

FCC C2PC Test Report

FCC ID : I8811ACAP22W
Equipment : 802.11ac Wave 2 Wall-Plate Unified Access Point
Model No. : WAC500H
Brand Name : ZYXEL
Applicant : Zyxel Communications Corporation
Address : No.2 Industry East RD. IX, Hsinchu Science Park,
Hsinchu 30075, Taiwan, R.O.C
Standard : 47 CFR FCC Part 15.407
Received Date : Dec. 02, 2020
Tested Date : Dec. 08 ~ Dec. 26, 2020

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

Reviewed by:



Along Chen / Assistant Manager

Approved by:



Gary Chang / Manager



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Release Record

Report No.	Version	Description	Issued Date
FR062401-01AN	Rev. 01	Initial issue	Jan. 21, 2021

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 16.750MHz 45.64 (Margin -4.36dB) - QP	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5350.00MHz 53.88 (Margin -0.12dB) - AV	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(a)	RF Output Power	Max Power [dBm]: Non-beamforming mode 5250~5350MHz: 23.59 5470~5725MHz: 23.84 Beamforming mode 5250~5350MHz: 23.49 5470~5725MHz: 23.62	Pass
15.407(a)	Peak Power Spectral Density	Meet the requirement of limit	Pass
15.407(g)	Frequency Stability	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

Declaration of Conformity:

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

Comments and Explanations:

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

1 General Description

1.1 Information

This is a Class II Permissive Change report (C2PC).

This report is issued as a supplementary report to original ICC report no. FR062401AN. The modification is only concerned with adding 5250~5350MHz and 5470~5725 MHz band by software setting.

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS
5250-5350 5470-5725	a	5260-5320 5500-5720	52-64 [4] 100-144 [12]	2	6-54 Mbps
5250-5350 5470-5725	n (HT20)	5260-5320 5500-5720	52-64 [4] 100-144 [12]	2	MCS 0-15
5250-5350 5470-5725	n (HT40)	5270-5310 5510-5710	54-62 [2] 102-142 [6]	2	MCS 0-15
5250-5350 5470-5725	ac (VHT20)	5260-5320 5500-5720	52-64 [4] 100-144 [12]	2	MCS 0-9
5250-5350 5470-5725	ac (VHT40)	5270-5310 5510-5710	54-62 [2] 102-142 [6]	2	MCS 0-9
5250-5350 5470-5725	ac (VHT80)	5290 5530-5690	58 [1] 106-138 [3]	2	MCS 0-9

Note 1: RF output power specifies that Maximum Conducted Output Power.
 Note 2: 802.11a/n/ac uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
 Note 3: 802.11n/ac supports beamforming mode.

1.1.2 Antenna Details

Ant. No.	Brand	Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)	
					5250~5350	5470~5725
1	Lynwave	ALX20M-222AA5	PIFA	N/A	2.5	2.5
2	Lynwave	ALX20M-222AA4	PIFA	N/A	2.5	2.5

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	12Vdc from adapter 30~57Vdc from POE
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Note: The above power supply is not bundled in market.

1.1.4 Accessories

N/A

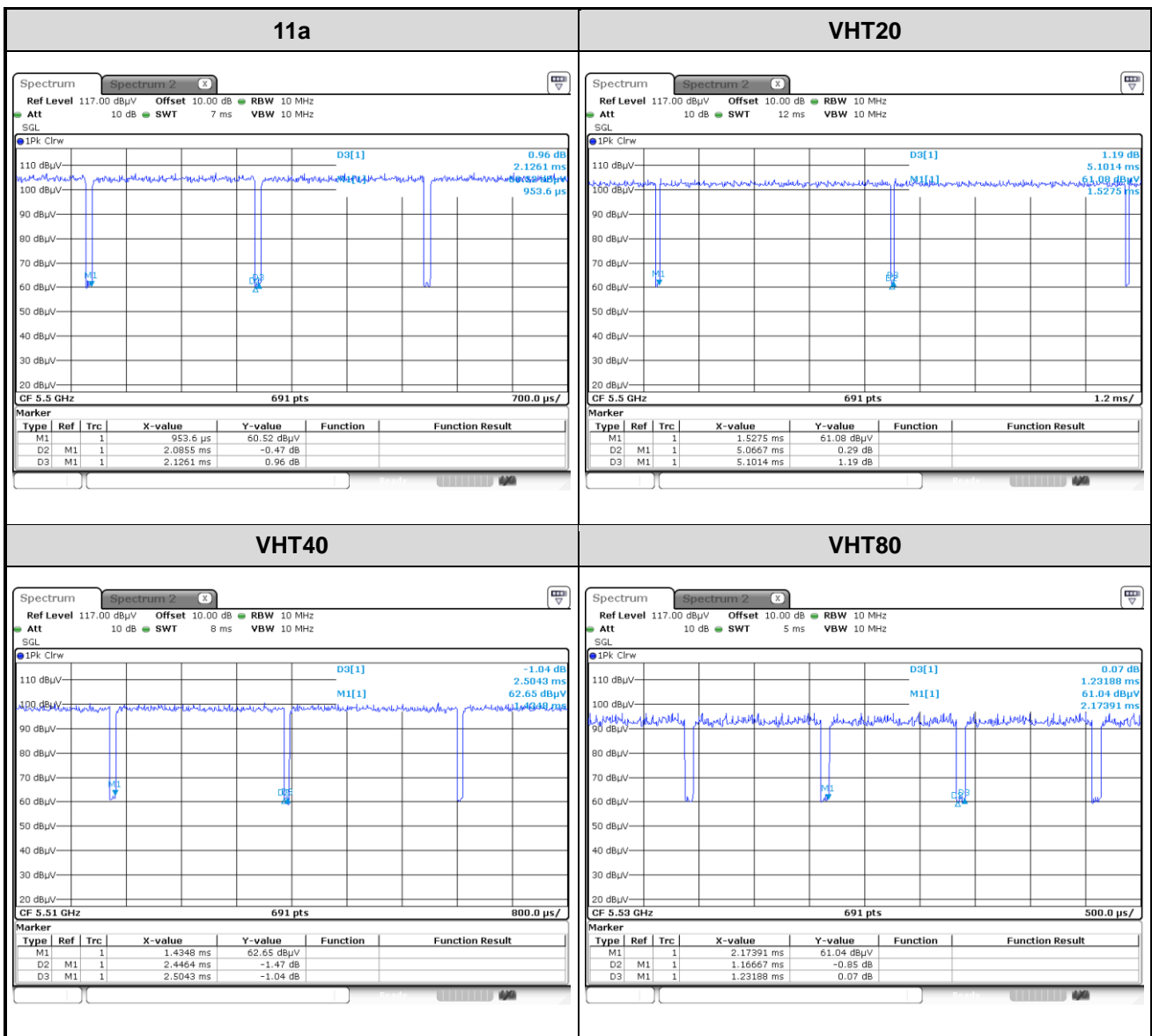
1.1.5 Channel List

802.11 a / HT20 / VHT20		HT40 / VHT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
52	5260	54	5270
56	5280	62	5310
60	5300	102	5510
64	5320	110	5550
100	5500	118	5590
104	5520	126	5630
108	5540	134	5670
112	5560	142	5710
116	5580	VHT80	
120	5600	58	5290
124	5620	106	5530
128	5640	122	5610
132	5660	138	5690
136	5680	---	---
140	5700	---	---
144	5720	---	---

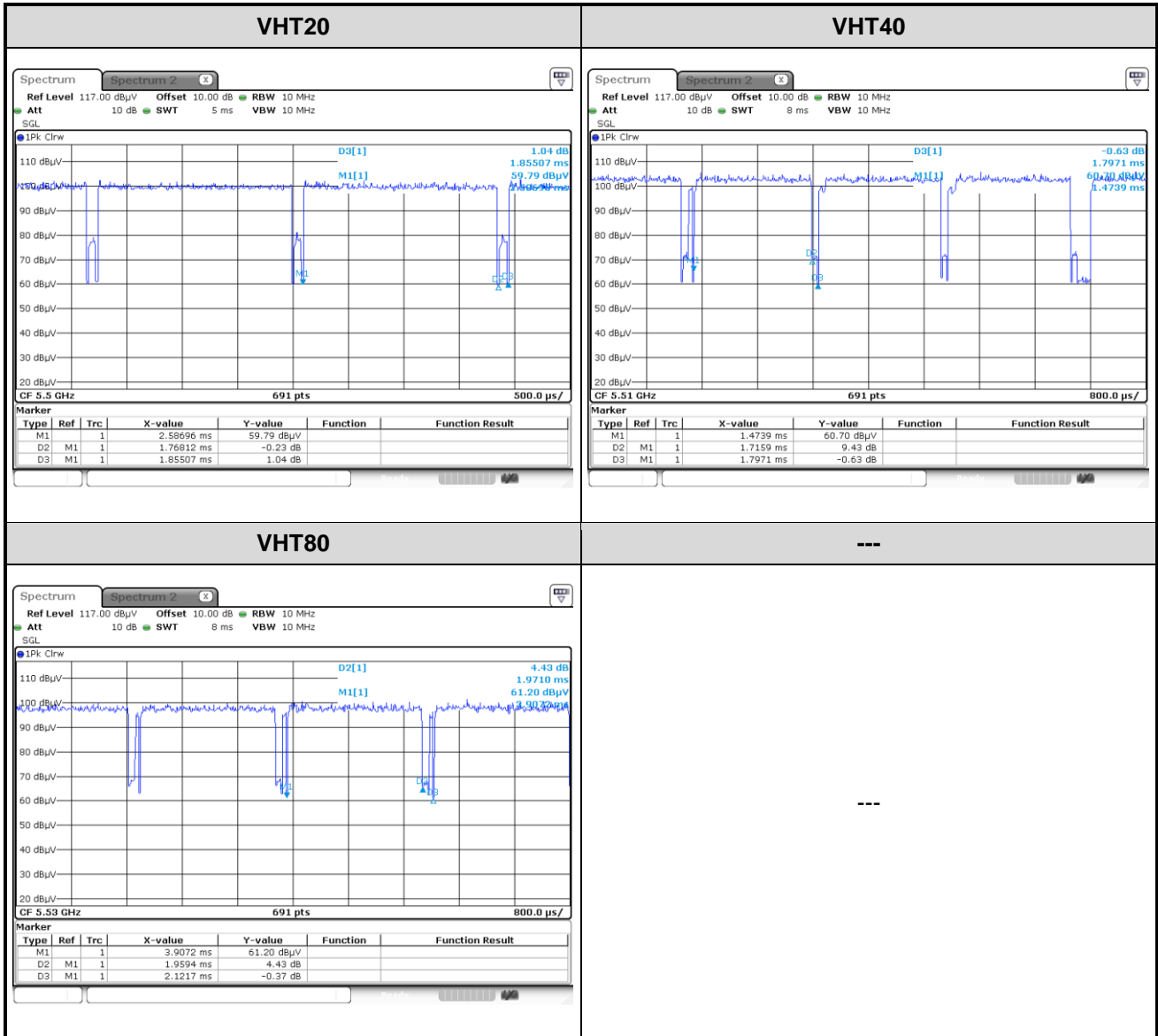
1.1.6 Test Tool and Duty Cycle

Test Tool	Non-beamforming: qdart_conn.win.1.0_installer, Version: 0073 Beamforming: Putty, Version: 0.60.0.0				
Duty Cycle and Duty Factor	Mode	Non-beamforming		Beamforming	
		Duty cycle (%)	Duty factor (dB)	Duty cycle (%)	Duty factor (dB)
	11a	98.09%	0.08	---	---
	VHT20	99.32%	0.03	95.31%	0.21
	VHT40	97.69%	0.10	95.48%	0.20
VHT80	94.71%	0.24	92.35%	0.35	

Non-beamforming mode



Beamforming mode



1.1.7 Power Index of Test Tool

Modulation Mode	Test Frequency (MHz)	Power Index	
		Non-Beamforming	Beamforming
11a	5260	20	---
11a	5300	20	---
11a	5320	20	---
11a	5500	18.5	---
11a	5580	20	---
11a	5700	17.5	---
11a	5720	20	---
VHT20	5260	20	24
VHT20	5300	20	24
VHT20	5320	20	24
VHT20	5500	18	21
VHT20	5580	20	24
VHT20	5700	17	20
VHT20	5720	20	24
VHT40	5270	20	24
VHT40	5310	15.5	19
VHT40	5510	16.5	20
VHT40	5590	20	24
VHT40	5670	17.5	21
VHT40	5710	20	24
VHT80	5290	14	17
VHT80	5530	15	18
VHT80	5610	18	21
VHT80	5690	20	24

