



FCC Radio Test Report

FCC ID : LDKMU6CR2417
Equipment : Cisco Catalyst 9136I Access Point
Brand Name : Cisco
Model Name : C9136I-B
Applicant : Cisco Systems Inc
125 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 Sep. 07, 2023, and testing was started from Sep. 08, 2023 and completed on Oct. 12, 2023. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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


Approved by: Jackson Tsai

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History of this test report

Report No.	Version	Description	Issued Date
FR180526-19AE	01	Initial issue of report	Feb. 07, 2024



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	15.407(a)	Emission Bandwidth	PASS	-
3.2	15.407(a)	Maximum Equivalent Isotropically Radiated Power (E.I.R.P.)	PASS	-
3.3	15.407(a)	Peak Power Spectral Density (E.I.R.P.)	PASS	-
3.4	15.407(b)	Unwanted Emissions	PASS	-

Note 1: From Sporton Project No.: FR180526-17AE (Serving radio)

Declaration of Conformity:

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

Comments and Explanations:

The 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.

Reviewed by: Ryan Hsiao

Report Producer: Ann Hou



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5925 ~ 6425	a, ax (HEW20)	5955 ~ 6415	1 ~ 93 [24]
6525 ~ 6875		6535 ~ 6855	117 ~ 181 [17]
5925 ~ 6425	a, ax (HEW40)	5965 ~ 6405	3 ~ 91 [12]
6525 ~ 6875		6565 ~ 6845	123 ~ 179 [8]
5925 ~ 6425	a, ax (HEW80)	5985 ~ 6385	7 ~ 87 [6]
6525 ~ 6875		6625 ~ 6785	135 ~ 167 [3]
5925 ~ 6425	a, ax (HEW160)	6025 ~ 6345	15 ~ 79 [3]
6525 ~ 6875		6665	143 [1]

Non-Beamforming_Serving Radio_1T1S

Band	Mode	BWch (MHz)	Nant
5.925-6.425GHz	11a20	20	1TX
6.525-6.875GHz	11a20	20	1TX
5.925-6.425GHz	11a40	40	1TX
6.525-6.875GHz	11a40	40	1TX
5.925-6.425GHz	11a80	80	1TX
6.525-6.875GHz	11a80	80	1TX
5.925-6.425GHz	11a160	160	1TX
6.525-6.875GHz	11a160	160	1TX
5.925-6.425GHz	802.11ax HEW20	20	1TX
6.525-6.875GHz	802.11ax HEW20	20	1TX
5.925-6.425GHz	802.11ax HEW40	40	1TX
6.525-6.875GHz	802.11ax HEW40	40	1TX
5.925-6.425GHz	802.11ax HEW80	80	1TX
6.525-6.875GHz	802.11ax HEW80	80	1TX
5.925-6.425GHz	802.11ax HEW160	160	1TX
6.525-6.875GHz	802.11ax HEW160	160	1TX

**Non-Beamforming_Serving Radio_2T1S**

Band	Mode	BWch (MHz)	Nant
5.925-6.425GHz	11a20	20	2TX
6.525-6.875GHz	11a20	20	2TX
5.925-6.425GHz	11a40	40	2TX
6.525-6.875GHz	11a40	40	2TX
5.925-6.425GHz	11a80	80	2TX
6.525-6.875GHz	11a80	80	2TX
5.925-6.425GHz	11a160	160	2TX
6.525-6.875GHz	11a160	160	2TX
5.925-6.425GHz	802.11ax HEW20	20	2TX
6.525-6.875GHz	802.11ax HEW20	20	2TX
5.925-6.425GHz	802.11ax HEW40	40	2TX
6.525-6.875GHz	802.11ax HEW40	40	2TX
5.925-6.425GHz	802.11ax HEW80	80	2TX
6.525-6.875GHz	802.11ax HEW80	80	2TX
5.925-6.425GHz	802.11ax HEW160	160	2TX
6.525-6.875GHz	802.11ax HEW160	160	2TX

Non-Beamforming_Serving Radio_4T1S

Band	Mode	BWch (MHz)	Nant
5.925-6.425GHz	11a20	20	4TX
6.525-6.875GHz	11a20	20	4TX
5.925-6.425GHz	11a40	40	4TX
6.525-6.875GHz	11a40	40	4TX
5.925-6.425GHz	11a80	80	4TX
6.525-6.875GHz	11a80	80	4TX
5.925-6.425GHz	11a160	160	4TX
6.525-6.875GHz	11a160	160	4TX
5.925-6.425GHz	802.11ax HEW20	20	4TX
6.525-6.875GHz	802.11ax HEW20	20	4TX
5.925-6.425GHz	802.11ax HEW40	40	4TX
6.525-6.875GHz	802.11ax HEW40	40	4TX
5.925-6.425GHz	802.11ax HEW80	80	4TX
6.525-6.875GHz	802.11ax HEW80	80	4TX
5.925-6.425GHz	802.11ax HEW160	160	4TX
6.525-6.875GHz	802.11ax HEW160	160	4TX

**Non-Beamforming_Scanning Radio_1T1S**

Band	Mode	BWch (MHz)	Nant
5.925-6.425GHz	11a20	20	1TX
6.525-6.875GHz	11a20	20	1TX
5.925-6.425GHz	11a40	40	1TX
6.525-6.875GHz	11a40	40	1TX
5.925-6.425GHz	11a80	80	1TX
6.525-6.875GHz	11a80	80	1TX
5.925-6.425GHz	11a160	160	1TX
6.525-6.875GHz	11a160	160	1TX
5.925-6.425GHz	802.11ax HEW20	20	1TX
6.525-6.875GHz	802.11ax HEW20	20	1TX
5.925-6.425GHz	802.11ax HEW40	40	1TX
6.525-6.875GHz	802.11ax HEW40	40	1TX
5.925-6.425GHz	802.11ax HEW80	80	1TX
6.525-6.875GHz	802.11ax HEW80	80	1TX
5.925-6.425GHz	802.11ax HEW160	160	1TX
6.525-6.875GHz	802.11ax HEW160	160	1TX

Non-Beamforming_Scanning Radio_2T1S

Band	Mode	BWch (MHz)	Nant
5.925-6.425GHz	11a20	20	2TX
6.525-6.875GHz	11a20	20	2TX
5.925-6.425GHz	11a40	40	2TX
6.525-6.875GHz	11a40	40	2TX
5.925-6.425GHz	11a80	80	2TX
6.525-6.875GHz	11a80	80	2TX
5.925-6.425GHz	11a160	160	2TX
6.525-6.875GHz	11a160	160	2TX
5.925-6.425GHz	802.11ax HEW20	20	2TX
6.525-6.875GHz	802.11ax HEW20	20	2TX
5.925-6.425GHz	802.11ax HEW40	40	2TX
6.525-6.875GHz	802.11ax HEW40	40	2TX
5.925-6.425GHz	802.11ax HEW80	80	2TX
6.525-6.875GHz	802.11ax HEW80	80	2TX
5.925-6.425GHz	802.11ax HEW160	160	2TX
6.525-6.875GHz	802.11ax HEW160	160	2TX

**Beamforming_Serving Radio_2T1S**

Band	Mode	BWch (MHz)	Nant
5.925-6.425GHz	802.11ax HEW20-BF	20	2TX
6.525-6.875GHz	802.11ax HEW20-BF	20	2TX
5.925-6.425GHz	802.11ax HEW40-BF	40	2TX
6.525-6.875GHz	802.11ax HEW40-BF	40	2TX
5.925-6.425GHz	802.11ax HEW80-BF	80	2TX
6.525-6.875GHz	802.11ax HEW80-BF	80	2TX
5.925-6.425GHz	802.11ax HEW160-BF	160	2TX
6.525-6.875GHz	802.11ax HEW160-BF	160	2TX

Beamforming_Serving Radio_4T1S

Band	Mode	BWch (MHz)	Nant
5.925-6.425GHz	802.11ax HEW20-BF	20	4TX
6.525-6.875GHz	802.11ax HEW20-BF	20	4TX
5.925-6.425GHz	802.11ax HEW40-BF	40	4TX
6.525-6.875GHz	802.11ax HEW40-BF	40	4TX
5.925-6.425GHz	802.11ax HEW80-BF	80	4TX
6.525-6.875GHz	802.11ax HEW80-BF	80	4TX
5.925-6.425GHz	802.11ax HEW160-BF	160	4TX
6.525-6.875GHz	802.11ax HEW160-BF	160	4TX

Beamforming_Scanning Radio_2T1S

Band	Mode	BWch (MHz)	Nant
5.925-6.425GHz	802.11ax HEW20-BF	20	2TX
6.525-6.875GHz	802.11ax HEW20-BF	20	2TX
5.925-6.425GHz	802.11ax HEW40-BF	40	2TX
6.525-6.875GHz	802.11ax HEW40-BF	40	2TX
5.925-6.425GHz	802.11ax HEW80-BF	80	2TX
6.525-6.875GHz	802.11ax HEW80-BF	80	2TX
5.925-6.425GHz	802.11ax HEW160-BF	160	2TX
6.525-6.875GHz	802.11ax HEW160-BF	160	2TX

Note:

- ♦ 11a use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- ♦ HEW20, HEW40, HEW80 and HEW160 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- ♦ BWch is the nominal channel bandwidth.
- ♦ The channel defined in the IEEE Standard P802.11ax™/D6.1.



1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Support
9	Foxconn	361.01530.005	PIFA	I-PEX	6	Serving Radio
10	Foxconn	361.01530.005	PIFA	I-PEX	6	
11	Foxconn	361.01530.005	PIFA	I-PEX	6	
12	Foxconn	361.01530.005	PIFA	I-PEX	6	
13	Foxconn	361.01530.005	PIFA	I-PEX	6	Scanning Radio
14	Foxconn	361.01530.005	PIFA	I-PEX	6	

Directional Gain (dBi) for Power					
Ant.	Serving Radio			Scanning Radio	
	1T1S	2T1S	4T1S	1T1S	2T1S
9-12	6	6	6	-	-
13-14	-	-	-	6	6

Directional Gain (dBi) for PSD					
Ant.	Serving Radio			Scanning Radio	
	1T1S	2T1S	4T1S	1T1S	2T1S
9-12	6	9.01	12.01	-	-
13-14	-	-	-	6	9.01

For 6GHz function:

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

Ant. 13 (port 1) and Ant. 14 (port 2) could transmit/receive simultaneously.

For IEEE 802.11 a/ax mode (4TX/4RX)

Ant. 9 (port 1), Ant. 10 (port 2), Ant. 11(port 3) and Ant. 12 (port 4) could transmit/receive simultaneously.

Note 1: Directional gain information

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

Ex.

Directional Gain (NSS1) formula :

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

$$NSS1(g1,1) = 10^{G1/20} ; NSS1(g1,2) = 10^{G2/20} ; NSS1(g1,2) = 10^{G3/20} ; NSS1(g1,2) = 10^{G4/20}$$

$$g_{j,k} = (NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2$$

$$DG = 10 \log[(NSS1(g1,1) + NSS1(g1,2) + NSS1(g1,3) + NSS1(g1,4))^2 / N_{ANT}] \Rightarrow 10$$

$$\log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20} + 10^{G4/20})^2 / N_{ANT}]$$

Where ;

G1 = Ant 1 Gain ; G2 = Ant 2 Gain ; G3 = Ant 3 Gain ; G4 = Ant 4 Gain ;

**1.1.3 EUT Information**

Operational Condition			
EUT Power Type	From PoE		
Software Version	17.13.0.72		
EUT Function	☐	Indoor Access Point	☐ Subordinate
	☐	Indoor Client	☒ Standard Power Access Point
	☐	Dual Client	☐ Standard Client
	☐	Fixed Client	
Beamforming Function	☒	With beamforming	☐ Without beamforming
Resource Unit (802.11ax)	☒	Full RU	☐ Partial RU
Puncturing Function	☐	Support	☒ Not Support
Type of EUT			
☒	Stand-alone		
☐	Combined (EUT where the radio part is fully integrated within another device)		
	Combined Equipment - Brand Name / Model No.: ...		
☐	Plug-in radio (EUT intended for a variety of host systems)		
	Host System - Brand Name / Model No.:		
☐	Other:		

Note: The above information was declared by manufacturer.

1.1.4 Mode Test Duty Cycle**Non-Beamforming_Serving Radio_1T1S**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
11a20_20MHz_Nss1,(6Mbps)_1TX	0.929	0.32	1.434m	1k
11a20_40MHz_Nss1,(6Mbps)_1TX	0.927	0.33	1.434m	1k
11a20_80MHz_Nss1,(6Mbps)_1TX	0.924	0.34	1.434m	1k
11a20_160MHz_Nss1,(6Mbps)_1TX	0.935	0.29	1.434m	1k
802.11ax HEW20_Nss1,(MCS0)_1TX	0.905	0.43	5.445m	300
802.11ax HEW40_Nss1,(MCS0)_1TX	0.931	0.31	5.446m	300
802.11ax HEW80_Nss1,(MCS0)_1TX	0.923	0.35	5.446m	300
802.11ax HEW160_Nss1,(MCS0)_1TX	0.926	0.33	5.446m	300

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

**Non-Beamforming_Serving Radio_2T1S**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
11a20_20MHz_Nss1,(6Mbps)_2TX	0.938	0.28	1.434m	1k
11a40_40MHz_Nss1,(6Mbps)_2TX	0.933	0.3	1.434m	1k
11a80_80MHz_Nss1,(6Mbps)_2TX	0.937	0.28	1.434m	1k
11a160_160MHz_Nss1,(6Mbps)_2TX	0.919	0.37	1.434m	1k
802.11ax HEW20_Nss1,(MCS0)_2TX	0.843	0.74	5.446m	300
802.11ax HEW40_Nss1,(MCS0)_2TX	0.927	0.33	5.446m	300
802.11ax HEW80_Nss1,(MCS0)_2TX	0.921	0.36	5.446m	300
802.11ax HEW160_Nss1,(MCS0)_2TX	0.9	0.46	5.446m	300

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

Non-Beamforming_Serving Radio_4T1S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
11a20_20MHz_Nss1,(6Mbps)_4TX	0.924	0.34	1.434m	1k
11a40_40MHz_Nss1,(6Mbps)_4TX	0.929	0.32	1.434m	1k
11a80_80MHz_Nss1,(6Mbps)_4TX	0.927	0.33	1.434m	1k
11a160_160MHz_Nss1,(6Mbps)_4TX	0.924	0.34	1.434m	1k
802.11ax HEW2_Nss1,(MCS0)_4TX	0.846	0.73	5.446m	300
802.11ax HEW40_Nss1,(MCS0)_4TX	0.911	0.4	5.446m	300
802.11ax HEW80_Nss1,(MCS0)_4TX	0.914	0.39	5.446m	300
802.11ax HEW160_Nss1,(MCS0)_4TX	0.904	0.44	5.446m	300

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

Non-Beamforming_Scanning Radio_1T1S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
11a20_20MHz_Nss1,(MCS0)_1TX	0.92	0.36	1.433m	1k
11a40_40MHz_Nss1,(MCS0)_1TX	0.926	0.33	1.433m	1k
11a80_80MHz_Nss1,(MCS0)_1TX	0.933	0.3	1.433m	1k
11a160_160MHz_Nss1,(MCS0)_1TX	0.934	0.3	1.433m	1k
802.11ax HEW20_Nss1,(MCS0)_1TX	0.904	0.44	5.446m	300
802.11ax HEW40_Nss1,(MCS0)_1TX	0.914	0.39	5.446m	300
802.11ax HEW80_Nss1,(MCS0)_1TX	0.927	0.33	5.446m	300
802.11ax HEW160_Nss1,(MCS0)_1TX	0.932	0.31	5.446m	300

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

**Non-Beamforming_Scanning Radio_2T1S**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
11a20_20MHz_Nss1,(6Mbps)_2TX	0.938	0.28	1.433m	1k
11a40_40MHz_Nss1,(6Mbps)_2TX	0.929	0.32	1.433m	1k
11a80_80MHz_Nss1,(6Mbps)_2TX	0.93	0.32	1.433m	1k
11a160_160MHz_Nss1,(6Mbps)_2TX	0.943	0.25	1.432m	1k
802.11ax HEW20_Nss1,(MCS0)_2TX	0.94	0.27	5.446m	300
802.11ax HEW40_Nss1,(MCS0)_2TX	0.934	0.3	5.446m	300
802.11ax HEW80_Nss1,(MCS0)_2TX	0.924	0.34	5.446m	300
802.11ax HEW160_Nss1,(MCS0)_2TX	0.926	0.33	5.446m	300

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

Beamforming_Serving Radio_2T1S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.843	0.74	5.446m	300
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.927	0.33	5.446m	300
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	0.921	0.36	5.446m	300
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	0.9	0.46	5.446m	300

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

Beamforming_Serving Radio_4T1S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	0.846	0.73	5.446m	300
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	0.911	0.4	5.446m	300
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	0.914	0.39	5.446m	300
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	0.904	0.44	5.446m	300

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

Beamforming_Scanning Radio_2T1S

Mode	DC	DCF(dB)	T(s)	VBW(Hz) $\geq 1/T$
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.94	0.27	5.446m	300
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.934	0.3	5.446m	300
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	0.924	0.34	5.446m	300
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	0.926	0.33	5.446m	300

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



1.1.5 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR180526AE
Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
Add equipment class 6SD operates in the 5.925-6.425 GHz and 6.525-6.875 GHz bands through SW change.	Emission Bandwidth, Maximum Equivalent Isotropically Radiated Power (E.I.R.P.), Peak Power Spectral Density (E.I.R.P.) and Unwanted Emissions were evaluated.

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
- ♦ KDB 789033 D02 v02r01

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

- ♦ KDB 987594 D01 v02r02
- ♦ KDB 987594 D02 v02r01
- ♦ KDB 662911 D01 v02r01
- ♦ KDB 412172 D01 v01r01
- ♦ KDB 414788 D01 v01r01

1.3 Testing Location Information

Test Lab. : Sporton International Inc. Hsinhua Laboratory				
☒ Hsinhua (TAF: 3785)	ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
	TEL: 886-3-327-3456		FAX: 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
RF Conducted (Serving radio)	TH01-HY	Luby hsu	22.2~23.4°C / 50~51%	08/Sep/2023~25/Sep/2023
RF Conducted (Scanning Radio)	TH07-HY	Yuna Lin	22.8~23.6°C / 53~58%	11/Oct/2023~12/Oct/2023
☒ Wenhua 3rd. (TAF: 3785)	ADD: No. 58, Aly. 75, Ln. 564, Wenhua 3rd Rd., Guishan Dist. Taoyuan City 333, Taiwan (R.O.C.)			
	TEL: 886-3-327-0868			
Test site Designation No. TW0036 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
Radiated (Serving radio)	03CH25-HY	Lego Lin	23.5~24.9°C / 57~59%	14/Sep/2023
Radiated (Scanning Radio)	03CH26-HY	Daniel Lin	22.5~22.7°C / 52~54%	12/Oct/2023
☐ Wen 33rd.St. (TAF: 3785)	ADD: No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)			
	TEL: 886-3-318-0787		FAX: 886-3-318-0287	
Test site Designation No. TW0008 with FCC.				

Note : The tested sample of the verified test item was received on Oct. 02, 2023.



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
Emission Bandwidth	1.5 MHz	Confidence levels of 95%
Maximum Equivalent Isotopically Radiated Power (E.I.R.P.)	1.2 dB	Confidence levels of 95%
Peak Power Spectral Density (E.I.R.P.)	1.2 dB	Confidence levels of 95%
Unwanted Emissions	4.8 dB	Confidence levels of 95%
Frequency Stability	1.18 ppm	Confidence levels of 95%
Temperature	0.41 °C	Confidence levels of 95%
Humidity	3.4 %	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

Test Software	Putty
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Non-Beamforming_Serving Radio_1T1S

Mode	Power Setting
11a20_20MHz_Nss1,(6Mbps)_1TX	-
5955MHz	17
6195MHz	17
6415MHz	17
6535MHz	17
6695MHz	17
6855MHz	17
11a40_40MHz_Nss1,(6Mbps)_1TX	-
5965MHz	17
6205MHz	17
6405MHz	17
6565MHz	17
6685MHz	17
6845MHz	17
11a80_80MHz_Nss1,(6Mbps)_1TX	-
5985MHz	17
6225MHz	17
6385MHz	17
6625MHz	17
6705MHz	17
6785MHz	17
11a160_160MHz_Nss1,(6Mbps)_1TX	-
6025MHz	17
6185MHz	17
6345MHz	17
6665MHz	17
802.11ax HEW20_Nss1,(MCS0)_1TX	-
5955MHz	17



6195MHz	17
6415MHz	17
6535MHz	17
6695MHz	17
6855MHz	17
802.11ax HEW40_Nss1,(MCS0)_1TX	-
5965MHz	17
6205MHz	17
6405MHz	17
6565MHz	17
6685MHz	17
6845MHz	17
802.11ax HEW80_Nss1,(MCS0)_1TX	-
5985MHz	17
6225MHz	17
6385MHz	17
6625MHz	17
6705MHz	17
6785MHz	17
802.11ax HEW160_Nss1,(MCS0)_1TX	-
6025MHz	17
6185MHz	17
6345MHz	17
6665MHz	17

**Non-Beamforming_Serving Radio_2T1S**

Mode	Power Setting
11a20_20MHz_Nss1,(6Mbps)_2TX	-
5955MHz	17
6195MHz	17
6415MHz	17
6535MHz	17
6695MHz	17
6855MHz	17
11a40_40MHz_Nss1,(6Mbps)_2TX	-
5965MHz	16
6205MHz	17
6405MHz	17
6565MHz	17
6685MHz	17
6845MHz	17
11a80_80MHz_Nss1,(6Mbps)_2TX	-
5985MHz	17
6225MHz	17
6385MHz	17
6625MHz	17
6705MHz	17
6785MHz	17
11a160_160MHz_Nss1,(6Mbps)_2TX	-
6025MHz	17
6185MHz	17
6345MHz	17
6665MHz	17
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5955MHz	17
6195MHz	17
6415MHz	17
6535MHz	17
6695MHz	17
6855MHz	17



802.11ax HEW40_Nss1,(MCS0)_2TX	-
5965MHz	17
6205MHz	17
6405MHz	17
6565MHz	17
6685MHz	17
6845MHz	17
802.11ax HEW80_Nss1,(MCS0)_2TX	-
5985MHz	17
6225MHz	17
6385MHz	17
6625MHz	17
6705MHz	17
6785MHz	17
802.11ax HEW160_Nss1,(MCS0)_2TX	-
6025MHz	17
6185MHz	17
6345MHz	17
6665MHz	17

**Non-Beamforming_Serving Radio_4T1S**

Mode	Power Setting
11a20_20MHz_Nss1,(6Mbps)_4TX	-
5955MHz	17
6195MHz	17
6415MHz	17
6535MHz	17
6695MHz	17
6855MHz	17
11a40_40MHz_Nss1,(6Mbps)_4TX	-
5965MHz	14
6205MHz	17
6405MHz	17
6565MHz	17
6685MHz	17
6845MHz	17
11a80_80MHz_Nss1,(6Mbps)_4TX	-
5985MHz	16
6225MHz	17
6385MHz	17
6625MHz	17
6705MHz	17
6785MHz	17
11a160_160MHz_Nss1,(6Mbps)_4TX	-
6025MHz	17
6185MHz	17
6345MHz	17
6665MHz	17
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5955MHz	17
6195MHz	17
6415MHz	17
6535MHz	17
6695MHz	17
6855MHz	17



802.11ax HEW40_Nss1,(MCS0)_4TX	-
5965MHz	17
6205MHz	17
6405MHz	17
6565MHz	17
6685MHz	17
6845MHz	17
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5985MHz	16
6225MHz	17
6385MHz	17
6625MHz	17
6705MHz	17
6785MHz	17
802.11ax HEW160_Nss1,(MCS0)_4TX	-
6025MHz	17
6185MHz	17
6345MHz	17
6665MHz	17

**Non-Beamforming_Scanning Radio_1T1S**

Mode	Power Setting
11a20_20MHz_Nss1,(6Mbps)_1TX	-
5955MHz	17
6195MHz	17
6415MHz	17
6535MHz	17
6695MHz	17
6855MHz	17
11a40_40MHz_Nss1,(6Mbps)_1TX	-
5965MHz	17
6205MHz	17
6405MHz	17
6565MHz	17
6685MHz	17
6845MHz	17
11a80_80MHz_Nss1,(6Mbps)_1TX	-
5985MHz	17
6225MHz	17
6385MHz	17
6625MHz	17
6705MHz	17
6785MHz	17
11a160_160MHz_Nss1,(6Mbps)_1TX	-
6025MHz	17
6185MHz	17
6345MHz	17
6665MHz	17
802.11ax HEW20_Nss1,(MCS0)_1TX	-
5955MHz	17
6195MHz	17
6415MHz	17
6535MHz	17
6695MHz	17
6855MHz	17



802.11ax HEW40_Nss1,(MCS0)_1TX	-
5965MHz	17
6205MHz	17
6405MHz	17
6565MHz	17
6685MHz	17
6845MHz	17
802.11ax HEW80_Nss1,(MCS0)_1TX	-
5985MHz	17
6225MHz	17
6385MHz	17
6625MHz	17
6705MHz	17
6785MHz	17
802.11ax HEW160_Nss1,(MCS0)_1TX	-
6025MHz	17
6185MHz	17
6345MHz	17
6665MHz	17

**Non-Beamforming_Scanning Radio_2T1S**

Mode	Power Setting
11a20_20MHz_Nss1,(6Mbps)_2TX	-
5955MHz	17
6195MHz	17
6415MHz	17
6535MHz	17
6695MHz	17
6855MHz	17
11a40_40MHz_Nss1,(6Mbps)_2TX	-
5965MHz	15
6205MHz	17
6405MHz	17
6565MHz	17
6685MHz	17
6845MHz	17
11a80_80MHz_Nss1,(6Mbps)_2TX	-
5985MHz	17
6225MHz	17
6385MHz	17
6625MHz	17
6705MHz	17
6785MHz	17
11a160_160MHz_Nss1,(6Mbps)_2TX	-
6025MHz	17
6185MHz	17
6345MHz	17
6665MHz	17
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5955MHz	17
6195MHz	17
6415MHz	17
6535MHz	17
6695MHz	17
6855MHz	17



802.11ax HEW40_Nss1,(MCS0)_2TX	-
5965MHz	17
6205MHz	17
6405MHz	17
6565MHz	17
6685MHz	17
6845MHz	17
802.11ax HEW80_Nss1,(MCS0)_2TX	-
5985MHz	17
6225MHz	17
6385MHz	17
6625MHz	17
6705MHz	17
6785MHz	17
802.11ax HEW160_Nss1,(MCS0)_2TX	-
6025MHz	17
6185MHz	17
6345MHz	17
6665MHz	17

**Beamforming_Serving Radio_2T1S**

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
5955MHz	17
6195MHz	17
6415MHz	17
6535MHz	17
6695MHz	17
6855MHz	17
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
5965MHz	17
6205MHz	17
6405MHz	17
6565MHz	17
6685MHz	17
6845MHz	17
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-
5985MHz	17
6225MHz	17
6385MHz	17
6625MHz	17
6705MHz	17
6785MHz	17
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	-
6025MHz	17
6185MHz	17
6345MHz	17
6665MHz	17

**Beamforming_Serving Radio_4T1S**

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
5955MHz	17
6195MHz	17
6415MHz	17
6535MHz	17
6695MHz	17
6855MHz	17
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
5965MHz	17
6205MHz	17
6405MHz	17
6565MHz	17
6685MHz	17
6845MHz	17
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-
5985MHz	16
6225MHz	17
6385MHz	17
6625MHz	17
6705MHz	17
6785MHz	17
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-
6025MHz	17
6185MHz	17
6345MHz	17
6665MHz	17

**Beamforming_Scanning Radio_2T1S**

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
5955MHz	17
6195MHz	17
6415MHz	17
6535MHz	17
6695MHz	17
6855MHz	17
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
5965MHz	17
6205MHz	17
6405MHz	17
6565MHz	17
6685MHz	17
6845MHz	17
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-
5985MHz	17
6225MHz	17
6385MHz	17
6625MHz	17
6705MHz	17
6785MHz	17
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	-
6025MHz	17
6185MHz	17
6345MHz	17
6665MHz	17

2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	Emission Bandwidth Maximum Equivalent Isotopically Radiated Power (E.I.R.P.) Peak Power Spectral Density (E.I.R.P.) Unwanted Emissions
Test Condition	Conducted measurement at transmit chains

The Worst Case Mode for Following Conformance Tests			
Tests Item	Unwanted Emissions		
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.		
Operating Mode < 1GHz	CTX		
1	PoE mode; Scanning Radio_2T1S		
2	PoE mode; Serving Radio_4T1S		
Operating Mode > 1GHz	CTX		
Orthogonal Planes of EUT	X Plane	Y Plane	Z Plane
			
Worst Planes of EUT		V (Scanning Radio)	V (Serving Radio)

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	CTX
1	WLAN 2.4G (Serving Radio Primary)+ WLAN 5G (Serving Radio Primary)+ WLAN 5G (Serving Radio Secondary)+ WLAN 6G+ Bluetooth
Refer to Sporton Test Report No.: FA180526-19 for Co-location RF Exposure Evaluation.	

2.3 Accessories

Accessories				
PoE	Brand Name	DELTA	Model Name	ADH-65AR B
	Power Rating	I/P: 100 - 240 Vac, 2.0 A, O/P: 56 Vdc, 1.161 A		

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

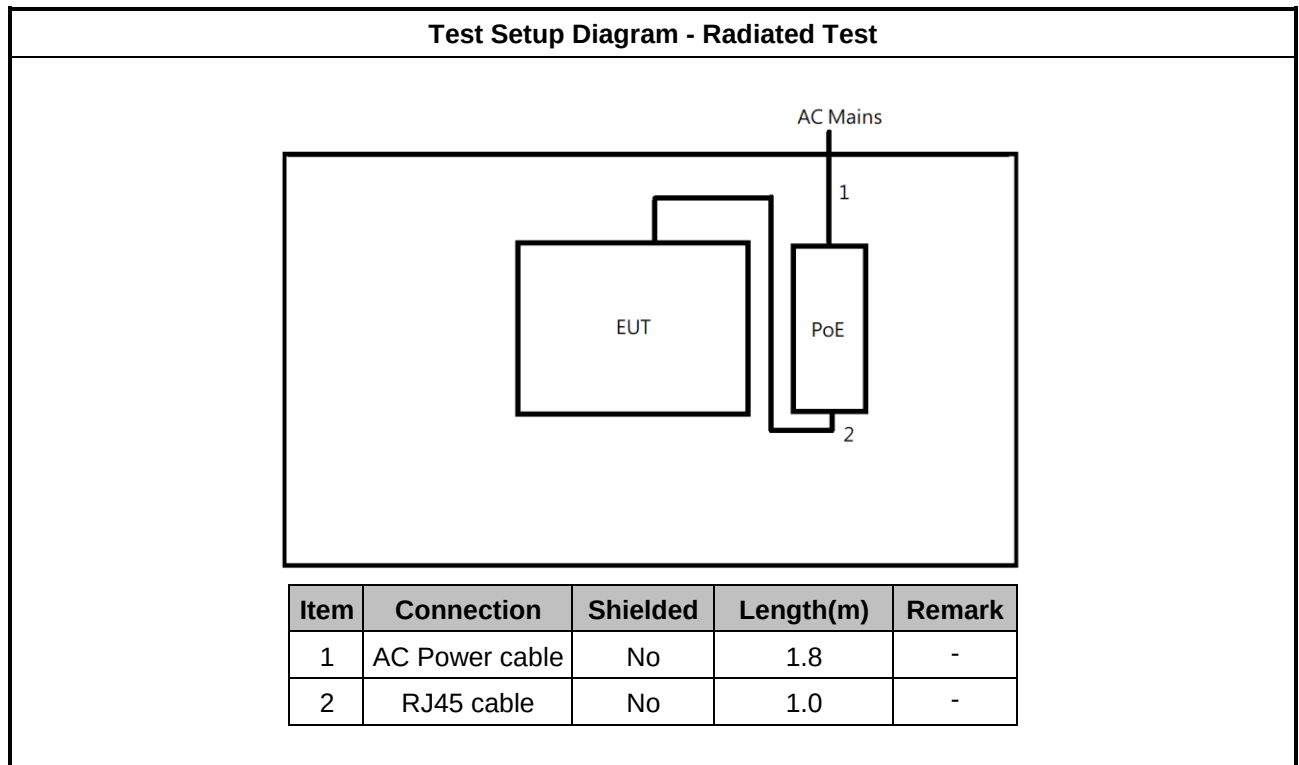


2.4 Support Equipment

Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-

Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	RJ45 cable	Power sync	CAT-6E-01	-	-
2	AC Power cable	Power sync	PW-GPC180-3	-	-

2.5 Test Setup Diagram



3 Transmitter Test Result

3.1 Emission Bandwidth

3.1.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
☒	For the 5925-6425 GHz band, N/A
☐	For the 6425-6525 GHz band, N/A
☒	For the 6525-6875 GHz band, N/A
☐	For the 6875-7125 GHz band, N/A

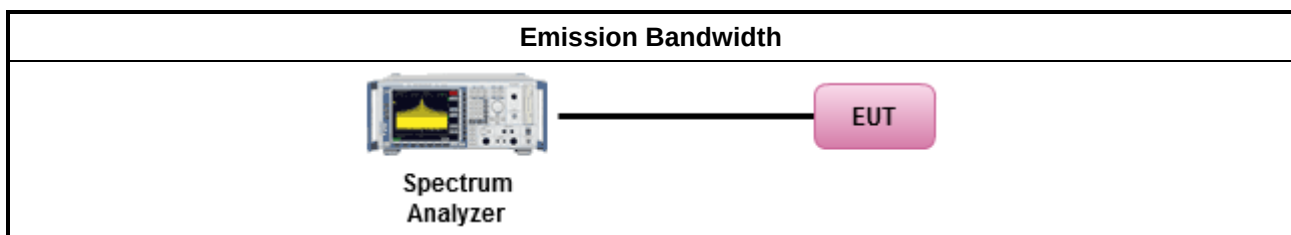
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method	
For the emission bandwidth shall be measured using one of the options below:	
☒	Refer as KDB 789033, clause C for EBW and clause D for OBW measurement.
☐	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.
☐	Refer as IC RSS-Gen, clause 6.7 for bandwidth testing.

3.1.4 Test Setup



3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A



3.2 Maximum Equivalent Isotropically Radiated Power (E.I.R.P.)

3.2.1 Maximum Equivalent Isotropically Radiated Power (E.I.R.P.) Limit

Maximum Equivalent Isotropically Radiated Power (E.I.R.P.) Limit	
UNII Devices	
☒ For the 5.925 ~ 6.425 GHz band:	
	■ For standard power access point and fixed client device : e.i.r.p < 36 dBm , For outdoor devices, the maximum e.i.r.p. at any elevation angle above 30 degrees not exceed 125 mW (21 dBm).
	■ For indoor access point : e.i.r.p < 30 dBm.
	■ For subordinate device control of an indoor access point : e.i.r.p < 30 dBm.
	■ For client device control of a standard power access point : e.i.r.p < 30 dBm.
	■ For client device control of an indoor access point : e.i.r.p < 24 dBm.
☐ For the 6.425 ~ 6.525 GHz band:	
	■ For indoor access point : e.i.r.p < 30 dBm.
	■ For client device control of an indoor access point : e.i.r.p < 24 dBm.
☒ For the 6.525 ~ 6.875 GHz band:	
	■ For standard power access point and fixed client device : e.i.r.p < 36 dBm , For outdoor devices, the maximum e.i.r.p. at any elevation angle above 30 degrees not exceed 125 mW (21 dBm).
	■ For indoor access point : e.i.r.p < 30 dBm.
	■ For subordinate device control of an indoor access point : e.i.r.p < 30 dBm.
	■ For client device control of a standard power access point : e.i.r.p < 30 dBm.
	■ For client device control of an indoor access point : e.i.r.p < 24 dBm.
☐ For the 6.875 ~ 7.125 GHz band:	
	■ For indoor access point : e.i.r.p < 30 dBm.
	■ For client device control of an indoor access point : e.i.r.p < 24 dBm.

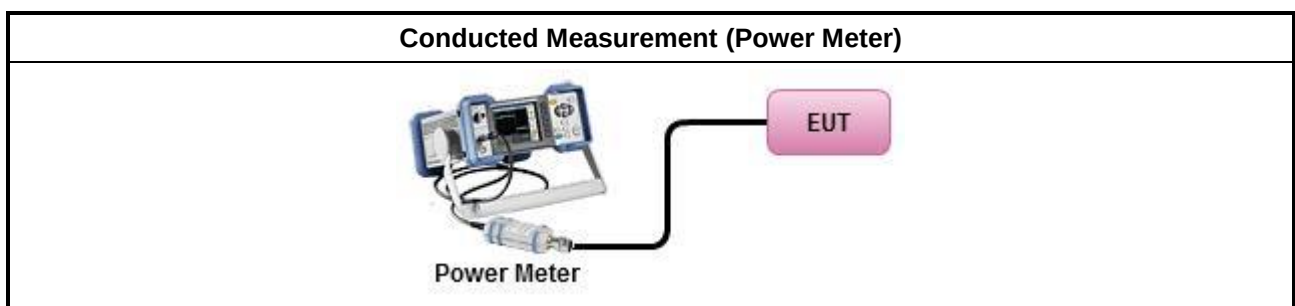
3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

Test Method	
Maximum Output Power Setting	
	Duty cycle $\geq 98\%$
	☐ Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).
	Duty cycle $< 98\%$
	☐ Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
	Wideband RF power meter and average over on/off periods with duty factor
	☒ Refer as KDB 789033, clause E Method PM-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: $P_{\text{total}} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $\text{EIRP}_{\text{total}} = P_{\text{total}} + \text{DG}$
☐ For radiated measurement.	
	Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
	Refer as KDB 412172, $\text{EIRP} = P_R + L_P$. where P_R = adjusted received power level; L_P = basic free space propagation path loss. $P_R = P_{\text{MEAS}} - G_R + L_C + L_{\text{ATTEN}} - G_{\text{AMP}}$ where P_{MEAS} = measured power level; G_R = gain of the receive (measurement) antenna; L_C = signal loss in the measurement cable; L_{ATTEN} = value of external attenuation (if used).

3.2.4 Test Setup



3.2.5 Test Result of Maximum Equivalent Isotopically Radiated Power (E.I.R.P)

Refer as Appendix B



3.3 Peak Power Spectral Density (E.I.R.P.)

3.3.1 Peak Power Spectral Density (E.I.R.P.) Limit

Peak Power Spectral Density (E.I.R.P.) Limit	
UNII Devices	
☒ For the 5.925 ~ 6.425 GHz band:	
	■ For standard power access point and fixed client device : e.i.r.p PSD < 23 dBm/MHz.
	■ For indoor access point : e.i.r.p PSD < 5 dBm/MHz.
	■ For subordinate device control of an indoor access point : e.i.r.p PSD < 5 dBm/MHz.
	■ For client device control of a standard power access point : e.i.r.p PSD < 17 dBm/MHz.
	■ For client device control of an indoor access point : e.i.r.p PSD < -1 dBm/MHz.
☐ For the 6.425 ~ 6.525 GHz band:	
	■ For indoor access point : e.i.r.p PSD < 5 dBm/MHz.
	■ For client device control of an indoor access point : e.i.r.p PSD < -1 dBm/MHz.
☒ For the 6.525 ~ 6.875 GHz band:	
	■ For standard power access point and fixed client device : e.i.r.p PSD < 23 dBm/MHz.
	■ For indoor access point : e.i.r.p PSD < 5 dBm/MHz.
	■ For subordinate device control of an indoor access point : e.i.r.p PSD < 5 dBm/MHz.
	■ For client device control of a standard power access point : e.i.r.p PSD < 17 dBm/MHz.
	■ For client device control of an indoor access point : e.i.r.p PSD < -1 dBm/MHz.
☐ For the 6.875 ~ 7.125 GHz band:	
	■ For indoor access point : e.i.r.p PSD < 5 dBm/MHz.
	■ For client device control of an indoor access point : e.i.r.p PSD < -1 dBm/MHz.

