

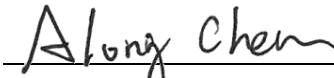
# FCC C2PC Test Report

**FCC ID** : MXF-Q9500WK  
**Equipment** : Wi-Fi AP  
**Model No.** : Q9500WK  
**Brand Name** : Quantum FIBER  
**Applicant** : Gemtek Technology Co., Ltd.  
**Address** : No. 15-1 Zhonghua Road, Hsinchu Industrial  
Park, Hukou, Hsinchu, Taiwan, 30352.  
**Standard** : 47 CFR FCC Part 15.407  
**Received Date** : Jun. 25, 2022  
**Tested Date** : Jun. 25 ~ Jul. 14, 2022

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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## Release Record

Report No.	Version	Description	Issued Date
FR263001-01AN	Rev. 01	Initial issue	Oct. 13, 2022

## Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	AC Power Line Conducted Emissions	[dBuV]: 0.410MHz 48.60 (Margin -9.04dB) - QP	Pass
15.407(b) 15.209	Unwanted Emissions	[dBuV/m at 3m]: 5350.00MHz 53.84 (Margin -0.16dB) - AV	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(a)	Conducted Output Power	Max Power [dBm]: <b>Non-beamforming mode</b> 5250~5350MHz: 23.90 5470~5725MHz: 23.94 <b>Beamforming mode</b> 5250~5350MHz: 23.82 5470~5725MHz: 22.48	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

This report is issued as a Class II Permissive Change.

The modification is only concerned with adding 5250~5350MHz and 5470~5725 MHz band by software setting.

### 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 <sub>TX</sub> )	Data Rate / MCS
5250-5350 5470-5725	a	5260-5320 5500-5720	52-64 [4] 100-144 [12]	2 4	6-54 Mbps
5250-5350 5470-5725	n (HT20)	5260-5320 5500-5720	52-64 [4] 100-144 [12]	2 4	MCS 0-15 MCS 0-31
5250-5350 5470-5725	n (HT40)	5270-5310 5510-5710	54-62 [2] 102-142 [6]	2 4	MCS 0-15 MCS 0-31
5250-5350 5470-5725	ac (VHT20)	5260-5320 5500-5720	52-64 [4] 100-144 [12]	2 4	MCS 0-9
5250-5350 5470-5725	ac (VHT40)	5270-5310 5510-5710	54-62 [2] 102-142 [6]	2 4	MCS 0-9
5250-5350 5470-5725	ac (VHT80)	5290 5530-5690	58 [1] 106-138 [3]	4 2	MCS 0-9
5250-5350 5470-5725	ac (VHT160)	5250 5570	50 [1] 114 [1]	2 4	MCS 0-9
5250-5350 5470-5725	ax (HE20)	5260-5320 5500-5720	52-64 [4] 100-144 [12]	2 4	MCS 0-11
5250-5350 5470-5725	ax (HE40)	5270-5310 5510-5710	54-62 [2] 102-142 [6]	2 4	MCS 0-11
5250-5350 5470-5725	ax (HE80)	5290 5530-5690	58 [1] 106-138 [3]	2 4	MCS 0-11
5250-5350 5470-5725	ac (HE160)	5250 5570	50 [1] 114 [1]	2 4	MCS 0-11

Note 1: OFDM/OFDMA- BPSK, QPSK, 16QAM, 64QAM, 256QAM and 1024QAM modulation.  
Note 2: 802.11n/ac/ax supports beamforming function.  
Note 3: TPC function is supported.

### 1.1.2 Antenna Details

Ant. No.	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)			
			5150~5250	5250~5350	5470~5725	5725~5850
2G5GL Ant1	PIFA	UFL	1.94	1.39	--	--
2G5GL Ant2	PIFA	UFL	2.42	2.58	--	--
5GH Ant1	PIFA	UFL	--	--	3.11	2.26
5GH Ant2	PIFA	UFL	--	--	2.97	2.18
5GH Ant3	PIFA	UFL	--	--	2.84	3.22
5GH Ant4	PIFA	UFL	--	--	2.29	2.42

### 1.1.3 Power Supply Type of Equipment under Test (EUT)

<b>Power Supply Type</b>	100~120Vac
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### 1.1.4 Source of Power Board

Source of Power Board	Description
1	Brand: Leader Model: SL36-3120300-3C I/P: 100~120Vac, 50-60Hz, 0.8A O/P: 12Vdc, 3A
2	Brand: LUCENT TRANS Model: 1A104-US1230 I/P: 100~120Vac, 50-60Hz, 1A O/P: 12Vdc, 3A

### 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)
52	5260	54	5270
56	5280	62	5310
60	5300	102	5510
64	5320	110	5550
100	5500	118	5590
104	5520	126	5630
108	5540	134	5670
112	5560	142	5710
116	5580	<b>802.11ac VHT80 / ax HE80</b>	
120	5600	58	5290
124	5620	106	5530
128	5640	122	5610
132	5660	138	5690
136	5680	<b>802.11ac VHT160 / ax HE160</b>	
140	5700	50	5250
144	5720	114	5570

### 1.1.6 Test Tool and Duty Cycle

Test Tool	Intel DUT, version: 610.50		
Duty Cycle and Duty Factor	Mode	Duty Cycle (%)	Duty Factor (dB)
	11a	100.00%	0.00
	ax HE20-OFDMA	100.00%	0.00
	ax HE40-OFDMA	100.00%	0.00
	ax HE80-OFDMA	100.00%	0.00
	ax HE160-OFDMA	100.00%	0.00

### 1.1.7 Power Index of Test Tool

Modulation Mode	Test Frequency (MHz)	Power Index
11a	5260	21
11a	5300	21.5
11a	5320	22
11a	5500	16
11a	5580	16.5
11a	5700	16.5
ax HE20-OFDMA	5260	21
ax HE20-OFDMA	5300	21
ax HE20-OFDMA	5320	22
ax HE20-OFDMA	5500	16
ax HE20-OFDMA	5580	16.5
ax HE20-OFDMA	5700	16.5
ax HE40-OFDMA	5270	21.5
ax HE40-OFDMA	5310	18.5
ax HE40-OFDMA	5510	18
ax HE40-OFDMA	5590	18
ax HE40-OFDMA	5670	17.5
ax HE80-OFDMA	5290	18
ax HE80-OFDMA	5530	18
ax HE80-OFDMA	5610	18
ax HE160-OFDMA	5250	17
ax HE160-OFDMA	5570	17.5

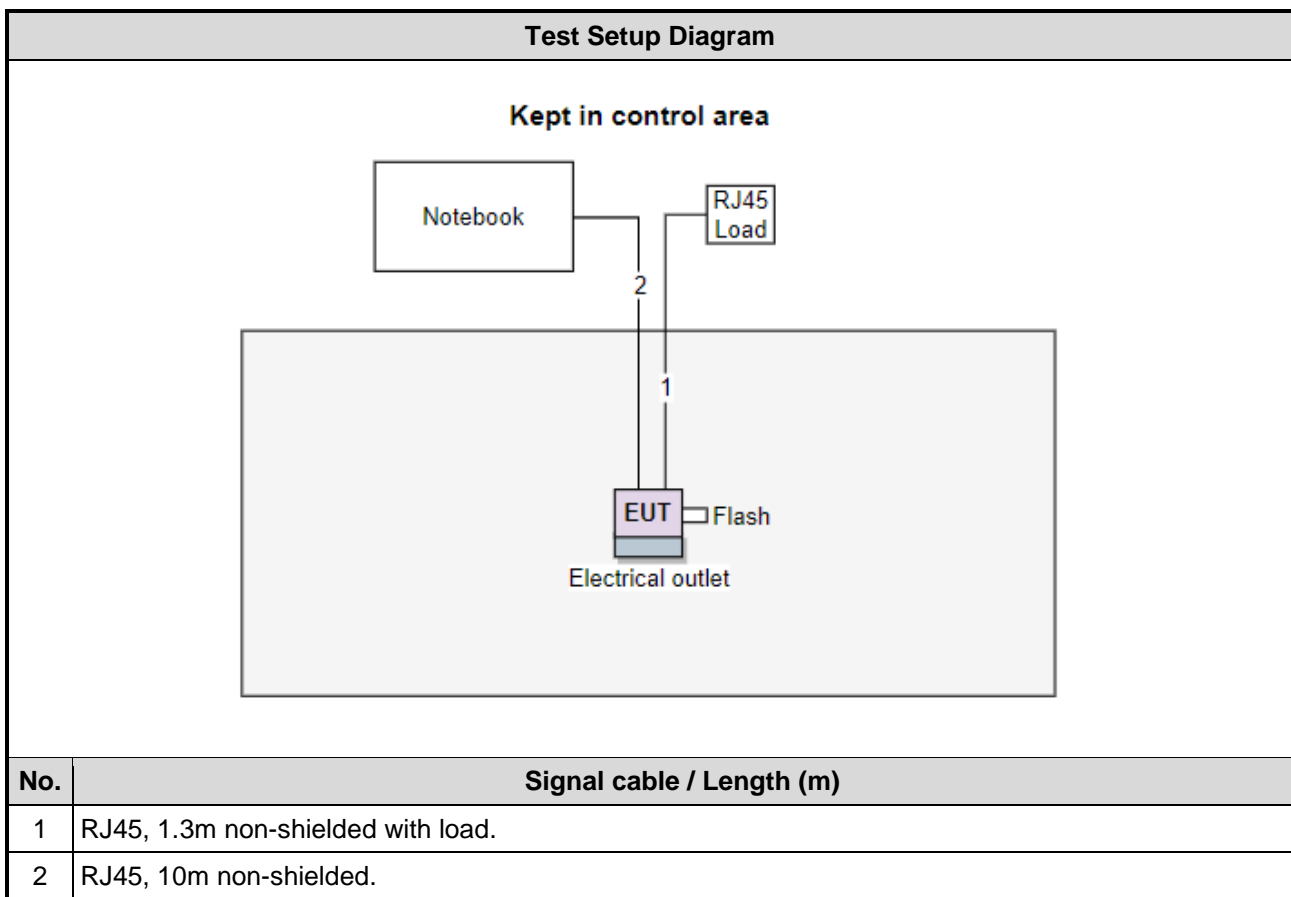
Modulation Mode	Test Frequency (MHz)	Power Index
11a	5720	15.5
ax HE20-OFDMA	5720	15.5
ax HE40-OFDMA	5710	18
ax HE80-OFDMA	5690	17.5



## 1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	Notebook	DELL	Latitude E5470	DoC	---
2	USB 3.0 Flash	Transcend	JetFlash 700	---	---
3	RJ45 Load	ICC	DTSE9	---	---

## 1.3 Test Setup Chart



## 1.4 The Equipment List

<b>Test Item</b>	Radiated Emission below 1GHz				
<b>Test Site</b>	966 chamber1 / (03CH01-WS)				
<b>Tested Date</b>	Jul. 07, 2022				
<b>Instrument</b>	<b>Brand</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Receiver	R&S	ESR3	101657	Mar. 15, 2022	Mar. 14, 2023
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 08, 2021	Nov. 07, 2022
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-685	Jun. 28, 2022	Jun. 27, 2023
Preamplifier	EMC	EMC02325	980225	Jun. 28, 2022	Jun. 27, 2023
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 05, 2021	Oct. 04, 2022
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 05, 2021	Oct. 04, 2022
LF cable 11M	EMC	EMCCFD400-NW-N W-11000	200801	Oct. 05, 2021	Oct. 04, 2022
LF cable 1M	EMC	EMCCFD400-NM-N M-1000	160502	Oct. 05, 2021	Oct. 04, 2022
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

<b>Test Item</b>	Radiated Emission above 1GHz				
<b>Test Site</b>	966 chamber1 / (03CH01-WS)				
<b>Tested Date</b>	Jun. 25 ~ Jun. 29, 2022				
<b>Instrument</b>	<b>Brand</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Spectrum Analyzer	R&S	FSV40	101498	Nov. 29, 2021	Nov. 28, 2022
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 03, 2021	Dec. 02, 2022
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170508	Jan. 11, 2022	Jan. 10, 2023
Preamplifier	Agilent	83017A	MY39501308	Sep. 28, 2021	Sep. 27, 2022
Preamplifier	EMC	EMC184045B	980192	Jul. 14, 2021	Jul. 13, 2022
RF Cable	EMC	EMC104-35M-35M- 8000	210920	Oct. 05, 2021	Oct. 04, 2022
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Oct. 05, 2021	Oct. 04, 2022
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

<b>Test Item</b>	Conducted Emission				
<b>Test Site</b>	Conduction room 1 / (CO01-WS)				
<b>Tested Date</b>	Jul. 12, 2022				
<b>Instrument</b>	<b>Brand</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Receiver	R&S	ESR3	101658	Feb. 16, 2022	Feb. 15, 2023
LISN	R&S	ENV216	101579	Apr. 21, 2022	Apr. 20, 2023
LISN (Support Unit)	SCHWARZBECK	NSLK 8127	8127667	Jan .07, 2022	Jan .06, 2023
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 19, 2021	Oct. 18, 2022
50 ohm terminal (Support Unit)	NA	50	04	May 10, 2022	May 09, 2023
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

<b>Test Item</b>	RF Conducted				
<b>Test Site</b>	(TH01-WS)				
<b>Tested Date</b>	Jun. 29 ~ Jul. 14, 2022				
<b>Instrument</b>	<b>Brand</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Spectrum Analyzer	R&S	FSV40	101910	Apr. 18, 2022	Apr. 17, 2023
Power Meter	Anritsu	ML2495A	1241002	Nov. 07, 2021	Nov. 06, 2022
Power Sensor	Anritsu	MA2411B	1207366	Nov. 07, 2021	Nov. 06, 2022
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GTH-150-40-CP-AR-T	MAA1407-012	Sep. 08, 2021	Sep. 07, 2022
AC POWER SOURCE	APC	AFC-500W	F312060012	Dec. 03, 2021	Dec. 02, 2022
Measurement Software	Sporton	SENSE-15407_NII	V5.10.7.20	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  
FCC KDB 291074 D02 EMC Measurement v01

## 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 <sup>-9</sup>
Power density	±0.583 dB
Conducted emission	±2.715 dB
AC conducted emission	±2.92 dB
Unwanted Emission ≤ 1GHz	±3.41 dB
Unwanted Emission > 1GHz	±4.59 dB
Time	±0.1%
Temperature	±0.4 °C

## 2 Test Configuration

### 2.1 Testing Facility

<b>Test Laboratory</b>	International Certification Corporation
<b>Test Site</b>	CO01-WS, 03CH01-WS, TH01-WS
<b>Address of Test Site</b>	No.3-1, Lane 6, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 33381, Taiwan (R.O.C.)

- FCC Designation No.: TW2732
- FCC site registration No.: 181692
- ISED#: 10807A
- CAB identifier: TW2732

### 2.2 The Worst Test Modes and Channel Details

Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Mode
<b>Non-beamforming mode</b>				
Conducted Emissions Radiated Emissions ≤1GHz	ax HE40-OFDMA	5270	MCS 0	---
	ax HE40-OFDMA	5510	MCS 0	---
RF Output Power Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	6 Mbps	---
	ax HE20-OFDMA	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	ax HE40-OFDMA	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	ax HE80-OFDMA	5290 / 5530 / 5610 / 5690	MCS 0	
	ax HE160-OFDMA	5250 / 5570	MCS 0	
Frequency Stability	Un-modulation	5300	---	---
<b>Beamforming mode</b>				
RF Output Power	ax HE20-OFDMA	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	---
	ax HE40-OFDMA	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	---
	ax HE80-OFDMA	5290 / 5530 / 5610 / 5690	MCS 0	---
	ax HE160-OFDMA	5250 / 5570	MCS 0	---
<b>NOTE:</b>				
1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The <b>X-plane</b> results were found as the worst case and were shown in this report.				
2. Two power boards (Leader & LUCENT TRANS) had been covered during the pretest and found that <b>Leader power board</b> was the worst case and was selected for final test.				
3. Non-beamforming and beamforming mode had been covered during the pretest. The worst mode is Non-beamforming thus Non-beamforming is tested for all test items.				

### 3 Transmitter Test Results

#### 3.1 Emission Bandwidth

##### 3.1.1 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.

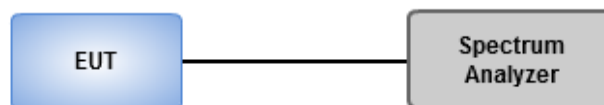
###### Occupied Bandwidth

1. Set RBW = 1 % to 5 % of the OBW.
2. Set VBW ≥ 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.

##### 3.1.2 Test Setup



##### 3.1.3 Test Results

<b>Ambient Condition</b>	23-24°C / 64-68%	<b>Tested By</b>	Roger Lu
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Refer to Appendix A.

## 3.2 Conducted Output Power

### 3.2.1 Limit of Conducted Output Power

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

### 3.2.2 Test Procedures

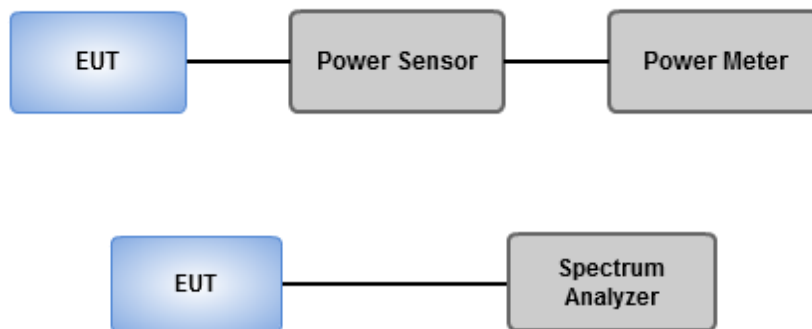
#### Method PM-G (Measurement using a gated RF average power meter)

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

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	23-24°C / 64-68%	Tested By	Roger Lu
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Refer to Appendix B.

### 3.3 Power Spectral Density

#### 3.3.1 Limit of Power Spectral Density

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

#### 3.3.2 Test Procedures

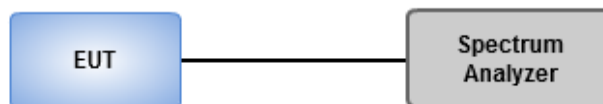
Duty cycle  $\geq$  98 %

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.

#### 3.3.3 Test Setup



#### 3.3.4 Test Results

<b>Ambient Condition</b>	23-24°C / 64-68%	<b>Tested By</b>	Roger Lu
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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
5.25 - 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]

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

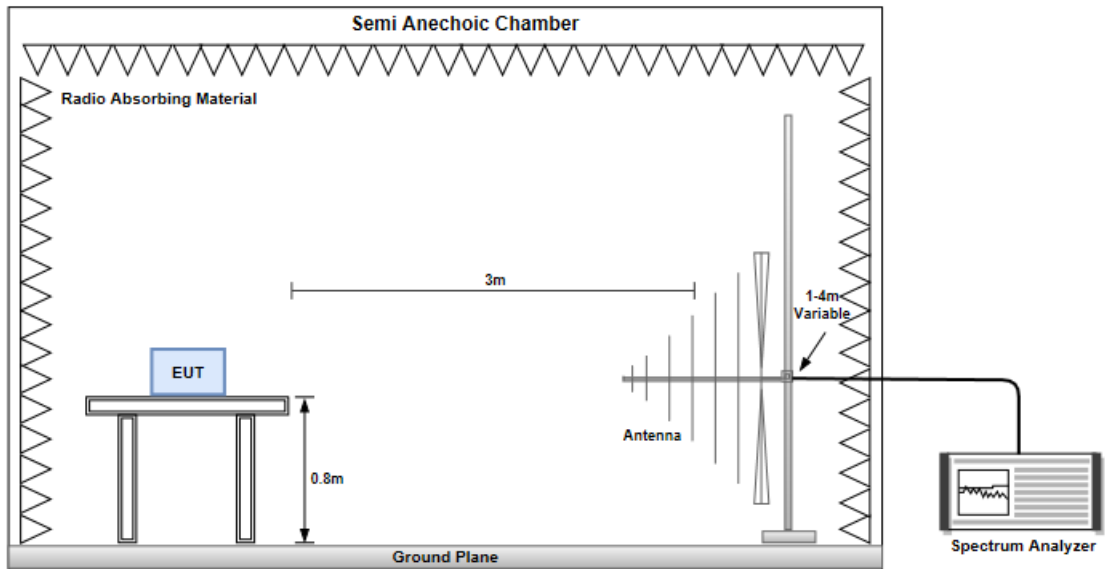
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission 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:

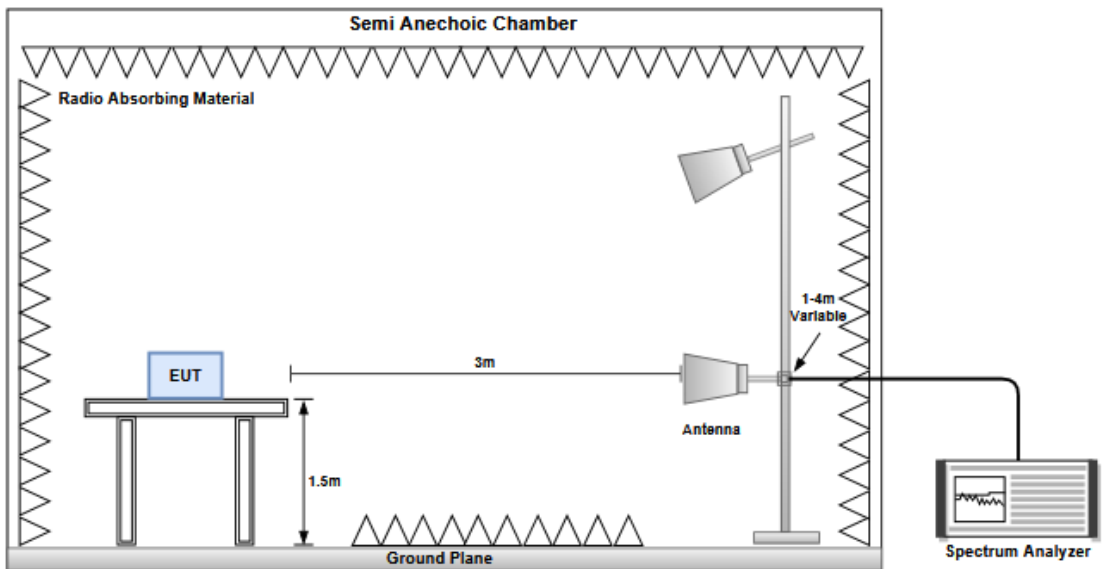
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

### 3.4.3 Test Setup

#### Radiated Emissions below 1 GHz



#### Radiated Emissions above 1 GHz



### 3.4.4 Test Results

Refer to Appendix D.

## 3.5 Frequency Stability

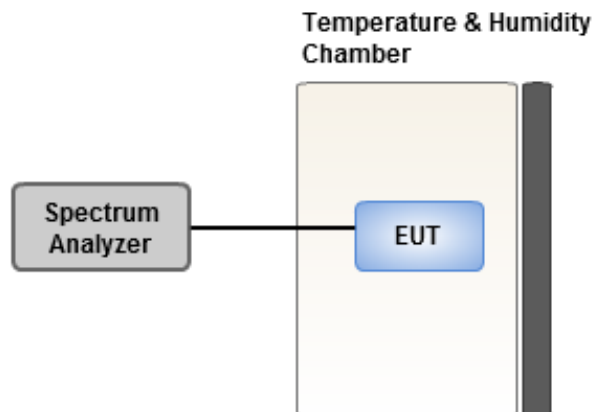
### 3.5.1 Limit of Frequency Stability

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

<b>Ambient Condition</b>	23-24°C / 64-68%	<b>Tested By</b>	Roger Lu
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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

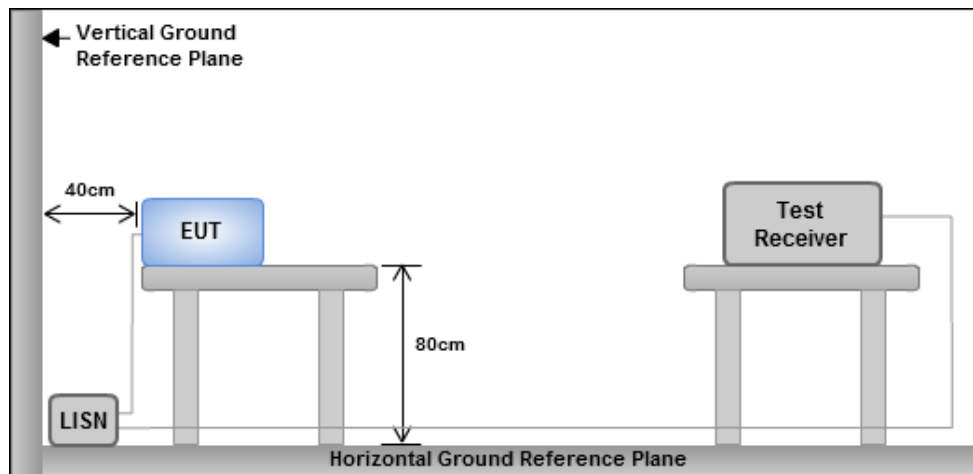
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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  $\Omega$  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 333, 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	-	-	-	-	-
802.11ax HEW160_Nss1,(MCS0)_2TX-OFDMA	83.71M	77.8M	77M8D1D	80M	77.8M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	32.609M	17.077M	17M1D1D	27.174M	16.86M
802.11ax HEW20_Nss1,(MCS0)_2TX-OFDMA	26.232M	19.103M	19M1D1D	22.391M	19.03M
802.11ax HEW40_Nss1,(MCS0)_2TX-OFDMA	44.638M	37.916M	37M9D1D	42.754M	37.916M
802.11ax HEW80_Nss1,(MCS0)_2TX-OFDMA	82.319M	77.279M	77M3D1D	81.739M	77.279M
802.11ax HEW160_Nss1,(MCS0)_2TX-OFDMA	83.478M	77.337M	77M3D1D	80.464M	77.106M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	26.159M	16.86M	16M9D1D	16.155M	13.508M
802.11ax HEW20_Nss1,(MCS0)_4TX-OFDMA	23.913M	19.175M	19M2D1D	15.27M	14.393M
802.11ax HEW40_Nss1,(MCS0)_4TX-OFDMA	44.058M	38.35M	38M3D1D	34.79M	33.968M
802.11ax HEW80_Nss1,(MCS0)_4TX-OFDMA	84.348M	77.279M	77M3D1D	76.125M	73.613M
802.11ax HEW160_Nss1,(MCS0)_4TX-OFDMA	166.377M	155.716M	156MD1D	164.058M	154.559M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	3.26M	4.398M	4M40D1D	3.24M	4.298M
802.11ax HEW20_Nss1,(MCS0)_4TX-OFDMA	4.54M	4.578M	4M58D1D	4.54M	4.538M
802.11ax HEW40_Nss1,(MCS0)_4TX-OFDMA	4.16M	5.477M	5M48D1D	4.14M	5.137M
802.11ax HEW80_Nss1,(MCS0)_4TX-OFDMA	4.04M	4.138M	4M14D1D	4.02M	4.118M

**Max-N dB** = Maximum 26dB down bandwidth  
**Max-OBW** = Maximum 99% occupied bandwidth  
**Min-N dB** = Maximum 26dB down bandwidth  
**Min-OBW** = Minimum 99% occupied bandwidth



Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	27.319M	16.932M	32.609M	17.077M				
5300MHz	Pass	Inf	27.391M	17.077M	28.478M	17.004M				
5320MHz	Pass	Inf	31.232M	17.004M	27.174M	16.86M				
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	22.609M	16.643M	23.261M	16.787M	23.116M	16.715M	22.899M	16.715M
5580MHz	Pass	Inf	23.768M	16.86M	25.29M	16.86M	25.435M	16.86M	26.159M	16.86M
5700MHz	Pass	Inf	23.261M	16.715M	23.551M	16.715M	23.551M	16.715M	22.899M	16.715M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	16.155M	13.583M	16.38M	13.658M	16.545M	13.598M	16.17M	13.508M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.26M	4.358M	3.26M	4.398M	3.26M	4.318M	3.24M	4.298M
802.11ax HEW20_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	25.725M	19.03M	26.087M	19.03M				
5300MHz	Pass	Inf	22.391M	19.03M	23.406M	19.03M				
5320MHz	Pass	Inf	26.232M	19.103M	24.565M	19.03M				
802.11ax HEW20_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5500MHz	Pass	Inf	21.304M	18.886M	22.319M	19.03M	23.478M	19.03M	22.464M	18.958M
5580MHz	Pass	Inf	22.391M	19.03M	23.116M	19.103M	23.913M	19.175M	23.696M	19.03M
5700MHz	Pass	Inf	20.87M	18.958M	22.174M	18.958M	22.246M	18.958M	22.246M	18.958M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.27M	14.393M	15.495M	14.438M	15.795M	14.453M	16.395M	14.528M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.54M	4.578M	4.54M	4.578M	4.54M	4.558M	4.54M	4.538M
802.11ax HEW40_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	44.638M	37.916M	42.754M	37.916M				
5310MHz	Pass	Inf	43.913M	37.916M	43.333M	37.916M				
802.11ax HEW40_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5510MHz	Pass	Inf	42.609M	37.771M	42.754M	37.916M	42.754M	37.771M	42.319M	37.916M
5590MHz	Pass	Inf	44.058M	38.35M	43.623M	38.205M	42.174M	38.205M	41.884M	38.061M
5670MHz	Pass	Inf	44.058M	38.061M	42.899M	37.916M	41.739M	37.771M	41.594M	37.771M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.63M	34.003M	34.895M	33.968M	34.79M	33.968M	36.295M	33.968M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	4.14M	5.417M	4.16M	5.477M	4.16M	5.217M	4.14M	5.137M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	82.319M	77.279M	81.739M	77.279M				
802.11ax HEW80_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5530MHz	Pass	Inf	81.739M	76.7M	82.899M	77.279M	82.609M	76.99M	84.348M	77.279M
5610MHz	Pass	Inf	82.029M	77.279M	83.188M	77.279M	82.319M	77.279M	82.029M	77.279M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	78.825M	74.213M	77.775M	73.913M	76.5M	73.763M	76.125M	73.613M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	4.02M	4.118M	4.02M	4.138M	4.04M	4.118M	4.02M	4.118M
802.11ax	-	-	-	-	-	-	-	-	-	-





## Emission Bandwidth

## Appendix A

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
HEW160_Nss1,(MCS0)_2TX-OFDMA										
5250MHz Straddle 5.15-5.25GHz	Pass	Inf	80M	77.8M	83.71M	77.8M				
5250MHz Straddle 5.25-5.35GHz	Pass	Inf	83.478M	77.106M	80.464M	77.337M				
802.11ax HEW160_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5570MHz	Pass	Inf	166.377M	154.559M	165.797M	155.716M	165.217M	155.716M	164.058M	155.137M

**Port X-N dB** = Port X 26dB down bandwidth

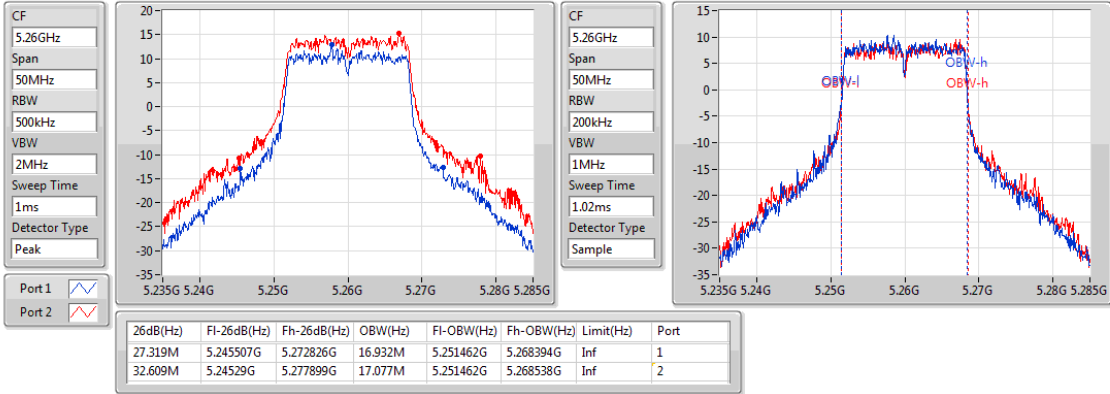
**Port X-OBW** = Port X 99% occupied bandwidth;



802.11a\_Nss1,(6Mbps)\_2TX

EBW

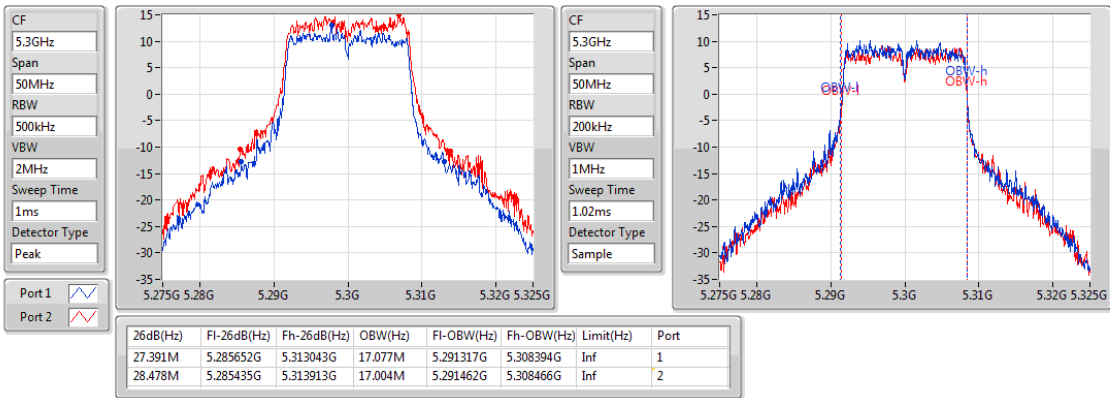
5260MHz



802.11a\_Nss1,(6Mbps)\_2TX

EBW

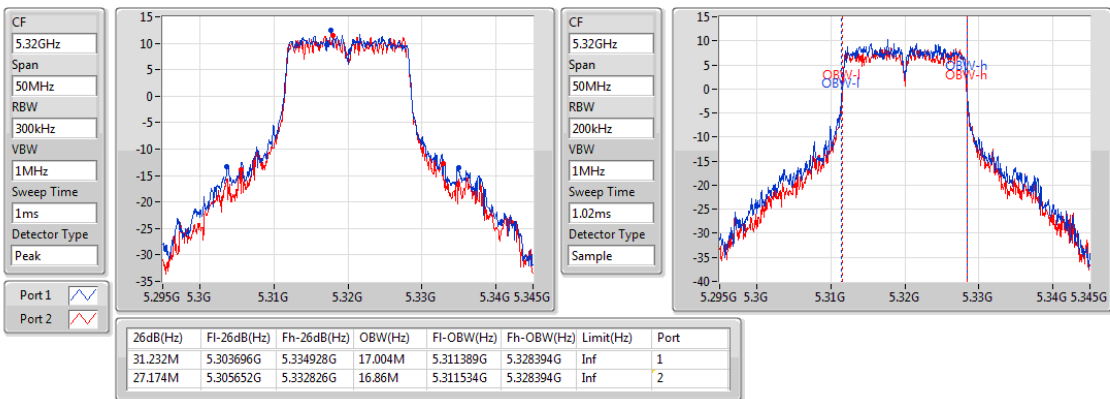
5300MHz



802.11a\_Nss1,(6Mbps)\_2TX

EBW

5320MHz

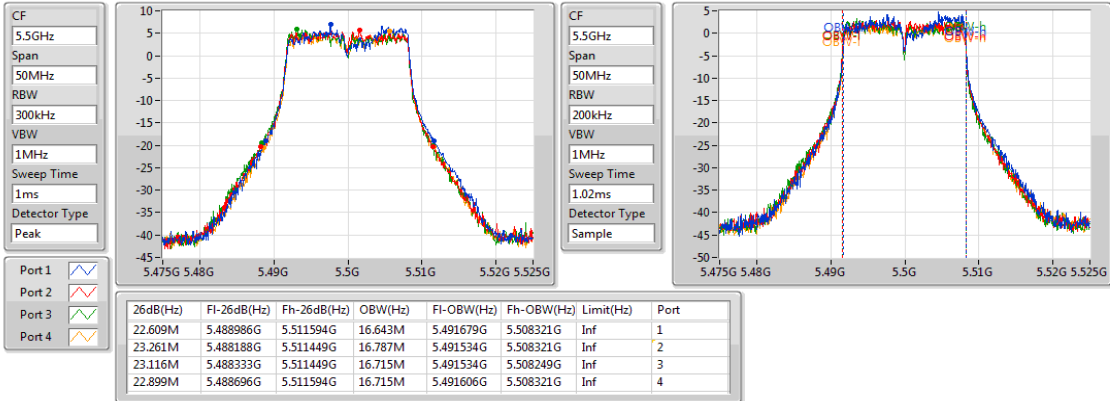




802.11a\_Nss1,(6Mbps)\_4TX

EBW

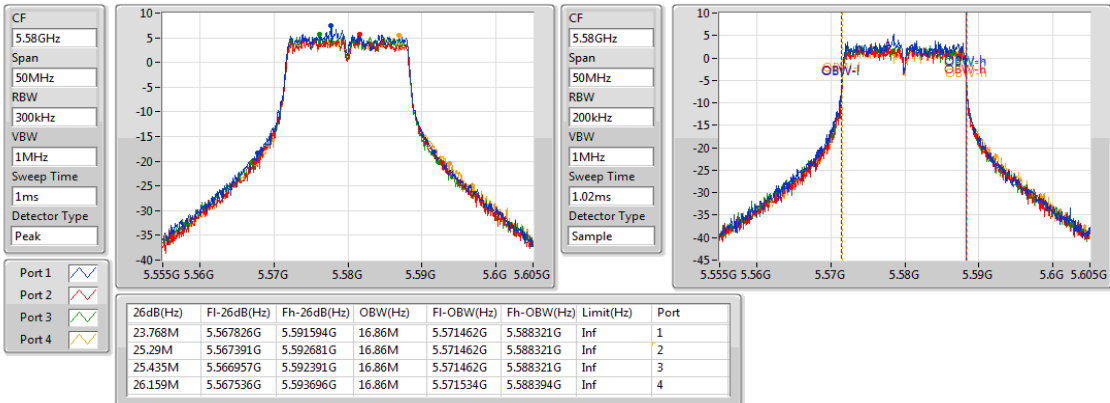
5500MHz



802.11a\_Nss1,(6Mbps)\_4TX

EBW

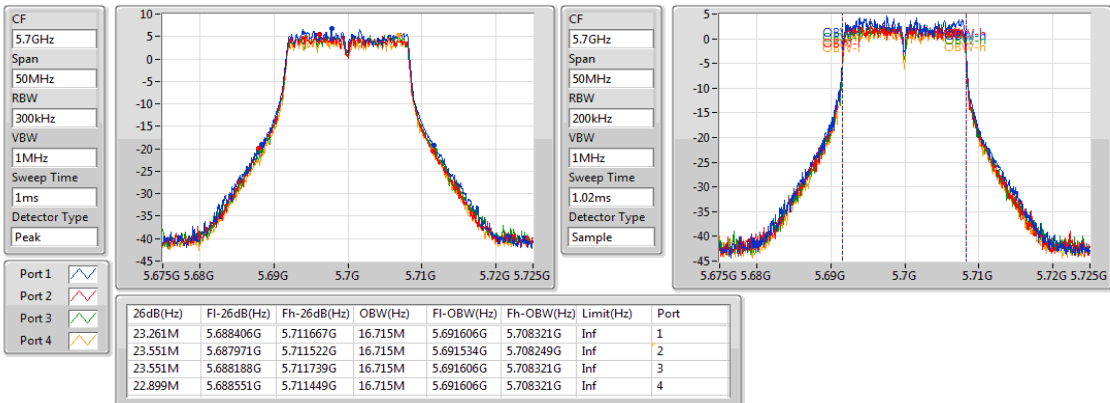
5580MHz



802.11a\_Nss1,(6Mbps)\_4TX

EBW

5700MHz

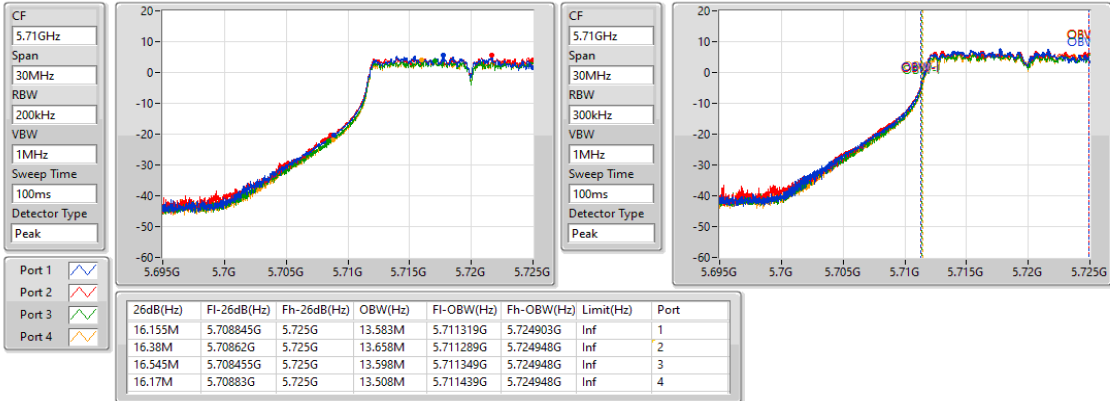




802.11a\_Nss1,(6Mbps)\_4TX

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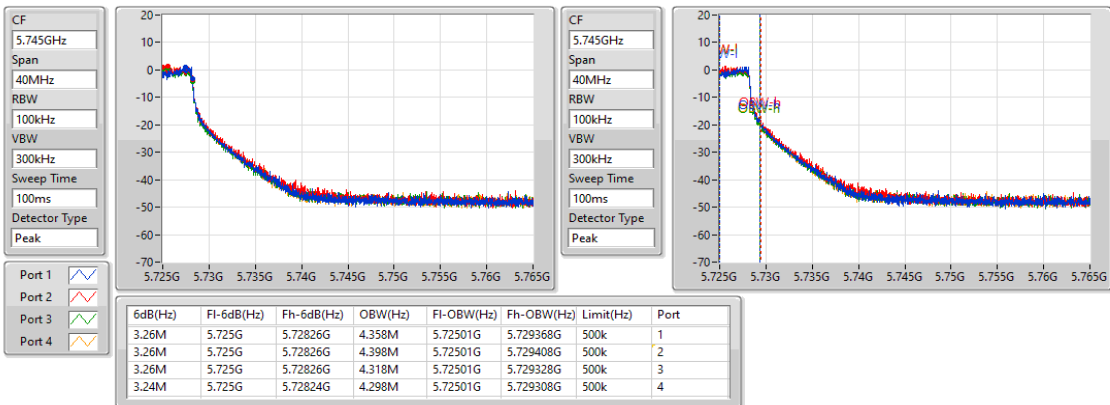
5720MHz Straddle 5.47-5.725GHz



