



RADIO TEST REPORT

FCC ID : Z3WAIR4971
Equipment : Tri-Band 11ax Smart Wi-Fi Extender, AT&T Smart Wi-Fi Extender
Brand Name : AirTies
Model Name : WFEXT4971-41
Applicant : AirTies Wireless Networks
Mithat Uluunlu Sokak No. 23 Esentepe, Sisli Istanbul, 34394 Turkey
Manufacturer : AirTies Wireless Networks
Mithat Uluunlu Sokak No. 23 Esentepe, Sisli Istanbul, 34394 Turkey
Standard : 47 CFR FCC Part 15.407

The product was received on Oct. 09, 2020, and testing was started from Oct. 09, 2020 and completed on Oct. 17, 2020. We, Sporton International Inc. Hsinchu Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. Hsinchu Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

Sporton International Inc. Hsinchu Laboratory

No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)



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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	15.407(a)	Emission Bandwidth	PASS	-
3.2	15.407(a)	Maximum Conducted Output Power	PASS	-
3.3	15.407(a)	Peak Power Spectral Density	PASS	-
3.4	15.407(b)	Unwanted Emissions	PASS	-

Reference to Sporton Project No.: 092402.

Declaration of Conformity:

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

Comments and Explanations:

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

Reviewed by: Sam Chen

Report Producer: Cindy Peng



1 General Description

1.1 Information

1.1.1 RF General Information

Frequency Range (MHz)	IEEE Std. 802.11	Ch. Frequency (MHz)	Channel Number
5250-5350	a, n (HT20), ac (VHT20), ax (HEW20)	5260-5320	52-64 [4]
5470-5725		5500-5720	100-144 [12]
5250-5350	n (HT40), ac (VHT40), ax (HEW40)	5270-5310	54-62 [2]
5470-5725		5510-5710	102-142 [6]
5250-5350	ac (VHT80), ax (HEW80)	5290	58 [1]
5470-5725		5530-5690	106-138 [3]

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



Band	Mode	BWch (MHz)	Nant
5.47-5.725GHz	802.11n HT40	40	3TX
5.47-5.725GHz	802.11ac VHT40	40	3TX
5.47-5.725GHz	802.11ac VHT40-BF	40	3TX
5.47-5.725GHz	802.11ax HEW40	40	3TX
5.47-5.725GHz	802.11ax HEW40-BF	40	3TX
5.47-5.725GHz	802.11ac VHT80	80	3TX
5.47-5.725GHz	802.11ac VHT80-BF	80	3TX
5.47-5.725GHz	802.11ax HEW80	80	3TX
5.47-5.725GHz	802.11ax HEW80-BF	80	3TX

Note:

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



1.1.2 Antenna Information

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

Note: The above information was declared by manufacturer.

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

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

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

Port 1 and Port 2 could transmit/receive simultaneously.

For 5GHz Band 3 and 5GHz Band 4 function, 802.11a/n/ac/ax mode (3TX/3RX):

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

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



1.1.3 Mode Test Duty Cycle

For non-beamforming mode:

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

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

For 5GHz High Band 3T2S CDD Mode:

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

For 5GHz High Band 3T3S SDM Mode:

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



For beamforming mode:

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

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

For 5GHz High Band 3T2S Beamforming Mode:

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

Note:

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

1.1.4 EUT Operational Condition

EUT Power Type	From power adapter			
Beamforming Function	<input checked="" type="checkbox"/> With beamforming	<input type="checkbox"/> Without beamforming		
	For 802.11ax/VHT in 2.4GHz and 802.11ac/ax in 5GHz.			
Weather Band	<input checked="" type="checkbox"/> With 5600~5650MHz	<input type="checkbox"/> Without 5600~5650MHz		
Function	<input type="checkbox"/> Outdoor P2M	<input checked="" type="checkbox"/> Indoor P2M		
	<input type="checkbox"/> Fixed P2P	<input type="checkbox"/> Client		
Operating Mode	<input checked="" type="checkbox"/> Master (AP) - 5GHz Band 1, 2			
	<input checked="" type="checkbox"/> Mesh - 5GHz Band 3, 4			
	<input type="checkbox"/> Client with radar detection			
	<input type="checkbox"/> Client without radar detection			
TPC Function	<input checked="" type="checkbox"/> With TPC	<input type="checkbox"/> Without TPC		
Test Software Version	For non-beamforming mode: Access Manual Tool 3.2.1.0			
	For beamforming mode: DOS [ver 6.1.7601]			

Note: The above information was declared by manufacturer.



1.1.5 Table for Multiple Listing

The EUT has two equipment names which are identical to each other in all aspects except for the following table:

Equipment Name	Description
Tri-Band 11ax Smart Wi-Fi Extender	All the equipment names are identical, the difference equipment names for difference served as marketing strategy.
AT&T Smart Wi-Fi Extender	

Note: The above information was declared by manufacturer.

1.1.6 Table for Class II Change

This product is an extension of original one reported under Sporton project number: FR092402-02AB

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

Modifications	Performance Checking
1. Adding the 5GHz band 2 and band 3 (5250~5350 MHz, 5470~5725 MHz) for this device.	1. Emission Bandwidth. 2. Maximum Conducted Output Power. 3. Peak Power Spectral Density. 4. Unwanted Emissions Above 1GHz.
2. Changing the operating mode to "Master (AP) - 5GHz Band 1, 2" and "Mesh - 5GHz Band 3, 4".	After verified does not affect the test result.



1.2 Applicable Standards

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

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

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

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

1.3 Testing Location Information

Testing Location Information	
Test Lab. : Sporton International Inc. Hsinchu Laboratory	
Hsinchu	ADD: No.8, Ln. 724, Bo'ai St., Zhubei City, Hsinchu County 302010, Taiwan (R.O.C.)
	TEL: 886-3-656-9065 FAX: 886-3-656-9085
	Test site Designation No. TW0006 with FCC.
	Test site registered number IC 4086D with Industry Canada.

Test Condition	Test Site No.	Test Engineer	Test Environment (°C / %)	Test Date
RF Conducted	TH02-CB	Caster Chang	22.7-23.5 / 58-61	Oct. 16, 2020~Oct. 17, 2020
Radiated	03CH01-CB	Gino Huang	24.4-25.8 / 54-56	Oct. 09, 2020~Oct. 16, 2020

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
Radiated Emission (1GHz ~ 18GHz)	4.9 dB	Confidence levels of 95%
Radiated Emission (18GHz ~ 40GHz)	4.6 dB	Confidence levels of 95%
Conducted Emission	2.8 dB	Confidence levels of 95%
Output Power Measurement	1.4 dB	Confidence levels of 95%
Power Density Measurement	2.8 dB	Confidence levels of 95%
Bandwidth Measurement	0.39%	Confidence levels of 95%



2 Test Configuration of EUT

2.1 Test Channel Mode

For non-beamforming mode:

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

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



Mode	Power Setting
802.11ac VHT80_Nss1,(MCS0)_3TX	-
5530MHz	70
5610MHz	81
5690MHz Straddle 5.47-5.725GHz	79
5690MHz Straddle 5.725-5.85GHz	79
802.11ax HEW20_Nss1,(MCS0)_2TX	-
5260MHz	87
5300MHz	87
5320MHz	83
802.11ax HEW20_Nss1,(MCS0)_3TX	-
5500MHz	66
5580MHz	74
5620MHz	74
5700MHz	64
5720MHz Straddle 5.47-5.725GHz	76
5720MHz Straddle 5.725-5.85GHz	76
802.11ax HEW40_Nss1,(MCS0)_2TX	-
5270MHz	87
5310MHz	67
802.11ax HEW40_Nss1,(MCS0)_3TX	-
5510MHz	64
5550MHz	77
5630MHz	78
5670MHz	78
5710MHz Straddle 5.47-5.725GHz	78
5710MHz Straddle 5.725-5.85GHz	78
802.11ax HEW80_Nss1,(MCS0)_2TX	-
5290MHz	63
802.11ax HEW80_Nss1,(MCS0)_3TX	-
5530MHz	72
5610MHz	80
5690MHz Straddle 5.47-5.725GHz	79
5690MHz Straddle 5.725-5.85GHz	79



For 5GHz High Band 3T2S CDD Mode:

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

For 5GHz High Band 3T3S SDM Mode:

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



For beamforming mode:

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

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



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



For 5GHz High Band 3T2S Beamforming Mode:

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

Note:

- ♦ VHT20/VHT40 covers HT20/HT40, due to same modulation. The power setting for 802.11n HT20 and HT40 are the same or lower than 802.11ac VHT20 and VHT40.



2.2 The Worst Case Measurement Configuration

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
Operating Mode	
1	Non-beamforming mode: 5GHz Low Band 2T1S and 5GHz High Band 3T1S CDD
2	Non-beamforming mode: 5GHz Low Band 2T1S and 5GHz High Band 3T1S CDD
3	Non-beamforming mode: 5GHz High Band 3T3S SDM
4	Beamforming mode: 5GHz Low Band 2T1S and 5GHz High Band 3T1S Beamforming
5	Beamforming mode: 5GHz High Band 3T2S Beamforming

The Worst Case Mode for Following Conformance Tests	
Tests Item	Unwanted Emissions
Test Condition	Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type.
Operating Mode > 1GHz	CTX
1	Non-beamforming mode: 5GHz Low Band 2T1S and 5GHz High Band 3T1S CDD
2	Non-beamforming mode: 5GHz Low Band 2T1S and 5GHz High Band 3T1S CDD
3	Non-beamforming mode: 5GHz High Band 3T3S SDM
4	Beamforming mode: 5GHz Low Band 2T1S and 5GHz High Band 3T1S Beamforming
5	Beamforming mode: 5GHz High Band 3T2S Beamforming

The Worst Case Mode for Following Conformance Tests	
Tests Item	Simultaneous Transmission Analysis - Co-location RF Exposure Evaluation
Operating Mode	
1	WLAN 2.4GHz + WLAN 5GHz Low Band (Band 1~2) + WLAN 5GHz High Band (Band 3~4)

Refer to Sporton Test Report No.: FA092402-01 for Co-location RF Exposure Evaluation.

Note: The EUT can only be used in Y axis position.



2.3 EUT Operation during Test

For non-beamforming mode:

The EUT was programmed to be in continuously transmitting mode.

For beamforming mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

During the test, the following programs under WIN 7 were executed.

The program was executed as follows:

1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under DOS [ver 6.1.7601].
3. Executed "Lantest.exe" to link with the remote workstation to transmit and receive packet by RX Device and transmit duty cycle no less than 98%.



2.4 Accessories

Accessories			
Equipment Name	Brand Name	Model Name	Rating
Adapter 1	AT&T (mfg. by DELTA)	EPS18R0-16	INPUT: 120V~0.5A Max 60Hz OUTPUT: 12V, 1.5A 18W
Adapter 2	AT&T (mfg. by DELTA)	EPS18R1G-16	INPUT: 120V~0.5A Max 60Hz OUTPUT: 12V, 1.5A 18W

Note: The power adapter does not affect the test result of RF tests, so only adapter 1 tested and recorded in this report.

2.5 Support Equipment

For Radiated:

For non-beamforming mode:

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

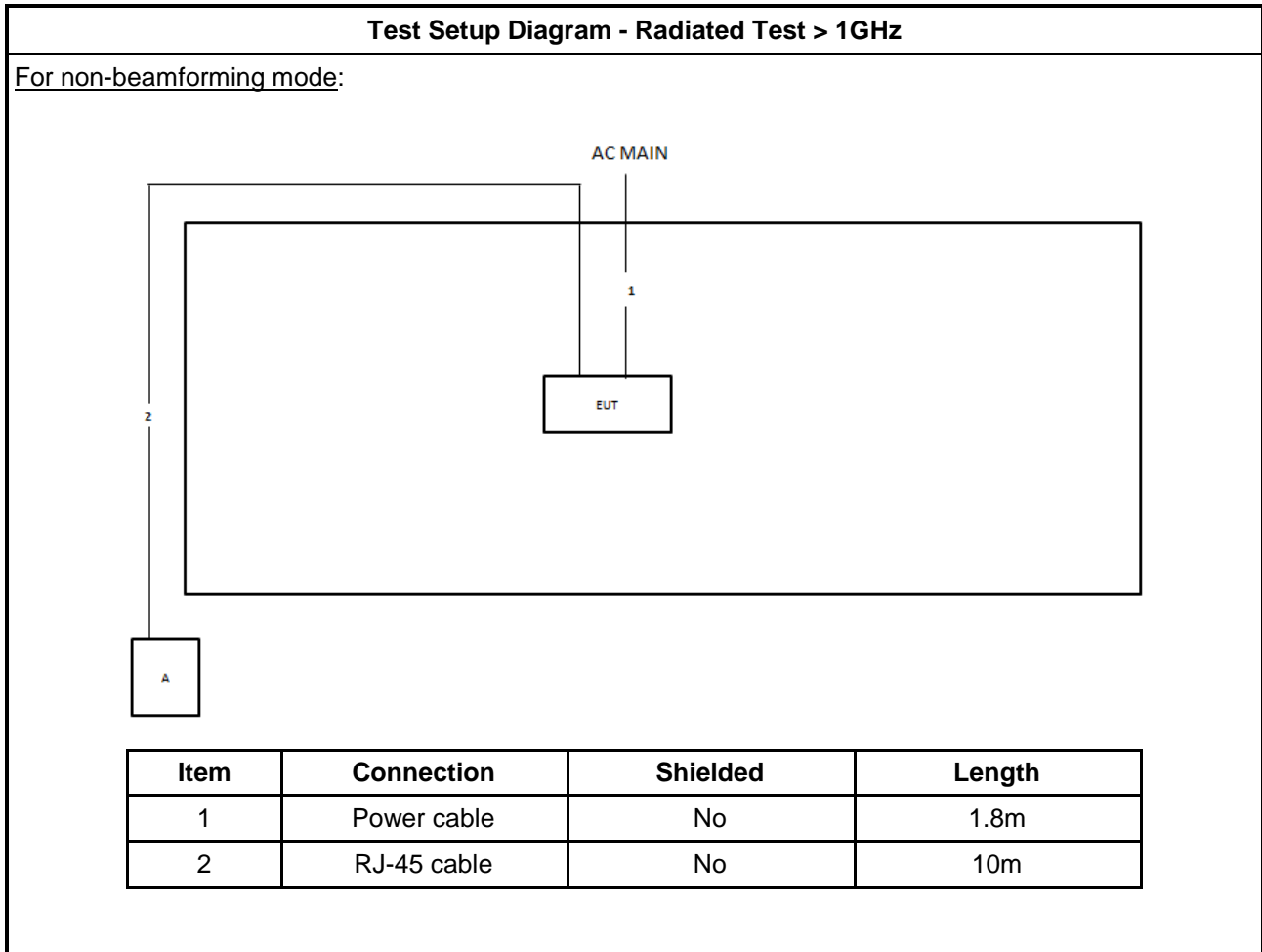
For beamforming mode:

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

For RF Conducted:

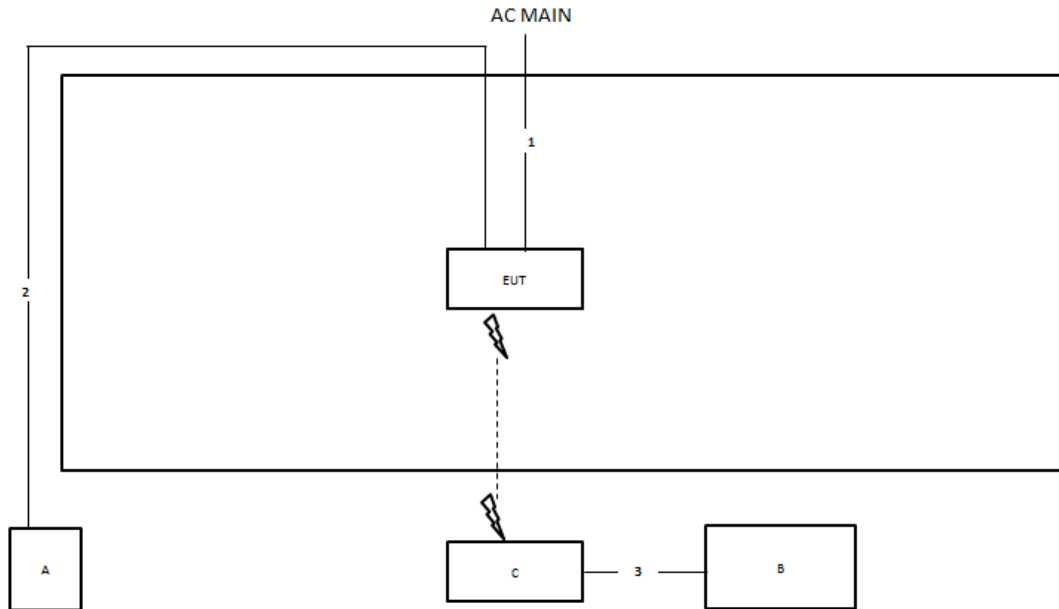
Support Equipment				
No.	Equipment	Brand Name	Model Name	FCC ID
A	NB	DELL	E4300	N/A

2.6 Test Setup Diagram



Test Setup Diagram - Radiated Test > 1GHz

For beamforming mode:



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	10m



3 Transmitter Test Result

3.1 Emission Bandwidth

3.1.1 Emission Bandwidth Limit

Emission Bandwidth Limit	
UNII Devices	
<input type="checkbox"/>	For the 5.15-5.25 GHz band, N/A
<input checked="" type="checkbox"/>	For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
<input checked="" type="checkbox"/>	For the 5.47-5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.
<input checked="" type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.
LE-LAN Devices	
<input type="checkbox"/>	For the band 5.15-5.25 GHz, the maximum e.i.r.p. shall not exceed 200 mW or 10 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
<input type="checkbox"/>	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
<input type="checkbox"/>	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or 17 + 10 log B, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
<input type="checkbox"/>	For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.

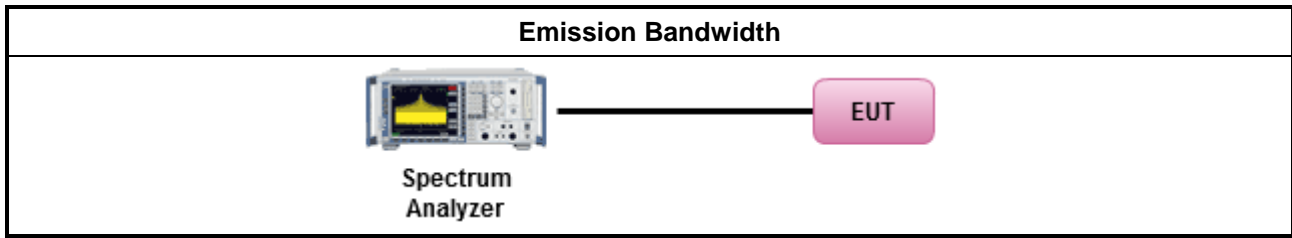
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

Test Method	
▪ For the emission bandwidth shall be measured using one of the options below:	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.
<input type="checkbox"/>	Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.
<input type="checkbox"/>	Refer as IC RSS-Gen, clause 4.6 for bandwidth testing.

3.1.4 Test Setup



3.1.5 Test Result of Emission Bandwidth

Refer as Appendix A



3.2 Maximum Conducted Output Power

3.2.1 Maximum Conducted Output Power Limit

Maximum Conducted Output Power Limit	
UNII Devices	
<input 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.
LE-LAN Devices	
<input type="checkbox"/>	For the 5.15-5.25 GHz band, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz.
<input type="checkbox"/>	For the 5.25-5.35 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
<input type="checkbox"/>	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz
<input 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.	

3.2.2 Measuring Instruments

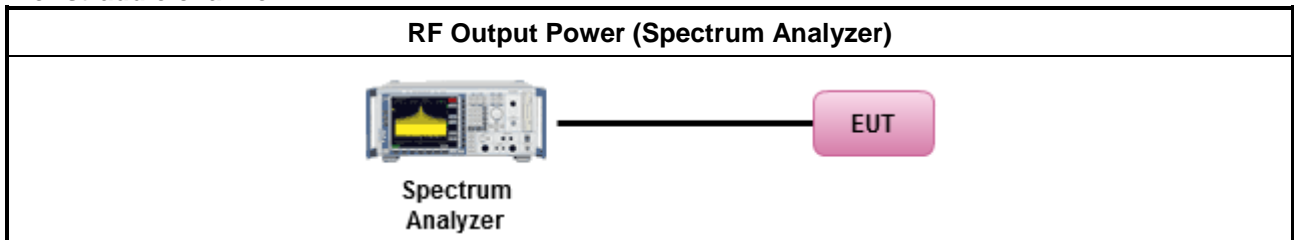
Refer a test equipment and calibration data table in this test report.

3.2.3 Test Procedures

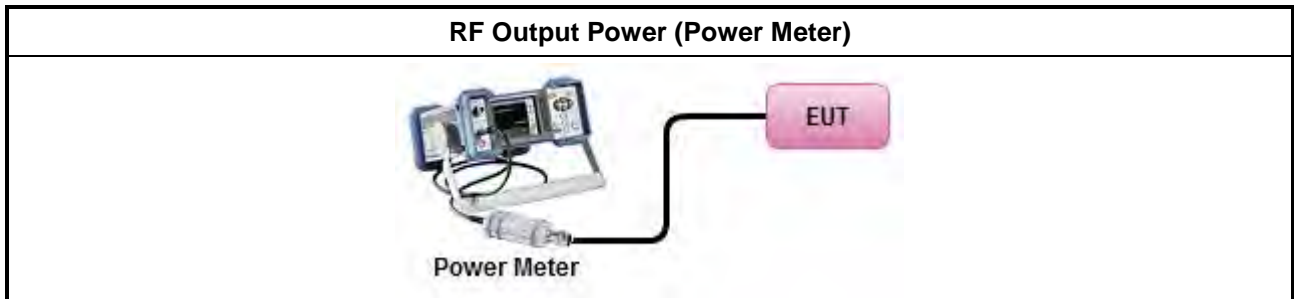
Test Method	
<ul style="list-style-type: none"> Maximum Conducted Output Power 	
Average over on/off periods with duty factor	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033, clause E Method 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 FCC KDB 789033, clause E Method PM-G (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 FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them. 	
<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]) $EIRP_{total} = P_{total} + DG$ 	

3.2.4 Test Setup

For straddle channel:



For others channel:



3.2.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B



3.3 Peak Power Spectral Density

3.3.1 Peak Power Spectral Density Limit

Peak Power Spectral Density Limit	
UNII Devices	
<input 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.
LE-LAN Devices	
<input type="checkbox"/>	For the 5.15-5.25 GHz band, the e.i.r.p. peak power spectral density (PPSD) ≤ 10 dBm/MHz.
<input type="checkbox"/>	For the 5.25-5.35 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.
<input type="checkbox"/>	<ul style="list-style-type: none"> e.i.r.p. greater than 200 mW shall comply with the following e.i.r.p. at different elevations, where θ is the angle above the local horizontal plane (of the Earth) as shown below: -13 dBW/MHz for $0^\circ \leq \theta < 8^\circ$; -13 - 0.716 ($\theta-8$) dBW/MHz for $8^\circ \leq \theta < 40^\circ$ -35.9 - 1.22 ($\theta-40$) dBW/MHz for $40^\circ \leq \theta \leq 45^\circ$; -42 dBW/MHz for $\theta > 45^\circ$
<input type="checkbox"/>	For the 5.47-5.6 GHz band and 5.65-5.725 GHz band, the peak power spectral density (PPSD) ≤ 11 dBm/MHz.
<input 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.
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 G_{TX} = the maximum transmitting antenna directional gain in dBi.	

3.3.2 Measuring Instruments

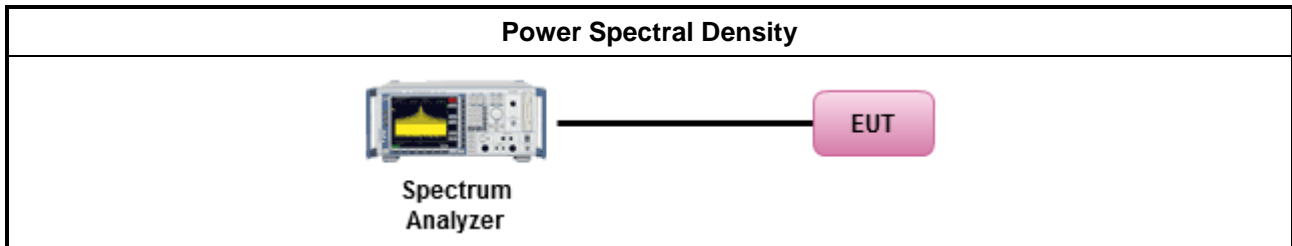
Refer a test equipment and calibration data table in this test report.



3.3.3 Test Procedures

Test Method	
<ul style="list-style-type: none"> ▪ 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 FCC KDB 789033, F5) power spectral density can be measured using resolution bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth
[duty cycle ≥ 98% or external video / power trigger]	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)
duty cycle < 98% and average over on/off periods with duty factor	
<input checked="" type="checkbox"/>	Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).
<input type="checkbox"/>	Refer as FCC 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: 	
<input checked="" type="checkbox"/>	Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the NTX output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace.
<input type="checkbox"/>	Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,
<input type="checkbox"/>	Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.
<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]) $EIRP_{total} = PPSD_{total} + DG$ 	

3.3.4 Test Setup



3.3.5 Test Result of Peak Power Spectral Density

Refer as Appendix C



3.4 Unwanted Emissions

3.4.1 Transmitter Unwanted Emissions Limit

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

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

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

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

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
<input type="checkbox"/> 5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m @3m]
<input checked="" type="checkbox"/> 5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m @3m]
<input checked="" type="checkbox"/> 5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m @3m]
<input checked="" type="checkbox"/> 5.725 - 5.85 GHz	all emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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).

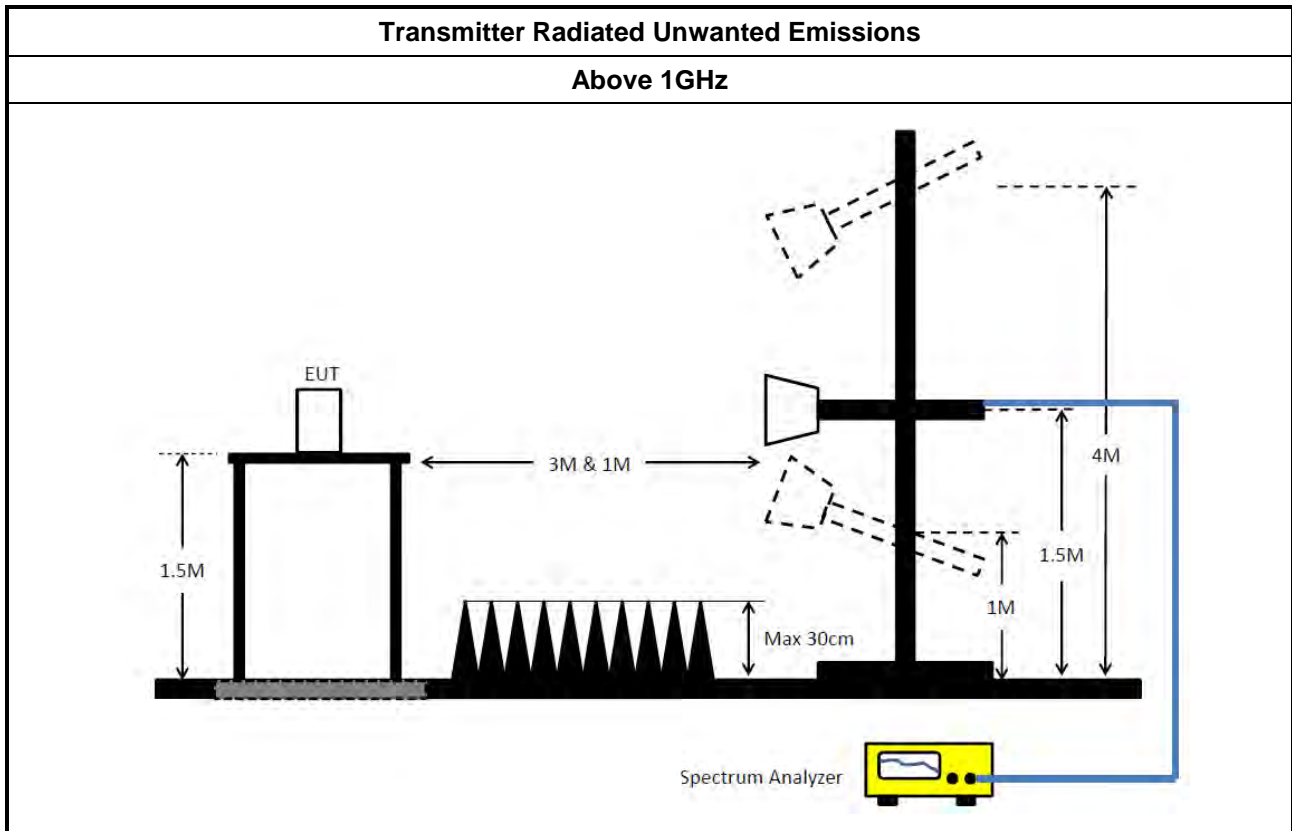
3.4.2 Measuring Instruments

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"> ▪ 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 FCC KDB 789033, clause G)2) for unwanted emissions into non-restricted bands. ▪ Refer as FCC KDB 789033, clause G)1) for unwanted emissions into restricted bands.
	<ul style="list-style-type: none"> <input type="checkbox"/> Refer as FCC KDB 789033, G)6) Method AD (Trace Averaging). <input checked="" type="checkbox"/> Refer as FCC KDB 789033, G)6) Method VB (Reduced VBW). <input type="checkbox"/> Refer as ANSI C63.10, clause 11.12.2.5.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time. <input type="checkbox"/> Refer as ANSI C63.10, clause 7.5 average value of pulsed emissions. <input checked="" type="checkbox"/> Refer as FCC KDB 789033, clause G)5) measurement procedure peak limit. <input type="checkbox"/> Refer as 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. ▪ Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m. ▪ Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz.
	<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.

3.4.4 Test Setup



3.4.5 Measurement Results Calculation

The measured Level is calculated using:

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

3.4.6 Test Result of Transmitter Unwanted Emissions

Refer as Appendix D



4 Test Equipment and Calibration Data

Instrument	Brand	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
3m Semi Anechoic Chamber VSWR	TDK	SAC-3M	03CH01-CB	1GHz ~18GHz 3m	May 29, 2020	May 28, 2021	Radiation (03CH01-CB)
Horn Antenna	ETS-LINDGRE N	3115	00075790	750MHz ~ 18GHz	Nov. 04, 2019	Nov. 03, 2020	Radiation (03CH01-CB)
Horn Antenna	SCHWARZBEC K	BBHA 9120 D	BBHA 9120 D 1370	1GHz~18GHz	Sep. 21, 2020	Sep. 20, 2021	Radiation (03CH01-CB)
Horn Antenna	Schwarzbeck	BBHA 9170	BBHA917025 2	15GHz ~ 40GHz	Jul. 21, 2020	Jul. 20, 2021	Radiation (03CH01-CB)
Pre-Amplifier	Agilent	8449B	3008A02310	1GHz ~ 26.5GHz	Jan. 08, 2020	Jan. 07, 2021	Radiation (03CH01-CB)
Pre-Amplifier	MITEQ	TTA1840-3 5-HG	1864479	18GHz ~ 40GHz	Jul. 08, 2020	Jul. 07, 2021	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Apr. 16, 2020	Apr. 15, 2021	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16	1 GHz ~ 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-16+17	1 GHz ~ 18 GHz	Oct. 05, 2020	Oct. 04, 2021	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-40G#1	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH01-CB)
RF Cable-high	Woken	RG402	High Cable-40G#2	18GHz ~ 40 GHz	Jul. 16, 2020	Jul. 15, 2021	Radiation (03CH01-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Radiation (03CH01-CB)
Spectrum analyzer	R&S	FSV40	101027	9kHz~40GHz	Jul. 27, 2020	Jul. 26, 2021	Conducted (TH02-CB)
Power Sensor	Anritsu	MA2411B	1126203	300MHz~40GHz	Sep. 17, 2020	Sep. 16, 2021	Conducted (TH02-CB)
Power Meter	Anritsu	ML2495A	1210004	300MHz~40GHz	Sep. 17, 2020	Sep. 16, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-01	1 GHz – 26.5 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-02	1 GHz – 26.5 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-03	1 GHz – 26.5 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-04	1 GHz – 26.5 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
RF Cable-high	Woken	RG402	High Cable-05	1 GHz – 26.5 GHz	Oct. 05, 2020	Oct. 04, 2021	Conducted (TH02-CB)
Test Software	SPORTON	SENSE	V5.10	-	N.C.R.	N.C.R.	Conducted (TH02-CB)

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

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

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

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

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

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	30.36M	17.001M	37.32M	19.16M		
5300MHz	Pass	Inf	33.93M	17.361M	37.47M	19.64M		
5320MHz	Pass	Inf	27.36M	17.001M	33.84M	17.211M		
802.11a_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.24M	16.762M	21.39M	16.762M	21.24M	16.642M
5580MHz	Pass	Inf	21.18M	16.762M	21.81M	16.822M	21.48M	16.642M
5620MHz	Pass	Inf	21.45M	16.792M	21.39M	16.792M	21.69M	16.672M
5700MHz	Pass	Inf	21.36M	16.762M	21.39M	16.762M	21.99M	16.702M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	17.413M	13.503M	15.908M	13.451M	15.628M	13.381M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.195M	5.112M	3.18M	4.378M	3.195M	4.483M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	25.92M	18.111M	38.82M	19.49M		
5300MHz	Pass	Inf	27.96M	18.261M	38.88M	19.4M		
5320MHz	Pass	Inf	26.28M	18.081M	28.98M	18.081M		
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.51M	17.901M	21.27M	17.781M	21.3M	17.811M
5580MHz	Pass	Inf	21.48M	17.931M	22.17M	17.811M	21.36M	17.811M
5620MHz	Pass	Inf	21.51M	17.991M	21.51M	17.811M	21.42M	17.781M
5700MHz	Pass	Inf	21.57M	17.901M	21.36M	17.781M	21.36M	17.811M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	17.273M	14.063M	15.715M	13.906M	16.38M	13.888M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.81M	5.142M	3.825M	4.528M	3.81M	4.588M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	69.84M	37.241M	70.08M	38.081M		
5310MHz	Pass	Inf	40.2M	36.462M	39.48M	36.282M		
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	40.2M	36.462M	39.54M	36.282M	39.78M	36.342M
5550MHz	Pass	Inf	40.08M	36.522M	39.72M	36.342M	40.2M	36.402M
5630MHz	Pass	Inf	40.44M	36.582M	39.6M	36.282M	40.2M	36.402M
5670MHz	Pass	Inf	40.62M	36.582M	39.6M	36.282M	39.9M	36.342M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	40.463M	33.283M	34.95M	33.021M	34.95M	33.096M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.18M	12.789M	3.18M	4.168M	3.18M	7.871M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	82.08M	75.802M	81.6M	75.802M		
802.11ac VHT80_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	82.08M	75.802M	81.36M	75.682M	81.24M	75.682M
5610MHz	Pass	Inf	83.88M	75.922M	81.24M	75.682M	81.36M	75.802M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	91.683M	72.581M	75.33M	72.349M	75.408M	72.426M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.165M	15.532M	3.18M	4.003M	3.18M	9.4M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	25.41M	19.13M	36.51M	19.46M		
5300MHz	Pass	Inf	36.69M	19.28M	40.17M	19.79M		
5320MHz	Pass	Inf	26.52M	19.13M	31.65M	19.25M		
802.11ax HEW20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-	-

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

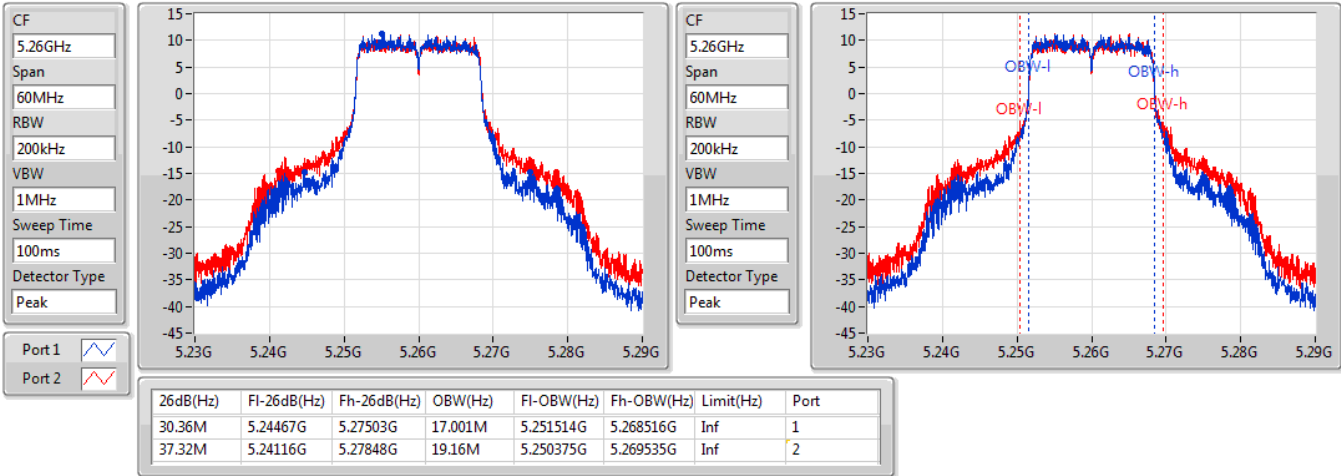
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_2TX

EBW

5260MHz

16/10/2020

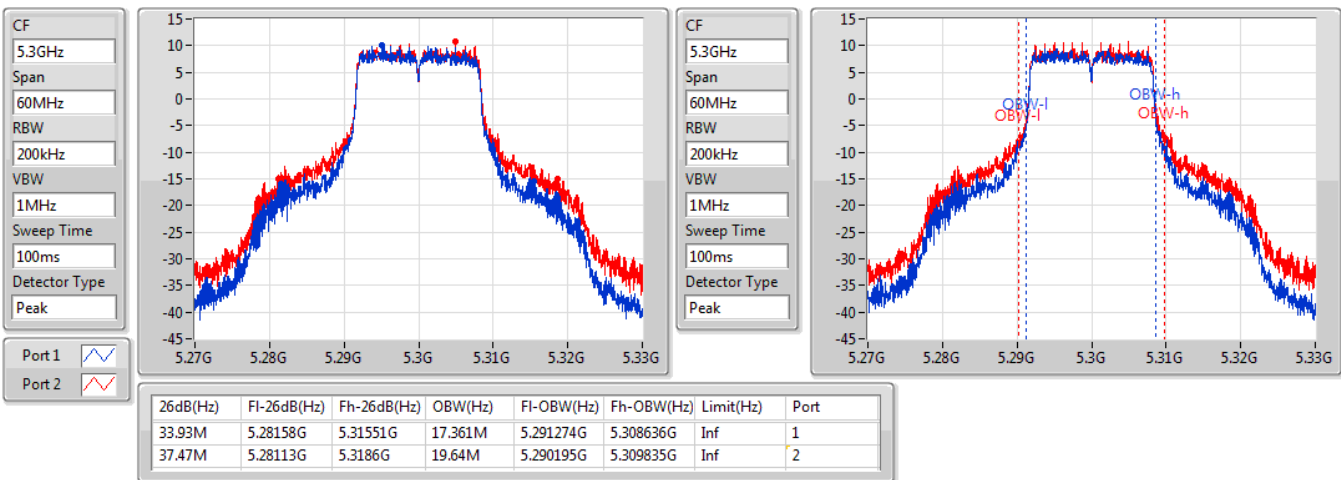


802.11a_Nss1,(6Mbps)_2TX

EBW

5300MHz

16/10/2020



802.11a_Nss1,(6Mbps)_2TX

EBW

5320MHz

16/10/2020

CF
5.32GHz

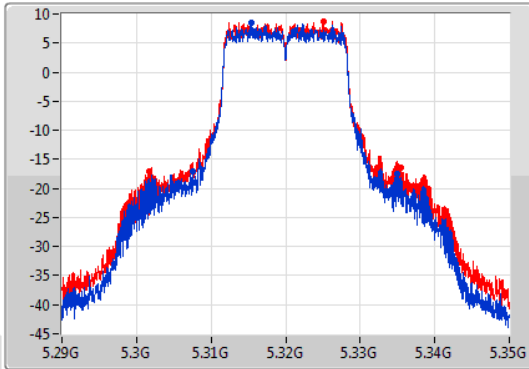
Span
60MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Peak



CF
5.32GHz

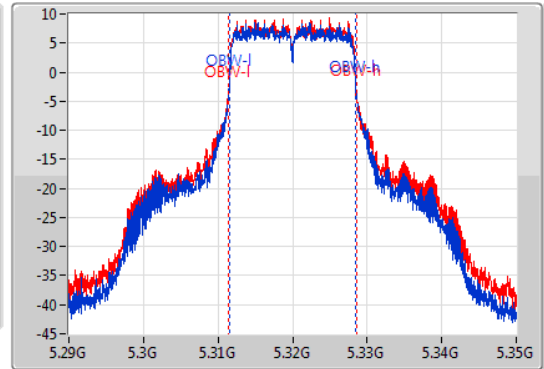
Span
60MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
27.36M	5.30752G	5.33488G	17.001M	5.311514G	5.328516G	Inf	1
33.84M	5.3017G	5.33554G	17.211M	5.311394G	5.328606G	Inf	2

802.11a_Nss1,(6Mbps)_3TX

EBW

5500MHz

16/10/2020

CF
5.5GHz

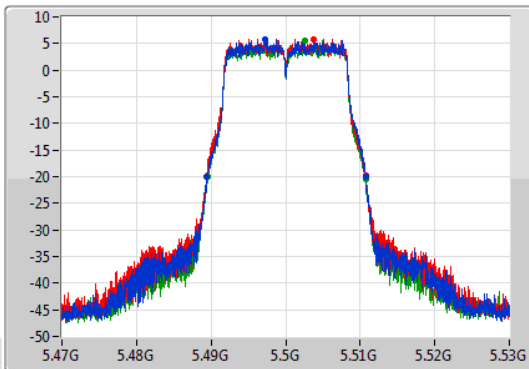
Span
60MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Peak



CF
5.5GHz

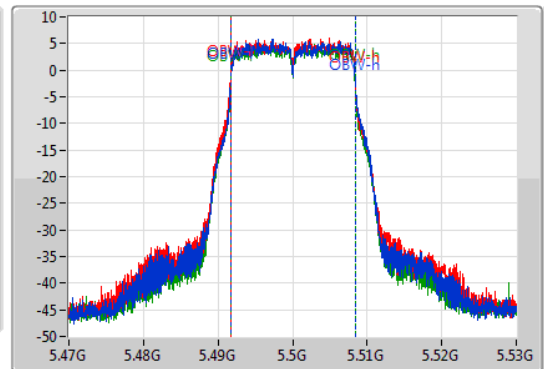
Span
60MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.24M	5.48947G	5.51071G	16.762M	5.491724G	5.508486G	Inf	1
21.39M	5.48935G	5.51074G	16.762M	5.491664G	5.508426G	Inf	2
21.24M	5.48956G	5.5108G	16.642M	5.491724G	5.508366G	Inf	3

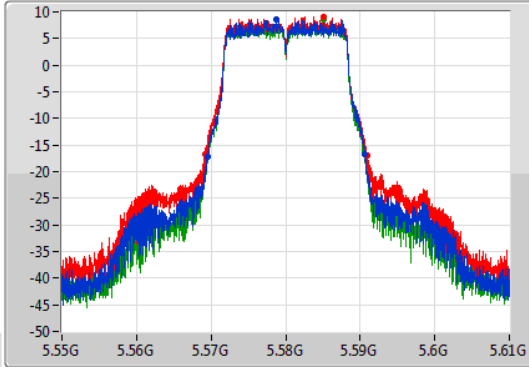
802.11a_Nss1,(6Mbps)_3TX

EBW

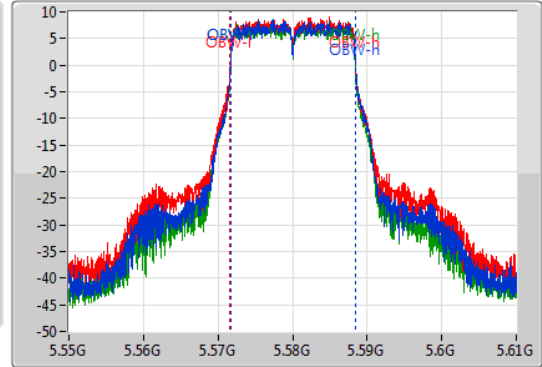
5580MHz

16/10/2020

CF
5.58GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.58GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.18M	5.5695G	5.59068G	16.762M	5.571724G	5.588486G	Inf	1
21.81M	5.56914G	5.59095G	16.822M	5.571634G	5.588456G	Inf	2
21.48M	5.56935G	5.59083G	16.642M	5.571724G	5.588366G	Inf	3

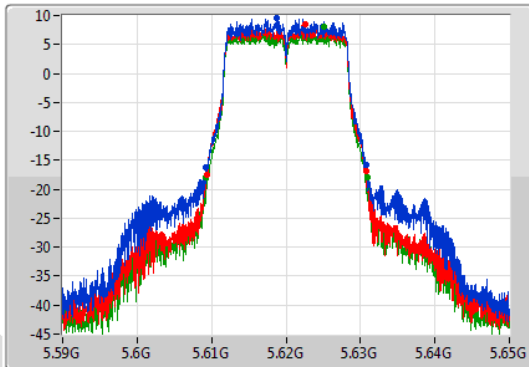
802.11a_Nss1,(6Mbps)_3TX

EBW

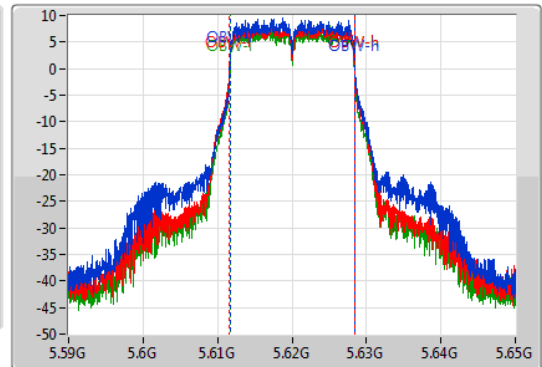
5620MHz

16/10/2020

CF
5.62GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.62GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.45M	5.60929G	5.63074G	16.792M	5.611694G	5.628486G	Inf	1
21.39M	5.60935G	5.63074G	16.792M	5.611634G	5.628426G	Inf	2
21.69M	5.60923G	5.63092G	16.672M	5.611694G	5.628366G	Inf	3

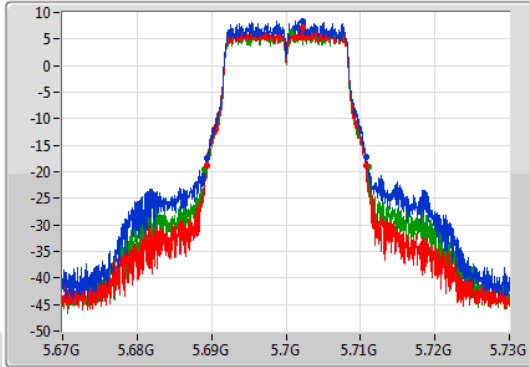
802.11a_Nss1,(6Mbps)_3TX

EBW

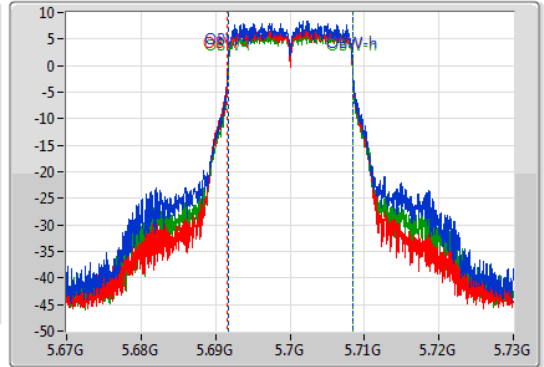
5700MHz

16/10/2020

CF
5.7GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.7GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	FI-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	FI-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.36M	5.68938G	5.71074G	16.762M	5.691694G	5.708456G	Inf	1
21.39M	5.68938G	5.71077G	16.762M	5.691634G	5.708396G	Inf	2
21.99M	5.68911G	5.71111G	16.702M	5.691694G	5.708396G	Inf	3

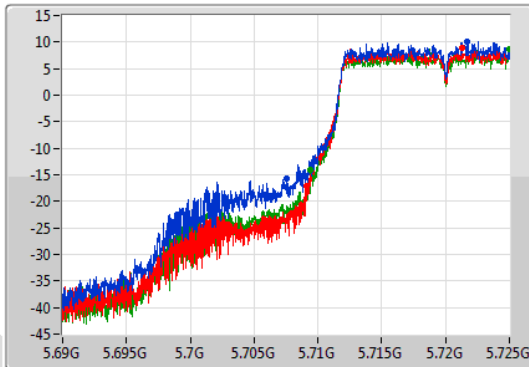
802.11a_Nss1,(6Mbps)_3TX

EBW

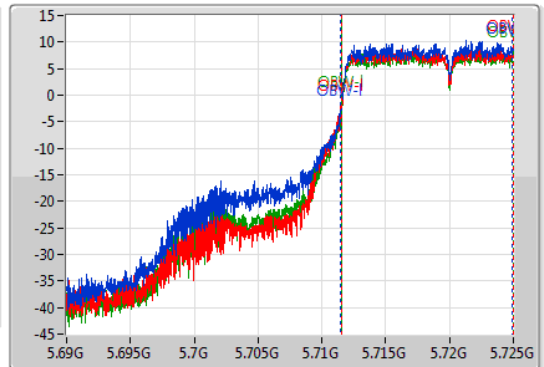
5720MHz Straddle 5.47-5.725GHz

16/10/2020

CF
5.7075GHz
Span
35MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.7075GHz
Span
35MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



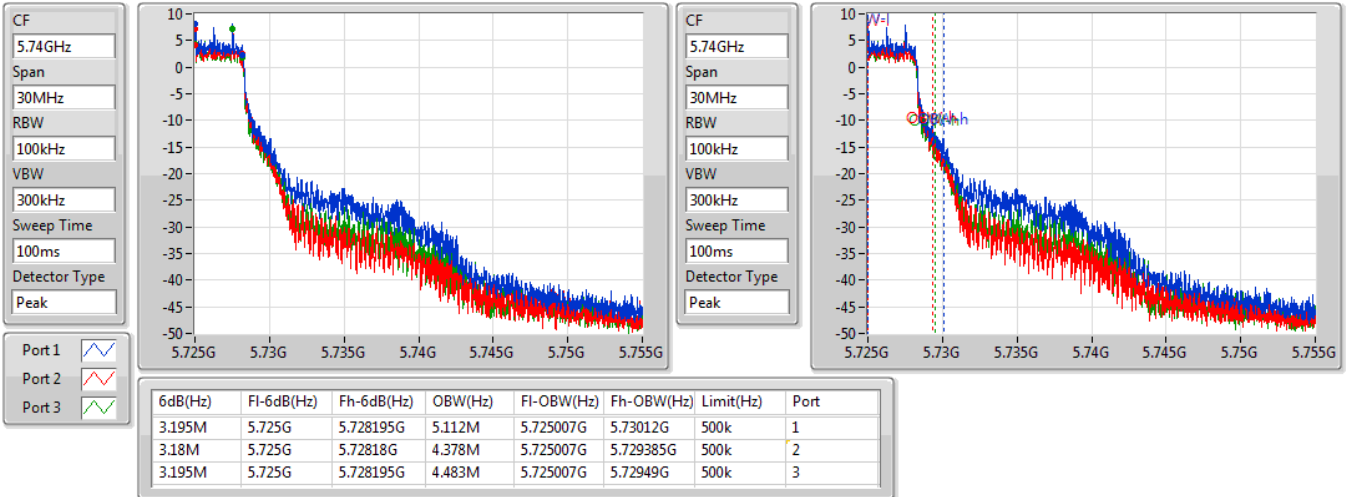
26dB(Hz)	FI-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	FI-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.413M	5.707588G	5.725G	13.503M	5.711436G	5.724939G	Inf	1
15.908M	5.709093G	5.725G	13.451M	5.711505G	5.724956G	Inf	2
15.628M	5.709373G	5.725G	13.381M	5.711575G	5.724956G	Inf	3

802.11a_Nss1,(6Mbps)_3TX

EBW

5720MHz Straddle 5.725-5.85GHz

16/10/2020

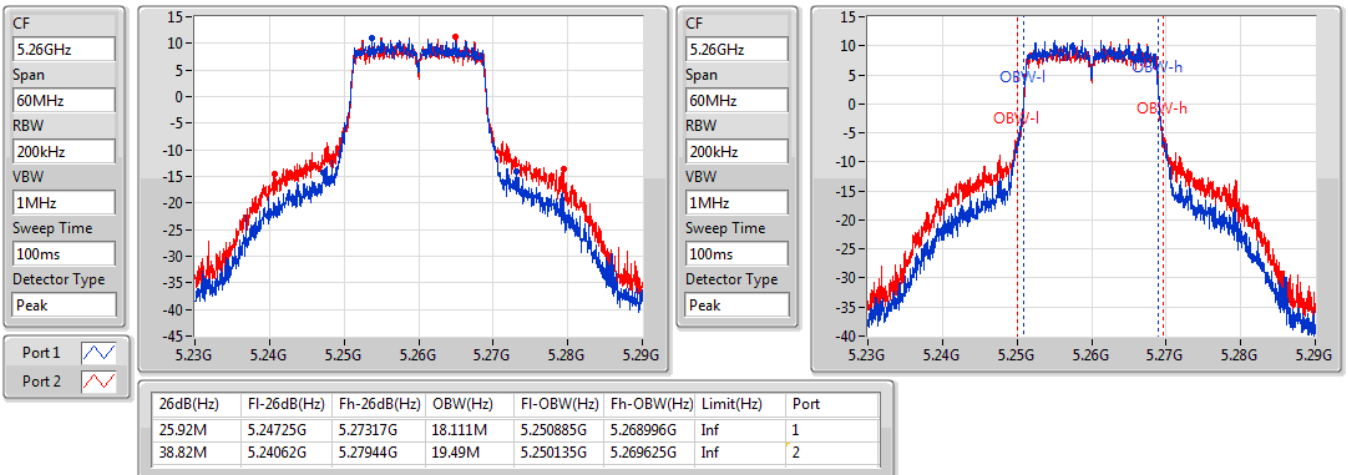


802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

5260MHz

16/10/2020

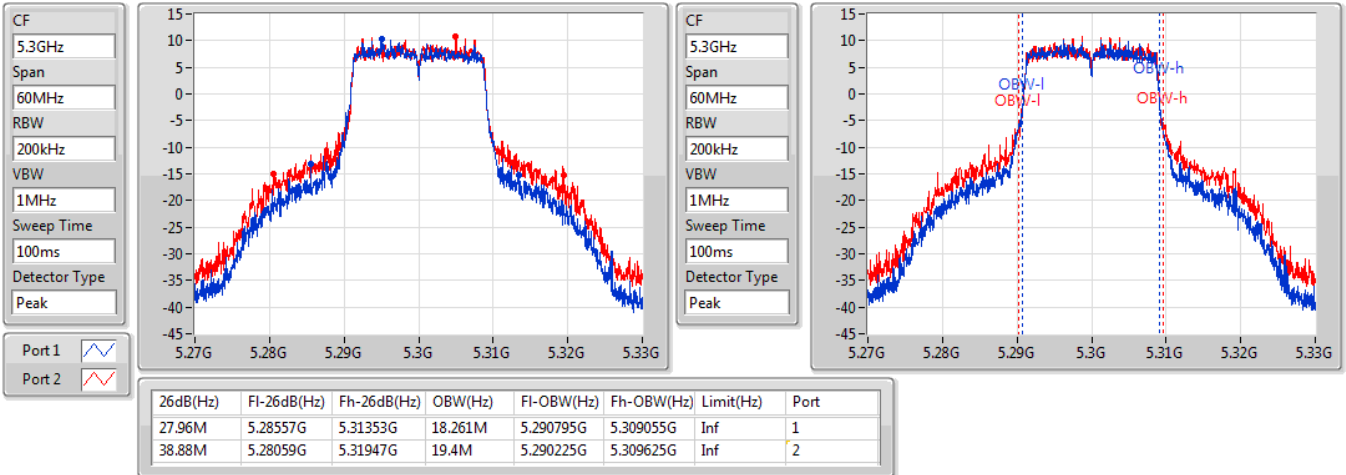


802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

5300MHz

16/10/2020

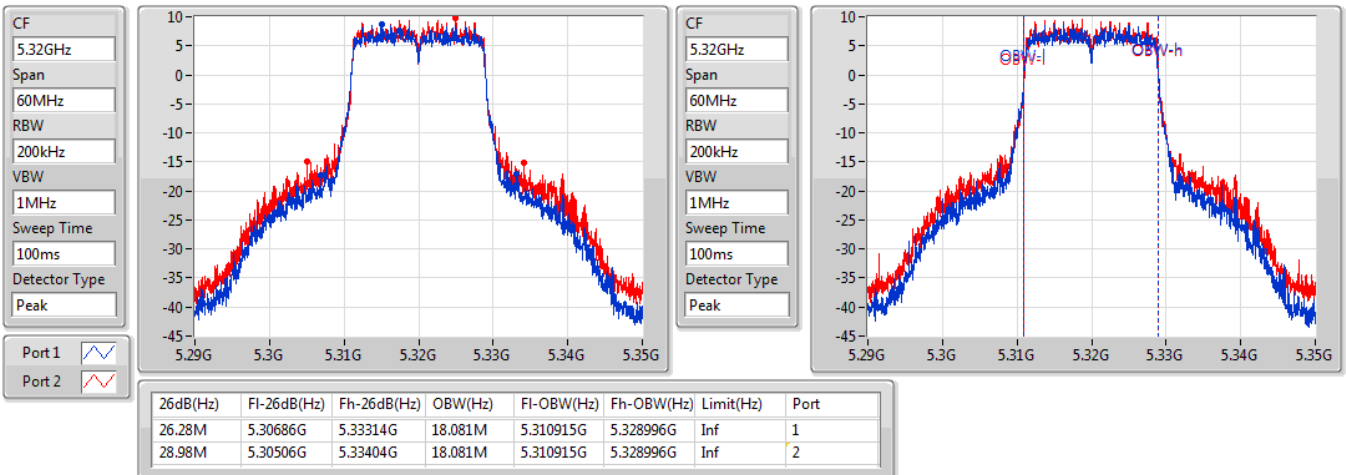


802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

5320MHz

16/10/2020



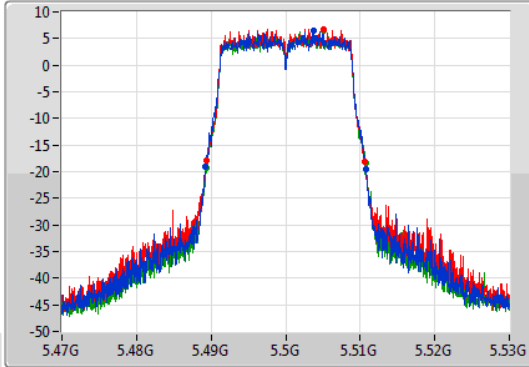
802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

