

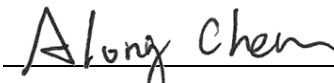
FCC Test Report

FCC ID : I88WX5610-B0
Equipment : AX7800 WiFi 6E Tri-Band Gigabit Wireless Extender
Model No. : WX5610-B0
Brand Name : ZYXEL
Applicant : Zyxel Communications Corporation
Address : No.2 Industry East RD. IX, Hsinchu Science Park, Hsinchu 30075, Taiwan
Standard : 47 CFR FCC Part 15.407
Received Date : Dec. 26, 2022
Tested Date : Dec. 26, 2022 ~ Feb. 24, 2023

We, International Certification Corporation, would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It shall not be reproduced except in full without the written approval of our laboratory.

Reviewed by:

Approved by:



Along Chen / Assistant Manager



Gary Chang / Manager

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Appendix A. Emission Bandwidth

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Appendix F. AC Power Line Conducted Emissions

Release Record

Report No.	Version	Description	Issued Date
FR2D2801AN	Rev. 01	Initial issue	Mar. 22, 2023

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	AC Power Line Conducted Emissions	[dBuV]: 4.574MHz 42.71 (Margin -13.29dB) - QP	Pass
15.407(b) 15.209	Unwanted Emissions	[dBuV/m at 3m]: 5150.00MHz 53.90 (Margin -0.10dB) - AV	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(e)	6dB bandwidth	Meet the requirement of limit	Pass
15.407(a)	Conducted Output Power	Max Power [dBm]: Non-beamforming mode 5150~5250MHz: 25.49 5250~5350MHz: 23.72 5470~5725MHz: 23.89 5725~5850MHz: 28.29 Beamforming mode 5150~5250MHz: 22.00 5250~5350MHz: 20.71 5470~5725MHz: 20.88 5725~5850MHz: 25.28	Pass
15.407(a)	Power Spectral Density	Meet the requirement of limit	Pass
15.407(g)	Frequency Stability	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

Declaration of Conformity:

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

Comments and Explanations:

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.

1 General Description

1.1 Information

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{Tx})	Data Rate / MCS
5150-5250 5250-5350 5470-5725 5725-5850	a	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	2	6-54 Mbps
5150-5250 5250-5350 5470-5725 5725-5850	n (HT20)	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	2	MCS 0-15
5150-5250 5250-5350 5470-5725 5725-5850	n (HT40)	5190-5230 5270-5310 5510-5710 5755-5795	38-46 [2] 54-62 [2] 102-142 [6] 151-159 [2]	2	MCS 0-15
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT20)	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	2	MCS 0-9
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT40)	5190-5230 5270-5310 5510-5710 5755-5795	38-46 [2] 54-62 [2] 102-142 [6] 151-159 [2]	2	MCS 0-9
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT80)	5210 5290 5530~5690 5775	42 [1] 58 [1] 106-138 [3] 155 [1]	2	MCS 0-9
5150-5250 5250-5350 5500-5700	ac (VHT160)	5250 5570	50 [1] 114 [1]	2	MCS 0-11
5150-5250 5250-5350 5470-5725 5725-5850	ax (HE20)	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	2	MCS 0-11
5150-5250 5250-5350 5470-5725 5725-5850	ax (HE40)	5190-5230 5270-5310 5510-5710 5755-5795	38-46 [2] 54-62 [2] 102-142 [6] 151-159 [2]	2	MCS 0-11
5150-5250 5250-5350 5470-5725 5725-5850	ax (HE80)	5210 5290 5530~5690 5775	42 [1] 58 [1] 106-138 [3] 155 [1]	2	MCS 0-11
5150-5250 5250-5350 5500-5700	ax (HE160)	5250 5570	50 [1] 114 [1]	2	MCS 0-11

Note 1: BPSK, QPSK, 16QAM, 64QAM, 256QAM and 1024QAM modulation.

Note 2: 802.11n/ac/ax supports beamforming function.

1.1.2 Antenna Details

Ant. No.	Brand	Model	Type	Connector	Operating Frequencies (MHz) / Gain (dBi)			
					5150~5250	5250~5350	5470~5725	5725~5850
3	Airgain	N02MSAMC-PK1 -W125U (Ant2_5G)	Dipole	ipex	5.5	5.0	5.1	5.0
4	Airgain	N02MSAMD-PK1 -A135U (Ant5_5G)	Dipole	ipex	4.9	3.5	4.4	3.6

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	12Vdc from adapter
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1.1.4 Accessories

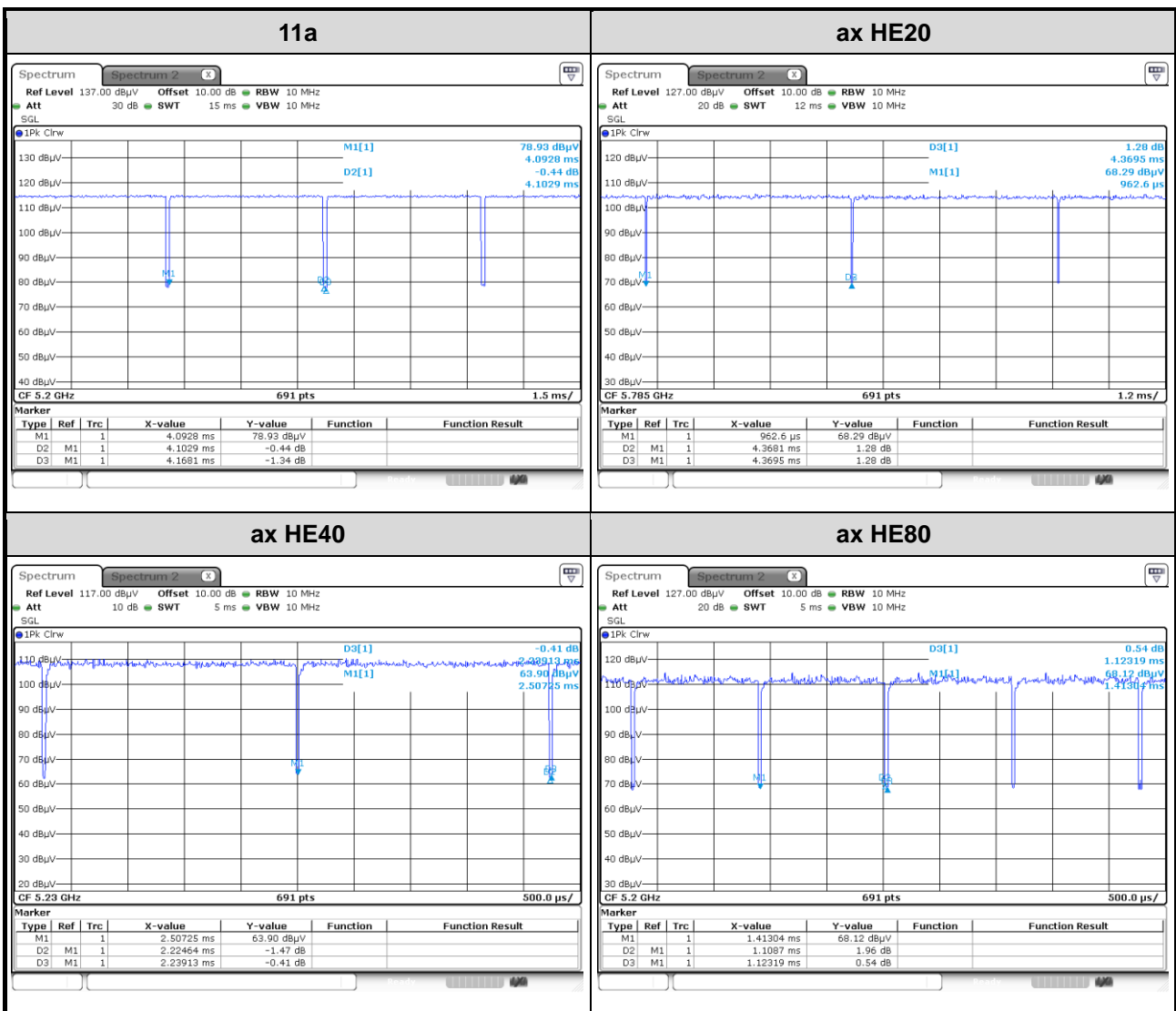
Accessories		
No.	Equipment	Description
1	AC adapter	Brand: DVE Model: DSA-36PFN-12 FUS 120300 I/P: 100-240V~ 50-60Hz 1.0A O/P: 12.0V=3.0A, 36.0W Power Line: 1.5m non-shielded without core
2	Ethernet Cable	1.8m non-shielded without core

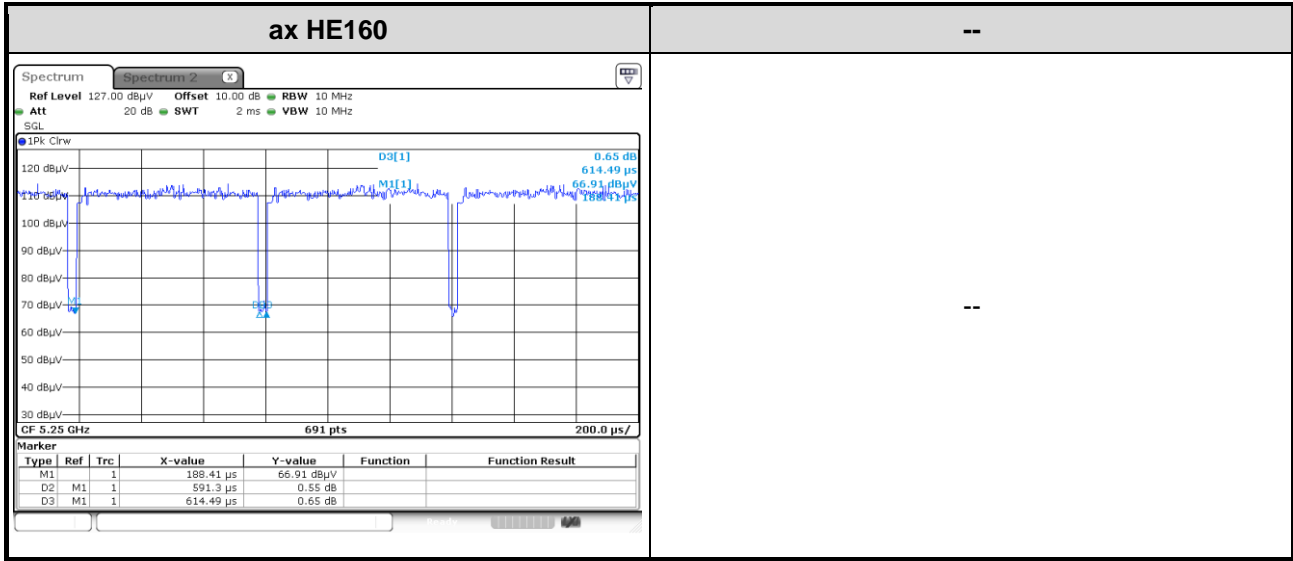
1.1.5 Channel List

802.11a / n HT20 / ac VHT20 / ax HE20		802.11n HT40 / ac VHT40 / ax HE40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	54	5270
48	5240	62	5310
52	5260	102	5510
56	5280	110	5550
60	5300	118	5590
64	5320	126	5630
100	5500	134	5670
104	5520	142	5710
108	5540	151	5755
112	5560	159	5795
116	5580	802.11ac VHT80 / ax HE80	
120	5600	42	5210
124	5620	58	5290
128	5640	106	5530
132	5660	122	5610
136	5680	138	5690
140	5700	155	5775
144	5720	ac VHT160 / ax HE160	
149	5745	50	5250
153	5765	114	5570
157	5785	---	---
161	5805	---	---
165	5825	---	---

1.1.6 Test Tool and Duty Cycle

Test Tool	accessMtool, version: 3.2.1.5		
Duty Cycle and Duty Factor	Mode	Duty Cycle (%)	Duty Factor (dB)
	11a	98.44%	0.07
	ax HE20	99.97%	0.00
	ax HE40	99.35%	0.03
	ax HE80	98.71%	0.06
ax HE160	96.23%	0.17	

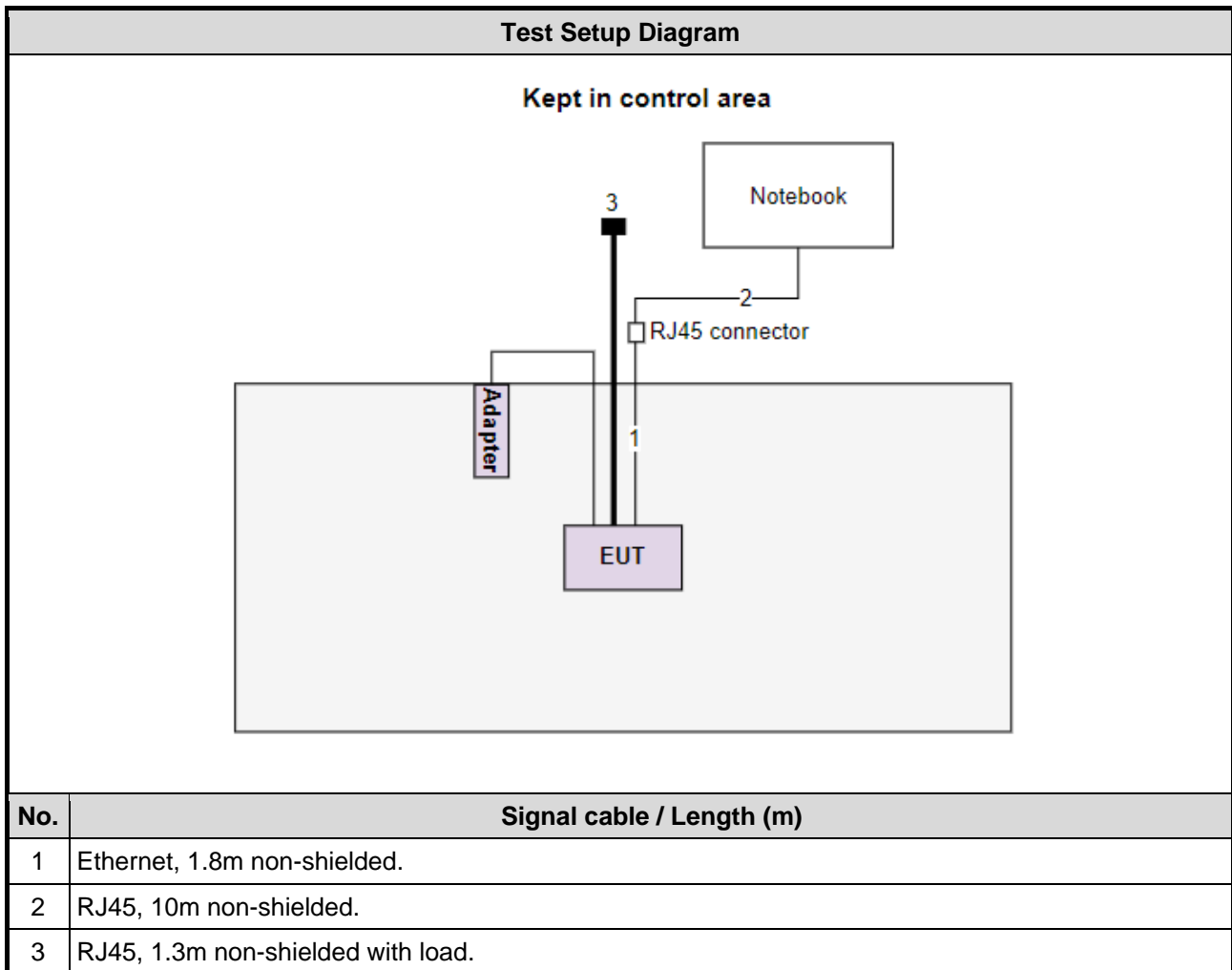




1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	Notebook	DELL	Latitude E5470	DoC	---
2	Load	ICC	---	---	---

1.3 Test Setup Chart



1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Feb. 15, 2023				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101657	Mar. 15, 2022	Mar. 14, 2023
LISN	R&S	ENV216	101579	Apr. 21, 2022	Apr. 20, 2023
LISN (Support Unit)	SCHWARZBECK	Schwarzbeck 8127	8127667	Jan .02, 2023	Jan .01, 2024
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 17, 2022	Oct. 16, 2023
50 ohm terminal (Support Unit)	NA	50	01	May 10, 2022	May 09, 2023
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber3 / (03CH03-WS)				
Tested Date	Dec. 26, 2022 ~ Feb. 20, 2023				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101657	Mar. 15, 2022	Mar. 14, 2023
Spectrum Analyzer	R&S	FSV40	101499	Mar. 08, 2022	Mar. 07, 2023
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 01, 2022	Oct. 31, 2023
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-685	Jun. 28, 2022	Jun. 27, 2023
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1206	Dec. 15, 2022	Dec. 14, 2023
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Oct. 27, 2022	Oct. 26, 2023
Preamplifier	EMC	EMC02325	980187	Jul. 16, 2022	Jul. 15, 2023
Preamplifier	EMC	EMC184045SE	980897	Aug. 01, 2022	Jul. 31, 2023
Preamplifier	EMC	EMC184045SE	980903	Jul. 16, 2022	Jul. 15, 2023
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 04, 2022	Oct. 03, 2023
LF cable-0.8M	EMC	EMC8D-NM-NM-800	EMC8D-NM-NM-800-001	Sep. 23, 2022	Sep. 22, 2023
LF cable-3M	EMC	EMC8D-NM-NM-3000	131103	Sep. 23, 2022	Sep. 22, 2023
LF cable-13M	EMC	EMC8D-NM-NM-13000	131104	Sep. 23, 2022	Sep. 22, 2023
RF cable-3M	HUBER+SUHNER	SUCOFLEX104	MY22620/4	Sep. 23, 2022	Sep. 22, 2023
RF cable-8M	EMC	EMC104-SM-SM-8000	181107	Sep. 23, 2022	Sep. 22, 2023
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Feb. 21 ~ Feb. 24, 2023				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101910	Apr. 08, 2022	Apr. 07, 2023
Power Meter	Anritsu	ML2495A	1241002	Nov. 23, 2022	Nov. 22, 2023
Power Sensor	Anritsu	MA2411B	1207366	Nov. 23, 2022	Nov. 22, 2023
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Jun. 22, 2022	Jun. 21, 2023
AC POWER SOURCE	APC	AFC-500W	F312060012	Dec. 09, 2022	Dec. 08, 2023
Measurement Software	Sporton	SENSE-15407_NII	V5.10.8.9	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Test Standards

47 CFR FCC Part 15.407
ANSI C63.10-2013

1.6 Reference Guidance

FCC KDB 412172 D01 Determining ERP and EIRP v01r01
FCC KDB 662911 D01 Multiple Transmitter Output v02r01
FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01

1.7 Deviation from Test Standard and Measurement Procedure

None

1.8 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	±34.130 Hz
Conducted power	±0.808 dB
Frequency error	±1×10 ⁻⁹
Power density	±0.583 dB
Conducted emission	±2.715 dB
AC conducted emission	±2.92 dB
Unwanted Emission ≤ 1GHz	±3.96 dB
Unwanted Emission > 1GHz	±4.51 dB
Time	±0.1%
Temperature	±0.4 °C

2 Test Configuration

2.1 Testing Facility

Test Laboratory	International Certification Corporation
Test Site	CO01-WS, TH01-WS
Address of Test Site	No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)
Test Site	03CH03-WS
Address of Test Site	No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

- FCC Designation No.: TW0009
- FCC site registration No.: 207696
- ISED#: 10807C
- CAB identifier: TW2732

2.2 The Worst Test Modes and Channel Details

Frequency band 5150~5350 MHz / 5470~5725 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
Non-beamforming mode				
AC Power Line Conducted Emissions	11a	5200	6 Mbps	---
Unwanted Emissions ≤1GHz	11a	5200	6 Mbps	---
Unwanted Emissions >1GHz Conducted Output Power Emission Bandwidth Power Spectral Density	11a	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700 / 5720	6 Mbps	---
	ax HE20	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700 / 5720	MCS 0	
	ax HE40	5190 / 5230 / 5270 / 5310 / 5510 5590 / 5670 / 5710	MCS 0	
	ax HE80	5210 / 5290 / 5530 / 5610 / 5690	MCS 0	
	ax HE160	5250 / 5570	MCS 0	
Frequency Stability	Un-modulation	5320	---	---
Beamforming mode				
Conducted Output Power	ax HE20	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700 / 5720	MCS 0	---
	ax HE40	5190 / 5230 / 5270 / 5310 / 5510 5590 / 5670 / 5710	MCS 0	
	ax HE80	5210 / 5290 / 5530 / 5610 / 5690	MCS 0	
	ax HE160	5250 / 5570	MCS 0	
	ax HE40	5755 / 5795	MCS 0	
	ax HE80	5775	MCS 0	
Note: Beamforming mode is calculated not measured. The calculation method is conducted power of non-beamforming – 3.01 dB				

Frequency band 5725-5850 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
Non-beamforming mode				
AC Power Line Conducted Emissions	ax HE40	5795	MCS 0	---
Unwanted Emissions ≤1GHz	ax HE40	5795	MCS 0	---
Unwanted Emissions >1GHz Conducted Output Power Emission Bandwidth 6dB bandwidth Power Spectral Density	11a	5745 / 5785 / 5825	6 Mbps	---
	ax HE20	5745 / 5785 / 5825	MCS 0	
	ax HE40	5755 / 5795	MCS 0	
	ax HE80	5775	MCS 0	
Frequency Stability	Un-modulation	5785	---	---
Beamforming mode				
Conducted Output Power	ax HE20	5745 / 5785 / 5825	MCS 0	---
	ax HE40	5755 / 5795	MCS 0	
	ax HE80	5775	MCS 0	
Note: Beamforming mode is calculated not measured. The calculation method is conducted power of non-beamforming – 3.01 dB				

3 Transmitter Test Results

3.1 Emission Bandwidth

3.1.1 Limit of Emission Bandwidth

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

3.1.2 Test Procedures

26dB Bandwidth

1. Set RBW = approximately 1% of the emission bandwidth.
2. Set the VBW > RBW, Detector = Peak.
3. Trace mode = max hold.
4. Measure the maximum width of the emission that is 26 dB down from the peak of the emission.

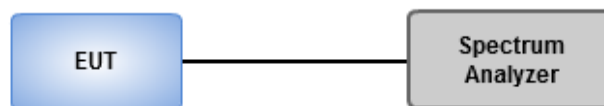
Occupied Bandwidth

1. Set RBW = 1 % to 5 % of the OBW.
2. Set VBW \geq 3 RBW.
3. Sample detection and single sweep mode shall be used.
4. Use the 99 % power bandwidth function of the instrument.

6dB Bandwidth

1. Set RBW = 100kHz, VBW = 300kHz.
2. Detector = Peak, Trace mode = max hold.
3. Allow the trace to stabilize.
4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

3.1.3 Test Setup



3.1.4 Test Results

Ambient Condition	22-23°C / 63-65%	Tested By	Akun Chung
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Refer to Appendix A.

3.2 Conducted Output Power

3.2.1 Limit of Conducted Output Power

Frequency band 5150-5250 MHz	
Operating Mode	Limit
<input type="checkbox"/> Outdoor access point	Conducted Power: 1 W The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm)
<input checked="" type="checkbox"/> Indoor access point	Conducted Power: 1 W
<input type="checkbox"/> Fixed point-to-point access points	Conducted Power: 1 W
<input checked="" type="checkbox"/> Client devices	Conducted Power: 250 mW

Frequency Band (MHz)	Limit
<input checked="" type="checkbox"/> 5250 ~ 5350	Conducted Power: 250mW or 11dBm+10 log B
<input checked="" type="checkbox"/> 5470 ~ 5725	Conducted Power: 250mW or 11dBm+10 log B
<input checked="" type="checkbox"/> 5725 ~ 5850	Conducted Power: 1 W

Note: "B" is the 26dB emission bandwidth in MHz.

3.2.2 Test Procedures

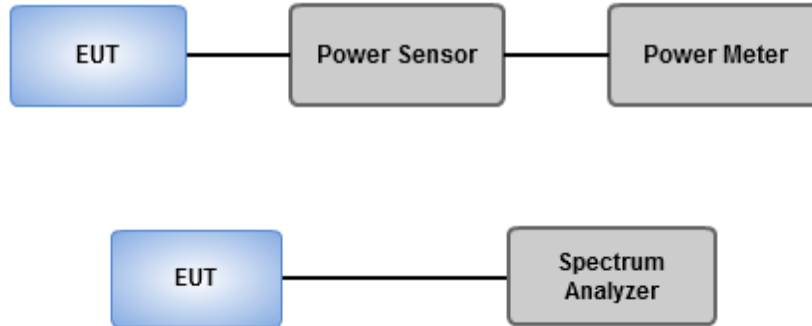
Method PM-G (Measurement using a gated RF average power meter)

Measurements is performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

Spectrum analyzer (For channel that extends across the 5.725 GHz boundary)

1. Set RBW = 1MHz, VBW = 3MHz, Sweep time = Auto, Detector = RMS.
2. Trace average at least 100 traces in power averaging mode.
3. Compute power by integrating the spectrum across the 26 dB EBW.
4. Add $10 \log(1/X)$, X:duty cycle) if duty cycle is <98%).

3.2.3 Test Setup



3.2.4 Test Results

Ambient Condition	22-23°C / 63-65%	Tested By	Akun Chung
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Refer to Appendix B.

3.3 Power Spectral Density

3.3.1 Limit of Power Spectral Density

Frequency band 5150-5250 MHz		
Operating Mode		Limit
<input type="checkbox"/>	Outdoor access point	17 dBm / MHz
<input checked="" type="checkbox"/>	Indoor access point	17 dBm / MHz
<input type="checkbox"/>	Fixed point-to-point access points	17 dBm / MHz
<input checked="" type="checkbox"/>	Client devices	11 dBm / MHz

Frequency Band (MHz)		Limit
<input checked="" type="checkbox"/>	5250 ~ 5350	11 dBm / MHz
<input checked="" type="checkbox"/>	5470 ~ 5725	11 dBm / MHz
<input checked="" type="checkbox"/>	5725 ~ 5850	30 dBm /500 kHz

3.3.2 Test Procedures

For 5150 ~ 5250 MHz / 5250 ~ 5350 MHz / 5470 ~ 5725 MHz

Duty cycle \geq 98 %

1. Set RBW = 1 MHz, VBW = 3 MHz, Sweep time = auto, Detector = RMS.
2. Trace average 100 traces.
3. Use the peak marker function to determine the maximum amplitude level.

Duty cycle $<$ 98 %

1. Set RBW = 1 MHz, VBW = 3 MHz, Detector = RMS.
2. Set sweep time $\geq 10 * (\text{number of points in sweep}) * (\text{total on/off period of the transmitted signal})$.
3. Perform a single sweep.
4. Use the peak marker function to determine the maximum amplitude level.
5. Add $10 \log(1/x)$, where x is the duty cycle.

For 5725 ~ 5850 MHz

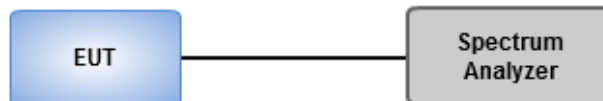
Duty cycle \geq 98 %

1. Set RBW = 500 kHz, VBW = 3 MHz, Sweep time = auto, Detector = RMS.
2. Trace average 100 traces.
3. Use the peak marker function to determine the maximum amplitude level.

Duty cycle $<$ 98 %

1. Set RBW = 500 kHz, VBW = 3 MHz, Detector = RMS.
2. Set sweep time $\geq 10 * (\text{number of points in sweep}) * (\text{total on/off period of the transmitted signal})$.
3. Perform a single sweep.
4. Use the peak marker function to determine the maximum amplitude level.
5. Add $10 \log(1/x)$, where x is the duty cycle.

3.3.3 Test Setup



3.3.4 Test Results

Ambient Condition	22-23°C / 63-65%	Tested By	Akun Chung
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Refer to Appendix C.

3.4 Unwanted Emissions

3.4.1 Limit of Unwanted Emissions

Restricted Band Emissions 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:
Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit

Note 2:
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.850 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).

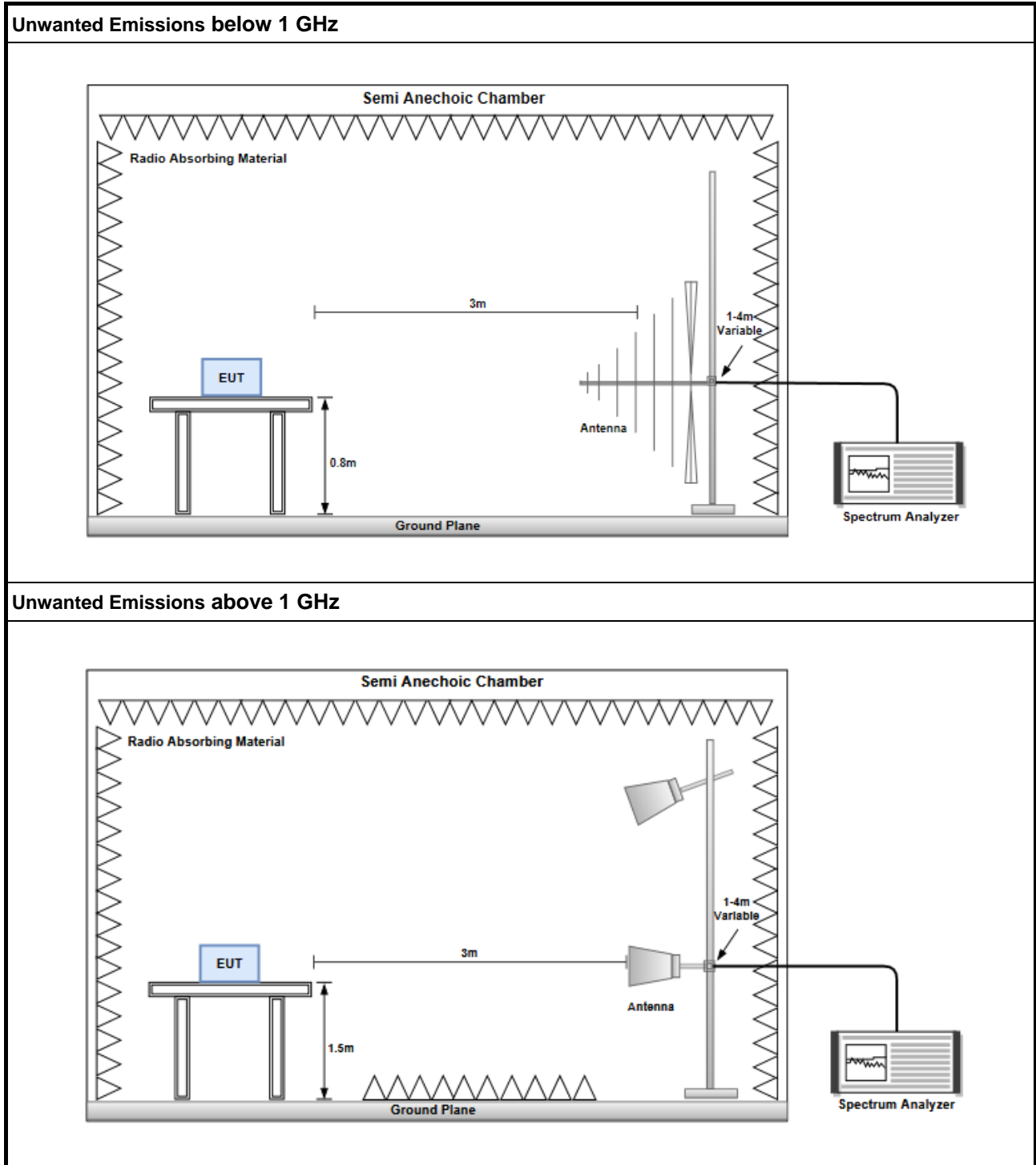
3.4.2 Test Procedures

1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at test table. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.

3.4.3 Test Setup



3.4.4 Test Results

Refer to Appendix D.

3.5 Frequency Stability

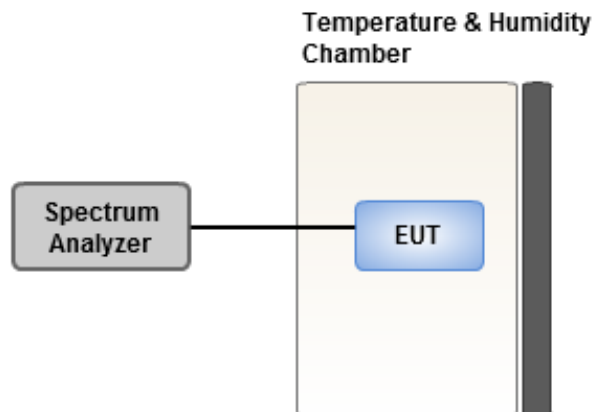
3.5.1 Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

3.5.2 Test Procedures

1. The EUT is installed in an environment test chamber with external power source.
2. Set the chamber to operate at 20 centigrade and external power source to output at nominal voltage of EUT.
3. A sufficient stabilization period at each temperature is used prior to each frequency measurement.
4. When temperature is stabled, measure the frequency stability.
5. The test shall be performed under normal and extreme condition for temperature and voltage.

3.5.3 Test Setup



3.5.4 Test Results

Ambient Condition	22-23°C / 63-65%	Tested By	Akun Chung
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Refer to Appendix E.

3.6 AC Power Line Conducted Emissions

3.6.1 Limit of AC Power Line Conducted Emissions

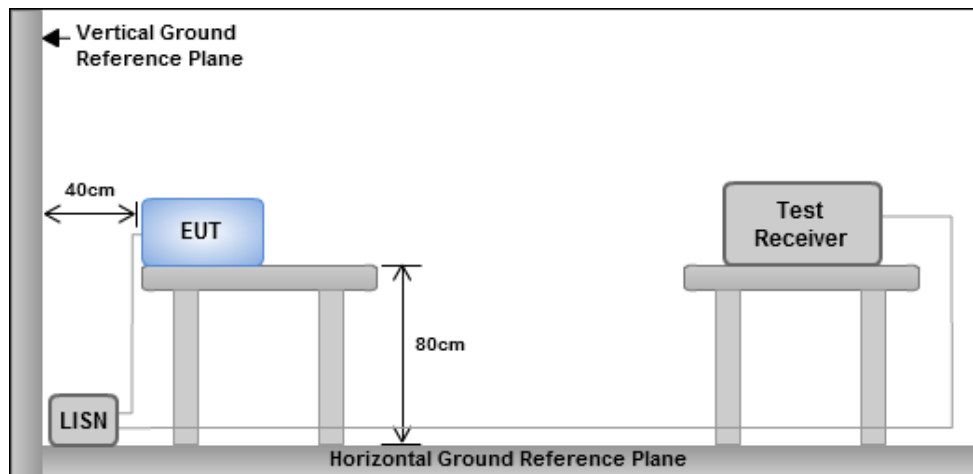
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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

3.6.2 Test Procedures

1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50 Ω LISN port.
3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.
4. This measurement was performed with AC 120V/60Hz

3.6.3 Test Setup



- Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.6.4 Test Results

Refer to Appendix F.

4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website <http://www.icertifi.com.tw>.

Linkou

Tel: 886-2-2601-1640

No.30-2, Ding Fwu Tsuen, Lin Kou
District, New Taipei City, Taiwan
(R.O.C.)

Kwei Shan

Tel: 886-3-271-8666

No.3-1, Lane 6, Wen San 3rd
St., Kwei Shan Dist., Tao Yuan
City 33381, Taiwan (R.O.C.)
No.2-1, Lane 6, Wen San 3rd
St., Kwei Shan Dist., Tao Yuan
City 33381, Taiwan (R.O.C.)

Kwei Shan Site II

Tel: 886-3-271-8640

No.14-1, Lane 19, Wen San 3rd
St., Kwei Shan Dist., Tao Yuan
City 33381, Taiwan (R.O.C.)

If you have any suggestion, please feel free to contact us as below information.

Tel: 886-3-271-8666

Fax: 886-3-318-0345

Email: ICC_Service@icertifi.com.tw

==END==



Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	38.214M	19.685M	19M7D1D	21.648M	16.94M
802.11ax HEW20_Nss1,(MCS0)_2TX	34.782M	19.58M	19M6D1D	21.648M	19.07M
802.11ax HEW40_Nss1,(MCS0)_2TX	85.932M	38.381M	38M4D1D	43.56M	37.601M
802.11ax HEW80_Nss1,(MCS0)_2TX	83.688M	77.361M	77M4D1D	83.16M	77.241M
802.11ax HEW160_Nss1,(MCS0)_2TX	80.96M	77.401M	77M4D1D	80.88M	77.241M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	22.836M	17.125M	17M1D1D	21.978M	16.993M
802.11ax HEW20_Nss1,(MCS0)_2TX	25.608M	19.16M	19M2D1D	21.978M	19.1M
802.11ax HEW40_Nss1,(MCS0)_2TX	74.976M	37.901M	37M9D1D	46.2M	37.661M
802.11ax HEW80_Nss1,(MCS0)_2TX	83.16M	77.361M	77M4D1D	82.896M	77.361M
802.11ax HEW160_Nss1,(MCS0)_2TX	81.76M	77.721M	77M7D1D	81.52M	77.641M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	21.978M	17.046M	17M0D1D	15.93M	13.628M
802.11ax HEW20_Nss1,(MCS0)_2TX	22.11M	19.13M	19M1D1D	16.29M	14.573M
802.11ax HEW40_Nss1,(MCS0)_2TX	52.745M	37.721M	37M7D1D	35.805M	33.688M
802.11ax HEW80_Nss1,(MCS0)_2TX	82.896M	77.481M	77M5D1D	76.35M	73.313M
802.11ax HEW160_Nss1,(MCS0)_2TX	164.208M	155.442M	155MD1D	163.68M	155.442M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.434M	29.131M	29M1D1D	3.16M	4.578M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.942M	31.604M	31M6D1D	4.46M	5.097M
802.11ax HEW40_Nss1,(MCS0)_2TX	37.488M	60.63M	60M6D1D	3.74M	10.215M
802.11ax HEW80_Nss1,(MCS0)_2TX	75.24M	77.361M	77M4D1D	3.7M	20.59M

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 / Minimum 26dB down bandwidth for other band;
 Min-OBW = Minimum 99% occupied bandwidth



Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.648M	17.072M	21.714M	16.94M
5200MHz	Pass	Inf	34.848M	18.655M	38.214M	19.685M
5240MHz	Pass	Inf	34.452M	18.497M	34.65M	19.394M
5260MHz	Pass	Inf	22.506M	17.125M	22.572M	16.993M
5300MHz	Pass	Inf	21.978M	17.072M	22.308M	16.993M
5320MHz	Pass	Inf	22.044M	17.072M	22.836M	17.099M
5500MHz	Pass	Inf	21.912M	17.019M	21.78M	16.94M
5580MHz	Pass	Inf	21.978M	17.046M	21.384M	16.888M
5700MHz	Pass	Inf	21.318M	16.808M	21.516M	16.703M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.93M	13.628M	16.11M	13.643M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.16M	4.578M	3.16M	5.377M
5745MHz	Pass	500k	16.368M	18.471M	16.434M	29.131M
5785MHz	Pass	500k	16.302M	17.864M	16.368M	24.83M
5825MHz	Pass	500k	16.302M	17.837M	16.302M	23.484M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	22.242M	19.1M	21.648M	19.07M
5200MHz	Pass	Inf	32.868M	19.28M	33.396M	19.34M
5240MHz	Pass	Inf	34.386M	19.34M	34.782M	19.58M
5260MHz	Pass	Inf	25.608M	19.16M	21.978M	19.1M
5300MHz	Pass	Inf	22.044M	19.16M	22.044M	19.13M
5320MHz	Pass	Inf	22.77M	19.13M	22.44M	19.13M
5500MHz	Pass	Inf	21.846M	19.1M	21.648M	19.07M
5580MHz	Pass	Inf	21.714M	19.13M	22.11M	19.1M
5700MHz	Pass	Inf	21.45M	19.04M	21.384M	19.01M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	16.29M	14.573M	19.11M	14.603M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.52M	5.097M	4.46M	6.057M
5745MHz	Pass	500k	18.942M	19.43M	18.81M	31.604M
5785MHz	Pass	500k	18.744M	19.31M	18.744M	25.877M
5825MHz	Pass	500k	18.942M	19.25M	18.876M	23.868M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	43.56M	37.601M	45.804M	37.661M
5230MHz	Pass	Inf	85.932M	38.381M	76.956M	38.201M
5270MHz	Pass	Inf	55.176M	37.841M	74.976M	37.901M
5310MHz	Pass	Inf	46.2M	37.661M	46.2M	37.661M
5510MHz	Pass	Inf	43.692M	37.601M	45.672M	37.661M
5590MHz	Pass	Inf	42.108M	37.601M	45.672M	37.601M
5670MHz	Pass	Inf	43.824M	37.661M	52.536M	37.721M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.805M	33.688M	52.745M	33.898M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.74M	10.215M	3.78M	23.168M
5755MHz	Pass	500k	37.488M	42.039M	36.828M	60.63M
5795MHz	Pass	500k	36.696M	45.157M	37.224M	57.331M



Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	83.16M	77.361M	83.688M	77.241M
5290MHz	Pass	Inf	82.896M	77.361M	83.16M	77.361M
5530MHz	Pass	Inf	82.368M	77.241M	82.896M	77.361M
5610MHz	Pass	Inf	82.632M	77.361M	82.896M	77.481M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.35M	73.313M	79.575M	73.613M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.94M	20.59M	3.7M	31.504M
5775MHz	Pass	500k	75.24M	77.361M	75.24M	77.361M
802.11ax HEW160_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	80.88M	77.241M	80.96M	77.401M
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	81.76M	77.721M	81.52M	77.641M
5570MHz	Pass	Inf	164.208M	155.442M	163.68M	155.442M

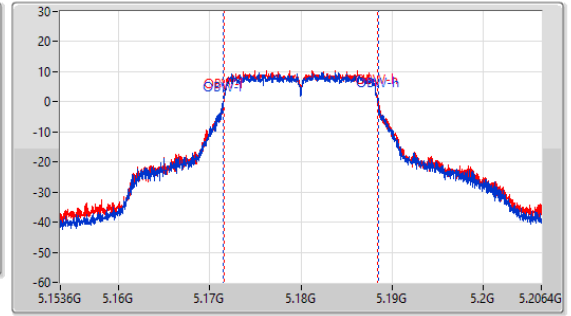
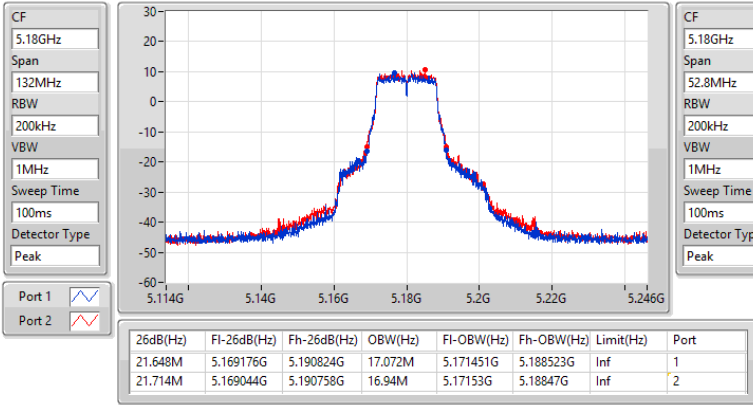
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port X 99% occupied bandwidth



5.15-5.25GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

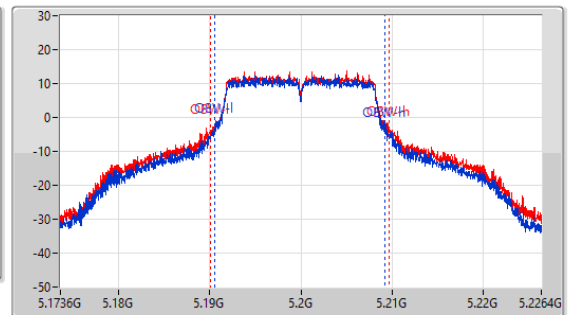
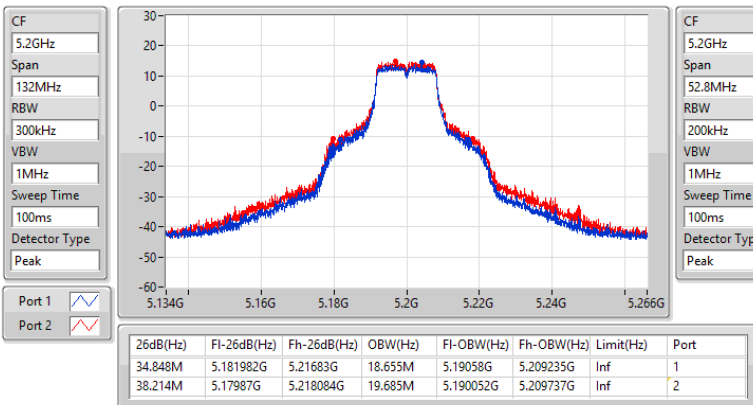
5180MHz



5.15-5.25GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5200MHz

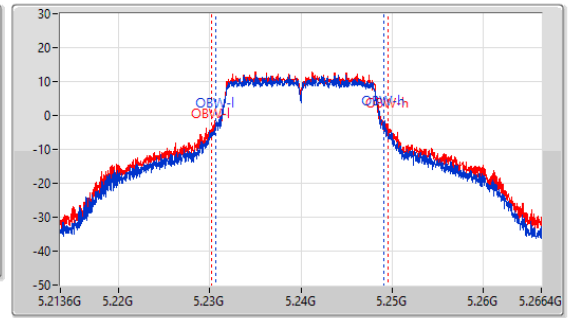
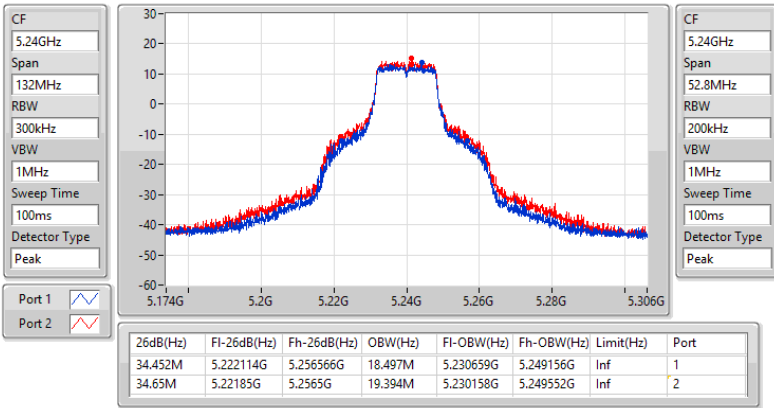




5.15-5.25GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

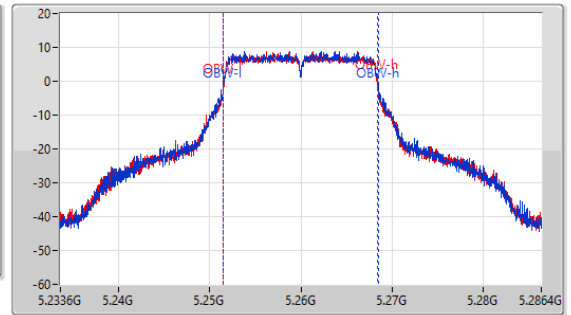
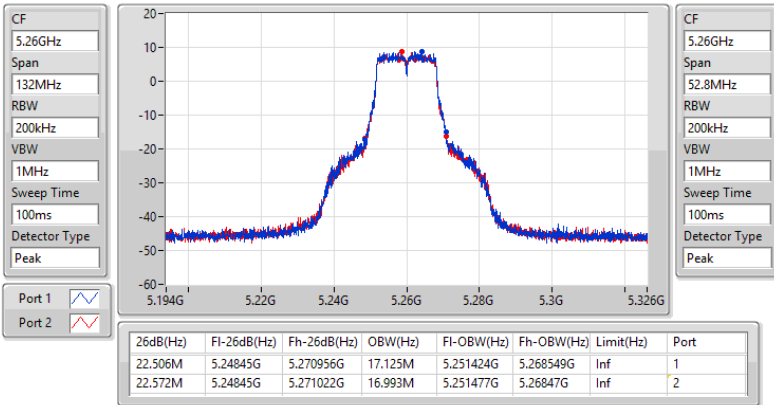
5240MHz



