FCC Test Report

FCC ID	:	**P27RP582B**
Equipment	:	**WiFi 6 Tri-Band Router**
Model No.	:	**RP582B**
Brand Name	:	**Sercomm**
Applicant	:	**Sercomm Corporation**
Address	:	**8F, No. 3-1, YuanQu St., NanKang, Taipei 115, Taiwan, R.O.C.**
Standard	:	**47 CFR FCC Part 15.407**
Received Date	:	**Jan. 11, 2022**
Tested Date	:	**Jan. 25 ~ Feb. 15, 2022**

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

Reviewed by: **Approved by:**

Along Chen / Assistant Manager **Gary Chang / Manager**

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Release Record

Report No.	Version	Description	Issued Date
FR211102AN	Rev. 01	Initial issue	Mar. 11, 2022

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.348MHz 42.71 (Margin -6.29dB) - AV	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5150.00MHz 53.68 (Margin -0.32dB) - AV	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(e)	6dB bandwidth	Meet the requirement of limit	Pass
15.407(a)	RF Output Power	Max Power [dBm]: ***Non-beamforming mode*** 5150~5250MHz: 27.08 5725~5850MHz: 24.95 ***Beamforming mode*** 5150-5250MHz: 26.64 5725-5850MHz: 24.86	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

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	**IEEE Std. 802.11**	**Ch. Freq. (MHz)**	**Channel Number**	**Transmit Chains (N_{TX})**	**Data Rate / MCS**
5150-5250 5725-5850	a	5180-5240 5745-5825	36-48 [4] 149-165 [5]	4 2	6-54 Mbps
5150-5250 5725-5850	n (HT20)	5180-5240 5745-5825	36-48 [4] 149-165 [5]	4 2	MCS 0-31 MCS 0-15
5150-5250 5725-5850	n (HT40)	5190-5230 5755-5795	38-46 [2] 151-159 [2]	4 2	MCS 0-31 MCS 0-15
5150-5250 5725-5850	ac (VHT20)	5180-5240 5745-5825	36-48 [4] 149-165 [5]	4 2	MCS 0-9
5150-5250 5725-5850	ac (VHT40)	5190-5230 5755-5795	38-46 [2] 151-159 [2]	4 2	MCS 0-9
5150-5250 5725-5850	ac (VHT80)	5210 5775	42 [1] 155 [1]	4 2	MCS 0-9
5150-5250 5725-5850	ax (HE20)	5180-5240 5745-5825	36-48 [4] 149-165 [5]	4 2	MCS 0-11
5150-5250 5725-5850	ax (HE40)	5190-5230 5755-5795	38-46 [2] 151-159 [2]	4 2	MCS 0-11
5150-5250 5725-5850	ax (HE80)	5210 5775	42 [1] 155 [1]	4 2	MCS 0-11
Note 1: OFDM/OFDMA- BPSK, QPSK, 16QAM, 64QAM, 256QAM and 1024QAM modulation. Note 2: 802.11ax supports beamforming function.					

1.1.2 Antenna Details

Ant. No.	**Model**	**Type**	**Connector**	**Operating Frequencies (MHz) / Antenna Gain (dBi)**			**Remarks**
				2400~2483.5	**5150~5250**	**5725~5850**	
1	Ant1	Dipole	I-PEX	2.46	4.31	2.16	Radio1, 3
2	Ant2	Dipole	I-PEX	3.43	2.63	3.85	Radio1, 3
3	Ant3	Dipole	I-PEX	---	3.35	3.4	Radio2
4	Ant4	Dipole	I-PEX	---	2.19	3.32	Radio2
5	Ant5	Dipole	I-PEX	---	2.62	2.69	Radio2
6	Ant6	Dipole	I-PEX	---	4.23	4.11	Radio2

1.1.3 Radio Details

Radio	Function
1	2.4 GHz, 2T2R
2	5.15 GHz ~ 5.25 GHz, 4T4R
3	5.725 GHz ~ 5.85 GHz, 2T2R

1.1.4 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	12Vdc from AC adapter

1.1.5 Accessories

Accessories		
No.	**Equipment**	**Description**
1	AC adapter	Brand: Leader Model: MU24D1120200-A1 Power Rating: I/P: 100-240Vac, 50/60Hz, 0.7A O/P: 12Vdc, 2.0A Line: 1.45m non-shielded w/o core.
2	AC adapter	Brand: Acbel Model: WAM003 ID:GMAG Power Rating: I/P: 100-240Vac, 50/60Hz, 0.7A. O/P: 12Vdc, 2.0A, 24W Line: 1.45m non-shielded w/o core.

1.1.6 Channel List

802.11a / n HT20 / ac VHT20 / ax HE20		802.11n HT40 / ac VHT40 / ax HE40	
Channel	**Frequency(MHz)**	**Channel**	**Frequency(MHz)**
36	5180	38	5190
40	5200	46	5230
44	5220	151	5755
48	5240	159	5795
149	5745	**802.11ac VHT80 / ax HE80**	
153	5765	42	5210
157	5785	155	5775
161	5805	-	-
165	5825	-	-
-	-	-	-

1.1.7 Test Tool and Duty Cycle

Test Tool	Non-beamforming: accessMTool, Version:V3.2.1.5 Beamforming: Lantest, Version: V2.0.0.2				
Duty Cycle and Duty Factor	Mode	Non-beamforming		Beamforming	
		Duty cycle (%)	Duty factor (dB)	Duty cycle (%)	Duty factor (dB)
	11a	95.81%	0.19	---	---
	ax HE20-OFDMA	98.31%	0.07	90.69%	0.42
	ax HE40-OFDMA	98.31%	0.07	93.55%	0.29
	ax HE80-OFDMA	98.58%	0.06	94.15%	0.26

1.1.8 Power Index of Test Tool

Modulation Mode	Test Frequency (MHz)	Power Index	
		Non-Beamforming	Beamforming
11a	5180	74	---
11a	5200	80	---
11a	5240	78	---
11a	5745	84	---
11a	5785	84	---
11a	5825	84	---
ax HE20-OFDMA	5180	70	70
ax HE20-OFDMA	5200	78	80
ax HE20-OFDMA	5240	74	76
ax HE20-OFDMA	5745	84	84
ax HE20-OFDMA	5785	84	82
ax HE20-OFDMA	5825	84	82
ax HE40-OFDMA	5190	56	56
ax HE40-OFDMA	5230	74	76
ax HE40-OFDMA	5755	84	84
ax HE40-OFDMA	5795	84	82
ax HE80-OFDMA	5210	62	60
ax HE80-OFDMA	5775	80	78

1.2 Local Support Equipment List

Non-beamforming mode

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Remarks**
1	Notebook	DELL	Latitude 5400	---	---
2	Notebook	DELL	Latitude E6440	---	---

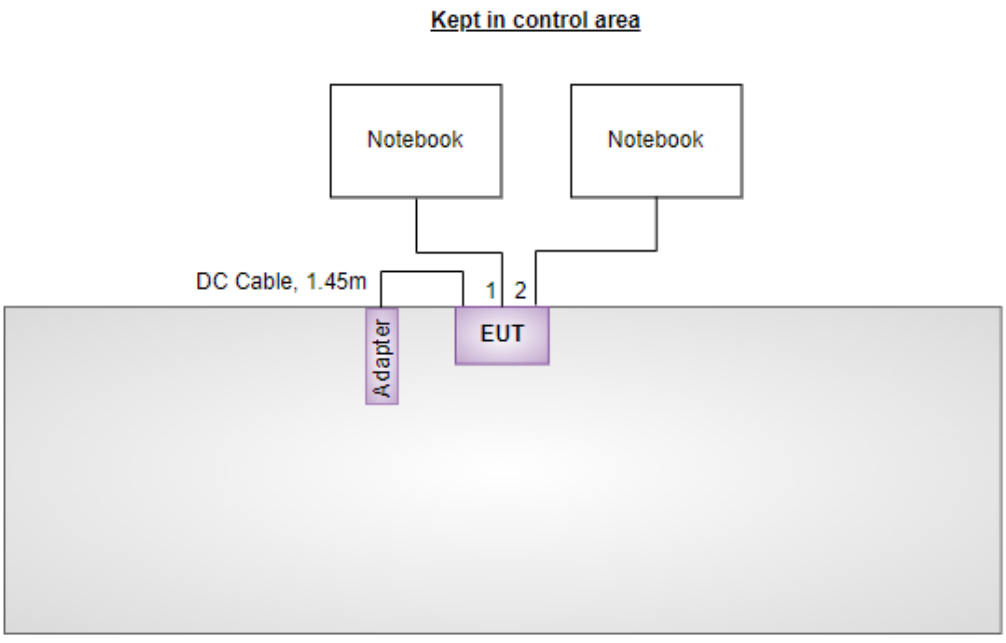
Beamforming mode

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Remarks**
1	Notebook	DELL	Latitude 5400	---	---
2	Notebook	DELL	Latitude E6440	---	---
3	BF Client	---	RP582B	---	Provided by applicant.

1.3 Test Setup Chart

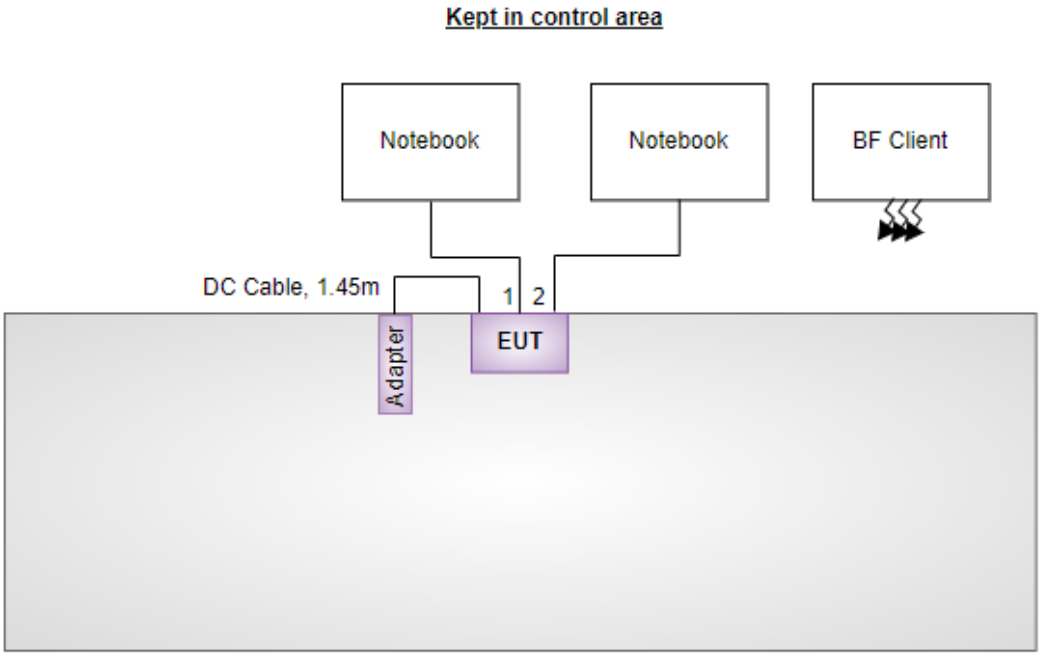
Non-beamforming mode

Test Setup Diagram



No.	Signal cable / Length (m)
1-2	RJ45, 10m non-shielded.

Beamforming mode

Test Setup Diagram


No.	Signal cable / Length (m)
1-2	RJ45, 10m non-shielded.

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Feb. 07, 2022				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	101657	Mar. 12, 2021	Mar. 11, 2022
LISN	R&S	ENV216	101579	Mar. 17, 2021	Mar. 16, 2022
LISN (Support Unit)	SCHWARZBECK MESS-ELEKTRONIK	NSLK 8127	8127477	Feb .25, 2021	Feb .24, 2022
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 19, 2021	Oct. 18, 2022
50 ohm terminal (Support Unit)	NA	50	04	May 25, 2021	May 24, 2022
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Jan. 25 ~ Feb. 08, 2022				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	101657	Mar. 12, 2021	Mar. 11, 2022
Spectrum Analyzer	R&S	FSV40	101498	Nov. 29, 2021	Nov. 28, 2022
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 08, 2021	Nov. 07, 2022
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jun. 30, 2021	Jun. 29, 2022
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 03, 2021	Dec. 02, 2022
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170508	Jan. 11, 2022	Jan. 10, 2023
Preamplifier	EMC	EMC02325	980225	Jun. 29, 2021	Jun. 28, 2022
Preamplifier	Agilent	83017A	MY39501308	Sep. 28, 2021	Sep. 27, 2022
Preamplifier	EMC	EMC184045B	980192	Jul. 14, 2021	Jul. 13, 2022
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 05, 2021	Oct. 04, 2022
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 05, 2021	Oct. 04, 2022
LF cable 11M	EMC	EMCCFD400-NW-NW-11000	200801	Oct. 05, 2021	Oct. 04, 2022
LF cable 1M	EMC	EMCCFD400-NM-NM-1000	160502	Oct. 05, 2021	Oct. 04, 2022
RF Cable	EMC	EMC104-35M-35M-8000	210920	Oct. 05, 2021	Oct. 04, 2022
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Oct. 05, 2021	Oct. 04, 2022
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Feb. 11 ~ Feb. 15, 2022				
Instrument	**Brand**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101498	Nov. 29, 2021	Nov. 28, 2022
Power Meter	Anritsu	ML2495A	1241002	Nov. 07, 2021	Nov. 06, 2022
Power Sensor	Anritsu	MA2411B	1207366	Nov. 07, 2021	Nov. 06, 2022
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	May 25, 2021	May 24, 2022
AC POWER SOURCE	APC	AFC-500W	F312060012	Dec. 03, 2021	Dec. 02, 2022
Measurement Software	Sporton	SENSE-15407_NII	V5.10.7.18	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Test Standards

47 CFR FCC Part 15.407
ANSI C63.10-2013

1.6 Reference Guidance

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

1.7 Deviation from Test Standard and Measurement Procedure

None

1.8 Measurement Uncertainty

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

Measurement Uncertainty	
Parameters	**Uncertainty**
Bandwidth	±34.130 Hz
Conducted power	±0.808 dB
Frequency error	$\pm 1 \times 10^{-9}$
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

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

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

2.2 The Worst Test Modes and Channel Details

Non-beamforming mode

For Frequency band 5150-5250 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
Conducted Emissions	ax HE20-OFDMA	5200	MCS 0	---
Radiated Emissions ≤1GHz	ax HE20-OFDMA	5200	MCS 0	---
RF Output Power Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a ax HE20-OFDMA ax HE40-OFDMA ax HE80-OFDMA	5180 / 5200 / 5240 5180 / 5200 / 5240 5190 / 5230 5210	6 Mbps MCS 0 MCS 0 MCS 0	---
Frequency Stability	Un-modulation	5200	---	---
For Frequency band 5725-5850 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
Conducted Emissions	ax HE20-OFDMA	5825	MCS 0	---
Radiated Emissions ≤1GHz	ax HE20-OFDMA	5825	MCS 0	---
Radiated Emissions >1GHz Emission Bandwidth 6dB bandwidth Peak Power Spectral Density	11a ax HE20-OFDMA ax HE40-OFDMA ax HE80-OFDMA	5745 / 5785 / 5825 5745 / 5785 / 5825 5755 / 5795 5775	6 Mbps MCS 0 MCS 0 MCS 0	---
Frequency Stability	Un-modulation	5785	---	---
Note: Two adapters (Leader and Acbel) had been covered during the pretest, and found that Leader was the worst case and was selected for final test.				

Beamforming mode

For Frequency band 5150-5250 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
Conducted Emissions	ax HE20-OFDMA	5200	MCS 0	---
Radiated Emissions ≤1GHz	ax HE20-OFDMA	5200	MCS 0	---
RF Output Power Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	ax HE20-OFDMA ax HE40-OFDMA ax HE80-OFDMA	5180 / 5200 / 5240 5190 / 5230 5210	MCS 0 MCS 0 MCS 0	---
For Frequency band 5725-5850 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
Conducted Emissions	ax HE20-OFDMA	5825	MCS 0	---
Radiated Emissions ≤1GHz	ax HE20-OFDMA	5825	MCS 0	---
Radiated Emissions >1GHz Emission Bandwidth 6dB bandwidth Peak Power Spectral Density	ax HE20-OFDMA ax HE40-OFDMA ax HE80-OFDMA	5745 / 5785 / 5825 5755 / 5795 5775	MCS 0 MCS 0 MCS 0	---
Note: Two adapters (Leader and Acbel) had been covered during the pretest, and found that Leader was the worst case and was selected for final test.				

3 Transmitter Test Results

3.1 Conducted Emissions

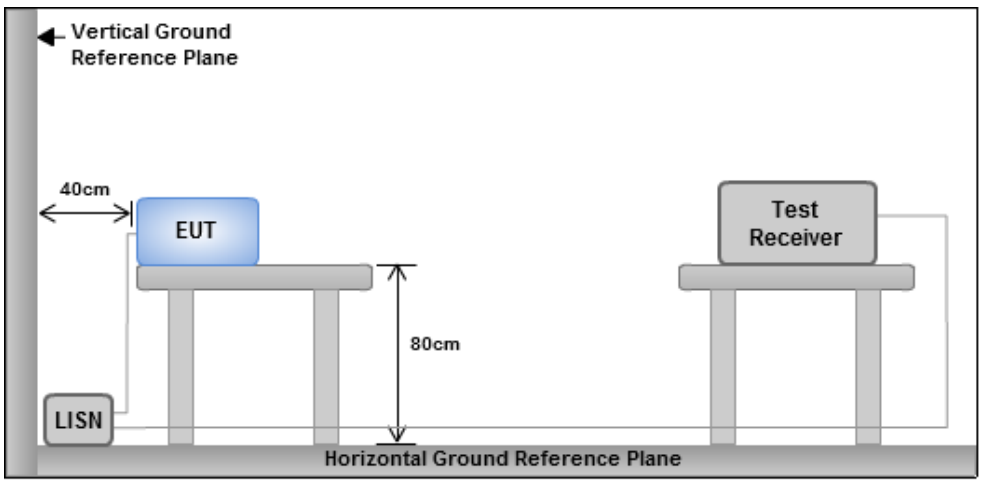
3.1.1 Limit of Conducted Emissions

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 Ω LISN port.
3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.
4. This measurement was performed with AC 120V/60Hz

3.1.3 Test Setup



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

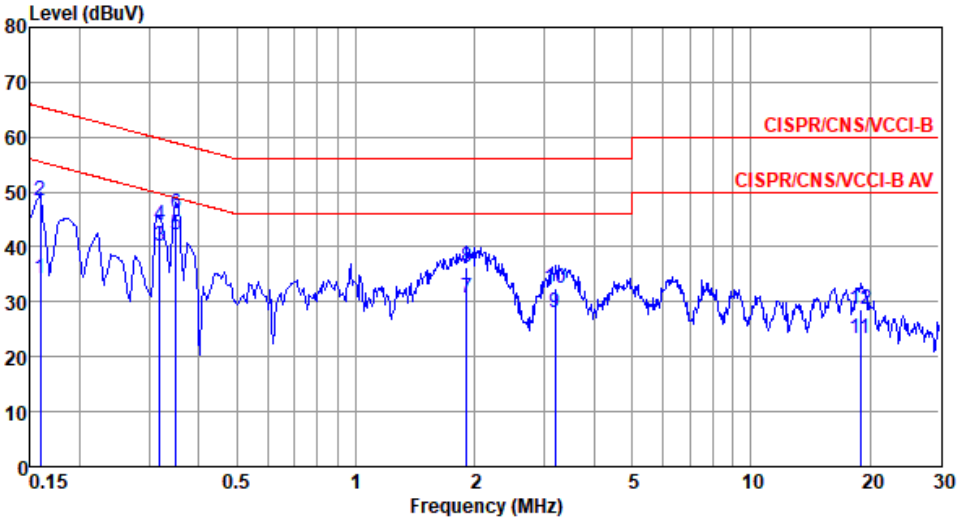
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

Non-beamforming mode

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	5200
Power Phase	Line		

Test by : Joe Liao Temperature: 18°C Humidity: 60%

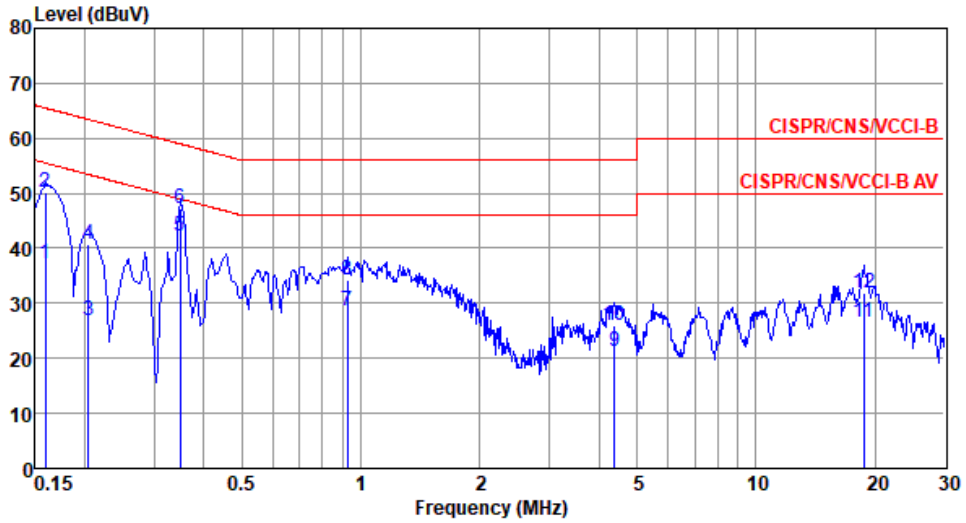


	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.159	34.33	55.52	-21.19	24.39	9.66	0.08	0.20	Average
2	0.159	48.49	65.52	-17.03	38.55	9.66	0.08	0.20	QP
3	0.318	40.14	49.75	-9.61	30.11	9.64	0.08	0.31	Average
4	0.318	43.93	59.75	-15.82	33.90	9.64	0.08	0.31	QP
5*	0.350	42.15	48.96	-6.81	32.10	9.64	0.08	0.33	Average
6	0.350	45.96	58.96	-13.00	35.91	9.64	0.08	0.33	QP
7	1.908	30.76	46.00	-15.24	20.51	9.66	0.20	0.39	Average
8	1.908	36.22	56.00	-19.78	25.97	9.66	0.20	0.39	QP
9	3.190	28.18	46.00	-17.82	17.89	9.67	0.21	0.41	Average
10	3.190	32.50	56.00	-23.50	22.21	9.67	0.21	0.41	QP
11	18.920	23.35	50.00	-26.65	12.41	9.68	0.64	0.62	Average
12	18.920	28.50	60.00	-31.50	17.56	9.68	0.64	0.62	QP

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5200
Power Phase	Neutral		

Test by : Joe Liao Temperature: 18°C Humidity: 60%

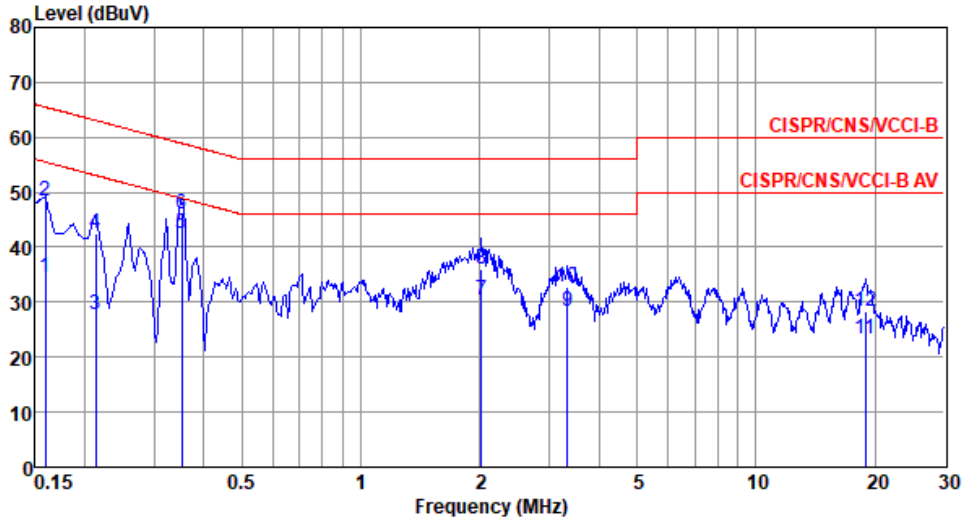


	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.159	37.10	55.52	-18.42	27.17	9.69	0.08	0.16	Average
2	0.159	50.25	65.52	-15.27	40.32	9.69	0.08	0.16	QP
3	0.204	26.74	53.45	-26.71	16.80	9.68	0.08	0.18	Average
4	0.204	40.63	63.45	-22.82	30.69	9.68	0.08	0.18	QP
5*	0.348	42.35	49.00	-6.65	32.41	9.67	0.08	0.19	Average
6	0.348	47.09	59.00	-11.91	37.15	9.67	0.08	0.19	QP
7	0.923	28.72	46.00	-17.28	18.62	9.68	0.15	0.27	Average
8	0.923	34.22	56.00	-21.78	24.12	9.68	0.15	0.27	QP
9	4.384	21.39	46.00	-24.61	11.12	9.71	0.23	0.33	Average
10	4.384	25.84	56.00	-30.16	15.57	9.71	0.23	0.33	QP
11	18.721	26.44	50.00	-23.56	15.52	9.83	0.64	0.45	Average
12	18.721	31.87	60.00	-28.13	20.95	9.83	0.64	0.45	QP

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5825
Power Phase	Line		

Test by : Joe Liao Temperature: 18°C Humidity: 60%

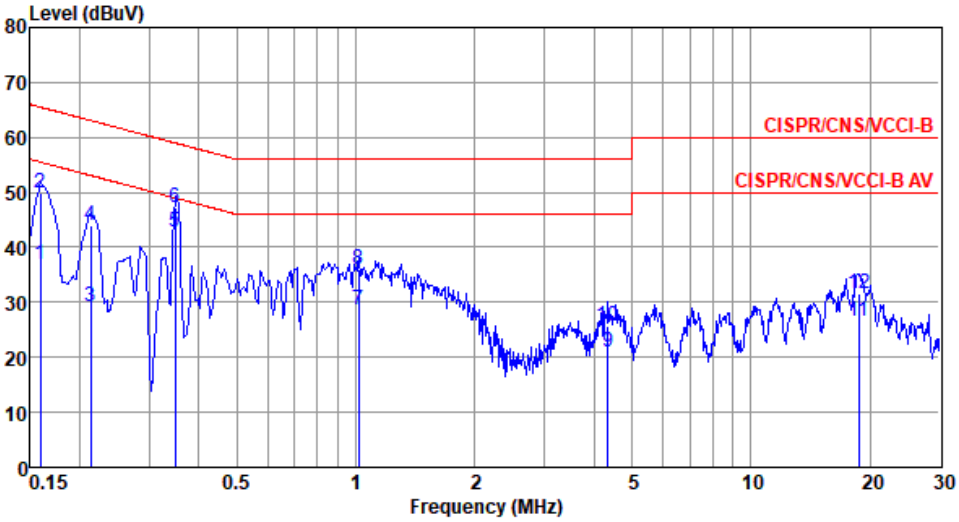


	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.159	34.43	55.52	-21.09	24.49	9.66	0.08	0.20	Average
2	0.159	48.55	65.52	-16.97	38.61	9.66	0.08	0.20	QP
3	0.213	27.85	53.10	-25.25	17.89	9.65	0.08	0.23	Average
4	0.213	42.44	63.10	-20.66	32.48	9.65	0.08	0.23	QP
5*	0.352	42.55	48.91	-6.36	32.50	9.64	0.08	0.33	Average
6	0.352	46.06	58.91	-12.85	36.01	9.64	0.08	0.33	QP
7	2.023	30.53	46.00	-15.47	20.28	9.66	0.20	0.39	Average
8	2.023	36.00	56.00	-20.00	25.75	9.66	0.20	0.39	QP
9	3.328	28.48	46.00	-17.52	18.19	9.67	0.21	0.41	Average
10	3.328	32.86	56.00	-23.14	22.57	9.67	0.21	0.41	QP
11	18.920	23.43	50.00	-26.57	12.49	9.68	0.64	0.62	Average
12	18.920	28.38	60.00	-31.62	17.44	9.68	0.64	0.62	QP

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5825
Power Phase	Neutral		

Test by : Joe Liao Temperature: 18°C Humidity: 60%



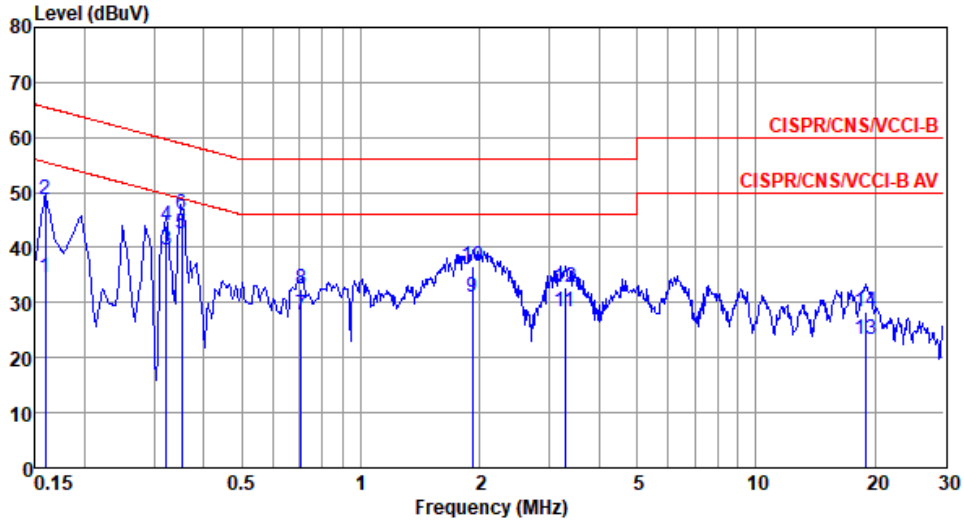
	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.159	36.90	55.52	-18.62	26.97	9.69	0.08	0.16	Average
2	0.159	50.01	65.52	-15.51	40.08	9.69	0.08	0.16	QP
3	0.213	29.24	53.10	-23.86	19.30	9.68	0.08	0.18	Average
4	0.213	43.88	63.10	-19.22	33.94	9.68	0.08	0.18	QP
5*	0.348	42.71	49.00	-6.29	32.77	9.67	0.08	0.19	Average
6	0.348	47.13	59.00	-11.87	37.19	9.67	0.08	0.19	QP
7	1.016	28.50	46.00	-17.50	18.38	9.68	0.16	0.28	Average
8	1.016	36.16	56.00	-19.84	26.04	9.68	0.16	0.28	QP
9	4.338	21.01	46.00	-24.99	10.74	9.71	0.23	0.33	Average
10	4.338	25.66	56.00	-30.34	15.39	9.71	0.23	0.33	QP
11	18.721	26.45	50.00	-23.55	15.53	9.83	0.64	0.45	Average
12	18.721	31.71	60.00	-28.29	20.79	9.83	0.64	0.45	QP

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

Beamforming mode

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	5200
Power Phase	Line		

Test by : Joe Liao Temperature: 18°C Humidity: 60%

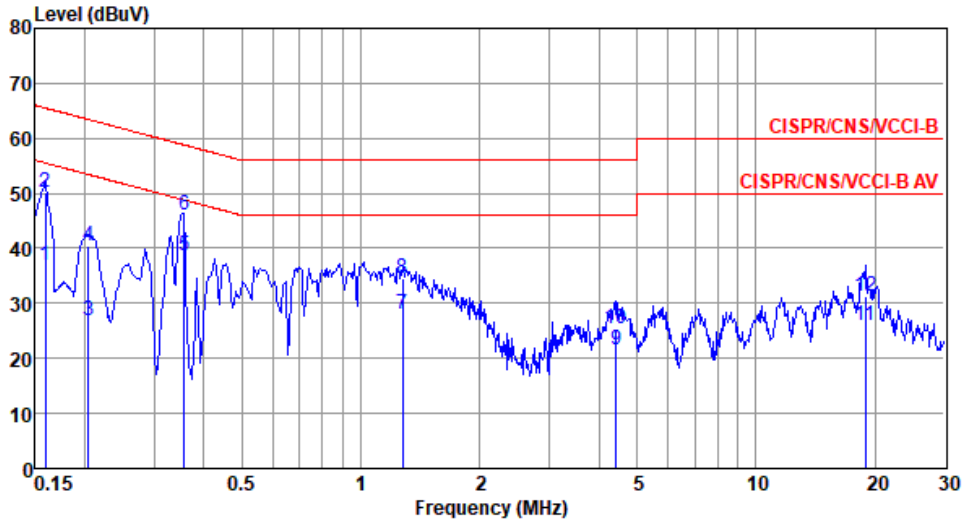


	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.159	34.57	55.52	-20.95	24.63	9.66	0.08	0.20	Average
2	0.159	48.60	65.52	-16.92	38.66	9.66	0.08	0.20	QP
3	0.322	39.69	49.66	-9.97	29.65	9.64	0.08	0.32	Average
4	0.322	43.93	59.66	-15.73	33.89	9.64	0.08	0.32	QP
5*	0.352	42.42	48.91	-6.49	32.37	9.64	0.08	0.33	Average
6	0.352	46.01	58.91	-12.90	35.96	9.64	0.08	0.33	QP
7	0.705	27.75	46.00	-18.25	17.60	9.65	0.13	0.37	Average
8	0.705	32.50	56.00	-23.50	22.35	9.65	0.13	0.37	QP
9	1.918	31.02	46.00	-14.98	20.77	9.66	0.20	0.39	Average
10	1.918	36.72	56.00	-19.28	26.47	9.66	0.20	0.39	QP
11	3.293	28.42	46.00	-17.58	18.13	9.67	0.21	0.41	Average
12	3.293	32.72	56.00	-23.28	22.43	9.67	0.21	0.41	QP
13	18.920	23.25	50.00	-26.75	12.31	9.68	0.64	0.62	Average
14	18.920	28.37	60.00	-31.63	17.43	9.68	0.64	0.62	QP

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5200
Power Phase	Neutral		

Test by : Joe Liao Temperature: 18°C Humidity: 60%

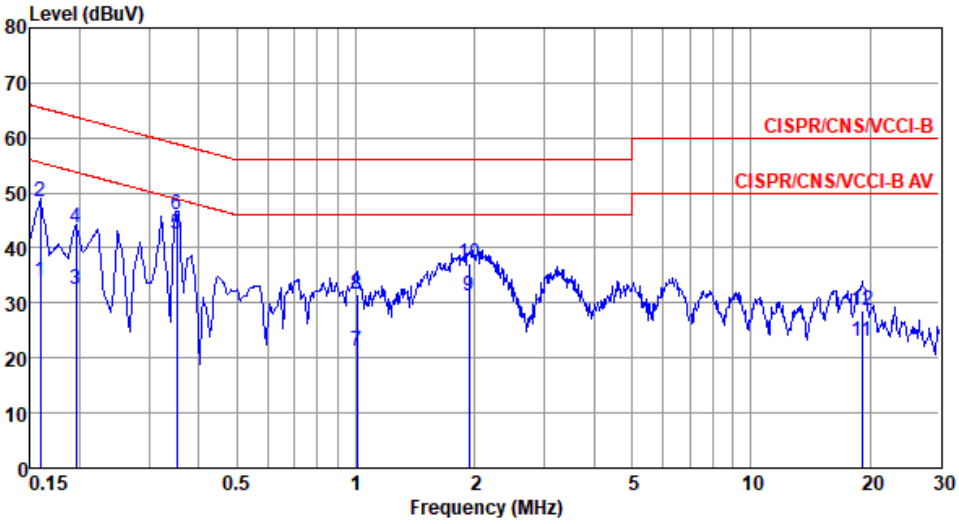


	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.159	36.88	55.52	-18.64	26.95	9.69	0.08	0.16	Average
2	0.159	50.16	65.52	-15.36	40.23	9.69	0.08	0.16	QP
3	0.204	26.72	53.45	-26.73	16.78	9.68	0.08	0.18	Average
4	0.204	40.45	63.45	-23.00	30.51	9.68	0.08	0.18	QP
5*	0.358	38.72	48.78	-10.06	28.78	9.67	0.08	0.19	Average
6	0.358	46.09	58.78	-12.69	36.15	9.67	0.08	0.19	QP
7	1.276	28.15	46.00	-17.85	18.01	9.68	0.17	0.29	Average
8	1.276	34.57	56.00	-21.43	24.43	9.68	0.17	0.29	QP
9	4.430	21.45	46.00	-24.55	11.17	9.71	0.24	0.33	Average
10	4.430	25.37	56.00	-30.63	15.09	9.71	0.24	0.33	QP
11	18.920	25.88	50.00	-24.12	14.96	9.83	0.64	0.45	Average
12	18.920	31.23	60.00	-28.77	20.31	9.83	0.64	0.45	QP

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5825
Power Phase	Line		

Test by : Joe Liao Temperature: 18°C Humidity: 60%

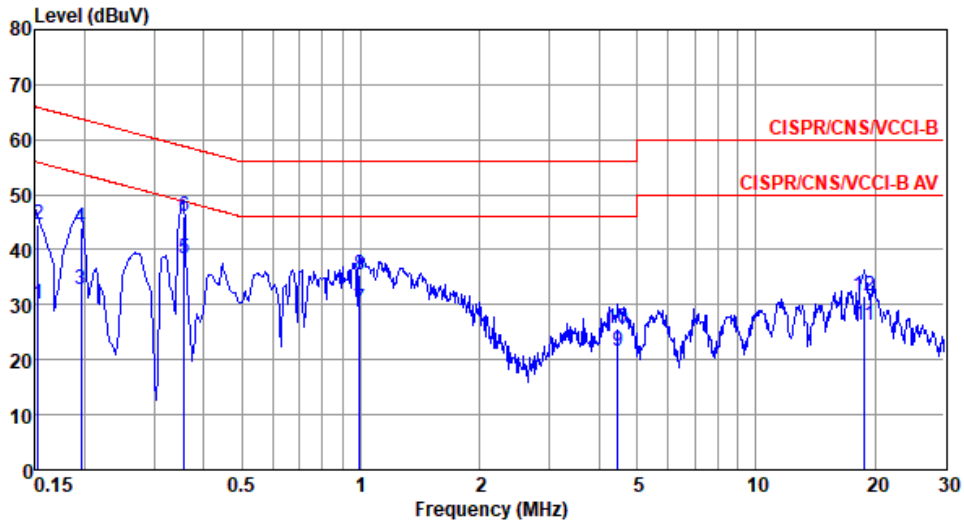


	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.159	34.08	55.52	-21.44	24.14	9.66	0.08	0.20	Average
2	0.159	48.49	65.52	-17.03	38.55	9.66	0.08	0.20	QP
3	0.195	32.50	53.80	-21.30	22.55	9.65	0.08	0.22	Average
4	0.195	43.78	63.80	-20.02	33.83	9.65	0.08	0.22	QP
5*	0.352	42.52	48.91	-6.39	32.47	9.64	0.08	0.33	Average
6	0.352	46.00	58.91	-12.91	35.95	9.64	0.08	0.33	QP
7	1.005	21.20	46.00	-24.80	11.02	9.65	0.16	0.37	Average
8	1.005	31.57	56.00	-24.43	21.39	9.65	0.16	0.37	QP
9	1.939	31.20	46.00	-14.80	20.95	9.66	0.20	0.39	Average
10	1.939	37.23	56.00	-18.77	26.98	9.66	0.20	0.39	QP
11	19.122	22.97	50.00	-27.03	12.02	9.68	0.64	0.63	Average
12	19.122	28.53	60.00	-31.47	17.58	9.68	0.64	0.63	QP

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5825
Power Phase	Neutral		

Test by : Joe Liao Temperature: 18°C Humidity: 60%



	Freq	Level	Limit Line	Over Limit	Read Level	Factor	Cable loss	Aux	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	dB	
1	0.152	30.24	55.87	-25.63	20.31	9.69	0.08	0.16	Average
2	0.152	44.68	65.87	-21.19	34.75	9.69	0.08	0.16	QP
3	0.195	32.81	53.80	-20.99	22.87	9.68	0.08	0.18	Average
4	0.195	43.98	63.80	-19.82	34.04	9.68	0.08	0.18	QP
5*	0.358	38.43	48.78	-10.35	28.49	9.67	0.08	0.19	Average
6	0.358	45.97	58.78	-12.81	36.03	9.67	0.08	0.19	QP
7	0.994	29.23	46.00	-16.77	19.11	9.68	0.16	0.28	Average
8	0.994	35.56	56.00	-20.44	25.44	9.68	0.16	0.28	QP
9	4.478	21.49	46.00	-24.51	11.20	9.71	0.24	0.34	Average
10	4.478	25.74	56.00	-30.26	15.45	9.71	0.24	0.34	QP
11	18.820	26.24	50.00	-23.76	15.32	9.83	0.64	0.45	Average
12	18.820	31.64	60.00	-28.36	20.72	9.83	0.64	0.45	QP

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

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.