802.11a\_Nss1,(6Mbps)\_4TX

EBW

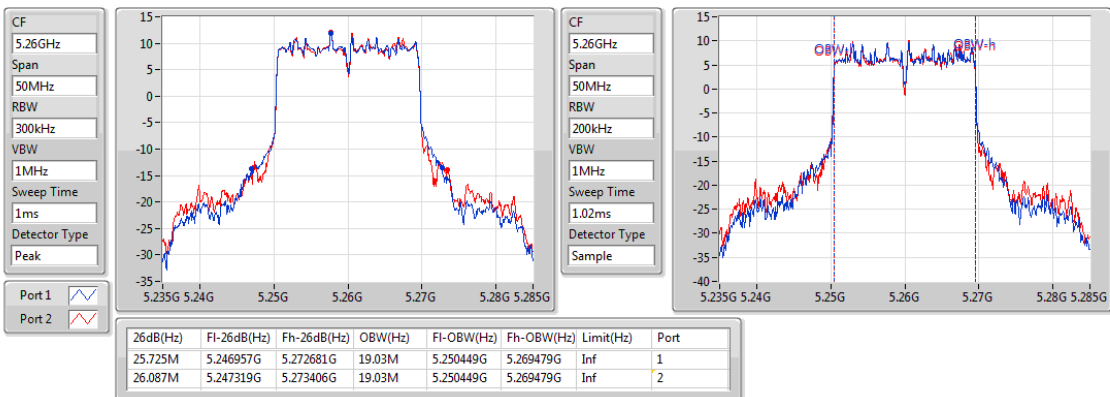
5720MHz Straddle 5.725-5.85GHz



802.11ax HEW20\_Nss1,(MCS0)\_2TX

EBW

5260MHz

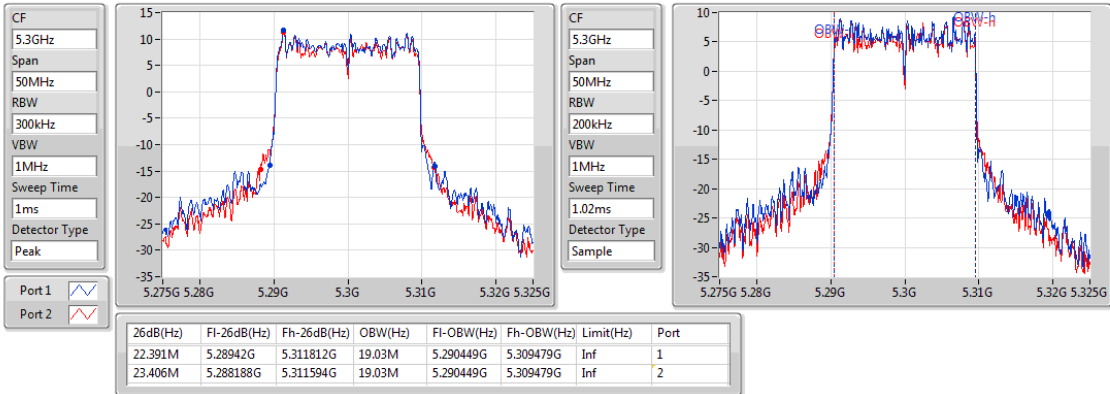




802.11ax HEW20\_Nss1,(MCS0)\_2TX

EBW

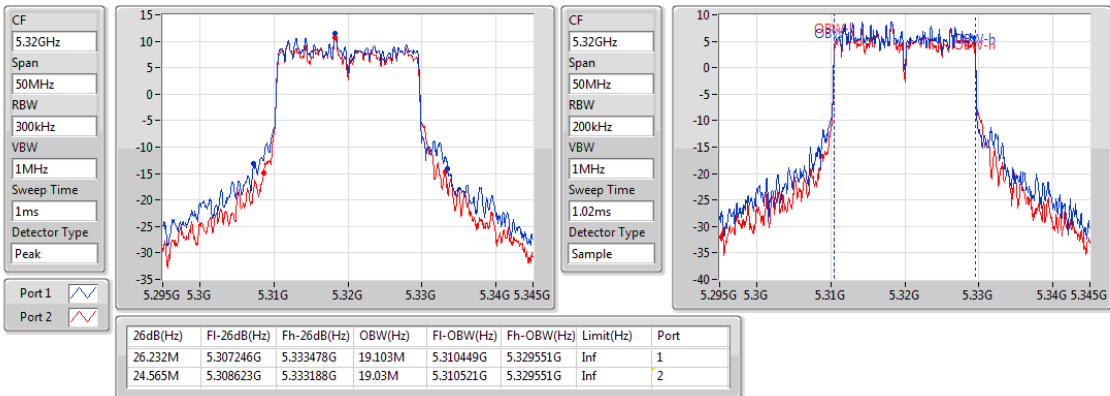
5300MHz



802.11ax HEW20\_Nss1,(MCS0)\_2TX

EBW

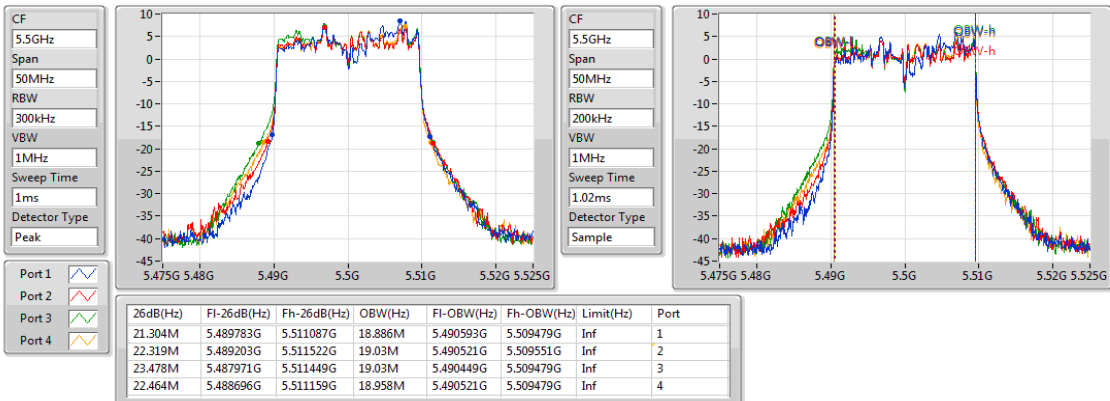
5320MHz



802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5500MHz

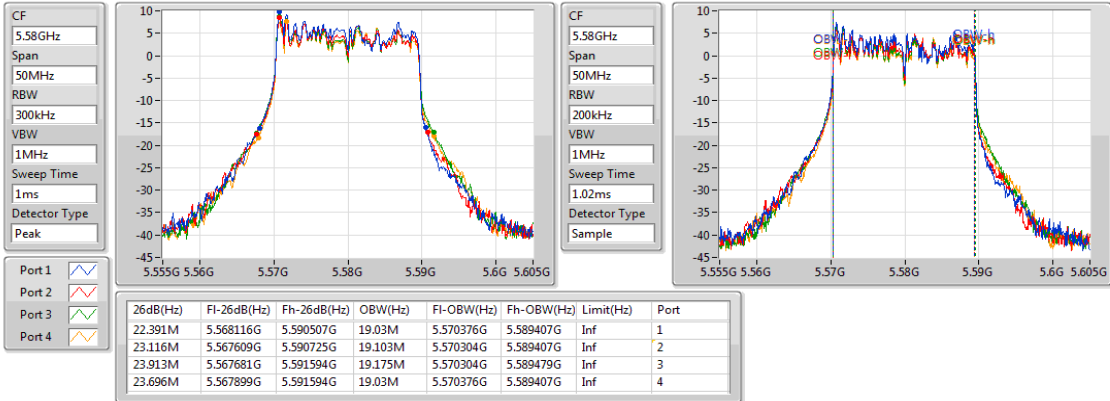




802.11ax HEW20\_Nss1,(MCS0)\_4TX

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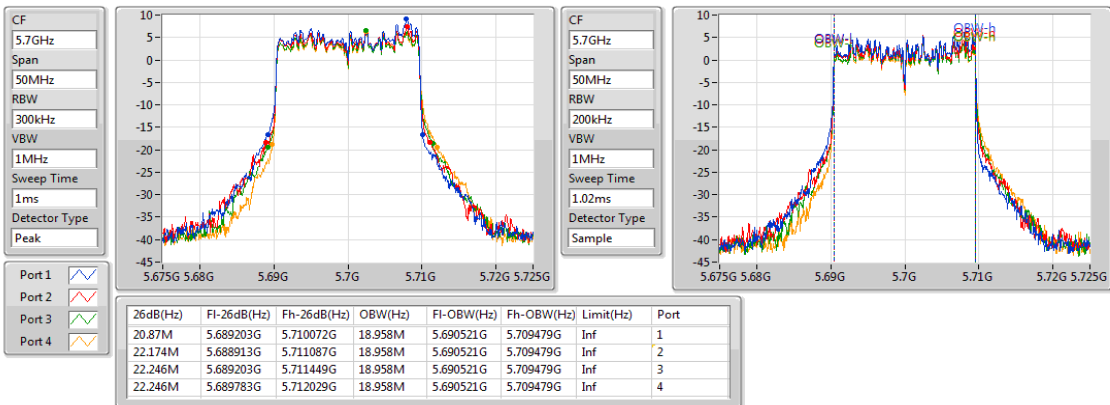
5580MHz



802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

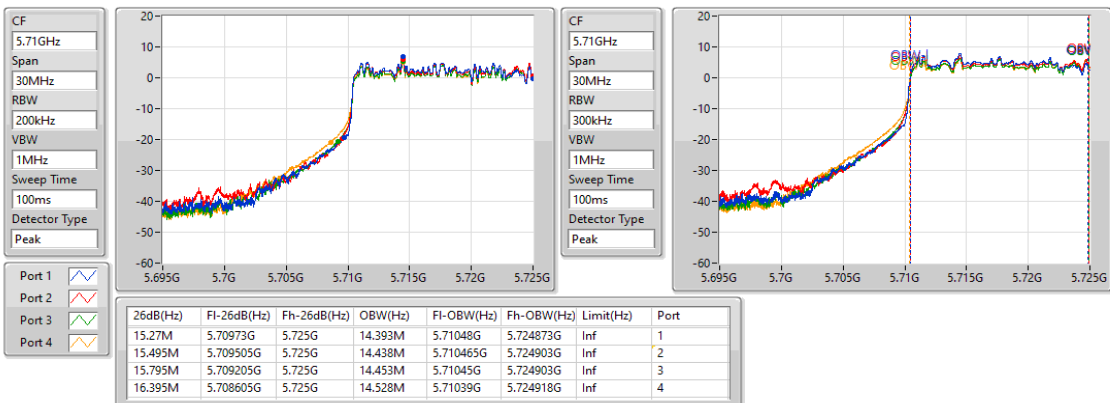
5700MHz



802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

5720MHz Straddle 5.47-5.725GHz

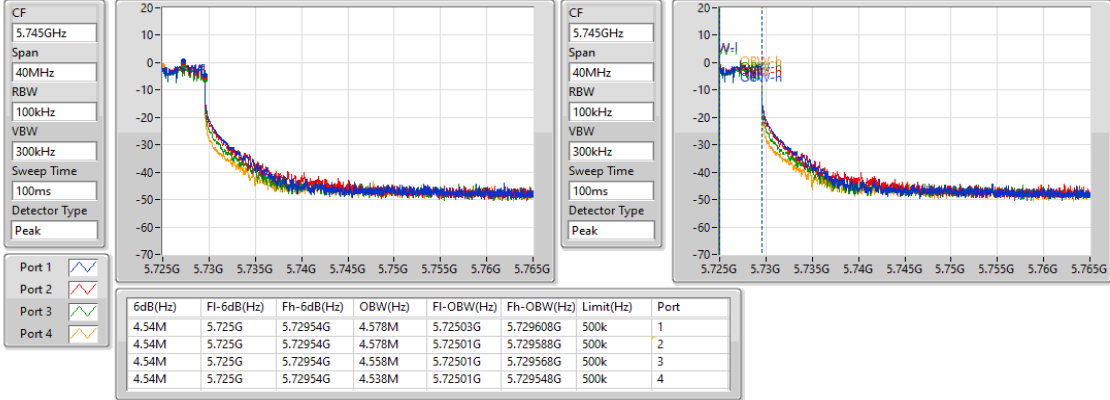




802.11ax HEW20\_Nss1,(MCS0)\_4TX

EBW

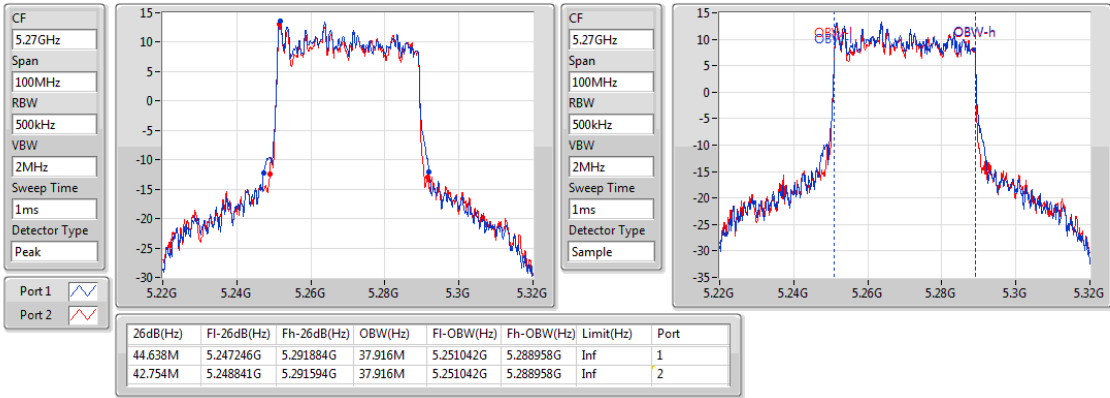
5720MHz Straddle 5.725-5.85GHz



802.11ax HEW40\_Nss1,(MCS0)\_2TX

EBW

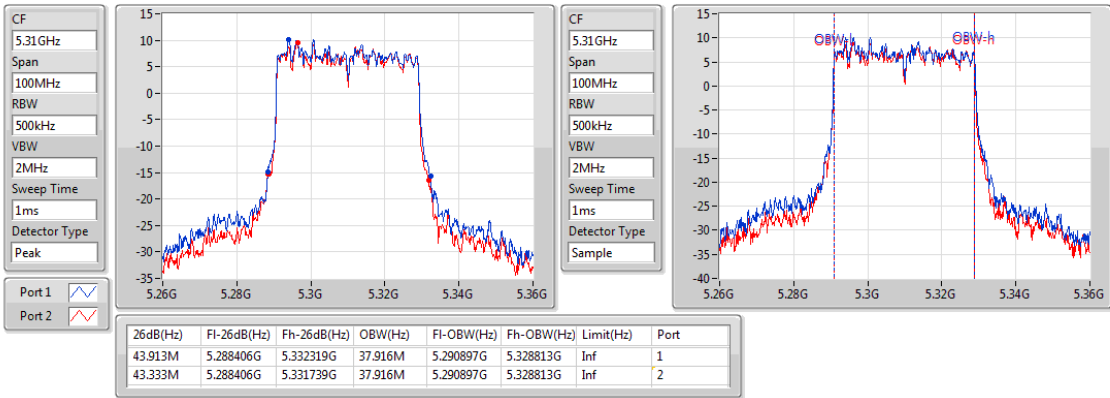
5270MHz



802.11ax HEW40\_Nss1,(MCS0)\_2TX

EBW

5310MHz



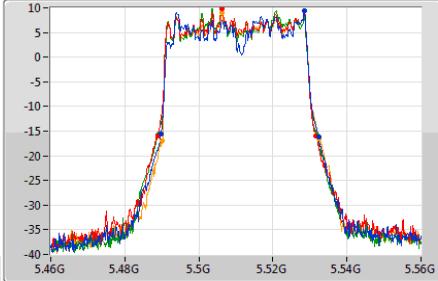


802.11ax HEW40\_Nss1,(MCS0)\_4TX

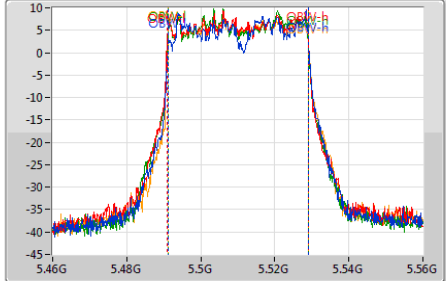
EBW

5510MHz

CF 5.51GHz  
 Span 100MHz  
 RBW 500kHz  
 VBW 2MHz  
 Sweep Time 1ms  
 Detector Type Peak  
 Port 1  
 Port 2  
 Port 3  
 Port 4



CF 5.51GHz  
 Span 100MHz  
 RBW 500kHz  
 VBW 2MHz  
 Sweep Time 1ms  
 Detector Type Sample  
 Port 1  
 Port 2  
 Port 3  
 Port 4



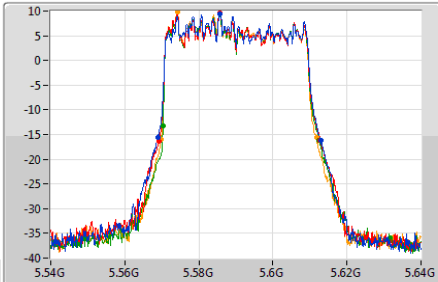
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
42.609M	5.48971G	5.532319G	37.771M	5.491331G	5.529103G	Inf	1
42.754M	5.488841G	5.531594G	37.916M	5.491042G	5.528958G	Inf	2
42.754M	5.488986G	5.531739G	37.771M	5.491187G	5.528958G	Inf	3
42.319M	5.490145G	5.532464G	37.916M	5.491187G	5.529103G	Inf	4

802.11ax HEW40\_Nss1,(MCS0)\_4TX

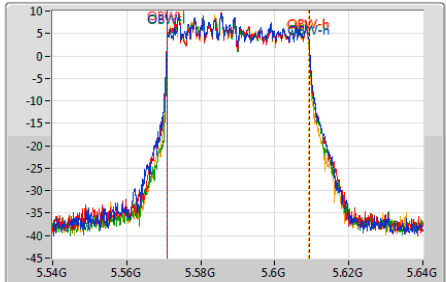
EBW

5590MHz

CF 5.59GHz  
 Span 100MHz  
 RBW 500kHz  
 VBW 2MHz  
 Sweep Time 1ms  
 Detector Type Peak  
 Port 1  
 Port 2  
 Port 3  
 Port 4



CF 5.59GHz  
 Span 100MHz  
 RBW 500kHz  
 VBW 2MHz  
 Sweep Time 1ms  
 Detector Type Sample  
 Port 1  
 Port 2  
 Port 3  
 Port 4



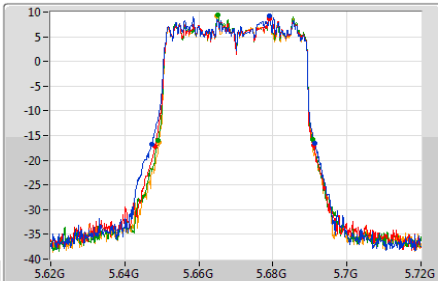
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
44.058M	5.568841G	5.612899G	38.35M	5.571042G	5.609392G	Inf	1
43.623M	5.56913G	5.612754G	38.205M	5.571042G	5.609247G	Inf	2
42.174M	5.57029G	5.612464G	38.205M	5.571042G	5.609247G	Inf	3
41.884M	5.569855G	5.611739G	38.061M	5.571042G	5.609103G	Inf	4

802.11ax HEW40\_Nss1,(MCS0)\_4TX

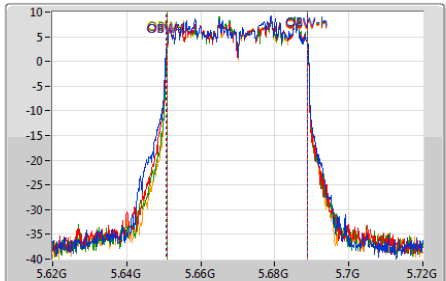
EBW

5670MHz

CF 5.67GHz  
 Span 100MHz  
 RBW 500kHz  
 VBW 2MHz  
 Sweep Time 1ms  
 Detector Type Peak  
 Port 1  
 Port 2  
 Port 3  
 Port 4



CF 5.67GHz  
 Span 100MHz  
 RBW 500kHz  
 VBW 2MHz  
 Sweep Time 1ms  
 Detector Type Sample  
 Port 1  
 Port 2  
 Port 3  
 Port 4



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
44.058M	5.647246G	5.691304G	38.061M	5.650753G	5.688813G	Inf	1
42.899M	5.648261G	5.691159G	37.916M	5.650897G	5.688813G	Inf	2
41.739M	5.648986G	5.690725G	37.771M	5.651042G	5.688813G	Inf	3
41.594M	5.64913G	5.690725G	37.771M	5.651042G	5.688813G	Inf	4

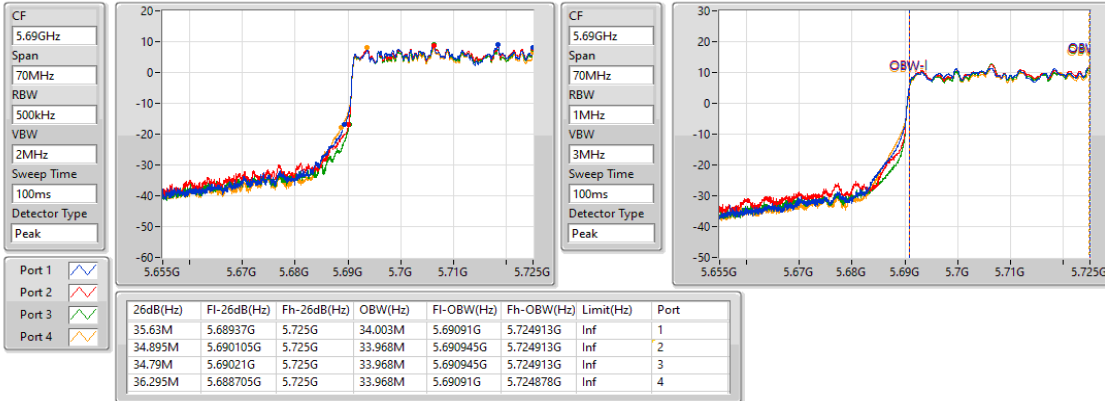




802.11ax HEW40\_Nss1,(MCS0)\_4TX

EBW

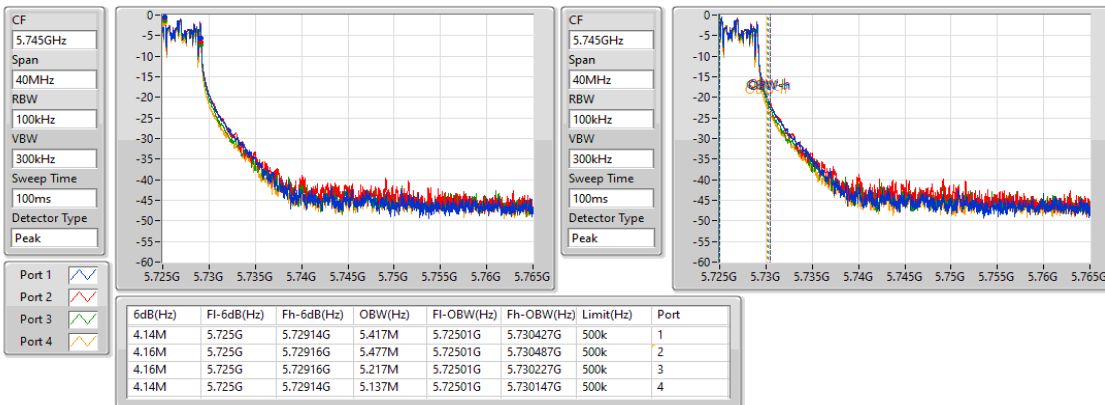
5710MHz Straddle 5.47-5.725GHz



802.11ax HEW40\_Nss1,(MCS0)\_4TX

EBW

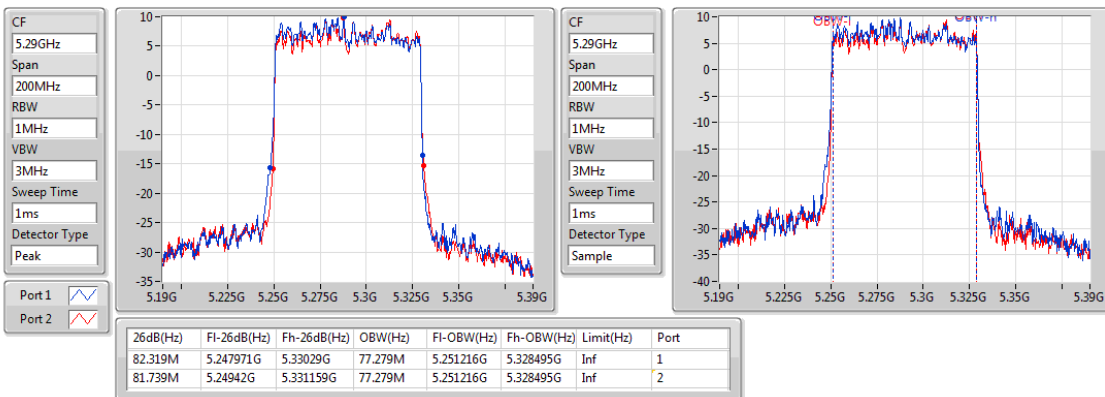
5710MHz Straddle 5.725-5.85GHz



802.11ax HEW80\_Nss1,(MCS0)\_2TX

EBW

5290MHz





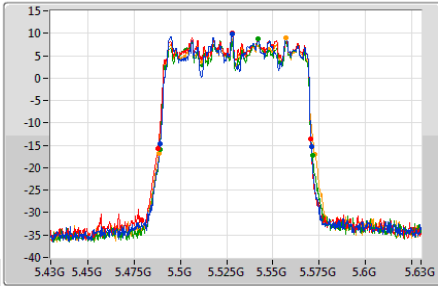
802.11ax HEW80\_Nss1,(MCS0)\_4TX

EBW

5530MHz

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

Port 1  
 Port 2  
 Port 3  
 Port 4



CF 5.53GHz  
 Span 200MHz  
 RBW 1MHz  
 VBW 3MHz  
 Sweep Time 1ms  
 Detector Type Sample



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
81.739M	5.48913G	5.57087G	76.7M	5.492084G	5.568784G	Inf	1
82.899M	5.487681G	5.57058G	77.279M	5.491216G	5.568495G	Inf	2
82.609M	5.488841G	5.571449G	76.99M	5.491505G	5.568495G	Inf	3
84.348M	5.488261G	5.572609G	77.279M	5.491216G	5.568495G	Inf	4

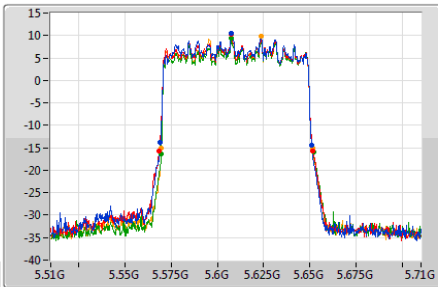
802.11ax HEW80\_Nss1,(MCS0)\_4TX

EBW

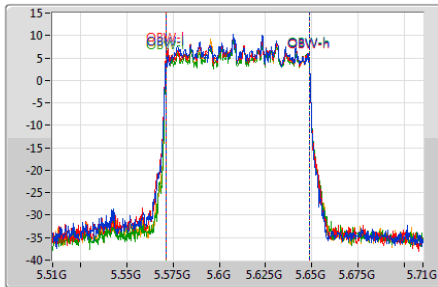
5610MHz

CF 5.61GHz  
 Span 200MHz  
 RBW 1MHz  
 VBW 3MHz  
 Sweep Time 1ms  
 Detector Type Peak

Port 1  
 Port 2  
 Port 3  
 Port 4



CF 5.61GHz  
 Span 200MHz  
 RBW 1MHz  
 VBW 3MHz  
 Sweep Time 1ms  
 Detector Type Sample



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
82.029M	5.56913G	5.651159G	77.279M	5.571216G	5.648495G	Inf	1
83.188M	5.568551G	5.651739G	77.279M	5.571216G	5.648495G	Inf	2
82.319M	5.56971G	5.652029G	77.279M	5.571216G	5.648495G	Inf	3
82.029M	5.56971G	5.651739G	77.279M	5.571216G	5.648495G	Inf	4

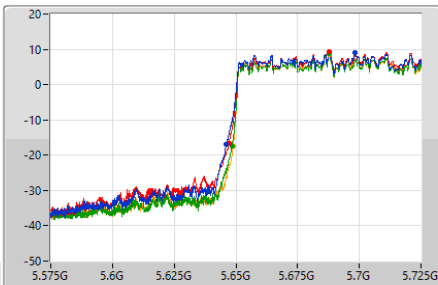
802.11ax HEW80\_Nss1,(MCS0)\_4TX

EBW

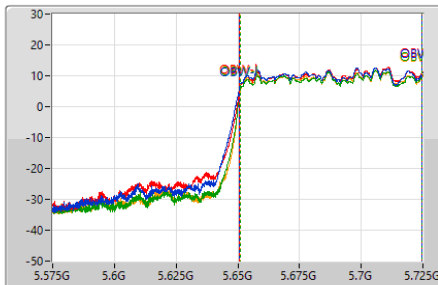
5690MHz Straddle 5.47-5.725GHz

CF 5.65GHz  
 Span 150MHz  
 RBW 1MHz  
 VBW 3MHz  
 Sweep Time 100ms  
 Detector Type Peak

Port 1  
 Port 2  
 Port 3  
 Port 4



CF 5.65GHz  
 Span 150MHz  
 RBW 2MHz  
 VBW 10MHz  
 Sweep Time 100ms  
 Detector Type Peak



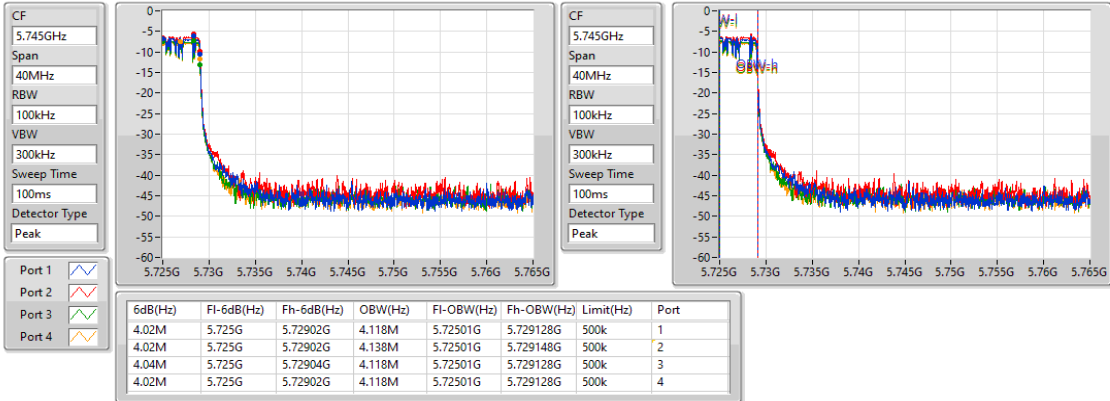
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
78.825M	5.646175G	5.725G	74.213M	5.65045G	5.724663G	Inf	1
77.775M	5.647225G	5.725G	73.913M	5.650825G	5.724738G	Inf	2
76.5M	5.6485G	5.725G	73.763M	5.650975G	5.724738G	Inf	3
76.125M	5.648875G	5.725G	73.613M	5.651049G	5.724663G	Inf	4



802.11ax HEW80\_Nss1,(MCS0)\_4TX

EBW

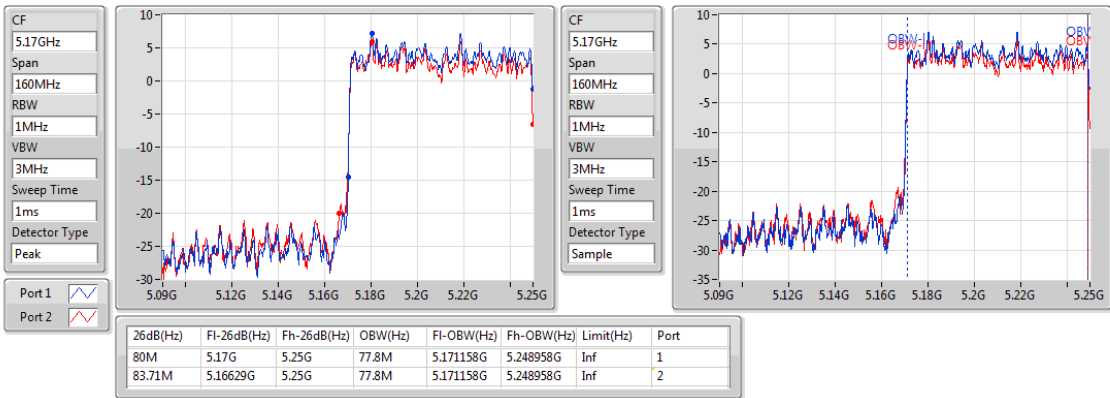
5690MHz Straddle 5.725-5.85GHz



802.11ax HEW160\_Nss1,(MCS0)\_2TX

EBW

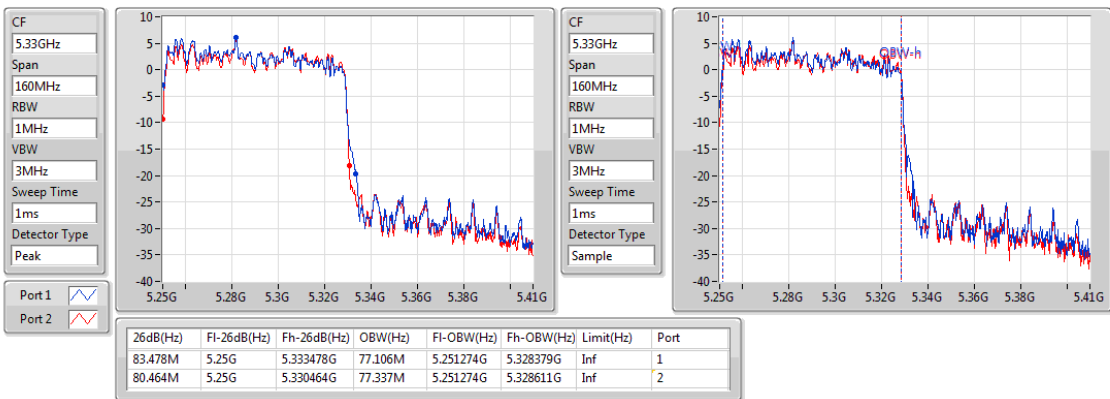
5250MHz Straddle 5.15-5.25GHz

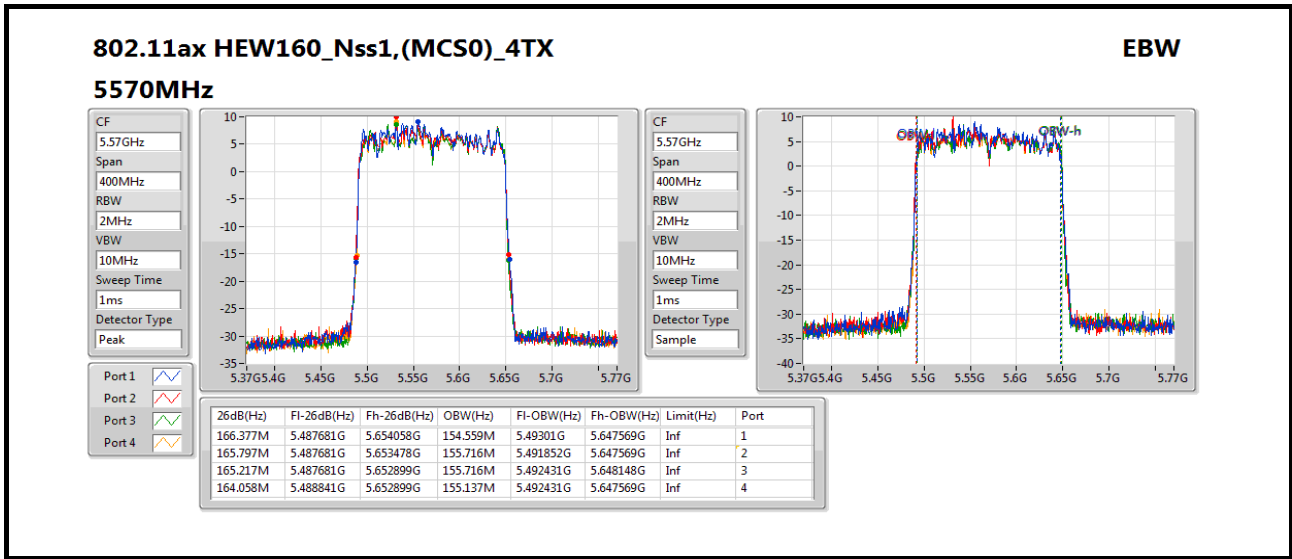


802.11ax HEW160\_Nss1,(MCS0)\_2TX

EBW

5250MHz Straddle 5.25-5.35GHz







**Non-beamforming mode  
Summary**

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ax HEW160_Nss1,(MCS0)_2TX-OFDMA	18.16	0.06546	20.58	0.11429
5.25-5.35GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	23.52	0.22491	26.10	0.40738
802.11ax HEW20_Nss1,(MCS0)_2TX-OFDMA	23.82	0.24099	26.40	0.43652
802.11ax HEW40_Nss1,(MCS0)_2TX-OFDMA	23.90	0.24547	26.48	0.44463
802.11ax HEW80_Nss1,(MCS0)_2TX-OFDMA	21.27	0.13397	23.85	0.24266
802.11ax HEW160_Nss1,(MCS0)_2TX-OFDMA	17.01	0.05023	19.59	0.09099
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	22.23	0.16711	25.34	0.34198
802.11ax HEW20_Nss1,(MCS0)_4TX-OFDMA	22.35	0.17179	25.46	0.35156
802.11ax HEW40_Nss1,(MCS0)_4TX-OFDMA	23.94	0.24774	27.05	0.50699
802.11ax HEW80_Nss1,(MCS0)_4TX-OFDMA	23.80	0.23988	26.91	0.49091
802.11ax HEW160_Nss1,(MCS0)_4TX-OFDMA	22.79	0.19011	25.90	0.38905
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	14.87	0.03069	18.09	0.06442
802.11ax HEW20_Nss1,(MCS0)_4TX-OFDMA	16.06	0.04036	19.28	0.08472
802.11ax HEW40_Nss1,(MCS0)_4TX-OFDMA	14.12	0.02582	17.34	0.05420
802.11ax HEW80_Nss1,(MCS0)_4TX-OFDMA	10.35	0.01084	13.57	0.02275



