

# FCC C2PC Test Report

**FCC ID** : SWX-U6LITE  
**Equipment** : UniFi 6 Lite  
**Model No.** : U6-Lite  
**Brand Name** : UBIQUITI  
**Applicant** : Ubiquiti Inc.  
**Address** : 685 Third Avenue, New York, New York 10017  
USA  
**Standard** : 47 CFR FCC Part 15.407  
**Received Date** : May 26, 2020  
**Tested Date** : Jun. 06 ~ Jul. 10, 2020

We, International Certification Corp., 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 may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

Reviewed by:

  
Along Chen / Assistant Manager

Approved by:

  
Gary Chang / Manager



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## Release Record

Report No.	Version	Description	Issued Date
FR030302-02AN	Rev. 01	Initial issue	Jul. 22, 2020

## Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 19.122MHz 40.27 (Margin -9.73dB) - AV	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5470.00MHz 68.01 (Margin -0.19dB) - PK	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(a)	RF Output Power	Max Power [dBm]: 5250~5350MHz: 23.44 5470~5725MHz: 23.31	Pass
15.407(a)	Peak 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 is a Class II Permissive Change report (C2PC). The modification is concerned with following items:

- Adding 5250~5350MHz and 5470~5725 MHz band by software setting.
- Changing shielding case.
- Changing antenna type of zero-wait CAC function(Rx only).

### 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	6-54 Mbps
5250-5350 5470-5725	n (HT20)	5260-5320 5500-5720	52-64 [4] 100-144 [12]	2	MCS 0-15
5250-5350 5470-5725	n (HT40)	5270-5310 5510-5710	54-62 [2] 102-142 [6]	2	MCS 0-15
5250-5350 5470-5725	ac (VHT20)	5260-5320 5500-5720	52-64 [4] 100-144 [12]	2	MCS 0-9
5250-5350 5470-5725	ac (VHT40)	5270-5310 5510-5710	54-62 [2] 102-142 [6]	2	MCS 0-9
5250-5350 5470-5725	ac (VHT80)	5290 5530-5690	58 [1] 106-138 [3]	2	MCS 0-9
5250-5350 5470-5725	ax (HE20)	5260-5320 5500-5720	52-64 [4] 100-144 [12]	2	MCS 0-11
5250-5350 5470-5725	ax (HE40)	5270-5310 5510-5710	54-62 [2] 102-142 [6]	2	MCS 0-11
5250-5350 5470-5725	ax (HE80)	5290 5530-5690	58 [1] 106-138 [3]	2	MCS 0-11

Note: The device supports BPSK, QPSK, 16QAM, 64QAM, 256QAM and 1024QAM modulation.

### 1.1.2 Antenna Details

Ant. No.	Type	Connector	Gain (dBi)	Remark
1	Internal antenna	I-PEX	4	--
2	Internal antenna	I-PEX	4	--

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

<b>Power Supply Type</b>	48Vdc from PoE
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### 1.1.4 Accessories

Accessories		
No.	Equipment	Description
1	PoE	Brand: UBIQUITI Model: GP-V480-032G Power Rating: I/P: 100-240Vac, 50/60Hz, 0.5A(Max) O/P: 48Vdc, 0.32A Power Line: 0.6m non-shielded without core

### 1.1.5 Channel List

802.11a / n HT20 / ac VHT20 / ax HE20		802.11n HT40 / ac VHT40 / ax HE40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
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	--	--
140	5700	--	--
144	5720	--	--

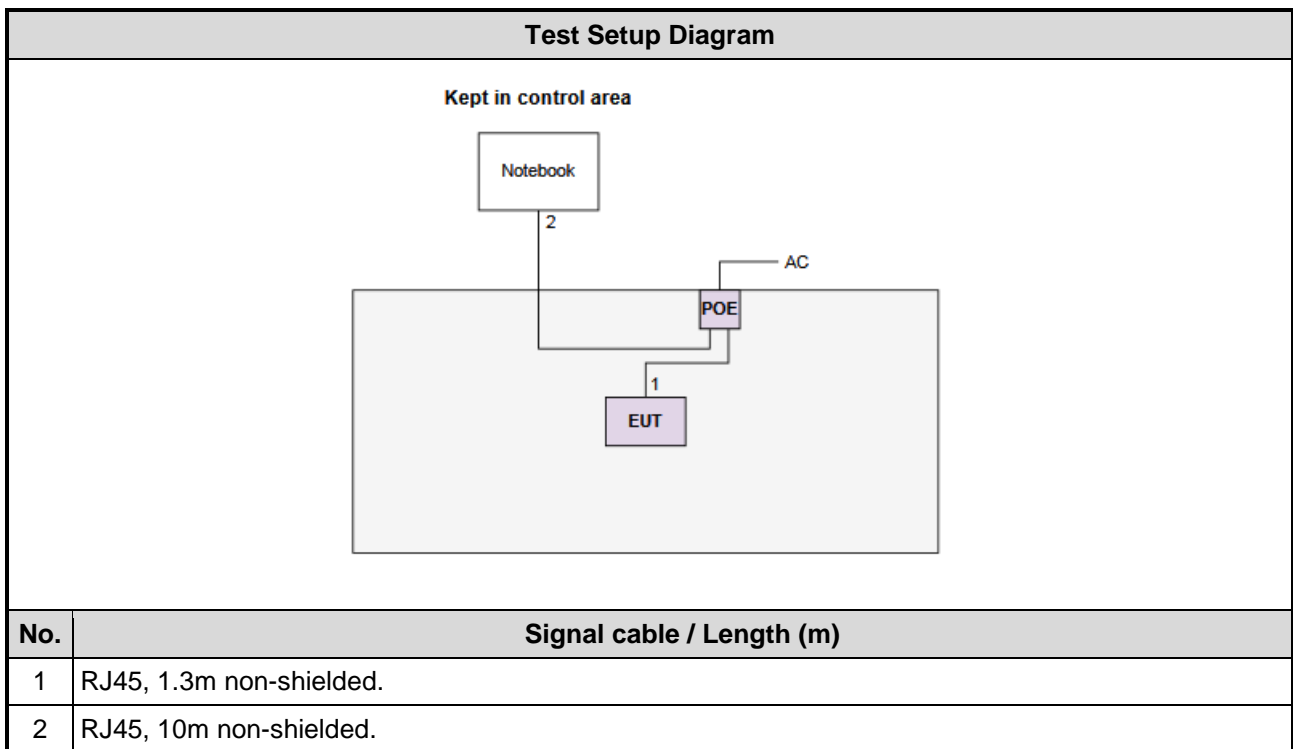
### 1.1.6 Test Tool and Duty Cycle

<b>Test Tool</b>	QA Tool, Version: MT7915 0.0.2.16		
<b>Duty Cycle and Duty Factor</b>	<b>Mode</b>	<b>Duty Cycle (%)</b>	<b>Duty Factor (dB)</b>
	11a	98.92%	0.05
	ax (HE20)	98.51%	0.07
	ax (HE40)	95.98%	0.18
	ax (HE80)	91.52%	0.38

### 1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	Notebook	DELL	Latitude E6440	DoC	---

### 1.3 Test Setup Chart



## 1.4 The Equipment List

<b>Test Item</b>	Conducted Emission				
<b>Test Site</b>	Conduction room 1 / (CO01-WS)				
<b>Tested Date</b>	Jul. 10, 2020				
<b>Instrument</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Receiver	R&S	ESR3	101658	Dec. 12, 2019	Dec. 11, 2020
LISN	R&S	ENV216	101579	Mar. 12, 2020	Mar. 11, 2021
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 22, 2019	Oct. 21, 2020
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

<b>Test Item</b>	Radiated Emission				
<b>Test Site</b>	966 chamber1 / (03CH01-WS)				
<b>Tested Date</b>	Jun. 06 ~ Jun. 10, 2020				
<b>Instrument</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Spectrum Analyzer	R&S	FSV40	101498	Dec. 17, 2019	Dec. 16, 2020
Receiver	R&S	ESR3	101657	Feb. 14, 2020	Feb. 13, 2021
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jul. 12, 2019	Jul. 11, 2020
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 12, 2019	Dec. 11, 2020
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 15, 2019	Nov. 14, 2020
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 13, 2019	Nov. 12, 2020
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 07, 2019	Oct. 06, 2020
Preamplifier	EMC	EMC02325	980225	Jul. 09, 2019	Jul. 08, 2020
Preamplifier	Agilent	83017A	MY39501308	Oct. 08, 2019	Oct. 07, 2020
Preamplifier	EMC	EMC184045B	980192	Aug. 01, 2019	Jul. 31, 2020
RF Cable	EMC	EMC104-SM-SM-8000	181106	Oct. 07, 2019	Oct. 06, 2020
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Oct. 07, 2019	Oct. 06, 2020
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Oct. 07, 2019	Oct. 06, 2020
LF cable 1M	EMC	EMCCFD400-NM-NM-1000	160502	Oct. 07, 2019	Oct. 06, 2020
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 07, 2019	Oct. 06, 2020
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-002	Oct. 07, 2019	Oct. 06, 2020
Measurement Software	AUDIX	e3	6.120210g	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>	Jul. 09, 2020				
<b>Instrument</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Calibration Date</b>	<b>Calibration Until</b>
Spectrum Analyzer	R&S	FSV40	101063	Apr. 30, 2020	Apr. 29, 2021
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Dec. 12, 2019	Dec. 11, 2020
Power Meter	Anritsu	ML2495A	1241002	Oct. 23, 2019	Oct. 22, 2020
Power Sensor	Anritsu	MA2411B	1207366	Oct. 23, 2019	Oct. 22, 2020
DC POWER SOURCE	GW INSTEK	GPC-6030D	GES855395	Oct. 29, 2019	Oct. 28, 2020
AC POWER SOURCE	APC	AFC-500W	F312060012	Dec. 02, 2019	Dec. 01, 2020
Measurement Software	-	SENSE-15407_NII	V5.10	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

FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01

## 1.6 Reference Guidance

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

FCC KDB 412172 D01 Determining ERP and EIRP v01r01

## 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
Radiated emission ≤ 1GHz	±3.41 dB
Radiated 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 Corp.
<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 District, Tao Yuan City 333, 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 (Mbps) / MCS	Test Configuration
Conducted Emissions	ax HE20 ax HE40 11a	5240 5270 5785	MCS 0 MCS 0 6 Mbps	---
Radiated Emissions ≤1GHz	ax HE20 ax HE40 11a	5240 5270 5785	MCS 0 MCS 0 6 Mbps	---
RF Output Power	11a	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	6 Mbps	---
	ax HE20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	ax HE40	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	ax HE80	5290 / 5530 / 5610 / 5690	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	6 Mbps	---
	ax HE20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	ax HE40	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	ax HE80	5290 / 5530 / 5610 / 5690	MCS 0	
Frequency Stability	Un-modulation	5300	---	---

**NOTE:**

1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Y-plane** results were found as the worst case and were shown in this report.

## 3 Transmitter Test Results

### 3.1 Conducted Emissions

#### 3.1.1 Limit of 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.

#### 3.1.2 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

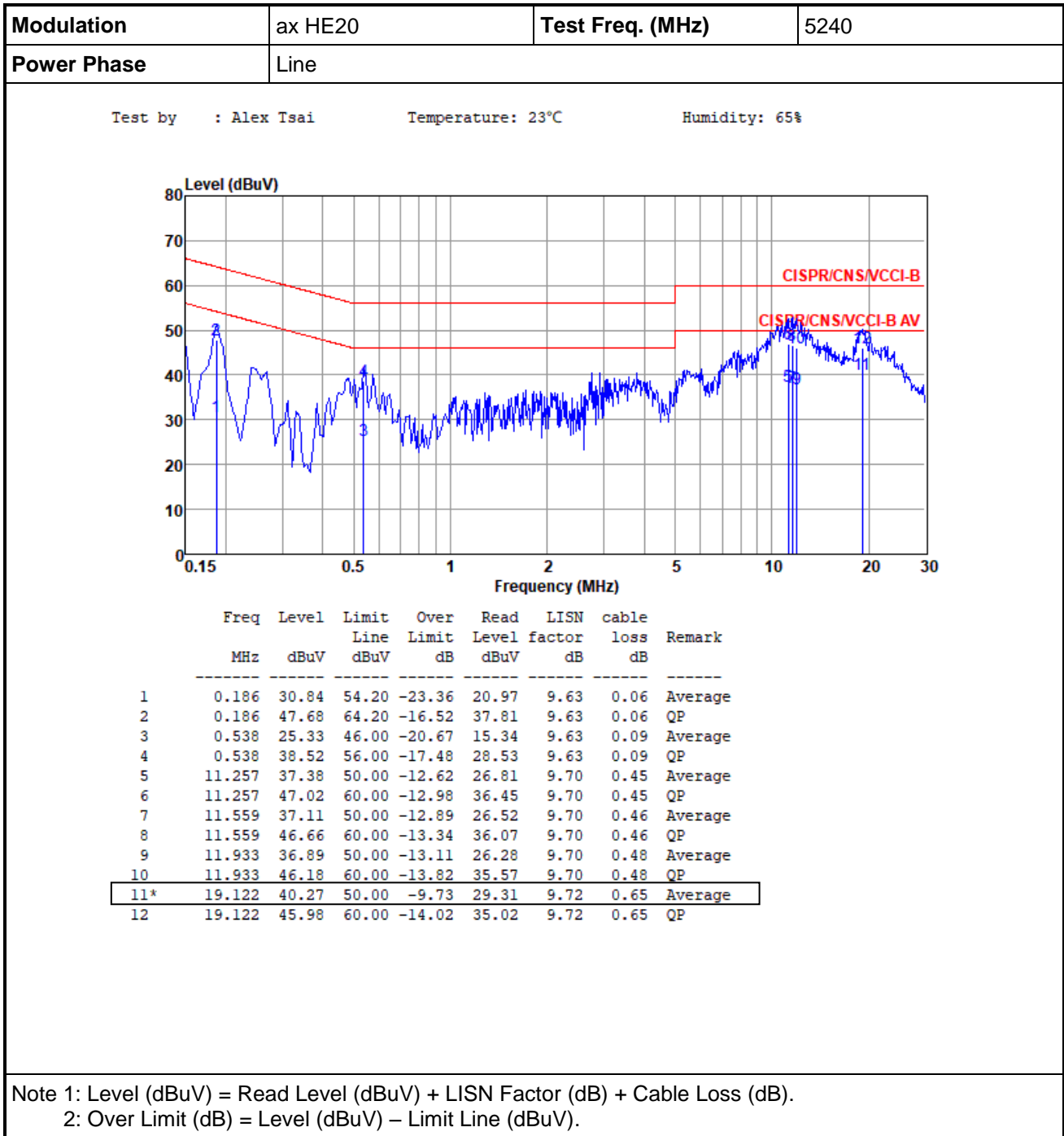
#### 3.1.3 Test Setup



Note: 1. Support units were connected to second LISN.

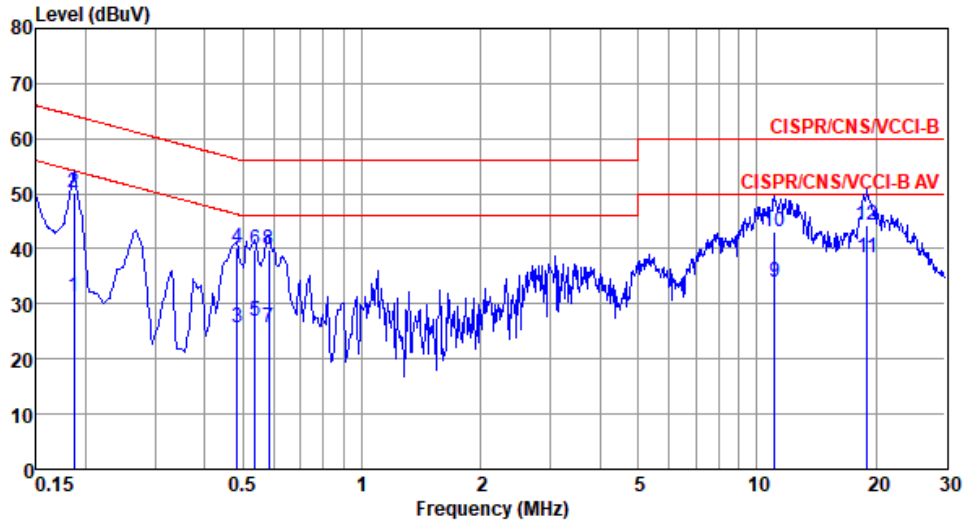
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

### 3.1.4 Test Result of Conducted Emissions



<b>Modulation</b>	ax HE20	<b>Test Freq. (MHz)</b>	5240
<b>Power Phase</b>	Neutral		

Test by : Alex Tsai      Temperature: 23°C      Humidity: 65%

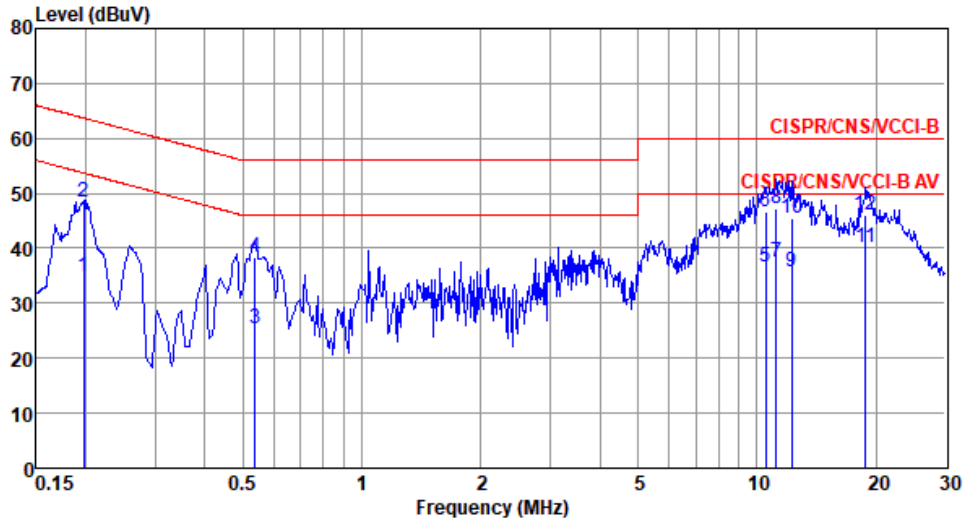


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.186	31.28	54.20	-22.92	21.43	9.65	0.06	Average
2	0.186	50.05	64.20	-14.15	40.20	9.65	0.06	QP
3	0.484	25.63	46.27	-20.64	15.71	9.65	0.09	Average
4	0.484	40.20	56.27	-16.07	30.28	9.65	0.09	QP
5	0.538	26.78	46.00	-19.22	16.86	9.65	0.09	Average
6	0.538	39.93	56.00	-16.07	30.01	9.65	0.09	QP
7	0.582	25.71	46.00	-20.29	15.78	9.65	0.10	Average
8	0.582	39.91	56.00	-16.09	29.98	9.65	0.10	QP
9	11.080	33.91	50.00	-16.09	23.38	9.75	0.44	Average
10	11.080	43.23	60.00	-16.77	32.70	9.75	0.44	QP
11*	19.021	38.43	50.00	-11.57	27.46	9.83	0.65	Average
12	19.021	44.39	60.00	-15.61	33.42	9.83	0.65	QP

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

<b>Modulation</b>	ax HE40	<b>Test Freq. (MHz)</b>	5270
<b>Power Phase</b>	Line		

Test by : Alex Tsai      Temperature: 23°C      Humidity: 65%

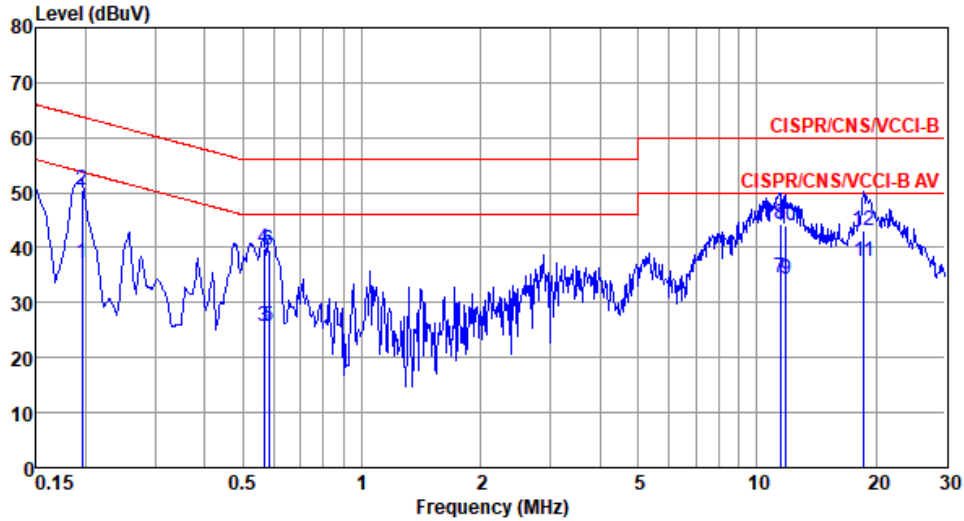


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.198	34.97	53.71	-18.74	25.09	9.63	0.06	Average
2	0.198	48.29	63.71	-15.42	38.41	9.63	0.06	QP
3	0.538	25.28	46.00	-20.72	15.29	9.63	0.09	Average
4	0.538	38.42	56.00	-17.58	28.43	9.63	0.09	QP
5	10.508	36.52	50.00	-13.48	26.00	9.69	0.42	Average
6	10.508	46.51	60.00	-13.49	35.99	9.69	0.42	QP
7	11.198	37.58	50.00	-12.42	27.02	9.69	0.45	Average
8	11.198	47.21	60.00	-12.79	36.65	9.69	0.45	QP
9	12.253	35.72	50.00	-14.28	25.08	9.70	0.50	Average
10	12.253	45.53	60.00	-14.47	34.89	9.70	0.50	QP
11*	18.820	40.03	50.00	-9.97	29.08	9.72	0.65	Average
12	18.820	45.94	60.00	-14.06	34.99	9.72	0.65	QP

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

<b>Modulation</b>	ax HE40	<b>Test Freq. (MHz)</b>	5270
<b>Power Phase</b>	Neutral		

Test by : Alex Tsai      Temperature: 23°C      Humidity: 65%



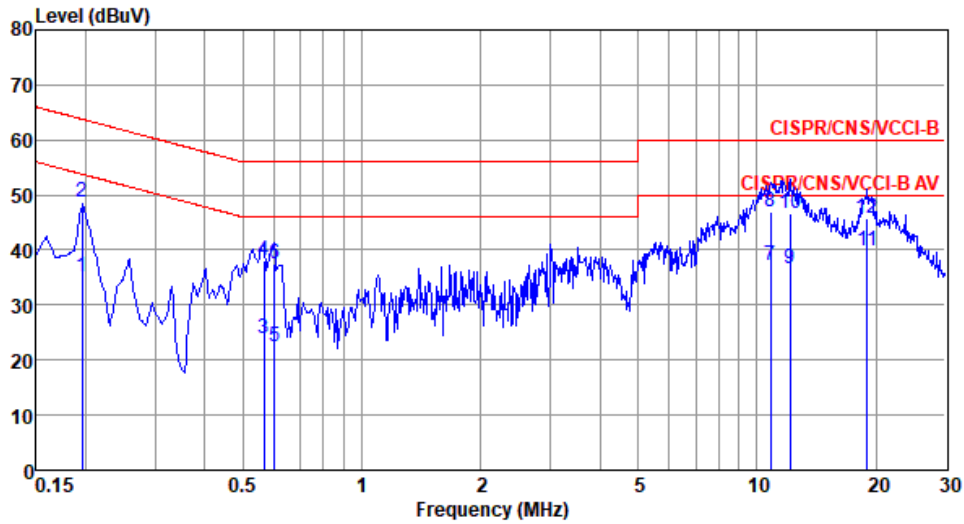
	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.195	37.06	53.80	-16.74	27.20	9.65	0.06	Average
2	0.195	50.42	63.80	-13.38	40.56	9.65	0.06	QP
3	0.564	25.54	46.00	-20.46	15.62	9.65	0.09	Average
4	0.564	39.71	56.00	-16.29	29.79	9.65	0.09	QP
5	0.582	25.65	46.00	-20.35	15.72	9.65	0.10	Average
6	0.582	39.42	56.00	-16.58	29.49	9.65	0.10	QP
7	11.438	34.65	50.00	-15.35	24.10	9.75	0.46	Average
8	11.438	44.33	60.00	-15.67	33.78	9.75	0.46	QP
9	11.870	34.16	50.00	-15.84	23.57	9.76	0.48	Average
10	11.870	44.05	60.00	-15.95	33.46	9.76	0.48	QP
11*	18.622	37.42	50.00	-12.58	26.47	9.83	0.64	Average
12	18.622	42.96	60.00	-17.04	32.01	9.83	0.64	QP

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



<b>Modulation</b>	11a	<b>Test Freq. (MHz)</b>	5785
<b>Power Phase</b>	Line		

Test by : Alex Tsai      Temperature: 23°C      Humidity: 65%

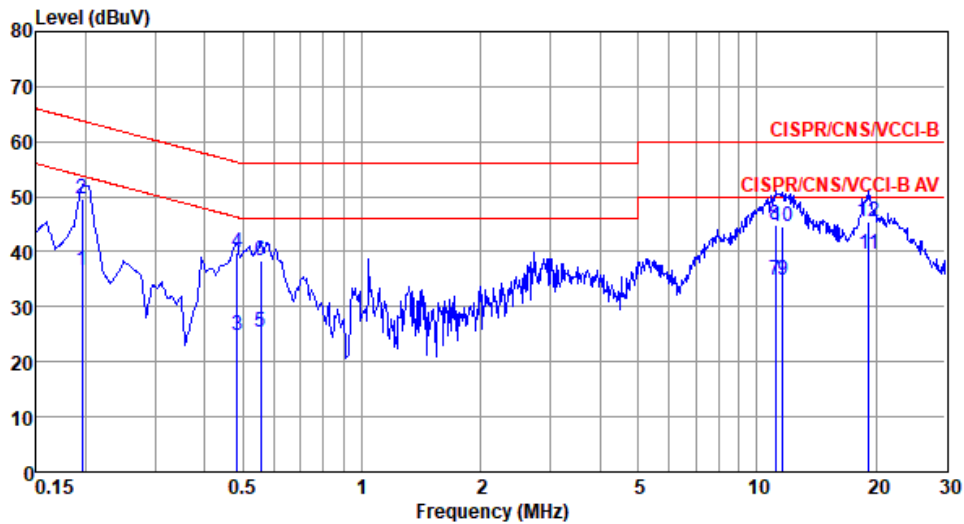


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.195	35.11	53.80	-18.69	25.23	9.63	0.06	Average
2	0.195	48.58	63.80	-15.22	38.70	9.63	0.06	QP
3	0.564	23.87	46.00	-22.13	13.87	9.63	0.09	Average
4	0.564	38.11	56.00	-17.89	28.11	9.63	0.09	QP
5	0.601	22.32	46.00	-23.68	12.31	9.63	0.10	Average
6	0.601	37.44	56.00	-18.56	27.43	9.63	0.10	QP
7	10.847	37.21	50.00	-12.79	26.67	9.69	0.43	Average
8	10.847	46.87	60.00	-13.13	36.33	9.69	0.43	QP
9	12.124	36.67	50.00	-13.33	26.04	9.70	0.49	Average
10	12.124	46.74	60.00	-13.26	36.11	9.70	0.49	QP
11*	19.021	39.93	50.00	-10.07	28.97	9.72	0.65	Average
12	19.021	45.87	60.00	-14.13	34.91	9.72	0.65	QP

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

<b>Modulation</b>	11a	<b>Test Freq. (MHz)</b>	5785
<b>Power Phase</b>	Neutral		

Test by : Alex Tsai      Temperature: 23°C      Humidity: 65%



	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line	Limit	Level	factor	loss	
			dBuV	dB	dBuV	dB	dB	
1	0.195	36.47	53.80	-17.33	26.61	9.65	0.06	Average
2	0.195	49.62	63.80	-14.18	39.76	9.65	0.06	QP
3	0.484	24.82	46.27	-21.45	14.90	9.65	0.09	Average
4	0.484	39.80	56.27	-16.47	29.88	9.65	0.09	QP
5	0.555	25.46	46.00	-20.54	15.54	9.65	0.09	Average
6	0.555	38.26	56.00	-17.74	28.34	9.65	0.09	QP
7	11.139	34.83	50.00	-15.17	24.30	9.75	0.44	Average
8	11.139	45.01	60.00	-14.99	34.48	9.75	0.44	QP
9	11.621	34.88	50.00	-15.12	24.31	9.75	0.47	Average
10	11.621	44.64	60.00	-15.36	34.07	9.75	0.47	QP
11*	19.224	39.47	50.00	-10.53	28.49	9.83	0.65	Average
12	19.224	45.39	60.00	-14.61	34.41	9.83	0.65	QP

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

## 3.2 Emission Bandwidth

### 3.2.1 Limit of Emission Bandwidth

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

### 3.2.2 Test Procedures

#### 26dB Bandwidth

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

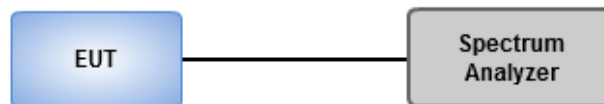
#### Occupied Bandwidth

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

#### 6dB Bandwidth

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

### 3.2.3 Test Setup



### 3.2.4 Test Result of Emission Bandwidth

<b>Ambient Condition</b>	25°C / 67%	<b>Tested By</b>	Aska Huang
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#### Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	19.855M	16.498M	16M5D1D	19.71M	16.425M
11AX20_Nss1,(MCS0)_2TX	26.087M	19.03M	19M0D1D	22.029M	18.958M
11AX40_Nss1,(MCS0)_2TX	39.565M	37.627M	37M6D1D	39.42M	37.482M
11AX80_Nss1,(MCS0)_2TX	80.29M	76.7M	76M7D1D	80.29M	76.411M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	20M	16.57M	16M6D1D	14.913M	13.198M
11AX20_Nss1,(MCS0)_2TX	31.087M	19.03M	19M0D1D	16.739M	14.457M
11AX40_Nss1,(MCS0)_2TX	40.58M	37.627M	37M6D1D	34.696M	33.531M
11AX80_Nss1,(MCS0)_2TX	80.29M	76.7M	76M7D1D	74.783M	72.721M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	3.13M	3.936M	3M94D1D	3.13M	3.821M
11AX20_Nss1,(MCS0)_2TX	4.522M	4.805M	4M81D1D	4.232M	4.747M
11AX40_Nss1,(MCS0)_2TX	4M	16.787M	16M8D1D	3.942M	15.977M
11AX80_Nss1,(MCS0)_2TX	4M	28.423M	28M4D1D	3.768M	28.191M

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

**Max-OBW** = Maximum 99% occupied bandwidth;

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

**Min-OBW** = Minimum 99% occupied bandwidth;

## Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	19.783M	16.498M	19.855M	16.498M
5300MHz	Pass	Inf	19.855M	16.498M	19.783M	16.425M
5320MHz	Pass	Inf	19.71M	16.425M	19.855M	16.498M
5500MHz	Pass	Inf	19.783M	16.498M	19.783M	16.425M
5580MHz	Pass	Inf	19.855M	16.57M	20M	16.498M
5700MHz	Pass	Inf	19.928M	16.425M	19.71M	16.498M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	14.913M	13.242M	15.087M	13.198M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.13M	3.821M	3.13M	3.936M
11AX20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	25.942M	19.03M	26.087M	18.958M
5300MHz	Pass	Inf	23.333M	18.958M	22.826M	18.958M
5320MHz	Pass	Inf	22.029M	18.958M	22.029M	18.958M
5500MHz	Pass	Inf	27.101M	19.03M	26.087M	18.958M
5580MHz	Pass	Inf	31.087M	18.958M	24.783M	19.03M
5700MHz	Pass	Inf	21.957M	18.958M	22.246M	18.958M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	17M	14.457M	16.739M	14.501M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.232M	4.747M	4.522M	4.805M
11AX40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	Inf	39.565M	37.627M	39.42M	37.482M
5310MHz	Pass	Inf	39.565M	37.482M	39.42M	37.482M
5510MHz	Pass	Inf	39.565M	37.627M	39.565M	37.337M
5590MHz	Pass	Inf	39.71M	37.627M	40.58M	37.627M
5670MHz	Pass	Inf	39.42M	37.627M	39.71M	37.627M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.696M	33.531M	34.696M	33.531M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	4M	15.977M	3.942M	16.787M
11AX80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5290MHz	Pass	Inf	80.29M	76.411M	80.29M	76.7M
5530MHz	Pass	Inf	80M	76.7M	80.29M	76.411M
5610MHz	Pass	Inf	80.29M	76.7M	80M	76.411M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75M	72.938M	74.783M	72.721M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	4M	28.191M	3.768M	28.423M

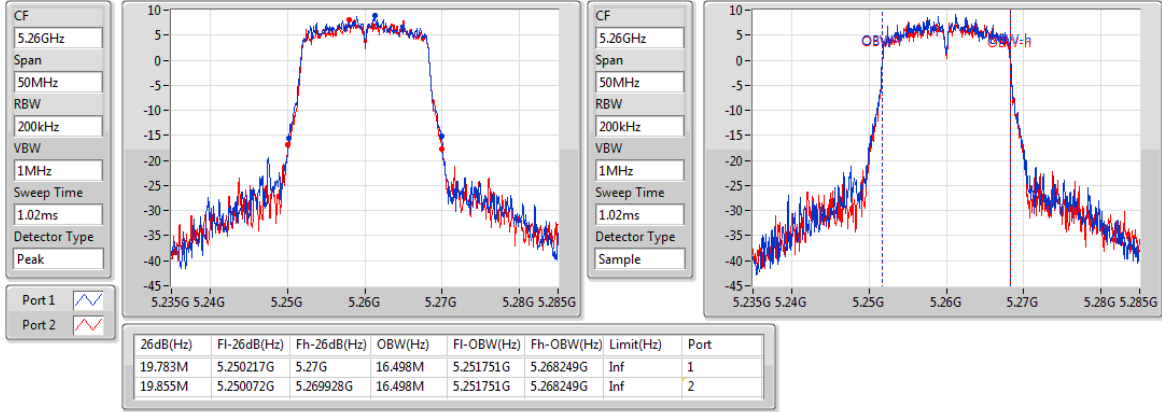
**Port X-N dB** = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