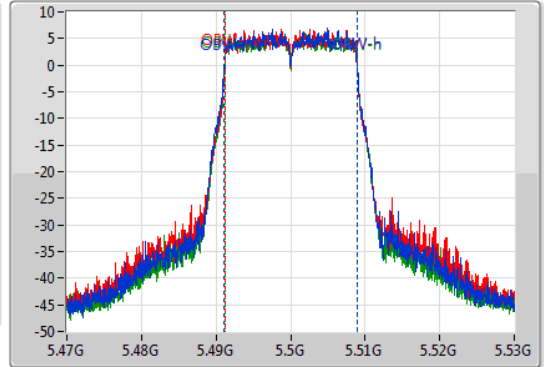
5500MHz

16/10/2020

CF
5.5GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.5GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.51M	5.4892G	5.51071G	17.901M	5.491064G	5.508966G	Inf	1
21.27M	5.48941G	5.51068G	17.781M	5.491154G	5.508936G	Inf	2
21.3M	5.48941G	5.51071G	17.811M	5.491154G	5.508966G	Inf	3

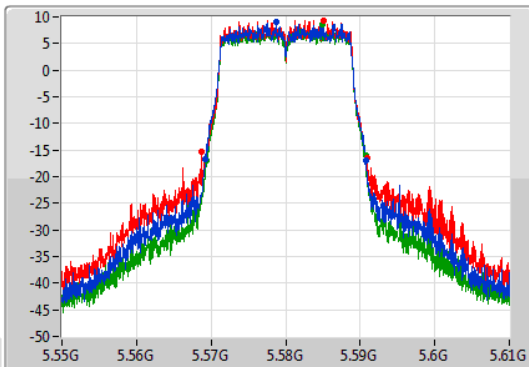
802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

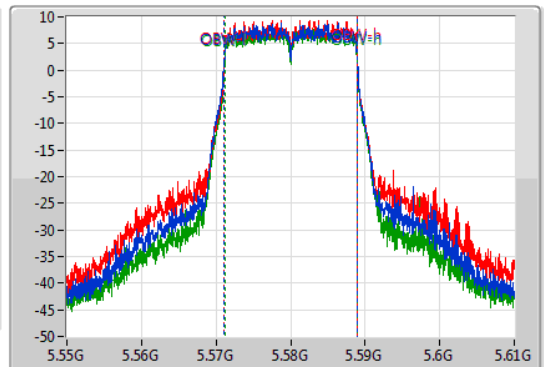
5580MHz

16/10/2020

CF
5.58GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.58GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



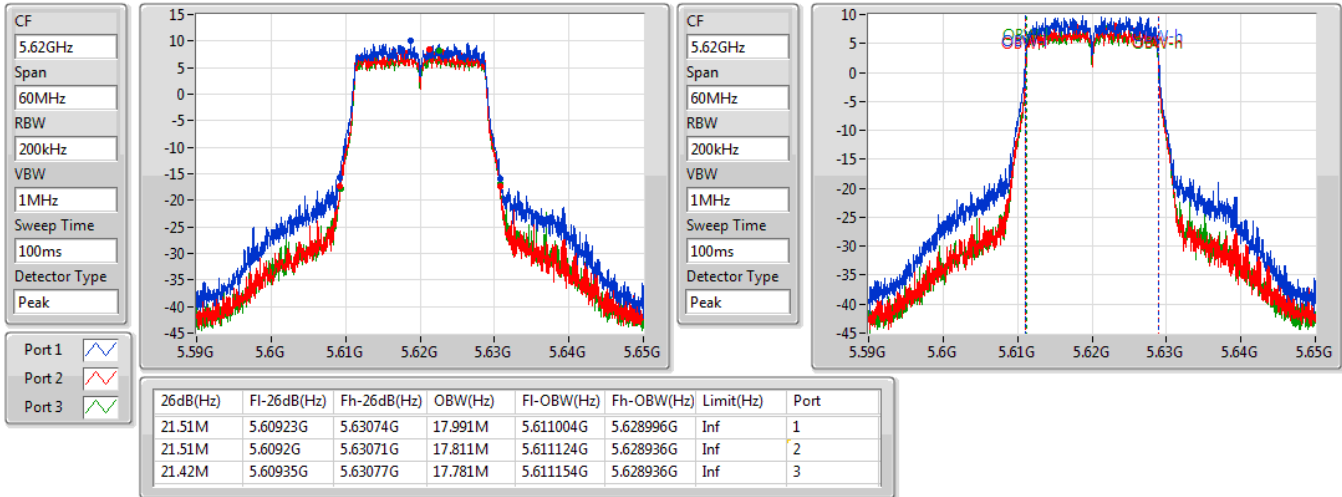
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.48M	5.56923G	5.59071G	17.931M	5.571034G	5.588966G	Inf	1
22.17M	5.56872G	5.59089G	17.811M	5.571124G	5.588936G	Inf	2
21.36M	5.56935G	5.59071G	17.811M	5.571154G	5.588966G	Inf	3

802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

5620MHz

16/10/2020

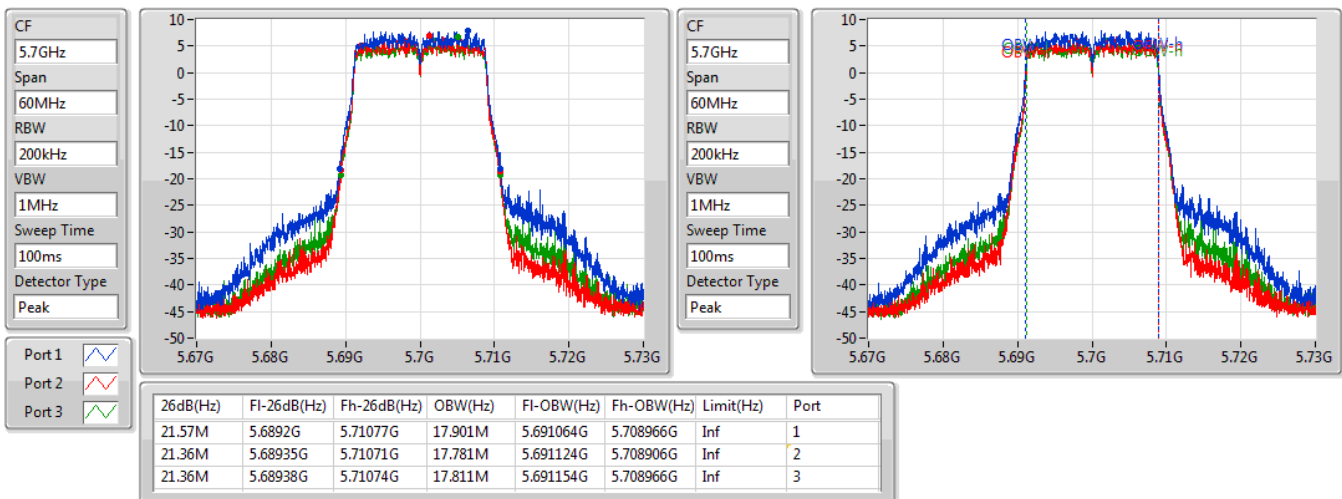


802.11ac VHT20_Nss1,(MCS0)_3TX

EBW

5700MHz

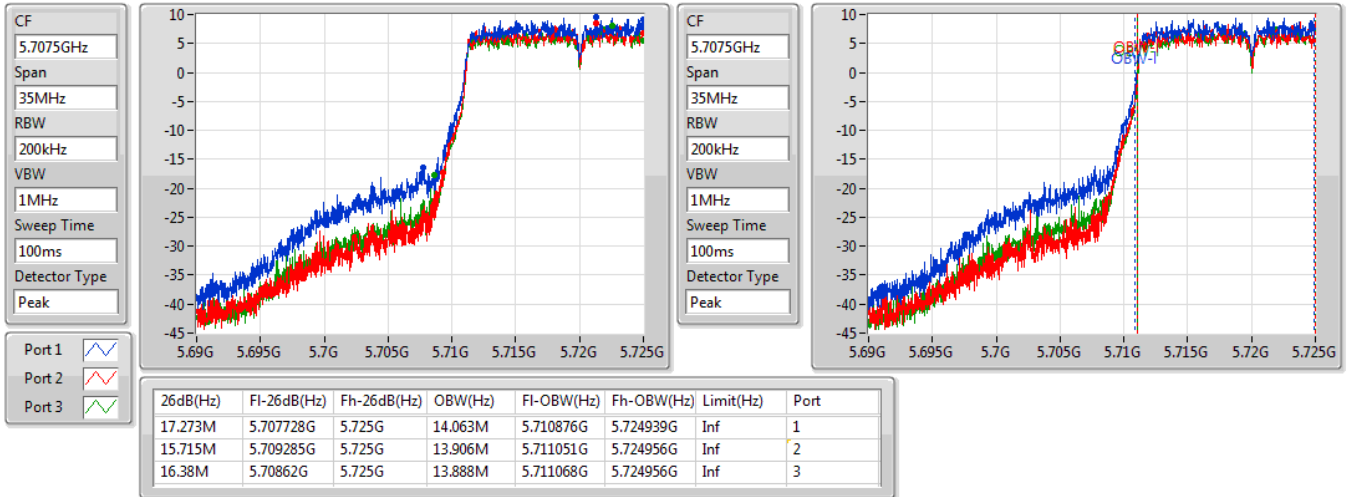
16/10/2020



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

EBW

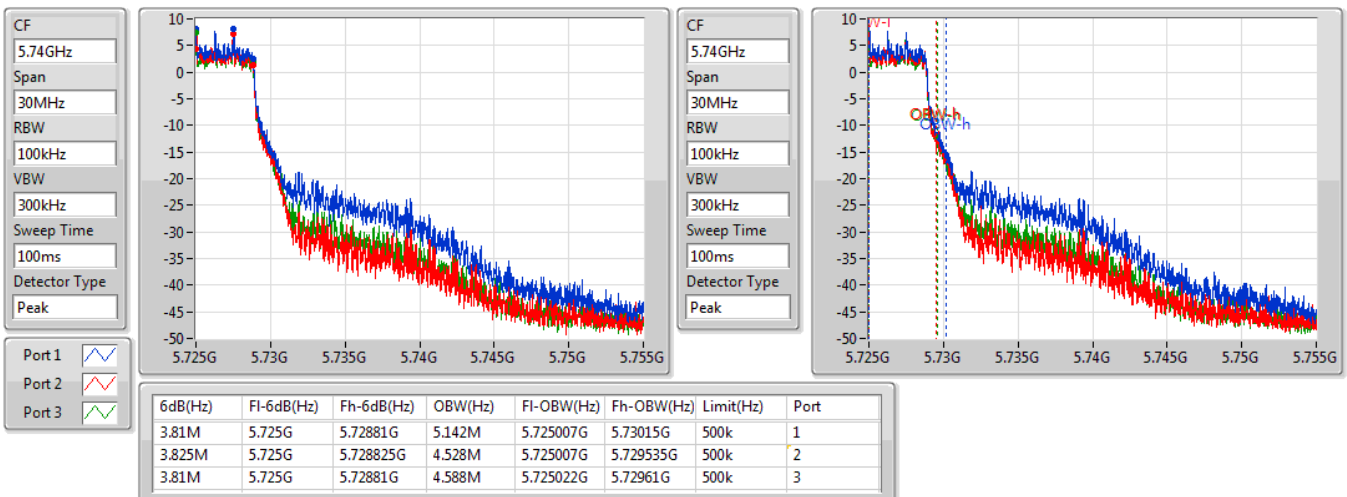
16/10/2020



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

EBW

16/10/2020

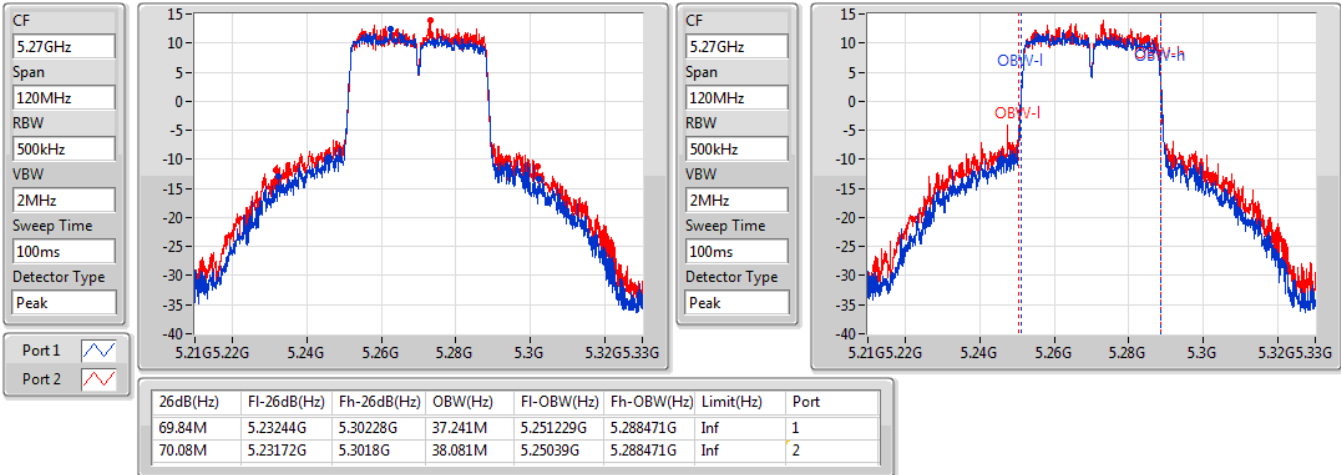


802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

5270MHz

16/10/2020

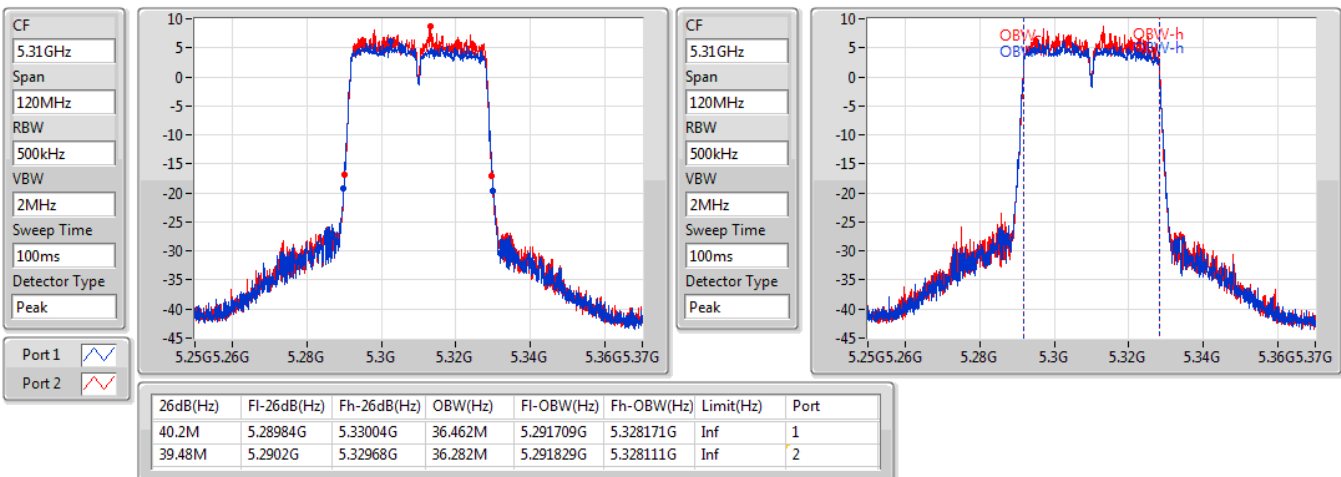


802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

5310MHz

16/10/2020

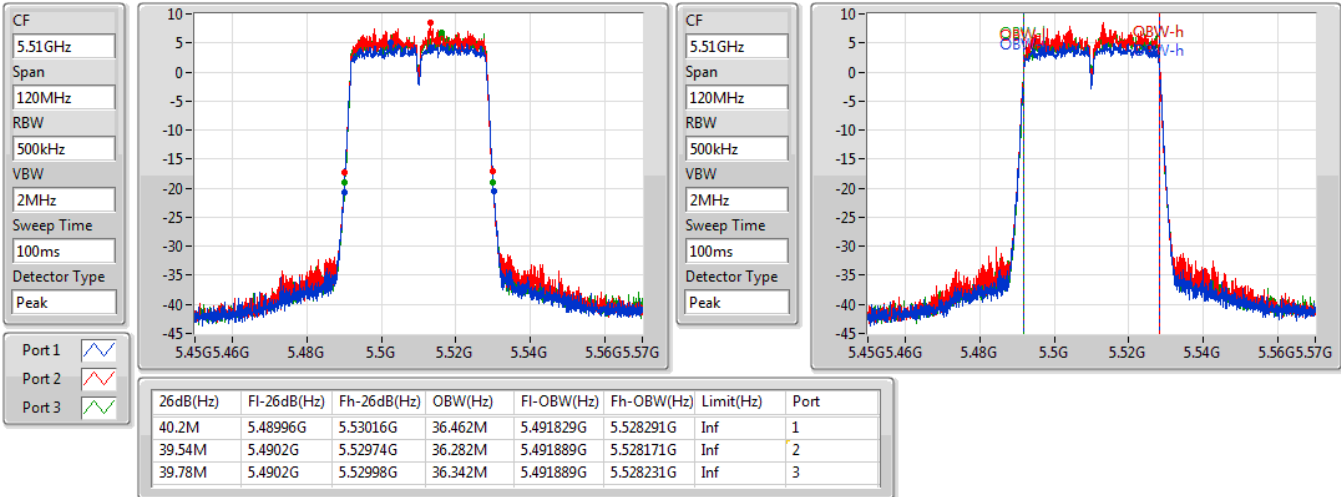


802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

5510MHz

16/10/2020

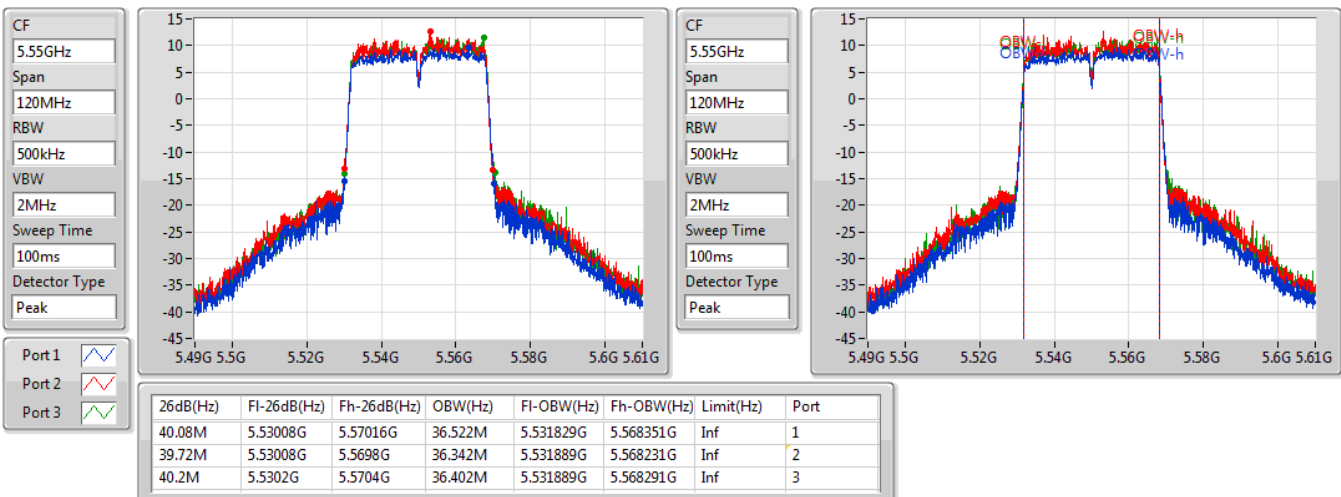


802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

5550MHz

16/10/2020

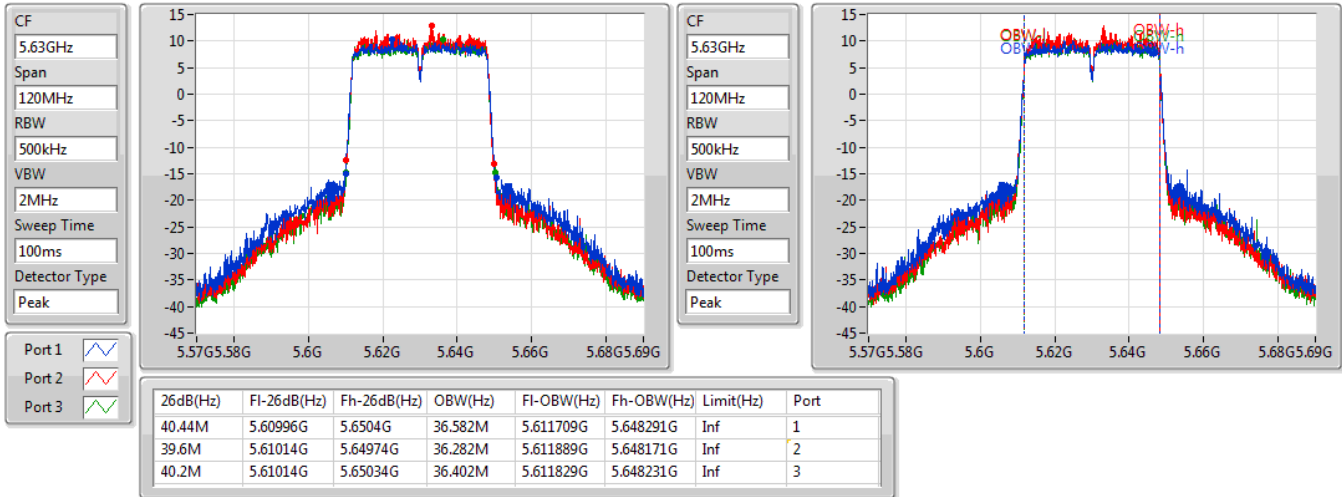


802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

5630MHz

16/10/2020

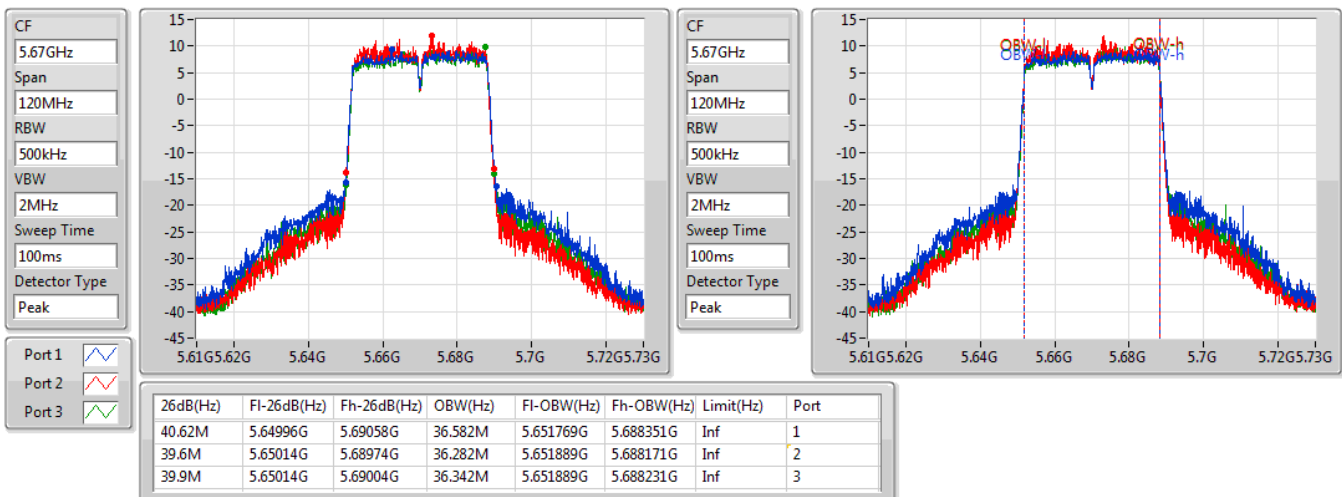


802.11ac VHT40_Nss1,(MCS0)_3TX

EBW

5670MHz

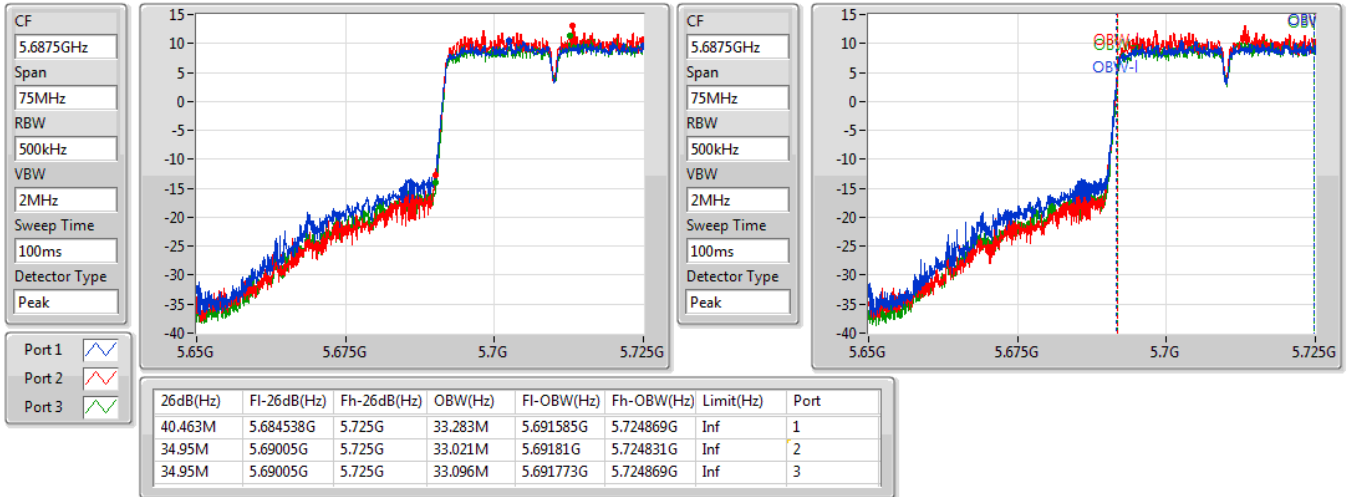
16/10/2020



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

EBW

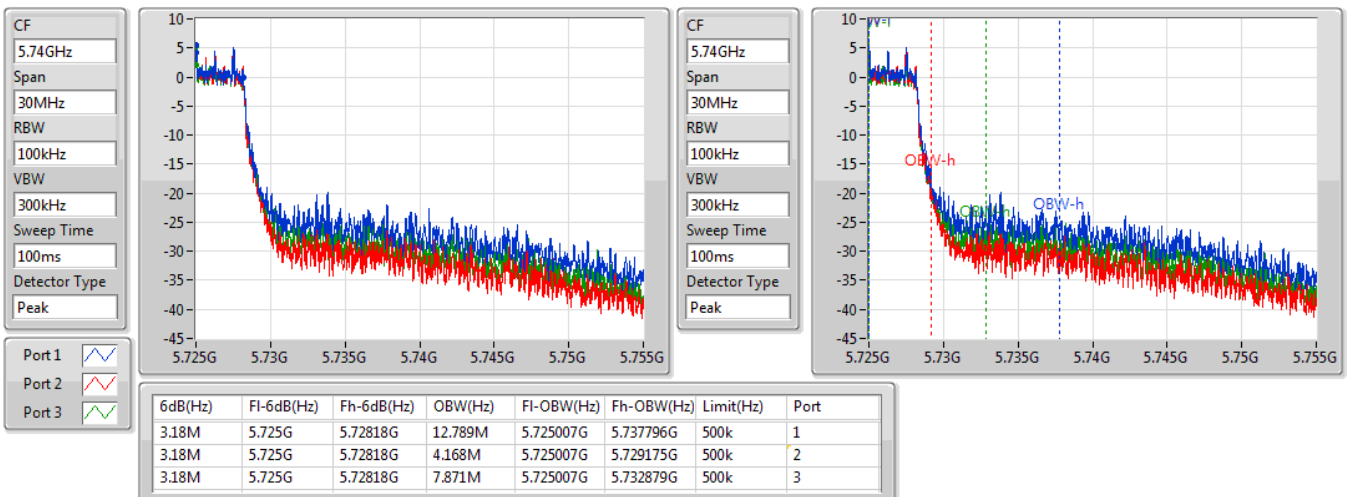
16/10/2020



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

EBW

16/10/2020

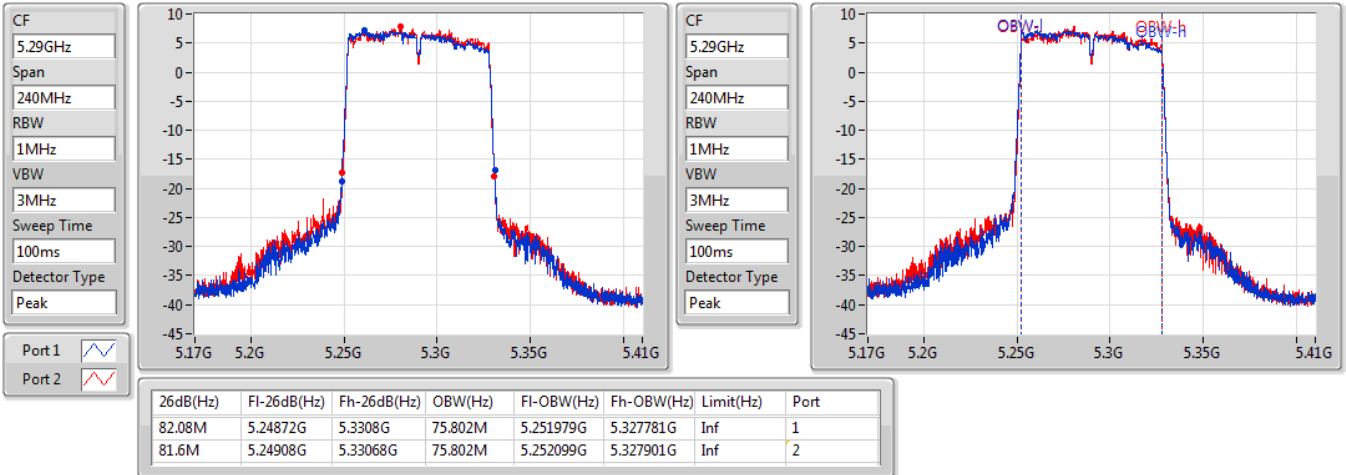


802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

5290MHz

16/10/2020

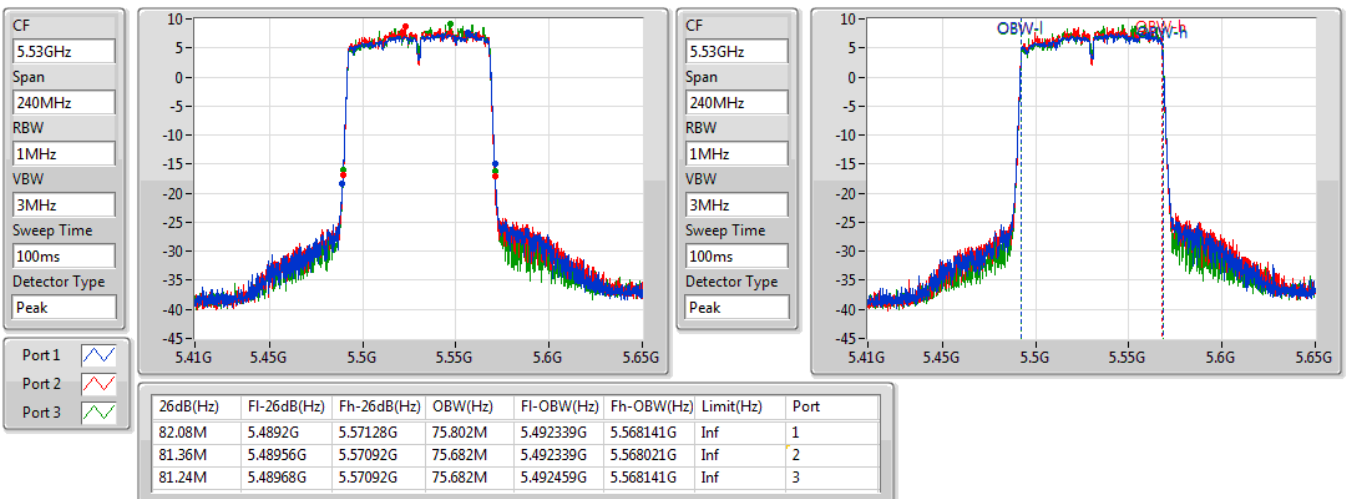


802.11ac VHT80_Nss1,(MCS0)_3TX

EBW

5530MHz

16/10/2020

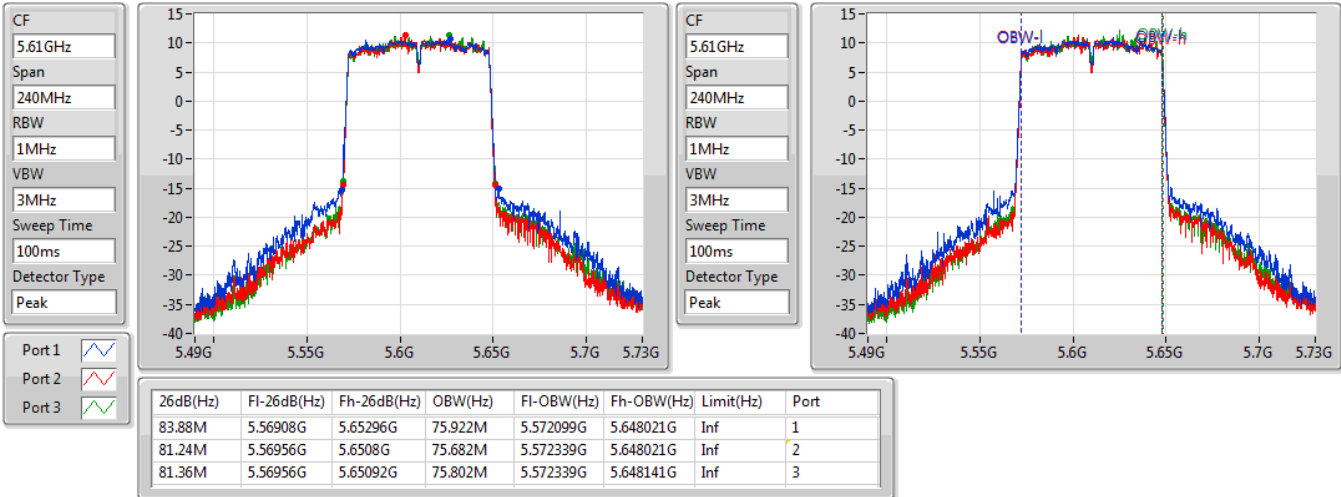


802.11ac VHT80_Nss1,(MCS0)_3TX

EBW

5610MHz

16/10/2020

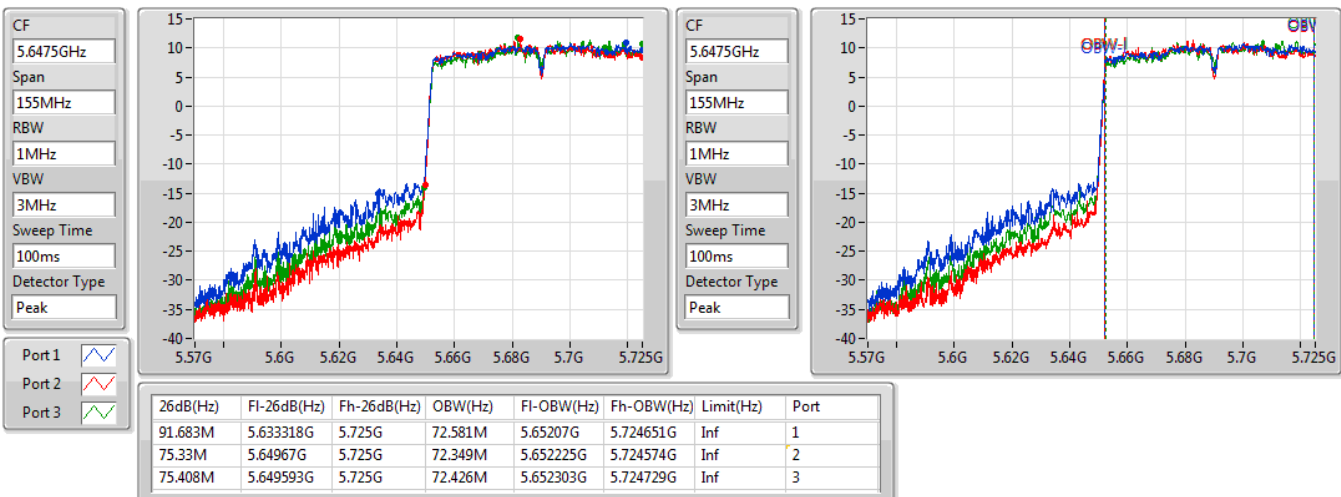


802.11ac VHT80_Nss1,(MCS0)_3TX

EBW

5690MHz Straddle 5.47-5.725GHz

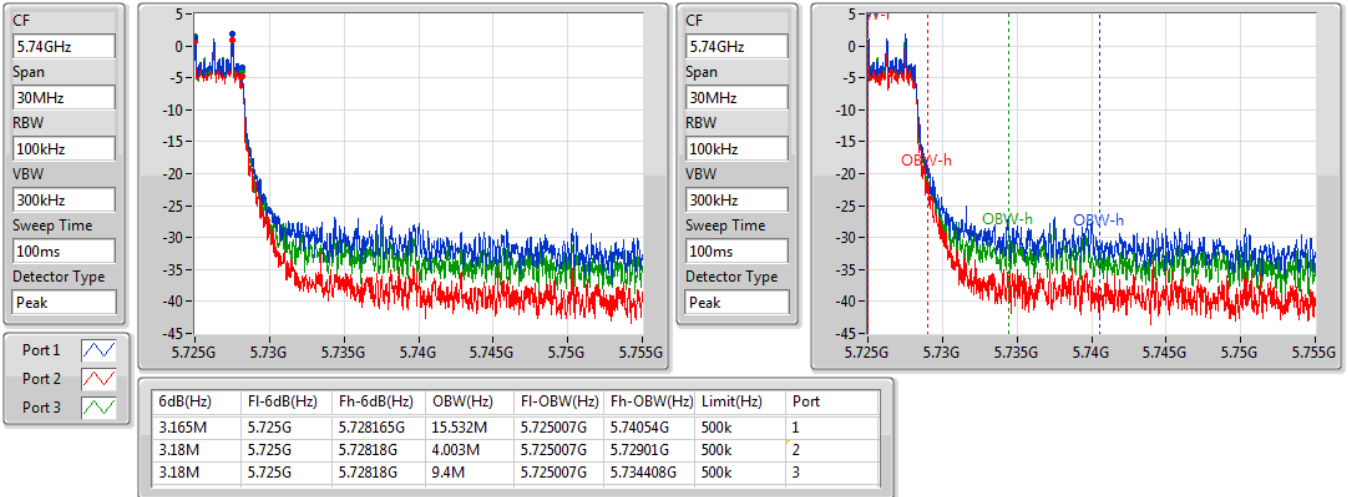
16/10/2020



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

EBW

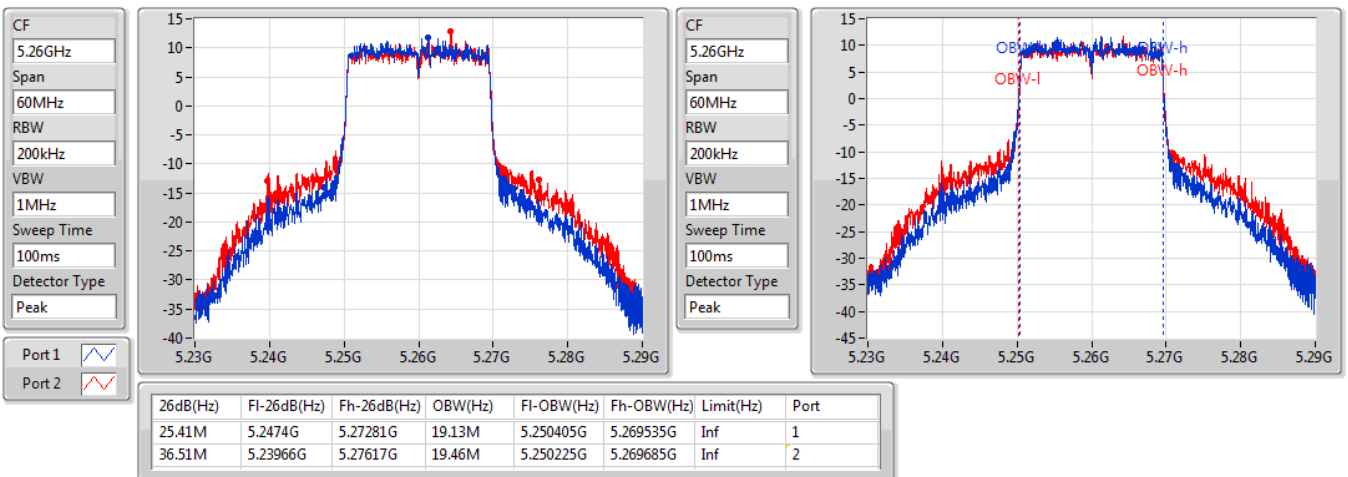
16/10/2020



802.11ax HEW20_Nss1,(MCS0)_2TX
5260MHz

EBW

16/10/2020

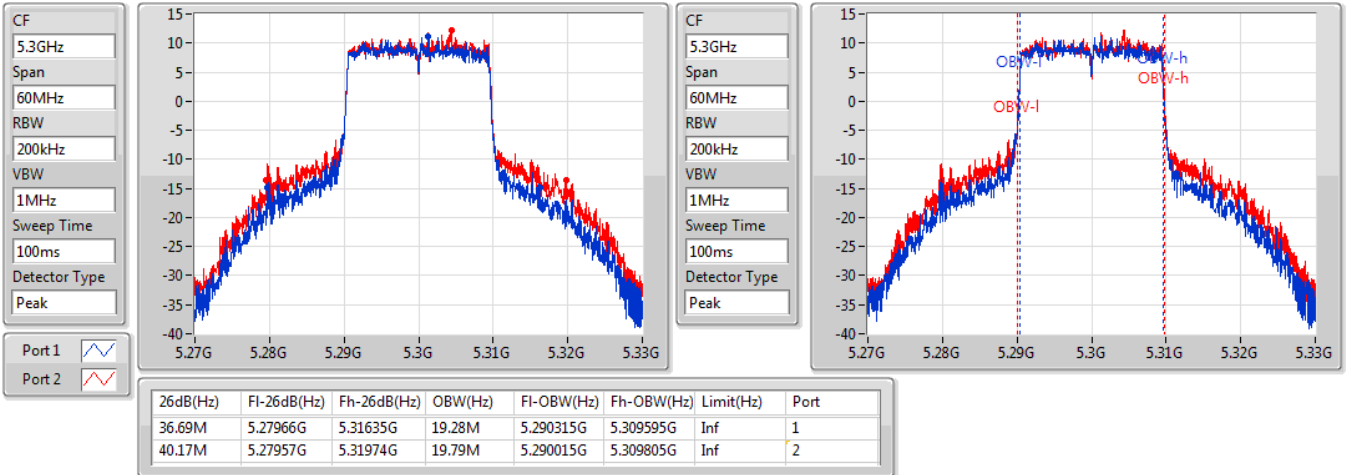


802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

5300MHz

16/10/2020

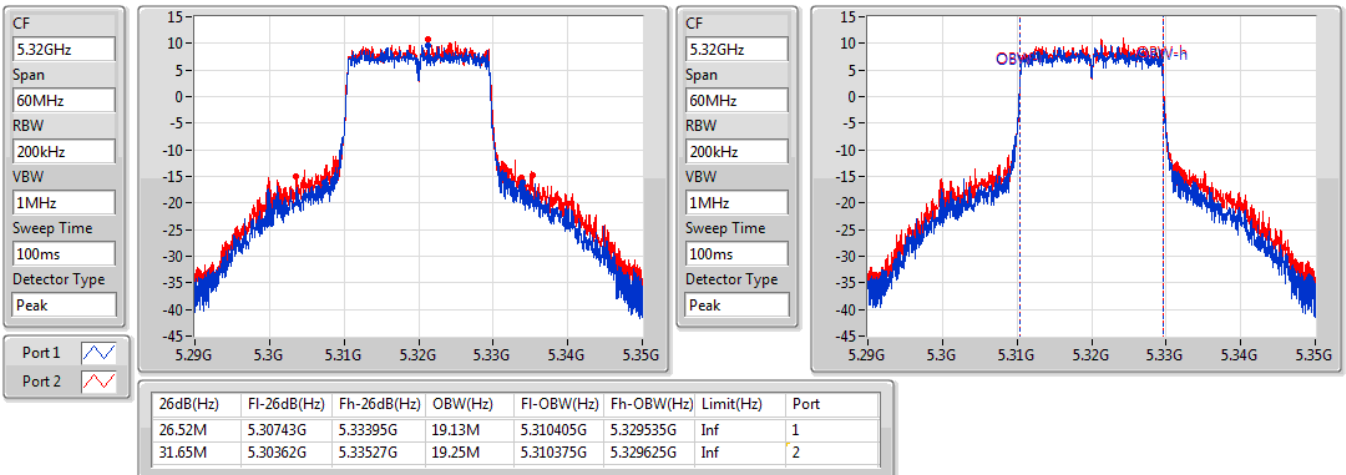


802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

5320MHz

16/10/2020

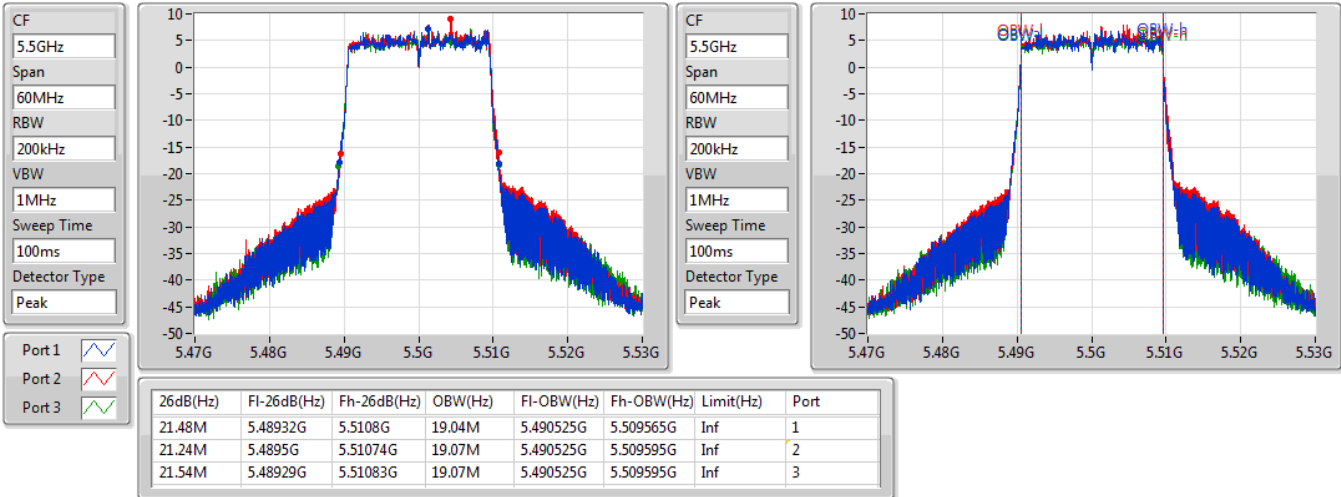


802.11ax HEW20_Nss1,(MCS0)_3TX

EBW

5500MHz

16/10/2020

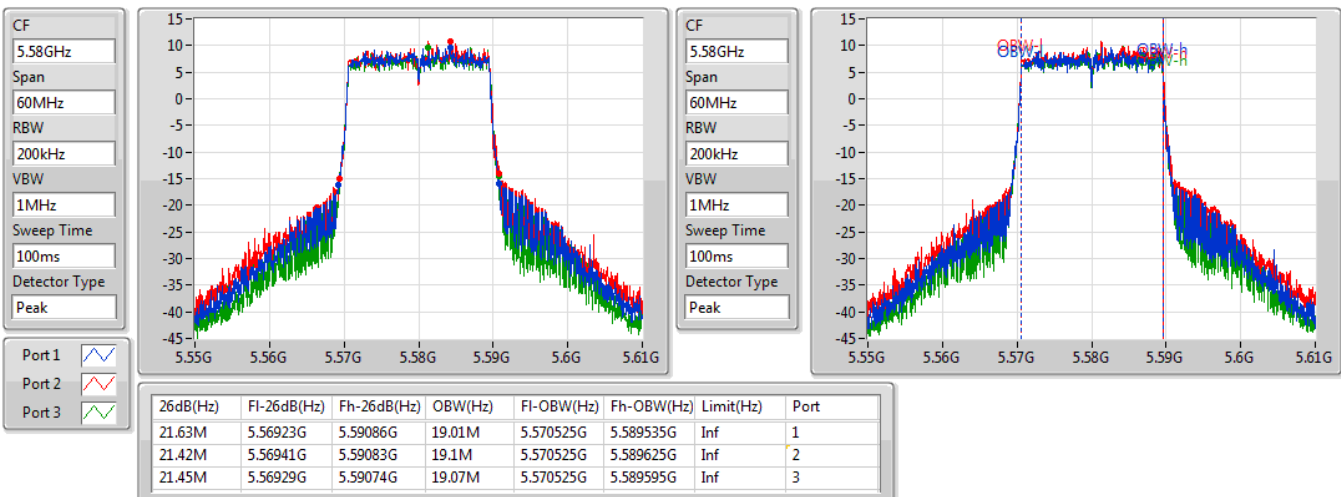


802.11ax HEW20_Nss1,(MCS0)_3TX

EBW

5580MHz

16/10/2020

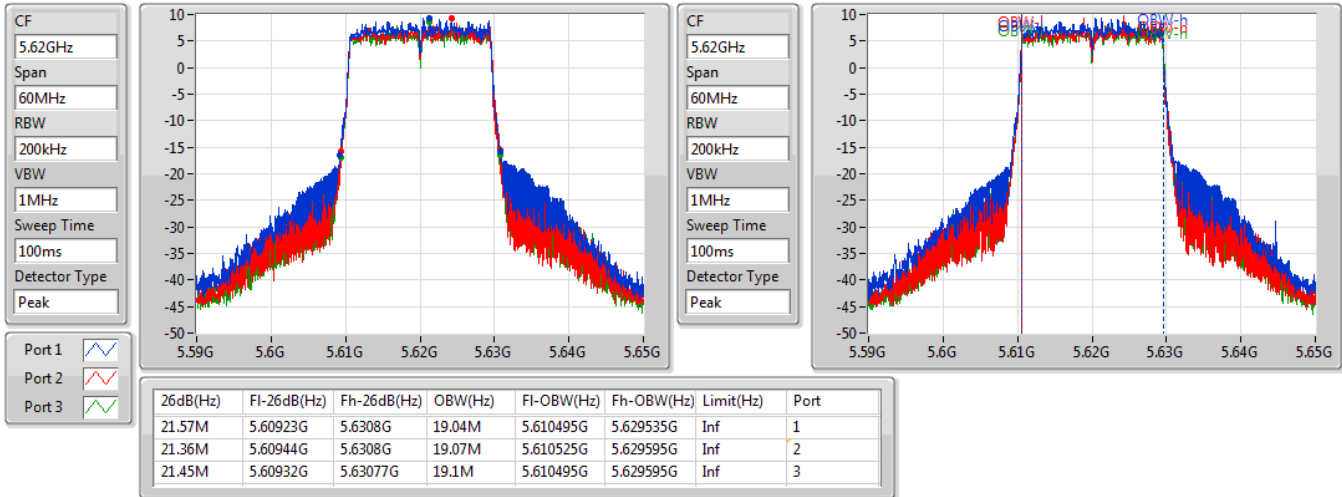


802.11ax HEW20_Nss1,(MCS0)_3TX

EBW

5620MHz

16/10/2020

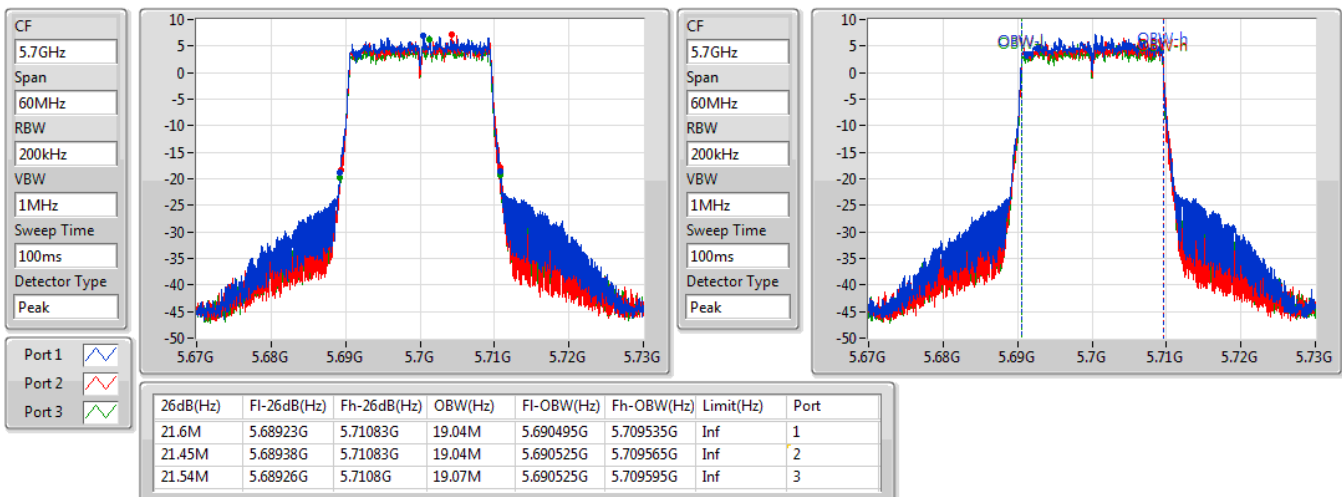


802.11ax HEW20_Nss1,(MCS0)_3TX

EBW

5700MHz

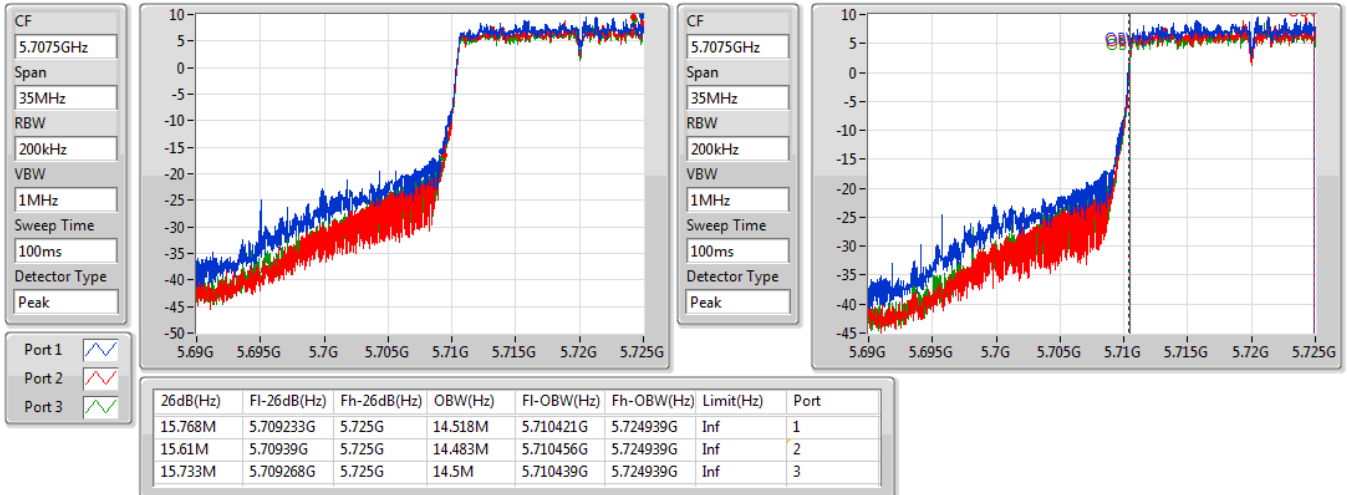
16/10/2020



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

EBW

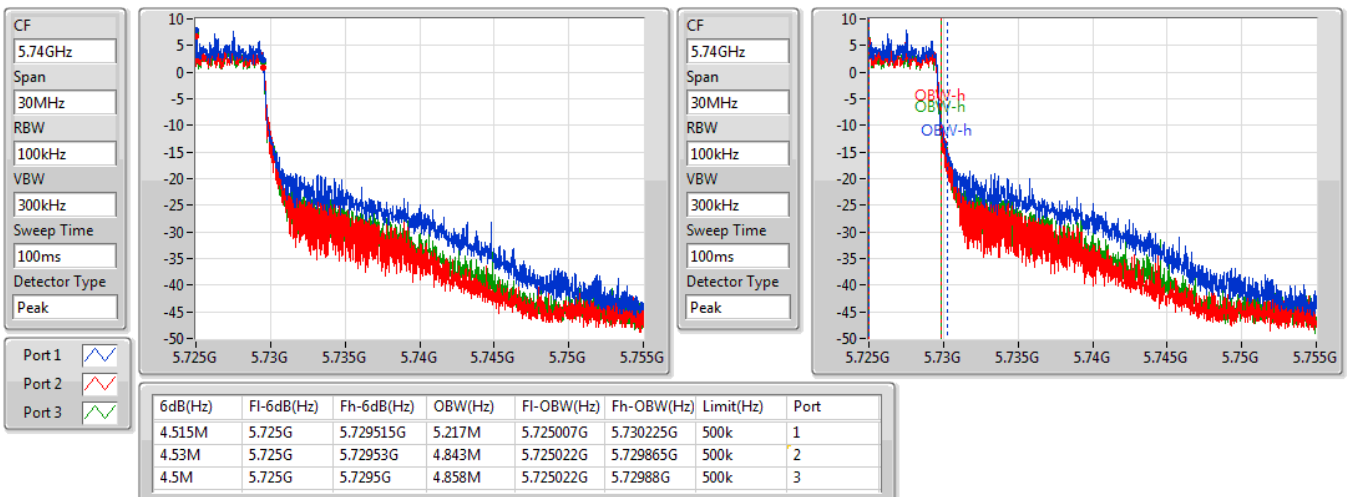
16/10/2020



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

EBW

16/10/2020

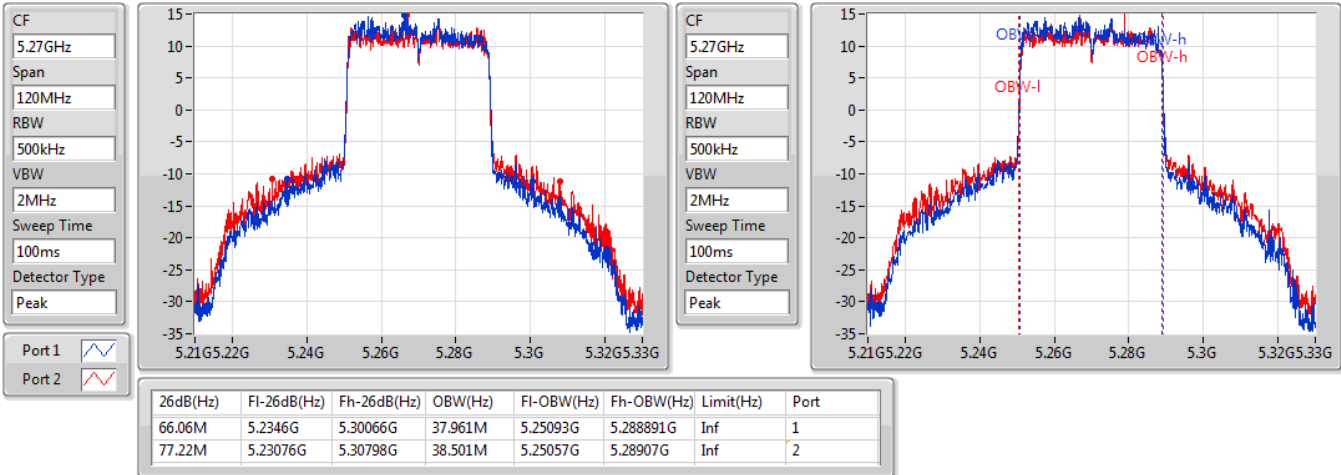


802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

5270MHz

16/10/2020

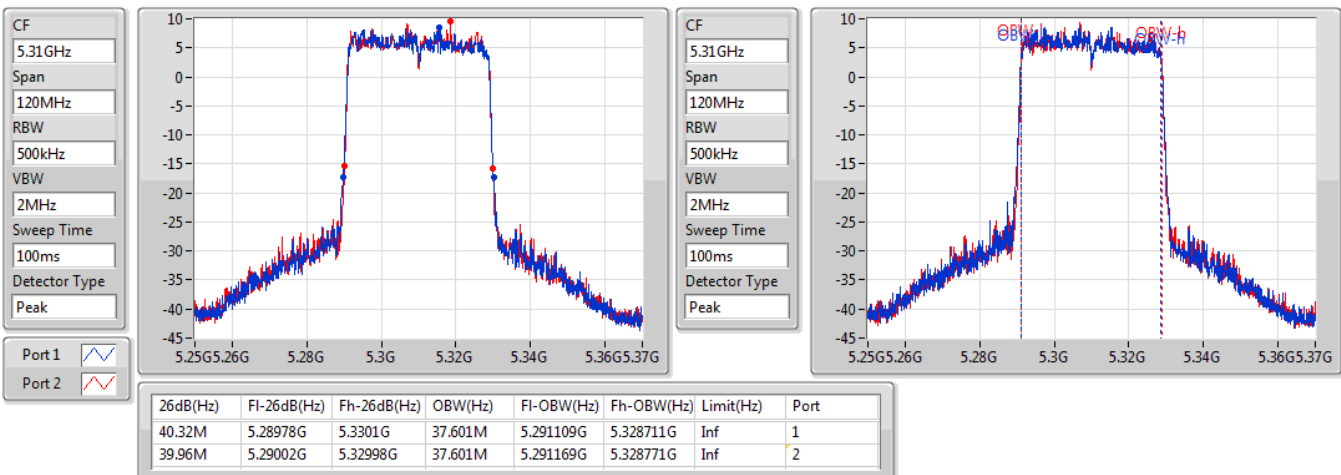


802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

5310MHz

16/10/2020



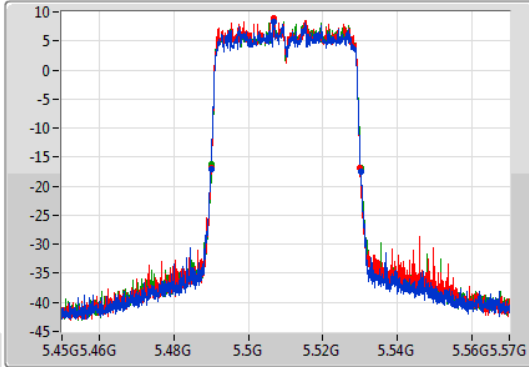
802.11ax HEW40_Nss1,(MCS0)_3TX

EBW

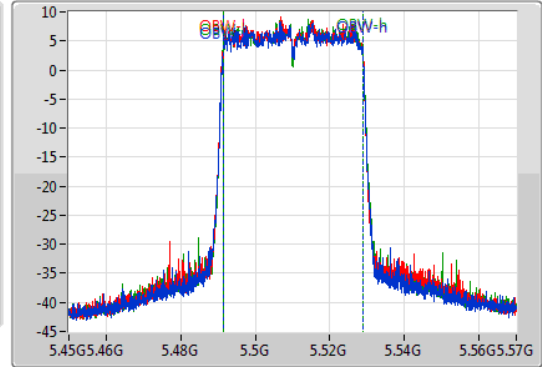
5510MHz

16/10/2020

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



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



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.2M	5.48996G	5.53016G	37.541M	5.491289G	5.528831G	Inf	1
40.02M	5.49002G	5.53004G	37.481M	5.491289G	5.528771G	Inf	2
40.02M	5.49014G	5.53016G	37.541M	5.491289G	5.528831G	Inf	3

