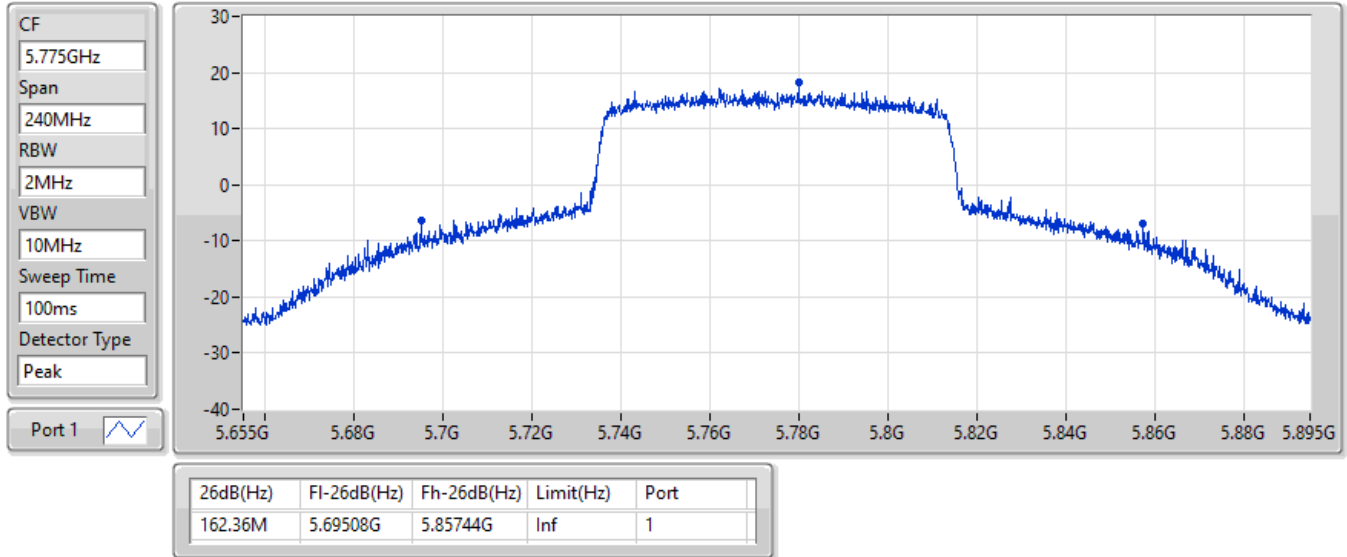


802.11ax HEW80_Nss1,(MCS0)_1TX

EBW

5775MHz

16/12/2021



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.35M	36.672M	36M7D1D	16.29M	34.243M
802.11ax HEW20_Nss1,(MCS0)_2TX	19.05M	40.96M	41M0D1D	18.93M	34.063M
802.11ax HEW40_Nss1,(MCS0)_2TX	37.8M	71.064M	71M1D1D	37.26M	47.976M
802.11ax HEW80_Nss1,(MCS0)_2TX	76.32M	78.441M	78M4D1D	75.6M	77.841M

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

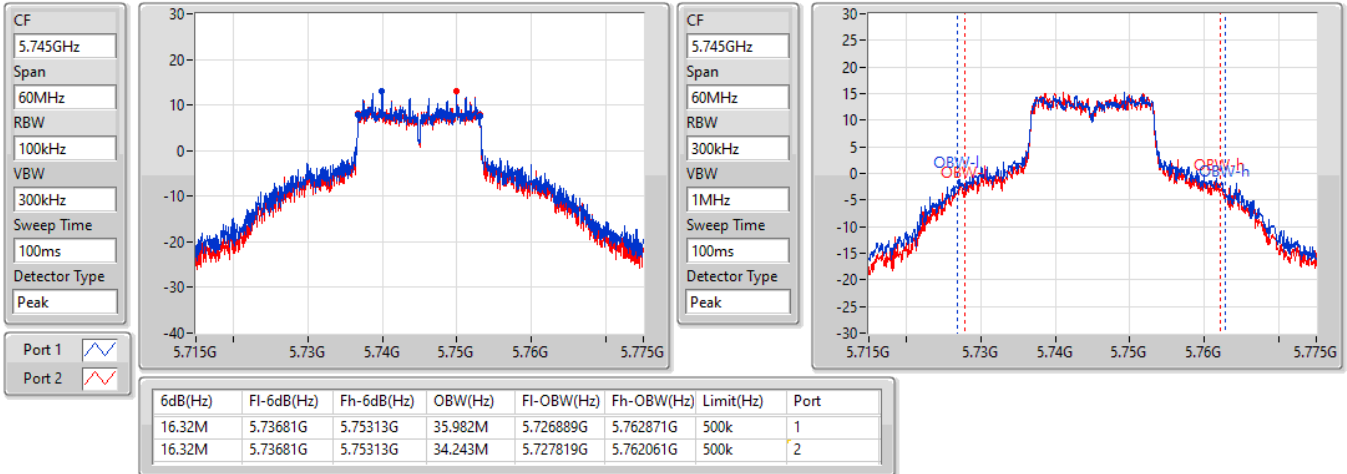
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5745MHz	Pass	500k	16.32M	35.982M	16.32M	34.243M
5785MHz	Pass	500k	16.32M	36.192M	16.29M	35.112M
5825MHz	Pass	500k	16.35M	36.672M	16.32M	36.282M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5745MHz	Pass	500k	18.96M	38.921M	18.96M	34.063M
5785MHz	Pass	500k	18.96M	40.42M	18.93M	39.07M
5825MHz	Pass	500k	19.05M	40.96M	18.93M	40.39M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5755MHz	Pass	500k	37.62M	55.592M	37.8M	47.976M
5795MHz	Pass	500k	37.26M	71.064M	37.68M	63.148M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5775MHz	Pass	500k	76.32M	78.441M	75.6M	77.841M

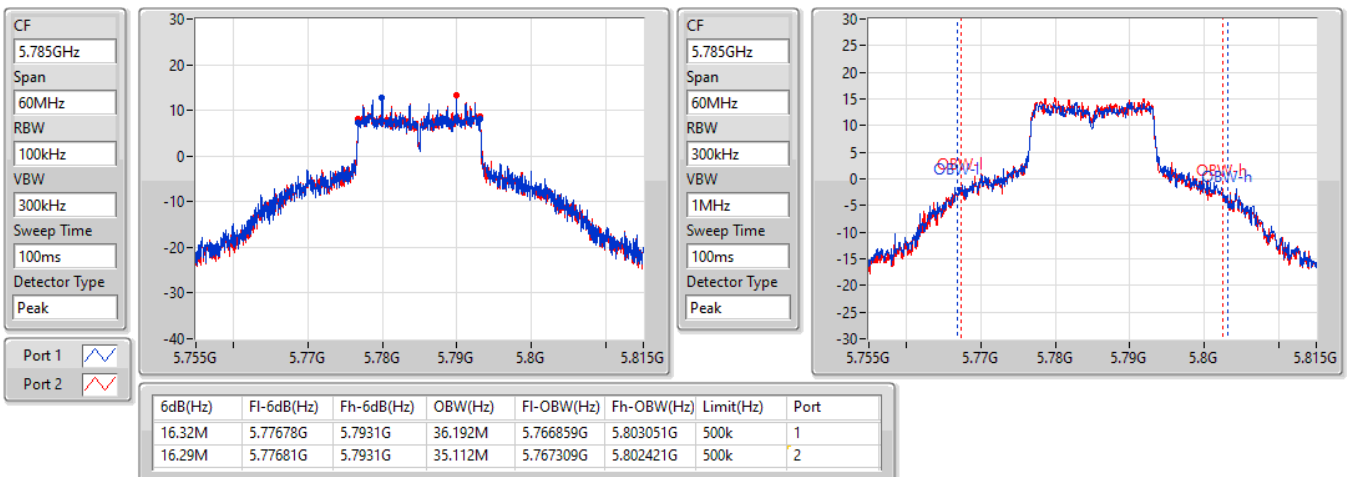
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_2TX
EBW
5745MHz

13/11/2021

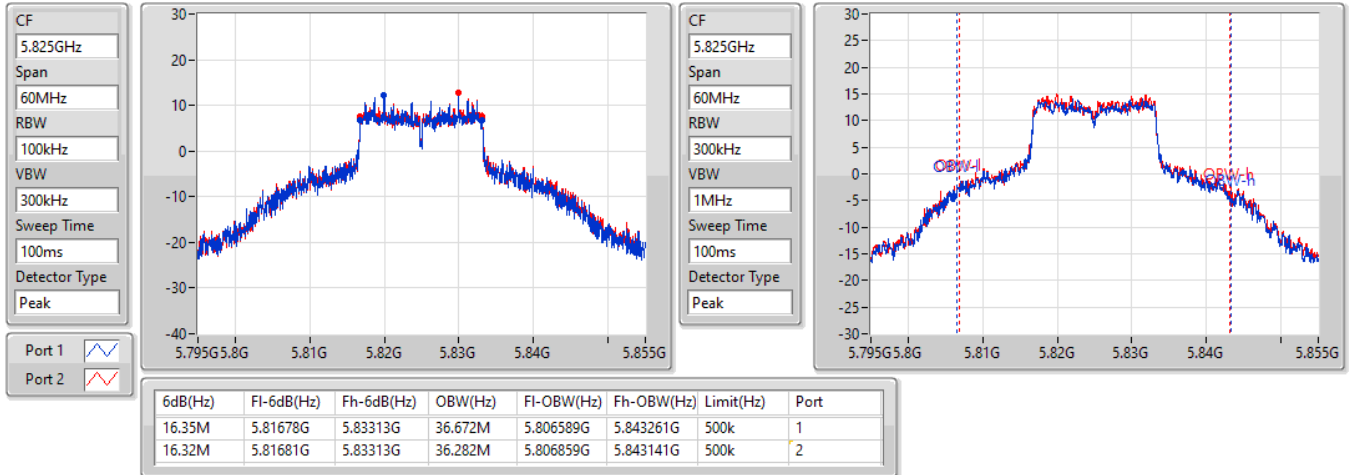

802.11a_Nss1,(6Mbps)_2TX
EBW
5785MHz

13/11/2021

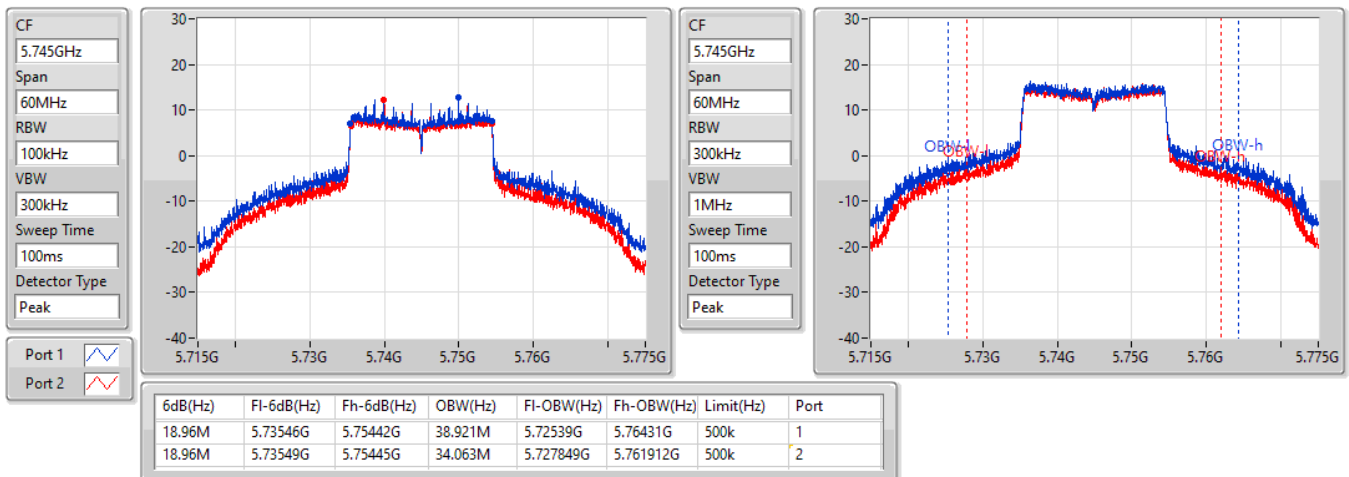


802.11a_Nss1,(6Mbps)_2TX
EBW
5825MHz

13/11/2021

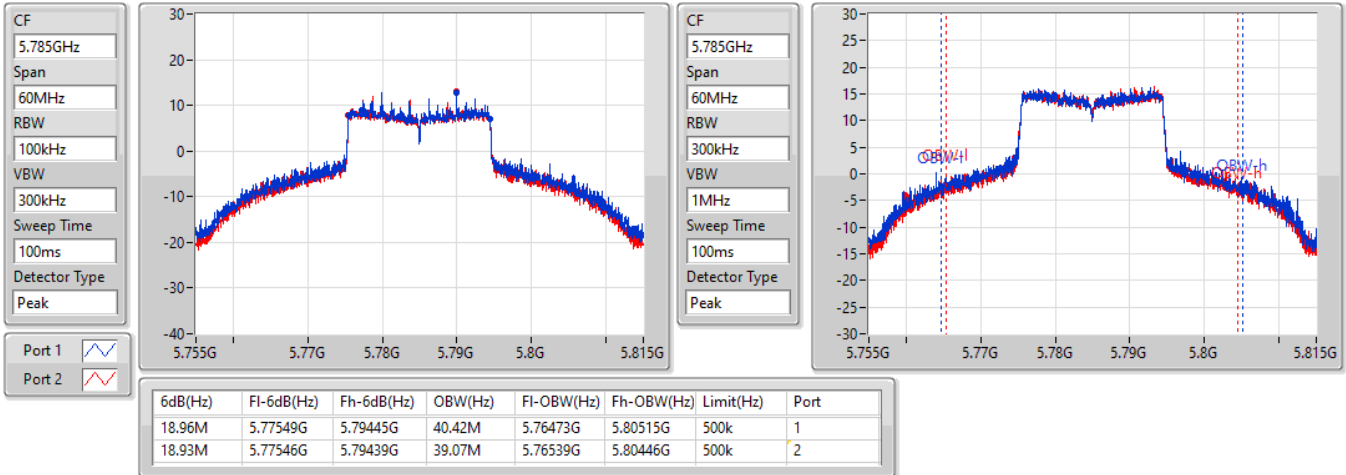

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5745MHz

13/11/2021

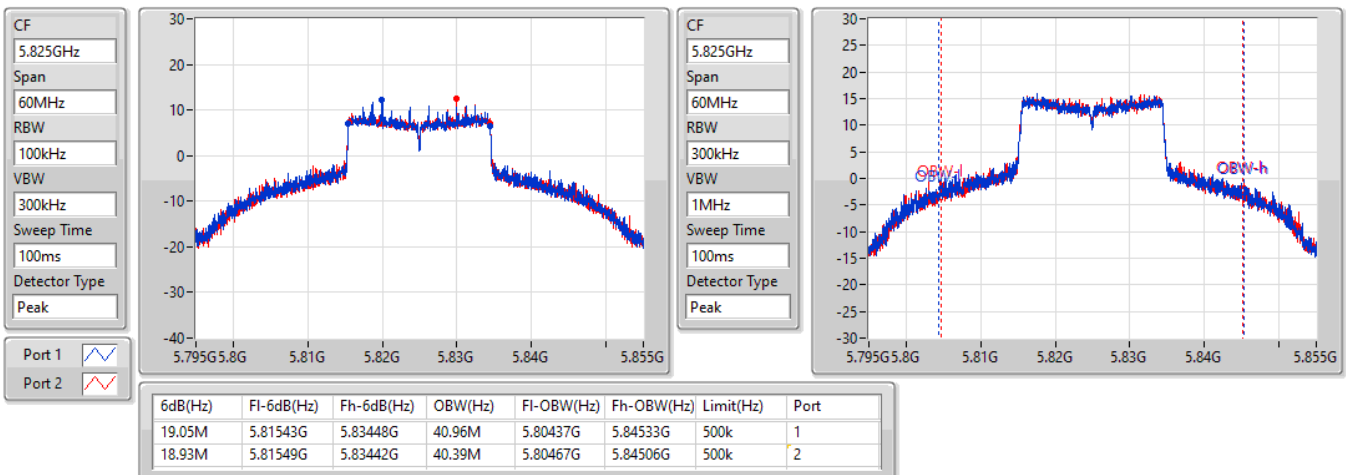


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5785MHz

13/11/2021

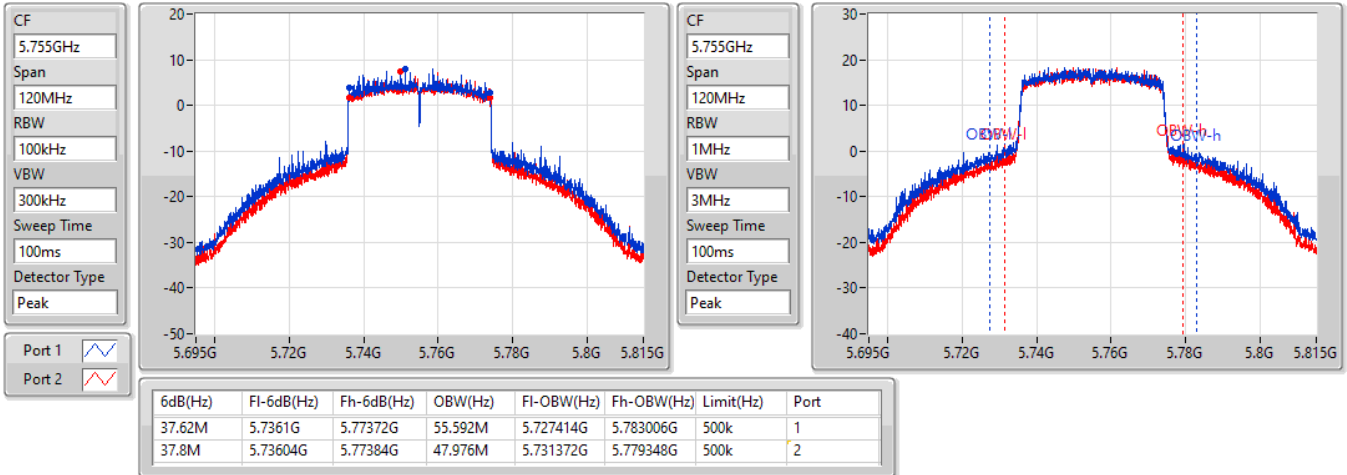

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5825MHz

13/11/2021

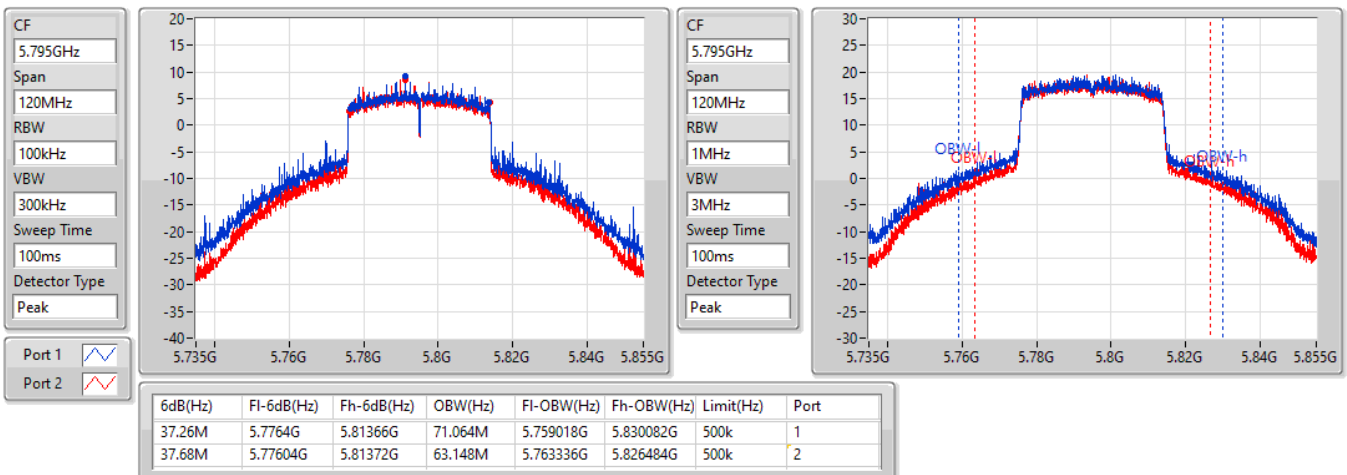


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5755MHz

13/11/2021


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5795MHz

13/11/2021

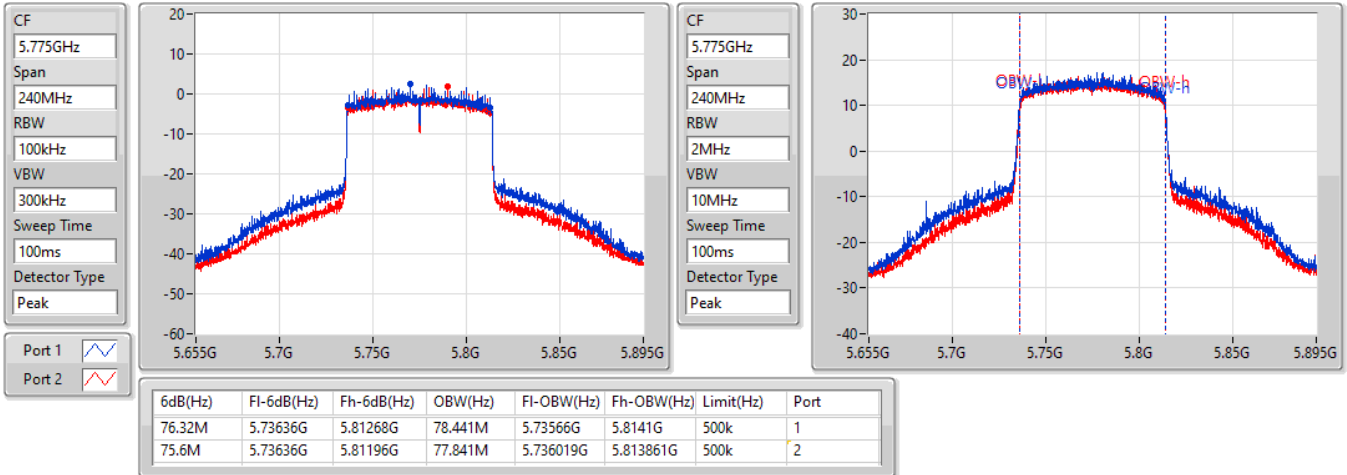


802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

5775MHz

13/11/2021



Summary

Mode	Max-N dB (Hz)	ITU-Code	Min-N dB (Hz)
5.725-5.85GHz	-	-	-
802.11a_Nss1,(6Mbps)_2TX	48.48M	48M5D1D	45M
802.11ax HEW20_Nss1,(MCS0)_2TX	55.83M	55M8D1D	51.48M
802.11ax HEW40_Nss1,(MCS0)_2TX	98.82M	98M8D1D	84.78M
802.11ax HEW80_Nss1,(MCS0)_2TX	126.24M	126MD1D	97.32M

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

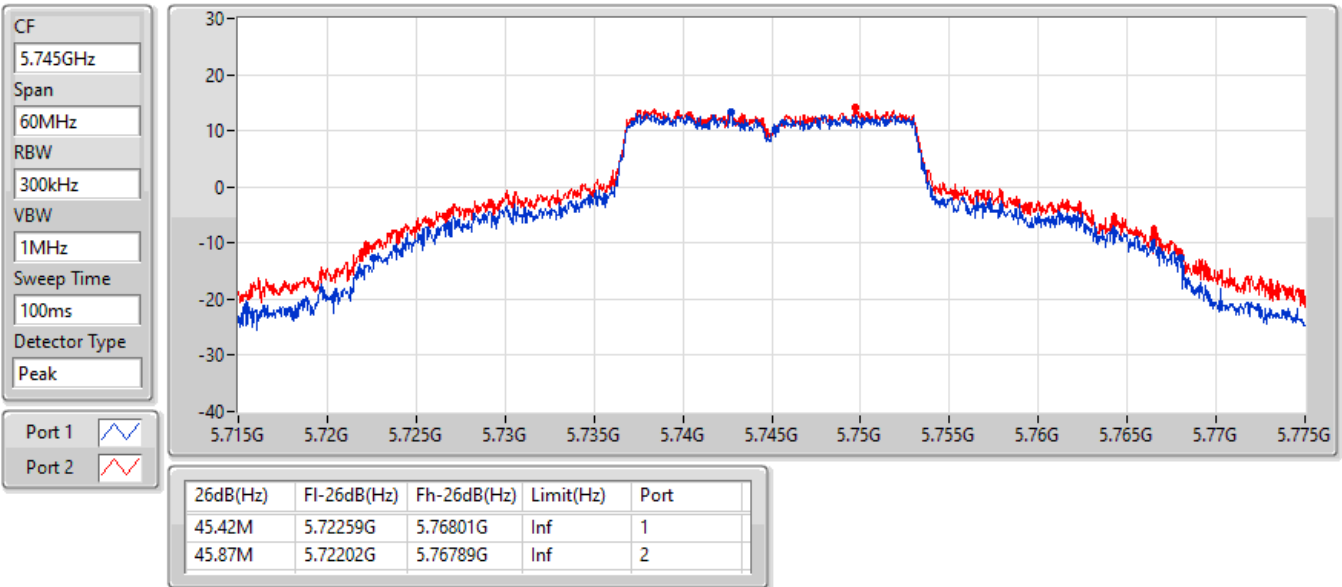
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 2-N dB (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-
5745MHz	Pass	Inf	45.42M	45.87M
5785MHz	Pass	Inf	45.06M	47.58M
5825MHz	Pass	Inf	45M	48.48M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-
5745MHz	Pass	Inf	51.48M	54.36M
5785MHz	Pass	Inf	51.84M	55.83M
5825MHz	Pass	Inf	52.23M	55.8M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-
5755MHz	Pass	Inf	84.78M	85.86M
5795MHz	Pass	Inf	90M	98.82M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-
5775MHz	Pass	Inf	97.32M	126.24M

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
5745MHz

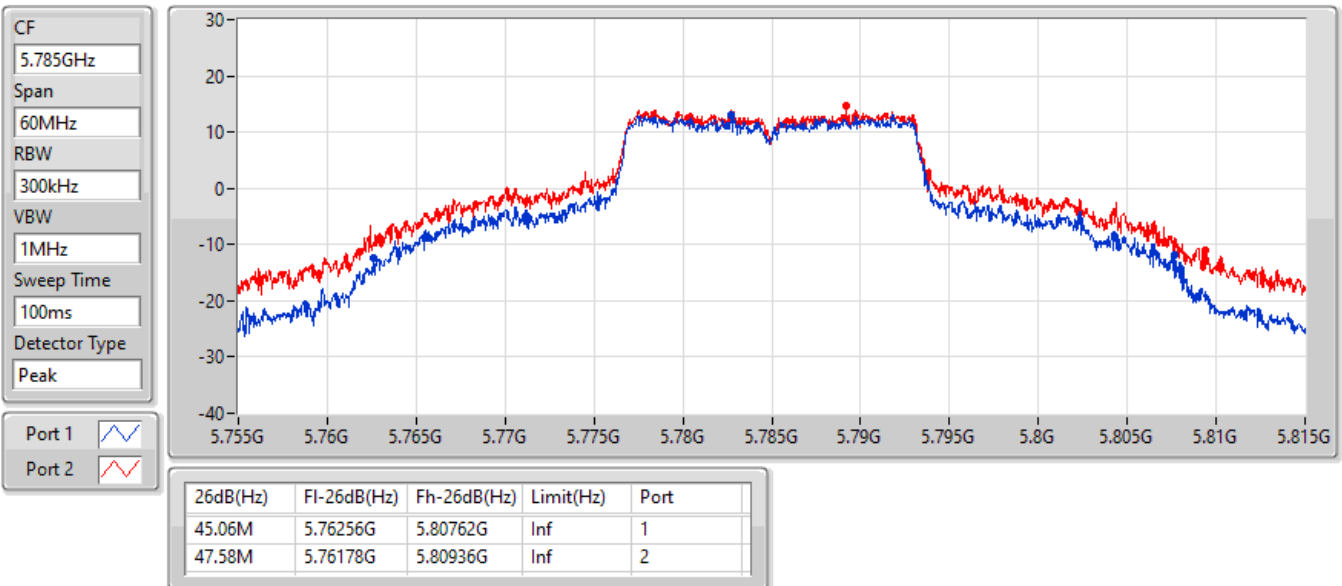
16/12/2021



802.11a_Nss1,(6Mbps)_2TX

EBW
5785MHz

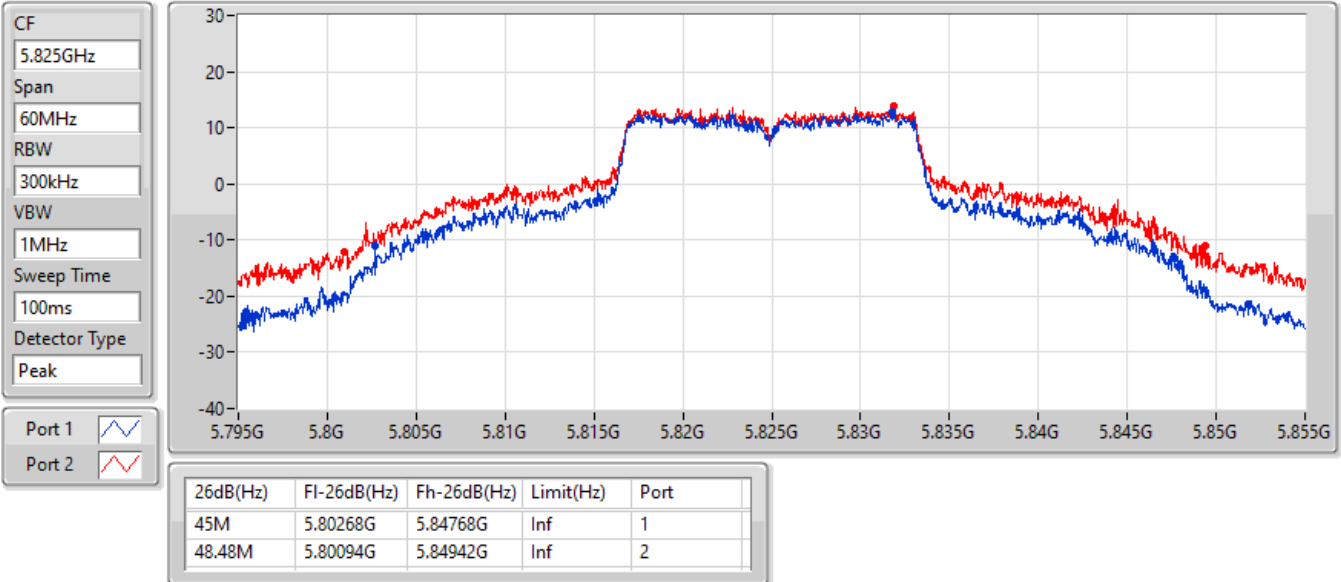
16/12/2021



802.11a_Nss1,(6Mbps)_2TX

EBW
5825MHz

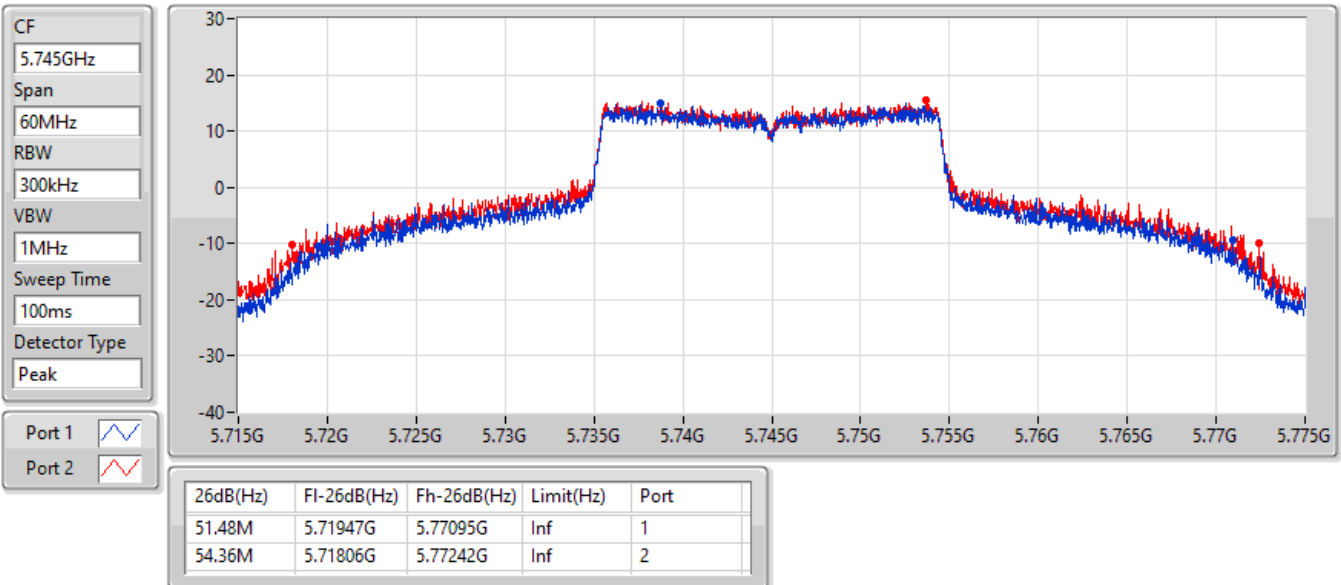
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802.11ax HEW20_Nss1,(MCS0)_2TX