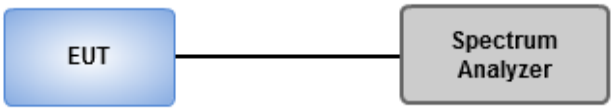
Occupied Bandwidth

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

Ambient Condition	20~22°C / 65~67%	Tested By	Aska Huang

Non-beamforming mode

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	31.35M	17.541M	17M5D1D	23.91M	17.121M
802.11ax HEW20_Nss1,(MCS0)_4TX-OFDMA	37.89M	19.31M	19M3D1D	23.52M	19.13M
802.11ax HEW40_Nss1,(MCS0)_4TX-OFDMA	49.86M	38.261M	38M3D1D	44.88M	38.141M
802.11ax HEW80_Nss1,(MCS0)_4TX-OFDMA	97.32M	78.081M	78M1D1D	84.36M	77.841M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.56M	19.1M	19M1D1D	16.32M	17.121M
802.11ax HEW20_Nss1,(MCS0)_2TX-OFDMA	18.96M	19.67M	19M7D1D	18.93M	19.13M
802.11ax HEW40_Nss1,(MCS0)_2TX-OFDMA	37.62M	46.117M	46M1D1D	37.2M	38.441M
802.11ax HEW80_Nss1,(MCS0)_2TX-OFDMA	76.92M	78.201M	78M2D1D	3.76M	22.329M

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

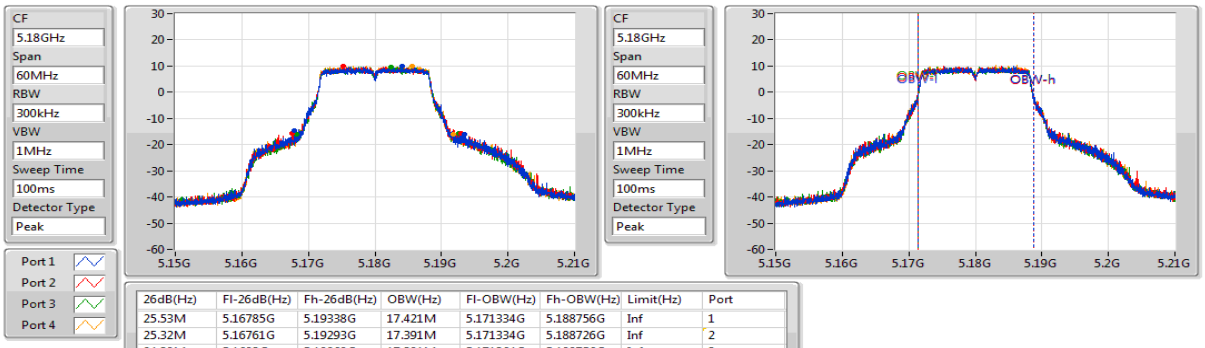
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX										
5180MHz	Pass	Inf	25.53M	17.421M	25.32M	17.391M	24.39M	17.391M	23.91M	17.331M
5200MHz	Pass	Inf	31.02M	17.541M	27.42M	17.361M	31.35M	17.241M	29.13M	17.301M
5240MHz	Pass	Inf	26.52M	17.271M	25.74M	17.151M	24.84M	17.151M	24.9M	17.121M
802.11a_Nss1,(6Mbps)_2TX										
5745MHz	Pass	500k	16.35M	17.121M	16.32M	17.631M				
5785MHz	Pass	500k	16.35M	17.241M	16.38M	18.411M				
5825MHz	Pass	500k	16.35M	17.241M	16.56M	19.1M				
802.11ax HEW20_Nss1,(MCS0)_4TX-OFDMA										
5180MHz	Pass	Inf	26.07M	19.22M	25.02M	19.25M	26.85M	19.25M	24.78M	19.22M
5200MHz	Pass	Inf	37.89M	19.31M	35.4M	19.25M	34.8M	19.28M	34.41M	19.31M
5240MHz	Pass	Inf	33.69M	19.22M	23.52M	19.19M	24.54M	19.25M	23.91M	19.13M
802.11ax HEW20_Nss1,(MCS0)_2TX-OFDMA										
5745MHz	Pass	500k	18.96M	19.13M	18.93M	19.25M				
5785MHz	Pass	500k	18.93M	19.16M	18.96M	19.43M				
5825MHz	Pass	500k	18.93M	19.16M	18.93M	19.67M				
802.11ax HEW40_Nss1,(MCS0)_4TX-OFDMA										
5190MHz	Pass	Inf	46.14M	38.261M	46.56M	38.141M	44.88M	38.141M	49.32M	38.201M
5230MHz	Pass	Inf	49.86M	38.261M	45.96M	38.201M	45.06M	38.201M	47.58M	38.141M
802.11ax HEW40_Nss1,(MCS0)_2TX-OFDMA										
5755MHz	Pass	500k	37.2M	38.501M	37.62M	40.84M				
5795MHz	Pass	500k	37.5M	38.441M	37.44M	46.117M				
802.11ax HEW80_Nss1,(MCS0)_4TX-OFDMA										
5210MHz	Pass	Inf	84.96M	77.961M	85.2M	77.841M	84.36M	78.081M	97.32M	77.961M
802.11ax HEW80_Nss1,(MCS0)_2TX-OFDMA										
5775MHz	Pass	500k	75.96M	77.481M	76.92M	78.201M				

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

802.11a_Nss1,(6Mbps)_4TX **EBW**

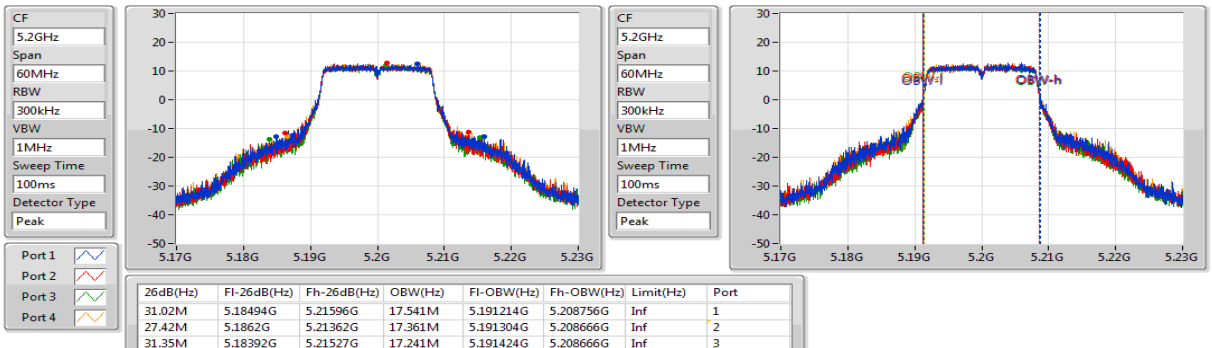
5180MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
25.53M	5.16785G	5.19338G	17.421M	5.171334G	5.188756G	Inf	1
25.32M	5.16761G	5.19293G	17.391M	5.171334G	5.188726G	Inf	2
24.39M	5.1683G	5.19269G	17.391M	5.171364G	5.188756G	Inf	3
23.91M	5.16779G	5.1917G	17.331M	5.171364G	5.188696G	Inf	4

802.11a_Nss1,(6Mbps)_4TX **EBW**

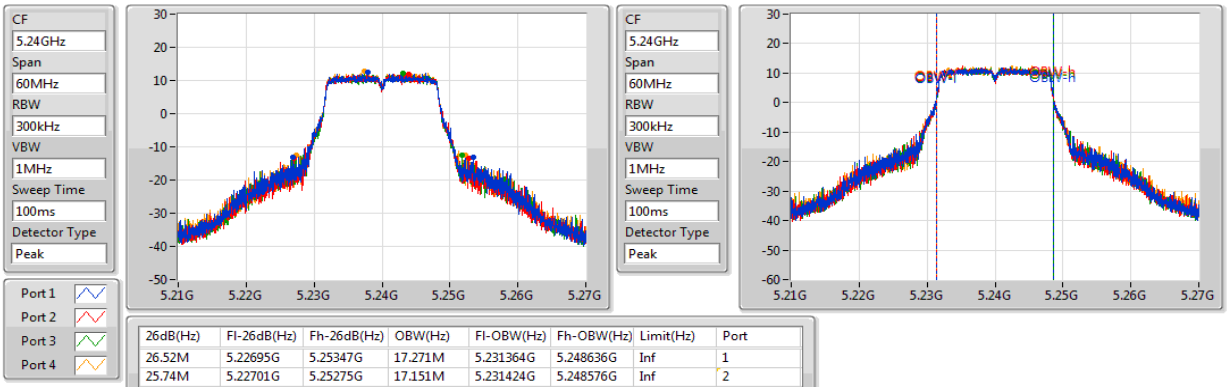
5200MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
31.02M	5.18494G	5.21596G	17.541M	5.191214G	5.208756G	Inf	1
27.42M	5.1862G	5.21362G	17.361M	5.191304G	5.208666G	Inf	2
31.35M	5.18392G	5.21527G	17.241M	5.191424G	5.208666G	Inf	3
29.13M	5.18662G	5.21575G	17.301M	5.191334G	5.208636G	Inf	4

802.11a_Nss1,(6Mbps)_4TX **EBW**

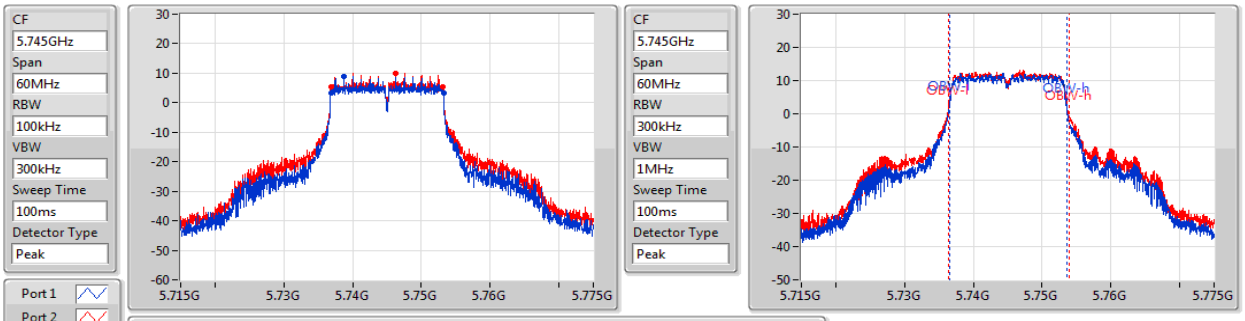
5240MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
26.52M	5.22695G	5.25347G	17.271M	5.231364G	5.248636G	Inf	1
25.74M	5.22701G	5.25275G	17.151M	5.231424G	5.248576G	Inf	2
24.84M	5.22701G	5.25185G	17.151M	5.231454G	5.248606G	Inf	3
24.9M	5.22743G	5.25233G	17.121M	5.231424G	5.248546G	Inf	4

802.11a_Nss1,(6Mbps)_2TX **EBW**

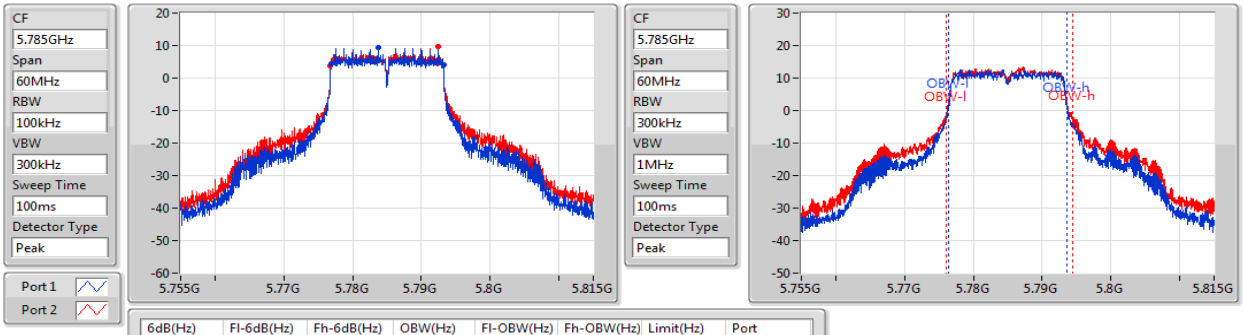
5745MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	5.73684G	5.75319G	17.121M	5.736484G	5.753606G	500k	1
16.32M	5.73684G	5.75316G	17.631M	5.736334G	5.753966G	500k	2

802.11a_Nss1,(6Mbps)_2TX **EBW**

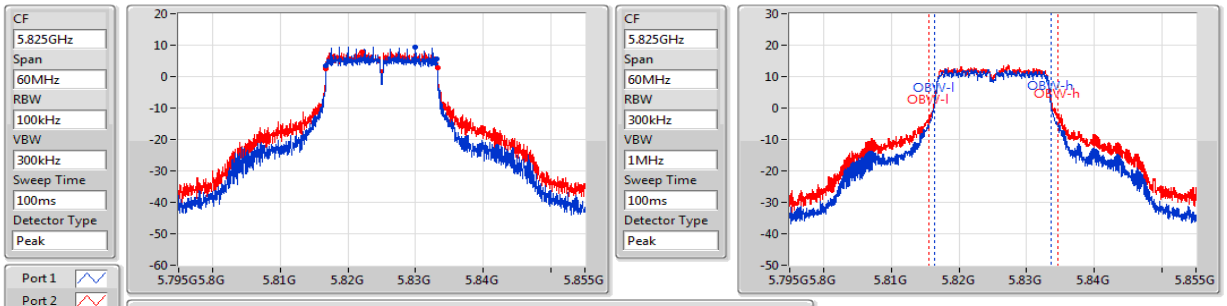
5785MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	5.77684G	5.79319G	17.241M	5.776424G	5.793666G	500k	1
16.38M	5.77681G	5.79319G	18.411M	5.776004G	5.794415G	500k	2

802.11a_Nss1,(6Mbps)_2TX **EBW**

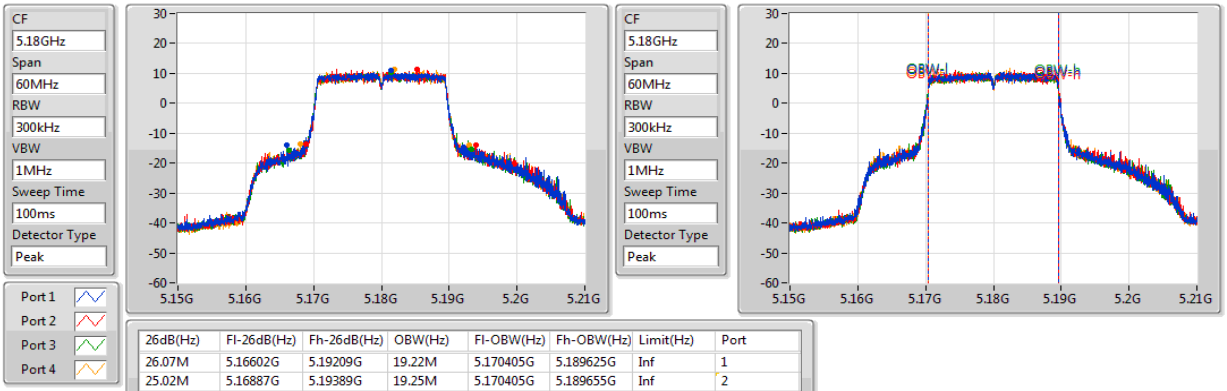
5825MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.35M	5.81681G	5.83316G	17.241M	5.816364G	5.833606G	500k	1
16.56M	5.81672G	5.83328G	19.1M	5.815585G	5.834685G	500k	2

802.11ax HEW20_Nss1,(MCS0)_4TX **EBW**

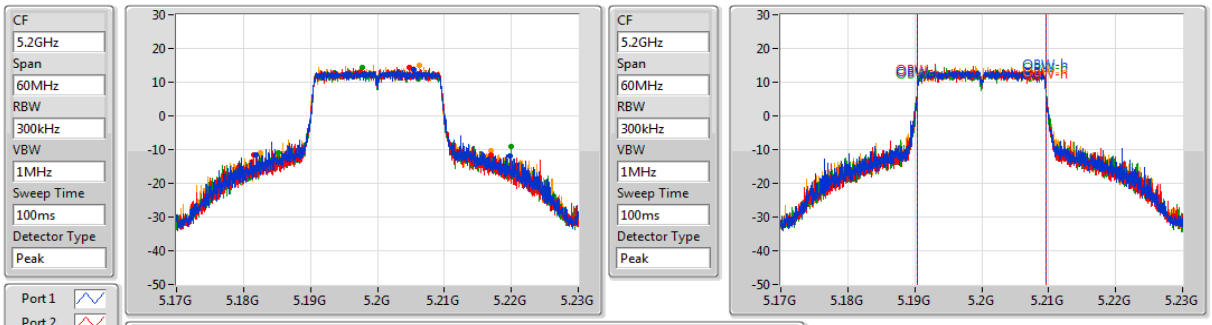
5180MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
26.07M	5.16602G	5.19209G	19.22M	5.170405G	5.189625G	Inf	1
25.02M	5.16887G	5.19389G	19.25M	5.170405G	5.189655G	Inf	2
26.85M	5.16644G	5.19329G	19.25M	5.170375G	5.189625G	Inf	3
24.78M	5.16809G	5.19287G	19.22M	5.170405G	5.189625G	Inf	4

802.11ax HEW20_Nss1,(MCS0)_4TX **EBW**

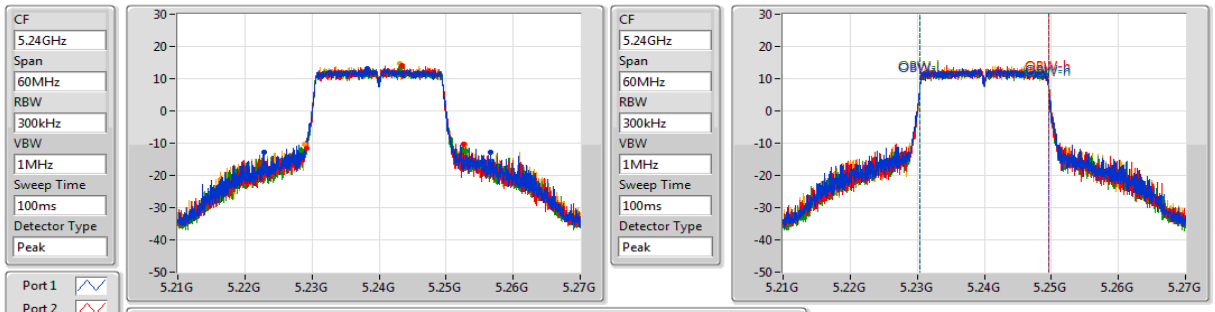
5200MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.89M	5.18194G	5.21983G	19.31M	5.190345G	5.209655G	Inf	1
35.4M	5.18158G	5.21698G	19.25M	5.190375G	5.209625G	Inf	2
34.8M	5.18521G	5.22001G	19.28M	5.190375G	5.209655G	Inf	3
34.41M	5.18251G	5.21692G	19.31M	5.190345G	5.209655G	Inf	4

802.11ax HEW20_Nss1,(MCS0)_4TX **EBW**

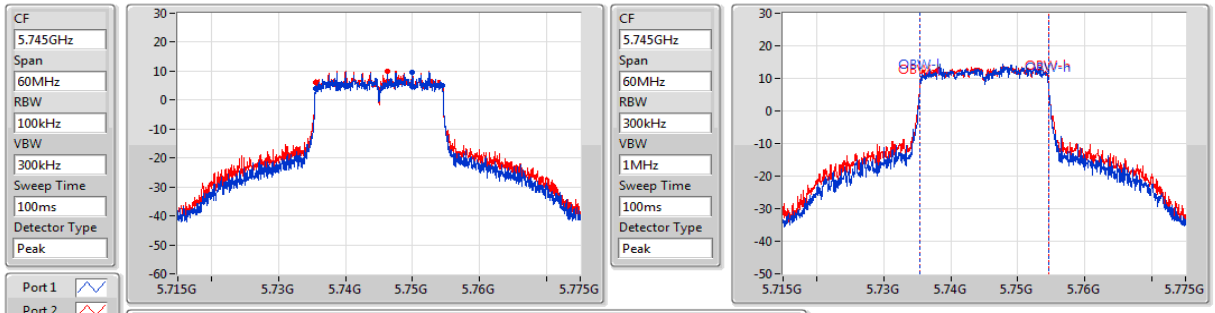
5240MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.69M	5.2229G	5.25659G	19.22M	5.230375G	5.249595G	Inf	1
23.52M	5.22914G	5.25266G	19.19M	5.230405G	5.249595G	Inf	2
24.54M	5.22845G	5.25299G	19.25M	5.230375G	5.249625G	Inf	3
23.91M	5.22893G	5.25284G	19.13M	5.230435G	5.249565G	Inf	4

802.11ax HEW20_Nss1,(MCS0)_2TX **EBW**

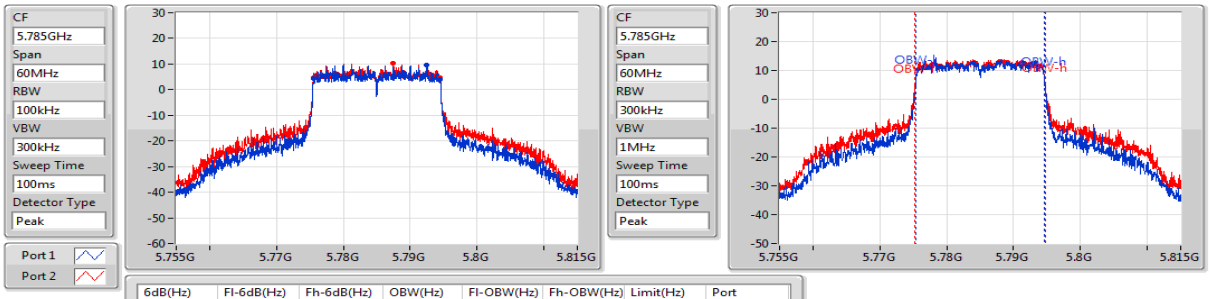
5745MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.96M	5.73552G	5.75448G	19.13M	5.735465G	5.754595G	500k	1
18.93M	5.73558G	5.75451G	19.25M	5.735375G	5.754625G	500k	2

802.11ax HEW20_Nss1,(MCS0)_2TX **EBW**

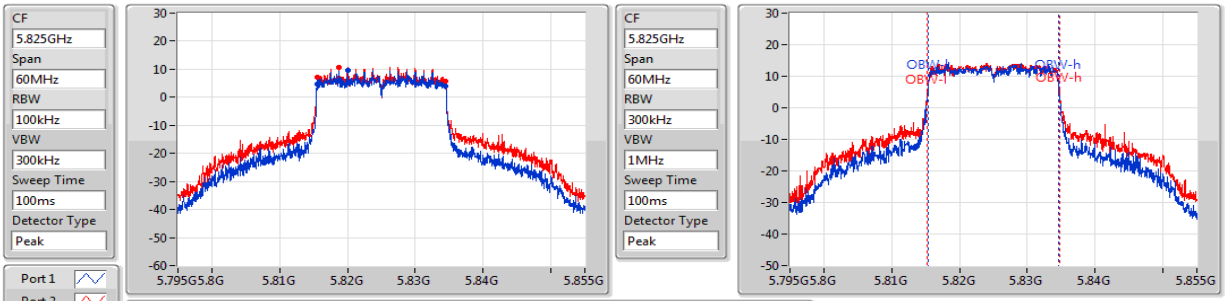
5785MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.93M	5.77555G	5.79448G	19.16M	5.775435G	5.794595G	500k	1
18.96M	5.77555G	5.79451G	19.43M	5.775285G	5.794715G	500k	2

802.11ax HEW20_Nss1,(MCS0)_2TX **EBW**

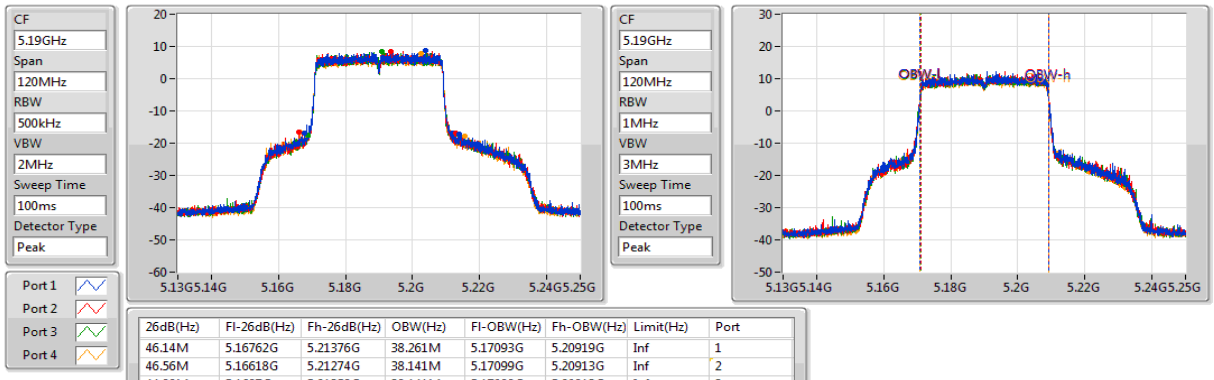
5825MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.93M	5.81552G	5.83445G	19.16M	5.815405G	5.834565G	500k	1
18.93M	5.81558G	5.83451G	19.67M	5.815165G	5.834835G	500k	2

802.11ax HEW40_Nss1,(MCS0)_4TX **EBW**

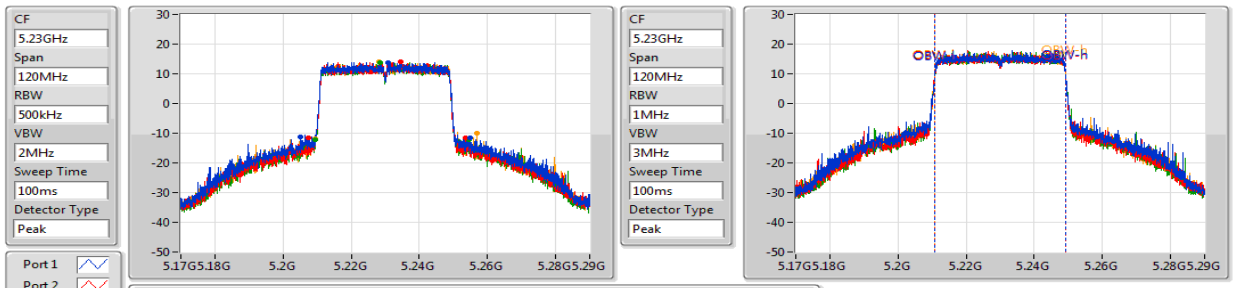
5190MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
46.14M	5.16762G	5.21376G	38.261M	5.17093G	5.20919G	Inf	1
46.56M	5.16618G	5.21274G	38.141M	5.17099G	5.20913G	Inf	2
44.88M	5.1687G	5.21358G	38.141M	5.17099G	5.20913G	Inf	3
49.32M	5.1663G	5.21562G	38.201M	5.17093G	5.20913G	Inf	4

802.11ax HEW40_Nss1,(MCS0)_4TX **EBW**

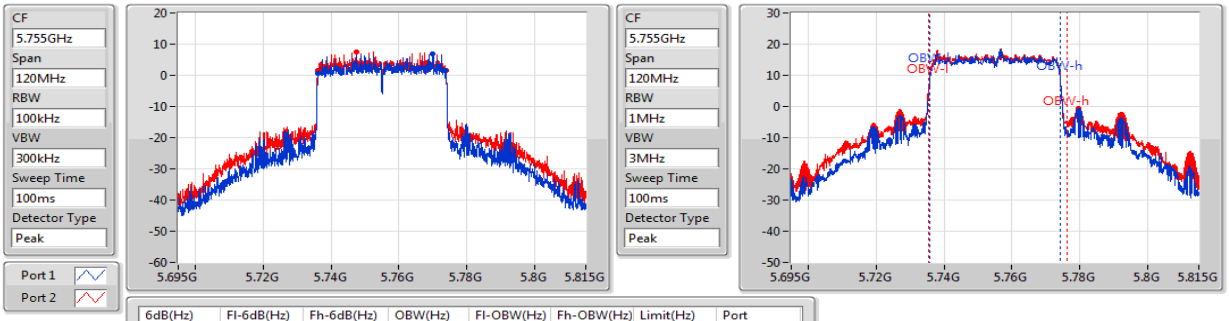
5230MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
49.86M	5.2051G	5.25496G	38.261M	5.21087G	5.24913G	Inf	1
45.96M	5.20756G	5.25352G	38.201M	5.21093G	5.24913G	Inf	2
45.06M	5.20936G	5.25442G	38.201M	5.21093G	5.24913G	Inf	3
47.58M	5.2093G	5.25688G	38.141M	5.21093G	5.24907G	Inf	4

802.11ax HEW40_Nss1,(MCS0)_2TX **EBW**

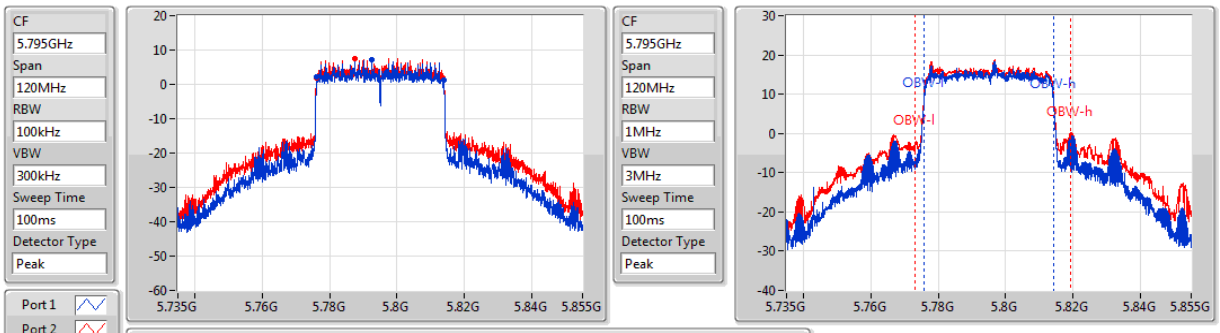
5755MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.2M	5.73622G	5.77342G	38.501M	5.73587G	5.77437G	500k	1
37.62M	5.73628G	5.7739G	40.84M	5.73545G	5.776289G	500k	2

802.11ax HEW40_Nss1,(MCS0)_2TX **EBW**

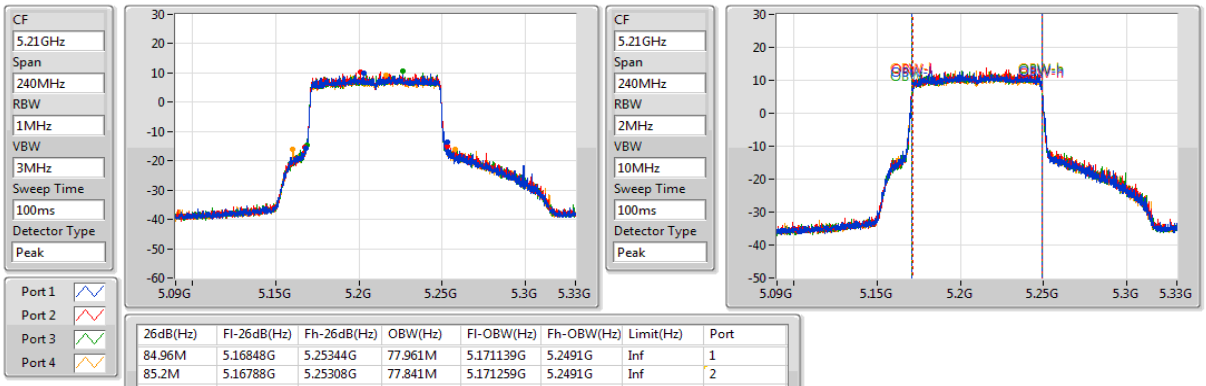
5795MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.5M	5.77622G	5.81372G	38.441M	5.77581G	5.81425G	500k	1
37.44M	5.77622G	5.81366G	46.117M	5.773171G	5.819288G	500k	2

802.11ax HEW80_Nss1,(MCS0)_4TX **EBW**

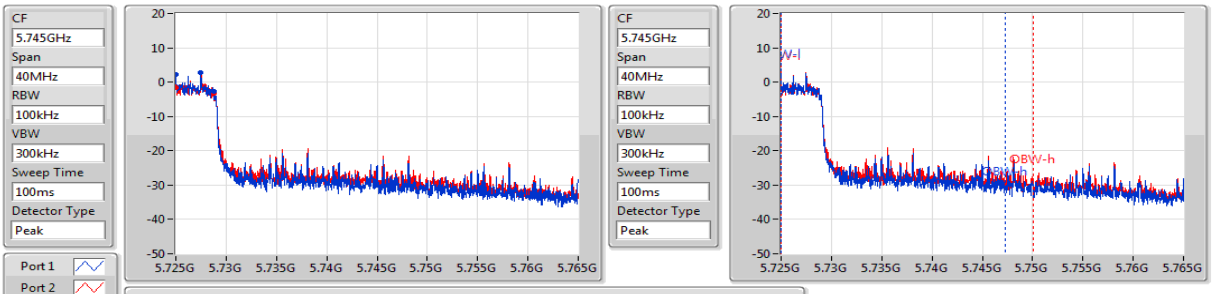
5210MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
84.96M	5.16848G	5.25344G	77.961M	5.171139G	5.2491G	Inf	1
85.2M	5.16788G	5.25308G	77.841M	5.171259G	5.2491G	Inf	2
84.36M	5.16896G	5.25332G	78.081M	5.171139G	5.24922G	Inf	3
97.32M	5.16032G	5.25764G	77.961M	5.171139G	5.2491G	Inf	4

802.11ax HEW80_Nss1,(MCS0)_2TX **EBW**

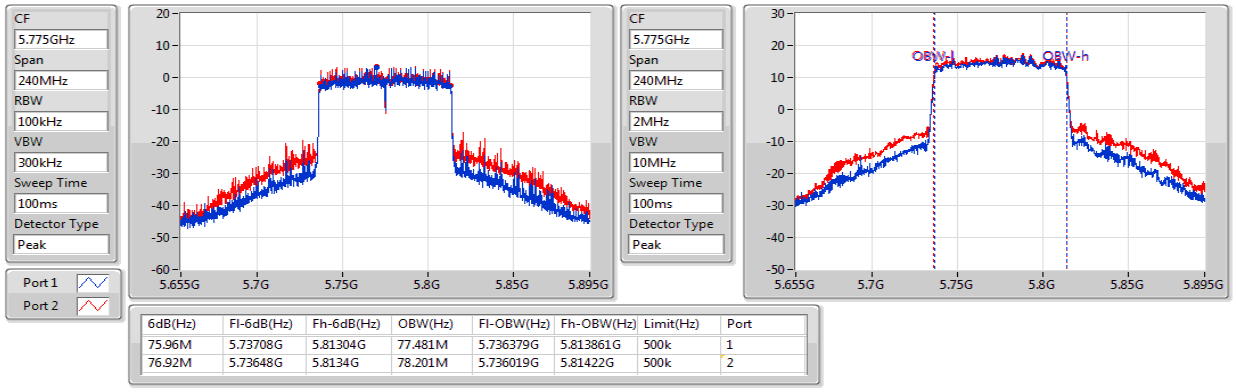
5690MHz Straddle 5.725-5.85GHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.76M	5.725G	5.72876G	22.329M	5.72501G	5.747339G	500k	1
3.76M	5.725G	5.72876G	25.067M	5.72501G	5.750077G	500k	2

802.11ax HEW80_Nss1,(MCS0)_2TX **EBW**

5775MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
75.96M	5.73708G	5.81304G	77.481M	5.736379G	5.813861G	500k	1
76.92M	5.73648G	5.8134G	78.201M	5.736019G	5.81422G	500k	2

Beamforming mode

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX-OFDMA	33.03M	19.25M	19M2D1D	21.63M	19.13M
802.11ax HEW40-BF_Nss1,(MCS0)_4TX-OFDMA	50.58M	38.141M	38M1D1D	40.56M	38.081M
802.11ax HEW80-BF_Nss1,(MCS0)_4TX-OFDMA	86.04M	78.201M	78M2D1D	81.6M	77.721M
5.725-5.85GHz	-	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX-OFDMA	18.96M	19.52M	19M5D1D	18.93M	19.16M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX-OFDMA	37.62M	38.681M	38M7D1D	37.32M	38.141M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX-OFDMA	75.84M	78.081M	78M1D1D	71.28M	77.601M

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

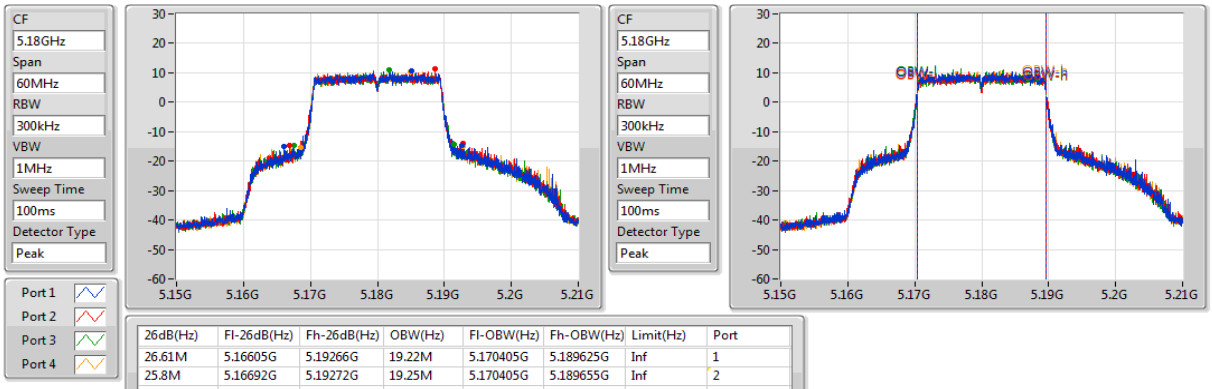
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ax HEW20-BF_Nss1,(MCS0)_4TX-OFDMA										
5180MHz	Pass	Inf	26.61M	19.22M	25.8M	19.25M	23.91M	19.16M	24.36M	19.22M
5200MHz	Pass	Inf	27.18M	19.22M	22.8M	19.25M	25.59M	19.16M	27.24M	19.22M
5240MHz	Pass	Inf	33.03M	19.19M	23.55M	19.16M	21.63M	19.16M	23.07M	19.13M
802.11ax HEW20-BF_Nss1,(MCS0)_2TX-OFDMA										
5745MHz	Pass	500k	18.96M	19.19M	18.96M	19.31M				
5785MHz	Pass	500k	18.93M	19.16M	18.93M	19.4M				
5825MHz	Pass	500k	18.93M	19.19M	18.96M	19.52M				
802.11ax HEW40-BF_Nss1,(MCS0)_4TX-OFDMA										
5190MHz	Pass	Inf	46.32M	38.141M	50.58M	38.141M	49.44M	38.141M	45.66M	38.081M
5230MHz	Pass	Inf	48.48M	38.141M	42.06M	38.081M	42.06M	38.081M	40.56M	38.081M
802.11ax HEW40-BF_Nss1,(MCS0)_2TX-OFDMA										
5755MHz	Pass	500k	37.32M	38.201M	37.62M	38.501M				
5795MHz	Pass	500k	37.62M	38.141M	37.62M	38.681M				
802.11ax HEW80-BF_Nss1,(MCS0)_4TX-OFDMA										
5210MHz	Pass	Inf	81.6M	78.201M	84M	77.841M	86.04M	77.841M	81.84M	77.721M
802.11ax HEW80-BF_Nss1,(MCS0)_2TX-OFDMA										
5775MHz	Pass	500k	71.28M	77.601M	75.84M	78.081M				