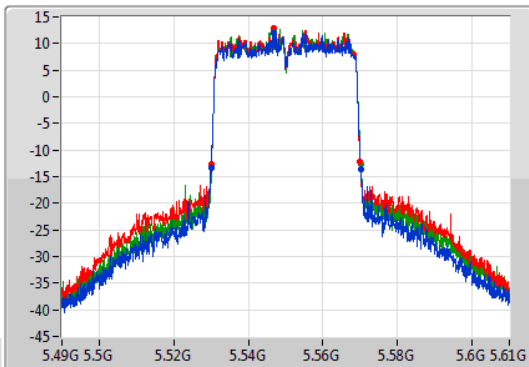
802.11ax HEW40_Nss1,(MCS0)_3TX

EBW

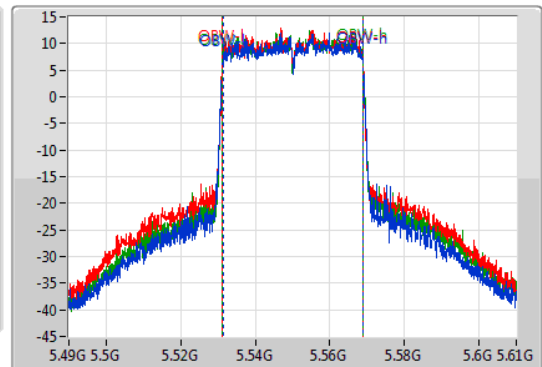
5550MHz

16/10/2020

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



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



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.2M	5.52996G	5.57016G	37.541M	5.531289G	5.568831G	Inf	1
39.9M	5.53002G	5.56992G	37.661M	5.531229G	5.568891G	Inf	2
40.02M	5.53014G	5.57016G	37.661M	5.531229G	5.568891G	Inf	3

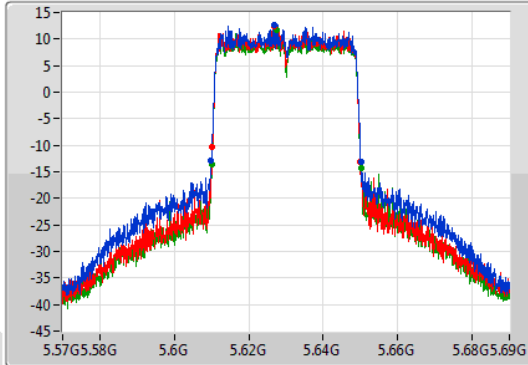
802.11ax HEW40_Nss1,(MCS0)_3TX

EBW

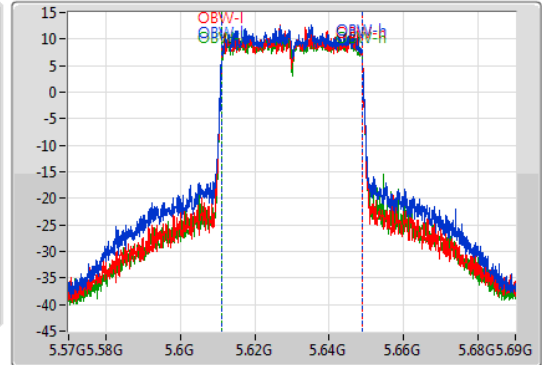
5630MHz

16/10/2020

CF
5.63GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.63GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.32M	5.60984G	5.65016G	37.601M	5.611229G	5.648831G	Inf	1
39.72M	5.6102G	5.64992G	37.601M	5.611229G	5.648831G	Inf	2
40.08M	5.61008G	5.65016G	37.541M	5.611229G	5.648771G	Inf	3

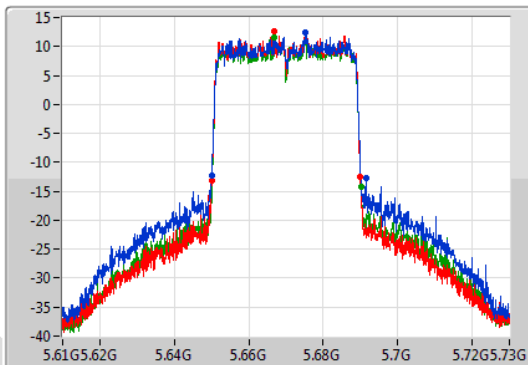
802.11ax HEW40_Nss1,(MCS0)_3TX

EBW

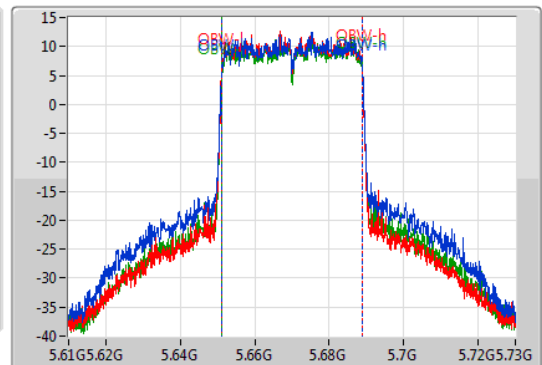
5670MHz

16/10/2020

CF
5.67GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.67GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak

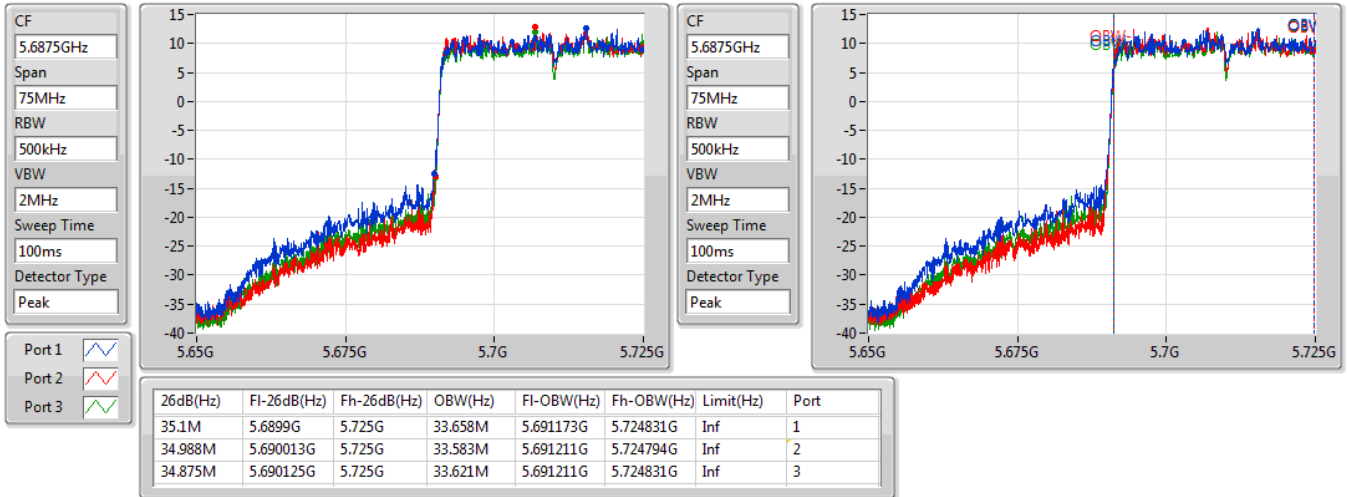


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.76M	5.64996G	5.69172G	37.661M	5.651229G	5.688891G	Inf	1
39.96M	5.65002G	5.68998G	37.541M	5.651229G	5.688771G	Inf	2
40.02M	5.65014G	5.69016G	37.601M	5.651229G	5.688831G	Inf	3

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

EBW

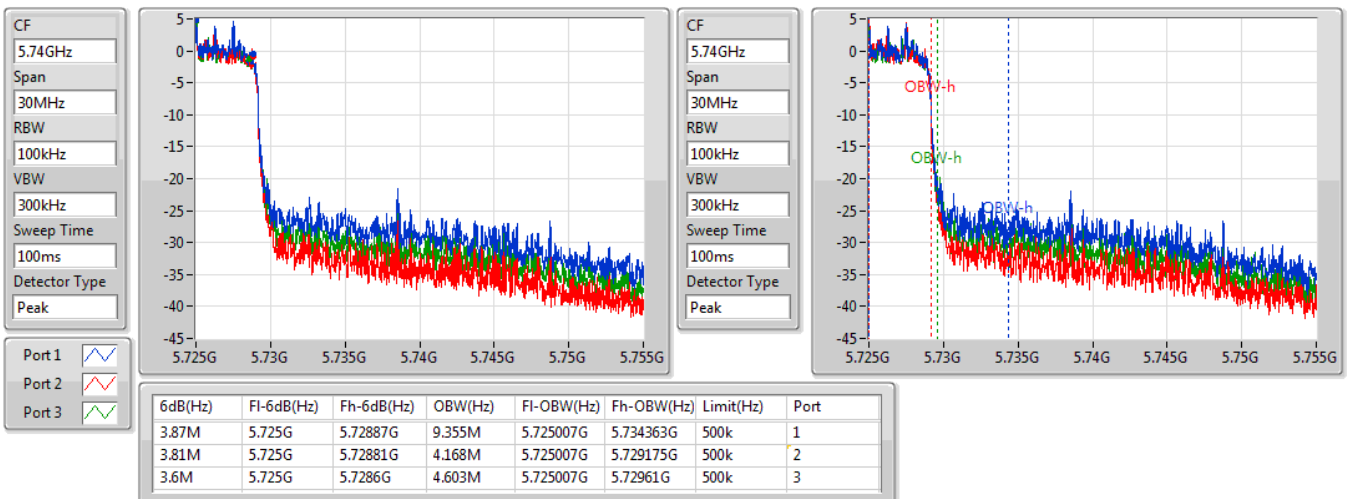
16/10/2020



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

EBW

16/10/2020

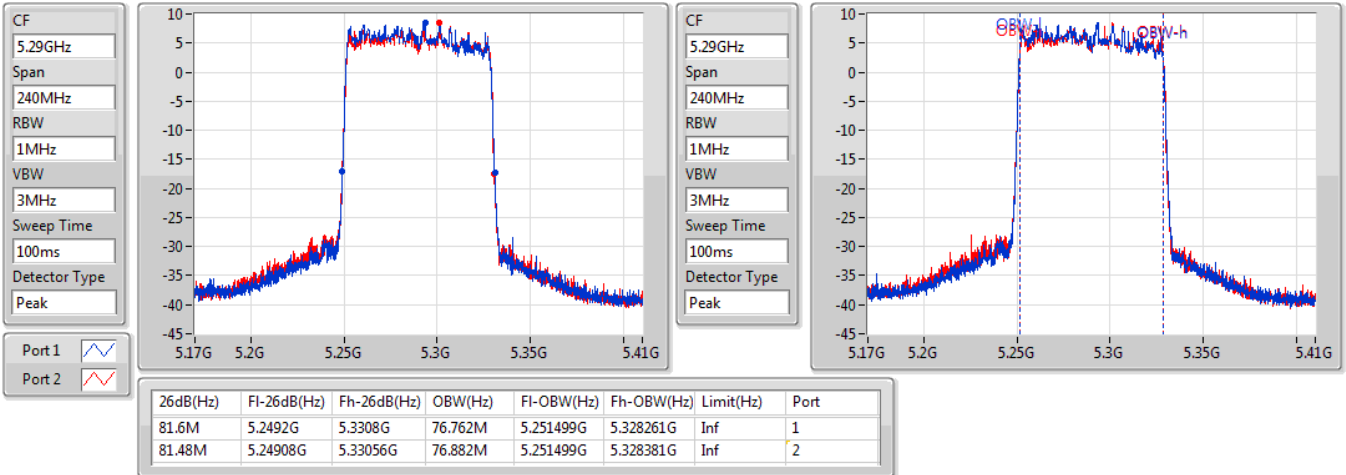


802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

5290MHz

16/10/2020

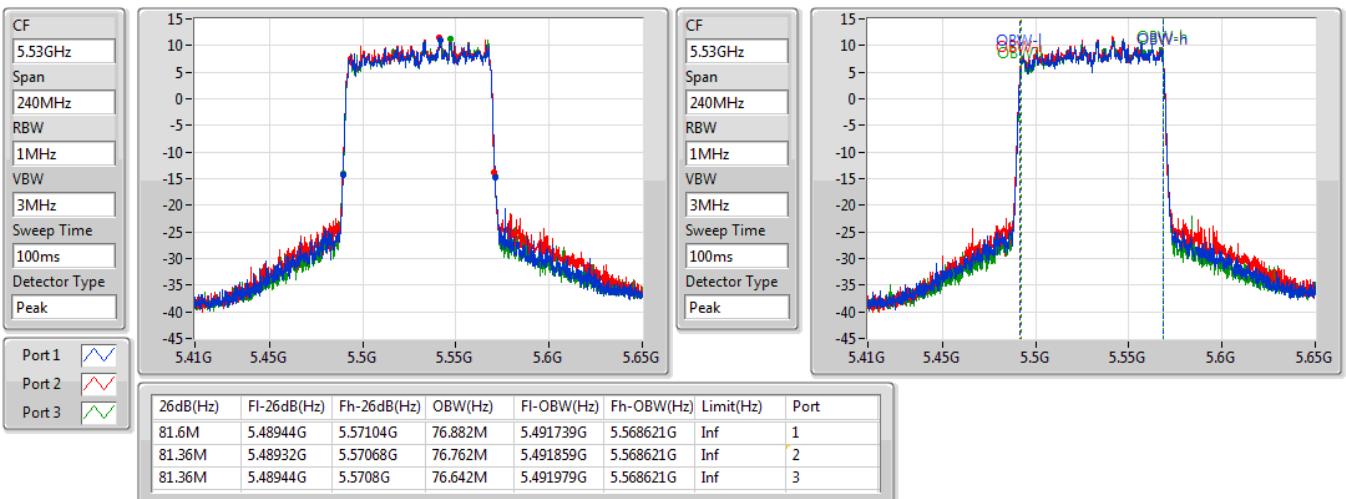


802.11ax HEW80_Nss1,(MCS0)_3TX

EBW

5530MHz

16/10/2020



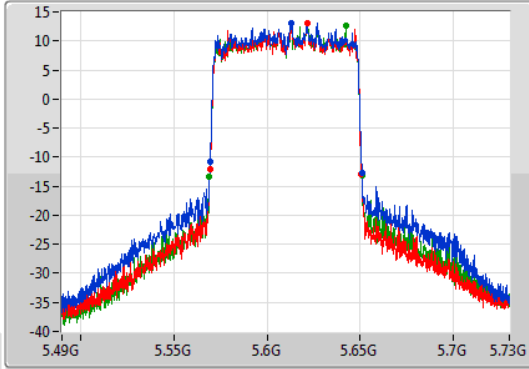
802.11ax HEW80_Nss1,(MCS0)_3TX

EBW

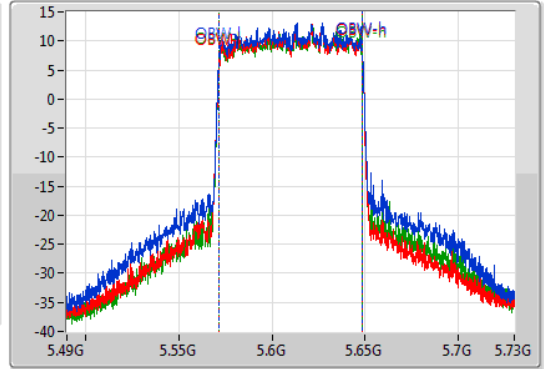
5610MHz

16/10/2020

CF
5.61GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.61GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
81.48M	5.56956G	5.65104G	76.882M	5.571739G	5.648621G	Inf	1
81.24M	5.56932G	5.65056G	76.762M	5.571739G	5.648501G	Inf	2
81.6M	5.5692G	5.6508G	76.882M	5.571739G	5.648621G	Inf	3

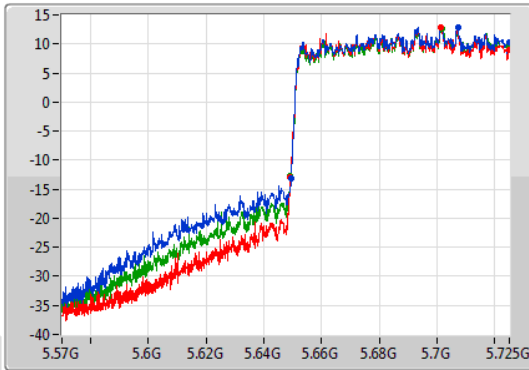
802.11ax HEW80_Nss1,(MCS0)_3TX

EBW

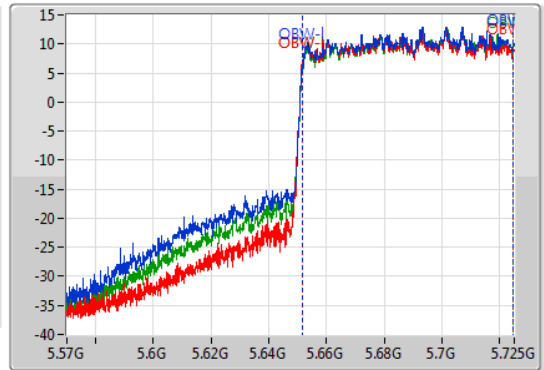
5690MHz Straddle 5.47-5.725GHz

16/10/2020

CF
5.6475GHz
Span
155MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.6475GHz
Span
155MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak

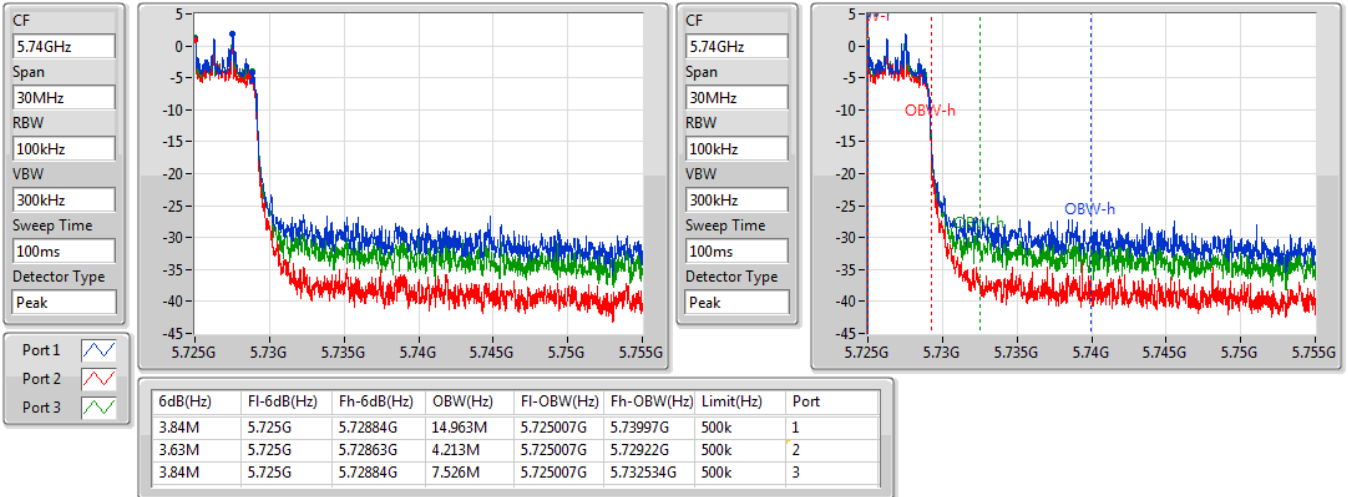


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
75.64M	5.64936G	5.725G	72.969M	5.651683G	5.724651G	Inf	1
75.795M	5.649205G	5.725G	72.891M	5.651683G	5.724574G	Inf	2
75.795M	5.649205G	5.725G	72.891M	5.65176G	5.724651G	Inf	3

802.11ax HEW80_Nss1,(MCS0)_3TX
5690MHz Straddle 5.725-5.85GHz

EBW

16/10/2020





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

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

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Min-OBW = Minimum 99% occupied bandwidth;

Result

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

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

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

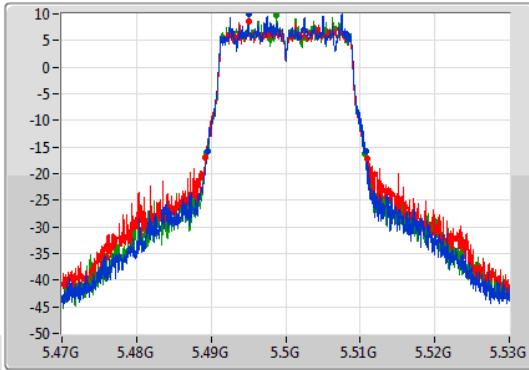
802.11ac VHT20_Nss2,(MCS0)_3TX

EBW

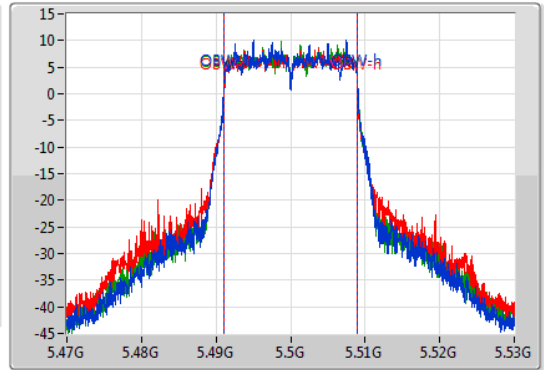
5500MHz

16/10/2020

CF: 5.5GHz
 Span: 60MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



CF: 5.5GHz
 Span: 60MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.24M	5.4895G	5.51074G	17.931M	5.491064G	5.508996G	Inf	1
21.75M	5.48926G	5.51101G	17.871M	5.491094G	5.508966G	Inf	2
21.21M	5.48947G	5.51068G	17.901M	5.491094G	5.508996G	Inf	3

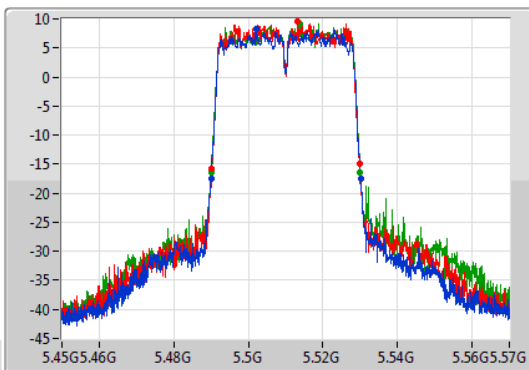
802.11ac VHT40_Nss2,(MCS0)_3TX

EBW

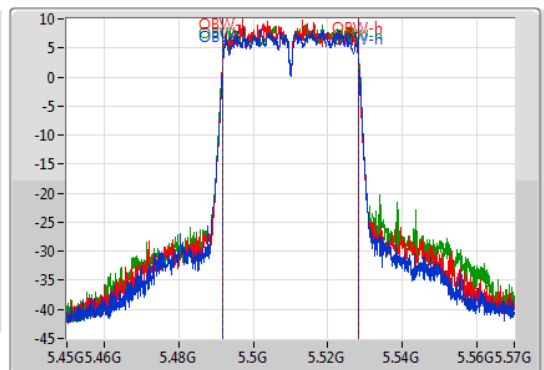
5510MHz

16/10/2020

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



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



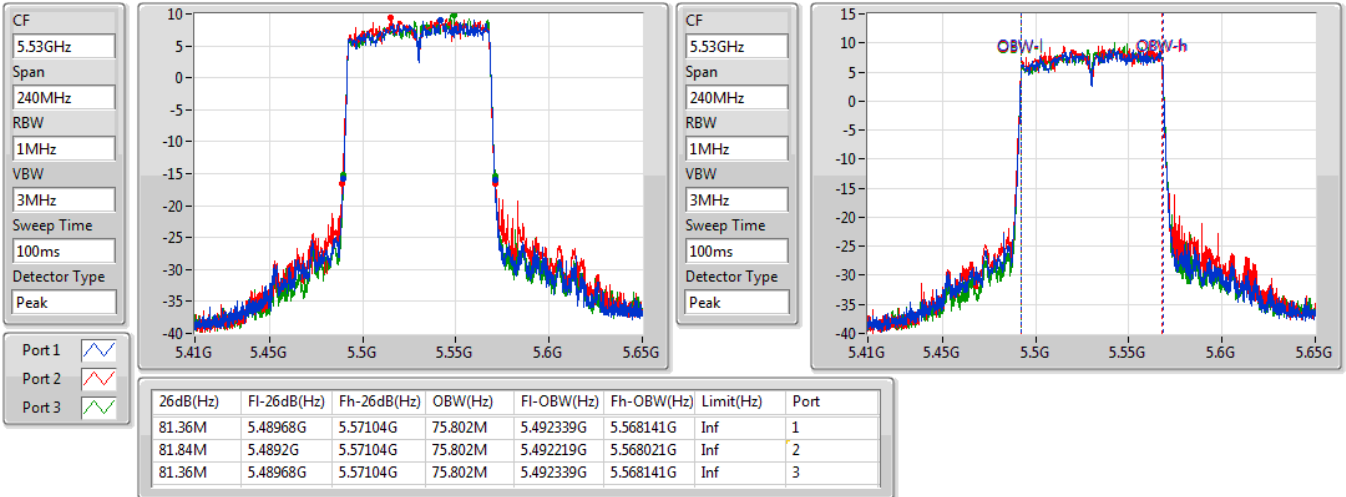
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.2M	5.48996G	5.53016G	36.462M	5.491829G	5.528291G	Inf	1
39.72M	5.49014G	5.52986G	36.282M	5.491889G	5.528171G	Inf	2
39.96M	5.49002G	5.52998G	36.522M	5.491829G	5.528351G	Inf	3

802.11ac VHT80_Nss2,(MCS0)_3TX

EBW

5530MHz

16/10/2020

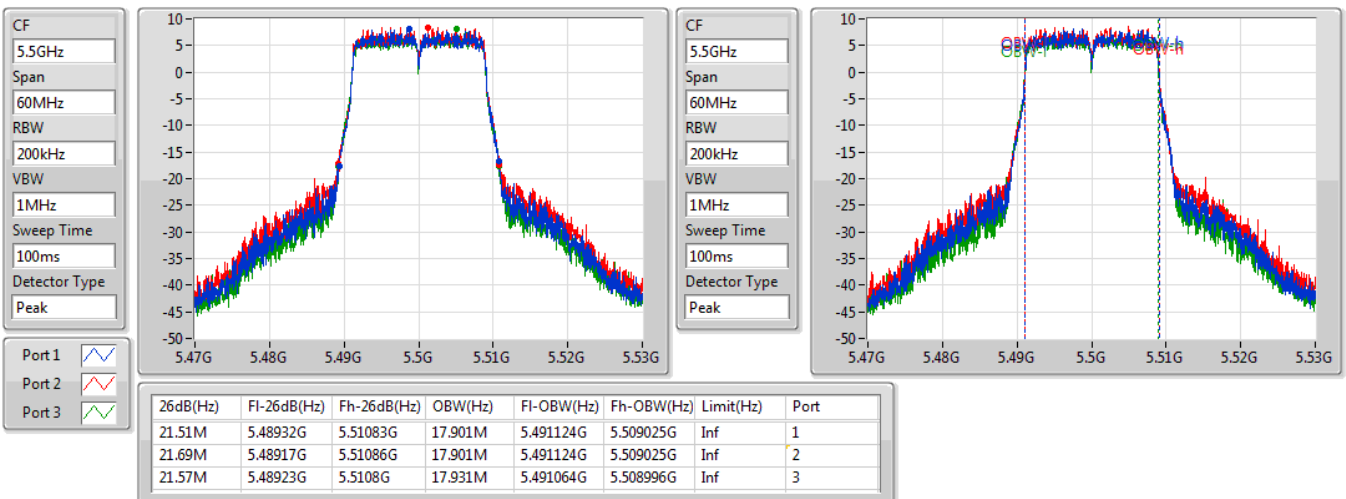


802.11ax HEW20_Nss2,(MCS0)_3TX

EBW

5500MHz

16/10/2020



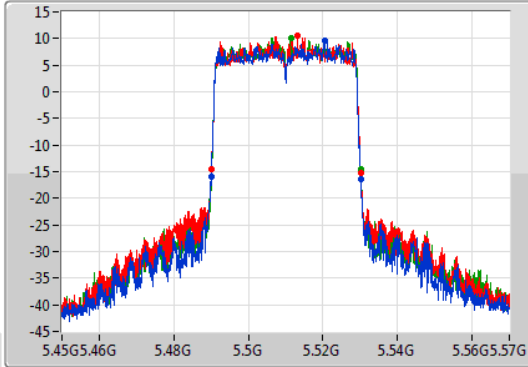
802.11ax HEW40_Nss2,(MCS0)_3TX

EBW

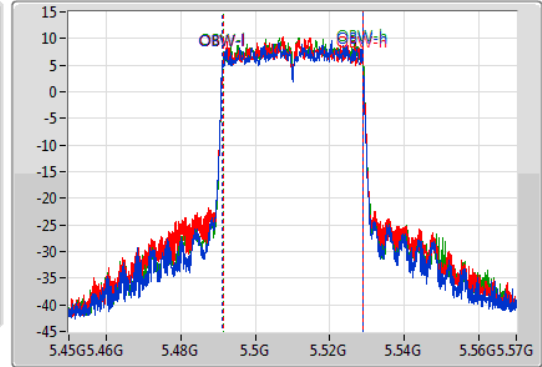
5510MHz

17/10/2020

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



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



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.02M	5.49008G	5.5301G	37.661M	5.491169G	5.528831G	Inf	1
40.02M	5.49008G	5.5301G	37.601M	5.491289G	5.528891G	Inf	2
39.96M	5.49014G	5.5301G	37.661M	5.491289G	5.528951G	Inf	3

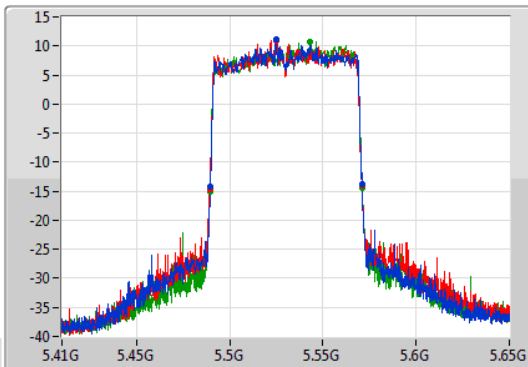
802.11ax HEW80_Nss2,(MCS0)_3TX

EBW

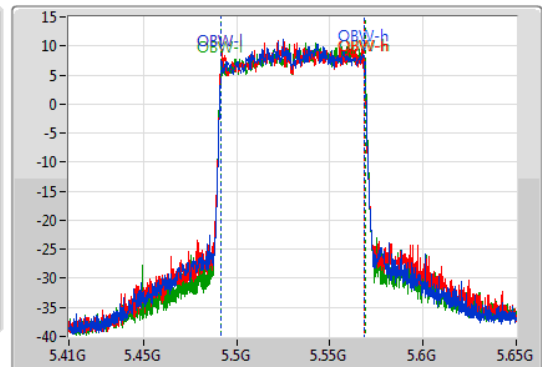
5530MHz

17/10/2020

CF
5.53GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.53GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
81.36M	5.48956G	5.57092G	77.121M	5.491619G	5.568741G	Inf	1
81.6M	5.48932G	5.57092G	77.241M	5.491379G	5.568621G	Inf	2
81.72M	5.48932G	5.57104G	77.241M	5.491619G	5.568861G	Inf	3

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

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20_Nss3,(MCS0)_3TX	21.63M	18.051M	18M1D1D	21.27M	17.811M
802.11ac VHT40_Nss3,(MCS0)_3TX	40.38M	36.582M	36M6D1D	39.6M	36.342M
802.11ac VHT80_Nss3,(MCS0)_3TX	82.08M	75.922M	75M9D1D	81.36M	75.682M
802.11ax HEW20_Nss3,(MCS0)_3TX	21.66M	17.901M	17M9D1D	21.42M	17.871M
802.11ax HEW40_Nss3,(MCS0)_3TX	40.32M	36.462M	36M5D1D	39.78M	36.282M
802.11ax HEW80_Nss3,(MCS0)_3TX	81.36M	77.241M	77M2D1D	81M	77.001M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Min-OBW = Minimum 99% occupied bandwidth;

Result

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

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

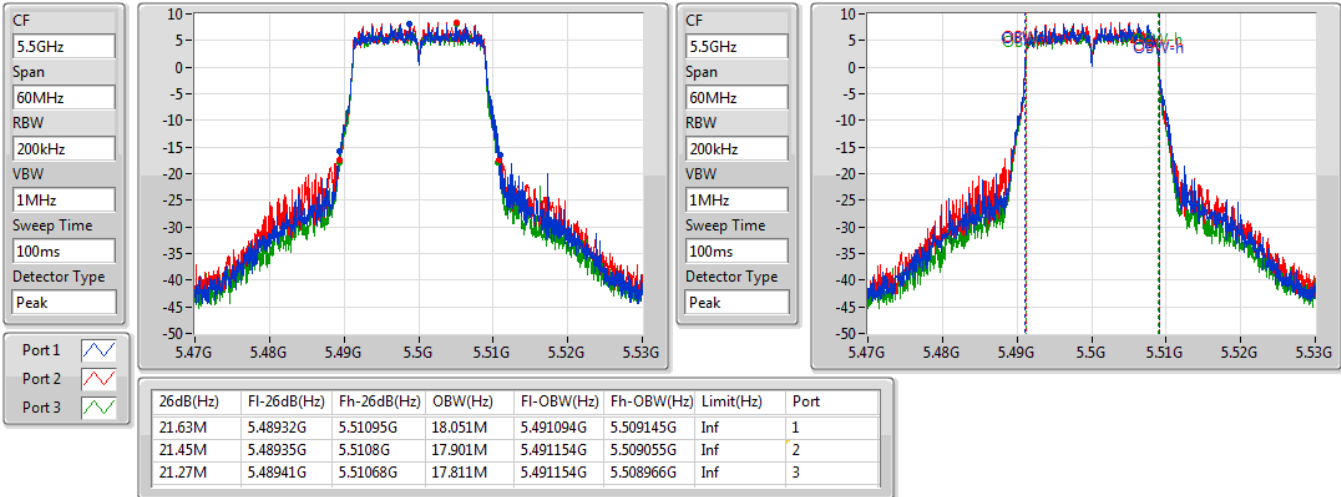
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20_Nss3,(MCS0)_3TX

EBW

5500MHz

17/10/2020

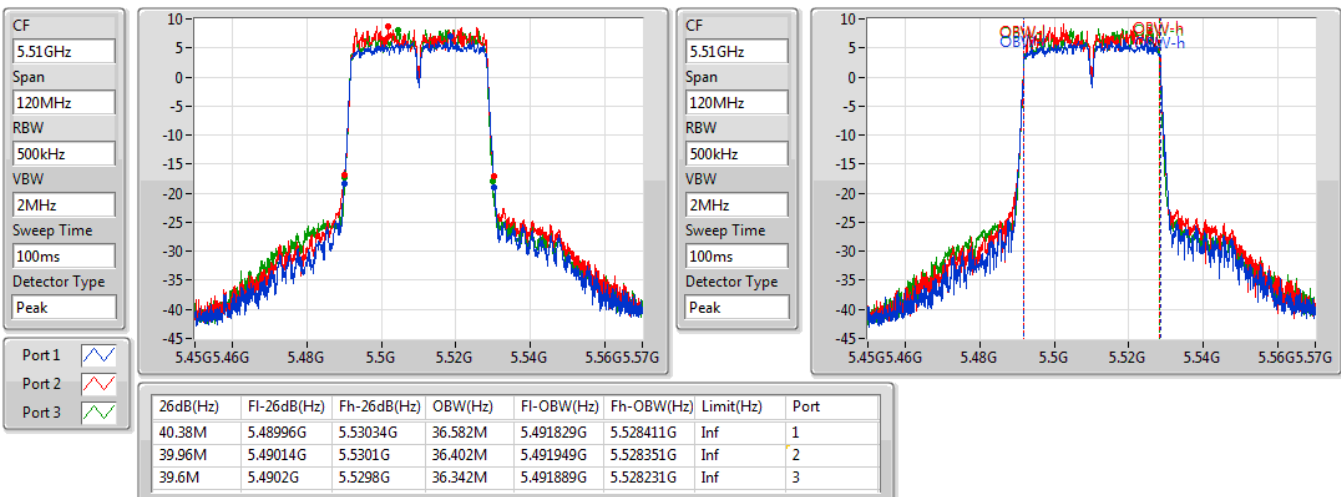


802.11ac VHT40_Nss3,(MCS0)_3TX

EBW

5510MHz

17/10/2020



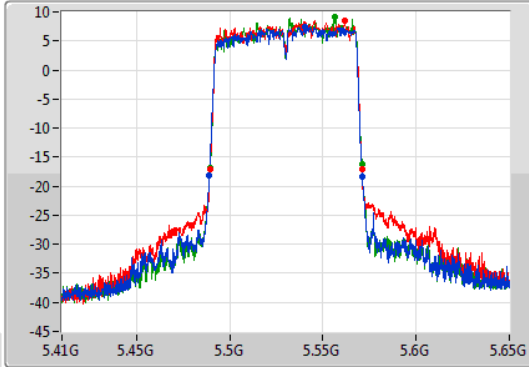
802.11ac VHT80_Nss3,(MCS0)_3TX

EBW

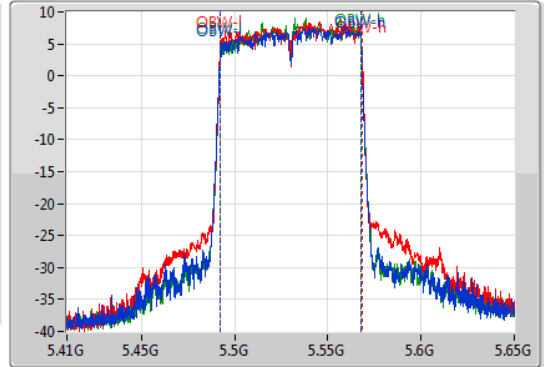
5530MHz

17/10/2020

CF
5.53GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.53GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
82.08M	5.48908G	5.57116G	75.802M	5.492219G	5.568021G	Inf	1
81.48M	5.48944G	5.57092G	75.922M	5.492339G	5.568261G	Inf	2
81.36M	5.48956G	5.57092G	75.682M	5.492339G	5.568021G	Inf	3

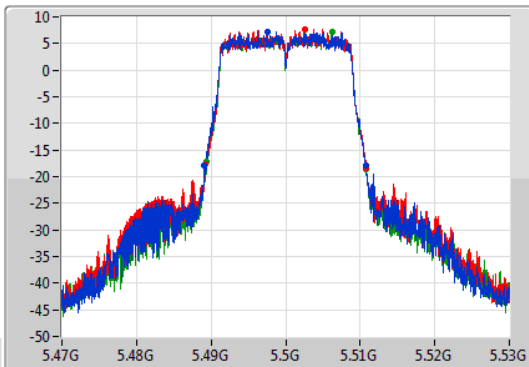
802.11ax HEW20_Nss3,(MCS0)_3TX

EBW

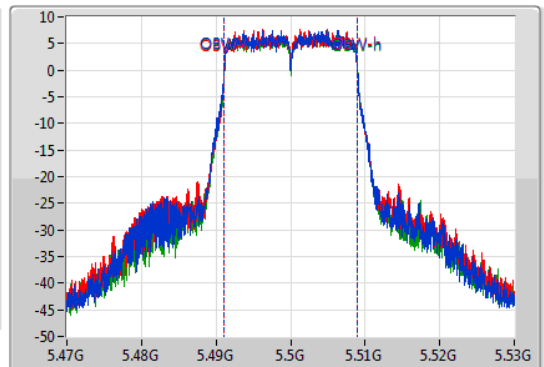
5500MHz

17/10/2020

CF
5.5GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.5GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.66M	5.48911G	5.51077G	17.901M	5.491064G	5.508966G	Inf	1
21.6M	5.48923G	5.51083G	17.871M	5.491094G	5.508966G	Inf	2
21.42M	5.48938G	5.5108G	17.871M	5.491124G	5.508966G	Inf	3

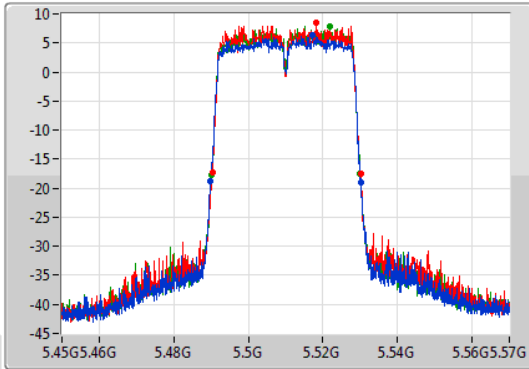
802.11ax HEW40_Nss3,(MCS0)_3TX

EBW

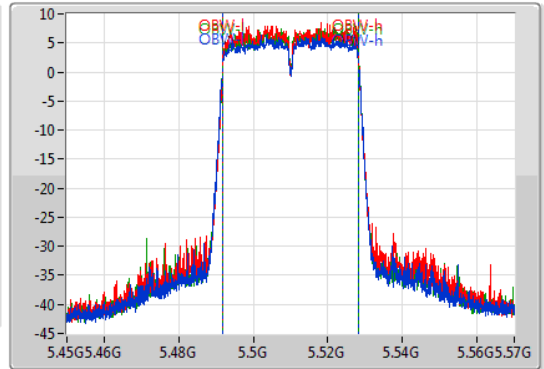
5510MHz

17/10/2020

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



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



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.32M	5.48984G	5.53016G	36.462M	5.491829G	5.528291G	Inf	1
39.78M	5.49032G	5.5301G	36.282M	5.491949G	5.528231G	Inf	2
39.96M	5.49008G	5.53004G	36.342M	5.491889G	5.528231G	Inf	3

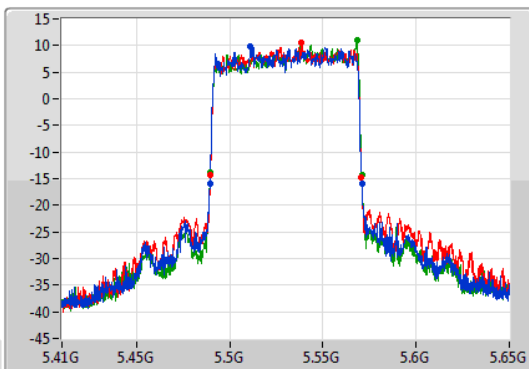
802.11ax HEW80_Nss3,(MCS0)_3TX

EBW

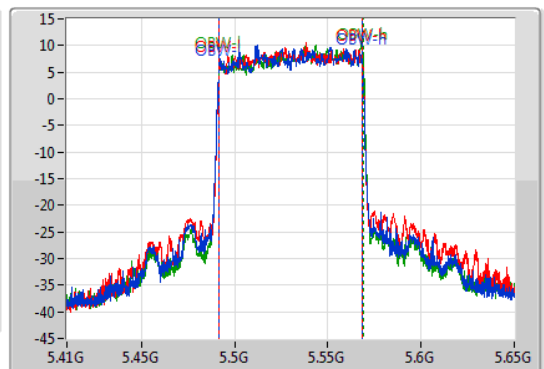
5530MHz

17/10/2020

CF
5.53GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.53GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
81.36M	5.48944G	5.5708G	77.001M	5.491619G	5.568621G	Inf	1
81M	5.48968G	5.57068G	77.001M	5.491739G	5.568741G	Inf	2
81.24M	5.48956G	5.5708G	77.241M	5.491739G	5.568981G	Inf	3

Mode 4, Beamforming mode: 5GHz Low Band 2T1S and 5GHz High Band 3T1S Beamforming Summary

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

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Min-OBW = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCSO)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	25.92M	18.111M	38.82M	19.43M		
5300MHz	Pass	Inf	27.57M	18.231M	38.67M	19.4M		
5320MHz	Pass	Inf	27.3M	18.081M	26.7M	18.081M		
802.11ac VHT20-BF_Nss1,(MCSO)_3TX	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.42M	17.901M	21.33M	17.781M	21.42M	17.781M
5580MHz	Pass	Inf	21.45M	17.931M	21.48M	17.811M	21.39M	17.781M
5620MHz	Pass	Inf	21.69M	17.961M	21.39M	17.781M	21.42M	17.781M
5700MHz	Pass	Inf	21.54M	17.931M	21.42M	17.781M	21.33M	17.811M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	18.69M	14.063M	15.733M	13.888M	15.663M	13.888M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.795M	5.142M	3.81M	4.498M	3.81M	4.603M
802.11ac VHT40-BF_Nss1,(MCSO)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	72M	37.361M	72.54M	38.021M		
5310MHz	Pass	Inf	40.08M	36.522M	39.6M	36.282M		
802.11ac VHT40-BF_Nss1,(MCSO)_3TX	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	40.26M	36.462M	39.6M	36.282M	39.78M	36.342M
5550MHz	Pass	Inf	40.2M	36.522M	39.54M	36.342M	40.44M	36.342M
5630MHz	Pass	Inf	41.88M	36.642M	39.6M	36.282M	40.14M	36.402M
5670MHz	Pass	Inf	40.38M	36.642M	39.66M	36.282M	42.48M	36.402M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	40.238M	33.283M	34.875M	33.058M	35.288M	33.058M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.18M	12.654M	3.18M	4.108M	3.18M	7.901M
802.11ac VHT80-BF_Nss1,(MCSO)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	82.2M	75.802M	81.36M	75.682M		
802.11ac VHT80-BF_Nss1,(MCSO)_3TX	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	82.08M	75.802M	81.36M	75.682M	81.36M	75.682M
5610MHz	Pass	Inf	87.6M	75.922M	81.48M	75.802M	81.24M	75.682M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	85.638M	72.504M	75.485M	72.349M	75.563M	72.426M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.165M	15.322M	3.18M	3.973M	3.165M	10.93M
802.11ax HEW20-BF_Nss1,(MCSO)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	25.68M	19.13M	37.62M	19.46M		
5300MHz	Pass	Inf	36.48M	19.25M	40.14M	19.73M		
5320MHz	Pass	Inf	22.86M	19.1M	23.16M	19.16M		
802.11ax HEW20-BF_Nss1,(MCSO)_3TX	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.57M	19.04M	21.42M	19.07M	21.51M	19.1M
5580MHz	Pass	Inf	21.51M	19.04M	21.99M	19.07M	21.45M	19.07M
5620MHz	Pass	Inf	21.57M	19.04M	21.45M	19.04M	21.51M	19.1M
5700MHz	Pass	Inf	21.57M	19.04M	21.51M	19.04M	21.45M	19.07M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	16.538M	14.535M	15.645M	14.5M	15.715M	14.518M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.53M	5.217M	4.5M	4.843M	4.485M	4.918M
802.11ax HEW40-BF_Nss1,(MCSO)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	64.56M	37.961M	81.24M	38.501M		
5310MHz	Pass	Inf	40.26M	37.541M	39.9M	37.481M		
802.11ax HEW40-BF_Nss1,(MCSO)_3TX	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	40.14M	37.541M	40.08M	37.601M	40.02M	37.541M

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

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

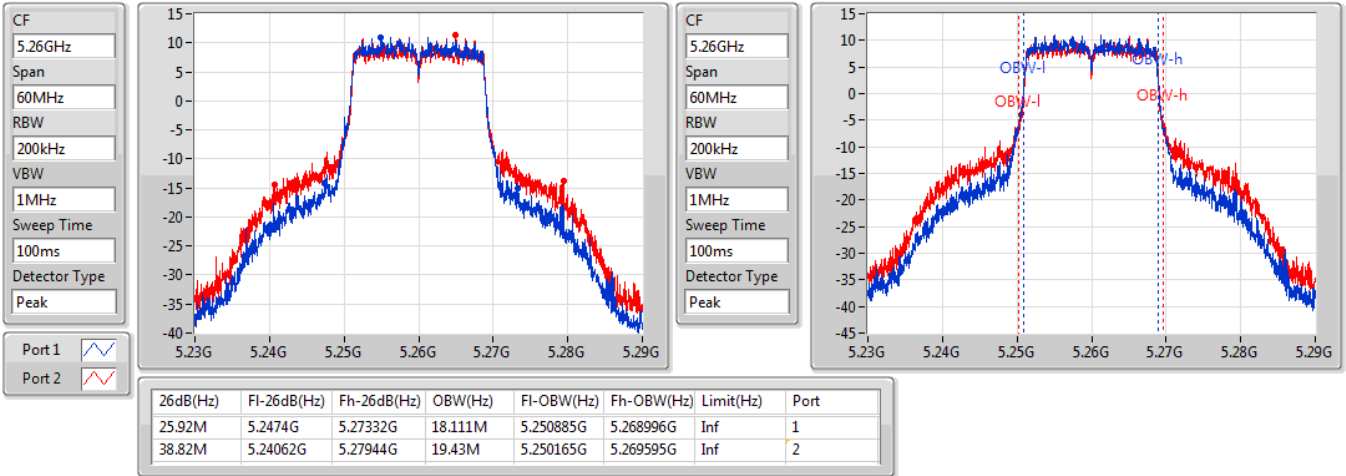
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