1.2 Local Support Equipment List

Non-beamforming mode

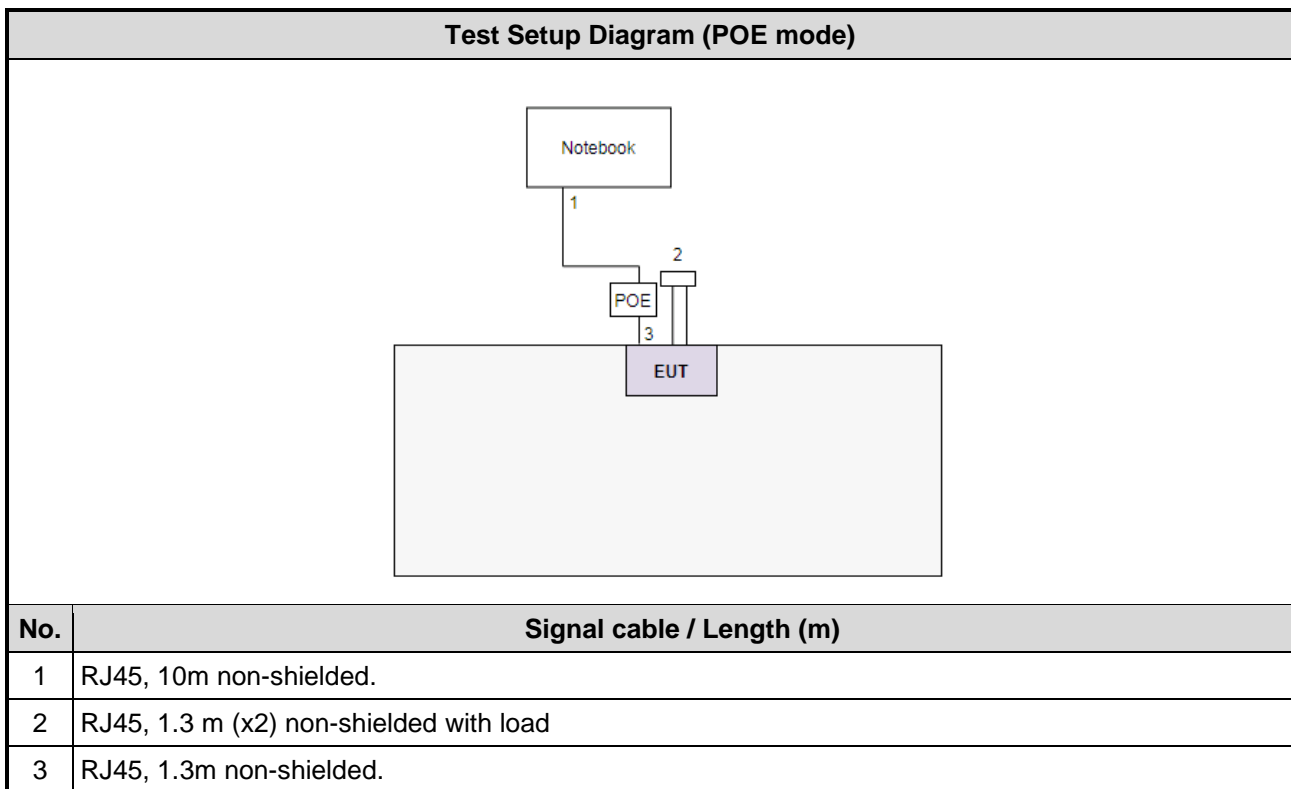
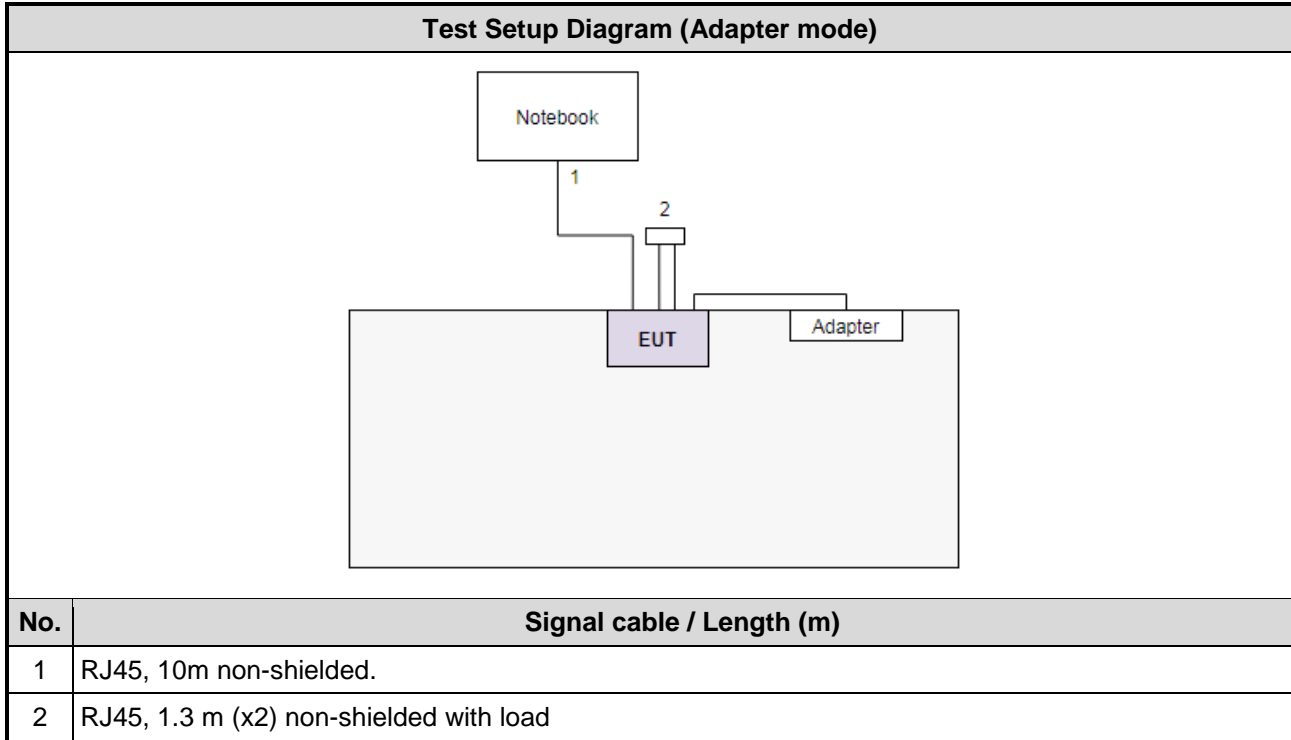
Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	RJ45	ICC	RJ45-1.3m	---	---
2	RJ45	ICC	RJ45-10m	---	---
3	RJ45 Load	ICC	---	---	---
4	Notebook	DELL	Latitude E5470	DoC	---
5	Notebook	DELL	Latitude E5470	DoC	---
6	RJ45	ICC	RJ45-1.3m	---	---
7	POE Switch	ZYXEL	XS1930-12HP	---	Provided by applicant.
8	Adapter	APD	WA-30P12R	---	Provided by applicant.

Beamforming mode

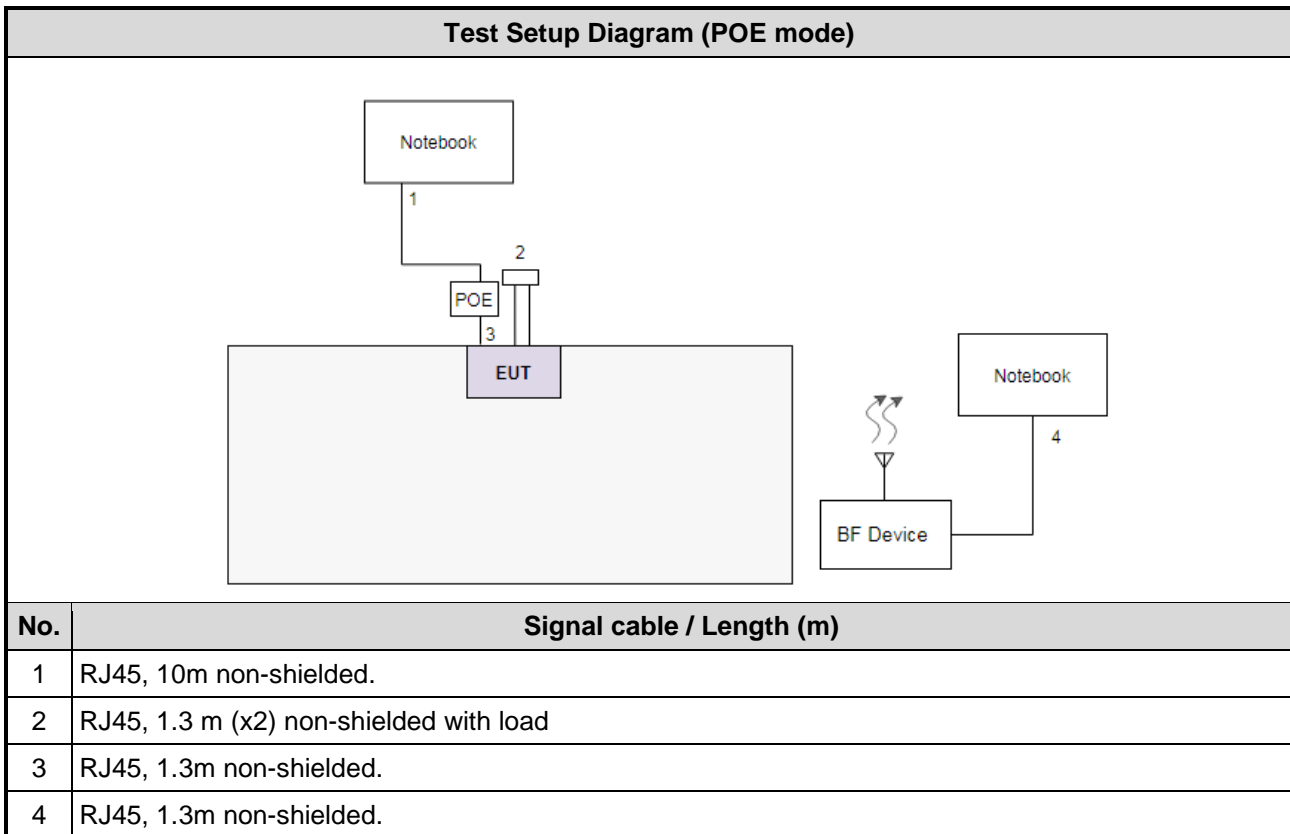
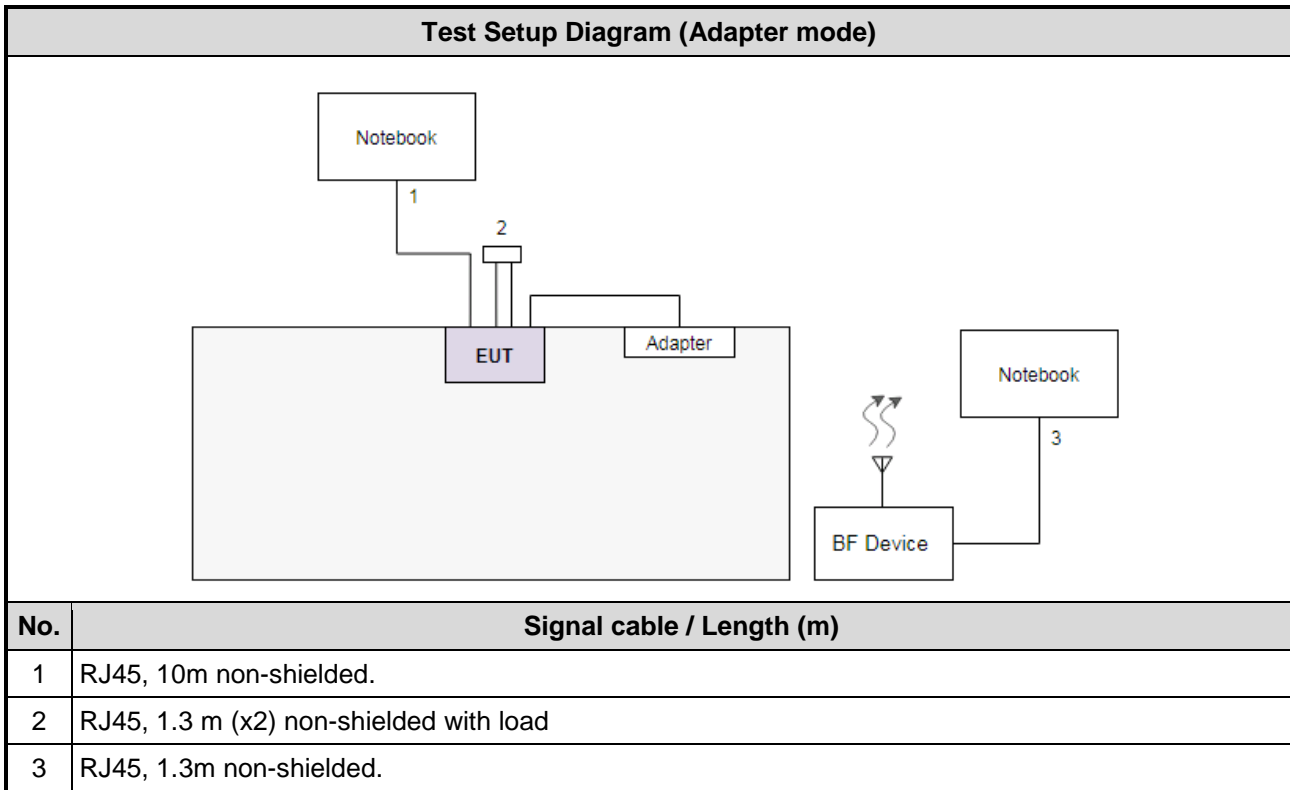
Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	RJ45	ICC	RJ45-1.3m	---	---
2	RJ45	ICC	RJ45-10m	---	---
3	RJ45 Load	ICC	---	---	---
4	Notebook	DELL	Latitude E5470	DoC	---
5	Notebook	DELL	Latitude E5470	DoC	---
6	RJ45	ICC	RJ45-1.3m	---	---
7	BF Device	ZYXEL	WAC500H	---	Provided by applicant.
8	POE Switch	ZYXEL	XS1930-12HP	---	Provided by applicant.
9	Adapter	APD	WA-30P12R	---	Provided by applicant.

1.3 Test Setup Chart

Non-beamforming mode



Beamforming mode



1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Test Date	Dec. 15, 2020				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101657	Feb. 14, 2020	Feb. 13, 2021
LISN	R&S	ENV216	101579	Mar. 12, 2020	Mar. 11, 2021
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 21, 2020	Oct. 20, 2021
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)				
Test Date	Dec. 08 ~ Dec. 11, 2020				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101498	Dec. 04, 2020	Dec. 03, 2021
Receiver	R&S	ESR3	101657	Feb. 14, 2020	Feb. 13, 2021
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jul. 10, 2020	Jul. 09, 2021
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1095	Sep. 25, 2020	Sep. 24, 2021
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 06, 2020	Nov. 05, 2021
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 17, 2020	Nov. 16, 2021
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 06, 2020	Oct. 05, 2021
Preamplifier	EMC	EMC02325	980225	Jul. 03, 2020	Jul. 02, 2021
Preamplifier	Agilent	83017A	MY39501308	Sep. 26, 2020	Sep. 25, 2021
Preamplifier	EMC	EMC184045B	980192	Jul. 21, 2020	Jul. 20, 2021
RF Cable	EMC	EMC104-SM-SM-8000	181106	Oct. 06, 2020	Oct. 05, 2021
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Oct. 06, 2020	Oct. 05, 2021
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Oct. 06, 2020	Oct. 05, 2021
LF cable 1M	EMC	EMCCFD400-NM-NM-1000	160502	Oct. 06, 2020	Oct. 05, 2021
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 06, 2020	Oct. 05, 2021
LF cable 11M	EMC	EMCCFD400-NW-NW-11000	200801	Oct. 06, 2020	Oct. 05, 2021
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)				
Test Date	Dec. 25 ~ Dec. 26, 2020				
Instrument	Brand	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101063	Apr. 30, 2020	Apr. 29, 2021
Spectrum Analyzer	R&S	FSV40	101499	Jan. 09, 2020	Jan. 08, 2021
Power Meter	Anritsu	ML2495A	1241002	Nov. 04, 2020	Nov. 03, 2021
Power Sensor	Anritsu	MA2411B	1207366	Nov. 04, 2020	Nov. 03, 2021
AC POWER SOURCE	APC	AFC-500W	F312060012	Dec. 04, 2020	Dec. 03, 2021
Measurement Software	Sporton	Sporton_1	1.3.30	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 ≤ 1 GHz	± 3.41 dB
Radiated emission > 1 GHz	± 4.59 dB
Time	$\pm 0.1\%$
Temperature	± 0.4 °C

2 Test Configuration

2.1 Testing Facility

Test Laboratory	International Certification Corp.
Test Site	CO01-WS, 03CH01-WS, TH01-WS
Address of Test Site	No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.

