

FCC Radio Test Report

FCC ID : N7NXR90
Equipment : WiFi / Bluetooth
Brand Name : Sierra Wireless
Model Name : XR90
Applicant : Sierra Wireless Inc.
13811 Wireless Way, Richmond, BC Canada V6V 3A4
Manufacturer : Sierra Wireless Inc.
13811 Wireless Way, Richmond, BC Canada V6V 3A4
Standard : 47 CFR FCC Part 15.407

The product was received on Nov. 09, 2020, and testing was started from Jan. 07, 2021 and completed on Jul. 22, 2021. We, SPORTON INTERNATIONAL INC. Hsinhua Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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



Approved by: Allen Lin

SPORTON INTERNATIONAL INC. Hsinhua Laboratory

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PHOTOGRAPHS OF EUT V01



Summary of Test Result

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

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

Reviewed by: Ben Tseng

Report Producer: Jenny Yang



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 (HEW 20)	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 (HEW 40)	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 (HEW 80)	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]

Non-Beamforming WiFi A & WiFi B

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	802.11ax 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



Band	Mode	BWch (MHz)	Nant
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

**Beamforming
WiFi A & WiFi B**

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

Note:

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

1.1.2 Antenna Information

Ant.	Brand	Model Name	Antenna Type	Connector
5	PANORAMA	LGMQM4-6-60-24-58	Panel	FAKRA
6	PANORAMA	LGMQM4-6-60-24-58	Panel	FAKRA
7	PANORAMA	LGMQM4-6-60-24-58	Panel	FAKRA
8	PANORAMA	LGMQM4-6-60-24-58	Panel	FAKRA
9	PANORAMA	PWB-24-58	Paddle	FAKRA



Ant.	Port	Gain (dBi)		
		2.4G	5G	BT
5	1	-0.25	0.5	-
6	2	-0.25	0.5	-
7	3	-0.25	0.5	-
8	4	-0.25	0.5	-
9	1	-	-	3

Note 1: The EUT has five antennas.

For 2.4GHz function:

For IEEE 802.11 b/g/n/VHT/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.

For BT function:

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

Only Ant. 9 (port 1) can be used as transmitting/receiving antenna.

For 5GHz function:

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.

1.1.3 EUT Information

Operational Condition			
EUT Power Type	From AC Adapter		
EUT Function	<input checked="" type="checkbox"/>	Outdoor AP	<input type="checkbox"/> Indoor AP
	<input type="checkbox"/>	Fixed P2P AP	<input type="checkbox"/> Outdoor/Indoor 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
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 Mode Test Duty Cycle

Non-Beamforming

WiFi A

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_4TX	0.914	0.39	56.321u	10k
802.11ax HEW20_Nss1,(MCS0)_4TX	0.988	0.05	n/a (DC>=0.98)	n/a (DC>=0.98)
802.11ax HEW40_Nss1,(MCS0)_4TX	0.978	0.1	2.036m	1k
802.11ax HEW80_Nss1,(MCS0)_4TX	0.953	0.21	1.003m	1k

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

WiFi B

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11a_Nss1,(6Mbps)_4TX	0.909	0.41	564.375u	3k
802.11ax HEW20_Nss1,(MCS0)_4TX	0.911	0.4	4.008m	300
802.11ax HEW40_Nss1,(MCS0)_4TX	0.971	0.13	2.036m	1k
802.11ax HEW80_Nss1,(MCS0)_4TX	0.941	0.26	1.003m	1k

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

Beamforming

WiFi A

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	0.937	0.28	4.798m	300
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	0.937	0.28	4.888m	300
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	0.406	3.91	615.625us	3k

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

WiFi B

Mode	DC	DCF(dB)	T(s)	VBW(Hz) ≥ 1/T
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	0.942	0.26	14.063us	10
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	0.903	0.44	16.063us	10
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	0.427	3.7	150us	10

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

Test Lab. : Sporton International Inc. Hsinhua Laboratory				
<input checked="" type="checkbox"/>	Hsinhua (TAF: 3785)	ADD: No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333411, Taiwan (R.O.C.)		
		TEL: 886-3-327-3456	FAX: 886-3-327-0973	
Test site Designation No. TW3785 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
AC Conduction	CO04-HY	Tony Chang	25.1~26.7°C / 50~56%	21/Jul/2021~22/Jul/2021
RF Conducted	TH01-HY	Vivi Jiang	22.1~26.9°C / 52~60%	26/Jan/2021~17/Jul/2021
<input checked="" type="checkbox"/>	Wen 33rd.St. (TAF: 3785)	ADD: No.14-1, Ln. 19, Wen 33rd St., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)		
		TEL: 886-3-318-0787	FAX: 886-3-318-0287	
Test site Designation No. TW0008 with FCC.				
Test Condition	Test Site No.	Test Engineer	Test Environment	Test Date
Radiated (below 1GHz)	03CH09-HY	Lego Lin	22.5~24.4°C / 42~54%	19/Jul/2021~21/Jul/2021
Radiated (above 1GHz)	03CH09-HY	Lego Lin	21.5~22.3°C / 55~60%、 23.5~24.6°C / 53~61%	07/Jan/2021~16/Mar/2021、 04/Jun/2021

1.4 Measurement Uncertainty

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

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	0.9 dB	Confidence levels of 95%
Radiated Emission (9kHz ~ 30MHz)	2.4 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.7 dB	Confidence levels of 95%
Radiated Emission (1GHz ~ 18GHz)	3.6 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	3.5 dB	Confidence levels of 95%
Conducted Emission	1.0 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	DOS v6.1
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**Non-Beamforming
WiFi A**

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5180MHz	157
5200MHz	157
5240MHz	157
5260MHz	187
5300MHz	187
5320MHz	187
5500MHz	192
5580MHz	191
5700MHz	189
5720MHz Straddle 5.47-5.725GHz	191
5720MHz Straddle 5.725-5.85GHz	191
5745MHz	240
5785MHz	240
5825MHz	240
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5180MHz	155
5200MHz	155
5240MHz	155
5260MHz	186
5300MHz	185
5320MHz	185
5500MHz	193
5580MHz	193
5700MHz	175
5720MHz Straddle 5.47-5.725GHz	192
5720MHz Straddle 5.725-5.85GHz	192



Mode	Power Setting
5745MHz	240
5785MHz	240
5825MHz	240
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5190MHz	140
5230MHz	140
5270MHz	174
5310MHz	160
5510MHz	155
5550MHz	179
5670MHz	179
5710MHz Straddle 5.47-5.725GHz	179
5710MHz Straddle 5.725-5.85GHz	179
5755MHz	240
5795MHz	240
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5210MHz	155
5290MHz	185
5530MHz	185
5610MHz	190
5690MHz Straddle 5.47-5.725GHz	200
5690MHz Straddle 5.725-5.85GHz	200
5775MHz	230



WiFi B

Mode	Power Setting
802.11a_Nss1,(6Mbps)_4TX	-
5180MHz	130
5200MHz	130
5240MHz	130
5260MHz	160
5300MHz	160
5320MHz	159
5500MHz	163
5580MHz	163
5700MHz	166
5720MHz Straddle 5.47-5.725GHz	165
5720MHz Straddle 5.725-5.85GHz	165
5745MHz	229
5785MHz	230
5825MHz	232
802.11ax HEW20_Nss1,(MCS0)_4TX	-
5180MHz	135
5200MHz	135
5240MHz	135
5260MHz	166
5300MHz	165
5320MHz	166
5500MHz	172
5580MHz	173
5700MHz	174
5720MHz Straddle 5.47-5.725GHz	174
5720MHz Straddle 5.725-5.85GHz	174
5745MHz	227
5785MHz	228
5825MHz	232
802.11ax HEW40_Nss1,(MCS0)_4TX	-
5190MHz	120
5230MHz	120
5270MHz	155



Mode	Power Setting
5310MHz	155
5510MHz	158
5550MHz	160
5670MHz	160
5710MHz Straddle 5.47-5.725GHz	164
5710MHz Straddle 5.725-5.85GHz	164
5755MHz	216
5795MHz	218
802.11ax HEW80_Nss1,(MCS0)_4TX	-
5210MHz	125
5290MHz	171
5530MHz	173
5610MHz	173
5690MHz Straddle 5.47-5.725GHz	171
5690MHz Straddle 5.725-5.85GHz	171
5775MHz	240



Beamforming
WiFi A

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
5180MHz	85
5200MHz	85
5240MHz	85
5260MHz	163
5300MHz	163
5320MHz	163
5500MHz	144
5580MHz	144
5700MHz	149
5720MHz Straddle 5.47-5.725GHz	148
5720MHz Straddle 5.725-5.85GHz	148
5745MHz	205
5785MHz	205
5825MHz	205
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
5190MHz	85
5230MHz	85
5270MHz	140
5310MHz	140
5510MHz	145
5550MHz	143
5670MHz	147
5710MHz Straddle 5.47-5.725GHz	153
5710MHz Straddle 5.725-5.85GHz	153
5755MHz	210
5795MHz	210
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-
5210MHz	80
5290MHz	143
5530MHz	142
5610MHz	148
5690MHz Straddle 5.47-5.725GHz	140



Mode	Power Setting
5690MHz Straddle 5.725-5.85GHz	140
5775MHz	210

WiFi B

Mode	Power Setting
802.11ax HEW20-BF_Nss1,(MCS0)_4TX	-
5180MHz	85
5200MHz	82
5240MHz	85
5260MHz	164
5300MHz	164
5320MHz	161
5500MHz	164
5580MHz	165
5700MHz	170
5720MHz Straddle 5.47-5.725GHz	166
5720MHz Straddle 5.725-5.85GHz	166
5745MHz	230
5785MHz	230
5825MHz	230
802.11ax HEW40-BF_Nss1,(MCS0)_4TX	-
5190MHz	85
5230MHz	85
5270MHz	160
5310MHz	165
5510MHz	165
5550MHz	165
5670MHz	166
5710MHz Straddle 5.47-5.725GHz	170
5710MHz Straddle 5.725-5.85GHz	170
5755MHz	221
5795MHz	240
802.11ax HEW80-BF_Nss1,(MCS0)_4TX	-
5210MHz	83
5290MHz	161




Mode	Power Setting
5530MHz	140
5610MHz	139
5690MHz Straddle 5.47-5.725GHz	134
5690MHz Straddle 5.725-5.85GHz	134
5775MHz	209

2.2 The Worst Case Measurement Configuration

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

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

Note: From Sporton Project No.: FR0N0913-02AN. (U-NII-2A, U-NII-2C and U-NII-3)

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

Note: From Sporton Project No.: FR0N0913-02AN. (above 1GHz)

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis
Test Condition	Radiated measurement
Operating Mode	Normal Link
1	WiFi A WLAN 2.4GHz+ WLAN 5GHz
2	WiFi B WLAN 2.4GHz+ WLAN 5GHz

Refer to Sporton Test Report No.: FA0N0913 for Co-location RF Exposure Evaluation and Appendix E for Radiated Emission Co-location.

2.3 Accessories

Accessories				
RJ45 Cable	Category	5	In/Out door	-
	Signal Line	2.0 meter, non-shielded cable		

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	Adapter	Tenpao	S090IP2400375	-	Note 1
2	Notebook	HP	HSTNN-Q85C	-	-
3	AC Adapter (for NB)	HP	PPP012L-E	-	-
4	RS232-to-Lan cable	-	-	-	-
5	USB-to-RS232 cable	-	-	-	-
6	AC Adapter (for NB) (Remote)	HP	PPP012H-S	-	-
7	AC Power cable (Remote)	Power Sync	TPCMRN0018	-	-
8	Notebook (Remote)	HP	5220m	-	-

Note 1: Provided by Customer

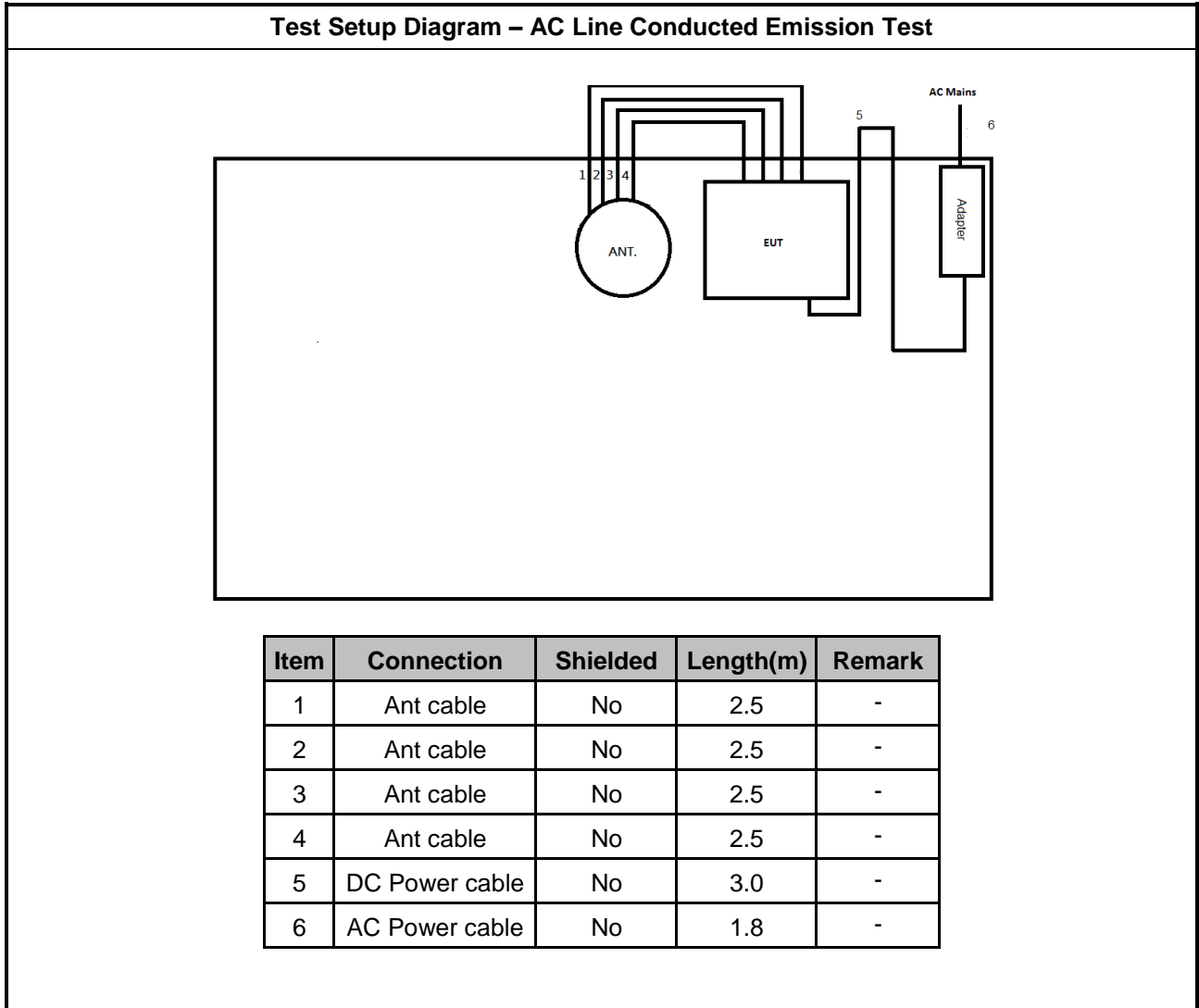
Support Equipment – Conducted					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Notebook	DELL	E5410	-	-
2	Adapter for NB	DELL	HA65NM130	-	-
3	Notebook	Acer	Trave Mate P2410	-	-
4	Adapter for NB	HIPRO	HP-A0652R3B	-	-

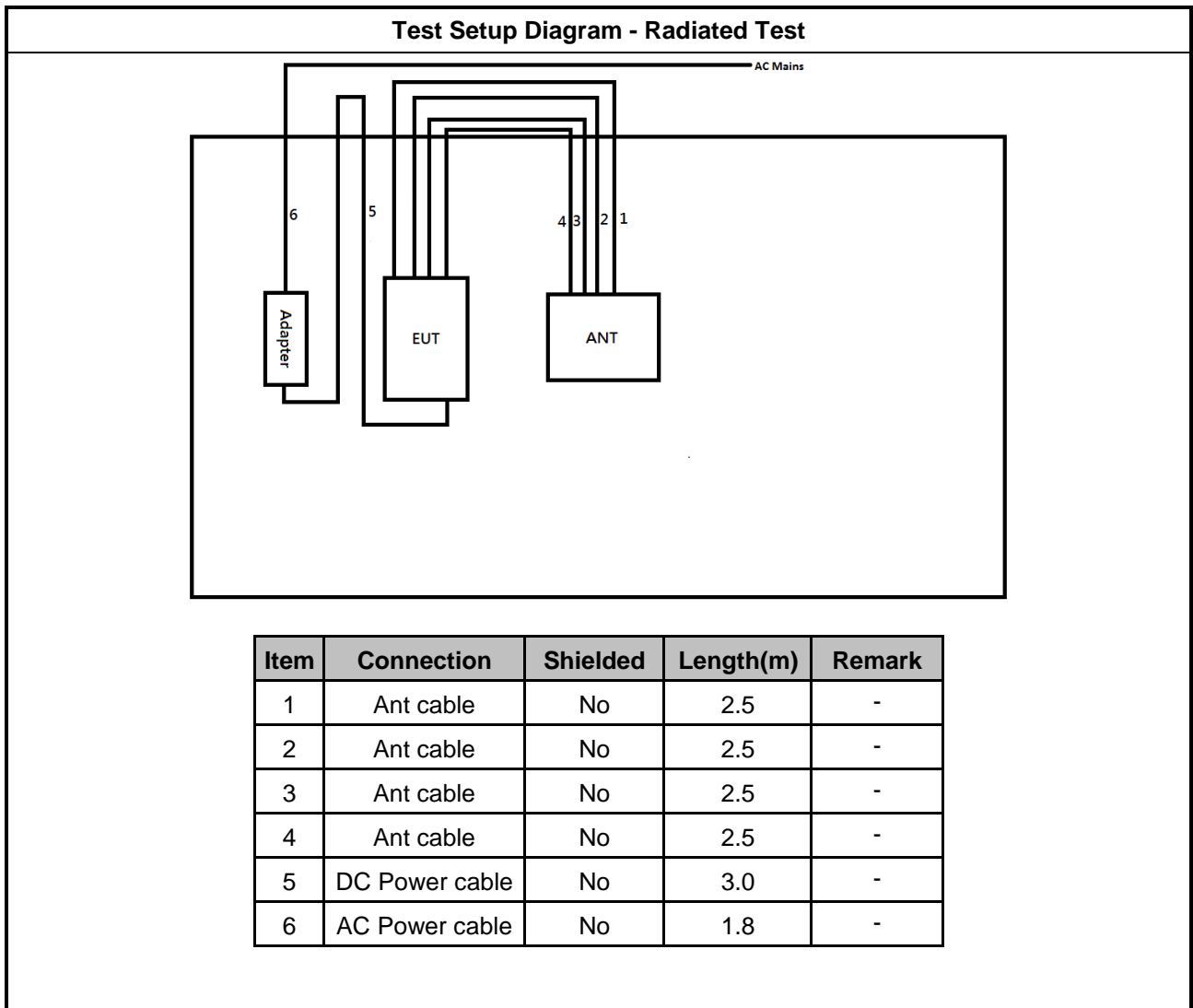


Support Equipment – Radiated					
No.	Equipment	Brand Name	Model Name	FCC ID	Remark
1	Adapter	Tenpao	S090IP2400375	-	Note 1
2	Notebook	HP	HSTNN-Q85C	-	-
3	AC Adapter (for NB)	HP	PPP012L-E	-	-
4	USB-to-RS232 cable	-	-	-	-
5	RS232-to-Lan cable	-	-	-	-
6	AC Adapter (for NB) (Remote)	HP	PPP012H-S	-	-
7	AC Power cable (Remote)	Power Sync	TPCMRN0018	-	-
8	Notebook (Remote)	HP	5220m	-	-

Note 1: Provided by Customer

2.5 Test Setup Diagram





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

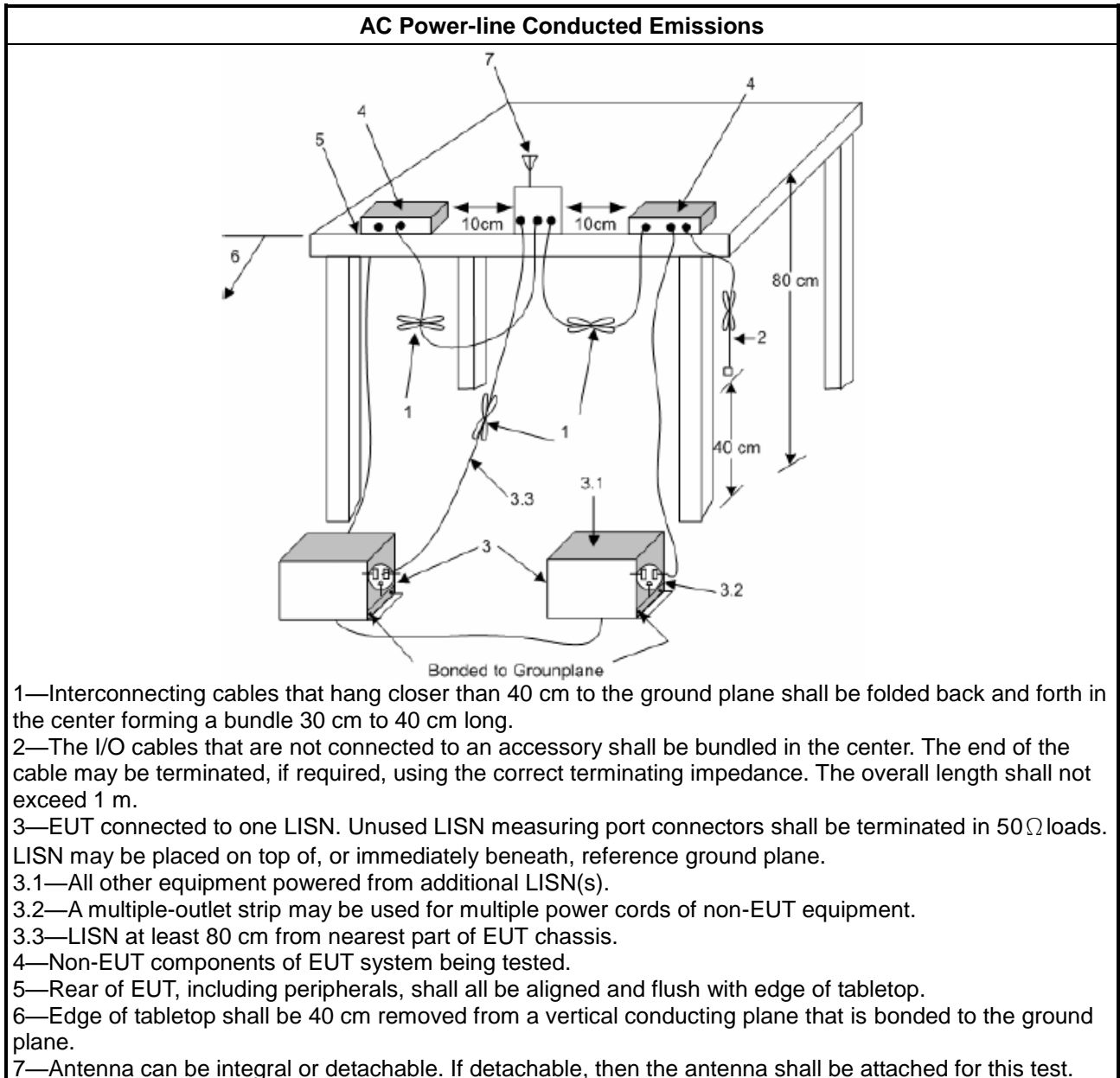
Test Method
<input checked="" type="checkbox"/> Refer as ANSI C63.10-2013, clause 6.2 for AC power-line conducted emissions.

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	
UNII Devices	
<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.

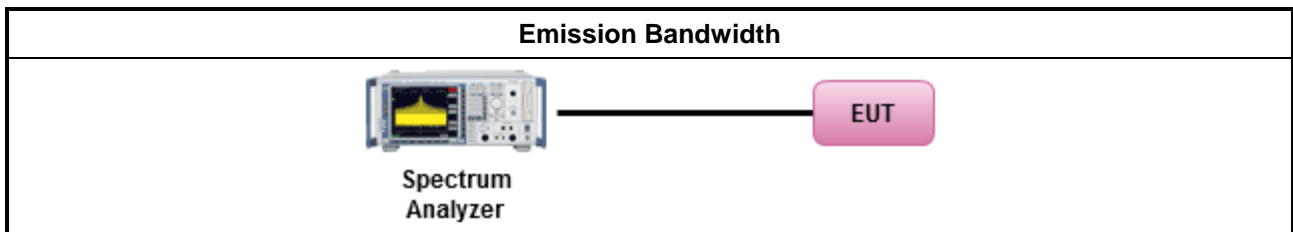
3.2.2 Measuring Instruments

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"> ▪ For the emission bandwidth shall be measured using one of the options below: 	
<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	
UNII Devices	
<input checked="" type="checkbox"/> For the 5.15-5.25 GHz band:	
	<ul style="list-style-type: none"> ▪ Outdoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. e.i.r.p. at any elevation angle above 30 degrees $\leq 125mW$ [21dBm] ▪ Indoor AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$ ▪ Point-to-point AP: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 23$ dBi, then $P_{Out} = 30 - (G_{TX} - 23)$. ▪ Mobile or Portable Client: the maximum conducted output power (P_{Out}) shall not exceed the lesser of 250 mW. If $G_{TX} > 6$ dBi, then $P_{Out} = 24 - (G_{TX} - 6)$.
<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"> ▪ Point-to-multipoint systems (P2M): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W. If $G_{TX} > 6$ dBi, then $P_{Out} = 30 - (G_{TX} - 6)$. ▪ Point-to-point systems (P2P): the maximum conducted output power (P_{Out}) shall not exceed the lesser of 1 W.
P_{Out} = maximum conducted output power in dBm, G_{TX} = the maximum transmitting antenna directional gain in dBi.	

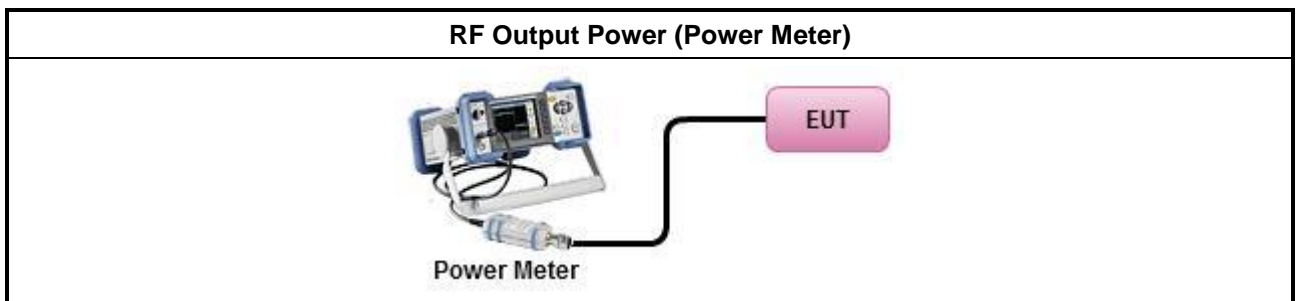
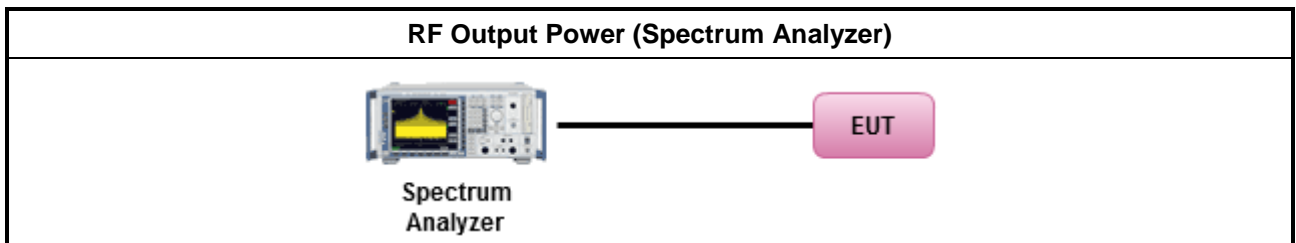
3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> Maximum Conducted Output Power 	
	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)
	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"> For conducted measurement. 	
	<ul style="list-style-type: none"> 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.
	<ul style="list-style-type: none"> If multiple transmit chains, EIRP calculation could be following as methods: $P_{total} = P_1 + P_2 + \dots + P_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = P_{total} + DG$

3.3.4 Test Setup



3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix C

3.4 Peak Power Spectral Density

3.4.1 Peak Power Spectral Density Limit

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

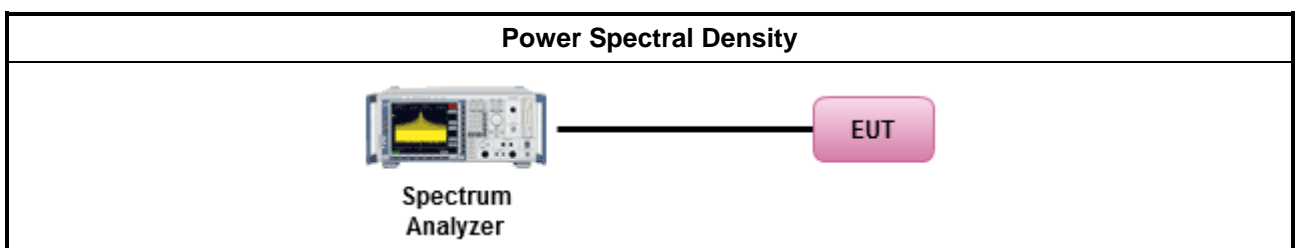
3.4.2 Measuring Instruments

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"> ▪ 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: 	
<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"> ▪ For conducted measurement. 	
<ul style="list-style-type: none"> ▪ If the EUT supports multiple transmit chains using options given below: 	
	<ul style="list-style-type: none"> ▪ 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.
	<ul style="list-style-type: none"> ▪ If multiple transmit chains, EIRP PPSD calculation could be following as methods: $PPSD_{total} = PPSD_1 + PPSD_2 + \dots + PPSD_n$ (calculated in linear unit [mW] and transfer to log unit [dBm]) $EIRP_{total} = PPSD_{total} + DG$

3.4.4 Test Setup



3.4.5 Test Result of Peak Power Spectral Density

Refer as Appendix D

3.5 Unwanted Emissions

3.5.1 Transmitter Radiated Unwanted Emissions Limit

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

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

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

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

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

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

3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

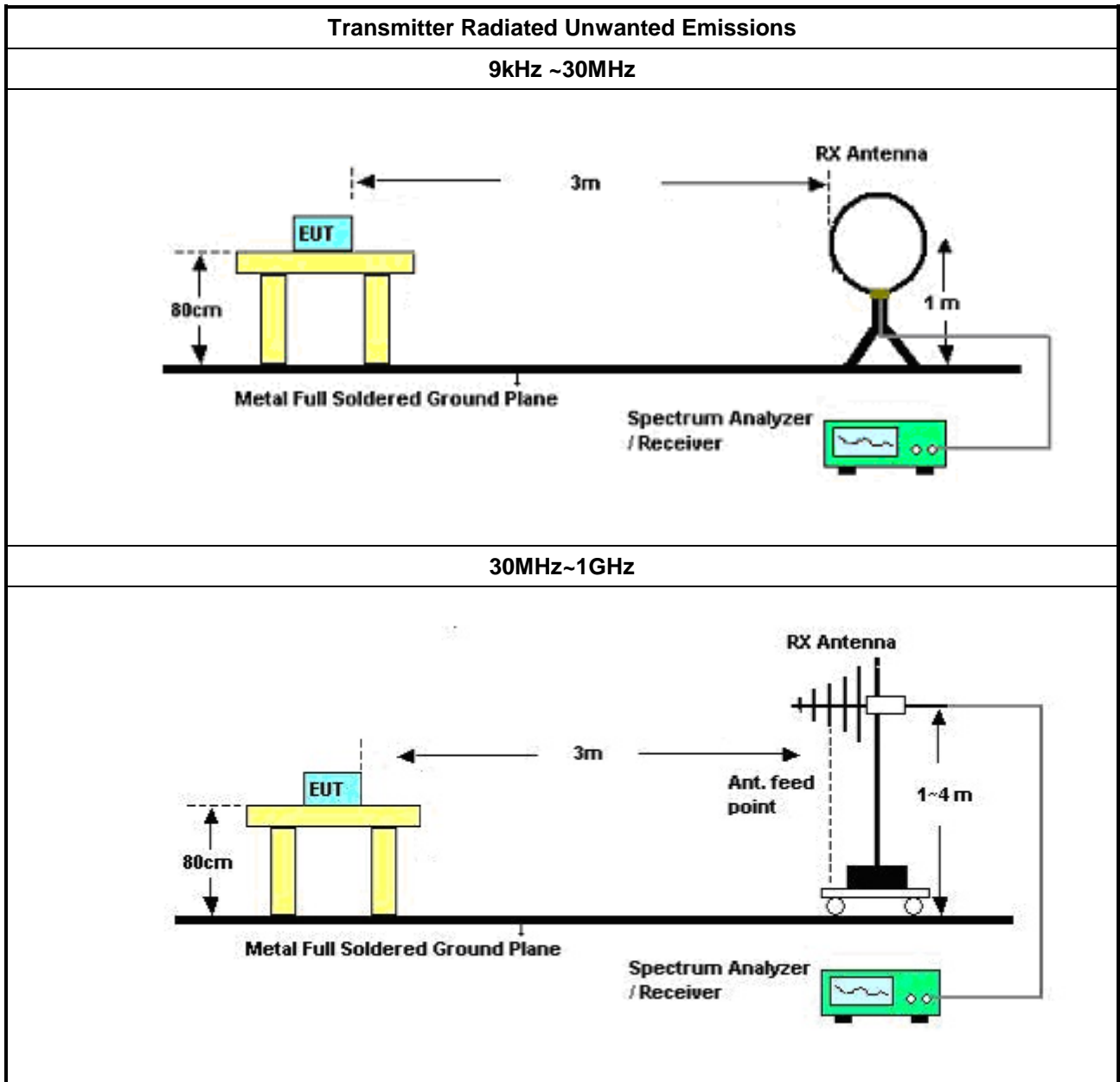
Test Method	
<ul style="list-style-type: none"> ▪ Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance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

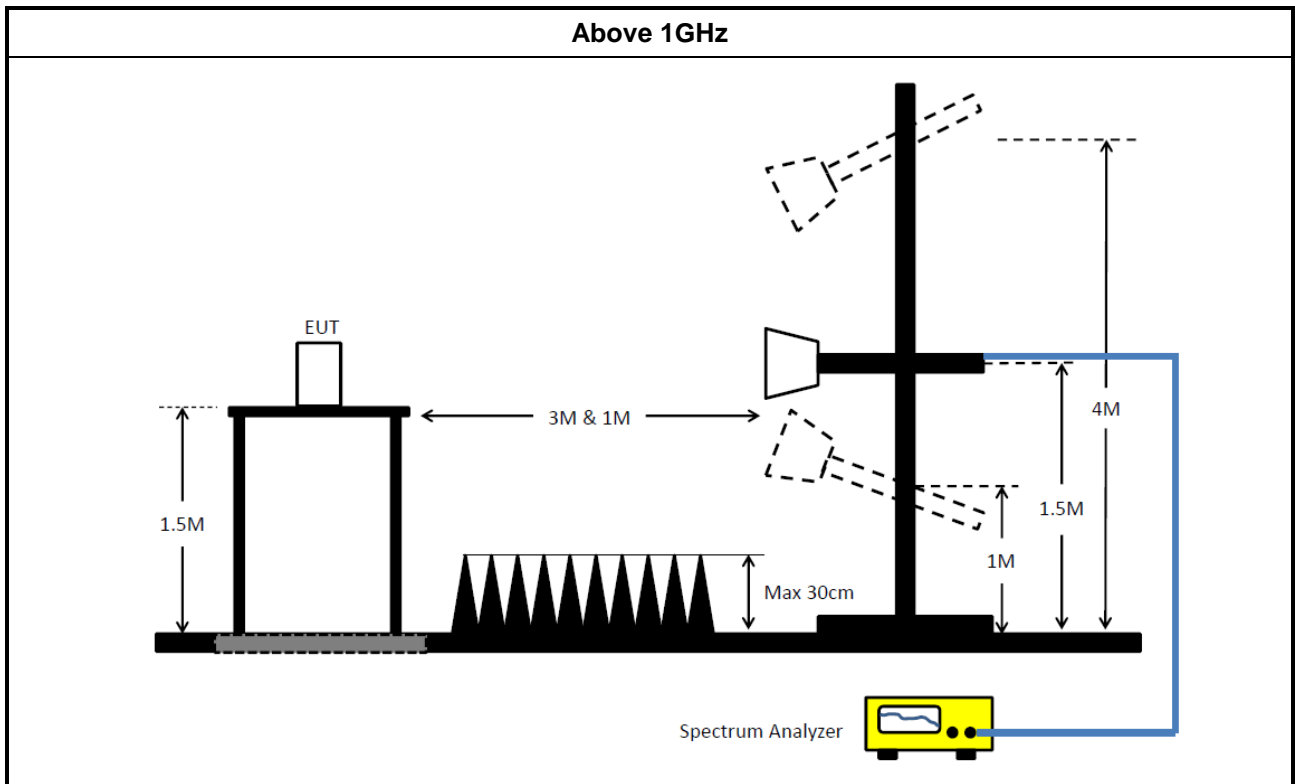
3.5.4 Measurement Results Calculation

The measured Level is calculated using:

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

3.5.5 Test Setup





3.5.6 Transmitter Unwanted Emissions (Below 30MHz)

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

3.5.7 Test Result of Transmitter Unwanted Emissions

Refer as Appendix E

4 Test Equipment and Calibration Data

Instrument for AC Conduction

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
EMI Test Receiver	R&S	ESR	102052	9kHz ~ 3.6GHz	19/Apr/2021	18/Apr/2022
LISN	R&S	ENV216	101295	9kHz ~ 30MHz	11/Nov/2020	10/Nov/2021
RF Cable 5m	TITAN	TITAN	CO04-cable-01	0.1MHz~200MHz	03/Mar/2021	02/Mar/2022
Impuls Begrenzer Pulse Limiter	SCHWARZBECK	VTSD 9561-F	9561-F041	9kHz ~ 30MHz	21/Sep/2020	20/Sep/2021
LISN (Support Unit)	SCHWARZBECK MESS-ELEKTRO NIK	NSLK 8127	8127477	9kHz ~ 30MHz	25/Feb/2021	24/Feb/2022

Instrument for Conducted Test

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
Signal Analyzer	R&S	FSV 40	101029	10Hz~40GHz	19/Oct/2020	18/Oct/2021
SMB100A Signal Generator	R&S	SMB100A03	181147	100kHz~40GHz	20/Oct/2020	19/Oct/2021
Pulse Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	23/Feb/2021	22/Feb/2022
Power Meter	Anritsu	ML2495A	0949003	300MHz~40GHz	23/Feb/2021	22/Feb/2022
Pulse Sensor	Anritsu	MA2411B	1027452	300MHz~40GHz	18/Mar/2020	17/Mar/2021
Power Meter	Anritsu	ML2495A	1124009	300MHz~40GHz	18/Mar/2020	17/Mar/2021

Instrument for Radiated Test (below 1GHz)

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	30MHz~1GHz 3m	26/Mar/2021	25/Mar/2022
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz~44GHz	11/Aug/2020	10/Aug/2021
Amplifier	EMC	EMC9135	980232	9kHz~1GHz	12/Apr/2021	11/Apr/2022
Bilog Antenna & 5dB Attenuator	TESEQ & MTJ	CBL6111D&MTJ6 102-05	35418 & 3	30MHz~1GHz	06/Sep/2020	05/Sep/2021
RF Cable-low	Jye Bao	RG142	CB031+324530/4	9kHz~30MHz	03/Sep/2020	02/Sep/2021
RF Cable-low	Jye Bao	RG142	CB031+324530/4	30MHz~1GHz	09/Feb/2021	08/Feb/2022
Loop Antenna	TESEQ	HLA 6120	31244	9kHz~30MHz	16/Mar/2021	15/Mar/2022
EMI Test Receiver	R&S	ESR3	102051	9kHz~3.6GHz	21/May/2021	20/May/2022

**Instrument for Radiated Test (above 1GHz)**

Instrument	Manufacturer /Brand	Model No.	Serial No.	Spec.	Calibration Date	Calibration Due Date
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz~18GHz 3m	19/Mar/2020	18/Mar/2021
3m Semi Anechoic Chamber	TDK	SAC-3M	03CH09-HY	1GHz~18GHz 3m	18/Mar/2021	17/Mar/2022
EXA Signal Analyzer	KEYSIGHT	N9010A	MY54200885	10Hz~44GHz	11/Aug/2020	10/Aug/2021
Microwave Preamplifier	Agilent	8449B	3008A02096	1GHz~26.5GHz	24/Jul/2020	23/Jul/2021
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	28/May/2020	27/May/2021
Double Ridged Guide Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120 D 1534	1GHz~18GHz	18/May/2021	17/May/2022
RF CABLE 5m+3m+1m	HUBER+ SUHNER	SUCOFLEX104	SN MY25918/4+ SN MY39478/4 + SN 324530/4	1GHz~40GHz	15/Aug/2020	14/Aug/2021
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	13/Mar/2020	12/Mar/2021
Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170221	18GHz~40GHz	11/Mar/2021	10/Mar/2022
Preamplifier	MITEQ	TTA1840-35-H G	1864481	18GHz~40GHz	10/Mar/2020	09/Mar/2021



Conducted Emissions at Powerline_Non-Beamforming_WiFi A Appendix A.1

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	540.273k	41.64	46.00	-4.36	Neutral