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

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

EBW

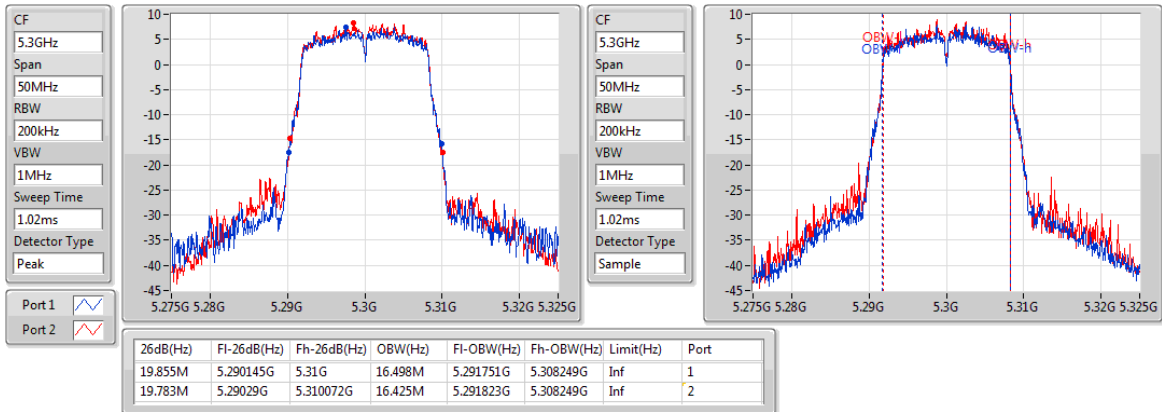
#### 5260MHz



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

EBW

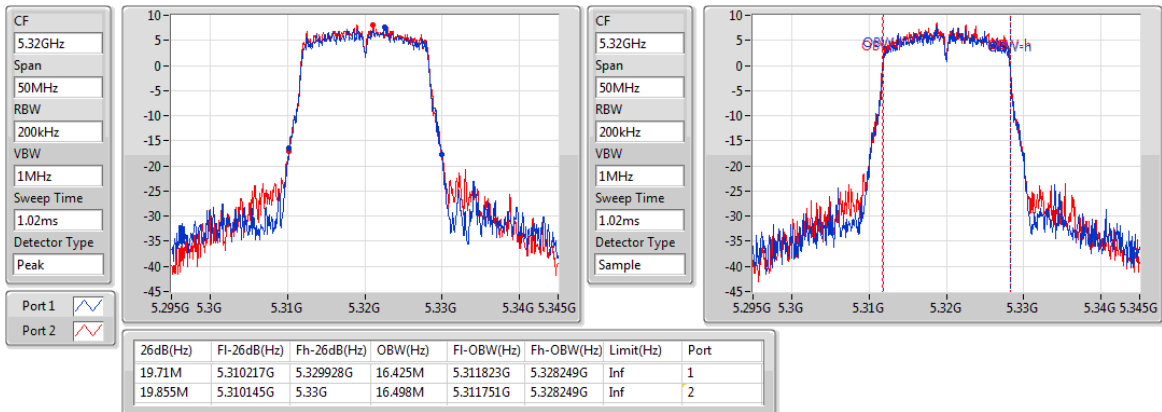
#### 5300MHz



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

EBW

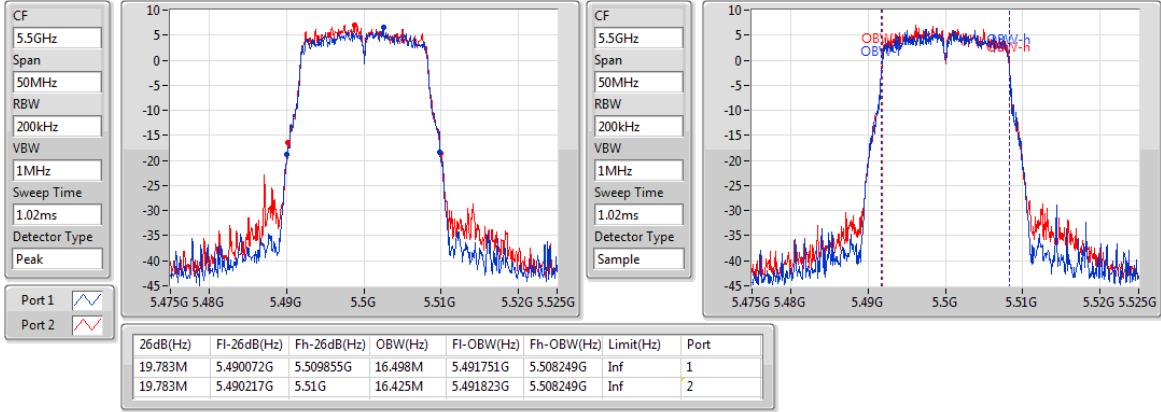
#### 5320MHz



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

EBW

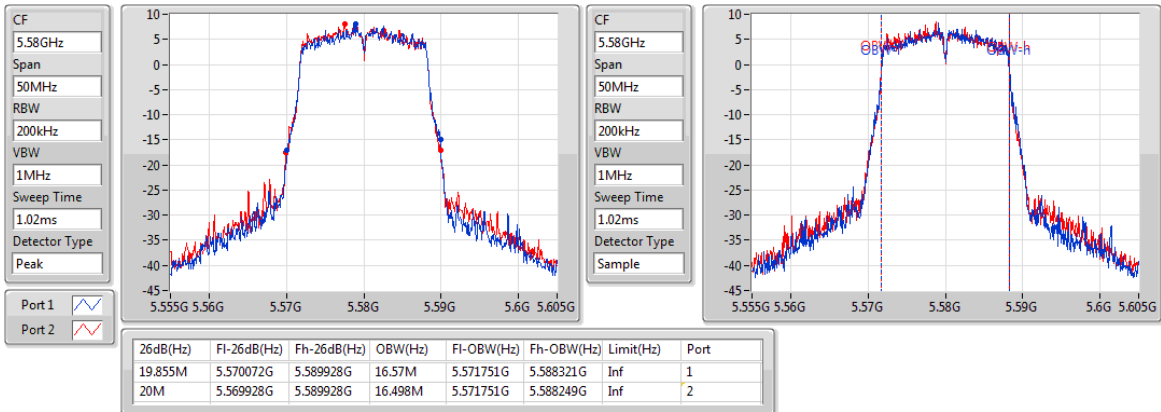
#### 5500MHz



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

EBW

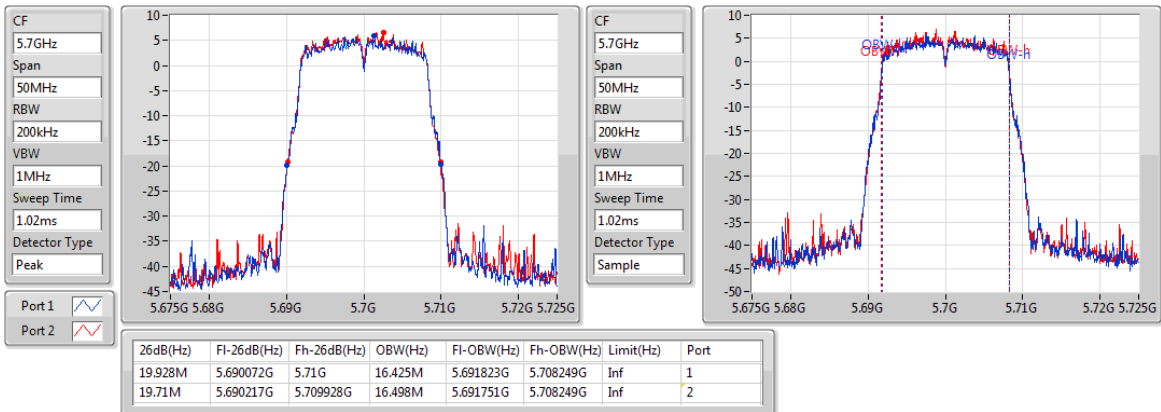
#### 5580MHz



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

EBW

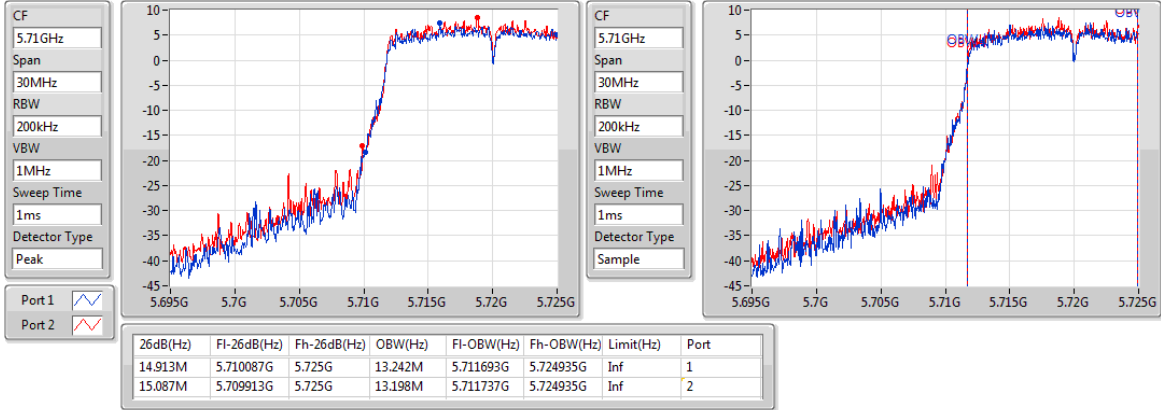
#### 5700MHz



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

EBW

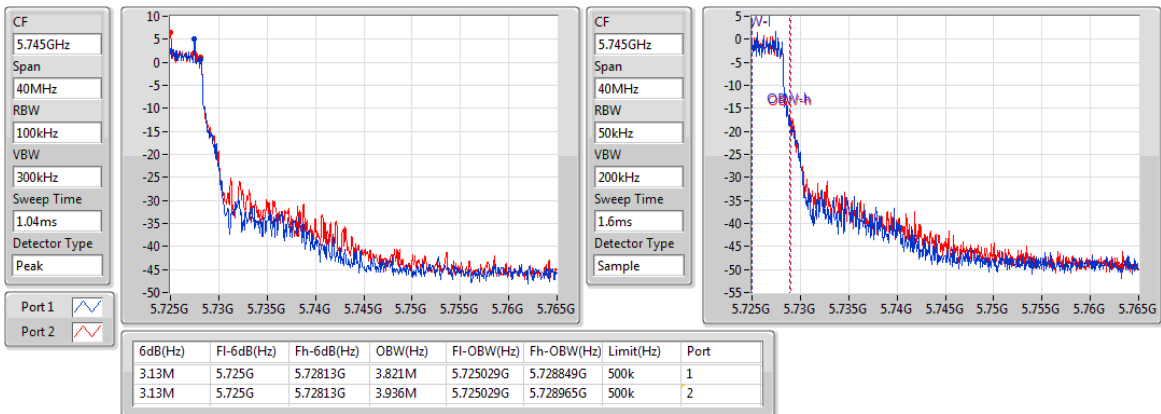
#### 5720MHz Straddle 5.47-5.725GHz



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

EBW

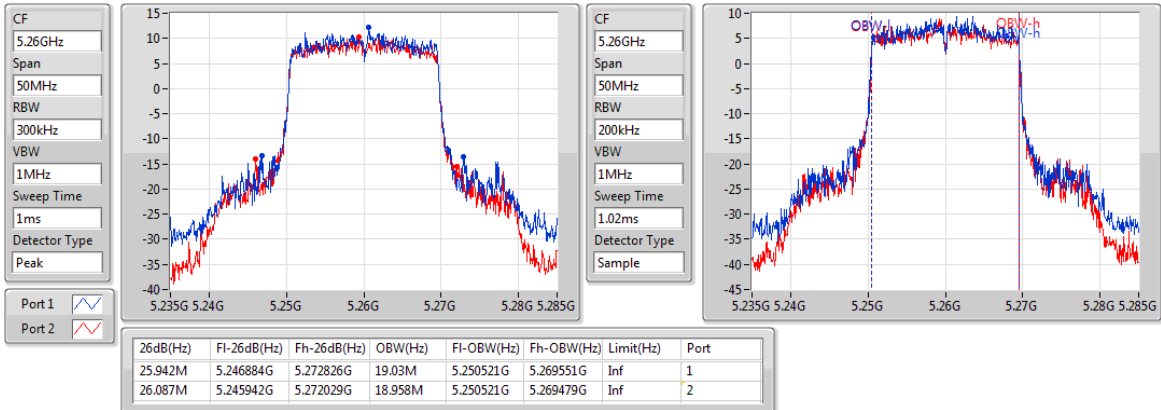
#### 5720MHz Straddle 5.725-5.85GHz



### 11AX20\_Nss1,(MCS0)\_2TX

EBW

#### 5260MHz



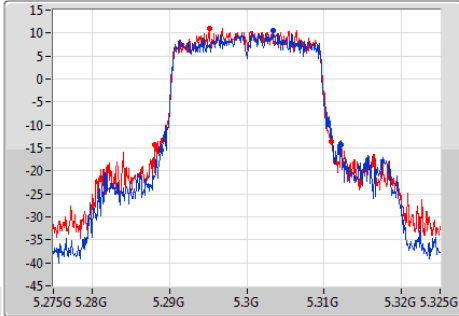


### 11AX20\_Nss1,(MCS0)\_2TX

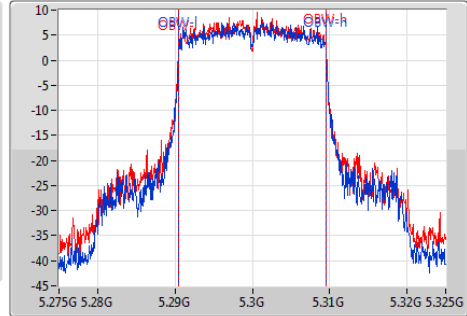
EBW

5300MHz

CF  
5.3GHz  
Span  
50MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
1ms  
Detector Type  
Peak



CF  
5.3GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
1.02ms  
Detector Type  
Sample



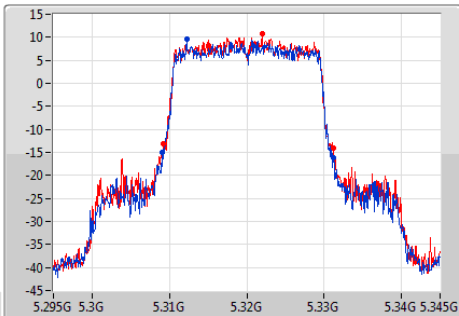
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
23.333M	5.288913G	5.312246G	18.958M	5.290521G	5.309479G	Inf	1
22.826M	5.288116G	5.310942G	18.958M	5.290521G	5.309479G	Inf	2

### 11AX20\_Nss1,(MCS0)\_2TX

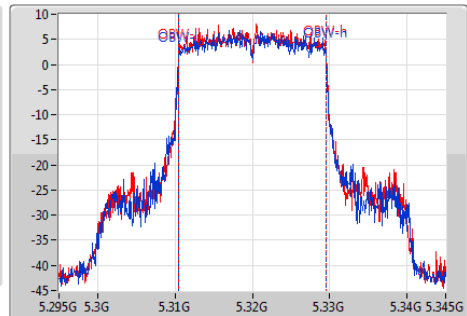
EBW

5320MHz

CF  
5.32GHz  
Span  
50MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
1ms  
Detector Type  
Peak



CF  
5.32GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
1.02ms  
Detector Type  
Sample



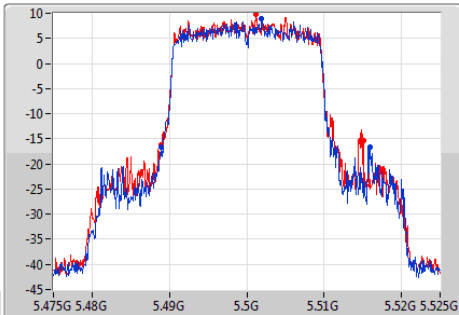
26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
22.029M	5.30913G	5.331159G	18.958M	5.310521G	5.329479G	Inf	1
22.029M	5.309203G	5.331232G	18.958M	5.310521G	5.329479G	Inf	2

### 11AX20\_Nss1,(MCS0)\_2TX

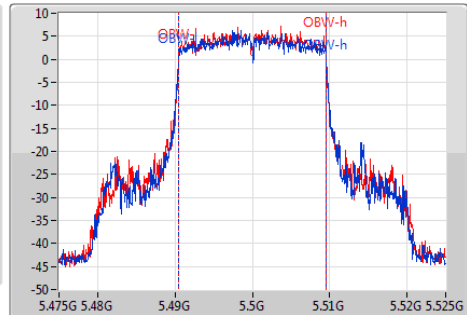
EBW

5500MHz

CF  
5.5GHz  
Span  
50MHz  
RBW  
300kHz  
VBW  
1MHz  
Sweep Time  
1ms  
Detector Type  
Peak



CF  
5.5GHz  
Span  
50MHz  
RBW  
200kHz  
VBW  
1MHz  
Sweep Time  
1.02ms  
Detector Type  
Sample

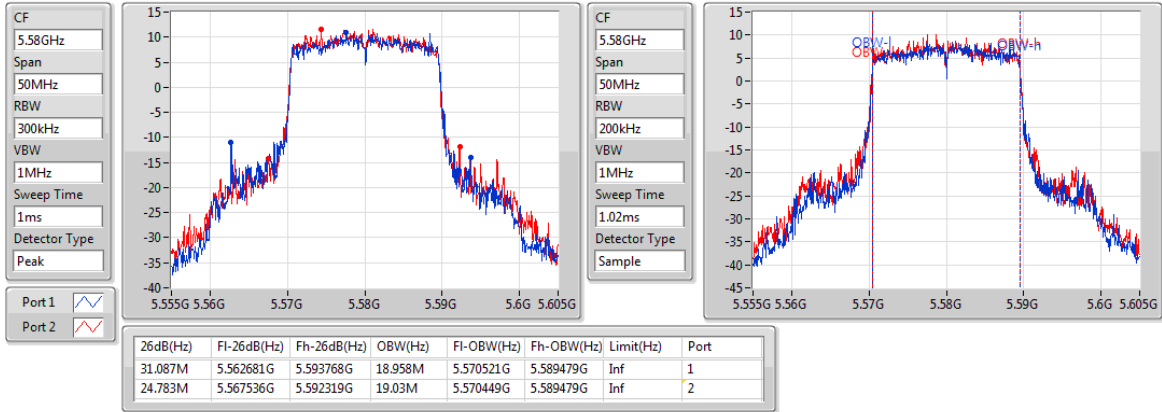


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
27.101M	5.488913G	5.516014G	19.03M	5.490521G	5.509551G	Inf	1
26.087M	5.488986G	5.515072G	18.958M	5.490521G	5.509479G	Inf	2