5.25-5.35GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5260MHz



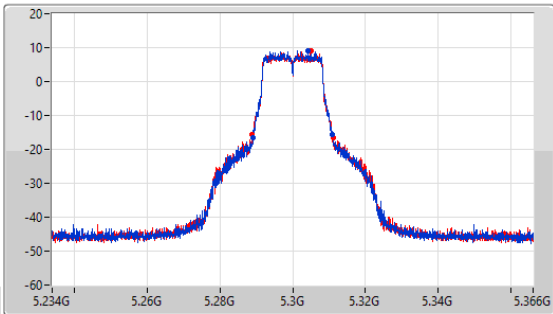


5.25-5.35GHz_802.11a_Nss1,(6Mbps)_2TX

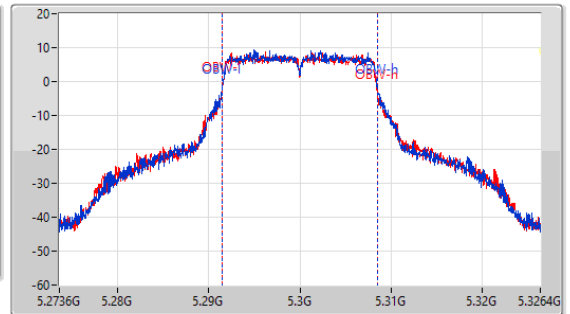
EBW

5300MHz

CF: 5.3GHz
 Span: 132MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



CF: 5.3GHz
 Span: 52.8MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



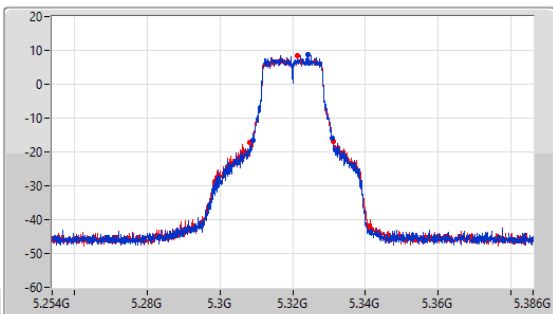
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.978M	5.289044G	5.311022G	17.072M	5.291451G	5.308523G	Inf	1
22.308M	5.288912G	5.31122G	16.993M	5.291503G	5.308497G	Inf	2

5.25-5.35GHz_802.11a_Nss1,(6Mbps)_2TX

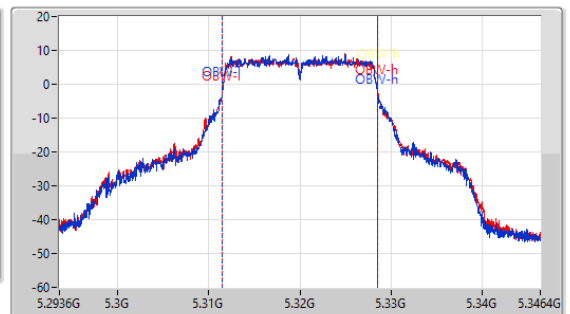
EBW

5320MHz

CF: 5.32GHz
 Span: 132MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



CF: 5.32GHz
 Span: 52.8MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



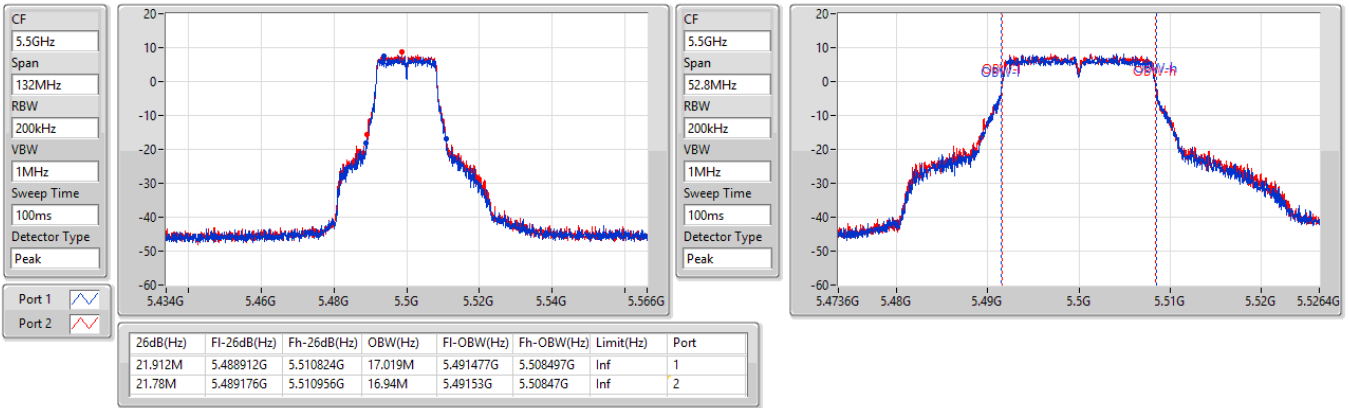
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.044M	5.308978G	5.331022G	17.072M	5.311477G	5.328549G	Inf	1
22.836M	5.308384G	5.33122G	17.099M	5.311451G	5.328549G	Inf	2



5.47-5.725GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

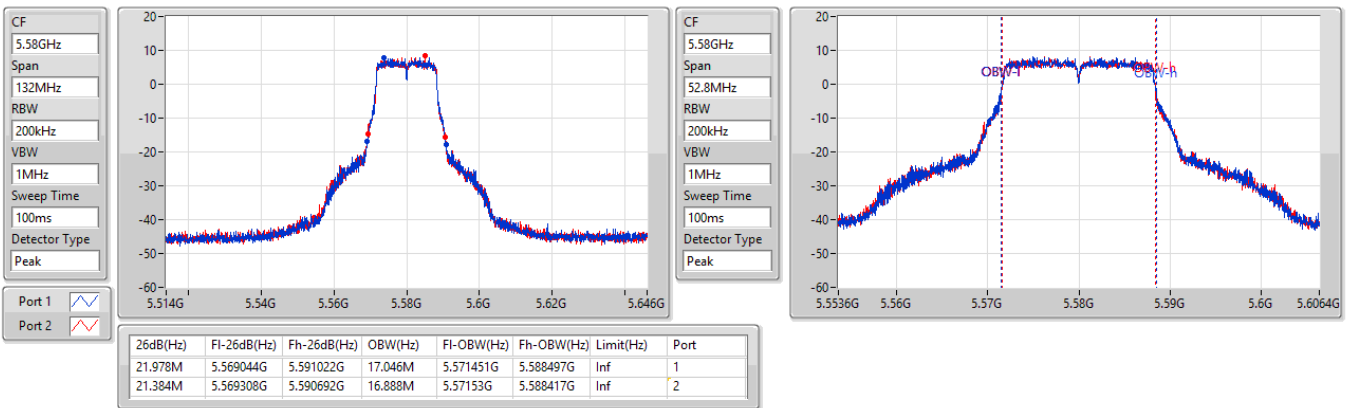
5500MHz



5.47-5.725GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5580MHz

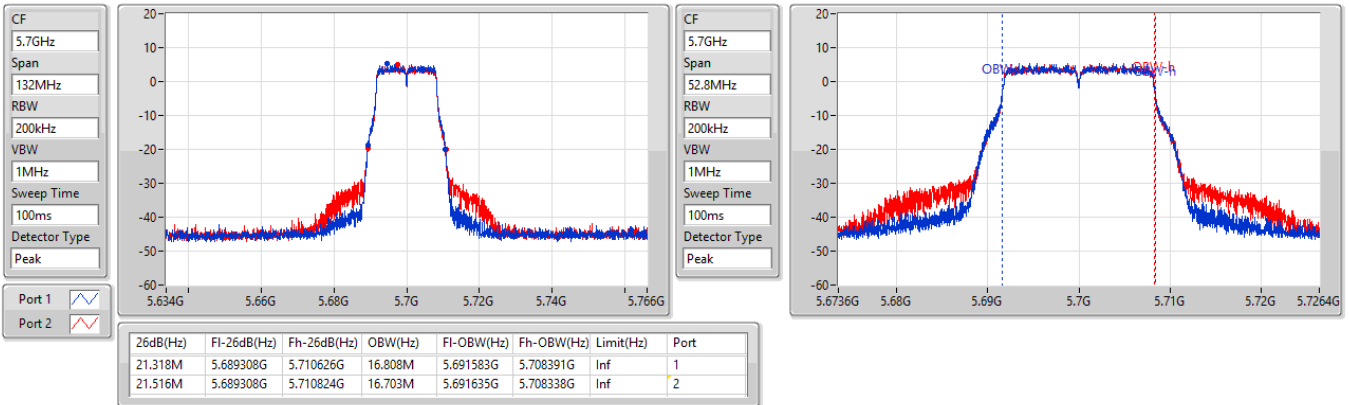




5.47-5.725GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

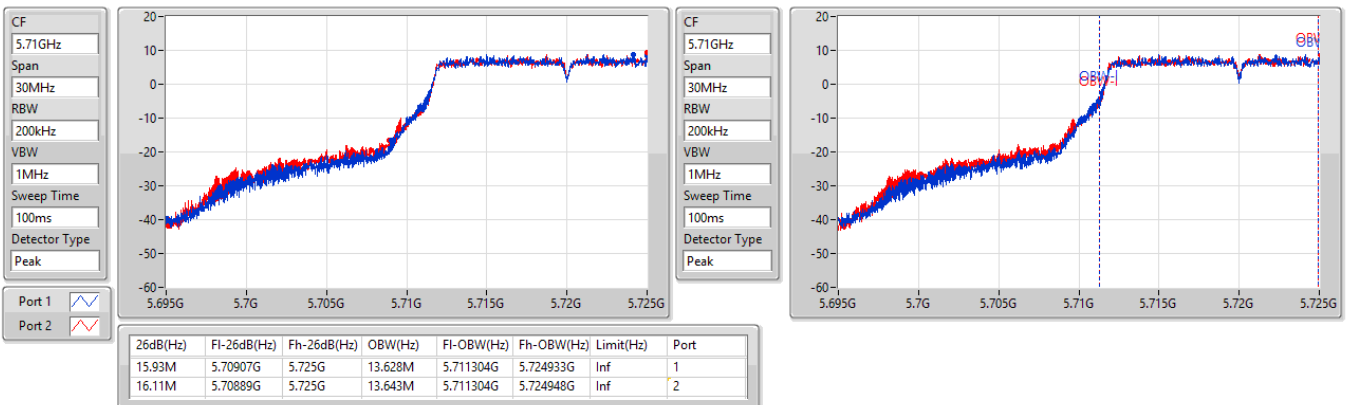
5700MHz



5.47-5.725GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5720MHz Straddle 5.47-5.725GHz

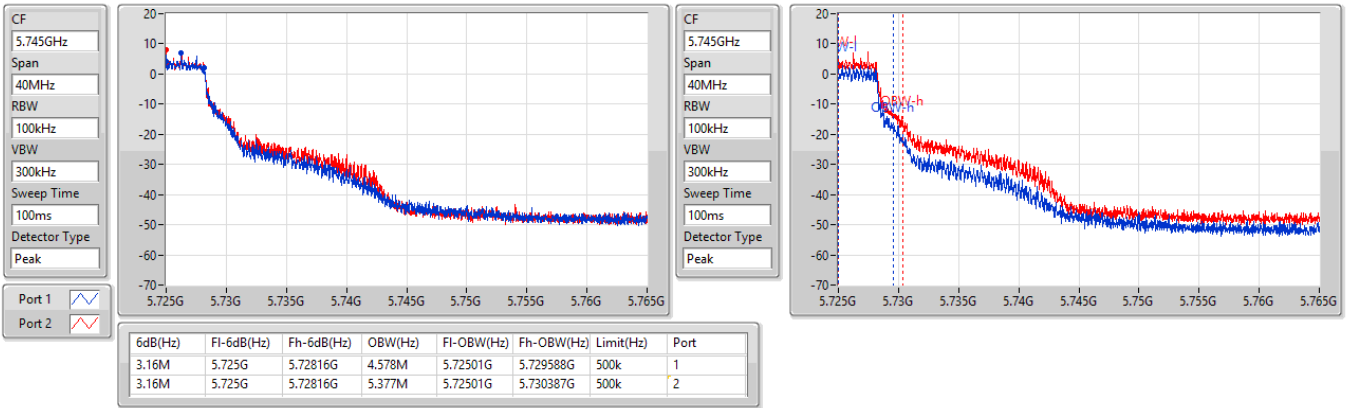




5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

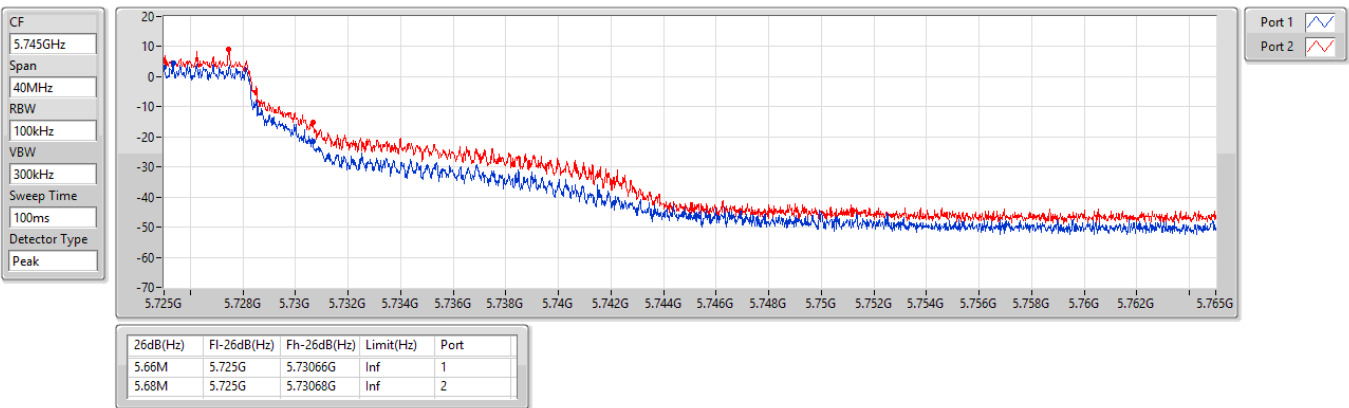
5720MHz Straddle 5.725-5.85GHz



5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

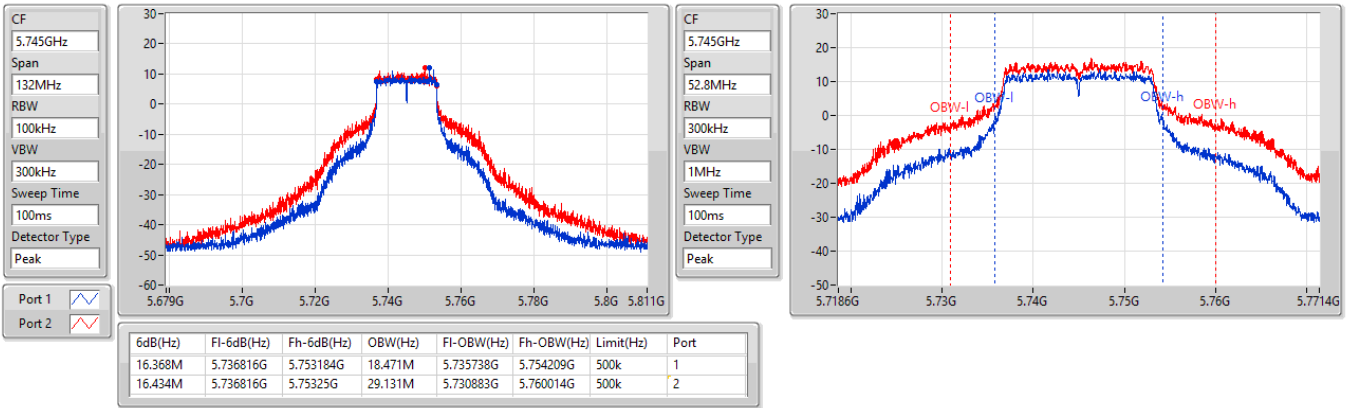
5720MHz Straddle 5.725-5.85GHz



5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

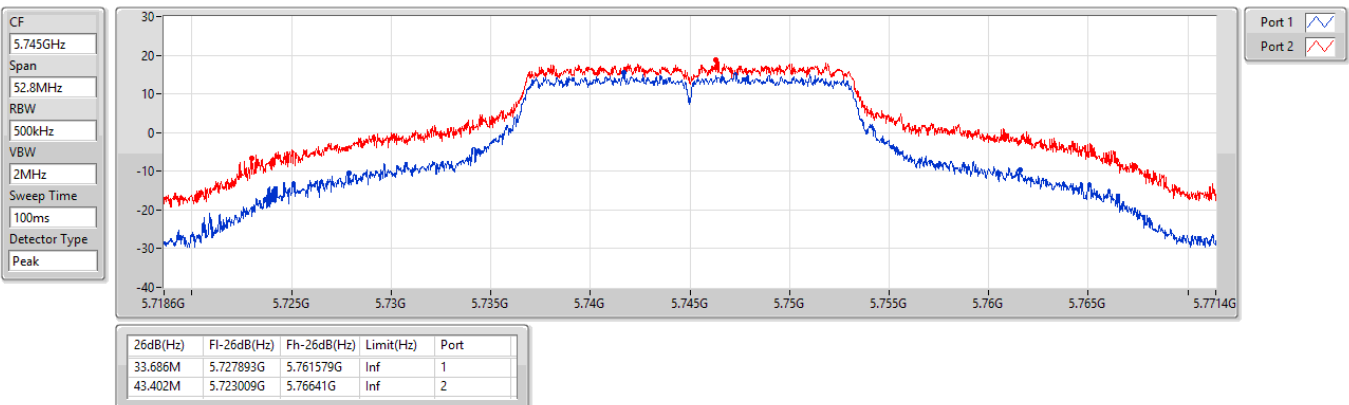
5745MHz



5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5745MHz

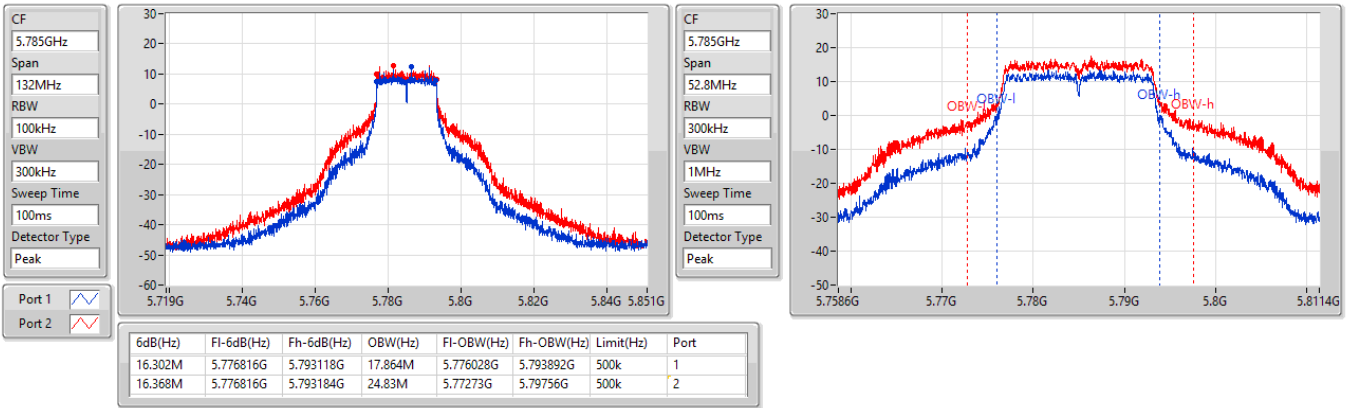




5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

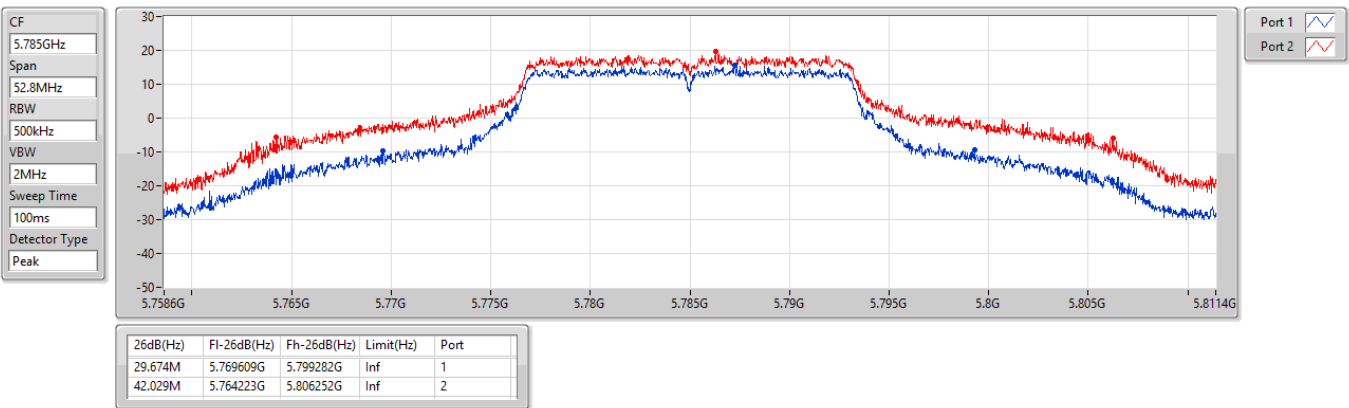
5785MHz



5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5785MHz



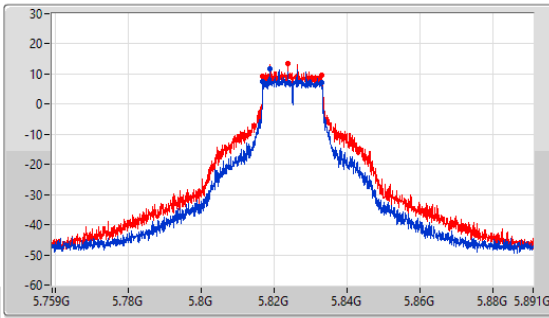


5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

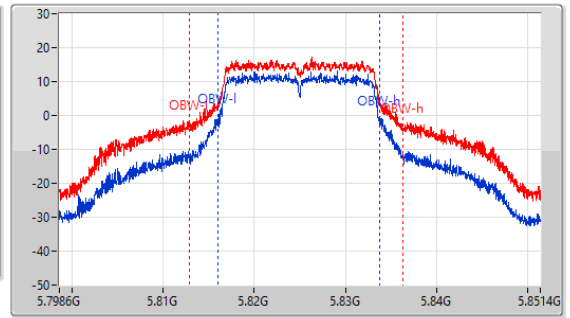
EBW

5825MHz

CF: 5.825GHz
 Span: 132MHz
 RBW: 100kHz
 VBW: 300kHz
 Sweep Time: 100ms
 Detector Type: Peak



CF: 5.825GHz
 Span: 52.8MHz
 RBW: 300kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



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

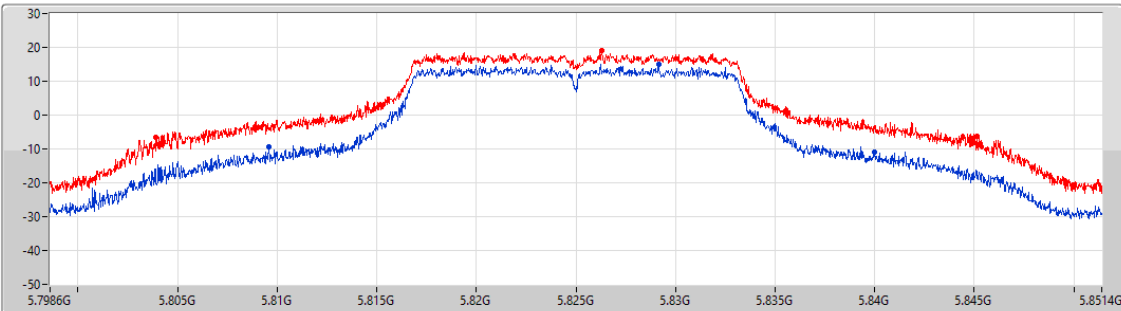
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.302M	5.816816G	5.833118G	17.837M	5.815976G	5.833813G	500k	1
16.302M	5.816816G	5.833118G	23.484M	5.812862G	5.836346G	500k	2

5.725-5.85GHz_802.11a_Nss1,(6Mbps)_2TX

EBW

5825MHz

CF: 5.825GHz
 Span: 52.8MHz
 RBW: 500kHz
 VBW: 2MHz
 Sweep Time: 100ms
 Detector Type: Peak



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

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	Limit(Hz)	Port
30.413M	5.809582G	5.839995G	Inf	1
41.21M	5.803906G	5.845117G	Inf	2



5.15-5.25GHz_802.11ax_HEW20_Nss1,(MCS0)_2TX

EBW

5180MHz

CF
5.18GHz

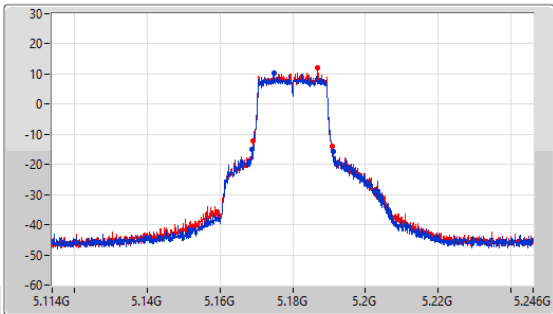
Span
132MHz

RBW
200kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Peak



CF
5.18GHz

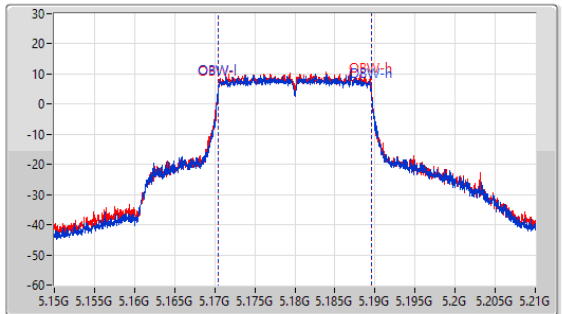
Span
60MHz

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
22.242M	5.168846G	5.191088G	19.1M	5.170435G	5.189535G	Inf	1
21.648M	5.169176G	5.190824G	19.07M	5.170435G	5.189505G	Inf	2

5.15-5.25GHz_802.11ax_HEW20_Nss1,(MCS0)_2TX

EBW

5200MHz

CF
5.2GHz

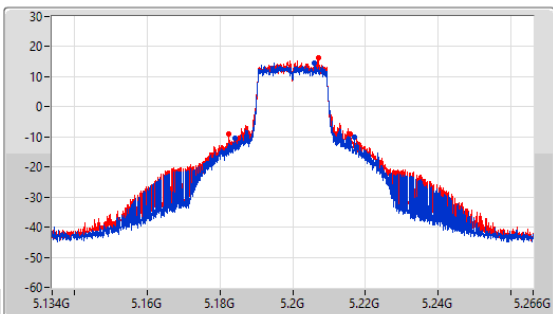
Span
132MHz

RBW
300kHz

VBW
1MHz

Sweep Time
100ms

Detector Type
Peak



CF
5.2GHz

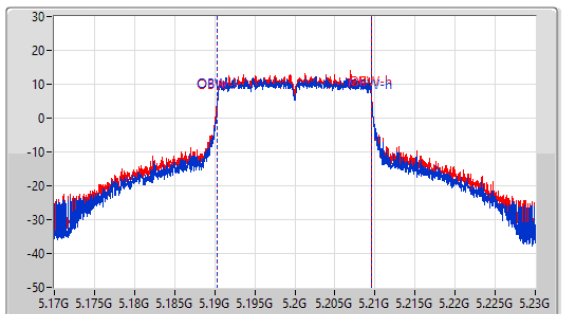
Span
60MHz

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
32.868M	5.184094G	5.216962G	19.28M	5.190345G	5.209625G	Inf	1
33.396M	5.182378G	5.215774G	19.34M	5.190285G	5.209625G	Inf	2

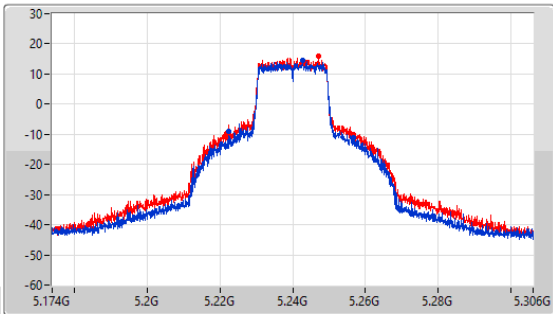


5.15-5.25GHz_802.11ax_HEW20_Nss1,(MCS0)_2TX

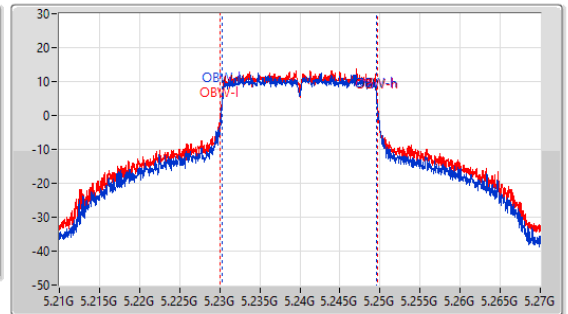
EBW

5240MHz

CF: 5.24GHz
 Span: 132MHz
 RBW: 300kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



CF: 5.24GHz
 Span: 60MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



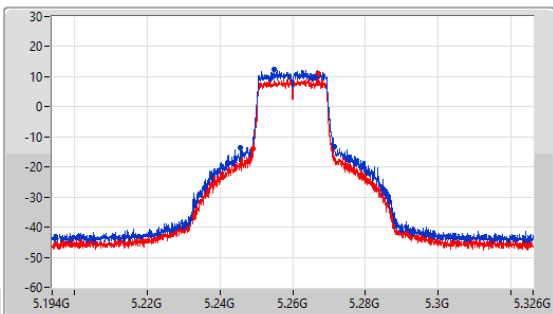
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.386M	5.222378G	5.256764G	19.34M	5.230285G	5.249625G	Inf	1
34.782M	5.221982G	5.256764G	19.58M	5.230105G	5.249685G	Inf	2

5.25-5.35GHz_802.11ax_HEW20_Nss1,(MCS0)_2TX

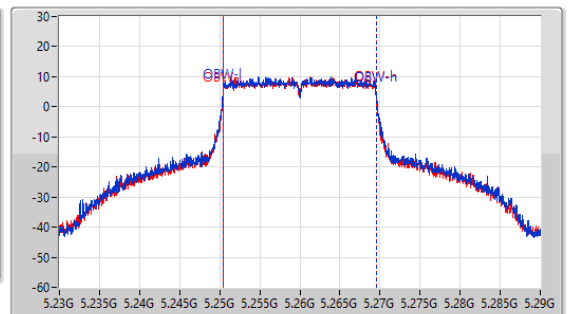
EBW

5260MHz

CF: 5.26GHz
 Span: 132MHz
 RBW: 300kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



CF: 5.26GHz
 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
25.608M	5.245744G	5.271352G	19.16M	5.250405G	5.269565G	Inf	1
21.978M	5.24911G	5.271088G	19.1M	5.250405G	5.269505G	Inf	2

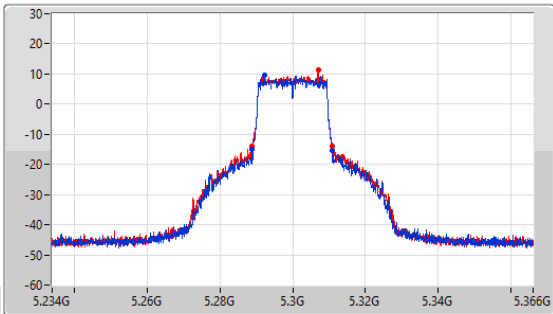


5.25-5.35GHz_802.11ax_HEW20_Nss1,(MCS0)_2TX

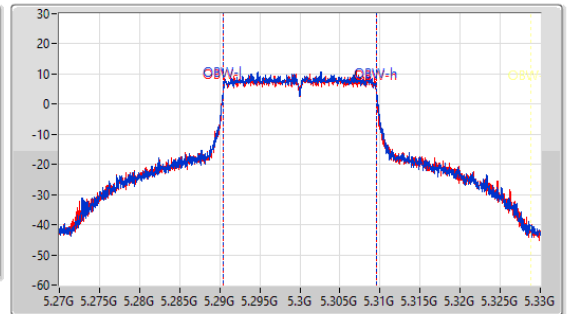
EBW

5300MHz

CF
5.3GHz
Span
132MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.3GHz
Span
60MHz
RBW
200kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2

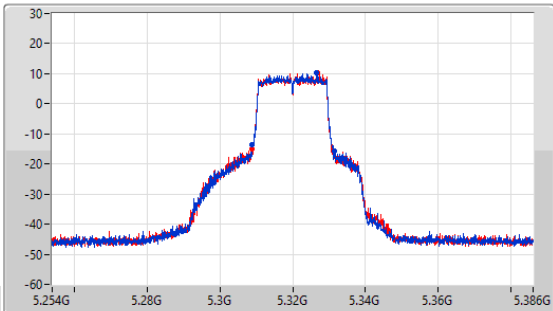
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.044M	5.288912G	5.310956G	19.16M	5.290405G	5.309565G	Inf	1
22.044M	5.288846G	5.31089G	19.13M	5.290405G	5.309535G	Inf	2

5.25-5.35GHz_802.11ax_HEW20_Nss1,(MCS0)_2TX

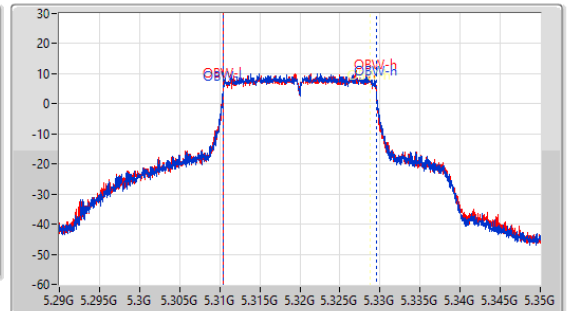
EBW

5320MHz

CF
5.32GHz
Span
132MHz
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



Port 1
Port 2

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.77M	5.30878G	5.33155G	19.13M	5.310405G	5.329535G	Inf	1
22.44M	5.308846G	5.331286G	19.13M	5.310375G	5.329505G	Inf	2

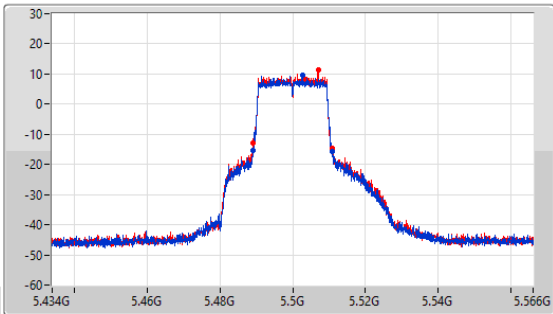


5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

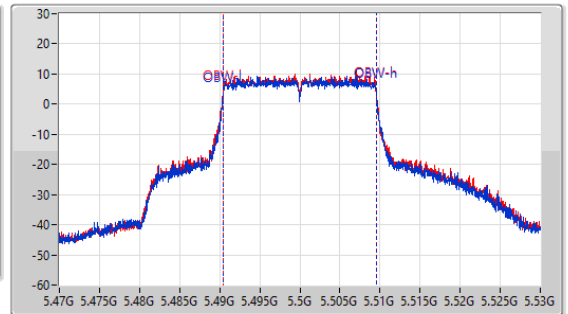
EBW

5500MHz

CF: 5.5GHz
 Span: 132MHz
 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



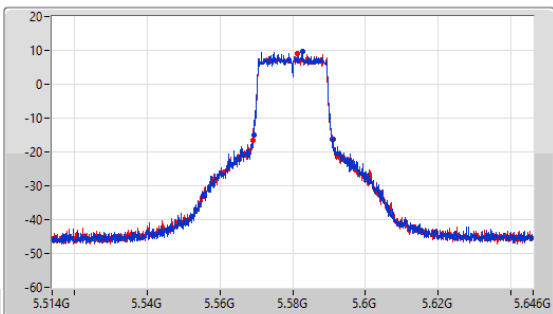
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.846M	5.489176G	5.511022G	19.1M	5.490435G	5.509535G	Inf	1
21.648M	5.489242G	5.51089G	19.07M	5.490435G	5.509505G	Inf	2

5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

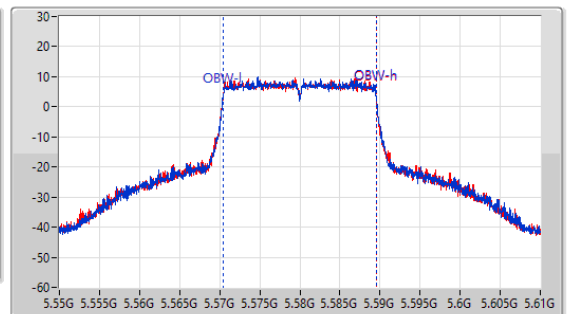
EBW

5580MHz

CF: 5.58GHz
 Span: 132MHz
 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
21.714M	5.569308G	5.591022G	19.13M	5.570405G	5.589535G	Inf	1
22.11M	5.568978G	5.591088G	19.1M	5.570405G	5.589505G	Inf	2

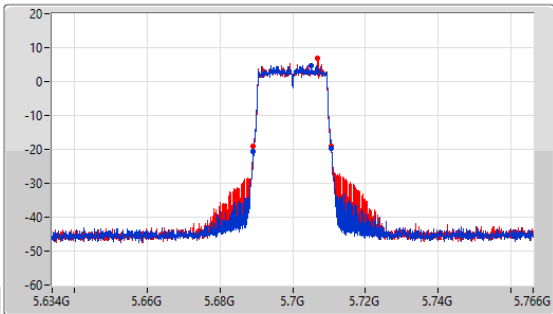


5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

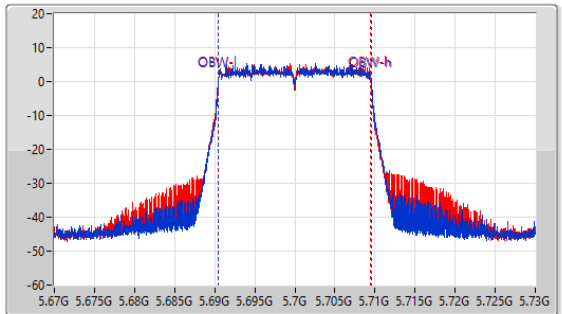
EBW

5700MHz

CF: 5.7GHz
 Span: 132MHz
 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



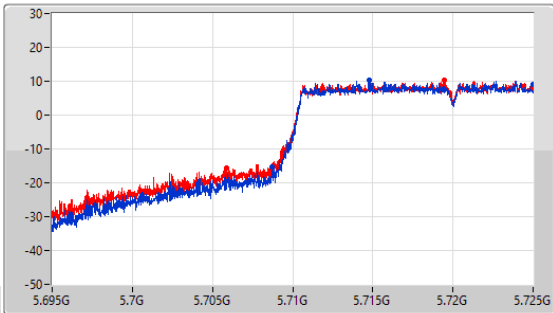
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.45M	5.689242G	5.710692G	19.04M	5.690465G	5.709505G	Inf	1
21.384M	5.689242G	5.710626G	19.01M	5.690465G	5.709475G	Inf	2

5.47-5.725GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

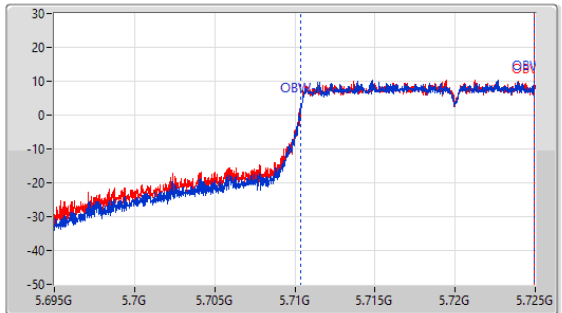
EBW

5720MHz Straddle 5.47-5.725GHz

CF: 5.71GHz
 Span: 30MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



CF: 5.71GHz
 Span: 30MHz
 RBW: 200kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



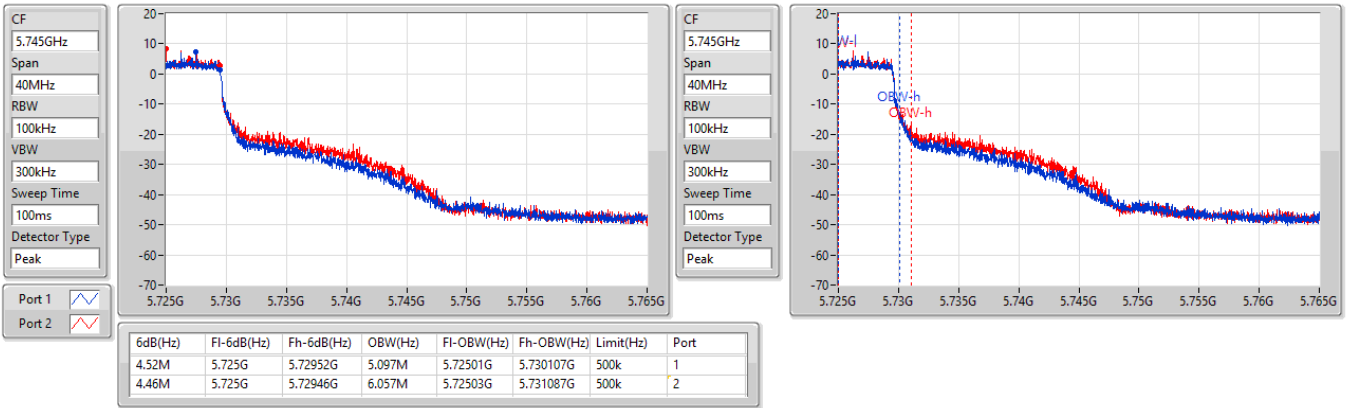
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.29M	5.70871G	5.725G	14.573M	5.710375G	5.724948G	Inf	1
19.11M	5.70589G	5.725G	14.603M	5.71033G	5.724933G	Inf	2



5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

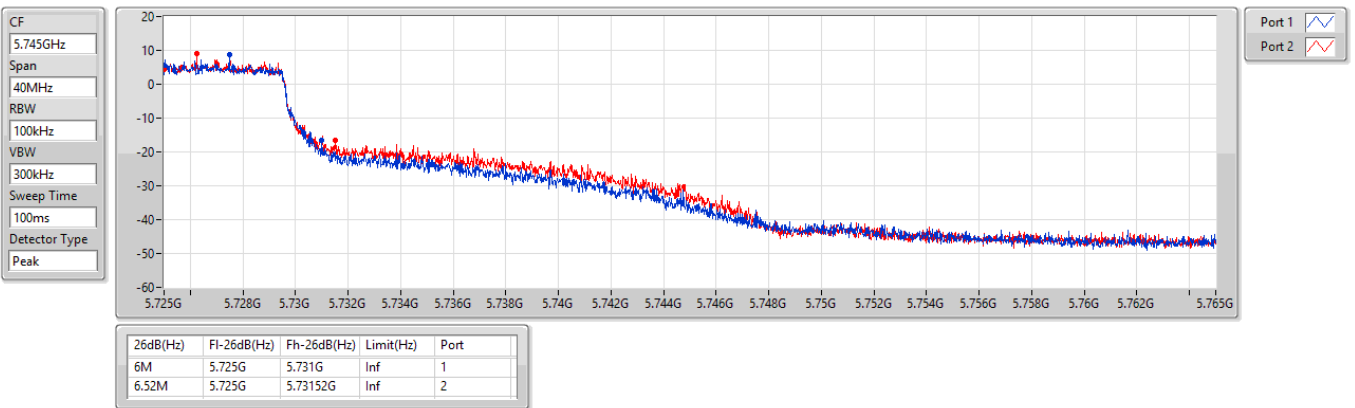
5720MHz Straddle 5.725-5.85GHz



5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

5720MHz Straddle 5.725-5.85GHz



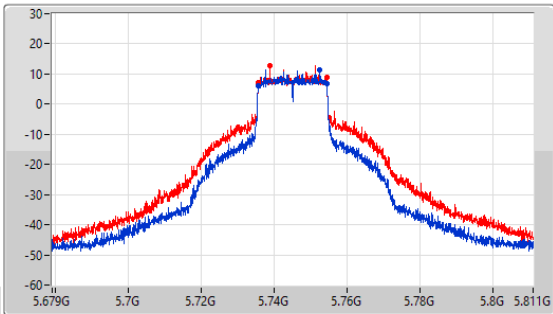


5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

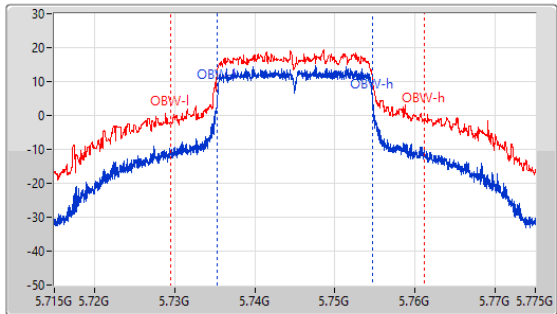
EBW

5745MHz

CF
5.745GHz
Span
132MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.745GHz
Span
60MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



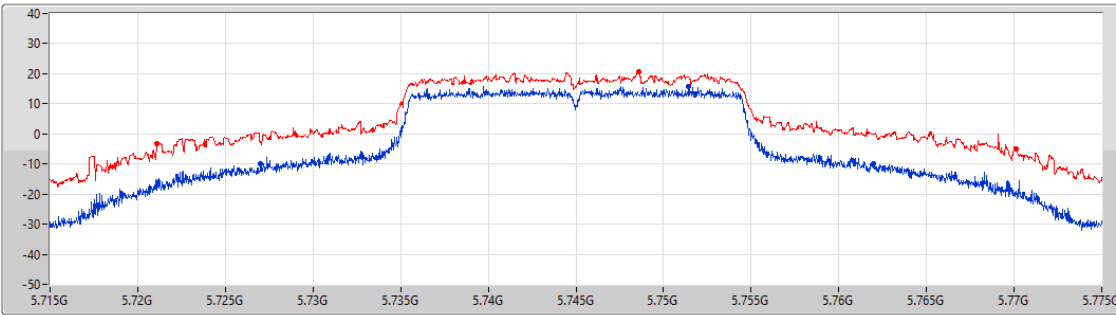
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.942M	5.735496G	5.754438G	19.43M	5.735285G	5.754715G	500k	1
18.81M	5.735496G	5.754306G	31.604M	5.729528G	5.761132G	500k	2

5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

5745MHz

CF
5.745GHz
Span
60MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	Limit(Hz)	Port
34.95M	5.727G	5.76195G	Inf	1
49.02M	5.72109G	5.77011G	Inf	2