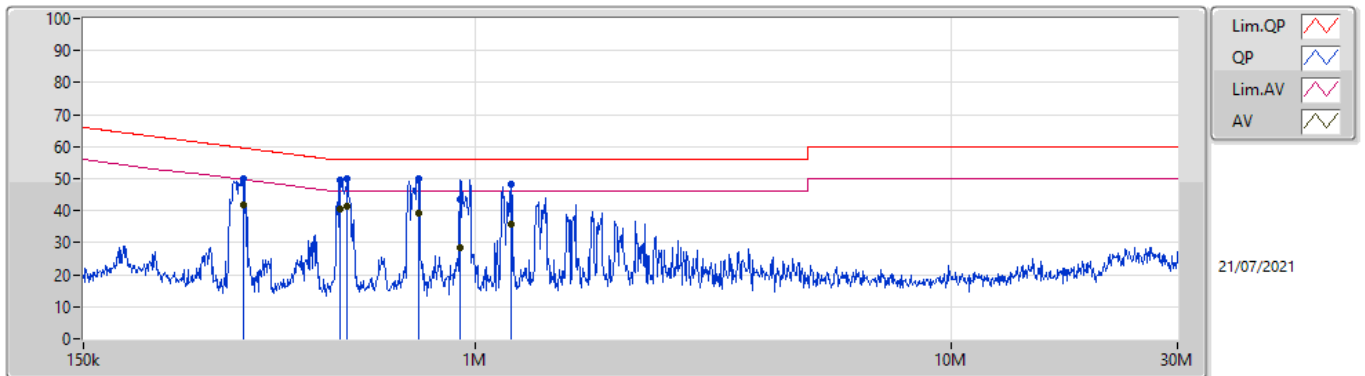


Conducted Emissions at Powerline_Non-Beamforming_WiFi A Appendix A.1

Result

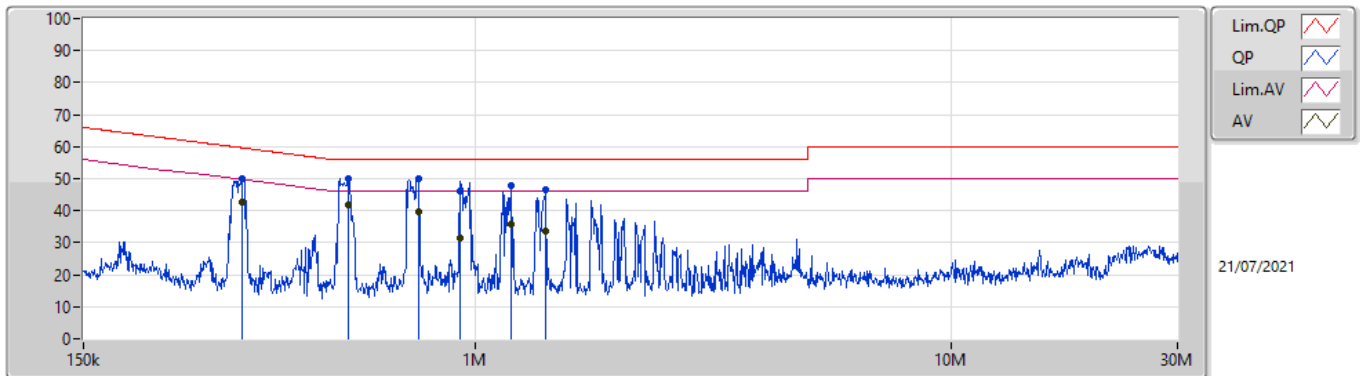
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	325.41k	49.81	59.58	-9.77	Line	-
Mode 1	Pass	AV	325.41k	41.99	49.58	-7.59	Line	-
Mode 1	Pass	QP	519.13k	49.73	56.00	-6.27	Line	-
Mode 1	Pass	AV	519.13k	40.36	46.00	-5.64	Line	-
Mode 1	Pass	QP	538.12k	49.86	56.00	-6.14	Line	-
Mode 1	Pass	AV	538.12k	41.20	46.00	-4.80	Line	-
Mode 1	Pass	QP	758.54k	49.97	56.00	-6.03	Line	-
Mode 1	Pass	AV	758.54k	39.32	46.00	-6.68	Line	-
Mode 1	Pass	QP	929.818k	43.39	56.00	-12.61	Line	-
Mode 1	Pass	AV	929.818k	28.25	46.00	-17.75	Line	-
Mode 1	Pass	QP	1.191M	48.34	56.00	-7.66	Line	-
Mode 1	Pass	AV	1.191M	35.75	46.00	-10.25	Line	-
Mode 1	Pass	QP	324.114k	49.79	59.59	-9.80	Neutral	-
Mode 1	Pass	AV	324.114k	42.83	49.59	-6.76	Neutral	-
Mode 1	Pass	QP	540.273k	50.12	56.00	-5.88	Neutral	-
Mode 1	Pass	AV	540.273k	41.64	46.00	-4.36	Neutral	-
Mode 1	Pass	QP	758.54k	49.88	56.00	-6.12	Neutral	-
Mode 1	Pass	AV	758.54k	39.74	46.00	-6.26	Neutral	-
Mode 1	Pass	QP	929.818k	46.00	56.00	-10.00	Neutral	-
Mode 1	Pass	AV	929.818k	31.41	46.00	-14.59	Neutral	-
Mode 1	Pass	QP	1.191M	47.95	56.00	-8.05	Neutral	-
Mode 1	Pass	AV	1.191M	35.96	46.00	-10.04	Neutral	-
Mode 1	Pass	QP	1.408M	46.62	56.00	-9.38	Neutral	-
Mode 1	Pass	AV	1.408M	33.80	46.00	-12.20	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	325.41k	49.81	59.58	-9.77	19.62	Line	-	30.19	9.67	0.05	9.90			
AV	325.41k	41.99	49.58	-7.59	19.62	Line	-	22.37	9.67	0.05	9.90			
QP	519.13k	49.73	56.00	-6.27	19.61	Line	-	30.12	9.67	0.07	9.87			
AV	519.13k	40.36	46.00	-5.64	19.61	Line	-	20.75	9.67	0.07	9.87			
QP	538.12k	49.86	56.00	-6.14	19.61	Line	-	30.25	9.67	0.07	9.87			
AV	538.12k	41.20	46.00	-4.80	19.61	Line	-	21.59	9.67	0.07	9.87			
QP	758.54k	49.97	56.00	-6.03	19.57	Line	-	30.40	9.67	0.07	9.83			
AV	758.54k	39.32	46.00	-6.68	19.57	Line	-	19.75	9.67	0.07	9.83			
QP	929.818k	43.39	56.00	-12.61	19.56	Line	-	23.83	9.67	0.08	9.81			
AV	929.818k	28.25	46.00	-17.75	19.56	Line	-	8.69	9.67	0.08	9.81			
QP	1.191M	48.34	56.00	-7.66	19.56	Line	-	28.78	9.67	0.09	9.80			
AV	1.191M	35.75	46.00	-10.25	19.56	Line	-	16.19	9.67	0.09	9.80			

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	324.114k	49.79	59.59	-9.80	19.62	Neutral	-	30.17	9.67	0.05	9.90			
AV	324.114k	42.83	49.59	-6.76	19.62	Neutral	-	23.21	9.67	0.05	9.90			
QP	540.273k	50.12	56.00	-5.88	19.61	Neutral	-	30.51	9.67	0.07	9.87			
AV	540.273k	41.64	46.00	-4.36	19.61	Neutral	-	22.03	9.67	0.07	9.87			
QP	758.54k	49.88	56.00	-6.12	19.57	Neutral	-	30.31	9.67	0.07	9.83			
AV	758.54k	39.74	46.00	-6.26	19.57	Neutral	-	20.17	9.67	0.07	9.83			
QP	929.818k	46.00	56.00	-10.00	19.56	Neutral	-	26.44	9.67	0.08	9.81			
AV	929.818k	31.41	46.00	-14.59	19.56	Neutral	-	11.85	9.67	0.08	9.81			
QP	1.191M	47.95	56.00	-8.05	19.56	Neutral	-	28.39	9.67	0.09	9.80			
AV	1.191M	35.96	46.00	-10.04	19.56	Neutral	-	16.40	9.67	0.09	9.80			
QP	1.408M	46.62	56.00	-9.38	19.56	Neutral	-	27.06	9.67	0.09	9.80			
AV	1.408M	33.80	46.00	-12.20	19.56	Neutral	-	14.24	9.67	0.09	9.80			



Conducted Emissions at Powerline_Non-Beamforming_WiFi B Appendix A.2

Summary

Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	519.13k	41.25	46.00	-4.75	Line

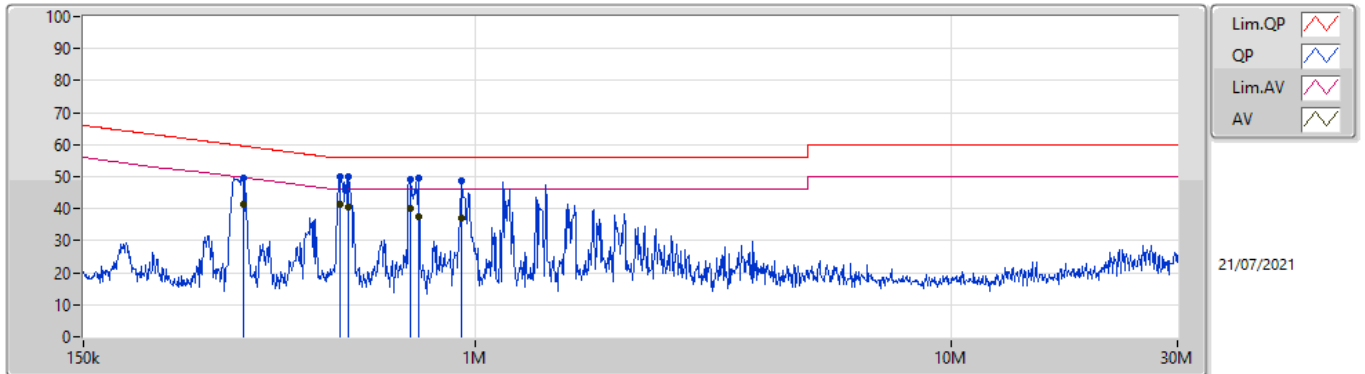


Conducted Emissions at Powerline_Non-Beamforming_WiFi B Appendix A.2

Result

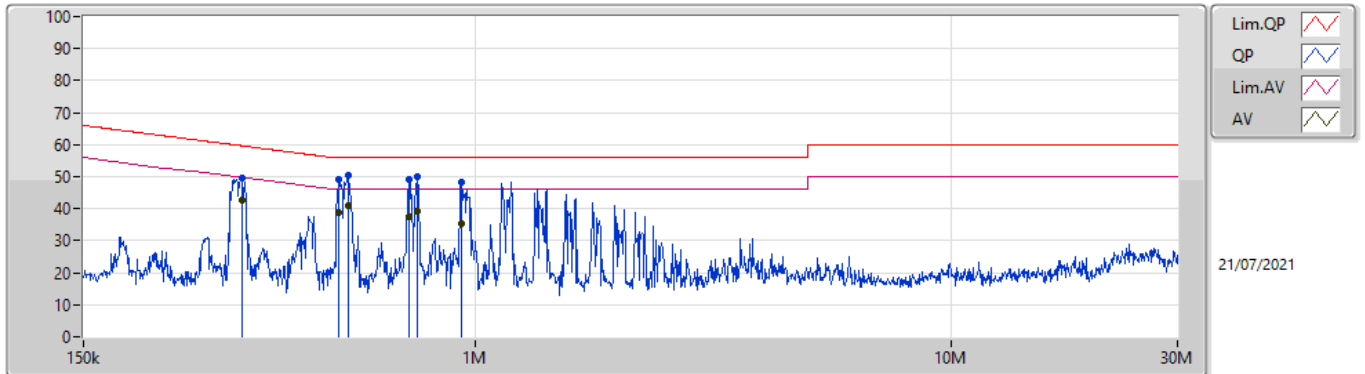
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	325.41k	49.68	59.58	-9.90	Line	-
Mode 1	Pass	AV	325.41k	41.27	49.58	-8.31	Line	-
Mode 1	Pass	QP	519.13k	49.81	56.00	-6.19	Line	-
Mode 1	Pass	AV	519.13k	41.25	46.00	-4.75	Line	-
Mode 1	Pass	QP	542.434k	50.16	56.00	-5.84	Line	-
Mode 1	Pass	AV	542.434k	40.40	46.00	-5.60	Line	-
Mode 1	Pass	QP	728.856k	49.30	56.00	-6.70	Line	-
Mode 1	Pass	AV	728.856k	39.90	46.00	-6.10	Line	-
Mode 1	Pass	QP	758.54k	49.75	56.00	-6.25	Line	-
Mode 1	Pass	AV	758.54k	37.55	46.00	-8.45	Line	-
Mode 1	Pass	QP	937.272k	48.59	56.00	-7.41	Line	-
Mode 1	Pass	AV	937.272k	36.98	46.00	-9.02	Line	-
Mode 1	Pass	QP	324.114k	49.67	59.59	-9.92	Neutral	-
Mode 1	Pass	AV	324.114k	42.86	49.59	-6.73	Neutral	-
Mode 1	Pass	QP	517.062k	49.23	56.00	-6.77	Neutral	-
Mode 1	Pass	AV	517.062k	38.81	46.00	-7.19	Neutral	-
Mode 1	Pass	QP	542.434k	50.39	56.00	-5.61	Neutral	-
Mode 1	Pass	AV	542.434k	41.13	46.00	-4.87	Neutral	-
Mode 1	Pass	QP	725.952k	49.17	56.00	-6.83	Neutral	-
Mode 1	Pass	AV	725.952k	37.48	46.00	-8.52	Neutral	-
Mode 1	Pass	QP	755.518k	49.79	56.00	-6.21	Neutral	-
Mode 1	Pass	AV	755.518k	39.26	46.00	-6.74	Neutral	-
Mode 1	Pass	QP	933.537k	48.37	56.00	-7.63	Neutral	-
Mode 1	Pass	AV	933.537k	35.38	46.00	-10.62	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	325.41k	49.68	59.58	-9.90	19.62	Line	-	30.06	9.67	0.05	9.90
AV	325.41k	41.27	49.58	-8.31	19.62	Line	-	21.65	9.67	0.05	9.90
QP	519.13k	49.81	56.00	-6.19	19.61	Line	-	30.20	9.67	0.07	9.87
AV	519.13k	41.25	46.00	-4.75	19.61	Line	-	21.64	9.67	0.07	9.87
QP	542.434k	50.16	56.00	-5.84	19.61	Line	-	30.55	9.67	0.07	9.87
AV	542.434k	40.40	46.00	-5.60	19.61	Line	-	20.79	9.67	0.07	9.87
QP	728.856k	49.30	56.00	-6.70	19.57	Line	-	29.73	9.67	0.07	9.83
AV	728.856k	39.90	46.00	-6.10	19.57	Line	-	20.33	9.67	0.07	9.83
QP	758.54k	49.75	56.00	-6.25	19.57	Line	-	30.18	9.67	0.07	9.83
AV	758.54k	37.55	46.00	-8.45	19.57	Line	-	17.98	9.67	0.07	9.83
QP	937.272k	48.59	56.00	-7.41	19.56	Line	-	29.03	9.67	0.08	9.81
AV	937.272k	36.98	46.00	-9.02	19.56	Line	-	17.42	9.67	0.08	9.81

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	324.114k	49.67	59.59	-9.92	19.62	Neutral	-	30.05	9.67	0.05	9.90			
AV	324.114k	42.86	49.59	-6.73	19.62	Neutral	-	23.24	9.67	0.05	9.90			
QP	517.062k	49.23	56.00	-6.77	19.61	Neutral	-	29.62	9.67	0.07	9.87			
AV	517.062k	38.81	46.00	-7.19	19.61	Neutral	-	19.20	9.67	0.07	9.87			
QP	542.434k	50.39	56.00	-5.61	19.61	Neutral	-	30.78	9.67	0.07	9.87			
AV	542.434k	41.13	46.00	-4.87	19.61	Neutral	-	21.52	9.67	0.07	9.87			
QP	725.952k	49.17	56.00	-6.83	19.57	Neutral	-	29.60	9.67	0.07	9.83			
AV	725.952k	37.48	46.00	-8.52	19.57	Neutral	-	17.91	9.67	0.07	9.83			
QP	755.518k	49.79	56.00	-6.21	19.57	Neutral	-	30.22	9.67	0.07	9.83			
AV	755.518k	39.26	46.00	-6.74	19.57	Neutral	-	19.69	9.67	0.07	9.83			
QP	933.537k	48.37	56.00	-7.63	19.56	Neutral	-	28.81	9.67	0.08	9.81			
AV	933.537k	35.38	46.00	-10.62	19.56	Neutral	-	15.82	9.67	0.08	9.81			



Summary

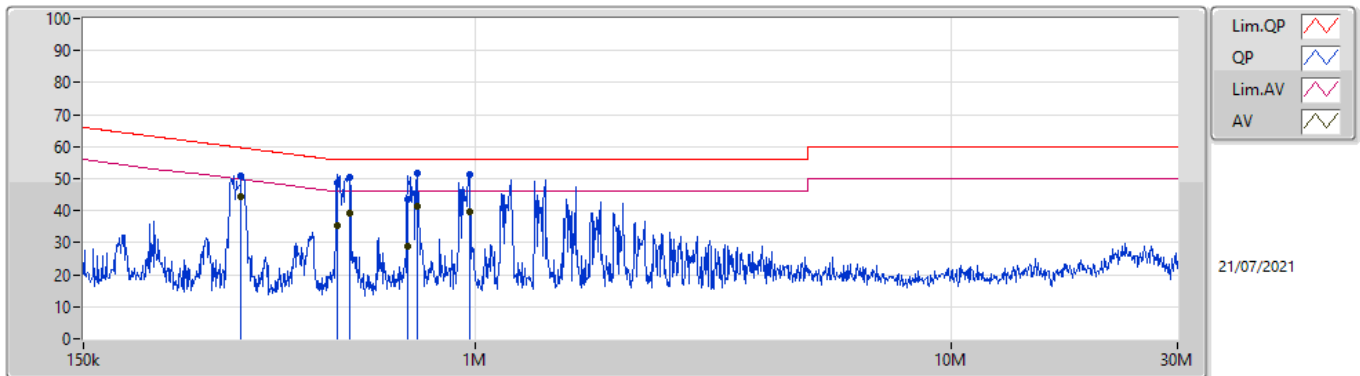
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	540.316k	42.48	46.00	-3.52	Neutral



Result

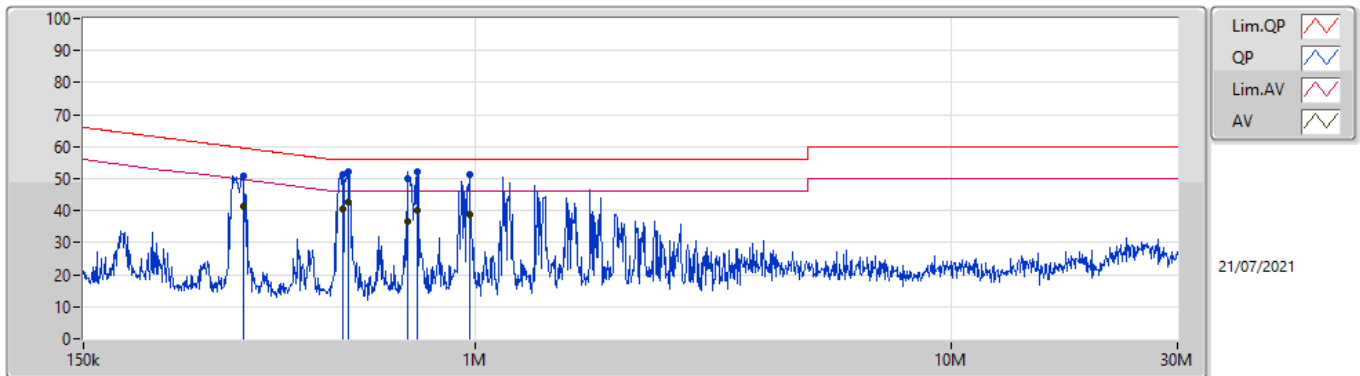
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	321.537k	51.06	59.67	-8.61	Line	-
Mode 1	Pass	AV	321.537k	44.49	49.67	-5.18	Line	-
Mode 1	Pass	QP	512.95k	48.76	56.00	-7.24	Line	-
Mode 1	Pass	AV	512.95k	35.22	46.00	-10.78	Line	-
Mode 1	Pass	QP	544.604k	50.27	56.00	-5.73	Line	-
Mode 1	Pass	AV	544.604k	39.06	46.00	-6.94	Line	-
Mode 1	Pass	QP	720.179k	43.51	56.00	-12.49	Line	-
Mode 1	Pass	AV	720.179k	28.91	46.00	-17.09	Line	-
Mode 1	Pass	QP	755.518k	51.77	56.00	-4.23	Line	-
Mode 1	Pass	AV	755.518k	41.30	46.00	-4.70	Line	-
Mode 1	Pass	QP	971.558k	51.17	56.00	-4.83	Line	-
Mode 1	Pass	AV	971.558k	39.56	46.00	-6.44	Line	-
Mode 1	Pass	QP	326.01k	51.00	59.56	-8.56	Neutral	-
Mode 1	Pass	AV	326.01k	41.56	49.56	-8.00	Neutral	-
Mode 1	Pass	QP	525.84k	51.19	56.00	-4.81	Neutral	-
Mode 1	Pass	AV	525.84k	40.61	46.00	-5.39	Neutral	-
Mode 1	Pass	QP	540.316k	52.29	56.00	-3.71	Neutral	-
Mode 1	Pass	AV	540.316k	42.48	46.00	-3.52	Neutral	-
Mode 1	Pass	QP	720.25k	49.89	56.00	-6.11	Neutral	-
Mode 1	Pass	AV	720.25k	36.61	46.00	-9.39	Neutral	-
Mode 1	Pass	QP	757.352k	51.98	56.00	-4.02	Neutral	-
Mode 1	Pass	AV	757.352k	40.16	46.00	-5.84	Neutral	-
Mode 1	Pass	QP	973.658k	51.33	56.00	-4.67	Neutral	-
Mode 1	Pass	AV	973.658k	38.74	46.00	-7.26	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	321.537k	51.06	59.67	-8.61	19.62	Line	-	31.44	9.67	0.05	9.90
AV	321.537k	44.49	49.67	-5.18	19.62	Line	-	24.87	9.67	0.05	9.90
QP	512.95k	48.76	56.00	-7.24	19.61	Line	-	29.15	9.67	0.07	9.87
AV	512.95k	35.22	46.00	-10.78	19.61	Line	-	15.61	9.67	0.07	9.87
QP	544.604k	50.27	56.00	-5.73	19.61	Line	-	30.66	9.67	0.07	9.87
AV	544.604k	39.06	46.00	-6.94	19.61	Line	-	19.45	9.67	0.07	9.87
QP	720.179k	43.51	56.00	-12.49	19.58	Line	-	23.93	9.67	0.07	9.84
AV	720.179k	28.91	46.00	-17.09	19.58	Line	-	9.33	9.67	0.07	9.84
QP	755.518k	51.77	56.00	-4.23	19.57	Line	-	32.20	9.67	0.07	9.83
AV	755.518k	41.30	46.00	-4.70	19.57	Line	-	21.73	9.67	0.07	9.83
QP	971.558k	51.17	56.00	-4.83	19.55	Line	-	31.62	9.67	0.08	9.80
AV	971.558k	39.56	46.00	-6.44	19.55	Line	-	20.01	9.67	0.08	9.80

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	326.01k	51.00	59.56	-8.56	19.62	Neutral	-	31.38	9.67	0.05	9.90			
AV	326.01k	41.56	49.56	-8.00	19.62	Neutral	-	21.94	9.67	0.05	9.90			
QP	525.84k	51.19	56.00	-4.81	19.61	Neutral	-	31.58	9.67	0.07	9.87			
AV	525.84k	40.61	46.00	-5.39	19.61	Neutral	-	21.00	9.67	0.07	9.87			
QP	540.316k	52.29	56.00	-3.71	19.61	Neutral	-	32.68	9.67	0.07	9.87			
AV	540.316k	42.48	46.00	-3.52	19.61	Neutral	-	22.87	9.67	0.07	9.87			
QP	720.25k	49.89	56.00	-6.11	19.58	Neutral	-	30.31	9.67	0.07	9.84			
AV	720.25k	36.61	46.00	-9.39	19.58	Neutral	-	17.03	9.67	0.07	9.84			
QP	757.352k	51.98	56.00	-4.02	19.57	Neutral	-	32.41	9.67	0.07	9.83			
AV	757.352k	40.16	46.00	-5.84	19.57	Neutral	-	20.59	9.67	0.07	9.83			
QP	973.658k	51.33	56.00	-4.67	19.55	Neutral	-	31.78	9.67	0.08	9.80			
AV	973.658k	38.74	46.00	-7.26	19.55	Neutral	-	19.19	9.67	0.08	9.80			



Summary

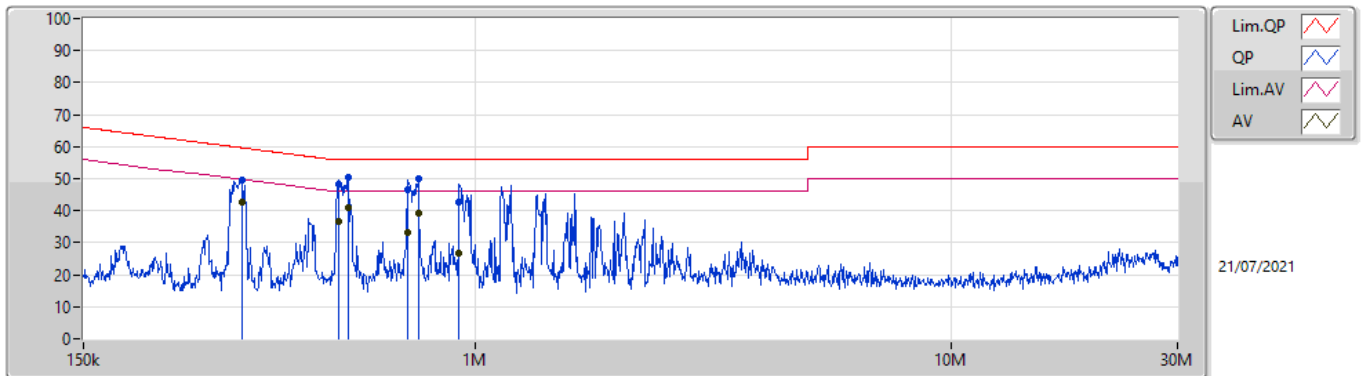
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition
Mode 1	Pass	AV	521.206k	41.10	46.00	-4.90	Neutral



Result

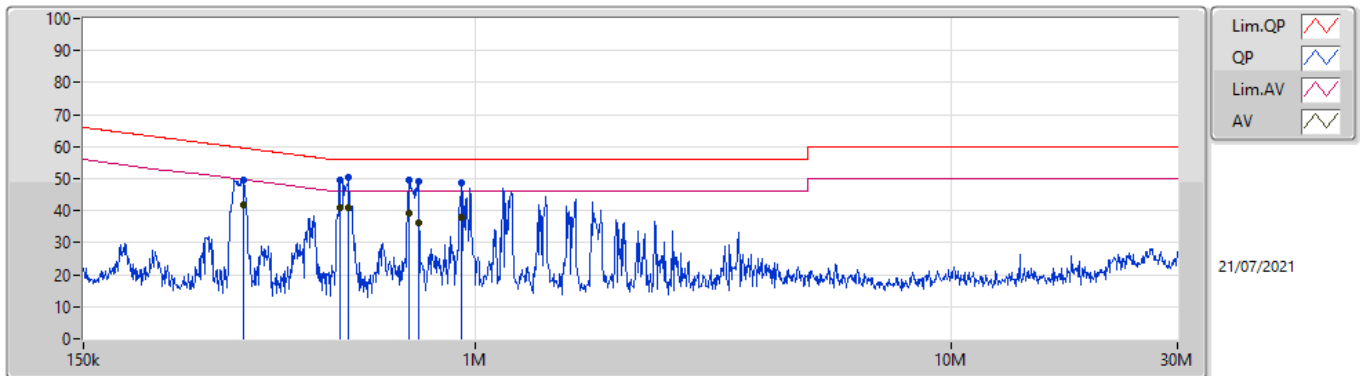
Mode	Result	Type	Freq (Hz)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Condition	Comments
Mode 1	Pass	QP	322.823k	49.56	59.63	-10.07	Line	-
Mode 1	Pass	AV	322.823k	42.84	49.63	-6.79	Line	-
Mode 1	Pass	QP	515.002k	48.14	56.00	-7.86	Line	-
Mode 1	Pass	AV	515.002k	36.75	46.00	-9.25	Line	-
Mode 1	Pass	QP	542.434k	50.33	56.00	-5.67	Line	-
Mode 1	Pass	AV	542.434k	40.84	46.00	-5.16	Line	-
Mode 1	Pass	QP	723.06k	46.58	56.00	-9.42	Line	-
Mode 1	Pass	AV	723.06k	33.33	46.00	-12.67	Line	-
Mode 1	Pass	QP	758.54k	49.87	56.00	-6.13	Line	-
Mode 1	Pass	AV	758.54k	39.01	46.00	-6.99	Line	-
Mode 1	Pass	QP	926.114k	42.78	56.00	-13.22	Line	-
Mode 1	Pass	AV	926.114k	26.52	46.00	-19.48	Line	-
Mode 1	Pass	QP	325.41k	49.78	59.58	-9.80	Neutral	-
Mode 1	Pass	AV	325.41k	41.86	49.58	-7.72	Neutral	-
Mode 1	Pass	QP	521.206k	49.59	56.00	-6.41	Neutral	-
Mode 1	Pass	AV	521.206k	41.10	46.00	-4.90	Neutral	-
Mode 1	Pass	QP	542.434k	50.41	56.00	-5.59	Neutral	-
Mode 1	Pass	AV	542.434k	40.75	46.00	-5.25	Neutral	-
Mode 1	Pass	QP	725.952k	49.57	56.00	-6.43	Neutral	-
Mode 1	Pass	AV	725.952k	39.14	46.00	-6.86	Neutral	-
Mode 1	Pass	QP	758.54k	49.28	56.00	-6.72	Neutral	-
Mode 1	Pass	AV	758.54k	36.01	46.00	-9.99	Neutral	-
Mode 1	Pass	QP	933.537k	48.83	56.00	-7.17	Neutral	-
Mode 1	Pass	AV	933.537k	38.06	46.00	-7.94	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	322.823k	49.56	59.63	-10.07	19.62	Line	-	29.94	9.67	0.05	9.90			
AV	322.823k	42.84	49.63	-6.79	19.62	Line	-	23.22	9.67	0.05	9.90			
QP	515.002k	48.14	56.00	-7.86	19.61	Line	-	28.53	9.67	0.07	9.87			
AV	515.002k	36.75	46.00	-9.25	19.61	Line	-	17.14	9.67	0.07	9.87			
QP	542.434k	50.33	56.00	-5.67	19.61	Line	-	30.72	9.67	0.07	9.87			
AV	542.434k	40.84	46.00	-5.16	19.61	Line	-	21.23	9.67	0.07	9.87			
QP	723.06k	46.58	56.00	-9.42	19.58	Line	-	27.00	9.67	0.07	9.84			
AV	723.06k	33.33	46.00	-12.67	19.58	Line	-	13.75	9.67	0.07	9.84			
QP	758.54k	49.87	56.00	-6.13	19.57	Line	-	30.30	9.67	0.07	9.83			
AV	758.54k	39.01	46.00	-6.99	19.57	Line	-	19.44	9.67	0.07	9.83			
QP	926.114k	42.78	56.00	-13.22	19.56	Line	-	23.22	9.67	0.08	9.81			
AV	926.114k	26.52	46.00	-19.48	19.56	Line	-	6.96	9.67	0.08	9.81			

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	325.41k	49.78	59.58	-9.80	19.62	Neutral	-	30.16	9.67	0.05	9.90			
AV	325.41k	41.86	49.58	-7.72	19.62	Neutral	-	22.24	9.67	0.05	9.90			
QP	521.206k	49.59	56.00	-6.41	19.61	Neutral	-	29.98	9.67	0.07	9.87			
AV	521.206k	41.10	46.00	-4.90	19.61	Neutral	-	21.49	9.67	0.07	9.87			
QP	542.434k	50.41	56.00	-5.59	19.61	Neutral	-	30.80	9.67	0.07	9.87			
AV	542.434k	40.75	46.00	-5.25	19.61	Neutral	-	21.14	9.67	0.07	9.87			
QP	725.952k	49.57	56.00	-6.43	19.57	Neutral	-	30.00	9.67	0.07	9.83			
AV	725.952k	39.14	46.00	-6.86	19.57	Neutral	-	19.57	9.67	0.07	9.83			
QP	758.54k	49.28	56.00	-6.72	19.57	Neutral	-	29.71	9.67	0.07	9.83			
AV	758.54k	36.01	46.00	-9.99	19.57	Neutral	-	16.44	9.67	0.07	9.83			
QP	933.537k	48.83	56.00	-7.17	19.56	Neutral	-	29.27	9.67	0.08	9.81			
AV	933.537k	38.06	46.00	-7.94	19.56	Neutral	-	18.50	9.67	0.08	9.81			



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	24.69M	16.942M	16M9D1D	23.01M	16.702M
802.11ax HEW20_Nss1,(MCS0)_4TX	25.53M	19.07M	19M1D1D	24.33M	18.951M
802.11ax HEW40_Nss1,(MCS0)_4TX	42.78M	38.141M	38M1D1D	42.18M	37.901M
802.11ax HEW80_Nss1,(MCS0)_4TX	81.84M	77.841M	77M8D1D	81.12M	77.721M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	24.66M	16.942M	16M9D1D	23.01M	16.702M
802.11ax HEW20_Nss1,(MCS0)_4TX	28.5M	19.1M	19M1D1D	23.52M	19.01M
802.11ax HEW40_Nss1,(MCS0)_4TX	63.24M	38.201M	38M2D1D	42.48M	37.961M
802.11ax HEW80_Nss1,(MCS0)_4TX	82.08M	77.721M	77M7D1D	81.84M	77.721M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	25.11M	17.001M	17M0D1D	16.198M	13.441M
802.11ax HEW20_Nss1,(MCS0)_4TX	27.69M	19.1M	19M1D1D	16.844M	14.526M
802.11ax HEW40_Nss1,(MCS0)_4TX	60.18M	38.141M	38M1D1D	36.146M	33.902M
802.11ax HEW80_Nss1,(MCS0)_4TX	89.68M	77.841M	77M8D1D	75.741M	73.566M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.35M	26.417M	26M4D1D	3.135M	4.108M
802.11ax HEW20_Nss1,(MCS0)_4TX	19.02M	32.684M	32M7D1D	4.47M	4.603M
802.11ax HEW40_Nss1,(MCS0)_4TX	37.98M	66.927M	66M9D1D	3.9M	4.108M
802.11ax HEW80_Nss1,(MCS0)_4TX	77.64M	79.16M	79M2D1D	3.33M	4.063M

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	24.09M	16.792M	24.03M	16.852M	23.67M	16.912M	23.37M	16.762M
5200MHz	Pass	Inf	24.09M	16.822M	24.69M	16.822M	24.45M	16.942M	23.01M	16.852M
5240MHz	Pass	Inf	24.27M	16.852M	23.79M	16.852M	23.4M	16.792M	24.66M	16.702M
5260MHz	Pass	Inf	23.46M	16.822M	23.01M	16.882M	24.66M	16.912M	24M	16.852M
5300MHz	Pass	Inf	23.31M	16.702M	23.91M	16.912M	23.67M	16.942M	23.94M	16.822M
5320MHz	Pass	Inf	23.64M	16.732M	23.91M	16.792M	23.76M	16.882M	23.46M	16.762M
5500MHz	Pass	Inf	23.52M	16.792M	23.67M	17.001M	25.11M	16.852M	23.64M	16.792M
5580MHz	Pass	Inf	23.34M	16.702M	23.88M	16.642M	23.73M	16.822M	24.48M	16.642M
5700MHz	Pass	Inf	24.27M	16.972M	23.73M	16.762M	23.94M	16.972M	24.33M	16.852M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	16.198M	13.523M	17.215M	13.441M	16.335M	13.455M	16.555M	13.496M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.135M	4.108M	3.135M	4.573M	3.15M	4.258M	3.15M	4.303M
5745MHz	Pass	500k	16.32M	19.13M	16.32M	26.417M	16.35M	21.349M	16.32M	24.828M
5785MHz	Pass	500k	16.05M	18.951M	16.08M	24.288M	16.08M	20.84M	16.32M	24.318M
5825MHz	Pass	500k	16.32M	18.741M	16.29M	23.388M	16.32M	20.48M	16.35M	24.408M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	24.9M	19.04M	25.53M	19.07M	25.08M	19.04M	25.32M	19.07M
5200MHz	Pass	Inf	25.26M	19.04M	24.45M	19.01M	25.38M	19.04M	24.54M	19.04M
5240MHz	Pass	Inf	24.66M	19.04M	24.33M	18.951M	24.93M	19.04M	24.48M	19.07M
5260MHz	Pass	Inf	24.99M	19.04M	25.74M	19.07M	26.37M	19.1M	25.41M	19.07M
5300MHz	Pass	Inf	24.96M	19.04M	28.08M	19.07M	24.99M	19.04M	28.5M	19.1M
5320MHz	Pass	Inf	23.55M	19.04M	25.2M	19.07M	23.52M	19.07M	25.47M	19.01M
5500MHz	Pass	Inf	24.69M	19.04M	25.08M	19.1M	27.69M	19.01M	25.11M	19.04M
5580MHz	Pass	Inf	24.6M	19.1M	24M	19.04M	25.26M	19.04M	23.49M	19.01M
5700MHz	Pass	Inf	24.81M	19.07M	24.81M	19.01M	24.75M	19.01M	24.87M	19.04M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	16.899M	14.54M	16.844M	14.54M	17.146M	14.526M	16.899M	14.54M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.485M	4.618M	4.515M	4.648M	4.5M	4.603M	4.47M	4.603M
5745MHz	Pass	500k	18.78M	23.718M	18.78M	32.684M	18.84M	25.277M	18.96M	29.595M
5785MHz	Pass	500k	18.78M	22.789M	18.96M	31.214M	18.87M	26.267M	18.9M	31.274M
5825MHz	Pass	500k	19.02M	23.088M	18.75M	28.816M	18.84M	25.277M	18.78M	29.895M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	42.3M	37.901M	42.18M	38.081M	42.78M	38.021M	42.24M	38.021M
5230MHz	Pass	Inf	42.66M	38.141M	42.36M	37.901M	42.72M	38.021M	42.36M	38.081M
5270MHz	Pass	Inf	42.96M	38.081M	42.9M	38.081M	63.24M	38.201M	42.72M	38.081M
5310MHz	Pass	Inf	42.48M	38.021M	42.66M	38.021M	42.54M	38.201M	42.66M	37.961M
5510MHz	Pass	Inf	42.18M	37.961M	41.94M	37.961M	42.36M	38.021M	42M	37.961M
5550MHz	Pass	Inf	42.36M	38.021M	42.6M	37.961M	49.5M	38.021M	42.72M	38.021M
5670MHz	Pass	Inf	42.3M	37.961M	42.54M	38.021M	60.18M	38.081M	57.18M	38.141M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	36.214M	33.902M	46.676M	33.969M	36.146M	33.936M	36.214M	33.936M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	4.02M	4.108M	3.9M	4.333M	4.02M	4.168M	3.96M	4.243M
5755MHz	Pass	500k	37.68M	38.981M	37.92M	50.675M	37.92M	41.739M	37.92M	46.357M
5795MHz	Pass	500k	37.86M	62.549M	37.62M	66.327M	37.98M	66.927M	37.62M	62.309M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.12M	77.841M	81.36M	77.841M	81.24M	77.841M	81.84M	77.721M
5290MHz	Pass	Inf	82.08M	77.721M	81.84M	77.721M	81.84M	77.721M	81.84M	77.721M
5530MHz	Pass	Inf	84M	77.721M	81.72M	77.721M	84.48M	77.721M	81.6M	77.601M
5610MHz	Pass	Inf	81.36M	77.481M	81.96M	77.601M	81.48M	77.841M	81.84M	77.721M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	77.29M	73.566M	75.741M	73.566M	89.68M	73.639M	86.804M	73.639M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.72M	4.063M	3.33M	4.168M	3.75M	7.256M	3.69M	6.477M
5775MHz	Pass	500k	77.16M	78.321M	76.32M	78.681M	77.64M	78.561M	76.8M	79.16M

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

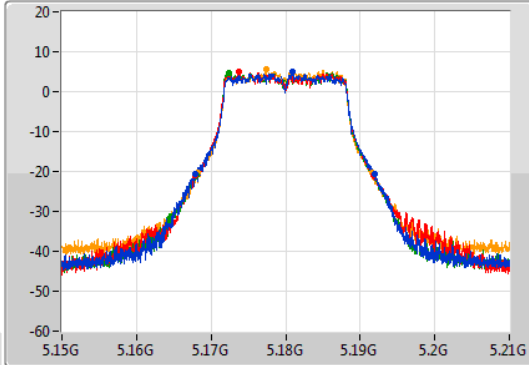
802.11a_Nss1,(6Mbps)_4TX

EBW

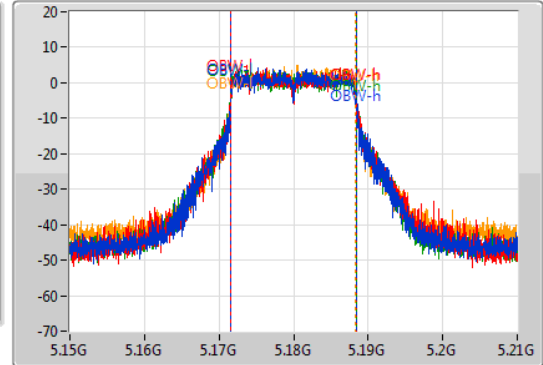
5180MHz

16/07/2021

CF
5.18GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.18GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Sample



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
24.09M	5.16782G	5.19191G	16.792M	5.171604G	5.188396G	Inf	1
24.03M	5.16782G	5.19185G	16.852M	5.171514G	5.188366G	Inf	2
23.67M	5.16809G	5.19176G	16.912M	5.171484G	5.188396G	Inf	3
23.37M	5.16818G	5.19155G	16.762M	5.171574G	5.188336G	Inf	4

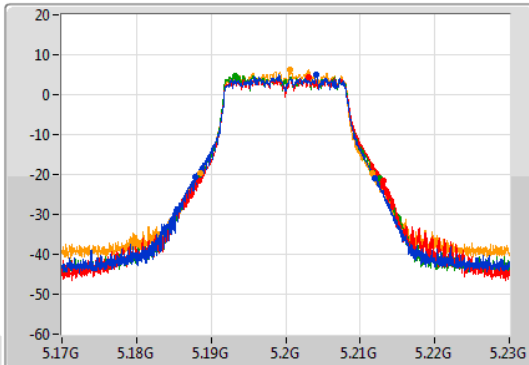
802.11a_Nss1,(6Mbps)_4TX

EBW

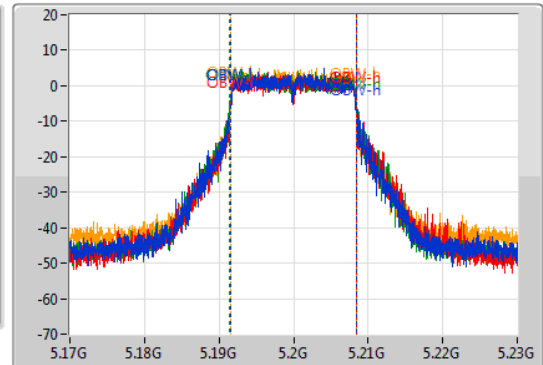
5200MHz

16/07/2021

CF
5.2GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak

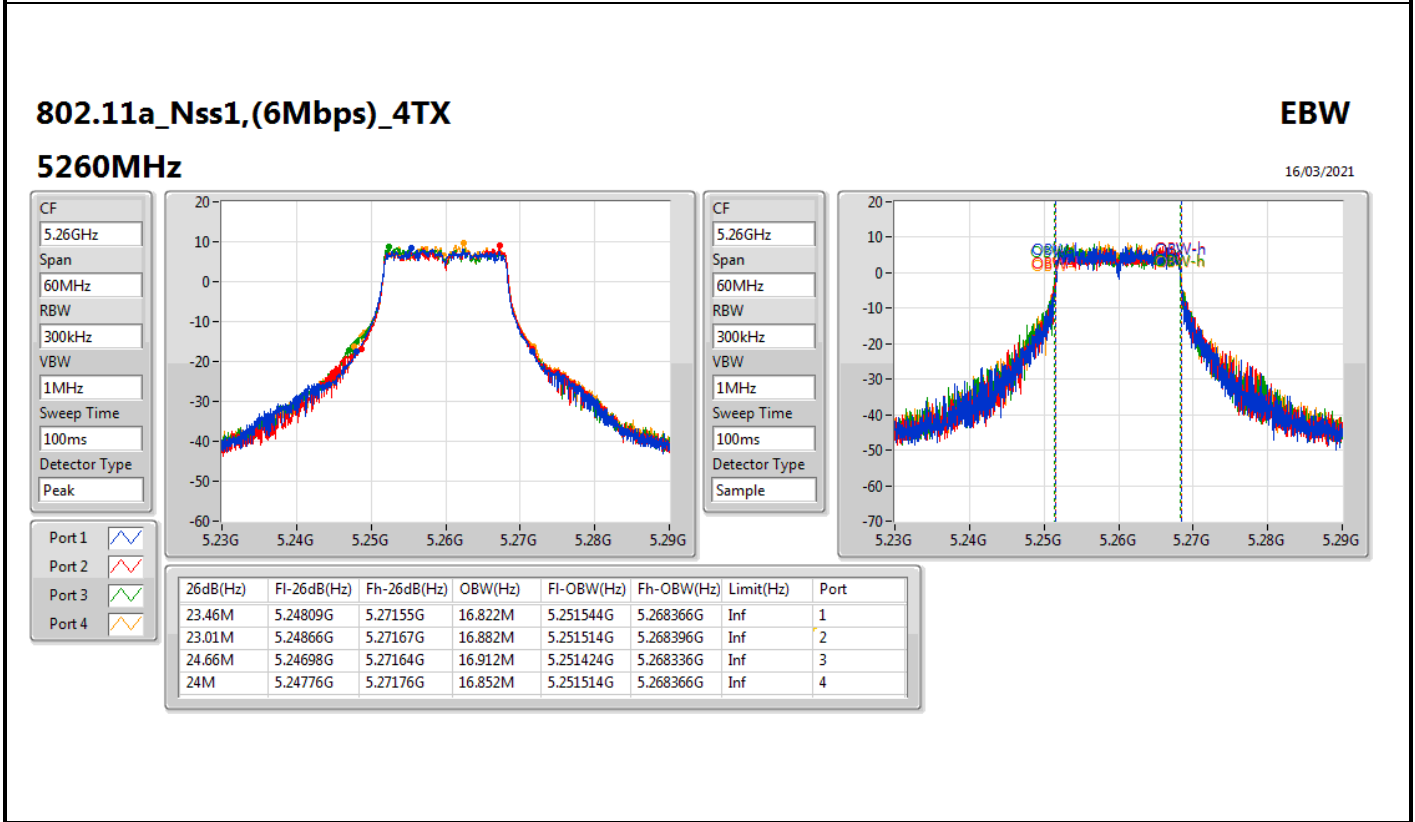
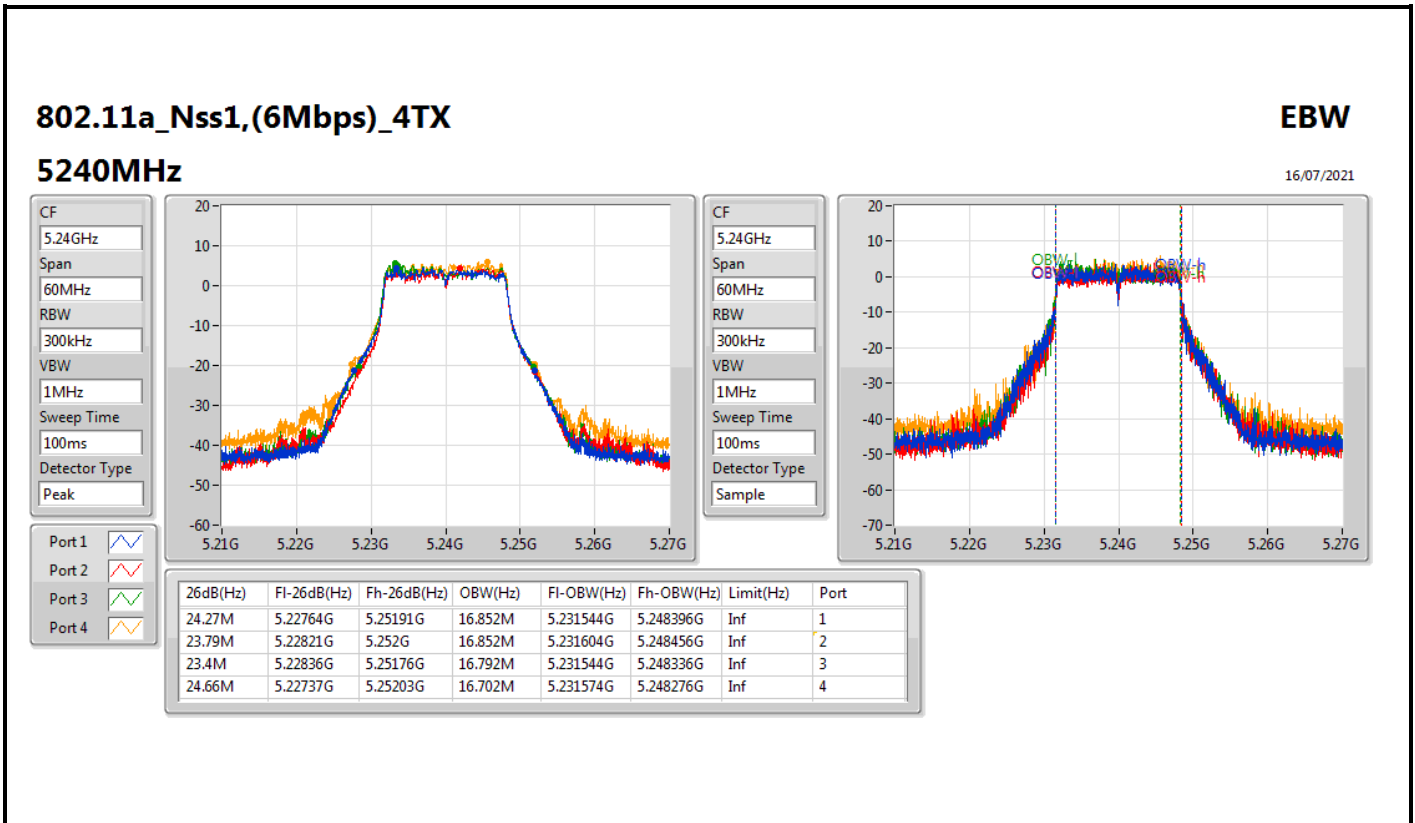