3.3.2 Measuring Instruments

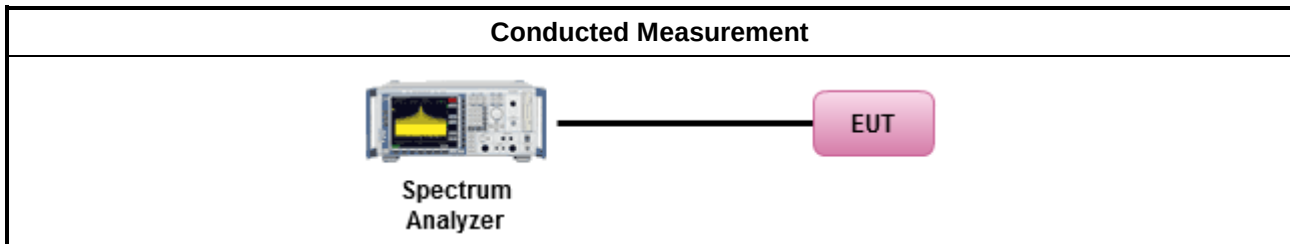
Refer a test equipment and calibration data table in this test report.



3.3.3 Test Procedures

Test Method	
Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options:	
☐	Refer as KDB 789033, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
☒	Refer as KDB 789033, clause E Method SA-2. (spectral trace averaging)
☐	Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
☒ For conducted measurement.	
If the EUT supports multiple transmit chains using options given below:	
☒	Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
☒	Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
☒	Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$	
☐ For radiated measurement.	
Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.	
Refer as KDB 412172, $EIRP = P_R + L_P$. where P_R = adjusted received power level; L_P = basic free space propagation path loss. $P_R = P_{MEAS} - G_R + L_C + L_{ATTEN} - G_{AMP}$ where P_{MEAS} = measured power level; G_R = gain of the receive (measurement) antenna; L_C = signal loss in the measurement cable; L_{ATTEN} = value of external attenuation (if used).	

3.3.4 Test Setup



3.3.5 Test Result of Peak Power Spectral Density (E.I.R.P.)

Refer as Appendix C



3.4 Unwanted Emissions

3.4.1 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

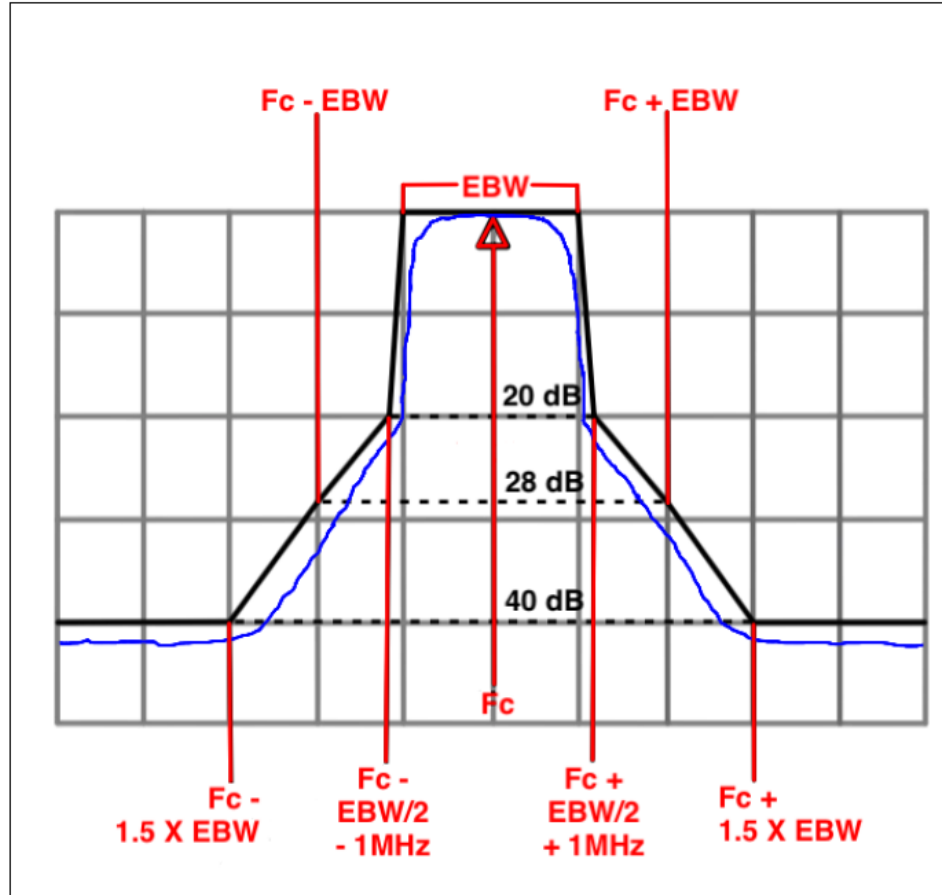
Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance 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($20 \times \log(\text{standard distance}/\text{test distance}) = 20\log(3/1) = 9.54\text{dB}$).
EX. Above 18GHz emission limit calculation (3m to 1m) = 54dBuV/m at 3m + 9.54dB = 63.54 dBuV/m at 1m.

Un-restricted band emissions above 1GHz Limit	
Frequency	Limit
Any outside the 5.945 – 7.125 GHz emission	e.i.r.p. -27 dBm [68.2 dBuV/m@3m] Note 1: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m($20 \times \log(\text{standard distance}/\text{test distance}) = 20\log(3/1) = 9.54\text{dB}$). EX. Above 18GHz emission limit calculation (3m to 1m) = 68.2dBuV/m at 3m + 9.54dB = 77.74 dBuV/m at 1m.
Frequency	Emission MASK Limit
5.945 – 7.125 GHz	Power spectral density must be suppressed by 20 dB at 1 MHz outside of channel edge, by 28 dB at one channel bandwidth from the channel center, and by 40 dB at one- and one-half times the channel bandwidth away from channel center. At frequencies between one megahertz outside an unlicensed device's

channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression, and at frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression. Emissions removed from the channel center by more than one- and one-half times the channel bandwidth must be suppressed by at least 40 dB.





3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

Test Method	
Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).	
The average emission levels shall be measured in [duty cycle $\geq$ 98 or duty factor].	
For the transmitter unwanted emissions shall be measured using following options below:	
	Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.
	Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.
	☒ Refer as KDB 789033, G)6) Method AD (Trace Averaging). (For unrestricted band measurement)
	☐ Refer as KDB 789033, 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.(For restricted band average measurement)
	☐ Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions.
	☒ Refer as KDB 789033, clause G)5) measurement procedure peak limit.
	☐ Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.
For emission MASK shall be measured using following options below:	
	☒ Refer as KDB 987594 D02, J) In-Band Emissions
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.	



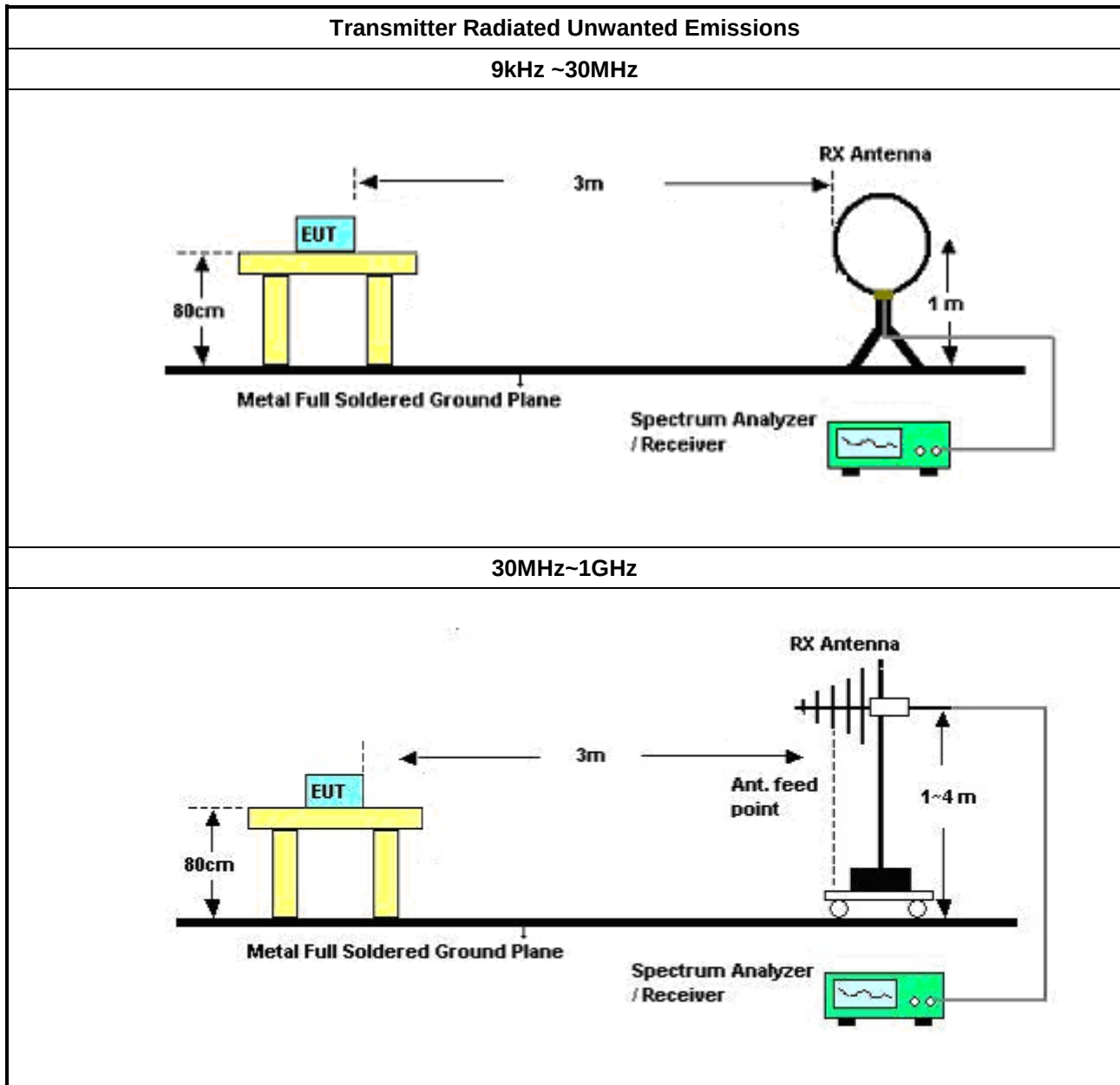
Test Method	
▪ For conducted and cabinet radiation measurement, refer as KDB 789033, clause G)3).	
	▪ For conducted unwanted emissions into non-restricted bands (relative emission limits). Devices with multiple transmit chains: Refer as FCC KDB 662911, when testing out-of-band and spurious emissions against relative emission limits, tests may be performed on each output individually without summing or adding 10 log(N) if the measurements are made relative to the in-band emissions on the individual outputs.
	▪ For conducted unwanted emissions into restricted bands (absolute emission limits). Devices with multiple transmit chains using options given below: (1) Measure and sum the spectra across the outputs or (2) Measure and add 10 log(N) dB
	▪ For FCC KDB 662911 The methodology described here may overestimate array gain, thereby resulting in apparent failures to satisfy the out-of-band limits even if the device is actually compliant. In such cases, compliance may be demonstrated by performing radiated tests around the frequencies at which the apparent failures occurred.
▪ Use the following spectrum analyzer settings:	
	▪ Set RBW=100 kHz for $f < 1$ GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.
	▪ Set RBW = 1 MHz, VBW= 3MHz for $f \geq 1$ GHz for peak measurement. For average measurement, refer as 1.1.4.
▪ KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.	
	▪ Based on FCC 15.31(f)(2): measurements may be performed at a distance closer than that specified in regulations; however, an attempt should be made to avoid making measurements in the near field.
	▪ Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.

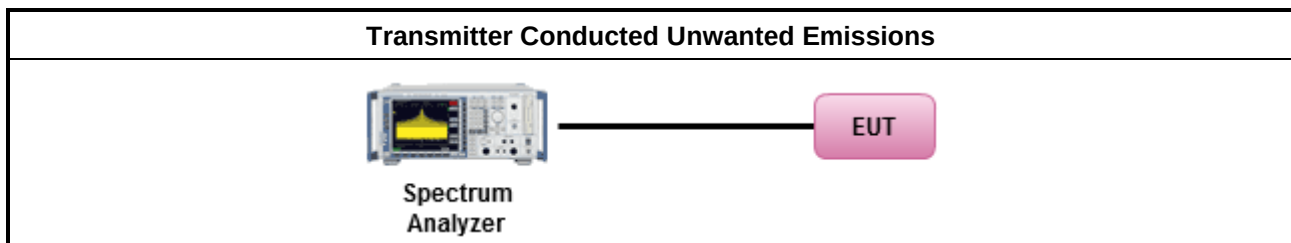
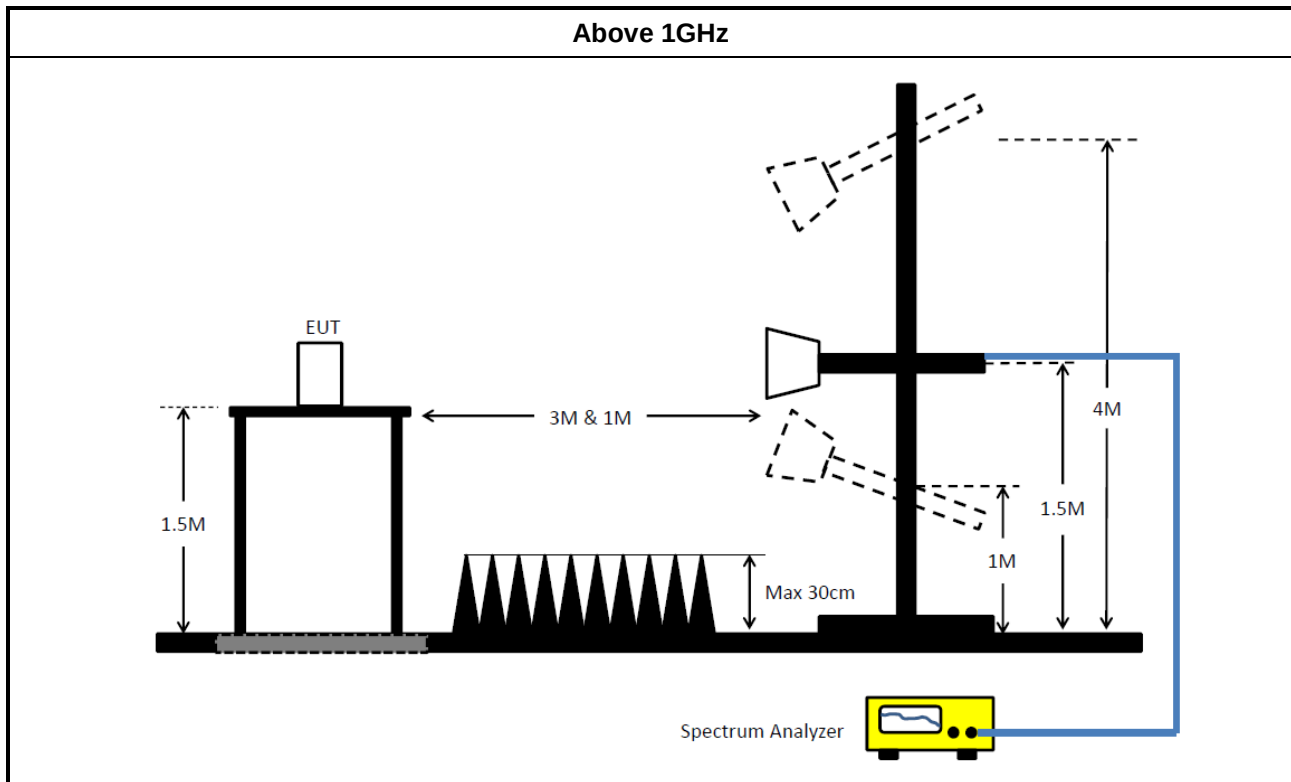
3.4.4 Measurement Results Calculation

The measured Level is calculated using:

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

3.4.5 Test Setup





3.4.6 Transmitter Unwanted Emissions (Below 30MHz)

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

3.4.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix D



4 Test Equipment and Calibration Data

Instrument for Conducted Test (TH07-HY)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101515	9kHz~40GHz	14/Feb/2023	13/Feb/2024
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	21/Oct/2022	20/Oct/2023
Pulse Sensor	Anritsu	MA2411B	1339407	300MHz~40GHz	14/Dec/2022	13/Dec/2023
Power Meter	Anritsu	ML2495A	1517010	300MHz~40GHz	14/Dec/2022	13/Dec/2023
SENSE-15407_NII	Sporton	V5.11.13	N/A	N/A	N/A	N/A

Instrument for Conducted Test (TH01-HY)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101013	10Hz~40GHz	10/Apr/2023	09/Apr/2024
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	21/Oct/2022	20/Oct/2023
Pulse Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	15/Feb/2023	14/Feb/2024
Power Meter	Anritsu	ML2495A	0949003	300MHz~40GHz	15/Feb/2023	14/Feb/2024
SENSE-15407_NII	Sporton	V5.11.10	N/A	N/A	N/A	N/A

Instrument for Radiated Test (03CH25-HY)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH25-HY	30MHz~1GHz 3m	03/Aug/2023	02/Aug/2024
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH25-HY	1GHz~18GHz 3m	09/Aug/2023	08/Aug/2024
Signal Analyzer	ROHDE&SCHWARZ	FSV3044	101410	10Hz~44GHz	02/Nov/2022	01/Nov/2023
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02876	1GHz~18GHz	12/Jul/2023	11/Jul/2024
Bilog Antenna & 6dB Attenuator	TESEQ & VGT	CBL 6111D & VFA 0400	63537/001	30MHz~1GHz	31/May/2023	30/May/2024
Preamplifier	SGH	PRAMP 903	20230515-1	30MHz~1GHz	25/May/2023	24/May/2024
Preamplifier	SGH	PRAMP 118-H	20230515-3	1GHz ~18GHz	25/May/2023	24/May/2024
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB007	1GHz~40GHz	24/Apr/2023	23/Apr/2024
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB007	30MHz~1GHz	24/Apr/2023	23/Apr/2024
Amplifier	EM	EM18G40G	060604	18GHz ~ 40GHz	16/Mar/2023	15/Mar/2024
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	01248	18GHz~40GHz	21/Aug/2023	20/Aug/2024
EMI Test Receiver	ROHDE & SCHWARZ	ESR	102318	9kHz~3.6GHz	29/Dec/2022	28/Dec/2023
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	23/Mar/2023	22/Mar/2024
SENSE-NII-15407	Sporton	NA	NA	NA	NA	NA

**Instrument for Radiated Test (03CH26-HY)**

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH26-HY	30MHz~1GHz 3m	08/Aug/2023	07/Aug/2024
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH26-HY	1GHz~18GHz 3m	08/Aug/2023	07/Aug/2024
Signal Analyzer	ROHDE&SCHWARZ	FSV3044	101411	10Hz~44GHz	27/Oct/2022	26/Oct/2023
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02877	1GHz~18GHz	12/Jul/2023	11/Jul/2024
Bilog Antenna & 6dB Attenuator	TESEQ & VGT	CBL 6111D & VFA 0400	63540/002	30MHz~1GHz	06/Jun/2023	05/Jun/2024
Preamplifier	SGH	PRAMP 903	20230515-2	30MHz~1GHz	25/May/2023	24/May/2024
Preamplifier	SGH	PRAMP 118-H	20230515-3	1GHz ~18GHz	25/May/2023	24/May/2024
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB009	1GHz~40GHz	24/Apr/2023	23/Apr/2024
RF Cable	HUBER+SUHNER	SUOFLEX 104	CB009	9kHz~1GHz	24/Apr/2023	23/Apr/2024
Amplifier	EM	EM18G40G	060604	18GHz ~ 40GHz	16/Mar/2023	15/Mar/2024
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	01248	18GHz~40GHz	21/Aug/2023	20/Aug/2024
EMI Test Receiver	ROHDE & SCHWARZ	ESR	102318	9kHz~3.6GHz	29/Dec/2022	28/Dec/2023
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	23/Mar/2023	22/Mar/2024
SENSE-15407_NII	Sporton	V5.11.13	NA	NA	NA	NA

**Summary**

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.925-6.425GHz	-	-	-	-	-
11a20_20MHz_Nss1,(6Mbps)_1TX	19.745M	16.624M	16M6D1D	19.14M	16.448M
11a40_40MHz_Nss1,(6Mbps)_1TX	38.72M	36.15M	36M2D1D	38.17M	36.018M
11a80_80MHz_Nss1,(6Mbps)_1TX	80.3M	75.642M	75M6D1D	79.42M	75.29M
11a160_160MHz_Nss1,(6Mbps)_1TX	162.36M	154.451M	154MD1D	160.6M	153.747M
802.11ax HEW20_Nss1,(MCS0)_1TX	21.175M	19.09M	19M1D1D	20.405M	18.991M
802.11ax HEW40_Nss1,(MCS0)_1TX	40.26M	37.631M	37M6D1D	38.94M	37.381M
802.11ax HEW80_Nss1,(MCS0)_1TX	81.62M	77.161M	77M2D1D	80.08M	76.762M
802.11ax HEW160_Nss1,(MCS0)_1TX	161.92M	154.923M	155MD1D	161.48M	153.523M
6.525-6.875GHz	-	-	-	-	-
11a20_20MHz_Nss1,(6Mbps)_1TX	19.855M	16.558M	16M6D1D	18.92M	16.492M
11a40_40MHz_Nss1,(6Mbps)_1TX	38.83M	36.15M	36M2D1D	37.84M	36.062M
11a80_80MHz_Nss1,(6Mbps)_1TX	81.18M	75.906M	75M9D1D	79.86M	75.466M
11a160_160MHz_Nss1,(6Mbps)_1TX	162.36M	153.571M	154MD1D	162.36M	153.571M
802.11ax HEW20_Nss1,(MCS0)_1TX	21.12M	19.065M	19M1D1D	20.185M	18.966M
802.11ax HEW40_Nss1,(MCS0)_1TX	39.49M	37.731M	37M7D1D	38.94M	37.331M
802.11ax HEW80_Nss1,(MCS0)_1TX	80.74M	77.361M	77M4D1D	80.08M	76.862M
802.11ax HEW160_Nss1,(MCS0)_1TX	161.92M	154.523M	155MD1D	161.92M	154.523M

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)
11a20_20MHz_Nss1,(6Mbps)_1TX	-	-	-	-
5955MHz	Pass	Inf	19.745M	16.624M
6195MHz	Pass	Inf	19.14M	16.558M
6415MHz	Pass	Inf	19.14M	16.448M
6535MHz	Pass	Inf	19.855M	16.492M
6695MHz	Pass	Inf	19.085M	16.558M
6855MHz	Pass	Inf	18.92M	16.492M
11a40_40MHz_Nss1,(6Mbps)_1TX	-	-	-	-
5965MHz	Pass	Inf	38.17M	36.018M
6205MHz	Pass	Inf	38.72M	36.15M
6405MHz	Pass	Inf	38.5M	36.106M
6565MHz	Pass	Inf	38.83M	36.062M
6685MHz	Pass	Inf	38.17M	36.15M
6845MHz	Pass	Inf	37.84M	36.106M
11a80_80MHz_Nss1,(6Mbps)_1TX	-	-	-	-
5985MHz	Pass	Inf	79.42M	75.378M
6225MHz	Pass	Inf	80.3M	75.642M
6385MHz	Pass	Inf	79.64M	75.29M
6625MHz	Pass	Inf	79.86M	75.906M
6705MHz	Pass	Inf	80.3M	75.73M
6785MHz	Pass	Inf	81.18M	75.466M
11a160_160MHz_Nss1,(6Mbps)_1TX	-	-	-	-
6025MHz	Pass	Inf	160.6M	153.747M
6185MHz	Pass	Inf	162.36M	154.451M
6345MHz	Pass	Inf	161.48M	153.747M
6665MHz	Pass	Inf	162.36M	153.571M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-
5955MHz	Pass	Inf	20.625M	19.09M
6195MHz	Pass	Inf	20.405M	19.065M
6415MHz	Pass	Inf	21.175M	18.991M
6535MHz	Pass	Inf	20.185M	18.966M
6695MHz	Pass	Inf	21.12M	19.065M
6855MHz	Pass	Inf	20.295M	19.015M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-
5965MHz	Pass	Inf	40.26M	37.631M
6205MHz	Pass	Inf	40.04M	37.581M
6405MHz	Pass	Inf	38.94M	37.381M
6565MHz	Pass	Inf	39.27M	37.331M
6685MHz	Pass	Inf	39.49M	37.731M
6845MHz	Pass	Inf	38.94M	37.681M
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-
5985MHz	Pass	Inf	80.3M	77.161M
6225MHz	Pass	Inf	80.08M	76.862M
6385MHz	Pass	Inf	81.62M	76.762M
6625MHz	Pass	Inf	80.08M	76.862M
6705MHz	Pass	Inf	80.74M	77.361M
6785MHz	Pass	Inf	80.52M	76.962M
802.11ax HEW160_Nss1,(MCS0)_1TX	-	-	-	-
6025MHz	Pass	Inf	161.48M	153.923M
6185MHz	Pass	Inf	161.92M	153.523M
6345MHz	Pass	Inf	161.92M	154.923M
6665MHz	Pass	Inf	161.92M	154.523M

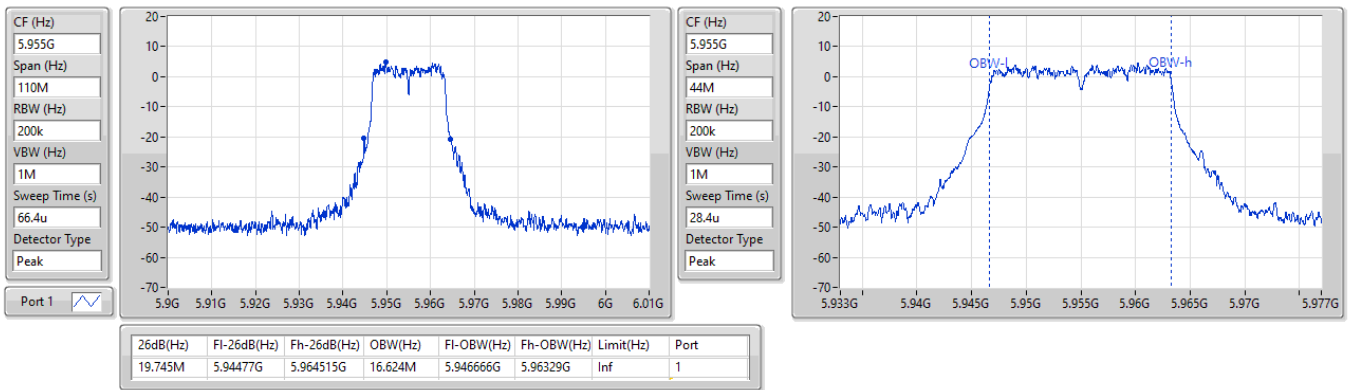
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

5.925-6.425GHz_11a20_20MHz_Nss1,(6Mbps)_1TX

EBW

5955MHz

22/09/2023

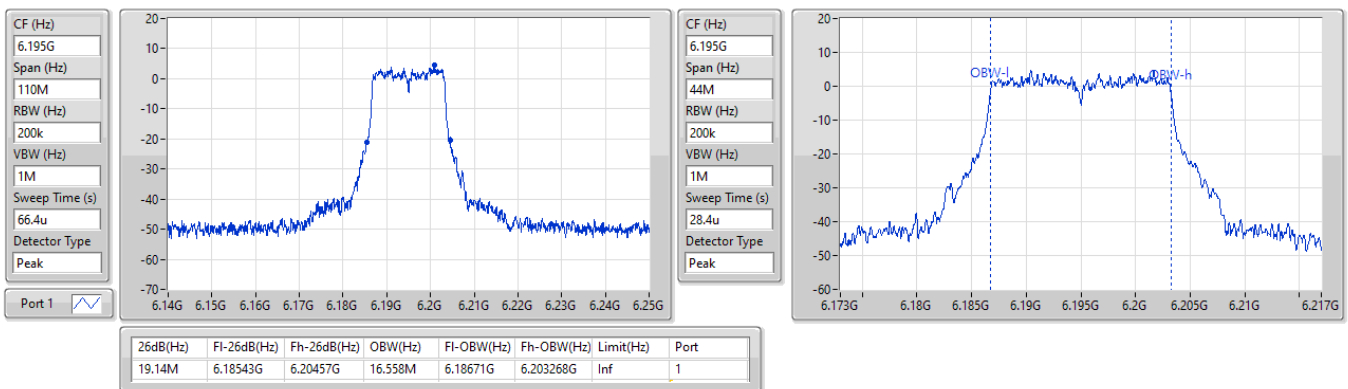


5.925-6.425GHz_11a20_20MHz_Nss1,(6Mbps)_1TX

EBW

6195MHz

21/09/2023

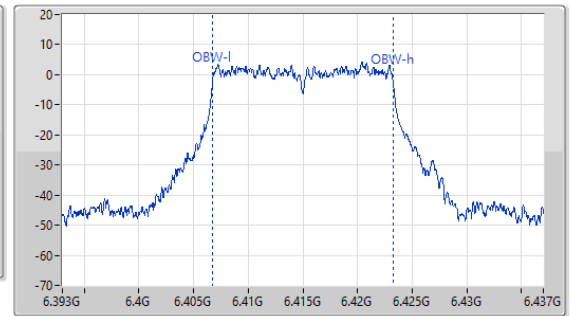
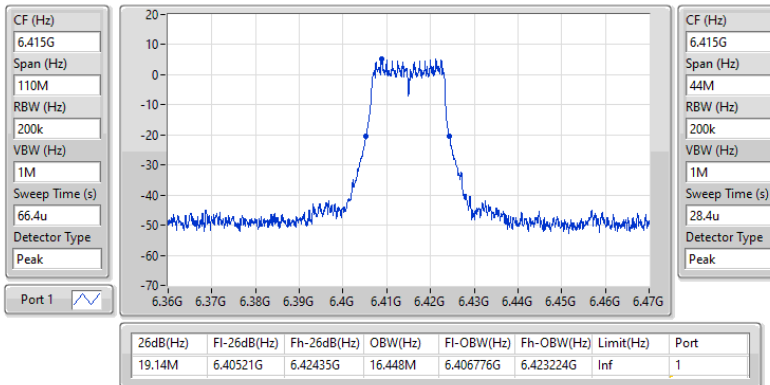


5.925-6.425GHz_11a20_20MHz_Nss1,(6Mbps)_1TX

EBW

6415MHz

21/09/2023

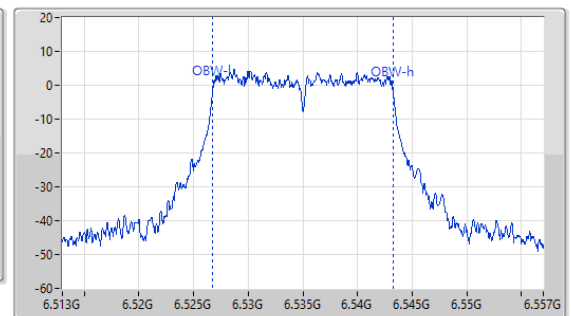
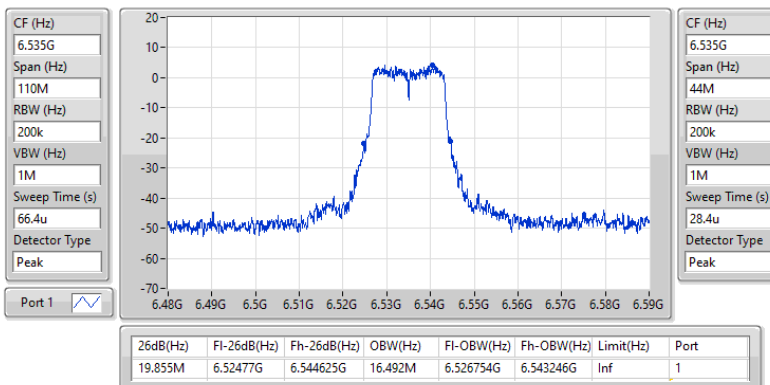


6.525-6.875GHz_11a20_20MHz_Nss1,(6Mbps)_1TX

EBW

6535MHz

21/09/2023

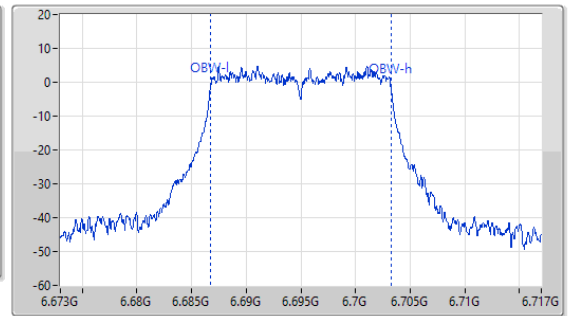
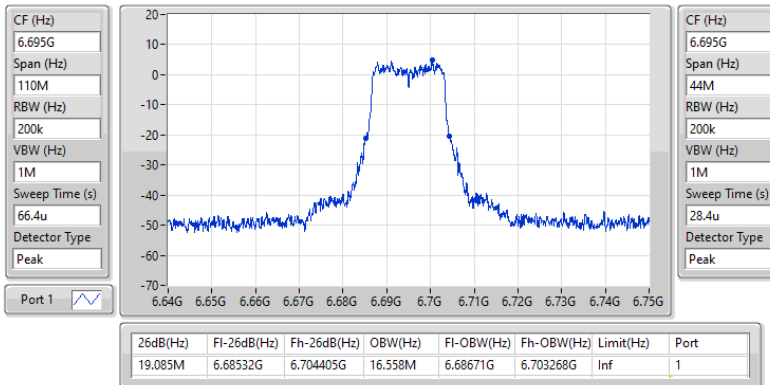


6.525-6.875GHz_11a20_20MHz_Nss1,(6Mbps)_1TX

EBW

6695MHz

21/09/2023

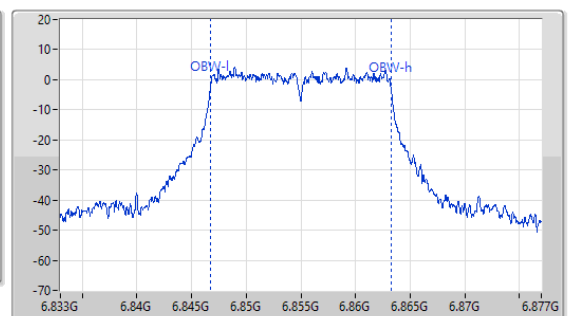
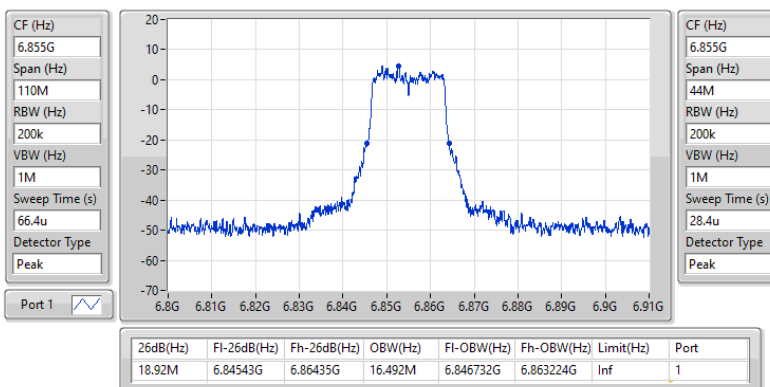


6.525-6.875GHz_11a20_20MHz_Nss1,(6Mbps)_1TX

EBW

6855MHz

21/09/2023

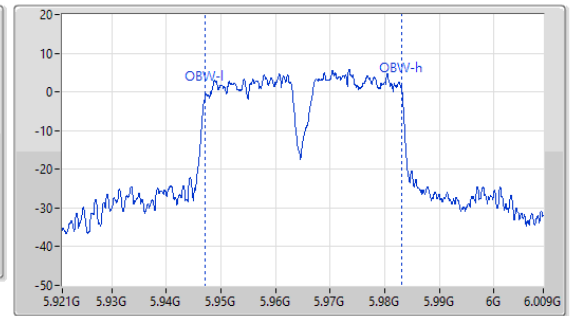
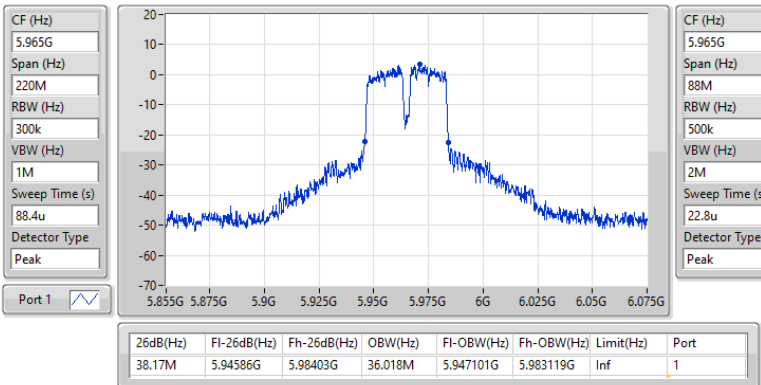


5.925-6.425GHz_11a40_40MHz_Nss1,(6Mbps)_1TX

EBW

5965MHz

21/09/2023

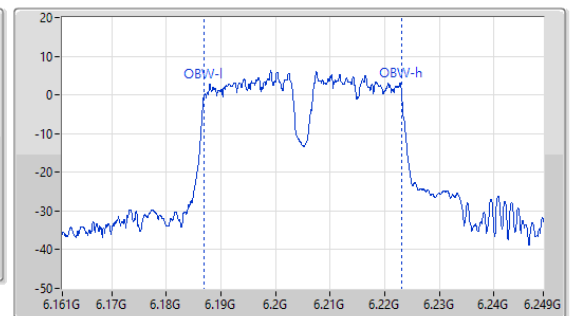
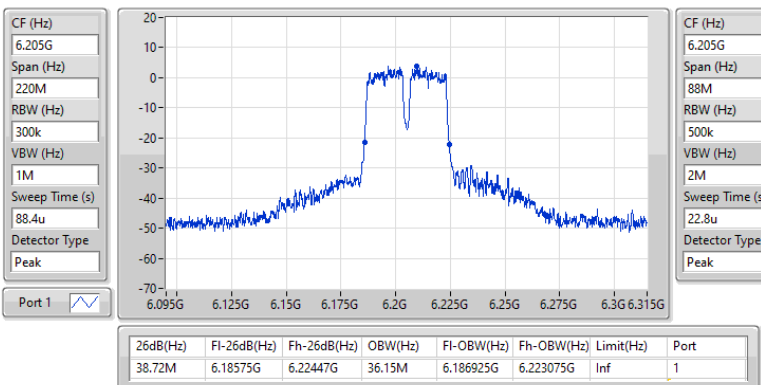


5.925-6.425GHz_11a40_40MHz_Nss1,(6Mbps)_1TX

EBW

6205MHz

21/09/2023

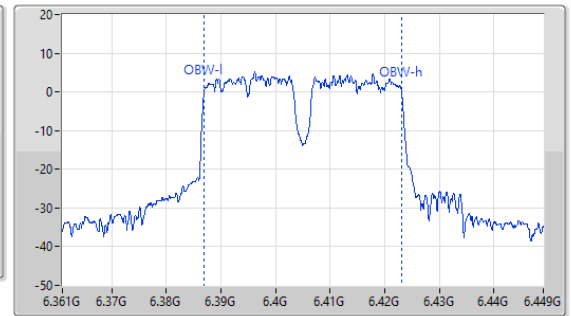
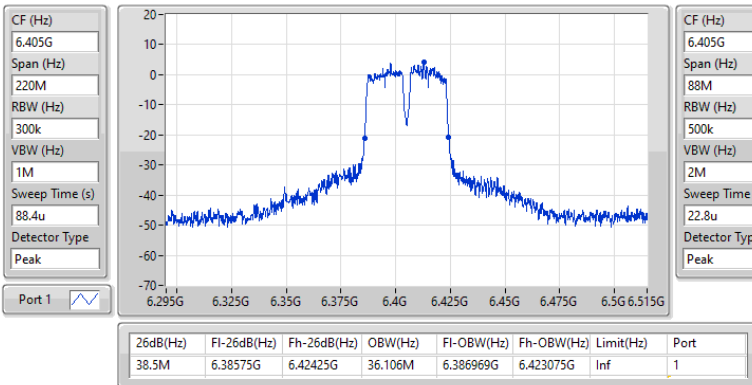