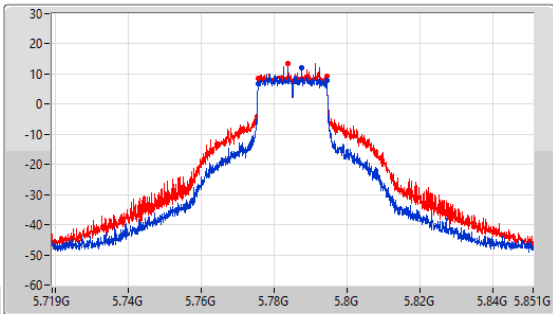


5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

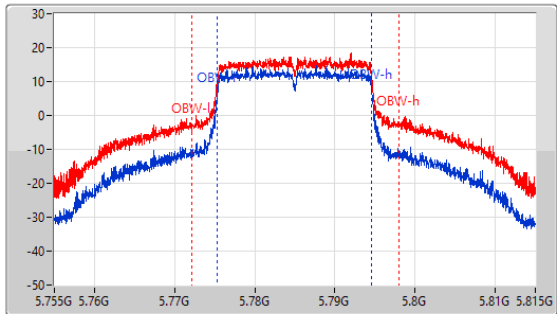
EBW

5785MHz

CF
5.785GHz
Span
132MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.785GHz
Span
60MHz
RBW
300kHz
VBW
1MHz
Sweep Time
100ms
Detector Type
Peak



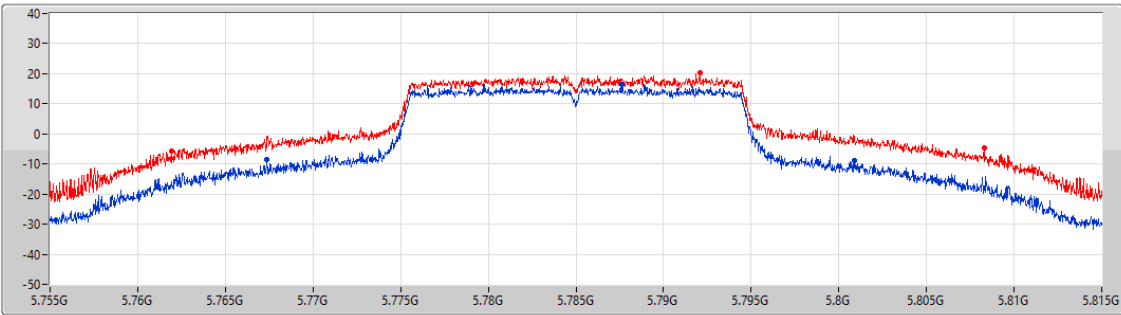
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.744M	5.775628G	5.794372G	19.31M	5.775315G	5.794625G	500k	1
18.744M	5.775562G	5.794306G	25.877M	5.772106G	5.797984G	500k	2

5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

5785MHz

CF
5.785GHz
Span
60MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	Limit(Hz)	Port
33.48M	5.76739G	5.80087G	Inf	1
46.35M	5.76193G	5.80828G	Inf	2

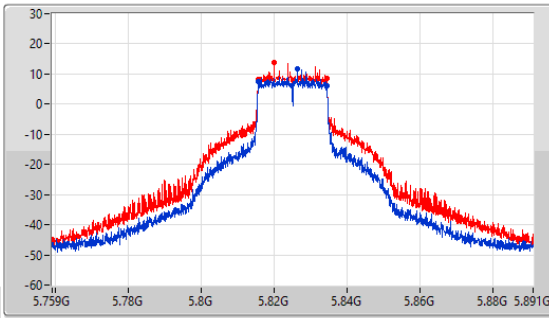


5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

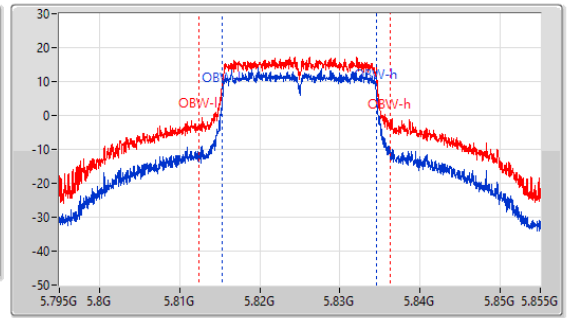
EBW

5825MHz

CF: 5.825GHz
 Span: 132MHz
 RBW: 100kHz
 VBW: 300kHz
 Sweep Time: 100ms
 Detector Type: Peak
 Port 1: [Waveform icon]
 Port 2: [Waveform icon]



CF: 5.825GHz
 Span: 60MHz
 RBW: 300kHz
 VBW: 1MHz
 Sweep Time: 100ms
 Detector Type: Peak



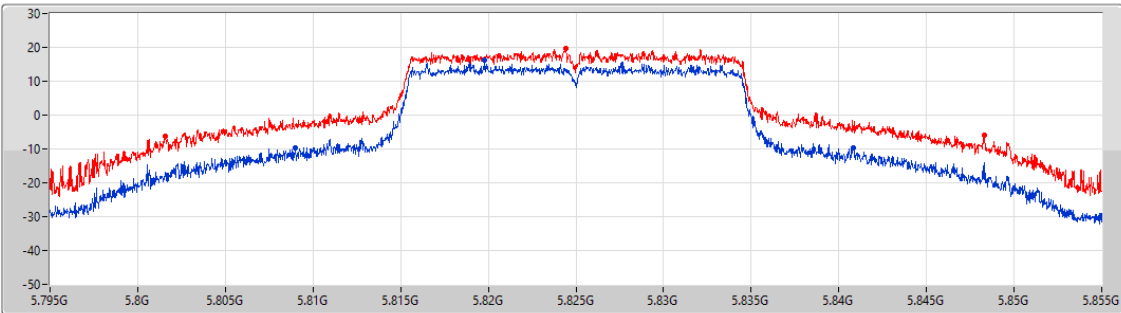
6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.942M	5.815496G	5.834438G	19.25M	5.815345G	5.834595G	500k	1
18.876M	5.815562G	5.834438G	23.868M	5.812436G	5.836304G	500k	2

5.725-5.85GHz_802.11ax HEW20_Nss1,(MCS0)_2TX

EBW

5825MHz

CF: 5.825GHz
 Span: 60MHz
 RBW: 500kHz
 VBW: 2MHz
 Sweep Time: 100ms
 Detector Type: Peak



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

26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	Limit(Hz)	Port
31.86M	5.80898G	5.84084G	Inf	1
46.74M	5.80157G	5.84831G	Inf	2

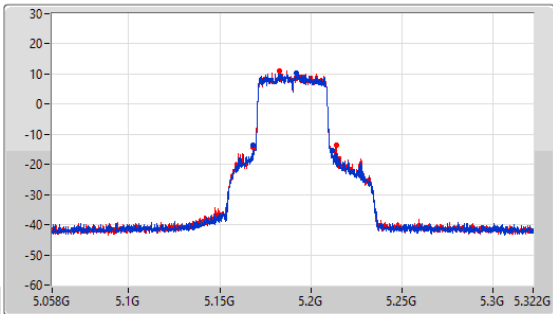


5.15-5.25GHz_802.11ax_HEW40_Nss1,(MCS0)_2TX

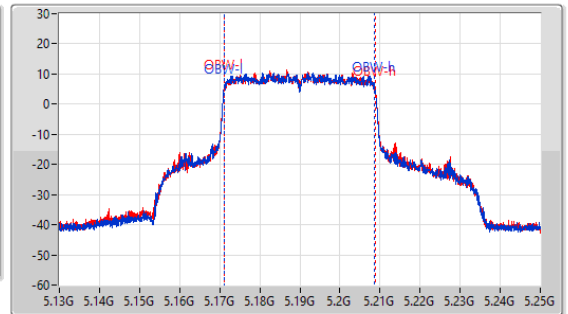
EBW

5190MHz

CF: 5.19GHz
 Span: 264MHz
 RBW: 500kHz
 VBW: 2MHz
 Sweep Time: 100ms
 Detector Type: Peak



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



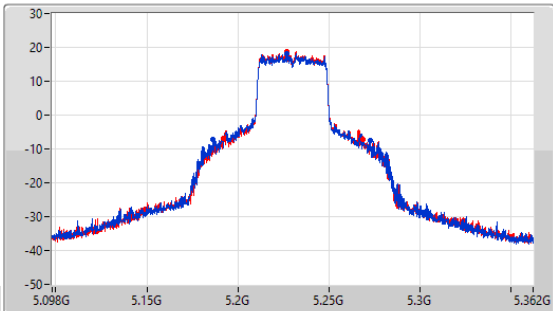
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
43.56M	5.168352G	5.211912G	37.601M	5.171109G	5.208711G	Inf	1
45.804M	5.168088G	5.213892G	37.661M	5.171109G	5.208771G	Inf	2

5.15-5.25GHz_802.11ax_HEW40_Nss1,(MCS0)_2TX

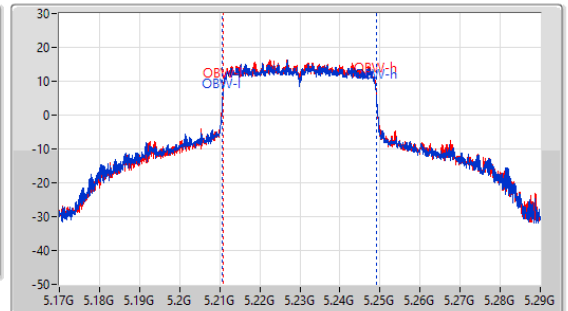
EBW

5230MHz

CF: 5.23GHz
 Span: 264MHz
 RBW: 1MHz
 VBW: 3MHz
 Sweep Time: 100ms
 Detector Type: Peak



CF: 5.23GHz
 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
85.932M	5.18644G	5.272372G	38.381M	5.21069G	5.24907G	Inf	1
76.956M	5.191852G	5.268808G	38.201M	5.21081G	5.24901G	Inf	2

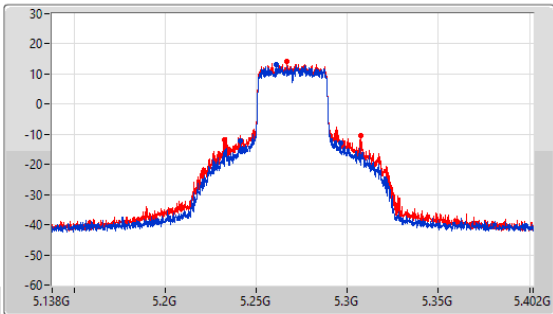


5.25-5.35GHz_802.11ax_HEW40_Nss1,(MCS0)_2TX

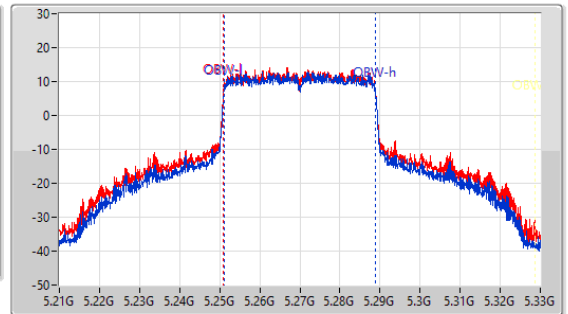
EBW

5270MHz

CF: 5.27GHz
 Span: 264MHz
 RBW: 500kHz
 VBW: 2MHz
 Sweep Time: 100ms
 Detector Type: Peak
 Port 1: [Waveform icon]
 Port 2: [Waveform icon]



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



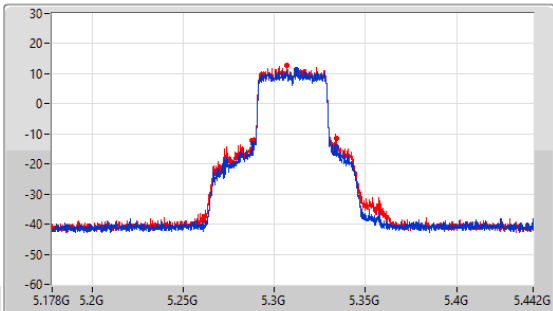
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
55.176M	5.241356G	5.296532G	37.841M	5.251049G	5.288891G	Inf	1
74.976M	5.23238G	5.307356G	37.901M	5.25099G	5.288891G	Inf	2

5.25-5.35GHz_802.11ax_HEW40_Nss1,(MCS0)_2TX

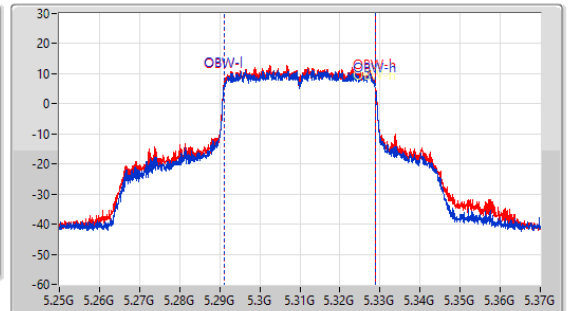
EBW

5310MHz

CF: 5.31GHz
 Span: 264MHz
 RBW: 500kHz
 VBW: 2MHz
 Sweep Time: 100ms
 Detector Type: Peak
 Port 1: [Waveform icon]
 Port 2: [Waveform icon]



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



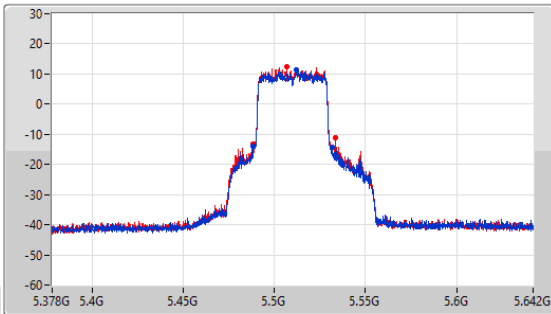
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
46.2M	5.287956G	5.334156G	37.661M	5.291109G	5.328771G	Inf	1
46.2M	5.287824G	5.334024G	37.661M	5.291109G	5.328771G	Inf	2

5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

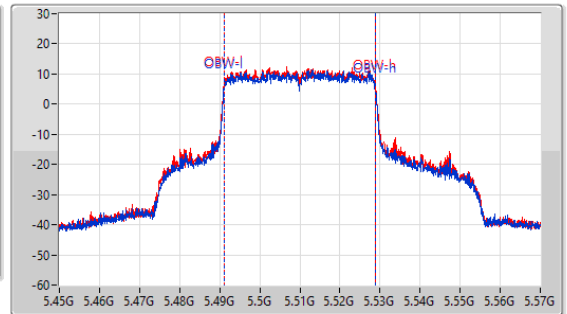
EBW

5510MHz

CF
5.51GHz
Span
264MHz
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



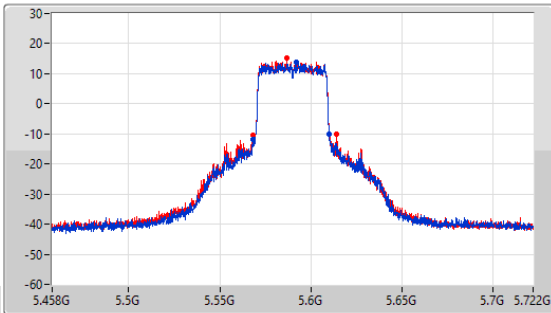
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
43.692M	5.487956G	5.531648G	37.601M	5.491169G	5.528771G	Inf	1
45.672M	5.488088G	5.53376G	37.661M	5.491109G	5.528771G	Inf	2

5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

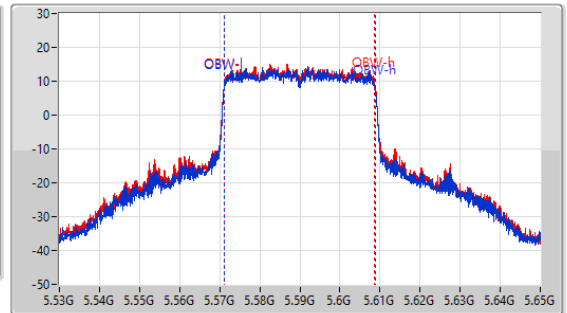
EBW

5590MHz

CF
5.59GHz
Span
264MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.59GHz
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
42.108M	5.567956G	5.610064G	37.601M	5.571169G	5.608771G	Inf	1
45.672M	5.56822G	5.613892G	37.601M	5.571109G	5.608711G	Inf	2

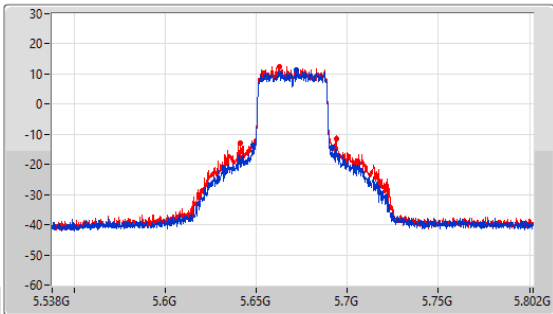


5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

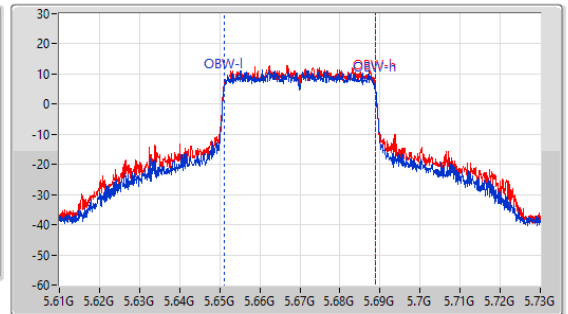
EBW

5670MHz

CF
5.67GHz
Span
264MHz
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



Port 1
Port 2

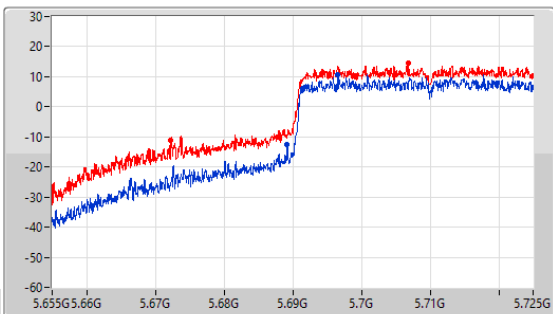
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
43.824M	5.647956G	5.69178G	37.661M	5.651169G	5.688831G	Inf	1
52.536M	5.641488G	5.694024G	37.721M	5.651049G	5.688771G	Inf	2

5.47-5.725GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

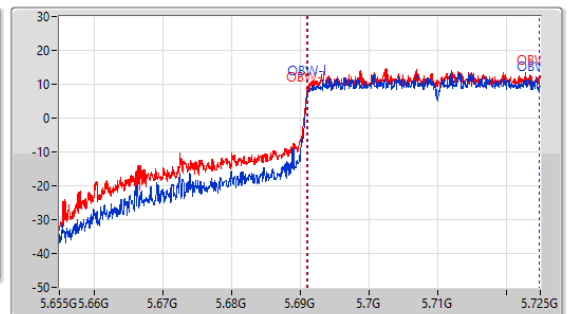
EBW

5710MHz Straddle 5.47-5.725GHz

CF
5.69GHz
Span
70MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



CF
5.69GHz
Span
70MHz
RBW
500kHz
VBW
2MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2

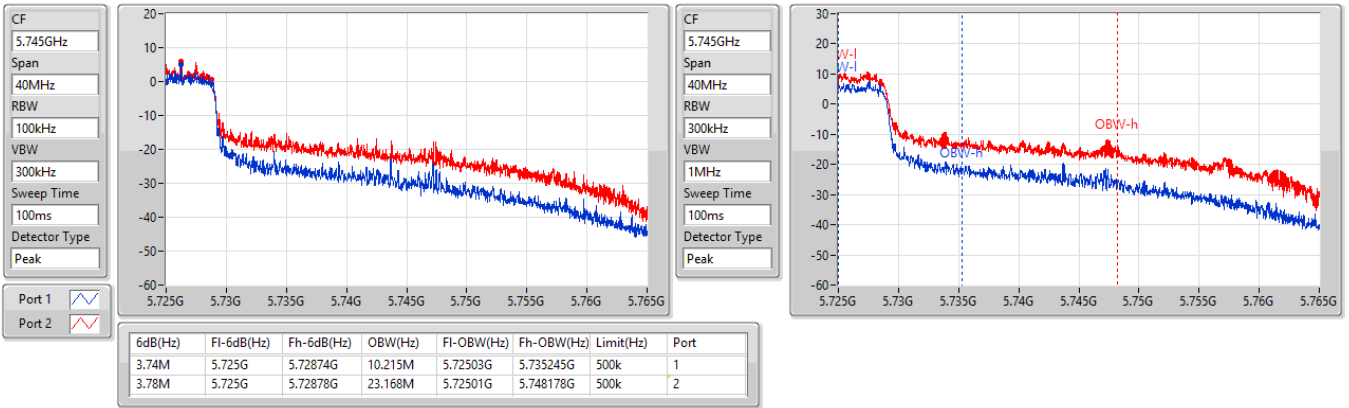
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.805M	5.689195G	5.725G	33.688M	5.691084G	5.724773G	Inf	1
52.745M	5.672255G	5.725G	33.898M	5.690945G	5.724843G	Inf	2



5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

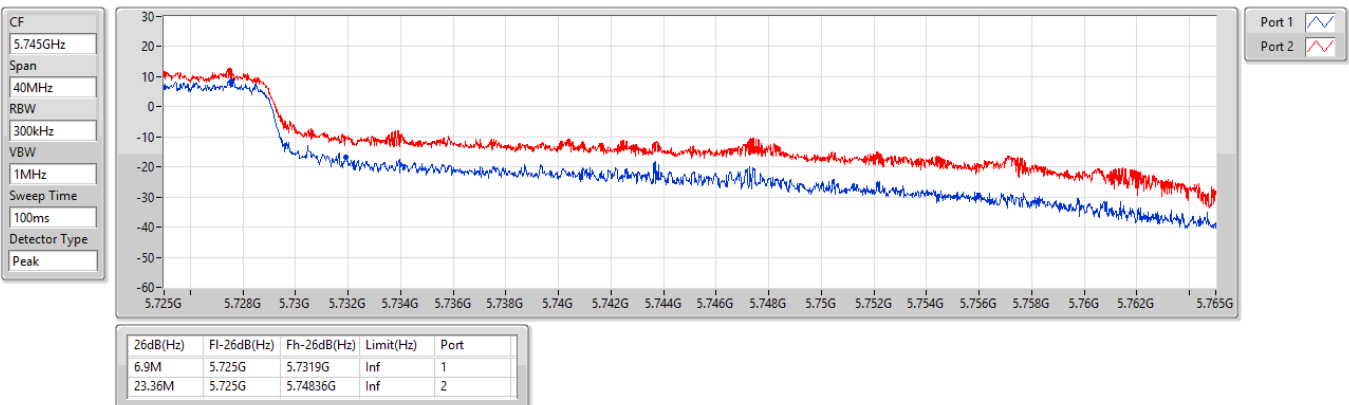
5710MHz Straddle 5.725-5.85GHz



5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

5710MHz Straddle 5.725-5.85GHz



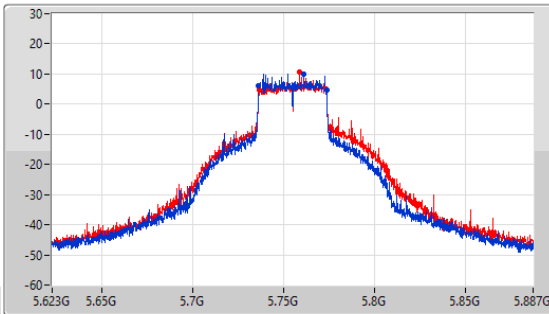


5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

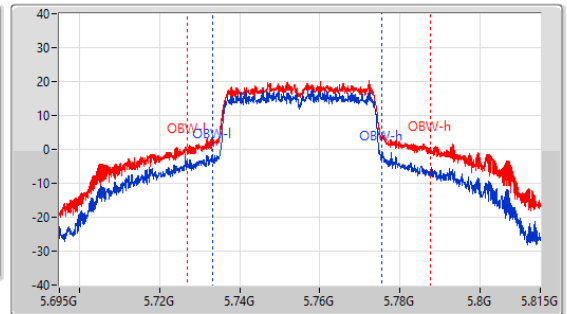
EBW

5755MHz

CF
5.755GHz
Span
264MHz
RBW
100kHz
VBW
300kHz
Sweep Time
100ms
Detector Type
Peak



CF
5.755GHz
Span
120MHz
RBW
1MHz
VBW
3MHz
Sweep Time
100ms
Detector Type
Peak



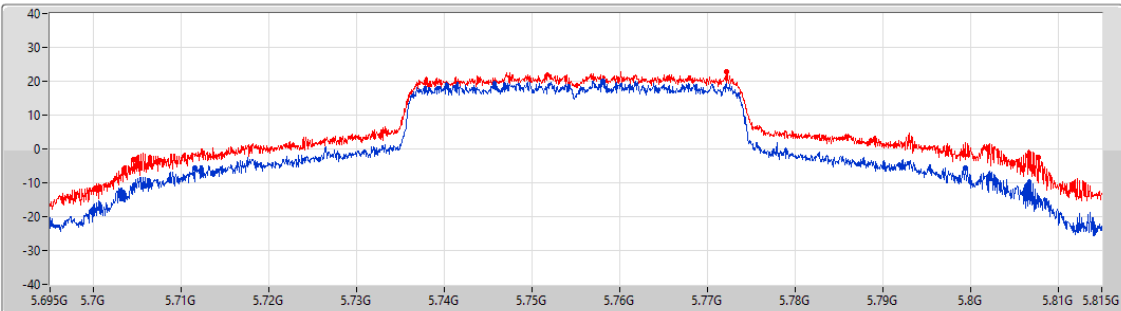
6dB(Hz)	FI-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	FI-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.488M	5.736256G	5.773744G	42.039M	5.733291G	5.77533G	500k	1
36.828M	5.736652G	5.77348G	60.63M	5.726934G	5.787564G	500k	2

5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

5755MHz

CF
5.755GHz
Span
120MHz
RBW
2MHz
VBW
10MHz
Sweep Time
100ms
Detector Type
Peak



Port 1
Port 2

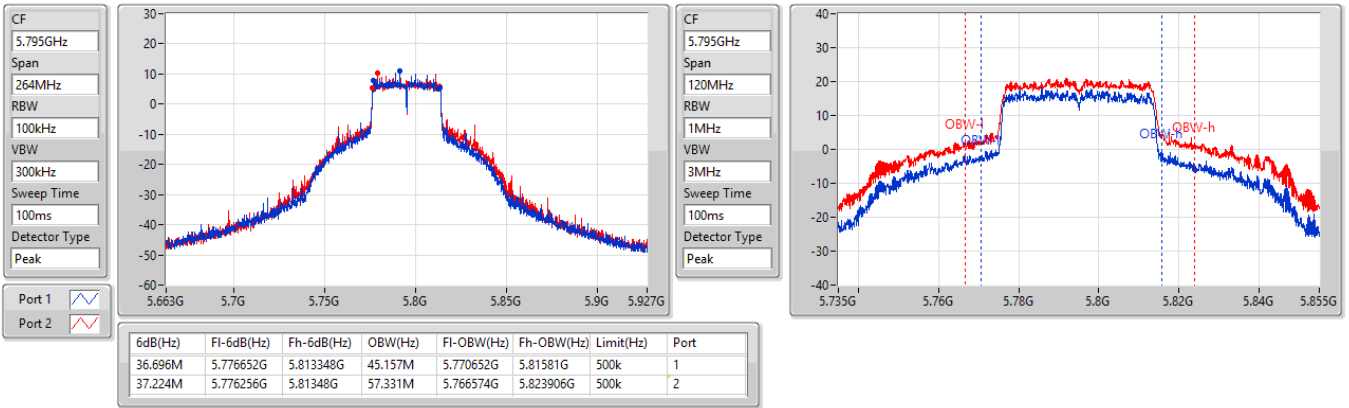
26dB(Hz)	FI-26dB(Hz)	Fh-26dB(Hz)	Limit(Hz)	Port
87.9M	5.71156G	5.79946G	Inf	1
103.32M	5.70448G	5.8078G	Inf	2



5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

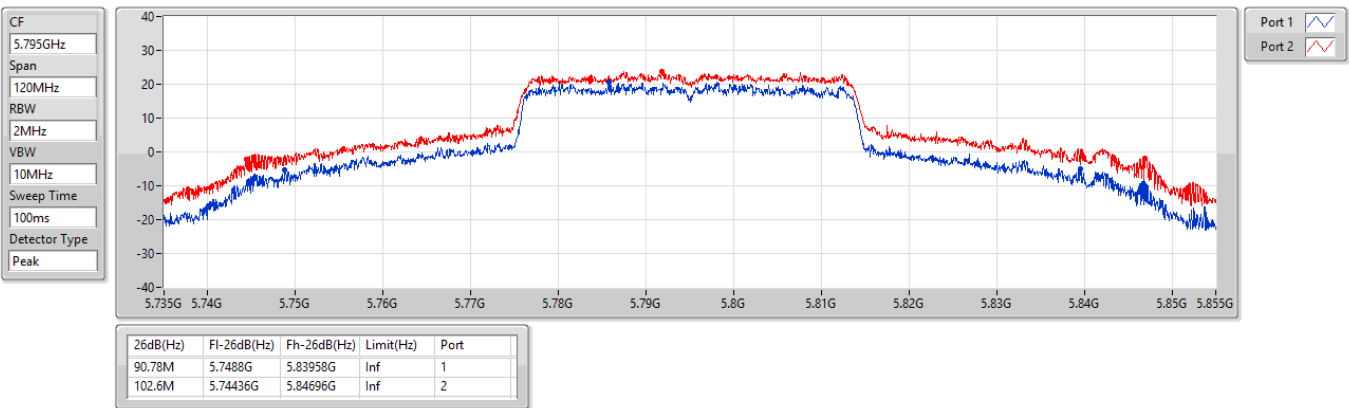
5795MHz



5.725-5.85GHz_802.11ax HEW40_Nss1,(MCS0)_2TX

EBW

5795MHz

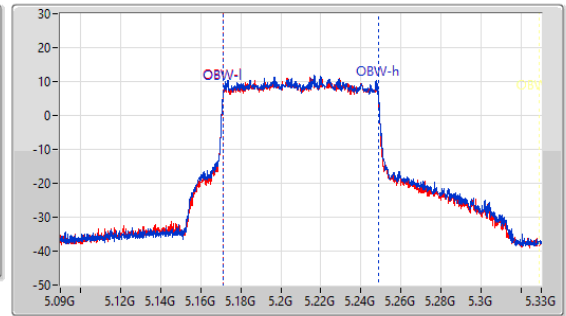
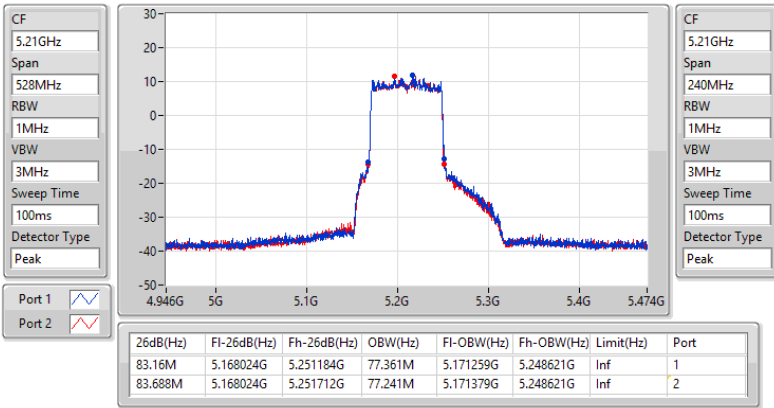




5.15-5.25GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

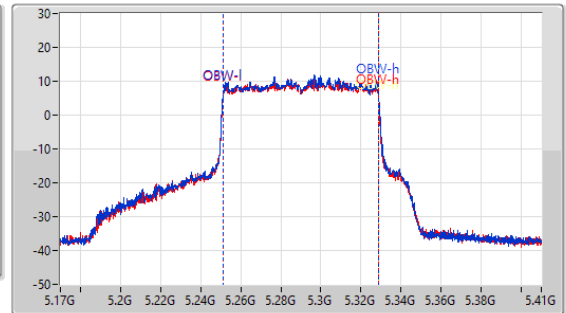
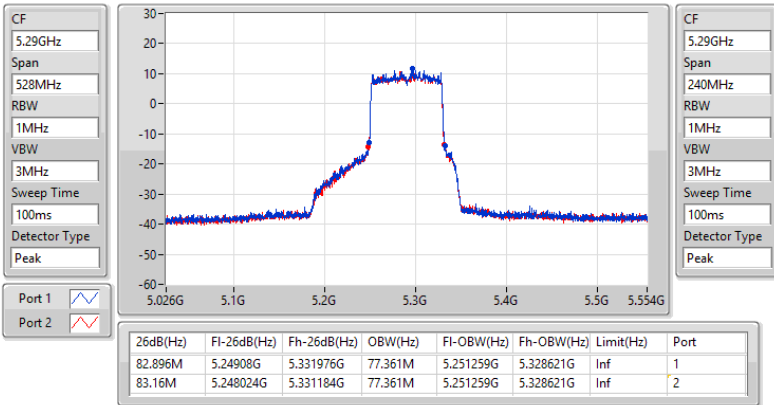
5210MHz



5.25-5.35GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

5290MHz

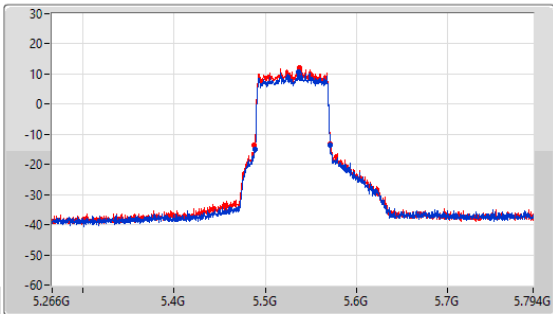


5.47-5.725GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

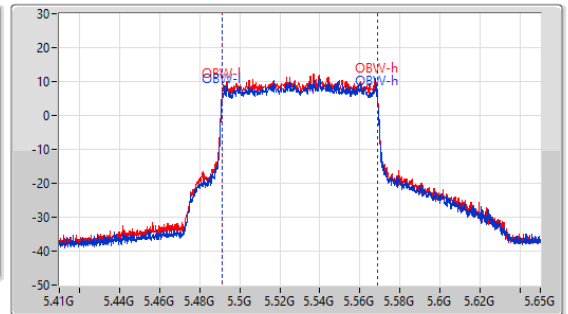
EBW

5530MHz

CF: 5.53GHz
 Span: 528MHz
 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



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

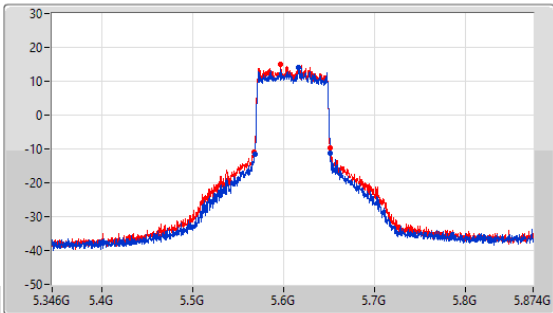
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
82.368M	5.48908G	5.571448G	77.241M	5.491379G	5.568621G	Inf	1
82.896M	5.489024G	5.57092G	77.361M	5.491259G	5.568621G	Inf	2

5.47-5.725GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

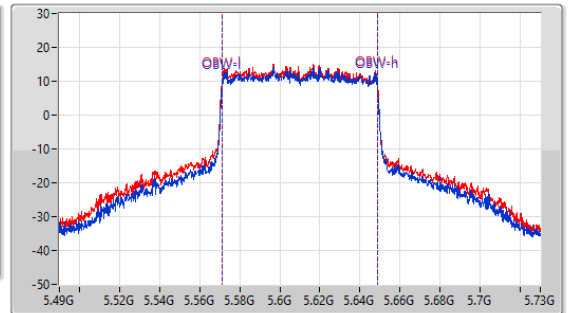
EBW

5610MHz

CF: 5.61GHz
 Span: 528MHz
 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



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

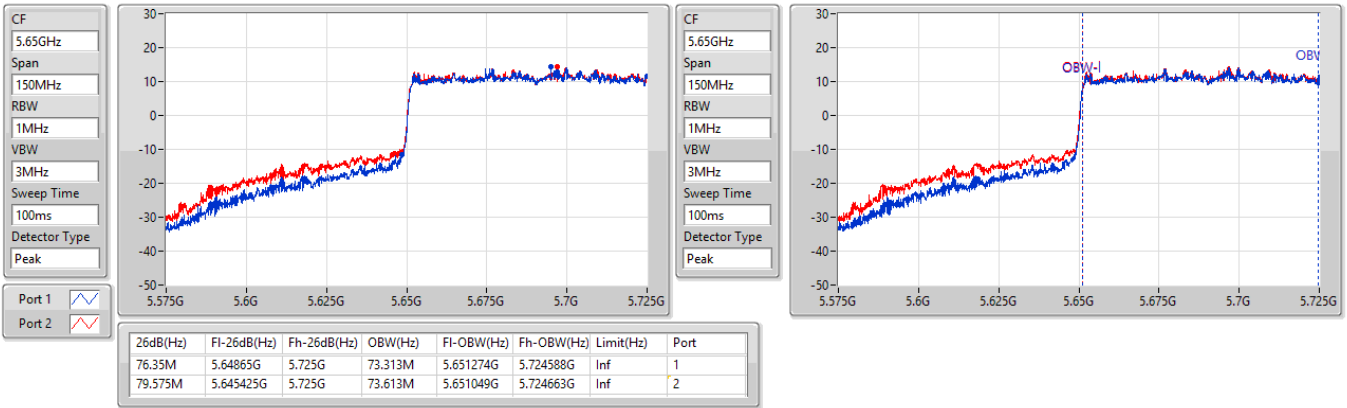
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
82.632M	5.568816G	5.651448G	77.361M	5.571259G	5.648621G	Inf	1
82.896M	5.56776G	5.650656G	77.481M	5.571139G	5.648621G	Inf	2



5.47-5.725GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

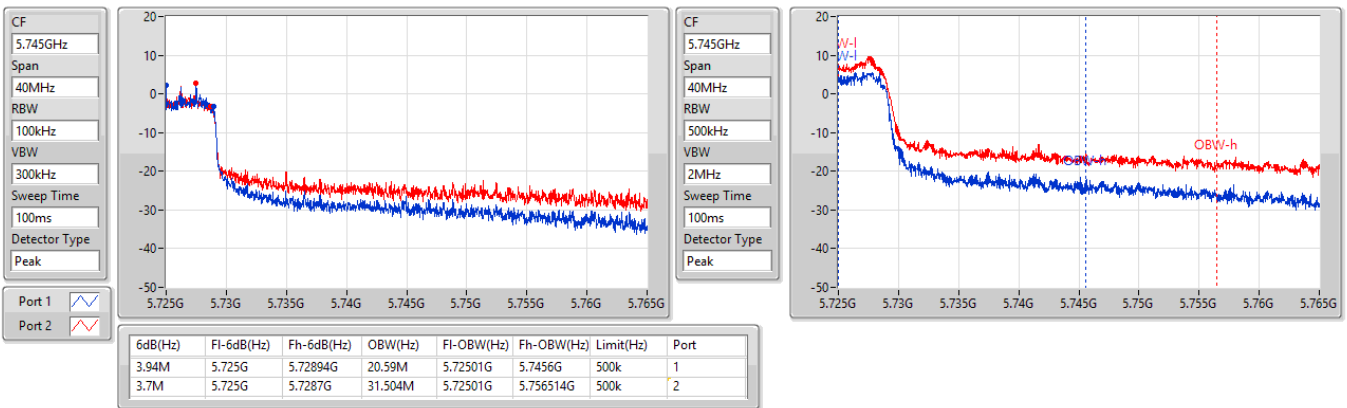
5690MHz Straddle 5.47-5.725GHz

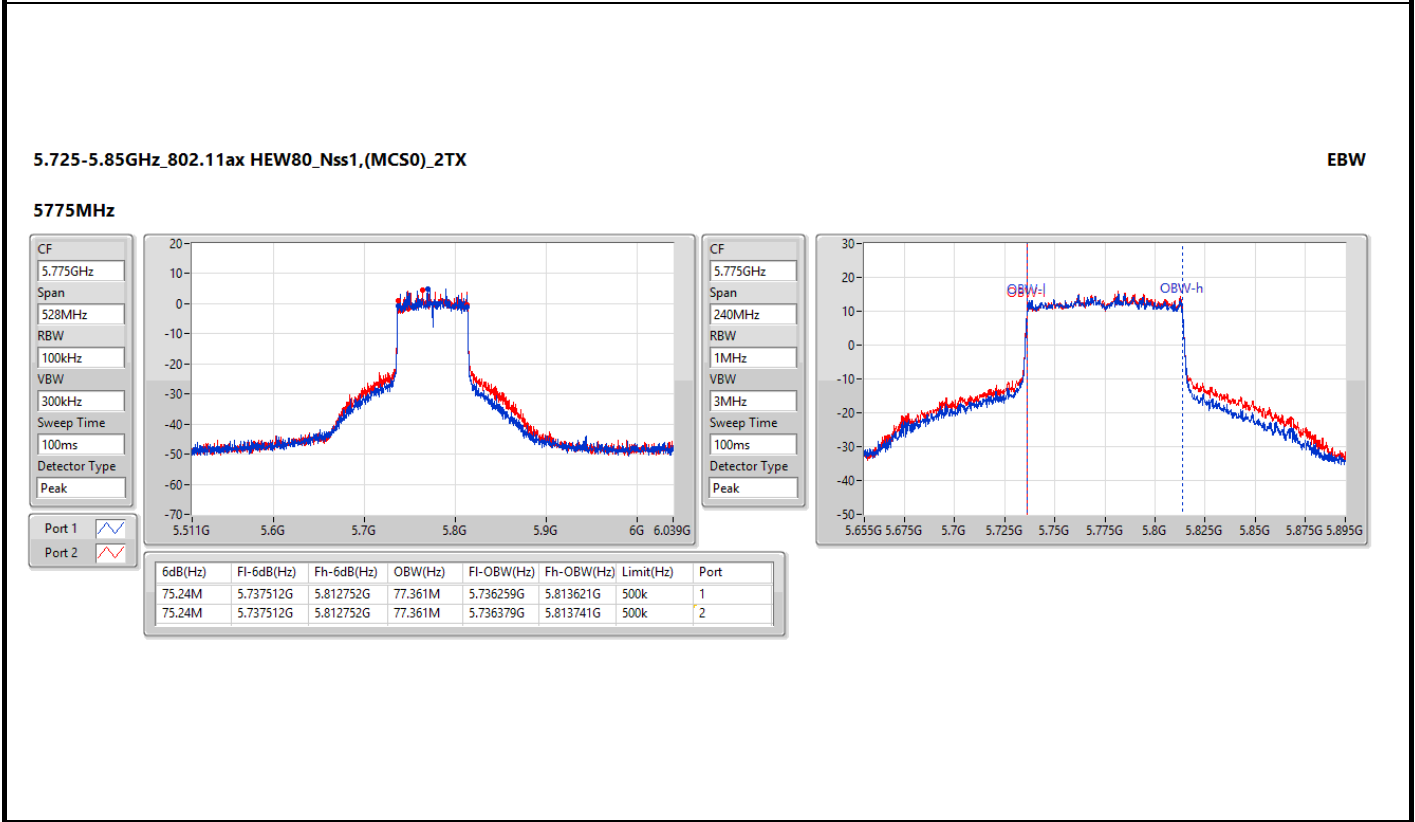
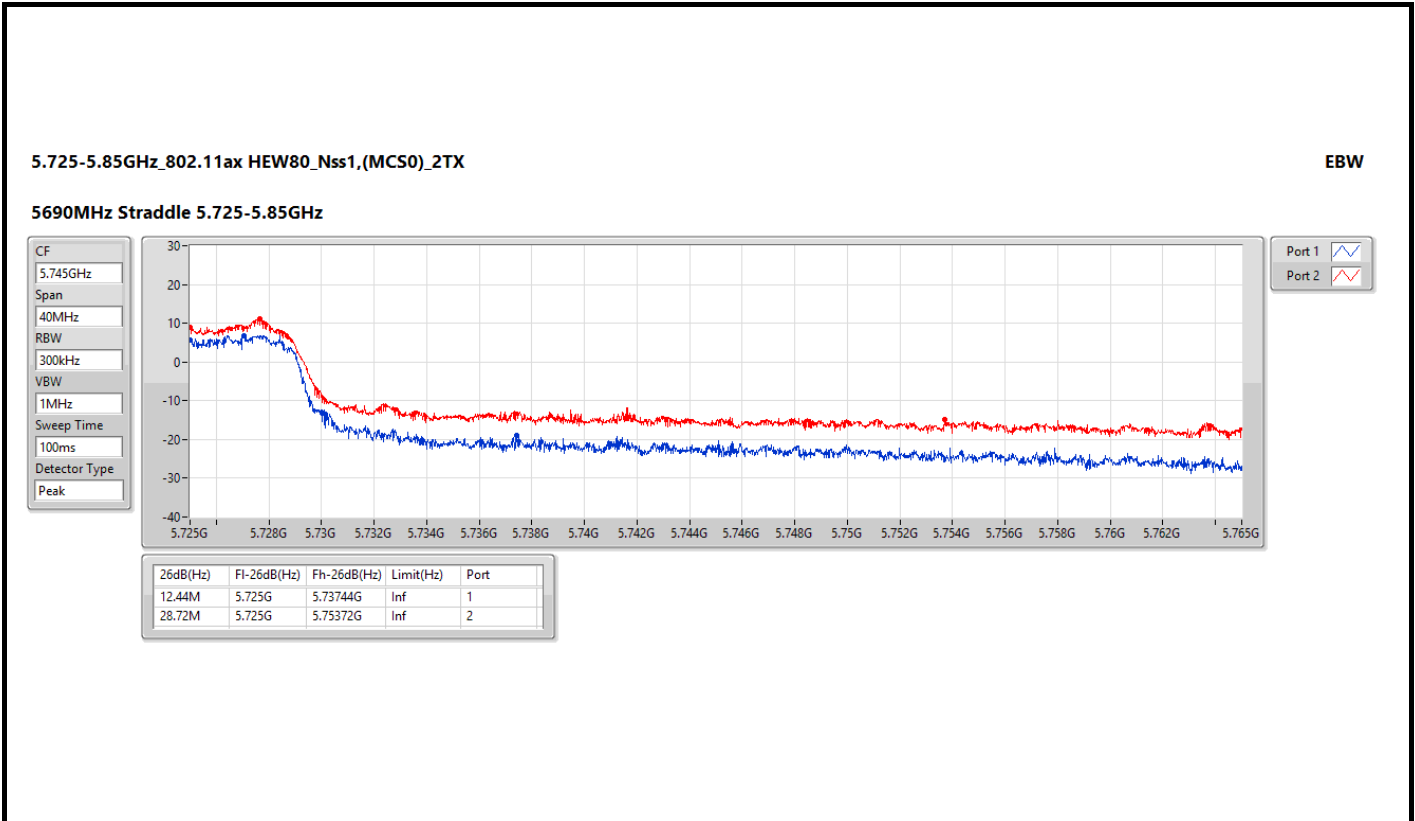


