



# FCC Radio Test Report

**FCC ID** : TVE-4111BBE0671  
**Equipment** : Secured Wireless Access Point  
**Brand Name** : FORTINET  
**Model Name** : FortiAP U432Fxxxxxx, FAP-U432Fxxxxxx,  
FORTIAP-U432Fxxxxxx  
(where “x” can be “A-Z”, or “0-9”, or “-“, or blank for software purposes or marketing purposes only)  
**Applicant** : Fortinet, Inc.  
899 Kifer Road, Sunnyvale, CA 94086, USA  
**Manufacturer** : Fortinet, Inc.  
899 Kifer Road, Sunnyvale, CA 94086, USA  
**Standard** : 47 CFR FCC Part 15.407

The product was received on Aug. 15, 2022, and testing was started from Nov. 20, 2022 and completed on Jan. 13, 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

**SPORTON INTERNATIONAL INC. Hsinhua Laboratory**

No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)



# Table of Contents

**SUMMARY OF TEST RESULT .....4**

**1 GENERAL DESCRIPTION .....5**

1.1 Information.....5

1.2 Testing Applied Standards ..... 16

1.3 Testing Location Information .....16

1.4 Measurement Uncertainty ..... 16

**2 TEST CONFIGURATION OF EUT.....17**

2.1 Test Channel Mode .....17

2.2 The Worst Case Measurement Configuration.....31

2.3 Accessories .....33

2.4 Support Equipment.....33

2.5 Test Setup Diagram .....34

**3 TRANSMITTER TEST RESULT .....41**

3.1 AC Power-line Conducted Emissions .....41

3.2 Emission Bandwidth.....43

3.3 Maximum Conducted Output Power .....44

3.4 Peak Power Spectral Density.....46

3.5 Unwanted Emissions.....48

**4 TEST EQUIPMENT AND CALIBRATION DATA.....52**

**APPENDIX A. TEST RESULTS OF AC POWER-LINE CONDUCTED EMISSIONS**

**APPENDIX B. TEST RESULTS OF EMISSION BANDWIDTH**

**APPENDIX C. TEST RESULTS OF MAXIMUM CONDUCTED OUTPUT POWER**

**APPENDIX D. TEST RESULTS OF PEAK POWER SPECTRAL DENSITY**

**APPENDIX E. TEST RESULTS OF UNWANTED EMISSIONS**

**APPENDIX F. TEST RESULTS OF RADIATED EMISSION CO-LOCATION**

**APPENDIX G. TEST PHOTOS**

**PHOTOGRAPHS OF EUT V01**



### History of this test report

Report No.	Version	Description	Issued Date
FR0D1422-04AN	01	Initial issue of report	Feb. 24, 2023



### Summary of Test Result

Report Clause	Ref. Std. Clause	Test Items	Result (PASS/FAIL)	Remark
1.1.2	15.203	Antenna Requirement	PASS	-
3.1	15.207	AC Power-line Conducted Emissions	PASS	-
3.2	15.407(a)	Emission Bandwidth	PASS	-
3.3	15.407(a)	Maximum Conducted Output Power	PASS	-
3.4	15.407(a)	Peak Power Spectral Density	PASS	-
3.5	15.407(b)	Unwanted Emissions	PASS	-

<b>Declaration of Conformity:</b>
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
<b>Comments and explanations:</b>
None

Reviewed by: Barry Hsiao

Report Producer: Debby Hung



# 1 General Description

## 1.1 Information

### 1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5150-5250	a, n (HT20), ac (VHT20) ax (HEW20)	5180-5240	36-48 [4]
5250-5350		5260-5320	52-64 [4]
5470-5725		5500-5700	100-140 [11]
Straddle 5720		5720	144 [1]
5725-5850		5745-5825	149-165 [5]
5150-5250	n (HT40), ac (VHT40) ax (HEW40)	5190-5230	38-46 [2]
5250-5350		5270-5310	54-62 [2]
5470-5725		5510-5670	102-134 [5]
Straddle 5710		5710	142 [1]
5725-5850		5755-5795	151-159 [2]
5150-5250	ac (VHT80) , ax (HEW80)	5210	42 [1]
5250-5350		5290	58 [1]
5470-5725		5530-5610	106-122 [2]
Straddle 5690		5690	138 [1]
5725-5850		5775	155 [1]
5150-5350	ac (VHT160)	5250	50 [1]
5470-5725		5570	114 [1]

### Non-Beamforming\_Radio 1

Band	Mode	BWch (MHz)	Nant
5.47-5.725GHz	802.11a	20	4TX
5.725-5.85GHz	802.11a	20	4TX
5.47-5.725GHz	802.11n HT20	20	4TX
5.725-5.85GHz	802.11n HT20	20	4TX
5.47-5.725GHz	802.11n HT40	40	4TX
5.725-5.85GHz	802.11n HT40	40	4TX
5.47-5.725GHz	802.11ac VHT20	20	4TX
5.725-5.85GHz	802.11ac VHT20	20	4TX
5.47-5.725GHz	802.11ac VHT40	40	4TX
5.725-5.85GHz	802.11ac VHT40	40	4TX
5.47-5.725GHz	802.11ac VHT80	80	4TX



Band	Mode	BWch (MHz)	Nant
5.725-5.85GHz	802.11ac VHT80	80	4TX
5.47-5.725GHz	802.11ac VHT160	160	4TX
5.47-5.725GHz	802.11ax HEW20	20	4TX
5.725-5.85GHz	802.11ax HEW20	20	4TX
5.47-5.725GHz	802.11ax HEW40	40	4TX
5.725-5.85GHz	802.11ax HEW40	40	4TX
5.47-5.725GHz	802.11ax HEW80	80	4TX
5.725-5.85GHz	802.11ax HEW80	80	4TX
5.47-5.725GHz	802.11ax HEW160	160	4TX

**Non-Beamforming\_Radio 2**

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	4TX
5.25-5.35GHz	802.11a	20	4TX
5.47-5.725GHz	802.11a	20	4TX
5.725-5.85GHz	802.11a	20	4TX
5.15-5.25GHz	802.11n HT20	20	4TX
5.25-5.35GHz	802.11n HT20	20	4TX
5.47-5.725GHz	802.11n HT20	20	4TX
5.725-5.85GHz	802.11n HT20	20	4TX
5.15-5.25GHz	802.11n HT40	40	4TX
5.25-5.35GHz	802.11n HT40	40	4TX
5.47-5.725GHz	802.11n HT40	40	4TX
5.725-5.85GHz	802.11n HT40	40	4TX
5.15-5.25GHz	802.11ac VHT20	20	4TX
5.25-5.35GHz	802.11ac VHT20	20	4TX
5.47-5.725GHz	802.11ac VHT20	20	4TX
5.725-5.85GHz	802.11ac VHT20	20	4TX
5.15-5.25GHz	802.11ac VHT40	40	4TX
5.25-5.35GHz	802.11ac VHT40	40	4TX
5.47-5.725GHz	802.11ac VHT40	40	4TX
5.725-5.85GHz	802.11ac VHT40	40	4TX
5.15-5.25GHz	802.11ac VHT80	80	4TX
5.25-5.35GHz	802.11ac VHT80	80	4TX
5.47-5.725GHz	802.11ac VHT80	80	4TX
5.725-5.85GHz	802.11ac VHT80	80	4TX



Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11ac VHT160	160	4TX
5.25-5.35GHz	802.11ac VHT160	160	4TX
5.47-5.725GHz	802.11ac VHT160	160	4TX
5.15-5.25GHz	802.11ax HEW20	20	4TX
5.25-5.35GHz	802.11ax HEW20	20	4TX
5.47-5.725GHz	802.11ax HEW20	20	4TX
5.725-5.85GHz	802.11ax HEW20	20	4TX
5.15-5.25GHz	802.11ax HEW40	40	4TX
5.25-5.35GHz	802.11ax HEW40	40	4TX
5.47-5.725GHz	802.11ax HEW40	40	4TX
5.725-5.85GHz	802.11ax HEW40	40	4TX
5.15-5.25GHz	802.11ax HEW80	80	4TX
5.25-5.35GHz	802.11ax HEW80	80	4TX
5.47-5.725GHz	802.11ax HEW80	80	4TX
5.725-5.85GHz	802.11ax HEW80	80	4TX
5.15-5.25GHz	802.11ax HEW160	160	4TX
5.25-5.35GHz	802.11ax HEW160	160	4TX
5.47-5.725GHz	802.11ax HEW160	160	4TX

**Non-Beamforming\_Radio 3**

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11a	20	2TX
5.25-5.35GHz	802.11a	20	2TX
5.47-5.725GHz	802.11a	20	2TX
5.725-5.85GHz	802.11a	20	2TX
5.15-5.25GHz	802.11n HT20	20	2TX
5.25-5.35GHz	802.11n HT20	20	2TX
5.47-5.725GHz	802.11n HT20	20	2TX
5.725-5.85GHz	802.11n HT20	20	2TX
5.15-5.25GHz	802.11n HT40	40	2TX
5.25-5.35GHz	802.11n HT40	40	2TX
5.47-5.725GHz	802.11n HT40	40	2TX
5.725-5.85GHz	802.11n HT40	40	2TX
5.15-5.25GHz	802.11ac VHT20	20	2TX
5.25-5.35GHz	802.11ac VHT20	20	2TX
5.47-5.725GHz	802.11ac VHT20	20	2TX



Band	Mode	BWch (MHz)	Nant
5.725-5.85GHz	802.11ac VHT20	20	2TX
5.15-5.25GHz	802.11ac VHT40	40	2TX
5.25-5.35GHz	802.11ac VHT40	40	2TX
5.47-5.725GHz	802.11ac VHT40	40	2TX
5.725-5.85GHz	802.11ac VHT40	40	2TX
5.15-5.25GHz	802.11ac VHT80	80	2TX
5.25-5.35GHz	802.11ac VHT80	80	2TX
5.47-5.725GHz	802.11ac VHT80	80	2TX
5.725-5.85GHz	802.11ac VHT80	80	2TX
5.15-5.25GHz	802.11ax HEW20	20	2TX
5.25-5.35GHz	802.11ax HEW20	20	2TX
5.47-5.725GHz	802.11ax HEW20	20	2TX
5.725-5.85GHz	802.11ax HEW20	20	2TX
5.15-5.25GHz	802.11ax HEW40	40	2TX
5.25-5.35GHz	802.11ax HEW40	40	2TX
5.47-5.725GHz	802.11ax HEW40	40	2TX
5.725-5.85GHz	802.11ax HEW40	40	2TX
5.15-5.25GHz	802.11ax HEW80	80	2TX
5.25-5.35GHz	802.11ax HEW80	80	2TX
5.47-5.725GHz	802.11ax HEW80	80	2TX
5.725-5.85GHz	802.11ax HEW80	80	2TX

**Beamforming\_Radio 1**

Band	Mode	BWch (MHz)	Nant
5.47-5.725GHz	802.11ax HEW20-BF	20	4TX
5.725-5.85GHz	802.11ax HEW20-BF	20	4TX
5.47-5.725GHz	802.11ax HEW40-BF	40	4TX
5.725-5.85GHz	802.11ax HEW40-BF	40	4TX
5.47-5.725GHz	802.11ax HEW80-BF	80	4TX
5.725-5.85GHz	802.11ax HEW80-BF	80	4TX
5.47-5.725GHz	802.11ax HEW160-BF	160	4TX





Beamforming\_Radio 2

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11ax HEW20-BF	20	4TX
5.25-5.35GHz	802.11ax HEW20-BF	20	4TX
5.47-5.725GHz	802.11ax HEW20-BF	20	4TX
5.725-5.85GHz	802.11ax HEW20-BF	20	4TX
5.15-5.25GHz	802.11ax HEW40-BF	40	4TX
5.25-5.35GHz	802.11ax HEW40-BF	40	4TX
5.47-5.725GHz	802.11ax HEW40-BF	40	4TX
5.725-5.85GHz	802.11ax HEW40-BF	40	4TX
5.15-5.25GHz	802.11ax HEW80-BF	80	4TX
5.25-5.35GHz	802.11ax HEW80-BF	80	4TX
5.47-5.725GHz	802.11ax HEW80-BF	80	4TX
5.725-5.85GHz	802.11ax HEW80-BF	80	4TX
5.15-5.25GHz	802.11ax HEW160-BF	160	4TX
5.25-5.35GHz	802.11ax HEW160-BF	160	4TX
5.47-5.725GHz	802.11ax HEW160-BF	160	4TX

Beamforming\_Radio 3

Band	Mode	BWch (MHz)	Nant
5.15-5.25GHz	802.11ax HEW20-BF	20	2TX
5.25-5.35GHz	802.11ax HEW20-BF	20	2TX
5.47-5.725GHz	802.11ax HEW20-BF	20	2TX
5.725-5.85GHz	802.11ax HEW20-BF	20	2TX
5.15-5.25GHz	802.11ax HEW40-BF	40	2TX
5.25-5.35GHz	802.11ax HEW40-BF	40	2TX
5.47-5.725GHz	802.11ax HEW40-BF	40	2TX
5.725-5.85GHz	802.11ax HEW40-BF	40	2TX
5.15-5.25GHz	802.11ax HEW80-BF	80	2TX
5.25-5.35GHz	802.11ax HEW80-BF	80	2TX
5.47-5.725GHz	802.11ax HEW80-BF	80	2TX
5.725-5.85GHz	802.11ax HEW80-BF	80	2TX

Note:

- 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40, VHT80, VHT160 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- HEW20, HEW40, HEW80, HEW160 use a combination of OFDMA-BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM modulation.
- BWch is the nominal channel bandwidth.



1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
1	SENAO	5718A0619300	Dipole	N-type
2	SENAO	5718A0619300	Dipole	N-type
3	SENAO	5718A0619300	Dipole	N-type
4	SENAO	5718A0619300	Dipole	N-type
5	SENAO	5718A0620300	Dipole	N-type
6	SENAO	5718A0620300	Dipole	N-type
7	SENAO	5718A0620300	Dipole	N-type
8	SENAO	5718A0620300	Dipole	N-type
9	SENAO	5718A0619300	Dipole	N-type
10	SENAO	5718A0619300	Dipole	N-type
11	SENAO	5718A0618300	Dipole	N-type
12	Fortinet	FANT-10ACAX-1213-D-N	Directional	N-type
13	Fortinet	FANT-04ABGN-1414-P-N	Patch	N-type



Radio	Ant.	Port	Antenna Gain (dBi)				Cable Loss Gain (dBi)			
			2.4G	5G	BT	Zigbee	2.4G	5G	BT	Zigbee
1	1	1	5.5	7.2	-	-	0.6	1	-	-
	2	2	5.5	7.2	-	-	0.6	1	-	-
	3	3	5.5	7.2	-	-	0.5	0.8	-	-
	4	4	5.5	7.2	-	-	0.4	0.7	-	-
2	5	1	-	6.3	-	-	-	1	-	-
	6	2	-	6.3	-	-	-	1.1	-	-
	7	3	-	6.3	-	-	-	0.9	-	-
	8	4	-	6.3	-	-	-	0.9	-	-
3	9	1	5.5	7.2	-	-	0.6	1	-	-
	10	2	5.5	7.2	-	-	0.6	1	-	-
BT+Zigbee	11	1	-	-	4.5	4.5	-	-	0.5	0.5
1	12	1	12	13	-	-	0.6	1	-	-
1	12	2	12	13	-	-	0.6	1	-	-
1	12	3	12	13	-	-	0.5	0.8	-	-
1	12	4	12	13	-	-	0.4	0.7	-	-
2	12	1	12	13	-	-	-	1	-	-
2	12	2	12	13	-	-	-	1.1	-	-
2	12	3	12	13	-	-	-	0.9	-	-
2	12	4	12	13	-	-	-	0.9	-	-
3	12	1	12	13	-	-	0.6	1	-	-
3	12	2	12	13	-	-	0.6	1	-	-
1	13	1	14	14	-	-	0.6	1	-	-
1	13	2	14	14	-	-	0.6	1	-	-
1	13	3	14	14	-	-	0.6	1	-	-
1	13	4	14	14	-	-	0.6	1	-	-
2	13	1	14	14	-	-	0.6	1	-	-
2	13	2	14	14	-	-	0.6	1	-	-
2	13	3	14	14	-	-	0.6	1	-	-
2	13	4	14	14	-	-	0.6	1	-	-
3	13	1	14	14	-	-	0.6	1	-	-
3	13	2	14	14	-	-	0.6	1	-	-

Note 1: The EUT has thirteen antennas.



**For 2.4GHz function:**

Radio 1

For IEEE 802.11 b/g/n/VHT/ax mode (4TX/4RX)

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

Ant. 12,13 could transmit/receive simultaneously.

Radio 3

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

Ant. 9 (port 1) and Ant. 10 (port 2) could transmit/receive simultaneously.

Ant. 12,13 could transmit/receive simultaneously.

**For 5GHz function:**

Radio 1

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

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

Ant. 12,13 could transmit/receive simultaneously.

Radio 2

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

Ant. 5 (port 1), Ant. 6 (port 2), Ant. 7 (port 3) and Ant. 8 (port 4) could transmit/receive simultaneously.

Ant. 12,13 could transmit/receive simultaneously.

Radio 3

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

Ant. 9 (port 1) and Ant. 10 (port 2) could transmit/receive simultaneously.

Ant. 12,13 could transmit/receive simultaneously.

**For Bluetooth function:**

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

Only Ant. 11 (port 1) could transmit/receive.

**For Zigbee function:**

For Zigbee mode (1TX/1RX)

Only Ant. 11 (port 1) could transmit/receive.



1.1.3 EUT Information

Operational Condition				
EUT Power Type	From PoE			
EUT Function	<input type="checkbox"/>	Outdoor AP	<input checked="" type="checkbox"/>	Indoor AP
	<input type="checkbox"/>	Fixed P2P AP	<input type="checkbox"/>	Client
Beamforming Function	<input checked="" type="checkbox"/>	With beamforming	<input type="checkbox"/>	Without beamforming
TPC Function	<input checked="" type="checkbox"/>	With TPC Function	<input type="checkbox"/>	Without TPC Function
Weather Band	<input checked="" type="checkbox"/>	With 5600~5650MHz	<input type="checkbox"/>	Without 5600~5650MHz
Resource Unit(802.11ax)	<input checked="" type="checkbox"/>	Full RU	<input type="checkbox"/>	Partial RU
Type of EUT				
<input checked="" type="checkbox"/>	Stand-alone			
<input type="checkbox"/>	Combined (EUT where the radio part is fully integrated within another device)			
	Combined Equipment - Brand Name / Model No.: ...			
<input type="checkbox"/>	Plug-in radio (EUT intended for a variety of host systems)			
	Host System - Brand Name / Model No.:			
<input type="checkbox"/>	Other:			

1.1.4 Table for Multiple Listing

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

Brand Name	Model Name	Description
FORTINET	FortiAP U432Fxxxxxx	All the models are identical, the difference model for served as marketing strategy.
	FAP-U432Fxxxxxx	
	FORTIAP-U432Fxxxxxx	

1.1.5 Table for Permissive Change

This product is an extension of original one reported under Sporton project number: FR0D1422-02AN.

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
Antenna 13 was added	All



### 1.1.6 Mode Test Duty Cycle

#### Non-Beamforming\_Radio 1

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_4TX	0.957	0.19	2.064m	1k
802.11n HT20_Nss1,(MCS0)_4TX	0.95	0.22	1.921m	1k
802.11n HT40_Nss1,(MCS0)_4TX	0.901	0.45	944.375u	3k
802.11ac VHT20_Nss1,(MCS0)_4TX	0.985	0.07	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT40_Nss1,(MCS0)_4TX	0.97	0.13	952.5u	3k
802.11ac VHT80_Nss1,(MCS0)_4TX	0.938	0.28	460.625u	3k
802.11ac VHT160_Nss1,(MCS0)_4TX	0.894	0.49	252.5u	10k
802.11ax HEW20_Nss1,(MCS0)_4TX	0.978	0.1	1.488m	1k
802.11ax HEW40_Nss1,(MCS0)_4TX	0.963	0.16	780.625u	3k
802.11ax HEW80_Nss1,(MCS0)_4TX	0.926	0.33	413.125u	3k
802.11ax HEW160_Nss1,(MCS0)_4TX	0.883	0.54	236.563u	10k

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

#### Non-Beamforming\_Radio 2

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_4TX	0.957	0.19	2.064m	1k
802.11n HT20_Nss1,(MCS0)_4TX	0.95	0.22	1.921m	1k
802.11n HT40_Nss1,(MCS0)_4TX	0.91	0.41	944.375u	3k
802.11ac VHT20_Nss1,(MCS0)_4TX	0.985	0.07	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT40_Nss1,(MCS0)_4TX	0.971	0.13	952.5u	3k
802.11ac VHT80_Nss1,(MCS0)_4TX	0.942	0.26	460.625u	3k
802.11ac VHT160_Nss1,(MCS0)_4TX	0.897	0.47	252.5u	10k
802.11ax HEW20_Nss1,(MCS0)_4TX	0.981	0.08	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW40_Nss1,(MCS0)_4TX	0.96	0.18	772.5u	3k
802.11ax HEW80_Nss1,(MCS0)_4TX	0.927	0.33	401.25u	3k
802.11ax HEW160_Nss1,(MCS0)_4TX	0.884	0.54	232.5u	10k

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

#### Non-Beamforming\_Radio 3

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_2TX	0.946	0.24	2.064m	1k
802.11n HT20_Nss1,(MCS0)_2TX	0.95	0.22	1.921m	1k
802.11n HT40_Nss1,(MCS0)_2TX	0.911	0.4	944.375u	3k
802.11ac VHT20_Nss1,(MCS0)_2TX	0.985	0.07	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ac VHT40_Nss1,(MCS0)_2TX	0.971	0.13	952.5u	3k
802.11ac VHT80_Nss1,(MCS0)_2TX	0.939	0.27	460.625u	3k
802.11ax HEW20_Nss1,(MCS0)_2TX	0.978	0.1	1.488m	1k
802.11ax HEW40_Nss1,(MCS0)_2TX	0.961	0.17	772.5u	3k
802.11ax HEW80_Nss1,(MCS0)_2TX	0.925	0.34	401.25u	3k

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



**Beamforming\_Radio 1**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	0.946	0.24	4.381m	300
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	0.943	0.25	5.102m	300
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	0.934	0.3	5.216m	300
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	0.955	0.2	2.809m	1k

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

**Beamforming\_Radio 2**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	0.949	0.23	2.931m	1k
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	0.944	0.25	4.368m	300
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	0.964	0.16	5.216m	300
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	0.948	0.23	2.809m	1k

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

**Beamforming\_Radio 3**

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	0.951	0.22	2.931m	1k
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	0.956	0.2	3.783m	300
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	0.948	0.23	4.149m	300

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

## 1.2 Testing Applied Standards

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

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

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

- ◆ KDB 662911 D01 v02r01
- ◆ KDB 414788 D01 v01r01

## 1.3 Testing Location Information

<b>Test Lab. : Sporton International Inc. Hsinhua Laboratory</b>				
<input checked="" type="checkbox"/> Hsinhua (TAF: 3785)	<b>ADD:</b> No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)			
	<b>TEL:</b> 886-3-327-3456		<b>FAX:</b> 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Ivan Chung	21.2~22.0°C / 50~55%	13/Jan/2023
RF Conducted	TH01-HY	Johnny Yu	21.1~22.7°C / 51~59%	14/Dec/2022~05/Jan/2023
Radiated	03CH02-HY	Jack Tang	20.6~21.5°C / 58~63%	20/Nov/2022~12/Dec/2022
Radiated (Co-location)	03CH03-HY	Jack Tang	20.4~22.1°C / 49~61%	29/Dec/2022
<input type="checkbox"/> Wen 33rd.St. (TAF: 3785)	<b>ADD:</b> No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)			
	<b>TEL:</b> 886-3-318-0787		<b>FAX:</b> 886-3-318-0287	
Test site Designation No. TW0008 with FCC.				

## 1.4 Measurement Uncertainty

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

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





## 2 Test Configuration of EUT

### 2.1 Test Channel Mode

Test Software Version	AccessMTool_REL_3_1_0_1
-----------------------	-------------------------

#### Non-Beamforming\_Radio 1

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5500MHz	23
5580MHz	21
5700MHz	24
5720MHz Straddle 5.47-5.725GHz	24
5720MHz Straddle 5.725-5.85GHz	24
5745MHz	65
5785MHz	70
5825MHz	71
802.11n HT20_Nss1,(MCS0)_4TX	-
5500MHz	25
5580MHz	23
5700MHz	26
5720MHz Straddle 5.47-5.725GHz	25
5720MHz Straddle 5.725-5.85GHz	25
5745MHz	66
5785MHz	67
5825MHz	70
802.11n HT40_Nss1,(MCS0)_4TX	-
5510MHz	36
5550MHz	34
5670MHz	36
5710MHz Straddle 5.47-5.725GHz	37
5710MHz Straddle 5.725-5.85GHz	37
5755MHz	68
5795MHz	70
802.11ac VHT20_Nss1,(MCS0)_4TX	-
5500MHz	25
5580MHz	23



Mode	Power Setting
5700MHz	26
5720MHz Straddle 5.47-5.725GHz	25
5720MHz Straddle 5.725-5.85GHz	25
5745MHz	66
5785MHz	67
5825MHz	70
802.11ac VHT40_Nss1,(MCS0)_4TX	-
5510MHz	36
5550MHz	34
5670MHz	36
5710MHz Straddle 5.47-5.725GHz	37
5710MHz Straddle 5.725-5.85GHz	37
5755MHz	68
5795MHz	70
802.11ac VHT80_Nss1,(MCS0)_4TX	-
5530MHz	42
5610MHz	45
5690MHz Straddle 5.47-5.725GHz	45
5690MHz Straddle 5.725-5.85GHz	45
5775MHz	65
802.11ac VHT160_Nss1,(MCS0)_4TX	-
5570MHz	33
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5500MHz	25
5580MHz	23
5700MHz	26
5720MHz Straddle 5.47-5.725GHz	25
5720MHz Straddle 5.725-5.85GHz	25
5745MHz	66
5785MHz	67
5825MHz	70
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5510MHz	36
5550MHz	34
5670MHz	36
5710MHz Straddle 5.47-5.725GHz	37



<b>Mode</b>	<b>Power Setting</b>
5710MHz Straddle 5.725-5.85GHz	37
5755MHz	68
5795MHz	70
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5530MHz	42
5610MHz	45
5690MHz Straddle 5.47-5.725GHz	45
5690MHz Straddle 5.725-5.85GHz	45
5775MHz	65
802.11ax HEW160_Nss1,(MCS0)_4TX	-
5570MHz	33



Non-Beamforming\_Radio 2

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5180MHz	44
5200MHz	44
5240MHz	44
5260MHz	21
5300MHz	22
5320MHz	22
5500MHz	23
5580MHz	23
5700MHz	23
5720MHz Straddle 5.47-5.725GHz	23
5720MHz Straddle 5.725-5.85GHz	23
5745MHz	69
5785MHz	70
5825MHz	71
802.11n HT20_Nss1,(MCS0)_4TX	-
5180MHz	45
5200MHz	45
5240MHz	45
5260MHz	23
5300MHz	23
5320MHz	23
5500MHz	23
5580MHz	23
5700MHz	23
5720MHz Straddle 5.47-5.725GHz	23
5720MHz Straddle 5.725-5.85GHz	23
5745MHz	68
5785MHz	69
5825MHz	69
802.11n HT40_Nss1,(MCS0)_4TX	-
5190MHz	37
5230MHz	57
5270MHz	35



Mode	Power Setting
5310MHz	35
5510MHz	35
5550MHz	35
5670MHz	36
5710MHz Straddle 5.47-5.725GHz	37
5710MHz Straddle 5.725-5.85GHz	37
5755MHz	68
5795MHz	69
802.11ac VHT20_Nss1,(MCS0)_4TX	-
5180MHz	45
5200MHz	45
5240MHz	45
5260MHz	23
5300MHz	23
5320MHz	23
5500MHz	23
5580MHz	23
5700MHz	23
5720MHz Straddle 5.47-5.725GHz	23
5720MHz Straddle 5.725-5.85GHz	23
5745MHz	68
5785MHz	69
5825MHz	69
802.11ac VHT40_Nss1,(MCS0)_4TX	-
5190MHz	37
5230MHz	58
5270MHz	35
5310MHz	35
5510MHz	35
5550MHz	35
5670MHz	36
5710MHz Straddle 5.47-5.725GHz	37
5710MHz Straddle 5.725-5.85GHz	37
5755MHz	68
5795MHz	69
802.11ac VHT80_Nss1,(MCS0)_4TX	-



Mode	Power Setting
5210MHz	39
5290MHz	37
5530MHz	42
5610MHz	44
5690MHz Straddle 5.47-5.725GHz	45
5690MHz Straddle 5.725-5.85GHz	45
5775MHz	65
802.11ac VHT160_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	31
5250MHz Straddle 5.25-5.35GHz	31
5570MHz	29
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5180MHz	45
5200MHz	45
5240MHz	45
5260MHz	23
5300MHz	23
5320MHz	23
5500MHz	23
5580MHz	23
5700MHz	23
5720MHz Straddle 5.47-5.725GHz	23
5720MHz Straddle 5.725-5.85GHz	23
5745MHz	68
5785MHz	69
5825MHz	69
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5190MHz	37
5230MHz	58
5270MHz	35
5310MHz	35
5510MHz	35
5550MHz	35
5670MHz	36
5710MHz Straddle 5.47-5.725GHz	37
5710MHz Straddle 5.725-5.85GHz	37



Mode	Power Setting
5755MHz	68
5795MHz	69
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5210MHz	39
5290MHz	37
5530MHz	42
5610MHz	44
5690MHz Straddle 5.47-5.725GHz	45
5690MHz Straddle 5.725-5.85GHz	45
5775MHz	65
802.11ax HEW160_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	31
5250MHz Straddle 5.25-5.35GHz	31
5570MHz	29



Non-Beamforming\_Radio 3

Mode	Power Setting
802.11a_Nss1,(6Mbps)_2TX	-
5180MHz	49
5200MHz	47
5240MHz	48
5260MHz	40
5300MHz	36
5320MHz	40
5500MHz	42
5580MHz	44
5700MHz	46
5720MHz Straddle 5.47-5.725GHz	47
5720MHz Straddle 5.725-5.85GHz	47
5745MHz	57
5785MHz	78
5825MHz	48
802.11n HT20_Nss1,(MCS0)_2TX	-
5180MHz	52
5200MHz	51
5240MHz	44
5260MHz	43
5300MHz	41
5320MHz	41
5500MHz	42
5580MHz	44
5700MHz	40
5720MHz Straddle 5.47-5.725GHz	46
5720MHz Straddle 5.725-5.85GHz	46
5745MHz	53
5785MHz	76
5825MHz	46
802.11n HT40_Nss1,(MCS0)_2TX	-
5190MHz	41
5230MHz	54
5270MHz	44





Mode	Power Setting
5310MHz	44
5510MHz	50
5550MHz	53
5670MHz	55
5710MHz Straddle 5.47-5.725GHz	57
5710MHz Straddle 5.725-5.85GHz	57
5755MHz	71
5795MHz	79
802.11ac VHT20_Nss1,(MCS0)_2TX	-
5180MHz	52
5200MHz	51
5240MHz	44
5260MHz	43
5300MHz	41
5320MHz	41
5500MHz	42
5580MHz	44
5700MHz	40
5720MHz Straddle 5.47-5.725GHz	46
5720MHz Straddle 5.725-5.85GHz	46
5745MHz	53
5785MHz	76
5825MHz	46
802.11ac VHT40_Nss1,(MCS0)_2TX	-
5190MHz	41
5230MHz	54
5270MHz	44
5310MHz	44
5510MHz	50
5550MHz	53
5670MHz	55
5710MHz Straddle 5.47-5.725GHz	57
5710MHz Straddle 5.725-5.85GHz	57
5755MHz	71
5795MHz	79
802.11ac VHT80_Nss1,(MCS0)_2TX	-



Mode	Power Setting
5210MHz	45
5290MHz	37
5530MHz	51
5610MHz	55
5690MHz Straddle 5.47-5.725GHz	58
5690MHz Straddle 5.725-5.85GHz	58
5775MHz	59
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5180MHz	52
5200MHz	51
5240MHz	44
5260MHz	43
5300MHz	41
5320MHz	41
5500MHz	42
5580MHz	44
5700MHz	40
5720MHz Straddle 5.47-5.725GHz	46
5720MHz Straddle 5.725-5.85GHz	46
5745MHz	53
5785MHz	76
5825MHz	46
802.11ax HEW40_Nss1,(MCS0)_2TX	-
5190MHz	41
5230MHz	54
5270MHz	44
5310MHz	44
5510MHz	50
5550MHz	53
5670MHz	55
5710MHz Straddle 5.47-5.725GHz	57
5710MHz Straddle 5.725-5.85GHz	57
5755MHz	71
5795MHz	79
802.11ax HEW80_Nss1,(MCS0)_2TX	-
5210MHz	45



Mode	Power Setting
5290MHz	37
5530MHz	51
5610MHz	55
5690MHz Straddle 5.47-5.725GHz	58
5690MHz Straddle 5.725-5.85GHz	58
5775MHz	59

Test Software Version	Dos 6.1
-----------------------	---------

**Beamforming\_Radio 1**

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
5500MHz	21
5580MHz	19
5700MHz	23
5720MHz Straddle 5.47-5.725GHz	24
5720MHz Straddle 5.725-5.85GHz	24
5745MHz	41
5785MHz	43
5825MHz	44
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
5510MHz	24
5550MHz	21
5670MHz	23
5710MHz Straddle 5.47-5.725GHz	23
5710MHz Straddle 5.725-5.85GHz	23
5755MHz	42
5795MHz	44
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-
5530MHz	22
5610MHz	21
5690MHz Straddle 5.47-5.725GHz	21
5690MHz Straddle 5.725-5.85GHz	21
5775MHz	43
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-
5570MHz	19



Beamforming\_Radio 2

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
5180MHz	41
5200MHz	41
5240MHz	41
5260MHz	17
5300MHz	17
5320MHz	17
5500MHz	19
5580MHz	19
5700MHz	19
5720MHz Straddle 5.47-5.725GHz	19
5720MHz Straddle 5.725-5.85GHz	19
5745MHz	41
5785MHz	41
5825MHz	41
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
5190MHz	41
5230MHz	40
5270MHz	17
5310MHz	17
5510MHz	17
5550MHz	17
5670MHz	17
5710MHz Straddle 5.47-5.725GHz	21
5710MHz Straddle 5.725-5.85GHz	21
5755MHz	40
5795MHz	40
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-
5210MHz	40
5290MHz	17
5530MHz	17
5610MHz	17
5690MHz Straddle 5.47-5.725GHz	22
5690MHz Straddle 5.725-5.85GHz	22



Mode	Power Setting
5775MHz	39
802.11ax HEW160-BF_Nss1,(MCS0)_4TX	-
5250MHz Straddle 5.15-5.25GHz	37
5250MHz Straddle 5.25-5.35GHz	37
5570MHz	17

**Beamforming\_Radio 3**

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-
5180MHz	51
5200MHz	50
5240MHz	51
5260MHz	42
5300MHz	42
5320MHz	42
5500MHz	42
5580MHz	42
5700MHz	41
5720MHz Straddle 5.47-5.725GHz	44
5720MHz Straddle 5.725-5.85GHz	44
5745MHz	54
5785MHz	65
5825MHz	50
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-
5190MHz	48
5230MHz	65
5270MHz	42
5310MHz	43
5510MHz	41
5550MHz	41
5670MHz	43
5710MHz Straddle 5.47-5.725GHz	46
5710MHz Straddle 5.725-5.85GHz	46
5755MHz	67
5795MHz	67
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-




<b>Mode</b>	<b>Power Setting</b>
5210MHz	46
5290MHz	43
5530MHz	42
5610MHz	43
5690MHz Straddle 5.47-5.725GHz	45
5690MHz Straddle 5.725-5.85GHz	45
5775MHz	61

## 2.2 The Worst Case Measurement Configuration

The Worst Case Mode for Following Conformance Tests	
Tests Item	AC power-line conducted emissions
Condition	AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz
Operating Mode	CTX
1	PoE mode

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

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



The Worst Case Mode for Following Conformance Tests	
<b>Tests Item</b>	Simultaneous Transmission Analysis
<b>Test Condition</b>	Radiated measurement
<b>Operating Mode</b>	CTX
1	Radio 1(2.4G)+ Radio 2(5G)+ Radio 3(2.4G)+ Bluetooth
2	Radio 1(5G)+ Radio 2(5G)+ Radio 3(2.4G)+ Bluetooth
3	Radio 1(5G)+ Radio 2(5G)+ Radio 3(5G)+ Bluetooth
4	Radio 1(2.4G)+ Radio 2(5G)+ Radio 3(5G)+ Bluetooth
5	Radio 1(2.4G)+ Radio 2(5G)+ Radio 3(2.4G)+Zigbee
6	Radio 1(5G)+ Radio 2(5G)+ Radio 3(2.4G)+Zigbee
7	Radio 1(5G)+ Radio 2(5G)+ Radio 3(5G)+Zigbee
8	Radio 1(2.4G)+ Radio 2(5G)+ Radio 3(5G)+Zigbee

Refer to Sporton Test Report No.: FA0D1422-04 for Co-location RF Exposure Evaluation and Appendix F for Radiated Emission Co-location.





### 2.3 Accessories

Accessories				
PoE Adapter	Brand Name	Senao Inc.	Model Name	PIN060-54PR
	Power Rating	I/P: 100-240Vac, 1.5A, 50-60Hz, O/P: 54Vdc, 1.11A		
AC CORD	Brand Name	I-SHENG	Model Name	AC CORD 600mm
	Signal Line	0.5 meter, shielded cable, w/o ferrite core		
Ground Wire	Brand Name	BO YAO	Model Name	WIRE GEN AWG10 180cm
	Signal Line	1.8 meter, shielded cable, w/o ferrite core		
Bracket wall mount	Brand Name	XIERTEK	Model Name	BRACKET WALL MOUNT
Bracket pole mount	Brand Name	CUN SHENG	Model Name	BRACKET POLE MOUNT

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

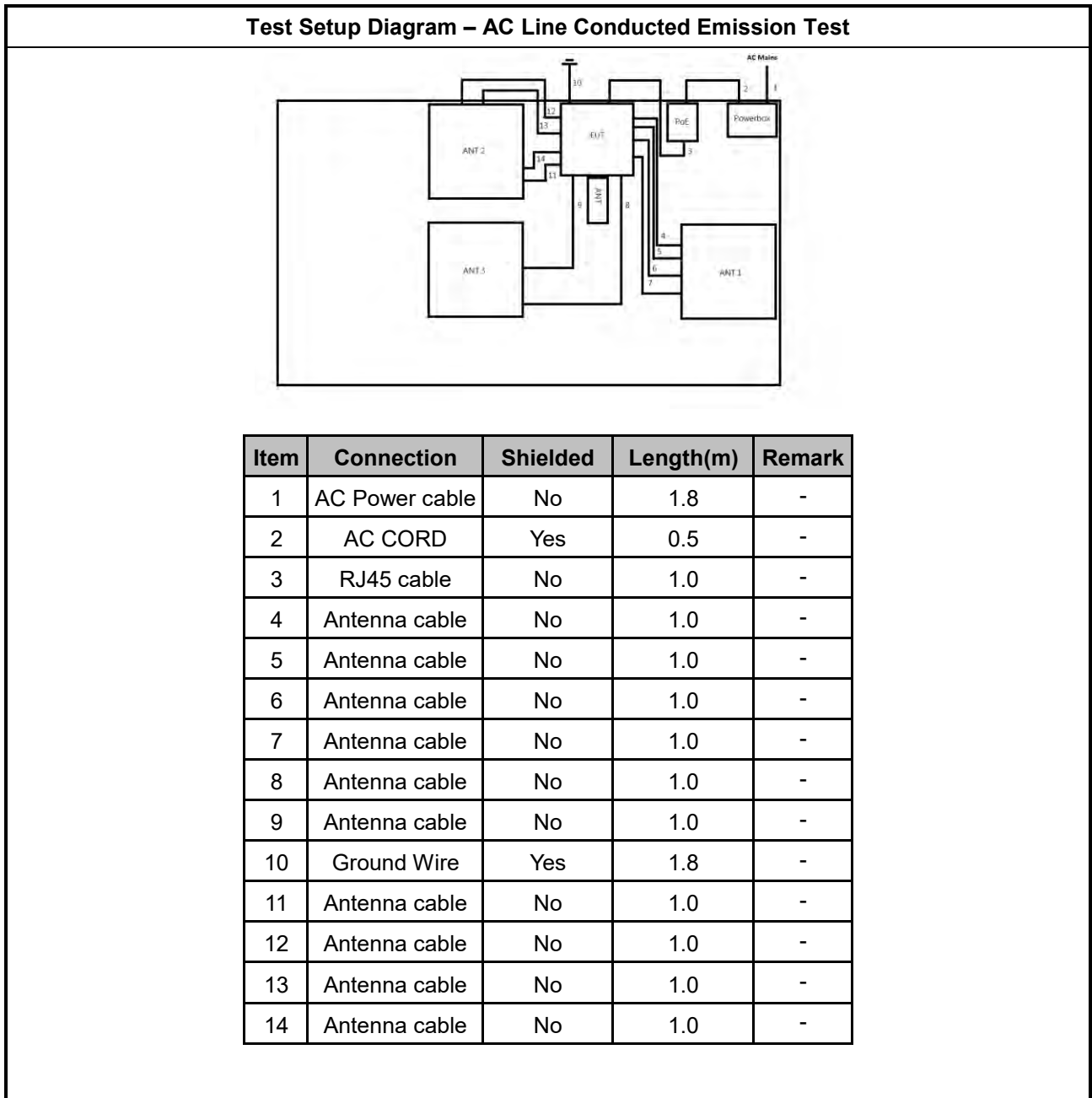
### 2.4 Support Equipment

Support Equipment – AC Conduction					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	RJ45 Cable	Power Sync	CAT-6E-01	-	-

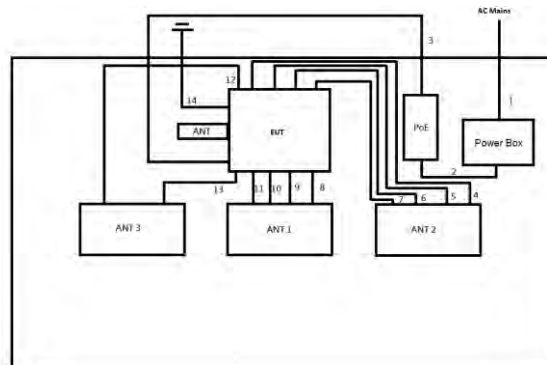
Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-

Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	RJ45 Cable	Power Sync	CAT-6E-01	-	-
2	RJ45 Cable	Power Sync	CAT-6E-10	-	-
3	Notebook	HP	5220M	-	Remote
4	Client for BF	-	-	-	Provided by Customer

## 2.5 Test Setup Diagram

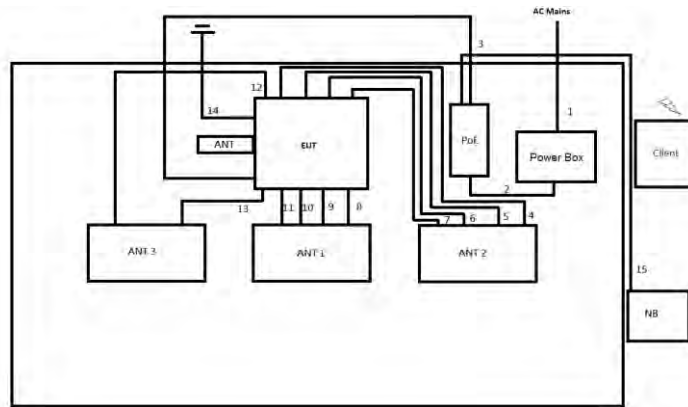


Test Setup Diagram - Radiated Test – Non-Beamforming\_Radio 1



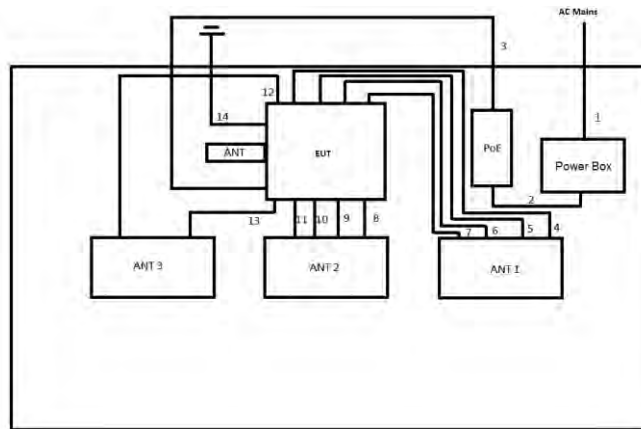
Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	AC CORD	Yes	0.5	-
3	RJ45 cable	No	1.0	-
4	Antenna cable	No	1.0	-
5	Antenna cable	No	1.0	-
6	Antenna cable	No	1.0	-
7	Antenna cable	No	1.0	-
8	Antenna cable	No	1.0	-
9	Antenna cable	No	1.0	-
10	Antenna cable	No	1.0	-
11	Antenna cable	No	1.0	-
12	Antenna cable	No	1.0	-
13	Antenna cable	No	1.0	-
14	Ground Wire	Yes	1.8	-

Test Setup Diagram - Radiated Test – Beamforming\_Radio 1



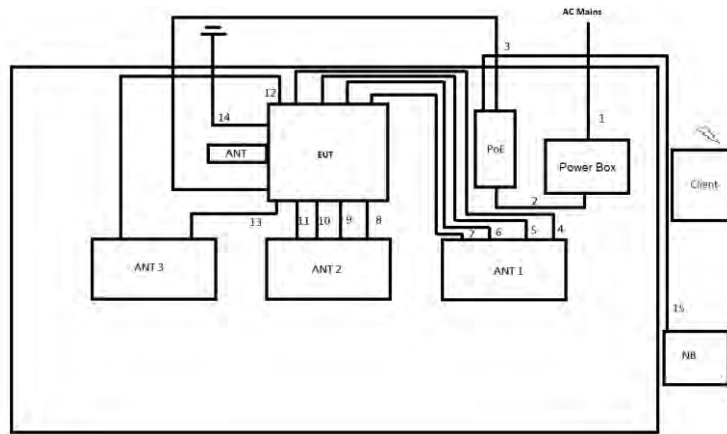
Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	AC CORD	Yes	0.5	-
3	RJ45 cable	No	1.0	-
4	Antenna cable	No	1.0	-
5	Antenna cable	No	1.0	-
6	Antenna cable	No	1.0	-
7	Antenna cable	No	1.0	-
8	Antenna cable	No	1.0	-
9	Antenna cable	No	1.0	-
10	Antenna cable	No	1.0	-
11	Antenna cable	No	1.0	-
12	Antenna cable	No	1.0	-
13	Antenna cable	No	1.0	-
14	Ground Wire	Yes	1.8	-
15	RJ45 cable	No	10.0	-

Test Setup Diagram - Radiated Test – Non-Beamforming\_Radio 2



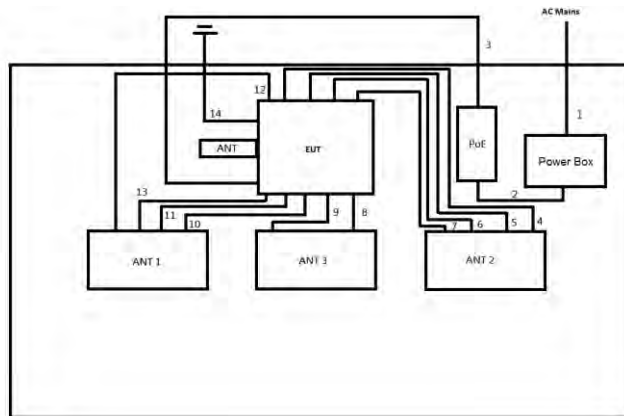
Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	AC CORD	Yes	0.5	-
3	RJ45 cable	No	1.0	-
4	Antenna cable	No	1.0	-
5	Antenna cable	No	1.0	-
6	Antenna cable	No	1.0	-
7	Antenna cable	No	1.0	-
8	Antenna cable	No	1.0	-
9	Antenna cable	No	1.0	-
10	Antenna cable	No	1.0	-
11	Antenna cable	No	1.0	-
12	Antenna cable	No	1.0	-
13	Antenna cable	No	1.0	-
14	Ground Wire	Yes	1.8	-

Test Setup Diagram - Radiated Test – Beamforming\_Radio 2



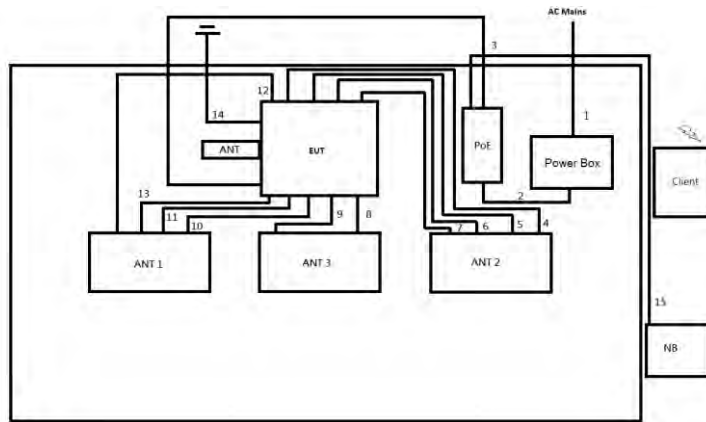
Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	AC CORD	Yes	0.5	-
3	RJ45 cable	No	1.0	-
4	Antenna cable	No	1.0	-
5	Antenna cable	No	1.0	-
6	Antenna cable	No	1.0	-
7	Antenna cable	No	1.0	-
8	Antenna cable	No	1.0	-
9	Antenna cable	No	1.0	-
10	Antenna cable	No	1.0	-
11	Antenna cable	No	1.0	-
12	Antenna cable	No	1.0	-
13	Antenna cable	No	1.0	-
14	Ground Wire	Yes	1.8	-
15	RJ45 cable	No	10.0	-

Test Setup Diagram - Radiated Test – Non-Beamforming\_Radio 3



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	AC CORD	Yes	0.5	-
3	RJ45 cable	No	1.0	-
4	Antenna cable	No	1.0	-
5	Antenna cable	No	1.0	-
6	Antenna cable	No	1.0	-
7	Antenna cable	No	1.0	-
8	Antenna cable	No	1.0	-
9	Antenna cable	No	1.0	-
10	Antenna cable	No	1.0	-
11	Antenna cable	No	1.0	-
12	Antenna cable	No	1.0	-
13	Antenna cable	No	1.0	-
14	Ground Wire	Yes	1.8	-

Test Setup Diagram - Radiated Test – Beamforming\_Radio 3



Item	Connection	Shielded	Length(m)	Remark
1	AC Power cable	No	1.8	-
2	AC CORD	Yes	0.5	-
3	RJ45 cable	No	1.0	-
4	Antenna cable	No	1.0	-
5	Antenna cable	No	1.0	-
6	Antenna cable	No	1.0	-
7	Antenna cable	No	1.0	-
8	Antenna cable	No	1.0	-
9	Antenna cable	No	1.0	-
10	Antenna cable	No	1.0	-
11	Antenna cable	No	1.0	-
12	Antenna cable	No	1.0	-
13	Antenna cable	No	1.0	-
14	Ground Wire	Yes	1.8	-
15	RJ45 cable	No	10.0	-





### 3 Transmitter Test Result

#### 3.1 AC Power-line Conducted Emissions

##### 3.1.1 AC Power-line Conducted Emissions Limit

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

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

##### 3.1.2 Measuring Instruments

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

##### 3.1.3 Test Procedures

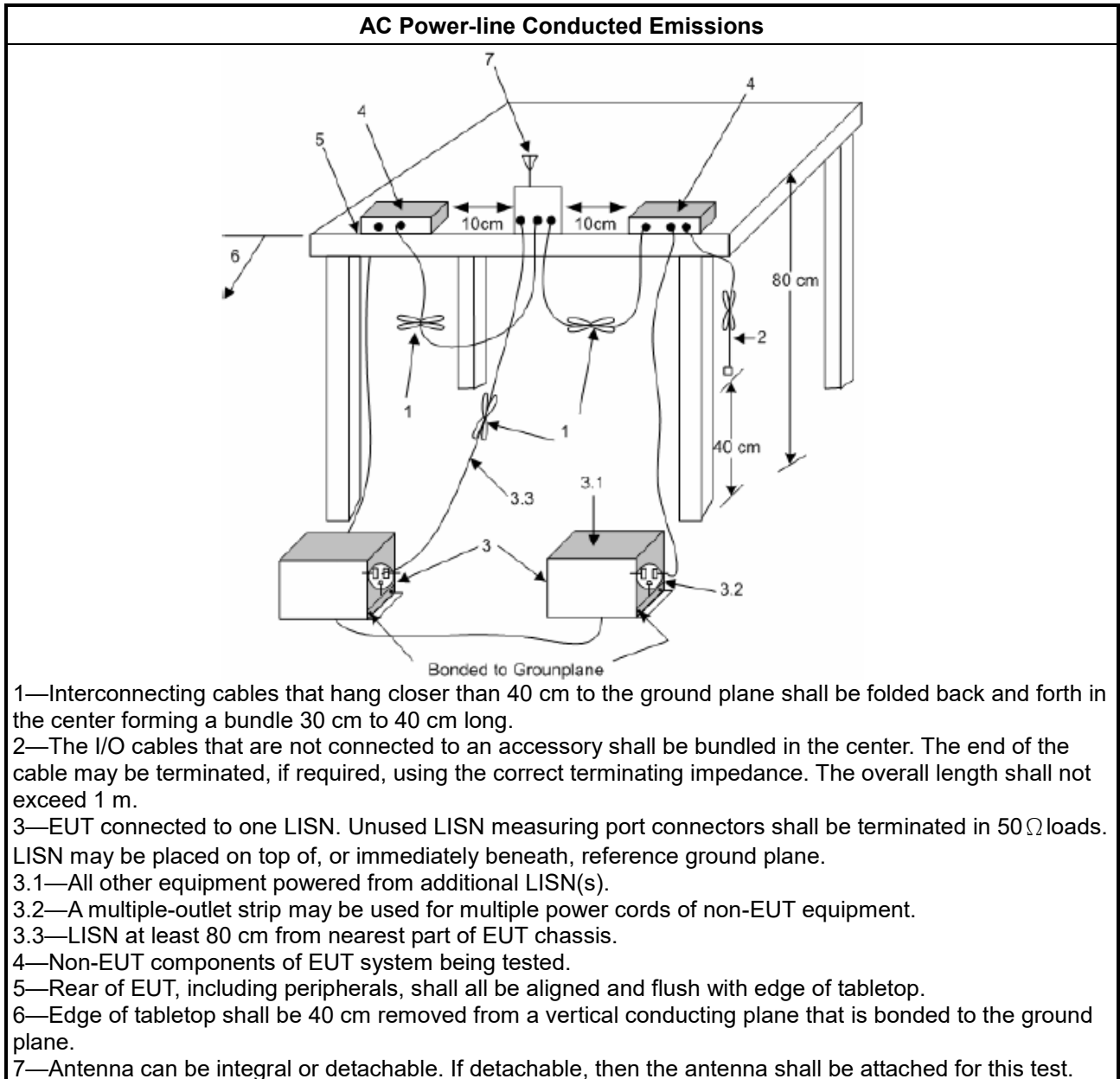
Test Method
<input checked="" type="checkbox"/> Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

##### 3.1.4 Measurement Results Calculation

The measured Level is calculated using:

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

### 3.1.5 Test Setup



### 3.1.6 Test Result of AC Power-line Conducted Emissions

Refer as Appendix A

### 3.2 Emission Bandwidth

#### 3.2.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
<b>UNII Devices</b>	
<input checked="" type="checkbox"/>	For the 5.15-5.25 GHz band, N/A
<input checked="" type="checkbox"/>	For the 5.25-5.35 GHz band, N/A
<input checked="" type="checkbox"/>	For the 5.47-5.725 GHz band, N/A
<input checked="" type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth $\geq$ 500kHz.

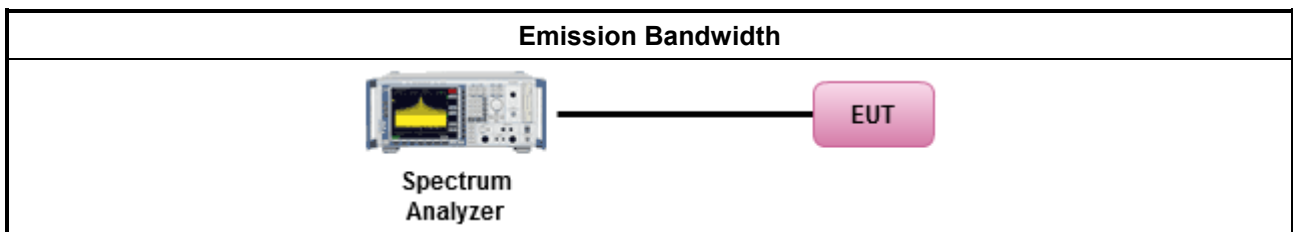
#### 3.2.2 Measuring Instruments

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

#### 3.2.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>▪ For the emission bandwidth shall be measured using one of the options below:</li> </ul>	
<input checked="" type="checkbox"/>	Refer as KDB 789033, clause C for EBW and clause D for OBW measurement.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.3 for occupied bandwidth testing.
<input type="checkbox"/>	Refer as IC RSS-Gen, clause 6.7 for bandwidth testing.

#### 3.2.4 Test Setup



#### 3.2.5 Test Result of Emission Bandwidth

Refer as Appendix B



### 3.3 Maximum Conducted Output Power

#### 3.3.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
<b>UNII Devices</b>	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	
	<ul style="list-style-type: none"> <li>▪ Outdoor AP: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math>. e.i.r.p. at any elevation angle above 30 degrees <math>\leq 125mW</math> [21dBm]</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Indoor AP: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math></li> </ul>
	<ul style="list-style-type: none"> <li>▪ Point-to-point AP: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 23</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 23)</math>.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Mobile or Portable Client: the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 250 mW. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 24 - (G_{TX} - 6)</math>.</li> </ul>
<input checked="" type="checkbox"/> For the 5.25-5.35 GHz band, the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$ .	
<input checked="" type="checkbox"/> For the 5.47-5.725 GHz band, the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$ , where B is the 26 dB emission bandwidth in MHz. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$ .	
<input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:	
	<ul style="list-style-type: none"> <li>▪ Point-to-multipoint systems (P2M): the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 30 - (G_{TX} - 6)</math>.</li> </ul>
	<ul style="list-style-type: none"> <li>▪ Point-to-point systems (P2P): the maximum conducted output power (<math>P_{Out}</math>) shall not exceed the lesser of 1 W.</li> </ul>
<p><math>P_{Out}</math> = maximum conducted output power in dBm,  <math>G_{TX}</math> = the maximum transmitting antenna directional gain in dBi.</p>	

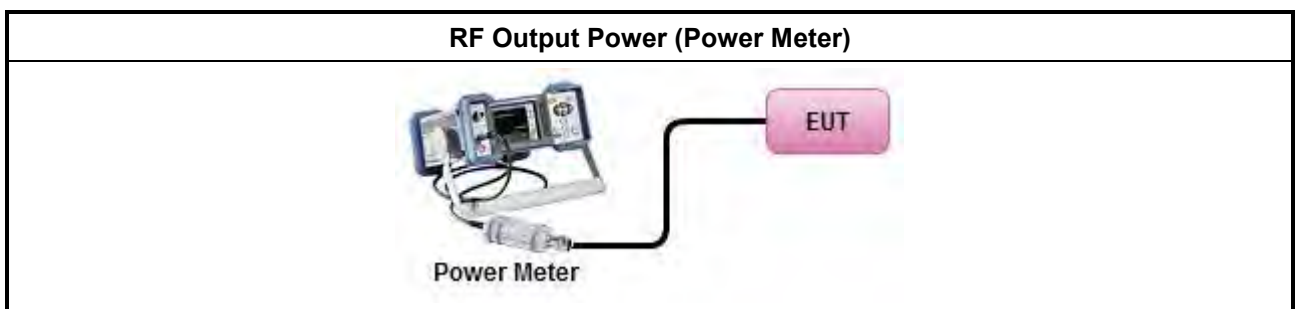
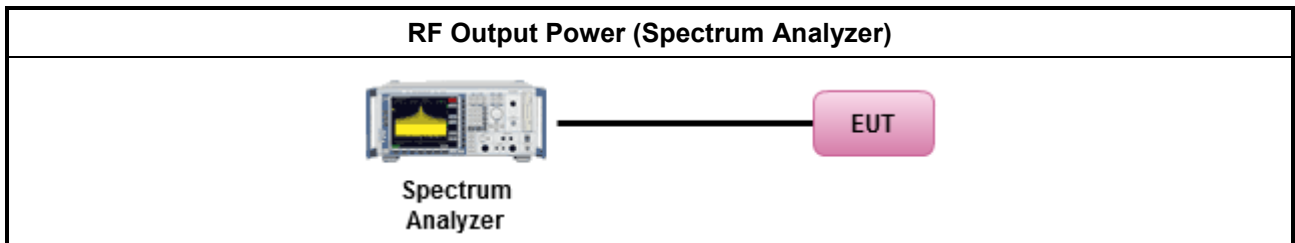
### 3.3.2 Measuring Instruments

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

### 3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>Maximum Conducted Output Power</li> </ul>	
	Duty cycle $\geq 98\%$
<input checked="" type="checkbox"/>	Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).
	Duty cycle $< 98\%$
<input checked="" type="checkbox"/>	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	
<input checked="" type="checkbox"/>	Refer as KDB 789033, clause E Method PM (using an RF average power meter).
<ul style="list-style-type: none"> <li>For conducted measurement.</li> </ul>	
	<ul style="list-style-type: none"> <li>If the EUT supports multiple transmit chains using options given below: Refer as KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them.</li> </ul>
	<ul style="list-style-type: none"> <li>If multiple transmit chains, EIRP calculation could be following as methods:  <math>P_{total} = P_1 + P_2 + \dots + P_n</math>                      (calculated in linear unit [mW] and transfer to log unit [dBm])  <math>EIRP_{total} = P_{total} + DG</math> </li> </ul>

### 3.3.4 Test Setup



### 3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

### 3.4 Peak Power Spectral Density

#### 3.4.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
<b>UNII Devices</b>	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	
	<ul style="list-style-type: none"> <li>▪ Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 6)</math>.</li> <li>▪ Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 6)</math>.</li> <li>▪ Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If <math>G_{TX} &gt; 23</math> dBi, then <math>P_{Out} = 17 - (G_{TX} - 23)</math>.</li> <li>▪ Mobile or Portable Client: the peak power spectral density (PPSD) <math>\leq 11</math> dBm/MHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>PPSD = 11 - (G_{TX} - 6)</math>.</li> </ul>
<input checked="" type="checkbox"/> For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) $\leq 11$ dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$ .	
<input checked="" type="checkbox"/> For the 5.47-5.725 GHz band, the peak power spectral density (PPSD) $\leq 11$ dBm/MHz. If $G_{TX} > 6$ dBi, then $PPSD = 11 - (G_{TX} - 6)$ .	
<input checked="" type="checkbox"/> For the 5.725-5.85 GHz band:	
	<ul style="list-style-type: none"> <li>▪ Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz. If <math>G_{TX} &gt; 6</math> dBi, then <math>PPSD = 30 - (G_{TX} - 6)</math>.</li> <li>▪ Point-to-point systems (P2P): the peak power spectral density (PPSD) <math>\leq 30</math> dBm/500kHz.</li> </ul>
<p><b>PPSD</b> = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz  <b><math>G_{TX}</math></b> = the maximum transmitting antenna directional gain in dBi.</p>	

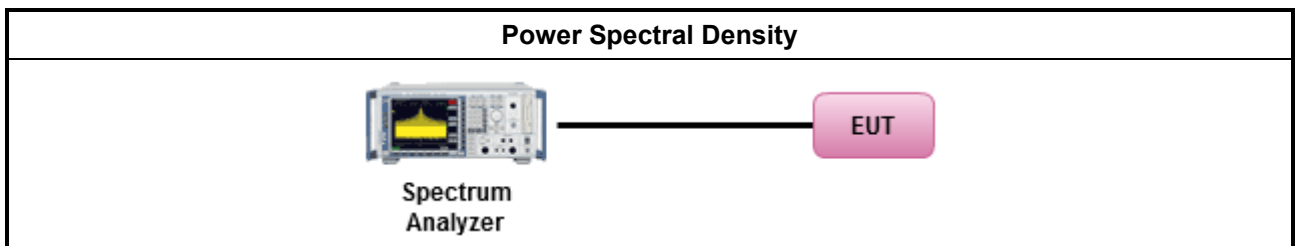
#### 3.4.2 Measuring Instruments

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

### 3.4.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> <li>▪ 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:</li> </ul>	
<input type="checkbox"/>	Refer as KDB 789033, F)5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
Duty cycle ≥ 98%	
<input checked="" type="checkbox"/>	Refer as KDB 789033, clause E Method SA-2 (spectral trace averaging).
Duty cycle < 98%	
<input checked="" type="checkbox"/>	Refer as KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)
<ul style="list-style-type: none"> <li>▪ For conducted measurement.</li> </ul>	
<ul style="list-style-type: none"> <li>▪ If the EUT supports multiple transmit chains using options given below:           <ul style="list-style-type: none"> <li>▪ Measure and sum the spectra across the outputs. Refer as KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>▪ If multiple transmit chains, EIRP PPSD calculation could be following as methods:  <math>PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n</math>            (calculated in linear unit [mW] and transfer to log unit [dBm])  <math>EIRP_{total} = PPSD_{total} + DG</math> </li> </ul>	

### 3.4.4 Test Setup



### 3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D

### 3.5 Unwanted Emissions

#### 3.5.1 Transmitter Radiated Unwanted Emissions Limit

Unwanted emissions below 1 GHz and restricted band emissions above 1GHz limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

Note 3: Using the distance of 1m during the test for above 18 GHz, and the test value to correct for the distance factor at 3m.

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

Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).



### 3.5.2 Measuring Instruments

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

### 3.5.3 Test Procedures

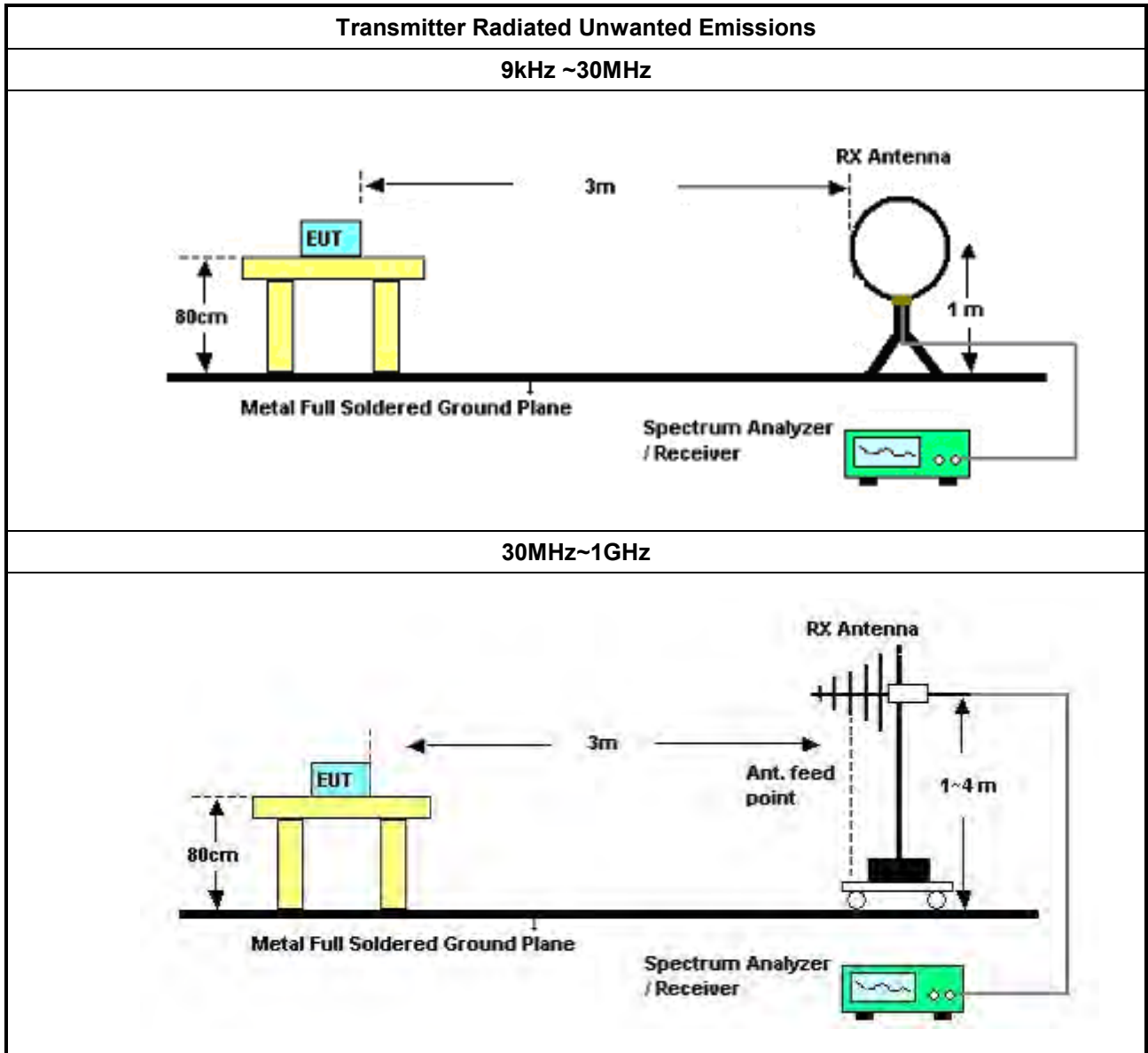
Test Method					
<ul style="list-style-type: none"> <li>Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance 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).</li> </ul>					
<ul style="list-style-type: none"> <li>The average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].</li> </ul>					
<ul style="list-style-type: none"> <li>For the transmitter unwanted emissions shall be measured using following options below:               <table border="1" data-bbox="225 824 1466 1041"> <tr> <td> <ul style="list-style-type: none"> <li>Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.</li> </ul> </td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.</li> </ul> </td> </tr> <tr> <td> <input checked="" type="checkbox"/> Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.               </td> </tr> <tr> <td> <input checked="" type="checkbox"/> Refer as KDB 789033, clause G)5) (ANSI C63.10, clause 4.1.4.2.2), measurement procedure peak limit.               </td> </tr> </table> </li> </ul>		<ul style="list-style-type: none"> <li>Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.</li> </ul>	<ul style="list-style-type: none"> <li>Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.</li> </ul>	<input checked="" type="checkbox"/> Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.	<input checked="" type="checkbox"/> Refer as KDB 789033, clause G)5) (ANSI C63.10, clause 4.1.4.2.2), measurement procedure peak limit.
<ul style="list-style-type: none"> <li>Refer as KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.</li> </ul>					
<ul style="list-style-type: none"> <li>Refer as KDB 789033, clause G)1) for unwanted emissions into restricted bands.</li> </ul>					
<input checked="" type="checkbox"/> Refer as KDB 789033, G)6) Method VB (ANSI C63.10, clause 4.1.4.2.3), Reduced VBW.					
<input checked="" type="checkbox"/> Refer as KDB 789033, clause G)5) (ANSI C63.10, clause 4.1.4.2.2), measurement procedure peak limit.					
<ul style="list-style-type: none"> <li>For radiated measurement.               <table border="1" data-bbox="225 1093 1466 1227"> <tr> <td> <ul style="list-style-type: none"> <li>Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.</li> </ul> </td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.</li> </ul> </td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li> </ul> </td> </tr> </table> </li> </ul>		<ul style="list-style-type: none"> <li>Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.</li> </ul>	<ul style="list-style-type: none"> <li>Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.</li> </ul>	<ul style="list-style-type: none"> <li>Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li> </ul>	
<ul style="list-style-type: none"> <li>Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.</li> </ul>					
<ul style="list-style-type: none"> <li>Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.</li> </ul>					
<ul style="list-style-type: none"> <li>Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.</li> </ul>					
<ul style="list-style-type: none"> <li>The any unwanted emissions level shall not exceed the fundamental emission level.</li> </ul>					
<ul style="list-style-type: none"> <li>All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.</li> </ul>					
<ul style="list-style-type: none"> <li>Use the following spectrum analyzer settings:               <table border="1" data-bbox="225 1444 1466 1594"> <tr> <td> <ul style="list-style-type: none"> <li>Set RBW=100 kHz for <math>f &lt; 1</math> GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.</li> </ul> </td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>Set RBW = 1 MHz, VBW= 3MHz for <math>f \geq 1</math> GHz for peak measurement. For average measurement, refer as 1.1.4.</li> </ul> </td> </tr> </table> </li> </ul>		<ul style="list-style-type: none"> <li>Set RBW=100 kHz for <math>f &lt; 1</math> GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.</li> </ul>	<ul style="list-style-type: none"> <li>Set RBW = 1 MHz, VBW= 3MHz for <math>f \geq 1</math> GHz for peak measurement. For average measurement, refer as 1.1.4.</li> </ul>		
<ul style="list-style-type: none"> <li>Set RBW=100 kHz for <math>f &lt; 1</math> GHz; VBW=3 * RBW; Sweep = auto; Detector function = peak; Trace = max hold.</li> </ul>					
<ul style="list-style-type: none"> <li>Set RBW = 1 MHz, VBW= 3MHz for <math>f \geq 1</math> GHz for peak measurement. For average measurement, refer as 1.1.4.</li> </ul>					
<ul style="list-style-type: none"> <li>KDB 414788 Open-Field Test Sites and Chamber Correlation Justification.               <table border="1" data-bbox="225 1646 1466 1821"> <tr> <td> <ul style="list-style-type: none"> <li>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.</li> </ul> </td> </tr> <tr> <td> <ul style="list-style-type: none"> <li>Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.</li> </ul> </td> </tr> </table> </li> </ul>		<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.</li> </ul>		
<ul style="list-style-type: none"> <li>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.</li> </ul>					
<ul style="list-style-type: none"> <li>Open-field site and chamber correlation testing had been performed and chamber measured test result is the worst case test result.</li> </ul>					

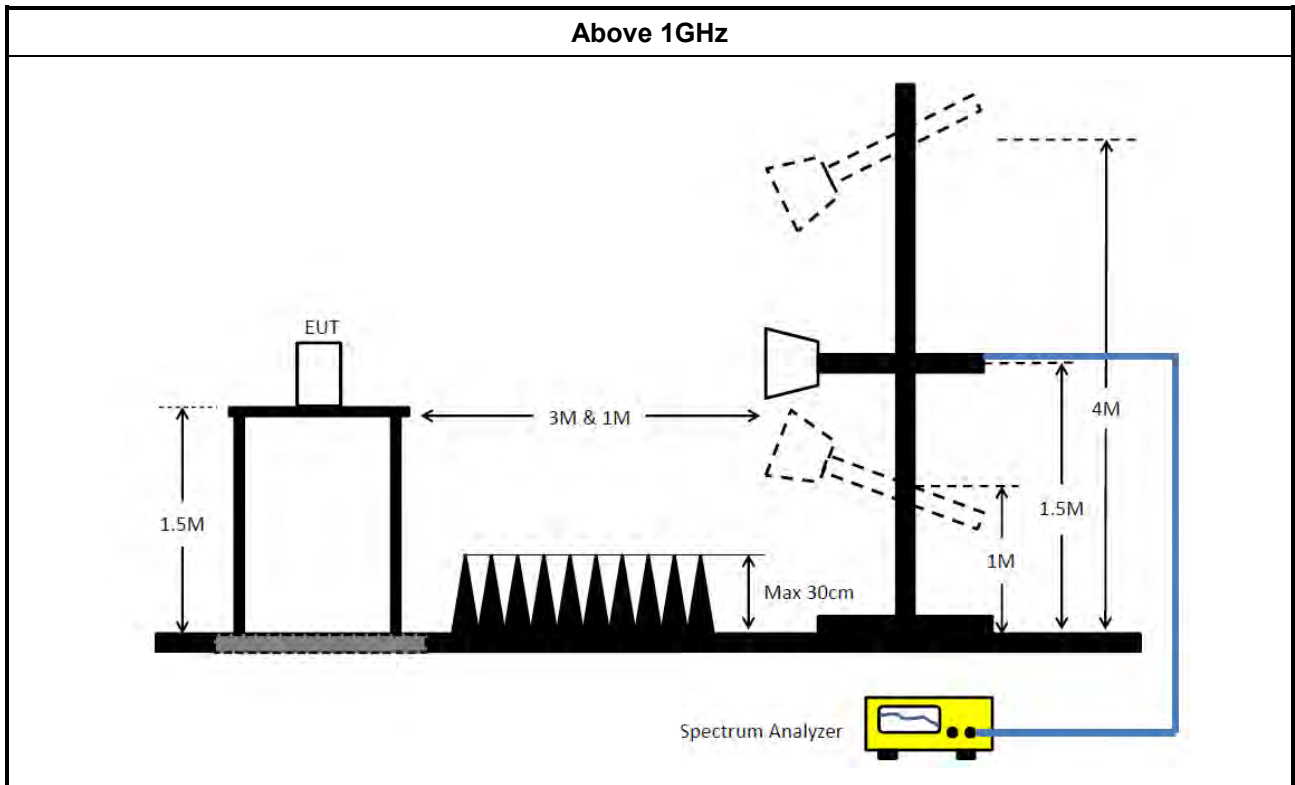
### 3.5.4 Measurement Results Calculation

The measured Level is calculated using:

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

### 3.5.5 Test Setup





### 3.5.6 Transmitter Unwanted Emissions (Below 30MHz)

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

### 3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E



## 4 Test Equipment and Calibration Data

### Instrument for AC Conduction

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR	102051	9kHz ~ 3.6GHz	13/May/2022	12/May/2023
Two-Line V-Network	R&S	ENV 216	100003	9kHz ~ 30MHz	18/Feb/2022	17/Feb/2023
RF Cable 5m	TITAN	TITAN	CO04-cable-01	9 kHz~200MHz	01/Mar/2022	28/Feb/2023
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	25/Oct/2022	24/Oct/2023
Software	Sporton	SENSE-EMI	V5.10.8.7	-	NCR	NCR

**NCR: No Calibration Required**

### Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101013	10Hz~40GHz	01/Apr/2022	31/Mar/2023
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	21/Oct/2022	20/Oct/2023
Pulse Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	21/Feb/2022	20/Feb/2023
Power Meter	Anritsu	ML2495A	0949003	300MHz~40GHz	21/Feb/2022	20/Feb/2023
SENSE-15407_NII	Sporton	V5.10.8.9	N/A	N/A	N/A	N/A



**Instrument for Radiated Test (03CH02-HY)**

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	30MHz~1GHz 3m	31/Jul/2022	30/Jul/2023
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH02-HY	1GHz~18GHz 3m	30/Jul/2022	29/Jul/2023
Signal Analyzer	R&S	FSP 40	100305	9kHz~40GHz	21/Mar/2022	20/Mar/2023
Amplifier	Agilent	8447D	2944A11149	100kHz~1.3GHz	28/Jun/2022	27/Jun/2023
Microwave Preamplifier	Agilent	8449B	3008A02373	1GHz~26.5GHz	02/Nov/2022	01/Nov/2023
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02268	1GHz ~18GHz	27/Sep/2022	26/Sep/2023
Bilog Antenna & 5dB Attenuator	SCHAFFNER / MTJ	CBL 6112B / MTJ6102-05	2723 / 2	30MHz~1GHz	28/Aug/2022	27/Aug/2023
RF Cable	MVE	400LL	MVE-1-0802	9kHz~30MHz	04/May/2022	03/May/2023
RF Cable	MVE	400LL	MVE-1-0802	30MHz~1GHz	04/May/2022	03/May/2023
RF Cable-R03m	HUBER+SUHNER	SUCOFLEX104	805193/4+805192 /4	1GHz~40GHz	01/Apr/2022	31/Mar/2023
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz~40GHz	18/Mar/2022	17/Mar/2023
Microwave Preamplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz~40GHz	08/Mar/2022	07/Mar/2023
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	18/Mar/2022	17/Mar/2023
EMI Test Receiver	R&S	ESR3	102052	9kHz~3.6GHz	02/Nov/2022	01/Nov/2023
SENSE-15407_NII	Sporton	V5.10.8.9	N/A	N/A	N/A	N/A

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

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	1GHz~18GHz 3m	26/Dec/2022	25/Dec/2023
Signal Analyzer	R&S	FSV40	101500	10Hz~40GHz	26/Oct/2022	25/Oct/2023
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	02267	1GHz ~18GHz	27/Sep/2022	26/Sep/2023
RF CABLE 5+6m	HUBER+SUHNER	SUOFLEX 104	03CH03-cable-01	1GHz~40GHz	27/Jul/2022	26/Jul/2023
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	15GHz~40GHz	18/Mar/2022	17/Mar/2023
Microwave Preamplifier	Agilent	8449B	3008A02326	1GHz~26.5GHz	14/Jul/2022	13/Jul/2023
Microwave Preamplifier	EMC INSTRUMENTS	EM18G40G	060604	18GHz ~ 40GHz	08/Mar/2022	07/Mar/2023
SENSE-EMI	Sporton	v5.10.8.6	NA	NA	NA	NA



## Conducted Emissions at Powerline\_Non-Beamforming\_Radio 1 Appendix A.1

---

### Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	2.447M	30.76	46.00	-15.24	Line



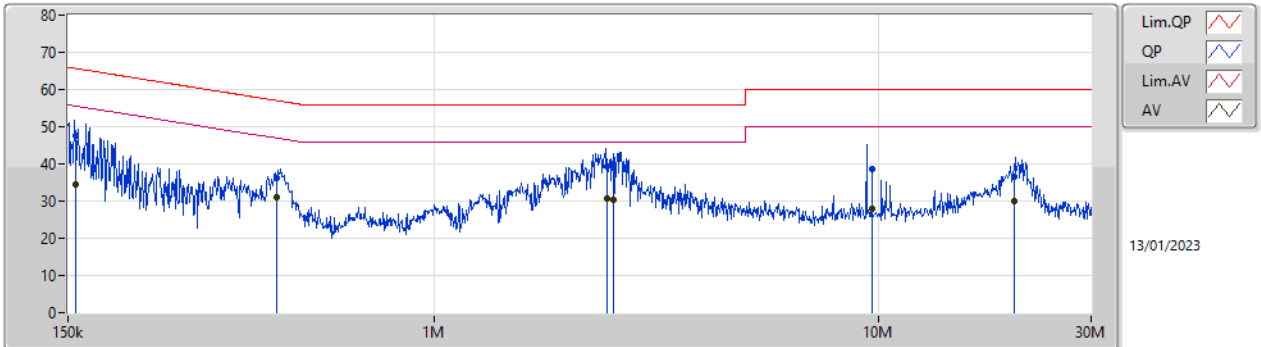
## Conducted Emissions at Powerline\_Non-Beamforming\_Radio 1 Appendix A.1

### Result

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	156.24k	47.68	65.66	-17.98	Line	-
Mode 1	Pass	AV	156.24k	34.54	55.66	-21.12	Line	-
Mode 1	Pass	QP	443.256k	36.10	56.99	-20.89	Line	-
Mode 1	Pass	AV	443.256k	30.92	46.99	-16.07	Line	-
Mode 1	Pass	QP	2.447M	39.18	56.00	-16.82	Line	-
Mode 1	Pass	AV	2.447M	30.76	46.00	-15.24	Line	-
Mode 1	Pass	QP	2.535M	39.14	56.00	-16.86	Line	-
Mode 1	Pass	AV	2.535M	30.25	46.00	-15.75	Line	-
Mode 1	Pass	QP	9.63M	38.56	60.00	-21.44	Line	-
Mode 1	Pass	AV	9.63M	27.92	50.00	-22.08	Line	-
Mode 1	Pass	QP	20.167M	36.42	60.00	-23.58	Line	-
Mode 1	Pass	AV	20.167M	30.09	50.00	-19.91	Line	-
Mode 1	Pass	QP	153.54k	42.50	65.81	-23.31	Neutral	-
Mode 1	Pass	AV	153.54k	32.93	55.81	-22.88	Neutral	-
Mode 1	Pass	QP	453.027k	34.28	56.82	-22.54	Neutral	-
Mode 1	Pass	AV	453.027k	27.70	46.82	-19.12	Neutral	-
Mode 1	Pass	QP	2.229M	35.74	56.00	-20.26	Neutral	-
Mode 1	Pass	AV	2.229M	28.48	46.00	-17.52	Neutral	-
Mode 1	Pass	QP	2.509M	37.97	56.00	-18.03	Neutral	-
Mode 1	Pass	AV	2.509M	29.95	46.00	-16.05	Neutral	-
Mode 1	Pass	QP	9.382M	40.57	60.00	-19.43	Neutral	-
Mode 1	Pass	AV	9.382M	31.73	50.00	-18.27	Neutral	-
Mode 1	Pass	QP	20.92M	37.21	60.00	-22.79	Neutral	-
Mode 1	Pass	AV	20.92M	29.73	50.00	-20.27	Neutral	-