5260MHz

16/10/2020

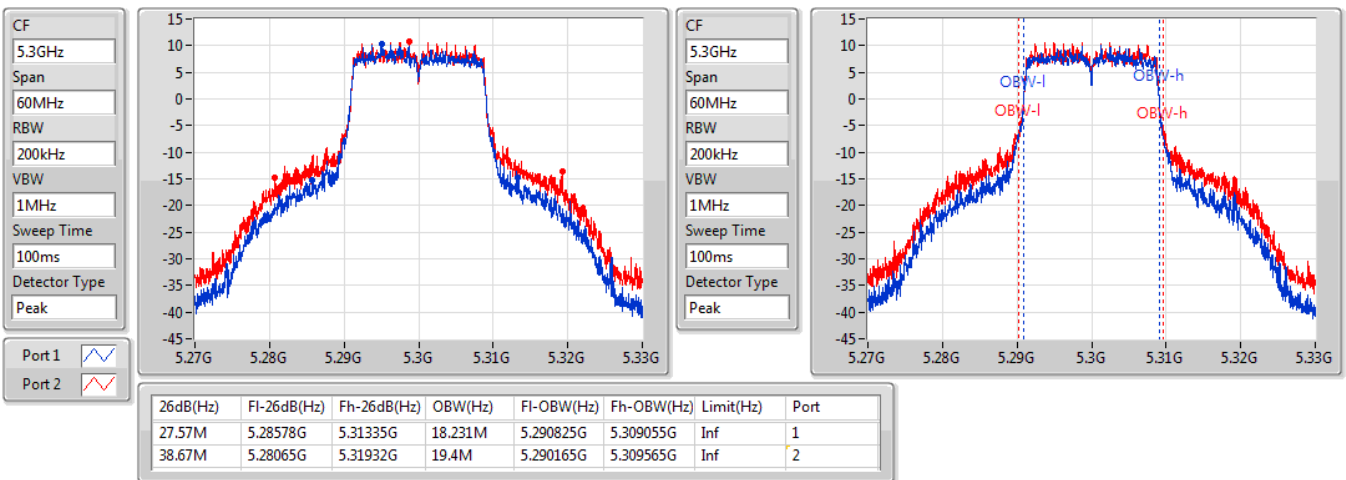


802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

5300MHz

16/10/2020

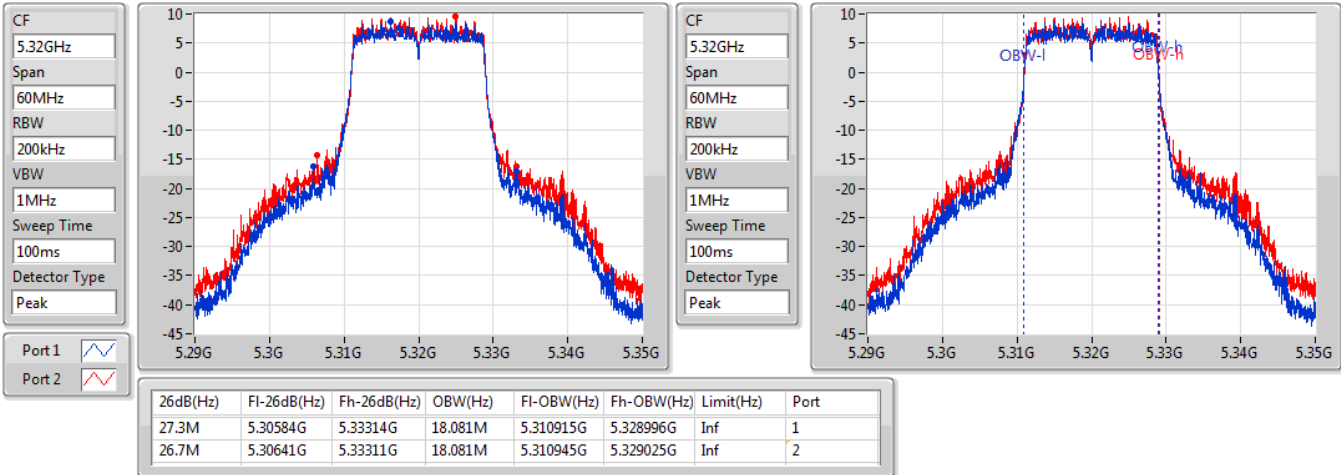


802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

5320MHz

16/10/2020

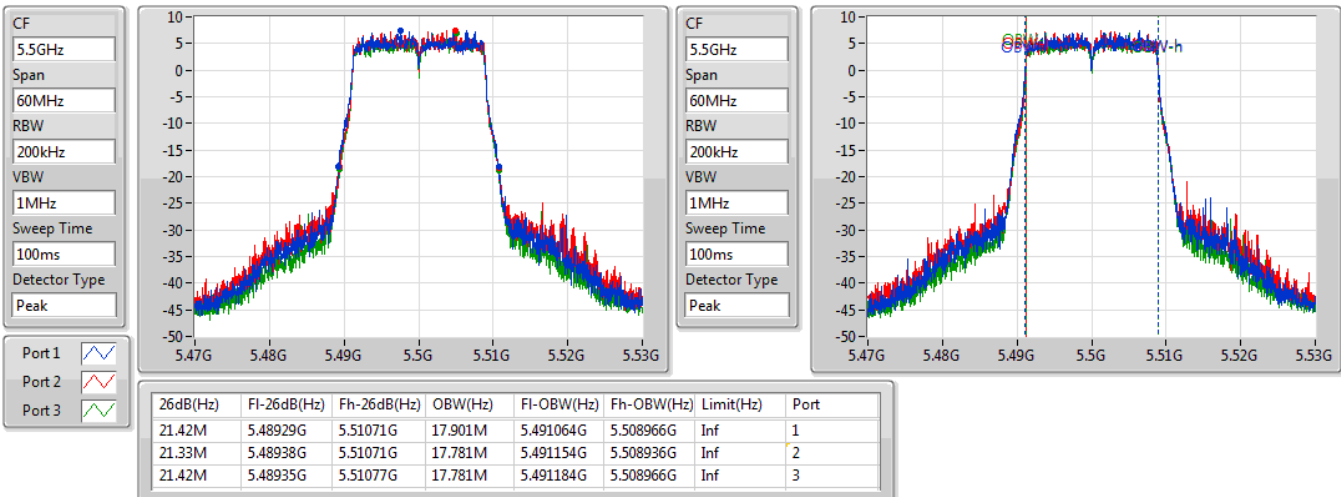


802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

5500MHz

16/10/2020

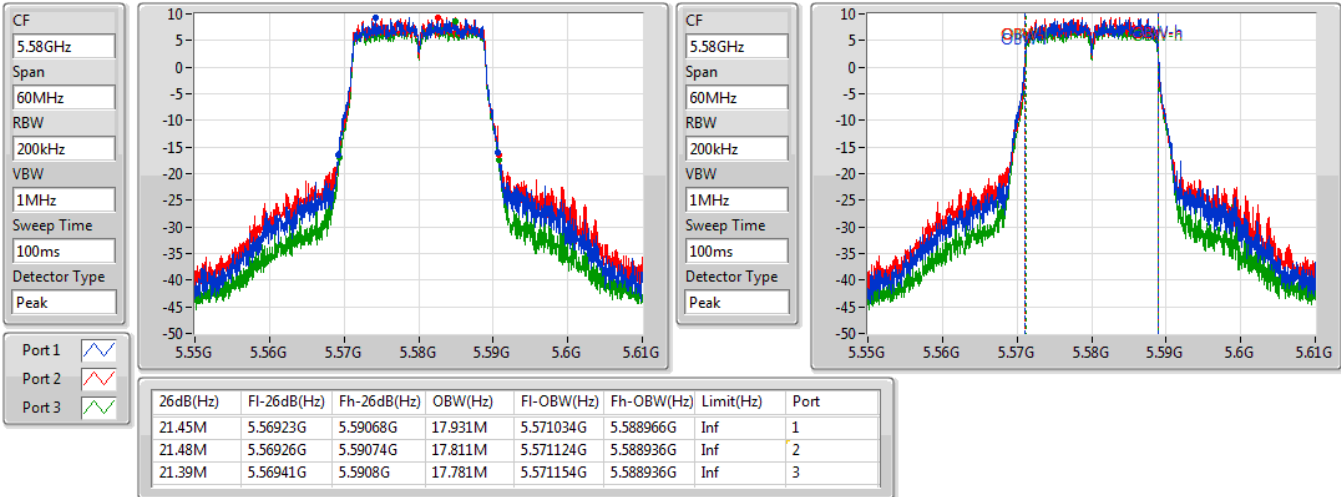


802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

5580MHz

16/10/2020

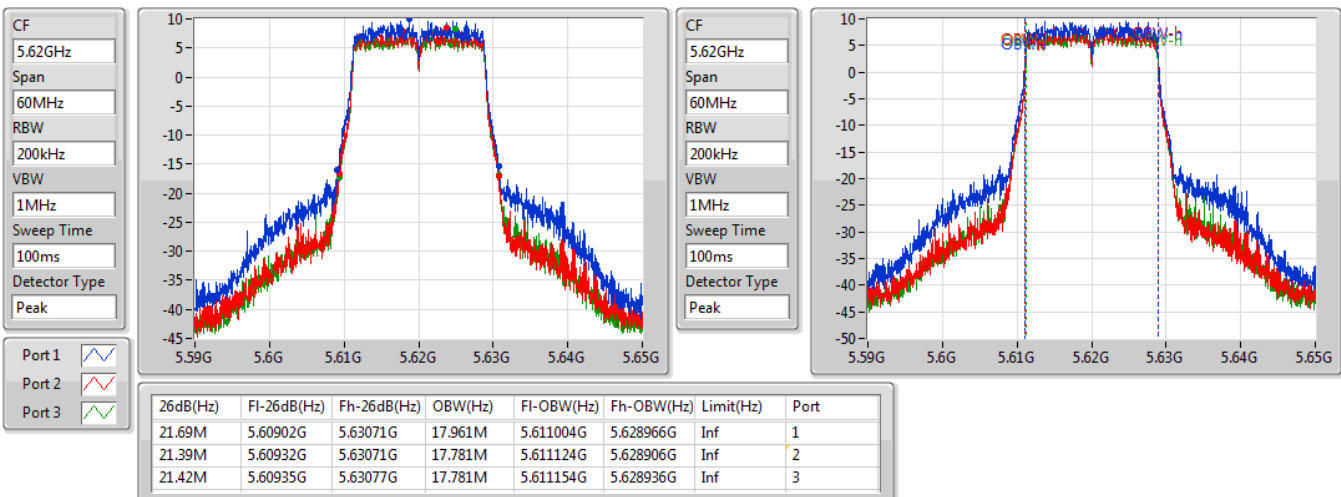


802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

5620MHz

16/10/2020

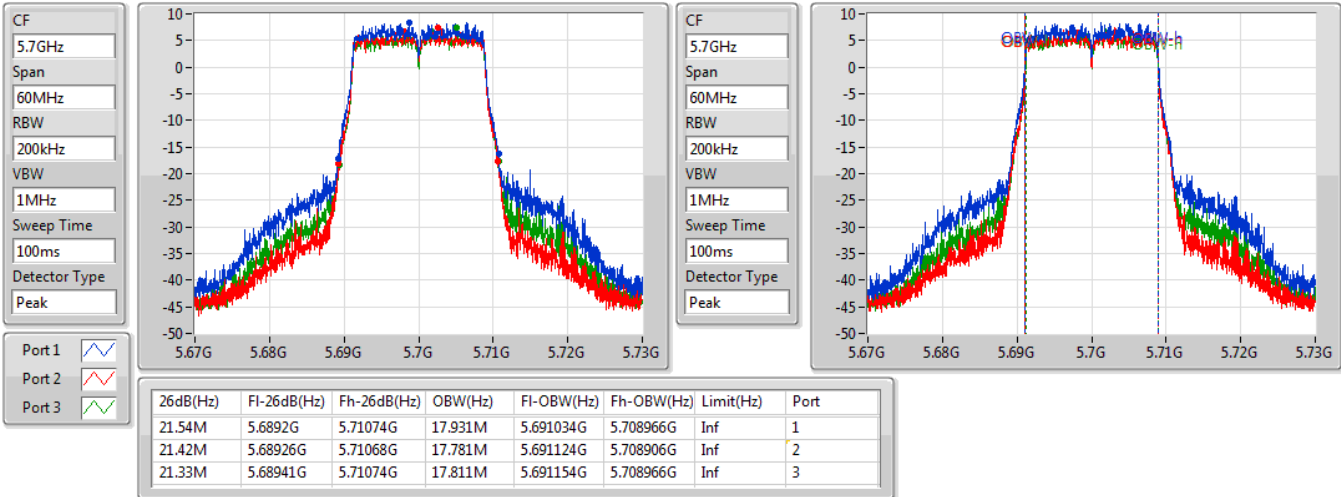


802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

5700MHz

16/10/2020

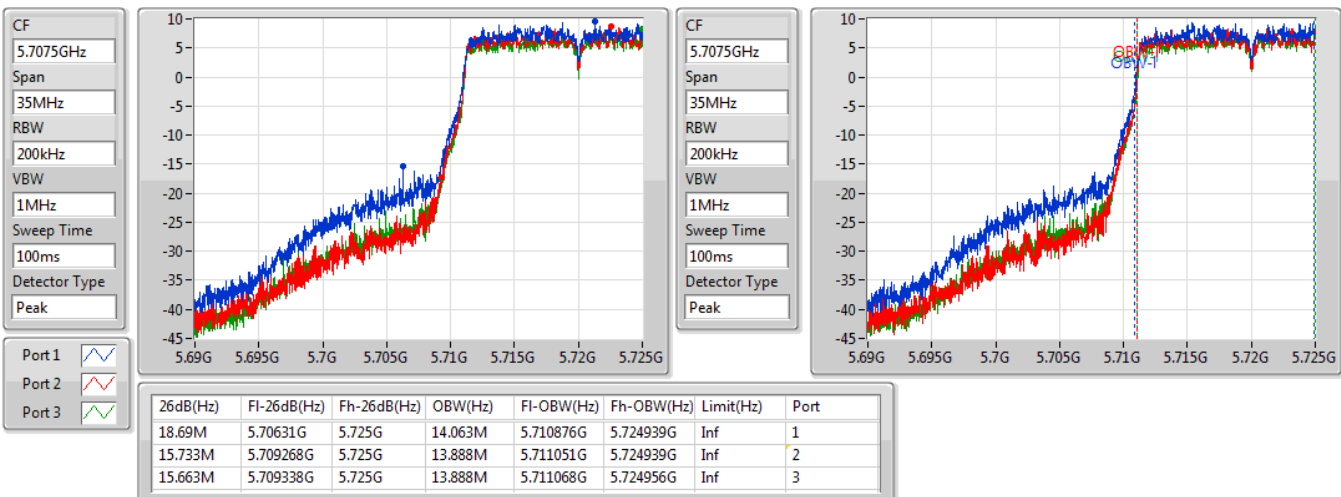


802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

5720MHz Straddle 5.47-5.725GHz

16/10/2020

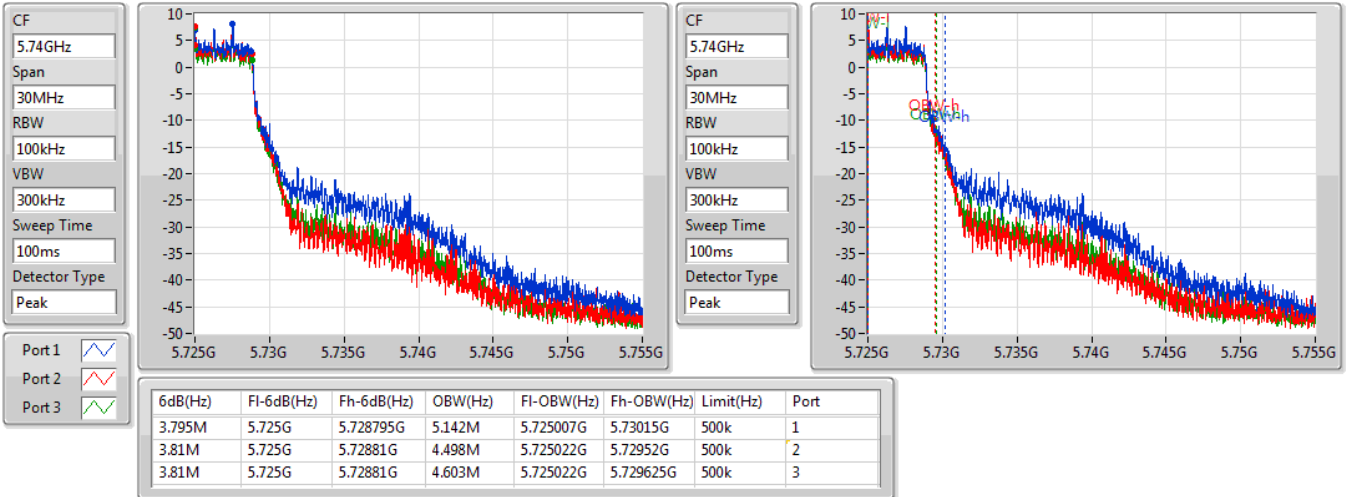


802.11ac VHT20-BF_Nss1,(MCS0)_3TX

EBW

5720MHz Straddle 5.725-5.85GHz

16/10/2020

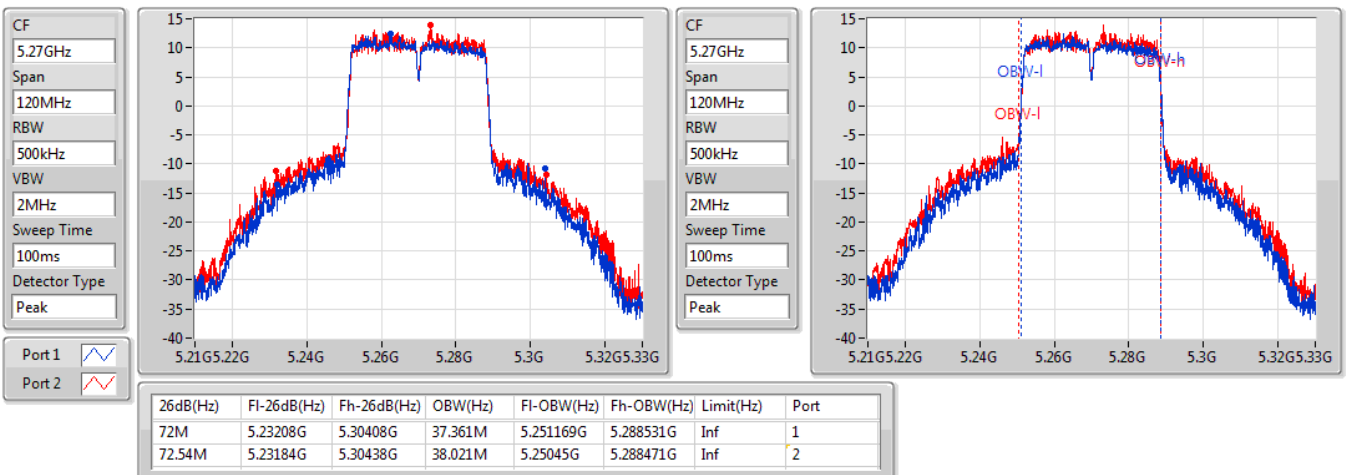


802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

5270MHz

16/10/2020



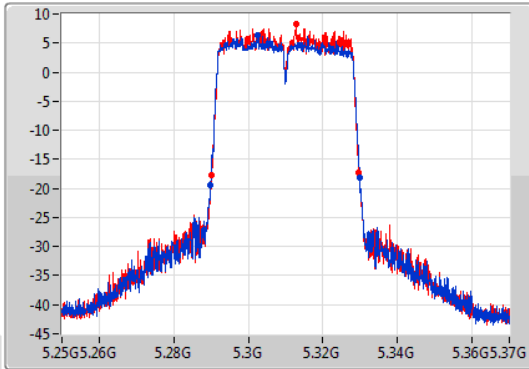
802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

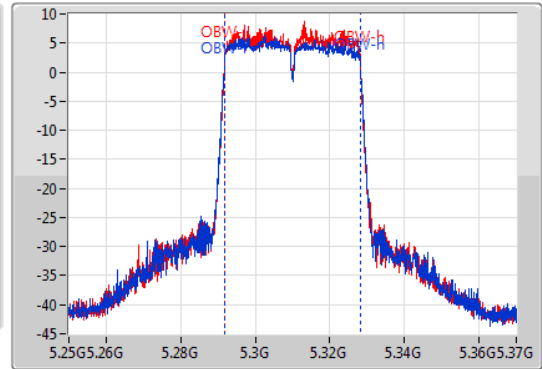
5310MHz

16/10/2020

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



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



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.08M	5.28984G	5.32992G	36.522M	5.291709G	5.328231G	Inf	1
39.6M	5.29008G	5.32968G	36.282M	5.291829G	5.328111G	Inf	2

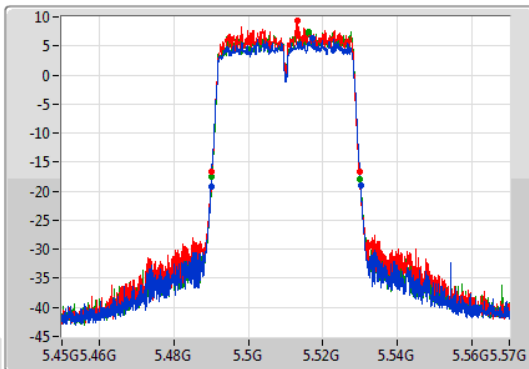
802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

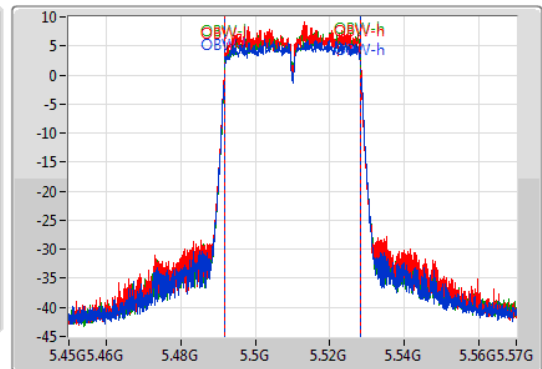
5510MHz

16/10/2020

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



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



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.26M	5.48996G	5.53022G	36.462M	5.491829G	5.528291G	Inf	1
39.6M	5.4902G	5.5298G	36.282M	5.491889G	5.528171G	Inf	2
39.78M	5.4902G	5.52998G	36.342M	5.491889G	5.528231G	Inf	3

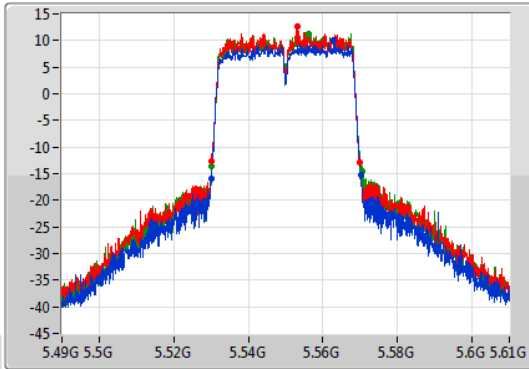
802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

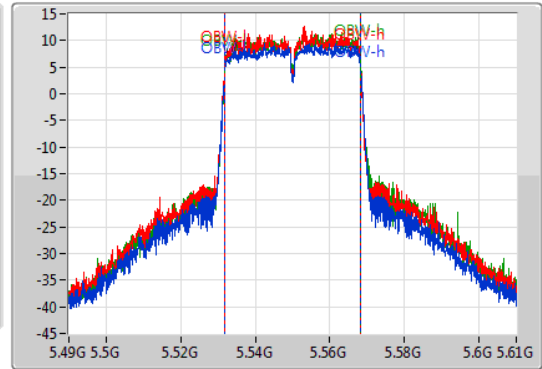
5550MHz

16/10/2020

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



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



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.2M	5.52996G	5.57016G	36.522M	5.531829G	5.568351G	Inf	1
39.54M	5.5302G	5.56974G	36.342M	5.531889G	5.568231G	Inf	2
40.44M	5.5302G	5.57064G	36.342M	5.531889G	5.568231G	Inf	3

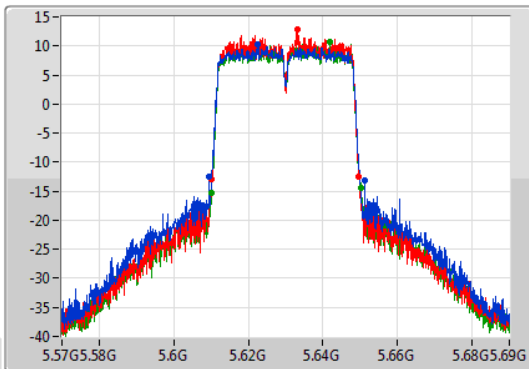
802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

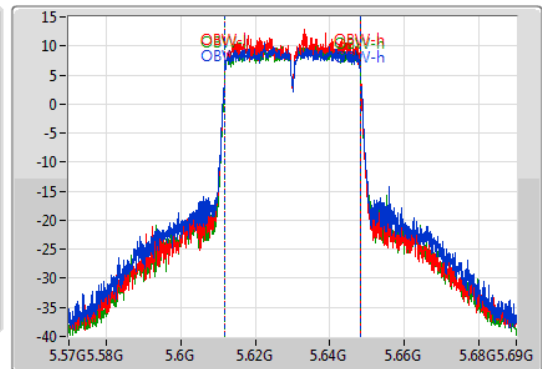
5630MHz

16/10/2020

CF
5.63GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.63GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



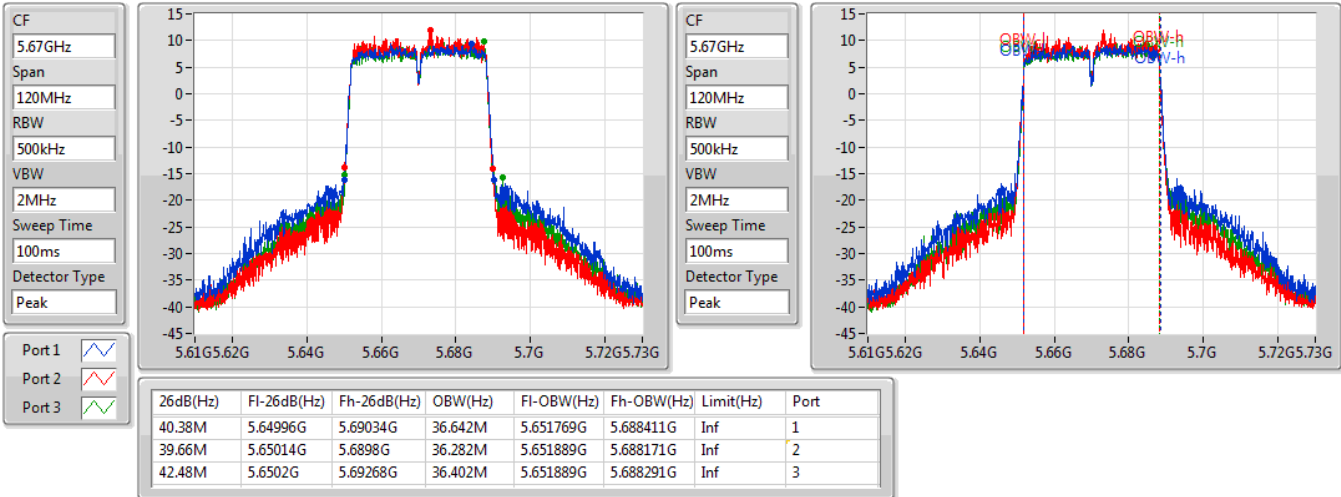
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.88M	5.60942G	5.6513G	36.642M	5.611709G	5.648351G	Inf	1
39.6M	5.61008G	5.64968G	36.282M	5.611889G	5.648171G	Inf	2
40.14M	5.61014G	5.65028G	36.402M	5.611829G	5.648231G	Inf	3

802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

5670MHz

16/10/2020

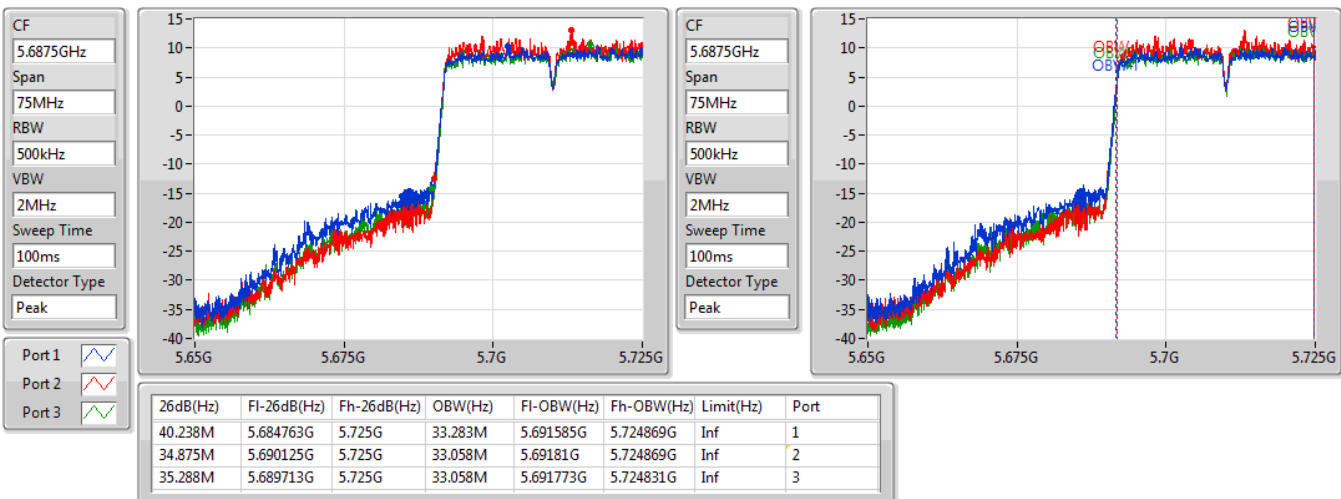


802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

5710MHz Straddle 5.47-5.725GHz

16/10/2020

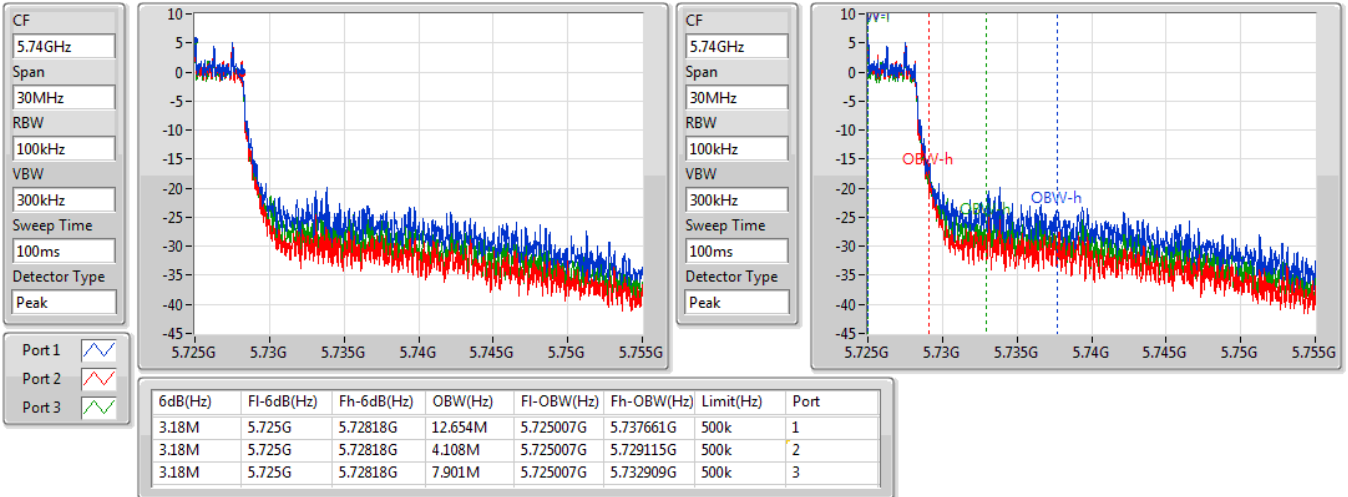


802.11ac VHT40-BF_Nss1,(MCS0)_3TX

EBW

5710MHz Straddle 5.725-5.85GHz

16/10/2020

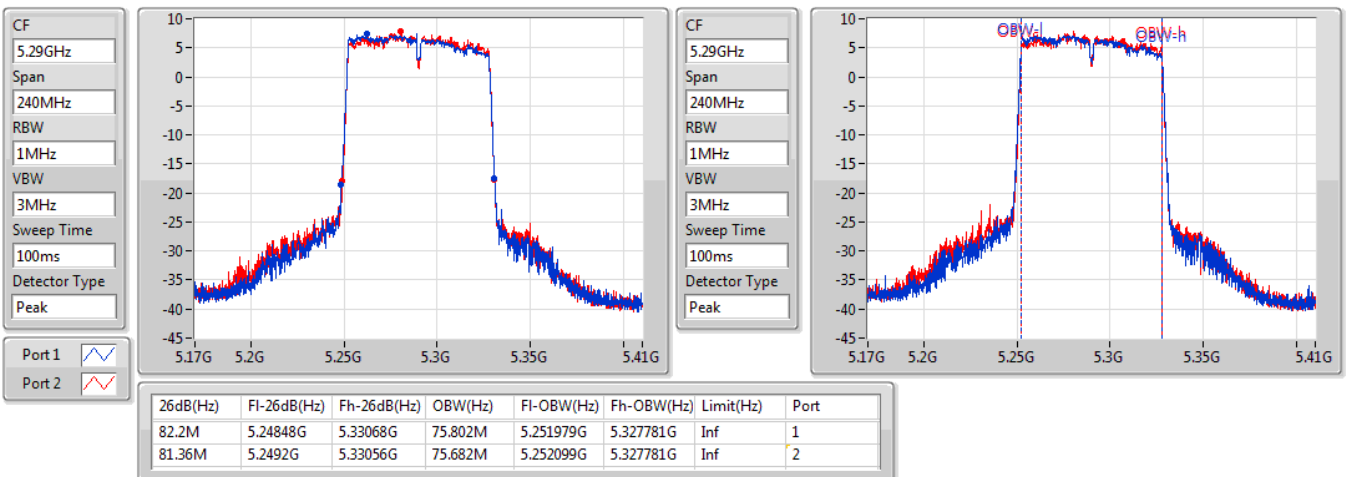


802.11ac VHT80-BF_Nss1,(MCS0)_2TX

EBW

5290MHz

16/10/2020



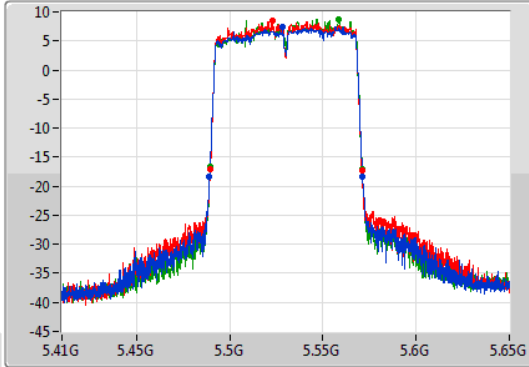
802.11ac VHT80-BF_Nss1,(MCS0)_3TX

EBW

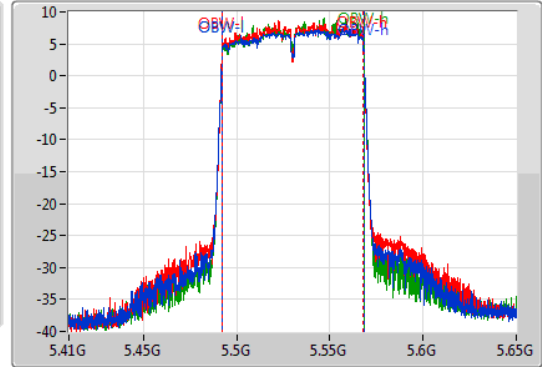
5530MHz

16/10/2020

CF
5.53GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.53GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
82.08M	5.4892G	5.57128G	75.802M	5.492339G	5.568141G	Inf	1
81.36M	5.48956G	5.57092G	75.682M	5.492339G	5.568021G	Inf	2
81.36M	5.48968G	5.57104G	75.682M	5.492459G	5.568141G	Inf	3

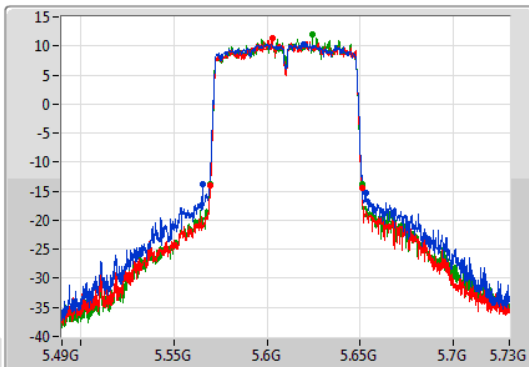
802.11ac VHT80-BF_Nss1,(MCS0)_3TX

EBW

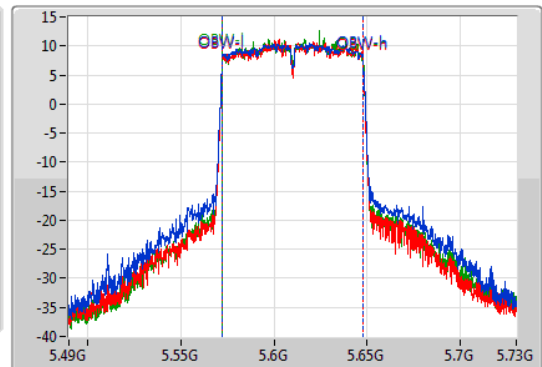
5610MHz

16/10/2020

CF
5.61GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.61GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



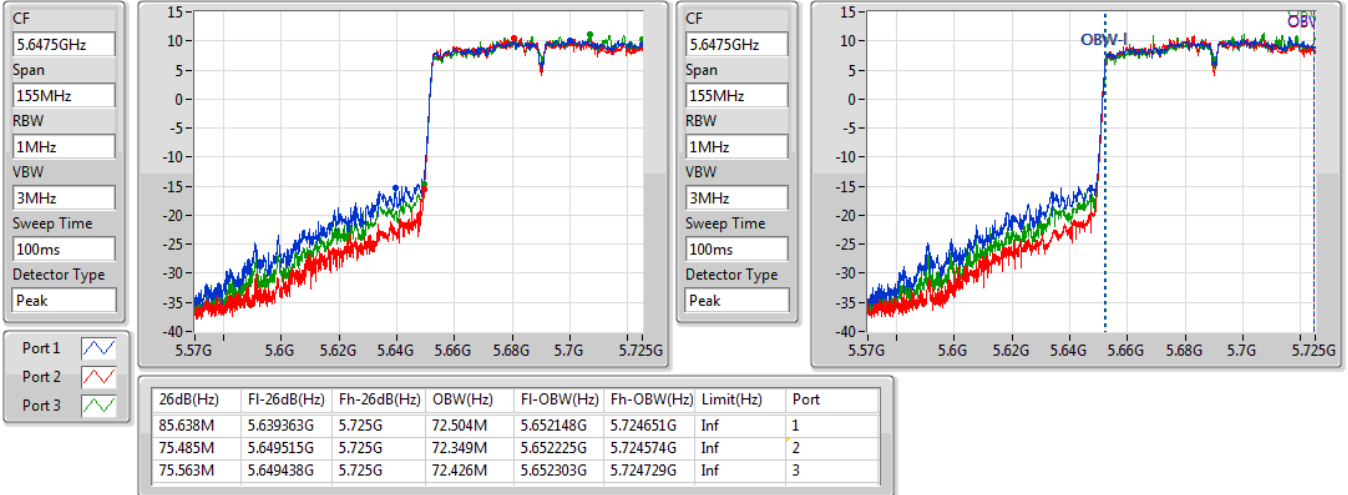
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
87.6M	5.56524G	5.65284G	75.922M	5.572099G	5.648021G	Inf	1
81.48M	5.56956G	5.65104G	75.802M	5.572219G	5.648021G	Inf	2
81.24M	5.56956G	5.6508G	75.682M	5.572339G	5.648021G	Inf	3

802.11ac VHT80-BF_Nss1,(MCS0)_3TX

EBW

5690MHz Straddle 5.47-5.725GHz

16/10/2020

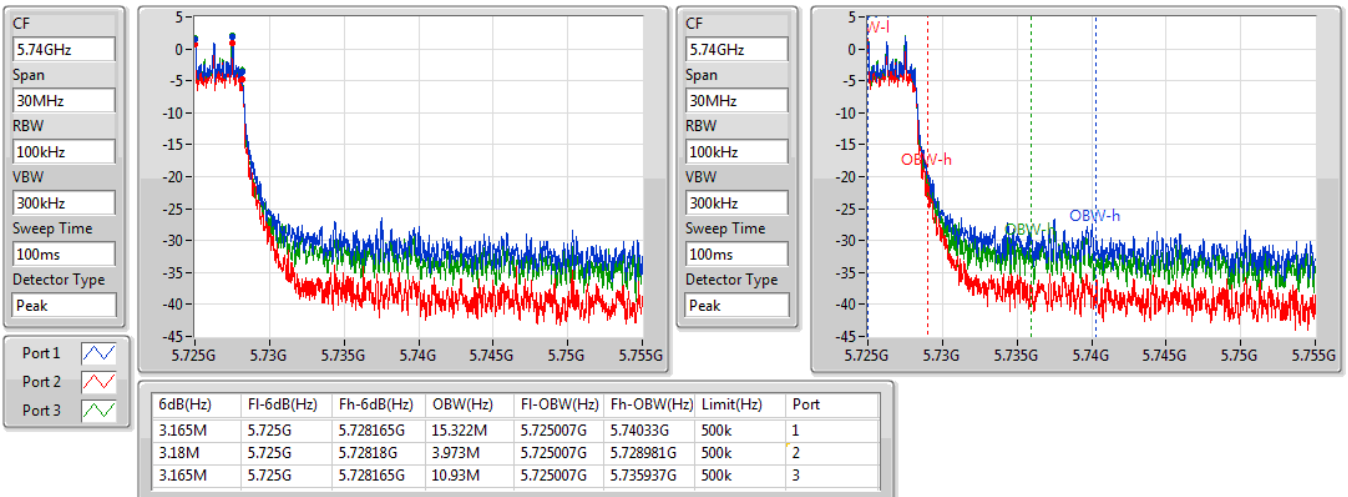


802.11ac VHT80-BF_Nss1,(MCS0)_3TX

EBW

5690MHz Straddle 5.725-5.85GHz

16/10/2020

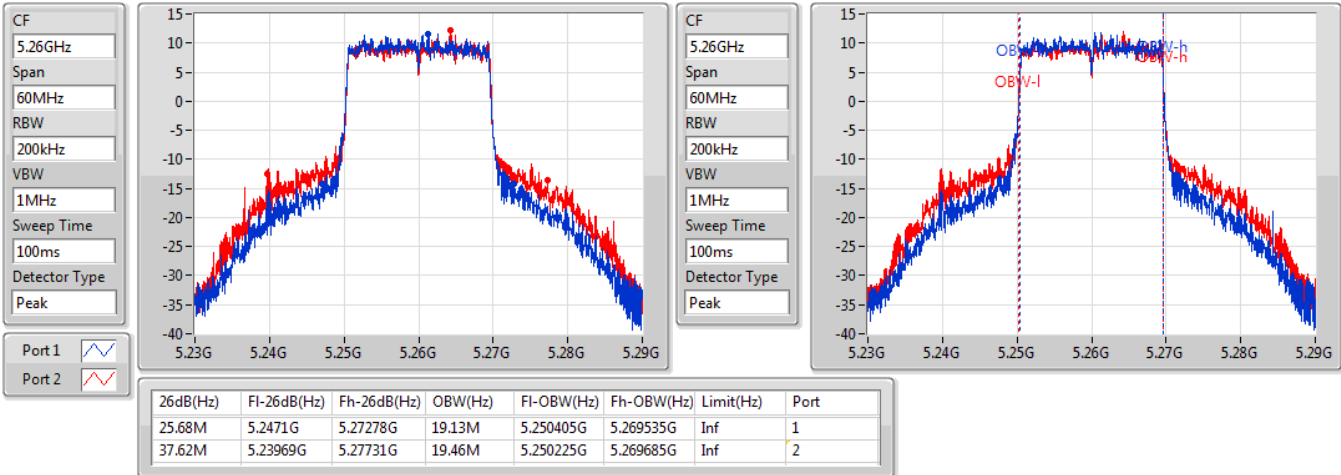


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

5260MHz

16/10/2020

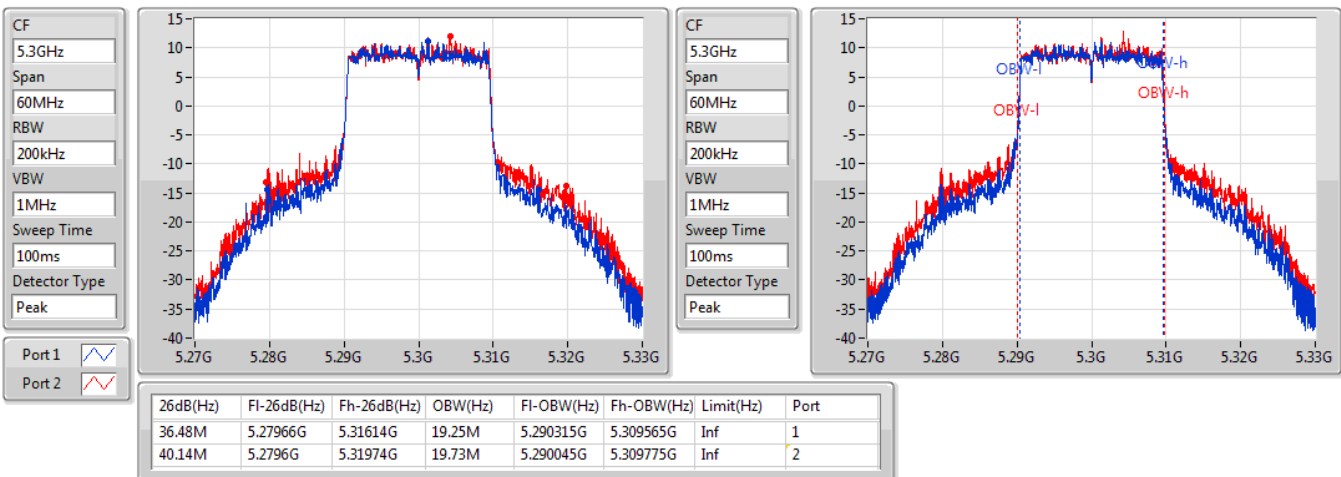


802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

5300MHz

16/10/2020



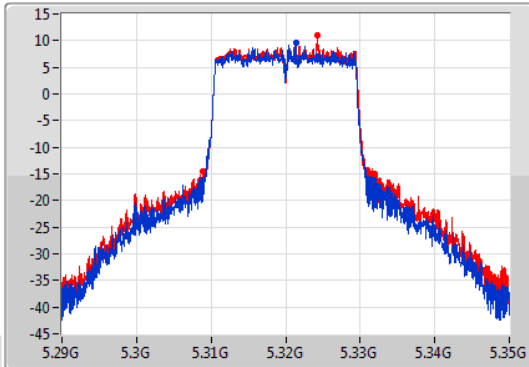
802.11ax HEW20-BF_Nss1,(MCS0)_2TX

EBW

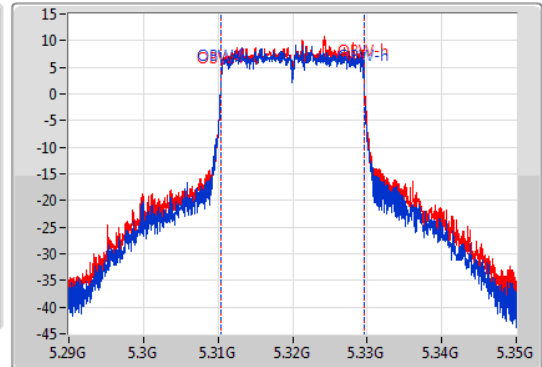
5320MHz

16/10/2020

CF
5.32GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.32GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.86M	5.30887G	5.33173G	19.1M	5.310435G	5.329535G	Inf	1
23.16M	5.30881G	5.33197G	19.16M	5.310435G	5.329595G	Inf	2

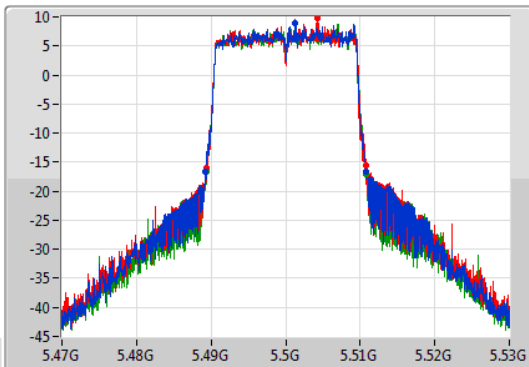
802.11ax HEW20-BF_Nss1,(MCS0)_3TX

EBW

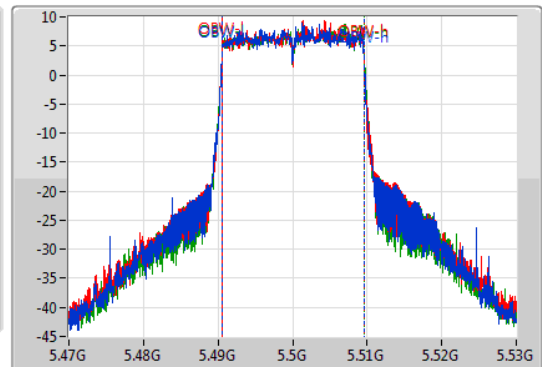
5500MHz

16/10/2020

CF
5.5GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.5GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



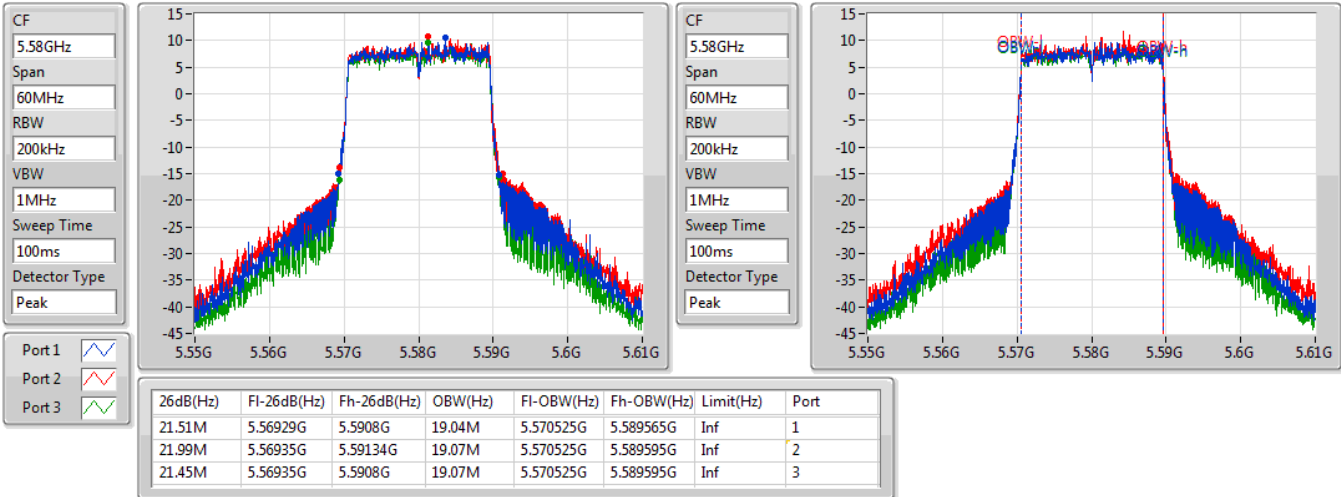
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.57M	5.48926G	5.51083G	19.04M	5.490525G	5.509565G	Inf	1
21.42M	5.48941G	5.51083G	19.07M	5.490525G	5.509595G	Inf	2
21.51M	5.48932G	5.51083G	19.1M	5.490525G	5.509625G	Inf	3

802.11ax HEW20-BF_Nss1,(MCS0)_3TX

EBW

5580MHz

16/10/2020

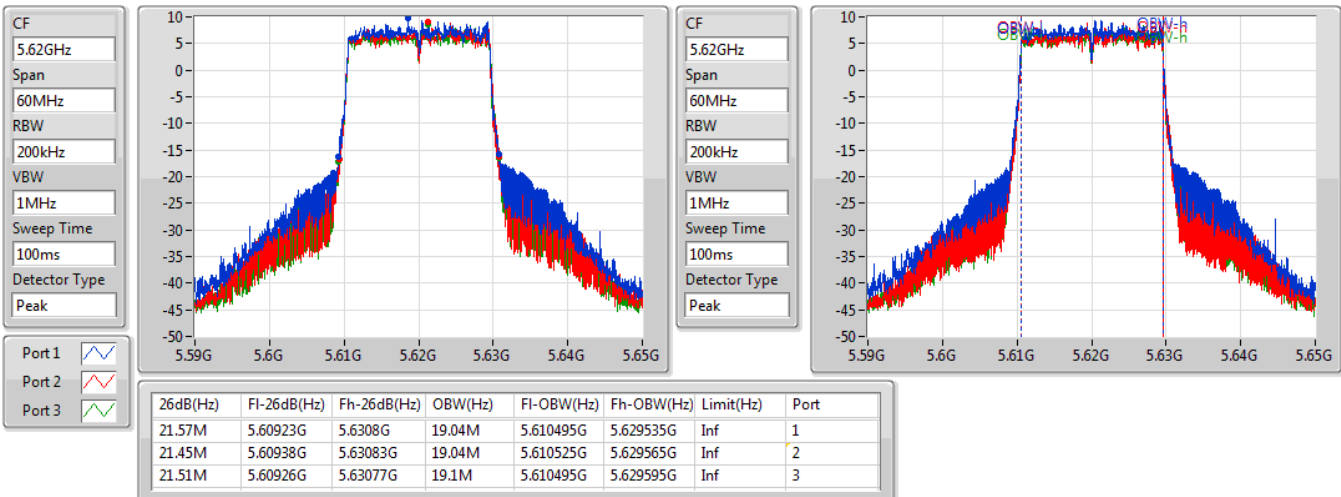


802.11ax HEW20-BF_Nss1,(MCS0)_3TX

EBW

5620MHz

16/10/2020

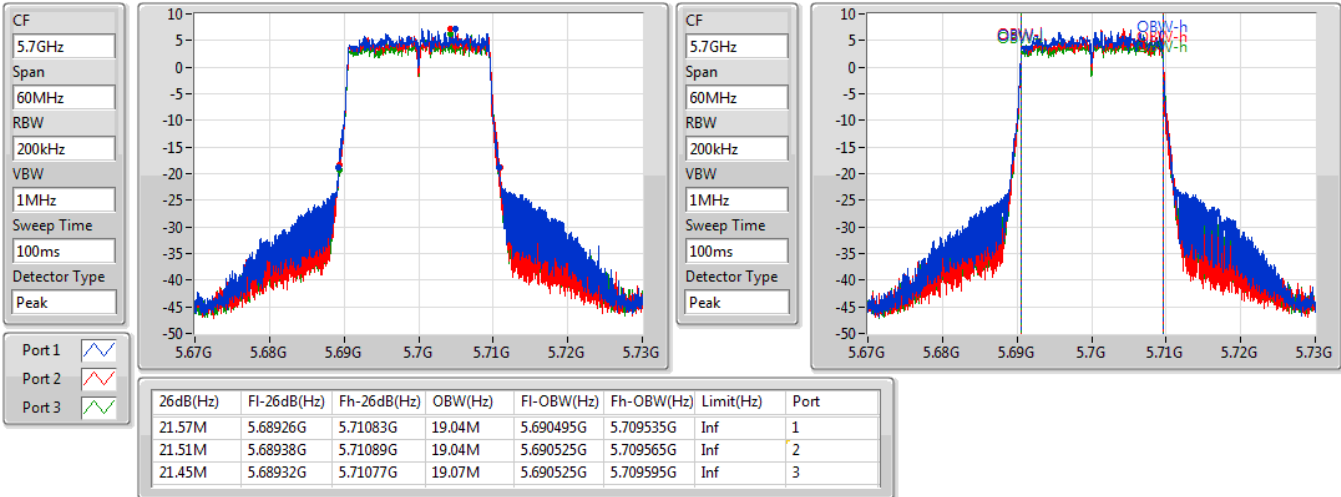


802.11ax HEW20-BF_Nss1,(MCS0)_3TX

EBW

5700MHz

16/10/2020

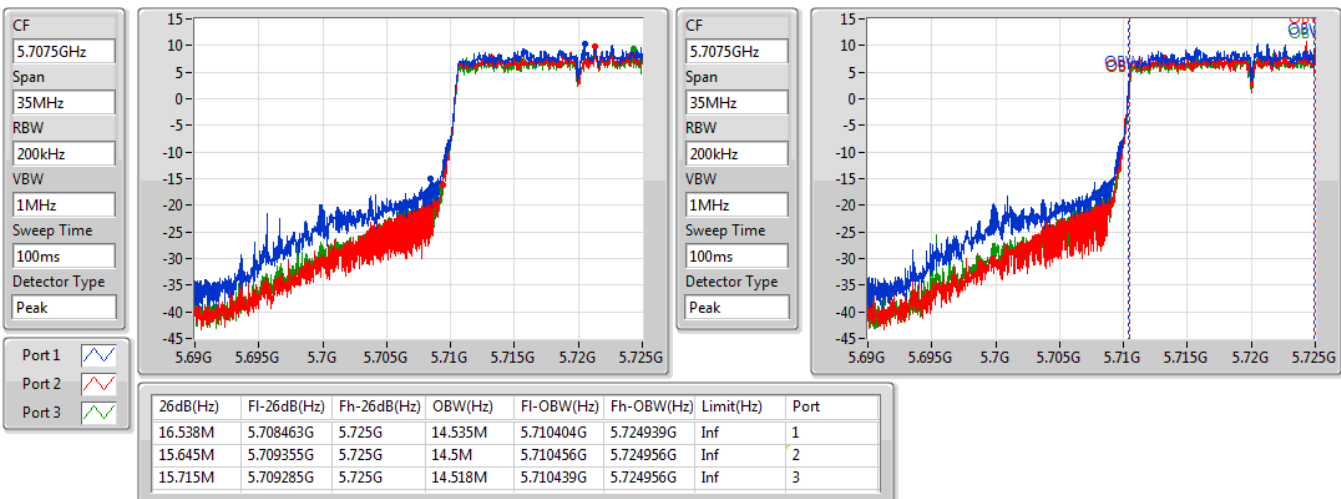


802.11ax HEW20-BF_Nss1,(MCS0)_3TX

EBW

5720MHz Straddle 5.47-5.725GHz

16/10/2020

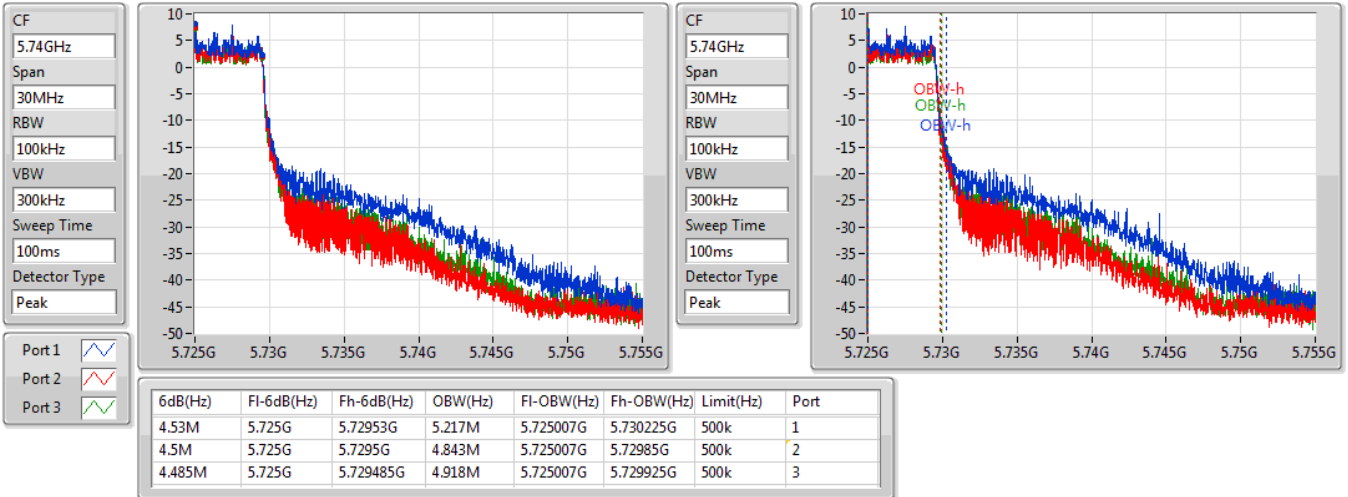


802.11ax HEW20-BF_Nss1,(MCS0)_3TX

EBW

5720MHz Straddle 5.725-5.85GHz

16/10/2020

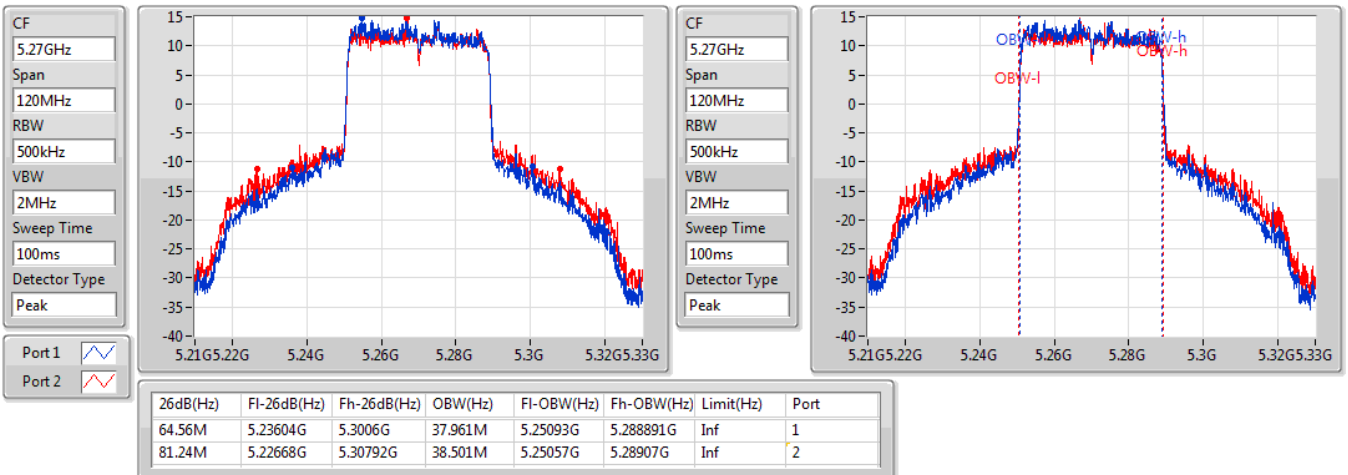


802.11ax HEW40-BF_Nss1,(MCS0)_2TX

EBW

5270MHz

16/10/2020



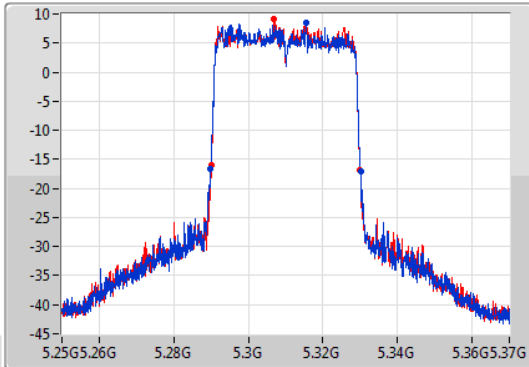
802.11ax HEW40-BF_Nss1,(MCS0)_2TX

EBW

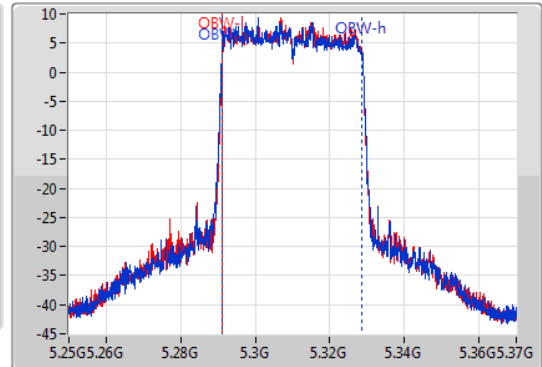
5310MHz

16/10/2020

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



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



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.26M	5.28984G	5.3301G	37.541M	5.291169G	5.328711G	Inf	1
39.9M	5.29014G	5.33004G	37.481M	5.291229G	5.328711G	Inf	2