**Conducted Output Power(Average)**

**Appendix B.1**

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	2.58	20.55	20.4			23.49	24.00	26.07	30.00
5300MHz	Pass	2.58	20.75	20.26			23.52	24.00	26.10	30.00
5320MHz	Pass	2.58	20.56	20.42			23.50	24.00	26.08	30.00
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5500MHz	Pass	3.11	16.37	16.05	16.11	16.31	22.23	24.00	25.34	30.00
5580MHz	Pass	3.11	16.52	16.21	15.89	15.94	22.17	24.00	25.28	30.00
5700MHz	Pass	3.11	15.94	16.24	15.87	15.61	21.94	24.00	25.05	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	3.11	15.17	15.41	14.48	14.53	20.94	23.08	24.05	29.08
5720MHz Straddle 5.725-5.85GHz	Pass	3.22	8.87	9.28	8.34	8.84	14.87	30.00	18.09	36.00
802.11ax HEW20_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	2.58	20.91	20.35			23.65	24.00	26.23	30.00
5300MHz	Pass	2.58	20.51	20.45			23.49	24.00	26.07	30.00
5320MHz	Pass	2.58	20.86	20.75			23.82	24.00	26.40	30.00
802.11ax HEW20_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5500MHz	Pass	3.11	16.57	16.13	16.55	16.05	22.35	24.00	25.46	30.00
5580MHz	Pass	3.11	16.66	16.22	16.06	15.82	22.22	24.00	25.33	30.00
5700MHz	Pass	3.11	16.61	16.12	15.86	15.65	22.10	24.00	25.21	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	3.11	15.74	15.59	14.77	14.79	21.27	22.84	24.38	28.84
5720MHz Straddle 5.725-5.85GHz	Pass	3.22	10.57	10.32	9.39	9.78	16.06	30.00	19.28	36.00
802.11ax HEW40_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	2.58	21.03	20.75			23.90	24.00	26.48	30.00
5310MHz	Pass	2.58	18.21	18.06			21.15	24.00	23.73	30.00
802.11ax HEW40_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5510MHz	Pass	3.11	17.72	18.15	18.06	17.72	23.94	24.00	27.05	30.00
5590MHz	Pass	3.11	17.88	17.66	17.26	17.69	23.65	24.00	26.76	30.00
5670MHz	Pass	3.11	17.55	18.03	17.72	17.54	23.74	24.00	26.85	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	3.11	17.5	17.68	17.19	16.83	23.33	24.00	26.44	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	3.22	8.3	8.42	8.14	7.48	14.12	30.00	17.34	36.00
802.11ax HEW80_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	2.58	18.42	18.1			21.27	24.00	23.85	30.00



**Conducted Output Power(Average)**

**Appendix B.1**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW80_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5530MHz	Pass	3.11	17.51	18.02	17.15	17.33	23.54	24.00	26.65	30.00
5610MHz	Pass	3.11	18.16	17.94	17.32	17.66	23.80	24.00	26.91	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	3.11	17.72	17.9	16.65	16.83	23.33	24.00	26.44	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	3.22	4.59	5.06	3.93	3.61	10.35	30.00	13.57	36.00
802.11ax HEW160_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	2.42	14.79	15.49			18.16	30.00	20.58	36.00
5250MHz Straddle 5.25-5.35GHz	Pass	2.58	14.04	13.95			17.01	24.00	19.59	30.00
802.11ax HEW160_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5570MHz	Pass	3.11	16.84	17.14	16.45	16.6	22.79	24.00	25.90	30.00

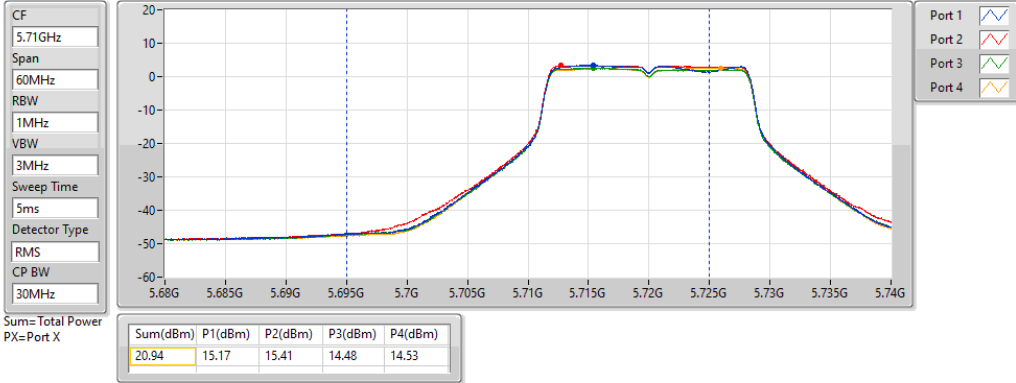
**DG** = Directional Gain; **Port X** = Port X output power



802.11a\_Nss1,(6Mbps)\_4TX

AV Power

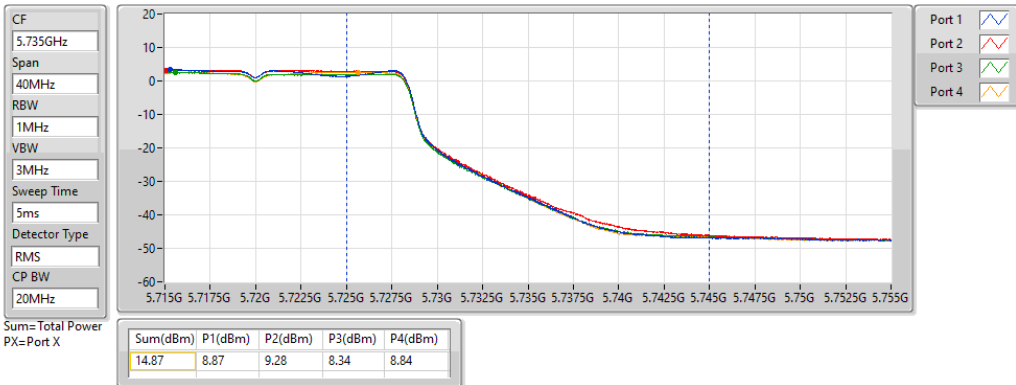
5720MHz Straddle 5.47-5.725GHz\_TnomVnom



802.11a\_Nss1,(6Mbps)\_4TX

AV Power

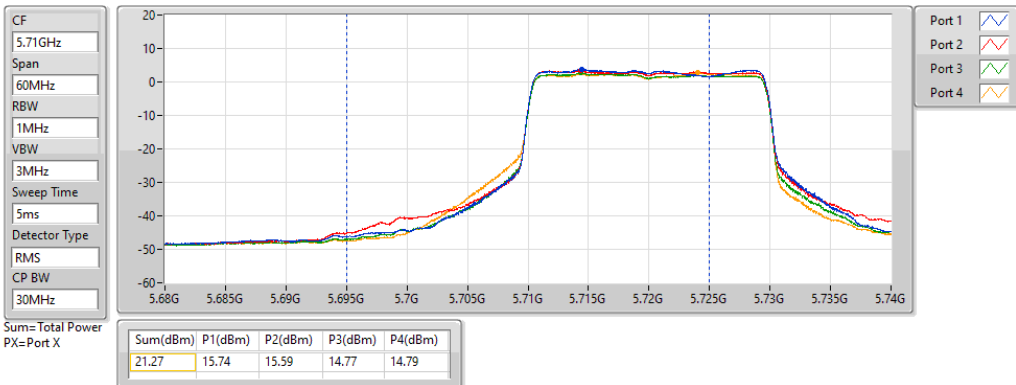
5720MHz Straddle 5.725-5.85GHz\_TnomVnom



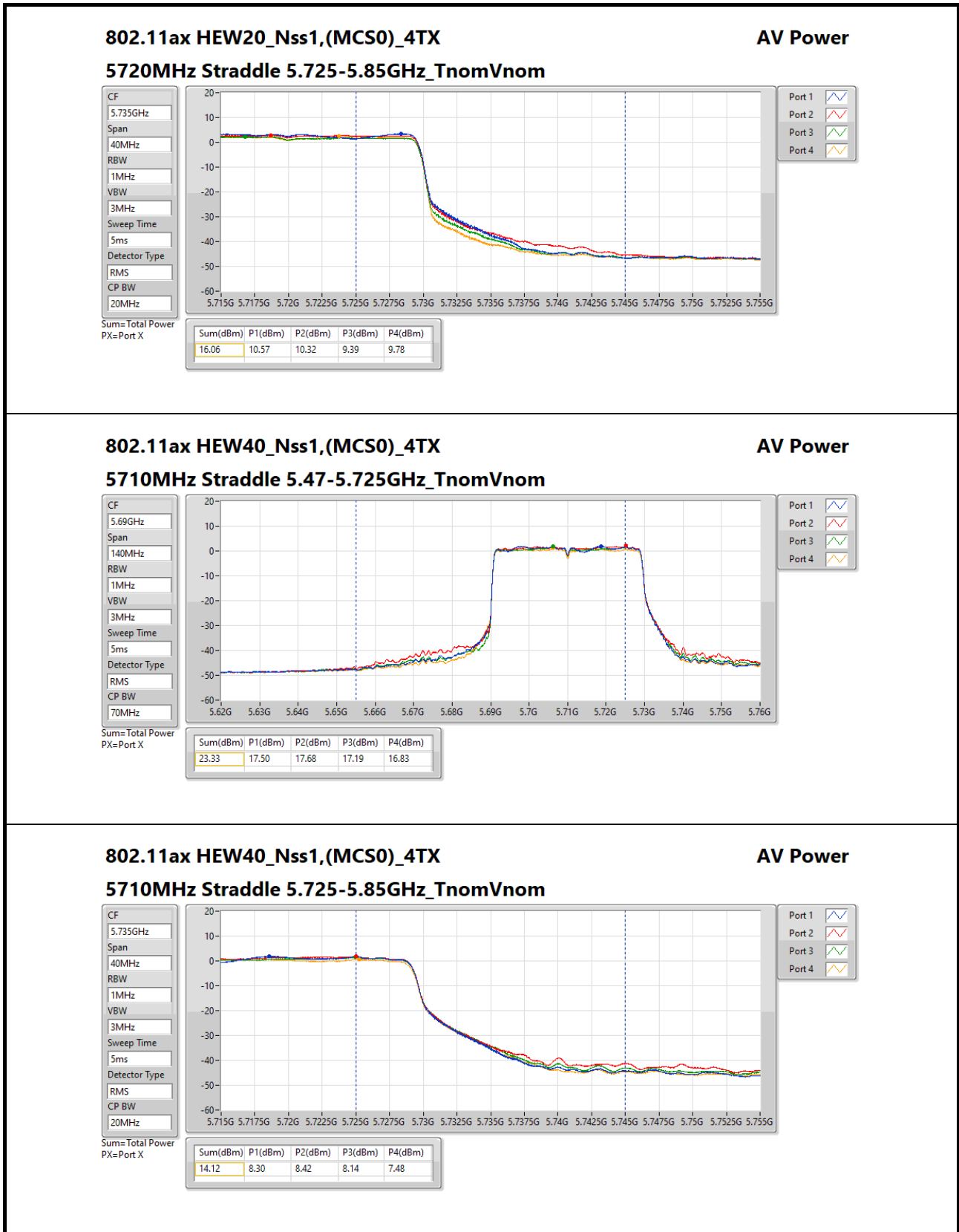
802.11ax HEW20\_Nss1,(MCS0)\_4TX

AV Power

5720MHz Straddle 5.47-5.725GHz\_TnomVnom







**802.11ax HEW40\_Nss1,(MCS0)\_4TX**

**5710MHz Straddle 5.725-5.85GHz\_TnomVnom**

**AV Power**

CF  
5.735GHz

Span  
40MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
5ms

Detector Type  
RMS

CP BW  
20MHz

Port 1

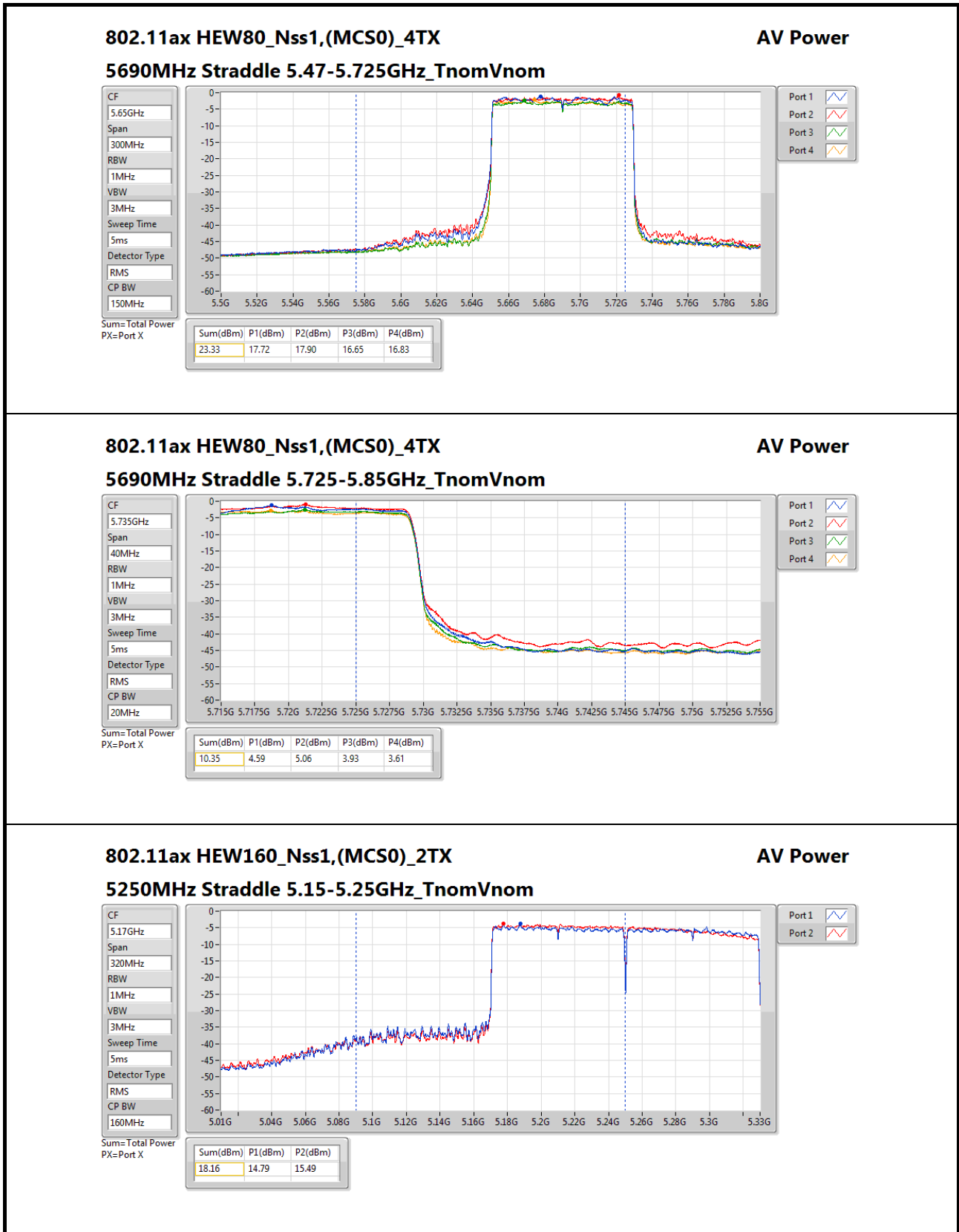
Port 2

Port 3

Port 4

Sum=Total Power  
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
14.12	8.30	8.42	8.14	7.48



**802.11ax HEW160\_Nss1,(MCS0)\_2TX**

**5250MHz Straddle 5.15-5.25GHz\_TnomVnom**

**AV Power**

CF  
5.17GHz

Span  
320MHz

RBW  
1MHz

VBW  
3MHz

Sweep Time  
5ms

Detector Type  
RMS

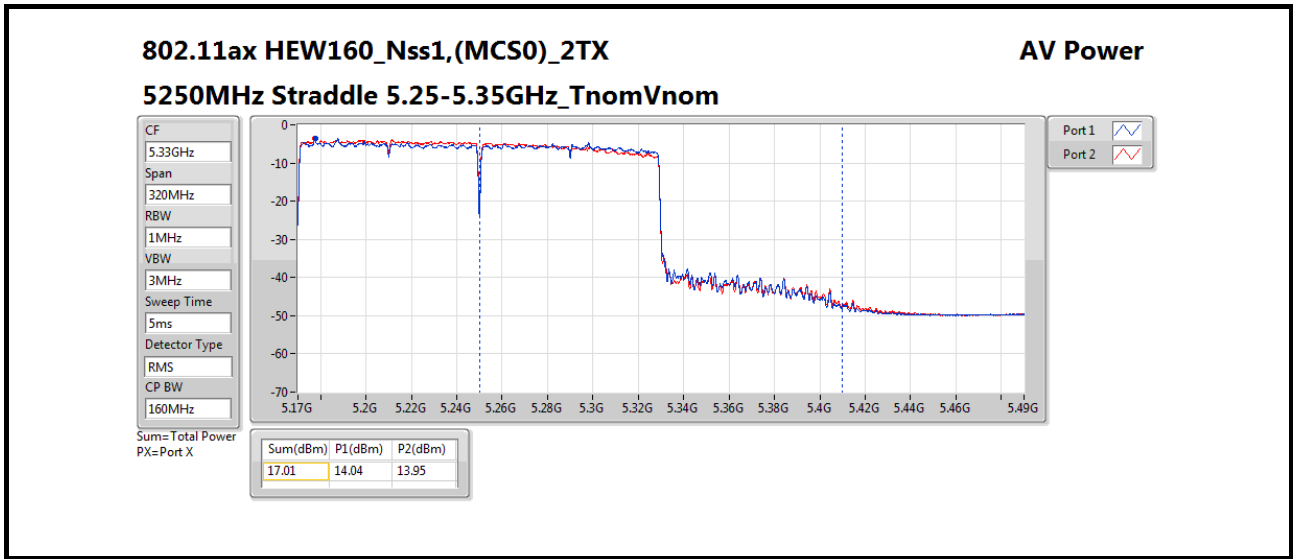
CP BW  
160MHz

Port 1

Port 2

Sum=Total Power  
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)
18.16	14.79	15.49





Beamforming mode

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ax HEW160-BF_Nss1,(MCS0)_2TX-OFDMA	17.94	0.06223	21.11	0.12912
5.25-5.35GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX-OFDMA	23.72	0.23550	26.82	0.48084
802.11ax HEW40-BF_Nss1,(MCS0)_2TX-OFDMA	23.82	0.24099	26.92	0.49204
802.11ax HEW80-BF_Nss1,(MCS0)_2TX-OFDMA	21.20	0.13183	24.30	0.26915
802.11ax HEW160-BF_Nss1,(MCS0)_2TX-OFDMA	16.89	0.04887	19.99	0.09977
5.47-5.725GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX-OFDMA	22.28	0.16904	26.91	0.49091
802.11ax HEW40-BF_Nss1,(MCS0)_4TX-OFDMA	22.48	0.17701	27.11	0.51404
802.11ax HEW80-BF_Nss1,(MCS0)_4TX-OFDMA	22.45	0.17579	27.08	0.51050
802.11ax HEW160-BF_Nss1,(MCS0)_4TX-OFDMA	22.36	0.17219	26.99	0.50003
5.725-5.85GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX-OFDMA	15.69	0.03707	20.20	0.10471
802.11ax HEW40-BF_Nss1,(MCS0)_4TX-OFDMA	13.08	0.02032	17.59	0.05741
802.11ax HEW80-BF_Nss1,(MCS0)_4TX-OFDMA	9.45	0.00881	13.96	0.02489



**Conducted Output Power(Average)**

**Appendix B.2**

**Result**

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	3.10	20.85	20.29			23.59	24.00	26.69	30.00
5300MHz	Pass	3.10	20.46	20.35			23.42	24.00	26.52	30.00
5320MHz	Pass	3.10	20.79	20.62			23.72	24.00	26.82	30.00
802.11ax HEW20-BF_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5500MHz	Pass	4.63	16.46	16.05	16.49	16.01	22.28	24.00	26.91	30.00
5580MHz	Pass	4.63	16.59	16.18	16.02	15.79	22.18	24.00	26.81	30.00
5700MHz	Pass	4.63	16.53	16.1	15.79	15.58	22.04	24.00	26.67	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	4.63	15.12	15.12	14.33	14.28	20.75	23.19	25.38	29.19
5720MHz Straddle 5.725-5.85GHz	Pass	4.51	10.46	9.9	8.97	9.18	15.69	30.00	20.20	36.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	3.10	20.95	20.67			23.82	24.00	26.92	30.00
5310MHz	Pass	3.10	18.13	18.01			21.08	24.00	24.18	30.00
802.11ax HEW40-BF_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5510MHz	Pass	4.63	16.05	16.22	16.19	16.29	22.21	24.00	26.84	30.00
5550MHz	Pass	4.63	16.72	16.53	16.42	16.11	22.47	24.00	27.10	30.00
5670MHz	Pass	4.63	16.39	16.85	16.21	16.35	22.48	24.00	27.11	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	4.63	16.57	16.72	16.29	16.04	22.43	24.00	27.06	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	4.51	7.16	7.33	7.14	6.57	13.08	30.00	17.59	36.00
802.11ax HEW80-BF_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	3.10	18.34	18.03			21.20	24.00	24.30	30.00
802.11ax HEW80-BF_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5530MHz	Pass	4.63	16.03	16.56	16.02	16.16	22.22	24.00	26.85	30.00
5610MHz	Pass	4.63	16.65	16.51	16.42	16.05	22.43	24.00	27.06	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	4.63	16.86	16.53	15.81	16.44	22.45	24.00	27.08	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	4.51	3.75	3.67	3.05	3.22	9.45	30.00	13.96	36.00
802.11ax HEW160-BF_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5250MHz Straddle 5.15-5.25GHz	Pass	3.17	14.62	15.21			17.94	30.00	21.11	36.00
5250MHz Straddle 5.25-5.35GHz	Pass	3.10	13.92	13.83			16.89	24.00	19.99	30.00
802.11ax HEW160-BF_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5570MHz	Pass	4.63	16.46	16.54	16.02	16.33	22.36	24.00	26.99	30.00

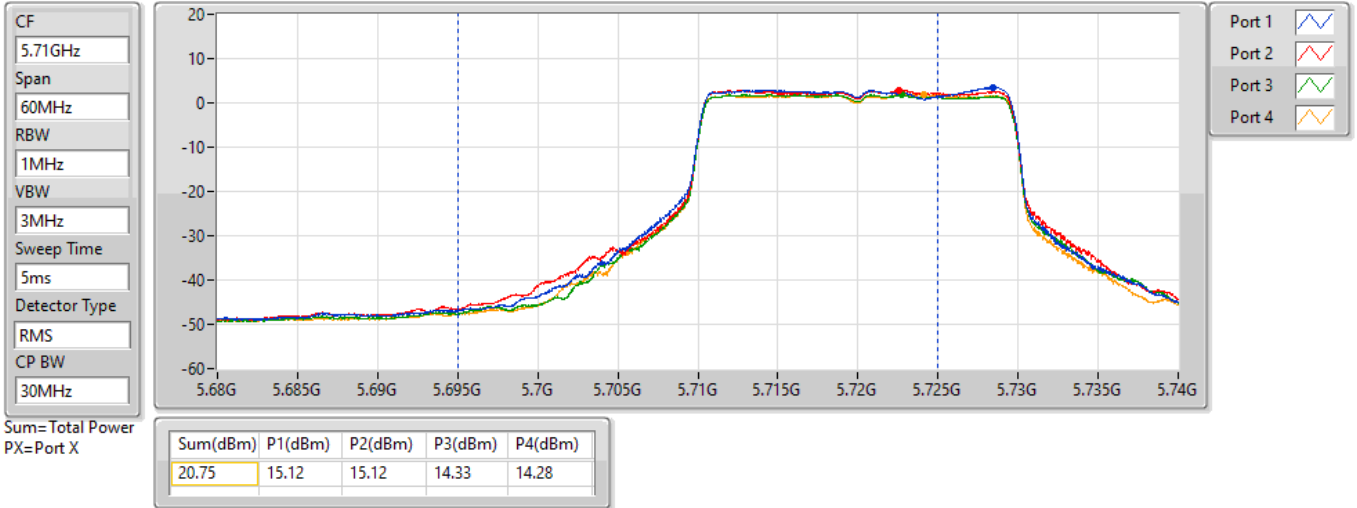
DG = Directional Gain; Port X = Port X output power  
 Directional gain is measured. Please refer to antenna test report.



### 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

AV Power

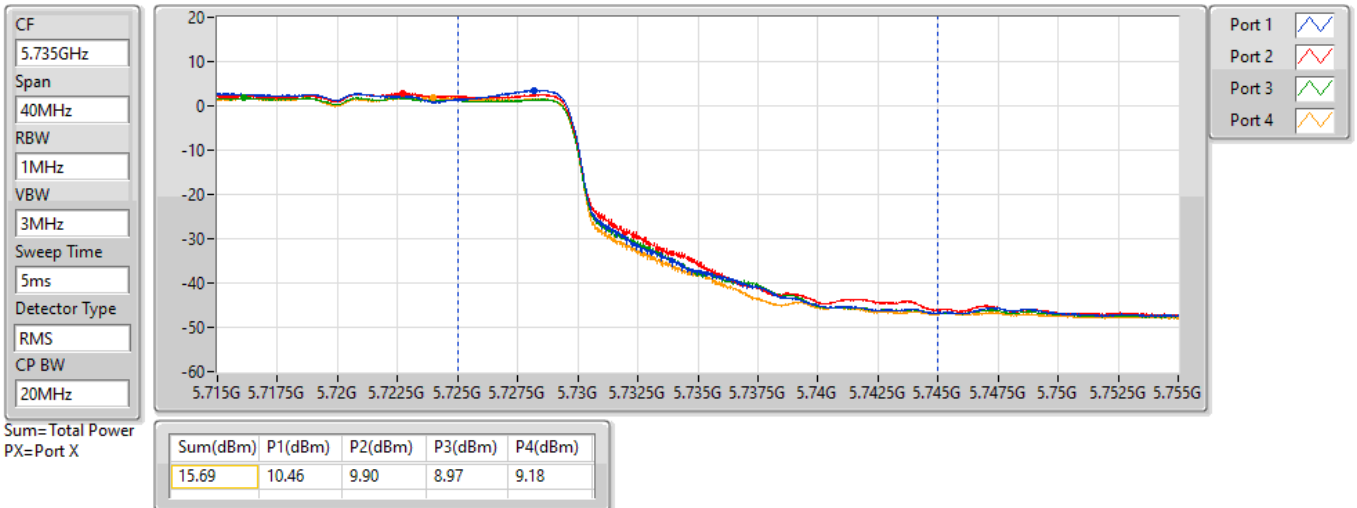
#### 5720MHz Straddle 5.47-5.725GHz\_TnomVnom



### 802.11ax HEW20-BF\_Nss1,(MCS0)\_4TX

AV Power

#### 5720MHz Straddle 5.725-5.85GHz\_TnomVnom

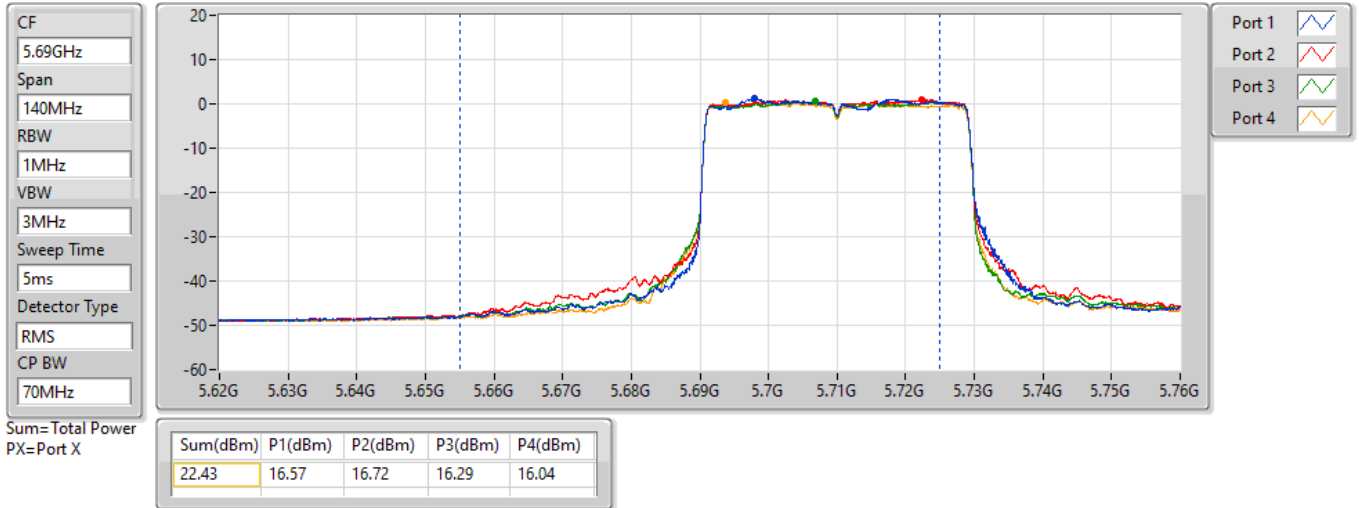




### 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

AV Power

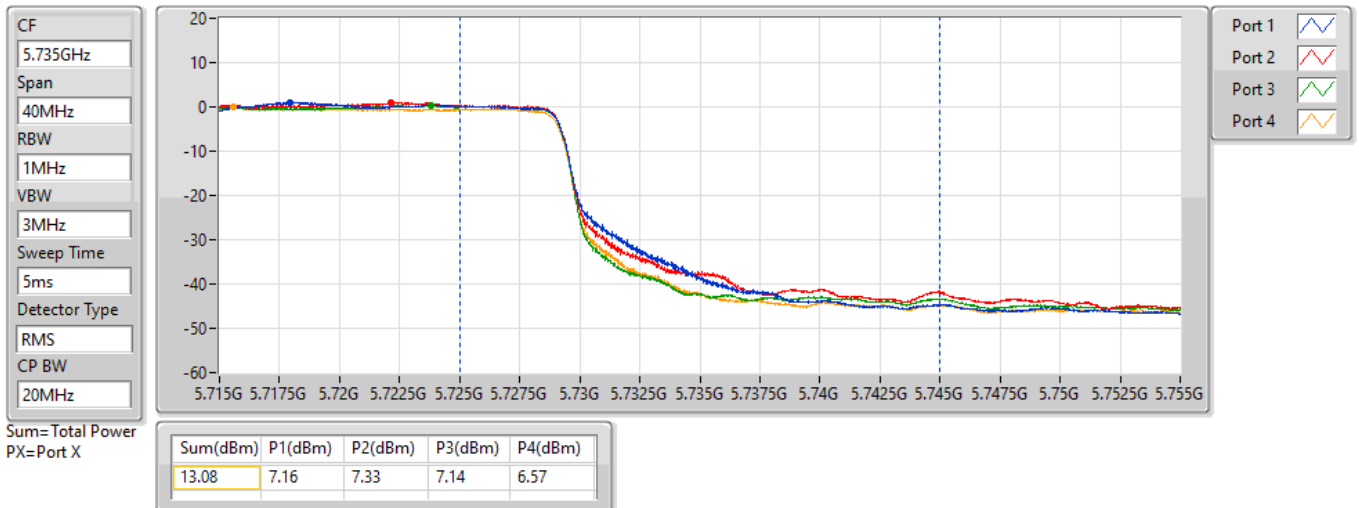
#### 5710MHz Straddle 5.47-5.725GHz\_TnomVnom



### 802.11ax HEW40-BF\_Nss1,(MCS0)\_4TX

AV Power

#### 5710MHz Straddle 5.725-5.85GHz\_TnomVnom

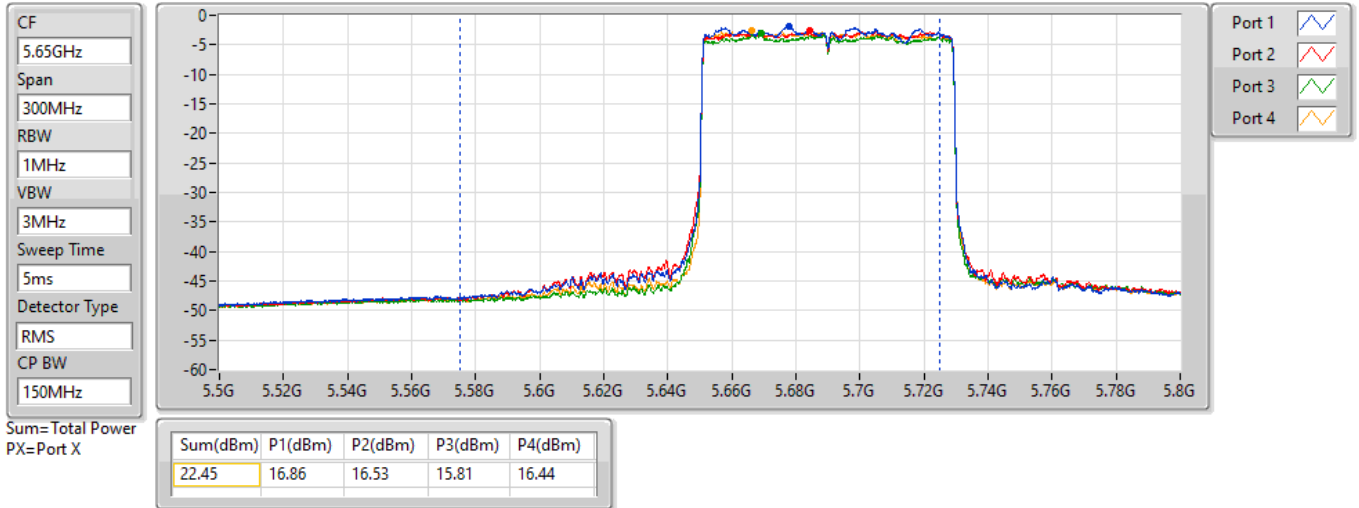




### 802.11ax HEW80-BF\_Nss1,(MCS0)\_4TX

AV Power

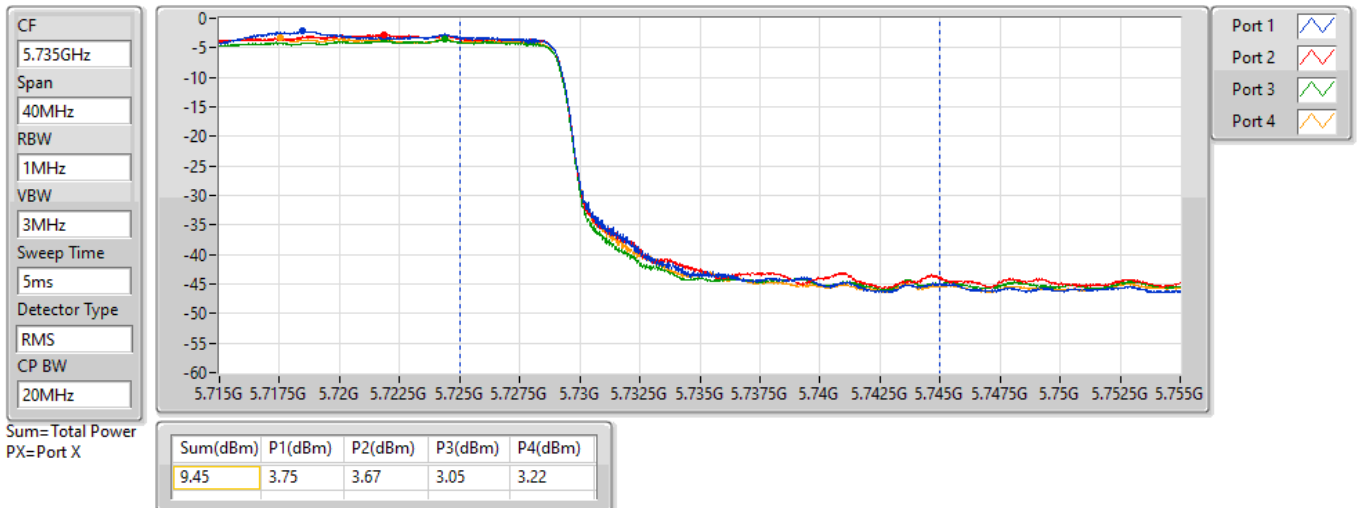
### 5690MHz Straddle 5.47-5.725GHz\_TnomVnom