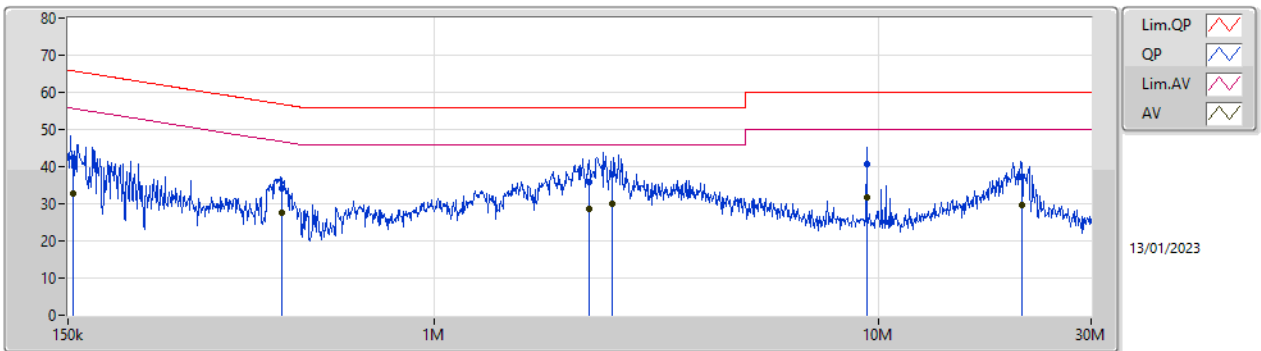


Conducted Emissions at Powerline\_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	156.24k	47.68	65.66	-17.98	19.65	Line	-	28.03	9.69	0.03	9.93
AV	156.24k	34.54	55.66	-21.12	19.65	Line	-	14.89	9.69	0.03	9.93
QP	443.256k	36.10	56.99	-20.89	19.68	Line	-	16.42	9.68	0.04	9.96
AV	443.256k	30.92	46.99	-16.07	19.68	Line	-	11.24	9.68	0.04	9.96
QP	2.447M	39.18	56.00	-16.82	19.73	Line	-	19.45	9.70	0.09	9.94
AV	2.447M	30.76	46.00	-15.24	19.73	Line	-	11.03	9.70	0.09	9.94
QP	2.535M	39.14	56.00	-16.86	19.74	Line	-	19.40	9.70	0.10	9.94
AV	2.535M	30.25	46.00	-15.75	19.74	Line	-	10.51	9.70	0.10	9.94
QP	9.63M	38.56	60.00	-21.44	19.95	Line	-	18.61	9.81	0.18	9.96
AV	9.63M	27.92	50.00	-22.08	19.95	Line	-	7.97	9.81	0.18	9.96
QP	20.167M	36.42	60.00	-23.58	20.03	Line	-	16.39	9.79	0.27	9.97
AV	20.167M	30.09	50.00	-19.91	20.03	Line	-	10.06	9.79	0.27	9.97

Conducted Emissions at Powerline\_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	153.54k	42.50	65.81	-23.31	19.69	Neutral	-	22.81	9.73	0.03	9.93
AV	153.54k	32.93	55.81	-22.88	19.69	Neutral	-	13.24	9.73	0.03	9.93
QP	453.027k	34.28	56.82	-22.54	19.72	Neutral	-	14.56	9.72	0.04	9.96
AV	453.027k	27.70	46.82	-19.12	19.72	Neutral	-	7.98	9.72	0.04	9.96
QP	2.229M	35.74	56.00	-20.26	19.77	Neutral	-	15.97	9.74	0.09	9.94
AV	2.229M	28.48	46.00	-17.52	19.77	Neutral	-	8.71	9.74	0.09	9.94
QP	2.509M	37.97	56.00	-18.03	19.79	Neutral	-	18.18	9.75	0.10	9.94
AV	2.509M	29.95	46.00	-16.05	19.79	Neutral	-	10.16	9.75	0.10	9.94
QP	9.382M	40.57	60.00	-19.43	20.02	Neutral	-	20.55	9.88	0.18	9.96
AV	9.382M	31.73	50.00	-18.27	20.02	Neutral	-	11.71	9.88	0.18	9.96
QP	20.92M	37.21	60.00	-22.79	20.26	Neutral	-	16.95	10.01	0.28	9.97
AV	20.92M	29.73	50.00	-20.27	20.26	Neutral	-	9.47	10.01	0.28	9.97





## Conducted Emissions at Powerline\_Non-Beamforming\_Radio 2 Appendix A.2

---

### Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	2.428M	31.40	46.00	-14.60	Neutral

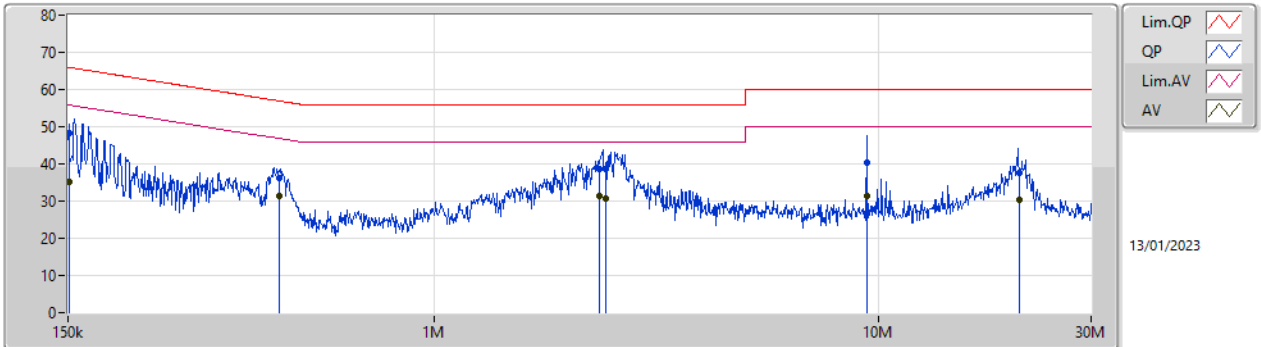


## Conducted Emissions at Powerline\_Non-Beamforming\_Radio 2 Appendix A.2

### Result

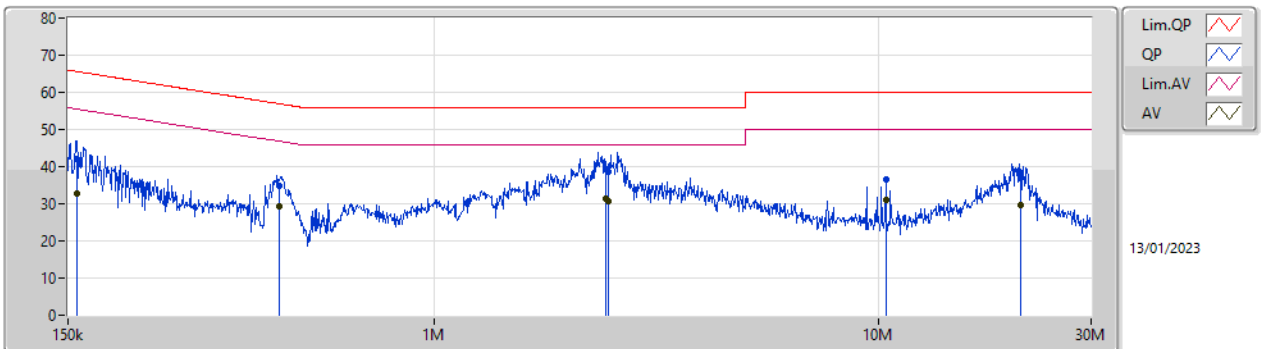
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	150.55k	48.14	65.96	-17.82	Line	-
Mode 1	Pass	AV	150.55k	35.10	55.96	-20.86	Line	-
Mode 1	Pass	QP	448.374k	36.35	56.90	-20.55	Line	-
Mode 1	Pass	AV	448.374k	31.29	46.90	-15.61	Line	-
Mode 1	Pass	QP	2.347M	38.68	56.00	-17.32	Line	-
Mode 1	Pass	AV	2.347M	31.26	46.00	-14.74	Line	-
Mode 1	Pass	QP	2.423M	38.78	56.00	-17.22	Line	-
Mode 1	Pass	AV	2.423M	30.58	46.00	-15.42	Line	-
Mode 1	Pass	QP	9.377M	40.23	60.00	-19.77	Line	-
Mode 1	Pass	AV	9.377M	31.45	50.00	-18.55	Line	-
Mode 1	Pass	QP	20.72M	37.47	60.00	-22.53	Line	-
Mode 1	Pass	AV	20.72M	30.51	50.00	-19.49	Line	-
Mode 1	Pass	QP	156.84k	42.15	65.64	-23.49	Neutral	-
Mode 1	Pass	AV	156.84k	32.93	55.64	-22.71	Neutral	-
Mode 1	Pass	QP	447.604k	34.99	56.92	-21.93	Neutral	-
Mode 1	Pass	AV	447.604k	29.36	46.92	-17.56	Neutral	-
Mode 1	Pass	QP	2.428M	39.17	56.00	-16.83	Neutral	-
Mode 1	Pass	AV	2.428M	31.40	46.00	-14.60	Neutral	-
Mode 1	Pass	QP	2.47M	38.67	56.00	-17.33	Neutral	-
Mode 1	Pass	AV	2.47M	30.57	46.00	-15.43	Neutral	-
Mode 1	Pass	QP	10.37M	36.47	60.00	-23.53	Neutral	-
Mode 1	Pass	AV	10.37M	30.99	50.00	-19.01	Neutral	-
Mode 1	Pass	QP	20.871M	36.94	60.00	-23.06	Neutral	-
Mode 1	Pass	AV	20.871M	29.77	50.00	-20.23	Neutral	-

### Conducted Emissions at Powerline\_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	150.55k	48.14	65.96	-17.82	19.65	Line	-	28.49	9.69	0.03	9.93
AV	150.55k	35.10	55.96	-20.86	19.65	Line	-	15.45	9.69	0.03	9.93
QP	448.374k	36.35	56.90	-20.55	19.68	Line	-	16.67	9.68	0.04	9.96
AV	448.374k	31.29	46.90	-15.61	19.68	Line	-	11.61	9.68	0.04	9.96
QP	2.347M	38.68	56.00	-17.32	19.73	Line	-	18.95	9.70	0.09	9.94
AV	2.347M	31.26	46.00	-14.74	19.73	Line	-	11.53	9.70	0.09	9.94
QP	2.423M	38.78	56.00	-17.22	19.73	Line	-	19.05	9.70	0.09	9.94
AV	2.423M	30.58	46.00	-15.42	19.73	Line	-	10.85	9.70	0.09	9.94
QP	9.377M	40.23	60.00	-19.77	19.94	Line	-	20.29	9.80	0.18	9.96
AV	9.377M	31.45	50.00	-18.55	19.94	Line	-	11.51	9.80	0.18	9.96
QP	20.72M	37.47	60.00	-22.53	20.04	Line	-	17.43	9.79	0.28	9.97
AV	20.72M	30.51	50.00	-19.49	20.04	Line	-	10.47	9.79	0.28	9.97

### Conducted Emissions at Powerline\_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	156.84k	42.15	65.64	-23.49	19.69	Neutral	-	22.46	9.73	0.03	9.93
AV	156.84k	32.93	55.64	-22.71	19.69	Neutral	-	13.24	9.73	0.03	9.93
QP	447.604k	34.99	56.92	-21.93	19.72	Neutral	-	15.27	9.72	0.04	9.96
AV	447.604k	29.36	46.92	-17.56	19.72	Neutral	-	9.64	9.72	0.04	9.96
QP	2.428M	39.17	56.00	-16.83	19.78	Neutral	-	19.39	9.75	0.09	9.94
AV	2.428M	31.40	46.00	-14.60	19.78	Neutral	-	11.62	9.75	0.09	9.94
QP	2.47M	38.67	56.00	-17.33	19.79	Neutral	-	18.88	9.75	0.10	9.94
AV	2.47M	30.57	46.00	-15.43	19.79	Neutral	-	10.78	9.75	0.10	9.94
QP	10.37M	36.47	60.00	-23.53	20.05	Neutral	-	16.42	9.90	0.19	9.96
AV	10.37M	30.99	50.00	-19.01	20.05	Neutral	-	10.94	9.90	0.19	9.96
QP	20.871M	36.94	60.00	-23.06	20.26	Neutral	-	16.68	10.01	0.28	9.97
AV	20.871M	29.77	50.00	-20.23	20.26	Neutral	-	9.51	10.01	0.28	9.97



## Conducted Emissions at Powerline\_Non-Beamforming\_Radio 3 Appendix A.3

---

### Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	2.372M	31.63	46.00	-14.37	Neutral

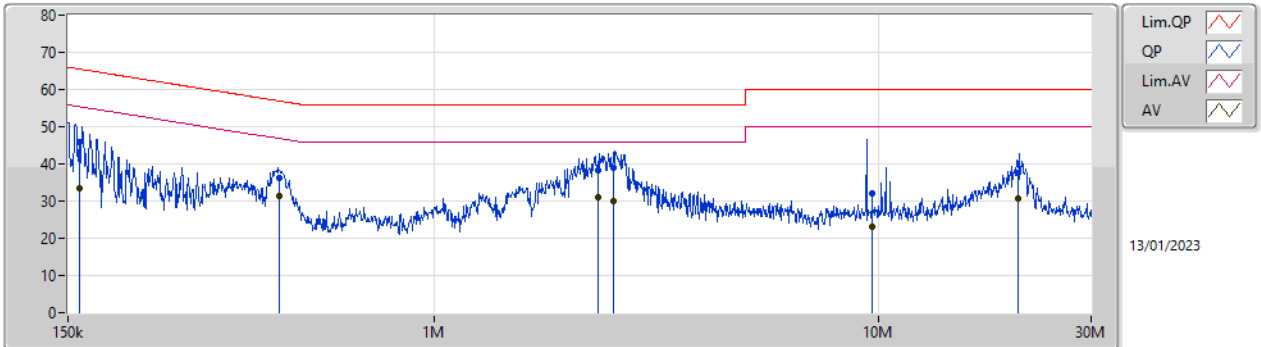


## Conducted Emissions at Powerline\_Non-Beamforming\_Radio 3 Appendix A.3

### Result

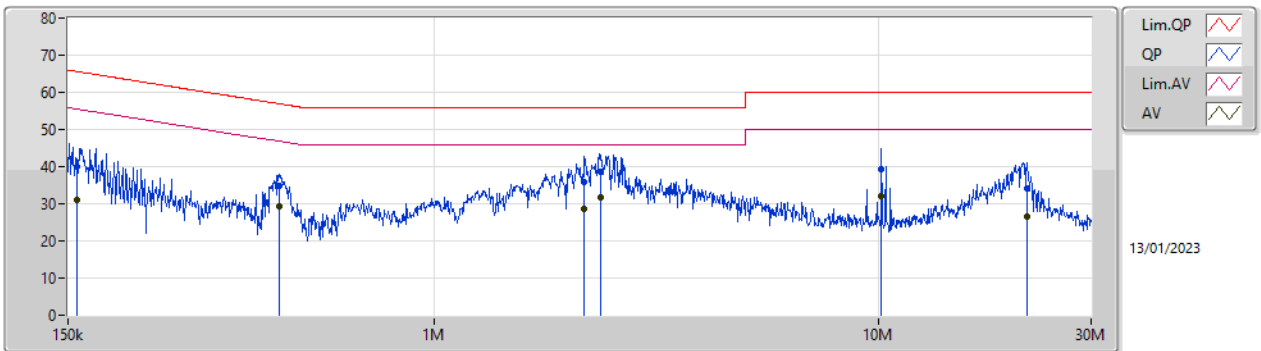
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	159.63k	45.82	65.48	-19.66	Line	-
Mode 1	Pass	AV	159.63k	33.36	55.48	-22.12	Line	-
Mode 1	Pass	QP	449.274k	36.36	56.88	-20.52	Line	-
Mode 1	Pass	AV	449.274k	31.24	46.88	-15.64	Line	-
Mode 1	Pass	QP	2.337M	38.35	56.00	-17.65	Line	-
Mode 1	Pass	AV	2.337M	31.11	46.00	-14.89	Line	-
Mode 1	Pass	QP	2.526M	38.81	56.00	-17.19	Line	-
Mode 1	Pass	AV	2.526M	30.07	46.00	-15.93	Line	-
Mode 1	Pass	QP	9.622M	32.20	60.00	-27.80	Line	-
Mode 1	Pass	AV	9.622M	22.96	50.00	-27.04	Line	-
Mode 1	Pass	QP	20.569M	37.61	60.00	-22.39	Line	-
Mode 1	Pass	AV	20.569M	30.55	50.00	-19.45	Line	-
Mode 1	Pass	QP	157.04k	39.99	65.62	-25.63	Neutral	-
Mode 1	Pass	AV	157.04k	31.18	55.62	-24.44	Neutral	-
Mode 1	Pass	QP	446.846k	34.93	56.94	-22.01	Neutral	-
Mode 1	Pass	AV	446.846k	29.34	46.94	-17.60	Neutral	-
Mode 1	Pass	QP	2.169M	35.84	56.00	-20.16	Neutral	-
Mode 1	Pass	AV	2.169M	28.53	46.00	-17.47	Neutral	-
Mode 1	Pass	QP	2.372M	38.66	56.00	-17.34	Neutral	-
Mode 1	Pass	AV	2.372M	31.63	46.00	-14.37	Neutral	-
Mode 1	Pass	QP	10.121M	39.35	60.00	-20.65	Neutral	-
Mode 1	Pass	AV	10.121M	32.19	50.00	-17.81	Neutral	-
Mode 1	Pass	QP	21.595M	33.98	60.00	-26.02	Neutral	-
Mode 1	Pass	AV	21.595M	26.65	50.00	-23.35	Neutral	-

### Conducted Emissions at Powerline\_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	159.63k	45.82	65.48	-19.66	19.65	Line	-	26.17	9.69	0.03	9.93
AV	159.63k	33.36	55.48	-22.12	19.65	Line	-	13.71	9.69	0.03	9.93
QP	449.274k	36.36	56.88	-20.52	19.68	Line	-	16.68	9.68	0.04	9.96
AV	449.274k	31.24	46.88	-15.64	19.68	Line	-	11.56	9.68	0.04	9.96
QP	2.337M	38.35	56.00	-17.65	19.73	Line	-	18.62	9.70	0.09	9.94
AV	2.337M	31.11	46.00	-14.89	19.73	Line	-	11.38	9.70	0.09	9.94
QP	2.526M	38.81	56.00	-17.19	19.74	Line	-	19.07	9.70	0.10	9.94
AV	2.526M	30.07	46.00	-15.93	19.74	Line	-	10.33	9.70	0.10	9.94
QP	9.622M	32.20	60.00	-27.80	19.95	Line	-	12.25	9.81	0.18	9.96
AV	9.622M	22.96	50.00	-27.04	19.95	Line	-	3.01	9.81	0.18	9.96
QP	20.569M	37.61	60.00	-22.39	20.03	Line	-	17.58	9.79	0.27	9.97
AV	20.569M	30.55	50.00	-19.45	20.03	Line	-	10.52	9.79	0.27	9.97

### Conducted Emissions at Powerline\_Mode 1



Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Factor (dB)	Condition	Comment	Raw (dBuV)	LISN (dB)	CL (dB)	AT (dB)
QP	157.04k	39.99	65.62	-25.63	19.69	Neutral	-	20.30	9.73	0.03	9.93
AV	157.04k	31.18	55.62	-24.44	19.69	Neutral	-	11.49	9.73	0.03	9.93
QP	446.846k	34.93	56.94	-22.01	19.72	Neutral	-	15.21	9.72	0.04	9.96
AV	446.846k	29.34	46.94	-17.60	19.72	Neutral	-	9.62	9.72	0.04	9.96
QP	2.169M	35.84	56.00	-20.16	19.77	Neutral	-	16.07	9.74	0.09	9.94
AV	2.169M	28.53	46.00	-17.47	19.77	Neutral	-	8.76	9.74	0.09	9.94
QP	2.372M	38.66	56.00	-17.34	19.77	Neutral	-	18.89	9.74	0.09	9.94
AV	2.372M	31.63	46.00	-14.37	19.77	Neutral	-	11.86	9.74	0.09	9.94
QP	10.121M	39.35	60.00	-20.65	20.03	Neutral	-	19.32	9.89	0.18	9.96
AV	10.121M	32.19	50.00	-17.81	20.03	Neutral	-	12.16	9.89	0.18	9.96
QP	21.595M	33.98	60.00	-26.02	20.27	Neutral	-	13.71	10.02	0.28	9.97
AV	21.595M	26.65	50.00	-23.35	20.27	Neutral	-	6.38	10.02	0.28	9.97



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	21.45M	16.866M	16M9D1D	15.54M	13.328M
802.11n HT20_Nss1,(MCS0)_4TX	21.45M	17.916M	17M9D1D	15.735M	13.898M
802.11n HT40_Nss1,(MCS0)_4TX	40.15M	36.482M	36M5D1D	34.65M	33.023M
802.11ac VHT20_Nss1,(MCS0)_4TX	21.67M	17.866M	17M9D1D	15.75M	13.928M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.26M	36.482M	36M5D1D	34.615M	32.954M
802.11ac VHT80_Nss1,(MCS0)_4TX	82.28M	75.762M	75M8D1D	75.45M	72.339M
802.11ac VHT160_Nss1,(MCS0)_4TX	165M	154.123M	154MD1D	162.8M	153.923M
802.11ax HEW20_Nss1,(MCS0)_4TX	21.505M	19.115M	19M1D1D	15.63M	14.498M
802.11ax HEW40_Nss1,(MCS0)_4TX	40.15M	37.581M	37M6D1D	34.72M	33.513M
802.11ax HEW80_Nss1,(MCS0)_4TX	82.5M	77.161M	77M2D1D	75.675M	72.939M
802.11ax HEW160_Nss1,(MCS0)_4TX	164.56M	155.122M	155MD1D	164.12M	154.523M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.39M	16.91M	16M9D1D	3.12M	4.078M
802.11n HT20_Nss1,(MCS0)_4TX	17.655M	17.916M	17M9D1D	3.76M	4.358M
802.11n HT40_Nss1,(MCS0)_4TX	36.41M	36.482M	36M5D1D	3.12M	3.518M
802.11ac VHT20_Nss1,(MCS0)_4TX	17.655M	17.891M	17M9D1D	3.74M	4.318M
802.11ac VHT40_Nss1,(MCS0)_4TX	36.41M	36.482M	36M5D1D	3.14M	3.558M
802.11ac VHT80_Nss1,(MCS0)_4TX	76.12M	75.862M	75M9D1D	3.12M	3.658M
802.11ax HEW20_Nss1,(MCS0)_4TX	19.03M	19.115M	19M1D1D	4.42M	4.558M
802.11ax HEW40_Nss1,(MCS0)_4TX	37.62M	37.581M	37M6D1D	3.74M	4.038M
802.11ax HEW80_Nss1,(MCS0)_4TX	76.34M	77.261M	77M3D1D	3.68M	4.058M

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



Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.175M	16.778M	21.285M	16.844M	21.34M	16.778M	21.285M	16.69M
5580MHz	Pass	Inf	21.23M	16.756M	21.45M	16.822M	21.395M	16.778M	21.23M	16.668M
5700MHz	Pass	Inf	21.23M	16.756M	21.23M	16.866M	21.23M	16.756M	21.285M	16.69M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.54M	13.328M	15.69M	13.463M	15.78M	13.463M	15.6M	13.358M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	4.118M	3.22M	4.198M	3.12M	4.178M	3.12M	4.078M
5745MHz	Pass	500k	16.335M	16.778M	16.39M	16.888M	16.335M	16.778M	16.335M	16.668M
5785MHz	Pass	500k	16.335M	16.778M	16.335M	16.91M	16.335M	16.778M	16.39M	16.69M
5825MHz	Pass	500k	16.335M	16.734M	16.335M	16.866M	16.335M	16.734M	16.335M	16.69M
802.11n HT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.395M	17.916M	21.45M	17.791M	21.285M	17.791M	21.34M	17.766M
5580MHz	Pass	Inf	21.395M	17.916M	21.395M	17.791M	21.285M	17.766M	21.34M	17.766M
5700MHz	Pass	Inf	21.45M	17.891M	21.395M	17.766M	21.34M	17.766M	21.34M	17.791M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.825M	14.003M	15.765M	13.928M	15.735M	13.913M	15.75M	13.898M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.76M	4.358M	3.76M	4.358M	3.76M	4.358M	3.78M	4.358M
5745MHz	Pass	500k	17.6M	17.891M	17.6M	17.816M	17.6M	17.766M	17.545M	17.766M
5785MHz	Pass	500k	17.545M	17.916M	17.655M	17.791M	17.655M	17.791M	17.6M	17.791M
5825MHz	Pass	500k	17.545M	17.866M	17.545M	17.791M	17.545M	17.766M	17.6M	17.766M
802.11n HT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	40.15M	36.482M	39.05M	36.232M	39.38M	36.332M	39.38M	36.332M
5550MHz	Pass	Inf	40.15M	36.382M	39.16M	36.232M	39.38M	36.332M	39.27M	36.332M
5670MHz	Pass	Inf	40.04M	36.482M	39.16M	36.232M	39.49M	36.332M	39.27M	36.282M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.755M	33.058M	34.65M	33.023M	34.755M	33.093M	34.685M	33.058M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	3.618M	3.14M	3.538M	3.14M	3.638M	3.12M	3.518M
5755MHz	Pass	500k	36.3M	36.432M	36.41M	36.182M	36.3M	36.282M	36.3M	36.282M
5795MHz	Pass	500k	36.3M	36.482M	36.3M	36.232M	36.3M	36.282M	36.41M	36.332M
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.56M	17.841M	21.45M	17.816M	21.34M	17.791M	21.67M	17.866M
5580MHz	Pass	Inf	21.45M	17.841M	21.395M	17.816M	21.34M	17.791M	21.45M	17.866M
5700MHz	Pass	Inf	21.45M	17.866M	21.395M	17.841M	21.395M	17.791M	21.615M	17.866M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.78M	13.943M	15.78M	13.958M	15.75M	13.928M	15.78M	13.958M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.76M	4.418M	3.78M	4.438M	3.76M	4.338M	3.74M	4.318M
5745MHz	Pass	500k	17.545M	17.866M	17.6M	17.816M	17.545M	17.791M	17.6M	17.891M
5785MHz	Pass	500k	17.655M	17.866M	17.6M	17.841M	17.6M	17.816M	17.545M	17.891M
5825MHz	Pass	500k	17.545M	17.841M	17.6M	17.841M	17.545M	17.791M	17.545M	17.866M
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	40.04M	36.432M	39.71M	36.282M	39.49M	36.432M	39.49M	36.332M
5550MHz	Pass	Inf	40.26M	36.382M	39.38M	36.282M	39.71M	36.382M	39.38M	36.282M
5670MHz	Pass	Inf	40.26M	36.482M	39.49M	36.282M	39.6M	36.382M	39.6M	36.382M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.79M	33.023M	34.615M	32.954M	34.895M	33.093M	34.65M	33.023M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.14M	3.598M	3.14M	3.718M	3.14M	3.618M	3.14M	3.558M
5755MHz	Pass	500k	36.3M	36.382M	36.19M	36.232M	36.3M	36.432M	36.3M	36.282M
5795MHz	Pass	500k	36.41M	36.482M	36.3M	36.232M	36.41M	36.382M	36.3M	36.332M
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	81.62M	75.562M	81.4M	75.462M	81.4M	75.562M	81.4M	75.562M
5610MHz	Pass	Inf	82.28M	75.762M	81.84M	75.762M	81.4M	75.562M	81.62M	75.562M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.825M	72.339M	75.45M	72.339M	75.6M	72.489M	76.05M	72.489M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.12M	3.838M	3.12M	3.658M	3.12M	3.678M	3.12M	3.818M
5775MHz	Pass	500k	76.12M	75.862M	75.68M	75.562M	75.46M	75.662M	75.9M	75.662M
802.11ac VHT160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5570MHz	Pass	Inf	162.8M	153.923M	165M	154.123M	164.56M	154.123M	163.68M	153.923M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.395M	19.015M	21.285M	19.04M	21.45M	19.065M	21.505M	19.065M
5580MHz	Pass	Inf	21.395M	19.015M	21.395M	19.04M	21.505M	19.065M	21.505M	19.09M
5700MHz	Pass	Inf	21.34M	19.015M	21.175M	19.04M	21.34M	19.065M	21.45M	19.115M



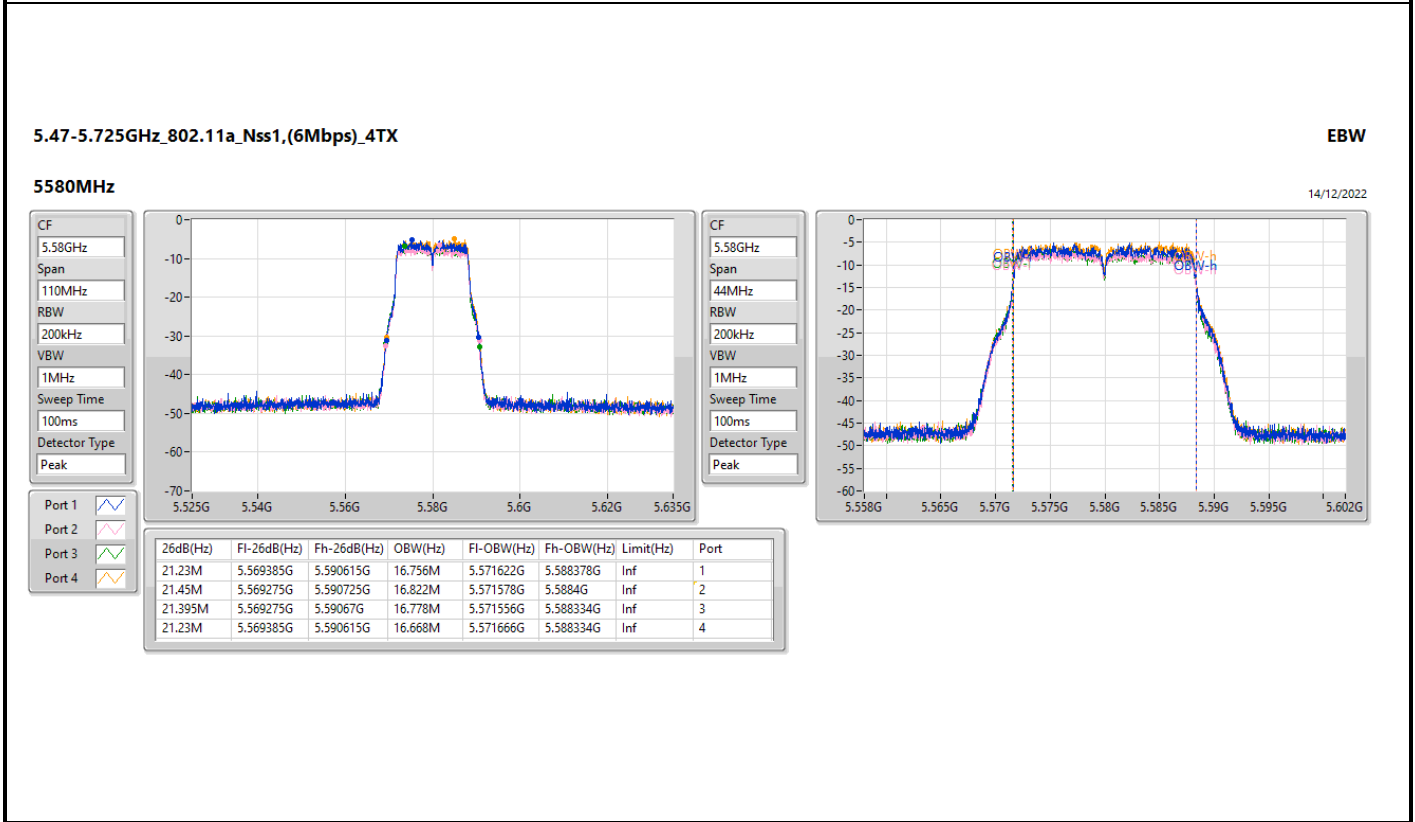
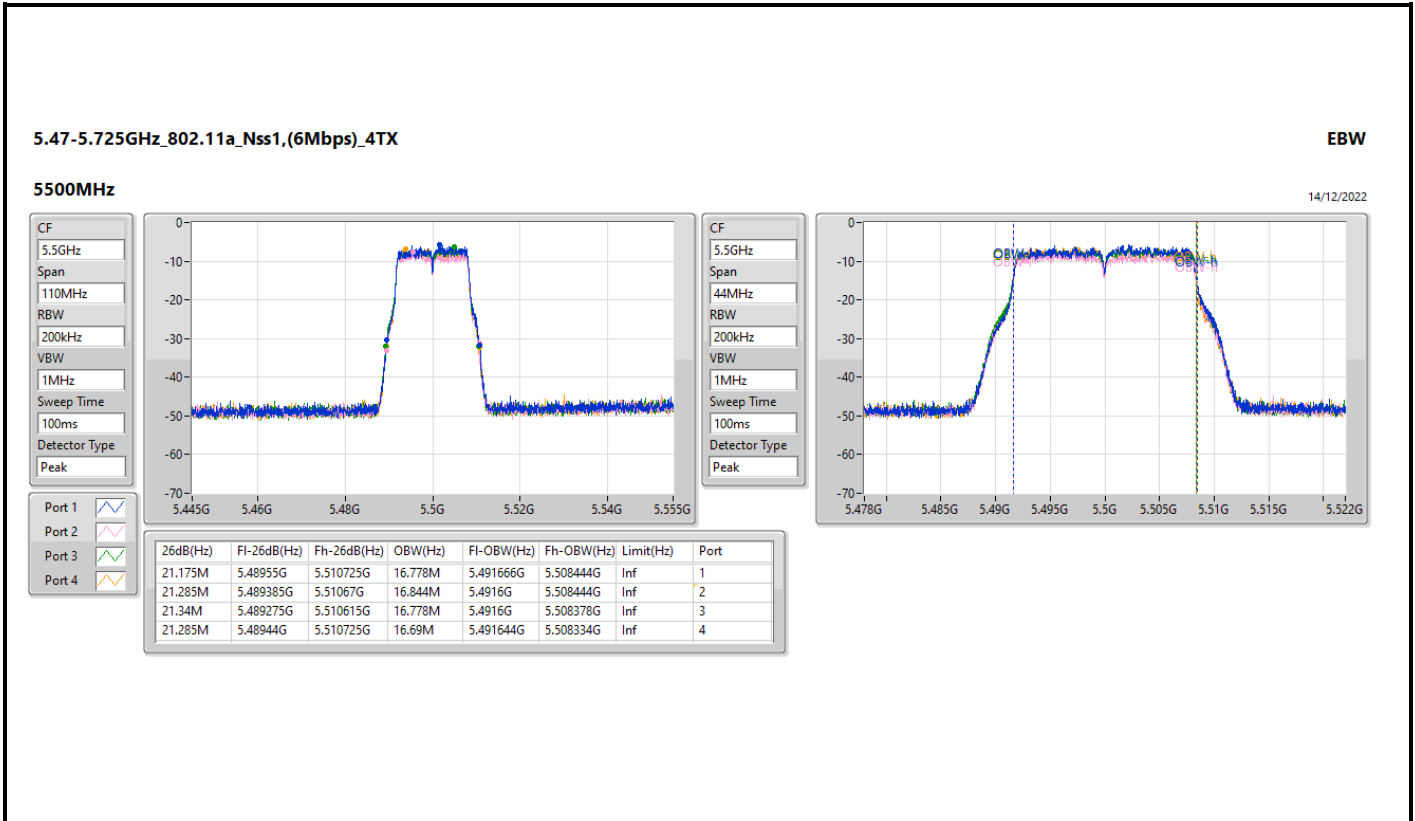


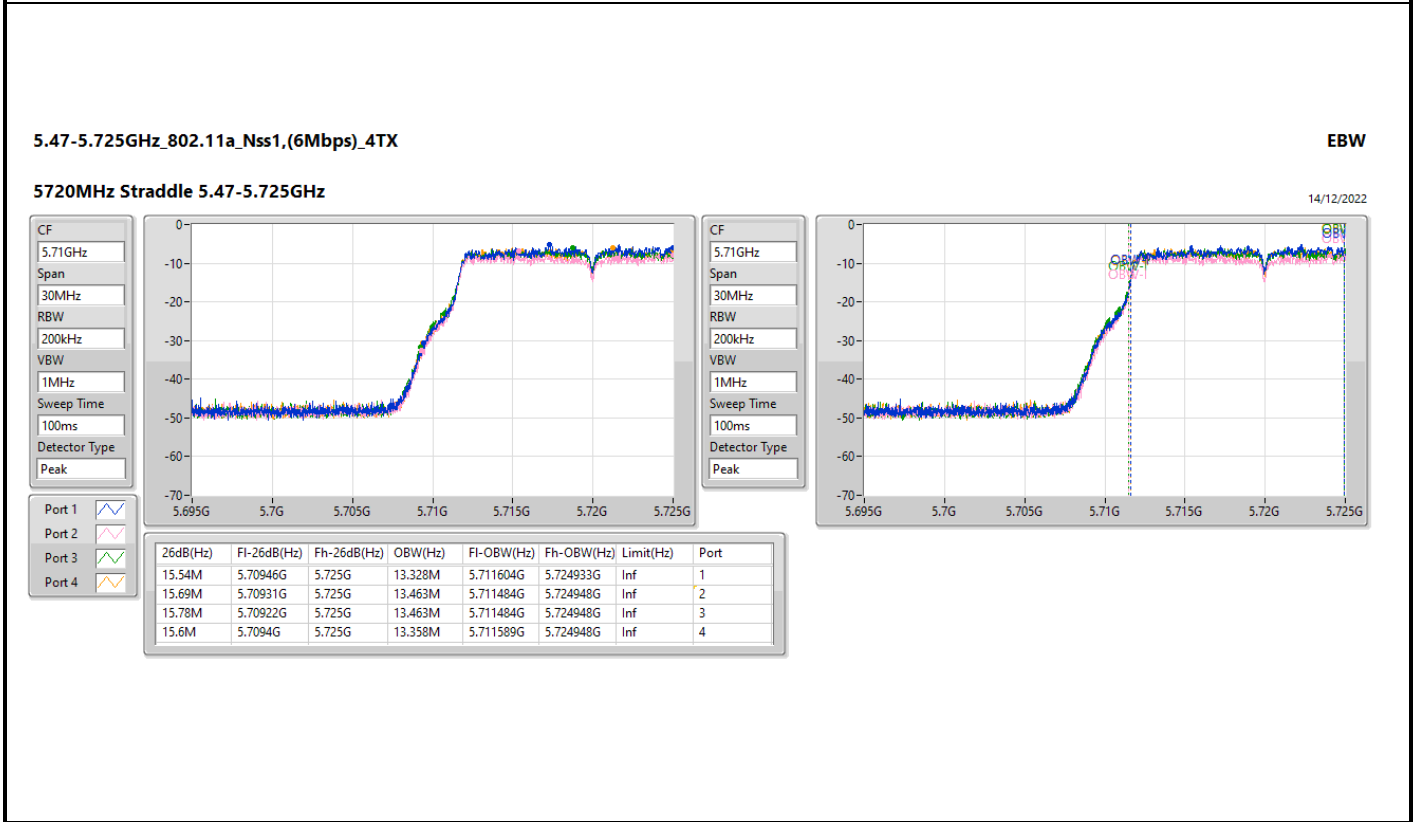
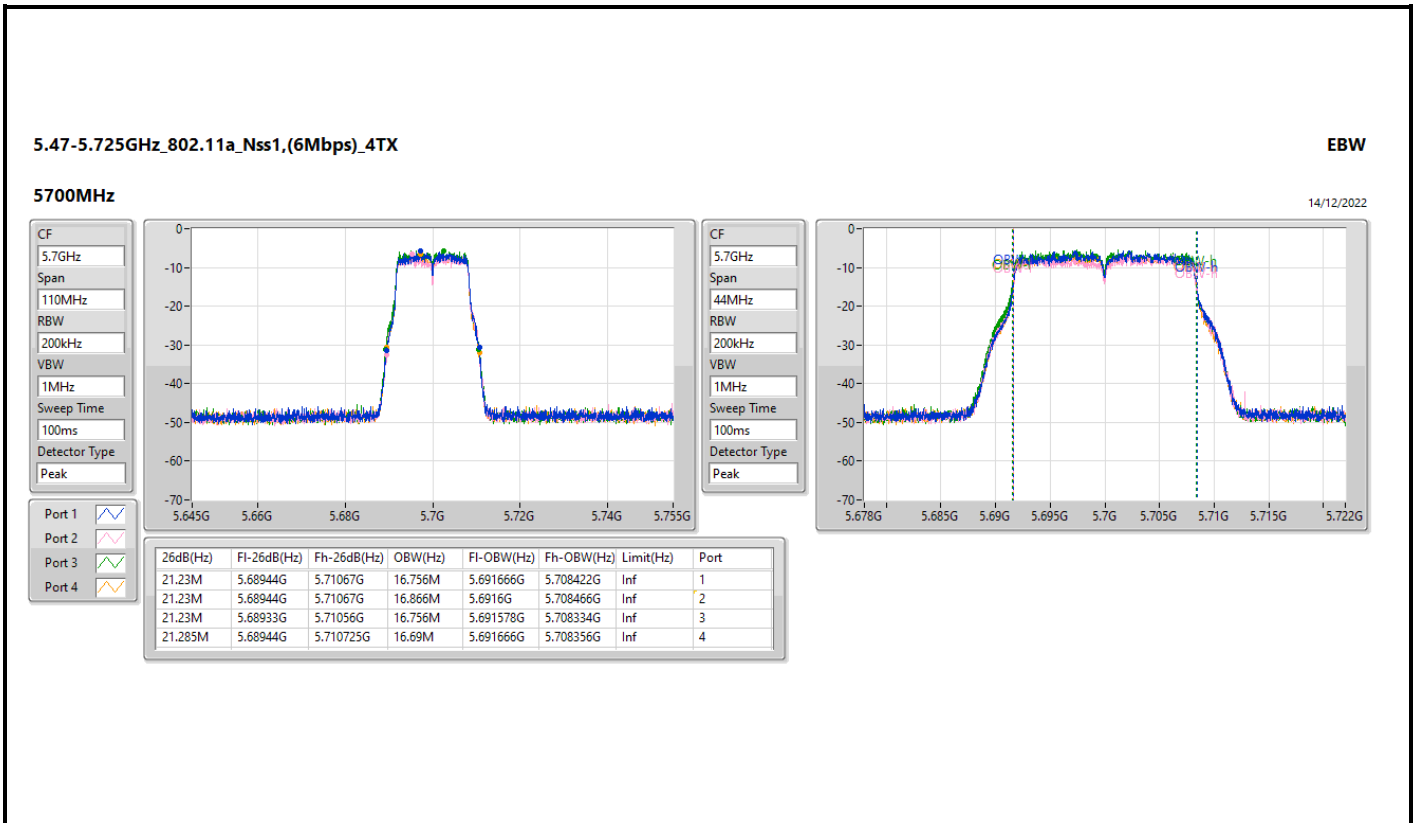
**EBW\_Non-Beamforming\_Radio 1**

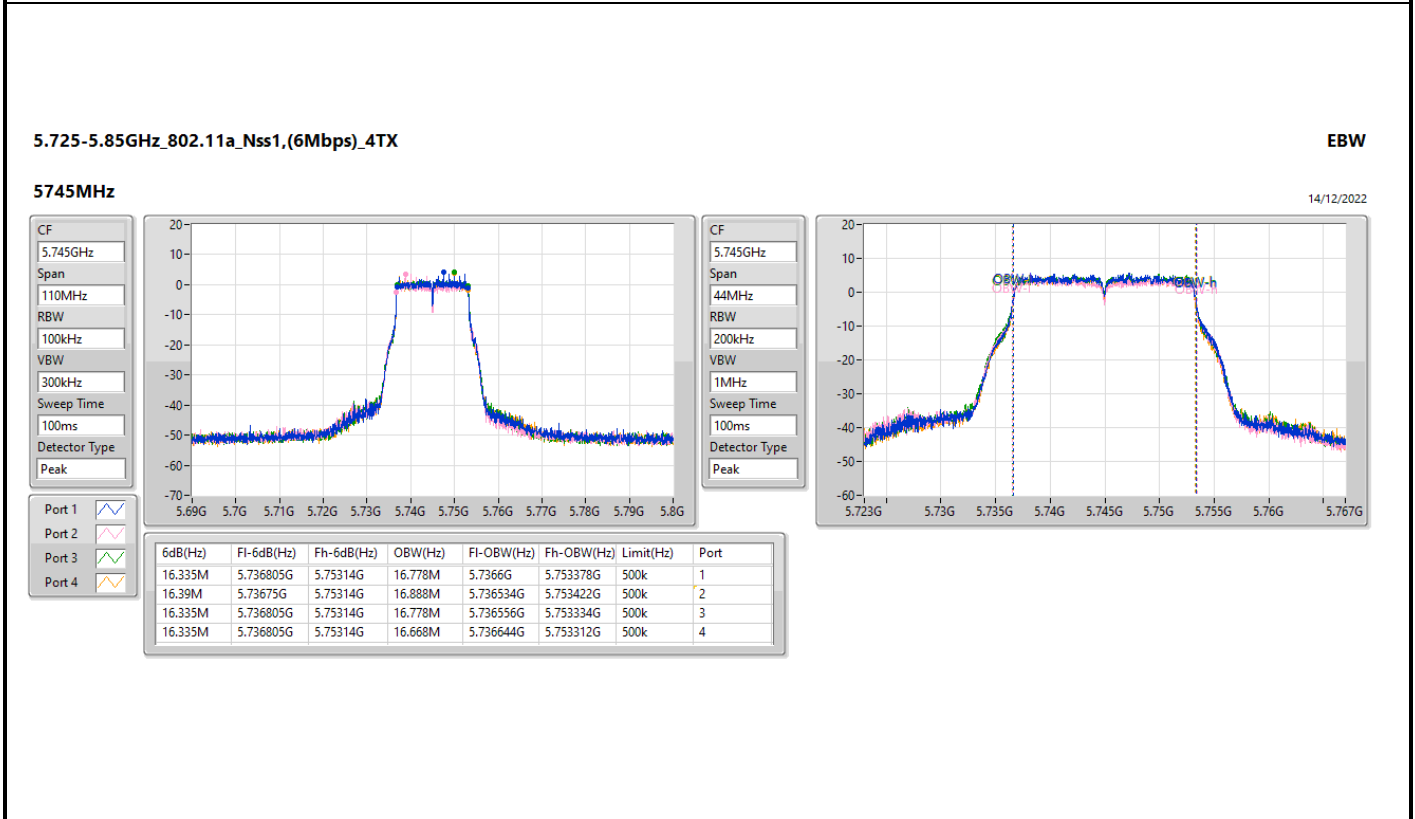
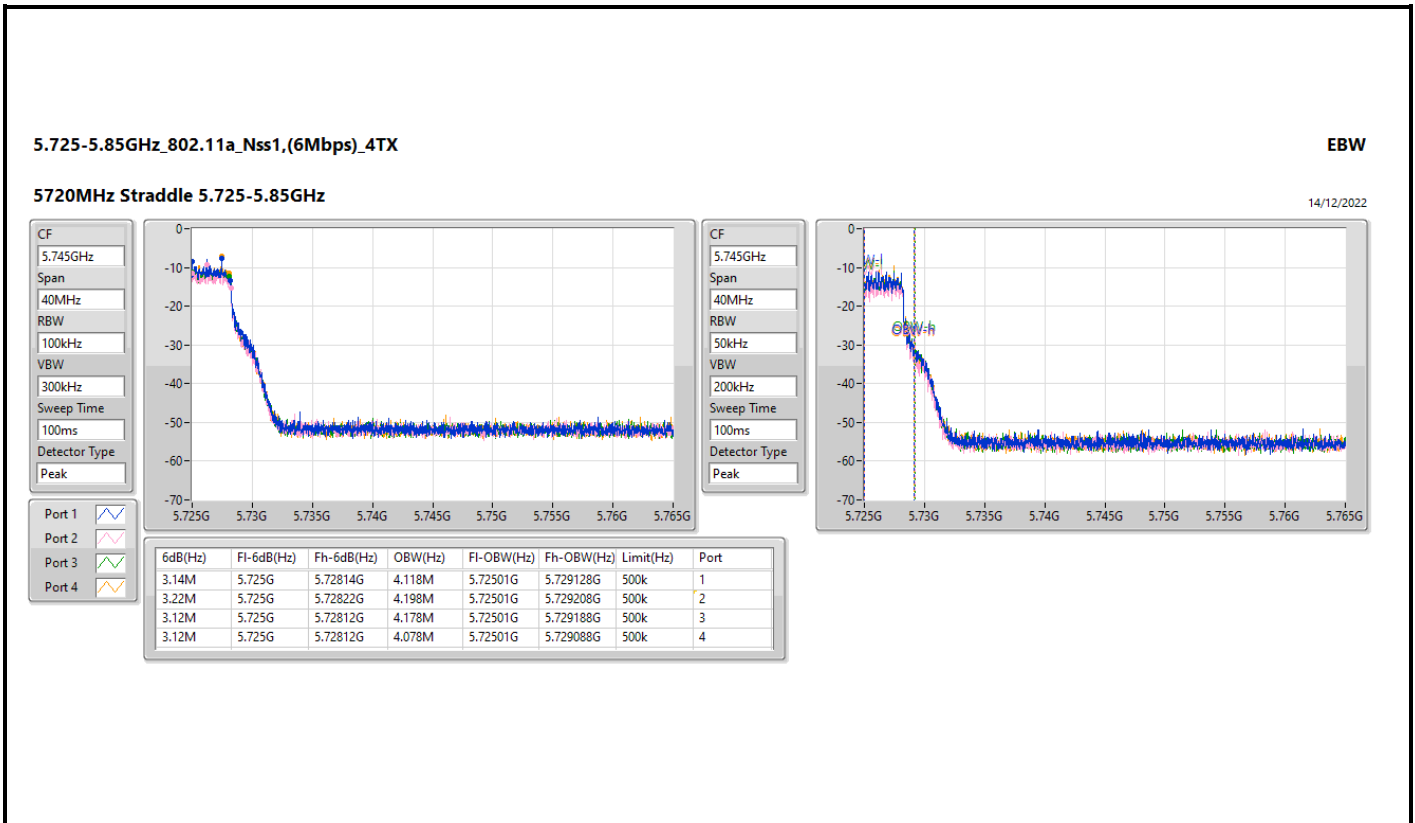
**Appendix B.1**

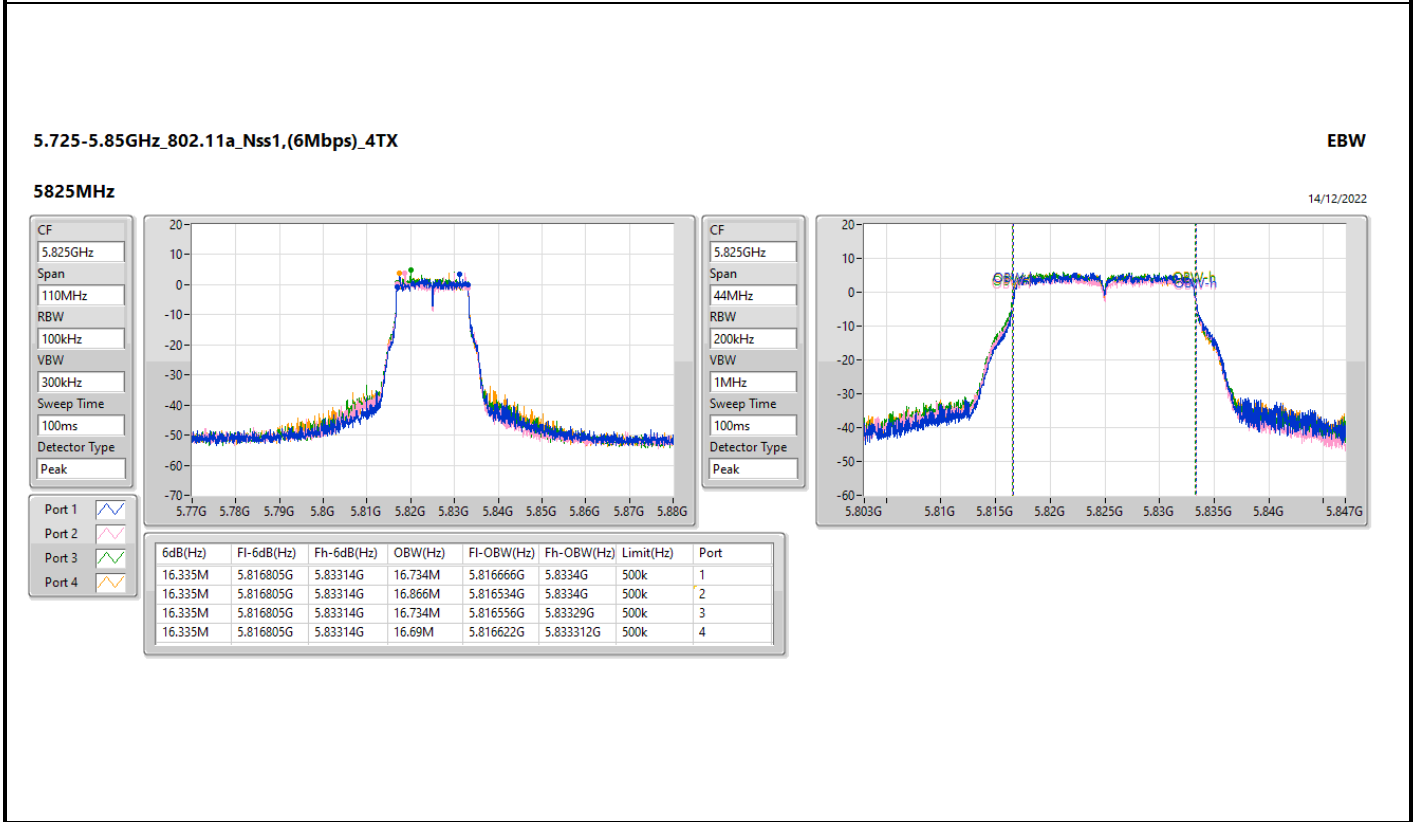
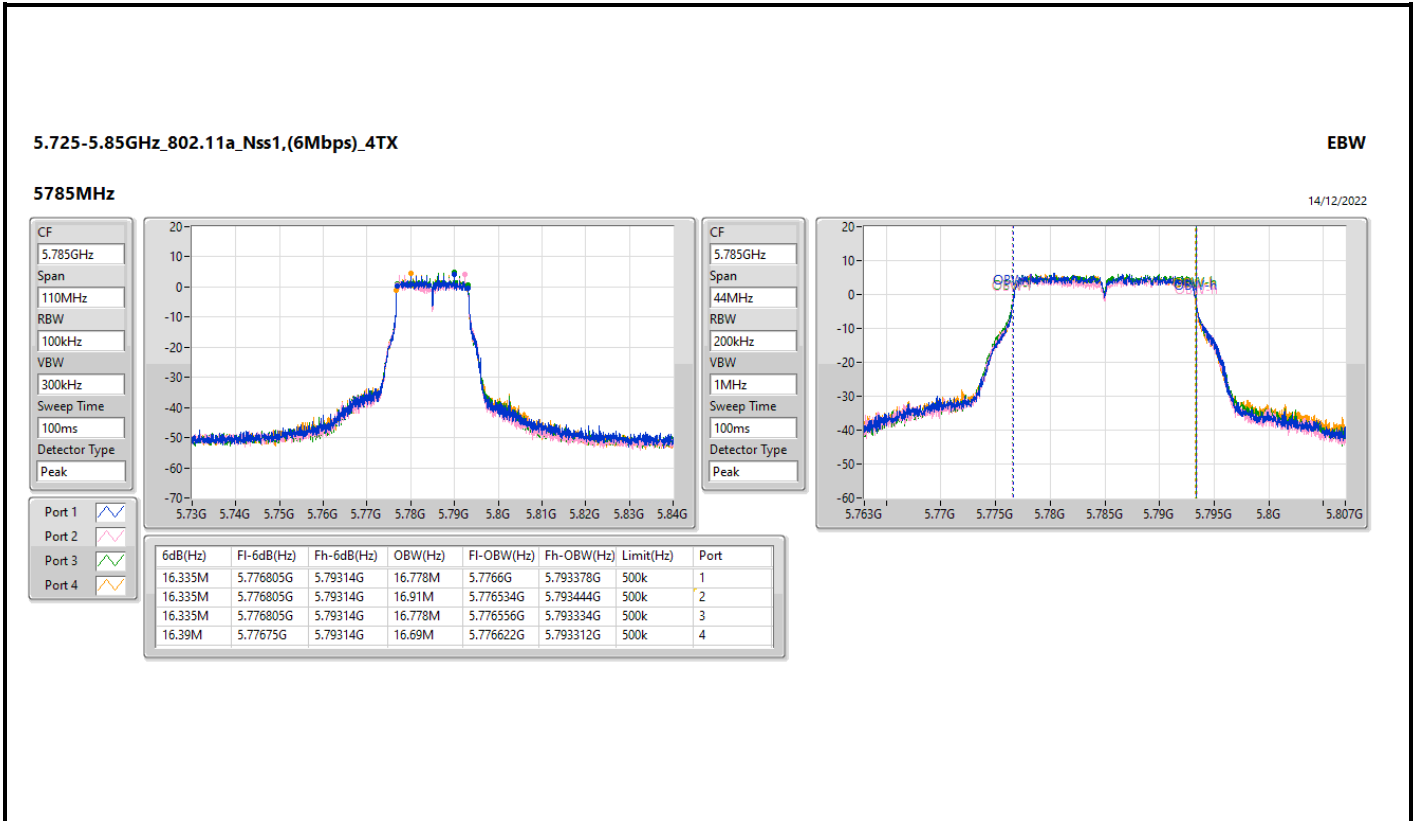
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.765M	14.513M	15.63M	14.498M	15.795M	14.558M	15.675M	14.513M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.44M	4.558M	4.42M	4.578M	4.44M	4.578M	4.5M	4.638M
5745MHz	Pass	500k	19.03M	19.015M	18.975M	19.015M	18.92M	19.04M	18.975M	19.115M
5785MHz	Pass	500k	18.975M	19.015M	18.975M	19.04M	18.975M	19.065M	19.03M	19.09M
5825MHz	Pass	500k	19.03M	19.015M	18.81M	19.04M	18.92M	19.04M	18.92M	19.09M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	40.04M	37.531M	39.38M	37.531M	39.49M	37.581M	39.6M	37.531M
5550MHz	Pass	Inf	40.04M	37.481M	39.38M	37.531M	39.49M	37.531M	39.6M	37.481M
5670MHz	Pass	Inf	40.15M	37.481M	39.27M	37.581M	39.49M	37.531M	39.71M	37.581M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.86M	33.513M	34.72M	33.583M	34.895M	33.653M	34.895M	33.583M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.74M	4.038M	3.84M	4.038M	3.78M	4.038M	3.78M	4.038M
5755MHz	Pass	500k	37.62M	37.481M	37.51M	37.581M	37.18M	37.531M	37.51M	37.531M
5795MHz	Pass	500k	37.62M	37.581M	37.62M	37.581M	37.51M	37.581M	37.07M	37.531M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	82.28M	76.962M	81.84M	76.962M	81.84M	76.962M	81.62M	76.962M
5610MHz	Pass	Inf	82.5M	77.161M	82.06M	77.161M	81.84M	77.061M	81.4M	76.962M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.675M	73.013M	75.675M	72.939M	76.05M	73.013M	75.975M	73.238M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.82M	4.298M	3.7M	4.178M	3.7M	4.058M	3.68M	4.098M
5775MHz	Pass	500k	76.12M	77.261M	75.68M	77.061M	76.12M	76.962M	76.34M	77.061M
802.11ax HEW160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5570MHz	Pass	Inf	164.12M	154.523M	164.12M	155.122M	164.56M	155.122M	164.12M	154.723M

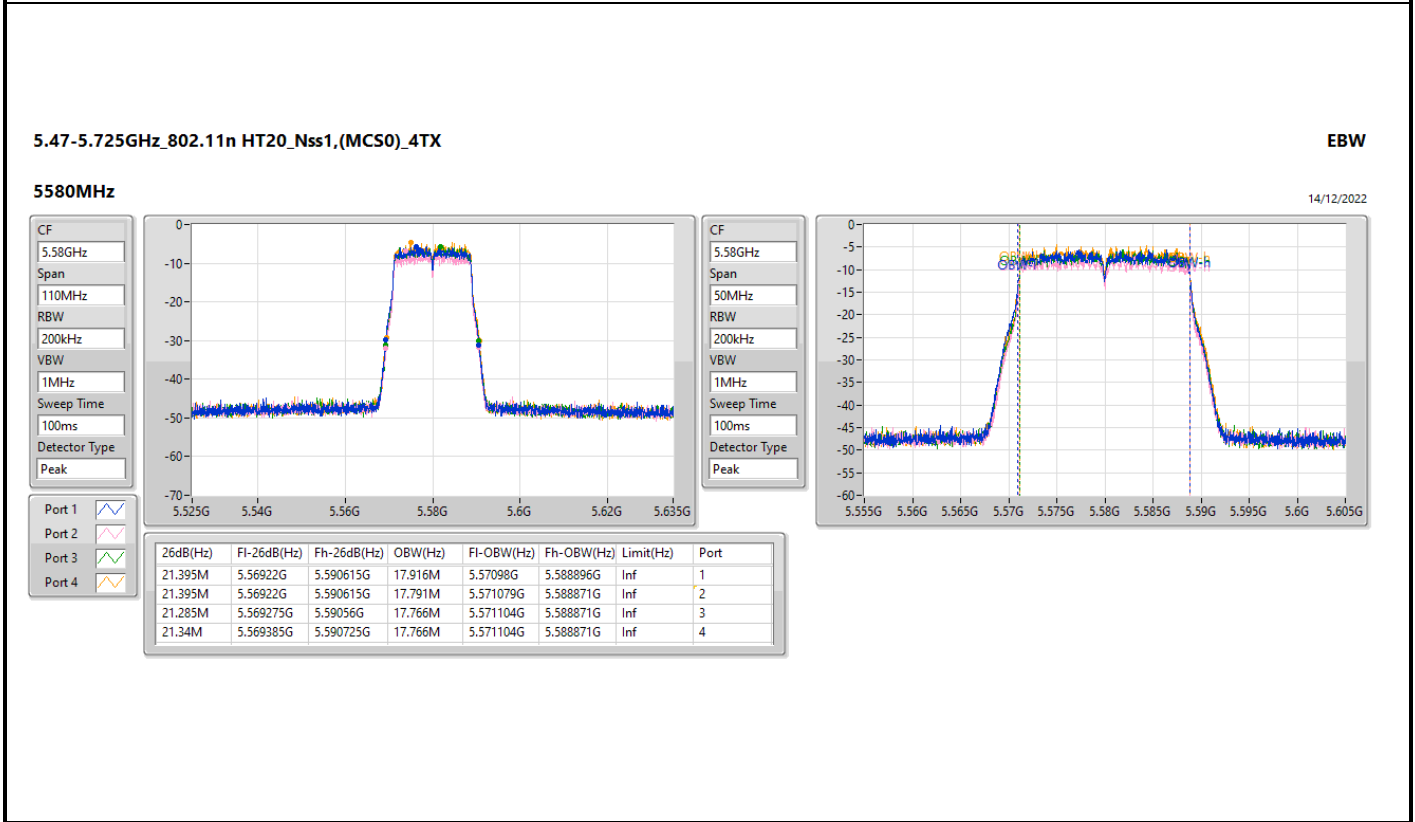
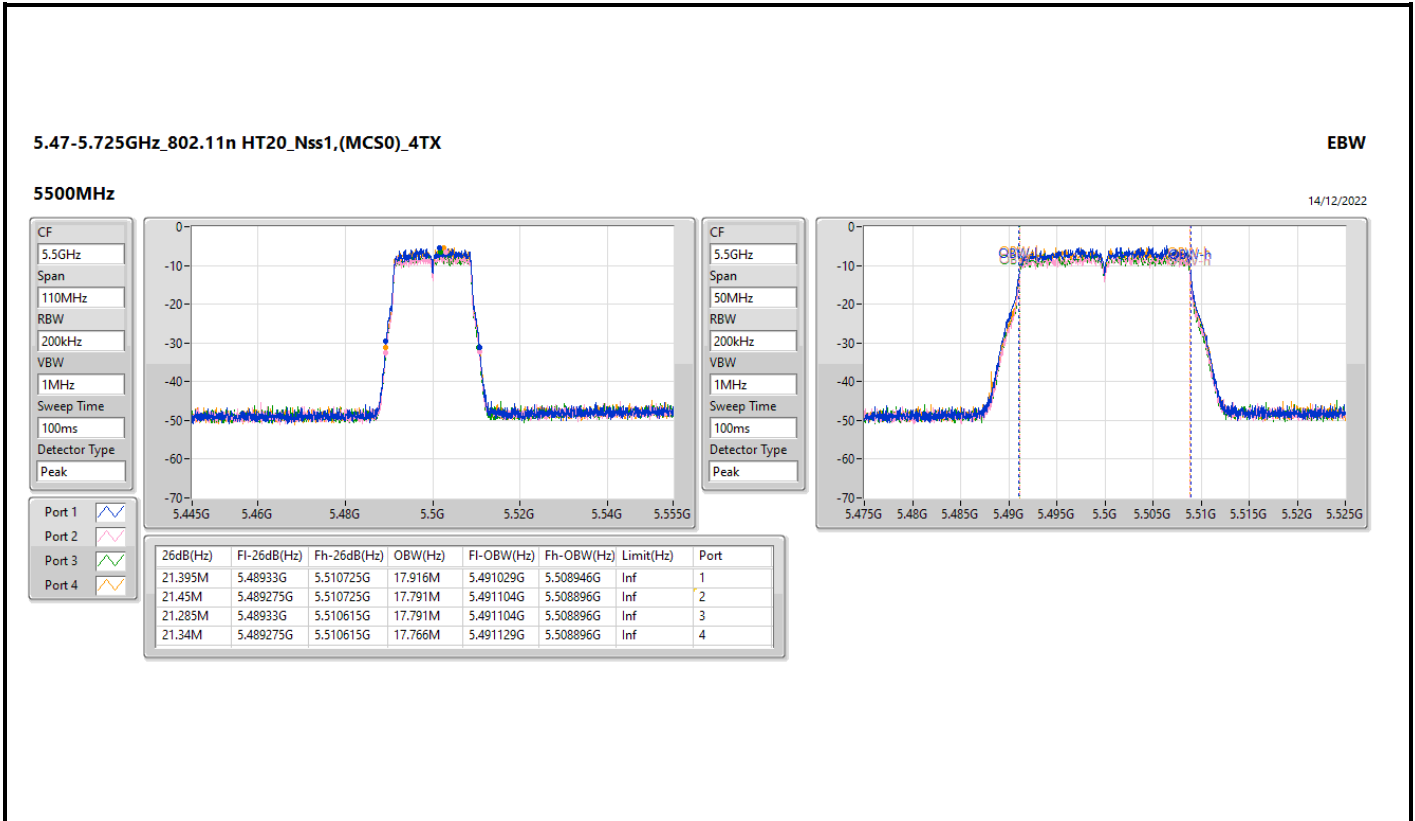
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band  
 Port X-OBW = Port X 99% occupied bandwidth









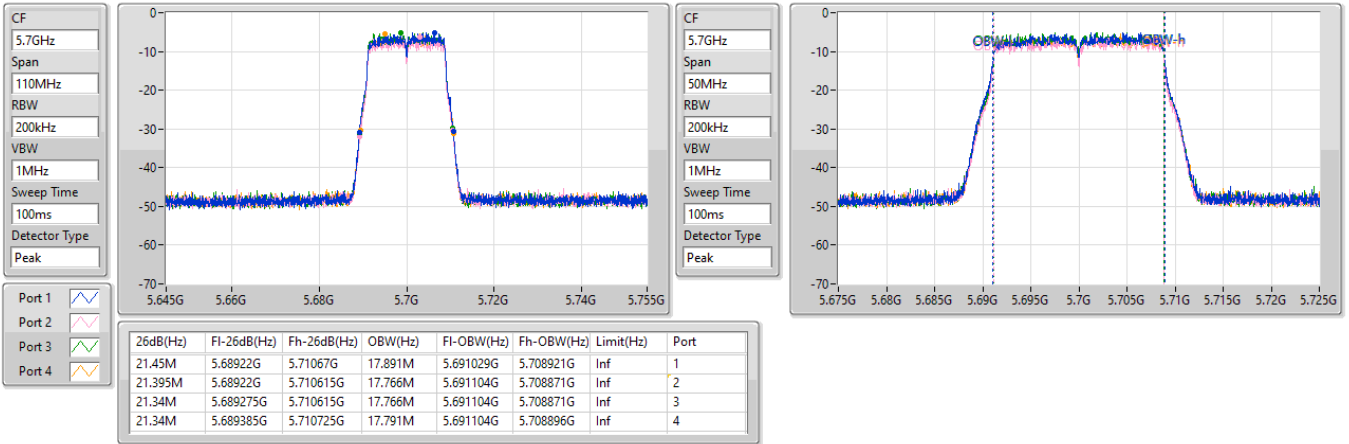


5.47-5.725GHz\_802.11n\_HT20\_Nss1,(MCS0)\_4TX

EBW

5700MHz

14/12/2022

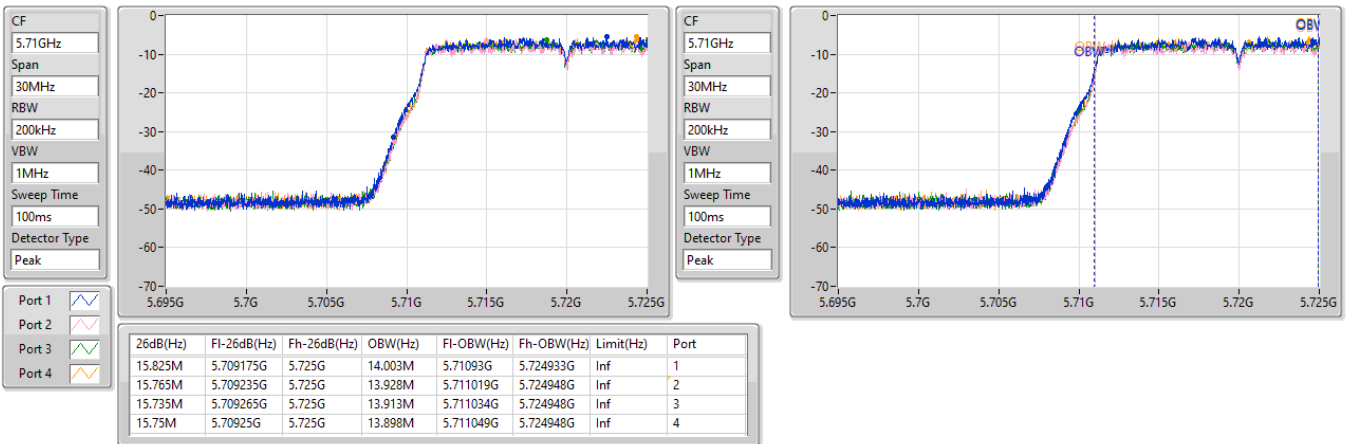


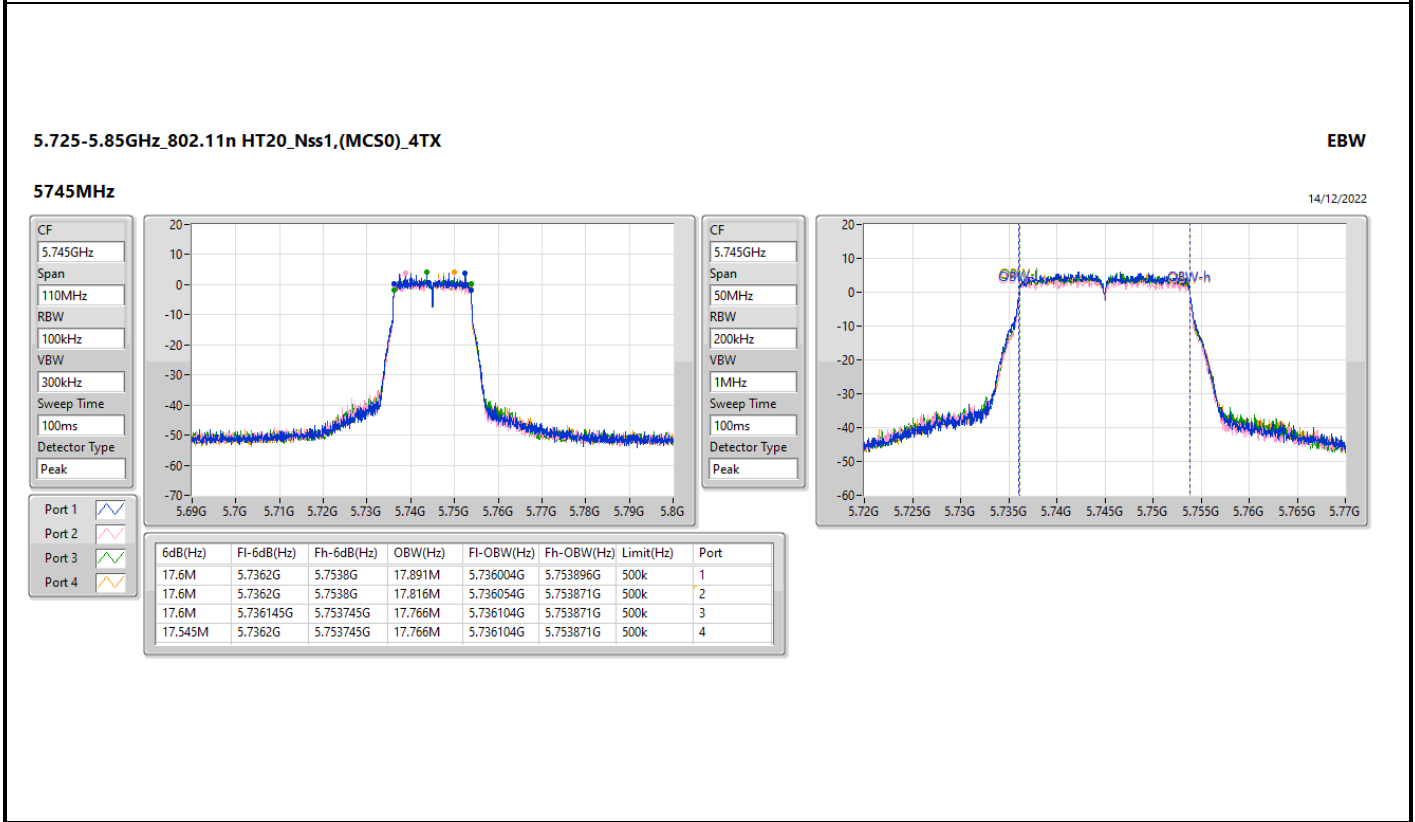
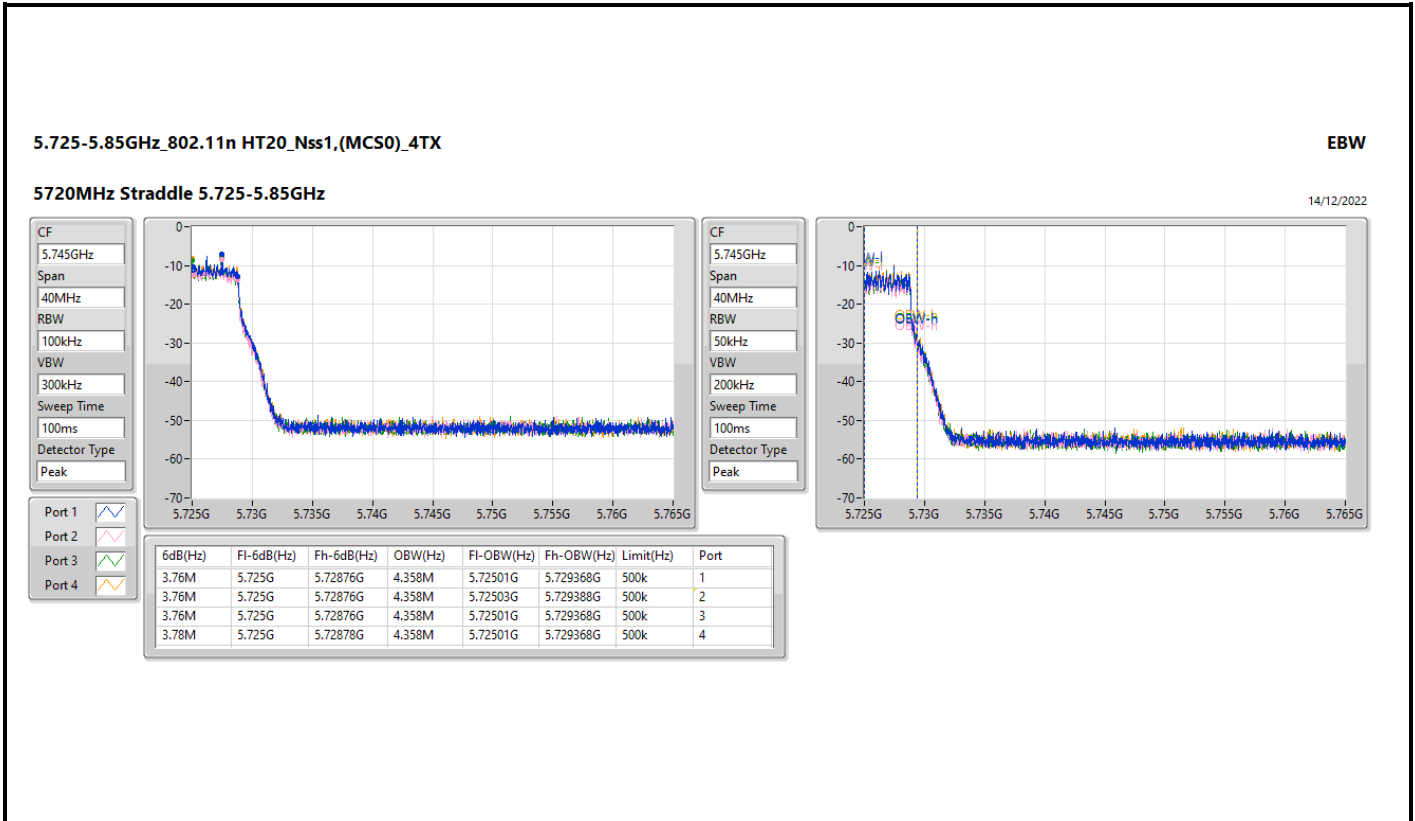
5.47-5.725GHz\_802.11n\_HT20\_Nss1,(MCS0)\_4TX