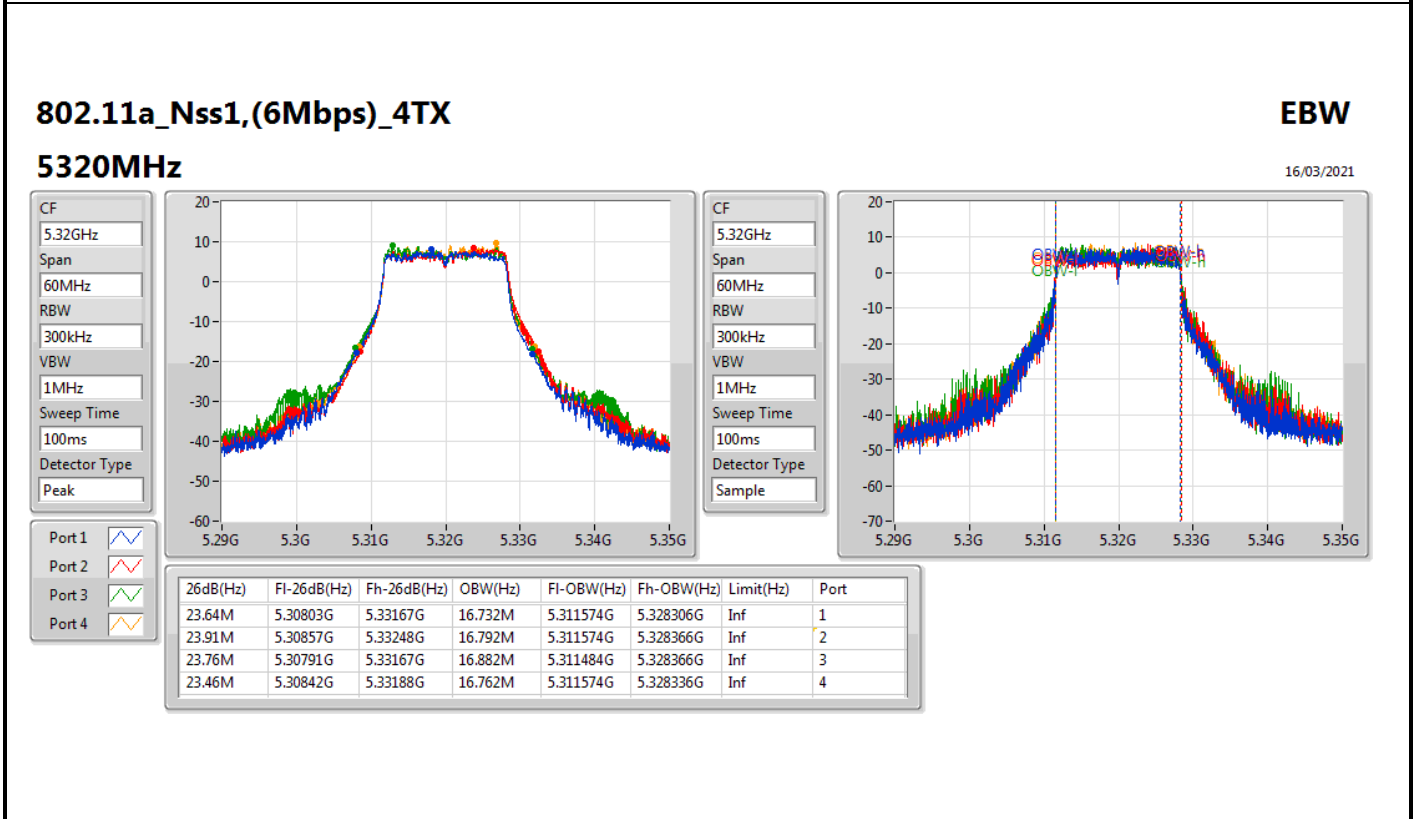
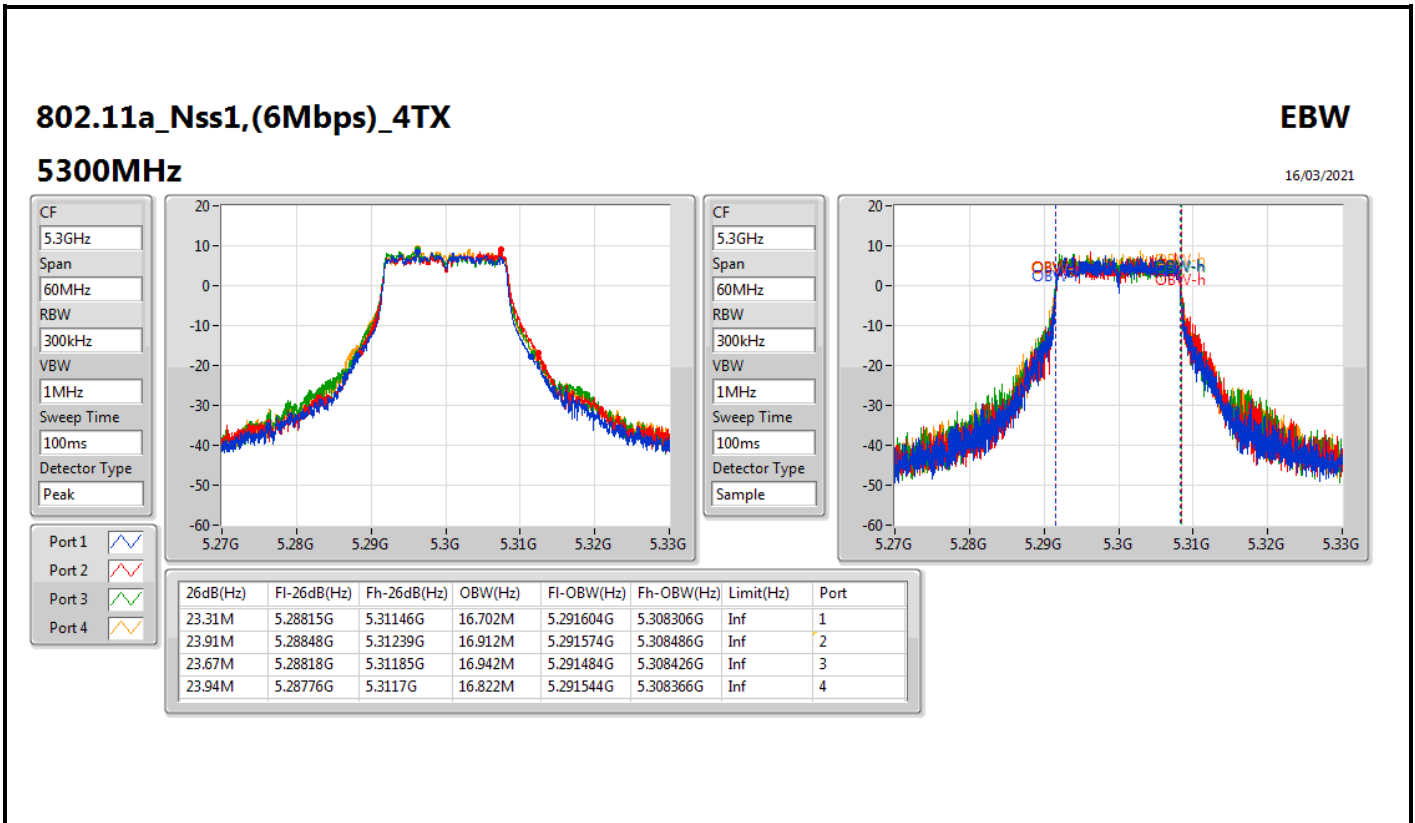
CF
5.2GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Sample

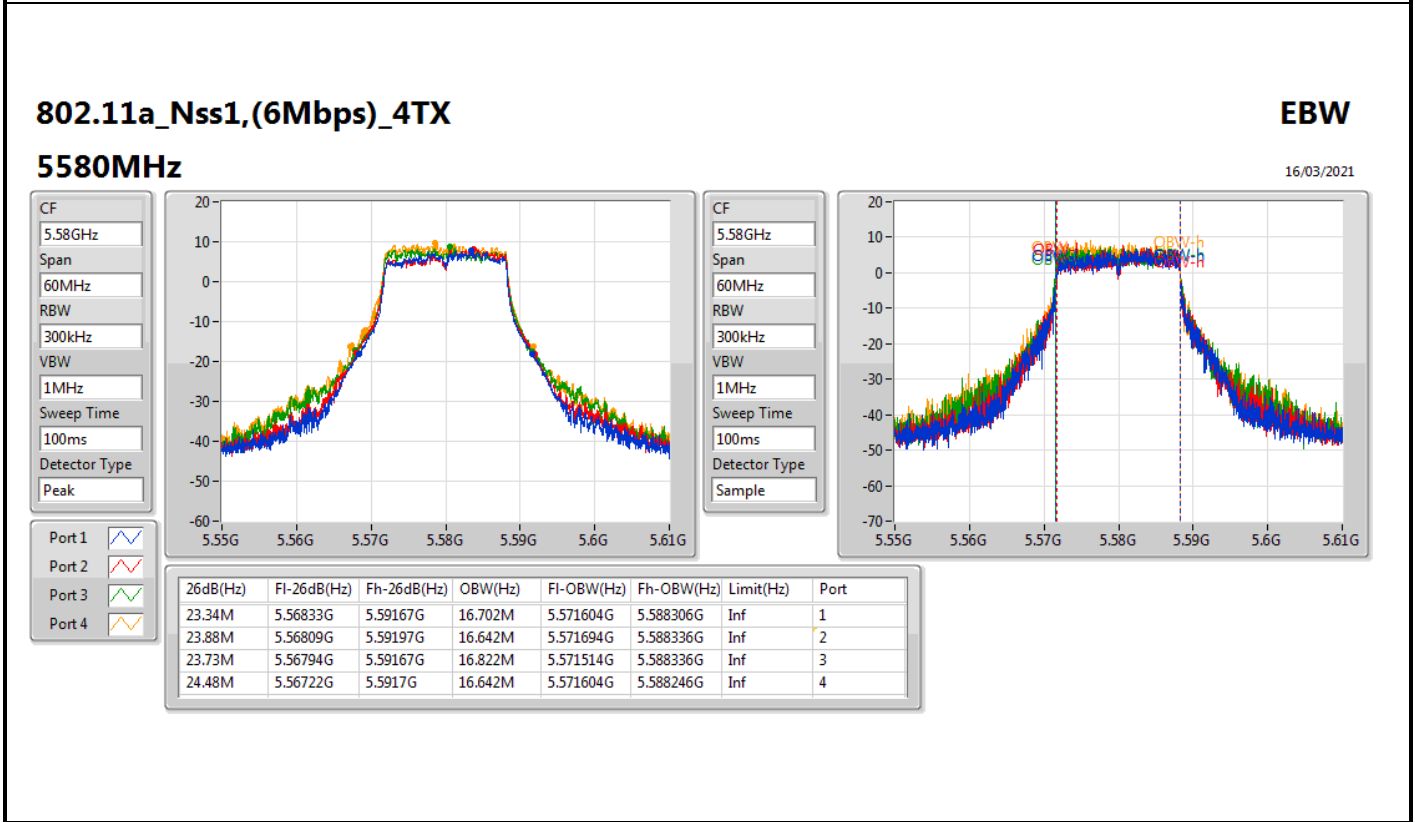
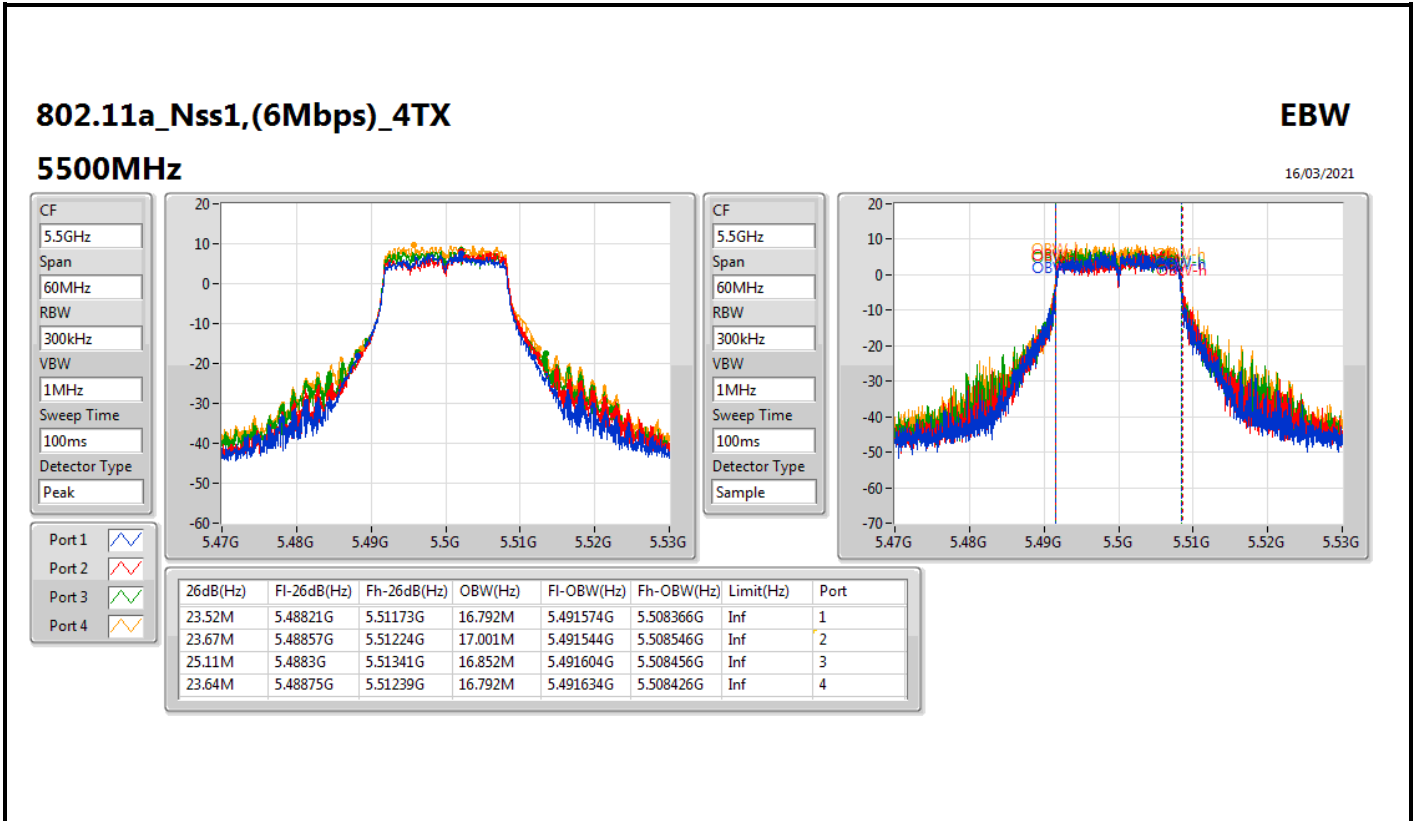


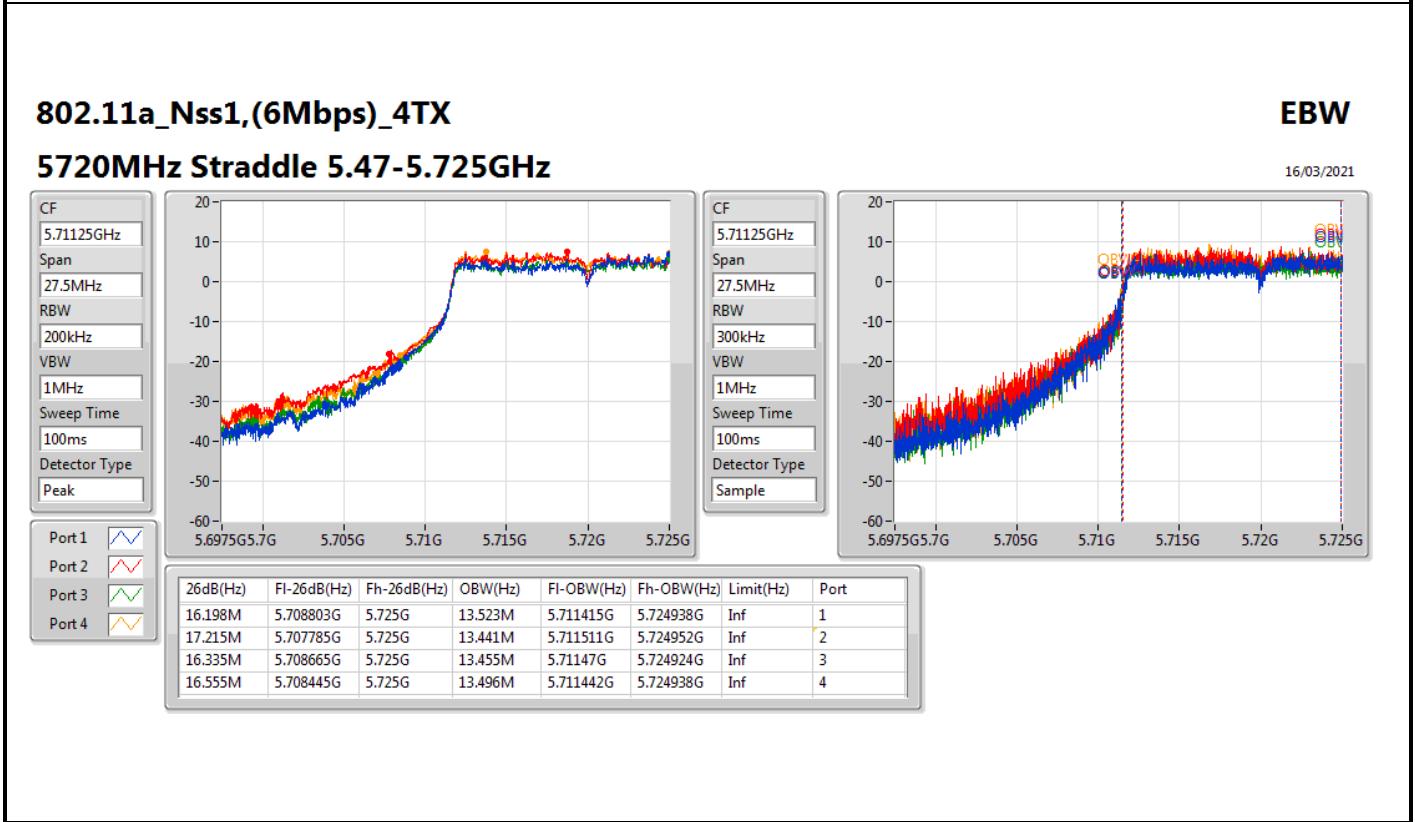
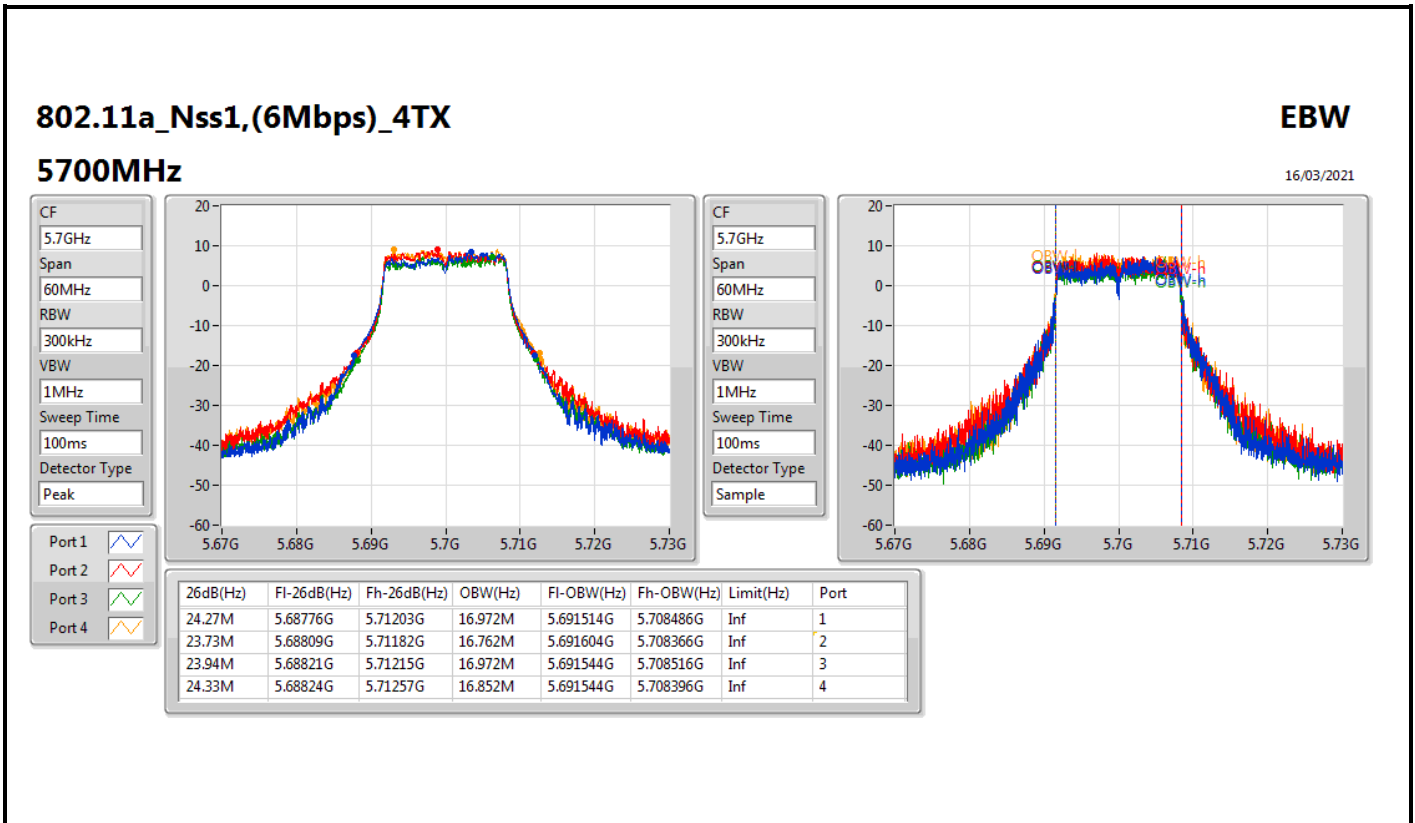
Port 1
Port 2
Port 3
Port 4

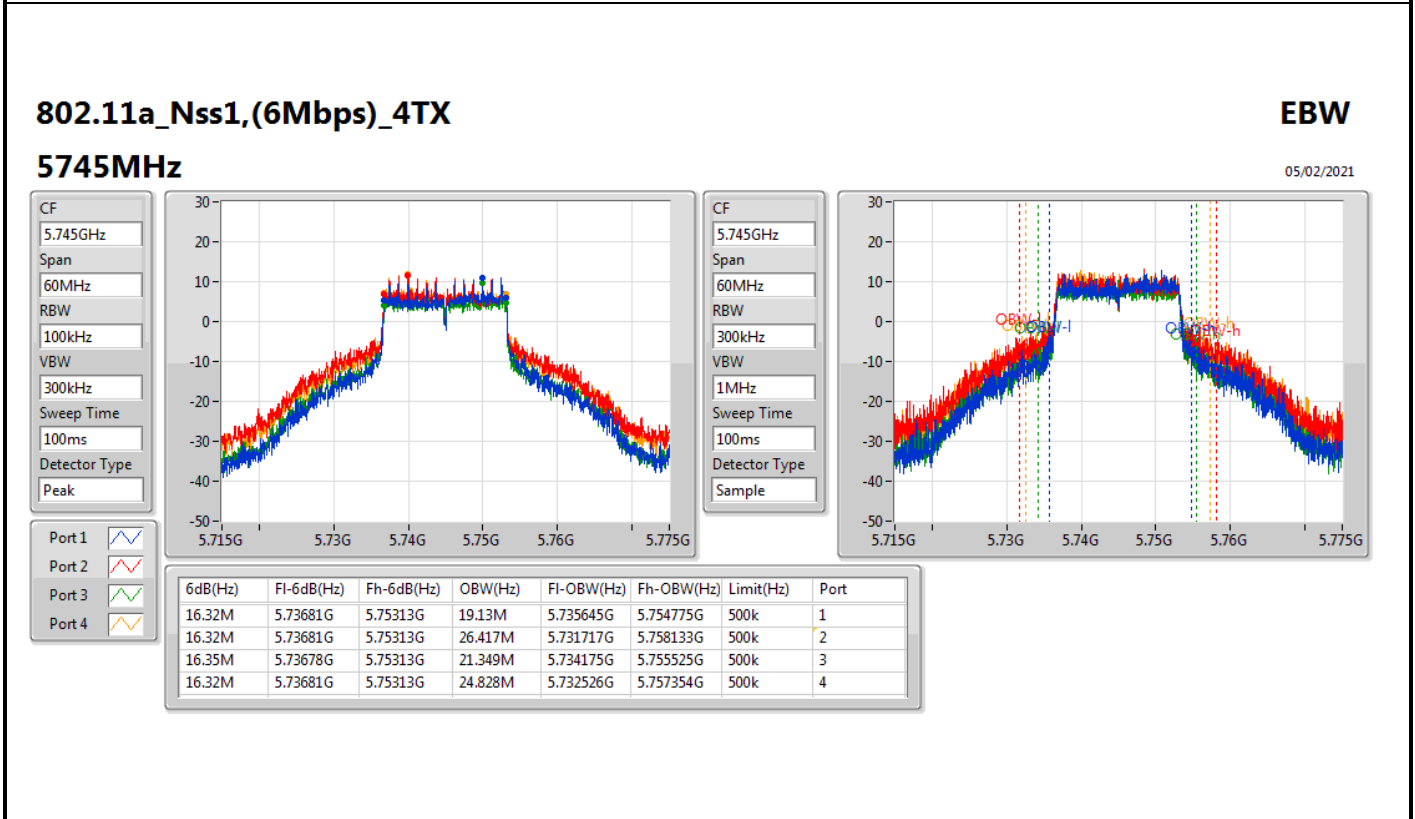
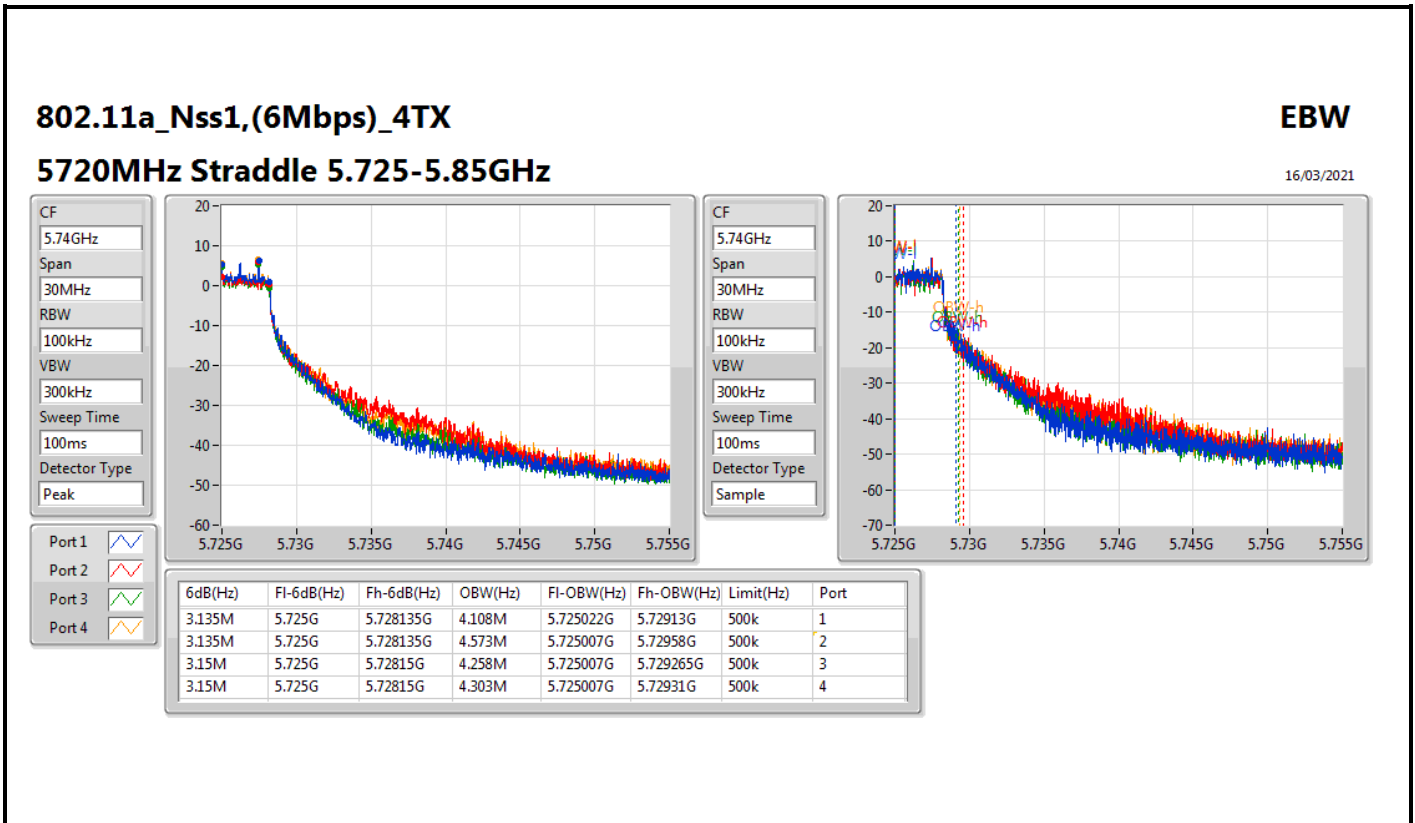
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
24.09M	5.18794G	5.21203G	16.822M	5.191574G	5.208396G	Inf	1
24.69M	5.18836G	5.21305G	16.822M	5.191544G	5.208366G	Inf	2
24.45M	5.18821G	5.21266G	16.942M	5.191454G	5.208396G	Inf	3
23.01M	5.18863G	5.21164G	16.852M	5.191514G	5.208366G	Inf	4

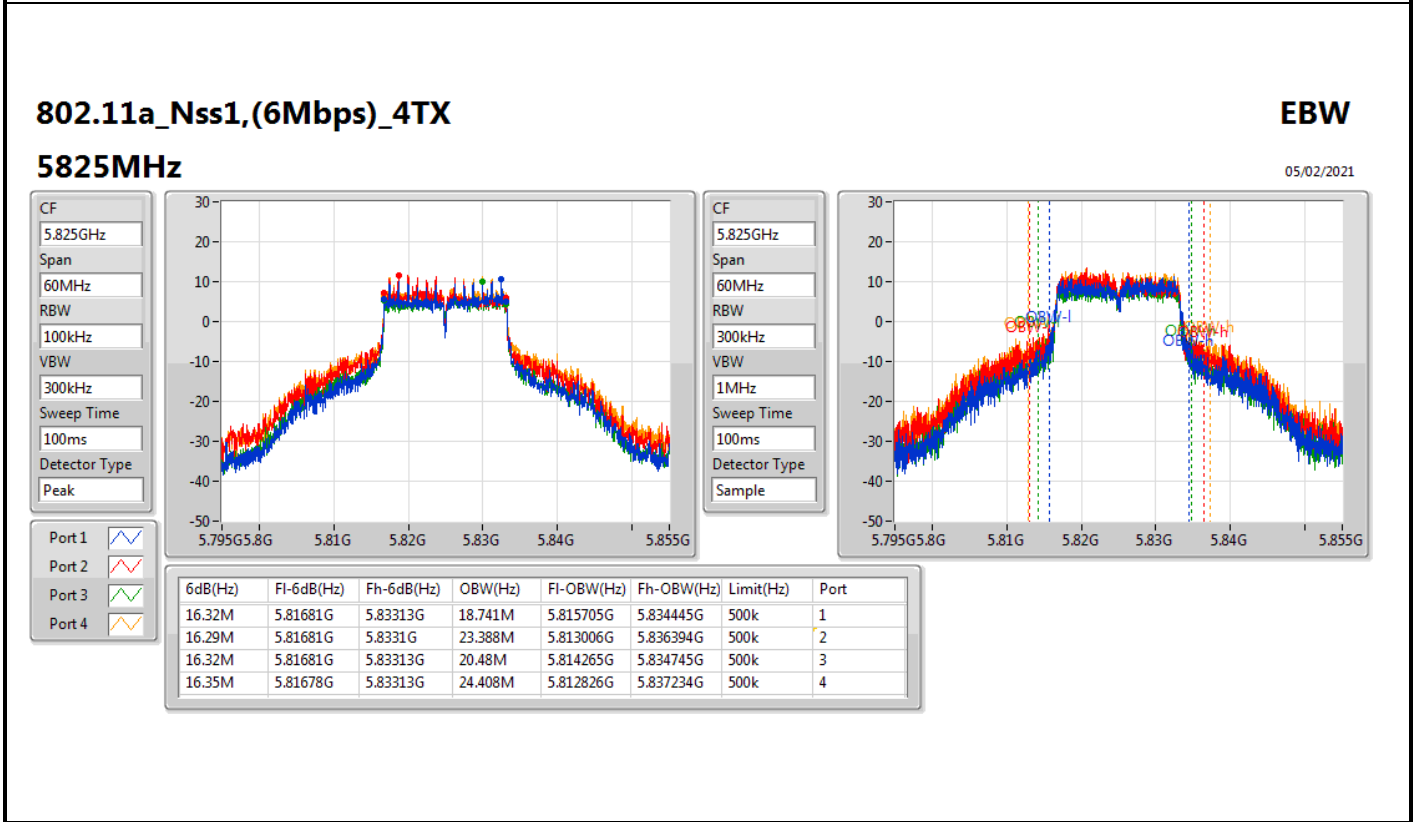
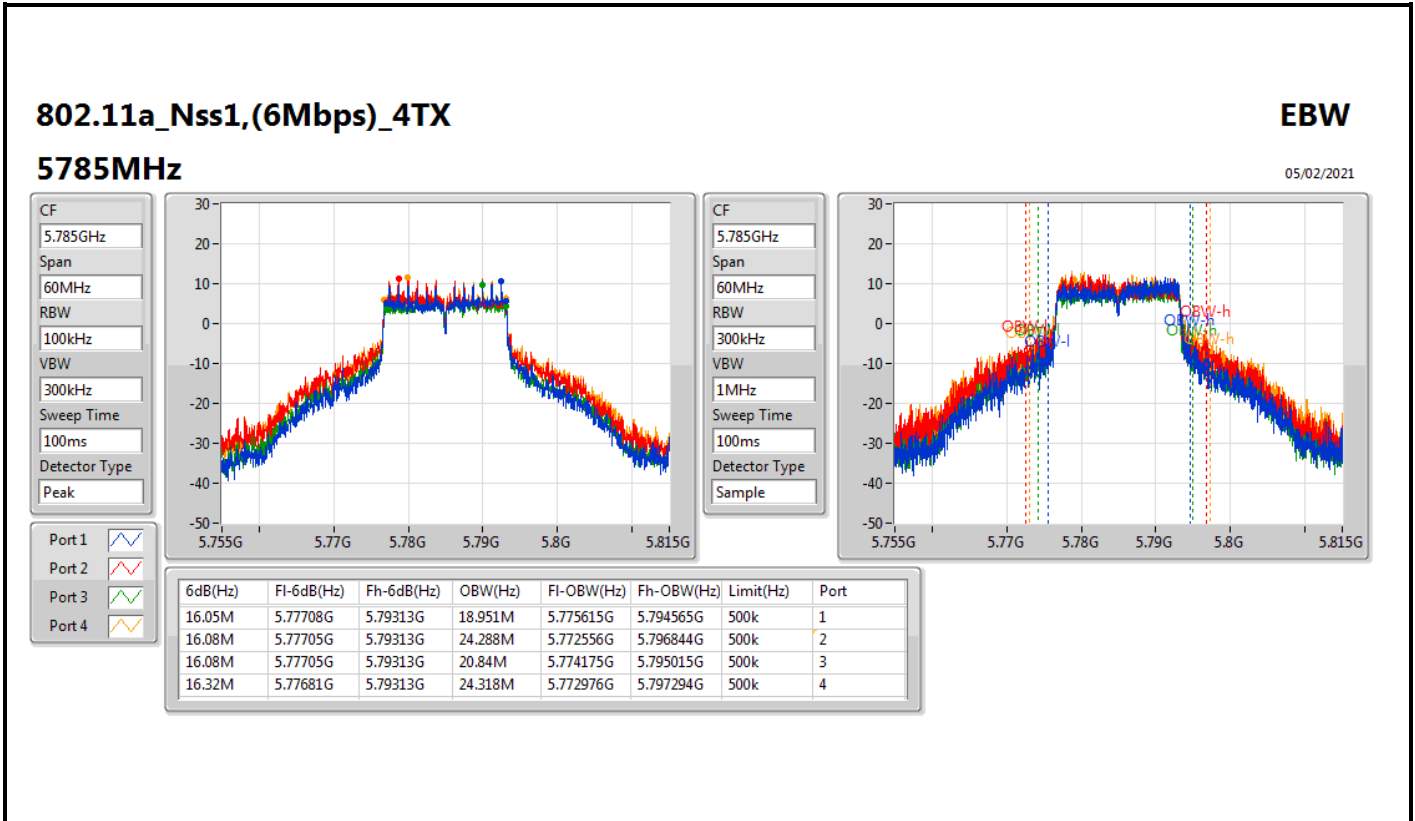












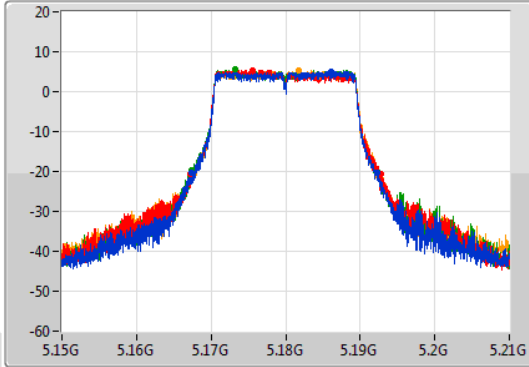
802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

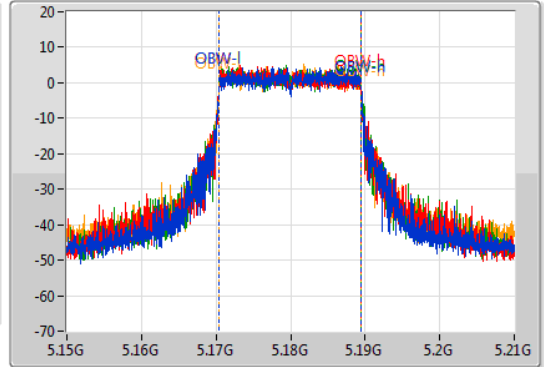
5180MHz

16/07/2021

CF
5.18GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.18GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Sample



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
24.9M	5.16734G	5.19224G	19.04M	5.170435G	5.189475G	Inf	1
25.53M	5.16722G	5.19275G	19.07M	5.170405G	5.189475G	Inf	2
25.08M	5.16737G	5.19245G	19.04M	5.170435G	5.189475G	Inf	3
25.32M	5.16743G	5.19275G	19.07M	5.170405G	5.189475G	Inf	4

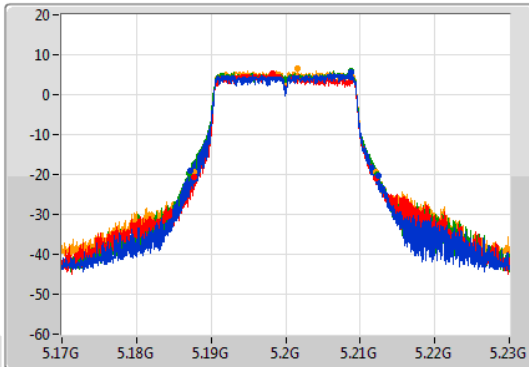
802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