### 802.11ax HEW80-BF\_Nss1,(MCS0)\_4TX

AV Power

### 5690MHz Straddle 5.725-5.85GHz\_TnomVnom



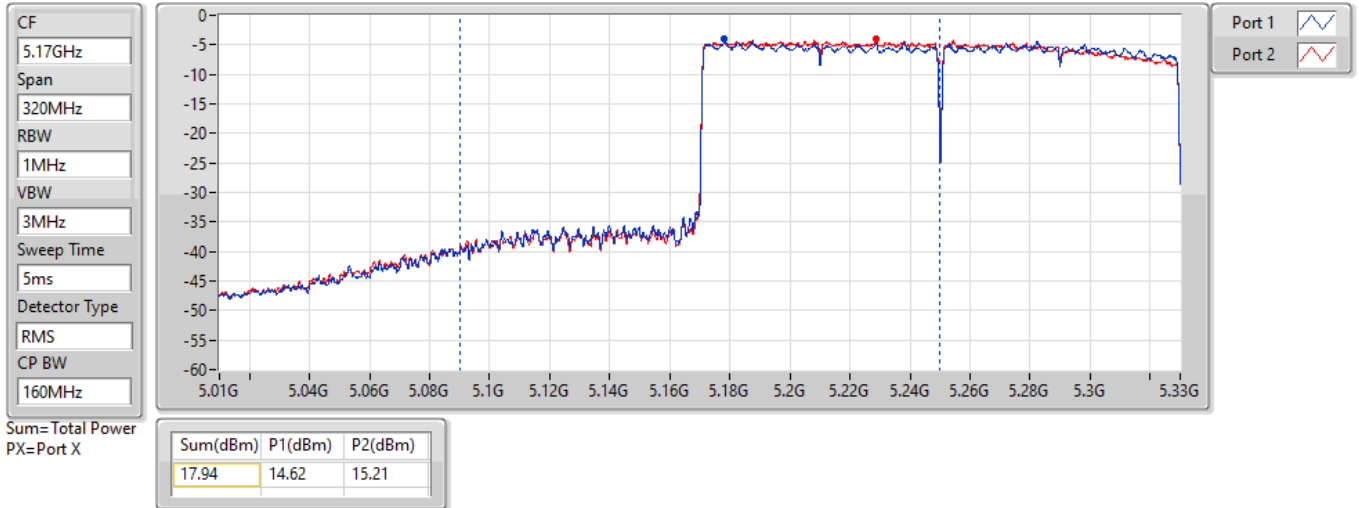




### 802.11ax HEW160-BF\_Nss1,(MCS0)\_2TX

AV Power

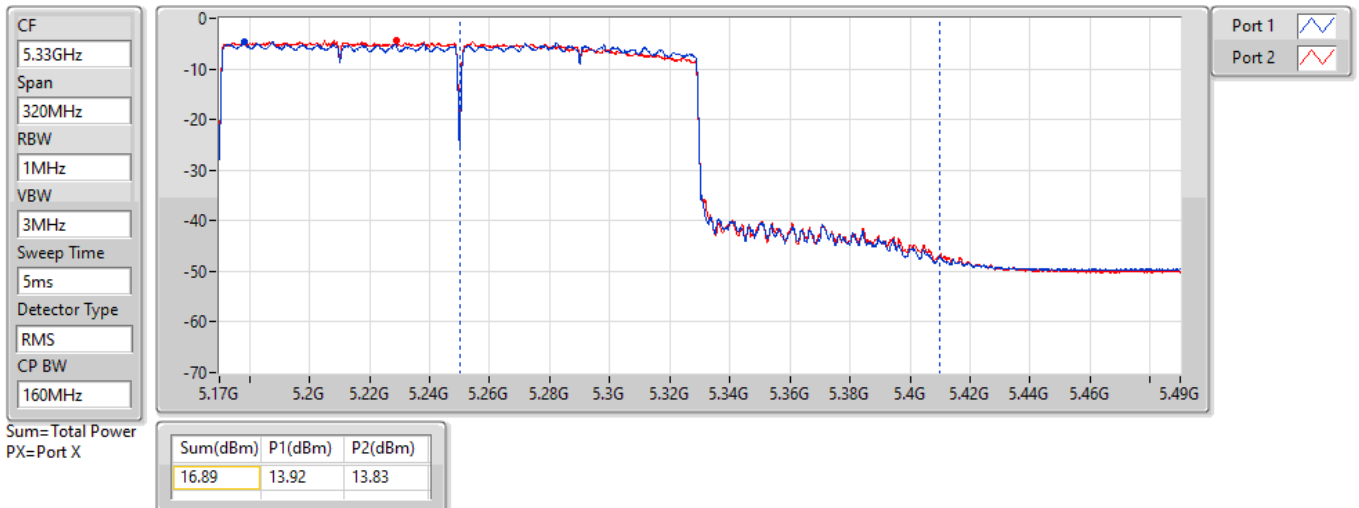
#### 5250MHz Straddle 5.15-5.25GHz\_TnomVnom



### 802.11ax HEW160-BF\_Nss1,(MCS0)\_2TX

AV Power

#### 5250MHz Straddle 5.25-5.35GHz\_TnomVnom





Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11ax HEW160_Nss1,(MCS0)_2TX-OFDMA	-0.74	2.43
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	10.81	13.91
802.11ax HEW20_Nss1,(MCS0)_2TX-OFDMA	10.90	14.00
802.11ax HEW40_Nss1,(MCS0)_2TX-OFDMA	8.42	11.52
802.11ax HEW80_Nss1,(MCS0)_2TX-OFDMA	2.89	5.99
802.11ax HEW160_Nss1,(MCS0)_2TX-OFDMA	-1.67	1.43
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	9.47	14.10
802.11ax HEW20_Nss1,(MCS0)_4TX-OFDMA	9.50	14.13
802.11ax HEW40_Nss1,(MCS0)_4TX-OFDMA	8.15	12.78
802.11ax HEW80_Nss1,(MCS0)_4TX-OFDMA	4.66	9.29
802.11ax HEW160_Nss1,(MCS0)_4TX-OFDMA	1.34	5.97
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	7.65	12.16
802.11ax HEW20_Nss1,(MCS0)_4TX-OFDMA	7.30	11.81
802.11ax HEW40_Nss1,(MCS0)_4TX-OFDMA	5.37	9.88
802.11ax HEW80_Nss1,(MCS0)_4TX-OFDMA	1.61	6.12

RBW = 1MHz



Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	3.10	7.74	8.20			10.78	11.00	13.88	17.00
5300MHz	Pass	3.10	8.06	8.03			10.81	11.00	13.91	17.00
5320MHz	Pass	3.10	7.75	7.99			10.62	11.00	13.72	17.00
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5500MHz	Pass	4.63	4.92	2.95	3.82	3.62	9.47	11.00	14.10	17.00
5580MHz	Pass	4.63	4.82	3.68	3.08	3.15	9.44	11.00	14.07	17.00
5700MHz	Pass	4.63	4.02	3.53	3.11	2.81	9.18	11.00	13.81	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	4.63	4.09	3.57	2.88	3.42	9.39	11.00	14.02	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	4.51	2.53	1.78	1.02	2.04	7.65	30.00	12.16	36.00
802.11ax HEW20_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	3.10	7.81	8.39			10.90	11.00	14.00	17.00
5300MHz	Pass	3.10	7.73	8.10			10.78	11.00	13.88	17.00
5320MHz	Pass	3.10	7.44	8.12			10.68	11.00	13.78	17.00
802.11ax HEW20_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5500MHz	Pass	4.63	4.92	3.10	4.43	3.27	9.50	11.00	14.13	17.00
5580MHz	Pass	4.63	4.48	3.43	3.05	3.49	9.37	11.00	14.00	17.00
5700MHz	Pass	4.63	4.57	3.77	3.33	2.36	9.32	11.00	13.95	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	4.63	3.72	3.76	2.62	3.46	9.28	11.00	13.91	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	4.51	2.31	1.84	0.76	1.29	7.30	30.00	11.81	36.00
802.11ax HEW40_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	3.10	5.28	5.61			8.42	11.00	11.52	17.00
5310MHz	Pass	3.10	3.21	2.94			5.91	11.00	9.01	17.00
802.11ax HEW40_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5510MHz	Pass	4.63	3.09	2.47	3.19	2.21	8.15	11.00	12.78	17.00
5590MHz	Pass	4.63	2.60	1.80	2.05	1.95	7.84	11.00	12.47	17.00
5670MHz	Pass	4.63	2.45	2.36	2.49	2.16	8.14	11.00	12.77	17.00
5710MHz Straddle 5.47-5.725GHz	Pass	4.63	2.51	1.76	1.95	1.89	7.75	11.00	12.38	17.00
5710MHz Straddle 5.725-5.85GHz	Pass	4.51	-0.48	-0.21	-0.38	-0.69	5.37	30.00	9.88	36.00
802.11ax HEW80_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	3.10	0.43	-0.47			2.89	11.00	5.99	17.00
802.11ax HEW80_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5530MHz	Pass	4.63	-0.37	-0.85	-0.76	-1.41	4.66	11.00	9.29	17.00
5610MHz	Pass	4.63	-0.37	-1.25	-1.99	-1.79	4.34	11.00	8.97	17.00
5690MHz Straddle 5.47-5.725GHz	Pass	4.63	-0.23	-1.16	-1.92	-1.94	4.49	11.00	9.12	17.00
5690MHz Straddle 5.725-5.85GHz	Pass	4.51	-3.86	-3.80	-4.48	-4.93	1.61	30.00	6.12	36.00
802.11ax	-	-	-	-	-	-	-	-	-	-



Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
HEW160_Nss1,(MCS0)_2TX-OFDMA										
5250MHz Straddle 5.15-5.25GHz	Pass	3.17	-3.49	-3.75			-0.74	17.00	2.43	23.00
5250MHz Straddle 5.25-5.35GHz	Pass	3.10	-3.97	-4.54			-1.67	11.00	1.43	17.00
802.11ax HEW160_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5570MHz	Pass	4.63	-3.65	-4.35	-4.86	-4.91	1.34	11.00	5.97	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;

Directional gain is measured. Please refer to antenna test report.

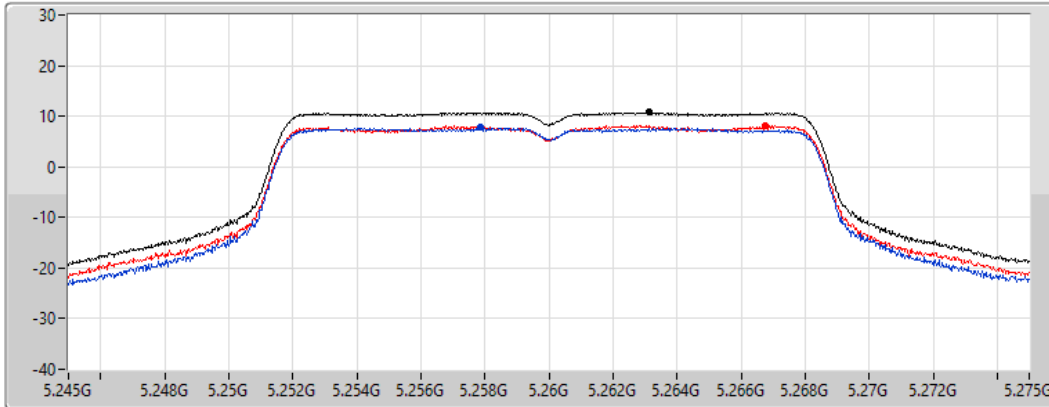


### 802.11a\_Nss1,(6Mbps)\_2TX

PSD

#### 5260MHz

CF  
5.26GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2

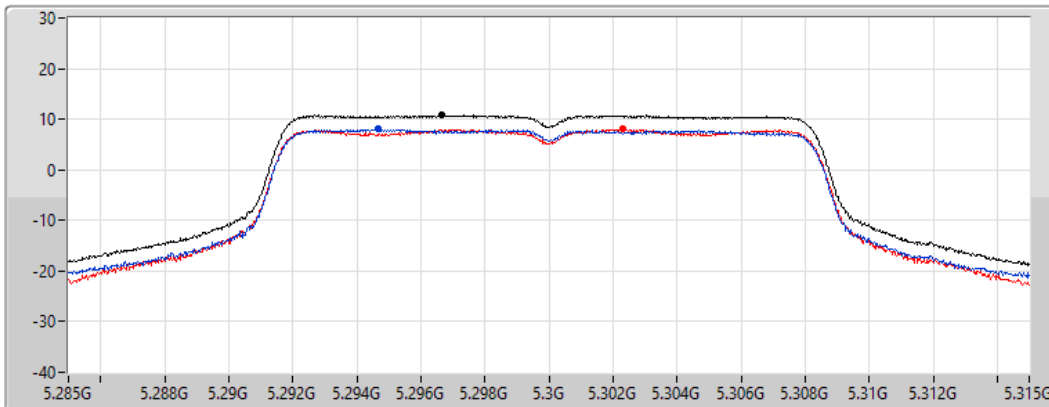
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.78	10.78	7.74	8.20

### 802.11a\_Nss1,(6Mbps)\_2TX

PSD

#### 5300MHz

CF  
5.3GHz  
Span  
30MHz  
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)
10.81	10.81	8.06	8.03

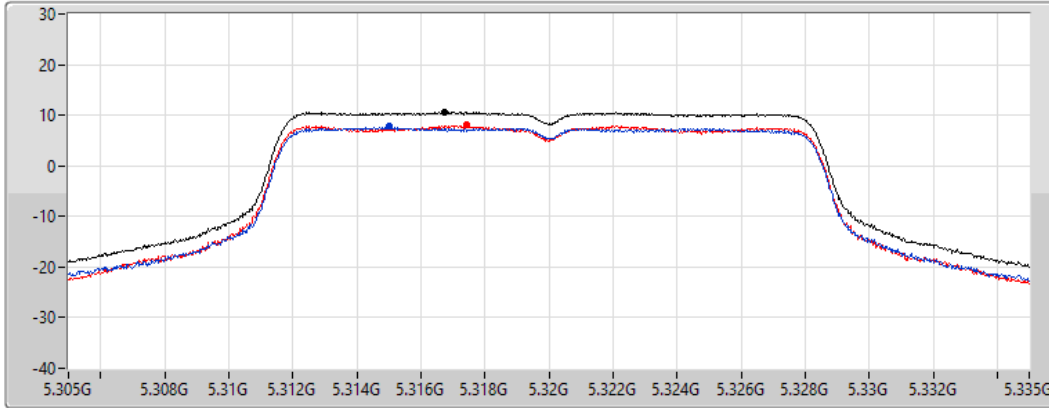


### 802.11a\_Nss1,(6Mbps)\_2TX

PSD

5320MHz

CF  
5.32GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2

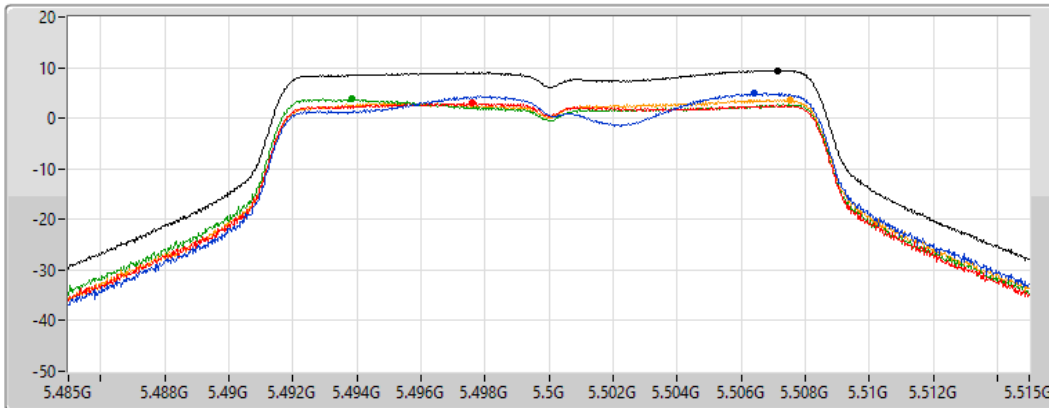
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.62	10.62	7.75	7.99

### 802.11a\_Nss1,(6Mbps)\_4TX

PSD

5500MHz

CF  
5.5GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2   
Port 3   
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.47	9.47	4.92	2.95	3.82	3.62

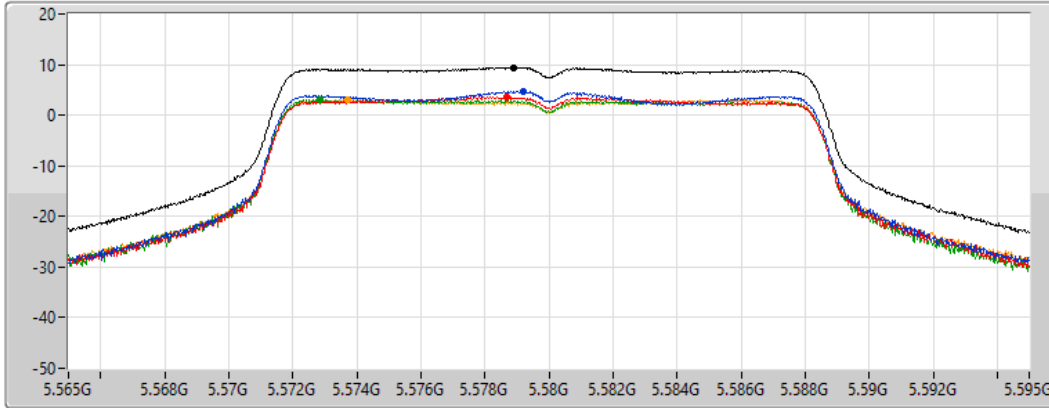


### 802.11a\_Nss1,(6Mbps)\_4TX

PSD

#### 5580MHz

CF  
5.58GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

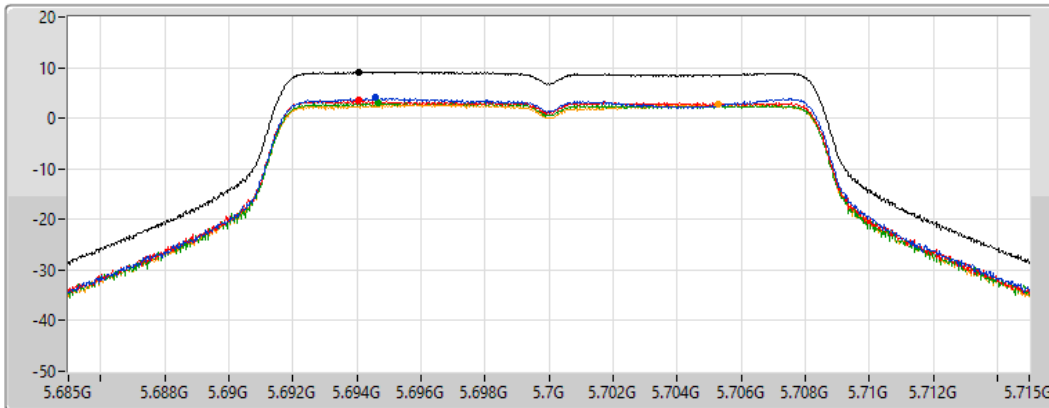
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.44	9.44	4.82	3.68	3.08	3.15

### 802.11a\_Nss1,(6Mbps)\_4TX

PSD

#### 5700MHz

CF  
5.7GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

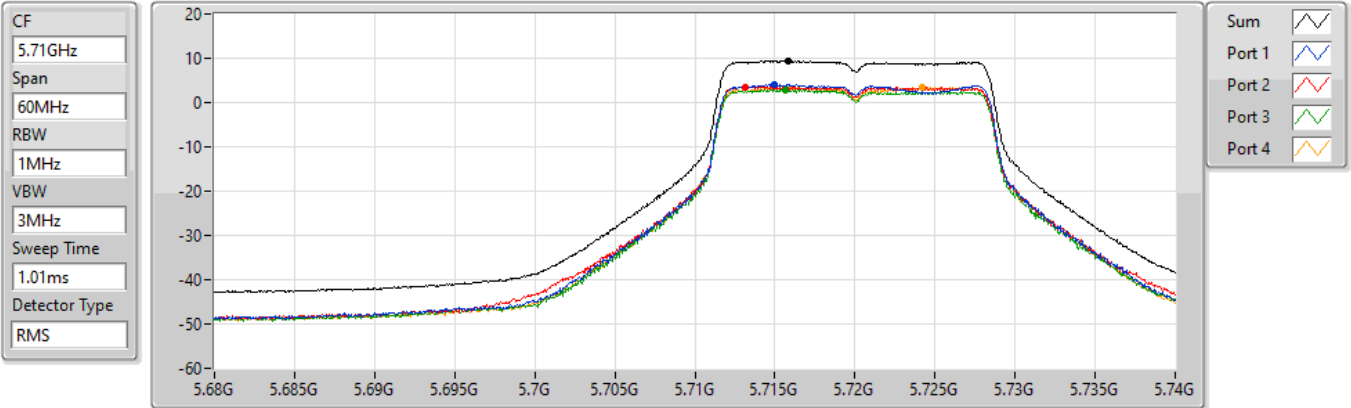
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.18	9.18	4.02	3.53	3.11	2.81



### 802.11a\_Nss1,(6Mbps)\_4TX

PSD

#### 5720MHz Straddle 5.47-5.725GHz

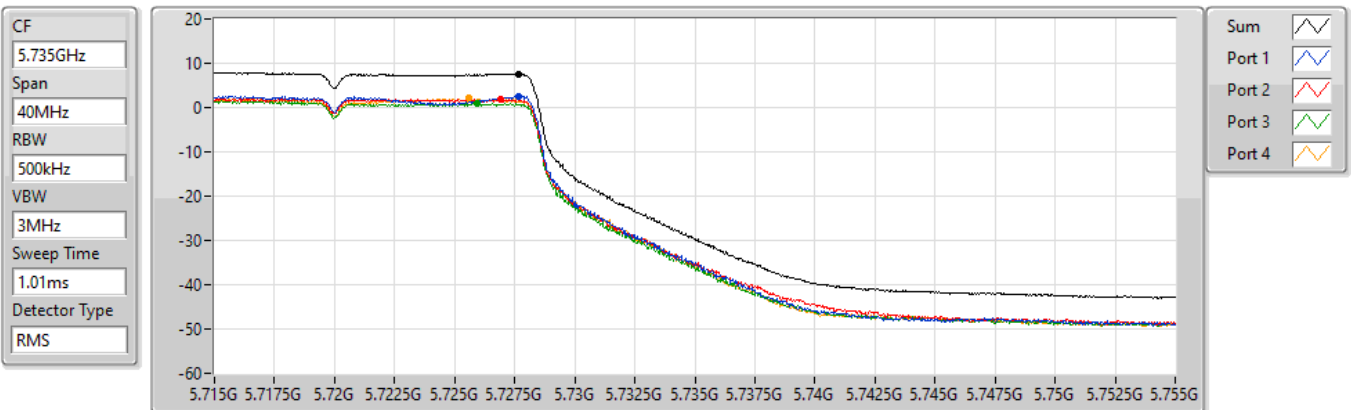


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.39	9.39	4.09	3.57	2.88	3.42

### 802.11a\_Nss1,(6Mbps)\_4TX

PSD

#### 5720MHz Straddle 5.725-5.85GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.65	7.65	2.53	1.78	1.02	2.04



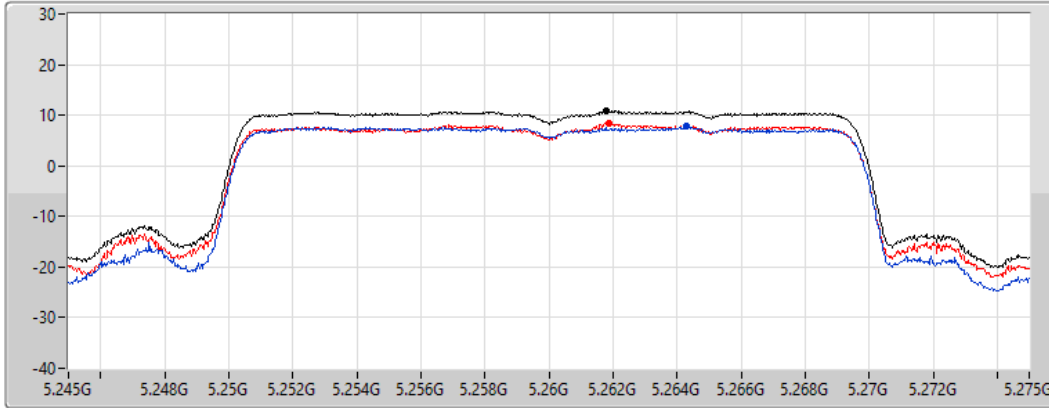


### 802.11ax HEW20\_Nss1,(MCS0)\_2TX

PSD

#### 5260MHz

CF  
5.26GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2

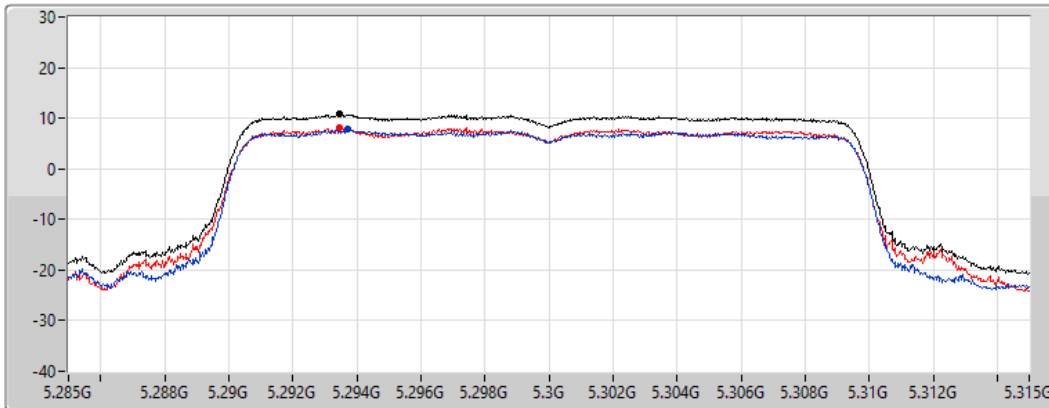
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.90	10.90	7.81	8.39

### 802.11ax HEW20\_Nss1,(MCS0)\_2TX

PSD

#### 5300MHz

CF  
5.3GHz  
Span  
30MHz  
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)
10.78	10.78	7.73	8.10

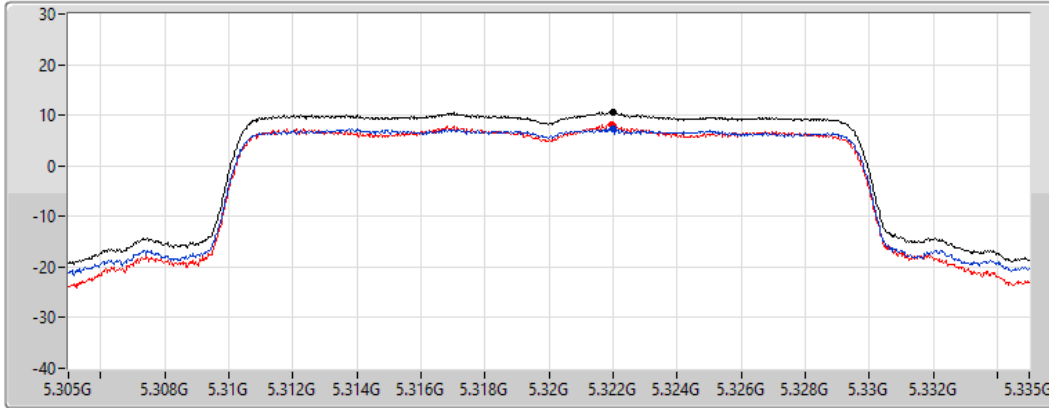


### 802.11ax HEW20\_Nss1,(MCS0)\_2TX

PSD

#### 5320MHz

CF  
5.32GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2

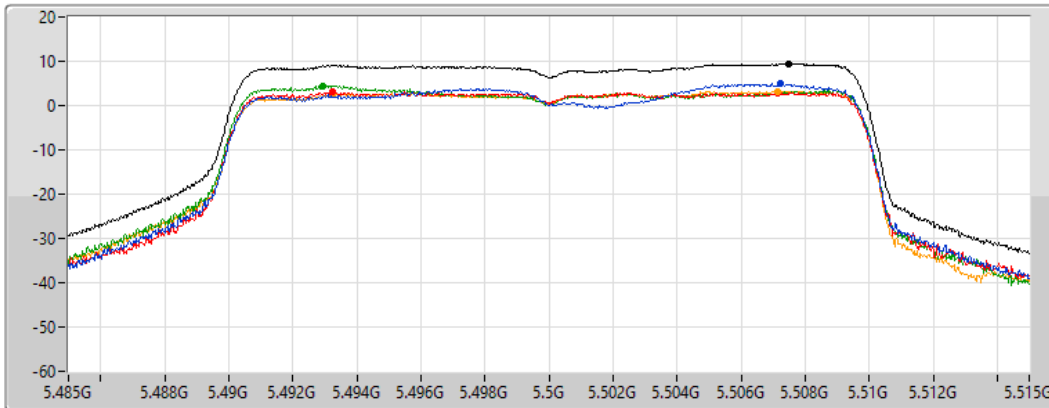
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.68	10.68	7.44	8.12

### 802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

#### 5500MHz

CF  
5.5GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2   
Port 3   
Port 4

Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.50	9.50	4.92	3.10	4.43	3.27

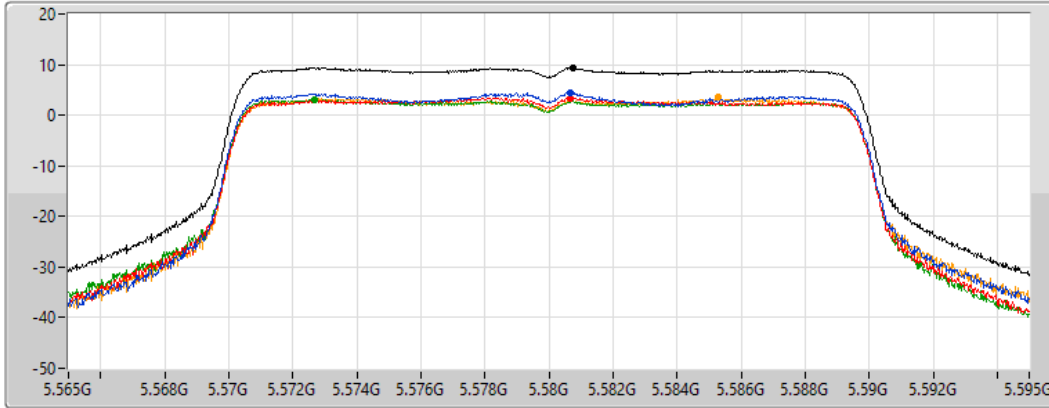


802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

5580MHz

CF  
5.58GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

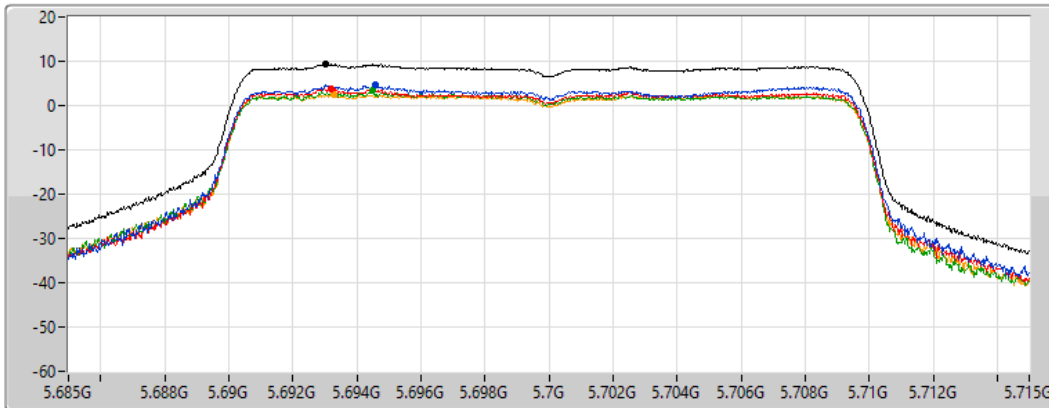
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.37	9.37	4.48	3.43	3.05	3.49

802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

5700MHz

CF  
5.7GHz  
Span  
30MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

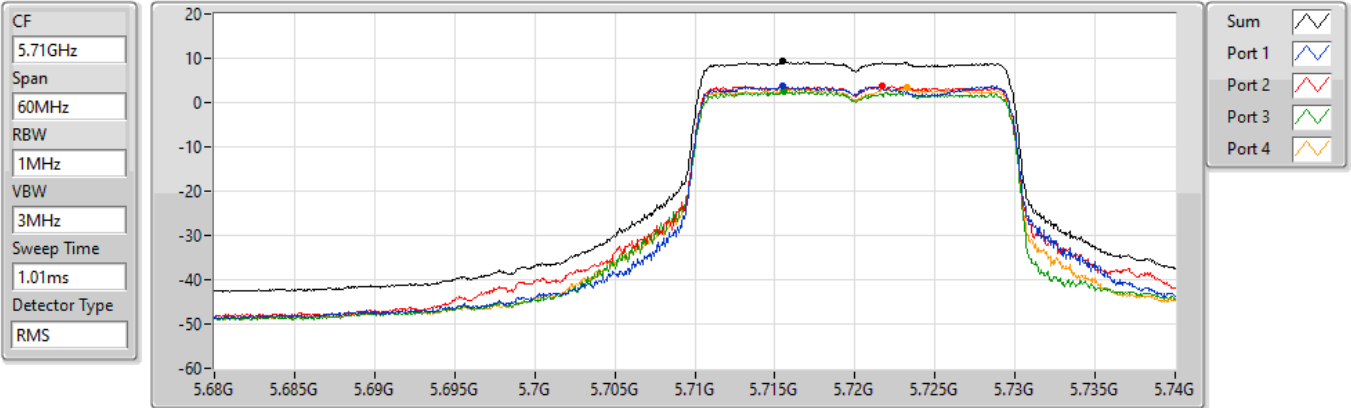
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.32	9.32	4.57	3.77	3.33	2.36



### 802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

#### 5720MHz Straddle 5.47-5.725GHz

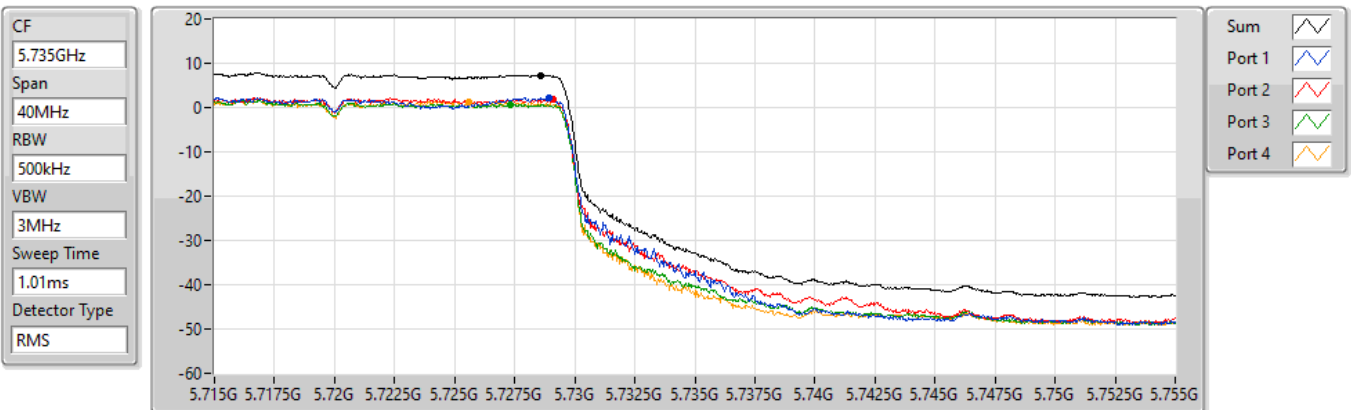


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.28	9.28	3.72	3.76	2.62	3.46

### 802.11ax HEW20\_Nss1,(MCS0)\_4TX

PSD

#### 5720MHz Straddle 5.725-5.85GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.30	7.30	2.31	1.84	0.76	1.29

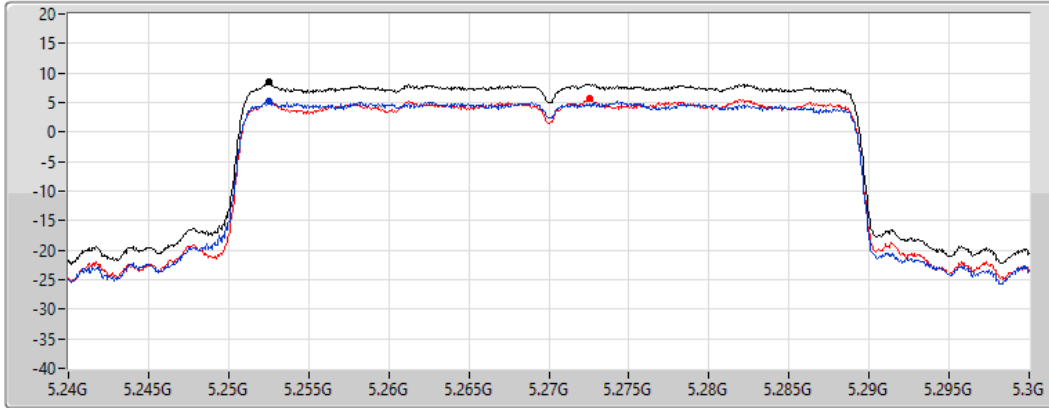


### 802.11ax HEW40\_Nss1,(MCS0)\_2TX

PSD

#### 5270MHz

CF  
5.27GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2

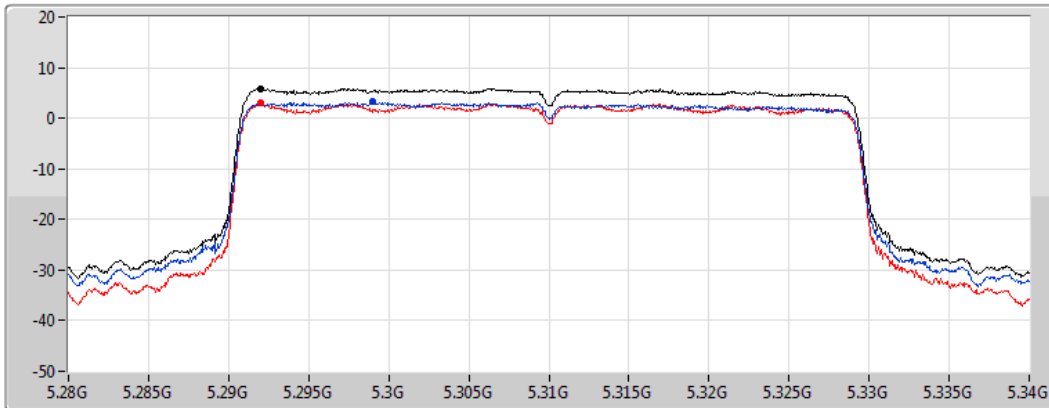
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.42	8.42	5.28	5.61

### 802.11ax HEW40\_Nss1,(MCS0)\_2TX

PSD

#### 5310MHz

CF  
5.31GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum   
Port 1   
Port 2