EBW

5720MHz Straddle 5.47-5.725GHz

14/12/2022





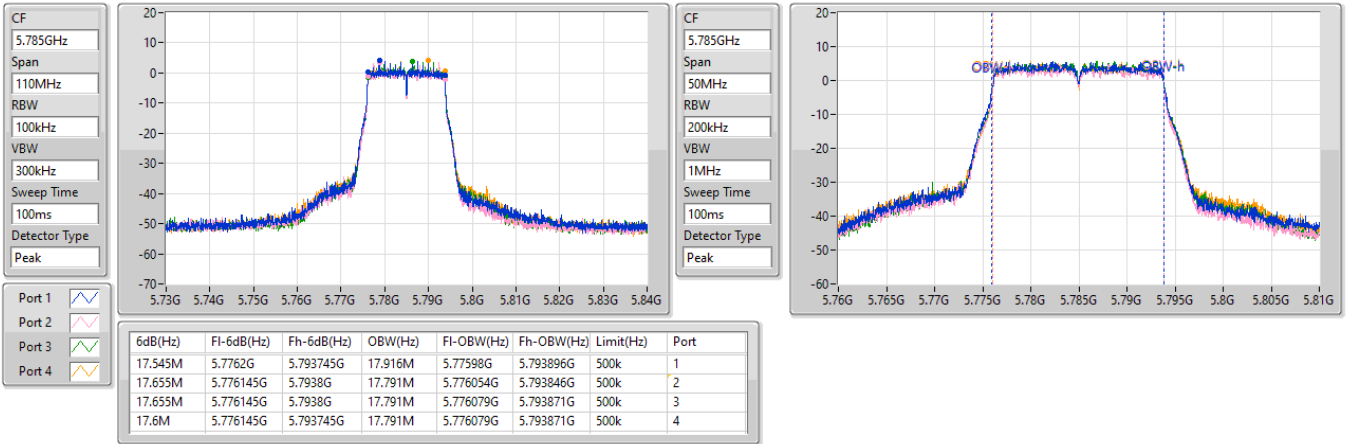


5.725-5.85GHz\_802.11n\_HT20\_Nss1,(MCS0)\_4TX

EBW

5785MHz

14/12/2022

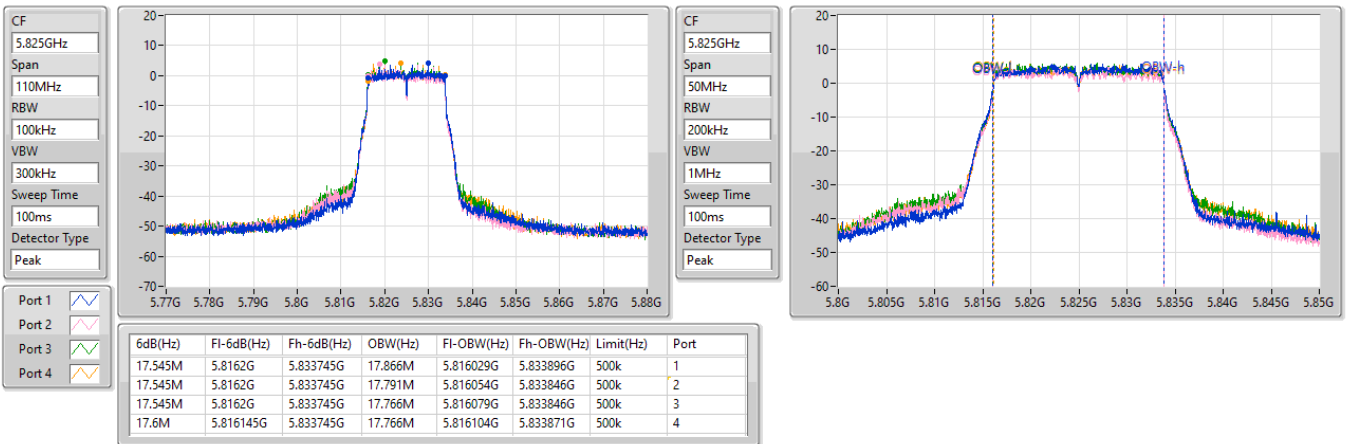


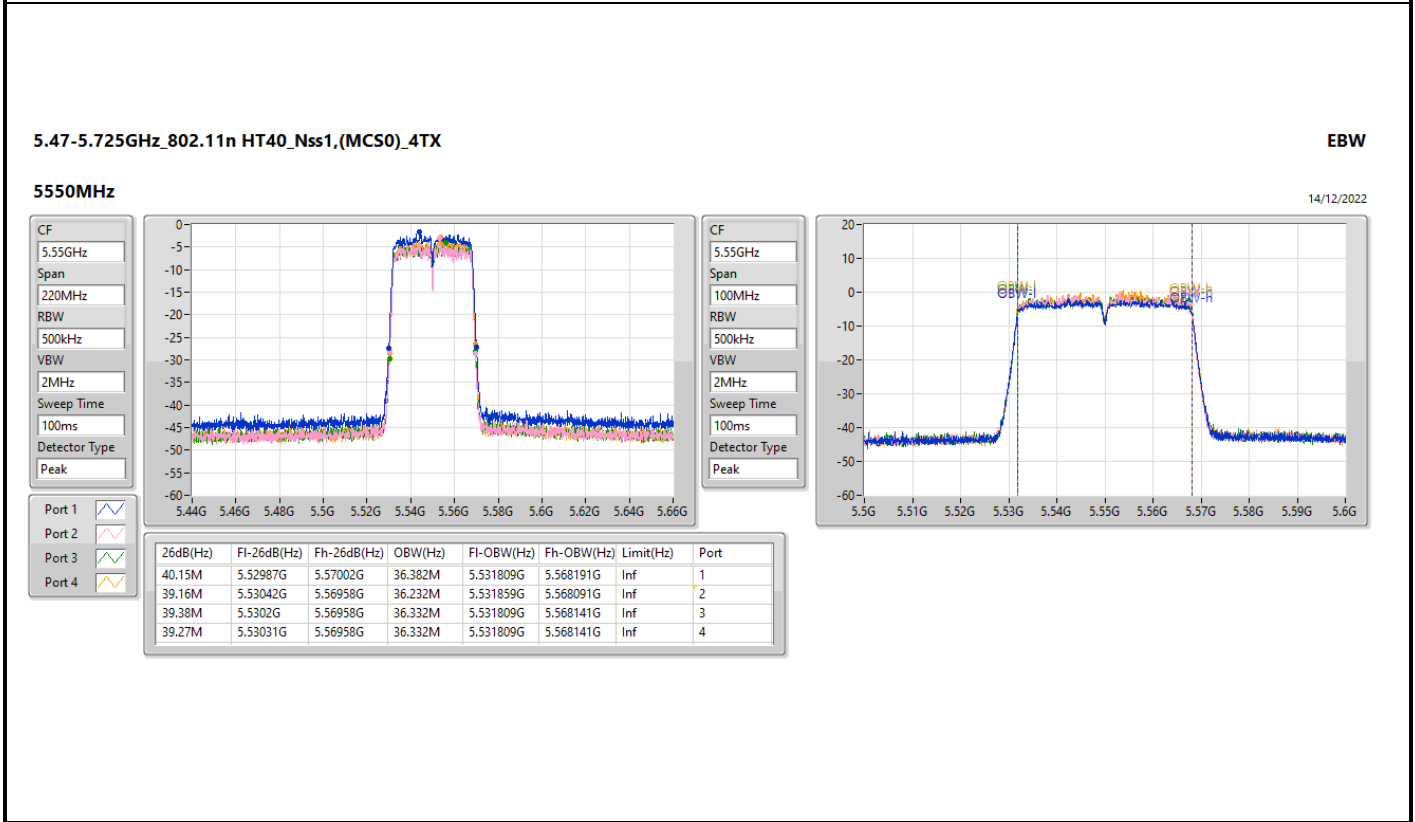
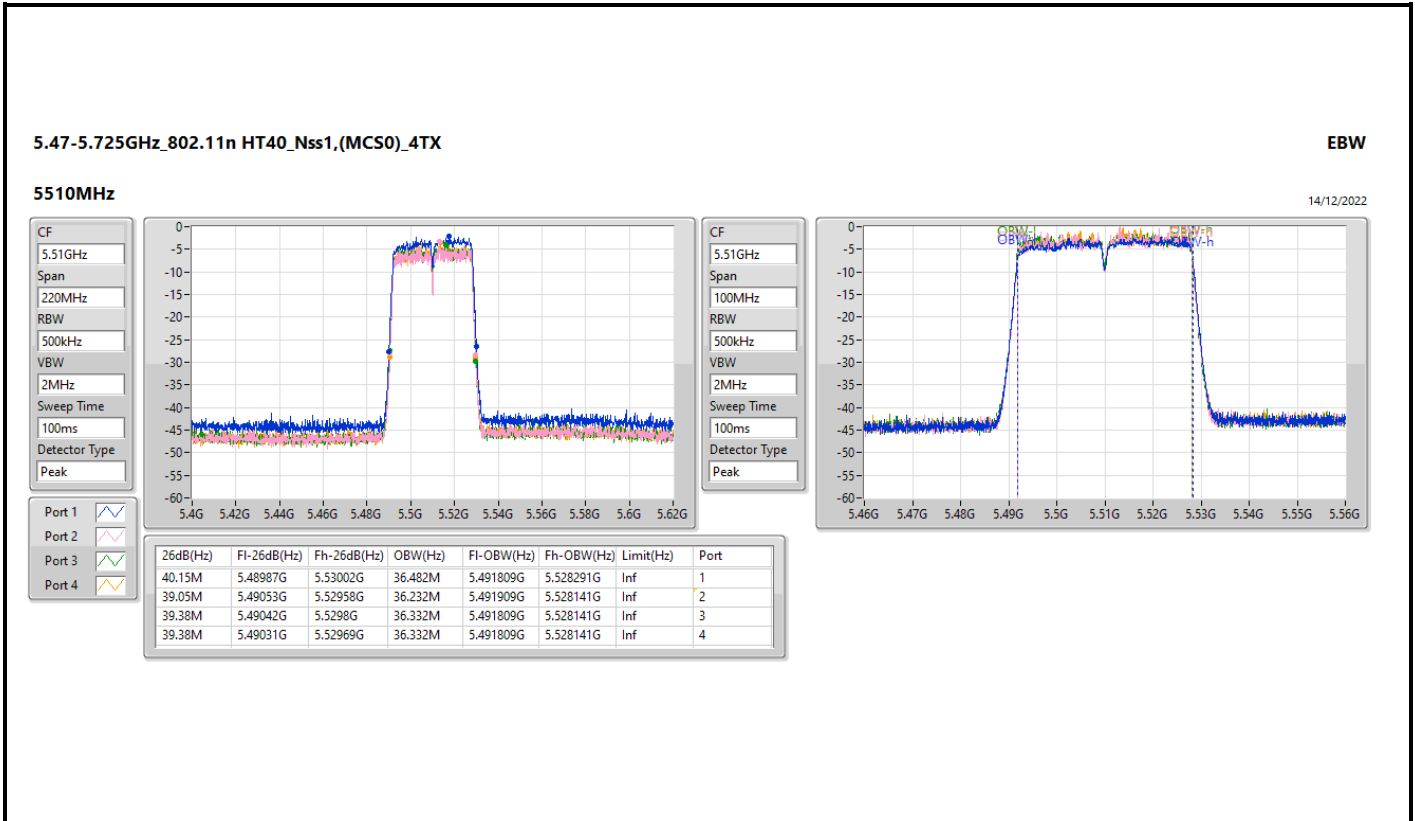
5.725-5.85GHz\_802.11n\_HT20\_Nss1,(MCS0)\_4TX

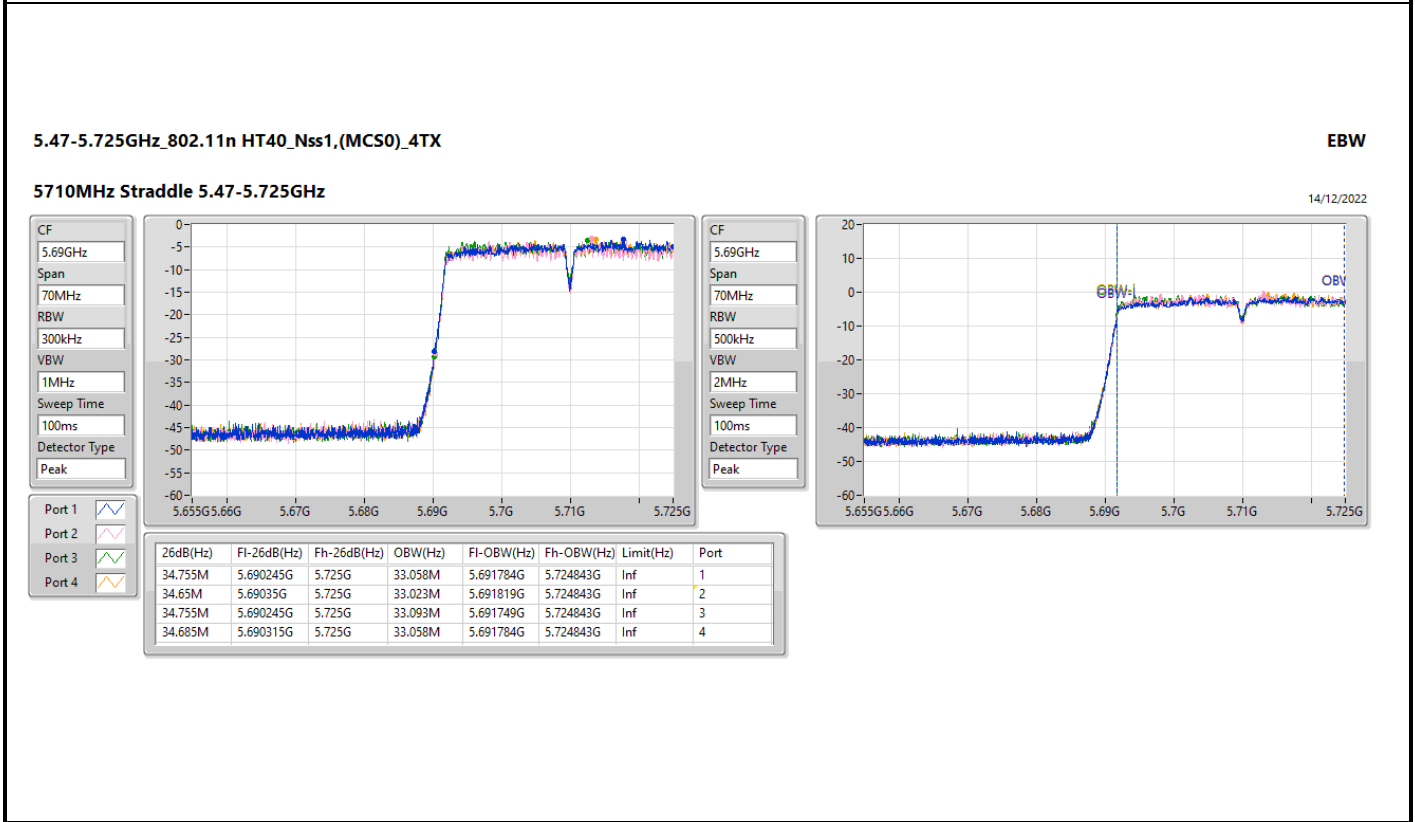
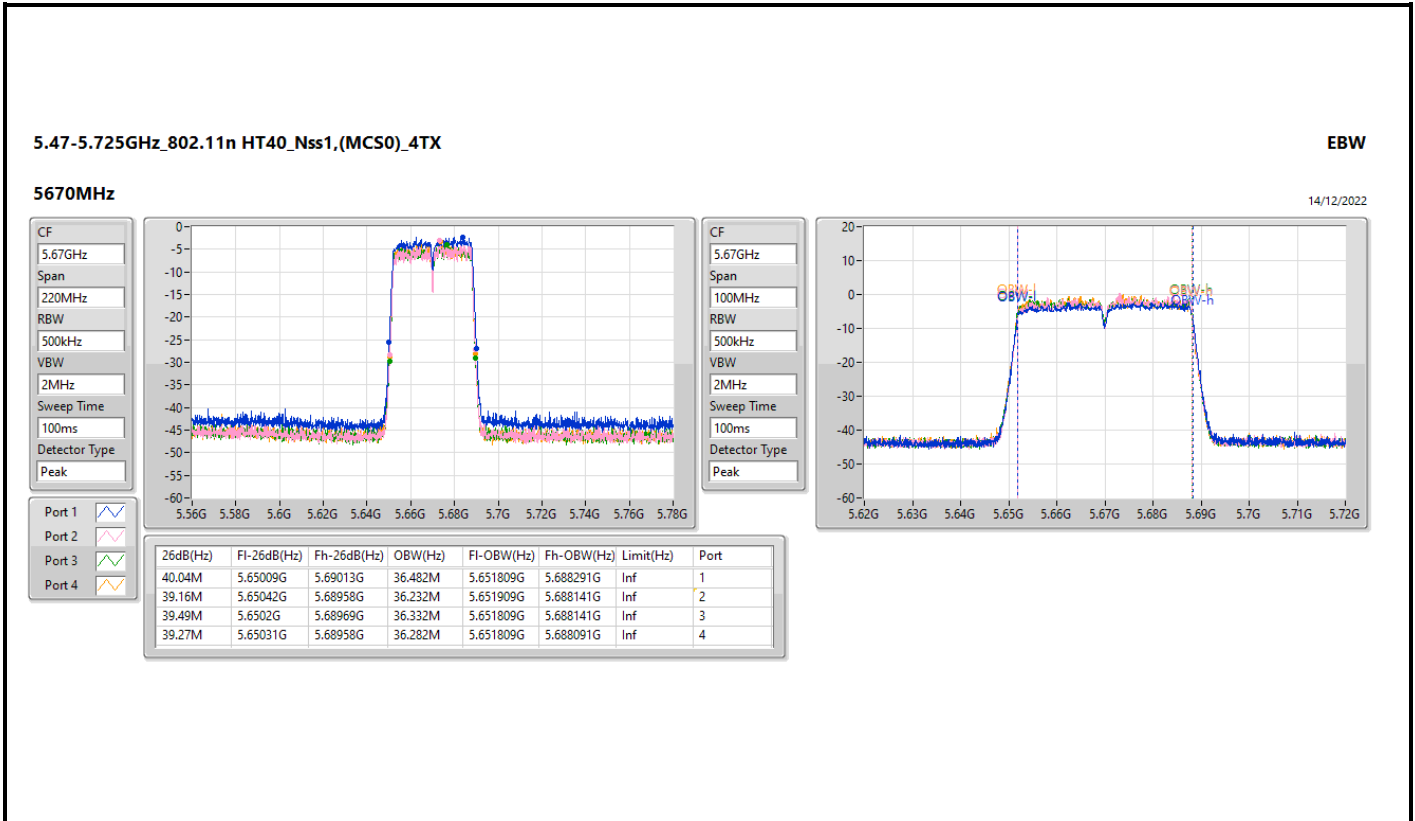
EBW

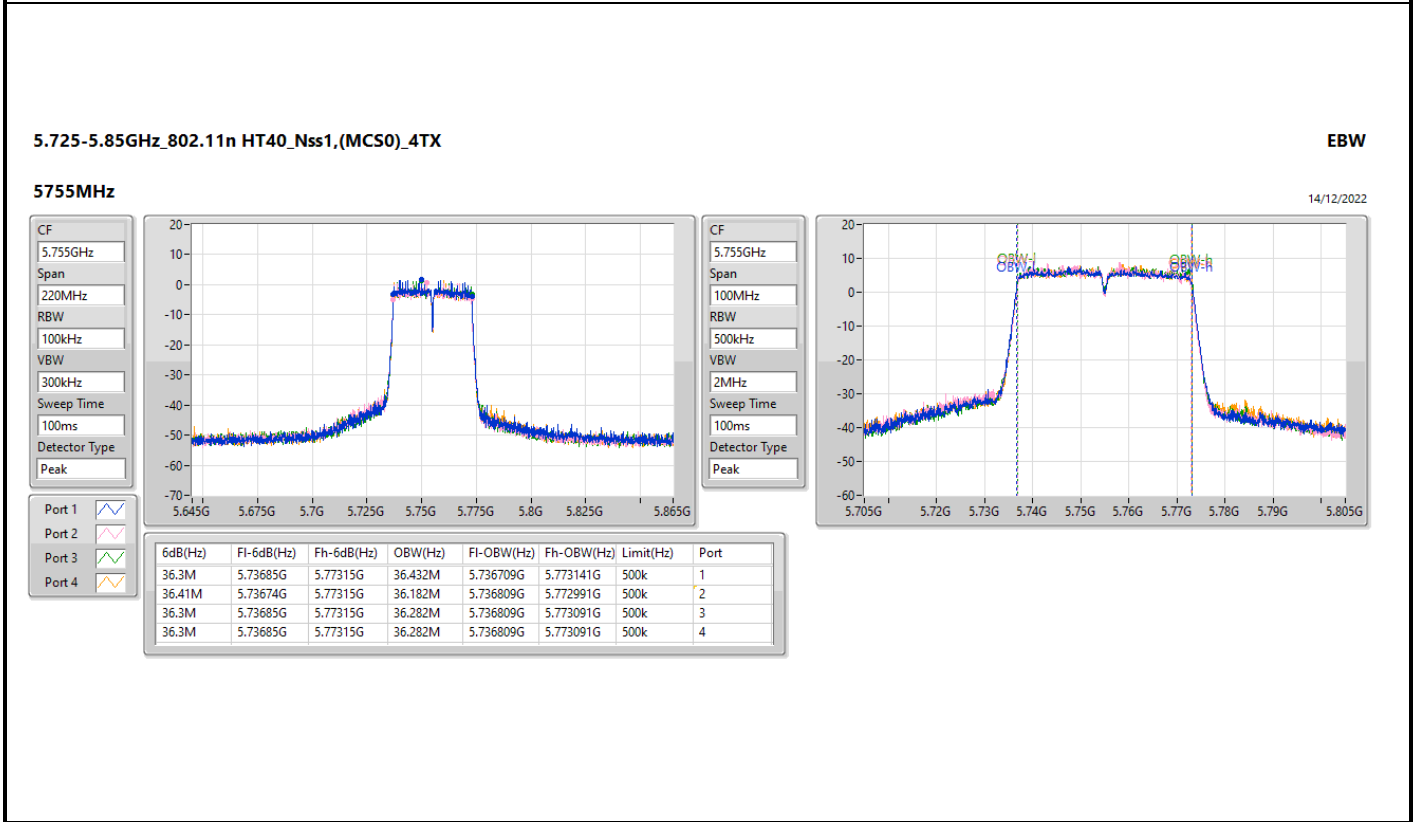
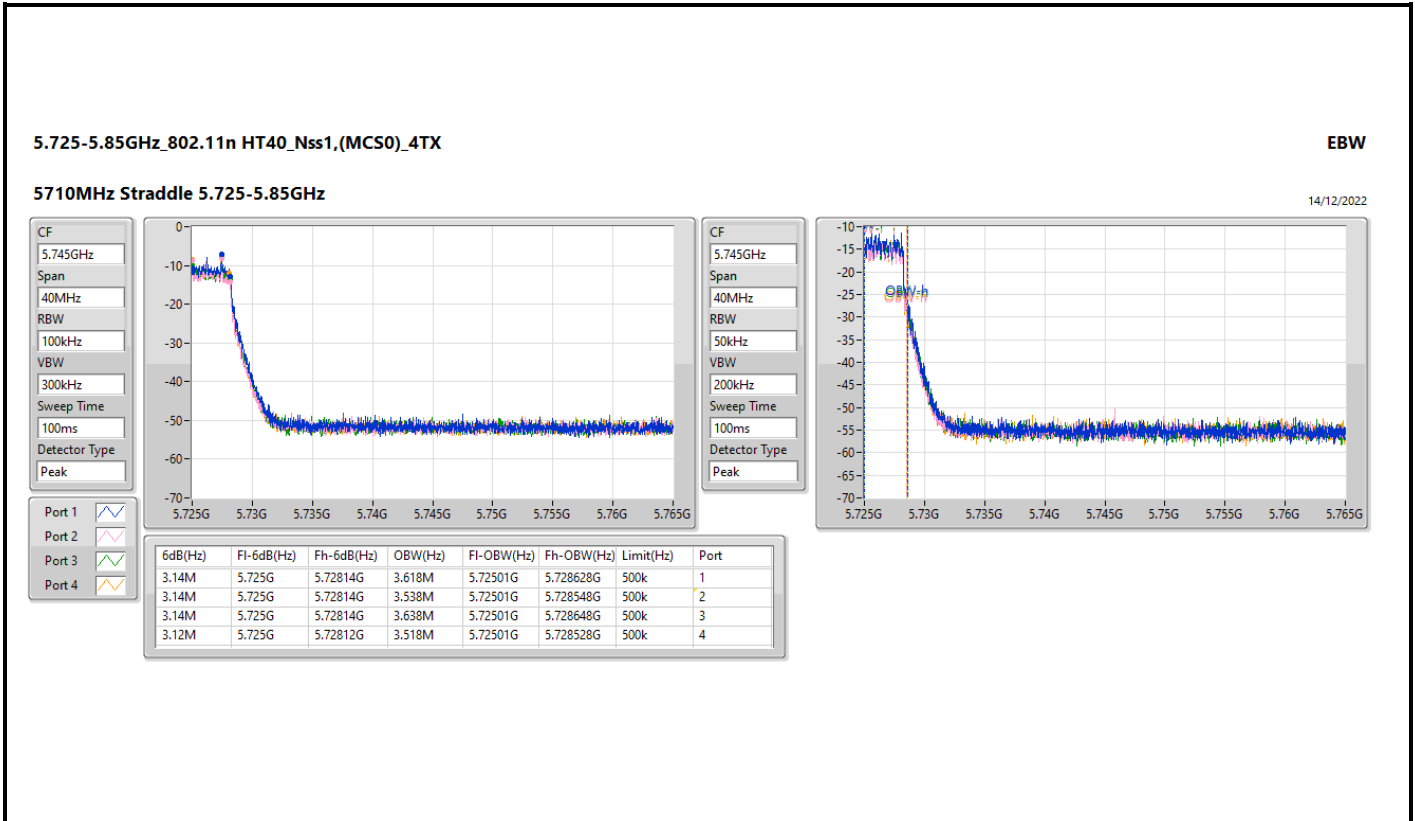
5825MHz

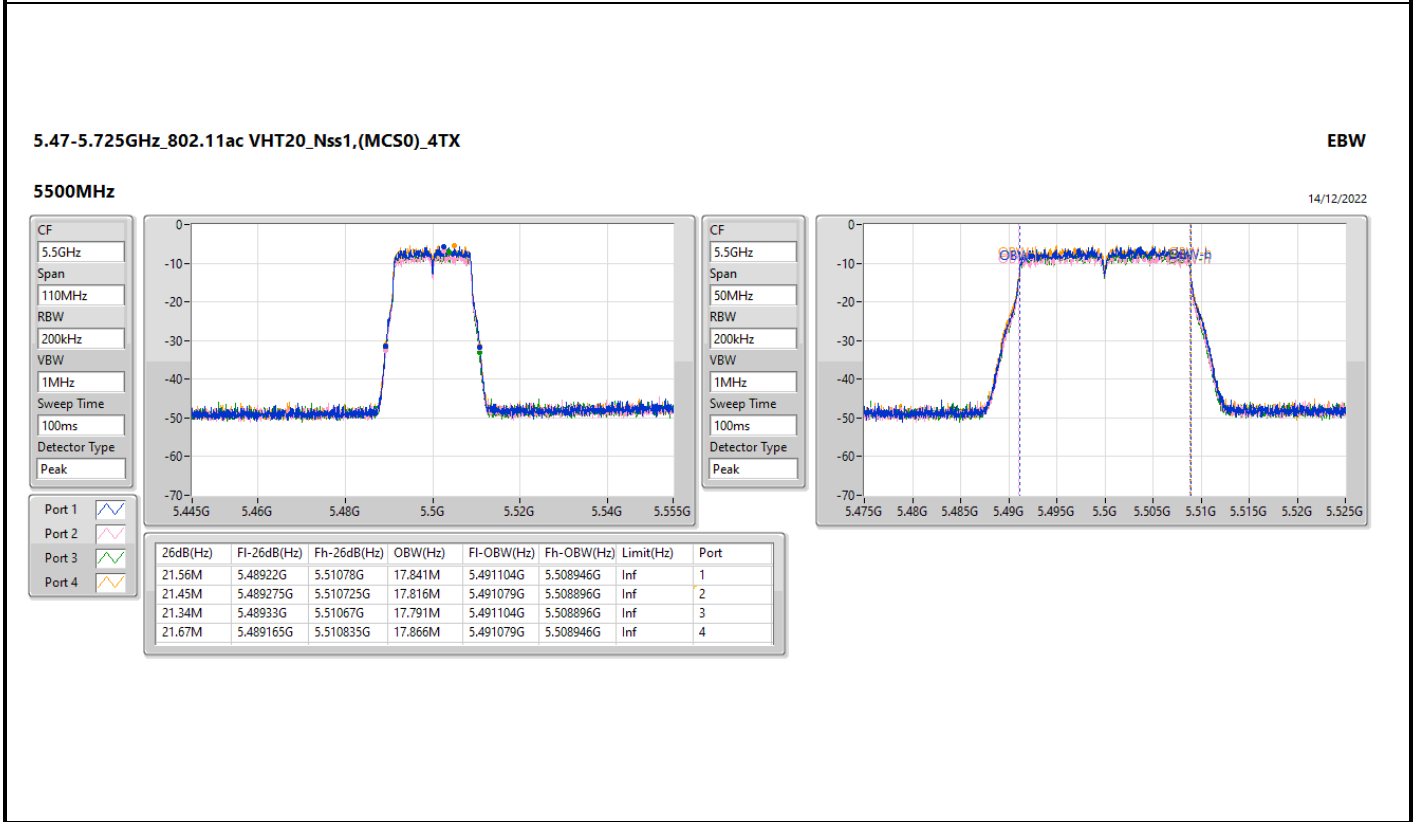
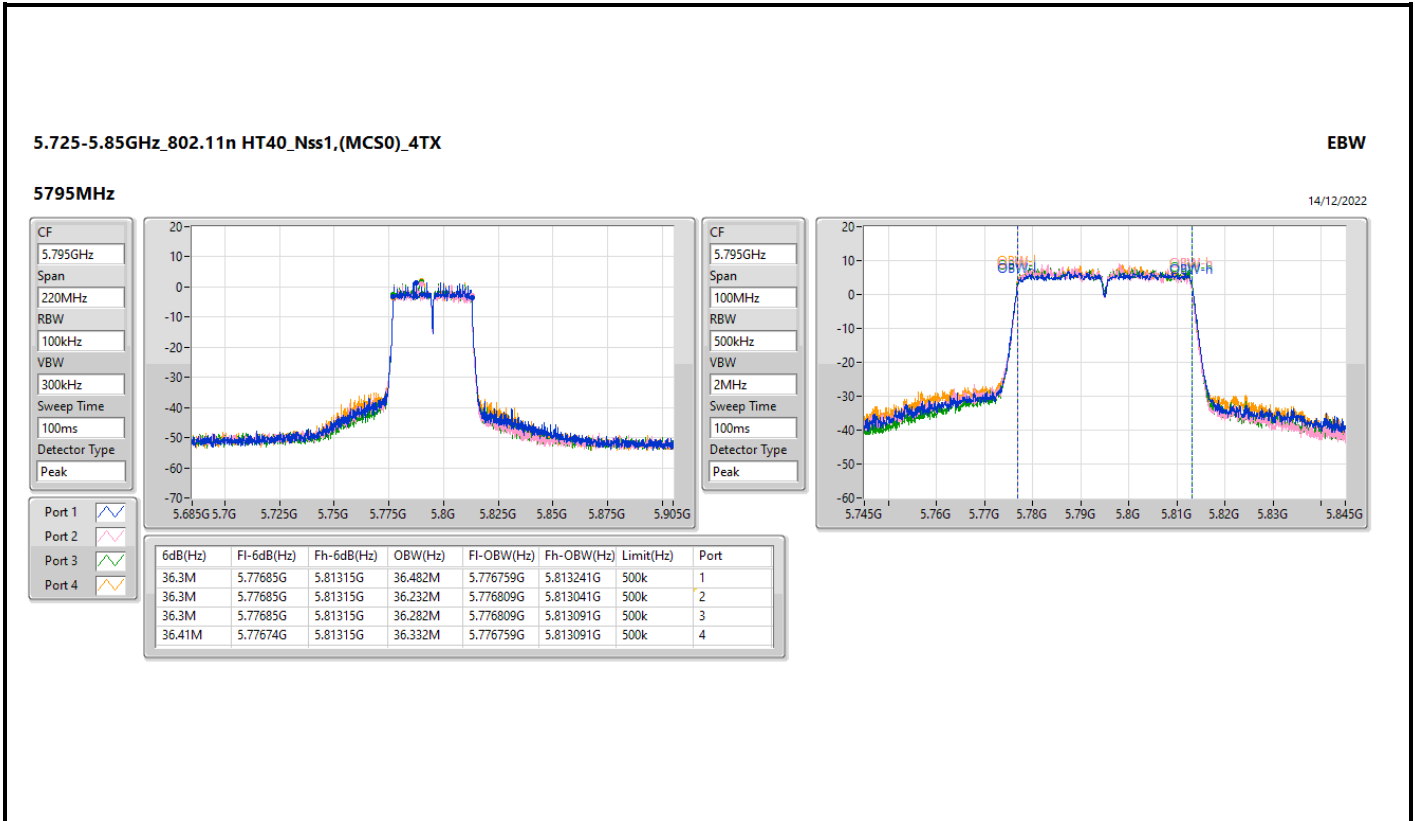
14/12/2022









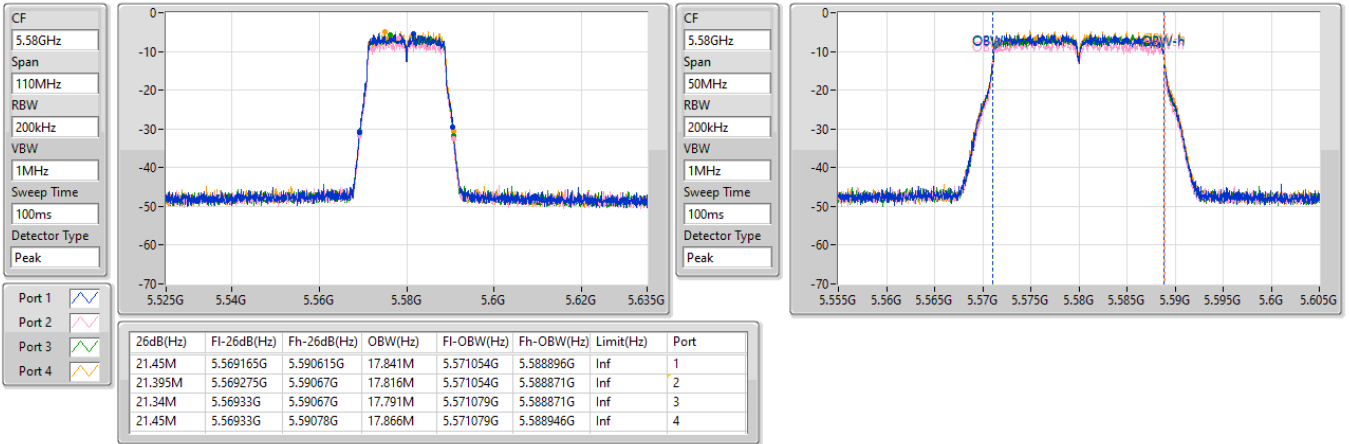


5.47-5.725GHz\_802.11ac\_VHT20\_Nss1,(MCS0)\_4TX

EBW

5580MHz

14/12/2022

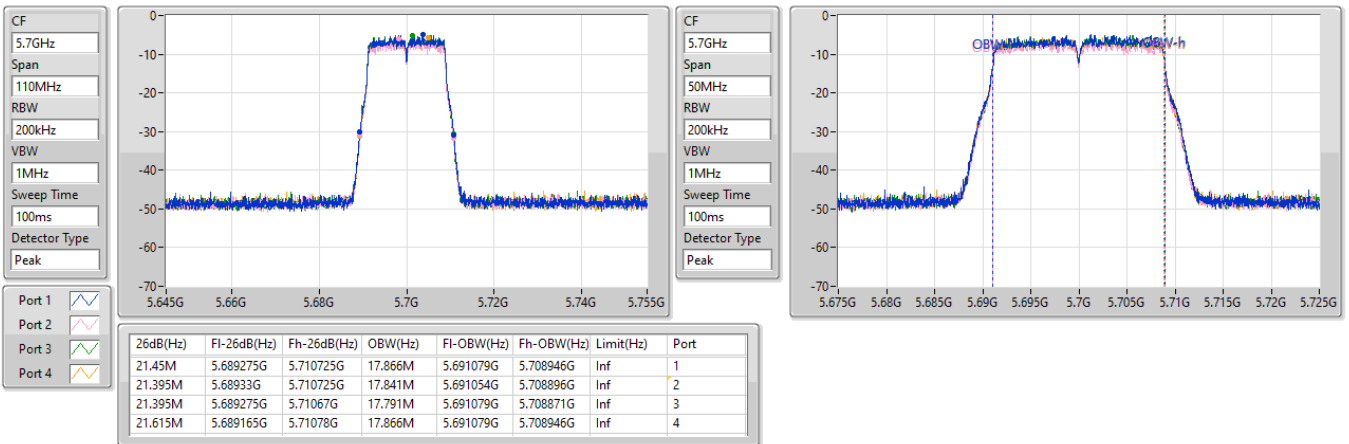


5.47-5.725GHz\_802.11ac\_VHT20\_Nss1,(MCS0)\_4TX

EBW

5700MHz

14/12/2022

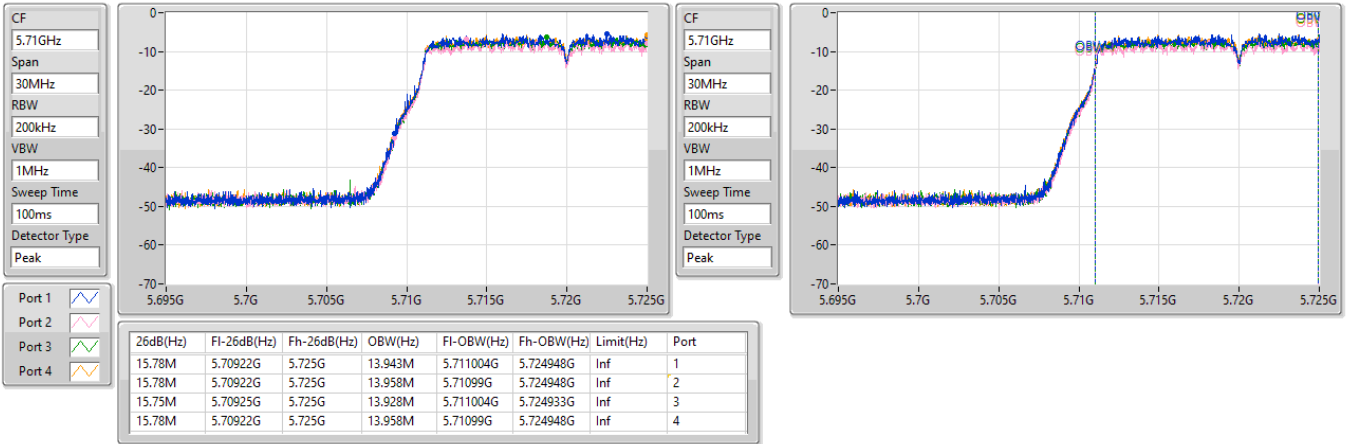


## 5.47-5.725GHz\_802.11ac VHT20\_Nss1,(MCS0)\_4TX

EBW

### 5720MHz Straddle 5.47-5.725GHz

14/12/2022

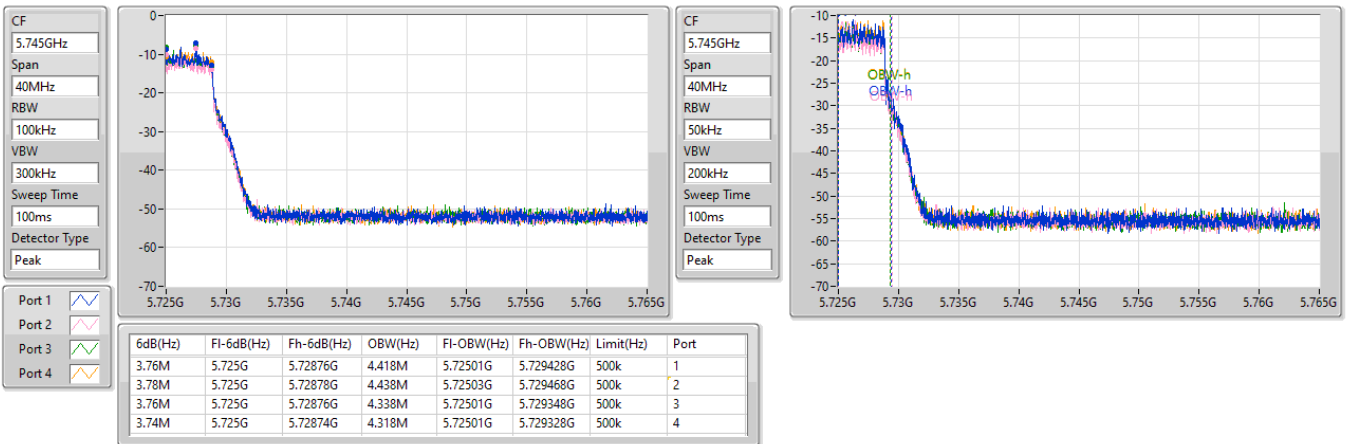


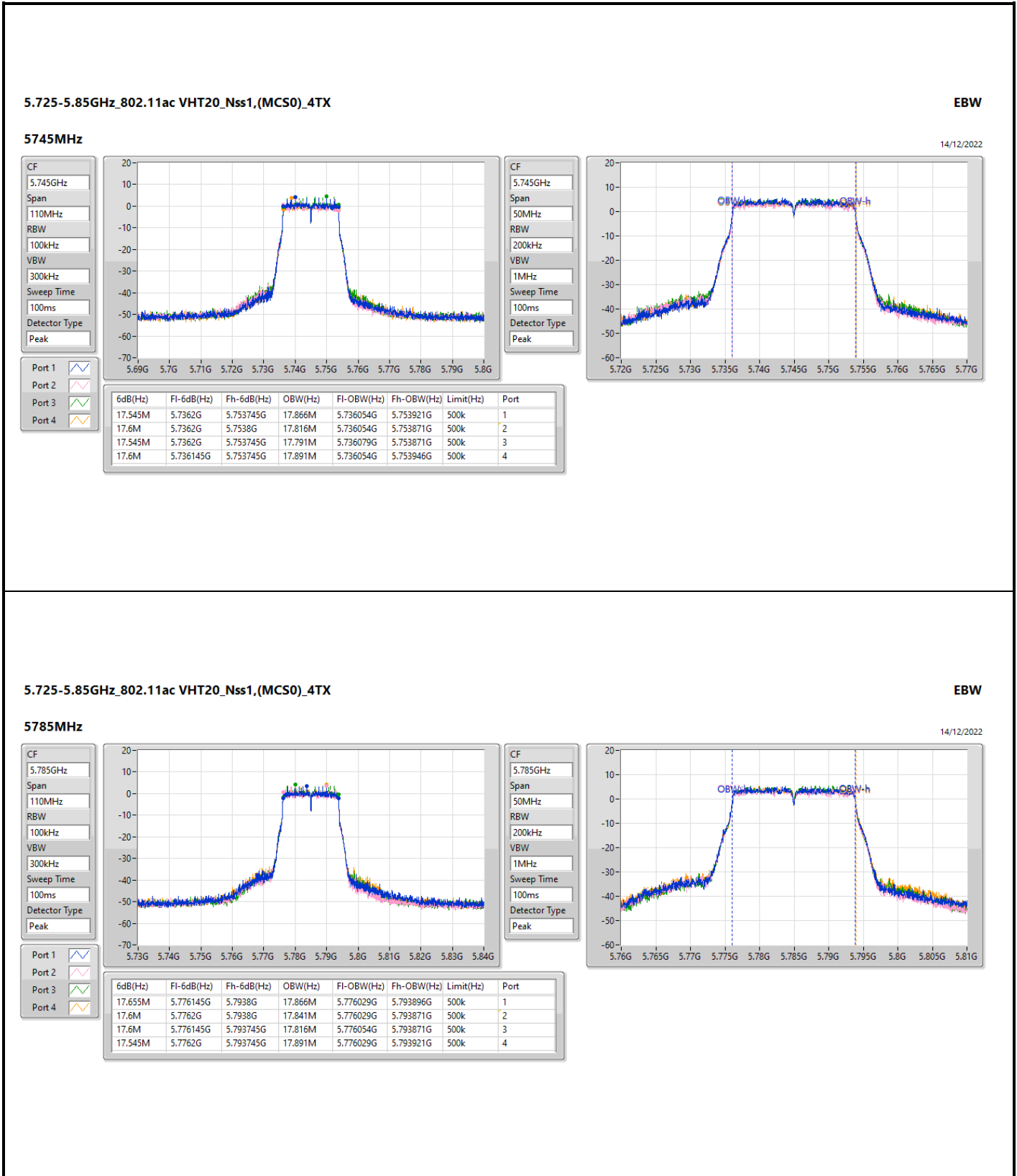
## 5.725-5.85GHz\_802.11ac VHT20\_Nss1,(MCS0)\_4TX

EBW

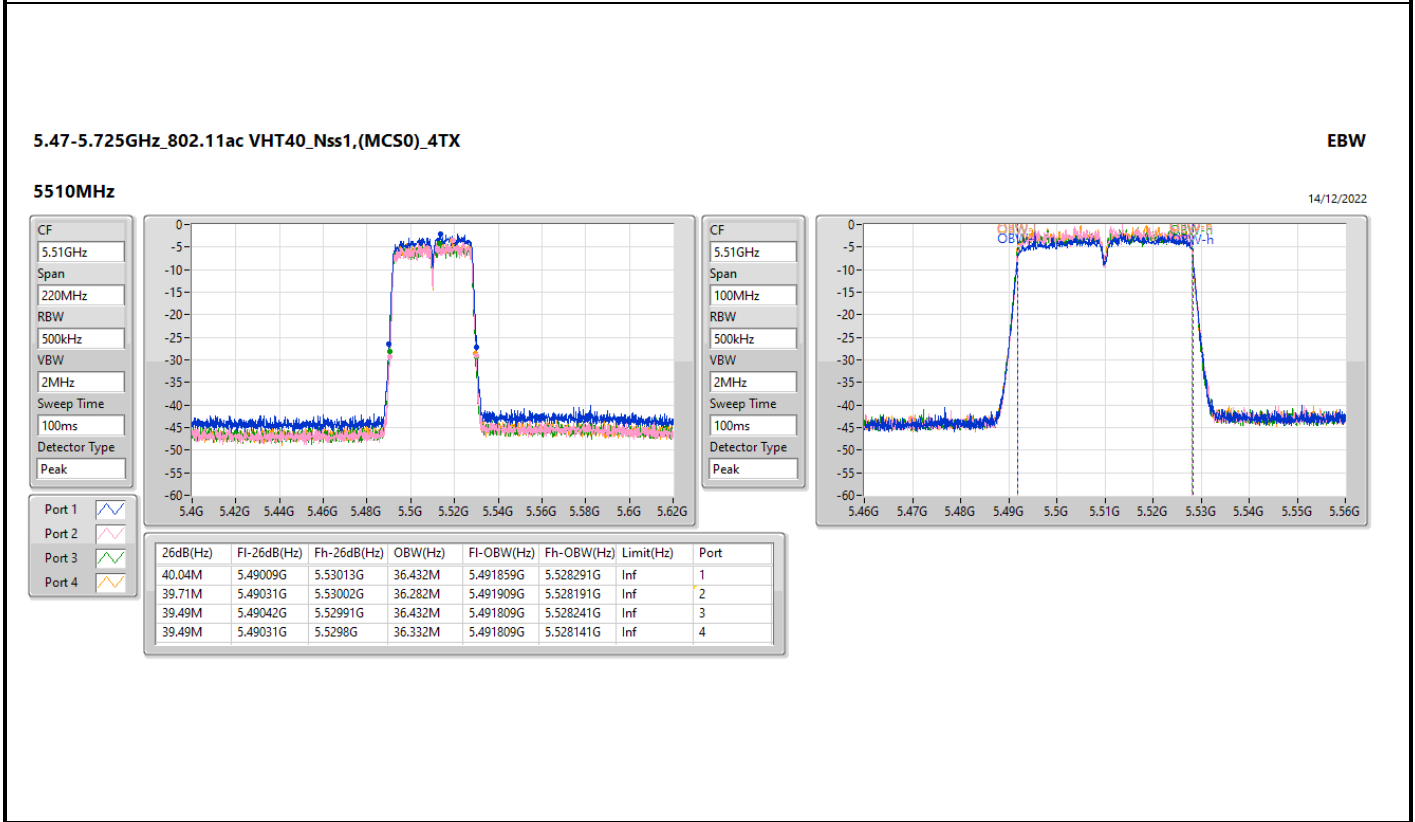
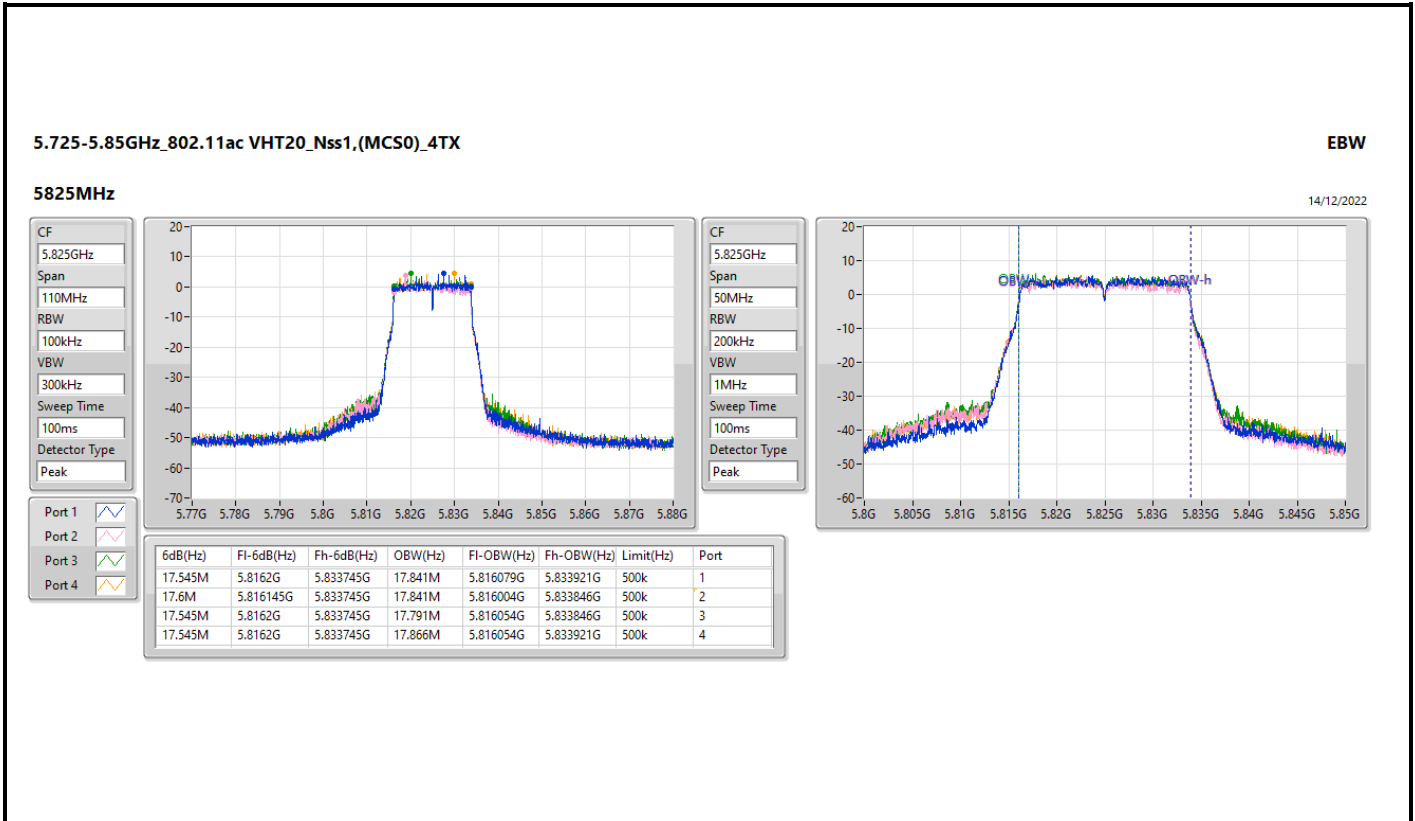
### 5720MHz Straddle 5.725-5.85GHz

14/12/2022









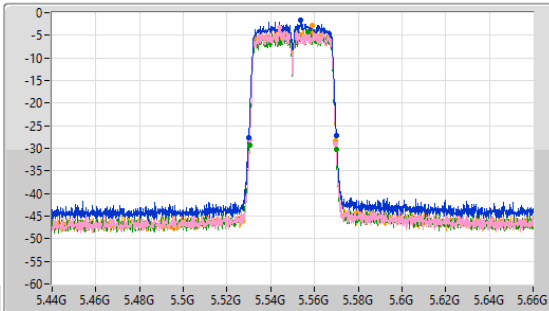
5.47-5.725GHz\_802.11ac\_VHT40\_Nss1,(MCS0)\_4TX

EBW

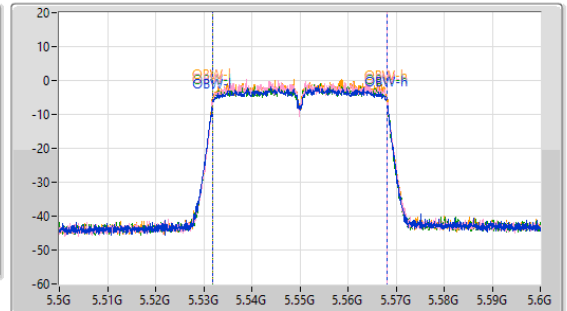
5550MHz

14/12/2022

CF: 5.55GHz  
 Span: 220MHz  
 RBW: 500kHz  
 VBW: 2MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



CF: 5.55GHz  
 Span: 100MHz  
 RBW: 500kHz  
 VBW: 2MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



Port 1  
 Port 2  
 Port 3  
 Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.26M	5.52976G	5.57002G	36.382M	5.531809G	5.568191G	Inf	1
39.38M	5.53042G	5.5698G	36.282M	5.531859G	5.568141G	Inf	2
39.71M	5.5302G	5.56991G	36.382M	5.531809G	5.568191G	Inf	3
39.38M	5.53042G	5.5698G	36.282M	5.531859G	5.568141G	Inf	4

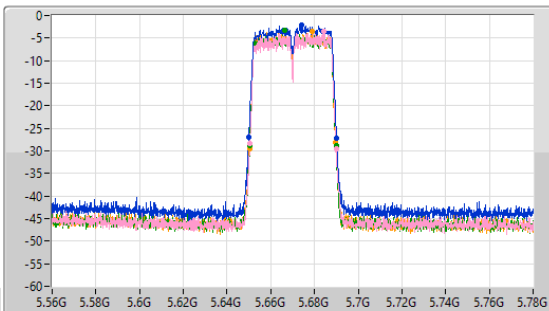
5.47-5.725GHz\_802.11ac\_VHT40\_Nss1,(MCS0)\_4TX

EBW

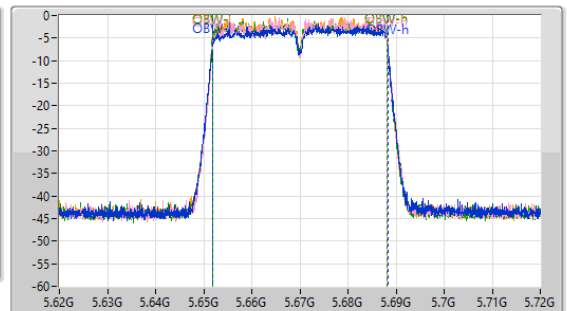
5670MHz

14/12/2022

CF: 5.67GHz  
 Span: 220MHz  
 RBW: 500kHz  
 VBW: 2MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



CF: 5.67GHz  
 Span: 100MHz  
 RBW: 500kHz  
 VBW: 2MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



Port 1  
 Port 2  
 Port 3  
 Port 4

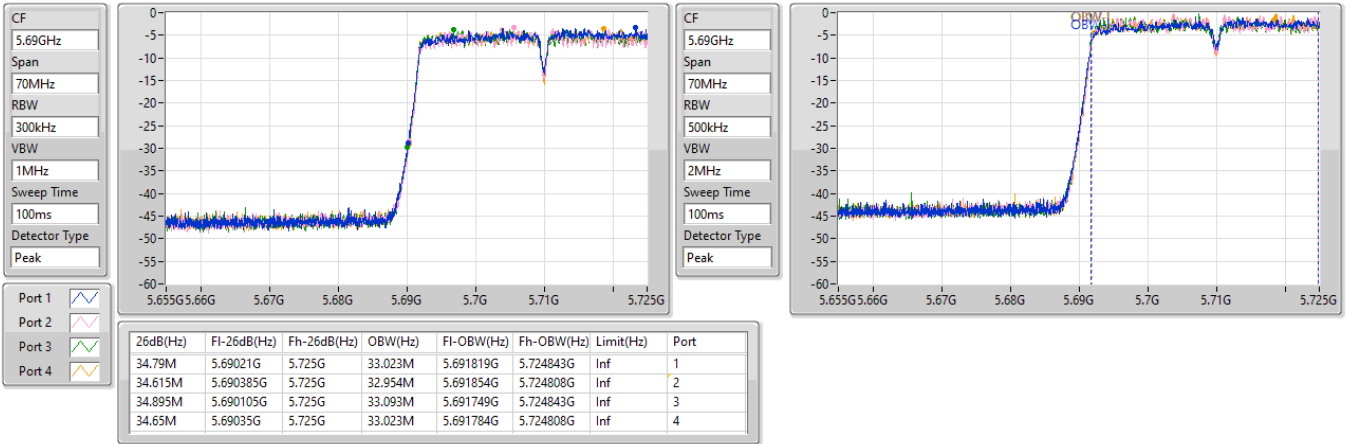
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.26M	5.64987G	5.69013G	36.482M	5.651809G	5.688291G	Inf	1
39.49M	5.65042G	5.68991G	36.282M	5.651909G	5.688191G	Inf	2
39.6M	5.65031G	5.68991G	36.382M	5.651809G	5.688191G	Inf	3
39.6M	5.6502G	5.6898G	36.382M	5.651759G	5.688141G	Inf	4

5.47-5.725GHz\_802.11ac VHT40\_Nss1,(MCS0)\_4TX

EBW

5710MHz Straddle 5.47-5.725GHz

14/12/2022

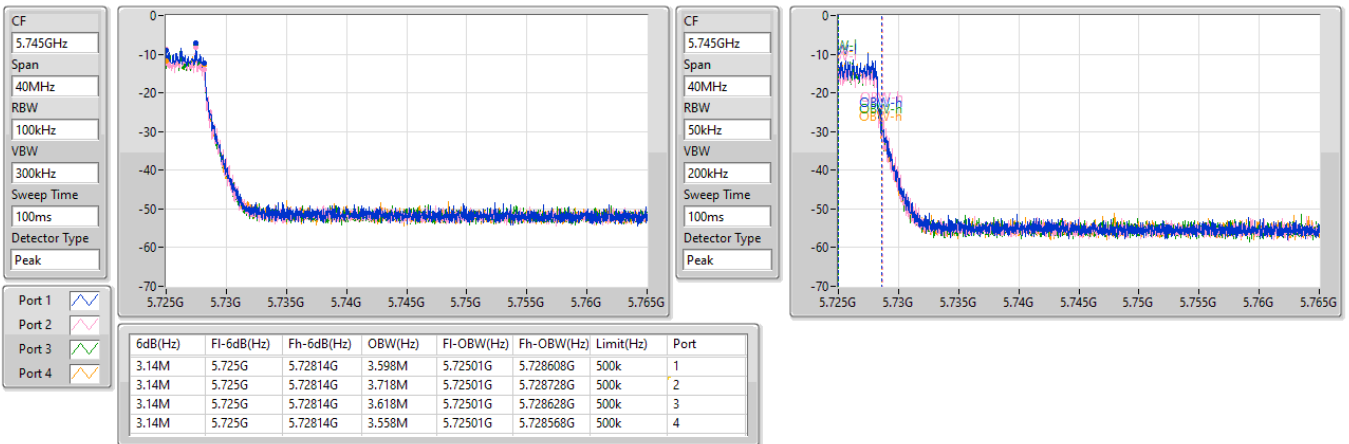


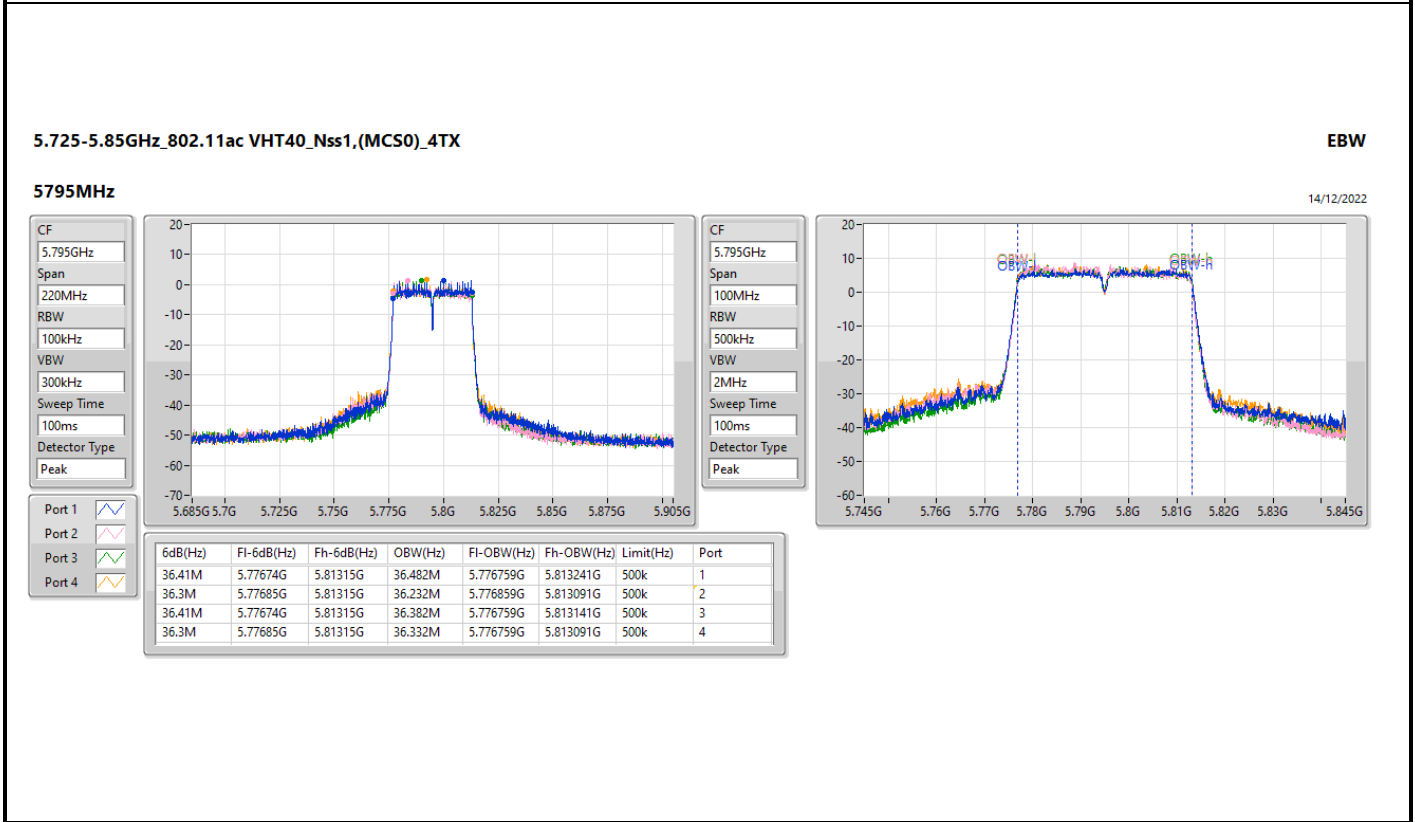
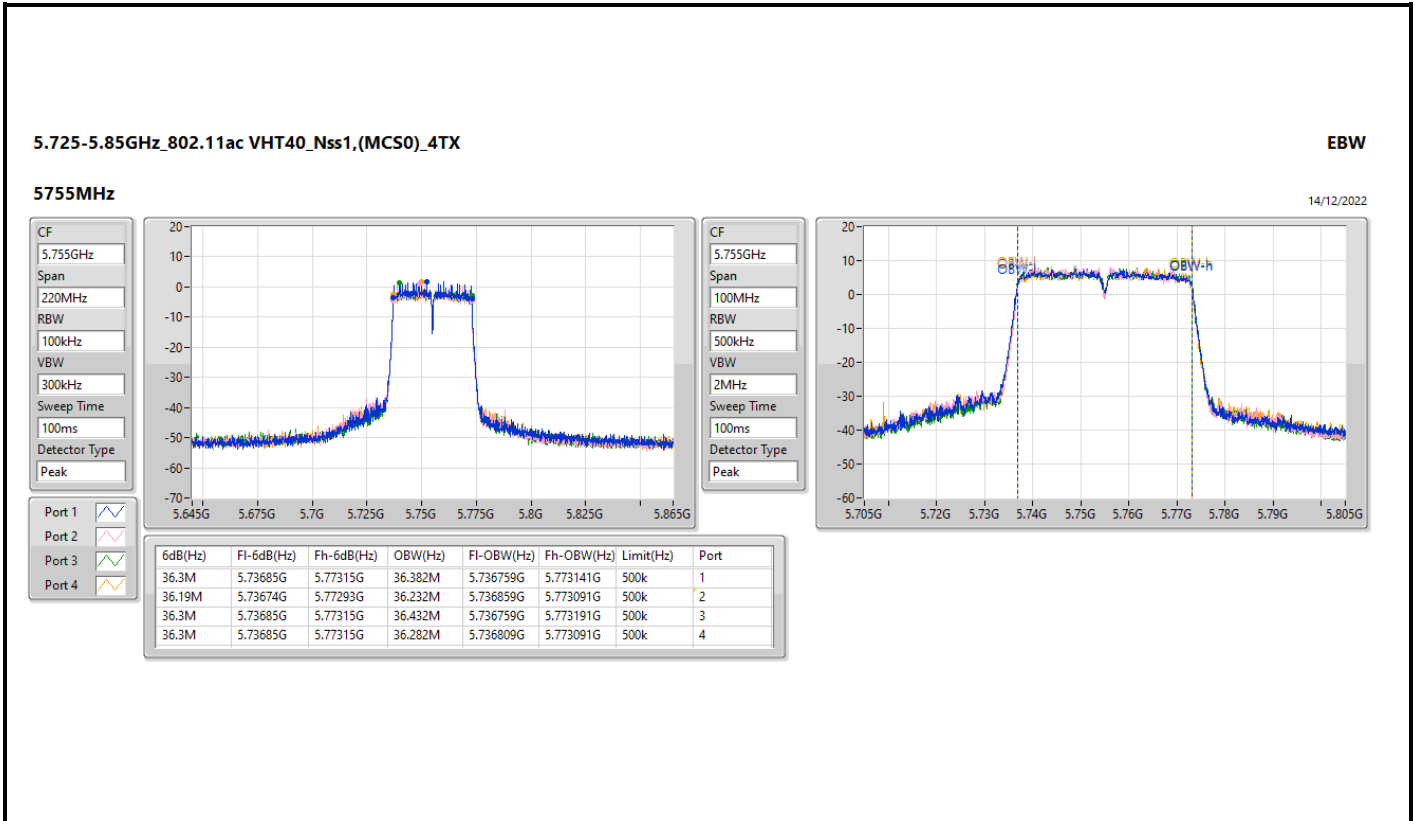
5.725-5.85GHz\_802.11ac VHT40\_Nss1,(MCS0)\_4TX

EBW

5710MHz Straddle 5.725-5.85GHz

14/12/2022



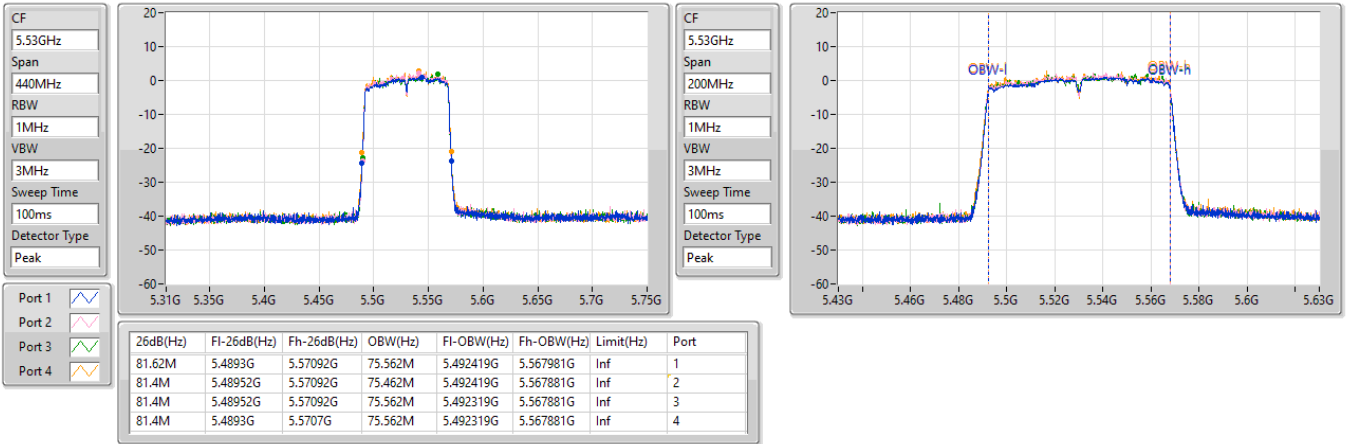


5.47-5.725GHz\_802.11ac\_VHT80\_Nss1,(MCS0)\_4TX

EBW

5530MHz

14/12/2022

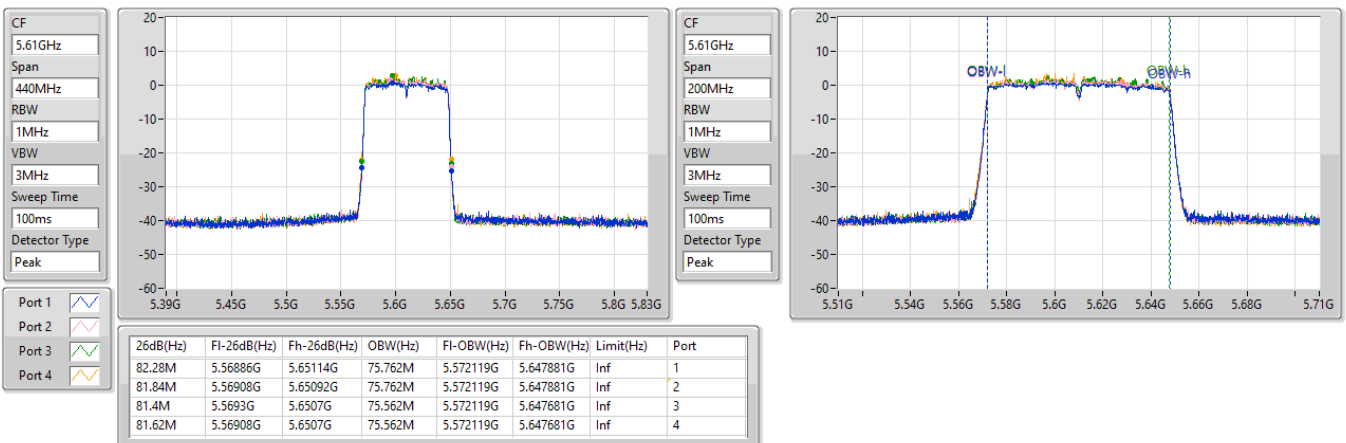


5.47-5.725GHz\_802.11ac\_VHT80\_Nss1,(MCS0)\_4TX

EBW

5610MHz

14/12/2022

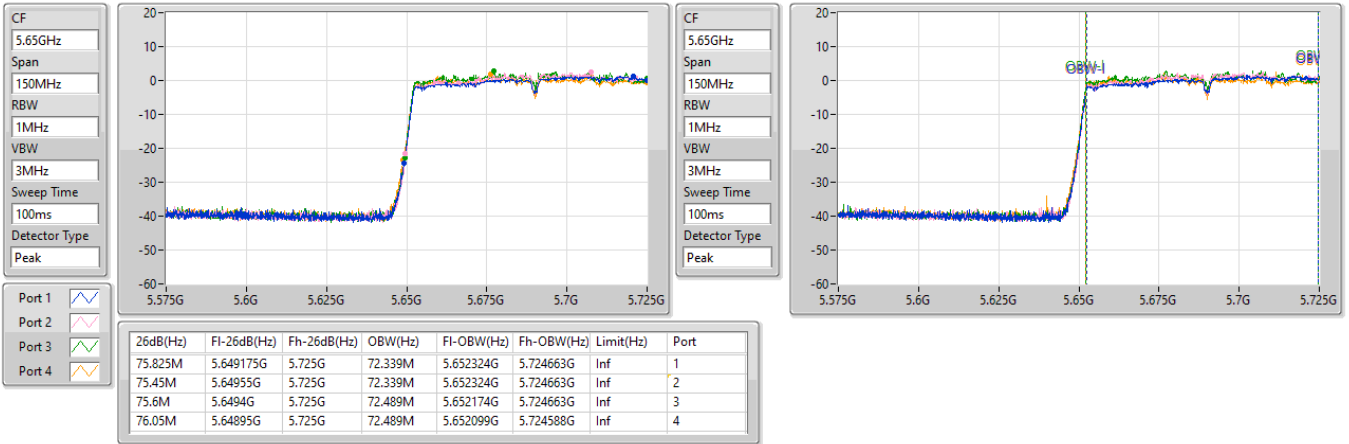


5.47-5.725GHz\_802.11ac VHT80\_Nss1,(MCS0)\_4TX

EBW

5690MHz Straddle 5.47-5.725GHz

14/12/2022

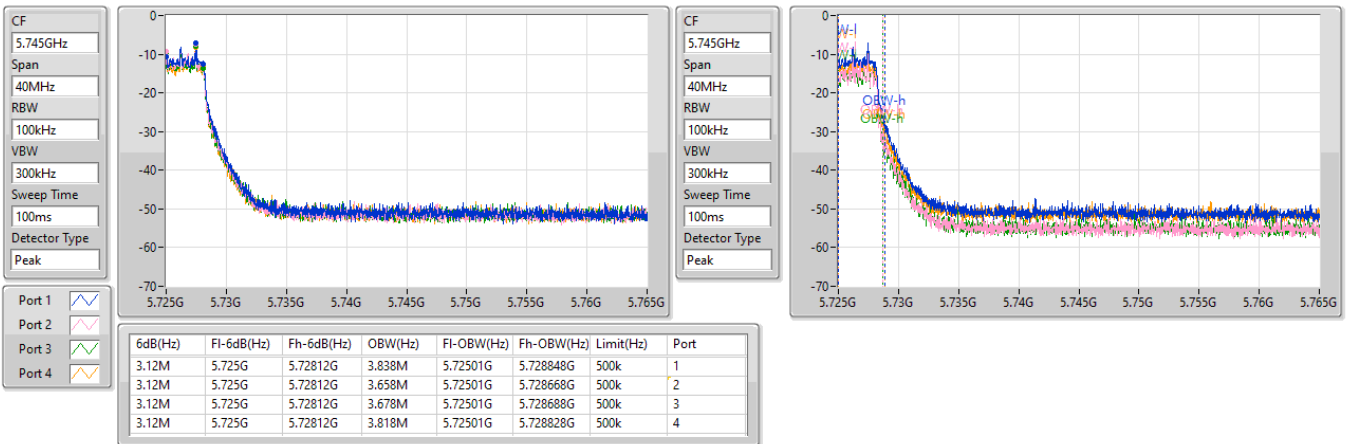


5.725-5.85GHz\_802.11ac VHT80\_Nss1,(MCS0)\_4TX

EBW

5690MHz Straddle 5.725-5.85GHz

14/12/2022



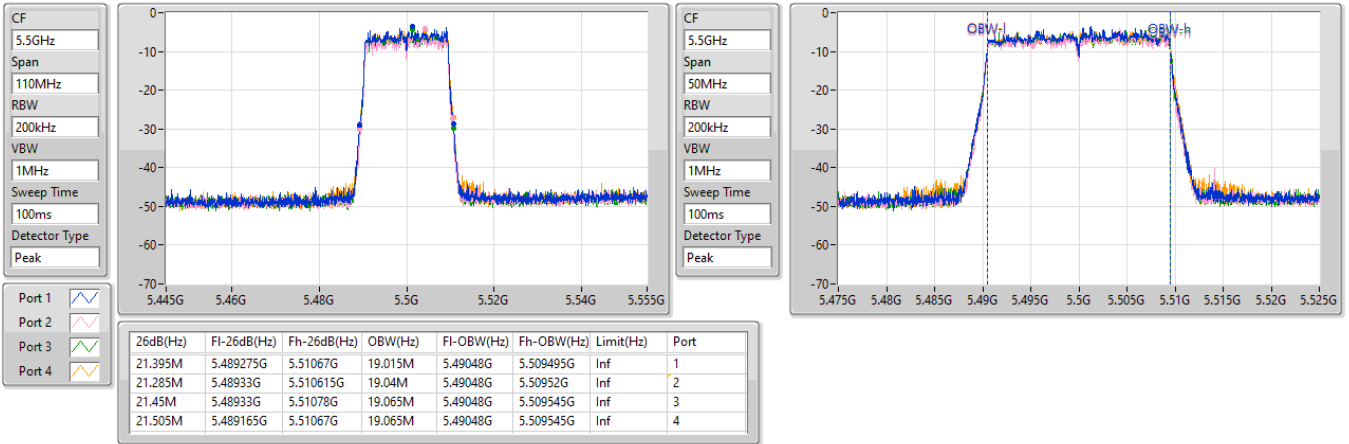


5.47-5.725GHz\_802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5500MHz

14/12/2022

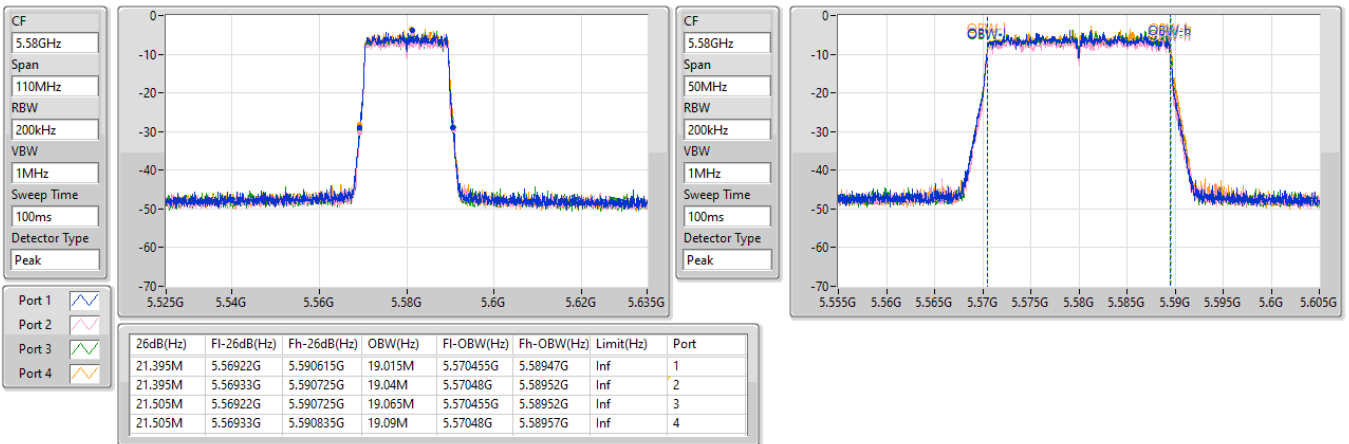


5.47-5.725GHz\_802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5580MHz

14/12/2022



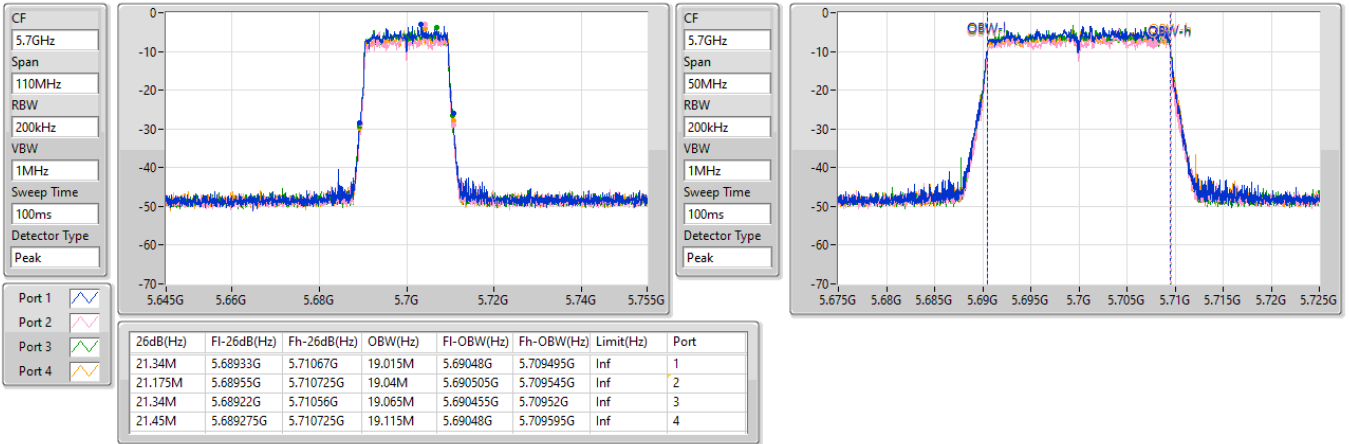


5.47-5.725GHz\_802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5700MHz

14/12/2022

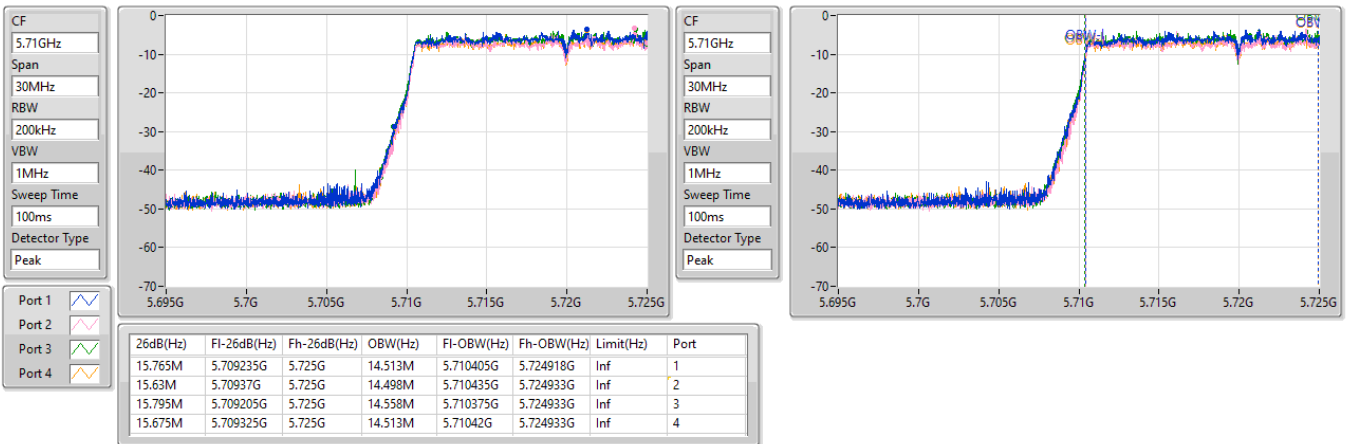


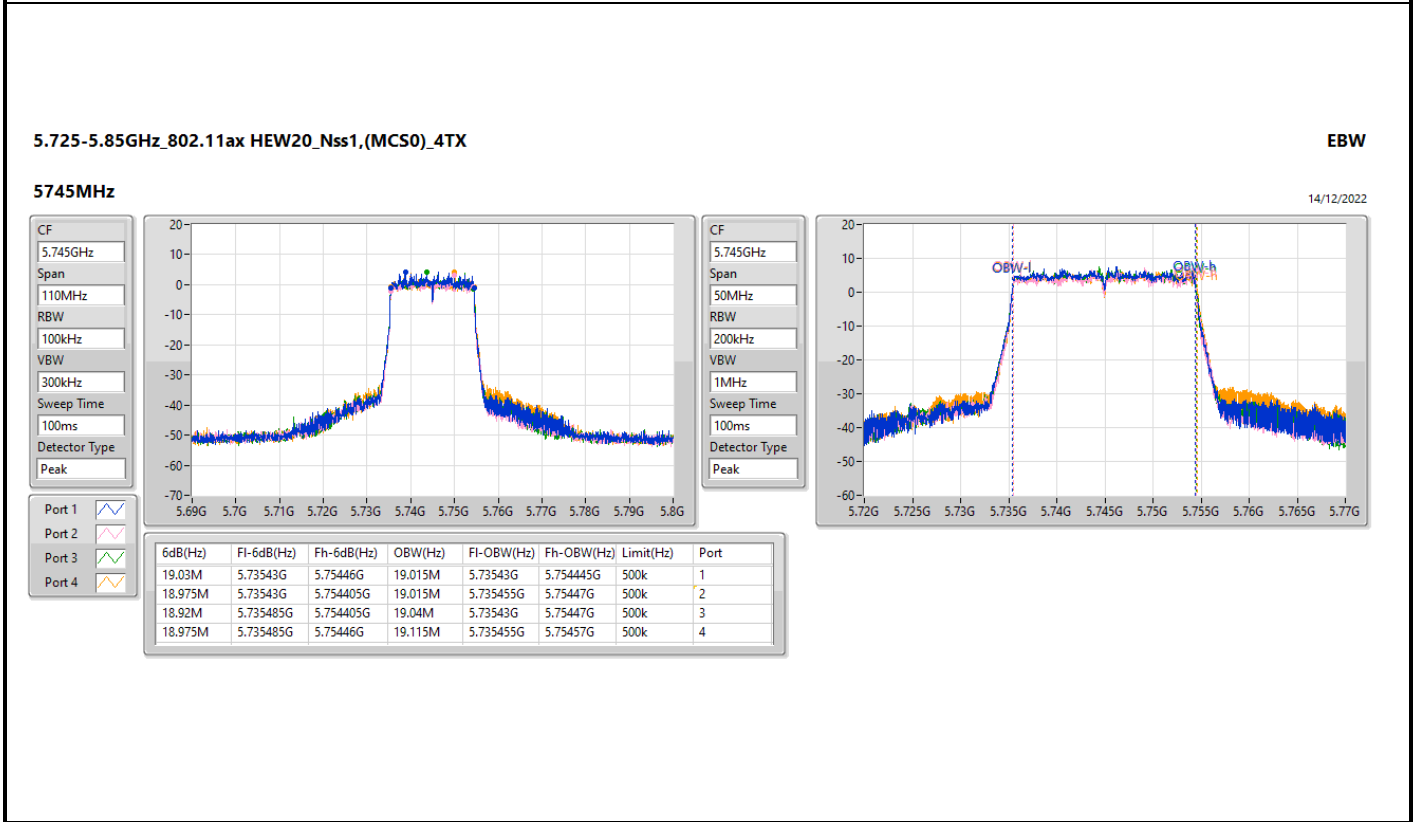
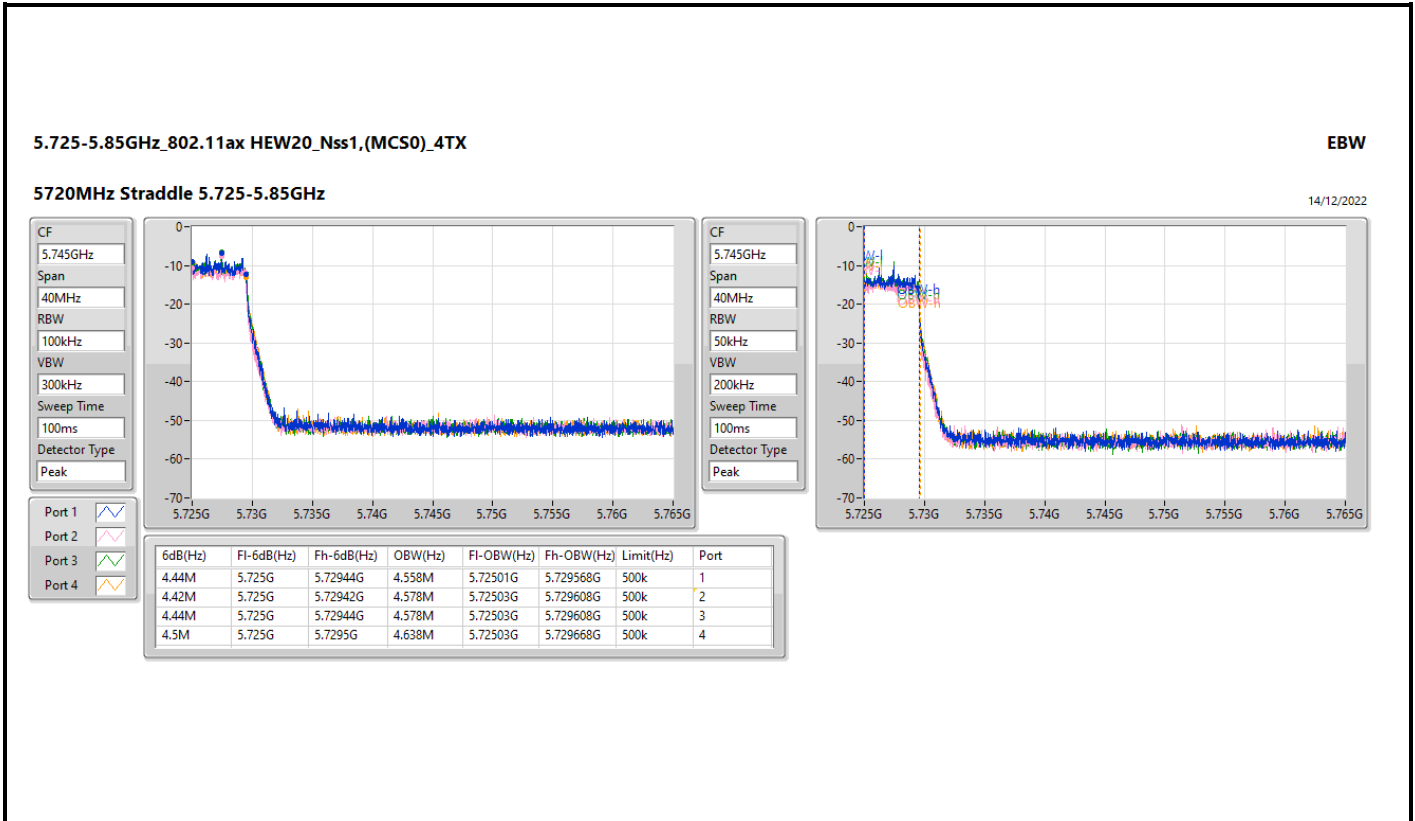
5.47-5.725GHz\_802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5720MHz Straddle 5.47-5.725GHz