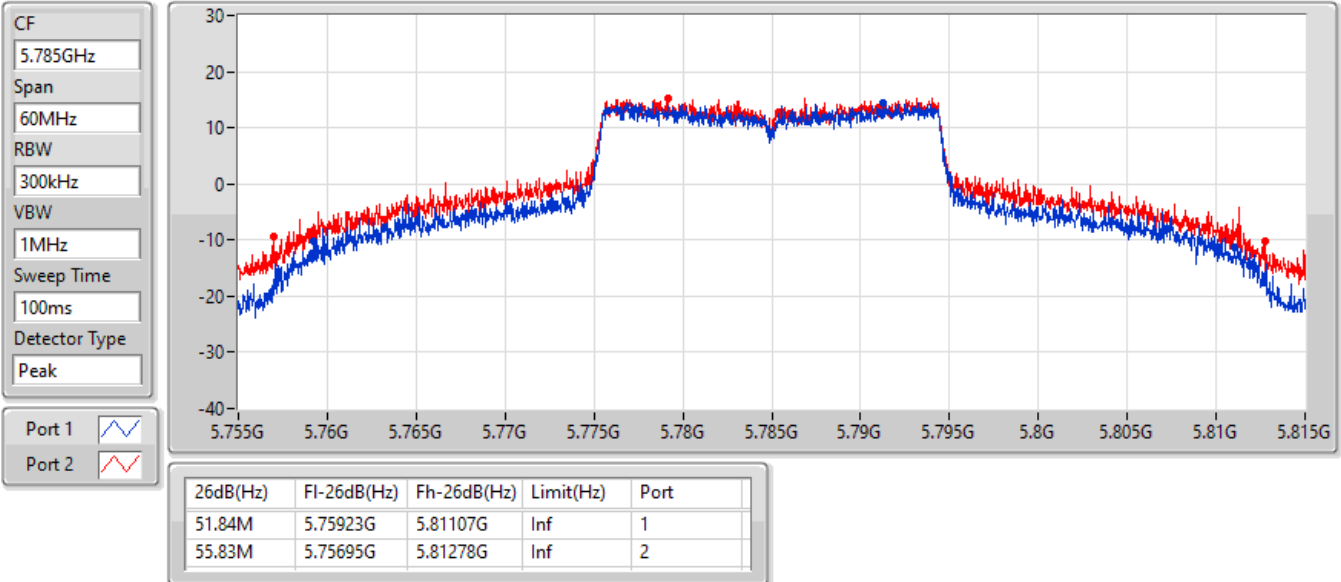
EBW
5745MHz

16/12/2021

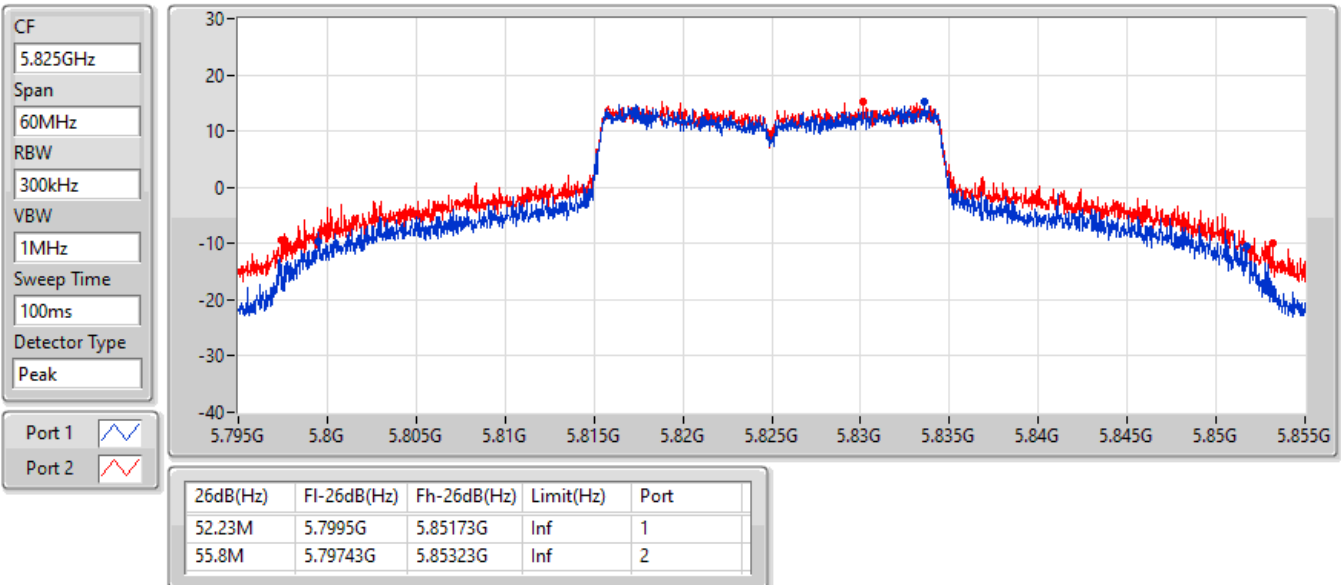


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5785MHz

16/12/2021

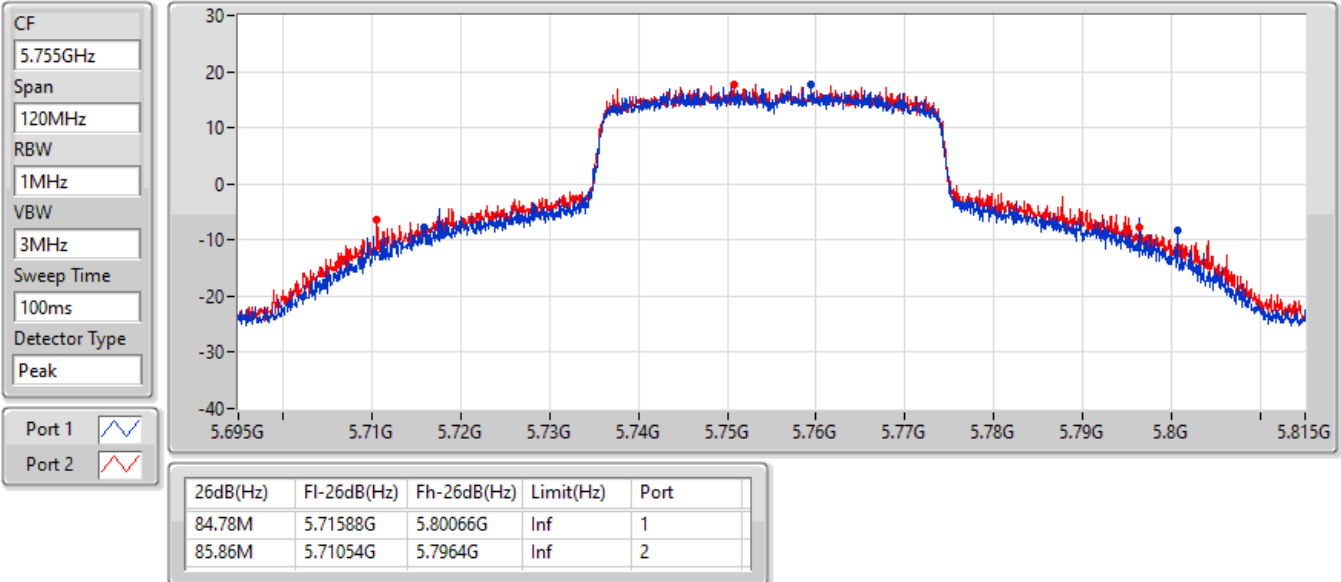

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5825MHz

16/12/2021

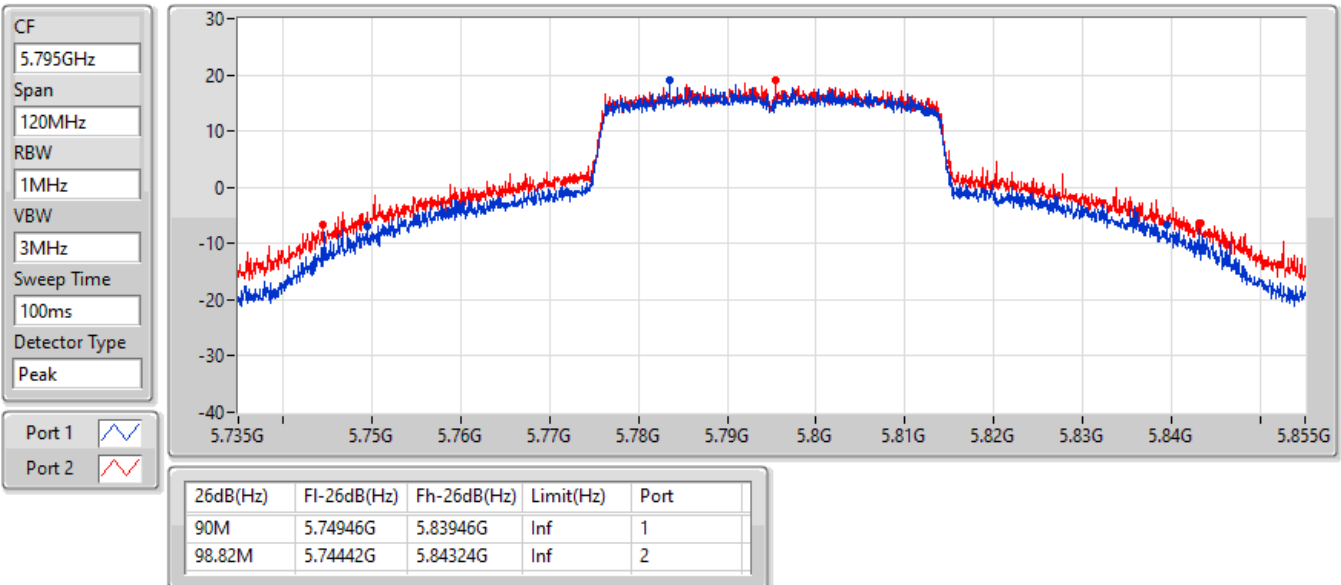


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5755MHz

16/12/2021


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5795MHz

16/12/2021

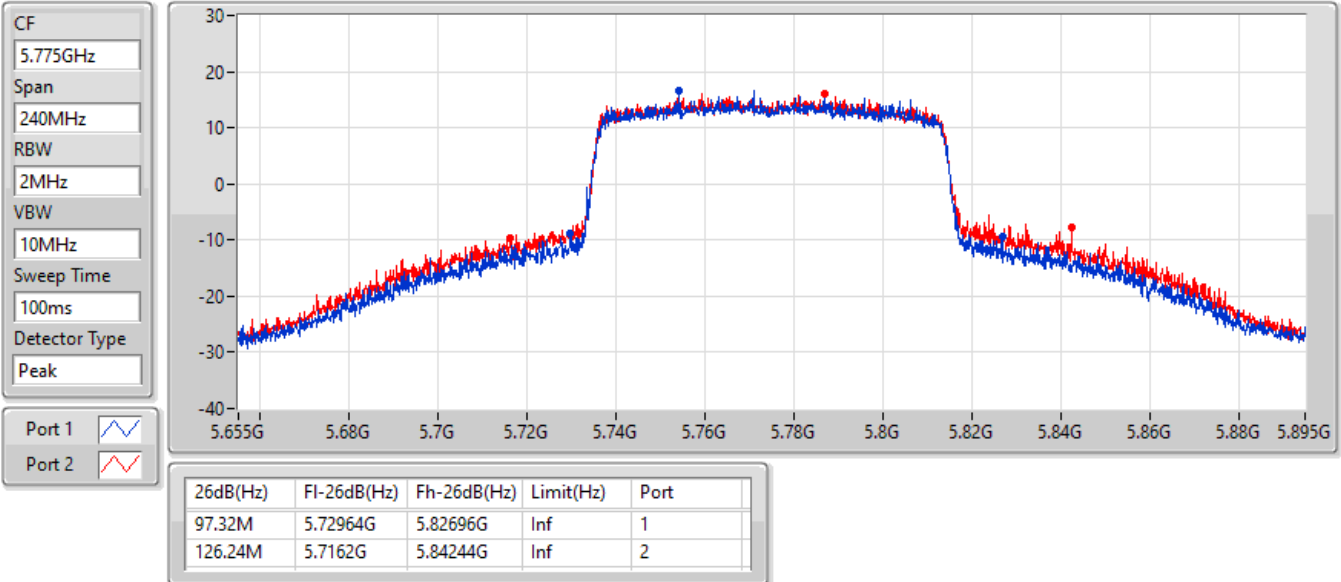


802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

5775MHz

16/12/2021



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.44M	37.451M	37M5D1D	16.29M	35.412M
802.11ax HEW20_Nss1,(MCS0)_4TX	19.11M	41.229M	41M2D1D	18.78M	36.132M
802.11ax HEW40_Nss1,(MCS0)_4TX	37.92M	52.294M	52M3D1D	36.18M	38.501M
802.11ax HEW80_Nss1,(MCS0)_4TX	77.52M	77.601M	77M6D1D	76.56M	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

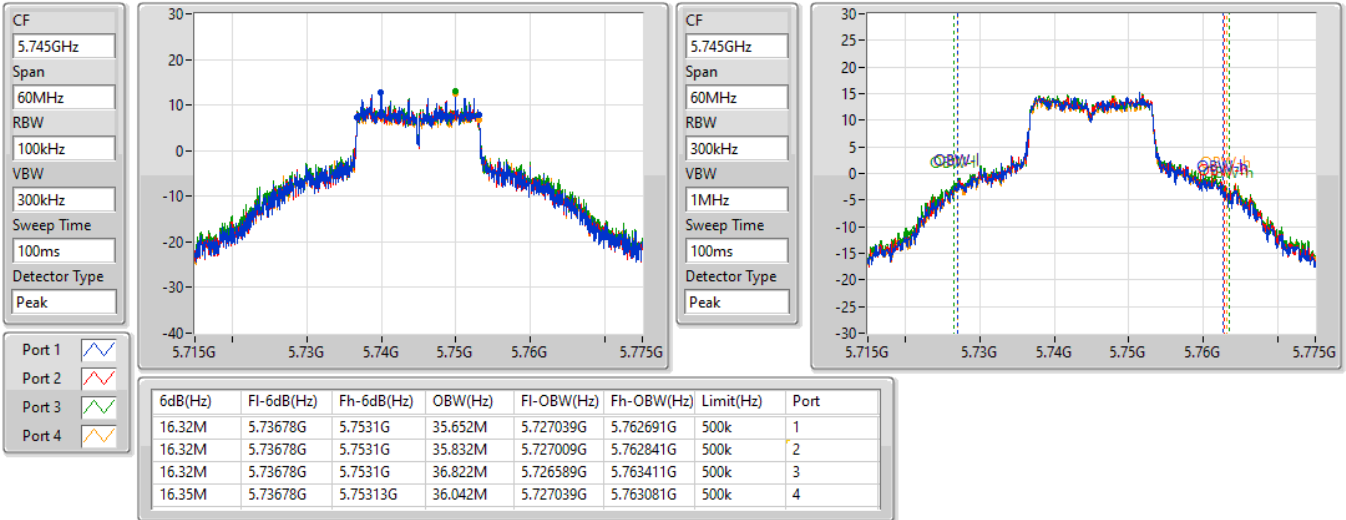
Result

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)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	500k	16.32M	35.652M	16.32M	35.832M	16.32M	36.822M	16.35M	36.042M
5785MHz	Pass	500k	16.32M	35.412M	16.32M	35.772M	16.32M	36.732M	16.44M	35.862M
5825MHz	Pass	500k	16.32M	35.922M	16.32M	36.582M	16.29M	37.451M	16.32M	36.552M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	500k	19.02M	39.46M	19.02M	36.132M	19.02M	37.631M	18.96M	38.741M
5785MHz	Pass	500k	19.11M	39.31M	18.78M	39.91M	19.05M	40.84M	19.02M	40.42M
5825MHz	Pass	500k	18.99M	39.82M	18.99M	37.451M	19.02M	41.079M	18.99M	41.229M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5755MHz	Pass	500k	37.68M	38.801M	37.62M	38.501M	37.86M	38.561M	37.68M	38.561M
5795MHz	Pass	500k	37.86M	52.294M	36.18M	41.559M	37.92M	42.819M	37.32M	46.837M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	500k	77.52M	77.601M	76.56M	77.481M	77.52M	77.481M	76.92M	77.481M

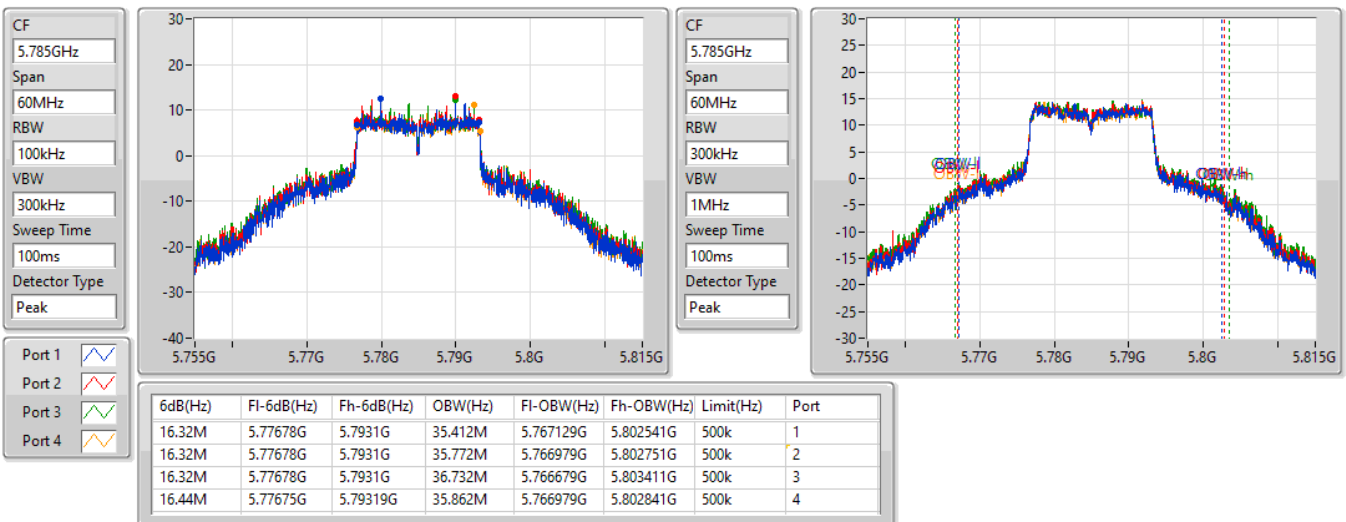
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_4TX
EBW
5745MHz