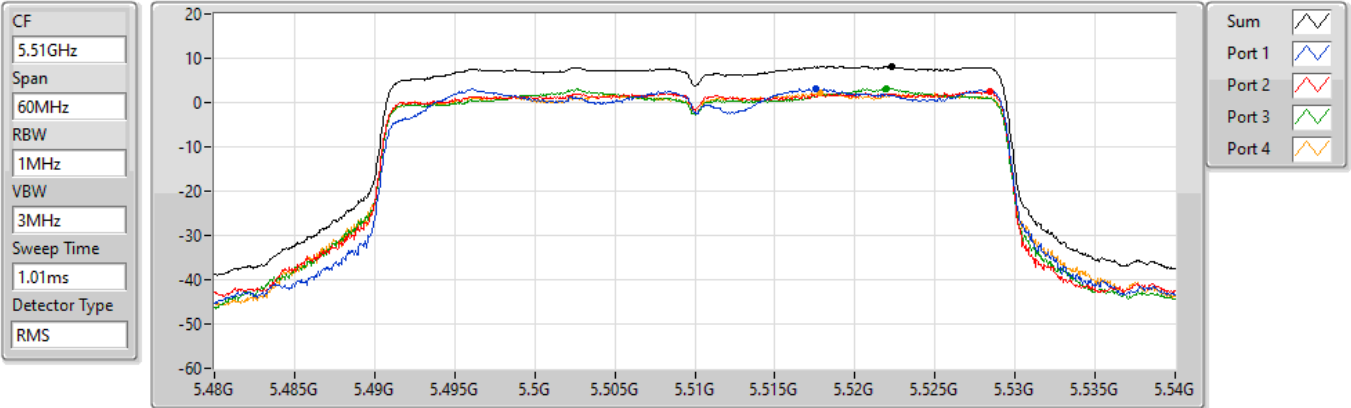
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.91	5.91	3.21	2.94



### 802.11ax HEW40\_Nss1,(MCS0)\_4TX

PSD

#### 5510MHz

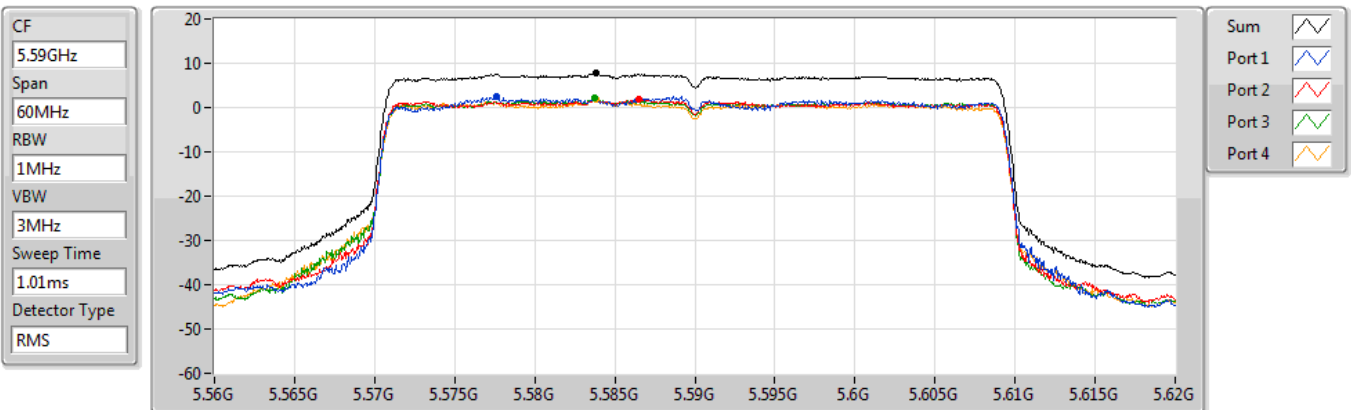


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.15	8.15	3.09	2.47	3.19	2.21

### 802.11ax HEW40\_Nss1,(MCS0)\_4TX

PSD

#### 5590MHz



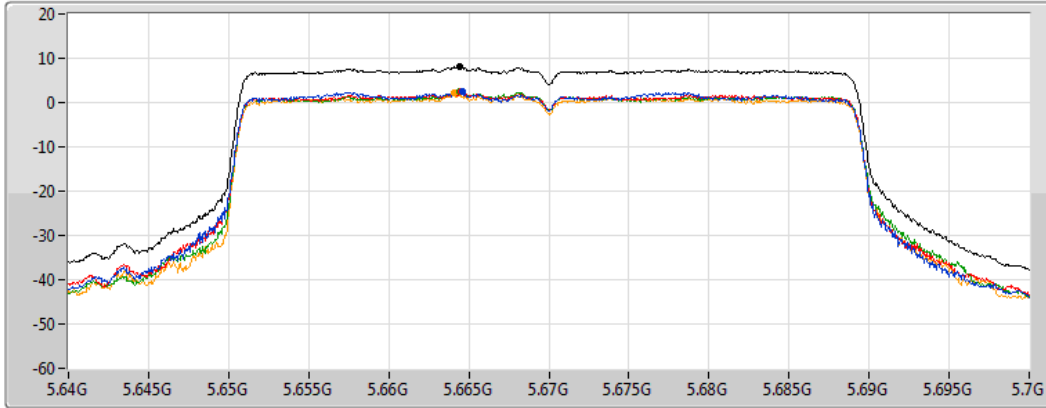
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.84	7.84	2.60	1.80	2.05	1.95

802.11ax HEW40\_Nss1,(MCS0)\_4TX

PSD

5670MHz

CF  
5.67GHz  
Span  
60MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.01ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

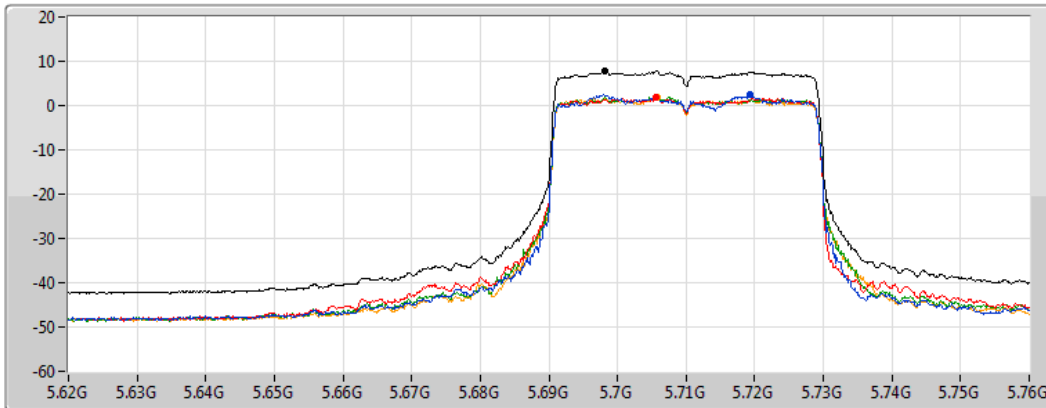
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.14	8.14	2.45	2.36	2.49	2.16

802.11ax HEW40\_Nss1,(MCS0)\_4TX

PSD

5710MHz Straddle 5.47-5.725GHz

CF  
5.69GHz  
Span  
140MHz  
RBW  
1MHz  
VBW  
3MHz  
Sweep Time  
1.4ms  
Detector Type  
RMS



Sum  
Port 1  
Port 2  
Port 3  
Port 4

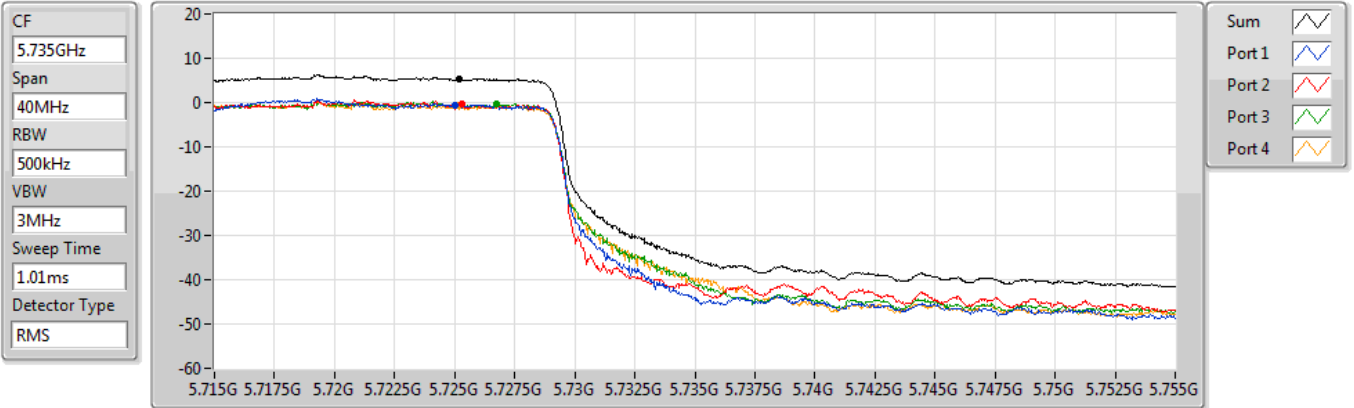
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.75	7.75	2.51	1.76	1.95	1.89



### 802.11ax HEW40\_Nss1,(MCS0)\_4TX

PSD

#### 5710MHz Straddle 5.725-5.85GHz

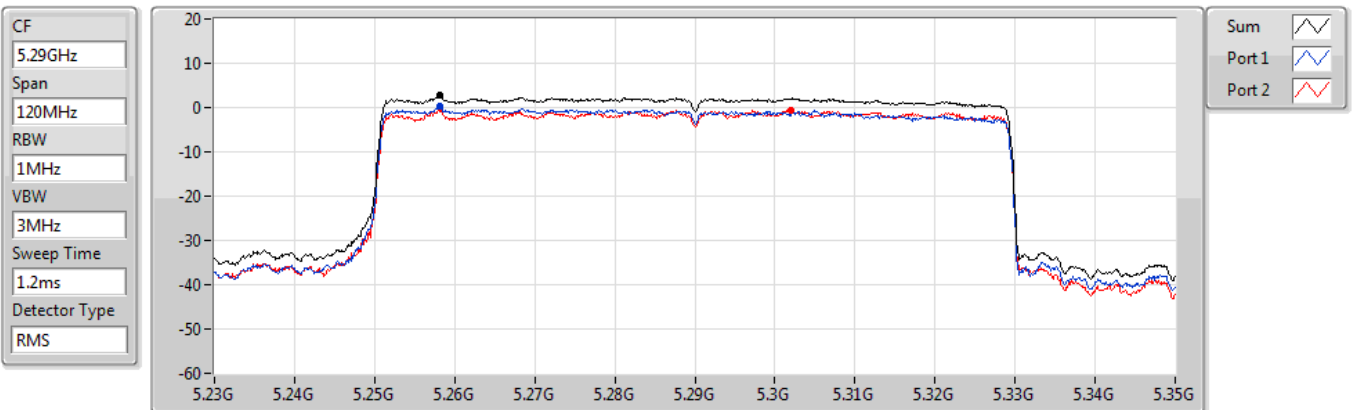


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.37	5.37	-0.48	-0.21	-0.38	-0.69

### 802.11ax HEW80\_Nss1,(MCS0)\_2TX

PSD

#### 5290MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.89	2.89	0.43	-0.47

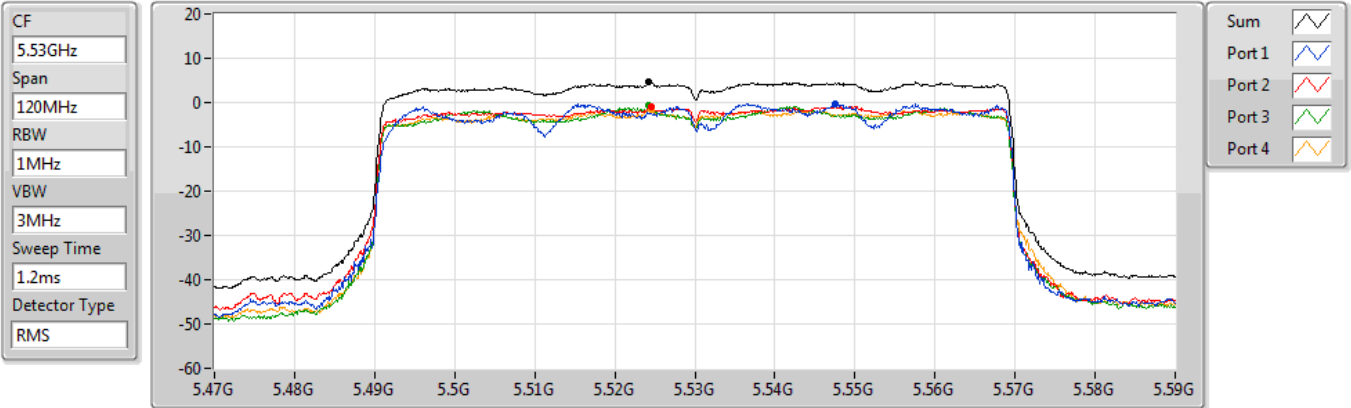




### 802.11ax HEW80\_Nss1,(MCS0)\_4TX

PSD

#### 5530MHz

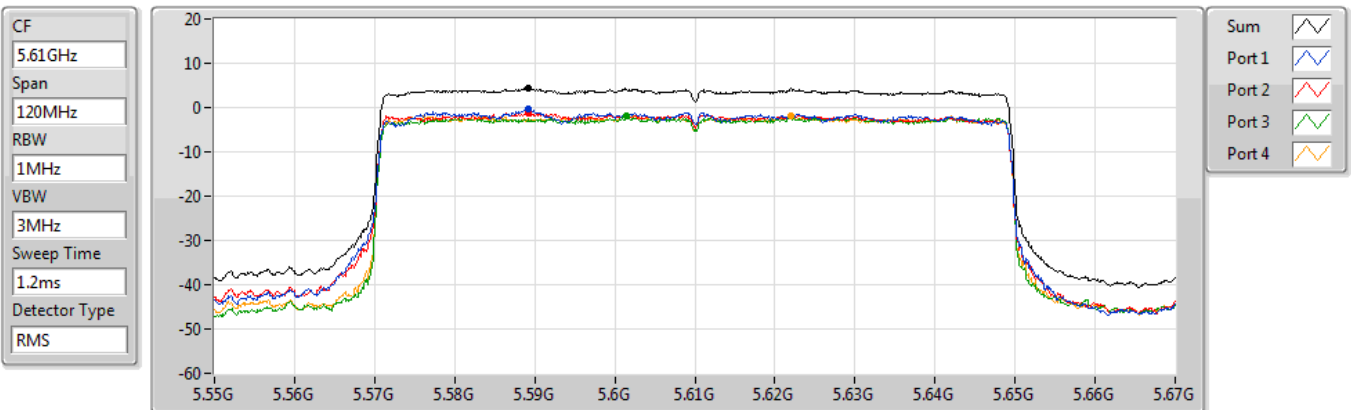


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.66	4.66	-0.37	-0.85	-0.76	-1.41

### 802.11ax HEW80\_Nss1,(MCS0)\_4TX

PSD

#### 5610MHz



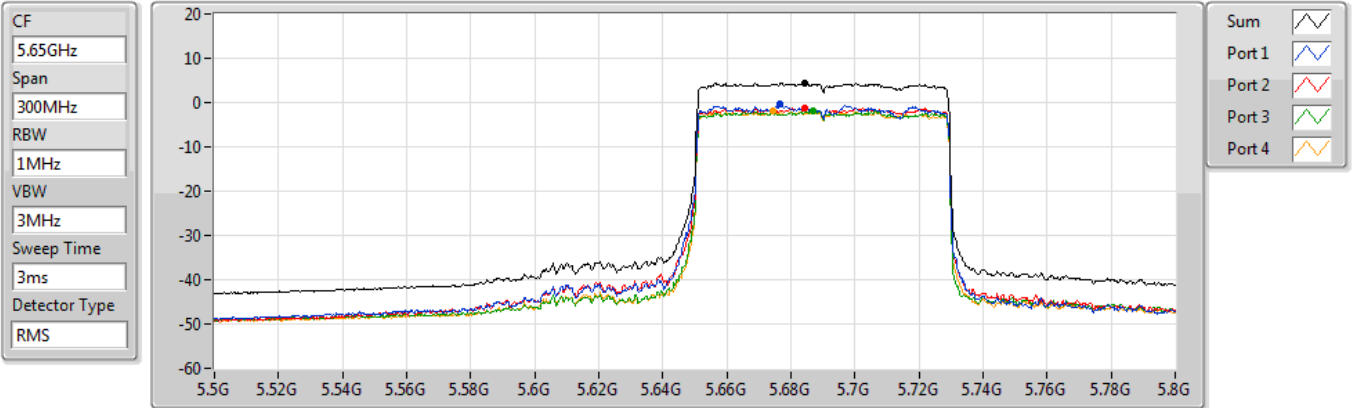
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.34	4.34	-0.37	-1.25	-1.99	-1.79



### 802.11ax HEW80\_Nss1,(MCS0)\_4TX

PSD

#### 5690MHz Straddle 5.47-5.725GHz

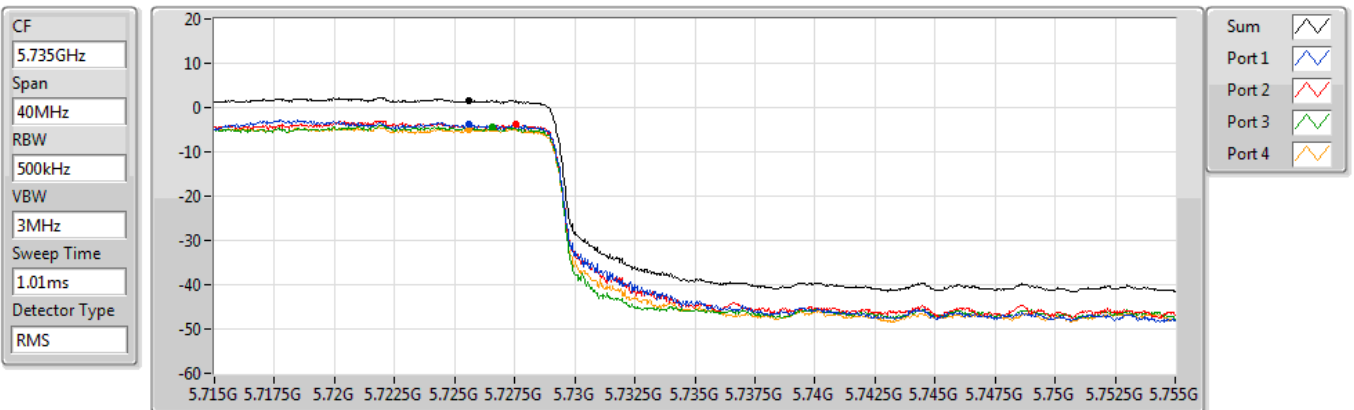


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.49	4.49	-0.23	-1.16	-1.92	-1.94

### 802.11ax HEW80\_Nss1,(MCS0)\_4TX

PSD

#### 5690MHz Straddle 5.725-5.85GHz



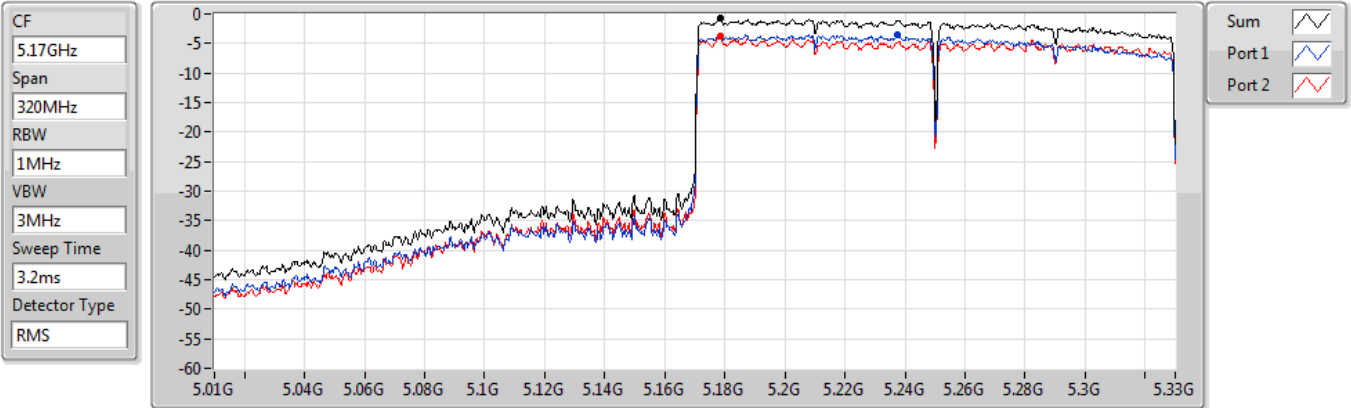
Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.61	1.61	-3.86	-3.80	-4.48	-4.93



### 802.11ax HEW160\_Nss1,(MCS0)\_2TX

PSD

#### 5250MHz Straddle 5.15-5.25GHz

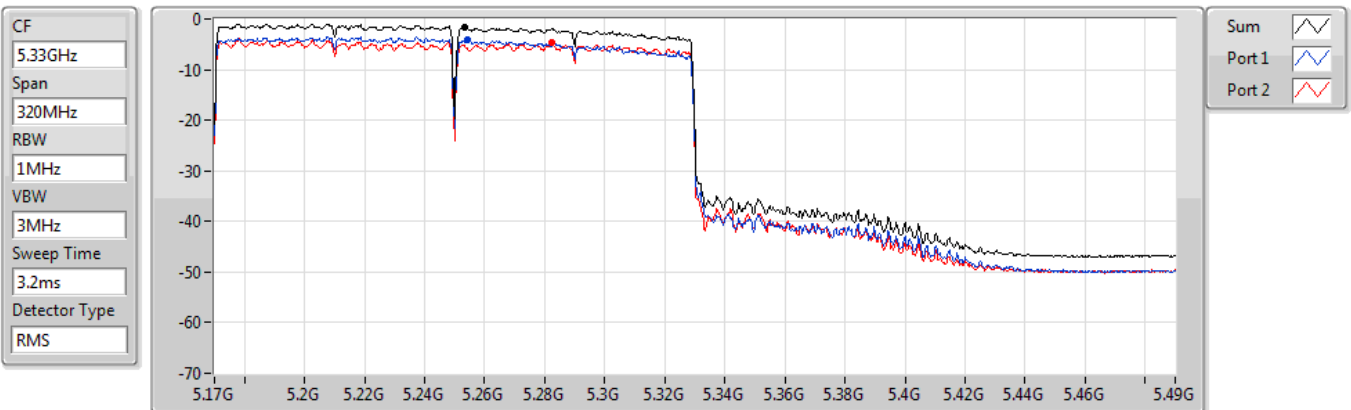


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.74	-0.74	-3.49	-3.75

### 802.11ax HEW160\_Nss1,(MCS0)\_2TX

PSD

#### 5250MHz Straddle 5.25-5.35GHz



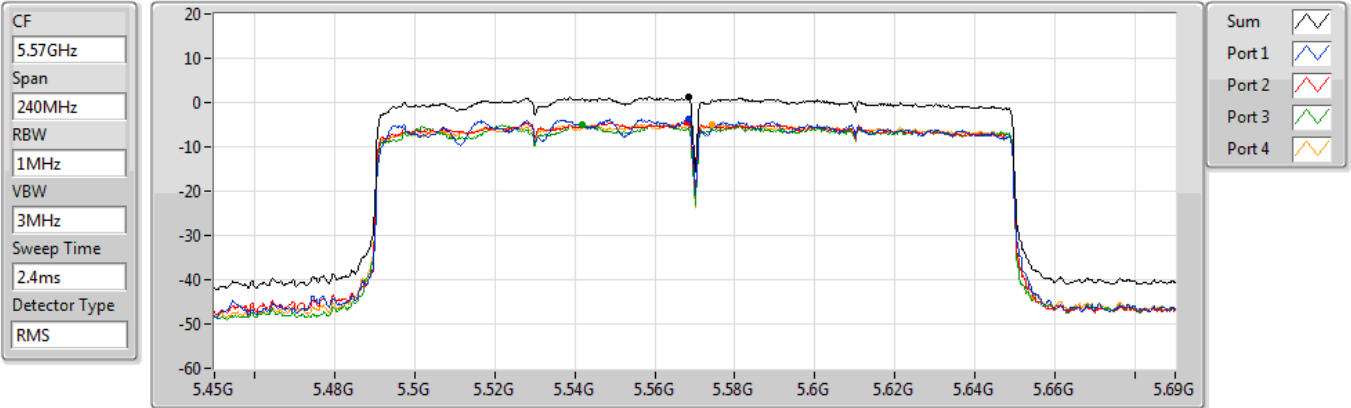
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.67	-1.67	-3.97	-4.54



802.11ax HEW160\_Nss1,(MCS0)\_4TX

PSD

5570MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.34	1.34	-3.65	-4.35	-4.86	-4.91

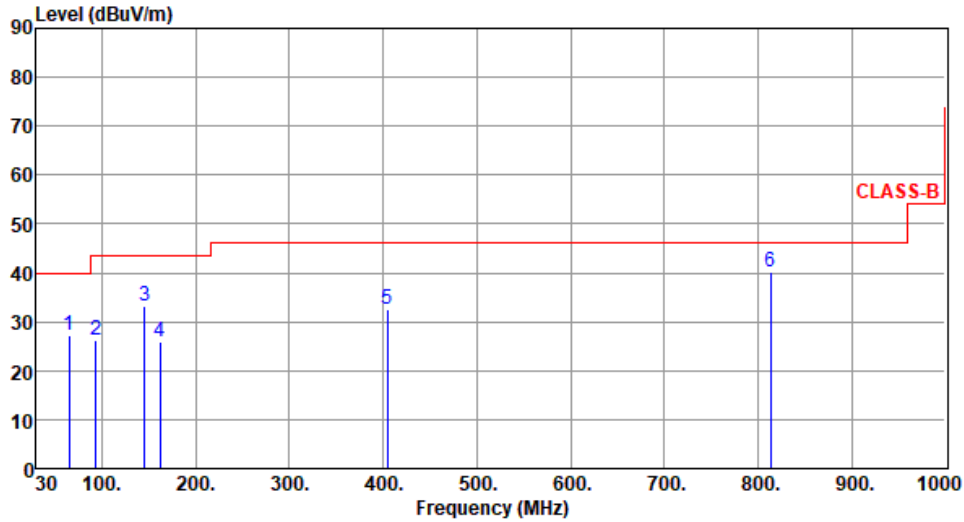


**Non-beamforming mode**

**Unwanted Emissions (Below 1GHz)**

<b>Modulation</b>	ax HE40-OFDMA	<b>Test Freq. (MHz)</b>	5270
<b>Polarization</b>	Horizontal		

Test By :Akun Chung      Temperature(°C):25      Humidity(%):62



	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	65.39	27.11	40.00	-12.89	37.62	-10.51	Peak	---	---
2	93.44	26.39	43.50	-17.11	40.86	-14.47	Peak	---	---
3	145.85	33.21	43.50	-10.29	42.46	-9.25	Peak	---	---
4	161.75	25.93	43.50	-17.57	34.84	-8.91	Peak	---	---
5	404.77	32.66	46.00	-13.34	38.46	-5.80	Peak	---	---
6	813.25	40.10	46.00	-5.90	38.16	1.94	Peak	---	---

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

\*Factor includes antenna factor , cable loss and amplifier gain

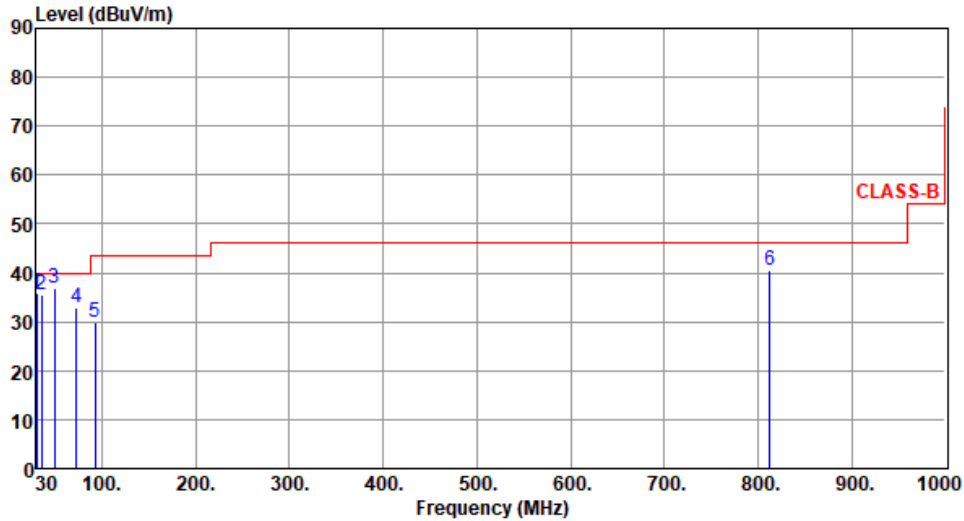
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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



<b>Modulation</b>	ax HE40-OFDMA	<b>Test Freq. (MHz)</b>	5270
<b>Polarization</b>	Vertical		

Test By :Akun Chung      Temperature(°C):25      Humidity(%):62



	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	30.45	35.85	40.00	-4.15	46.01	-10.16	Peak	---	---
2	35.88	35.44	40.00	-4.56	45.67	-10.23	Peak	---	---
3	49.66	36.79	40.00	-3.21	45.36	-8.57	QP	100	59
4	72.95	32.89	40.00	-7.11	44.83	-11.94	Peak	---	---
5	92.33	30.02	43.50	-13.48	44.62	-14.60	Peak	---	---
6	812.14	40.45	46.00	-5.55	38.51	1.94	Peak	---	---

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

\*Factor includes antenna factor , cable loss and amplifier gain

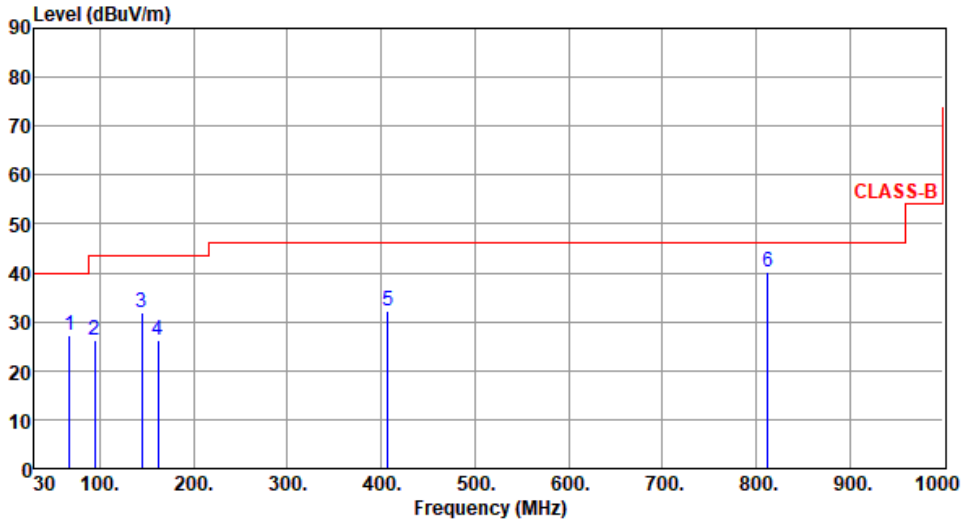
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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



<b>Modulation</b>	ax HE40-OFDMA	<b>Test Freq. (MHz)</b>	5510
<b>Polarization</b>	Horizontal		

Test By :Akun Chung      Temperature(°C):25      Humidity(%):62



	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	67.96	27.15	40.00	-12.85	37.90	-10.75	Peak	---	---
2	94.63	26.14	43.50	-17.36	40.60	-14.46	Peak	---	---
3	144.88	31.93	43.50	-11.57	41.26	-9.33	Peak	---	---
4	161.88	26.25	43.50	-17.25	35.16	-8.91	Peak	---	---
5	406.93	32.17	46.00	-13.83	37.92	-5.75	Peak	---	---
6	812.54	40.10	46.00	-5.90	38.16	1.94	Peak	---	---

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

\*Factor includes antenna factor , cable loss and amplifier gain

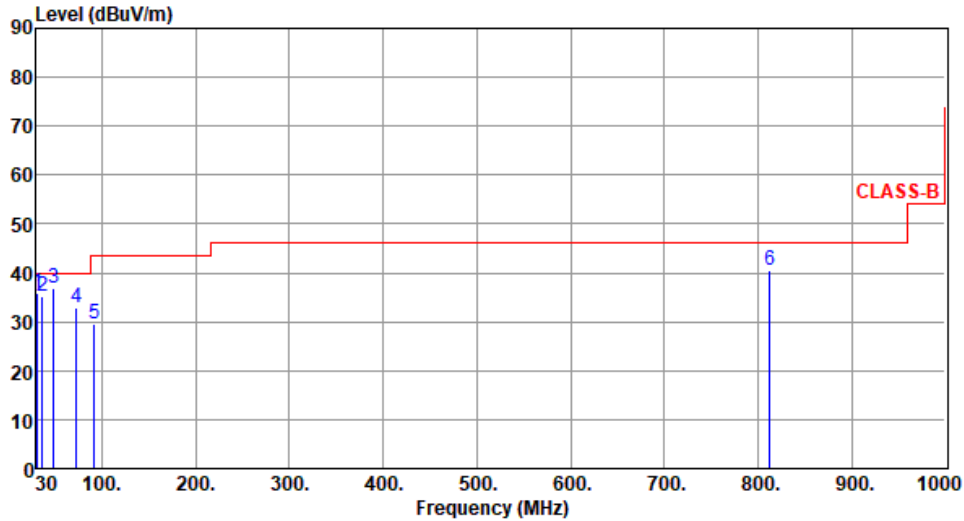
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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



Modulation	11a	Test Freq. (MHz)	5510
Polarization	Vertical		

Test By :Akun Chung      Temperature(°C):25      Humidity(%):62



	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	31.21	35.93	40.00	-4.07	46.03	-10.10	Peak	---	---
2	36.32	35.24	40.00	-4.76	45.33	-10.09	Peak	---	---
3	48.58	36.87	40.00	-3.13	45.45	-8.58	QP	100	62
4	72.95	32.86	40.00	-7.14	44.79	-11.93	Peak	---	---
5	92.11	29.69	43.50	-13.81	44.34	-14.65	Peak	---	---
6	812.95	40.66	46.00	-5.34	38.72	1.94	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)	5260						
Polarization	Horizontal								
Test By :Akun Chung      Temperature(°C):26      Humidity(%):62									
	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	45.45	54.00	-8.55	40.44	5.01	Average	252	205
2	5150.00	57.46	74.00	-16.54	52.45	5.01	Peak	252	205
3	5350.00	44.99	54.00	-9.01	40.57	4.42	Average	252	205
4	5350.00	56.89	74.00	-17.11	52.47	4.42	Peak	252	205
5	10520.00	65.90	68.20	-2.30	51.43	14.47	Peak	313	153
6	15780.00	44.13	54.00	-9.87	30.65	13.48	Average	100	187
7	15780.00	56.34	74.00	-17.66	42.86	13.48	Peak	100	187

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

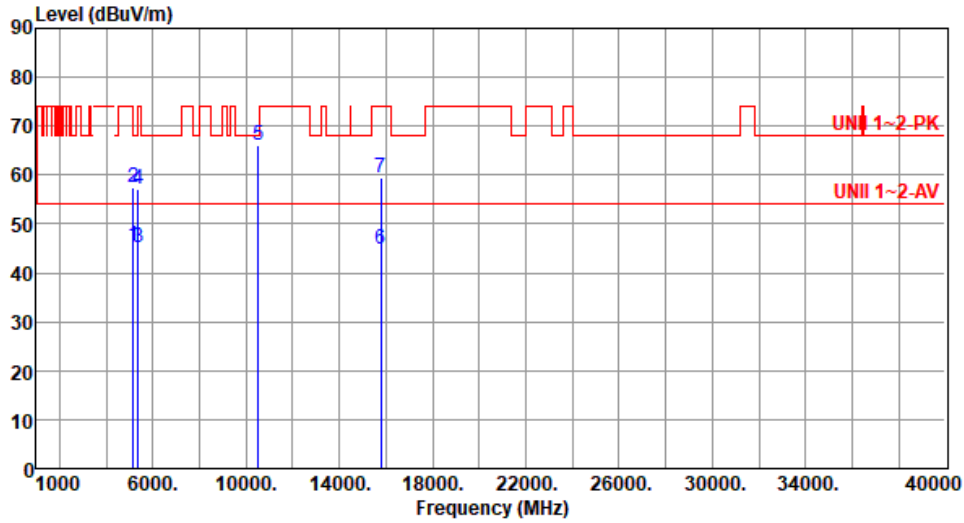
\*Factor includes antenna factor , cable loss and amplifier gain

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



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

Test By :Akun Chung      Temperature(°C):26      Humidity(%):62



	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	45.57	54.00	-8.43	40.56	5.01	Average	226	350
2	5150.00	57.53	74.00	-16.47	52.52	5.01	Peak	226	350
3	5350.00	45.19	54.00	-8.81	40.77	4.42	Average	226	350
4	5350.00	57.08	74.00	-16.92	52.66	4.42	Peak	226	350
5	10520.00	66.07	68.20	-2.13	51.60	14.47	Peak	308	122
6	15780.00	44.80	54.00	-9.20	31.32	13.48	Average	303	322
7	15780.00	59.42	74.00	-14.58	45.94	13.48	Peak	303	322

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

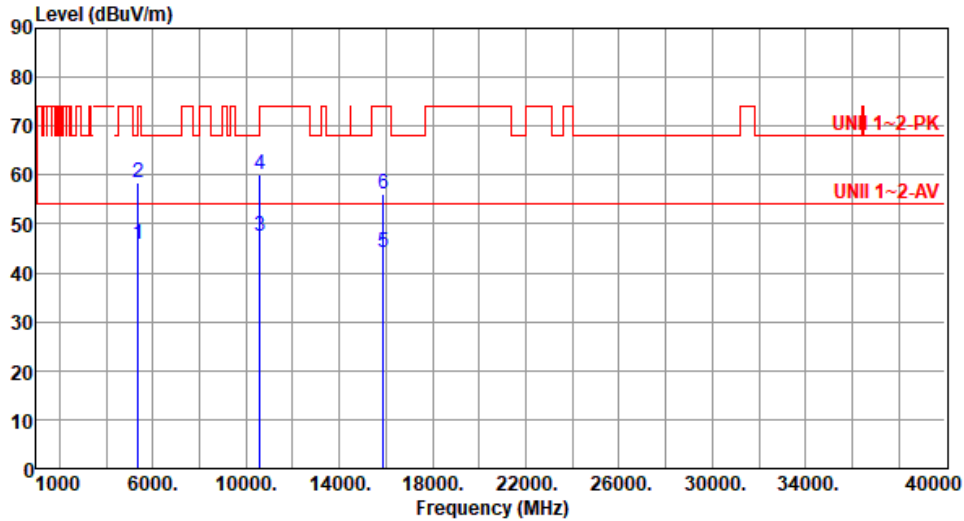
\*Factor includes antenna factor , cable loss and amplifier gain

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



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

Test By :Akun Chung      Temperature(°C):26      Humidity(%):62



	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	5350.00	45.92	54.00	-8.08	41.50	4.42	Average	379	203
2	5350.00	58.40	74.00	-15.60	53.98	4.42	Peak	379	203
3	10600.00	47.47	54.00	-6.53	33.12	14.35	Average	309	146
4	10600.00	60.04	74.00	-13.96	45.69	14.35	Peak	309	146
5	15900.00	44.23	54.00	-9.77	30.66	13.57	Average	100	155
6	15900.00	56.25	74.00	-17.75	42.68	13.57	Peak	100	155