5.925-6.425GHz_11a40_40MHz_Nss1,(6Mbps)_1TX

EBW

6405MHz

22/09/2023

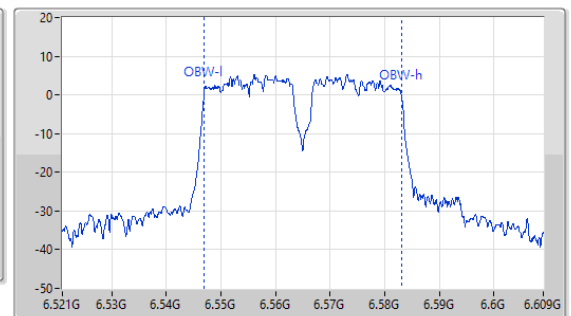
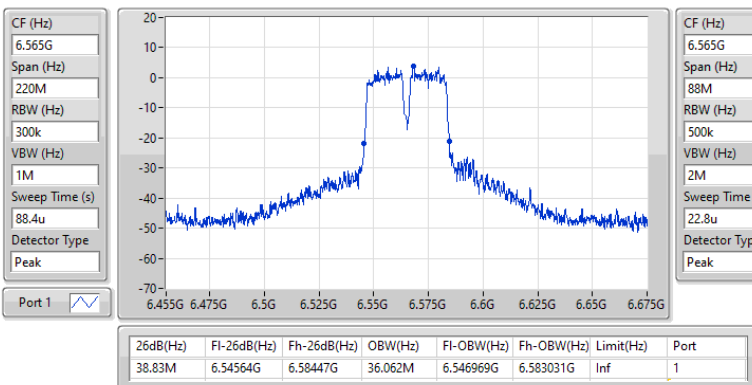


6.525-6.875GHz_11a40_40MHz_Nss1,(6Mbps)_1TX

EBW

6565MHz

21/09/2023

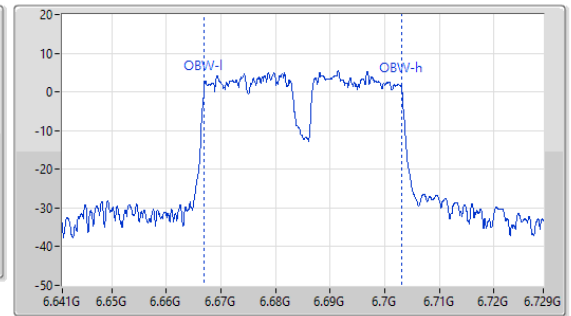
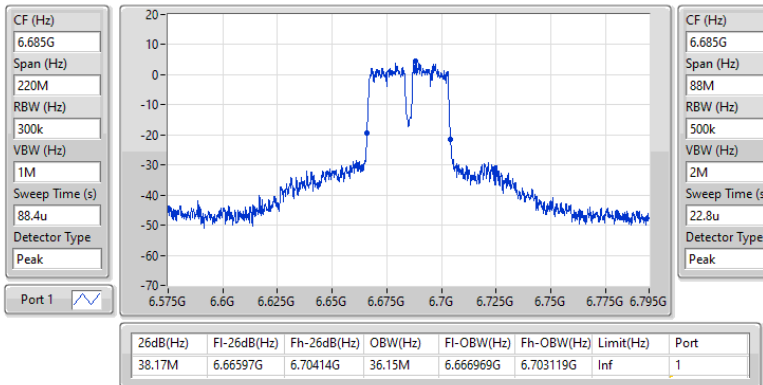


6.525-6.875GHz_11a40_40MHz_Nss1,(6Mbps)_1TX

EBW

6685MHz

21/09/2023

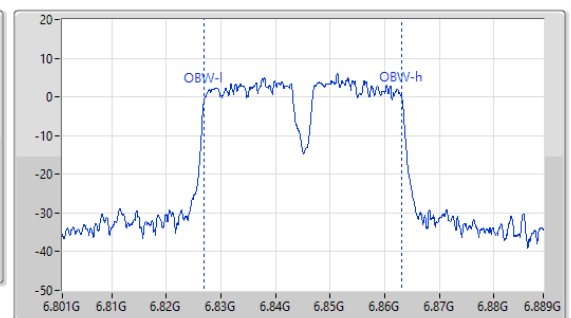
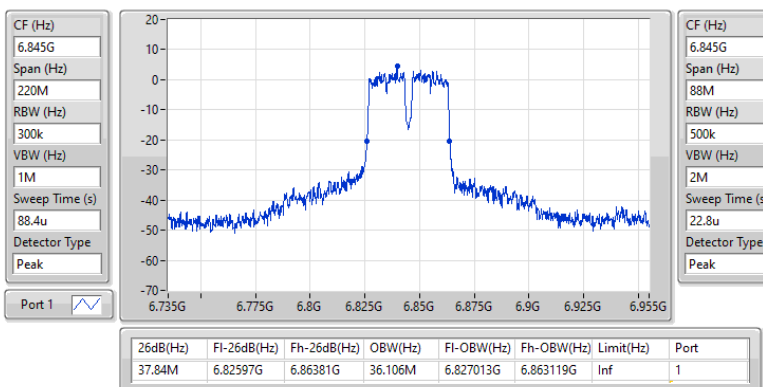


6.525-6.875GHz_11a40_40MHz_Nss1,(6Mbps)_1TX

EBW

6845MHz

21/09/2023

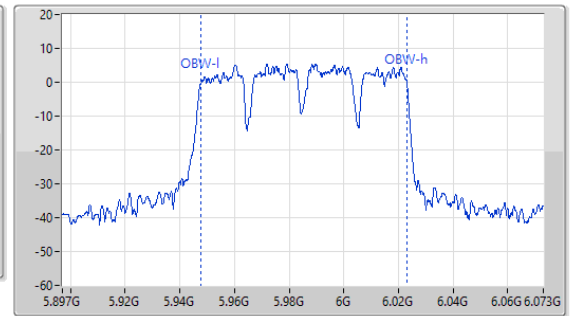
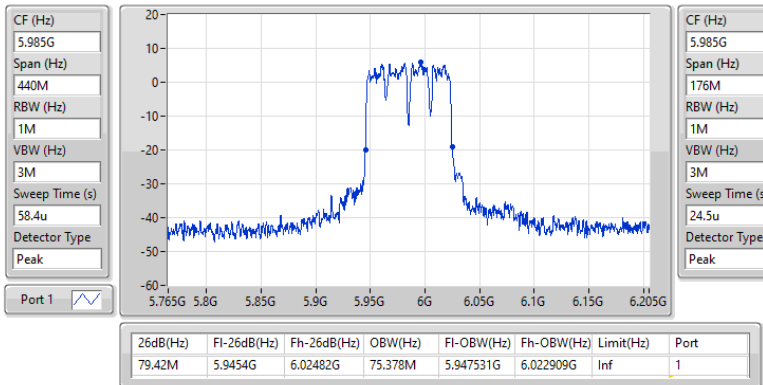


5.925-6.425GHz_11a80_80MHz_Nss1,(6Mbps)_1TX

EBW

5985MHz

21/09/2023

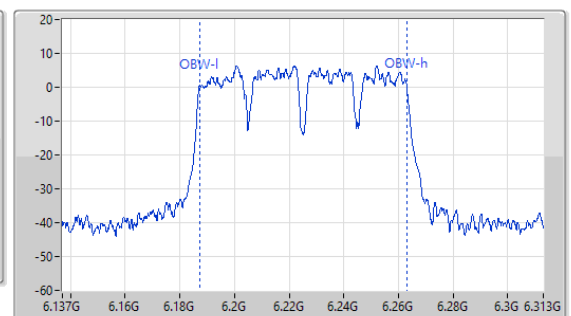
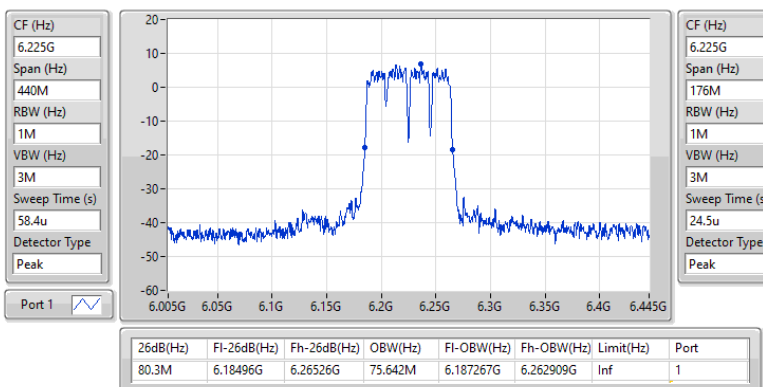


5.925-6.425GHz_11a80_80MHz_Nss1,(6Mbps)_1TX

EBW

6225MHz

21/09/2023

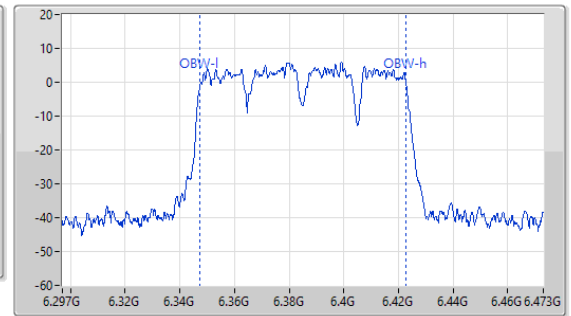
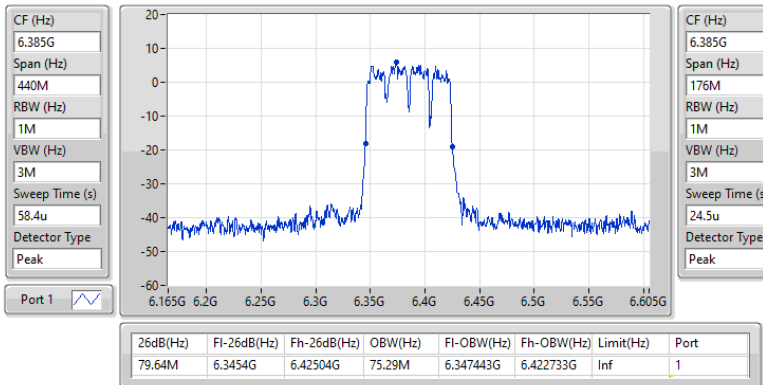


5.925-6.425GHz_11a80_80MHz_Nss1,(6Mbps)_1TX

EBW

6385MHz

21/09/2023

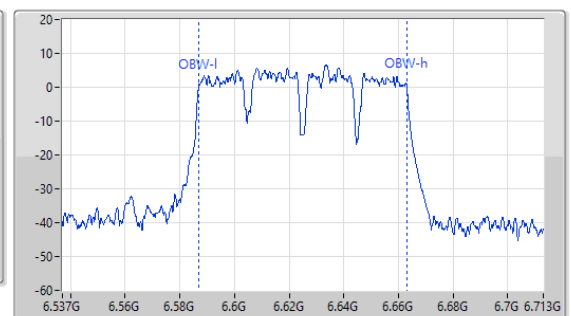
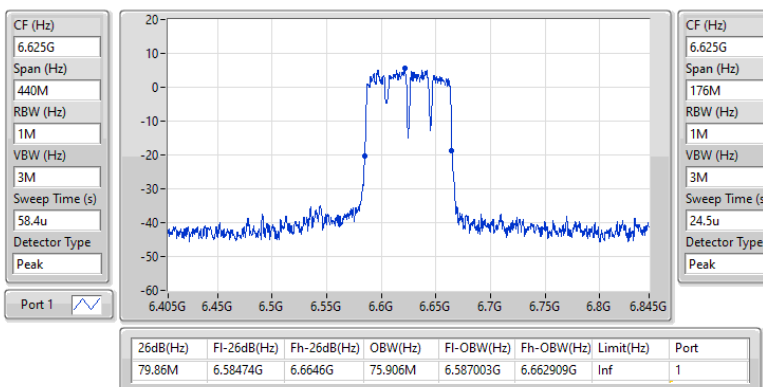


6.525-6.875GHz_11a80_80MHz_Nss1,(6Mbps)_1TX

EBW

6625MHz

22/09/2023

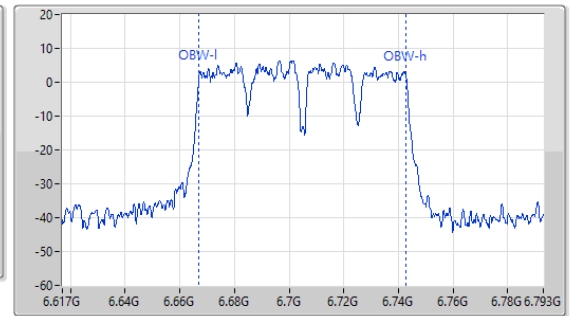
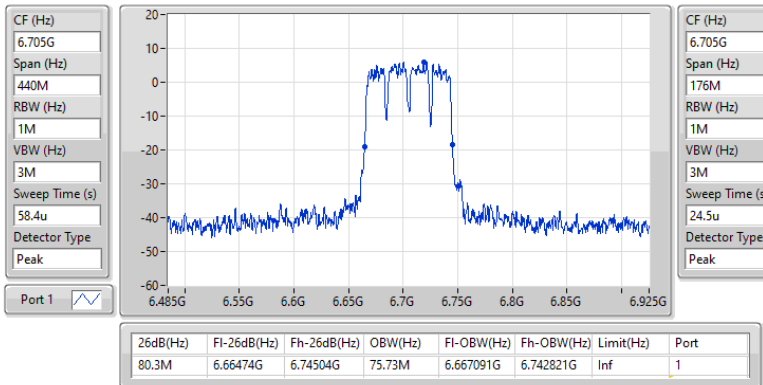


6.525-6.875GHz_11a80_80MHz_Nss1,(6Mbps)_1TX

EBW

6705MHz

22/09/2023

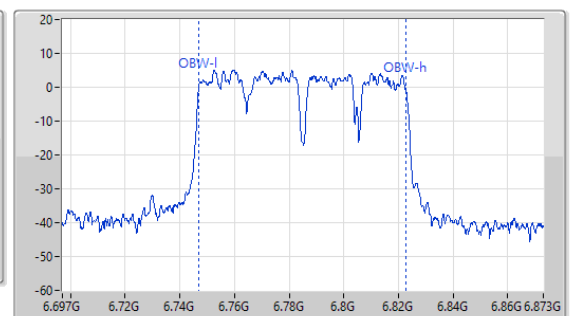
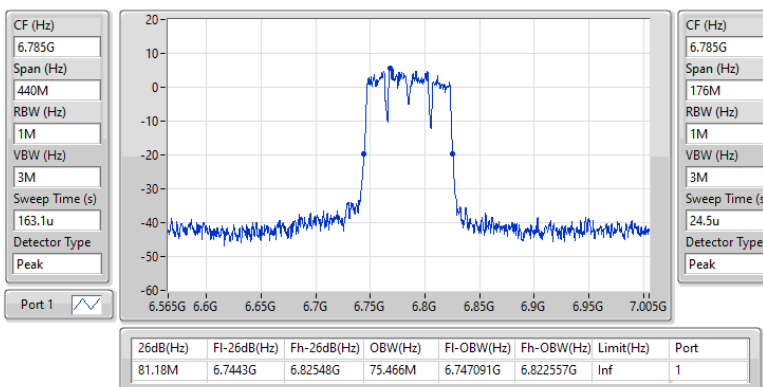


6.525-6.875GHz_11a80_80MHz_Nss1,(6Mbps)_1TX

EBW

6785MHz

22/09/2023

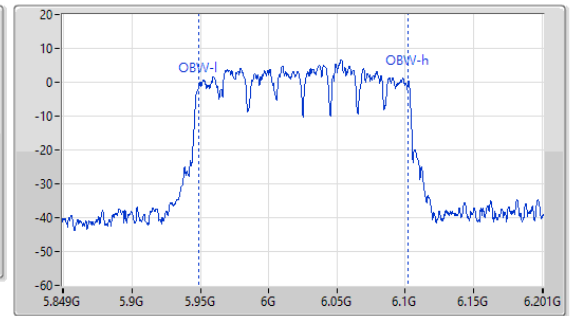
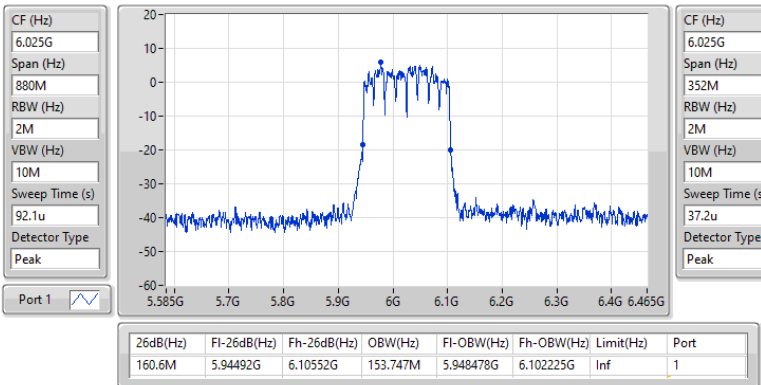


5.925-6.425GHz_11a160_160MHz_Nss1,(6Mbps)_1TX

EBW

6025MHz

22/09/2023

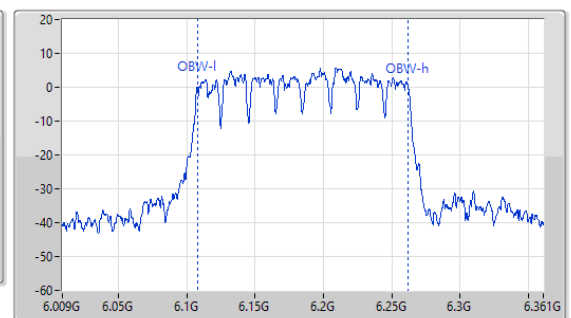
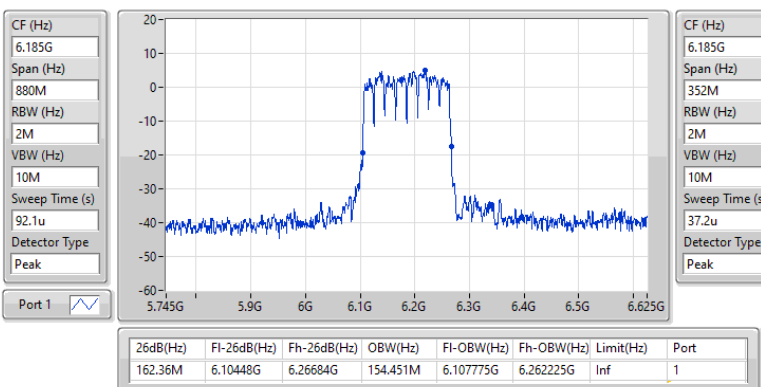


5.925-6.425GHz_11a160_160MHz_Nss1,(6Mbps)_1TX

EBW

6185MHz

22/09/2023

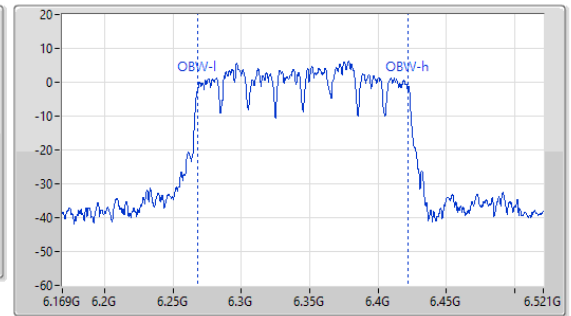
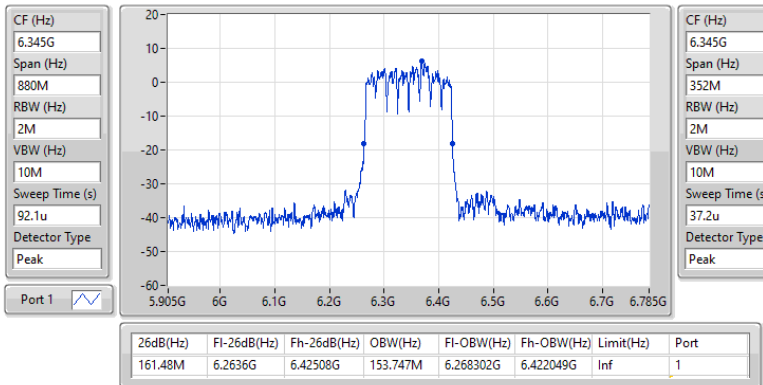


5.925-6.425GHz_11a160_160MHz_Nss1,(6Mbps)_1TX

EBW

6345MHz

22/09/2023

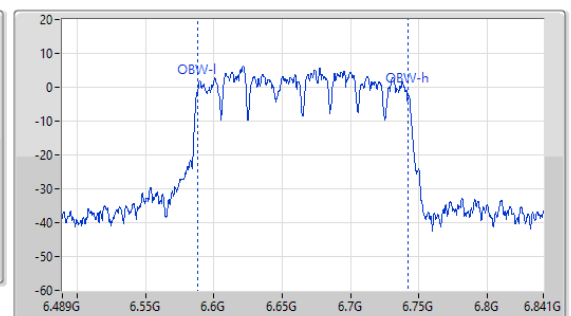
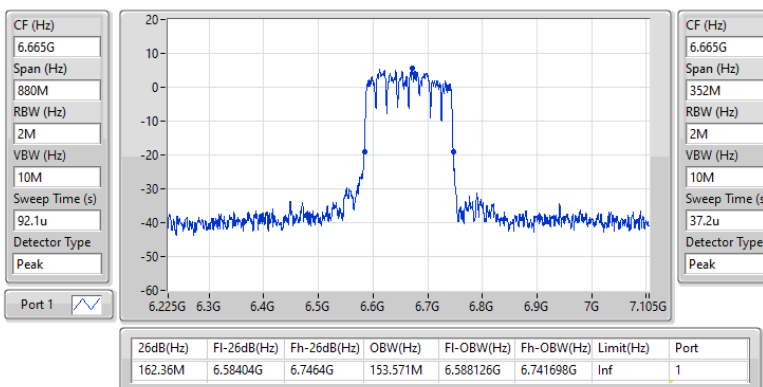


6.525-6.875GHz_11a160_160MHz_Nss1,(6Mbps)_1TX

EBW

6665MHz

22/09/2023

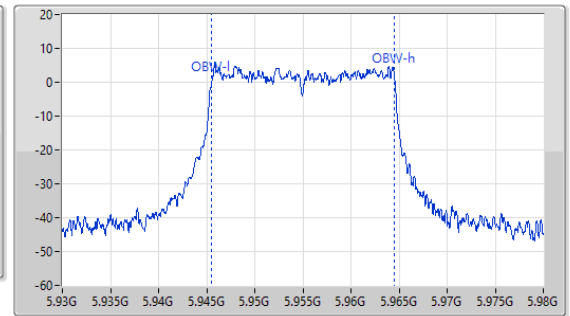
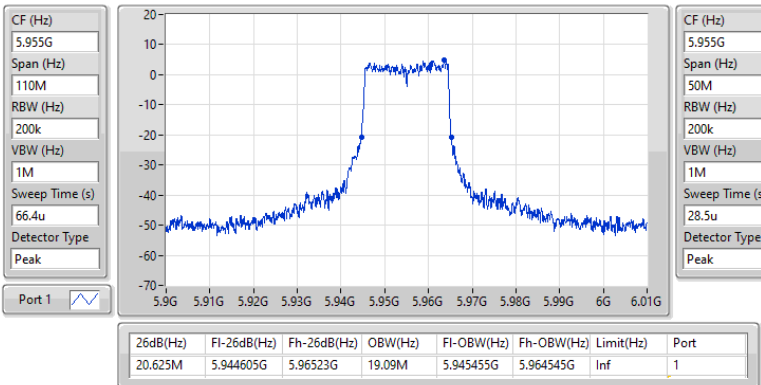


5.925-6.425GHz_802.11ax HEW20_Nss1,(MCS0)_1TX

EBW

5955MHz

09/09/2023

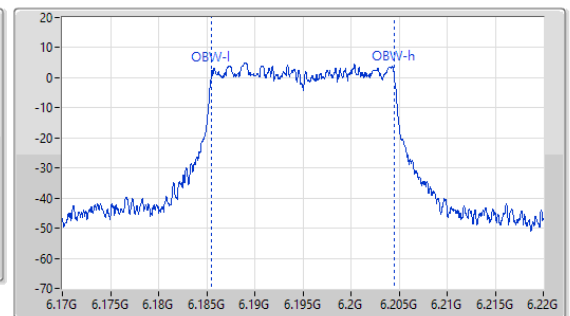
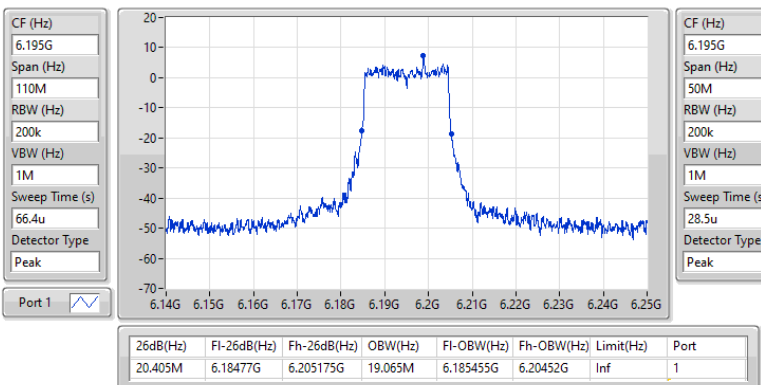


5.925-6.425GHz_802.11ax HEW20_Nss1,(MCS0)_1TX

EBW

6195MHz

09/09/2023

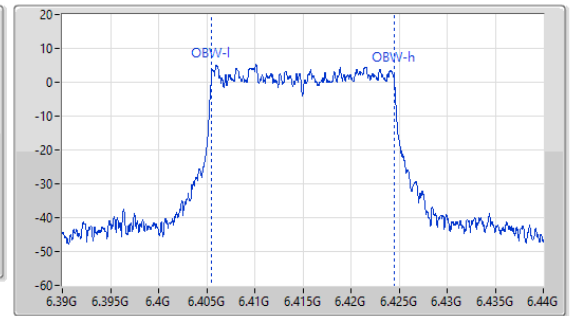
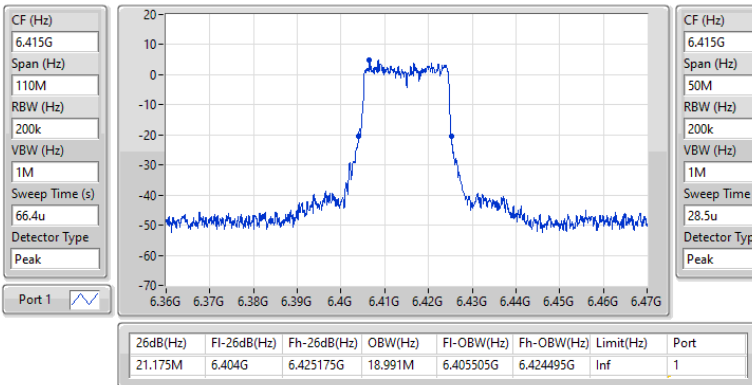


5.925-6.425GHz_802.11ax HEW20_Nss1,(MCS0)_1TX

EBW

6415MHz

09/09/2023

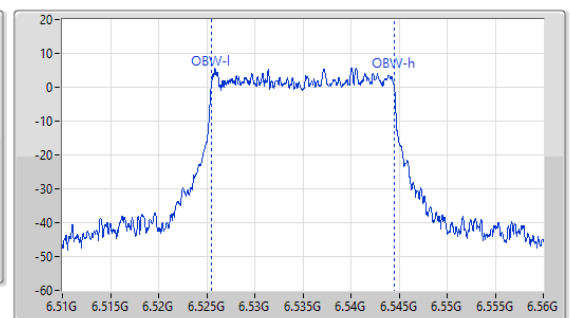
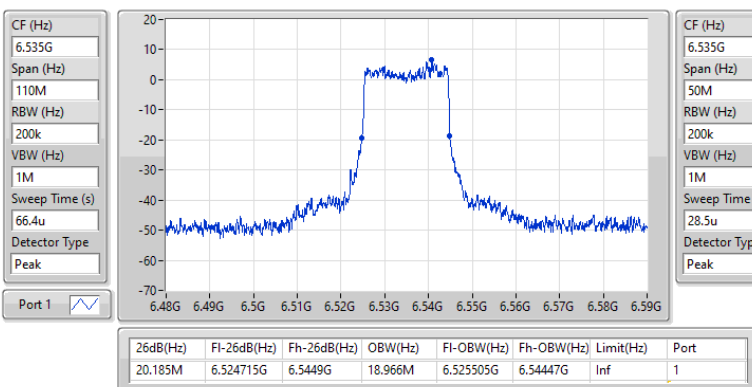


6.525-6.875GHz_802.11ax HEW20_Nss1,(MCS0)_1TX

EBW

6535MHz

09/09/2023

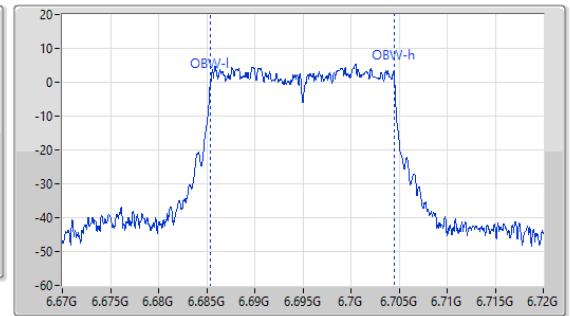
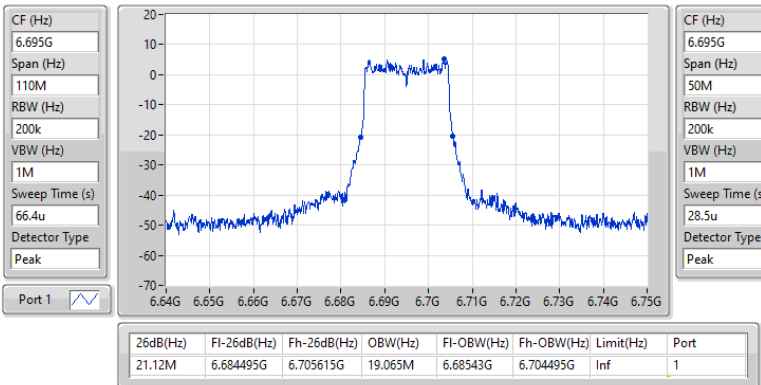


6.525-6.875GHz_802.11ax HEW20_Nss1,(MCS0)_1TX

EBW

6695MHz

09/09/2023

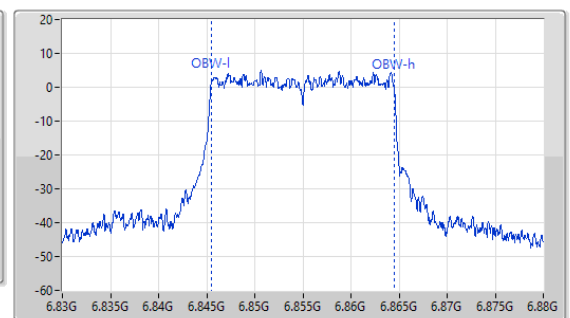
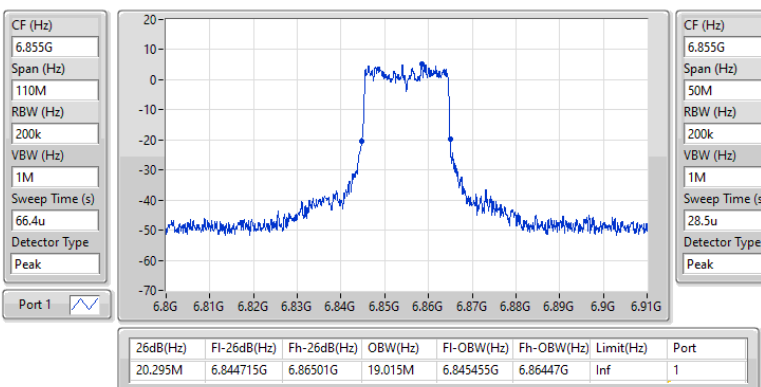


6.525-6.875GHz_802.11ax HEW20_Nss1,(MCS0)_1TX

EBW

6855MHz

09/09/2023

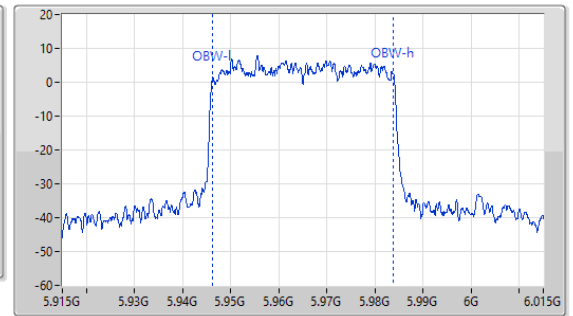
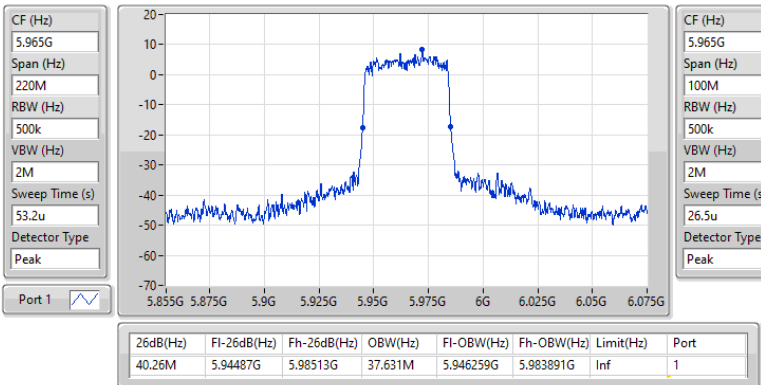


5.925-6.425GHz_802.11ax HEW40_Nss1,(MCS0)_1TX

EBW

5965MHz

09/09/2023

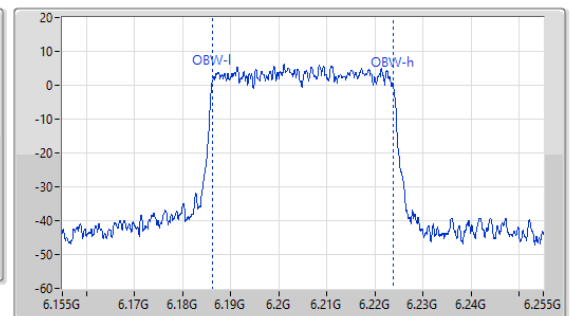
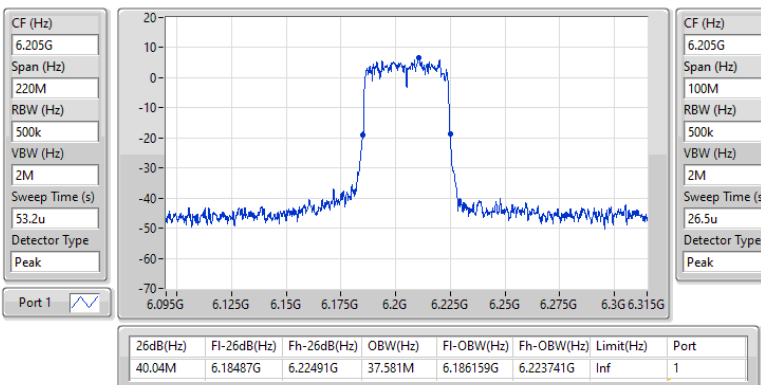


5.925-6.425GHz_802.11ax HEW40_Nss1,(MCS0)_1TX

EBW

6205MHz

09/09/2023

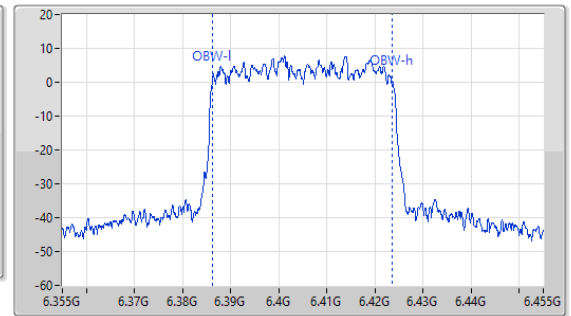
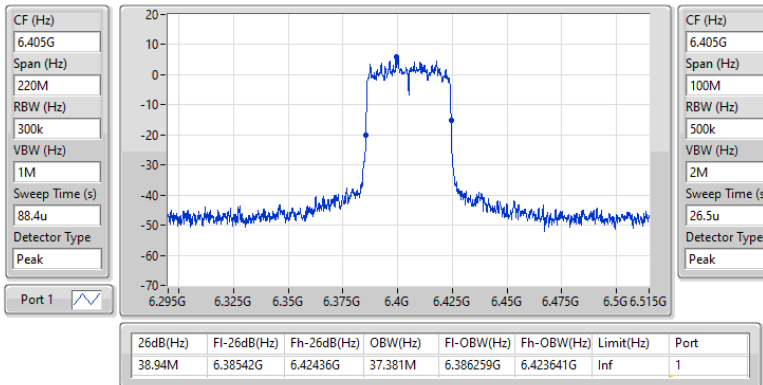


5.925-6.425GHz_802.11ax HEW40_Nss1,(MCS0)_1TX

EBW

6405MHz

09/09/2023

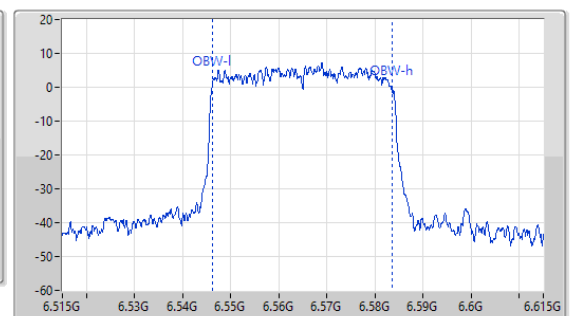
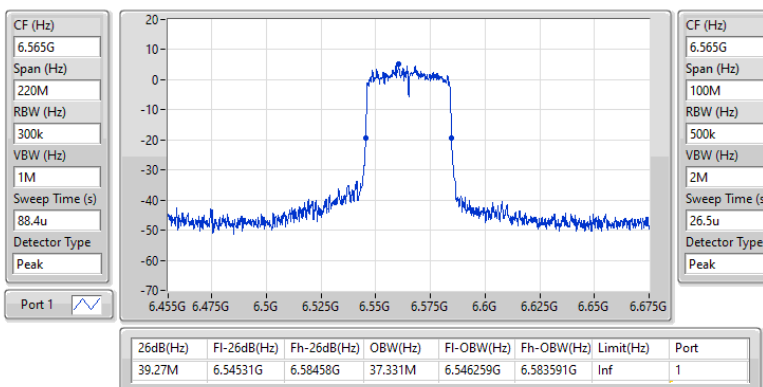