5.725-5.85GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

5690MHz Straddle 5.725-5.85GHz







5.725-5.85GHz_802.11ax HEW80_Nss1,(MCS0)_2TX

EBW

5775MHz

CF
5.775GHz

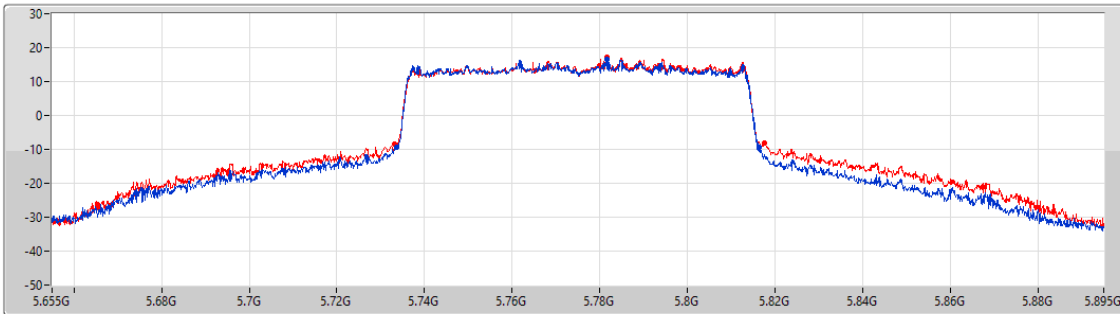
Span
240MHz

RBW
1MHz

VBW
3MHz

Sweep Time
100ms

Detector Type
Peak



Port 1

Port 2

26dB(Hz)	F1-26dB(Hz)	Fh-26dB(Hz)	Limit(Hz)	Port
82.56M	5.73372G	5.81628G	Inf	1
84.36M	5.73324G	5.8176G	Inf	2

5.15-5.25GHz_802.11ax HEW160_Nss1,(MCS0)_2TX

EBW

5250MHz Straddle 5.15-5.25GHz

CF
5.17GHz

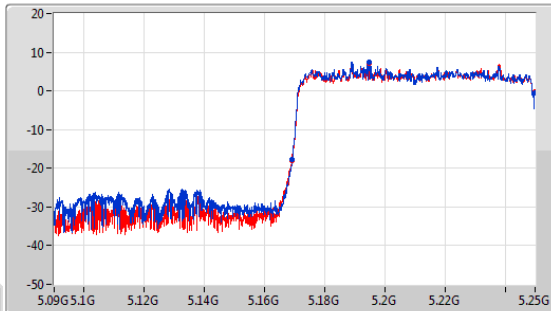
Span
160MHz

RBW
1MHz

VBW
3MHz

Sweep Time
100ms

Detector Type
Peak



CF
5.17GHz

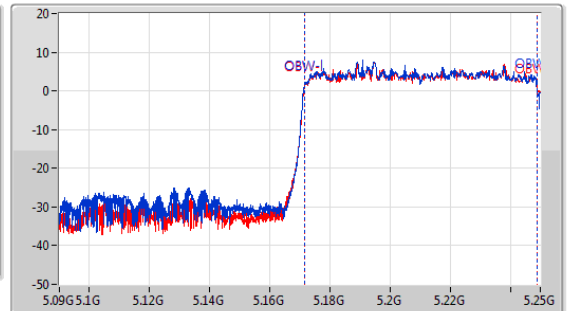
Span
160MHz

RBW
1MHz

VBW
3MHz

Sweep Time
100ms

Detector Type
Peak



Port 1

Port 2

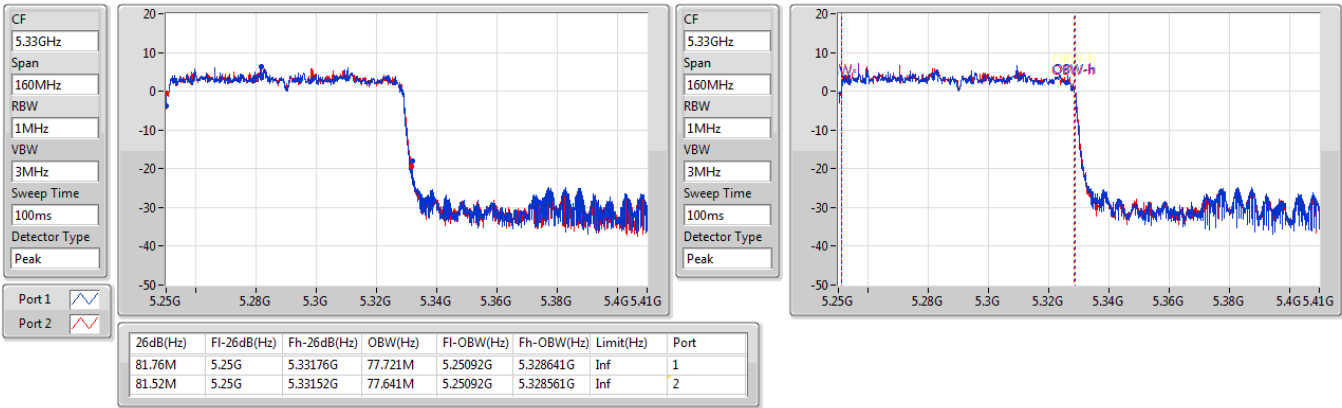
26dB(Hz)	F1-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	F1-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
80.88M	5.16912G	5.25G	77.241M	5.171599G	5.248841G	Inf	1
80.96M	5.16904G	5.25G	77.401M	5.171599G	5.249G	Inf	2



5.25-5.35GHz_802.11ax HEW160_Nss1,(MCS0)_2TX

EBW

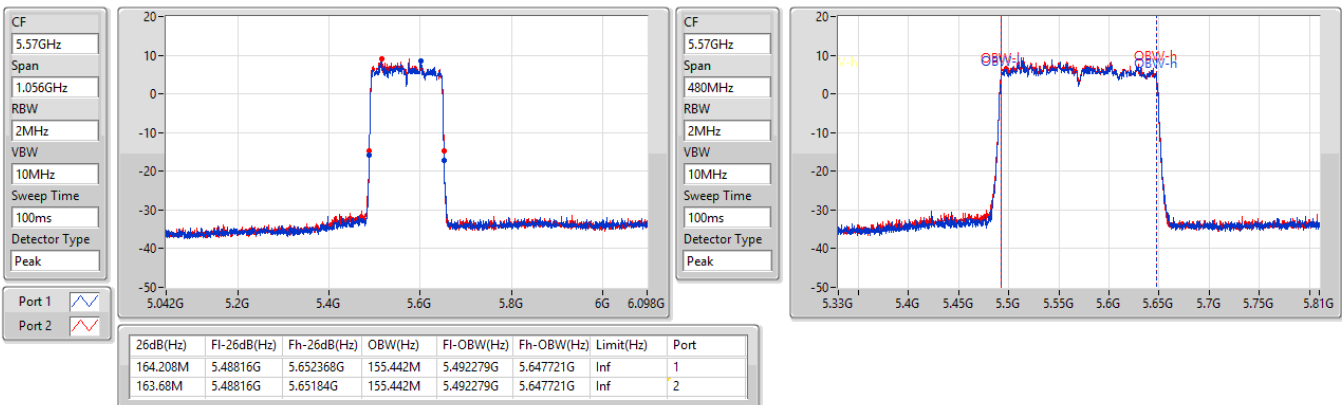
5250MHz Straddle 5.25-5.35GHz



5.47-5.725GHz_802.11ax HEW160_Nss1,(MCS0)_2TX

EBW

5570MHz





Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	25.49	0.35400	30.99	1.25603
802.11ax HEW20_Nss1,(MCS0)_2TX	25.01	0.31696	30.51	1.12460
802.11ax HEW40_Nss1,(MCS0)_2TX	24.64	0.29107	30.14	1.03276
802.11ax HEW80_Nss1,(MCS0)_2TX	21.32	0.13552	26.82	0.48084
802.11ax HEW160_Nss1,(MCS0)_2TX	16.80	0.04786	22.30	0.16982
5.25-5.35GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	22.01	0.15885	27.01	0.50234
802.11ax HEW20_Nss1,(MCS0)_2TX	22.56	0.18030	27.56	0.57016
802.11ax HEW40_Nss1,(MCS0)_2TX	23.72	0.23550	28.72	0.74473
802.11ax HEW80_Nss1,(MCS0)_2TX	20.93	0.12388	25.93	0.39174
802.11ax HEW160_Nss1,(MCS0)_2TX	16.20	0.04169	21.20	0.13183
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	21.34	0.13614	26.44	0.44055
802.11ax HEW20_Nss1,(MCS0)_2TX	22.02	0.15922	27.12	0.51523
802.11ax HEW40_Nss1,(MCS0)_2TX	23.87	0.24378	28.97	0.78886
802.11ax HEW80_Nss1,(MCS0)_2TX	23.89	0.24491	28.99	0.79250
802.11ax HEW160_Nss1,(MCS0)_2TX	18.43	0.06966	23.53	0.22542
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	27.07	0.50933	32.07	1.61065
802.11ax HEW20_Nss1,(MCS0)_2TX	27.16	0.52000	32.16	1.64437
802.11ax HEW40_Nss1,(MCS0)_2TX	28.29	0.67453	33.29	2.13304
802.11ax HEW80_Nss1,(MCS0)_2TX	24.58	0.28708	29.58	0.90782



Conducted Output Power(Average)

Appendix B.1

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.50	19.36	20.43	22.94	30.00	28.44	36.00
5200MHz	Pass	5.50	21.91	22.98	25.49	30.00	30.99	36.00
5240MHz	Pass	5.50	21.14	22.15	24.68	30.00	30.18	36.00
5260MHz	Pass	5.00	18.89	19.1	22.01	24.00	27.01	30.00
5300MHz	Pass	5.00	18.9	19.05	21.99	24.00	26.99	30.00
5320MHz	Pass	5.00	18.37	18.85	21.63	24.00	26.63	30.00
5500MHz	Pass	5.10	18.18	18.48	21.34	24.00	26.44	30.00
5580MHz	Pass	5.10	18.05	17.92	21.00	24.00	26.10	30.00
5700MHz	Pass	5.10	15.79	15.8	18.81	24.00	23.91	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.10	17.82	18.05	20.95	23.02	26.05	29.02
5720MHz Straddle 5.725-5.85GHz	Pass	5.00	11.8	12.09	14.96	30.00	19.96	36.00
5745MHz	Pass	5.00	23.58	23.79	26.70	30.00	31.70	36.00
5785MHz	Pass	5.00	23.44	24.61	27.07	30.00	32.07	36.00
5825MHz	Pass	5.00	22.99	24.38	26.75	30.00	31.75	36.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.50	19.25	19.95	22.62	30.00	28.12	36.00
5200MHz	Pass	5.50	21.49	22.45	25.01	30.00	30.51	36.00
5240MHz	Pass	5.50	21.58	22.28	24.95	30.00	30.45	36.00
5260MHz	Pass	5.00	19.44	19.51	22.49	24.00	27.49	30.00
5300MHz	Pass	5.00	19.52	19.58	22.56	24.00	27.56	30.00
5320MHz	Pass	5.00	19.35	19.44	22.41	24.00	27.41	30.00
5500MHz	Pass	5.10	18.44	19.28	21.89	24.00	26.99	30.00
5580MHz	Pass	5.10	18.94	19.07	22.02	24.00	27.12	30.00
5700MHz	Pass	5.10	14.57	14.52	17.56	24.00	22.66	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.10	18.19	18.58	21.40	23.12	26.50	29.12
5720MHz Straddle 5.725-5.85GHz	Pass	5.00	13.01	13.42	16.23	30.00	21.23	36.00
5745MHz	Pass	5.00	23.55	23.88	26.73	30.00	31.73	36.00
5785MHz	Pass	5.00	23.55	24.67	27.16	30.00	32.16	36.00
5825MHz	Pass	5.00	22.93	22.91	25.93	30.00	30.93	36.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	5.50	17.87	17.73	20.81	30.00	26.31	36.00
5230MHz	Pass	5.50	21.61	21.64	24.64	30.00	30.14	36.00
5270MHz	Pass	5.00	20.37	21.03	23.72	24.00	28.72	30.00
5310MHz	Pass	5.00	18.67	19.48	22.10	24.00	27.10	30.00
5510MHz	Pass	5.10	18.57	19.31	21.97	24.00	27.07	30.00
5590MHz	Pass	5.10	20.67	21.04	23.87	24.00	28.97	30.00
5670MHz	Pass	5.10	18.71	19.45	22.11	24.00	27.21	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	5.10	20.08	20.91	23.53	24.00	28.63	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	5.00	10.4	11.37	13.92	30.00	18.92	36.00
5755MHz	Pass	5.00	24.71	24.15	27.45	30.00	32.45	36.00
5795MHz	Pass	5.00	25.25	25.3	28.29	30.00	33.29	36.00



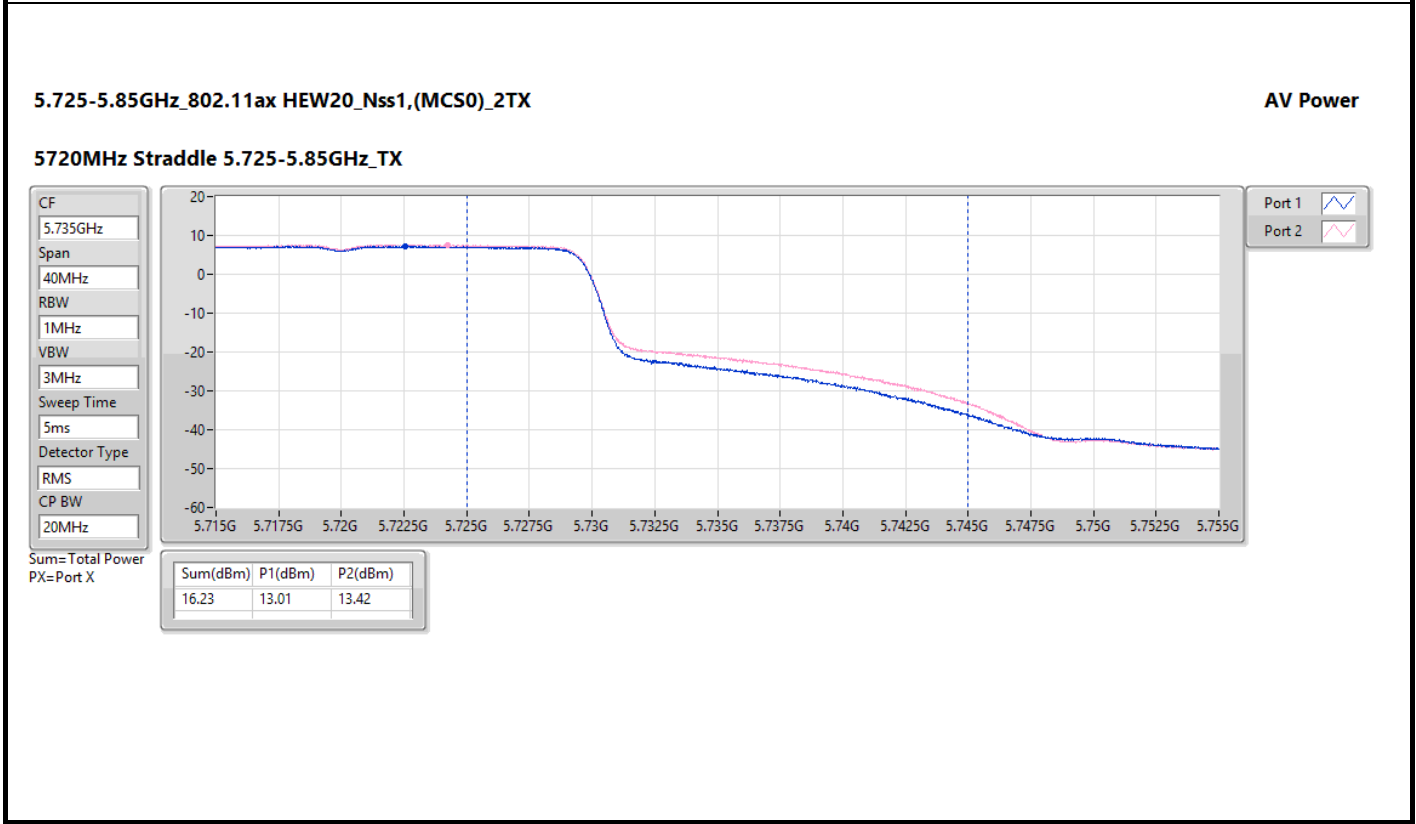
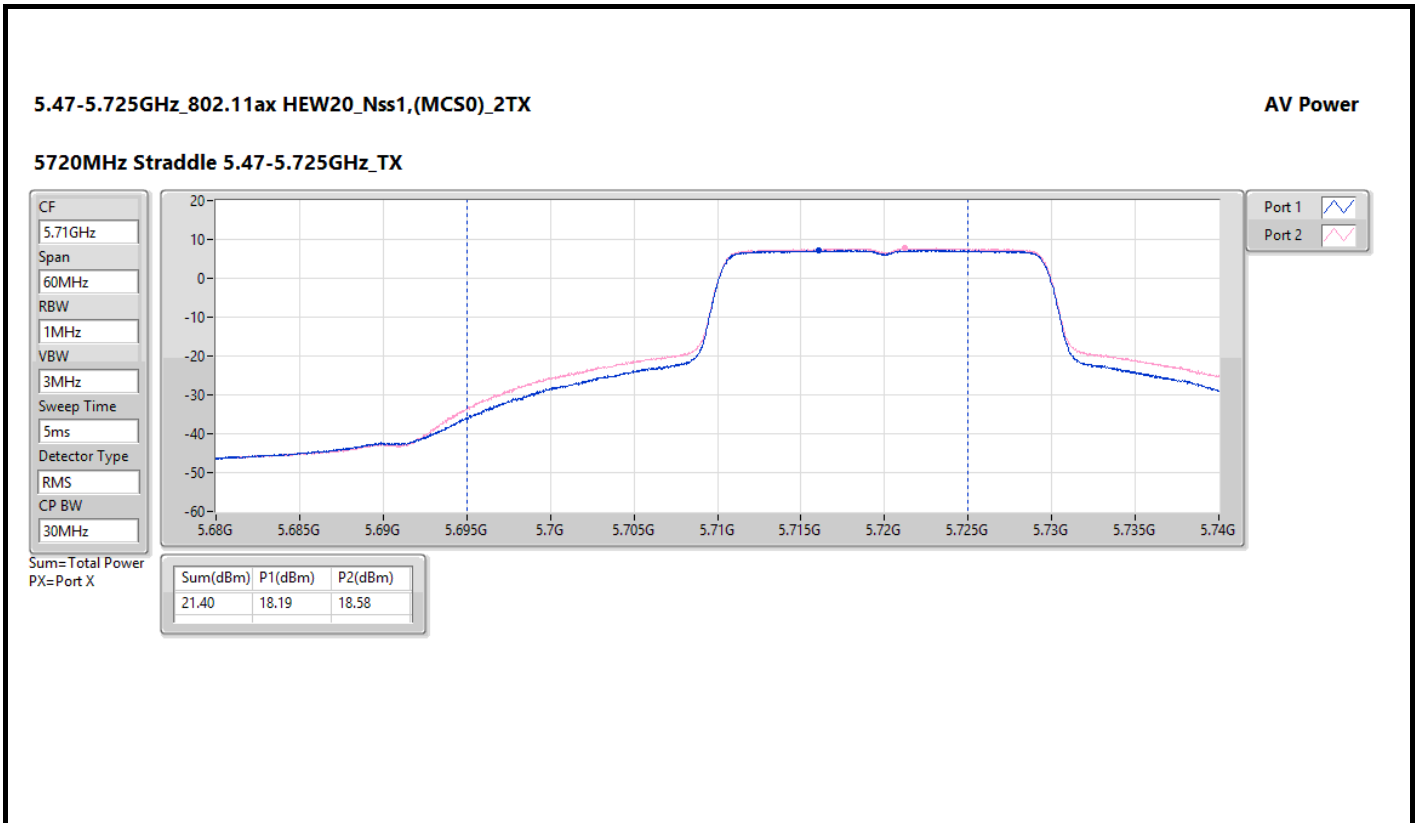
Conducted Output Power(Average)

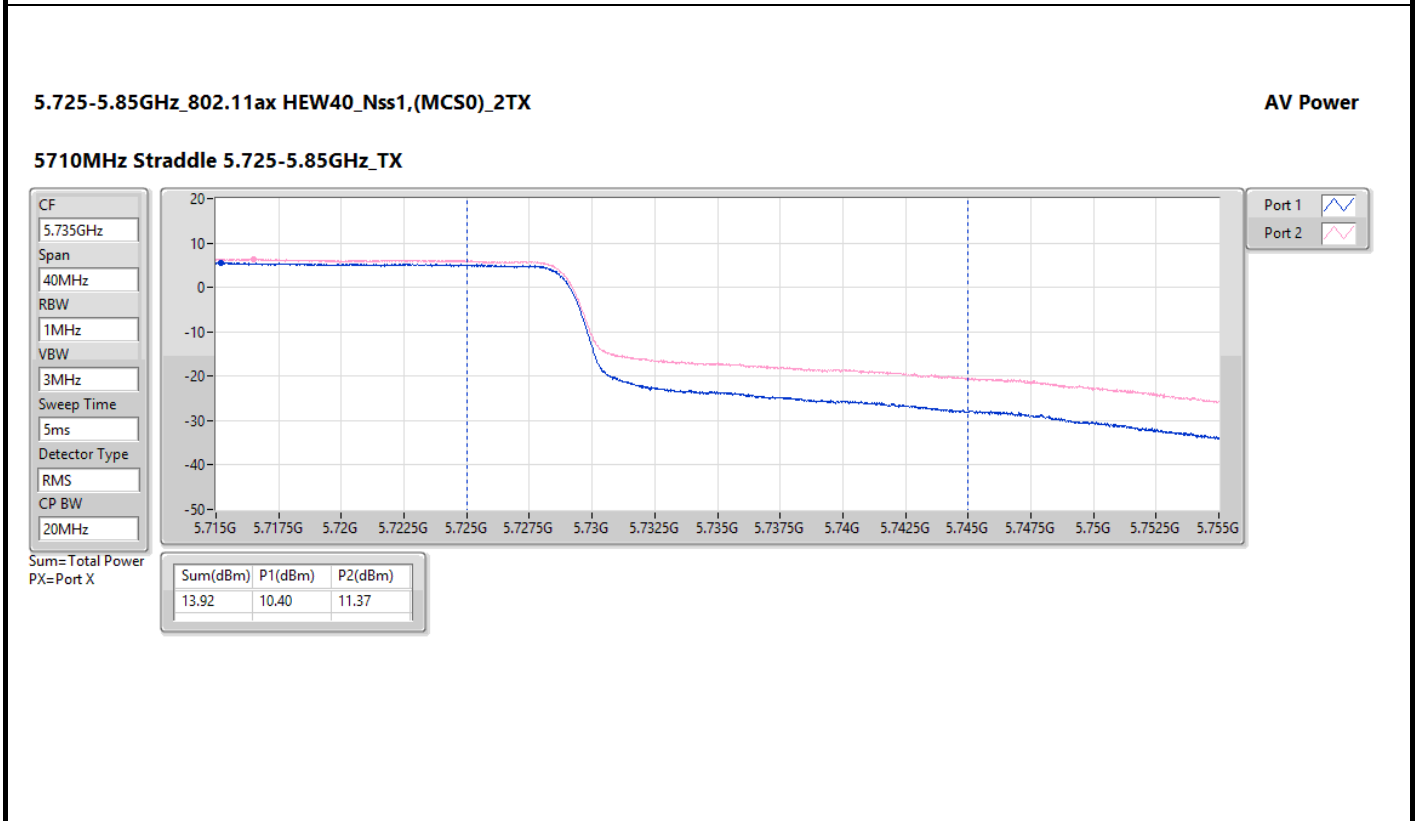
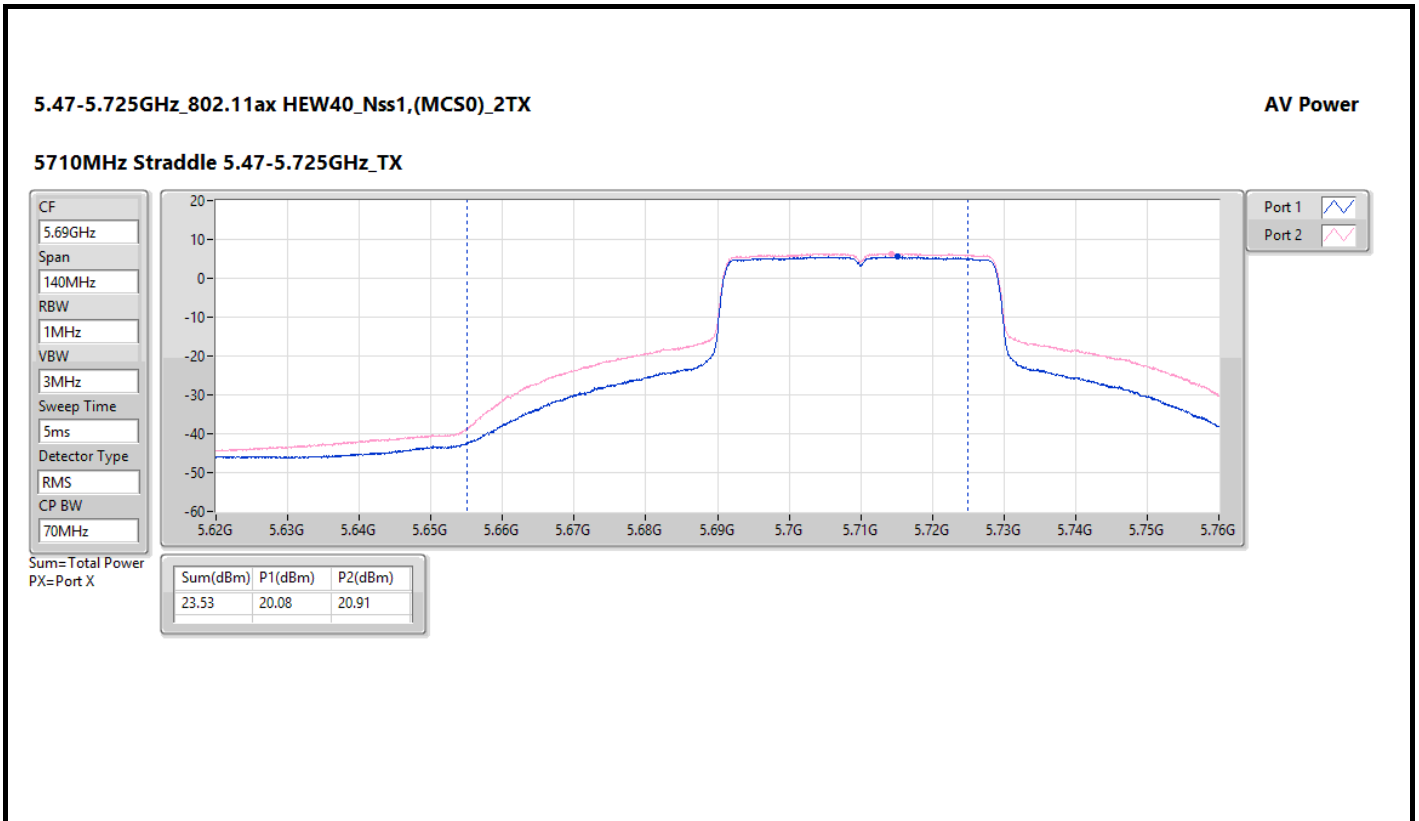
Appendix B.1

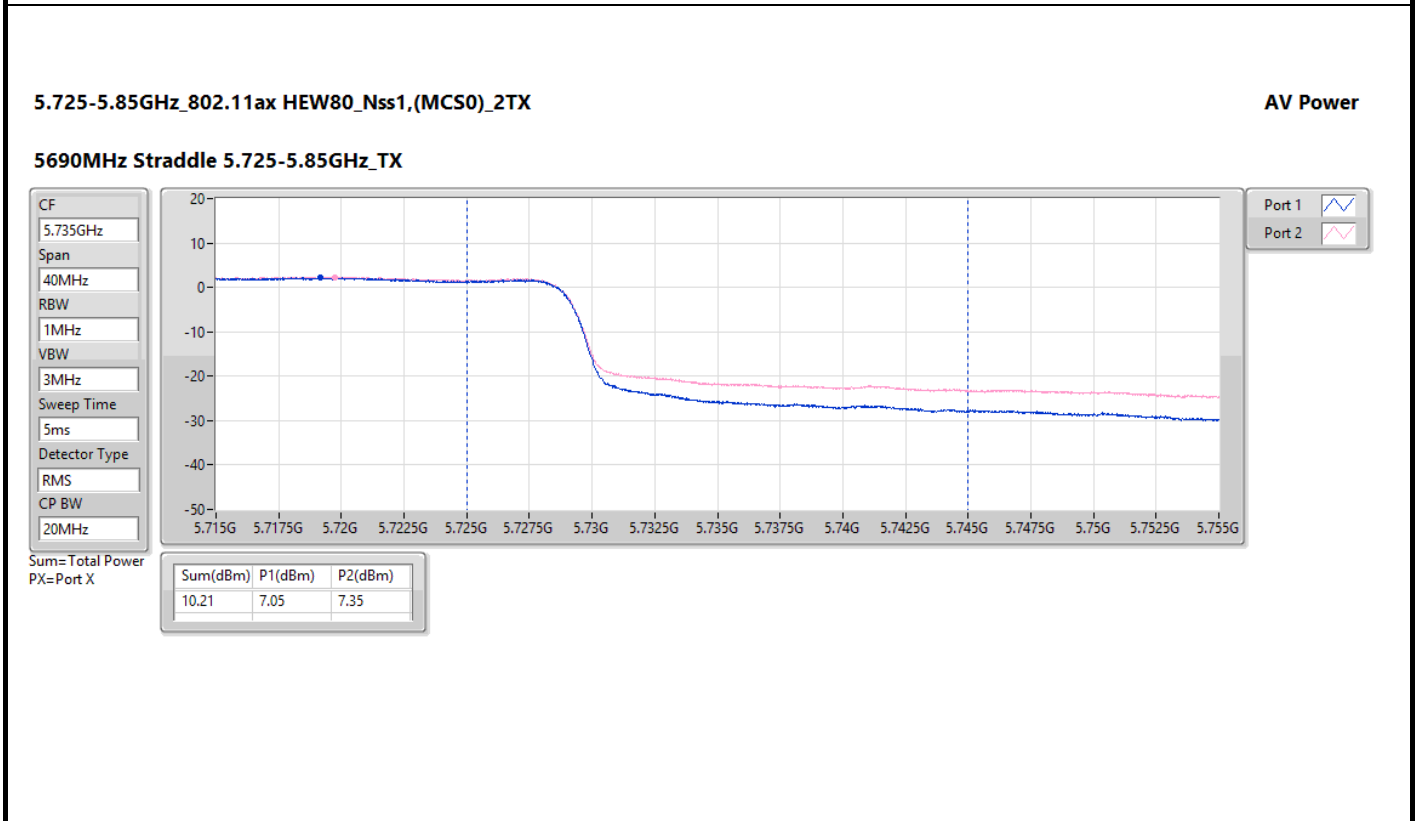
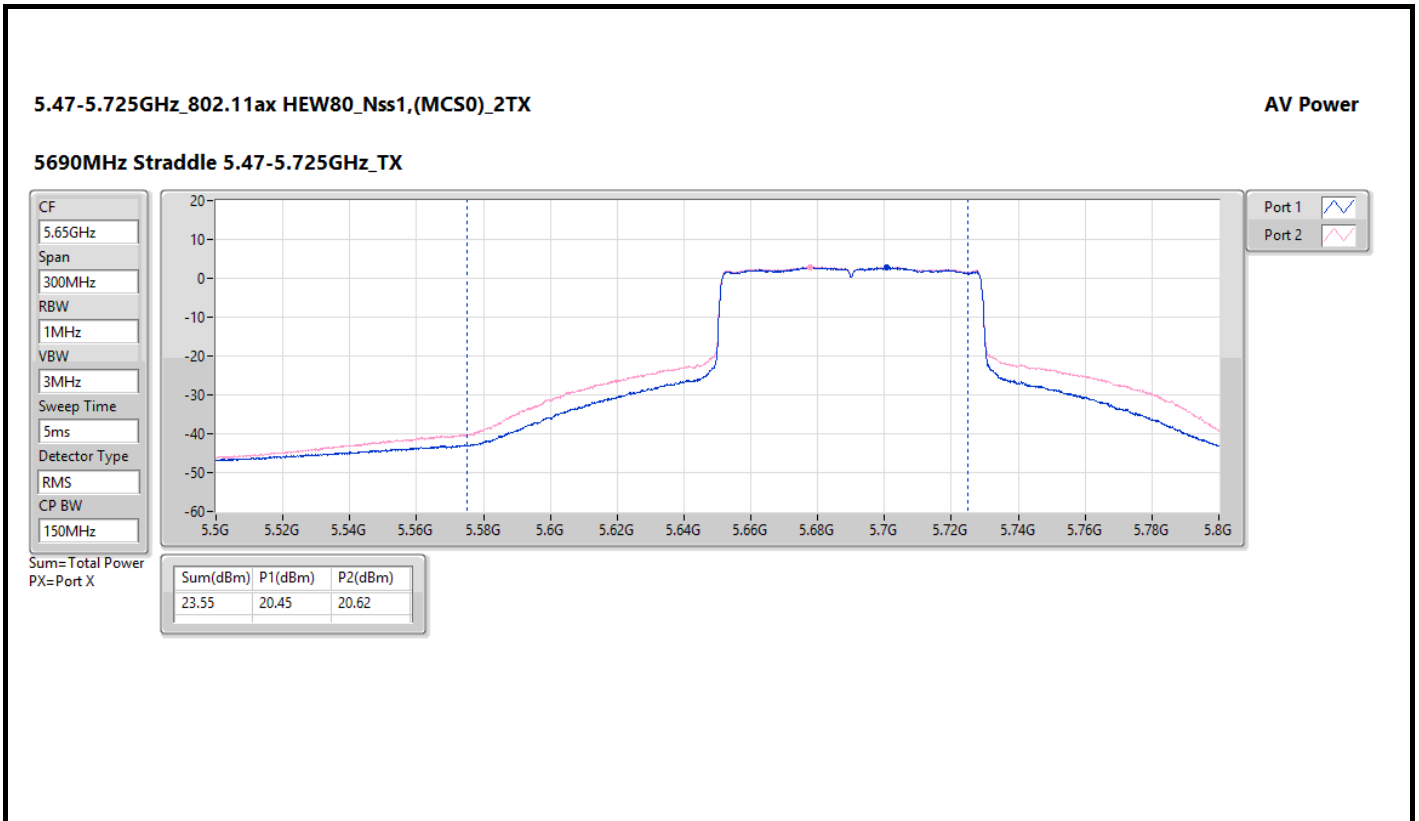
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	5.50	18.3	18.31	21.32	30.00	26.82	36.00
5290MHz	Pass	5.00	18.01	17.82	20.93	24.00	25.93	30.00
5530MHz	Pass	5.10	17.57	18.59	21.12	24.00	26.22	30.00
5610MHz	Pass	5.10	20.57	21.17	23.89	24.00	28.99	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	5.10	20.45	20.62	23.55	24.00	28.65	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	5.00	7.05	7.35	10.21	30.00	15.21	36.00
5775MHz	Pass	5.00	21.41	21.72	24.58	30.00	29.58	36.00
802.11ax HEW160_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	5.50	13.86	13.71	16.80	30.00	22.30	36.00
5250MHz Straddle 5.25-5.35GHz	Pass	5.00	13.17	13.21	16.20	24.00	21.20	30.00
5570MHz	Pass	5.10	15.18	15.65	18.43	24.00	23.53	30.00

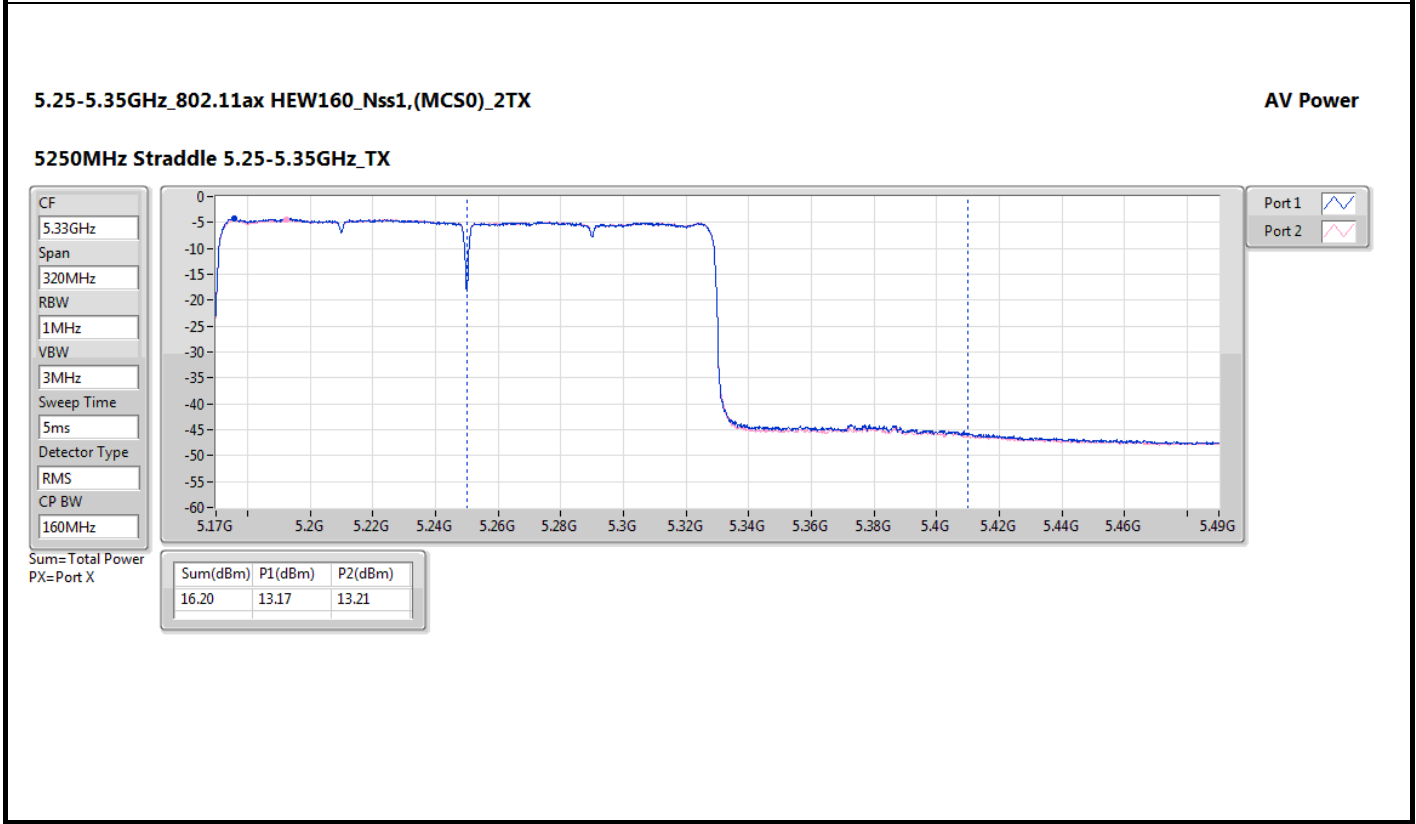
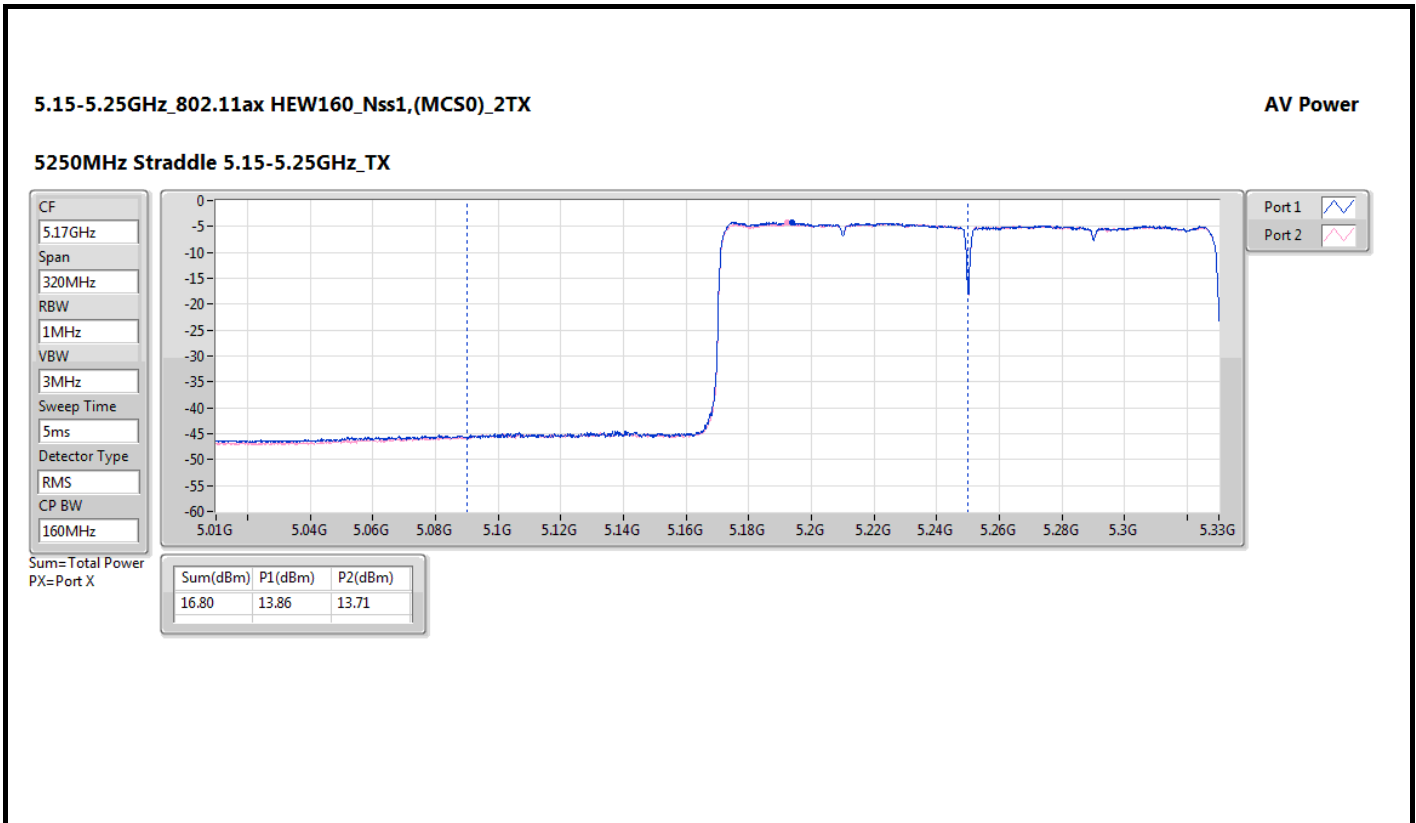
DG = Directional Gain; Port X = Port X output power













Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	22.00	0.15849	30.22	1.05196
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	21.63	0.14555	29.85	0.96605
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	18.31	0.06776	26.53	0.44978
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	13.79	0.02393	22.01	0.15885
5.25-5.35GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	19.55	0.09016	26.84	0.48306
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	20.71	0.11776	28.00	0.63096
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	17.92	0.06194	25.21	0.33189
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	13.19	0.02084	20.48	0.11169
5.47-5.725GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	19.01	0.07962	26.78	0.47643
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	20.86	0.12190	28.63	0.72946
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	20.88	0.12246	28.65	0.73282
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	15.42	0.03483	23.19	0.20845
5.725-5.85GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	24.15	0.26002	31.49	1.40929
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	25.28	0.33729	32.62	1.82810
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	21.57	0.14355	28.91	0.77804



Conducted Output Power(Average)

Appendix B.2

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	8.22	16.24	16.94	19.61	27.78	27.83	36.00
5200MHz	Pass	8.22	18.48	19.44	22.00	27.78	30.22	36.00
5240MHz	Pass	8.22	18.57	19.27	21.94	27.78	30.16	36.00
5260MHz	Pass	7.29	16.43	16.5	19.48	22.71	26.77	30.00
5300MHz	Pass	7.29	16.51	16.57	19.55	22.71	26.84	30.00
5320MHz	Pass	7.29	16.34	16.43	19.40	22.71	26.69	30.00
5500MHz	Pass	7.77	15.43	16.27	18.88	22.23	26.65	30.00
5580MHz	Pass	7.77	15.93	16.06	19.01	22.23	26.78	30.00
5700MHz	Pass	7.77	11.56	11.51	14.55	22.23	22.32	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	7.77	15.18	15.57	18.39	21.35	26.16	29.12
5720MHz Straddle 5.725-5.85GHz	Pass	7.34	10	10.41	13.22	28.66	20.56	36.00
5745MHz	Pass	7.34	20.54	20.87	23.72	28.66	31.06	36.00
5785MHz	Pass	7.34	20.54	21.66	24.15	28.66	31.49	36.00
5825MHz	Pass	7.34	19.92	19.9	22.92	28.66	30.26	36.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	8.22	14.86	14.72	17.80	27.78	26.02	36.00
5230MHz	Pass	8.22	18.6	18.63	21.63	27.78	29.85	36.00
5270MHz	Pass	7.29	17.36	18.02	20.71	22.71	28.00	30.00
5310MHz	Pass	7.29	15.66	16.47	19.09	22.71	26.38	30.00
5510MHz	Pass	7.77	15.56	16.3	18.96	22.23	26.73	30.00
5590MHz	Pass	7.77	17.66	18.03	20.86	22.23	28.63	30.00
5670MHz	Pass	7.77	15.7	16.44	19.10	22.23	26.87	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	7.77	17.07	17.9	20.52	22.23	28.29	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	7.34	7.39	8.36	10.91	28.66	18.25	36.00
5755MHz	Pass	7.34	21.7	21.14	24.44	28.66	31.78	36.00
5795MHz	Pass	7.34	22.24	22.29	25.28	28.66	32.62	36.00
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	8.22	15.29	15.3	18.31	27.78	26.53	36.00
5290MHz	Pass	7.29	15	14.81	17.92	22.71	25.21	30.00
5530MHz	Pass	7.77	14.56	15.58	18.11	22.23	25.88	30.00
5610MHz	Pass	7.77	17.56	18.16	20.88	22.23	28.65	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	7.77	17.44	17.61	20.54	22.23	28.31	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	7.34	4.04	4.34	7.20	28.66	14.54	36.00
5775MHz	Pass	7.34	18.4	18.71	21.57	28.66	28.91	36.00
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	8.22	10.85	10.7	13.79	27.78	22.01	36.00
5250MHz Straddle 5.25-5.35GHz	Pass	7.29	10.16	10.2	13.19	22.71	20.48	30.00
5570MHz	Pass	7.77	12.17	12.64	15.42	22.23	23.19	30.00

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



Note:

For 5180~5240MHz:

Directional gain = $10 \times \log((10^{5.5/20} + 10^{4.9/20})^2/2) = 8.22 \text{ dBi} > 6 \text{ dBi}$, limit shall be reduced to $30 \text{ dBm} - (8.22 \text{ dBi} - 6 \text{ dBi}) = 27.78 \text{ dBm}$

For 5260~5320MHz:

Directional gain = $10 \times \log((10^{5/20} + 10^{3.5/20})^2/2) = 7.29 \text{ dBi} > 6 \text{ dBi}$, limit shall be reduced to $24 \text{ dBm} - (7.29 \text{ dBi} - 6 \text{ dBi}) = 22.71 \text{ dBm}$

For 5500~5720MHz:

Directional gain = $10 \times \log((10^{5.1/20} + 10^{4.4/20})^2/2) = 7.77 \text{ dBi} > 6 \text{ dBi}$, limit shall be reduced to $24 \text{ dBm} - (7.77 \text{ dBi} - 6 \text{ dBi}) = 22.23 \text{ dBm}$.