14/12/2022



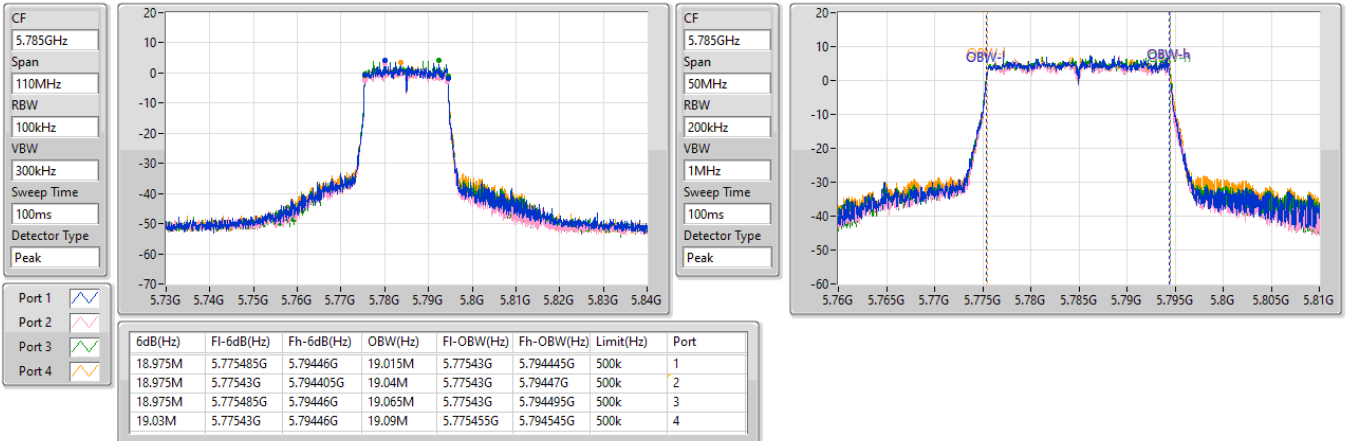


5.725-5.85GHz\_802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5785MHz

14/12/2022

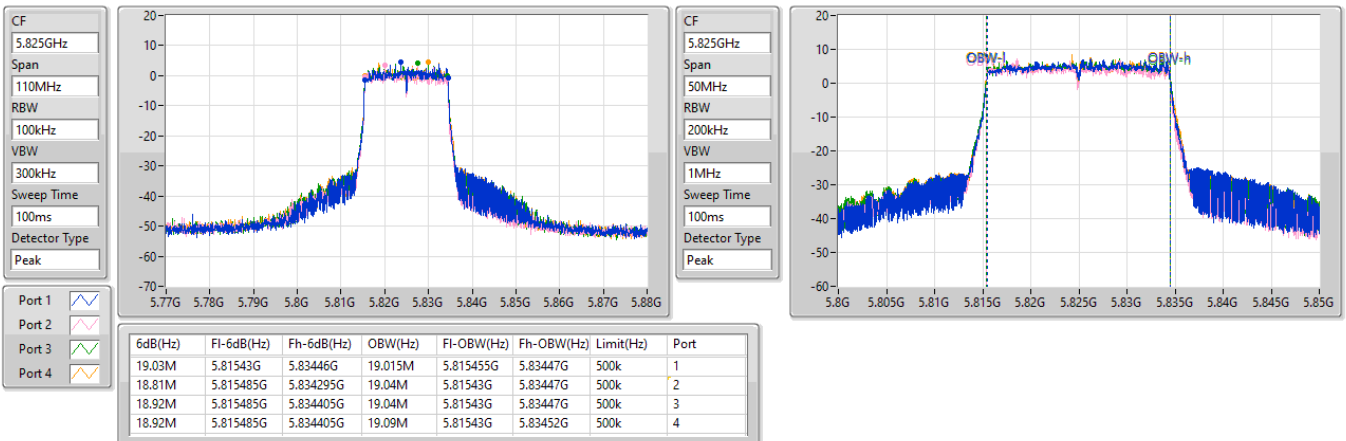


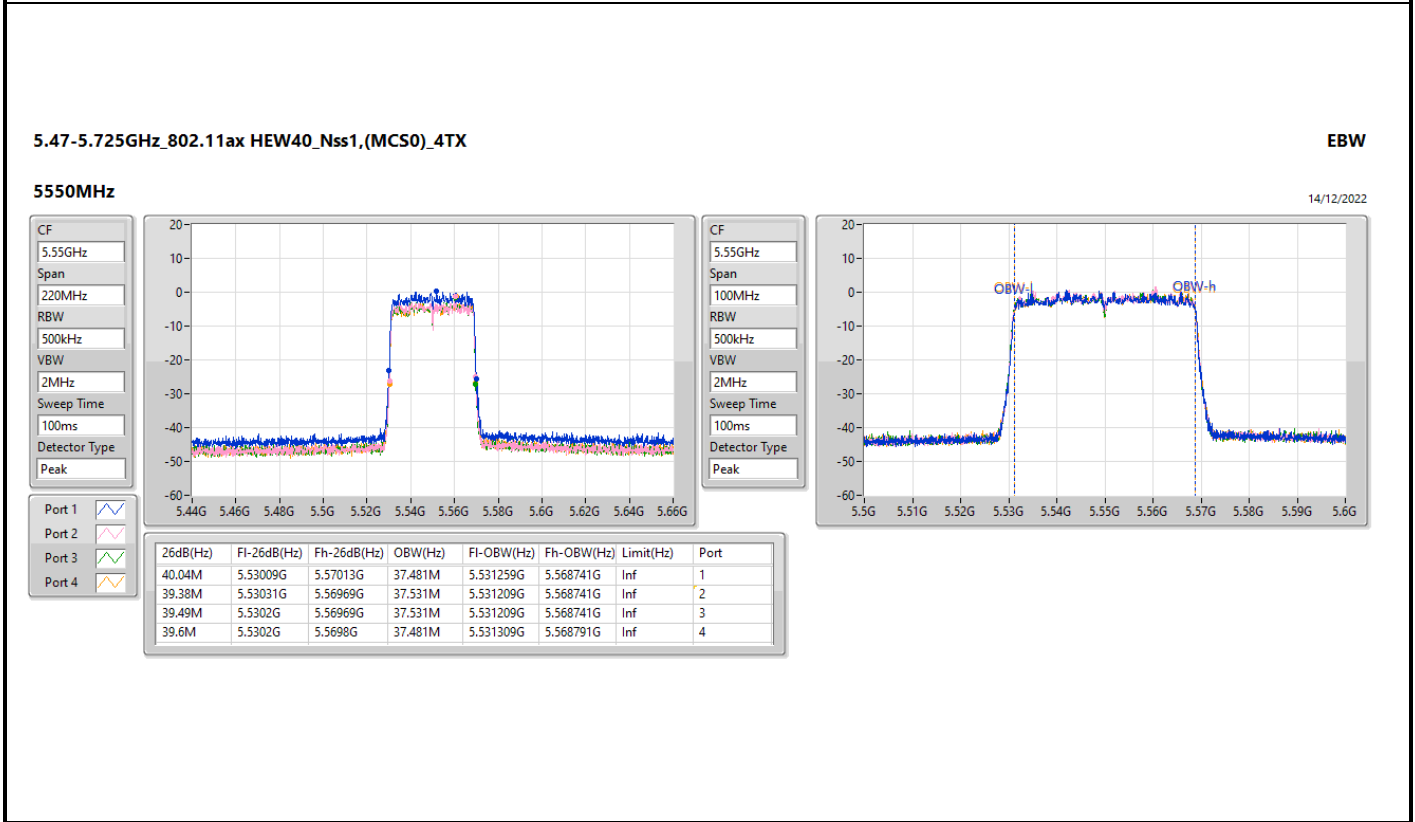
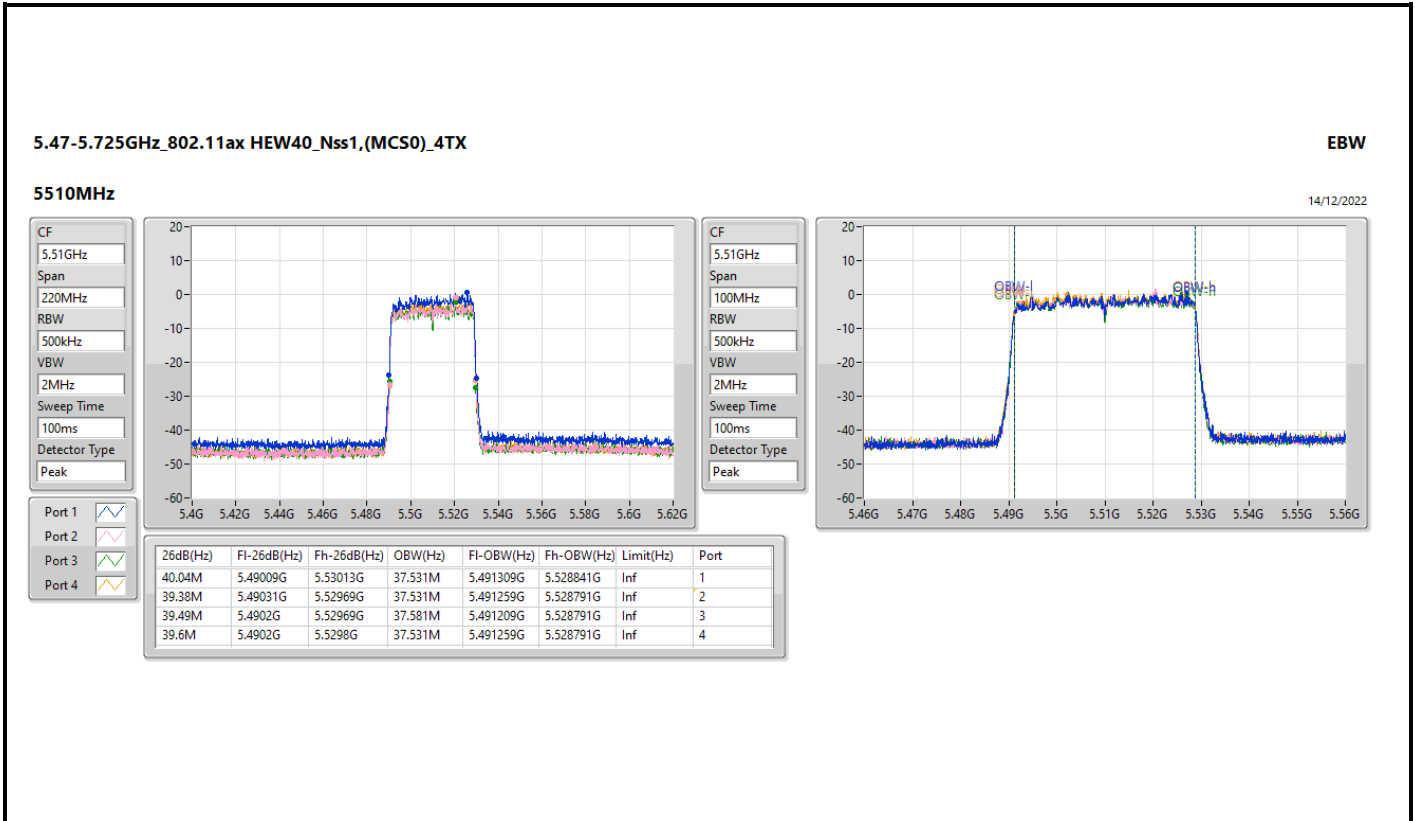
5.725-5.85GHz\_802.11ax HEW20\_Nss1,(MCS0)\_4TX

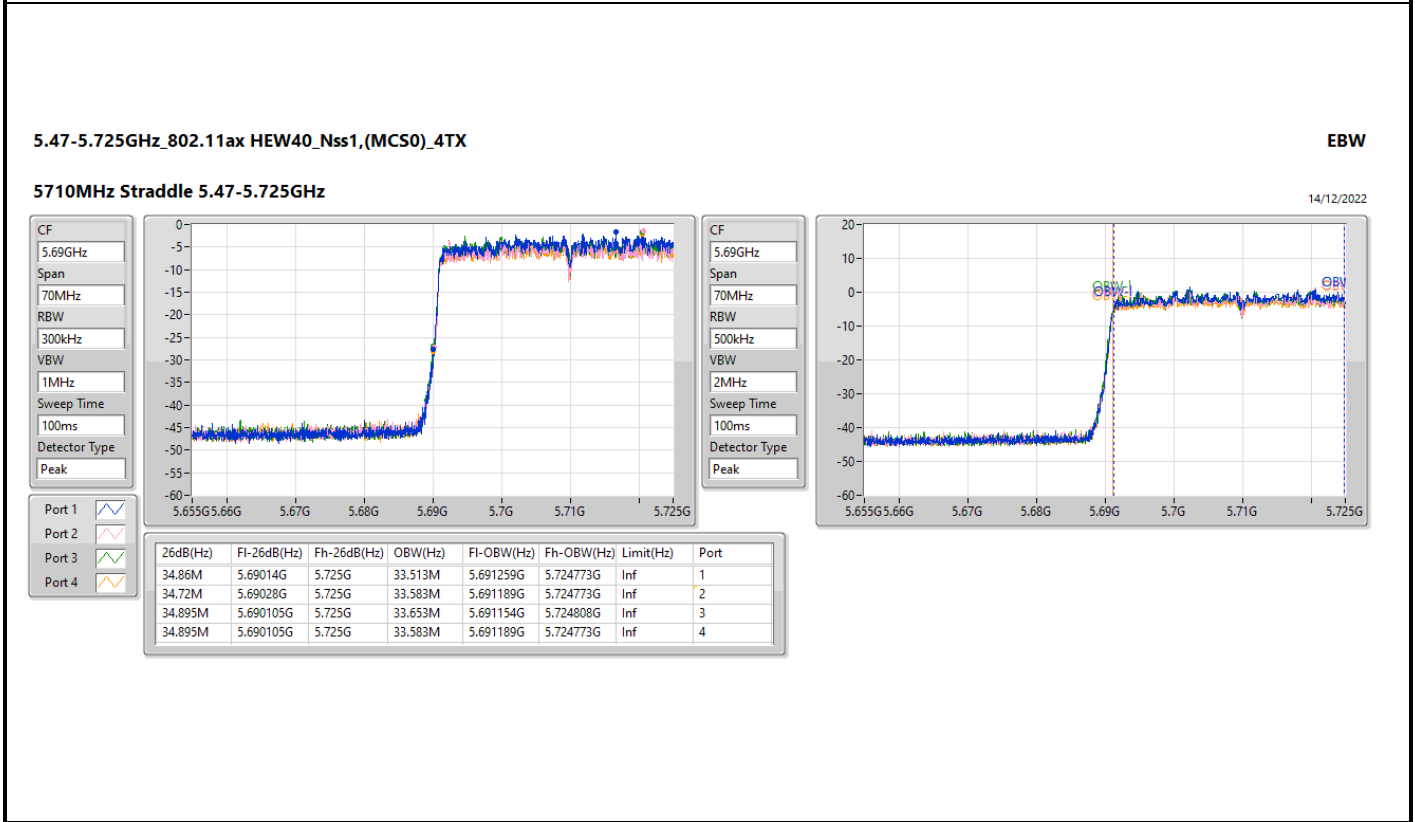
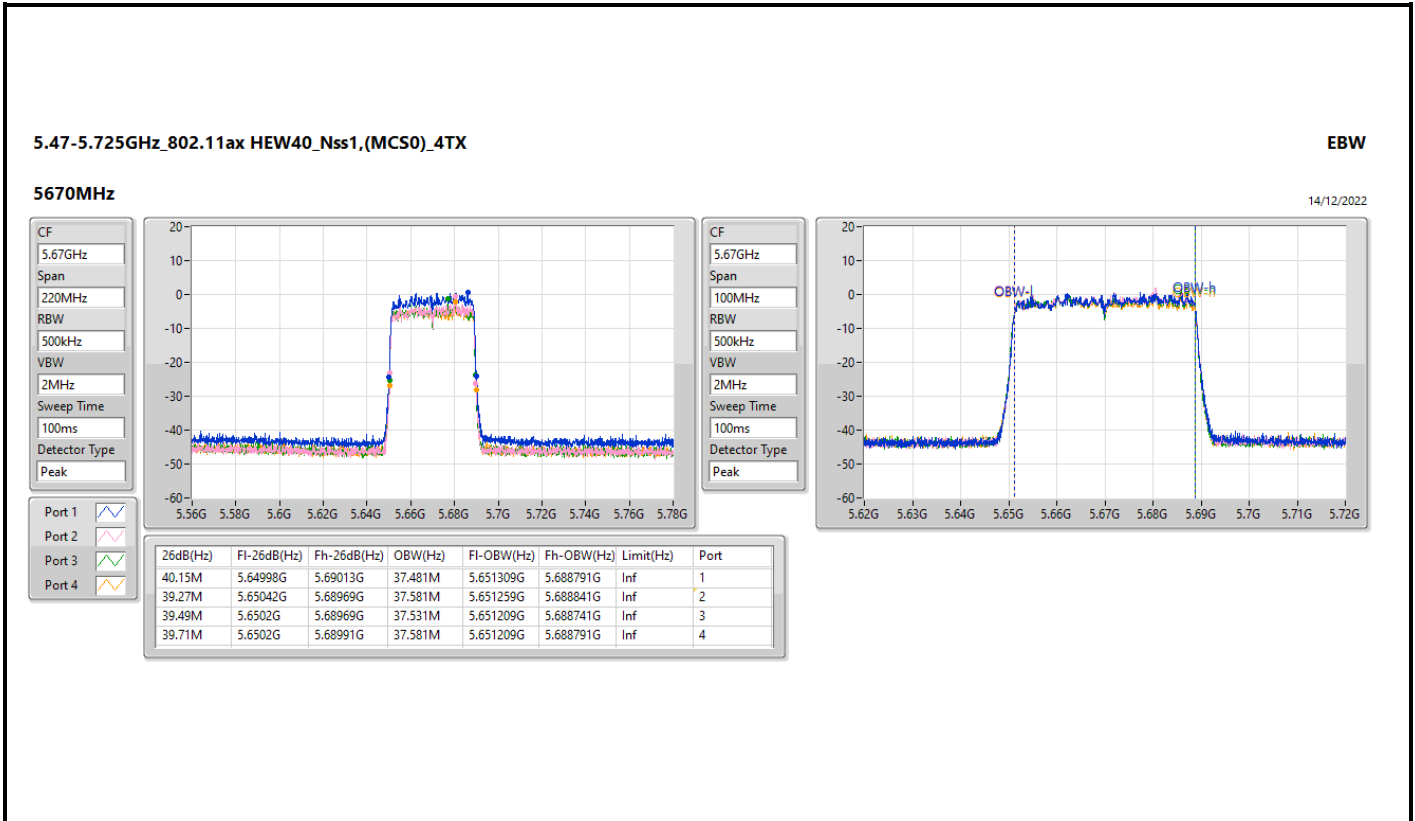
EBW

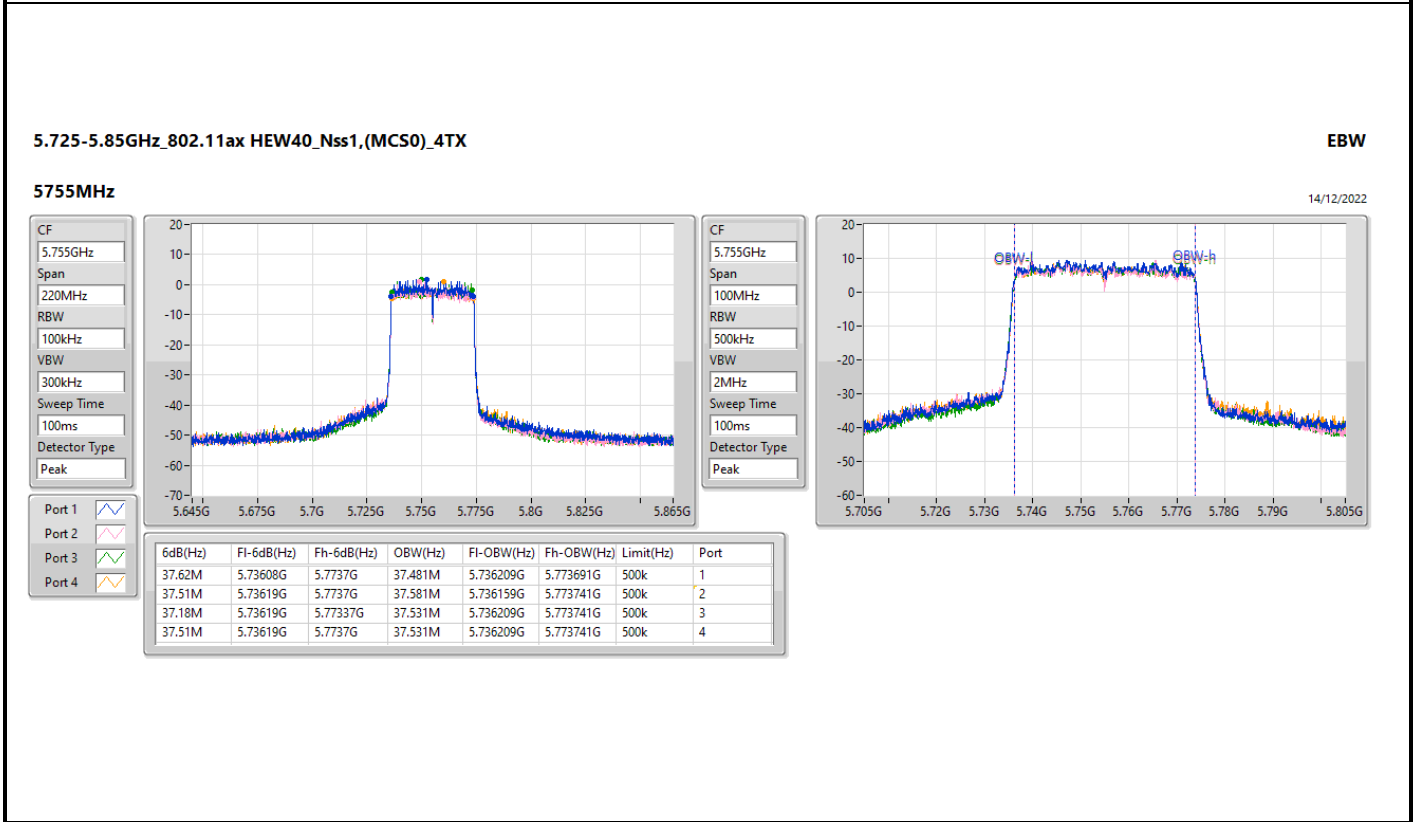
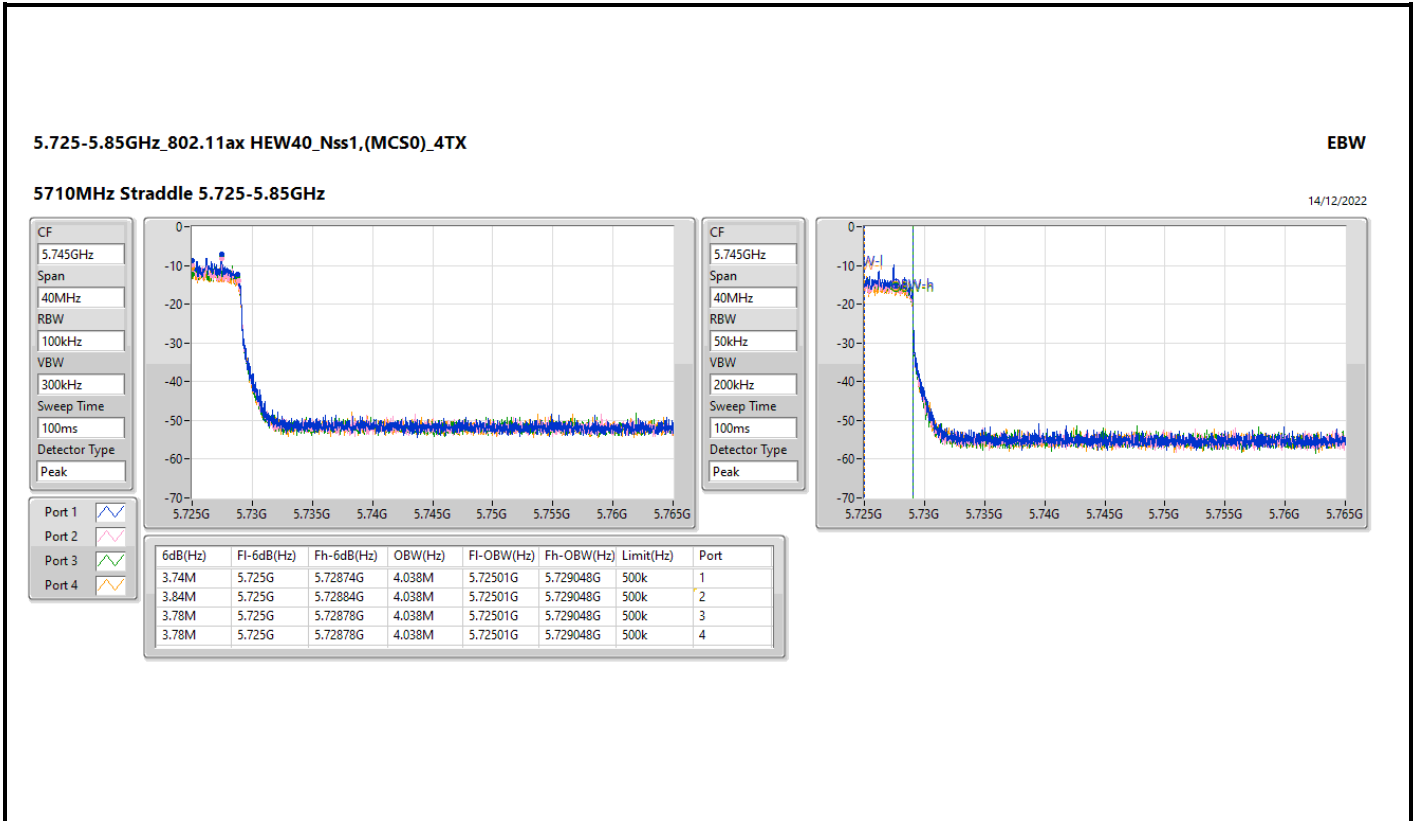
5825MHz

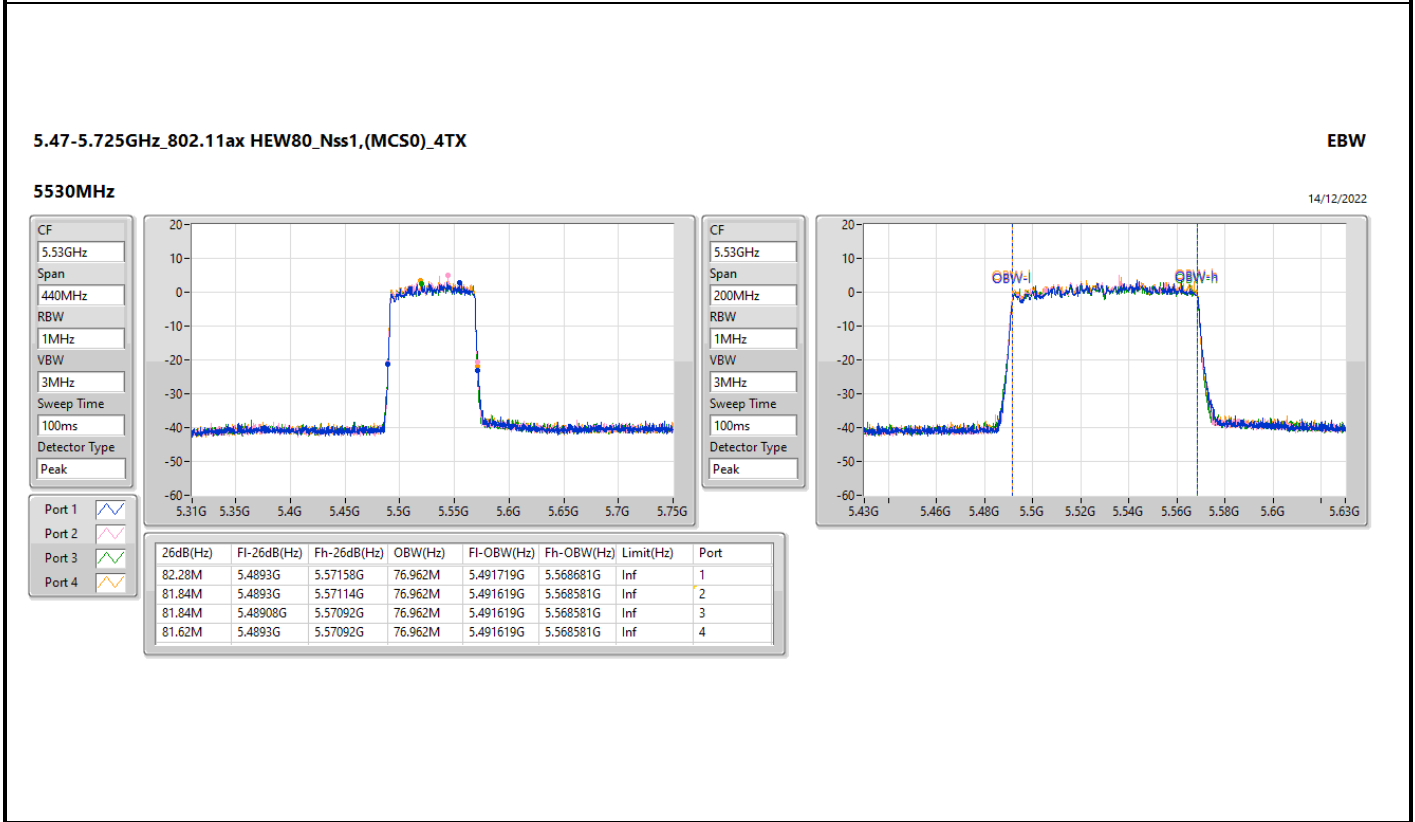
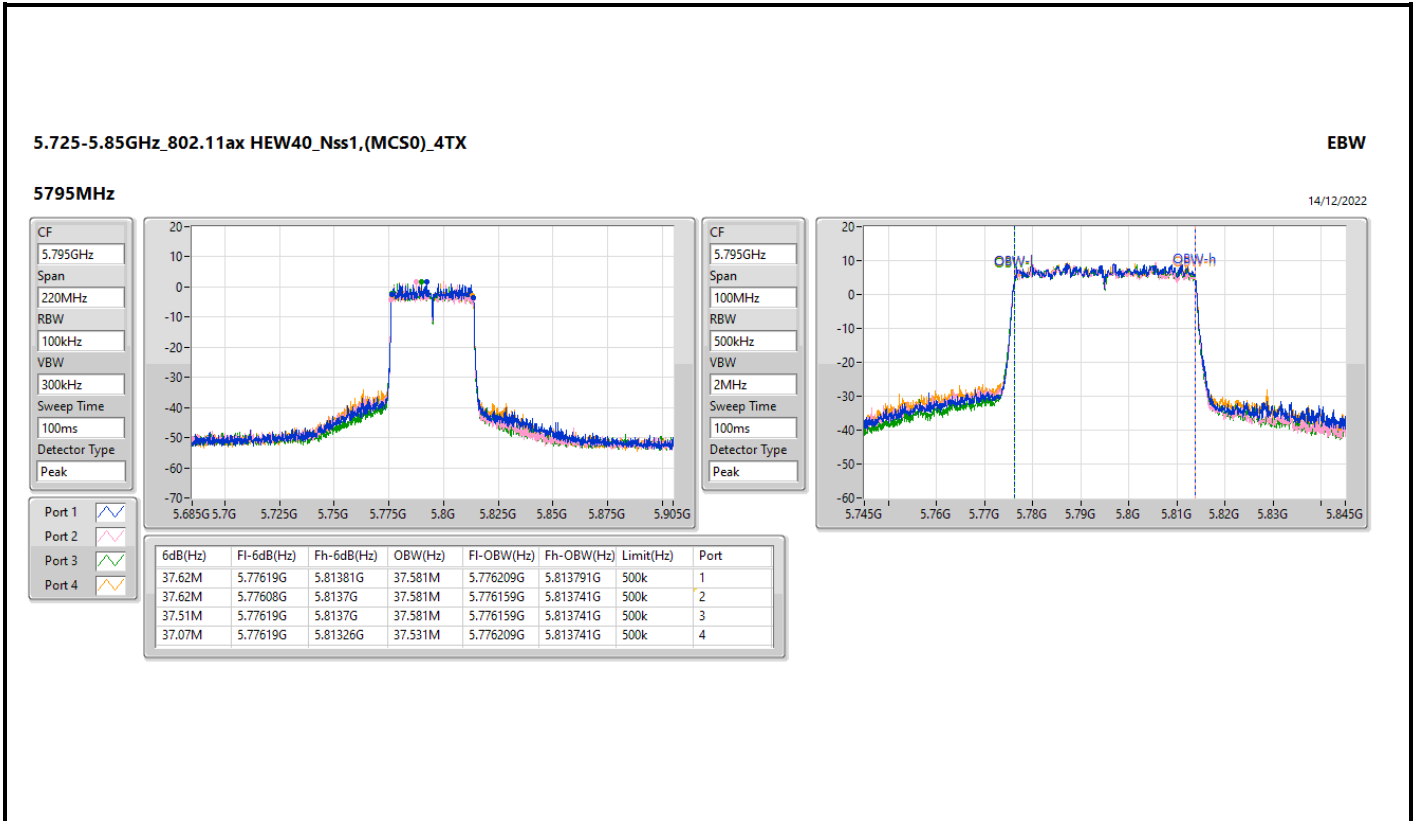
14/12/2022

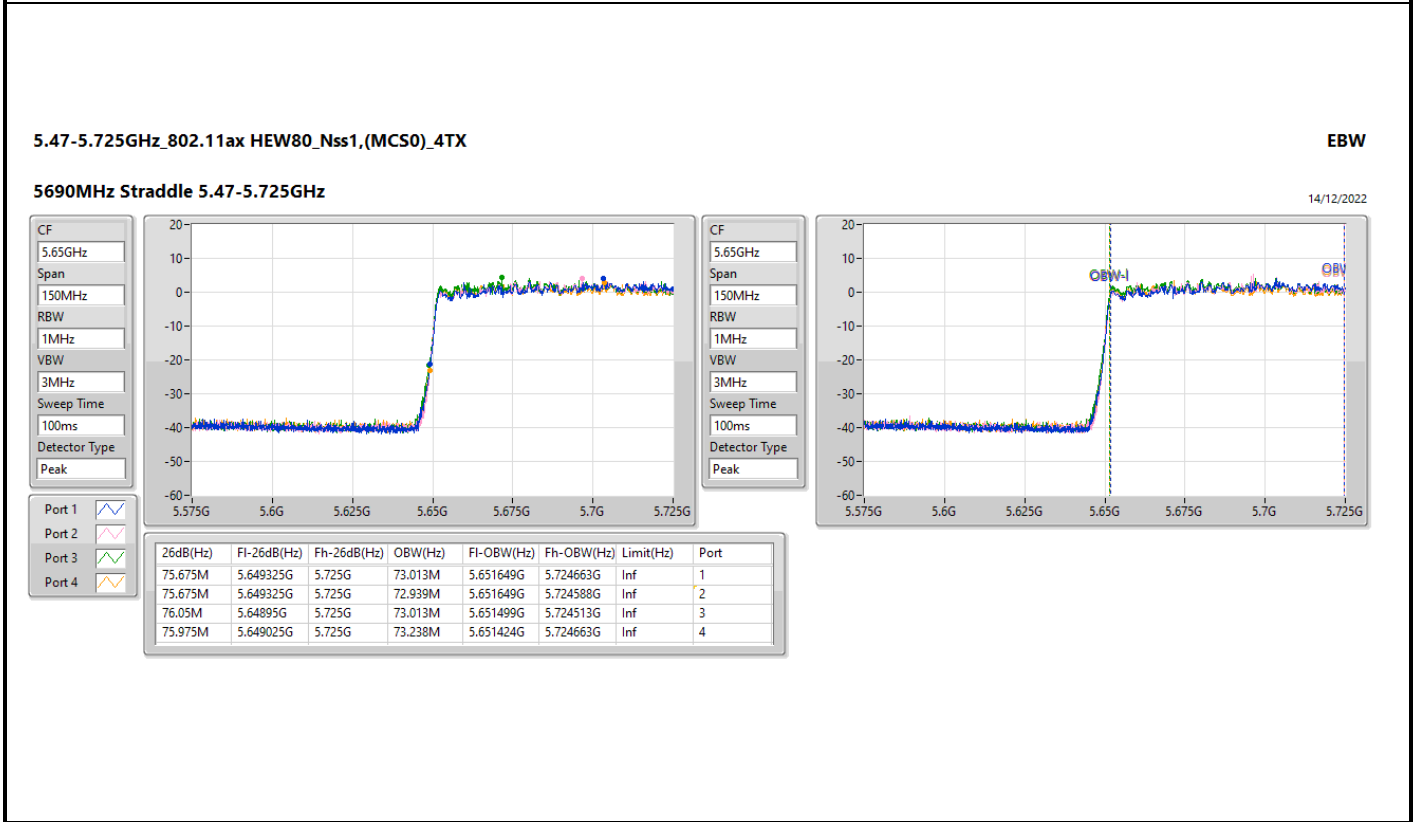
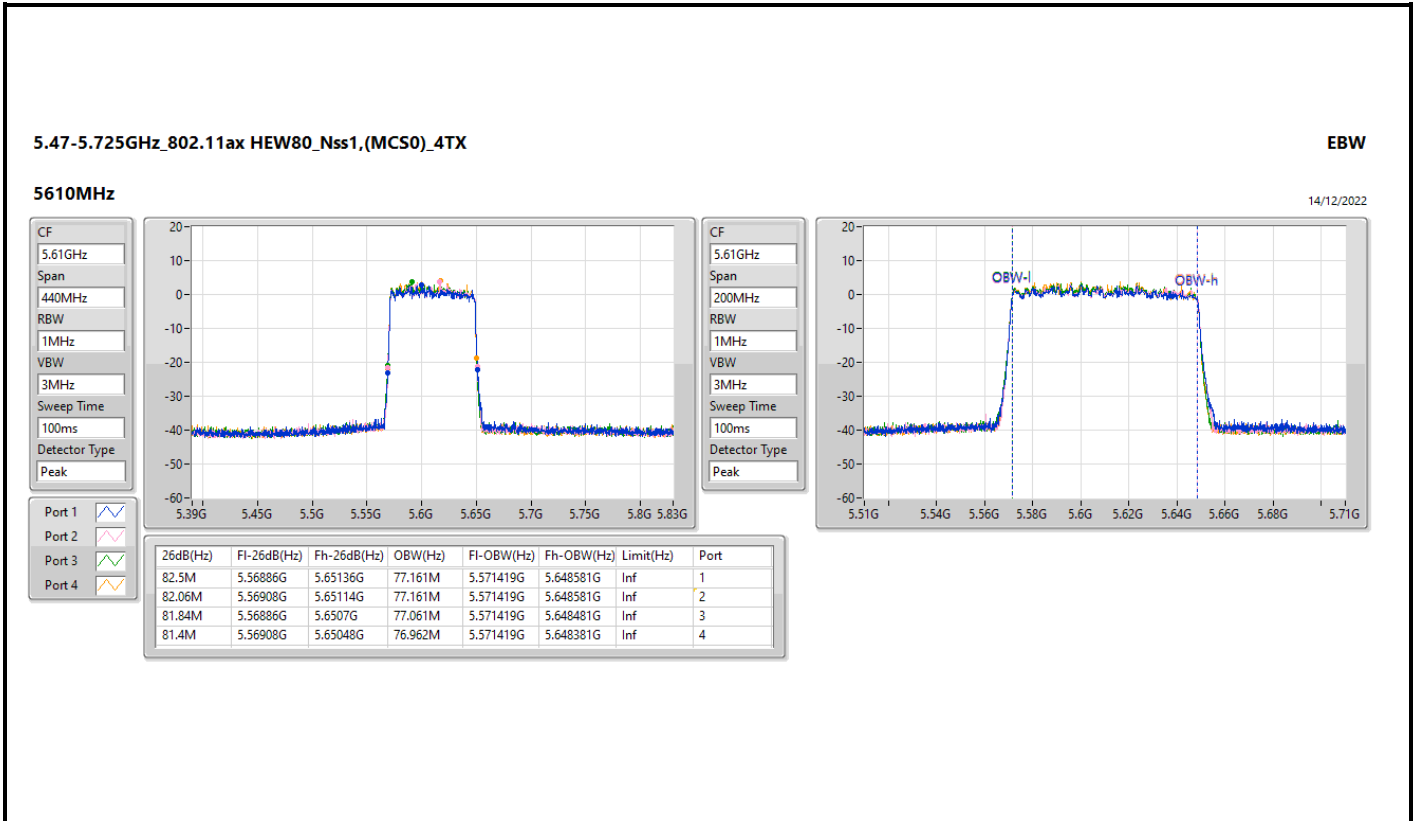




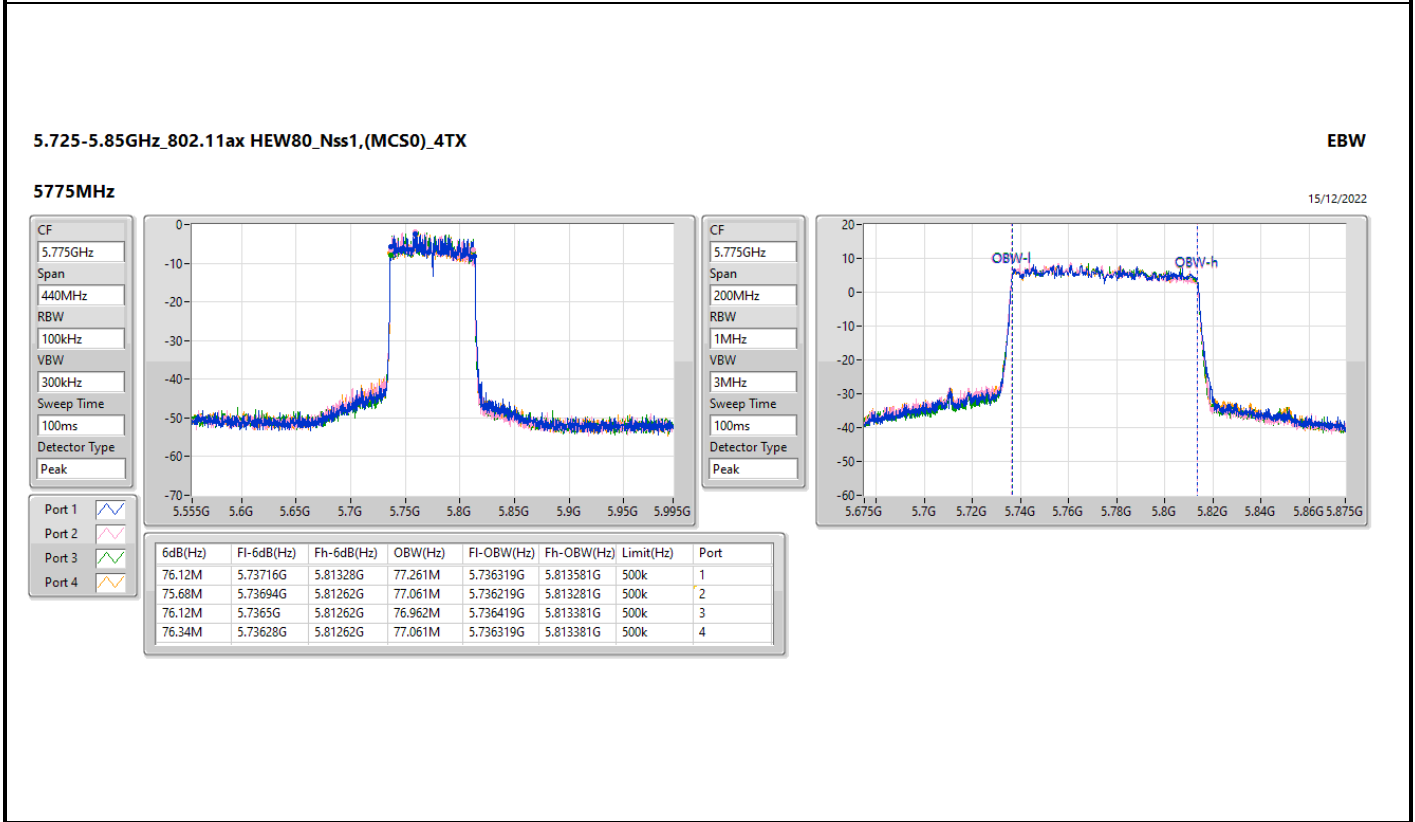
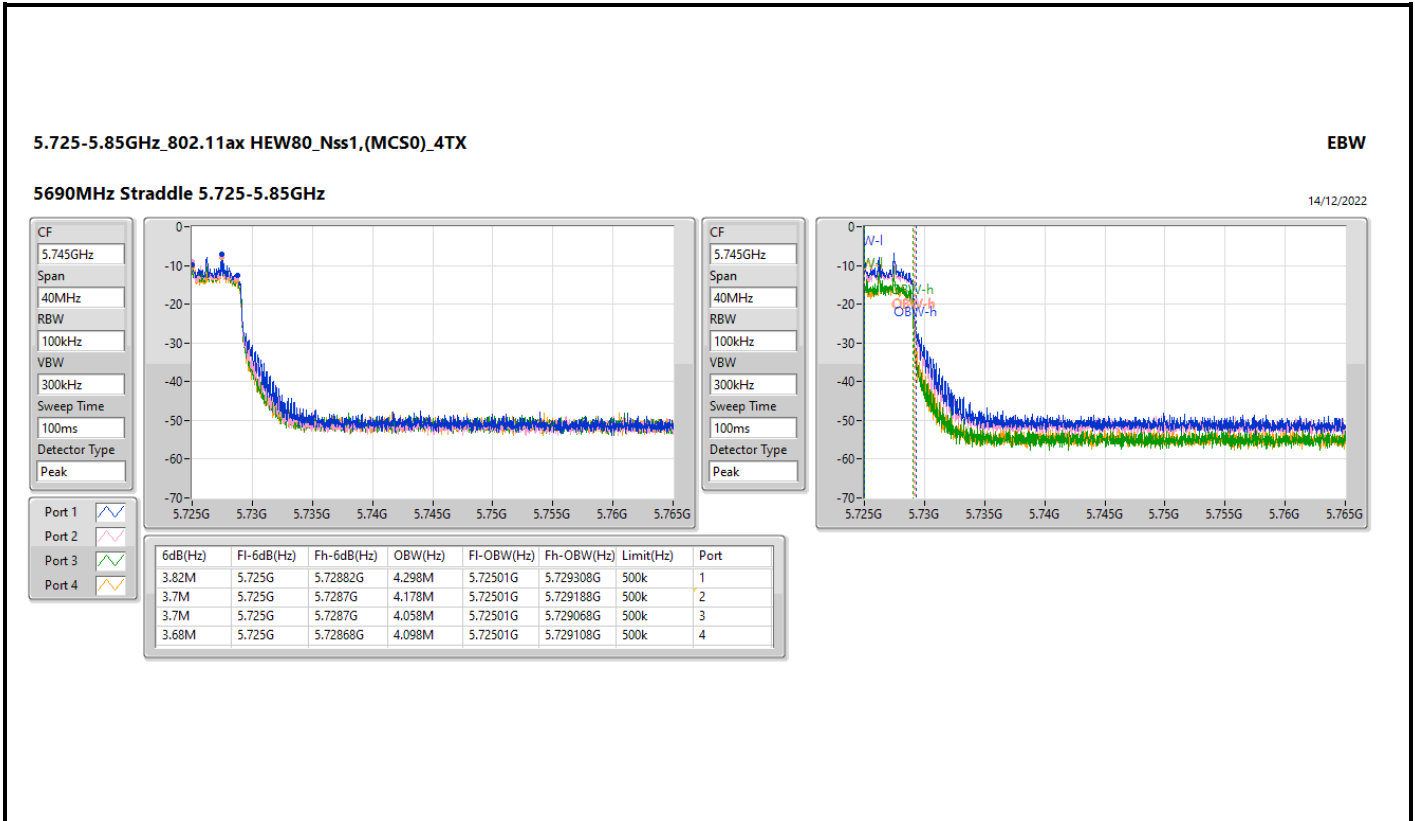


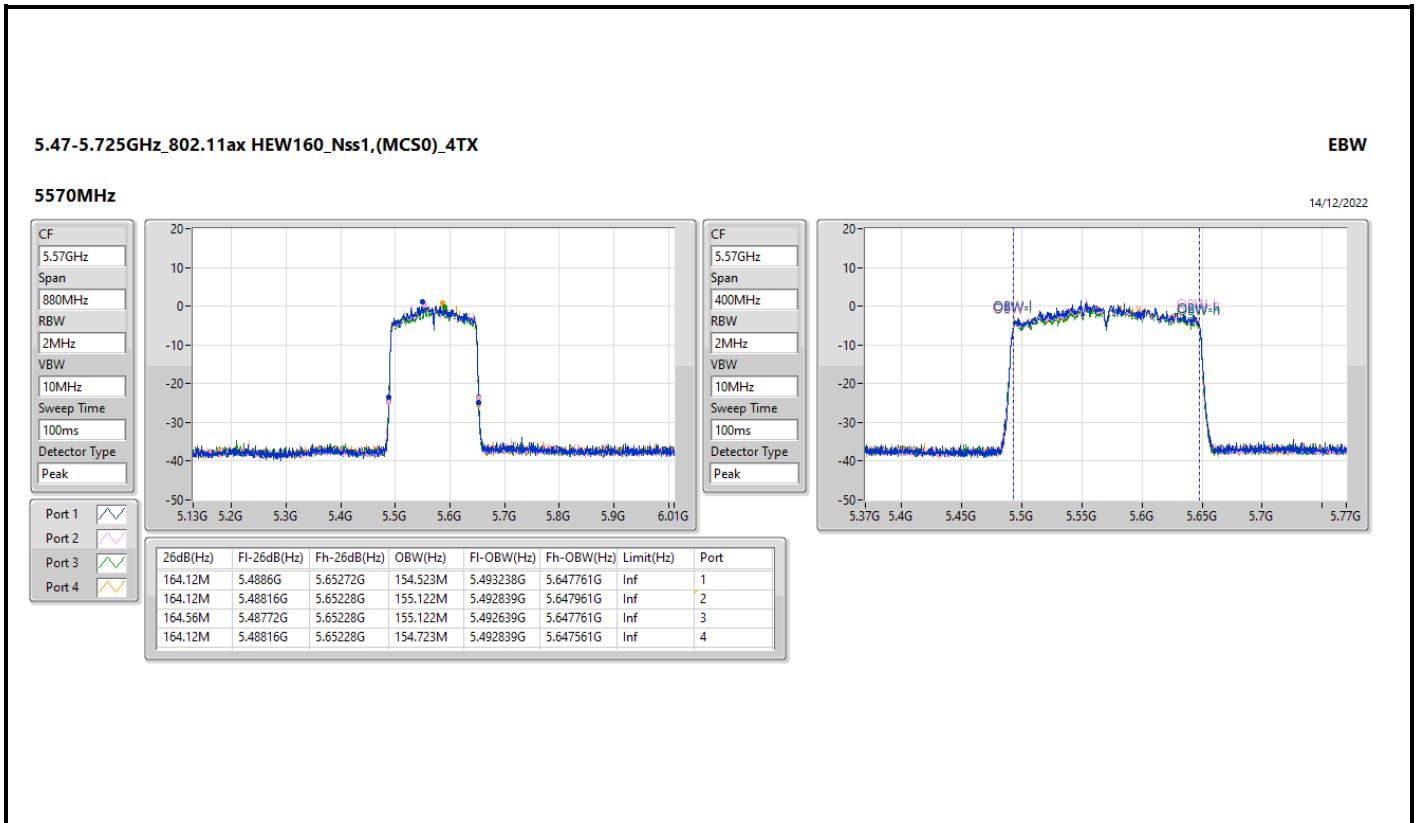














Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	21.505M	16.778M	16M8D1D	20.955M	16.668M
802.11n HT20_Nss1,(MCS0)_4TX	21.505M	17.916M	17M9D1D	21.285M	17.741M
802.11n HT40_Nss1,(MCS0)_4TX	39.6M	36.432M	36M4D1D	39.16M	36.282M
802.11ac VHT20_Nss1,(MCS0)_4TX	21.505M	17.891M	17M9D1D	21.23M	17.741M
802.11ac VHT40_Nss1,(MCS0)_4TX	39.82M	36.432M	36M4D1D	39.16M	36.282M
802.11ac VHT80_Nss1,(MCS0)_4TX	82.06M	75.762M	75M8D1D	81.18M	75.562M
802.11ac VHT160_Nss1,(MCS0)_4TX	82.32M	76.282M	76M3D1D	81.12M	75.882M
802.11ax HEW20_Nss1,(MCS0)_4TX	21.725M	19.065M	19M1D1D	21.065M	18.991M
802.11ax HEW40_Nss1,(MCS0)_4TX	40.15M	37.581M	37M6D1D	39.38M	37.481M
802.11ax HEW80_Nss1,(MCS0)_4TX	82.06M	77.161M	77M2D1D	81.84M	77.061M
802.11ax HEW160_Nss1,(MCS0)_4TX	81.2M	77.641M	77M6D1D	80.8M	77.401M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	21.395M	16.8M	16M8D1D	21.175M	16.69M
802.11n HT20_Nss1,(MCS0)_4TX	21.56M	17.916M	17M9D1D	21.23M	17.766M
802.11n HT40_Nss1,(MCS0)_4TX	39.82M	36.482M	36M5D1D	39.05M	36.232M
802.11ac VHT20_Nss1,(MCS0)_4TX	21.56M	17.891M	17M9D1D	21.285M	17.766M
802.11ac VHT40_Nss1,(MCS0)_4TX	39.82M	36.382M	36M4D1D	39.27M	36.232M
802.11ac VHT80_Nss1,(MCS0)_4TX	81.84M	75.662M	75M7D1D	81.18M	75.562M
802.11ac VHT160_Nss1,(MCS0)_4TX	82.88M	76.282M	76M3D1D	81.2M	75.802M
802.11ax HEW20_Nss1,(MCS0)_4TX	21.56M	19.09M	19M1D1D	21.23M	19.015M
802.11ax HEW40_Nss1,(MCS0)_4TX	39.82M	37.581M	37M6D1D	39.38M	37.481M
802.11ax HEW80_Nss1,(MCS0)_4TX	82.06M	77.061M	77M1D1D	81.62M	77.061M
802.11ax HEW160_Nss1,(MCS0)_4TX	82.48M	77.641M	77M6D1D	81.36M	77.241M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	21.45M	16.822M	16M8D1D	15.57M	13.388M
802.11n HT20_Nss1,(MCS0)_4TX	21.56M	17.891M	17M9D1D	15.735M	13.913M
802.11n HT40_Nss1,(MCS0)_4TX	39.71M	36.482M	36M5D1D	34.685M	33.058M
802.11ac VHT20_Nss1,(MCS0)_4TX	21.615M	17.891M	17M9D1D	15.735M	13.958M
802.11ac VHT40_Nss1,(MCS0)_4TX	39.71M	36.432M	36M4D1D	34.685M	32.989M
802.11ac VHT80_Nss1,(MCS0)_4TX	82.06M	75.762M	75M8D1D	75.6M	72.339M
802.11ac VHT160_Nss1,(MCS0)_4TX	165M	154.723M	155MD1D	163.68M	154.323M
802.11ax HEW20_Nss1,(MCS0)_4TX	21.615M	19.09M	19M1D1D	15.645M	14.543M
802.11ax HEW40_Nss1,(MCS0)_4TX	40.15M	37.581M	37M6D1D	34.72M	33.583M
802.11ax HEW80_Nss1,(MCS0)_4TX	82.28M	77.161M	77M2D1D	75.9M	73.088M
802.11ax HEW160_Nss1,(MCS0)_4TX	165M	155.722M	156MD1D	164.12M	155.522M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.39M	16.844M	16M8D1D	3.1M	4.038M
802.11n HT20_Nss1,(MCS0)_4TX	17.6M	17.941M	17M9D1D	3.76M	4.278M
802.11n HT40_Nss1,(MCS0)_4TX	36.41M	36.482M	36M5D1D	3.1M	3.498M
802.11ac VHT20_Nss1,(MCS0)_4TX	17.6M	17.891M	17M9D1D	3.72M	4.278M
802.11ac VHT40_Nss1,(MCS0)_4TX	36.41M	36.432M	36M4D1D	3.1M	3.558M
802.11ac VHT80_Nss1,(MCS0)_4TX	75.68M	75.662M	75M7D1D	3.08M	3.638M
802.11ax HEW20_Nss1,(MCS0)_4TX	19.03M	19.115M	19M1D1D	4.4M	4.518M
802.11ax HEW40_Nss1,(MCS0)_4TX	37.62M	37.581M	37M6D1D	3.76M	4.018M
802.11ax HEW80_Nss1,(MCS0)_4TX	77.22M	77.161M	77M2D1D	3.18M	4.018M

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



Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	21.395M	16.668M	21.34M	16.756M	21.285M	16.778M	20.955M	16.734M
5200MHz	Pass	Inf	21.23M	16.69M	21.285M	16.778M	21.34M	16.778M	21.175M	16.734M
5240MHz	Pass	Inf	21.285M	16.69M	21.505M	16.778M	21.285M	16.778M	21.12M	16.734M
5260MHz	Pass	Inf	21.285M	16.69M	21.395M	16.756M	21.395M	16.8M	21.175M	16.756M
5300MHz	Pass	Inf	21.285M	16.69M	21.395M	16.756M	21.395M	16.778M	21.23M	16.734M
5320MHz	Pass	Inf	21.34M	16.69M	21.285M	16.756M	21.34M	16.8M	21.23M	16.734M
5500MHz	Pass	Inf	21.395M	16.668M	21.45M	16.778M	21.23M	16.8M	21.175M	16.756M
5580MHz	Pass	Inf	21.45M	16.69M	21.45M	16.756M	21.34M	16.778M	21.065M	16.734M
5700MHz	Pass	Inf	21.12M	16.69M	21.285M	16.756M	21.34M	16.822M	21.01M	16.734M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.855M	13.403M	15.825M	13.448M	15.615M	13.448M	15.57M	13.388M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.1M	4.038M	3.1M	4.078M	3.12M	4.158M	3.12M	4.098M
5745MHz	Pass	500k	16.335M	16.69M	16.335M	16.756M	16.335M	16.844M	16.39M	16.778M
5785MHz	Pass	500k	16.335M	16.712M	16.335M	16.756M	16.335M	16.822M	16.335M	16.756M
5825MHz	Pass	500k	16.335M	16.69M	16.335M	16.756M	16.39M	16.844M	16.335M	16.756M
802.11n HT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	21.505M	17.791M	21.34M	17.741M	21.34M	17.766M	21.34M	17.891M
5200MHz	Pass	Inf	21.395M	17.791M	21.285M	17.791M	21.395M	17.766M	21.505M	17.916M
5240MHz	Pass	Inf	21.285M	17.791M	21.34M	17.766M	21.395M	17.741M	21.45M	17.891M
5260MHz	Pass	Inf	21.34M	17.791M	21.285M	17.766M	21.34M	17.766M	21.56M	17.891M
5300MHz	Pass	Inf	21.34M	17.791M	21.45M	17.791M	21.395M	17.766M	21.505M	17.916M
5320MHz	Pass	Inf	21.23M	17.766M	21.395M	17.791M	21.395M	17.766M	21.395M	17.891M
5500MHz	Pass	Inf	21.395M	17.791M	21.395M	17.791M	21.45M	17.766M	21.56M	17.891M
5580MHz	Pass	Inf	21.395M	17.791M	21.395M	17.766M	21.34M	17.766M	21.45M	17.891M
5700MHz	Pass	Inf	21.395M	17.766M	21.45M	17.791M	21.56M	17.791M	21.505M	17.891M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.765M	13.913M	15.735M	13.928M	15.825M	13.943M	15.855M	14.063M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.76M	4.298M	3.76M	4.318M	3.76M	4.318M	3.76M	4.278M
5745MHz	Pass	500k	17.6M	17.766M	17.6M	17.791M	17.6M	17.766M	17.6M	17.941M
5785MHz	Pass	500k	17.6M	17.766M	17.6M	17.791M	17.6M	17.766M	17.6M	17.916M
5825MHz	Pass	500k	17.6M	17.766M	17.6M	17.816M	17.6M	17.791M	17.6M	17.916M
802.11n HT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	39.27M	36.282M	39.49M	36.382M	39.38M	36.282M	39.6M	36.432M
5230MHz	Pass	Inf	39.16M	36.282M	39.49M	36.382M	39.16M	36.282M	39.6M	36.432M
5270MHz	Pass	Inf	39.49M	36.282M	39.38M	36.382M	39.27M	36.232M	39.71M	36.382M
5310MHz	Pass	Inf	39.82M	36.282M	39.38M	36.332M	39.05M	36.232M	39.71M	36.482M
5510MHz	Pass	Inf	39.38M	36.332M	39.6M	36.332M	39.16M	36.282M	39.6M	36.482M
5550MHz	Pass	Inf	39.49M	36.332M	39.27M	36.382M	39.16M	36.282M	39.71M	36.432M
5670MHz	Pass	Inf	39.16M	36.282M	39.38M	36.382M	39.16M	36.232M	39.71M	36.432M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.895M	33.093M	34.825M	33.093M	34.685M	33.058M	34.895M	33.163M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.1M	3.498M	3.1M	3.578M	3.1M	3.518M	3.1M	3.598M
5755MHz	Pass	500k	36.3M	36.332M	36.41M	36.332M	36.41M	36.232M	36.41M	36.482M
5795MHz	Pass	500k	36.41M	36.332M	36.41M	36.332M	36.41M	36.282M	36.41M	36.482M
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	21.505M	17.891M	21.23M	17.741M	21.45M	17.816M	21.395M	17.841M
5200MHz	Pass	Inf	21.505M	17.866M	21.34M	17.766M	21.34M	17.816M	21.505M	17.841M
5240MHz	Pass	Inf	21.45M	17.866M	21.285M	17.766M	21.45M	17.816M	21.505M	17.841M
5260MHz	Pass	Inf	21.45M	17.891M	21.285M	17.766M	21.505M	17.816M	21.56M	17.841M
5300MHz	Pass	Inf	21.505M	17.866M	21.285M	17.791M	21.34M	17.816M	21.505M	17.841M
5320MHz	Pass	Inf	21.395M	17.891M	21.285M	17.791M	21.505M	17.816M	21.45M	17.841M
5500MHz	Pass	Inf	21.56M	17.891M	21.505M	17.791M	21.34M	17.816M	21.615M	17.841M
5580MHz	Pass	Inf	21.45M	17.891M	21.45M	17.766M	21.45M	17.816M	21.615M	17.866M
5700MHz	Pass	Inf	21.56M	17.866M	21.395M	17.791M	21.615M	17.791M	21.505M	17.866M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.855M	13.988M	15.735M	13.958M	15.825M	13.973M	15.885M	13.988M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.72M	4.278M	3.74M	4.278M	3.74M	4.398M	3.72M	4.318M
5745MHz	Pass	500k	17.6M	17.891M	17.6M	17.791M	17.6M	17.791M	17.6M	17.841M



**EBW\_Non-Beamforming\_Radio 2**

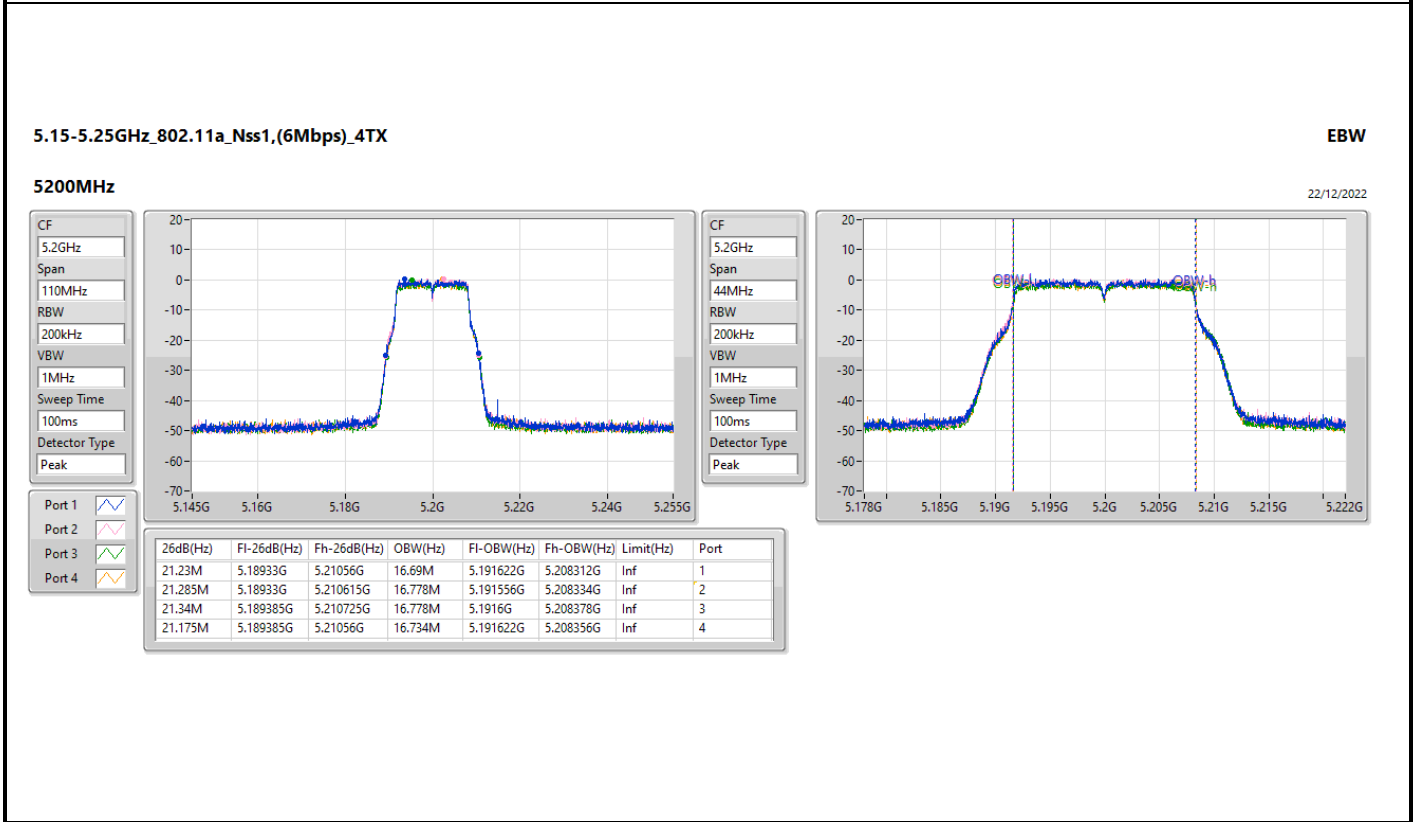
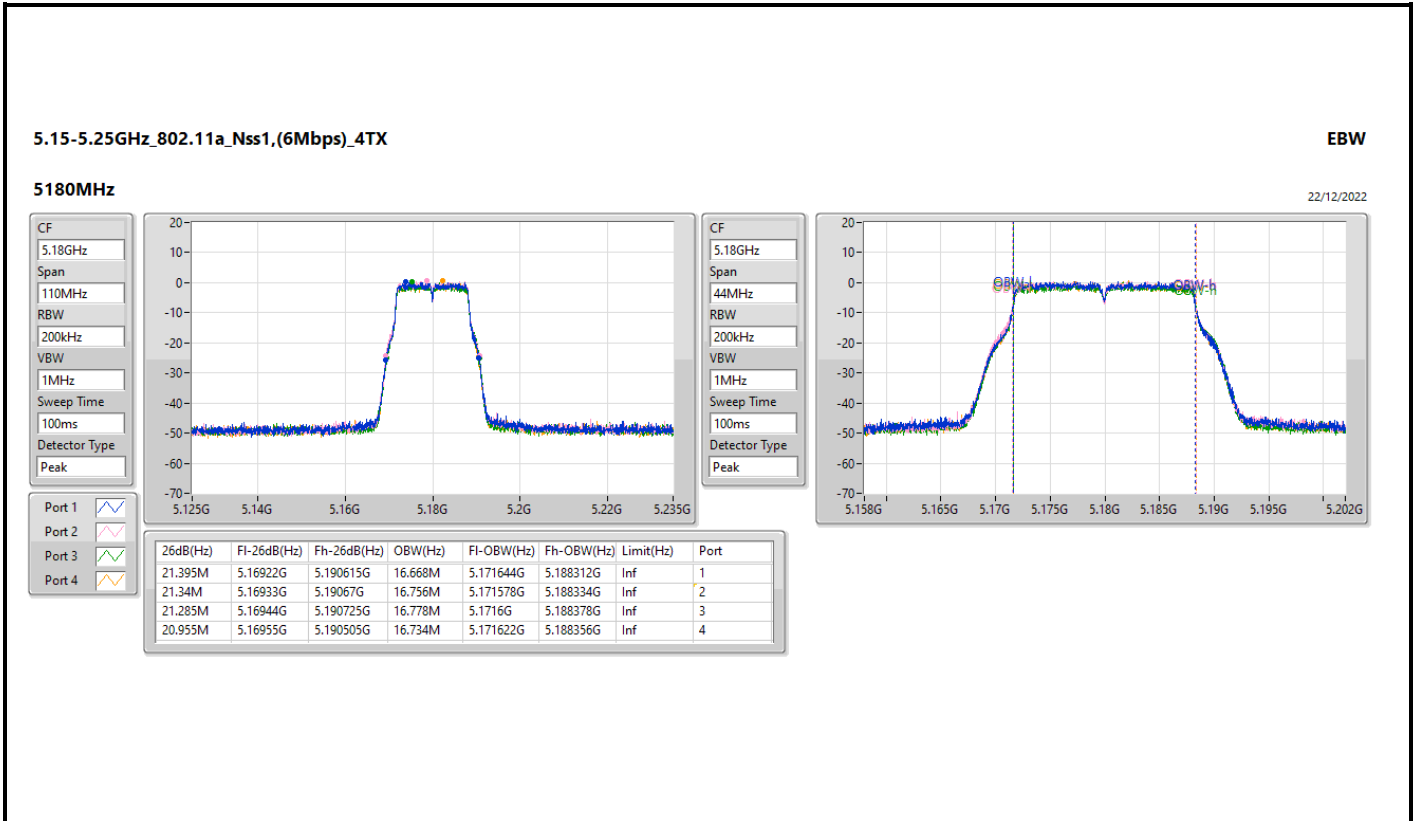
**Appendix B.2**

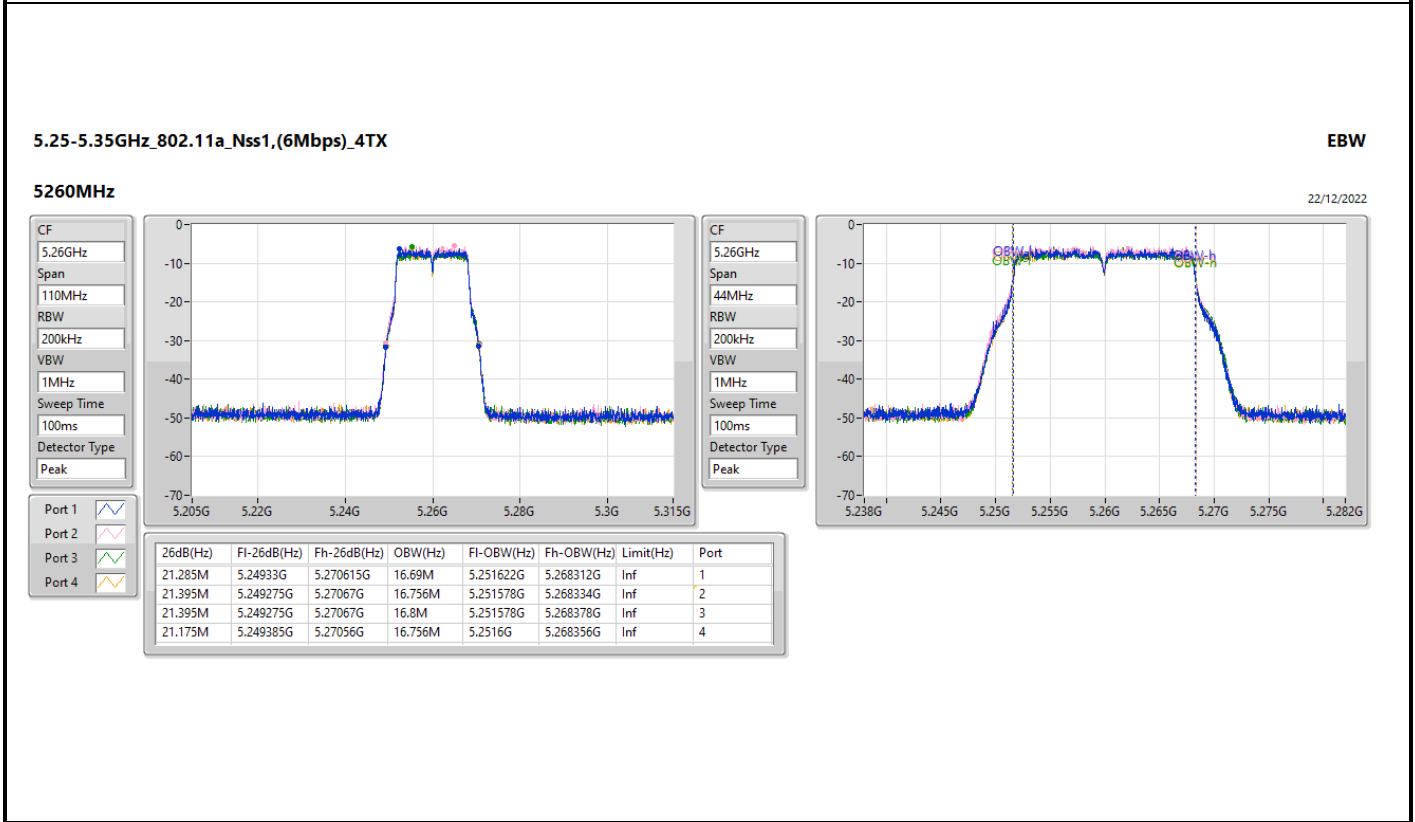
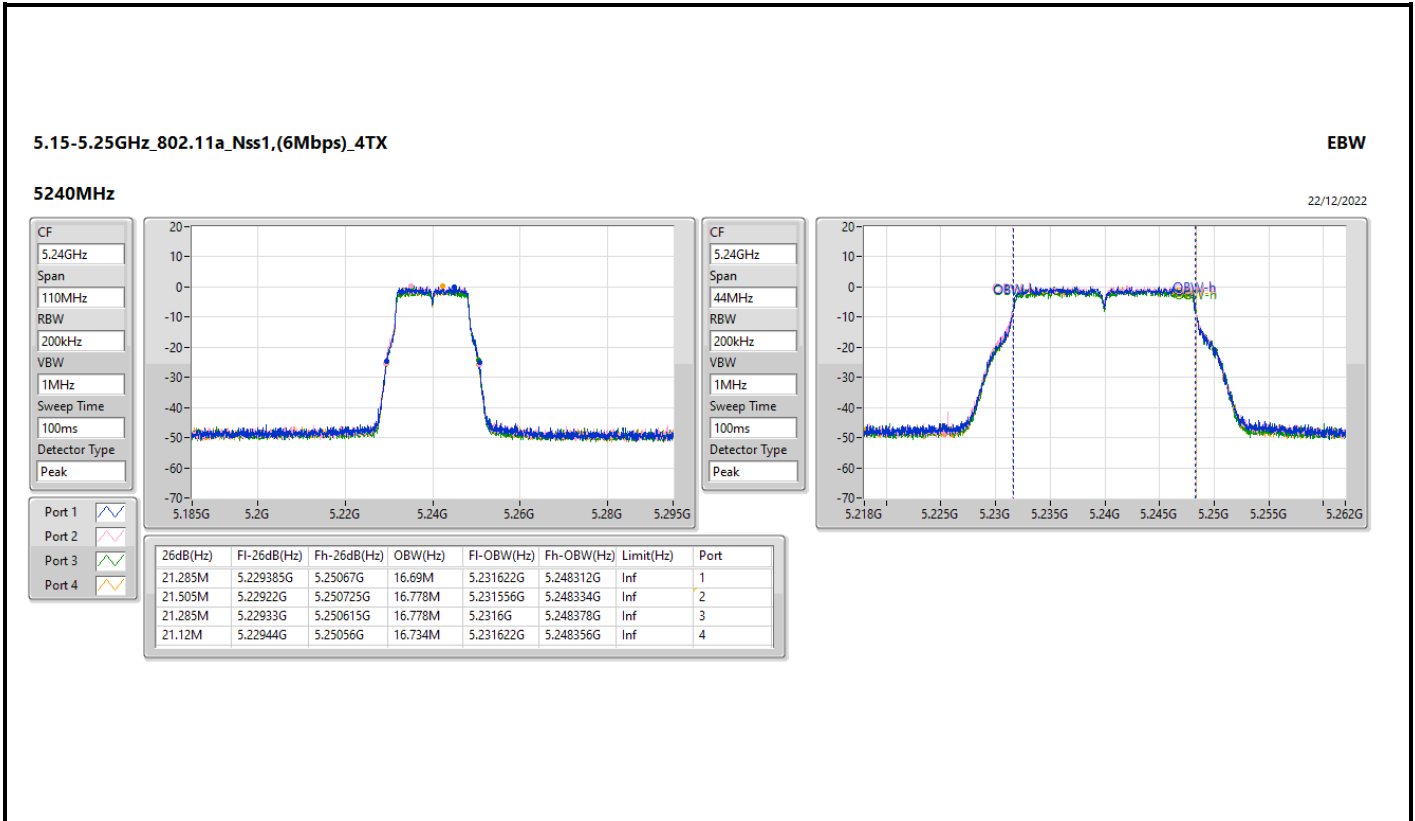
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
5785MHz	Pass	500k	17.6M	17.891M	17.6M	17.791M	17.6M	17.816M	17.6M	17.841M
5825MHz	Pass	500k	17.6M	17.866M	17.6M	17.816M	17.6M	17.816M	17.6M	17.841M
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	39.38M	36.332M	39.82M	36.382M	39.38M	36.282M	39.6M	36.382M
5230MHz	Pass	Inf	39.16M	36.382M	39.6M	36.432M	39.49M	36.332M	39.38M	36.382M
5270MHz	Pass	Inf	39.27M	36.382M	39.82M	36.382M	39.38M	36.332M	39.71M	36.382M
5310MHz	Pass	Inf	39.38M	36.332M	39.71M	36.382M	39.38M	36.232M	39.6M	36.382M
5510MHz	Pass	Inf	39.27M	36.332M	39.6M	36.382M	39.49M	36.282M	39.71M	36.382M
5550MHz	Pass	Inf	39.49M	36.332M	39.6M	36.382M	39.16M	36.282M	39.71M	36.432M
5670MHz	Pass	Inf	39.6M	36.382M	39.6M	36.432M	39.49M	36.282M	39.71M	36.432M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.79M	33.093M	34.93M	33.093M	34.685M	32.989M	34.895M	33.093M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.1M	3.578M	3.12M	3.558M	3.12M	3.658M	3.1M	3.578M
5755MHz	Pass	500k	36.08M	36.432M	36.3M	36.432M	36.41M	36.282M	36.41M	36.432M
5795MHz	Pass	500k	36.41M	36.382M	36.41M	36.432M	36.41M	36.232M	36.08M	36.382M
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	82.06M	75.762M	81.62M	75.562M	81.18M	75.762M	81.84M	75.662M
5290MHz	Pass	Inf	81.62M	75.662M	81.4M	75.562M	81.18M	75.662M	81.84M	75.662M
5530MHz	Pass	Inf	82.06M	75.662M	81.62M	75.562M	81.18M	75.662M	81.84M	75.762M
5610MHz	Pass	Inf	81.84M	75.662M	81.62M	75.562M	81.4M	75.762M	81.84M	75.762M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.975M	72.489M	75.6M	72.414M	75.6M	72.339M	75.9M	72.414M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.1M	3.758M	3.1M	3.638M	3.1M	3.678M	3.08M	3.838M
5775MHz	Pass	500k	75.46M	75.662M	75.68M	75.562M	75.68M	75.662M	75.68M	75.662M
802.11ac VHT160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	81.92M	75.882M	82.32M	75.962M	81.44M	76.202M	81.12M	76.282M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	81.28M	75.802M	81.2M	75.802M	82.88M	76.282M	81.84M	75.962M
5570MHz	Pass	Inf	164.56M	154.523M	165M	154.723M	165M	154.323M	163.68M	154.323M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	21.505M	19.065M	21.45M	19.065M	21.34M	19.015M	21.505M	19.015M
5200MHz	Pass	Inf	21.725M	19.065M	21.505M	19.065M	21.065M	19.04M	21.45M	18.991M
5240MHz	Pass	Inf	21.56M	19.065M	21.56M	18.991M	21.175M	19.04M	21.45M	19.015M
5260MHz	Pass	Inf	21.56M	19.09M	21.56M	19.065M	21.34M	19.065M	21.395M	19.015M
5300MHz	Pass	Inf	21.505M	19.09M	21.45M	19.04M	21.395M	19.04M	21.505M	19.015M
5320MHz	Pass	Inf	21.23M	19.04M	21.34M	19.065M	21.23M	19.04M	21.505M	19.04M
5500MHz	Pass	Inf	21.56M	19.09M	21.45M	19.04M	21.395M	19.04M	21.505M	19.015M
5580MHz	Pass	Inf	21.34M	19.065M	21.23M	19.04M	21.34M	19.065M	21.615M	19.015M
5700MHz	Pass	Inf	21.395M	19.09M	21.56M	19.065M	21.34M	19.04M	21.34M	18.991M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.72M	14.558M	15.78M	14.558M	15.645M	14.543M	15.825M	14.543M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.5M	4.598M	4.4M	4.538M	4.44M	4.558M	4.42M	4.518M
5745MHz	Pass	500k	18.975M	19.115M	18.975M	19.065M	18.975M	19.065M	18.975M	18.991M
5785MHz	Pass	500k	18.975M	19.09M	18.92M	19.065M	18.865M	19.065M	18.975M	19.04M
5825MHz	Pass	500k	18.975M	19.115M	18.92M	19.065M	19.03M	19.04M	18.92M	19.015M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.15M	37.581M	40.04M	37.481M	39.38M	37.531M	39.82M	37.531M
5230MHz	Pass	Inf	39.49M	37.481M	39.49M	37.531M	39.38M	37.481M	39.93M	37.581M
5270MHz	Pass	Inf	39.49M	37.481M	39.38M	37.581M	39.49M	37.531M	39.82M	37.531M
5310MHz	Pass	Inf	39.6M	37.481M	39.6M	37.581M	39.49M	37.531M	39.71M	37.531M
5510MHz	Pass	Inf	40.15M	37.531M	39.6M	37.581M	39.27M	37.531M	39.93M	37.531M
5550MHz	Pass	Inf	40.04M	37.531M	40.04M	37.581M	39.27M	37.531M	39.93M	37.531M
5670MHz	Pass	Inf	40.15M	37.481M	39.49M	37.581M	39.49M	37.531M	39.93M	37.531M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.86M	33.583M	34.895M	33.618M	34.72M	33.618M	35M	33.618M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.76M	4.018M	3.8M	4.018M	3.8M	4.018M	3.76M	4.018M
5755MHz	Pass	500k	37.07M	37.531M	37.51M	37.581M	37.07M	37.581M	37.51M	37.531M
5795MHz	Pass	500k	37.07M	37.531M	37.62M	37.581M	37.62M	37.531M	37.18M	37.531M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.84M	77.161M	81.84M	77.161M	81.84M	77.061M	82.06M	77.061M
5290MHz	Pass	Inf	81.62M	77.061M	81.84M	77.061M	82.06M	77.061M	82.06M	77.061M