6.525-6.875GHz_802.11ax HEW40_Nss1,(MCS0)_1TX

EBW

6565MHz

09/09/2023

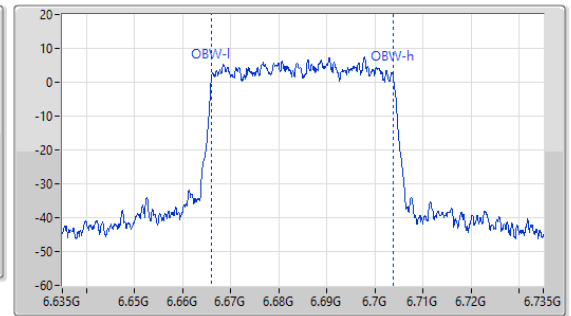
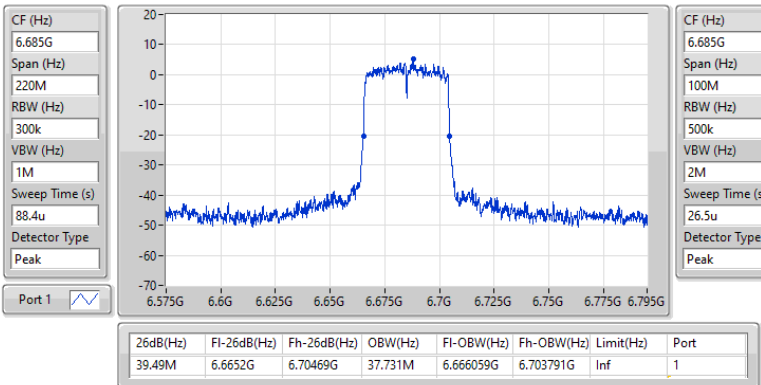


6.525-6.875GHz_802.11ax HEW40_Nss1,(MCS0)_1TX

EBW

6685MHz

09/09/2023

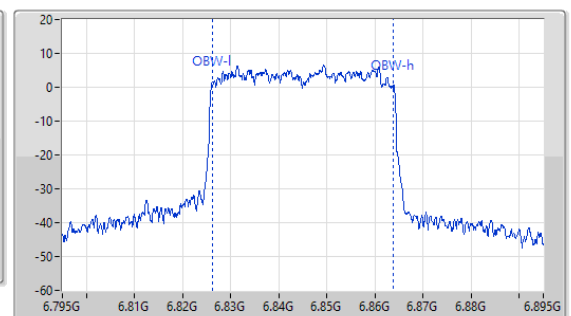
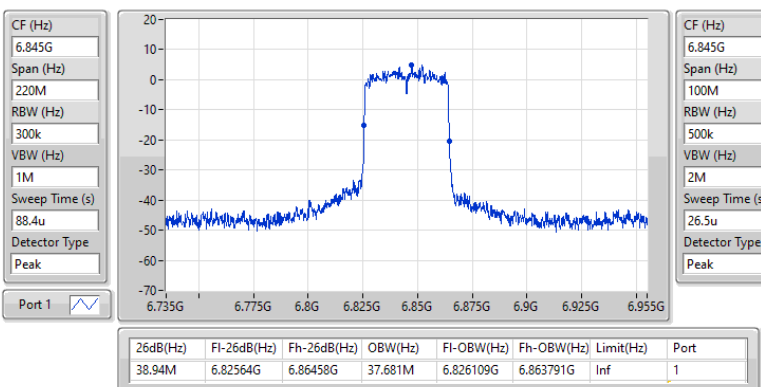


6.525-6.875GHz_802.11ax HEW40_Nss1,(MCS0)_1TX

EBW

6845MHz

09/09/2023

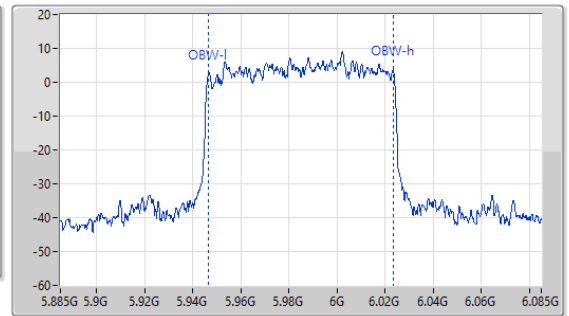
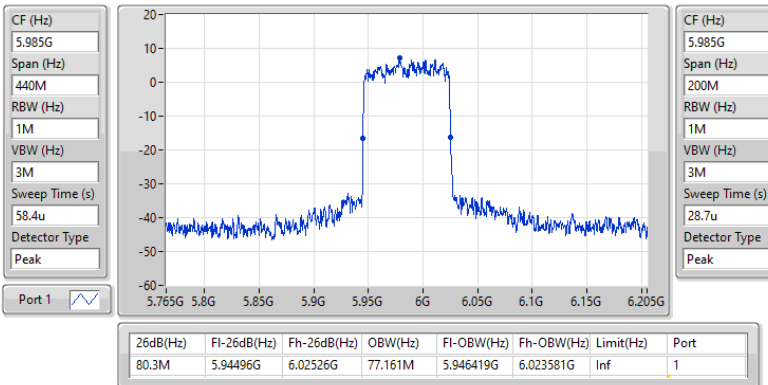


5.925-6.425GHz_802.11ax HEW80_Nss1,(MCS0)_1TX

EBW

5985MHz

09/09/2023

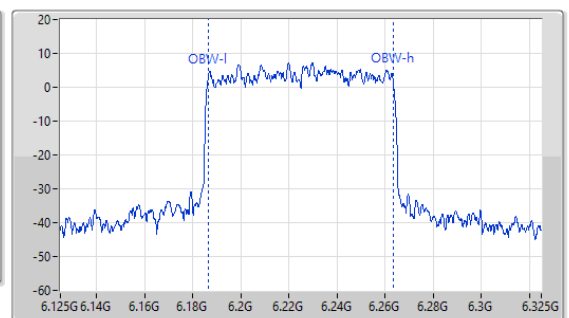
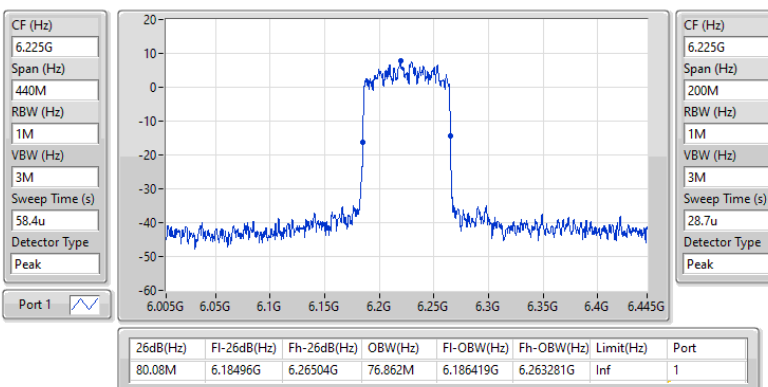


5.925-6.425GHz_802.11ax HEW80_Nss1,(MCS0)_1TX

EBW

6225MHz

09/09/2023

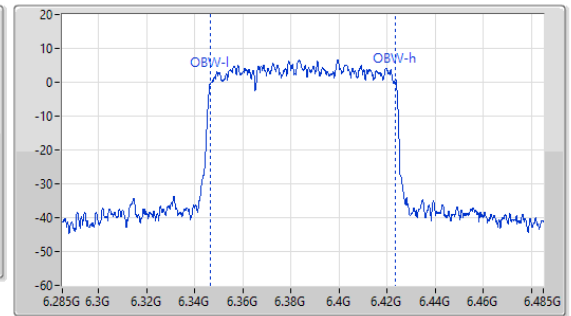
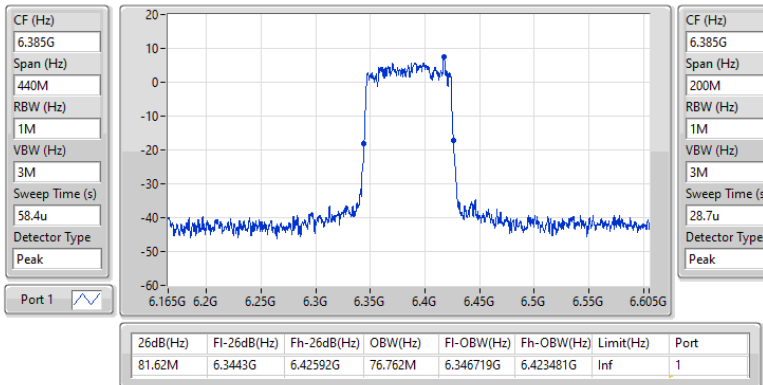


5.925-6.425GHz_802.11ax HEW80_Nss1,(MCS0)_1TX

EBW

6385MHz

09/09/2023

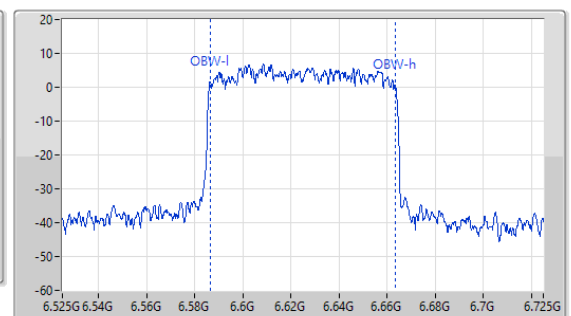
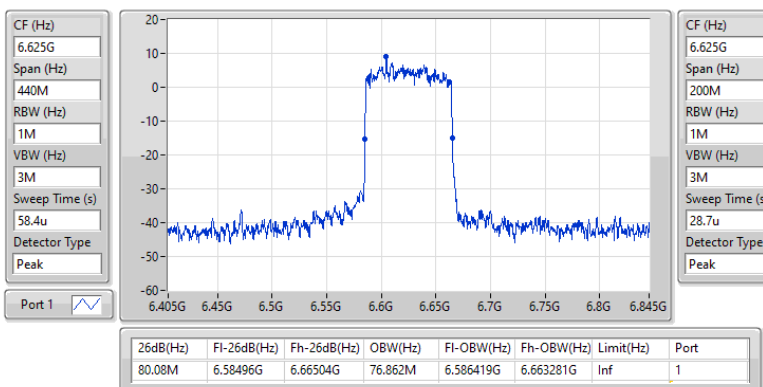


6.525-6.875GHz_802.11ax HEW80_Nss1,(MCS0)_1TX

EBW

6625MHz

09/09/2023

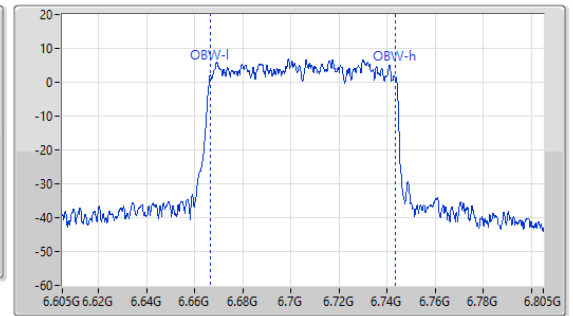
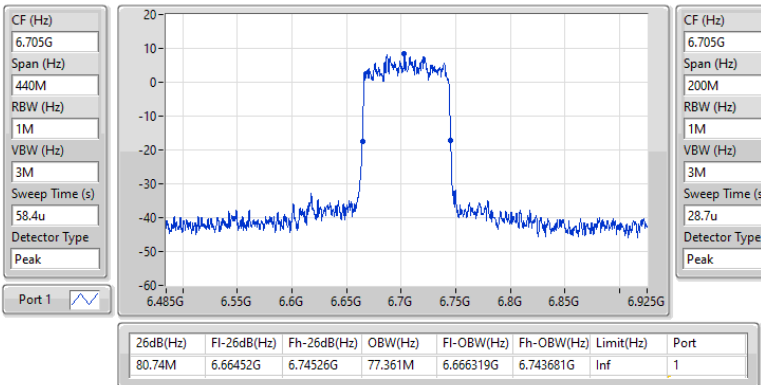


6.525-6.875GHz_802.11ax HEW80_Nss1,(MCS0)_1TX

EBW

6705MHz

09/09/2023

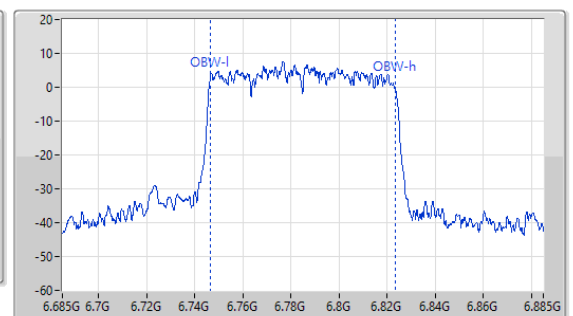
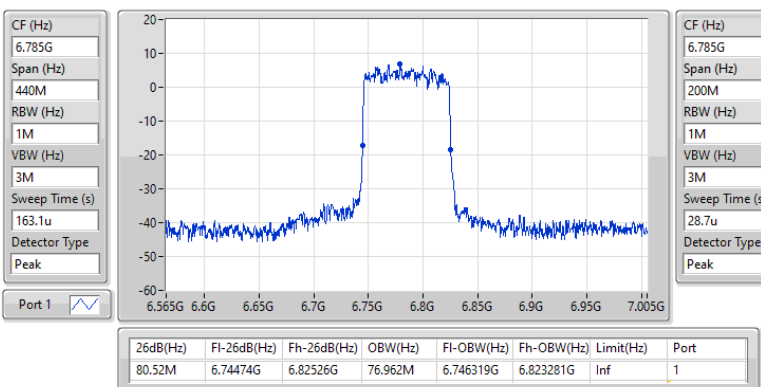


6.525-6.875GHz_802.11ax HEW80_Nss1,(MCS0)_1TX

EBW

6785MHz

09/09/2023

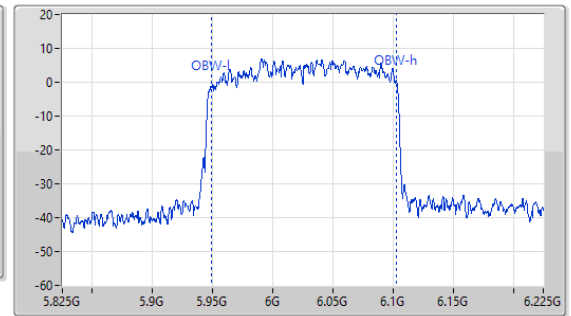
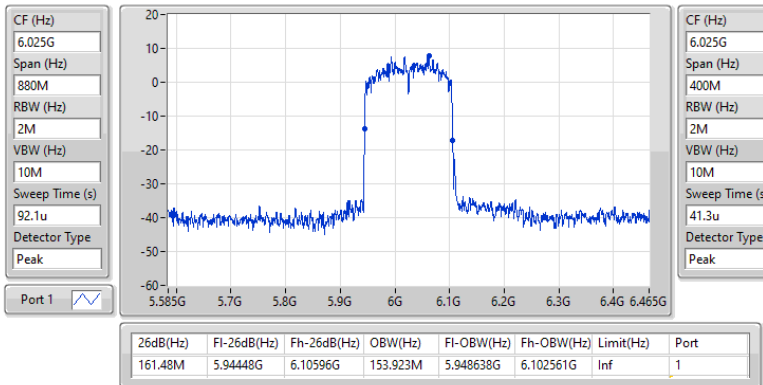


5.925-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_1TX

EBW

6025MHz

09/09/2023

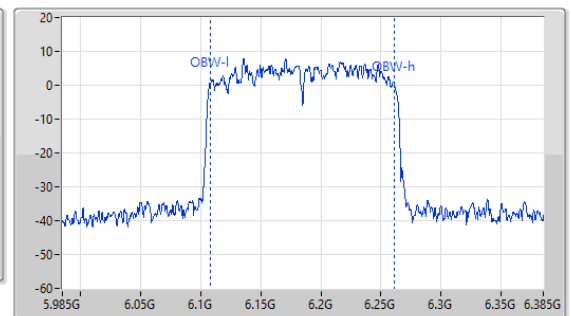
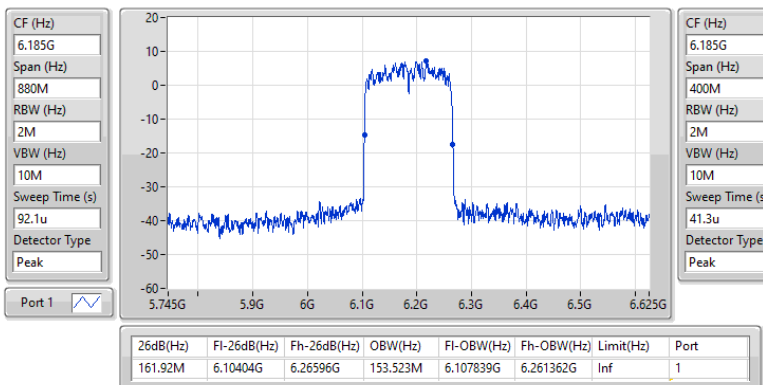


5.925-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_1TX

EBW

6185MHz

09/09/2023

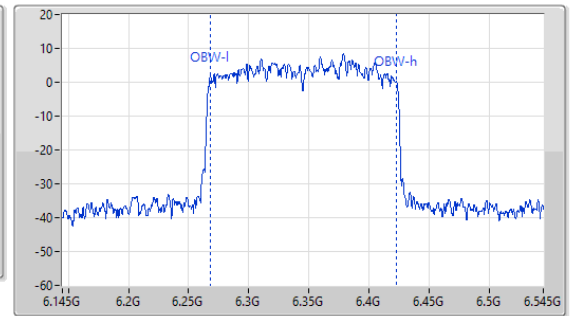
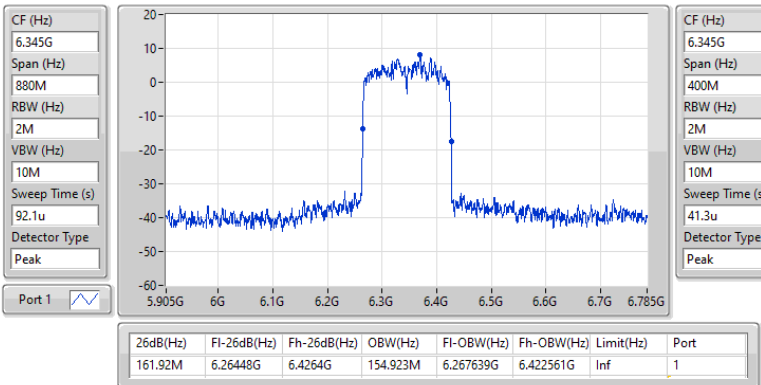


5.925-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_1TX

EBW

6345MHz

09/09/2023

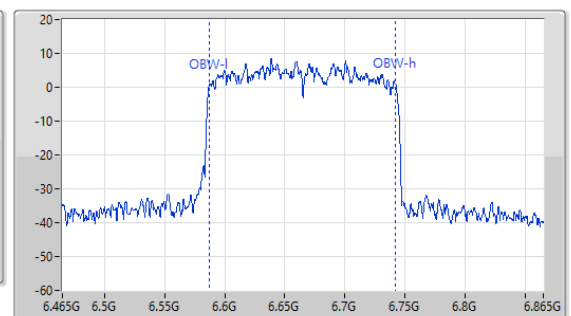
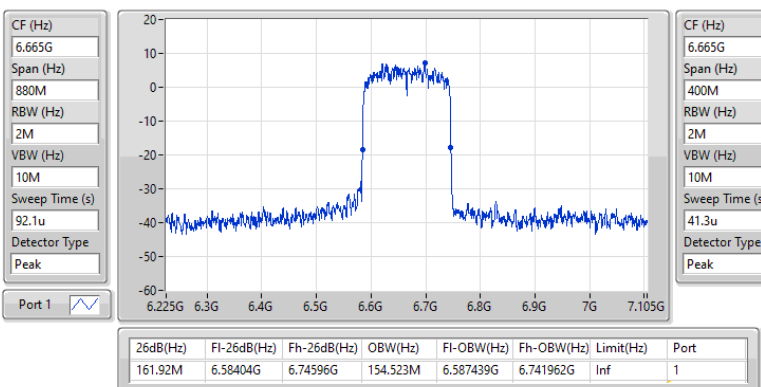


6.525-6.875GHz_802.11ax HEW160_Nss1,(MCS0)_1TX

EBW

6665MHz

09/09/2023



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.925-6.425GHz	-	-	-	-	-
11a20_20MHz_Nss1,(6Mbps)_2TX	20.35M	16.602M	16M6D1D	18.315M	16.448M
11a40_40MHz_Nss1,(6Mbps)_2TX	40.15M	36.238M	36M2D1D	37.95M	35.974M
11a80_80MHz_Nss1,(6Mbps)_2TX	80.96M	75.73M	75M7D1D	78.98M	75.466M
11a160_160MHz_Nss1,(6Mbps)_2TX	163.24M	154.803M	155MD1D	161.04M	153.219M
802.11ax HEW20_Nss1,(MCS0)_2TX	21.01M	19.165M	19M2D1D	20.295M	18.991M
802.11ax HEW40_Nss1,(MCS0)_2TX	40.04M	37.831M	37M8D1D	39.16M	37.531M
802.11ax HEW80_Nss1,(MCS0)_2TX	80.96M	77.261M	77M3D1D	80.08M	76.762M
802.11ax HEW160_Nss1,(MCS0)_2TX	162.8M	155.522M	156MD1D	161.48M	154.123M
6.525-6.875GHz	-	-	-	-	-
11a20_20MHz_Nss1,(6Mbps)_2TX	20.13M	16.69M	16M7D1D	18.81M	16.47M
11a40_40MHz_Nss1,(6Mbps)_2TX	39.16M	36.194M	36M2D1D	38.17M	36.018M
11a80_80MHz_Nss1,(6Mbps)_2TX	80.3M	75.73M	75M7D1D	79.2M	75.202M
11a160_160MHz_Nss1,(6Mbps)_2TX	161.04M	154.275M	154MD1D	160.6M	154.099M
802.11ax HEW20_Nss1,(MCS0)_2TX	21.725M	19.065M	19M1D1D	19.855M	18.991M
802.11ax HEW40_Nss1,(MCS0)_2TX	39.6M	37.681M	37M7D1D	38.94M	37.481M
802.11ax HEW80_Nss1,(MCS0)_2TX	80.96M	77.261M	77M3D1D	80.08M	76.762M
802.11ax HEW160_Nss1,(MCS0)_2TX	162.8M	155.322M	155MD1D	161.92M	153.723M

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)
11a20_20MHz_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5955MHz	Pass	Inf	18.92M	16.558M	19.415M	16.536M
6195MHz	Pass	Inf	20.35M	16.602M	20.35M	16.47M
6415MHz	Pass	Inf	18.315M	16.558M	20.02M	16.448M
6535MHz	Pass	Inf	18.81M	16.69M	19.305M	16.47M
6695MHz	Pass	Inf	18.975M	16.47M	20.13M	16.514M
6855MHz	Pass	Inf	19.03M	16.47M	18.92M	16.58M
11a40_40MHz_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5955MHz	Pass	Inf	40.15M	36.018M	38.5M	36.194M
6205MHz	Pass	Inf	37.95M	35.974M	38.5M	36.018M
6405MHz	Pass	Inf	38.28M	36.238M	38.17M	36.194M
6565MHz	Pass	Inf	38.61M	36.15M	39.16M	36.062M
6685MHz	Pass	Inf	38.17M	36.15M	38.28M	36.194M
6845MHz	Pass	Inf	38.39M	36.018M	38.5M	36.106M
11a80_80MHz_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5985MHz	Pass	Inf	79.42M	75.73M	80.52M	75.642M
6225MHz	Pass	Inf	80.96M	75.554M	80.08M	75.642M
6385MHz	Pass	Inf	78.98M	75.642M	80.08M	75.466M
6625MHz	Pass	Inf	79.2M	75.554M	79.64M	75.466M
6705MHz	Pass	Inf	79.64M	75.466M	79.42M	75.73M
6785MHz	Pass	Inf	80.3M	75.202M	80.08M	75.73M
11a160_160MHz_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
6025MHz	Pass	Inf	161.04M	153.923M	161.04M	153.219M
6185MHz	Pass	Inf	161.92M	153.923M	161.04M	154.803M
6345MHz	Pass	Inf	163.24M	153.219M	161.92M	154.627M
6665MHz	Pass	Inf	161.04M	154.275M	160.6M	154.099M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5955MHz	Pass	Inf	21.01M	19.165M	20.955M	18.991M
6195MHz	Pass	Inf	20.79M	19.115M	20.295M	19.115M
6415MHz	Pass	Inf	20.9M	18.991M	20.79M	19.015M
6535MHz	Pass	Inf	20.13M	19.015M	19.855M	19.065M
6695MHz	Pass	Inf	20.68M	18.991M	21.01M	18.991M
6855MHz	Pass	Inf	21.725M	19.065M	20.46M	19.04M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5965MHz	Pass	Inf	39.38M	37.631M	39.93M	37.681M
6205MHz	Pass	Inf	39.82M	37.531M	39.82M	37.681M
6405MHz	Pass	Inf	40.04M	37.831M	39.16M	37.681M
6565MHz	Pass	Inf	39.6M	37.681M	39.27M	37.681M
6685MHz	Pass	Inf	39.49M	37.631M	38.94M	37.481M
6845MHz	Pass	Inf	39.16M	37.581M	39.49M	37.531M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5985MHz	Pass	Inf	80.52M	77.261M	80.96M	76.962M
6225MHz	Pass	Inf	80.08M	77.061M	80.08M	76.762M
6385MHz	Pass	Inf	80.08M	76.962M	80.08M	76.962M
6625MHz	Pass	Inf	80.52M	76.762M	80.08M	77.261M
6705MHz	Pass	Inf	80.3M	76.962M	80.96M	77.261M
6785MHz	Pass	Inf	80.08M	77.261M	80.74M	76.862M
802.11ax HEW160_Nss1,(MCS0)_2TX	-	-	-	-	-	-
6025MHz	Pass	Inf	162.8M	154.323M	162.36M	154.123M
6185MHz	Pass	Inf	162.8M	155.522M	161.48M	155.122M
6345MHz	Pass	Inf	161.92M	155.322M	161.48M	154.323M
6665MHz	Pass	Inf	162.8M	155.322M	161.92M	153.723M

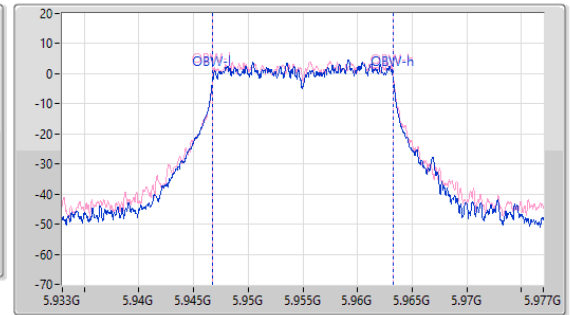
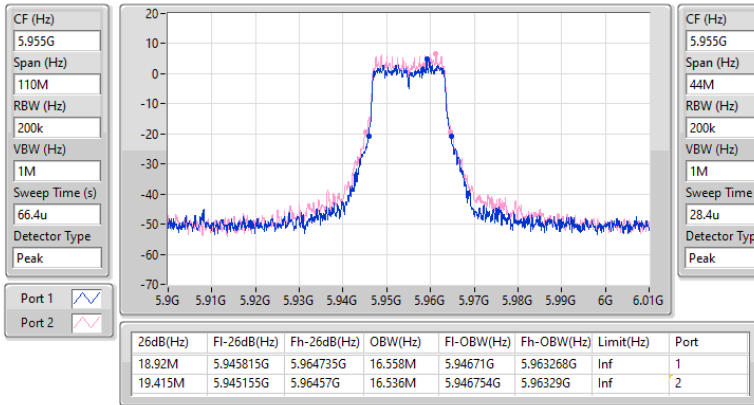
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

5.925-6.425GHz_11a20_20MHz_Nss1,(6Mbps)_2TX

EBW

5955MHz

22/09/2023

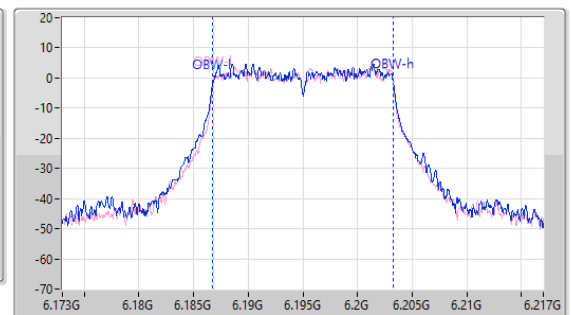
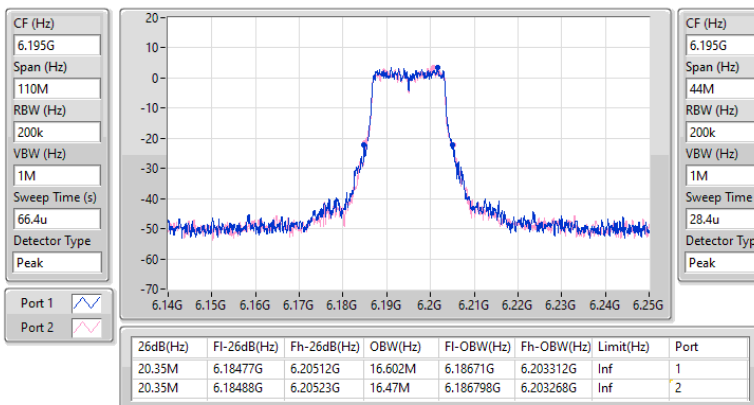


5.925-6.425GHz_11a20_20MHz_Nss1,(6Mbps)_2TX

EBW

6195MHz

22/09/2023

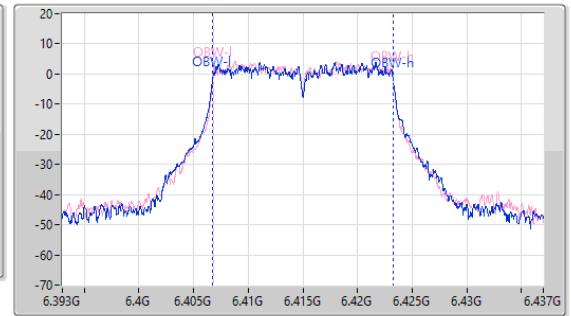
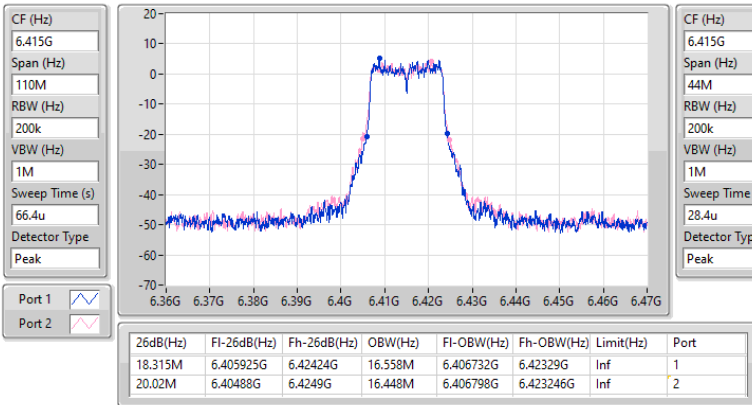


5.925-6.425GHz_11a20_20MHz_Nss1,(6Mbps)_2TX

EBW

6415MHz

22/09/2023

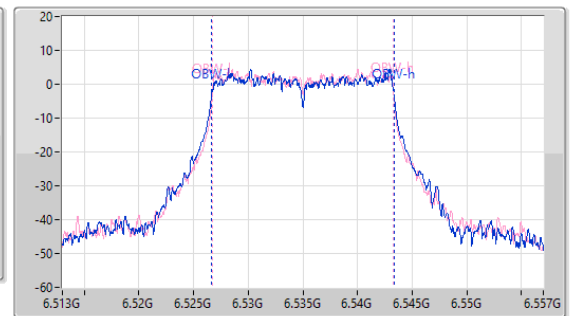
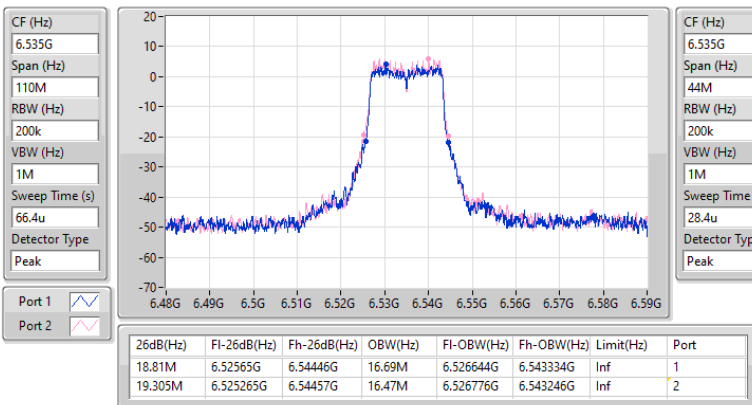


6.525-6.875GHz_11a20_20MHz_Nss1,(6Mbps)_2TX

EBW

6535MHz

22/09/2023

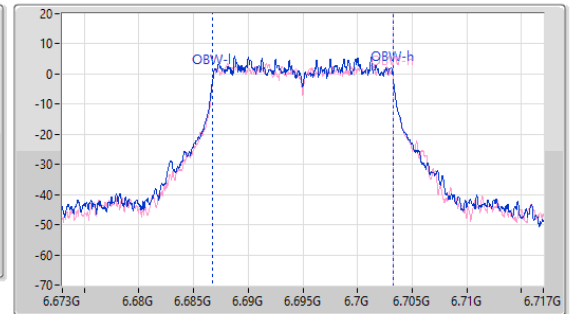
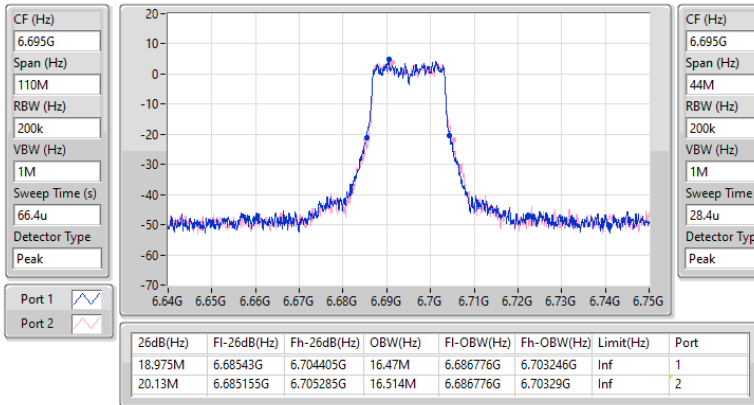


6.525-6.875GHz_11a20_20MHz_Nss1,(6Mbps)_2TX

EBW

6695MHz

22/09/2023

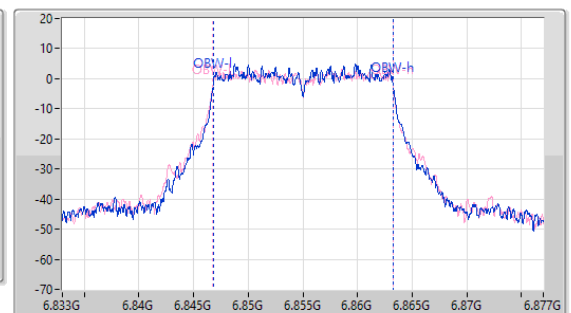
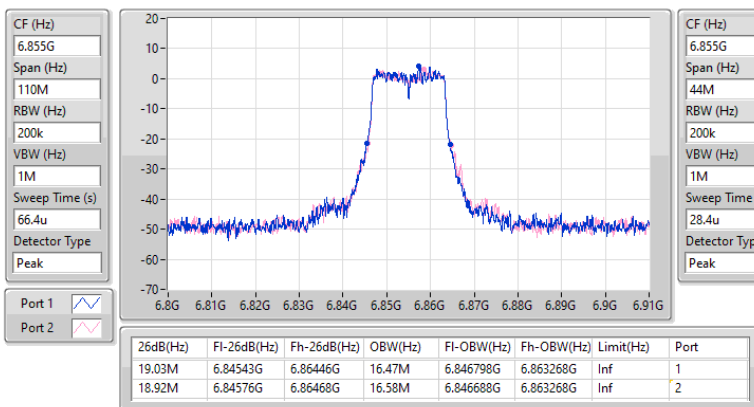


6.525-6.875GHz_11a20_20MHz_Nss1,(6Mbps)_2TX

EBW

6855MHz

22/09/2023

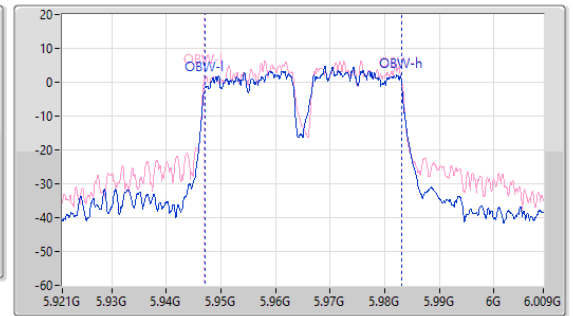
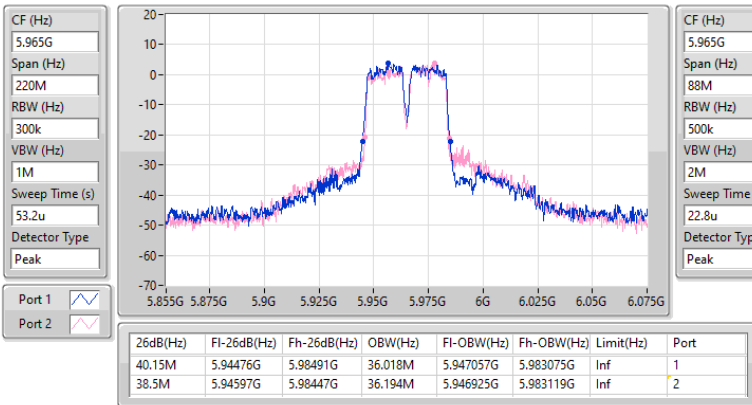


5.925-6.425GHz_11a40_40MHz_Nss1,(6Mbps)_2TX

EBW

5965MHz

22/09/2023

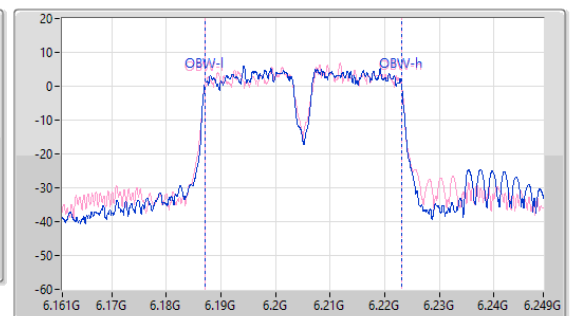
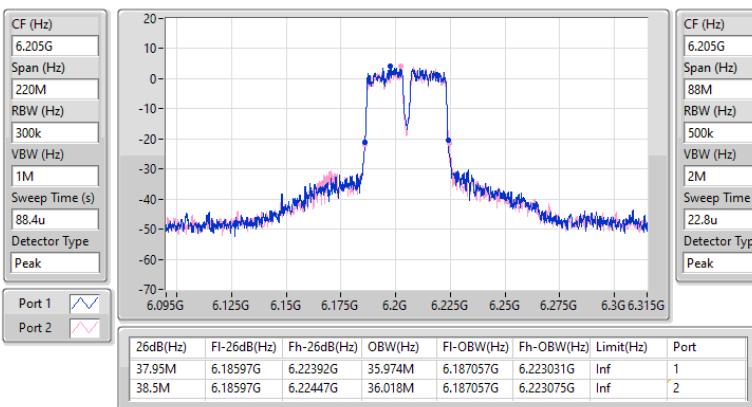


5.925-6.425GHz_11a40_40MHz_Nss1,(6Mbps)_2TX

EBW

6205MHz

22/09/2023

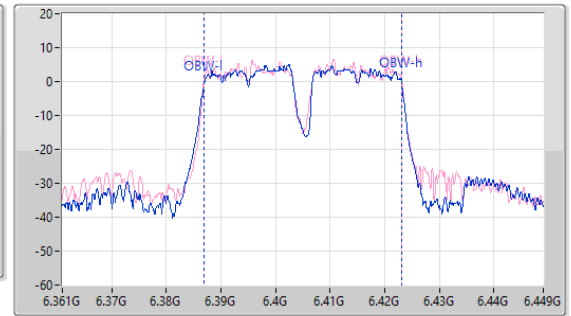
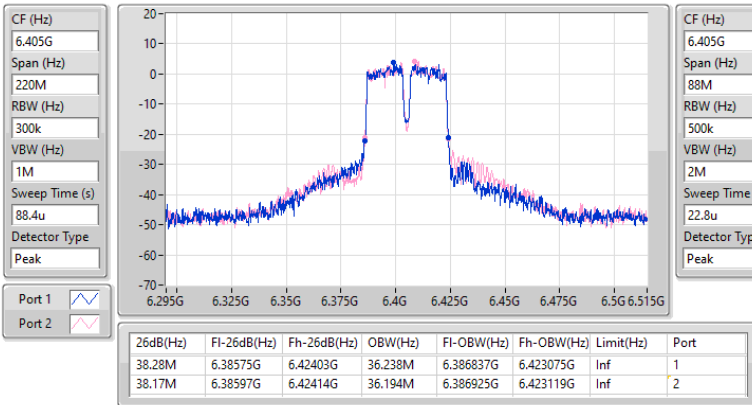