### 11AX20\_Nss1,(MCS0)\_2TX

EBW

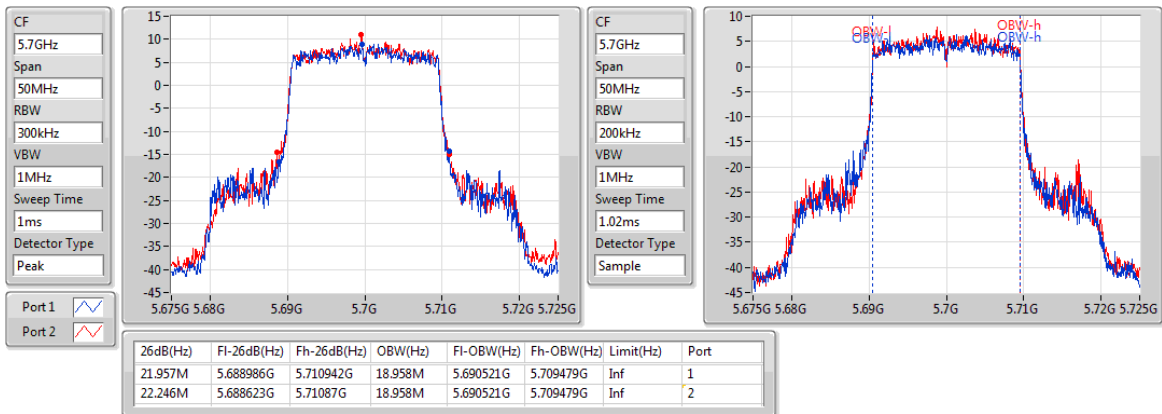
#### 5580MHz



### 11AX20\_Nss1,(MCS0)\_2TX

EBW

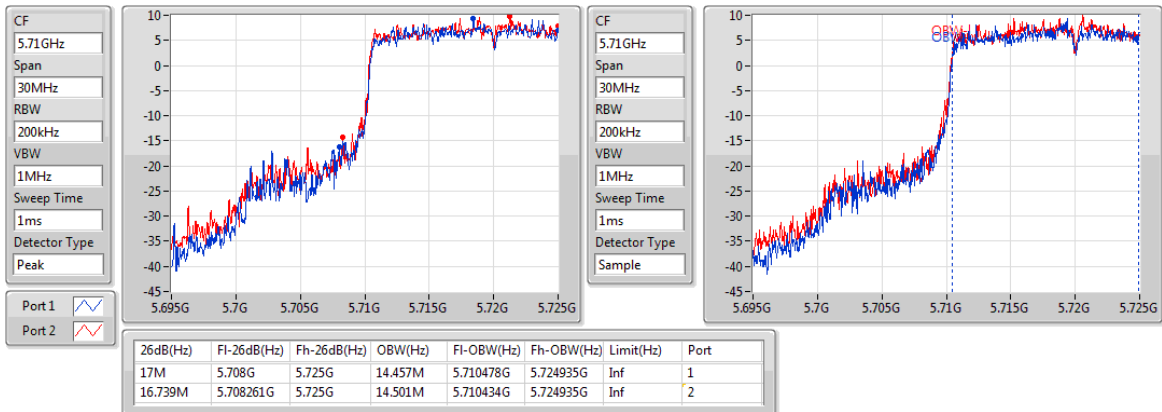
#### 5700MHz



### 11AX20\_Nss1,(MCS0)\_2TX

EBW

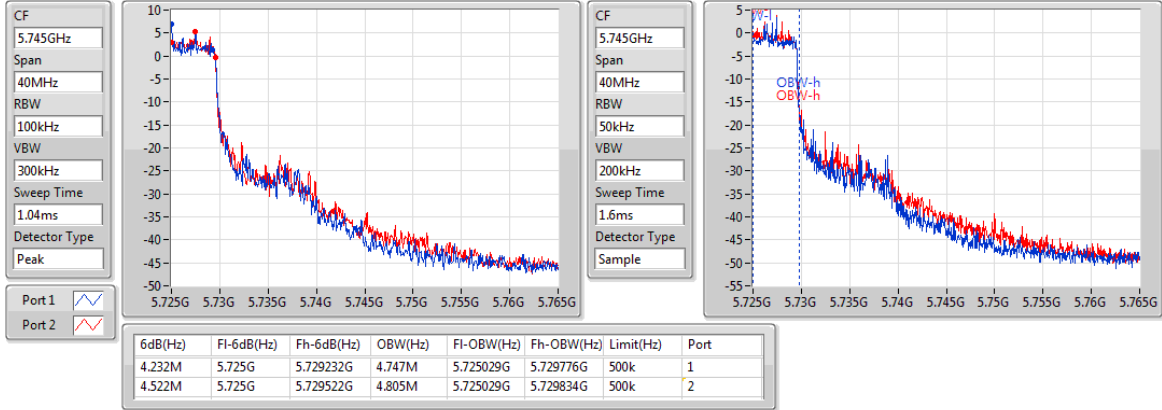
#### 5720MHz Straddle 5.47-5.725GHz



### 11AX20\_Nss1,(MCS0)\_2TX

EBW

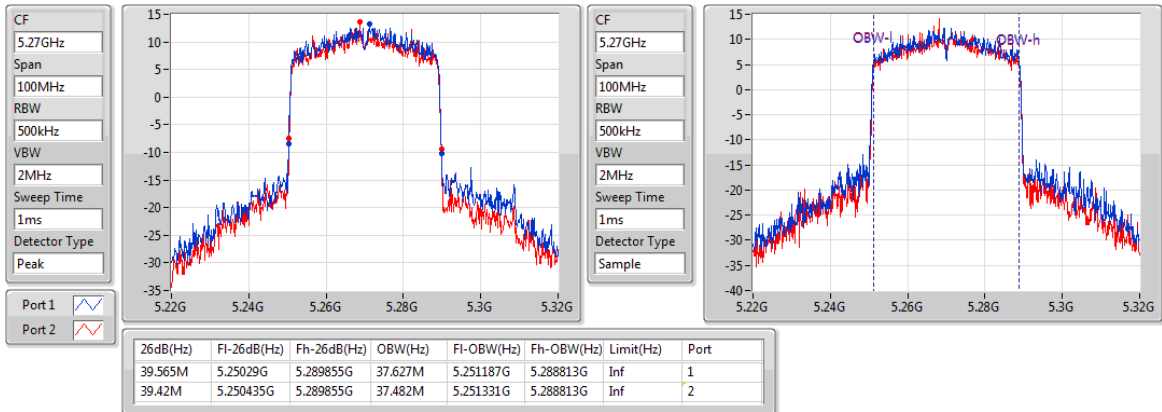
#### 5720MHz Straddle 5.725-5.85GHz



### 11AX40\_Nss1,(MCS0)\_2TX

EBW

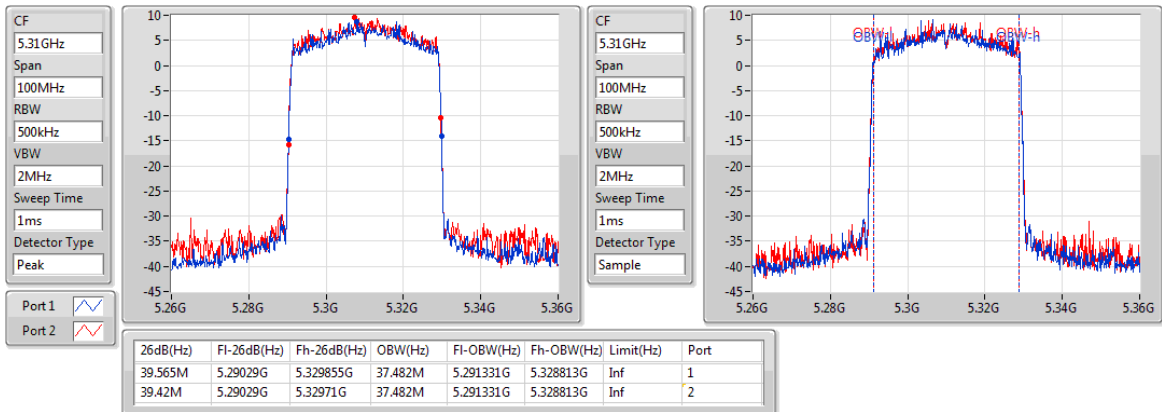
#### 5270MHz



### 11AX40\_Nss1,(MCS0)\_2TX

EBW

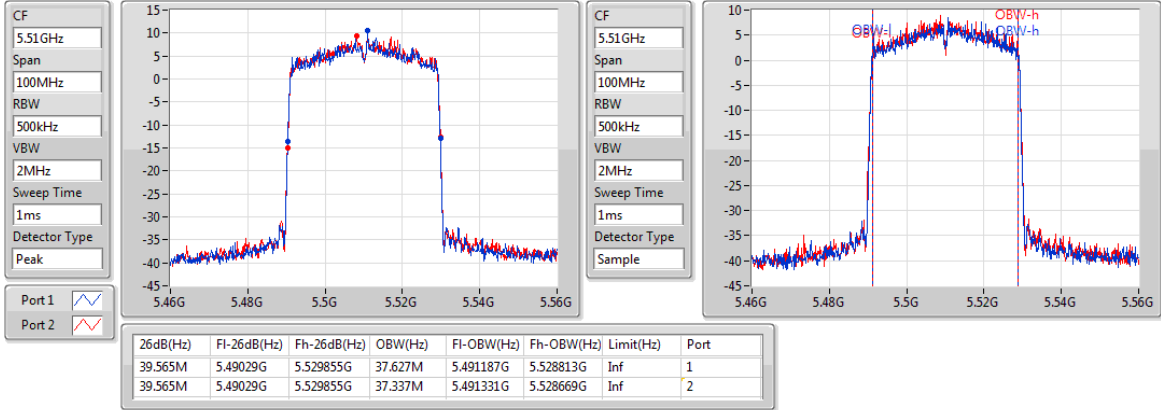
#### 5310MHz



### 11AX40\_Nss1,(MCS0)\_2TX

EBW

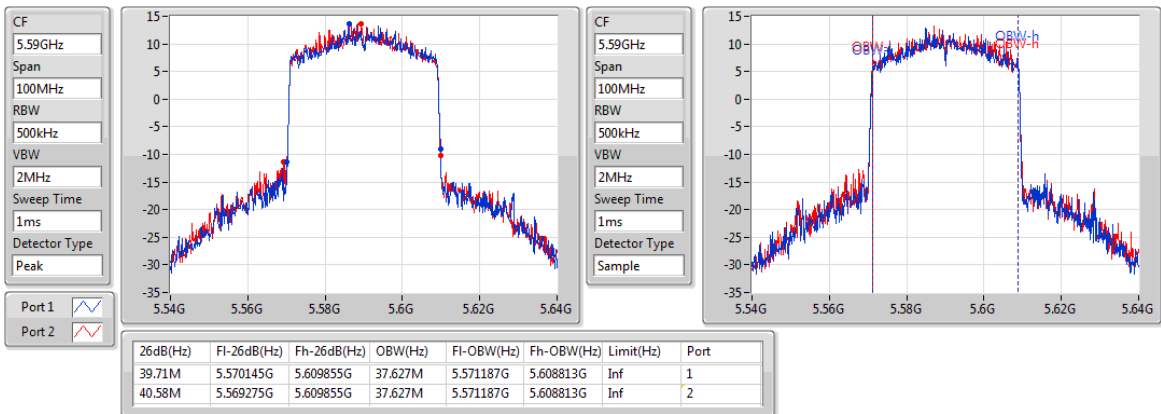
#### 5510MHz



### 11AX40\_Nss1,(MCS0)\_2TX

EBW

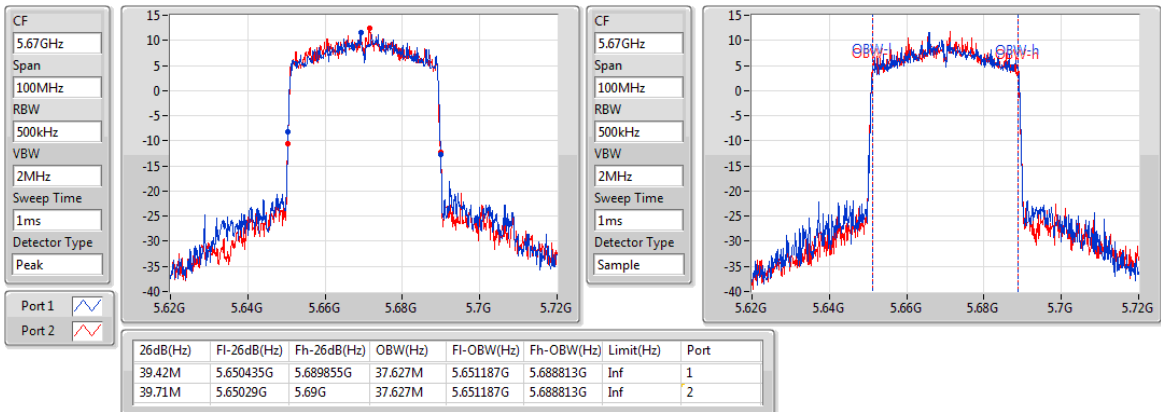
#### 5590MHz



### 11AX40\_Nss1,(MCS0)\_2TX

EBW

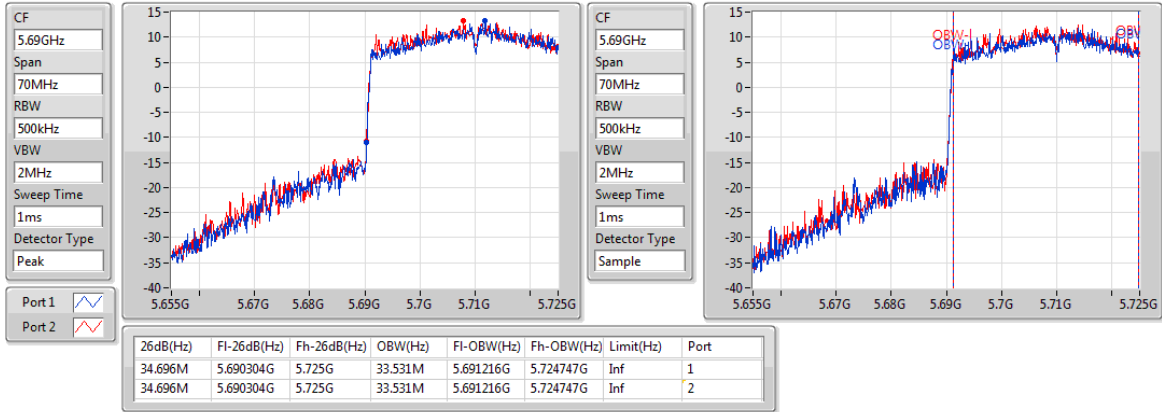
#### 5670MHz



### 11AX40\_Nss1,(MCS0)\_2TX

EBW

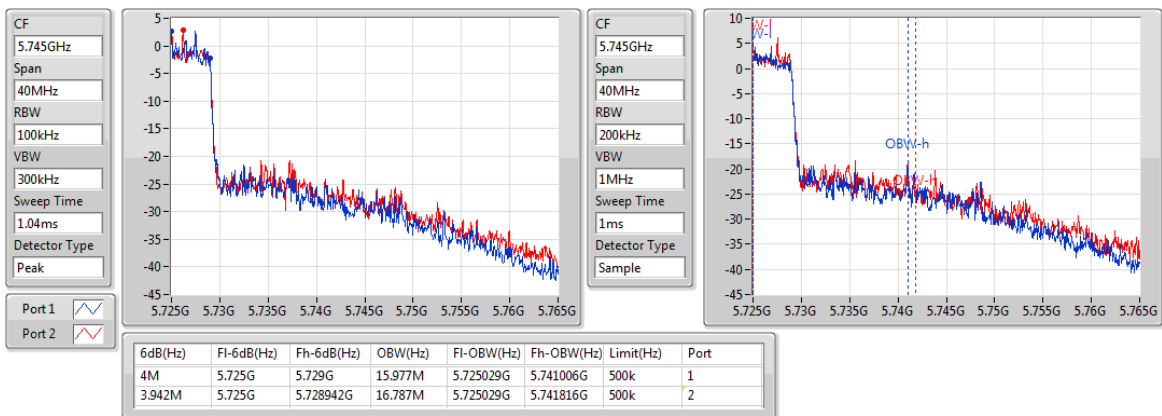
#### 5710MHz Straddle 5.47-5.725GHz



### 11AX40\_Nss1,(MCS0)\_2TX

EBW

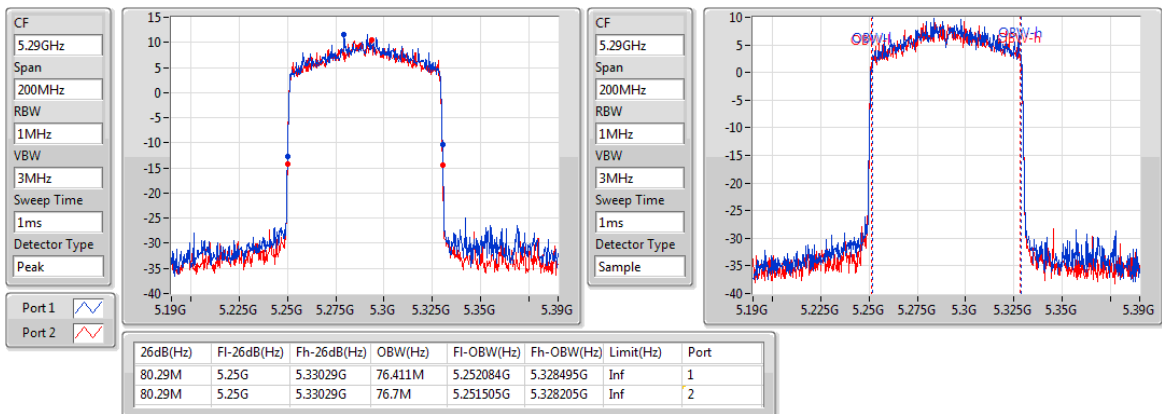
#### 5710MHz Straddle 5.725-5.85GHz



### 11AX80\_Nss1,(MCS0)\_2TX

EBW

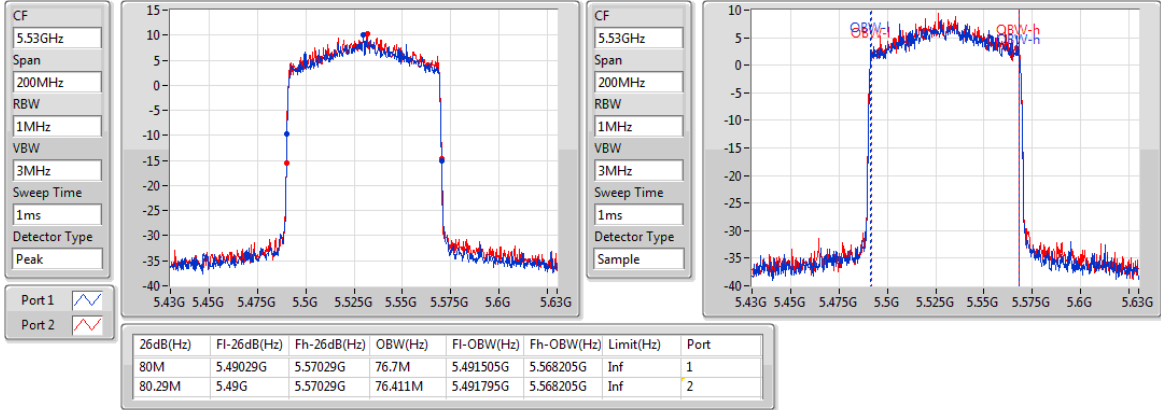
#### 5290MHz



### 11AX80\_Nss1,(MCS0)\_2TX

EBW

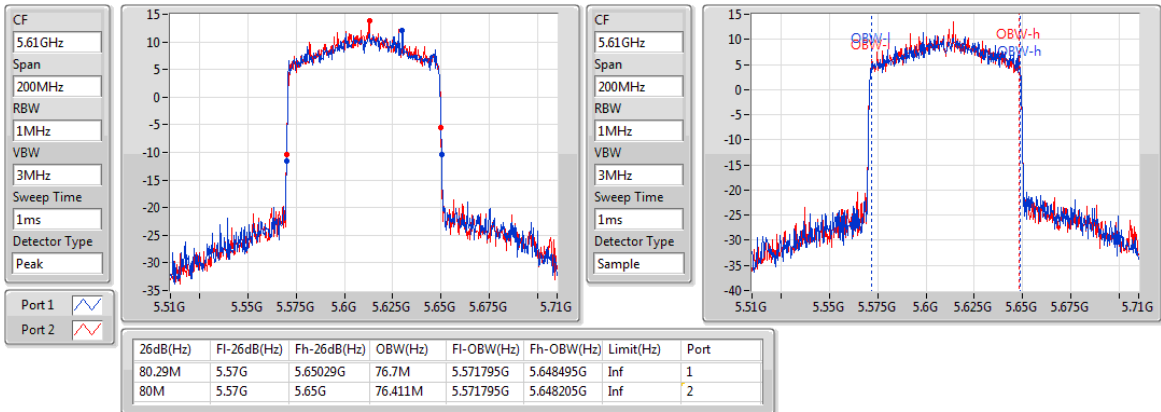
#### 5530MHz



### 11AX80\_Nss1,(MCS0)\_2TX

EBW

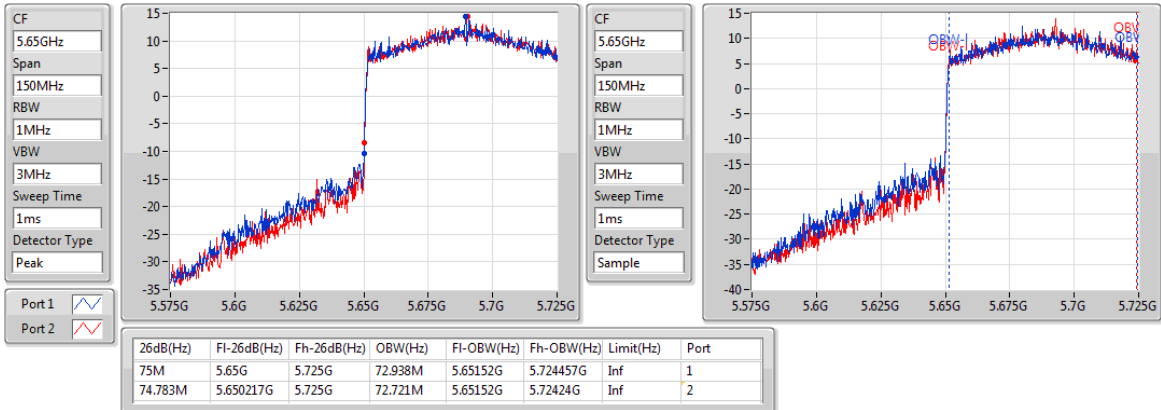
#### 5610MHz



### 11AX80\_Nss1,(MCS0)\_2TX

EBW

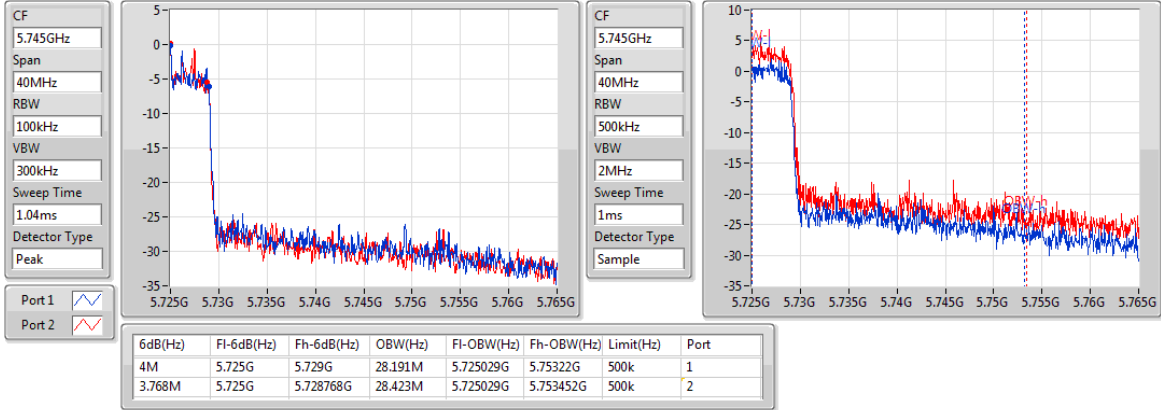
#### 5690MHz Straddle 5.47-5.725GHz



### 11AX80\_Nss1,(MCS0)\_2TX

EBW

### 5690MHz Straddle 5.725-5.85GHz



### 3.3 RF Output Power

#### 3.3.1 Limit of RF 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.		

#### 3.3.2 Test Procedures

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

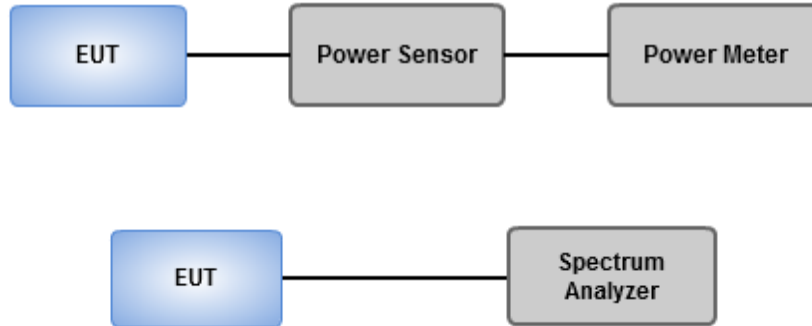
Measurements is performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle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

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

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



### 3.3.3 Test Setup



### 3.3.4 Test Result of Maximum Conducted Output Power

<b>Ambient Condition</b>	25°C / 67%	<b>Tested By</b>	Aska Huang
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#### Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.25-5.35GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	22.33	0.17100	26.33	0.42954
11AX20_Nss1,(MCS0)_2TX	22.56	0.18030	26.56	0.45290
11AX40_Nss1,(MCS0)_2TX	23.44	0.22080	27.44	0.55463
11AX80_Nss1,(MCS0)_2TX	20.78	0.11967	24.78	0.30061
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	22.10	0.16218	26.10	0.40738
11AX20_Nss1,(MCS0)_2TX	22.31	0.17022	26.31	0.42756
11AX40_Nss1,(MCS0)_2TX	23.31	0.21429	27.31	0.53827
11AX80_Nss1,(MCS0)_2TX	22.87	0.19364	26.87	0.48641

## Result

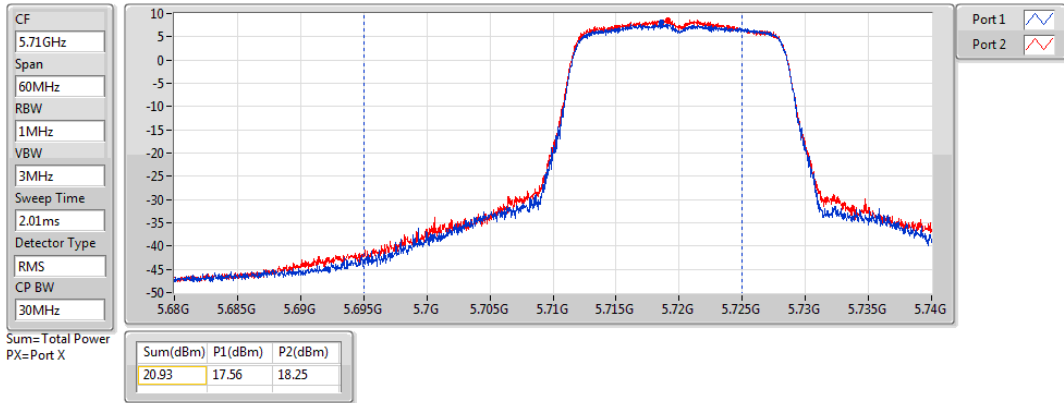
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	4.00	19.34	19.25	22.31	23.96	26.31	29.96
5300MHz	Pass	4.00	19.04	19.58	22.33	23.96	26.33	29.96
5320MHz	Pass	4.00	18.91	19.61	22.28	23.95	26.28	29.95
5500MHz	Pass	4.00	17.81	18.64	21.26	23.96	25.26	29.96
5580MHz	Pass	4.00	18.92	19.26	22.10	23.98	26.10	29.98
5700MHz	Pass	4.00	17.28	17.94	20.63	23.95	24.63	29.95
5720MHz Straddle 5.47-5.725GHz	Pass	4.00	17.56	18.25	20.93	22.74	24.93	28.74
5720MHz Straddle 5.725-5.85GHz	Pass	4.00	10.33	10.53	13.44	30.00	17.44	36.00
11AX20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	4.00	19.49	19.61	22.56	24.00	26.56	30.00
5300MHz	Pass	4.00	19.04	19.51	22.29	24.00	26.29	30.00
5320MHz	Pass	4.00	18.02	18.61	21.34	24.00	25.34	30.00
5500MHz	Pass	4.00	17.19	18.06	20.66	24.00	24.66	30.00
5580MHz	Pass	4.00	19.08	19.51	22.31	24.00	26.31	30.00
5700MHz	Pass	4.00	17.21	17.82	20.54	24.00	24.54	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	4.00	17.89	18.5	21.22	23.24	25.22	29.24
5720MHz Straddle 5.725-5.85GHz	Pass	4.00	12.01	12.69	15.37	30.00	19.37	36.00
11AX40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	4.00	20.51	20.35	23.44	24.00	27.44	30.00
5310MHz	Pass	4.00	16.98	17.81	20.43	24.00	24.43	30.00
5510MHz	Pass	4.00	16.61	17.12	19.88	24.00	23.88	30.00
5590MHz	Pass	4.00	19.98	20.6	23.31	24.00	27.31	30.00
5670MHz	Pass	4.00	18.81	19.33	22.09	24.00	26.09	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	4.00	19.6	20.11	22.87	24.00	26.87	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	4.00	8.15	8.52	11.35	30.00	15.35	36.00
11AX80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	4.00	17.91	17.63	20.78	24.00	24.78	30.00
5530MHz	Pass	4.00	16.61	17.45	20.06	24.00	24.06	30.00
5610MHz	Pass	4.00	19.14	19.63	22.40	24.00	26.40	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	4.00	19.86	19.85	22.87	24.00	26.87	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	4.00	4.62	4.68	7.66	30.00	11.66	36.00

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

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

AV Power

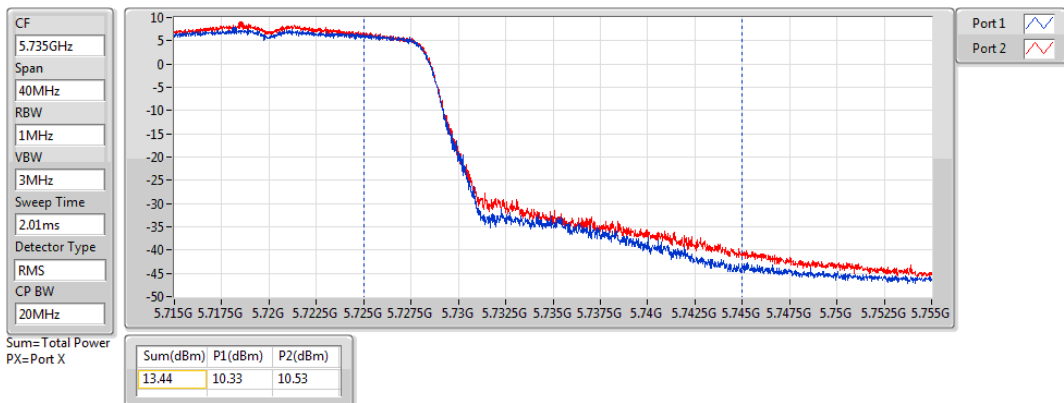
#### 5720MHz Straddle 5.47-5.725GHz



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

AV Power

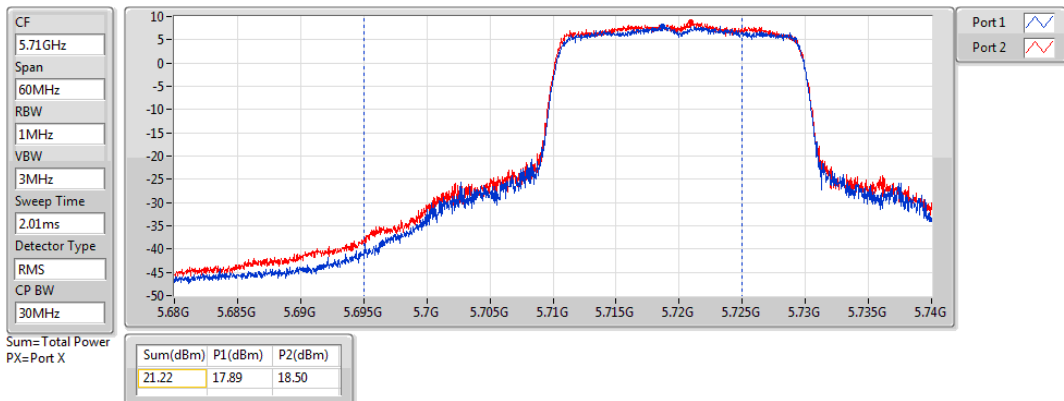
#### 5720MHz Straddle 5.725-5.85GHz



### 11AX20\_Nss1,(MCS0)\_2TX

AV Power

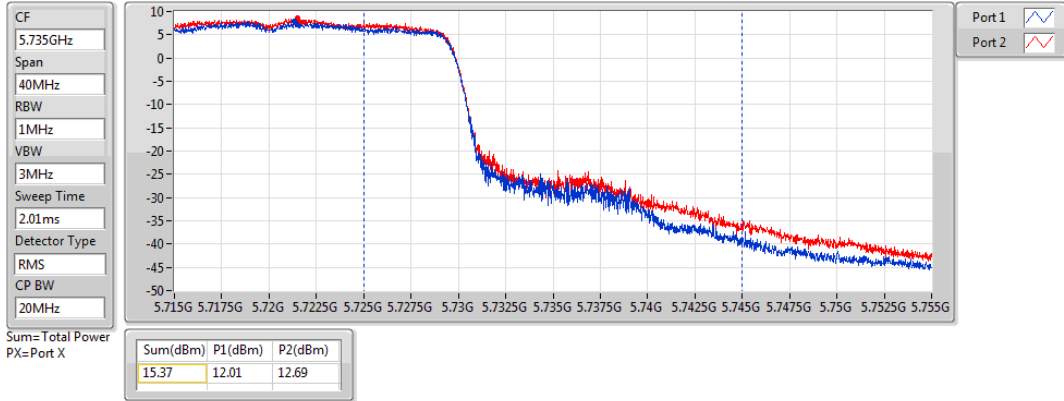
#### 5720MHz Straddle 5.47-5.725GHz



### 11AX20\_Nss1,(MCS0)\_2TX

AV Power

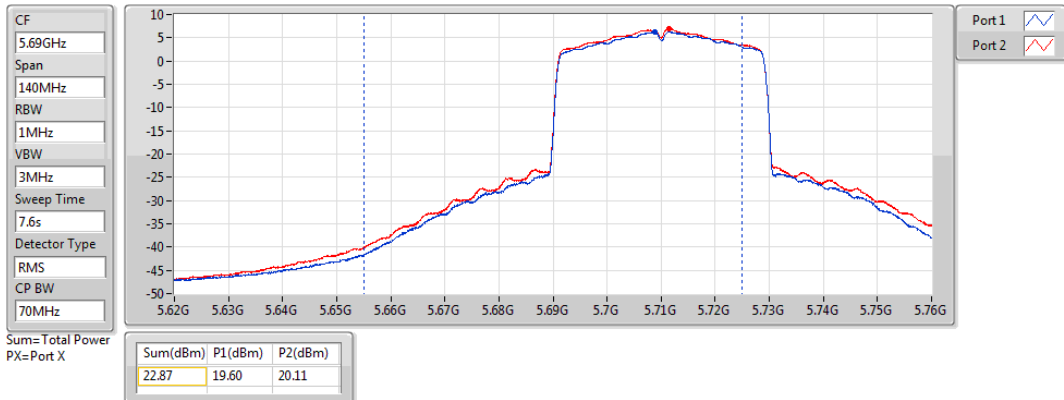
#### 5720MHz Straddle 5.725-5.85GHz



### 11AX40\_Nss1,(MCS0)\_2TX

AV Power

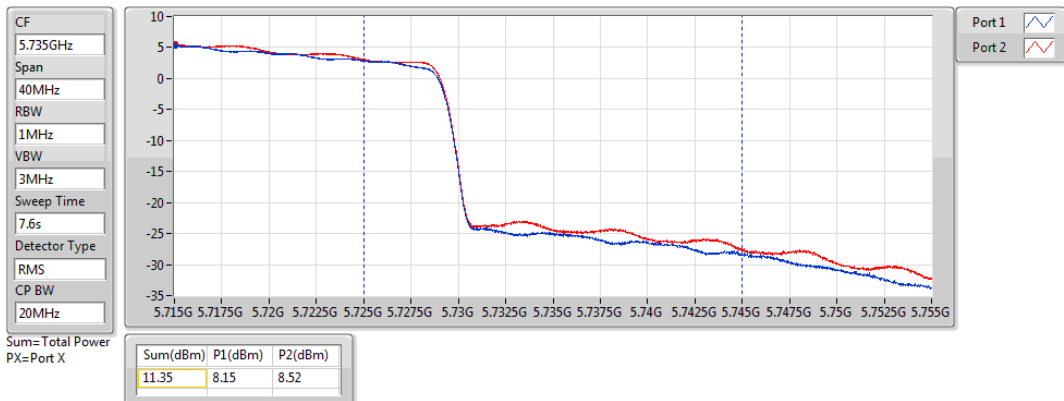
#### 5710MHz Straddle 5.47-5.725GHz



### 11AX40\_Nss1,(MCS0)\_2TX

AV Power

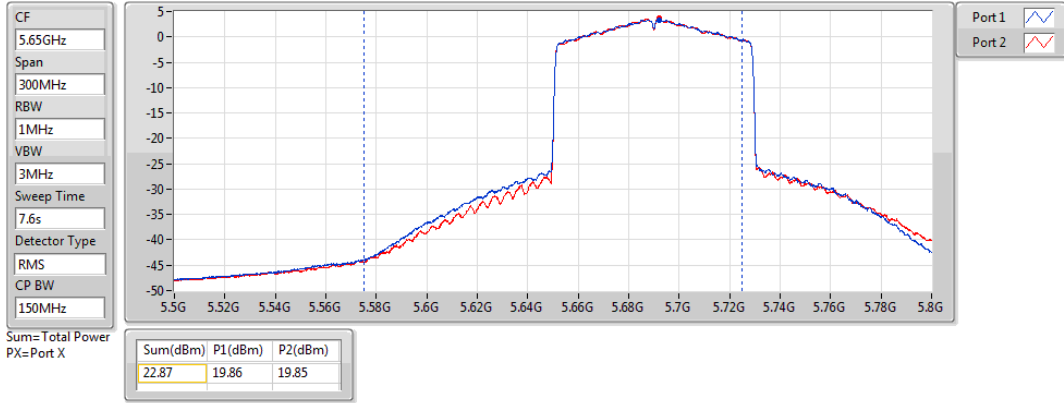
#### 5710MHz Straddle 5.725-5.85GHz



**11AX80\_Nss1,(MCS0)\_2TX**

**AV Power**

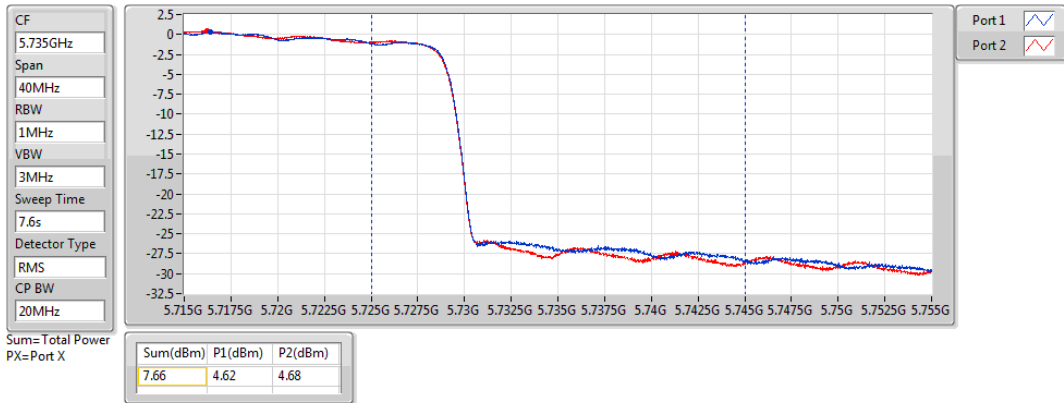
**5690MHz Straddle 5.47-5.725GHz**



**11AX80\_Nss1,(MCS0)\_2TX**

**AV Power**

**5690MHz Straddle 5.725-5.85GHz**



## 3.4 Peak Power Spectral Density

### 3.4.1 Limit of Peak 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

### 3.4.2 Test Procedures

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

Duty cycle  $\geq$  98 %

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

Duty cycle < 98 %

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

#### For 5725 ~ 5850 MHz

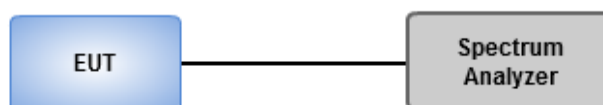
Duty cycle  $\geq$  98 %

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

Duty cycle < 98 %

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

### 3.4.3 Test Setup







### 3.4.4 Test Result of Peak Power Spectral Density

<b>Ambient Condition</b>	25°C / 67%	<b>Tested By</b>	Aska Huang
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#### Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	9.78	16.79
11AX20_Nss1,(MCS0)_2TX	9.72	16.73
11AX40_Nss1,(MCS0)_2TX	8.11	15.12
11AX80_Nss1,(MCS0)_2TX	2.10	9.11
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	9.76	16.77
11AX20_Nss1,(MCS0)_2TX	9.66	16.67
11AX40_Nss1,(MCS0)_2TX	8.16	15.17
11AX80_Nss1,(MCS0)_2TX	4.93	11.94
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	6.81	13.82
11AX20_Nss1,(MCS0)_2TX	6.43	13.44
11AX40_Nss1,(MCS0)_2TX	2.67	9.68
11AX80_Nss1,(MCS0)_2TX	-1.09	5.92

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

## Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	7.01	7.12	6.73	9.78	9.99	16.79	17.00
5300MHz	Pass	7.01	6.50	7.17	9.64	9.99	16.65	17.00
5320MHz	Pass	7.01	6.44	6.96	9.61	9.99	16.62	17.00
5500MHz	Pass	7.01	5.13	6.09	8.46	9.99	15.47	17.00
5580MHz	Pass	7.01	6.69	7.07	9.76	9.99	16.77	17.00
5700MHz	Pass	7.01	4.70	5.38	7.79	9.99	14.80	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	7.01	6.52	6.98	9.63	9.99	16.64	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	7.01	3.61	3.98	6.81	28.99	13.82	36.00
11AX20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	7.01	6.98	6.88	9.72	9.99	16.73	17.00
5300MHz	Pass	7.01	6.23	6.93	9.60	9.99	16.61	17.00
5320MHz	Pass	7.01	5.30	6.06	8.53	9.99	15.54	17.00
5500MHz	Pass	7.01	4.47	5.07	7.55	9.99	14.56	17.00
5580MHz	Pass	7.01	6.68	7.00	9.66	9.99	16.67	17.00
5700MHz	Pass	7.01	4.29	4.88	7.41	9.99	14.42	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	7.01	6.18	6.86	9.54	9.99	16.55	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	7.01	3.32	4.26	6.43	28.99	13.44	36.00
11AX40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	7.01	5.35	4.87	8.11	9.99	15.12	17.00
5310MHz	Pass	7.01	1.33	1.99	4.68	9.99	11.69	17.00
5510MHz	Pass	7.01	0.64	1.21	3.93	9.99	10.94	17.00
5590MHz	Pass	7.01	4.61	4.98	7.79	9.99	14.80	17.00
5670MHz	Pass	7.01	3.27	3.51	6.32	9.99	13.33	17.00
5710MHz Straddle 5.47-5.725GHz	Pass	7.01	4.90	5.48	8.16	9.99	15.17	17.00
5710MHz Straddle 5.725-5.85GHz	Pass	7.01	-0.45	-0.19	2.67	28.99	9.68	36.00
11AX80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	7.01	-0.78	-1.03	2.10	9.99	9.11	17.00
5530MHz	Pass	7.01	-2.12	-1.67	1.11	9.99	8.12	17.00
5610MHz	Pass	7.01	0.56	0.91	3.72	9.99	10.73	17.00
5690MHz Straddle 5.47-5.725GHz	Pass	7.01	1.87	2.02	4.93	9.99	11.94	17.00
5690MHz Straddle 5.725-5.85GHz	Pass	7.01	-4.17	-3.98	-1.09	28.99	5.92	36.00

**DG** = Directional Gain =  $4 + 10 \cdot \log(2/1) = 7.01 \text{ dBi} > 6 \text{ dBi}$ ,

For 5.25 ~ 5.35 / 5.47 ~ 5.725 GHz

Limit shall be reduced to 17 dBm - ( 7.01 dBi - 6 dBi) = 9.99 dBm

For 5.725 ~ 5.85 GHz

Limit shall be reduced to 30 dBm - ( 7.01 dBi - 6 dBi) = 28.99 dBm

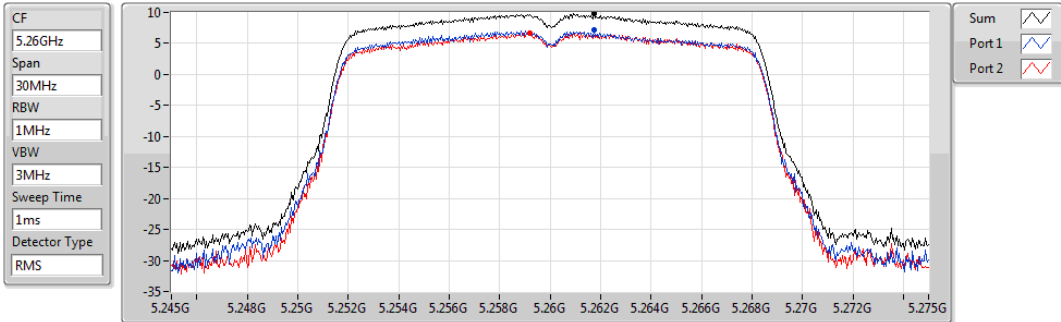
**RBW** = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