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

802.11ax HEW20-BF_Nss1,(MCS0)_4TX **EBW**

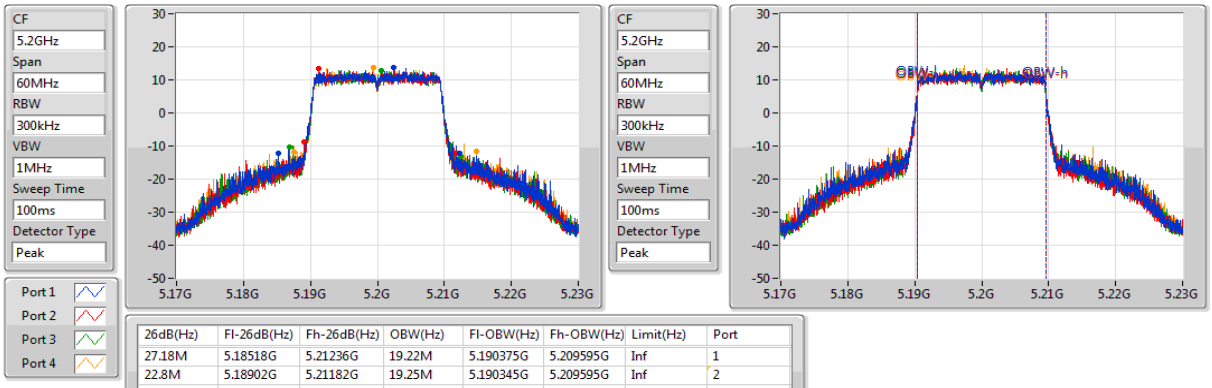
5180MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
26.61M	5.16605G	5.19266G	19.22M	5.170405G	5.189625G	Inf	1
25.8M	5.16692G	5.19272G	19.25M	5.170405G	5.189655G	Inf	2
23.91M	5.16749G	5.1914G	19.16M	5.170435G	5.189595G	Inf	3
24.36M	5.16848G	5.19284G	19.22M	5.170405G	5.189625G	Inf	4

802.11ax HEW20-BF_Nss1,(MCS0)_4TX **EBW**

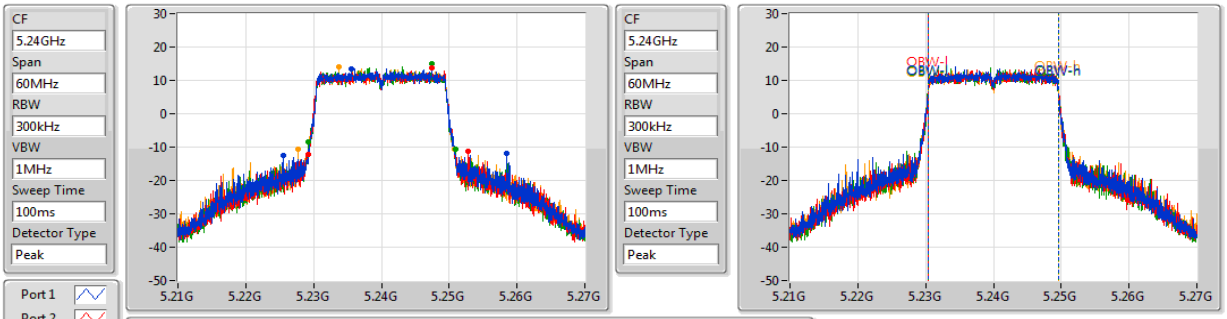
5200MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
27.18M	5.18518G	5.21236G	19.22M	5.190375G	5.209595G	Inf	1
22.8M	5.18902G	5.21182G	19.25M	5.190345G	5.209595G	Inf	2
25.59M	5.1868G	5.21239G	19.16M	5.190405G	5.209565G	Inf	3
27.24M	5.18752G	5.21476G	19.22M	5.190375G	5.209595G	Inf	4

802.11ax HEW20-BF_Nss1,(MCS0)_4TX **EBW**

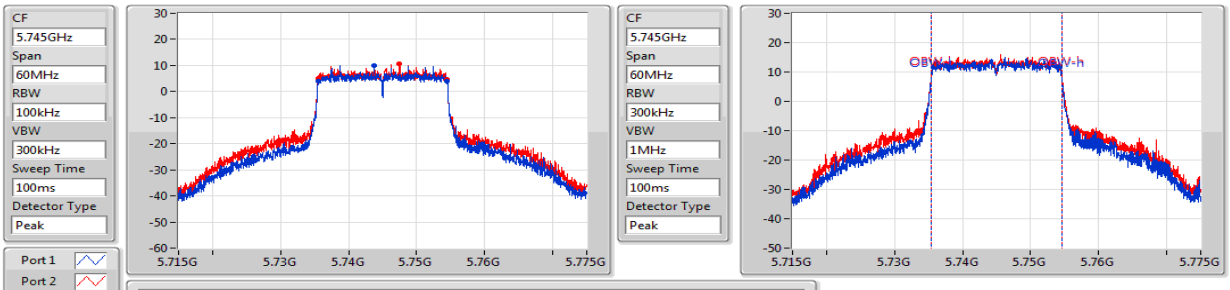
5240MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
33.03M	5.22548G	5.25851G	19.19M	5.230375G	5.249565G	Inf	1
23.55M	5.22917G	5.25272G	19.16M	5.230405G	5.249565G	Inf	2
21.63M	5.22926G	5.25089G	19.16M	5.230405G	5.249565G	Inf	3
23.07M	5.22773G	5.2508G	19.13M	5.230405G	5.249535G	Inf	4

802.11ax HEW20-BF_Nss1,(MCS0)_2TX **EBW**

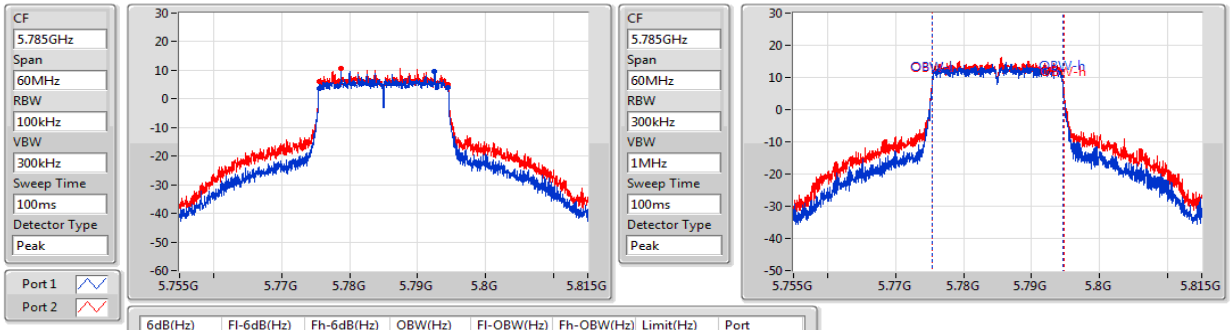
5745MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.96M	5.73552G	5.75448G	19.19M	5.735405G	5.754595G	500k	1
18.96M	5.73552G	5.75448G	19.31M	5.735345G	5.754655G	500k	2

802.11ax HEW20-BF_Nss1,(MCS0)_2TX **EBW**

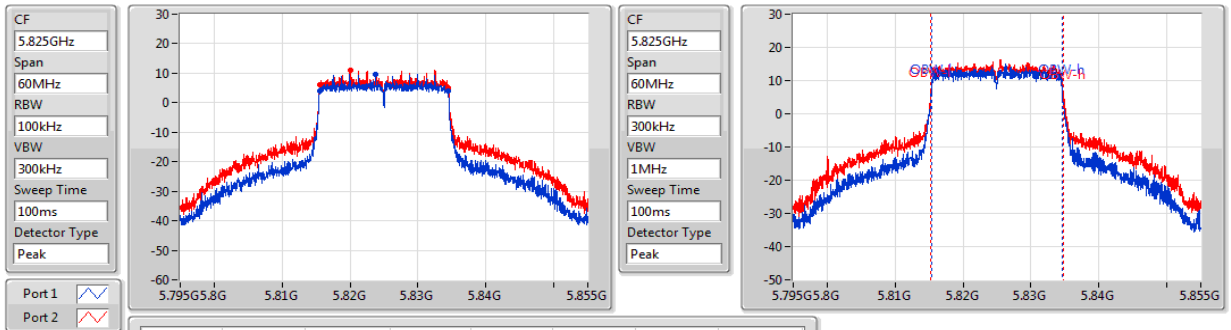
5785MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.93M	5.77552G	5.79445G	19.16M	5.775405G	5.794565G	500k	1
18.93M	5.77555G	5.79448G	19.4M	5.775315G	5.794715G	500k	2

802.11ax HEW20-BF_Nss1,(MCS0)_2TX **EBW**

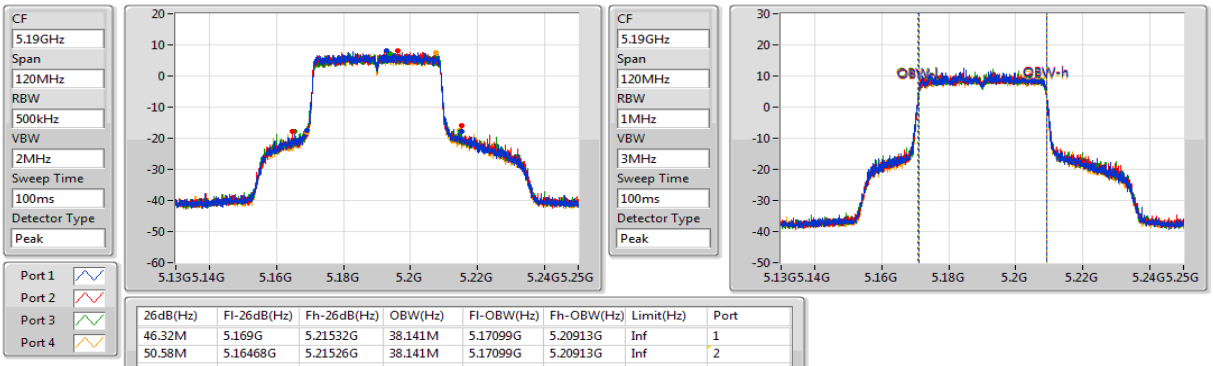
5825MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
18.93M	5.81552G	5.83445G	19.19M	5.815375G	5.834565G	500k	1
18.96M	5.81552G	5.83448G	19.52M	5.815255G	5.834775G	500k	2

802.11ax HEW40-BF_Nss1,(MCS0)_4TX **EBW**

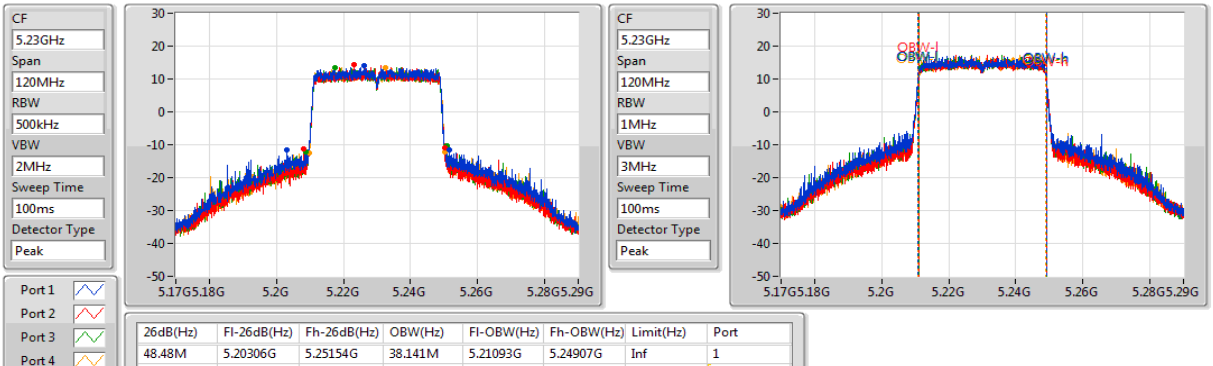
5190MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
46.32M	5.169G	5.21532G	38.141M	5.17099G	5.20913G	Inf	1
50.58M	5.16468G	5.21526G	38.141M	5.17099G	5.20913G	Inf	2
49.44M	5.16546G	5.2149G	38.141M	5.17093G	5.20907G	Inf	3
45.66M	5.169G	5.21466G	38.081M	5.17099G	5.20907G	Inf	4

802.11ax HEW40-BF_Nss1,(MCS0)_4TX **EBW**

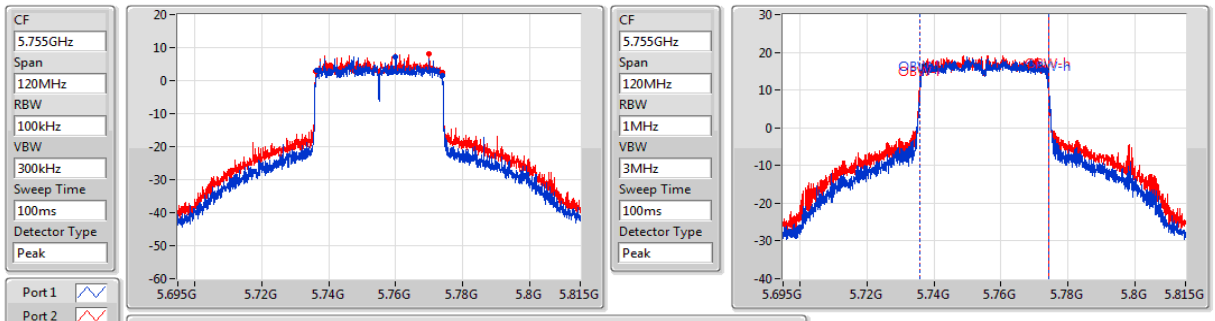
5230MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
48.48M	5.20306G	5.25154G	38.141M	5.21093G	5.24907G	Inf	1
42.06M	5.20822G	5.25028G	38.081M	5.21099G	5.24907G	Inf	2
42.06M	5.2087G	5.25076G	38.081M	5.21099G	5.24907G	Inf	3
40.56M	5.20966G	5.25022G	38.081M	5.21093G	5.24901G	Inf	4

802.11ax HEW40-BF_Nss1,(MCS0)_2TX **EBW**

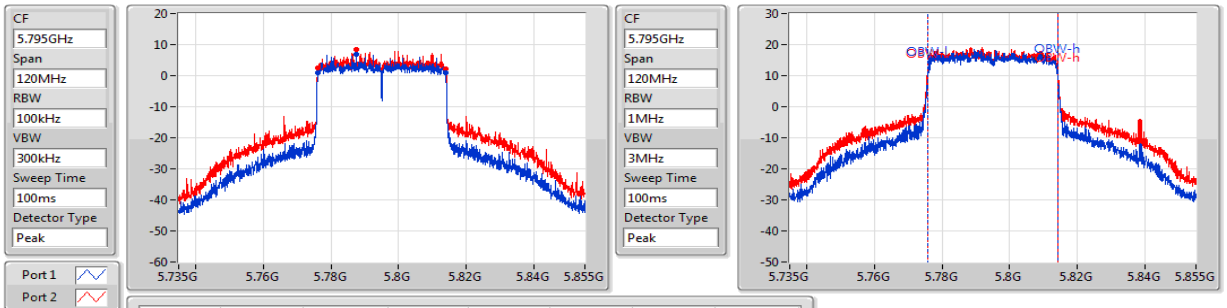
5755MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.32M	5.73652G	5.77384G	38.201M	5.73593G	5.77413G	500k	1
37.62M	5.73628G	5.7739G	38.501M	5.73575G	5.77425G	500k	2

802.11ax HEW40-BF_Nss1,(MCS0)_2TX **EBW**

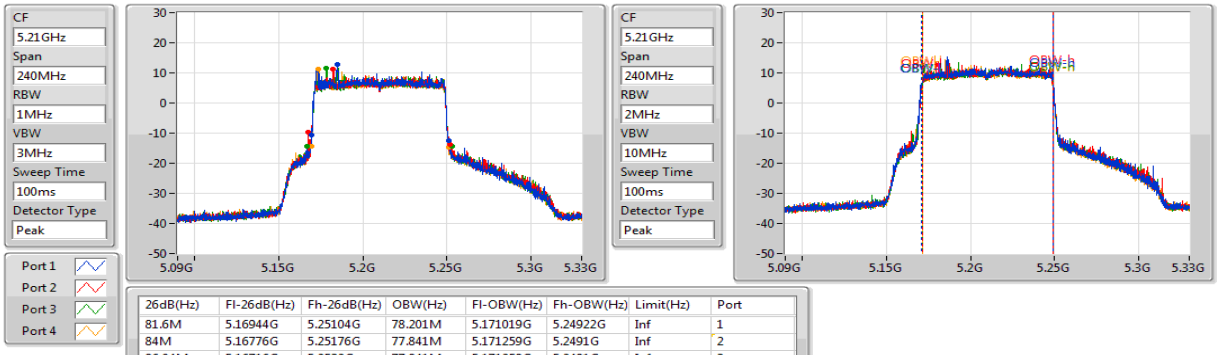
5795MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.62M	5.77622G	5.81384G	38.141M	5.77593G	5.81407G	500k	1
37.62M	5.77628G	5.8139G	38.681M	5.77563G	5.81431G	500k	2

802.11ax HEW80-BF_Nss1,(MCS0)_4TX **EBW**

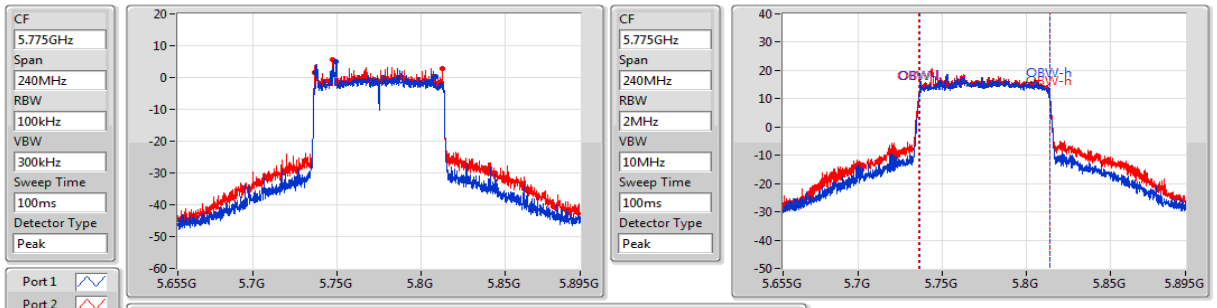
5210MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
81.6M	5.16944G	5.25104G	78.201M	5.171019G	5.24922G	Inf	1
84M	5.16776G	5.25176G	77.841M	5.171259G	5.2491G	Inf	2
86.04M	5.16716G	5.2532G	77.841M	5.171259G	5.2491G	Inf	3
81.84M	5.16932G	5.25116G	77.721M	5.171259G	5.248981G	Inf	4

802.11ax HEW80-BF_Nss1,(MCS0)_2TX **EBW**

5775MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
71.28M	5.73744G	5.80872G	77.601M	5.736259G	5.813861G	500k	1
75.84M	5.73672G	5.81256G	78.081M	5.736019G	5.8141G	500k	2

3.3 RF Output Power

3.3.1 Limit of RF Output Power

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

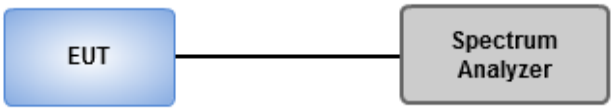
Frequency Band (MHz)		**Limit**
☒	5725 ~ 5850	Conducted Power: 1 W
Note: “B” is the 26dB emission bandwidth in MHz.		

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.

3.3.3 Test Setup



3.3.4 Test Result of Maximum Conducted Output Power

Ambient Condition	20~22°C / 65~67%	Tested By	Aska Huang

Non-beamforming mode

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	26.51	0.44771	30.74	1.18577
802.11ax HEW20_Nss1,(MCS0)_4TX-OFDMA	27.08	0.51050	31.31	1.35207
802.11ax HEW40_Nss1,(MCS0)_4TX-OFDMA	27.05	0.50699	31.28	1.34276
802.11ax HEW80_Nss1,(MCS0)_4TX-OFDMA	22.51	0.17824	26.74	0.47206
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	24.59	0.28774	28.44	0.69823
802.11ax HEW20_Nss1,(MCS0)_2TX-OFDMA	24.95	0.31261	28.80	0.75858
802.11ax HEW40_Nss1,(MCS0)_2TX-OFDMA	24.86	0.30620	28.71	0.74302
802.11ax HEW80_Nss1,(MCS0)_2TX-OFDMA	23.76	0.23768	27.61	0.57677

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	4.23	18.2	18.26	18.11	18.35	24.25	30.00	28.48	36.00
5200MHz	Pass	4.23	20.56	20.47	20.36	20.56	26.51	30.00	30.74	36.00
5240MHz	Pass	4.23	20.34	20.46	20.15	20.51	26.39	30.00	30.62	36.00
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	3.85	21.15	21.95			24.58	30.00	28.43	36.00
5785MHz	Pass	3.85	21.18	21.94			24.59	30.00	28.44	36.00
5825MHz	Pass	3.85	20.93	21.95			24.48	30.00	28.33	36.00
802.11ax HEW20_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	4.23	18.23	18.06	18.02	18.21	24.15	30.00	28.38	36.00
5200MHz	Pass	4.23	21.16	21.11	20.82	21.13	27.08	30.00	31.31	36.00
5240MHz	Pass	4.23	20.92	20.98	20.83	21.01	26.96	30.00	31.19	36.00
802.11ax HEW20_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	3.85	21.53	22.03			24.80	30.00	28.65	36.00
5785MHz	Pass	3.85	21.34	22.11			24.75	30.00	28.60	36.00
5825MHz	Pass	3.85	21.35	22.46			24.95	30.00	28.80	36.00
802.11ax HEW40_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	4.23	15.53	15.32	15.21	15.07	21.31	30.00	25.54	36.00
5230MHz	Pass	4.23	21.32	21.12	20.83	20.81	27.05	30.00	31.28	36.00
802.11ax HEW40_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5755MHz	Pass	3.85	21.37	22.26			24.85	30.00	28.70	36.00
5795MHz	Pass	3.85	21.41	22.25			24.86	30.00	28.71	36.00
802.11ax HEW80_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	4.23	16.54	16.75	16.32	16.34	22.51	30.00	26.74	36.00
802.11ax HEW80_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	3.85	20.35	21.12			23.76	30.00	27.61	36.00

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

Beamforming mode

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX-OFDMA	26.64	0.46132	35.79	3.79315
802.11ax HEW40-BF_Nss1,(MCS0)_4TX-OFDMA	26.64	0.46132	35.79	3.79315
802.11ax HEW80-BF_Nss1,(MCS0)_4TX-OFDMA	21.59	0.14421	30.74	1.18577
5.725-5.85GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX-OFDMA	24.86	0.30620	30.92	1.23595
802.11ax HEW40-BF_Nss1,(MCS0)_2TX-OFDMA	24.82	0.30339	30.88	1.22462
802.11ax HEW80-BF_Nss1,(MCS0)_2TX-OFDMA	23.57	0.22751	29.63	0.91833

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_ 4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	9.15	17.75	17.49	17.11	17.38	23.46	26.85	32.61	36.00
5200MHz	Pass	9.15	20.58	20.62	20.51	20.75	26.64	26.85	35.79	36.00
5240MHz	Pass	9.15	20.43	20.53	20.61	20.66	26.58	26.85	35.73	36.00
802.11ax HEW20-BF_Nss1,(MCS0)_ 2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	6.06	21.49	21.82			24.67	29.94	30.73	36.00
5785MHz	Pass	6.06	21.22	21.93			24.60	29.94	30.66	36.00
5825MHz	Pass	6.06	21.31	22.33			24.86	29.94	30.92	36.00
802.11ax HEW40-BF_Nss1,(MCS0)_ 4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	9.15	15.12	14.95	14.5	14.48	20.79	26.85	29.94	36.00
5230MHz	Pass	9.15	20.84	20.51	20.66	20.47	26.64	26.85	35.79	36.00
802.11ax HEW40-BF_Nss1,(MCS0)_ 2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5755MHz	Pass	6.06	21.47	22.13			24.82	29.94	30.88	36.00
5795MHz	Pass	6.06	21.12	22.13			24.66	29.94	30.72	36.00
802.11ax HEW80-BF_Nss1,(MCS0)_ 4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	9.15	15.65	15.88	15.46	15.27	21.59	26.85	30.74	36.00
802.11ax HEW80-BF_Nss1,(MCS0)_ 2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	6.06	20.36	20.76			23.57	29.94	29.63	36.00

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

Note:

For 5150~5250MHz:

Directional gain = 10 x log($(10^{3.35/20}+10^{2.19/20}+10^{2.62/20}+10^{4.23/20})^2/4$) = 9.15 dBi > 6 dBi, Limit shall be reduced to 30 dBm – (9.15 dBi – 6 dBi) = 26.85 dBm.

For 5725~5850MHz:

Directional gain = 10 x log($(10^{2.16/20}+10^{3.85/20})^2/2$) = 6.06 dBi > 6 dBi, Limit shall be reduced to 30 dBm – (6.06 dBi – 6 dBi) = 29.94 dBm.

3.4 Peak Power Spectral Density

3.4.1 Limit of Peak Power Spectral Density

Frequency band 5150-5250 MHz		
Operating Mode		**Limit**
☐	Outdoor access point	17 dBm / MHz
☒	Indoor access point	17 dBm / MHz
☐	Fixed point-to-point access points	17 dBm / MHz
☐	Client devices	11 dBm / MHz

Frequency Band (MHz)		**Limit**
☒	5725 ~ 5850	30 dBm /500 kHz

3.4.2 Test Procedures

For 5150 ~ 5250 MHz

Duty cycle ≥ 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 ≥ 10 * (number of points in sweep) * (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

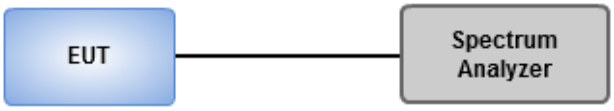
Duty cycle ≥ 98 %

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 ≥ 10 * (number of points in sweep) * (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

Ambient Condition	20~22°C / 65~67%	Tested By	Aska Huang

Non-beamforming mode

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	13.60	22.75
802.11ax HEW20_Nss1,(MCS0)_4TX-OFDMA	13.60	22.75
802.11ax HEW40_Nss1,(MCS0)_4TX-OFDMA	10.62	19.77
802.11ax HEW80_Nss1,(MCS0)_4TX-OFDMA	2.87	12.02
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	10.11	16.17
802.11ax HEW20_Nss1,(MCS0)_2TX-OFDMA	9.88	15.94
802.11ax HEW40_Nss1,(MCS0)_2TX-OFDMA	6.96	13.02
802.11ax HEW80_Nss1,(MCS0)_2TX-OFDMA	3.16	9.22

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

Result

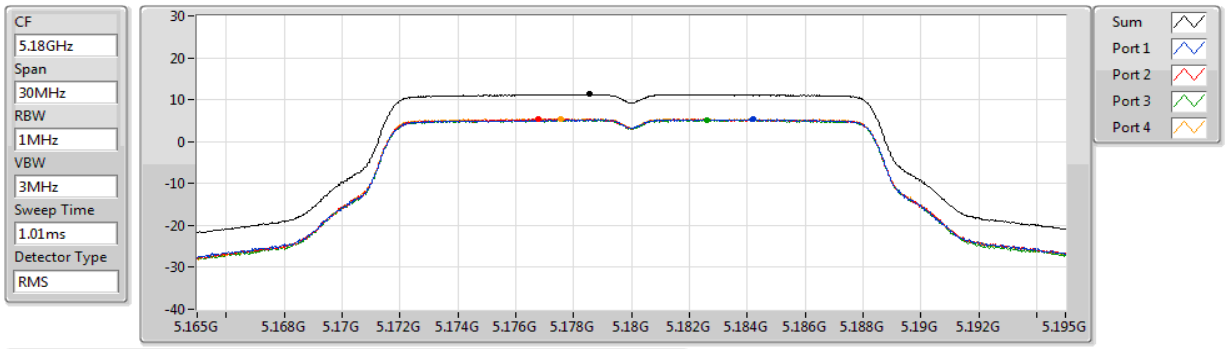
Mode	Result	DG (dBi)	Port 1 (dBm/ RBW)	Port 2 (dBm/ RBW)	Port 3 (dBm/ RBW)	Port 4 (dBm/ RBW)	PD (dBm/ RBW)	PD Limit (dBm/ RBW)	EIRP PD (dBm/ RBW)	EIRP PD Limit (dBm/ RBW)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	9.15	5.28	5.39	5.23	5.45	11.28	13.85	20.43	23.00
5200MHz	Pass	9.15	7.77	7.86	7.68	7.78	13.60	13.85	22.75	23.00
5240MHz	Pass	9.15	7.58	7.69	7.37	7.69	13.45	13.85	22.60	23.00
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	6.06	6.58	7.15			9.60	29.94	15.66	36.00
5785MHz	Pass	6.06	6.70	7.34			9.92	29.94	15.98	36.00
5825MHz	Pass	6.06	6.74	7.52			10.11	29.94	16.17	36.00
802.11ax HEW20_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	9.15	4.76	4.64	4.71	4.54	10.54	13.85	19.69	23.00
5200MHz	Pass	9.15	7.63	7.72	7.54	8.00	13.60	13.85	22.75	23.00
5240MHz	Pass	9.15	7.55	7.49	7.49	7.83	13.46	13.85	22.61	23.00
802.11ax HEW20_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	6.06	6.35	6.97			9.59	29.94	15.65	36.00
5785MHz	Pass	6.06	6.44	7.05			9.72	29.94	15.78	36.00
5825MHz	Pass	6.06	6.54	7.18			9.88	29.94	15.94	36.00
802.11ax HEW40_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	9.15	-0.72	-0.65	-1.03	-1.23	5.00	13.85	14.15	23.00
5230MHz	Pass	9.15	4.87	4.77	4.51	4.68	10.62	13.85	19.77	23.00
802.11ax HEW40_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5755MHz	Pass	6.06	3.55	4.37			6.77	29.94	12.83	36.00
5795MHz	Pass	6.06	3.61	4.58			6.96	29.94	13.02	36.00
802.11ax HEW80_Nss1,(MCS0)_4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	9.15	-3.02	-2.80	-3.06	-3.32	2.87	13.85	12.02	23.00
802.11ax HEW80_Nss1,(MCS0)_2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	6.06	-0.01	0.56			3.16	29.94	9.22	36.00

DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density;
Port X = Port X Power Density;
For 5150~5250MHz:

Directional gain = 10 x log((10$^{3.35/20}$+10$^{2.19/20}$+10$^{2.62/20}$+10$^{4.23/20}$)^2/4) = 9.15 dBi > 6 dBi, Limit shall be reduced to 17 dBm – (9.15 dBi – 6 dBi) = 13.85 dBm.
For 5725~5850MHz:
Directional gain = 10 x log((10$^{2.16/20}$+10$^{3.85/20}$)^2/2) = 6.06 dBi > 6 dBi, Limit shall be reduced to 30 dBm – (6.06 dBi – 6 dBi) = 29.94 dBm.

802.11a_Nss1,(6Mbps)_4TX **PSD**

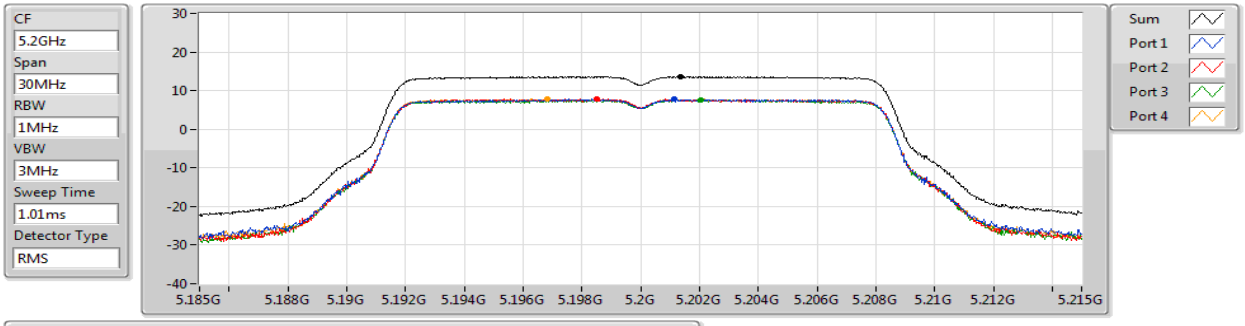
5180MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.28	11.28	5.28	5.39	5.23	5.45

802.11a_Nss1,(6Mbps)_4TX **PSD**

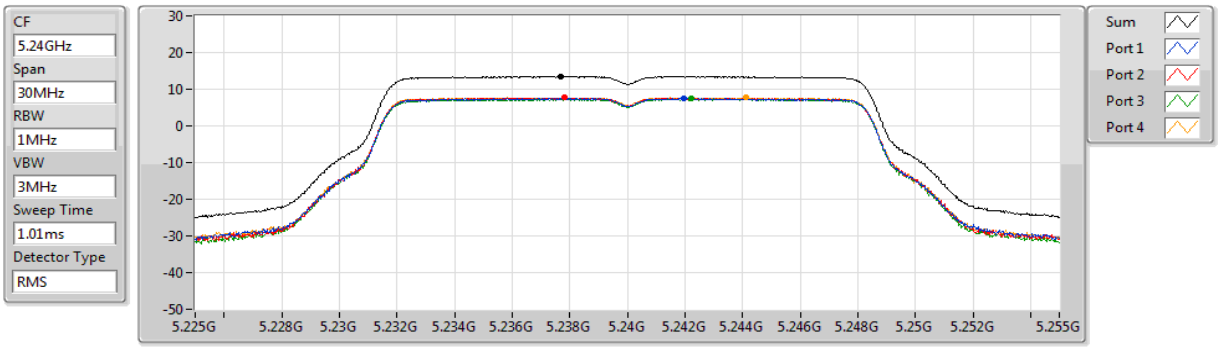
5200MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.60	13.60	7.77	7.86	7.68	7.78

802.11a_Nss1,(6Mbps)_4TX PSD

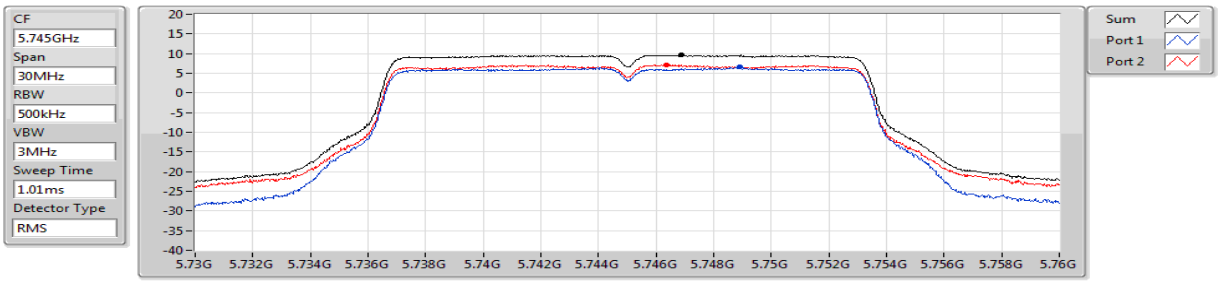
5240MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.45	13.45	7.58	7.69	7.37	7.69

802.11a_Nss1,(6Mbps)_2TX PSD

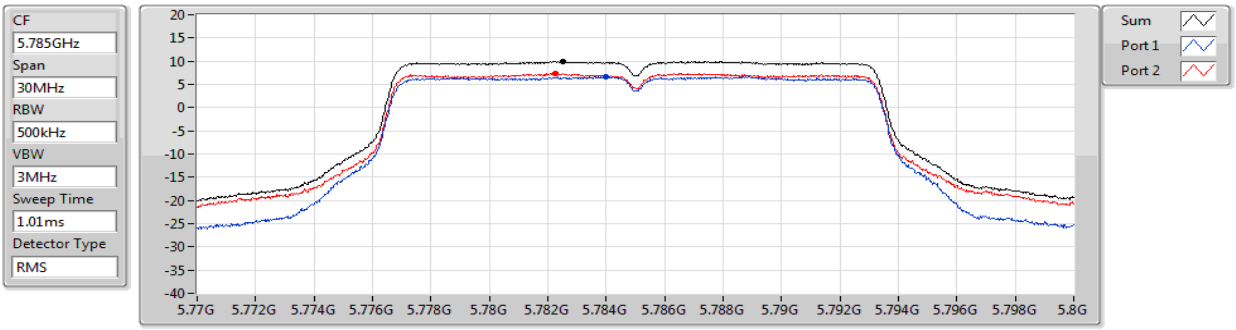
5745MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.60	9.60	6.58	7.15

802.11a_Nss1,(6Mbps)_2TX **PSD**

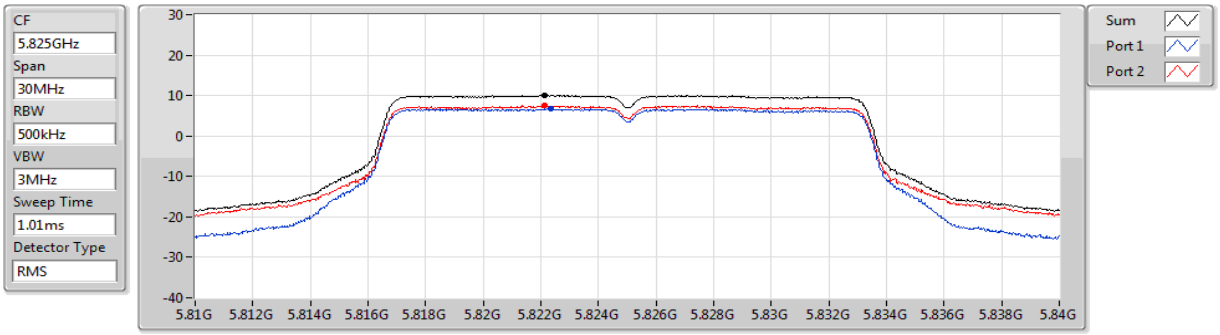
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.92	9.92	6.70	7.34

802.11a_Nss1,(6Mbps)_2TX **PSD**

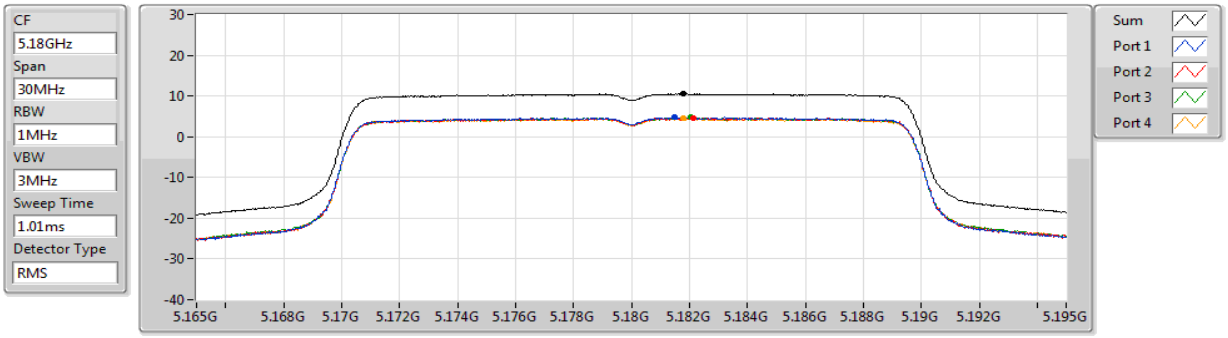
5825MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.11	10.11	6.74	7.52

802.11ax HEW20_Nss1,(MCS0)_4TX **PSD**

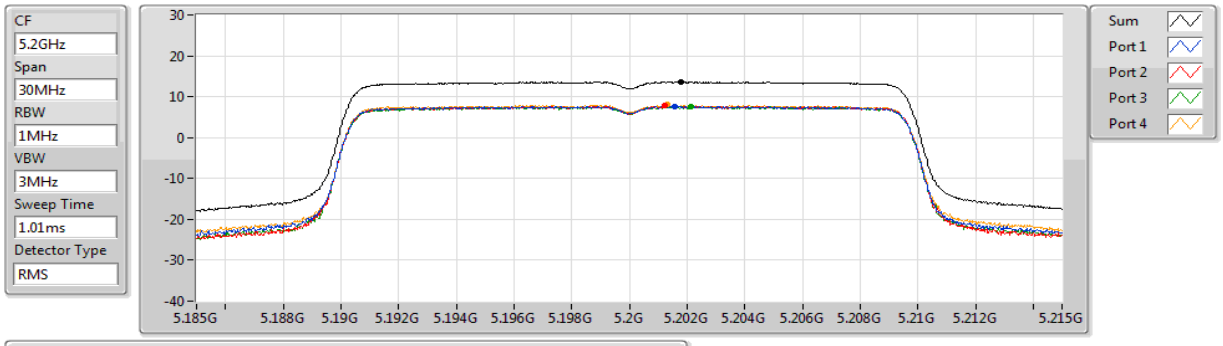
5180MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.54	10.54	4.76	4.64	4.71	4.54