5.925-6.425GHz_11a40_40MHz_Nss1,(6Mbps)_2TX

EBW

6405MHz

22/09/2023

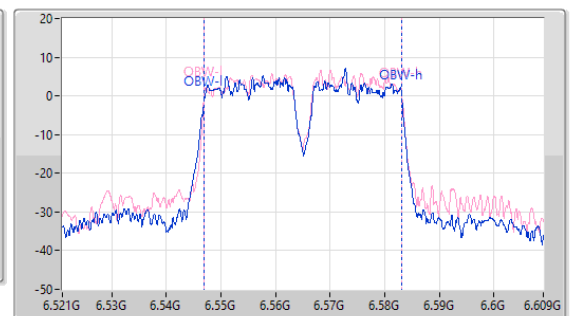
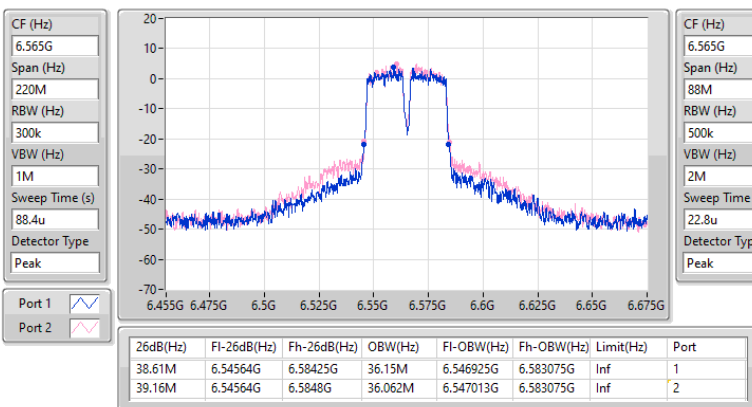


6.525-6.875GHz_11a40_40MHz_Nss1,(6Mbps)_2TX

EBW

6565MHz

22/09/2023

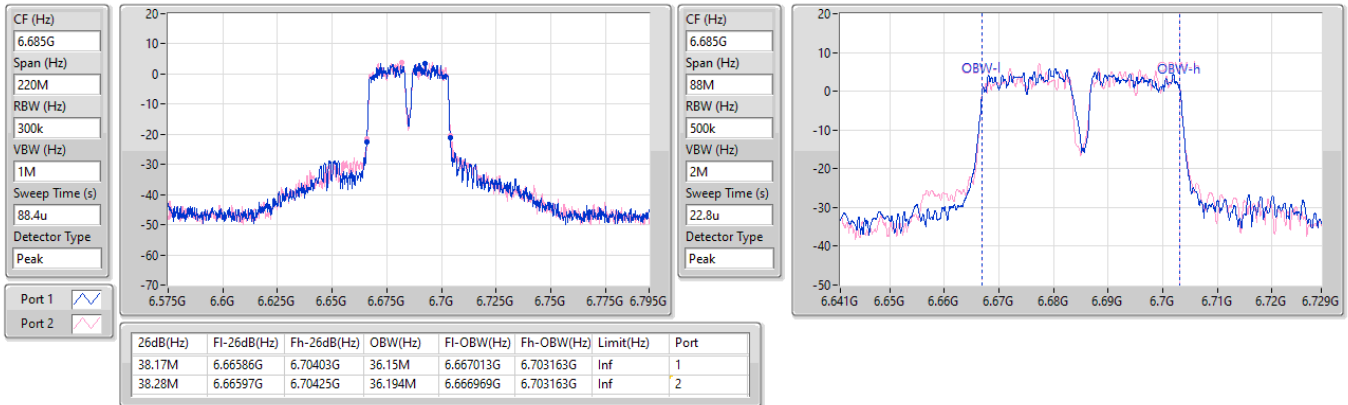


6.525-6.875GHz_11a40_40MHz_Nss1,(6Mbps)_2TX

EBW

6685MHz

22/09/2023

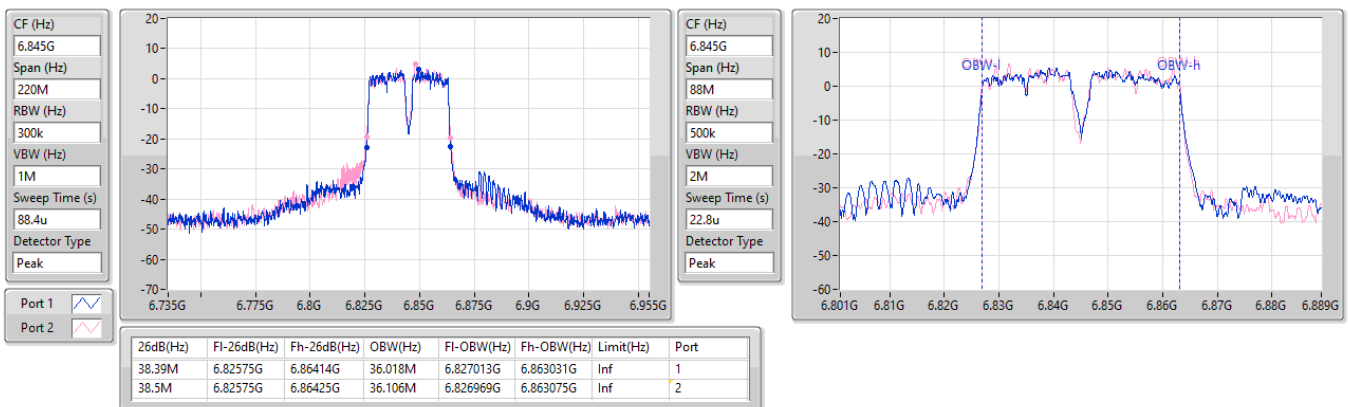


6.525-6.875GHz_11a40_40MHz_Nss1,(6Mbps)_2TX

EBW

6845MHz

22/09/2023

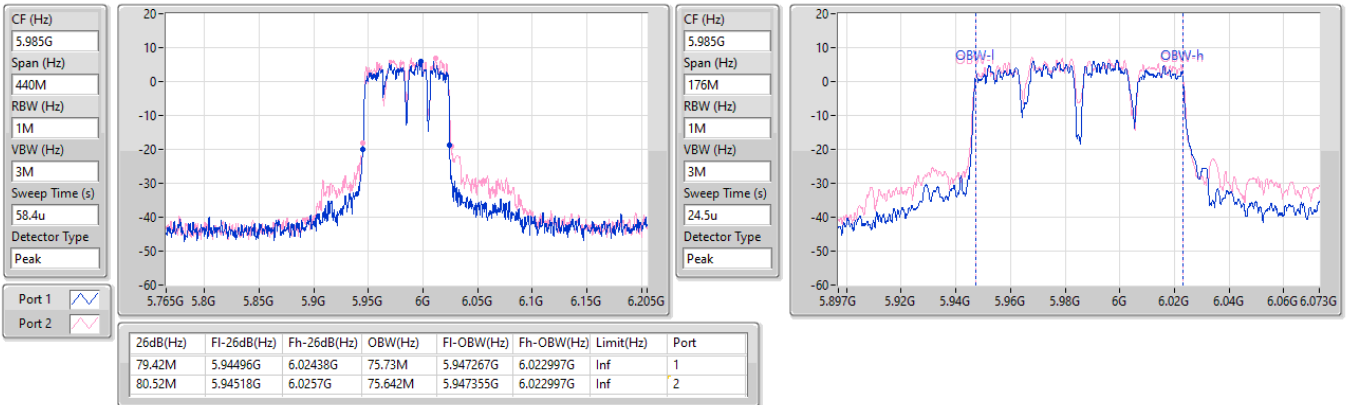


5.925-6.425GHz_11a80_80MHz_Nss1,(6Mbps)_2TX

EBW

5985MHz

22/09/2023

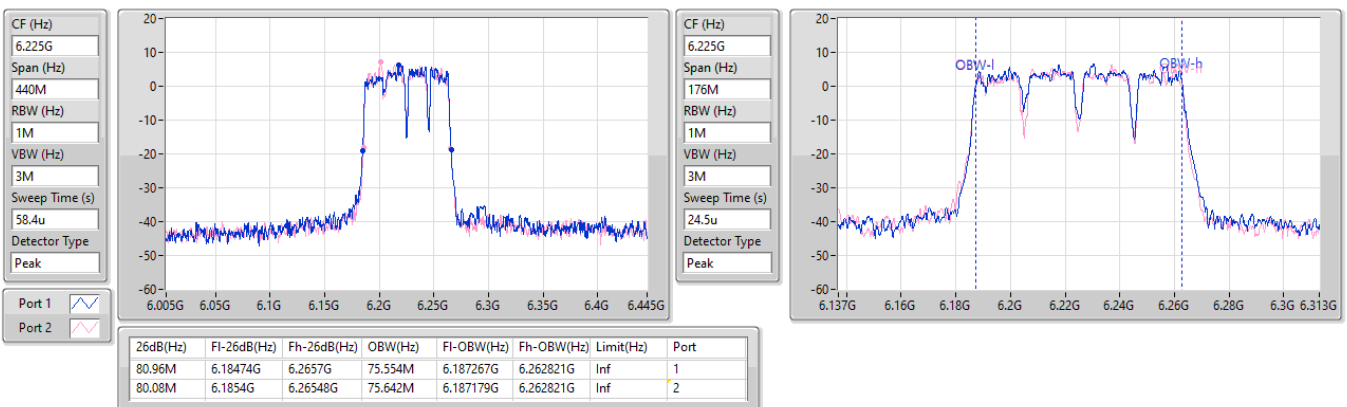


5.925-6.425GHz_11a80_80MHz_Nss1,(6Mbps)_2TX

EBW

6225MHz

22/09/2023

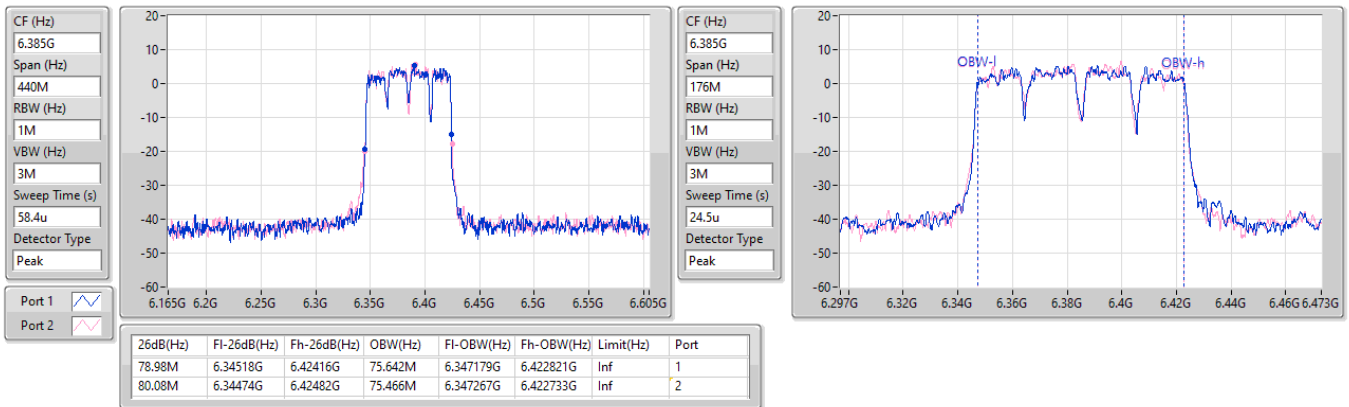


5.925-6.425GHz_11a80_80MHz_Nss1,(6Mbps)_2TX

EBW

6385MHz

22/09/2023

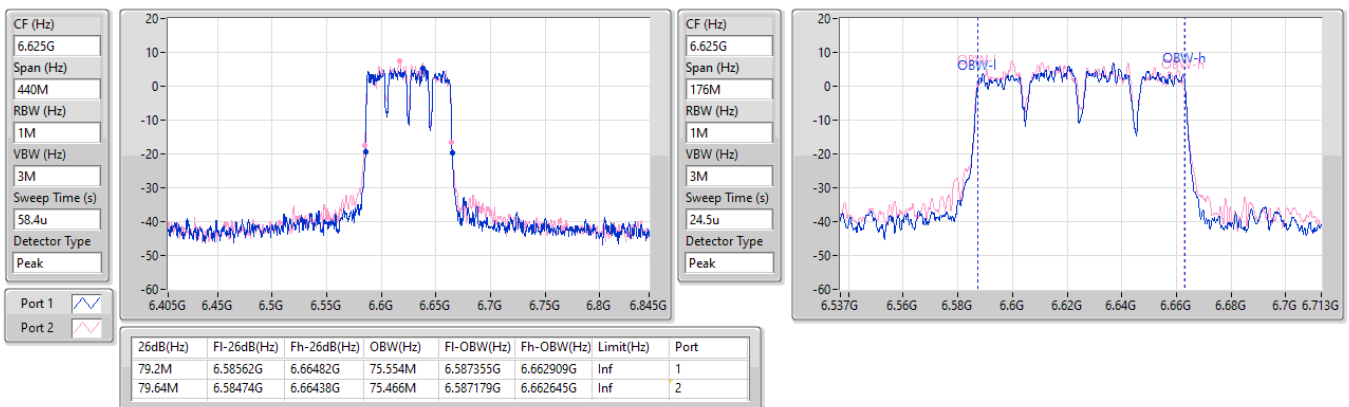


6.525-6.875GHz_11a80_80MHz_Nss1,(6Mbps)_2TX

EBW

6625MHz

22/09/2023

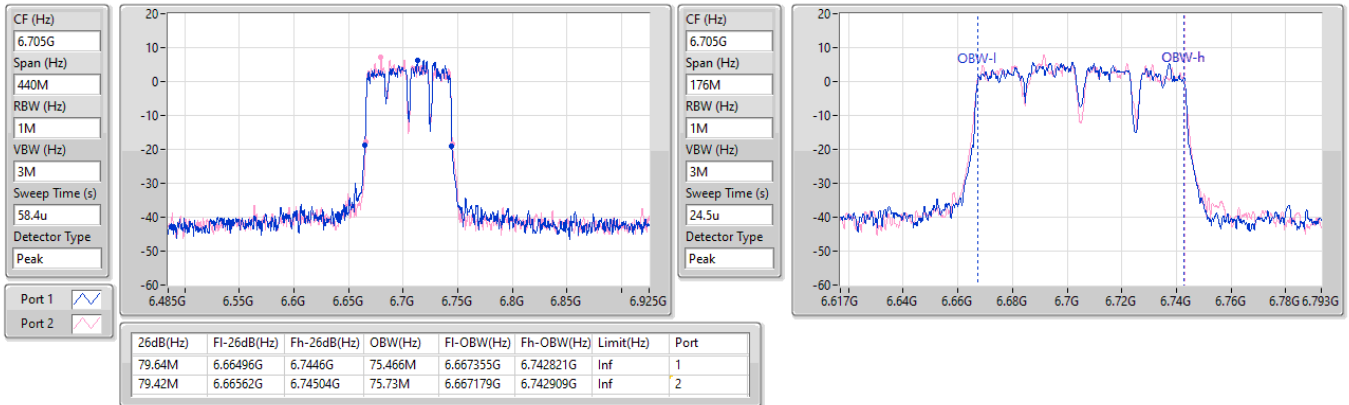


6.525-6.875GHz_11a80_80MHz_Nss1,(6Mbps)_2TX

EBW

6705MHz

22/09/2023

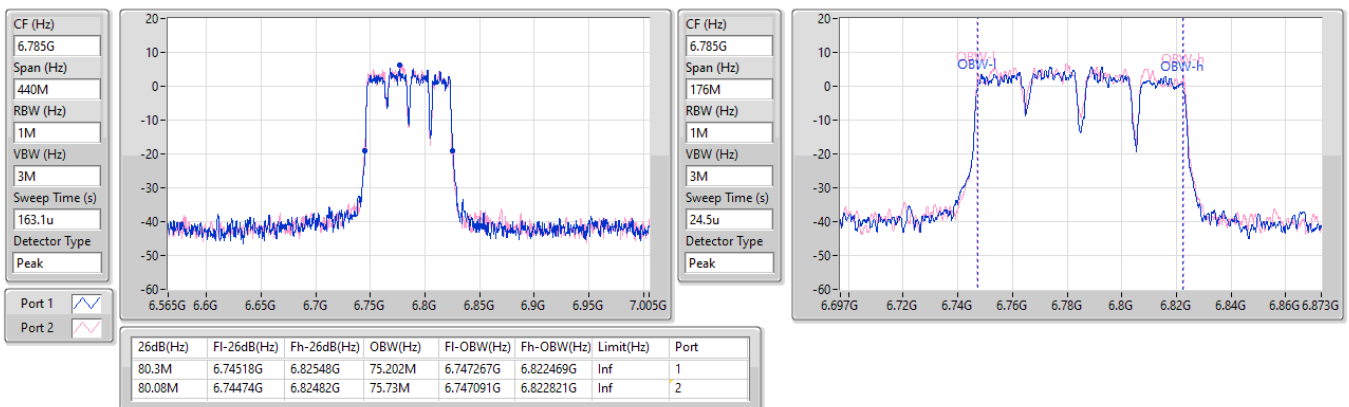


6.525-6.875GHz_11a80_80MHz_Nss1,(6Mbps)_2TX

EBW

6785MHz

22/09/2023

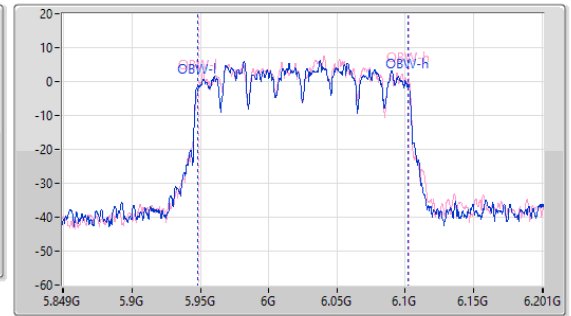
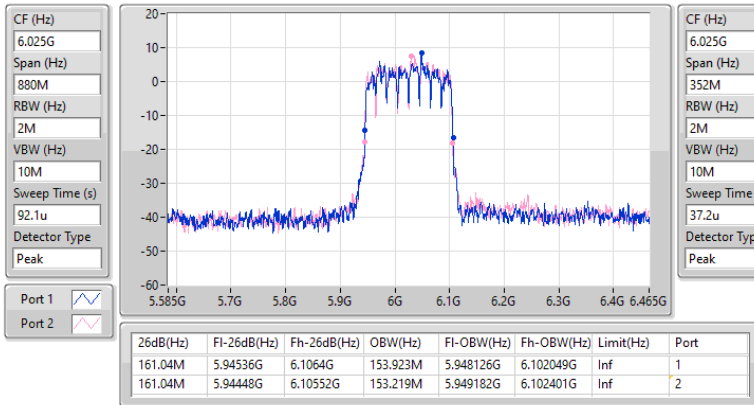


5.925-6.425GHz_11a160_160MHz_Nss1,(6Mbps)_2TX

EBW

6025MHz

22/09/2023

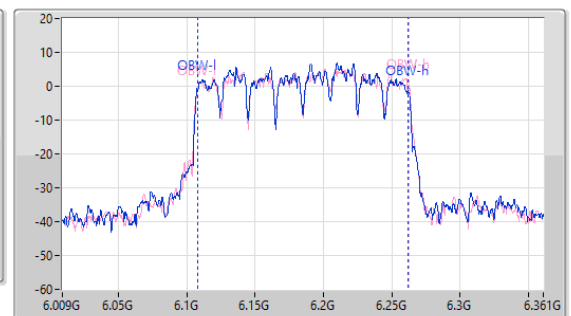
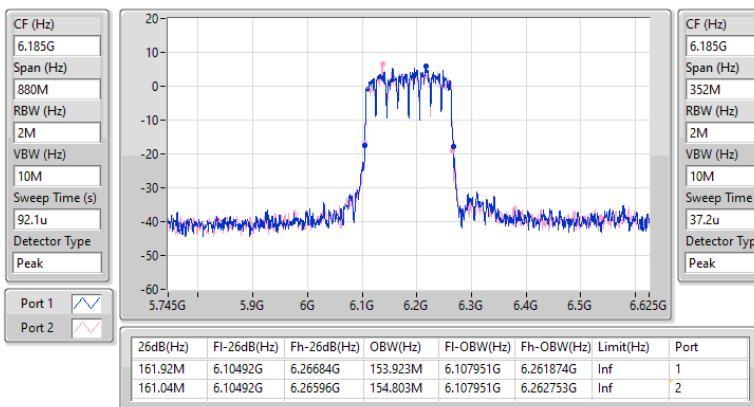


5.925-6.425GHz_11a160_160MHz_Nss1,(6Mbps)_2TX

EBW

6185MHz

22/09/2023

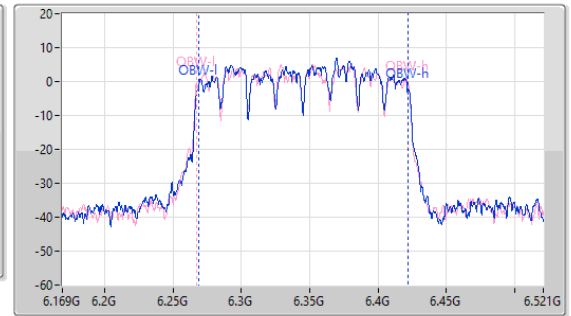
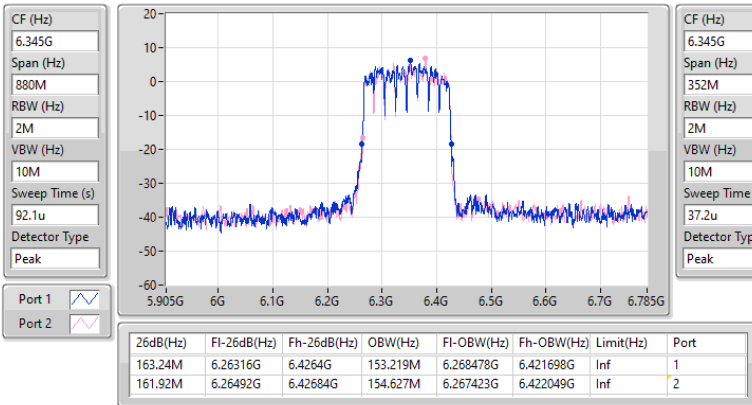


5.925-6.425GHz_11a160_160MHz_Nss1,(6Mbps)_2TX

EBW

6345MHz

22/09/2023

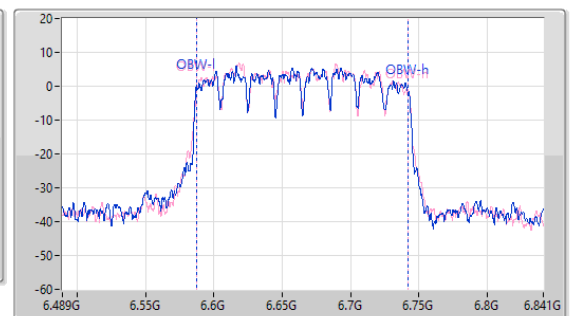
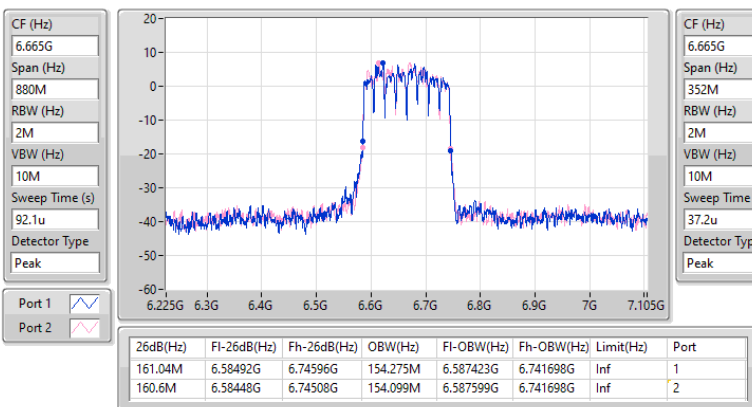


6.525-6.875GHz_11a160_160MHz_Nss1,(6Mbps)_2TX

EBW

6665MHz

22/09/2023

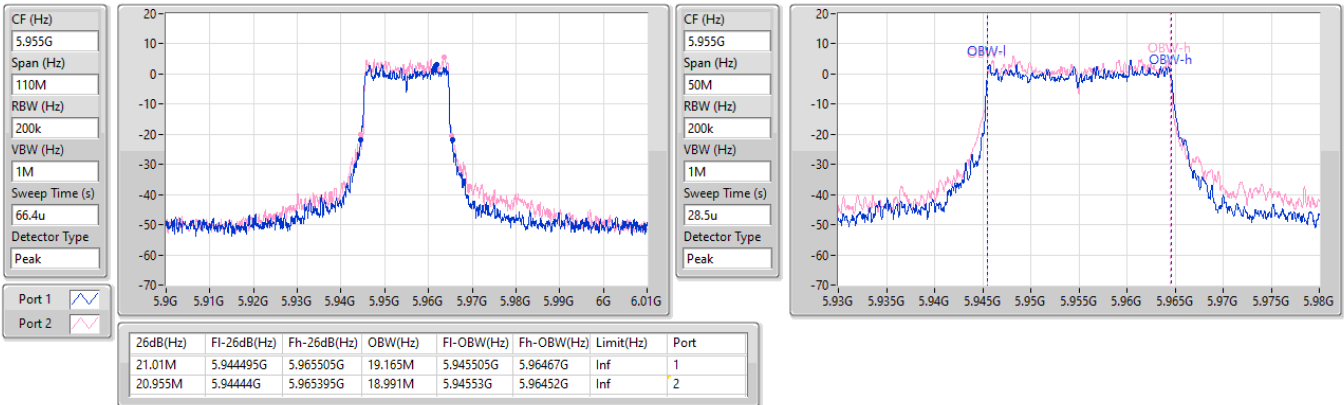


5.925-6.425GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

5955MHz

09/09/2023

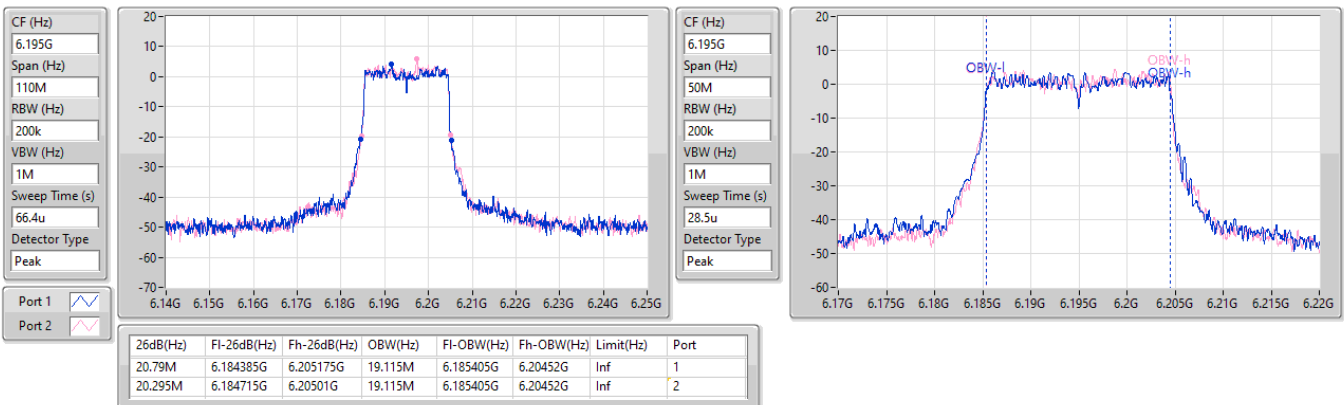


5.925-6.425GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

6195MHz

09/09/2023

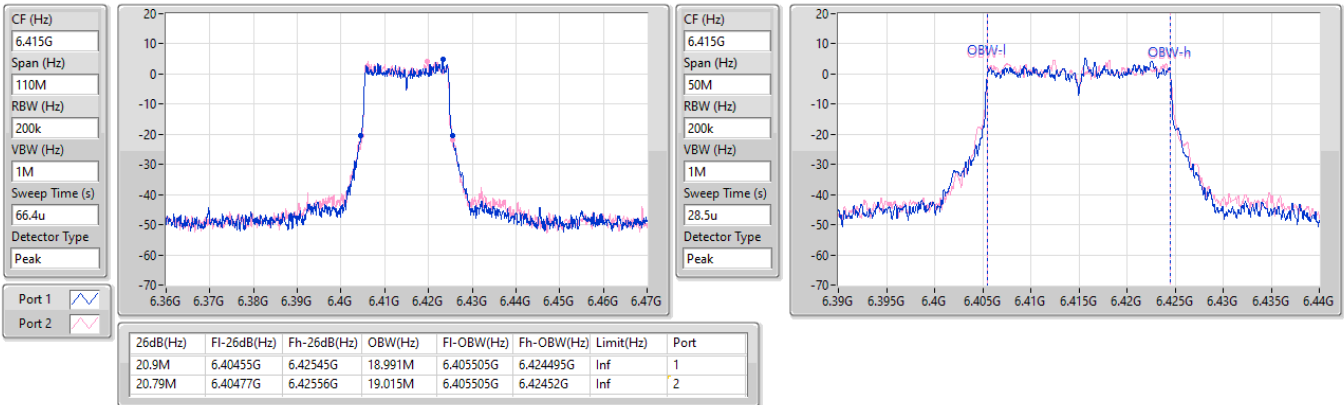


5.925-6.425GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

6415MHz

09/09/2023

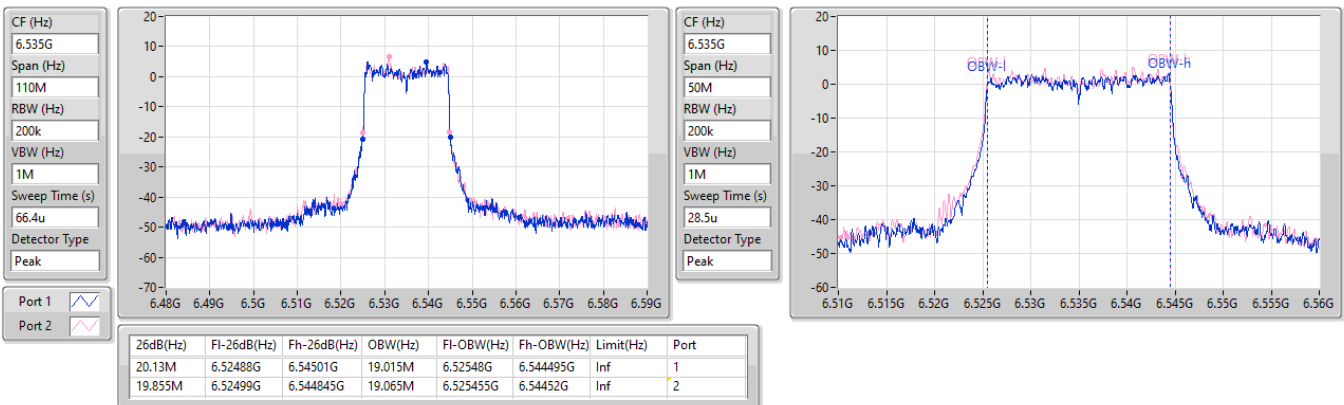


6.525-6.875GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

6535MHz

09/09/2023

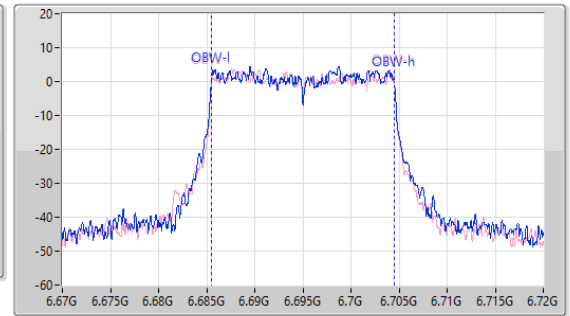
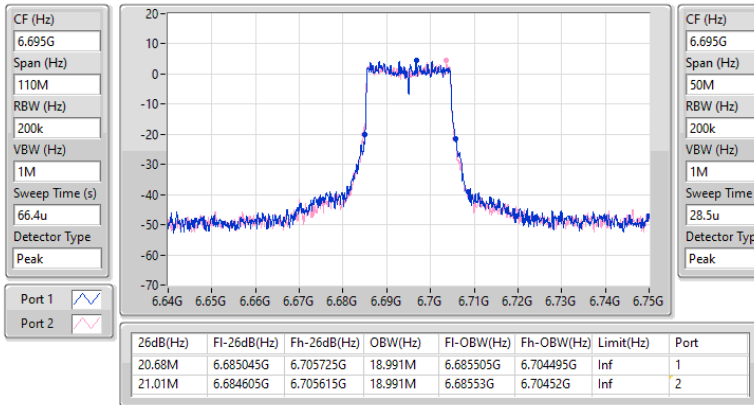


6.525-6.875GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

6695MHz

09/09/2023

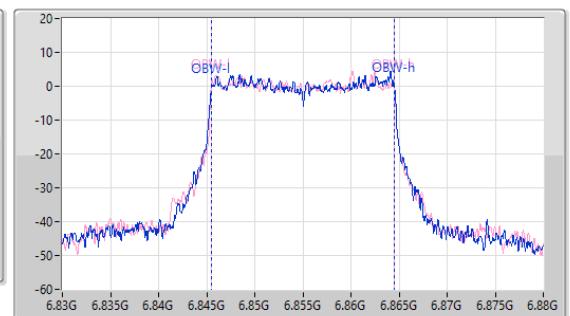
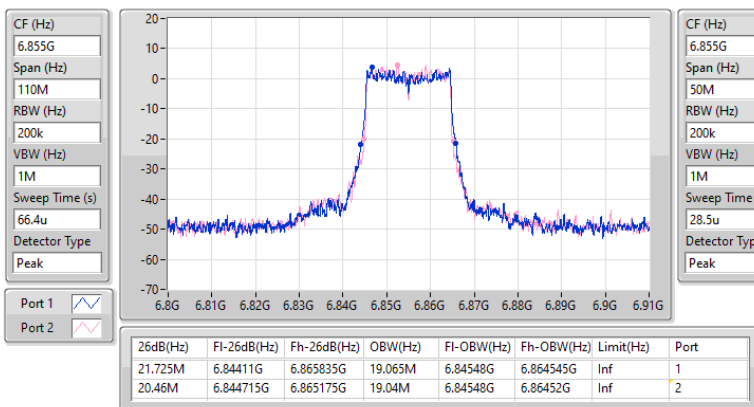


6.525-6.875GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

6855MHz

09/09/2023

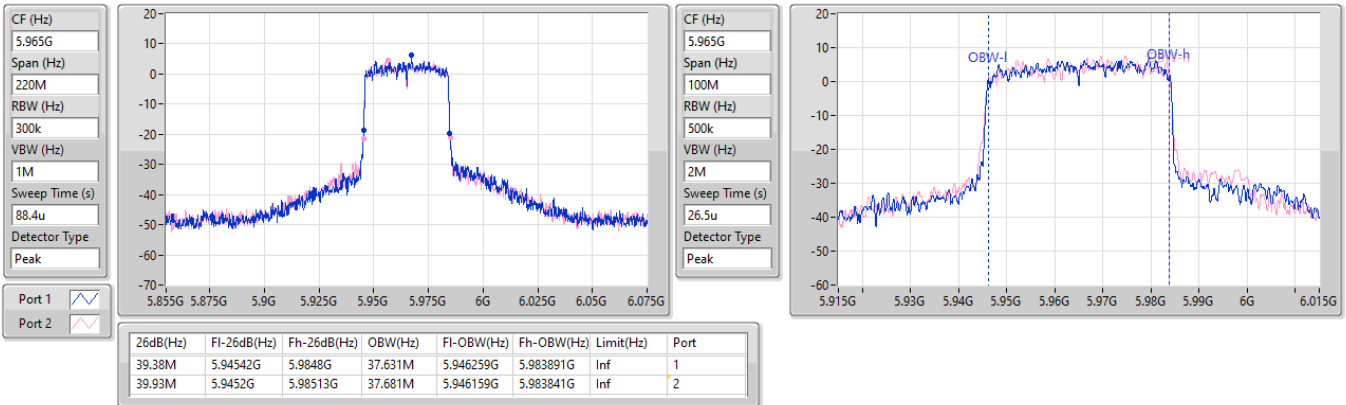


5.925-6.425GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

5965MHz

09/09/2023

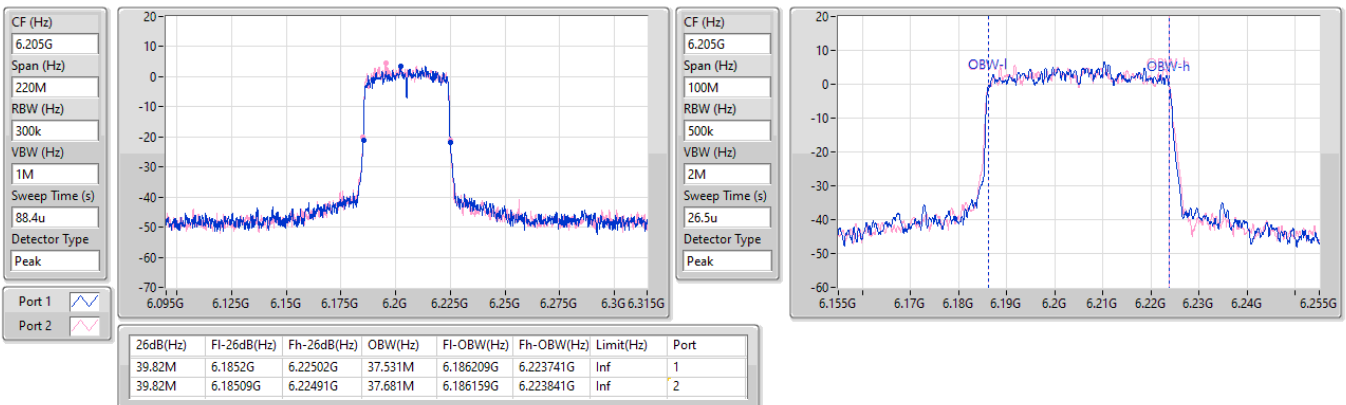


5.925-6.425GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

6205MHz

09/09/2023

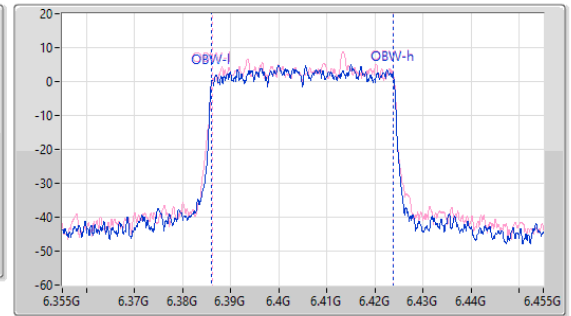
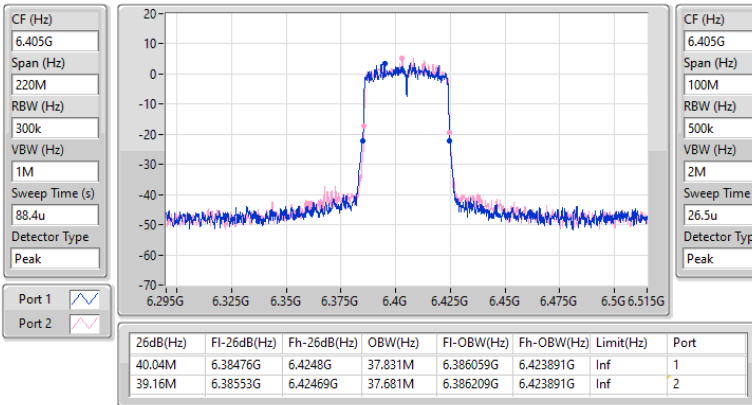