13/11/2021

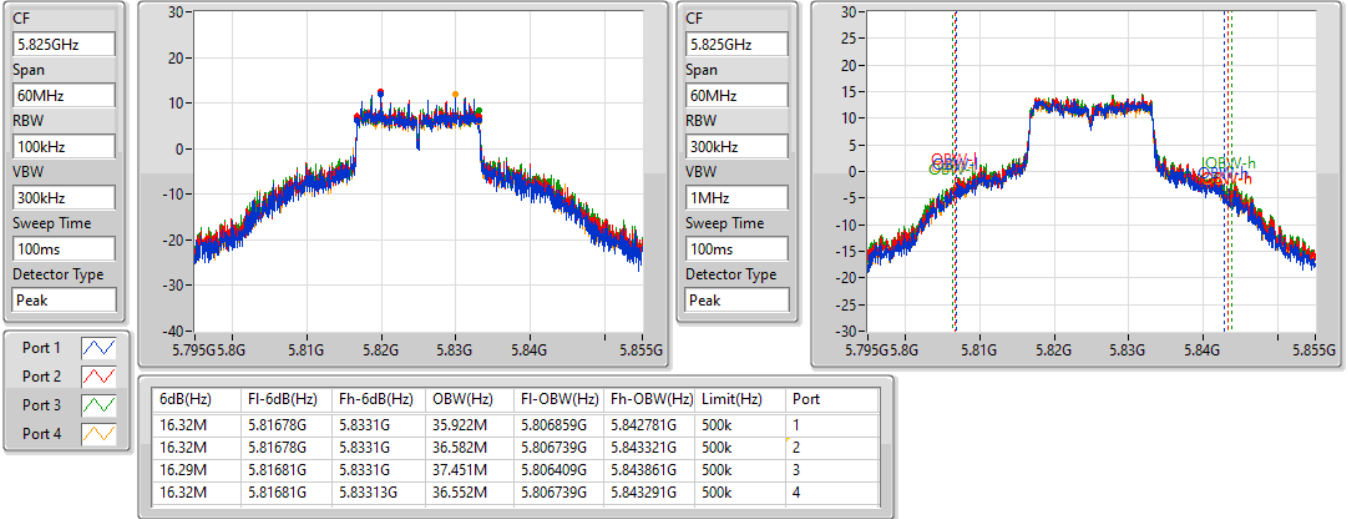

802.11a_Nss1,(6Mbps)_4TX
EBW
5785MHz

13/11/2021

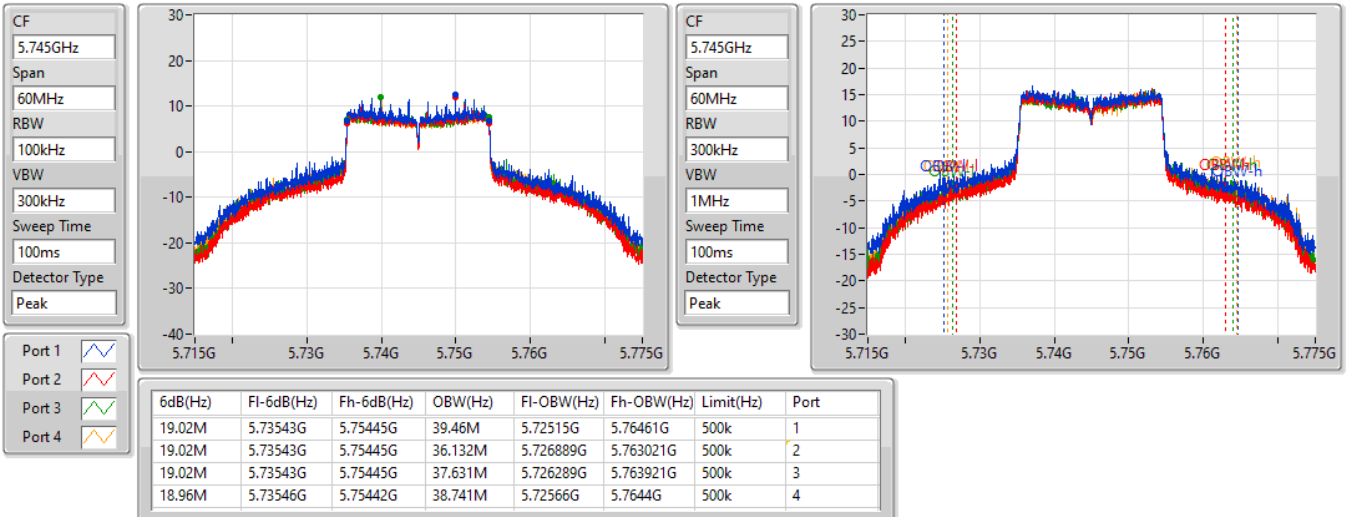


802.11a_Nss1,(6Mbps)_4TX
EBW
5825MHz

13/11/2021

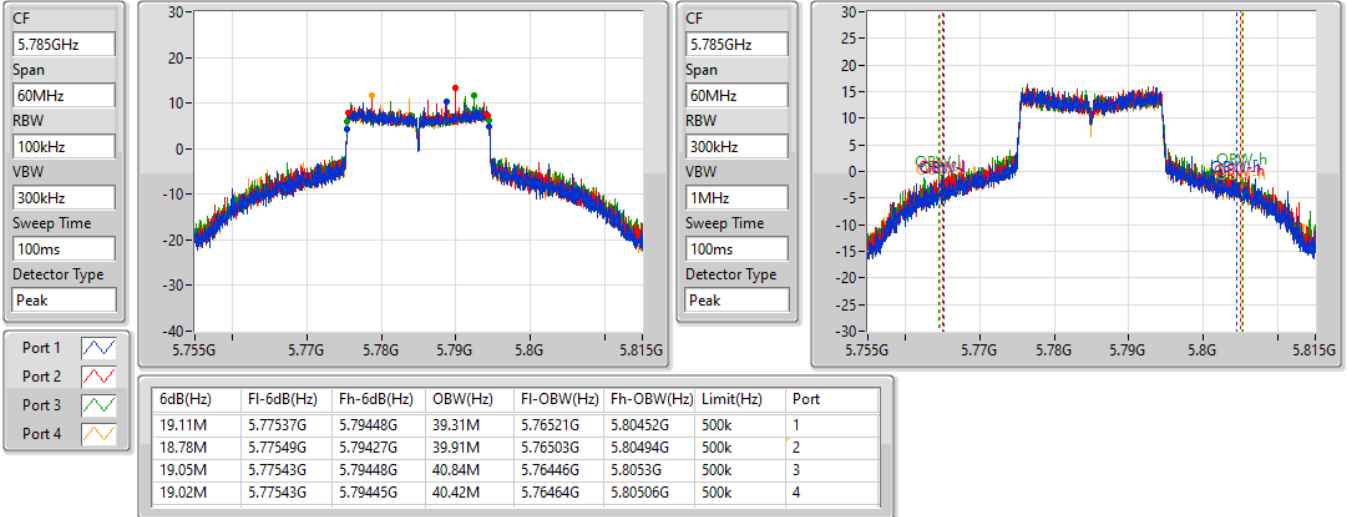

802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5745MHz

13/11/2021

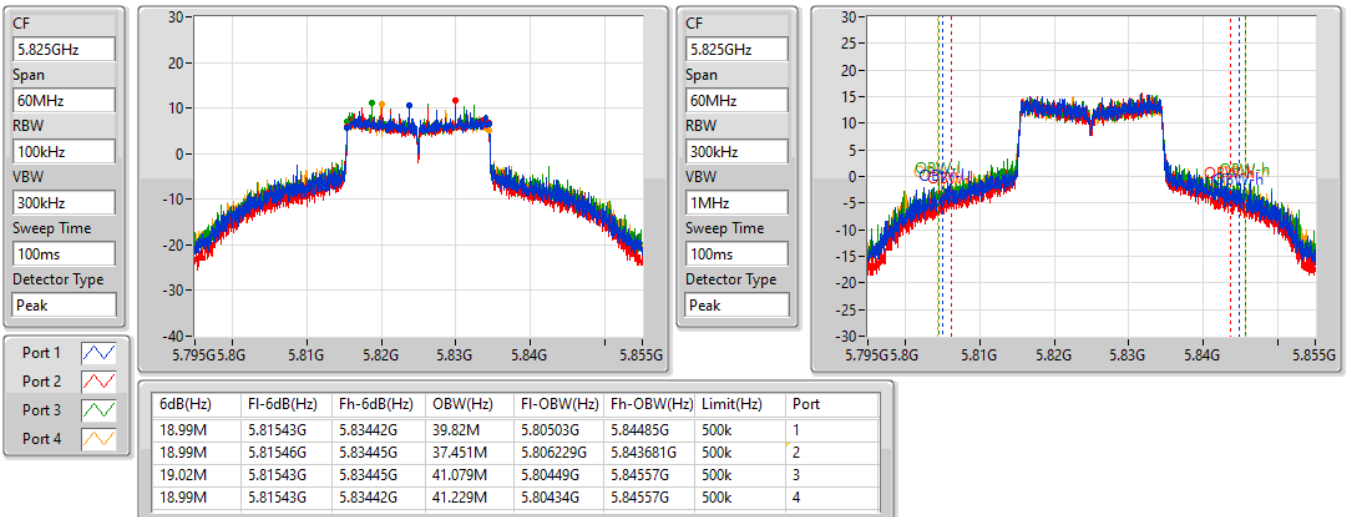


802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5785MHz

13/11/2021

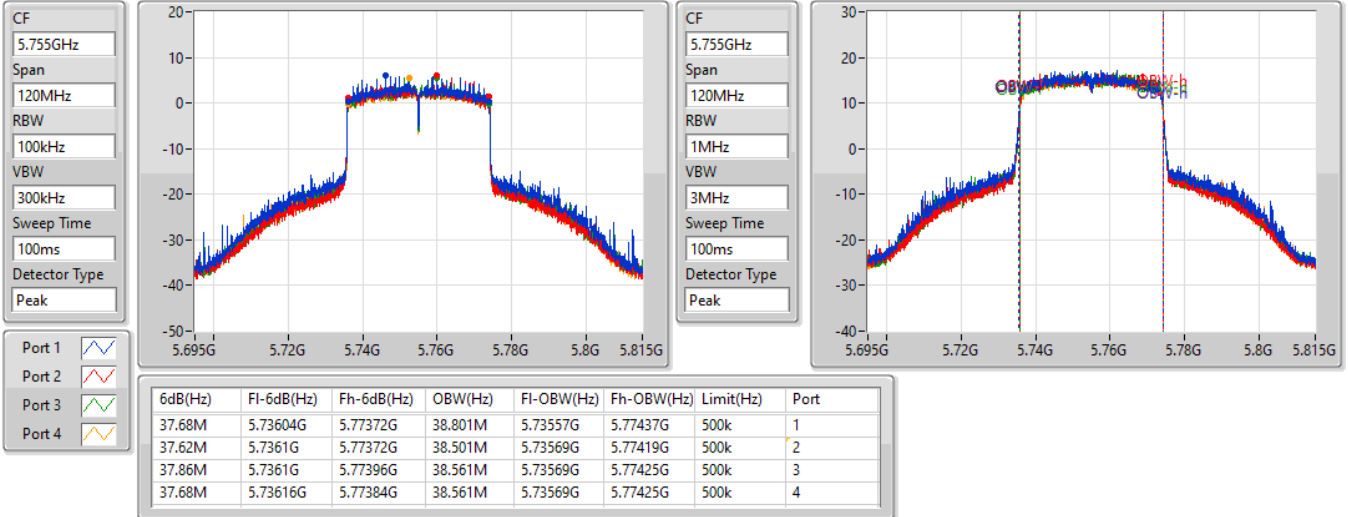

802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5825MHz

13/11/2021

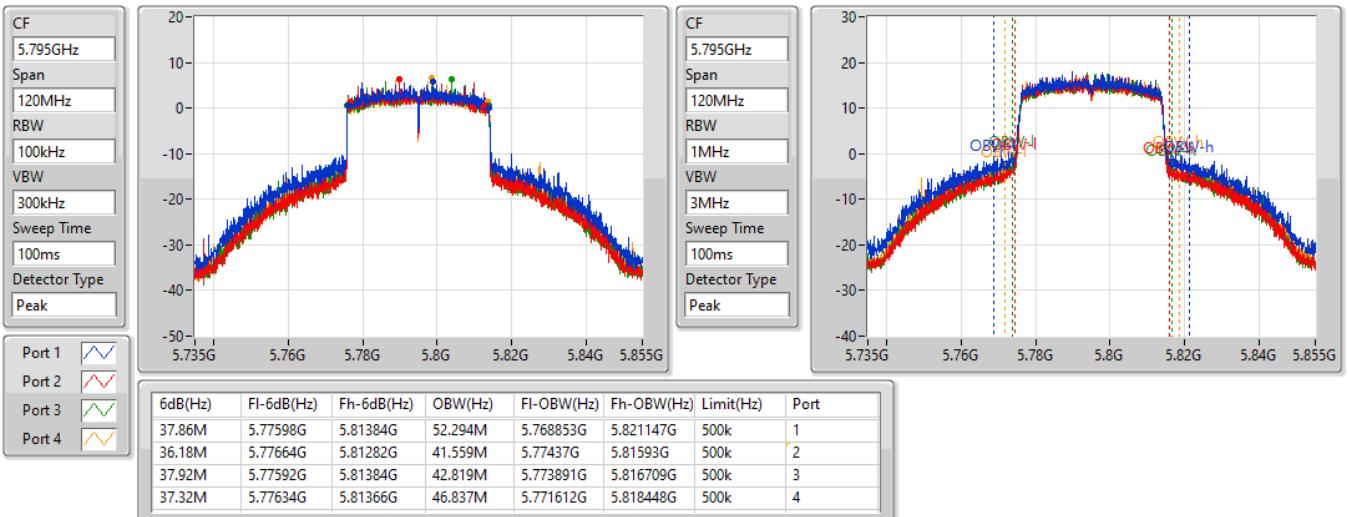


802.11ax HEW40_Nss1,(MCS0)_4TX
EBW
5755MHz

13/11/2021


802.11ax HEW40_Nss1,(MCS0)_4TX
EBW
5795MHz

13/11/2021

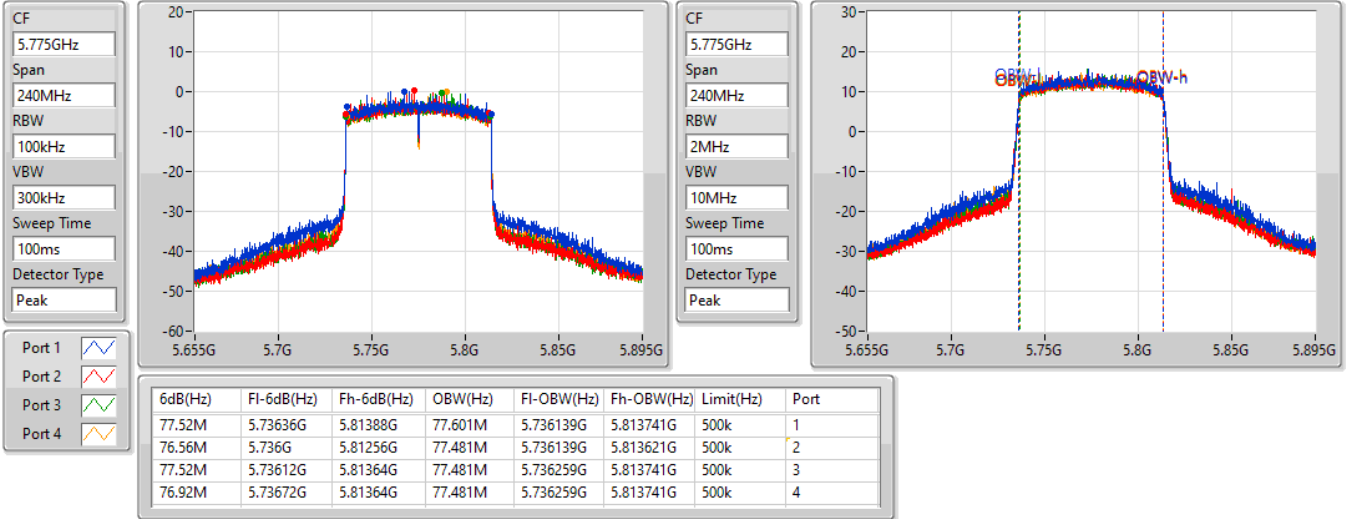


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

5775MHz

13/11/2021



Summary

Mode	Max-N dB (Hz)	ITU-Code	Min-N dB (Hz)
5.725-5.85GHz	-	-	-
802.11a_Nss1,(6Mbps)_4TX	50.94M	50M9D1D	45M
802.11ax HEW20_Nss1,(MCS0)_4TX	56.1M	56M1D1D	52.2M
802.11ax HEW40_Nss1,(MCS0)_4TX	94.2M	94M2D1D	64.98M
802.11ax HEW80_Nss1,(MCS0)_4TX	85.56M	85M6D1D	84.6M

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

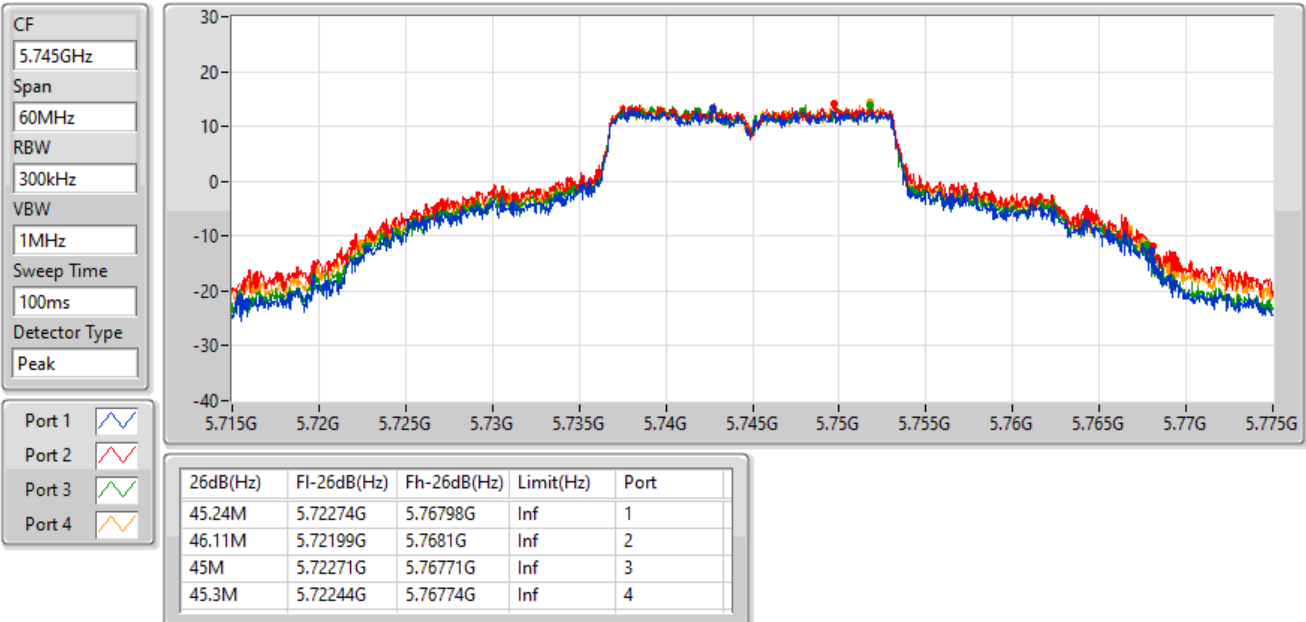
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 2-N dB (Hz)	Port 3-N dB (Hz)	Port 4-N dB (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-
5745MHz	Pass	Inf	45.24M	46.11M	45M	45.3M
5785MHz	Pass	Inf	45.27M	50.94M	45.3M	45M
5825MHz	Pass	Inf	45M	49.38M	47.7M	50.58M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-
5745MHz	Pass	Inf	52.26M	53.94M	53.25M	53.55M
5785MHz	Pass	Inf	52.2M	54.63M	52.29M	54M
5825MHz	Pass	Inf	53.31M	56.04M	55.11M	56.1M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-
5755MHz	Pass	Inf	64.98M	74.82M	74.22M	74.22M
5795MHz	Pass	Inf	82.32M	94.2M	86.82M	90.12M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-
5775MHz	Pass	Inf	84.6M	85.44M	85.44M	85.56M

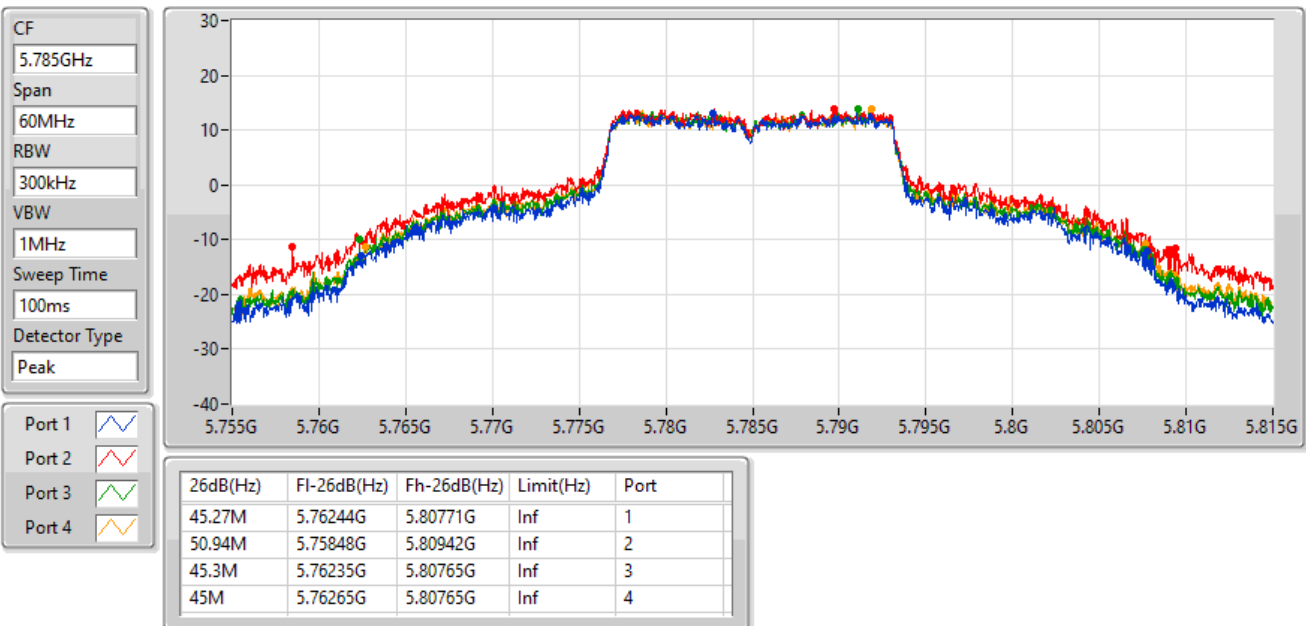
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_4TX
EBW
5745MHz