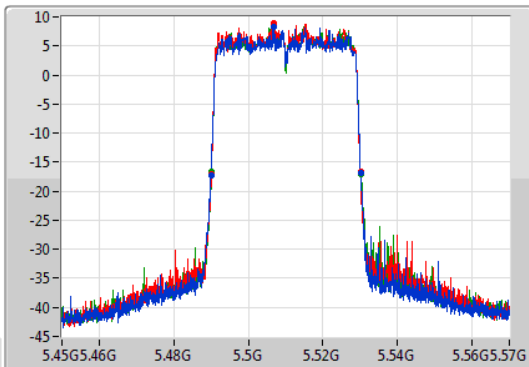
802.11ax HEW40-BF_Nss1,(MCS0)_3TX

EBW

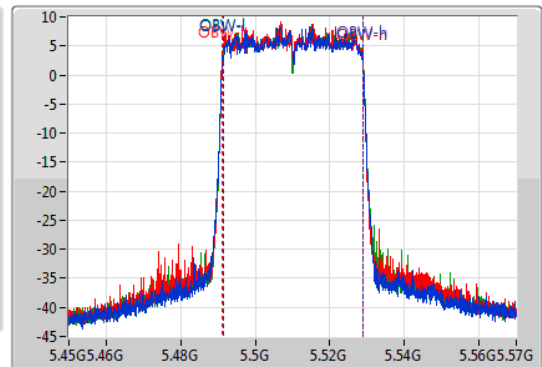
5510MHz

16/10/2020

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



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



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.14M	5.48996G	5.5301G	37.541M	5.491289G	5.528831G	Inf	1
40.08M	5.49002G	5.5301G	37.601M	5.491229G	5.528831G	Inf	2
40.02M	5.49014G	5.53016G	37.541M	5.491289G	5.528831G	Inf	3

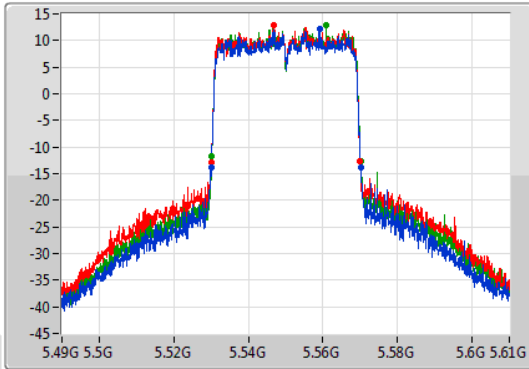
802.11ax HEW40-BF_Nss1,(MCS0)_3TX

EBW

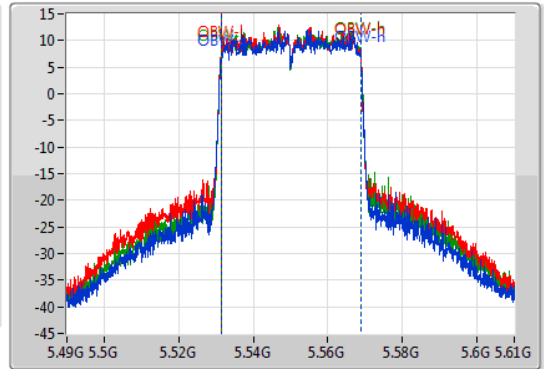
5550MHz

16/10/2020

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



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



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.2M	5.52996G	5.57016G	37.541M	5.531289G	5.568831G	Inf	1
40.02M	5.53002G	5.57004G	37.541M	5.531289G	5.568831G	Inf	2
40.02M	5.53014G	5.57016G	37.541M	5.531289G	5.568831G	Inf	3

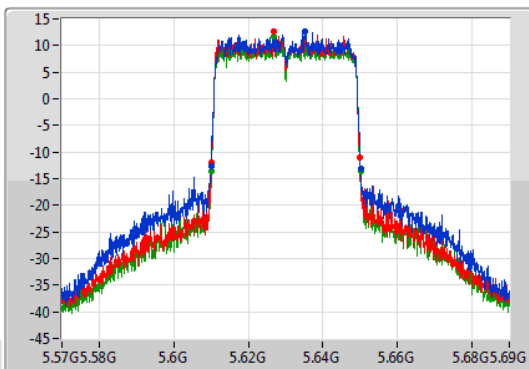
802.11ax HEW40-BF_Nss1,(MCS0)_3TX

EBW

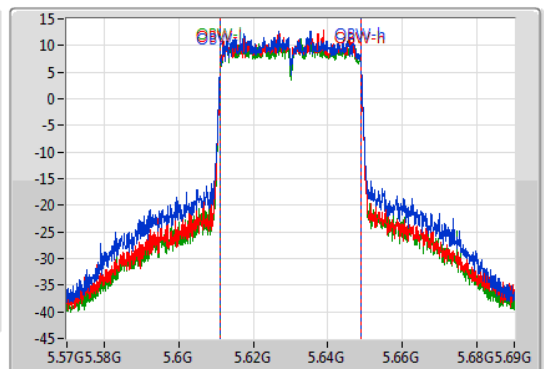
5630MHz

16/10/2020

CF
5.63GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.63GHz
Span
120MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



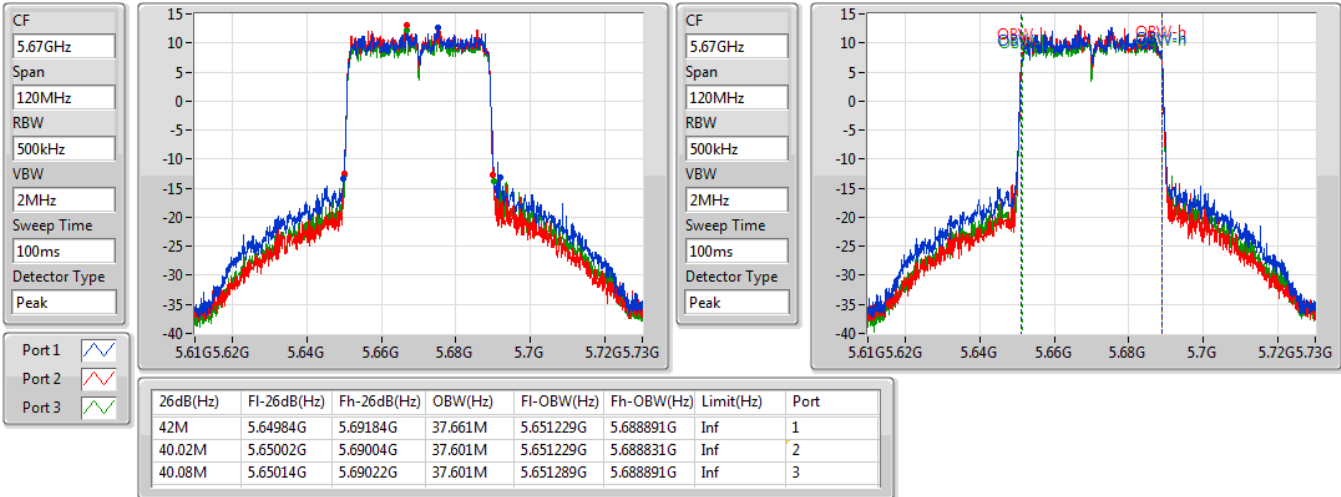
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.14M	5.60996G	5.6501G	37.541M	5.611229G	5.648771G	Inf	1
39.78M	5.61008G	5.64986G	37.541M	5.611229G	5.648771G	Inf	2
40.08M	5.61002G	5.6501G	37.541M	5.611229G	5.648771G	Inf	3

802.11ax HEW40-BF_Nss1,(MCS0)_3TX

EBW

5670MHz

16/10/2020

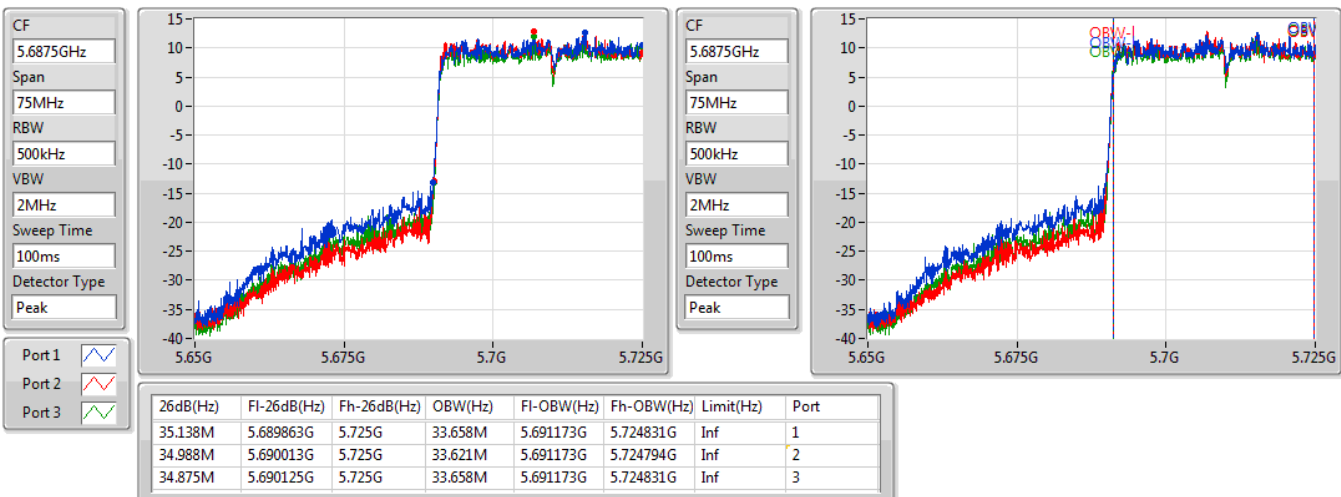


802.11ax HEW40-BF_Nss1,(MCS0)_3TX

EBW

5710MHz Straddle 5.47-5.725GHz

16/10/2020

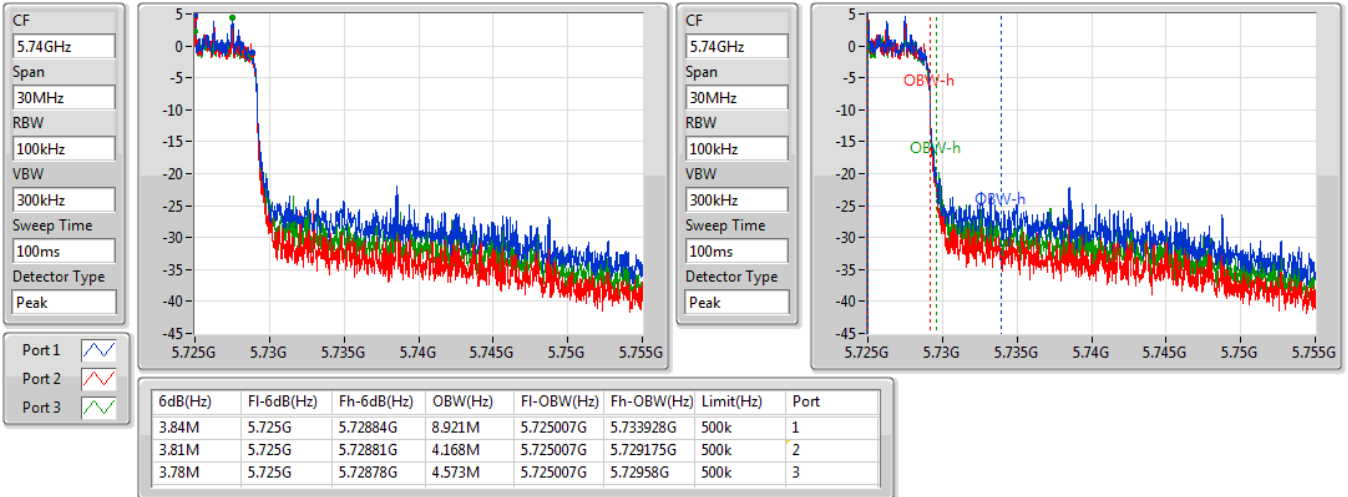


802.11ax HEW40-BF_Nss1,(MCS0)_3TX

EBW

5710MHz Straddle 5.725-5.85GHz

16/10/2020

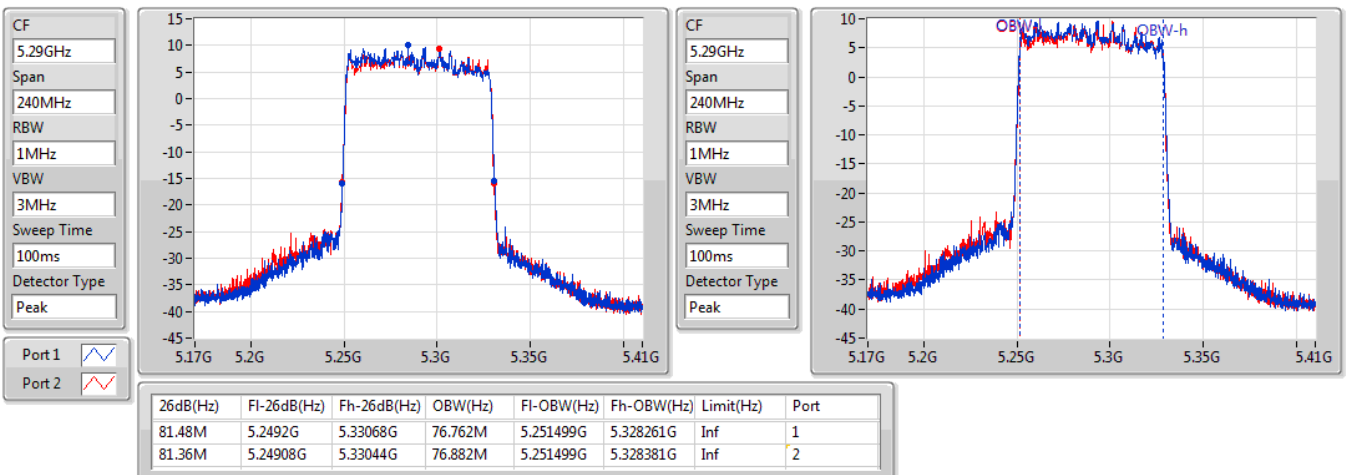


802.11ax HEW80-BF_Nss1,(MCS0)_2TX

EBW

5290MHz

16/10/2020



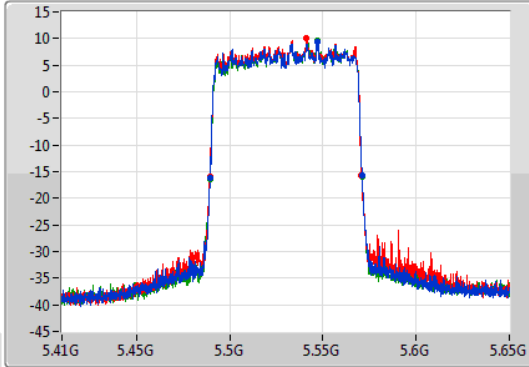
802.11ax HEW80-BF_Nss1,(MCS0)_3TX

EBW

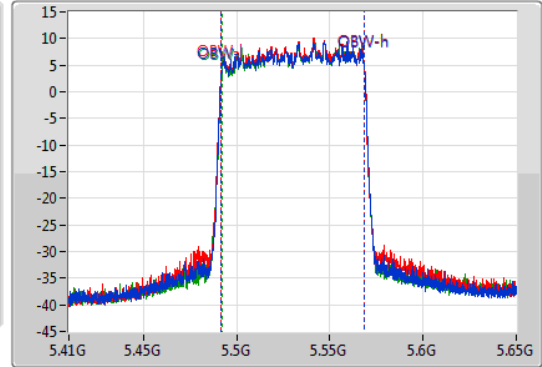
5530MHz

16/10/2020

CF
5.53GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.53GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
81.48M	5.48944G	5.57092G	76.762M	5.491859G	5.568621G	Inf	1
81.36M	5.48932G	5.57068G	76.762M	5.491859G	5.568621G	Inf	2
81.48M	5.48932G	5.5708G	76.642M	5.491979G	5.568621G	Inf	3

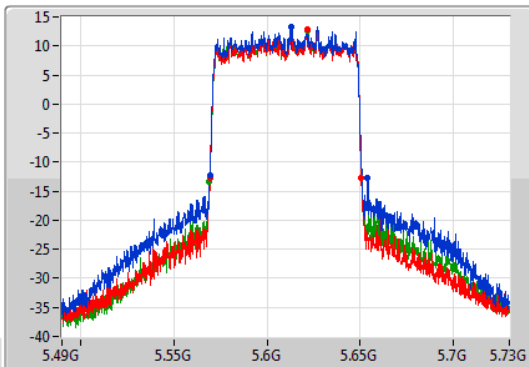
802.11ax HEW80-BF_Nss1,(MCS0)_3TX

EBW

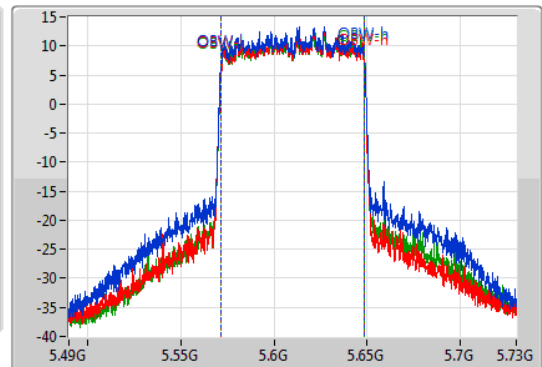
5610MHz

16/10/2020

CF
5.61GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.61GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



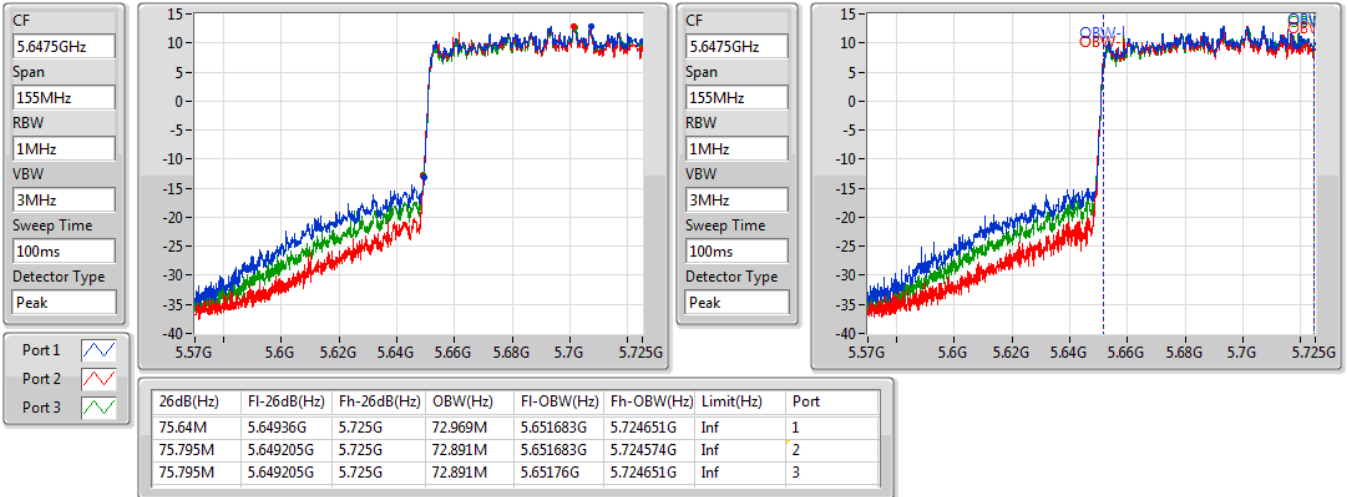
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
84.6M	5.56944G	5.65404G	76.882M	5.571739G	5.648621G	Inf	1
81.24M	5.56932G	5.65056G	76.762M	5.571739G	5.648501G	Inf	2
81.48M	5.5692G	5.65068G	76.882M	5.571739G	5.648621G	Inf	3

802.11ax HEW80-BF_Nss1,(MCS0)_3TX

EBW

5690MHz Straddle 5.47-5.725GHz

16/10/2020

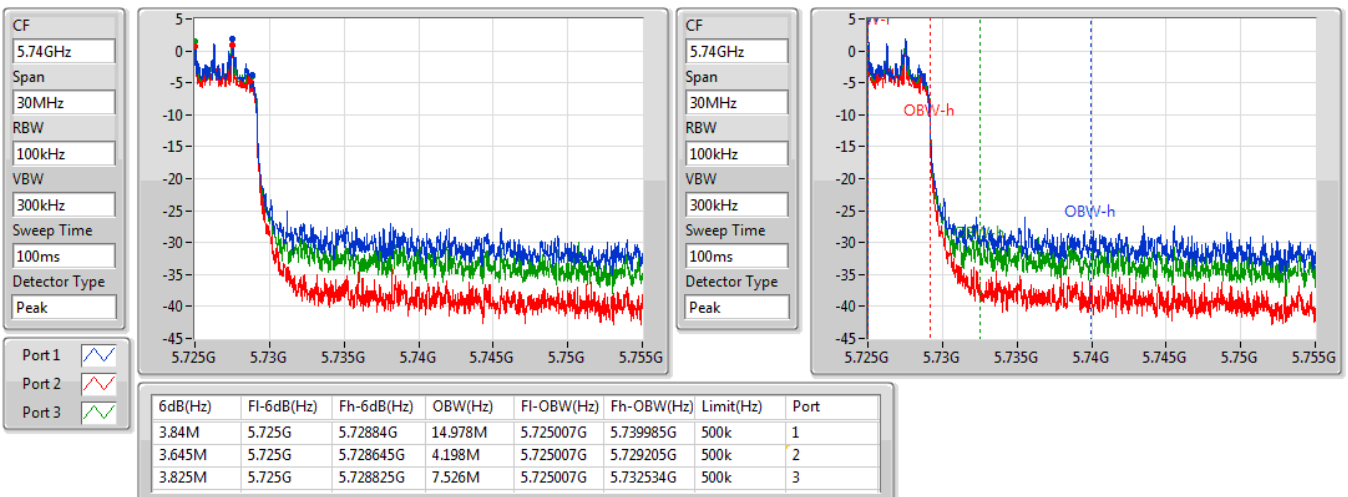


802.11ax HEW80-BF_Nss1,(MCS0)_3TX

EBW

5690MHz Straddle 5.725-5.85GHz

16/10/2020



Mode 5, Beamforming mode: 5GHz High Band 3T2S Beamforming Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss2,(MCS0)_3TX	21.9M	17.901M	17M9D1D	21.24M	17.901M
802.11ac VHT40-BF_Nss2,(MCS0)_3TX	40.2M	36.462M	36M5D1D	39.78M	36.282M
802.11ac VHT80-BF_Nss2,(MCS0)_3TX	81.72M	75.802M	75M8D1D	81.48M	75.802M
802.11ax HEW20-BF_Nss2,(MCS0)_3TX	21.75M	17.901M	17M9D1D	21.54M	17.841M
802.11ax HEW40-BF_Nss2,(MCS0)_3TX	40.38M	36.402M	36M4D1D	39.9M	36.342M
802.11ax HEW80-BF_Nss2,(MCS0)_3TX	81.6M	77.121M	77M1D1D	81.24M	77.001M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Max-OBW = Maximum 99% occupied bandwidth;

Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;

Min-OBW = Minimum 99% occupied bandwidth;

Result

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

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

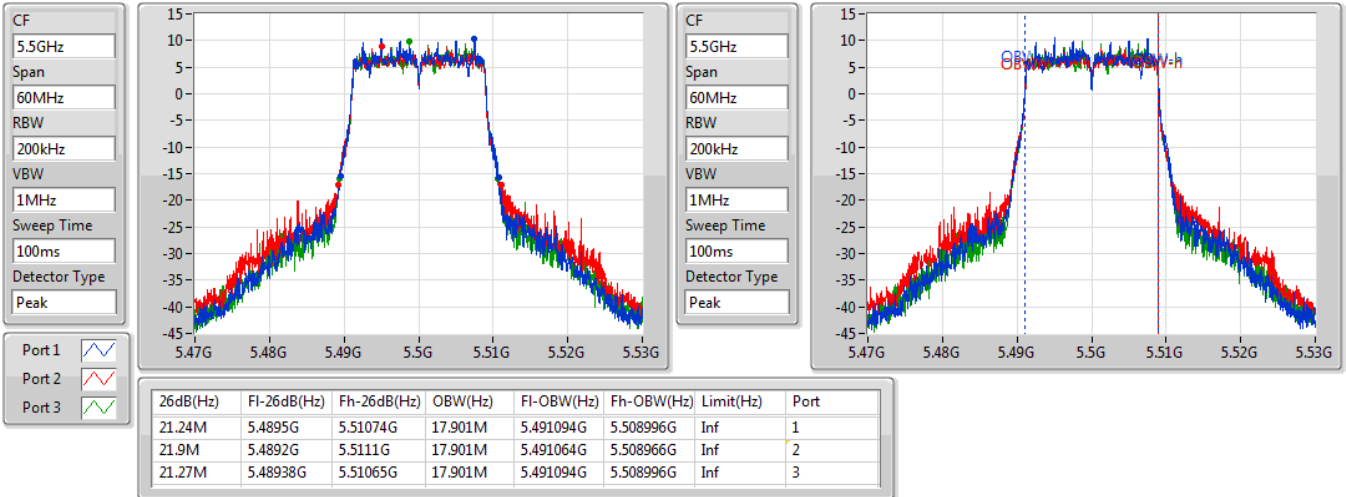
Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20-BF_Nss2,(MCS0)_3TX

EBW

5500MHz

16/10/2020

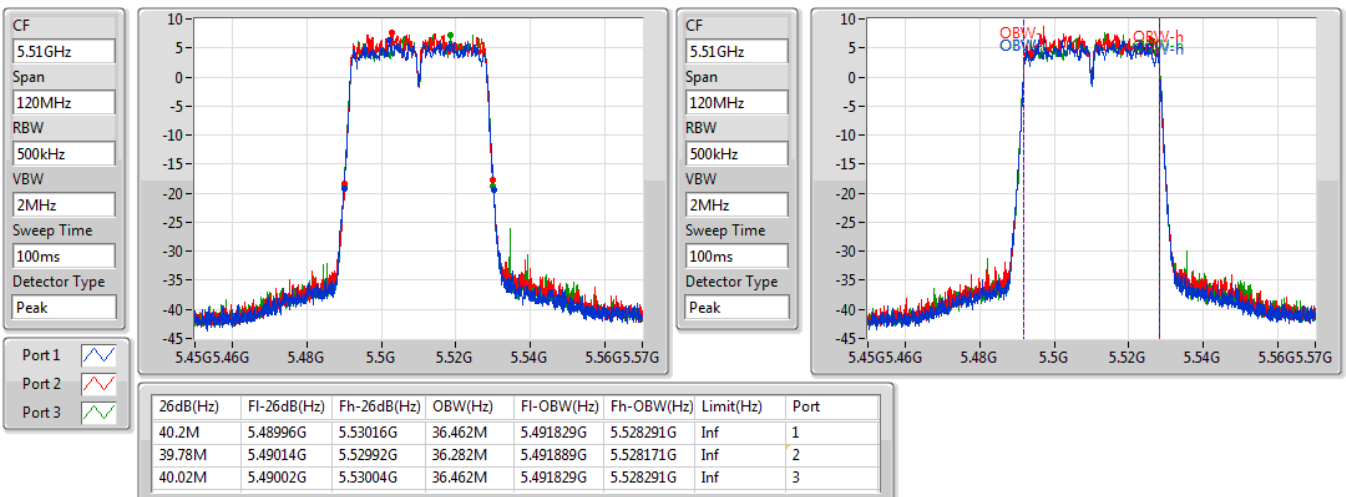


802.11ac VHT40-BF_Nss2,(MCS0)_3TX

EBW

5510MHz

16/10/2020



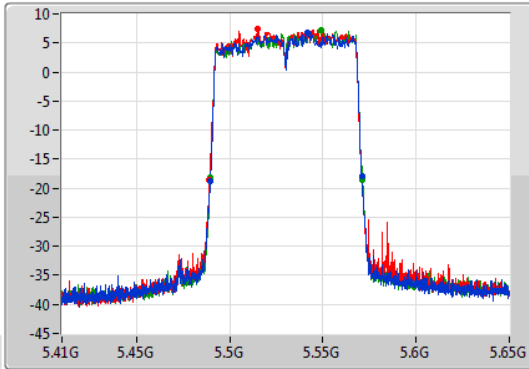
802.11ac VHT80-BF_Nss2,(MCS0)_3TX

EBW

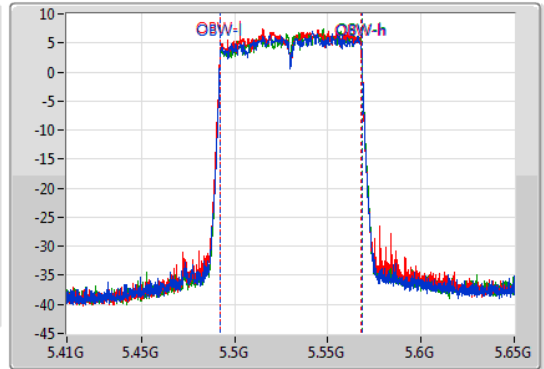
5530MHz

16/10/2020

CF
5.53GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.53GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
81.48M	5.48956G	5.57104G	75.802M	5.492339G	5.568141G	Inf	1
81.72M	5.4892G	5.57092G	75.802M	5.492219G	5.568021G	Inf	2
81.72M	5.48956G	5.57128G	75.802M	5.492339G	5.568141G	Inf	3

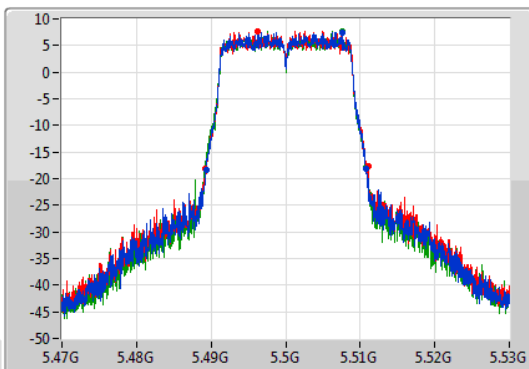
802.11ax HEW20-BF_Nss2,(MCS0)_3TX

EBW

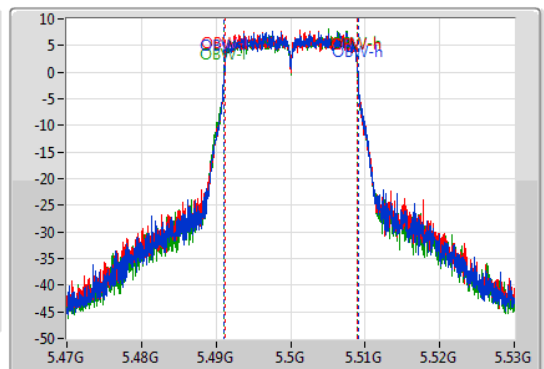
5500MHz

17/10/2020

CF
5.5GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.5GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.54M	5.48932G	5.51086G	17.901M	5.491124G	5.509025G	Inf	1
21.75M	5.48929G	5.51104G	17.841M	5.491154G	5.508996G	Inf	2
21.6M	5.4892G	5.5108G	17.901M	5.491064G	5.508966G	Inf	3

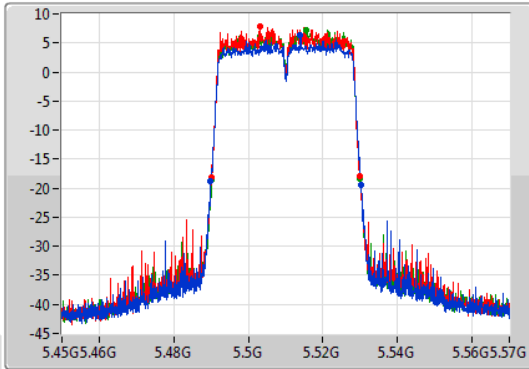
802.11ax HEW40-BF_Nss2,(MCS0)_3TX

EBW

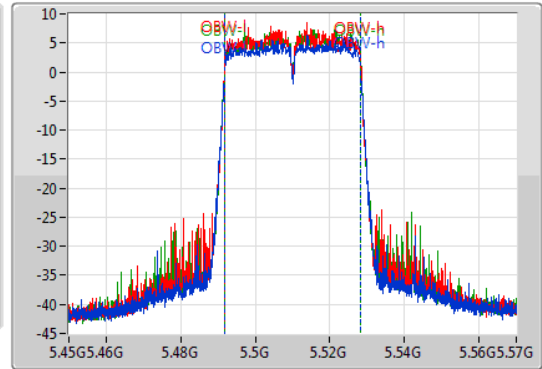
5510MHz

17/10/2020

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



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



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.38M	5.4899G	5.53028G	36.402M	5.491829G	5.528231G	Inf	1
39.96M	5.49008G	5.53004G	36.342M	5.491889G	5.528231G	Inf	2
39.9M	5.49008G	5.52998G	36.402M	5.491889G	5.528291G	Inf	3

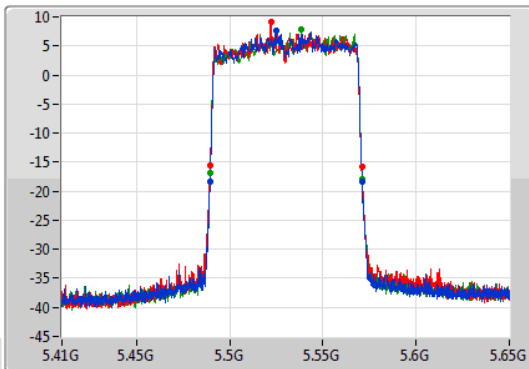
802.11ax HEW80-BF_Nss2,(MCS0)_3TX

EBW

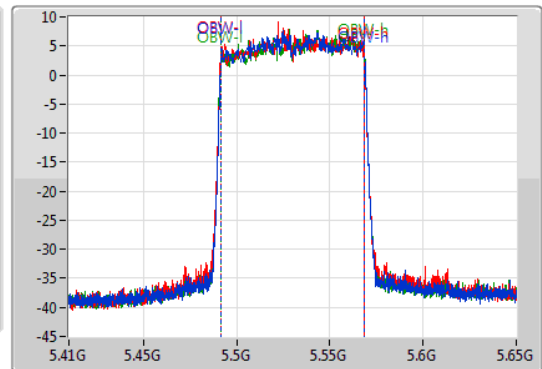
5530MHz

17/10/2020

CF
5.53GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.53GHz
Span
240MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
81.6M	5.48944G	5.57104G	77.001M	5.491739G	5.568741G	Inf	1
81.24M	5.48956G	5.5708G	77.121M	5.491499G	5.568621G	Inf	2
81.6M	5.48944G	5.57104G	77.121M	5.491619G	5.568741G	Inf	3



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

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



Result

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

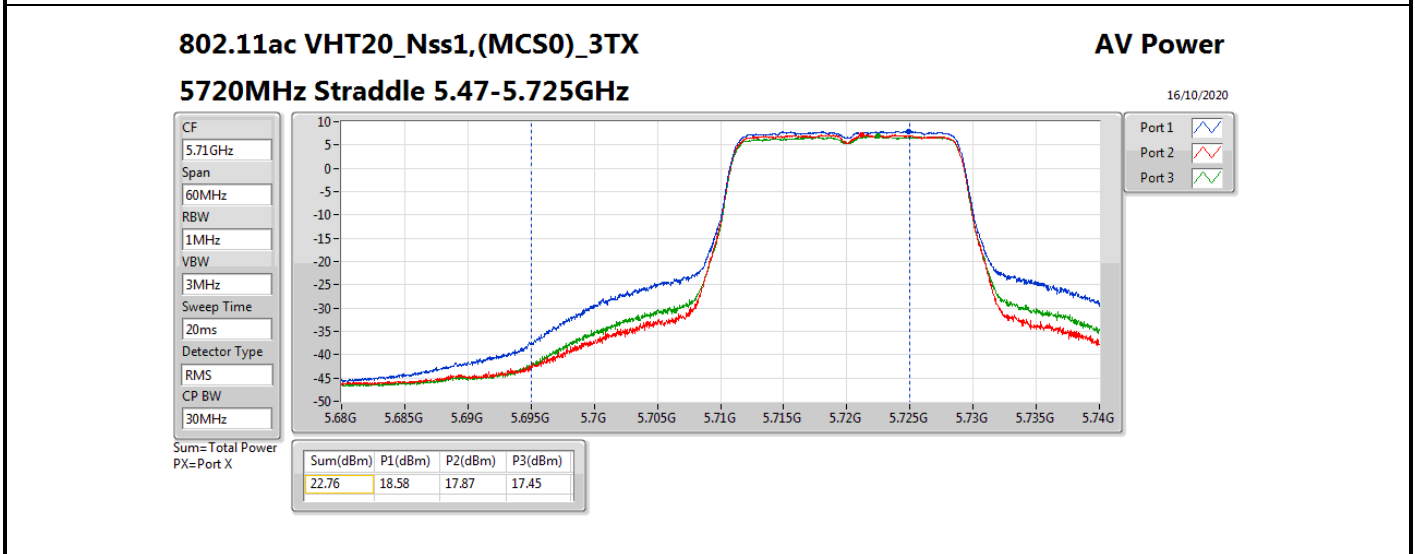
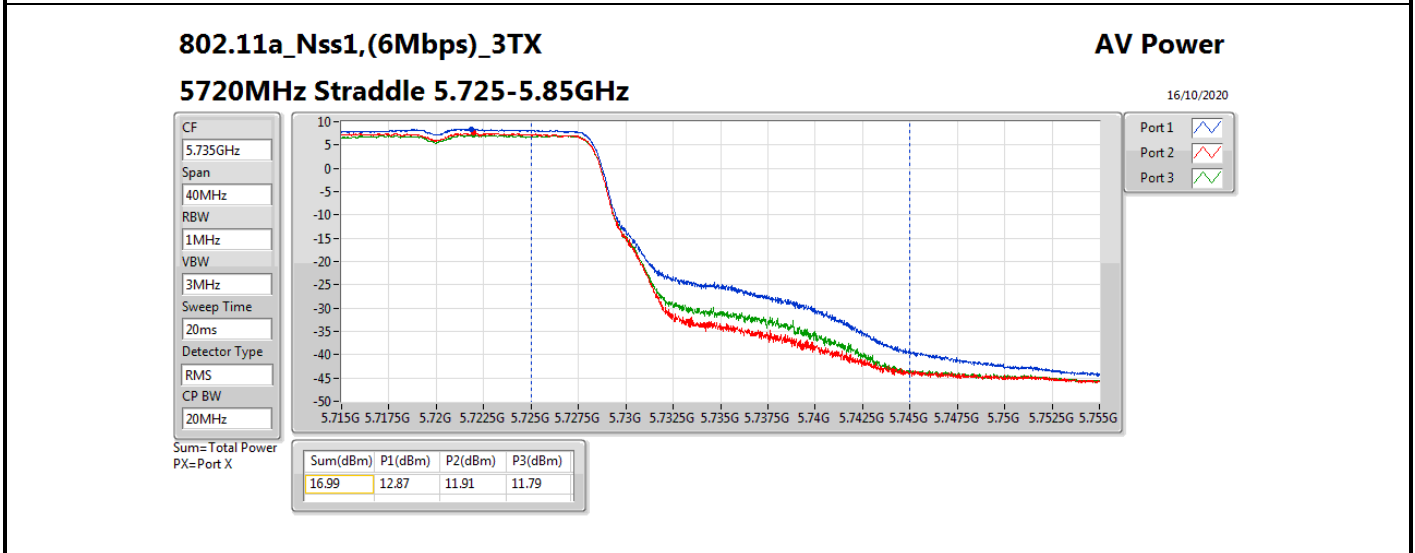
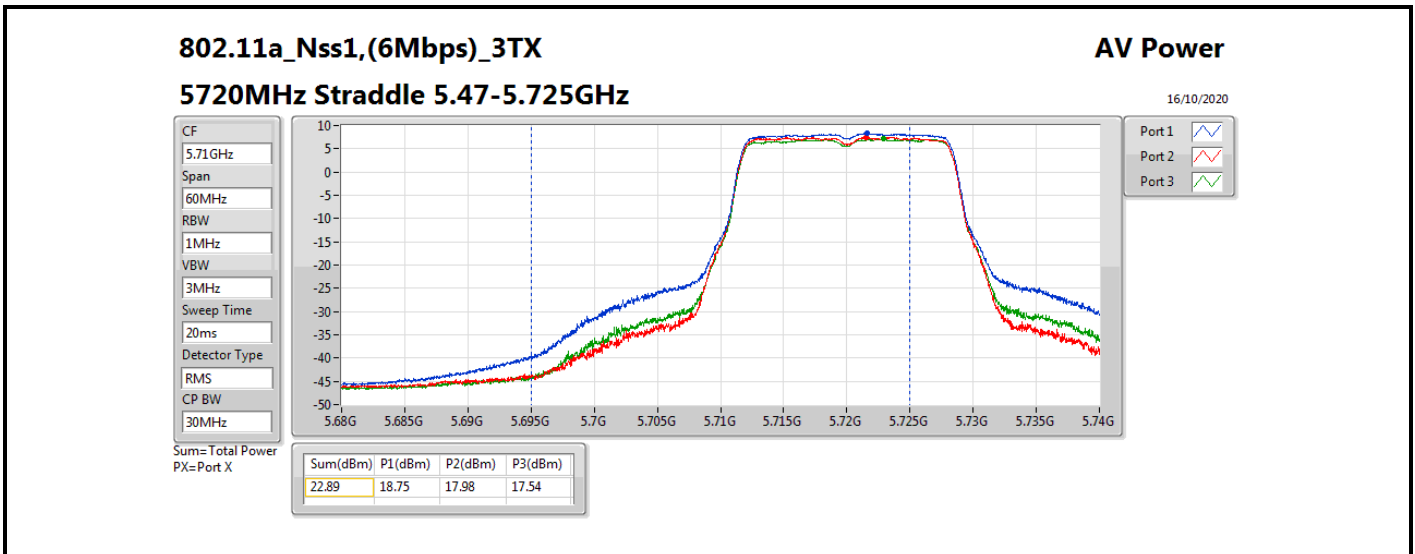


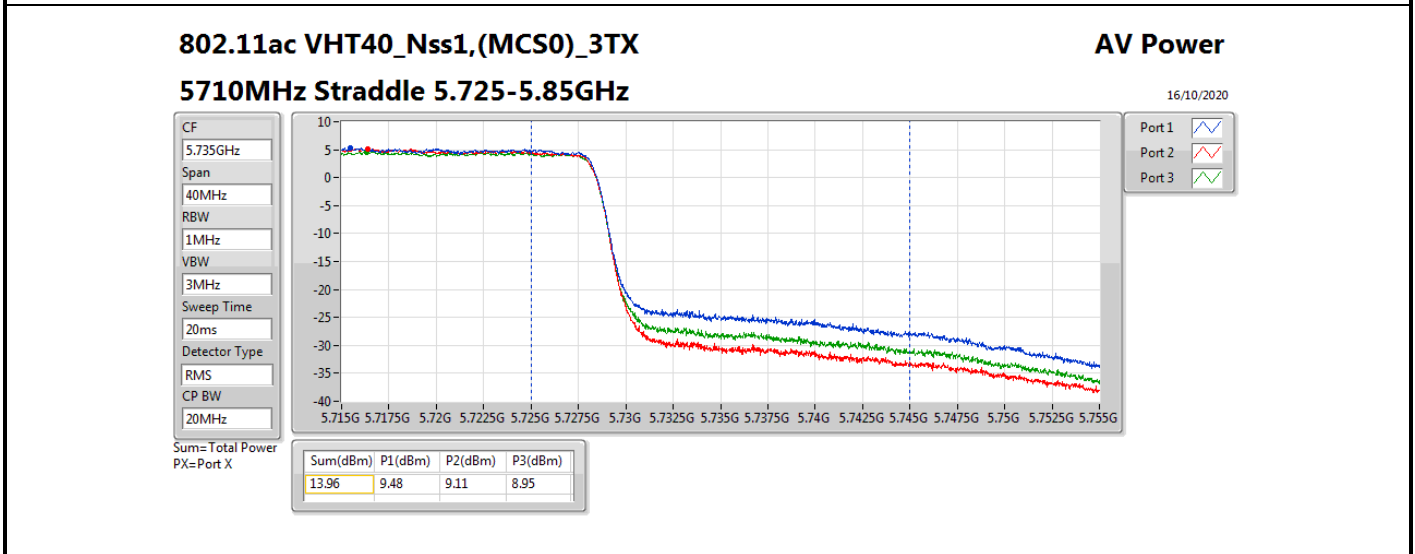
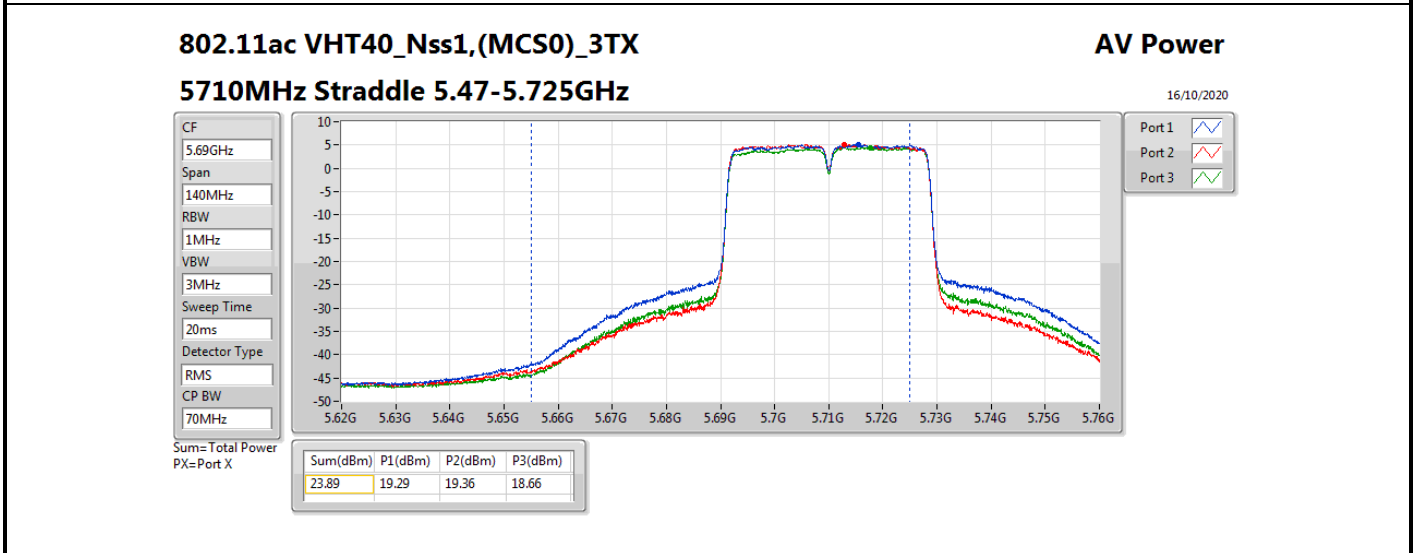
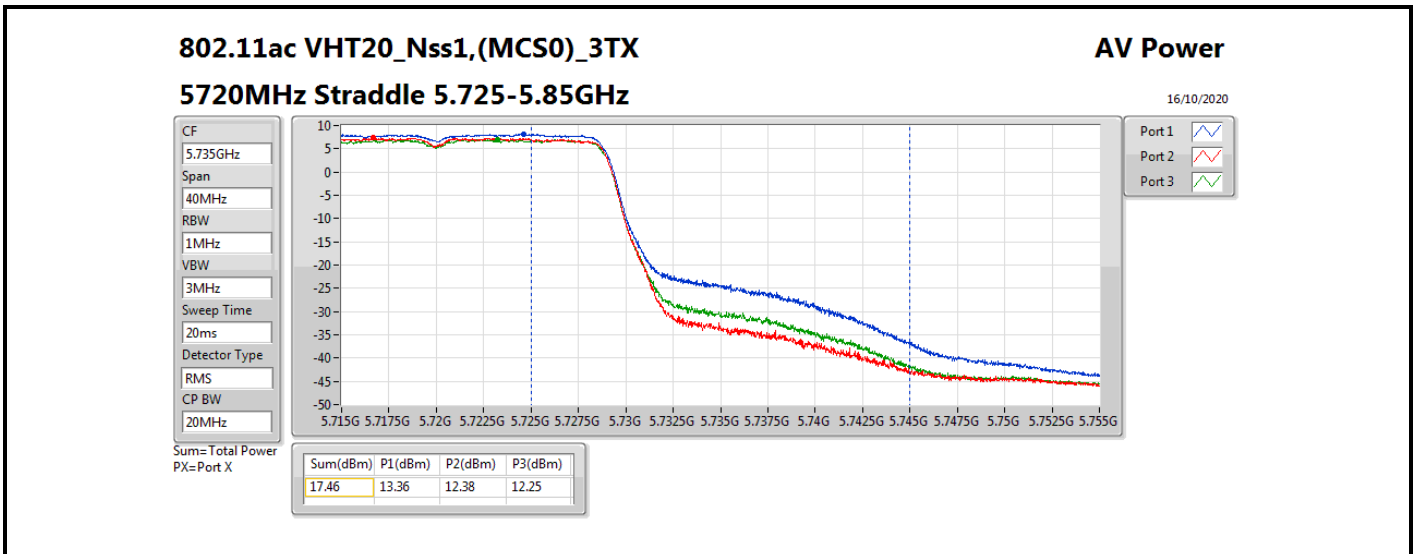
Average Power Result

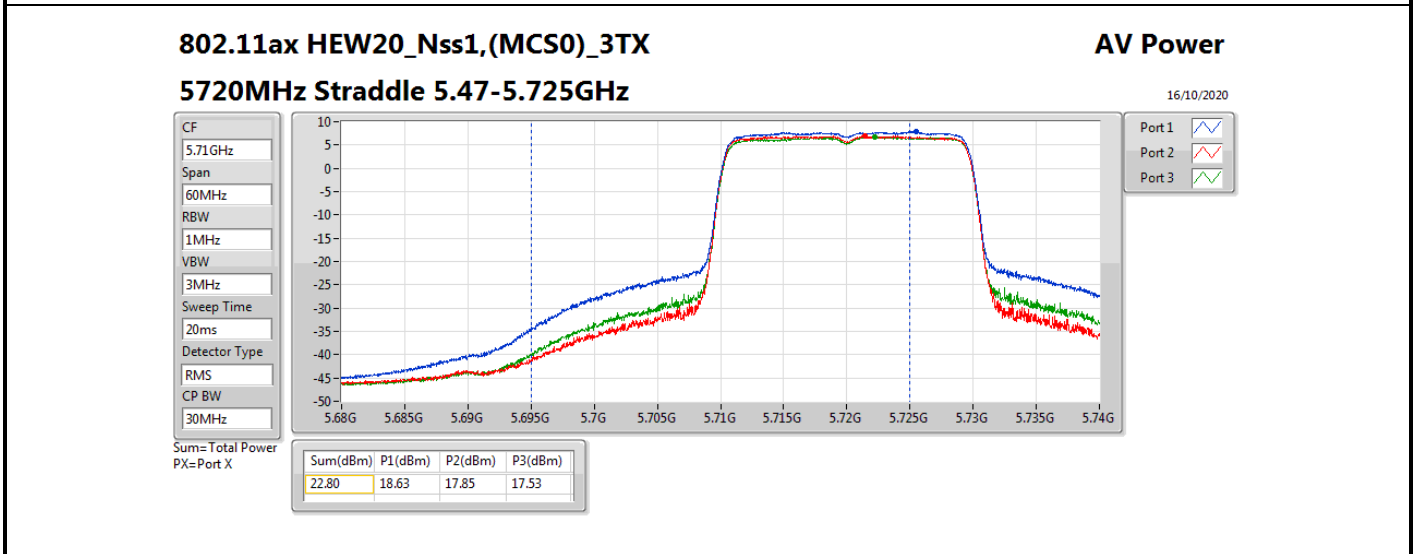
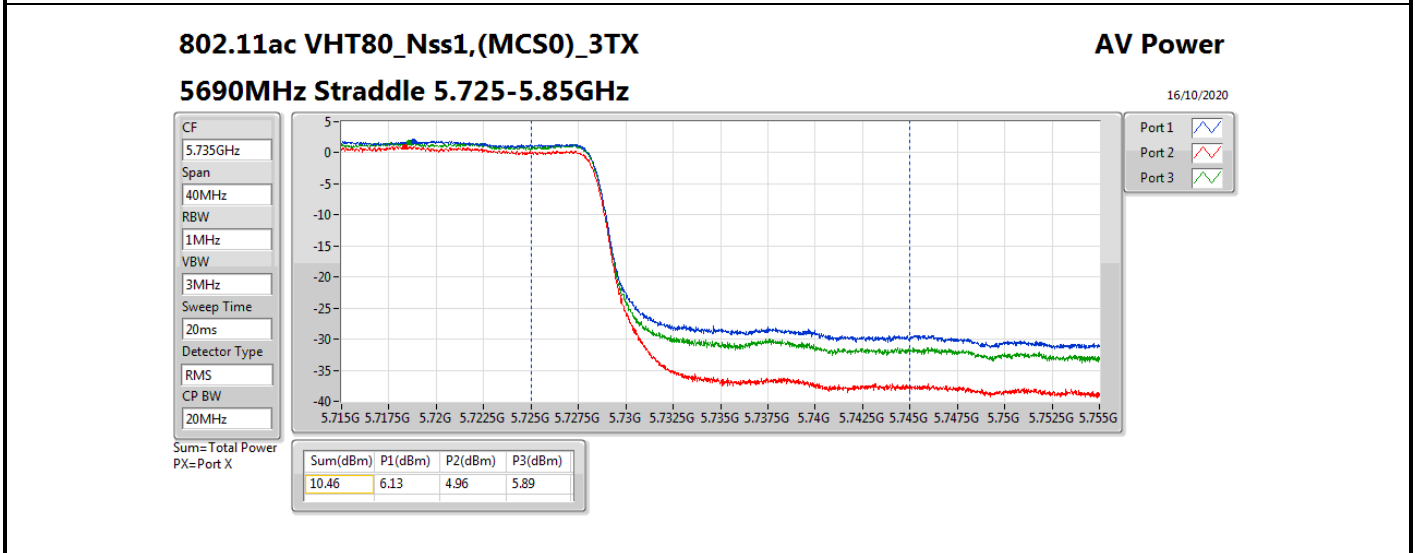
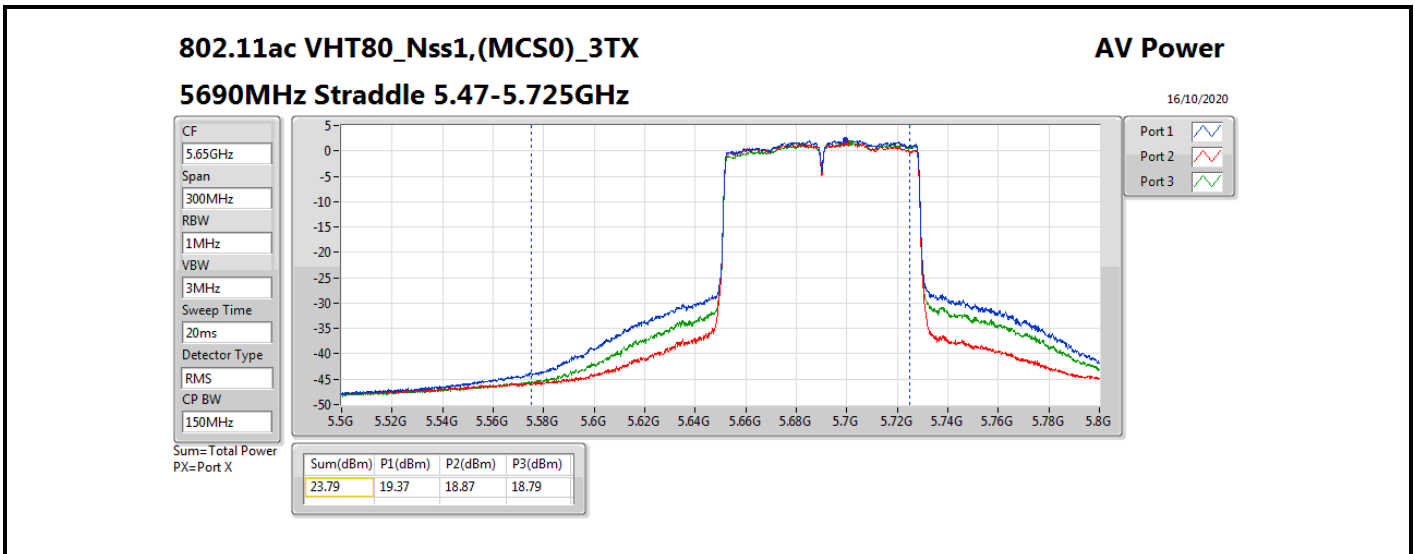
Appendix B.1