For 5745~5825MHz:

Directional gain = $10 \times \log((10^{5/20} + 10^{3.6/20})^2/2) = 7.34 \text{ dBi} > 6 \text{ dBi}$, limit shall be reduced to $30 \text{ dBm} - (7.34 \text{ dBi} - 6 \text{ dBi}) = 28.66 \text{ dBm}$



Conducted Output Power(Average)

Appendix B.3

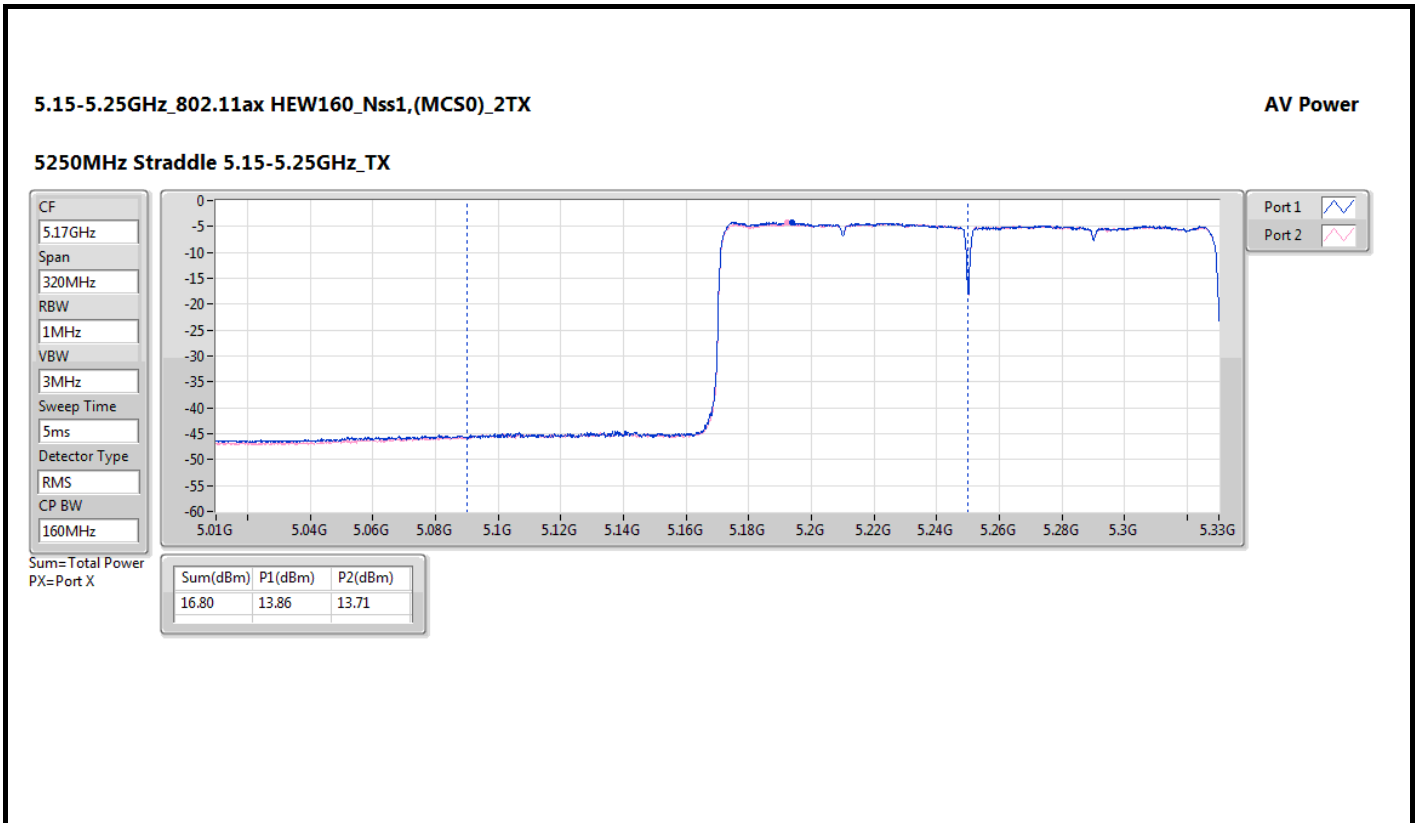
Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	20.90	0.12303	26.40	0.43652
802.11ax HEW20_Nss1,(MCS0)_2TX	21.51	0.14158	27.01	0.50234
802.11ax HEW40_Nss1,(MCS0)_2TX	23.53	0.22542	29.03	0.79983
802.11ax HEW80_Nss1,(MCS0)_2TX	21.32	0.13552	26.82	0.48084
802.11ax HEW160_Nss1,(MCS0)_2TX	16.80	0.04786	22.30	0.16982

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.50	17.52	18.09	20.82	24.00	26.32	30.00
5200MHz	Pass	5.50	17.38	18.08	20.75	24.00	26.25	30.00
5240MHz	Pass	5.50	17.73	18.05	20.90	24.00	26.40	30.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.50	18.02	18.58	21.32	24.00	26.82	30.00
5200MHz	Pass	5.50	18.13	18.58	21.37	24.00	26.87	30.00
5240MHz	Pass	5.50	18.28	18.7	21.51	24.00	27.01	30.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	5.50	17.87	17.73	20.81	24.00	26.31	30.00
5230MHz	Pass	5.50	20.53	20.51	23.53	24.00	29.03	30.00
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	5.50	18.3	18.31	21.32	24.00	26.82	30.00
802.11ax HEW160_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	5.50	13.86	13.71	16.80	24.00	22.30	30.00

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





Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	18.50	0.07079	26.72	0.46989
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	20.52	0.11272	28.74	0.74817
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	18.31	0.06776	26.53	0.44978
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	13.79	0.02393	22.01	0.15885

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	8.22	15.01	15.57	18.31	21.78	26.53	30.00
5200MHz	Pass	8.22	15.12	15.57	18.36	21.78	26.58	30.00
5240MHz	Pass	8.22	15.27	15.69	18.50	21.78	26.72	30.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	8.22	14.86	14.72	17.80	21.78	26.02	30.00
5230MHz	Pass	8.22	17.52	17.5	20.52	21.78	28.74	30.00
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	8.22	15.29	15.3	18.31	21.78	26.53	30.00
802.11ax HEW160-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	8.22	10.85	10.7	13.79	21.78	22.01	30.00

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

Note:

Directional gain = $10 \times \log((10^{5.5/20} + 10^{4.9/20})^2/2) = 8.22 \text{ dBi} > 6 \text{ dBi}$, limit shall be reduced to $24 \text{ dBm} - (8.22 \text{ dBi} - 6 \text{ dBi}) = 21.78 \text{ dBm}$.



Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	12.93	21.15
802.11ax HEW20_Nss1,(MCS0)_2TX	11.55	19.77
802.11ax HEW40_Nss1,(MCS0)_2TX	8.2	16.42
802.11ax HEW80_Nss1,(MCS0)_2TX	2.15	10.37
802.11ax HEW160_Nss1,(MCS0)_2TX	-3.06	5.16
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	9.41	16.70
802.11ax HEW20_Nss1,(MCS0)_2TX	9.37	16.66
802.11ax HEW40_Nss1,(MCS0)_2TX	7.27	14.56
802.11ax HEW80_Nss1,(MCS0)_2TX	1.7	8.99
802.11ax HEW160_Nss1,(MCS0)_2TX	-3.61	3.68
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	8.87	16.64
802.11ax HEW20_Nss1,(MCS0)_2TX	9.1	16.87
802.11ax HEW40_Nss1,(MCS0)_2TX	8.09	15.86
802.11ax HEW80_Nss1,(MCS0)_2TX	5.2	12.97
802.11ax HEW160_Nss1,(MCS0)_2TX	-3.57	4.20
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	12.74	20.08
802.11ax HEW20_Nss1,(MCS0)_2TX	12.15	19.49
802.11ax HEW40_Nss1,(MCS0)_2TX	10.31	17.65
802.11ax HEW80_Nss1,(MCS0)_2TX	4.06	11.40

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



Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	8.22	7.04	7.81	10.30	14.78	18.52	23.00
5200MHz	Pass	8.22	9.47	10.48	12.93	14.78	21.15	23.00
5240MHz	Pass	8.22	8.63	9.53	12.04	14.78	20.26	23.00
5260MHz	Pass	7.29	6.33	6.43	9.30	9.71	16.59	17.00
5300MHz	Pass	7.29	6.56	6.57	9.41	9.71	16.70	17.00
5320MHz	Pass	7.29	6.19	6.67	9.35	9.71	16.64	17.00
5500MHz	Pass	7.77	5.62	5.97	8.64	9.23	16.41	17.00
5580MHz	Pass	7.77	5.76	5.83	8.70	9.23	16.47	17.00
5700MHz	Pass	7.77	3.43	3.36	6.34	9.23	14.11	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	7.77	6	6.14	8.87	9.23	16.64	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	7.34	4.19	4.59	7.26	28.66	14.60	36.00
5745MHz	Pass	7.34	9.35	9.51	12.27	28.66	19.61	36.00
5785MHz	Pass	7.34	9.43	10.25	12.74	28.66	20.08	36.00
5825MHz	Pass	7.34	8.7	10.19	12.35	28.66	19.69	36.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	8.22	5.97	6.57	9.17	14.78	17.39	23.00
5200MHz	Pass	8.22	8.14	9.11	11.55	14.78	19.77	23.00
5240MHz	Pass	8.22	8.18	8.86	11.48	14.78	19.70	23.00
5260MHz	Pass	7.29	6.29	6.44	9.27	9.71	16.56	17.00
5300MHz	Pass	7.29	6.43	6.62	9.37	9.71	16.66	17.00
5320MHz	Pass	7.29	6.23	6.51	9.35	9.71	16.64	17.00
5500MHz	Pass	7.77	5.78	6.12	8.86	9.23	16.63	17.00
5580MHz	Pass	7.77	6.1	6.21	9.07	9.23	16.84	17.00
5700MHz	Pass	7.77	1.33	1.39	4.17	9.23	11.94	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	7.77	5.91	6.46	9.10	9.23	16.87	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	7.34	4.15	4.56	7.36	28.66	14.70	36.00
5745MHz	Pass	7.34	8.81	8.96	11.76	28.66	19.10	36.00
5785MHz	Pass	7.34	8.76	9.8	12.15	28.66	19.49	36.00
5825MHz	Pass	7.34	8.1	9.75	11.84	28.66	19.18	36.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	8.22	1.62	1.41	4.44	14.78	12.66	23.00
5230MHz	Pass	8.22	5.31	5.15	8.20	14.78	16.42	23.00
5270MHz	Pass	7.29	3.9	4.73	7.27	9.71	14.56	17.00
5310MHz	Pass	7.29	2.67	3.1	5.82	9.71	13.11	17.00
5510MHz	Pass	7.77	2.29	2.93	5.52	9.23	13.29	17.00
5590MHz	Pass	7.77	4.99	5.43	8.09	9.23	15.86	17.00



Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
5670MHz	Pass	7.77	2.54	3.35	5.85	9.23	13.62	17.00
5710MHz Straddle 5.47-5.725GHz	Pass	7.77	4.18	4.95	7.55	9.23	15.32	17.00
5710MHz Straddle 5.725-5.85GHz	Pass	7.34	2.15	2.99	5.53	28.66	12.87	36.00
5755MHz	Pass	7.34	7.06	6.5	9.65	28.66	16.99	36.00
5795MHz	Pass	7.34	7.39	7.6	10.31	28.66	17.65	36.00
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	8.22	-0.75	-0.83	2.15	14.78	10.37	23.00
5290MHz	Pass	7.29	-1.05	-1.38	1.70	9.71	8.99	17.00
5530MHz	Pass	7.77	-1.7	-0.44	1.81	9.23	9.58	17.00
5610MHz	Pass	7.77	1.68	2.65	5.20	9.23	12.97	17.00
5690MHz Straddle 5.47-5.725GHz	Pass	7.77	1.28	1.42	4.22	9.23	11.99	17.00
5690MHz Straddle 5.725-5.85GHz	Pass	7.34	-1.19	-0.78	1.94	28.66	9.28	36.00
5775MHz	Pass	7.34	0.94	1.48	4.06	28.66	11.40	36.00
802.11ax HEW160_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	8.22	-5.91	-6.17	-3.06	14.78	5.16	23.00
5250MHz Straddle 5.25-5.35GHz	Pass	7.29	-6.46	-6.46	-3.61	9.71	3.68	17.00
5570MHz	Pass	7.77	-6.78	-6.06	-3.57	9.23	4.20	17.00

DG = Directional Gain; RBW = 500kHz 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;

Note:

For 5180~5240MHz:

Directional gain = $10 \times \log((10^{5.5/20} + 10^{4.9/20})^2/2) = 8.22 \text{ dBi} > 6 \text{ dBi}$, limit shall be reduced to 17 dBm – (8.22 dBi – 6 dBi) = 14.78 dBm

For 5260~5320MHz:

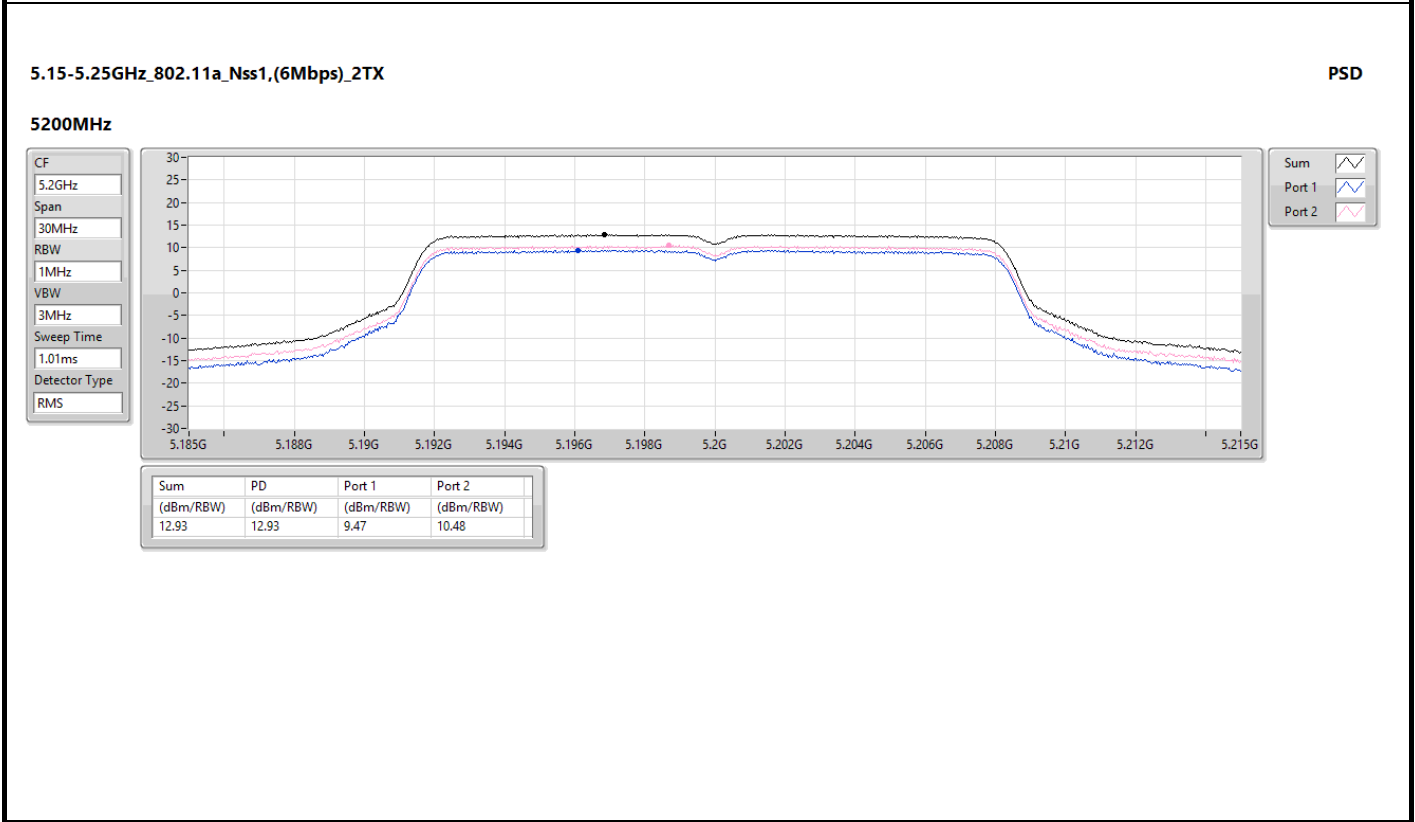
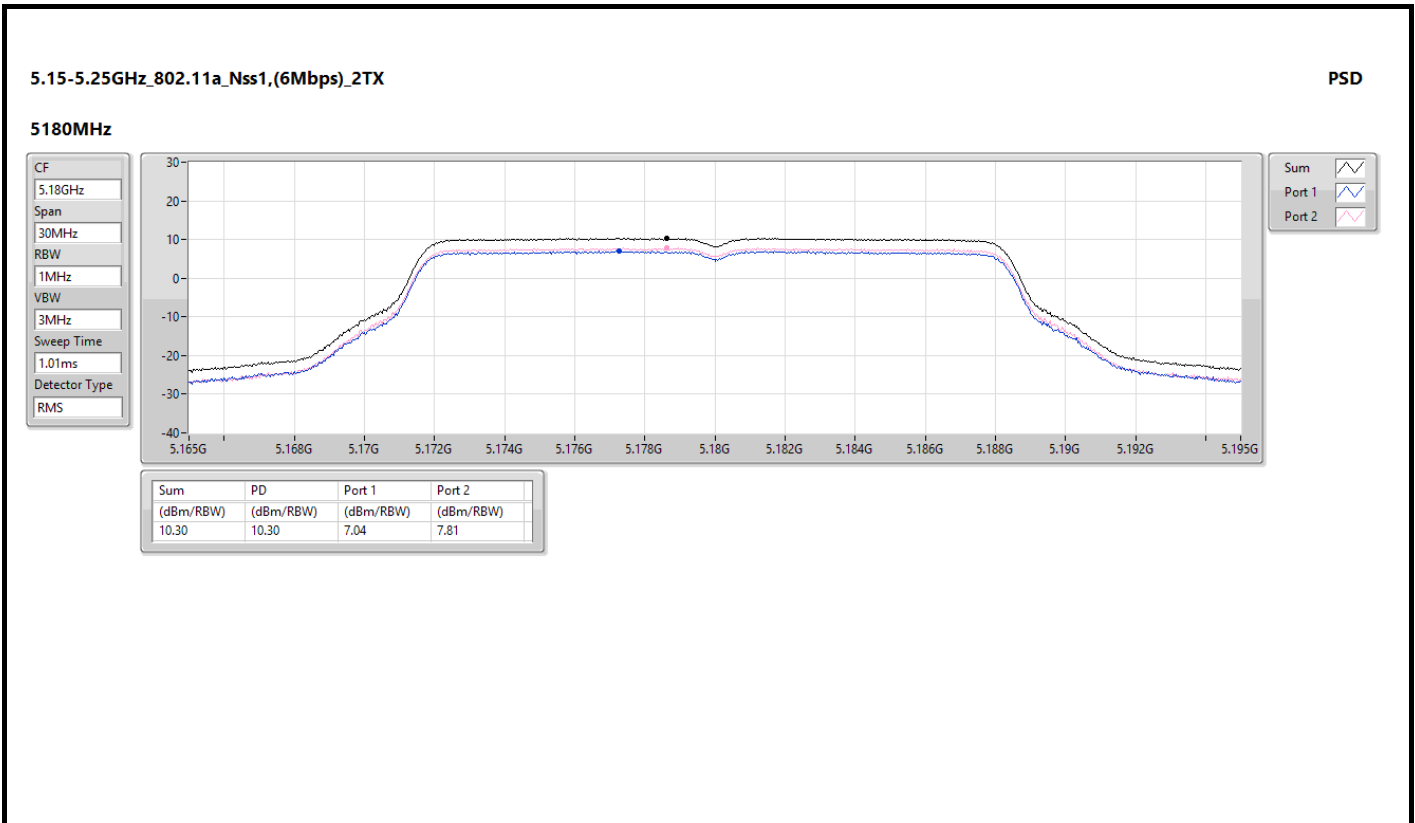
Directional gain = $10 \times \log((10^{5/20} + 10^{3.5/20})^2/2) = 7.29 \text{ dBi} > 6 \text{ dBi}$, limit shall be reduced to 11 dBm – (7.29 dBi – 6 dBi) = 9.71 dBm

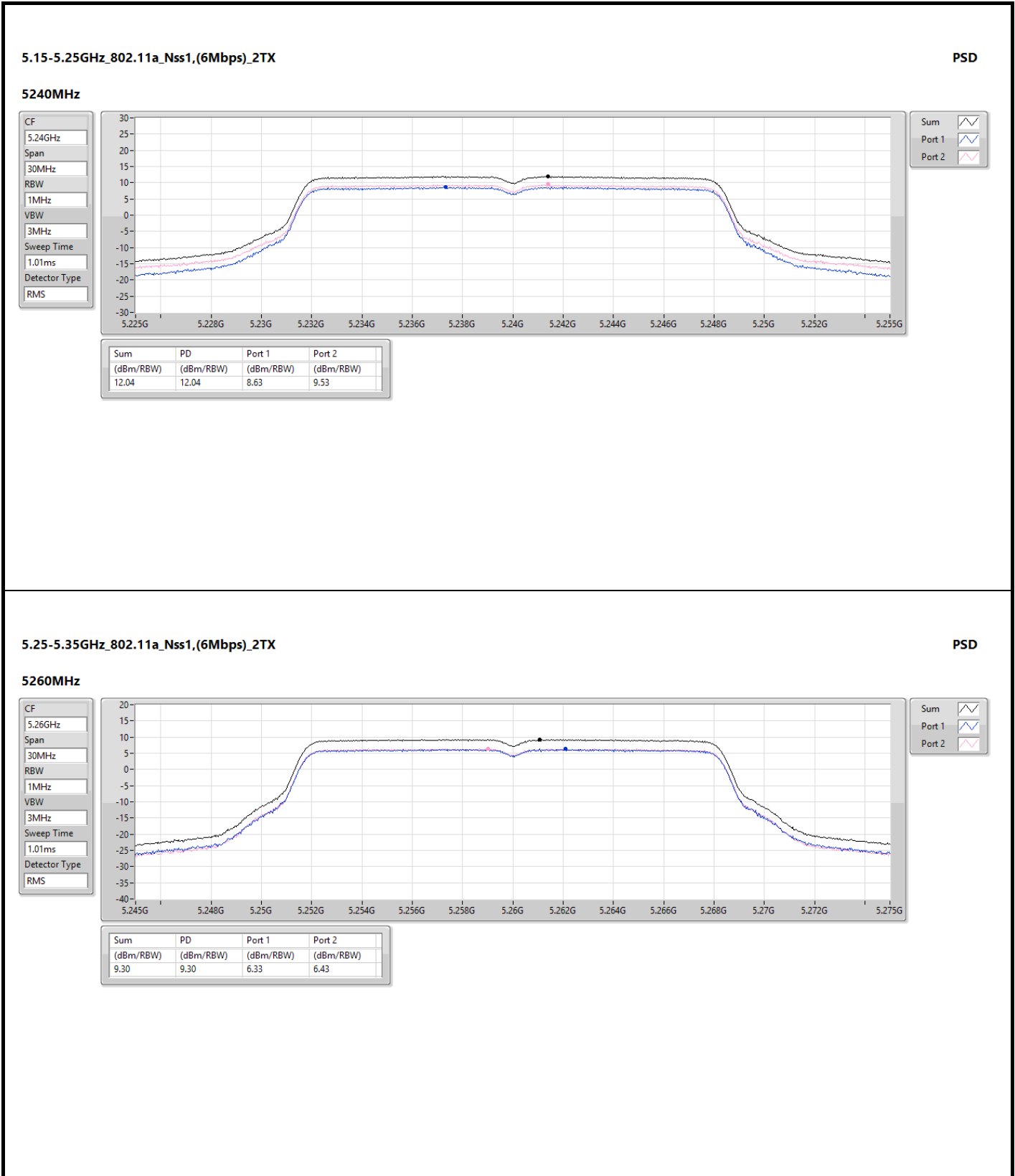
For 5500~5720MHz:

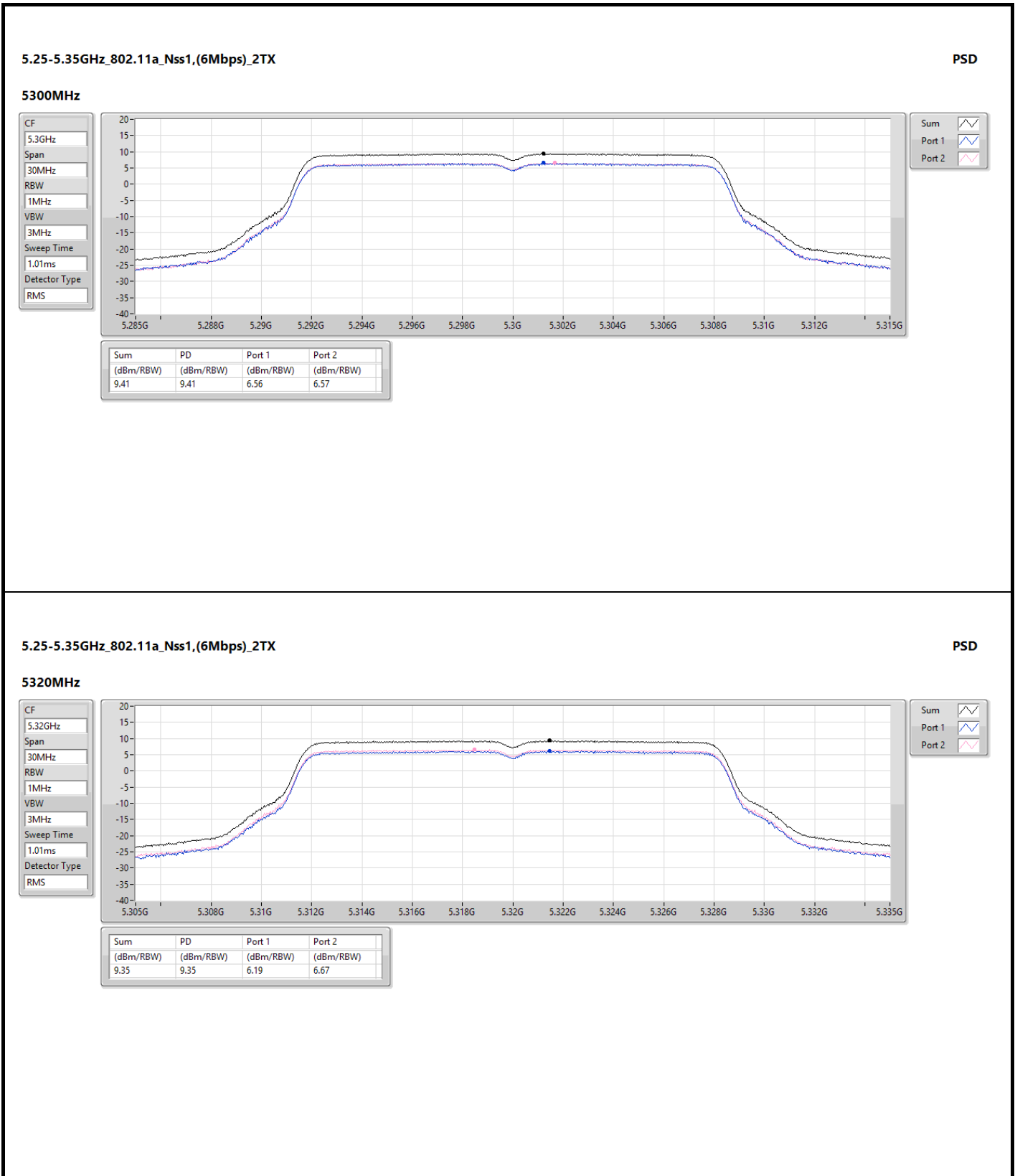
Directional gain = $10 \times \log((10^{5.1/20} + 10^{4.4/20})^2/2) = 7.77 \text{ dBi} > 6 \text{ dBi}$, limit shall be reduced to 11 dBm – (7.77 dBi – 6 dBi) = 9.23 dBm

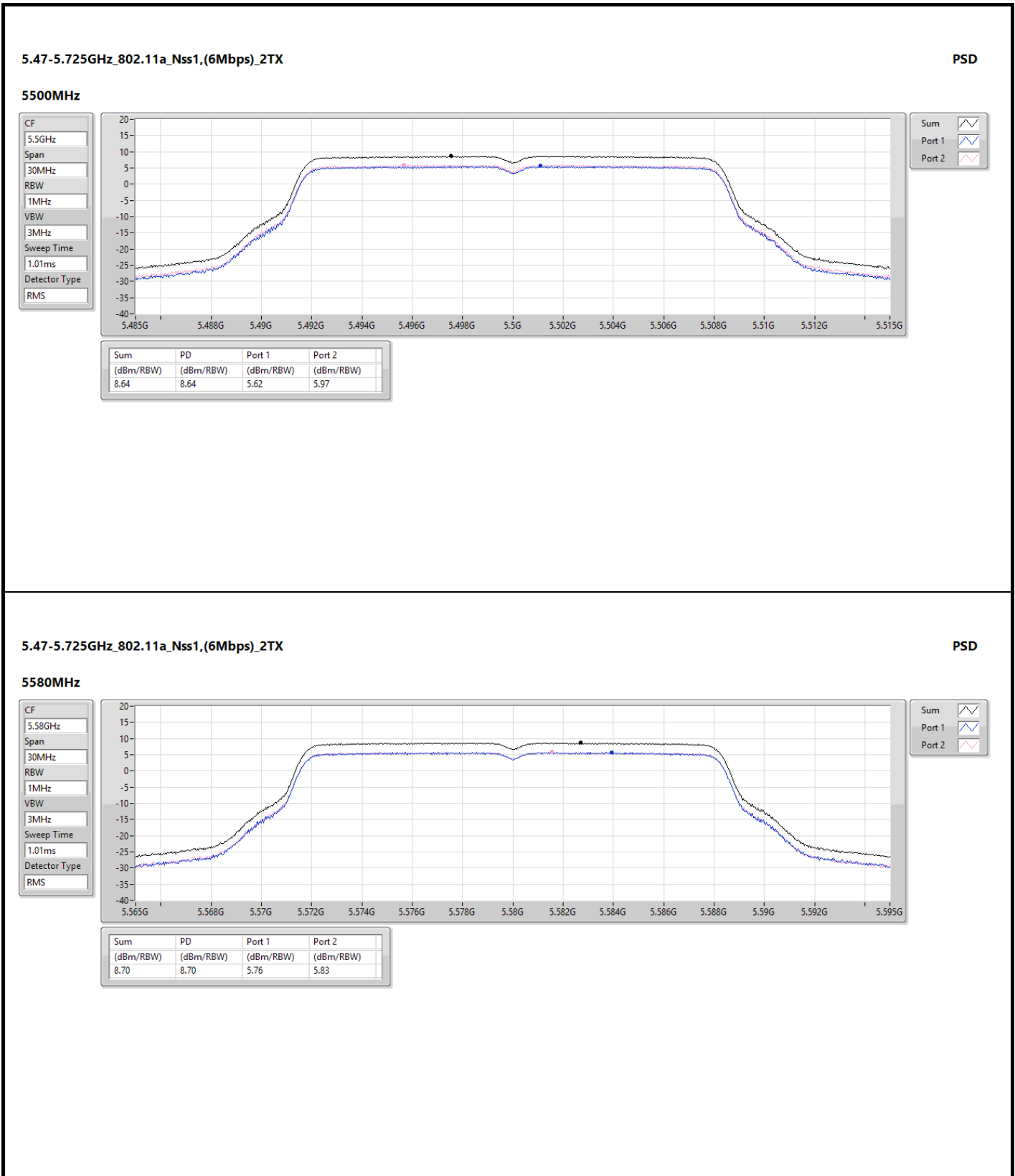
For 5745~5825MHz:

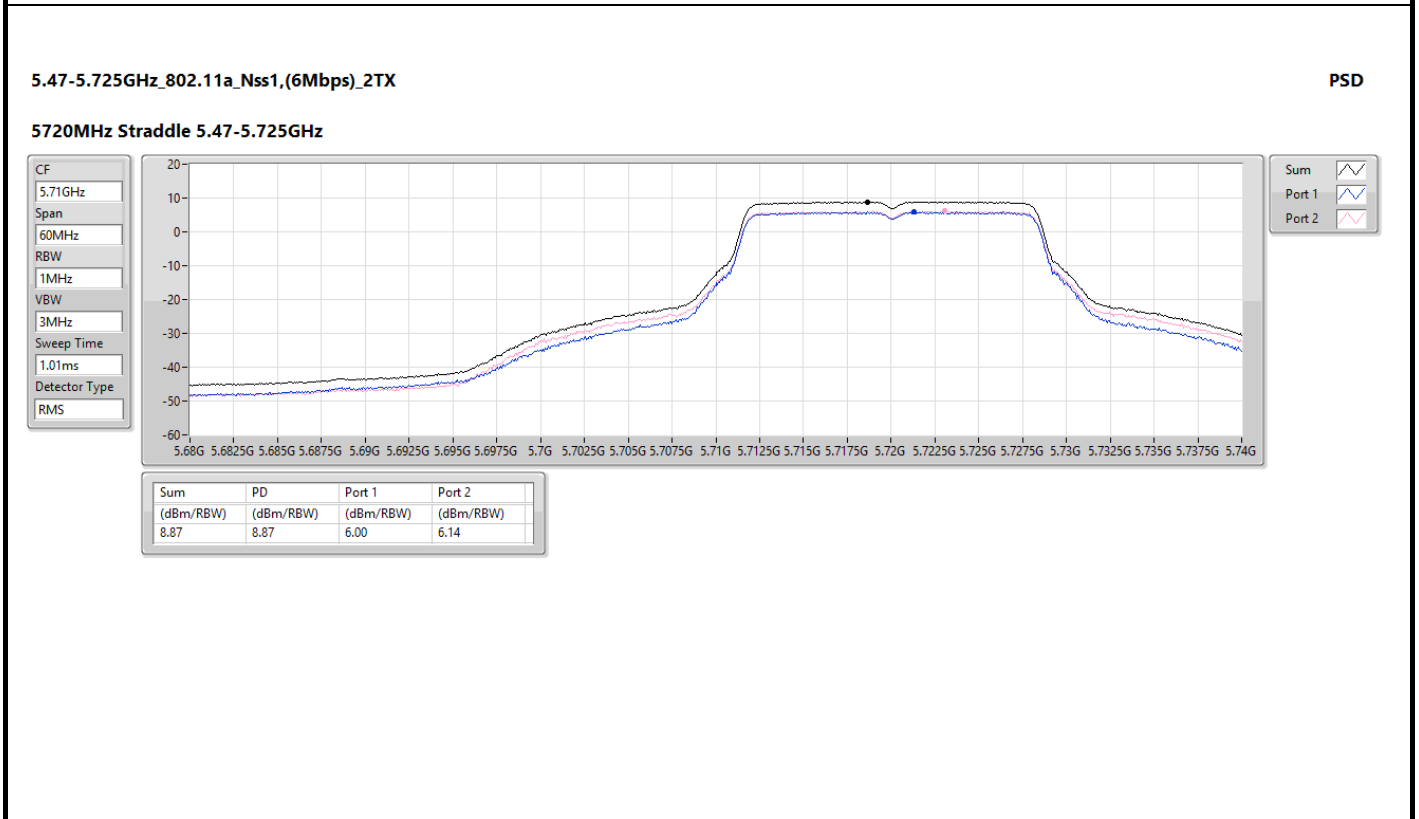
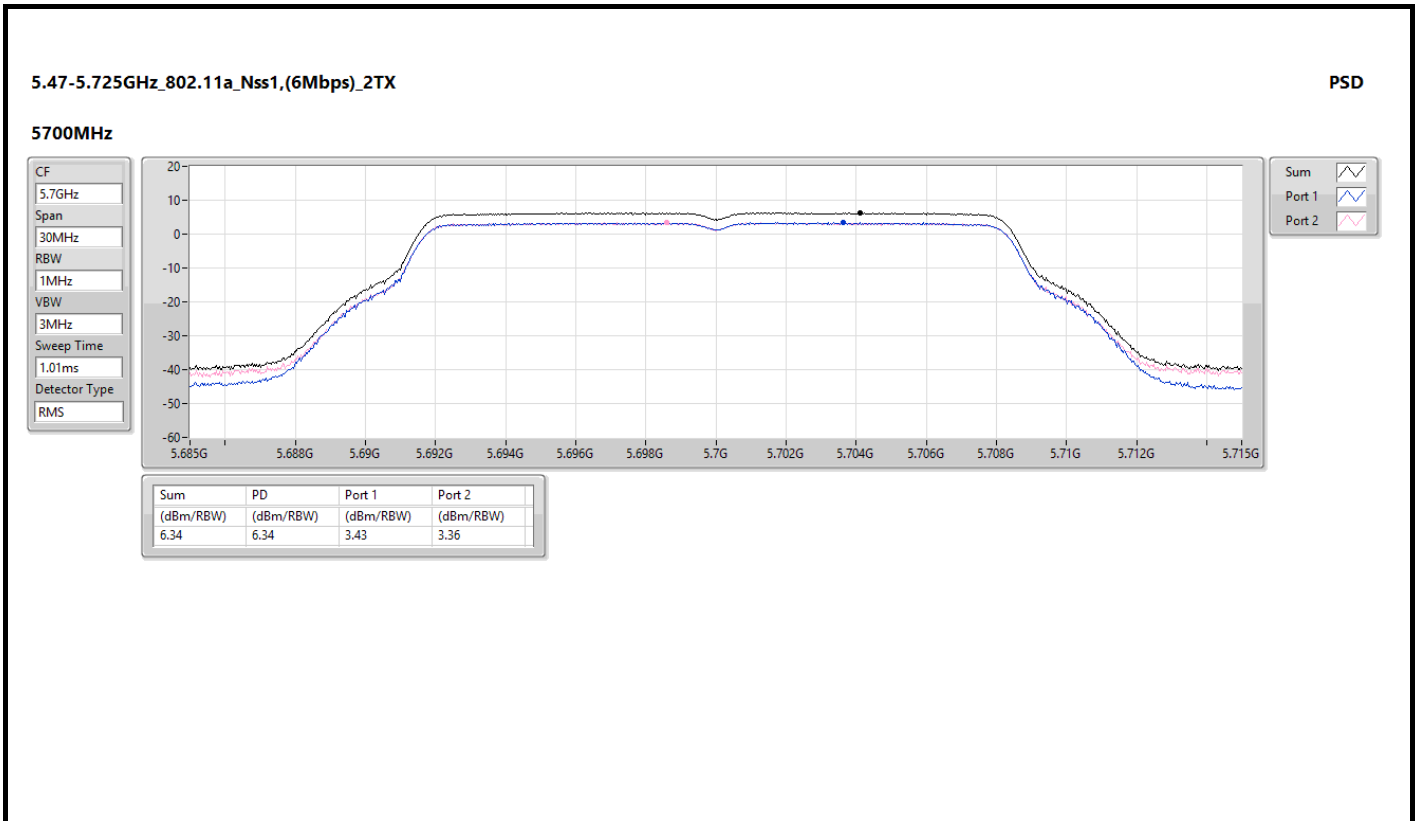
Directional gain = $10 \times \log((10^{5/20} + 10^{3.6/20})^2/2) = 7.34 \text{ dBi} > 6 \text{ dBi}$, limit shall be reduced to 30 dBm – (7.34 dBi – 6 dBi) = 28.66 dBm

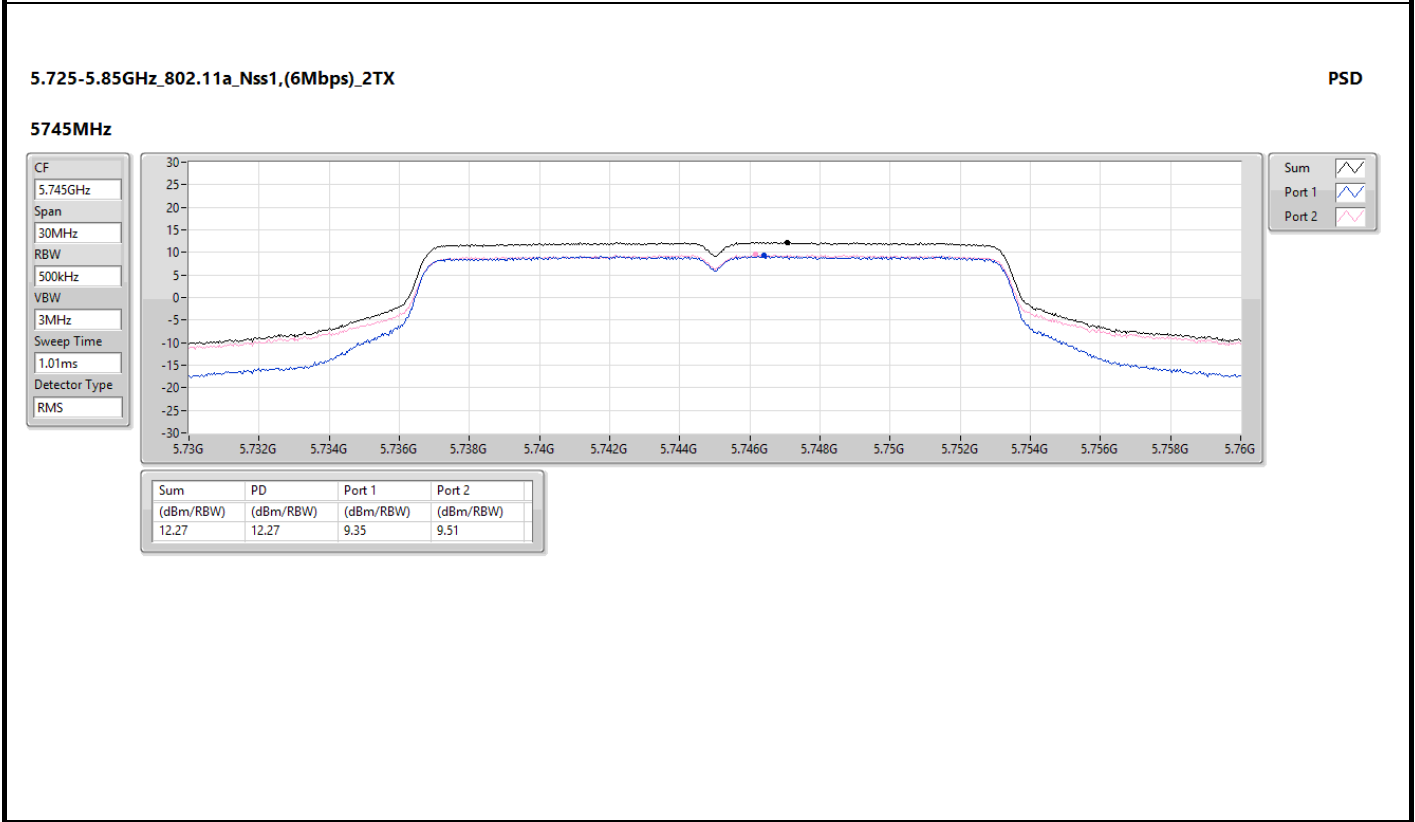
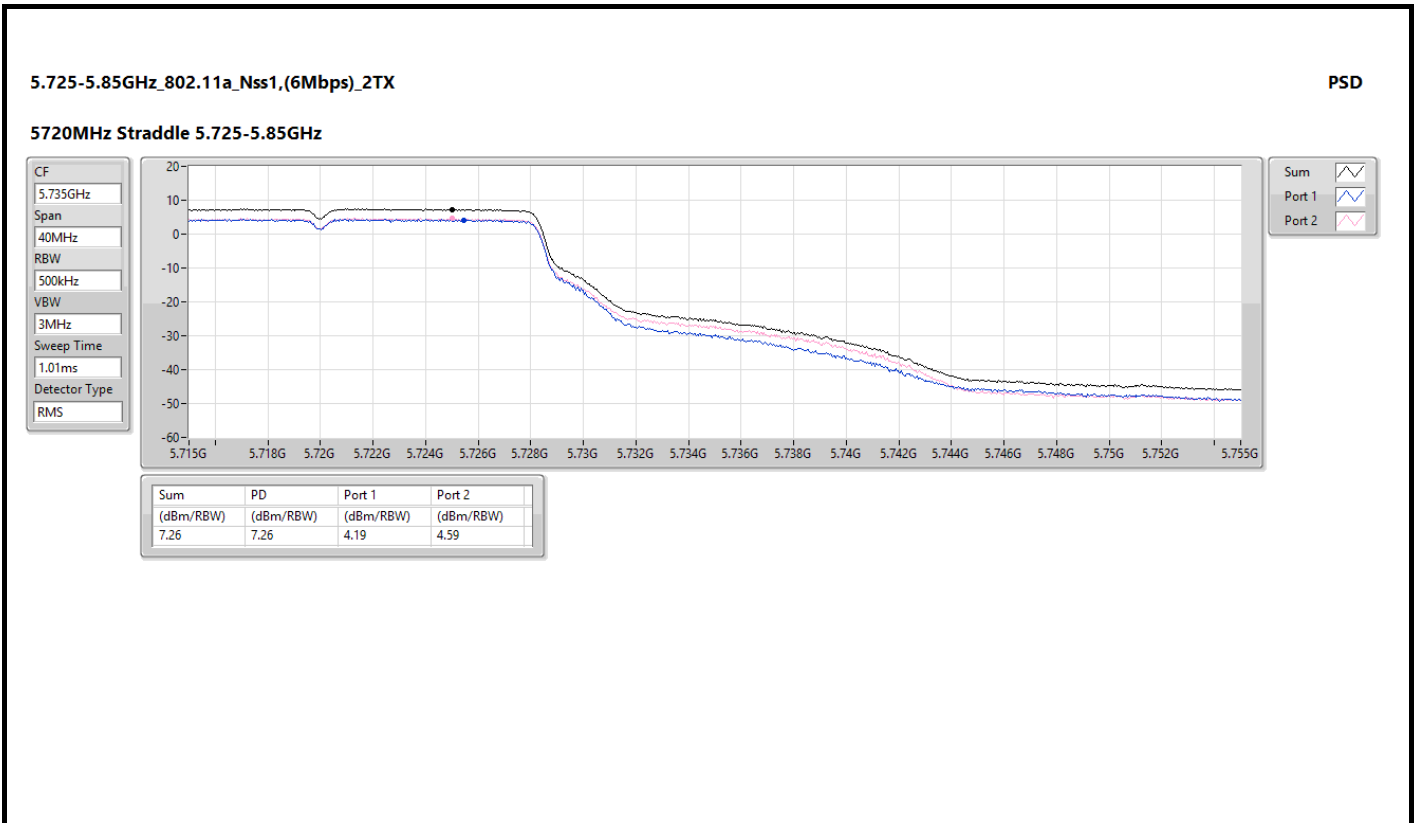