16/12/2021


802.11a_Nss1,(6Mbps)_4TX
EBW
5785MHz

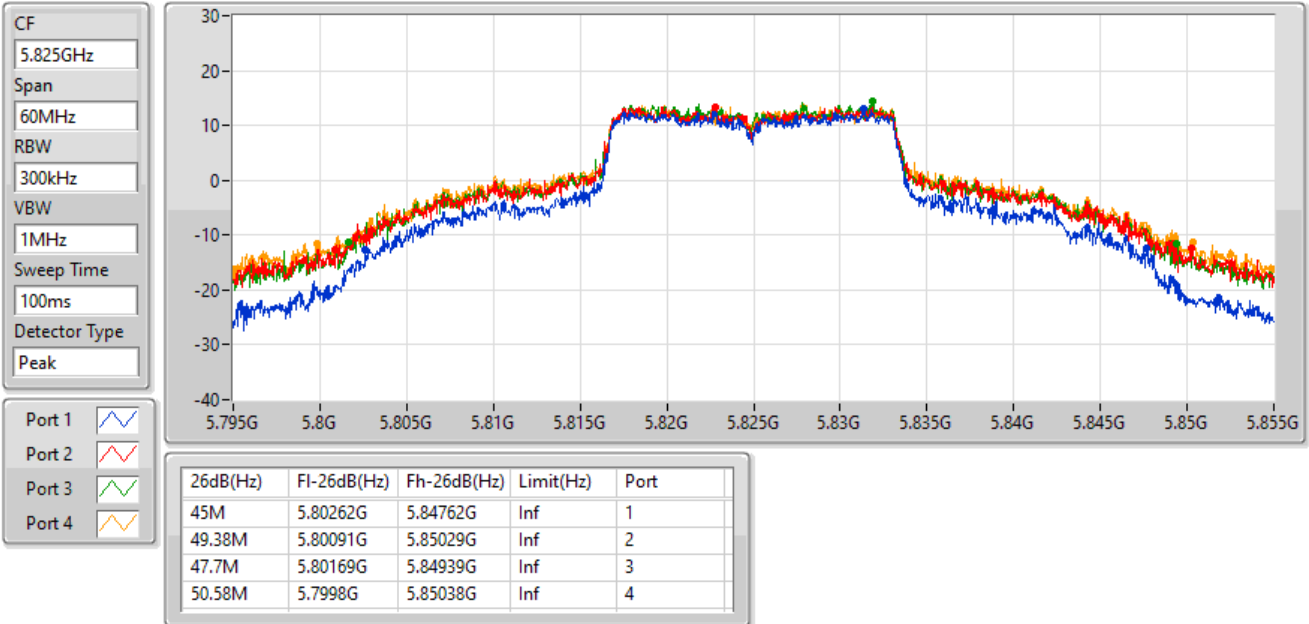
16/12/2021



802.11a_Nss1,(6Mbps)_4TX

EBW
5825MHz

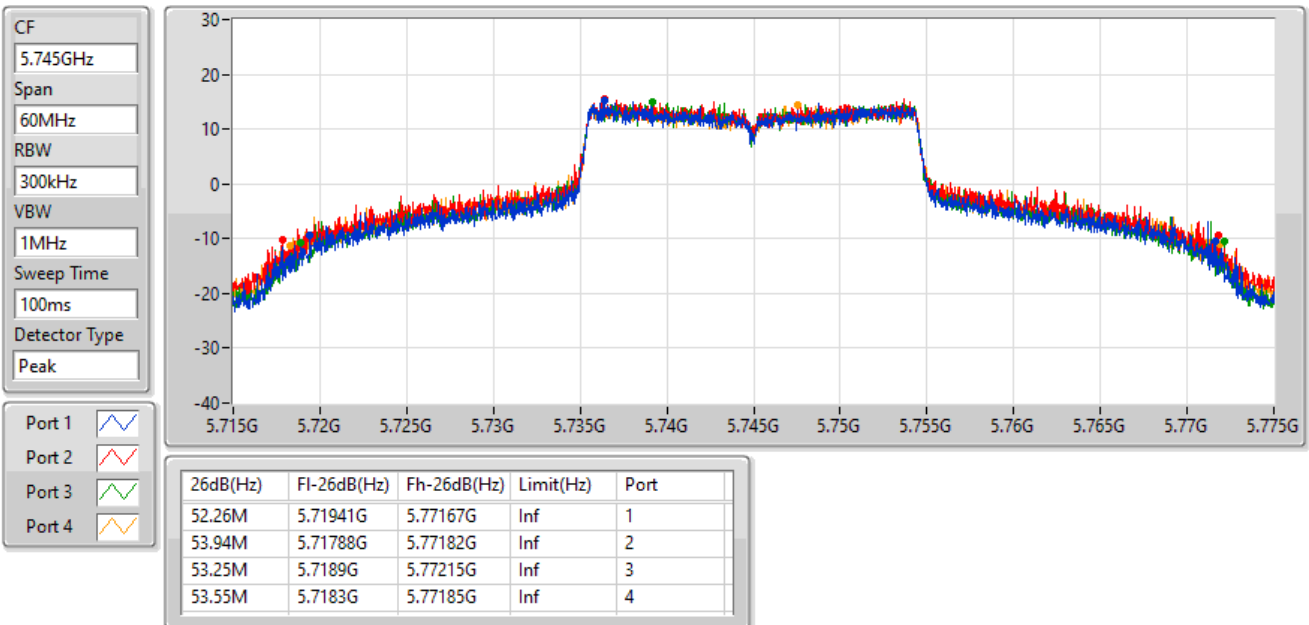
16/12/2021



802.11ax HEW20_Nss1,(MCS0)_4TX

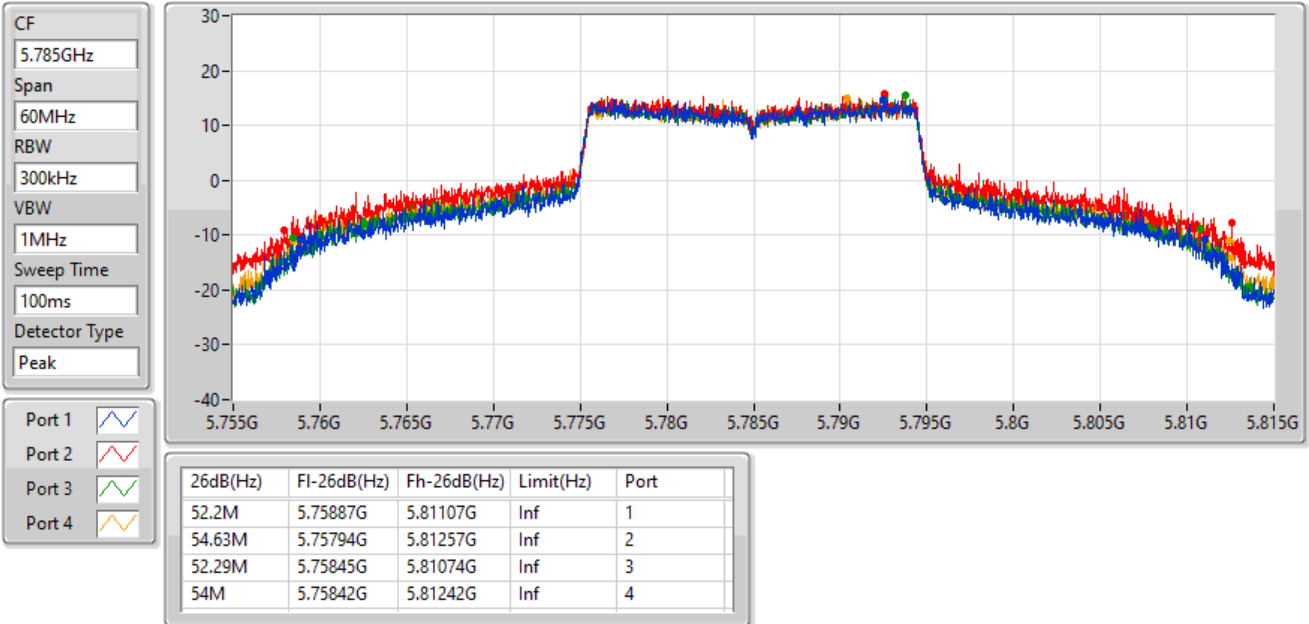
EBW
5745MHz

16/12/2021

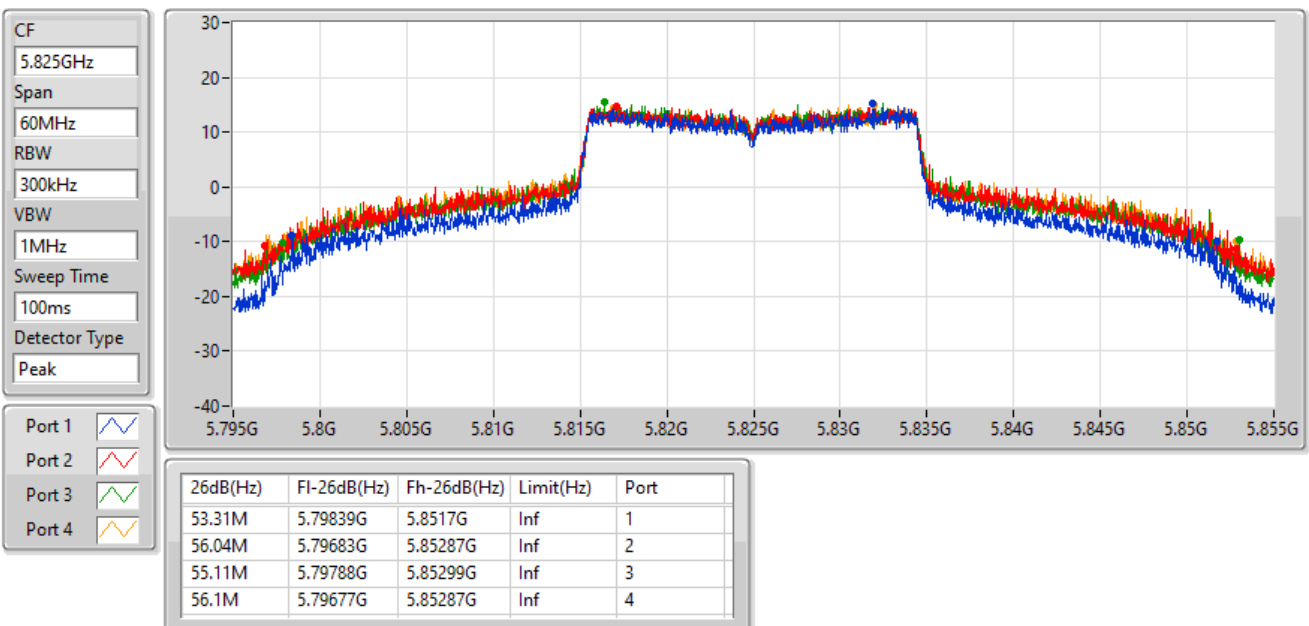


802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5785MHz

16/12/2021


802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5825MHz

16/12/2021

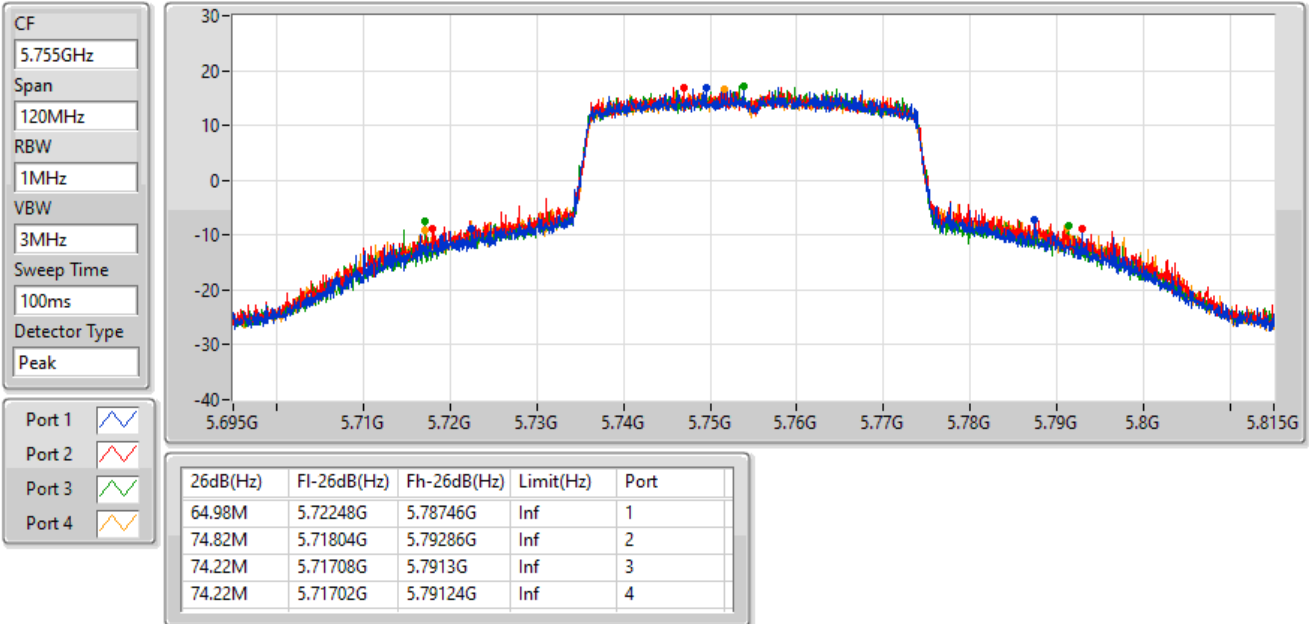


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5755MHz

16/12/2021

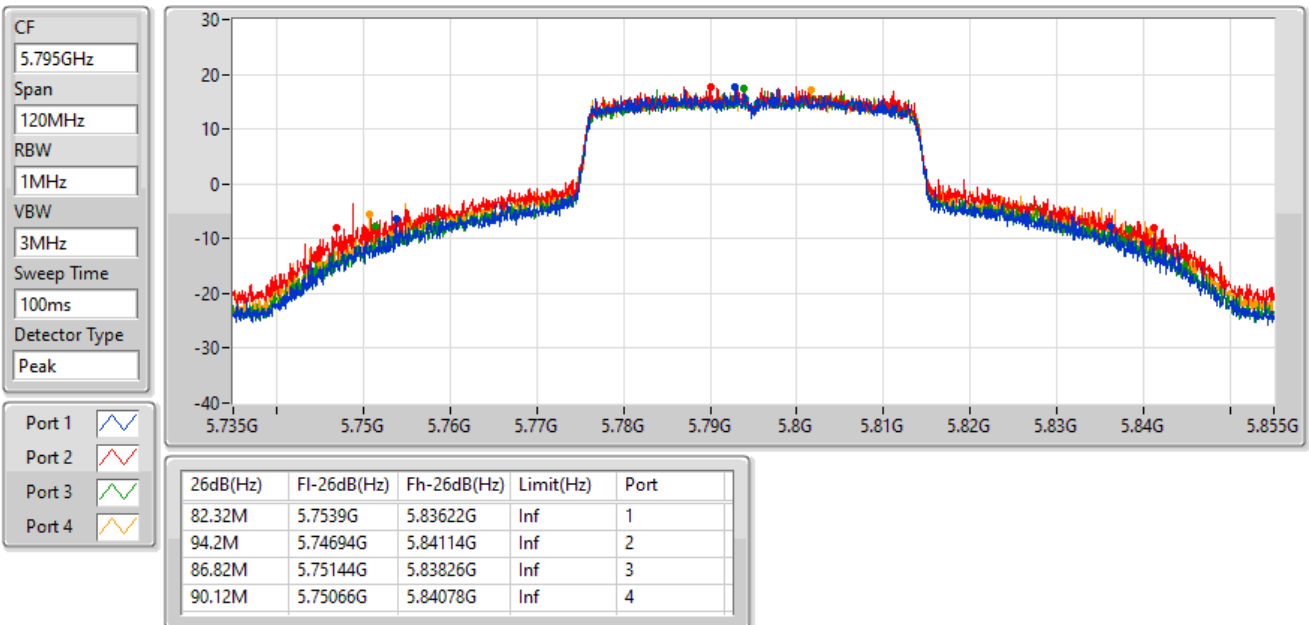


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5795MHz

16/12/2021

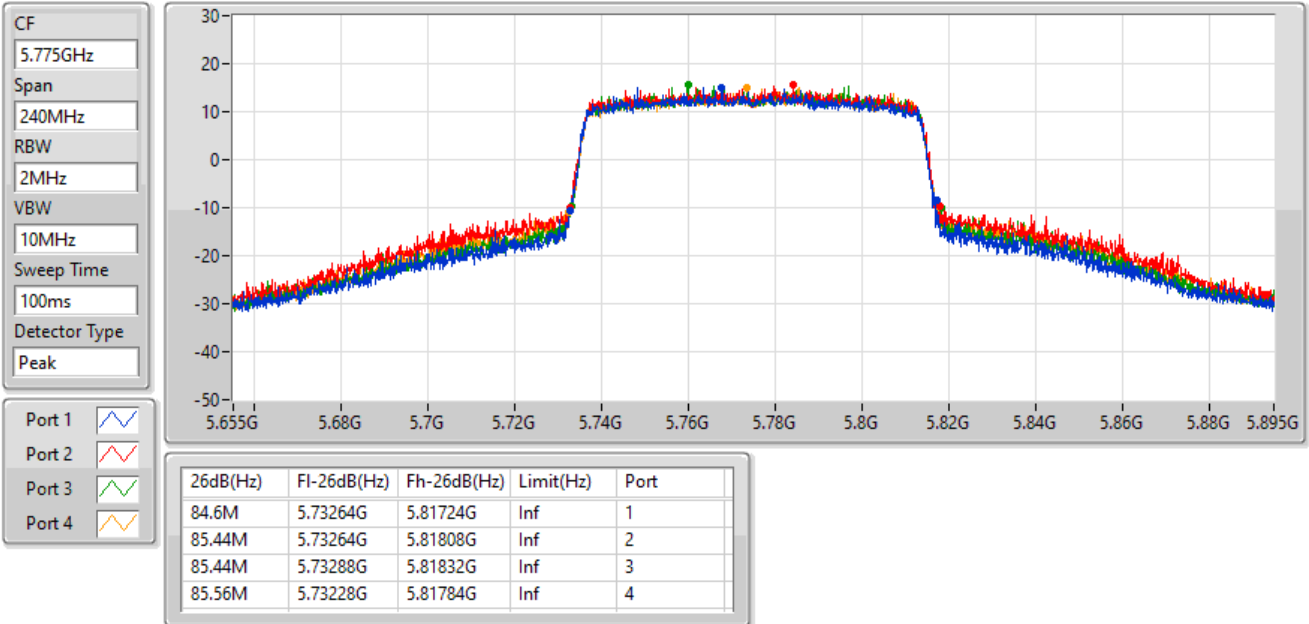


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

5775MHz

16/12/2021



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.895GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_1TX	16.65M	37.601M	37M6D1D	16.44M	19.22M
802.11ax HEW20_Nss1,(MCS0)_1TX	19.17M	41.679M	41M7D1D	19.08M	19.91M
802.11ax HEW40_Nss1,(MCS0)_1TX	37.92M	73.763M	73M8D1D	37.92M	38.681M
802.11ax HEW80_Nss1,(MCS0)_1TX	77.4M	79.4M	79M4D1D	77.4M	79.4M

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

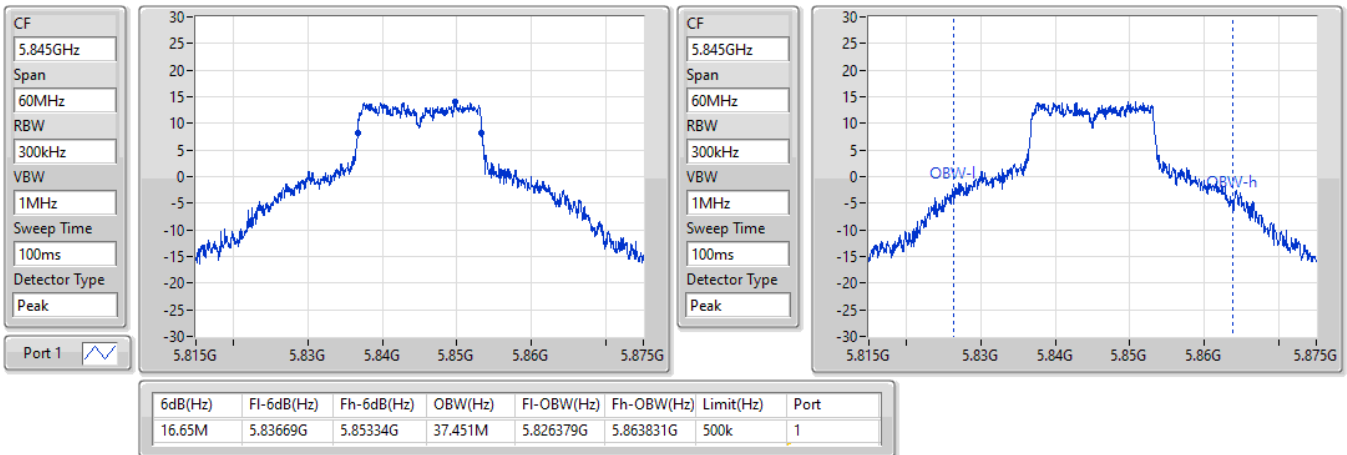
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-
5845MHz	Pass	500k	16.65M	37.451M
5865MHz	Pass	500k	16.65M	37.601M
5885MHz	Pass	500k	16.44M	19.22M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-
5845MHz	Pass	500k	19.17M	41.319M
5865MHz	Pass	500k	19.14M	41.679M
5885MHz	Pass	500k	19.08M	19.91M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-
5835MHz	Pass	500k	37.92M	73.763M
5875MHz	Pass	500k	37.92M	38.681M
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-
5855MHz	Pass	500k	77.4M	79.4M

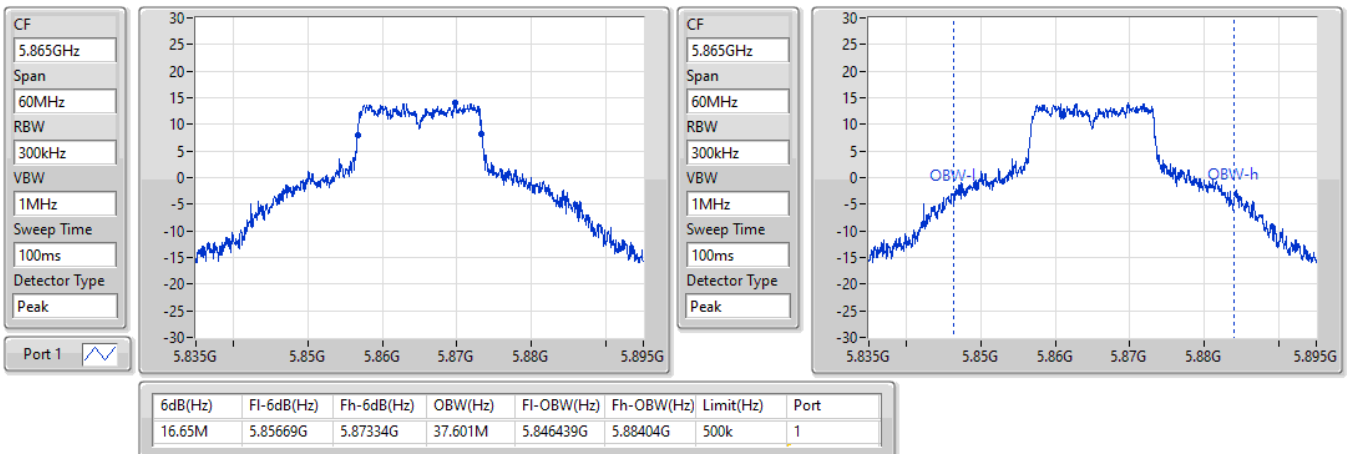
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_1TX
EBW
5845MHz

13/11/2021

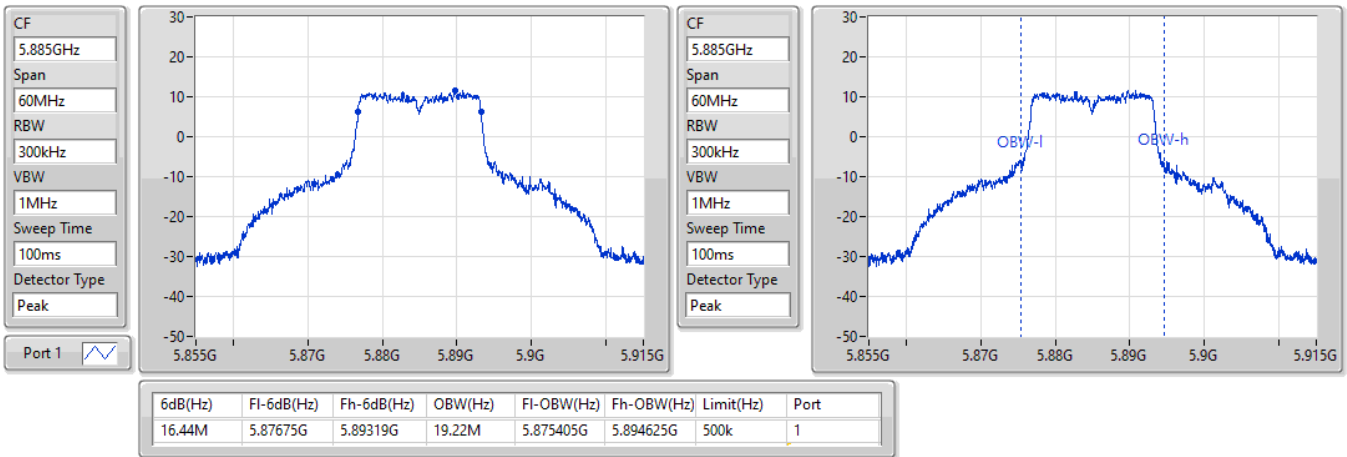

802.11a_Nss1,(6Mbps)_1TX
EBW
5865MHz

13/11/2021

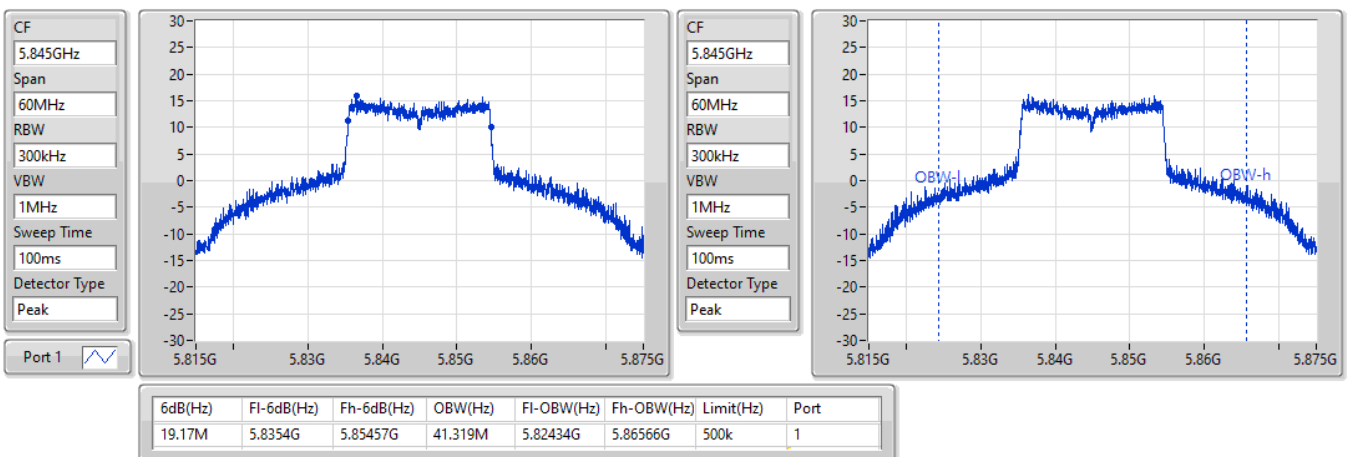


802.11a_Nss1,(6Mbps)_1TX
EBW
5885MHz

13/11/2021

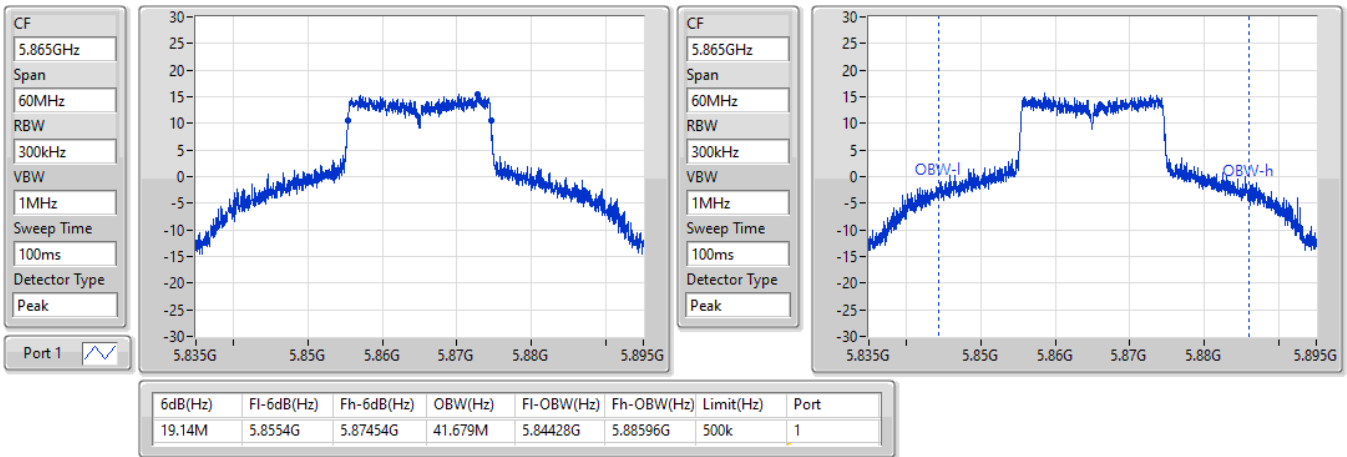

802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5845MHz

13/11/2021

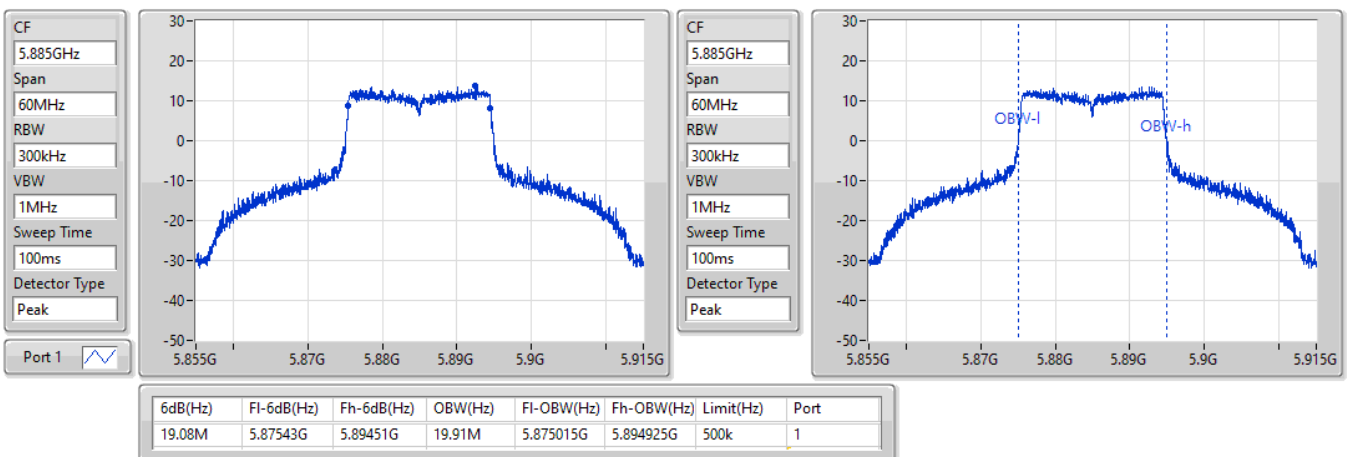


802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5865MHz

13/11/2021

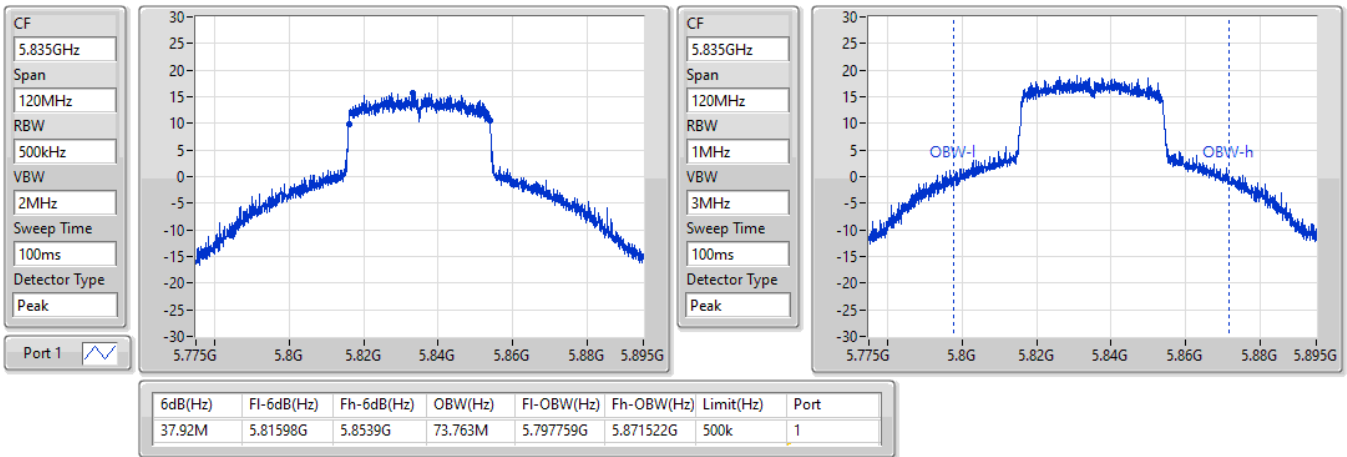

802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5885MHz

13/11/2021

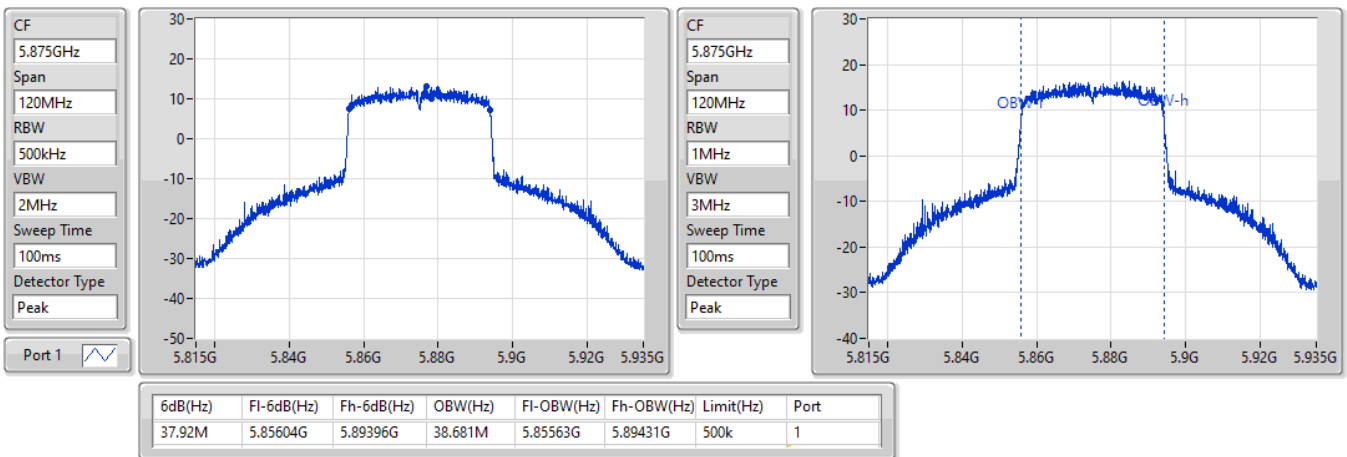


802.11ax HEW40_Nss1,(MCS0)_1TX
EBW
5835MHz

13/11/2021


802.11ax HEW40_Nss1,(MCS0)_1TX
EBW
5875MHz

13/11/2021

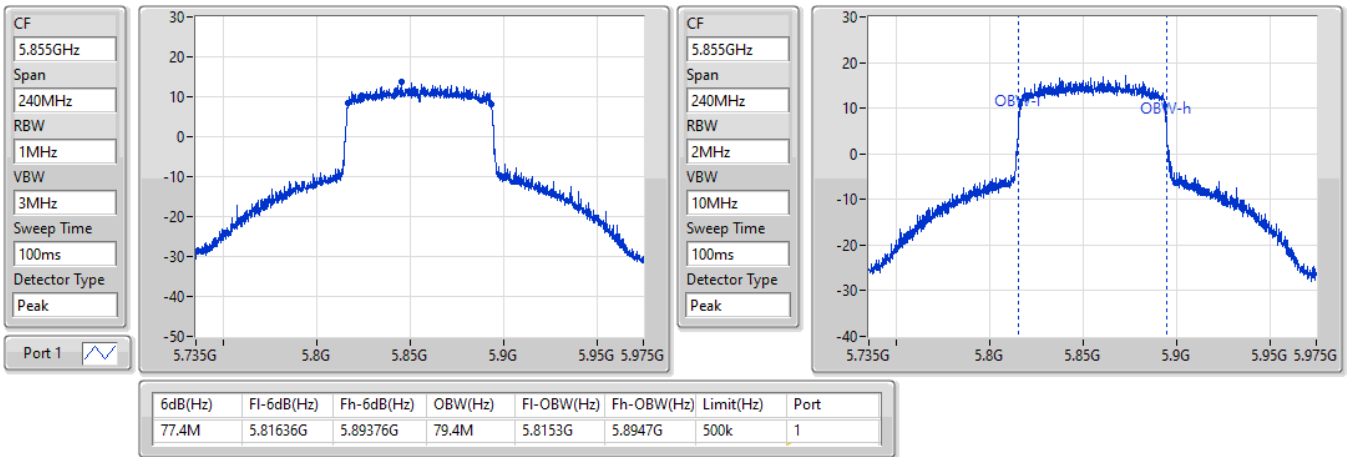


802.11ax HEW80_Nss1,(MCS0)_1TX

EBW

5855MHz

13/11/2021



Summary

Mode	Max-	ITU-Code	Min-
5.725-5.895GHz	-	-	-
802.11a_Nss1,(6Mbps)_1TX	53.28M	53M4D1D	34.29M
802.11ax HEW20_Nss1,(MCS0)_1TX	54.54M	54M5D1D	34.71M
802.11ax HEW40_Nss1,(MCS0)_1TX	110.16M	110M2D1D	60M
802.11ax HEW80_Nss1,(MCS0)_1TX	122.64M	122M6D1D	122.64M

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

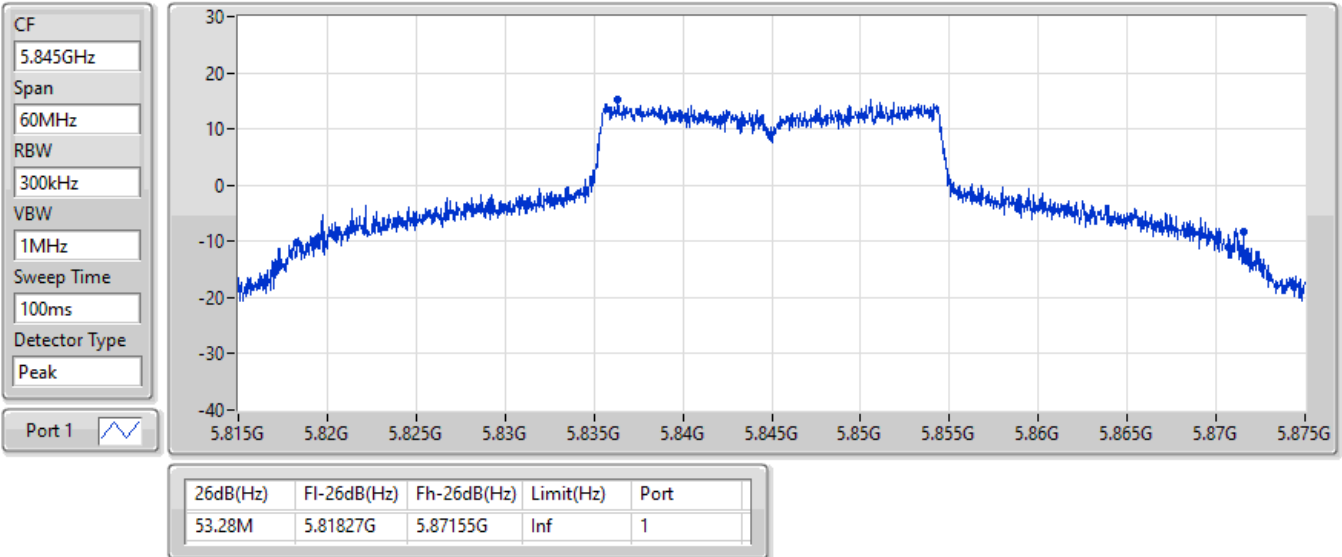
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)
802.11a_Nss1,(6Mbps)_1TX	-	-	-
5845MHz	Pass	Inf	53.28M
5865MHz	Pass	Inf	45.81M
5885MHz	Pass	Inf	34.29M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-
5845MHz	Pass	Inf	54.54M
5865MHz	Pass	Inf	54.51M
5885MHz	Pass	Inf	34.71M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-
5835MHz	Pass	Inf	110.16M
5875MHz	Pass	Inf	60M
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-
5855MHz	Pass	Inf	122.64M