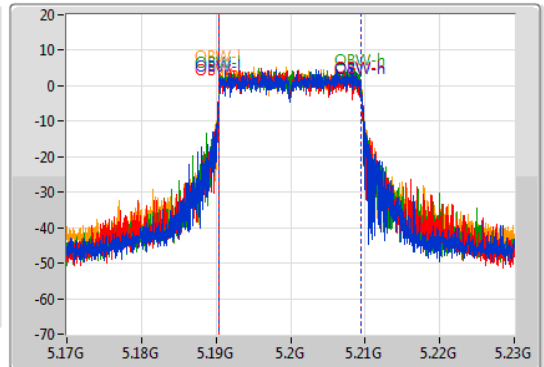
5200MHz

16/07/2021

CF
5.2GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak

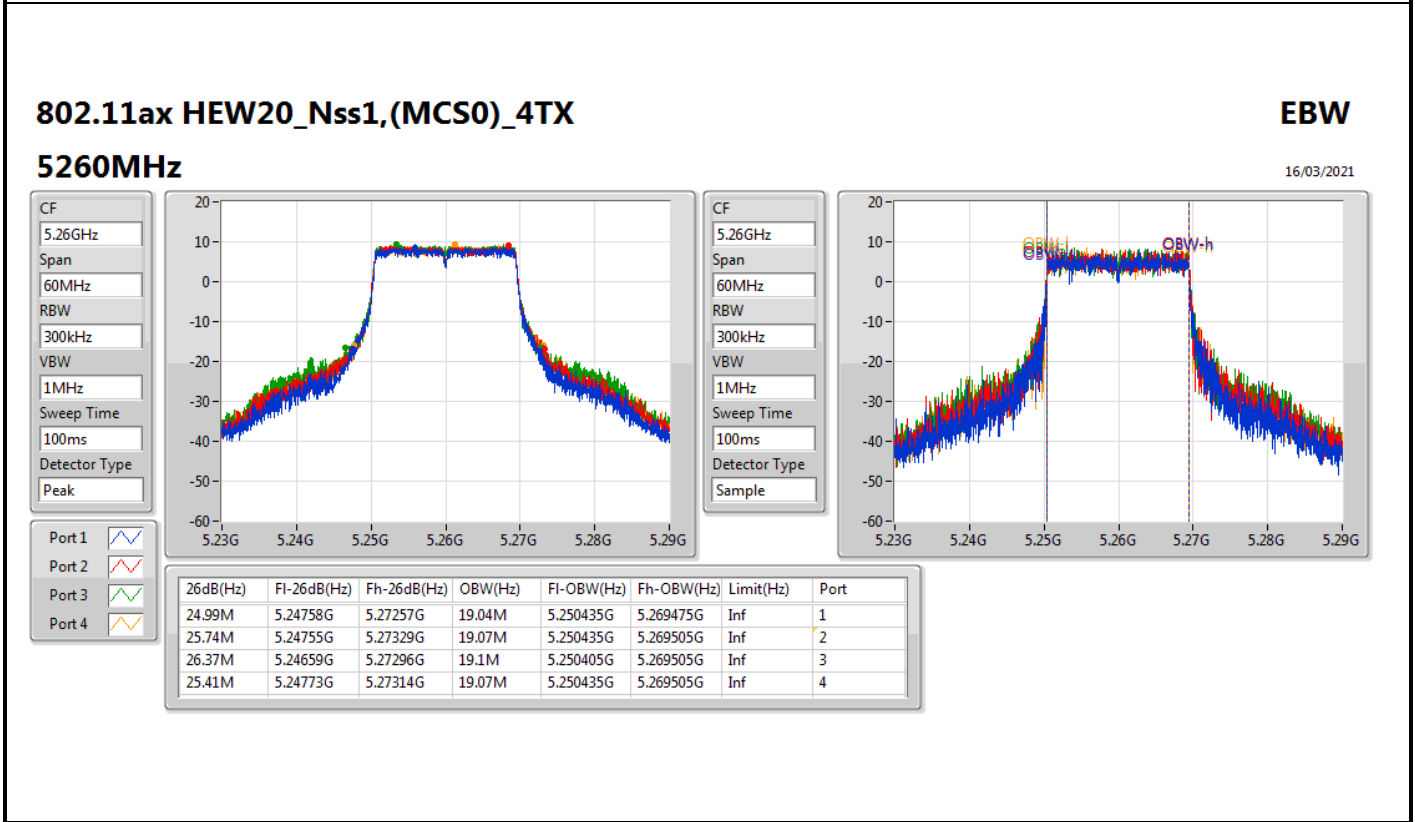
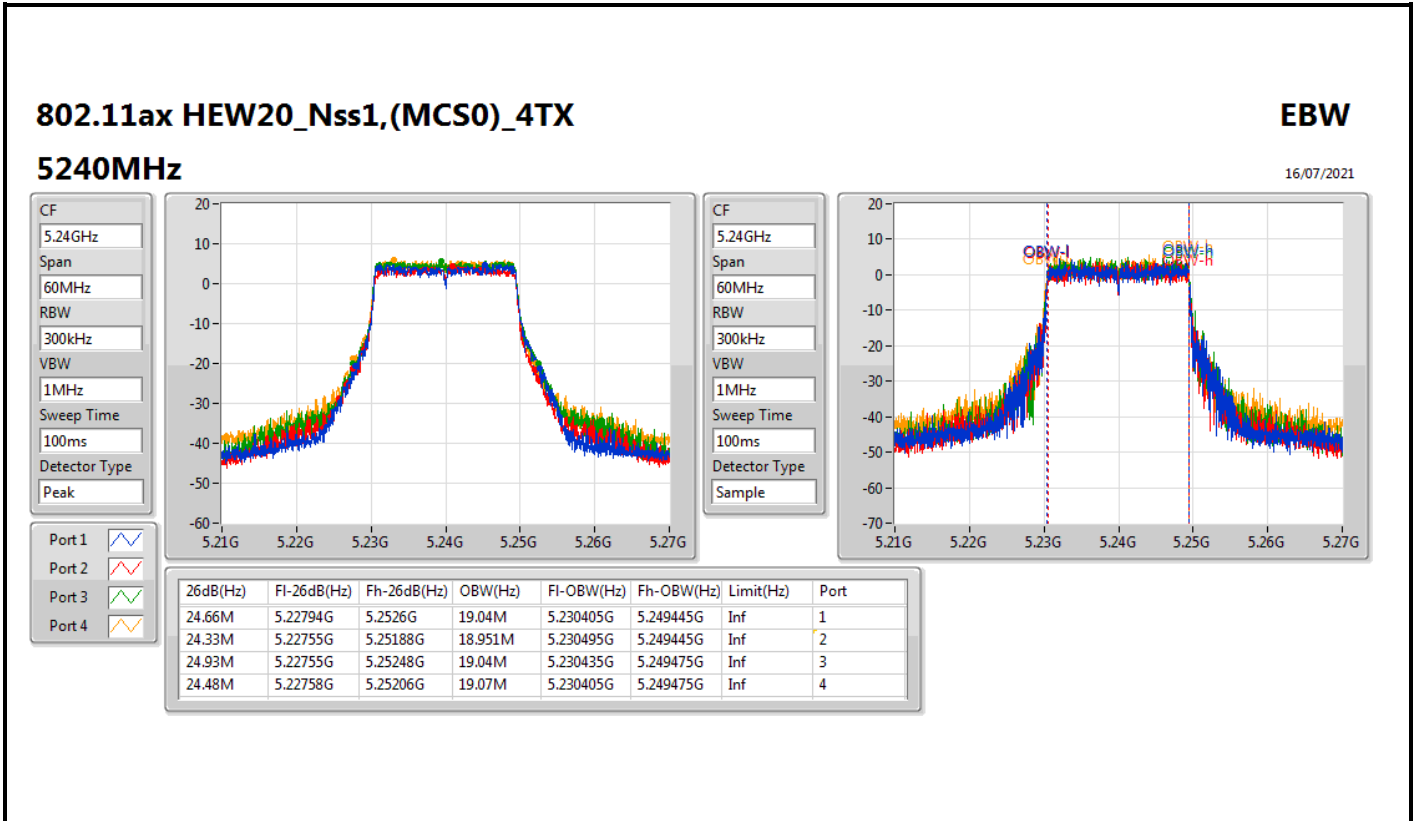


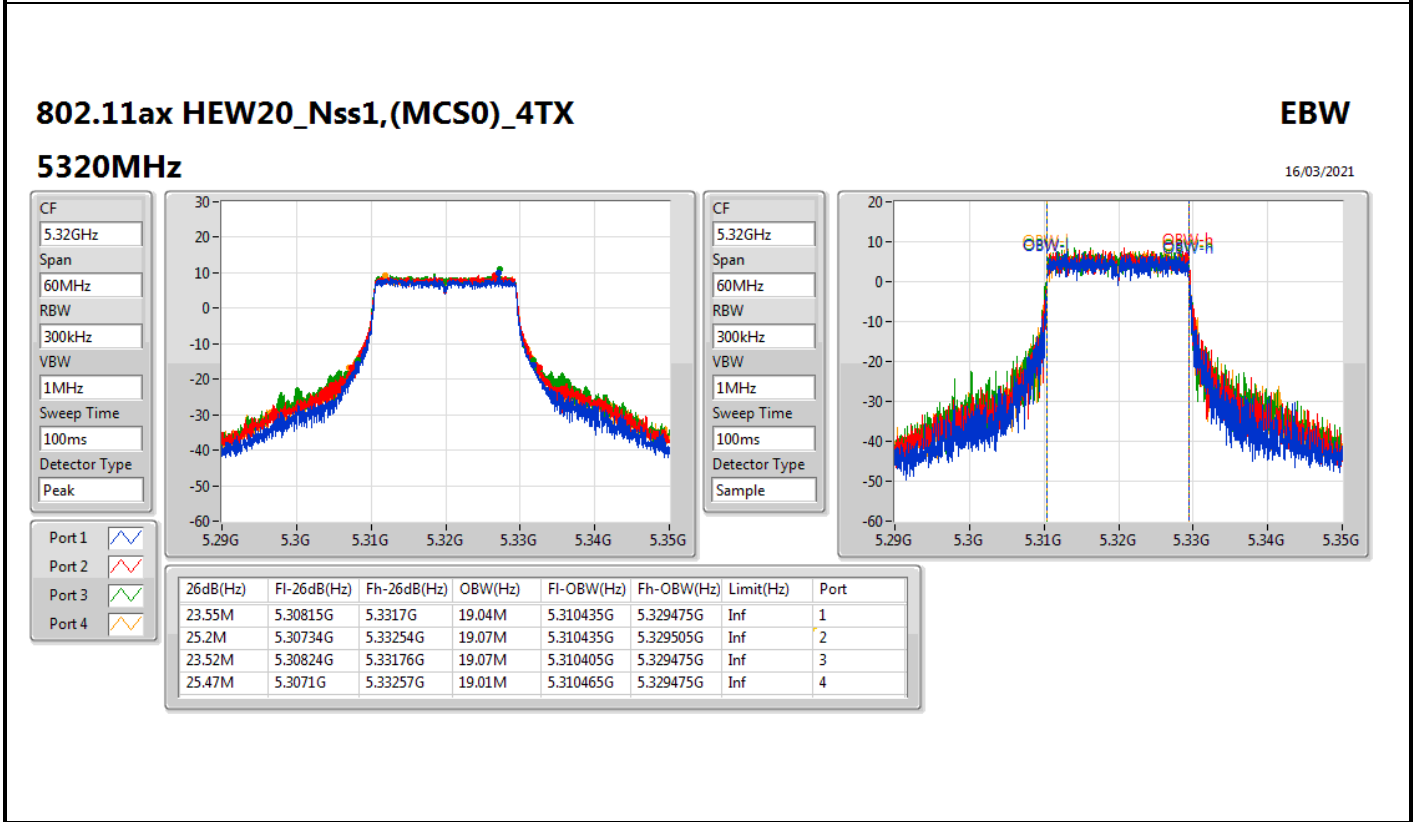
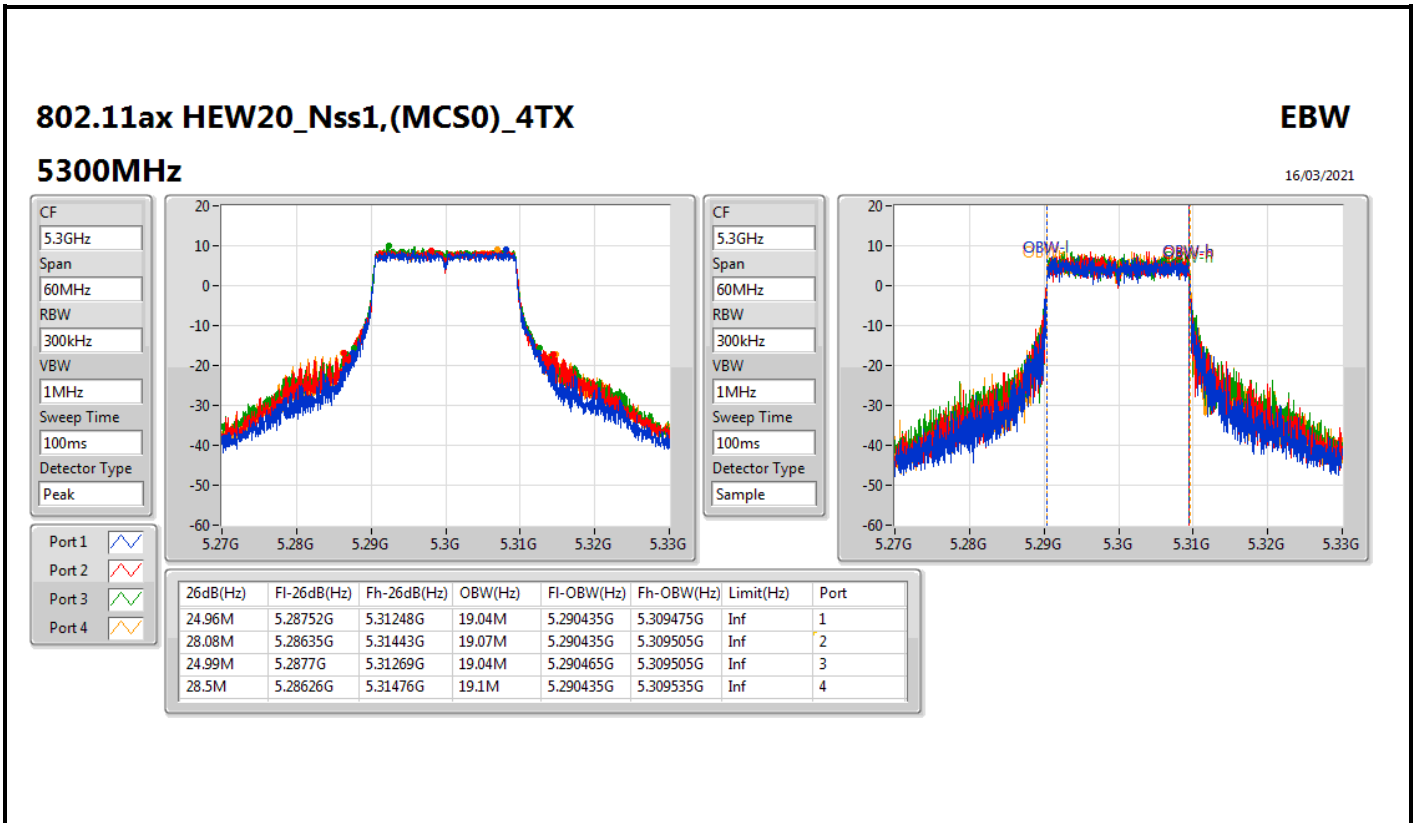
CF
5.2GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Sample

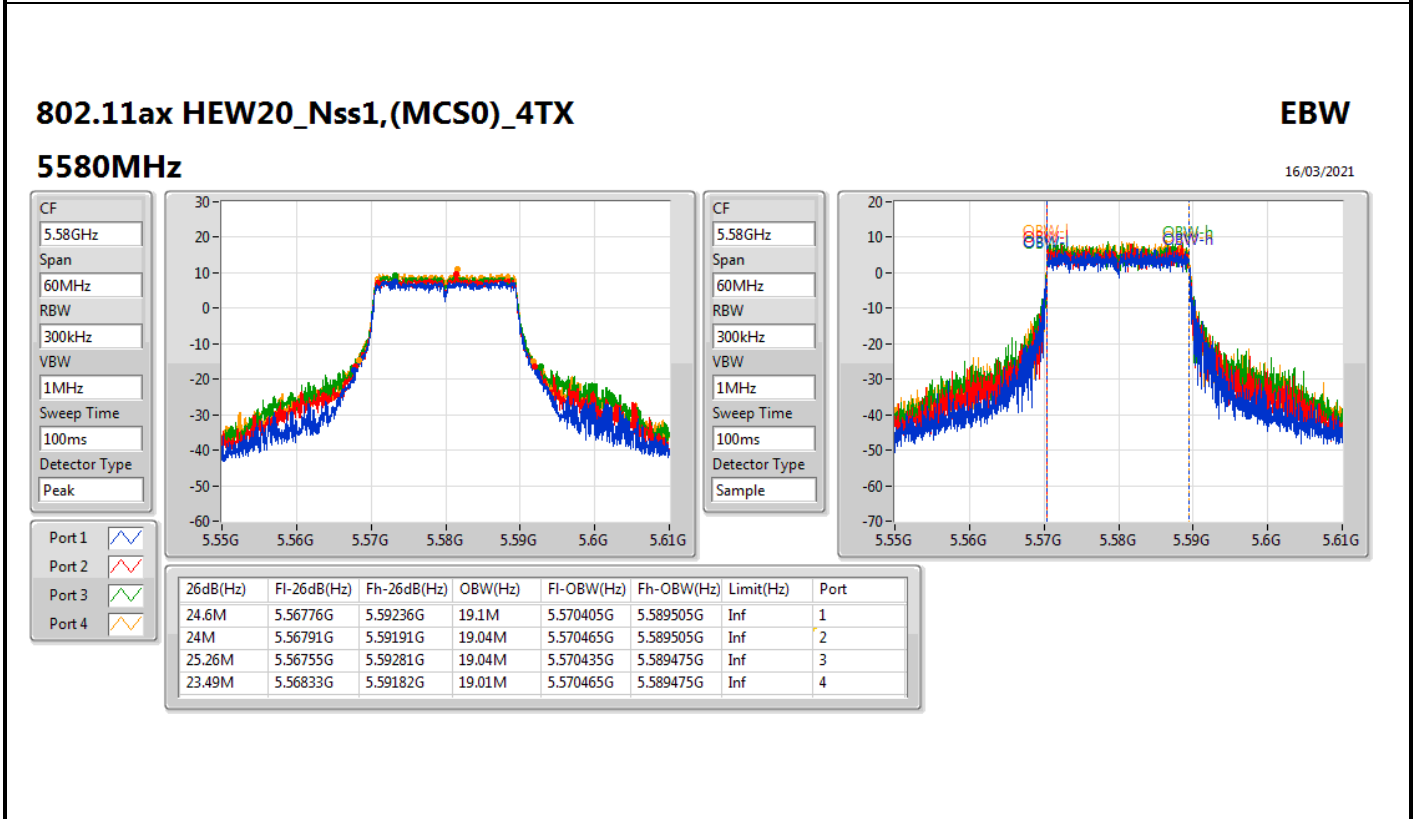
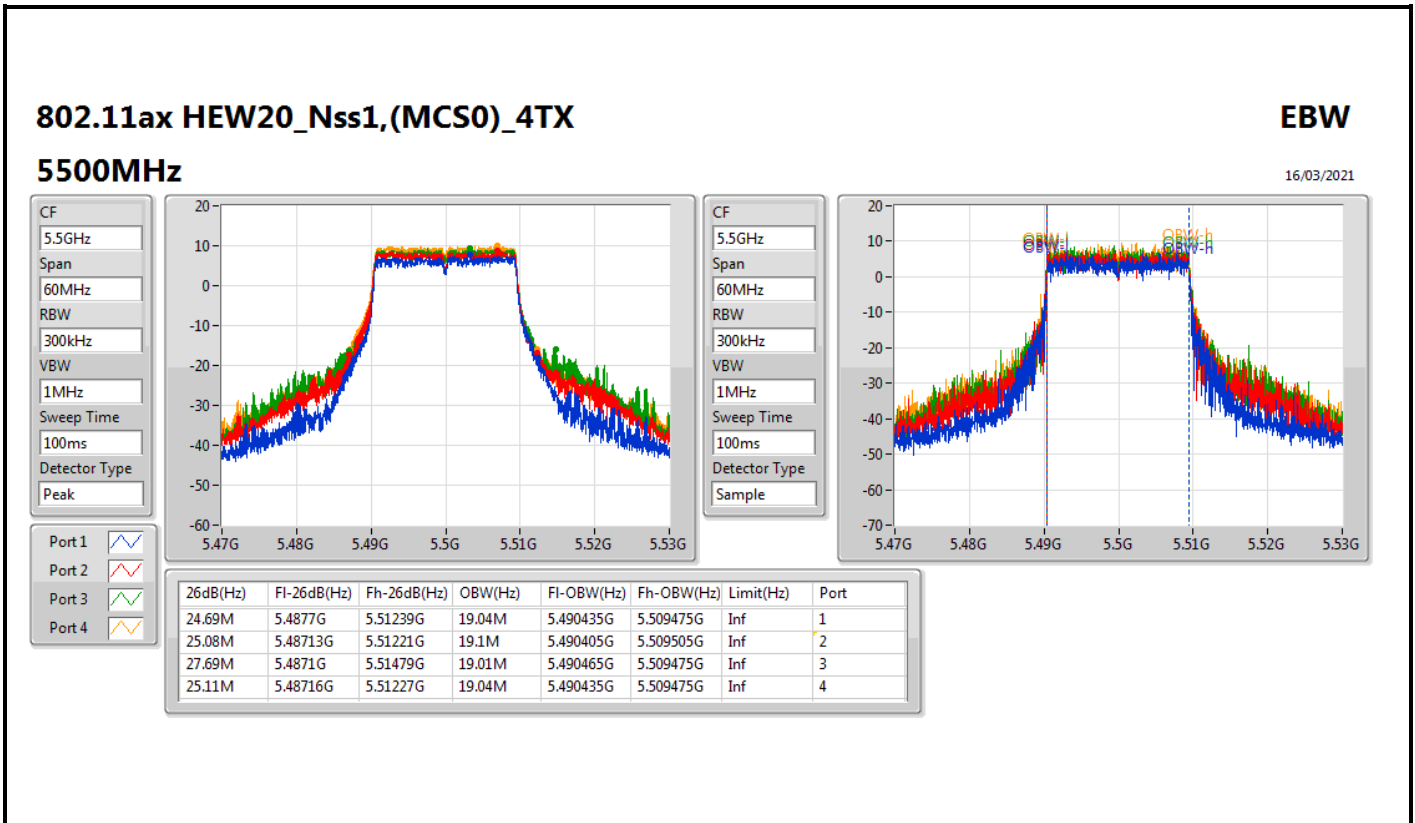


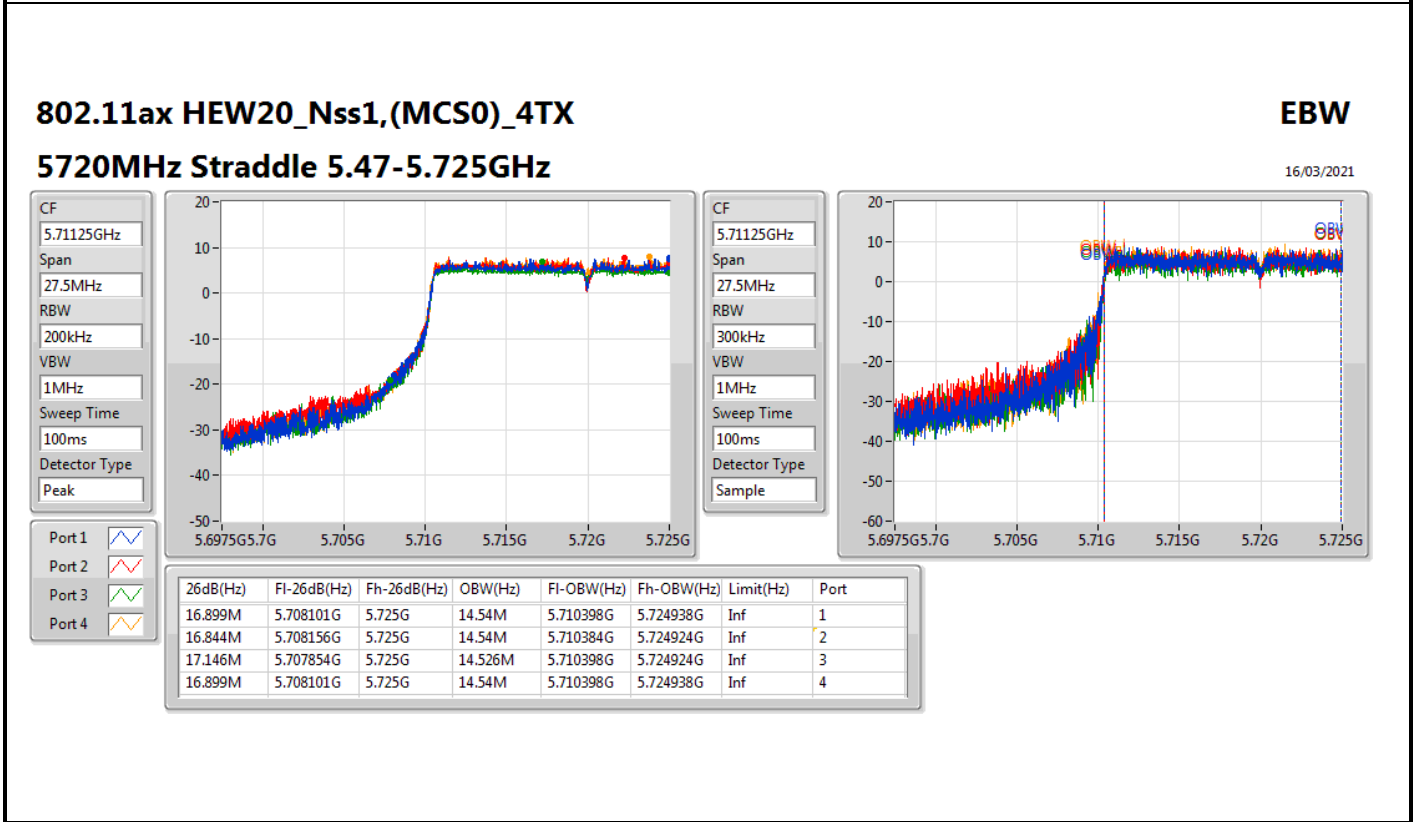
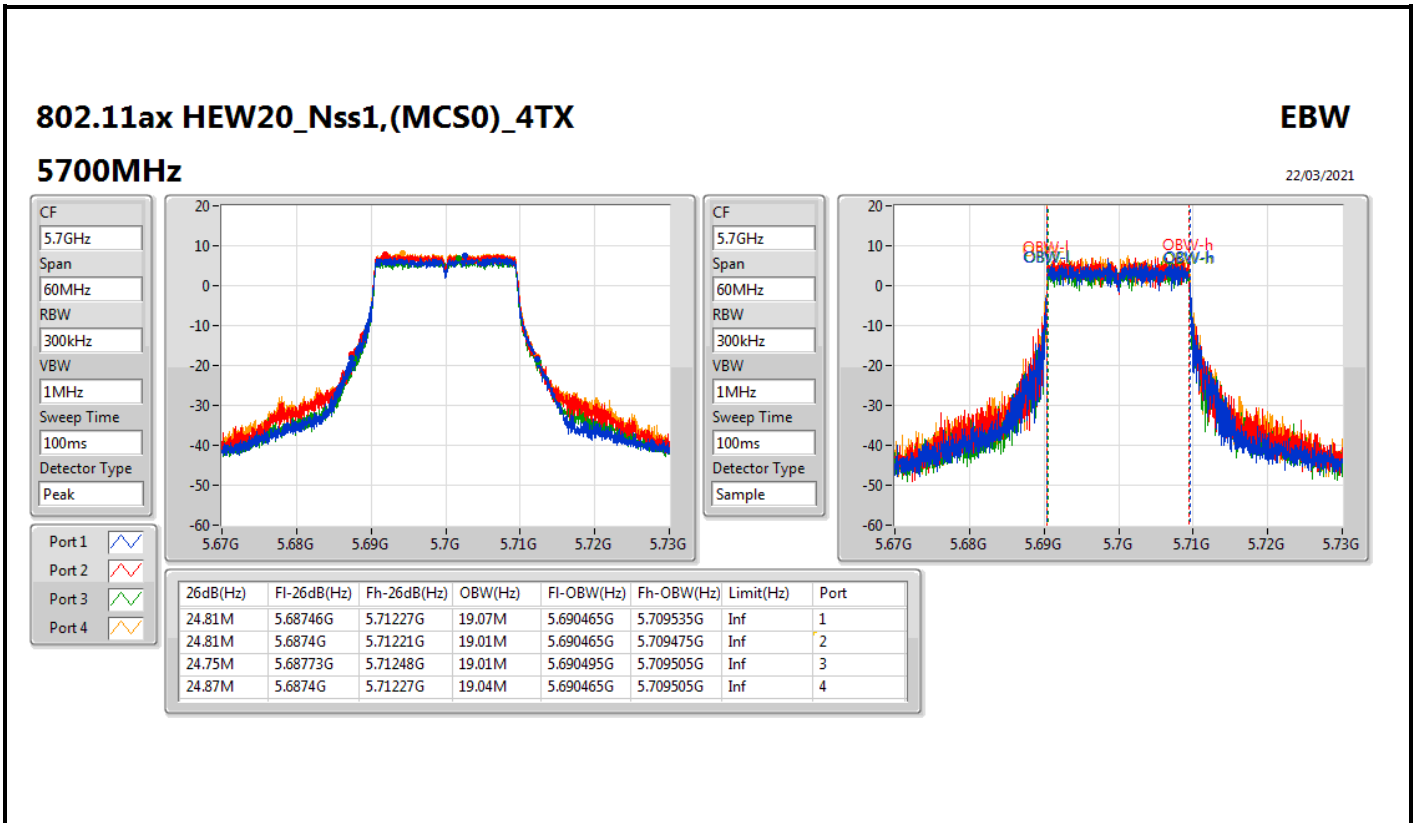
Port 1
Port 2
Port 3
Port 4

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
25.26M	5.18716G	5.21242G	19.04M	5.190435G	5.209475G	Inf	1
24.45M	5.18773G	5.21218G	19.01M	5.190465G	5.209475G	Inf	2
25.38M	5.18698G	5.21236G	19.04M	5.190435G	5.209475G	Inf	3
24.54M	5.18764G	5.21218G	19.04M	5.190435G	5.209475G	Inf	4







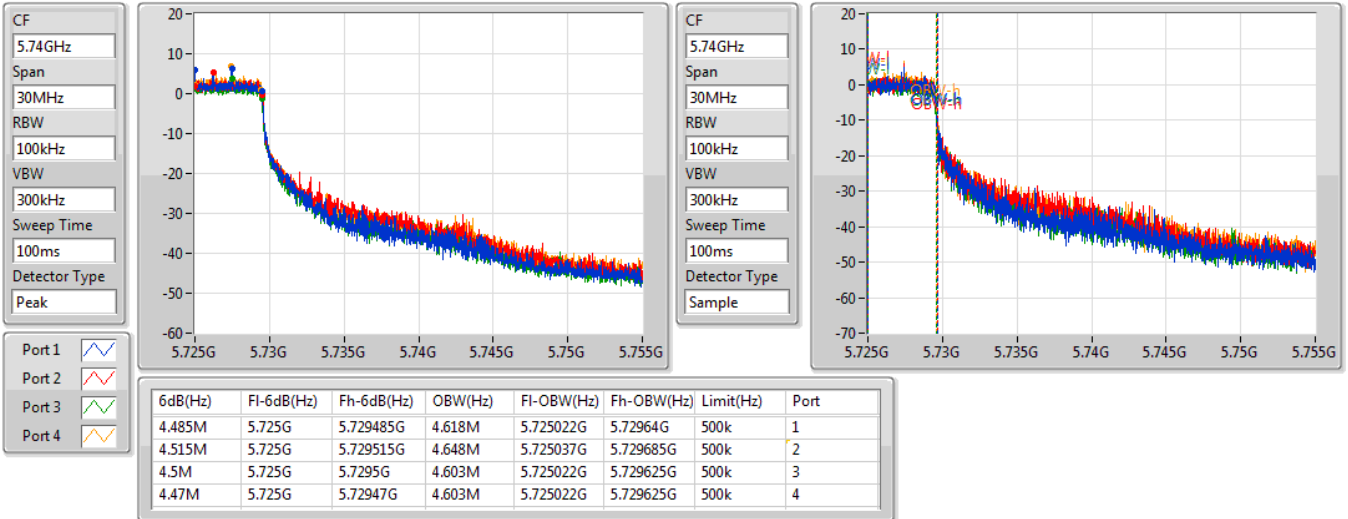


802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5720MHz Straddle 5.725-5.85GHz

16/03/2021

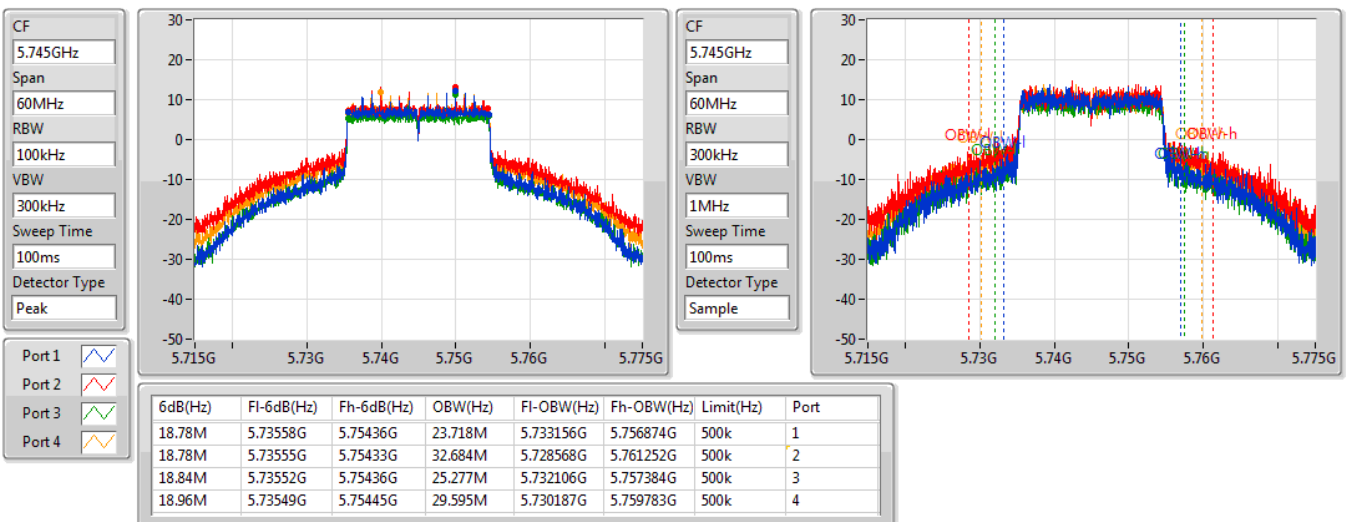


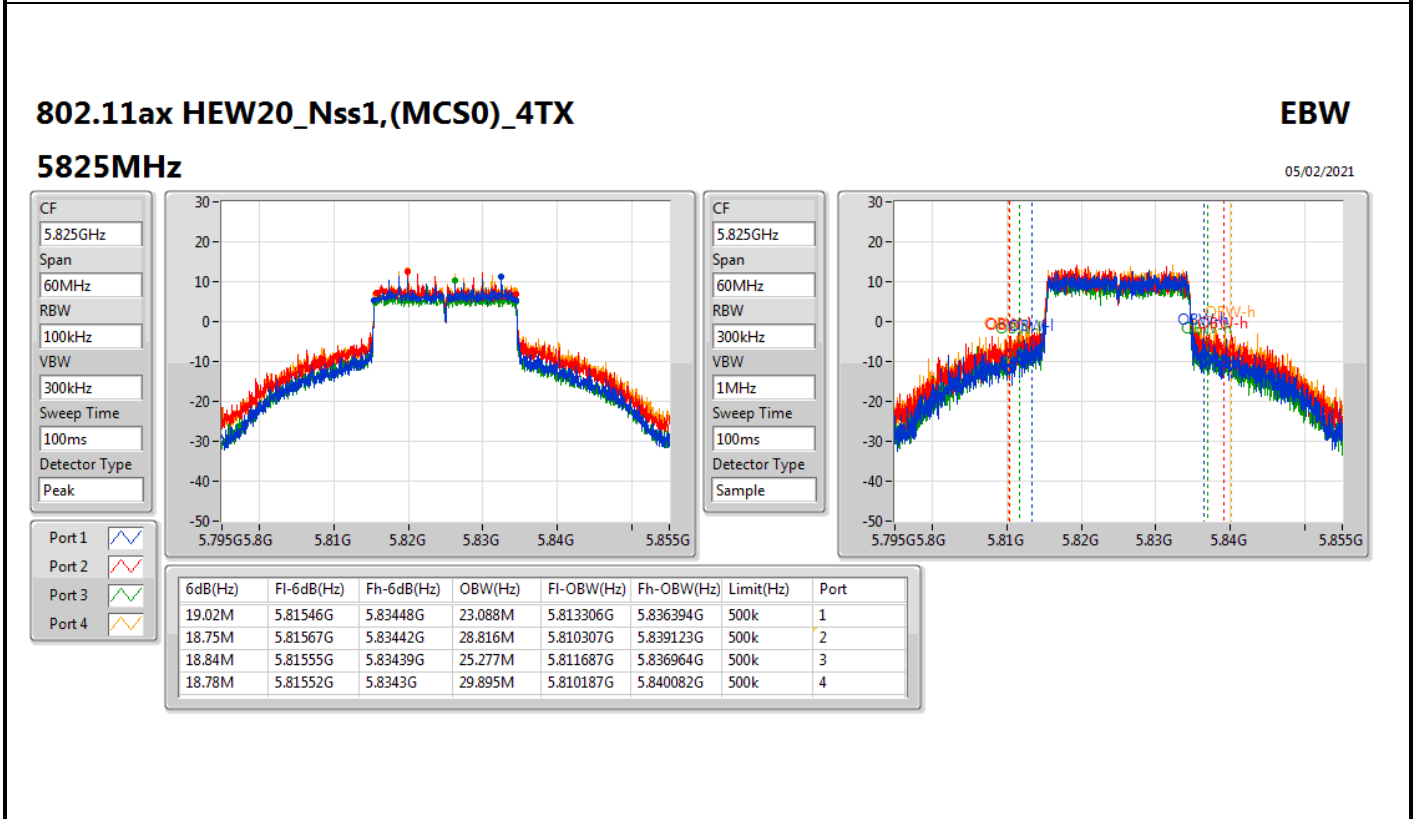
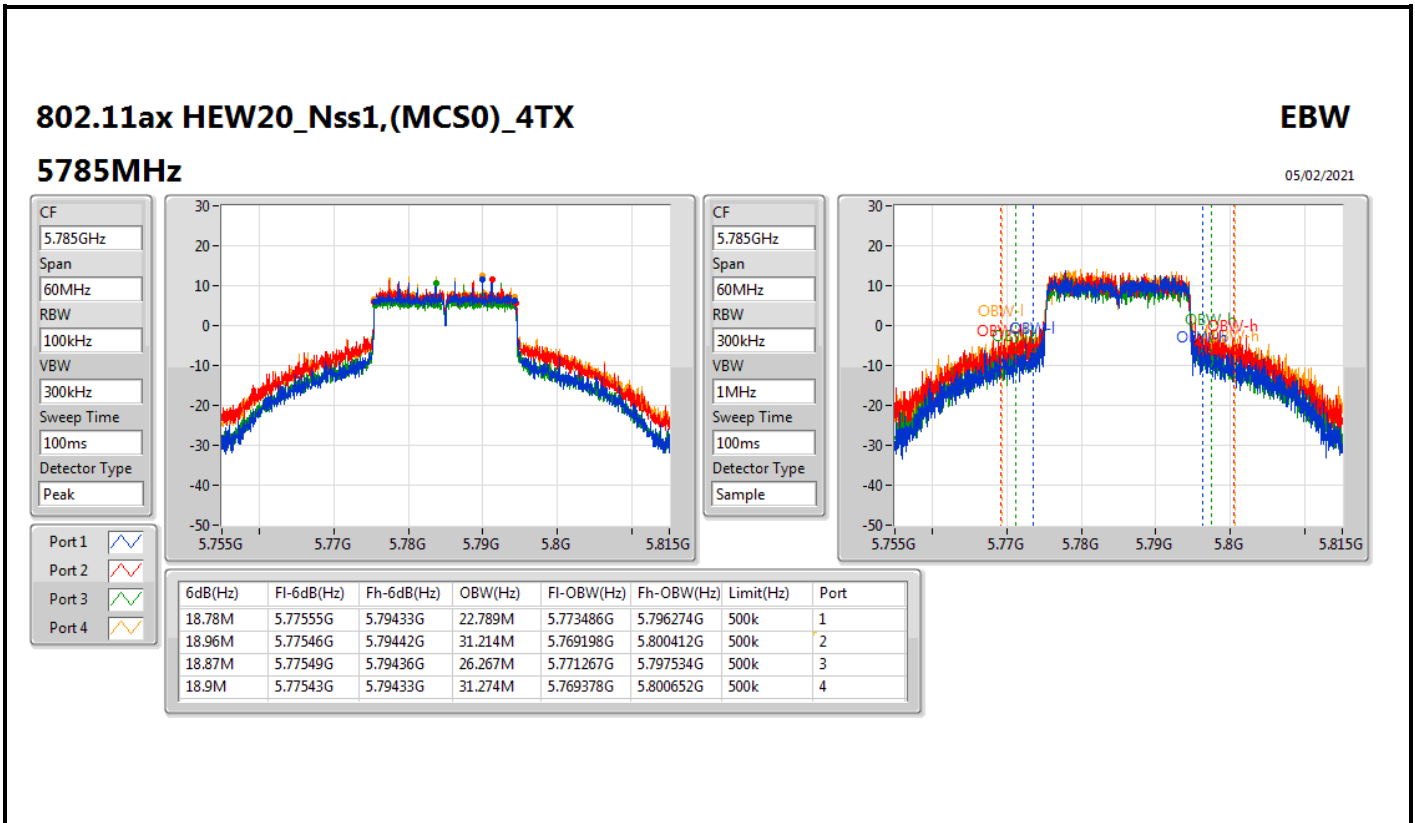
802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5745MHz

05/02/2021





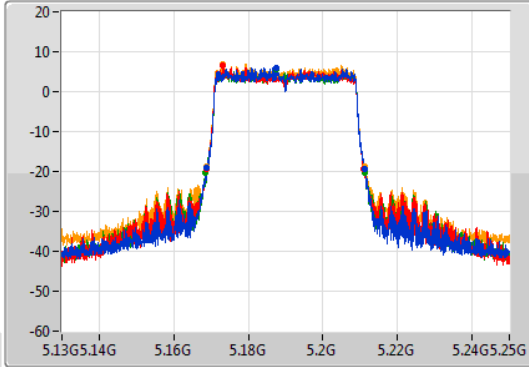
802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

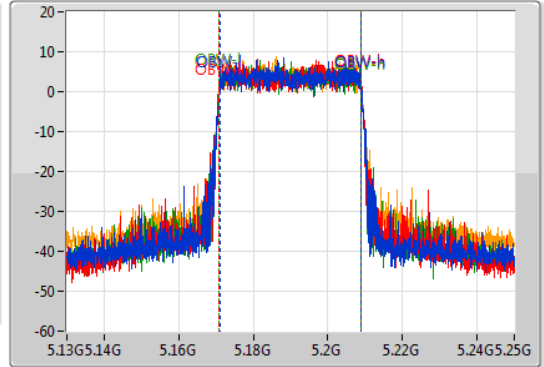
5190MHz

16/07/2021

CF
5.19GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.19GHz
Span
120MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Sample



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
42.3M	5.16894G	5.21124G	37.901M	5.17099G	5.208891G	Inf	1
42.18M	5.16882G	5.211G	38.081M	5.17087G	5.208951G	Inf	2
42.78M	5.16858G	5.21136G	38.021M	5.17093G	5.208951G	Inf	3
42.24M	5.16888G	5.21112G	38.021M	5.17093G	5.208951G	Inf	4

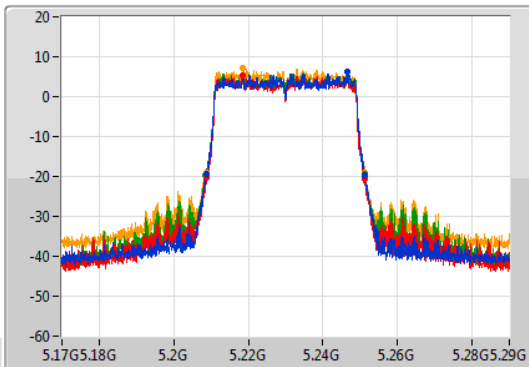
802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