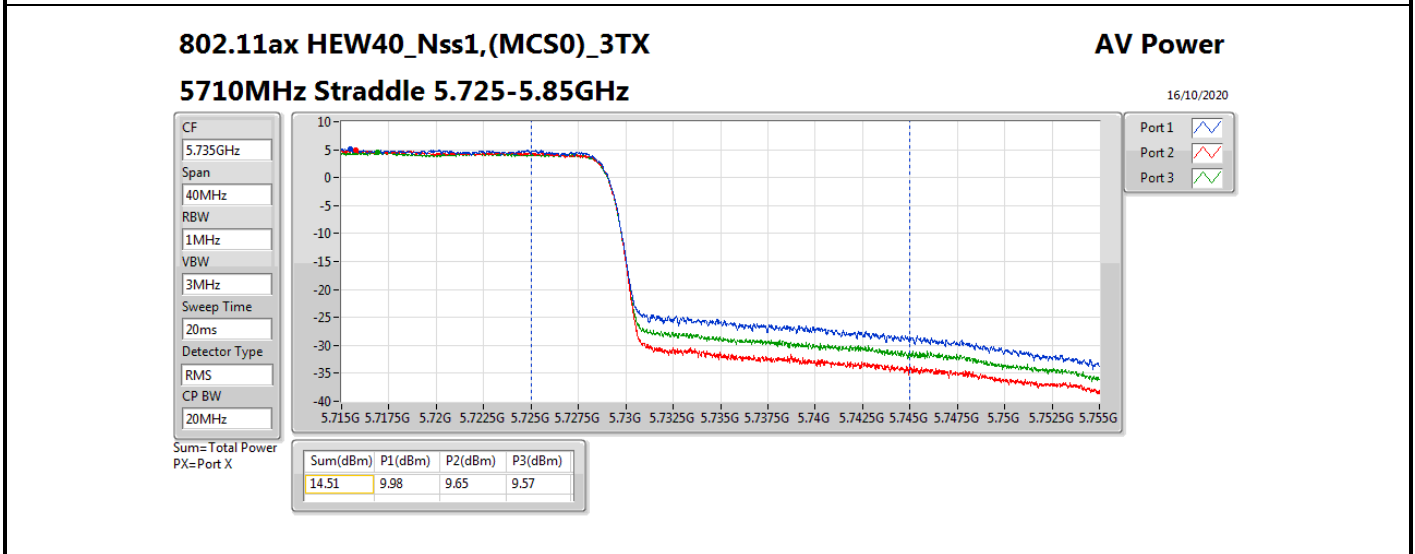
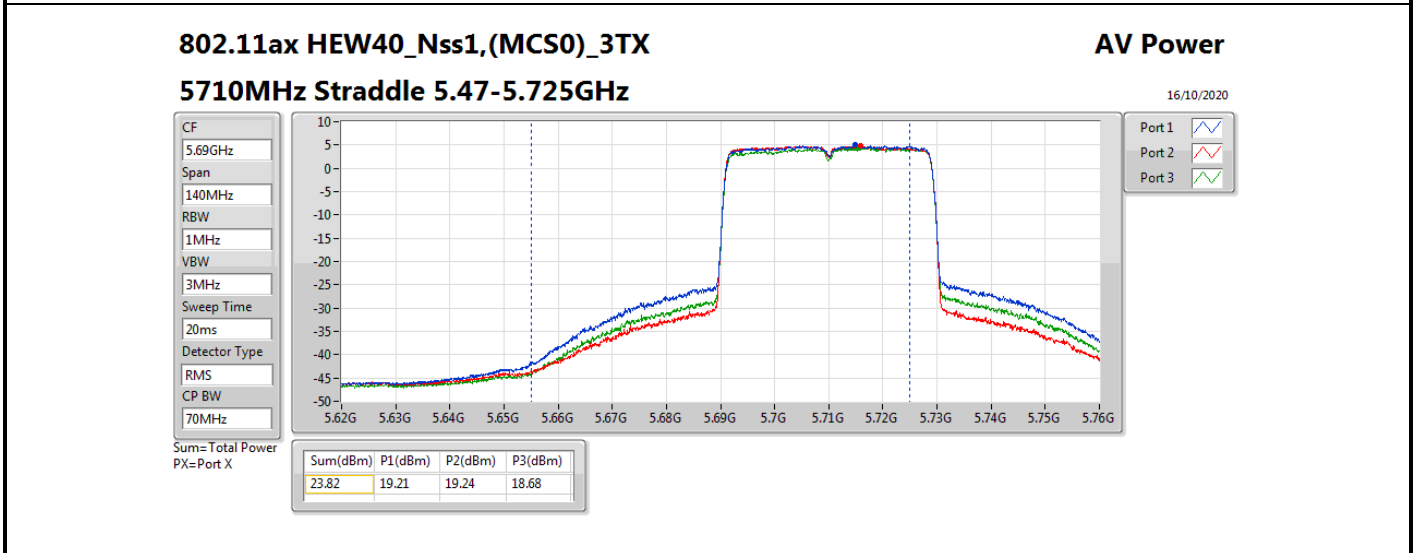
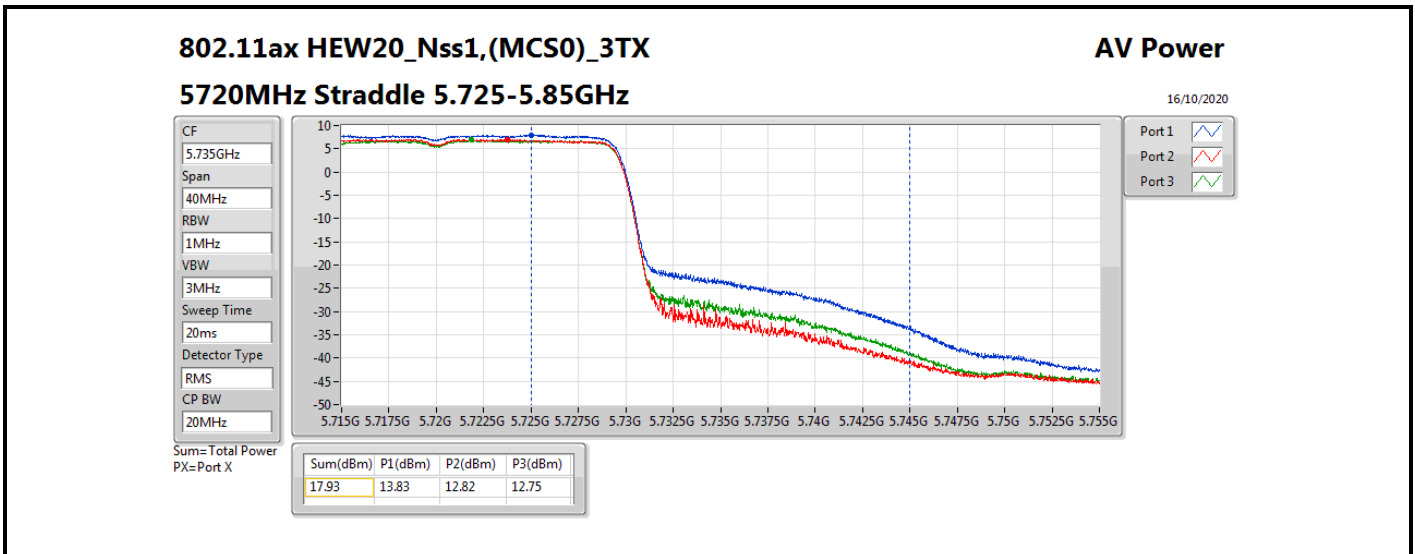
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
5500MHz	Pass	1.18	16.40	16.79	16.38	21.30	23.98
5580MHz	Pass	1.18	19.04	19.47	18.75	23.87	23.98
5620MHz	Pass	1.18	18.61	17.90	17.76	22.88	23.98
5700MHz	Pass	1.18	16.34	15.94	15.40	20.68	23.98
5720MHz Straddle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

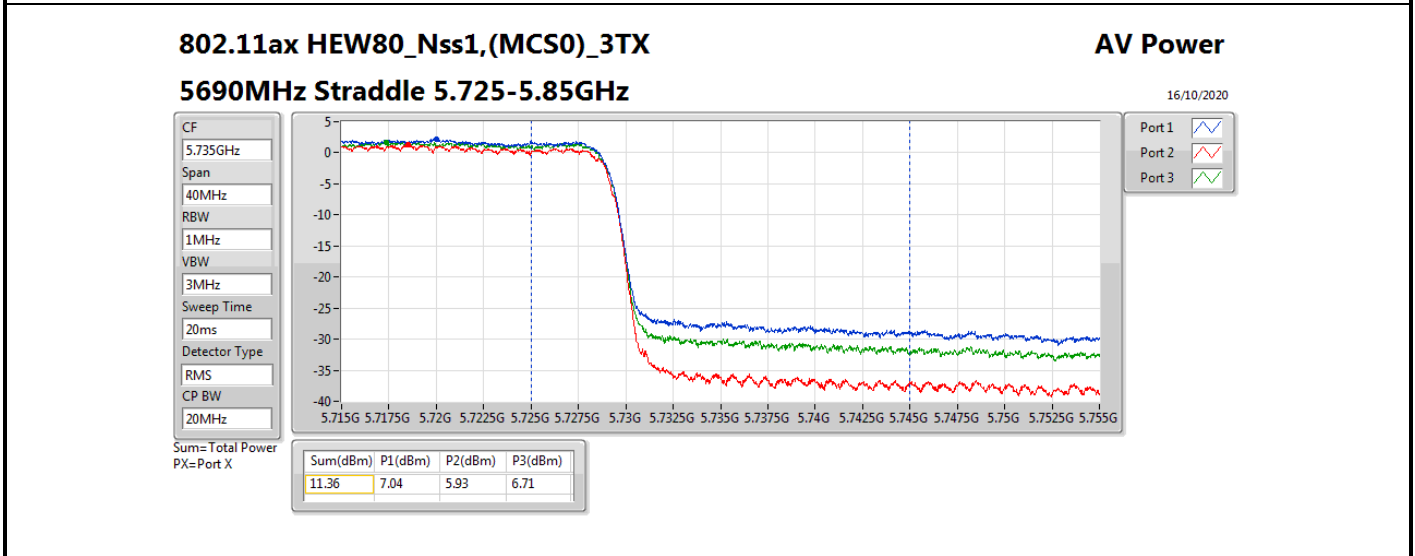
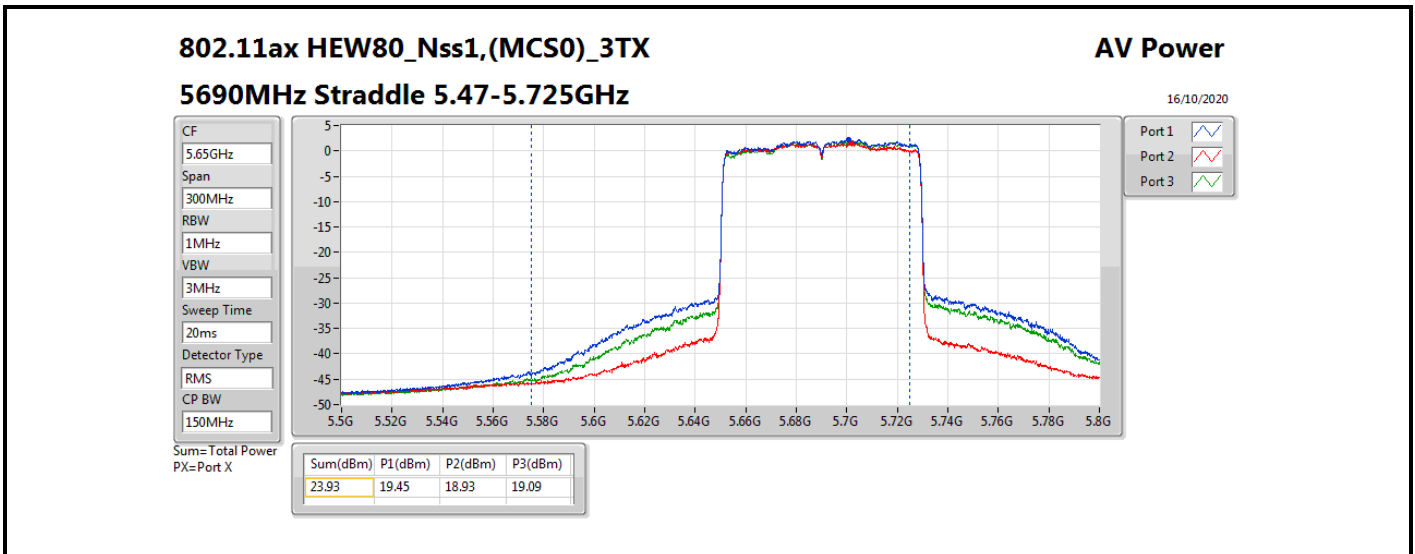
DG = Directional Gain; Port X = Port X output power













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

Mode	Total Power (dBm)	Total Power (W)
5.47-5.725GHz	-	-
802.11ac VHT20_Nss2,(MCS0)_3TX	23.09	0.20370
802.11ac VHT40_Nss2,(MCS0)_3TX	21.92	0.15560
802.11ac VHT80_Nss2,(MCS0)_3TX	21.90	0.15488
802.11ax HEW20_Nss2,(MCS0)_3TX	23.14	0.20606
802.11ax HEW40_Nss2,(MCS0)_3TX	21.71	0.14825
802.11ax HEW80_Nss2,(MCS0)_3TX	22.17	0.16482



Average Power Result

Appendix B.2

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5500MHz	Pass	1.18	18.06	18.69	18.18	23.09	23.98
802.11ac VHT40_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5510MHz	Pass	1.18	16.81	17.23	17.39	21.92	23.98
802.11ac VHT80_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5530MHz	Pass	1.18	16.96	17.30	17.13	21.90	23.98
802.11ax HEW20_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5500MHz	Pass	1.18	18.32	18.73	18.03	23.14	23.98
802.11ax HEW40_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5510MHz	Pass	1.18	16.56	17.04	17.19	21.71	23.98
802.11ax HEW80_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5530MHz	Pass	1.18	17.35	17.45	17.41	22.17	23.98

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



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

Mode	Total Power (dBm)	Total Power (W)
5.47-5.725GHz	-	-
802.11ac VHT20_Nss3,(MCS0)_3TX	23.05	0.20184
802.11ac VHT40_Nss3,(MCS0)_3TX	21.15	0.13032
802.11ac VHT80_Nss3,(MCS0)_3TX	21.25	0.13335
802.11ax HEW20_Nss3,(MCS0)_3TX	22.55	0.17989
802.11ax HEW40_Nss3,(MCS0)_3TX	20.76	0.11912
802.11ax HEW80_Nss3,(MCS0)_3TX	22.06	0.16069



Average Power Result

Appendix B.3

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20_Nss3,(MCS0)_3TX	-	-	-	-	-	-	-
5500MHz	Pass	1.18	18.17	18.59	18.05	23.05	23.98
802.11ac VHT40_Nss3,(MCS0)_3TX	-	-	-	-	-	-	-
5510MHz	Pass	1.18	16.08	16.56	16.49	21.15	23.98
802.11ac VHT80_Nss3,(MCS0)_3TX	-	-	-	-	-	-	-
5530MHz	Pass	1.18	16.33	16.56	16.53	21.25	23.98
802.11ax HEW20_Nss3,(MCS0)_3TX	-	-	-	-	-	-	-
5500MHz	Pass	1.18	17.80	17.92	17.60	22.55	23.98
802.11ax HEW40_Nss3,(MCS0)_3TX	-	-	-	-	-	-	-
5510MHz	Pass	1.18	15.66	16.12	16.16	20.76	23.98
802.11ax HEW80_Nss3,(MCS0)_3TX	-	-	-	-	-	-	-
5530MHz	Pass	1.18	17.24	17.34	17.30	22.06	23.98

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



Mode 4, Beamforming mode: 5GHz Low Band 2T1S and 5GHz High Band 3T1S Beamforming Summary

Mode	Total Power (dBm)	Total Power (W)
5.25-5.35GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	23.72	0.23550
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	23.81	0.24044
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	18.80	0.07586
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	23.71	0.23496
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	23.83	0.24155
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	19.08	0.08091
5.47-5.725GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	23.91	0.24604
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	23.95	0.24831
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	23.79	0.23933
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	23.87	0.24378
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	23.97	0.24946
802.11ax HEW80-BF_Nss1,(MCS0)_3TX	23.93	0.24717
5.725-5.85GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	17.46	0.05572
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	13.96	0.02489
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	10.46	0.01112
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	17.93	0.06209
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	14.51	0.02825
802.11ax HEW80-BF_Nss1,(MCS0)_3TX	11.36	0.01368



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5260MHz	Pass	5.25	20.73	20.69		23.72	23.98
5300MHz	Pass	5.25	19.96	20.51		23.25	23.98
5320MHz	Pass	5.25	18.74	19.43		22.11	23.98
802.11ac VHT20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5500MHz	Pass	5.95	16.96	17.49	17.04	21.94	23.98
5580MHz	Pass	5.95	19	19.68	18.69	23.91	23.98
5620MHz	Pass	5.95	19.87	18.89	18.5	23.90	23.98
5700MHz	Pass	5.95	18.42	17.8	17.48	22.69	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	5.95	18.58	17.87	17.45	22.76	22.95
5720MHz Straddle 5.725-5.85GHz	Pass	5.76	13.36	12.38	12.25	17.46	30.00
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5270MHz	Pass	5.25	20.91	20.68		23.81	23.98
5310MHz	Pass	5.25	15.2	15.45		18.34	23.98
802.11ac VHT40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5510MHz	Pass	5.95	15.45	15.97	15.87	20.54	23.98
5550MHz	Pass	5.95	18.74	19.26	19.22	23.85	23.98
5630MHz	Pass	5.95	19.35	19.34	18.82	23.95	23.98
5670MHz	Pass	5.95	18.65	18.63	17.96	23.20	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	5.95	19.29	19.36	18.66	23.89	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	5.76	9.48	9.11	8.95	13.96	30.00
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5290MHz	Pass	5.25	15.9	15.68		18.80	23.98
802.11ac VHT80-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5530MHz	Pass	5.95	16.19	16.47	16.39	21.12	23.98
5610MHz	Pass	5.95	19.44	18.6	18.91	23.77	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	5.95	19.37	18.87	18.79	23.79	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	5.76	6.13	4.96	5.89	10.46	30.00
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5260MHz	Pass	5.25	20.8	20.6		23.71	23.98
5300MHz	Pass	5.25	20.22	20.72		23.49	23.98
5320MHz	Pass	5.25	18.41	19.07		21.76	23.98
802.11ax HEW20-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5500MHz	Pass	5.95	18.05	18.25	17.95	22.86	23.98
5580MHz	Pass	5.95	19.04	19.47	18.75	23.87	23.98
5620MHz	Pass	5.95	18.61	17.9	17.76	22.88	23.98
5700MHz	Pass	5.95	16.34	15.94	15.4	20.68	23.98
5720MHz Straddle 5.47-5.725GHz	Pass	5.95	18.63	17.85	17.53	22.80	22.94
5720MHz Straddle 5.725-5.85GHz	Pass	5.76	13.83	12.82	12.75	17.93	30.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5270MHz	Pass	5.25	21.02	20.6		23.83	23.98
5310MHz	Pass	5.25	15.67	15.79		18.74	23.98
802.11ax HEW40-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5510MHz	Pass	5.95	15.22	15.67	15.71	20.31	23.98

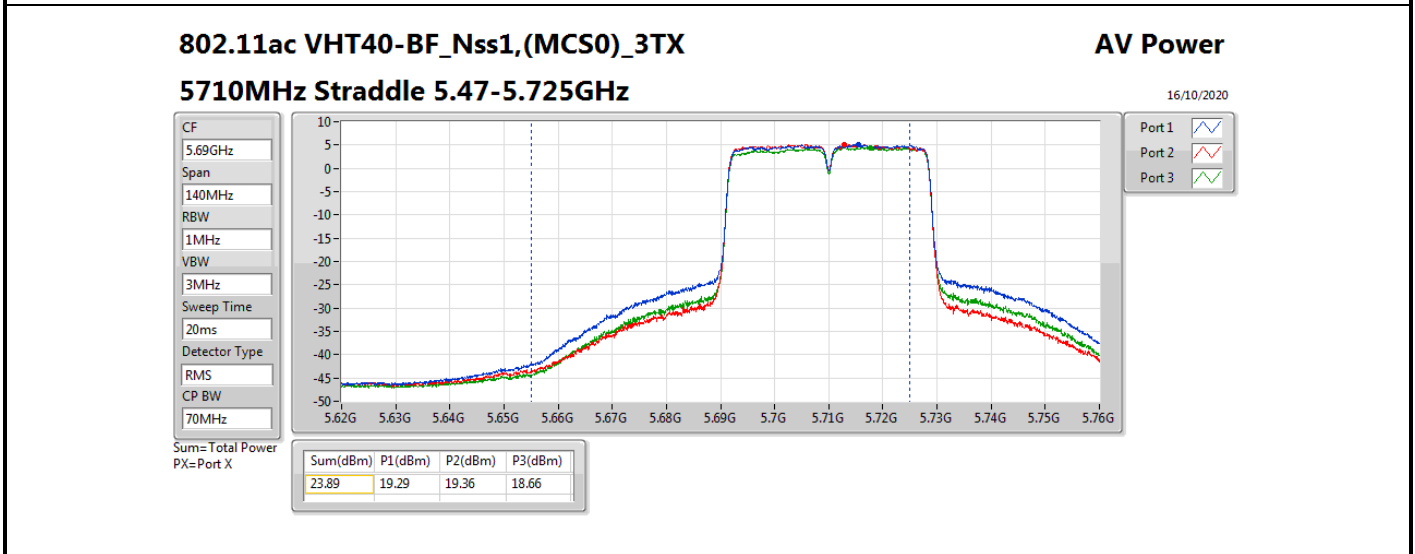
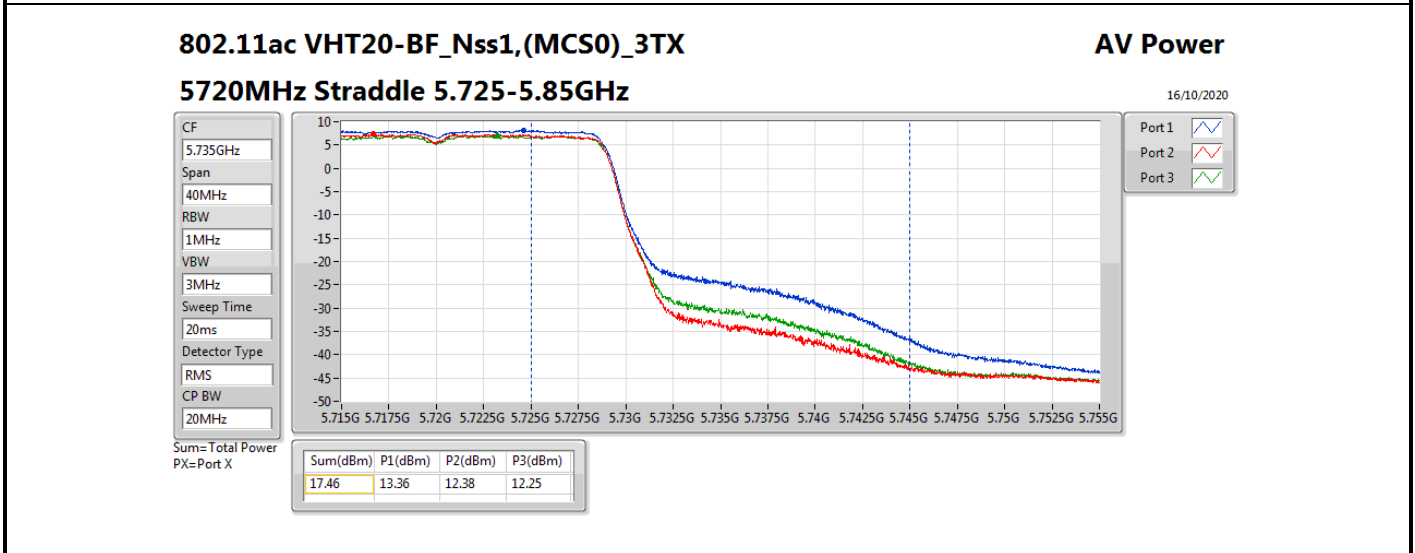
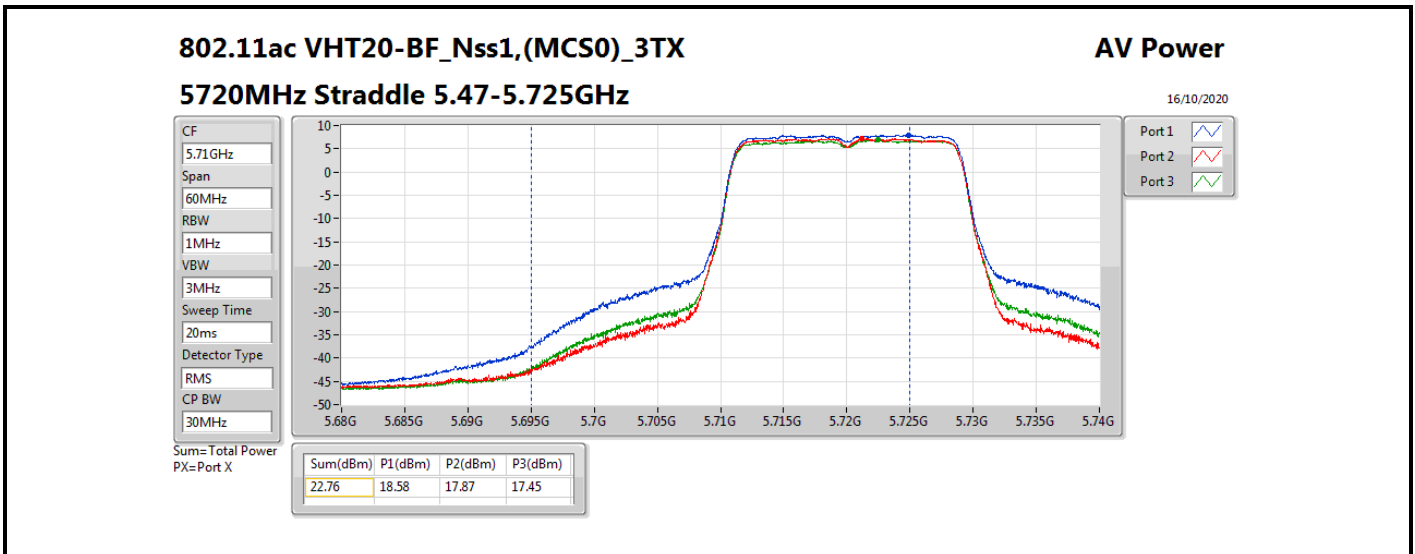


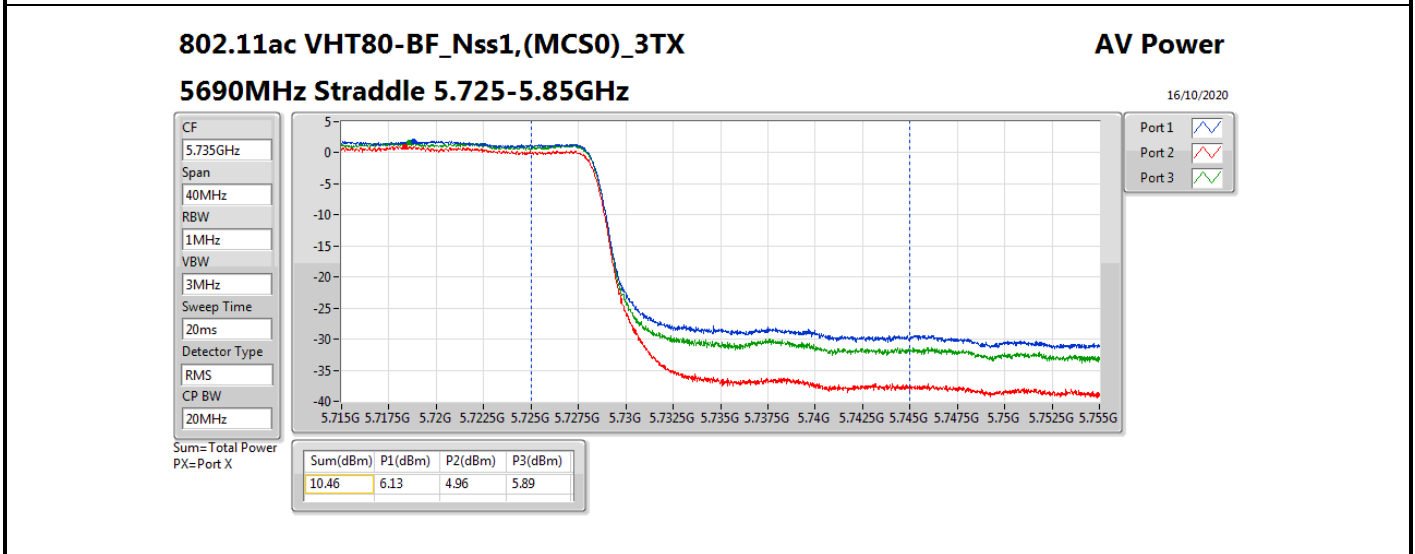
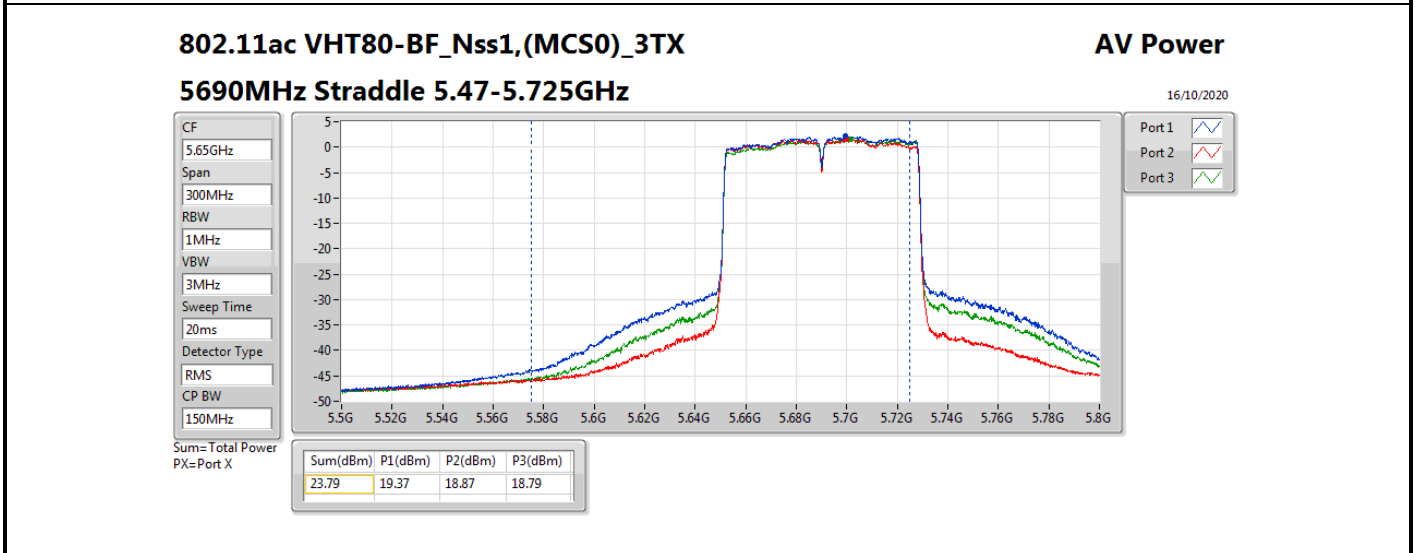
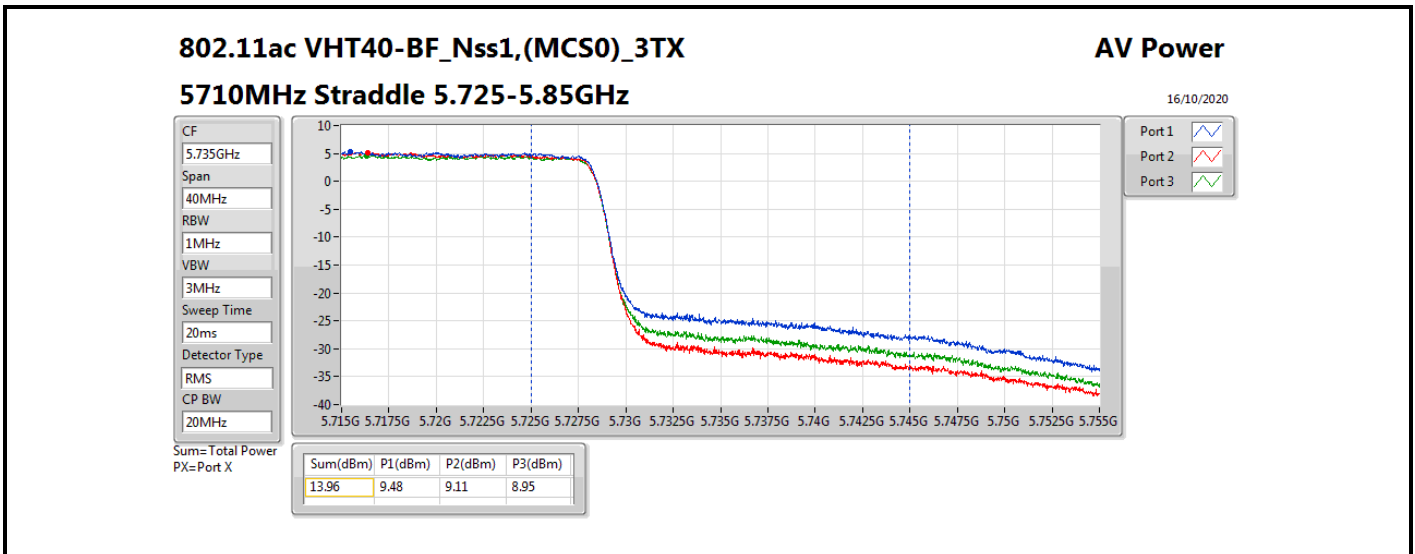
Average Power Result

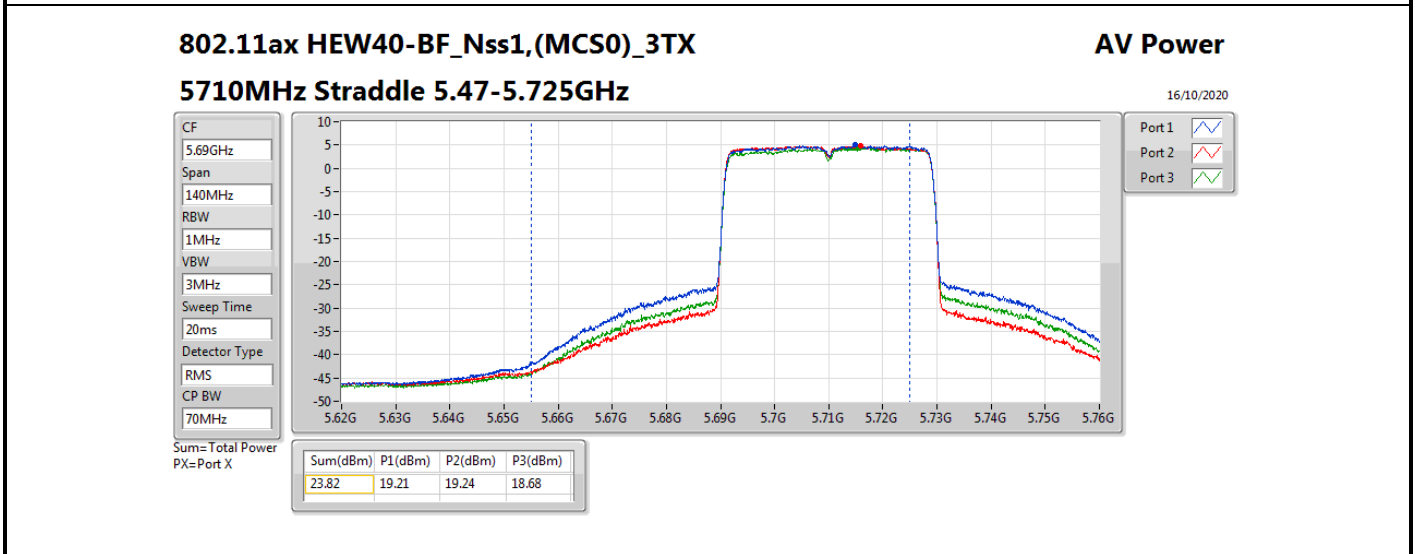
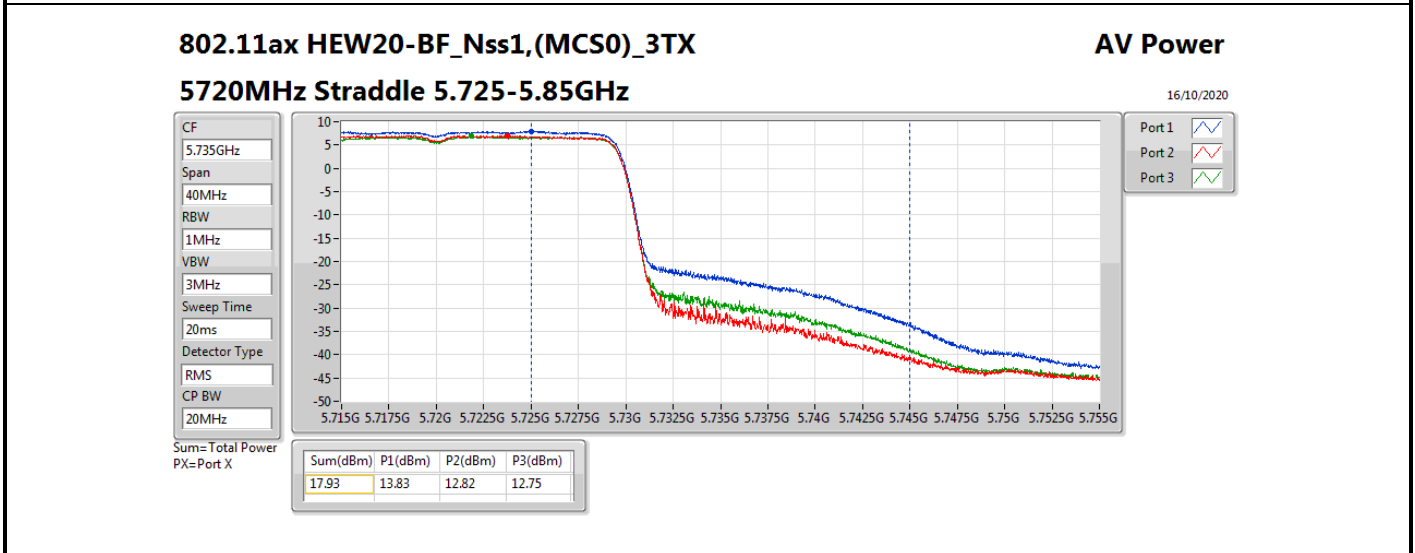
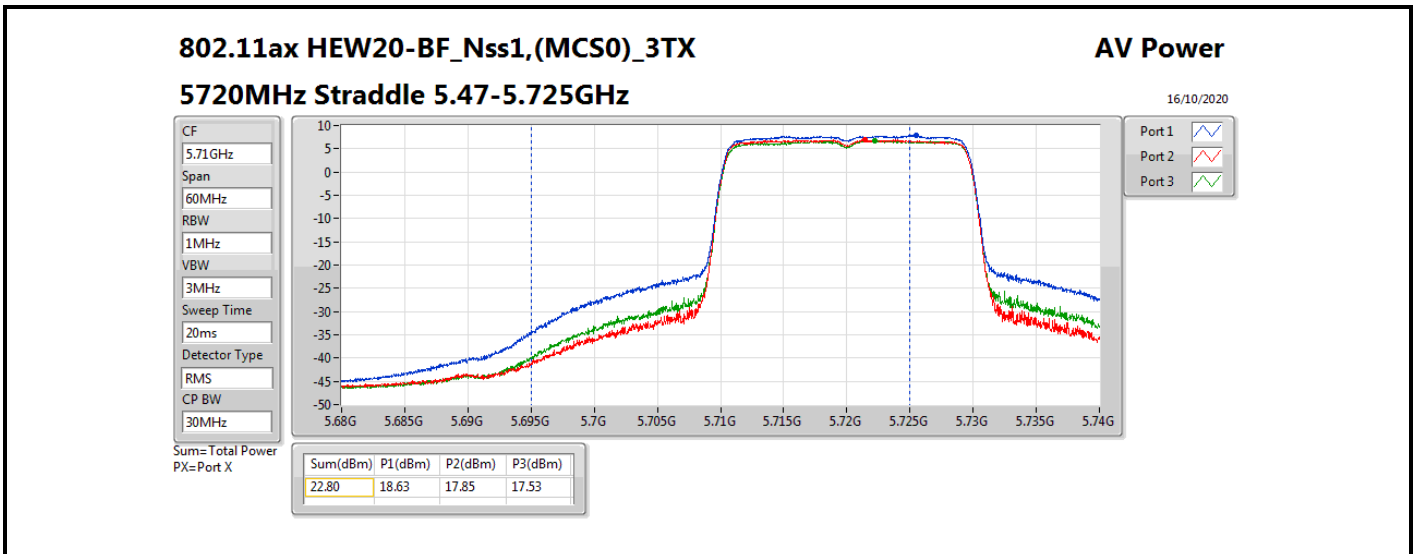
Appendix B.4

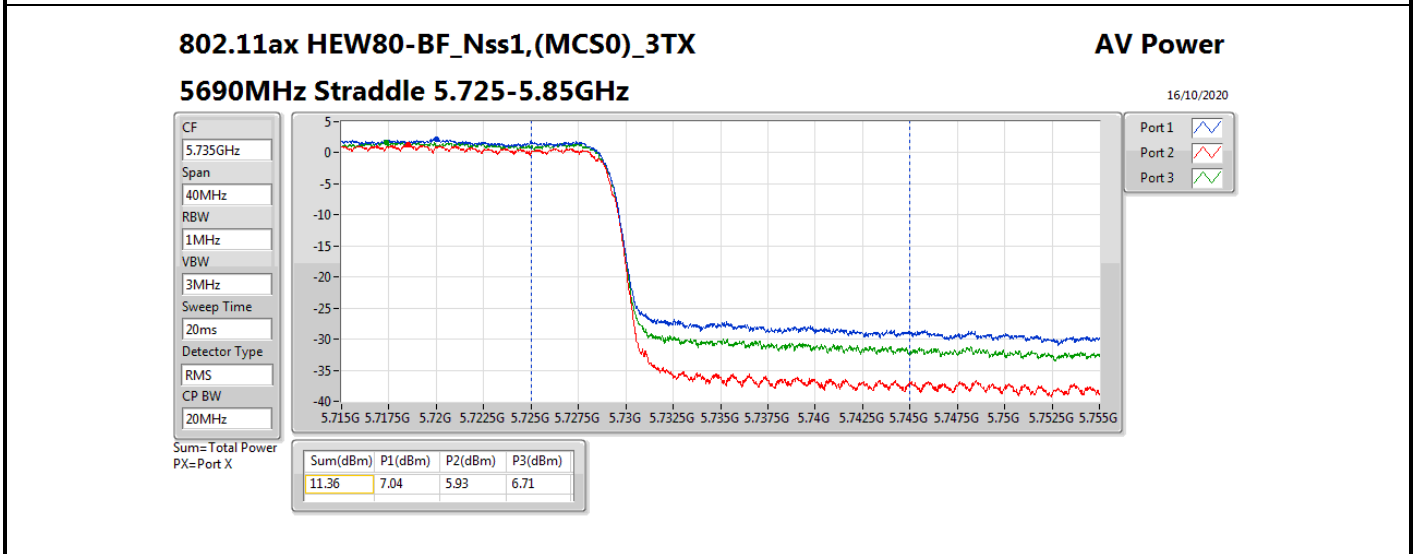
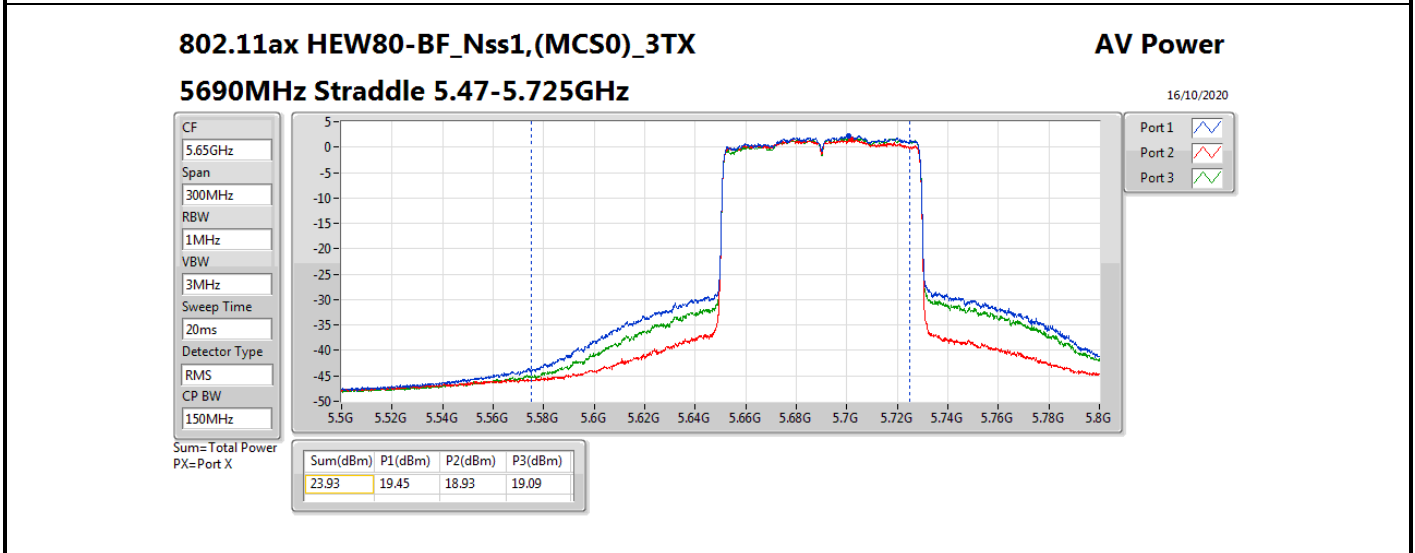
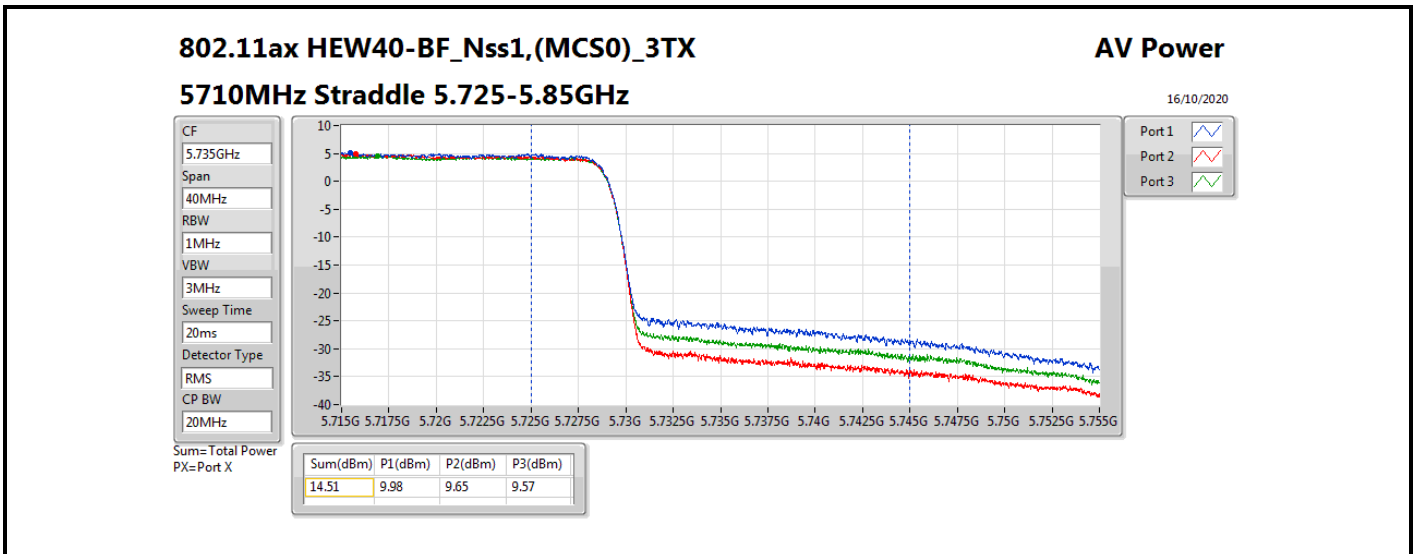
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
5550MHz	Pass	5.95	18.72	19.43	19.14	23.88	23.98
5630MHz	Pass	5.95	19.24	19.26	18.53	23.79	23.98
5670MHz	Pass	5.95	19.31	19.39	18.89	23.97	23.98
5710MHz Straddle 5.47-5.725GHz	Pass	5.95	19.21	19.24	18.68	23.82	23.98
5710MHz Straddle 5.725-5.85GHz	Pass	5.76	9.98	9.65	9.57	14.51	30.00
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5290MHz	Pass	5.25	16.27	15.87		19.08	23.98
802.11ax HEW80-BF_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5530MHz	Pass	5.95	15.76	16.18	15.82	20.70	23.98
5610MHz	Pass	5.95	19.31	18.88	18.94	23.82	23.98
5690MHz Straddle 5.47-5.725GHz	Pass	5.95	19.45	18.93	19.09	23.93	23.98
5690MHz Straddle 5.725-5.85GHz	Pass	5.76	7.04	5.93	6.71	11.36	30.00

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











Mode 5, Beamforming mode: 5GHz High Band 3T2S Beamforming Summary

Mode	Total Power (dBm)	Total Power (W)
5.47-5.725GHz	-	-
802.11ac VHT20-BF_Nss2,(MCS0)_3TX	23.29	0.21330
802.11ac VHT40-BF_Nss2,(MCS0)_3TX	20.02	0.10046
802.11ac VHT80-BF_Nss2,(MCS0)_3TX	19.78	0.09506
802.11ax HEW20-BF_Nss2,(MCS0)_3TX	22.63	0.18323
802.11ax HEW40-BF_Nss2,(MCS0)_3TX	20.01	0.10023
802.11ax HEW80-BF_Nss2,(MCS0)_3TX	19.24	0.08395



Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Total Power (dBm)	Power Limit (dBm)
802.11ac VHT20-BF_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5500MHz	Pass	2.94	18.34	18.89	18.30	23.29	23.98
802.11ac VHT40-BF_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5510MHz	Pass	2.94	14.93	15.50	15.30	20.02	23.98
802.11ac VHT80-BF_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5530MHz	Pass	2.94	14.86	15.18	14.97	19.78	23.98
802.11ax HEW20-BF_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5500MHz	Pass	2.94	17.83	18.03	17.71	22.63	23.98
802.11ax HEW40-BF_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5510MHz	Pass	2.94	14.87	15.37	15.46	20.01	23.98
802.11ax HEW80-BF_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5530MHz	Pass	2.94	14.30	14.69	14.41	19.24	23.98

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

Summary

Mode	PD (dBm/RBW)
5.25-5.35GHz	-
802.11a_Nss1,(6Mbps)_2TX	10.91
802.11ac VHT20_Nss1,(MCS0)_2TX	10.85
802.11ac VHT40_Nss1,(MCS0)_2TX	7.91
802.11ac VHT80_Nss1,(MCS0)_2TX	0.51
802.11ax HEW20_Nss1,(MCS0)_2TX	10.65
802.11ax HEW40_Nss1,(MCS0)_2TX	7.97
802.11ax HEW80_Nss1,(MCS0)_2TX	-0.42
5.47-5.725GHz	-
802.11a_Nss1,(6Mbps)_3TX	10.96
802.11ac VHT20_Nss1,(MCS0)_3TX	10.79
802.11ac VHT40_Nss1,(MCS0)_3TX	8.07
802.11ac VHT80_Nss1,(MCS0)_3TX	5.43
802.11ax HEW20_Nss1,(MCS0)_3TX	10.70
802.11ax HEW40_Nss1,(MCS0)_3TX	7.98
802.11ax HEW80_Nss1,(MCS0)_3TX	5.23
5.725-5.85GHz	-
802.11a_Nss1,(6Mbps)_3TX	9.22
802.11ac VHT20_Nss1,(MCS0)_3TX	9.15
802.11ac VHT40_Nss1,(MCS0)_3TX	6.42
802.11ac VHT80_Nss1,(MCS0)_3TX	2.86
802.11ax HEW20_Nss1,(MCS0)_3TX	8.91
802.11ax HEW40_Nss1,(MCS0)_3TX	6.21
802.11ax HEW80_Nss1,(MCS0)_3TX	3.13

RBW = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

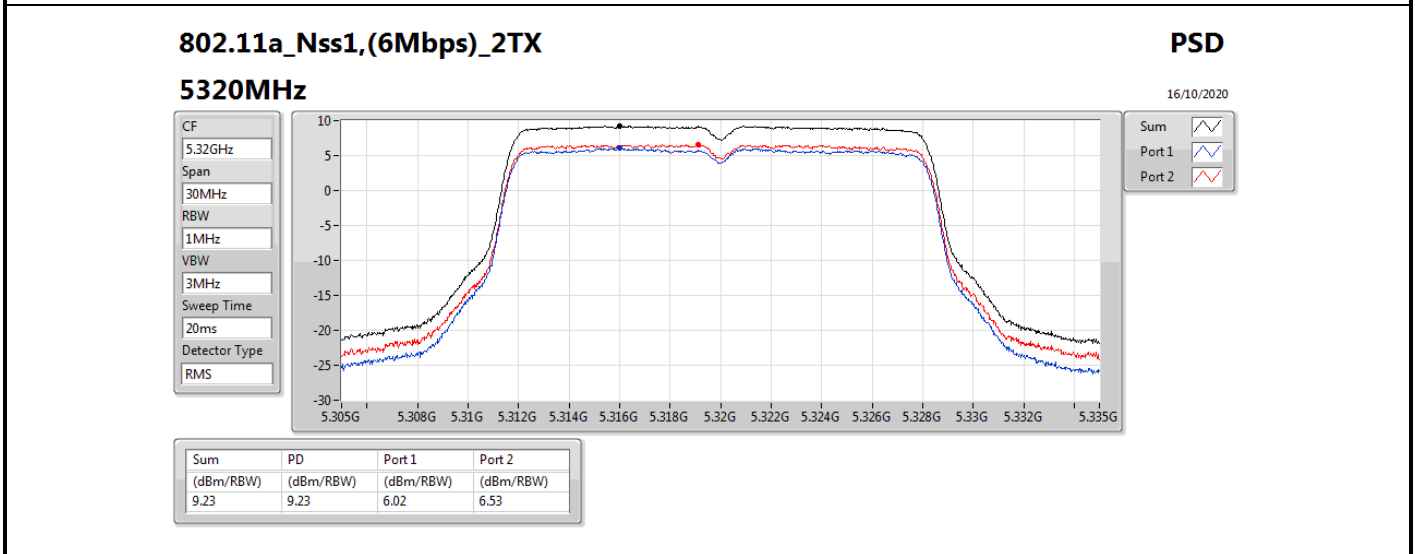
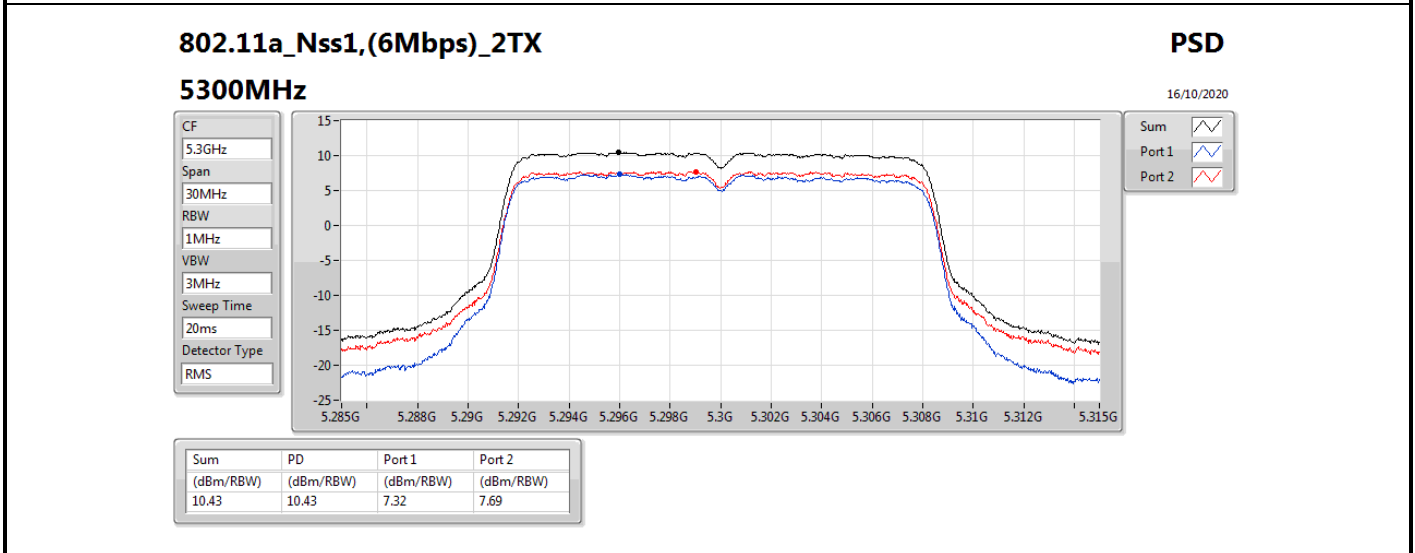
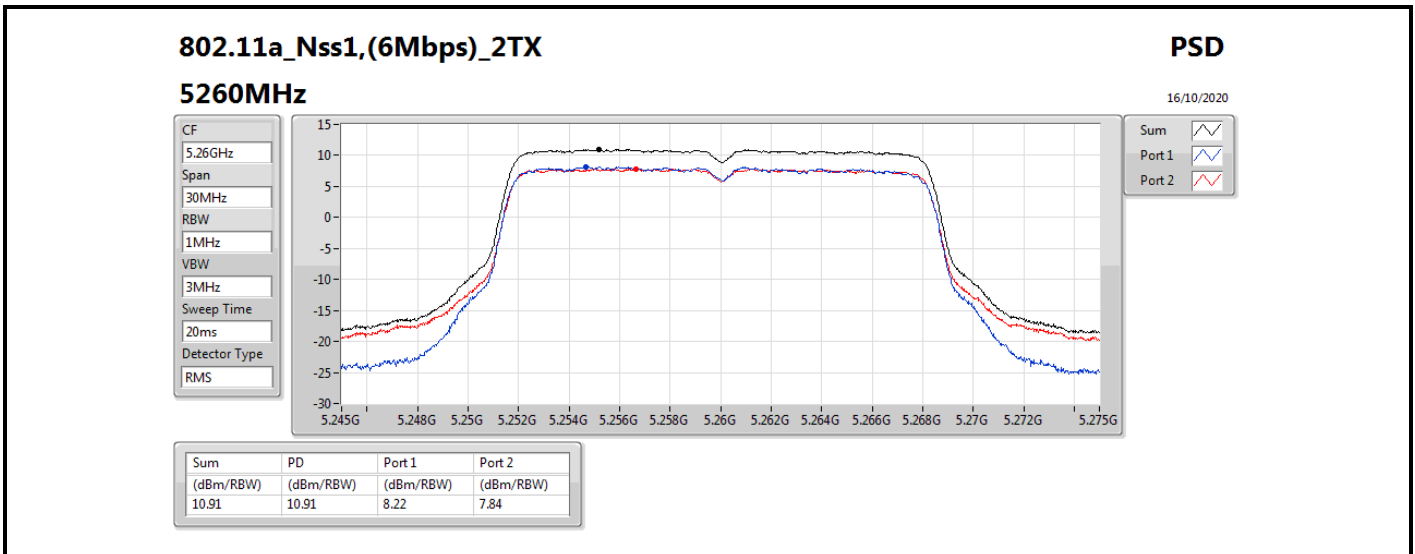
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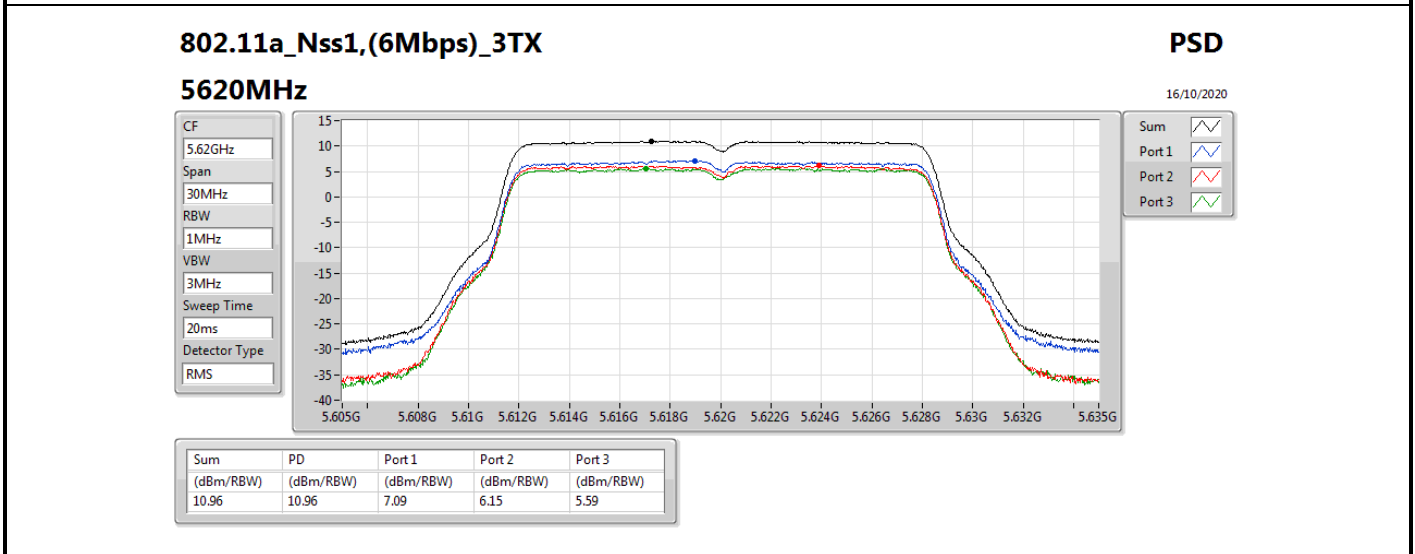
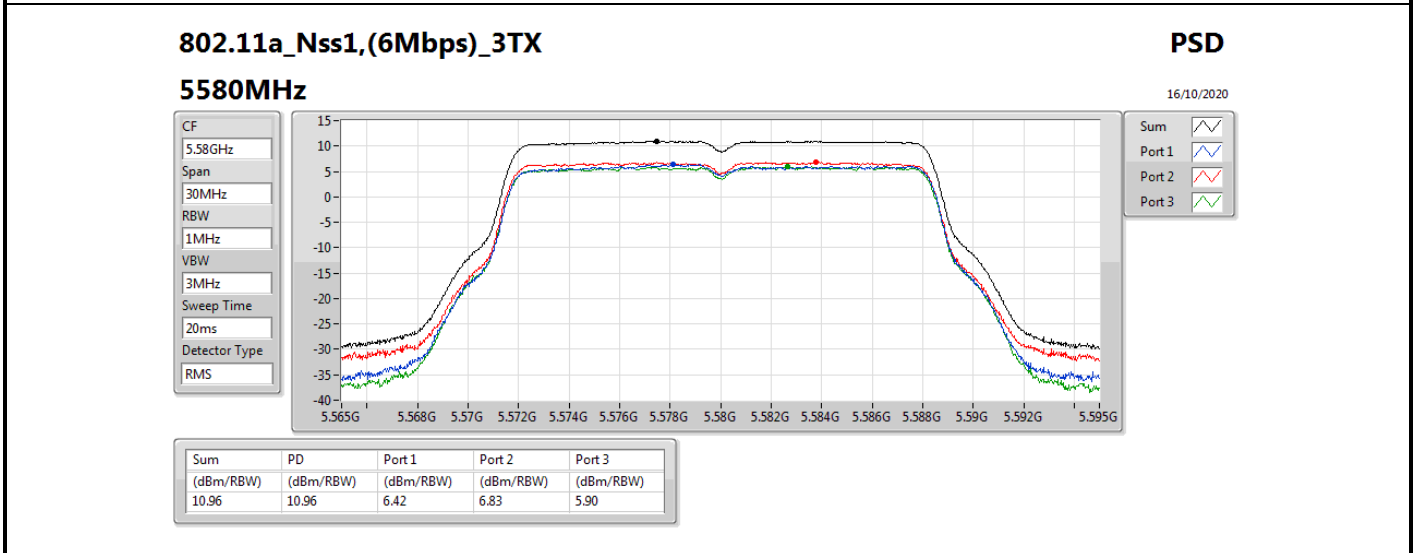
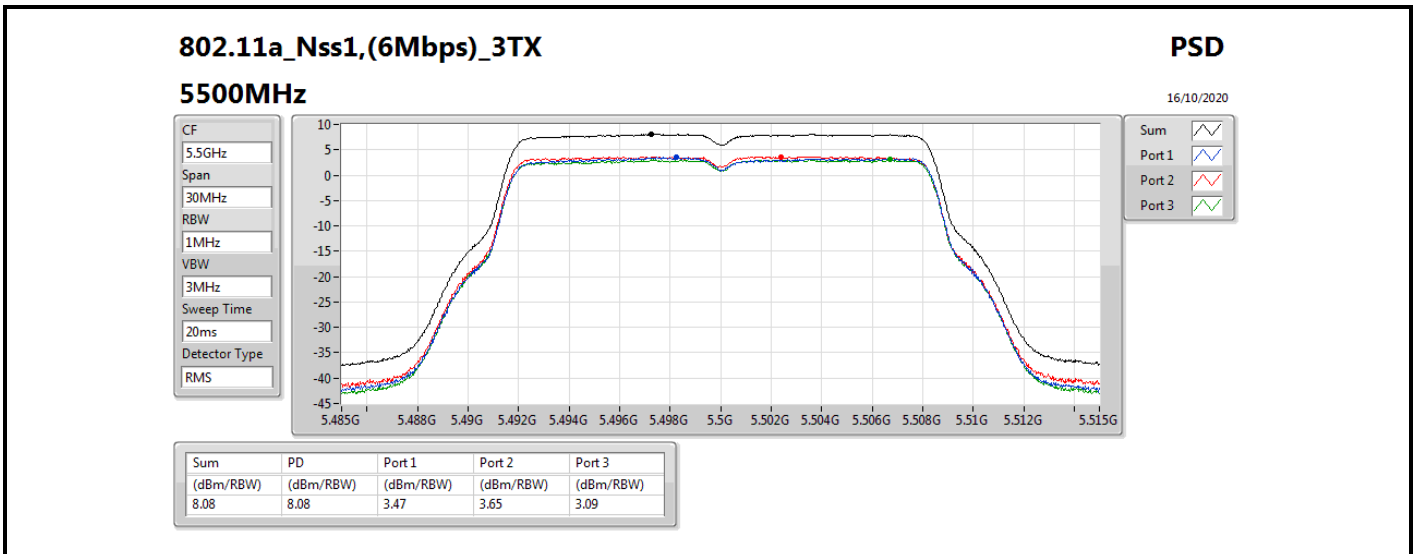
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-
5260MHz	Pass	5.25	8.22	7.84		10.91	11.00
5300MHz	Pass	5.25	7.32	7.69		10.43	11.00
5320MHz	Pass	5.25	6.02	6.53		9.23	11.00
802.11a_Nss1,(6Mbps)_3TX	-	-	-	-	-	-	-
5500MHz	Pass	5.95	3.47	3.65	3.09	8.08	11.00
5580MHz	Pass	5.95	6.42	6.83	5.90	10.96	11.00
5620MHz	Pass	5.95	7.09	6.15	5.59	10.96	11.00
5700MHz	Pass	5.95	5.92	5.08	4.69	9.93	11.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.95	6.86	5.92	5.65	10.88	11.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.76	5.20	4.30	4.05	9.22	30.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5260MHz	Pass	5.25	7.96	7.75		10.85	11.00
5300MHz	Pass	5.25	7.07	7.46		10.25	11.00
5320MHz	Pass	5.25	5.73	6.45		9.08	11.00
802.11ac VHT20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5500MHz	Pass	5.95	3.90	4.17	3.59	8.51	11.00
5580MHz	Pass	5.95	6.08	6.65	5.69	10.78	11.00
5620MHz	Pass	5.95	6.96	5.88	5.60	10.79	11.00
5700MHz	Pass	5.95	5.18	4.28	3.76	9.06	11.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.95	6.57	5.67	5.34	10.51	11.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.76	5.20	4.09	3.89	9.15	30.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5270MHz	Pass	5.25	5.23	4.74		7.91	11.00
5310MHz	Pass	5.25	-0.45	-0.58		2.50	11.00
802.11ac VHT40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5510MHz	Pass	5.95	-1.38	-0.76	-0.89	3.62	11.00
5550MHz	Pass	5.95	3.16	3.52	3.37	8.00	11.00
5630MHz	Pass	5.95	3.67	3.46	2.87	7.91	11.00
5670MHz	Pass	5.95	3.00	2.62	2.08	7.15	11.00
5710MHz Straddle 5.47-5.725GHz	Pass	5.95	3.55	3.70	3.01	8.07	11.00
5710MHz Straddle 5.725-5.85GHz	Pass	5.76	2.17	1.67	1.50	6.42	30.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5290MHz	Pass	5.25	-2.26	-2.68		0.51	11.00
802.11ac VHT80_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5530MHz	Pass	5.95	-1.96	-2.00	-1.78	2.74	11.00
5610MHz	Pass	5.95	1.02	0.52	0.49	5.43	11.00
5690MHz Straddle 5.47-5.725GHz	Pass	5.95	0.84	0.05	0.15	4.92	11.00
5690MHz Straddle 5.725-5.85GHz	Pass	5.76	-1.48	-2.57	-1.57	2.86	30.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5260MHz	Pass	5.25	7.88	7.42		10.65	11.00
5300MHz	Pass	5.25	7.22	7.50		10.32	11.00
5320MHz	Pass	5.25	5.88	6.47		9.14	11.00
802.11ax HEW20_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-