802.11ax HEW20_Nss1,(MCS0)_4TX **PSD**

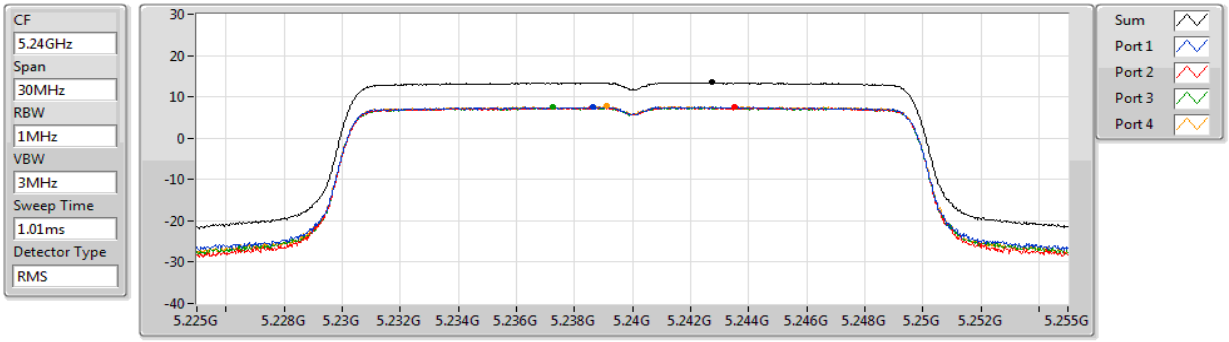
5200MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.60	13.60	7.63	7.72	7.54	8.00

802.11ax HEW20_Nss1,(MCS0)_4TX **PSD**

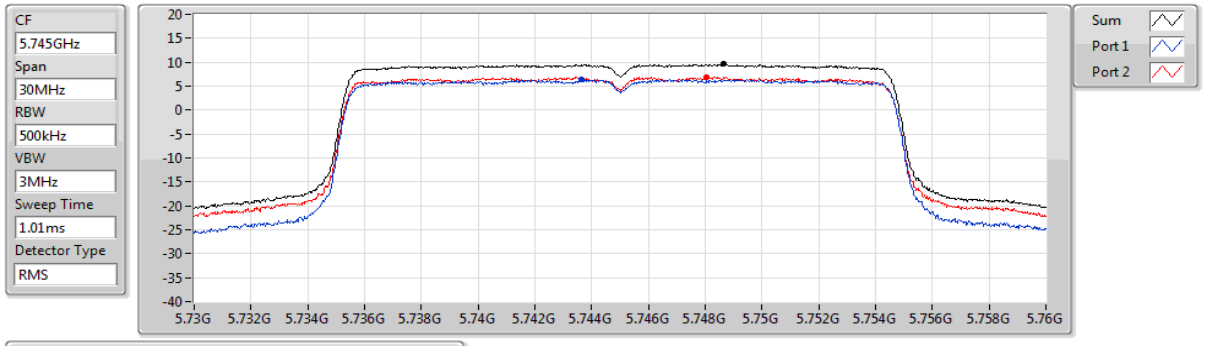
5240MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.46	13.46	7.55	7.49	7.49	7.83

802.11ax HEW20_Nss1,(MCS0)_2TX **PSD**

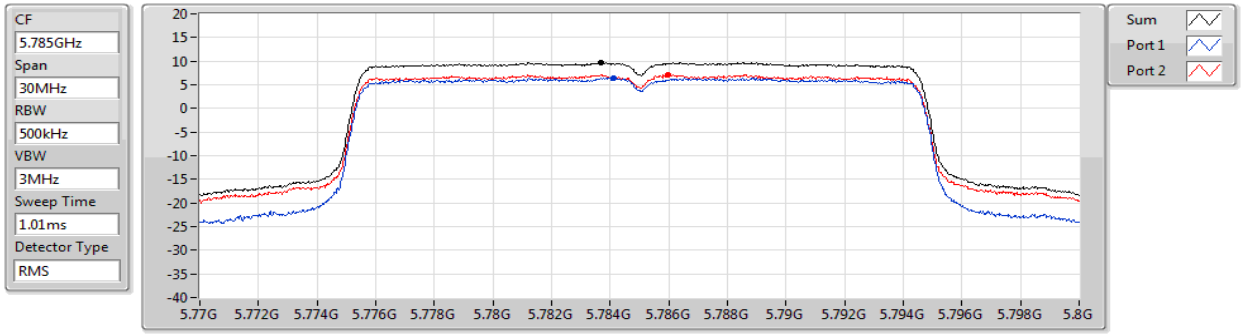
5745MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.59	9.59	6.35	6.97

802.11ax HEW20_Nss1,(MCS0)_2TX **PSD**

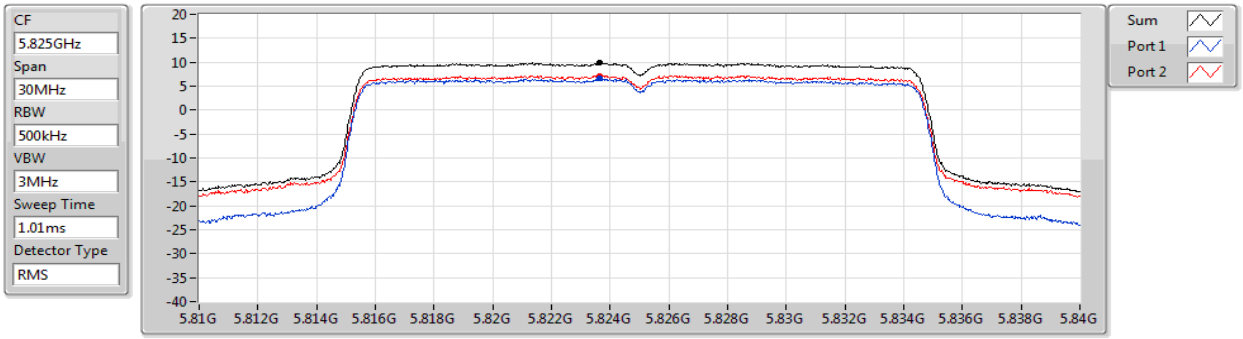
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.72	9.72	6.44	7.05

802.11ax HEW20_Nss1,(MCS0)_2TX **PSD**

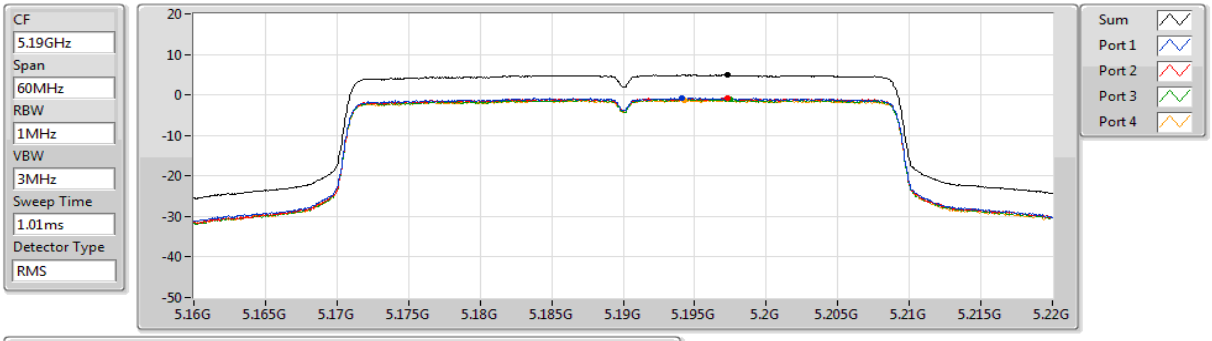
5825MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.88	9.88	6.54	7.18

802.11ax HEW40_Nss1,(MCS0)_4TX PSD

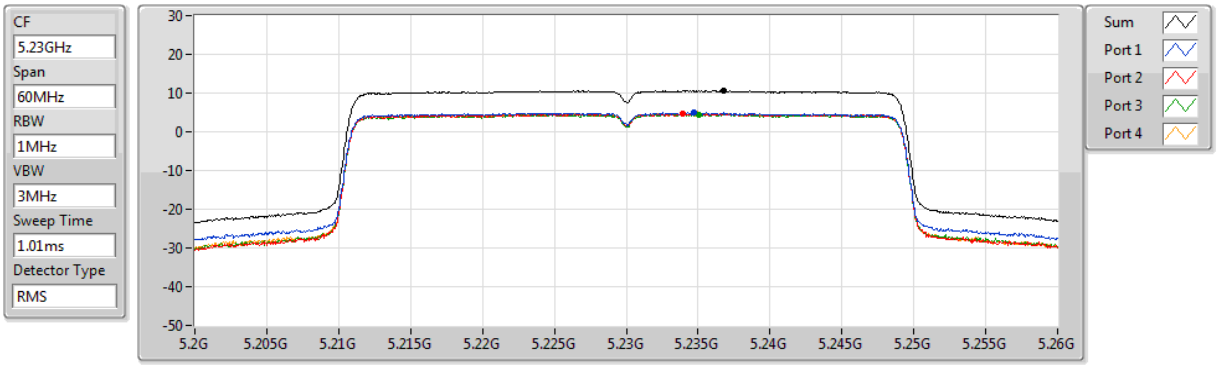
5190MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.00	5.00	-0.72	-0.65	-1.03	-1.23

802.11ax HEW40_Nss1,(MCS0)_4TX PSD

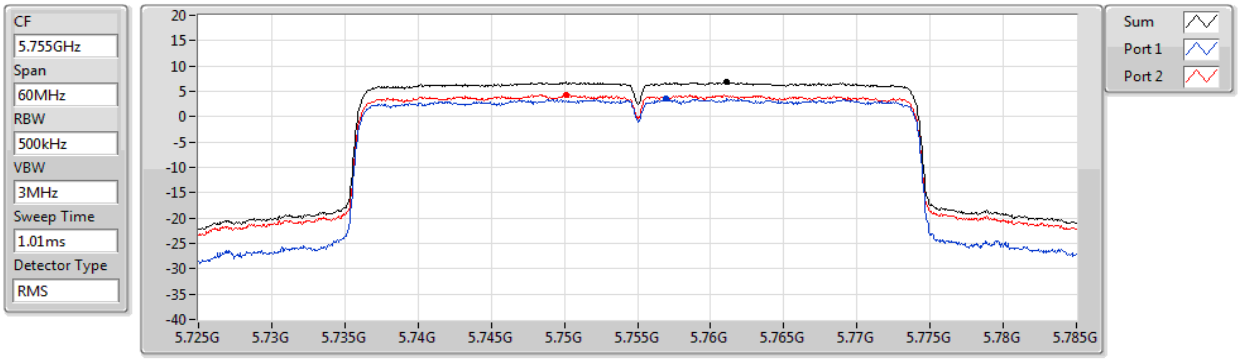
5230MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.62	10.62	4.87	4.77	4.51	4.68

802.11ax HEW40_Nss1,(MCS0)_2TX **PSD**

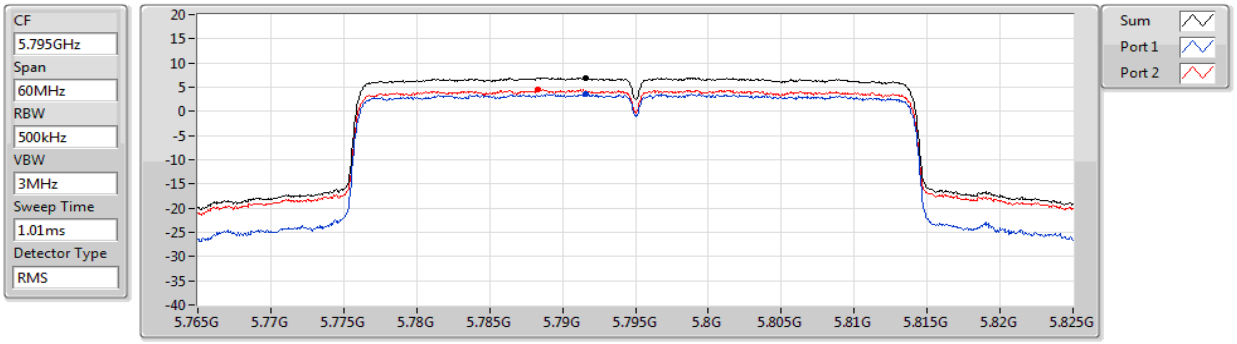
5755MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.77	6.77	3.55	4.37

802.11ax HEW40_Nss1,(MCS0)_2TX **PSD**

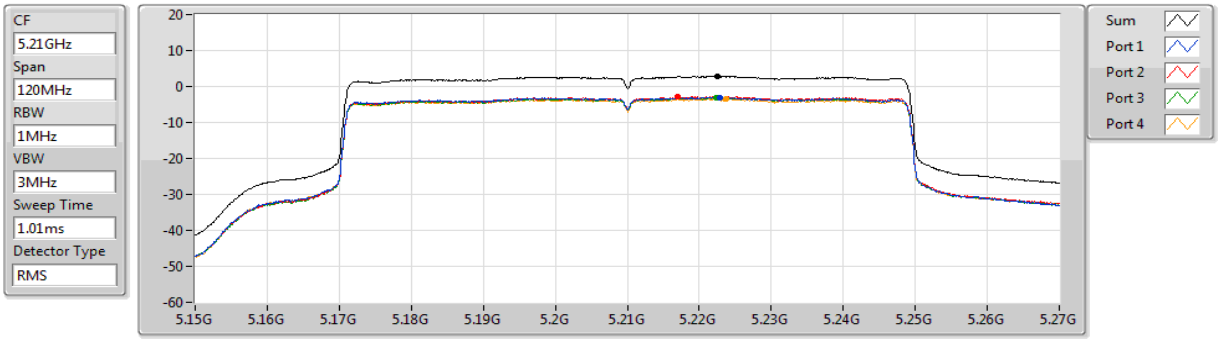
5795MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.96	6.96	3.61	4.58

802.11ax HEW80_Nss1,(MCS0)_4TX PSD

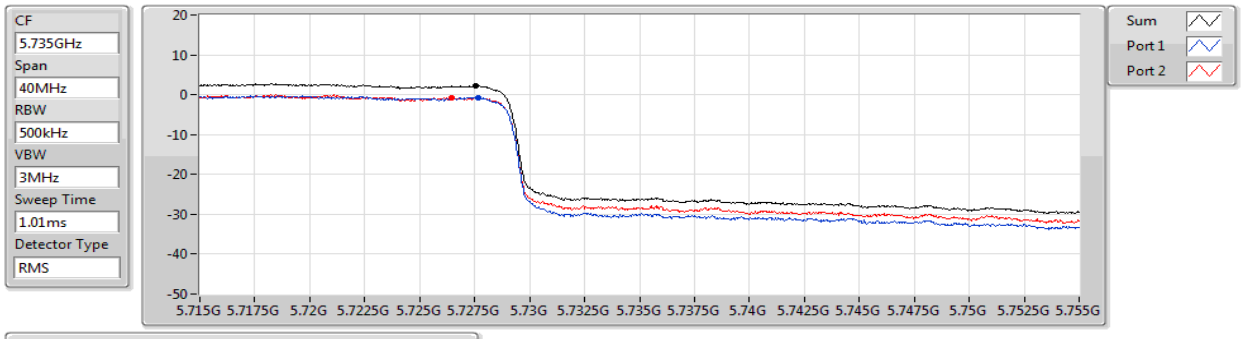
5210MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.87	2.87	-3.02	-2.80	-3.06	-3.32

802.11ax HEW80_Nss1,(MCS0)_2TX PSD

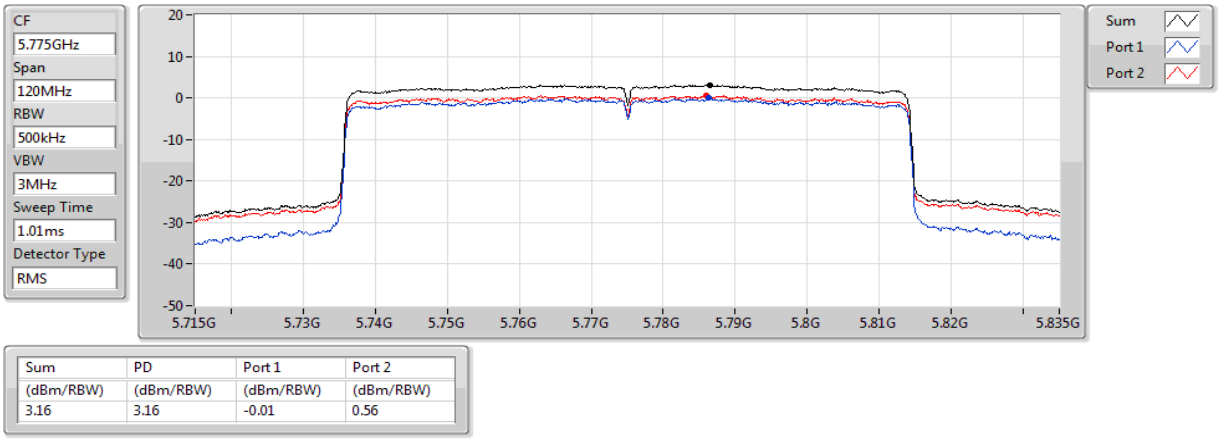
5690MHz Straddle 5.725-5.85GHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.21	2.21	-0.65	-0.71

802.11ax HEW80_Nss1,(MCS0)_2TX **PSD**

5775MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.16	3.16	-0.01	0.56

Beamforming mode

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_4TX-OFDMA	13.24	22.39
802.11ax HEW40-BF_Nss1,(MCS0)_4TX-OFDMA	10.21	19.36
802.11ax HEW80-BF_Nss1,(MCS0)_4TX-OFDMA	2.80	11.95
5.725-5.85GHz	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX-OFDMA	10.56	16.62
802.11ax HEW40-BF_Nss1,(MCS0)_2TX-OFDMA	7.84	13.90
802.11ax HEW80-BF_Nss1,(MCS0)_2TX-OFDMA	3.85	9.91

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)	Port 3 (dBm/ RBW)	Port 4 (dBm/ RBW)	PD (dBm/ RBW)	PD Limit (dBm/ RBW)	EIRP PD (dBm/ RBW)	EIRP PD Limit (dBm/ RBW)
802.11ax HEW20-BF_Nss1,(MCS0) _4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	9.15	4.37	4.46	4.23	4.38	10.17	13.85	19.32	23.00
5200MHz	Pass	9.15	7.40	7.32	7.20	7.55	13.14	13.85	22.29	23.00
5240MHz	Pass	9.15	7.37	7.54	7.28	7.50	13.24	13.85	22.39	23.00
802.11ax HEW20-BF_Nss1,(MCS0) _2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5745MHz	Pass	6.06	7.34	7.90			10.45	29.94	16.51	36.00
5785MHz	Pass	6.06	7.23	7.79			10.47	29.94	16.53	36.00
5825MHz	Pass	6.06	7.07	8.26			10.56	29.94	16.62	36.00
802.11ax HEW40-BF_Nss1,(MCS0) _4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	9.15	-1.20	-1.17	-1.52	-1.76	4.44	13.85	13.59	23.00
5230MHz	Pass	9.15	4.61	4.31	4.26	4.33	10.21	13.85	19.36	23.00
802.11ax HEW40-BF_Nss1,(MCS0) _2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5755MHz	Pass	6.06	4.58	5.38			7.84	29.94	13.90	36.00
5795MHz	Pass	6.06	4.17	5.08			7.54	29.94	13.60	36.00
802.11ax HEW80-BF_Nss1,(MCS0) _4TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	9.15	-2.99	-3.14	-2.97	-3.18	2.80	13.85	11.95	23.00
802.11ax HEW80-BF_Nss1,(MCS0) _2TX-OFDMA	-	-	-	-	-	-	-	-	-	-
5775MHz	Pass	6.06	0.57	1.37			3.85	29.94	9.91	36.00

DG = Directional Gain; RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; Port X = Port X Power Density;

Note:

For 5150~5250MHz:

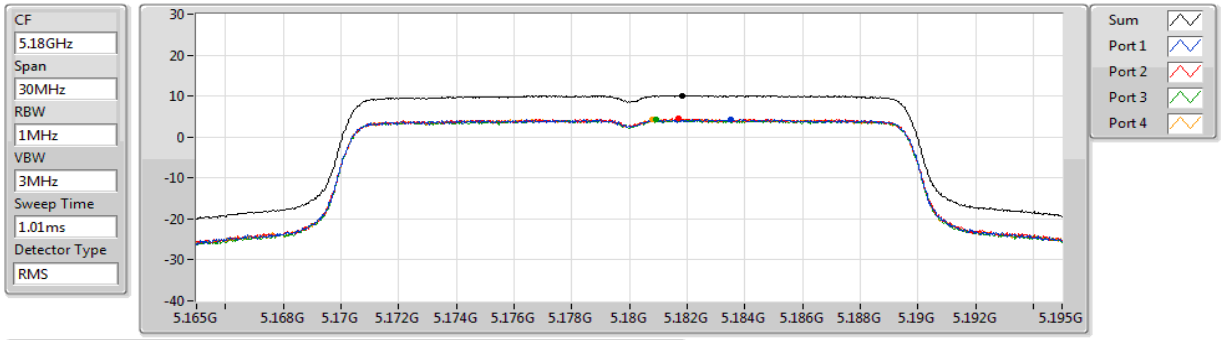
Directional gain = 10 x log($(10^{3.35/20}+10^{2.19/20}+10^{2.62/20}+10^{4.23/20})^4/4$) = 9.15 dBi > 6 dBi, Limit shall be reduced to 17 dBm – (9.15 dBi – 6 dBi) = 13.85 dBm.

For 5725~5850MHz:

Directional gain = 10 x log($(10^{2.16/20}+10^{3.85/20})^2/2$) = 6.06 dBi > 6 dBi, Limit shall be reduced to 30 dBm – (6.06 dBi – 6 dBi) = 29.94 dBm.

802.11ax HEW20-BF_Nss1,(MCS0)_4TX PSD

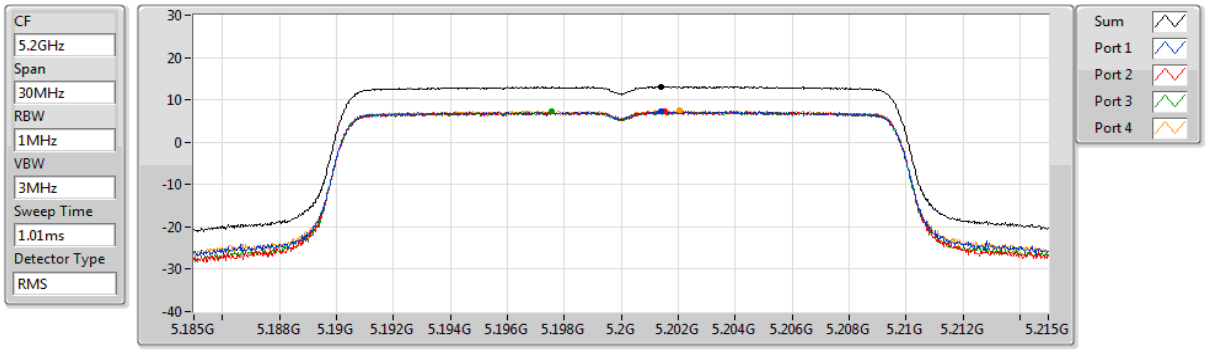
5180MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.17	10.17	4.37	4.46	4.23	4.38

802.11ax HEW20-BF_Nss1,(MCS0)_4TX PSD

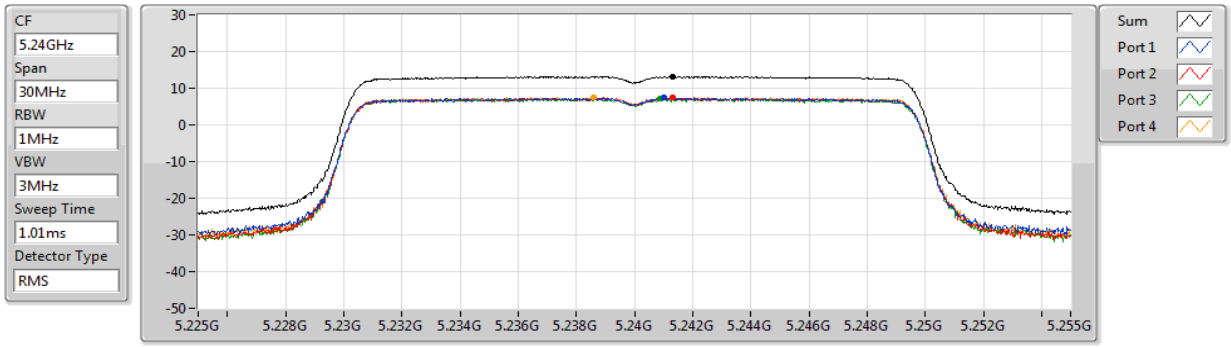
5200MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.14	13.14	7.40	7.32	7.20	7.55

802.11ax HEW20-BF_Nss1,(MCS0)_4TX PSD

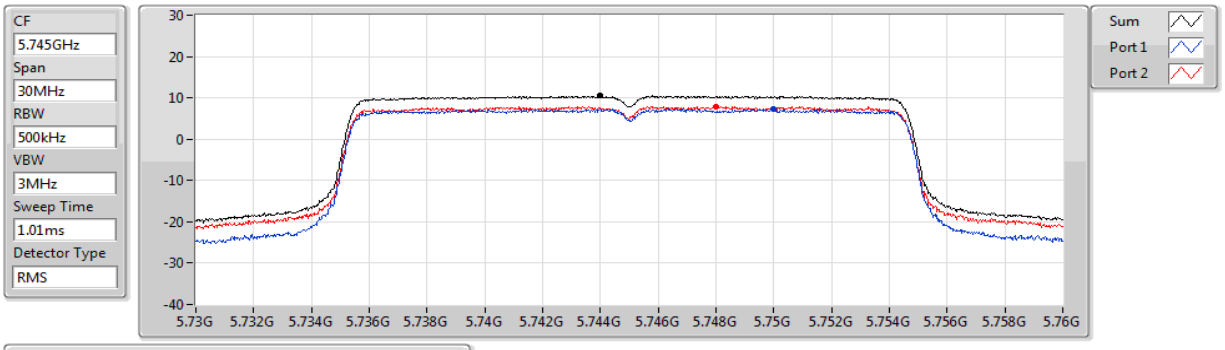
5240MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
13.24	13.24	7.37	7.54	7.28	7.50

802.11ax HEW20-BF_Nss1,(MCS0)_2TX PSD

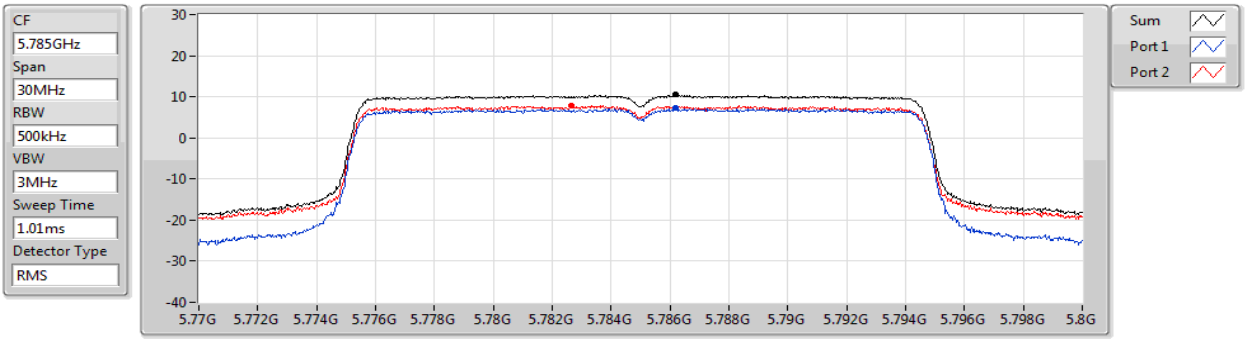
5745MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.45	10.45	7.34	7.90

802.11ax HEW20-BF_Nss1,(MCS0)_2TX **PSD**

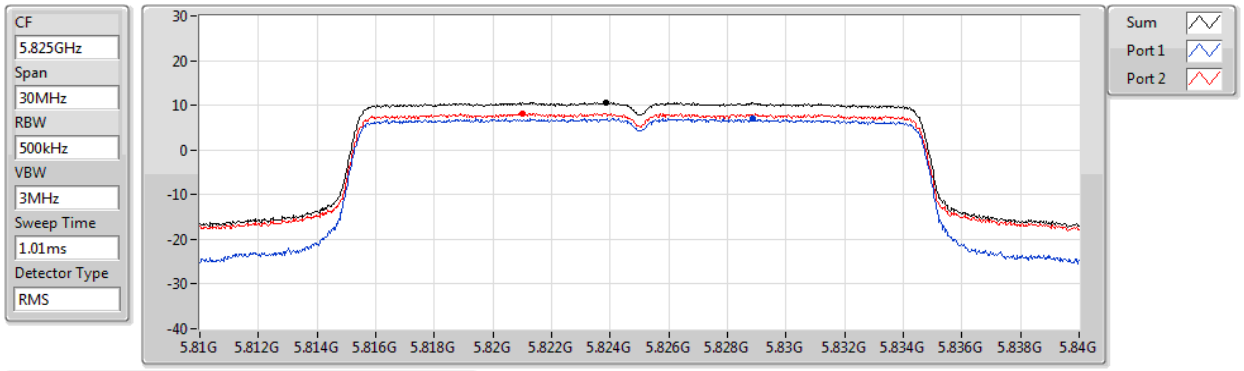
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.47	10.47	7.23	7.79

802.11ax HEW20-BF_Nss1,(MCS0)_2TX **PSD**

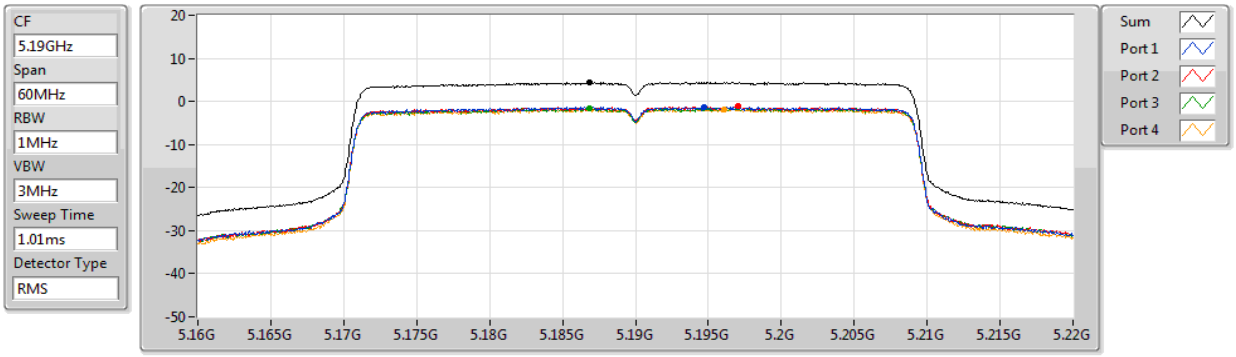
5825MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.56	10.56	7.07	8.26

802.11ax HEW40-BF_Nss1,(MCS0)_4TX PSD

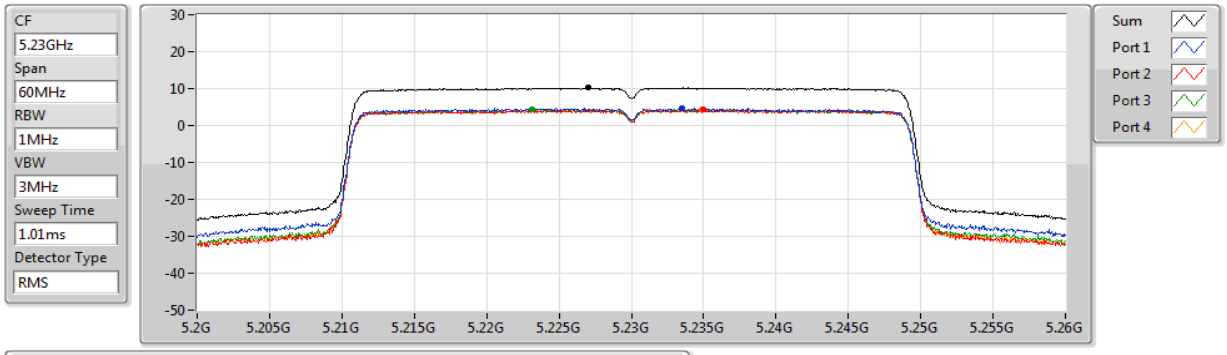
5190MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.44	4.44	-1.20	-1.17	-1.52	-1.76

802.11ax HEW40-BF_Nss1,(MCS0)_4TX PSD

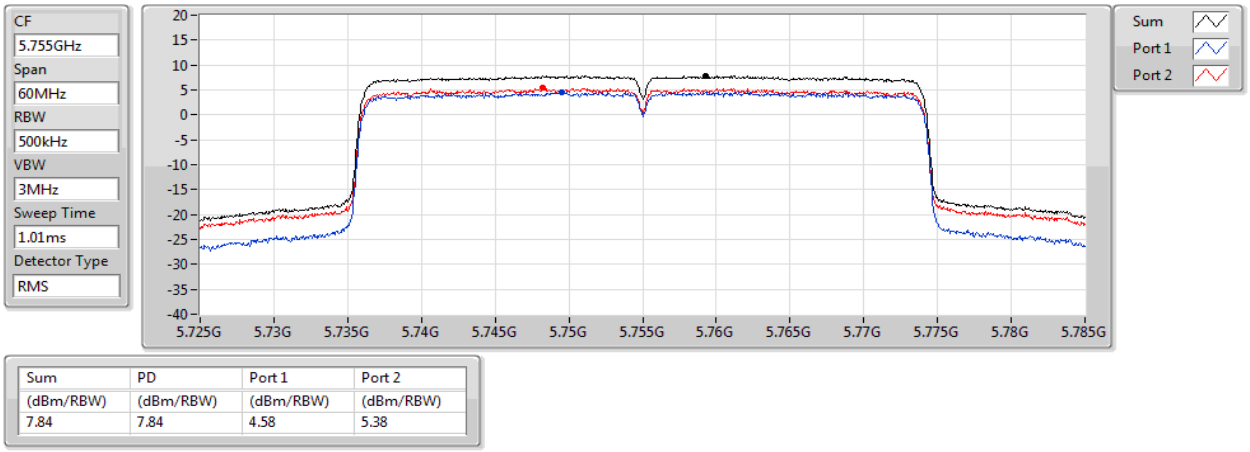
5230MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.21	10.21	4.61	4.31	4.26	4.33

802.11ax HEW40-BF_Nss1,(MCS0)_2TX **PSD**

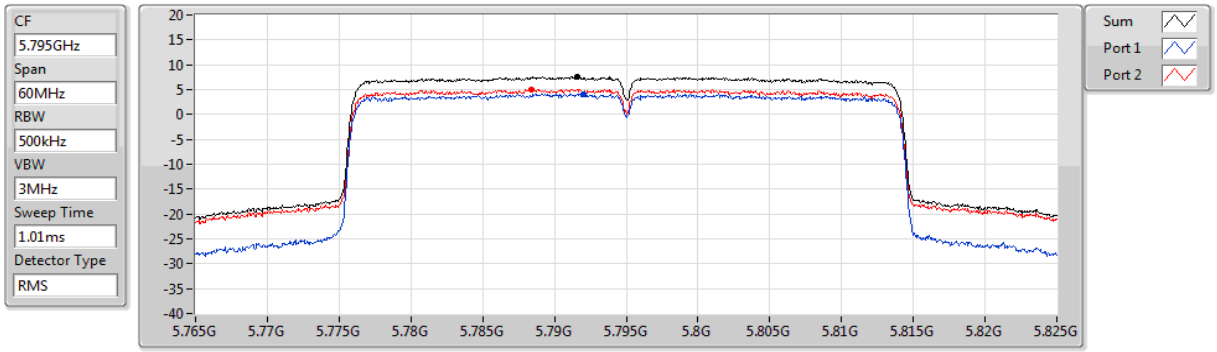
5755MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.84	7.84	4.58	5.38

802.11ax HEW40-BF_Nss1,(MCS0)_2TX **PSD**

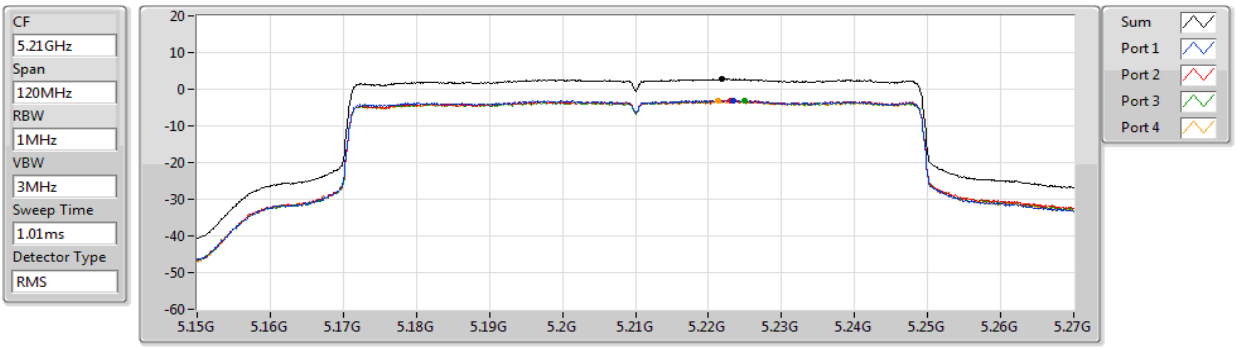
5795MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.54	7.54	4.17	5.08

802.11ax HEW80-BF_Nss1,(MCS0)_4TX PSD

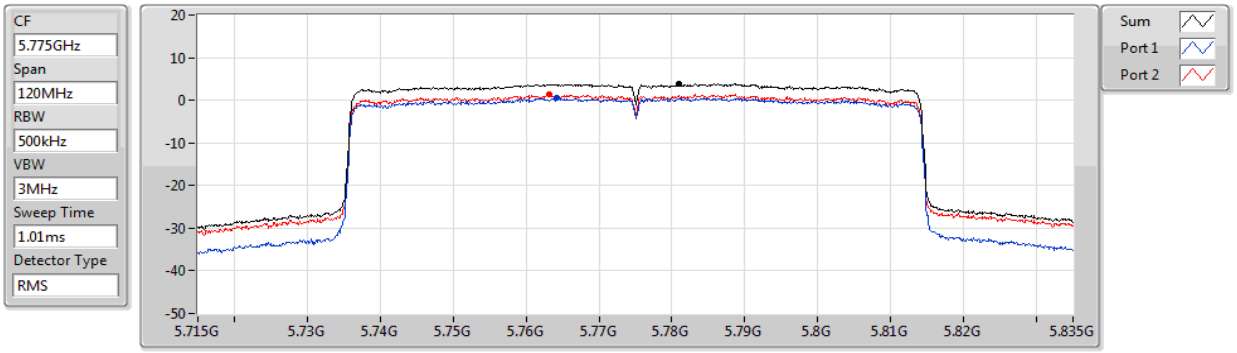
5210MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.80	2.80	-2.99	-3.14	-2.97	-3.18

802.11ax HEW80-BF_Nss1,(MCS0)_2TX PSD

5775MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.85	3.85	0.57	1.37

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**
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.850 GHz	All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

3.5.2 Test Procedures

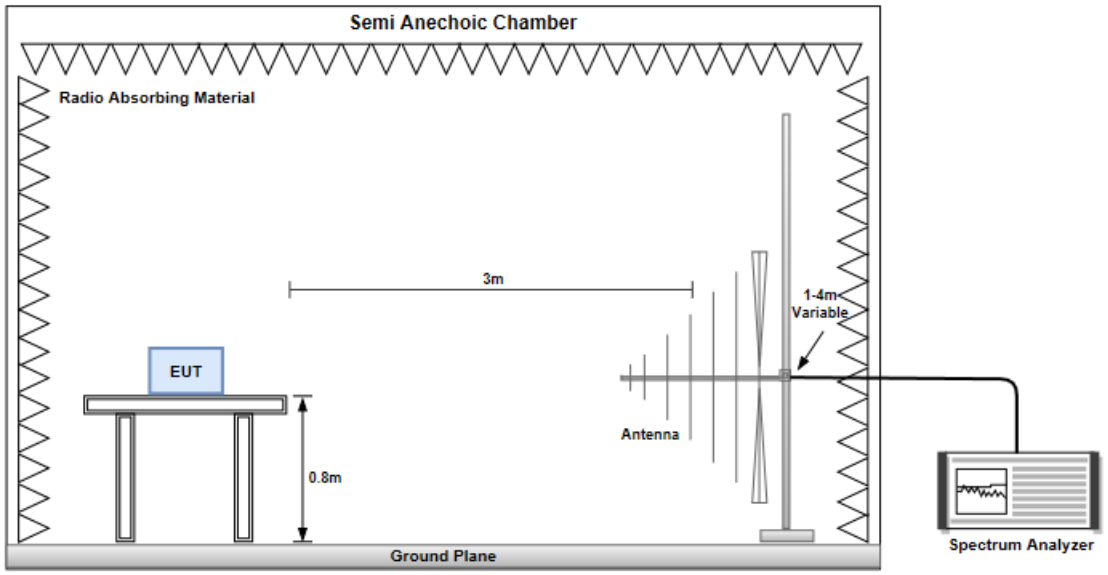
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