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

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

PSD

5260MHz

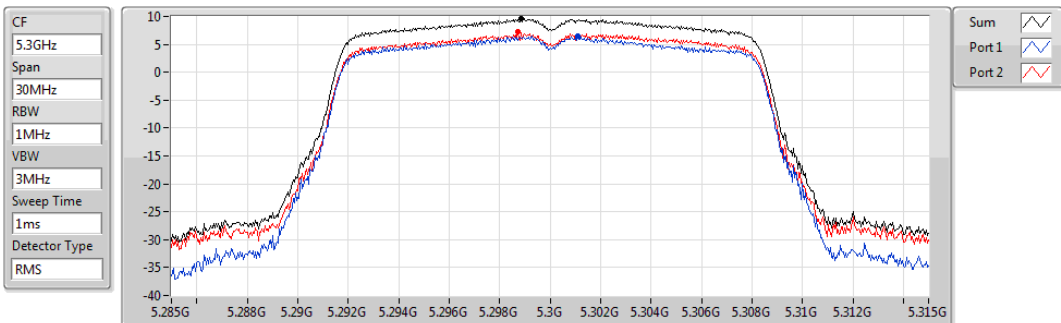


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.78	9.78	7.12	6.73

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

PSD

5300MHz

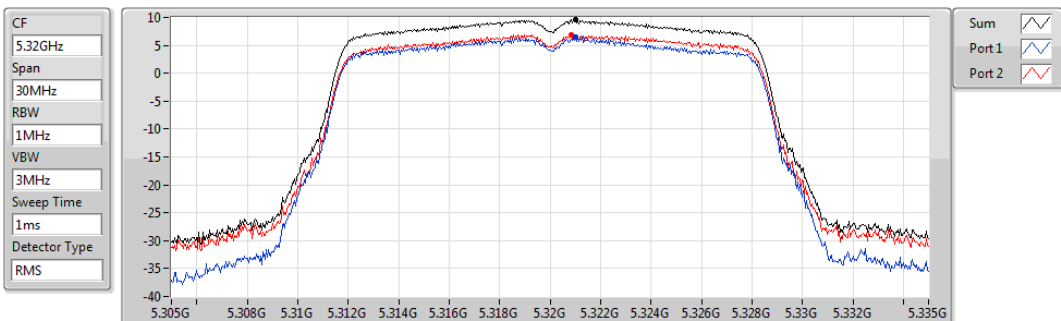


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.64	9.64	6.50	7.17

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

PSD

5320MHz

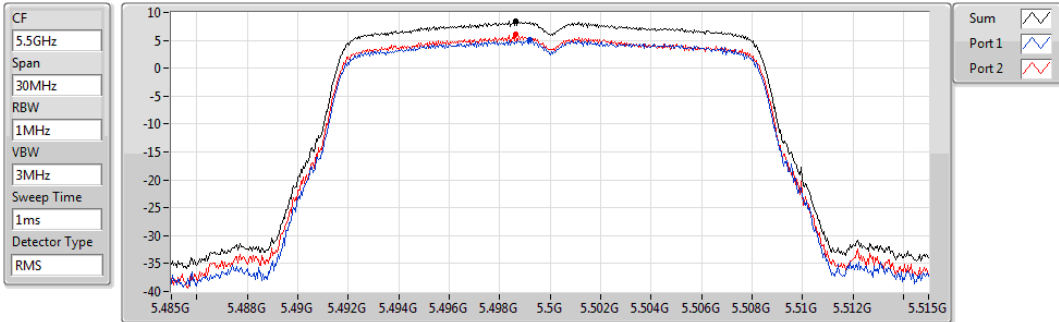


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.61	9.61	6.44	6.96

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

PSD

#### 5500MHz

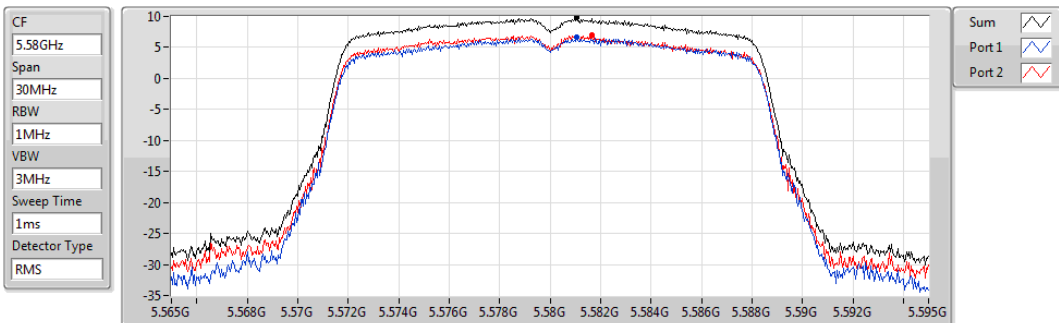


Sum	PD	Port 1	Port 2
(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)
8.46	8.46	5.13	6.09

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

PSD

#### 5580MHz

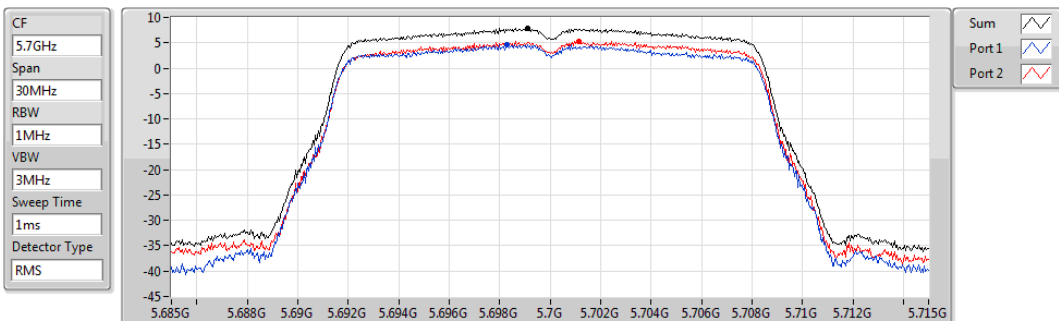


Sum	PD	Port 1	Port 2
(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)
9.76	9.76	6.69	7.07

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

PSD

#### 5700MHz

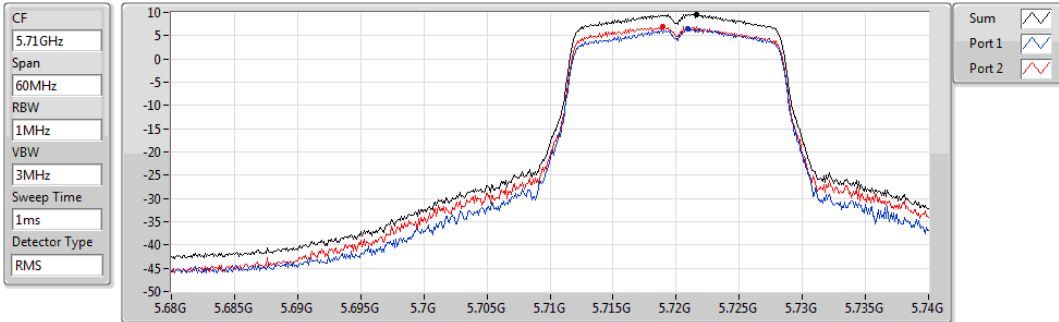


Sum	PD	Port 1	Port 2
(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)
7.79	7.79	4.70	5.38

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

PSD

#### 5720MHz Straddle 5.47-5.725GHz

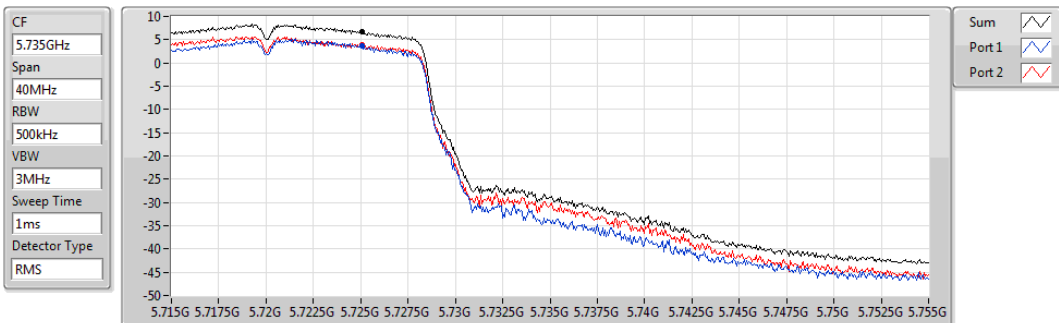


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.63	9.63	6.52	6.98

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

PSD

#### 5720MHz Straddle 5.725-5.85GHz

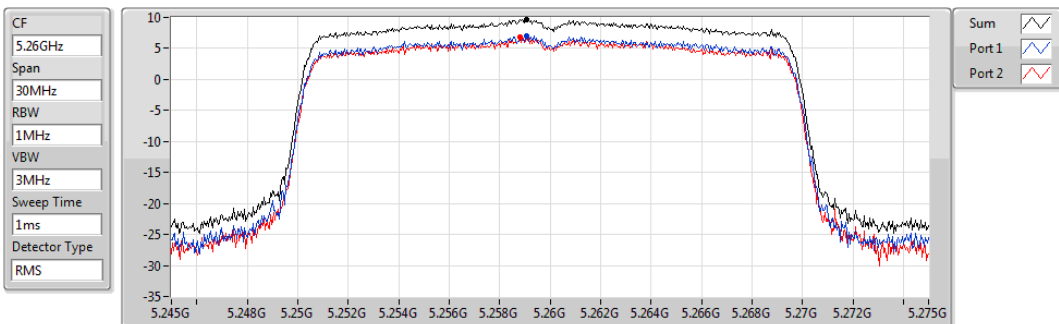


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.81	6.81	3.61	3.98

### 11AX20\_Nss1,(MCS0)\_2TX

PSD

#### 5260MHz

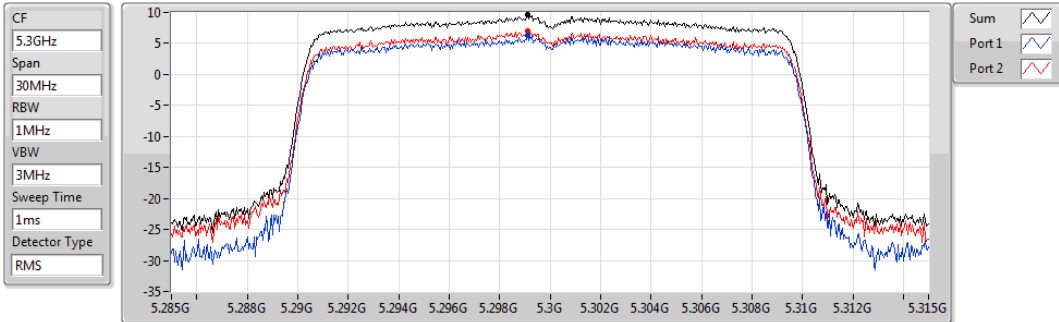


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.72	9.72	6.98	6.88

### 11AX20\_Nss1,(MCS0)\_2TX

PSD

#### 5300MHz

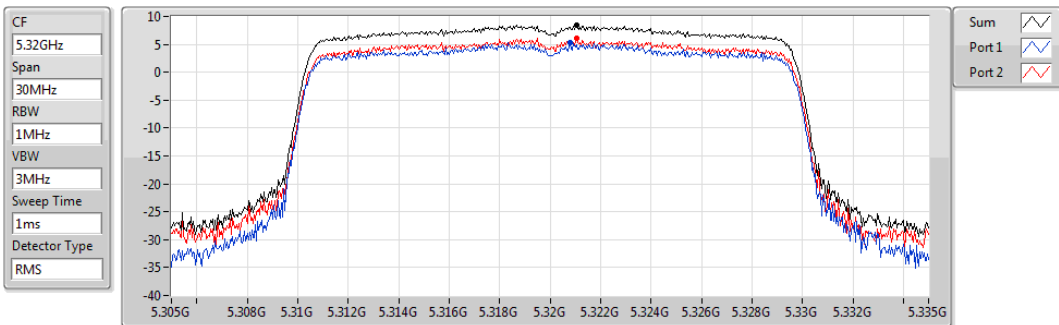


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.60	9.60	6.23	6.93

### 11AX20\_Nss1,(MCS0)\_2TX

PSD

#### 5320MHz

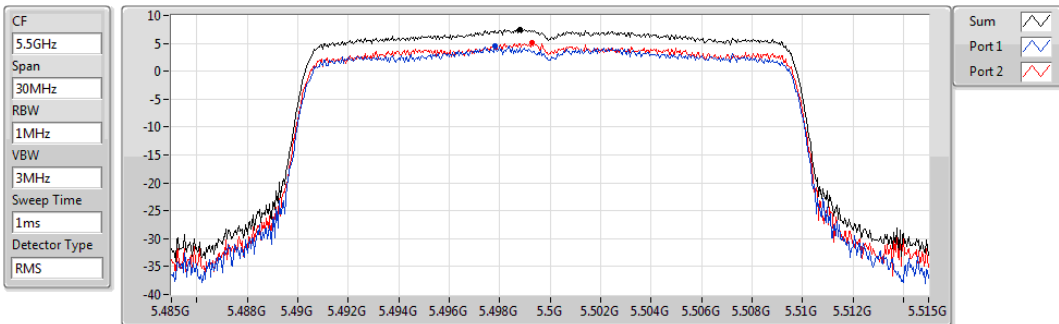


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.53	8.53	5.30	6.06

### 11AX20\_Nss1,(MCS0)\_2TX

PSD

#### 5500MHz

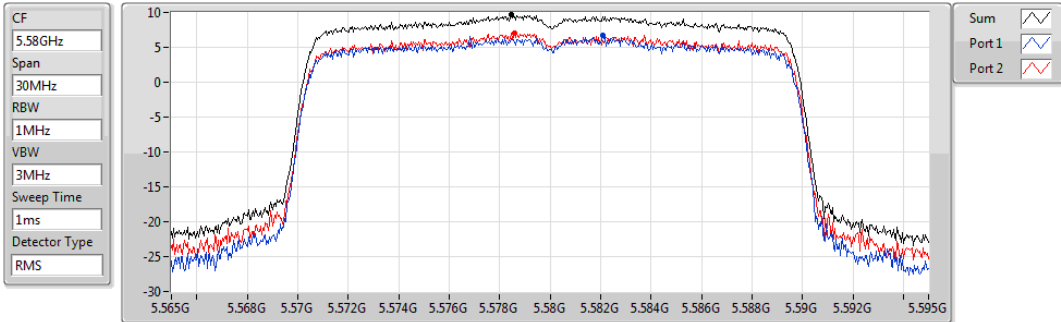


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.55	7.55	4.47	5.07

### 11AX20\_Nss1,(MCS0)\_2TX

PSD

#### 5580MHz

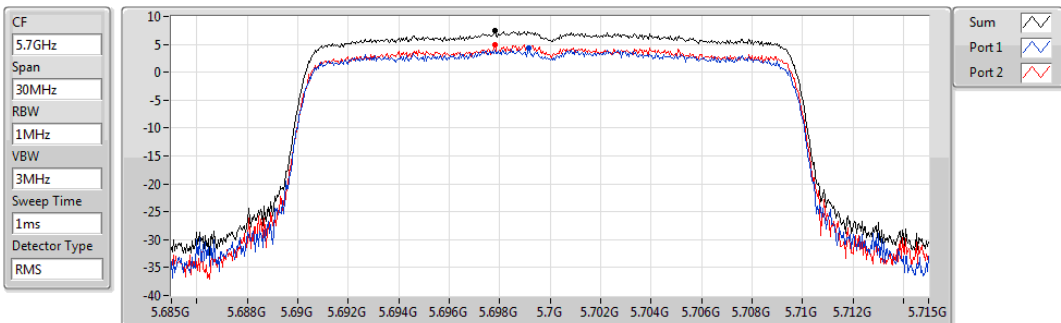


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.66	9.66	6.68	7.00

### 11AX20\_Nss1,(MCS0)\_2TX

PSD

#### 5700MHz

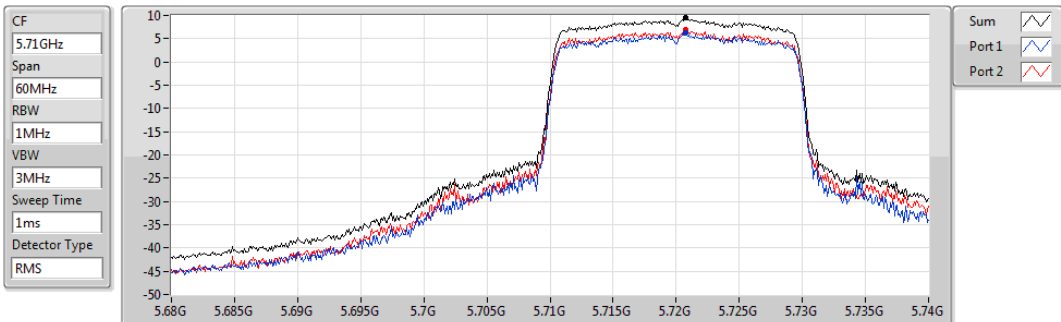


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.41	7.41	4.29	4.88

### 11AX20\_Nss1,(MCS0)\_2TX

PSD

#### 5720MHz Straddle 5.47-5.725GHz

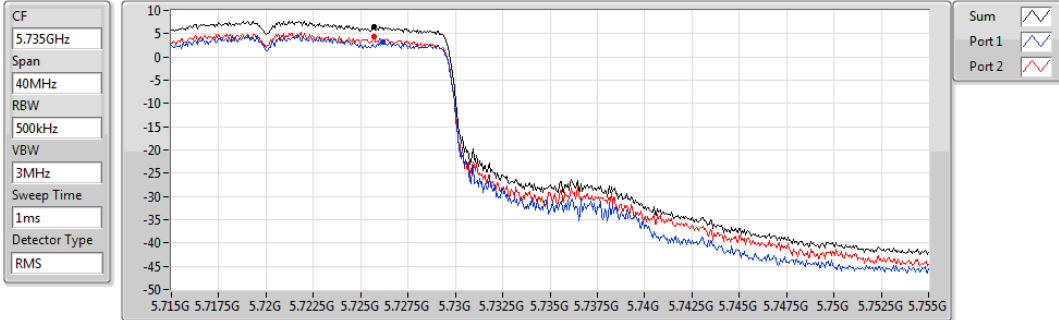


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.54	9.54	6.18	6.86

### 11AX20\_Nss1,(MCS0)\_2TX

PSD

#### 5720MHz Straddle 5.725-5.85GHz

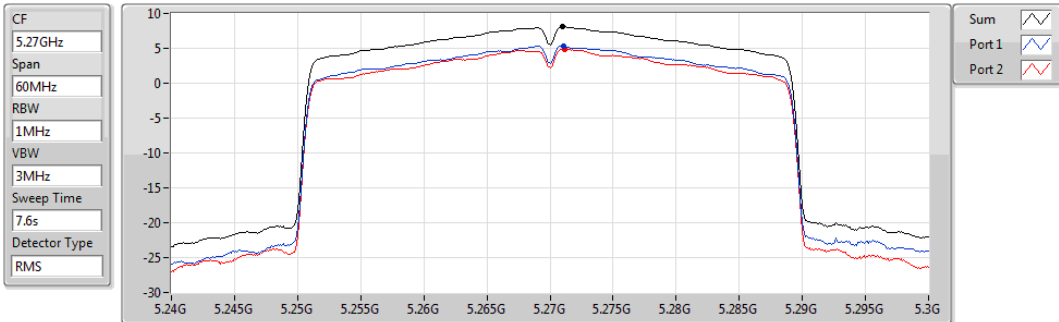


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.43	6.43	3.32	4.26

### 11AX40\_Nss1,(MCS0)\_2TX

PSD

#### 5270MHz

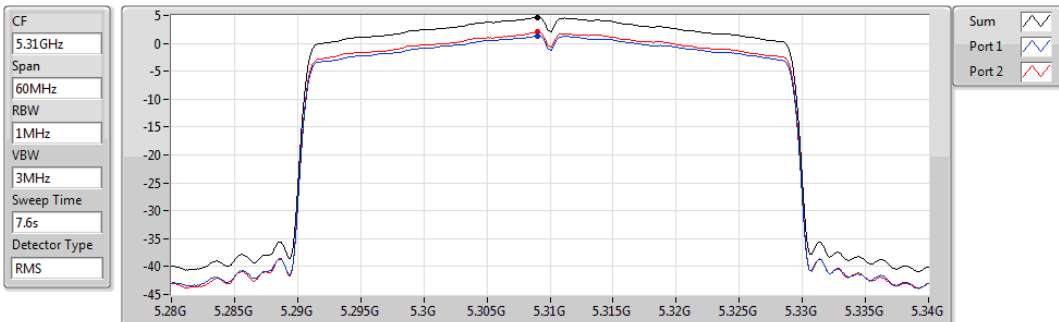


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.11	8.11	5.35	4.87

### 11AX40\_Nss1,(MCS0)\_2TX

PSD

#### 5310MHz



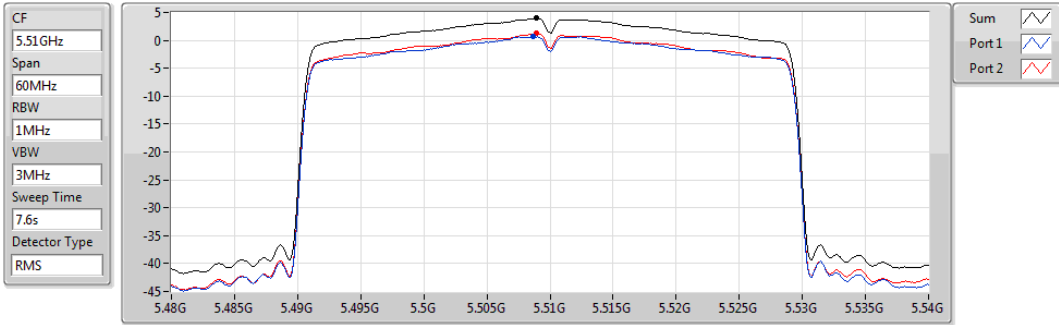
Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.68	4.68	1.33	1.99



### 11AX40\_Nss1,(MCS0)\_2TX

PSD

#### 5510MHz

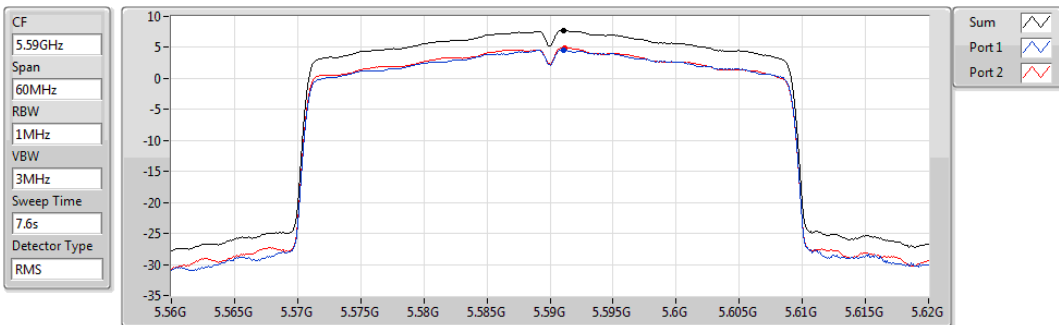


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.93	3.93	0.64	1.21

### 11AX40\_Nss1,(MCS0)\_2TX

PSD

#### 5590MHz

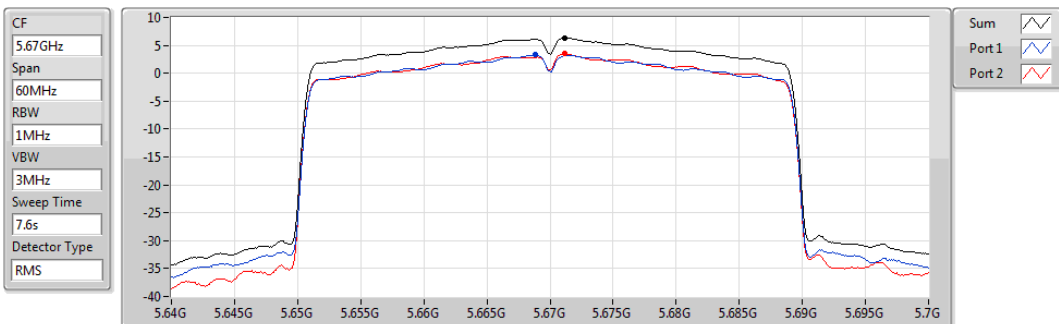


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.79	7.79	4.61	4.98

### 11AX40\_Nss1,(MCS0)\_2TX

PSD

#### 5670MHz

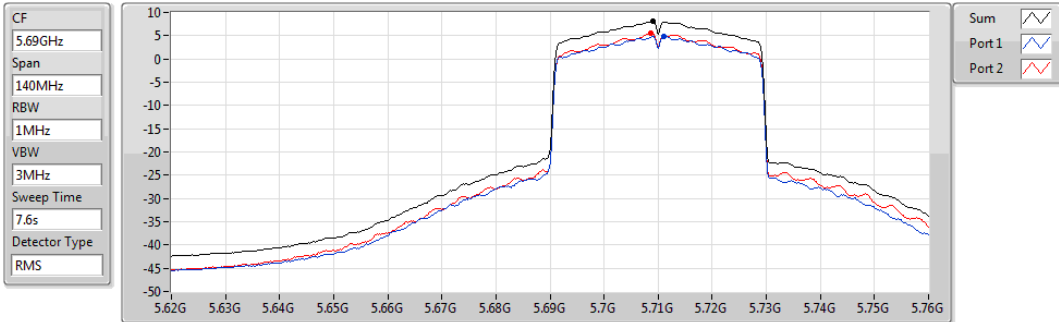


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.32	6.32	3.27	3.51

### 11AX40\_Nss1,(MCS0)\_2TX

PSD

#### 5710MHz Straddle 5.47-5.725GHz

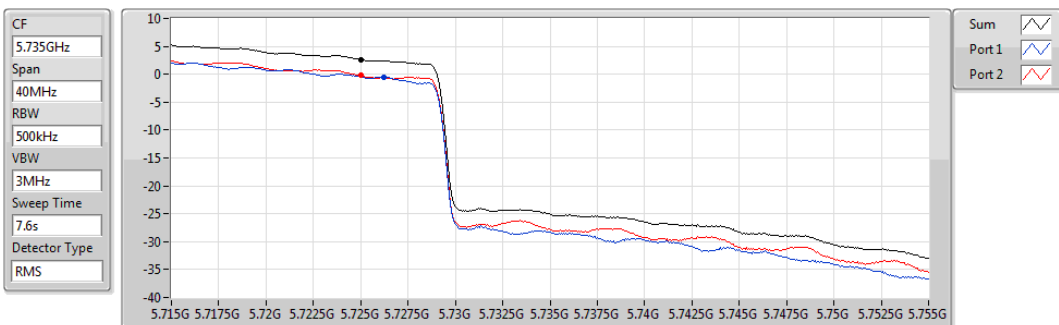


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.16	8.16	4.90	5.48

### 11AX40\_Nss1,(MCS0)\_2TX

PSD

#### 5710MHz Straddle 5.725-5.85GHz

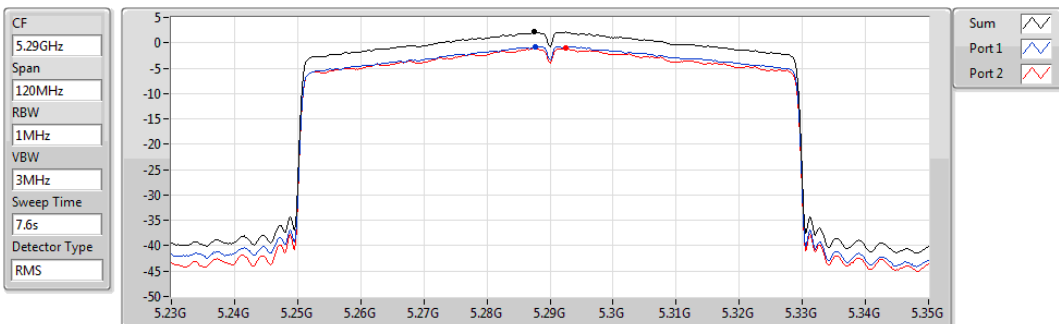


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.67	2.67	-0.45	-0.19

### 11AX80\_Nss1,(MCS0)\_2TX

PSD

#### 5290MHz

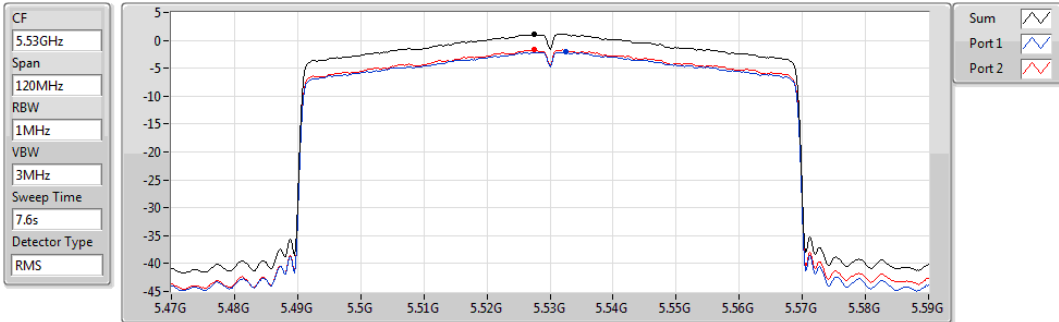


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.10	2.10	-0.78	-1.03

### 11AX80\_Nss1,(MCS0)\_2TX

PSD

#### 5530MHz

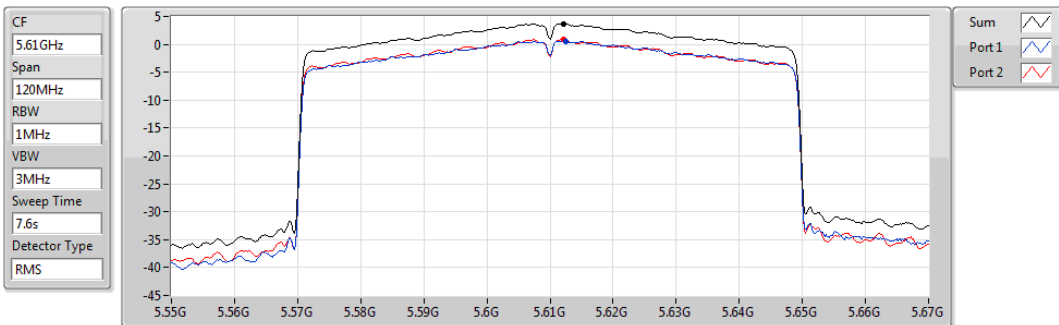


Sum	PD	Port 1	Port 2
(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)
1.11	1.11	-2.12	-1.67

### 11AX80\_Nss1,(MCS0)\_2TX

PSD

#### 5610MHz

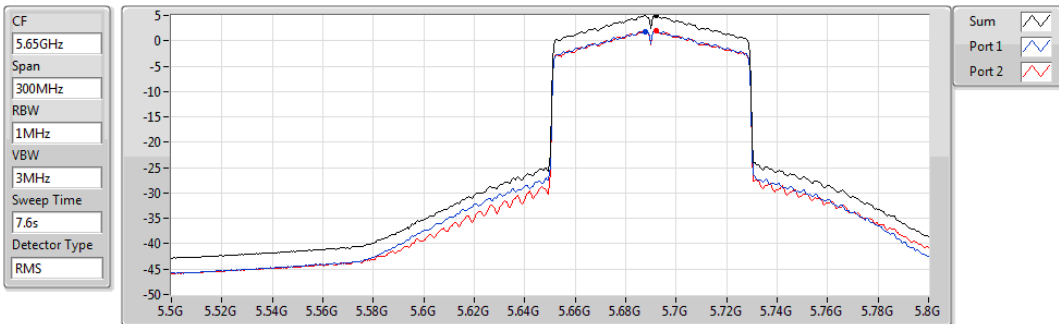


Sum	PD	Port 1	Port 2
(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)
3.72	3.72	0.56	0.91

### 11AX80\_Nss1,(MCS0)\_2TX

PSD

#### 5690MHz Straddle 5.47-5.725GHz

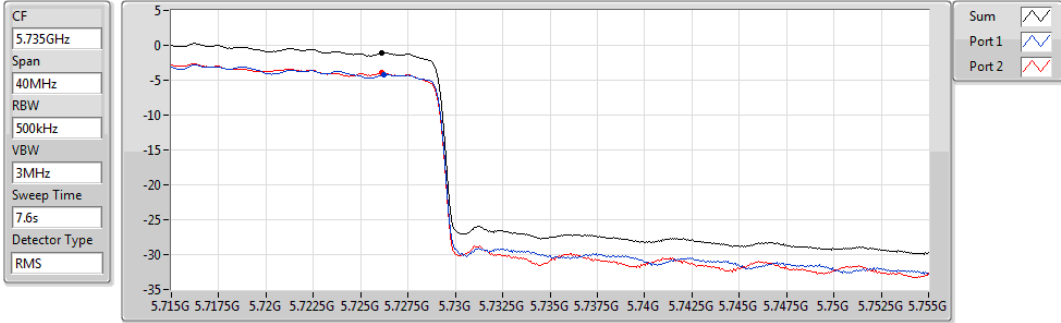


Sum	PD	Port 1	Port 2
(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)
4.93	4.93	1.87	2.02

**11AX80\_Nss1,(MCS0)\_2TX**

**PSD**

**5690MHz Straddle 5.725-5.85GHz**



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.09	-1.09	-4.17	-3.98

### 3.5 Transmitter Radiated and Band Edge Emissions

#### 3.5.1 Limit of Transmitter Radiated and Band Edge 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).

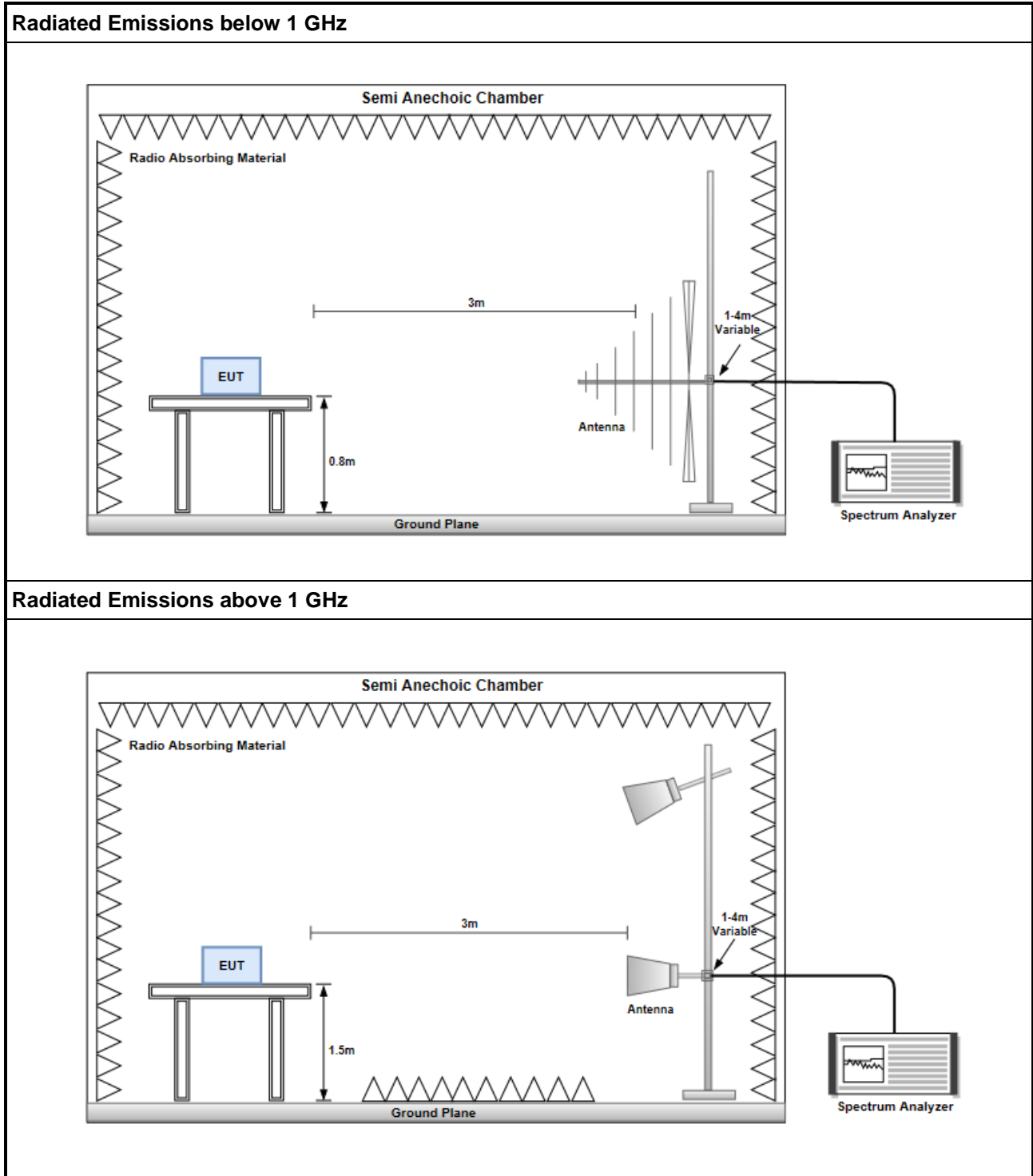
### 3.5.2 Test Procedures

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.