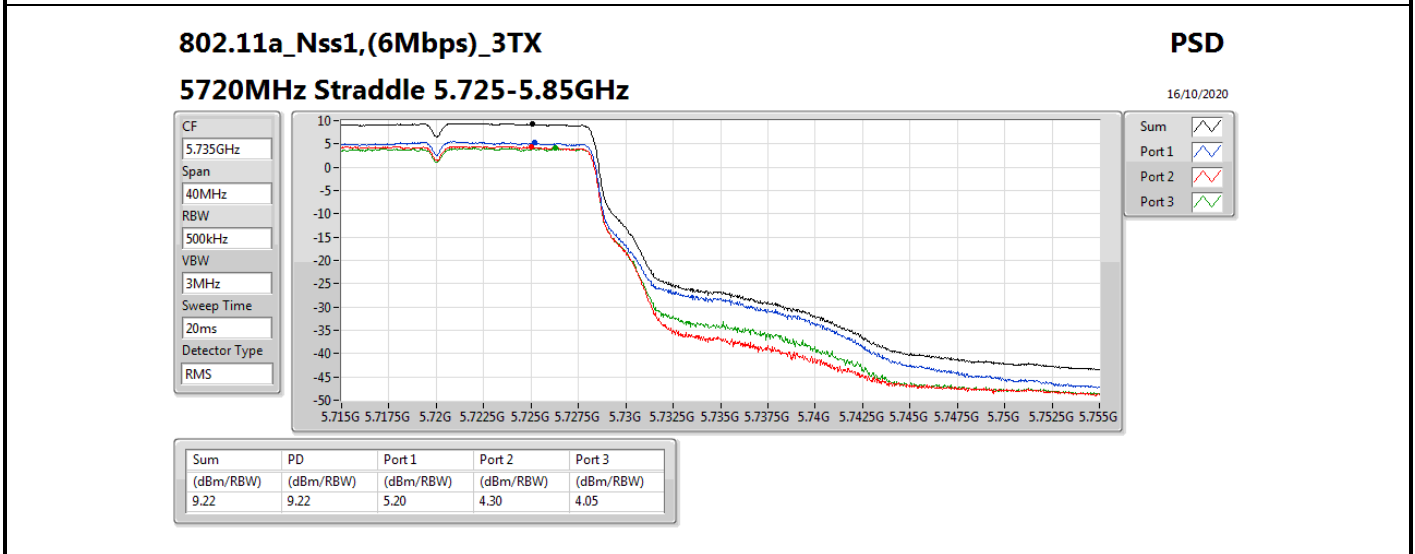
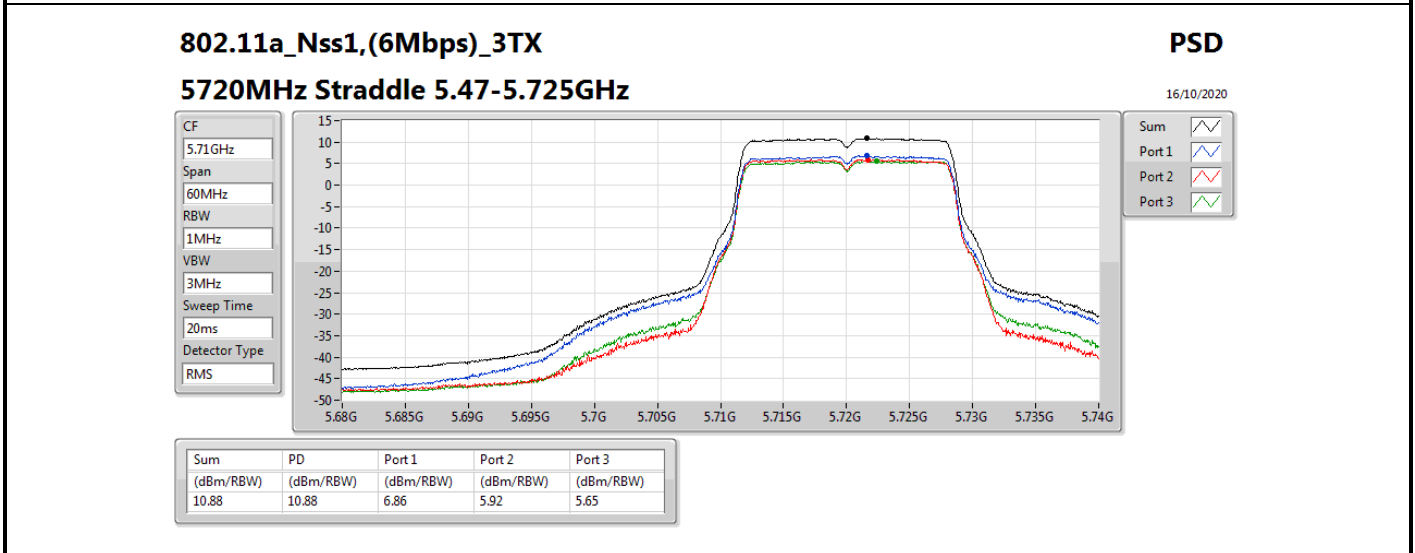
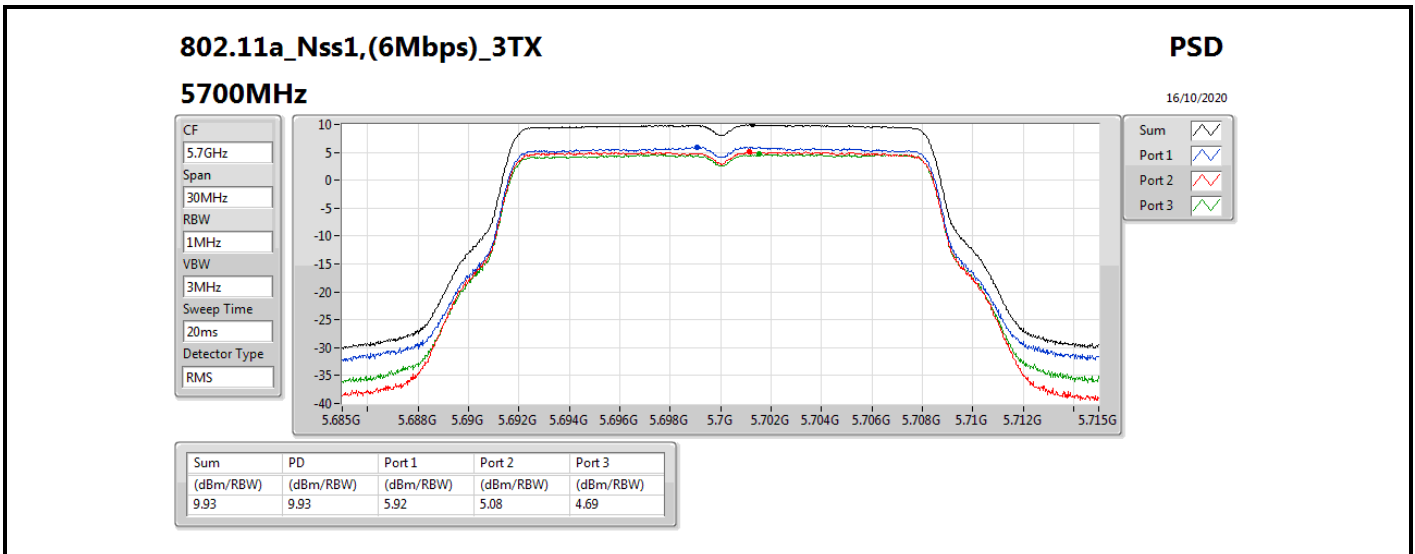
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
5500MHz	Pass	5.95	3.27	3.56	3.13	8.00	11.00
5580MHz	Pass	5.95	6.06	6.37	5.69	10.70	11.00
5620MHz	Pass	5.95	5.44	4.96	4.42	9.62	11.00
5700MHz	Pass	5.95	3.16	2.63	2.10	7.30	11.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.95	6.37	5.38	5.22	10.32	11.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.76	5.02	3.70	3.68	8.91	30.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5270MHz	Pass	5.25	5.35	4.66	-	7.97	11.00
5310MHz	Pass	5.25	-0.22	-0.24	-	2.69	11.00
802.11ax HEW40_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5510MHz	Pass	5.95	-0.73	-0.29	-0.22	4.23	11.00
5550MHz	Pass	5.95	2.95	3.51	3.44	7.98	11.00
5630MHz	Pass	5.95	3.38	3.27	2.53	7.78	11.00
5670MHz	Pass	5.95	3.45	3.36	2.60	7.79	11.00
5710MHz Straddle 5.47-5.725GHz	Pass	5.95	3.48	3.25	2.81	7.88	11.00
5710MHz Straddle 5.725-5.85GHz	Pass	5.76	1.86	1.39	1.25	6.21	30.00
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-
5290MHz	Pass	5.25	-3.18	-3.57	-	-0.42	11.00
802.11ax HEW80_Nss1,(MCS0)_3TX	-	-	-	-	-	-	-
5530MHz	Pass	5.95	-1.16	-0.89	-0.95	3.59	11.00
5610MHz	Pass	5.95	0.86	0.38	0.54	5.23	11.00
5690MHz Straddle 5.47-5.725GHz	Pass	5.95	0.69	0.10	0.19	4.95	11.00
5690MHz Straddle 5.725-5.85GHz	Pass	5.76	-1.01	-2.31	-1.32	3.13	30.00

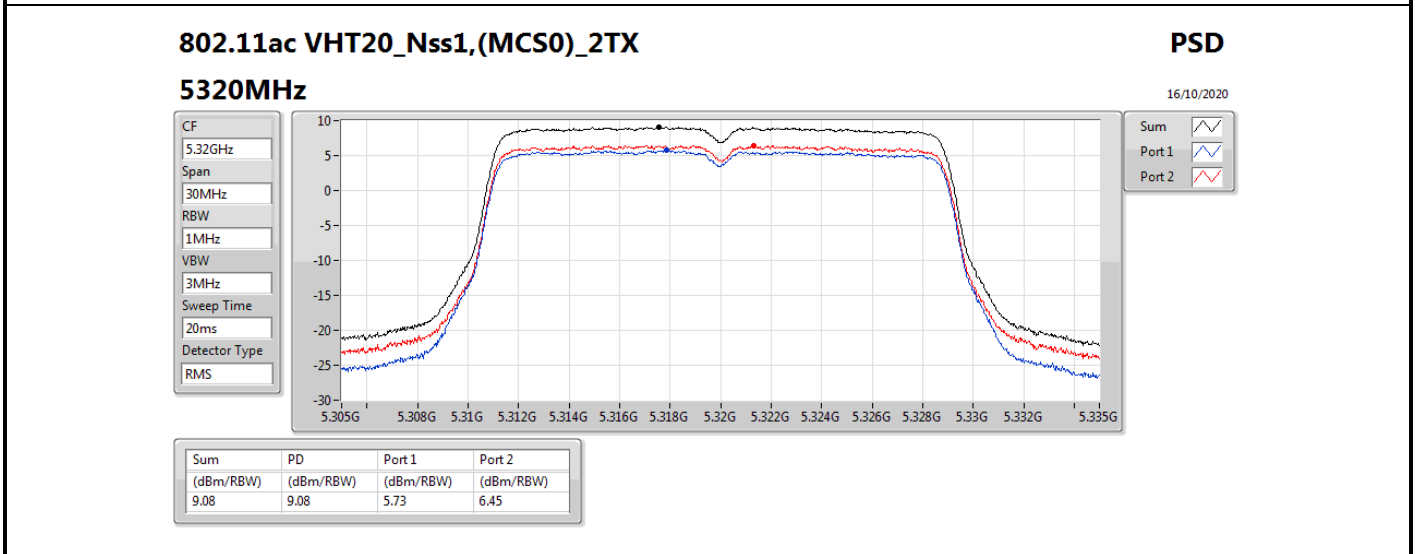
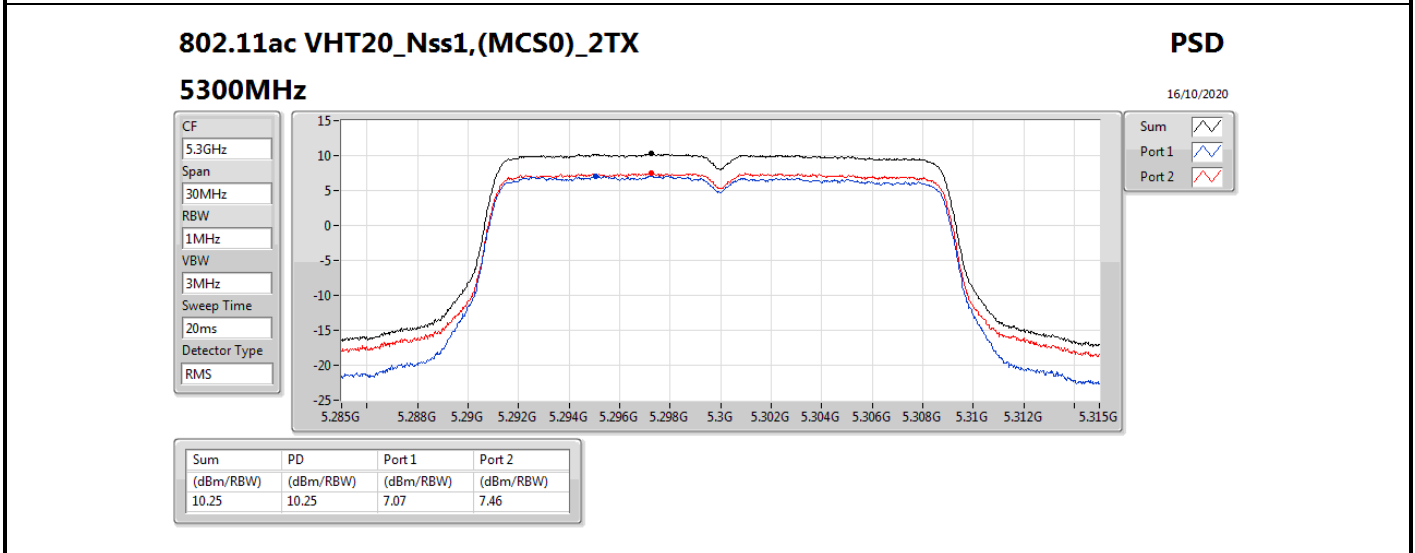
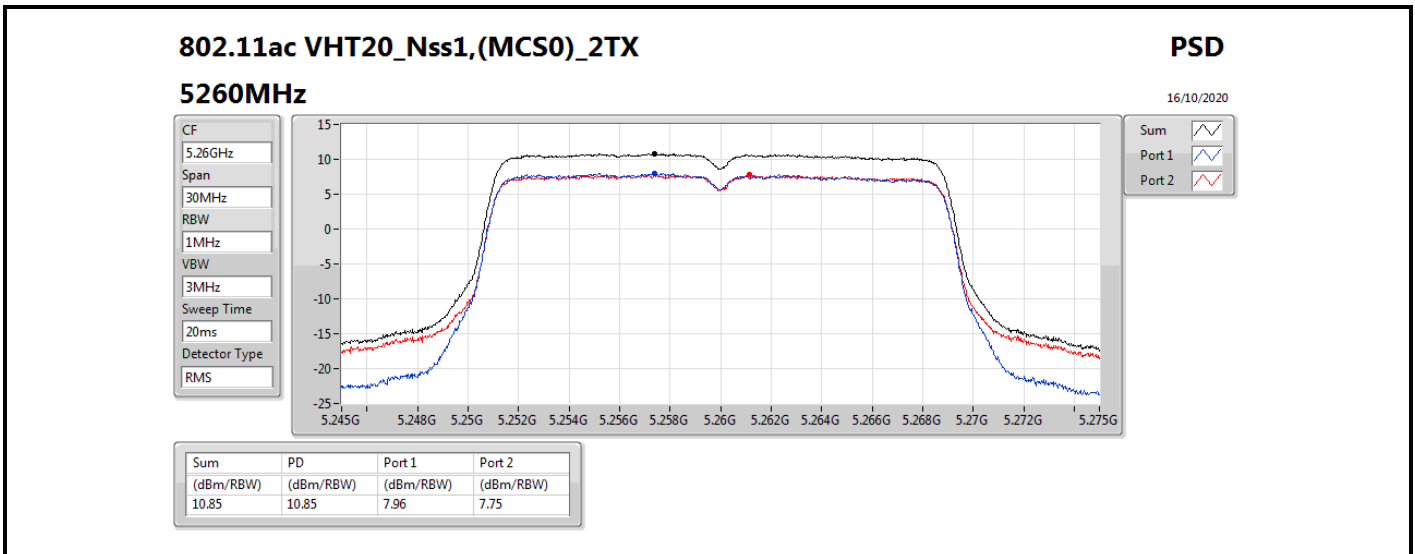
DG = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

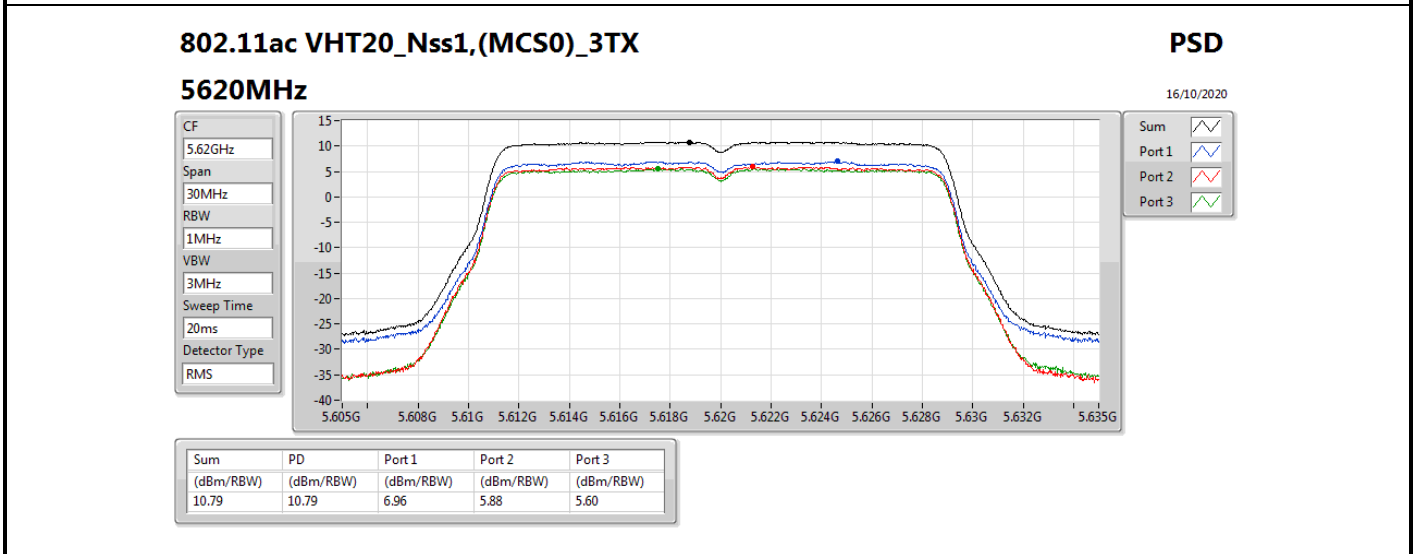
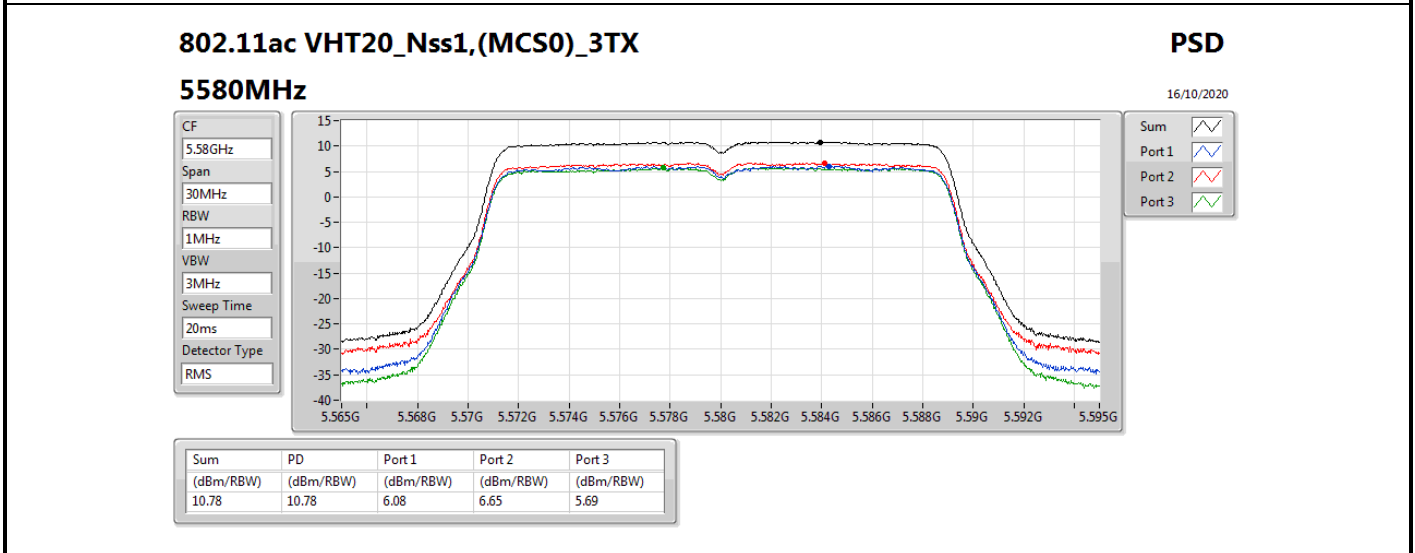
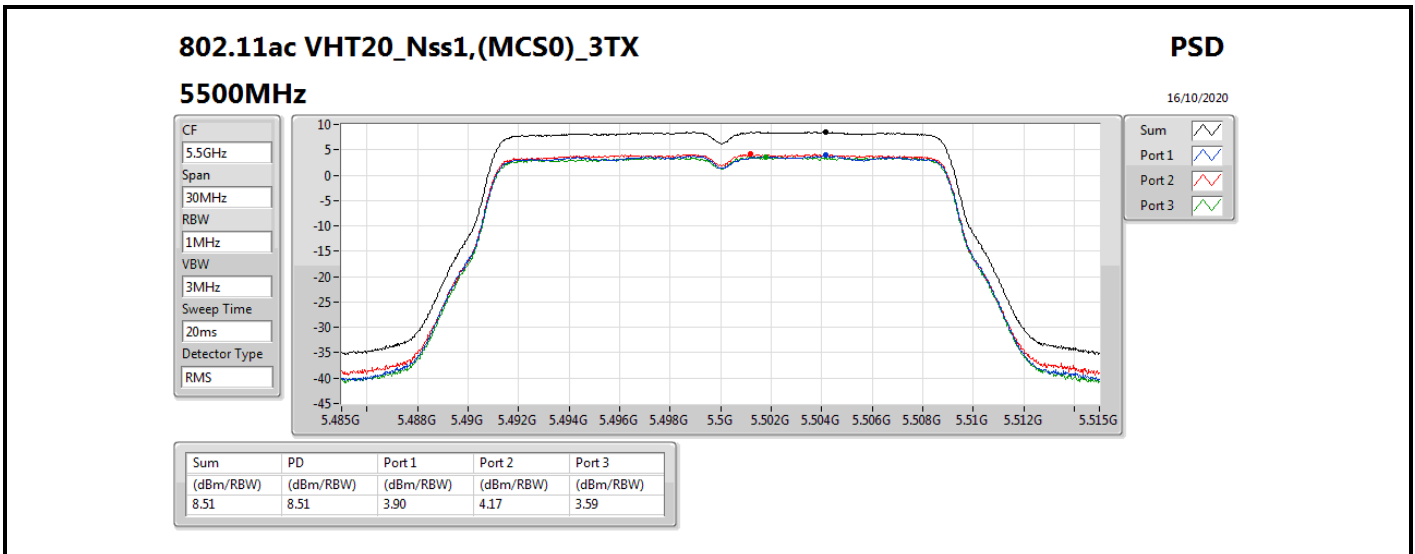
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;

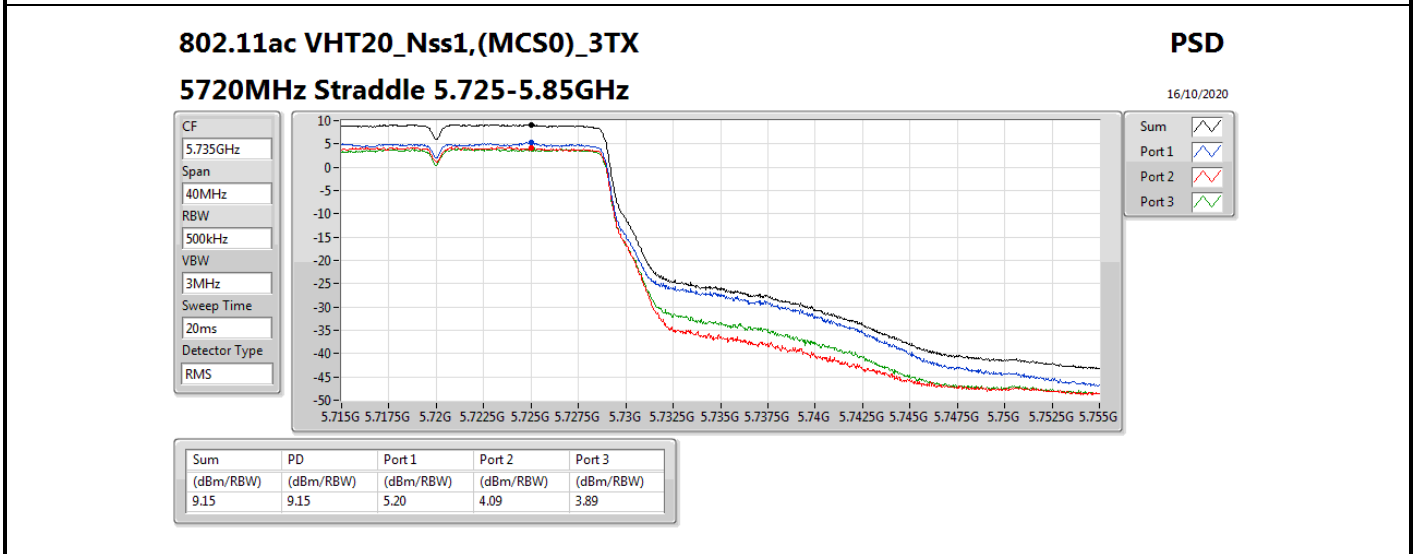
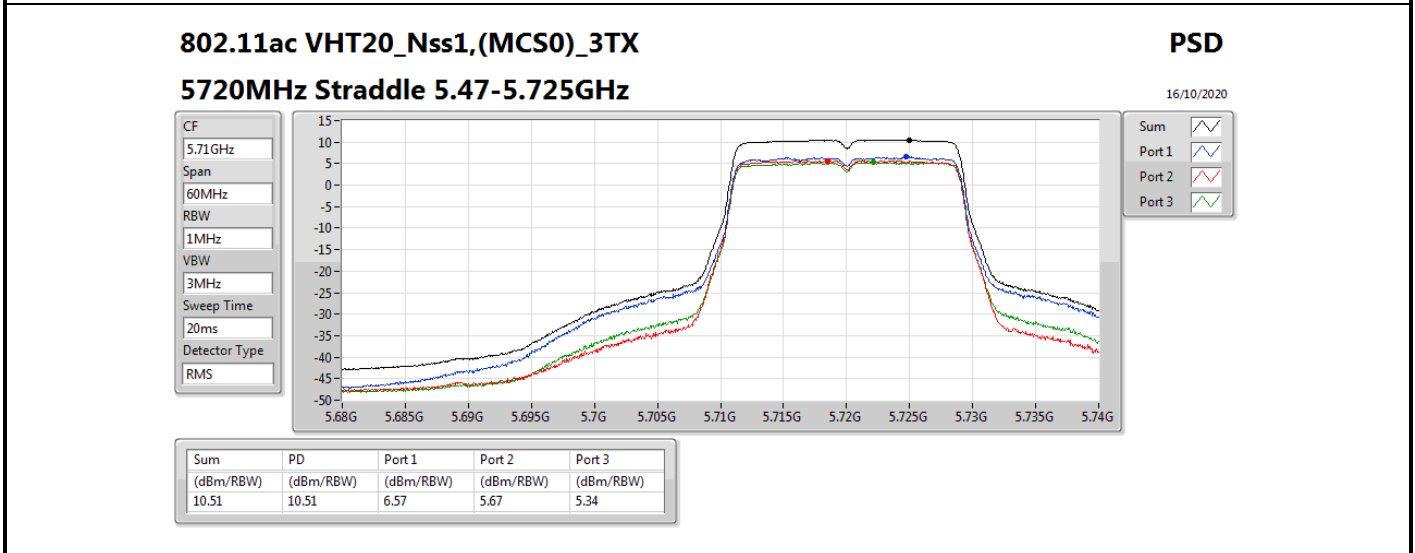
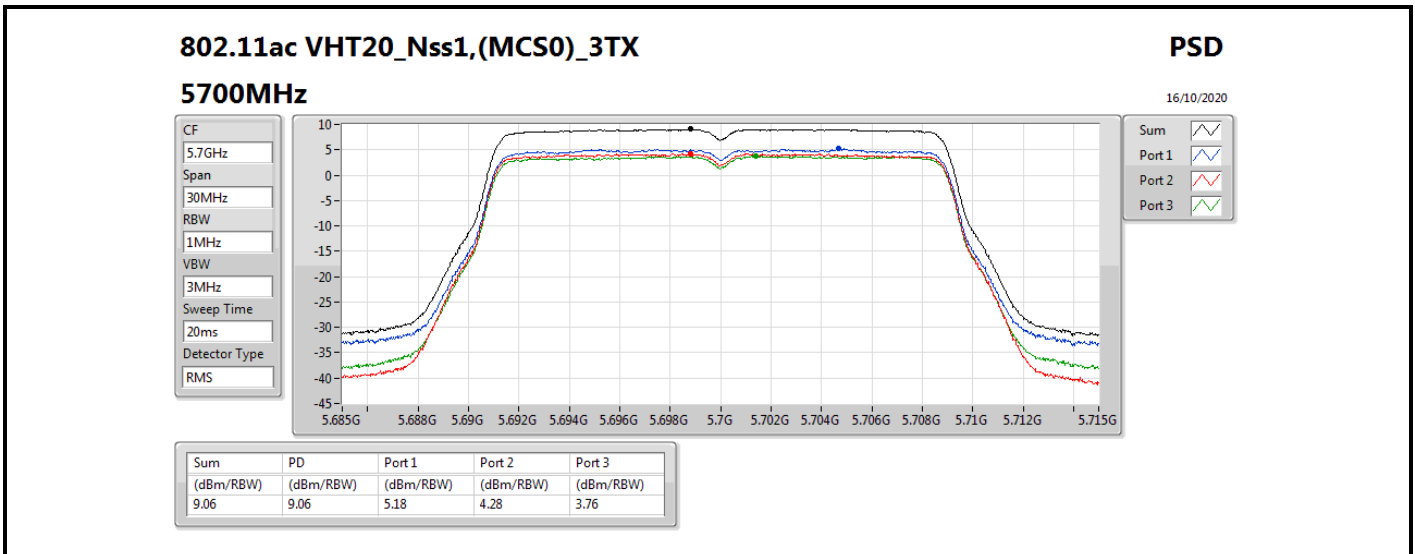


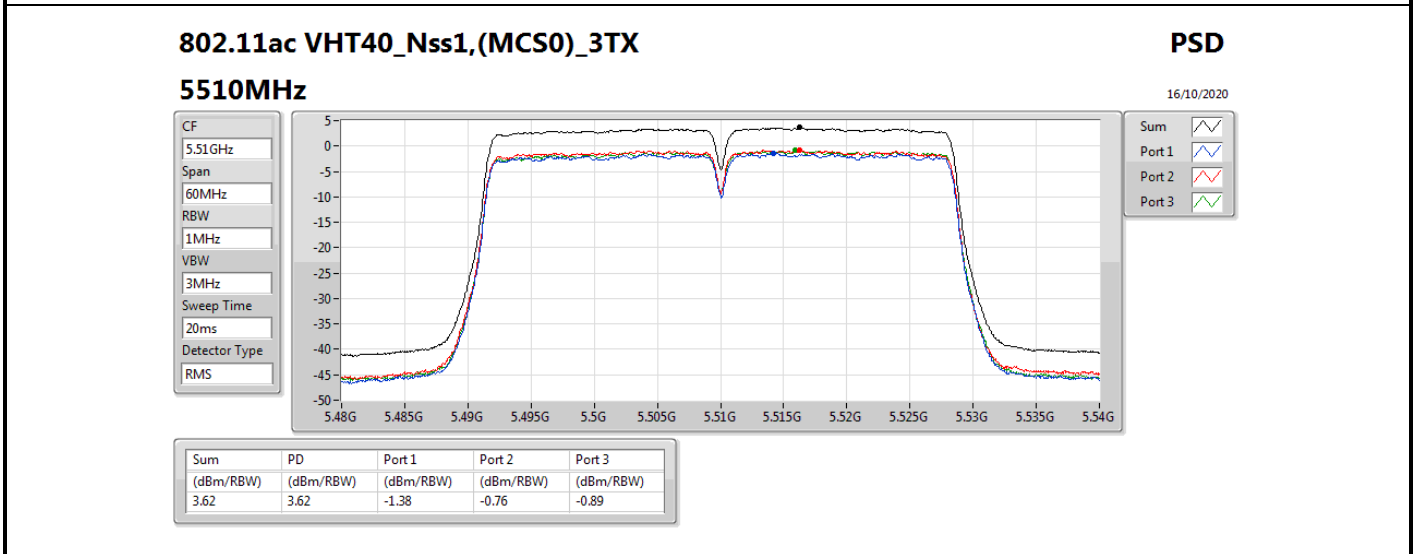
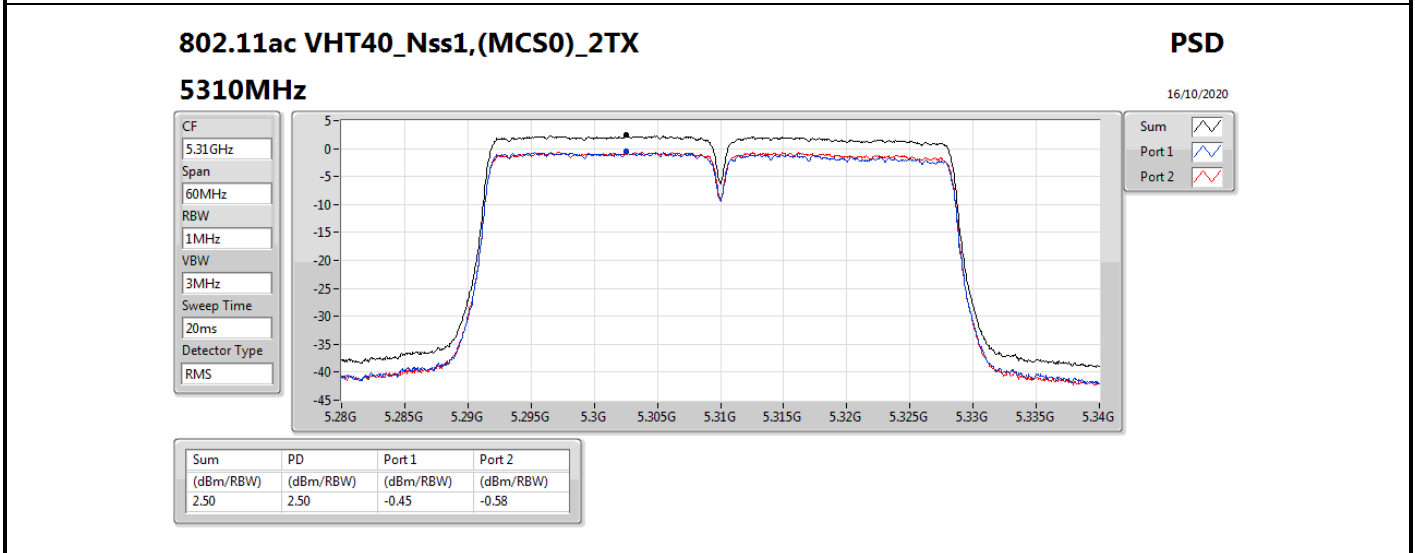
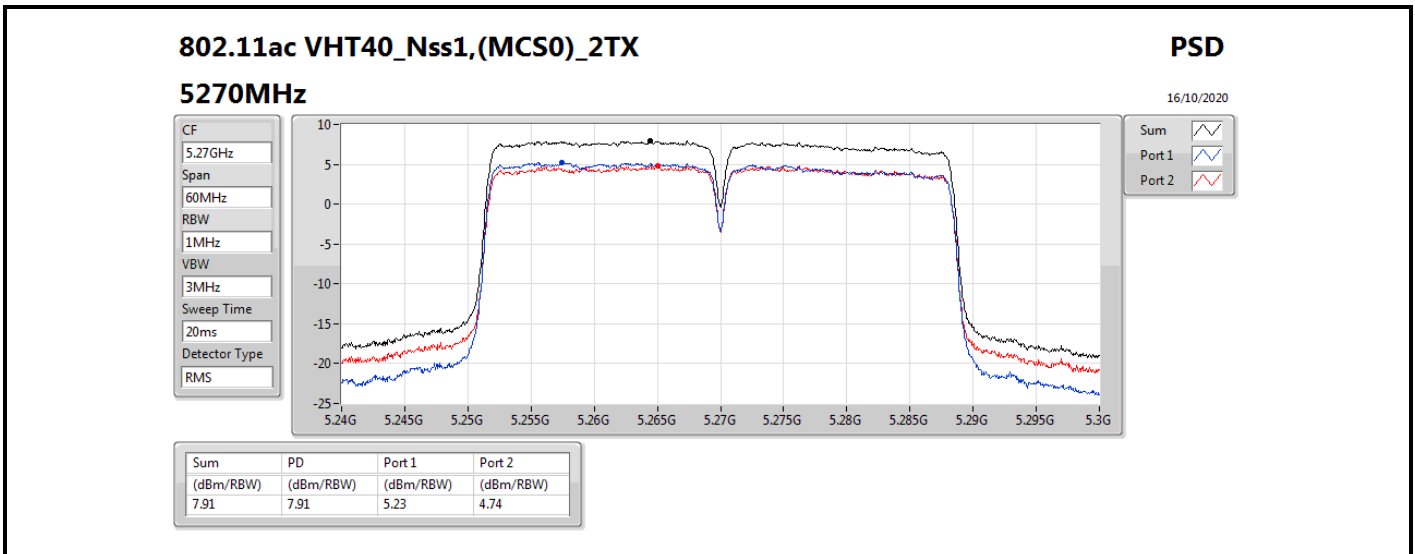


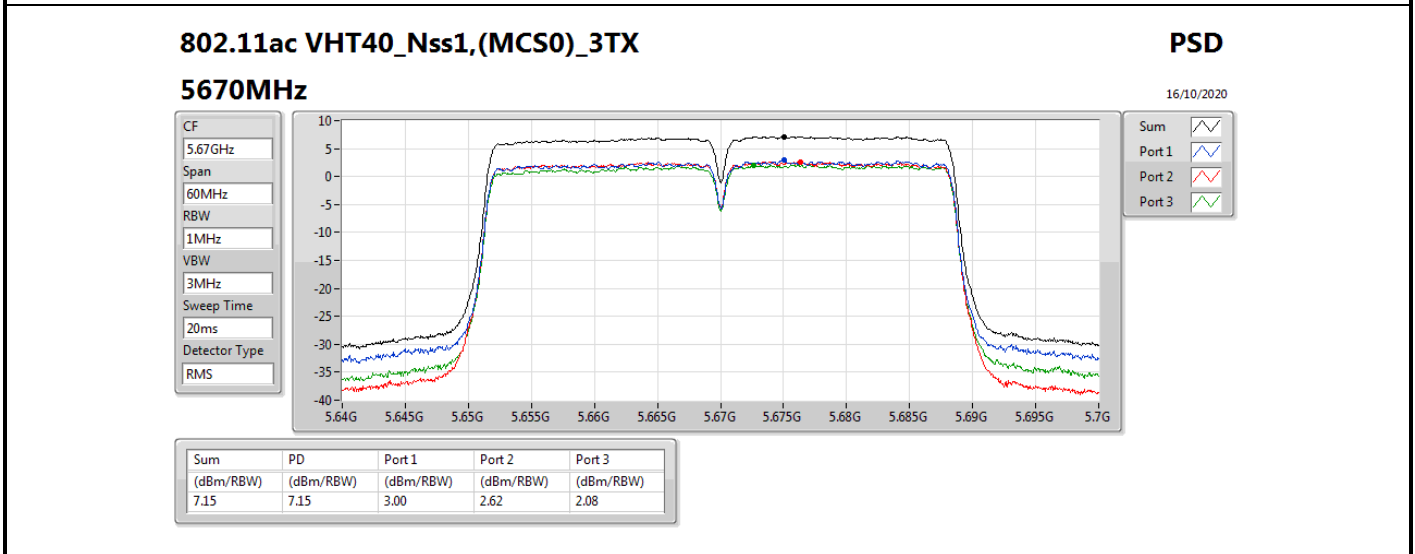
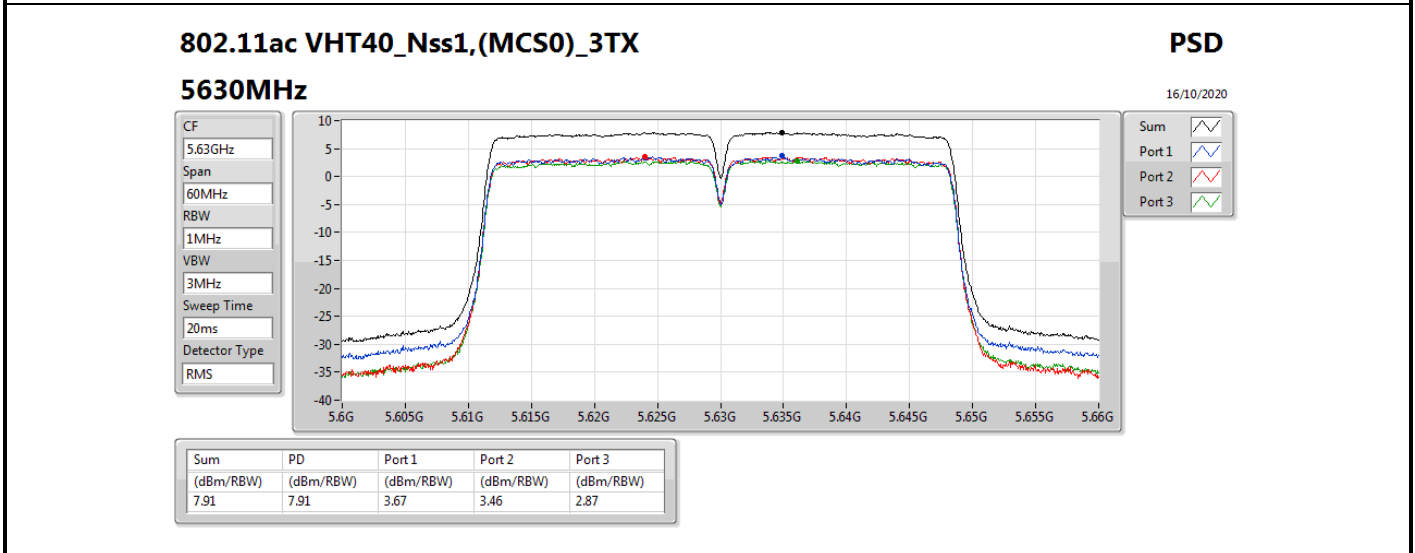
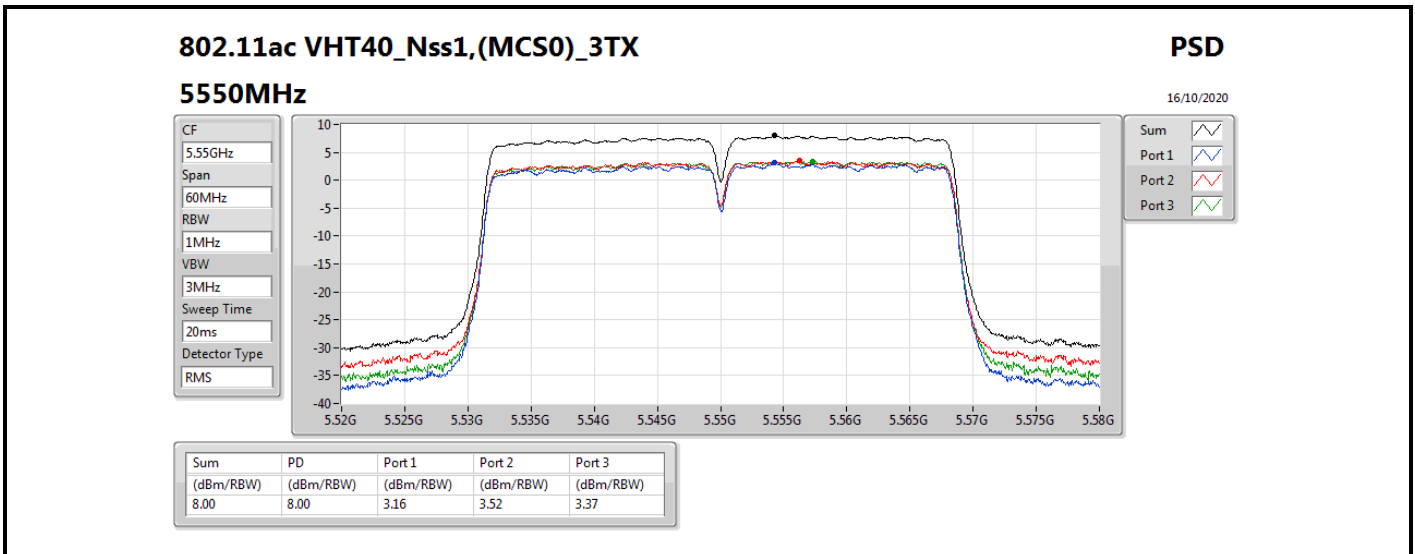


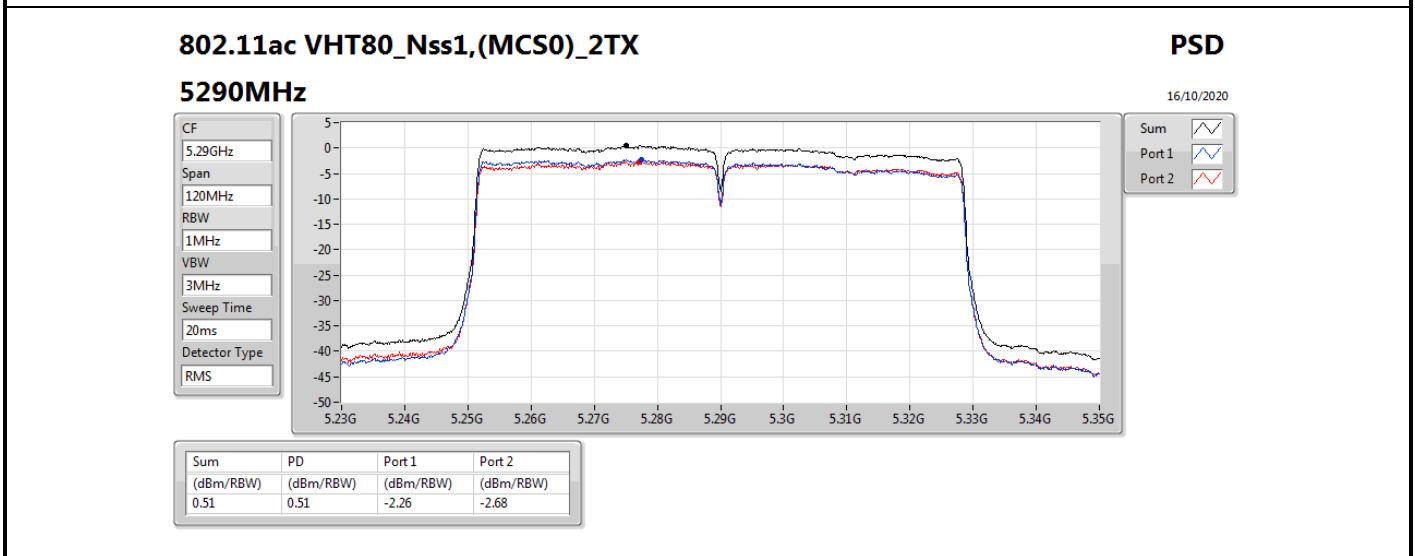
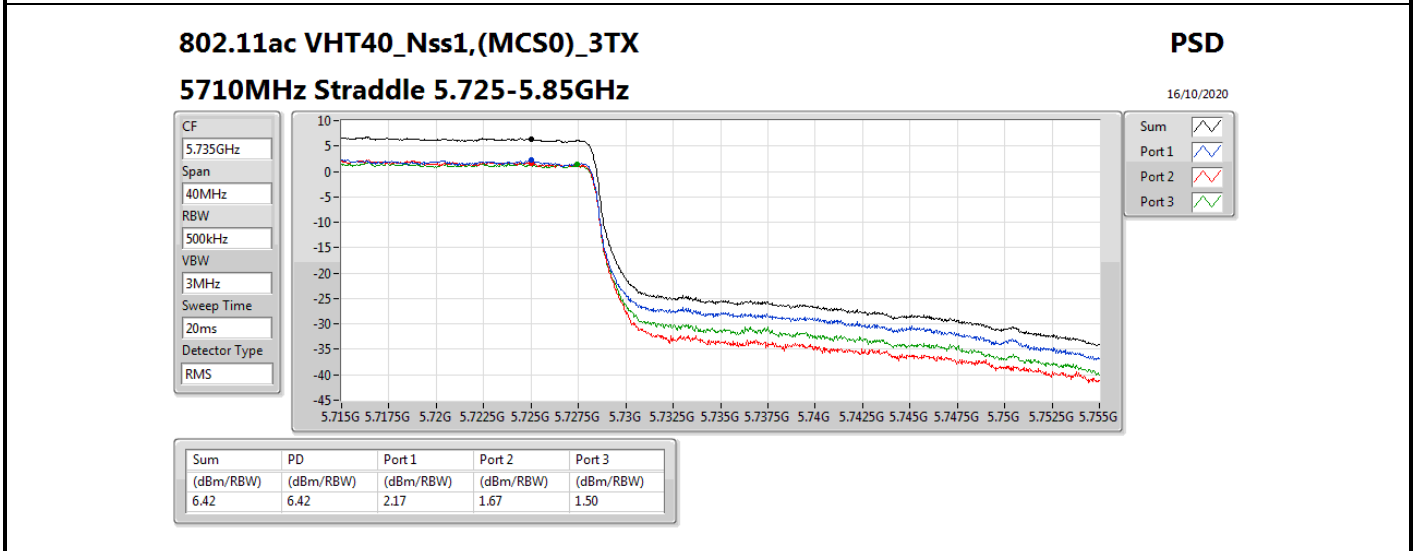
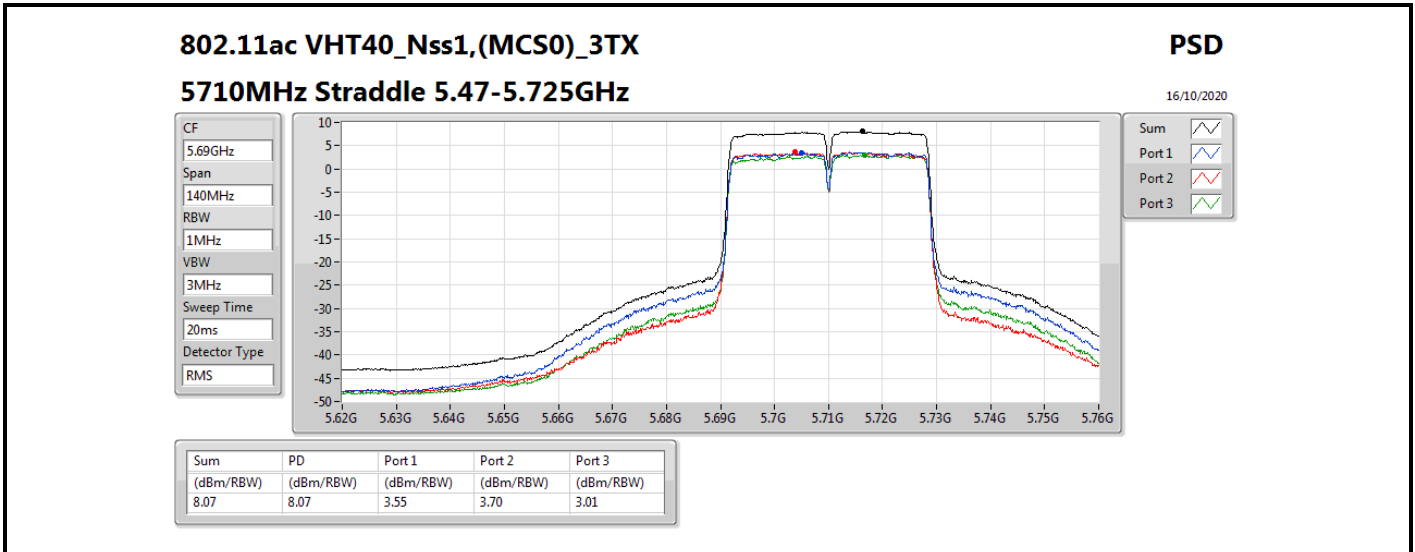