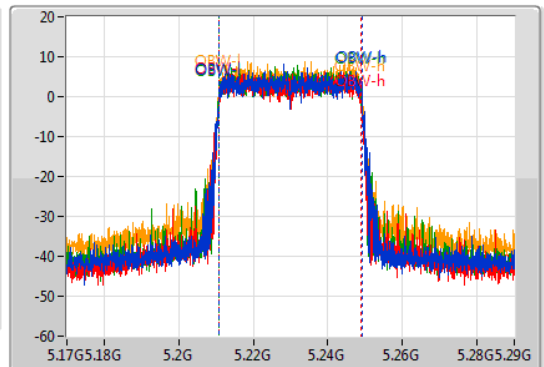
5230MHz

16/07/2021

CF
5.23GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak

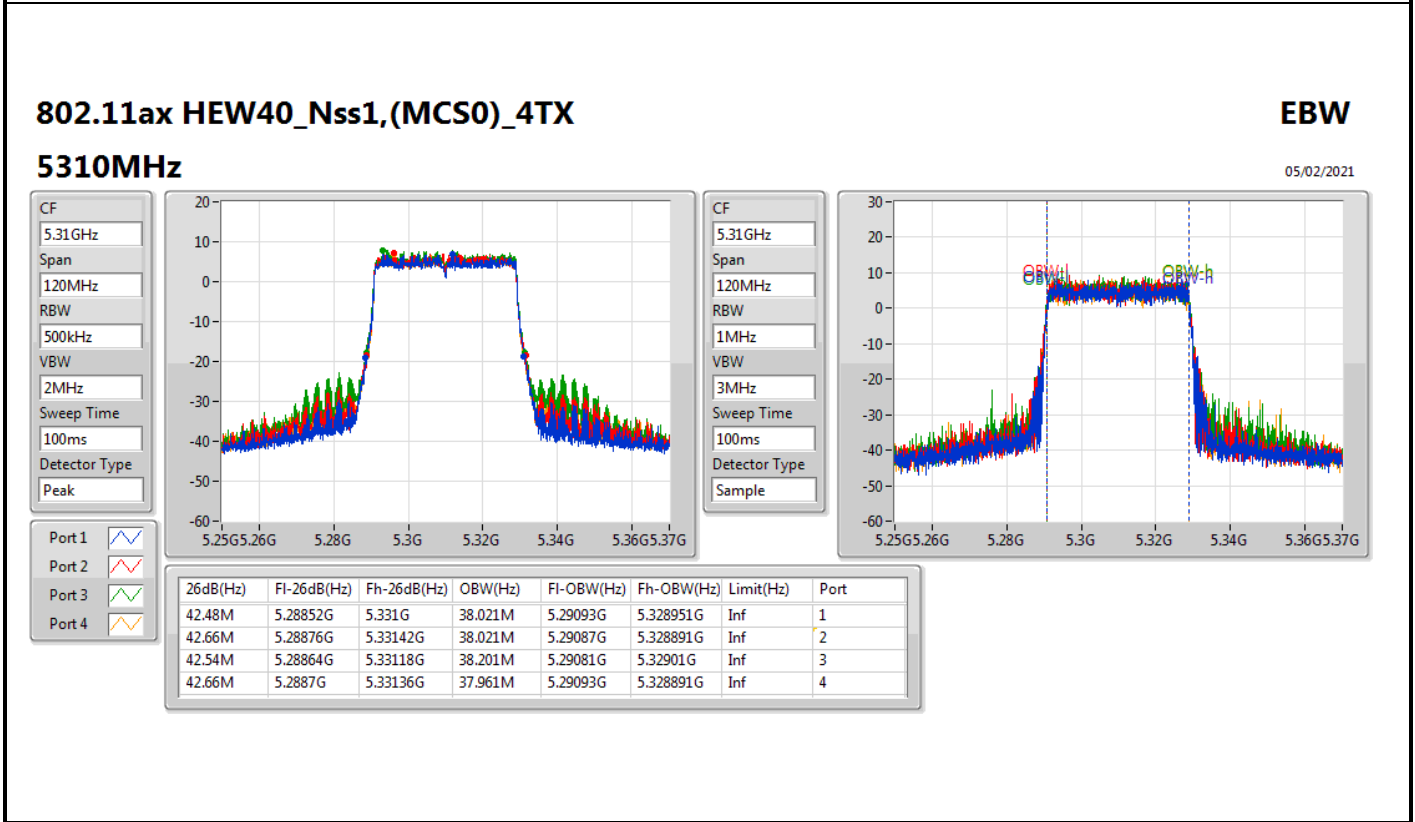
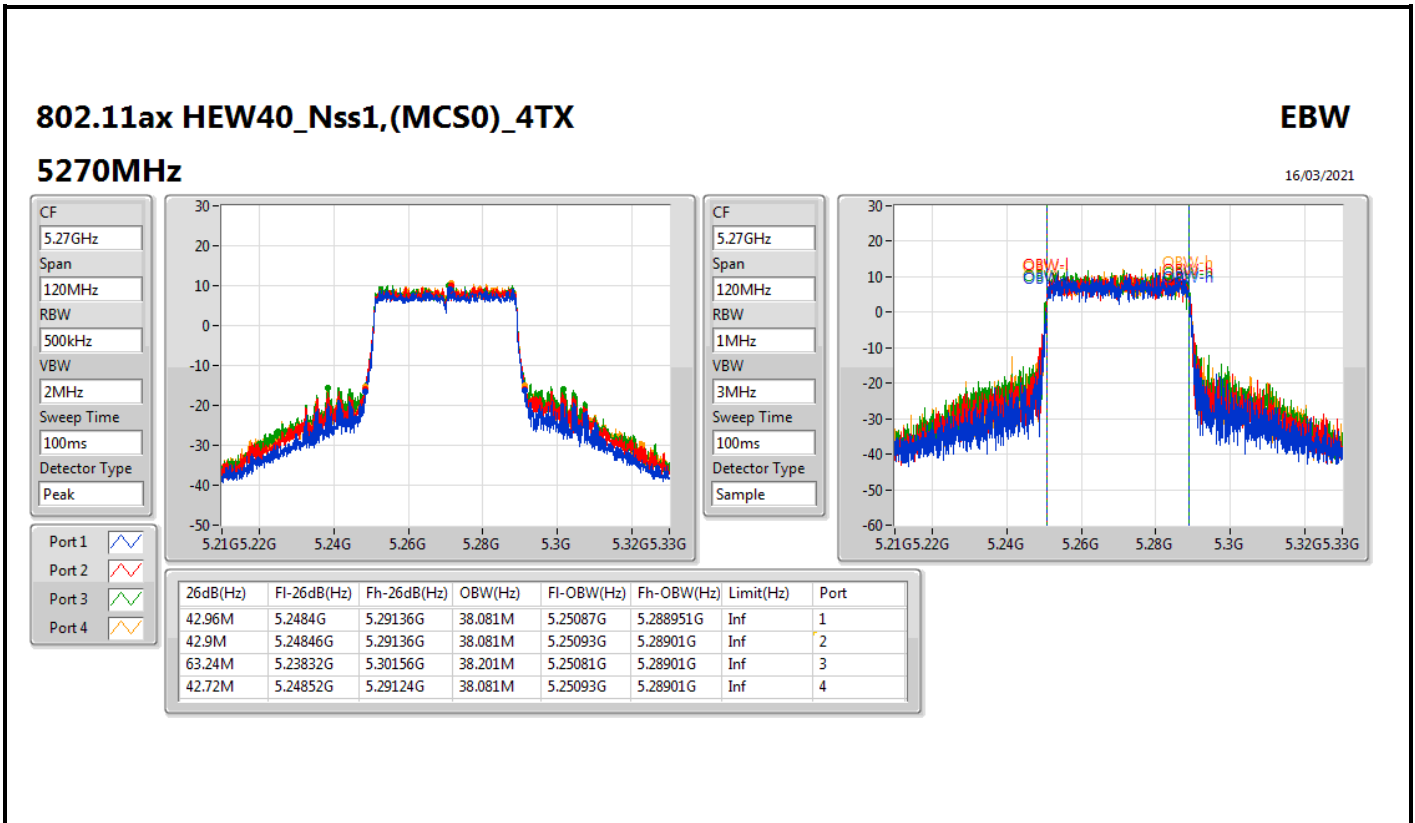


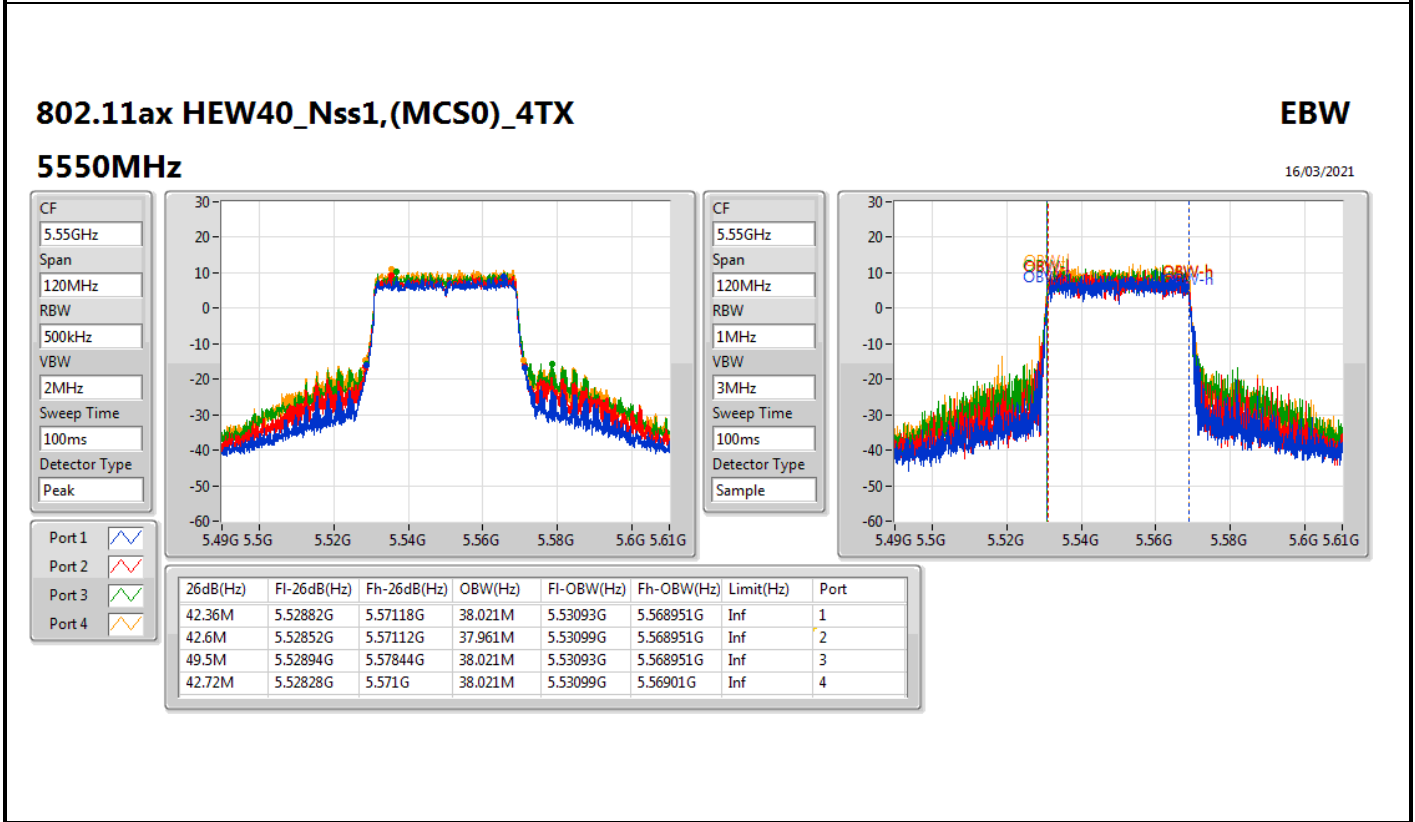
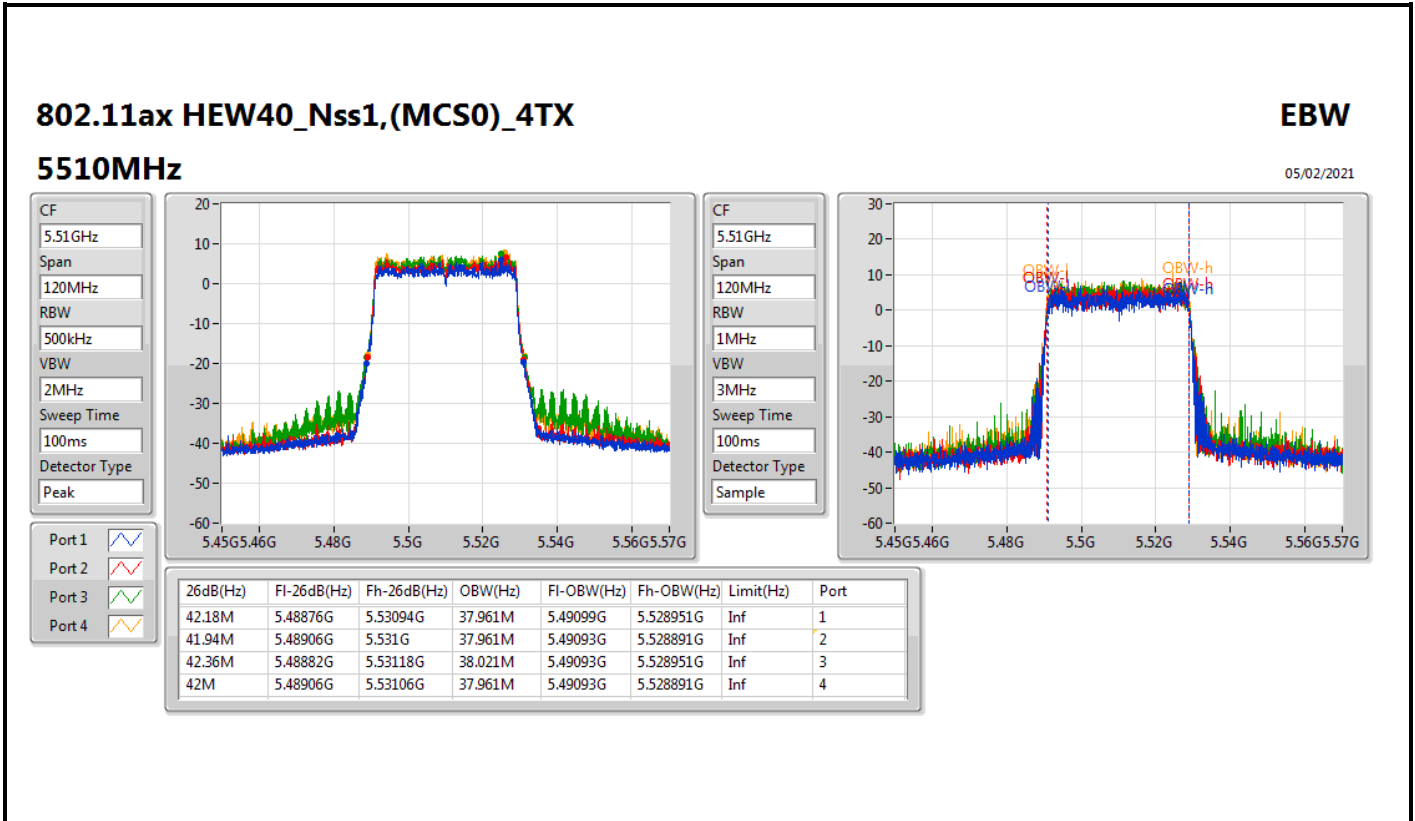
CF
5.23GHz
Span
120MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Sample



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
42.66M	5.20864G	5.2513G	38.141M	5.21093G	5.24907G	Inf	1
42.36M	5.20888G	5.25124G	37.901M	5.21093G	5.248831G	Inf	2
42.72M	5.20858G	5.2513G	38.021M	5.21093G	5.248951G	Inf	3
42.36M	5.20882G	5.25118G	38.081M	5.21087G	5.248951G	Inf	4



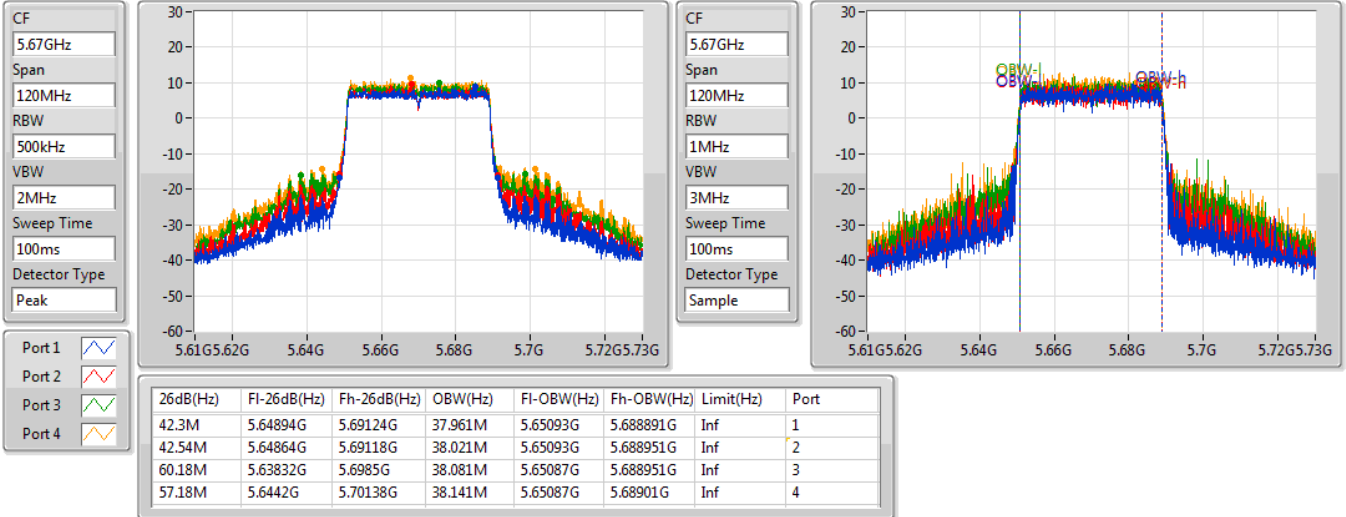


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5670MHz

16/03/2021

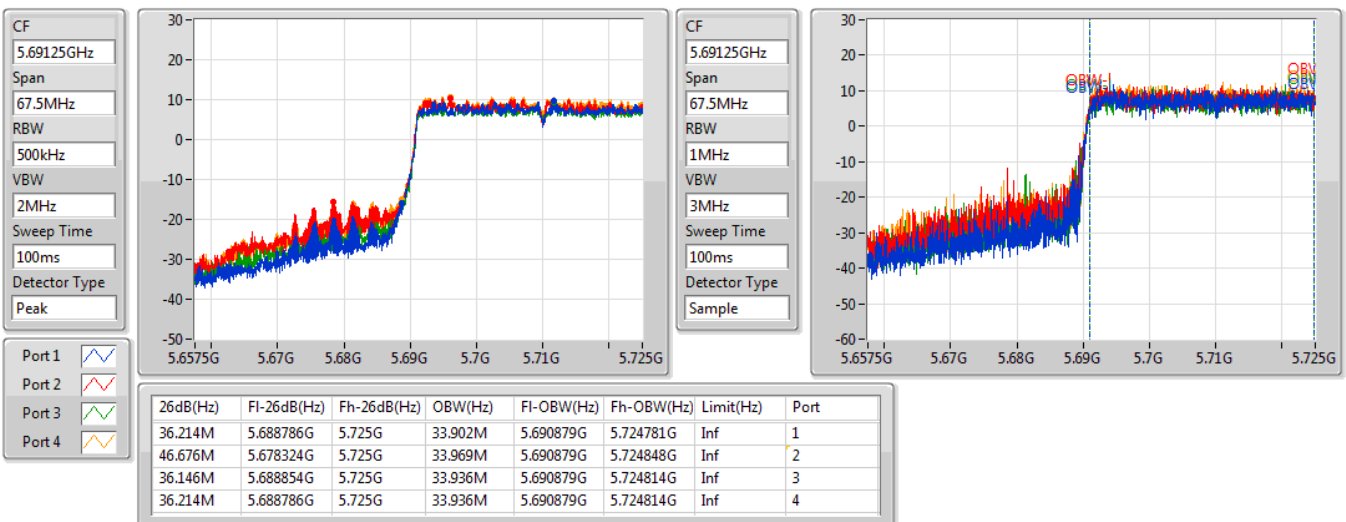


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5710MHz Straddle 5.47-5.725GHz

16/03/2021

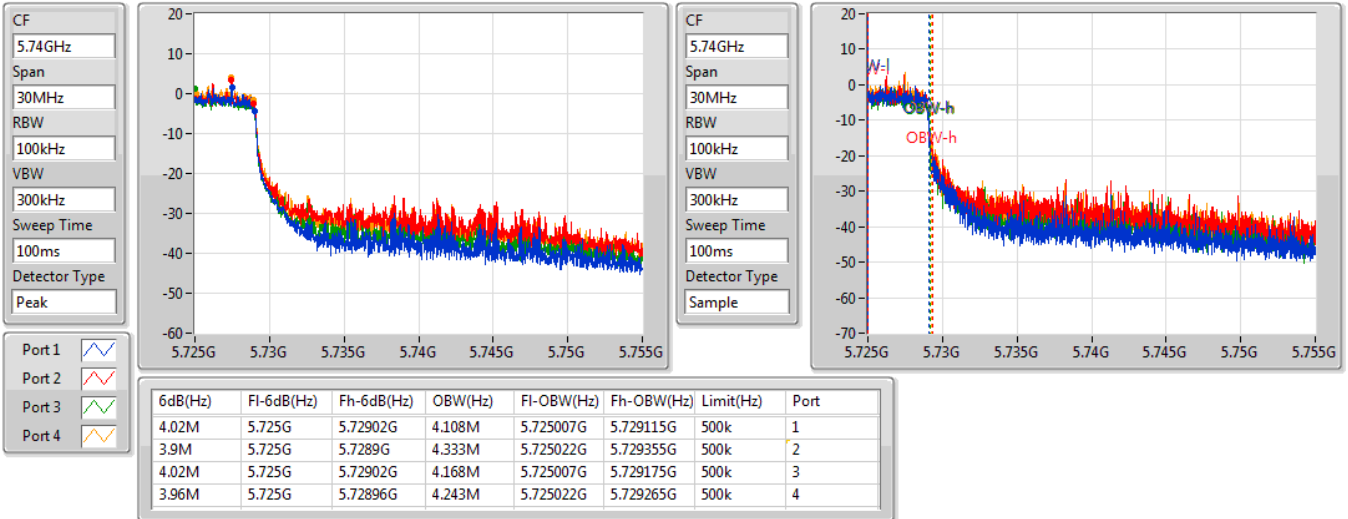


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5710MHz Straddle 5.725-5.85GHz

16/03/2021

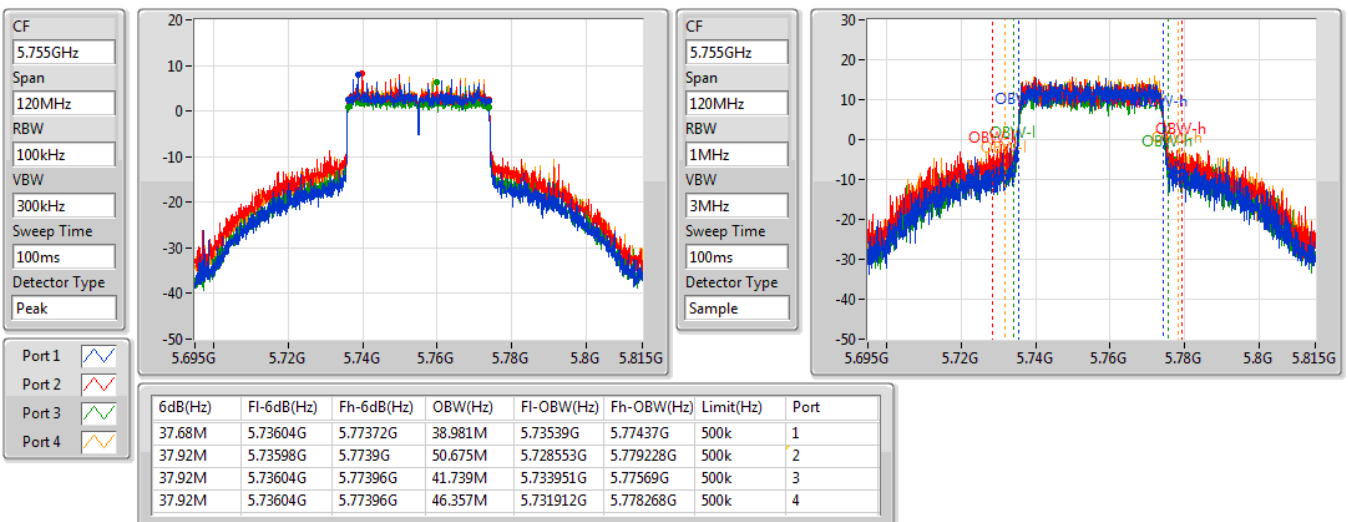


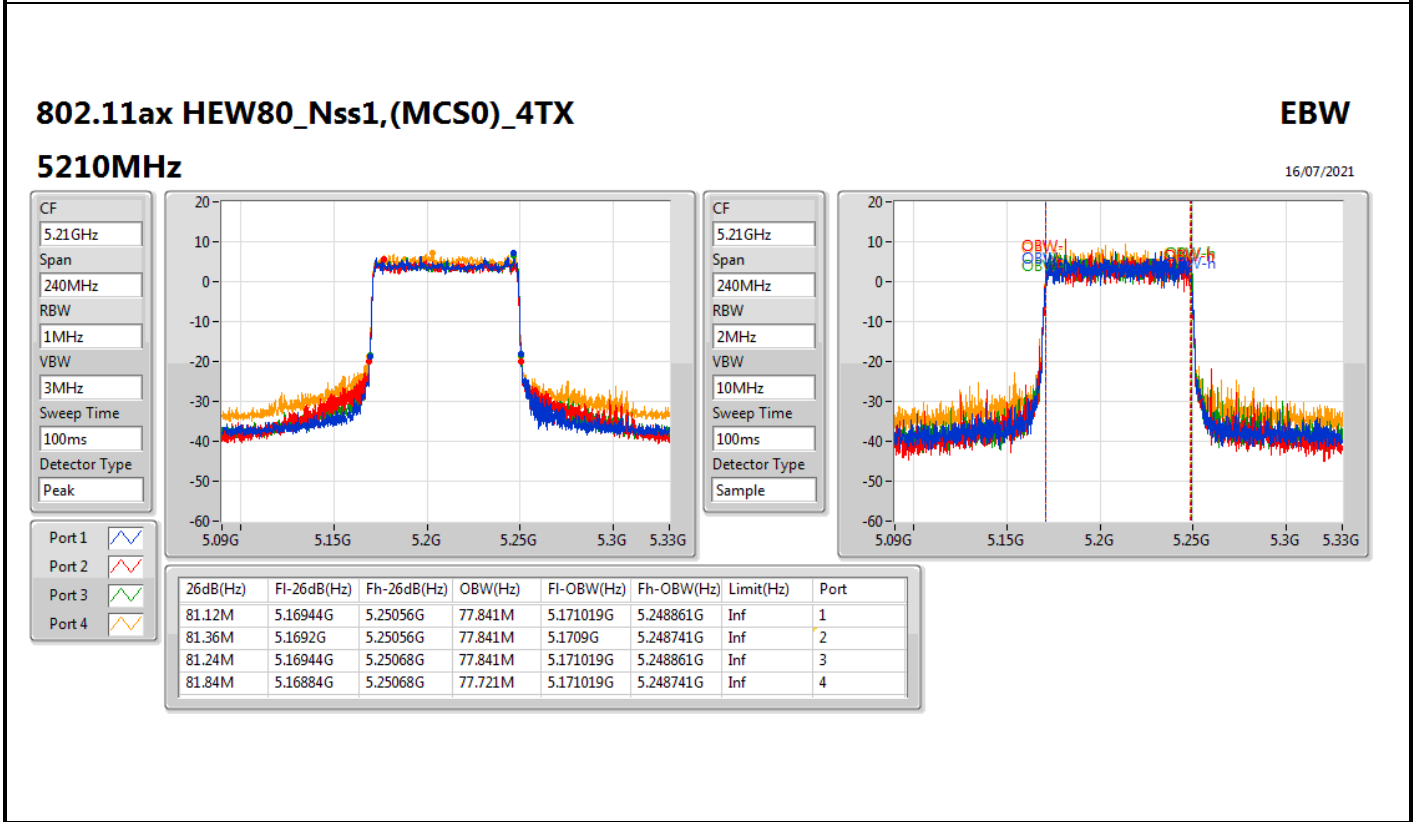
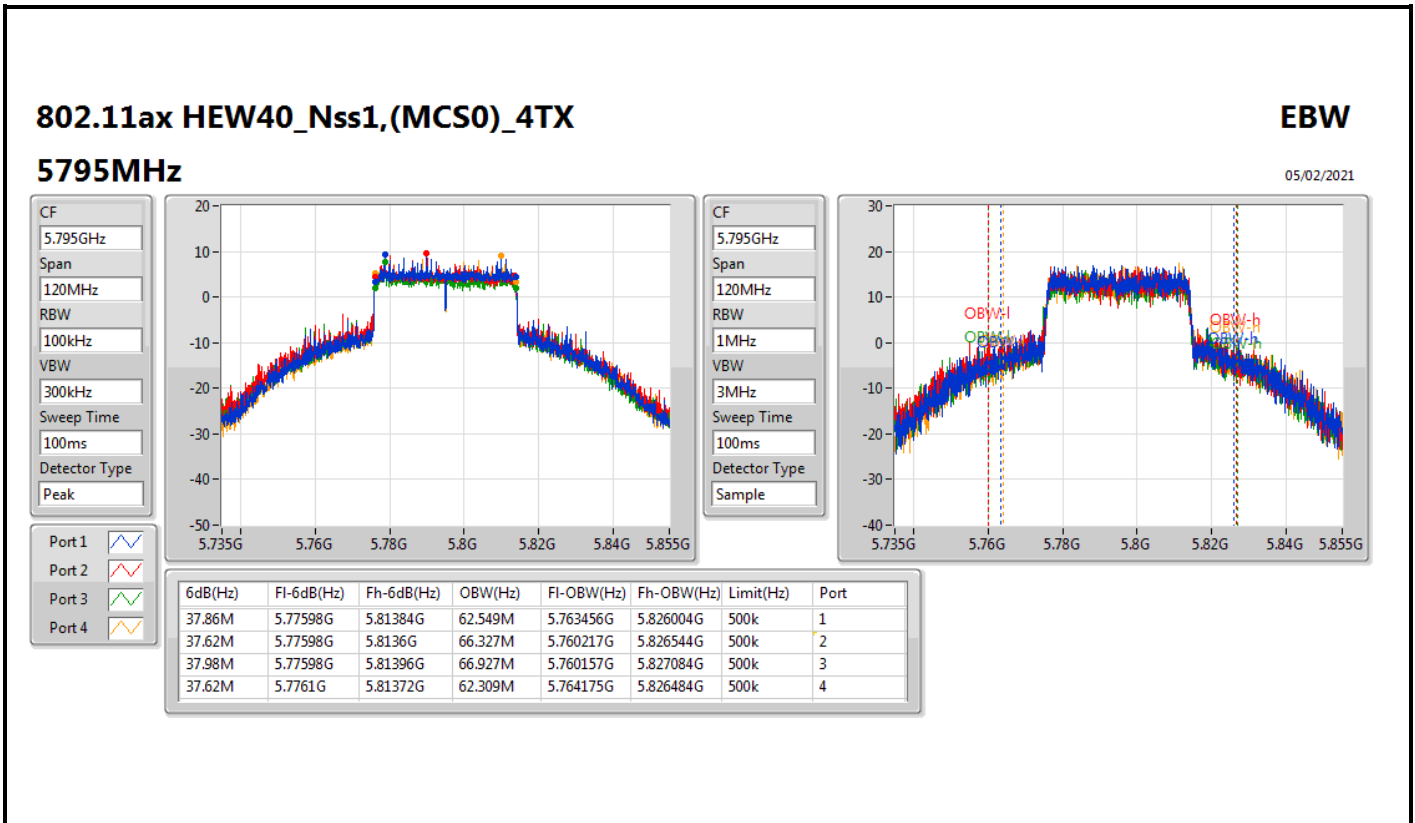
802.11ax HEW40_Nss1,(MCS0)_4TX

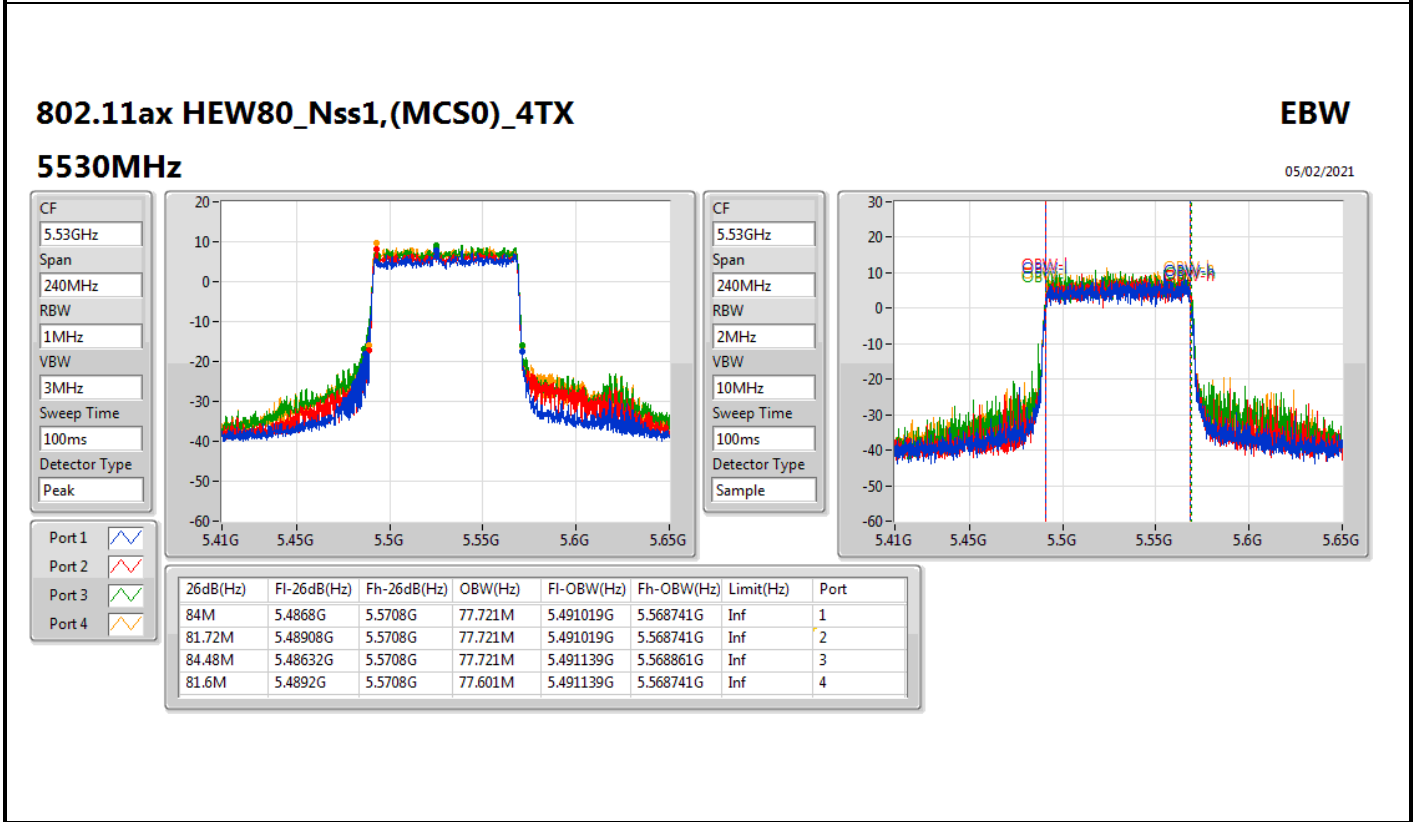
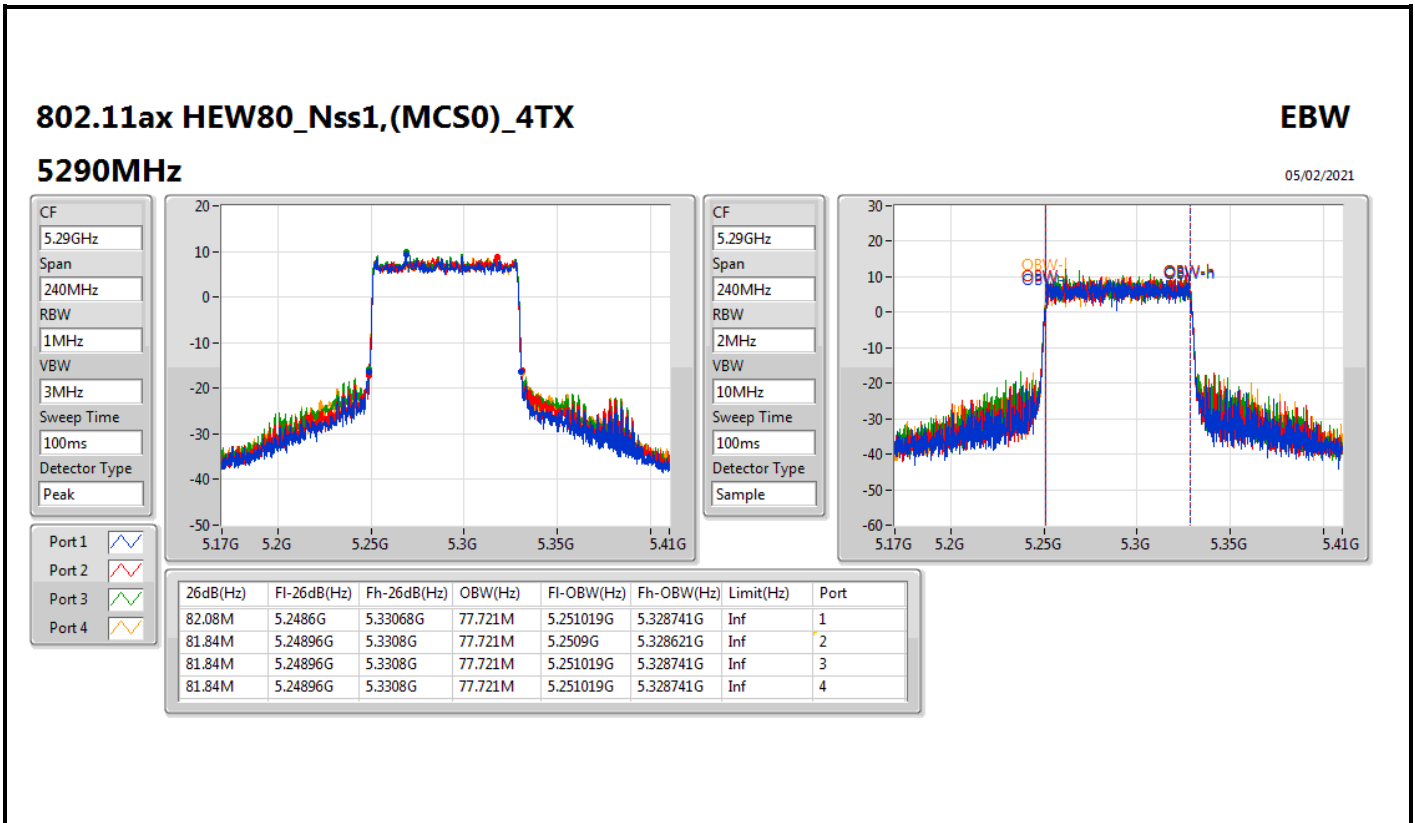
EBW

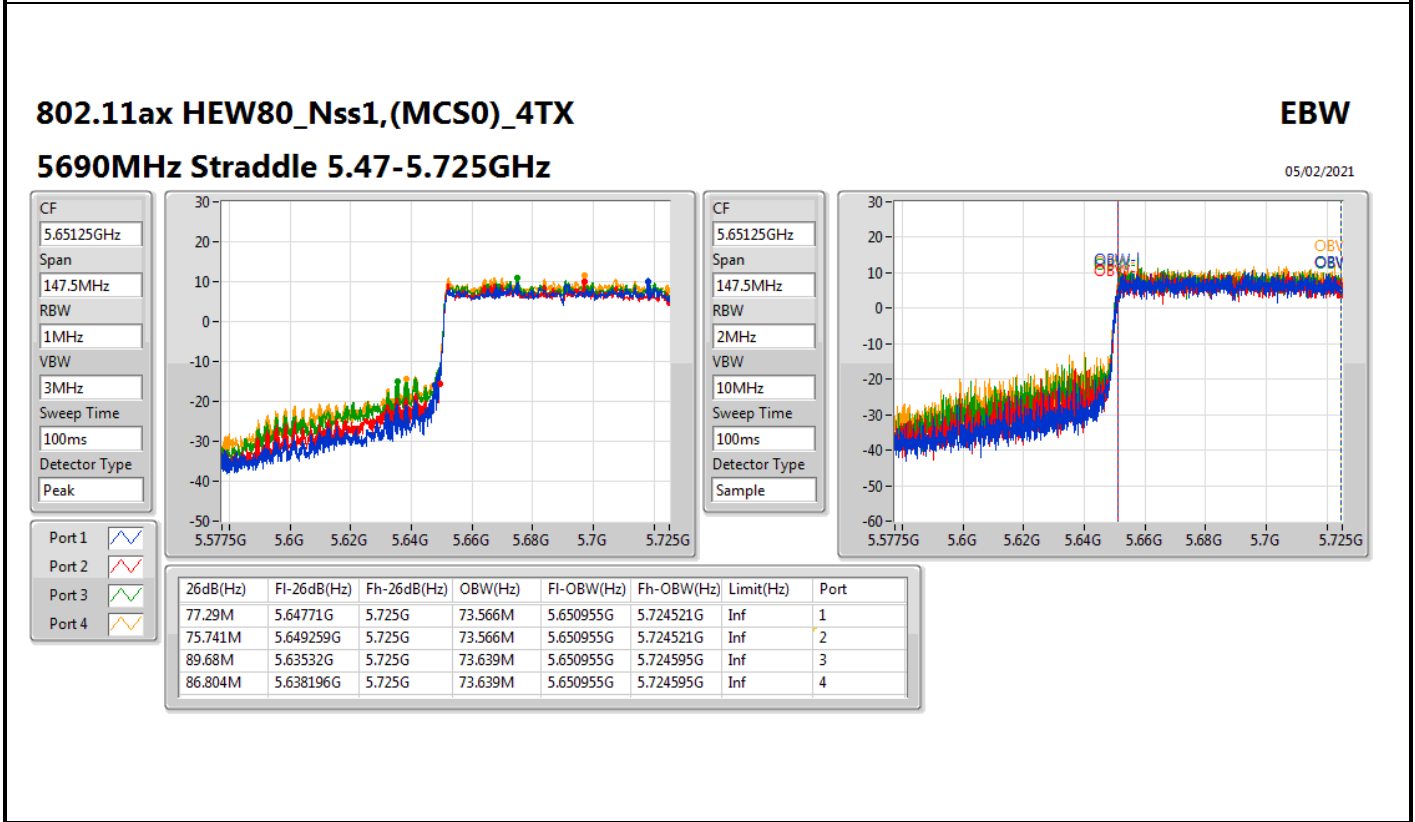
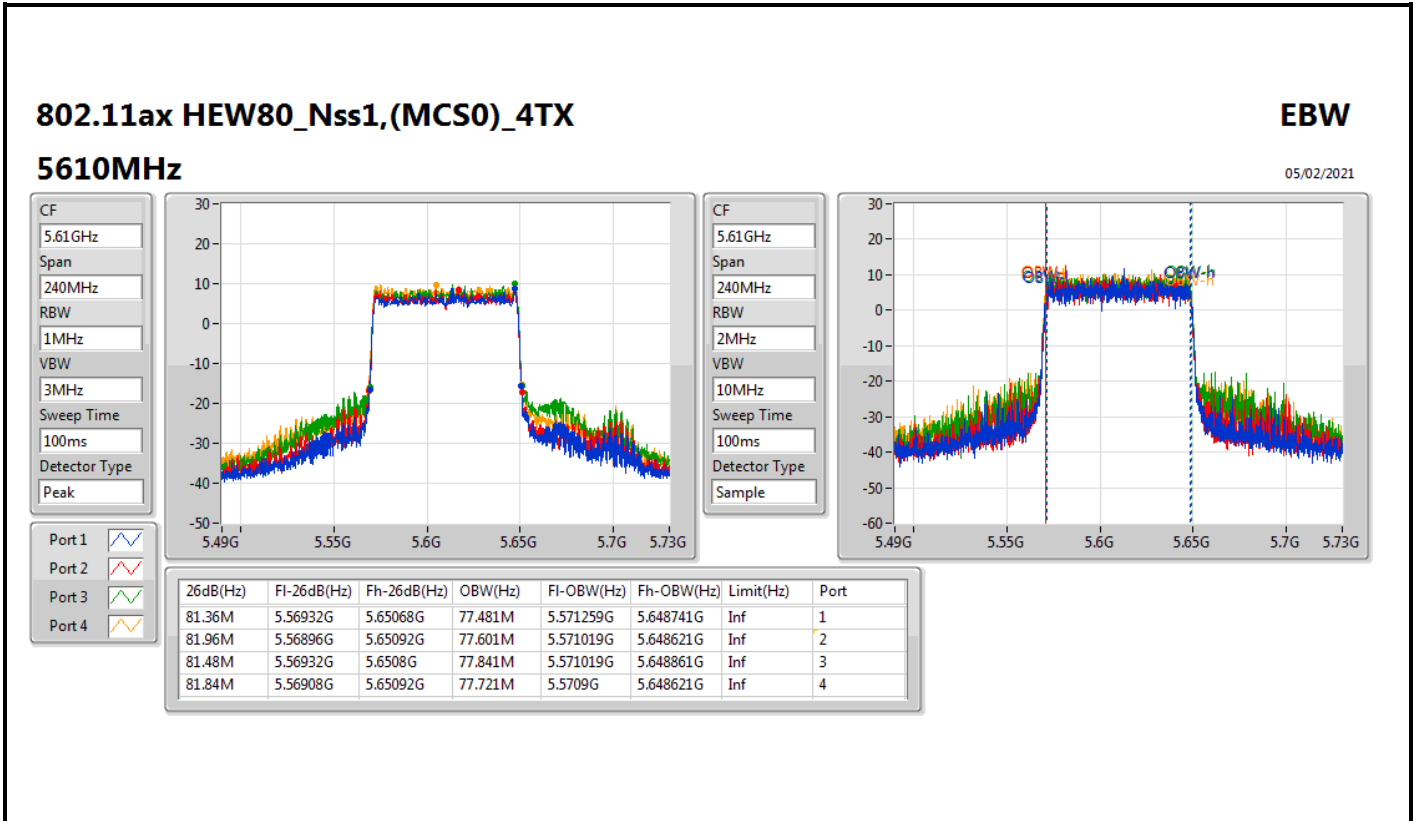
5755MHz