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

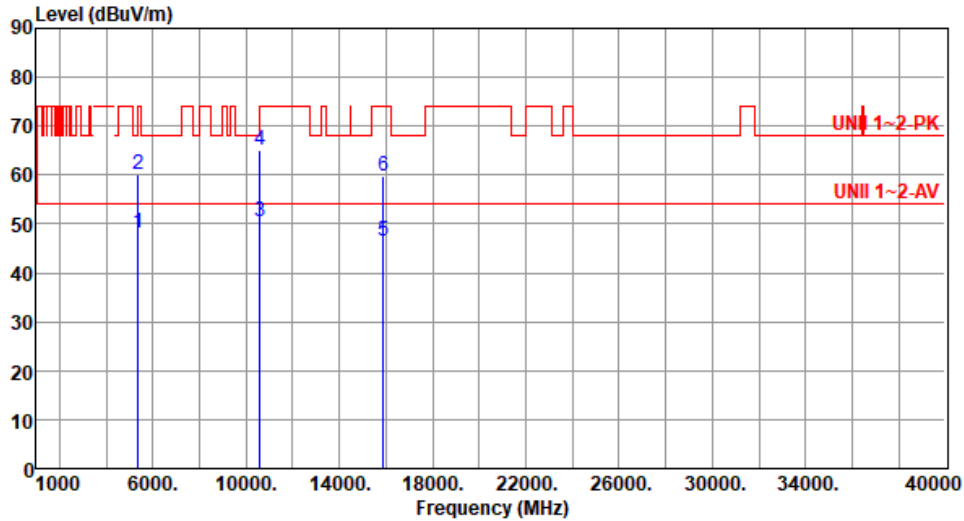
\*Factor includes antenna factor , cable loss and amplifier gain

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



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

Test By : Akun Chung      Temperature(°C): 26      Humidity(%): 62



	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	5350.00	48.22	54.00	-5.78	43.80	4.42	Average	226	346
2	5350.00	60.04	74.00	-13.96	55.62	4.42	Peak	226	346
3	10600.00	50.58	54.00	-3.42	36.23	14.35	Average	301	120
4	10600.00	64.94	74.00	-9.06	50.59	14.35	Peak	301	120
5	15900.00	46.63	54.00	-7.37	33.06	13.57	Average	307	325
6	15900.00	59.75	74.00	-14.25	46.18	13.57	Peak	307	325

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

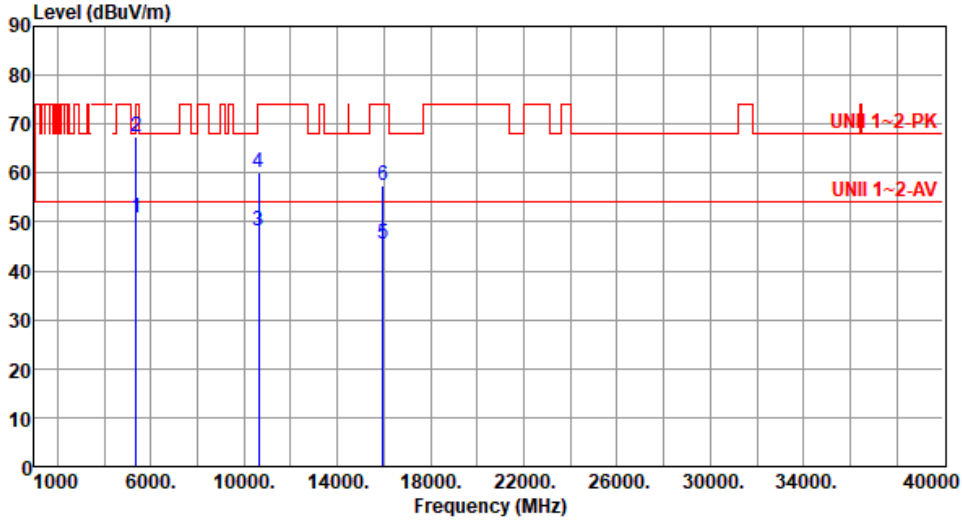
\*Factor includes antenna factor , cable loss and amplifier gain

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



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

Test By :Akun Chung      Temperature(°C):26      Humidity(%):62



	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	5350.00	50.93	54.00	-3.07	46.51	4.42	Average	299	202
2	5350.00	67.55	74.00	-6.45	63.13	4.42	Peak	299	202
3	10640.00	48.25	54.00	-5.75	33.88	14.37	Average	333	152
4	10640.00	60.25	74.00	-13.75	45.88	14.37	Peak	333	152
5	15960.00	45.56	54.00	-8.44	31.88	13.68	Average	100	195
6	15960.00	57.56	74.00	-16.44	43.88	13.68	Peak	100	195

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

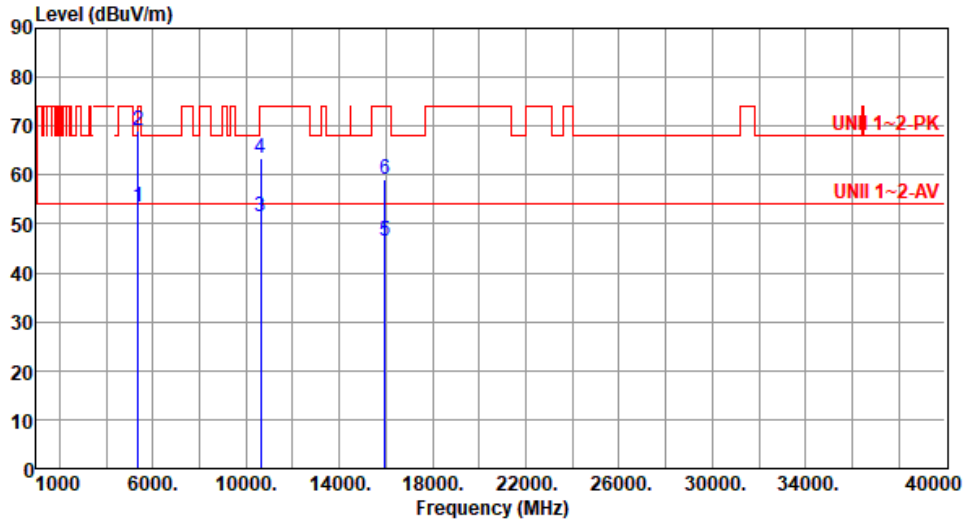
\*Factor includes antenna factor , cable loss and amplifier gain

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



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

Test By : Akun Chung      Temperature(°C): 26      Humidity(%): 62



	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	5350.00	53.62	54.00	-0.38	49.20	4.42	Average	244	341
2	5350.00	69.07	74.00	-4.93	64.65	4.42	Peak	244	341
3	10640.00	51.36	54.00	-2.64	36.99	14.37	Average	305	118
4	10640.00	63.32	74.00	-10.68	48.95	14.37	Peak	305	118
5	15960.00	46.34	54.00	-7.66	32.66	13.68	Average	300	321
6	15960.00	59.08	74.00	-14.92	45.40	13.68	Peak	300	321

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

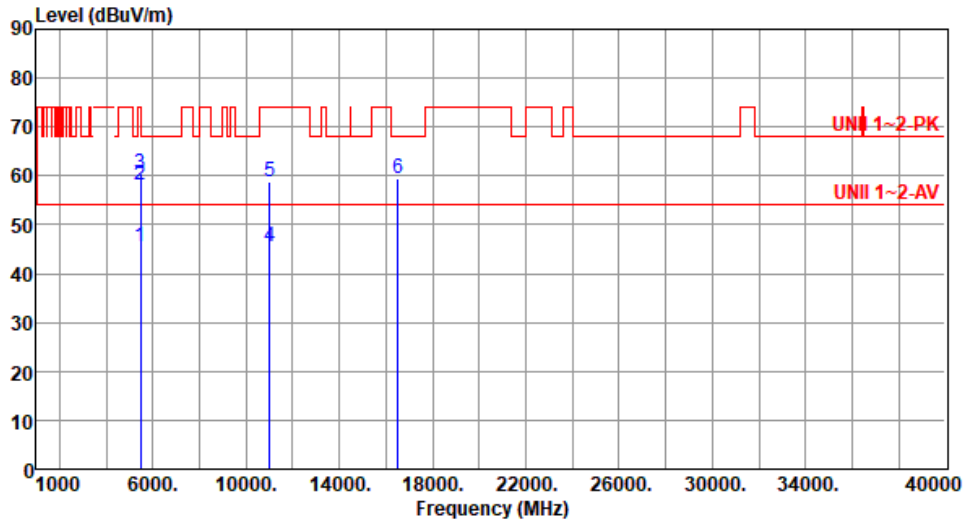
\*Factor includes antenna factor , cable loss and amplifier gain

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



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

Test By :Brad Wu      Temperature(°C):25      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	45.56	54.00	-8.44	40.89	4.67	Average	195	295
2	5460.00	58.28	74.00	-15.72	53.61	4.67	Peak	195	295
3	5470.00	60.58	68.20	-7.62	55.88	4.70	Peak	195	295
4	11000.00	45.65	54.00	-8.35	31.00	14.65	Average	100	300
5	11000.00	58.64	74.00	-15.36	43.99	14.65	Peak	100	300
6	16500.00	59.29	68.20	-8.91	42.95	16.34	Peak	100	288

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

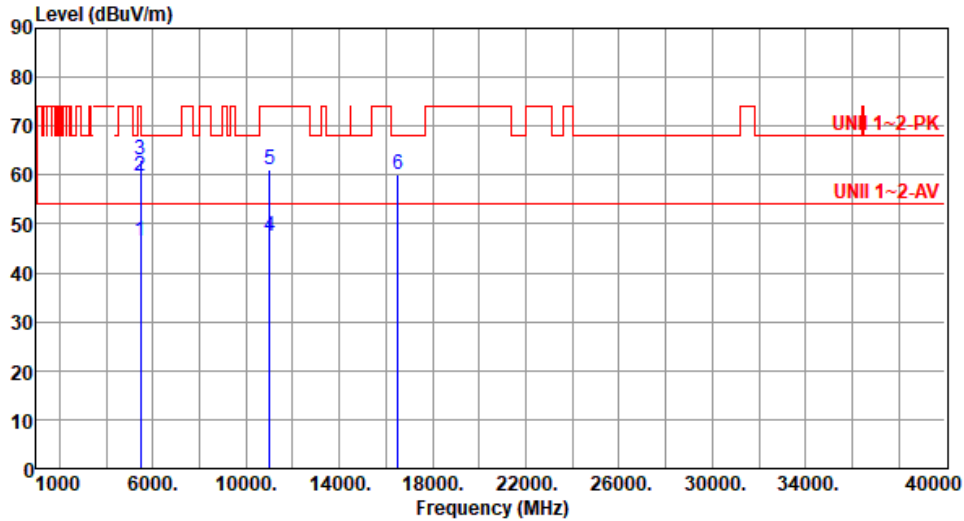
\*Factor includes antenna factor , cable loss and amplifier gain

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



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

Test By :Brad Wu      Temperature(°C):25      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	46.63	54.00	-7.37	41.96	4.67	Average	198	217
2	5460.00	59.72	74.00	-14.28	55.05	4.67	Peak	198	217
3	5470.00	63.23	68.20	-4.97	58.53	4.70	Peak	198	217
4	11000.00	47.64	54.00	-6.36	32.99	14.65	Average	195	235
5	11000.00	61.15	74.00	-12.85	46.50	14.65	Peak	195	235
6	16500.00	60.21	68.20	-7.99	43.87	16.34	Peak	100	48

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

\*Factor includes antenna factor , cable loss and amplifier gain

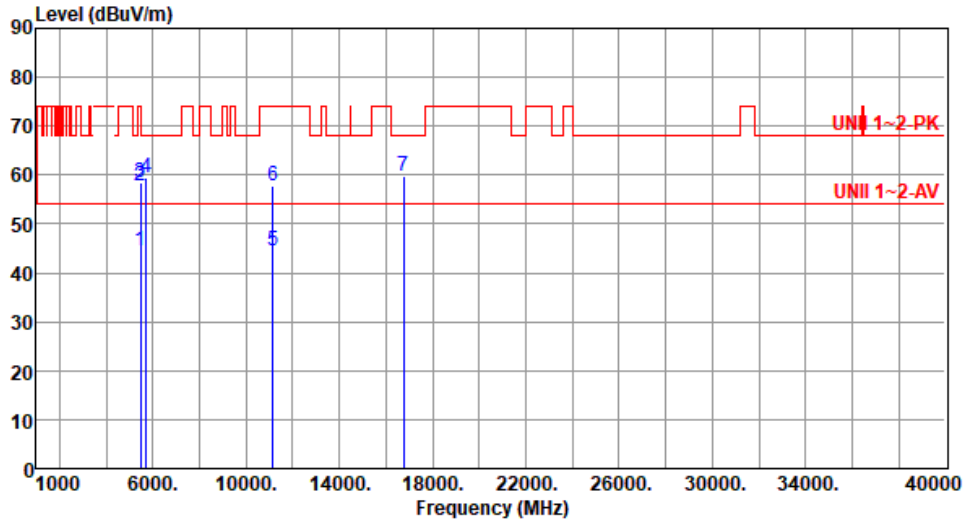
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).





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

Test By :Brad Wu      Temperature(°C):25      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	44.45	54.00	-9.55	39.78	4.67	Average	337	335
2	5460.00	57.70	74.00	-16.30	53.03	4.67	Peak	337	335
3	5470.00	58.51	68.20	-9.69	53.81	4.70	Peak	337	335
4	5725.00	59.28	68.20	-8.92	54.11	5.17	Peak	337	335
5	11160.00	44.58	54.00	-9.42	30.61	13.97	Average	199	83
6	11160.00	57.83	74.00	-16.17	43.86	13.97	Peak	199	83
7	16740.00	59.86	68.20	-8.34	42.69	17.17	Peak	100	25

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

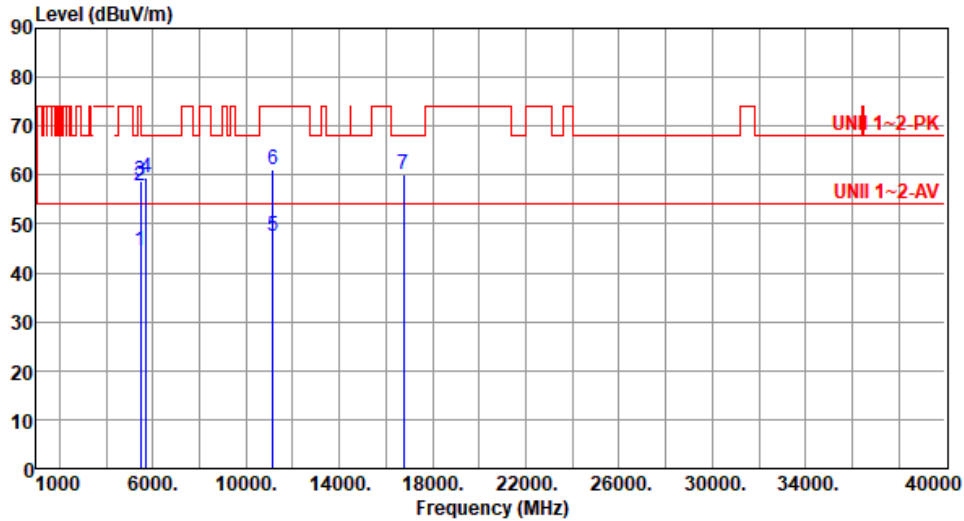
\*Factor includes antenna factor , cable loss and amplifier gain

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



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

Test By :Brad Wu      Temperature(°C):25      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	44.49	54.00	-9.51	39.82	4.67	Average	205	208
2	5460.00	57.85	74.00	-16.15	53.18	4.67	Peak	205	208
3	5470.00	58.63	68.20	-9.57	53.93	4.70	Peak	205	208
4	5725.00	59.31	68.20	-8.89	54.14	5.17	Peak	205	208
5	11160.00	47.58	54.00	-6.42	33.61	13.97	Average	192	236
6	11160.00	61.09	74.00	-12.91	47.12	13.97	Peak	192	236
7	16740.00	60.06	68.20	-8.14	42.89	17.17	Peak	100	41

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

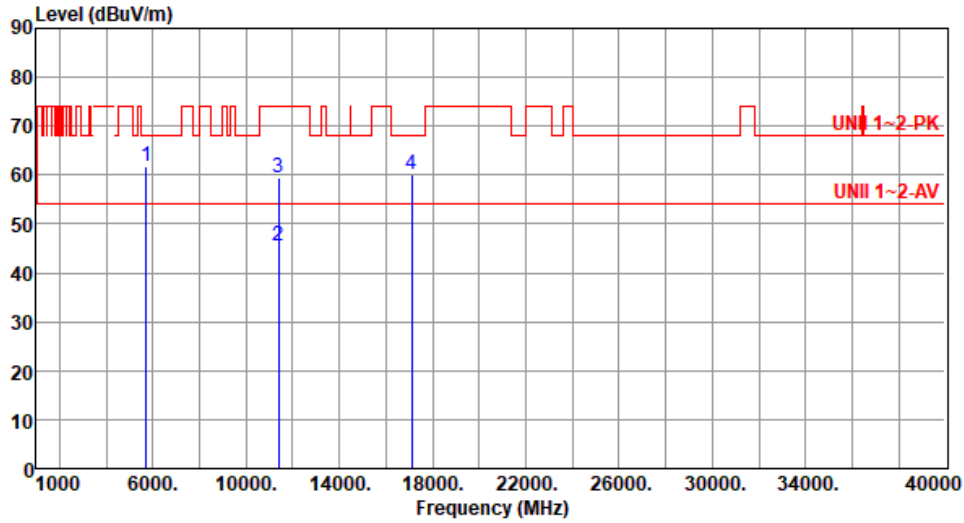
\*Factor includes antenna factor , cable loss and amplifier gain

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



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

Test By :Brad Wu      Temperature(°C):25      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	5725.00	61.71	68.20	-6.49	56.54	5.17	Peak	291	301
2	11400.00	45.40	54.00	-8.60	31.26	14.14	Average	100	309
3	11400.00	59.43	74.00	-14.57	45.29	14.14	Peak	100	309
4	17100.00	59.96	68.20	-8.24	42.54	17.42	Peak	100	313

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

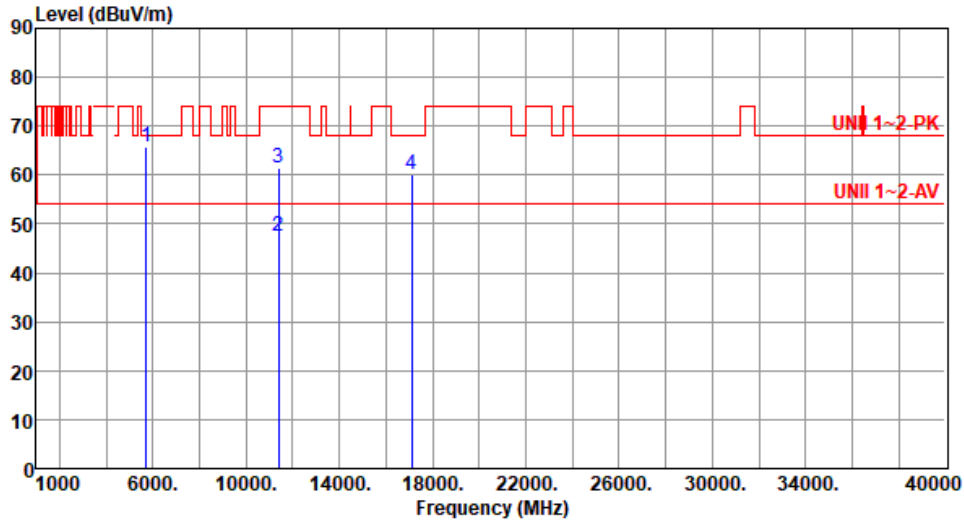
\*Factor includes antenna factor , cable loss and amplifier gain

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



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

Test By :Brad Wu      Temperature(°C):25      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	5725.00	65.60	68.20	-2.60	60.43	5.17	Peak	225	254
2	11400.00	47.64	54.00	-6.36	33.50	14.14	Average	196	234
3	11400.00	61.28	74.00	-12.72	47.14	14.14	Peak	196	234
4	17100.00	60.22	68.20	-7.98	42.80	17.42	Peak	100	38

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

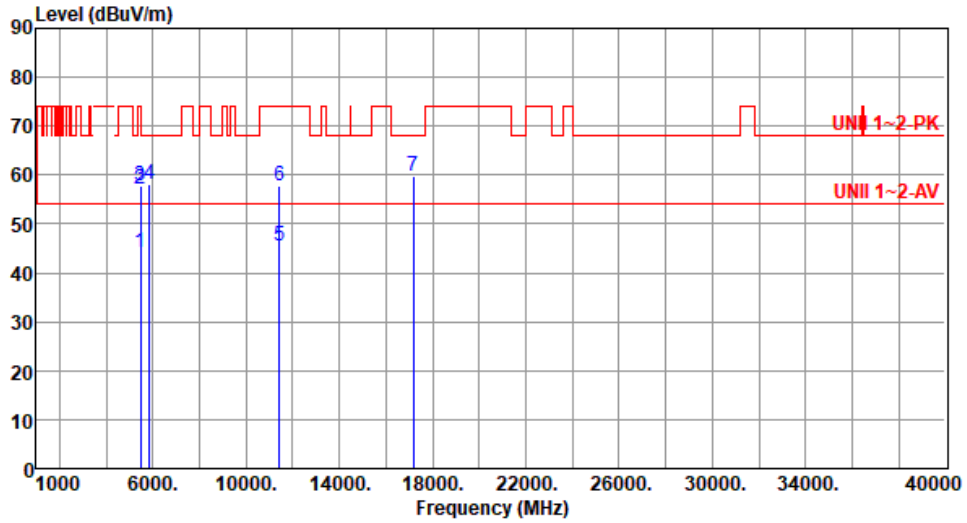
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	11a	Test Freq. (MHz)	5720
Polarization	Horizontal		

Test By :Brad Wu      Temperature(°C):25      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	44.23	54.00	-9.77	39.56	4.67	Average	206	302
2	5460.00	57.12	74.00	-16.88	52.45	4.67	Peak	206	302
3	5470.00	57.69	68.20	-10.51	52.99	4.70	Peak	206	302
4	5850.00	58.15	68.20	-10.05	52.50	5.65	Peak	206	302
5	11440.00	45.47	54.00	-8.53	31.21	14.26	Average	100	315
6	11440.00	57.81	74.00	-16.19	43.55	14.26	Peak	100	315
7	17160.00	59.90	68.20	-8.30	42.48	17.42	Peak	100	300

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

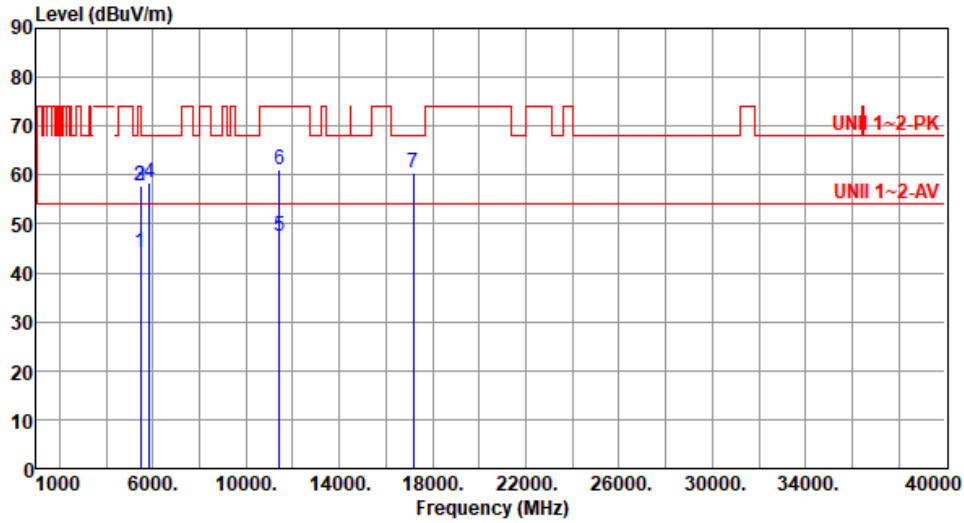
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	11a	Test Freq. (MHz)	5720
Polarization	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	44.30	54.00	-9.70	39.63	4.67	Average	311	329
2	5460.00	57.66	74.00	-16.34	52.99	4.67	Peak	311	329
3	5470.00	57.94	68.20	-10.26	53.24	4.70	Peak	311	329
4	5850.00	58.45	68.20	-9.75	52.80	5.65	Peak	311	329
5	11440.00	47.48	54.00	-6.52	33.22	14.26	Average	196	229
6	11440.00	61.02	74.00	-12.98	46.76	14.26	Peak	196	229
7	17160.00	60.35	68.20	-7.85	42.93	17.42	Peak	100	56

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).



Unwanted Emissions (Above 1GHz) for ax HE20-OFDMA

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5260						
Polarization	Horizontal								
Test By :Brad Wu      Temperature(°C):25      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	45.59	54.00	-8.41	40.58	5.01	Average	189	210
2	5150.00	57.57	74.00	-16.43	52.56	5.01	Peak	189	210
3	5350.00	44.64	54.00	-9.36	40.22	4.42	Average	189	210
4	5350.00	57.63	74.00	-16.37	53.21	4.42	Peak	189	210
5	10520.00	63.13	68.20	-5.07	48.66	14.47	Peak	333	153
6	15780.00	43.91	54.00	-10.09	30.43	13.48	Average	100	193
7	15780.00	56.35	74.00	-17.65	42.87	13.48	Peak	100	193

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

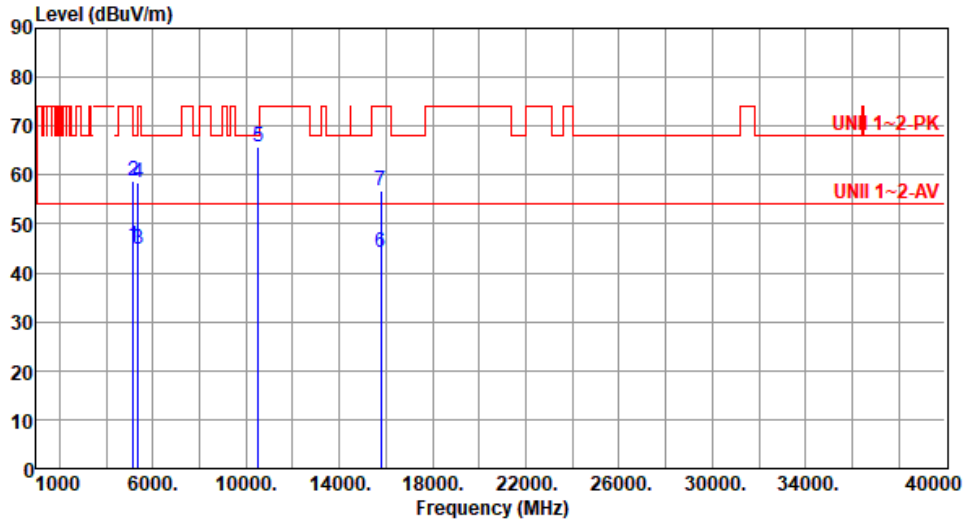
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5260
Polarization	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	45.65	54.00	-8.35	40.64	5.01	Average	223	346
2	5150.00	58.63	74.00	-15.37	53.62	5.01	Peak	223	346
3	5350.00	44.77	54.00	-9.23	40.35	4.42	Average	223	346
4	5350.00	58.51	74.00	-15.49	54.09	4.42	Peak	223	346
5	10520.00	65.62	68.20	-2.58	51.15	14.47	Peak	182	262
6	15780.00	44.15	54.00	-9.85	30.67	13.48	Average	346	348
7	15780.00	56.83	74.00	-17.17	43.35	13.48	Peak	346	348

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

\*Factor includes antenna factor , cable loss and amplifier gain

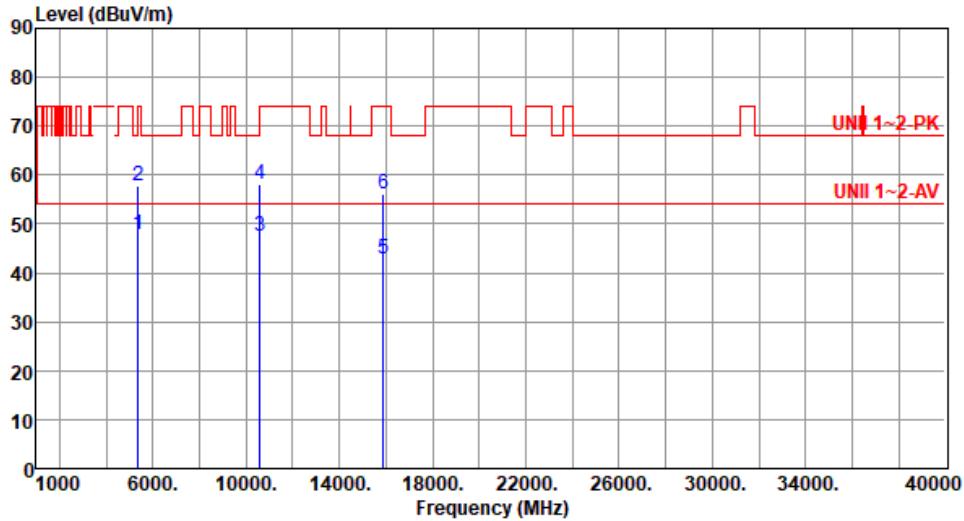
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).





<b>Modulation</b>	ax HE20-OFDMA	<b>Test Freq. (MHz)</b>	5300
<b>Polarization</b>	Horizontal		

Test By :Brad Wu      Temperature(°C):25      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	5350.00	47.83	54.00	-6.17	43.41	4.42	Average	100	271
2	5350.00	57.80	74.00	-16.20	53.38	4.42	Peak	100	271
3	10600.00	47.41	54.00	-6.59	33.06	14.35	Average	139	172
4	10600.00	58.03	74.00	-15.97	43.68	14.35	Peak	139	172
5	15900.00	42.83	54.00	-11.17	29.26	13.57	Average	100	271
6	15900.00	56.04	74.00	-17.96	42.47	13.57	Peak	100	271

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

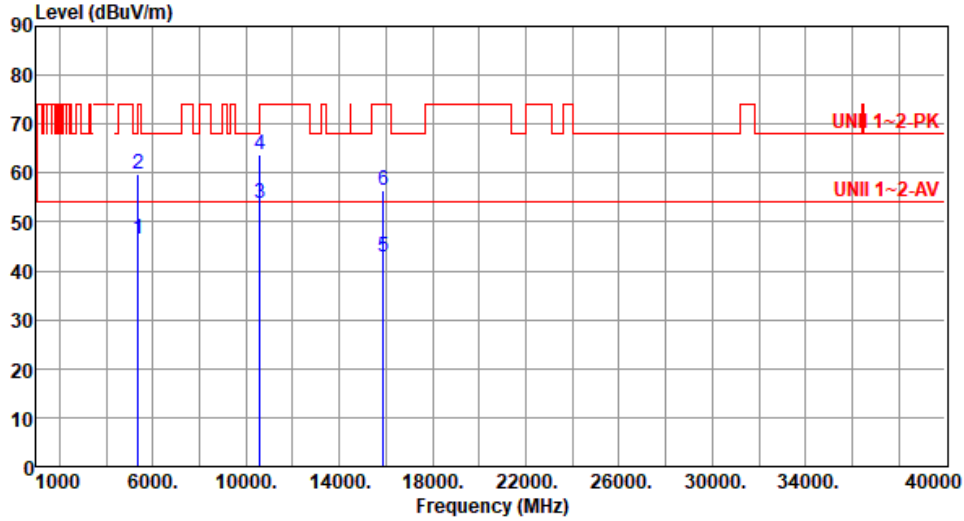
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5300
Polarization	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	5350.00	46.44	54.00	-7.56	42.02	4.42	Average	219	343
2	5350.00	59.69	74.00	-14.31	55.27	4.42	Peak	219	343
3	10600.00	53.76	54.00	-0.24	39.41	14.35	Average	183	264
4	10600.00	63.72	74.00	-10.28	49.37	14.35	Peak	183	264
5	15900.00	42.88	54.00	-11.12	29.31	13.57	Average	100	27
6	15900.00	56.40	74.00	-17.60	42.83	13.57	Peak	100	27

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

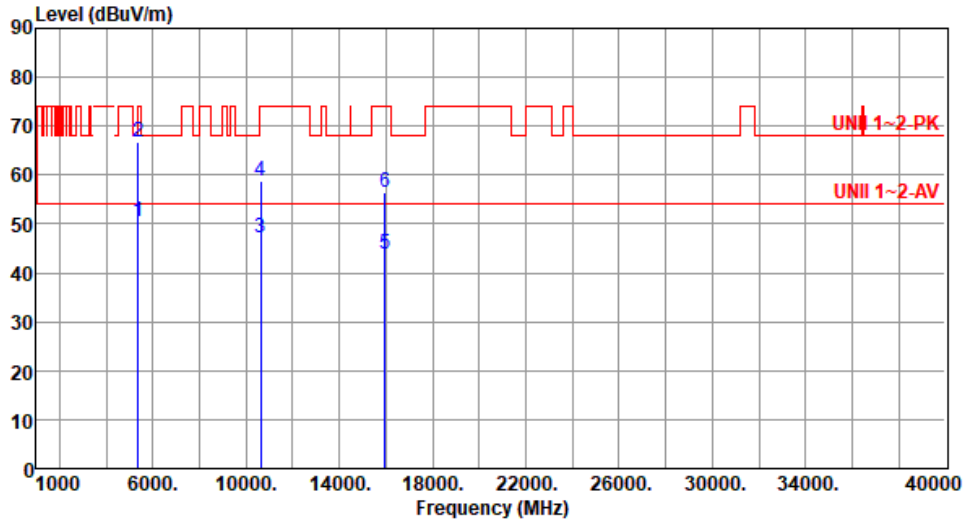
\*Factor includes antenna factor , cable loss and amplifier gain

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



<b>Modulation</b>	ax HE20-OFDMA	<b>Test Freq. (MHz)</b>	5320
<b>Polarization</b>	Horizontal		

Test By :Brad Wu      Temperature(°C):25      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	5350.00	50.53	54.00	-3.47	46.11	4.42	Average	247	203
2	5350.00	66.89	74.00	-7.11	62.47	4.42	Peak	247	203
3	10640.00	47.14	54.00	-6.86	32.77	14.37	Average	330	157
4	10640.00	58.92	74.00	-15.08	44.55	14.37	Peak	330	157
5	15960.00	43.89	54.00	-10.11	30.21	13.68	Average	100	180
6	15960.00	56.46	74.00	-17.54	42.78	13.68	Peak	100	180

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

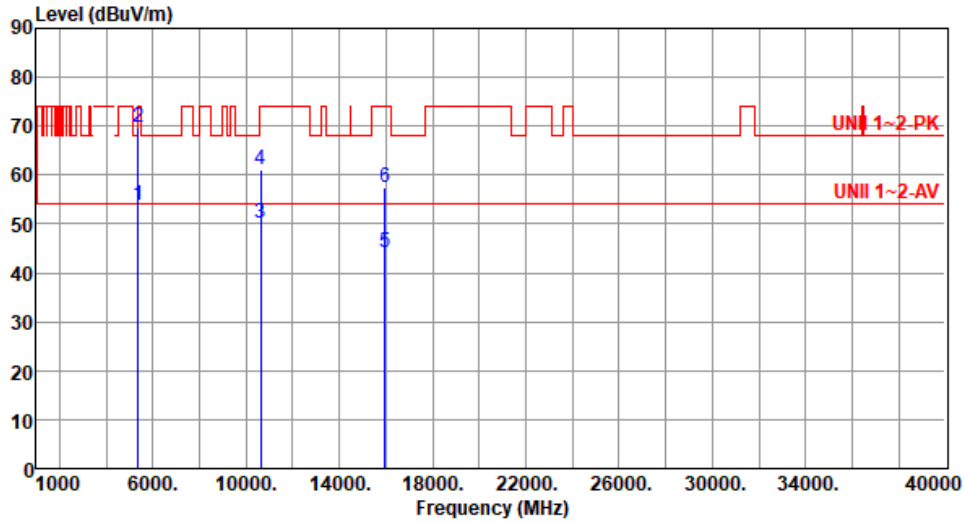
\*Factor includes antenna factor , cable loss and amplifier gain

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



<b>Modulation</b>	ax HE20-OFDMA	<b>Test Freq. (MHz)</b>	5320
<b>Polarization</b>	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	5350.00	53.84	54.00	-0.16	49.42	4.42	Average	231	337
2	5350.00	69.81	74.00	-4.19	65.39	4.42	Peak	231	337
3	10640.00	50.02	54.00	-3.98	35.65	14.37	Average	173	264
4	10640.00	61.07	74.00	-12.93	46.70	14.37	Peak	173	264
5	15960.00	44.08	54.00	-9.92	30.40	13.68	Average	100	43
6	15960.00	57.45	74.00	-16.55	43.77	13.68	Peak	100	43

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

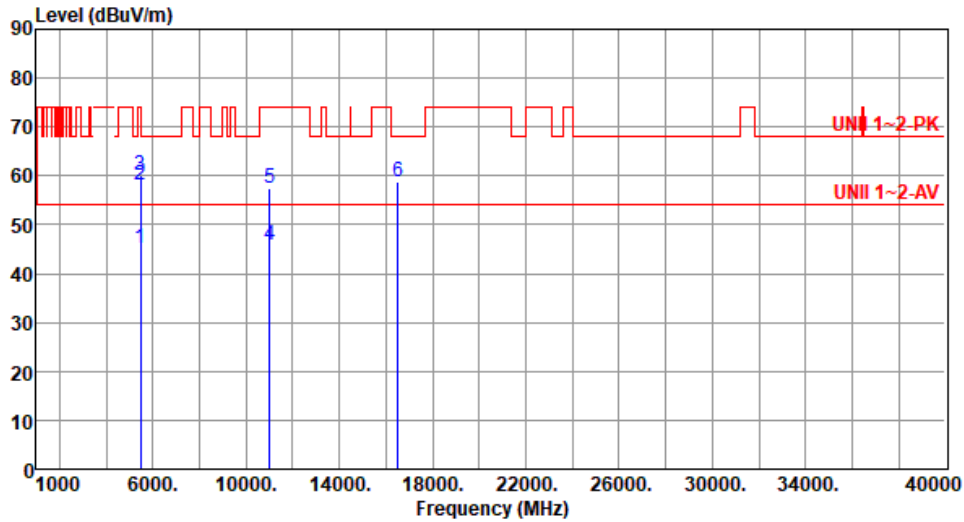
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5500
Polarization	Horizontal		

Test By :Brad Wu      Temperature(°C):25      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	45.23	54.00	-8.77	40.56	4.67	Average	201	300
2	5460.00	58.18	74.00	-15.82	53.51	4.67	Peak	201	300
3	5470.00	60.14	68.20	-8.06	55.44	4.70	Peak	201	300
4	11000.00	45.86	54.00	-8.14	31.21	14.65	Average	100	305
5	11000.00	57.53	74.00	-16.47	42.88	14.65	Peak	100	305
6	16500.00	58.88	68.20	-9.32	42.54	16.34	Peak	100	320