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

2.2 The Worst Test Modes and Channel Details

Non-beamforming mode

For Frequency band 5250-5350 MHz, 5470-5725 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
Conducted Emissions	VHT40	5590	MCS 0	1, 2
Radiated Emissions ≤1GHz	VHT40	5590	MCS 0	1, 2
RF Output Power	11a	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	6 Mbps	1
	HT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	HT40	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	VHT40	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT80	5290 / 5530 / 5610 / 5690	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	6 Mbps	1
	VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	VHT40	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT80	5290 / 5530 / 5610 / 5690	MCS 0	
Frequency Stability	Un-modulation	5320	---	1
NOTE:				
1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The Z-plane results were found as the worst case and were shown in this report.				
2. The EUT had been tested by following test configurations.				
1) Configuration 1: Adapter mode				
2) Configuration 2: POE mode				

Beamforming mode

For Frequency band 5250-5350 MHz, 5470-5725 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
Conducted Emissions	VHT40	5590	MCS 0	1, 2
Radiated Emissions ≤ 1 GHz	VHT40	5590	MCS 0	1, 2
RF Output Power	HT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	1
	HT40	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	VHT40	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT80	5290 / 5530 / 5610 / 5690	MCS 0	
Radiated Emissions > 1 GHz Emission Bandwidth Peak Power Spectral Density	VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	1
	VHT40	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT80	5290 / 5530 / 5610 / 5690	MCS 0	

NOTE:

1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Z-plane** results were found as the worst case and were shown in this report.
2. The EUT had been tested by following test configurations.
 - 1) Configuration 1: Adapter mode
 - 2) Configuration 2: POE mode

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



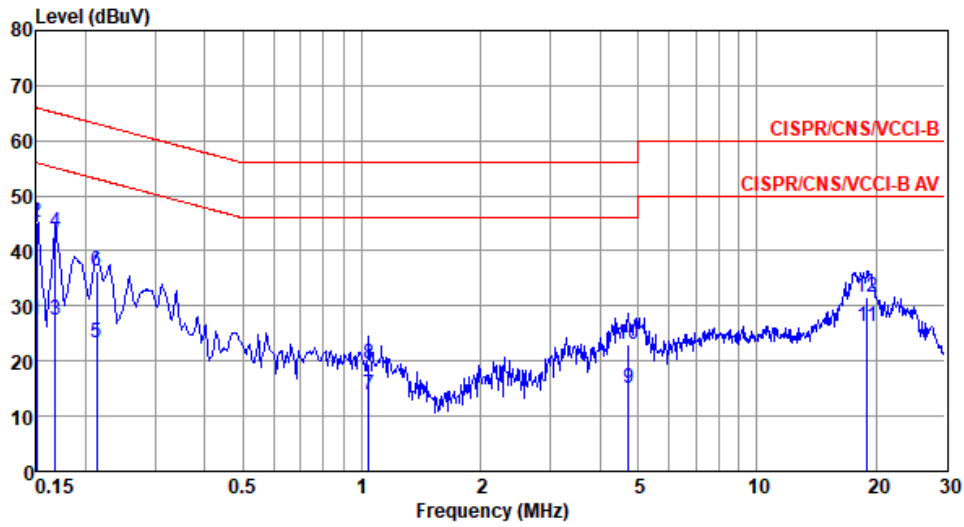
- Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

Non- beamforming mode

Modulation	VHT40	Test Freq. (MHz)	5590
Power Phase	Line	Test Configuration	1

Test by : Alex Tsai Temperature: 24°C Humidity: 60%



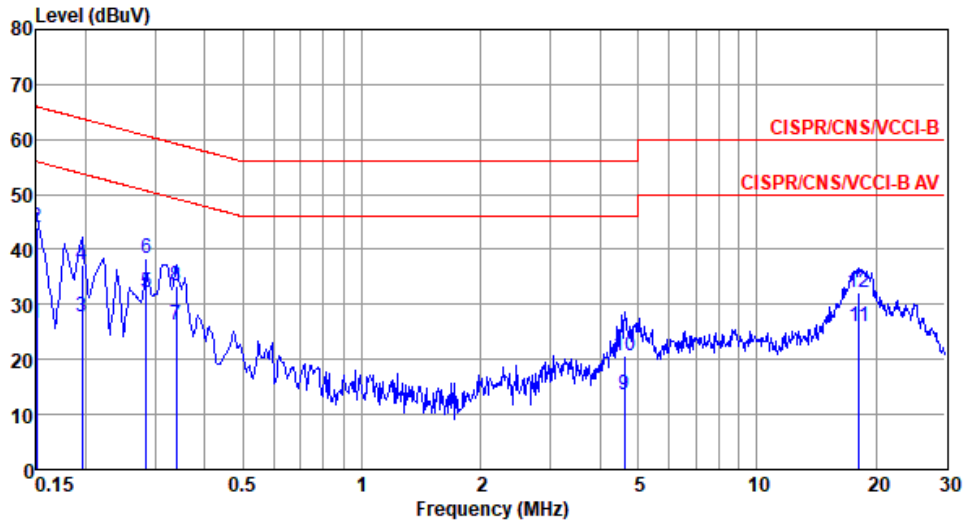
	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.150	27.54	56.00	-28.46	17.69	9.64	0.05	Average
2*	0.150	45.14	66.00	-20.86	35.29	9.64	0.05	QP
3	0.168	27.46	55.08	-27.62	17.60	9.64	0.05	Average
4	0.168	43.53	65.08	-21.55	33.67	9.64	0.05	QP
5	0.213	23.24	53.10	-29.86	13.36	9.63	0.06	Average
6	0.213	36.40	63.10	-26.70	26.52	9.63	0.06	QP
7	1.043	14.01	46.00	-31.99	3.94	9.63	0.12	Average
8	1.043	19.40	56.00	-36.60	9.33	9.63	0.12	QP
9	4.721	14.94	46.00	-31.06	4.59	9.66	0.31	Average
10	4.721	22.94	56.00	-33.06	12.59	9.66	0.31	QP
11	19.021	26.16	50.00	-23.84	15.20	9.72	0.65	Average
12	19.021	31.45	60.00	-28.55	20.49	9.72	0.65	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).

Note 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

Modulation	VHT40	Test Freq. (MHz)	5590
Power Phase	Neutral	Test Configuration	1

Test by : Alex Tsai Temperature: 24°C Humidity: 60%

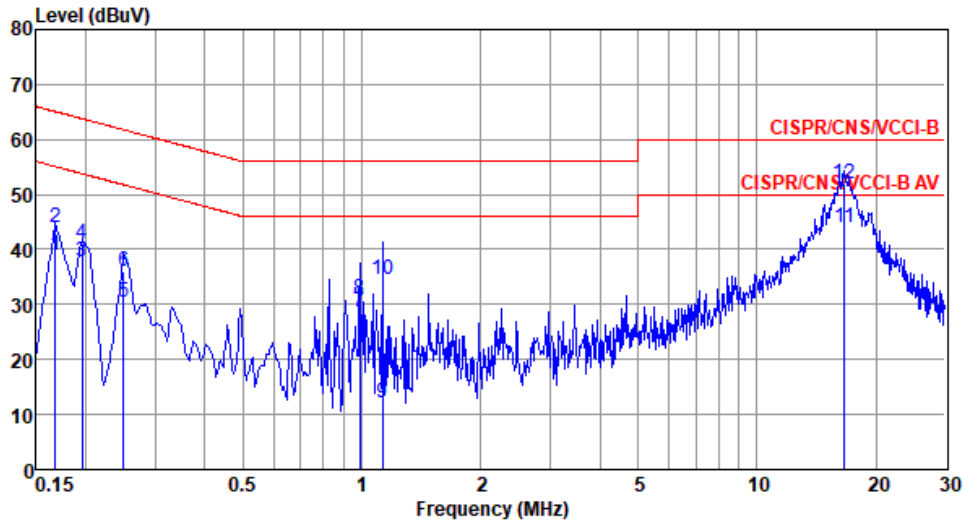


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.150	26.70	56.00	-29.30	16.87	9.66	0.05	Average
2	0.150	43.88	66.00	-22.12	34.05	9.66	0.05	QP
3	0.195	27.80	53.80	-26.00	17.94	9.65	0.06	Average
4	0.195	37.11	63.80	-26.69	27.25	9.65	0.06	QP
5*	0.285	32.11	50.67	-18.56	22.23	9.65	0.07	Average
6	0.285	38.30	60.67	-22.37	28.42	9.65	0.07	QP
7	0.339	26.14	49.22	-23.08	16.24	9.65	0.08	Average
8	0.339	33.49	59.22	-25.73	23.59	9.65	0.08	QP
9	4.622	13.51	46.00	-32.49	3.25	9.68	0.31	Average
10	4.622	20.54	56.00	-35.46	10.28	9.68	0.31	QP
11	18.135	26.02	50.00	-23.98	15.09	9.82	0.64	Average
12	18.135	32.17	60.00	-27.83	21.24	9.82	0.64	QP

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

Modulation	VHT40	Test Freq. (MHz)	5590
Power Phase	Line	Test Configuration	2

Test by : Alex Tsai Temperature: 24°C Humidity: 60%

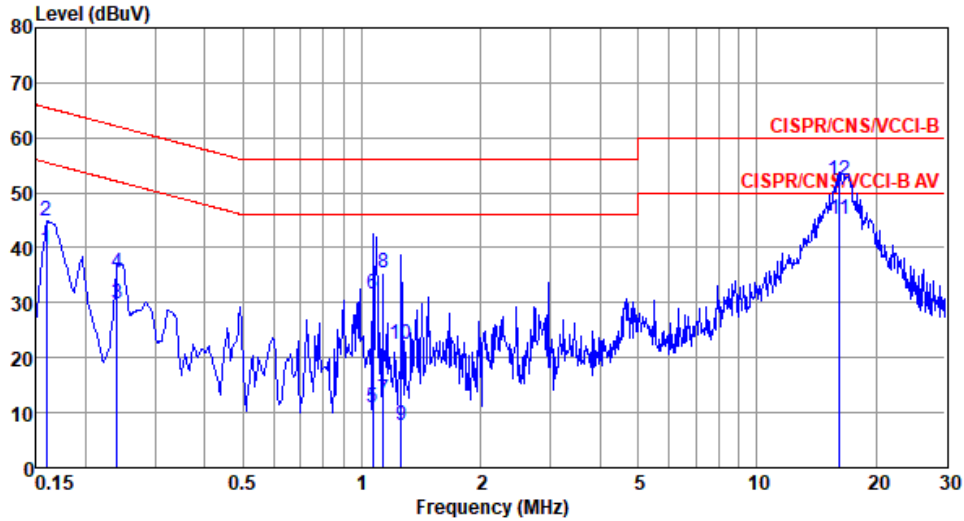


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.168	38.83	55.08	-16.25	29.14	9.64	0.05	Average
2	0.168	43.90	65.08	-21.18	34.21	9.64	0.05	QP
3	0.195	37.71	53.80	-16.09	28.02	9.63	0.06	Average
4	0.195	40.95	63.80	-22.85	31.26	9.63	0.06	QP
5	0.249	30.51	51.78	-21.27	20.81	9.63	0.07	Average
6	0.249	35.94	61.78	-25.84	26.24	9.63	0.07	QP
7	0.989	28.74	46.00	-17.26	18.99	9.63	0.12	Average
8	0.989	31.11	56.00	-24.89	21.36	9.63	0.12	QP
9	1.129	12.17	46.00	-33.83	2.41	9.63	0.13	Average
10	1.129	34.63	56.00	-21.37	24.87	9.63	0.13	QP
11*	16.661	44.10	50.00	-5.90	33.77	9.71	0.62	Average
12	16.661	51.90	60.00	-8.10	41.57	9.71	0.62	QP

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

Modulation	VHT40	Test Freq. (MHz)	5590
Power Phase	Neutral	Test Configuration	2

Test by : Alex Tsai Temperature: 24°C Humidity: 60%



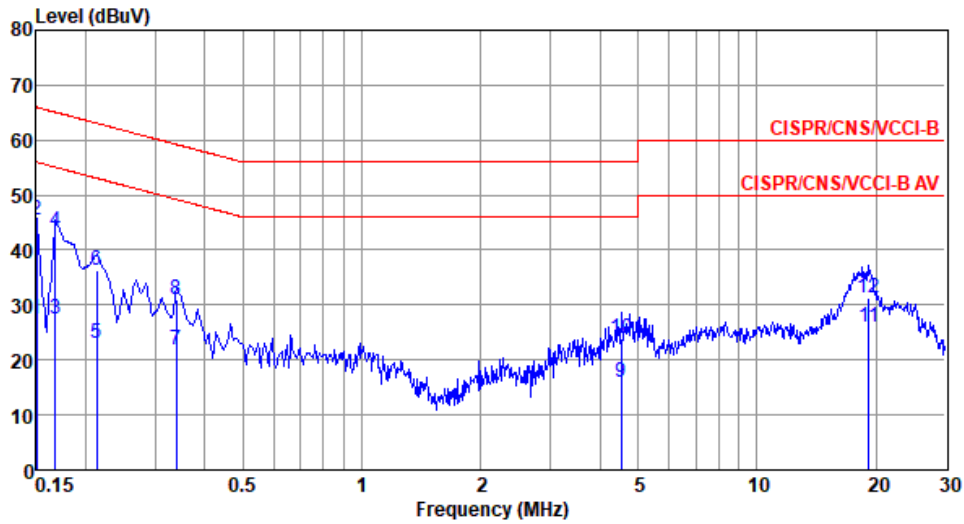
	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.159	39.53	55.52	-15.99	29.82	9.66	0.05	Average
2	0.159	44.96	65.52	-20.56	35.25	9.66	0.05	QP
3	0.240	29.87	52.08	-22.21	20.15	9.65	0.07	Average
4	0.240	35.44	62.08	-26.64	25.72	9.65	0.07	QP
5	1.065	11.00	46.00	-35.00	1.22	9.65	0.13	Average
6	1.065	31.68	56.00	-24.32	21.90	9.65	0.13	QP
7	1.131	12.47	46.00	-33.53	2.69	9.65	0.13	Average
8	1.131	35.32	56.00	-20.68	25.54	9.65	0.13	QP
9	1.255	7.82	46.00	-38.18	-1.97	9.65	0.14	Average
10	1.255	22.42	56.00	-33.58	12.63	9.65	0.14	QP
11*	16.226	45.20	50.00	-4.80	34.77	9.81	0.62	Average
12	16.226	52.27	60.00	-7.73	41.84	9.81	0.62	QP