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

802.11a_Nss1,(6Mbps)_1TX

EBW
5845MHz

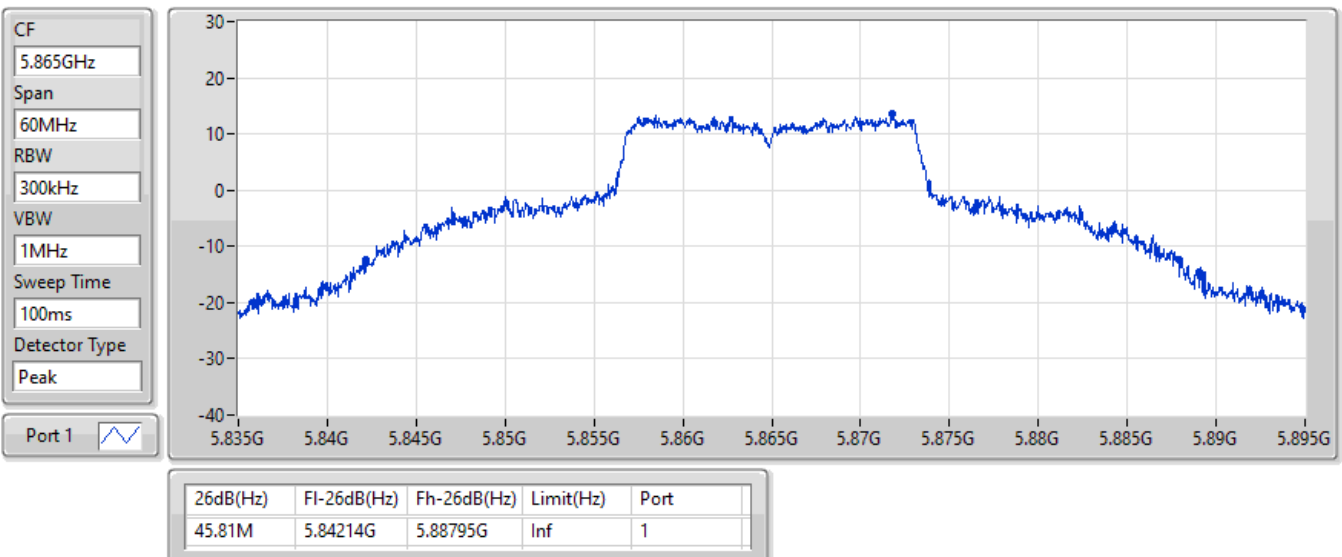
16/12/2021



802.11a_Nss1,(6Mbps)_1TX

EBW
5865MHz

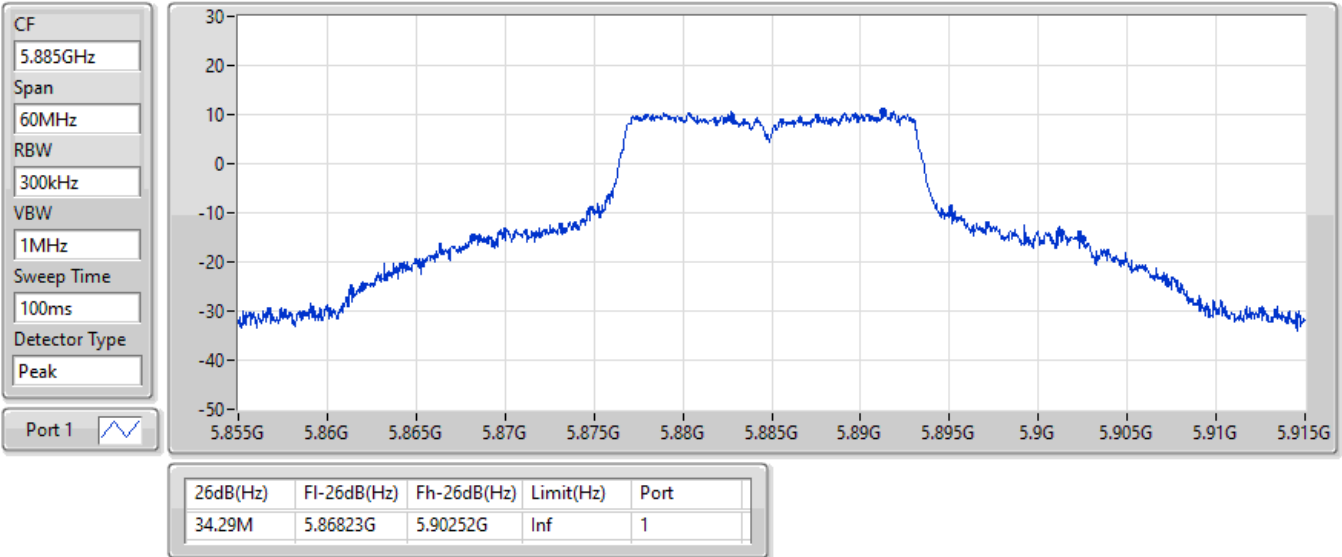
16/12/2021



802.11a_Nss1,(6Mbps)_1TX

EBW
5885MHz

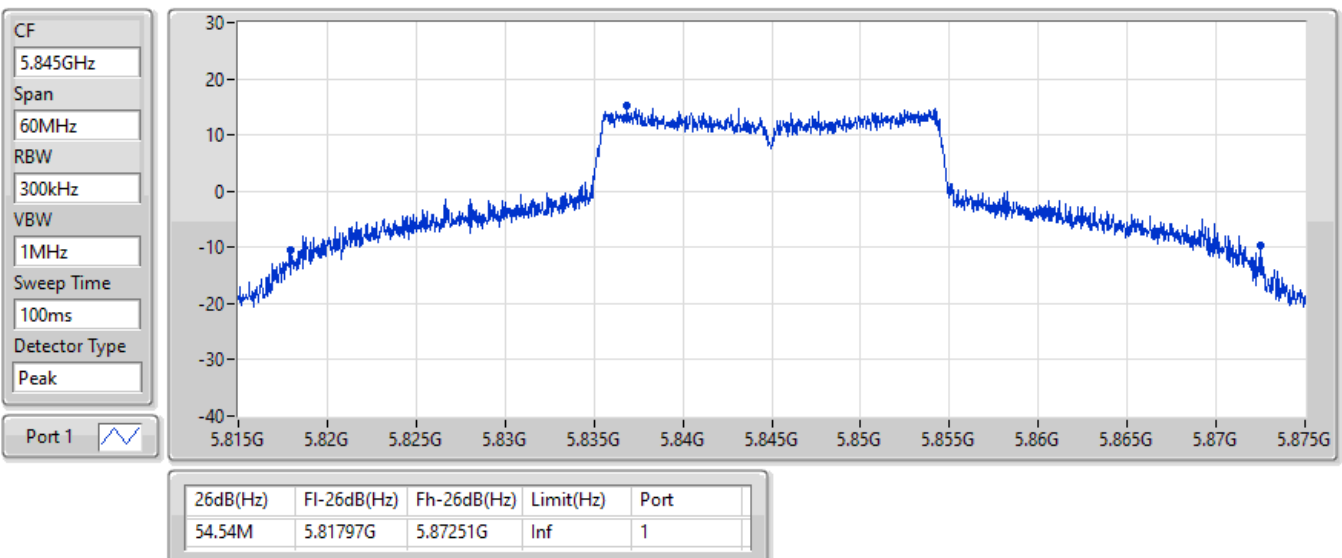
16/12/2021



802.11ax HEW20_Nss1,(MCS0)_1TX

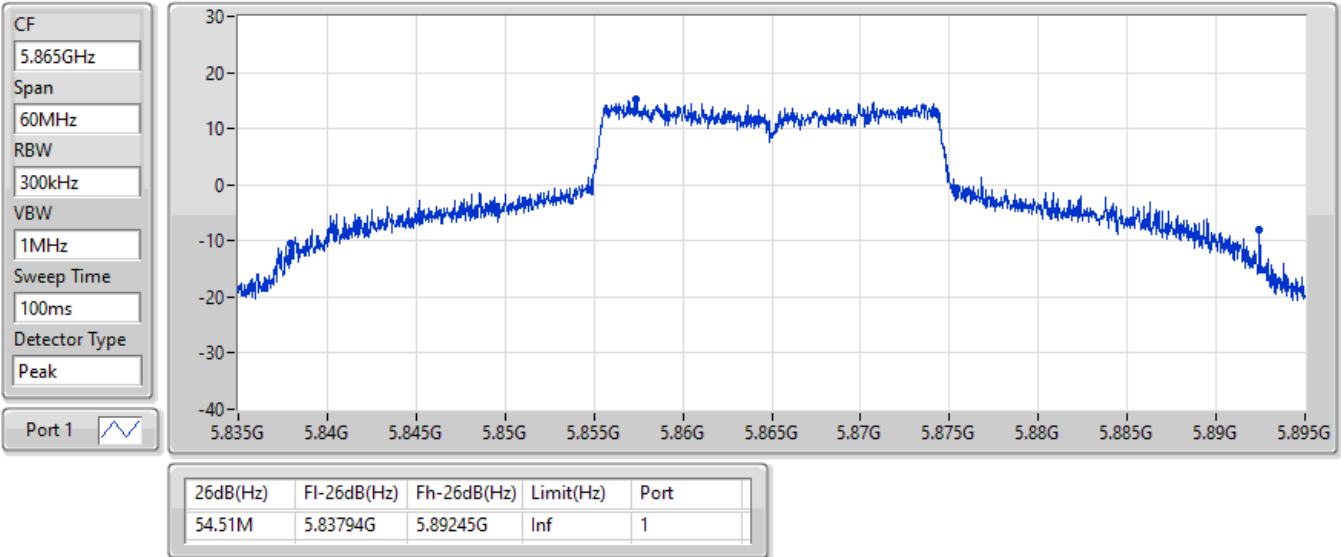
EBW
5845MHz

16/12/2021

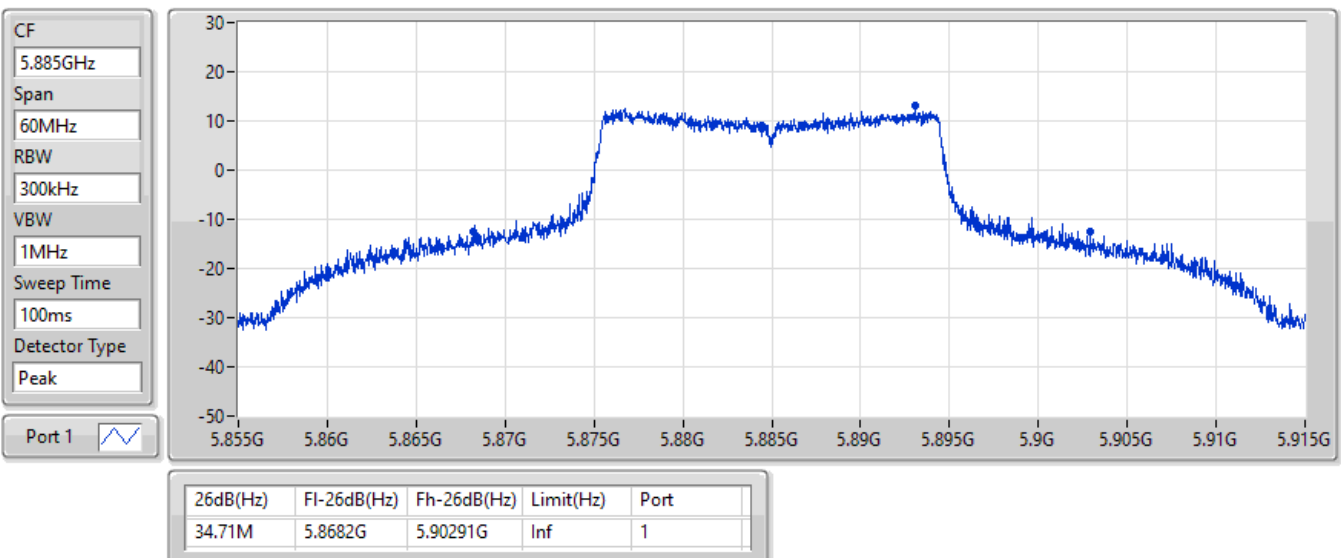


802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5865MHz

16/12/2021

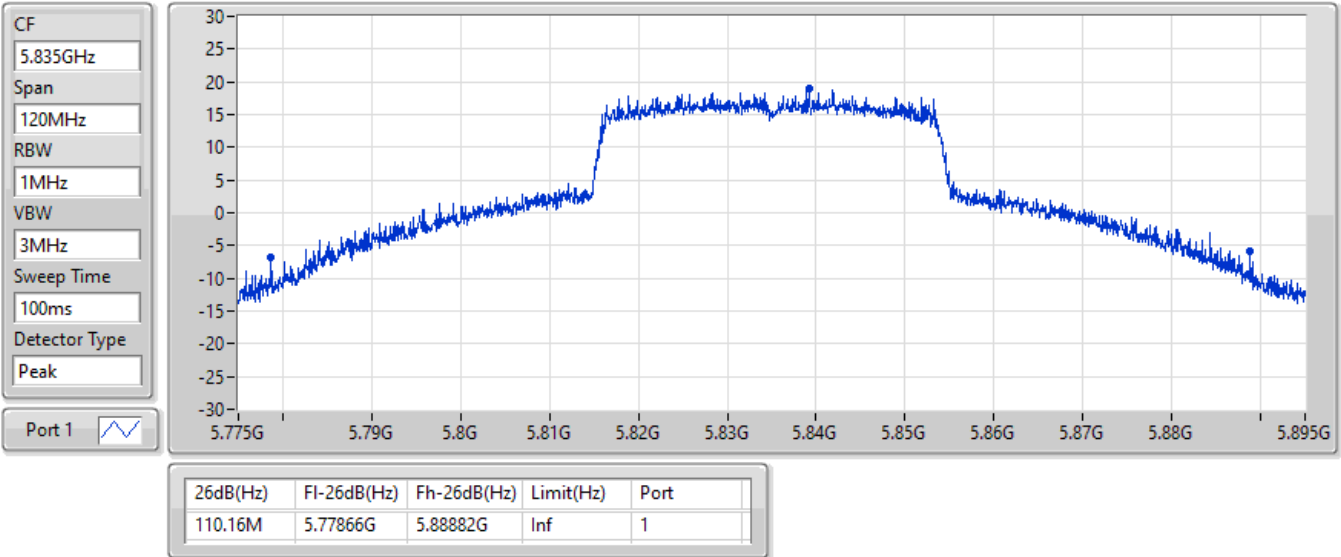

802.11ax HEW20_Nss1,(MCS0)_1TX
EBW
5885MHz

16/12/2021

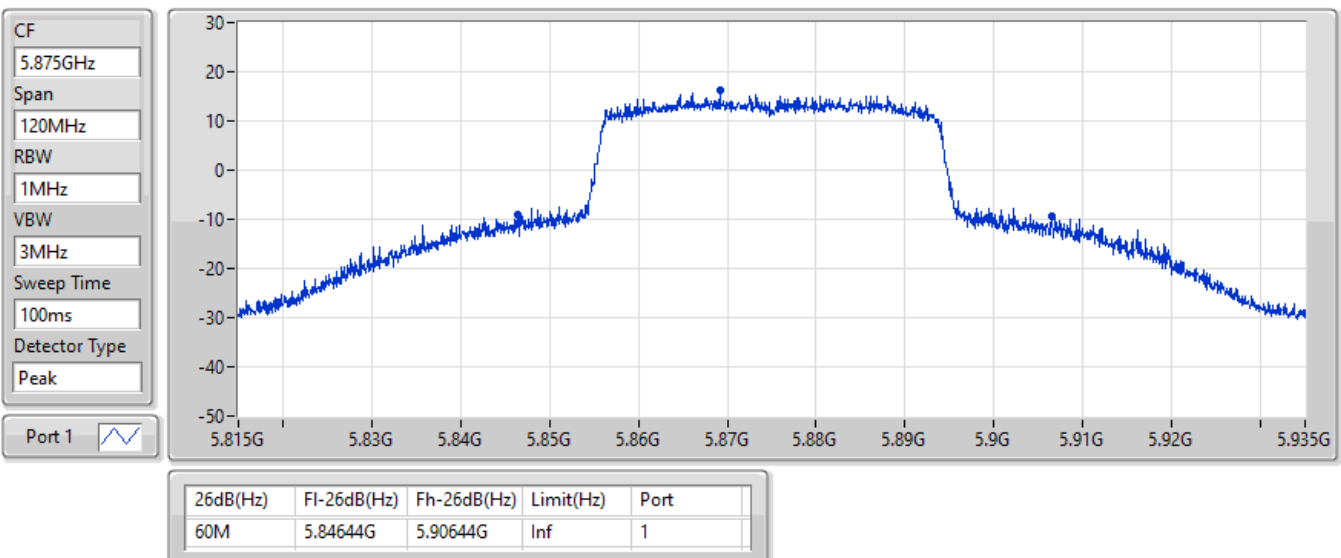


802.11ax HEW40_Nss1,(MCS0)_1TX
EBW
5835MHz

16/12/2021


802.11ax HEW40_Nss1,(MCS0)_1TX
EBW
5875MHz

16/12/2021

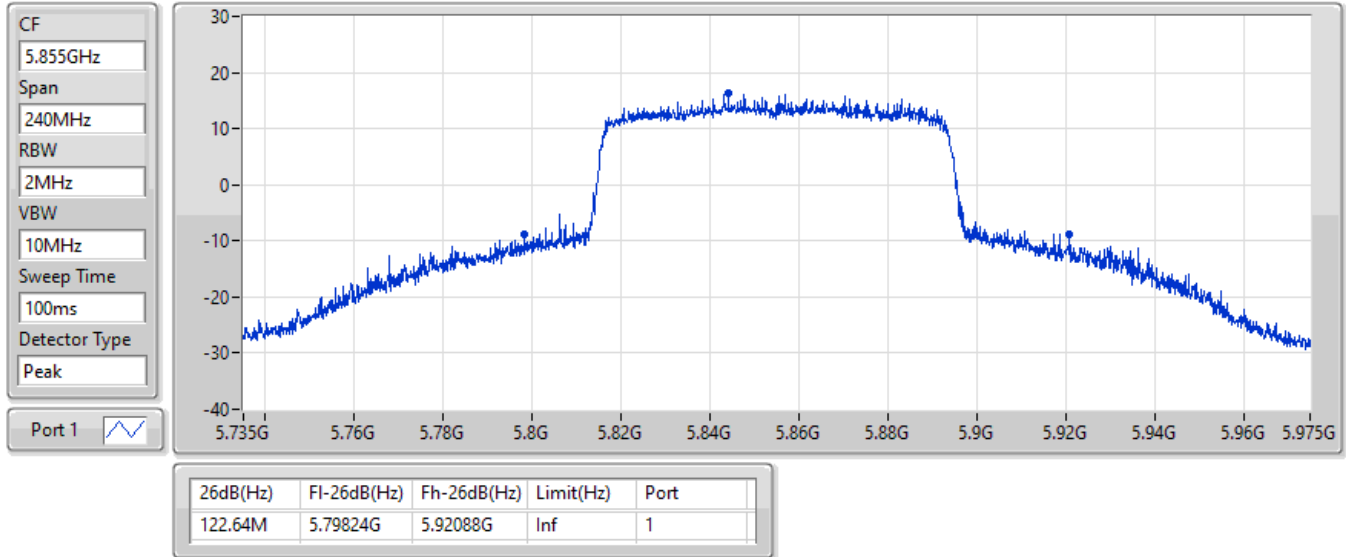


802.11ax HEW80_Nss1,(MCS0)_1TX

EBW

5855MHz

16/12/2021



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.895GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.62M	37.121M	37M1D1D	16.47M	17.181M
802.11ax HEW20_Nss1,(MCS0)_2TX	19.2M	41.529M	41M5D1D	19.11M	19.16M
802.11ax HEW40_Nss1,(MCS0)_2TX	37.98M	73.583M	73M6D1D	37.8M	38.201M
802.11ax HEW80_Nss1,(MCS0)_2TX	77.88M	79.4M	79M4D1D	77.28M	78.321M

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

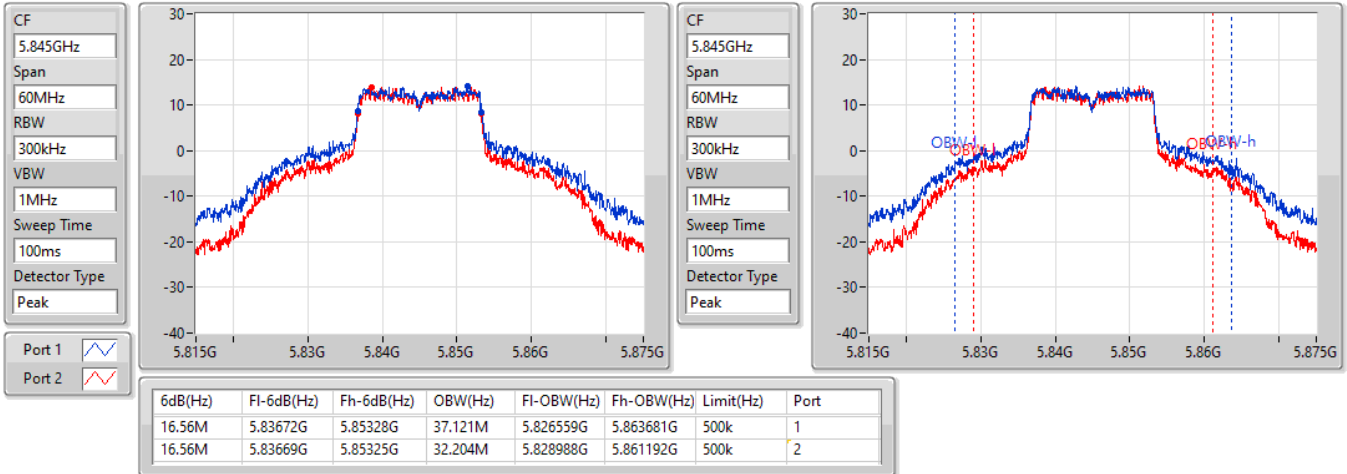
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5845MHz	Pass	500k	16.56M	37.121M	16.56M	32.204M
5865MHz	Pass	500k	16.62M	37.061M	16.56M	32.534M
5885MHz	Pass	500k	16.47M	19.13M	16.47M	17.181M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5845MHz	Pass	500k	19.17M	41.169M	19.2M	35.322M
5865MHz	Pass	500k	19.2M	41.529M	19.14M	35.532M
5885MHz	Pass	500k	19.11M	19.25M	19.11M	19.16M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5835MHz	Pass	500k	37.98M	73.583M	37.98M	71.904M
5875MHz	Pass	500k	37.86M	38.621M	37.8M	38.201M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5855MHz	Pass	500k	77.28M	79.4M	77.88M	78.321M

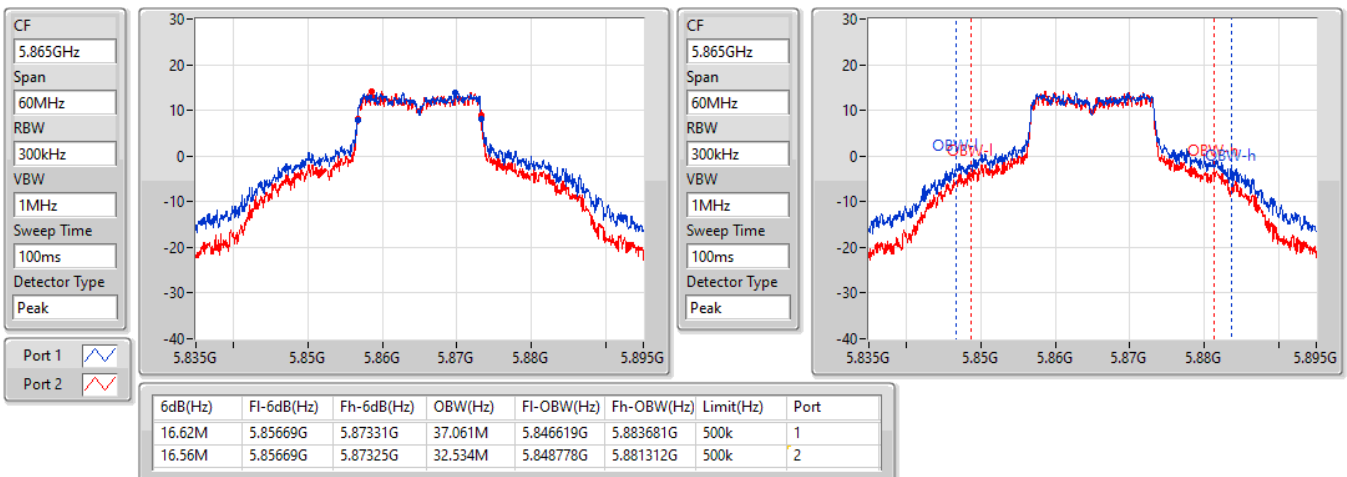
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_2TX
EBW
5845MHz