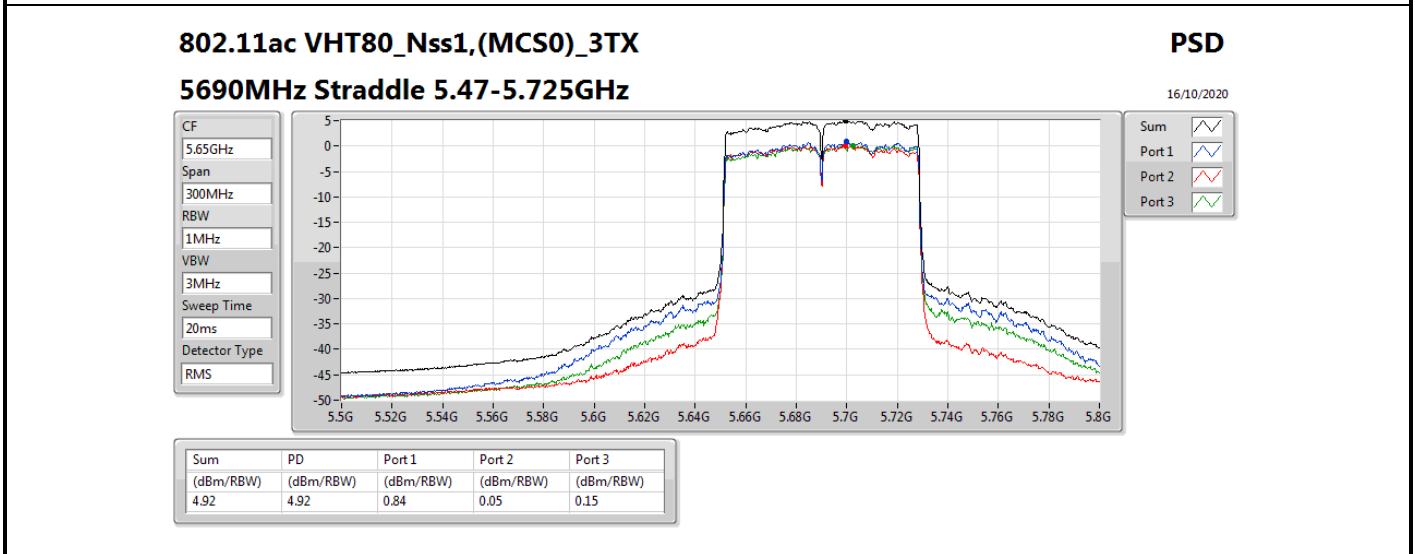
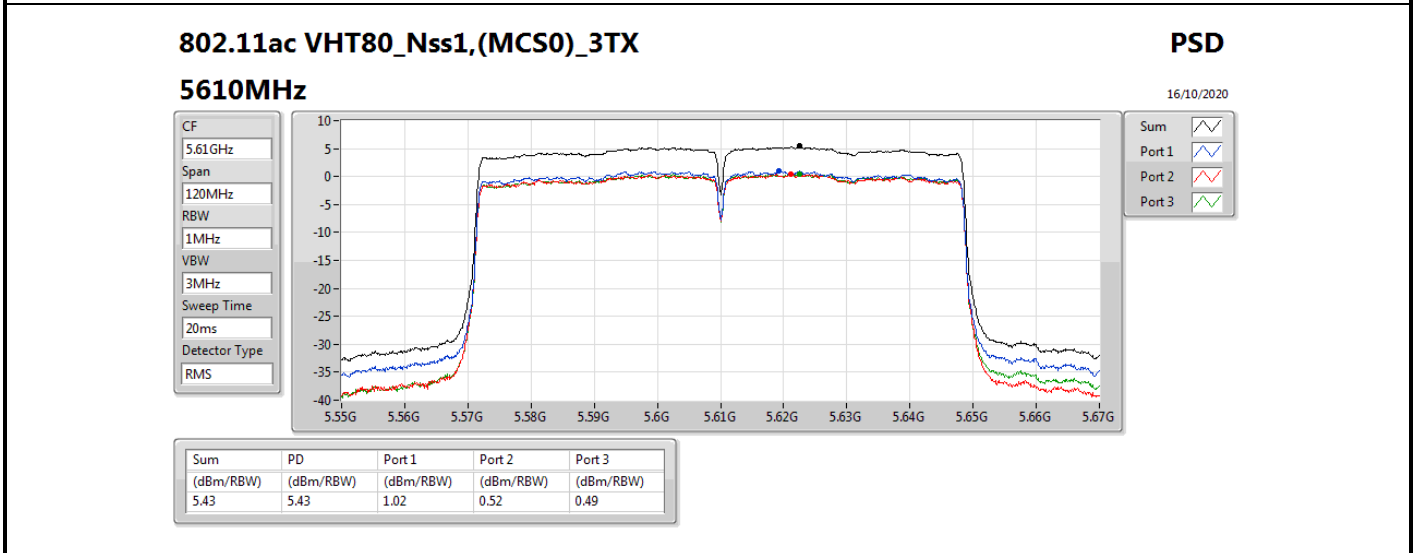
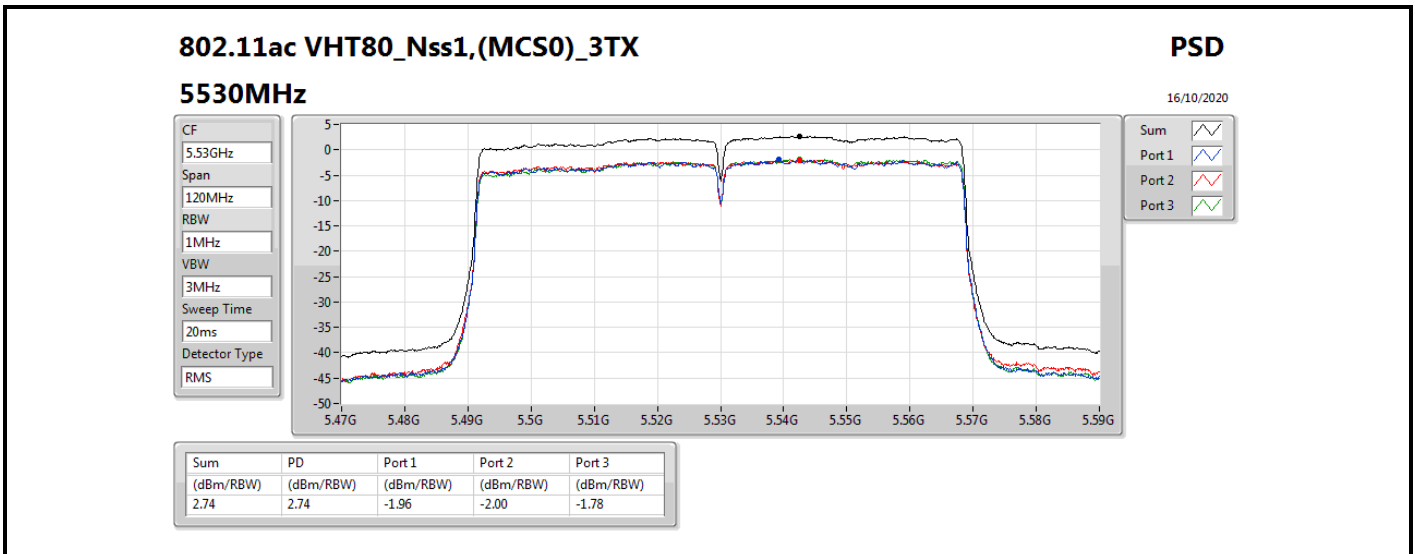










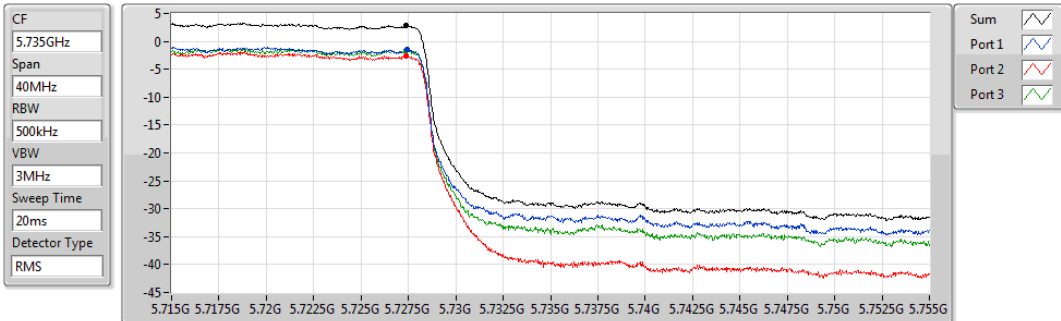


802.11ac VHT80_Nss1,(MCS0)_3TX

PSD

5690MHz Straddle 5.725-5.85GHz

16/10/2020



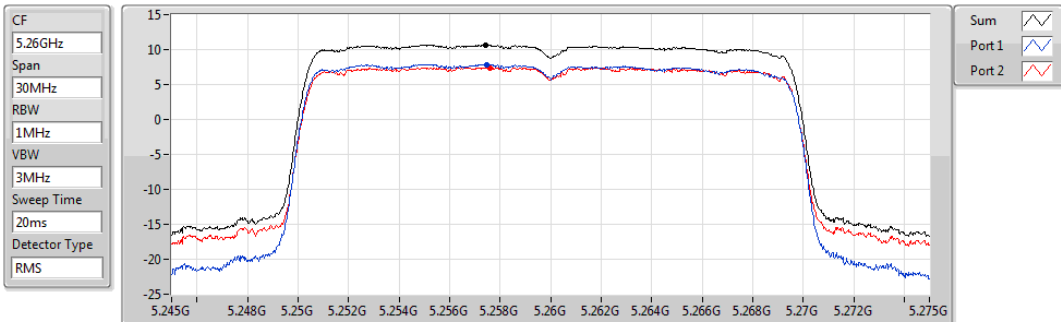
Sum	PD	Port 1	Port 2	Port 3
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.86	2.86	-1.48	-2.57	-1.57

802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

5260MHz

16/10/2020



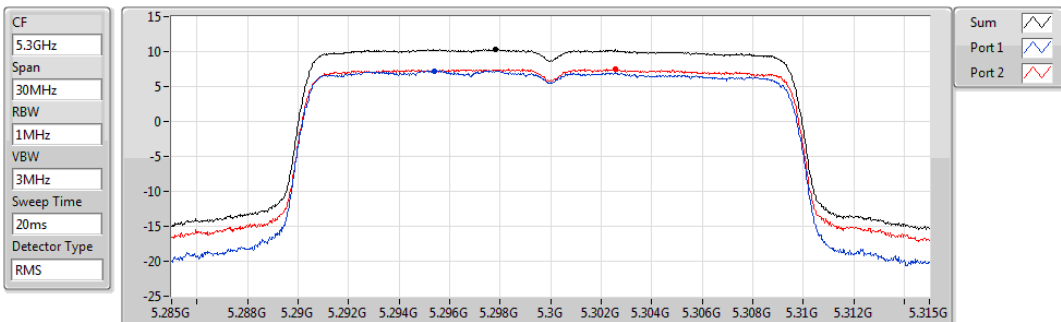
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.65	10.65	7.88	7.42

802.11ax HEW20_Nss1,(MCS0)_2TX

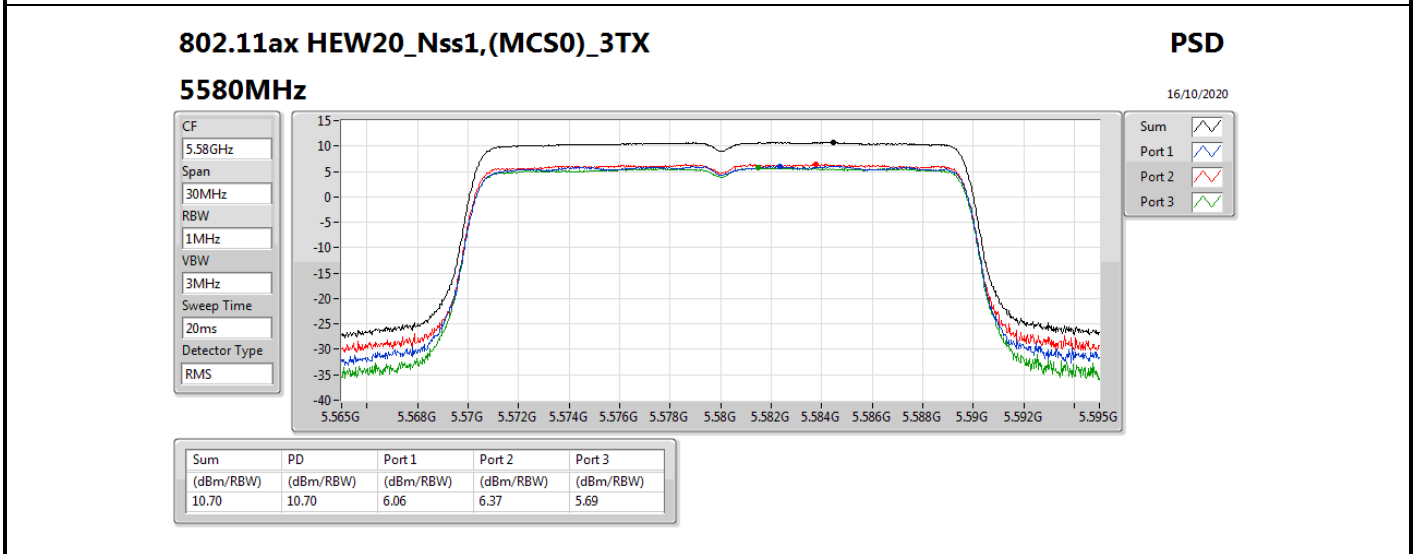
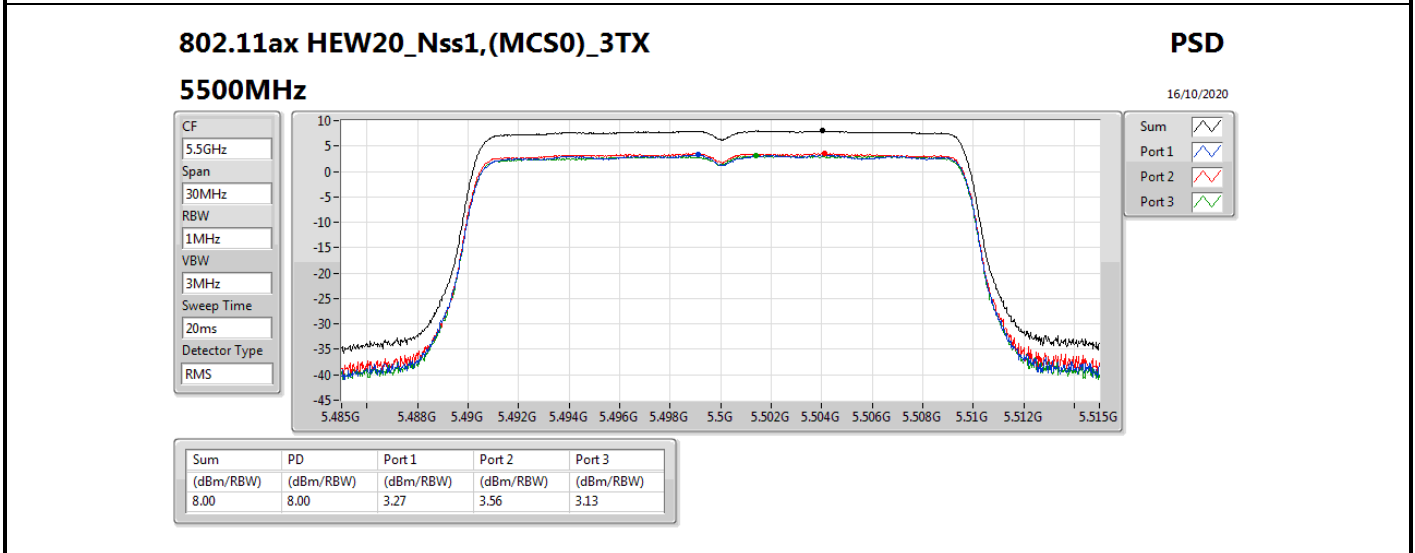
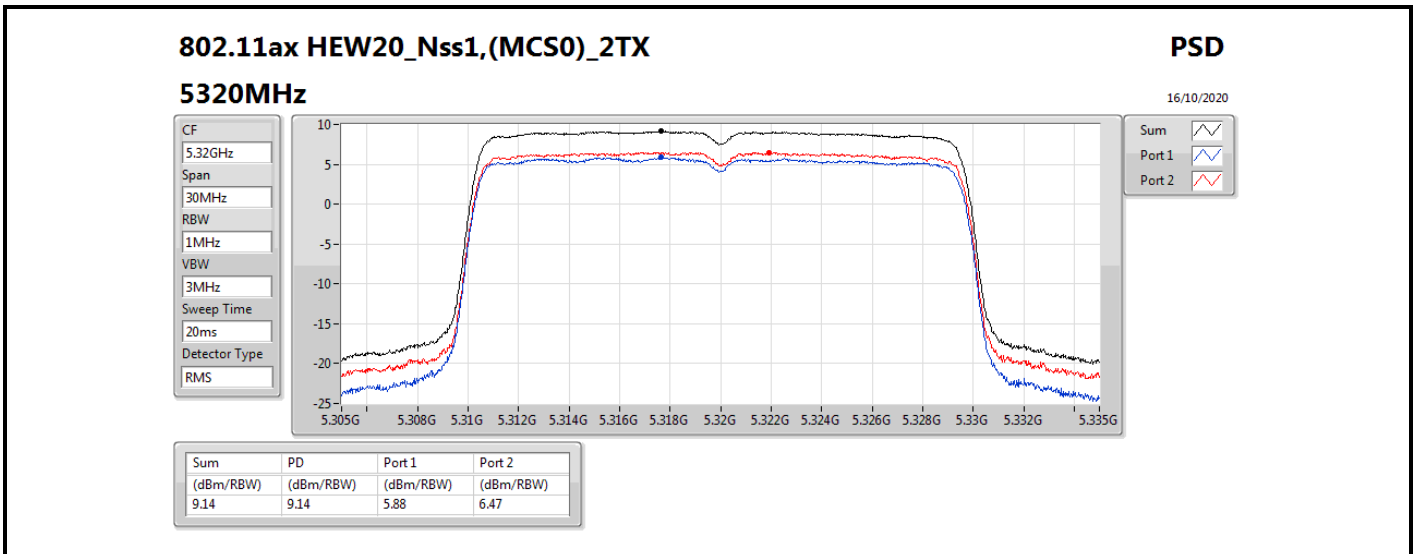
PSD

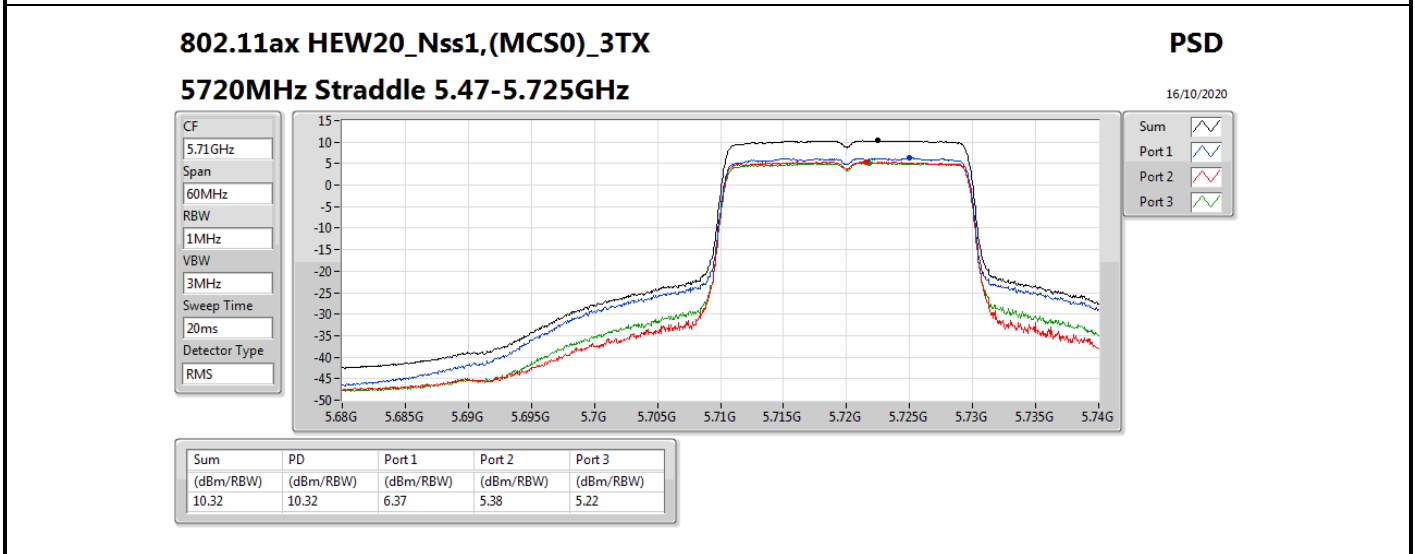
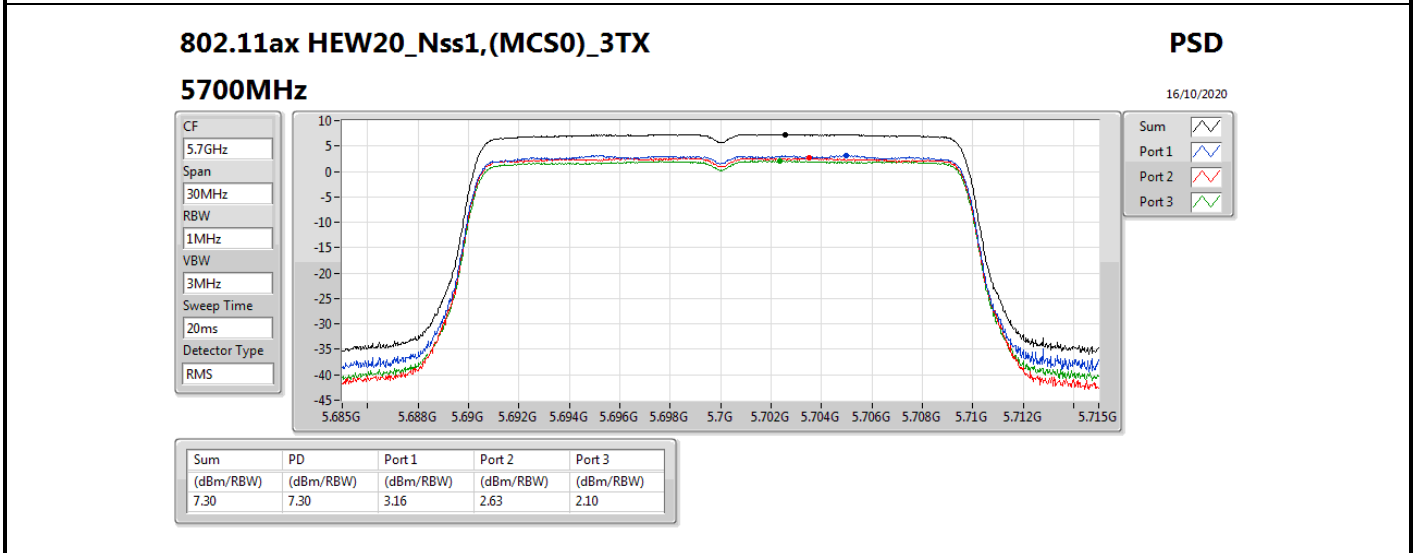
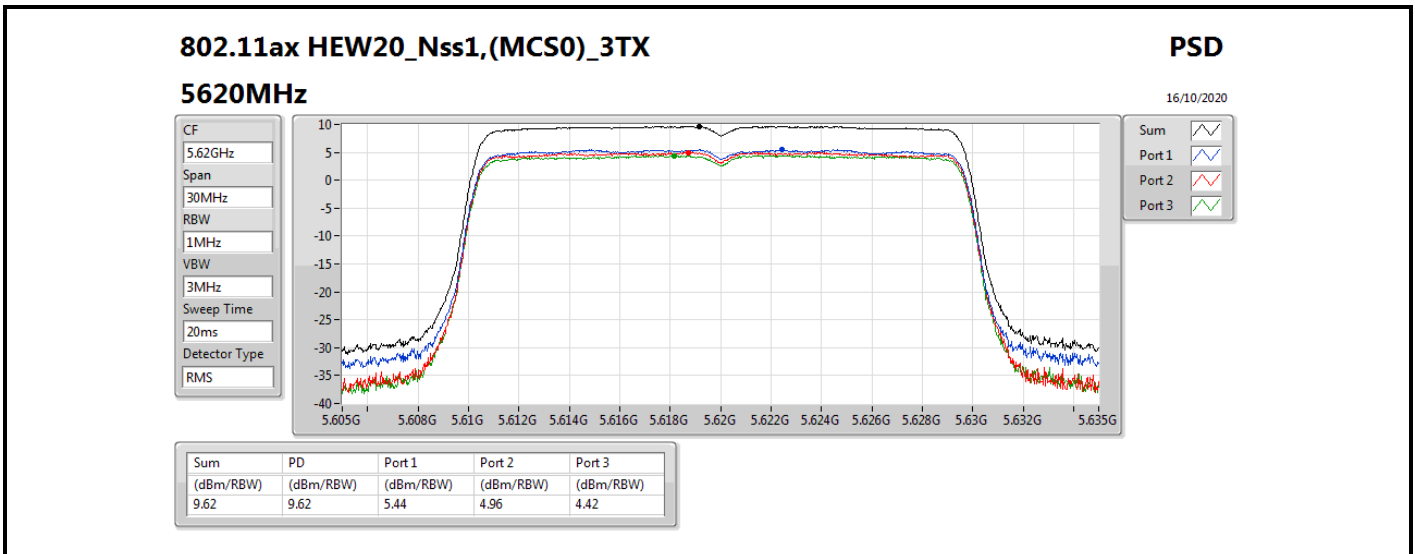
5300MHz

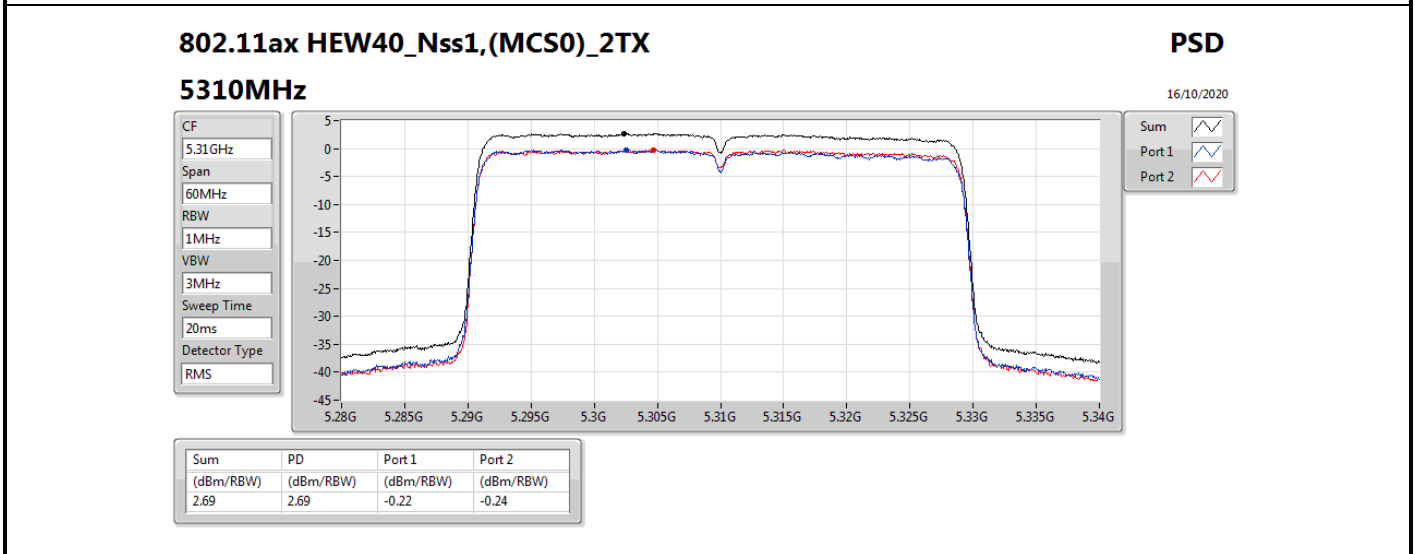
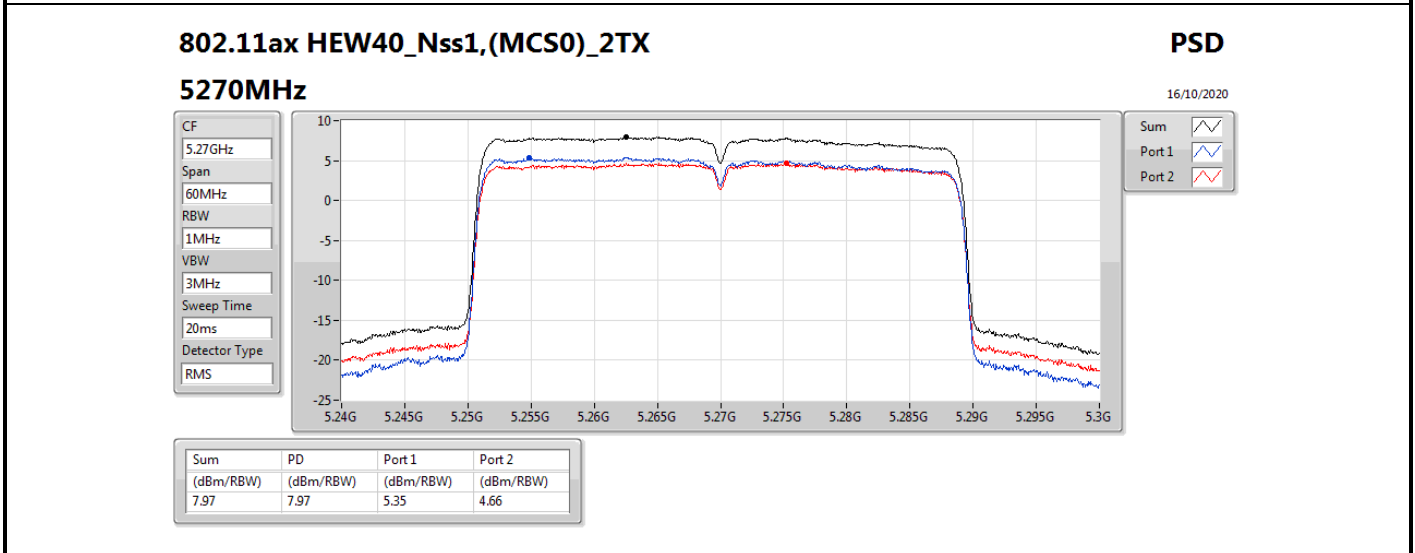
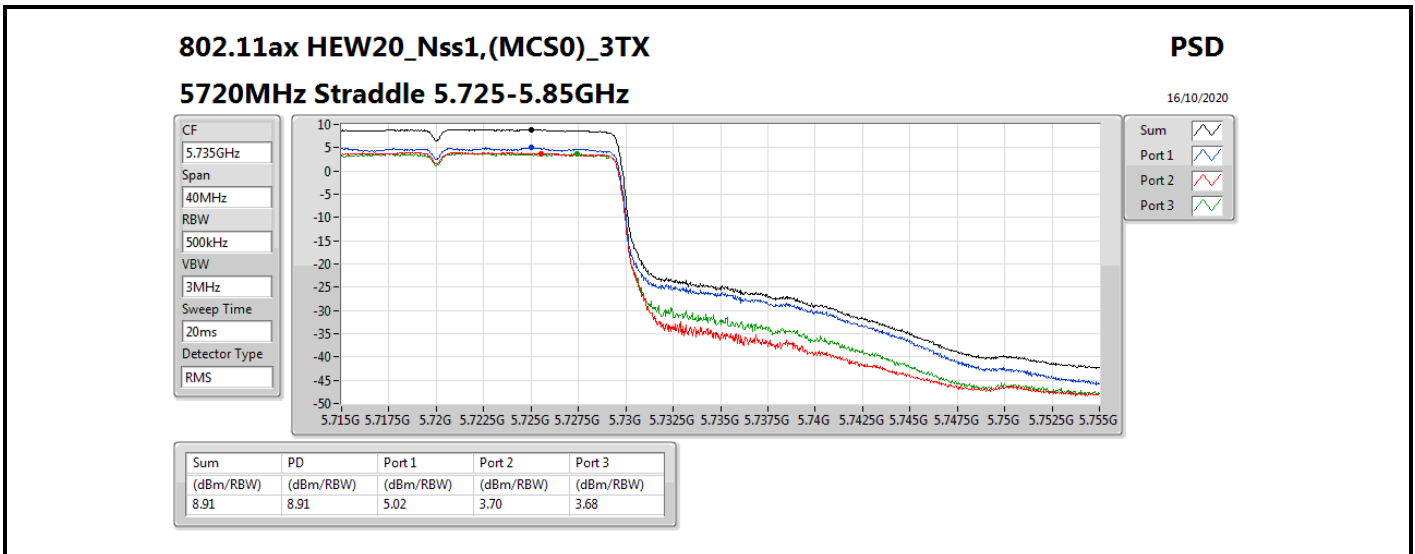
16/10/2020

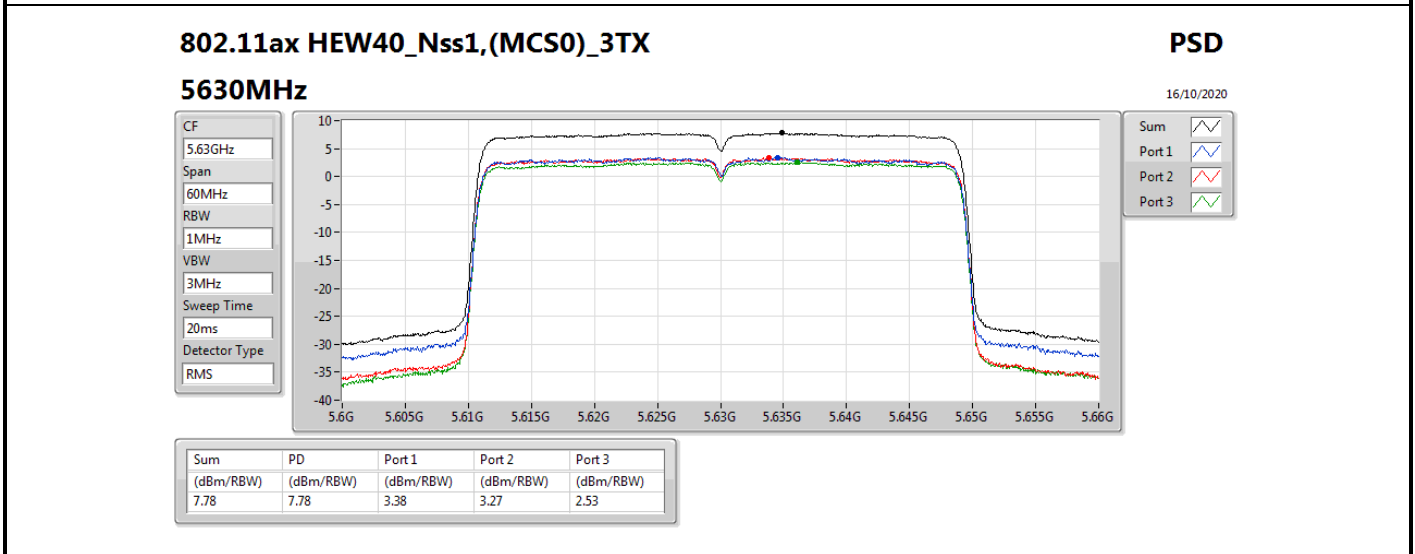
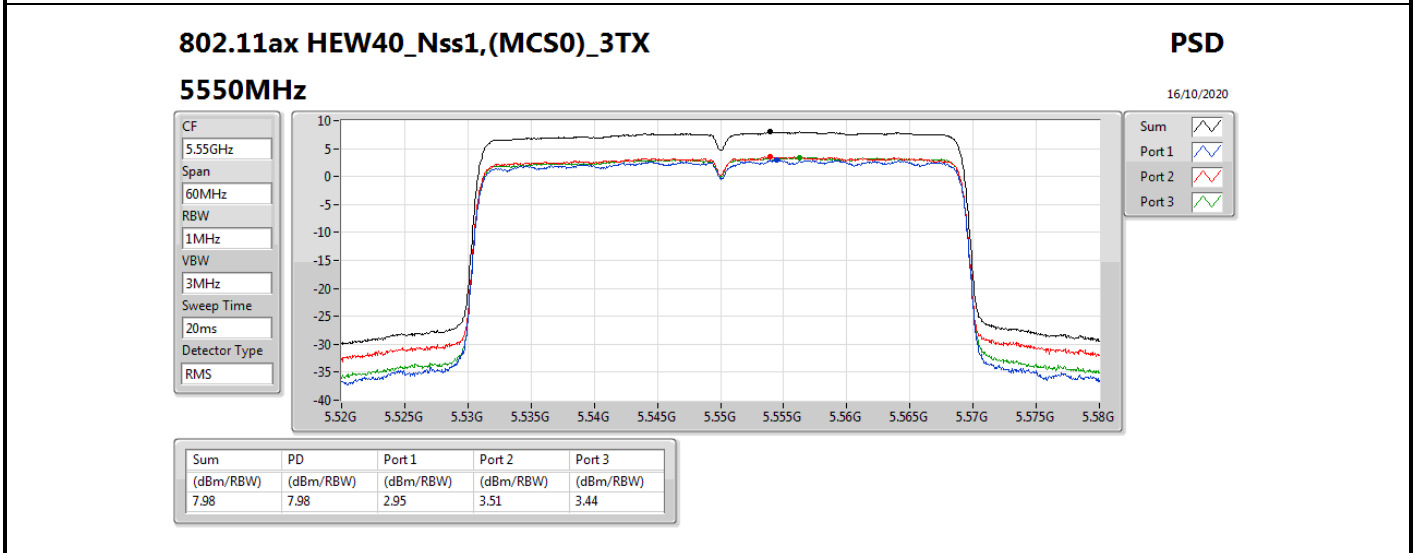
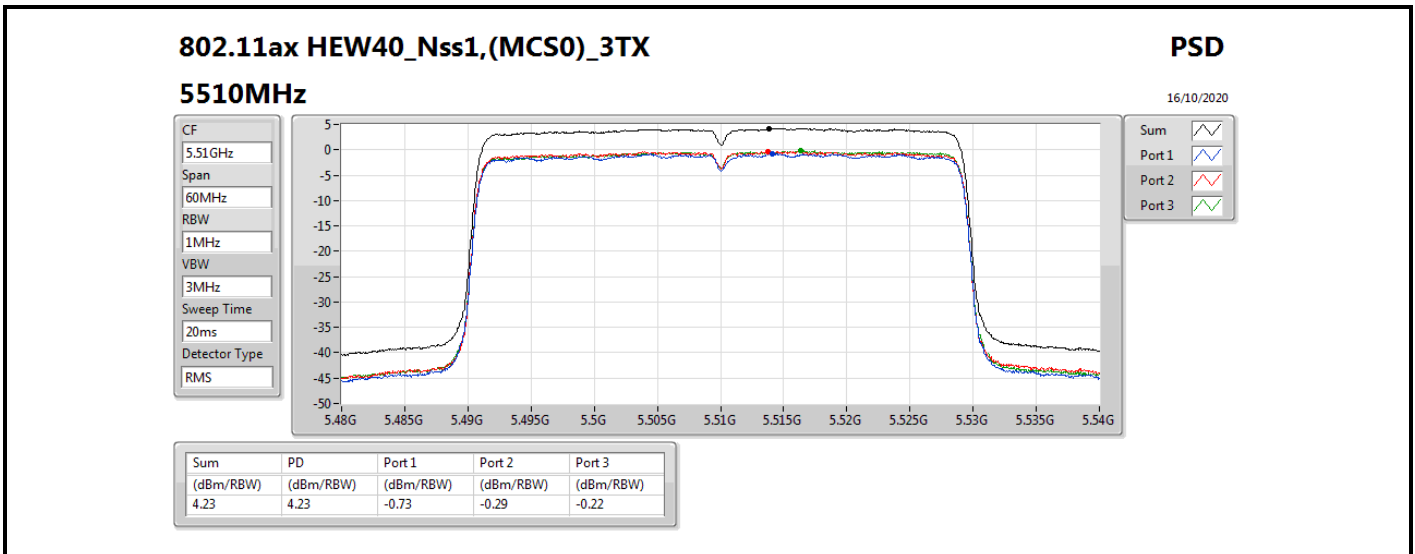


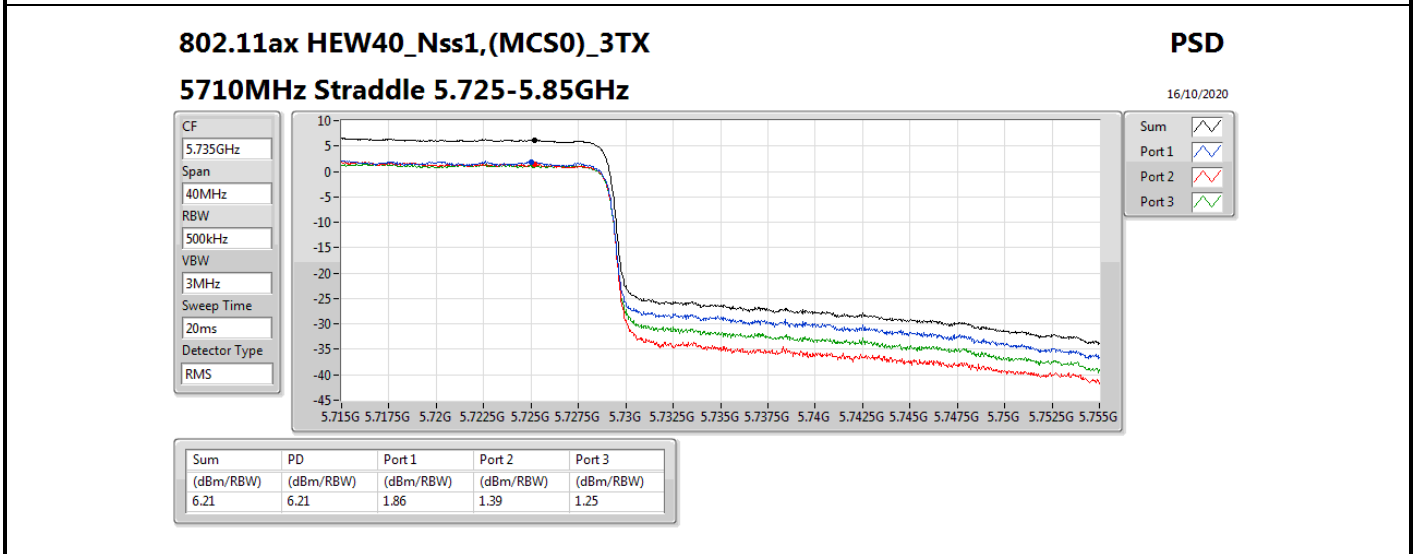
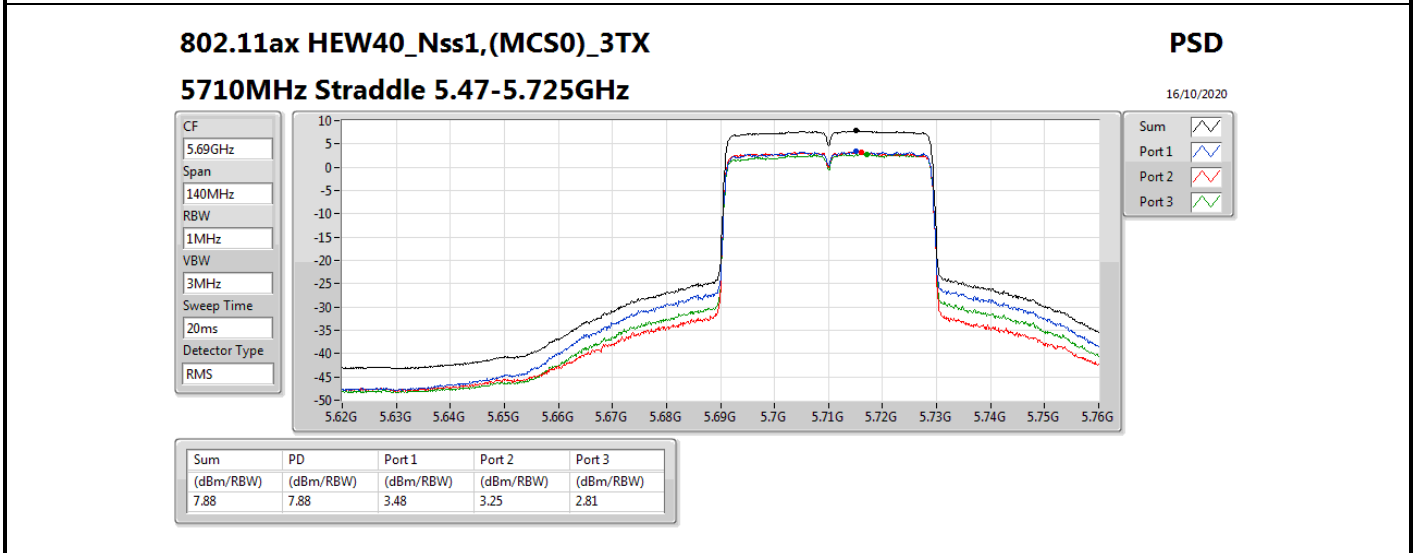
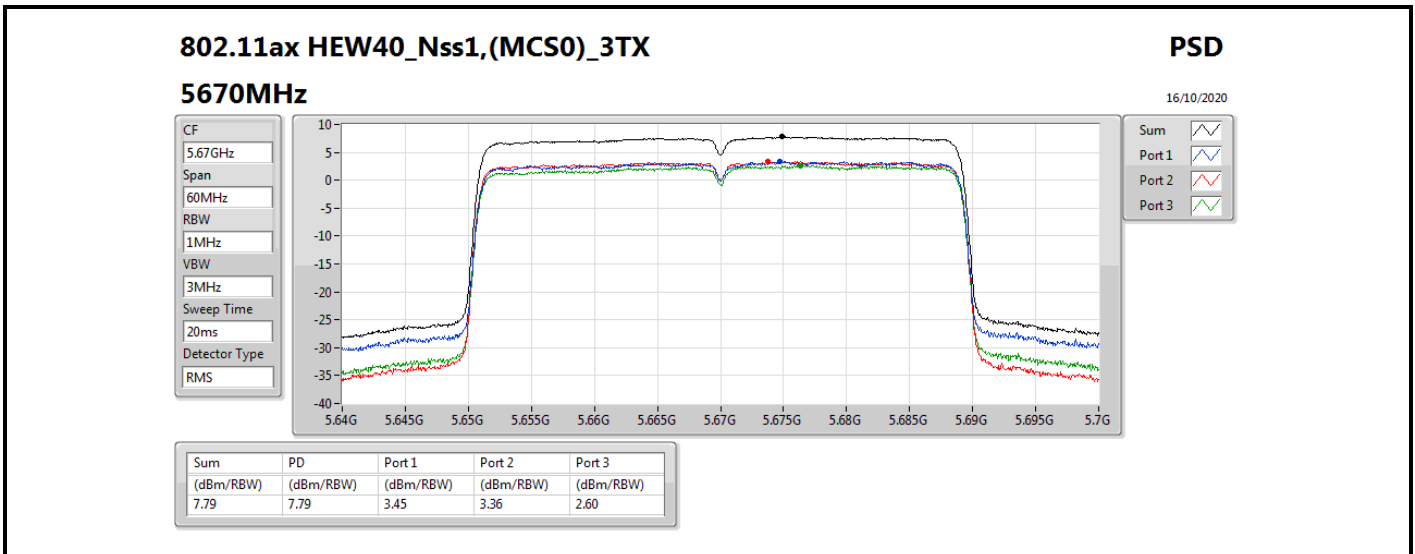
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.32	10.32	7.22	7.50

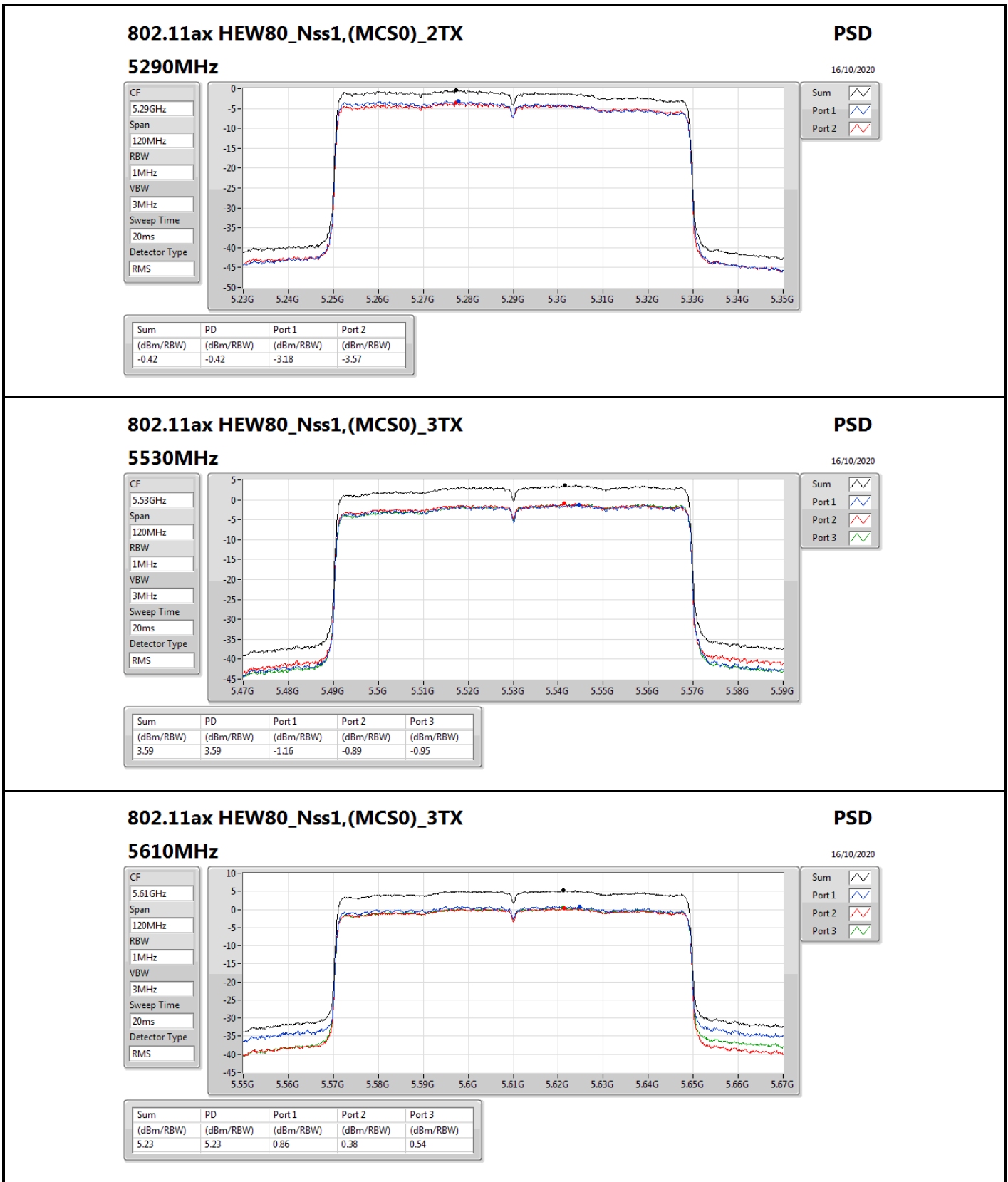


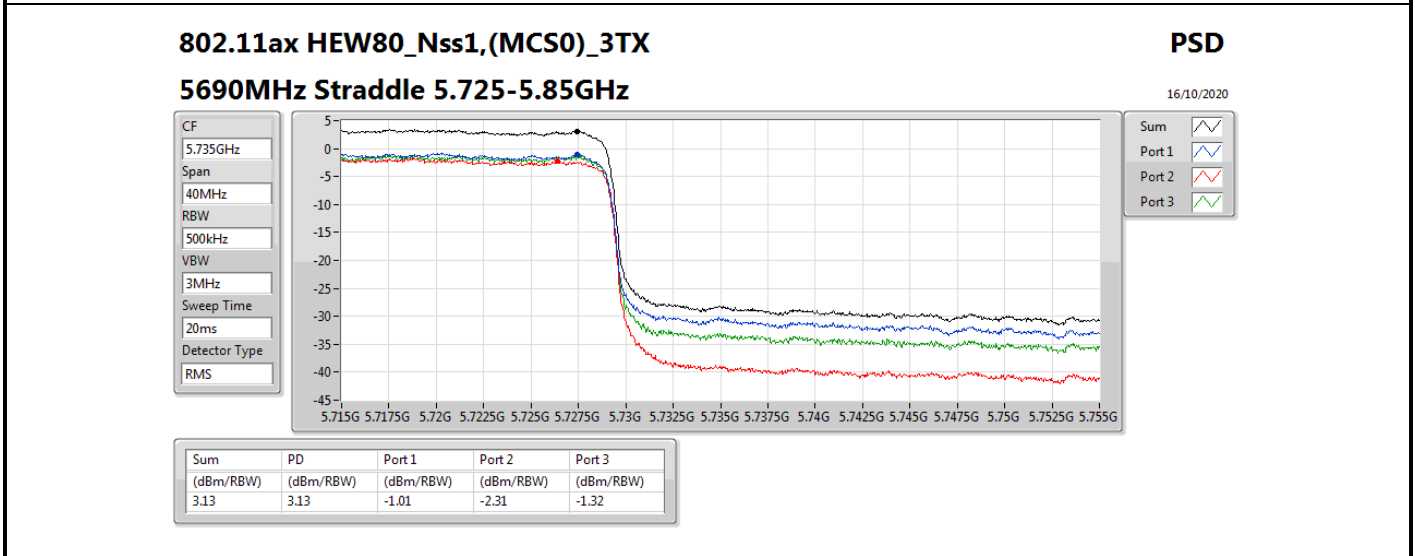
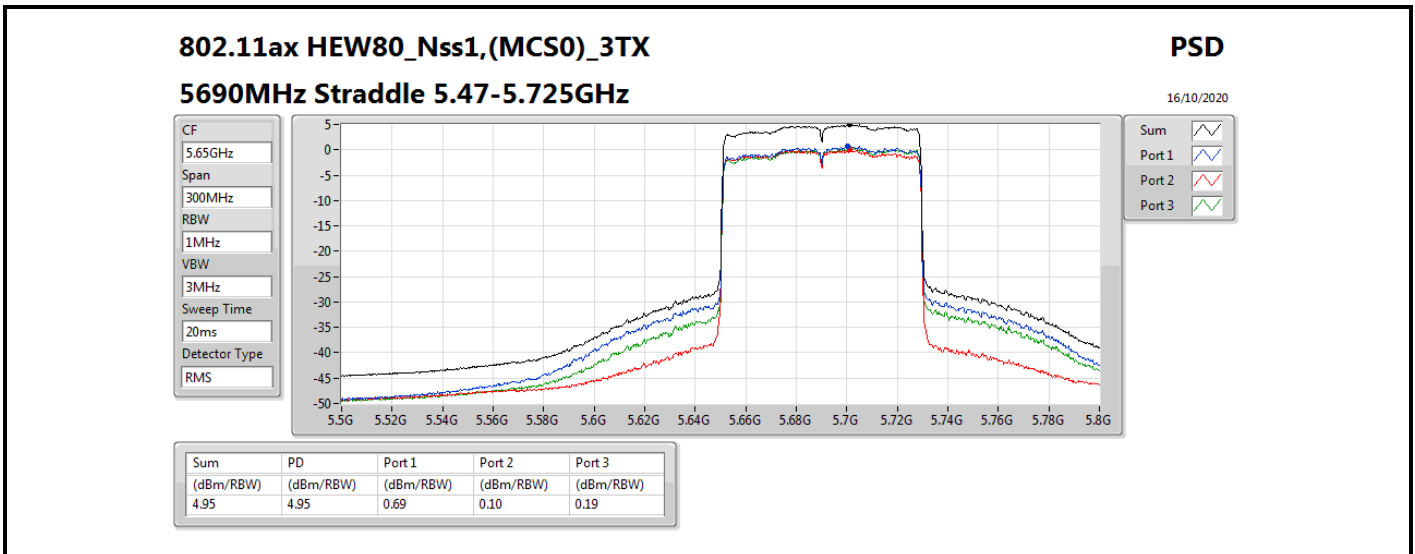














**Mode 2, Non-beamforming mode: 5GHz Low Band 2T1S and 5GHz High Band 3T1S CDD
Summary**

Mode	PD (dBm/RBW)
5.47-5.725GHz	-
802.11ac VHT20_Nss2,(MCS0)_3TX	10.14
802.11ac VHT40_Nss2,(MCS0)_3TX	6.11
802.11ac VHT80_Nss2,(MCS0)_3TX	3.53
802.11ax HEW20_Nss2,(MCS0)_3TX	10.21
802.11ax HEW40_Nss2,(MCS0)_3TX	5.77
802.11ax HEW80_Nss2,(MCS0)_3TX	3.77

RBW = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)
802.11ac VHT20_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5500MHz	Pass	2.94	6.08	5.80	6.00	10.14	11.00
802.11ac VHT40_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5510MHz	Pass	2.94	1.86	1.55	2.23	6.11	11.00
802.11ac VHT80_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5530MHz	Pass	2.94	-0.92	-1.13	-0.68	3.53	11.00
802.11ax HEW20_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5500MHz	Pass	2.94	5.45	6.05	5.22	10.21	11.00
802.11ax HEW40_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5510MHz	Pass	2.94	0.87	1.28	1.83	5.77	11.00
802.11ax HEW80_Nss2,(MCS0)_3TX	-	-	-	-	-	-	-
5530MHz	Pass	2.94	-0.93	-1.03	-0.68	3.77	11.00

DG = Directional Gain; **RBW** = 500 kHz for 5.725-5.85GHz band / 1MHz for other band;

PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port X power density;