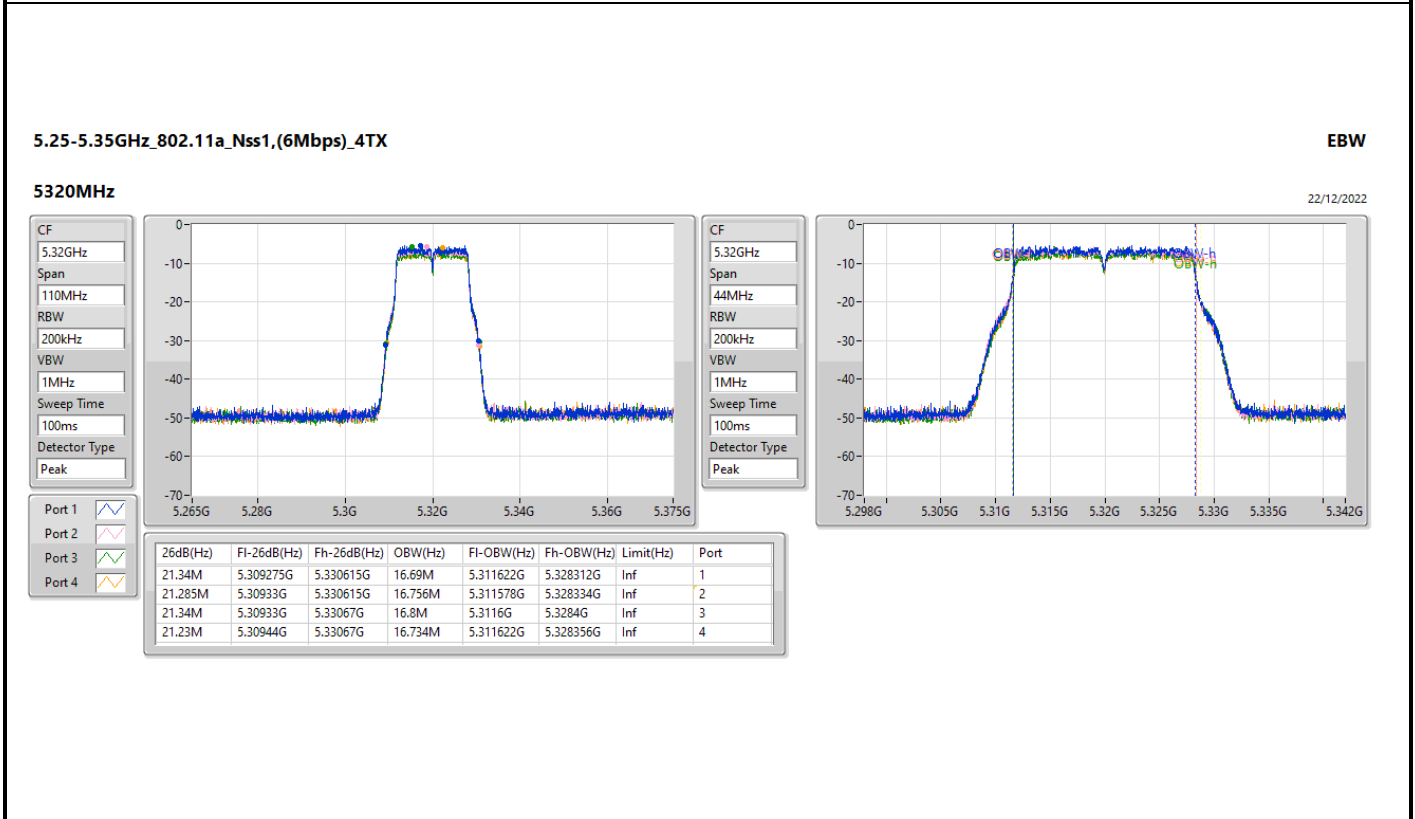
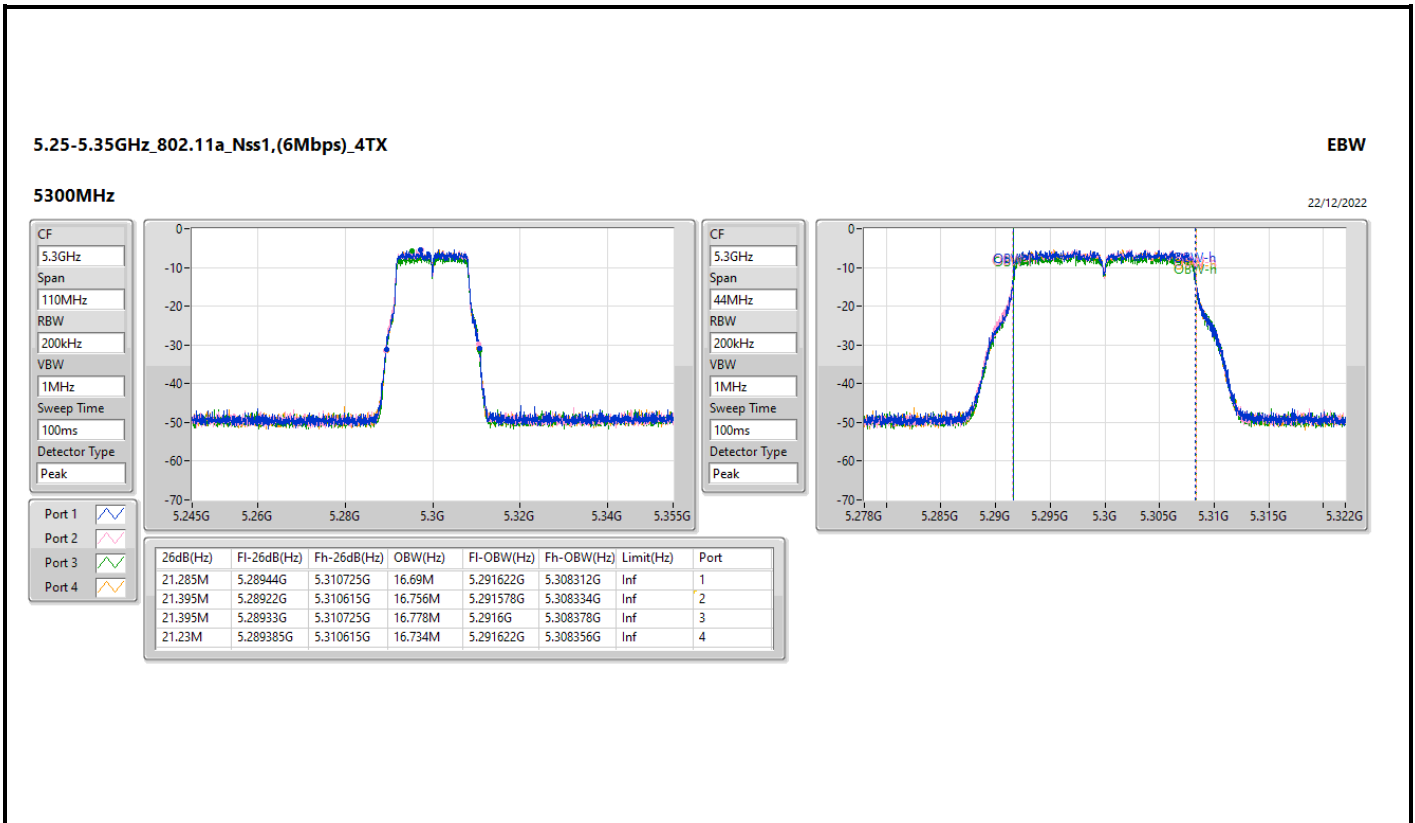
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
5530MHz	Pass	Inf	81.84M	77.161M	82.28M	77.061M	82.28M	77.061M	82.28M	77.061M
5610MHz	Pass	Inf	81.4M	76.962M	82.06M	77.161M	82.06M	77.061M	82.06M	77.061M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.9M	73.163M	76.275M	73.088M	75.975M	73.088M	75.9M	73.088M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.18M	4.038M	3.78M	4.018M	3.68M	4.138M	3.76M	4.178M
5775MHz	Pass	500k	75.46M	76.962M	76.78M	77.161M	76.34M	77.061M	77.22M	77.061M
802.11ax HEW160_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	80.88M	77.641M	81.2M	77.561M	81.04M	77.481M	80.8M	77.401M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	81.36M	77.321M	81.6M	77.481M	81.36M	77.241M	82.48M	77.641M
5570MHz	Pass	Inf	164.56M	155.722M	165M	155.722M	164.12M	155.522M	165M	155.522M

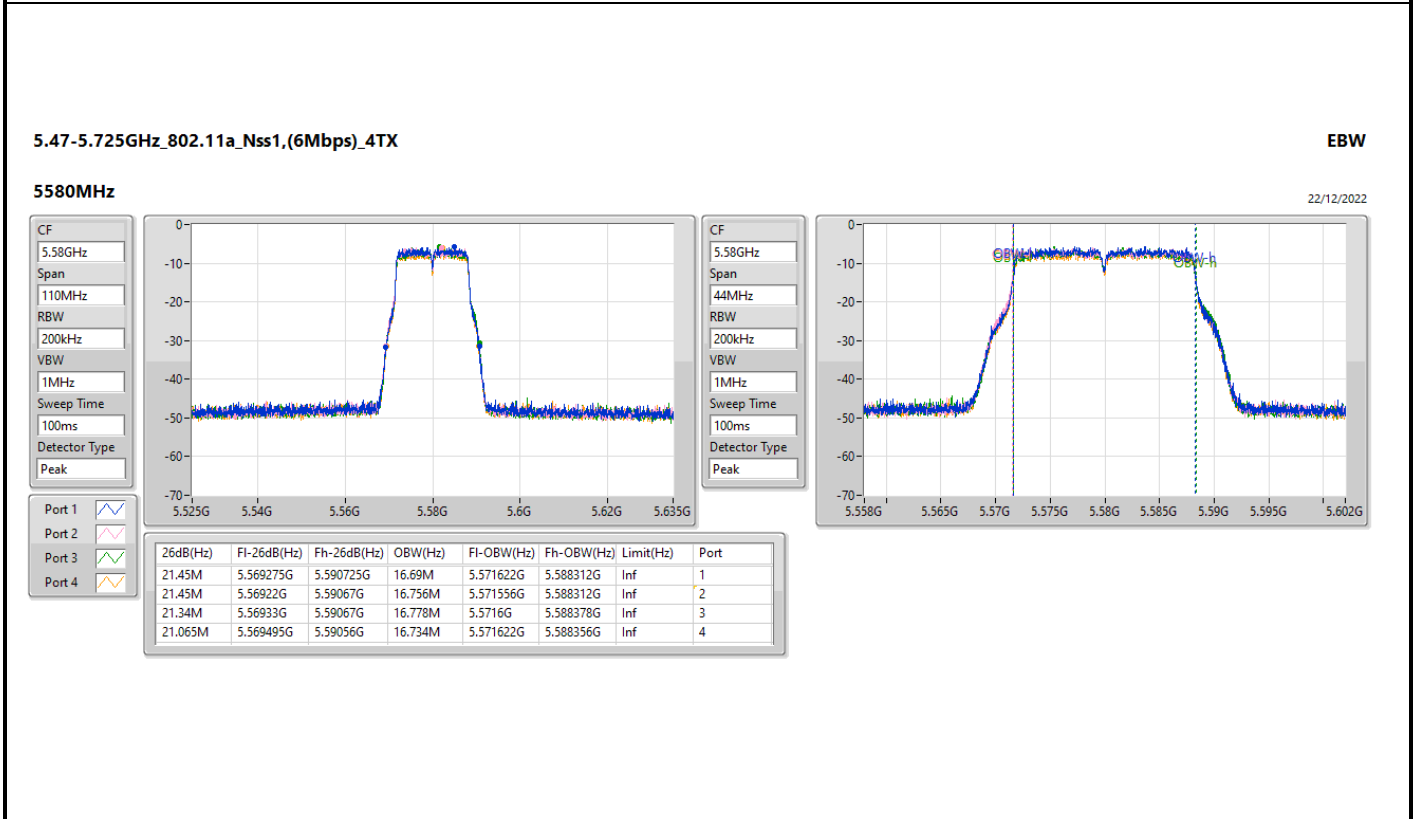
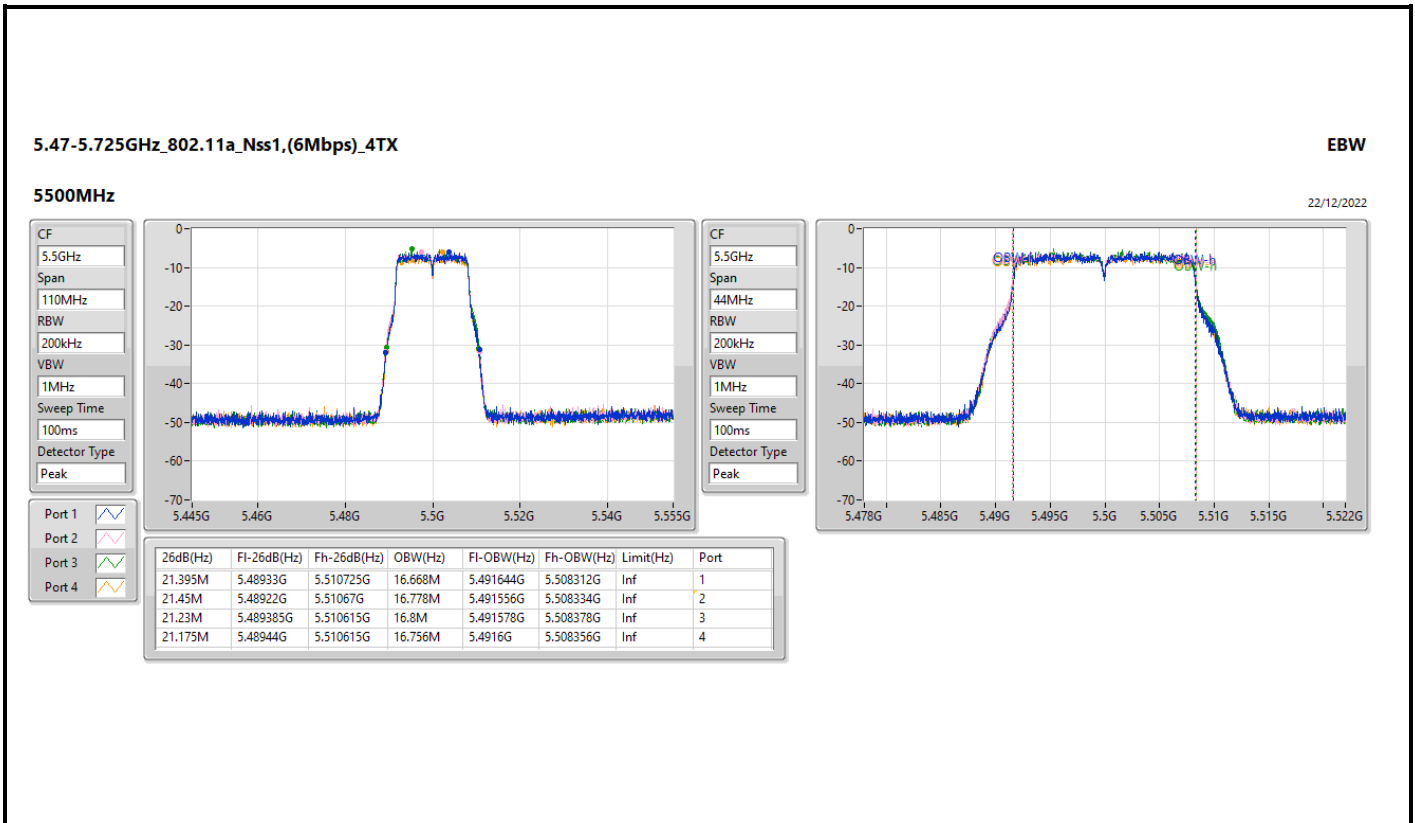
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band  
 Port X-OBW = Port X 99% occupied bandwidth

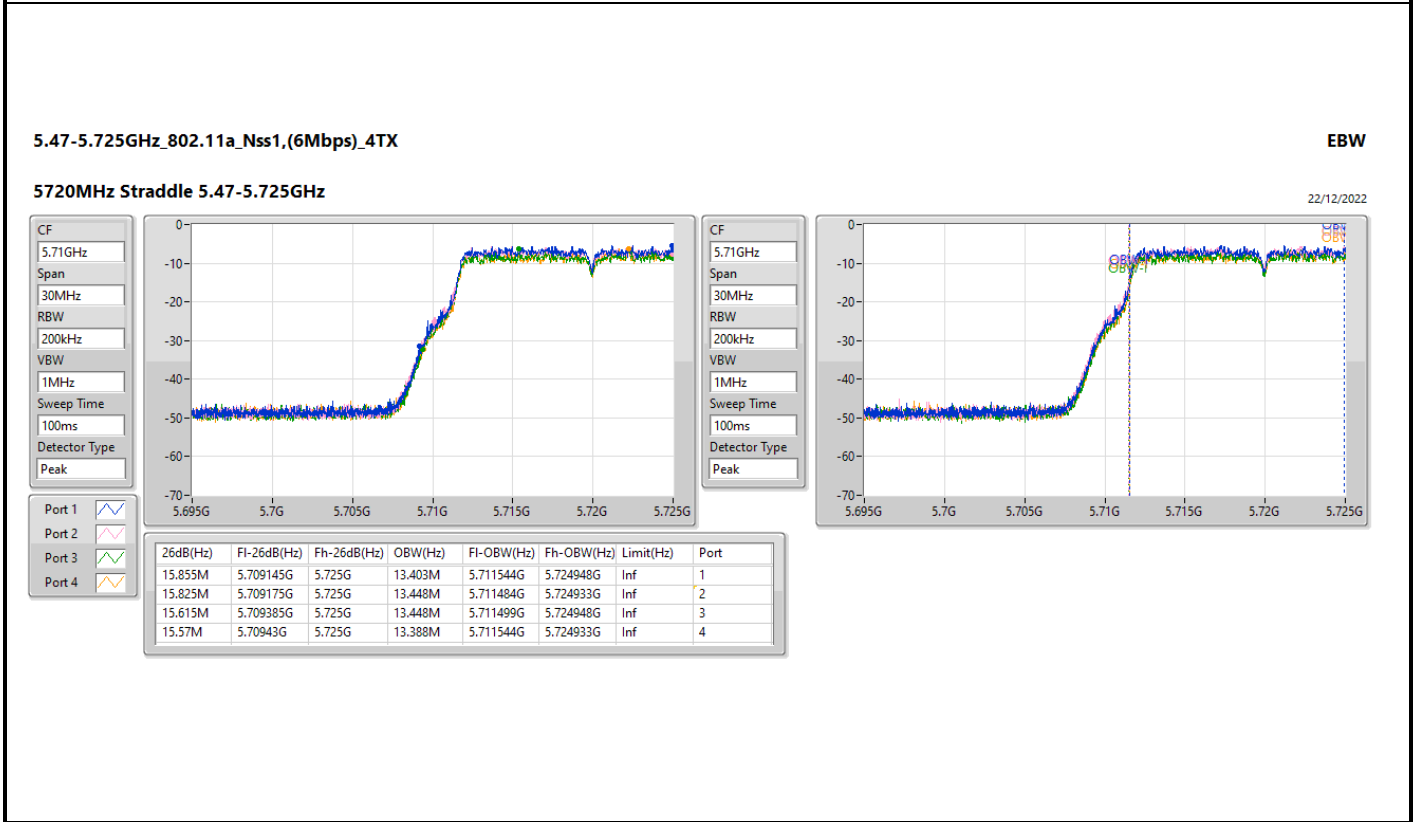
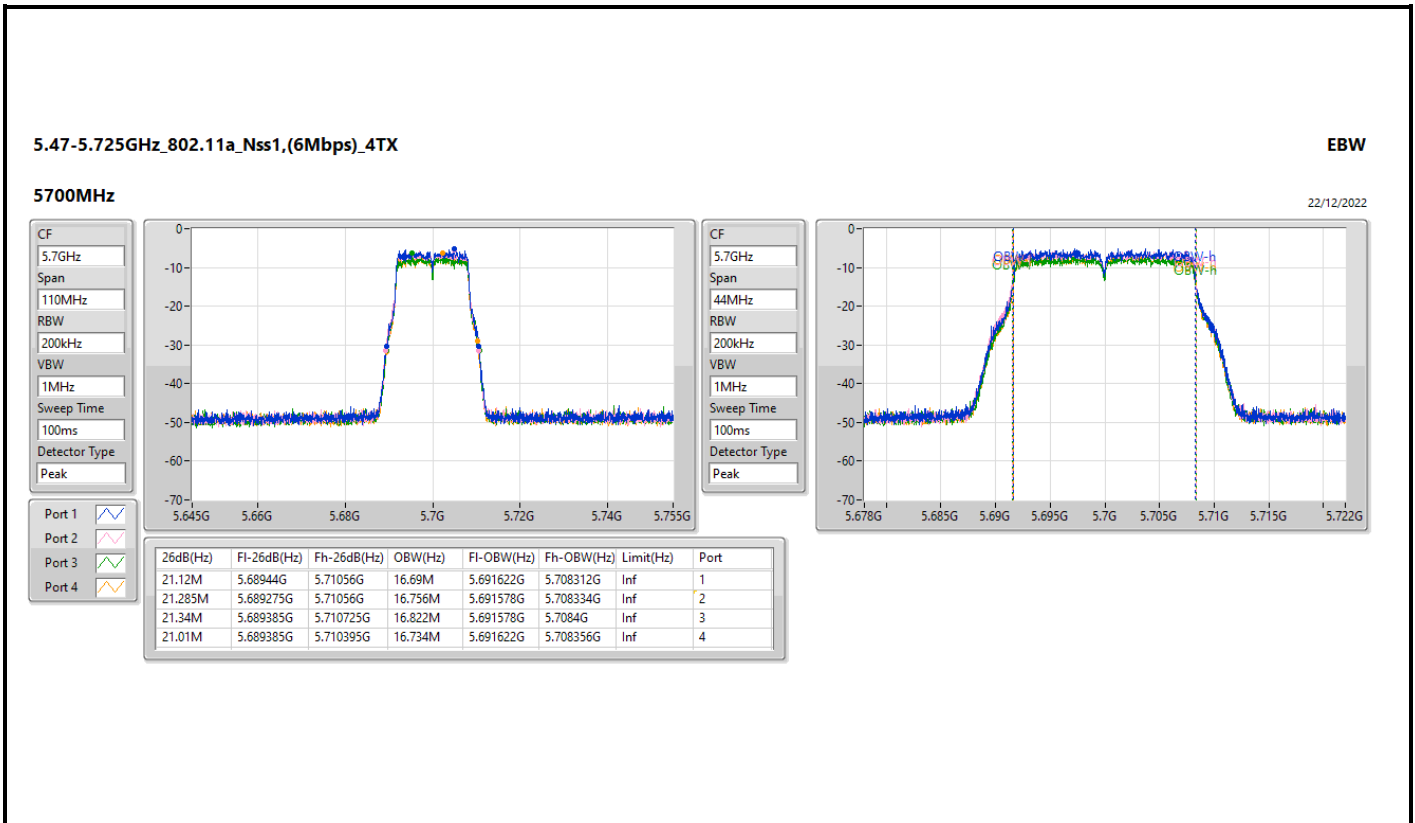


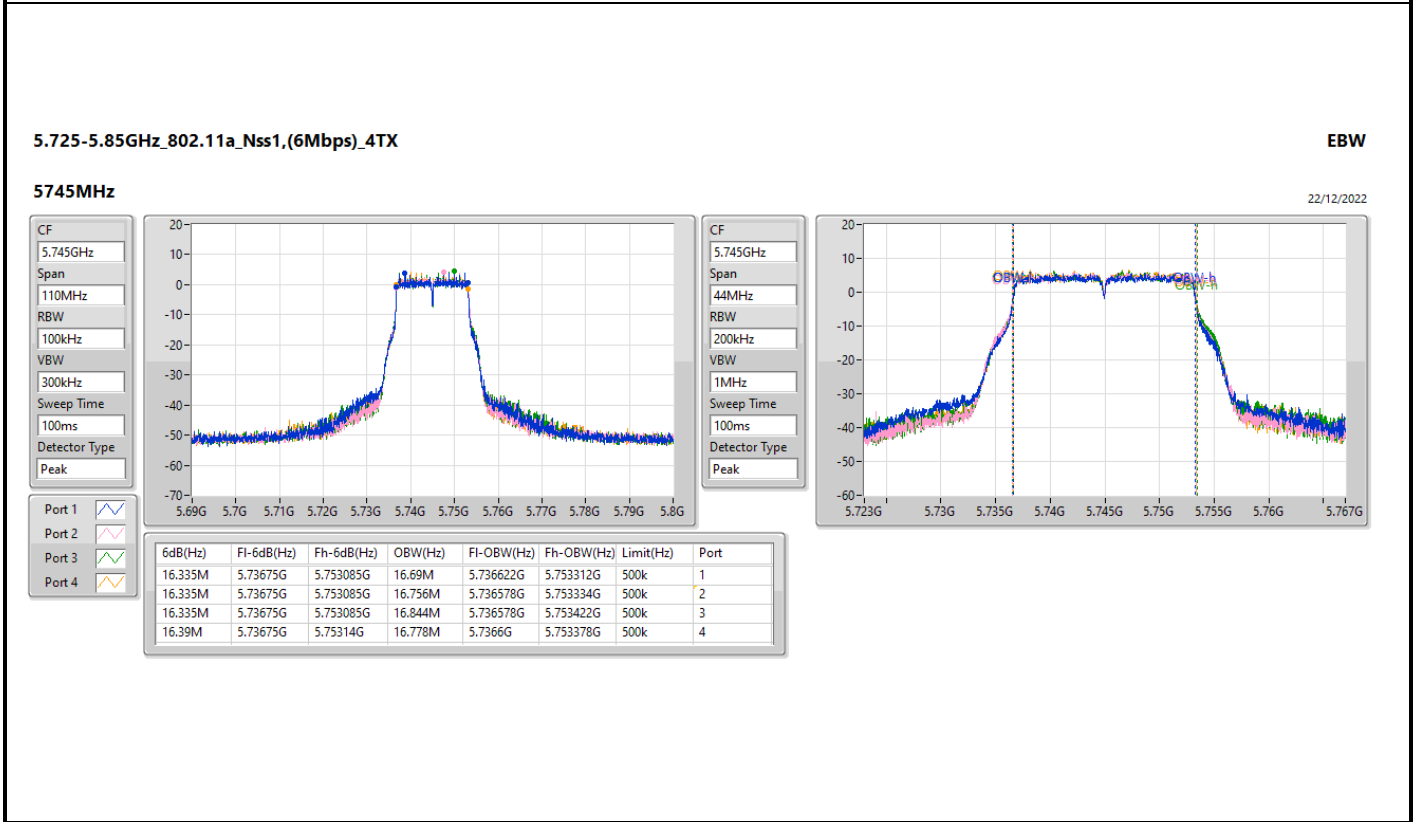
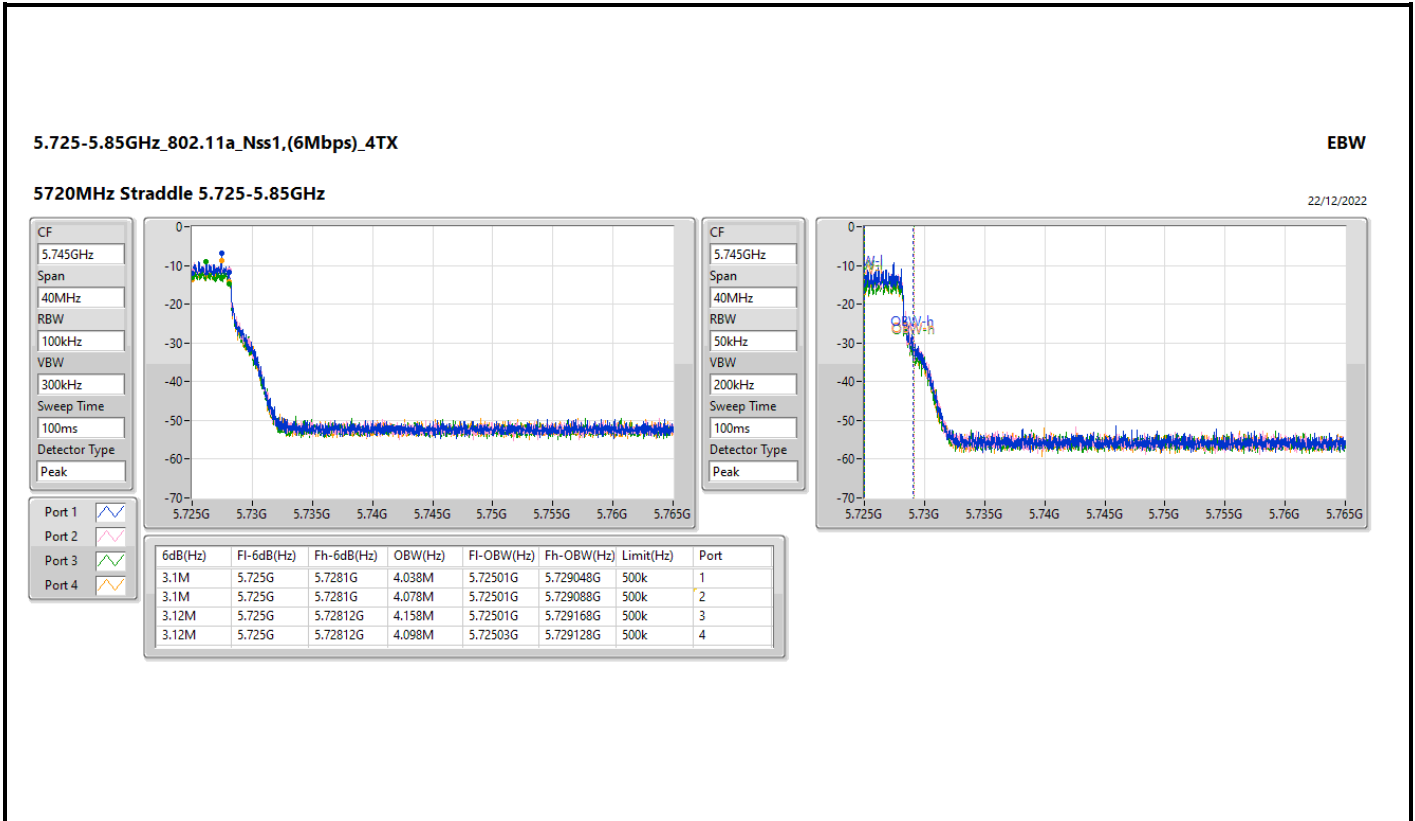


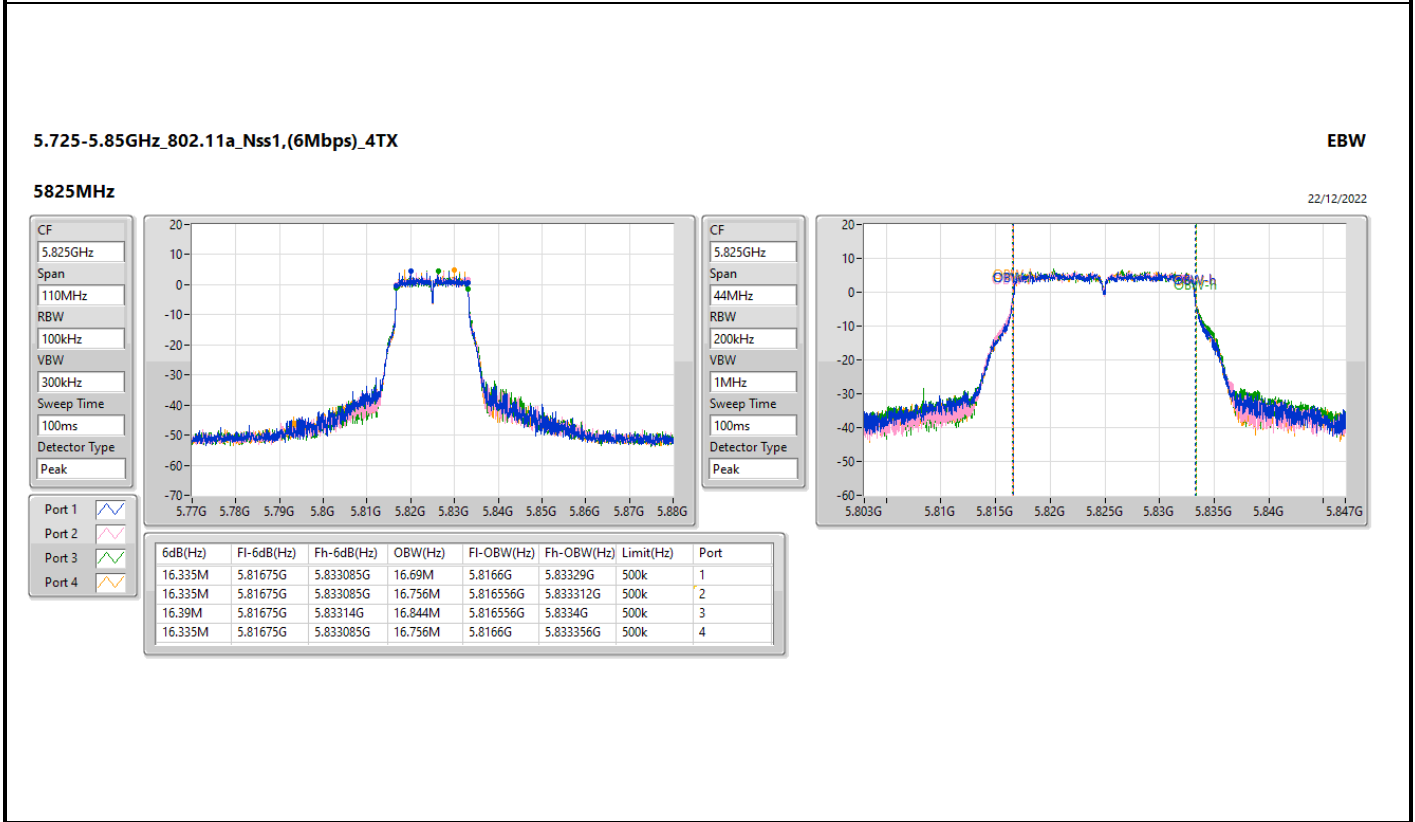
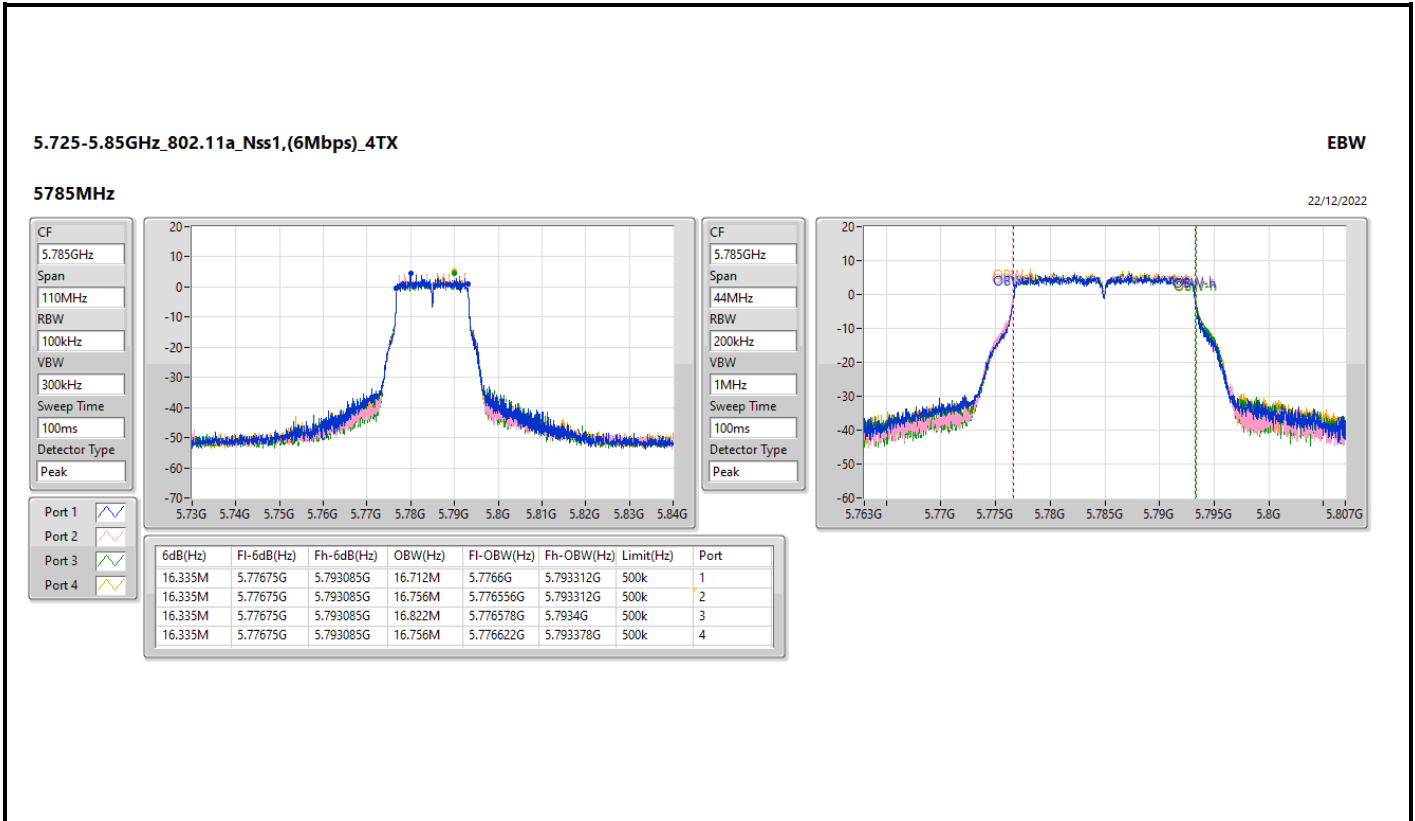


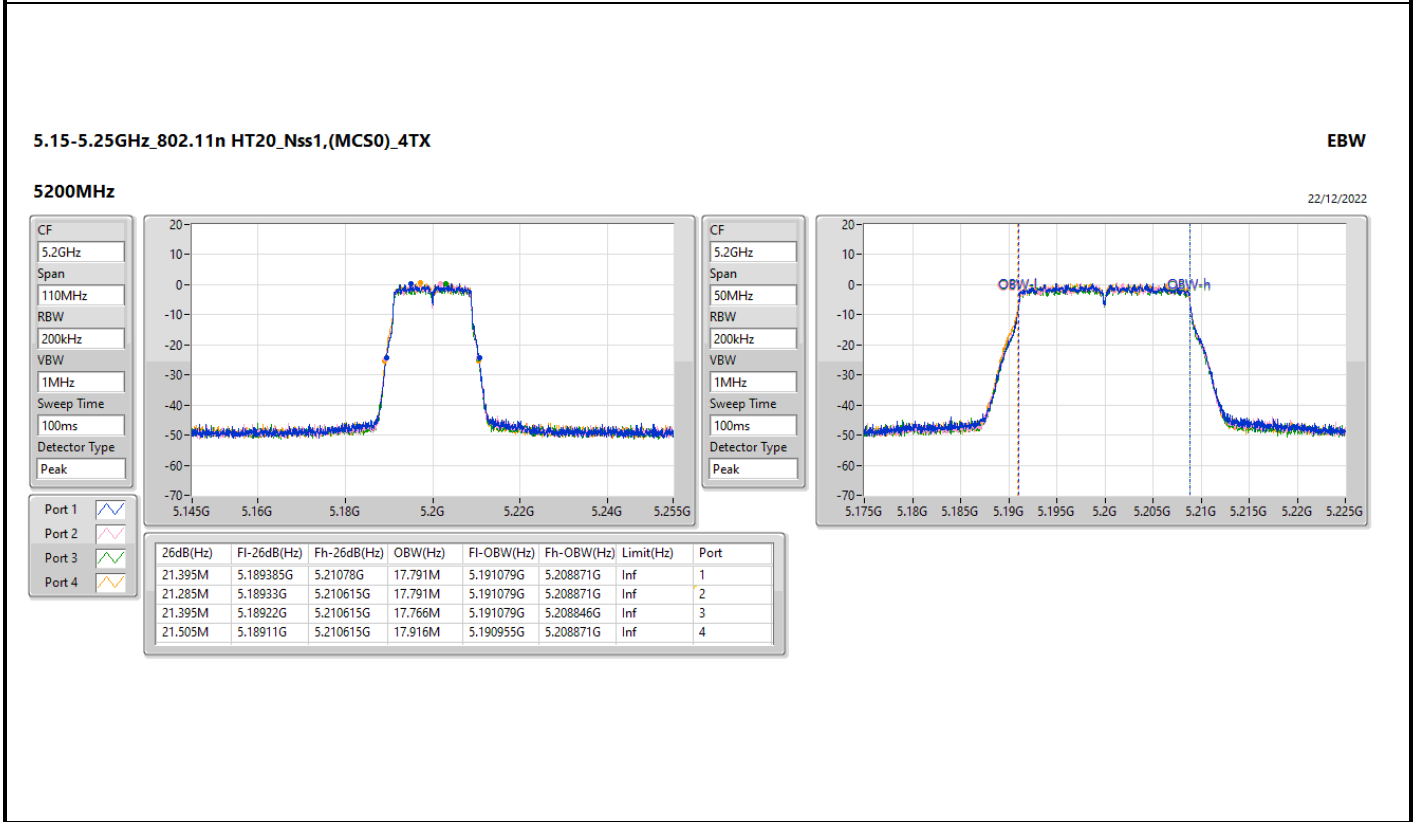
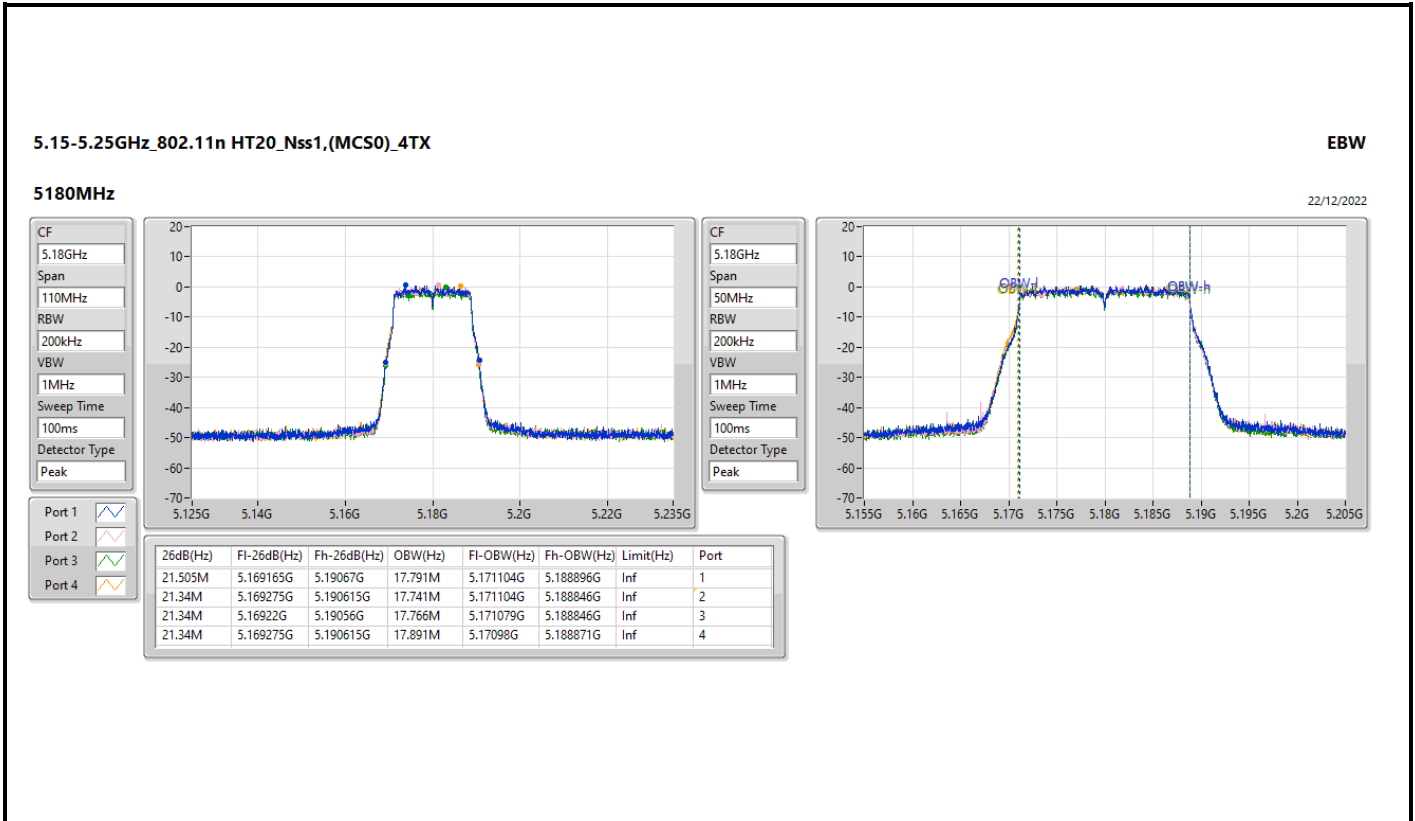










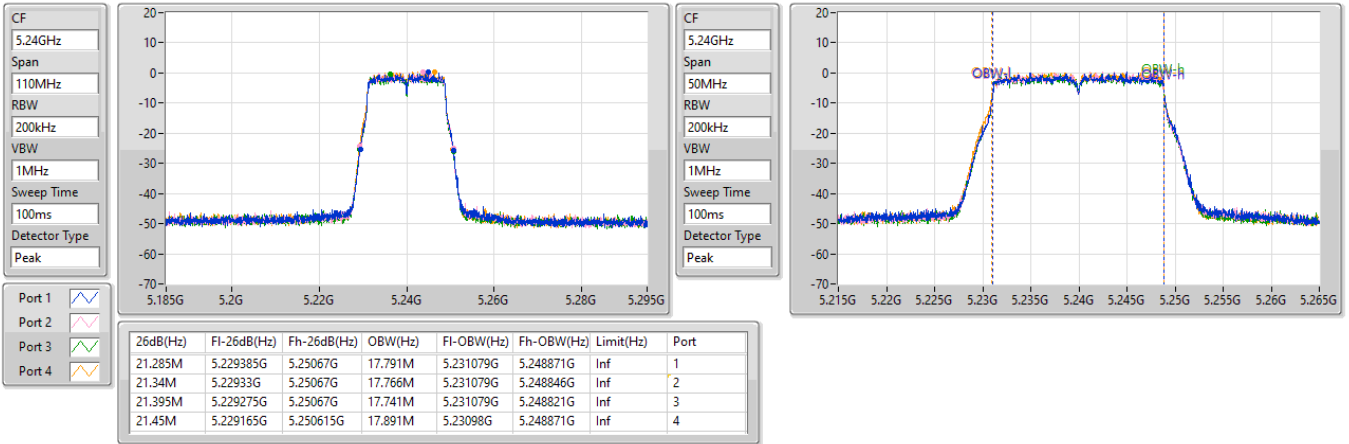


5.15-5.25GHz\_802.11n HT20\_Nss1,(MCS0)\_4TX

EBW

5240MHz

22/12/2022

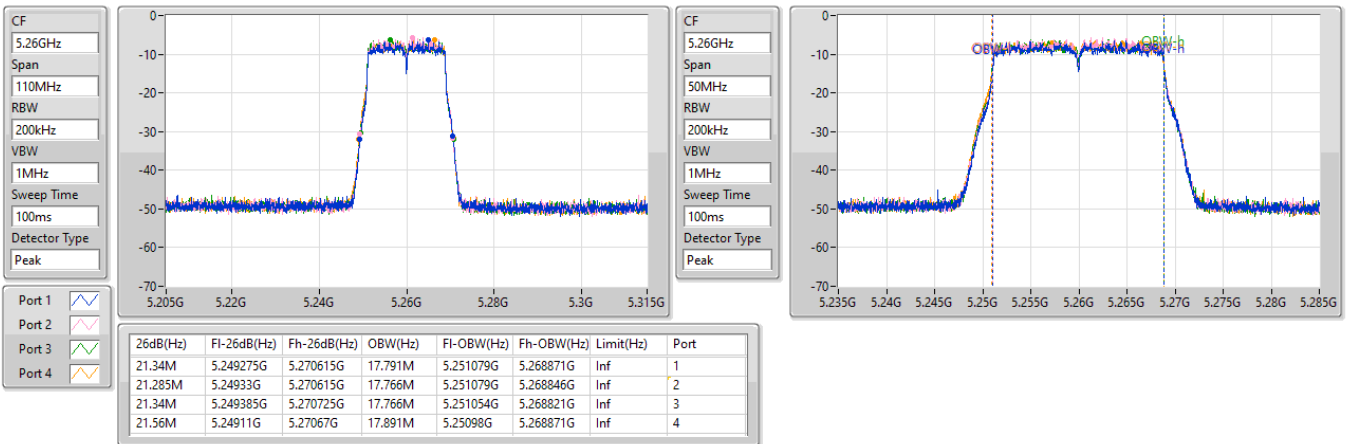


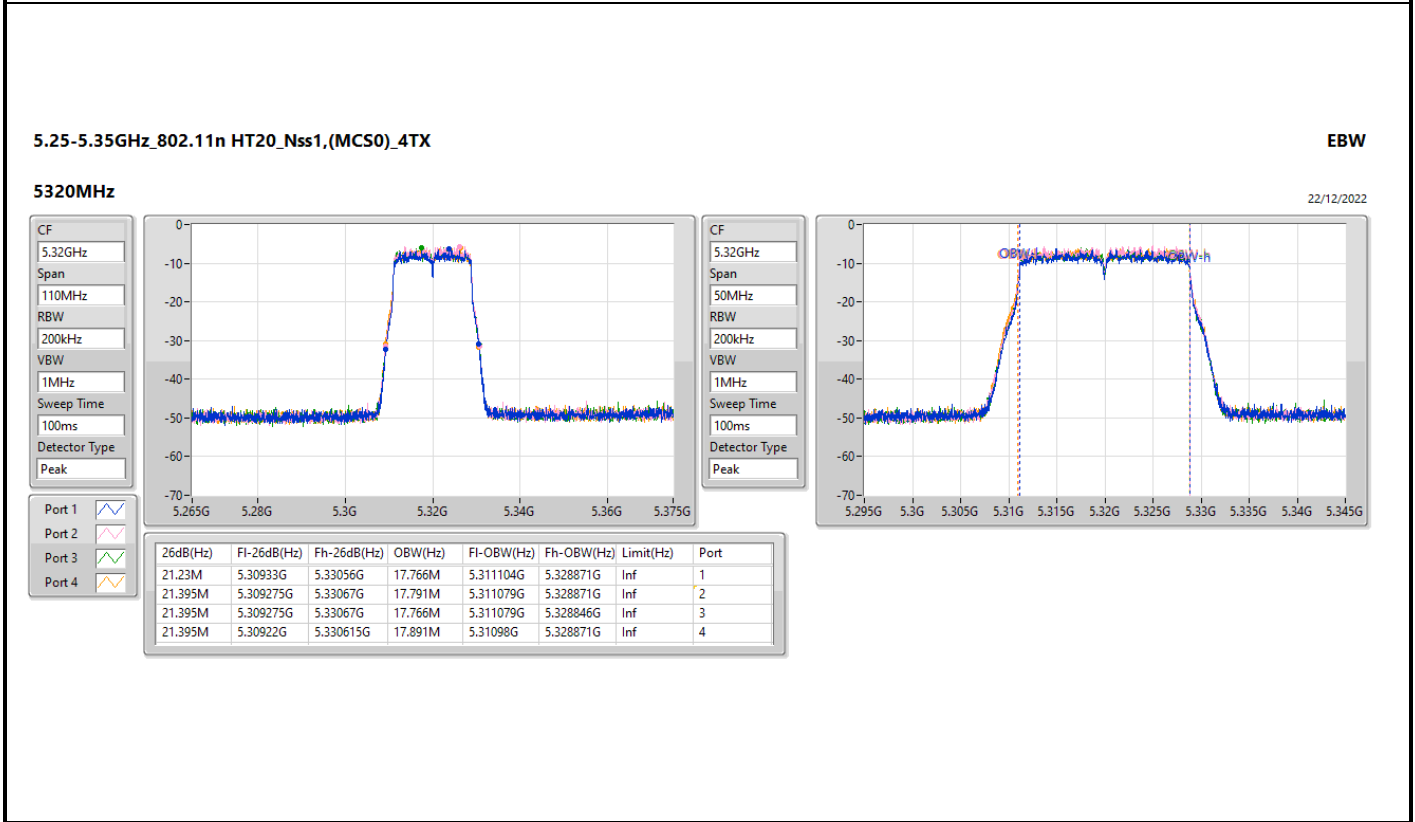
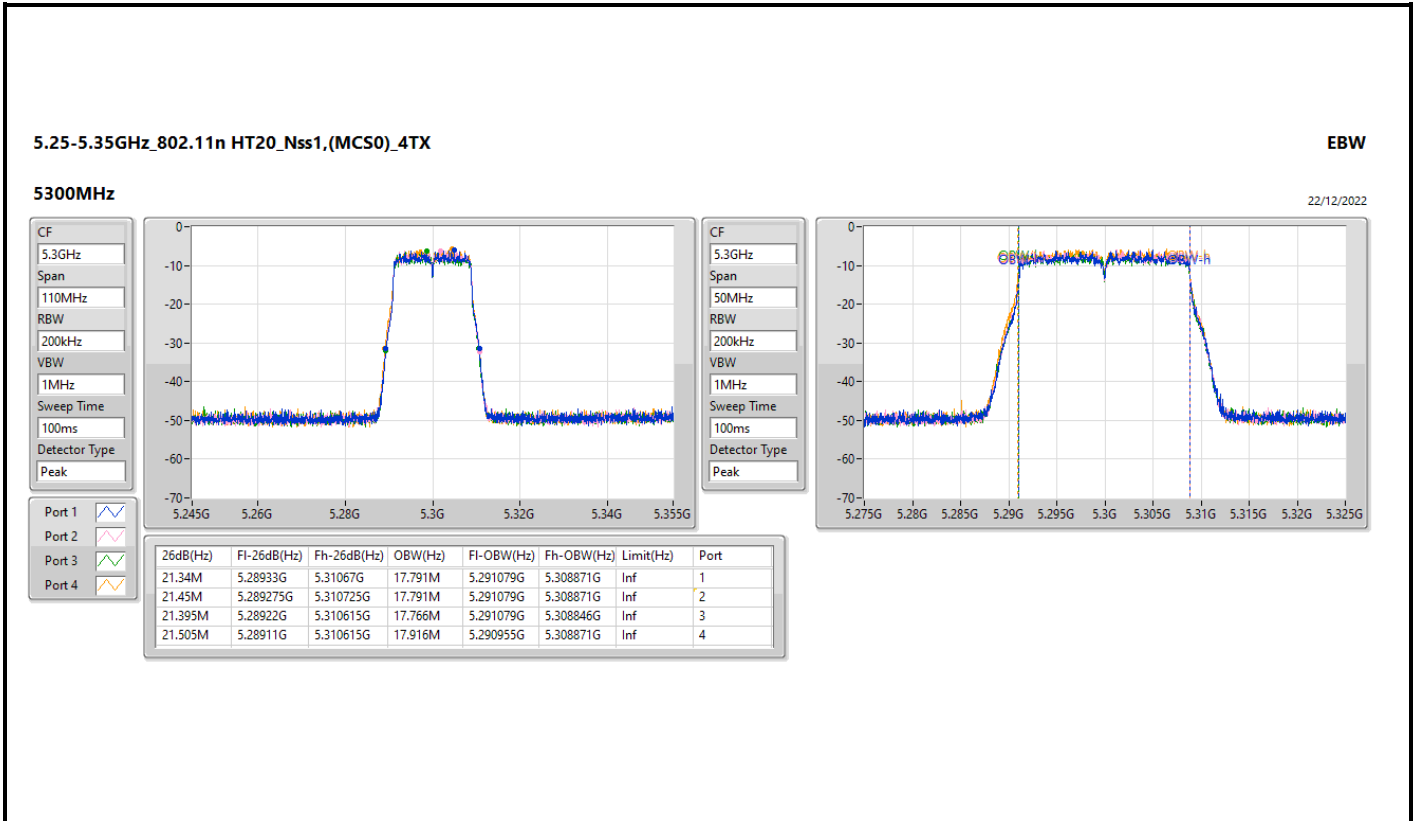
5.25-5.35GHz\_802.11n HT20\_Nss1,(MCS0)\_4TX

EBW

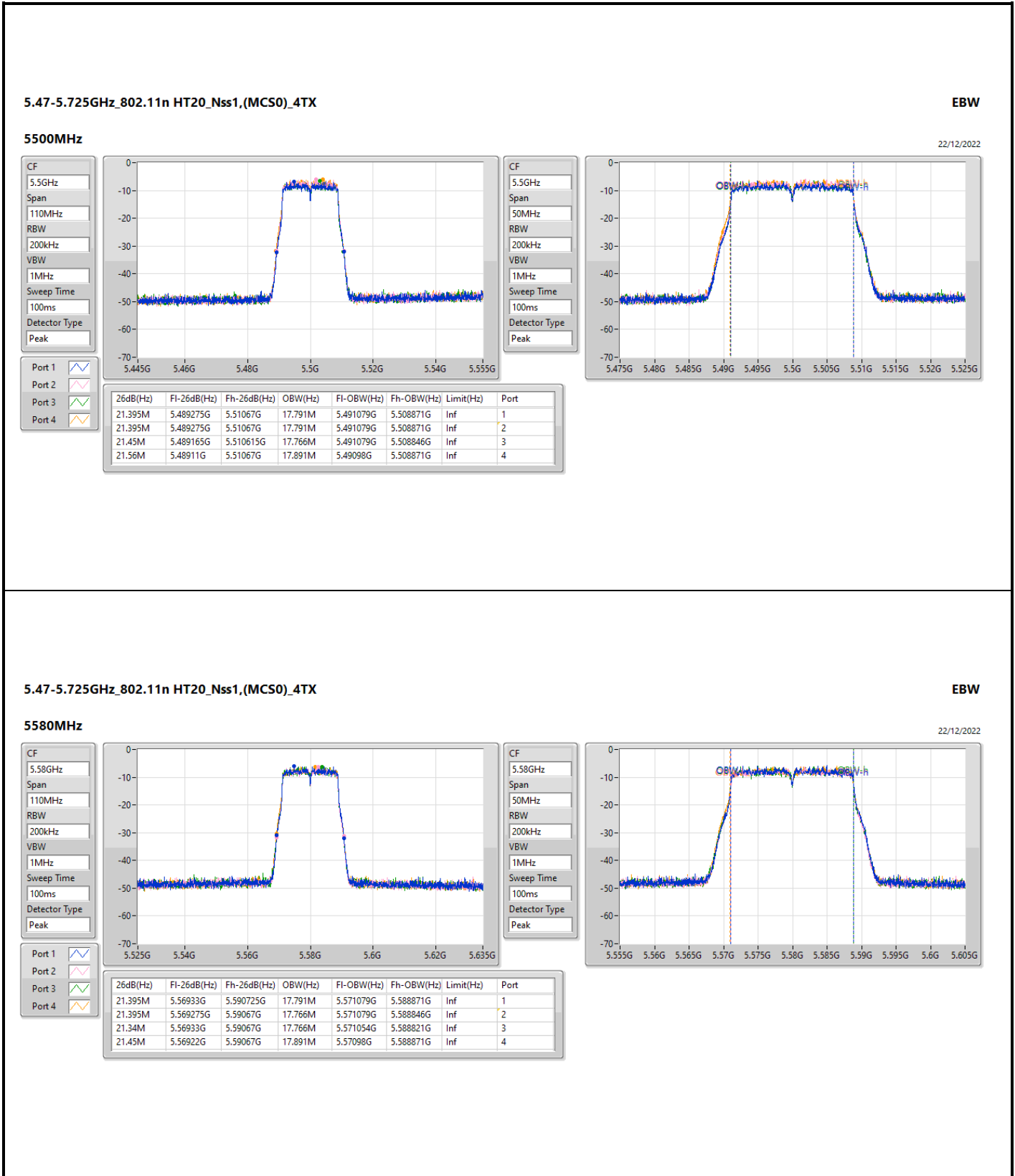
5260MHz

22/12/2022







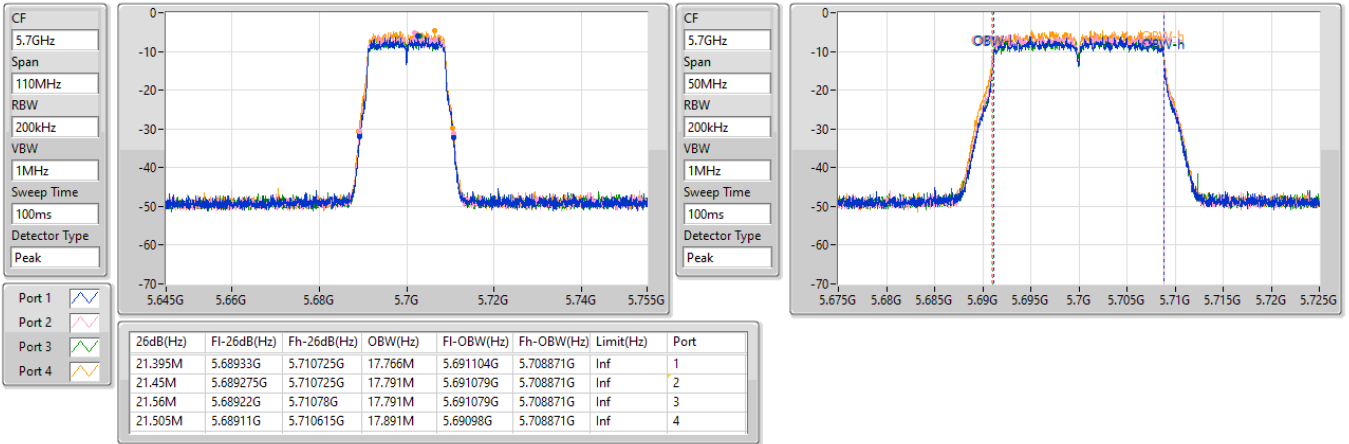


5.47-5.725GHz\_802.11n HT20\_Nss1,(MCS0)\_4TX

EBW

5700MHz

22/12/2022

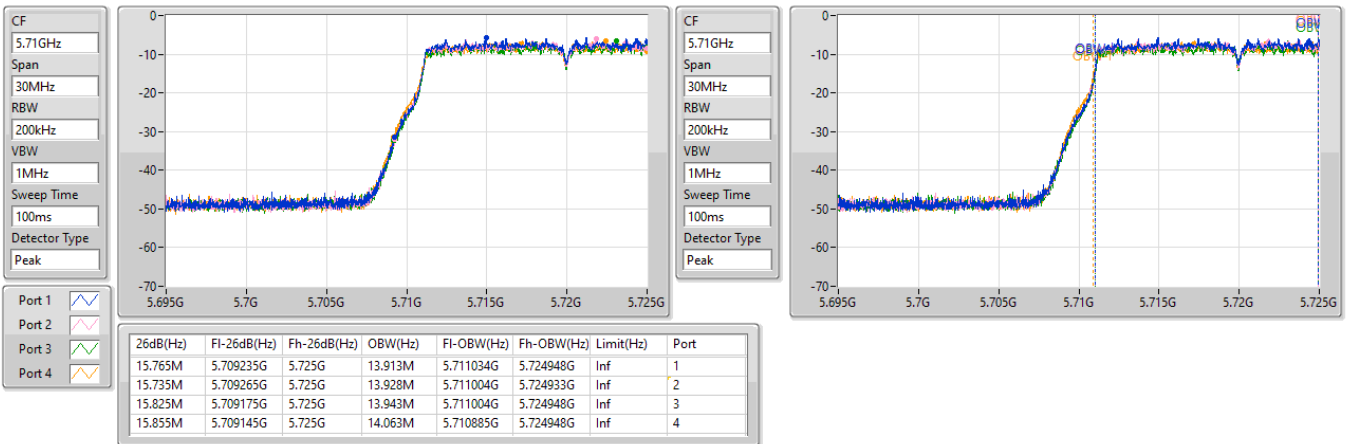


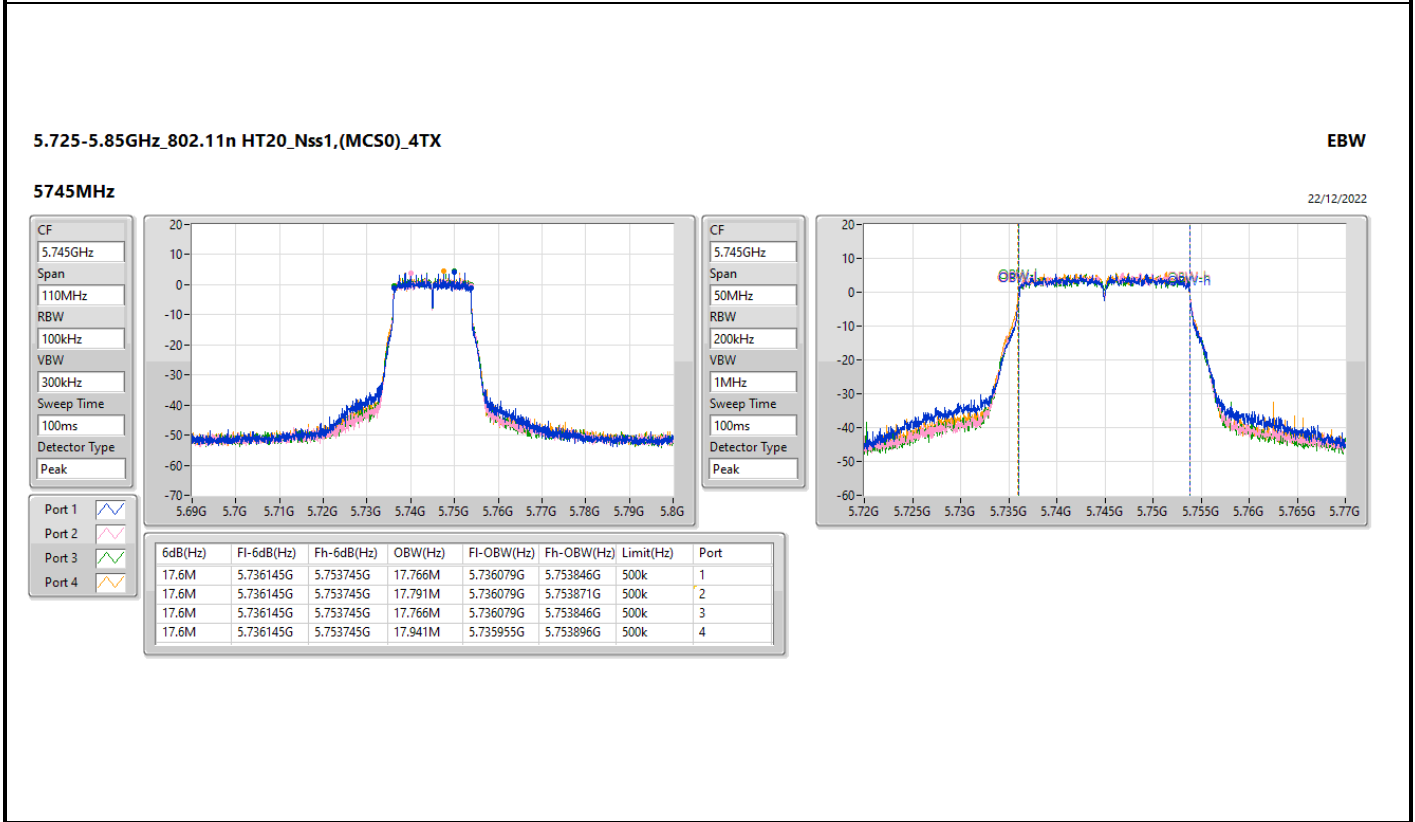
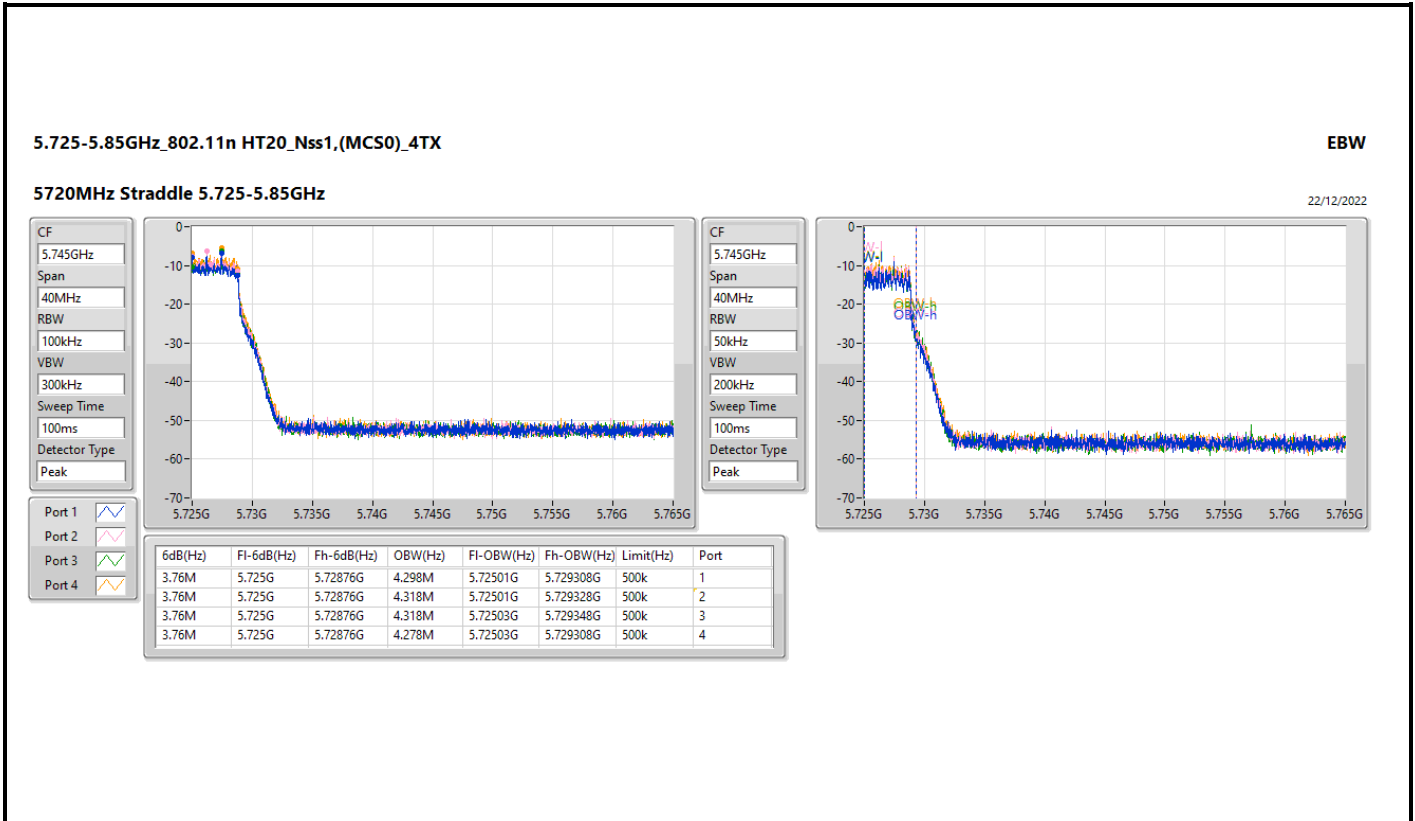
5.47-5.725GHz\_802.11n HT20\_Nss1,(MCS0)\_4TX

EBW

5720MHz Straddle 5.47-5.725GHz

22/12/2022



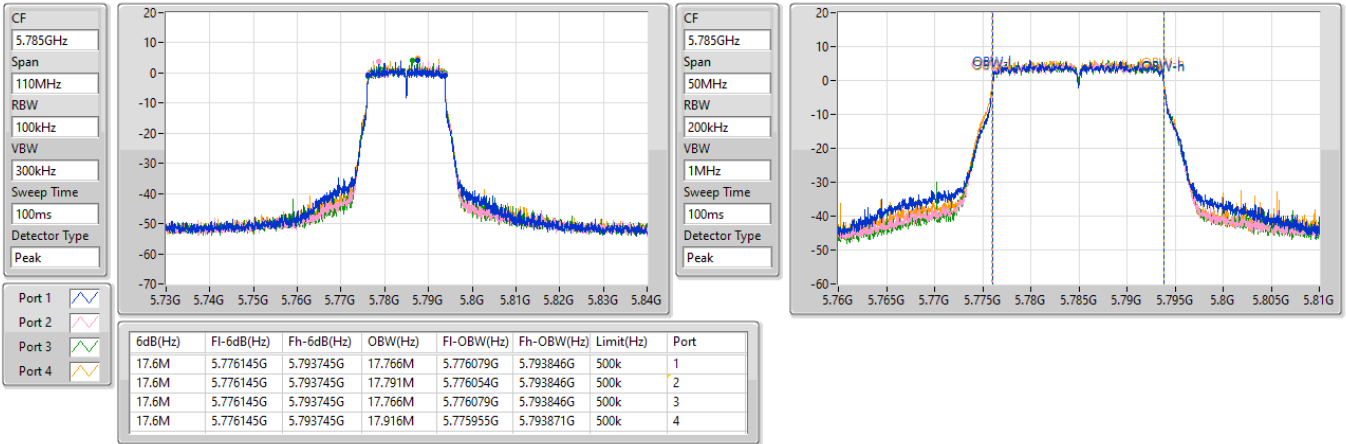


5.725-5.85GHz\_802.11n\_HT20\_Nss1,(MCS0)\_4TX

EBW

5785MHz

22/12/2022

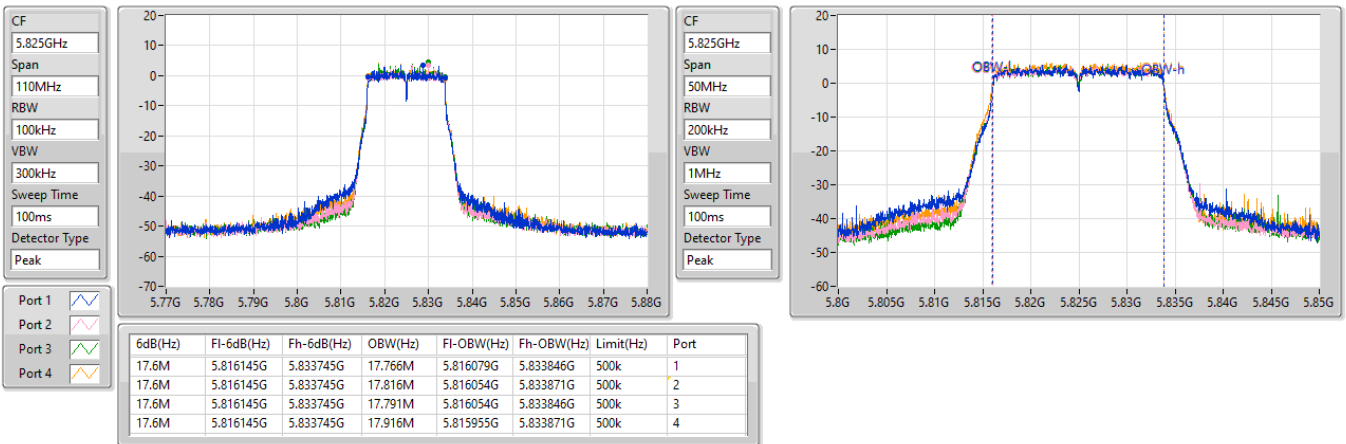


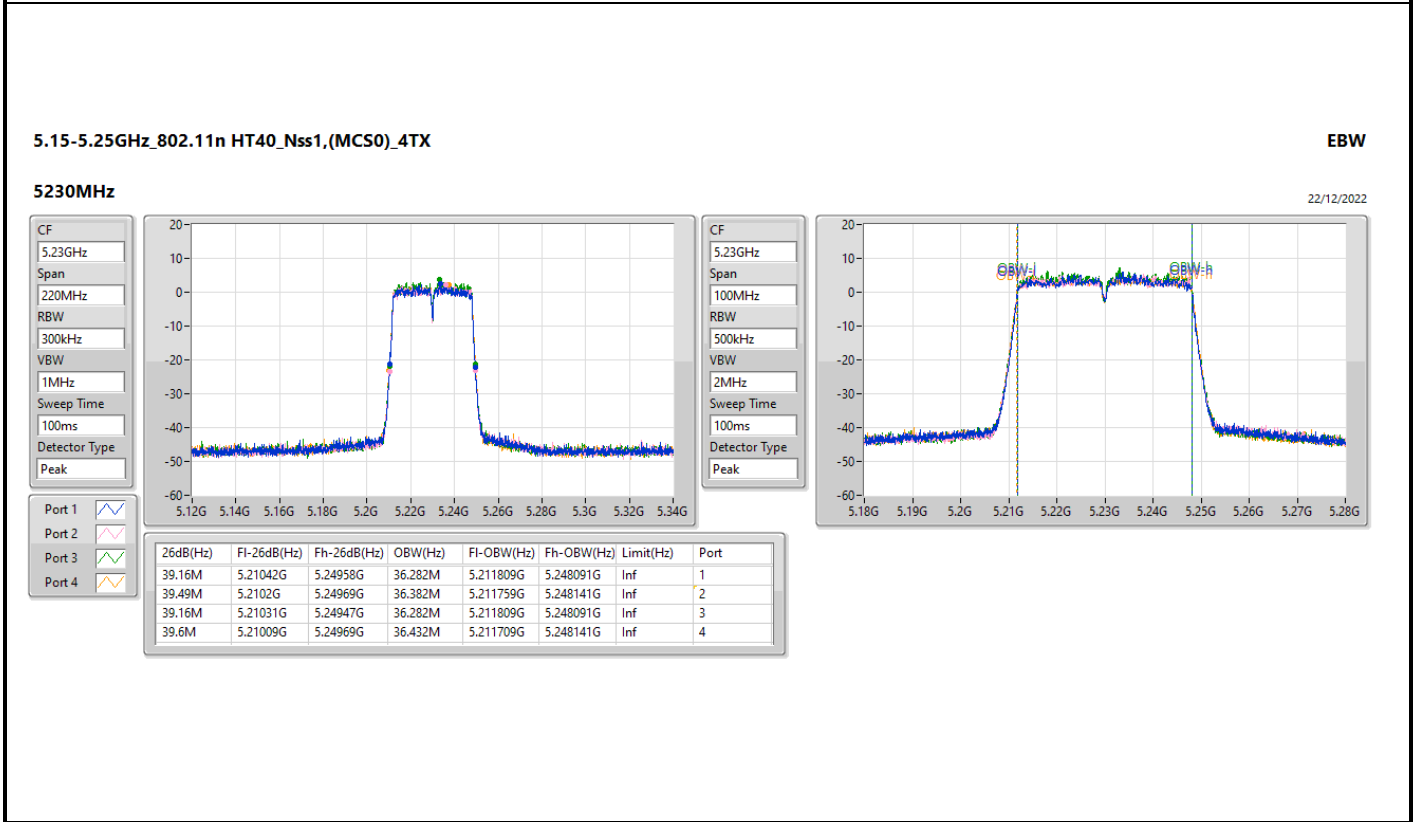
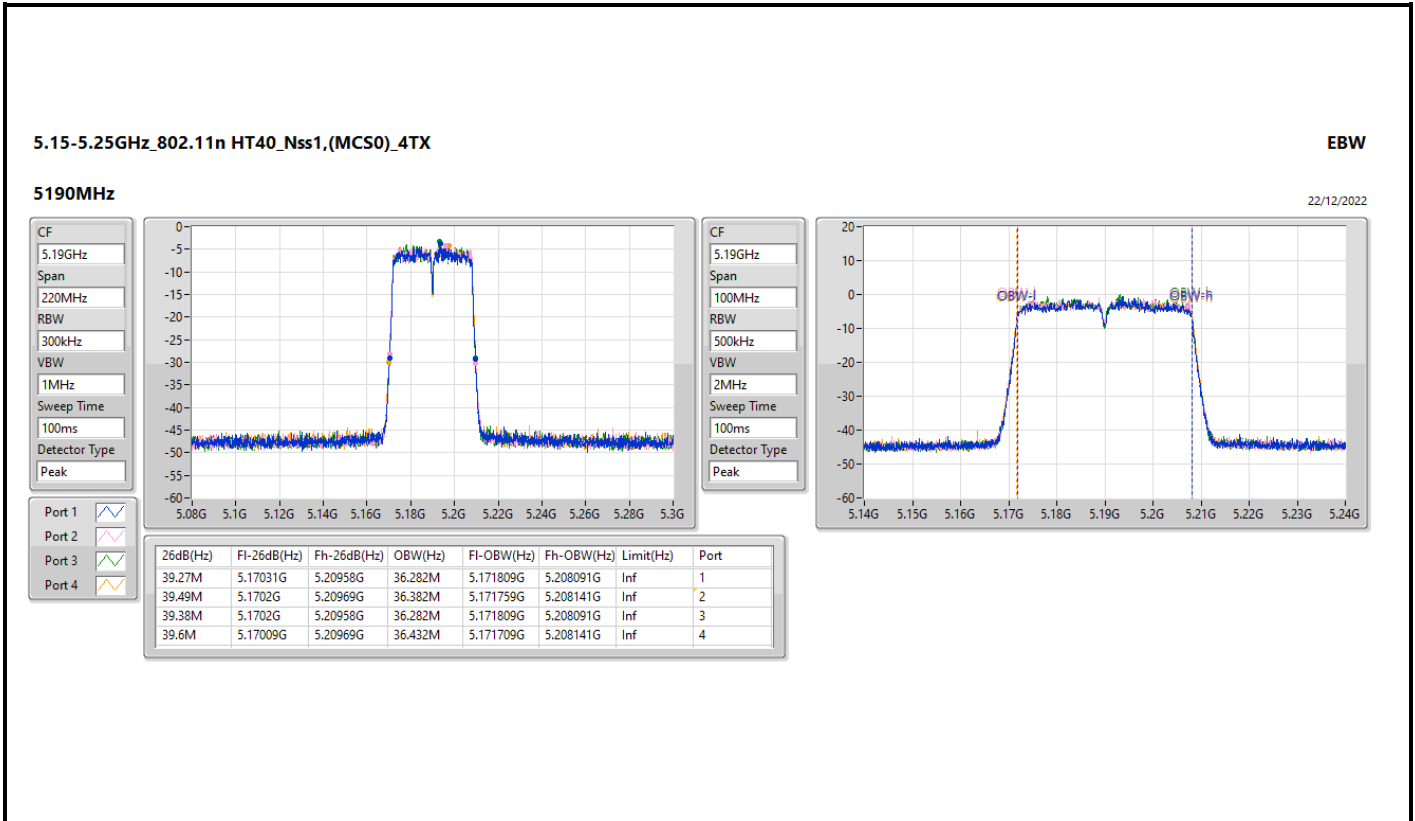
5.725-5.85GHz\_802.11n\_HT20\_Nss1,(MCS0)\_4TX