5.925-6.425GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

6405MHz

09/09/2023

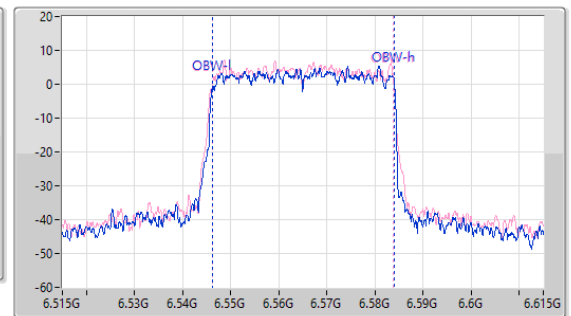
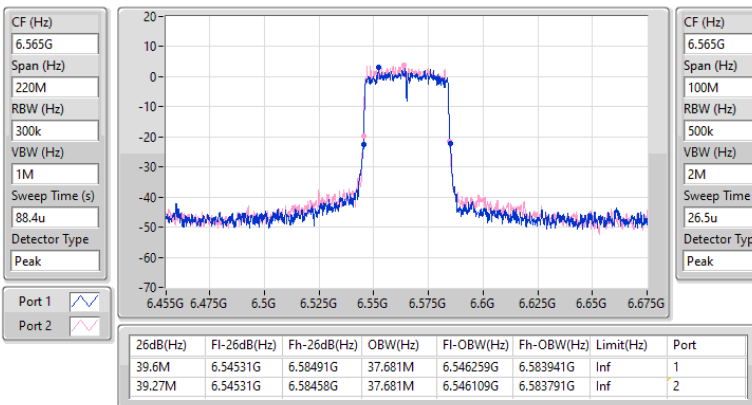


6.525-6.875GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

6565MHz

09/09/2023

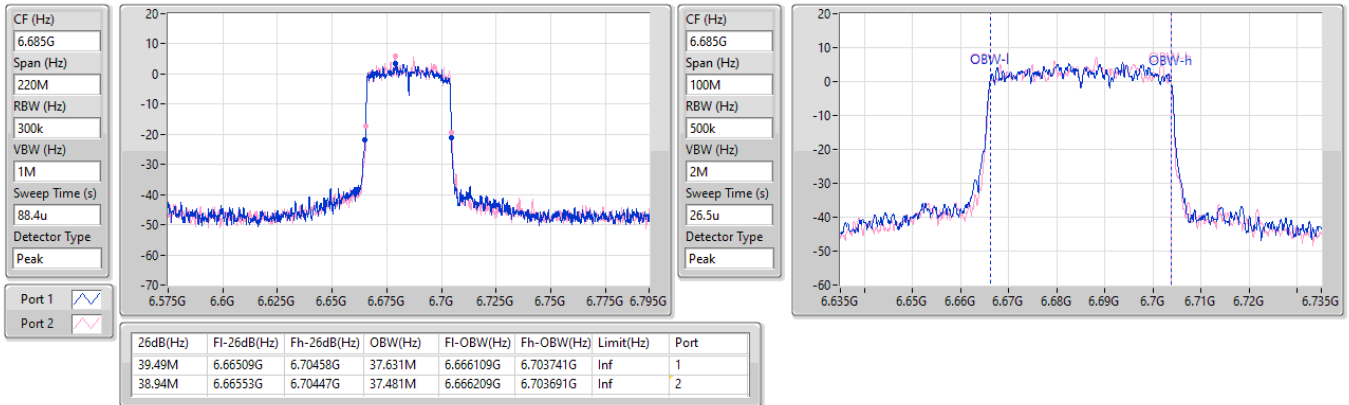


6.525-6.875GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

6685MHz

09/09/2023

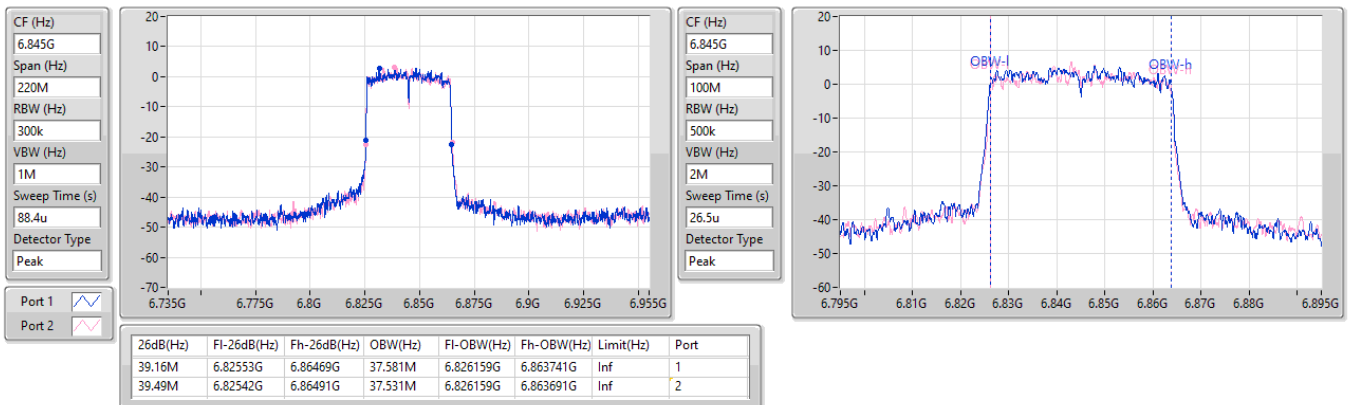


6.525-6.875GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

6845MHz

09/09/2023

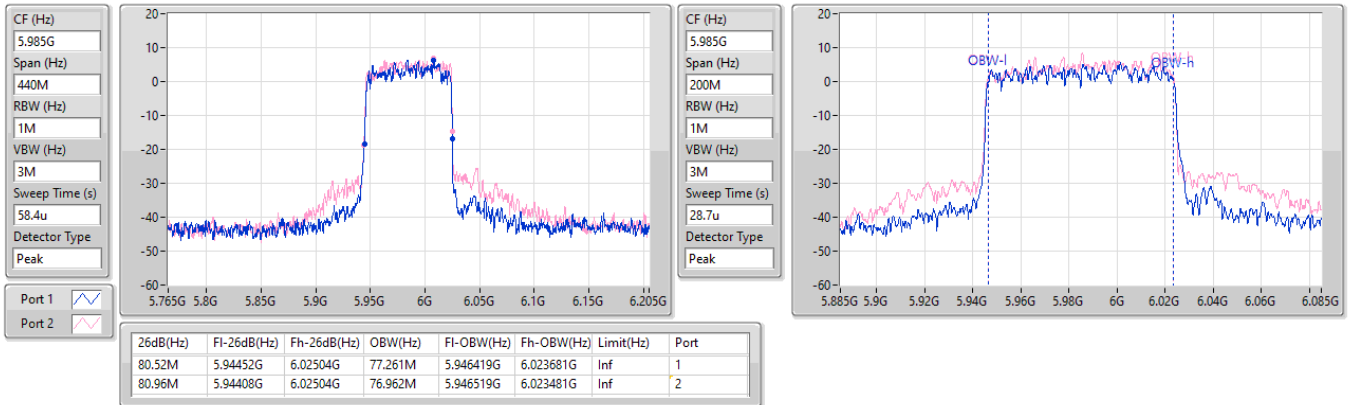


5.925-6.425GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

5985MHz

09/09/2023

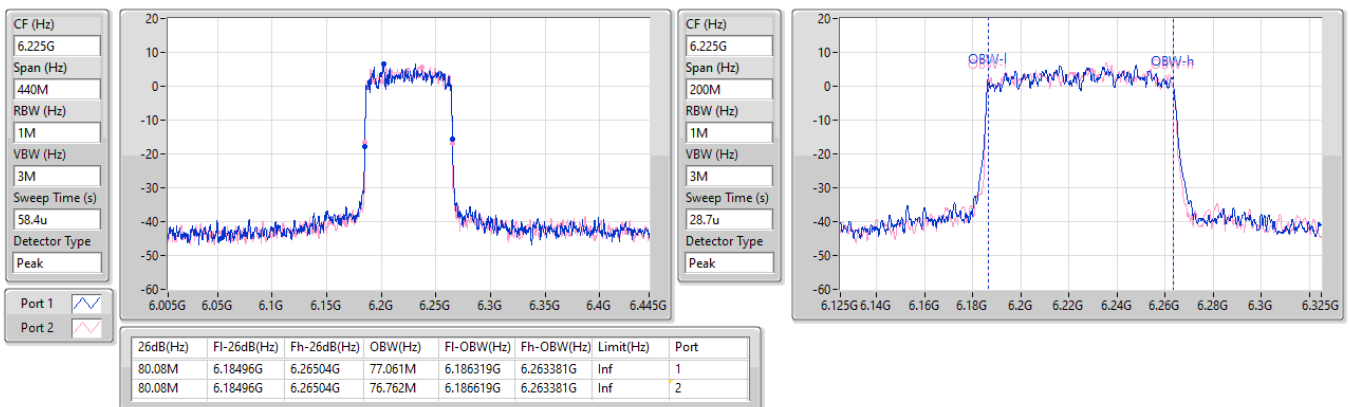


5.925-6.425GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

6225MHz

09/09/2023

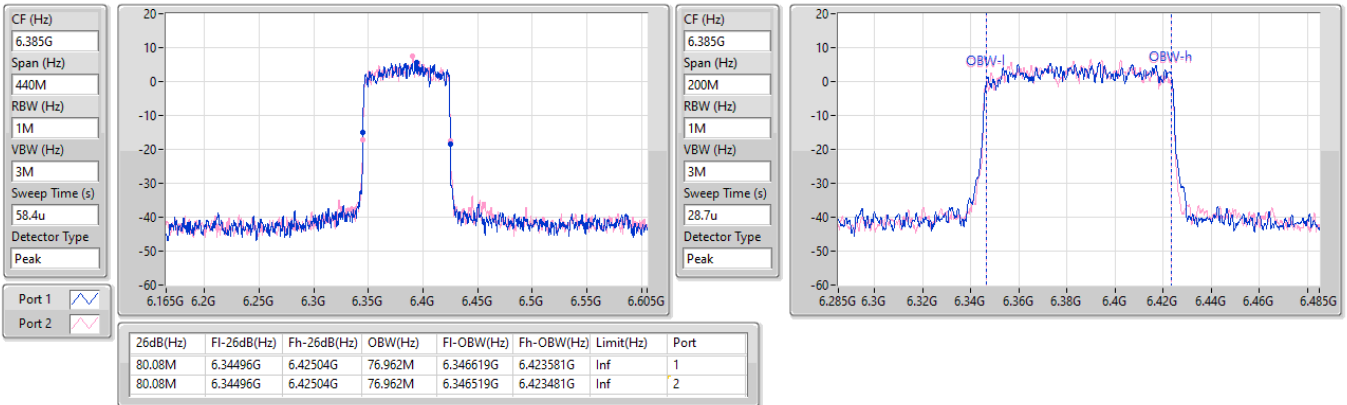


5.925-6.425GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

6385MHz

09/09/2023

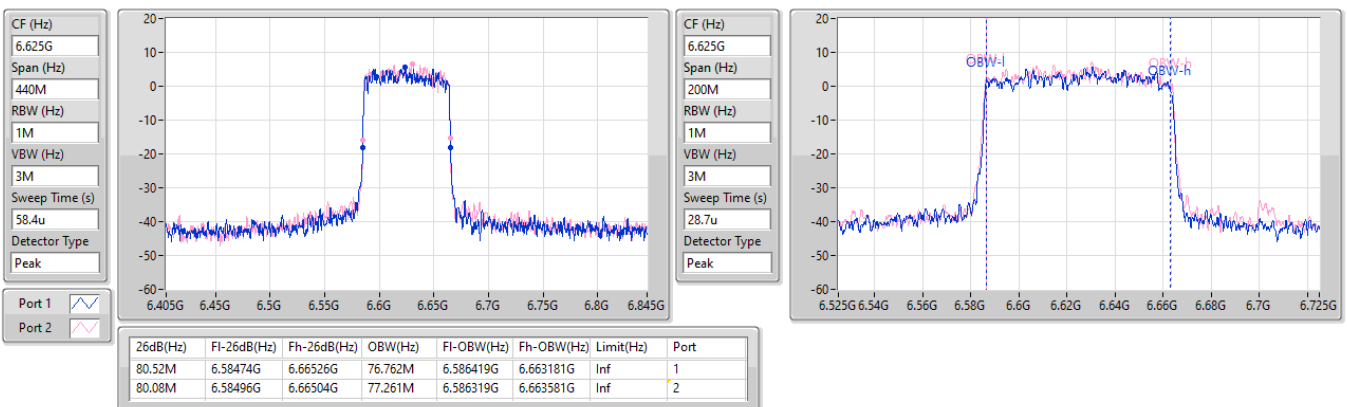


6.525-6.875GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

6625MHz

09/09/2023

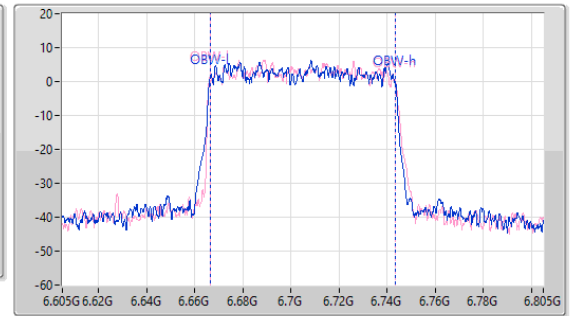
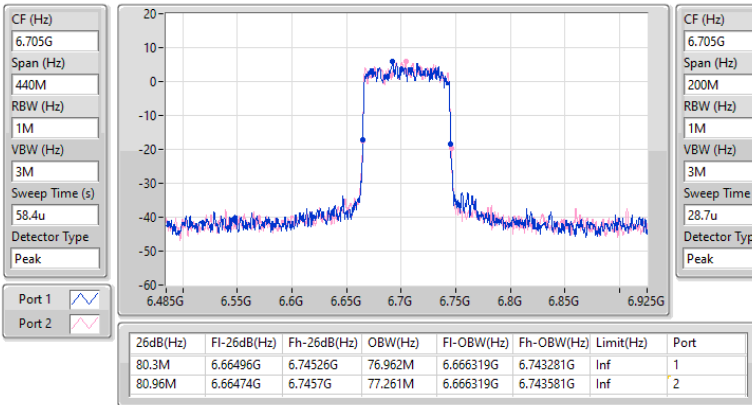


6.525-6.875GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

6705MHz

09/09/2023

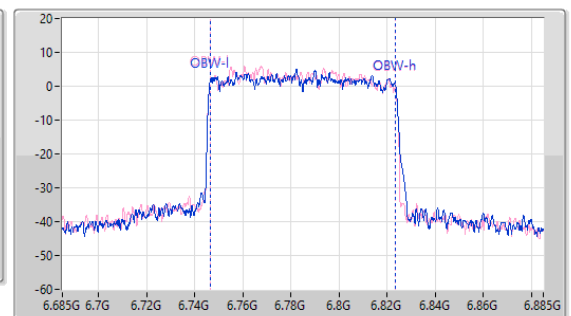
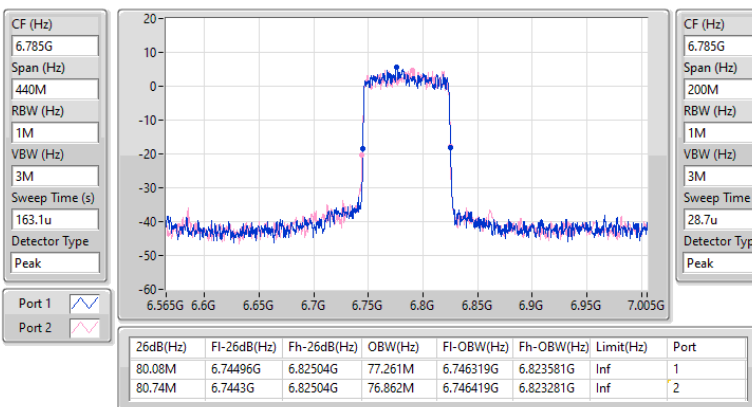


6.525-6.875GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

6785MHz

09/09/2023

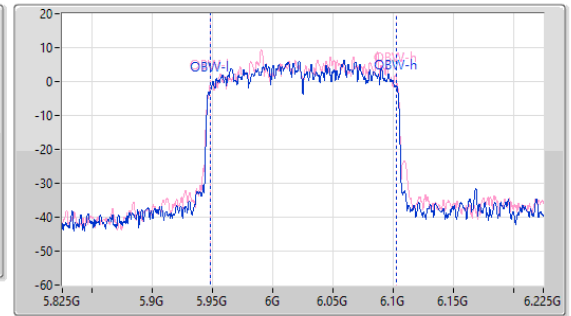
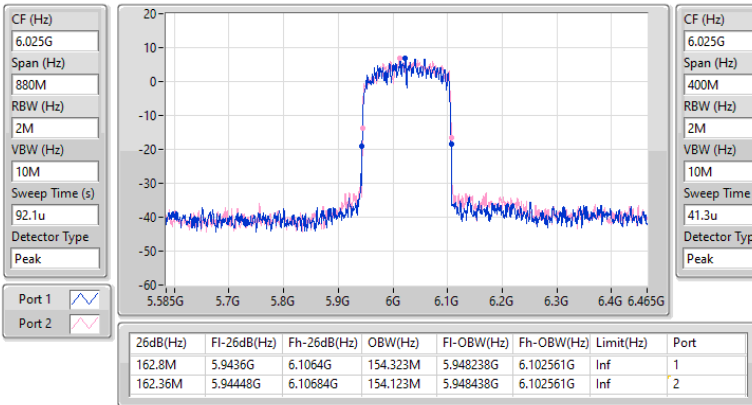


5.925-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_2TX

EBW

6025MHz

09/09/2023

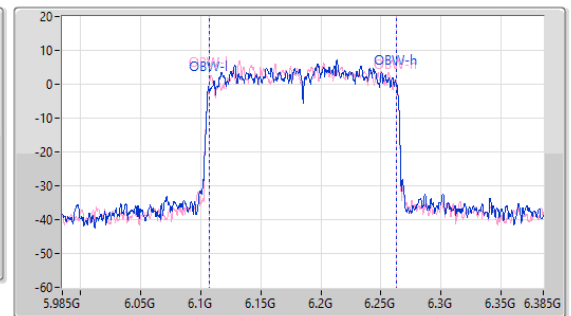
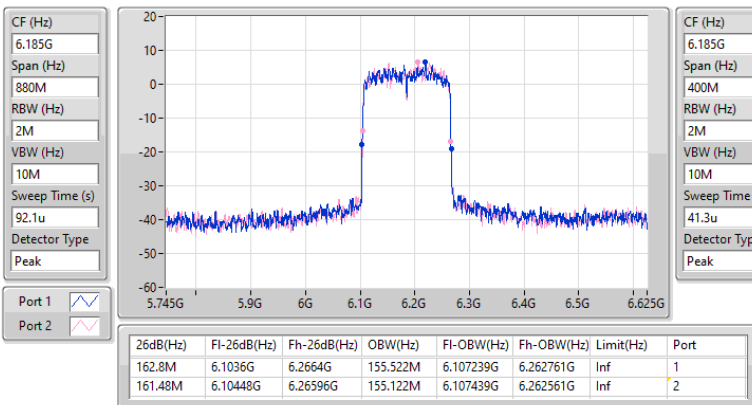


5.925-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_2TX

EBW

6185MHz

09/09/2023

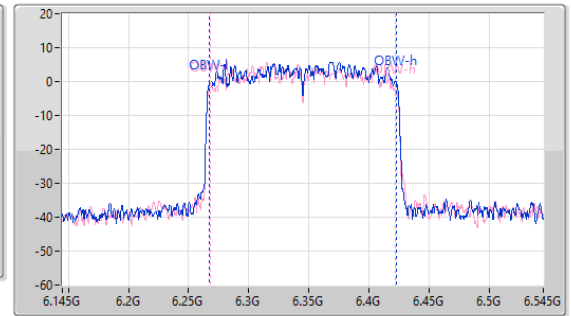
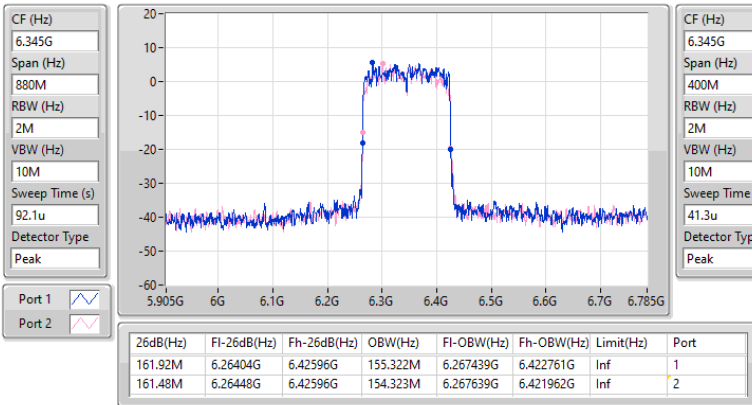


5.925-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_2TX

EBW

6345MHz

09/09/2023

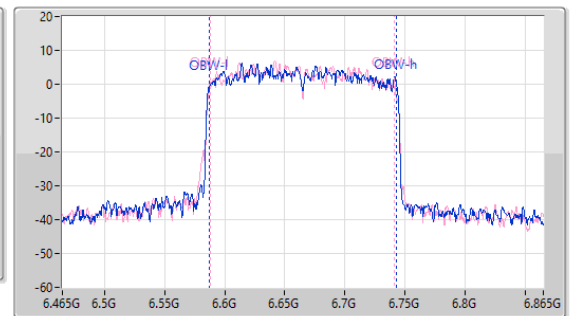
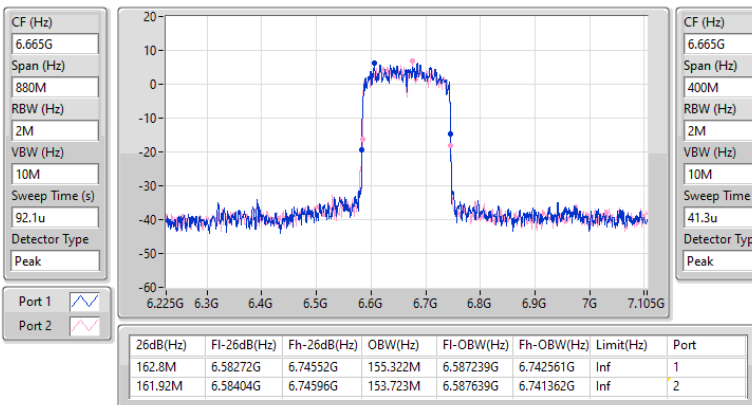


6.525-6.875GHz_802.11ax HEW160_Nss1,(MCS0)_2TX

EBW

6665MHz

09/09/2023



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.925-6.425GHz	-	-	-	-	-
11a20_20MHz_Nss1,(6Mbps)_4TX	20.075M	16.646M	16M6D1D	18.645M	16.404M
11a40_40MHz_Nss1,(6Mbps)_4TX	38.83M	36.238M	36M2D1D	38.06M	35.974M
11a80_80MHz_Nss1,(6Mbps)_4TX	81.4M	75.73M	75M7D1D	79.2M	75.378M
11a160_160MHz_Nss1,(6Mbps)_4TX	164.12M	154.803M	155MD1D	160.16M	152.692M
802.11ax HEW20_Nss1,(MCS0)_4TX	21.175M	19.14M	19M1D1D	20.185M	18.941M
802.11ax HEW40_Nss1,(MCS0)_4TX	39.71M	37.731M	37M7D1D	38.83M	37.531M
802.11ax HEW80_Nss1,(MCS0)_4TX	81.84M	77.261M	77M3D1D	79.86M	76.362M
802.11ax HEW160_Nss1,(MCS0)_4TX	162.8M	155.722M	156MD1D	161.48M	152.924M
6.525-6.875GHz	-	-	-	-	-
11a20_20MHz_Nss1,(6Mbps)_4TX	19.855M	16.536M	16M5D1D	18.975M	16.448M
11a40_40MHz_Nss1,(6Mbps)_4TX	39.38M	36.282M	36M3D1D	38.17M	35.974M
11a80_80MHz_Nss1,(6Mbps)_4TX	81.18M	75.994M	76M0D1D	78.76M	75.466M
11a160_160MHz_Nss1,(6Mbps)_4TX	163.68M	154.627M	155MD1D	160.6M	153.395M
802.11ax HEW20_Nss1,(MCS0)_4TX	21.56M	19.19M	19M2D1D	20.075M	18.991M
802.11ax HEW40_Nss1,(MCS0)_4TX	39.82M	37.981M	38M0D1D	39.05M	37.531M
802.11ax HEW80_Nss1,(MCS0)_4TX	81.84M	77.361M	77M4D1D	80.08M	76.762M
802.11ax HEW160_Nss1,(MCS0)_4TX	162.36M	155.322M	155MD1D	161.48M	154.523M

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)
11a20_20MHz_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5955MHz	Pass	Inf	19.085M	16.558M	18.645M	16.602M	19.36M	16.514M	19.47M	16.514M
6195MHz	Pass	Inf	19.47M	16.404M	18.81M	16.58M	18.7M	16.492M	19.855M	16.514M
6415MHz	Pass	Inf	19.855M	16.492M	20.075M	16.448M	18.81M	16.646M	19.03M	16.558M
6535MHz	Pass	Inf	19.855M	16.492M	18.975M	16.492M	19.415M	16.514M	19.525M	16.536M
6695MHz	Pass	Inf	19.36M	16.448M	19.47M	16.514M	19.195M	16.536M	19.745M	16.514M
6855MHz	Pass	Inf	19.03M	16.536M	19.085M	16.492M	19.635M	16.514M	19.635M	16.536M
11a40_40MHz_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5965MHz	Pass	Inf	38.06M	36.018M	38.61M	35.974M	38.39M	36.15M	38.83M	36.106M
6205MHz	Pass	Inf	38.61M	35.974M	38.39M	36.194M	38.72M	36.194M	38.39M	36.238M
6405MHz	Pass	Inf	38.72M	36.15M	38.39M	36.15M	38.39M	36.018M	38.39M	36.194M
6565MHz	Pass	Inf	38.61M	36.106M	39.05M	36.194M	38.28M	35.974M	38.17M	36.194M
6685MHz	Pass	Inf	39.38M	36.194M	38.72M	36.018M	38.39M	36.062M	38.94M	36.238M
6845MHz	Pass	Inf	38.72M	36.15M	38.17M	36.106M	38.5M	36.282M	38.72M	36.15M
11a80_80MHz_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5985MHz	Pass	Inf	79.86M	75.554M	80.74M	75.466M	79.42M	75.642M	79.2M	75.466M
6225MHz	Pass	Inf	80.52M	75.554M	80.74M	75.554M	79.2M	75.378M	80.52M	75.73M
6385MHz	Pass	Inf	81.4M	75.378M	79.86M	75.73M	79.2M	75.554M	80.52M	75.466M
6625MHz	Pass	Inf	78.76M	75.818M	81.18M	75.466M	80.08M	75.466M	79.2M	75.554M
6705MHz	Pass	Inf	80.96M	75.642M	80.3M	75.73M	79.64M	75.994M	79.42M	75.73M
6785MHz	Pass	Inf	79.64M	75.554M	79.2M	75.554M	79.86M	75.642M	79.2M	75.73M
11a160_160MHz_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
6025MHz	Pass	Inf	160.6M	153.043M	161.48M	152.692M	162.36M	154.099M	162.36M	153.747M
6185MHz	Pass	Inf	161.92M	153.747M	161.04M	153.923M	161.48M	154.099M	162.36M	153.395M
6345MHz	Pass	Inf	161.04M	153.571M	161.04M	154.803M	164.12M	154.451M	160.16M	154.451M
6665MHz	Pass	Inf	161.04M	154.275M	160.6M	153.923M	163.68M	154.627M	160.6M	153.395M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5955MHz	Pass	Inf	20.79M	19.015M	20.24M	19.015M	20.845M	19.09M	21.12M	19.015M
6195MHz	Pass	Inf	20.185M	19.115M	20.9M	19.04M	21.175M	19.015M	20.515M	18.941M
6415MHz	Pass	Inf	20.405M	18.966M	20.515M	19.115M	20.185M	19.14M	20.625M	19.04M
6535MHz	Pass	Inf	20.185M	19.19M	20.9M	19.165M	20.35M	19.065M	21.395M	19.115M
6695MHz	Pass	Inf	21.56M	19.04M	20.57M	19.015M	20.185M	19.04M	21.12M	19.065M
6855MHz	Pass	Inf	21.065M	19.165M	20.24M	18.991M	20.075M	19.115M	21.01M	19.09M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5965MHz	Pass	Inf	39.16M	37.681M	39.49M	37.681M	38.83M	37.631M	39.38M	37.581M
6205MHz	Pass	Inf	39.16M	37.731M	39.71M	37.681M	39.49M	37.631M	39.16M	37.531M
6405MHz	Pass	Inf	39.71M	37.681M	39.05M	37.531M	39.71M	37.581M	39.16M	37.731M
6565MHz	Pass	Inf	39.16M	37.931M	39.71M	37.781M	39.05M	37.581M	39.49M	37.531M
6685MHz	Pass	Inf	39.27M	37.581M	39.6M	37.731M	39.71M	37.631M	39.38M	37.981M
6845MHz	Pass	Inf	39.05M	37.681M	39.82M	37.681M	39.49M	37.681M	39.82M	37.581M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5985MHz	Pass	Inf	80.52M	76.662M	80.08M	76.362M	80.3M	76.962M	80.08M	76.962M
6225MHz	Pass	Inf	81.84M	76.762M	81.84M	76.462M	79.86M	77.261M	80.74M	76.762M
6385MHz	Pass	Inf	80.3M	76.662M	81.84M	77.061M	81.4M	76.962M	80.96M	77.061M
6625MHz	Pass	Inf	80.96M	77.361M	81.62M	77.061M	81.62M	77.061M	80.08M	77.261M
6705MHz	Pass	Inf	81.84M	76.962M	81.18M	77.061M	80.96M	77.061M	80.96M	76.762M
6785MHz	Pass	Inf	80.74M	77.161M	80.96M	77.161M	81.18M	76.962M	80.3M	77.361M
802.11ax HEW160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
6025MHz	Pass	Inf	162.36M	155.722M	161.48M	155.322M	161.92M	154.923M	162.8M	154.323M
6185MHz	Pass	Inf	161.92M	154.323M	161.92M	155.122M	161.92M	152.924M	161.48M	155.322M
6345MHz	Pass	Inf	161.48M	155.522M	161.92M	155.122M	161.92M	154.523M	162.36M	155.722M
6665MHz	Pass	Inf	161.48M	155.322M	161.48M	154.723M	161.92M	154.523M	162.36M	154.923M

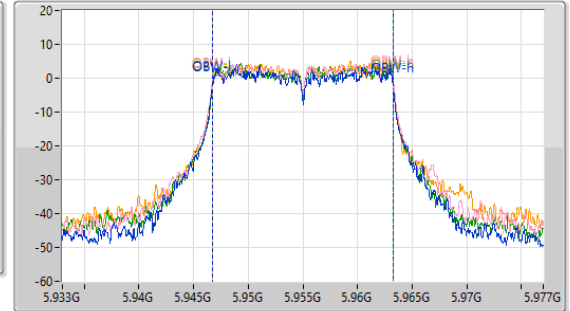
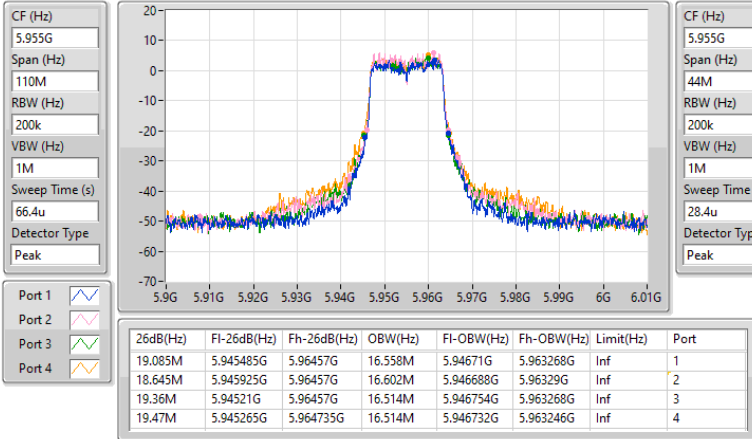
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

5.925-6.425GHz_11a20_20MHz_Nss1,(6Mbps)_4TX

EBW

5955MHz

22/09/2023

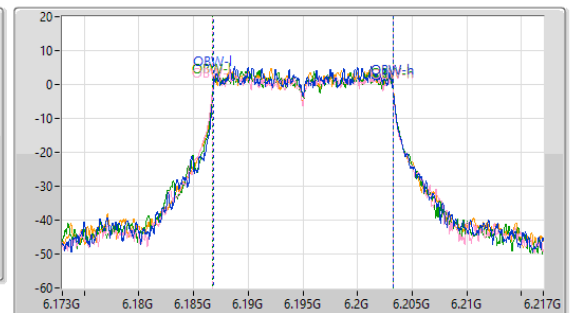
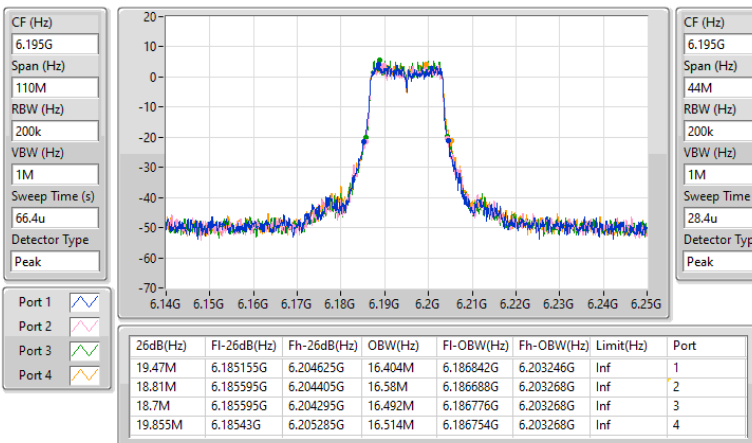


5.925-6.425GHz_11a20_20MHz_Nss1,(6Mbps)_4TX

EBW

6195MHz

22/09/2023

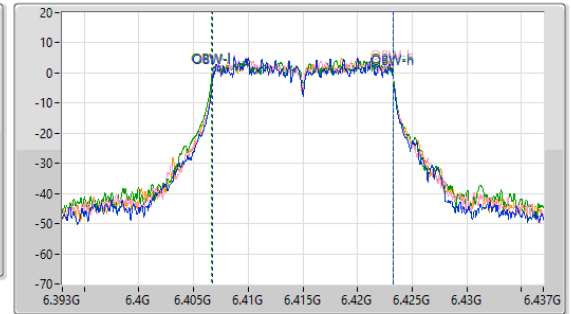
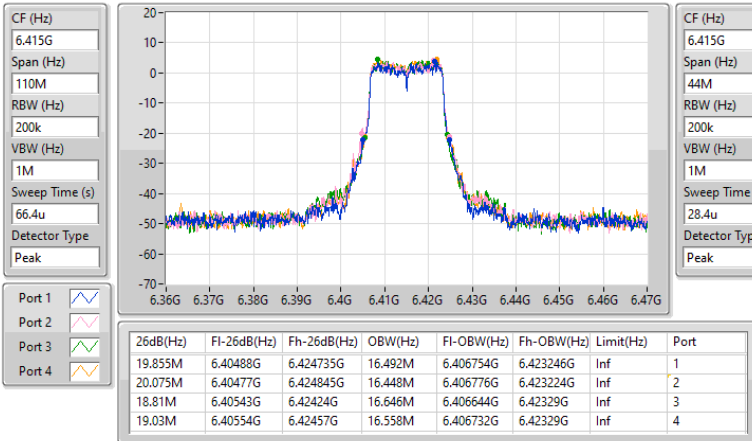


5.925-6.425GHz_11a20_20MHz_Nss1,(6Mbps)_4TX

EBW

6415MHz

22/09/2023

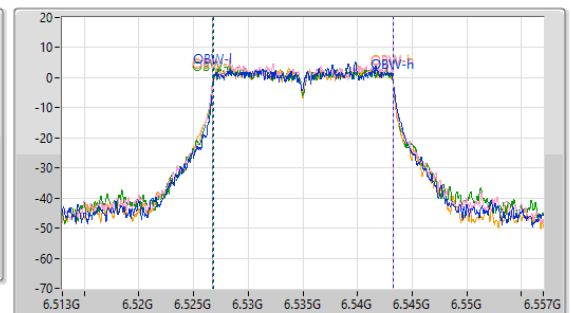
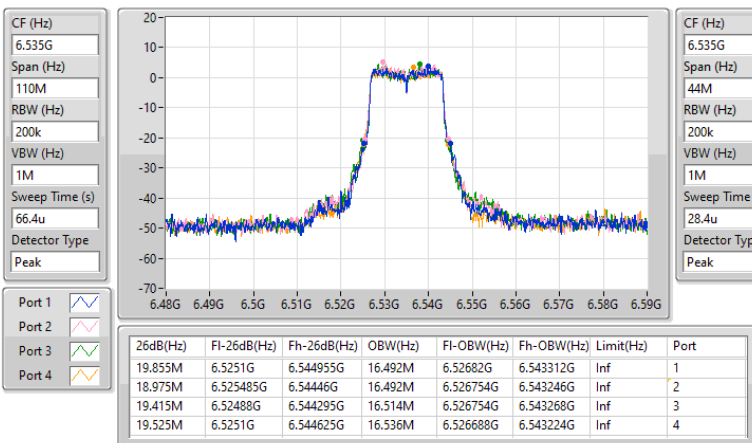


6.525-6.875GHz_11a20_20MHz_Nss1,(6Mbps)_4TX

EBW

6535MHz

22/09/2023

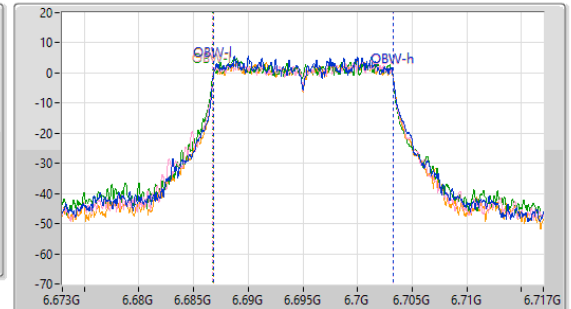
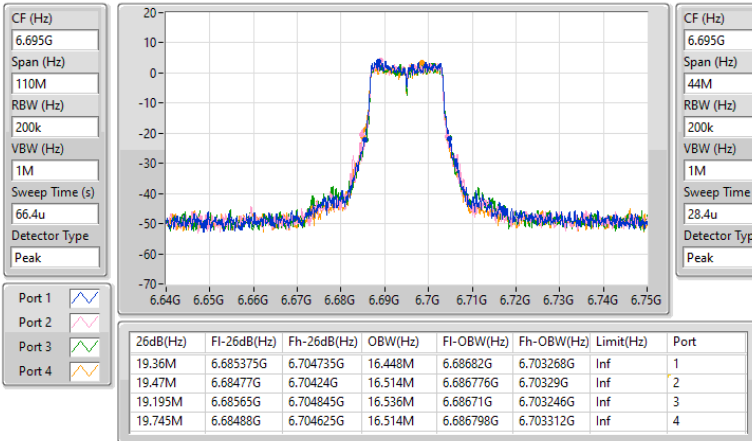