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

Beamforming mode

Modulation	VHT40	Test Freq. (MHz)	5590
Power Phase	Line	Test Configuration	1

Test by : Alex Tsai Temperature: 24°C Humidity: 60%

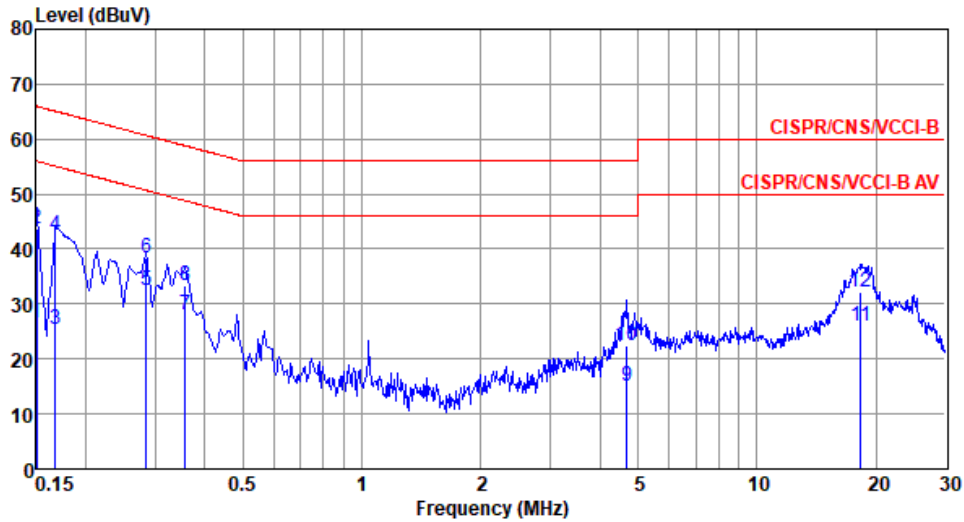


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.150	27.33	56.00	-28.67	17.48	9.64	0.05	Average
2*	0.150	45.52	66.00	-20.48	35.67	9.64	0.05	QP
3	0.168	27.53	55.08	-27.55	17.67	9.64	0.05	Average
4	0.168	43.48	65.08	-21.60	33.62	9.64	0.05	QP
5	0.213	23.03	53.10	-30.07	13.15	9.63	0.06	Average
6	0.213	36.43	63.10	-26.67	26.55	9.63	0.06	QP
7	0.339	21.76	49.22	-27.46	11.81	9.63	0.08	Average
8	0.339	31.02	59.22	-28.20	21.07	9.63	0.08	QP
9	4.525	15.83	46.00	-30.17	5.50	9.66	0.30	Average
10	4.525	23.85	56.00	-32.15	13.52	9.66	0.30	QP
11	19.224	25.88	50.00	-24.12	14.92	9.72	0.65	Average
12	19.224	31.19	60.00	-28.81	20.23	9.72	0.65	QP

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

Modulation	VHT40	Test Freq. (MHz)	5590
Power Phase	Neutral	Test Configuration	1

Test by : Alex Tsai Temperature: 24°C Humidity: 60%

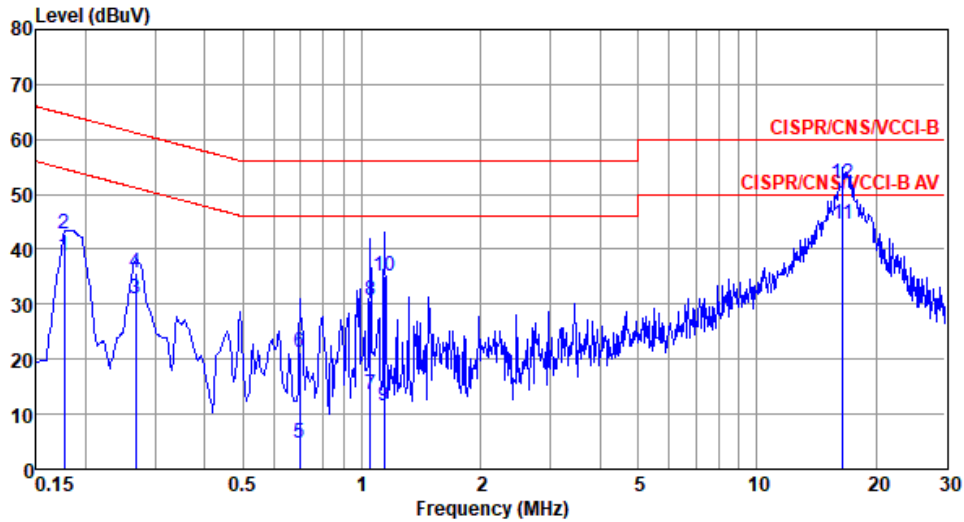


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.150	26.63	56.00	-29.37	16.80	9.66	0.05	Average
2	0.150	43.77	66.00	-22.23	33.94	9.66	0.05	QP
3	0.168	25.38	55.08	-29.70	15.54	9.66	0.05	Average
4	0.168	42.39	65.08	-22.69	32.55	9.66	0.05	QP
5*	0.285	32.44	50.68	-18.24	22.56	9.65	0.07	Average
6	0.285	38.24	60.68	-22.44	28.36	9.65	0.07	QP
7	0.358	28.08	48.78	-20.70	18.18	9.65	0.08	Average
8	0.358	33.27	58.78	-25.51	23.37	9.65	0.08	QP
9	4.696	15.16	46.00	-30.84	4.90	9.68	0.31	Average
10	4.696	22.39	56.00	-33.61	12.13	9.68	0.31	QP
11	18.328	26.09	50.00	-23.91	15.14	9.83	0.64	Average
12	18.328	32.07	60.00	-27.93	21.12	9.83	0.64	QP

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

Modulation	VHT40	Test Freq. (MHz)	5590
Power Phase	Line	Test Configuration	2

Test by : Alex Tsai Temperature: 24°C Humidity: 60%

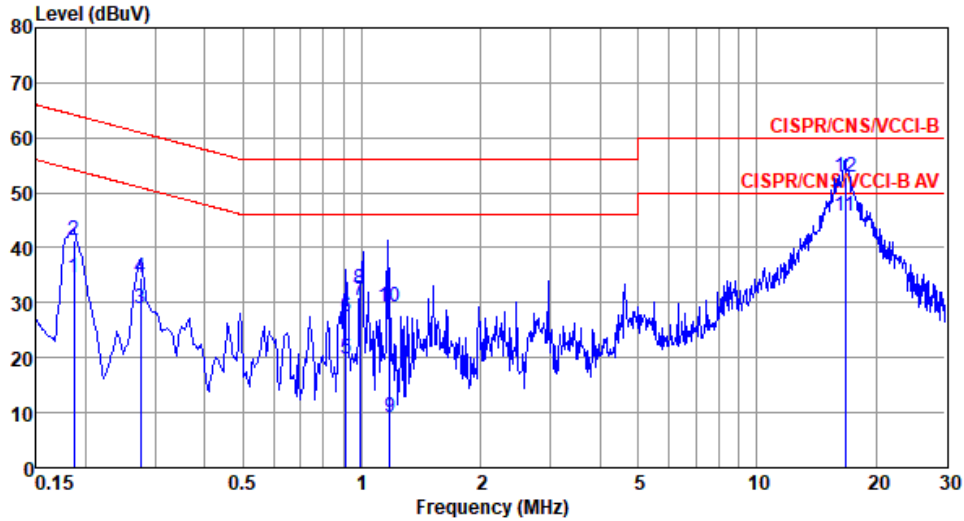


	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line	Limit	Level	factor	loss	
			dBuV	dB	dBuV	dB	dB	
1	0.177	38.66	54.64	-15.98	28.97	9.63	0.06	Average
2	0.177	42.68	64.64	-21.96	32.99	9.63	0.06	QP
3	0.267	31.07	51.20	-20.13	21.37	9.63	0.07	Average
4	0.267	35.85	61.20	-25.35	26.15	9.63	0.07	QP
5	0.697	4.64	46.00	-41.36	-5.09	9.63	0.10	Average
6	0.697	21.17	56.00	-34.83	11.44	9.63	0.10	QP
7	1.049	13.57	46.00	-32.43	3.82	9.63	0.12	Average
8	1.049	30.63	56.00	-25.37	20.88	9.63	0.12	QP
9	1.141	11.51	46.00	-34.49	1.75	9.63	0.13	Average
10	1.141	35.12	56.00	-20.88	25.36	9.63	0.13	QP
11*	16.486	44.48	50.00	-5.52	34.15	9.71	0.62	Average
12	16.486	51.93	60.00	-8.07	41.60	9.71	0.62	QP

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

Modulation	VHT40	Test Freq. (MHz)	5590
Power Phase	Neutral	Test Configuration	2

Test by : Alex Tsai Temperature: 24°C Humidity: 60%



	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line	Limit	Level	factor	loss	
			dBuV	dB	dBuV	dB	dB	
1	0.186	34.59	54.20	-19.61	24.88	9.65	0.06	Average
2	0.186	41.37	64.20	-22.83	31.66	9.65	0.06	QP
3	0.276	28.87	50.94	-22.07	19.15	9.65	0.07	Average
4	0.276	34.62	60.94	-26.32	24.90	9.65	0.07	QP
5	0.914	19.80	46.00	-26.20	10.03	9.65	0.12	Average
6	0.914	27.32	56.00	-28.68	17.55	9.65	0.12	QP
7	0.987	30.28	46.00	-15.72	20.51	9.65	0.12	Average
8	0.987	32.43	56.00	-23.57	22.66	9.65	0.12	QP
9	1.178	9.07	46.00	-36.93	-0.71	9.65	0.13	Average
10	1.178	29.23	56.00	-26.77	19.45	9.65	0.13	QP
11*	16.750	45.64	50.00	-4.36	35.21	9.81	0.62	Average
12	16.750	52.82	60.00	-7.18	42.39	9.81	0.62	QP

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

3.2 Emission Bandwidth

3.2.1 Test Procedures

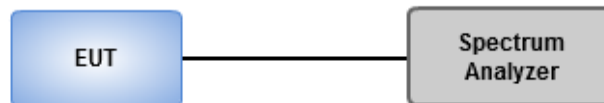
26dB Bandwidth

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

Occupied Bandwidth

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

3.2.2 Test Setup



3.2.3 Test Result of Emission Bandwidth

Ambient Condition	21~23°C / 65~68%	Tested By	Aska Huang
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Non-beamforming mode

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	19.348M	16.44M	16M4D1D	18.913M	16.382M
802.11ac VHT20_Nss1,(MCS0)_2TX	20.29M	17.598M	17M6D1D	20M	17.598M
802.11ac VHT40_Nss1,(MCS0)_2TX	40M	36.006M	36M0D1D	39.42M	35.89M
802.11ac VHT80_Nss1,(MCS0)_2TX	83.478M	75.716M	75M7D1D	82.899M	75.716M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	20.87M	16.44M	16M4D1D	14.388M	13.233M
802.11ac VHT20_Nss1,(MCS0)_2TX	20.435M	17.598M	17M6D1D	14.835M	13.851M
802.11ac VHT40_Nss1,(MCS0)_2TX	46.377M	36.122M	36M1D1D	34.909M	32.818M
802.11ac VHT80_Nss1,(MCS0)_2TX	83.478M	75.948M	75M9D1D	76.317M	72.48M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	3.13M	3.473M	3M47D1D	3.13M	3.43M
802.11ac VHT20_Nss1,(MCS0)_2TX	3.739M	3.994M	3M99D1D	3.739M	3.994M
802.11ac VHT40_Nss1,(MCS0)_2TX	3.087M	9.986M	9M99D1D	2.696M	7.337M
802.11ac VHT80_Nss1,(MCS0)_2TX	3.13M	19.537M	19M5D1D	2.478M	16.411M

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

Max-OBW = Maximum 99% occupied bandwidth;

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

Min-OBW = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	19.13M	16.382M	19.348M	16.44M
5300MHz	Pass	Inf	18.986M	16.382M	19.275M	16.44M
5320MHz	Pass	Inf	18.913M	16.382M	19.275M	16.382M
5500MHz	Pass	Inf	18.986M	16.382M	19.275M	16.44M
5580MHz	Pass	Inf	19.13M	16.44M	20.87M	16.44M
5700MHz	Pass	Inf	18.986M	16.44M	19.275M	16.44M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	14.388M	13.233M	14.663M	13.267M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.13M	3.473M	3.13M	3.43M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	20M	17.598M	20.217M	17.598M
5300MHz	Pass	Inf	20.072M	17.598M	20.29M	17.598M
5320MHz	Pass	Inf	20.145M	17.598M	20.072M	17.598M
5500MHz	Pass	Inf	20.072M	17.598M	20.072M	17.598M
5580MHz	Pass	Inf	20.29M	17.598M	20.435M	17.598M
5700MHz	Pass	Inf	20.29M	17.598M	20.29M	17.598M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	14.835M	13.886M	15.042M	13.851M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.739M	3.994M	3.739M	3.994M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	Inf	40M	36.006M	39.42M	36.006M
5310MHz	Pass	Inf	39.565M	35.89M	39.42M	35.89M
5510MHz	Pass	Inf	39.13M	35.89M	39.565M	36.006M
5590MHz	Pass	Inf	39.565M	35.89M	46.377M	36.122M
5670MHz	Pass	Inf	39.42M	35.774M	39.42M	35.89M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.909M	32.818M	34.909M	32.818M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	2.696M	9.986M	3.087M	7.337M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5290MHz	Pass	Inf	82.899M	75.716M	83.478M	75.716M
5530MHz	Pass	Inf	82.899M	75.485M	83.478M	75.716M
5610MHz	Pass	Inf	82.609M	75.485M	82.609M	75.948M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	76.317M	72.48M	77.063M	72.853M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	2.478M	16.411M	3.13M	19.537M

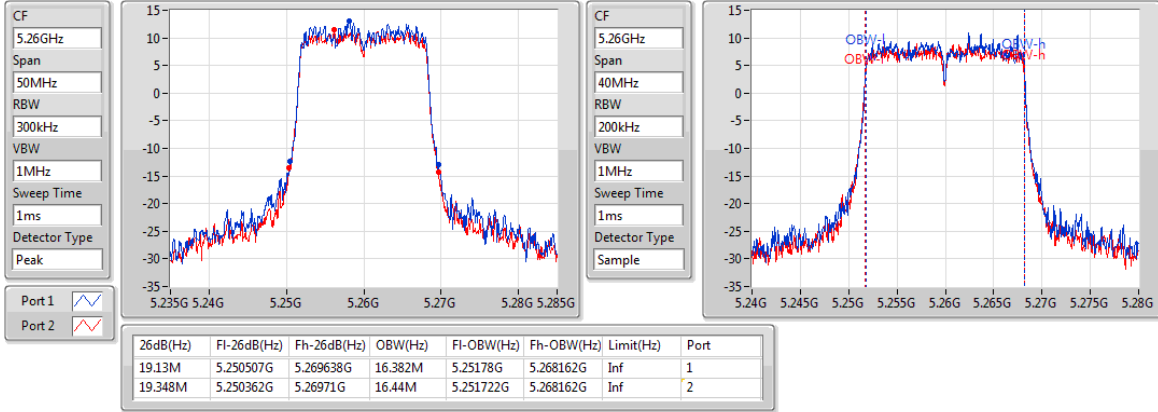
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