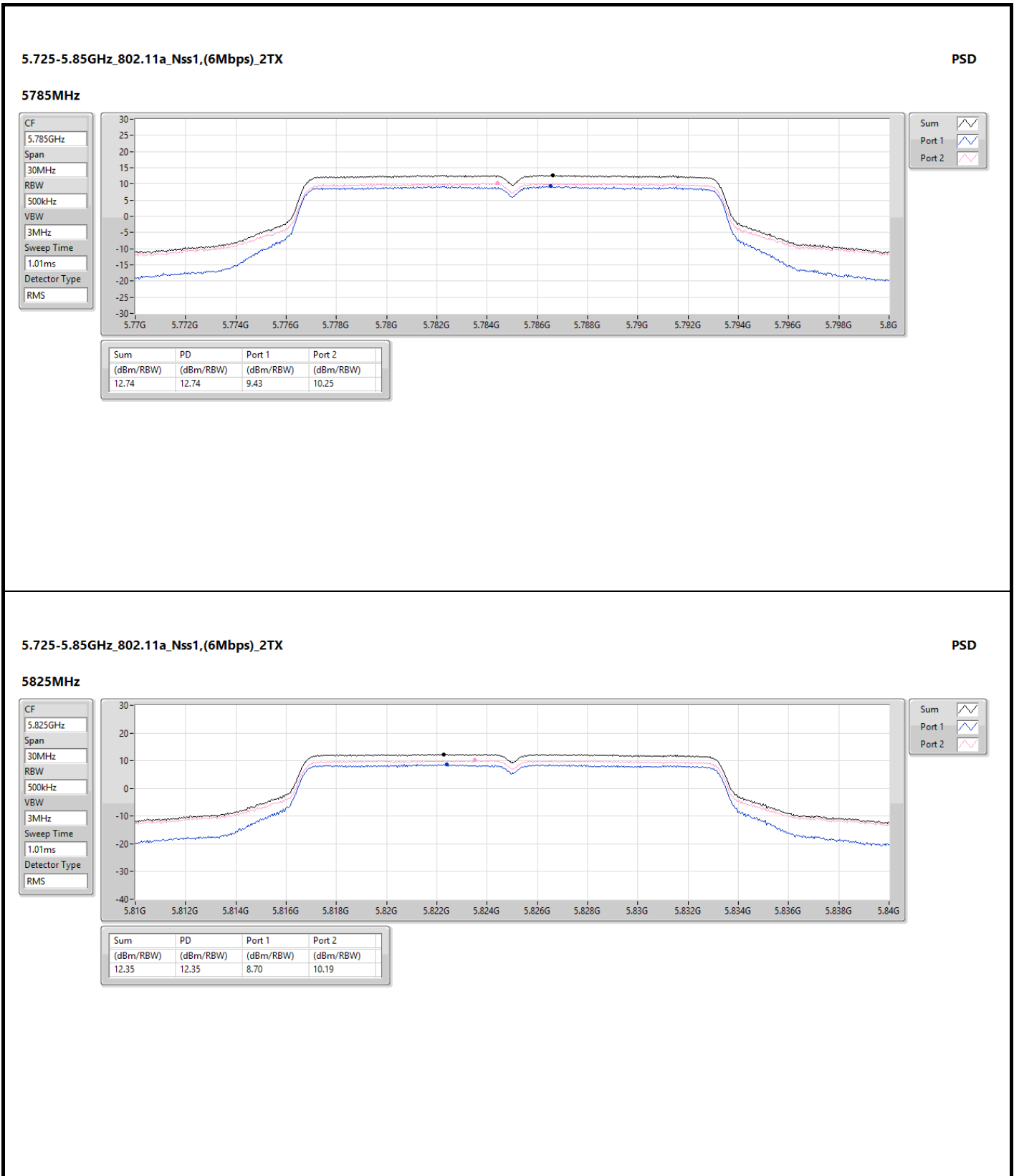


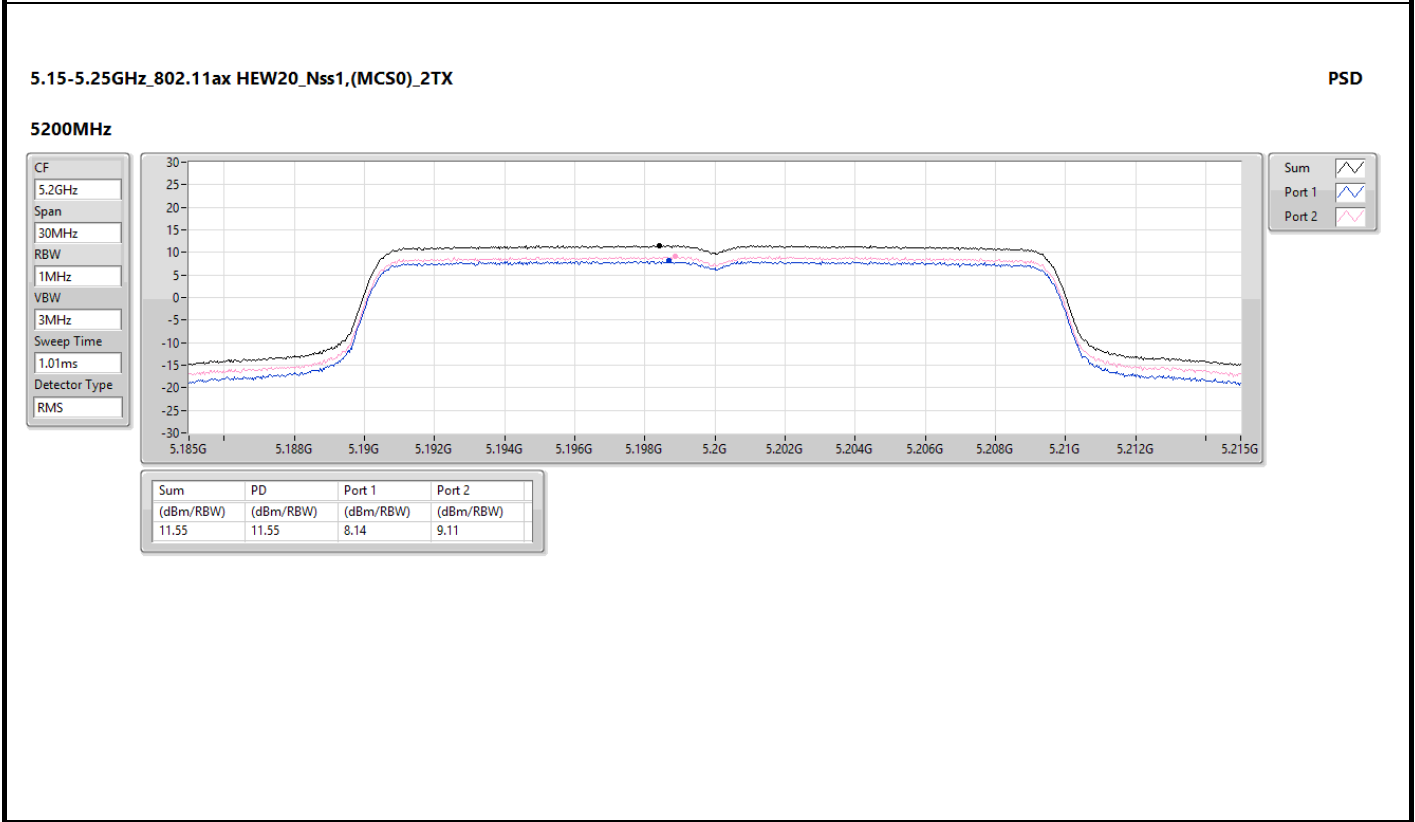
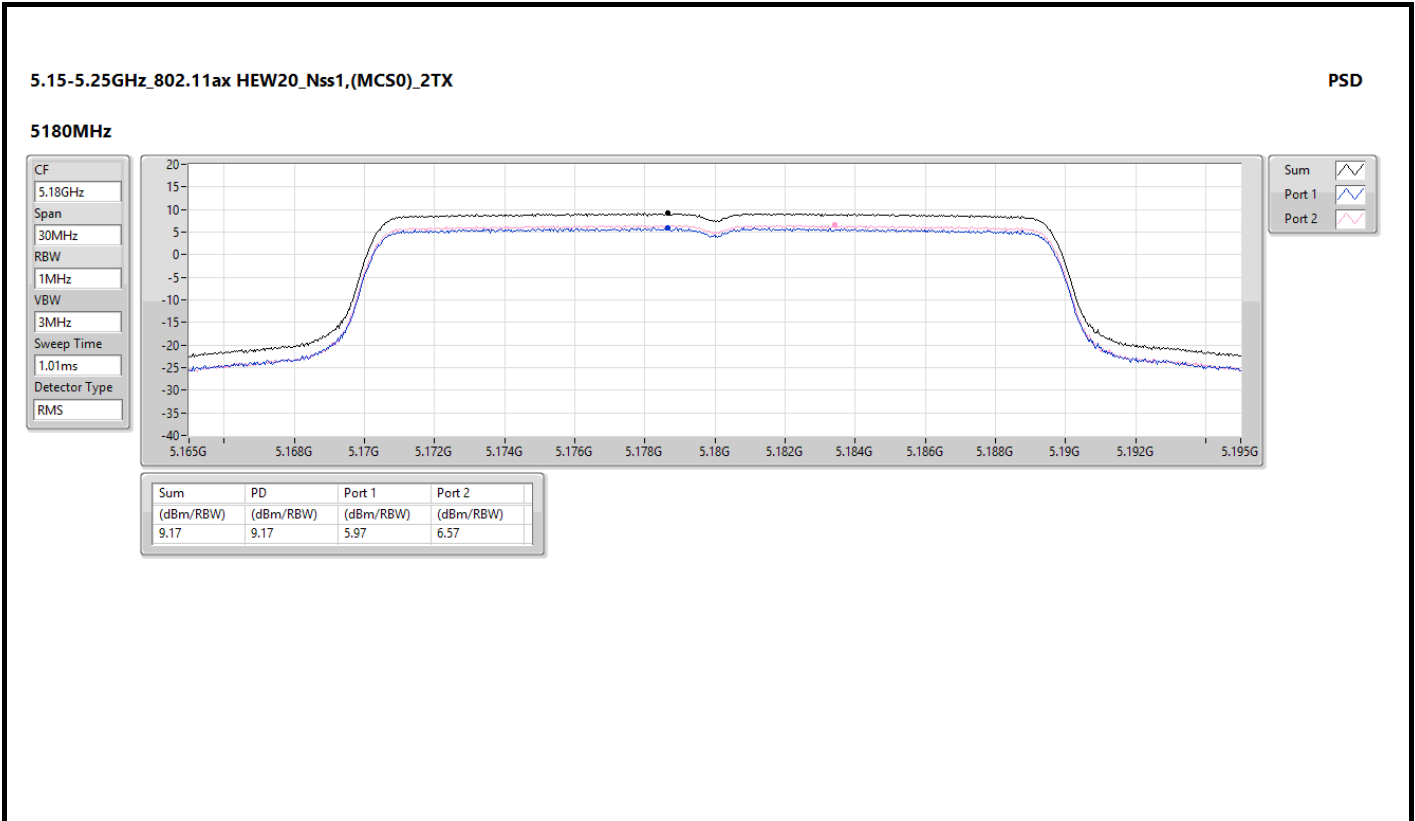




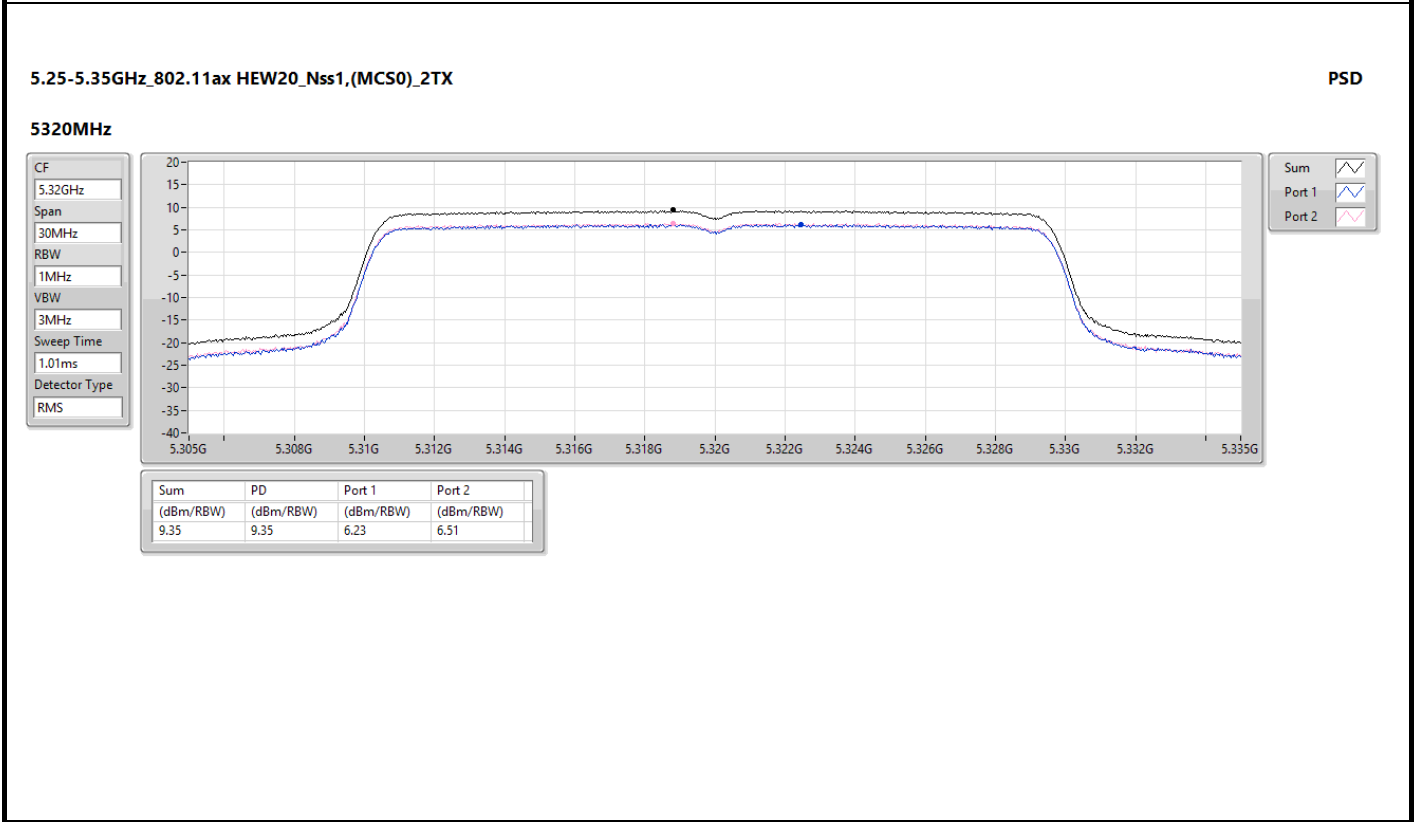
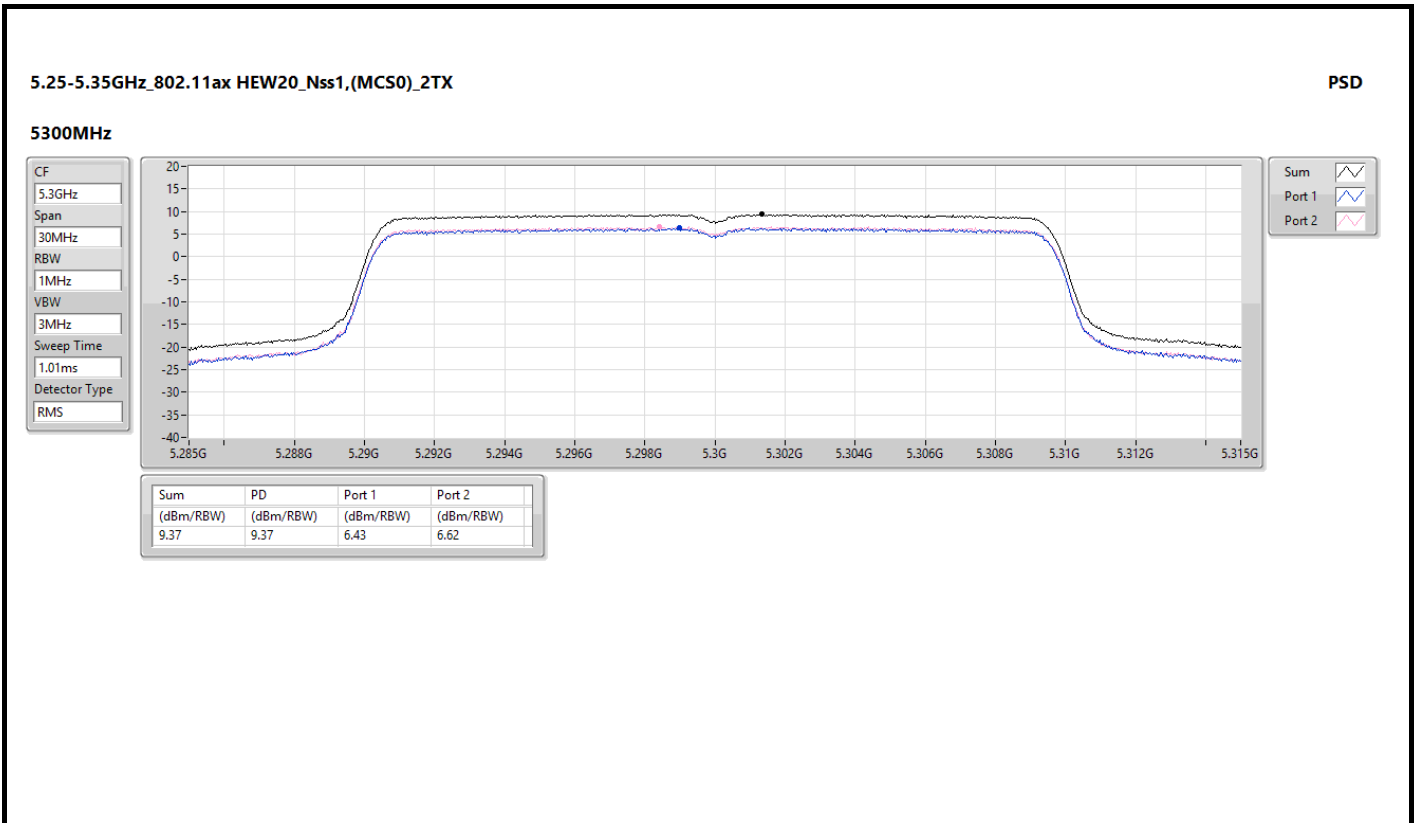


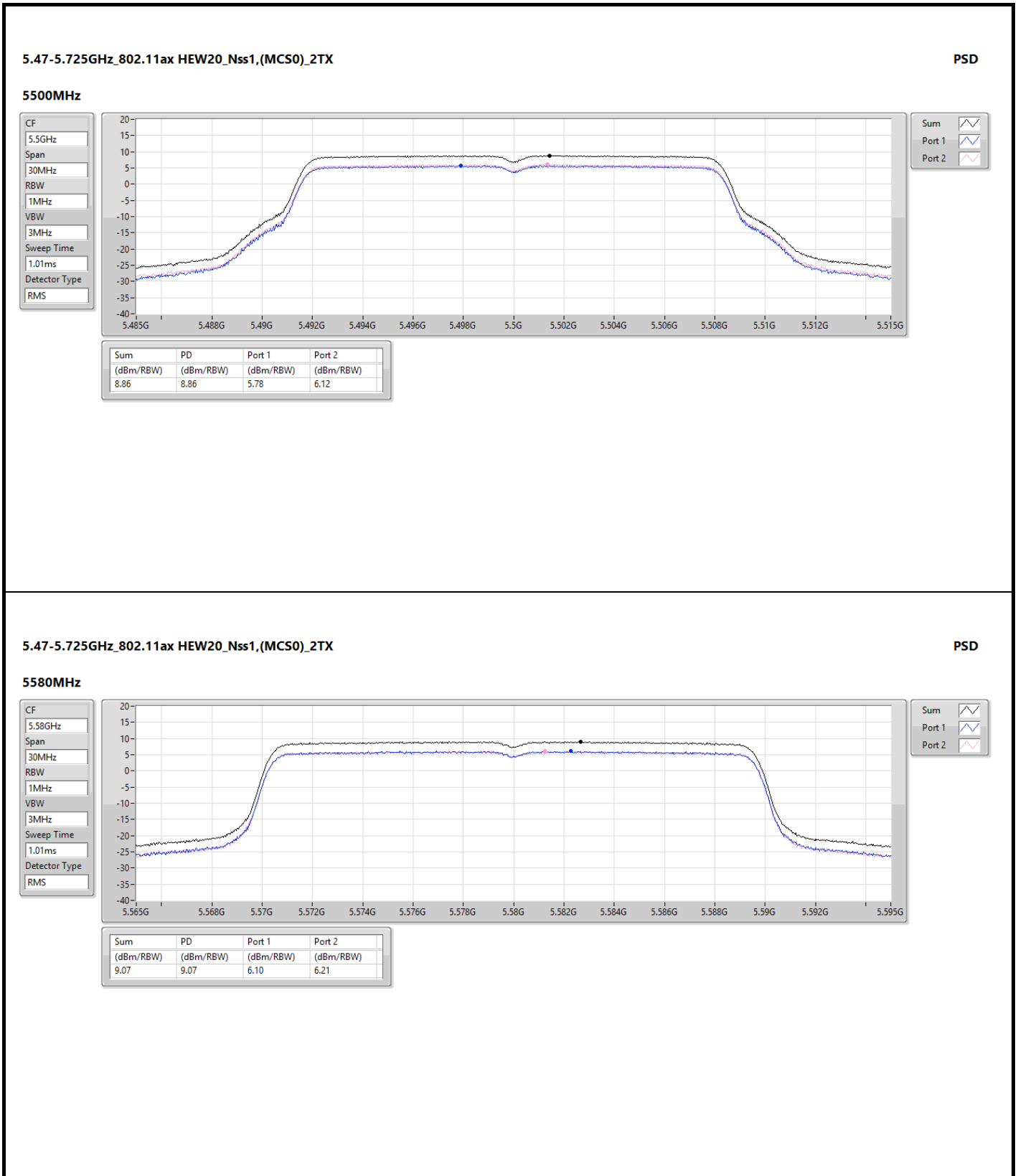


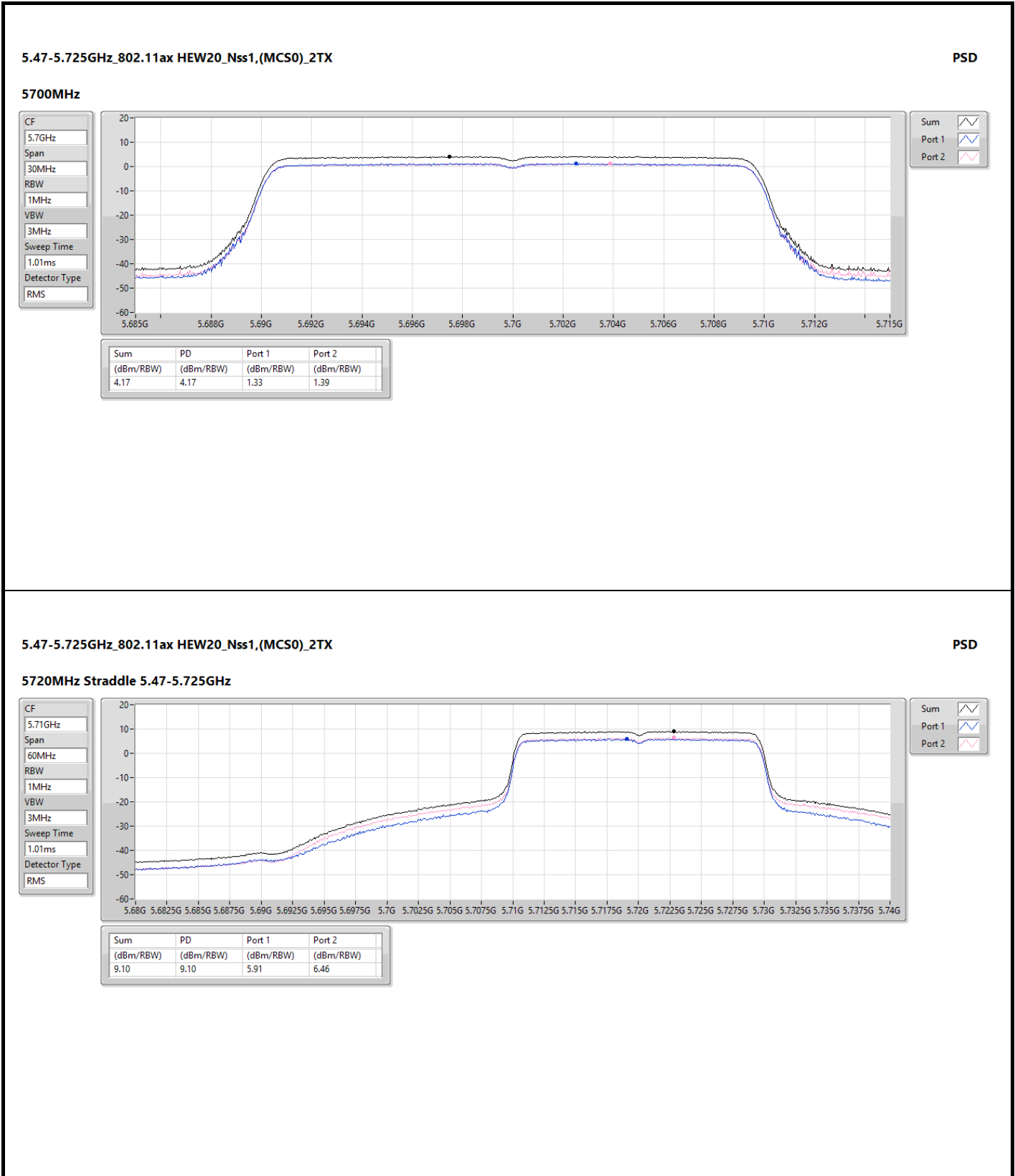


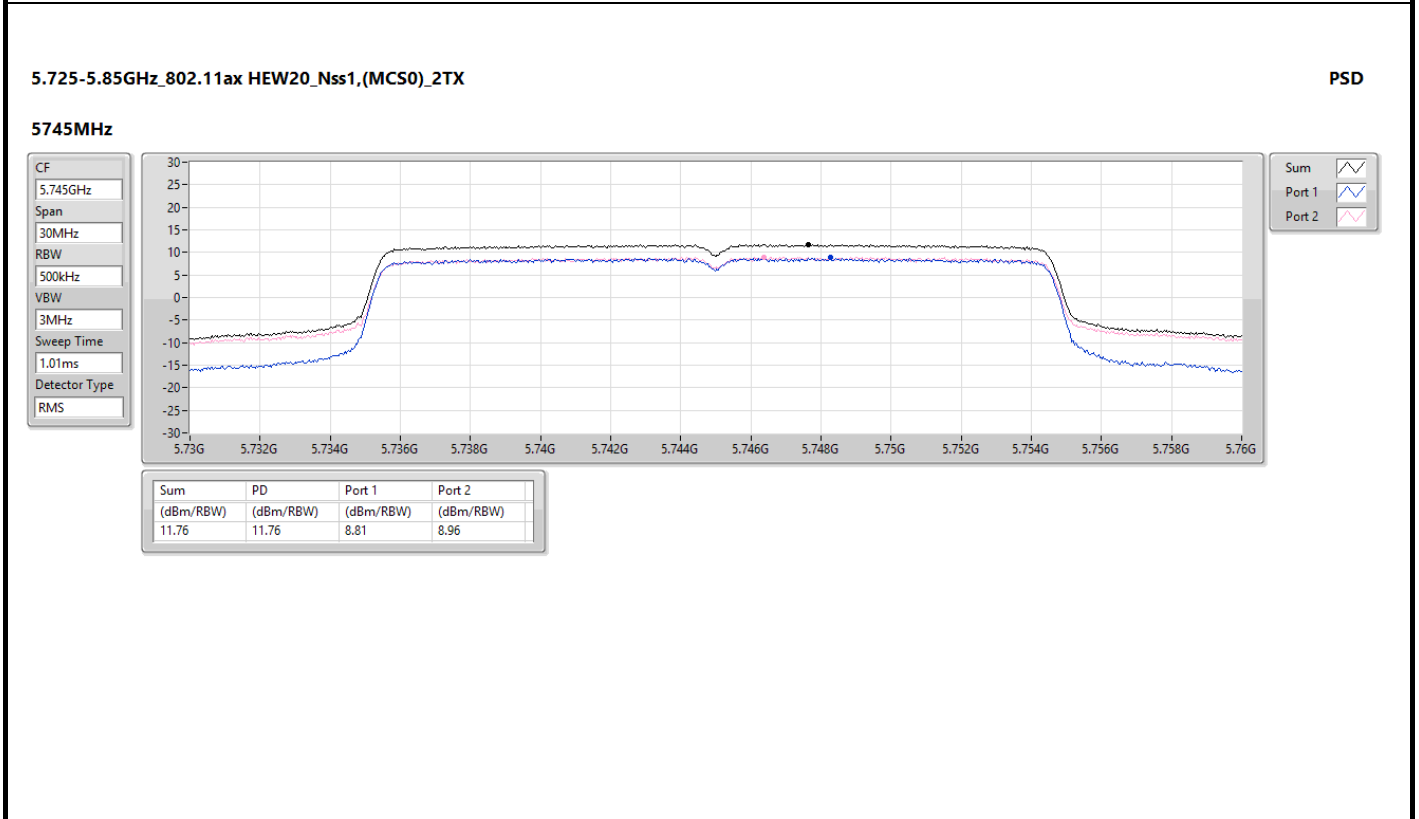
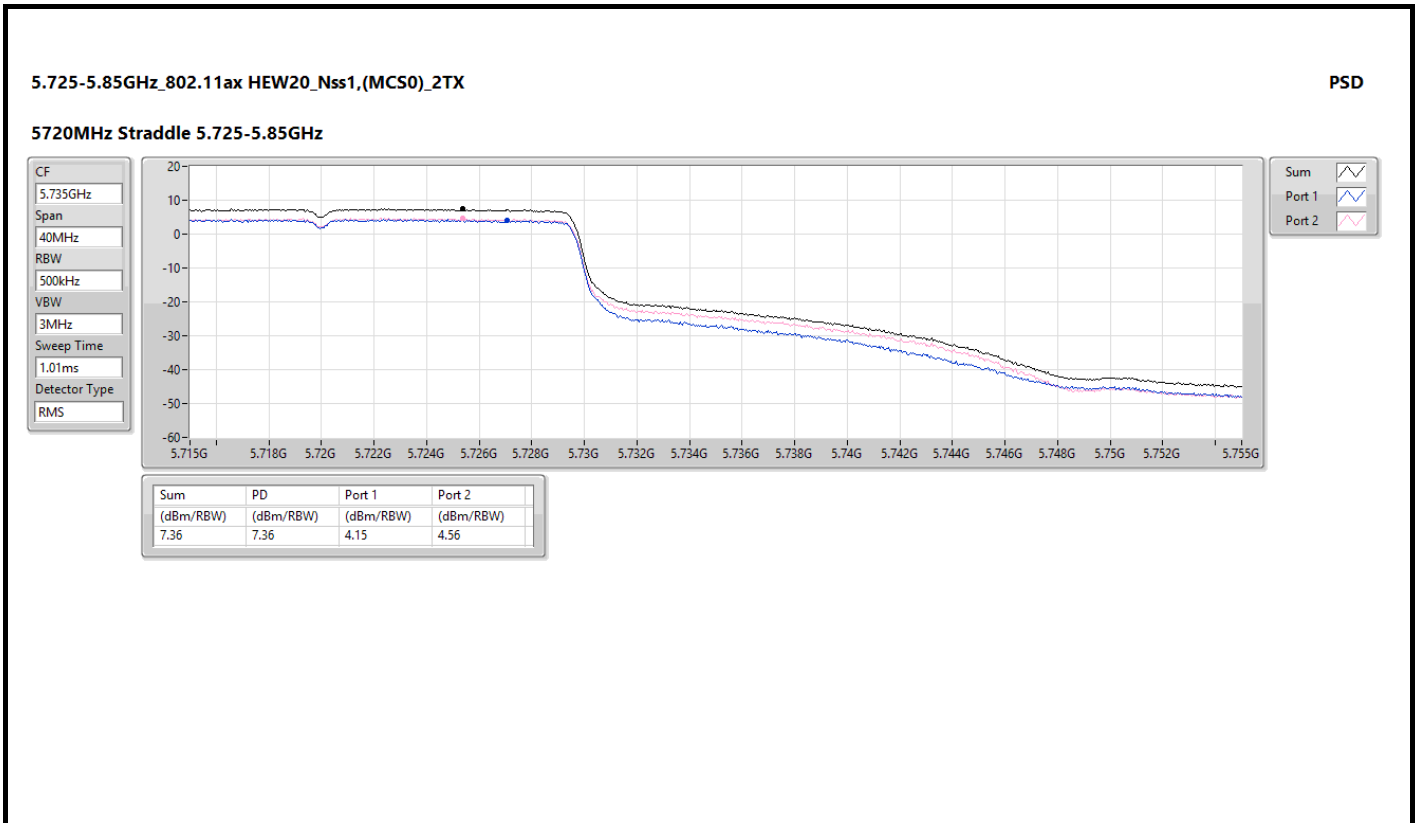






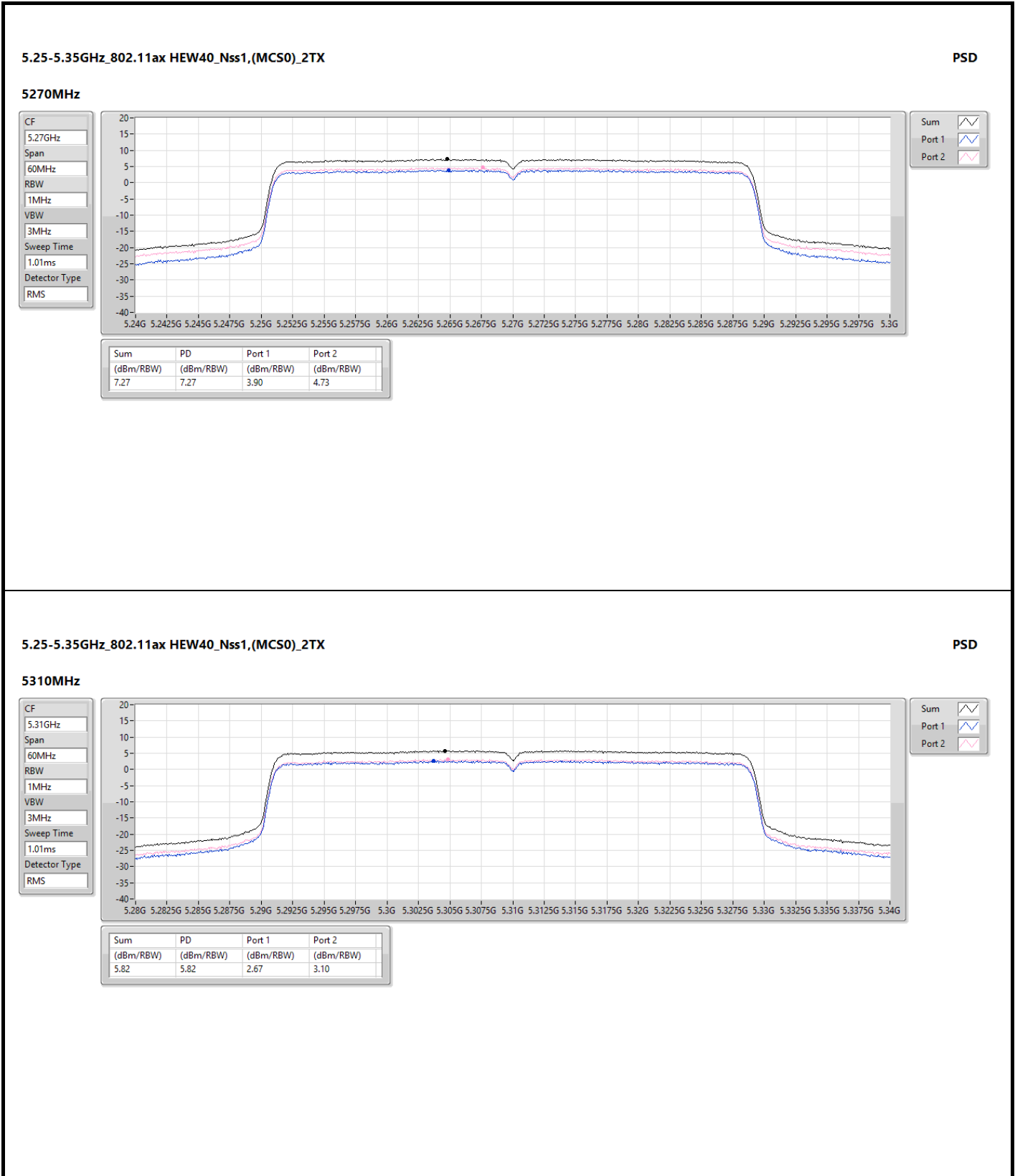






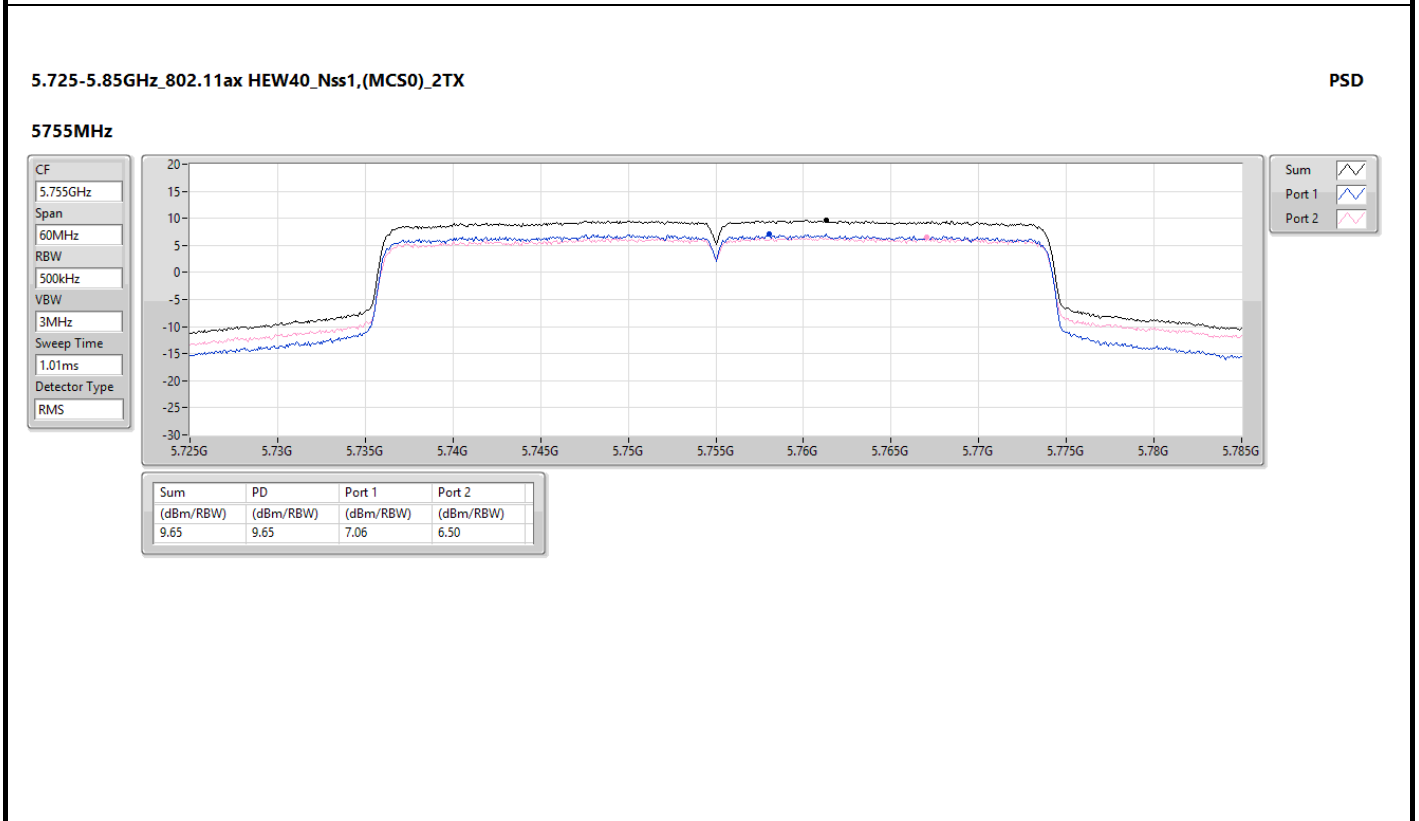
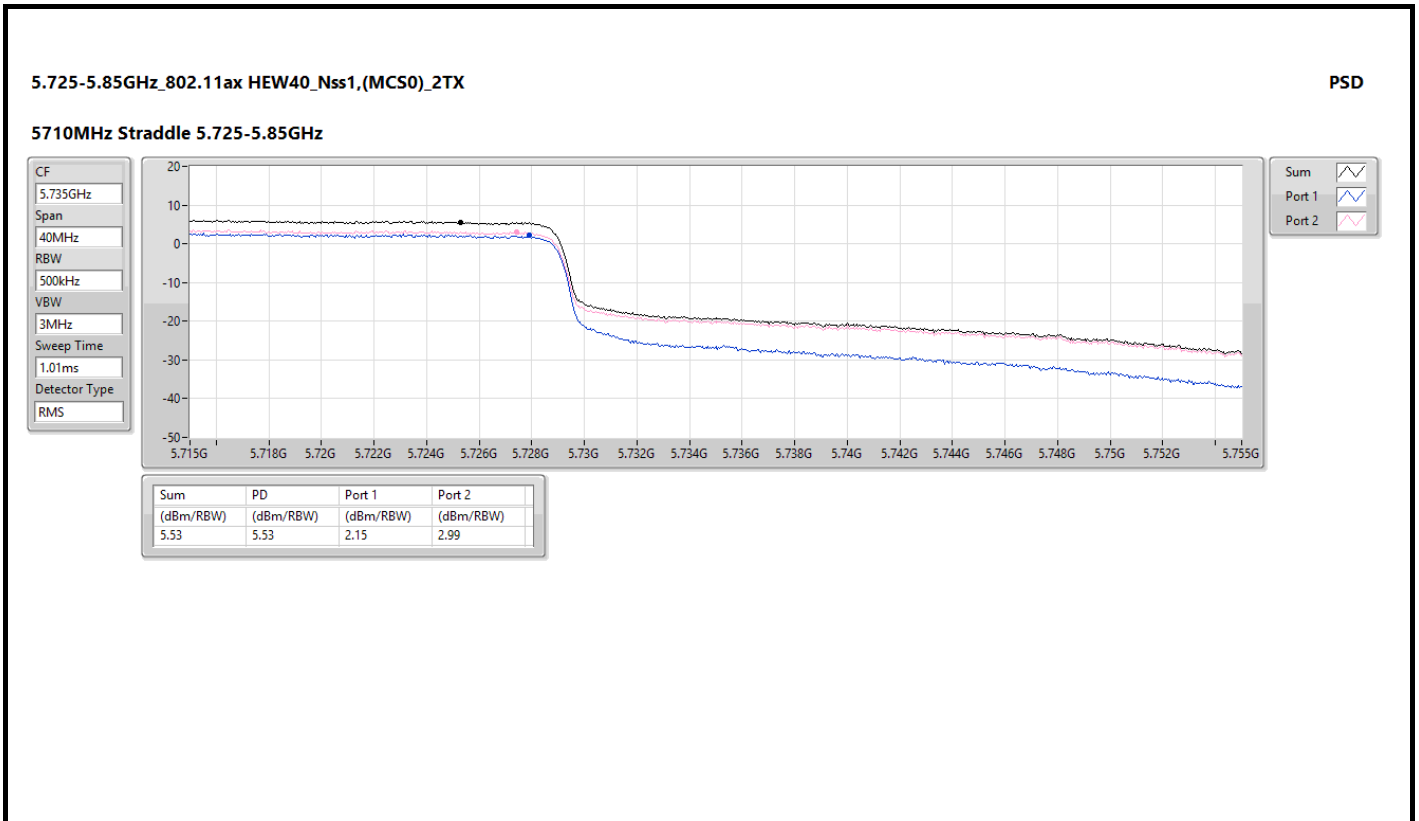






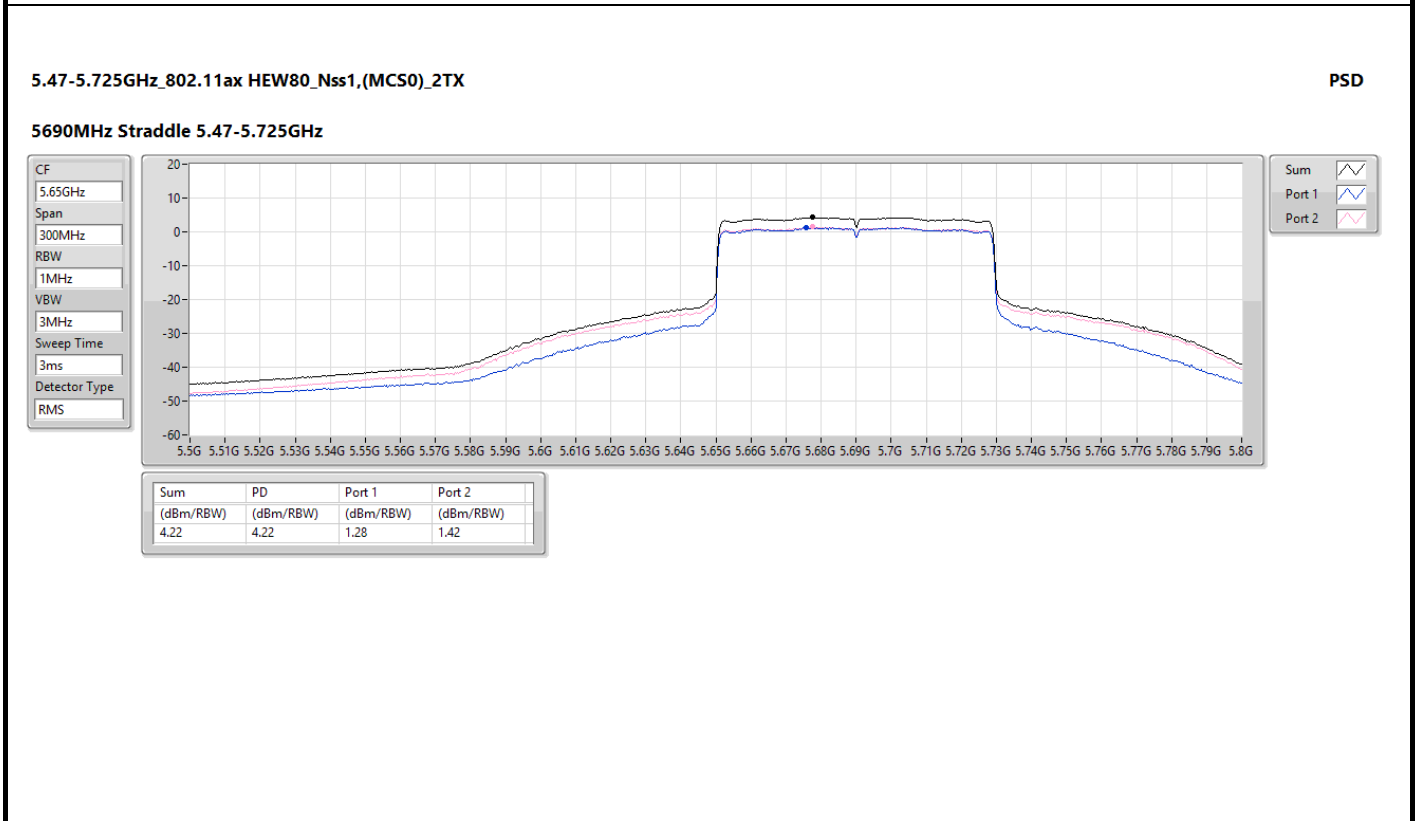
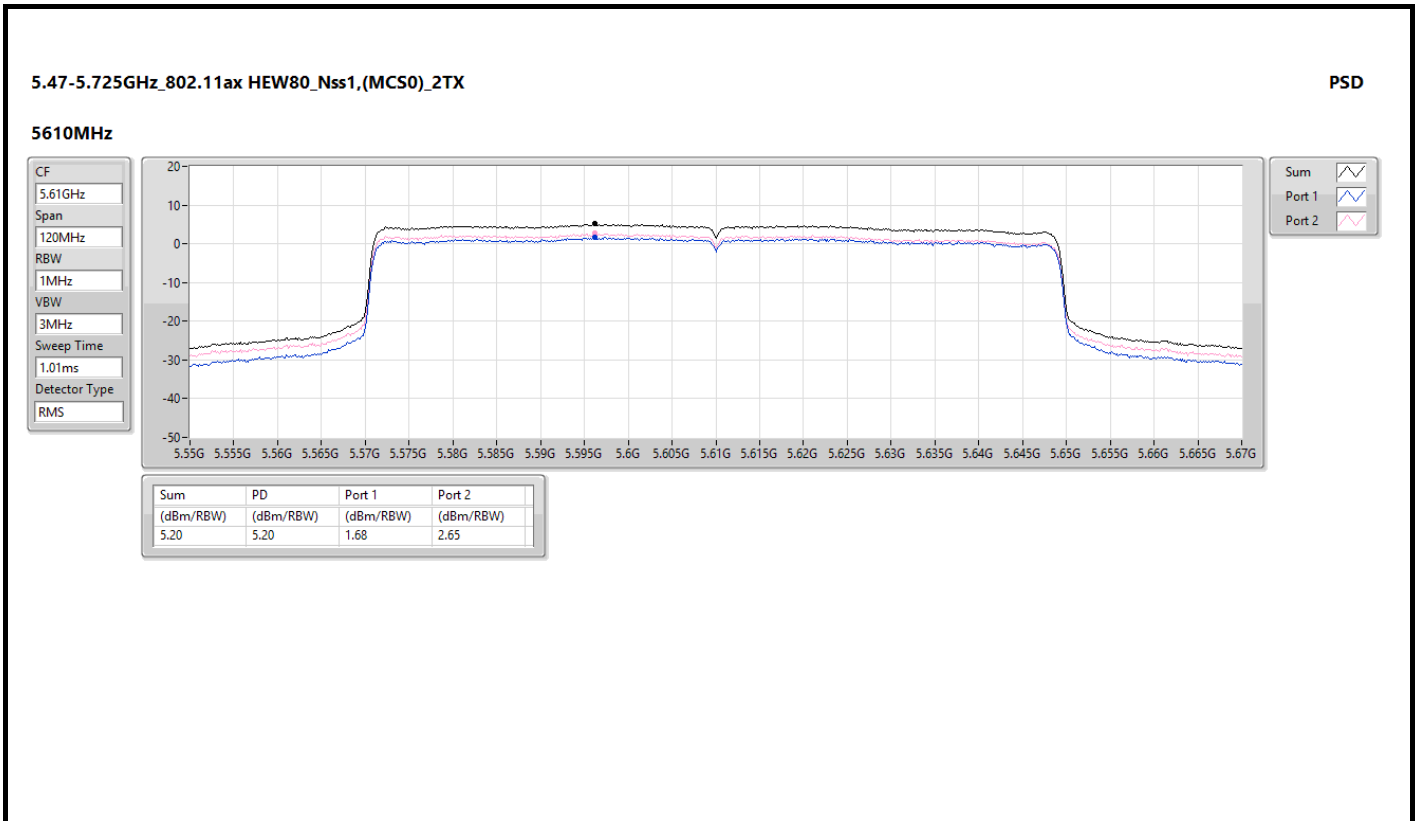