13/11/2021

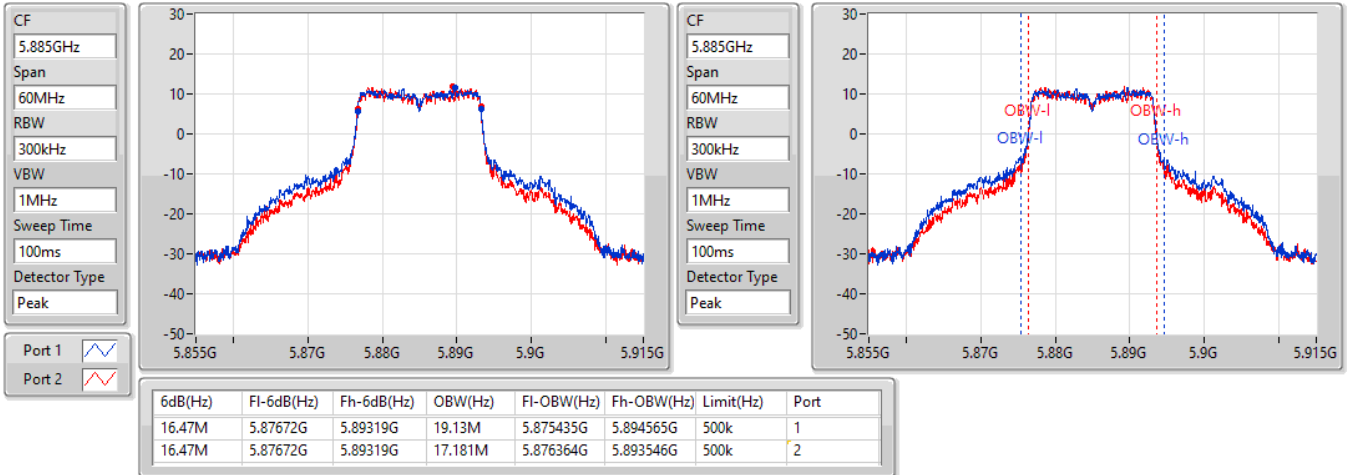

802.11a_Nss1,(6Mbps)_2TX
EBW
5865MHz

13/11/2021

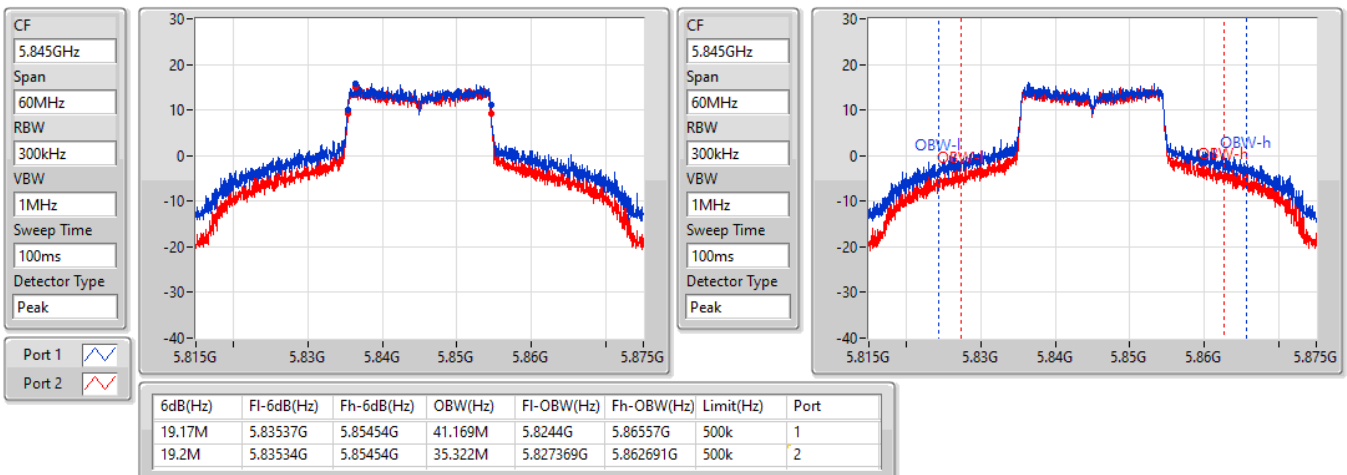


802.11a_Nss1,(6Mbps)_2TX
EBW
5885MHz

13/11/2021

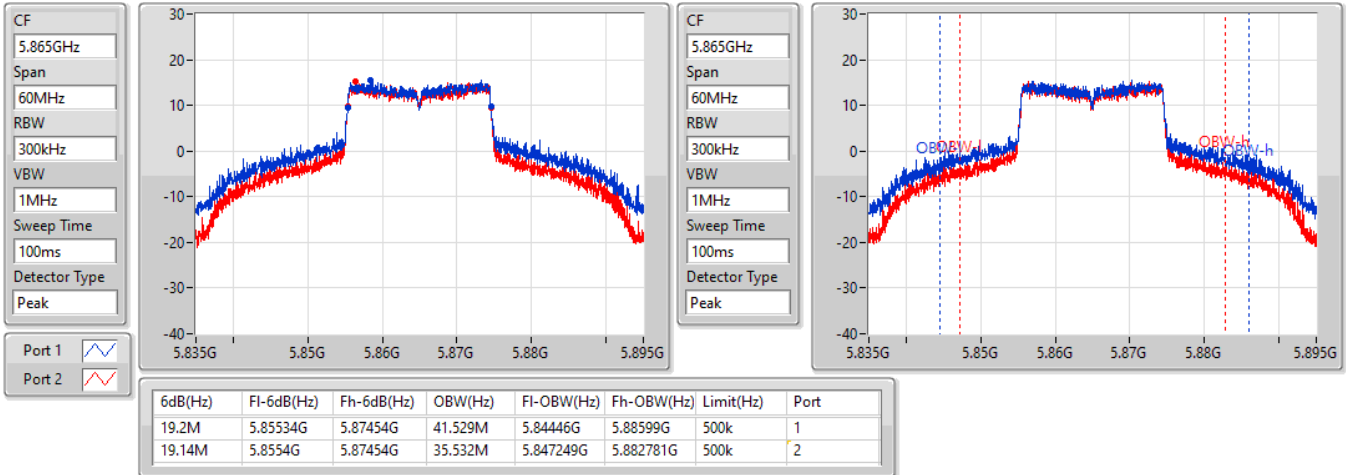

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5845MHz

13/11/2021

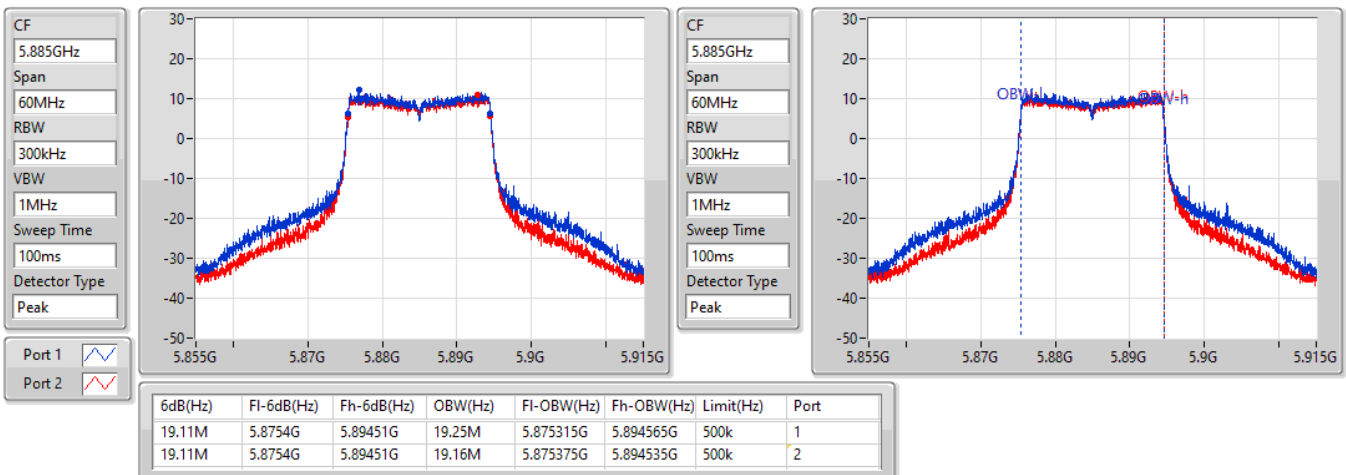


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5865MHz

13/11/2021

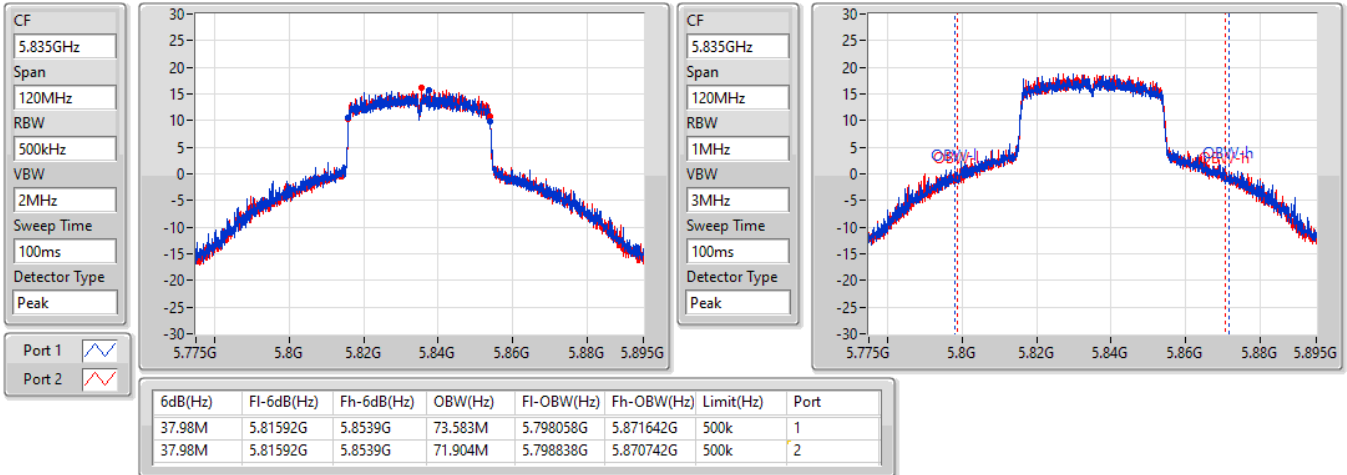

802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5885MHz

13/11/2021

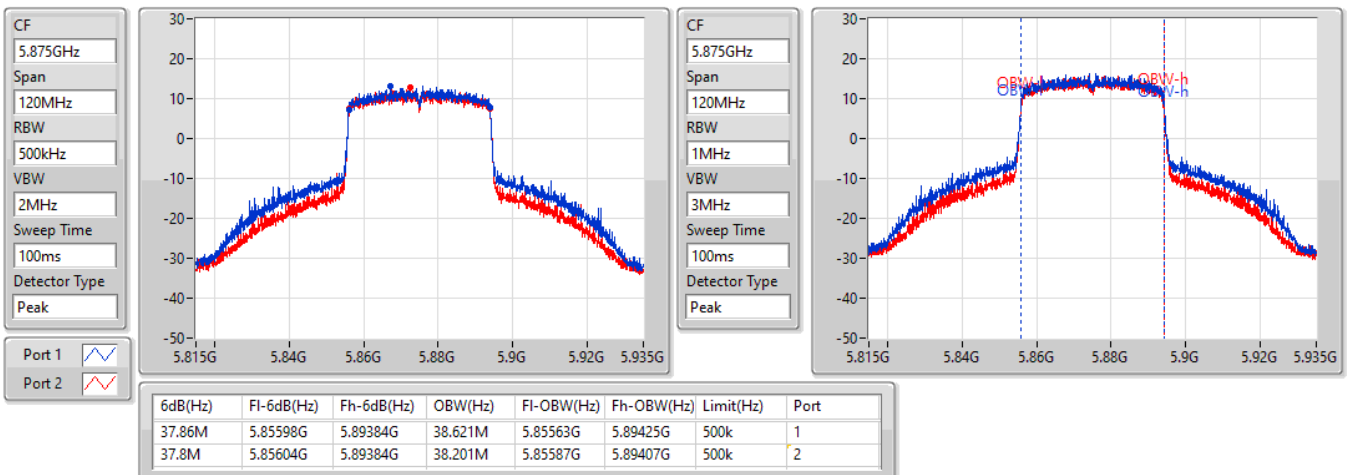


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5835MHz

13/11/2021


802.11ax HEW40_Nss1,(MCS0)_2TX
EBW
5875MHz

13/11/2021

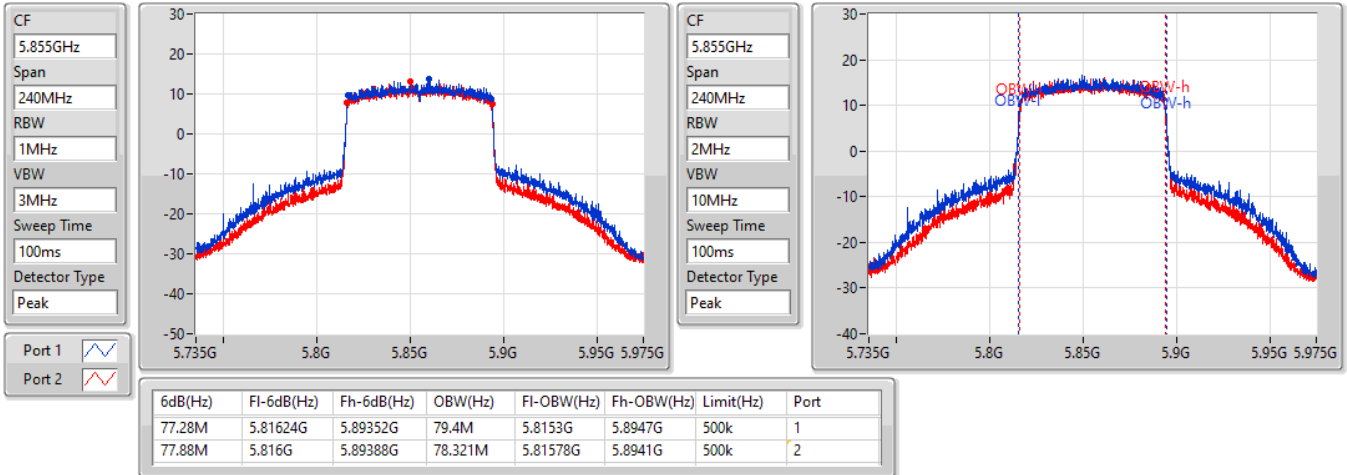


802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

5855MHz

13/11/2021



Summary

Mode	Max-N dB (Hz)	ITU-Code	Min-N dB (Hz)
5.725-5.895GHz	-	-	-
802.11a_Nss1,(6Mbps)_2TX	49.32M	49M3D1D	34.29M
802.11ax HEW20_Nss1,(MCS0)_2TX	55.56M	55M6D1D	22.77M
802.11ax HEW40_Nss1,(MCS0)_2TX	108.3M	108MD1D	60.96M
802.11ax HEW80_Nss1,(MCS0)_2TX	159.36M	159MD1D	121.56M

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

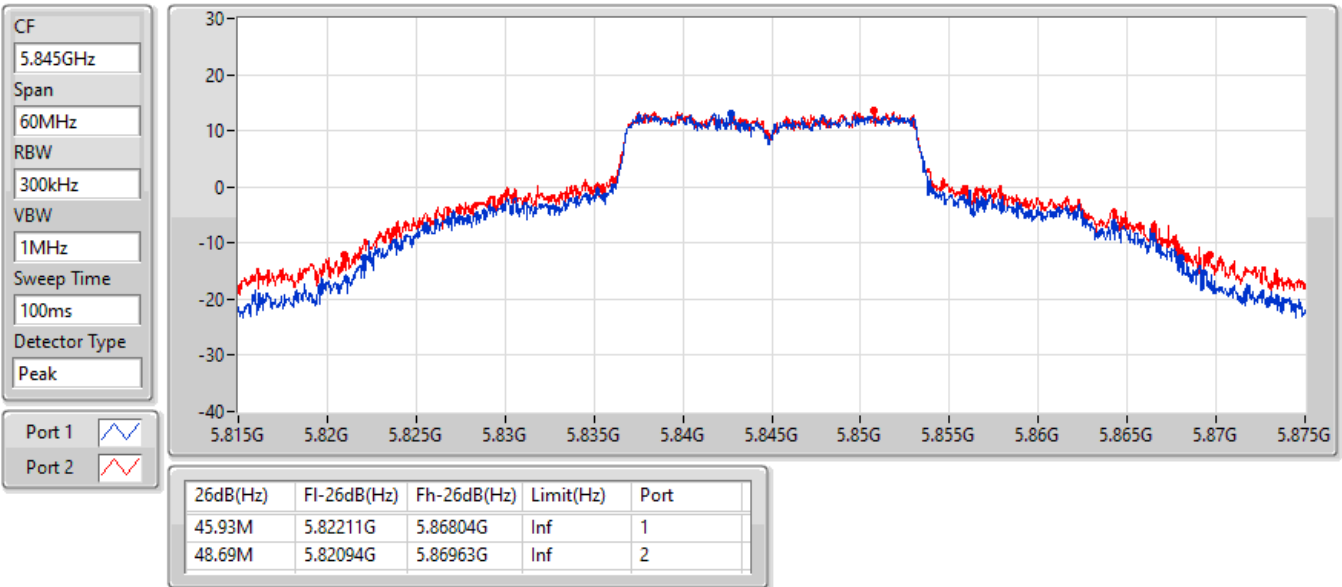
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 2-N dB (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-
5845MHz	Pass	Inf	45.93M	48.69M
5865MHz	Pass	Inf	47.55M	49.32M
5885MHz	Pass	Inf	34.29M	40.5M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-
5845MHz	Pass	Inf	55.02M	55.5M
5865MHz	Pass	Inf	54.96M	55.56M
5885MHz	Pass	Inf	22.77M	27.21M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-
5835MHz	Pass	Inf	108.3M	105.66M
5875MHz	Pass	Inf	60.96M	82.32M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-
5855MHz	Pass	Inf	121.56M	159.36M

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
5845MHz

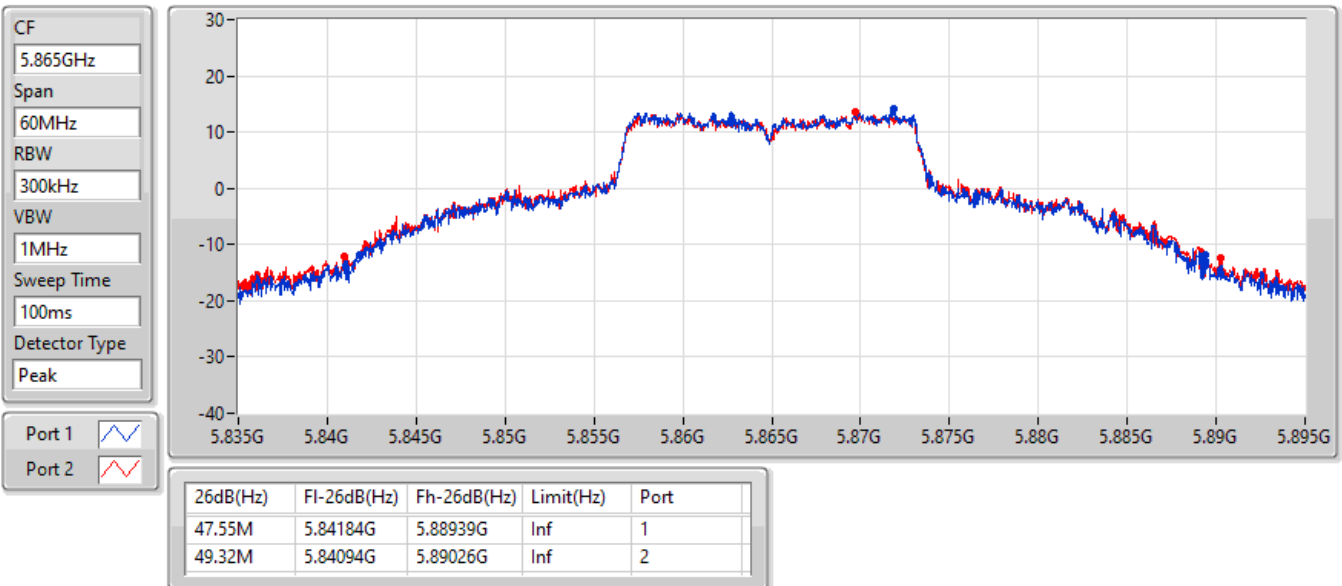
16/12/2021



802.11a_Nss1,(6Mbps)_2TX

EBW
5865MHz

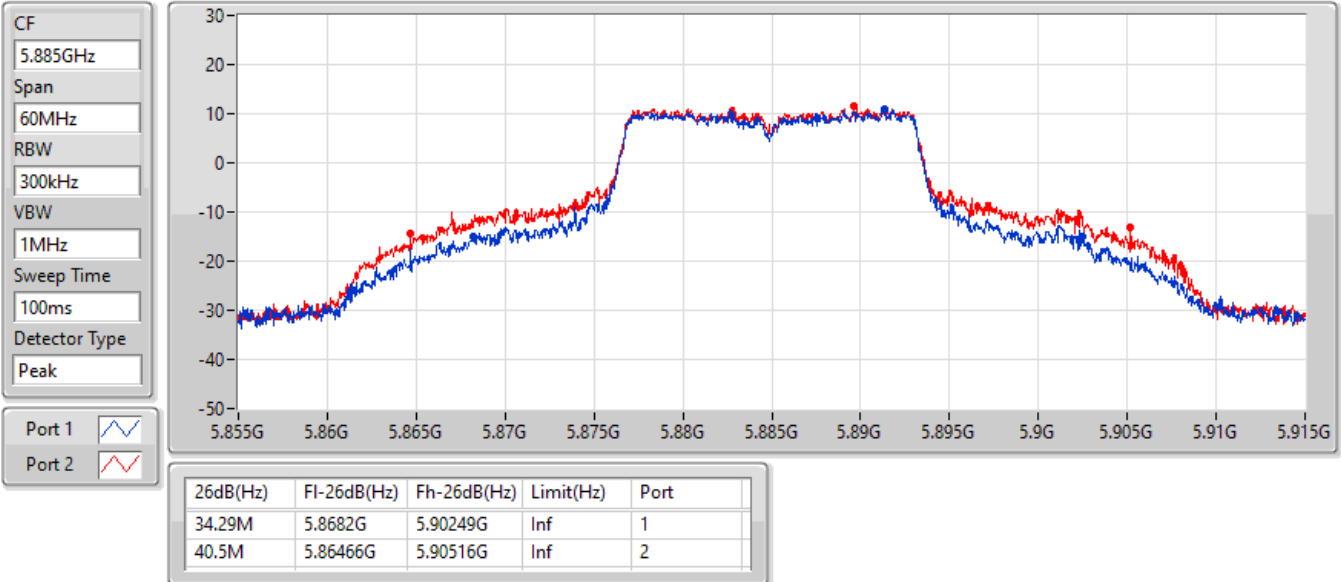
16/12/2021



802.11a_Nss1,(6Mbps)_2TX

EBW
5885MHz

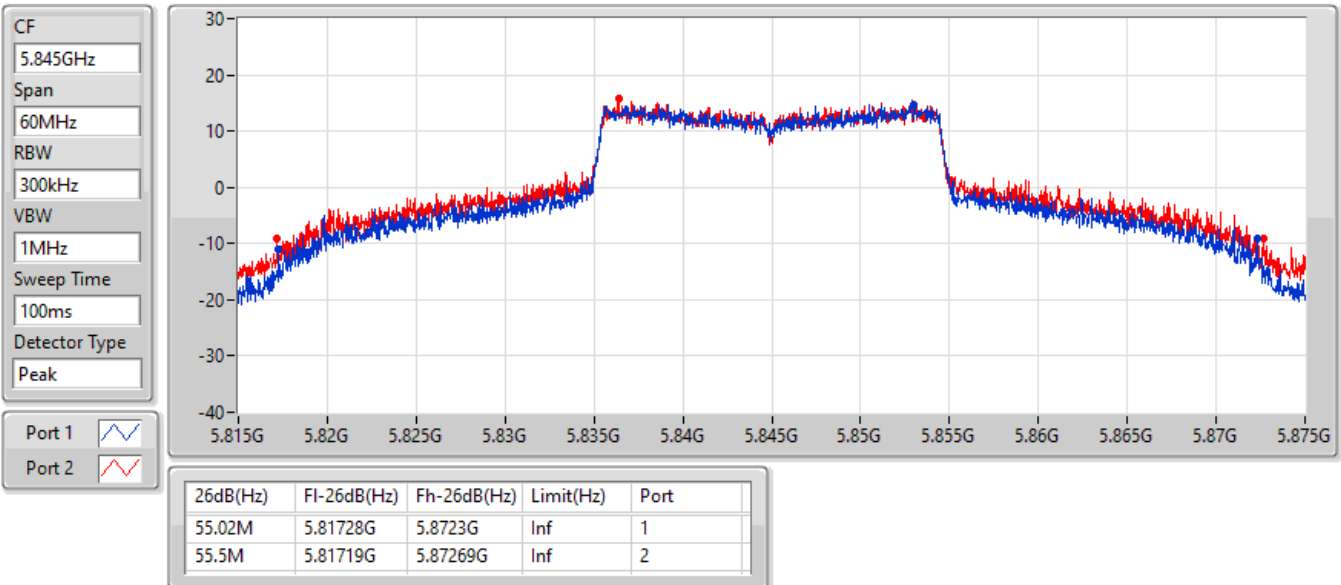
16/12/2021



802.11ax HEW20_Nss1,(MCS0)_2TX

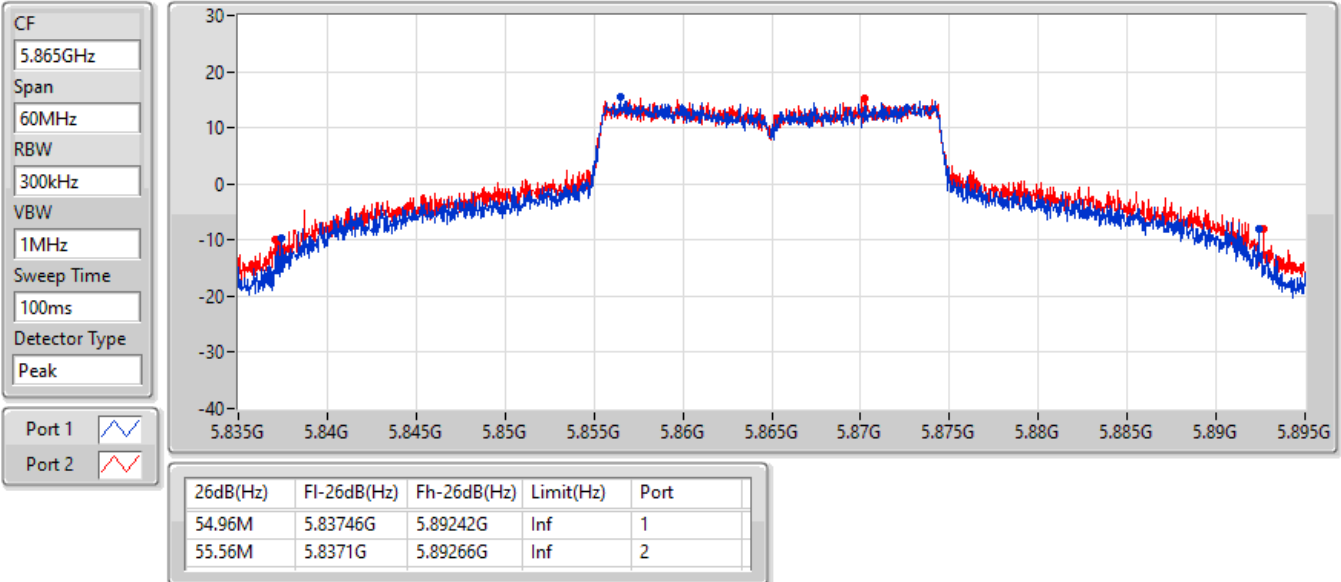
EBW
5845MHz

16/12/2021

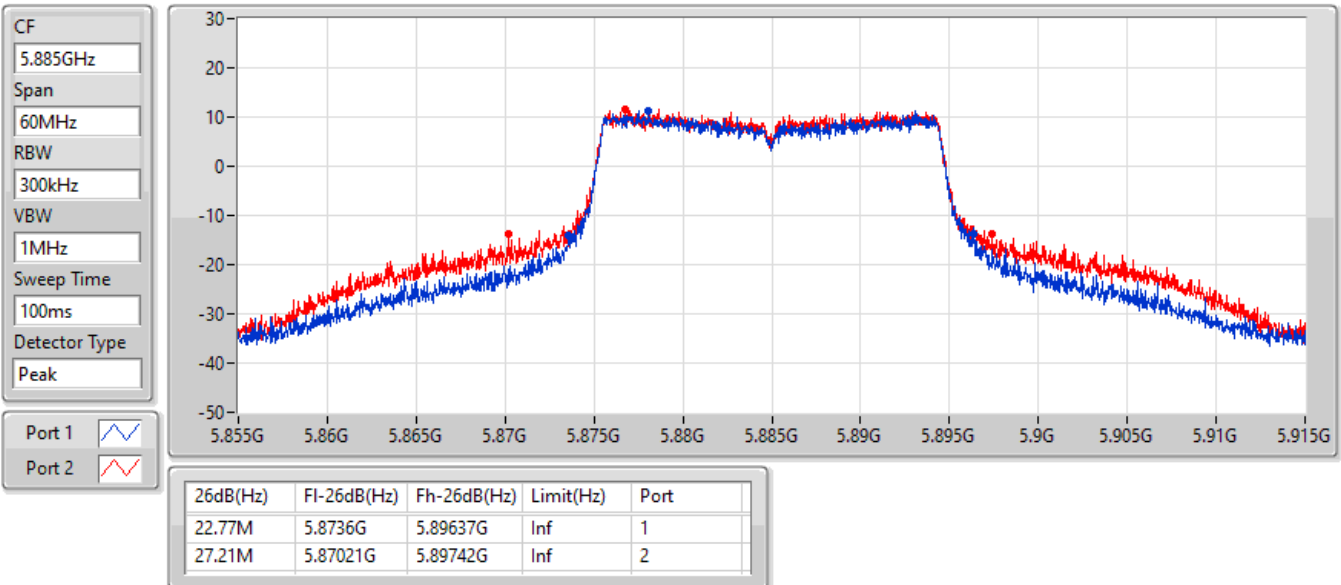


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5865MHz

16/12/2021


802.11ax HEW20_Nss1,(MCS0)_2TX
EBW
5885MHz

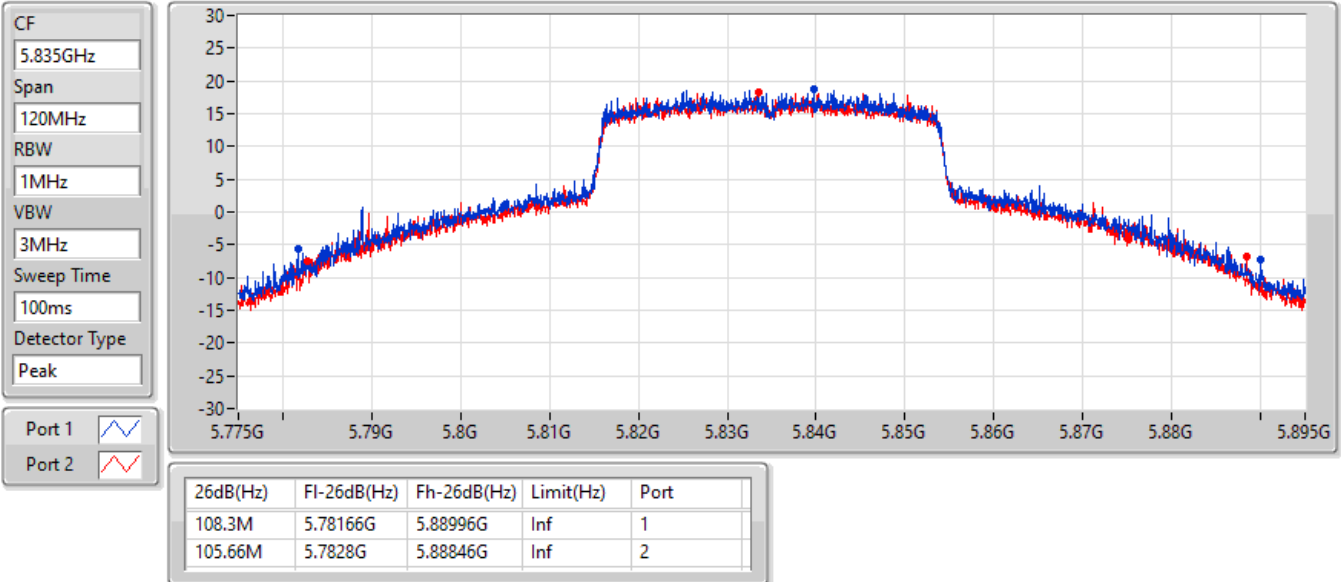
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802.11ax HEW40_Nss1,(MCS0)_2TX

EBW
5835MHz

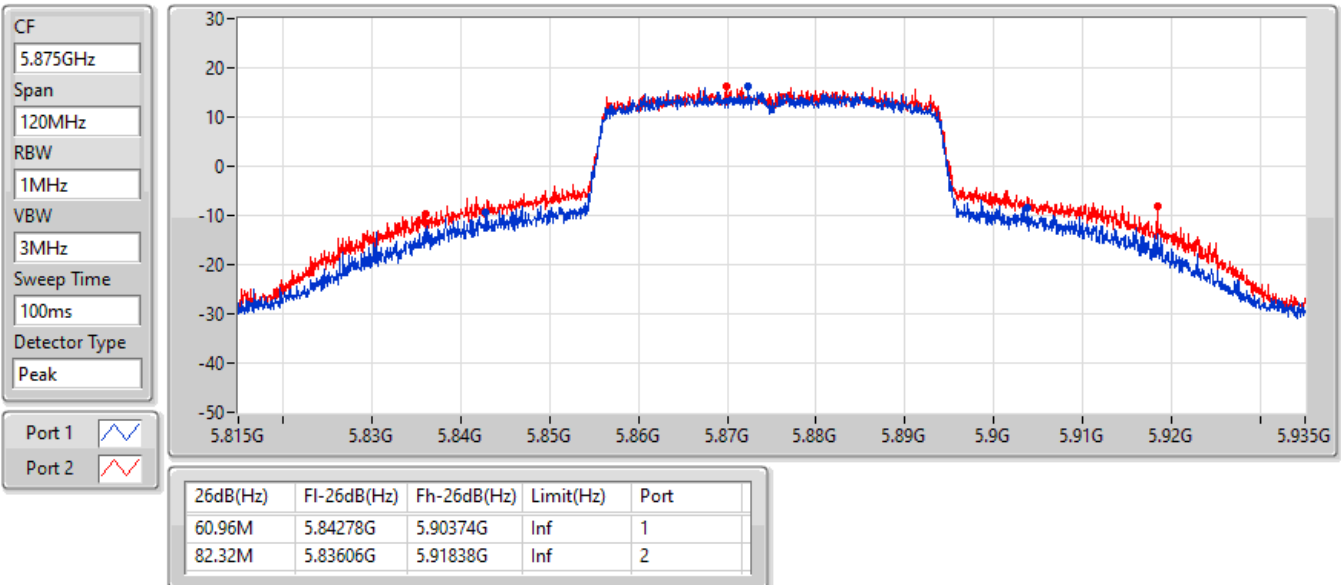
16/12/2021



802.11ax HEW40_Nss1,(MCS0)_2TX

EBW
5875MHz

16/12/2021

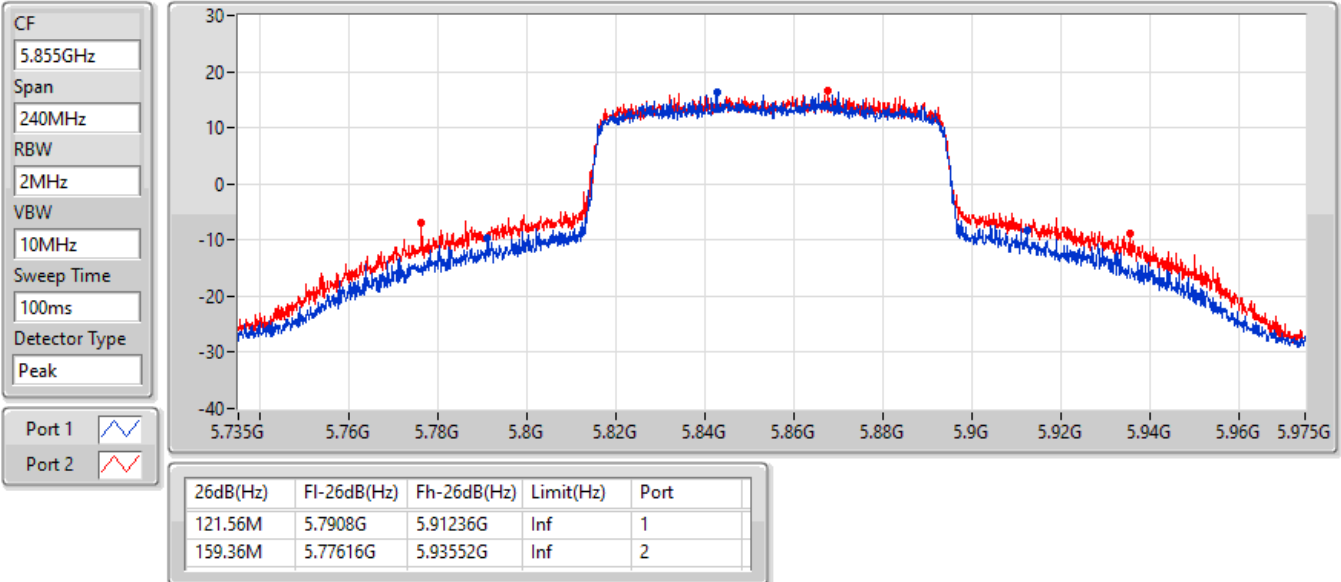


802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

5855MHz

16/12/2021



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.725-5.895GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.53M	25.637M	25M6D1D	16.41M	17.031M
802.11ax HEW20_Nss1,(MCS0)_4TX	19.17M	28.846M	28M8D1D	19.05M	19.43M
802.11ax HEW40_Nss1,(MCS0)_4TX	37.98M	76.222M	76M2D1D	37.62M	38.141M
802.11ax HEW80_Nss1,(MCS0)_4TX	77.76M	78.921M	78M9D1D	75.72M	77.961M