6.525-6.875GHz_11a20_20MHz_Nss1,(6Mbps)_4TX

EBW

6695MHz

22/09/2023

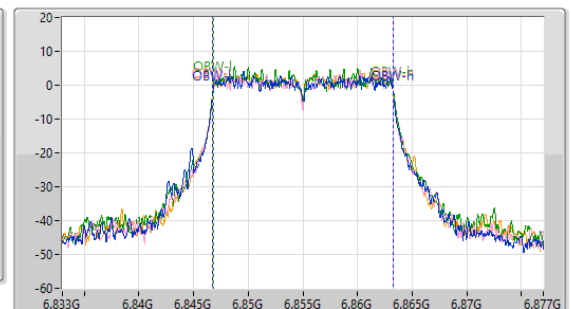
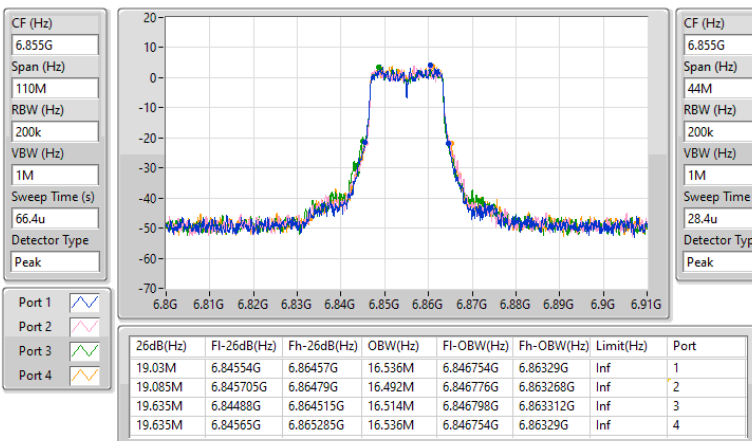


6.525-6.875GHz_11a20_20MHz_Nss1,(6Mbps)_4TX

EBW

6855MHz

22/09/2023

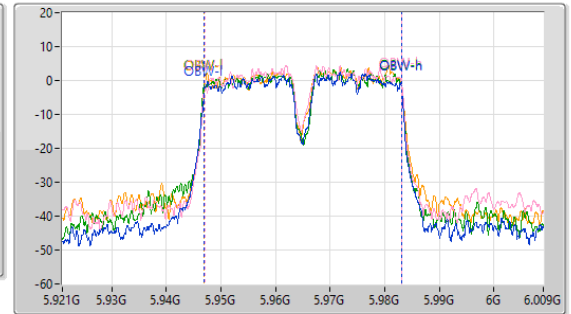
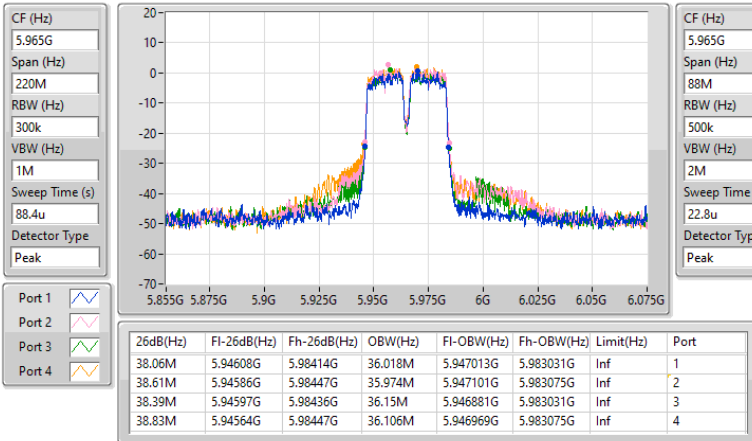


5.925-6.425GHz_11a40_40MHz_Nss1,(6Mbps)_4TX

EBW

5965MHz

22/09/2023

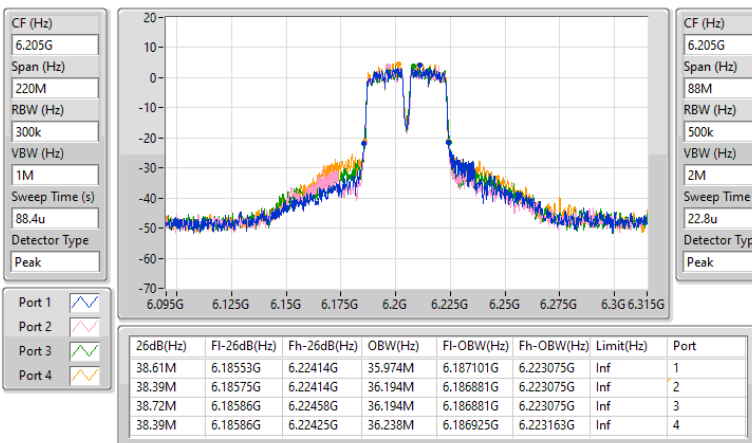


5.925-6.425GHz_11a40_40MHz_Nss1,(6Mbps)_4TX

EBW

6205MHz

22/09/2023

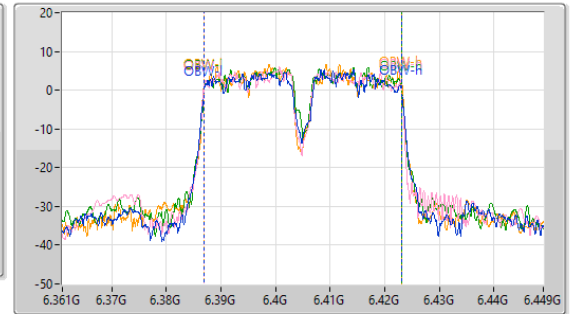
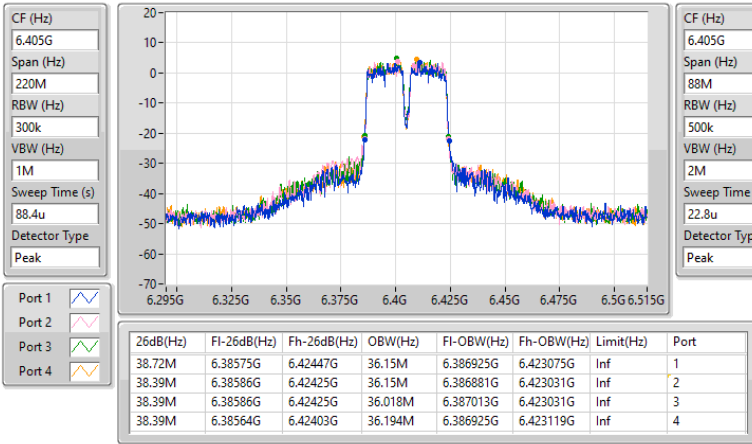


5.925-6.425GHz_11a40_40MHz_Nss1,(6Mbps)_4TX

EBW

6405MHz

22/09/2023

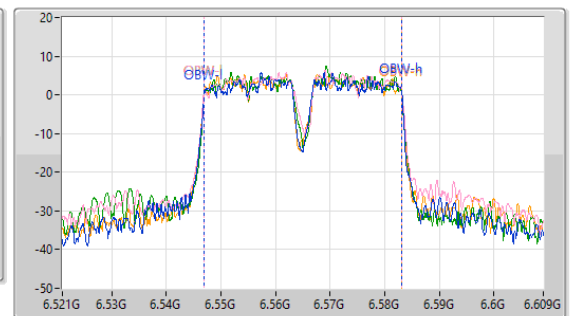
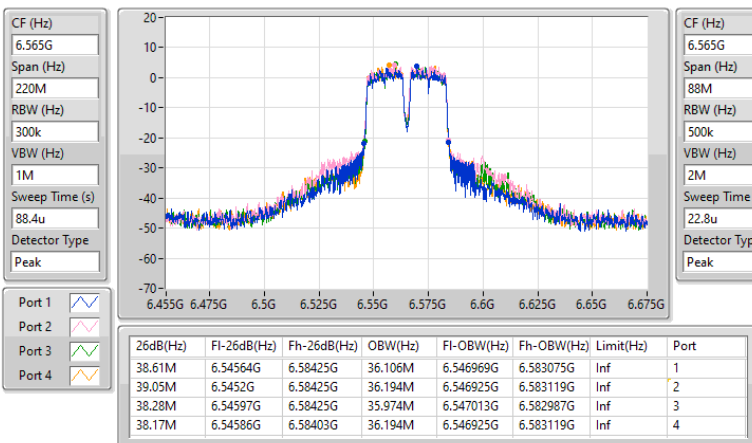


6.525-6.875GHz_11a40_40MHz_Nss1,(6Mbps)_4TX

EBW

6565MHz

22/09/2023

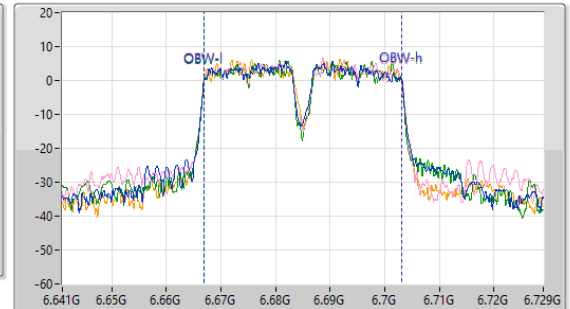
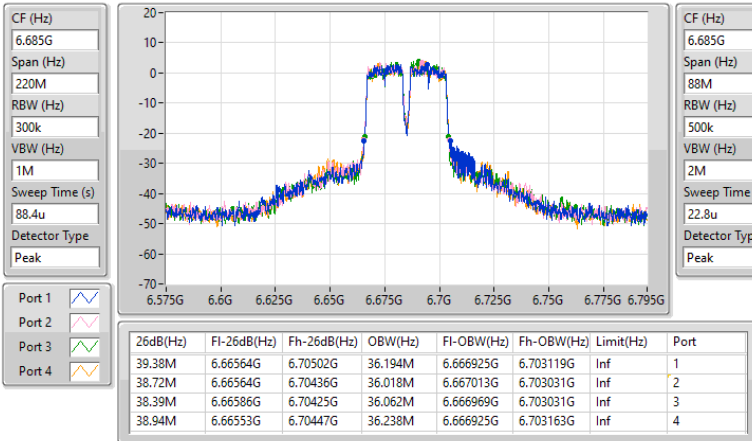


6.525-6.875GHz_11a40_40MHz_Nss1,(6Mbps)_4TX

EBW

6685MHz

22/09/2023

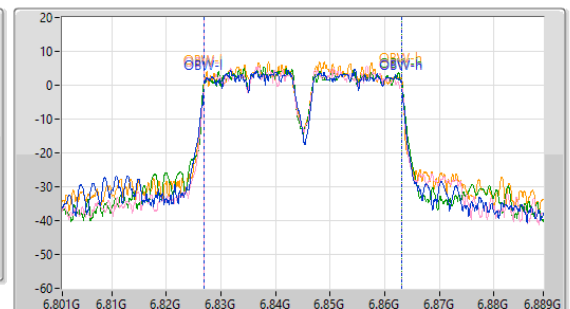
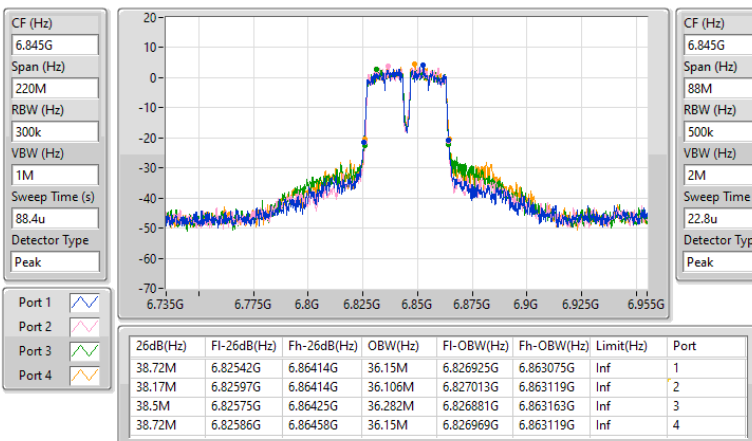


6.525-6.875GHz_11a40_40MHz_Nss1,(6Mbps)_4TX

EBW

6845MHz

22/09/2023

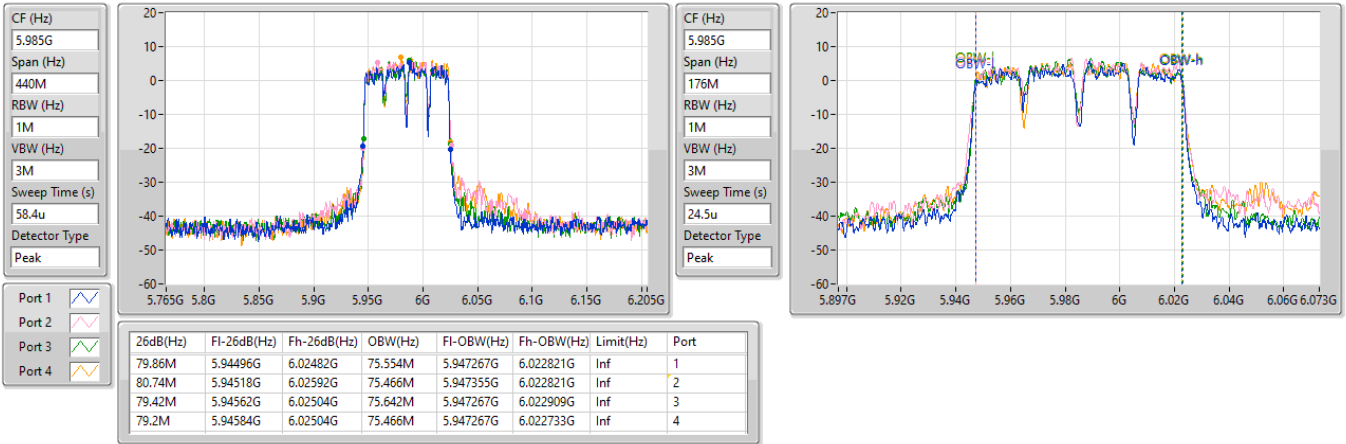


5.925-6.425GHz_11a80_80MHz_Nss1,(6Mbps)_4TX

EBW

5985MHz

22/09/2023

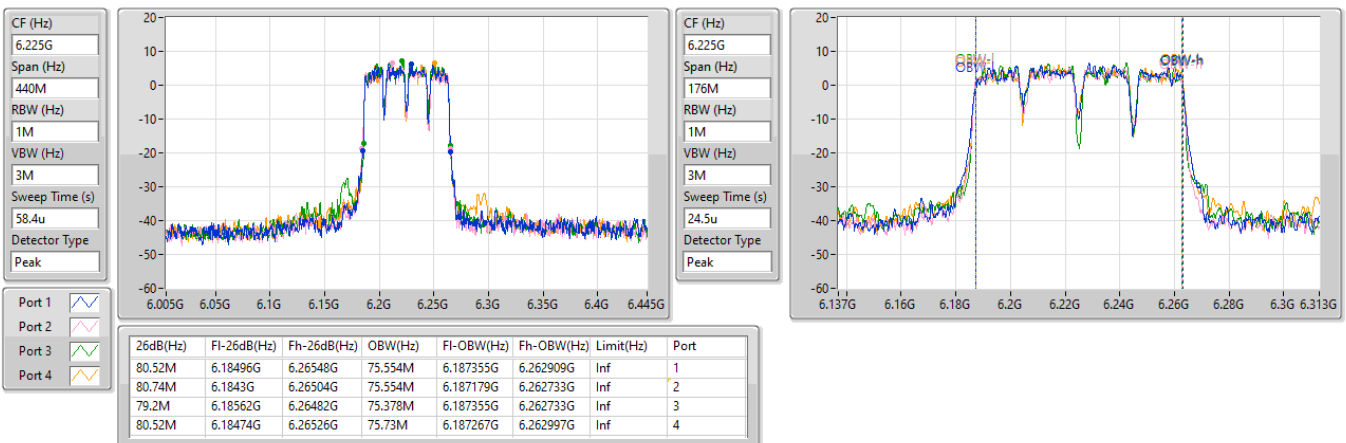


5.925-6.425GHz_11a80_80MHz_Nss1,(6Mbps)_4TX

EBW

6225MHz

22/09/2023

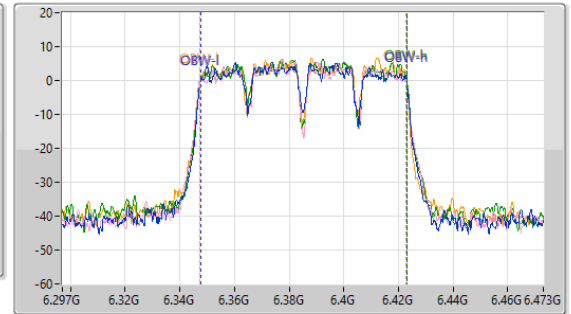
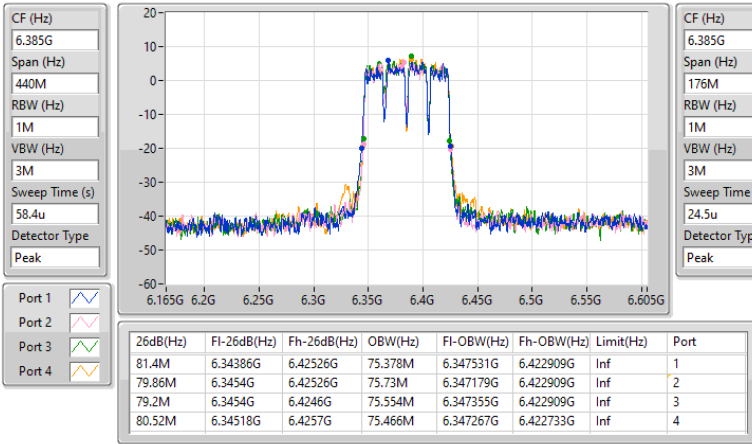


5.925-6.425GHz_11a80_80MHz_Nss1,(6Mbps)_4TX

EBW

6385MHz

22/09/2023

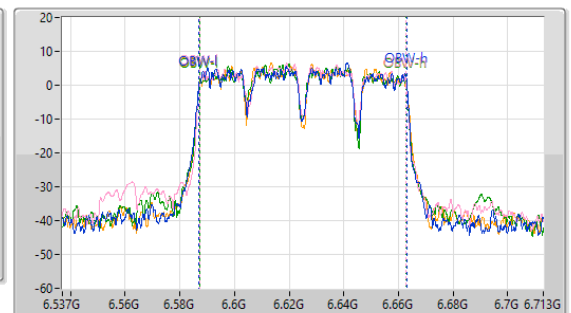
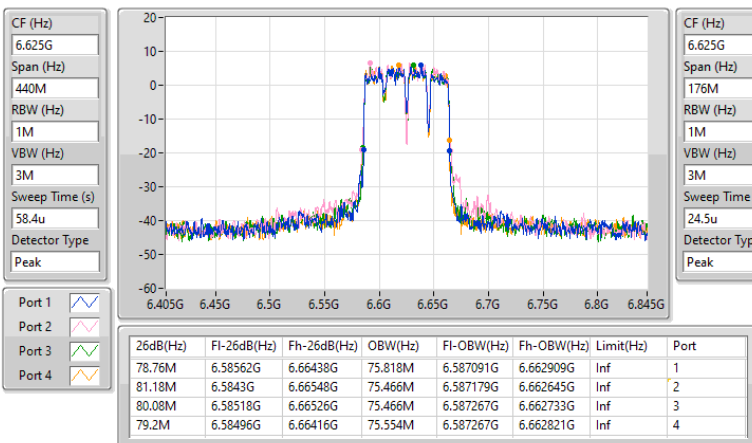


6.525-6.875GHz_11a80_80MHz_Nss1,(6Mbps)_4TX

EBW

6625MHz

22/09/2023

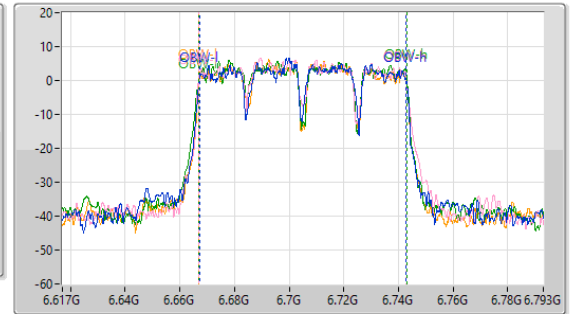
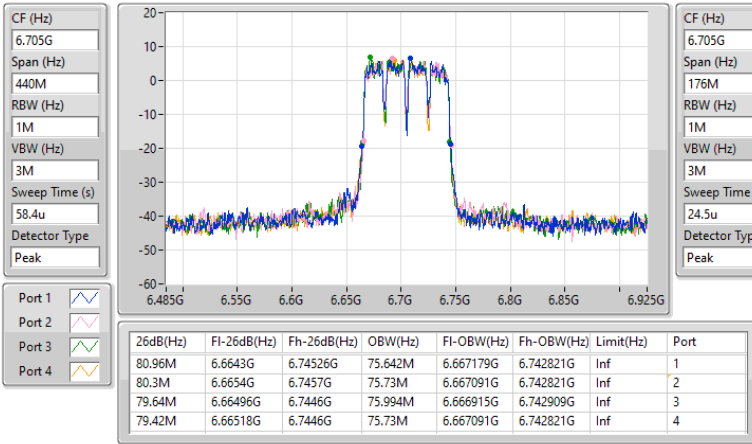


6.525-6.875GHz_11a80_80MHz_Nss1,(6Mbps)_4TX

EBW

6705MHz

22/09/2023

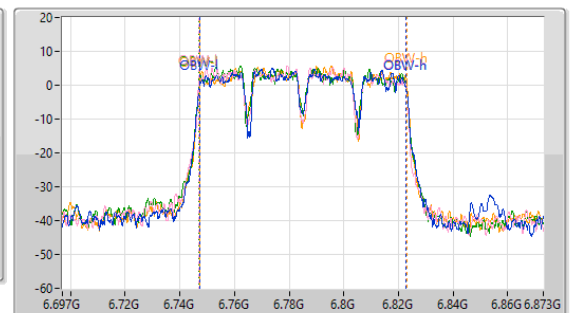
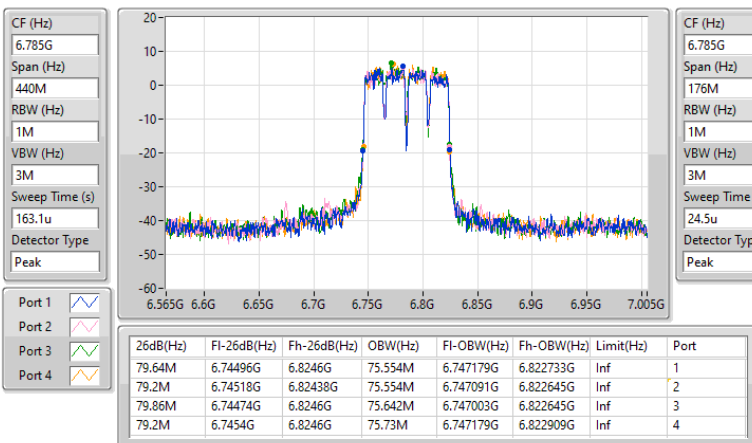


6.525-6.875GHz_11a80_80MHz_Nss1,(6Mbps)_4TX

EBW

6785MHz

22/09/2023

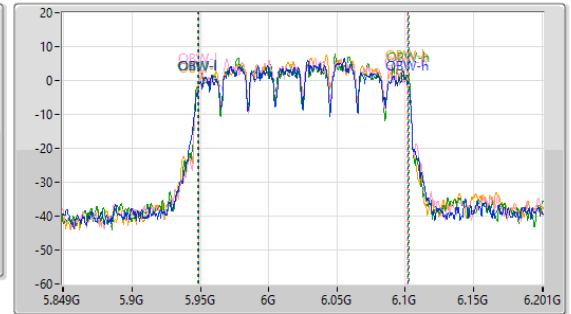
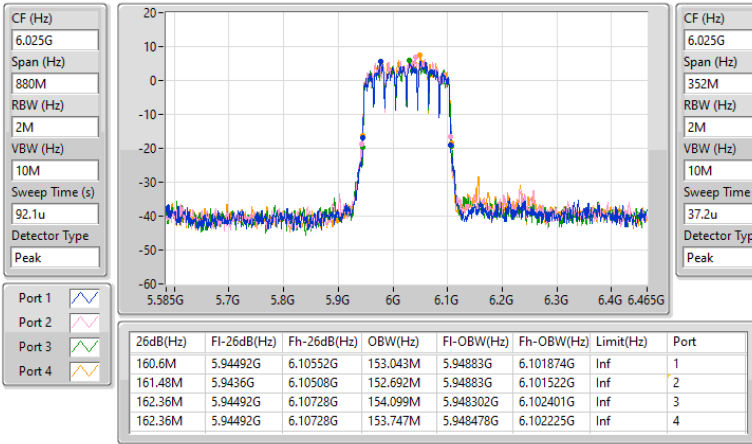


5.925-6.425GHz_11a160_160MHz_Nss1,(6Mbps)_4TX

EBW

6025MHz

22/09/2023

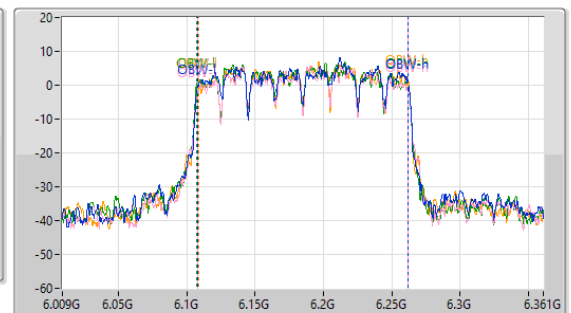
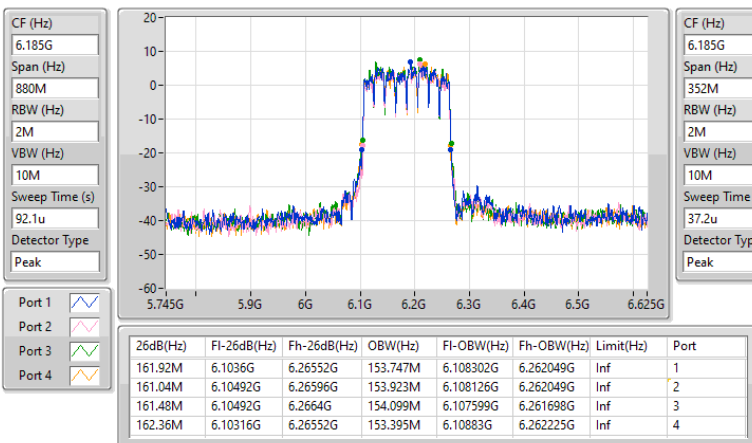


5.925-6.425GHz_11a160_160MHz_Nss1,(6Mbps)_4TX

EBW

6185MHz

22/09/2023

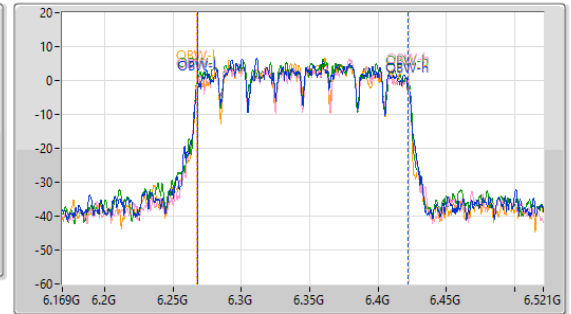
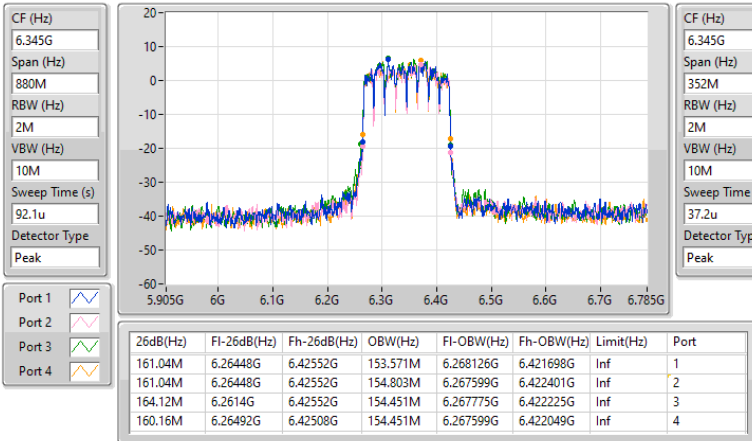


5.925-6.425GHz_11a160_160MHz_Nss1,(6Mbps)_4TX

EBW

6345MHz

22/09/2023

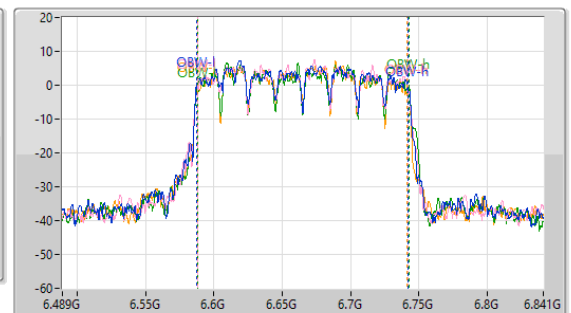
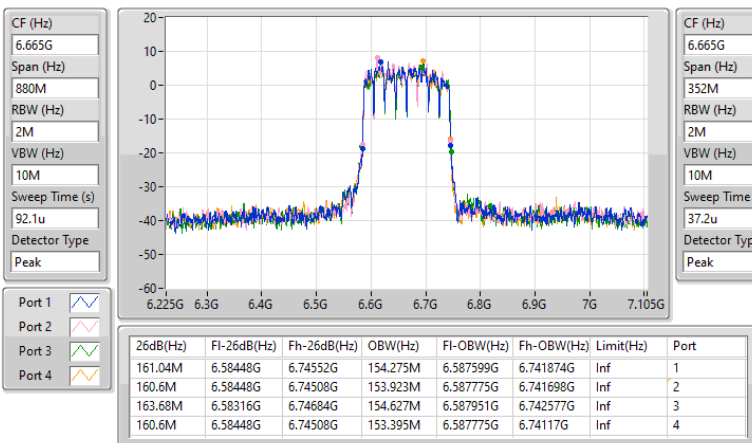


6.525-6.875GHz_11a160_160MHz_Nss1,(6Mbps)_4TX

EBW

6665MHz

22/09/2023

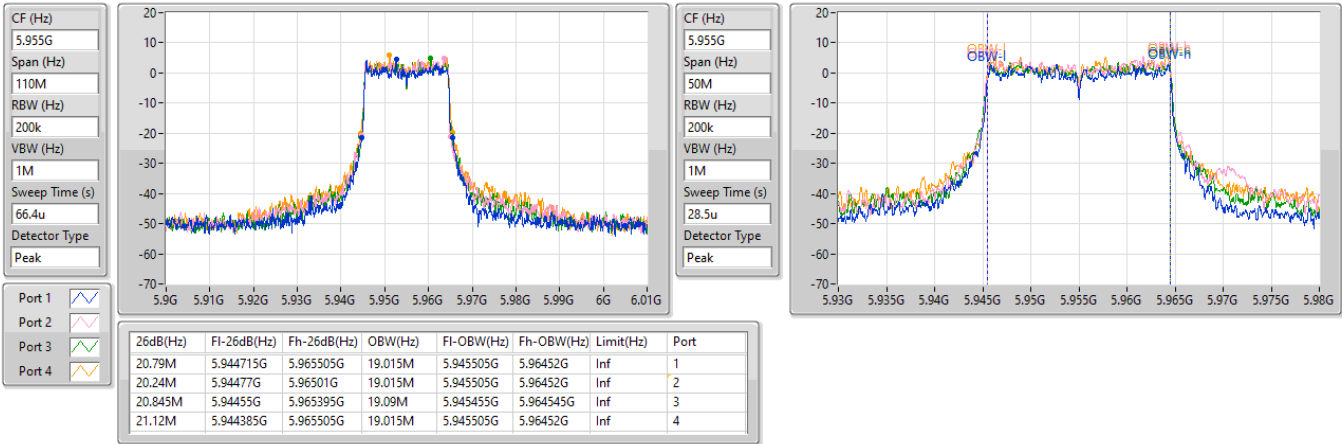


5.925-6.425GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5955MHz

10/09/2023

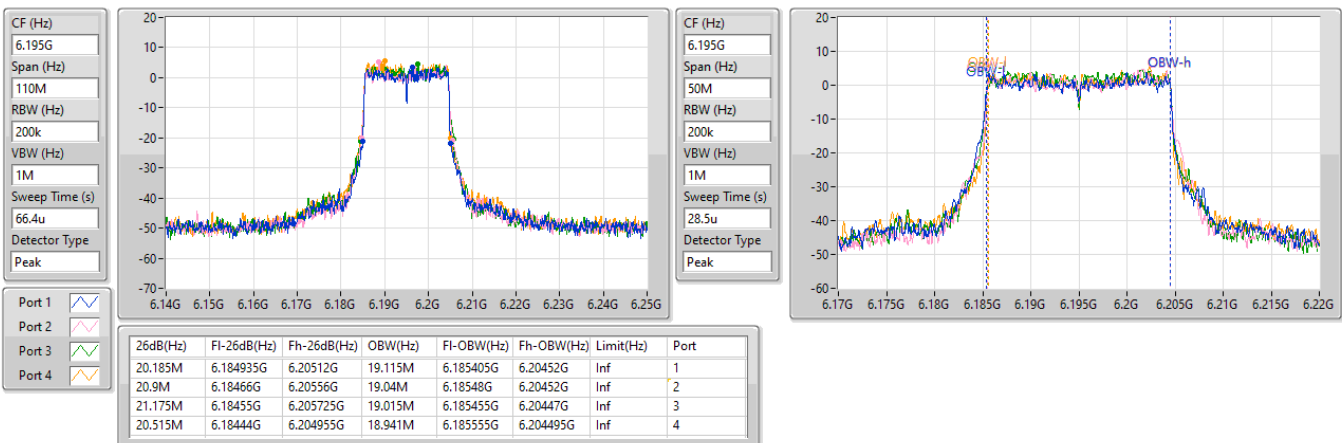


5.925-6.425GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

6195MHz

10/09/2023

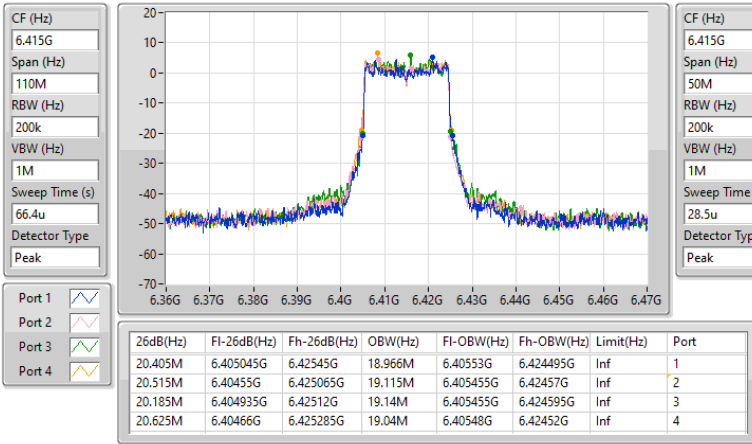


5.925-6.425GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

6415MHz

10/09/2023

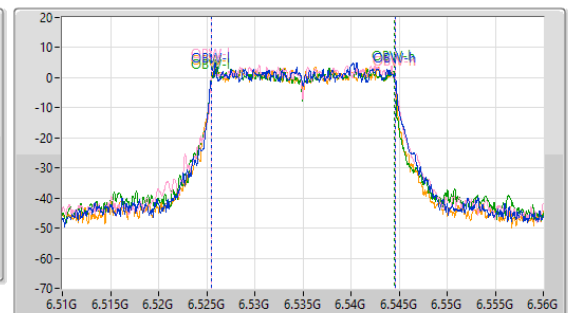
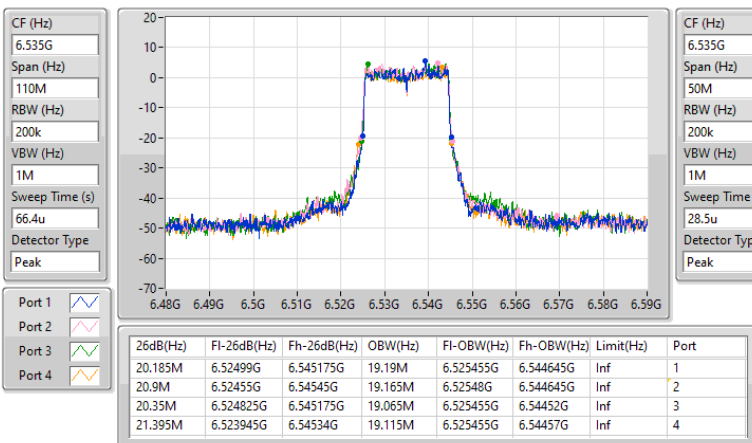


6.525-6.875GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

6535MHz

10/09/2023

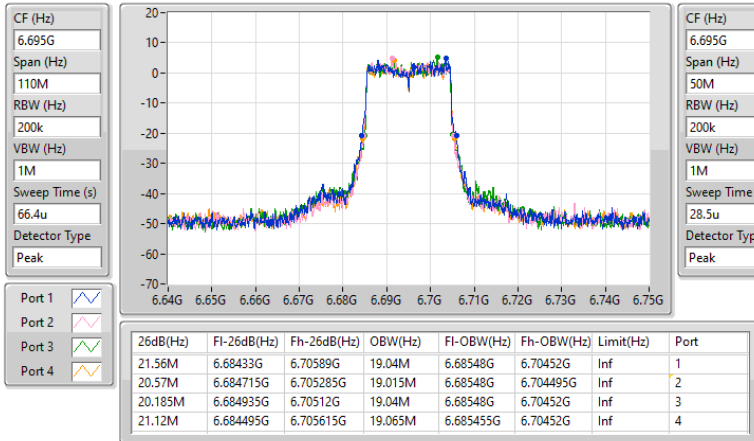


6.525-6.875GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

6695MHz

10/09/2023

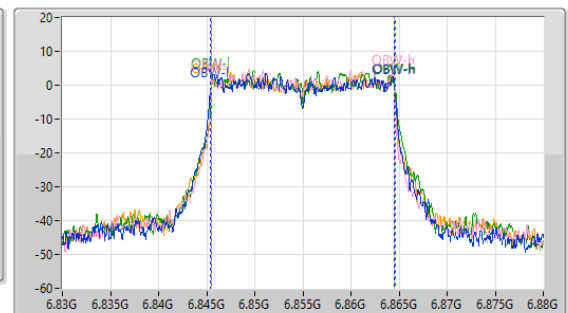
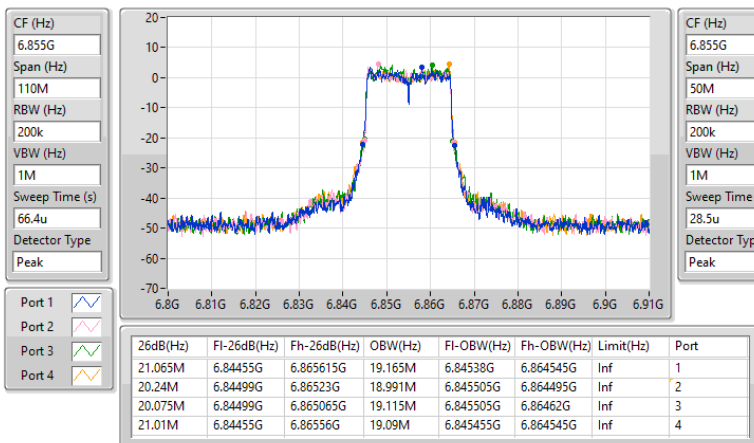