EBW

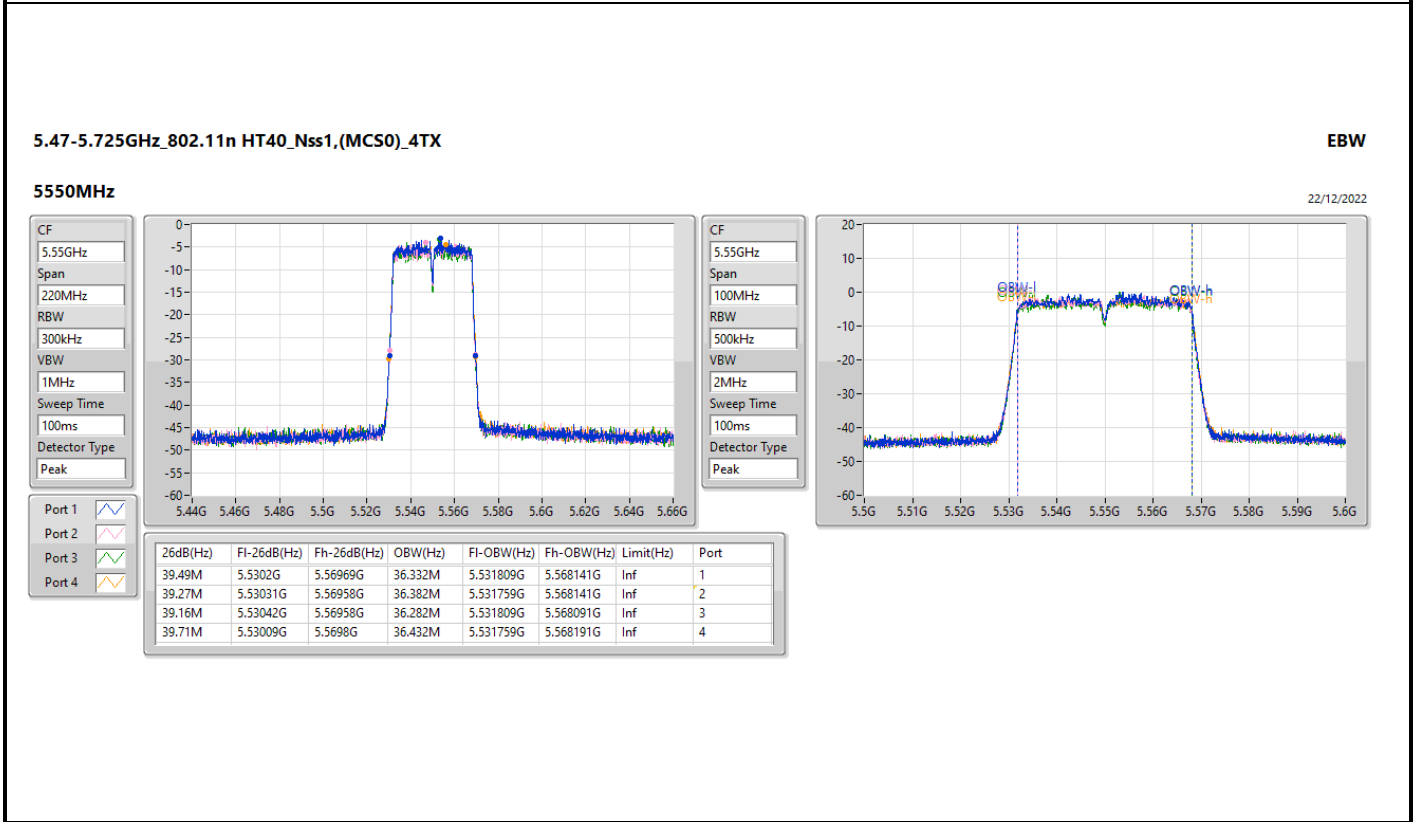
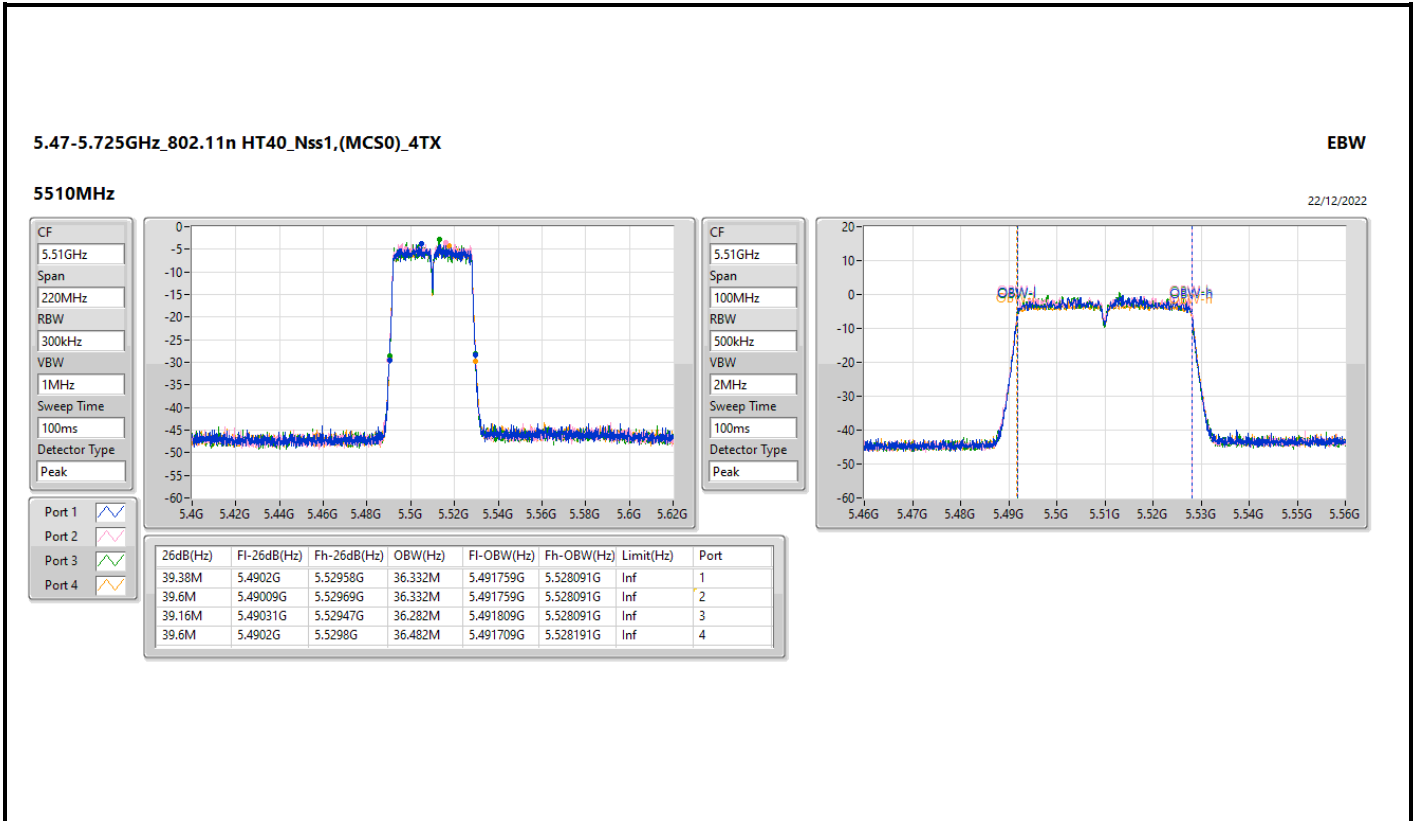
5825MHz

22/12/2022







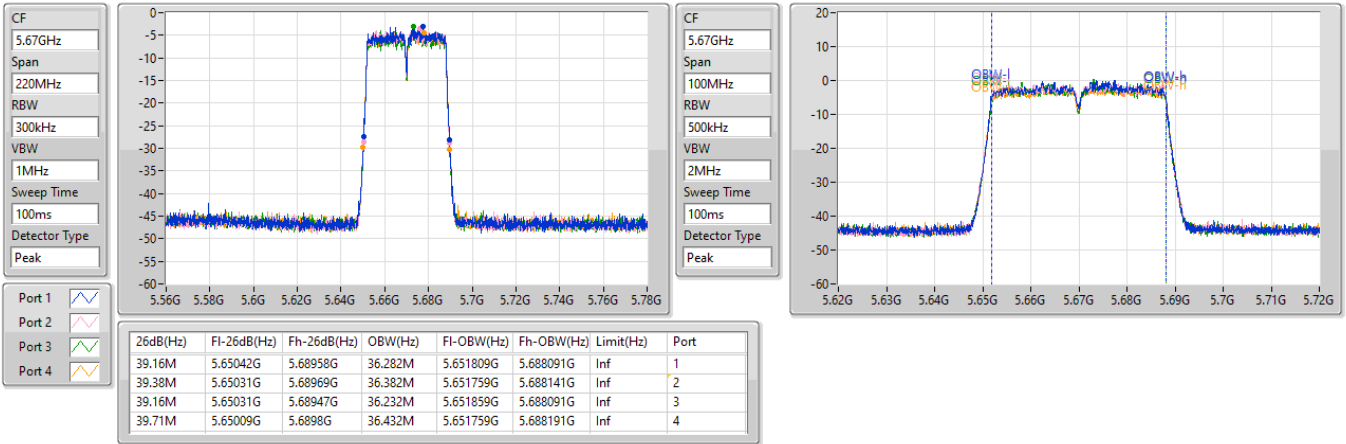


5.47-5.725GHz\_802.11n HT40\_Nss1,(MCS0)\_4TX

EBW

5670MHz

22/12/2022

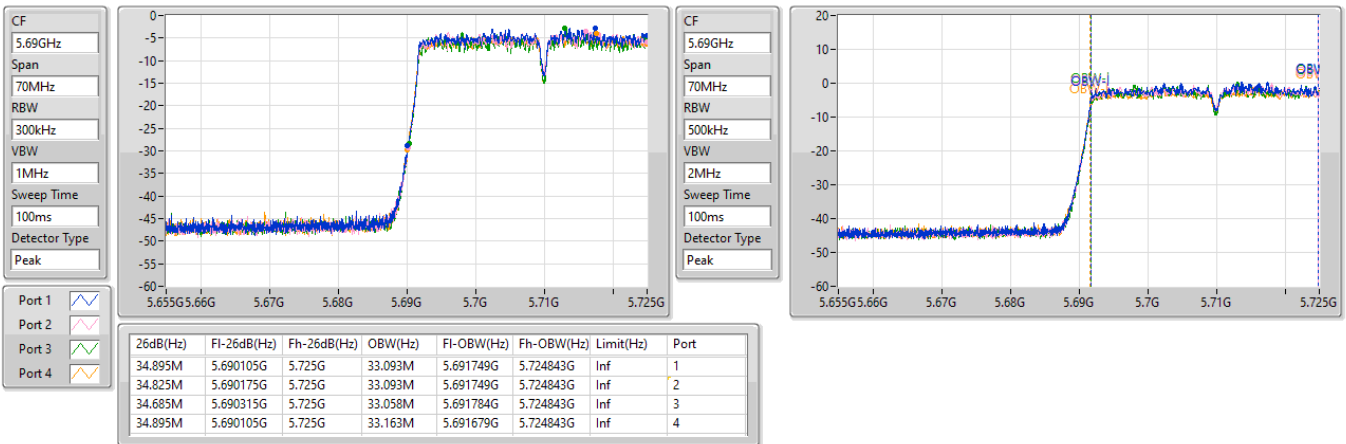


5.47-5.725GHz\_802.11n HT40\_Nss1,(MCS0)\_4TX

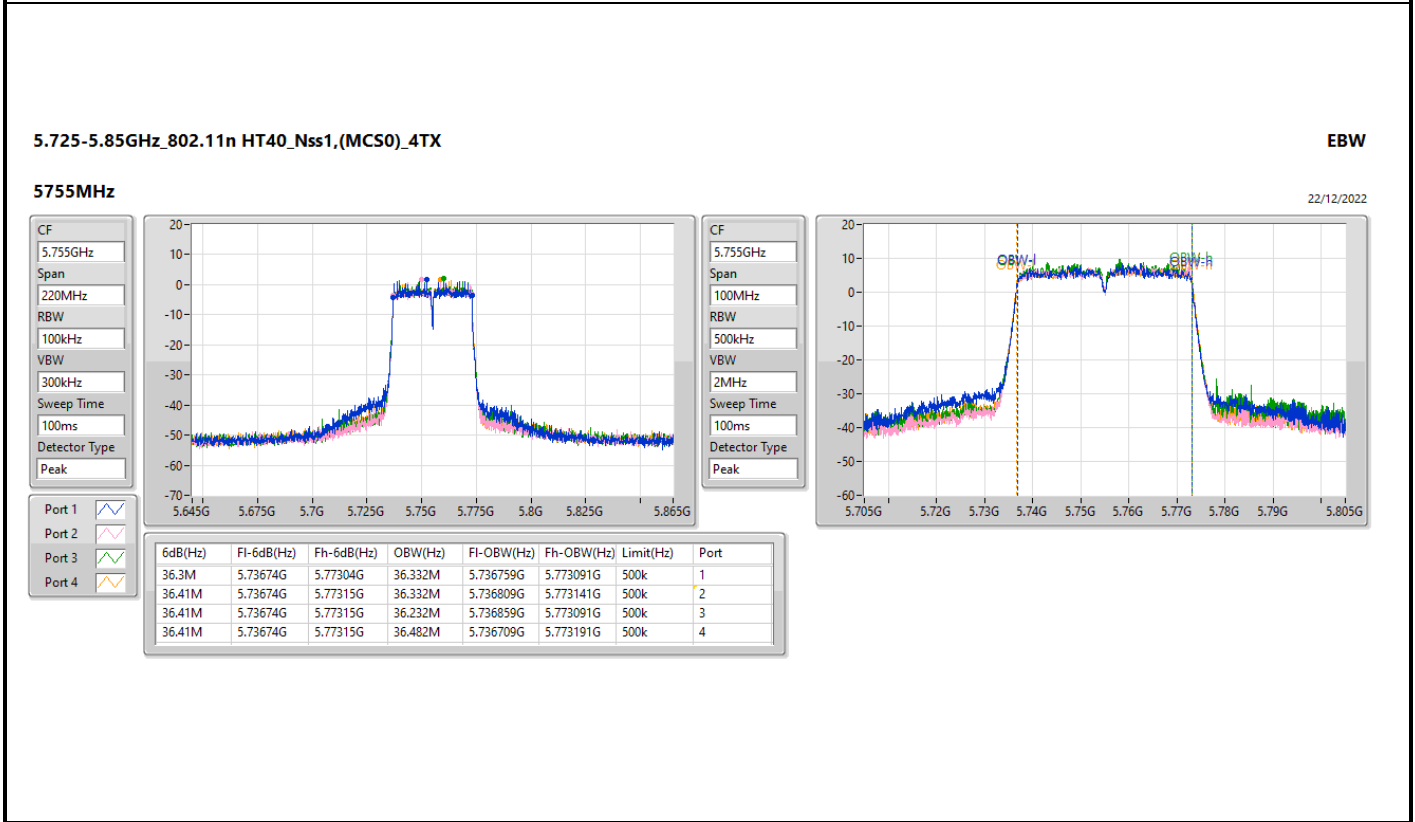
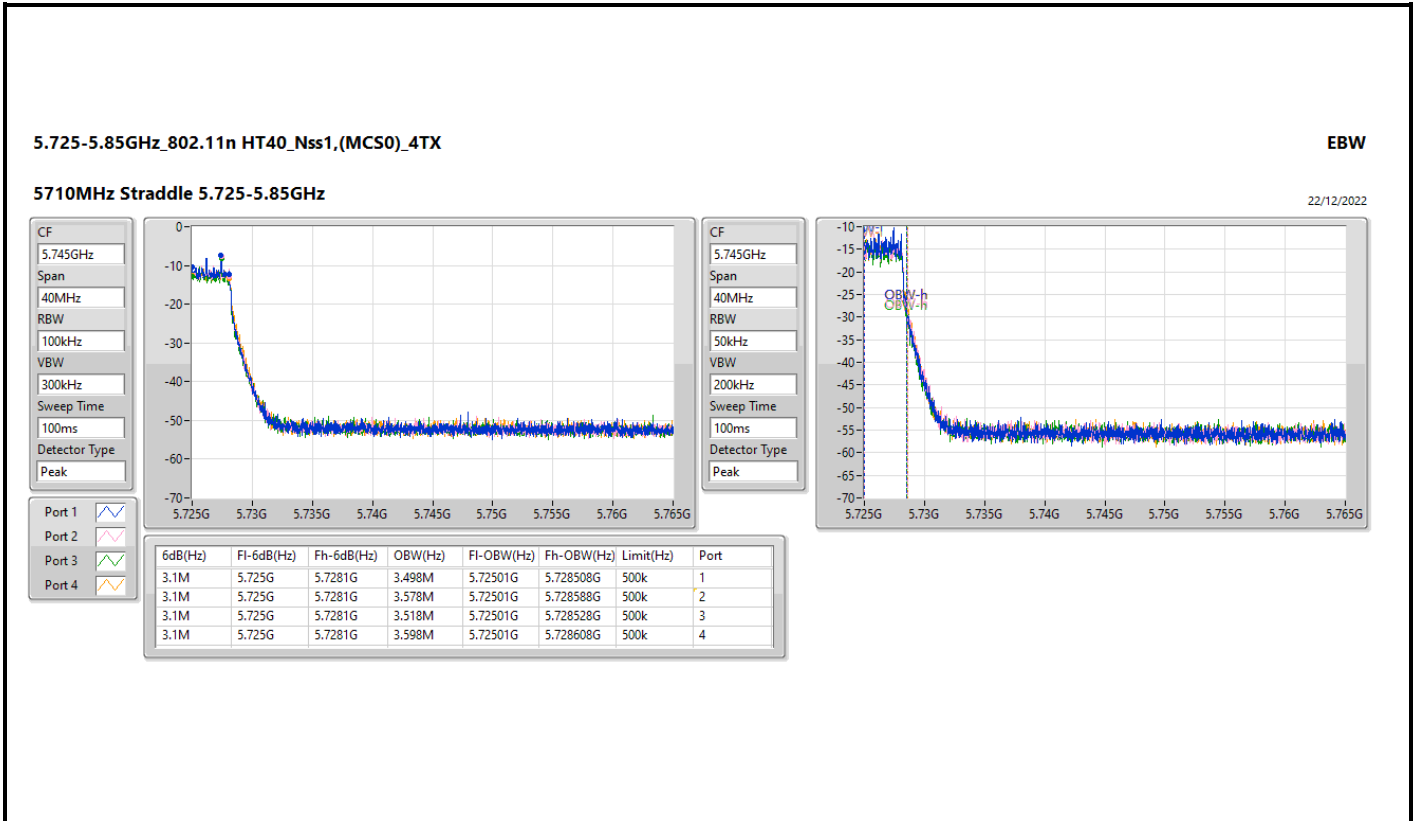
EBW

5710MHz Straddle 5.47-5.725GHz

22/12/2022







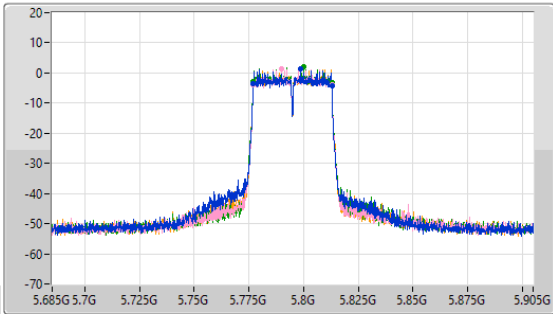
5.725-5.85GHz\_802.11n HT40\_Nss1,(MCS0)\_4TX

EBW

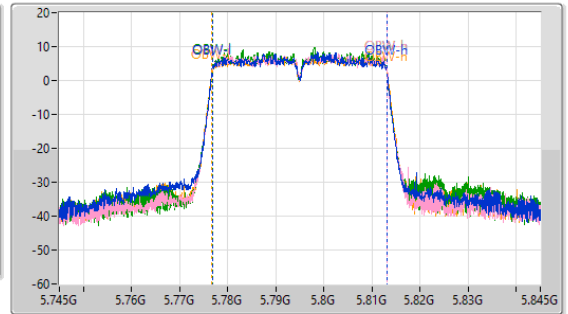
5795MHz

22/12/2022

CF  
5.795GHz  
Span  
220MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.795GHz  
Span  
100MHz  
RBW  
500kHz  
VBW  
2MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.41M	5.77674G	5.81315G	36.332M	5.776759G	5.813091G	500k	1
36.41M	5.77674G	5.81315G	36.332M	5.776759G	5.813091G	500k	2
36.41M	5.77674G	5.81315G	36.282M	5.776809G	5.813091G	500k	3
36.41M	5.77674G	5.81315G	36.482M	5.776709G	5.813191G	500k	4

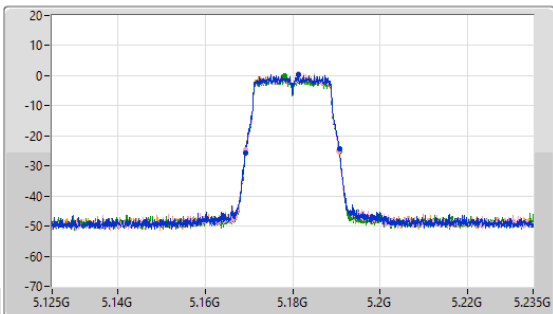
5.15-5.25GHz\_802.11ac VHT20\_Nss1,(MCS0)\_4TX

EBW

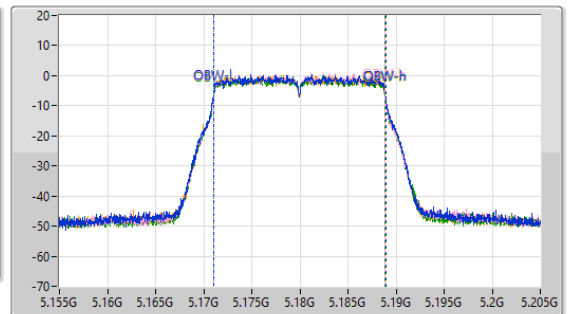
5180MHz

22/12/2022

CF  
5.18GHz  
Span  
110MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.18GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

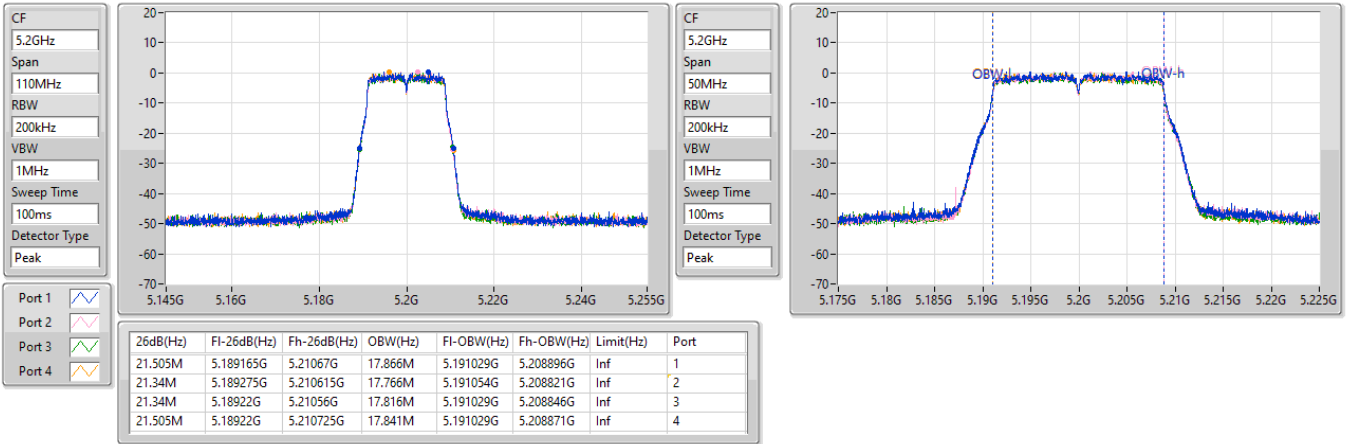
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.505M	5.169165G	5.19067G	17.891M	5.171029G	5.188921G	Inf	1
21.23M	5.16933G	5.19056G	17.741M	5.171079G	5.188821G	Inf	2
21.45M	5.16922G	5.19067G	17.816M	5.171029G	5.188846G	Inf	3
21.395M	5.169275G	5.19067G	17.841M	5.171029G	5.188871G	Inf	4

5.15-5.25GHz\_802.11ac\_VHT20\_Nss1,(MCS0)\_4TX

EBW

5200MHz

22/12/2022

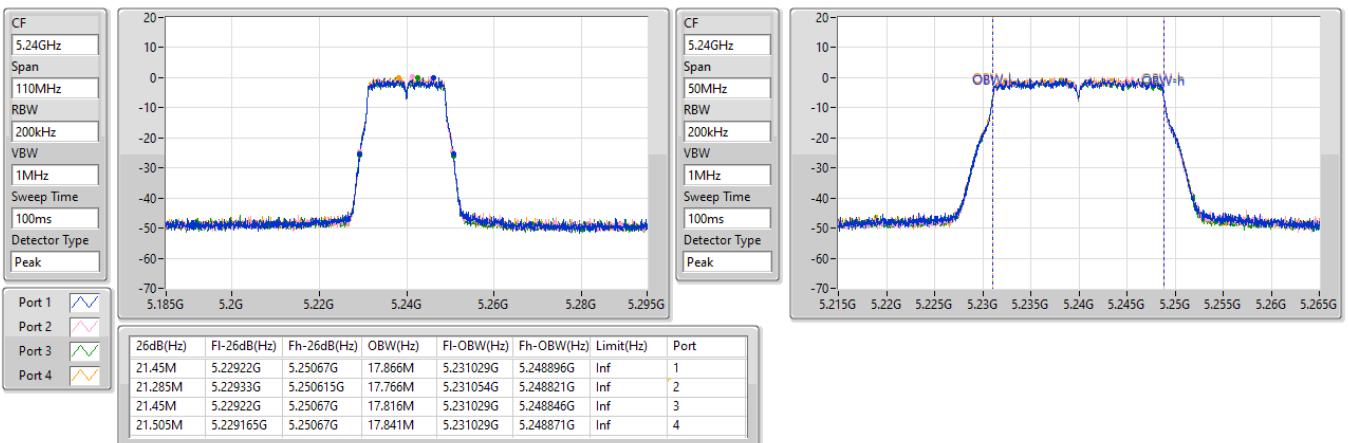


5.15-5.25GHz\_802.11ac\_VHT20\_Nss1,(MCS0)\_4TX

EBW

5240MHz

22/12/2022

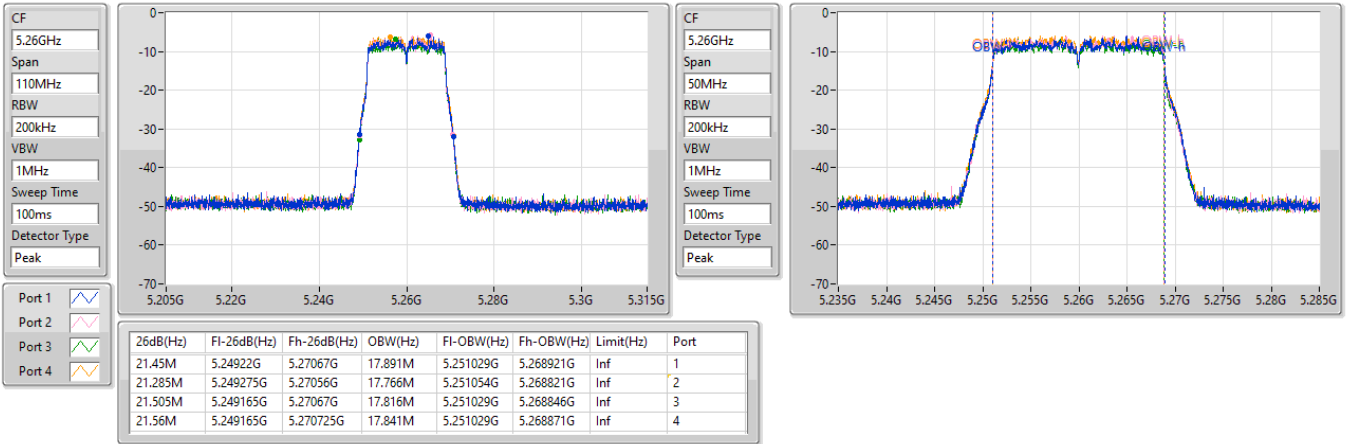


5.25-5.35GHz\_802.11ac\_VHT20\_Nss1,(MCS0)\_4TX

EBW

5260MHz

22/12/2022

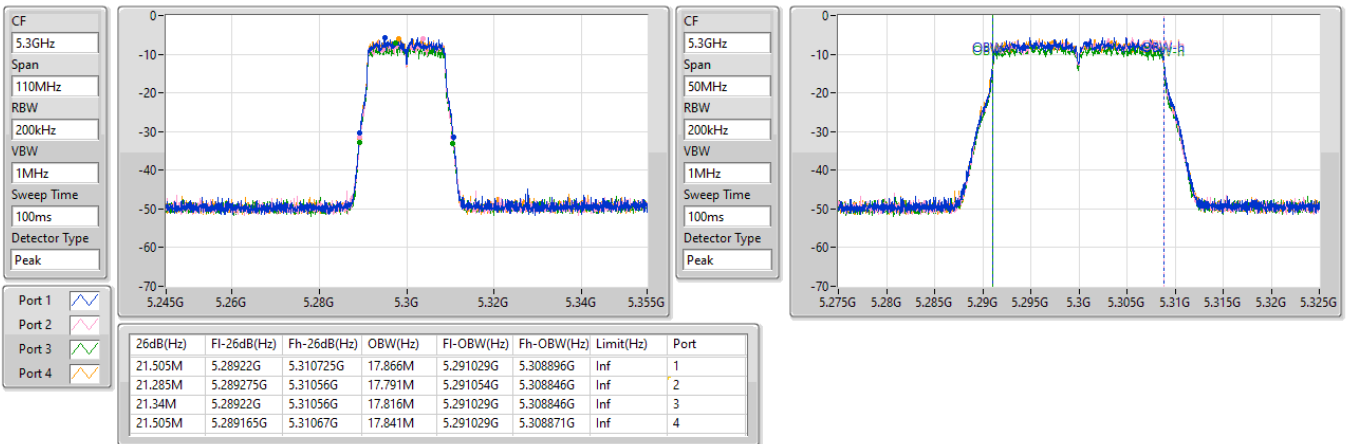


5.25-5.35GHz\_802.11ac\_VHT20\_Nss1,(MCS0)\_4TX

EBW

5300MHz

22/12/2022

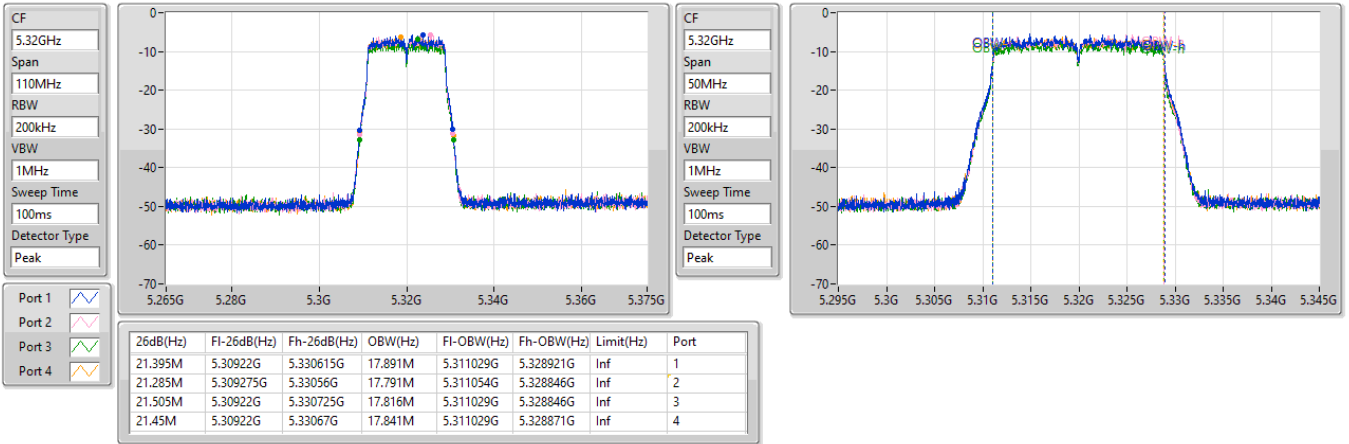


5.25-5.35GHz\_802.11ac\_VHT20\_Nss1,(MCS0)\_4TX

EBW

5320MHz

22/12/2022

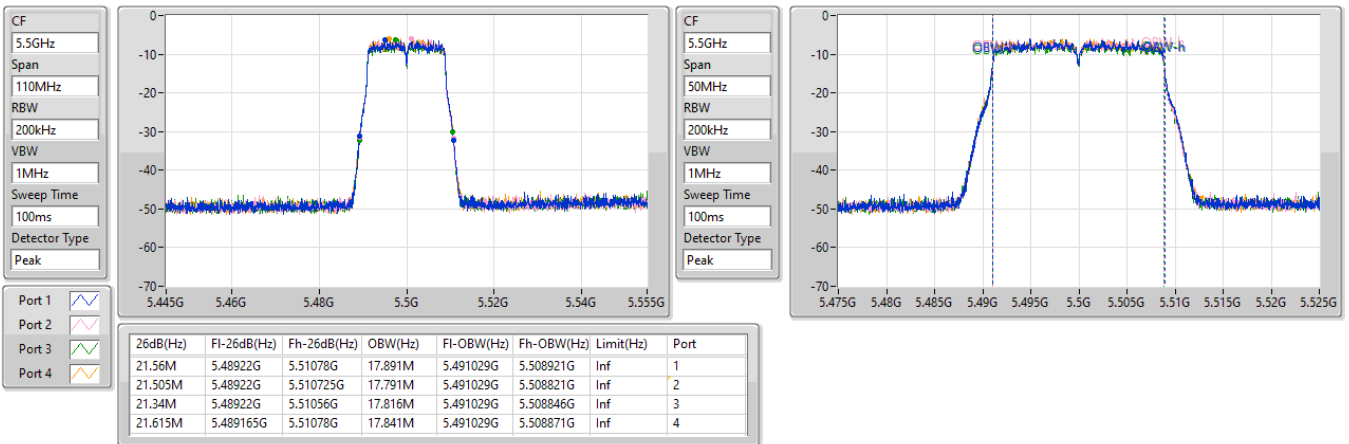


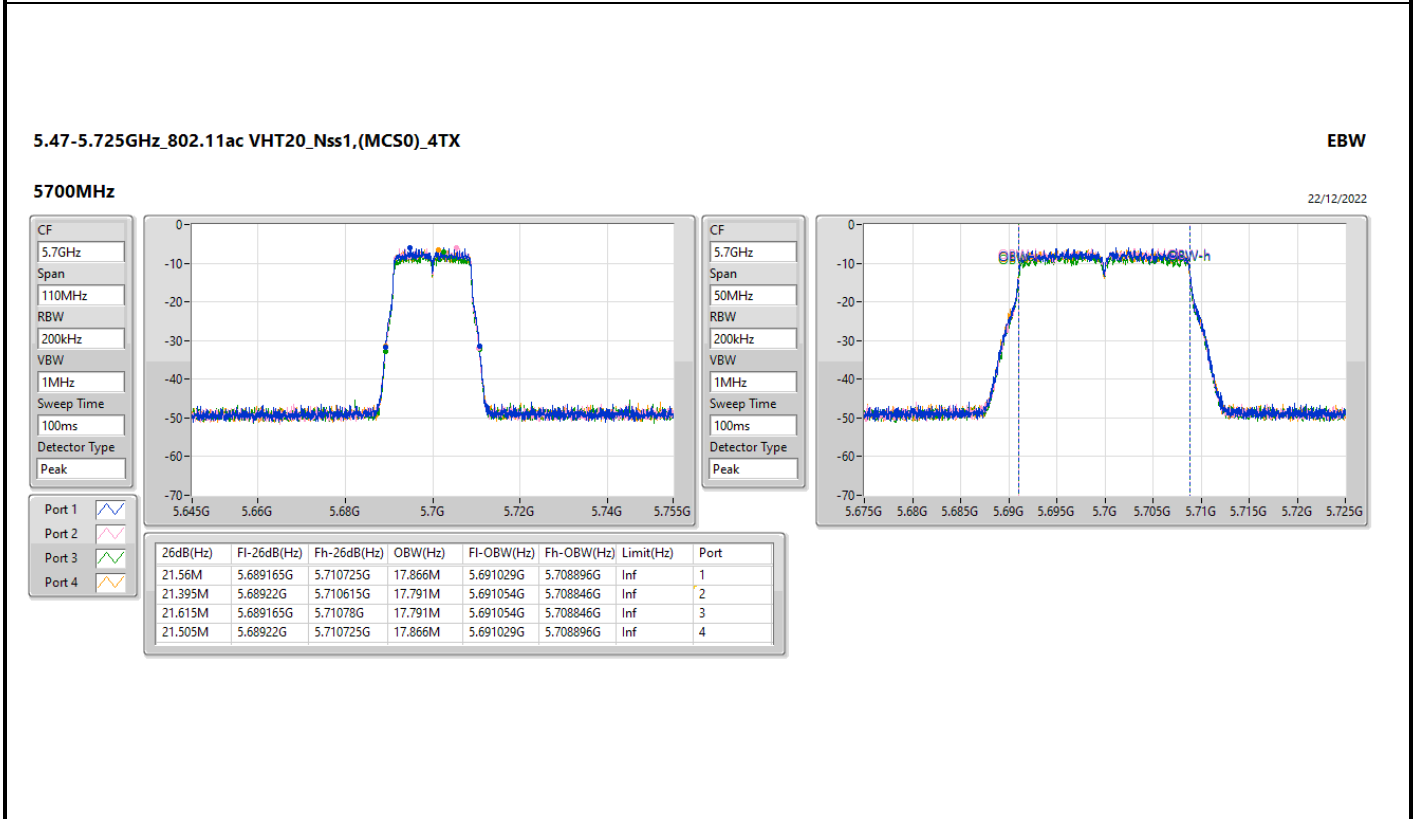
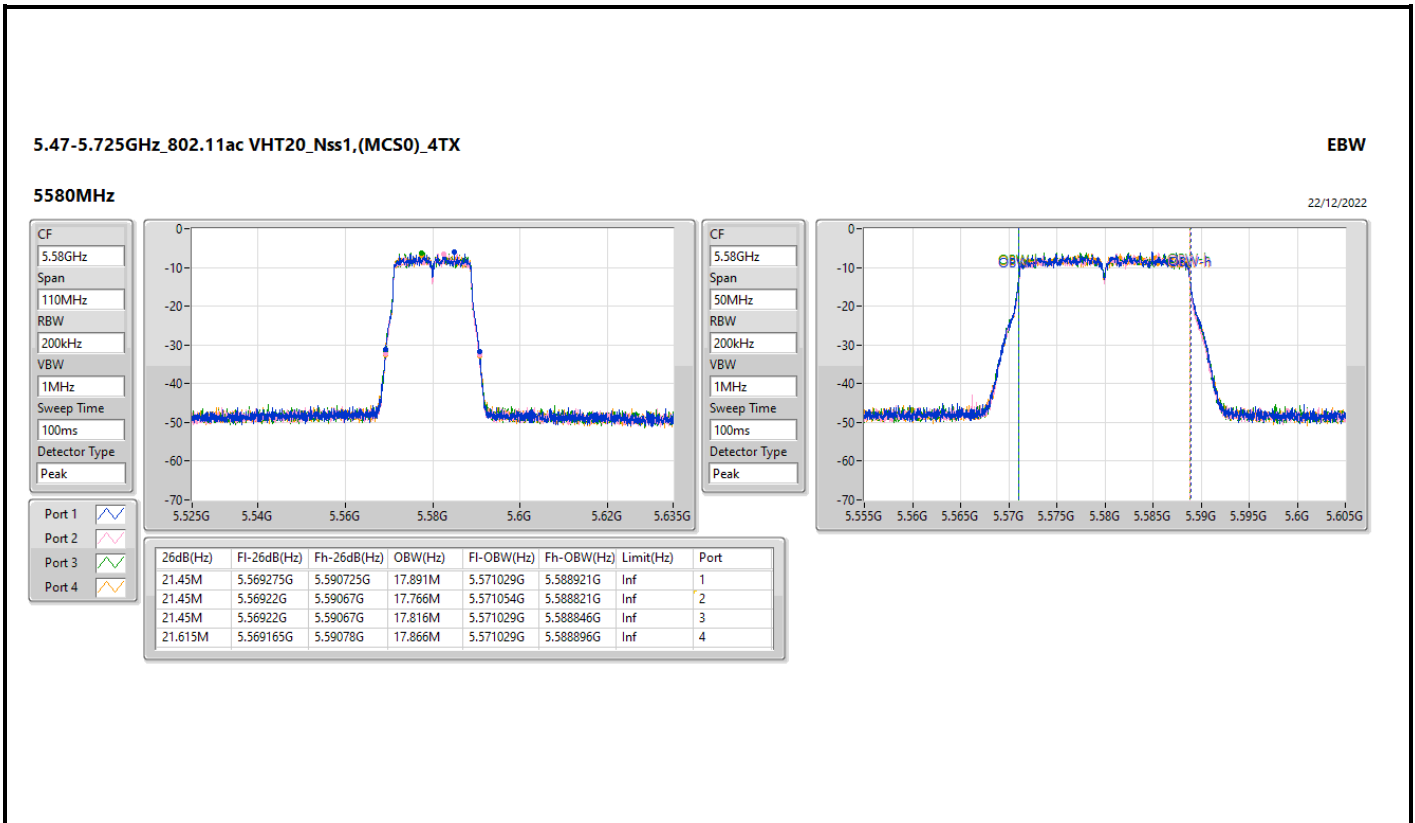
5.47-5.725GHz\_802.11ac\_VHT20\_Nss1,(MCS0)\_4TX

EBW

5500MHz

22/12/2022



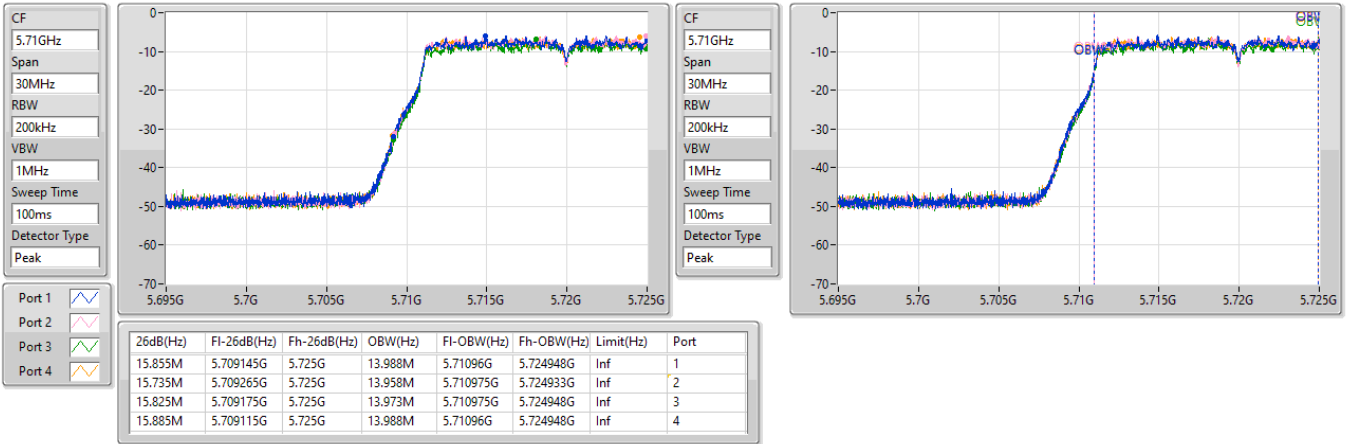


5.47-5.725GHz\_802.11ac VHT20\_Nss1,(MCS0)\_4TX

EBW

5720MHz Straddle 5.47-5.725GHz

22/12/2022

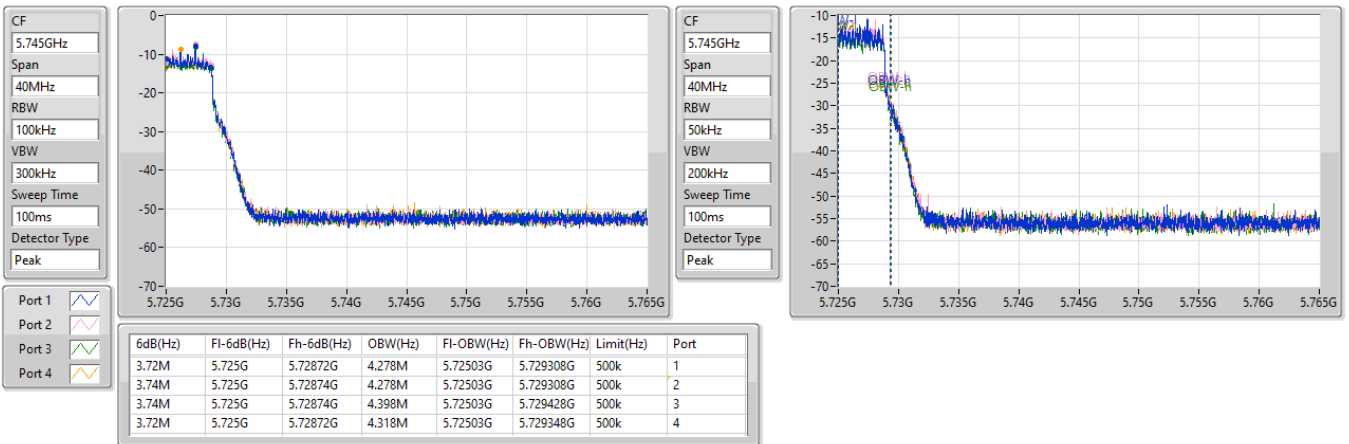


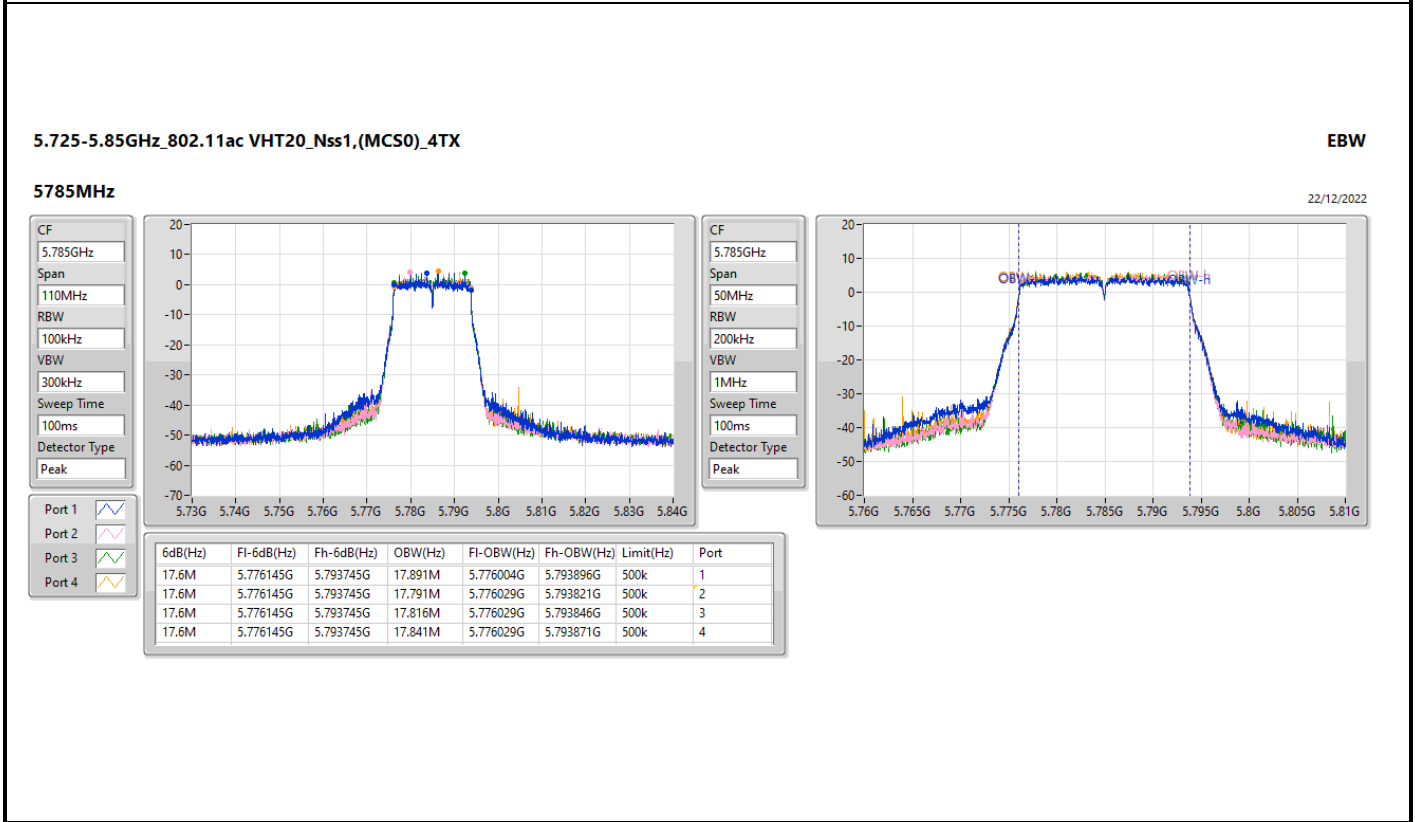
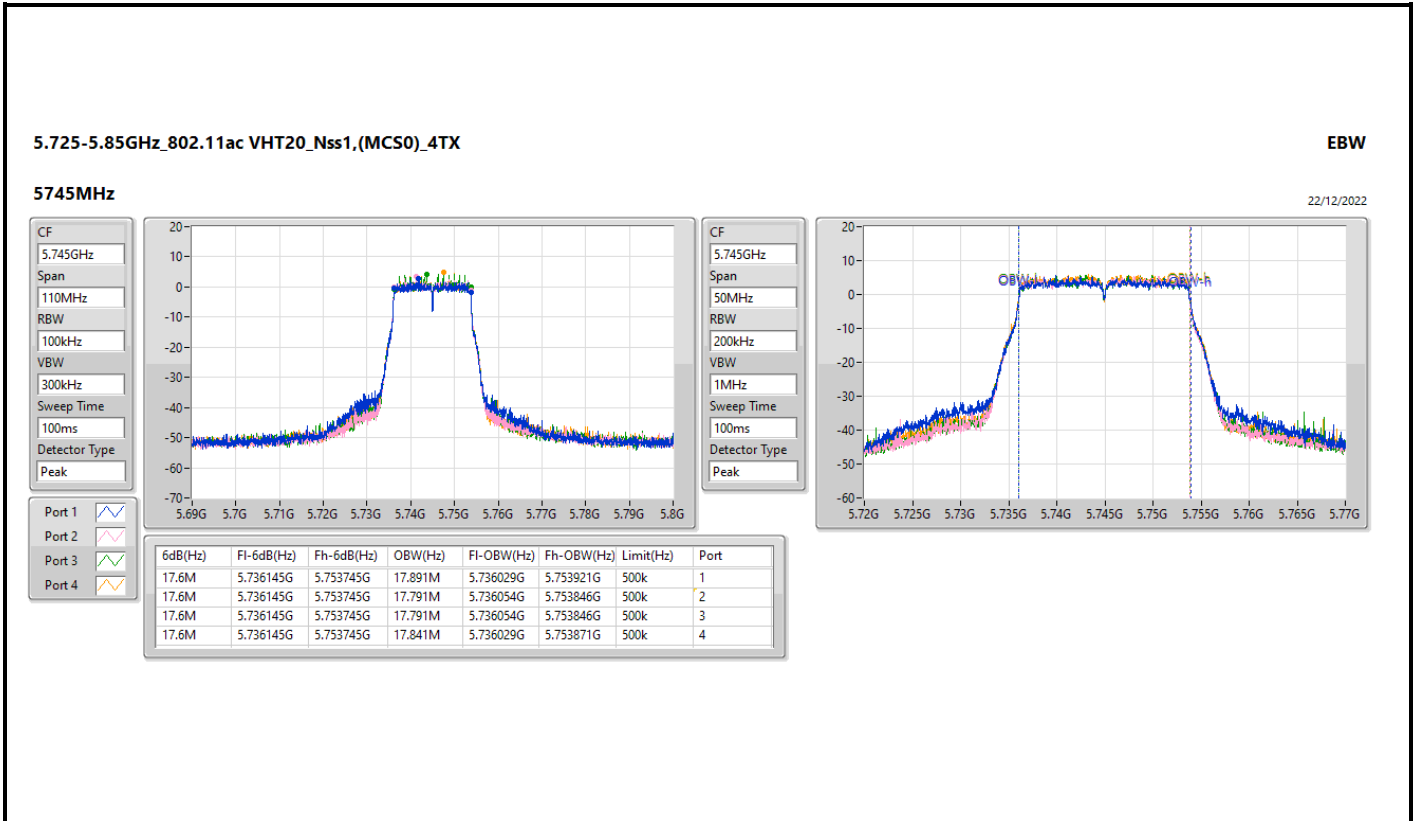
5.725-5.85GHz\_802.11ac VHT20\_Nss1,(MCS0)\_4TX

EBW

5720MHz Straddle 5.725-5.85GHz

22/12/2022





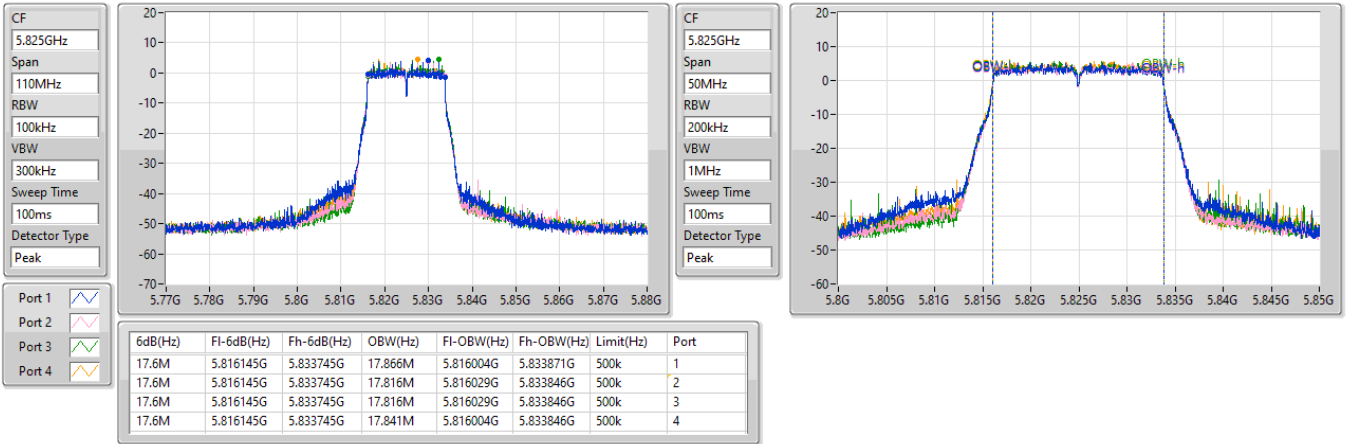


5.725-5.85GHz\_802.11ac\_VHT20\_Nss1,(MCS0)\_4TX

EBW

5825MHz

22/12/2022

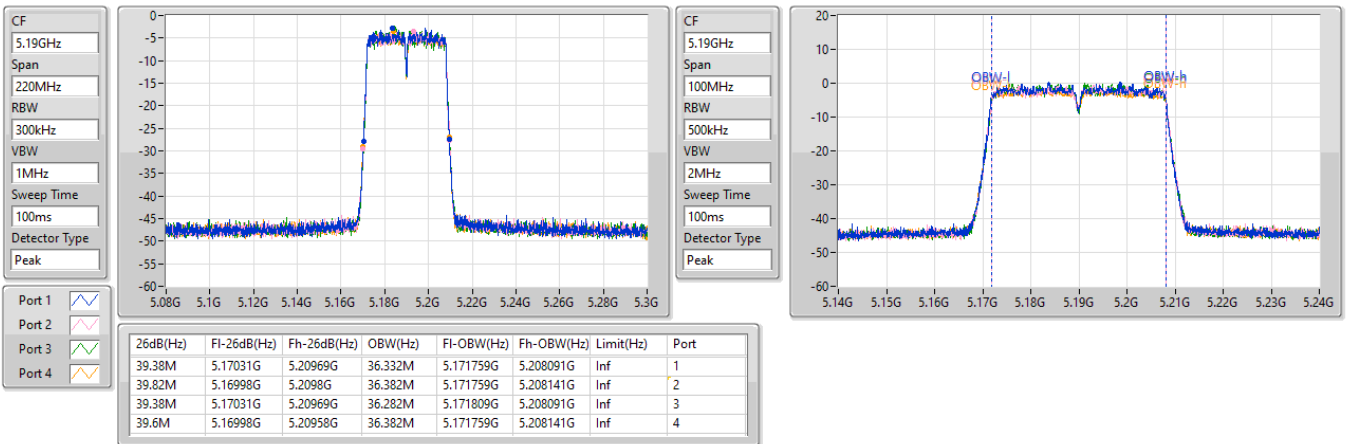


5.15-5.25GHz\_802.11ac\_VHT40\_Nss1,(MCS0)\_4TX

EBW

5190MHz

22/12/2022

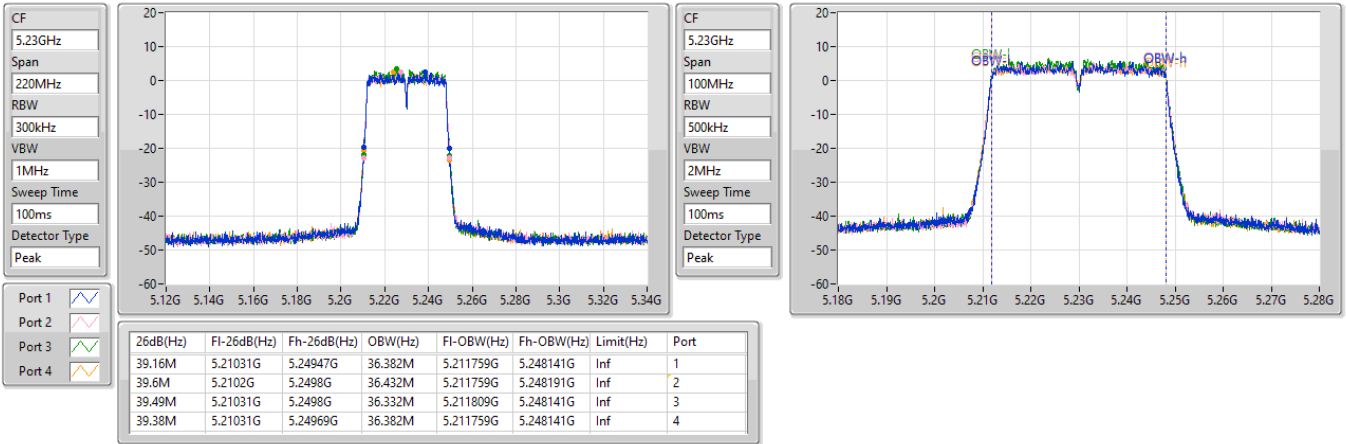


5.15-5.25GHz\_802.11ac\_VHT40\_Nss1,(MCS0)\_4TX

EBW

5230MHz

22/12/2022

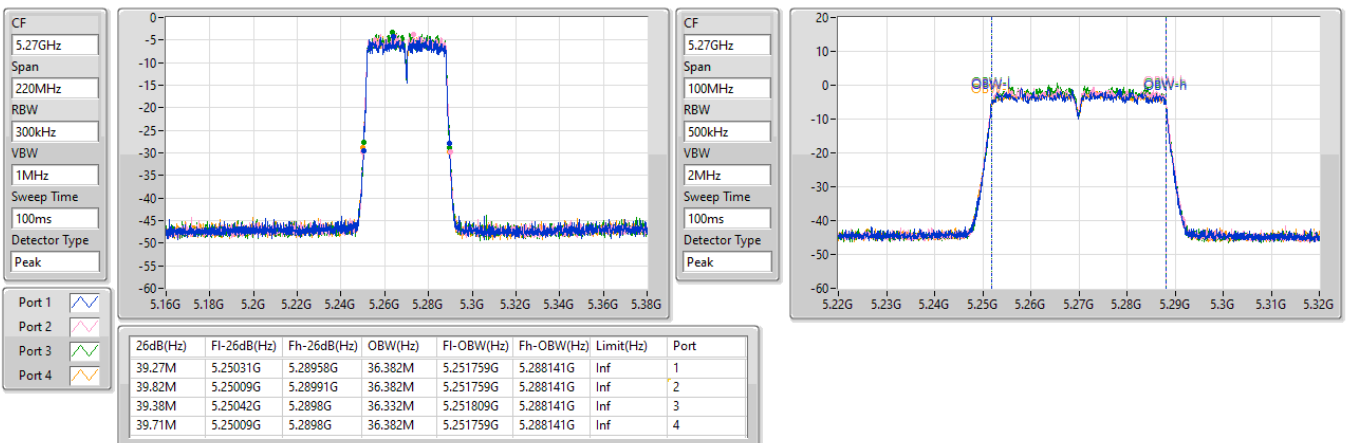


5.25-5.35GHz\_802.11ac\_VHT40\_Nss1,(MCS0)\_4TX

EBW

5270MHz

22/12/2022

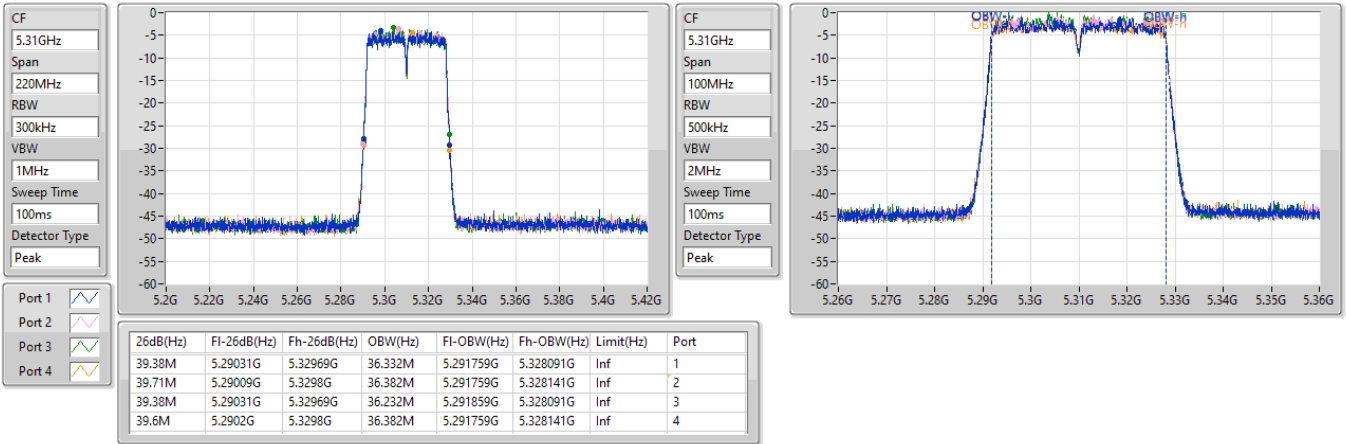


5.25-5.35GHz\_802.11ac\_VHT40\_Nss1,(MCS0)\_4TX

EBW

5310MHz

22/12/2022

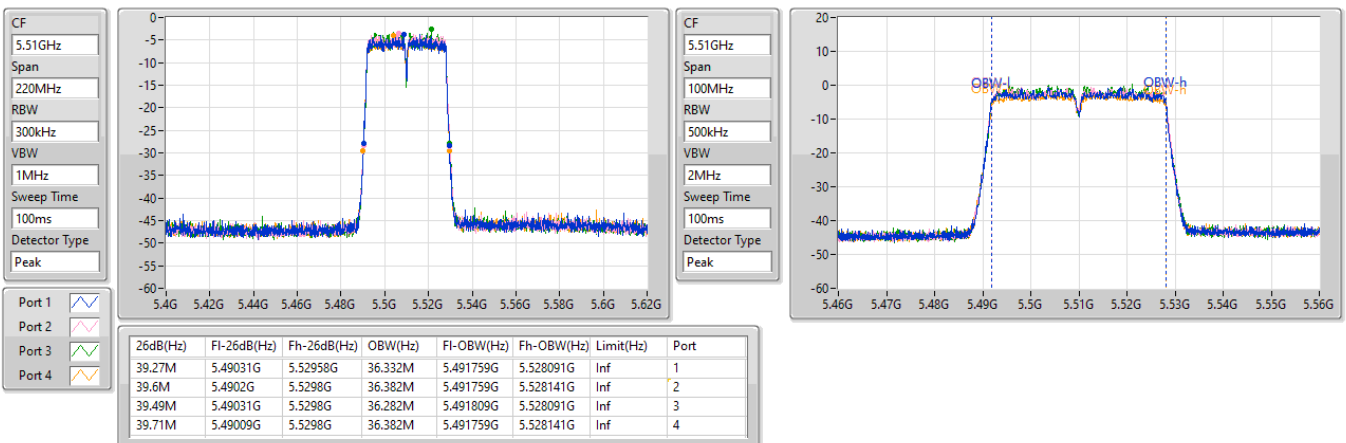


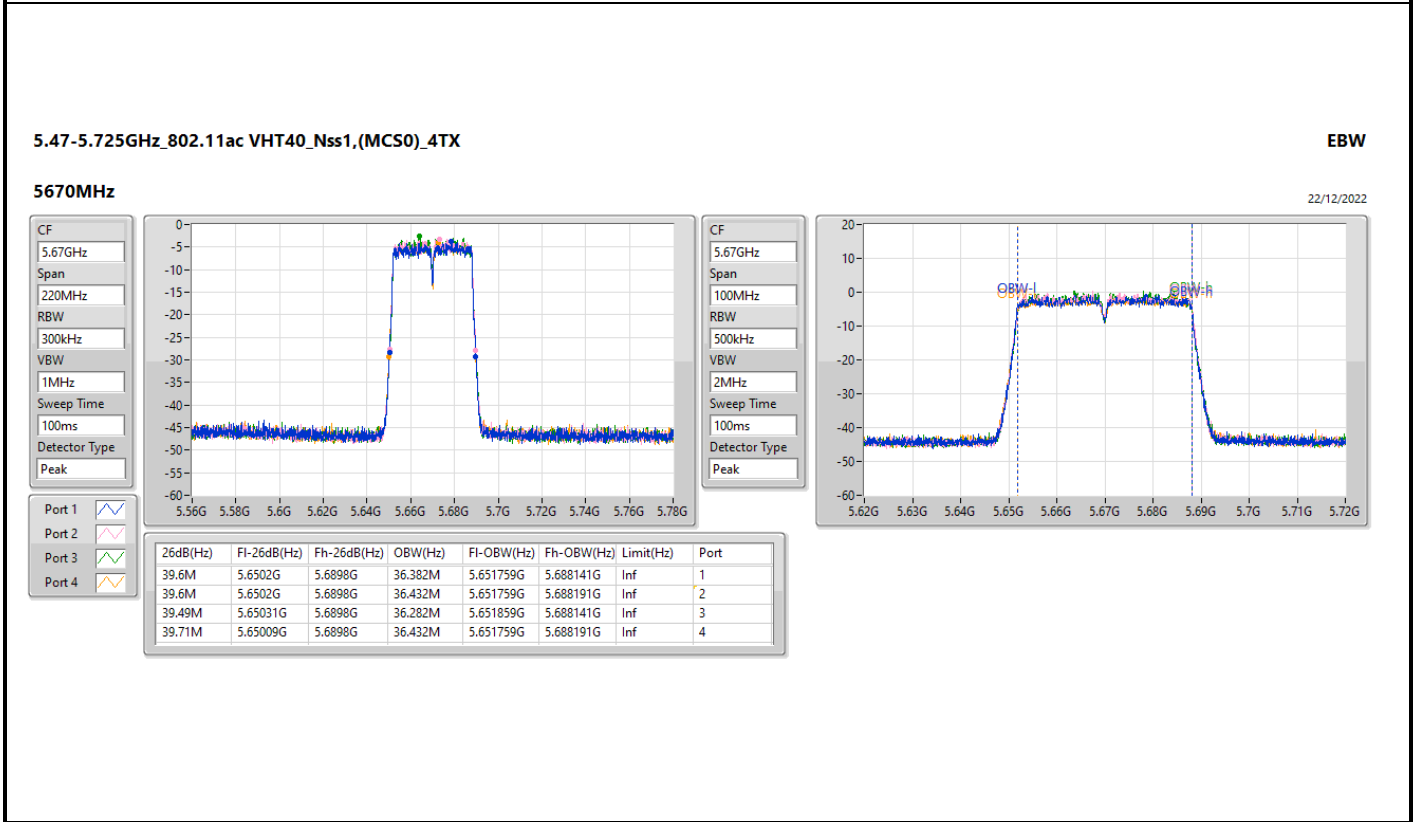
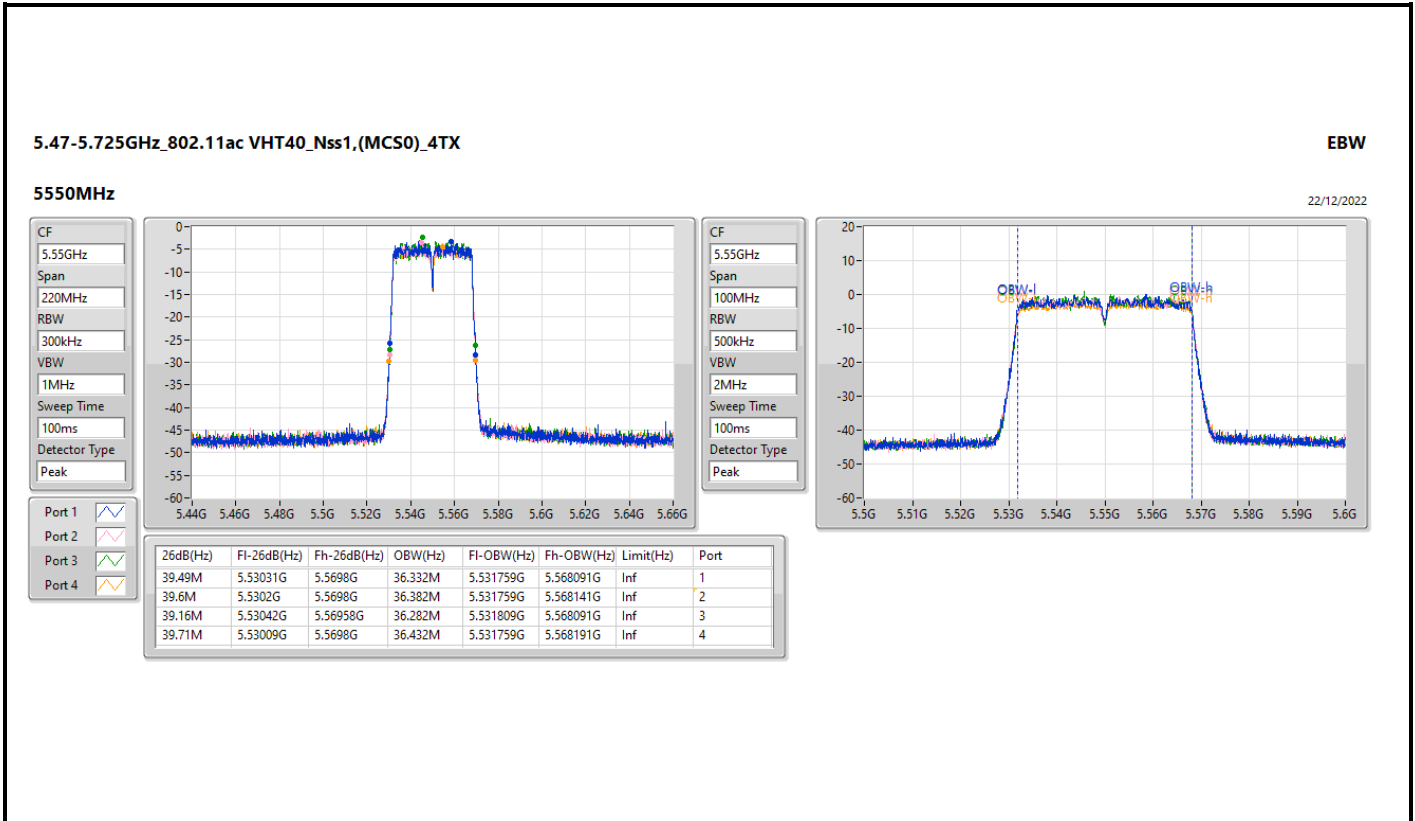
5.47-5.725GHz\_802.11ac\_VHT40\_Nss1,(MCS0)\_4TX

EBW

5510MHz

22/12/2022



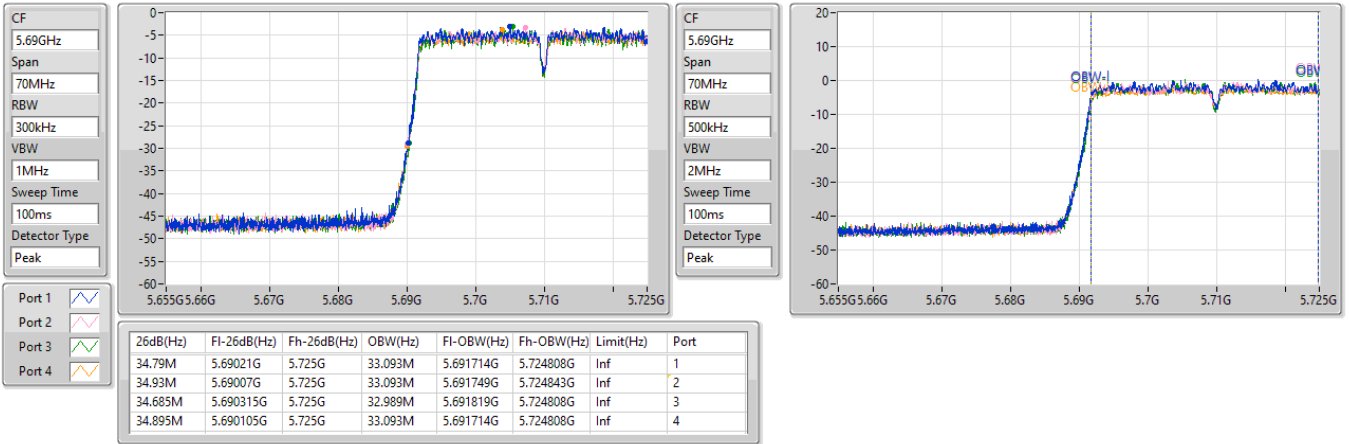


5.47-5.725GHz\_802.11ac VHT40\_Nss1,(MCS0)\_4TX

EBW

5710MHz Straddle 5.47-5.725GHz

22/12/2022

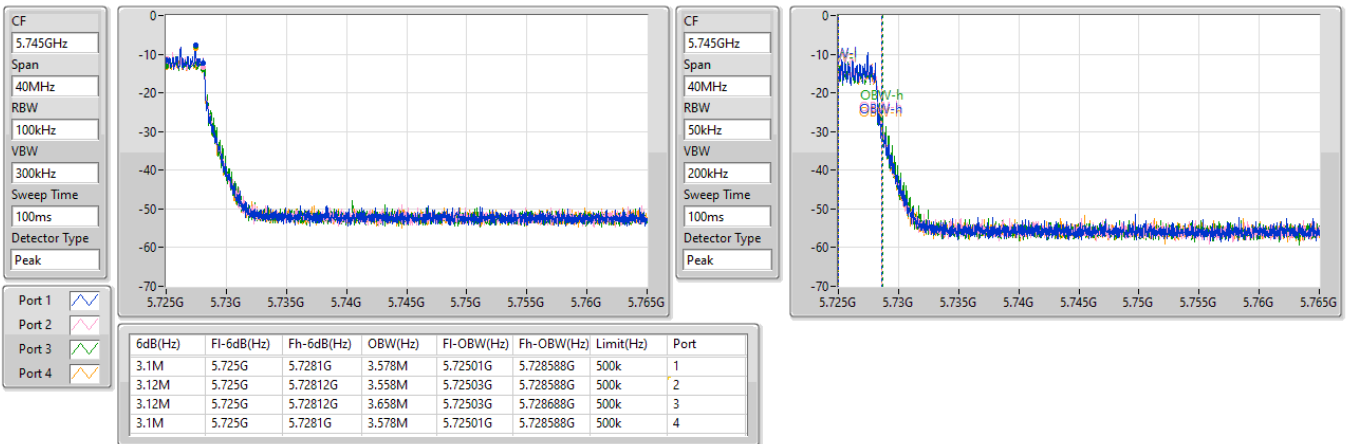


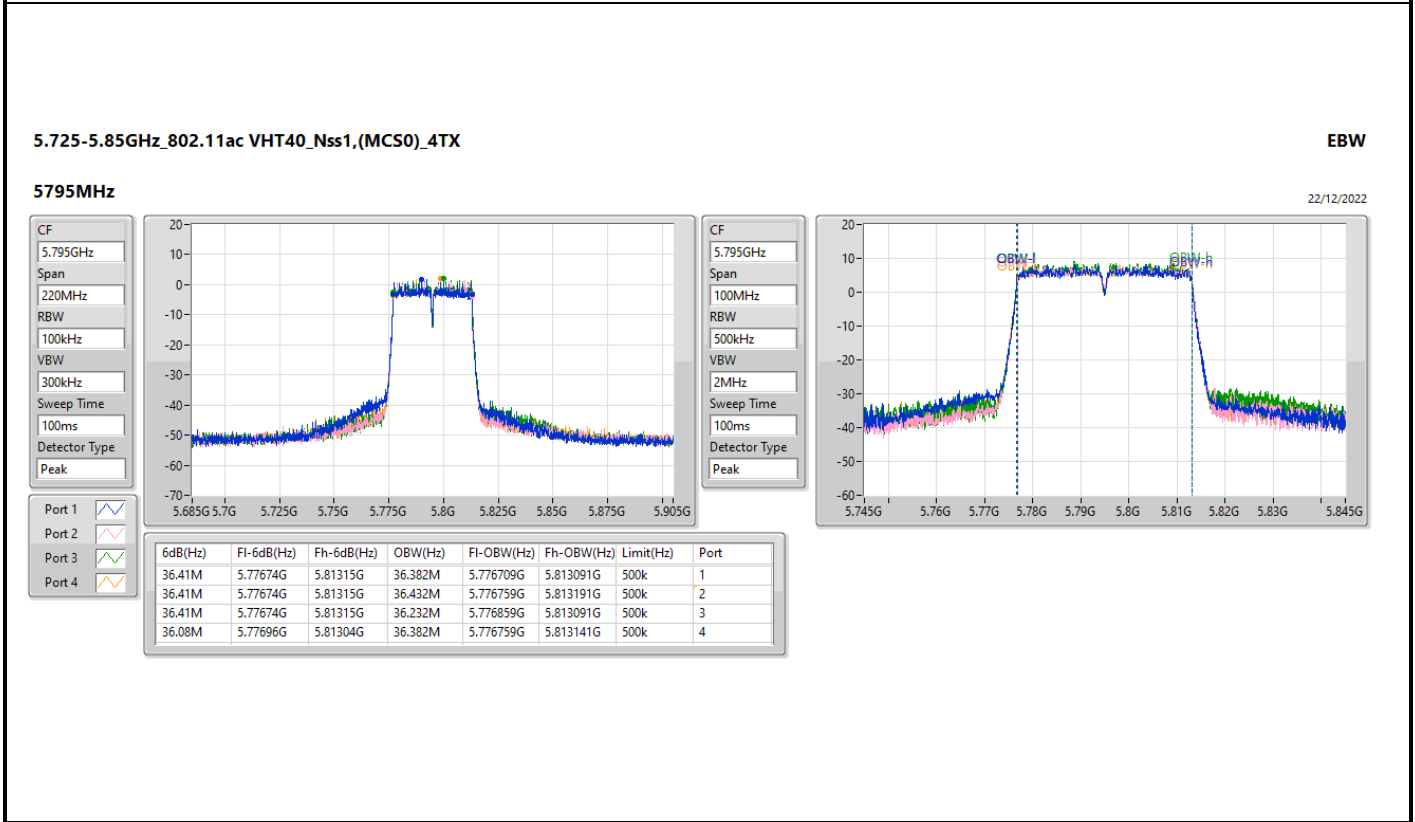
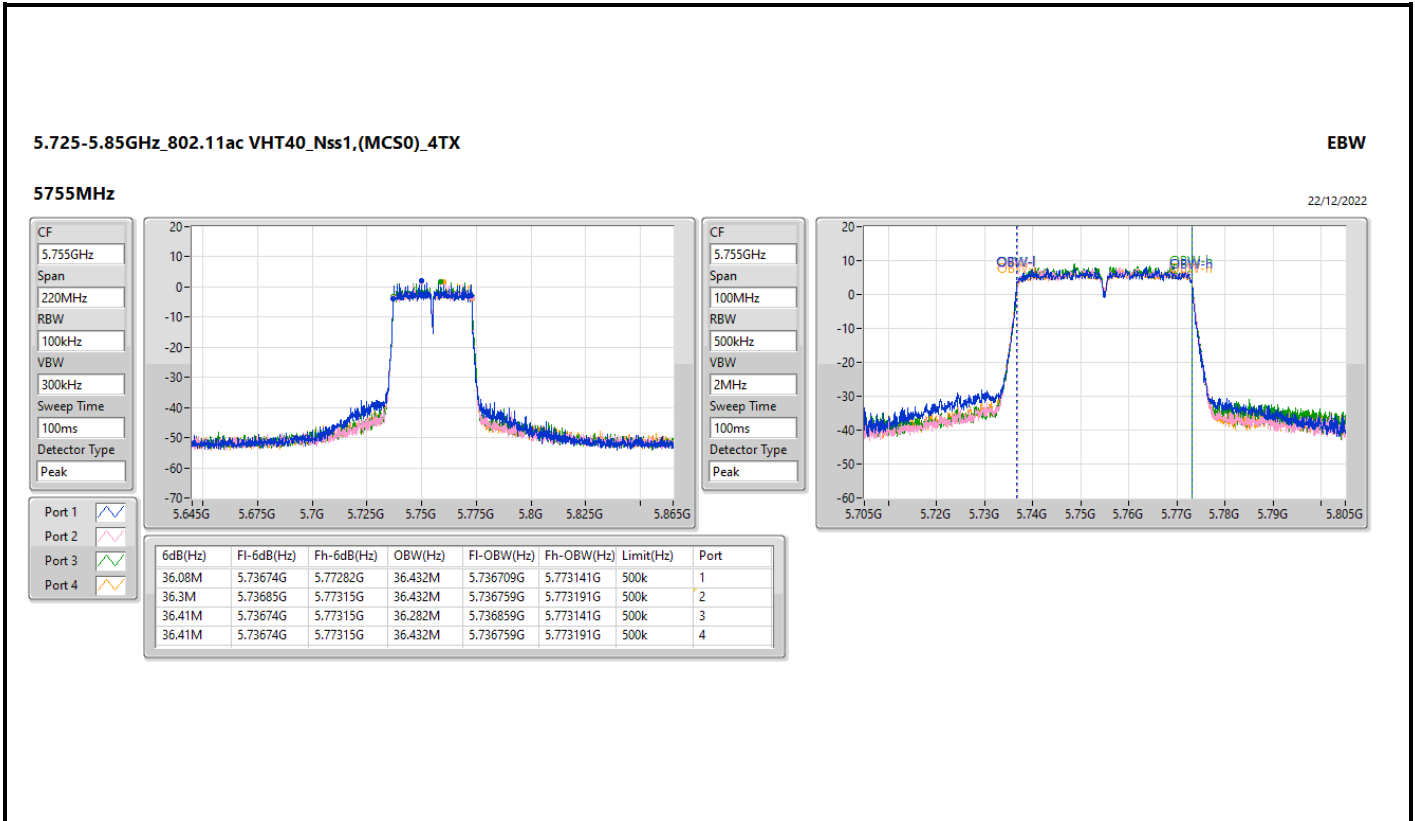
5.725-5.85GHz\_802.11ac VHT40\_Nss1,(MCS0)\_4TX