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

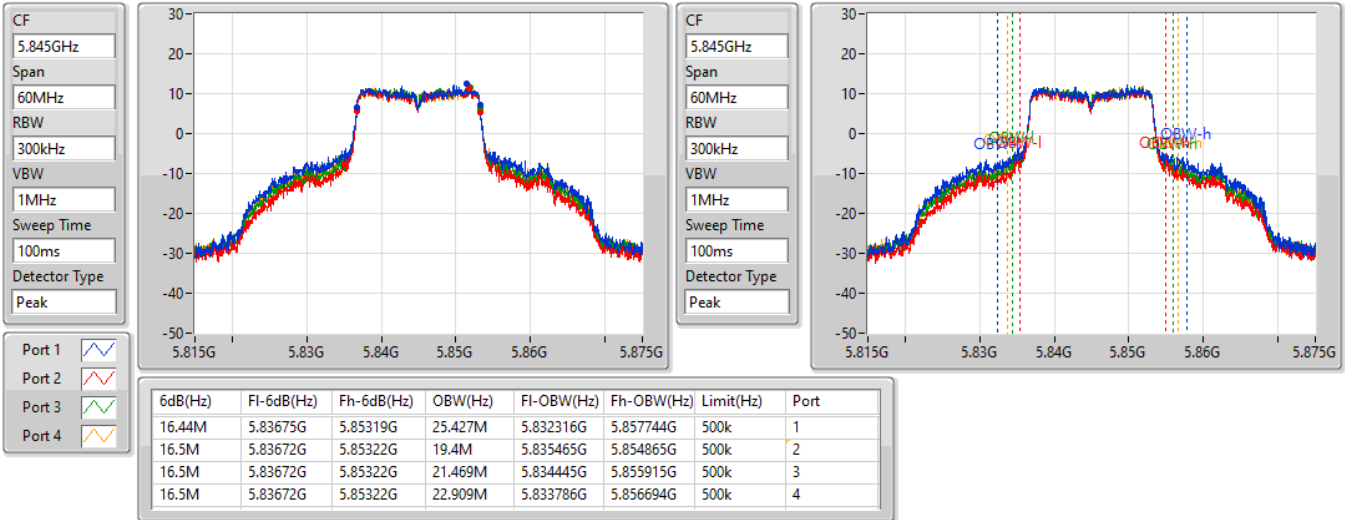
Result

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)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5845MHz	Pass	500k	16.44M	25.427M	16.5M	19.4M	16.5M	21.469M	16.5M	22.909M
5865MHz	Pass	500k	16.41M	25.637M	16.47M	19.37M	16.5M	21.409M	16.5M	21.919M
5885MHz	Pass	500k	16.47M	18.441M	16.47M	17.031M	16.5M	17.271M	16.53M	17.781M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5845MHz	Pass	500k	19.08M	28.846M	19.14M	22.969M	19.11M	25.787M	19.14M	28.336M
5865MHz	Pass	500k	19.11M	28.396M	19.14M	22.519M	19.14M	25.517M	19.08M	27.646M
5885MHz	Pass	500k	19.17M	19.7M	19.11M	19.43M	19.08M	19.55M	19.05M	19.76M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5835MHz	Pass	500k	37.62M	72.204M	37.74M	73.583M	37.98M	76.222M	37.86M	74.723M
5875MHz	Pass	500k	37.86M	38.681M	37.86M	38.141M	37.92M	38.501M	37.8M	38.681M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5855MHz	Pass	500k	77.76M	78.921M	77.64M	77.961M	77.52M	78.321M	75.72M	78.681M

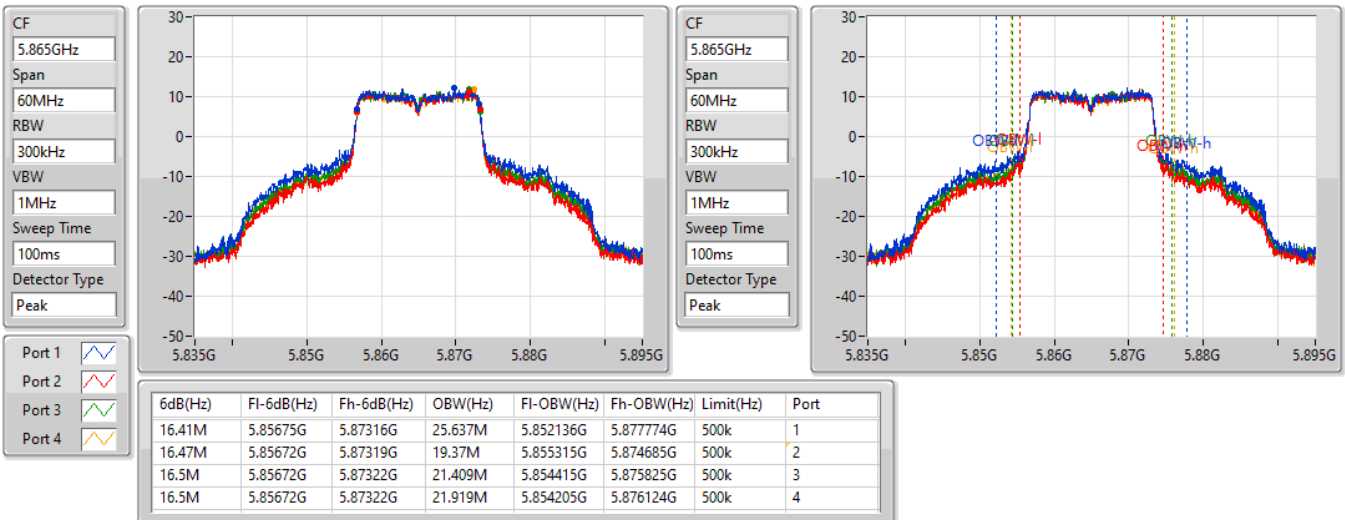
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

802.11a_Nss1,(6Mbps)_4TX
EBW
5845MHz

13/11/2021

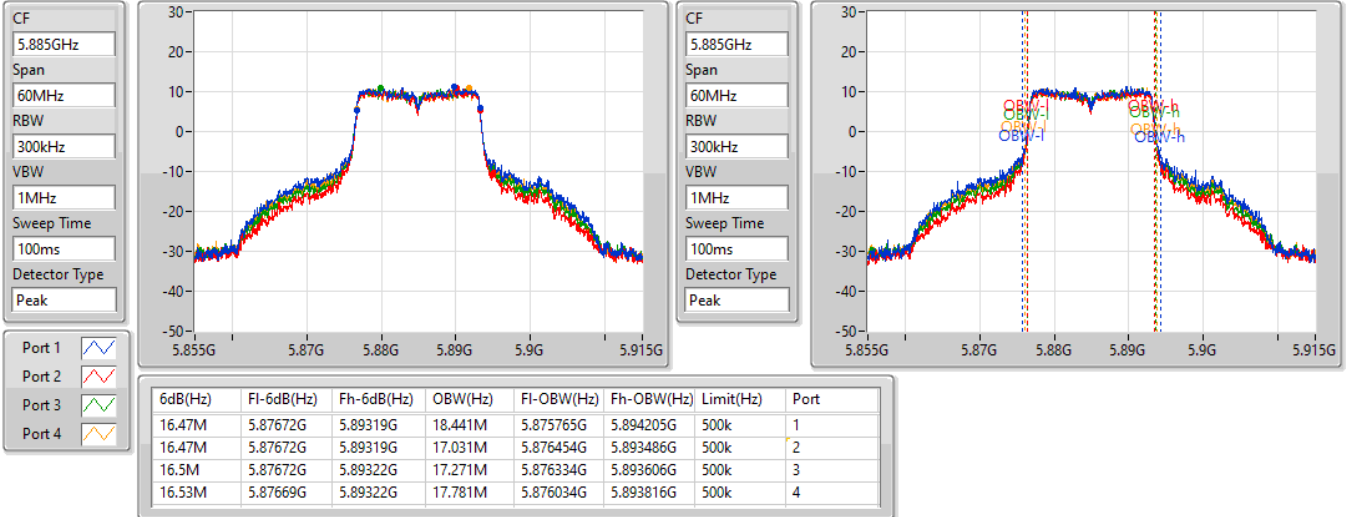

802.11a_Nss1,(6Mbps)_4TX
EBW
5865MHz

13/11/2021

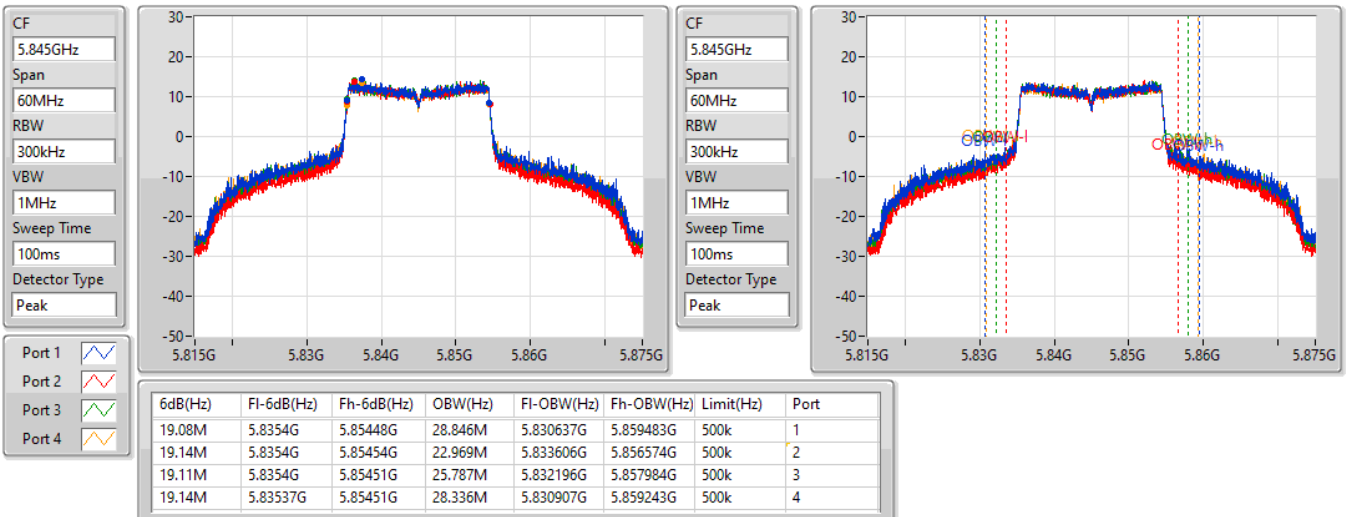


802.11a_Nss1,(6Mbps)_4TX
EBW
5885MHz

13/11/2021

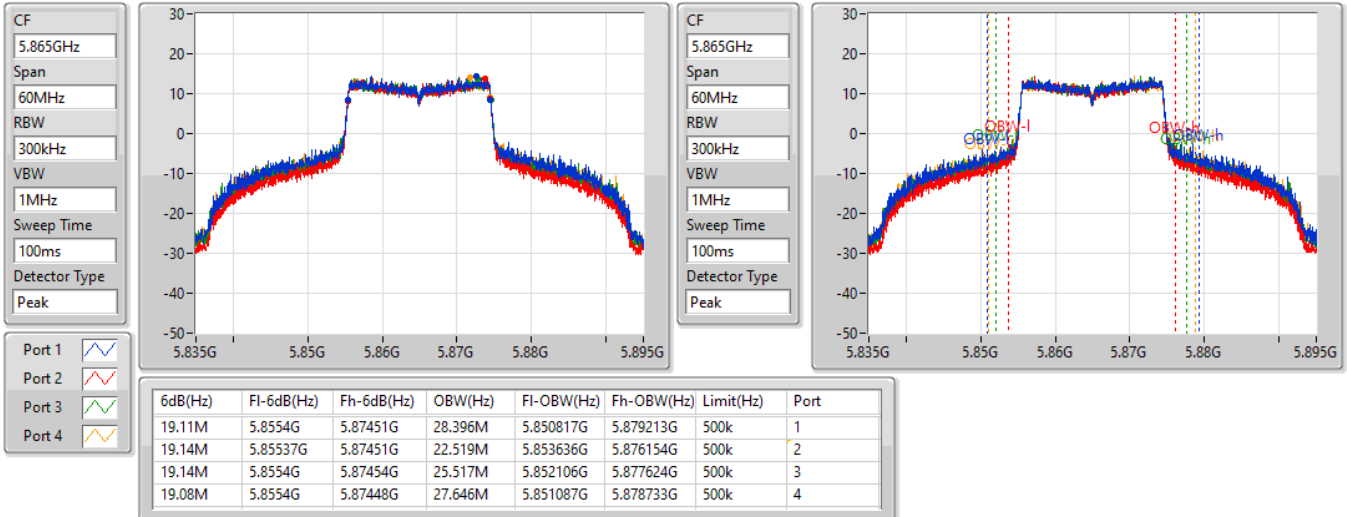

802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5845MHz

13/11/2021

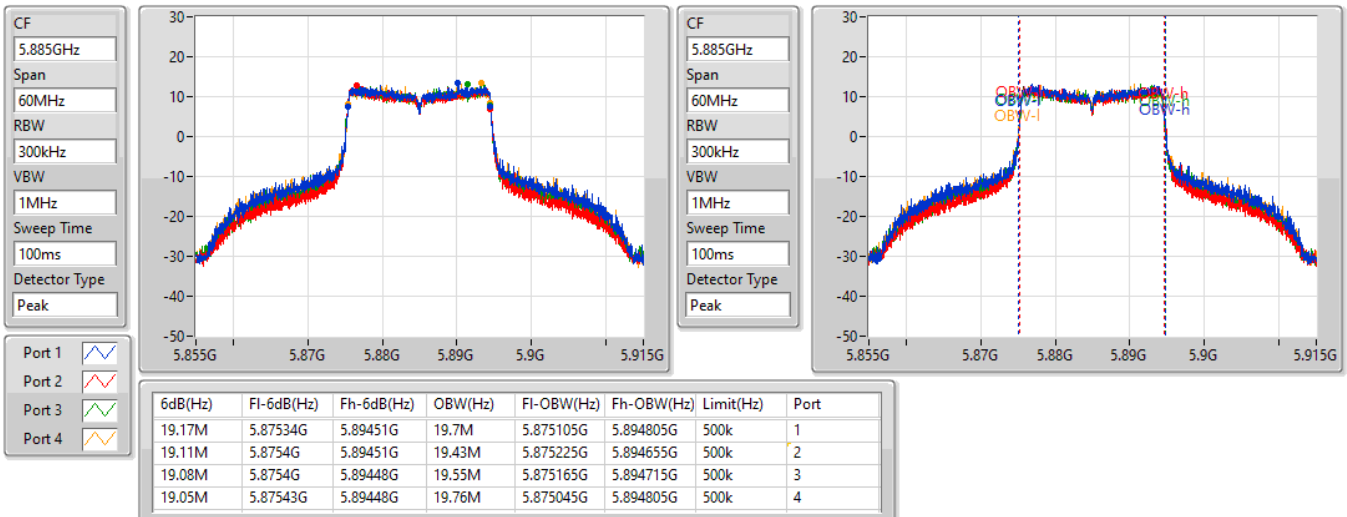


802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5865MHz

13/11/2021

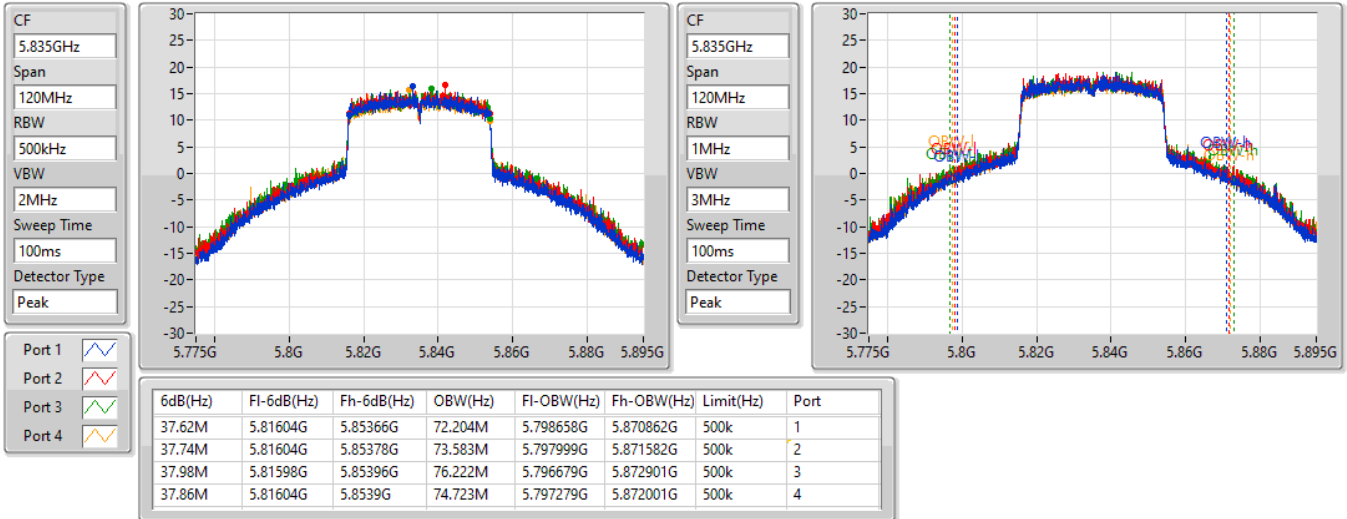

802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5885MHz

13/11/2021

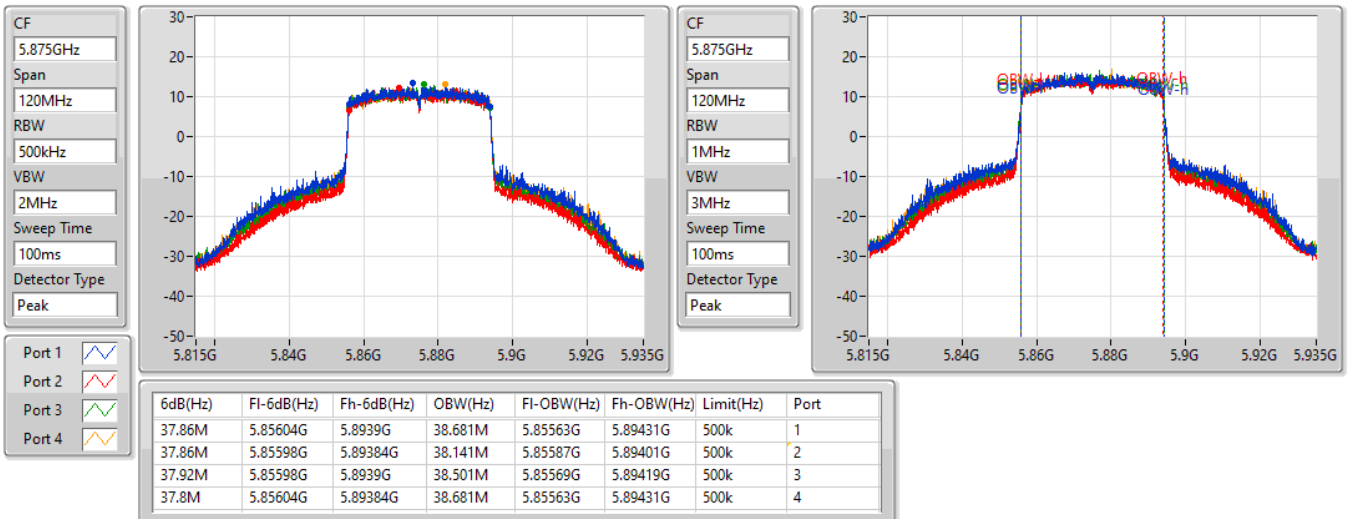


802.11ax HEW40_Nss1,(MCS0)_4TX
EBW
5835MHz

13/11/2021


802.11ax HEW40_Nss1,(MCS0)_4TX
EBW
5875MHz

13/11/2021

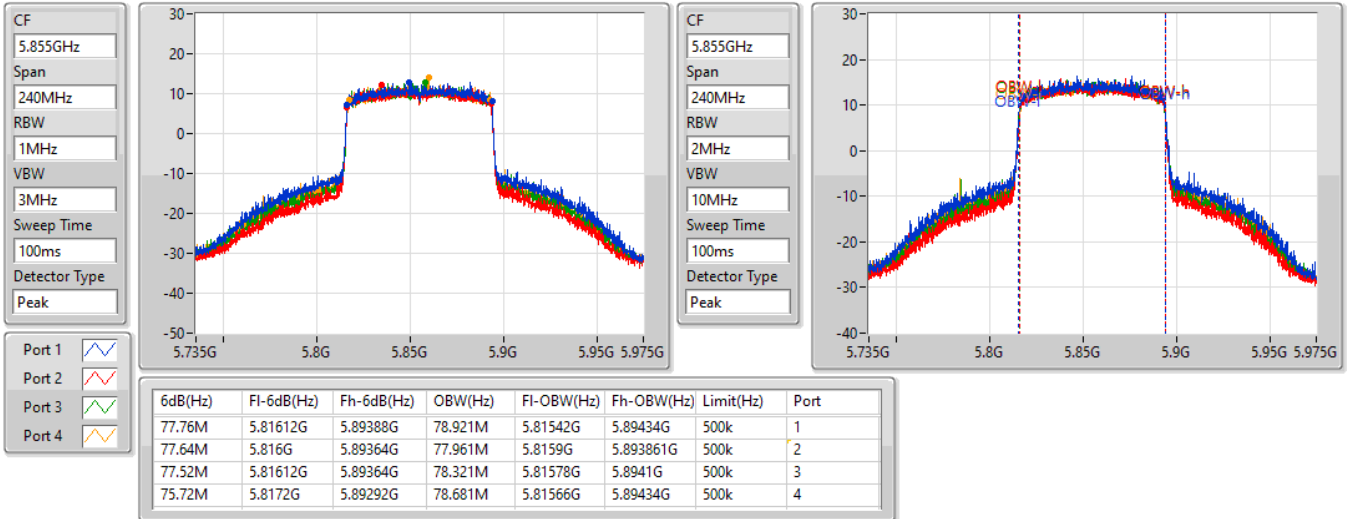


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

5855MHz

13/11/2021



Summary

Mode	Max-N dB (Hz)	ITU-Code	Min-N dB (Hz)
5.725-5.895GHz	-	-	-
802.11a_Nss1,(6Mbps)_4TX	39.66M	39M7D1D	34.05M
802.11ax HEW20_Nss1,(MCS0)_4TX	50.16M	50M2D1D	33.51M
802.11ax HEW40_Nss1,(MCS0)_4TX	106.08M	106MD1D	61.38M
802.11ax HEW80_Nss1,(MCS0)_4TX	157.32M	157MD1D	135.12M

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 2-N dB (Hz)	Port 3-N dB (Hz)	Port 4-N dB (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-
5845MHz	Pass	Inf	34.05M	39.66M	38.13M	36.9M
5865MHz	Pass	Inf	34.32M	39.36M	37.77M	37.38M
5885MHz	Pass	Inf	34.11M	38.16M	36.6M	36.84M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-
5845MHz	Pass	Inf	46.8M	50.16M	49.5M	48.84M
5865MHz	Pass	Inf	40.23M	49.62M	49.59M	49.65M
5885MHz	Pass	Inf	33.51M	41.67M	37.89M	40.86M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-
5835MHz	Pass	Inf	105.96M	105.24M	106.08M	104.22M
5875MHz	Pass	Inf	61.38M	80.64M	76.74M	75.54M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-
5855MHz	Pass	Inf	135.12M	157.32M	155.76M	153.12M

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)_4TX
EBW
5845MHz

16/12/2021

CF
5.845GHz

Span
60MHz

RBW
300kHz

VBW
1MHz

Sweep Time
100ms

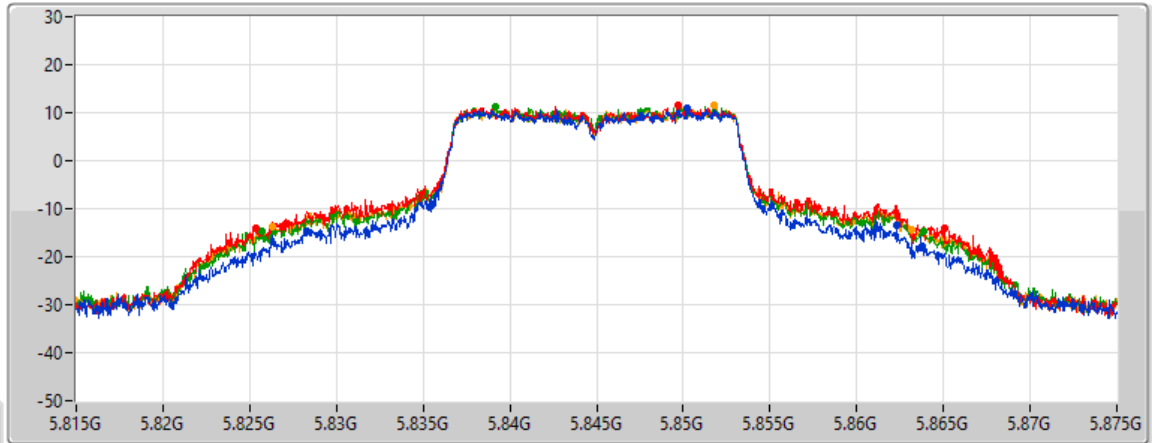
Detector Type
Peak

Port 1 

Port 2 

Port 3 

Port 4 



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	Limit(Hz)	Port
34.05M	5.82826G	5.86231G	Inf	1
39.66M	5.82538G	5.86504G	Inf	2
38.13M	5.82571G	5.86384G	Inf	3
36.9M	5.82628G	5.86318G	Inf	4

802.11a_Nss1,(6Mbps)_4TX
EBW
5865MHz

16/12/2021

CF
5.865GHz

Span
60MHz

RBW
300kHz

VBW
1MHz

Sweep Time
100ms

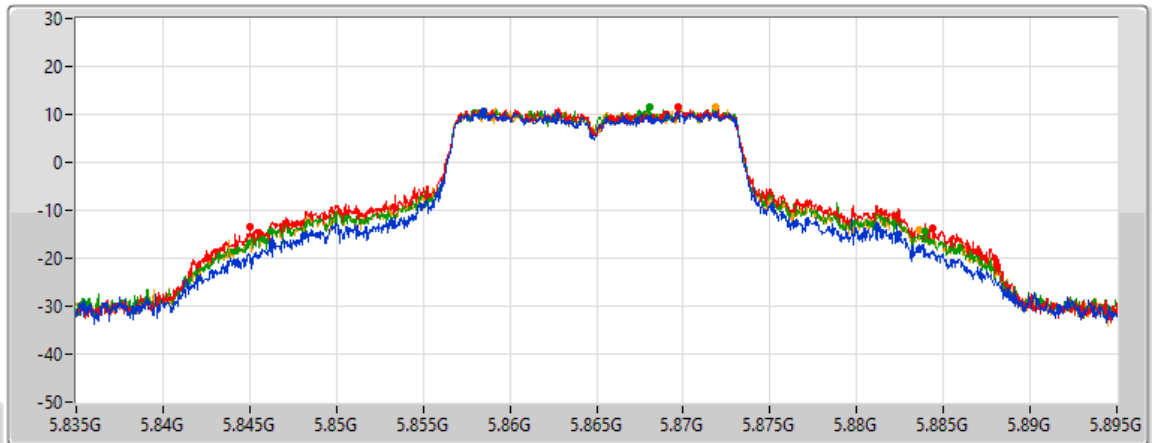
Detector Type
Peak

Port 1 

Port 2 

Port 3 

Port 4 

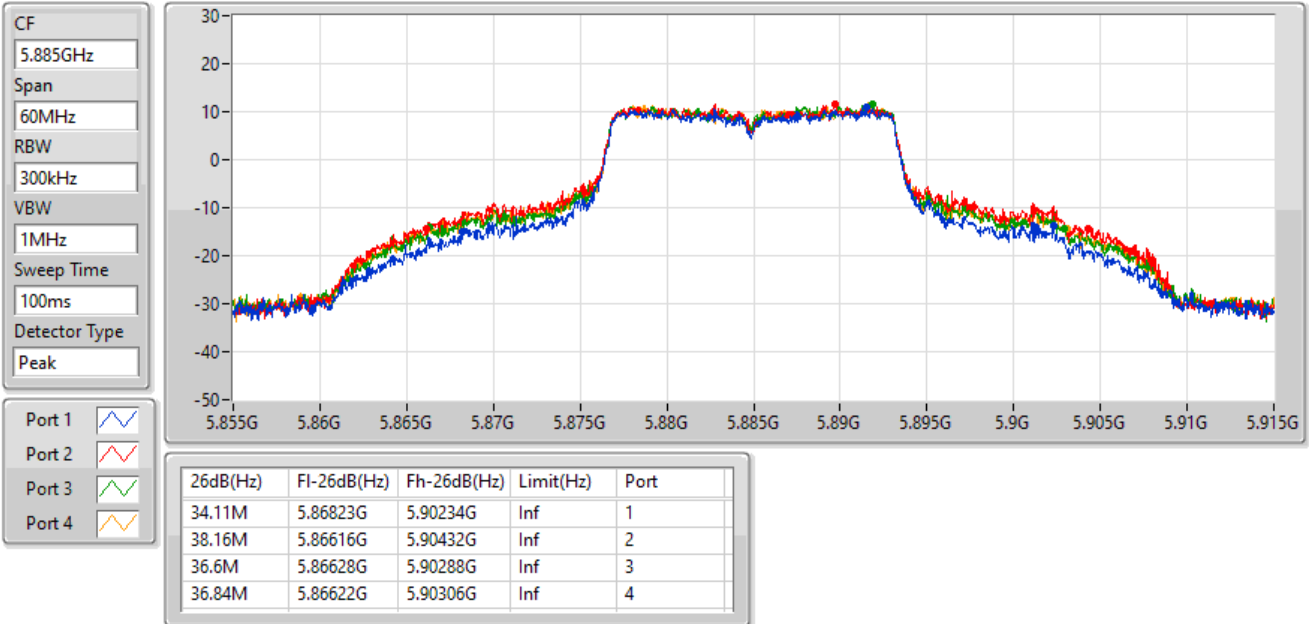


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	Limit(Hz)	Port
34.32M	5.84808G	5.8824G	Inf	1
39.36M	5.84502G	5.88438G	Inf	2
37.77M	5.84622G	5.88399G	Inf	3
37.38M	5.84622G	5.8836G	Inf	4