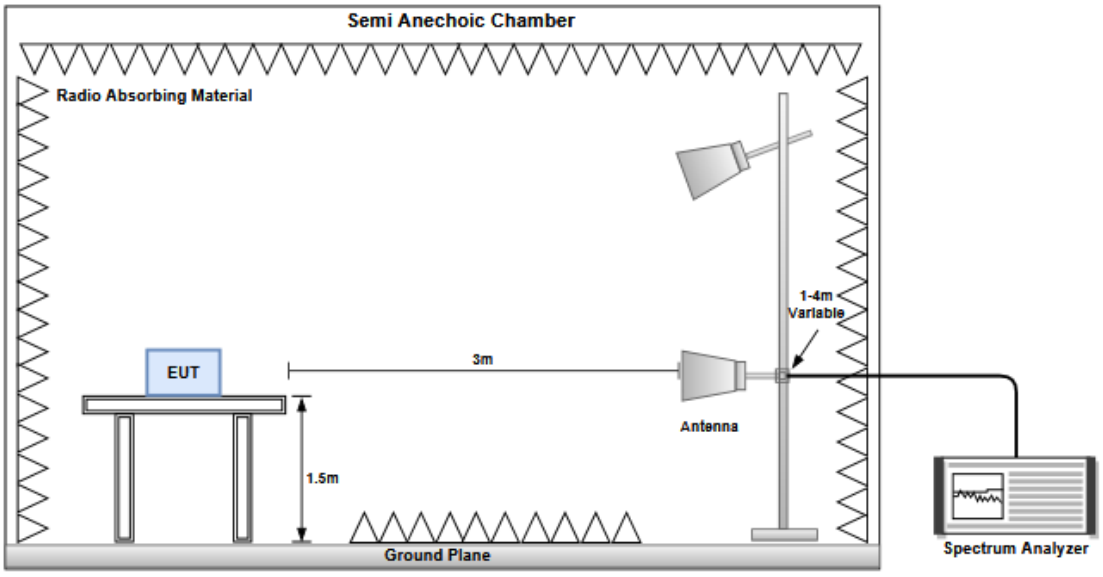
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz



Radiated Emissions above 1 GHz

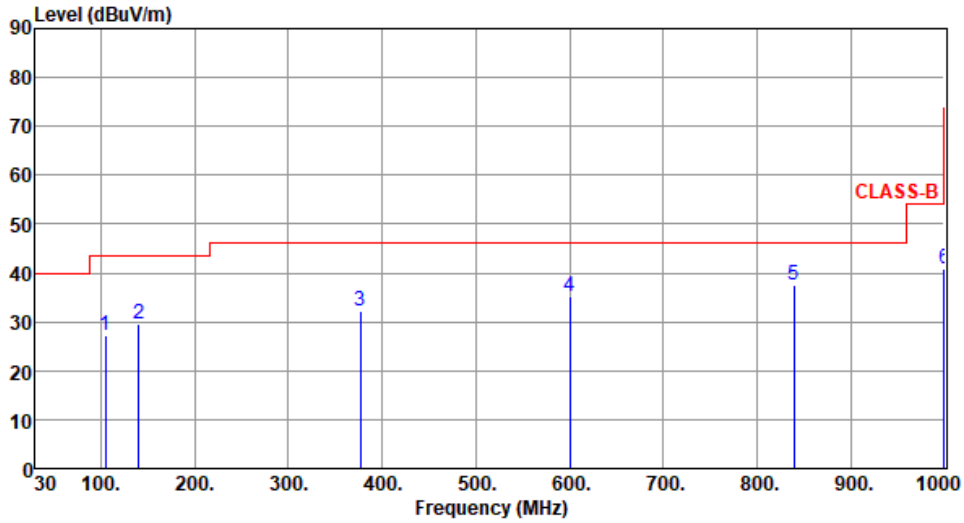


Non-beamforming mode

3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	5200
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

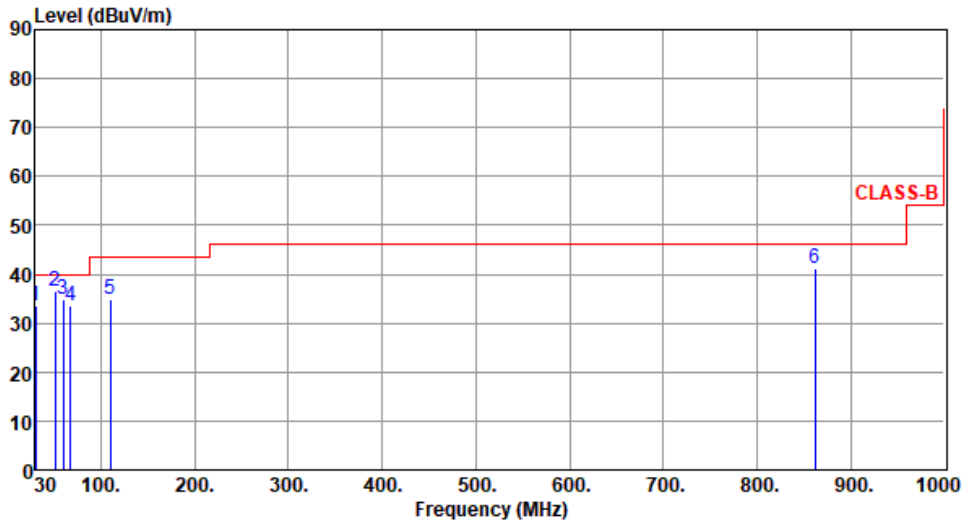


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	105.26	27.15	43.50	-16.35	39.46	-12.31	Peak	---	---
2	140.26	29.58	43.50	-13.92	38.82	-9.24	Peak	---	---
3	377.13	32.16	46.00	-13.84	38.45	-6.29	Peak	---	---
4	600.58	35.11	46.00	-10.89	36.12	-1.01	Peak	---	---
5	839.26	37.49	46.00	-8.51	35.01	2.48	Peak	---	---
6	999.48	40.95	54.00	-13.05	36.28	4.67	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5200
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

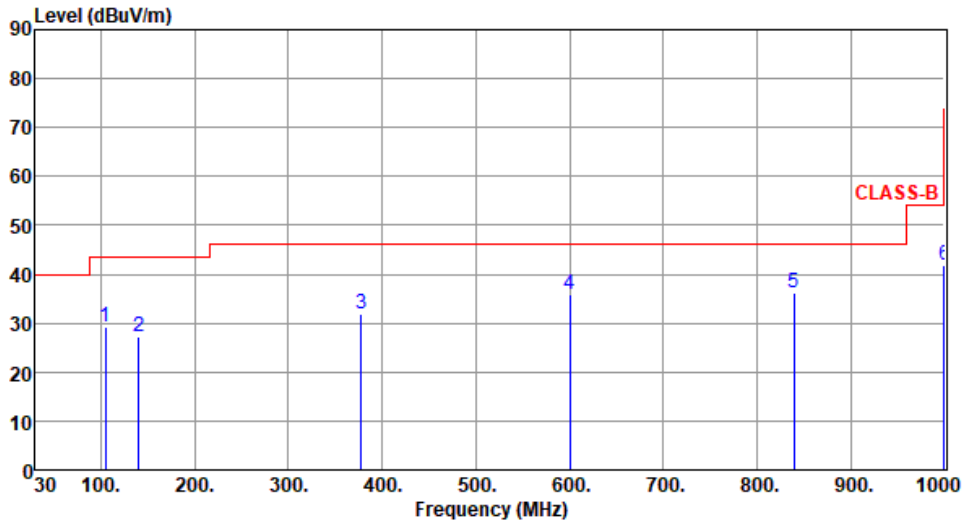


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	30.26	33.56	40.00	-6.44	43.50	-9.94	Peak	---	---
2	51.15	36.55	40.00	-3.45	45.34	-8.79	Peak	---	---
3	59.36	34.81	40.00	-5.19	44.11	-9.30	Peak	---	---
4	67.26	33.58	40.00	-6.42	43.86	-10.28	Peak	---	---
5	110.26	34.85	43.50	-8.65	46.55	-11.70	Peak	---	---
6	861.59	41.12	46.00	-4.88	38.25	2.87	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5825
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

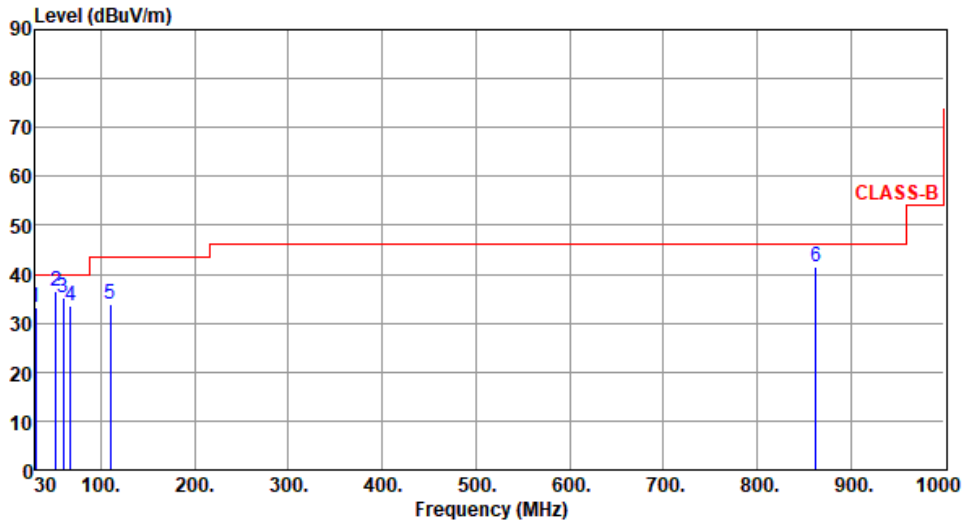


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	105.26	29.25	43.50	-14.25	41.56	-12.31	Peak	---	---
2	140.26	27.15	43.50	-16.35	36.39	-9.24	Peak	---	---
3	377.59	31.81	46.00	-14.19	38.09	-6.28	Peak	---	---
4	600.18	35.81	46.00	-10.19	36.82	-1.01	Peak	---	---
5	839.31	36.21	46.00	-9.79	33.73	2.48	Peak	---	---
6	999.87	41.85	54.00	-12.15	37.18	4.67	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5825
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65



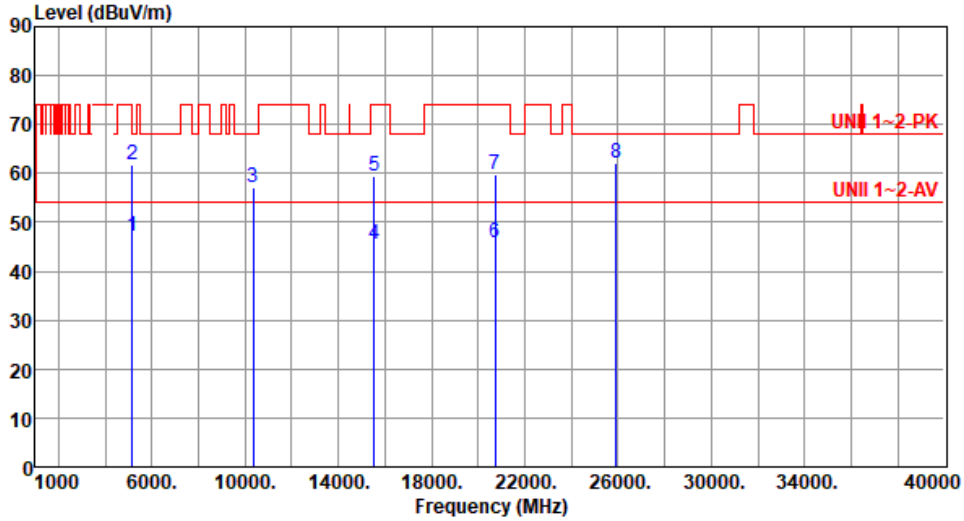
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	30.39	33.28	40.00	-6.72	43.22	-9.94	Peak	---	---
2	51.56	36.54	40.00	-3.46	45.32	-8.78	Peak	---	---
3	59.58	35.16	40.00	-4.84	44.40	-9.24	Peak	---	---
4	67.15	33.58	40.00	-6.42	43.88	-10.30	Peak	---	---
5	109.81	33.94	43.50	-9.56	45.69	-11.75	Peak	---	---
6	862.38	41.54	46.00	-4.46	38.66	2.88	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

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

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

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

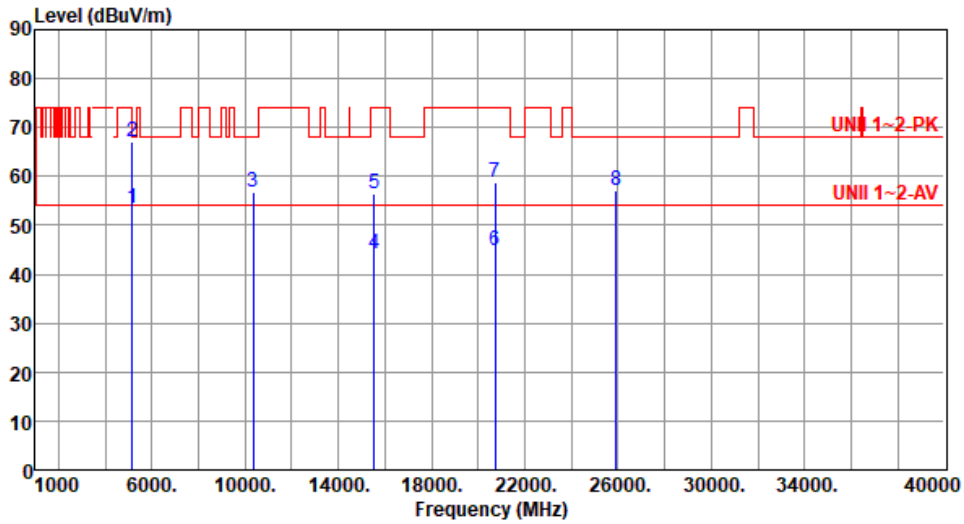


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	47.23	54.00	-6.77	42.22	5.01	Average	185	265
2	5150.00	61.61	74.00	-12.39	56.60	5.01	Peak	185	265
3	10360.00	56.99	68.20	-11.21	42.78	14.21	Peak	205	275
4	15540.00	45.52	54.00	-8.48	31.88	13.64	Average	223	221
5	15540.00	59.52	74.00	-14.48	45.88	13.64	Peak	223	221
6	20720.00	45.70	54.00	-8.30	40.53	5.17	Average	189	265
7	20720.00	59.86	74.00	-14.14	54.69	5.17	Peak	189	265
8	25900.00	62.27	68.20	-5.93	51.53	10.74	Peak	152	265

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

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

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

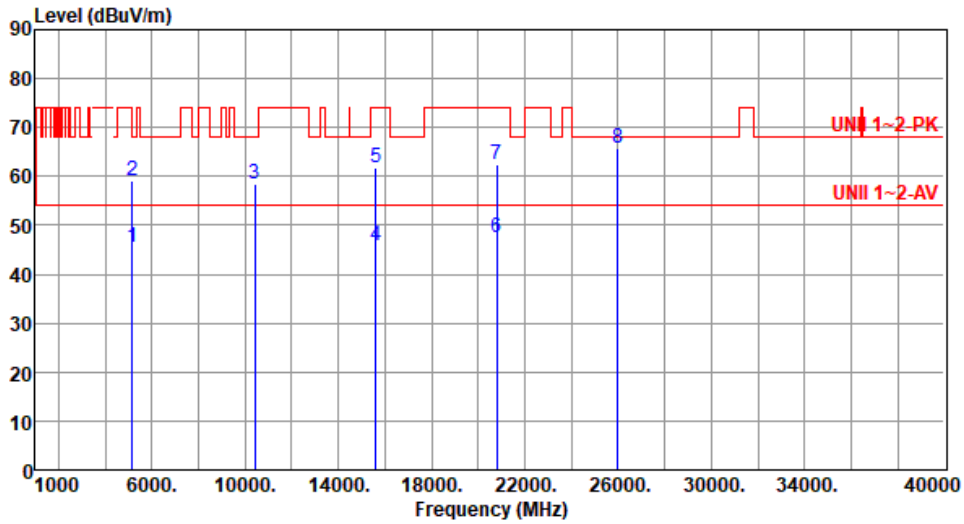


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	53.58	54.00	-0.42	48.57	5.01	Average	169	246
2	5150.00	67.08	74.00	-6.92	62.07	5.01	Peak	169	246
3	10360.00	56.78	68.20	-11.42	42.57	14.21	Peak	145	239
4	15540.00	44.20	54.00	-9.80	30.56	13.64	Average	100	240
5	15540.00	56.53	74.00	-17.47	42.89	13.64	Peak	100	240
6	20720.00	44.96	54.00	-9.04	39.79	5.17	Average	100	280
7	20720.00	58.62	74.00	-15.38	53.45	5.17	Peak	100	280
8	25900.00	57.00	68.20	-11.20	46.26	10.74	Peak	100	195

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

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

Test By :Roger Lu Temperature(℃):22 Humidity(%):65

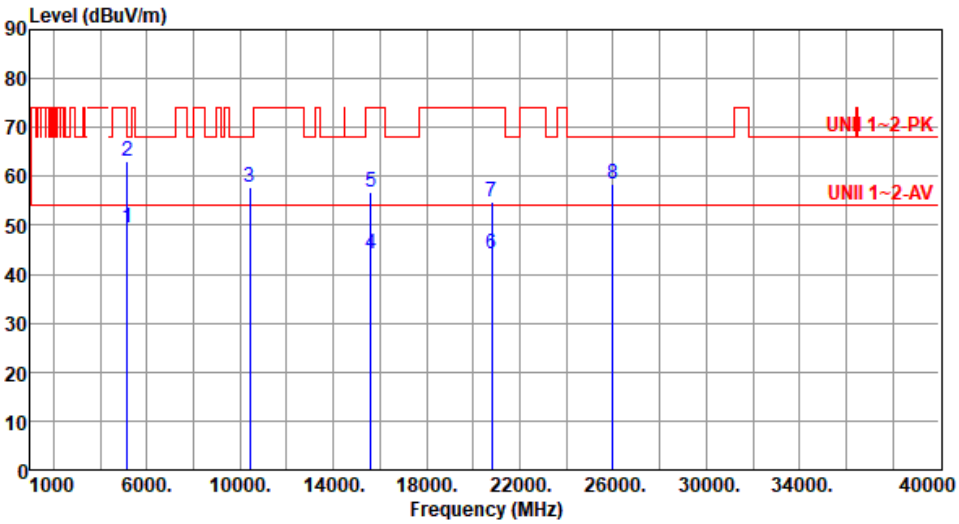


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	45.61	54.00	-8.39	40.60	5.01	Average	185	265
2	5150.00	59.28	74.00	-14.72	54.27	5.01	Peak	185	265
3	10400.00	58.32	68.20	-9.88	43.99	14.33	Peak	216	274
4	15600.00	45.90	54.00	-8.10	32.57	13.33	Average	218	228
5	15600.00	61.64	74.00	-12.36	48.31	13.33	Peak	218	228
6	20800.00	47.61	54.00	-6.39	42.37	5.24	Average	180	265
7	20800.00	62.34	74.00	-11.66	57.10	5.24	Peak	180	265
8	26000.00	65.87	68.20	-2.33	54.96	10.91	Peak	124	265

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

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

Test By :Roger Lu Temperature(℃):22 Humidity(%):65

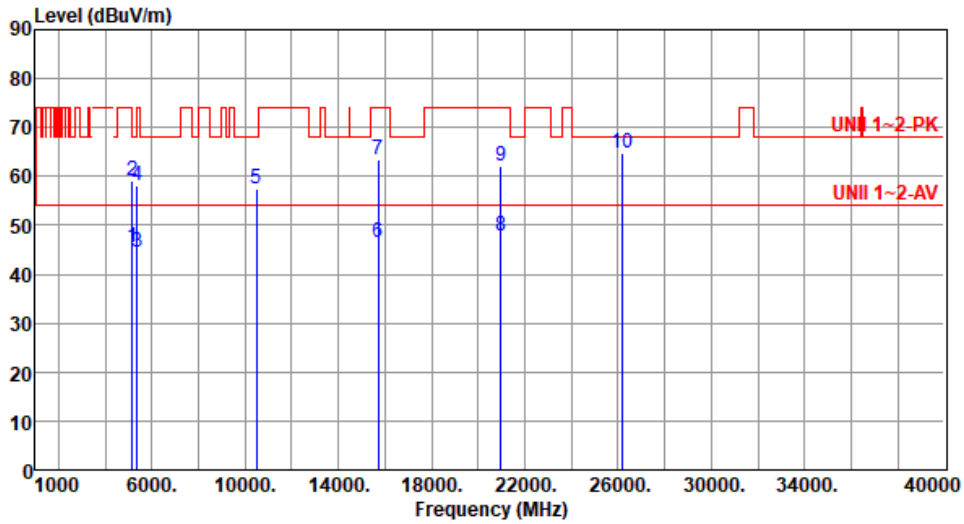


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	49.48	54.00	-4.52	44.47	5.01	Average	170	264
2	5150.00	63.02	74.00	-10.98	58.01	5.01	Peak	170	264
3	10400.00	57.87	68.20	-10.33	43.54	14.33	Peak	141	237
4	15600.00	44.04	54.00	-9.96	30.71	13.33	Average	141	241
5	15600.00	56.80	74.00	-17.20	43.47	13.33	Peak	141	241
6	20800.00	44.02	54.00	-9.98	38.78	5.24	Average	100	264
7	20800.00	54.87	74.00	-19.13	49.63	5.24	Peak	100	264
8	26000.00	58.56	68.20	-9.64	47.65	10.91	Peak	103	254

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

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

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

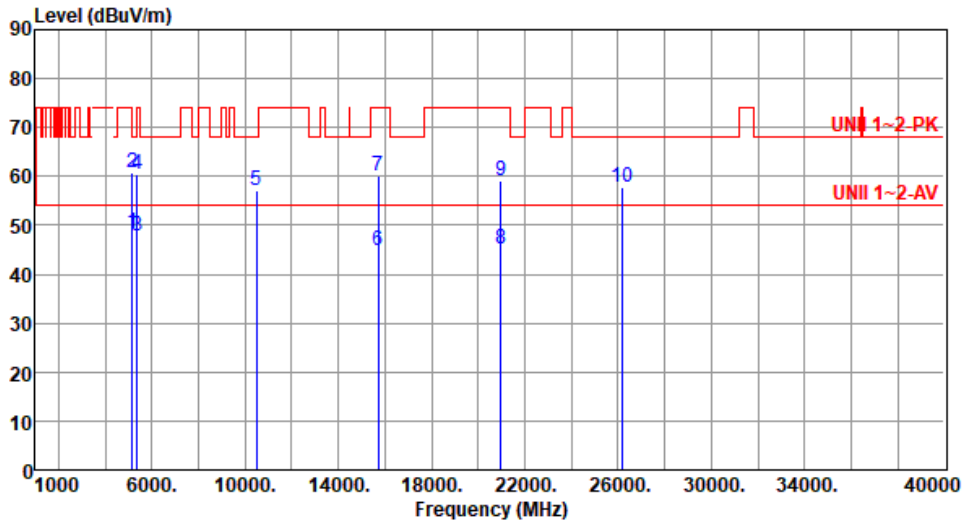


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	45.61	54.00	-8.39	40.60	5.01	Average	185	266
2	5150.00	59.07	74.00	-14.93	54.06	5.01	Peak	185	266
3	5350.00	44.64	54.00	-9.36	40.22	4.42	Average	185	266
4	5350.00	58.20	74.00	-15.80	53.78	4.42	Peak	185	266
5	10480.00	57.43	68.20	-10.77	42.97	14.46	Peak	206	227
6	15720.00	46.42	54.00	-7.58	33.00	13.42	Average	229	233
7	15720.00	63.28	74.00	-10.72	49.86	13.42	Peak	229	233
8	20960.00	47.70	54.00	-6.30	42.22	5.48	Average	175	261
9	20960.00	62.07	74.00	-11.93	56.59	5.48	Peak	175	261
10	26200.00	64.79	68.20	-3.41	53.59	11.20	Peak	132	264

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

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

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

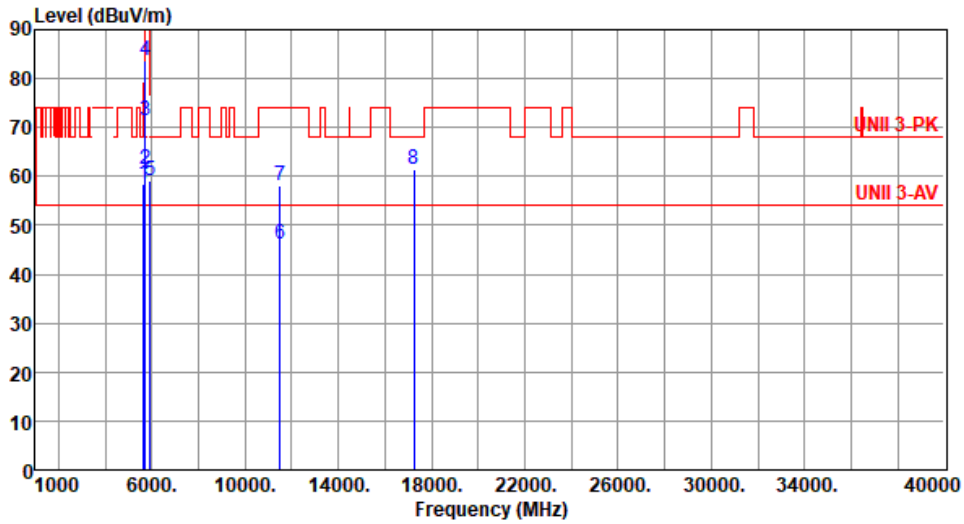


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	48.65	54.00	-5.35	43.64	5.01	Average	175	261
2	5150.00	60.78	74.00	-13.22	55.77	5.01	Peak	175	261
3	5350.00	47.70	54.00	-6.30	43.28	4.42	Average	175	261
4	5350.00	60.30	74.00	-13.70	55.88	4.42	Peak	175	261
5	10480.00	57.03	68.20	-11.17	42.57	14.46	Peak	142	239
6	15720.00	44.72	54.00	-9.28	31.30	13.42	Average	136	237
7	15720.00	60.01	74.00	-13.99	46.59	13.42	Peak	136	237
8	20960.00	45.06	54.00	-8.94	39.58	5.48	Average	100	266
9	20960.00	59.07	74.00	-14.93	53.59	5.48	Peak	100	266
10	26200.00	57.89	68.20	-10.31	46.69	11.20	Peak	105	255

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

Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

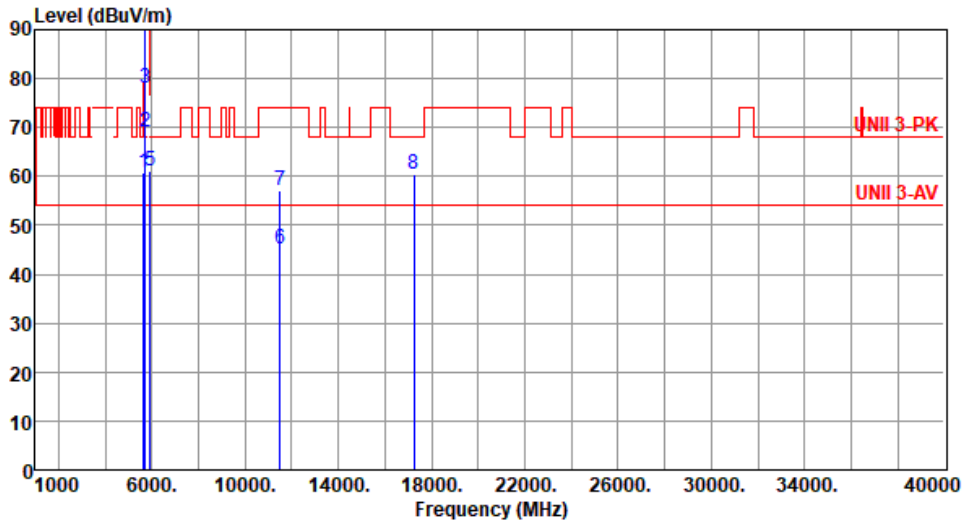


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	58.39	68.20	-9.81	53.58	4.81	Peak	162	105
2	5700.00	61.60	105.20	-43.60	56.58	5.02	Peak	162	105
3	5720.00	71.30	110.80	-39.50	66.16	5.14	Peak	162	105
4	5725.00	83.62	122.20	-38.58	78.45	5.17	Peak	162	105
5	5925.00	59.10	68.20	-9.10	53.49	5.61	Peak	162	105
6	11490.00	46.27	54.00	-7.73	31.88	14.39	Average	302	303
7	11490.00	58.24	74.00	-15.76	43.85	14.39	Peak	302	303
8	17235.00	61.41	68.20	-6.79	43.95	17.46	Peak	100	307

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

Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

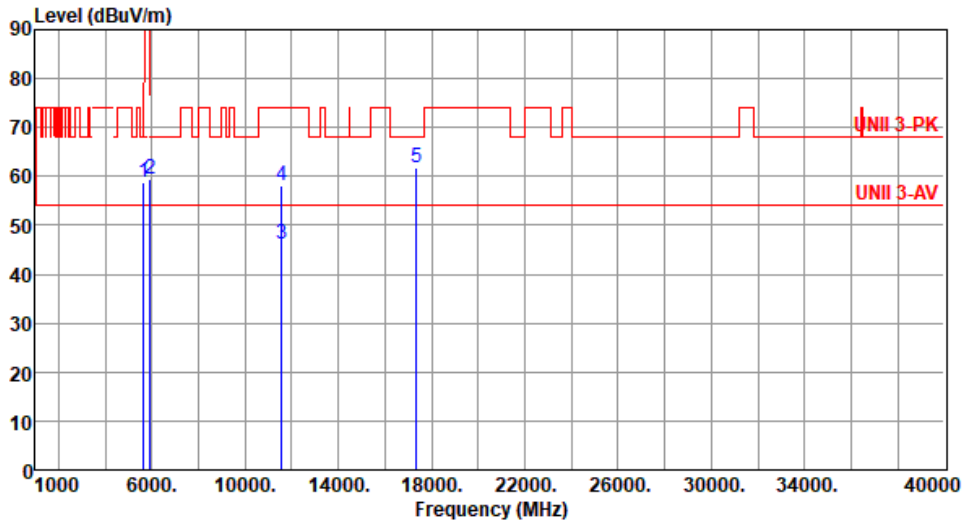


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	60.68	68.20	-7.52	55.87	4.81	Peak	176	309
2	5700.00	68.97	105.20	-36.23	63.95	5.02	Peak	176	309
3	5720.00	78.14	110.80	-32.66	73.00	5.14	Peak	176	309
4	5725.00	92.13	122.20	-30.07	86.96	5.17	Peak	176	309
5	5925.00	61.11	68.20	-7.09	55.50	5.61	Peak	176	309
6	11490.00	45.07	54.00	-8.93	30.68	14.39	Average	100	59
7	11490.00	56.97	74.00	-17.03	42.58	14.39	Peak	100	59
8	17235.00	60.33	68.20	-7.87	42.87	17.46	Peak	100	61

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

Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

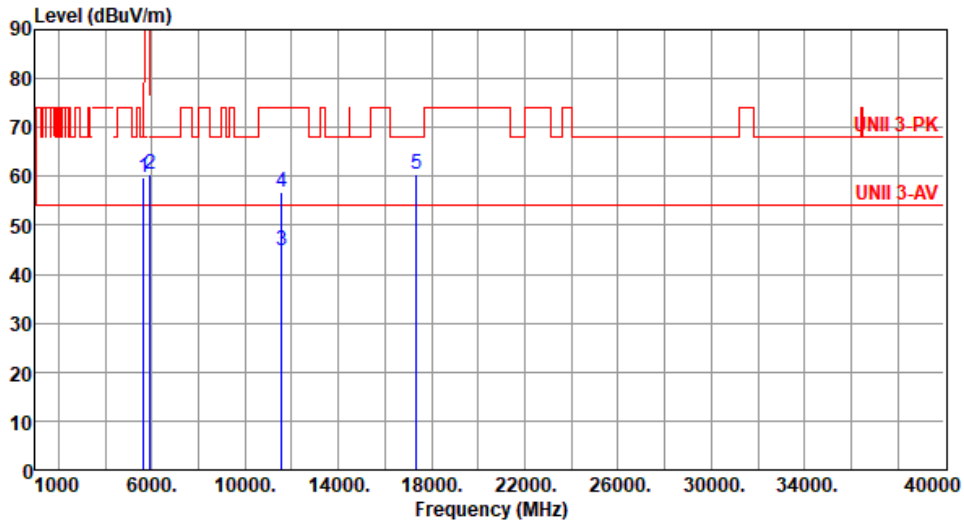


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	58.74	68.20	-9.46	53.93	4.81	Peak	162	108
2	5925.00	59.59	68.20	-8.61	53.98	5.61	Peak	162	108
3	11570.00	46.20	54.00	-7.80	31.95	14.25	Average	306	302
4	11570.00	58.20	74.00	-15.80	43.95	14.25	Peak	306	302
5	17355.00	61.80	68.20	-6.40	43.89	17.91	Peak	100	309

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

Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

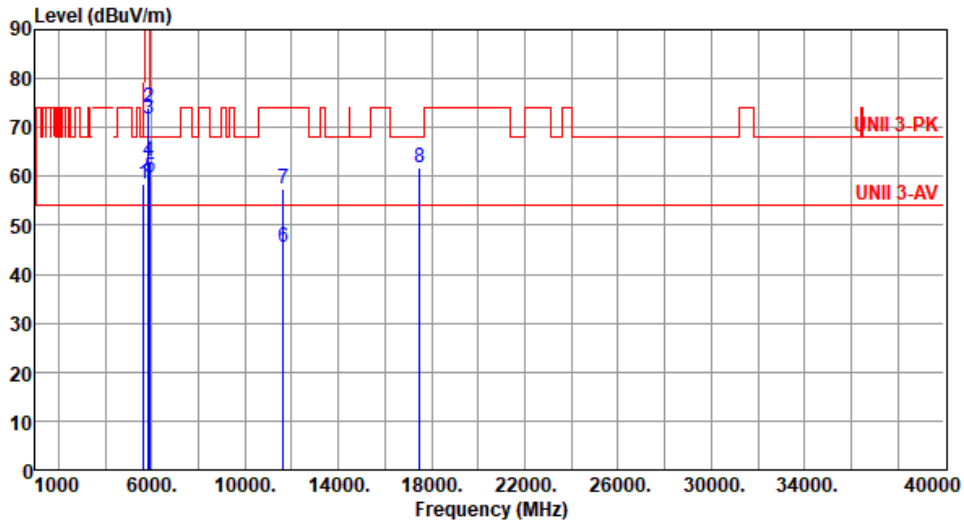


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	59.65	68.20	-8.55	54.84	4.81	Peak	180	305
2	5925.00	60.36	68.20	-7.84	54.75	5.61	Peak	180	305
3	11570.00	44.80	54.00	-9.20	30.55	14.25	Average	100	55
4	11570.00	56.85	74.00	-17.15	42.60	14.25	Peak	100	55
5	17355.00	60.57	68.20	-7.63	42.66	17.91	Peak	100	59

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

Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal		

Test By :Roger Lu Temperature(℃):22 Humidity(%):65

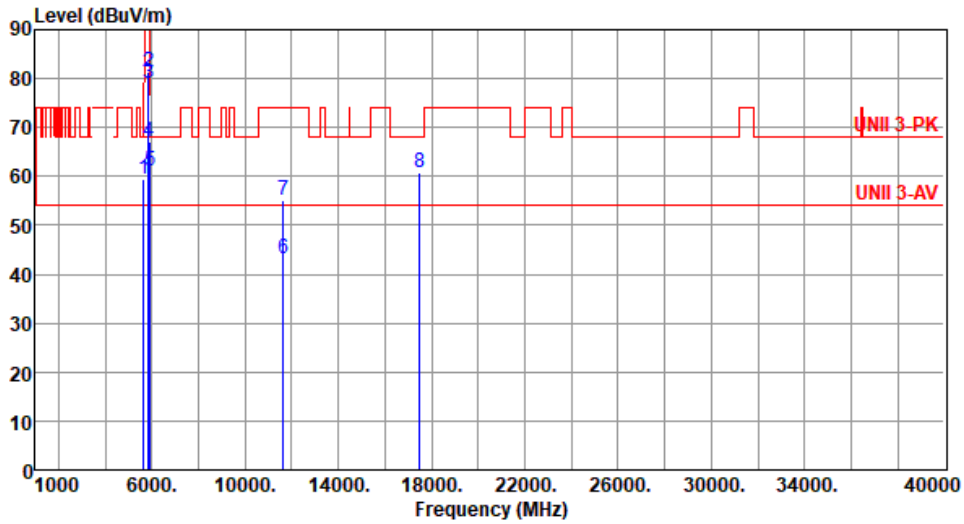


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	58.39	68.20	-9.81	53.58	4.81	Peak	162	106
2	5850.00	74.14	122.20	-48.06	68.49	5.65	Peak	162	106
3	5855.00	71.83	110.80	-38.97	66.18	5.65	Peak	162	106
4	5875.00	63.21	105.20	-41.99	57.55	5.66	Peak	162	106
5	5925.00	59.66	68.20	-8.54	54.05	5.61	Peak	162	106
6	11650.00	45.44	54.00	-8.56	31.54	13.90	Average	340	306
7	11650.00	57.32	74.00	-16.68	43.42	13.90	Peak	340	306
8	17475.00	61.65	68.20	-6.55	43.10	18.55	Peak	100	60

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

Modulation	11a	Test Freq. (MHz)	5825
Polarization	Vertical		

Test By :Roger Lu Temperature(℃):22 Humidity(%):65



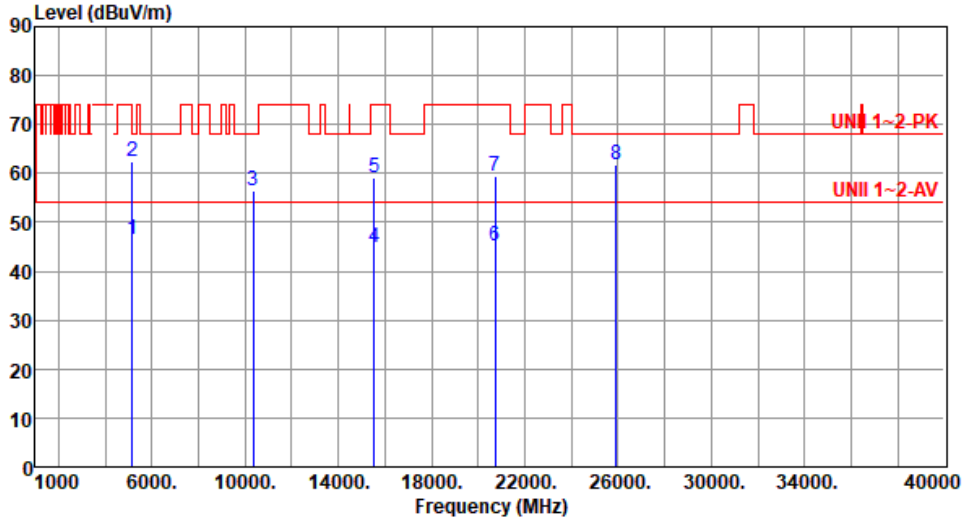
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	59.49	68.20	-8.71	54.68	4.81	Peak	180	300
2	5850.00	81.20	122.20	-41.00	75.55	5.65	Peak	180	300
3	5855.00	78.97	110.80	-31.83	73.32	5.65	Peak	180	300
4	5875.00	66.96	105.20	-38.24	61.30	5.66	Peak	180	300
5	5925.00	61.27	68.20	-6.93	55.66	5.61	Peak	180	300
6	11650.00	43.32	54.00	-10.68	29.42	13.90	Average	260	69
7	11650.00	55.22	74.00	-18.78	41.32	13.90	Peak	260	69
8	17475.00	60.80	68.20	-7.40	42.25	18.55	Peak	100	30

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

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5180
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