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

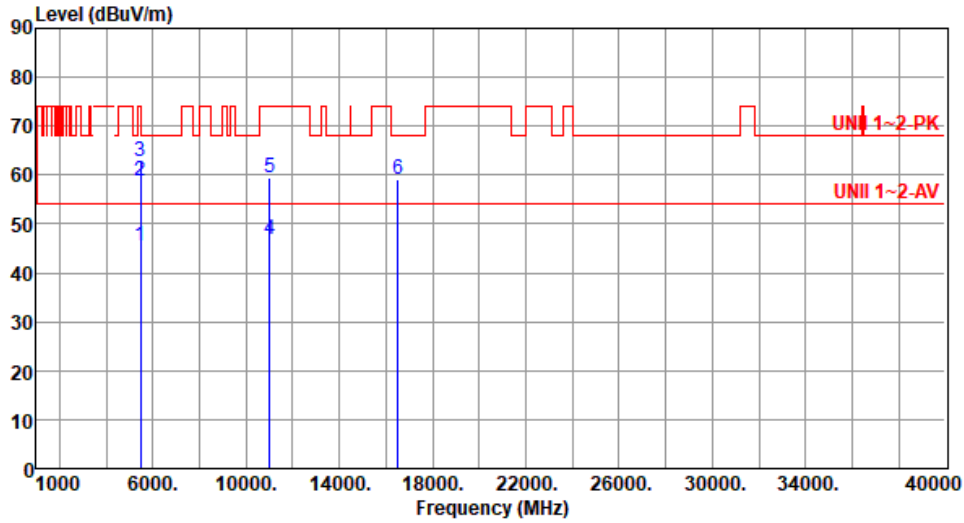
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5500
Polarization	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	45.35	54.00	-8.65	40.68	4.67	Average	215	212
2	5460.00	58.81	74.00	-15.19	54.14	4.67	Peak	215	212
3	5470.00	62.84	68.20	-5.36	58.14	4.70	Peak	215	212
4	11000.00	46.78	54.00	-7.22	32.13	14.65	Average	182	133
5	11000.00	59.44	74.00	-14.56	44.79	14.65	Peak	182	133
6	16500.00	58.98	68.20	-9.22	42.64	16.34	Peak	100	43

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

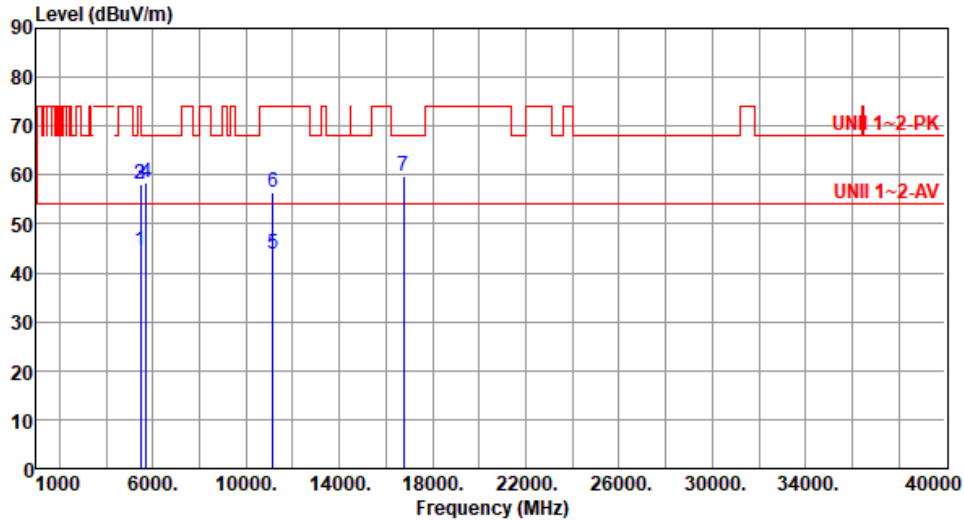
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5580
Polarization	Horizontal		

Test By :Brad Wu      Temperature(°C):25      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	44.38	54.00	-9.62	39.71	4.67	Average	290	12
2	5460.00	58.11	74.00	-15.89	53.44	4.67	Peak	290	12
3	5470.00	58.09	68.20	-10.11	53.39	4.70	Peak	290	12
4	5725.00	58.50	68.20	-9.70	53.33	5.17	Peak	290	12
5	11160.00	43.79	54.00	-10.21	29.82	13.97	Average	100	114
6	11160.00	56.53	74.00	-17.47	42.56	13.97	Peak	100	114
7	16740.00	59.66	68.20	-8.54	42.49	17.17	Peak	100	47

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

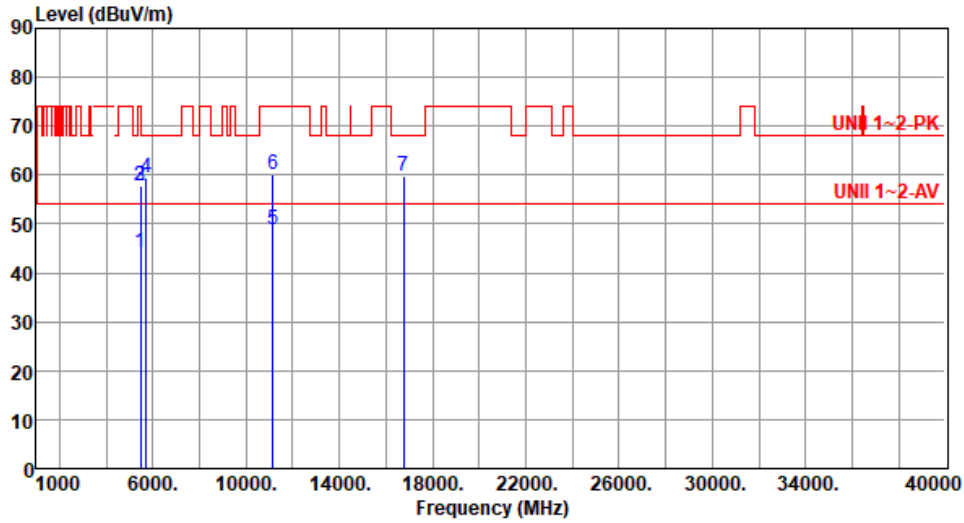
\*Factor includes antenna factor , cable loss and amplifier gain

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



<b>Modulation</b>	ax HE20-OFDMA	<b>Test Freq. (MHz)</b>	5580
<b>Polarization</b>	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	44.14	54.00	-9.86	39.47	4.67	Average	232	210
2	5460.00	57.65	74.00	-16.35	52.98	4.67	Peak	232	210
3	5470.00	57.74	68.20	-10.46	53.04	4.70	Peak	232	210
4	5725.00	59.30	68.20	-8.90	54.13	5.17	Peak	232	210
5	11160.00	48.70	54.00	-5.30	34.73	13.97	Average	181	238
6	11160.00	60.12	74.00	-13.88	46.15	13.97	Peak	181	238
7	16740.00	59.68	68.20	-8.52	42.51	17.17	Peak	100	23

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

\*Factor includes antenna factor , cable loss and amplifier gain

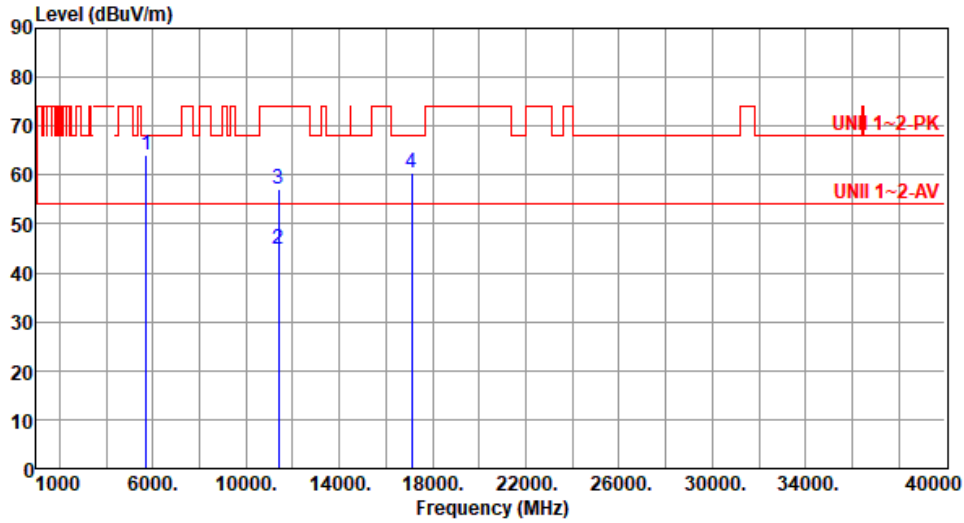
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).





<b>Modulation</b>	ax HE20-OFDMA	<b>Test Freq. (MHz)</b>	5700
<b>Polarization</b>	Horizontal		

Test By :Brad Wu      Temperature(°C):25      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	5725.00	64.05	68.20	-4.15	58.88	5.17	Peak	224	302
2	11400.00	44.70	54.00	-9.30	30.56	14.14	Average	100	293
3	11400.00	57.03	74.00	-16.97	42.89	14.14	Peak	100	293
4	17100.00	60.29	68.20	-7.91	42.87	17.42	Peak	100	291

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

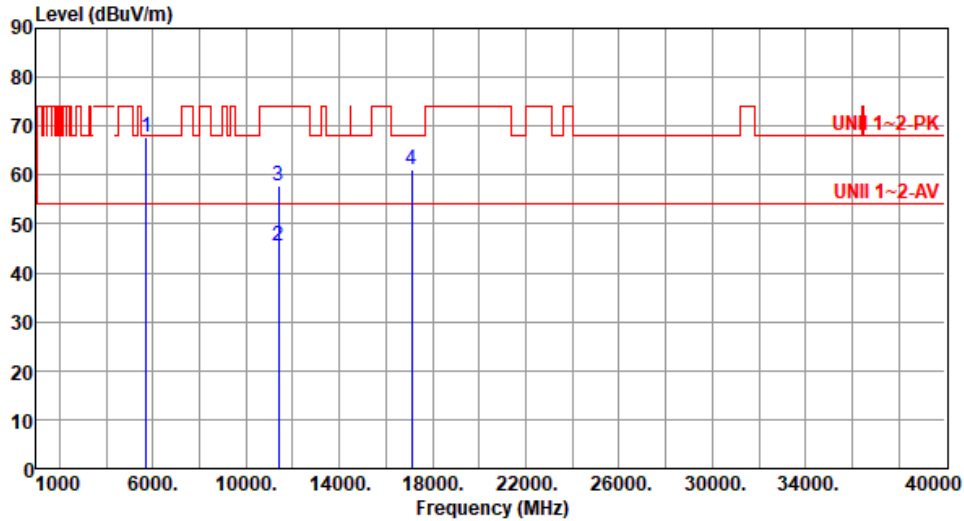
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5700
Polarization	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	5725.00	67.80	68.20	-0.40	62.63	5.17	Peak	225	317
2	11400.00	45.51	54.00	-8.49	31.37	14.14	Average	182	256
3	11400.00	57.90	74.00	-16.10	43.76	14.14	Peak	182	256
4	17100.00	61.19	68.20	-7.01	43.77	17.42	Peak	100	53

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

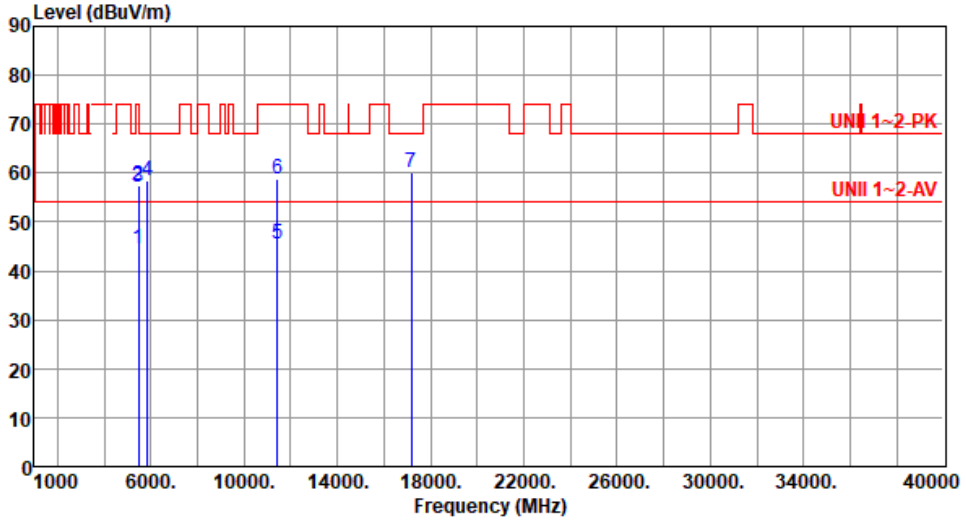
\*Factor includes antenna factor , cable loss and amplifier gain

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



<b>Modulation</b>	ax HE20-OFDMA	<b>Test Freq. (MHz)</b>	5720
<b>Polarization</b>	Horizontal		

Test By :Brad Wu      Temperature(°C):25      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	44.55	54.00	-9.45	39.88	4.67	Average	193	292
2	5460.00	57.56	74.00	-16.44	52.89	4.67	Peak	193	292
3	5470.00	57.28	68.20	-10.92	52.58	4.70	Peak	193	292
4	5850.00	58.52	68.20	-9.68	52.87	5.65	Peak	193	292
5	11440.00	45.51	54.00	-8.49	31.25	14.26	Average	100	303
6	11440.00	58.78	74.00	-15.22	44.52	14.26	Peak	100	303
7	17160.00	59.98	68.20	-8.22	42.56	17.42	Peak	100	310

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

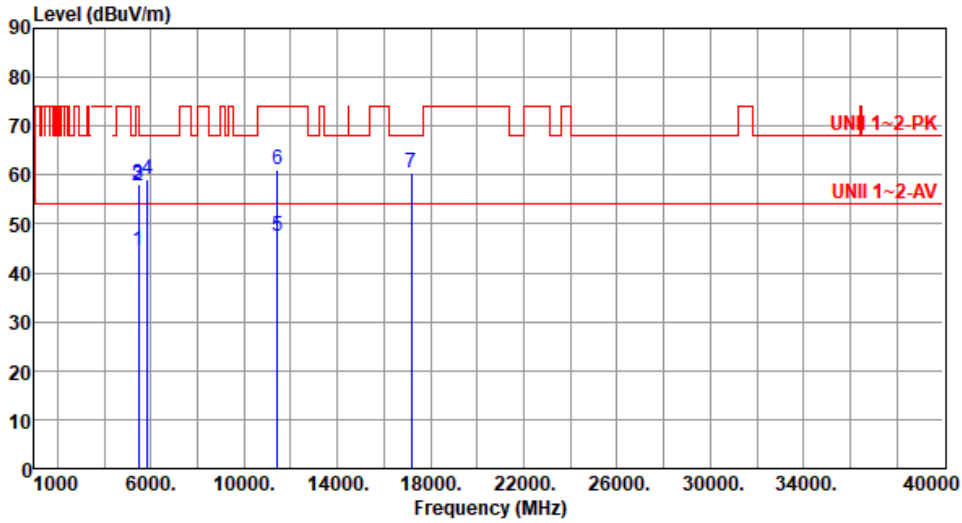
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5720
Polarization	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	44.58	54.00	-9.42	39.91	4.67	Average	217	319
2	5460.00	57.80	74.00	-16.20	53.13	4.67	Peak	217	319
3	5470.00	58.11	68.20	-10.09	53.41	4.70	Peak	217	319
4	5850.00	59.11	68.20	-9.09	53.46	5.65	Peak	217	319
5	11440.00	47.41	54.00	-6.59	33.15	14.26	Average	192	225
6	11440.00	60.95	74.00	-13.05	46.69	14.26	Peak	192	225
7	17160.00	60.41	68.20	-7.79	42.99	17.42	Peak	100	51

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).



Unwanted Emissions (Above 1GHz) for ax HE40-OFDMA

Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5270						
Polarization	Horizontal								
Test By :Brad Wu      Temperature(°C):25      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	45.17	54.00	-8.83	40.16	5.01	Average	297	205
2	5150.00	58.23	74.00	-15.77	53.22	5.01	Peak	297	205
3	5350.00	46.37	54.00	-7.63	41.95	4.42	Average	297	205
4	5350.00	59.00	74.00	-15.00	54.58	4.42	Peak	297	205
5	10540.00	60.69	68.20	-7.51	46.25	14.44	Peak	329	153
6	15810.00	44.04	54.00	-9.96	30.54	13.50	Average	100	191
7	15810.00	56.04	74.00	-17.96	42.54	13.50	Peak	100	191

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

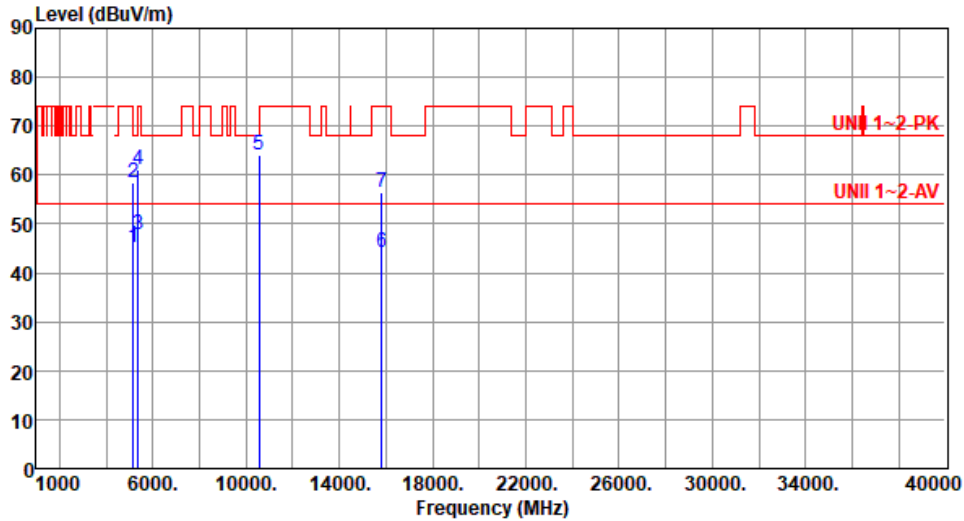
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5270
Polarization	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	45.23	54.00	-8.77	40.22	5.01	Average	250	336
2	5150.00	58.54	74.00	-15.46	53.53	5.01	Peak	250	336
3	5350.00	47.92	54.00	-6.08	43.50	4.42	Average	250	336
4	5350.00	61.10	74.00	-12.90	56.68	4.42	Peak	250	336
5	10540.00	64.12	68.20	-4.08	49.68	14.44	Peak	306	125
6	15810.00	44.21	54.00	-9.79	30.71	13.50	Average	300	102
7	15810.00	56.34	74.00	-17.66	42.84	13.50	Peak	300	102

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

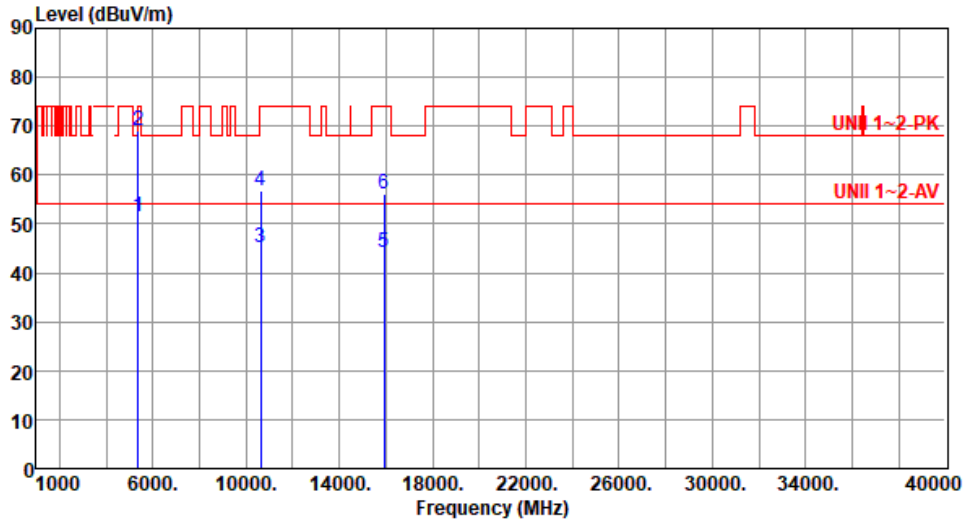
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5310
Polarization	Horizontal		

Test By :Brad Wu      Temperature(°C):25      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	5350.00	51.47	54.00	-2.53	47.05	4.42	Average	224	199
2	5350.00	69.19	74.00	-4.81	64.77	4.42	Peak	224	199
3	10620.00	45.02	54.00	-8.98	30.66	14.36	Average	100	155
4	10620.00	56.90	74.00	-17.10	42.54	14.36	Peak	100	155
5	15930.00	44.04	54.00	-9.96	30.41	13.63	Average	100	190
6	15930.00	56.07	74.00	-17.93	42.44	13.63	Peak	100	190

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

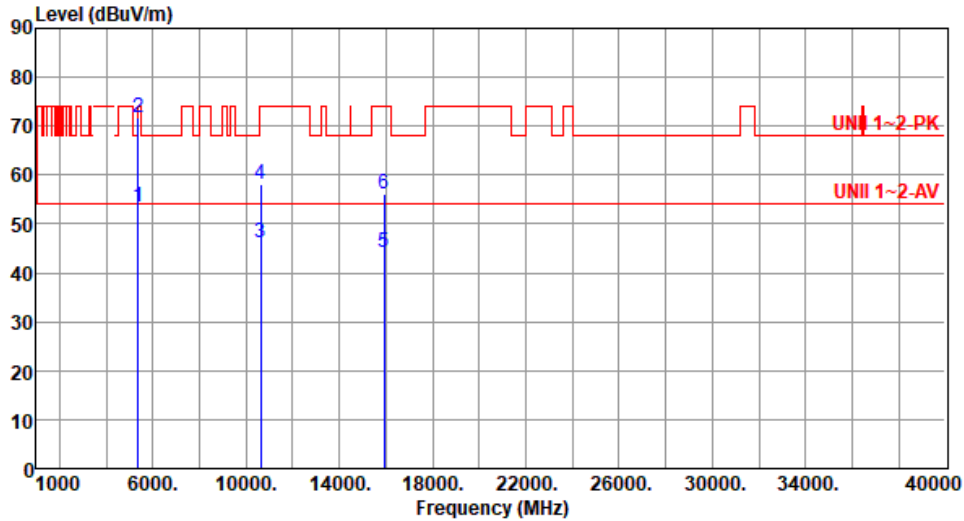
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5310
Polarization	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	5350.00	53.63	54.00	-0.37	49.21	4.42	Average	219	339
2	5350.00	71.63	74.00	-2.37	67.21	4.42	Peak	219	339
3	10620.00	46.31	54.00	-7.69	31.95	14.36	Average	300	127
4	10620.00	58.26	74.00	-15.74	43.90	14.36	Peak	300	127
5	15930.00	44.17	54.00	-9.83	30.54	13.63	Average	100	100
6	15930.00	56.20	74.00	-17.80	42.57	13.63	Peak	100	100

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

\*Factor includes antenna factor , cable loss and amplifier gain

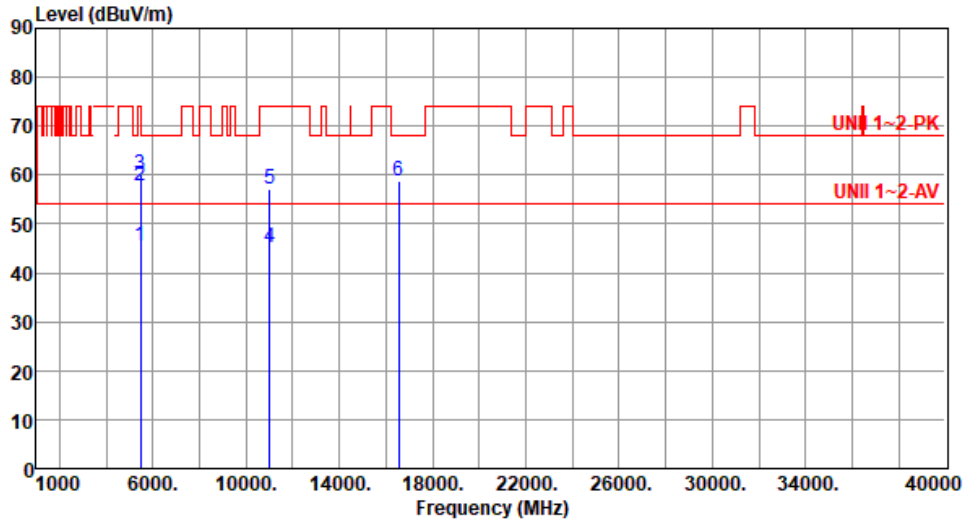
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).





<b>Modulation</b>	ax HE40-OFDMA	<b>Test Freq. (MHz)</b>	5510
<b>Polarization</b>	Horizontal		

Test By :Brad Wu      Temperature(°C):25      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	45.45	54.00	-8.55	40.78	4.67	Average	233	302
2	5460.00	57.89	74.00	-16.11	53.22	4.67	Peak	233	302
3	5470.00	60.17	68.20	-8.03	55.47	4.70	Peak	233	302
4	11020.00	45.04	54.00	-8.96	30.48	14.56	Average	100	305
5	11020.00	57.14	74.00	-16.86	42.58	14.56	Peak	100	305
6	16530.00	58.67	68.20	-9.53	42.43	16.24	Peak	100	303

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

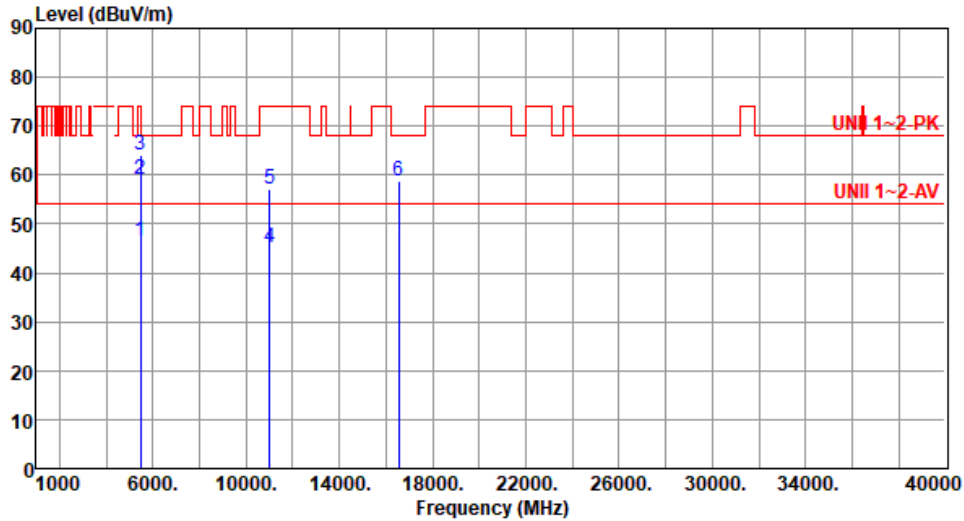
\*Factor includes antenna factor , cable loss and amplifier gain

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



<b>Modulation</b>	ax HE40-OFDMA	<b>Test Freq. (MHz)</b>	5510
<b>Polarization</b>	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	46.36	54.00	-7.64	41.69	4.67	Average	212	247
2	5460.00	58.99	74.00	-15.01	54.32	4.67	Peak	212	247
3	5470.00	63.95	68.20	-4.25	59.25	4.70	Peak	212	247
4	11020.00	45.25	54.00	-8.75	30.69	14.56	Average	100	100
5	11020.00	57.24	74.00	-16.76	42.68	14.56	Peak	100	100
6	16530.00	58.94	68.20	-9.26	42.70	16.24	Peak	100	105

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

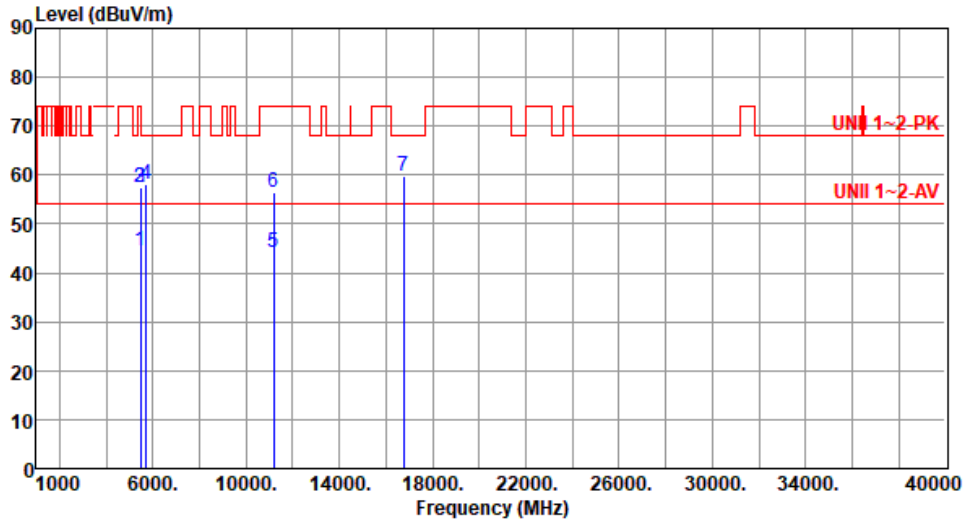
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5590
Polarization	Horizontal		

Test By :Brad Wu      Temperature(°C):25      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	44.56	54.00	-9.44	39.89	4.67	Average	250	300
2	5460.00	57.45	74.00	-16.55	52.78	4.67	Peak	250	300
3	5470.00	57.58	68.20	-10.62	52.88	4.70	Peak	250	300
4	5725.00	58.05	68.20	-10.15	52.88	5.17	Peak	250	300
5	11180.00	44.27	54.00	-9.73	30.39	13.88	Average	100	309
6	11180.00	56.35	74.00	-17.65	42.47	13.88	Peak	100	309
7	16770.00	59.73	68.20	-8.47	42.38	17.35	Peak	100	305

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

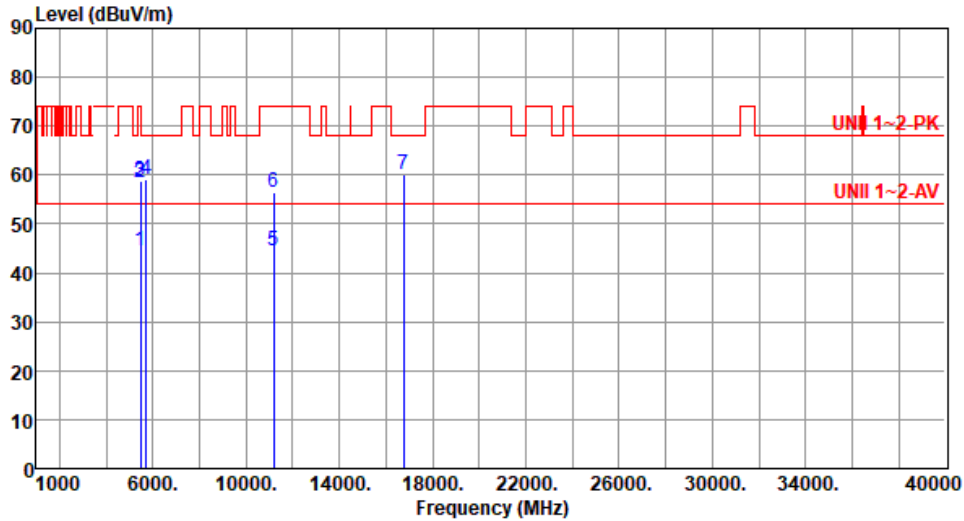
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5590
Polarization	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	44.59	54.00	-9.41	39.92	4.67	Average	208	211
2	5460.00	58.50	74.00	-15.50	53.83	4.67	Peak	208	211
3	5470.00	58.66	68.20	-9.54	53.96	4.70	Peak	208	211
4	5725.00	59.08	68.20	-9.12	53.91	5.17	Peak	208	211
5	11180.00	44.57	54.00	-9.43	30.69	13.88	Average	100	105
6	11180.00	56.58	74.00	-17.42	42.70	13.88	Peak	100	105
7	16770.00	60.09	68.20	-8.11	42.74	17.35	Peak	100	110

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

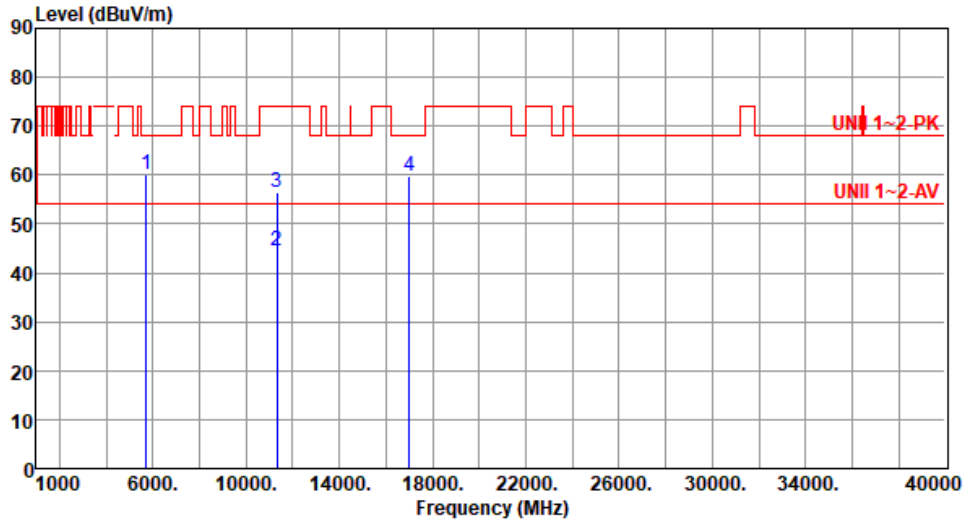
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5670
Polarization	Horizontal		

Test By :Brad Wu      Temperature(°C):25      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	5725.00	59.99	68.20	-8.21	54.82	5.17	Peak	222	305
2	11340.00	44.37	54.00	-9.63	30.39	13.98	Average	100	295
3	11340.00	56.43	74.00	-17.57	42.45	13.98	Peak	100	295
4	17010.00	59.66	68.20	-8.54	42.41	17.25	Peak	100	297

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

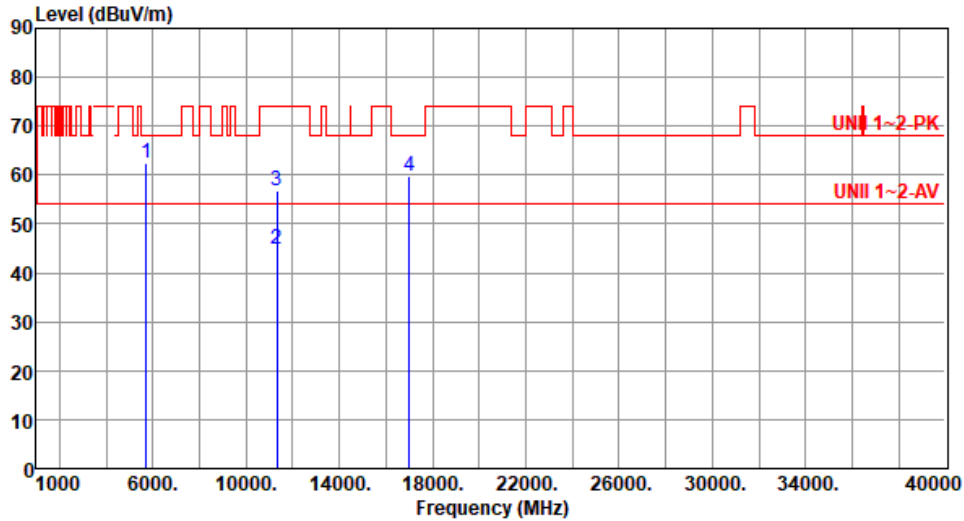
\*Factor includes antenna factor , cable loss and amplifier gain

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



<b>Modulation</b>	ax HE40-OFDMA	<b>Test Freq. (MHz)</b>	5670
<b>Polarization</b>	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	5725.00	62.50	68.20	-5.70	57.33	5.17	Peak	205	211
2	11340.00	44.70	54.00	-9.30	30.72	13.98	Average	100	102
3	11340.00	56.63	74.00	-17.37	42.65	13.98	Peak	100	102
4	17010.00	59.87	68.20	-8.33	42.62	17.25	Peak	100	103

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

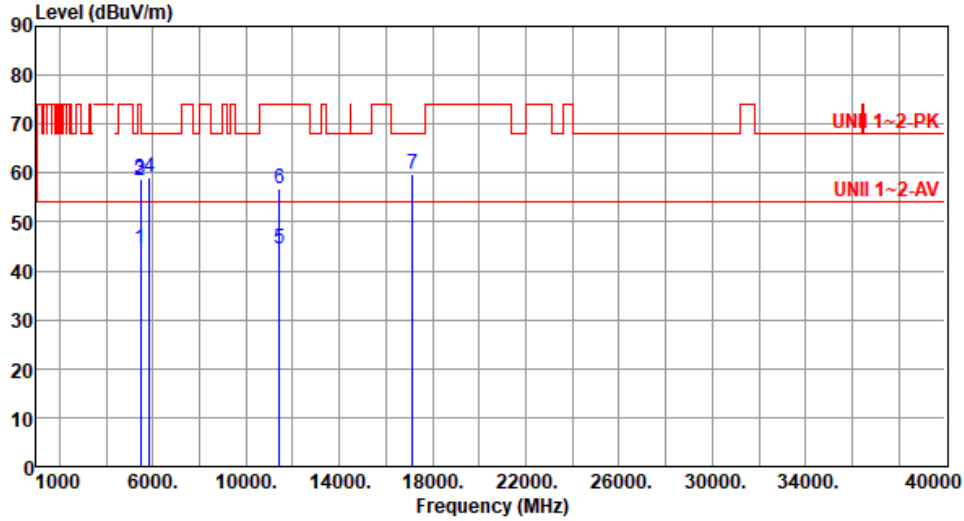
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5710
Polarization	Horizontal		

Test By :Brad Wu      Temperature(°C):25      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	44.63	54.00	-9.37	39.96	4.67	Average	219	310
2	5460.00	58.55	74.00	-15.45	53.88	4.67	Peak	219	310
3	5470.00	58.65	68.20	-9.55	53.95	4.70	Peak	219	310
4	5850.00	59.23	68.20	-8.97	53.58	5.65	Peak	219	310
5	11420.00	44.64	54.00	-9.36	30.44	14.20	Average	100	305
6	11420.00	56.68	74.00	-17.32	42.48	14.20	Peak	100	305
7	17130.00	59.84	68.20	-8.36	42.41	17.43	Peak	100	302

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

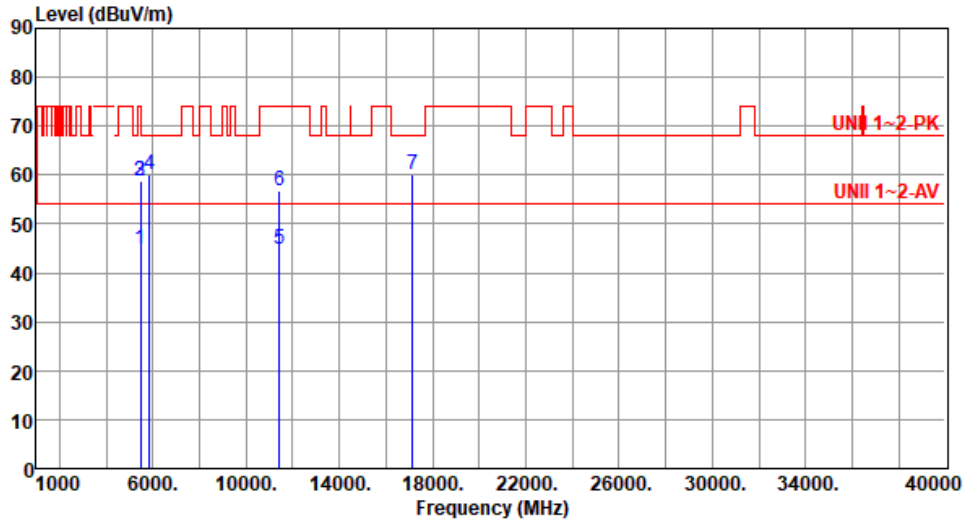
\*Factor includes antenna factor , cable loss and amplifier gain

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



<b>Modulation</b>	ax HE40-OFDMA	<b>Test Freq. (MHz)</b>	5710
<b>Polarization</b>	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	44.74	54.00	-9.26	40.07	4.67	Average	211	208
2	5460.00	58.94	74.00	-15.06	54.27	4.67	Peak	211	208
3	5470.00	58.75	68.20	-9.45	54.05	4.70	Peak	211	208
4	5850.00	60.00	68.20	-8.20	54.35	5.65	Peak	211	208
5	11420.00	44.86	54.00	-9.14	30.66	14.20	Average	100	107
6	11420.00	56.87	74.00	-17.13	42.67	14.20	Peak	100	107
7	17130.00	60.01	68.20	-8.19	42.58	17.43	Peak	100	104

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).