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

802.11a_Nss1,(6Mbps)_2TX

EBW

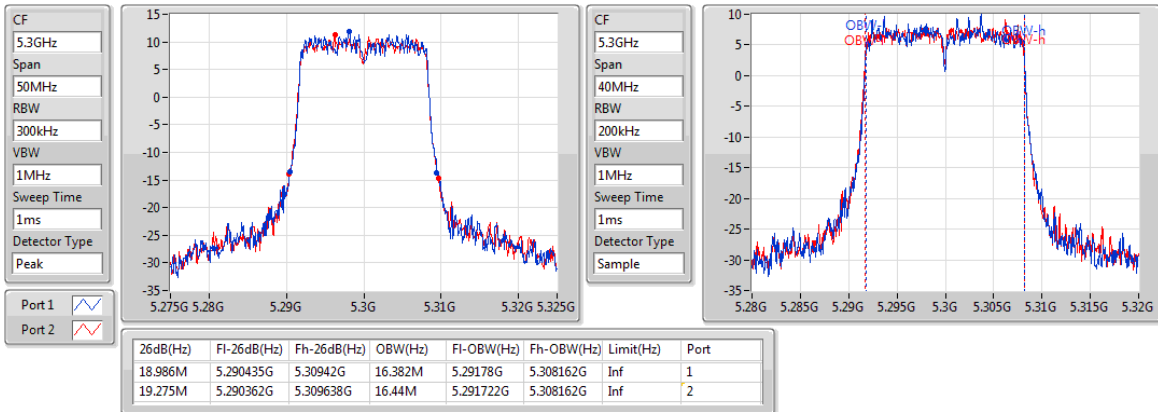
5260MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

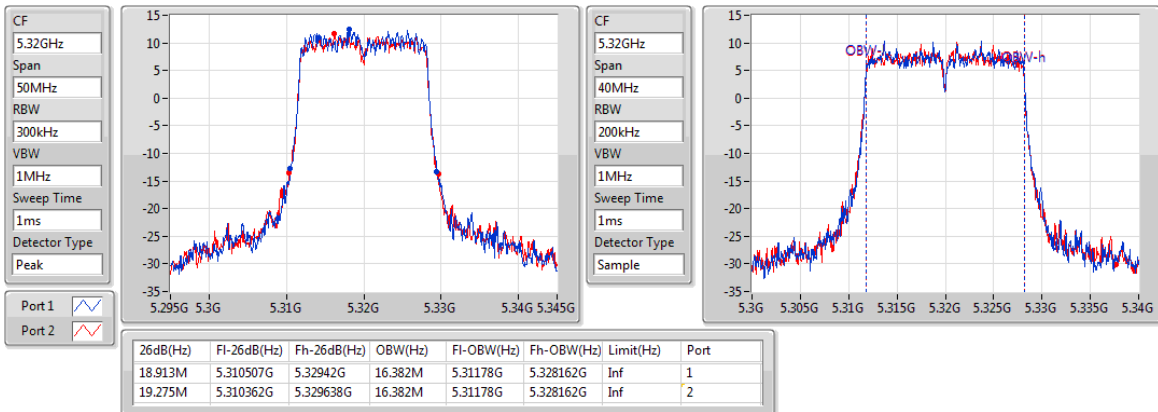
5300MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

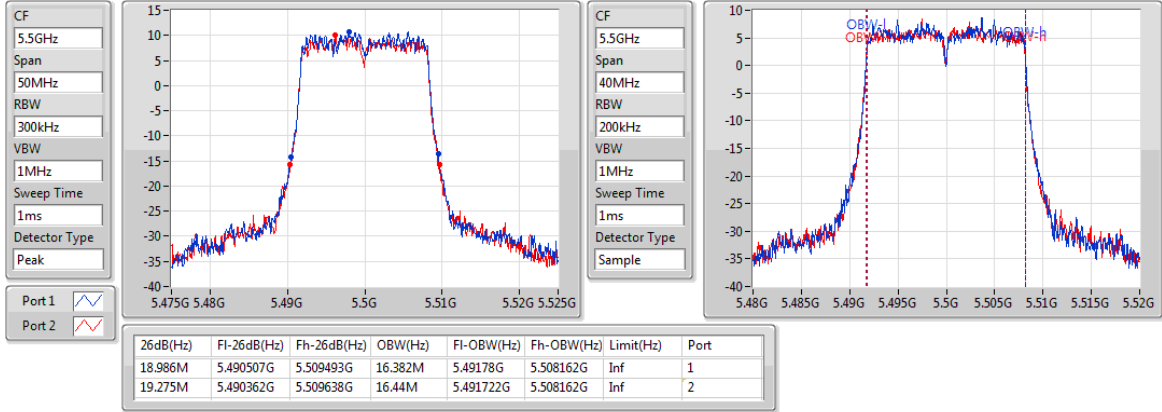
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802.11a_Nss1,(6Mbps)_2TX

EBW

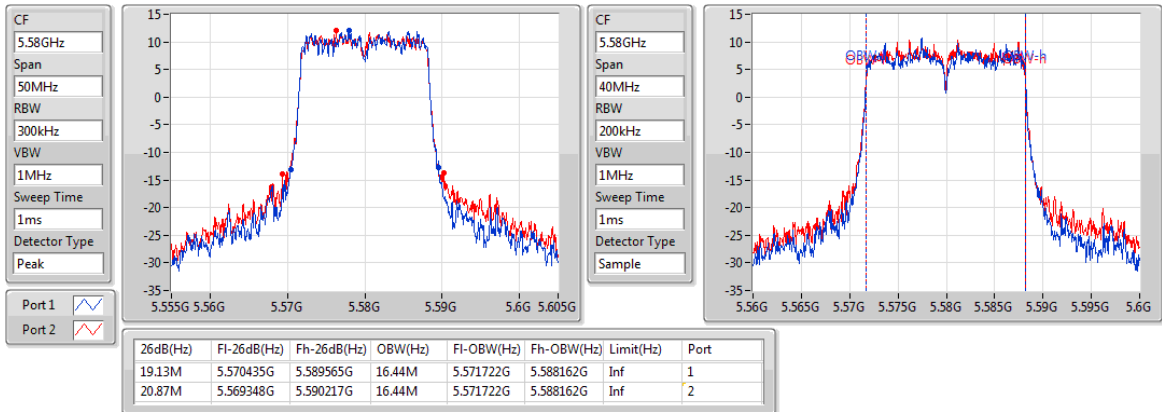
5500MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

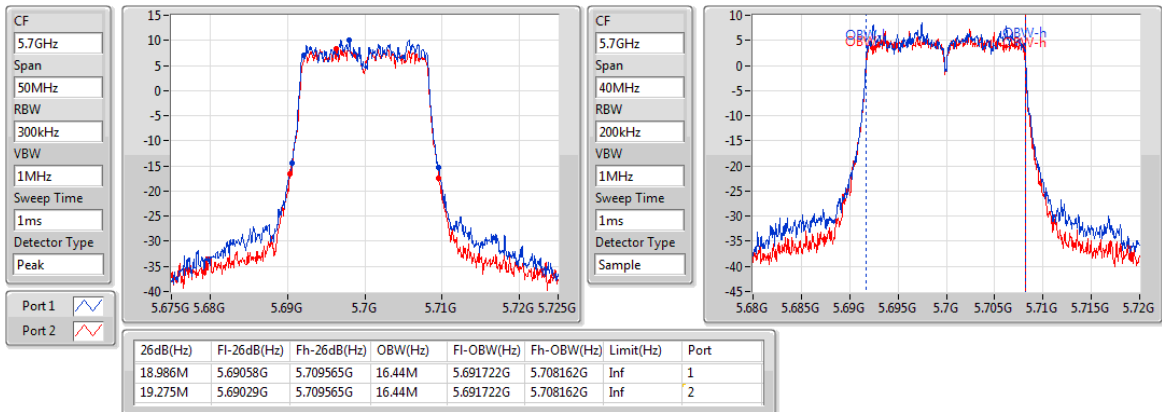
5580MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

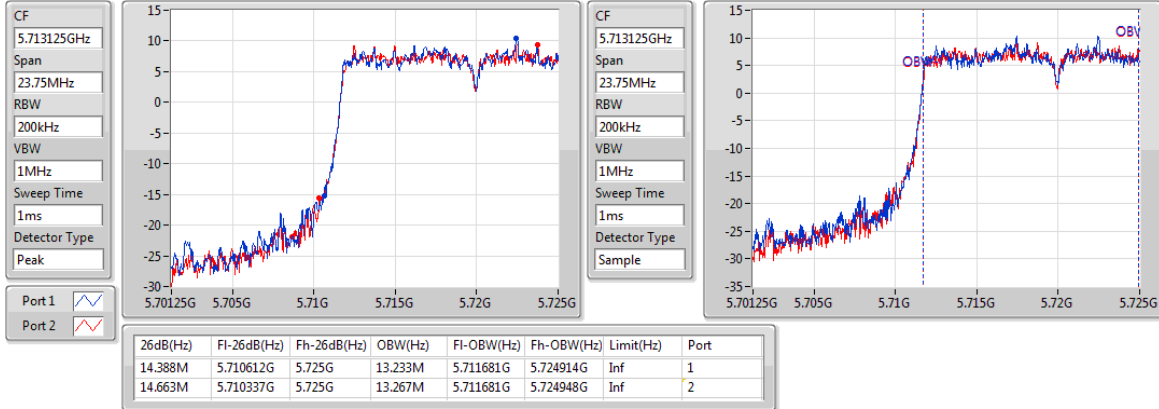
5700MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

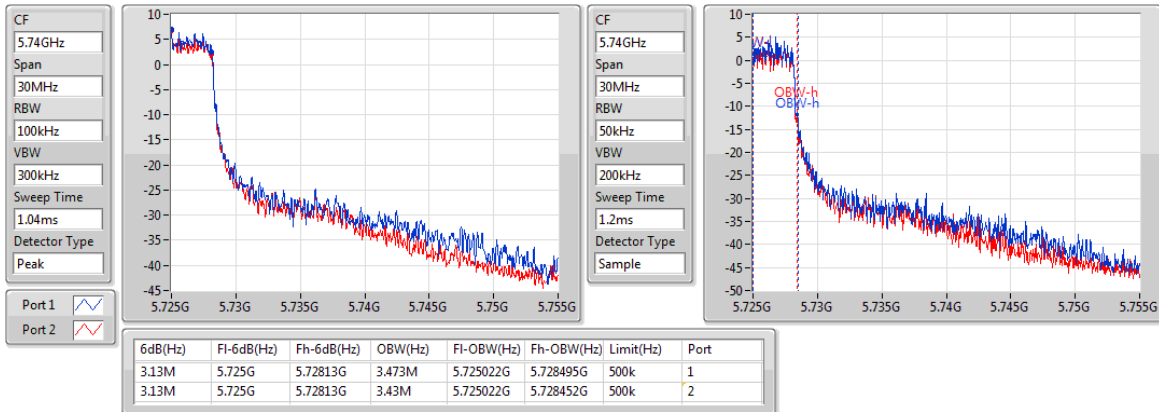
5720MHz Straddle 5.47-5.725GHz



802.11a_Nss1,(6Mbps)_2TX

EBW

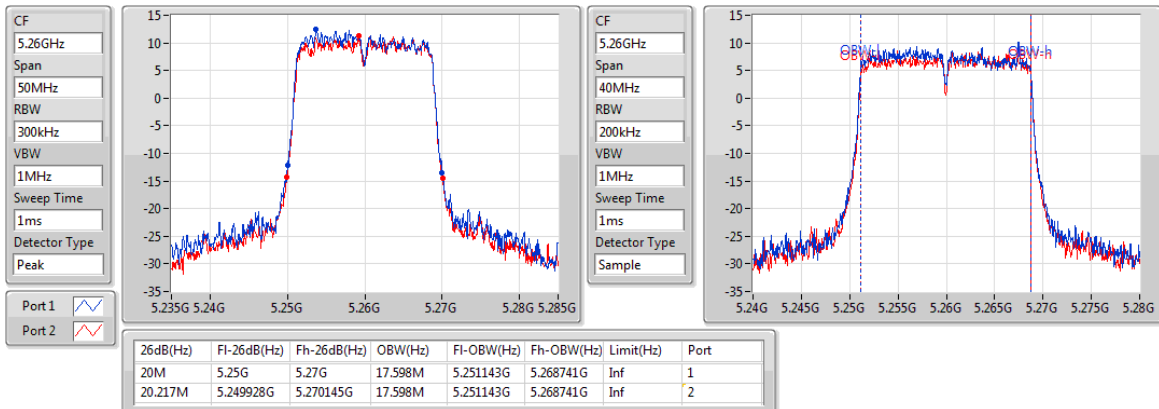
5720MHz Straddle 5.725-5.85GHz



802.11ac VHT20_Nss1,(MCS0)_2TX

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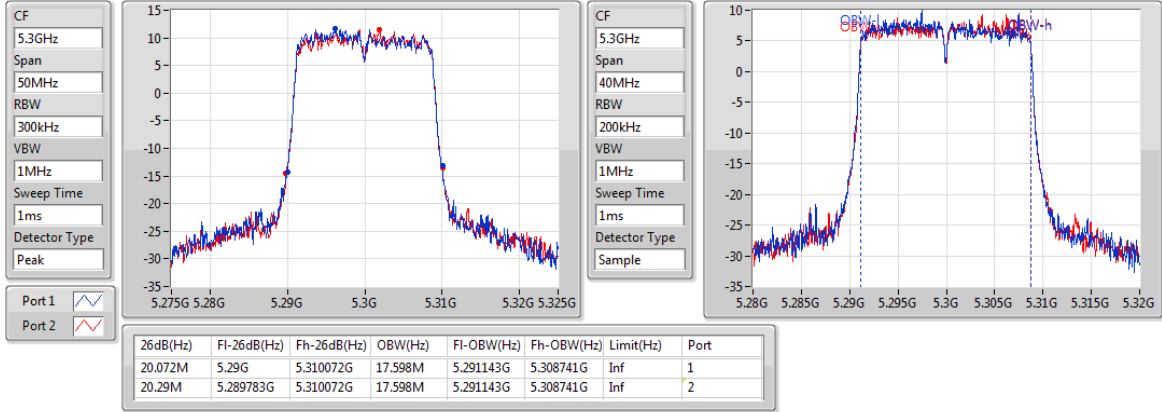
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802.11ac VHT20_Nss1,(MCS0)_2TX