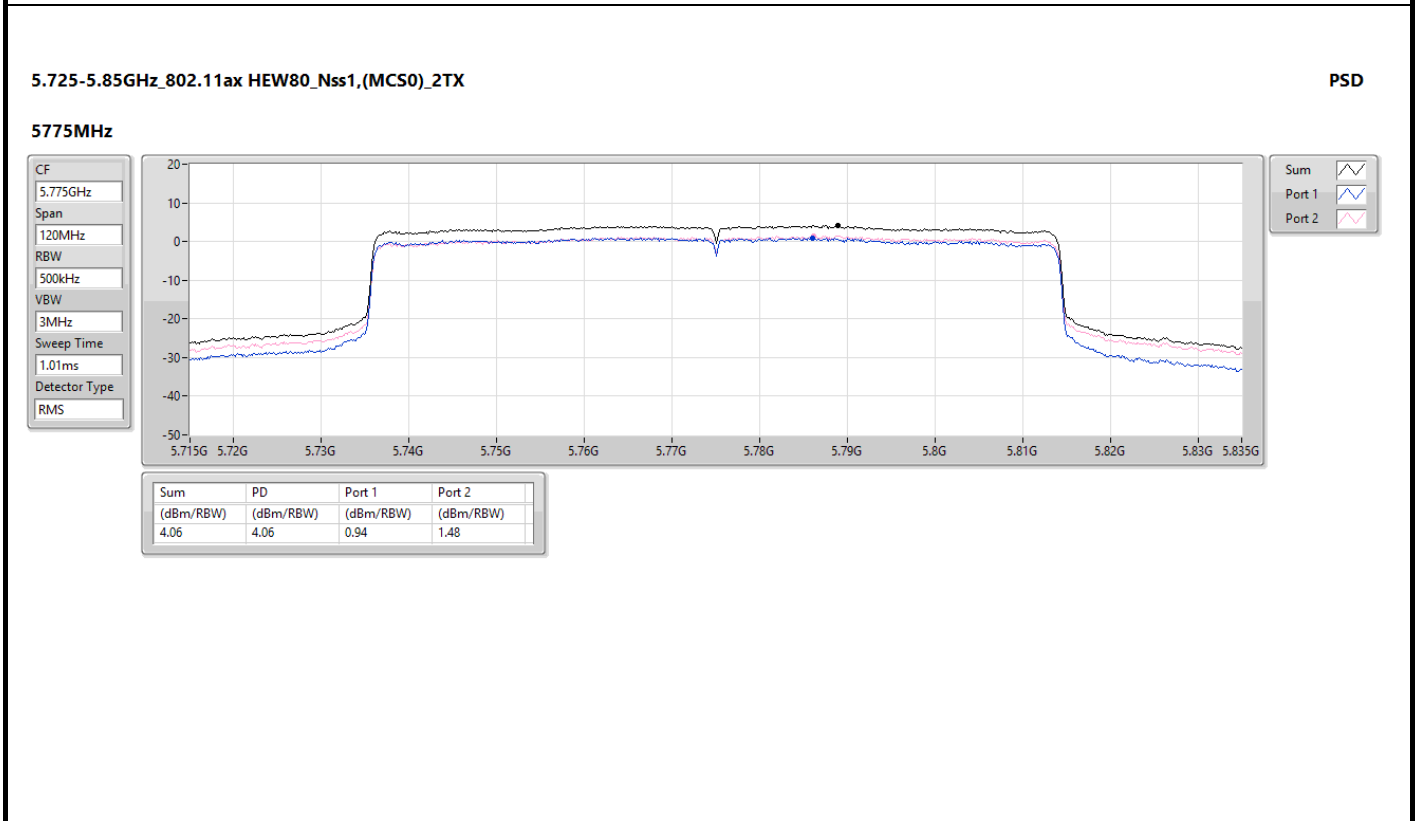
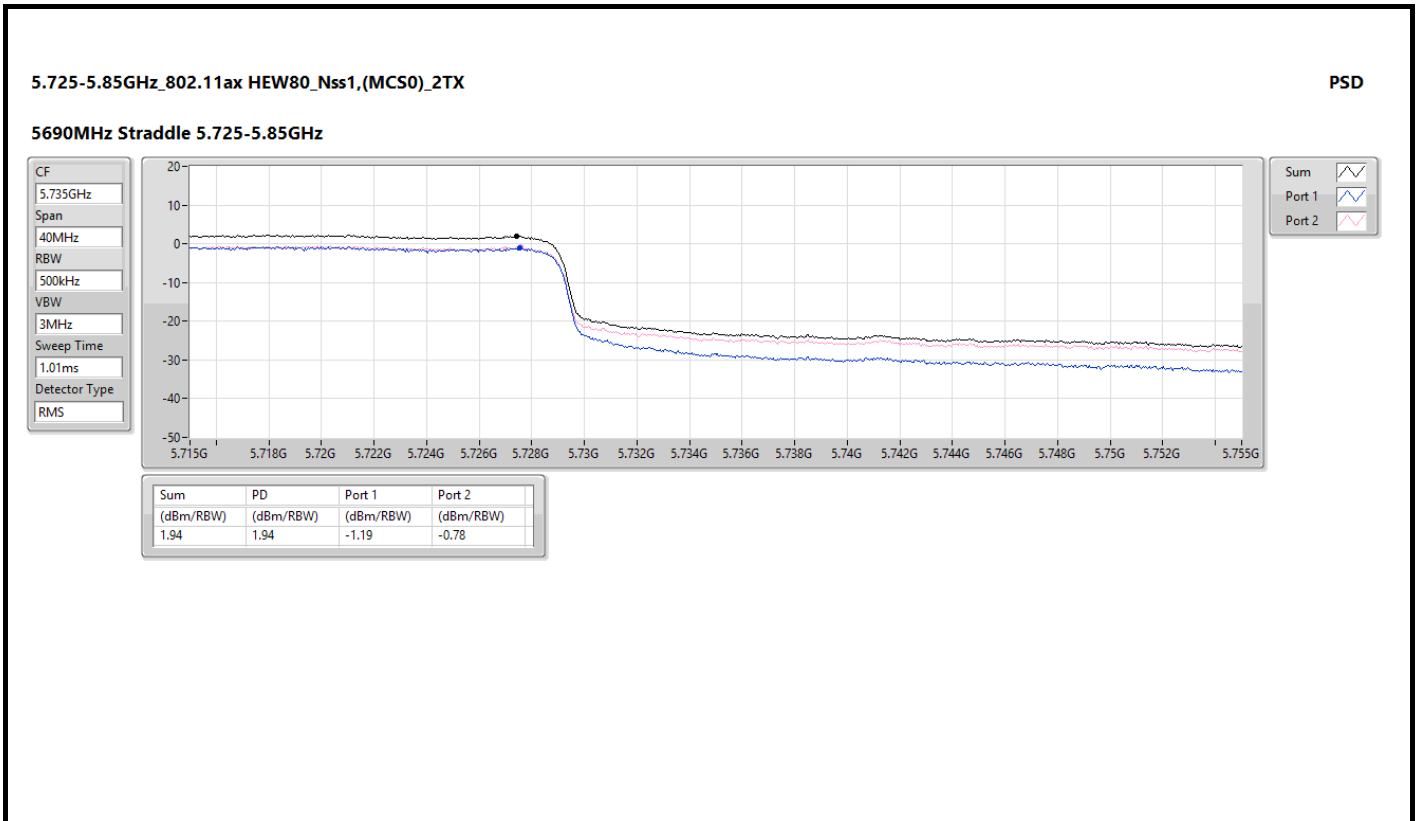


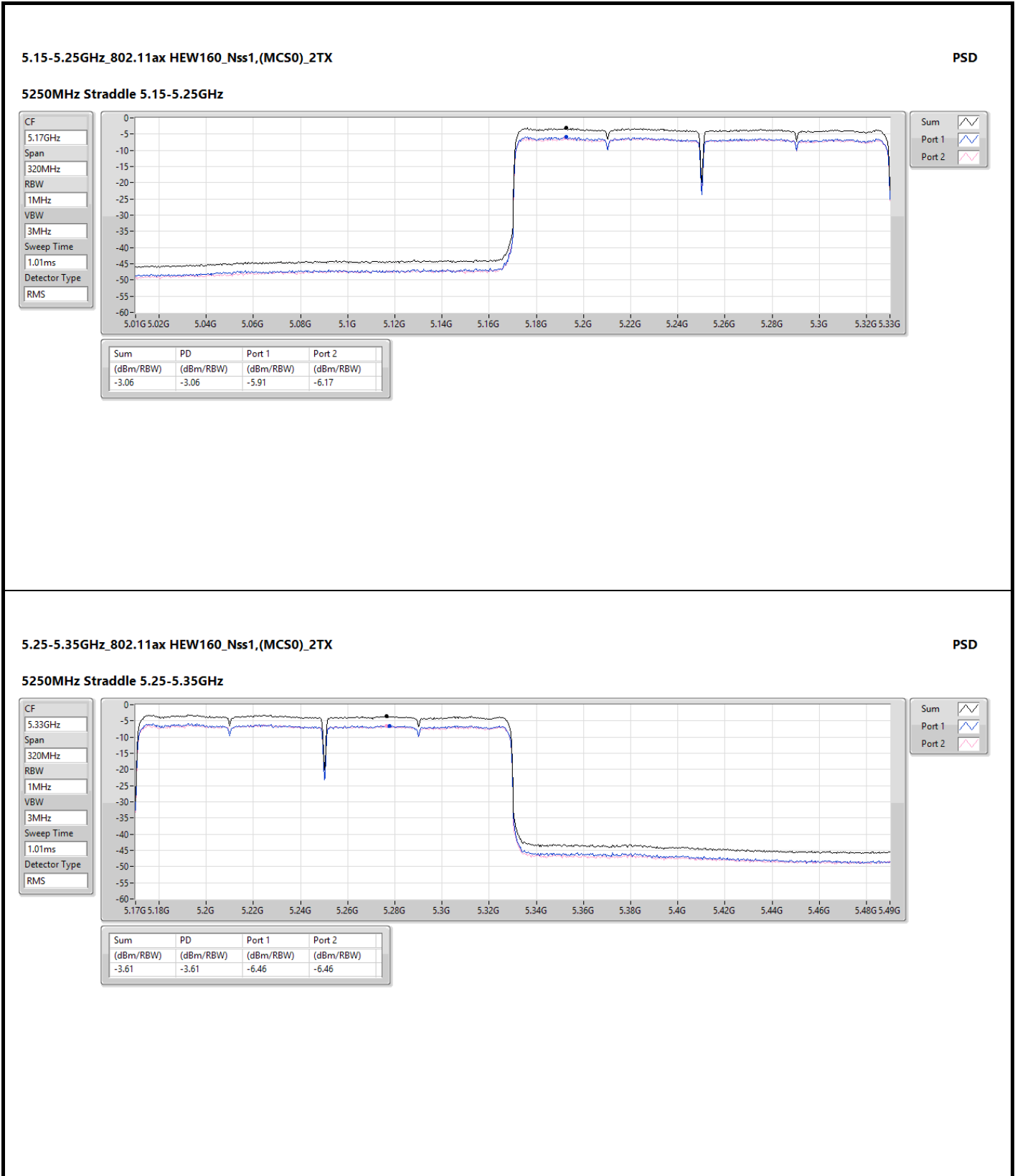


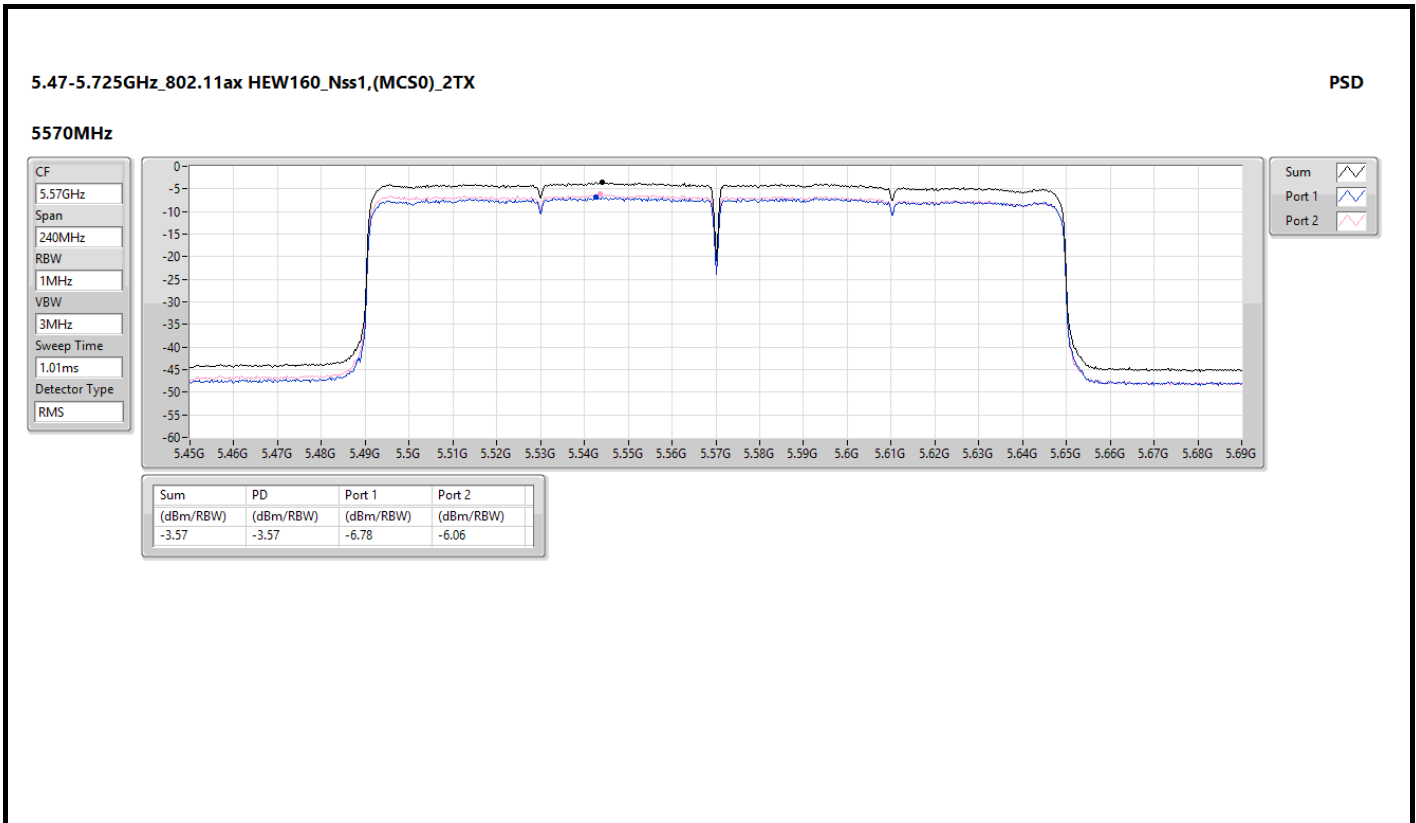














Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	8.57	16.79
802.11ax HEW20_Nss1,(MCS0)_2TX	8.5	16.72
802.11ax HEW40_Nss1,(MCS0)_2TX	7.22	15.44
802.11ax HEW80_Nss1,(MCS0)_2TX	2.15	10.37
802.11ax HEW160_Nss1,(MCS0)_2TX	-3.06	5.16

RBW =1MHz

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	8.22	5.2	5.86	8.41	8.78	16.63	17.00
5200MHz	Pass	8.22	5.24	5.66	8.32	8.78	16.54	17.00
5240MHz	Pass	8.22	5.44	5.74	8.57	8.78	16.79	17.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	8.22	5.18	5.86	8.41	8.78	16.63	17.00
5200MHz	Pass	8.22	5.29	5.86	8.43	8.78	16.65	17.00
5240MHz	Pass	8.22	5.45	5.76	8.50	8.78	16.72	17.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	8.22	1.62	1.41	4.44	8.78	12.66	17.00
5230MHz	Pass	8.22	4.21	4.43	7.22	8.78	15.44	17.00
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	8.22	-0.75	-0.83	2.15	8.78	10.37	17.00
802.11ax HEW160_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	8.22	-5.91	-6.17	-3.06	8.78	5.16	17.00

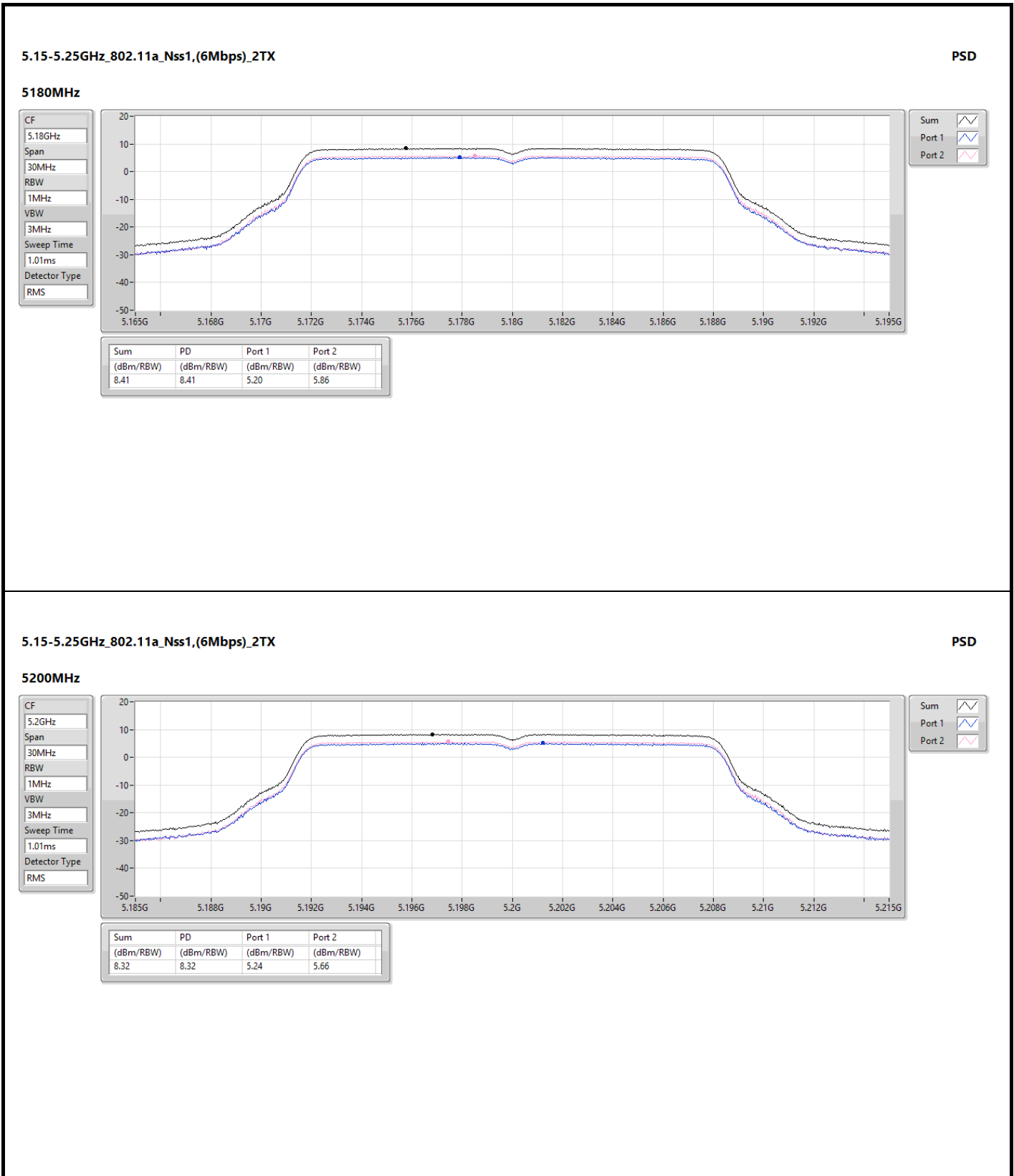
DG = Directional Gain; RBW =1MHz;

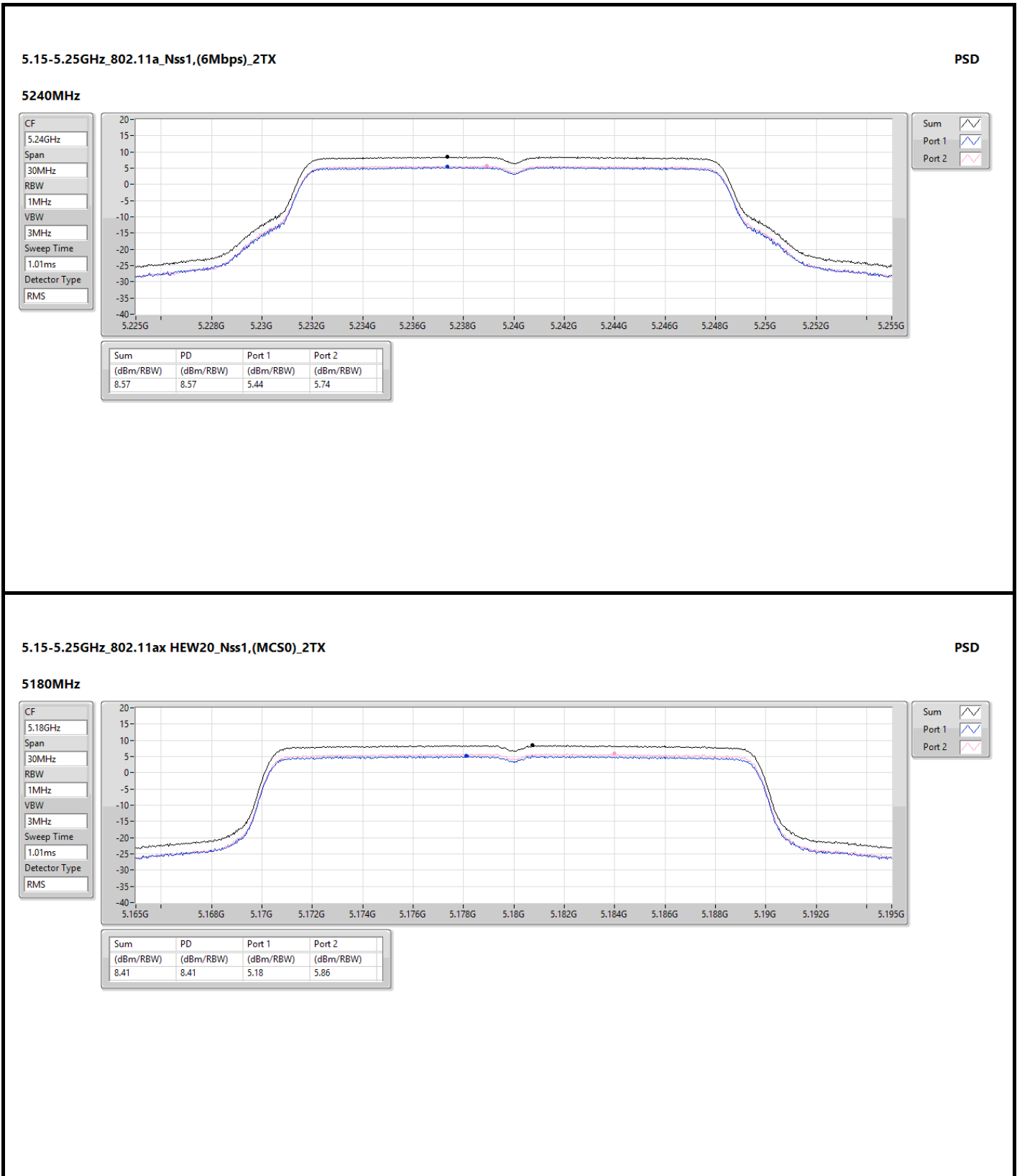
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

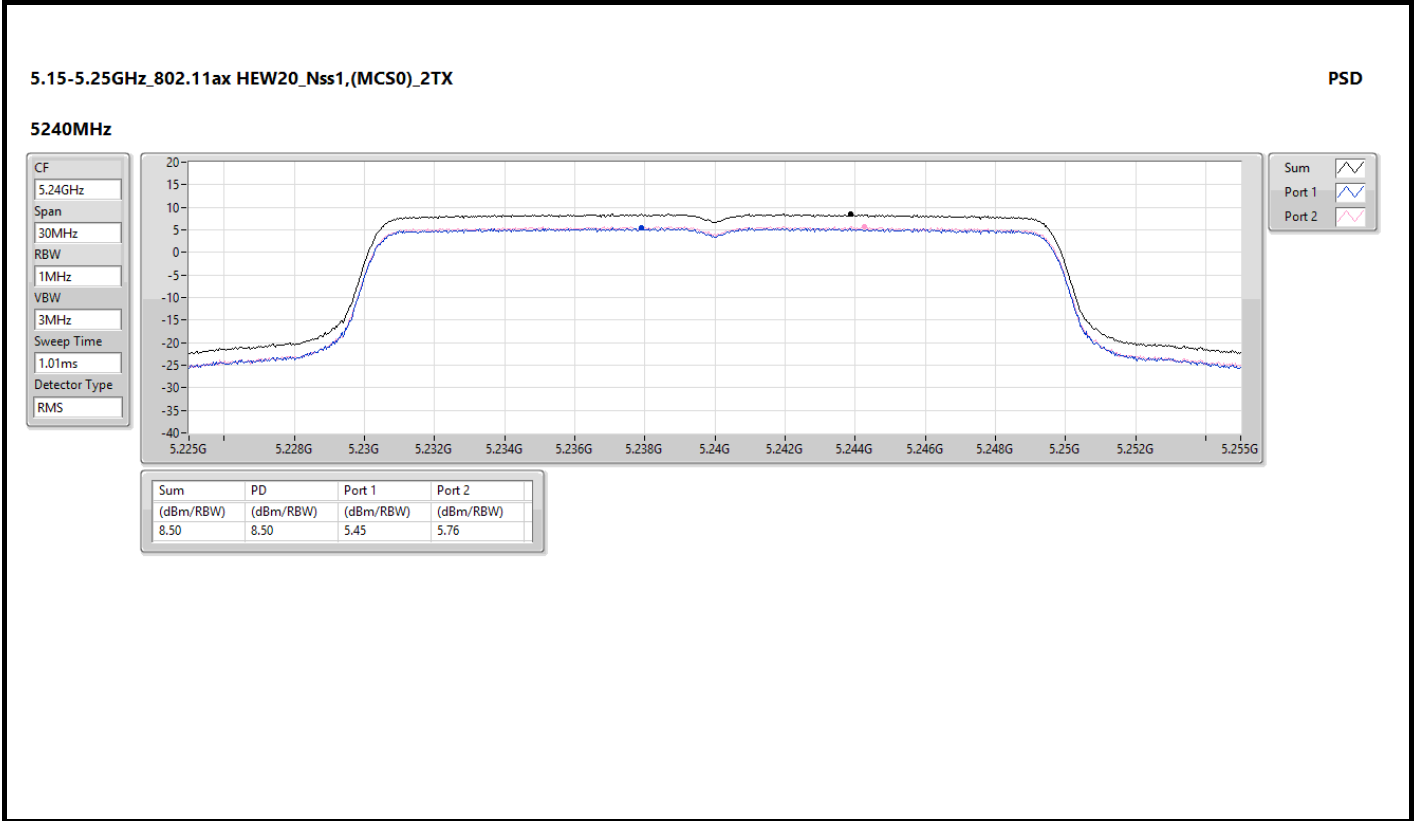
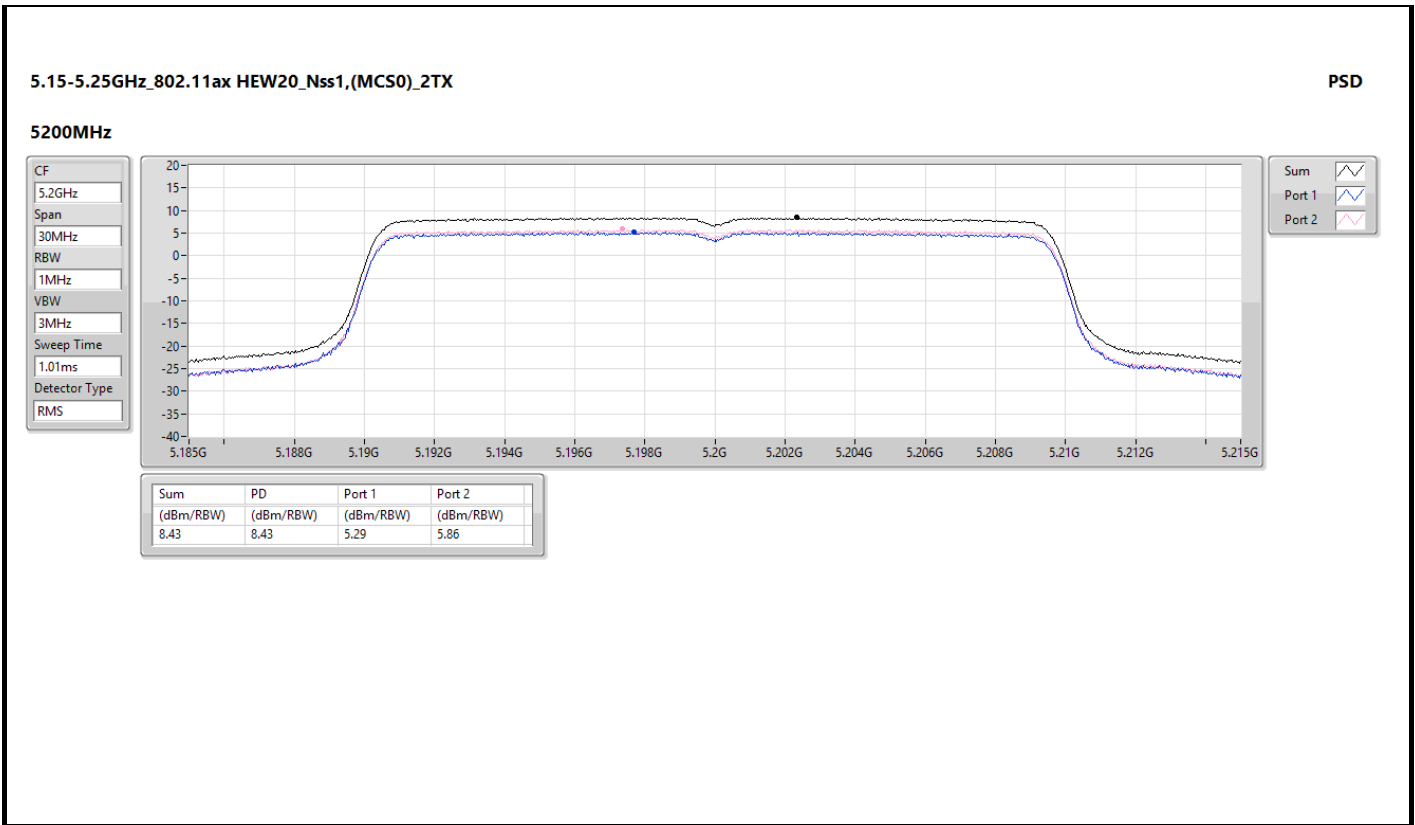
Note:

For 5180~5240MHz:

Directional gain = $10 \times \log((10^{5.5/20} + 10^{4.9/20})^2/2) = 8.22 \text{ dBi} > 6 \text{ dBi}$, limit shall be reduced to $11 \text{ dBm} - (8.22 \text{ dBi} - 6 \text{ dBi}) = 8.78 \text{ dBm}$







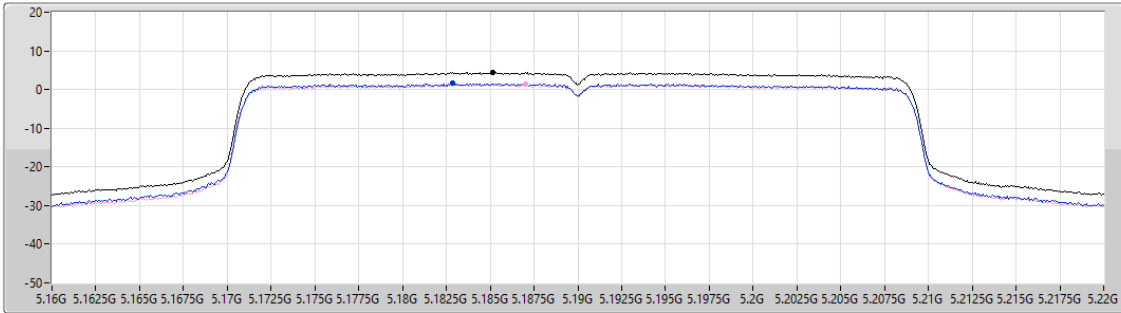


5.15-5.25GHz_802.11ax_HEW40_Nss1,(MCS0)_2TX

PSD

5190MHz

CF
5.19GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
1.01ms
Detector Type
RMS



Sum
Port 1
Port 2

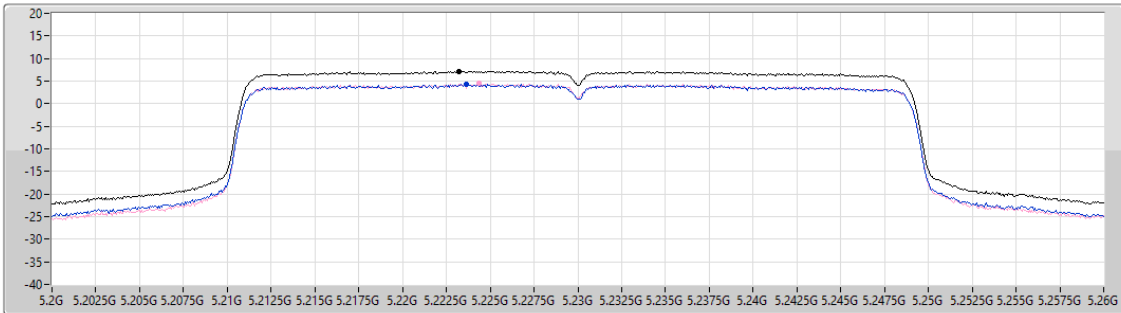
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.44	4.44	1.62	1.41

5.15-5.25GHz_802.11ax_HEW40_Nss1,(MCS0)_2TX

PSD

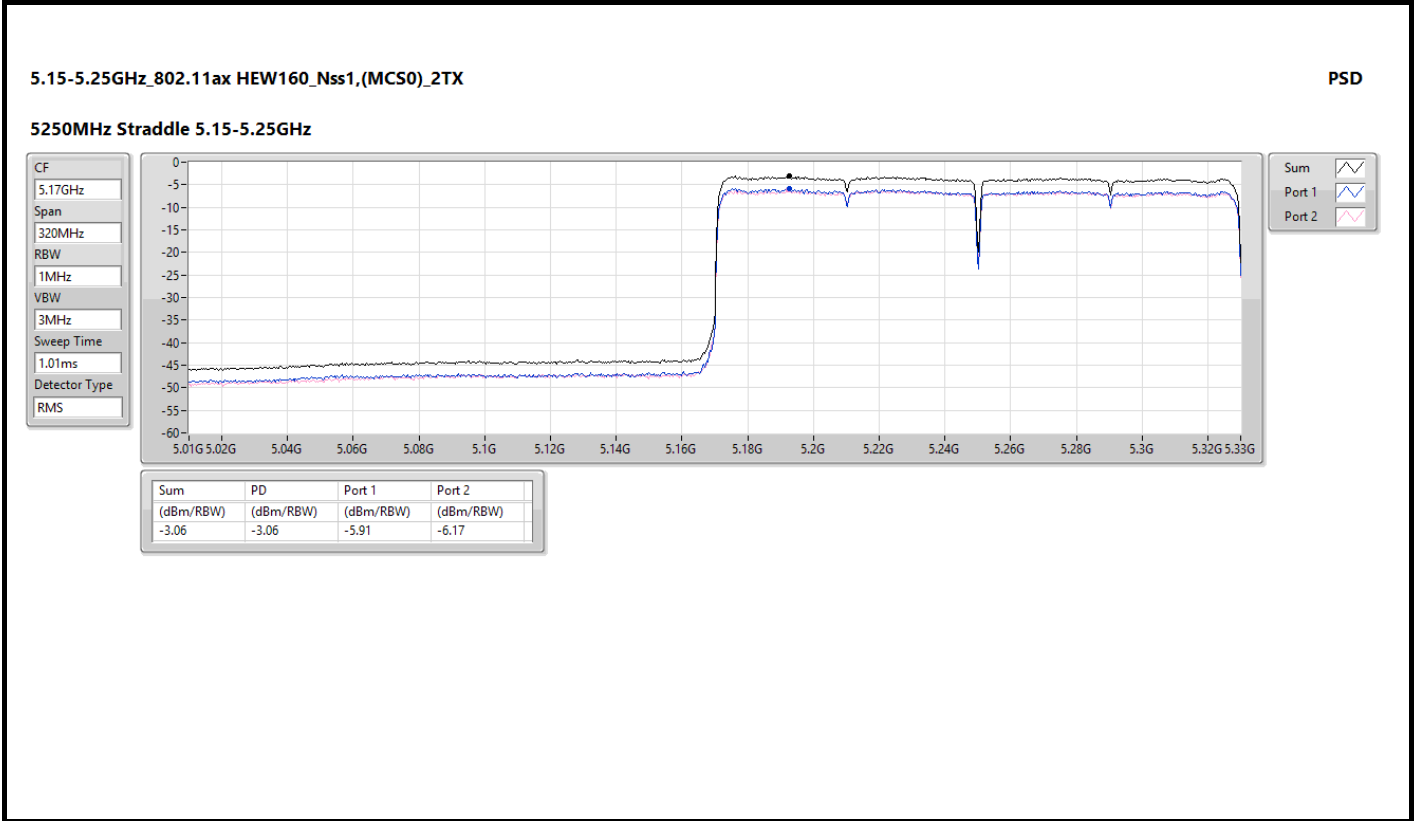
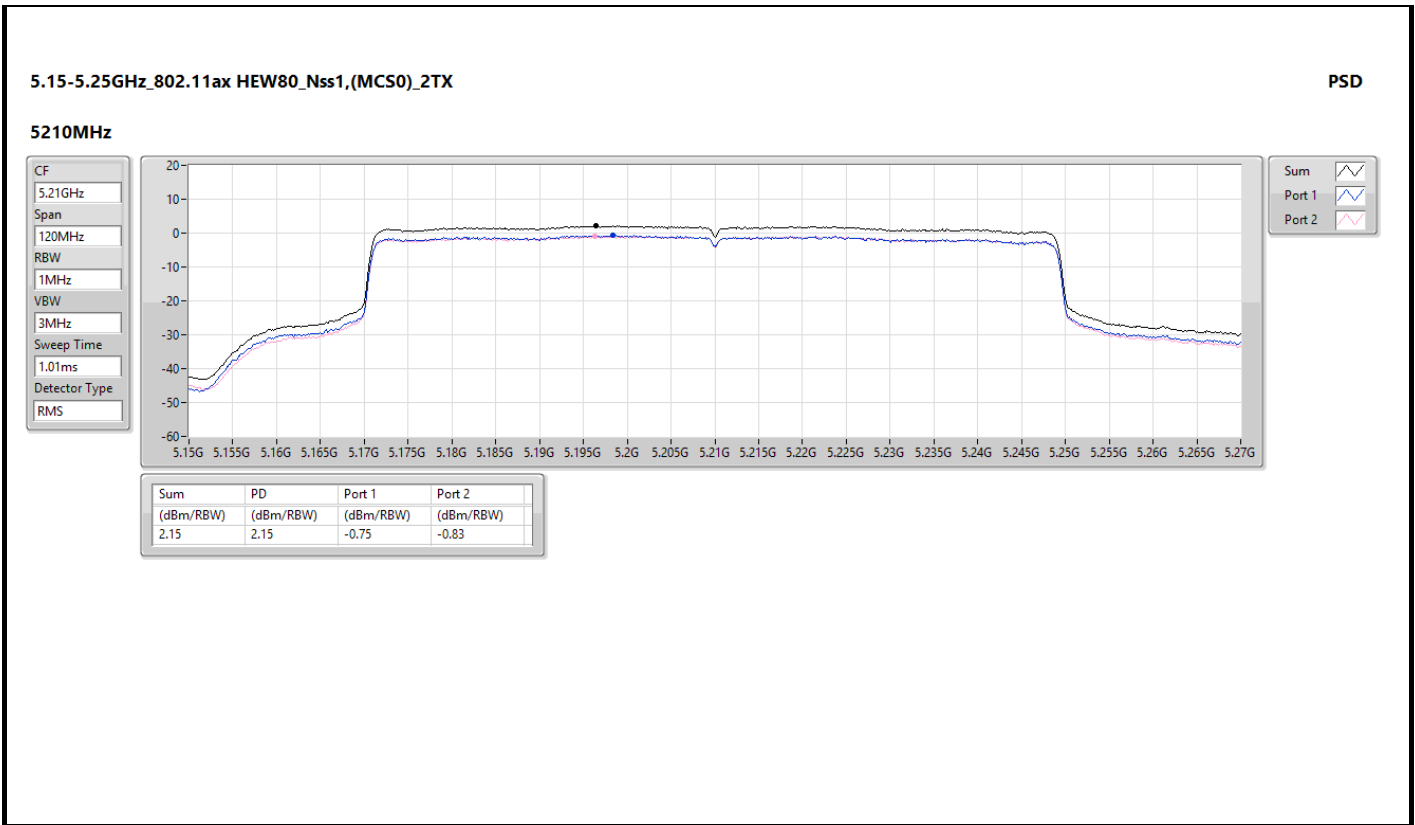
5230MHz

CF
5.23GHz
Span
60MHz
RBW
1MHz
VBW
3MHz
Sweep Time
1.01ms
Detector Type
RMS



Sum
Port 1
Port 2

Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.22	7.22	4.21	4.43

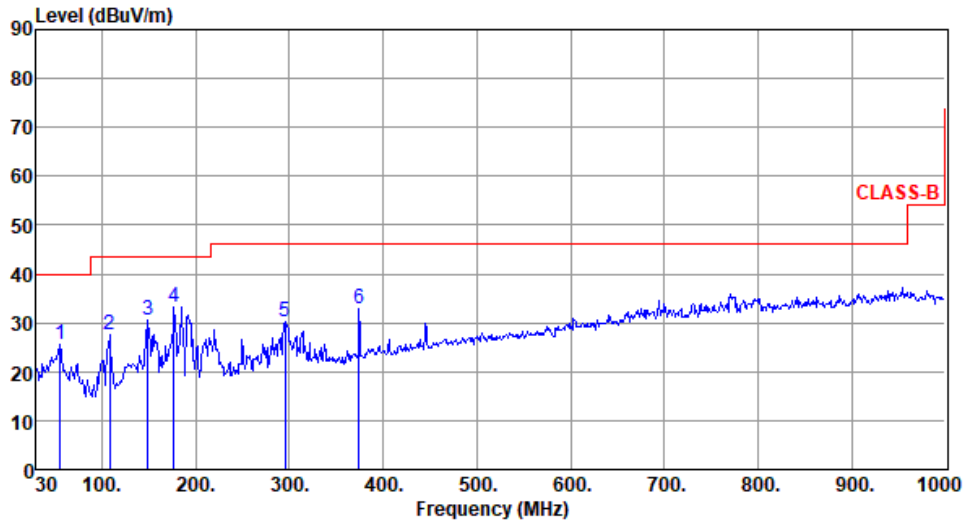




Unwanted Emissions (Below 1GHz)

Modulation	11a	Test Freq. (MHz)	5200
Polarization	Horizontal		

Test By :Paul Lin Temperature(°C):24 Humidity(%):63



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	55.22	25.57	40.00	-14.43	34.27	-8.70	Peak	---	---
2	108.57	27.57	43.50	-15.93	39.65	-12.08	Peak	---	---
3	149.31	30.57	43.50	-12.93	39.09	-8.52	Peak	---	---
4	176.47	33.37	43.50	-10.13	42.97	-9.60	Peak	---	---
5	295.78	30.23	46.00	-15.77	38.28	-8.05	Peak	---	---
6	374.35	32.99	46.00	-13.01	38.83	-5.84	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

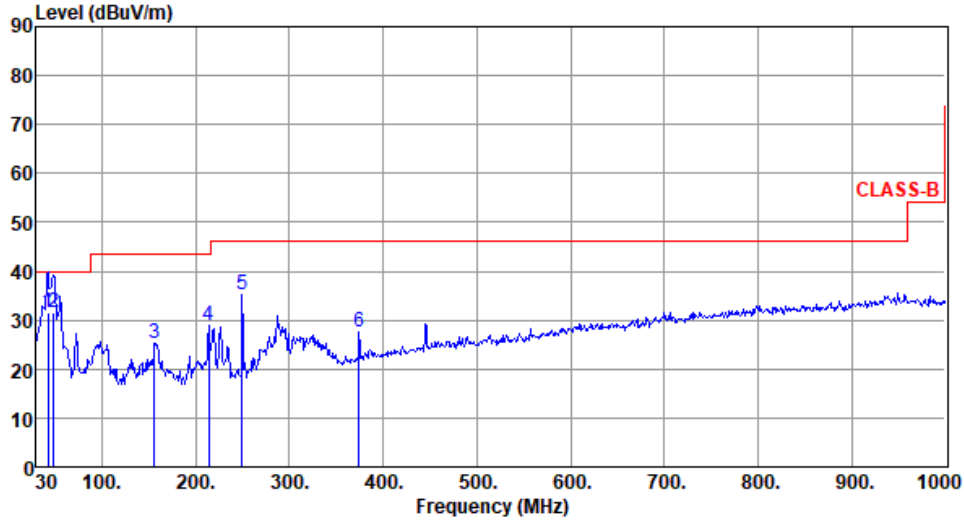
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.