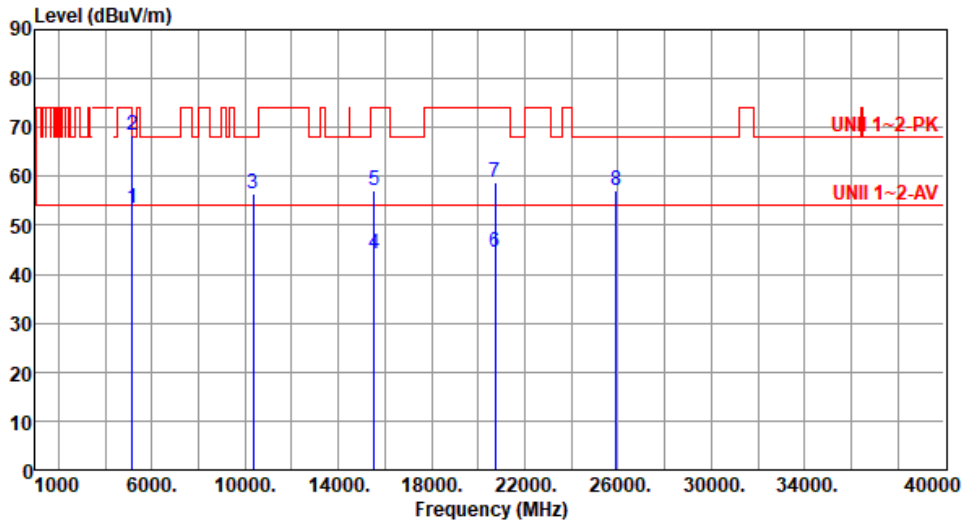


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	46.59	54.00	-7.41	41.58	5.01	Average	163	263
2	5150.00	62.48	74.00	-11.52	57.47	5.01	Peak	163	263
3	10360.00	56.48	68.20	-11.72	42.27	14.21	Peak	202	276
4	15540.00	44.90	54.00	-9.10	31.26	13.64	Average	225	226
5	15540.00	58.99	74.00	-15.01	45.35	13.64	Peak	225	226
6	20720.00	45.19	54.00	-8.81	40.02	5.17	Average	188	269
7	20720.00	59.28	74.00	-14.72	54.11	5.17	Peak	188	269
8	25900.00	61.86	68.20	-6.34	51.12	10.74	Peak	155	267

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5180
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

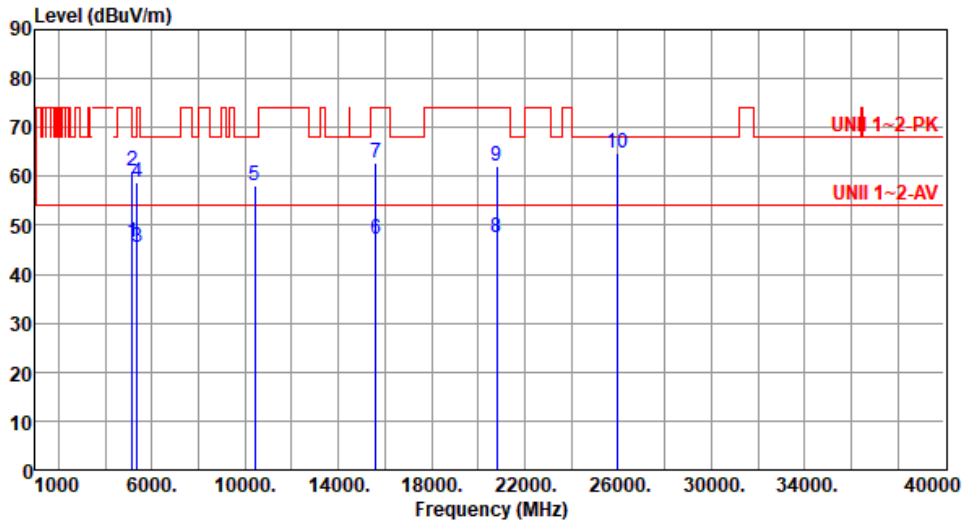


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	53.61	54.00	-0.39	48.60	5.01	Average	161	258
2	5150.00	68.57	74.00	-5.43	63.56	5.01	Peak	161	258
3	10360.00	56.37	68.20	-11.83	42.16	14.21	Peak	100	30
4	15540.00	44.22	54.00	-9.78	30.58	13.64	Average	100	242
5	15540.00	57.19	74.00	-16.81	43.55	13.64	Peak	100	242
6	20720.00	44.62	54.00	-9.38	39.45	5.17	Average	100	260
7	20720.00	58.62	74.00	-15.38	53.45	5.17	Peak	100	260
8	25900.00	57.00	68.20	-11.20	46.26	10.74	Peak	100	255

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5200
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

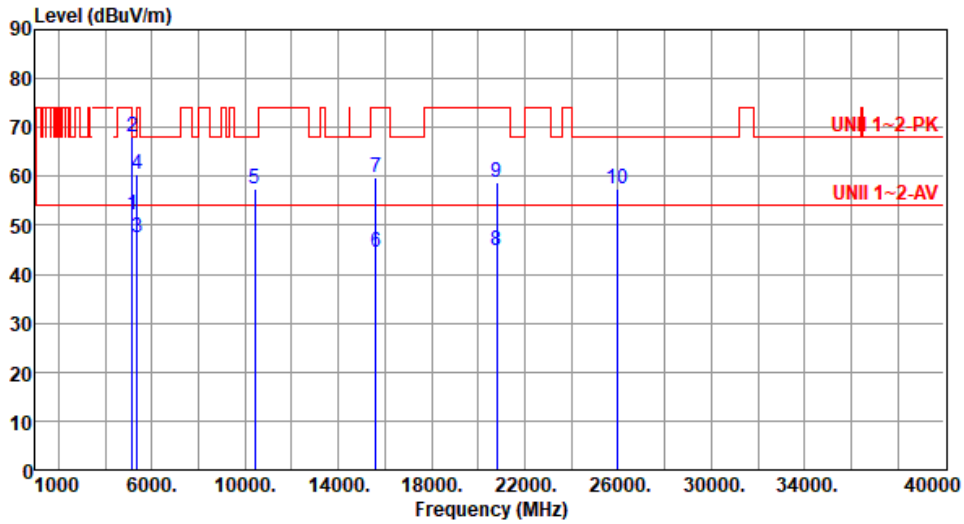


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	46.40	54.00	-7.60	41.39	5.01	Average	185	267
2	5150.00	61.21	74.00	-12.79	56.20	5.01	Peak	185	267
3	5350.00	45.57	54.00	-8.43	41.15	4.42	Average	185	267
4	5350.00	58.68	74.00	-15.32	54.26	4.42	Peak	185	267
5	10400.00	58.21	68.20	-9.99	43.88	14.33	Peak	200	250
6	15600.00	47.32	54.00	-6.68	33.99	13.33	Average	216	231
7	15600.00	62.62	74.00	-11.38	49.29	13.33	Peak	216	231
8	20800.00	47.39	54.00	-6.61	42.15	5.24	Average	175	263
9	20800.00	62.11	74.00	-11.89	56.87	5.24	Peak	175	263
10	26000.00	64.86	68.20	-3.34	53.95	10.91	Peak	167	272

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5200
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

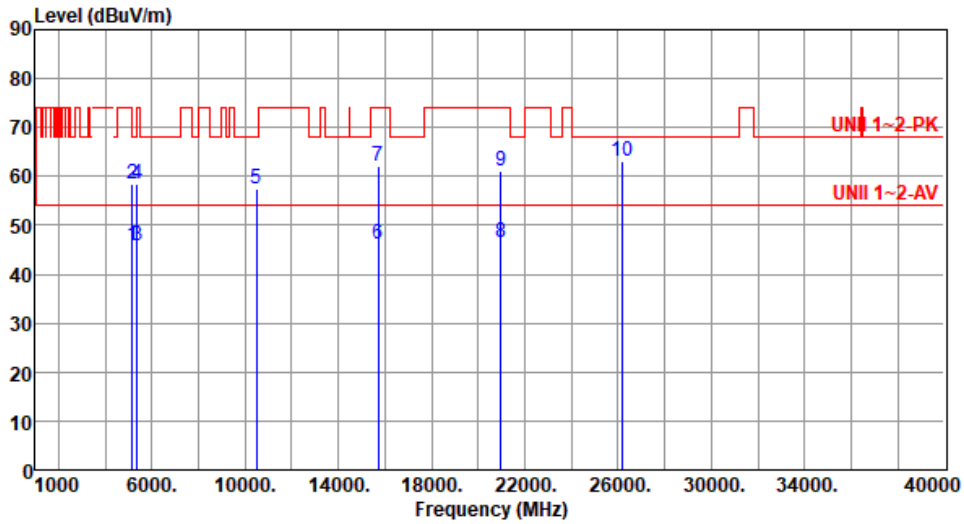


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	52.01	54.00	-1.99	47.00	5.01	Average	161	257
2	5150.00	67.97	74.00	-6.03	62.96	5.01	Peak	161	257
3	5350.00	47.53	54.00	-6.47	43.11	4.42	Average	161	257
4	5350.00	60.30	74.00	-13.70	55.88	4.42	Peak	161	257
5	10400.00	57.55	68.20	-10.65	43.22	14.33	Peak	136	235
6	15600.00	44.59	54.00	-9.41	31.26	13.33	Average	135	244
7	15600.00	59.92	74.00	-14.08	46.59	13.33	Peak	135	244
8	20800.00	44.72	54.00	-9.28	39.48	5.24	Average	100	261
9	20800.00	58.73	74.00	-15.27	53.49	5.24	Peak	100	261
10	26000.00	57.49	68.20	-10.71	46.58	10.91	Peak	100	255

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5240
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

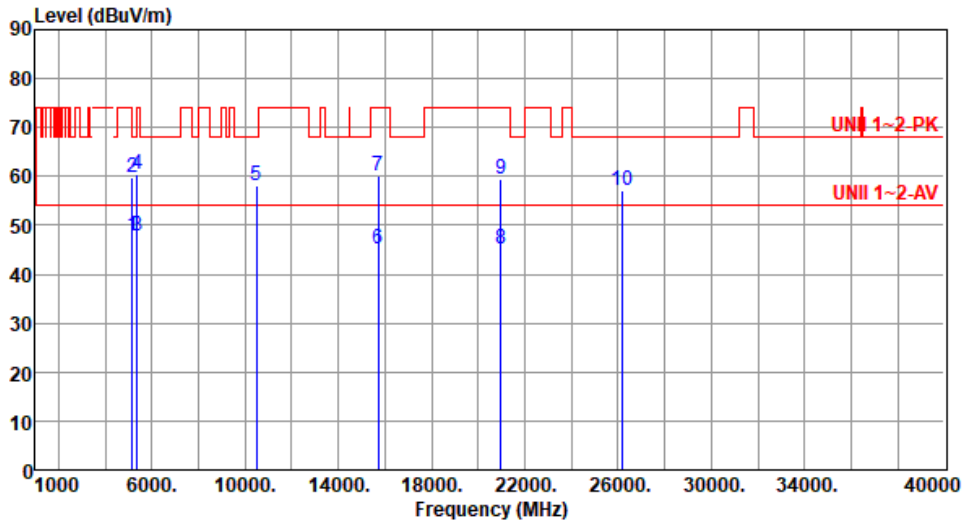


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	45.69	54.00	-8.31	40.68	5.01	Average	186	264
2	5150.00	58.51	74.00	-15.49	53.50	5.01	Peak	186	264
3	5350.00	45.71	54.00	-8.29	41.29	4.42	Average	186	264
4	5350.00	58.48	74.00	-15.52	54.06	4.42	Peak	186	264
5	10480.00	57.42	68.20	-10.78	42.96	14.46	Peak	205	251
6	15720.00	46.31	54.00	-7.69	32.89	13.42	Average	222	233
7	15720.00	62.09	74.00	-11.91	48.67	13.42	Peak	222	233
8	20960.00	46.59	54.00	-7.41	41.11	5.48	Average	172	265
9	20960.00	60.96	74.00	-13.04	55.48	5.48	Peak	172	265
10	26200.00	63.06	68.20	-5.14	51.86	11.20	Peak	135	269

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5240
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

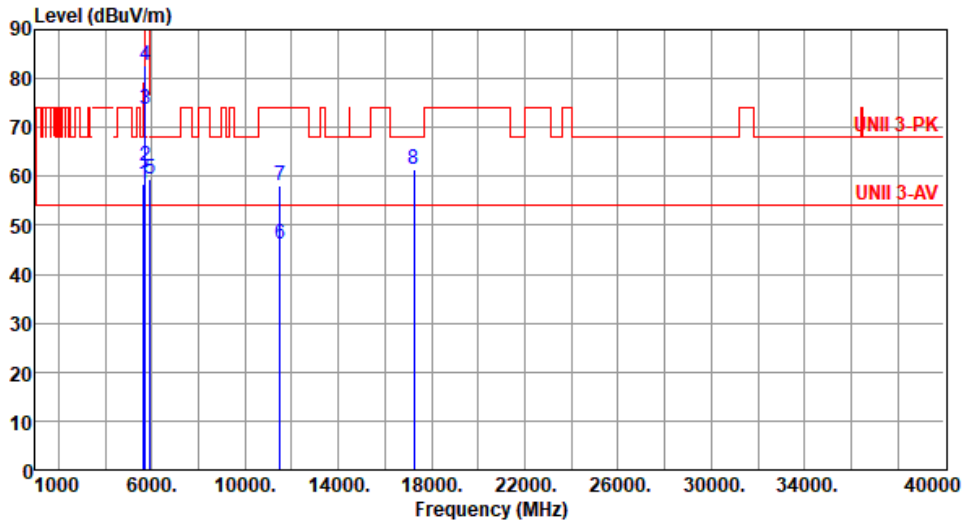


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	47.98	54.00	-6.02	42.97	5.01	Average	163	260
2	5150.00	59.90	74.00	-14.10	54.89	5.01	Peak	163	260
3	5350.00	47.74	54.00	-6.26	43.32	4.42	Average	163	260
4	5350.00	60.37	74.00	-13.63	55.95	4.42	Peak	163	260
5	10480.00	58.02	68.20	-10.18	43.56	14.46	Peak	136	239
6	15720.00	45.01	54.00	-8.99	31.59	13.42	Average	142	245
7	15720.00	60.02	74.00	-13.98	46.60	13.42	Peak	142	245
8	20960.00	45.15	54.00	-8.85	39.67	5.48	Average	100	266
9	20960.00	59.32	74.00	-14.68	53.84	5.48	Peak	100	266
10	26200.00	57.15	68.20	-11.05	45.95	11.20	Peak	100	255

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5745
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

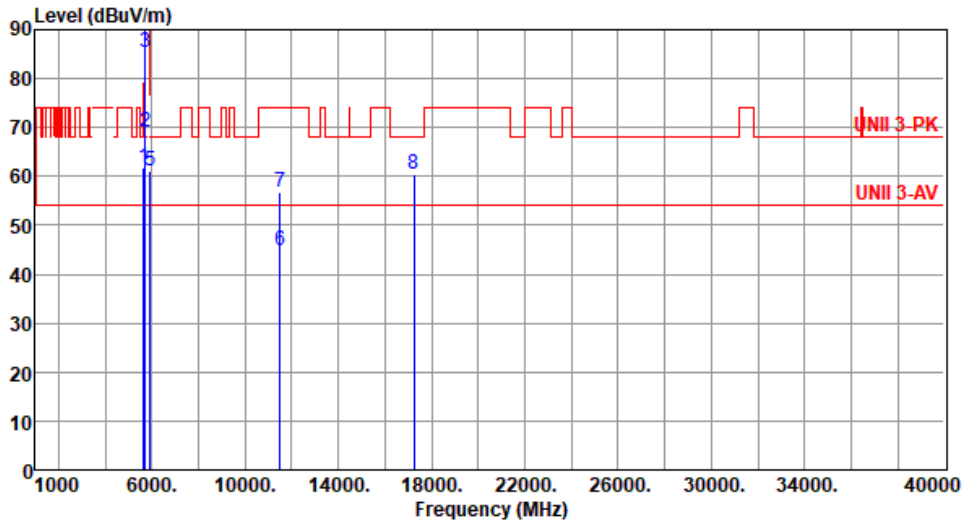


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	58.39	68.20	-9.81	53.58	4.81	Peak	162	103
2	5700.00	61.97	105.20	-43.23	56.95	5.02	Peak	162	103
3	5720.00	73.73	110.80	-37.07	68.59	5.14	Peak	162	103
4	5725.00	82.83	122.20	-39.37	77.66	5.17	Peak	162	103
5	5925.00	59.58	68.20	-8.62	53.97	5.61	Peak	162	103
6	11490.00	46.15	54.00	-7.85	31.76	14.39	Average	309	305
7	11490.00	58.14	74.00	-15.86	43.75	14.39	Peak	309	305
8	17235.00	61.34	68.20	-6.86	43.88	17.46	Peak	100	302

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5745
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

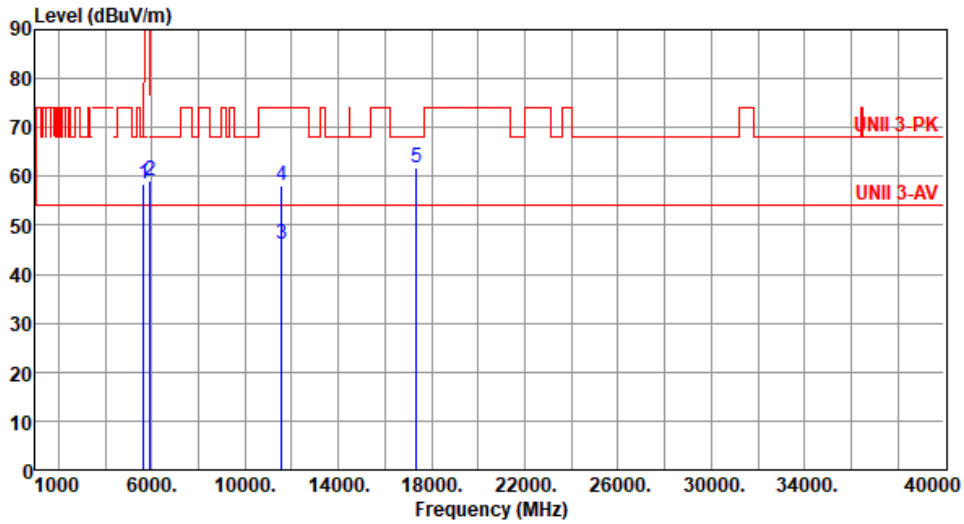


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	61.75	68.20	-6.45	56.94	4.81	Peak	178	310
2	5700.00	68.93	105.20	-36.27	63.91	5.02	Peak	178	310
3	5720.00	85.33	110.80	-25.47	80.19	5.14	Peak	178	310
4	5725.00	90.67	122.20	-31.53	85.50	5.17	Peak	178	310
5	5925.00	61.27	68.20	-6.93	55.66	5.61	Peak	178	310
6	11490.00	44.98	54.00	-9.02	30.59	14.39	Average	100	60
7	11490.00	56.85	74.00	-17.15	42.46	14.39	Peak	100	60
8	17235.00	60.41	68.20	-7.79	42.95	17.46	Peak	100	61

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5785
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

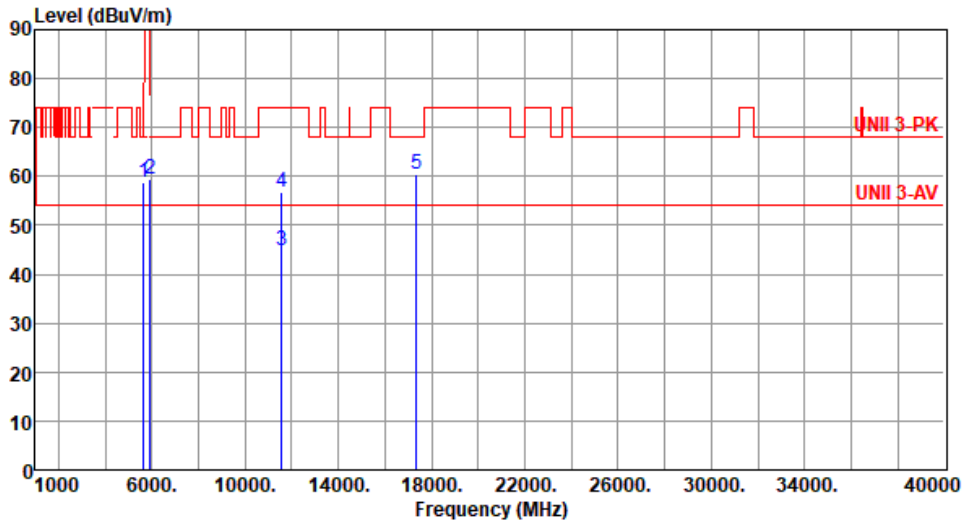


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	58.39	68.20	-9.81	53.58	4.81	Peak	160	107
2	5925.00	59.28	68.20	-8.92	53.67	5.61	Peak	160	107
3	11570.00	46.13	54.00	-7.87	31.88	14.25	Average	302	310
4	11570.00	58.07	74.00	-15.93	43.82	14.25	Peak	302	310
5	17355.00	61.69	68.20	-6.51	43.78	17.91	Peak	100	303

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5785
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

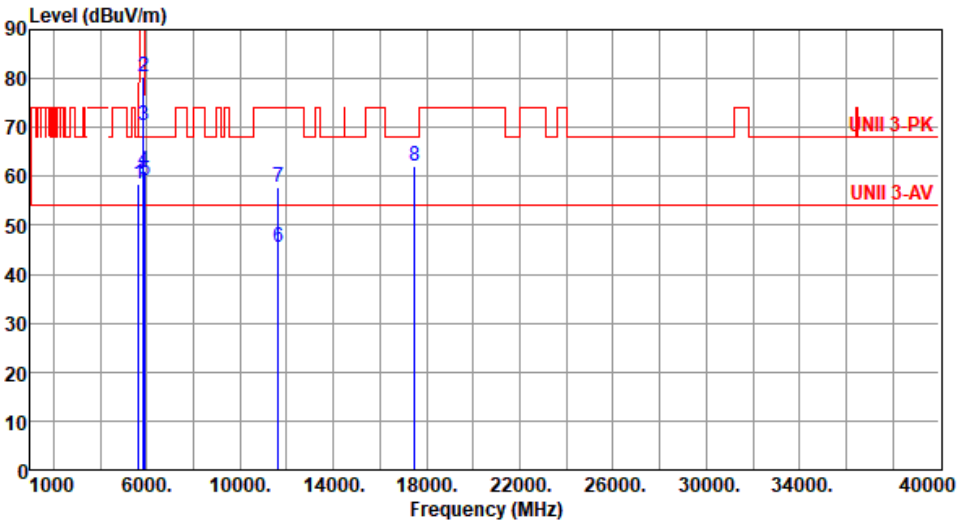


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	58.75	68.20	-9.45	53.94	4.81	Peak	169	305
2	5925.00	59.59	68.20	-8.61	53.98	5.61	Peak	169	305
3	11570.00	44.92	54.00	-9.08	30.67	14.25	Average	100	62
4	11570.00	56.74	74.00	-17.26	42.49	14.25	Peak	100	62
5	17355.00	60.56	68.20	-7.64	42.65	17.91	Peak	100	63

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5825
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

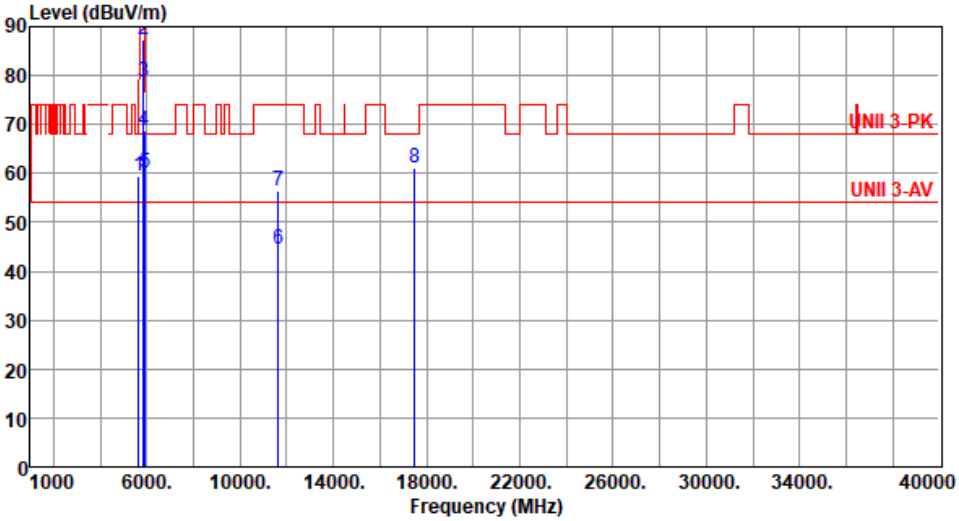


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	58.58	68.20	-9.62	53.77	4.81	Peak	164	102
2	5850.00	80.23	122.20	-41.97	74.58	5.65	Peak	164	102
3	5855.00	70.24	110.80	-40.56	64.59	5.65	Peak	164	102
4	5875.00	61.24	105.20	-43.96	55.58	5.66	Peak	164	102
5	5925.00	59.23	68.20	-8.97	53.62	5.61	Peak	164	102
6	11650.00	45.65	54.00	-8.35	31.75	13.90	Average	343	302
7	11650.00	57.70	74.00	-16.30	43.80	13.90	Peak	343	302
8	17475.00	62.19	68.20	-6.01	43.64	18.55	Peak	100	312

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5825
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65



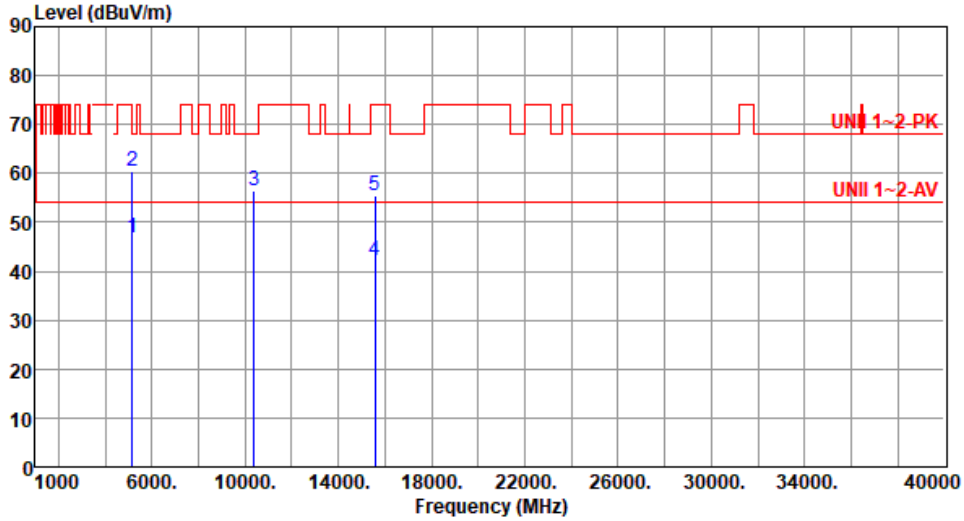
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	59.40	68.20	-8.80	54.59	4.81	Peak	182	313
2	5850.00	87.50	122.20	-34.70	81.85	5.65	Peak	182	313
3	5855.00	78.55	110.80	-32.25	72.90	5.65	Peak	182	313
4	5875.00	68.85	105.20	-36.35	63.19	5.66	Peak	182	313
5	5925.00	60.27	68.20	-7.93	54.66	5.61	Peak	182	313
6	11650.00	44.52	54.00	-9.48	30.62	13.90	Average	100	54
7	11650.00	56.56	74.00	-17.44	42.66	13.90	Peak	100	54
8	17475.00	61.18	68.20	-7.02	42.63	18.55	Peak	100	49

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

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

Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5190
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

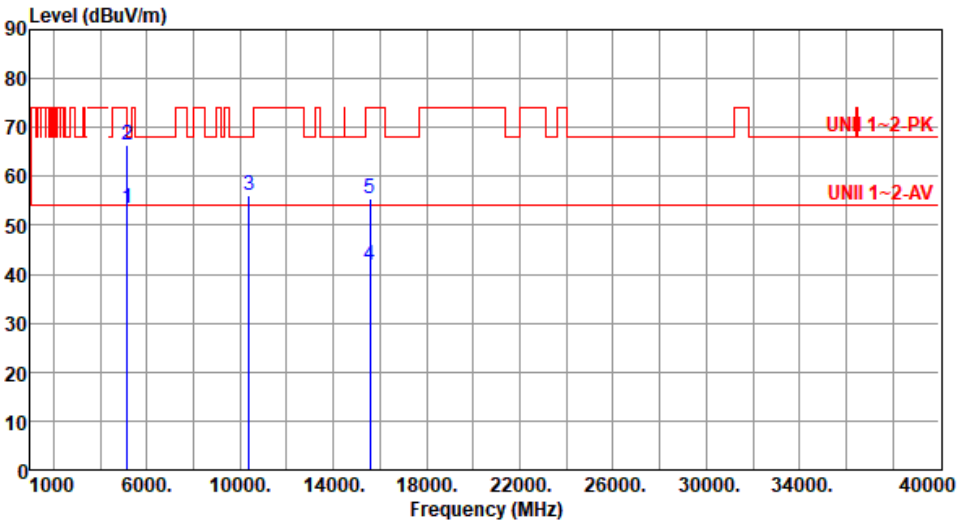


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	46.87	54.00	-7.13	41.86	5.01	Average	185	267
2	5150.00	60.41	74.00	-13.59	55.40	5.01	Peak	185	267
3	10380.00	56.32	68.20	-11.88	42.05	14.27	Peak	100	55
4	15570.00	42.04	54.00	-11.96	28.56	13.48	Average	100	90
5	15570.00	55.55	74.00	-18.45	42.07	13.48	Peak	100	90

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

Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5190
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

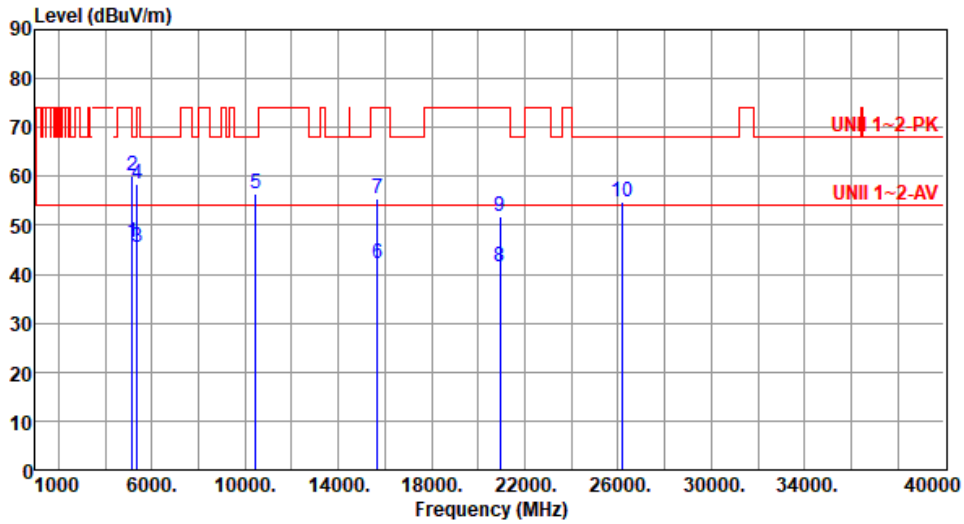


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	53.55	54.00	-0.45	48.54	5.01	Average	129	259
2	5150.00	66.57	74.00	-7.43	61.56	5.01	Peak	129	259
3	10380.00	56.28	68.20	-11.92	42.01	14.27	Peak	100	20
4	15570.00	41.91	54.00	-12.09	28.43	13.48	Average	100	70
5	15570.00	55.47	74.00	-18.53	41.99	13.48	Peak	100	70

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

Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5230
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

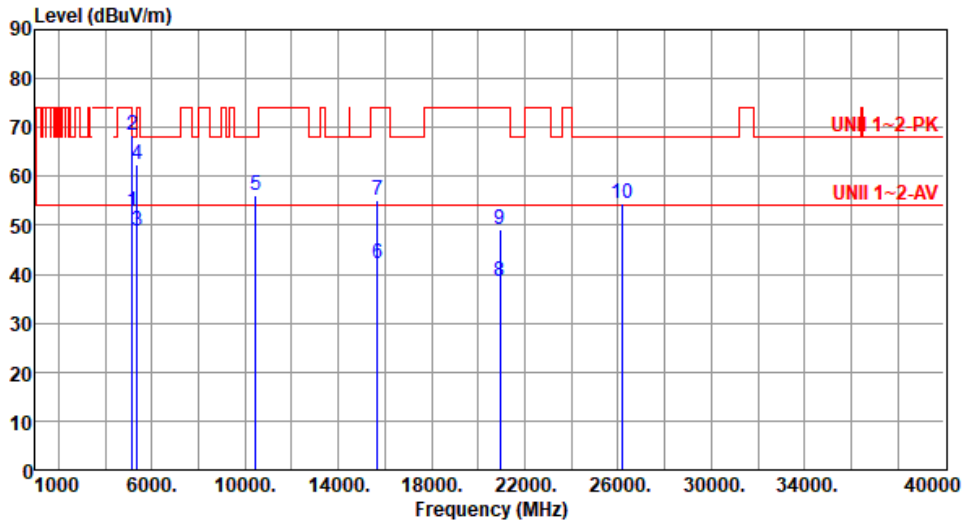


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	46.41	54.00	-7.59	41.40	5.01	Average	185	260
2	5150.00	60.27	74.00	-13.73	55.26	5.01	Peak	185	260
3	5350.00	45.58	54.00	-8.42	41.16	4.42	Average	185	260
4	5350.00	58.44	74.00	-15.56	54.02	4.42	Peak	185	260
5	10460.00	56.58	68.20	-11.62	42.15	14.43	Peak	100	60
6	15690.00	42.16	54.00	-11.84	28.76	13.40	Average	100	222
7	15690.00	55.55	74.00	-18.45	42.15	13.40	Peak	100	222
8	20920.00	41.57	54.00	-12.43	36.16	5.41	Average	100	262
9	20920.00	51.68	74.00	-22.32	46.27	5.41	Peak	100	262
10	26150.00	54.89	68.20	-13.31	43.76	11.13	Peak	100	260

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

Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5230
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

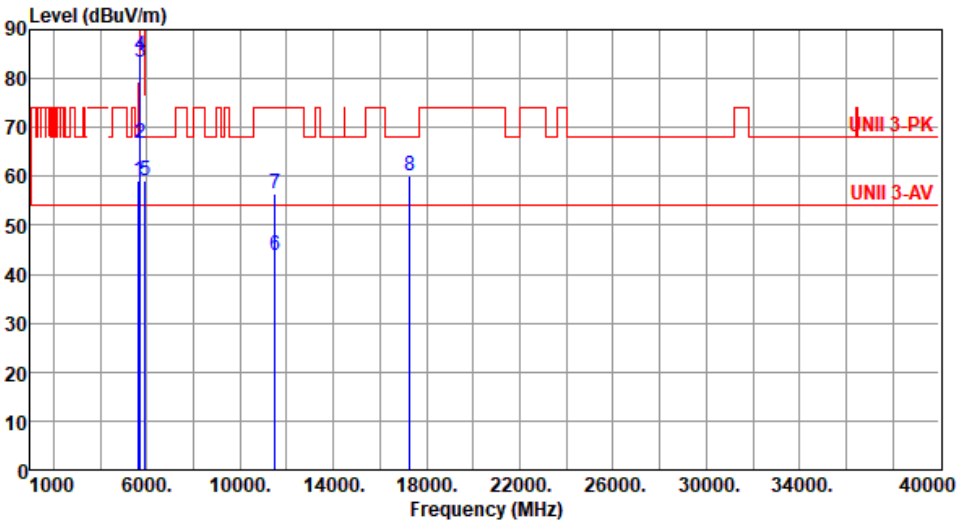


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	52.90	54.00	-1.10	47.89	5.01	Average	161	258
2	5150.00	68.51	74.00	-5.49	63.50	5.01	Peak	161	258
3	5350.00	48.67	54.00	-5.33	44.25	4.42	Average	161	258
4	5350.00	62.30	74.00	-11.70	57.88	4.42	Peak	161	258
5	10460.00	56.02	68.20	-12.18	41.59	14.43	Peak	100	20
6	15690.00	42.04	54.00	-11.96	28.64	13.40	Average	100	70
7	15690.00	55.19	74.00	-18.81	41.79	13.40	Peak	100	70
8	20920.00	38.64	54.00	-15.36	33.23	5.41	Average	100	265
9	20920.00	49.01	74.00	-24.99	43.60	5.41	Peak	100	265
10	26150.00	54.38	68.20	-13.82	43.25	11.13	Peak	100	50

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

Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5755
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

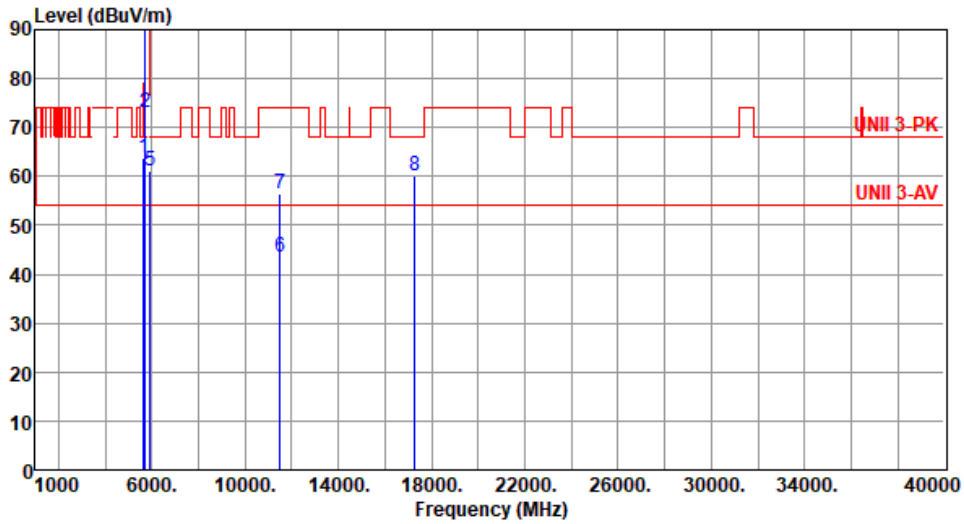


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	59.06	68.20	-9.14	54.25	4.81	Peak	163	102
2	5700.00	66.61	105.20	-38.59	61.59	5.02	Peak	163	102
3	5720.00	83.40	110.80	-27.40	78.26	5.14	Peak	163	102
4	5725.00	84.73	122.20	-37.47	79.56	5.17	Peak	163	102
5	5925.00	59.16	68.20	-9.04	53.55	5.61	Peak	163	102
6	11510.00	43.85	54.00	-10.15	29.45	14.40	Average	100	60
7	11510.00	56.59	74.00	-17.41	42.19	14.40	Peak	100	60
8	17265.00	60.26	68.20	-7.94	42.76	17.50	Peak	100	80

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

Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5755
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

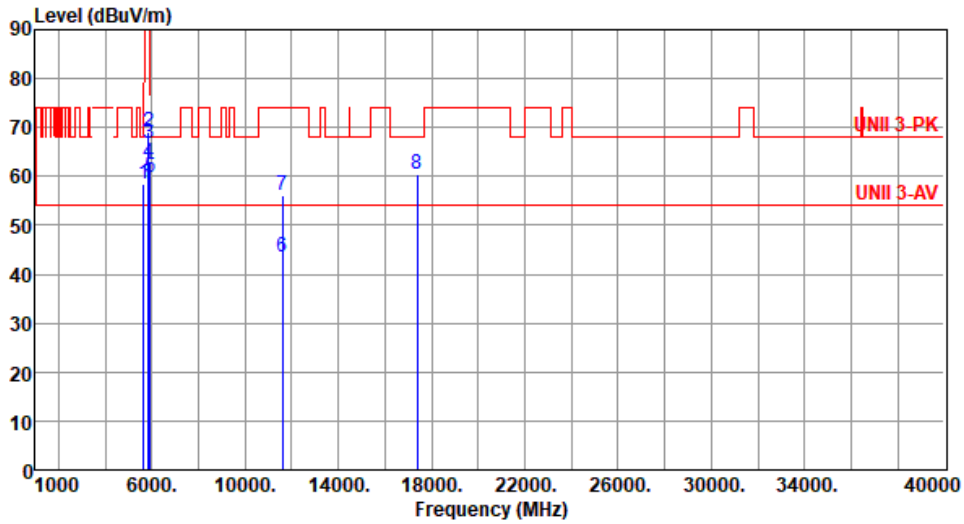


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	63.75	68.20	-4.45	58.94	4.81	Peak	172	302
2	5700.00	73.02	105.20	-32.18	68.00	5.02	Peak	172	302
3	5720.00	90.79	110.80	-20.01	85.65	5.14	Peak	172	302
4	5725.00	91.50	122.20	-30.70	86.33	5.17	Peak	172	302
5	5925.00	61.08	68.20	-7.12	55.47	5.61	Peak	172	302
6	11510.00	43.62	54.00	-10.38	29.22	14.40	Average	100	40
7	11510.00	56.46	74.00	-17.54	42.06	14.40	Peak	100	40
8	17265.00	59.96	68.20	-8.24	42.46	17.50	Peak	100	100