802.11a_Nss1,(6Mbps)_4TX

EBW
5885MHz

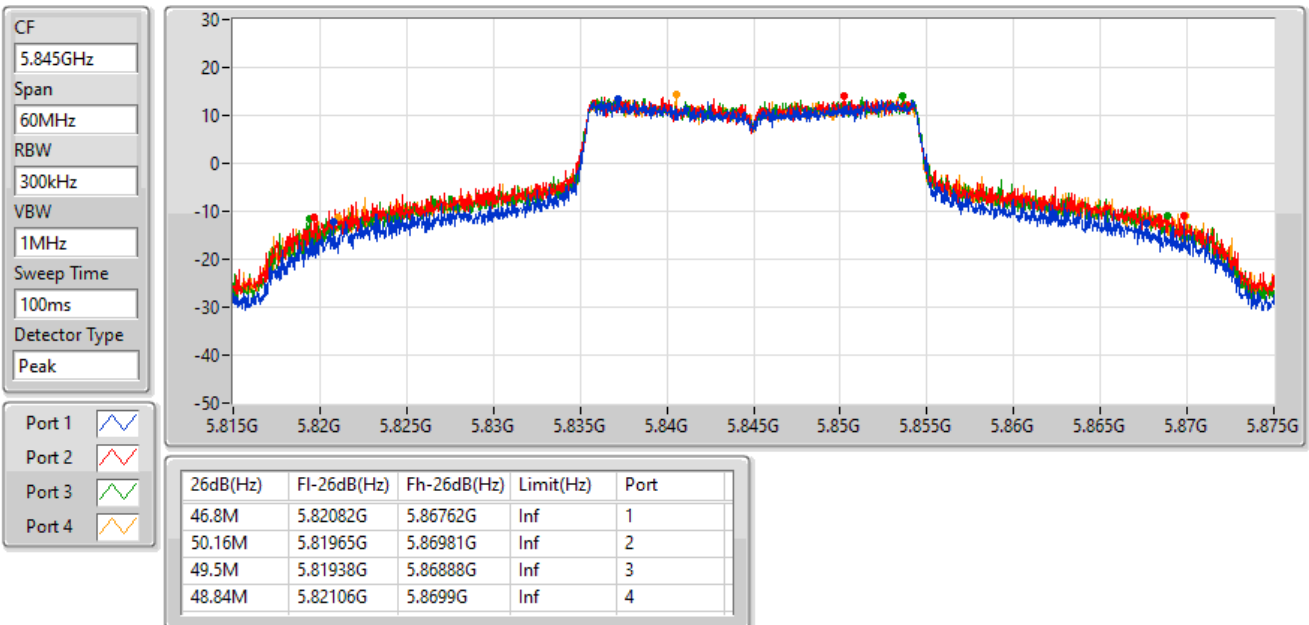
16/12/2021



802.11ax HEW20_Nss1,(MCS0)_4TX

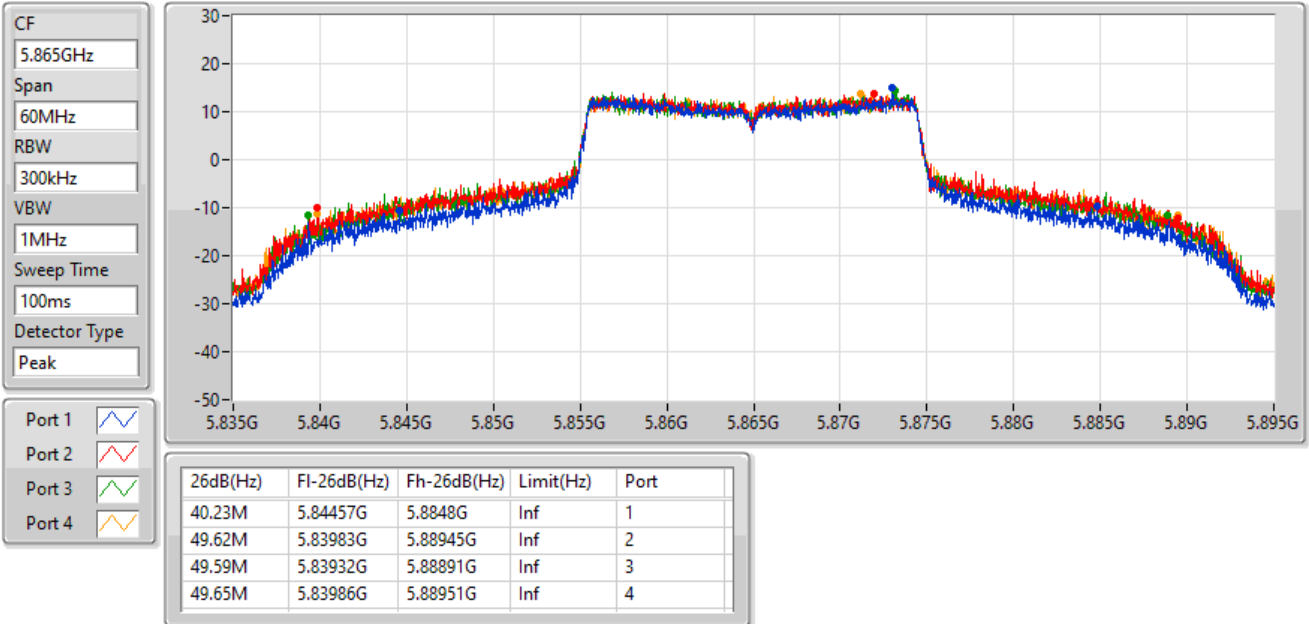
EBW
5845MHz

16/12/2021

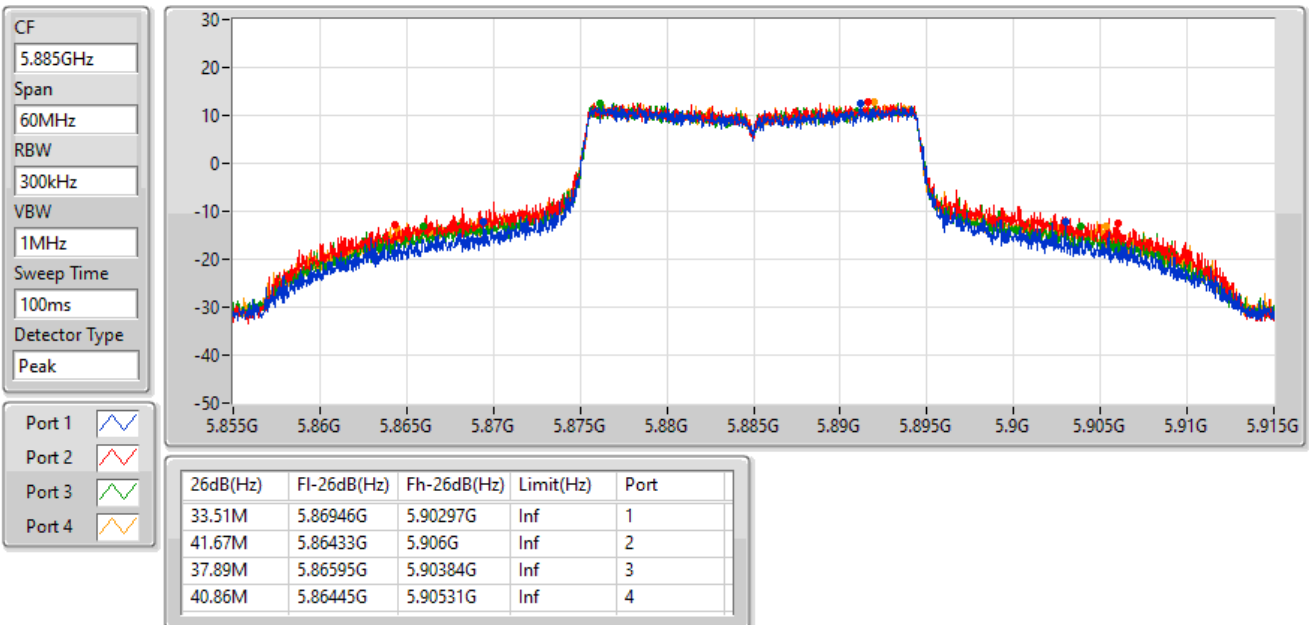


802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5865MHz

16/12/2021

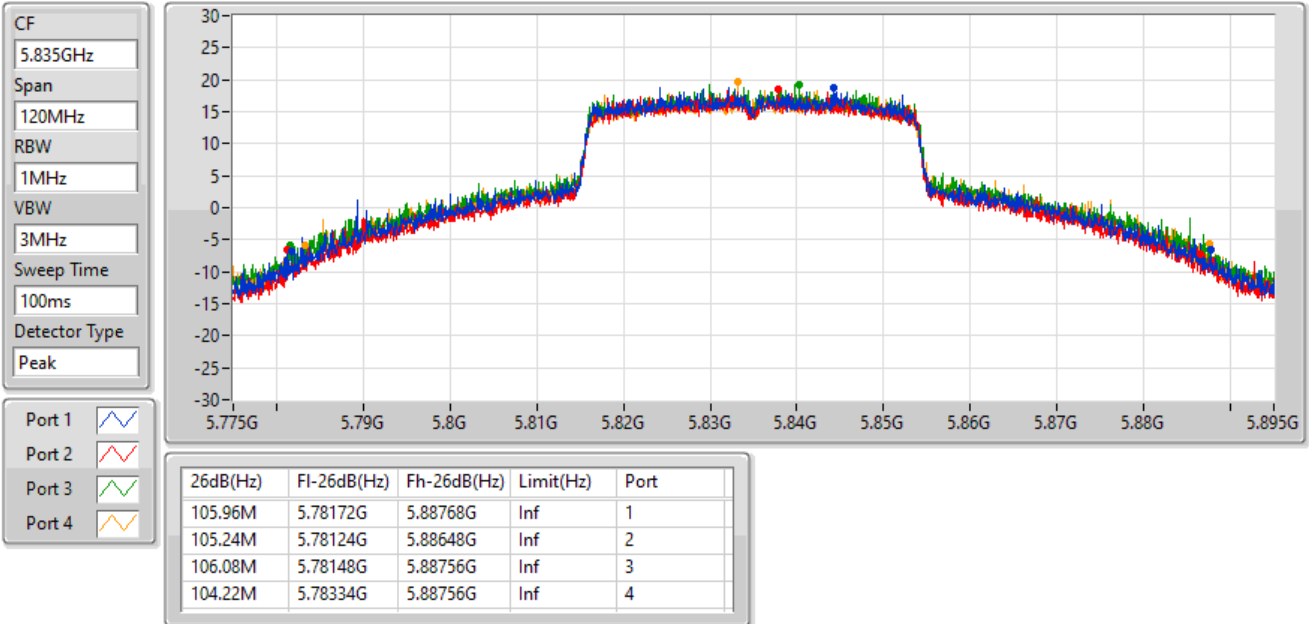

802.11ax HEW20_Nss1,(MCS0)_4TX
EBW
5885MHz

16/12/2021

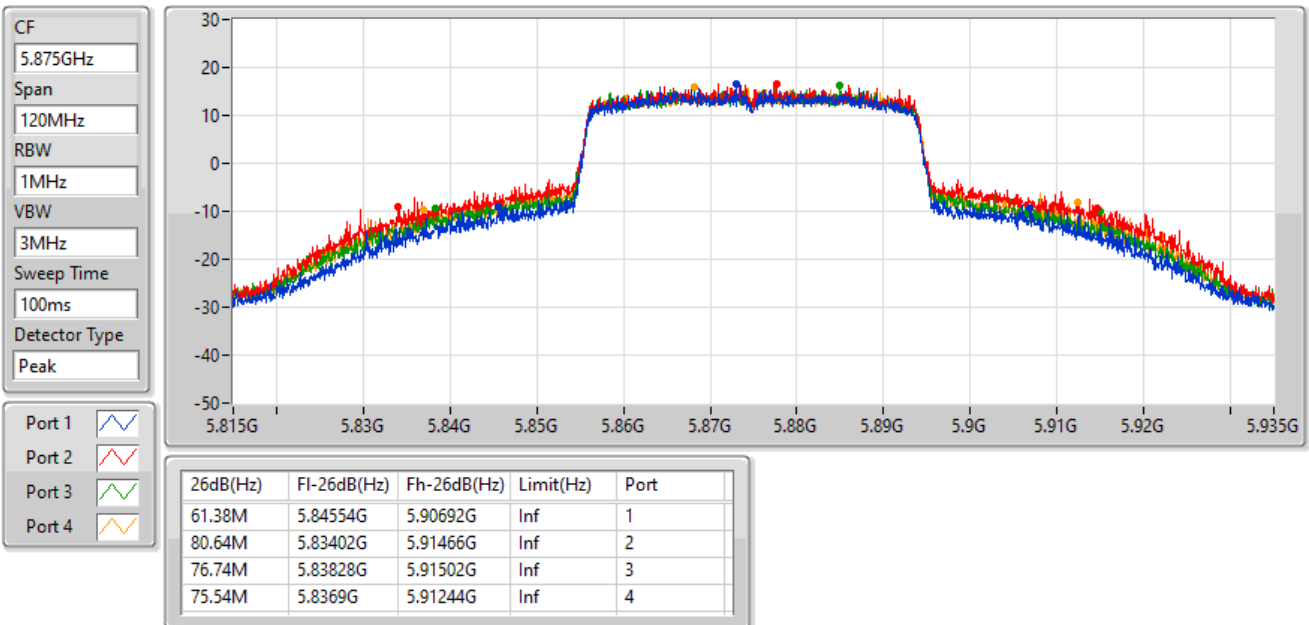


802.11ax HEW40_Nss1,(MCS0)_4TX
EBW
5835MHz

16/12/2021


802.11ax HEW40_Nss1,(MCS0)_4TX
EBW
5875MHz

16/12/2021

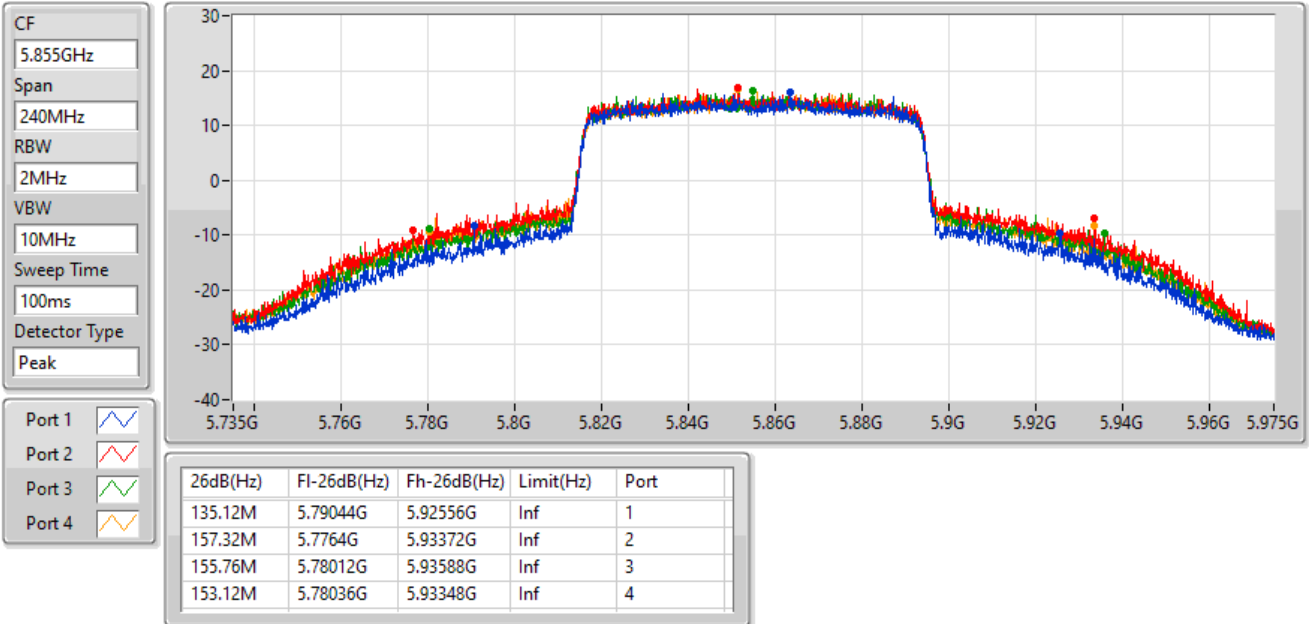


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

5855MHz

16/12/2021



Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	22.51	0.17824
802.11ax HEW20_Nss1,(MCS0)_1TX	22.40	0.17378
802.11ax HEW40_Nss1,(MCS0)_1TX	22.13	0.16331
802.11ax HEW80_Nss1,(MCS0)_1TX	18.14	0.06516
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	22.40	0.17378
802.11ax HEW20_Nss1,(MCS0)_1TX	22.36	0.17219
802.11ax HEW40_Nss1,(MCS0)_1TX	22.15	0.16406
802.11ax HEW80_Nss1,(MCS0)_1TX	21.05	0.12735

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-
5180MHz	Pass	1.80	21.02	21.02	30.00
5200MHz	Pass	1.80	22.51	22.51	30.00
5240MHz	Pass	1.80	22.11	22.11	30.00
5745MHz	Pass	1.61	22.40	22.40	30.00
5785MHz	Pass	1.61	21.34	21.34	30.00
5825MHz	Pass	1.61	21.86	21.86	30.00
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-	-
5180MHz	Pass	1.80	20.63	20.63	30.00
5200MHz	Pass	1.80	22.40	22.40	30.00
5240MHz	Pass	1.80	22.00	22.00	30.00
5745MHz	Pass	1.61	22.36	22.36	30.00
5785MHz	Pass	1.61	21.26	21.26	30.00
5825MHz	Pass	1.61	21.82	21.82	30.00
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-	-
5190MHz	Pass	1.80	18.64	18.64	30.00
5230MHz	Pass	1.80	22.13	22.13	30.00
5755MHz	Pass	1.61	22.15	22.15	30.00
5795MHz	Pass	1.61	21.98	21.98	30.00
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-	-
5210MHz	Pass	1.80	18.14	18.14	30.00
5775MHz	Pass	1.61	21.05	21.05	30.00

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

Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	25.16	0.32810
802.11ax HEW20_Nss1,(MCS0)_2TX	24.89	0.30832
802.11ax HEW40_Nss1,(MCS0)_2TX	24.79	0.30130
802.11ax HEW80_Nss1,(MCS0)_2TX	20.81	0.12050
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	24.86	0.30620
802.11ax HEW20_Nss1,(MCS0)_2TX	24.59	0.28774
802.11ax HEW40_Nss1,(MCS0)_2TX	24.56	0.28576
802.11ax HEW80_Nss1,(MCS0)_2TX	22.20	0.16596

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	3.29	20.59	20.26	23.44	30.00
5200MHz	Pass	3.29	22.35	21.93	25.16	30.00
5240MHz	Pass	3.29	21.86	21.59	24.74	30.00
5745MHz	Pass	3.03	22.19	21.48	24.86	30.00
5785MHz	Pass	3.03	21.06	20.61	23.85	30.00
5825MHz	Pass	3.03	21.69	20.93	24.34	30.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	3.29	20.71	19.95	23.36	30.00
5200MHz	Pass	3.29	22.13	21.62	24.89	30.00
5240MHz	Pass	3.29	21.74	21.35	24.56	30.00
5745MHz	Pass	3.03	21.92	21.22	24.59	30.00
5785MHz	Pass	3.03	20.81	20.77	23.80	30.00
5825MHz	Pass	3.03	21.55	20.67	24.14	30.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	3.29	18.71	18.24	21.49	30.00
5230MHz	Pass	3.29	21.97	21.59	24.79	30.00
5755MHz	Pass	3.03	21.86	21.22	24.56	30.00
5795MHz	Pass	3.03	20.96	20.92	23.95	30.00
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	3.29	18.13	17.44	20.81	30.00
5775MHz	Pass	3.03	19.27	19.10	22.20	30.00

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

Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS3)_2TX	24.89	0.30832
802.11ax HEW40-BF_Nss1,(MCS3)_2TX	24.79	0.30130
802.11ax HEW80-BF_Nss1,(MCS3)_2TX	20.81	0.12050
5.725-5.85GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS3)_2TX	24.59	0.28774
802.11ax HEW40-BF_Nss1,(MCS3)_2TX	24.56	0.28576
802.11ax HEW80-BF_Nss1,(MCS3)_2TX	22.20	0.16596

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS3)_2TX	-	-	-	-	-	-
5180MHz	Pass	4.36	20.71	19.95	23.36	30.00
5200MHz	Pass	4.36	22.13	21.62	24.89	30.00
5240MHz	Pass	4.36	21.74	21.35	24.56	30.00
5745MHz	Pass	3.75	21.92	21.22	24.59	30.00
5785MHz	Pass	3.75	20.81	20.77	23.80	30.00
5825MHz	Pass	3.75	21.55	20.67	24.14	30.00
802.11ax HEW40-BF_Nss1,(MCS3)_2TX	-	-	-	-	-	-
5190MHz	Pass	4.36	18.71	18.24	21.49	30.00
5230MHz	Pass	4.36	21.97	21.59	24.79	30.00
5755MHz	Pass	3.75	21.86	21.22	24.56	30.00
5795MHz	Pass	3.75	20.96	20.92	23.95	30.00
802.11ax HEW80-BF_Nss1,(MCS3)_2TX	-	-	-	-	-	-
5210MHz	Pass	4.36	18.13	17.44	20.81	30.00
5775MHz	Pass	3.75	19.27	19.1	22.20	30.00

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

Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	28.11	0.64714
802.11ax HEW20_Nss1,(MCS0)_4TX	27.89	0.61518
802.11ax HEW40_Nss1,(MCS0)_4TX	26.90	0.48978
802.11ax HEW80_Nss1,(MCS0)_4TX	22.35	0.17179
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	27.60	0.57544
802.11ax HEW20_Nss1,(MCS0)_4TX	27.54	0.56754
802.11ax HEW40_Nss1,(MCS0)_4TX	27.15	0.51880
802.11ax HEW80_Nss1,(MCS0)_4TX	24.50	0.28184

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	4.07	19.14	18.92	18.80	18.96	24.98	30.00
5200MHz	Pass	4.07	22.18	21.85	22.03	22.27	28.11	30.00
5240MHz	Pass	4.07	21.68	21.41	21.71	22.08	27.75	30.00
5745MHz	Pass	3.84	21.55	20.85	21.91	21.93	27.60	30.00
5785MHz	Pass	3.84	20.29	20.22	21.25	21.29	26.81	30.00
5825MHz	Pass	3.84	20.96	20.14	20.95	21.45	26.92	30.00
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	4.07	18.98	18.50	18.45	18.57	24.65	30.00
5200MHz	Pass	4.07	21.78	21.30	22.03	22.29	27.89	30.00
5240MHz	Pass	4.07	21.36	20.93	21.69	22.10	27.56	30.00
5745MHz	Pass	3.84	21.50	20.73	21.74	22.01	27.54	30.00
5785MHz	Pass	3.84	20.19	20.13	21.20	21.13	26.71	30.00
5825MHz	Pass	3.84	20.87	20.01	20.90	21.33	26.82	30.00
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	4.07	18.62	18.15	17.97	18.28	24.28	30.00
5230MHz	Pass	4.07	21.63	20.70	20.43	20.64	26.90	30.00
5755MHz	Pass	3.84	21.01	20.33	21.49	21.59	27.15	30.00
5795MHz	Pass	3.84	20.03	19.96	20.81	21.14	26.53	30.00
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	4.07	16.59	16.28	15.95	16.49	22.35	30.00
5775MHz	Pass	3.84	18.56	18.39	18.57	18.39	24.50	30.00

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

Summary

Mode	Total Power (dBm)	Total Power (W)
5.15-5.25GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS3)_4TX	27.89	0.61518
802.11ax HEW40-BF_Nss1,(MCS3)_4TX	26.90	0.48978
802.11ax HEW80-BF_Nss1,(MCS3)_4TX	22.35	0.17179
5.725-5.85GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS3)_4TX	27.54	0.56754
802.11ax HEW40-BF_Nss1,(MCS3)_4TX	27.15	0.51880
802.11ax HEW80-BF_Nss1,(MCS3)_4TX	24.50	0.28184

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS3)_4TX	-	-	-	-	-	-	-	-
5180MHz	Pass	6.45	18.98	18.5	18.45	18.57	24.65	29.55
5200MHz	Pass	6.45	21.78	21.3	22.03	22.29	27.89	29.55
5240MHz	Pass	6.45	21.36	20.93	21.69	22.1	27.56	29.55
5745MHz	Pass	5.18	21.5	20.73	21.74	22.01	27.54	30.00
5785MHz	Pass	5.18	20.19	20.13	21.2	21.13	26.71	30.00
5825MHz	Pass	5.18	20.87	20.01	20.9	21.33	26.82	30.00
802.11ax HEW40-BF_Nss1,(MCS3)_4TX	-	-	-	-	-	-	-	-
5190MHz	Pass	6.45	18.62	18.15	17.97	18.28	24.28	29.55
5230MHz	Pass	6.45	21.63	20.7	20.43	20.64	26.90	29.55
5755MHz	Pass	5.18	21.01	20.33	21.49	21.59	27.15	30.00
5795MHz	Pass	5.18	20.03	19.96	20.81	21.14	26.53	30.00
802.11ax HEW80-BF_Nss1,(MCS3)_4TX	-	-	-	-	-	-	-	-
5210MHz	Pass	6.45	16.59	16.28	15.95	16.49	22.35	29.55
5775MHz	Pass	5.18	18.56	18.39	18.57	18.39	24.50	30.00

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



Average Power_Radio 2

Appendix C.6

Summary

Mode	Total Power (dBm)	Total Power (W)
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_1TX	22.95	0.19724
802.11ax HEW20_Nss1,(MCS0)_1TX	22.97	0.19815
802.11ax HEW40_Nss1,(MCS0)_1TX	22.86	0.19320
802.11ax HEW80_Nss1,(MCS0)_1TX	21.03	0.12677

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_1TX	-	-	-	-	-
5745MHz	Pass	4.33	22.95	22.95	30.00
5785MHz	Pass	4.33	22.73	22.73	30.00
5825MHz	Pass	4.33	22.36	22.36	30.00
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-	-
5745MHz	Pass	4.33	22.94	22.94	30.00
5785MHz	Pass	4.33	22.97	22.97	30.00
5825MHz	Pass	4.33	22.55	22.55	30.00
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-	-
5755MHz	Pass	4.33	21.83	21.83	30.00
5795MHz	Pass	4.33	22.86	22.86	30.00
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-	-
5775MHz	Pass	4.33	21.03	21.03	30.00

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



Average Power_Radio 2

Appendix C.7

Summary

Mode	Total Power (dBm)	Total Power (W)
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	25.76	0.37670
802.11ax HEW20_Nss1,(MCS0)_2TX	25.85	0.38459
802.11ax HEW40_Nss1,(MCS0)_2TX	25.51	0.35563
802.11ax HEW80_Nss1,(MCS0)_2TX	21.98	0.15776

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5745MHz	Pass	4.33	22.84	22.65	25.76	30.00
5785MHz	Pass	4.33	22.52	22.88	25.71	30.00
5825MHz	Pass	4.33	22.18	22.42	25.31	30.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5745MHz	Pass	4.33	22.87	22.26	25.59	30.00
5785MHz	Pass	4.33	22.81	22.87	25.85	30.00
5825MHz	Pass	4.33	22.42	22.53	25.49	30.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5755MHz	Pass	4.33	21.86	21.39	24.64	30.00
5795MHz	Pass	4.33	22.71	22.27	25.51	30.00
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5775MHz	Pass	4.33	19.15	18.79	21.98	30.00

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



Average Power_Radio 2

Appendix C.8

Summary

Mode	Total Power (dBm)	Total Power (W)
5.725-5.85GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS3)_2TX	25.85	0.38459
802.11ax HEW40-BF_Nss1,(MCS3)_2TX	25.51	0.35563
802.11ax HEW80-BF_Nss1,(MCS3)_2TX	21.98	0.15776