Modulation	11a	Test Freq. (MHz)	5200
Polarization	Vertical		

Test By :Paul Lin Temperature(°C):24 Humidity(%):63



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	42.61	31.66	40.00	-8.34	40.51	-8.85	QP	100	81
2	48.43	31.60	40.00	-8.40	39.91	-8.31	QP	100	81
3	156.10	25.30	43.50	-18.20	33.73	-8.43	Peak	---	---
4	214.30	28.93	43.50	-14.57	40.64	-11.71	Peak	---	---
5	249.22	35.34	46.00	-10.66	44.98	-9.64	Peak	---	---
6	374.35	27.43	46.00	-18.57	33.27	-5.84	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

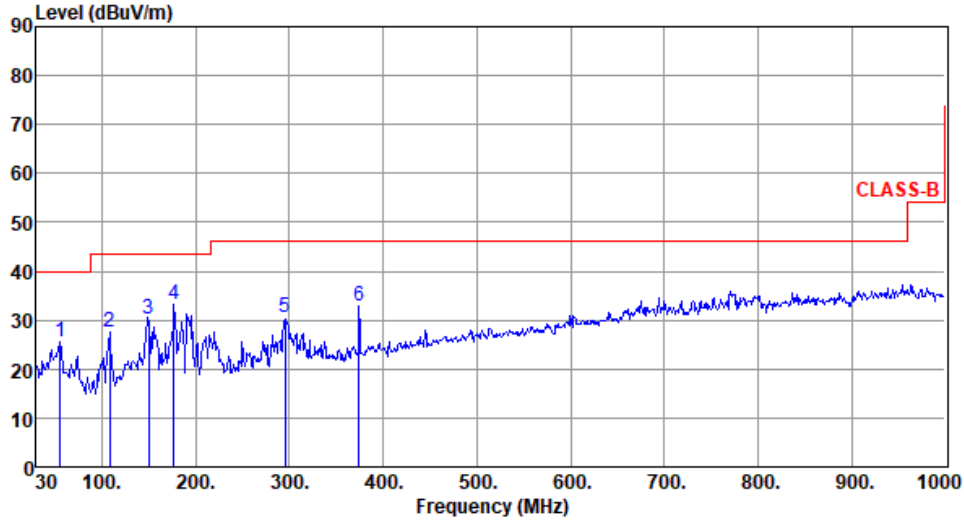
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.



Modulation	ax HE40	Test Freq. (MHz)	5795
Polarization	Horizontal		

Test By : Paul Lin Temperature(°C): 24 Humidity(%): 63



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	55.36	25.41	40.00	-14.59	34.09	-8.68	Peak	---	---
2	108.45	27.66	43.50	-15.84	39.76	-12.10	Peak	---	---
3	149.46	30.25	43.50	-13.25	38.75	-8.50	Peak	---	---
4	176.65	33.12	43.50	-10.38	42.73	-9.61	Peak	---	---
5	295.62	30.45	46.00	-15.55	38.51	-8.06	Peak	---	---
6	374.51	32.84	46.00	-13.16	38.67	-5.83	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

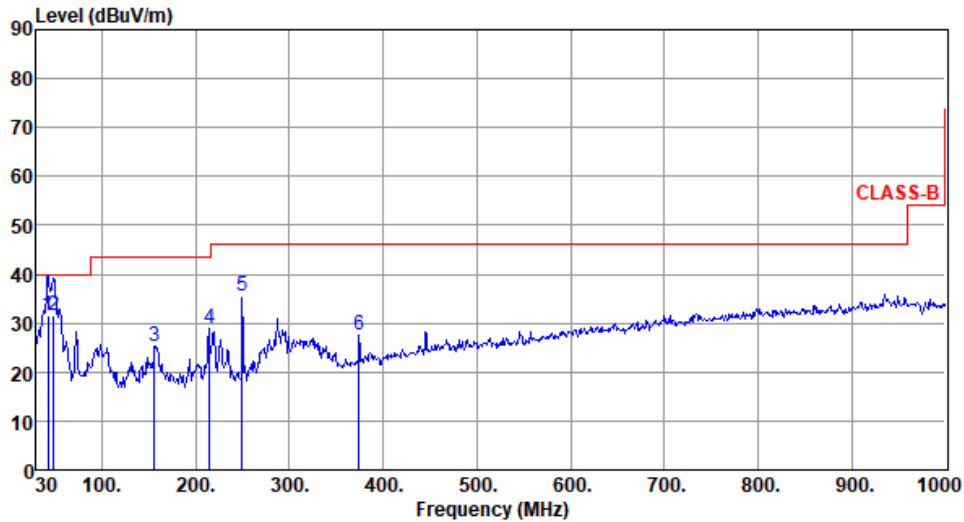
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.



Modulation	ax HE40	Test Freq. (MHz)	5795
Polarization	Vertical		

Test By :Paul Lin Temperature(°C):24 Humidity(%):63



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	42.56	31.45	40.00	-8.55	40.31	-8.86	QP	100	83
2	48.29	31.46	40.00	-8.54	39.77	-8.31	QP	100	86
3	156.26	25.18	43.50	-18.32	33.61	-8.43	Peak	---	---
4	214.42	28.75	43.50	-14.75	40.46	-11.71	Peak	---	---
5	249.41	35.62	46.00	-10.38	45.25	-9.63	Peak	---	---
6	374.58	27.61	46.00	-18.39	33.44	-5.83	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.



Unwanted Emissions (Above 1GHz) for 11a

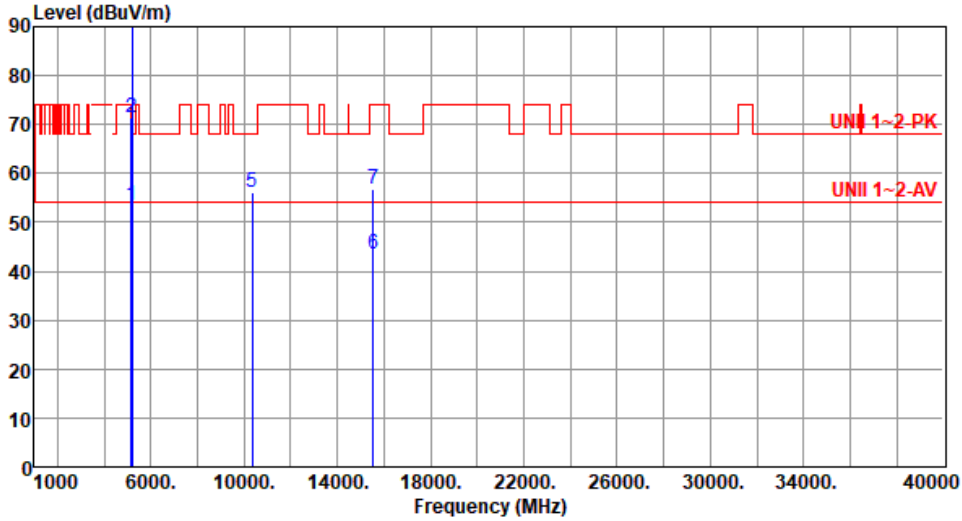
Modulation	11a	Test Freq. (MHz)	5180						
Polarization	Horizontal								
Test By :Brad Wu Temperature(°C):24 Humidity(%):65									
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	49.65	54.00	-4.35	48.83	0.82	Average	126	241
2	5150.00	66.41	74.00	-7.59	65.59	0.82	Peak	126	241
3 *	5180.00	103.21			102.51	0.70	Average	126	241
4 *	5180.00	114.56			113.86	0.70	Peak	126	241
5	10360.00	56.28	68.20	-11.92	47.79	8.49	Peak	100	61
6	15540.00	44.96	54.00	-9.04	38.98	5.98	Average	115	108
7	15540.00	57.25	74.00	-16.75	51.27	5.98	Peak	115	108

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV) + Factor* (dB/m)
 *Factor includes antenna factor , cable loss and amplifier gain
 Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).
 Note 3: "*" is Peak / Average value of fundamental frequency.



Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		

Test By :Brad Wu Temperature(°C):24 Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	53.52	54.00	-0.48	52.70	0.82	Average	150	131
2	5150.00	71.27	74.00	-2.73	70.45	0.82	Peak	150	131
3 *	5180.00	107.44			106.74	0.70	Average	150	131
4 *	5180.00	118.71			118.01	0.70	Peak	150	131
5	10360.00	56.28	68.20	-11.92	47.79	8.49	Peak	100	91
6	15540.00	43.48	54.00	-10.52	37.50	5.98	Average	105	86
7	15540.00	56.75	74.00	-17.25	50.77	5.98	Peak	105	86

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

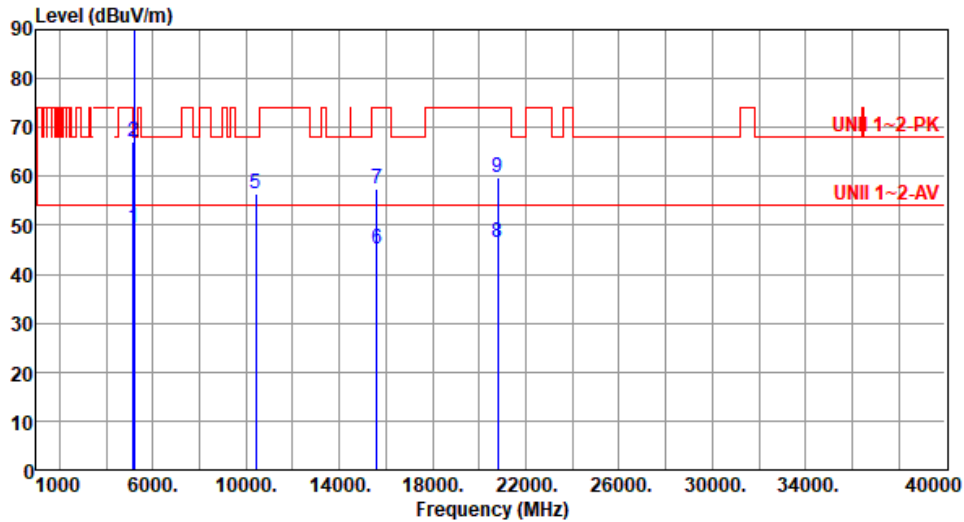
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"*" is Peak / Average value of fundamental frequency.



Modulation	11a	Test Freq. (MHz)	5200
Polarization	Horizontal		

Test By : Akun Chung Temperature(°C): 24 Humidity(%): 65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	49.52	54.00	-4.48	48.70	0.82	Average	130	245
2	5150.00	67.20	74.00	-6.80	66.38	0.82	Peak	130	245
3 *	5200.00	106.23			105.61	0.62	Average	130	245
4 *	5200.00	116.72			116.10	0.62	Peak	130	245
5	10400.00	56.39	68.20	-11.81	47.75	8.64	Peak	133	67
6	15600.00	45.08	54.00	-8.92	39.33	5.75	Average	126	123
7	15600.00	57.39	74.00	-16.61	51.64	5.75	Peak	126	123
8	20800.00	46.61	54.00	-7.39	43.14	3.47	Average	111	115
9	20800.00	59.83	74.00	-14.17	56.36	3.47	Peak	111	115

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

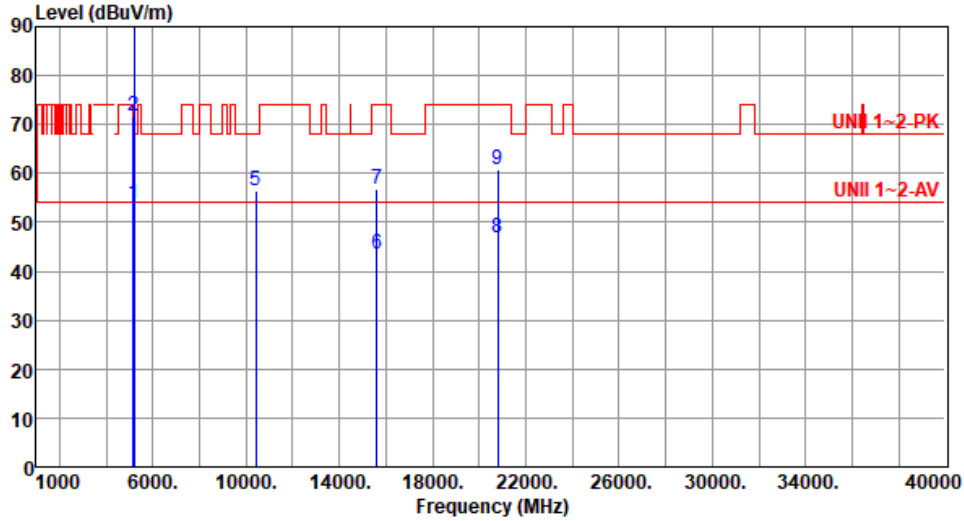
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: "*" is Peak / Average value of fundamental frequency.



Modulation	11a	Test Freq. (MHz)	5200
Polarization	Vertical		

Test By : Akun Chung Temperature(°C): 24 Humidity(%): 65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	53.86	54.00	-0.14	53.04	0.82	Average	143	134
2	5150.00	71.77	74.00	-2.23	70.95	0.82	Peak	143	134
3 *	5200.00	110.17			109.55	0.62	Average	143	134
4 *	5200.00	120.26			119.64	0.62	Peak	143	134
5	10400.00	56.36	68.20	-11.84	47.72	8.64	Peak	100	95
6	15600.00	43.59	54.00	-10.41	37.84	5.75	Average	103	83
7	15600.00	56.89	74.00	-17.11	51.14	5.75	Peak	103	83
8	20800.00	46.95	54.00	-7.05	43.48	3.47	Average	100	106
9	20800.00	60.64	74.00	-13.36	57.17	3.47	Peak	100	106

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

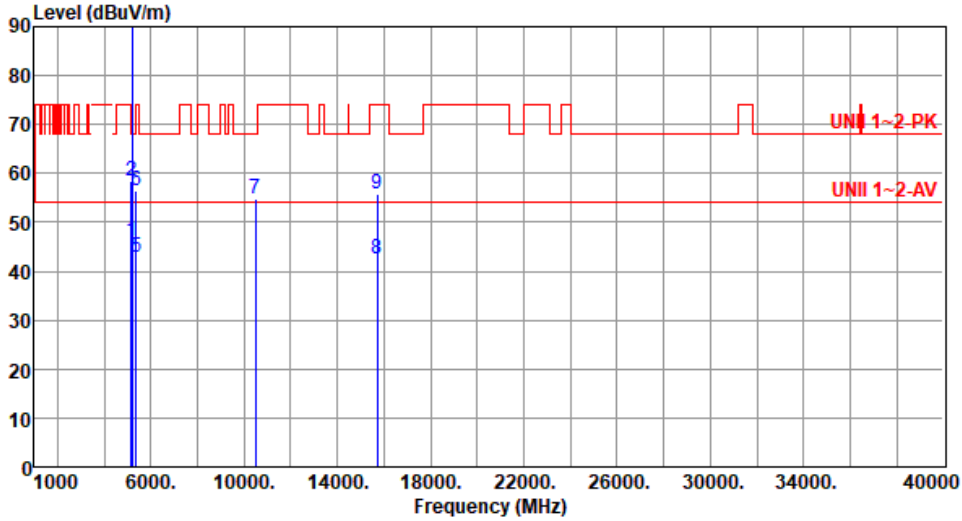
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: "*" is Peak / Average value of fundamental frequency.



Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal		

Test By :Brad Wu Temperature(°C):24 Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	46.03	54.00	-7.97	45.21	0.82	Average	136	250
2	5150.00	58.54	74.00	-15.46	57.72	0.82	Peak	136	250
3 *	5240.00	103.36			103.06	0.30	Average	136	250
4 *	5240.00	113.57			113.27	0.30	Peak	136	250
5	5350.00	42.89	54.00	-11.11	42.75	0.14	Average	136	250
6	5350.00	56.39	74.00	-17.61	56.25	0.14	Peak	136	250
7	10480.00	54.70	68.20	-13.50	46.01	8.69	Peak	100	62
8	15720.00	42.54	54.00	-11.46	36.82	5.72	Average	100	126
9	15720.00	55.94	74.00	-18.06	50.22	5.72	Peak	100	126

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

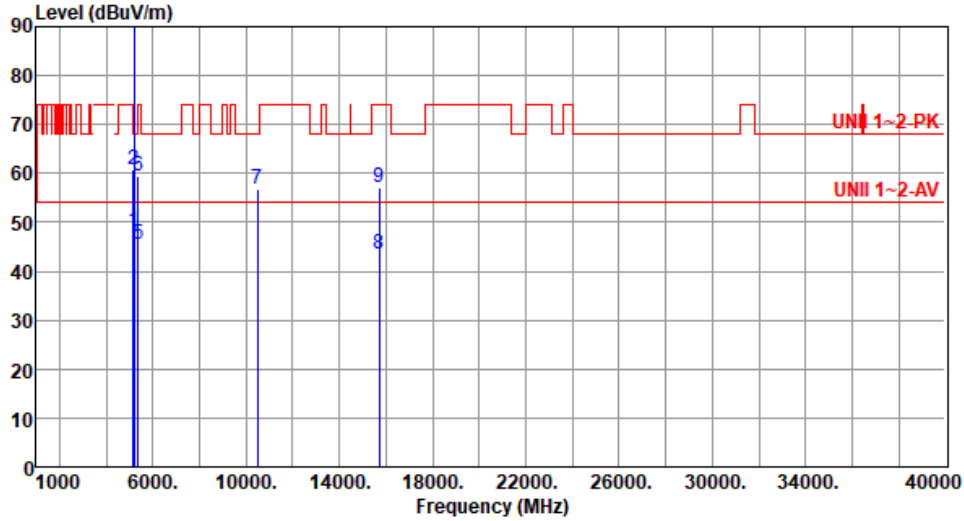
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"*" is Peak / Average value of fundamental frequency.



Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical		

Test By :Brad Wu Temperature(°C):24 Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	48.26	54.00	-5.74	47.44	0.82	Average	168	138
2	5150.00	60.86	74.00	-13.14	60.04	0.82	Peak	168	138
3 *	5240.00	108.73			108.43	0.30	Average	168	138
4 *	5240.00	119.25			118.95	0.30	Peak	168	138
5	5350.00	45.45	54.00	-8.55	45.31	0.14	Average	168	138
6	5350.00	59.29	74.00	-14.71	59.15	0.14	Peak	168	138
7	10480.00	56.85	68.20	-11.35	48.16	8.69	Peak	100	68
8	15720.00	43.65	54.00	-10.35	37.93	5.72	Average	100	41
9	15720.00	56.98	74.00	-17.02	51.26	5.72	Peak	100	41

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

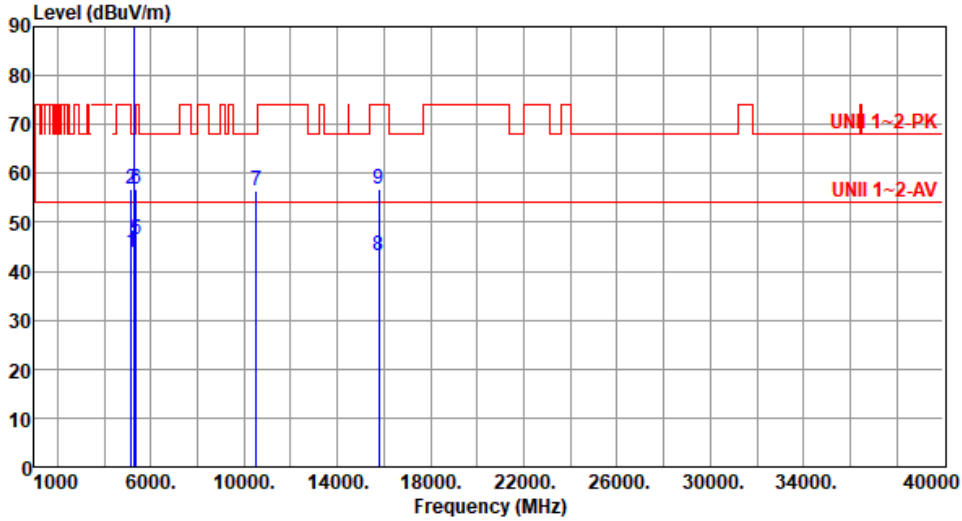
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"*" is Peak / Average value of fundamental frequency.



Modulation	11a	Test Freq. (MHz)	5260
Polarization	Horizontal		

Test By : Sean Yu Temperature(°C): 24 Humidity(%): 65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	43.89	54.00	-10.11	43.07	0.82	Average	120	252
2	5150.00	56.91	74.00	-17.09	56.09	0.82	Peak	120	252
3 *	5260.00	100.83			100.64	0.19	Average	120	252
4 *	5260.00	110.90			110.71	0.19	Peak	120	252
5	5350.00	46.60	54.00	-7.40	46.46	0.14	Average	120	252
6	5350.00	56.79	74.00	-17.21	56.65	0.14	Peak	120	252
7	10520.00	56.48	68.20	-11.72	47.76	8.72	Peak	119	51
8	15780.00	43.25	54.00	-10.75	37.58	5.67	Average	256	39
9	15780.00	56.68	74.00	-17.32	51.01	5.67	Peak	256	39

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

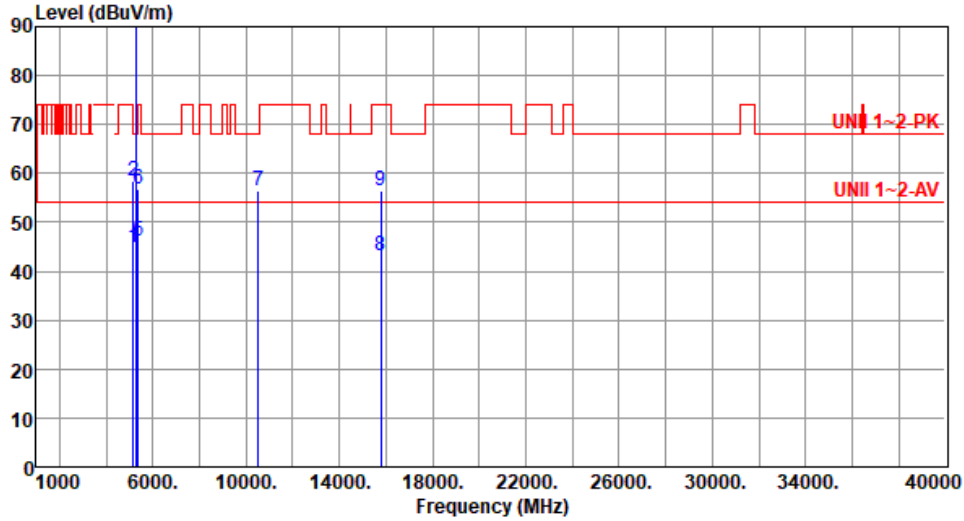
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: "*" is Peak / Average value of fundamental frequency.



Modulation	11a	Test Freq. (MHz)	5260
Polarization	Vertical		

Test By : Sean Yu Temperature(°C): 24 Humidity(%): 65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	44.68	54.00	-9.32	43.86	0.82	Average	162	145
2	5150.00	58.42	74.00	-15.58	57.60	0.82	Peak	162	145
3 *	5260.00	105.75			105.56	0.19	Average	162	145
4 *	5260.00	116.49			116.30	0.19	Peak	162	145
5	5350.00	46.15	54.00	-7.85	46.01	0.14	Average	162	145
6	5350.00	56.90	74.00	-17.10	56.76	0.14	Peak	162	145
7	10520.00	56.32	68.20	-11.88	47.60	8.72	Peak	100	240
8	15780.00	43.12	54.00	-10.88	37.45	5.67	Average	100	118
9	15780.00	56.44	74.00	-17.56	50.77	5.67	Peak	100	118

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

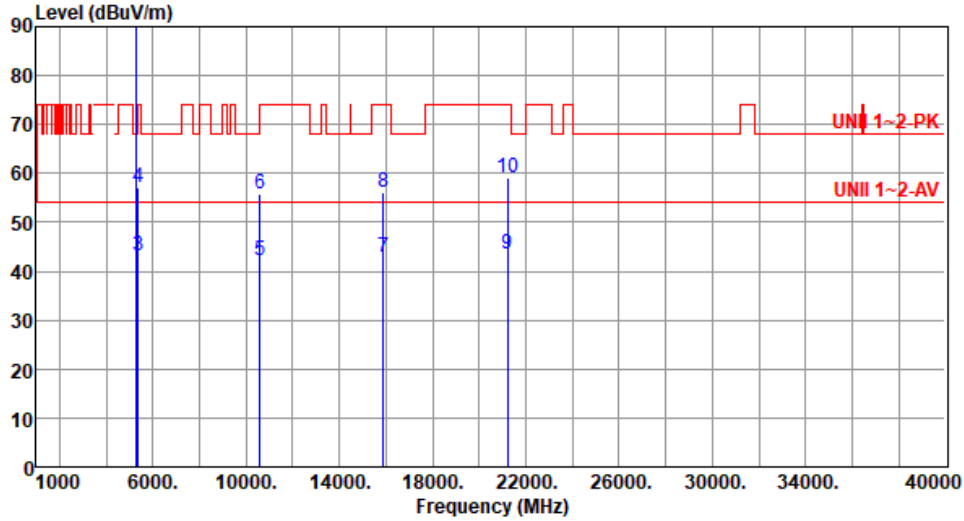
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"*" is Peak / Average value of fundamental frequency.



Modulation	11a	Test Freq. (MHz)	5300
Polarization	Horizontal		

Test By : Sean Yu Temperature(°C): 24 Humidity(%): 65



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	*	5300.00	100.09			100.06	0.03	Average	121	248
2	*	5300.00	110.52			110.49	0.03	Peak	121	248
3		5350.00	43.17	54.00	-10.83	43.03	0.14	Average	121	248
4		5350.00	57.17	74.00	-16.83	57.03	0.14	Peak	121	248
5		10600.00	42.05	54.00	-11.95	33.25	8.80	Average	100	44
6		10600.00	55.67	74.00	-18.33	46.87	8.80	Peak	100	44
7		15900.00	42.96	54.00	-11.04	37.32	5.64	Average	100	62
8		15900.00	55.99	74.00	-18.01	50.35	5.64	Peak	100	62
9		21200.00	43.40	54.00	-10.60	39.31	4.09	Average	331	157
10		21200.00	59.28	74.00	-14.72	55.19	4.09	Peak	331	157

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

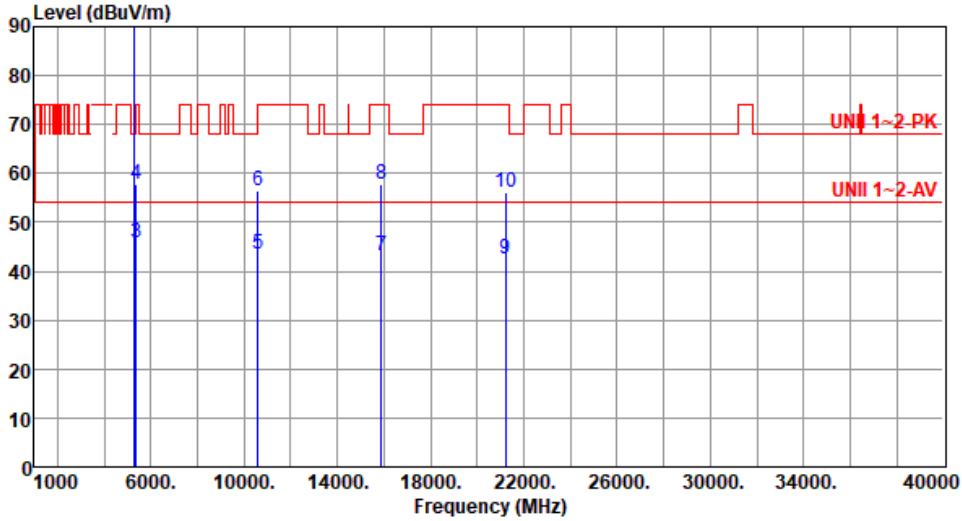
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"*" is Peak / Average value of fundamental frequency.



Modulation	11a	Test Freq. (MHz)	5300
Polarization	Vertical		

Test By : Sean Yu Temperature(°C): 24 Humidity(%): 65



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	*	5300.00	105.49			105.46	0.03	Average	169	143
2	*	5300.00	116.27			116.24	0.03	Peak	169	143
3		5350.00	45.75	54.00	-8.25	45.61	0.14	Average	169	143
4		5350.00	57.80	74.00	-16.20	57.66	0.14	Peak	169	143
5		10600.00	43.36	54.00	-10.64	34.56	8.80	Average	123	105
6		10600.00	56.43	74.00	-17.57	47.63	8.80	Peak	123	105
7		15900.00	43.20	54.00	-10.80	37.56	5.64	Average	105	82
8		15900.00	57.83	74.00	-16.17	52.19	5.64	Peak	105	82
9		21200.00	42.58	54.00	-11.42	38.49	4.09	Average	100	93
10		21200.00	56.28	74.00	-17.72	52.19	4.09	Peak	100	93

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

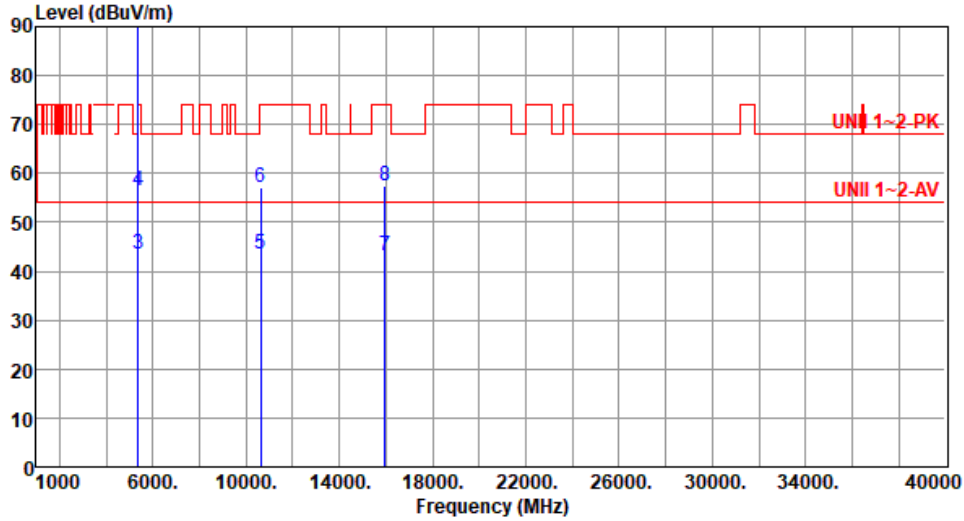
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: "*" is Peak / Average value of fundamental frequency.



Modulation	11a	Test Freq. (MHz)	5320
Polarization	Horizontal		

Test By : Sean Yu Temperature(°C): 24 Humidity(%): 65



		Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
		MHz	level	dBuV/m	dB	reading	dB/m		High	Table
			dBuV/m			dBuV			cm	deg
1	*	5320.00	99.30			99.23	0.07	Average	111	249
2	*	5320.00	109.63			109.56	0.07	Peak	111	249
3		5350.00	43.52	54.00	-10.48	43.38	0.14	Average	111	249
4		5350.00	56.40	74.00	-17.60	56.26	0.14	Peak	111	249
5		10640.00	43.61	54.00	-10.39	34.81	8.80	Average	118	39
6		10640.00	57.24	74.00	-16.76	48.44	8.80	Peak	118	39
7		15960.00	43.15	54.00	-10.85	37.50	5.65	Average	265	43
8		15960.00	57.48	74.00	-16.52	51.83	5.65	Peak	265	43

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

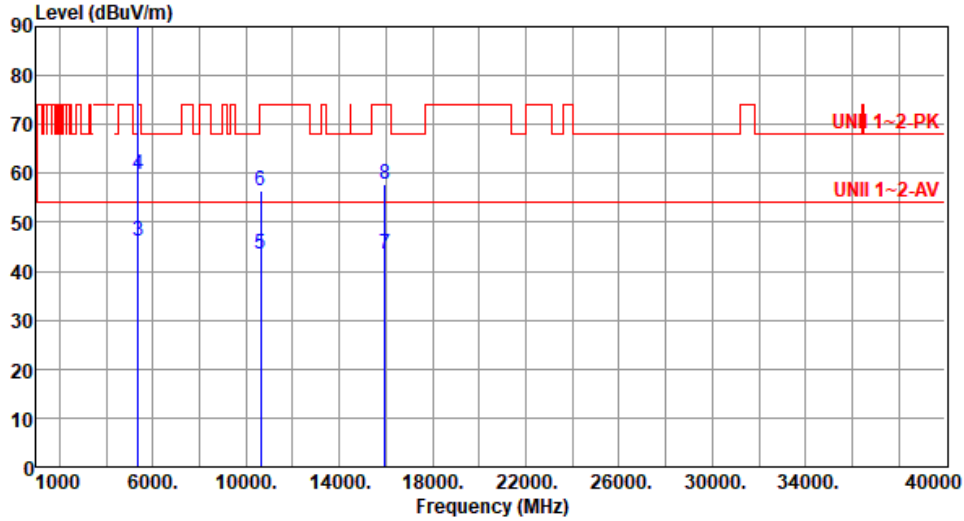
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"*" is Peak / Average value of fundamental frequency.



Modulation	11a	Test Freq. (MHz)	5320
Polarization	Vertical		

Test By : Sean Yu Temperature(°C): 24 Humidity(%): 65



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	*	5320.00	105.10			105.03	0.07	Average	165	142
2	*	5320.00	116.06			115.99	0.07	Peak	165	142
3		5350.00	46.28	54.00	-7.72	46.14	0.14	Average	165	142
4		5350.00	59.82	74.00	-14.18	59.68	0.14	Peak	165	142
5		10640.00	43.49	54.00	-10.51	34.69	8.80	Average	118	95
6		10640.00	56.52	74.00	-17.48	47.72	8.80	Peak	118	95
7		15960.00	43.38	54.00	-10.62	37.73	5.65	Average	100	86
8		15960.00	57.94	74.00	-16.06	52.29	5.65	Peak	100	86

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

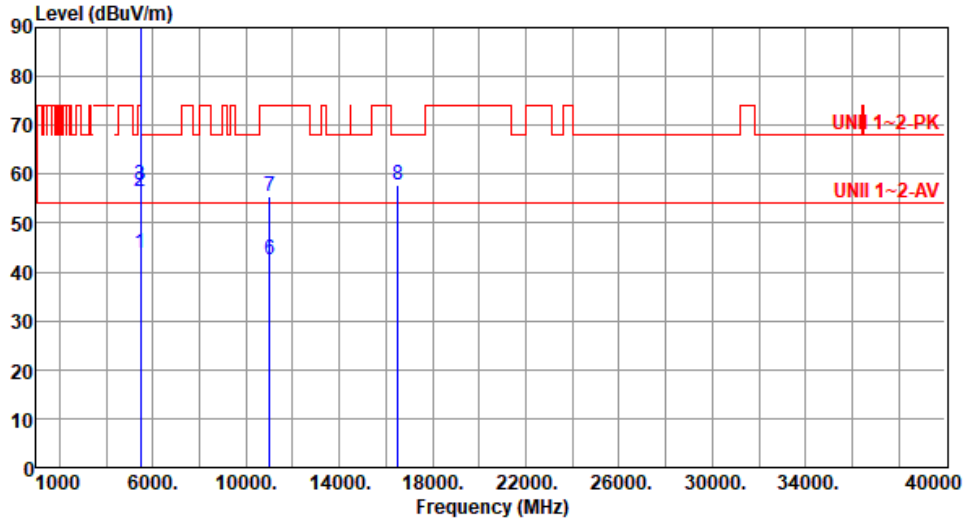
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"*" is Peak / Average value of fundamental frequency.



Modulation	11a	Test Freq. (MHz)	5500
Polarization	Horizontal		

Test By : Sean Yu Temperature(°C): 24 Humidity(%): 65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5460.00	43.72	54.00	-10.28	43.14	0.58	Average	101	99
2	5460.00	56.43	74.00	-17.57	55.85	0.58	Peak	101	99
3	5470.00	57.68	68.20	-10.52	57.09	0.59	Peak	101	99
4 *	5500.00	99.38			98.72	0.66	Average	101	99
5 *	5500.00	109.84			109.18	0.66	Peak	101	99
6	11000.00	42.40	54.00	-11.60	33.19	9.21	Average	100	64
7	11000.00	55.55	74.00	-18.45	46.34	9.21	Peak	100	64
8	16500.00	57.64	68.20	-10.56	50.65	6.99	Peak	100	102

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

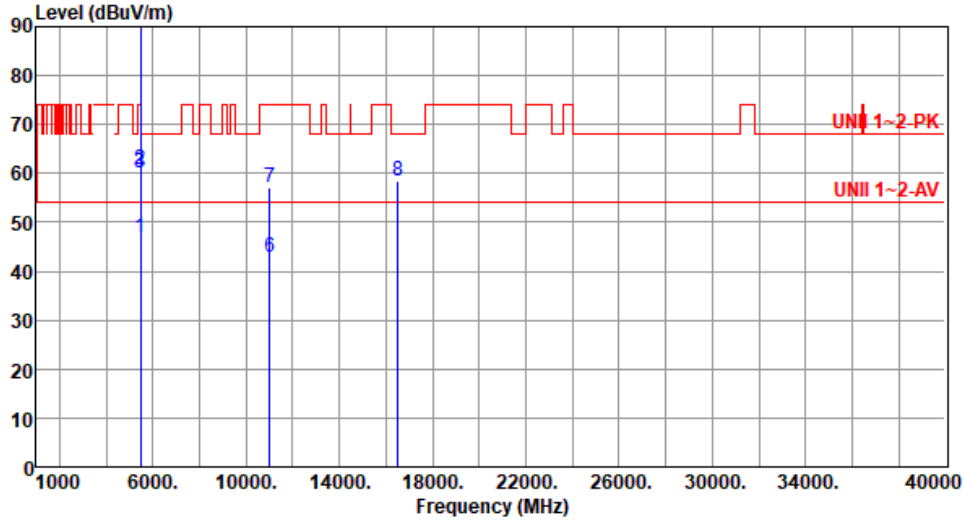
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: "*" is Peak / Average value of fundamental frequency.



Modulation	11a	Test Freq. (MHz)	5500
Polarization	Vertical		

Test By : Sean Yu Temperature(°C): 24 Humidity(%): 65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5460.00	46.78	54.00	-7.22	46.20	0.58	Average	167	142
2	5460.00	60.65	74.00	-13.35	60.07	0.58	Peak	167	142
3	5470.00	60.14	68.20	-8.06	59.55	0.59	Peak	167	142
4 *	5500.00	104.54			103.88	0.66	Average	167	142
5 *	5500.00	115.70			115.04	0.66	Peak	167	142
6	11000.00	42.88	54.00	-11.12	33.67	9.21	Average	195	84
7	11000.00	57.16	74.00	-16.84	47.95	9.21	Peak	195	84
8	16500.00	58.29	68.20	-9.91	51.30	6.99	Peak	100	69

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

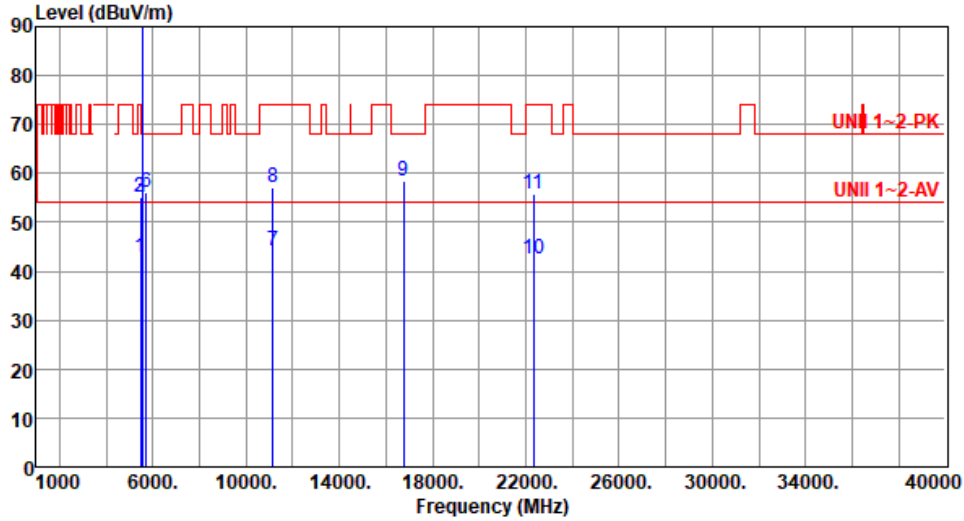
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: "*" is Peak / Average value of fundamental frequency.



Modulation	11a	Test Freq. (MHz)	5580
Polarization	Horizontal		

Test By : Sean Yu Temperature(°C): 24 Humidity(%): 65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5460.00	42.72	54.00	-11.28	42.14	0.58	Average	160	239
2	5460.00	55.13	74.00	-18.87	54.55	0.58	Peak	160	239
3	5470.00	55.25	68.20	-12.95	54.66	0.59	Peak	160	239
4 *	5580.00	99.77			99.13	0.64	Average	160	239
5 *	5580.00	109.99			109.35	0.64	Peak	160	239
6	5725.00	56.10	68.20	-12.10	55.17	0.93	Peak	160	239
7	11160.00	44.29	54.00	-9.71	35.56	8.73	Average	247	69
8	11160.00	57.08	74.00	-16.92	48.35	8.73	Peak	247	69
9	16740.00	58.59	68.20	-9.61	51.56	7.03	Peak	100	108
10	22320.00	42.52	54.00	-11.48	36.98	5.54	Average	181	127
11	22320.00	55.65	74.00	-18.35	50.11	5.54	Peak	181	127

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

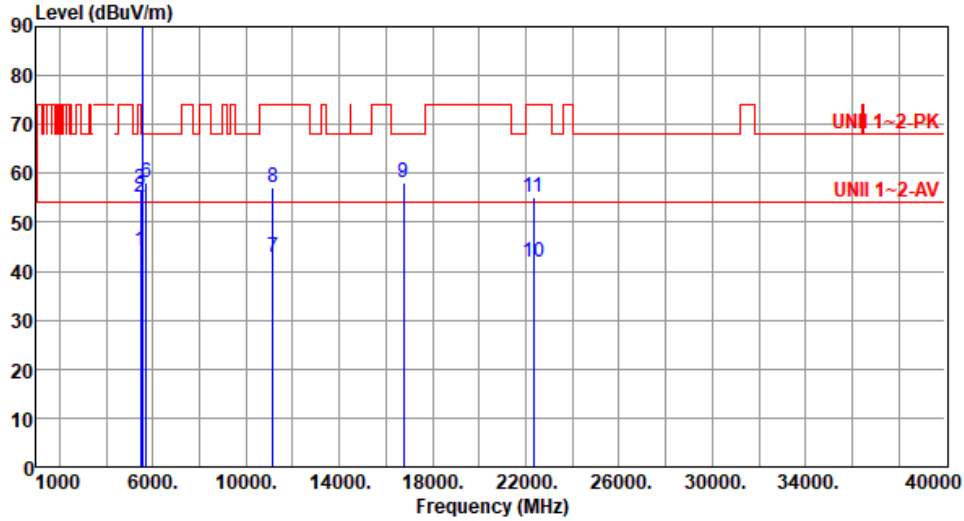
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"*" is Peak / Average value of fundamental frequency.



Modulation	11a	Test Freq. (MHz)	5580
Polarization	Vertical		

Test By : Sean Yu Temperature(°C): 24 Humidity(%): 65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5460.00	44.05	54.00	-9.95	43.47	0.58	Average	157	141
2	5460.00	55.19	74.00	-18.81	54.61	0.58	Peak	157	141
3	5470.00	56.71	68.20	-11.49	56.12	0.59	Peak	157	141
4 *	5580.00	104.10			103.46	0.64	Average	157	141
5 *	5580.00	115.19			114.55	0.64	Peak	157	141
6	5725.00	58.16	68.20	-10.04	57.23	0.93	Peak	157	141
7	11160.00	42.95	54.00	-11.05	34.22	8.73	Average	202	95
8	11160.00	57.24	74.00	-16.76	48.51	8.73	Peak	202	95
9	16740.00	58.14	68.20	-10.06	51.11	7.03	Peak	100	87
10	22320.00	41.76	54.00	-12.24	36.22	5.54	Average	100	102
11	22320.00	55.30	74.00	-18.70	49.76	5.54	Peak	100	102

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

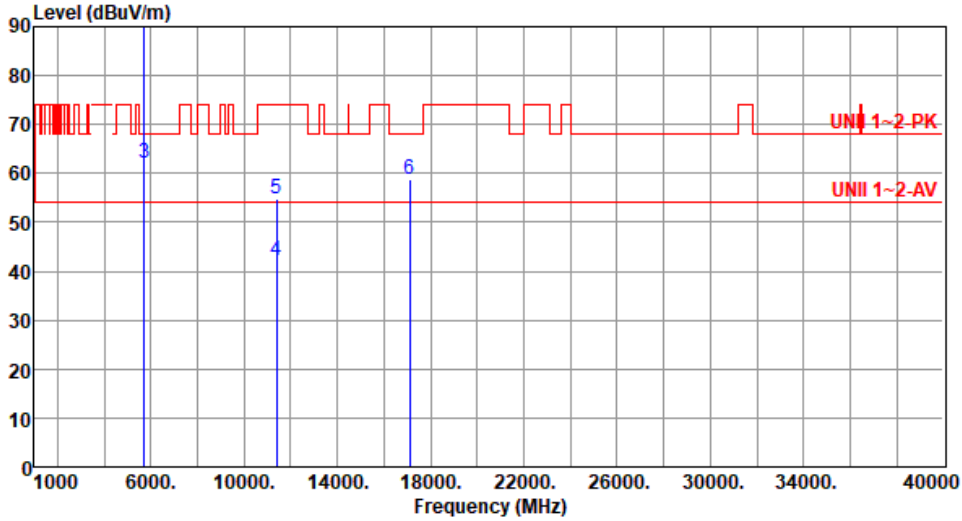
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3: "*" is Peak / Average value of fundamental frequency.



Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal		

Test By : Sean Yu Temperature(°C): 24 Humidity(%): 65



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	*	5700.00	97.24			96.38	0.86	Average	141	309
2	*	5700.00	108.85			107.99	0.86	Peak	141	309
3		5725.00	61.95	68.20	-6.25	61.02	0.93	Peak	141	309
4		11400.00	42.34	54.00	-11.66	33.78	8.56	Average	242	63
5		11400.00	54.92	74.00	-19.08	46.36	8.56	Peak	242	63
6		17100.00	58.65	68.20	-9.55	52.23	6.42	Peak	100	110

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Note 3:"*" is Peak / Average value of fundamental frequency.