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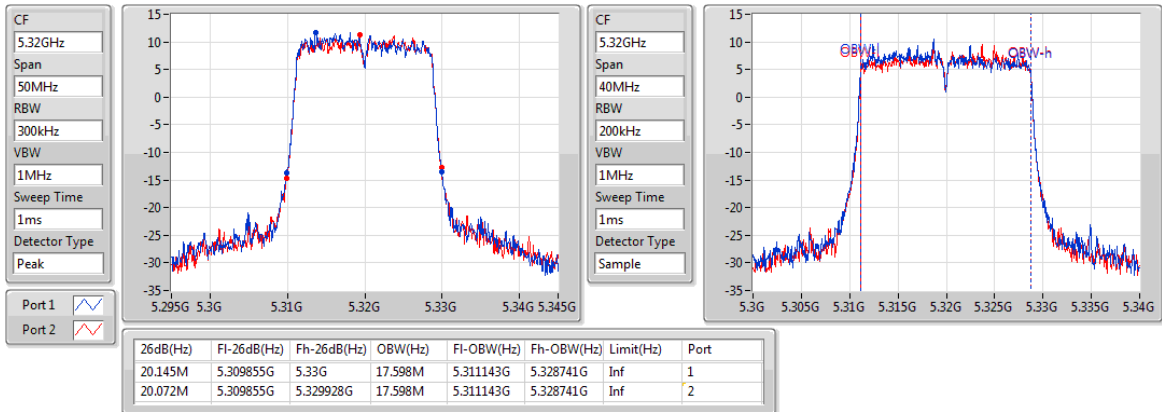
5300MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

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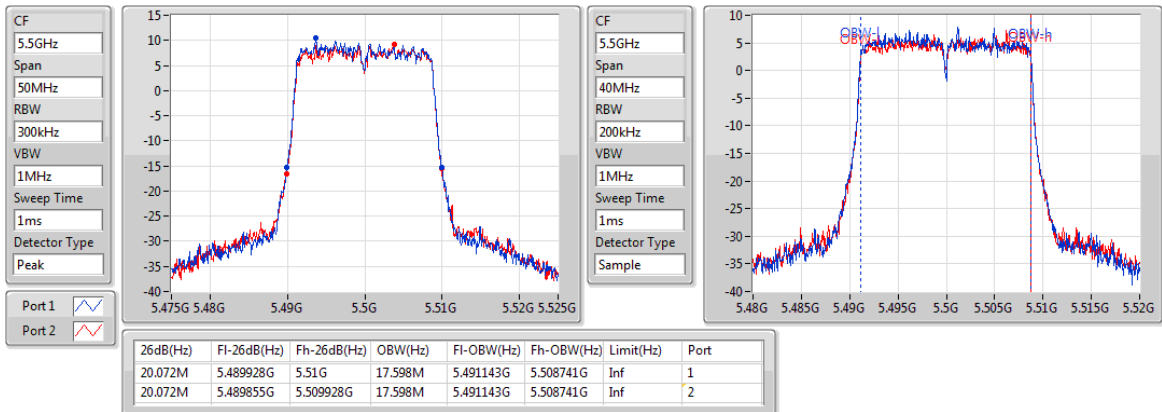
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802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

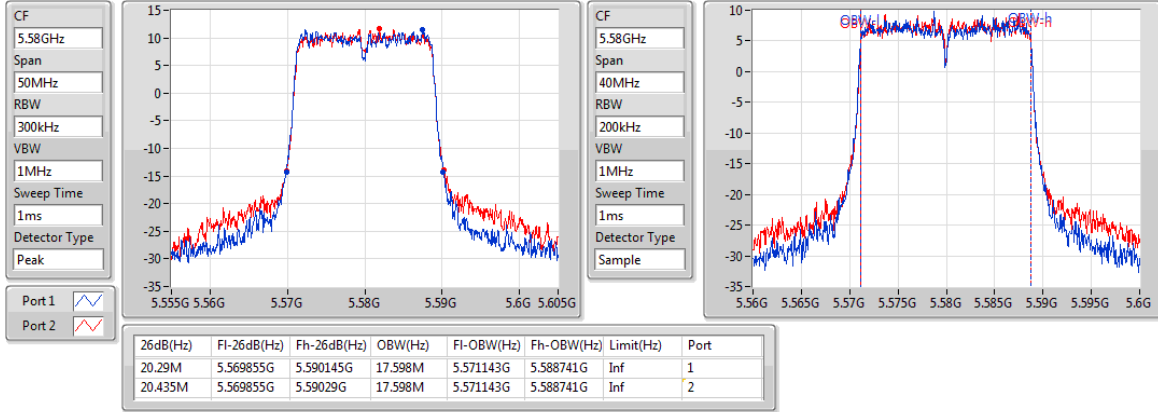
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802.11ac VHT20_Nss1,(MCS0)_2TX

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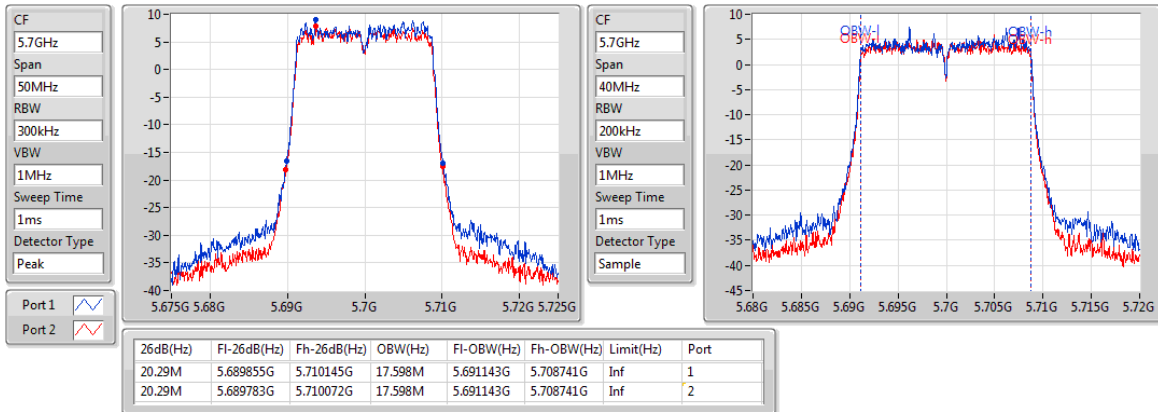
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802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

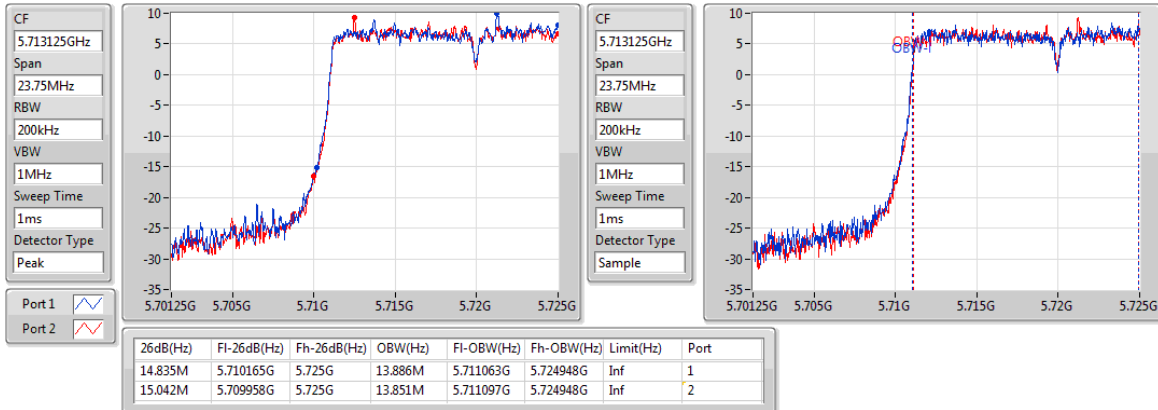
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802.11ac VHT20_Nss1,(MCS0)_2TX

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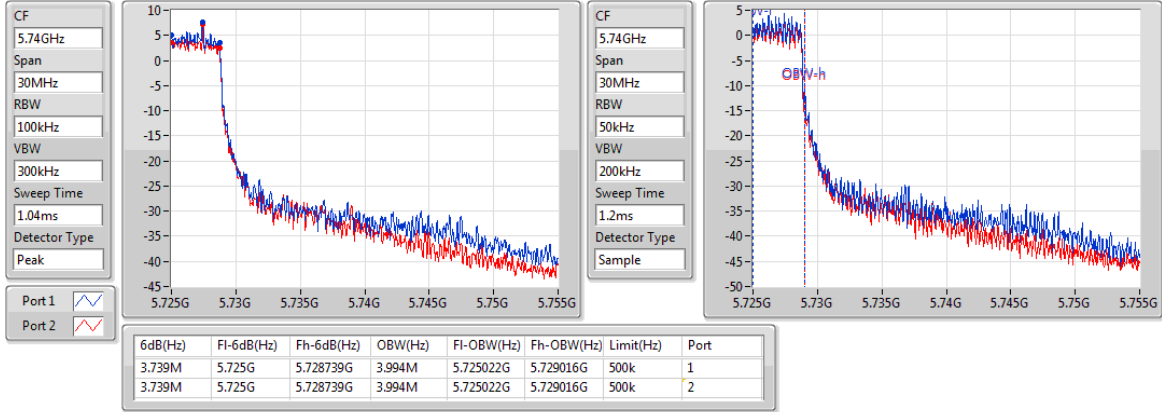
5720MHz Straddle 5.47-5.725GHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

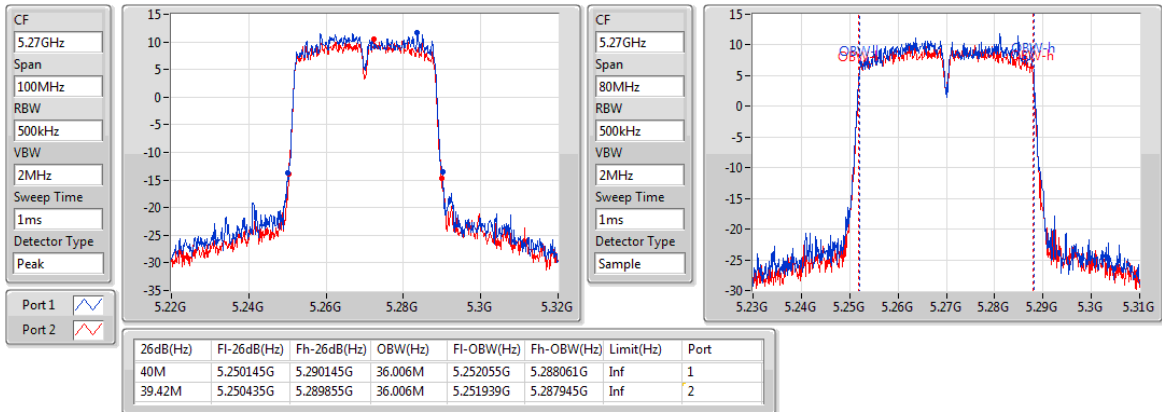
5720MHz Straddle 5.725-5.85GHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

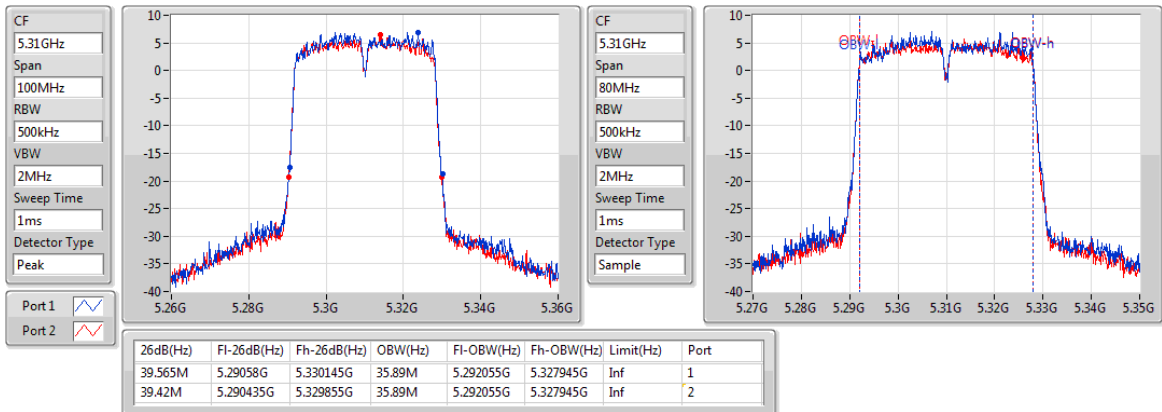
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802.11ac VHT40_Nss1,(MCS0)_2TX

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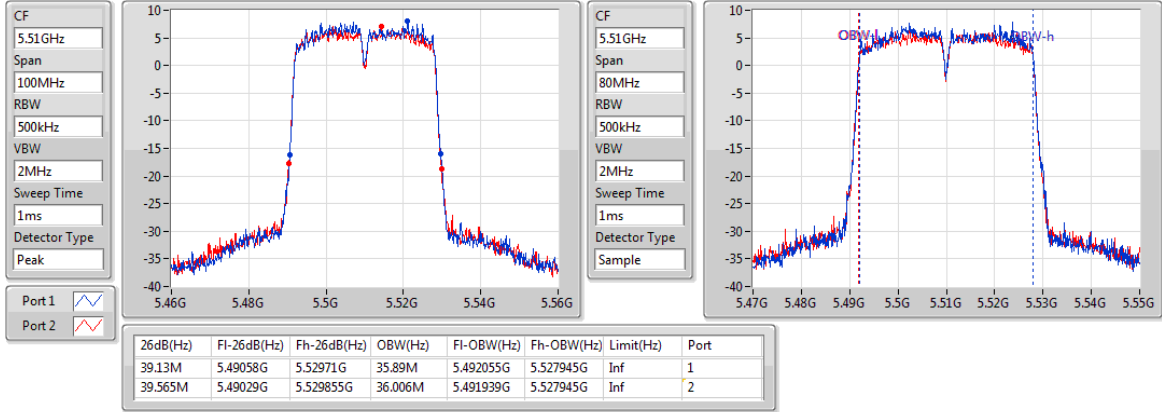
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802.11ac VHT40_Nss1,(MCS0)_2TX

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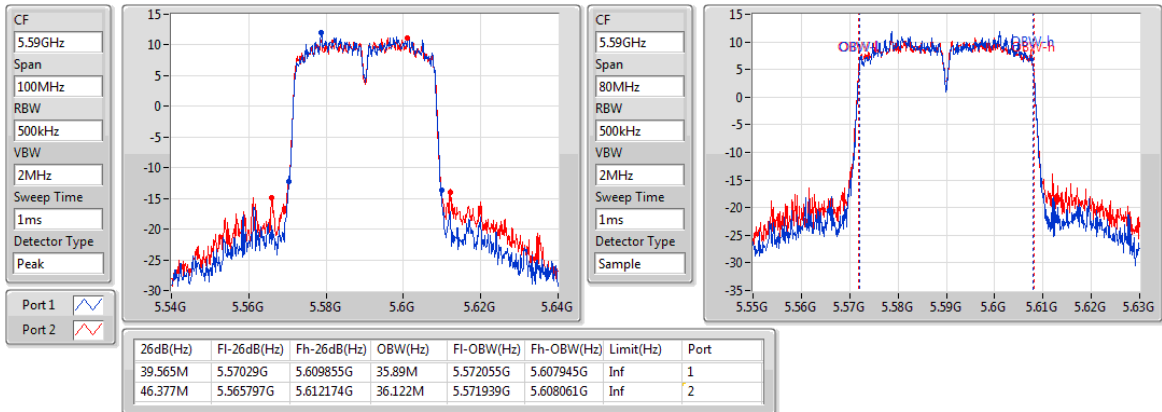
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802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