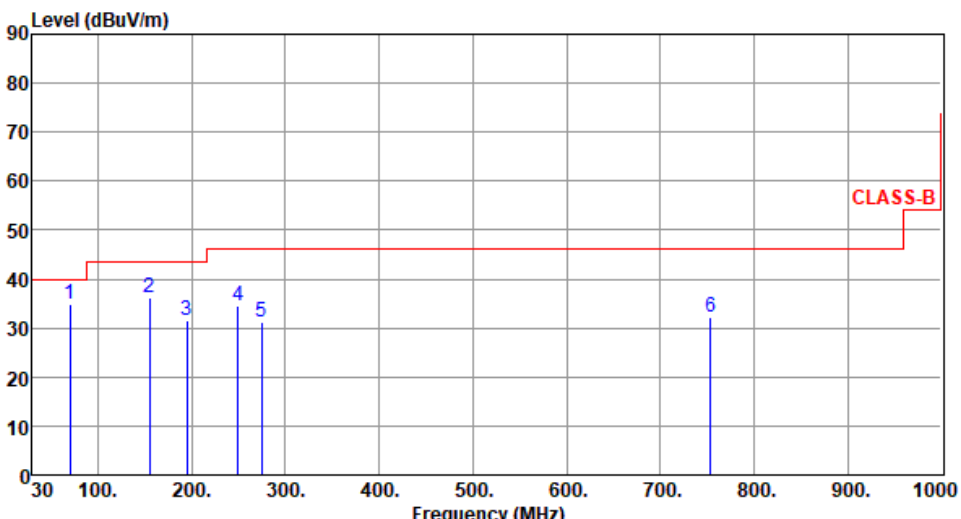
Note:

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.

### 3.5.3 Test Setup



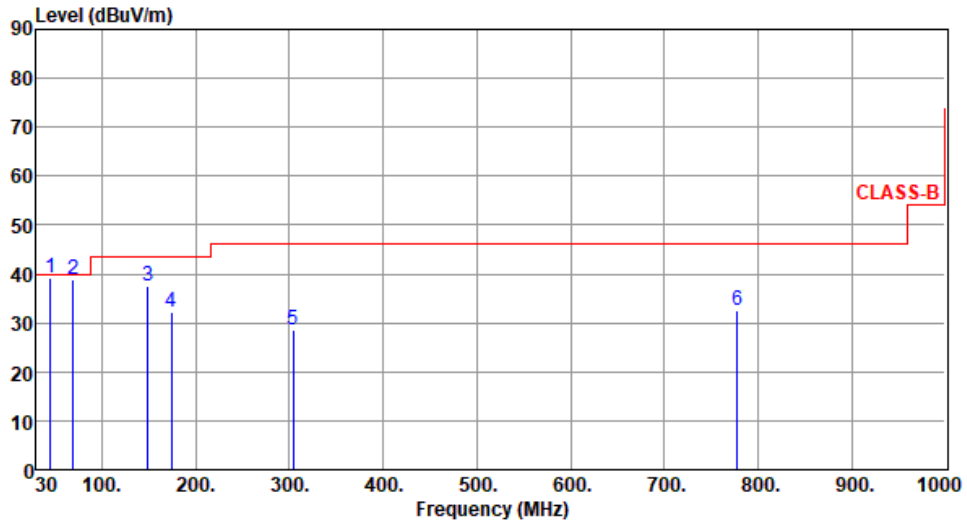
### 3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

<b>Modulation</b>	ax HE20	<b>Test Freq. (MHz)</b>	5240																																																																													
<b>Polarization</b>	Horizontal																																																																															
Test By :BRAD WU      Temperature(°C):24      Humidity(%):69																																																																																
																																																																																
	<table border="1"> <thead> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> </tr> </thead> <tbody> <tr> <td>69.89</td> <td>155.23</td> <td>195.25</td> <td>249.33</td> <td>274.23</td> <td>753.25</td> </tr> </tbody> </table>	1	2	3	4	5	6	69.89	155.23	195.25	249.33	274.23	753.25	<table border="1"> <thead> <tr> <th>Emission level</th> <th>Limit</th> <th>Margin</th> <th>SA reading</th> <th>Factor</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> <tr> <th>dBuV/m</th> <th>dBuV/m</th> <th>dB</th> <th>dBuV</th> <th>dB</th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>34.77</td> <td>40.00</td> <td>-5.23</td> <td>45.40</td> <td>-10.63</td> <td>QP</td> <td>100</td> <td>82</td> </tr> <tr> <td>36.25</td> <td>43.50</td> <td>-7.25</td> <td>44.58</td> <td>-8.33</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>31.44</td> <td>43.50</td> <td>-12.06</td> <td>43.14</td> <td>-11.70</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>34.50</td> <td>46.00</td> <td>-11.50</td> <td>44.46</td> <td>-9.96</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>31.33</td> <td>46.00</td> <td>-14.67</td> <td>40.16</td> <td>-8.83</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>32.22</td> <td>46.00</td> <td>-13.78</td> <td>30.39</td> <td>1.83</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High cm	Turn Table deg	dBuV/m	dBuV/m	dB	dBuV	dB				34.77	40.00	-5.23	45.40	-10.63	QP	100	82	36.25	43.50	-7.25	44.58	-8.33	Peak	---	---	31.44	43.50	-12.06	43.14	-11.70	Peak	---	---	34.50	46.00	-11.50	44.46	-9.96	Peak	---	---	31.33	46.00	-14.67	40.16	-8.83	Peak	---	---	32.22	46.00	-13.78	30.39	1.83	Peak	---	---		
1	2	3	4	5	6																																																																											
69.89	155.23	195.25	249.33	274.23	753.25																																																																											
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36.25	43.50	-7.25	44.58	-8.33	Peak	---	---																																																																									
31.44	43.50	-12.06	43.14	-11.70	Peak	---	---																																																																									
34.50	46.00	-11.50	44.46	-9.96	Peak	---	---																																																																									
31.33	46.00	-14.67	40.16	-8.83	Peak	---	---																																																																									
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Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB) *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 HE20	<b>Test Freq. (MHz)</b>	5240
<b>Polarization</b>	Vertical		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	44.85	39.10	40.00	-0.90	47.49	-8.39	QP	100	305
2	69.53	38.70	40.00	-1.30	49.25	-10.55	QP	100	169
3	149.23	37.44	43.50	-6.06	45.90	-8.46	Peak	---	---
4	174.25	32.05	43.50	-11.45	41.33	-9.28	Peak	---	---
5	304.25	28.44	46.00	-17.56	36.34	-7.90	Peak	---	---
6	777.54	32.44	46.00	-13.56	30.23	2.21	Peak	---	---

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

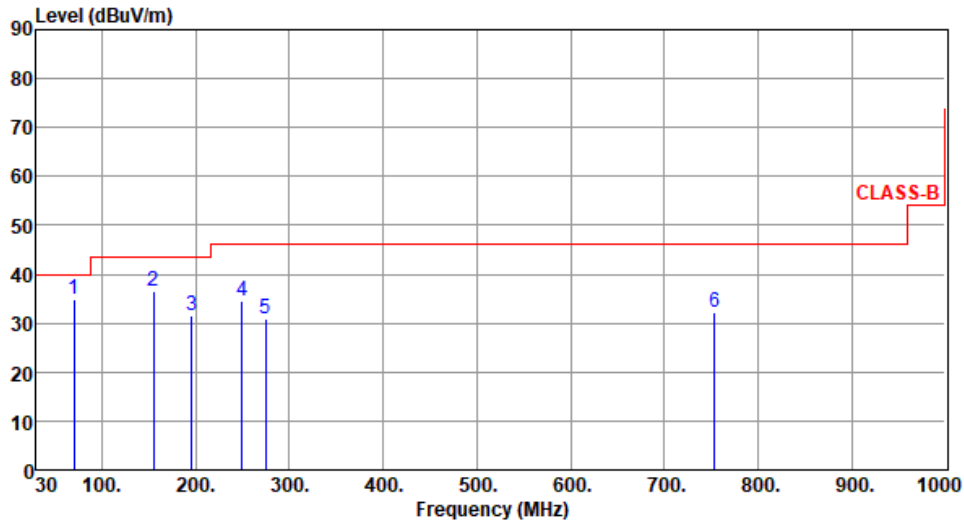
\*Factor includes antenna factor , cable loss and amplifier gain

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	<b>Test Freq. (MHz)</b>	5270
<b>Polarization</b>	Horizontal		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	70.58	34.89	40.00	-5.11	45.59	-10.70	QP	100	81
2	155.13	36.51	43.50	-6.99	44.84	-8.33	Peak	---	---
3	195.87	31.61	43.50	-11.89	43.38	-11.77	Peak	---	---
4	249.22	34.44	46.00	-11.56	44.40	-9.96	Peak	---	---
5	274.44	31.03	46.00	-14.97	39.84	-8.81	Peak	---	---
6	753.62	32.05	46.00	-13.95	30.22	1.83	Peak	---	---

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

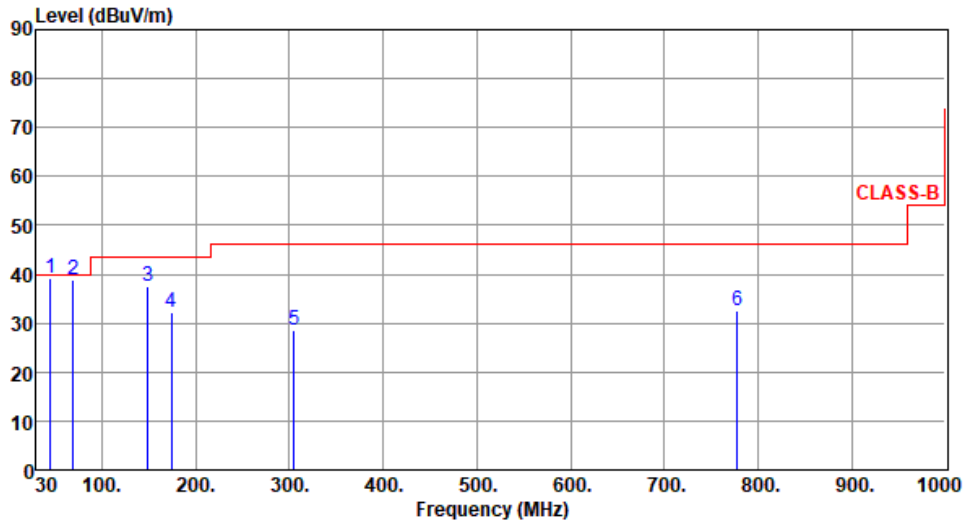
\*Factor includes antenna factor , cable loss and amplifier gain

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	<b>Test Freq. (MHz)</b>	5270
<b>Polarization</b>	Vertical		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	44.96	39.19	40.00	-0.81	47.60	-8.41	QP	100	304
2	69.59	38.95	40.00	-1.05	49.52	-10.57	QP	100	169
3	149.31	37.57	43.50	-5.93	46.04	-8.47	Peak	---	---
4	174.53	32.13	43.50	-11.37	41.41	-9.28	Peak	---	---
5	304.51	28.52	46.00	-17.48	36.41	-7.89	Peak	---	---
6	777.87	32.67	46.00	-13.33	30.45	2.22	Peak	---	---

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

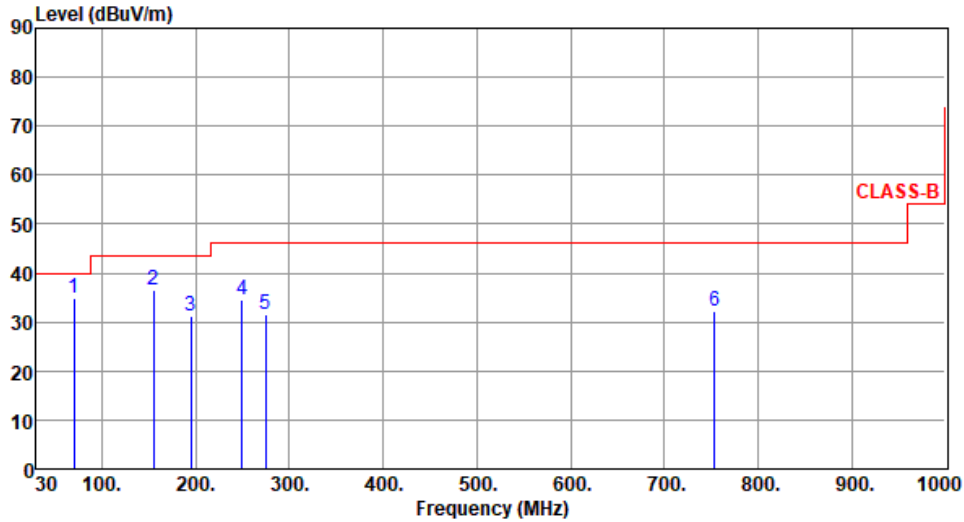
\*Factor includes antenna factor , cable loss and amplifier gain

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>	11a	<b>Test Freq. (MHz)</b>	5785
<b>Polarization</b>	Horizontal		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	70.49	34.82	40.00	-5.18	45.52	-10.70	QP	100	82
2	155.32	36.40	43.50	-7.10	44.73	-8.33	Peak	---	---
3	194.80	31.29	43.50	-12.21	42.95	-11.66	Peak	---	---
4	249.50	34.66	46.00	-11.34	44.62	-9.96	Peak	---	---
5	274.25	31.71	46.00	-14.29	40.53	-8.82	Peak	---	---
6	753.25	32.23	46.00	-13.77	30.40	1.83	Peak	---	---

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

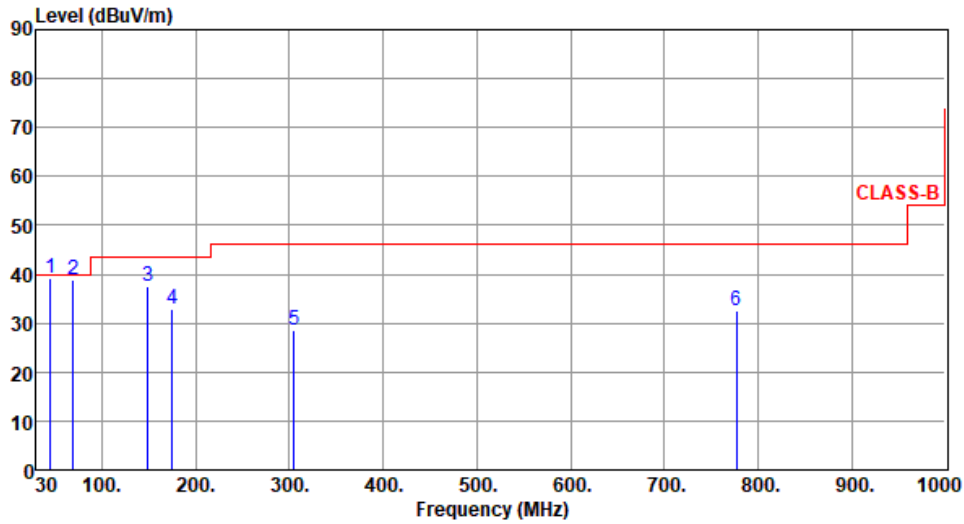
\*Factor includes antenna factor , cable loss and amplifier gain

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>	11a	<b>Test Freq. (MHz)</b>	5785
<b>Polarization</b>	Vertical		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	44.74	39.03	40.00	-0.97	47.40	-8.37	QP	100	307
2	69.44	38.75	40.00	-1.25	49.30	-10.55	QP	100	172
3	149.42	37.44	43.50	-6.06	45.92	-8.48	Peak	---	---
4	174.58	32.90	43.50	-10.60	42.18	-9.28	Peak	---	---
5	304.88	28.44	46.00	-17.56	36.31	-7.87	Peak	---	---
6	777.11	32.71	46.00	-13.29	30.51	2.20	Peak	---	---

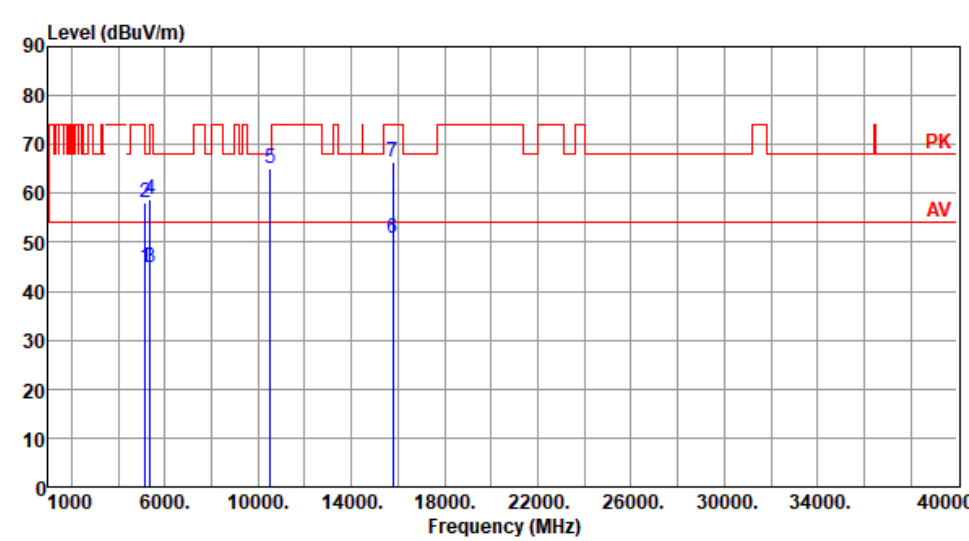
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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.

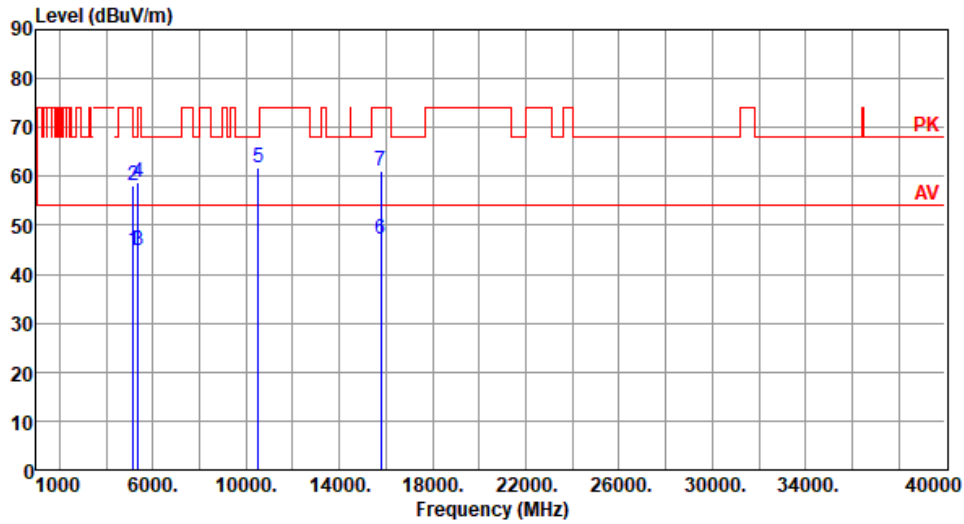
### 3.5.5 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11a

Modulation	11a	Test Freq. (MHz)	5260						
Polarization	Horizontal								
Test By : Roger Lu      Temperature(°C):24      Humidity(%):69									
 <p>The graph displays the radiated unwanted emission levels in dBuV/m across a frequency range from 1000 to 40000 MHz. The y-axis ranges from 0 to 90 dBuV/m. A red line represents the average level (AV) at approximately 55 dBuV/m, and a higher red line represents the peak level (PK) at approximately 70 dBuV/m. Several peaks are identified with blue vertical lines and numbered 1 through 7. Peak 1 is at 5150 MHz, peak 2 at 5150 MHz, peak 3 at 5350 MHz, peak 4 at 5350 MHz, peak 5 at 10520 MHz, peak 6 at 15780 MHz, and peak 7 at 15780 MHz.</p>									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.73	54.00	-9.27	40.09	4.64	Average	101	298
2	5150.00	58.18	74.00	-15.82	53.54	4.64	Peak	101	298
3	5350.00	44.93	54.00	-9.07	40.99	3.94	Average	101	298
4	5350.00	58.66	74.00	-15.34	54.72	3.94	Peak	101	298
5	10520.00	65.11	68.20	-3.09	50.65	14.46	Peak	158	11
6	15780.00	50.79	54.00	-3.21	36.61	14.18	Average	144	50
7	15780.00	66.30	74.00	-7.70	52.12	14.18	Peak	144	50

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)  
\*Factor includes antenna factor , cable loss and amplifier gain  
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

<b>Modulation</b>	11a	<b>Test Freq. (MHz)</b>	5260
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.69	54.00	-9.31	40.05	4.64	Average	334	2
2	5150.00	58.14	74.00	-15.86	53.50	4.64	Peak	334	2
3	5350.00	44.88	54.00	-9.12	40.94	3.94	Average	334	2
4	5350.00	58.62	74.00	-15.38	54.68	3.94	Peak	334	2
5	10520.00	61.88	68.20	-6.32	47.42	14.46	Peak	125	11
6	15780.00	47.22	54.00	-6.78	33.04	14.18	Average	105	356
7	15780.00	61.09	74.00	-12.91	46.91	14.18	Peak	105	356

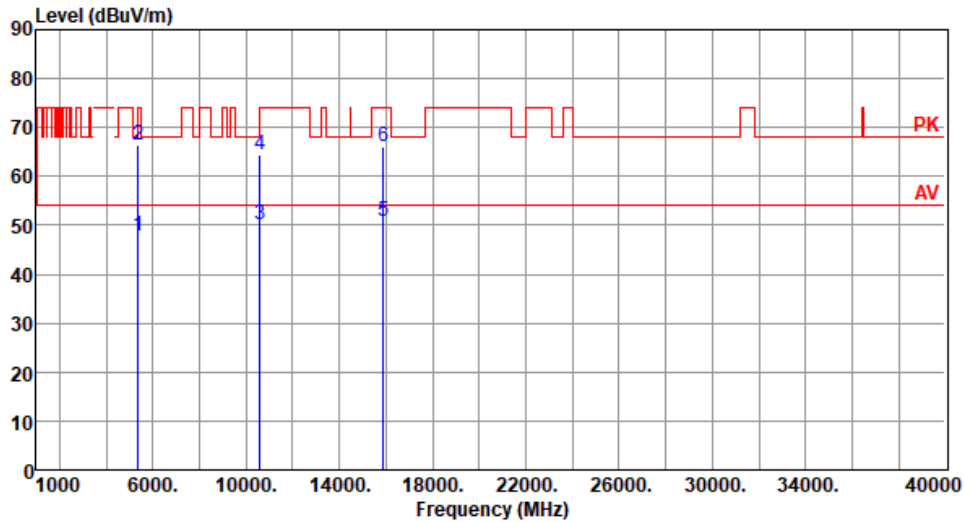
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

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

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

<b>Modulation</b>	11a	<b>Test Freq. (MHz)</b>	5300
<b>Polarization</b>	Horizontal		

Test By :Roger Lu      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	47.74	54.00	-6.26	43.80	3.94	Average	101	296
2	5350.00	66.46	74.00	-7.54	62.52	3.94	Peak	101	296
3	10600.00	50.03	54.00	-3.97	35.75	14.28	Average	153	4
4	10600.00	64.48	74.00	-9.52	50.20	14.28	Peak	153	4
5	15900.00	50.73	54.00	-3.27	36.48	14.25	Average	145	50
6	15900.00	66.10	74.00	-7.90	51.85	14.25	Peak	145	50

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

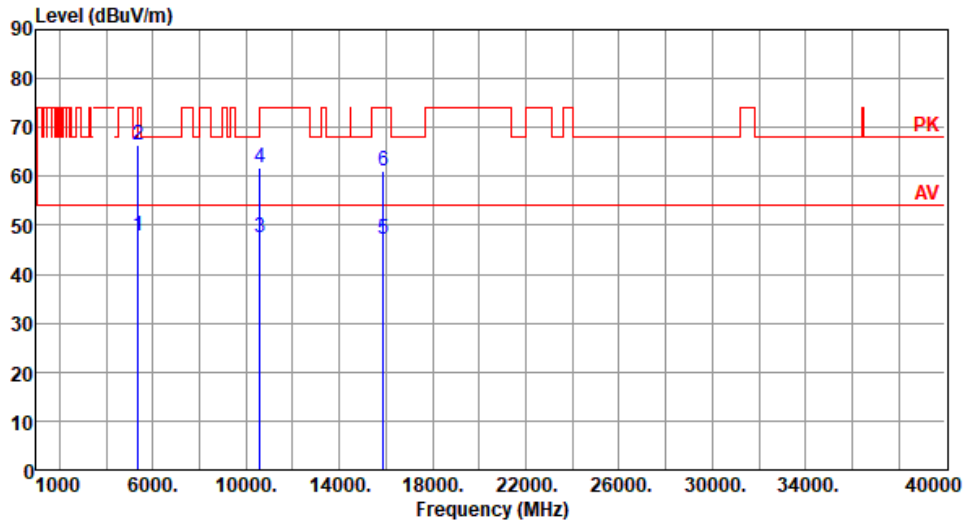
\*Factor includes antenna factor , cable loss and amplifier gain

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



<b>Modulation</b>	11a	<b>Test Freq. (MHz)</b>	5300
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	47.68	54.00	-6.32	43.74	3.94	Average	335	4
2	5350.00	66.39	74.00	-7.61	62.45	3.94	Peak	335	4
3	10600.00	47.37	54.00	-6.63	33.09	14.28	Average	126	10
4	10600.00	61.94	74.00	-12.06	47.66	14.28	Peak	126	10
5	15900.00	47.25	54.00	-6.75	33.00	14.25	Average	104	358
6	15900.00	61.11	74.00	-12.89	46.86	14.25	Peak	104	358

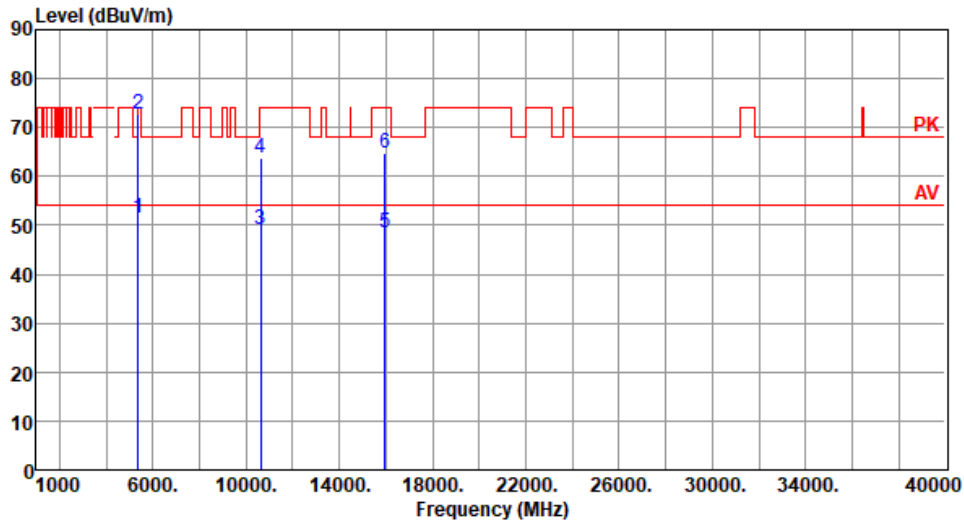
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

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

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

<b>Modulation</b>	11a	<b>Test Freq. (MHz)</b>	5320
<b>Polarization</b>	Horizontal		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	51.62	54.00	-2.38	47.68	3.94	Average	100	296
2	5350.00	72.90	74.00	-1.10	68.96	3.94	Peak	100	296
3	10640.00	49.27	54.00	-4.73	34.89	14.38	Average	128	11
4	10640.00	63.87	74.00	-10.13	49.49	14.38	Peak	128	11
5	15960.00	48.46	54.00	-5.54	34.24	14.22	Average	132	54
6	15960.00	64.90	74.00	-9.10	50.68	14.22	Peak	132	54

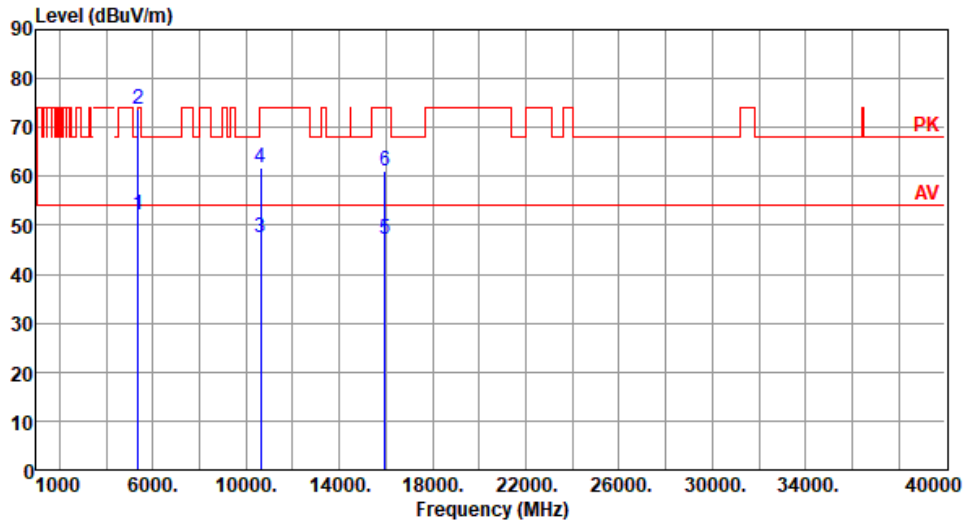
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

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

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

<b>Modulation</b>	11a	<b>Test Freq. (MHz)</b>	5320
<b>Polarization</b>	Vertical		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.19	54.00	-1.81	48.25	3.94	Average	348	359
2	5350.00	73.59	74.00	-0.41	69.65	3.94	Peak	348	359
3	10640.00	47.41	54.00	-6.59	33.03	14.38	Average	125	12
4	10640.00	61.89	74.00	-12.11	47.51	14.38	Peak	125	12
5	15960.00	47.28	54.00	-6.72	33.06	14.22	Average	101	356
6	15960.00	61.16	74.00	-12.84	46.94	14.22	Peak	101	356

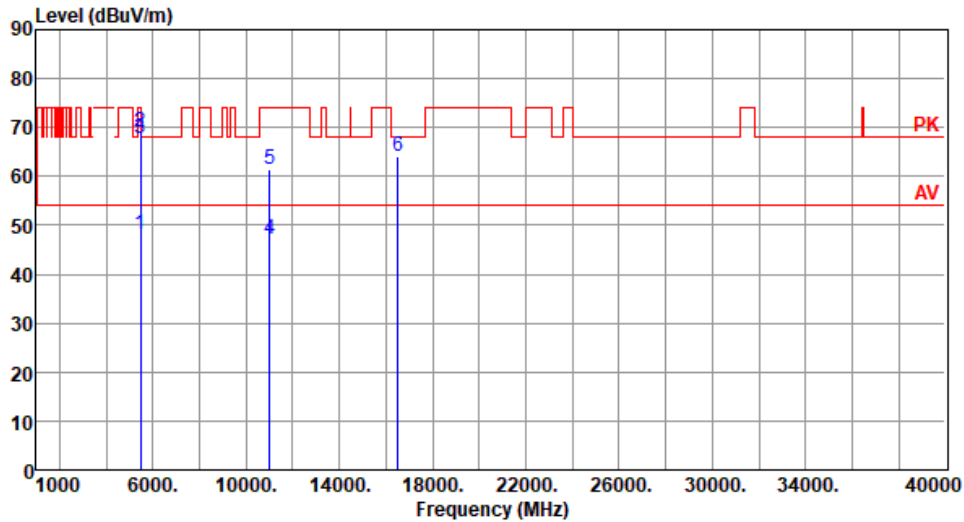
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