6.525-6.875GHz_802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

6855MHz

10/09/2023

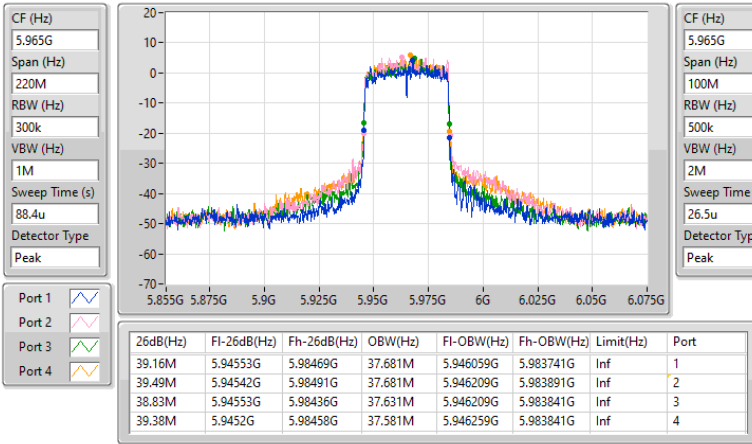


5.925-6.425GHz_802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5965MHz

10/09/2023

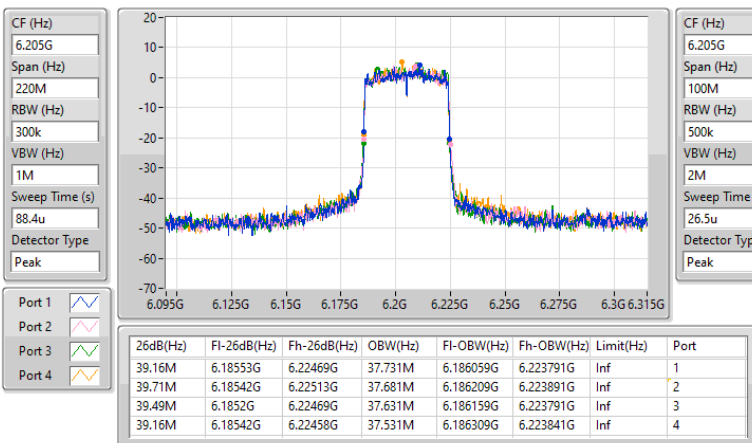


5.925-6.425GHz_802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

6205MHz

10/09/2023

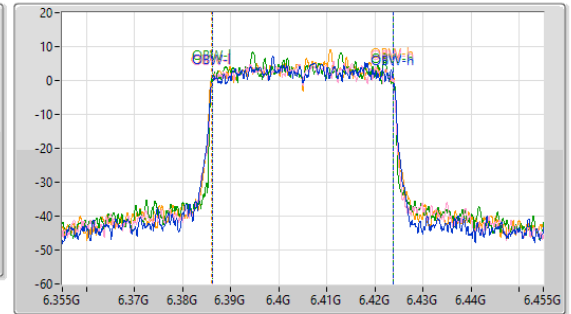
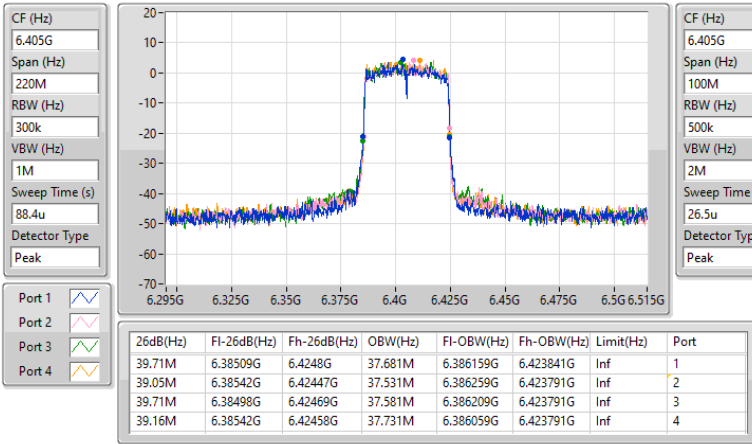


5.925-6.425GHz_802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

6405MHz

10/09/2023

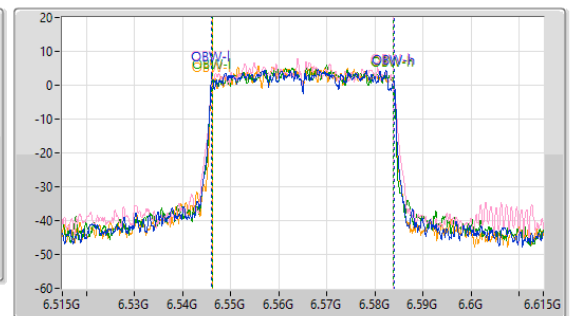
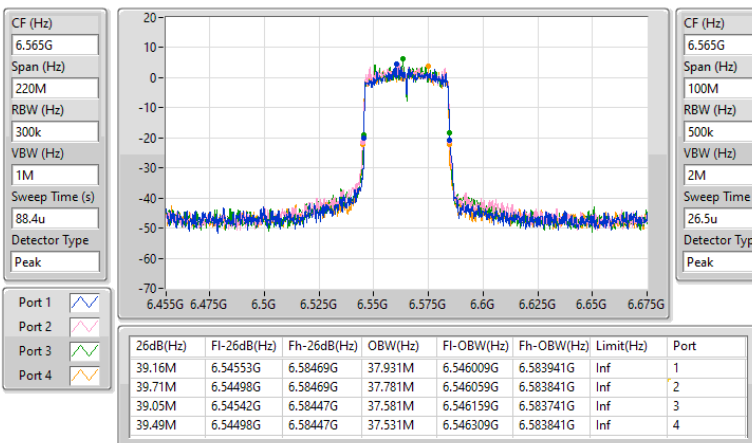


6.525-6.875GHz_802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

6565MHz

10/09/2023

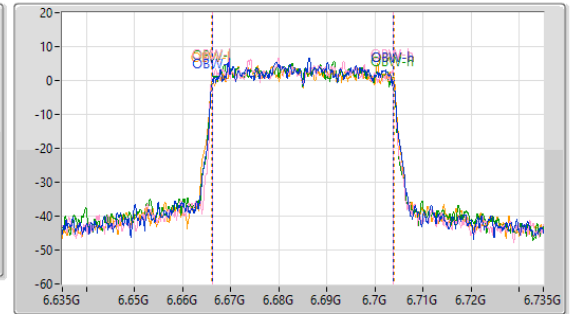
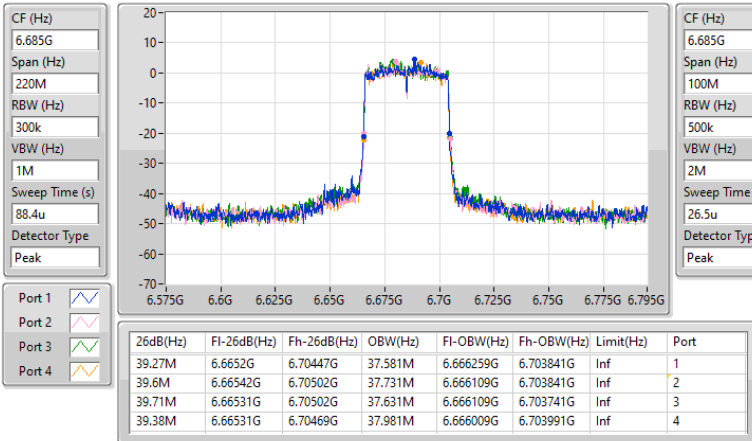


6.525-6.875GHz_802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

6685MHz

10/09/2023

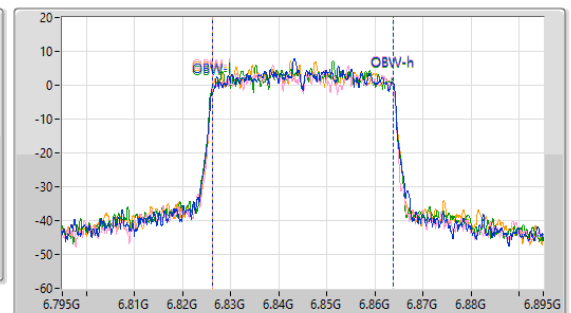
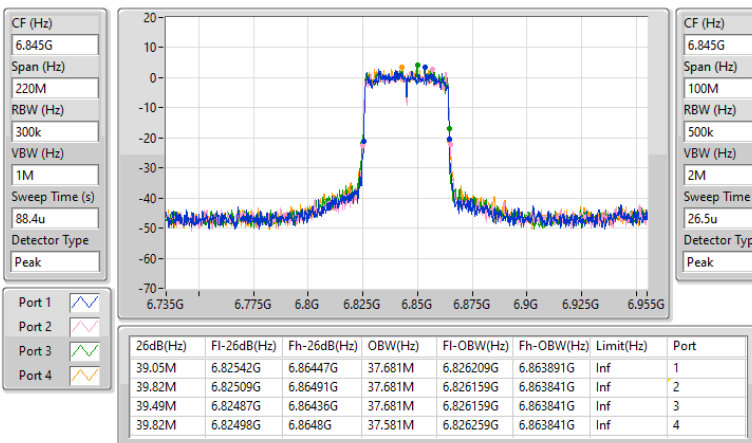


6.525-6.875GHz_802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

6845MHz

10/09/2023

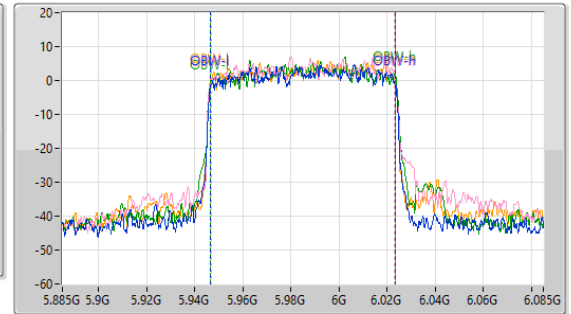
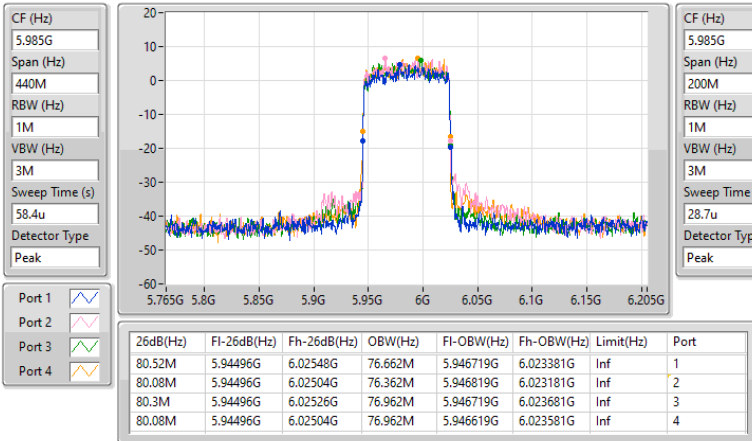


5.925-6.425GHz_802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

5985MHz

10/09/2023

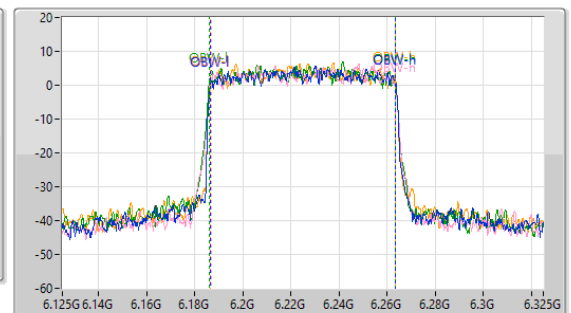
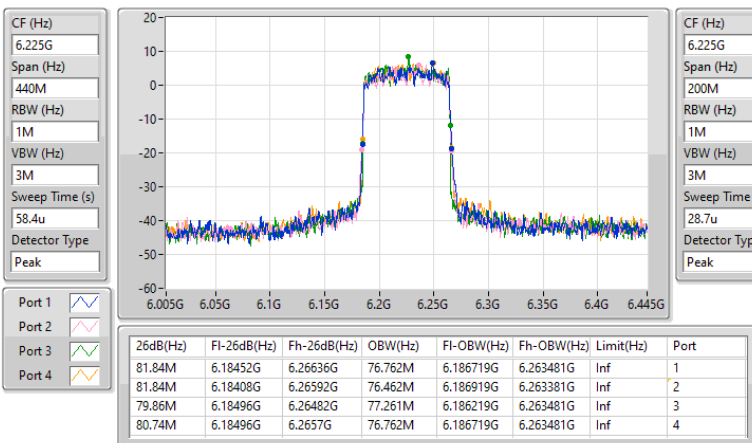


5.925-6.425GHz_802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

6225MHz

10/09/2023

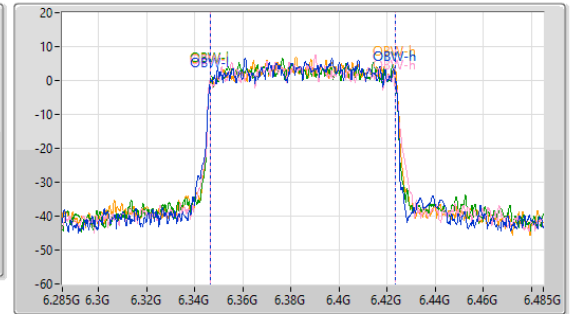
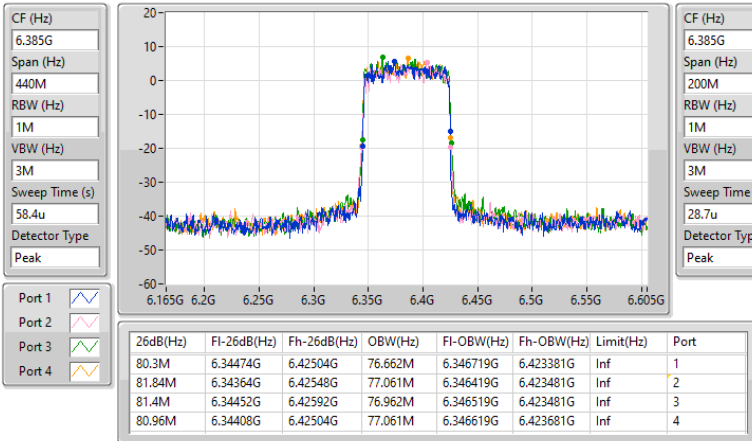


5.925-6.425GHz_802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

6385MHz

10/09/2023

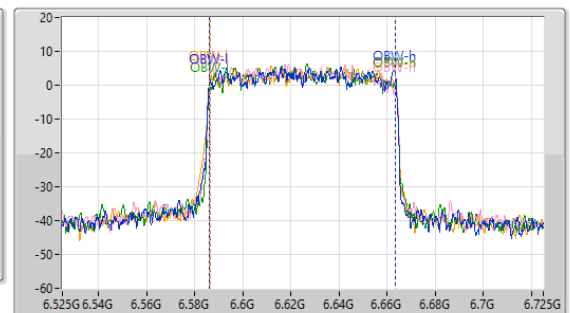
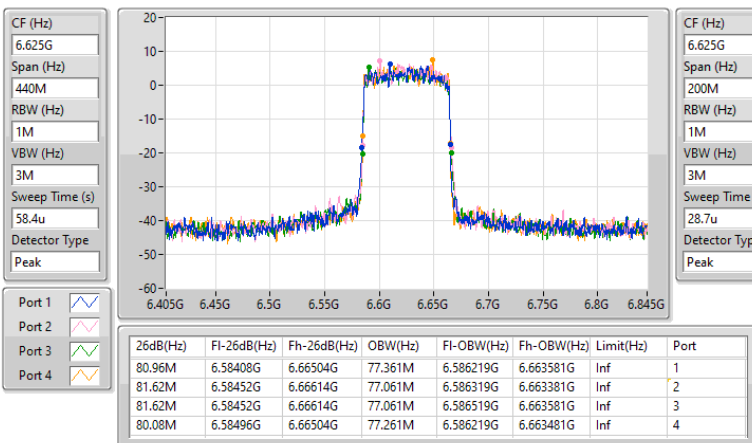


6.525-6.875GHz_802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

6625MHz

10/09/2023

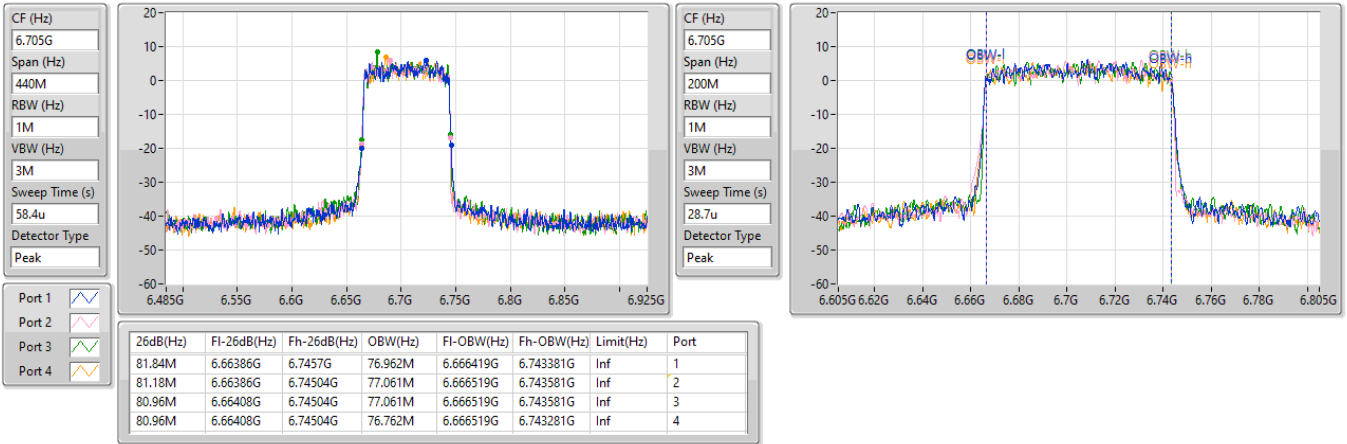


6.525-6.875GHz_802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

6705MHz

10/09/2023

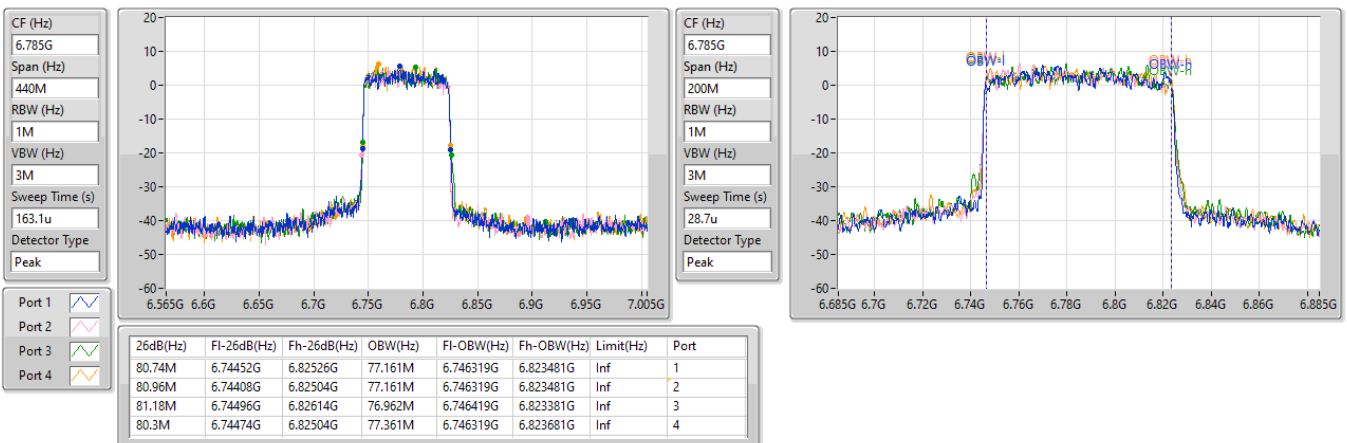


6.525-6.875GHz_802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

6785MHz

10/09/2023

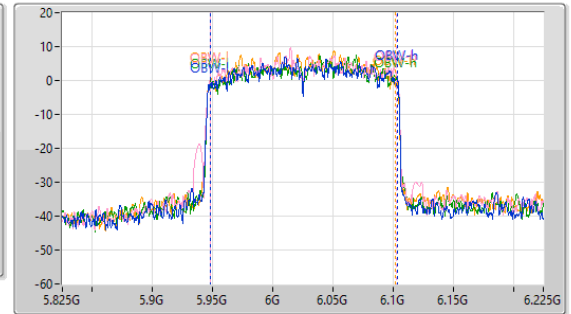
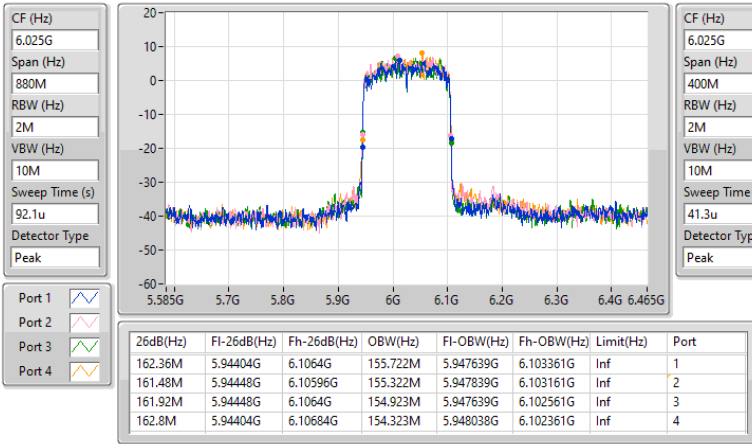


5.925-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_4TX

EBW

6025MHz

10/09/2023

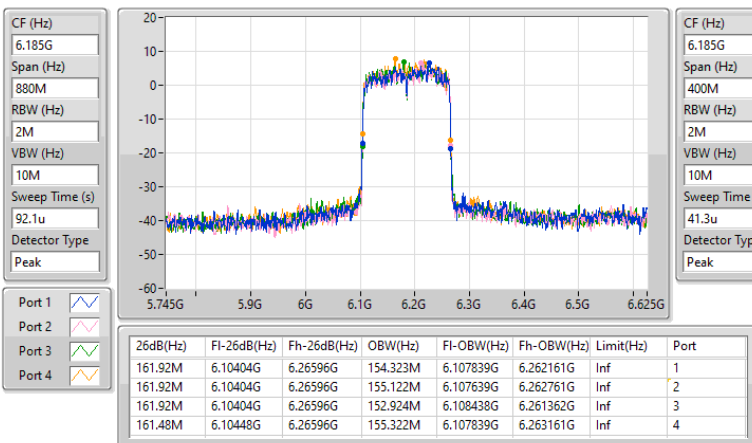


5.925-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_4TX

EBW

6185MHz

10/09/2023

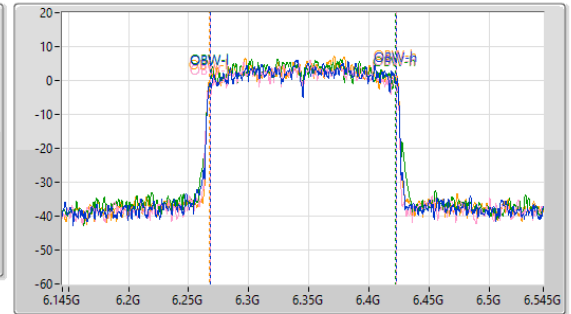
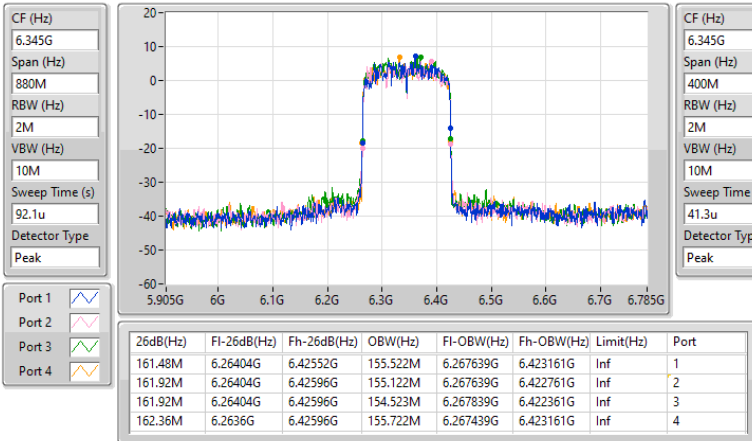


5.925-6.425GHz_802.11ax HEW160_Nss1,(MCS0)_4TX

EBW

6345MHz

10/09/2023

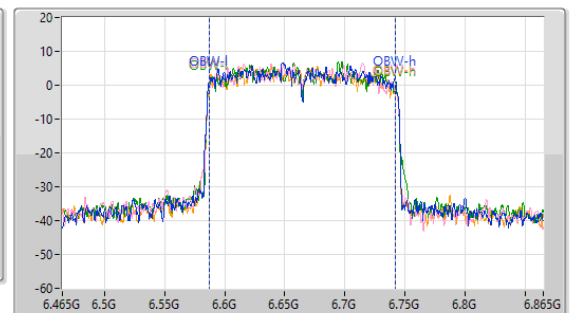
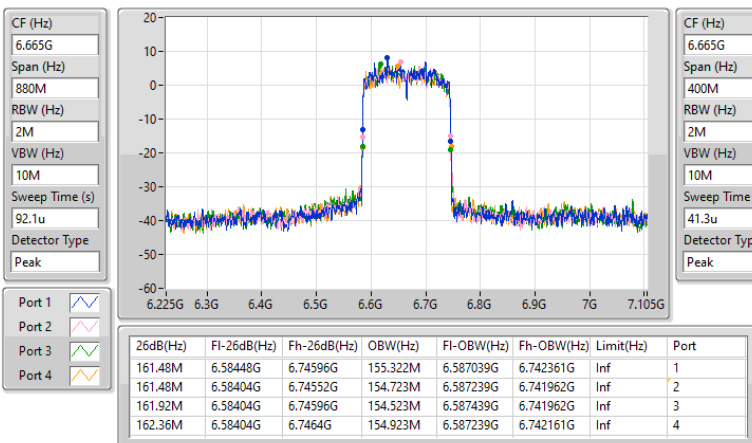


6.525-6.875GHz_802.11ax HEW160_Nss1,(MCS0)_4TX

EBW

6665MHz

10/09/2023



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.925-6.425GHz	-	-	-	-	-
11a20_20MHz_Nss1,(6Mbps)_1TX	19.47M	16.542M	16M5D1D	19.085M	16.517M
11a40_40MHz_Nss1,(6Mbps)_1TX	52.36M	36.282M	36M3D1D	38.83M	36.082M
11a80_80MHz_Nss1,(6Mbps)_1TX	81.84M	75.762M	75M8D1D	80.96M	75.662M
11a160_160MHz_Nss1,(6Mbps)_1TX	168.52M	154.123M	154MD1D	166.32M	154.123M
802.11ax HEW20_Nss1,(MCS0)_1TX	21.175M	19.065M	19M1D1D	20.955M	18.991M
802.11ax HEW40_Nss1,(MCS0)_1TX	39.93M	37.681M	37M7D1D	39.6M	37.581M
802.11ax HEW80_Nss1,(MCS0)_1TX	81.84M	77.161M	77M2D1D	80.96M	76.962M
802.11ax HEW160_Nss1,(MCS0)_1TX	163.24M	155.122M	155MD1D	162.36M	154.723M
6.525-6.875GHz	-	-	-	-	-
11a20_20MHz_Nss1,(6Mbps)_1TX	19.965M	16.542M	16M5D1D	19.03M	16.492M
11a40_40MHz_Nss1,(6Mbps)_1TX	38.94M	36.232M	36M2D1D	38.28M	36.132M
11a80_80MHz_Nss1,(6Mbps)_1TX	81.84M	75.762M	75M8D1D	80.96M	75.662M
11a160_160MHz_Nss1,(6Mbps)_1TX	165M	154.123M	154MD1D	165M	154.123M
802.11ax HEW20_Nss1,(MCS0)_1TX	21.67M	19.065M	19M1D1D	20.955M	19.04M
802.11ax HEW40_Nss1,(MCS0)_1TX	39.93M	37.681M	37M7D1D	39.38M	37.631M
802.11ax HEW80_Nss1,(MCS0)_1TX	81.4M	77.261M	77M3D1D	80.96M	77.061M
802.11ax HEW160_Nss1,(MCS0)_1TX	162.36M	154.523M	155MD1D	162.36M	154.523M

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)
11a20_20MHz_Nss1,(6Mbps)_1TX	-	-	-	-
5955MHz	Pass	Inf	19.415M	16.542M
6195MHz	Pass	Inf	19.085M	16.517M
6415MHz	Pass	Inf	19.47M	16.517M
6535MHz	Pass	Inf	19.855M	16.517M
6695MHz	Pass	Inf	19.03M	16.542M
6855MHz	Pass	Inf	19.965M	16.492M
11a40_40MHz_Nss1,(6Mbps)_1TX	-	-	-	-
5965MHz	Pass	Inf	52.03M	36.282M
6205MHz	Pass	Inf	52.36M	36.182M
6405MHz	Pass	Inf	38.83M	36.082M
6565MHz	Pass	Inf	38.39M	36.132M
6685MHz	Pass	Inf	38.28M	36.182M
6845MHz	Pass	Inf	38.94M	36.232M
11a80_80MHz_Nss1,(6Mbps)_1TX	-	-	-	-
5985MHz	Pass	Inf	80.96M	75.762M
6225MHz	Pass	Inf	81.18M	75.762M
6385MHz	Pass	Inf	81.84M	75.662M
6625MHz	Pass	Inf	80.96M	75.762M
6705MHz	Pass	Inf	81.84M	75.662M
6865MHz	Pass	Inf	81.62M	75.762M
11a160_160MHz_Nss1,(6Mbps)_1TX	-	-	-	-
6025MHz	Pass	Inf	167.2M	154.123M
6185MHz	Pass	Inf	166.32M	154.123M
6345MHz	Pass	Inf	168.52M	154.123M
6665MHz	Pass	Inf	165M	154.123M
802.11ax HEW20_Nss1,(MCS0)_1TX	-	-	-	-
5955MHz	Pass	Inf	21.175M	18.991M
6195MHz	Pass	Inf	21.175M	19.065M
6415MHz	Pass	Inf	20.955M	19.065M
6535MHz	Pass	Inf	20.955M	19.04M
6695MHz	Pass	Inf	21.175M	19.04M
6855MHz	Pass	Inf	21.67M	19.065M
802.11ax HEW40_Nss1,(MCS0)_1TX	-	-	-	-
5965MHz	Pass	Inf	39.82M	37.581M
6205MHz	Pass	Inf	39.6M	37.581M
6405MHz	Pass	Inf	39.93M	37.681M
6565MHz	Pass	Inf	39.93M	37.681M
6685MHz	Pass	Inf	39.82M	37.631M
6845MHz	Pass	Inf	39.38M	37.681M
802.11ax HEW80_Nss1,(MCS0)_1TX	-	-	-	-
5985MHz	Pass	Inf	81.84M	77.061M
6225MHz	Pass	Inf	80.96M	76.962M
6385MHz	Pass	Inf	81.62M	77.161M
6625MHz	Pass	Inf	81.4M	77.061M
6705MHz	Pass	Inf	80.96M	77.261M
6785MHz	Pass	Inf	81.18M	77.061M
802.11ax HEW160_Nss1,(MCS0)_1TX	-	-	-	-
6025MHz	Pass	Inf	162.8M	154.723M
6185MHz	Pass	Inf	163.24M	154.923M
6345MHz	Pass	Inf	162.36M	155.122M
6665MHz	Pass	Inf	162.36M	154.523M

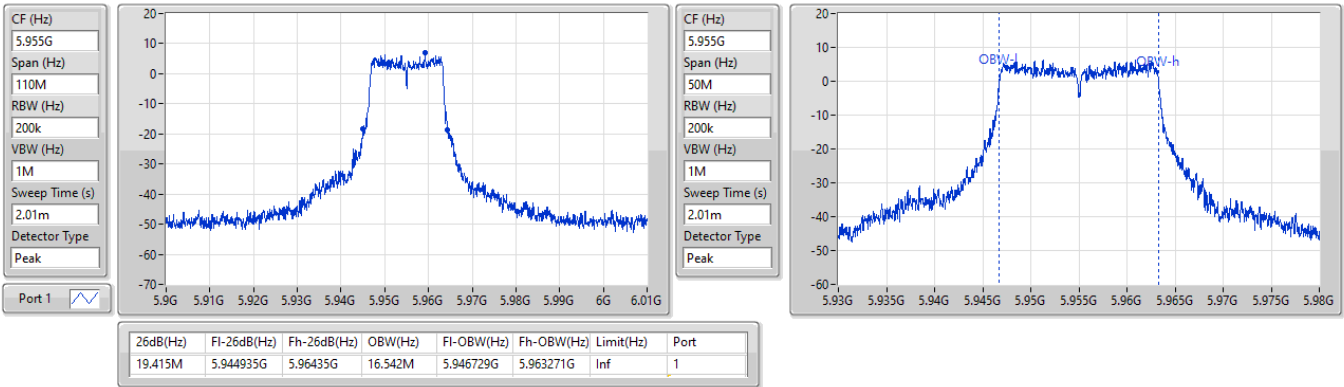
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth

5.925-6.425GHz_11a20_20MHz_Nss1,(6Mbps)_1TX

EBW

5955MHz

12/10/2023

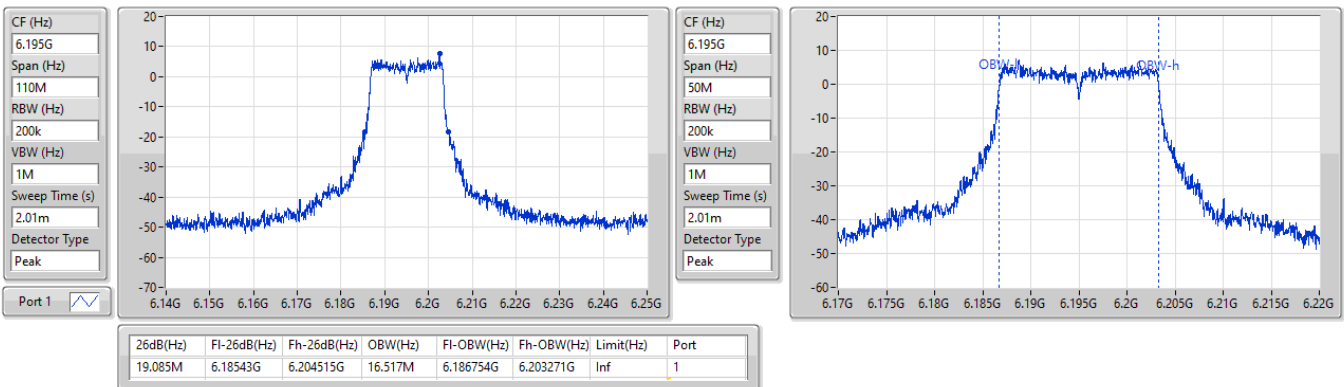


5.925-6.425GHz_11a20_20MHz_Nss1,(6Mbps)_1TX

EBW

6195MHz

12/10/2023

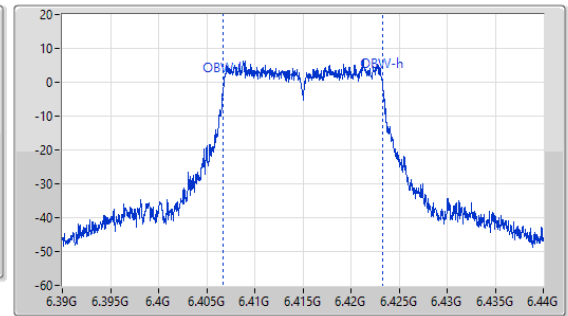
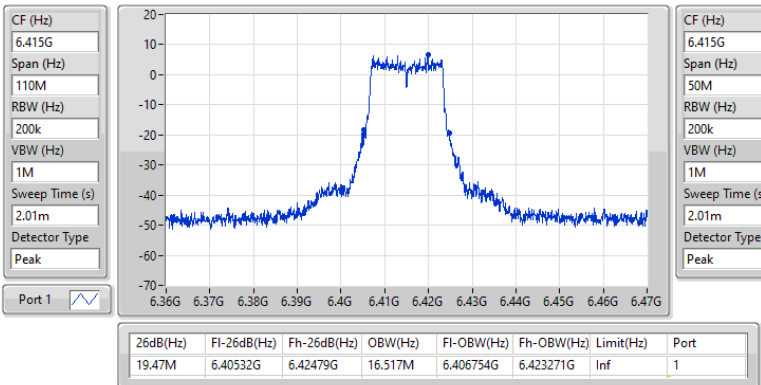


5.925-6.425GHz_11a20_20MHz_Nss1,(6Mbps)_1TX

EBW

6415MHz

12/10/2023

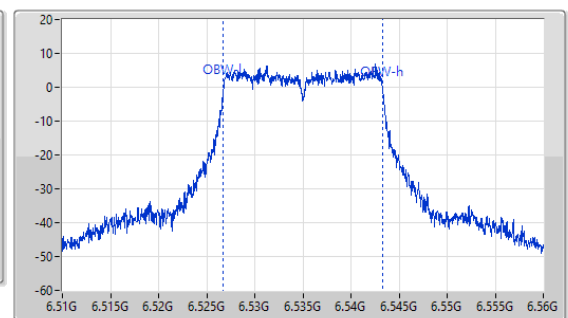
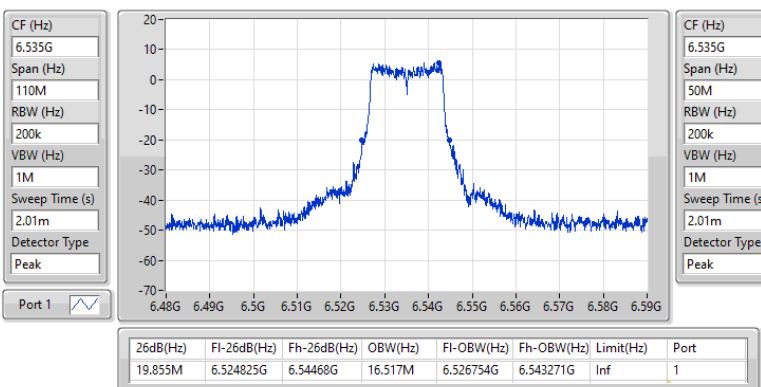


6.525-6.875GHz_11a20_20MHz_Nss1,(6Mbps)_1TX

EBW

6535MHz

12/10/2023

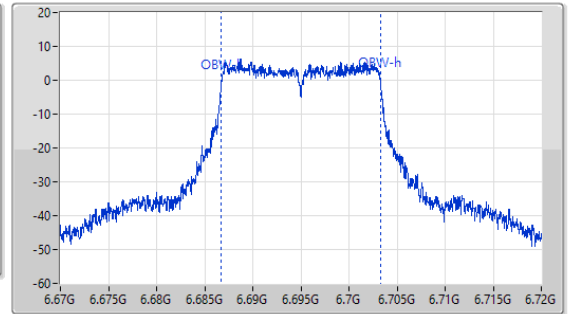
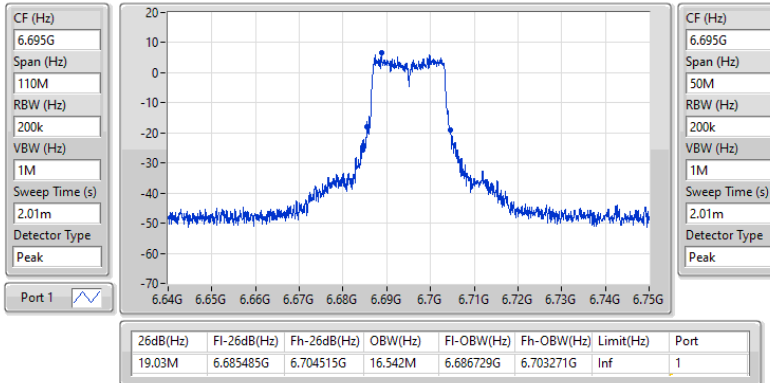


6.525-6.875GHz_11a20_20MHz_Nss1,(6Mbps)_1TX

EBW

6695MHz

12/10/2023



6.525-6.875GHz_11a20_20MHz_Nss1,(6Mbps)_1TX

EBW

6855MHz

12/10/2023