EBW

5710MHz Straddle 5.725-5.85GHz

22/12/2022



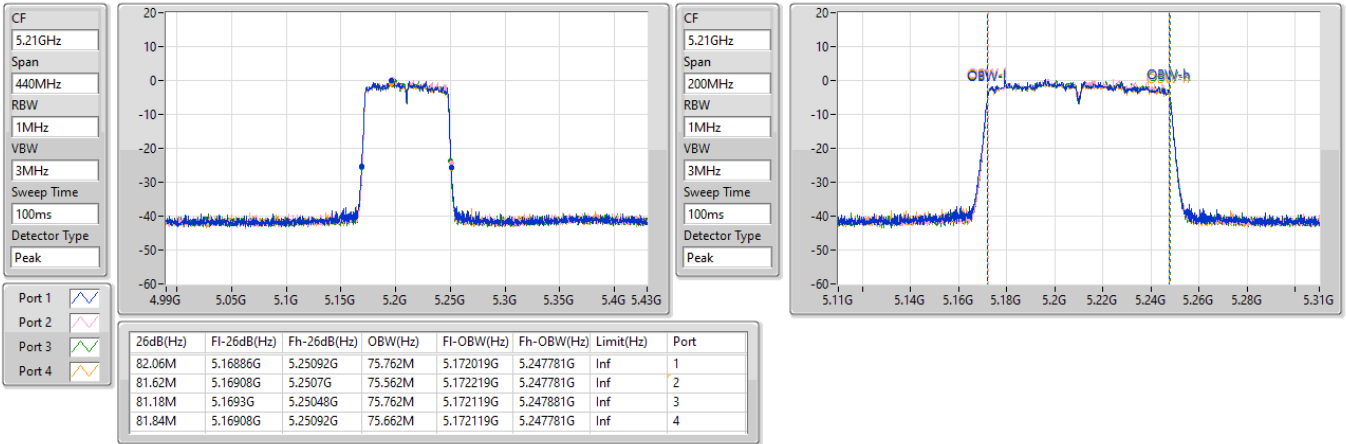


5.15-5.25GHz\_802.11ac\_VHT80\_Nss1,(MCS0)\_4TX

EBW

5210MHz

22/12/2022

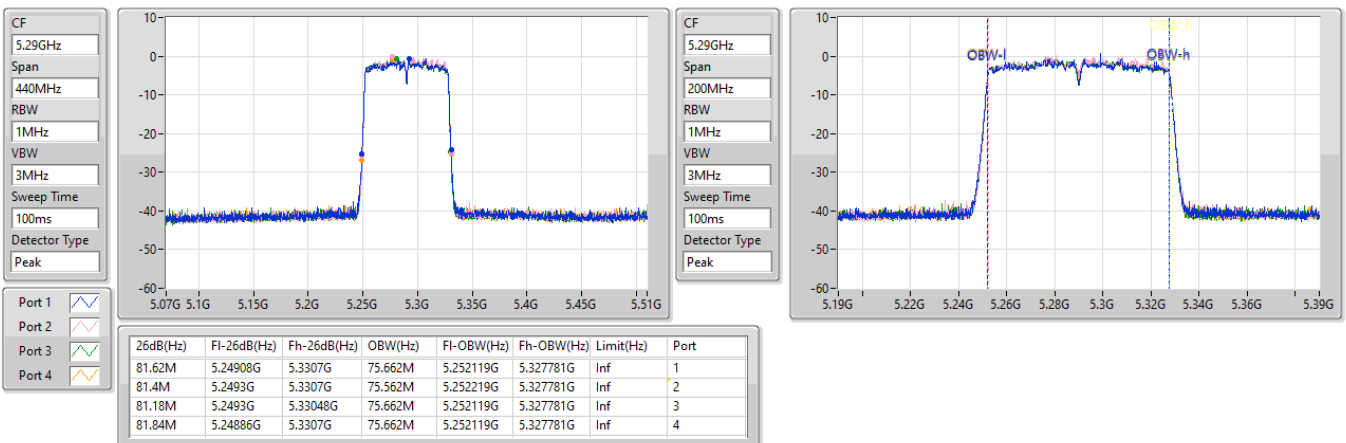


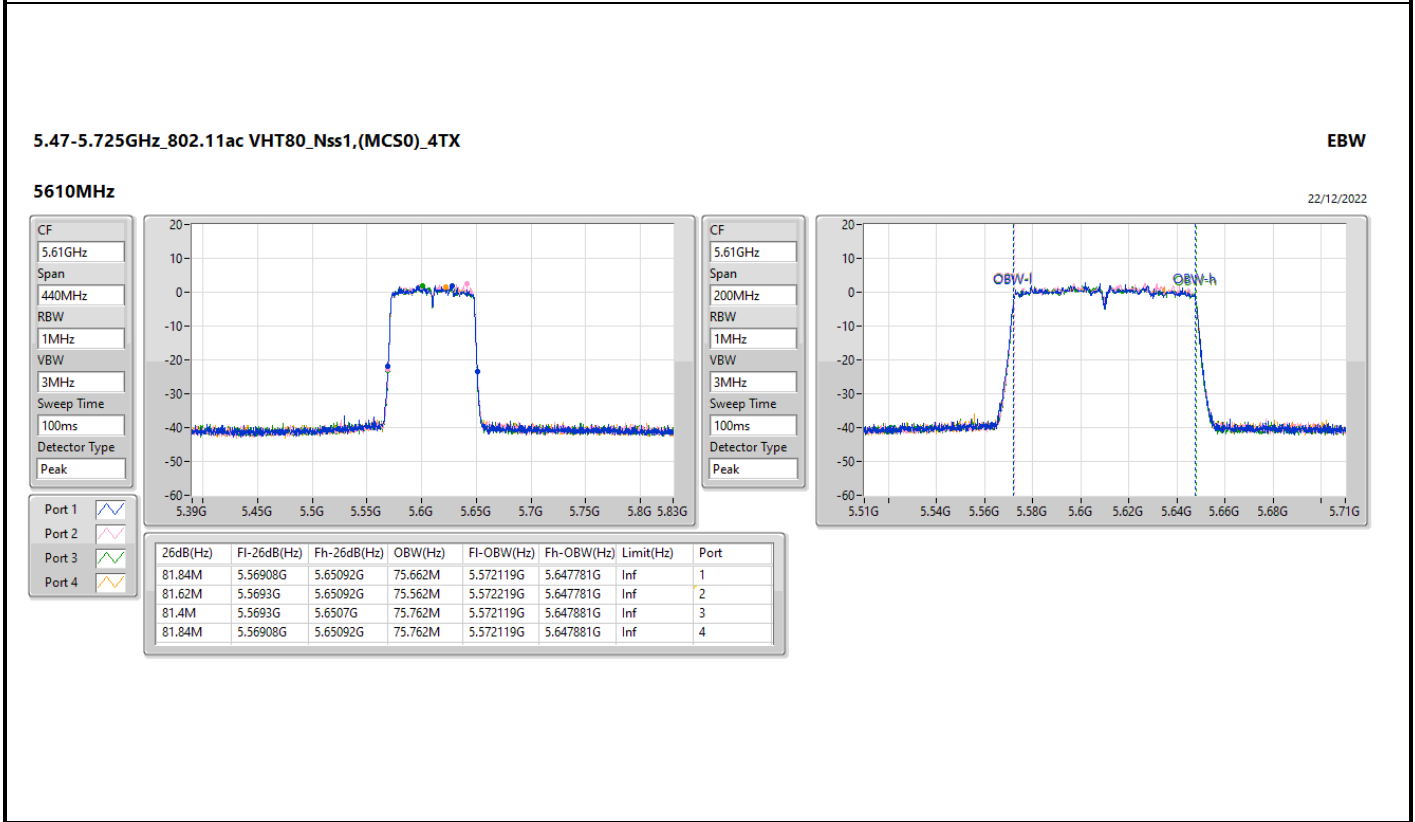
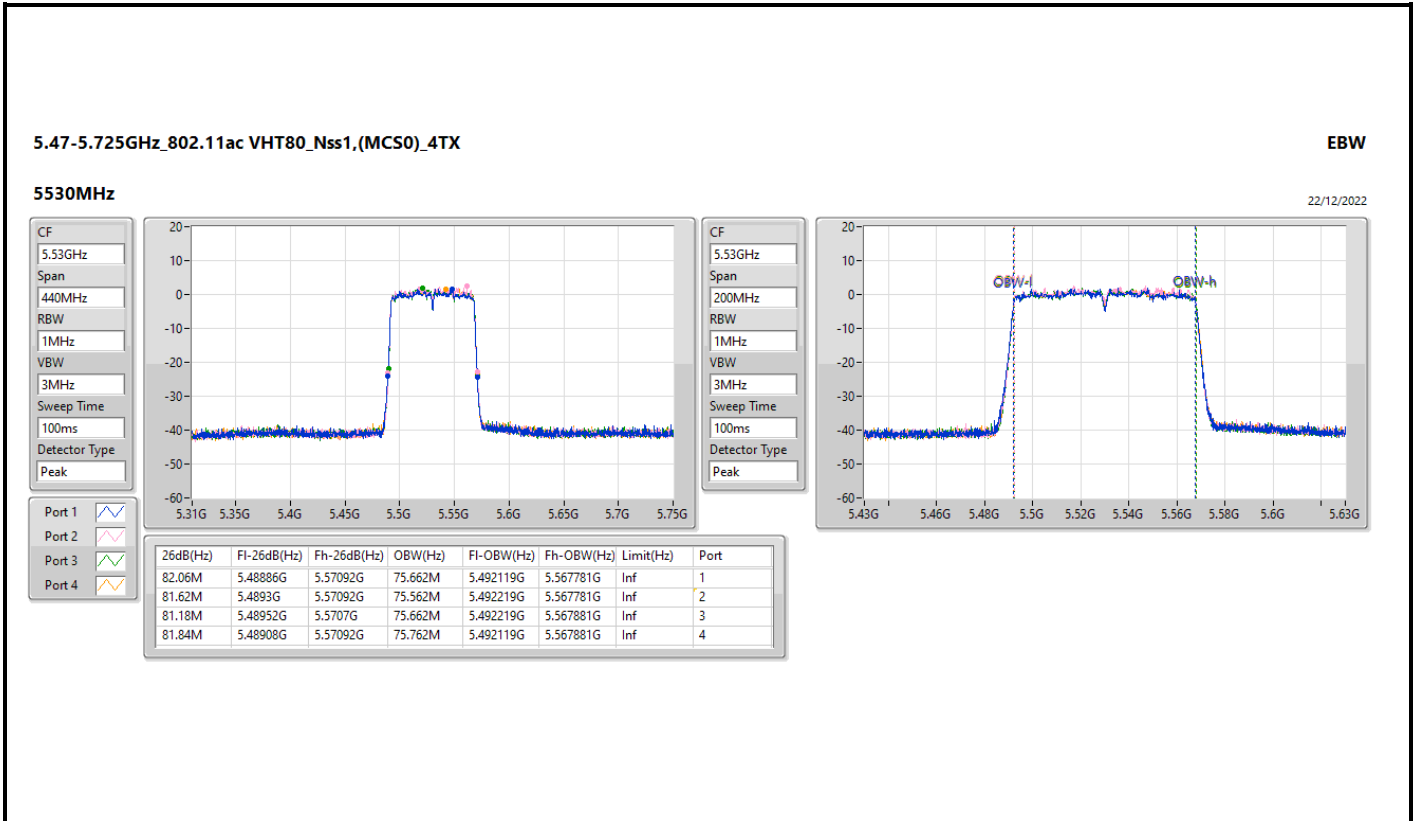
5.25-5.35GHz\_802.11ac\_VHT80\_Nss1,(MCS0)\_4TX

EBW

5290MHz

22/12/2022





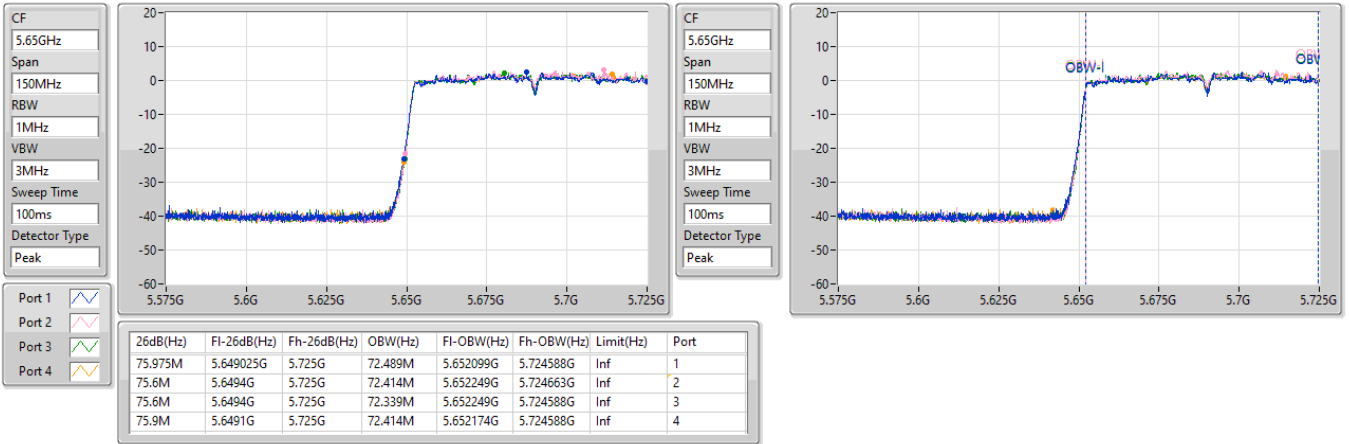


5.47-5.725GHz\_802.11ac VHT80\_Nss1,(MCS0)\_4TX

EBW

5690MHz Straddle 5.47-5.725GHz

22/12/2022

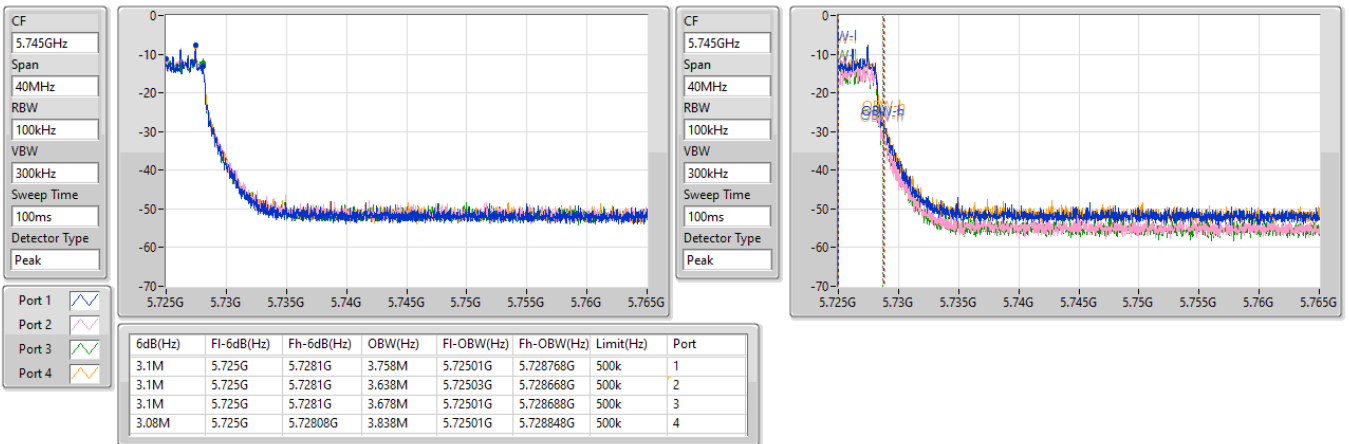


5.725-5.85GHz\_802.11ac VHT80\_Nss1,(MCS0)\_4TX

EBW

5690MHz Straddle 5.725-5.85GHz

22/12/2022



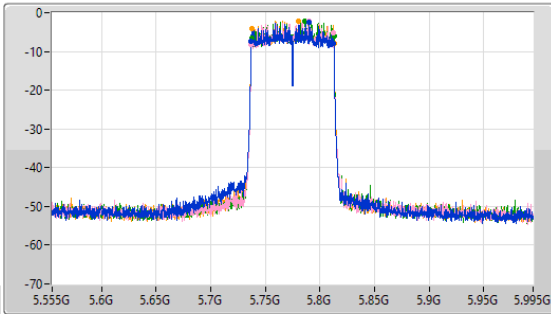
5.725-5.85GHz\_802.11ac VHT80\_Nss1,(MCS0)\_4TX

EBW

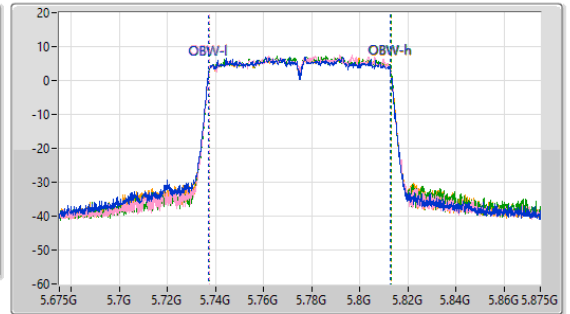
5775MHz

22/12/2022

CF  
5.775GHz  
Span  
440MHz  
RBW  
100kHz  
VBW  
300kHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.775GHz  
Span  
200MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
75.46M	5.73716G	5.81262G	75.662M	5.737119G	5.812781G	500k	1
75.68M	5.73672G	5.8124G	75.562M	5.737219G	5.812781G	500k	2
75.68M	5.73738G	5.81306G	75.662M	5.737219G	5.812881G	500k	3
75.68M	5.73738G	5.81306G	75.662M	5.737219G	5.812881G	500k	4

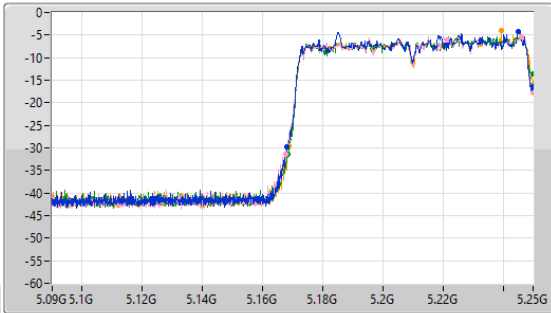
5.15-5.25GHz\_802.11ac VHT160\_Nss1,(MCS0)\_4TX

EBW

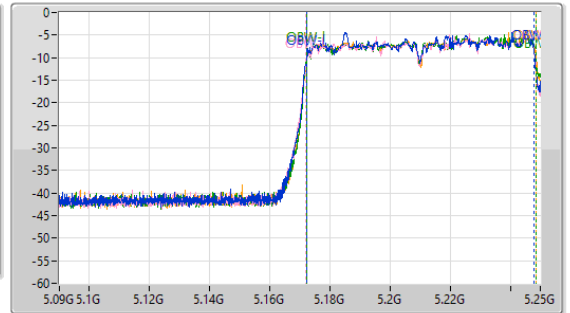
5250MHz Straddle 5.15-5.25GHz

22/12/2022

CF  
5.17GHz  
Span  
160MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
100ms  
Detector Type  
Peak



CF  
5.17GHz  
Span  
160MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
100ms  
Detector Type  
Peak



Port 1  
Port 2  
Port 3  
Port 4

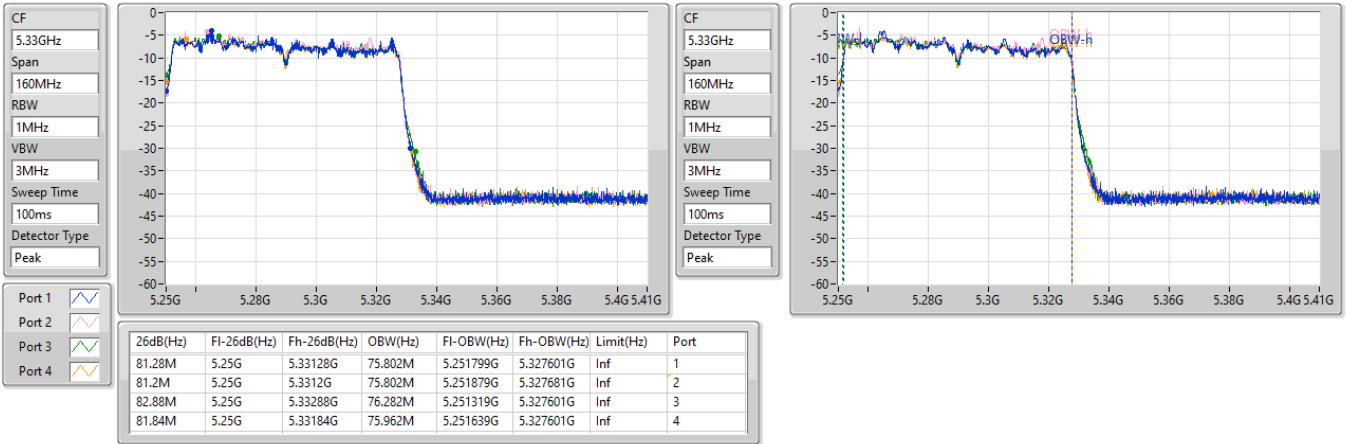
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
81.92M	5.16808G	5.25G	75.882M	5.172159G	5.248041G	Inf	1
82.32M	5.16768G	5.25G	75.962M	5.172079G	5.248041G	Inf	2
81.44M	5.16856G	5.25G	76.202M	5.172239G	5.248441G	Inf	3
81.12M	5.16888G	5.25G	76.282M	5.172239G	5.248521G	Inf	4

5.25-5.35GHz\_802.11ac VHT160\_Nss1,(MCS0)\_4TX

EBW

5250MHz Straddle 5.25-5.35GHz

22/12/2022

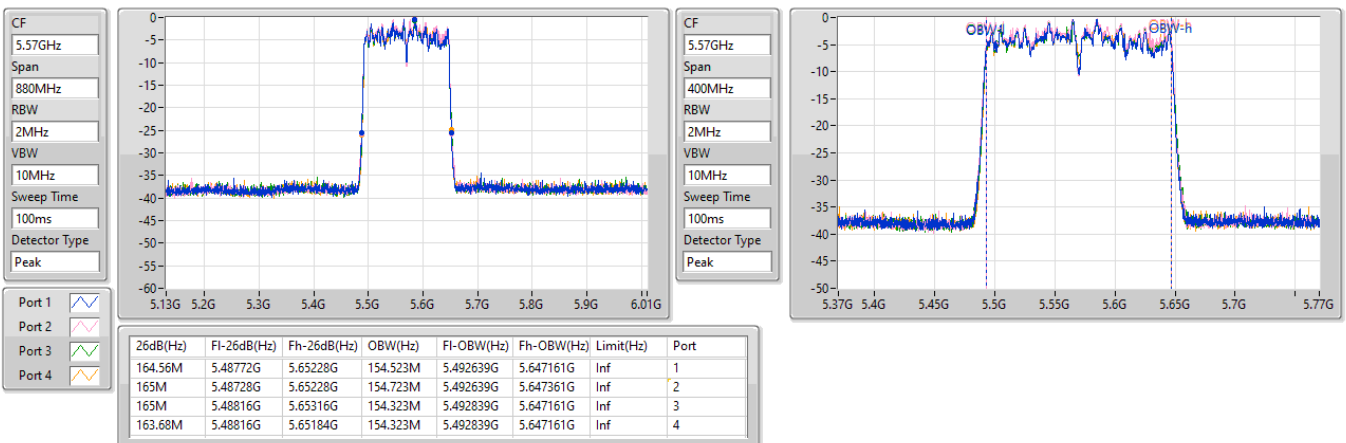


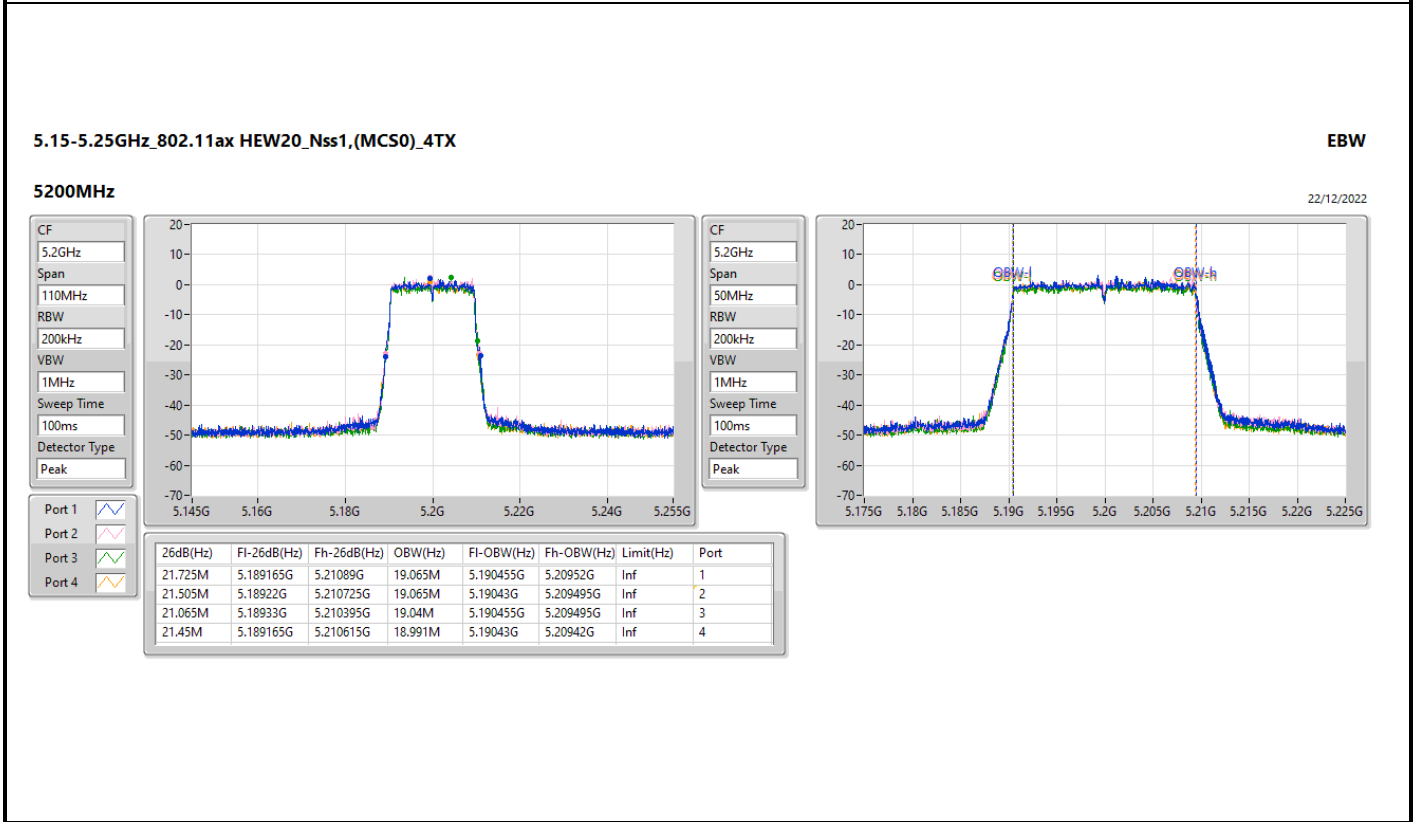
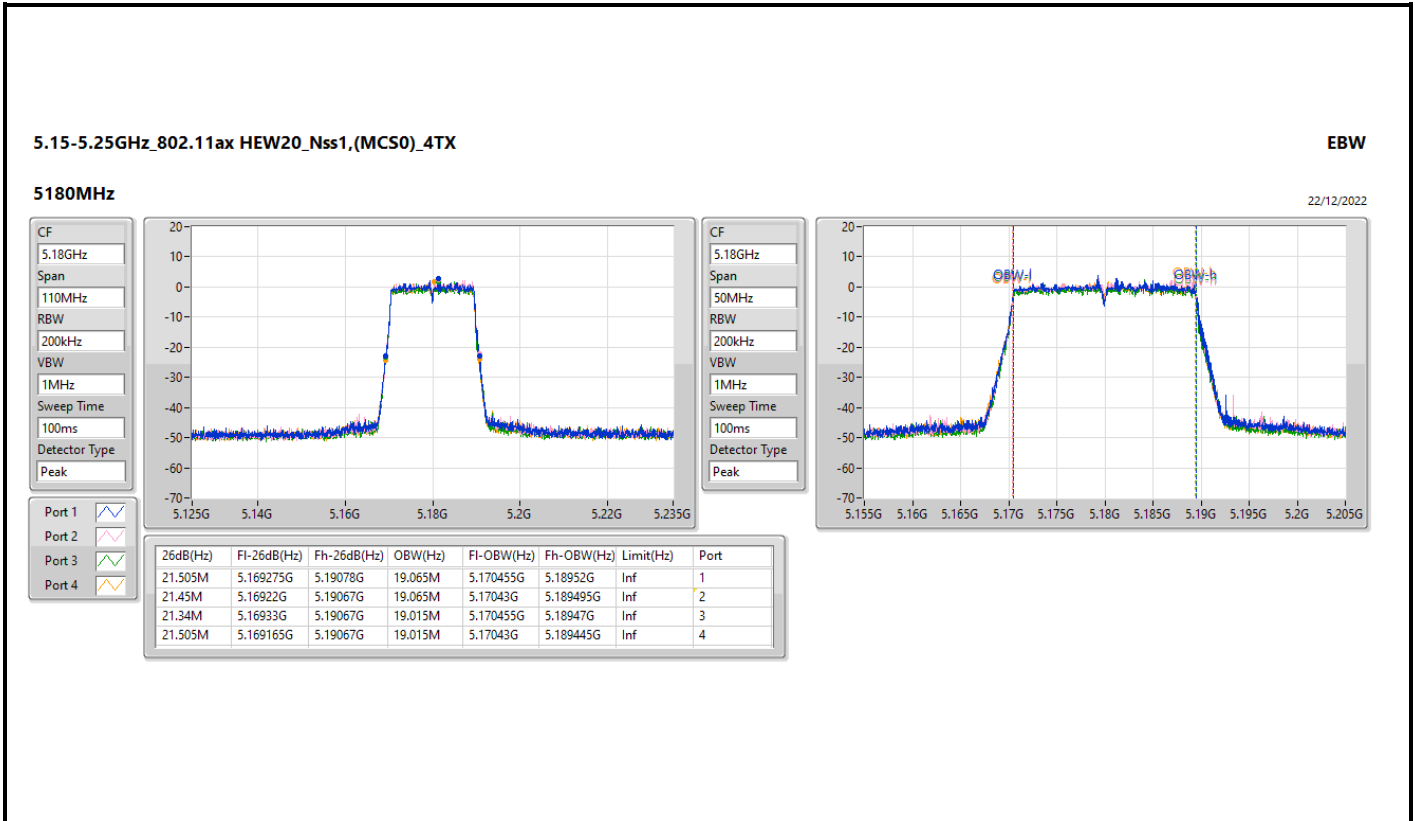
5.47-5.725GHz\_802.11ac VHT160\_Nss1,(MCS0)\_4TX

EBW

5570MHz

22/12/2022



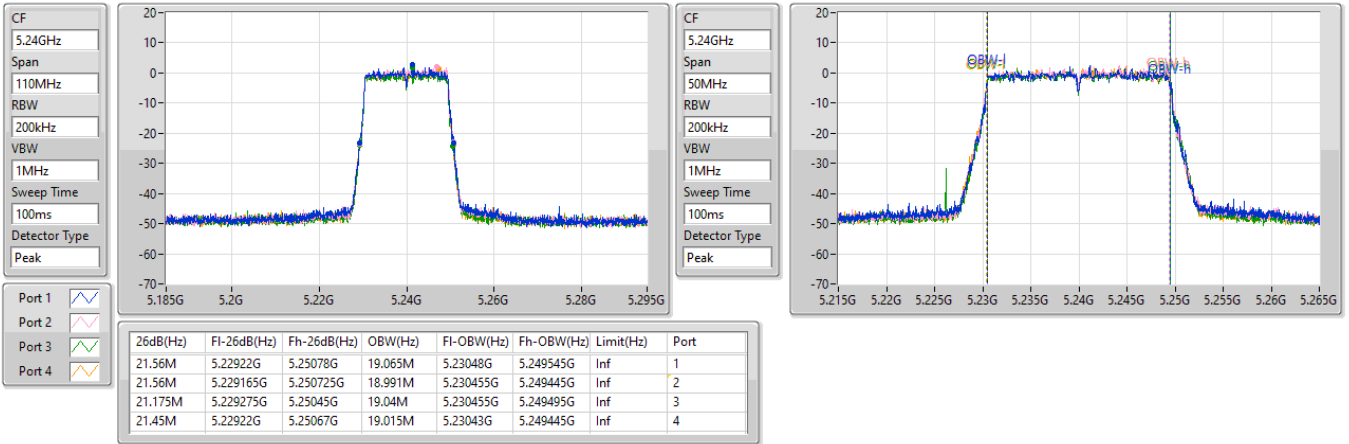


5.15-5.25GHz\_802.11ax\_HEW20\_Nss1,(MCS0)\_4TX

EBW

5240MHz

22/12/2022

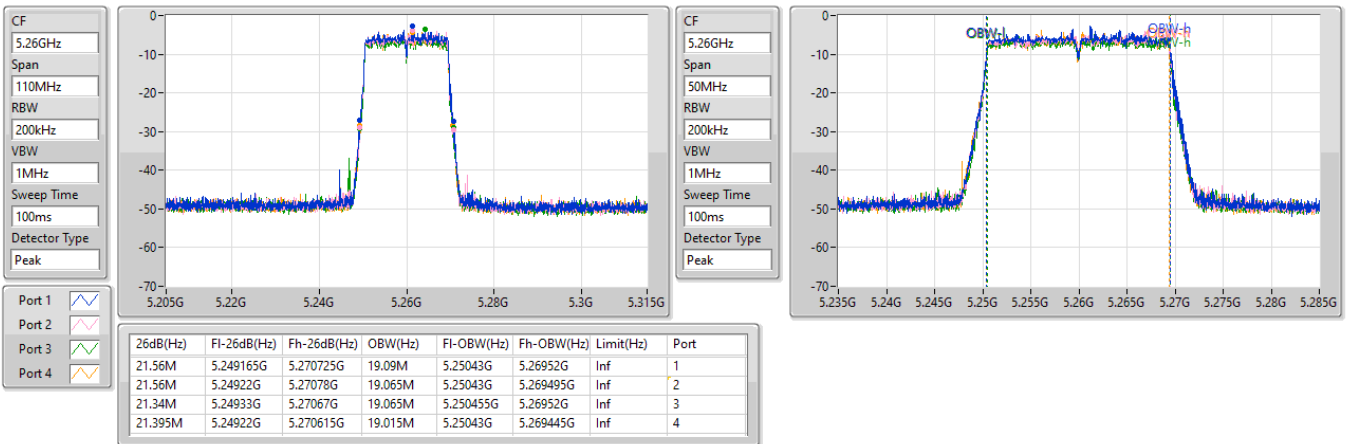


5.25-5.35GHz\_802.11ax\_HEW20\_Nss1,(MCS0)\_4TX

EBW

5260MHz

22/12/2022

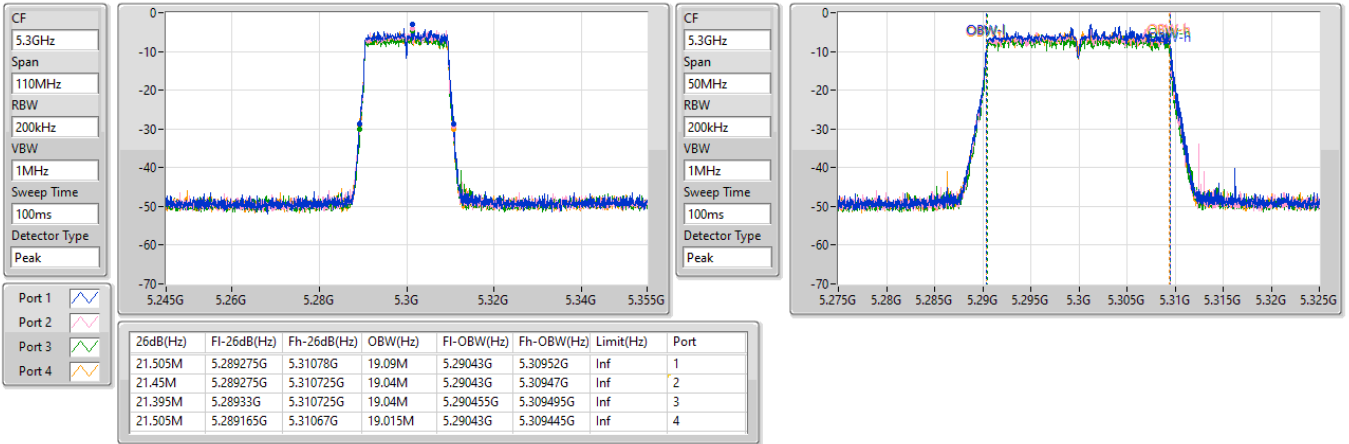


5.25-5.35GHz\_802.11ax\_HEW20\_Nss1,(MCS0)\_4TX

EBW

5300MHz

22/12/2022

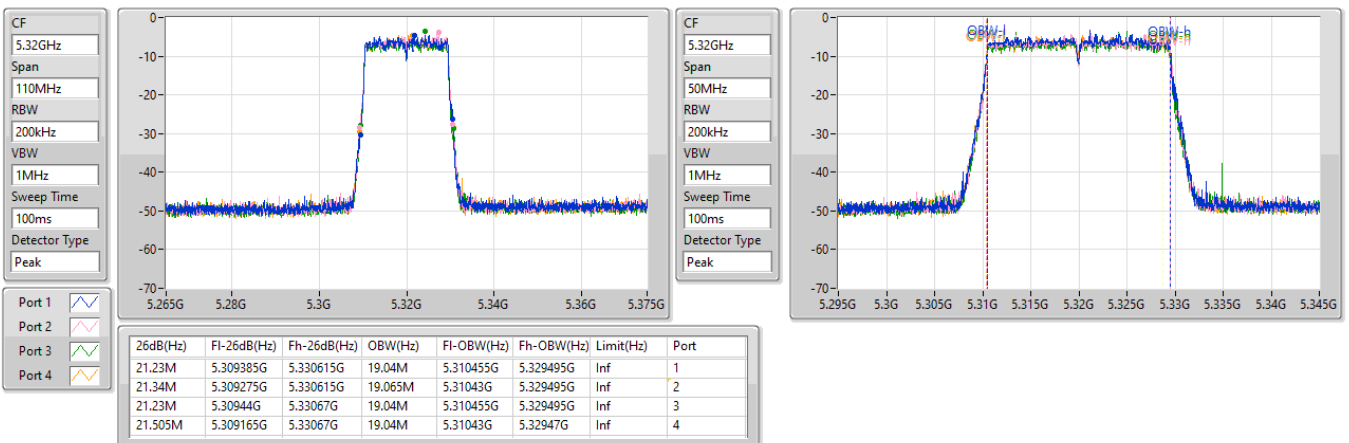


5.25-5.35GHz\_802.11ax\_HEW20\_Nss1,(MCS0)\_4TX

EBW

5320MHz

22/12/2022

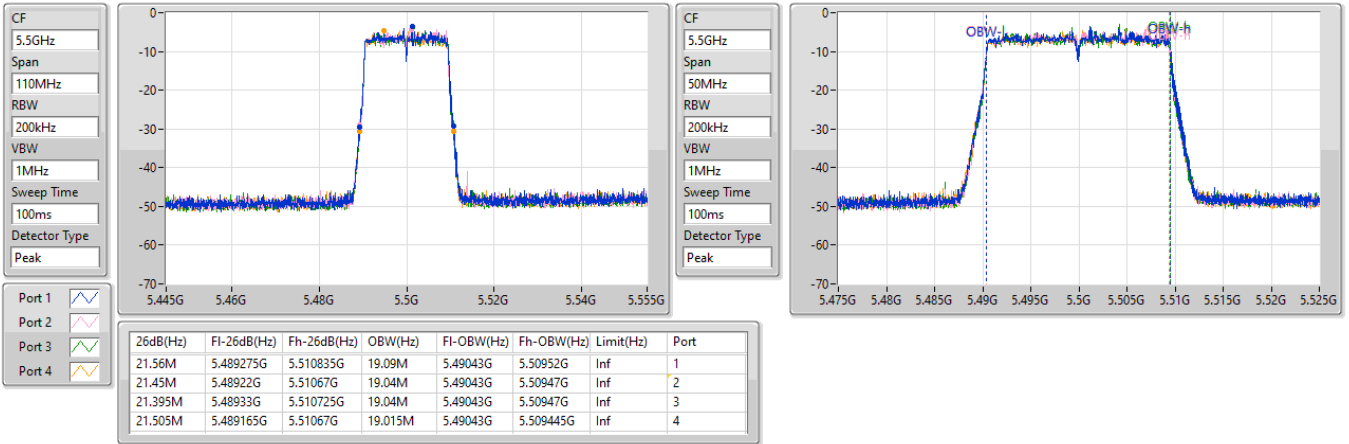


5.47-5.725GHz\_802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5500MHz

22/12/2022

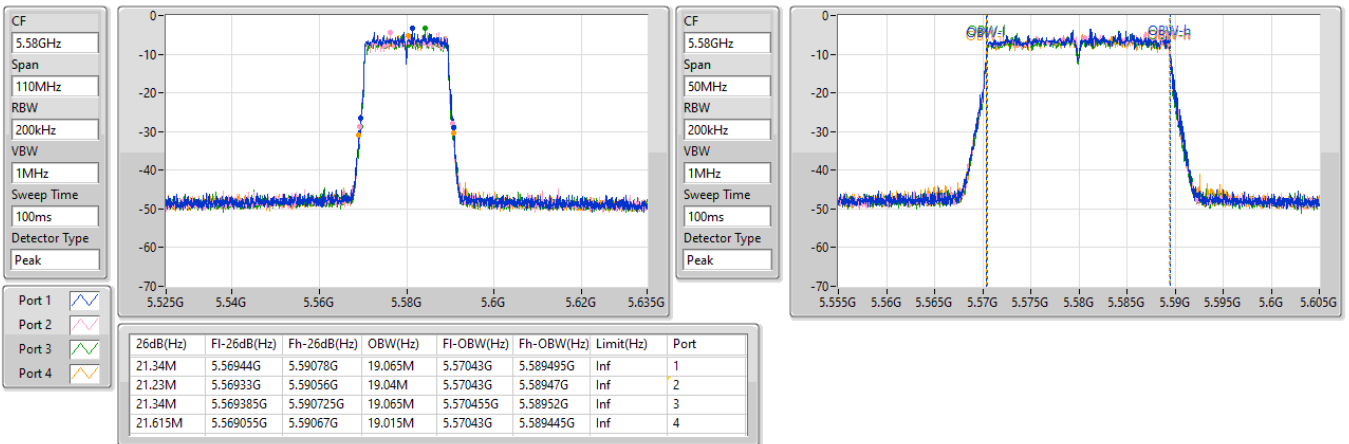


5.47-5.725GHz\_802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5580MHz

22/12/2022

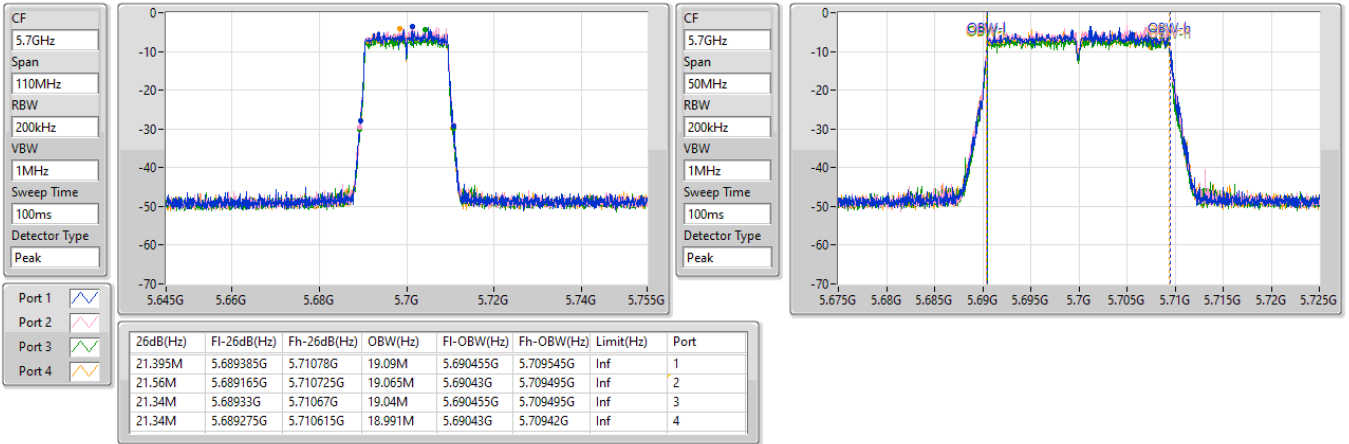


5.47-5.725GHz\_802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5700MHz

22/12/2022

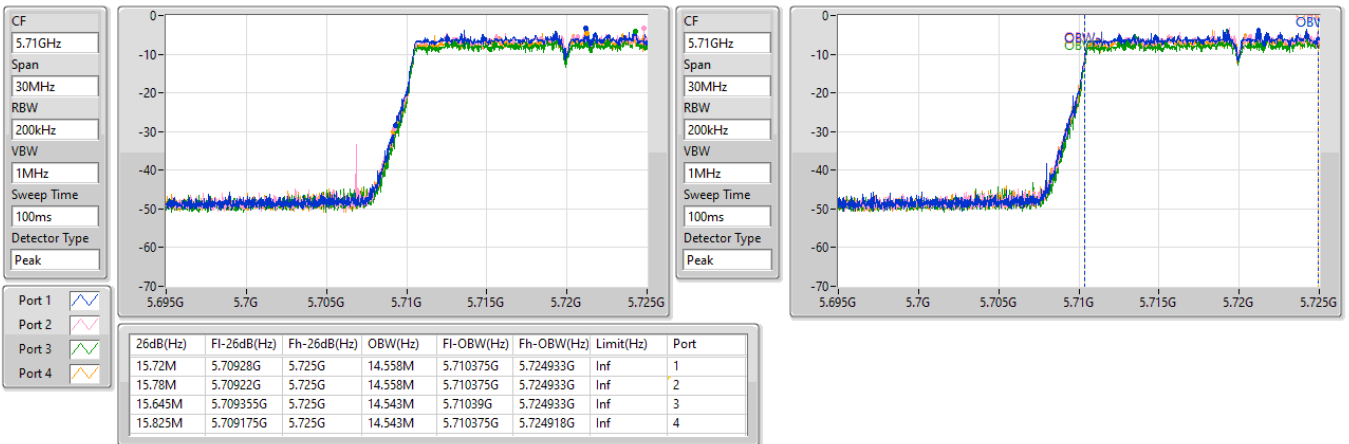


5.47-5.725GHz\_802.11ax HEW20\_Nss1,(MCS0)\_4TX

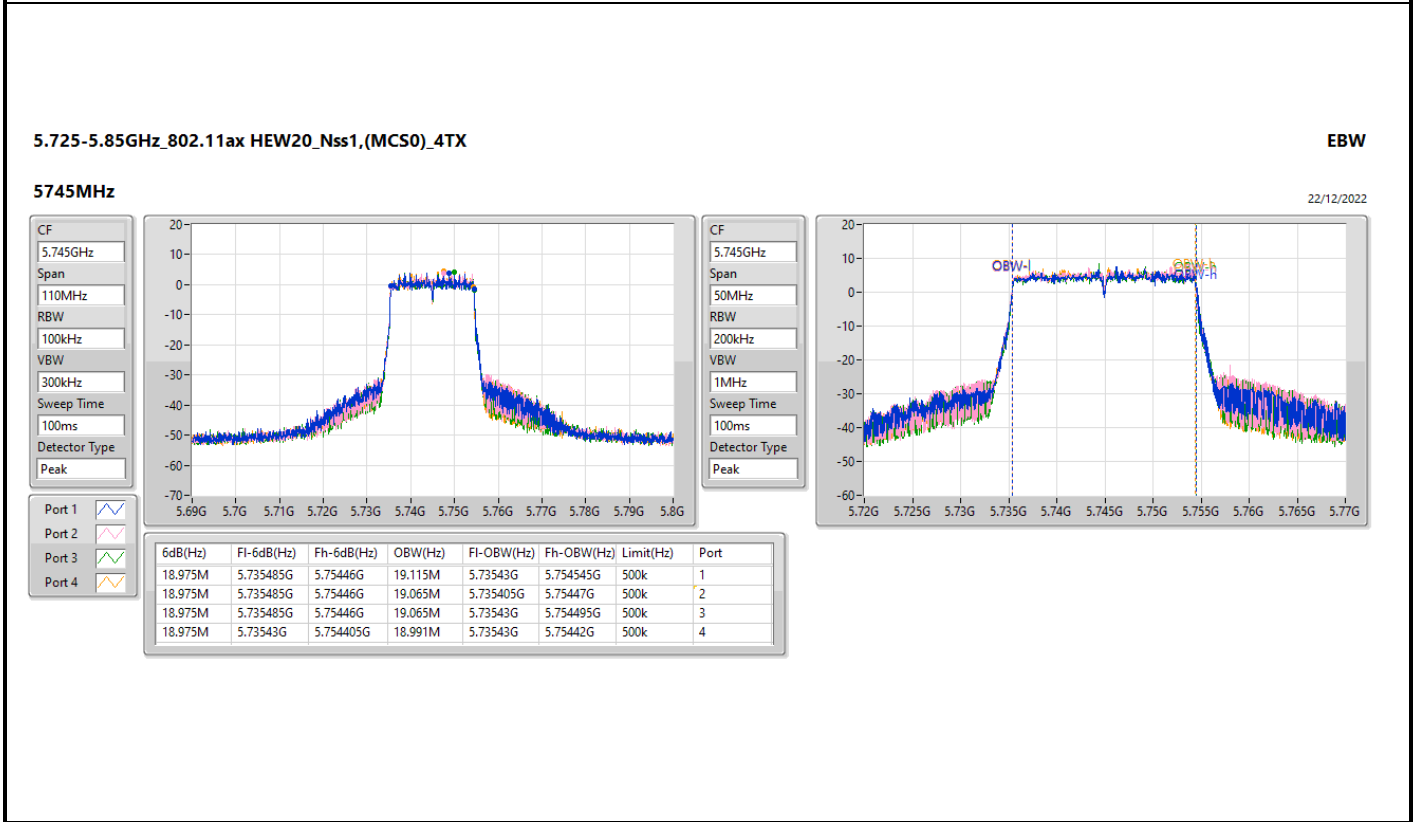
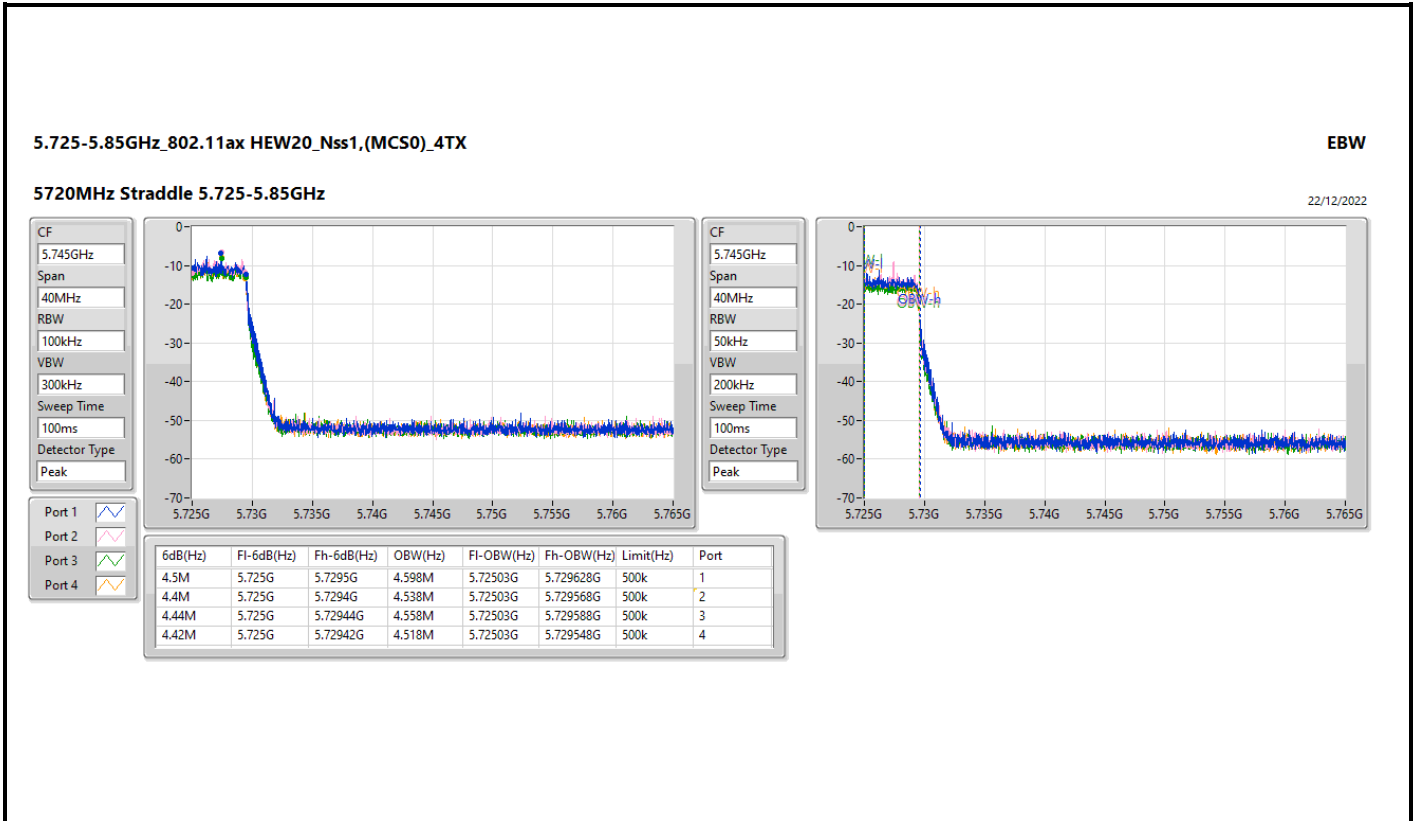
EBW

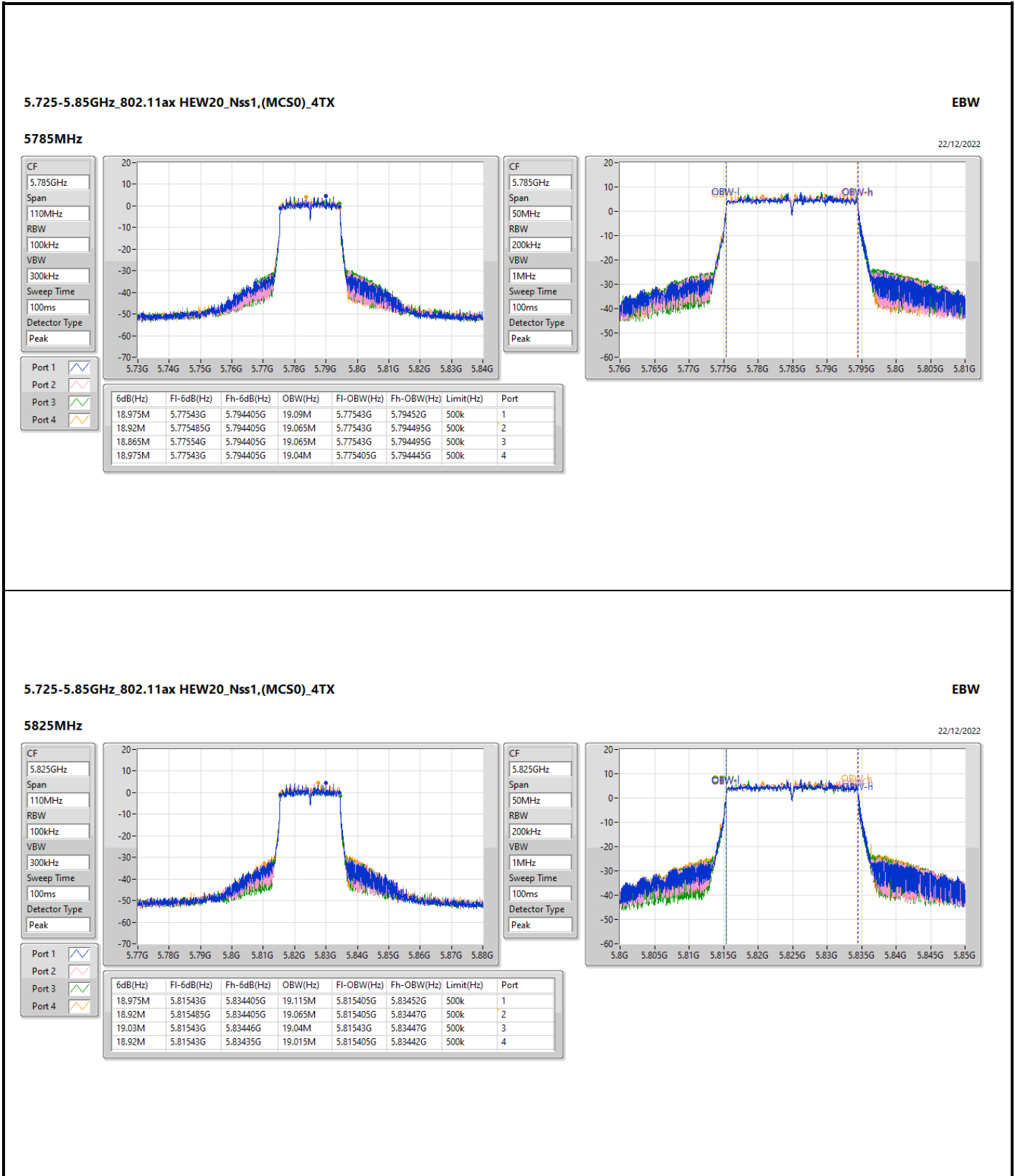
5720MHz Straddle 5.47-5.725GHz

22/12/2022







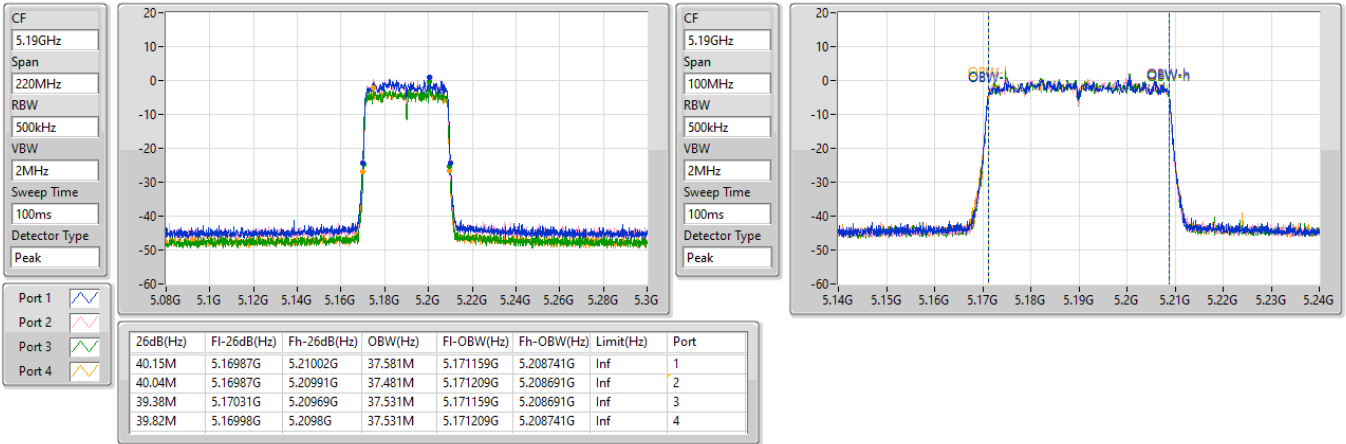


5.15-5.25GHz\_802.11ax\_HEW40\_Nss1,(MCS0)\_4TX

EBW

5190MHz

22/12/2022

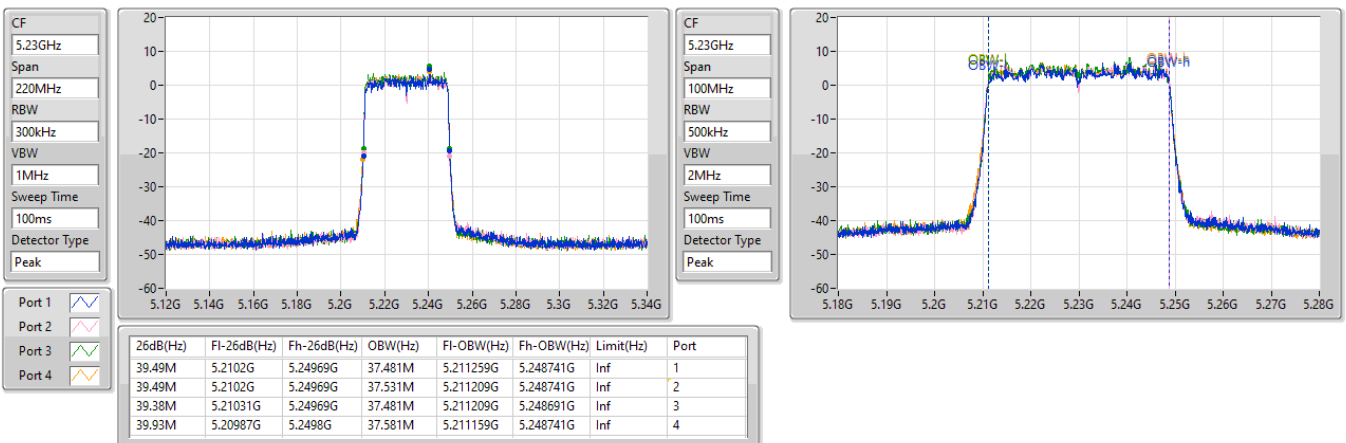


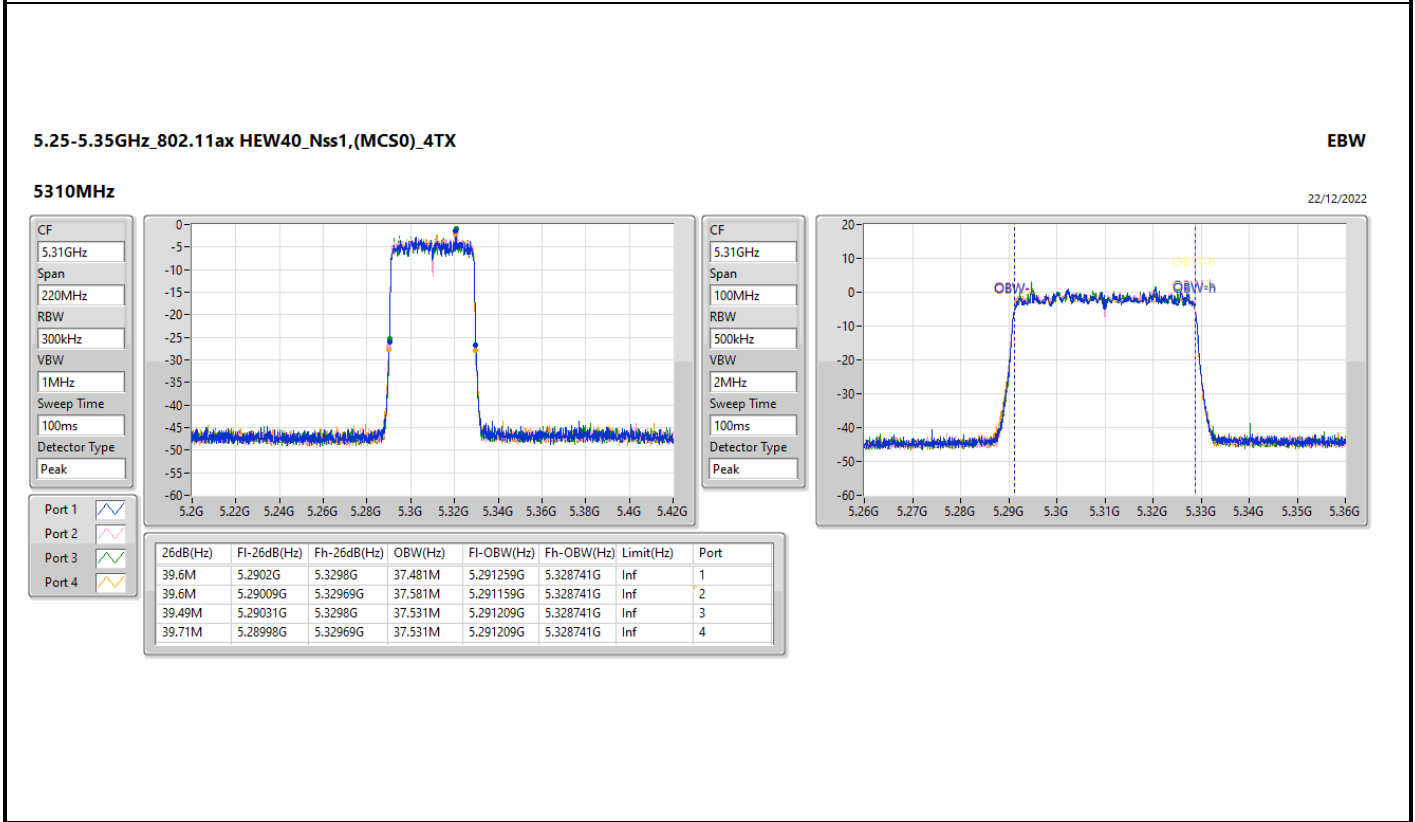
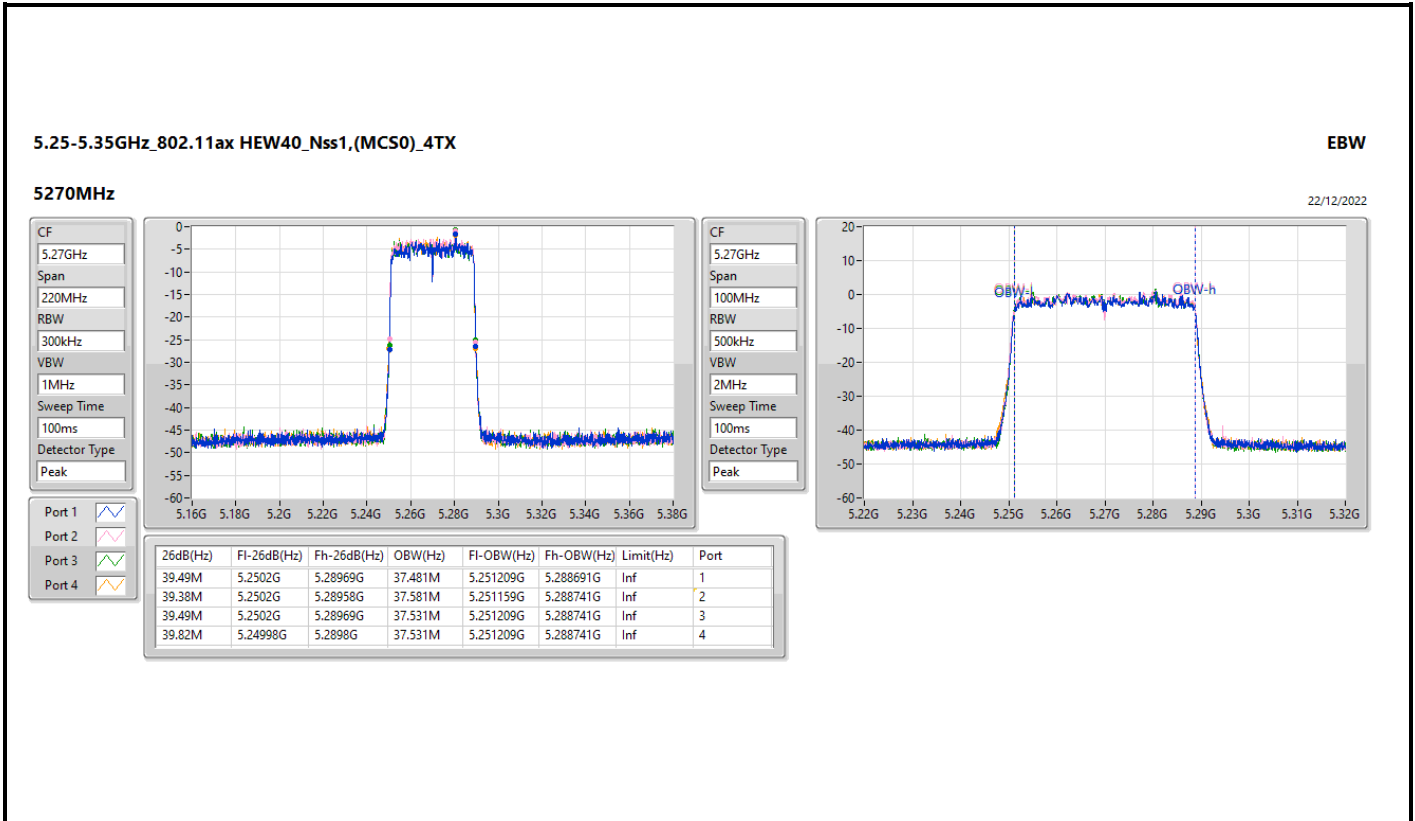
5.15-5.25GHz\_802.11ax\_HEW40\_Nss1,(MCS0)\_4TX

EBW

5230MHz

22/12/2022



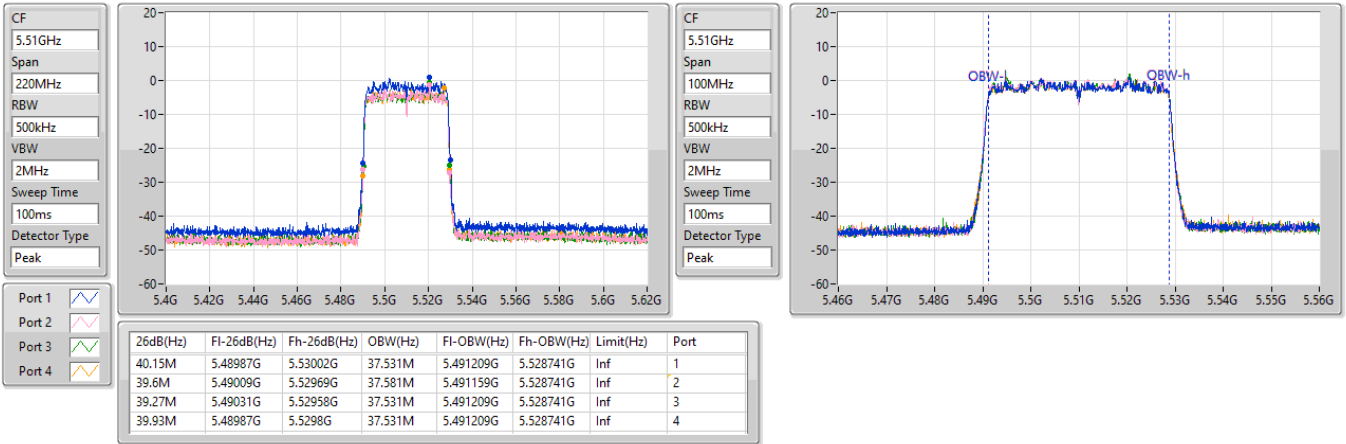


5.47-5.725GHz\_802.11ax HEW40\_Nss1,(MCS0)\_4TX

EBW

5510MHz

22/12/2022

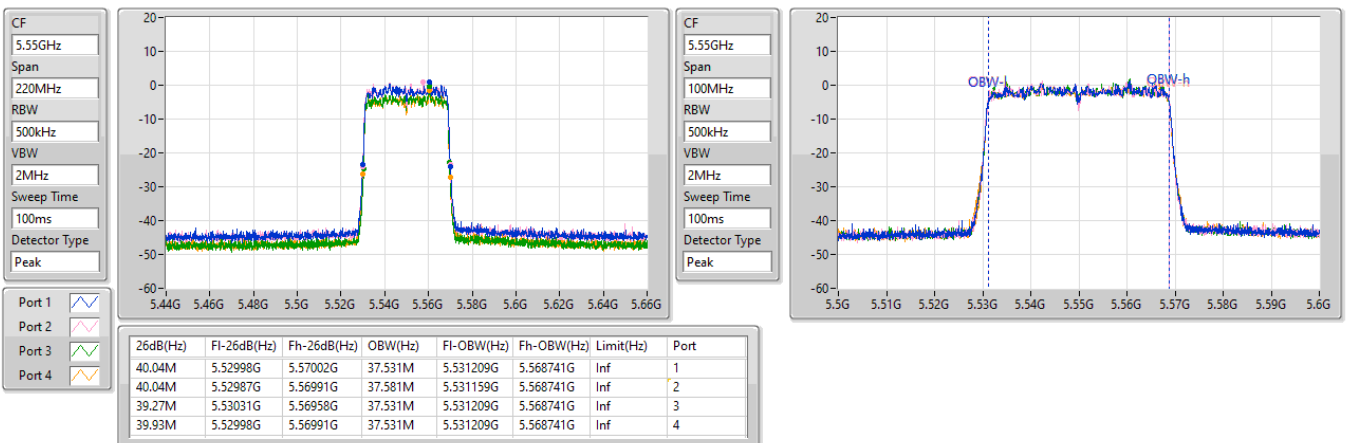


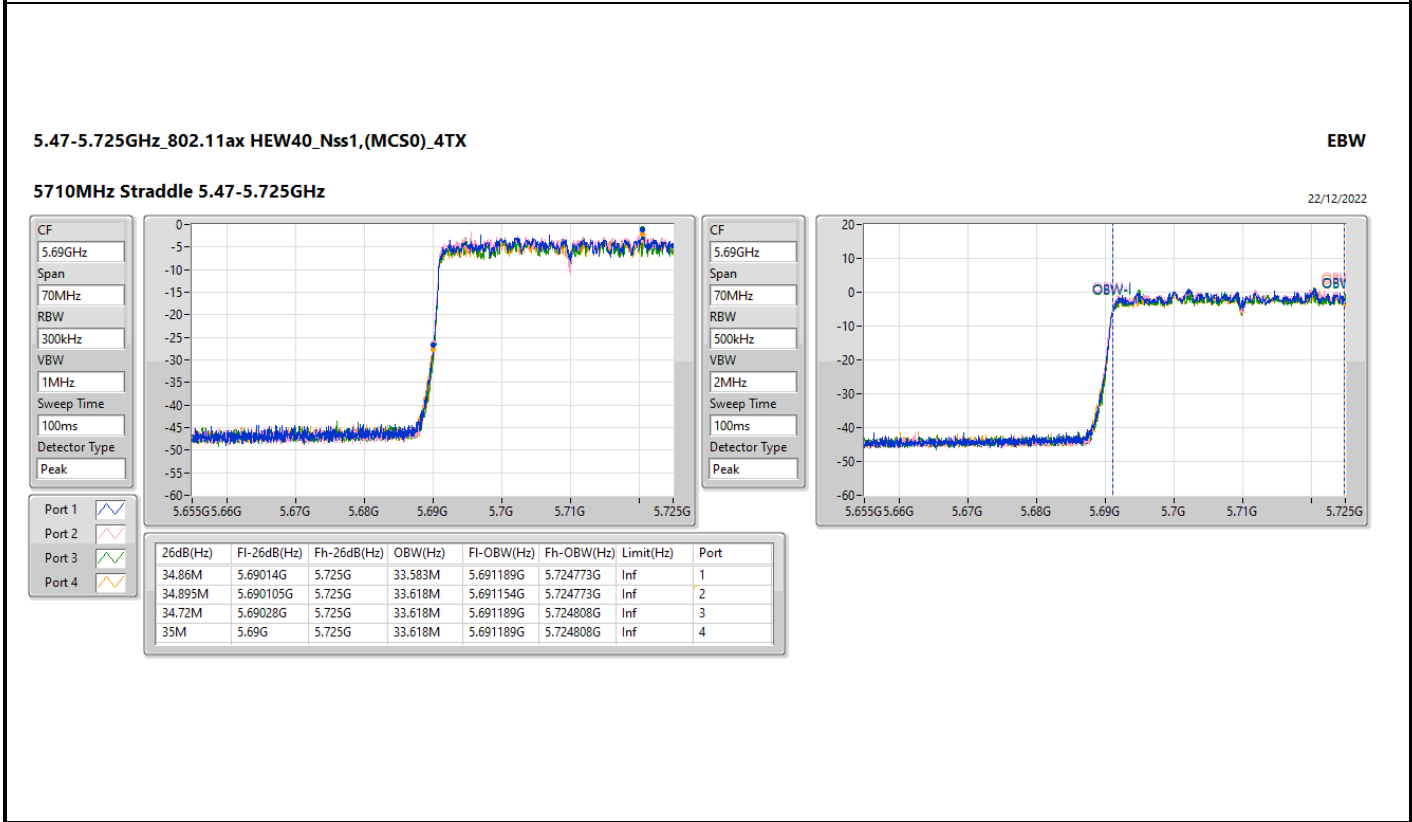
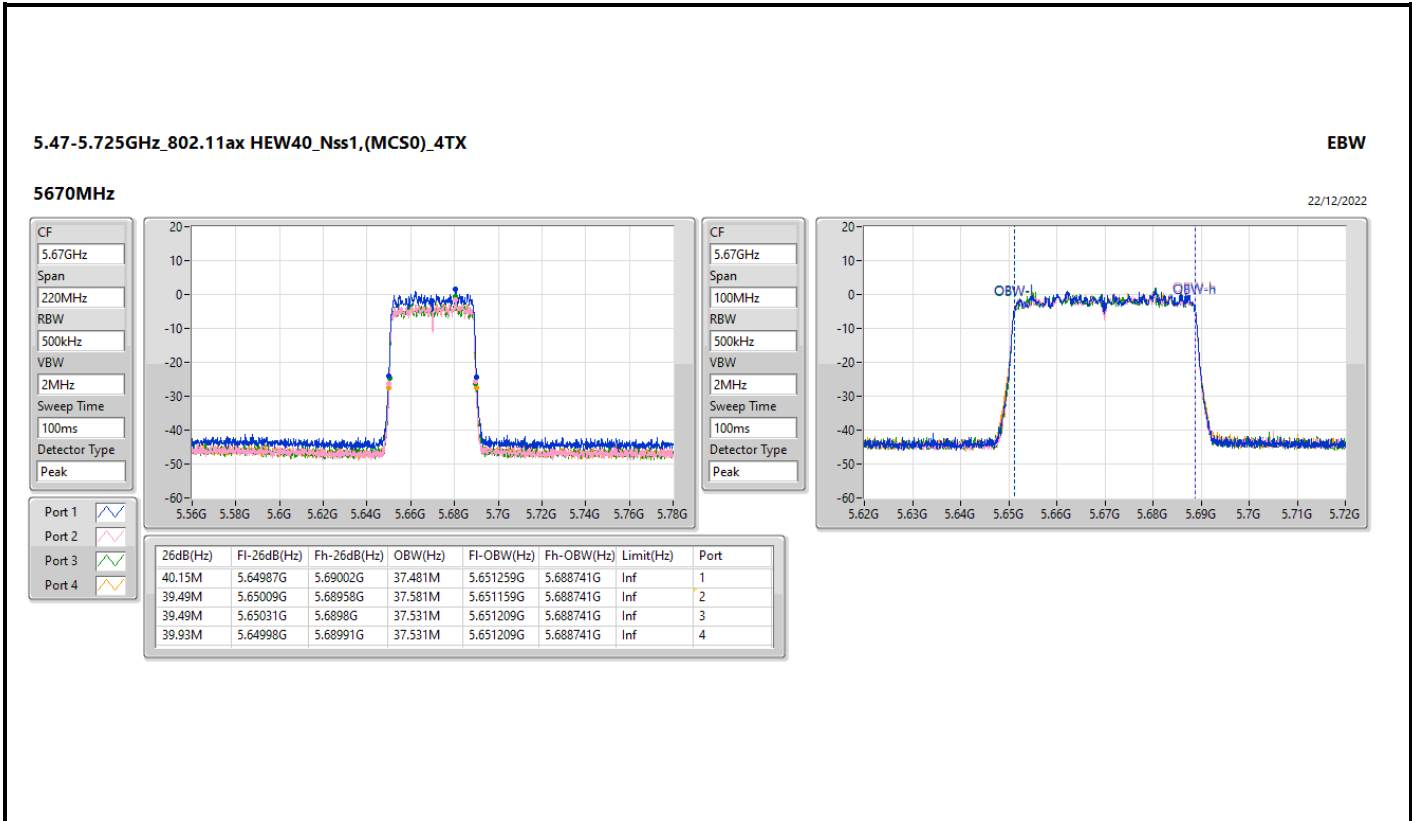
5.47-5.725GHz\_802.11ax HEW40\_Nss1,(MCS0)\_4TX