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

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

<b>Modulation</b>	11a	<b>Test Freq. (MHz)</b>	5500
<b>Polarization</b>	Horizontal		

Test By :BRAD WU      Temperature(°C):24      Humidity(%) :69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.05	54.00	-5.95	43.60	4.45	Average	179	20
2	5460.00	69.07	74.00	-4.93	64.62	4.45	Peak	179	20
3	5470.00	67.70	68.20	-0.50	63.20	4.50	Peak	179	20
4	11000.00	47.15	54.00	-6.85	32.27	14.88	Average	169	298
5	11000.00	61.36	74.00	-12.64	46.48	14.88	Peak	169	298
6	16500.00	64.08	68.20	-4.12	47.89	16.19	Peak	145	52

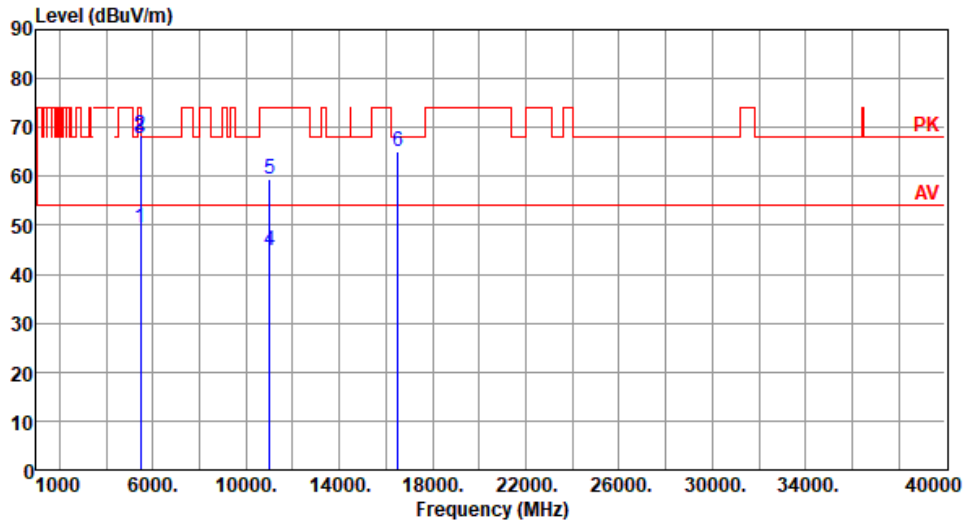
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

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

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

<b>Modulation</b>	11a	<b>Test Freq. (MHz)</b>	5500
<b>Polarization</b>	Vertical		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.44	54.00	-4.56	44.99	4.45	Average	353	1
2	5460.00	68.50	74.00	-5.50	64.05	4.45	Peak	353	1
3	5470.00	67.59	68.20	-0.61	63.09	4.50	Peak	353	1
4	11000.00	44.68	54.00	-9.32	29.80	14.88	Average	185	6
5	11000.00	59.32	74.00	-14.68	44.44	14.88	Peak	185	6
6	16500.00	65.14	68.20	-3.06	48.95	16.19	Peak	124	335

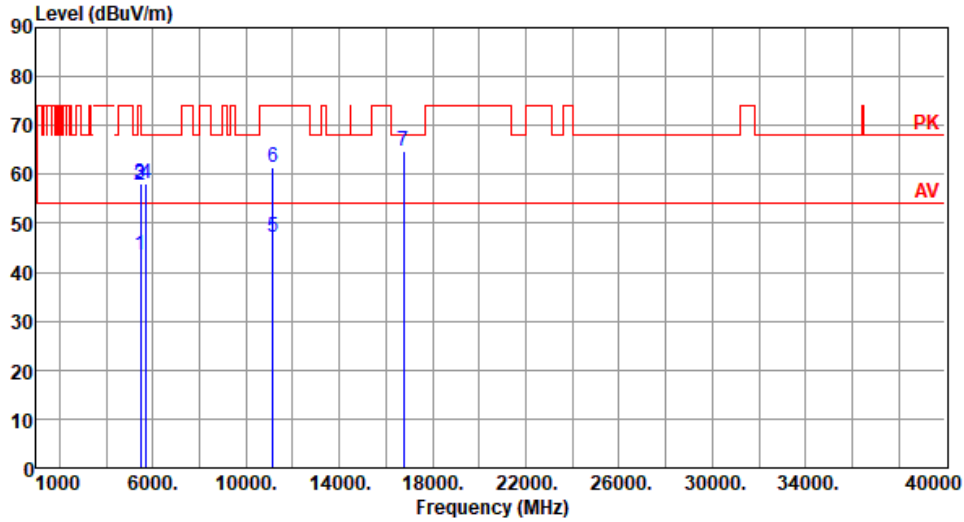
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

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

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

<b>Modulation</b>	11a	<b>Test Freq. (MHz)</b>	5580
<b>Polarization</b>	Horizontal		

Test By :Roger Lu      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	43.64	54.00	-10.36	39.19	4.45	Average	161	20
2	5460.00	57.67	74.00	-16.33	53.22	4.45	Peak	161	20
3	5470.00	57.96	68.20	-10.24	53.46	4.50	Peak	161	20
4	5725.00	58.01	68.20	-10.19	53.16	4.85	Peak	161	20
5	11160.00	47.21	54.00	-6.79	32.83	14.38	Average	173	295
6	11160.00	61.42	74.00	-12.58	47.04	14.38	Peak	173	295
7	16740.00	64.62	68.20	-3.58	47.15	17.47	Peak	142	50

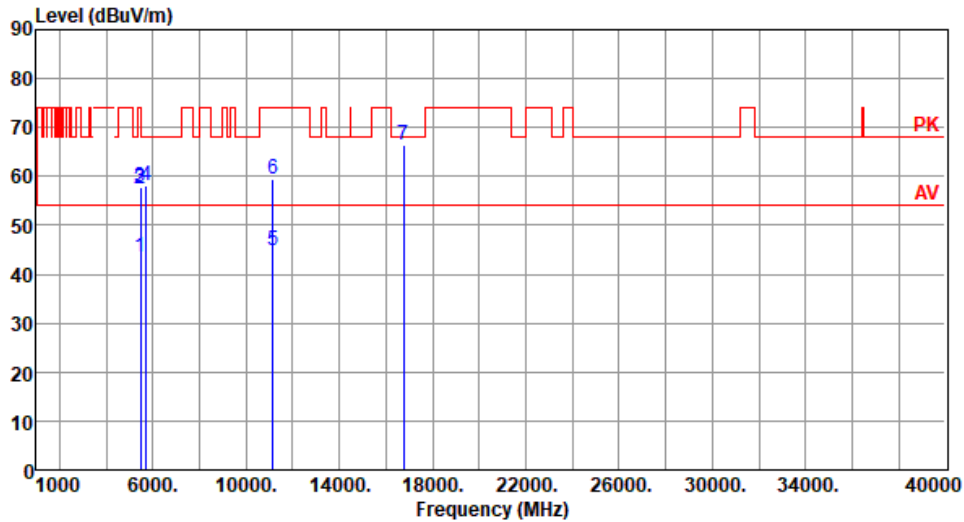
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

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

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

<b>Modulation</b>	11a	<b>Test Freq. (MHz)</b>	5580
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	43.45	54.00	-10.55	39.00	4.45	Average	385	14
2	5460.00	57.52	74.00	-16.48	53.07	4.45	Peak	385	14
3	5470.00	57.88	68.20	-10.32	53.38	4.50	Peak	385	14
4	5725.00	57.96	68.20	-10.24	53.11	4.85	Peak	385	14
5	11160.00	44.85	54.00	-9.15	30.47	14.38	Average	187	5
6	11160.00	59.40	74.00	-14.60	45.02	14.38	Peak	187	5
7	16740.00	66.58	68.20	-1.62	49.11	17.47	Peak	122	337

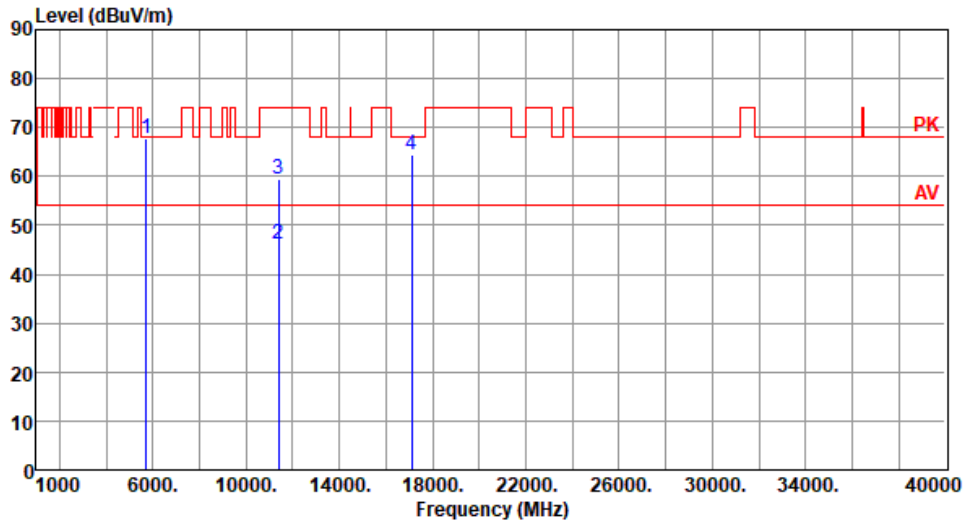
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

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

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

<b>Modulation</b>	11a	<b>Test Freq. (MHz)</b>	5700
<b>Polarization</b>	Horizontal		

Test By :BRAD WU      Temperature(°C):24      Humidity(%) :69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	67.76	68.20	-0.44	62.91	4.85	Peak	189	20
2	11400.00	46.32	54.00	-7.68	31.64	14.68	Average	122	355
3	11400.00	59.51	74.00	-14.49	44.83	14.68	Peak	122	355
4	17100.00	64.54	68.20	-3.66	46.86	17.68	Peak	129	61

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

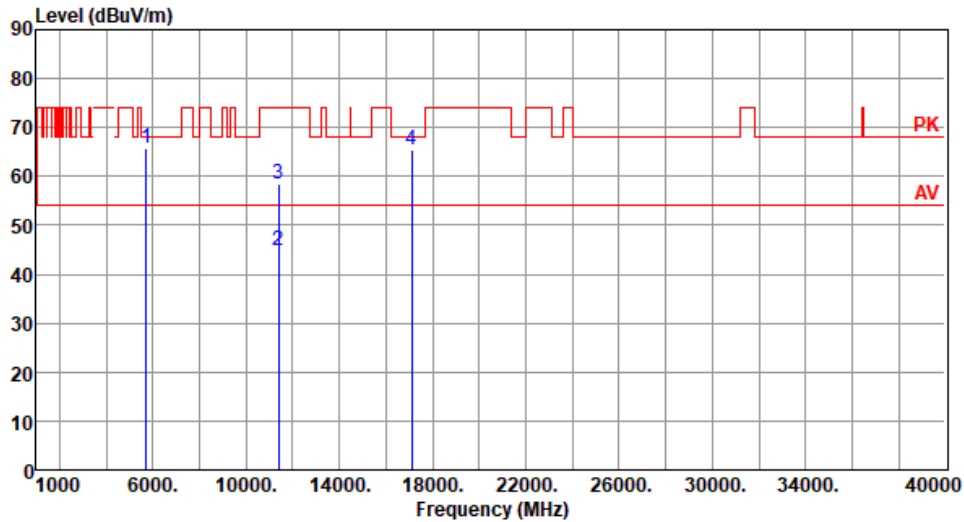
\*Factor includes antenna factor , cable loss and amplifier gain

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



<b>Modulation</b>	11a	<b>Test Freq. (MHz)</b>	5700
<b>Polarization</b>	Vertical		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	65.82	68.20	-2.38	60.97	4.85	Peak	148	351
2	11400.00	44.76	54.00	-9.24	30.08	14.68	Average	185	9
3	11400.00	58.36	74.00	-15.64	43.68	14.68	Peak	185	9
4	17100.00	65.41	68.20	-2.79	47.73	17.68	Peak	125	344

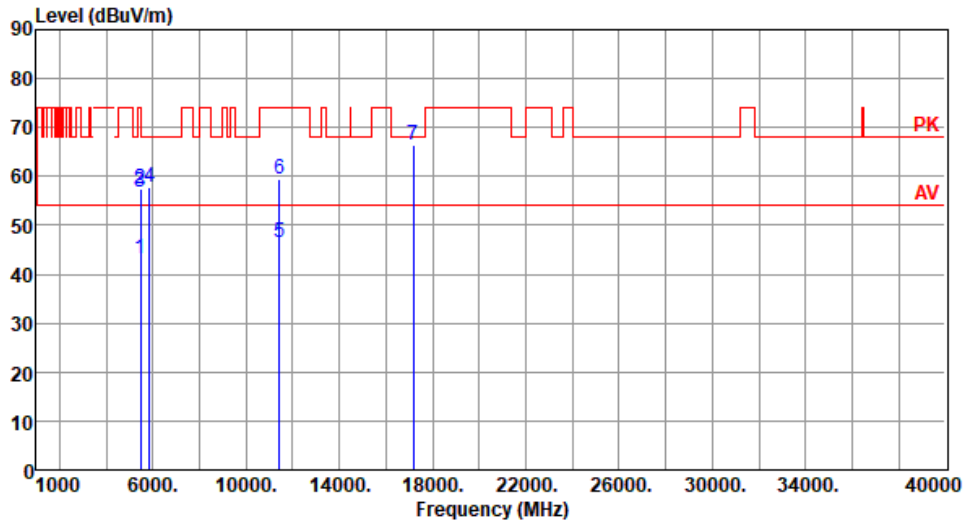
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

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

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

<b>Modulation</b>	11a	<b>Test Freq. (MHz)</b>	5720
<b>Polarization</b>	Horizontal		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	43.20	54.00	-10.80	38.75	4.45	Average	184	20
2	5460.00	57.34	74.00	-16.66	52.89	4.45	Peak	184	20
3	5470.00	56.70	68.20	-11.50	52.20	4.50	Peak	184	20
4	5850.00	57.76	68.20	-10.44	52.31	5.45	Peak	184	20
5	11440.00	46.37	54.00	-7.63	31.71	14.66	Average	123	356
6	11440.00	59.55	74.00	-14.45	44.89	14.66	Peak	123	356
7	17160.00	66.35	68.20	-1.85	48.70	17.65	Peak	128	57

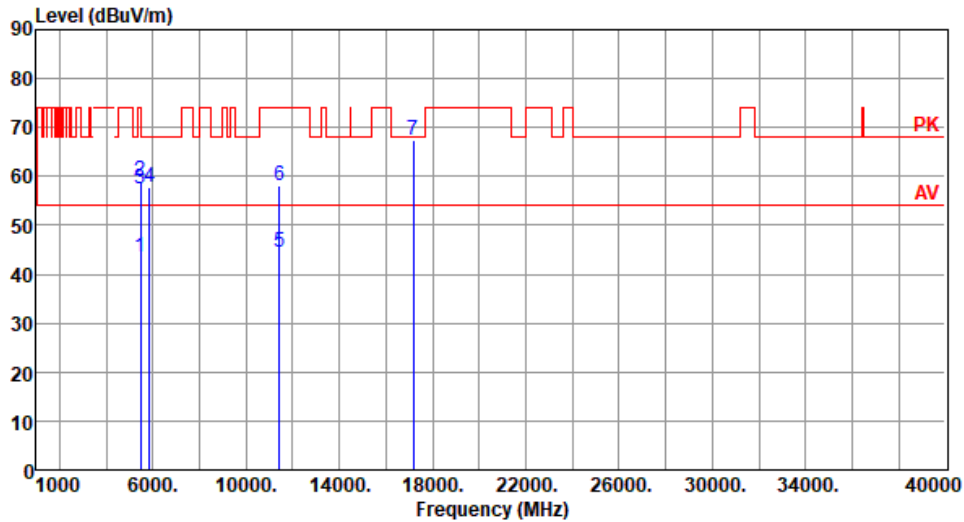
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

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

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

<b>Modulation</b>	11a	<b>Test Freq. (MHz)</b>	5720
<b>Polarization</b>	Vertical		

Test By :BRAD WU      Temperature(°C):24      Humidity(%) :69



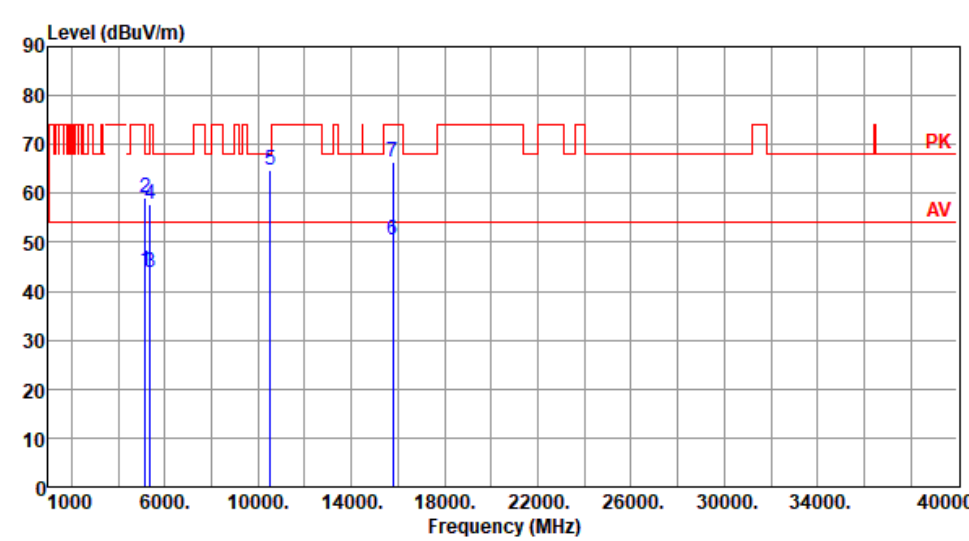
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	43.40	54.00	-10.60	38.95	4.45	Average	149	352
2	5460.00	58.98	74.00	-15.02	54.53	4.45	Peak	149	352
3	5470.00	57.40	68.20	-10.80	52.90	4.50	Peak	149	352
4	5850.00	57.67	68.20	-10.53	52.22	5.45	Peak	149	352
5	11440.00	44.65	54.00	-9.35	29.99	14.66	Average	169	8
6	11440.00	58.28	74.00	-15.72	43.62	14.66	Peak	169	8
7	17160.00	67.34	68.20	-0.86	49.69	17.65	Peak	123	340

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

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

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

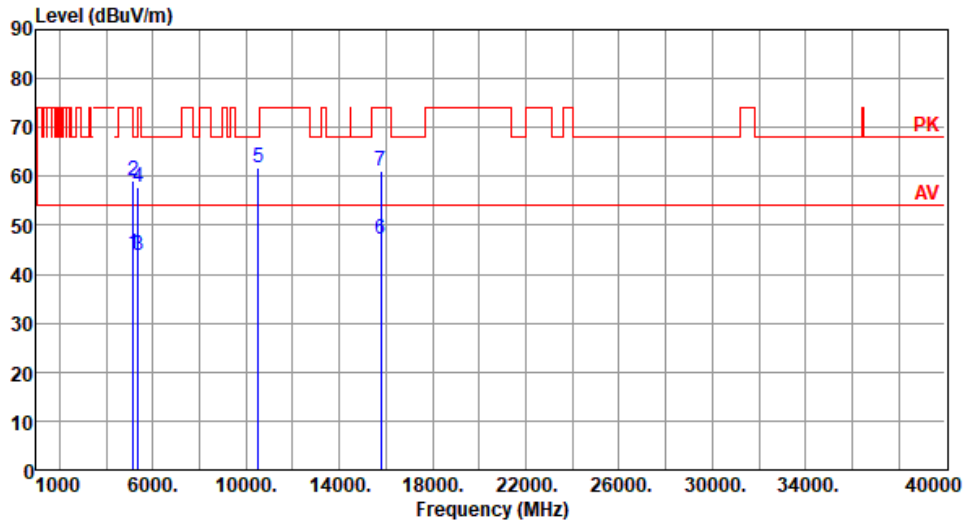
### 3.5.6 Transmitter Radiated Unwanted Emissions (Above 1GHz) for ax HE20

<b>Modulation</b>	ax HE20	<b>Test Freq. (MHz)</b>	5260						
<b>Polarization</b>	Horizontal								
Test By : Roger Lu      Temperature(°C):24      Humidity(%):69									
									
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	5150.00	44.06	54.00	-9.94	39.42	4.64	Average	100	293
2	5150.00	59.10	74.00	-14.90	54.46	4.64	Peak	100	293
3	5350.00	43.87	54.00	-10.13	39.93	3.94	Average	100	293
4	5350.00	57.83	74.00	-16.17	53.89	3.94	Peak	100	293
5	10520.00	64.79	68.20	-3.41	50.33	14.46	Peak	155	11
6	15780.00	50.33	54.00	-3.67	36.15	14.18	Average	149	50
7	15780.00	66.57	74.00	-7.43	52.39	14.18	Peak	149	50

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)  
 \*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	<b>Test Freq. (MHz)</b>	5260
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.14	54.00	-9.86	39.50	4.64	Average	335	4
2	5150.00	59.18	74.00	-14.82	54.54	4.64	Peak	335	4
3	5350.00	43.91	54.00	-10.09	39.97	3.94	Average	335	4
4	5350.00	57.86	74.00	-16.14	53.92	3.94	Peak	335	4
5	10520.00	61.75	68.20	-6.45	47.29	14.46	Peak	121	15
6	15780.00	47.19	54.00	-6.81	33.01	14.18	Average	103	351
7	15780.00	61.04	74.00	-12.96	46.86	14.18	Peak	103	351

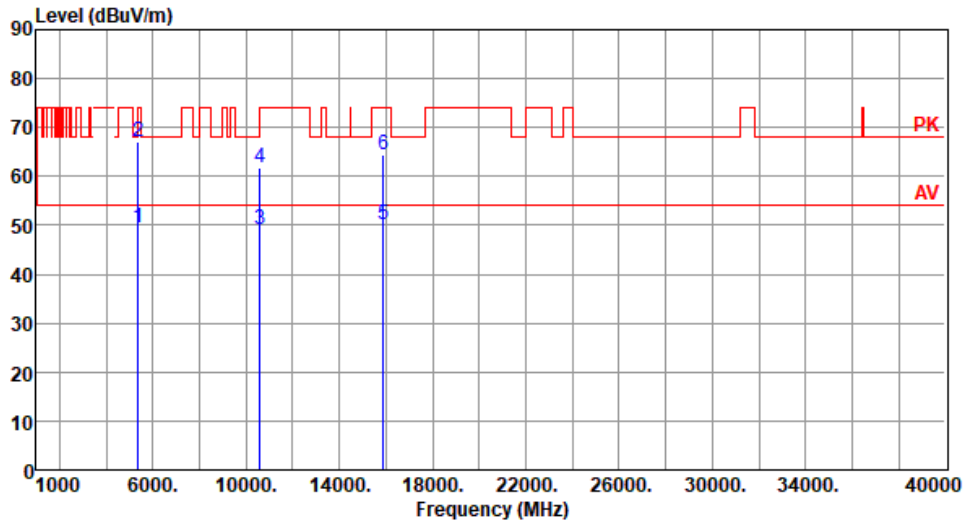
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5300
<b>Polarization</b>	Horizontal		

Test By :Roger Lu      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	49.40	54.00	-4.60	45.46	3.94	Average	100	302
2	5350.00	67.20	74.00	-6.80	63.26	3.94	Peak	100	302
3	10600.00	49.26	54.00	-4.74	34.98	14.28	Average	156	10
4	10600.00	61.65	74.00	-12.35	47.37	14.28	Peak	156	10
5	15900.00	50.26	54.00	-3.74	36.01	14.25	Average	147	50
6	15900.00	64.53	74.00	-9.47	50.28	14.25	Peak	147	50

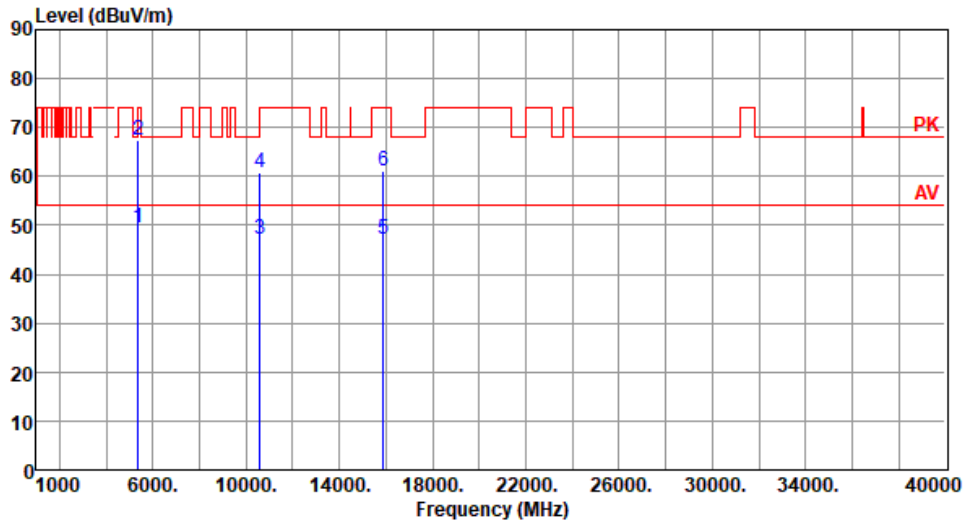
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5300
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	49.52	54.00	-4.48	45.58	3.94	Average	336	5
2	5350.00	67.41	74.00	-6.59	63.47	3.94	Peak	336	5
3	10600.00	47.29	54.00	-6.71	33.01	14.28	Average	125	12
4	10600.00	60.86	74.00	-13.14	46.58	14.28	Peak	125	12
5	15900.00	47.14	54.00	-6.86	32.89	14.25	Average	101	355
6	15900.00	61.08	74.00	-12.92	46.83	14.25	Peak	101	355

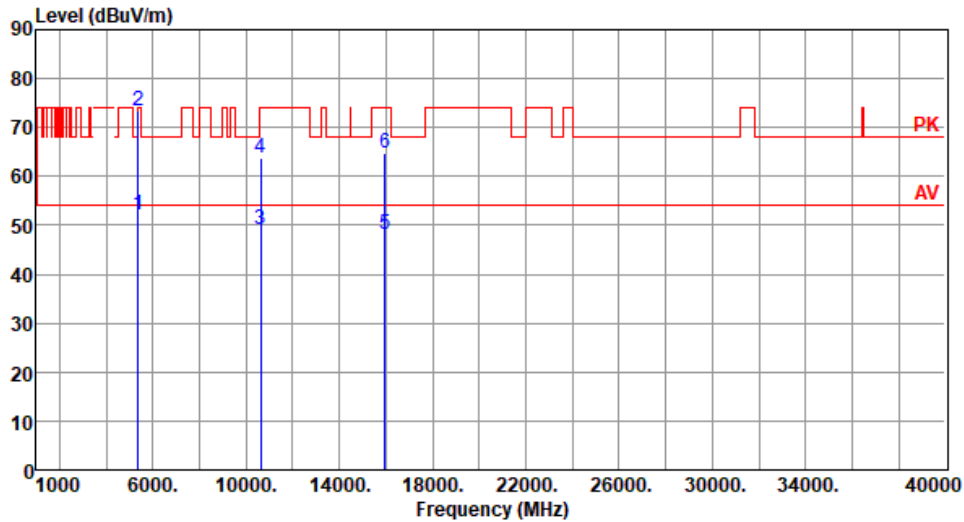
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5320
<b>Polarization</b>	Horizontal		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.05	54.00	-1.95	48.11	3.94	Average	100	298
2	5350.00	73.52	74.00	-0.48	69.58	3.94	Peak	100	298
3	10640.00	49.25	54.00	-4.75	34.87	14.38	Average	125	16
4	10640.00	63.81	74.00	-10.19	49.43	14.38	Peak	125	16
5	15960.00	48.26	54.00	-5.74	34.04	14.22	Average	131	55
6	15960.00	64.74	74.00	-9.26	50.52	14.22	Peak	131	55

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

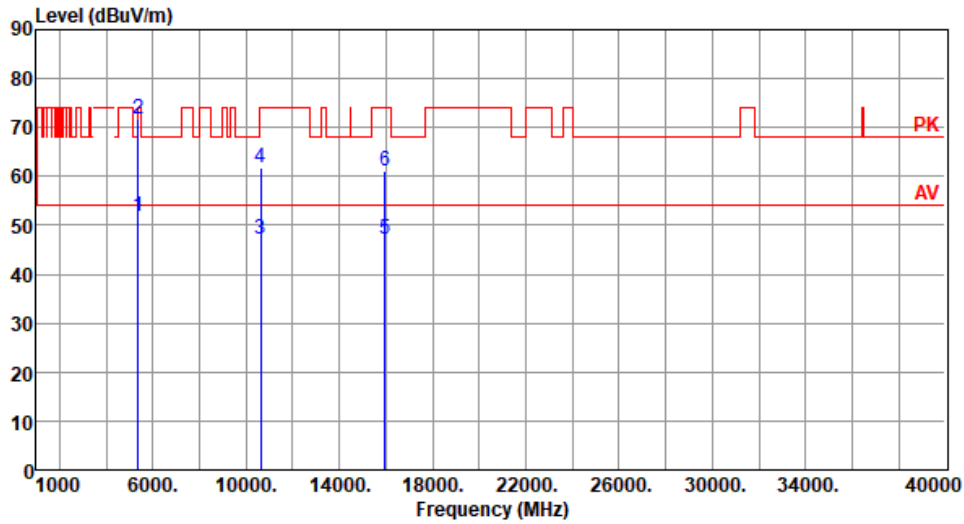
\*Factor includes antenna factor , cable loss and amplifier gain

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



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

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69

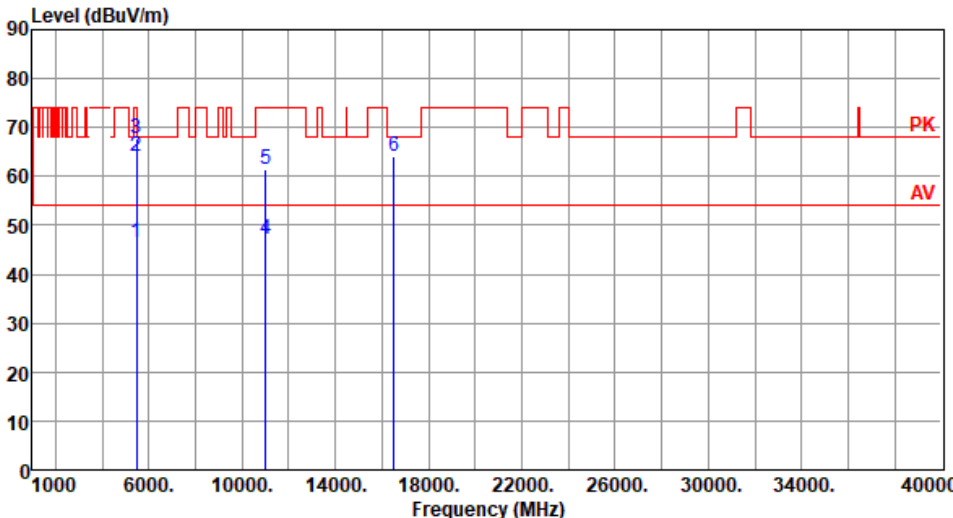


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	51.88	54.00	-2.12	47.94	3.94	Average	350	1
2	5350.00	71.64	74.00	-2.36	67.70	3.94	Peak	350	1
3	10640.00	47.28	54.00	-6.72	32.90	14.38	Average	121	9
4	10640.00	61.84	74.00	-12.16	47.46	14.38	Peak	121	9
5	15960.00	47.24	54.00	-6.76	33.02	14.22	Average	100	359
6	15960.00	61.13	74.00	-12.87	46.91	14.22	Peak	100	359

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

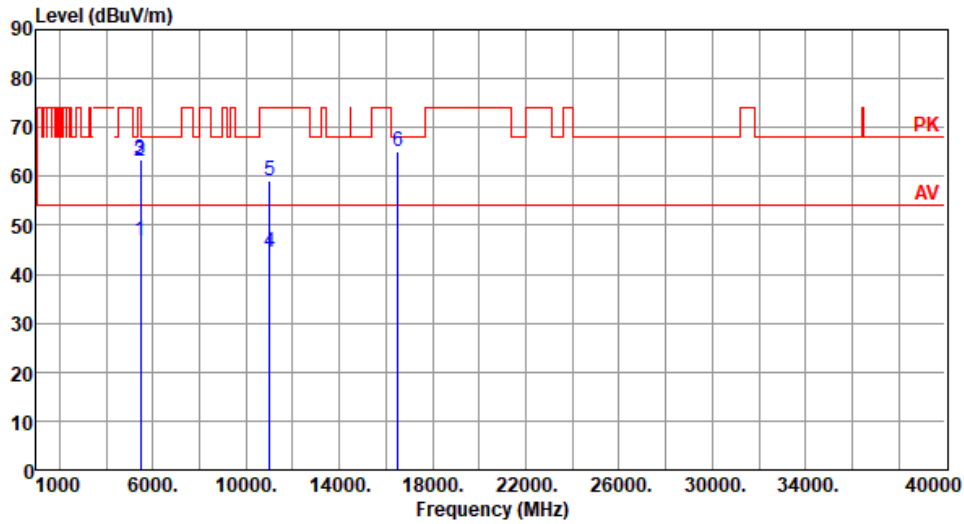
\*Factor includes antenna factor , cable loss and amplifier gain