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

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

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

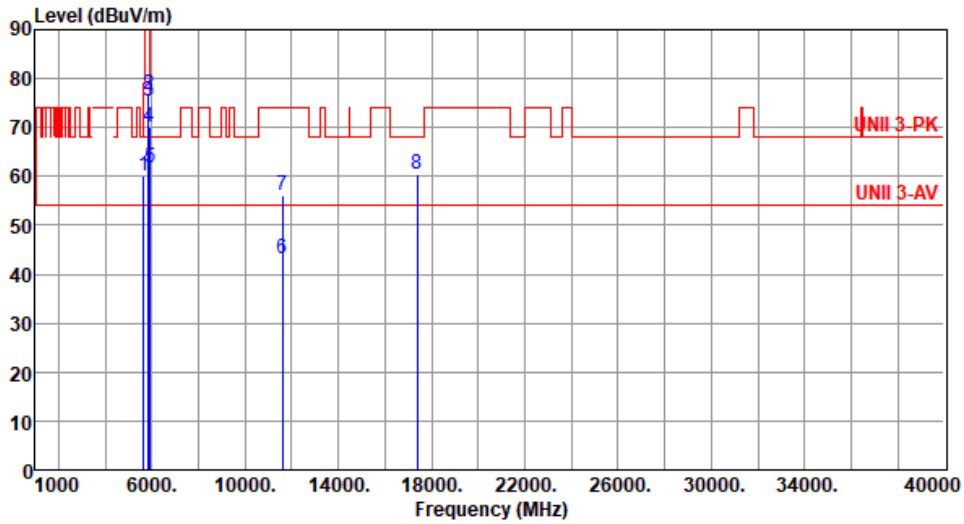


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	58.46	68.20	-9.74	53.65	4.81	Peak	159	108
2	5850.00	69.13	122.20	-53.07	63.48	5.65	Peak	159	108
3	5855.00	66.87	110.80	-43.93	61.22	5.65	Peak	159	108
4	5875.00	62.90	105.20	-42.30	57.24	5.66	Peak	159	108
5	5925.00	59.67	68.20	-8.53	54.06	5.61	Peak	159	108
6	11590.00	43.49	54.00	-10.51	29.30	14.19	Average	100	40
7	11590.00	56.27	74.00	-17.73	42.08	14.19	Peak	100	40
8	17385.00	60.58	68.20	-7.62	42.45	18.13	Peak	100	120

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

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

Test By :Akun Chung Temperature(℃):22 Humidity(%):65



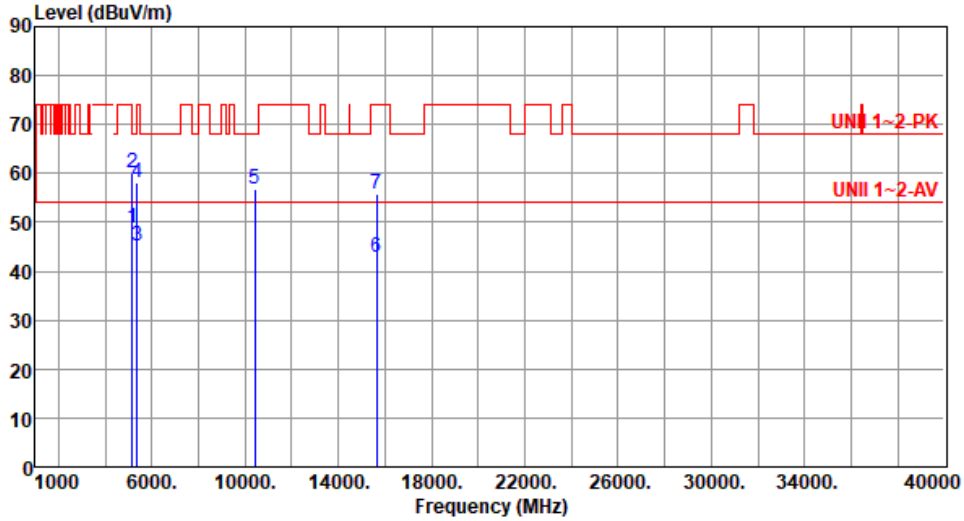
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	59.99	68.20	-8.21	55.18	4.81	Peak	163	315
2	5850.00	76.63	122.20	-45.57	70.98	5.65	Peak	163	315
3	5855.00	75.34	110.80	-35.46	69.69	5.65	Peak	163	315
4	5875.00	70.00	105.20	-35.20	64.34	5.66	Peak	163	315
5	5925.00	61.68	68.20	-6.52	56.07	5.61	Peak	163	315
6	11590.00	43.22	54.00	-10.78	29.03	14.19	Average	100	60
7	11590.00	56.09	74.00	-17.91	41.90	14.19	Peak	100	60
8	17385.00	60.36	68.20	-7.84	42.23	18.13	Peak	100	90

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

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

Modulation	ax HE80-OFDMA	Test Freq. (MHz)	5210
Polarization	Horizontal		

Test By :Roger Lu Temperature(℃):22 Humidity(%):65

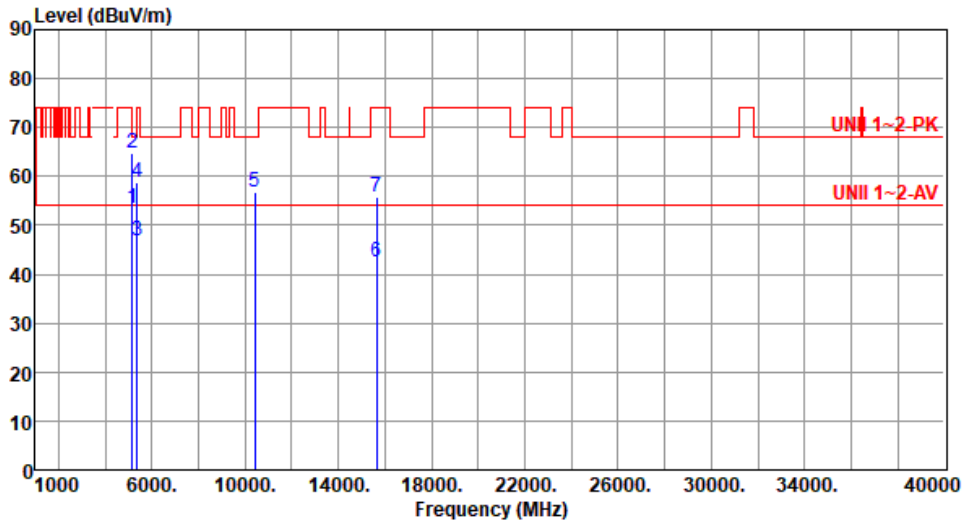


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	48.80	54.00	-5.20	43.79	5.01	Average	182	262
2	5150.00	60.07	74.00	-13.93	55.06	5.01	Peak	182	262
3	5350.00	45.27	54.00	-8.73	40.85	4.42	Average	182	262
4	5350.00	57.98	74.00	-16.02	53.56	4.42	Peak	182	262
5	10420.00	56.92	68.20	-11.28	42.56	14.36	Peak	100	30
6	15630.00	42.78	54.00	-11.22	29.43	13.35	Average	100	60
7	15630.00	55.83	74.00	-18.17	42.48	13.35	Peak	100	60

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

Modulation	ax HE80-OFDMA	Test Freq. (MHz)	5210
Polarization	Vertical		

Test By :Roger Lu Temperature(℃):22 Humidity(%):65

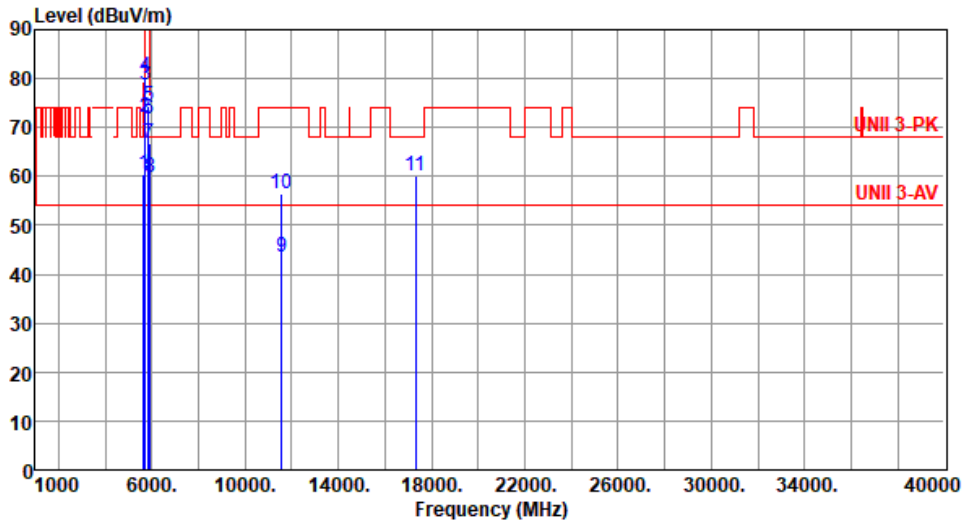


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	53.57	54.00	-0.43	48.56	5.01	Average	131	257
2	5150.00	64.68	74.00	-9.32	59.67	5.01	Peak	131	257
3	5350.00	46.69	54.00	-7.31	42.27	4.42	Average	131	257
4	5350.00	58.94	74.00	-15.06	54.52	4.42	Peak	131	257
5	10420.00	56.67	68.20	-11.53	42.31	14.36	Peak	100	90
6	15630.00	42.56	54.00	-11.44	29.21	13.35	Average	100	30
7	15630.00	55.66	74.00	-18.34	42.31	13.35	Peak	100	30

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

Modulation	ax HE80-OFDMA	Test Freq. (MHz)	5775
Polarization	Horizontal		

Test By :Roger Lu Temperature(℃):22 Humidity(%):65

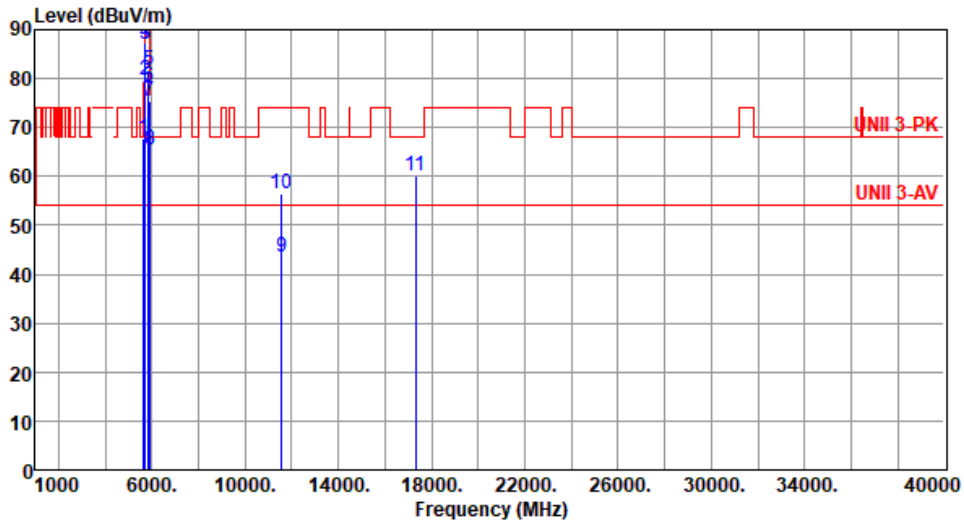


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	60.39	68.20	-7.81	55.58	4.81	Peak	188	105
2	5700.00	71.97	105.20	-33.23	66.95	5.02	Peak	188	105
3	5720.00	78.68	110.80	-32.12	73.54	5.14	Peak	188	105
4	5725.00	80.32	122.20	-41.88	75.15	5.17	Peak	188	105
5	5850.00	74.24	122.20	-47.96	68.59	5.65	Peak	188	105
6	5855.00	71.82	110.80	-38.98	66.17	5.65	Peak	188	105
7	5875.00	66.90	105.20	-38.30	61.24	5.66	Peak	188	105
8	5925.00	59.83	68.20	-8.37	54.22	5.61	Peak	188	105
9	11550.00	43.55	54.00	-10.45	29.25	14.30	Average	100	40
10	11550.00	56.56	74.00	-17.44	42.26	14.30	Peak	100	40
11	17325.00	60.26	68.20	-7.94	42.55	17.71	Peak	100	90

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

Modulation	ax HE80-OFDMA	Test Freq. (MHz)	5775
Polarization	Vertical		

Test By :Roger Lu Temperature(℃):22 Humidity(%):65



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	67.76	68.20	-0.44	62.95	4.81	Peak	168	316
2	5700.00	79.80	105.20	-25.40	74.78	5.02	Peak	168	316
3	5720.00	87.09	110.80	-23.71	81.95	5.14	Peak	168	316
4	5725.00	87.43	122.20	-34.77	82.26	5.17	Peak	168	316
5	5850.00	81.59	122.20	-40.61	75.94	5.65	Peak	168	316
6	5855.00	78.52	110.80	-32.28	72.87	5.65	Peak	168	316
7	5875.00	75.47	105.20	-29.73	69.81	5.66	Peak	168	316
8	5925.00	65.43	68.20	-2.77	59.82	5.61	Peak	168	316
9	11550.00	43.42	54.00	-10.58	29.12	14.30	Average	100	30
10	11550.00	56.48	74.00	-17.52	42.18	14.30	Peak	100	30
11	17325.00	60.14	68.20	-8.06	42.43	17.71	Peak	100	100

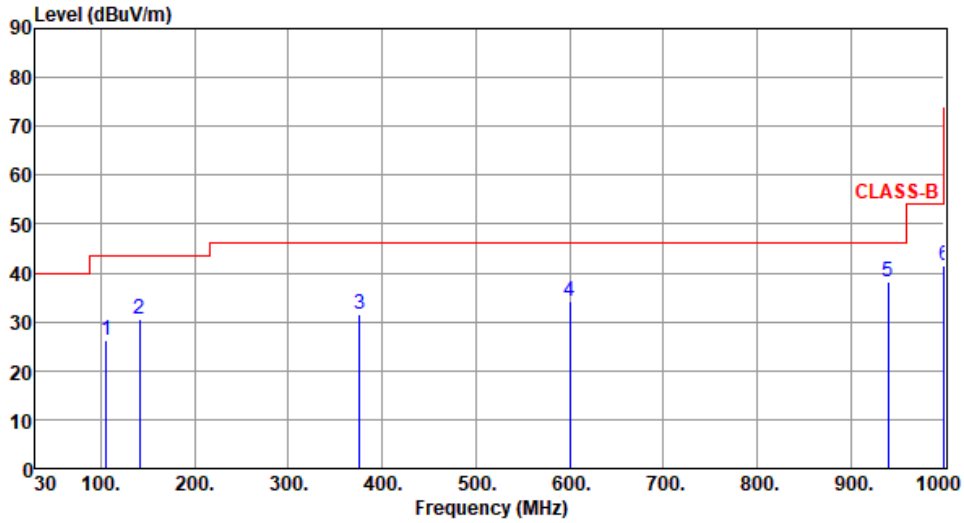
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Beamforming mode

3.5.9 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	ax HE20-OFDMA	**Test Freq. (MHz)**	5200
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

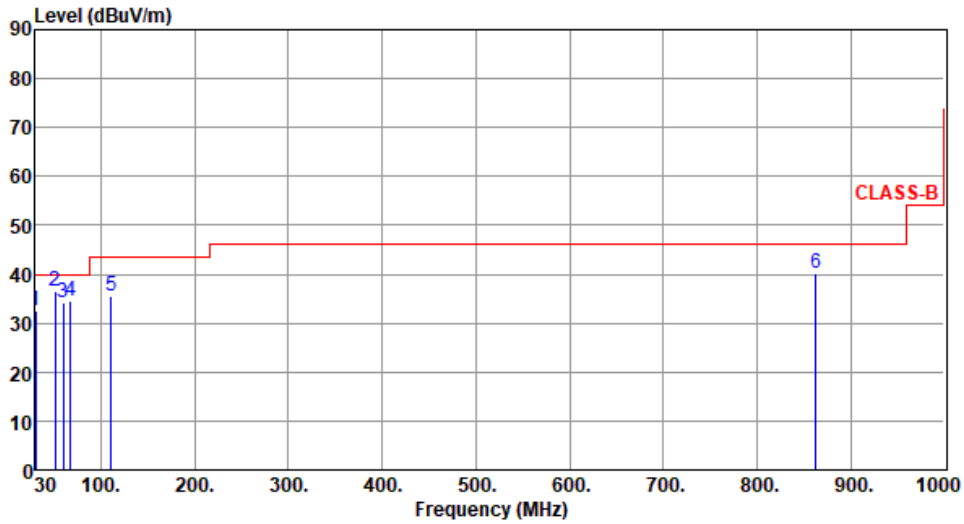


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	105.95	26.12	43.50	-17.38	38.36	-12.24	Peak	---	---
2	141.26	30.66	43.50	-12.84	39.87	-9.21	Peak	---	---
3	376.15	31.54	46.00	-14.46	37.85	-6.31	Peak	---	---
4	600.41	34.29	46.00	-11.71	35.30	-1.01	Peak	---	---
5	940.15	38.12	46.00	-7.88	33.86	4.26	Peak	---	---
6	999.58	41.66	54.00	-12.34	36.99	4.67	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5200
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

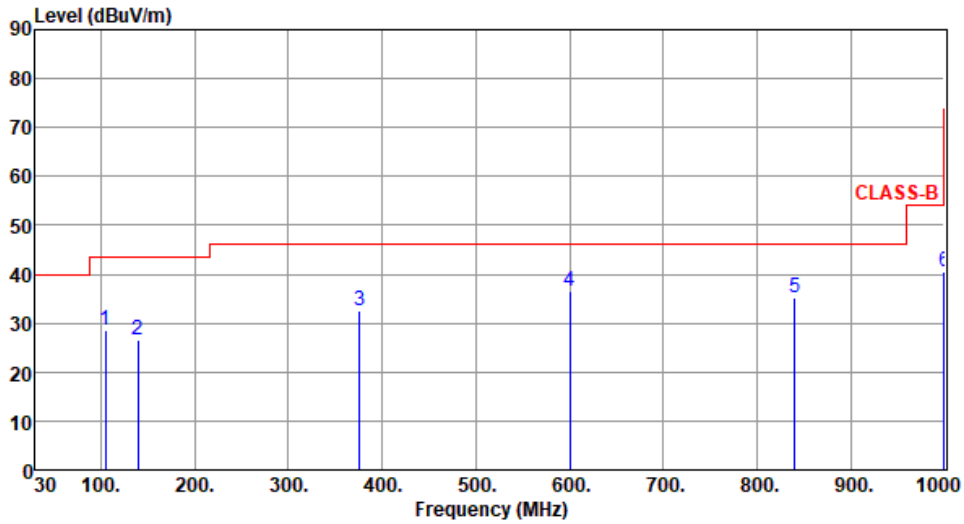


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	30.58	32.64	40.00	-7.36	42.58	-9.94	Peak	---	---
2	51.38	36.48	40.00	-3.52	45.26	-8.78	Peak	---	---
3	59.58	34.15	40.00	-5.85	43.39	-9.24	Peak	---	---
4	67.59	34.68	40.00	-5.32	44.89	-10.21	Peak	---	---
5	110.50	35.68	43.50	-7.82	47.36	-11.68	Peak	---	---
6	862.42	40.06	46.00	-5.94	37.18	2.88	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5825
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65

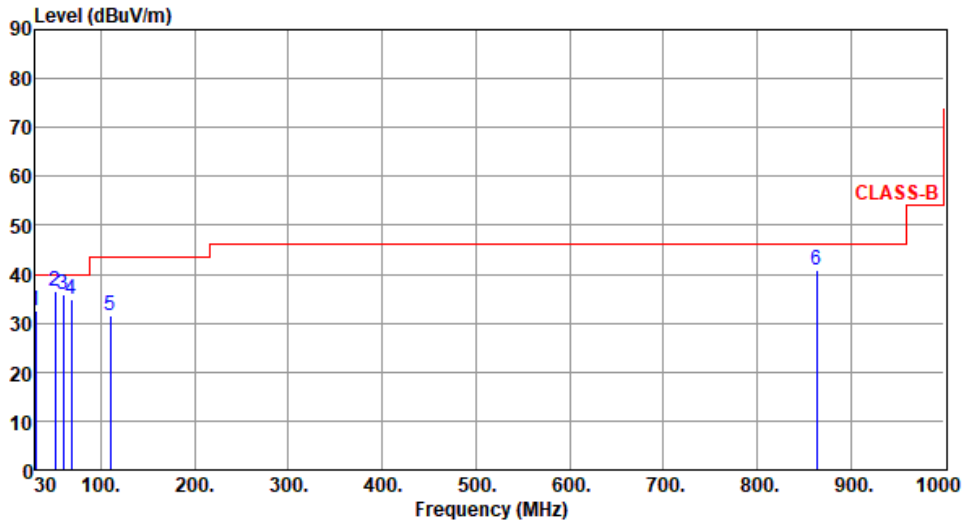


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	104.86	28.45	43.50	-15.05	40.83	-12.38	Peak	---	---
2	139.86	26.52	43.50	-16.98	35.76	-9.24	Peak	---	---
3	376.16	32.69	46.00	-13.31	39.00	-6.31	Peak	---	---
4	600.58	36.67	46.00	-9.33	37.68	-1.01	Peak	---	---
5	840.15	35.15	46.00	-10.85	32.66	2.49	Peak	---	---
6	999.66	40.64	54.00	-13.36	35.97	4.67	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5825
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):22 Humidity(%):65



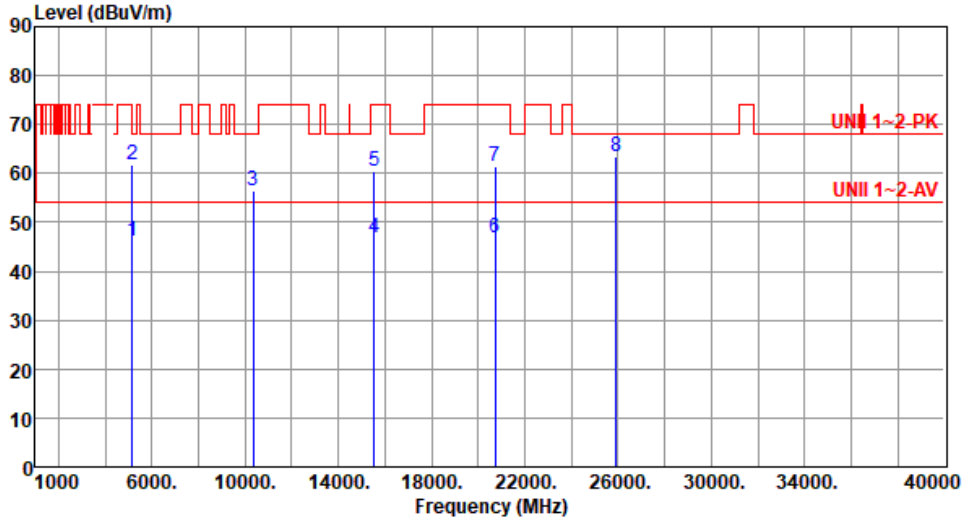
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	30.58	32.67	40.00	-7.33	42.61	-9.94	Peak	---	---
2	51.42	36.43	40.00	-3.57	45.21	-8.78	Peak	---	---
3	59.42	35.95	40.00	-4.05	45.23	-9.28	Peak	---	---
4	68.16	34.85	40.00	-5.15	45.06	-10.21	Peak	---	---
5	110.26	31.68	43.50	-11.82	43.38	-11.70	Peak	---	---
6	863.26	40.84	46.00	-5.16	37.96	2.88	Peak	---	---

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV) + Factor* (dB/m)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5180
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

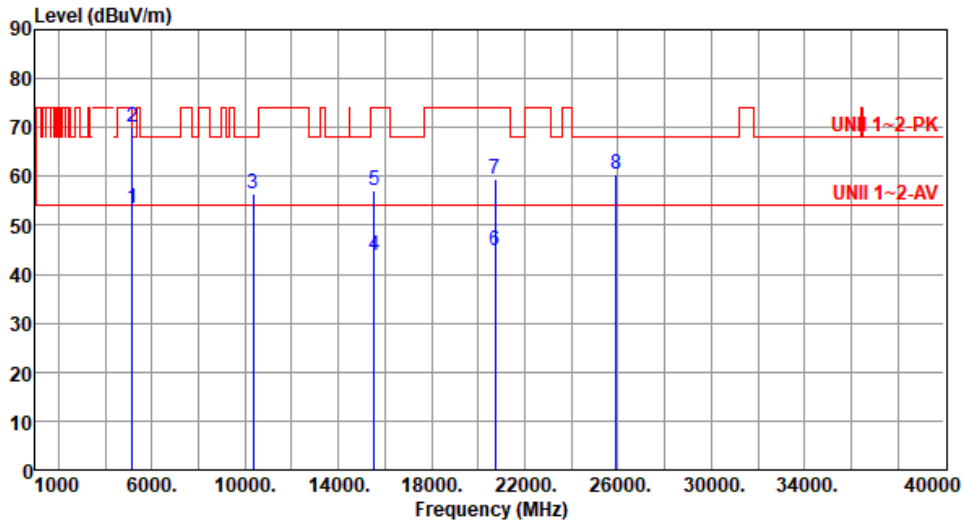


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	46.28	54.00	-7.72	41.27	5.01	Average	100	275
2	5150.00	61.87	74.00	-12.13	56.86	5.01	Peak	100	275
3	10360.00	56.48	68.20	-11.72	42.27	14.21	Peak	100	270
4	15540.00	46.79	54.00	-7.21	33.15	13.64	Average	205	236
5	15540.00	60.40	74.00	-13.60	46.76	13.64	Peak	205	236
6	20720.00	46.73	54.00	-7.27	41.56	5.17	Average	211	262
7	20720.00	61.52	74.00	-12.48	56.35	5.17	Peak	211	262
8	25900.00	63.41	68.20	-4.79	52.67	10.74	Peak	132	268

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5180
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

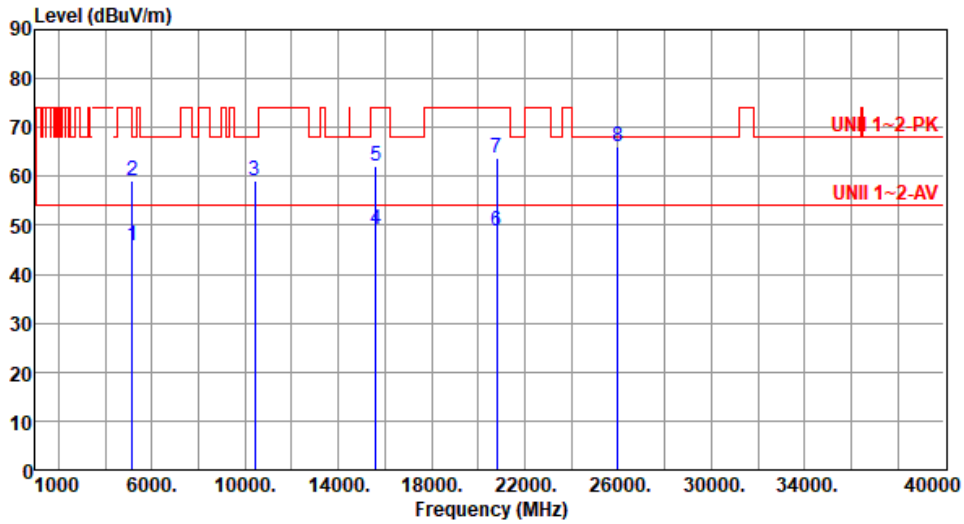


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	53.58	54.00	-0.42	48.57	5.01	Average	203	256
2	5150.00	69.92	74.00	-4.08	64.91	5.01	Peak	203	256
3	10360.00	56.37	68.20	-11.83	42.16	14.21	Peak	100	60
4	15540.00	43.70	54.00	-10.30	30.06	13.64	Average	100	300
5	15540.00	57.19	74.00	-16.81	43.55	13.64	Peak	100	300
6	20720.00	44.72	54.00	-9.28	39.55	5.17	Average	100	285
7	20720.00	59.32	74.00	-14.68	54.15	5.17	Peak	100	285
8	25900.00	60.60	68.20	-7.60	49.86	10.74	Peak	100	190

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5200
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

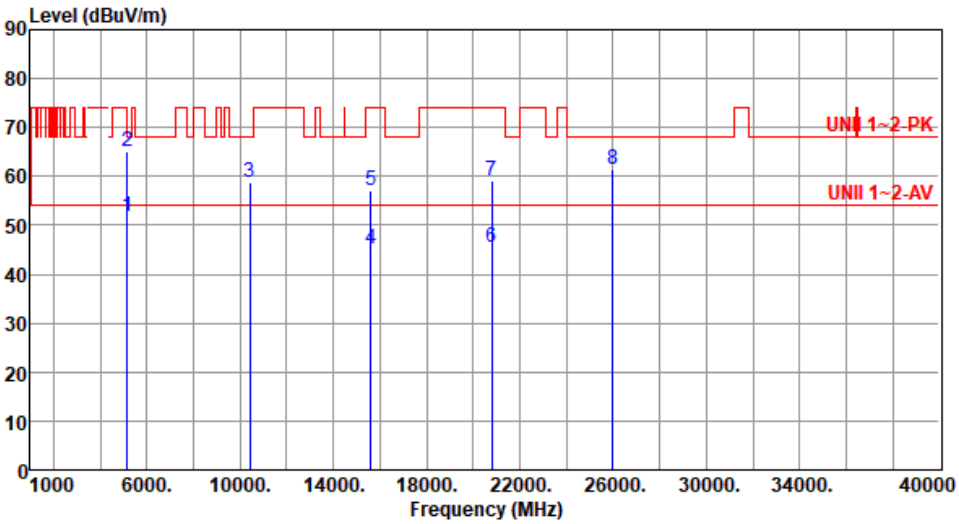


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	45.71	54.00	-8.29	40.70	5.01	Average	100	275
2	5150.00	59.18	74.00	-14.82	54.17	5.01	Peak	100	275
3	10400.00	58.99	68.20	-9.21	44.66	14.33	Peak	125	277
4	15600.00	48.99	54.00	-5.01	35.66	13.33	Average	202	233
5	15600.00	62.25	74.00	-11.75	48.92	13.33	Peak	202	233
6	20800.00	48.98	54.00	-5.02	43.74	5.24	Average	210	259
7	20800.00	63.69	74.00	-10.31	58.45	5.24	Peak	210	259
8	26000.00	65.93	68.20	-2.27	55.02	10.91	Peak	133	264

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5200
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

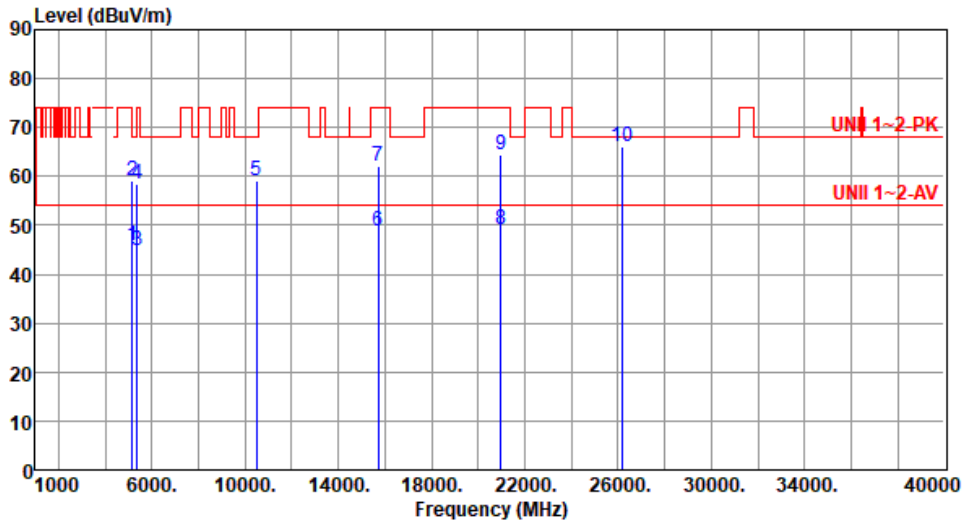


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	51.68	54.00	-2.32	46.67	5.01	Average	161	246
2	5150.00	65.01	74.00	-8.99	60.00	5.01	Peak	161	246
3	10400.00	58.66	68.20	-9.54	44.33	14.33	Peak	100	302
4	15600.00	45.21	54.00	-8.79	31.88	13.33	Average	115	307
5	15600.00	57.13	74.00	-16.87	43.80	13.33	Peak	115	307
6	20800.00	45.39	54.00	-8.61	40.15	5.24	Average	185	288
7	20800.00	59.19	74.00	-14.81	53.95	5.24	Peak	185	288
8	26000.00	61.43	68.20	-6.77	50.52	10.91	Peak	122	192

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5240
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

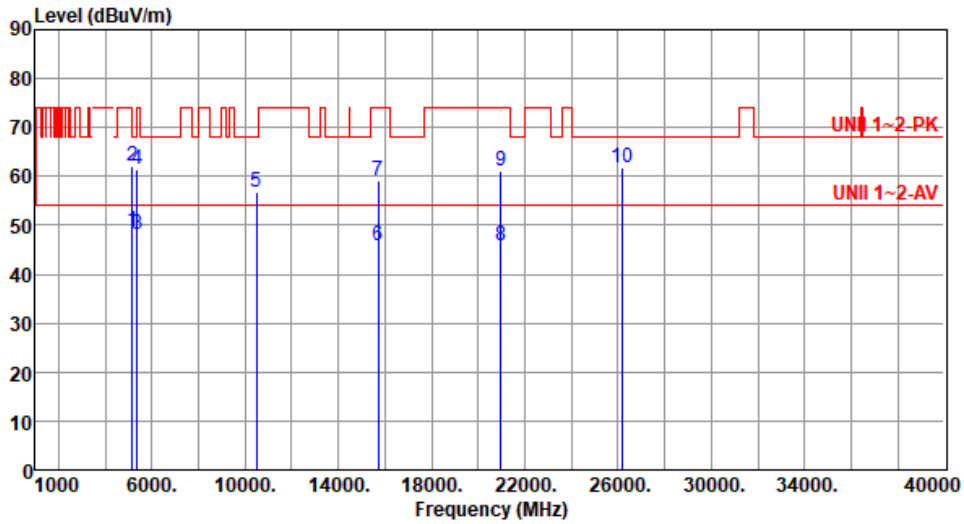


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	45.88	54.00	-8.12	40.87	5.01	Average	100	273
2	5150.00	59.18	74.00	-14.82	54.17	5.01	Peak	100	273
3	5350.00	44.98	54.00	-9.02	40.56	4.42	Average	100	273
4	5350.00	58.30	74.00	-15.70	53.88	4.42	Peak	100	273
5	10480.00	59.02	68.20	-9.18	44.56	14.46	Peak	124	171
6	15720.00	48.95	54.00	-5.05	35.53	13.42	Average	199	229
7	15720.00	62.12	74.00	-11.88	48.70	13.42	Peak	199	299
8	20960.00	49.03	54.00	-4.97	43.55	5.48	Average	215	262
9	20960.00	64.44	74.00	-9.56	58.96	5.48	Peak	215	262
10	26200.00	65.98	68.20	-2.22	54.78	11.20	Peak	132	261

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5240
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

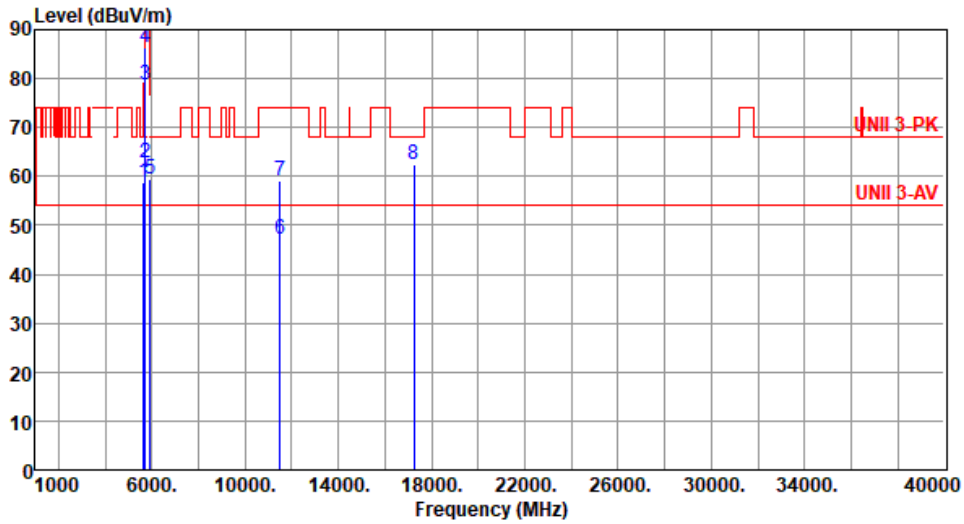


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	48.68	54.00	-5.32	43.67	5.01	Average	165	250
2	5150.00	62.00	74.00	-12.00	56.99	5.01	Peak	165	250
3	5350.00	48.19	54.00	-5.81	43.77	4.42	Average	165	250
4	5350.00	61.40	74.00	-12.60	56.98	4.42	Peak	165	250
5	10480.00	56.69	68.20	-11.51	42.23	14.46	Peak	100	295
6	15720.00	45.69	54.00	-8.31	32.27	13.42	Average	116	305
7	15720.00	58.98	74.00	-15.02	45.56	13.42	Peak	116	305
8	20960.00	45.76	54.00	-8.24	40.28	5.48	Average	188	289
9	20960.00	61.07	74.00	-12.93	55.59	5.48	Peak	188	289
10	26200.00	61.74	68.20	-6.46	50.54	11.20	Peak	125	193

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5745
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

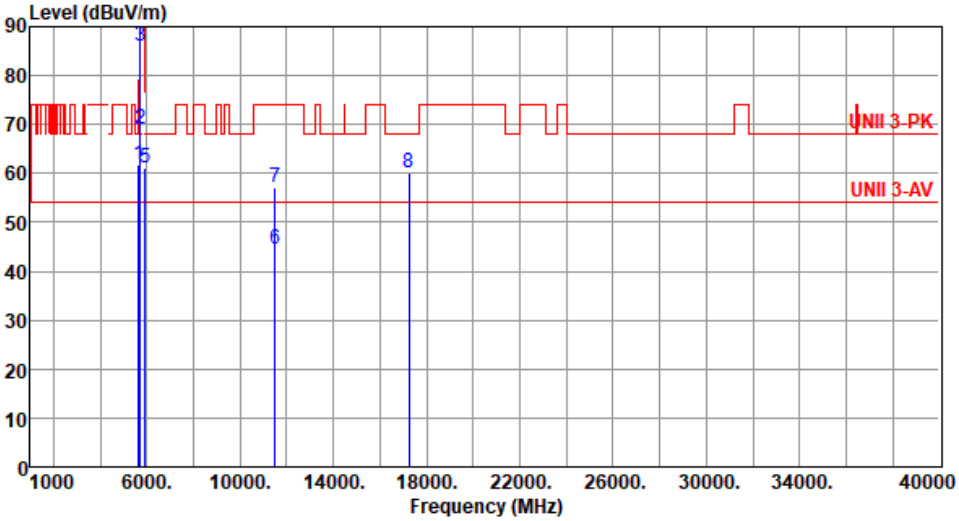


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	58.83	68.20	-9.37	54.02	4.81	Peak	265	259
2	5700.00	62.88	105.20	-42.32	57.86	5.02	Peak	265	259
3	5720.00	78.68	110.80	-32.12	73.54	5.14	Peak	265	259
4	5725.00	86.43	122.20	-35.77	81.26	5.17	Peak	265	259
5	5925.00	59.48	68.20	-8.72	53.87	5.61	Peak	265	259
6	11490.00	47.22	54.00	-6.78	32.83	14.39	Average	323	307
7	11490.00	59.24	74.00	-14.76	44.85	14.39	Peak	323	307
8	17235.00	62.35	68.20	-5.85	44.89	17.46	Peak	100	301

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5745
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