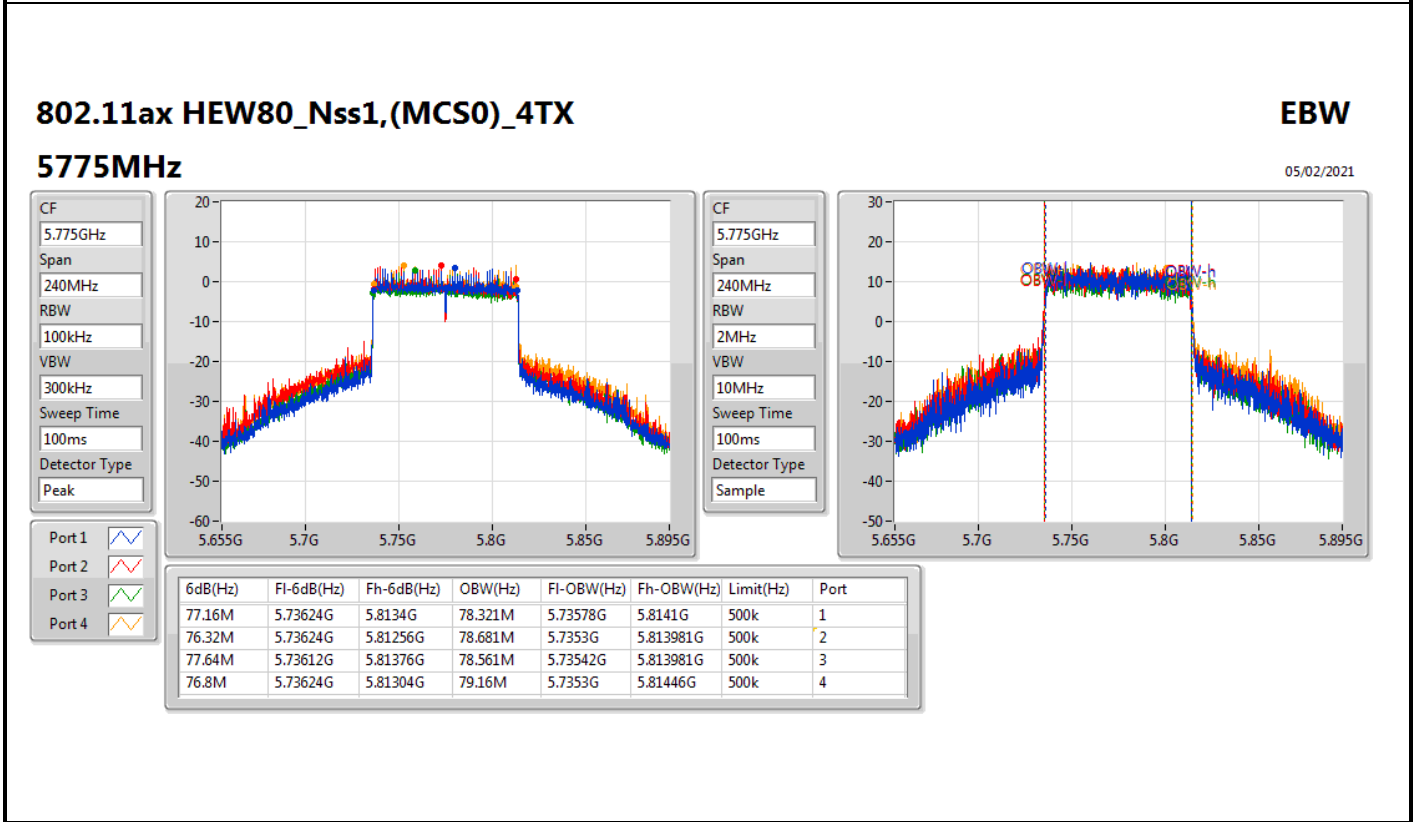
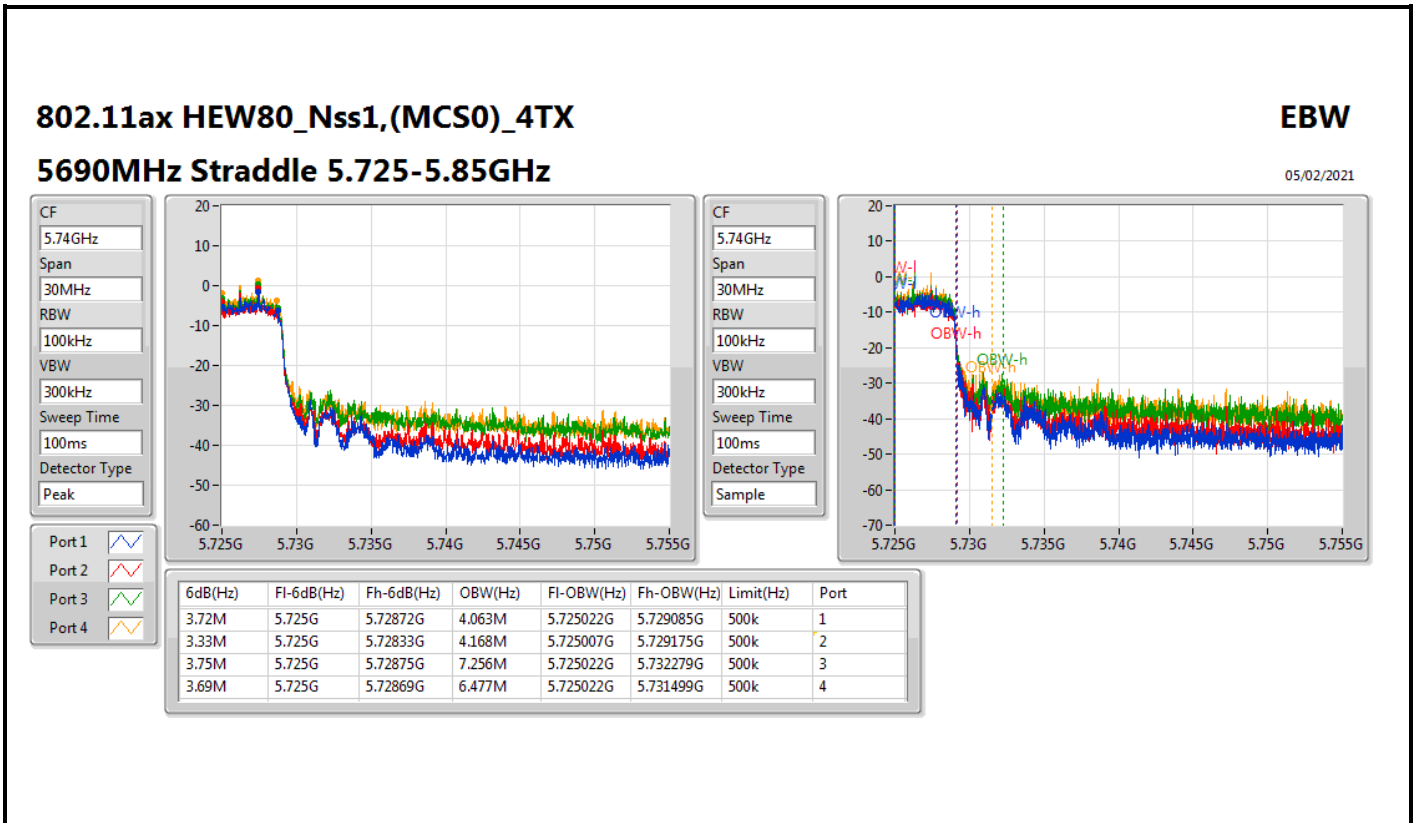
05/02/2021













Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	24.66M	16.912M	16M9D1D	22.92M	16.702M
802.11ax HEW20_Nss1,(MCS0)_4TX	25.65M	19.1M	19M1D1D	23.76M	18.981M
802.11ax HEW40_Nss1,(MCS0)_4TX	42.96M	38.081M	38M1D1D	42.36M	37.901M
802.11ax HEW80_Nss1,(MCS0)_4TX	84.72M	77.841M	77M8D1D	81.48M	77.361M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	24.03M	16.912M	16M9D1D	23.13M	16.762M
802.11ax HEW20_Nss1,(MCS0)_4TX	25.05M	19.07M	19M1D1D	24M	19.01M
802.11ax HEW40_Nss1,(MCS0)_4TX	43.56M	38.081M	38M1D1D	42.18M	38.021M
802.11ax HEW80_Nss1,(MCS0)_4TX	81.96M	77.961M	78MOD1D	81.48M	77.601M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	24.12M	16.912M	16M9D1D	15.964M	13.496M
802.11ax HEW20_Nss1,(MCS0)_4TX	24.72M	19.07M	19M1D1D	16.734M	14.54M
802.11ax HEW40_Nss1,(MCS0)_4TX	43.14M	38.141M	38M1D1D	36.18M	33.902M
802.11ax HEW80_Nss1,(MCS0)_4TX	82.2M	77.721M	77M7D1D	75.52M	73.418M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	16.35M	22.219M	22M2D1D	3.135M	4.018M
802.11ax HEW20_Nss1,(MCS0)_4TX	18.99M	24.828M	24M8D1D	4.455M	4.573M
802.11ax HEW40_Nss1,(MCS0)_4TX	37.98M	45.997M	46MOD1D	3.96M	4.093M
802.11ax HEW80_Nss1,(MCS0)_4TX	77.16M	89.955M	90MOD1D	3.69M	4.048M

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	23.79M	16.702M	24.3M	16.852M	23.52M	16.882M	22.92M	16.702M
5200MHz	Pass	Inf	24.66M	16.792M	23.52M	16.822M	24.15M	16.882M	23.01M	16.762M
5240MHz	Pass	Inf	23.85M	16.822M	23.37M	16.852M	23.82M	16.912M	23.58M	16.732M
5260MHz	Pass	Inf	23.49M	16.792M	23.79M	16.912M	23.76M	16.822M	24.03M	16.882M
5300MHz	Pass	Inf	23.28M	16.792M	23.88M	16.792M	23.61M	16.762M	23.55M	16.792M
5320MHz	Pass	Inf	23.13M	16.822M	23.28M	16.852M	23.88M	16.822M	23.25M	16.792M
5500MHz	Pass	Inf	23.31M	16.792M	23.7M	16.822M	24.12M	16.912M	23.55M	16.822M
5580MHz	Pass	Inf	23.43M	16.702M	23.73M	16.762M	23.43M	16.822M	22.83M	16.672M
5700MHz	Pass	Inf	23.16M	16.762M	23.67M	16.852M	23.55M	16.792M	23.52M	16.822M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.964M	13.496M	16.225M	13.496M	16.473M	13.564M	16.486M	13.551M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.135M	4.093M	3.15M	4.138M	3.15M	4.018M	3.135M	4.183M
5745MHz	Pass	500k	16.29M	17.241M	16.32M	19.13M	16.32M	17.121M	16.29M	22.219M
5785MHz	Pass	500k	16.29M	20.45M	16.29M	17.061M	16.29M	17.931M	16.32M	17.121M
5825MHz	Pass	500k	16.35M	18.171M	16.32M	18.891M	16.32M	16.972M	16.32M	21.349M
802.11ax HEW20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	24.87M	19.01M	24.66M	19.01M	24.66M	19.04M	24.87M	18.981M
5200MHz	Pass	Inf	24.12M	19.04M	24.39M	19.01M	24.39M	19.04M	24.66M	19.01M
5240MHz	Pass	Inf	23.76M	19.04M	25.65M	19.07M	24M	19.04M	25.05M	19.1M
5260MHz	Pass	Inf	24.72M	19.04M	25.02M	19.04M	24.48M	19.04M	25.05M	19.07M
5300MHz	Pass	Inf	24.66M	19.04M	24.99M	19.04M	24.87M	19.01M	24.72M	19.07M
5320MHz	Pass	Inf	24.09M	19.01M	24M	19.01M	24.3M	19.04M	24.09M	19.04M
5500MHz	Pass	Inf	23.97M	19.04M	24.72M	19.07M	23.64M	19.04M	24.69M	19.04M
5580MHz	Pass	Inf	24.57M	19.04M	24.03M	19.04M	24.51M	19.04M	24.09M	19.01M
5700MHz	Pass	Inf	24.42M	19.04M	24.48M	19.07M	24.63M	19.04M	24.66M	19.04M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	17.009M	14.54M	16.734M	14.581M	17.105M	14.54M	16.83M	14.554M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.455M	4.588M	4.455M	4.573M	4.47M	4.603M	4.485M	4.573M
5745MHz	Pass	500k	18.99M	19.22M	18.75M	19.91M	18.93M	19.16M	18.78M	23.508M
5785MHz	Pass	500k	18.99M	19.28M	18.66M	20.45M	18.9M	19.1M	18.93M	24.828M
5825MHz	Pass	500k	18.96M	19.31M	18.75M	20.21M	18.99M	19.19M	18.9M	23.688M
802.11ax HEW40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	42.42M	38.081M	42.84M	37.961M	42.36M	38.021M	42.6M	37.901M
5230MHz	Pass	Inf	42.6M	38.081M	42.36M	37.961M	42.96M	38.021M	42.42M	38.021M
5270MHz	Pass	Inf	42.18M	38.021M	42.42M	38.081M	42.36M	38.081M	42.42M	38.021M
5310MHz	Pass	Inf	43.56M	38.021M	42.78M	38.081M	43.44M	38.081M	42.78M	38.081M
5510MHz	Pass	Inf	42.42M	38.081M	42.3M	37.961M	42.6M	38.021M	42.42M	38.021M
5550MHz	Pass	Inf	43.14M	38.021M	43.08M	37.961M	43.08M	38.141M	43.02M	38.021M
5670MHz	Pass	Inf	42.3M	37.961M	43.02M	38.081M	42.42M	38.021M	42.96M	38.081M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	36.18M	33.902M	36.518M	33.902M	36.248M	33.902M	36.585M	33.969M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.99M	4.093M	3.96M	4.123M	3.99M	4.108M	3.99M	4.123M
5755MHz	Pass	500k	37.98M	38.621M	37.38M	39.34M	37.74M	38.441M	37.92M	44.678M
5795MHz	Pass	500k	37.44M	38.801M	36.96M	40.84M	37.86M	38.381M	37.8M	45.997M
802.11ax HEW80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	84.72M	77.841M	81.6M	77.481M	84.72M	77.721M	81.48M	77.361M
5290MHz	Pass	Inf	81.96M	77.841M	81.6M	77.601M	81.96M	77.961M	81.48M	77.601M
5530MHz	Pass	Inf	81.36M	77.721M	81.84M	77.481M	81.12M	77.481M	82.2M	77.601M
5610MHz	Pass	Inf	81.48M	77.601M	81M	77.361M	81.24M	77.601M	81M	77.721M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.52M	73.492M	75.815M	73.566M	75.668M	73.418M	75.815M	73.492M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.735M	4.048M	3.69M	4.093M	3.735M	4.063M	3.72M	4.093M
5775MHz	Pass	500k	77.16M	78.921M	76.2M	79.88M	76.08M	78.201M	75.96M	89.955M

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

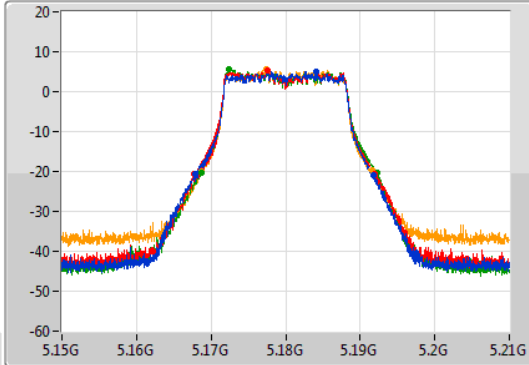
802.11a_Nss1,(6Mbps)_4TX

EBW

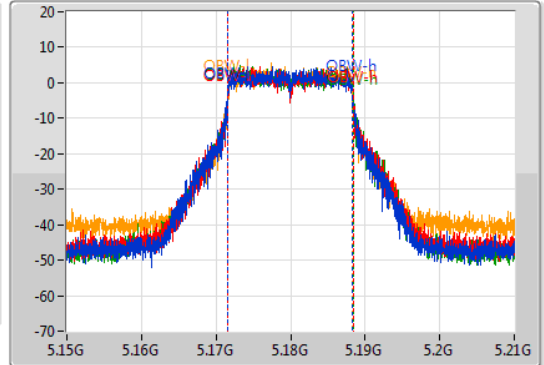
5180MHz

16/07/2021

CF
5.18GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.18GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Sample



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
23.79M	5.16791G	5.1917G	16.702M	5.171574G	5.188276G	Inf	1
24.3M	5.16773G	5.19203G	16.852M	5.171574G	5.188426G	Inf	2
23.52M	5.16872G	5.19224G	16.882M	5.171484G	5.188366G	Inf	3
22.92M	5.16872G	5.19164G	16.702M	5.171604G	5.188306G	Inf	4

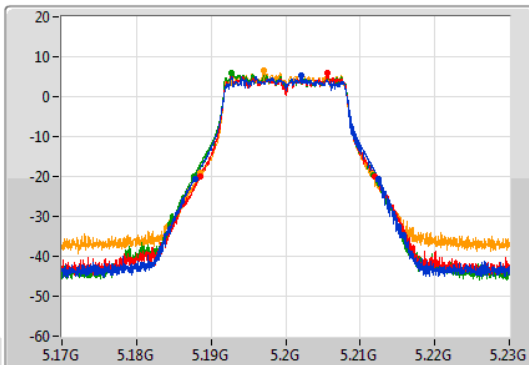
802.11a_Nss1,(6Mbps)_4TX

EBW

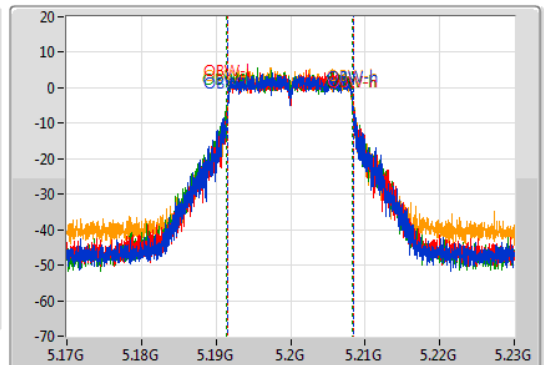
5200MHz

16/07/2021

CF
5.2GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.2GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Sample



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
24.66M	5.18782G	5.21248G	16.792M	5.191574G	5.208366G	Inf	1
23.52M	5.18848G	5.212G	16.822M	5.191574G	5.208396G	Inf	2
24.15M	5.1877G	5.21185G	16.882M	5.191454G	5.208336G	Inf	3
23.01M	5.1886G	5.21161G	16.762M	5.191604G	5.208366G	Inf	4

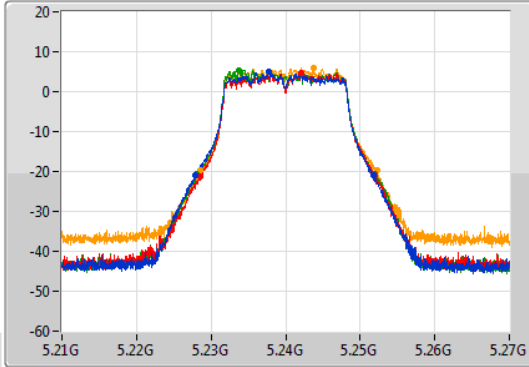
802.11a_Nss1,(6Mbps)_4TX

EBW

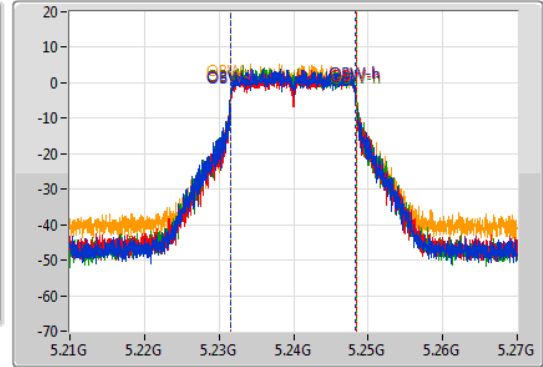
5240MHz

16/07/2021

CF
5.24GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.24GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Sample



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
23.85M	5.22788G	5.25173G	16.822M	5.231514G	5.248336G	Inf	1
23.37M	5.22863G	5.252G	16.852M	5.231574G	5.248426G	Inf	2
23.82M	5.22806G	5.25188G	16.912M	5.231514G	5.248426G	Inf	3
23.58M	5.22863G	5.25221G	16.732M	5.231634G	5.248366G	Inf	4

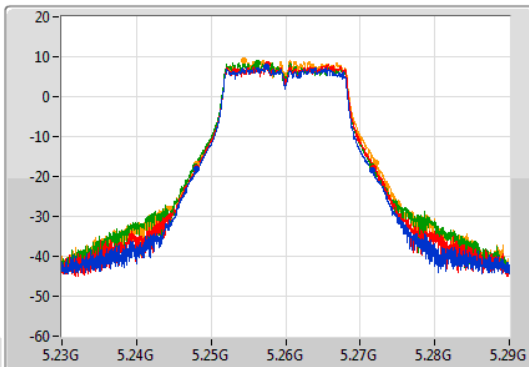
802.11a_Nss1,(6Mbps)_4TX

EBW

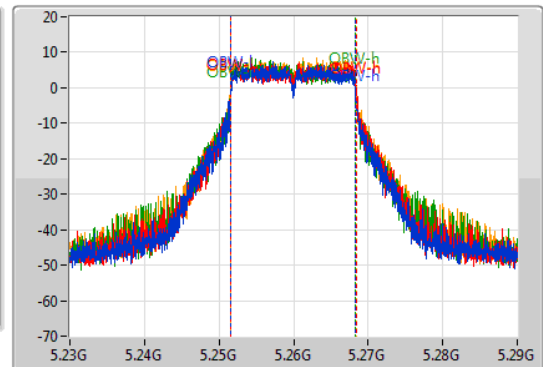
5260MHz

16/03/2021

CF
5.26GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak

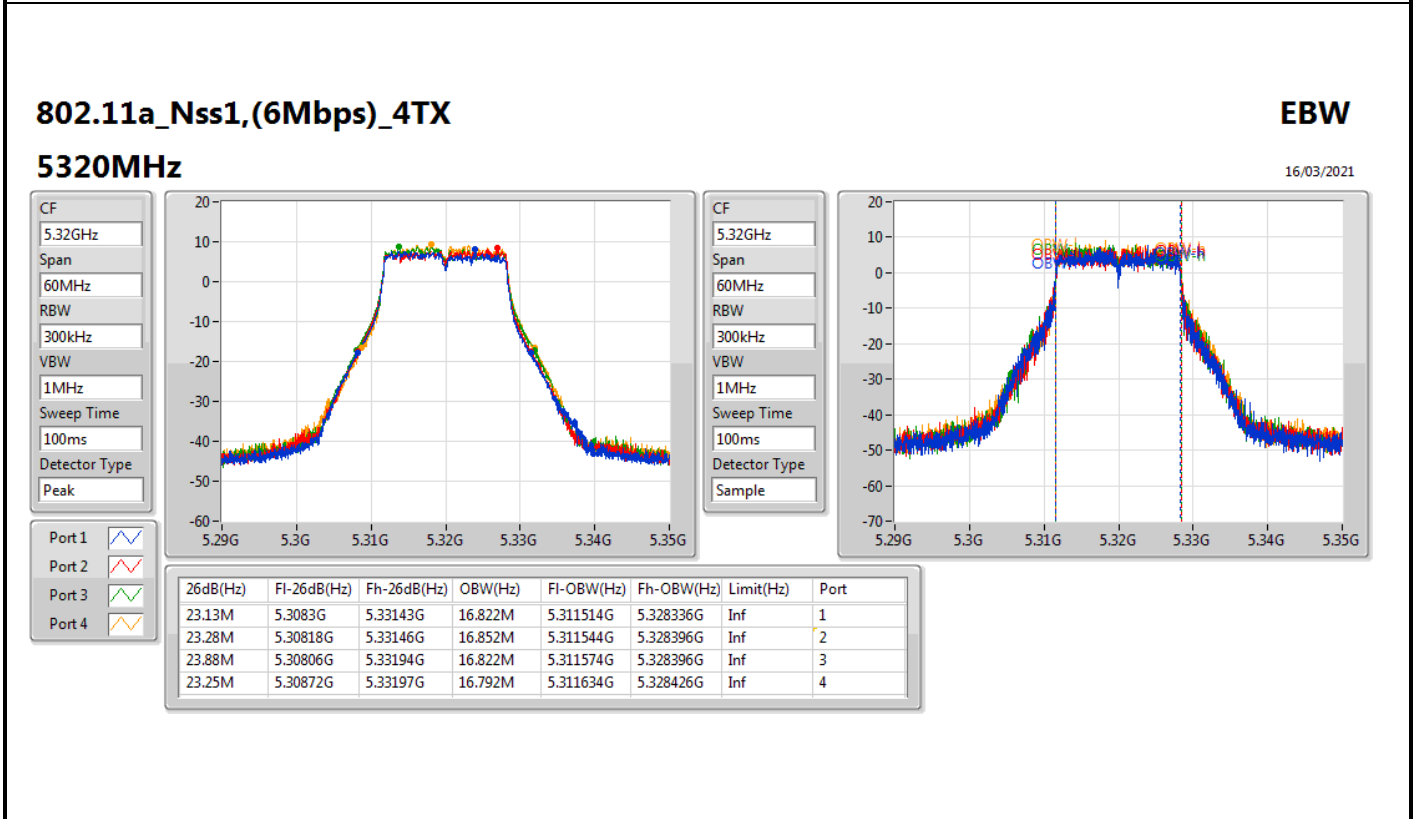
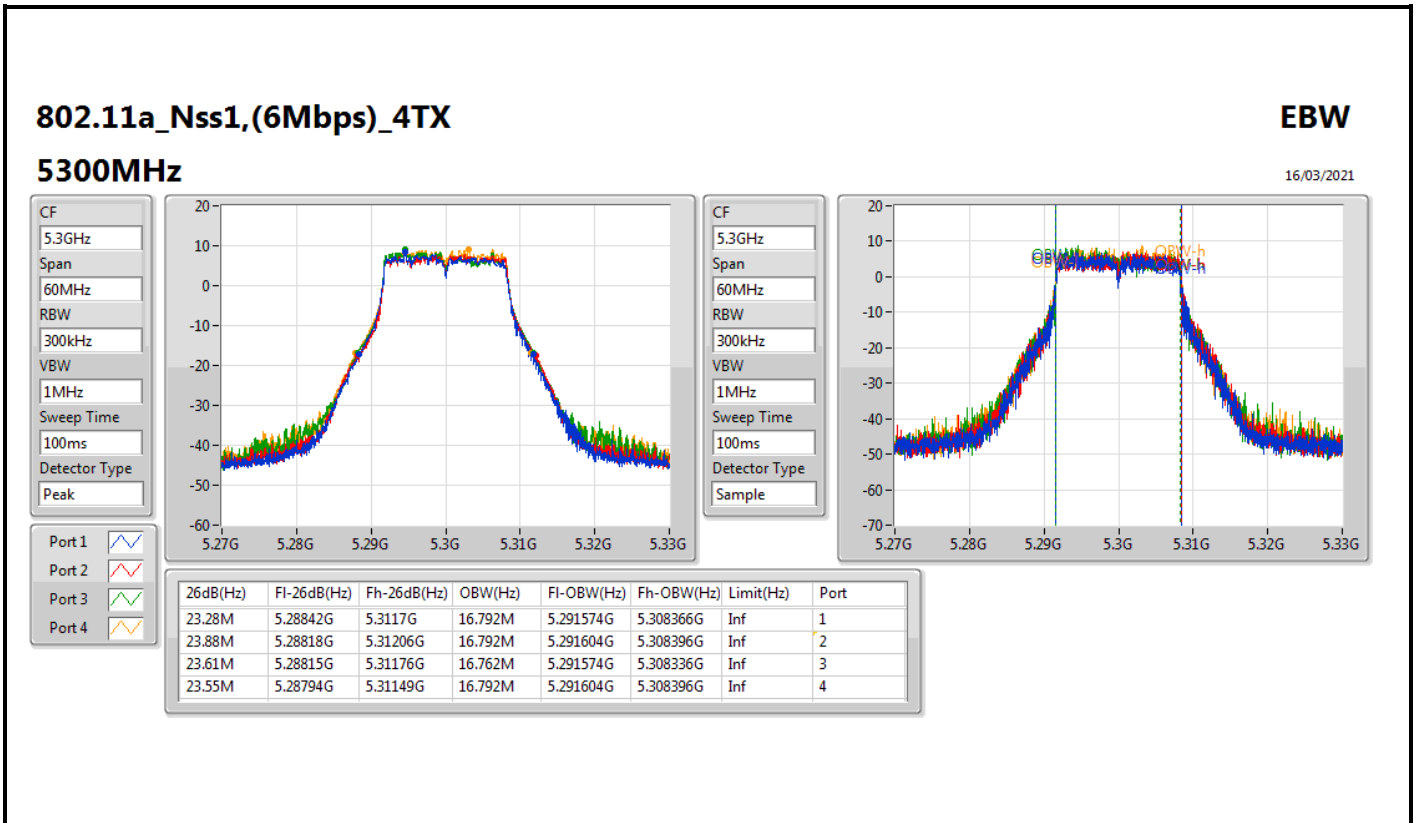


CF
5.26GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Sample



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
23.49M	5.24812G	5.27161G	16.792M	5.251514G	5.268306G	Inf	1
23.79M	5.24806G	5.27185G	16.912M	5.251514G	5.268426G	Inf	2
23.76M	5.24782G	5.27158G	16.822M	5.251484G	5.268306G	Inf	3
24.03M	5.24806G	5.27209G	16.882M	5.251544G	5.268426G	Inf	4



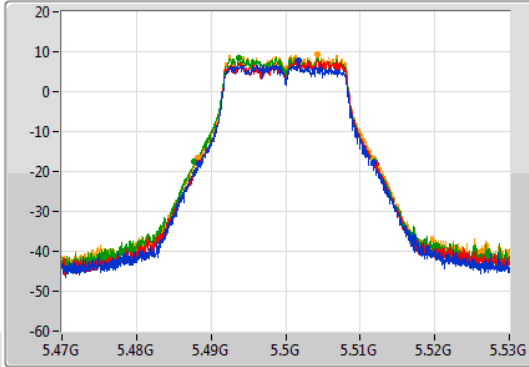
802.11a_Nss1,(6Mbps)_4TX

EBW

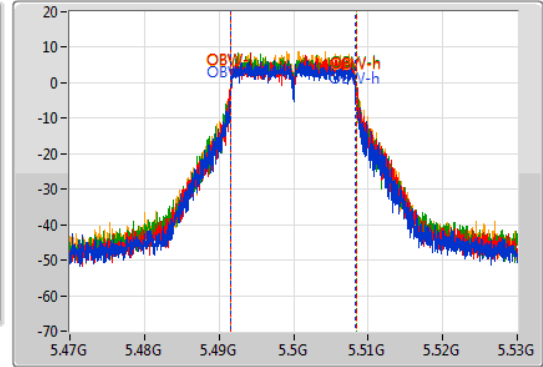
5500MHz

16/03/2021

CF: 5.5GHz
 Span: 60MHz
 RBW: 300kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



CF: 5.5GHz
 Span: 60MHz
 RBW: 300kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Sample



Port 1: [Waveform icon]
 Port 2: [Waveform icon]
 Port 3: [Waveform icon]
 Port 4: [Waveform icon]

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.31M	5.48839G	5.5117G	16.792M	5.491544G	5.508336G	Inf	1
23.7M	5.48836G	5.51206G	16.822M	5.491604G	5.508426G	Inf	2
24.12M	5.48776G	5.51188G	16.912M	5.491514G	5.508426G	Inf	3
23.55M	5.48827G	5.51182G	16.822M	5.491574G	5.508396G	Inf	4

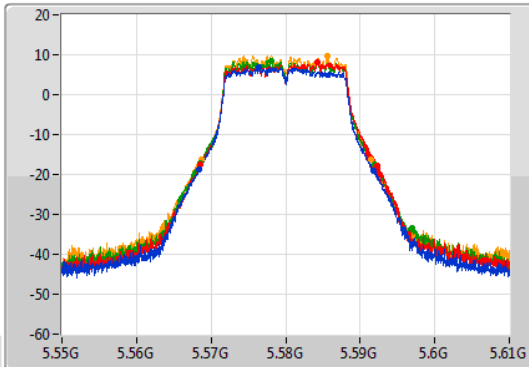
802.11a_Nss1,(6Mbps)_4TX

EBW

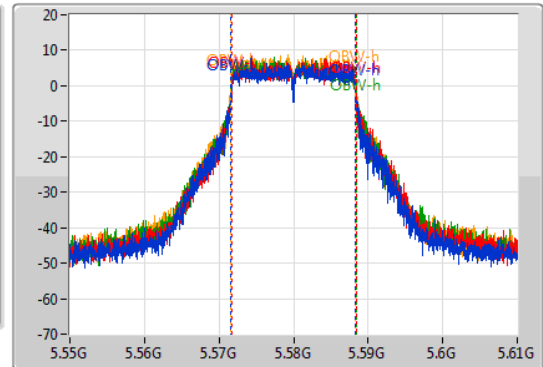
5580MHz

16/03/2021

CF: 5.58GHz
 Span: 60MHz
 RBW: 300kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak

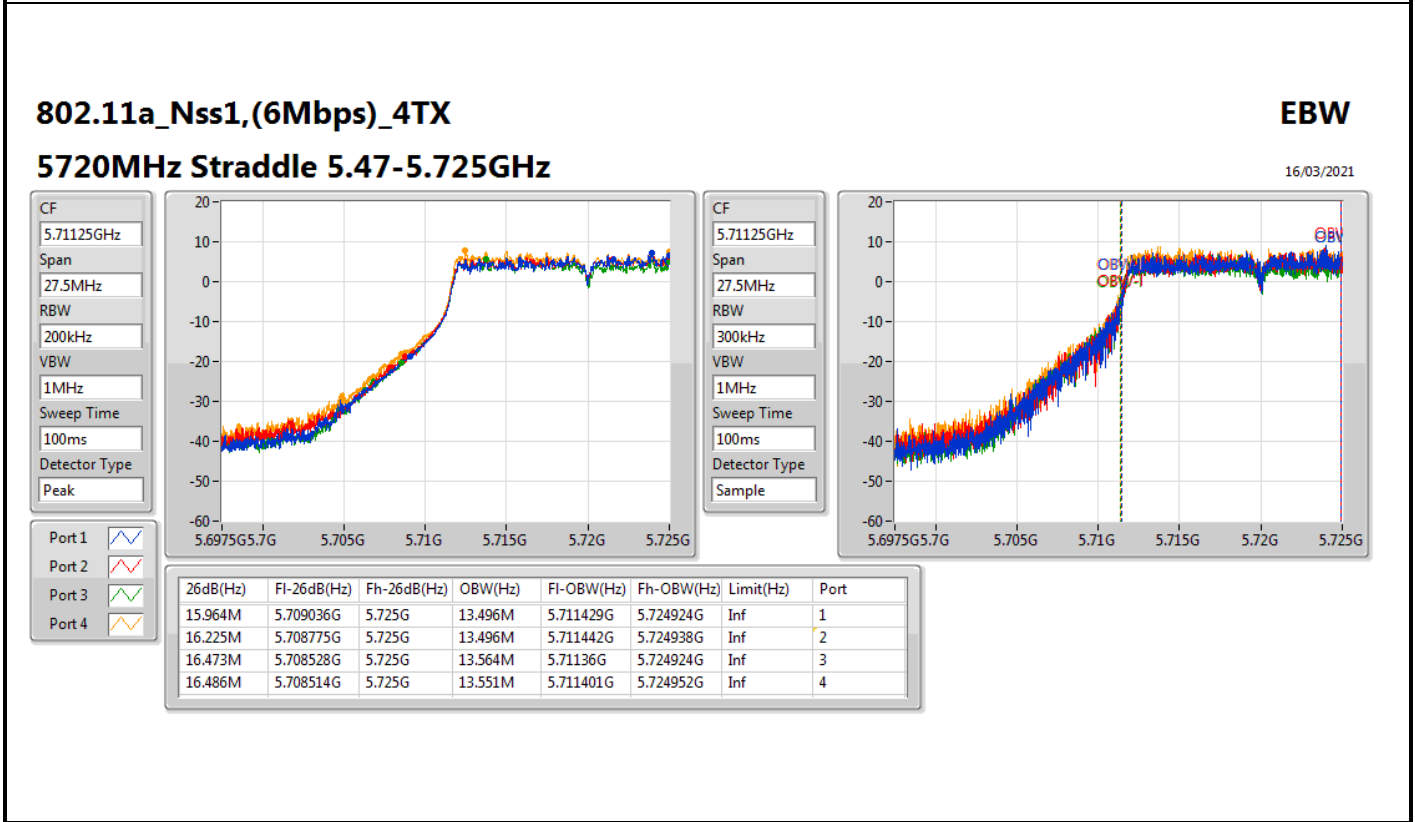
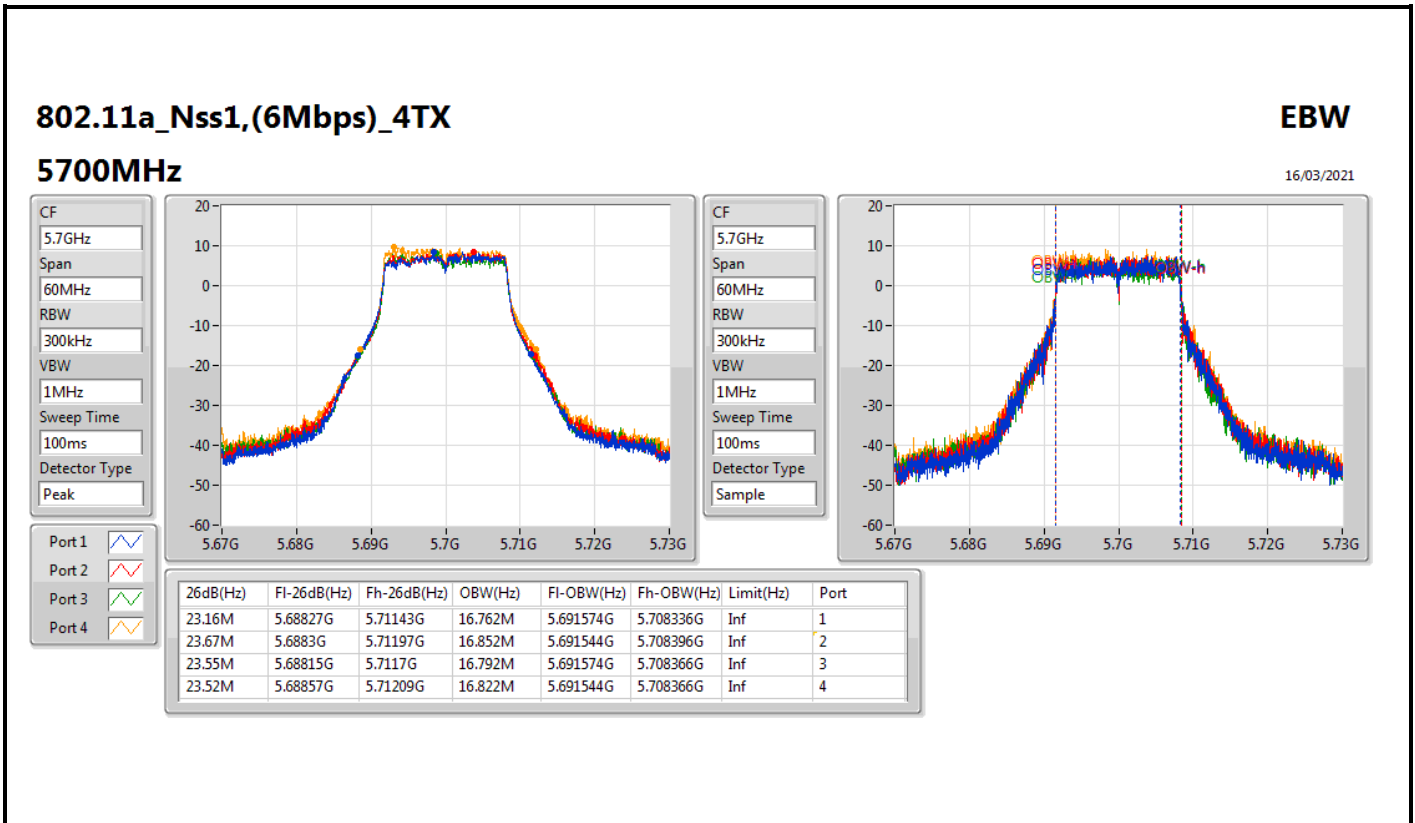


CF: 5.58GHz
 Span: 60MHz
 RBW: 300kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Sample



Port 1: [Waveform icon]
 Port 2: [Waveform icon]
 Port 3: [Waveform icon]
 Port 4: [Waveform icon]

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.43M	5.56836G	5.59179G	16.702M	5.571604G	5.588306G	Inf	1
23.73M	5.56857G	5.5923G	16.762M	5.571664G	5.588426G	Inf	2
23.43M	5.56851G	5.59194G	16.822M	5.571574G	5.588396G	Inf	3
22.83M	5.56869G	5.59152G	16.672M	5.571634G	5.588306G	Inf	4