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

<b>Modulation</b>	ax HE20	<b>Test Freq. (MHz)</b>	5500						
<b>Polarization</b>	Horizontal								
Test By :BRAD WU		Temperature(°C):24	Humidity(%) :69						
									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.62	54.00	-7.38	42.17	4.45	Average	168	23
2	5460.00	64.18	74.00	-9.82	59.73	4.45	Peak	168	23
3	5470.00	67.80	68.20	-0.40	63.30	4.50	Peak	168	23
4	11000.00	47.14	54.00	-6.86	32.26	14.88	Average	168	300
5	11000.00	61.29	74.00	-12.71	46.41	14.88	Peak	168	300
6	16500.00	64.02	68.20	-4.18	47.83	16.19	Peak	144	53
<p>Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)  *Factor includes antenna factor , cable loss and amplifier gain  Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).</p>									

<b>Modulation</b>	ax HE20	<b>Test Freq. (MHz)</b>	5500
<b>Polarization</b>	Vertical		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.99	54.00	-7.01	42.54	4.45	Average	365	3
2	5460.00	63.00	74.00	-11.00	58.55	4.45	Peak	365	3
3	5470.00	63.39	68.20	-4.81	58.89	4.50	Peak	365	3
4	11000.00	44.53	54.00	-9.47	29.65	14.88	Average	186	9
5	11000.00	59.24	74.00	-14.76	44.36	14.88	Peak	186	9
6	16500.00	65.11	68.20	-3.09	48.92	16.19	Peak	125	336

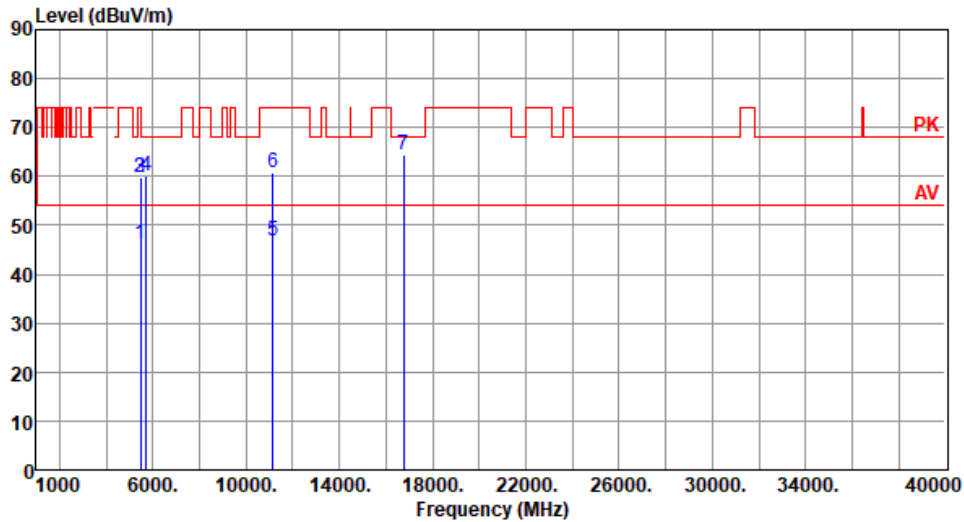
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5580
<b>Polarization</b>	Horizontal		

Test By :Roger Lu      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.01	54.00	-7.99	41.56	4.45	Average	165	23
2	5460.00	59.85	74.00	-14.15	55.40	4.45	Peak	165	23
3	5470.00	59.91	68.20	-8.29	55.41	4.50	Peak	165	23
4	5725.00	60.14	68.20	-8.06	55.29	4.85	Peak	165	23
5	11160.00	46.83	54.00	-7.17	32.45	14.38	Average	158	294
6	11160.00	60.71	74.00	-13.29	46.33	14.38	Peak	158	294
7	16740.00	64.55	68.20	-3.65	47.08	17.47	Peak	141	54

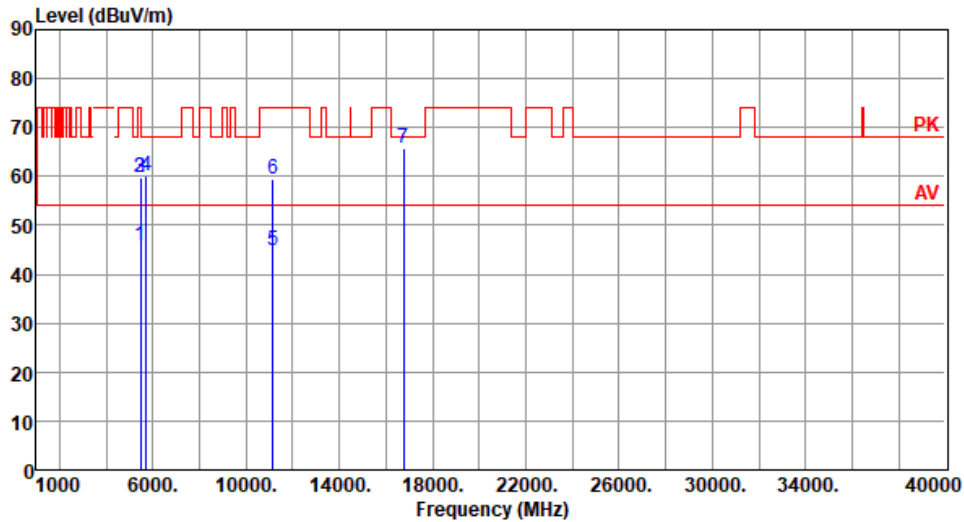
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5580
<b>Polarization</b>	Vertical		

Test By :Roger Lu      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.98	54.00	-8.02	41.53	4.45	Average	381	13
2	5460.00	59.79	74.00	-14.21	55.34	4.45	Peak	381	13
3	5470.00	59.82	68.20	-8.38	55.32	4.50	Peak	381	13
4	5725.00	59.96	68.20	-8.24	55.11	4.85	Peak	381	13
5	11160.00	44.91	54.00	-9.09	30.53	14.38	Average	186	3
6	11160.00	59.45	74.00	-14.55	45.07	14.38	Peak	186	3
7	16740.00	65.70	68.20	-2.50	48.23	17.47	Peak	134	309

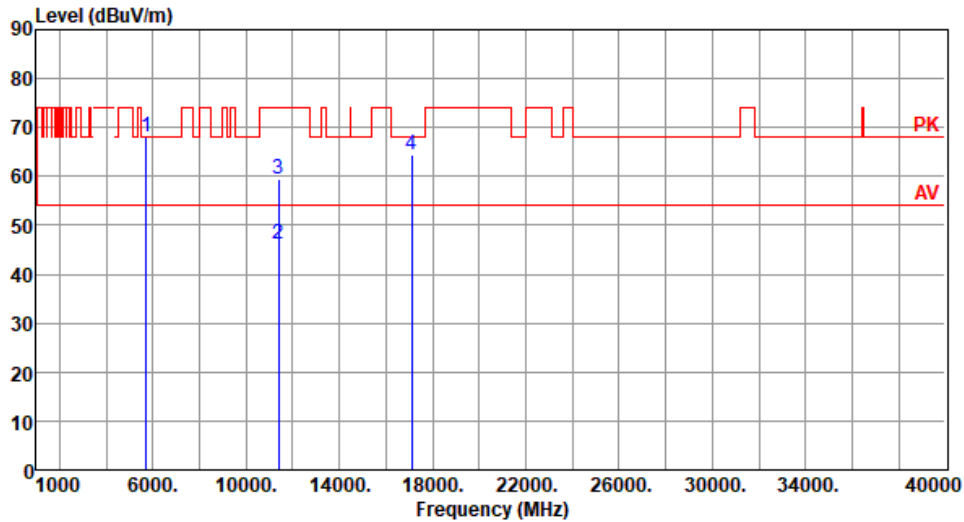
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5700
<b>Polarization</b>	Horizontal		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	67.92	68.20	-0.28	63.07	4.85	Peak	166	24
2	11400.00	46.29	54.00	-7.71	31.61	14.68	Average	122	354
3	11400.00	59.48	74.00	-14.52	44.80	14.68	Peak	122	354
4	17100.00	64.46	68.20	-3.74	46.78	17.68	Peak	130	62

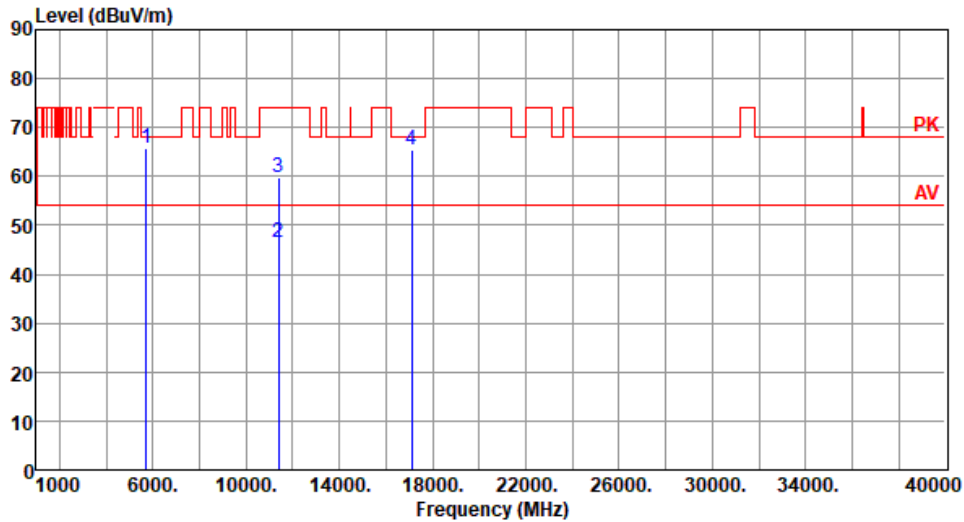
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5700
<b>Polarization</b>	Vertical		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	65.89	68.20	-2.31	61.04	4.85	Peak	161	354
2	11400.00	46.38	54.00	-7.62	31.70	14.68	Average	116	354
3	11400.00	59.62	74.00	-14.38	44.94	14.68	Peak	116	354
4	17100.00	65.38	68.20	-2.82	47.70	17.68	Peak	126	345

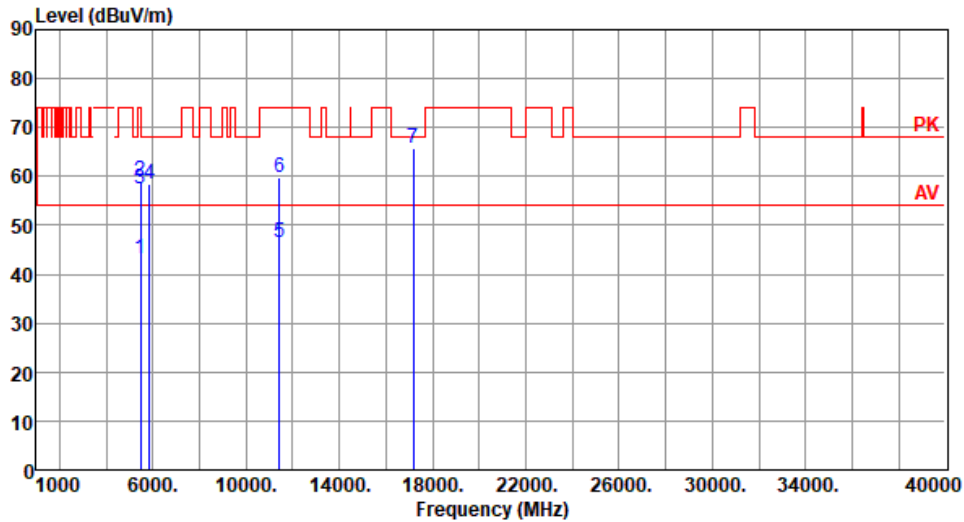
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5720
<b>Polarization</b>	Horizontal		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	43.23	54.00	-10.77	38.78	4.45	Average	194	21
2	5460.00	59.16	74.00	-14.84	54.71	4.45	Peak	194	21
3	5470.00	57.38	68.20	-10.82	52.88	4.50	Peak	194	21
4	5850.00	58.34	68.20	-9.86	52.89	5.45	Peak	194	21
5	11440.00	46.41	54.00	-7.59	31.75	14.66	Average	125	358
6	11440.00	59.62	74.00	-14.38	44.96	14.66	Peak	125	358
7	17160.00	65.62	68.20	-2.58	47.97	17.65	Peak	129	61

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

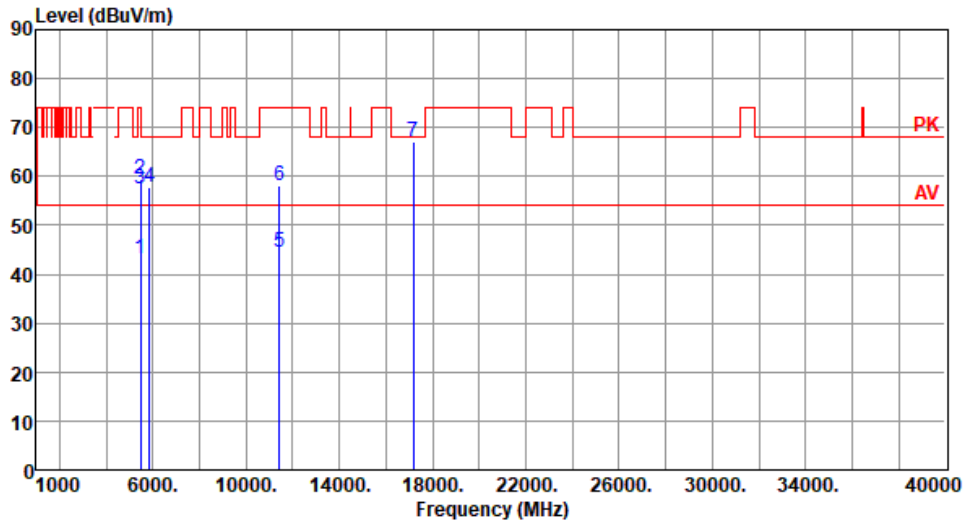
\*Factor includes antenna factor , cable loss and amplifier gain

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



<b>Modulation</b>	ax HE20	<b>Test Freq. (MHz)</b>	5720
<b>Polarization</b>	Vertical		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



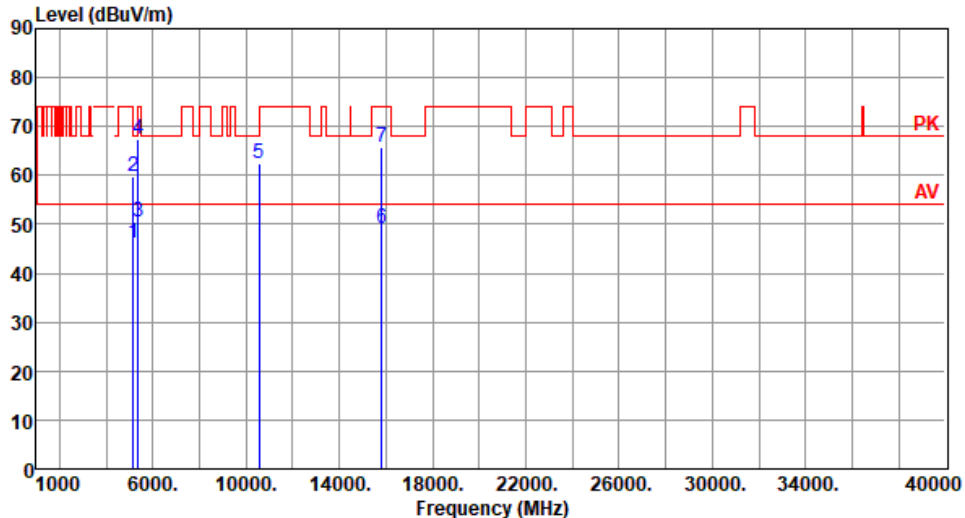
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	43.30	54.00	-10.70	38.85	4.45	Average	150	351
2	5460.00	59.31	74.00	-14.69	54.86	4.45	Peak	150	351
3	5470.00	57.45	68.20	-10.75	52.95	4.50	Peak	150	351
4	5850.00	57.64	68.20	-10.56	52.19	5.45	Peak	150	351
5	11440.00	44.61	54.00	-9.39	29.95	14.66	Average	165	5
6	11440.00	58.22	74.00	-15.78	43.56	14.66	Peak	165	5
7	17160.00	67.06	68.20	-1.14	49.41	17.65	Peak	137	356

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

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

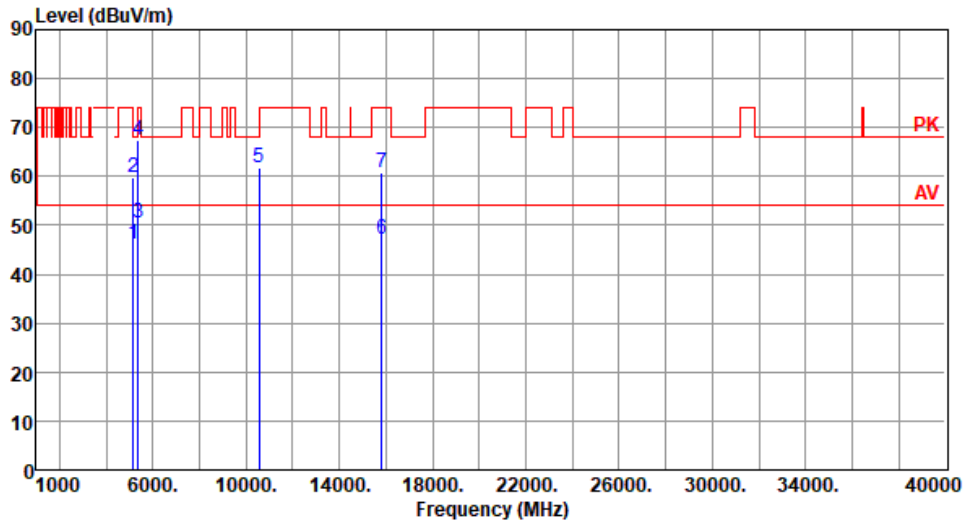
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

### 3.5.7 Transmitter Radiated Unwanted Emissions (Above 1GHz) for ax HE40

<b>Modulation</b>	ax HE40	<b>Test Freq. (MHz)</b>	5270																																																																									
<b>Polarization</b>	Horizontal																																																																											
Test By : BRAD WU      Temperature(°C): 24      Humidity(%): 69																																																																												
																																																																												
	<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>5150.00</td> <td>46.27</td> <td>54.00</td> <td>-7.73</td> <td>41.63</td> <td>4.64</td> <td>Average</td> <td>100 298</td> </tr> <tr> <td>2</td> <td>5150.00</td> <td>59.88</td> <td>74.00</td> <td>-14.12</td> <td>55.24</td> <td>4.64</td> <td>Peak</td> <td>100 298</td> </tr> <tr> <td>3</td> <td>5350.00</td> <td>50.57</td> <td>54.00</td> <td>-3.43</td> <td>46.63</td> <td>3.94</td> <td>Average</td> <td>100 298</td> </tr> <tr> <td>4</td> <td>5350.00</td> <td>67.44</td> <td>74.00</td> <td>-6.56</td> <td>63.50</td> <td>3.94</td> <td>Peak</td> <td>100 298</td> </tr> <tr> <td>5</td> <td>10540.00</td> <td>62.56</td> <td>68.20</td> <td>-5.64</td> <td>48.14</td> <td>14.42</td> <td>Peak</td> <td>156 18</td> </tr> <tr> <td>6</td> <td>15810.00</td> <td>49.24</td> <td>54.00</td> <td>-4.76</td> <td>35.06</td> <td>14.18</td> <td>Average</td> <td>150 44</td> </tr> <tr> <td>7</td> <td>15810.00</td> <td>65.78</td> <td>74.00</td> <td>-8.22</td> <td>51.60</td> <td>14.18</td> <td>Peak</td> <td>150 44</td> </tr> </tbody> </table>	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	5150.00	46.27	54.00	-7.73	41.63	4.64	Average	100 298	2	5150.00	59.88	74.00	-14.12	55.24	4.64	Peak	100 298	3	5350.00	50.57	54.00	-3.43	46.63	3.94	Average	100 298	4	5350.00	67.44	74.00	-6.56	63.50	3.94	Peak	100 298	5	10540.00	62.56	68.20	-5.64	48.14	14.42	Peak	156 18	6	15810.00	49.24	54.00	-4.76	35.06	14.18	Average	150 44	7	15810.00	65.78	74.00	-8.22	51.60	14.18	Peak	150 44			
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																				
1	5150.00	46.27	54.00	-7.73	41.63	4.64	Average	100 298																																																																				
2	5150.00	59.88	74.00	-14.12	55.24	4.64	Peak	100 298																																																																				
3	5350.00	50.57	54.00	-3.43	46.63	3.94	Average	100 298																																																																				
4	5350.00	67.44	74.00	-6.56	63.50	3.94	Peak	100 298																																																																				
5	10540.00	62.56	68.20	-5.64	48.14	14.42	Peak	156 18																																																																				
6	15810.00	49.24	54.00	-4.76	35.06	14.18	Average	150 44																																																																				
7	15810.00	65.78	74.00	-8.22	51.60	14.18	Peak	150 44																																																																				
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB) *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	<b>Test Freq. (MHz)</b>	5270
<b>Polarization</b>	Vertical		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.14	54.00	-7.86	41.50	4.64	Average	334	6
2	5150.00	59.71	74.00	-14.29	55.07	4.64	Peak	334	6
3	5350.00	50.45	54.00	-3.55	46.51	3.94	Average	334	6
4	5350.00	67.29	74.00	-6.71	63.35	3.94	Peak	334	6
5	10540.00	61.65	68.20	-6.55	47.23	14.42	Peak	114	22
6	15810.00	47.06	54.00	-6.94	32.88	14.18	Average	105	339
7	15810.00	60.94	74.00	-13.06	46.76	14.18	Peak	105	339

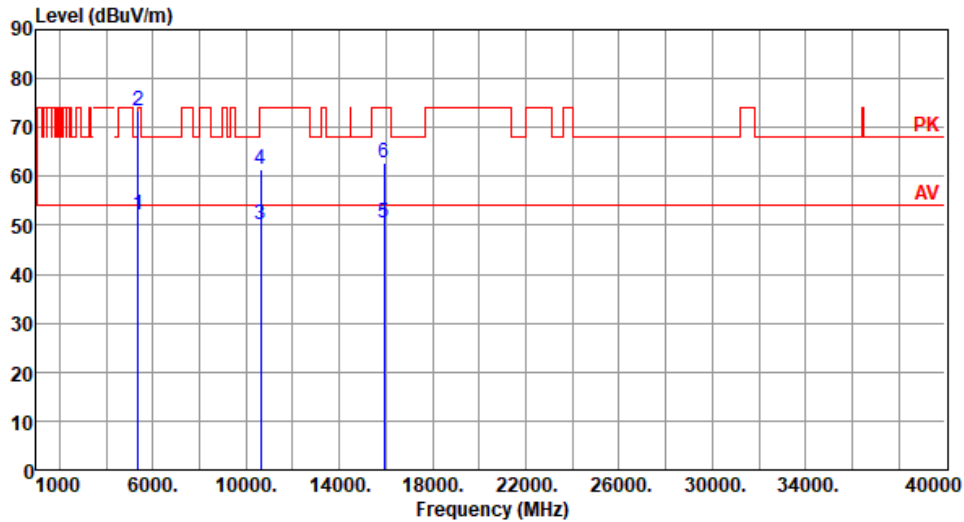
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5310
<b>Polarization</b>	Horizontal		

Test By : Akun Chung      Temperature(°C): 24      Humidity(%): 69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.20	54.00	-1.80	48.26	3.94	Average	179	20
2	5350.00	73.46	74.00	-0.54	69.52	3.94	Peak	179	20
3	10620.00	50.27	54.00	-3.73	35.93	14.34	Average	100	10
4	10620.00	61.33	74.00	-12.67	46.99	14.34	Peak	100	10
5	15930.00	50.62	54.00	-3.38	36.39	14.23	Average	143	51
6	15930.00	62.91	74.00	-11.09	48.68	14.23	Peak	143	51

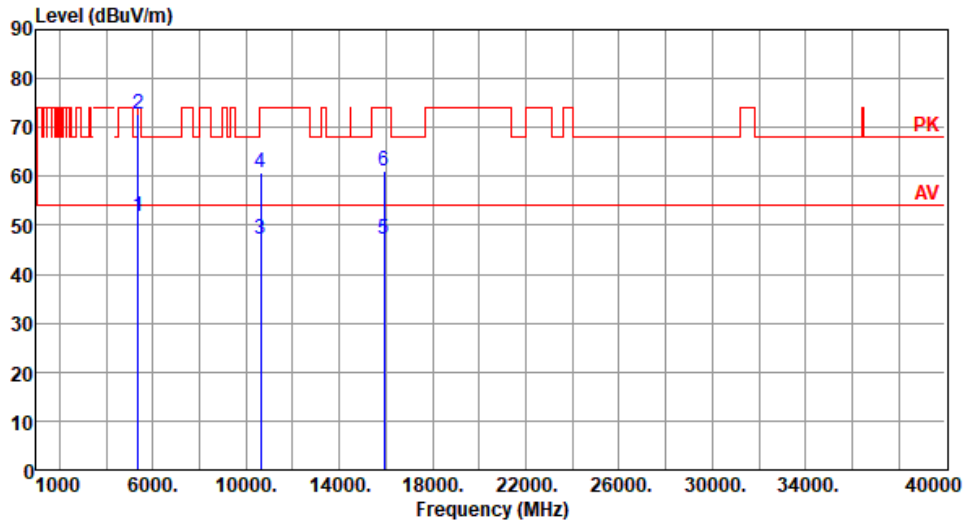
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5310
<b>Polarization</b>	Vertical		

Test By : Akun Chung      Temperature(°C): 24      Humidity(%): 69

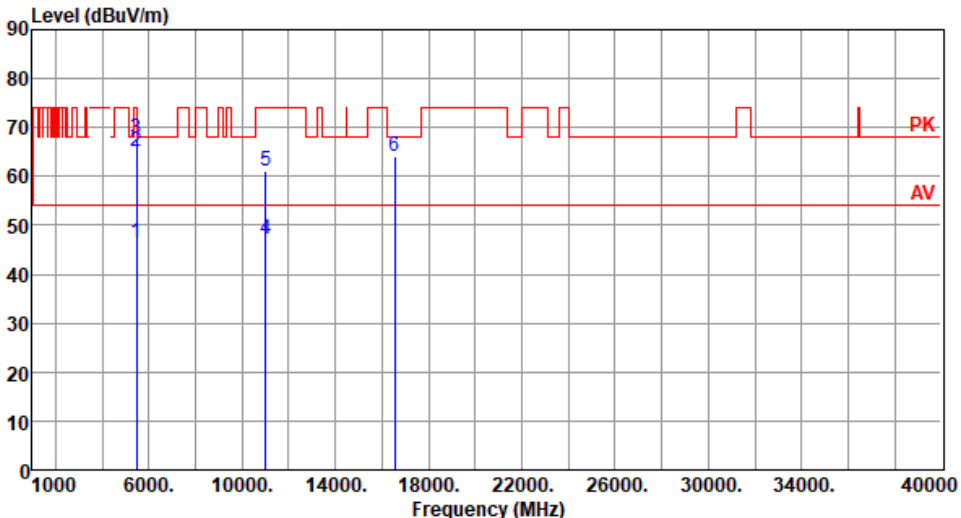


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	51.90	54.00	-2.10	47.96	3.94	Average	349	1
2	5350.00	72.77	74.00	-1.23	68.83	3.94	Peak	349	1
3	10620.00	47.25	54.00	-6.75	32.91	14.34	Average	122	8
4	10620.00	60.64	74.00	-13.36	46.30	14.34	Peak	122	8
5	15930.00	47.15	54.00	-6.85	32.92	14.23	Average	100	348
6	15930.00	61.09	74.00	-12.91	46.86	14.23	Peak	100	348

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

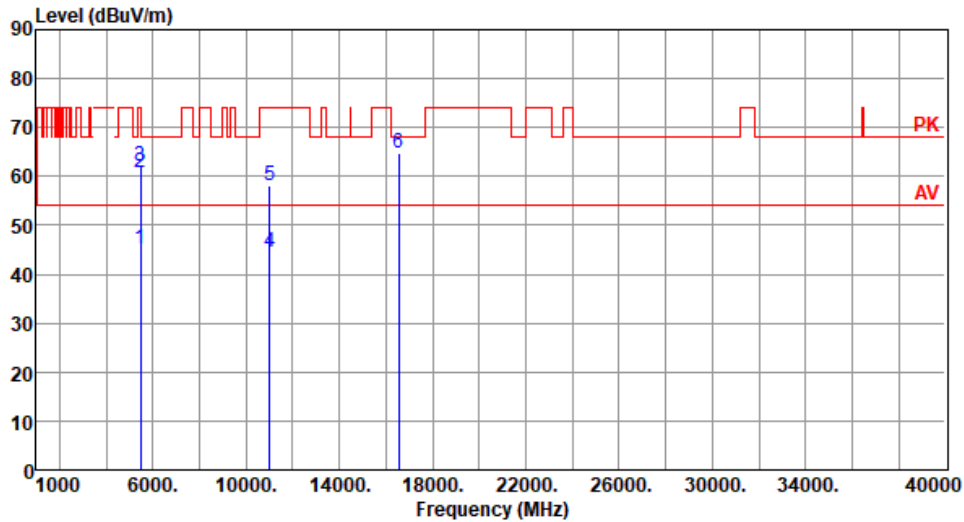
\*Factor includes antenna factor , cable loss and amplifier gain

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

<b>Modulation</b>	ax HE40	<b>Test Freq. (MHz)</b>	5510						
<b>Polarization</b>	Horizontal								
Test By :BRAD WU		Temperature(°C):24	Humidity(%):69						
									
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	5460.00	46.42	54.00	-7.58	41.97	4.45	Average	100	305
2	5460.00	65.25	74.00	-8.75	60.80	4.45	Peak	100	305
3	5470.00	67.73	68.20	-0.47	63.23	4.50	Peak	100	305
4	11020.00	47.04	54.00	-6.96	32.23	14.81	Average	161	298
5	11020.00	61.15	74.00	-12.85	46.34	14.81	Peak	161	298
6	16530.00	63.94	68.20	-4.26	47.61	16.33	Peak	139	42
<p>Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)  *Factor includes antenna factor , cable loss and amplifier gain  Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).</p>									

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

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.09	54.00	-8.91	40.64	4.45	Average	165	49
2	5460.00	60.71	74.00	-13.29	56.26	4.45	Peak	165	49
3	5470.00	62.16	68.20	-6.04	57.66	4.50	Peak	165	49
4	11020.00	44.39	54.00	-9.61	29.58	14.81	Average	184	11
5	11020.00	58.11	74.00	-15.89	43.30	14.81	Peak	184	11
6	16530.00	64.82	68.20	-3.38	48.49	16.33	Peak	116	347

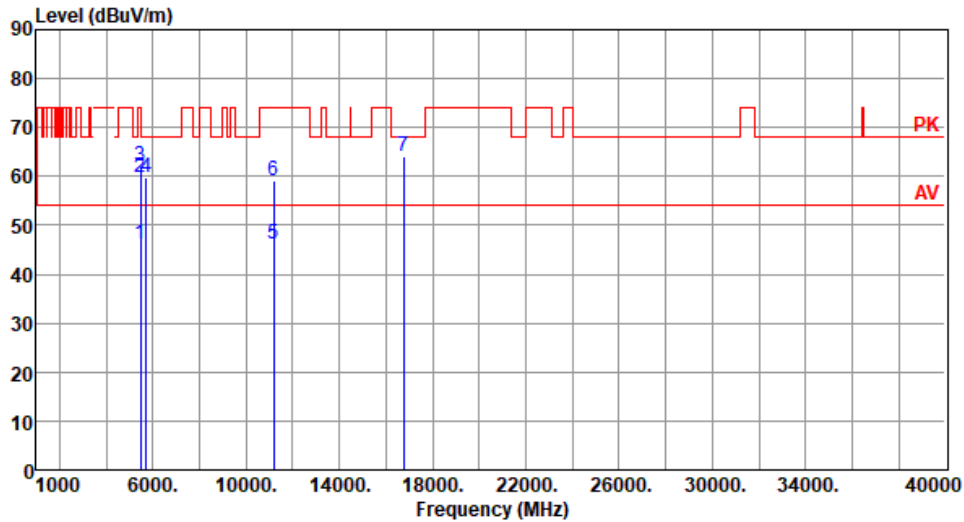
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5590
<b>Polarization</b>	Horizontal		

Test By : Akun Chung      Temperature(°C): 24      Humidity(%): 69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.08	54.00	-7.92	41.63	4.45	Average	100	310
2	5460.00	59.88	74.00	-14.12	55.43	4.45	Peak	100	310
3	5470.00	61.95	68.20	-6.25	57.45	4.50	Peak	100	310
4	5725.00	59.78	68.20	-8.42	54.93	4.85	Peak	100	310
5	11180.00	46.25	54.00	-7.75	31.92	14.33	Average	148	305
6	11180.00	59.21	74.00	-14.79	44.88	14.33	Peak	148	305
7	16770.00	64.21	68.20	-3.99	46.63	17.58	Peak	142	55

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

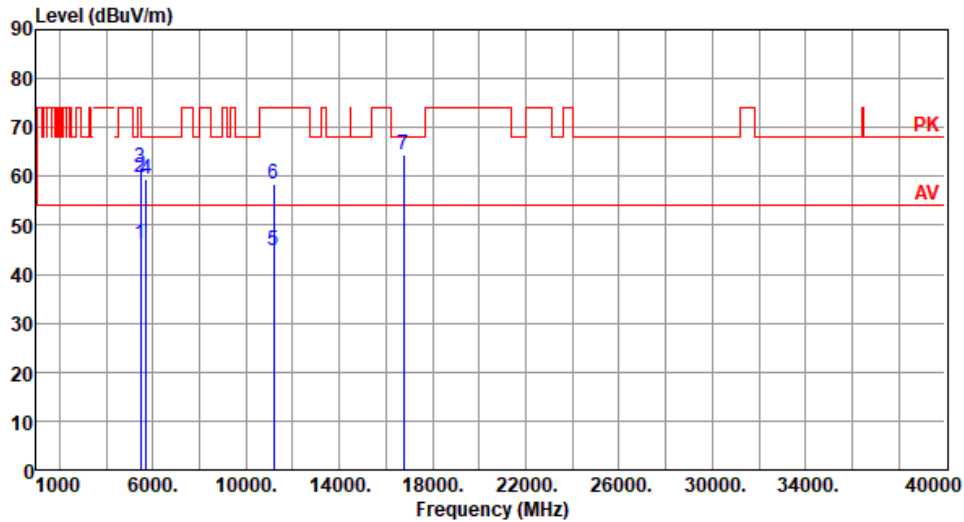
\*Factor includes antenna factor , cable loss and amplifier gain