Unwanted Emissions (Above 1GHz) for ax HE80-OFDMA

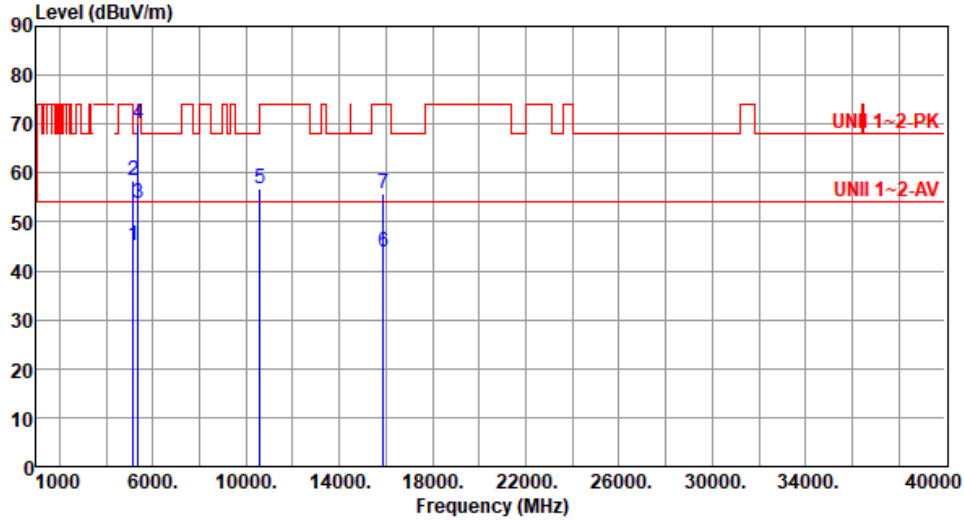
Modulation	ax HE80-OFDMA	Test Freq. (MHz)	5290						
Polarization	Horizontal								
Test By :Brad Wu      Temperature(°C):25      Humidity(%):65									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	45.13	54.00	-8.87	40.12	5.01	Average	199	201
2	5150.00	58.46	74.00	-15.54	53.45	5.01	Peak	199	201
3	5350.00	50.63	54.00	-3.37	46.21	4.42	Average	199	201
4	5350.00	66.53	74.00	-7.47	62.11	4.42	Peak	199	201
5	10580.00	56.62	68.20	-11.58	42.24	14.38	Peak	100	152
6	15870.00	42.87	54.00	-11.13	29.32	13.55	Average	100	188
7	15870.00	55.68	74.00	-18.32	42.13	13.55	Peak	100	188

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).



<b>Modulation</b>	ax HE80-OFDMA	<b>Test Freq. (MHz)</b>	5290
<b>Polarization</b>	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	45.27	54.00	-8.73	40.26	5.01	Average	213	343
2	5150.00	58.61	74.00	-15.39	53.60	5.01	Peak	213	343
3	5350.00	53.70	54.00	-0.30	49.28	4.42	Average	213	343
4	5350.00	69.91	74.00	-4.09	65.49	4.42	Peak	213	343
5	10580.00	56.77	68.20	-11.43	42.39	14.38	Peak	100	101
6	15870.00	43.88	54.00	-10.12	30.33	13.55	Average	100	105
7	15870.00	55.83	74.00	-18.17	42.28	13.55	Peak	100	105

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

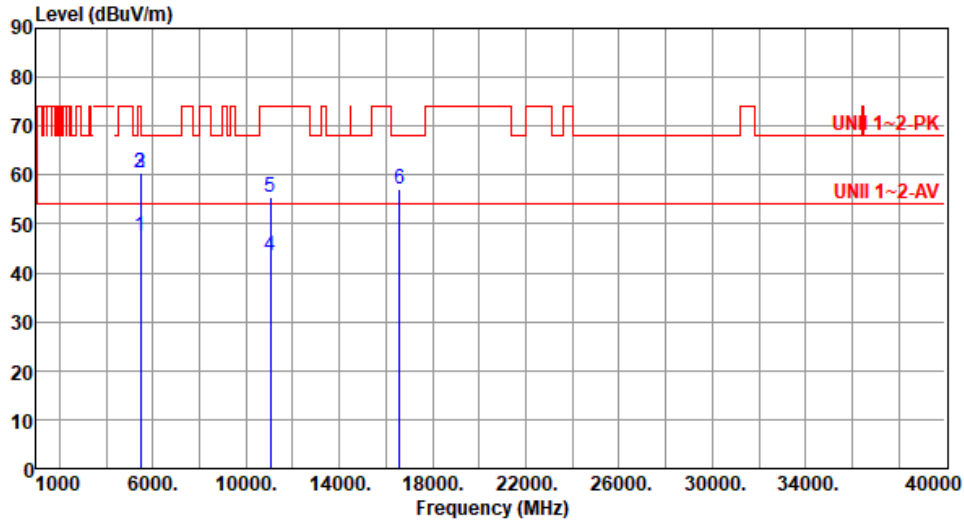
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE80-OFDMA	Test Freq. (MHz)	5530
Polarization	Horizontal		

Test By :Brad Wu      Temperature(°C):25      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	47.52	54.00	-6.48	42.85	4.67	Average	200	309
2	5460.00	60.45	74.00	-13.55	55.78	4.67	Peak	200	309
3	5470.00	60.57	68.20	-7.63	55.87	4.70	Peak	200	309
4	11060.00	43.54	54.00	-10.46	29.15	14.39	Average	100	302
5	11060.00	55.59	74.00	-18.41	41.20	14.39	Peak	100	302
6	16590.00	57.16	68.20	-11.04	41.12	16.04	Peak	100	300

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

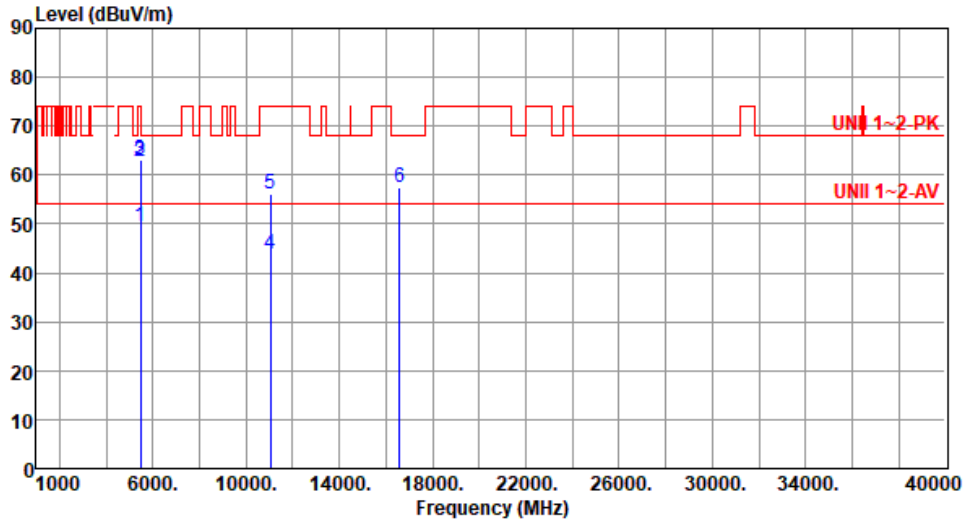
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE80-OFDMA	Test Freq. (MHz)	5530
Polarization	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	49.49	54.00	-4.51	44.82	4.67	Average	217	233
2	5460.00	62.91	74.00	-11.09	58.24	4.67	Peak	217	233
3	5470.00	63.15	68.20	-5.05	58.45	4.70	Peak	217	233
4	11060.00	43.91	54.00	-10.09	29.52	14.39	Average	100	120
5	11060.00	55.97	74.00	-18.03	41.58	14.39	Peak	100	120
6	16590.00	57.57	68.20	-10.63	41.53	16.04	Peak	100	115

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

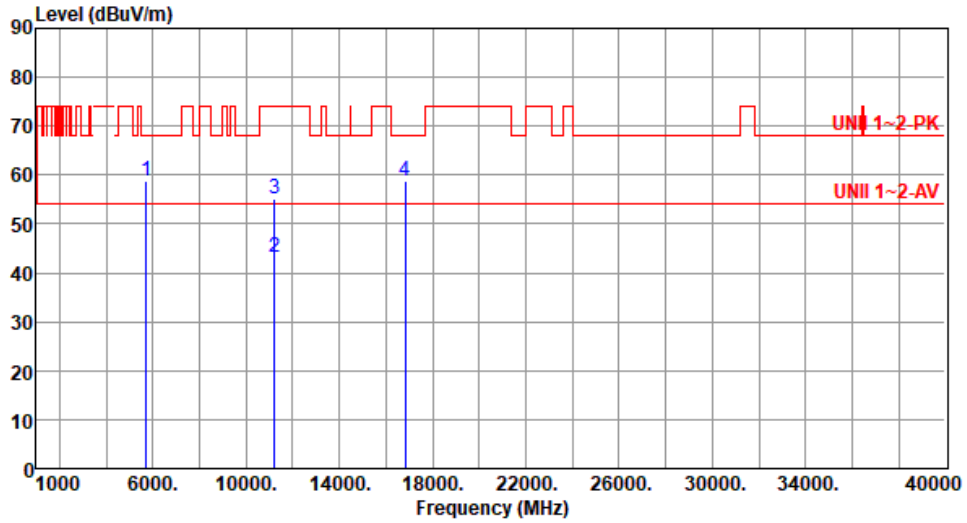
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE80-OFDMA	Test Freq. (MHz)	5610
Polarization	Horizontal		

Test By :Brad Wu      Temperature(°C):25      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	5725.00	58.71	68.20	-9.49	53.54	5.17	Peak	217	303
2	11220.00	43.01	54.00	-10.99	29.19	13.82	Average	100	309
3	11220.00	55.02	74.00	-18.98	41.20	13.82	Peak	100	309
4	16830.00	58.71	68.20	-9.49	41.25	17.46	Peak	100	305

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

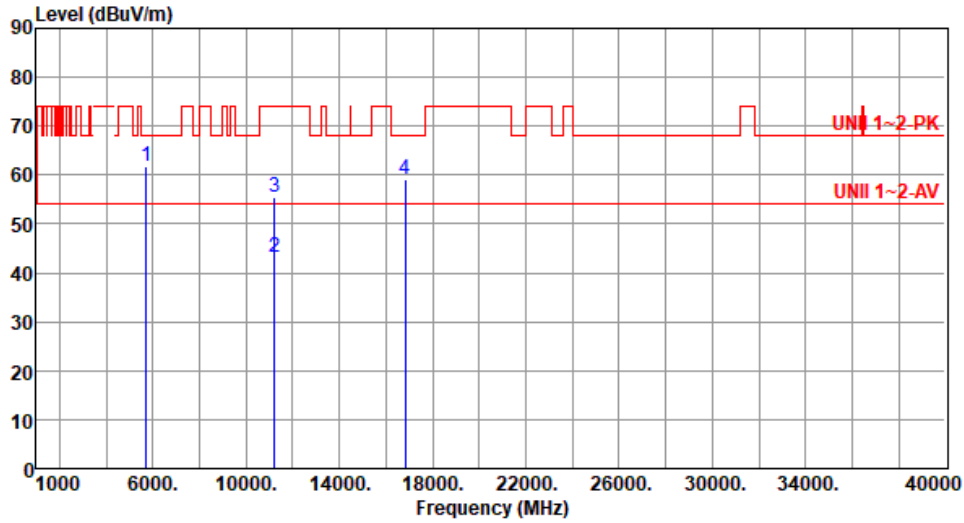
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE80-OFDMA	Test Freq. (MHz)	5610
Polarization	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	5725.00	61.71	68.20	-6.49	56.54	5.17	Peak	231	210
2	11220.00	43.29	54.00	-10.71	29.47	13.82	Average	100	100
3	11220.00	55.32	74.00	-18.68	41.50	13.82	Peak	100	100
4	16830.00	58.97	68.20	-9.23	41.51	17.46	Peak	100	104

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

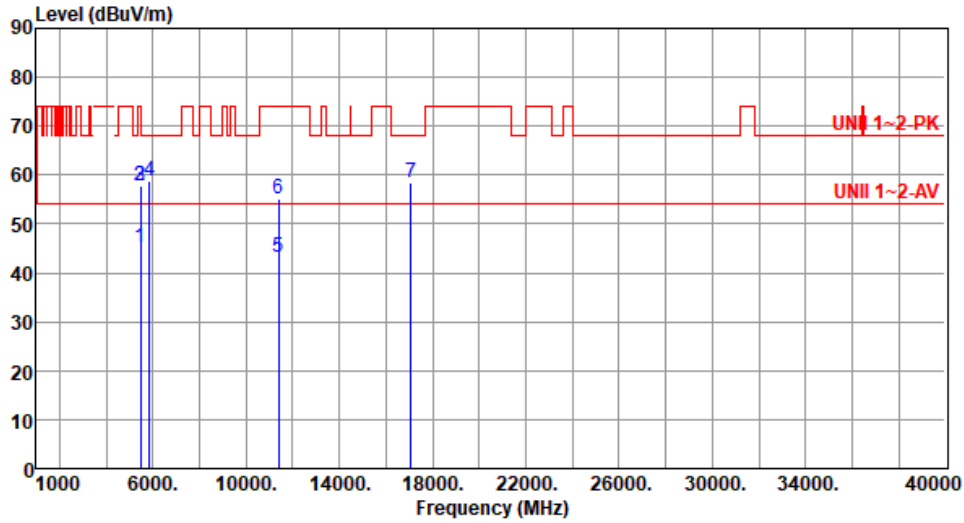
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE80-OFDMA	Test Freq. (MHz)	5690
Polarization	Horizontal		

Test By :Brad Wu      Temperature(°C):25      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	45.01	54.00	-8.99	40.34	4.67	Average	225	305
2	5460.00	57.63	74.00	-16.37	52.96	4.67	Peak	225	305
3	5470.00	57.89	68.20	-10.31	53.19	4.70	Peak	225	305
4	5850.00	58.86	68.20	-9.34	53.21	5.65	Peak	225	305
5	11380.00	43.31	54.00	-10.69	29.22	14.09	Average	100	302
6	11380.00	55.11	74.00	-18.89	41.02	14.09	Peak	100	302
7	17070.00	58.56	68.20	-9.64	41.19	17.37	Peak	100	300

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

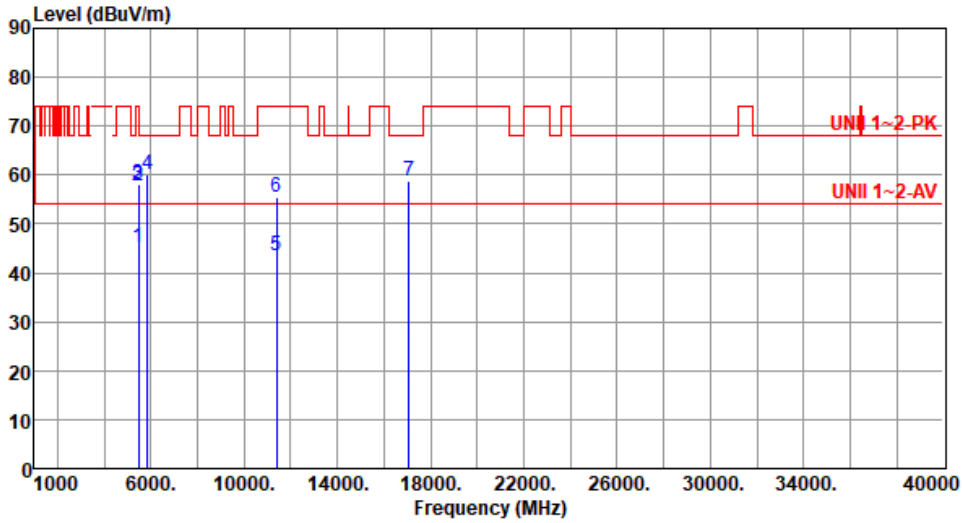
\*Factor includes antenna factor , cable loss and amplifier gain

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



<b>Modulation</b>	ax HE80-OFDMA	<b>Test Freq. (MHz)</b>	5690
<b>Polarization</b>	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	45.15	54.00	-8.85	40.48	4.67	Average	213	205
2	5460.00	57.79	74.00	-16.21	53.12	4.67	Peak	213	205
3	5470.00	58.01	68.20	-10.19	53.31	4.70	Peak	213	205
4	5850.00	59.95	68.20	-8.25	54.30	5.65	Peak	213	205
5	11380.00	43.51	54.00	-10.49	29.42	14.09	Average	100	105
6	11380.00	55.51	74.00	-18.49	41.42	14.09	Peak	100	105
7	17070.00	58.81	68.20	-9.39	41.44	17.37	Peak	100	109

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).





Unwanted Emissions (Above 1GHz) for ax HE160-OFDMA

Modulation	ax HE160-OFDMA	Test Freq. (MHz)	5250						
Polarization	Horizontal								
Test By :Brad Wu      Temperature(°C):25      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	53.14	54.00	-0.86	48.13	5.01	Average	218	217
2	5150.00	69.62	74.00	-4.38	64.61	5.01	Peak	218	217
3	5350.00	47.61	54.00	-6.39	43.19	4.42	Average	218	217
4	5350.00	65.85	74.00	-8.15	61.43	4.42	Peak	218	217
5	10500.00	55.52	68.20	-12.68	41.02	14.50	Peak	100	155
6	15750.00	41.68	54.00	-12.32	28.23	13.45	Average	100	160
7	15750.00	54.55	74.00	-19.45	41.10	13.45	Peak	100	160

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

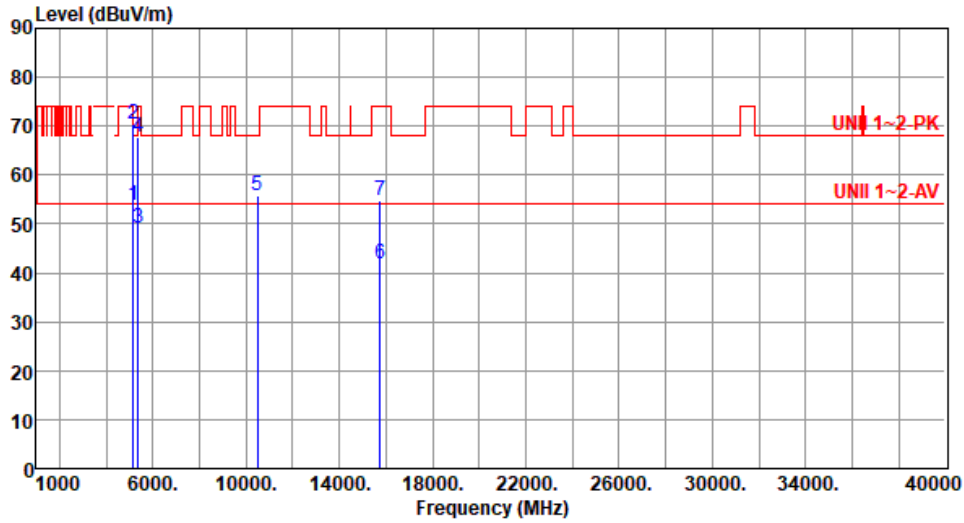
\*Factor includes antenna factor , cable loss and amplifier gain

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



<b>Modulation</b>	ax HE160-OFDMA	<b>Test Freq. (MHz)</b>	5250
<b>Polarization</b>	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	53.65	54.00	-0.35	48.64	5.01	Average	219	19
2	5150.00	70.30	74.00	-3.70	65.29	5.01	Peak	219	19
3	5350.00	49.17	54.00	-4.83	44.75	4.42	Average	224	343
4	5350.00	67.75	74.00	-6.25	63.33	4.42	Peak	224	343
5	10500.00	55.78	68.20	-12.42	41.28	14.50	Peak	100	105
6	15750.00	41.95	54.00	-12.05	28.50	13.45	Average	100	102
7	15750.00	54.66	74.00	-19.34	41.21	13.45	Peak	100	102

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

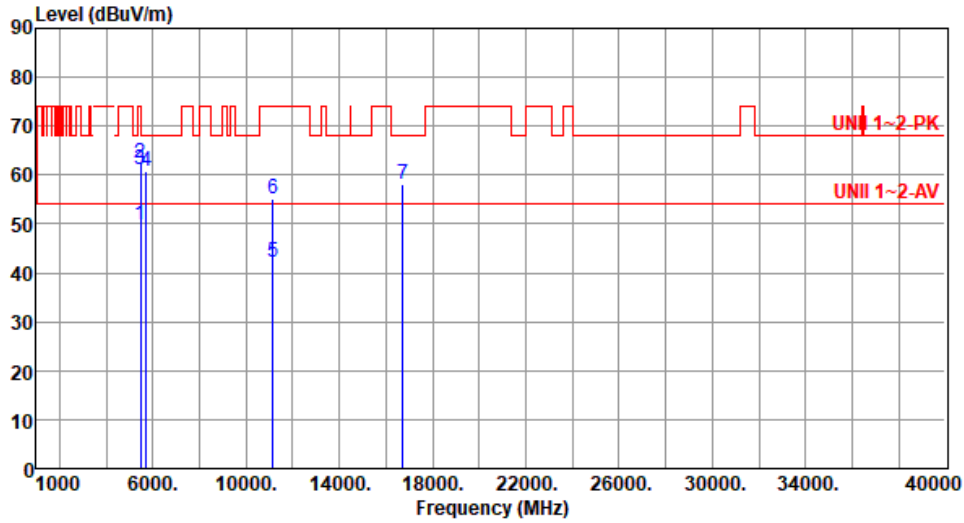
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE160-OFDMA	Test Freq. (MHz)	5570
Polarization	Horizontal		

Test By :Brad Wu      Temperature(°C):25      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	49.86	54.00	-4.14	45.19	4.67	Average	355	8
2	5460.00	62.33	74.00	-11.67	57.66	4.67	Peak	355	8
3	5470.00	61.22	68.20	-6.98	56.52	4.70	Peak	355	8
4	5725.00	60.82	68.20	-7.38	55.65	5.17	Peak	355	8
5	11140.00	42.20	54.00	-11.80	28.15	14.05	Average	100	305
6	11140.00	55.17	74.00	-18.83	41.12	14.05	Peak	100	305
7	16710.00	58.03	68.20	-10.17	41.03	17.00	Peak	100	300

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

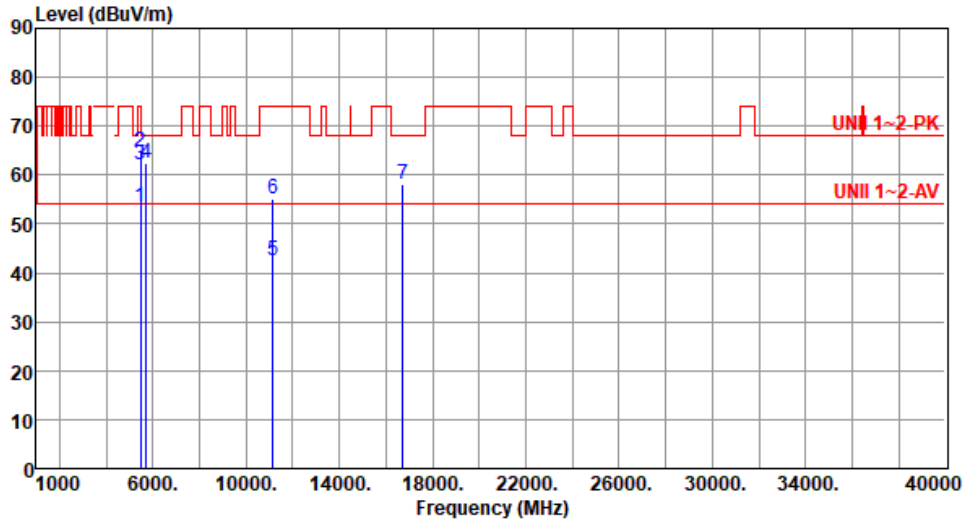
\*Factor includes antenna factor , cable loss and amplifier gain

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



Modulation	ax HE160-OFDMA	Test Freq. (MHz)	5570
Polarization	Vertical		

Test By :Brad Wu      Temperature(°C):25      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	53.57	54.00	-0.43	48.90	4.67	Average	205	207
2	5460.00	64.81	74.00	-9.19	60.14	4.67	Peak	205	207
3	5470.00	62.20	68.20	-6.00	57.50	4.70	Peak	206	235
4	5725.00	62.57	68.20	-5.63	57.40	5.17	Peak	200	206
5	11140.00	42.52	54.00	-11.48	28.47	14.05	Average	100	106
6	11140.00	55.24	74.00	-18.76	41.19	14.05	Peak	100	106
7	16710.00	58.23	68.20	-9.97	41.23	17.00	Peak	100	95

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).

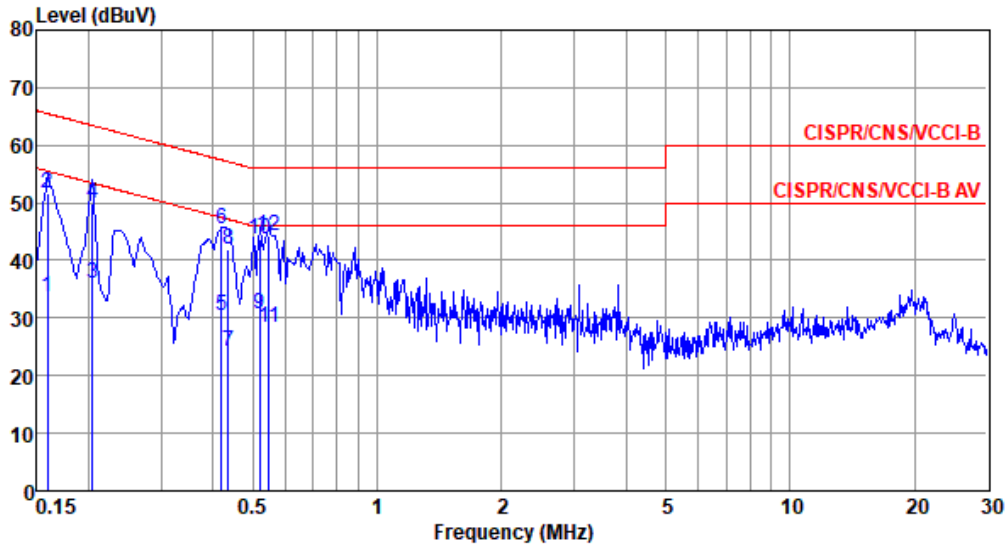


Frequency: 5320 MHz	Frequency Drift (ppm)			
	0 minute	2 minutes	5 minutes	10 minutes
T20°CVmax	-0.85	-1.08	-0.94	-0.80
T20°CVmin	-1.26	-0.81	-0.64	-1.24
T50°CVnom	-3.21	-3.30	-3.22	-3.17
T40°CVnom	-1.18	-1.24	-0.83	-0.64
T30°CVnom	-1.17	-0.69	-1.11	-0.69
T20°CVnom	-1.09	-0.89	-0.76	-1.01
T10°CVnom	-0.64	-0.11	-0.32	-0.58
T0°CVnom	-0.34	-0.34	0.11	-0.41
T-10°CVnom	9.17	9.70	9.64	9.42
T-20°CVnom	12.37	12.05	12.78	12.24
T-30°CVnom	13.06	13.51	13.38	12.86
Vnom [V]: 120	Vmax [V]: 138		Vmin [V]: 102	
Tnom [°C]: 20	Tmax [°C]: 50		Tmin [°C]: -30	



Modulation Mode	ax HE40-OFDMA	Test Freq. (MHz)	5270
Power Phase	Line		

Test by : Joe Liao      Temperature: 26°C      Humidity: 62%



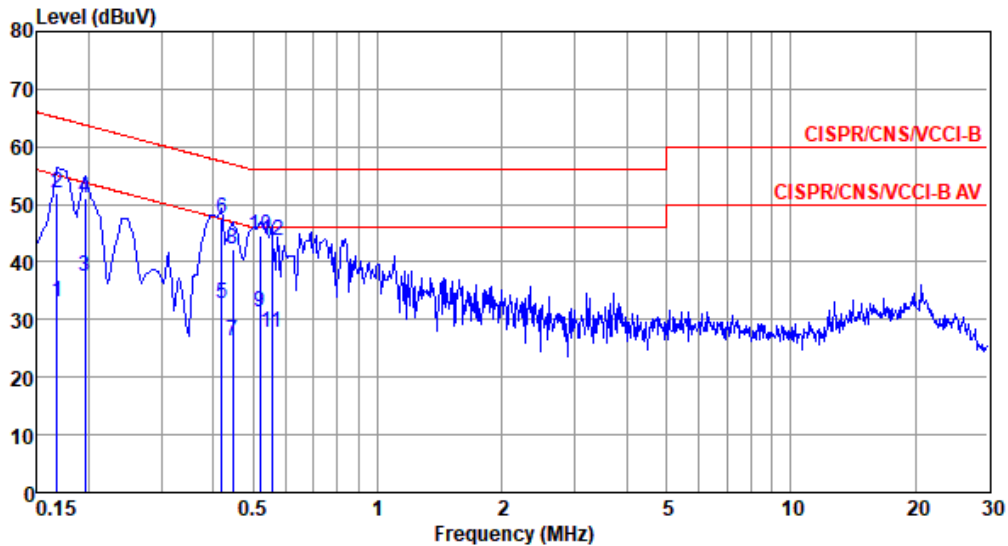
	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	Factor dB	Cable loss dB	Aux dB	Remark
1	0.159	33.70	55.52	-21.82	23.74	9.68	0.08	0.20	Average
2	0.159	51.67	65.52	-13.85	41.71	9.68	0.08	0.20	QP
3	0.204	35.96	53.45	-17.49	25.98	9.68	0.08	0.22	Average
4	0.204	49.87	63.45	-13.58	39.89	9.68	0.08	0.22	QP
5	0.419	30.55	47.46	-16.91	20.44	9.67	0.08	0.36	Average
6	0.419	45.51	57.46	-11.95	35.40	9.67	0.08	0.36	QP
7	0.435	24.30	47.15	-22.85	14.18	9.67	0.09	0.36	Average
8	0.435	41.85	57.15	-15.30	31.73	9.67	0.09	0.36	QP
9	0.518	30.74	46.00	-15.26	20.61	9.67	0.10	0.36	Average
10	0.518	43.76	56.00	-12.24	33.63	9.67	0.10	0.36	QP
11	0.546	28.41	46.00	-17.59	18.27	9.67	0.11	0.36	Average
12*	0.546	44.17	56.00	-11.83	34.03	9.67	0.11	0.36	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB).  
 Note 2: Over Limit (dB) = Level (dBuV) - Limit Line (dBuV).



Modulation Mode	ax HE40-OFDMA	Test Freq. (MHz)	5270
Power Phase	Neutral		

Test by : Joe Liao      Temperature: 26°C      Humidity: 62%



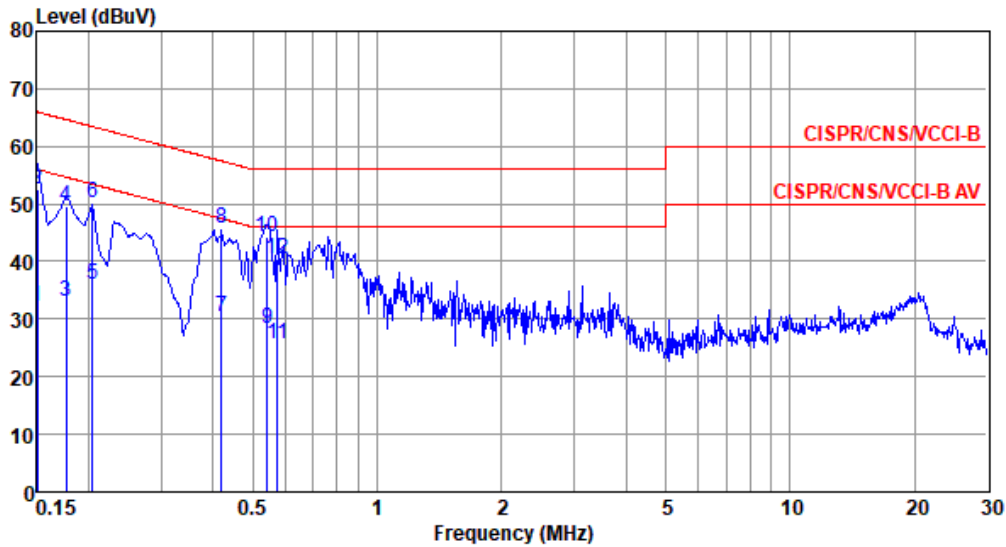
	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	Factor dB	Cable loss dB	Aux dB	Remark
1	0.168	33.18	55.08	-21.90	23.32	9.61	0.08	0.17	Average
2	0.168	51.99	65.08	-13.09	42.13	9.61	0.08	0.17	QP
3	0.195	37.58	53.80	-16.22	27.71	9.61	0.08	0.18	Average
4	0.195	51.13	63.80	-12.67	41.26	9.61	0.08	0.18	QP
5	0.419	32.66	47.46	-14.80	22.78	9.61	0.08	0.19	Average
6*	0.419	47.55	57.46	-9.91	37.67	9.61	0.08	0.19	QP
7	0.447	26.28	46.93	-20.65	16.38	9.61	0.09	0.20	Average
8	0.447	42.11	56.93	-14.82	32.21	9.61	0.09	0.20	QP
9	0.518	31.41	46.00	-14.59	21.48	9.61	0.10	0.22	Average
10	0.518	44.66	56.00	-11.34	34.73	9.61	0.10	0.22	QP
11	0.555	27.86	46.00	-18.14	17.92	9.61	0.11	0.22	Average
12	0.555	43.71	56.00	-12.29	33.77	9.61	0.11	0.22	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB).  
 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).



Modulation Mode	ax HE40-OFDMA	Test Freq. (MHz)	5510
Power Phase	Line		

Test by : Joe Liao      Temperature: 26°C      Humidity: 62%



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	Factor dB	Cable loss dB	Aux dB	Remark
1	0.150	32.16	56.00	-23.84	22.20	9.68	0.08	0.20	Average
2	0.150	52.67	66.00	-13.33	42.71	9.68	0.08	0.20	QP
3	0.177	33.02	54.64	-21.62	23.05	9.68	0.08	0.21	Average
4	0.177	49.54	64.64	-15.10	39.57	9.68	0.08	0.21	QP
5	0.204	35.94	53.45	-17.51	25.96	9.68	0.08	0.22	Average
6	0.204	50.22	63.45	-13.23	40.24	9.68	0.08	0.22	QP
7	0.419	30.54	47.46	-16.92	20.43	9.67	0.08	0.36	Average
8	0.419	45.62	57.46	-11.84	35.51	9.67	0.08	0.36	QP
9	0.541	28.25	46.00	-17.75	18.11	9.67	0.11	0.36	Average
10*	0.541	44.42	56.00	-11.58	34.28	9.67	0.11	0.36	QP
11	0.573	25.71	46.00	-20.29	15.57	9.67	0.11	0.36	Average
12	0.573	40.31	56.00	-15.69	30.17	9.67	0.11	0.36	QP

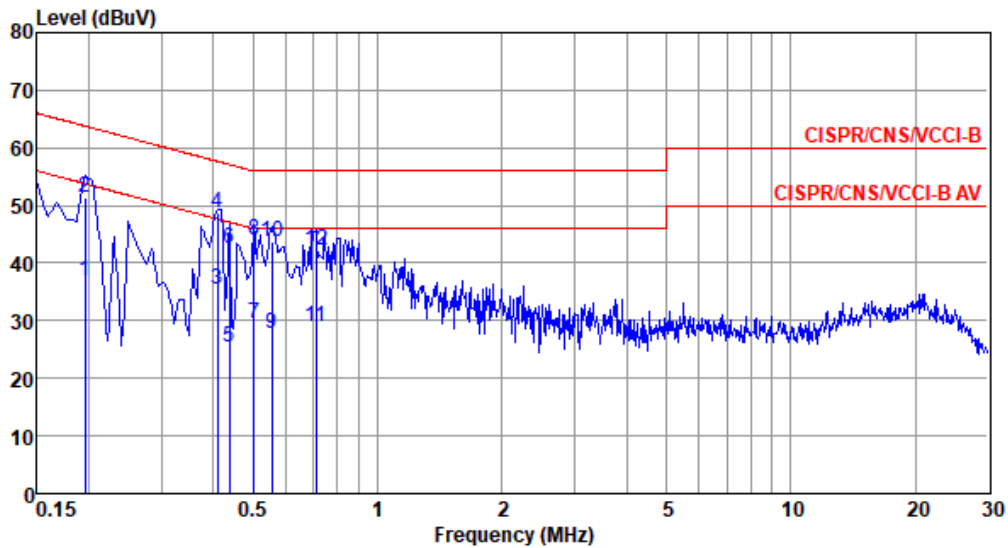
Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB).  
 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).





Modulation Mode	ax HE40-OFDMA	Test Freq. (MHz)	5510
Power Phase	Neutral		

Test by : Joe Liao      Temperature: 26°C      Humidity: 62%



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	Factor dB	Cable loss dB	Aux dB	Remark
1	0.195	36.93	53.80	-16.87	27.06	9.61	0.08	0.18	Average
2	0.195	51.40	63.80	-12.40	41.53	9.61	0.08	0.18	QP
3	0.410	35.36	47.64	-12.28	25.48	9.61	0.08	0.19	Average
4*	0.410	48.60	57.64	-9.04	38.72	9.61	0.08	0.19	QP
5	0.437	25.49	47.11	-21.62	15.59	9.61	0.09	0.20	Average
6	0.437	42.53	57.11	-14.58	32.63	9.61	0.09	0.20	QP
7	0.502	29.55	46.00	-16.45	19.63	9.61	0.10	0.21	Average
8	0.502	44.02	56.00	-11.98	34.10	9.61	0.10	0.21	QP
9	0.555	27.79	46.00	-18.21	17.85	9.61	0.11	0.22	Average
10	0.555	43.82	56.00	-12.18	33.88	9.61	0.11	0.22	QP
11	0.708	29.07	46.00	-16.93	19.08	9.61	0.13	0.25	Average
12	0.708	42.12	56.00	-13.88	32.13	9.61	0.13	0.25	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB) + Aux (dB).  
 Note 2: Over Limit (dB) = Level (dBuV) - Limit Line (dBuV).