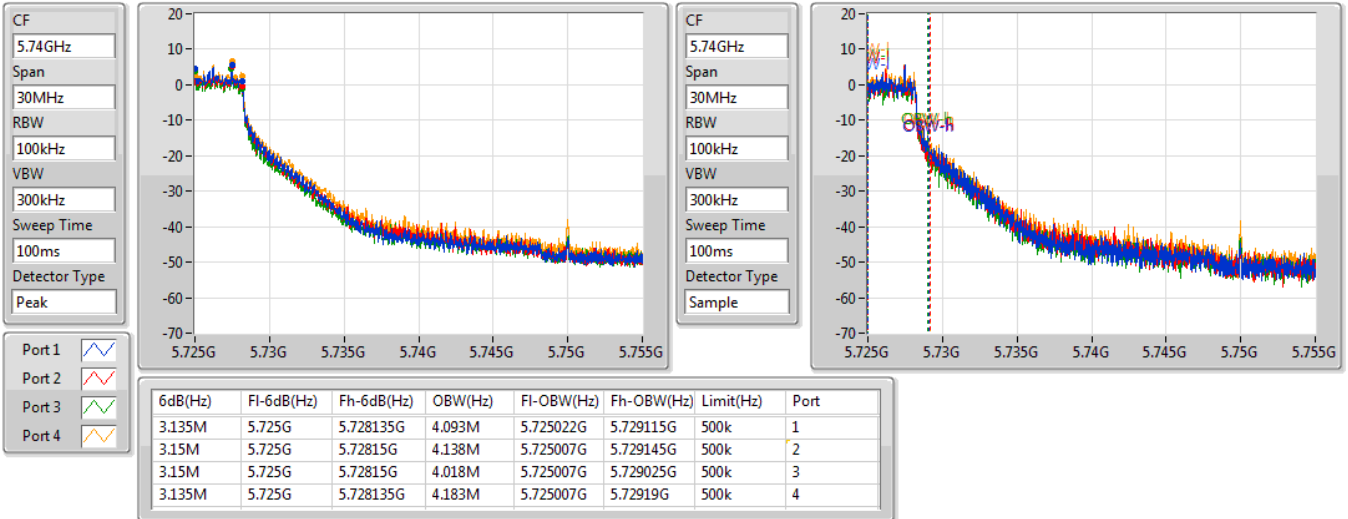


802.11a_Nss1,(6Mbps)_4TX

EBW

5720MHz Straddle 5.725-5.85GHz

16/03/2021

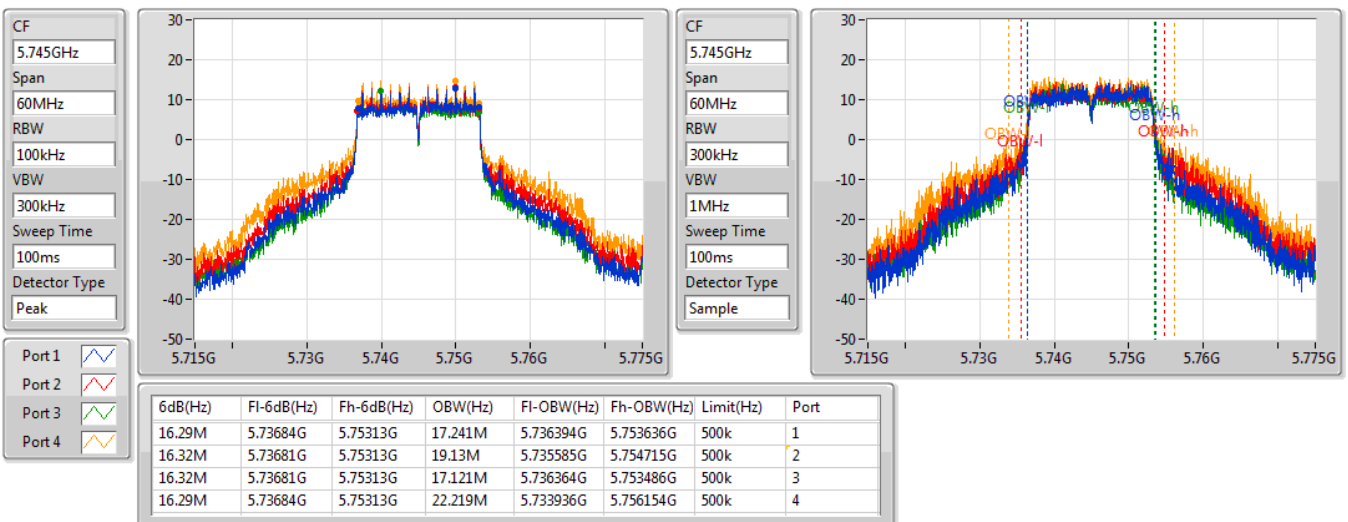


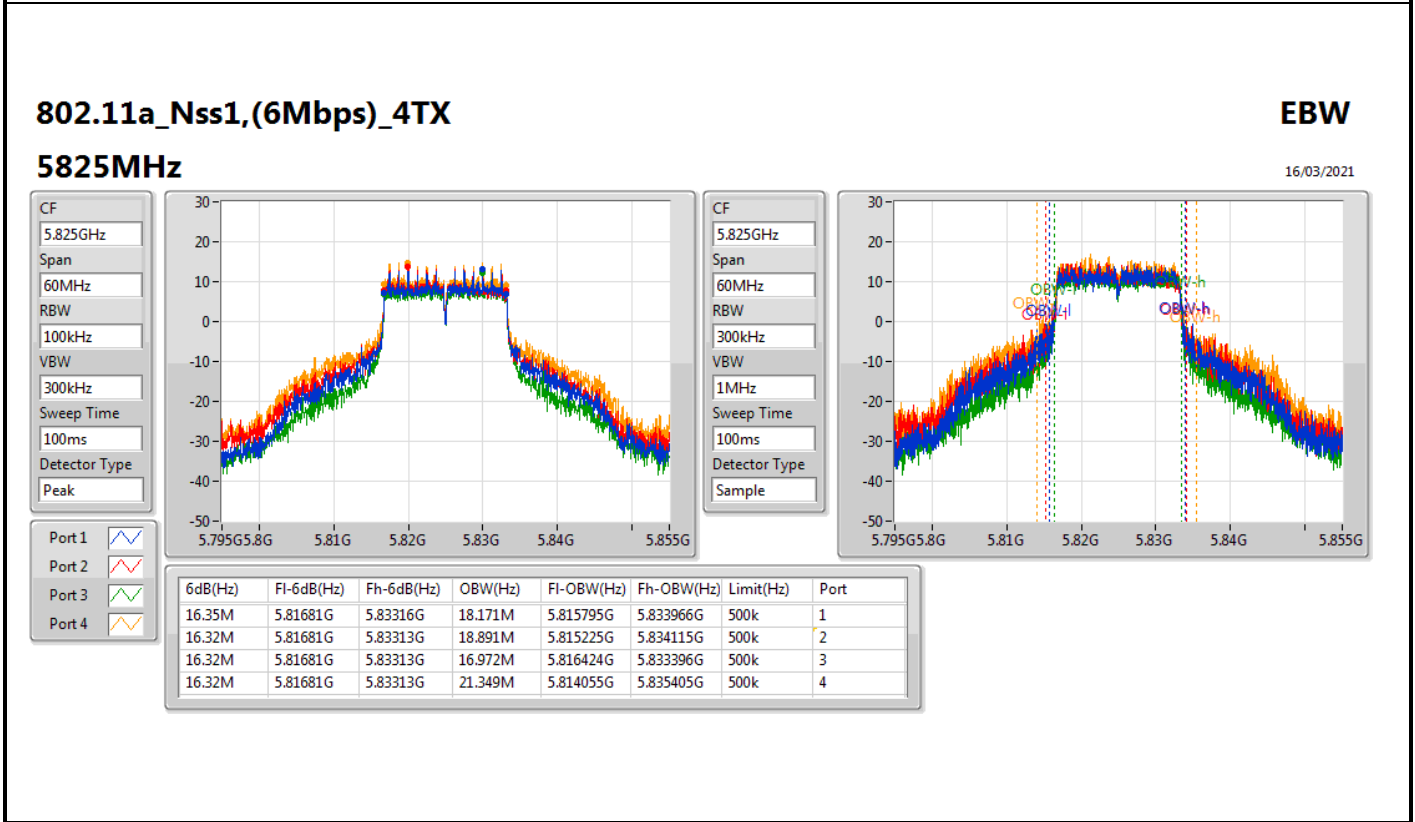
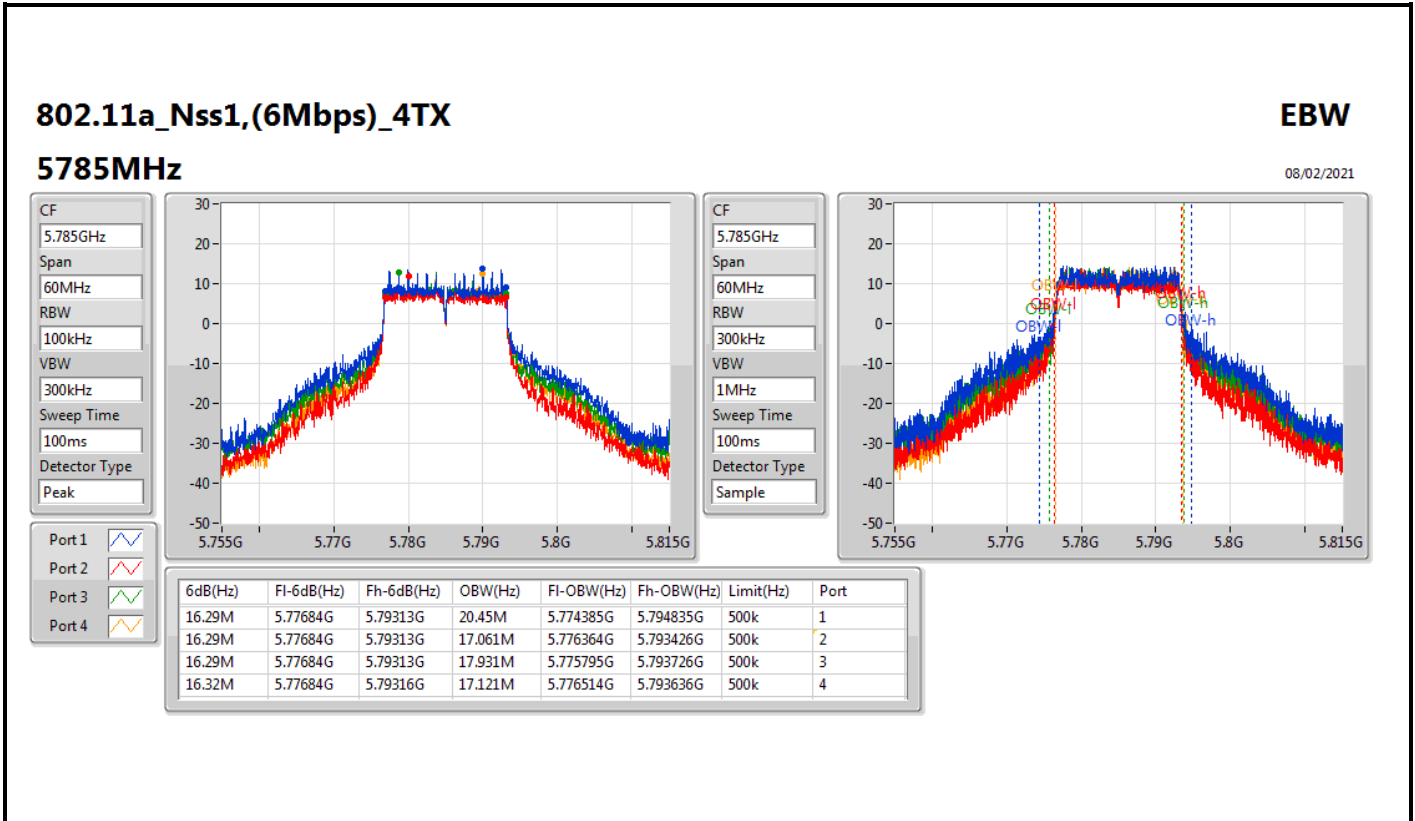
802.11a_Nss1,(6Mbps)_4TX

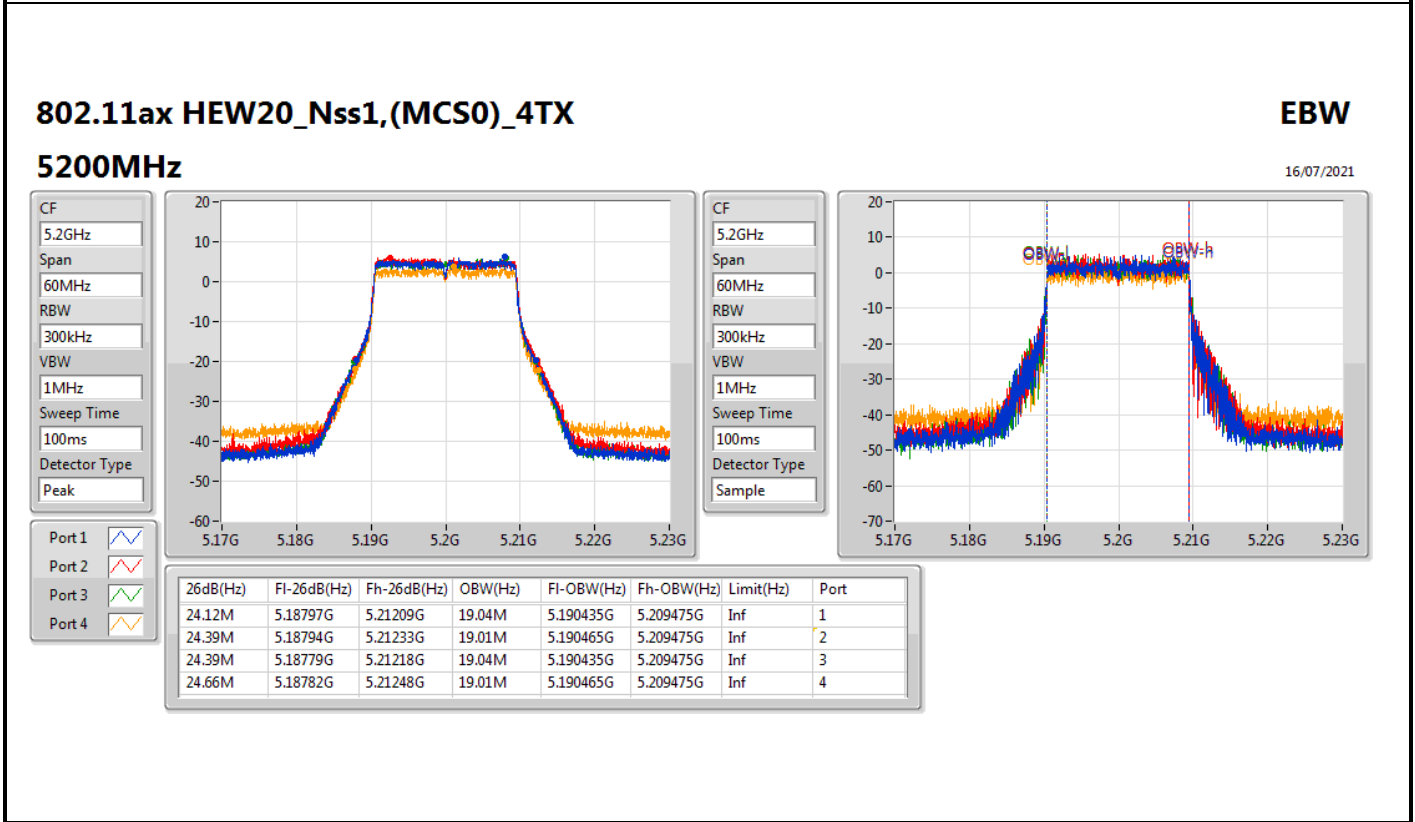
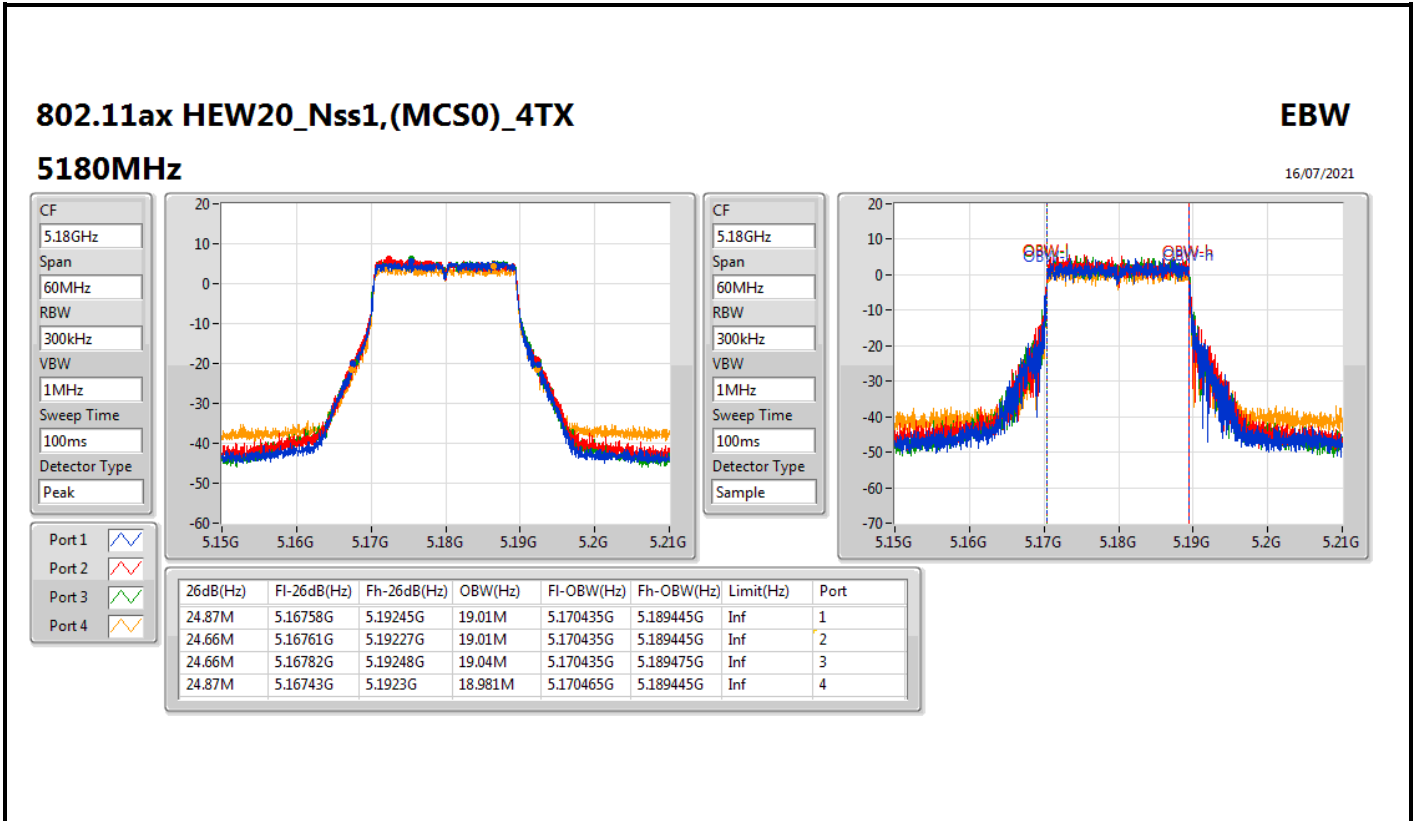
EBW

5745MHz

16/03/2021







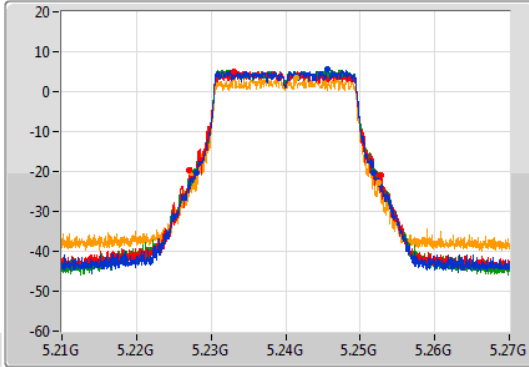
802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

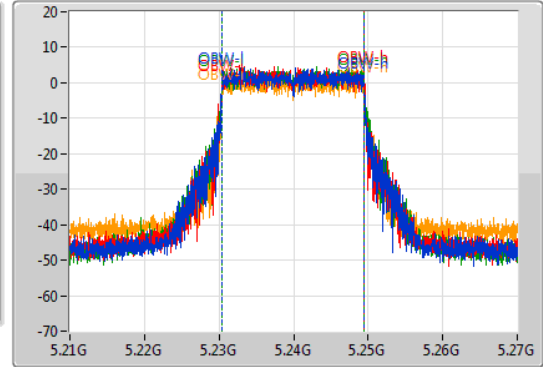
5240MHz

16/07/2021

CF
5.24GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.24GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Sample



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
23.76M	5.228G	5.25176G	19.04M	5.230405G	5.249445G	Inf	1
25.65M	5.2271G	5.25275G	19.07M	5.230405G	5.249475G	Inf	2
24M	5.22782G	5.25182G	19.04M	5.230435G	5.249475G	Inf	3
25.05M	5.2274G	5.25245G	19.1M	5.230405G	5.249505G	Inf	4

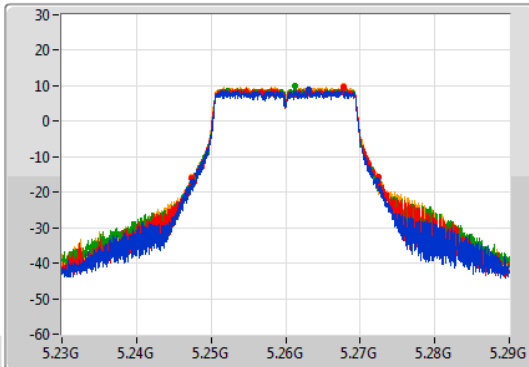
802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

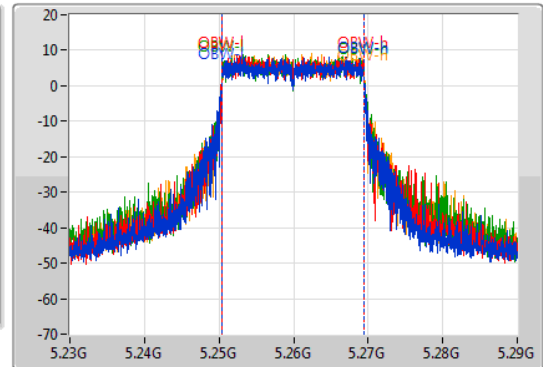
5260MHz

16/03/2021

CF
5.26GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak

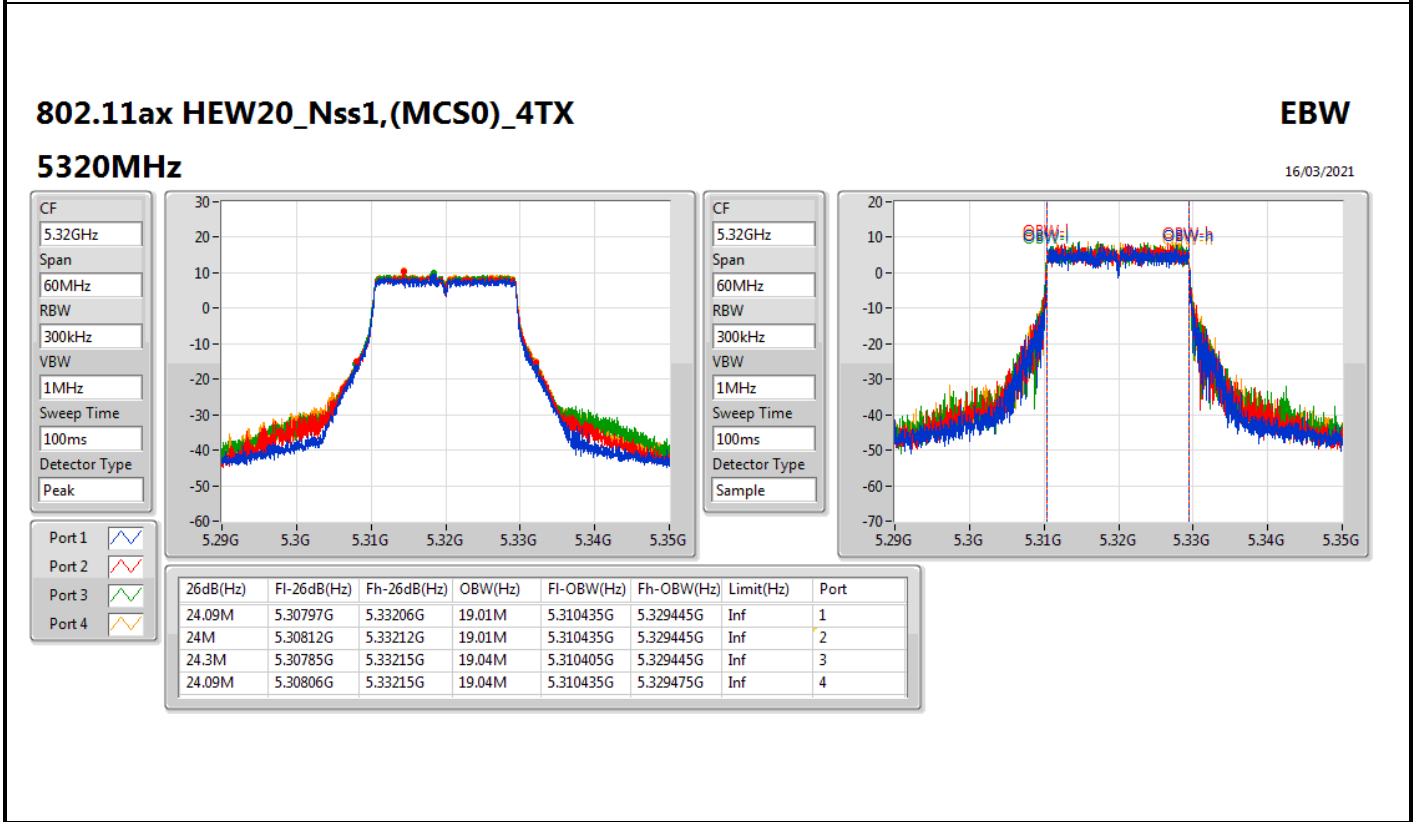
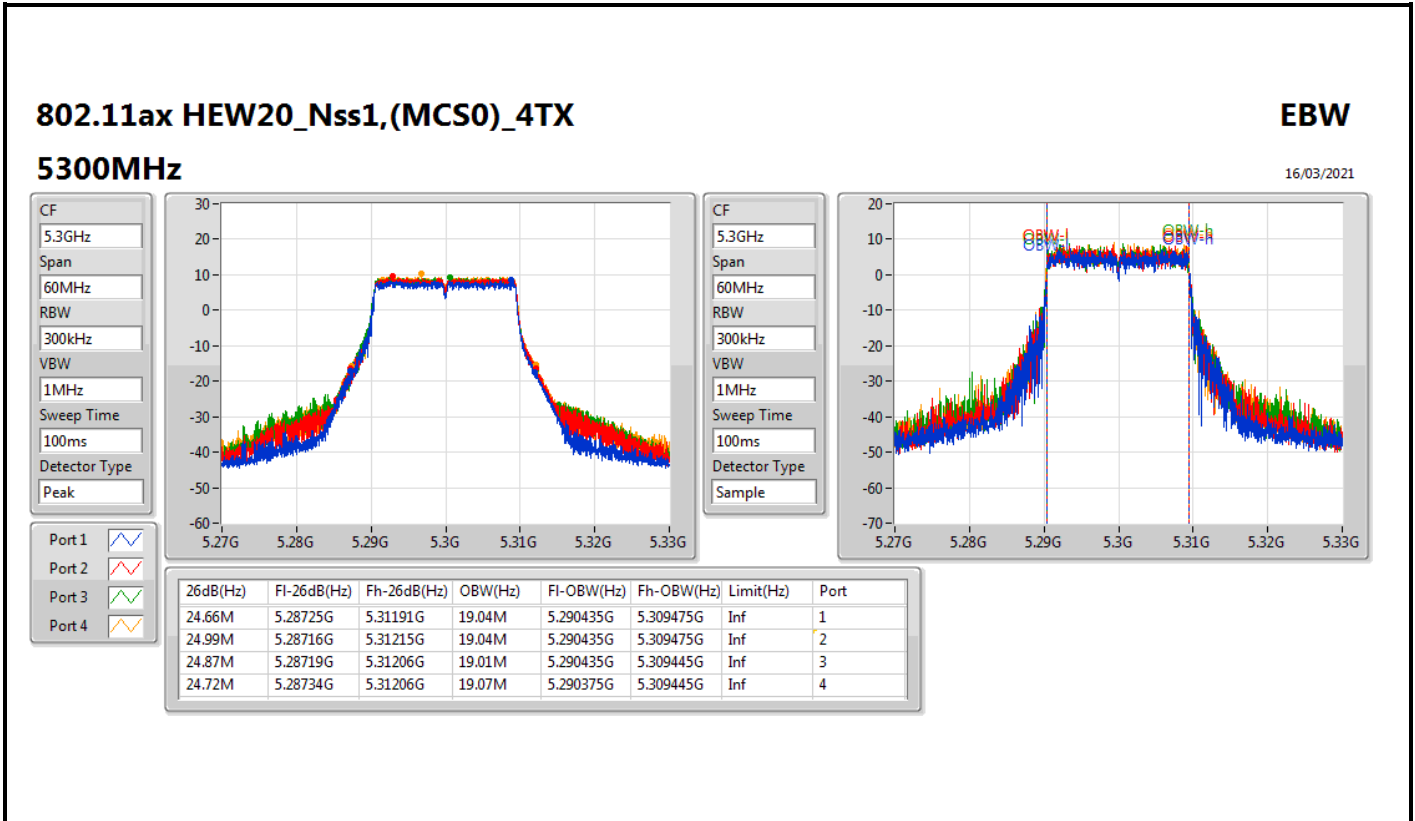


CF
5.26GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Sample



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
24.72M	5.24749G	5.27221G	19.04M	5.250405G	5.269445G	Inf	1
25.02M	5.24743G	5.27245G	19.04M	5.250405G	5.269445G	Inf	2
24.48M	5.24758G	5.27206G	19.04M	5.250405G	5.269445G	Inf	3
25.05M	5.24743G	5.27248G	19.07M	5.250405G	5.269475G	Inf	4



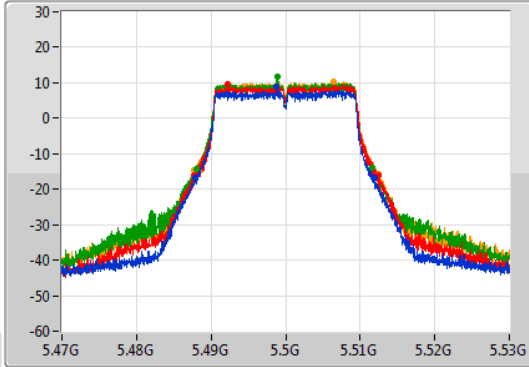
802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

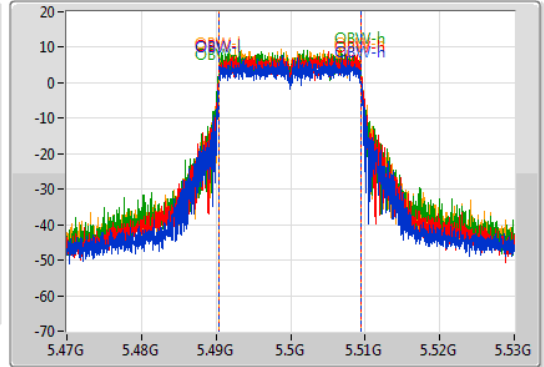
5500MHz

16/03/2021

CF: 5.5GHz
 Span: 60MHz
 RBW: 300kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



CF: 5.5GHz
 Span: 60MHz
 RBW: 300kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Sample



Port 1: [Waveform icon]
 Port 2: [Waveform icon]
 Port 3: [Waveform icon]
 Port 4: [Waveform icon]

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.97M	5.48791G	5.51188G	19.04M	5.490435G	5.509475G	Inf	1
24.72M	5.4877G	5.51242G	19.07M	5.490435G	5.509505G	Inf	2
23.64M	5.48803G	5.51167G	19.04M	5.490405G	5.509445G	Inf	3
24.69M	5.48779G	5.51248G	19.04M	5.490435G	5.509475G	Inf	4

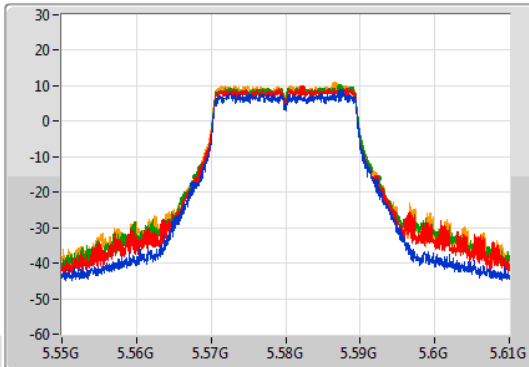
802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

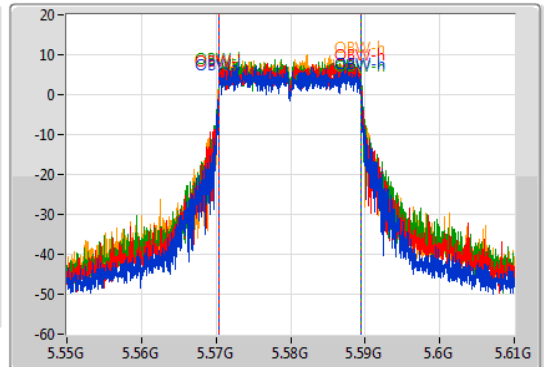
5580MHz

16/03/2021

CF: 5.58GHz
 Span: 60MHz
 RBW: 300kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak

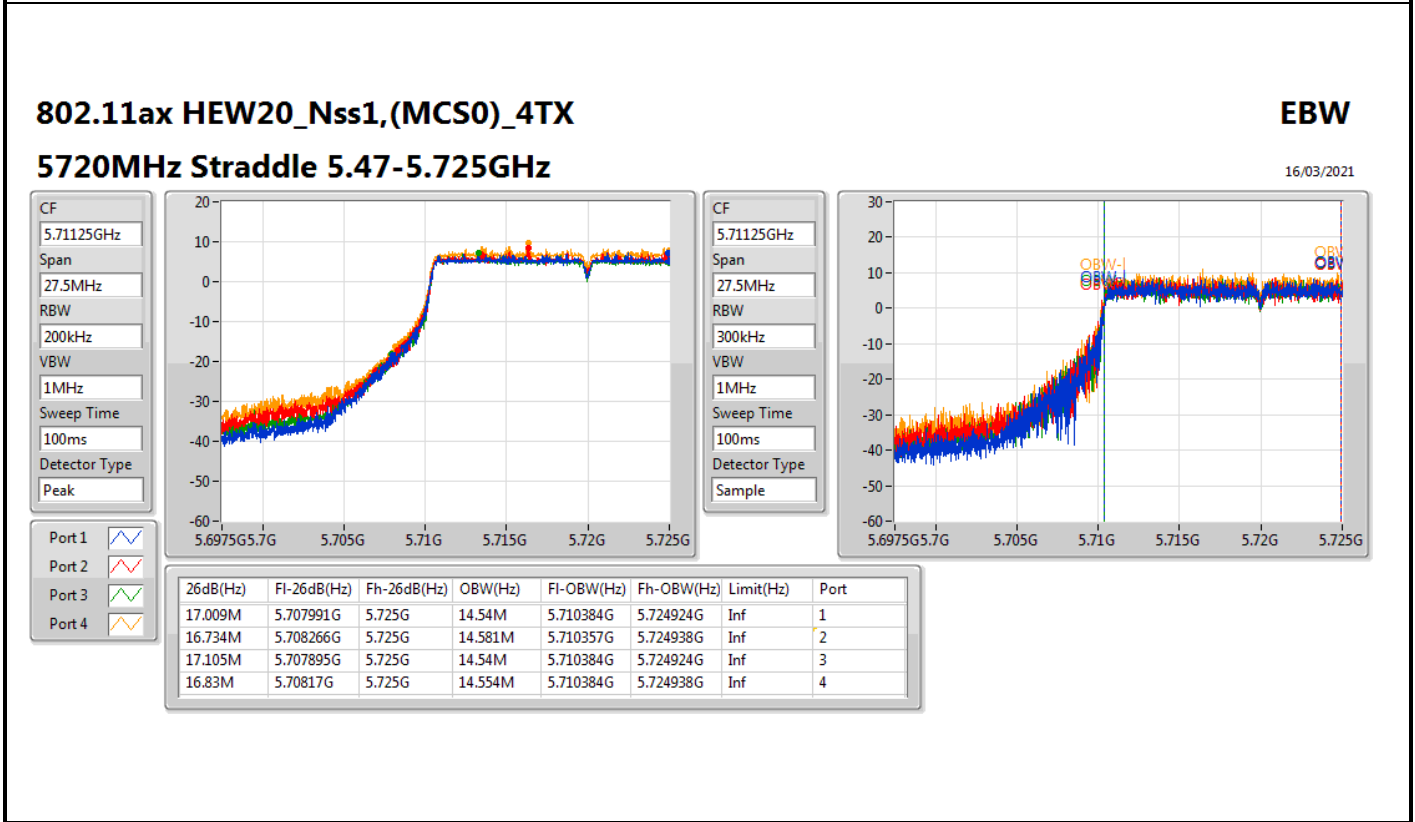
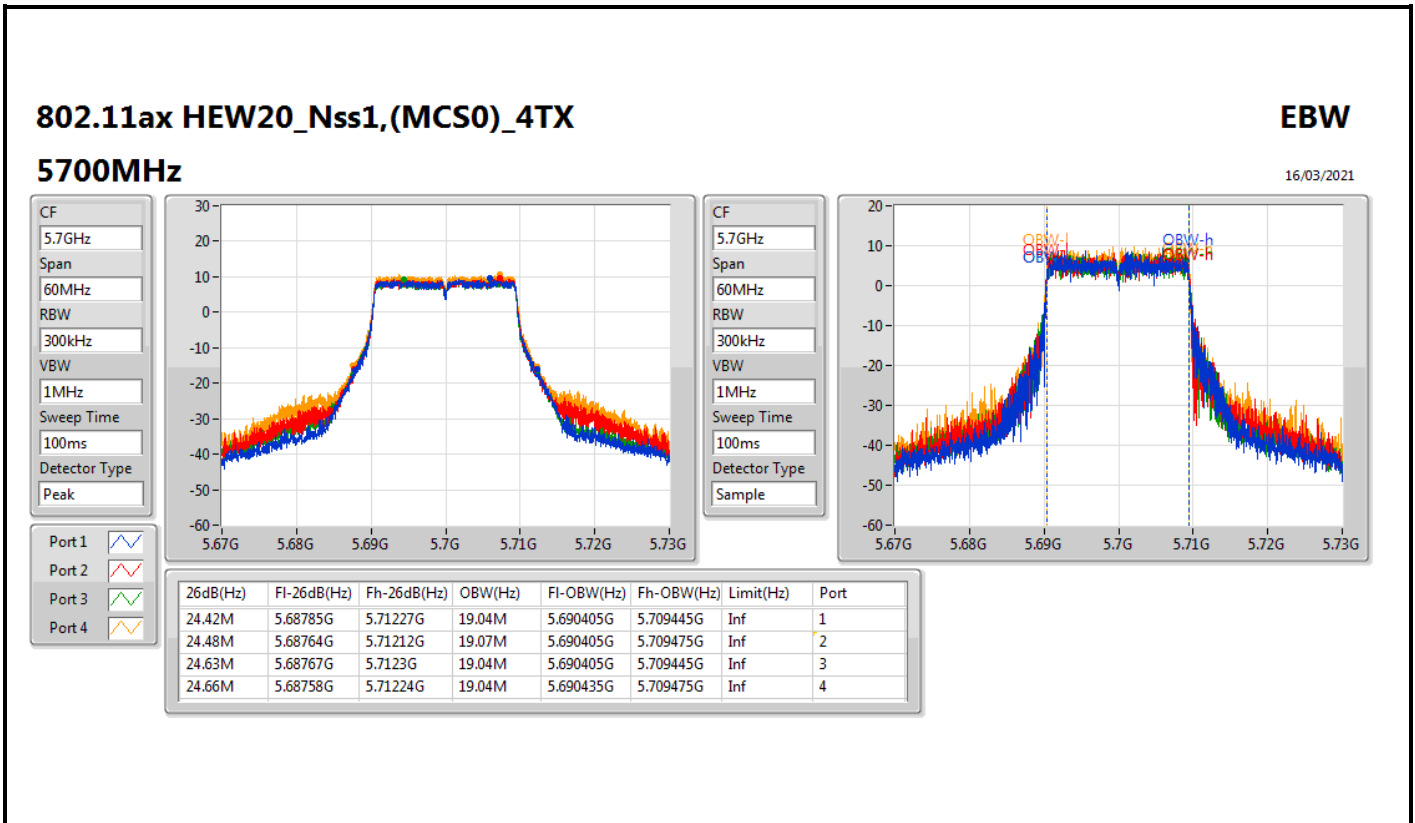


CF: 5.58GHz
 Span: 60MHz
 RBW: 300kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Sample



Port 1: [Waveform icon]
 Port 2: [Waveform icon]
 Port 3: [Waveform icon]
 Port 4: [Waveform icon]

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
24.57M	5.56761G	5.59218G	19.04M	5.570435G	5.589475G	Inf	1
24.03M	5.56809G	5.59212G	19.04M	5.570435G	5.589475G	Inf	2
24.51M	5.56788G	5.59239G	19.04M	5.570435G	5.589475G	Inf	3
24.09M	5.56794G	5.59203G	19.01M	5.570435G	5.589445G	Inf	4

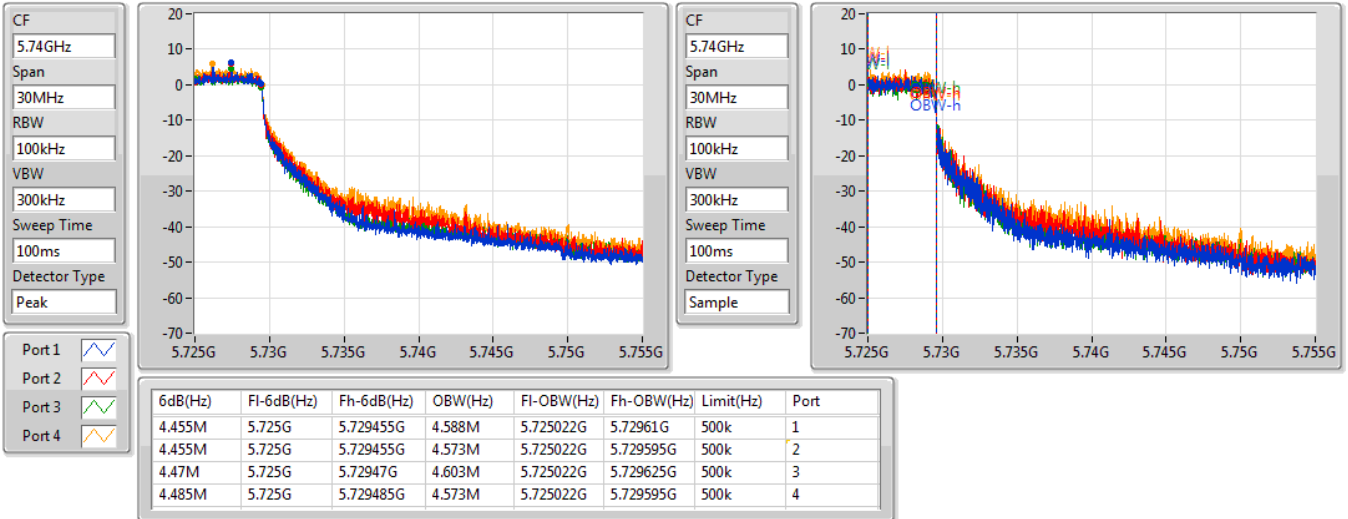


802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5720MHz Straddle 5.725-5.85GHz

16/03/2021

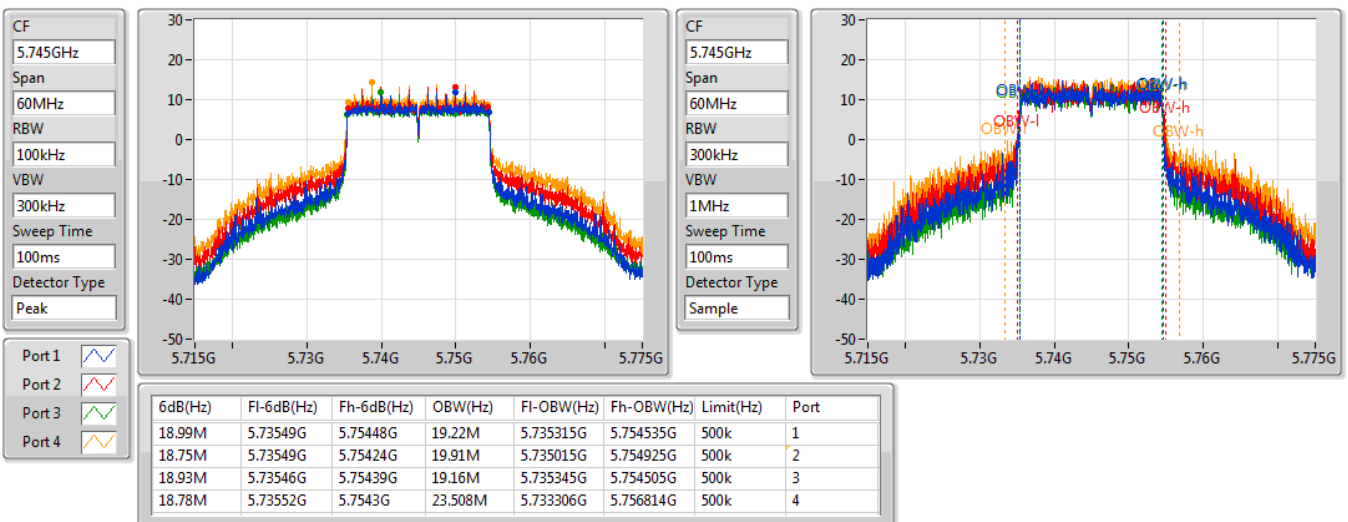


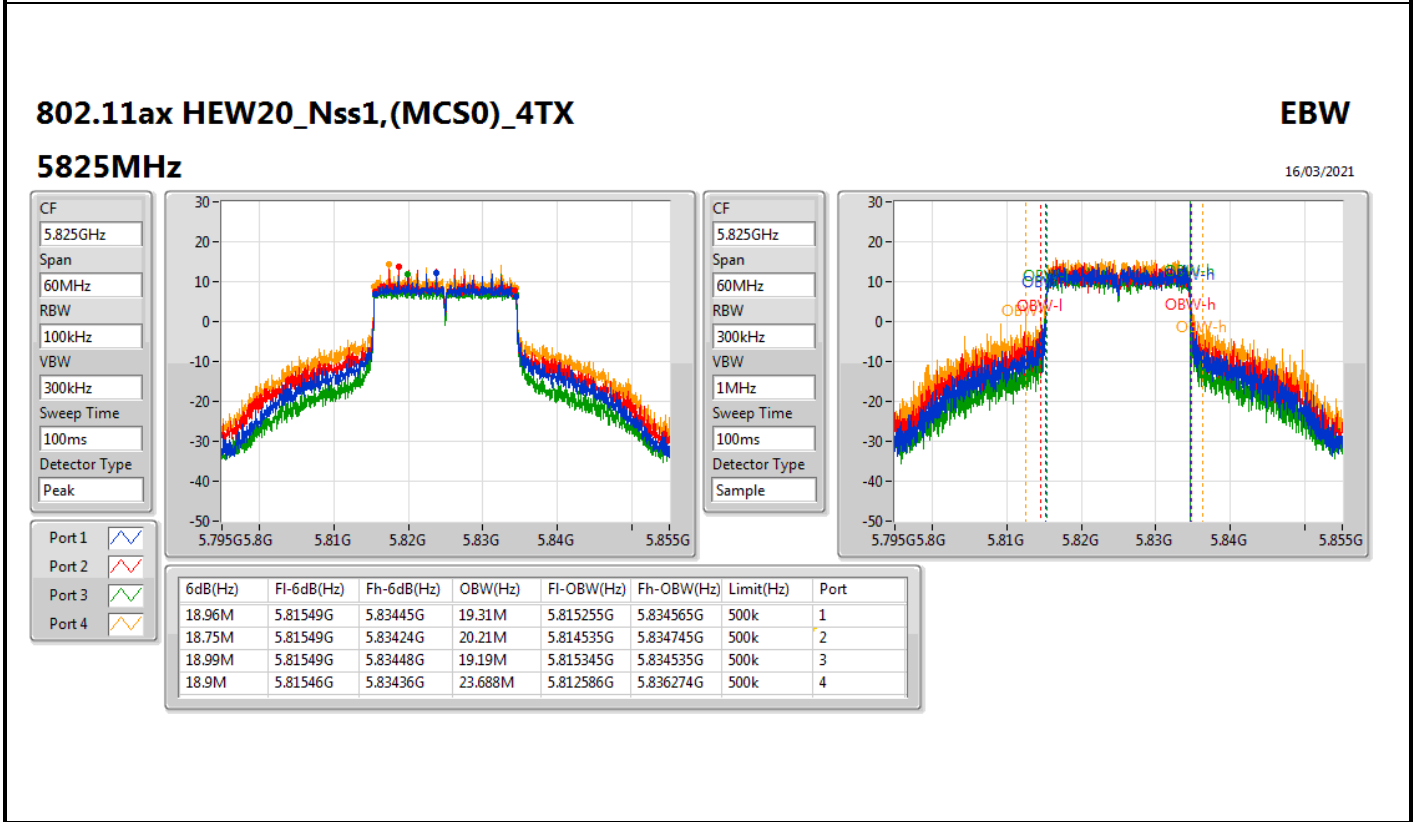
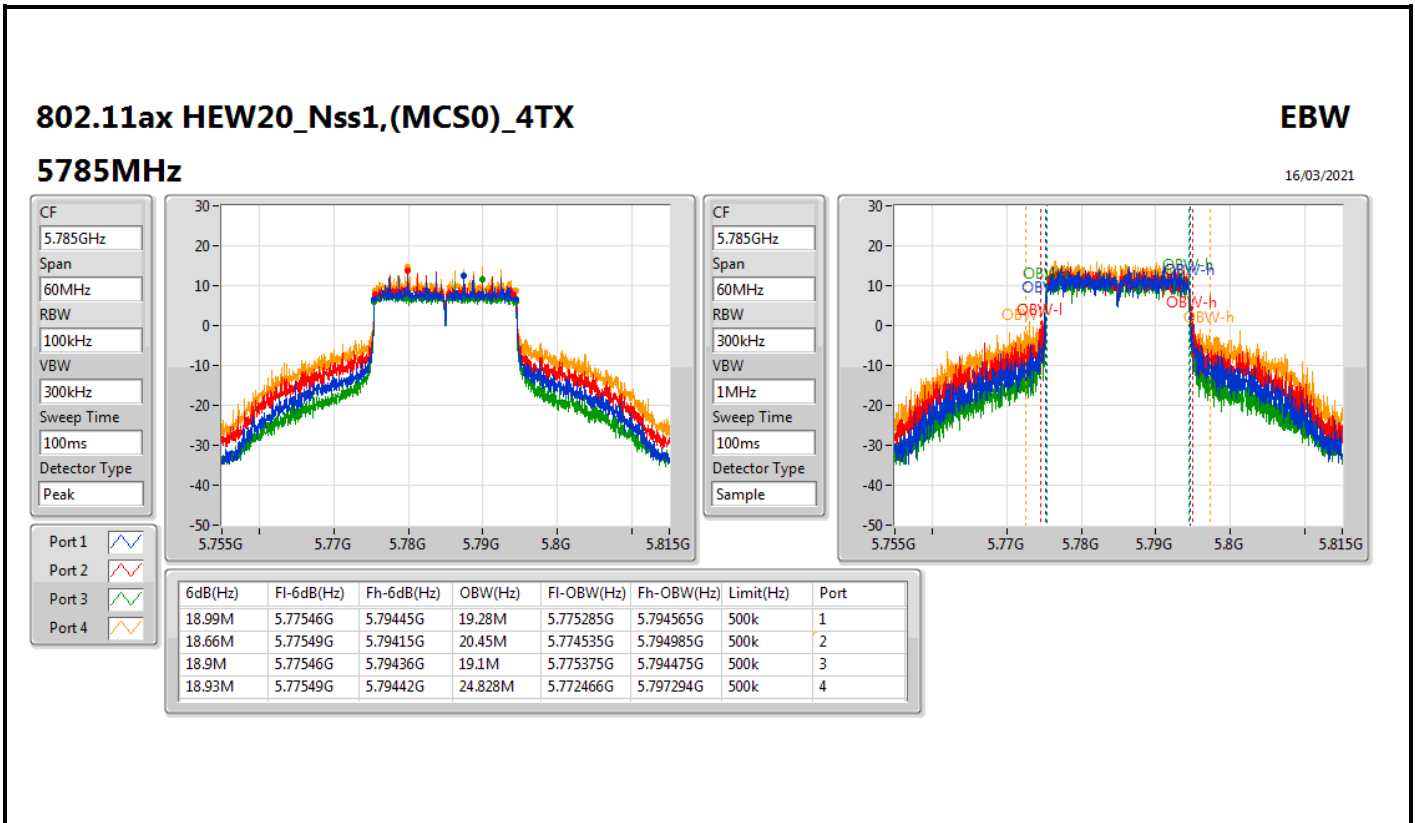
802.11ax HEW20_Nss1,(MCS0)_4TX