EBW

5550MHz

22/12/2022



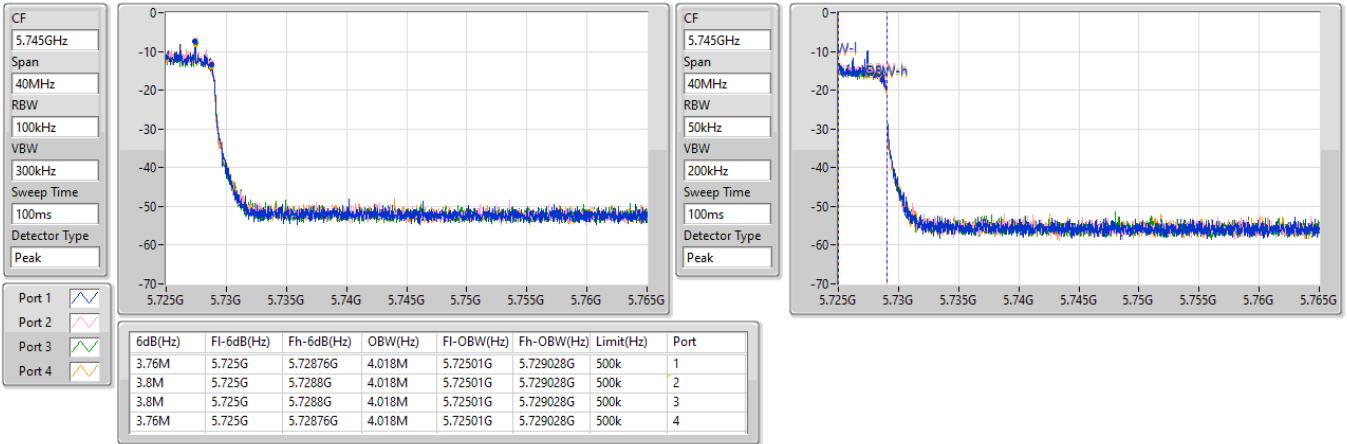


5.725-5.85GHz\_802.11ax HEW40\_Nss1,(MCS0)\_4TX

EBW

5710MHz Straddle 5.725-5.85GHz

22/12/2022

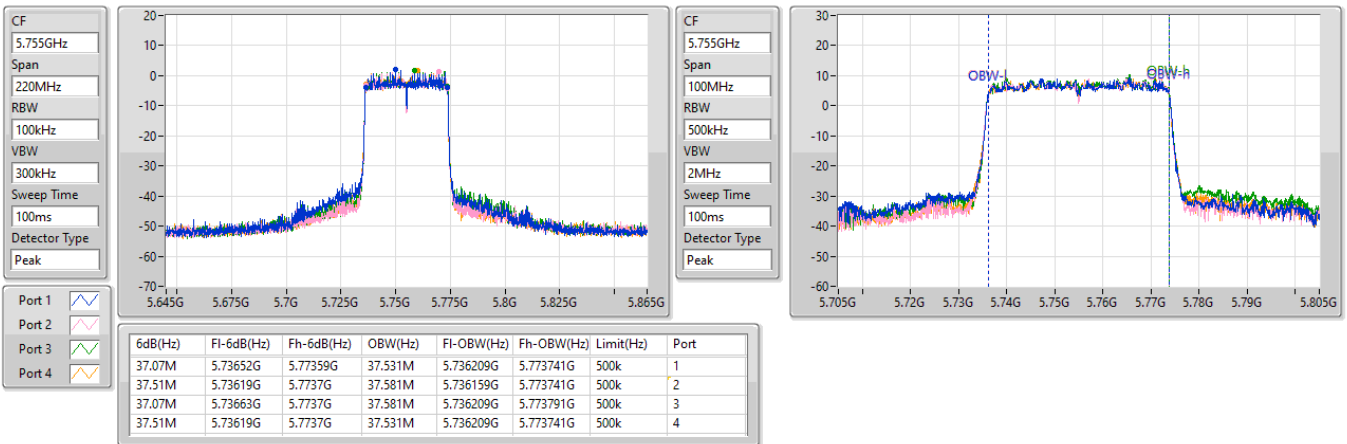


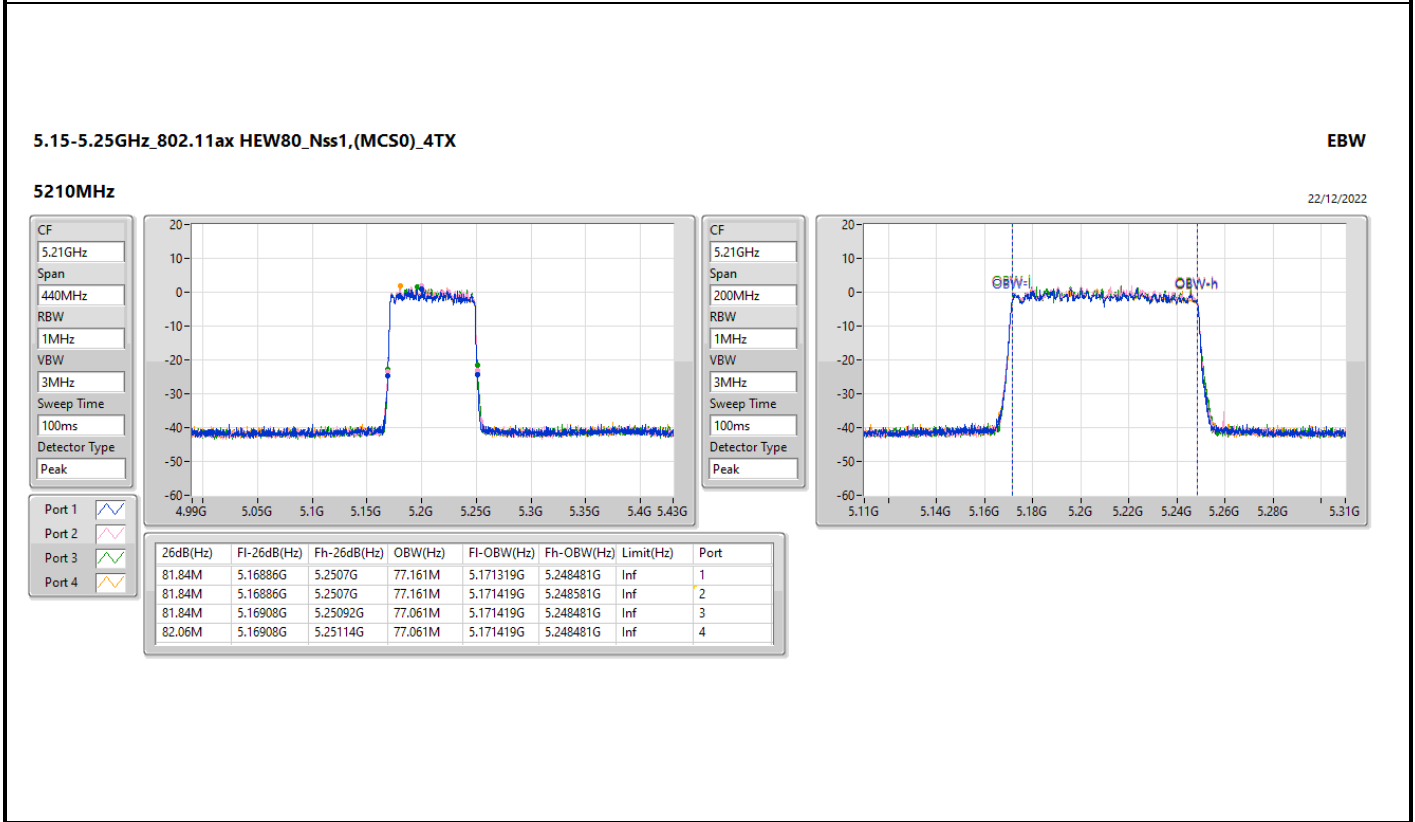
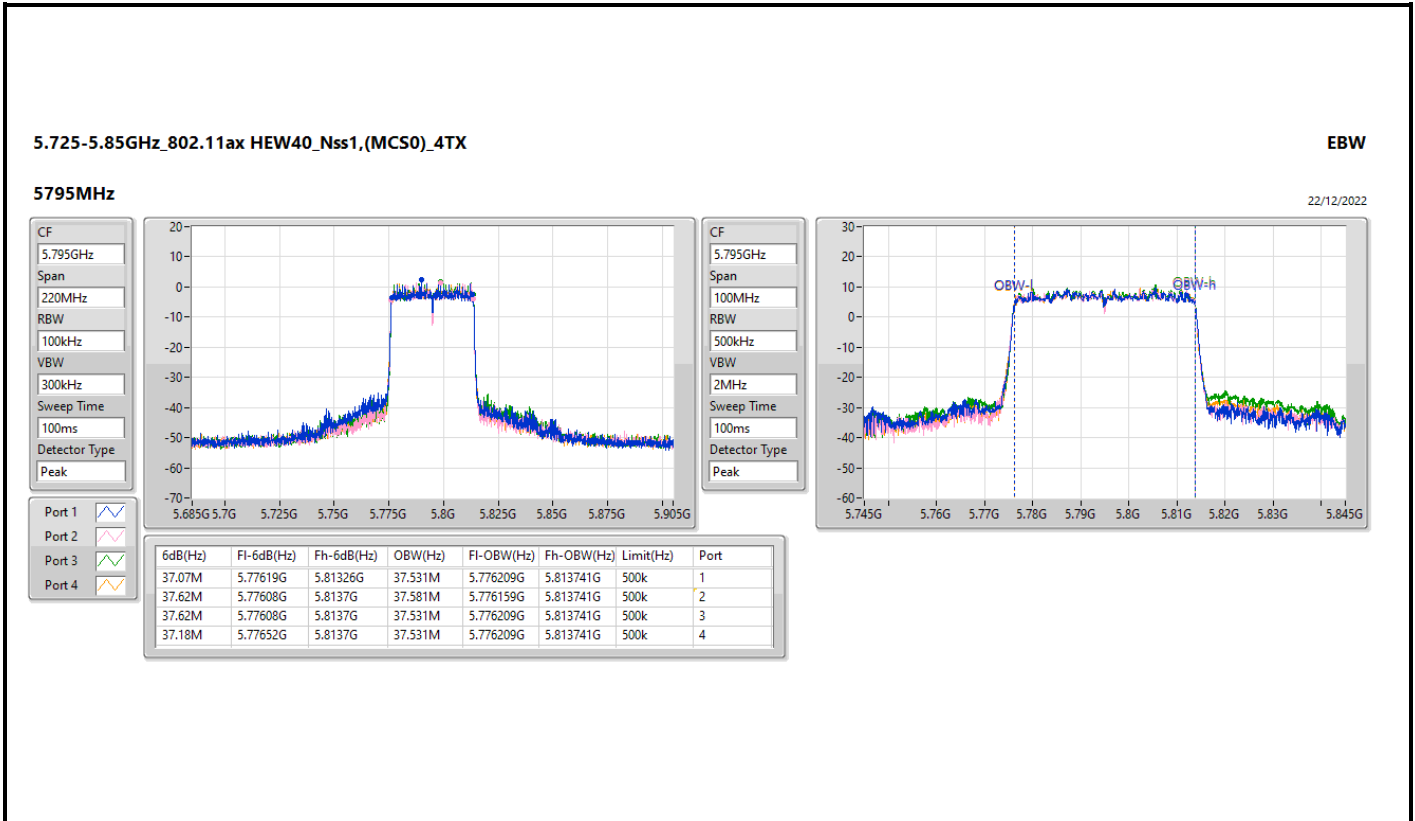
5.725-5.85GHz\_802.11ax HEW40\_Nss1,(MCS0)\_4TX

EBW

5755MHz

22/12/2022







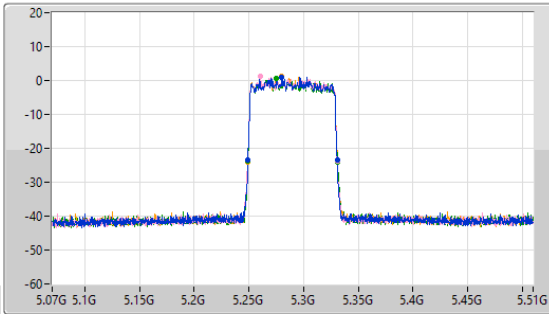
5.25-5.35GHz\_802.11ax HEW80\_Nss1,(MCS0)\_4TX

EBW

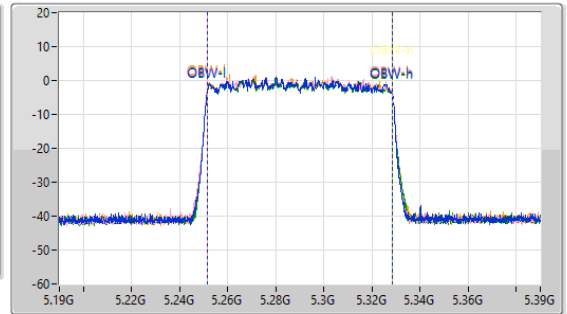
5290MHz

22/12/2022

CF: 5.29GHz  
 Span: 440MHz  
 RBW: 1MHz  
 VBW: 3MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



CF: 5.29GHz  
 Span: 200MHz  
 RBW: 1MHz  
 VBW: 3MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
81.62M	5.24908G	5.3307G	77.061M	5.251419G	5.328481G	Inf	1
81.84M	5.24886G	5.3307G	77.061M	5.251419G	5.328481G	Inf	2
82.06M	5.24908G	5.33114G	77.061M	5.251419G	5.328481G	Inf	3
82.06M	5.24908G	5.33114G	77.061M	5.251419G	5.328481G	Inf	4

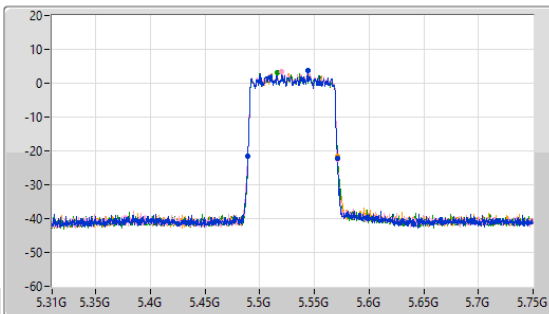
5.47-5.725GHz\_802.11ax HEW80\_Nss1,(MCS0)\_4TX

EBW

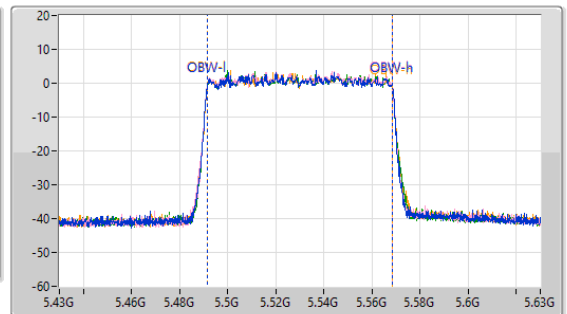
5530MHz

22/12/2022

CF: 5.53GHz  
 Span: 440MHz  
 RBW: 1MHz  
 VBW: 3MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



CF: 5.53GHz  
 Span: 200MHz  
 RBW: 1MHz  
 VBW: 3MHz  
 Sweep Time: 100ms  
 Detector Type: Peak



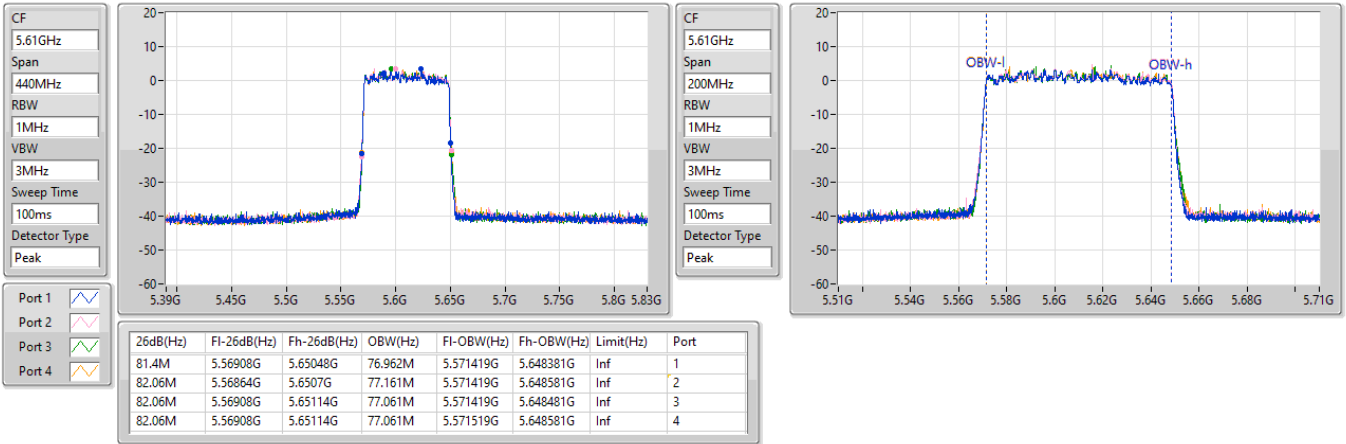
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
81.84M	5.48908G	5.57092G	77.161M	5.491419G	5.568581G	Inf	1
82.28M	5.48886G	5.57114G	77.061M	5.491419G	5.568481G	Inf	2
82.28M	5.48908G	5.57136G	77.061M	5.491419G	5.568481G	Inf	3
82.28M	5.48908G	5.57136G	77.061M	5.491519G	5.568581G	Inf	4

5.47-5.725GHz\_802.11ax HEW80\_Nss1,(MCS0)\_4TX

EBW

5610MHz

22/12/2022

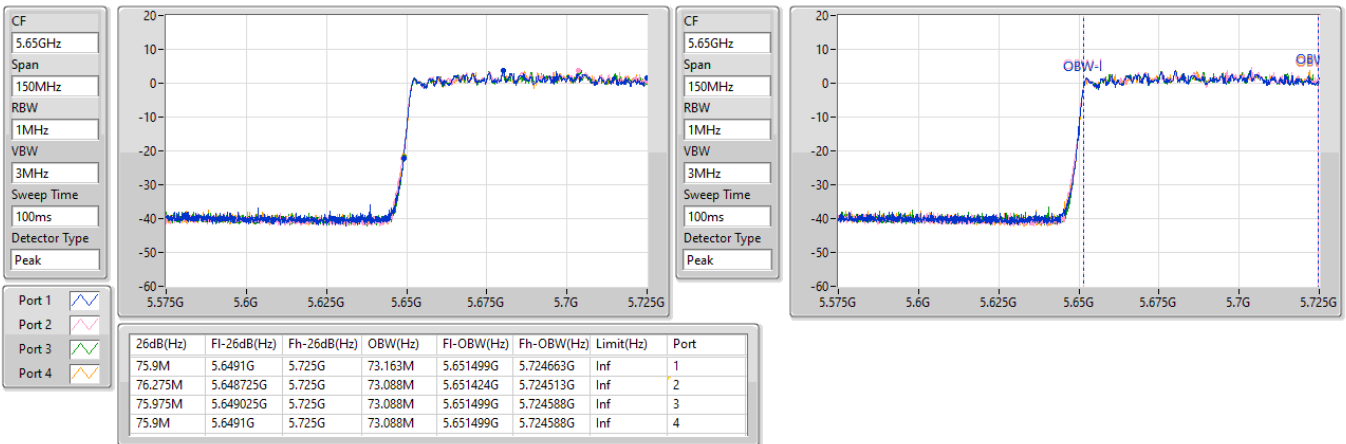


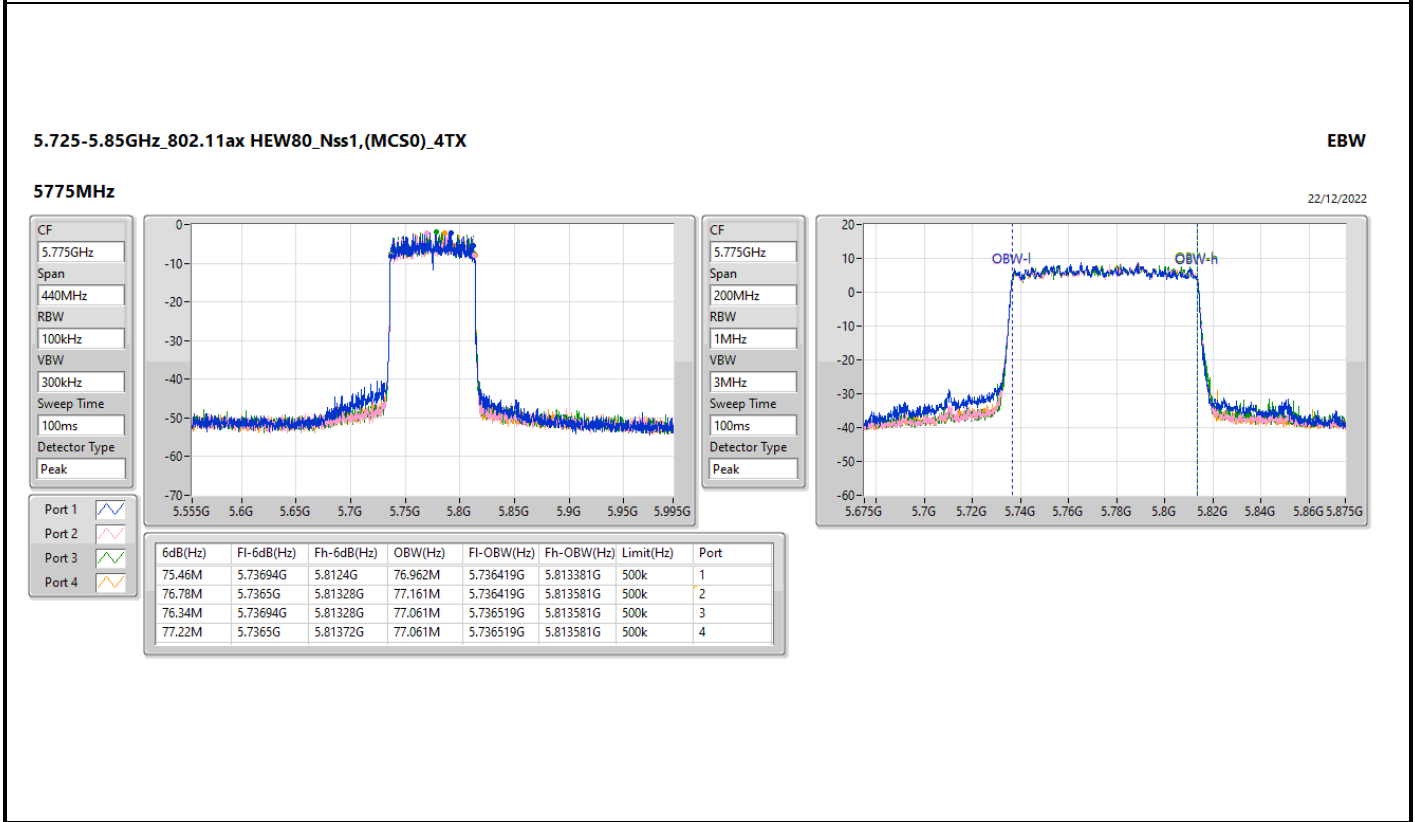
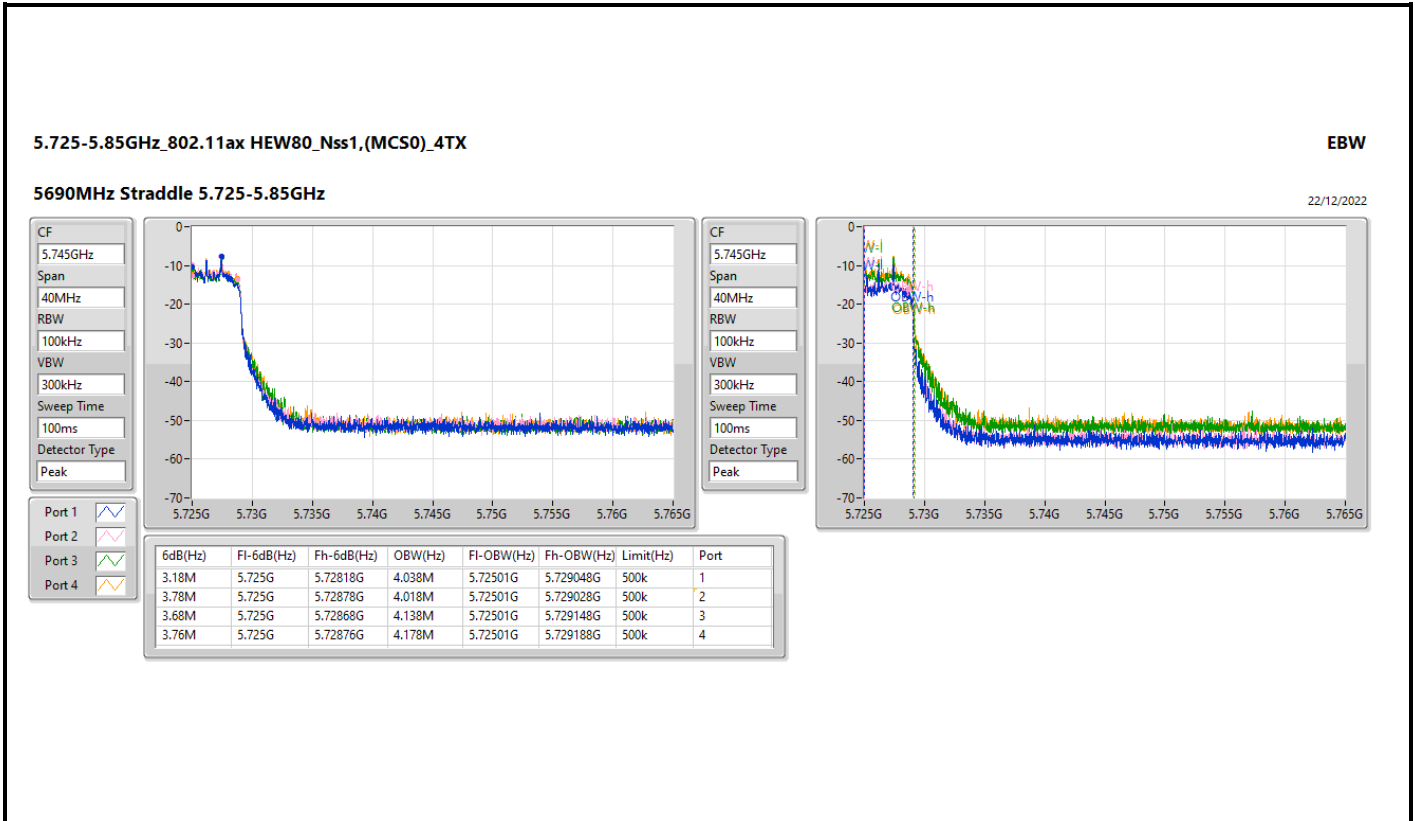
5.47-5.725GHz\_802.11ax HEW80\_Nss1,(MCS0)\_4TX

EBW

5690MHz Straddle 5.47-5.725GHz

22/12/2022



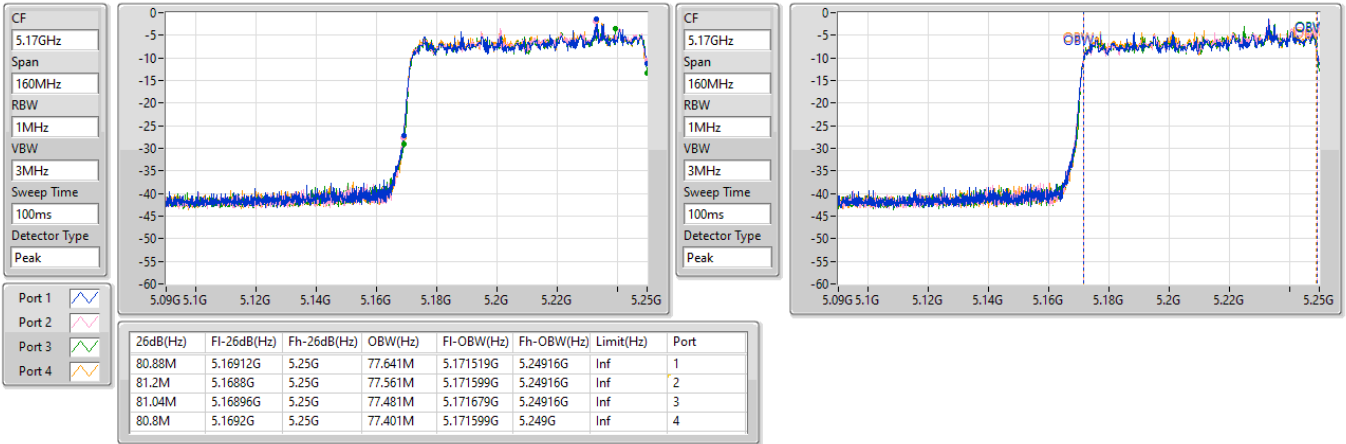


5.15-5.25GHz\_802.11ax HEW160\_Nss1,(MCS0)\_4TX

EBW

5250MHz Straddle 5.15-5.25GHz

22/12/2022

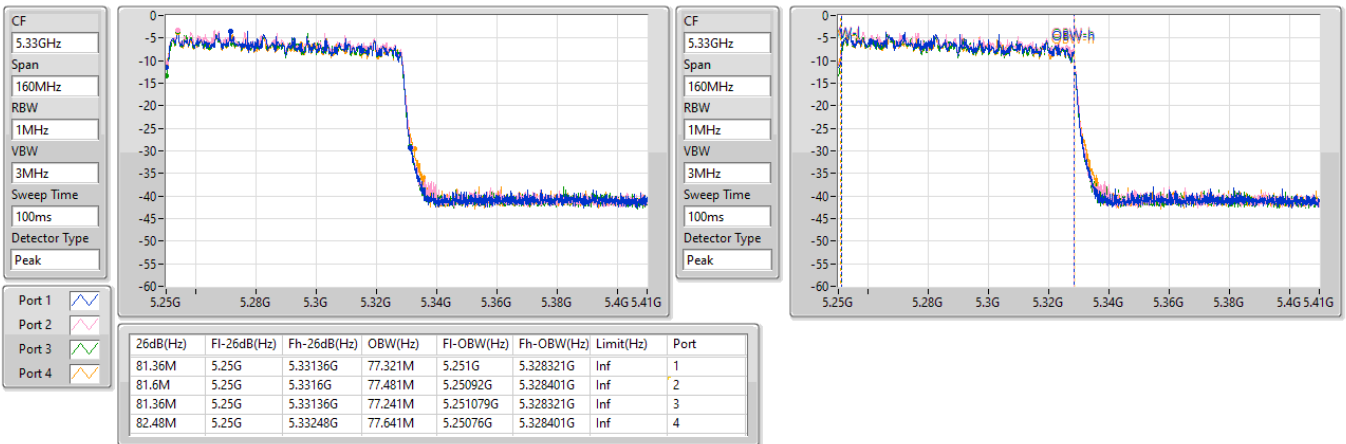


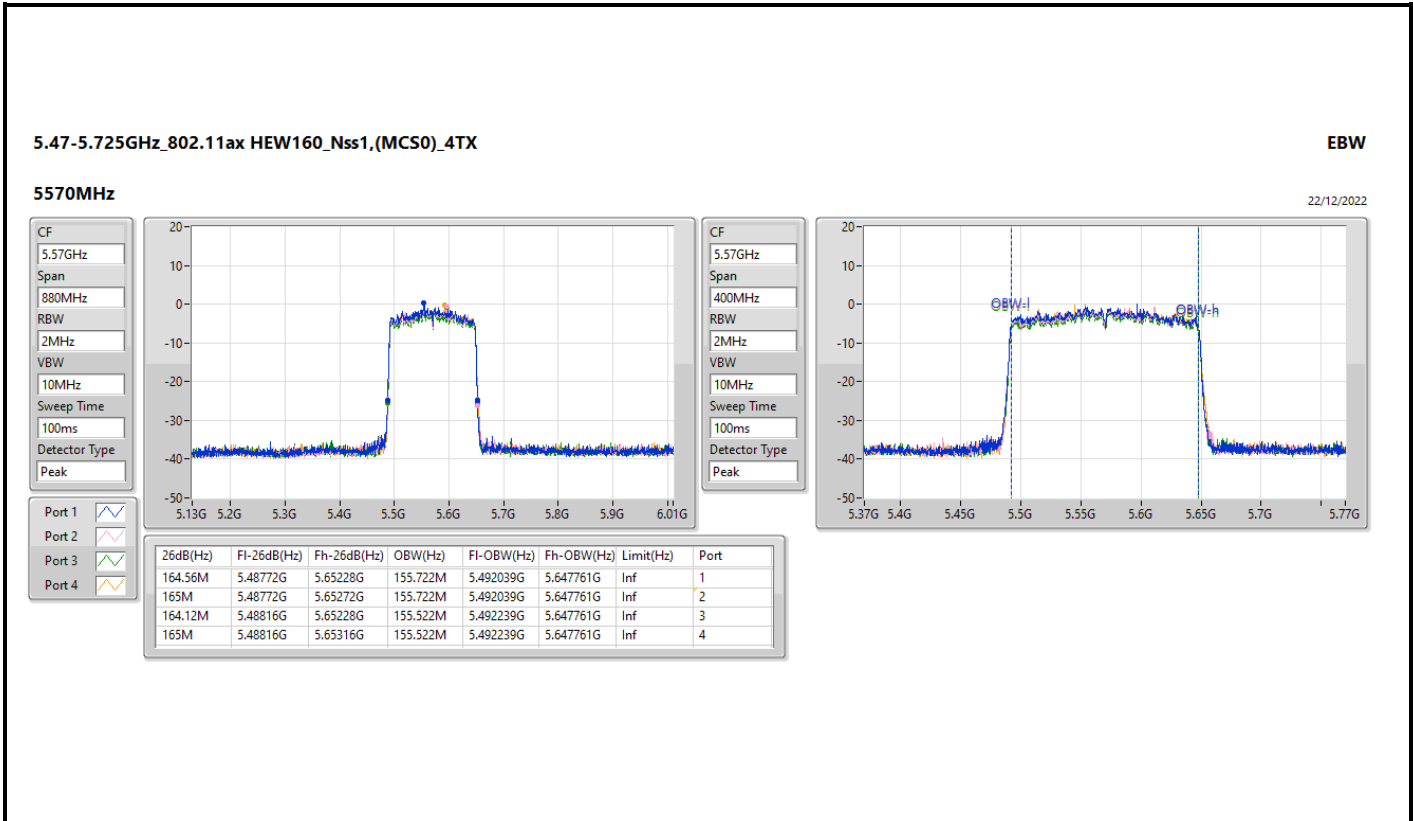
5.25-5.35GHz\_802.11ax HEW160\_Nss1,(MCS0)\_4TX

EBW

5250MHz Straddle 5.25-5.35GHz

22/12/2022







Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	21.23M	16.756M	16M8D1D	21.01M	16.646M
802.11n HT20_Nss1,(MCS0)_2TX	21.56M	17.891M	17M9D1D	21.34M	17.766M
802.11n HT40_Nss1,(MCS0)_2TX	40.26M	36.482M	36M5D1D	39.16M	36.232M
802.11ac VHT20_Nss1,(MCS0)_2TX	21.615M	17.841M	17M8D1D	21.395M	17.791M
802.11ac VHT40_Nss1,(MCS0)_2TX	40.26M	36.432M	36M4D1D	39.16M	36.282M
802.11ac VHT80_Nss1,(MCS0)_2TX	82.28M	75.762M	75M8D1D	81.62M	75.662M
802.11ax HEW20_Nss1,(MCS0)_2TX	21.505M	19.065M	19M1D1D	21.285M	18.991M
802.11ax HEW40_Nss1,(MCS0)_2TX	40.04M	37.531M	37M5D1D	39.27M	37.481M
802.11ax HEW80_Nss1,(MCS0)_2TX	81.84M	77.061M	77M1D1D	81.62M	77.061M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	21.175M	16.756M	16M8D1D	21.01M	16.624M
802.11n HT20_Nss1,(MCS0)_2TX	21.395M	17.916M	17M9D1D	21.285M	17.766M
802.11n HT40_Nss1,(MCS0)_2TX	40.15M	36.432M	36M4D1D	39.05M	36.232M
802.11ac VHT20_Nss1,(MCS0)_2TX	21.505M	17.841M	17M8D1D	21.285M	17.816M
802.11ac VHT40_Nss1,(MCS0)_2TX	40.26M	36.382M	36M4D1D	39.38M	36.282M
802.11ac VHT80_Nss1,(MCS0)_2TX	81.84M	75.762M	75M8D1D	81.18M	75.662M
802.11ax HEW20_Nss1,(MCS0)_2TX	21.56M	19.065M	19M1D1D	21.285M	18.991M
802.11ax HEW40_Nss1,(MCS0)_2TX	40.04M	37.531M	37M5D1D	39.38M	37.481M
802.11ax HEW80_Nss1,(MCS0)_2TX	82.06M	77.061M	77M1D1D	81.84M	77.061M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	21.285M	16.756M	16M8D1D	15.495M	13.343M
802.11n HT20_Nss1,(MCS0)_2TX	21.505M	17.891M	17M9D1D	15.66M	13.883M
802.11n HT40_Nss1,(MCS0)_2TX	40.15M	36.482M	36M5D1D	34.58M	32.989M
802.11ac VHT20_Nss1,(MCS0)_2TX	21.505M	17.866M	17M9D1D	15.72M	13.913M
802.11ac VHT40_Nss1,(MCS0)_2TX	40.26M	36.432M	36M4D1D	34.615M	32.954M
802.11ac VHT80_Nss1,(MCS0)_2TX	82.28M	75.662M	75M7D1D	75.525M	72.339M
802.11ax HEW20_Nss1,(MCS0)_2TX	21.45M	19.04M	19M0D1D	15.57M	14.483M
802.11ax HEW40_Nss1,(MCS0)_2TX	40.04M	37.531M	37M5D1D	34.615M	33.513M
802.11ax HEW80_Nss1,(MCS0)_2TX	82.06M	77.061M	77M1D1D	75.825M	73.013M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.39M	16.844M	16M8D1D	3.18M	3.998M
802.11n HT20_Nss1,(MCS0)_2TX	17.6M	17.966M	18M0D1D	3.8M	4.338M
802.11n HT40_Nss1,(MCS0)_2TX	36.3M	36.582M	36M6D1D	3.16M	3.538M
802.11ac VHT20_Nss1,(MCS0)_2TX	17.6M	17.916M	17M9D1D	3.78M	4.358M
802.11ac VHT40_Nss1,(MCS0)_2TX	36.3M	36.632M	36M6D1D	3.16M	3.598M
802.11ac VHT80_Nss1,(MCS0)_2TX	76.34M	75.662M	75M7D1D	3.16M	3.778M
802.11ax HEW20_Nss1,(MCS0)_2TX	19.03M	19.09M	19M1D1D	4.48M	4.578M
802.11ax HEW40_Nss1,(MCS0)_2TX	37.62M	37.681M	37M7D1D	3.86M	4.078M
802.11ax HEW80_Nss1,(MCS0)_2TX	77M	77.061M	77M1D1D	3.82M	4.098M

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



Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.175M	16.756M	21.01M	16.646M
5200MHz	Pass	Inf	21.12M	16.756M	21.065M	16.646M
5240MHz	Pass	Inf	21.23M	16.712M	21.065M	16.646M
5260MHz	Pass	Inf	21.01M	16.734M	21.175M	16.624M
5300MHz	Pass	Inf	21.175M	16.734M	21.065M	16.668M
5320MHz	Pass	Inf	21.175M	16.756M	21.01M	16.646M
5500MHz	Pass	Inf	21.285M	16.734M	21.175M	16.646M
5580MHz	Pass	Inf	21.285M	16.756M	21.065M	16.646M
5700MHz	Pass	Inf	21.23M	16.756M	21.065M	16.646M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.525M	13.343M	15.495M	13.343M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.18M	4.038M	3.18M	3.998M
5745MHz	Pass	500k	16.39M	16.734M	16.39M	16.646M
5785MHz	Pass	500k	16.28M	16.822M	16.39M	16.844M
5825MHz	Pass	500k	16.39M	16.756M	16.39M	16.668M
802.11n HT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.45M	17.891M	21.34M	17.766M
5200MHz	Pass	Inf	21.56M	17.891M	21.34M	17.766M
5240MHz	Pass	Inf	21.56M	17.891M	21.34M	17.766M
5260MHz	Pass	Inf	21.395M	17.916M	21.34M	17.766M
5300MHz	Pass	Inf	21.395M	17.891M	21.34M	17.766M
5320MHz	Pass	Inf	21.395M	17.891M	21.285M	17.766M
5500MHz	Pass	Inf	21.395M	17.891M	21.34M	17.766M
5580MHz	Pass	Inf	21.505M	17.891M	21.45M	17.766M
5700MHz	Pass	Inf	21.45M	17.891M	21.285M	17.766M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.87M	14.018M	15.66M	13.883M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.8M	4.338M	3.8M	4.358M
5745MHz	Pass	500k	17.6M	17.941M	17.6M	17.766M
5785MHz	Pass	500k	17.6M	17.966M	17.6M	17.841M
5825MHz	Pass	500k	17.6M	17.891M	17.6M	17.766M
802.11n HT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	40.26M	36.482M	39.27M	36.282M
5230MHz	Pass	Inf	40.26M	36.482M	39.16M	36.232M
5270MHz	Pass	Inf	40.15M	36.432M	39.05M	36.232M
5310MHz	Pass	Inf	40.15M	36.432M	39.16M	36.232M
5510MHz	Pass	Inf	40.04M	36.432M	39.05M	36.232M
5550MHz	Pass	Inf	40.15M	36.432M	39.16M	36.232M
5670MHz	Pass	Inf	40.15M	36.482M	39.05M	36.232M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.895M	33.093M	34.58M	32.989M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.16M	3.638M	3.16M	3.538M
5755MHz	Pass	500k	36.3M	36.482M	36.3M	36.232M
5795MHz	Pass	500k	36.3M	36.582M	36.3M	36.382M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.45M	17.841M	21.395M	17.791M
5200MHz	Pass	Inf	21.56M	17.841M	21.395M	17.791M
5240MHz	Pass	Inf	21.615M	17.841M	21.45M	17.791M
5260MHz	Pass	Inf	21.505M	17.841M	21.45M	17.816M
5300MHz	Pass	Inf	21.395M	17.841M	21.285M	17.816M
5320MHz	Pass	Inf	21.505M	17.841M	21.45M	17.816M
5500MHz	Pass	Inf	21.45M	17.841M	21.45M	17.791M
5580MHz	Pass	Inf	21.395M	17.866M	21.45M	17.816M
5700MHz	Pass	Inf	21.505M	17.866M	21.395M	17.816M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.735M	13.928M	15.72M	13.913M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.78M	4.378M	3.78M	4.358M
5745MHz	Pass	500k	17.545M	17.866M	17.6M	17.816M



Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
5785MHz	Pass	500k	17.6M	17.916M	17.6M	17.891M
5825MHz	Pass	500k	17.49M	17.866M	17.6M	17.816M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	40.26M	36.432M	39.16M	36.282M
5230MHz	Pass	Inf	40.26M	36.432M	39.27M	36.282M
5270MHz	Pass	Inf	40.26M	36.382M	39.49M	36.282M
5310MHz	Pass	Inf	40.15M	36.382M	39.38M	36.282M
5510MHz	Pass	Inf	40.04M	36.382M	39.38M	36.282M
5550MHz	Pass	Inf	40.15M	36.432M	40.04M	36.282M
5670MHz	Pass	Inf	40.26M	36.432M	39.49M	36.282M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.86M	33.058M	34.615M	32.954M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.18M	3.598M	3.16M	3.698M
5755MHz	Pass	500k	36.3M	36.432M	36.3M	36.282M
5795MHz	Pass	500k	36.3M	36.632M	36.3M	36.432M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	82.28M	75.762M	81.62M	75.662M
5290MHz	Pass	Inf	81.84M	75.762M	81.18M	75.662M
5530MHz	Pass	Inf	81.84M	75.662M	81.4M	75.662M
5610MHz	Pass	Inf	82.28M	75.662M	81.18M	75.662M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.05M	72.414M	75.525M	72.339M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.16M	3.918M	3.18M	3.778M
5775MHz	Pass	500k	75.46M	75.662M	76.34M	75.662M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.285M	18.991M	21.34M	19.04M
5200MHz	Pass	Inf	21.45M	19.015M	21.505M	19.065M
5240MHz	Pass	Inf	21.505M	19.015M	21.34M	19.015M
5260MHz	Pass	Inf	21.45M	18.991M	21.395M	19.065M
5300MHz	Pass	Inf	21.34M	19.015M	21.285M	19.015M
5320MHz	Pass	Inf	21.395M	18.991M	21.56M	19.04M
5500MHz	Pass	Inf	21.395M	18.991M	21.45M	19.04M
5580MHz	Pass	Inf	21.45M	19.015M	21.285M	19.04M
5700MHz	Pass	Inf	21.45M	19.015M	21.175M	19.015M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.735M	14.483M	15.57M	14.483M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.5M	4.578M	4.48M	4.618M
5745MHz	Pass	500k	19.03M	19.015M	18.92M	19.065M
5785MHz	Pass	500k	18.92M	19.065M	18.865M	19.09M
5825MHz	Pass	500k	18.975M	18.991M	18.975M	19.065M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	40.04M	37.481M	39.38M	37.531M
5230MHz	Pass	Inf	40.04M	37.531M	39.27M	37.481M
5270MHz	Pass	Inf	40.04M	37.481M	39.49M	37.481M
5310MHz	Pass	Inf	39.6M	37.531M	39.38M	37.481M
5510MHz	Pass	Inf	39.6M	37.481M	39.49M	37.481M
5550MHz	Pass	Inf	39.49M	37.481M	39.27M	37.481M
5670MHz	Pass	Inf	40.04M	37.531M	39.49M	37.481M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.72M	33.513M	34.615M	33.513M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.96M	4.078M	3.86M	4.078M
5755MHz	Pass	500k	37.62M	37.531M	37.51M	37.531M
5795MHz	Pass	500k	37.62M	37.581M	37.51M	37.681M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81.62M	77.061M	81.84M	77.061M
5290MHz	Pass	Inf	82.06M	77.061M	81.84M	77.061M
5530MHz	Pass	Inf	81.62M	77.061M	81.18M	77.061M
5610MHz	Pass	Inf	82.06M	77.061M	81.84M	77.061M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.05M	73.013M	75.825M	73.013M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.84M	4.298M	3.82M	4.098M



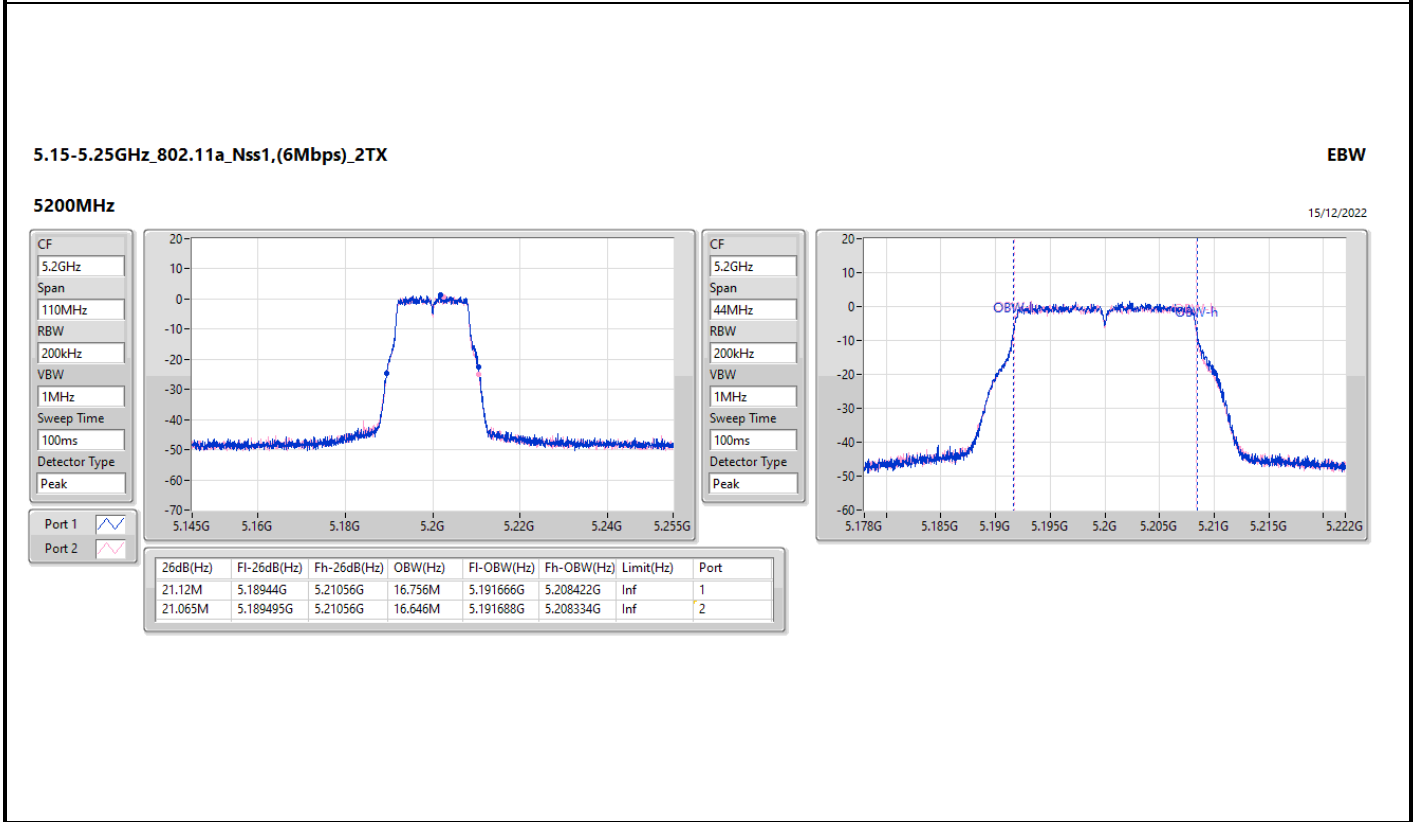
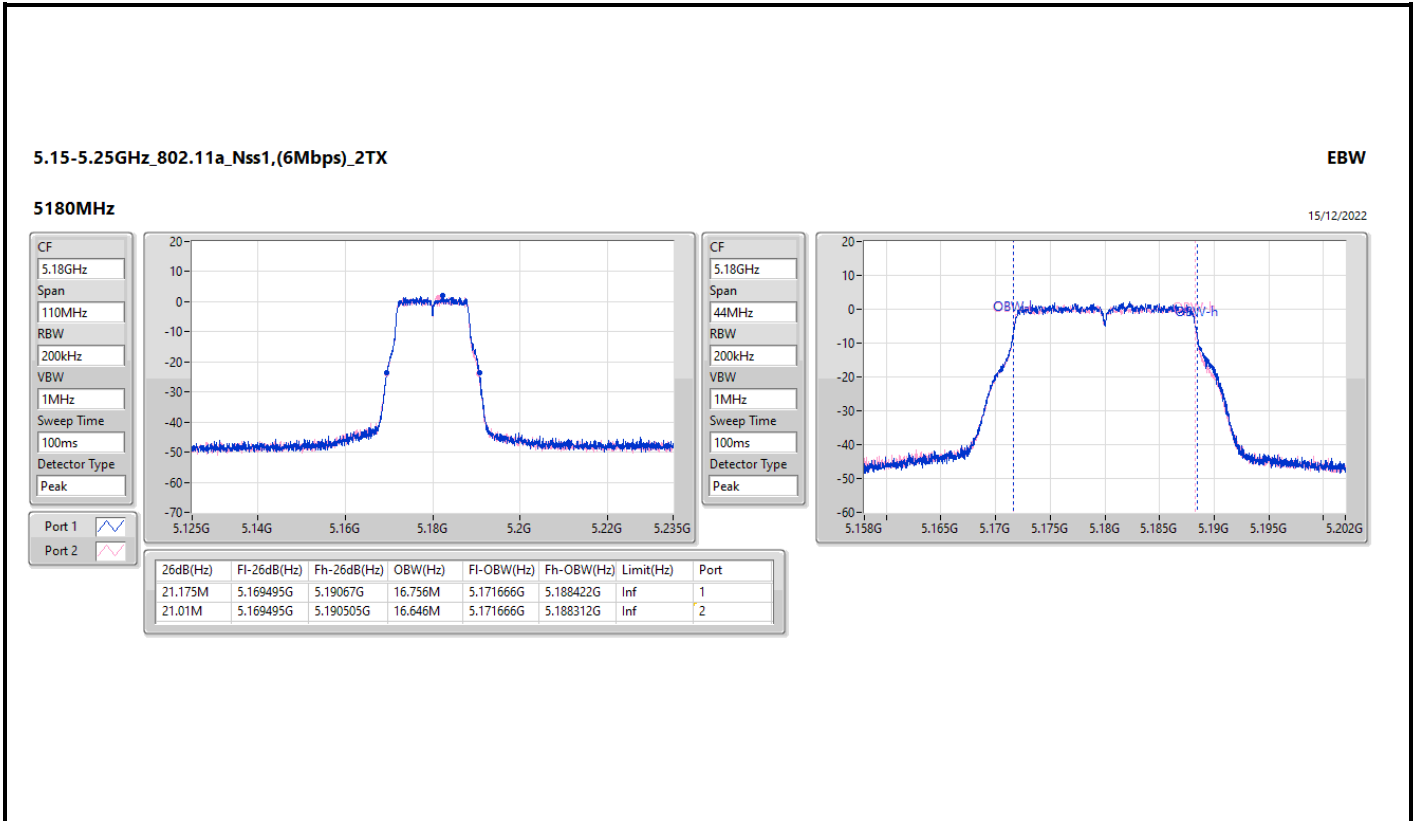


## EBW\_Non-Beamforming\_Radio 3

## Appendix B.3

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
5775MHz	Pass	500k	77M	77.061M	76.56M	76.962M

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

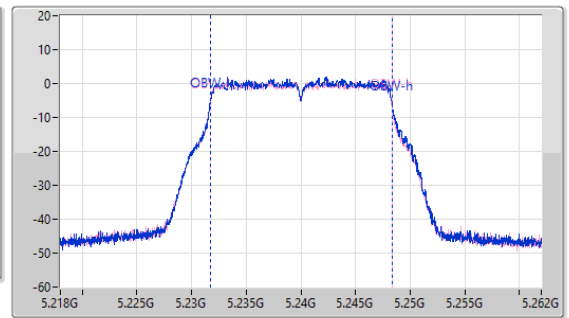
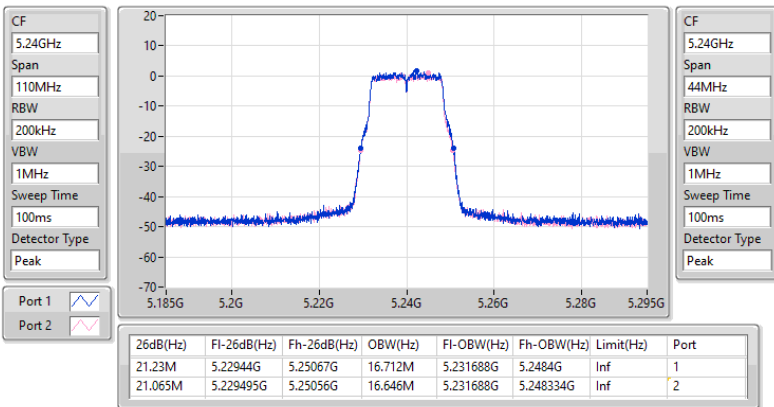


5.15-5.25GHz\_802.11a\_Nss1,(6Mbps)\_2TX

EBW

5240MHz

15/12/2022

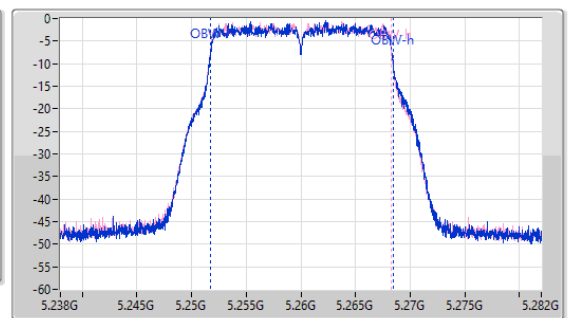
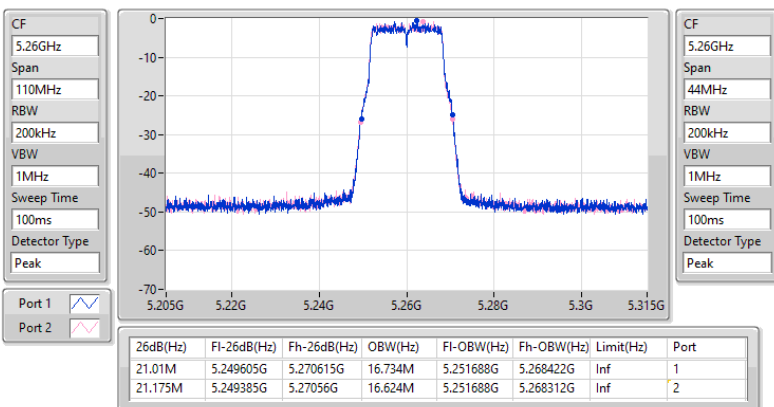


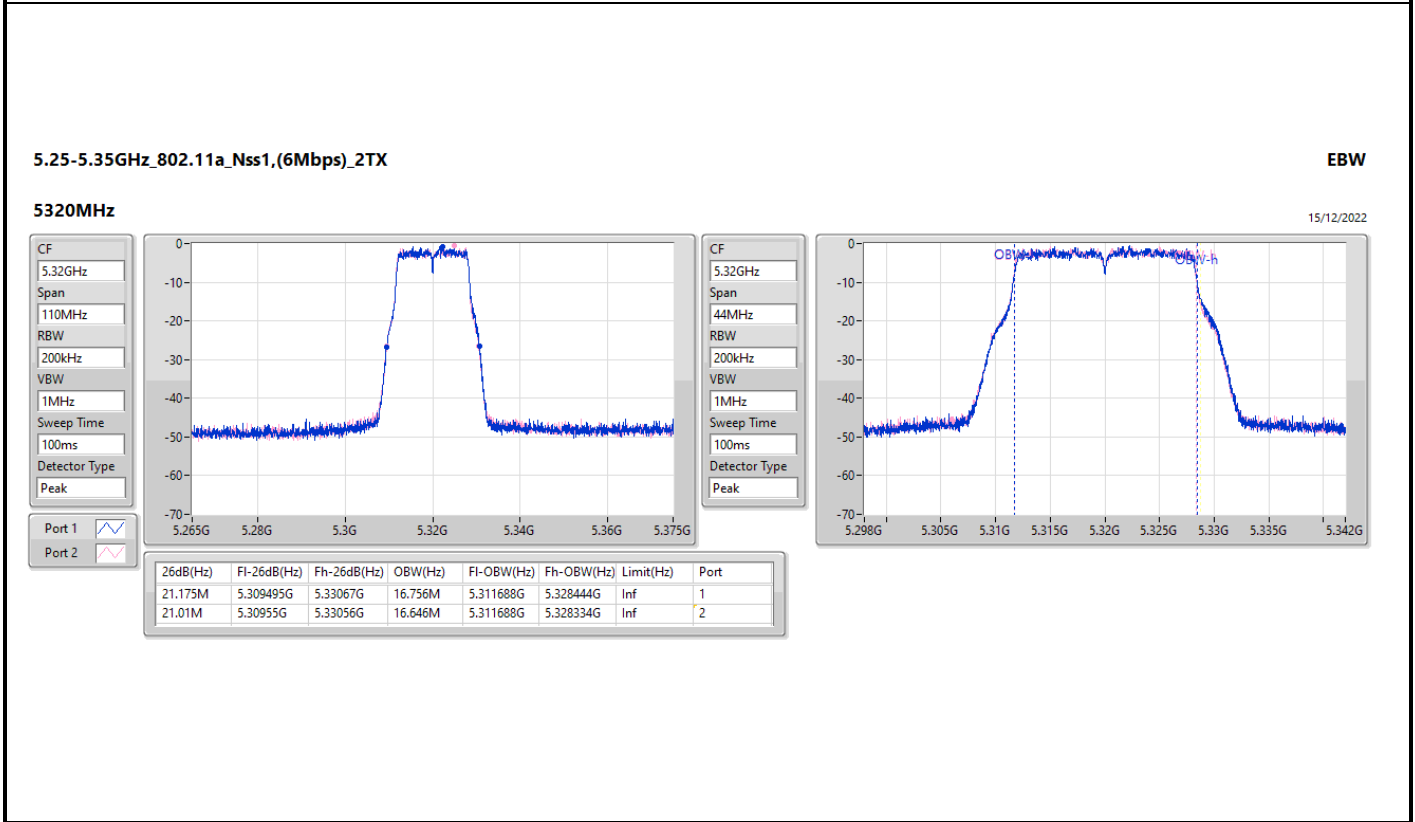
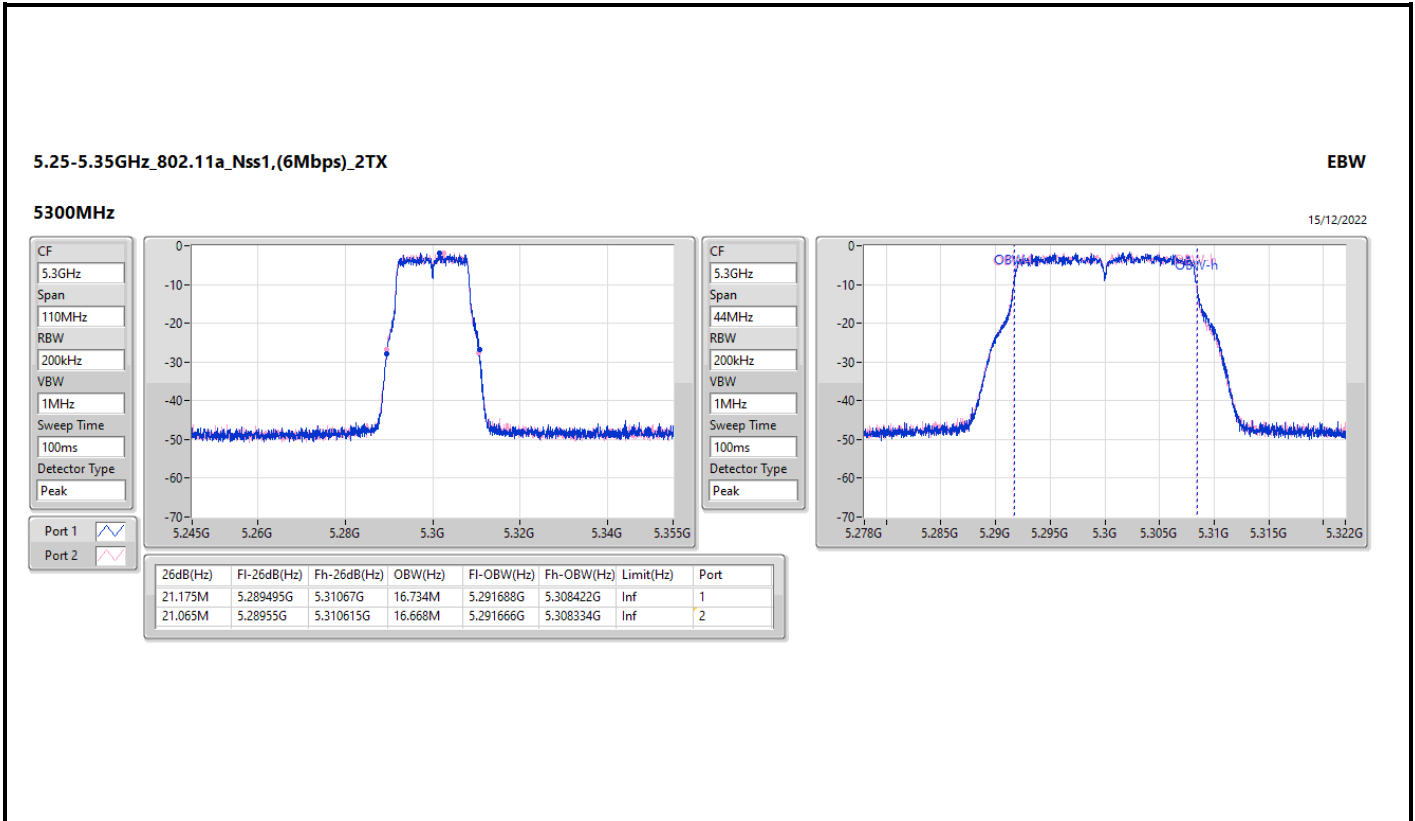
5.25-5.35GHz\_802.11a\_Nss1,(6Mbps)\_2TX

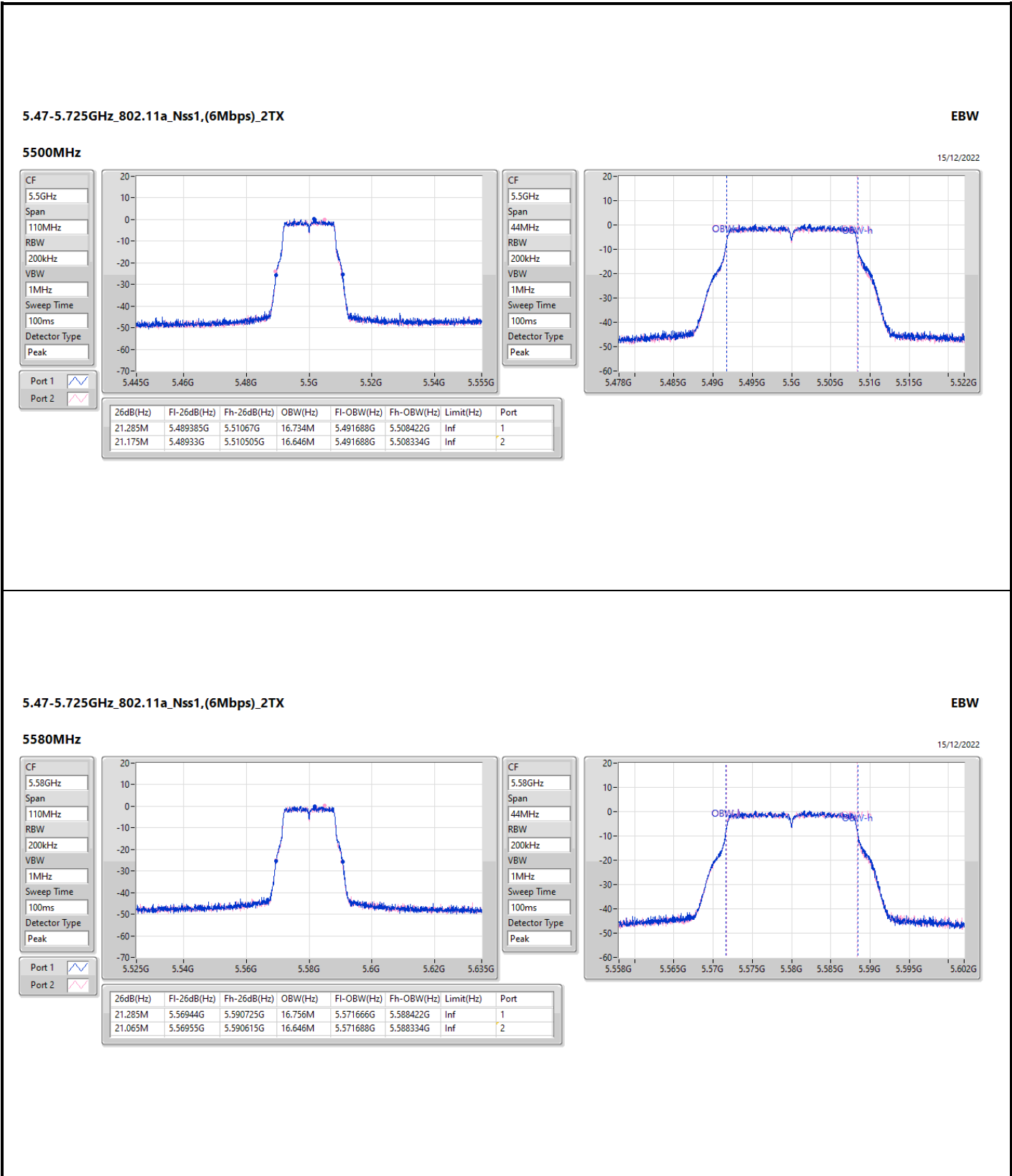
EBW

5260MHz

15/12/2022





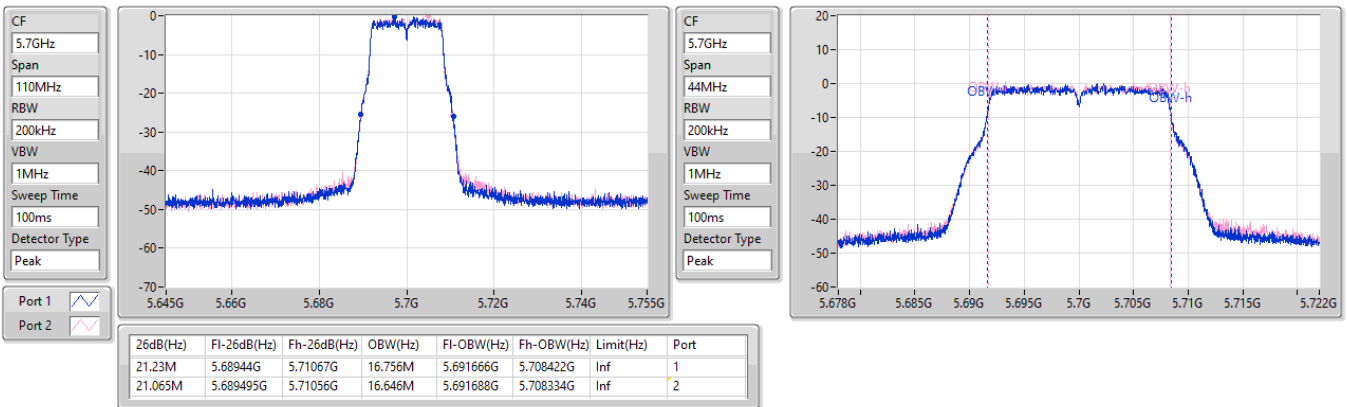


5.47-5.725GHz\_802.11a\_Nss1,(6Mbps)\_2TX

EBW

5700MHz

15/12/2022

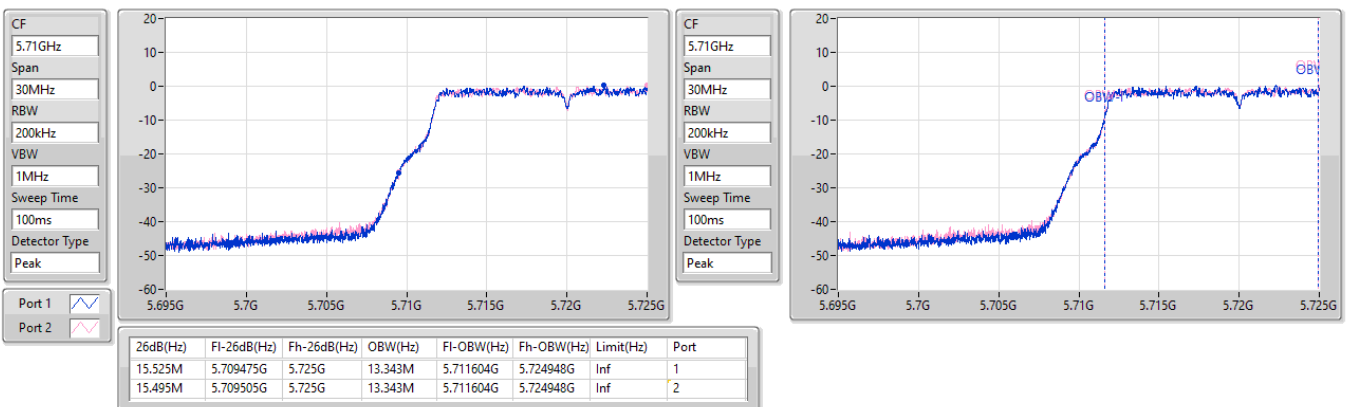


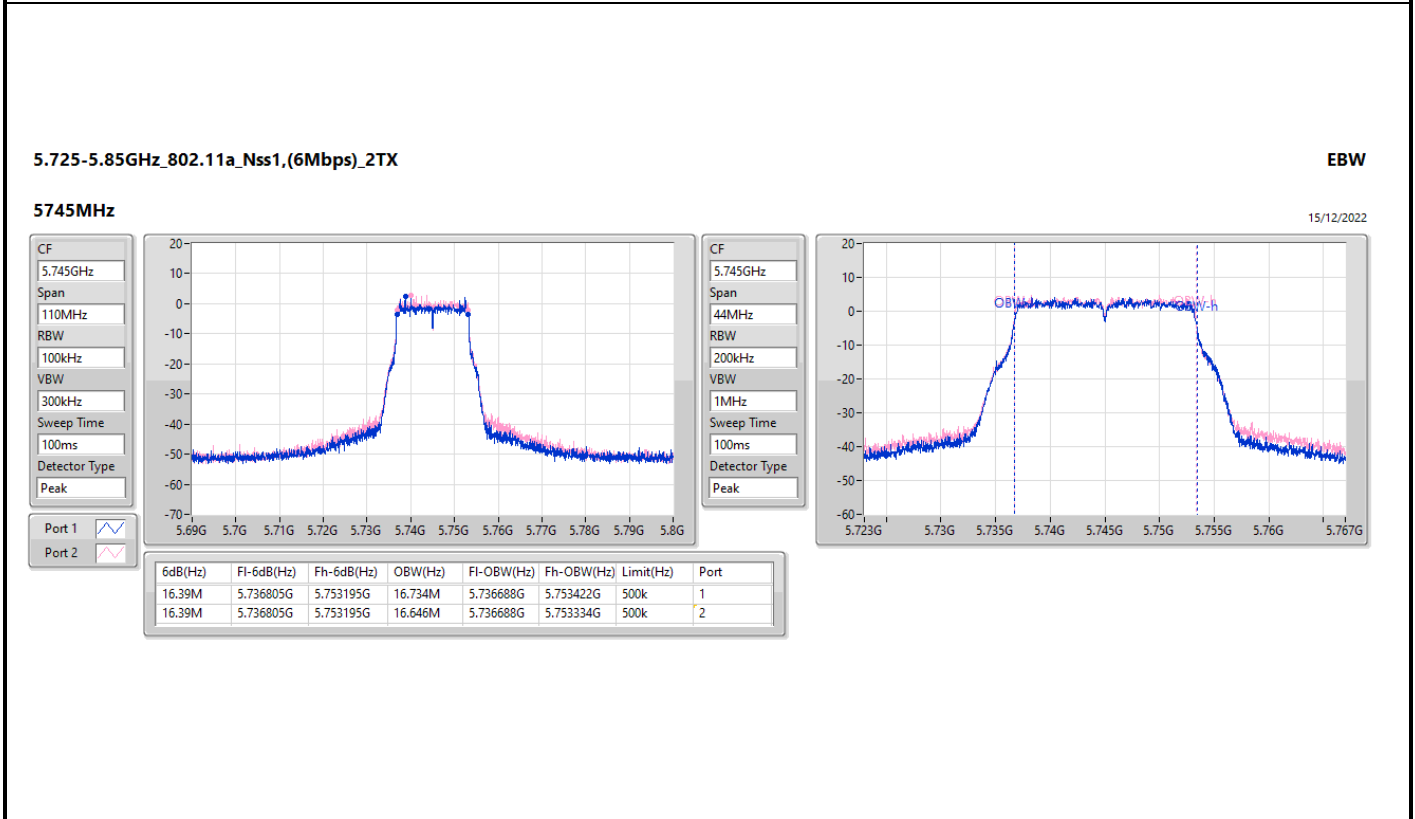
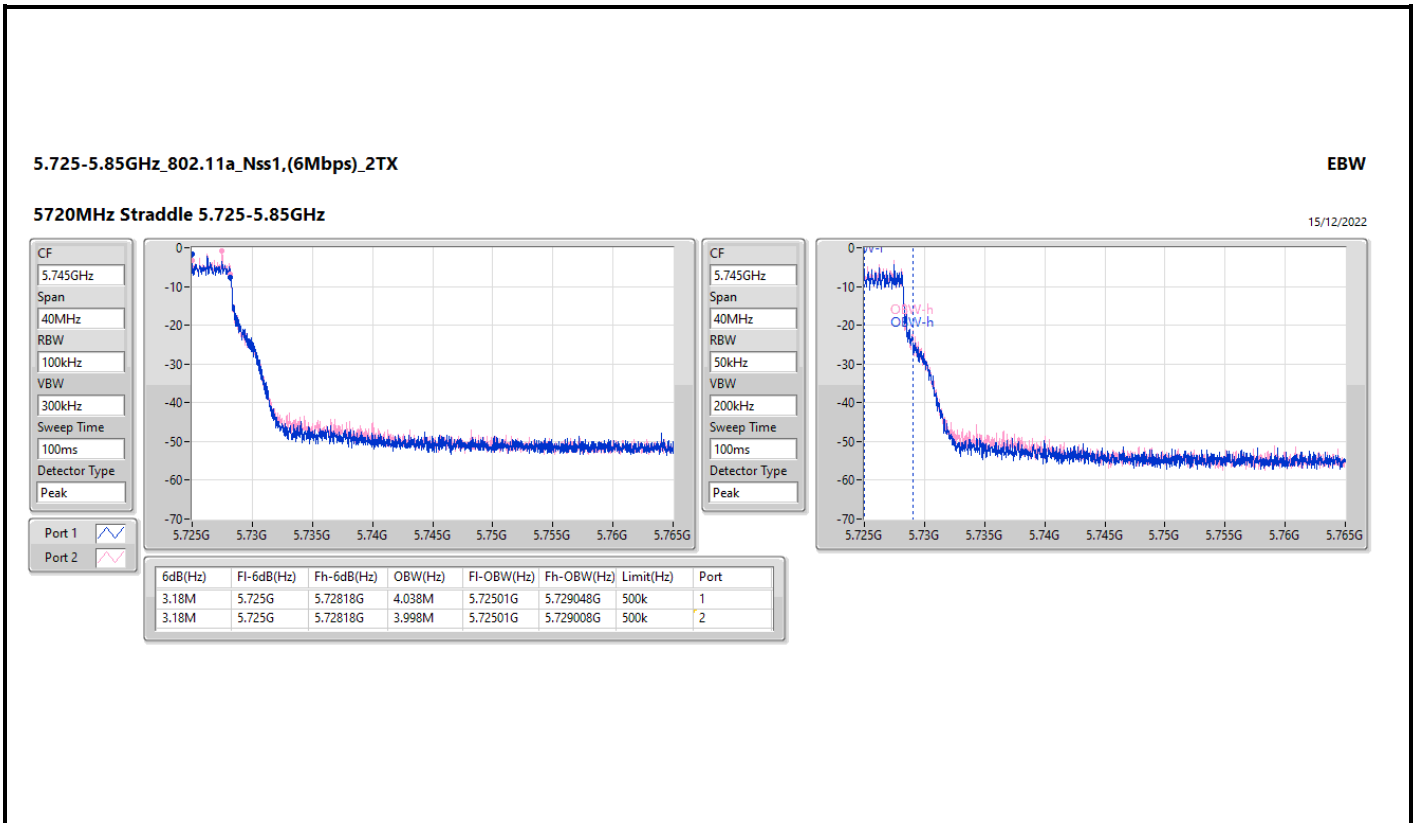
5.47-5.725GHz\_802.11a\_Nss1,(6Mbps)\_2TX

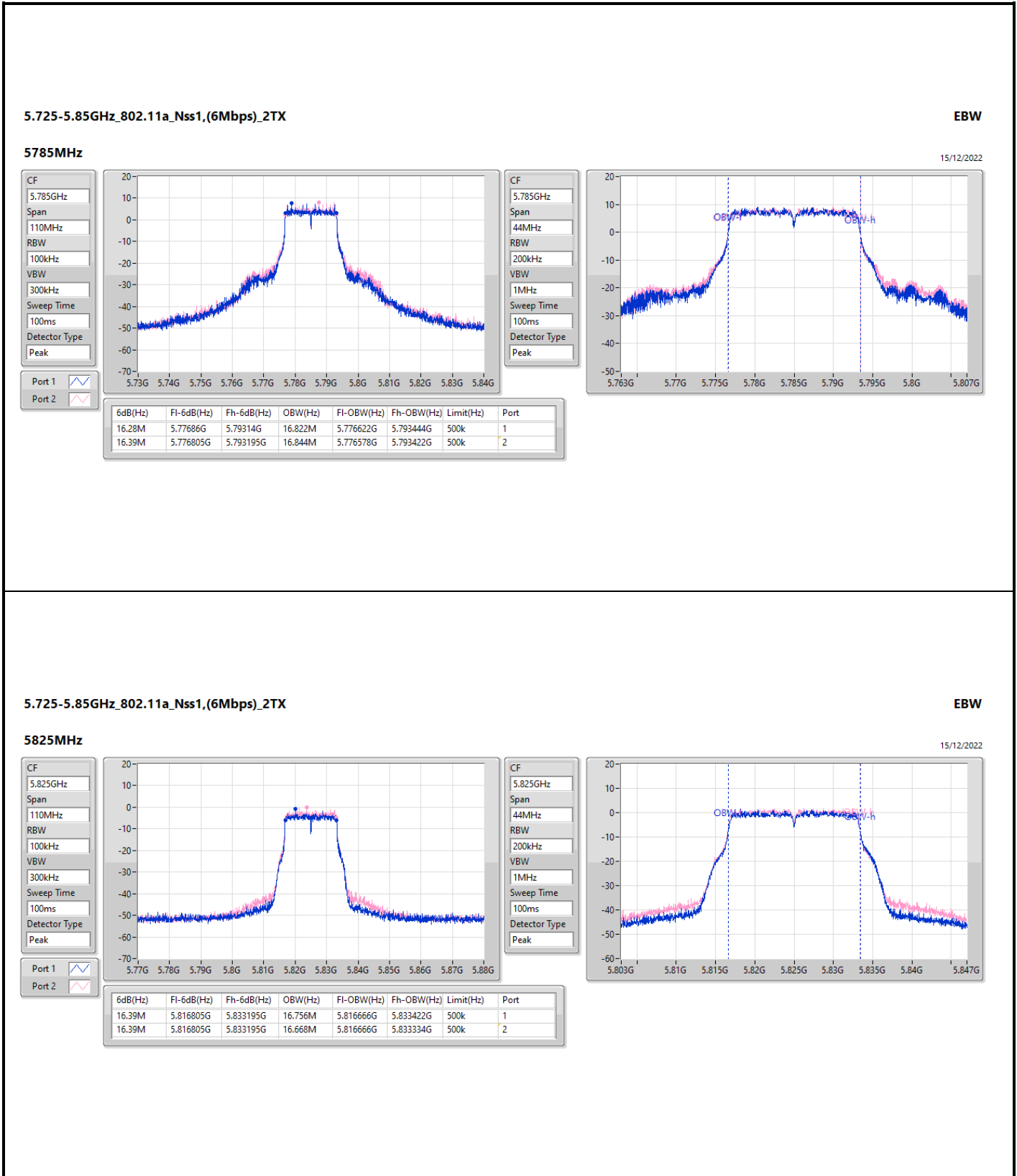
EBW

5720MHz Straddle 5.47-5.725GHz

15/12/2022







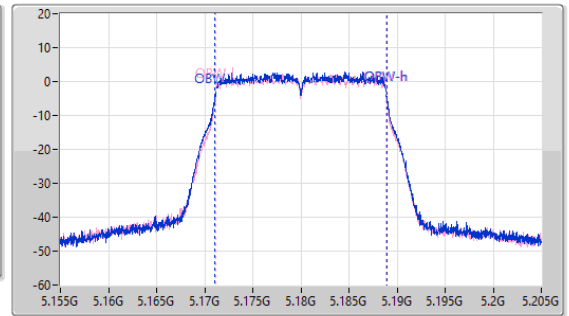
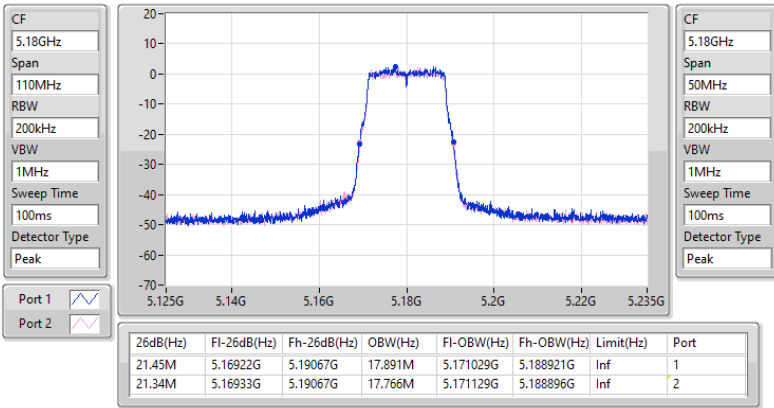


5.15-5.25GHz\_802.11n\_HT20\_Nss1,(MCS0)\_2TX

EBW

5180MHz

15/12/2022



5.15-5.25GHz\_802.11n\_HT20\_Nss1,(MCS0)\_2TX

EBW

5200MHz

15/12/2022