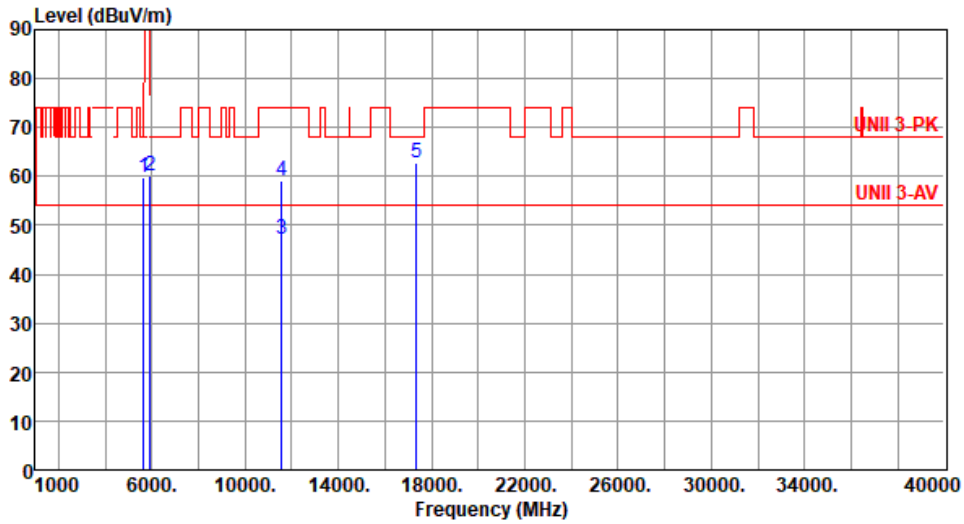


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	61.76	68.20	-6.44	56.95	4.81	Peak	151	293
2	5700.00	68.98	105.20	-36.22	63.96	5.02	Peak	151	293
3	5720.00	86.10	110.80	-24.70	80.96	5.14	Peak	151	293
4	5725.00	93.26	122.20	-28.94	88.09	5.17	Peak	151	293
5	5925.00	61.27	68.20	-6.93	55.66	5.61	Peak	151	293
6	11490.00	44.65	54.00	-9.35	30.26	14.39	Average	100	29
7	11490.00	57.06	74.00	-16.94	42.67	14.39	Peak	100	29
8	17235.00	60.11	68.20	-8.09	42.65	17.46	Peak	100	35

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5785
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

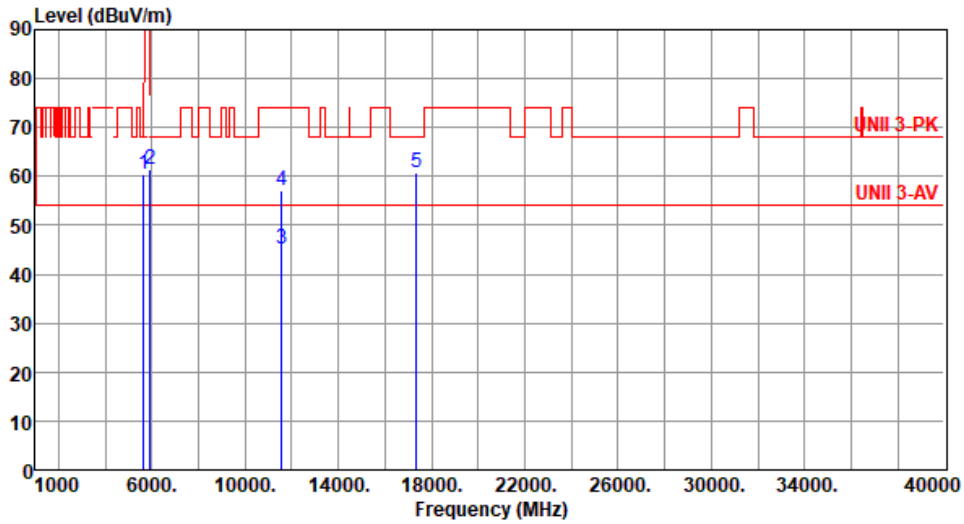


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	59.75	68.20	-8.45	54.94	4.81	Peak	265	255
2	5925.00	60.18	68.20	-8.02	54.57	5.61	Peak	265	255
3	11570.00	47.20	54.00	-6.80	32.95	14.25	Average	318	309
4	11570.00	59.12	74.00	-14.88	44.87	14.25	Peak	318	309
5	17355.00	62.86	68.20	-5.34	44.95	17.91	Peak	100	315

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5785
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

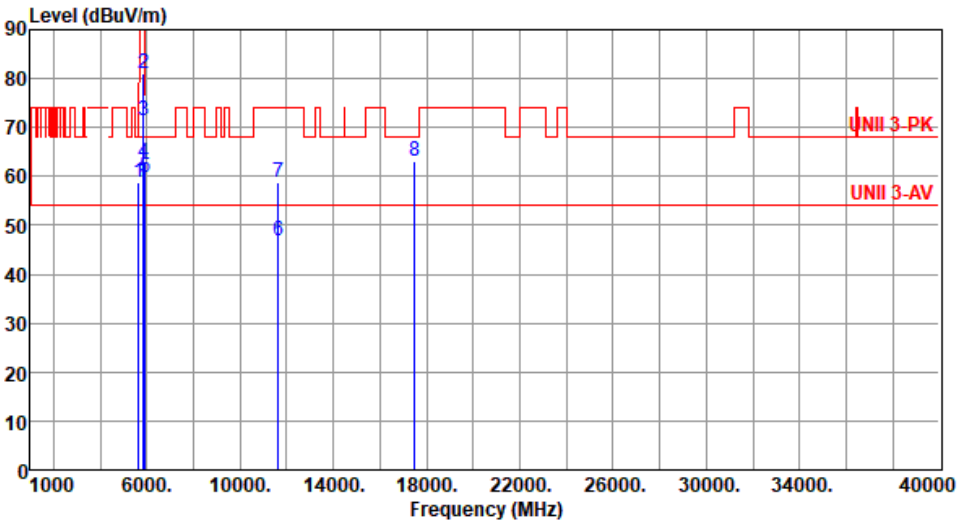


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	60.57	68.20	-7.63	55.76	4.81	Peak	159	285
2	5925.00	61.43	68.20	-6.77	55.82	5.61	Peak	159	285
3	11570.00	45.13	54.00	-8.87	30.88	14.25	Average	100	26
4	11570.00	57.12	74.00	-16.88	42.87	14.25	Peak	100	26
5	17355.00	60.79	68.20	-7.41	42.88	17.91	Peak	100	30

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5825
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

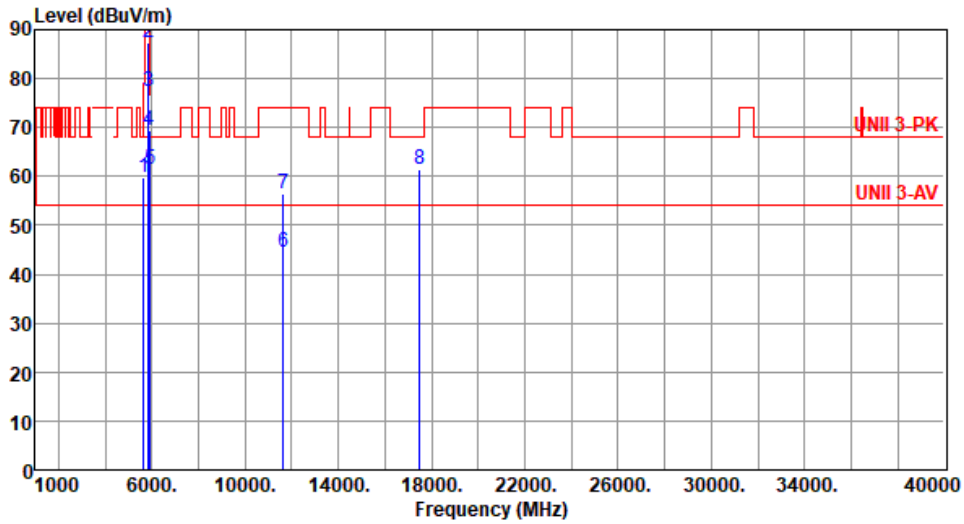


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	58.78	68.20	-9.42	53.97	4.81	Peak	260	258
2	5850.00	81.13	122.20	-41.07	75.48	5.65	Peak	260	258
3	5855.00	71.48	110.80	-39.32	65.83	5.65	Peak	260	258
4	5875.00	62.60	105.20	-42.60	56.94	5.66	Peak	260	258
5	5925.00	59.76	68.20	-8.44	54.15	5.61	Peak	260	258
6	11650.00	46.66	54.00	-7.34	32.76	13.90	Average	310	305
7	11650.00	58.75	74.00	-15.25	44.85	13.90	Peak	310	305
8	17475.00	63.20	68.20	-5.00	44.65	18.55	Peak	100	309

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

Modulation	ax HE20-OFDMA	Test Freq. (MHz)	5825
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66



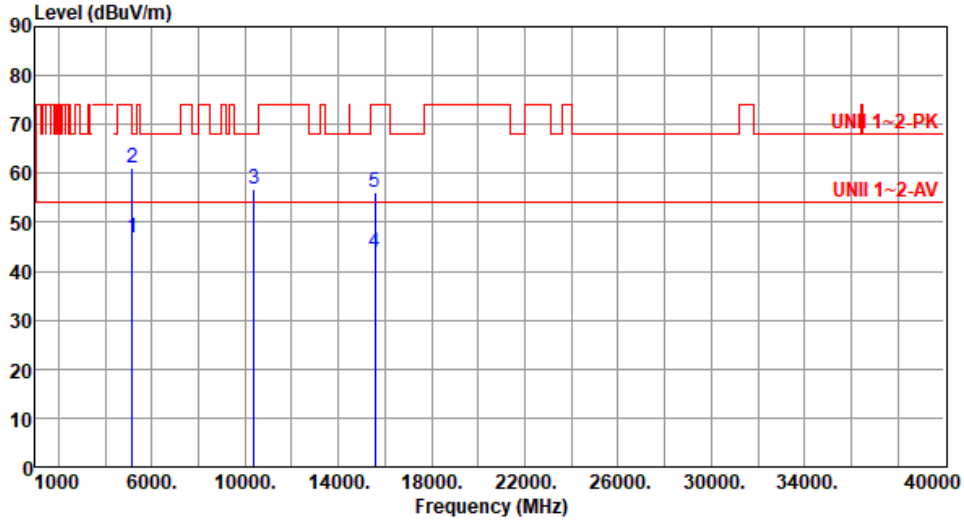
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	59.68	68.20	-8.52	54.87	4.81	Peak	188	300
2	5850.00	87.28	122.20	-34.92	81.63	5.65	Peak	188	300
3	5855.00	77.31	110.80	-33.49	71.66	5.65	Peak	188	300
4	5875.00	69.28	105.20	-35.92	63.62	5.66	Peak	188	300
5	5925.00	61.60	68.20	-6.60	55.99	5.61	Peak	188	300
6	11650.00	44.44	54.00	-9.56	30.54	13.90	Average	100	28
7	11650.00	56.58	74.00	-17.42	42.68	13.90	Peak	100	28
8	17475.00	61.39	68.20	-6.81	42.84	18.55	Peak	100	27

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

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

Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5190
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

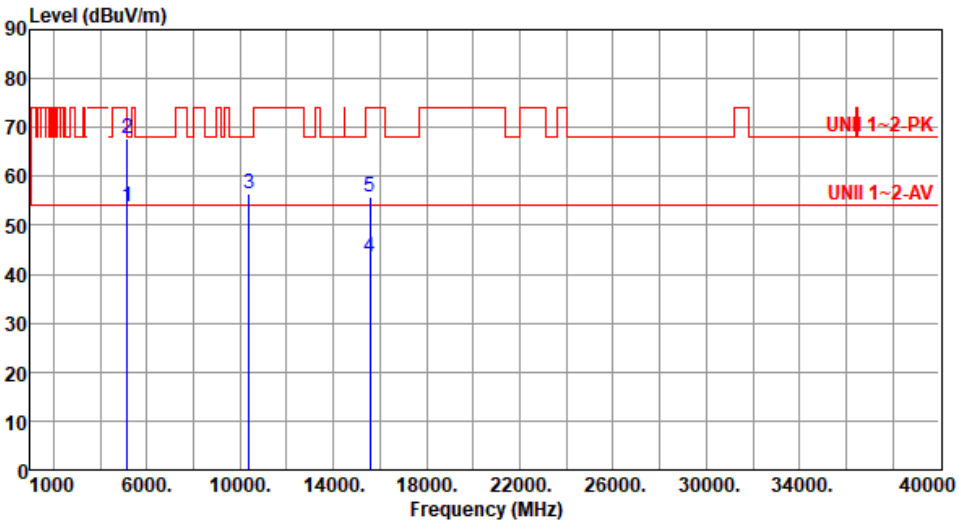


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	46.88	54.00	-7.12	41.87	5.01	Average	100	276
2	5150.00	60.97	74.00	-13.03	55.96	5.01	Peak	100	276
3	10380.00	56.70	68.20	-11.50	42.43	14.27	Peak	100	90
4	15570.00	43.75	54.00	-10.25	30.27	13.48	Average	100	235
5	15570.00	56.06	74.00	-17.94	42.58	13.48	Peak	100	235

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

Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5190
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

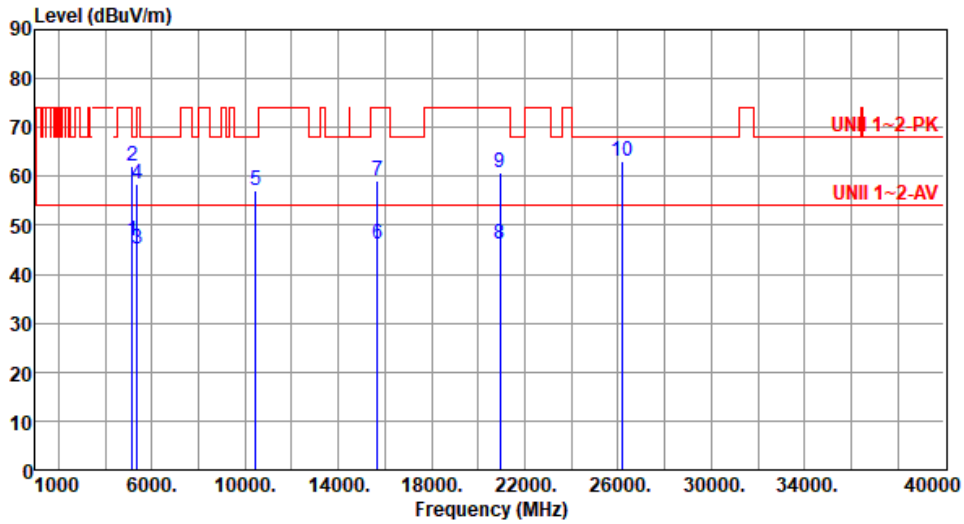


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	53.68	54.00	-0.32	48.67	5.01	Average	166	254
2	5150.00	67.68	74.00	-6.32	62.67	5.01	Peak	166	254
3	10380.00	56.52	68.20	-11.68	42.25	14.27	Peak	100	50
4	15570.00	43.64	54.00	-10.36	30.16	13.48	Average	100	90
5	15570.00	55.75	74.00	-18.25	42.27	13.48	Peak	100	90

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

Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5230
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

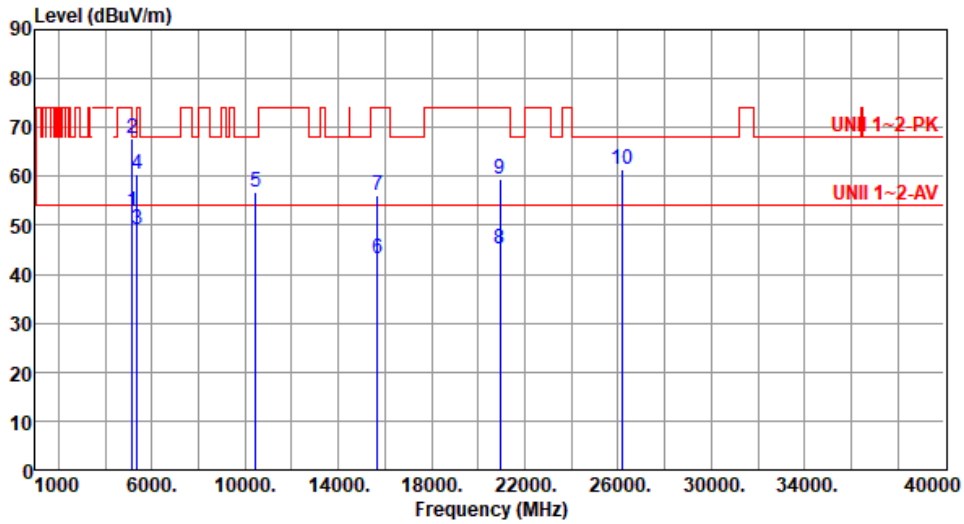


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	46.71	54.00	-7.29	41.70	5.01	Average	100	272
2	5150.00	62.27	74.00	-11.73	57.26	5.01	Peak	100	272
3	5350.00	45.07	54.00	-8.93	40.65	4.42	Average	100	272
4	5350.00	58.53	74.00	-15.47	54.11	4.42	Peak	100	272
5	10460.00	56.98	68.20	-11.22	42.55	14.43	Peak	100	275
6	15690.00	46.15	54.00	-7.85	32.75	13.40	Average	205	236
7	15690.00	58.95	74.00	-15.05	45.55	13.40	Peak	205	236
8	20920.00	46.01	54.00	-7.99	40.60	5.41	Average	200	261
9	20920.00	60.71	74.00	-13.29	55.30	5.41	Peak	200	261
10	26150.00	63.08	68.20	-5.12	51.95	11.13	Peak	139	266

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

Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5230
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

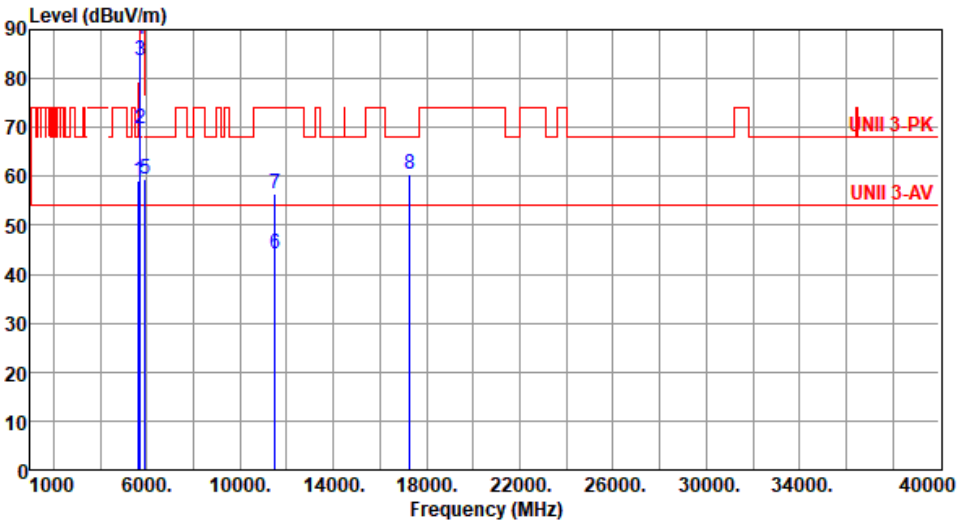


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	52.82	54.00	-1.18	47.81	5.01	Average	184	253
2	5150.00	67.90	74.00	-6.10	62.89	5.01	Peak	184	253
3	5350.00	49.22	54.00	-4.78	44.80	4.42	Average	184	253
4	5350.00	60.40	74.00	-13.60	55.98	4.42	Peak	184	253
5	10460.00	56.75	68.20	-11.45	42.32	14.43	Peak	100	80
6	15690.00	43.28	54.00	-10.72	29.88	13.40	Average	100	30
7	15690.00	56.08	74.00	-17.92	42.68	13.40	Peak	100	30
8	20920.00	45.01	54.00	-8.99	39.60	5.41	Average	100	70
9	20920.00	59.53	74.00	-14.47	54.12	5.41	Peak	100	70
10	26150.00	61.39	68.20	-6.81	50.26	11.13	Peak	100	50

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

Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5755
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

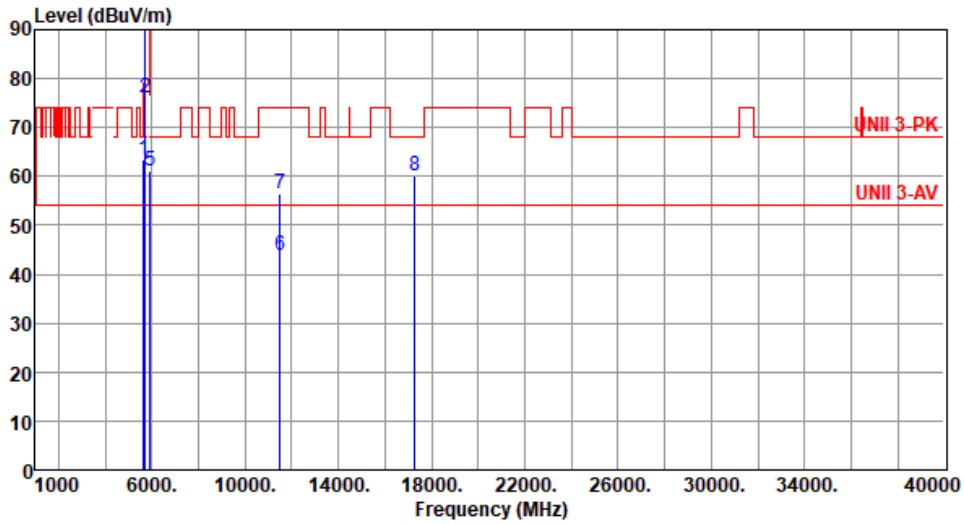


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	59.06	68.20	-9.14	54.25	4.81	Peak	260	258
2	5700.00	69.70	105.20	-35.50	64.68	5.02	Peak	260	258
3	5720.00	83.69	110.80	-27.11	78.55	5.14	Peak	260	258
4	5725.00	87.93	122.20	-34.27	82.76	5.17	Peak	260	258
5	5925.00	59.56	68.20	-8.64	53.95	5.61	Peak	260	258
6	11510.00	44.26	54.00	-9.74	29.86	14.40	Average	100	310
7	11510.00	56.56	74.00	-17.44	42.16	14.40	Peak	100	310
8	17265.00	60.37	68.20	-7.83	42.87	17.50	Peak	100	320

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

Modulation	ax HE40-OFDMA	Test Freq. (MHz)	5755
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

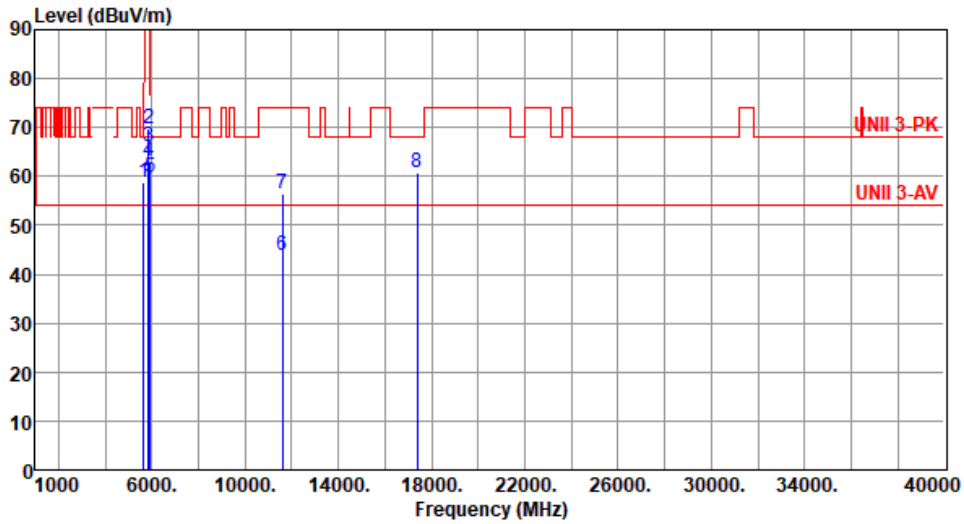


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	63.43	68.20	-4.77	58.62	4.81	Peak	190	297
2	5700.00	75.98	105.20	-29.22	70.96	5.02	Peak	190	297
3	5720.00	89.77	110.80	-21.03	84.63	5.14	Peak	190	297
4	5725.00	94.13	122.20	-28.07	88.96	5.17	Peak	190	297
5	5925.00	61.11	68.20	-7.09	55.50	5.61	Peak	190	297
6	11510.00	43.98	54.00	-10.02	29.58	14.40	Average	100	60
7	11510.00	56.43	74.00	-17.57	42.03	14.40	Peak	100	60
8	17265.00	60.07	68.20	-8.13	42.57	17.50	Peak	100	90

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

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

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

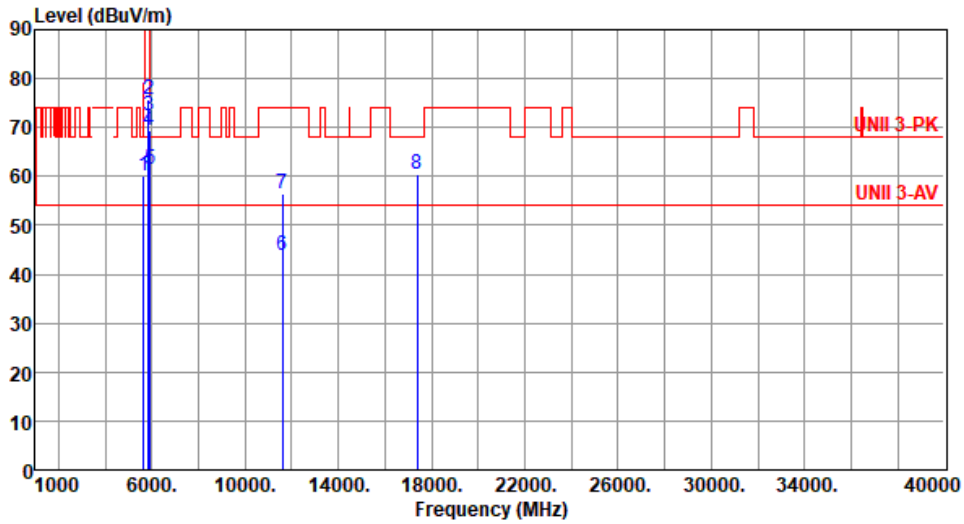


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	58.91	68.20	-9.29	54.10	4.81	Peak	266	255
2	5850.00	69.87	122.20	-52.33	64.22	5.65	Peak	266	255
3	5855.00	66.19	110.80	-44.61	60.54	5.65	Peak	266	255
4	5875.00	63.11	105.20	-42.09	57.45	5.66	Peak	266	255
5	5925.00	59.63	68.20	-8.57	54.02	5.61	Peak	266	255
6	11590.00	43.85	54.00	-10.15	29.66	14.19	Average	100	311
7	11590.00	56.49	74.00	-17.51	42.30	14.19	Peak	100	311
8	17385.00	60.72	68.20	-7.48	42.59	18.13	Peak	100	326

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

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

Test By :Akun Chung Temperature(℃):23 Humidity(%):66



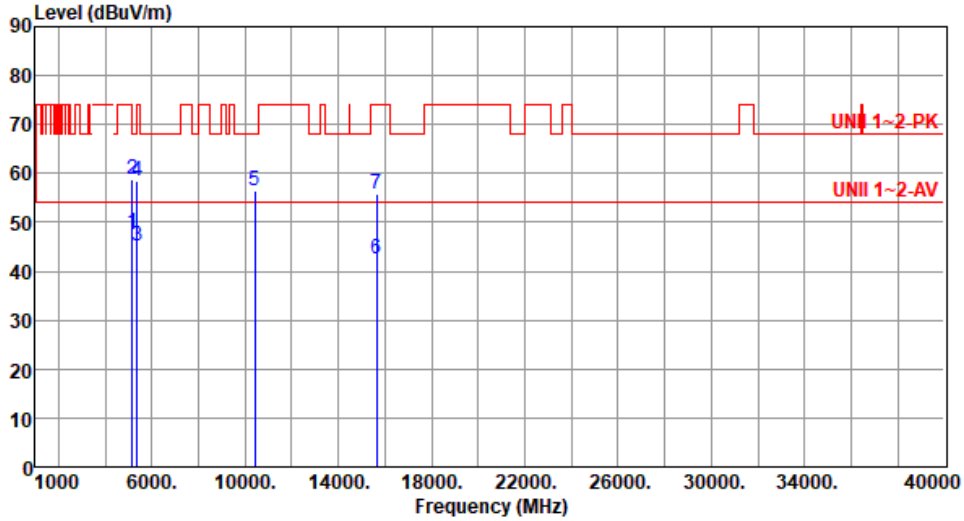
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	60.16	68.20	-8.04	55.35	4.81	Peak	188	302
2	5850.00	75.70	122.20	-46.50	70.05	5.65	Peak	188	302
3	5855.00	72.31	110.80	-38.49	66.66	5.65	Peak	188	302
4	5875.00	69.28	105.20	-35.92	63.62	5.66	Peak	188	302
5	5925.00	61.56	68.20	-6.64	55.95	5.61	Peak	188	302
6	11590.00	43.68	54.00	-10.32	29.49	14.19	Average	100	50
7	11590.00	56.36	74.00	-17.64	42.17	14.19	Peak	100	50
8	17385.00	60.46	68.20	-7.74	42.33	18.13	Peak	100	70

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

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

Modulation	ax HE80-OFDMA	Test Freq. (MHz)	5210
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

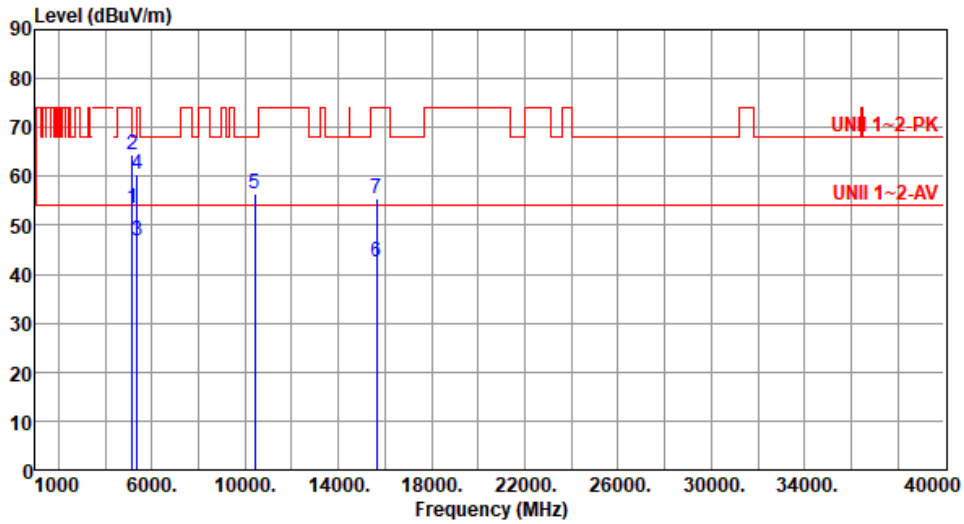


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	47.82	54.00	-6.18	42.81	5.01	Average	100	278
2	5150.00	58.90	74.00	-15.10	53.89	5.01	Peak	100	278
3	5350.00	45.28	54.00	-8.72	40.86	4.42	Average	100	278
4	5350.00	58.45	74.00	-15.55	54.03	4.42	Peak	100	278
5	10420.00	56.49	68.20	-11.71	42.13	14.36	Peak	100	60
6	15630.00	42.53	54.00	-11.47	29.18	13.35	Average	100	40
7	15630.00	55.66	74.00	-18.34	42.31	13.35	Peak	100	40

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

Modulation	ax HE80-OFDMA	Test Freq. (MHz)	5210
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

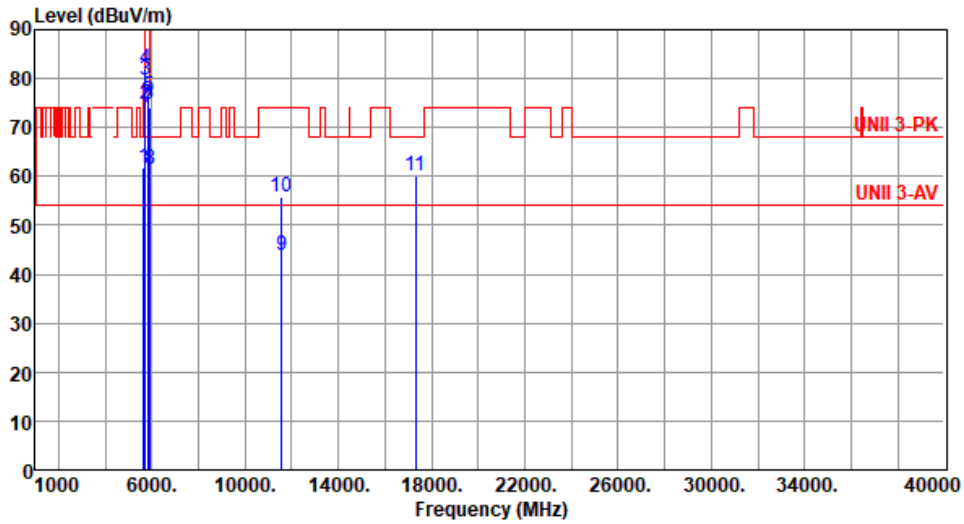


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5150.00	53.51	54.00	-0.49	48.50	5.01	Average	153	248
2	5150.00	64.57	74.00	-9.43	59.56	5.01	Peak	153	248
3	5350.00	46.96	54.00	-7.04	42.54	4.42	Average	153	248
4	5350.00	60.40	74.00	-13.60	55.98	4.42	Peak	153	248
5	10420.00	56.39	68.20	-11.81	42.03	14.36	Peak	100	20
6	15630.00	42.40	54.00	-11.60	29.05	13.35	Average	100	90
7	15630.00	55.48	74.00	-18.52	42.13	13.35	Peak	100	90

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

Modulation	ax HE80-OFDMA	Test Freq. (MHz)	5775
Polarization	Horizontal		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66

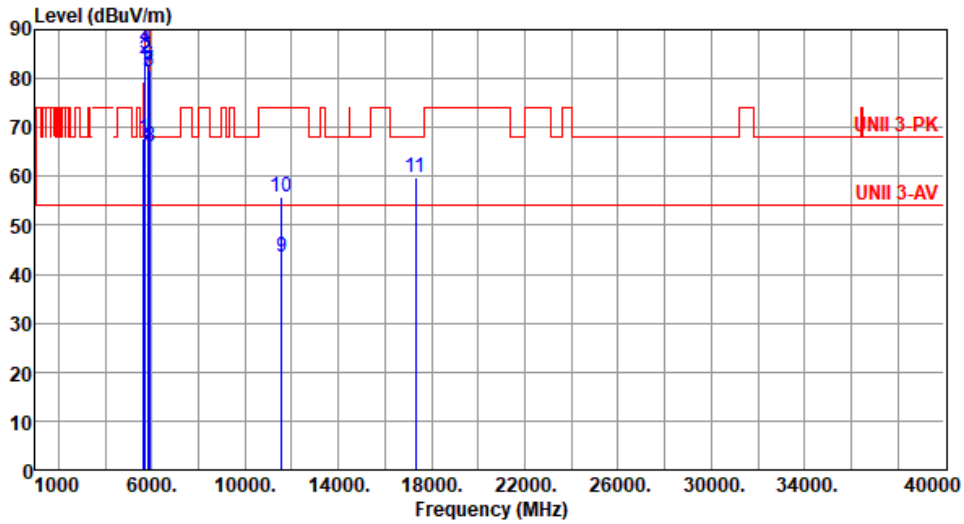


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	61.74	68.20	-6.46	56.93	4.81	Peak	263	261
2	5700.00	74.60	105.20	-30.60	69.58	5.02	Peak	263	261
3	5720.00	79.64	110.80	-31.16	74.50	5.14	Peak	263	261
4	5725.00	82.13	122.20	-40.07	76.96	5.17	Peak	263	261
5	5850.00	76.28	122.20	-45.92	70.63	5.65	Peak	263	261
6	5855.00	74.61	110.80	-36.19	68.96	5.65	Peak	263	261
7	5875.00	74.17	105.20	-31.03	68.51	5.66	Peak	263	261
8	5925.00	61.56	68.20	-6.64	55.95	5.61	Peak	263	261
9	11550.00	43.72	54.00	-10.28	29.42	14.30	Average	100	60
10	11550.00	55.95	74.00	-18.05	41.65	14.30	Peak	100	60
11	17325.00	60.00	68.20	-8.20	42.29	17.71	Peak	100	20

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

Modulation	ax HE80-OFDMA	Test Freq. (MHz)	5775
Polarization	Vertical		

Test By :Akun Chung Temperature(℃):23 Humidity(%):66



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB/m	Remark	ANT High cm	Turn Table deg
1	5650.00	67.75	68.20	-0.45	62.94	4.81	Peak	183	302
2	5700.00	83.87	105.20	-21.33	78.85	5.02	Peak	183	302
3	5720.00	85.10	110.80	-25.70	79.96	5.14	Peak	183	302
4	5725.00	86.47	122.20	-35.73	81.30	5.17	Peak	183	302
5	5850.00	81.31	122.20	-40.89	75.66	5.65	Peak	183	302
6	5855.00	82.61	110.80	-28.19	76.96	5.65	Peak	183	302
7	5875.00	81.53	105.20	-23.67	75.87	5.66	Peak	183	302
8	5925.00	65.94	68.20	-2.26	60.33	5.61	Peak	183	302
9	11550.00	43.51	54.00	-10.49	29.21	14.30	Average	100	40
10	11550.00	55.79	74.00	-18.21	41.49	14.30	Peak	100	40
11	17325.00	59.84	68.20	-8.36	42.13	17.71	Peak	100	80

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

3.6 Frequency Stability

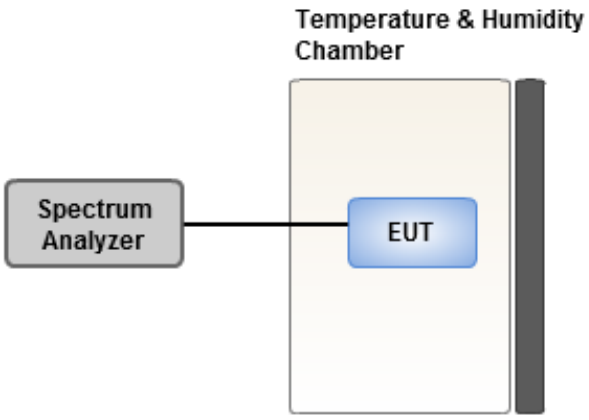
3.6.1 Limit of Frequency Stability

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

Ambient Condition	20~22°C / 65~67%	Tested By	Aska Huang

Frequency: 5200 MHz	Frequency Drift (ppm)			
Temperature (ºC)	0 minute	2 minutes	5 minutes	10 minutes
T20°CVmax	0.24	0.92	0.25	0.70
T20°CVmin	1.13	0.73	-0.01	0.93
T50°CVnom	1.41	1.11	0.77	0.55
T40°CVnom	-0.04	-0.29	-0.04	-0.07
T30°CVnom	0.50	-0.41	0.08	0.19
T20°CVnom	0.64	0.14	0.12	0.20
T10°CVnom	1.68	2.19	2.12	2.17
T0°CVnom	2.93	4.36	4.05	3.20
T-10°CVnom	5.59	5.75	5.67	5.97
T-20°CVnom	7.94	7.59	7.37	7.74
T-30°CVnom	9.77	9.25	9.26	9.38
Vnom [V]: 120		Vmax [V]: 138		Vmin [V]: 102
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

Frequency: 5785 MHz	Frequency Drift (ppm)			
Temperature (ºC)	0 minute	2 minutes	5 minutes	10 minutes
T20°CVmax	-1.36	-0.84	-1.32	-1.27
T20°CVmin	-1.49	-1.03	-1.49	-0.75
T50°CVnom	-6.82	-6.78	-6.80	-6.73
T40°CVnom	-6.75	-6.56	-6.95	-6.09
T30°CVnom	-3.16	-3.47	-2.77	-2.75
T20°CVnom	-1.78	-1.74	-1.48	-1.40
T10°CVnom	0.31	0.83	0.38	0.68
T0°CVnom	1.39	1.14	0.93	1.48
T-10°CVnom	3.70	4.06	4.05	4.30
T-20°CVnom	5.52	5.85	5.60	5.96
T-30°CVnom	7.11	7.08	7.07	7.19
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 50		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 Corporation (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

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

Linkou

Tel: 886-2-2601-1640

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

Kwei Shan

Tel: 886-3-271-8666

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

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

Kwei Shan Site II

Tel: 886-3-271-8640

No.14-1, Lane 19, Wen San 3rd St., Kwei Shan Dist., Tao Yuan City 333, Taiwan (R.O.C.)

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

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