EBW

5745MHz

16/03/2021





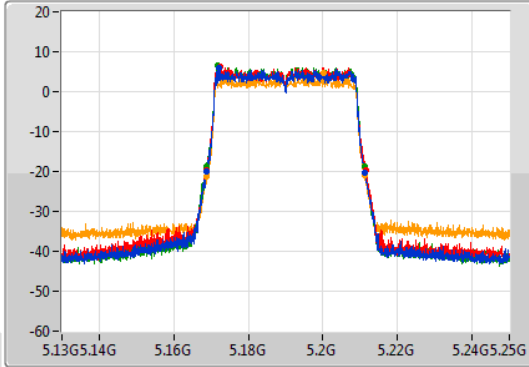
802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

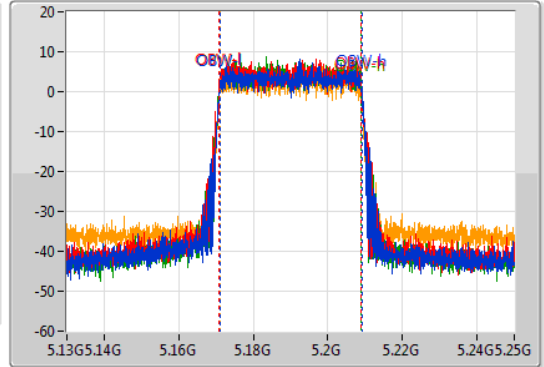
5190MHz

16/07/2021

CF
5.19GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.19GHz
Span
120MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Sample



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
42.42M	5.16876G	5.21118G	38.081M	5.17099G	5.20907G	Inf	1
42.84M	5.16864G	5.21148G	37.961M	5.17093G	5.208891G	Inf	2
42.36M	5.16876G	5.21112G	38.021M	5.17099G	5.20901G	Inf	3
42.6M	5.16876G	5.21136G	37.901M	5.17099G	5.208891G	Inf	4

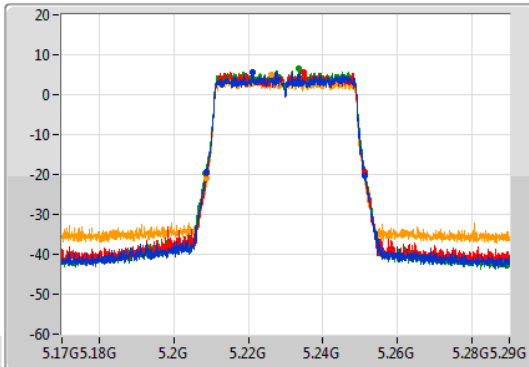
802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

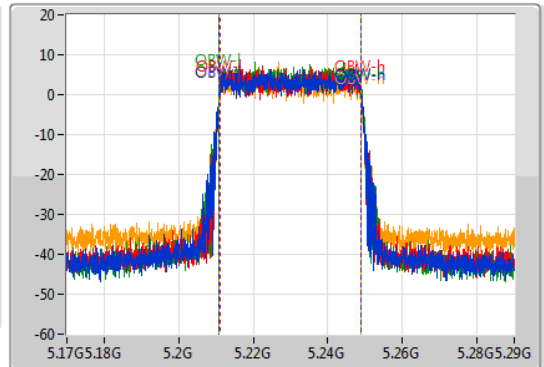
5230MHz

16/07/2021

CF
5.23GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.23GHz
Span
120MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Sample



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
42.6M	5.2087G	5.2513G	38.081M	5.21093G	5.24901G	Inf	1
42.36M	5.20894G	5.2513G	37.961M	5.21099G	5.248951G	Inf	2
42.96M	5.2084G	5.25136G	38.021M	5.21093G	5.248951G	Inf	3
42.42M	5.20888G	5.2513G	38.021M	5.21093G	5.248951G	Inf	4

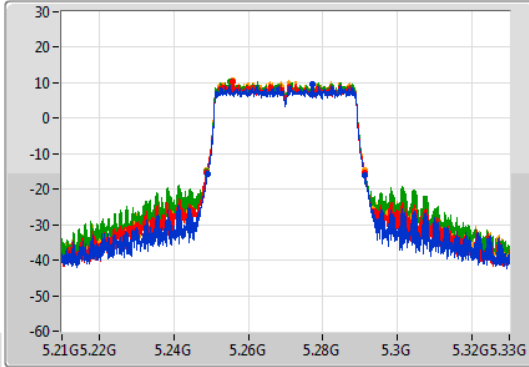
802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

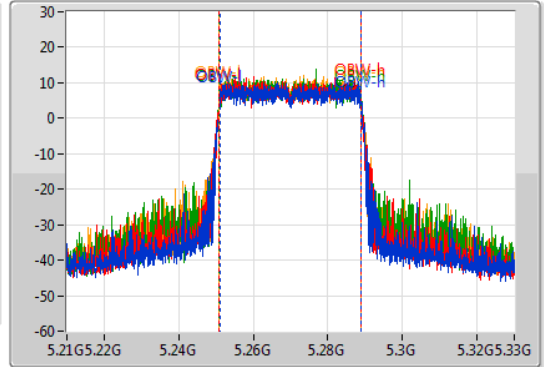
5270MHz

16/03/2021

CF: 5.27GHz
 Span: 120MHz
 RBW: 500kHz
 VBW: 2MHz
 Sweep Time: 100ms
 Detector Type: Peak



CF: 5.27GHz
 Span: 120MHz
 RBW: 1MHz
 VBW: 3MHz
 Sweep Time: 100ms
 Detector Type: Sample



Port 1: [Waveform icon]
 Port 2: [Waveform icon]
 Port 3: [Waveform icon]
 Port 4: [Waveform icon]

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
42.18M	5.249G	5.29118G	38.021M	5.25099G	5.28901G	Inf	1
42.42M	5.24882G	5.29124G	38.081M	5.25087G	5.288951G	Inf	2
42.36M	5.24888G	5.29124G	38.081M	5.25093G	5.28901G	Inf	3
42.42M	5.24882G	5.29124G	38.021M	5.25093G	5.288951G	Inf	4

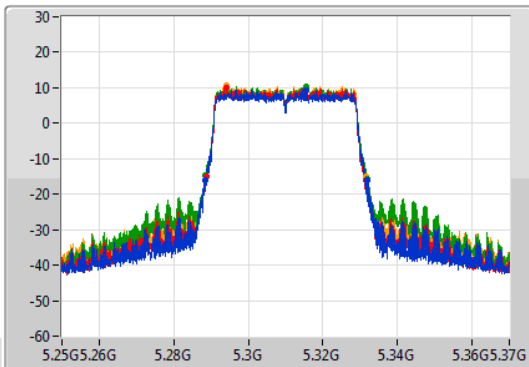
802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

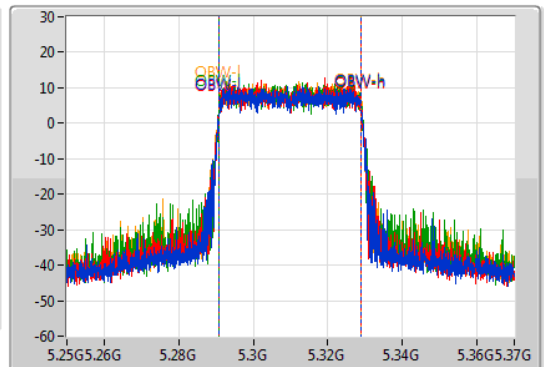
5310MHz

16/03/2021

CF: 5.31GHz
 Span: 120MHz
 RBW: 500kHz
 VBW: 2MHz
 Sweep Time: 100ms
 Detector Type: Peak



CF: 5.31GHz
 Span: 120MHz
 RBW: 1MHz
 VBW: 3MHz
 Sweep Time: 100ms
 Detector Type: Sample



Port 1: [Waveform icon]
 Port 2: [Waveform icon]
 Port 3: [Waveform icon]
 Port 4: [Waveform icon]

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
43.56M	5.28834G	5.3319G	38.021M	5.29093G	5.328951G	Inf	1
42.78M	5.28888G	5.33166G	38.081M	5.29087G	5.328951G	Inf	2
43.44M	5.28846G	5.3319G	38.081M	5.29087G	5.328951G	Inf	3
42.78M	5.28882G	5.3316G	38.081M	5.29093G	5.32901G	Inf	4

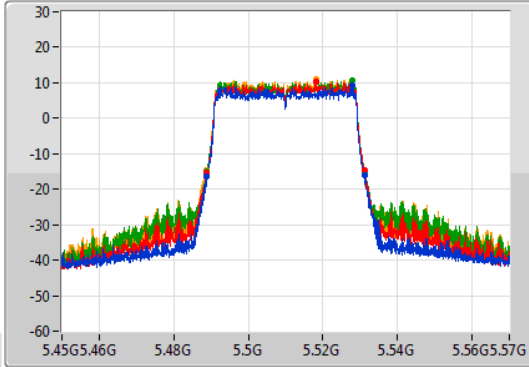
802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

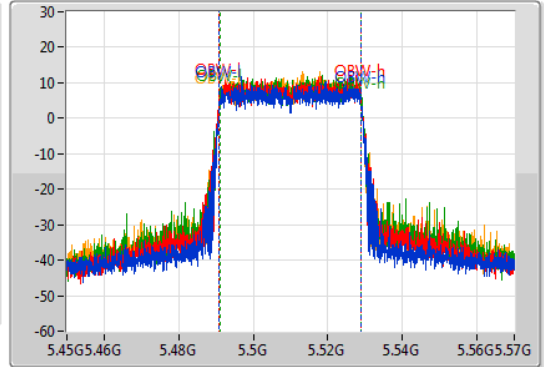
5510MHz

16/03/2021

CF
5.51GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.51GHz
Span
120MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Sample



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
42.42M	5.4887G	5.53112G	38.081M	5.49093G	5.52901G	Inf	1
42.3M	5.48888G	5.53118G	37.961M	5.49093G	5.528891G	Inf	2
42.6M	5.4887G	5.5313G	38.021M	5.49099G	5.52901G	Inf	3
42.42M	5.48876G	5.53118G	38.021M	5.49093G	5.528951G	Inf	4

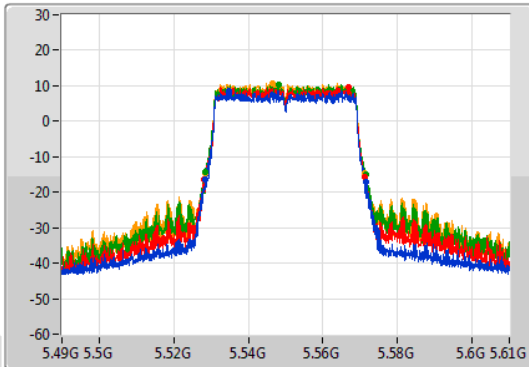
802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

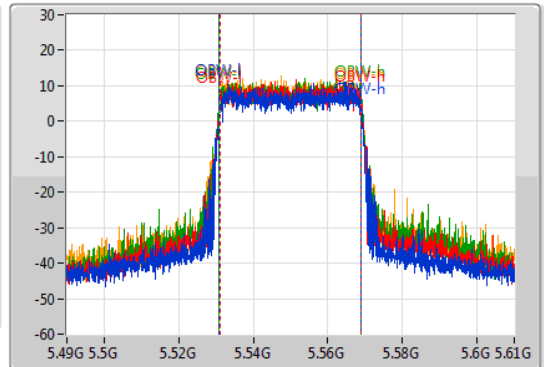
5550MHz

16/03/2021

CF
5.55GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak

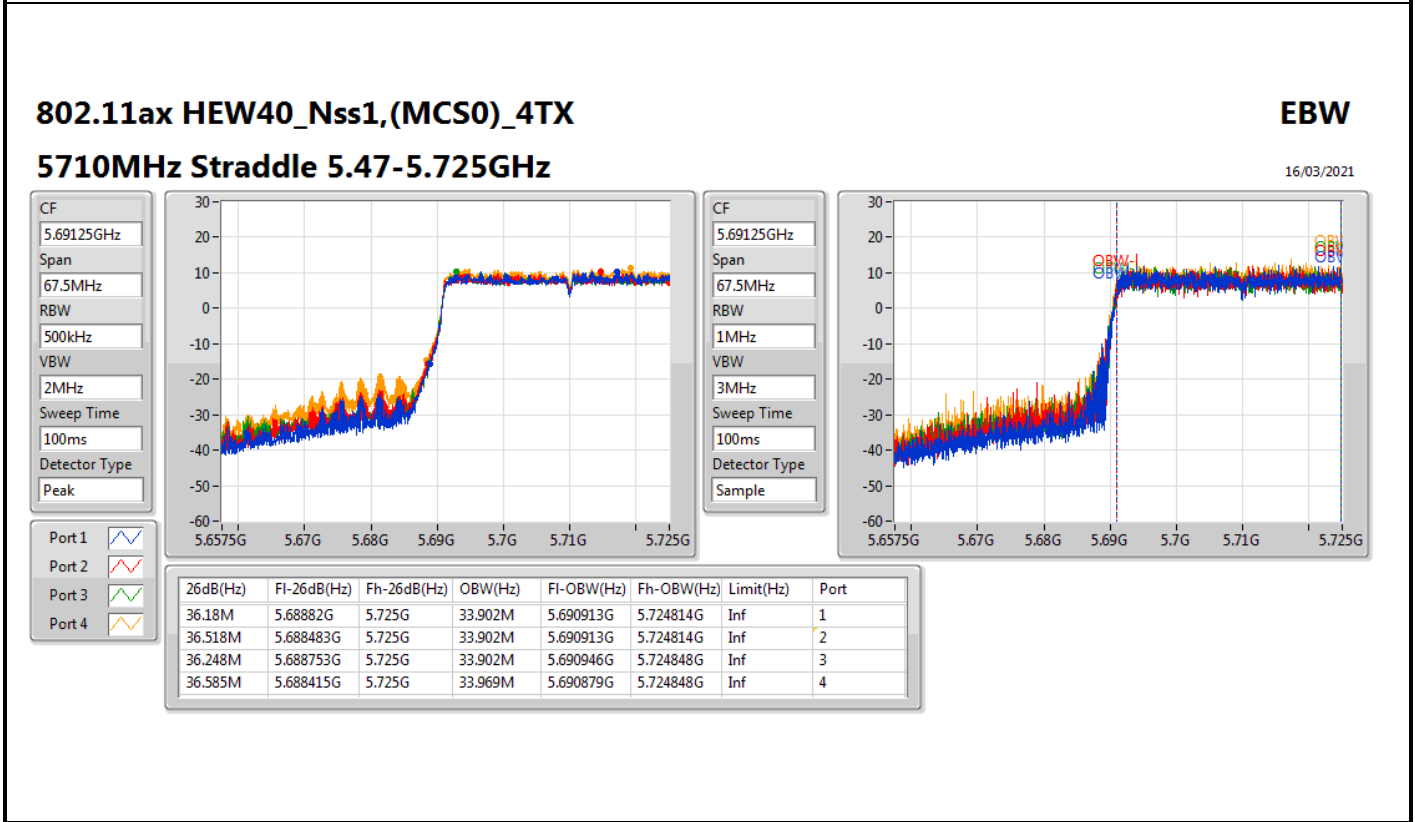
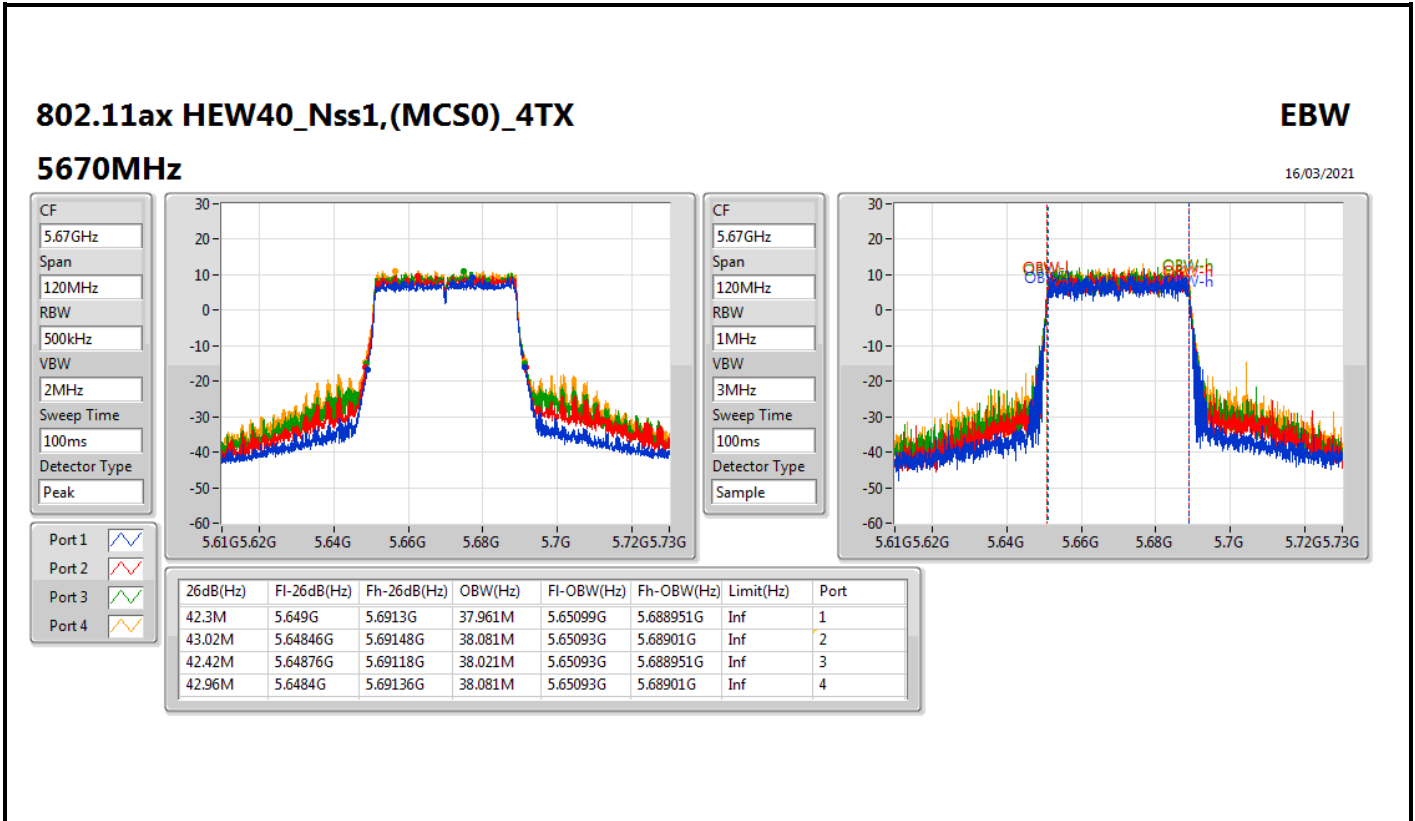


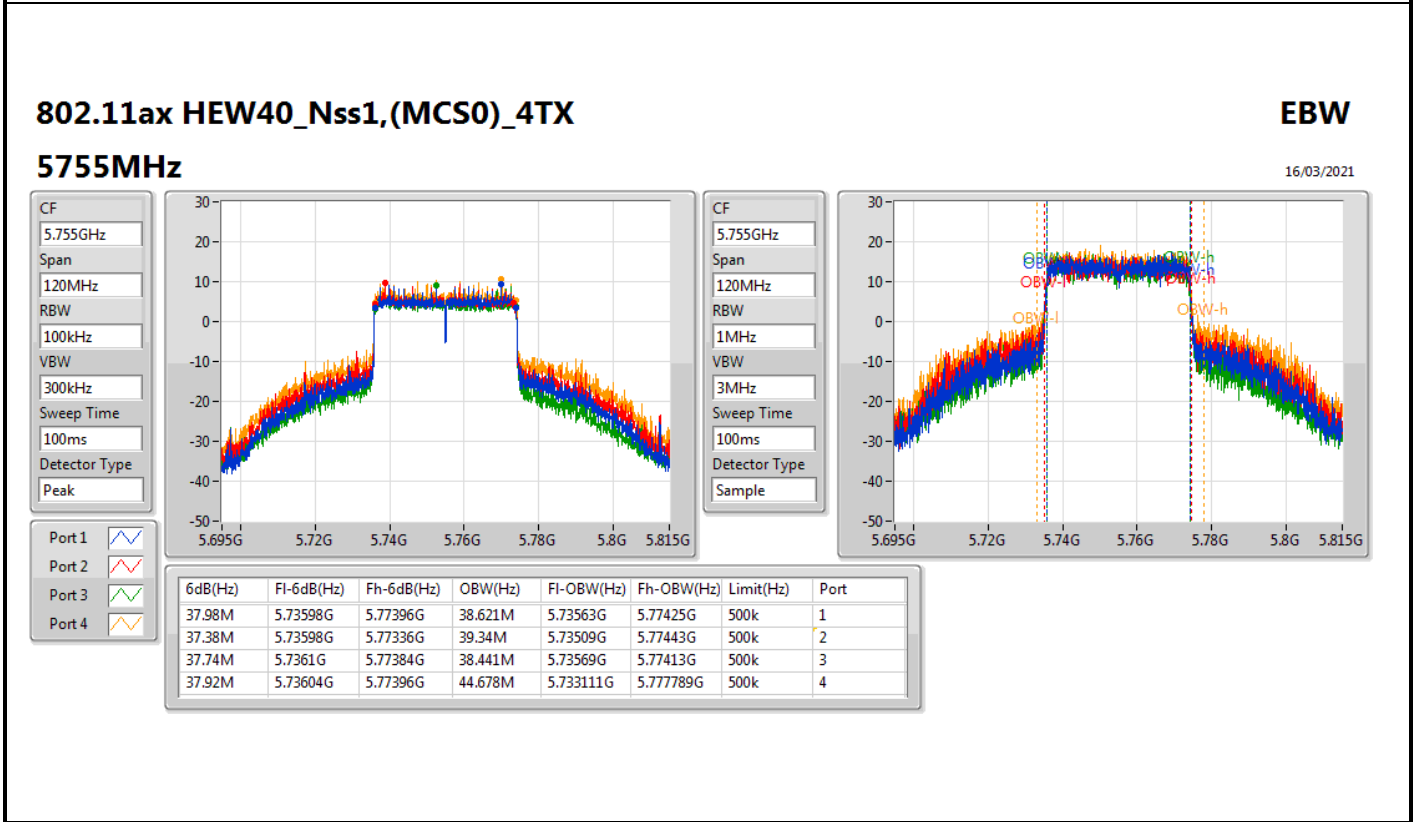
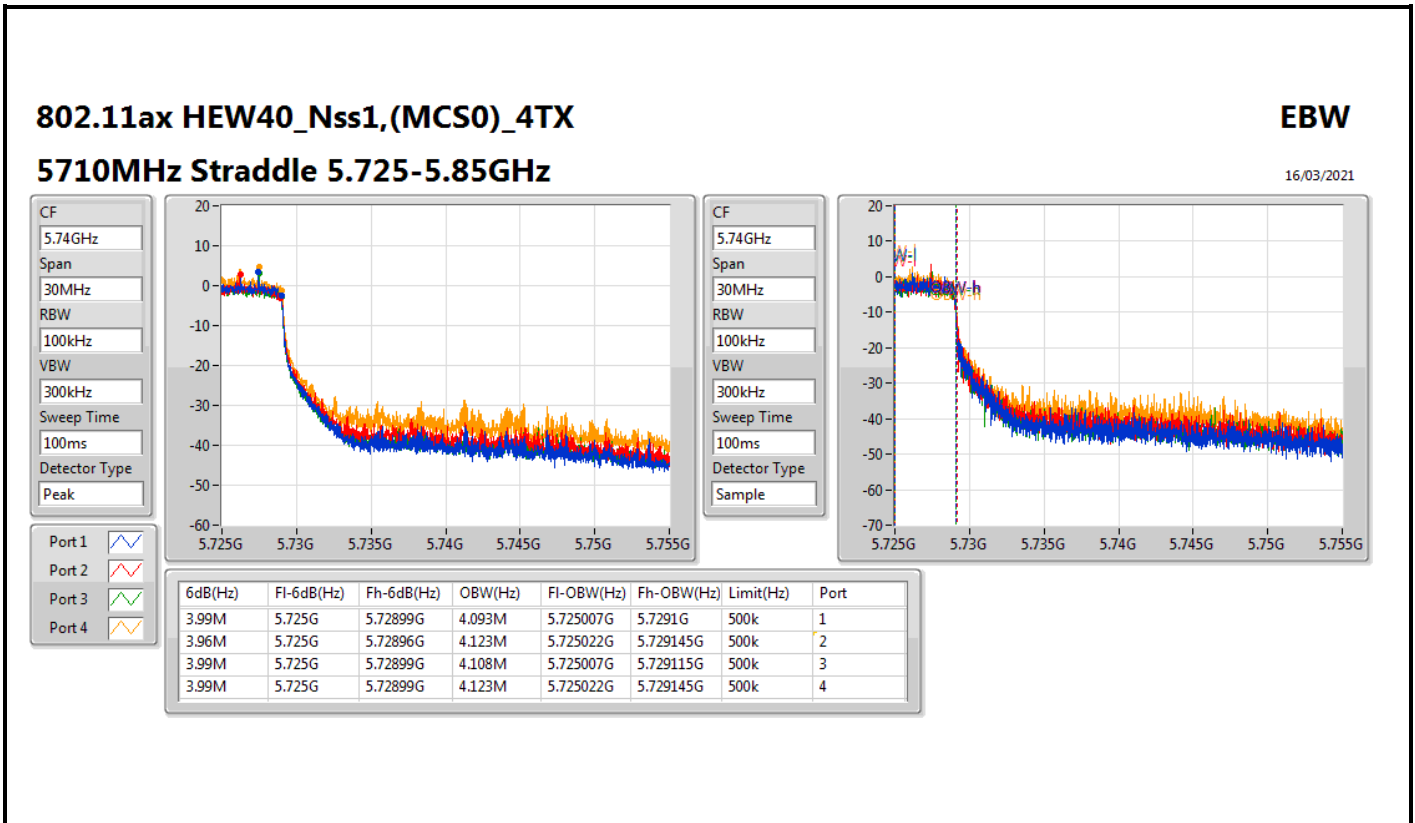
CF
5.55GHz
Span
120MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Sample



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
43.14M	5.52834G	5.57148G	38.021M	5.53093G	5.568951G	Inf	1
43.08M	5.52816G	5.57124G	37.961M	5.53099G	5.568951G	Inf	2
43.08M	5.52834G	5.57142G	38.141M	5.53087G	5.56901G	Inf	3
43.02M	5.52828G	5.5713G	38.021M	5.53099G	5.56901G	Inf	4



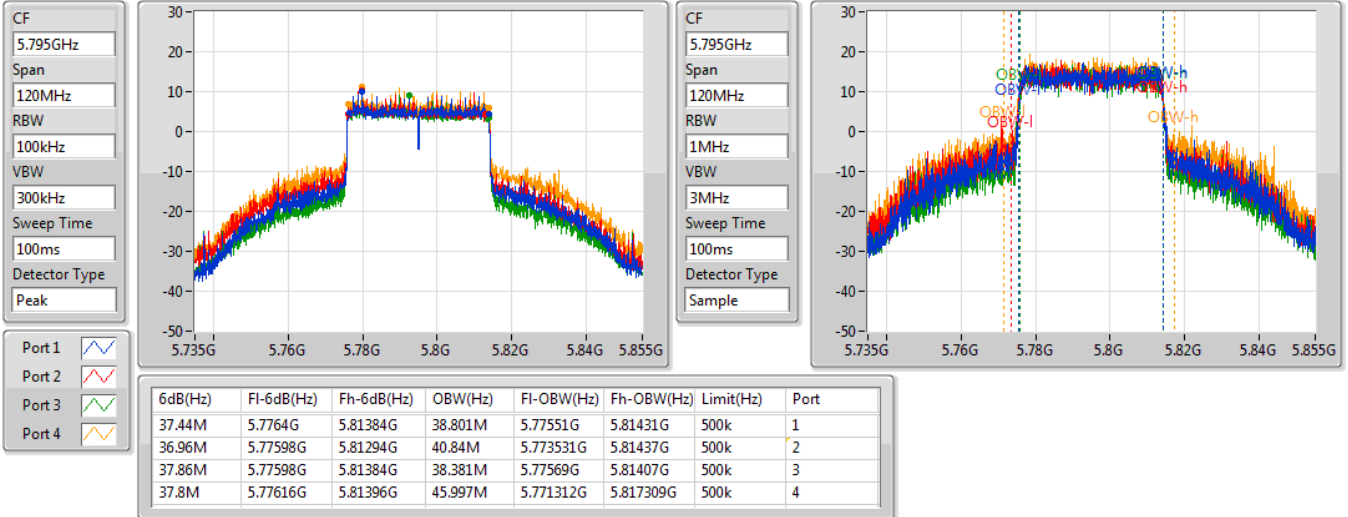


802.11ax HEW40_Nss1,(MCS0)_4TX

EBW

5795MHz

16/03/2021

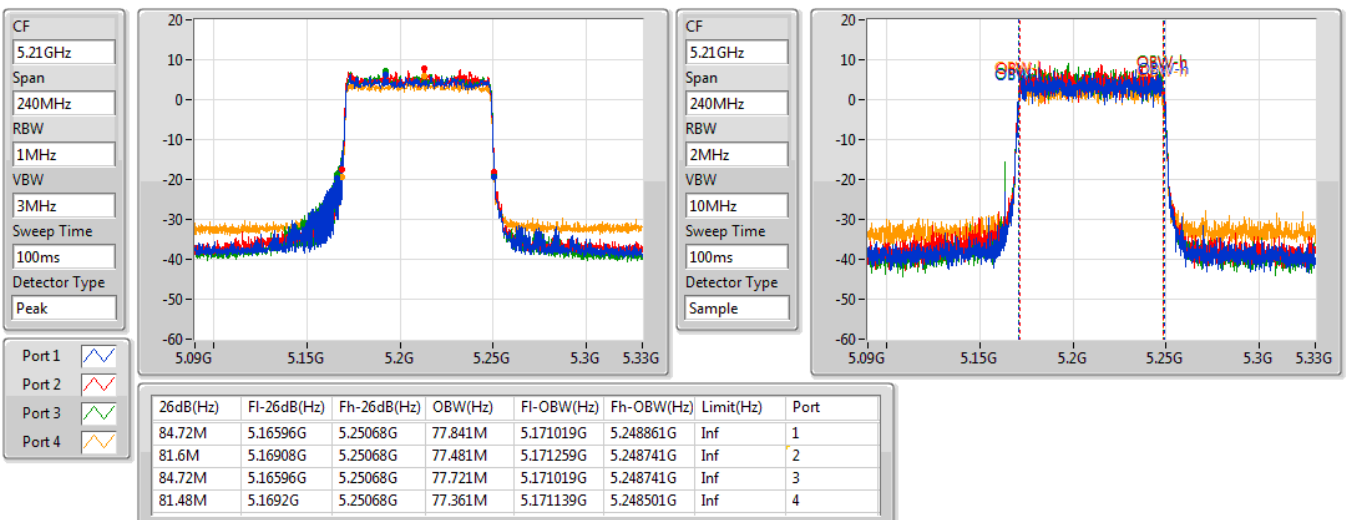


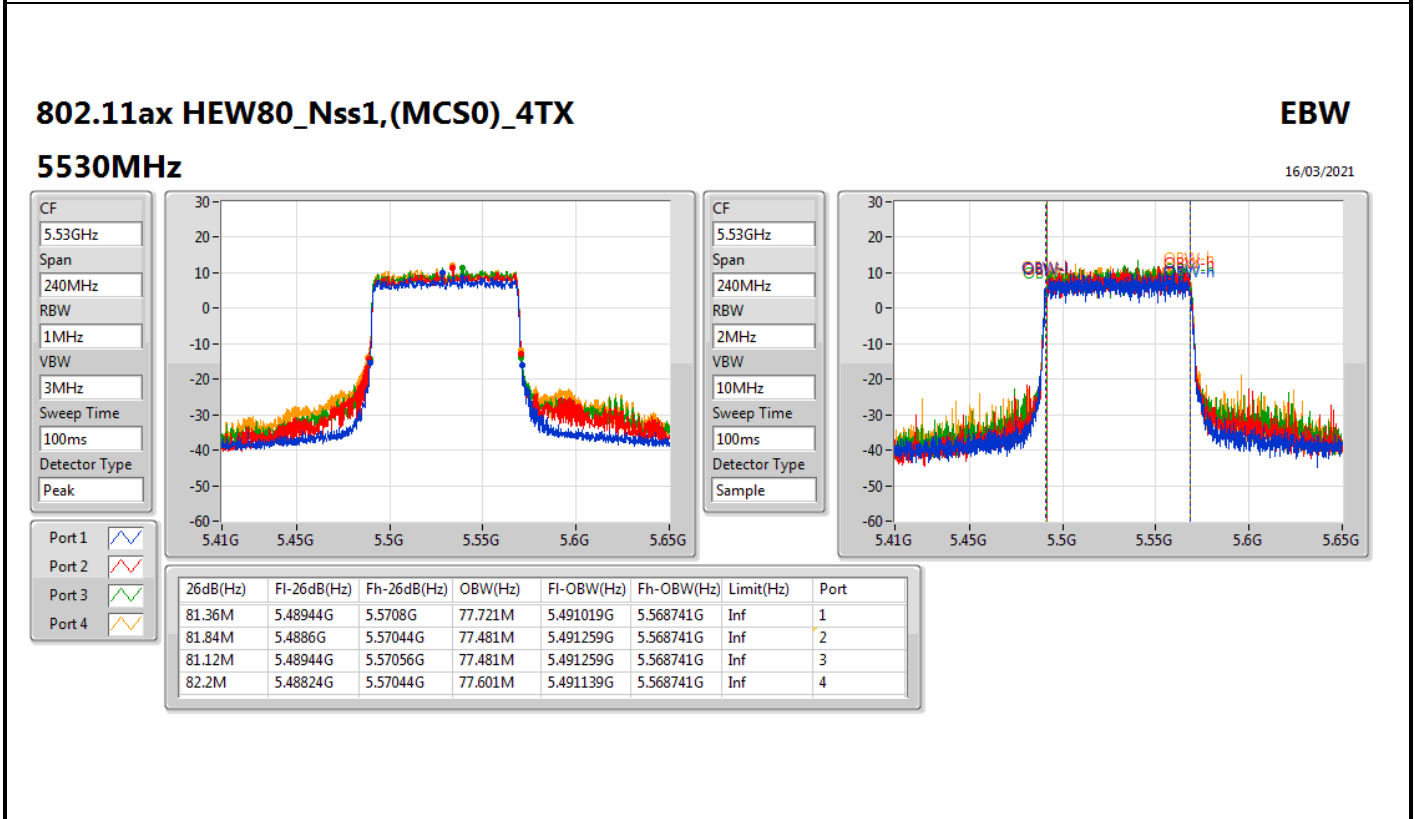
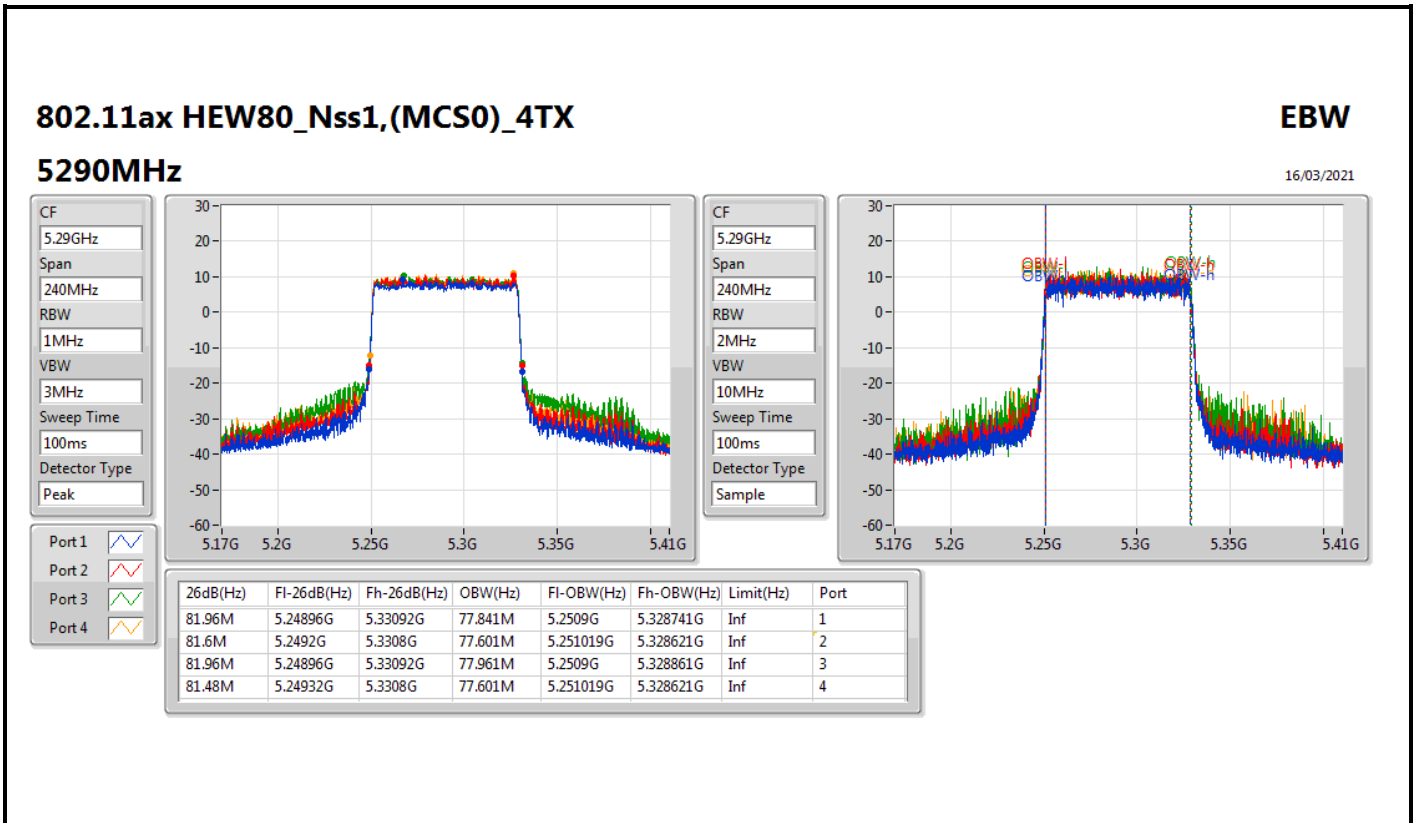
802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

5210MHz

16/07/2021



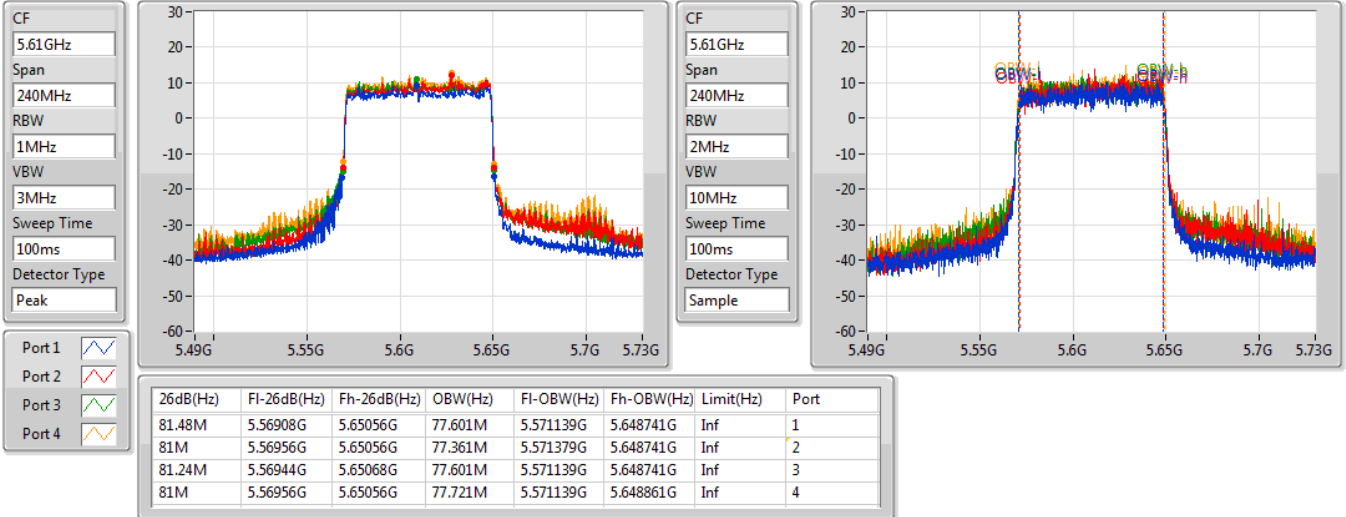


802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

5610MHz

16/03/2021



802.11ax HEW80_Nss1,(MCS0)_4TX

EBW

5690MHz Straddle 5.47-5.725GHz

16/03/2021