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



<b>Modulation</b>	ax HE40	<b>Test Freq. (MHz)</b>	5590
<b>Polarization</b>	Vertical		

Test By : Akun Chung      Temperature(°C): 24      Humidity(%): 69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.02	54.00	-7.98	41.57	4.45	Average	165	55
2	5460.00	59.81	74.00	-14.19	55.36	4.45	Peak	165	55
3	5470.00	61.88	68.20	-6.32	57.38	4.50	Peak	165	55
4	5725.00	59.46	68.20	-8.74	54.61	4.85	Peak	165	55
5	11180.00	44.85	54.00	-9.15	30.52	14.33	Average	165	8
6	11180.00	58.36	74.00	-15.64	44.03	14.33	Peak	165	8
7	16770.00	64.40	68.20	-3.80	46.82	17.58	Peak	115	343

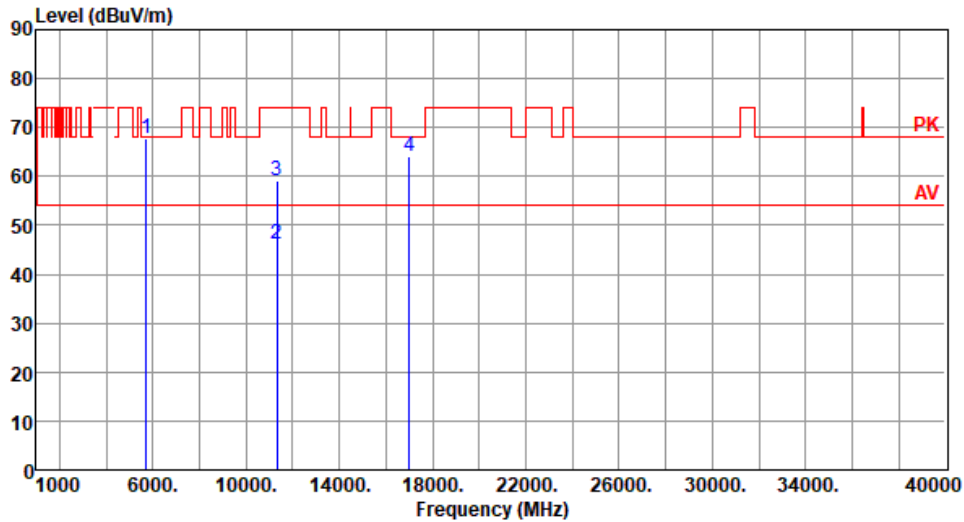
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5670
<b>Polarization</b>	Horizontal		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	67.66	68.20	-0.54	62.81	4.85	Peak	100	312
2	11340.00	46.14	54.00	-7.86	31.67	14.47	Average	141	296
3	11340.00	59.08	74.00	-14.92	44.61	14.47	Peak	141	296
4	17010.00	64.05	68.20	-4.15	46.16	17.89	Peak	139	61

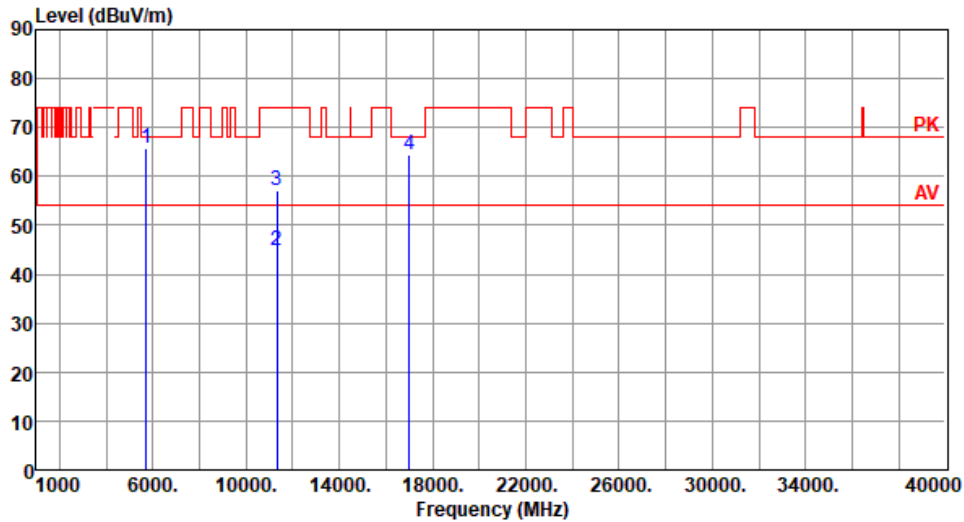
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5670
<b>Polarization</b>	Vertical		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	65.76	68.20	-2.44	60.91	4.85	Peak	172	50
2	11340.00	44.78	54.00	-9.22	30.31	14.47	Average	166	11
3	11340.00	57.24	74.00	-16.76	42.77	14.47	Peak	166	11
4	17010.00	64.29	68.20	-3.91	46.40	17.89	Peak	114	336

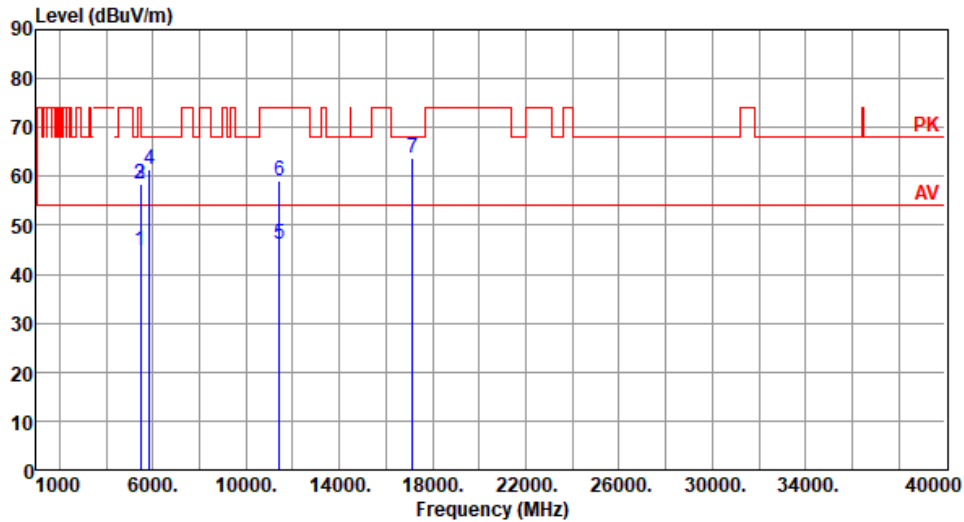
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5710
<b>Polarization</b>	Horizontal		

Test By :BRAD WU      Temperature(°C):24      Humidity(%) :69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.93	54.00	-9.07	40.48	4.45	Average	105	312
2	5460.00	58.31	74.00	-15.69	53.86	4.45	Peak	105	312
3	5470.00	58.46	68.20	-9.74	53.96	4.50	Peak	105	312
4	5850.00	61.50	68.20	-6.70	56.05	5.45	Peak	105	312
5	11420.00	46.18	54.00	-7.82	31.51	14.67	Average	142	315
6	11420.00	59.14	74.00	-14.86	44.47	14.67	Peak	142	315
7	17130.00	63.84	68.20	-4.36	46.17	17.67	Peak	133	48

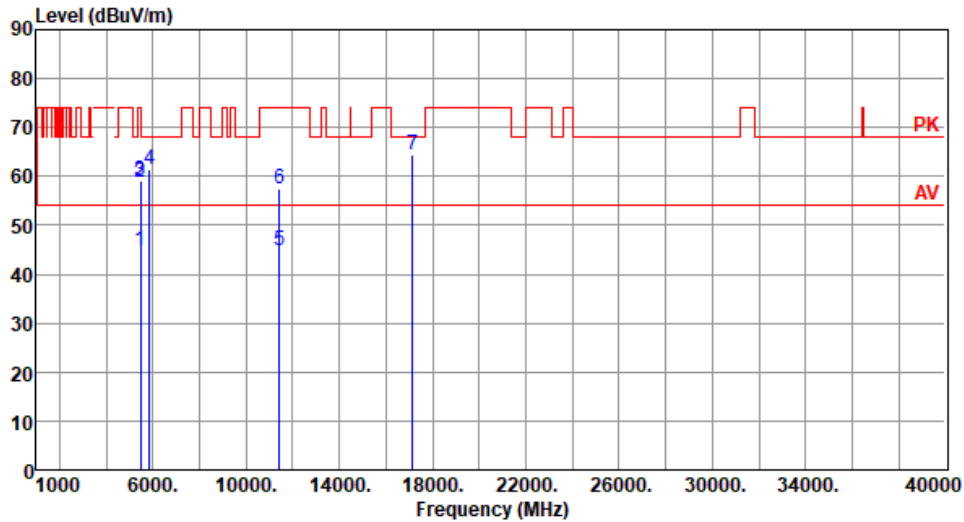
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5710
<b>Polarization</b>	Vertical		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



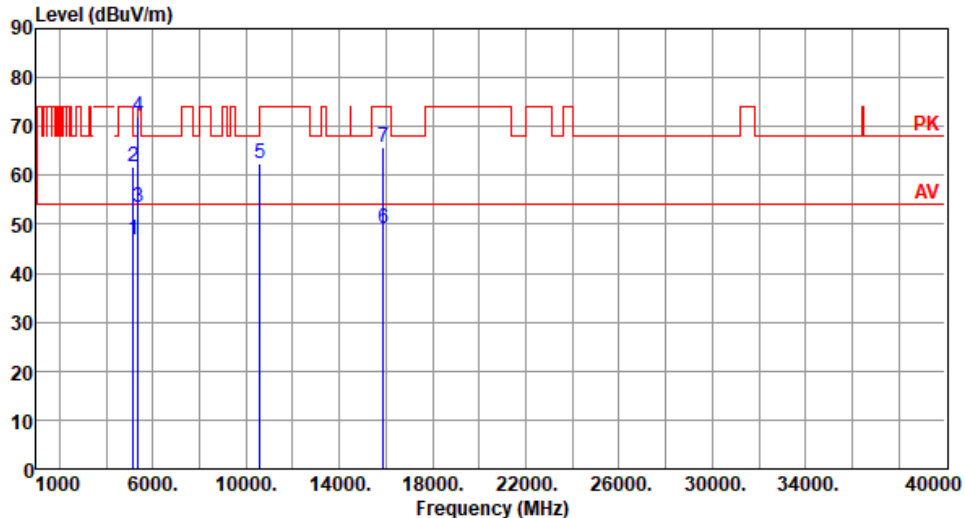
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.82	54.00	-9.18	40.37	4.45	Average	169	44
2	5460.00	58.82	74.00	-15.18	54.37	4.45	Peak	169	44
3	5470.00	59.20	68.20	-9.00	54.70	4.50	Peak	169	44
4	5850.00	61.42	68.20	-6.78	55.97	5.45	Peak	169	44
5	11420.00	44.83	54.00	-9.17	30.16	14.67	Average	166	11
6	11420.00	57.29	74.00	-16.71	42.62	14.67	Peak	166	11
7	17130.00	64.35	68.20	-3.85	46.68	17.67	Peak	108	336

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

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

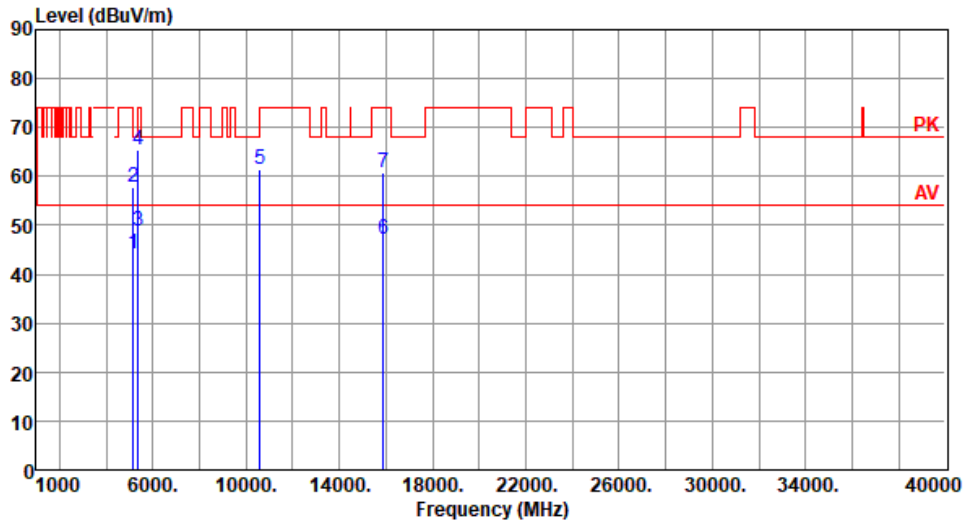
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

### 3.5.8 Transmitter Radiated Unwanted Emissions (Above 1GHz) for ax HE80

Modulation	ax HE80	Test Freq. (MHz)	5290																																																																																					
Polarization	Horizontal																																																																																							
Test By :BRAD WU      Temperature(°C):24      Humidity(%):69																																																																																								
 <p>The graph displays the radiated unwanted emissions for the ax HE80 transmitter. The y-axis represents the emission level in dBuV/m, ranging from 0 to 90. The x-axis represents the frequency in MHz, ranging from 1000 to 40000. A red line shows the emission level, which fluctuates between approximately 50 and 75 dBuV/m. Two horizontal red lines are drawn at approximately 55 dBuV/m (labeled 'AV') and 70 dBuV/m (labeled 'PK'). Seven specific peaks are marked with blue vertical lines and numbered 1 through 7. Peak 1 is at 5150 MHz, peak 2 is at 5150 MHz, peak 3 is at 5350 MHz, peak 4 is at 5350 MHz, peak 5 is at 10580 MHz, peak 6 is at 15870 MHz, and peak 7 is at 15870 MHz.</p>																																																																																								
	<table border="1"> <thead> <tr> <th></th> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>5150.00</td> <td>46.84</td> <td>54.00</td> <td>-7.16</td> <td>42.20</td> <td>4.64</td> <td>Average</td> <td>125</td> <td>293</td> </tr> <tr> <td>2</td> <td>5150.00</td> <td>61.80</td> <td>74.00</td> <td>-12.20</td> <td>57.16</td> <td>4.64</td> <td>Peak</td> <td>125</td> <td>293</td> </tr> <tr> <td>3</td> <td>5350.00</td> <td>53.59</td> <td>54.00</td> <td>-0.41</td> <td>49.65</td> <td>3.94</td> <td>Average</td> <td>125</td> <td>293</td> </tr> <tr> <td>4</td> <td>5350.00</td> <td>72.13</td> <td>74.00</td> <td>-1.87</td> <td>68.19</td> <td>3.94</td> <td>Peak</td> <td>125</td> <td>293</td> </tr> <tr> <td>5</td> <td>10580.00</td> <td>62.44</td> <td>68.20</td> <td>-5.76</td> <td>48.12</td> <td>14.32</td> <td>Peak</td> <td>151</td> <td>22</td> </tr> <tr> <td>6</td> <td>15870.00</td> <td>49.13</td> <td>54.00</td> <td>-4.87</td> <td>34.90</td> <td>14.23</td> <td>Average</td> <td>144</td> <td>29</td> </tr> <tr> <td>7</td> <td>15870.00</td> <td>65.69</td> <td>74.00</td> <td>-8.31</td> <td>51.46</td> <td>14.23</td> <td>Peak</td> <td>144</td> <td>29</td> </tr> </tbody> </table>		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	5150.00	46.84	54.00	-7.16	42.20	4.64	Average	125	293	2	5150.00	61.80	74.00	-12.20	57.16	4.64	Peak	125	293	3	5350.00	53.59	54.00	-0.41	49.65	3.94	Average	125	293	4	5350.00	72.13	74.00	-1.87	68.19	3.94	Peak	125	293	5	10580.00	62.44	68.20	-5.76	48.12	14.32	Peak	151	22	6	15870.00	49.13	54.00	-4.87	34.90	14.23	Average	144	29	7	15870.00	65.69	74.00	-8.31	51.46	14.23	Peak	144	29							
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																															
1	5150.00	46.84	54.00	-7.16	42.20	4.64	Average	125	293																																																																															
2	5150.00	61.80	74.00	-12.20	57.16	4.64	Peak	125	293																																																																															
3	5350.00	53.59	54.00	-0.41	49.65	3.94	Average	125	293																																																																															
4	5350.00	72.13	74.00	-1.87	68.19	3.94	Peak	125	293																																																																															
5	10580.00	62.44	68.20	-5.76	48.12	14.32	Peak	151	22																																																																															
6	15870.00	49.13	54.00	-4.87	34.90	14.23	Average	144	29																																																																															
7	15870.00	65.69	74.00	-8.31	51.46	14.23	Peak	144	29																																																																															
<p>Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)            *Factor includes antenna factor , cable loss and amplifier gain            Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).</p>																																																																																								

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

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.33	54.00	-9.67	39.69	4.64	Average	174	45
2	5150.00	57.65	74.00	-16.35	53.01	4.64	Peak	174	45
3	5350.00	48.76	54.00	-5.24	44.82	3.94	Average	174	45
4	5350.00	65.55	74.00	-8.45	61.61	3.94	Peak	174	45
5	10580.00	61.41	68.20	-6.79	47.09	14.32	Peak	116	35
6	15870.00	47.13	54.00	-6.87	32.90	14.23	Average	104	325
7	15870.00	60.62	74.00	-13.38	46.39	14.23	Peak	104	325

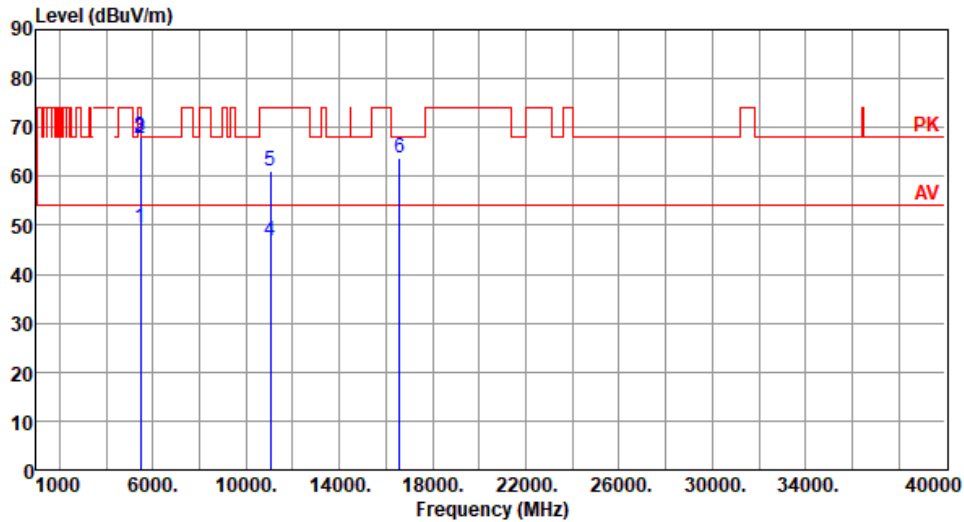
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5530
<b>Polarization</b>	Horizontal		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.60	54.00	-4.40	45.15	4.45	Average	178	20
2	5460.00	67.76	74.00	-6.24	63.31	4.45	Peak	178	20
3	5470.00	68.01	68.20	-0.19	63.51	4.50	Peak	178	20
4	11060.00	46.98	54.00	-7.02	32.31	14.67	Average	155	304
5	11060.00	61.06	74.00	-12.94	46.39	14.67	Peak	155	304
6	16590.00	63.81	68.20	-4.39	47.20	16.61	Peak	135	46

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

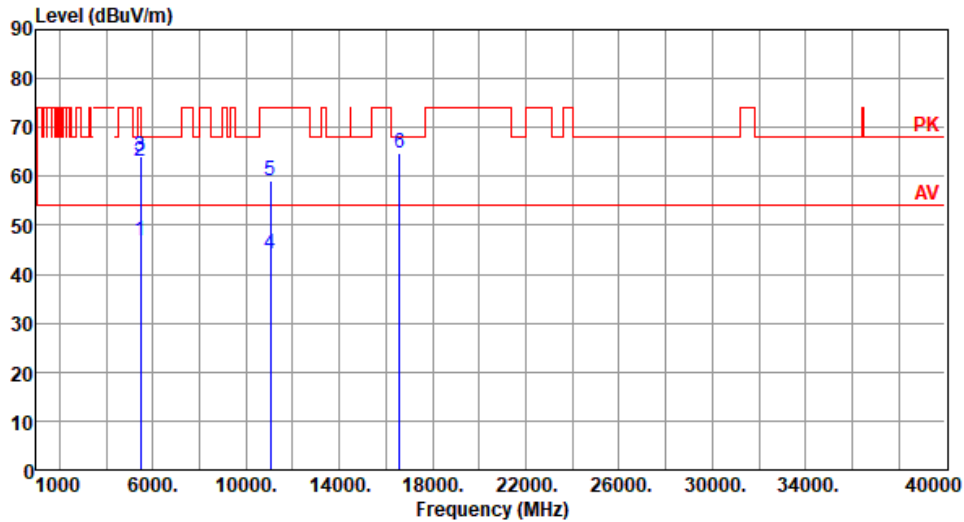
\*Factor includes antenna factor , cable loss and amplifier gain

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



<b>Modulation</b>	ax HE80	<b>Test Freq. (MHz)</b>	5530
<b>Polarization</b>	Vertical		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.96	54.00	-7.04	42.51	4.45	Average	166	52
2	5460.00	63.11	74.00	-10.89	58.66	4.45	Peak	166	52
3	5470.00	64.25	68.20	-3.95	59.75	4.50	Peak	166	52
4	11060.00	44.25	54.00	-9.75	29.58	14.67	Average	179	24
5	11060.00	59.08	74.00	-14.92	44.41	14.67	Peak	179	24
6	16590.00	64.65	68.20	-3.55	48.04	16.61	Peak	115	344

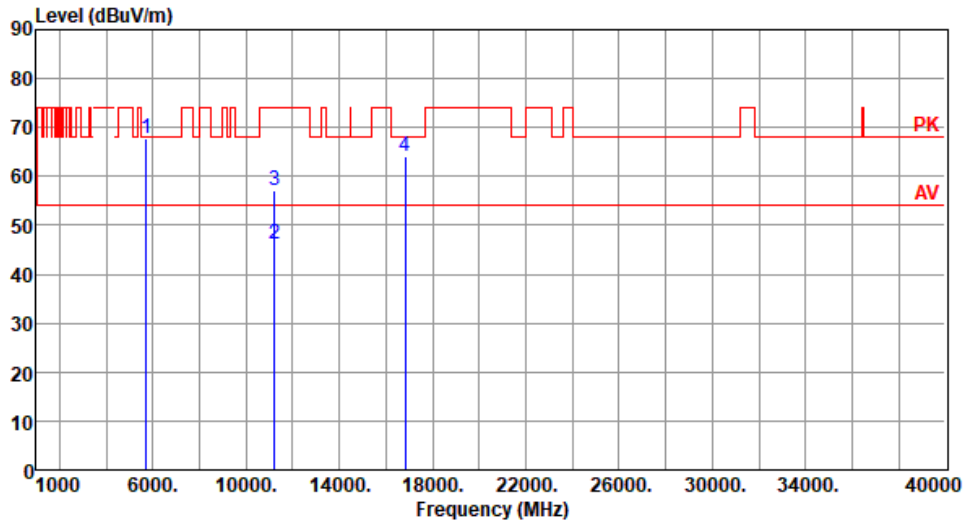
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5610
<b>Polarization</b>	Horizontal		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	67.76	68.20	-0.44	62.91	4.85	Peak	161	20
2	11220.00	46.15	54.00	-7.85	31.86	14.29	Average	143	296
3	11220.00	57.09	74.00	-16.91	42.80	14.29	Peak	143	296
4	16830.00	64.04	68.20	-4.16	46.39	17.65	Peak	131	49

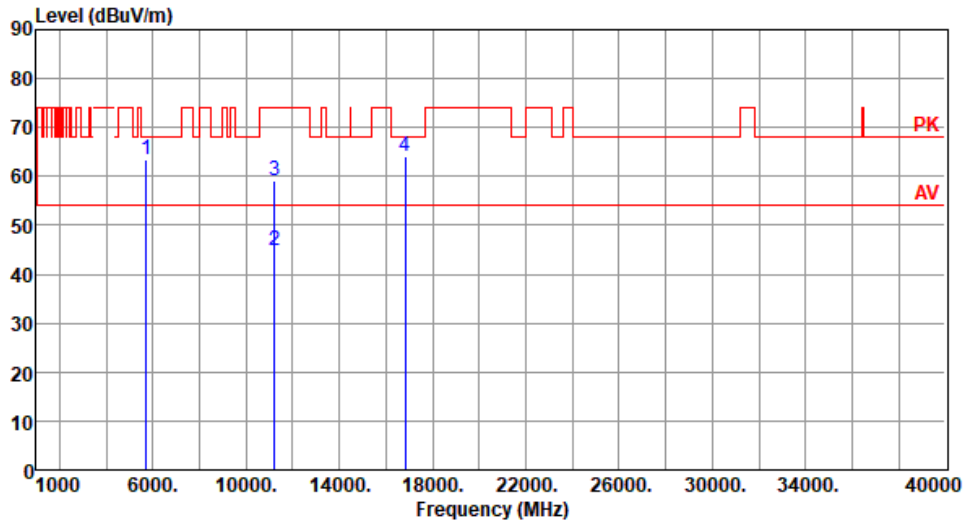
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5610
<b>Polarization</b>	Vertical		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	63.55	68.20	-4.65	58.70	4.85	Peak	172	50
2	11220.00	44.76	54.00	-9.24	30.47	14.29	Average	164	11
3	11220.00	59.25	74.00	-14.75	44.96	14.29	Peak	164	11
4	16830.00	64.18	68.20	-4.02	46.53	17.65	Peak	109	336

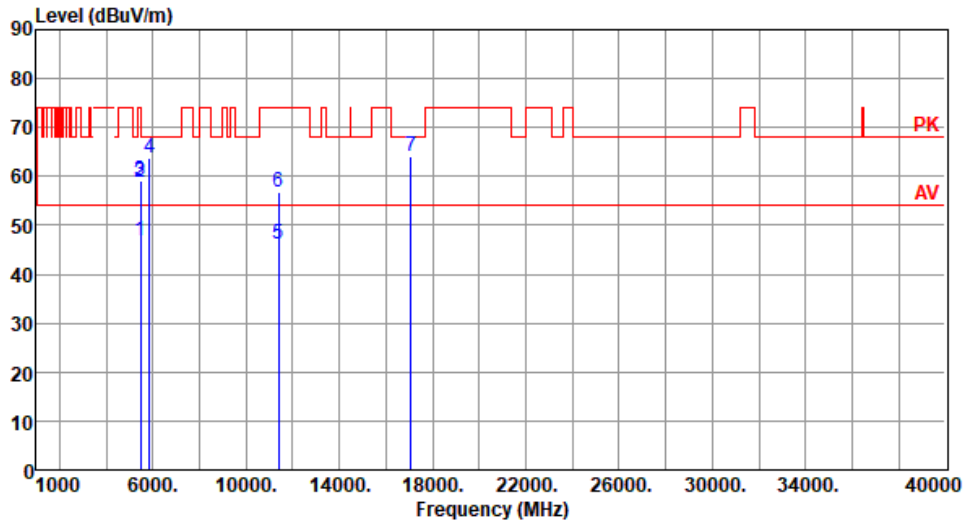
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5690
<b>Polarization</b>	Horizontal		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.76	54.00	-7.24	42.31	4.45	Average	190	20
2	5460.00	58.76	74.00	-15.24	54.31	4.45	Peak	190	20
3	5470.00	59.10	68.20	-9.10	54.60	4.50	Peak	190	20
4	5850.00	63.65	68.20	-4.55	58.20	5.45	Peak	190	20
5	11380.00	46.03	54.00	-7.97	31.42	14.61	Average	131	304
6	11380.00	56.92	74.00	-17.08	42.31	14.61	Peak	131	304
7	17070.00	64.11	68.20	-4.09	46.36	17.75	Peak	136	22

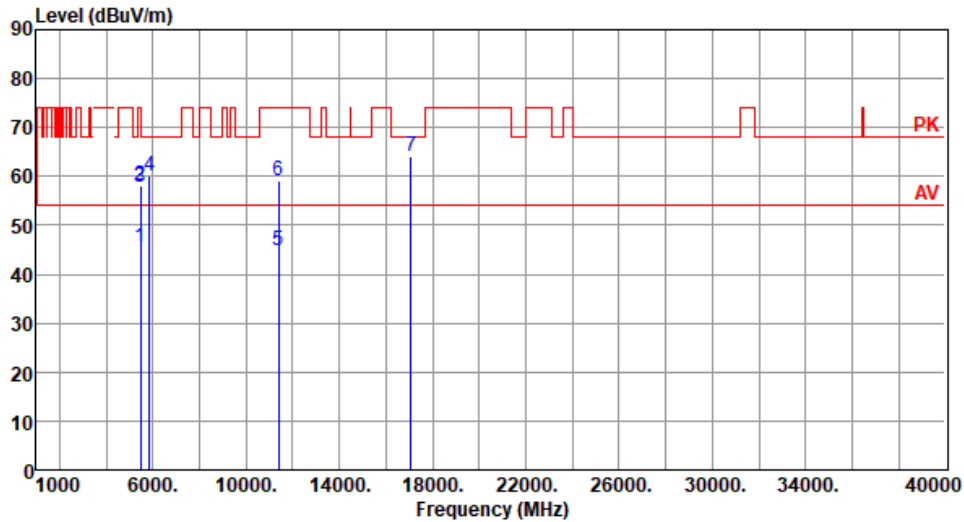
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor\* (dB)

\*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	<b>Test Freq. (MHz)</b>	5690
<b>Polarization</b>	Vertical		

Test By :BRAD WU      Temperature(°C):24      Humidity(%):69



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.66	54.00	-8.34	41.21	4.45	Average	162	48
2	5460.00	57.98	74.00	-16.02	53.53	4.45	Peak	162	48
3	5470.00	57.86	68.20	-10.34	53.36	4.50	Peak	162	48
4	5850.00	60.12	68.20	-8.08	54.67	5.45	Peak	162	48
5	11380.00	44.68	54.00	-9.32	30.07	14.61	Average	159	23
6	11380.00	59.11	74.00	-14.89	44.50	14.61	Peak	159	23
7	17070.00	64.06	68.20	-4.14	46.31	17.75	Peak	109	338

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

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

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

## 3.6 Frequency Stability

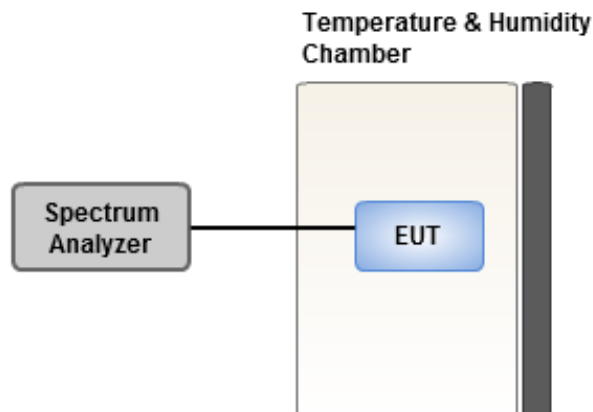
### 3.6.1 Limit of Frequency Stability

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.

### 3.6.2 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.

### 3.6.3 Test Setup



### 3.6.4 Test Result of Frequency Stability

<b>Ambient Condition</b>	25°C / 67%	<b>Tested By</b>	Aska Huang
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Frequency: 5300 MHz	Frequency Drift (ppm)			
	0 minute	2 minutes	5 minutes	10 minutes
<b>Temperature (°C)</b>				
T20°C <sub>Vmax</sub>	8.59	8.58	9.01	9.11
T20°C <sub>Vmin</sub>	7.57	7.75	8.00	8.21
T60°C <sub>Vnom</sub>	16.78	17.17	17.48	17.41
T50°C <sub>Vnom</sub>	14.68	14.49	14.42	15.02
T40°C <sub>Vnom</sub>	12.66	12.73	12.63	13.14
T30°C <sub>Vnom</sub>	10.49	10.96	10.78	10.30
T20°C <sub>Vnom</sub>	8.72	9.03	8.29	8.90
T10°C <sub>Vnom</sub>	7.27	7.19	7.66	8.03
T0°C <sub>Vnom</sub>	4.79	5.18	4.59	5.08
T-10°C <sub>Vnom</sub>	2.39	2.52	2.58	2.99
T-20°C <sub>Vnom</sub>	3.94	4.72	4.67	3.75
T-30°C <sub>Vnom</sub>	6.42	6.48	6.80	6.48
Vnom [V]: 120		Vmax [V]: 138		Vmin [V]: 102
Tnom [°C]: 20		Tmax [°C]: 60		Tmin [°C]: -30

## 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 Corp (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 District, Tao Yuan City  
333, Taiwan, R.O.C.

### **Kwei Shan Site II**

Tel: 886-3-271-8640

No. 14-1, Lane 19, Wen San 3rd  
St., Kwei Shan District, 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: 886-3-318-0155

Email: ICC\_Service@icertifi.com.tw

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