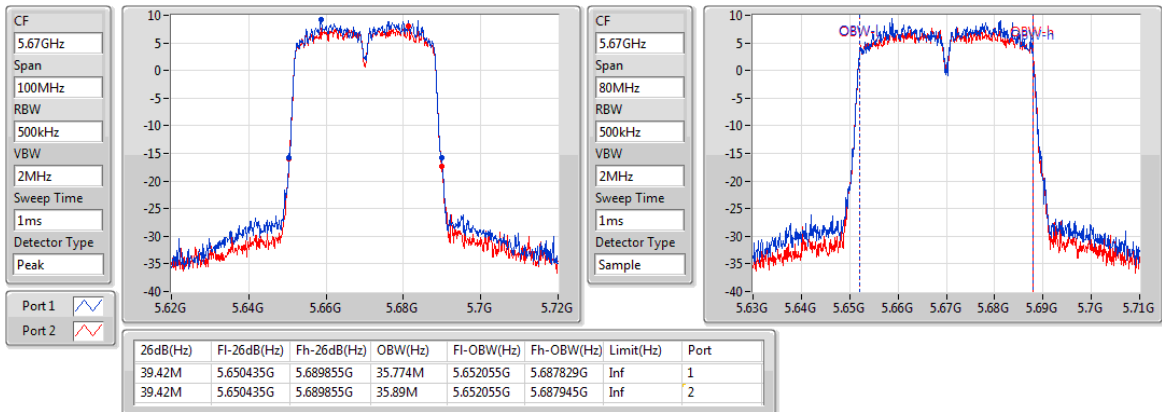
5590MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

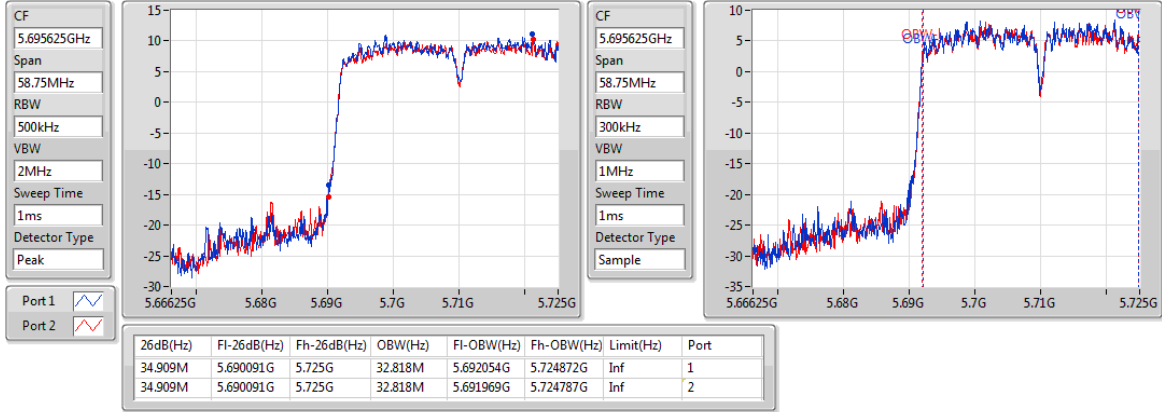
5670MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

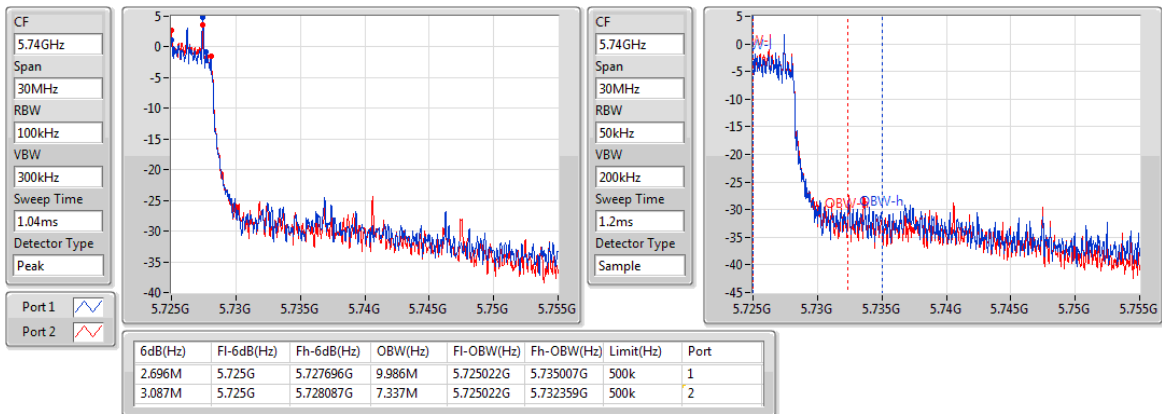
5710MHz Straddle 5.47-5.725GHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

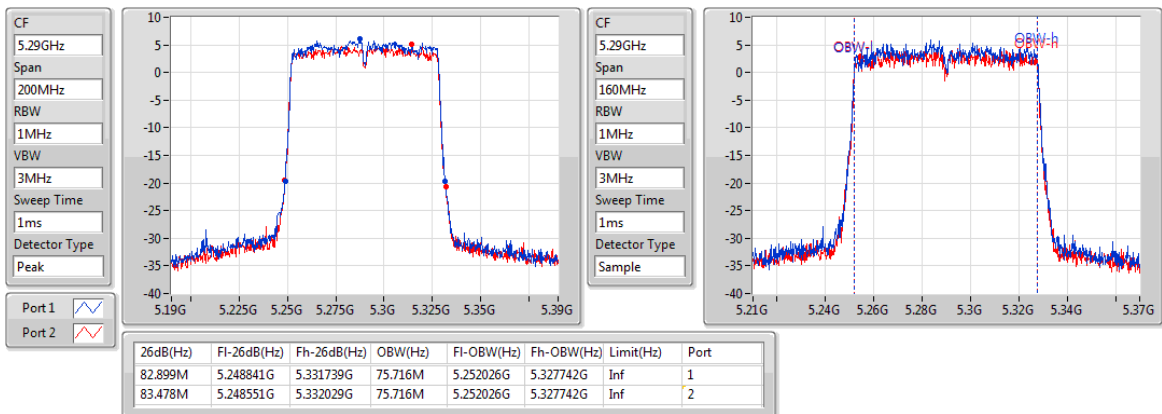
5710MHz Straddle 5.725-5.85GHz



802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

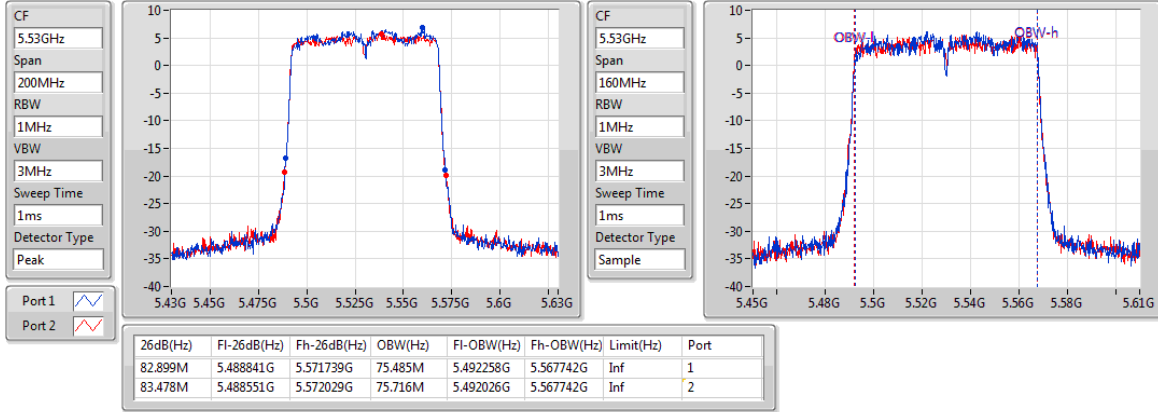
5290MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

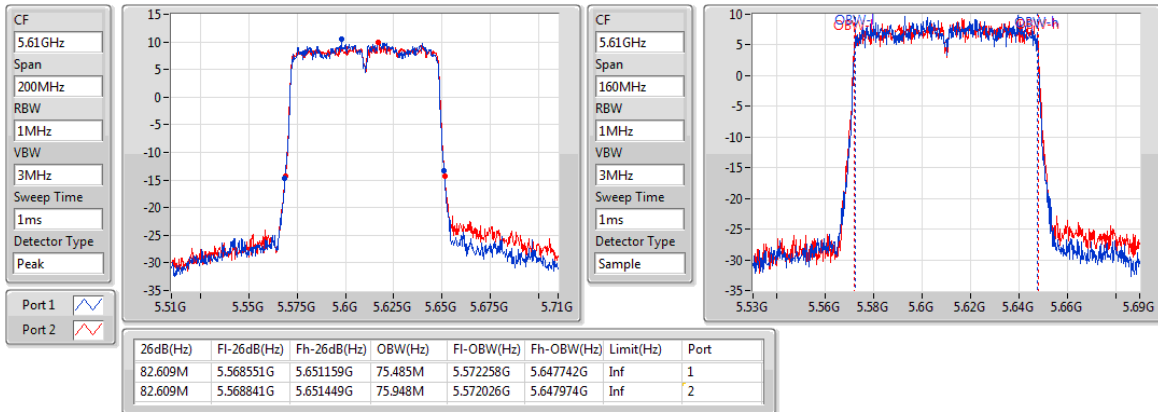
5530MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

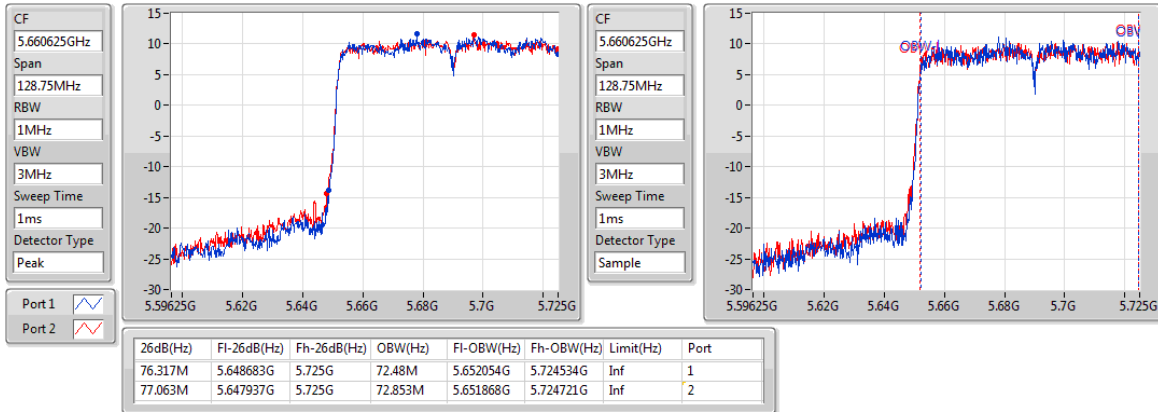
5610MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

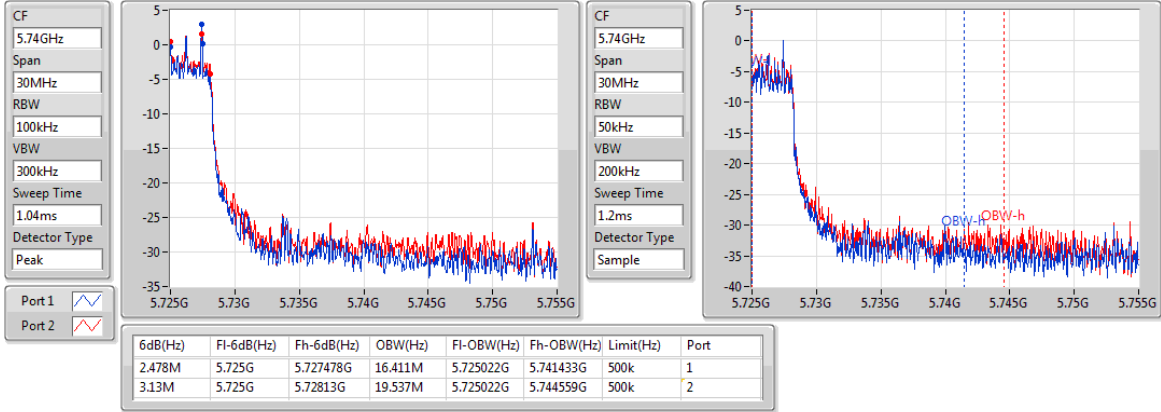
5690MHz Straddle 5.47-5.725GHz



802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

5690MHz Straddle 5.725-5.85GHz



Beamforming mode

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.25-5.35GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	20.507M	17.713M	17M7D1D	20.362M	17.598M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	39.565M	36.122M	36M1D1D	38.696M	36.006M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	82.029M	75.948M	75M9D1D	81.449M	75.948M
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	20.58M	17.656M	17M7D1D	15.007M	13.886M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	39.42M	36.122M	36M1D1D	34.654M	32.903M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	82.899M	76.179M	76M2D1D	75.011M	72.853M
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	3.739M	3.994M	3M99D1D	3.739M	3.907M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	3.174M	6.903M	6M90D1D	2.87M	4.255M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	3.174M	15.76M	15M8D1D	3.13M	5.818M

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

Max-OBW = Maximum 99% occupied bandwidth;

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

Min-OBW = Minimum 99% occupied bandwidth;

Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5260MHz	Pass	Inf	20.507M	17.598M	20.362M	17.598M
5300MHz	Pass	Inf	20.435M	17.598M	20.362M	17.598M
5320MHz	Pass	Inf	20.435M	17.598M	20.435M	17.713M
5500MHz	Pass	Inf	20.145M	17.54M	20.29M	17.656M
5580MHz	Pass	Inf	20.29M	17.598M	20.58M	17.598M
5700MHz	Pass	Inf	20.435M	17.598M	20.145M	17.54M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.179M	13.886M	15.007M	13.886M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.739M	3.907M	3.739M	3.994M
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5270MHz	Pass	Inf	38.696M	36.122M	39.13M	36.122M
5310MHz	Pass	Inf	39.565M	36.006M	39.42M	36.006M
5510MHz	Pass	Inf	38.696M	35.89M	39.275M	36.122M
5590MHz	Pass	Inf	39.13M	36.006M	38.696M	35.774M
5670MHz	Pass	Inf	39.42M	36.006M	39.13M	36.006M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.654M	32.903M	34.824M	32.903M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.174M	4.255M	2.87M	6.903M
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5290MHz	Pass	Inf	82.029M	75.948M	81.449M	75.948M
5530MHz	Pass	Inf	82.899M	75.948M	80.58M	75.716M
5610MHz	Pass	Inf	80.58M	76.179M	82.319M	75.948M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.011M	72.853M	75.197M	72.853M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.13M	5.818M	3.174M	15.76M

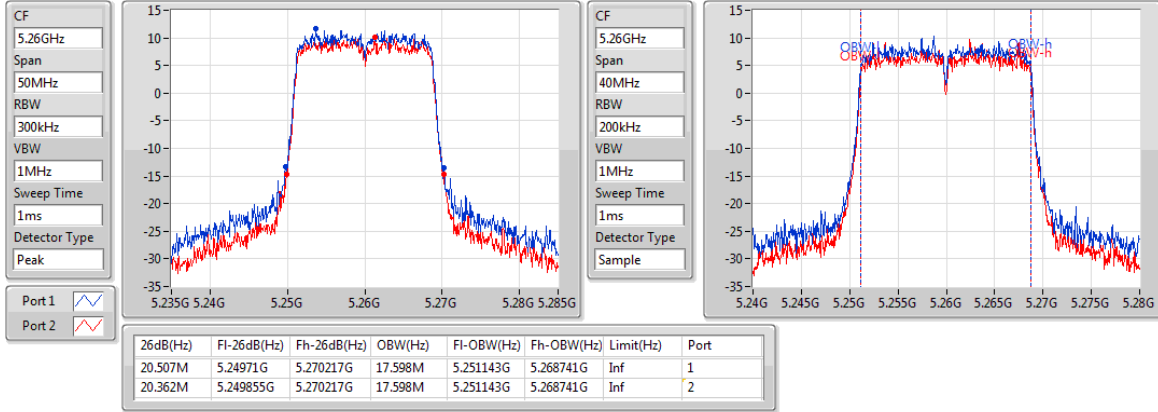
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

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

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

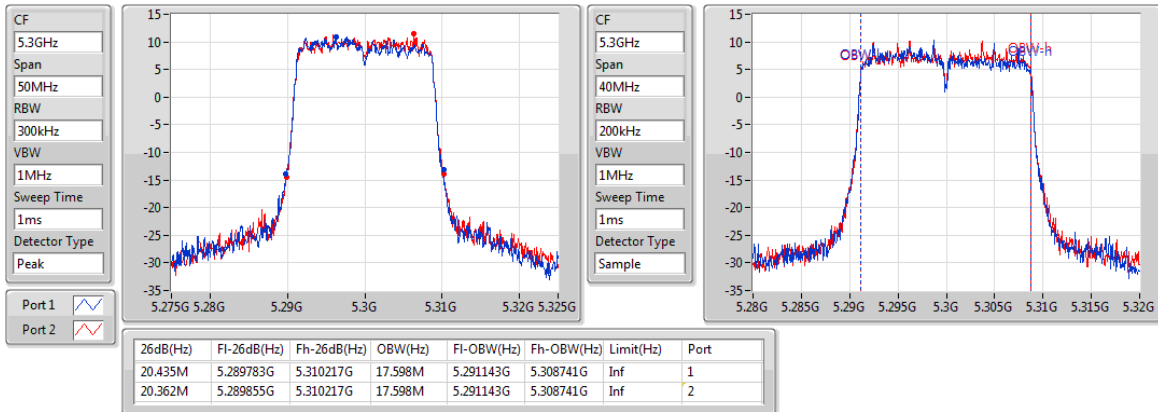
5260MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

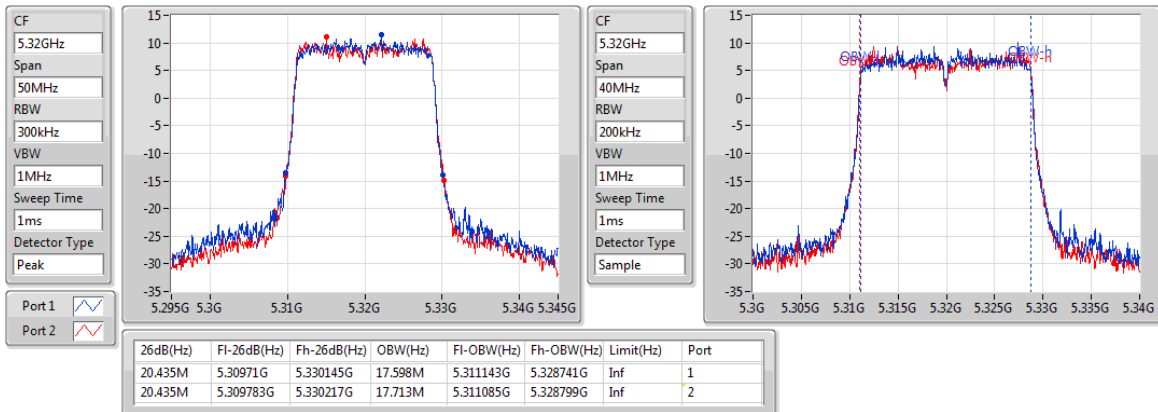
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802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

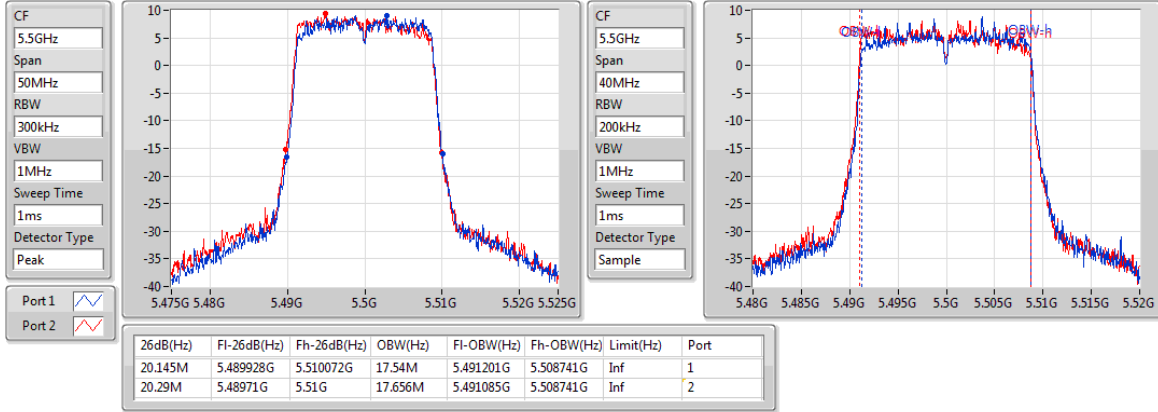
5320MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

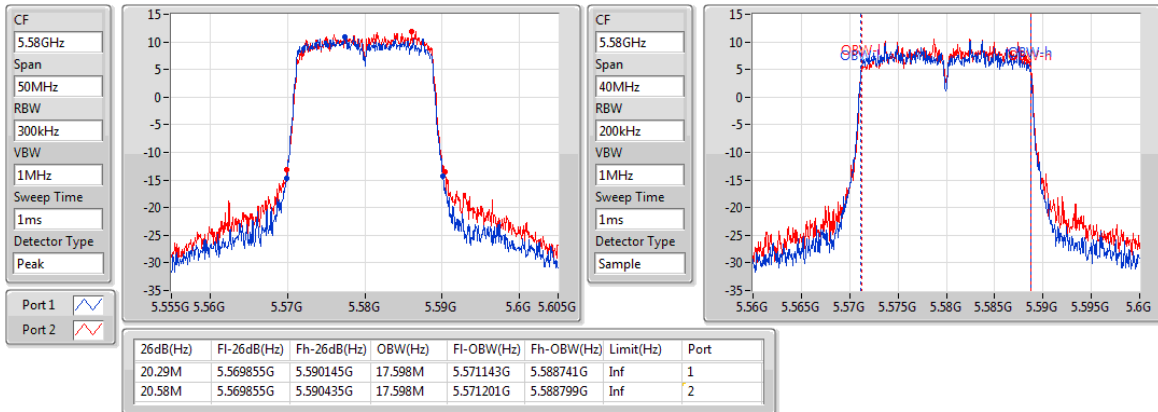
5500MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

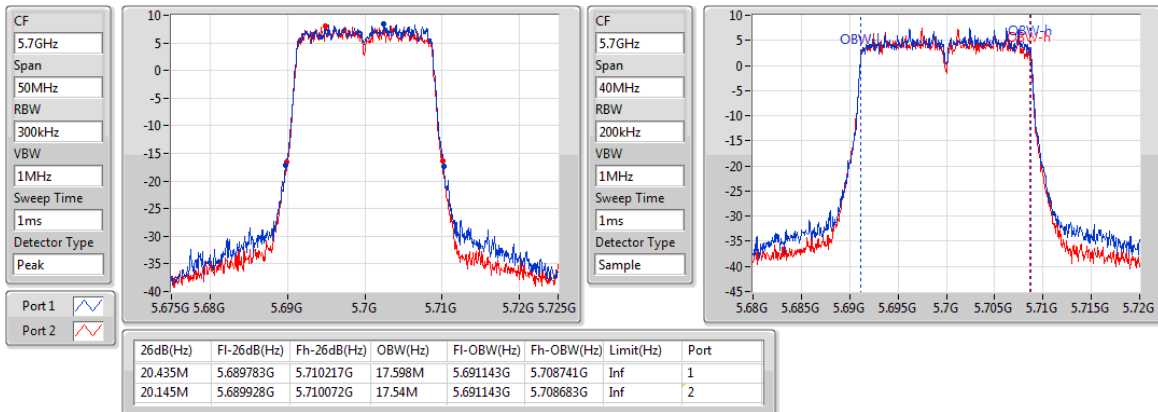
5580MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

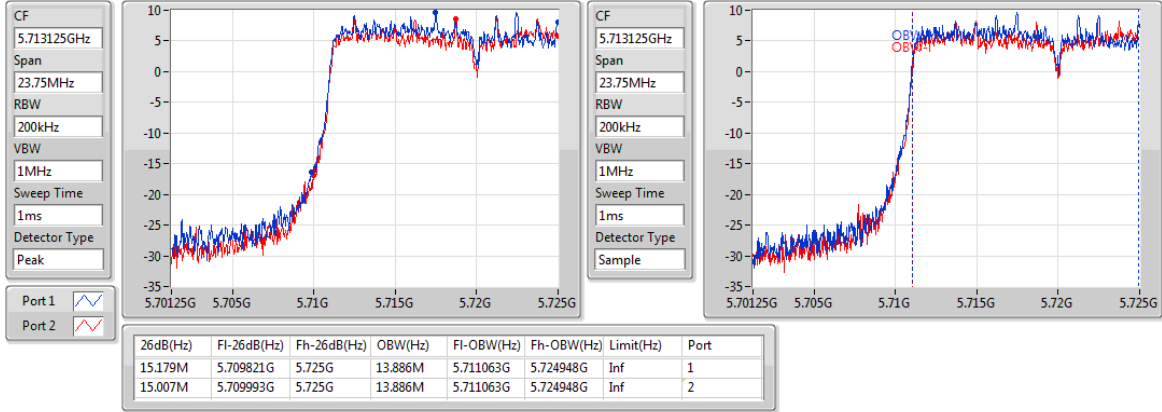
5700MHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

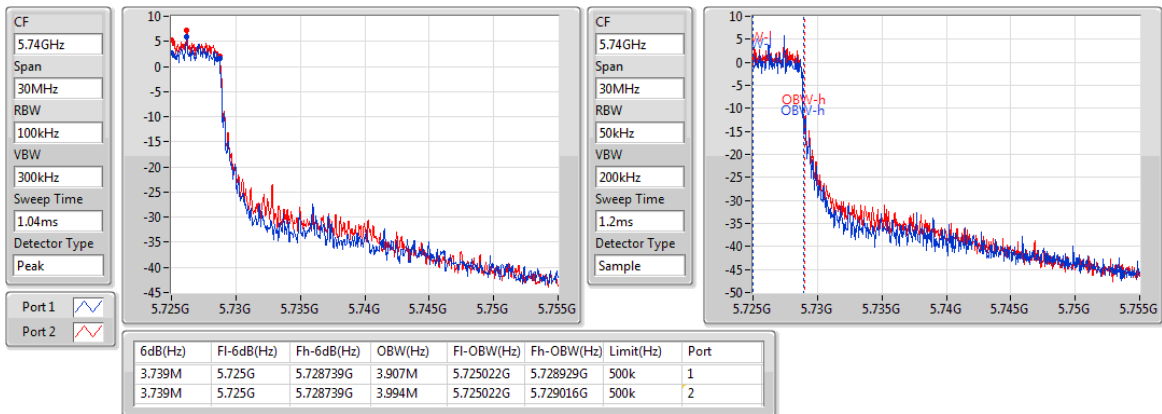
5720MHz Straddle 5.47-5.725GHz



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

EBW

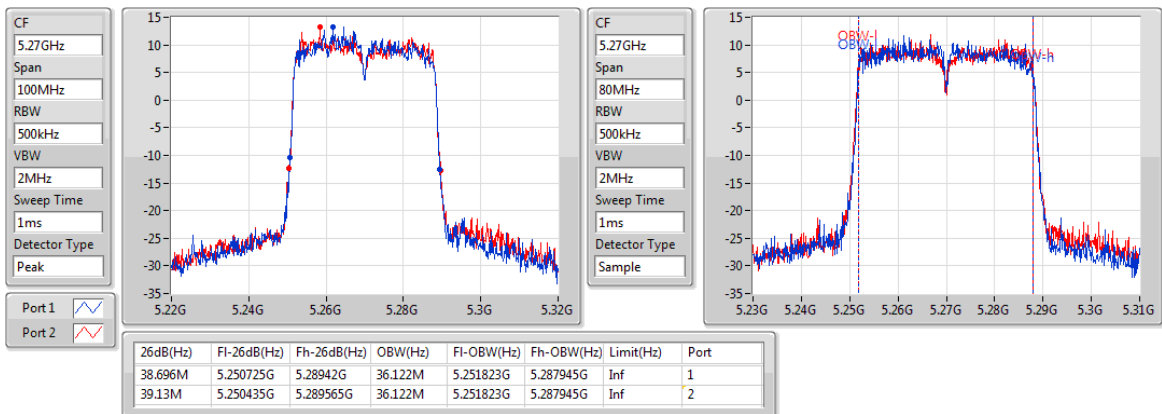
5720MHz Straddle 5.725-5.85GHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

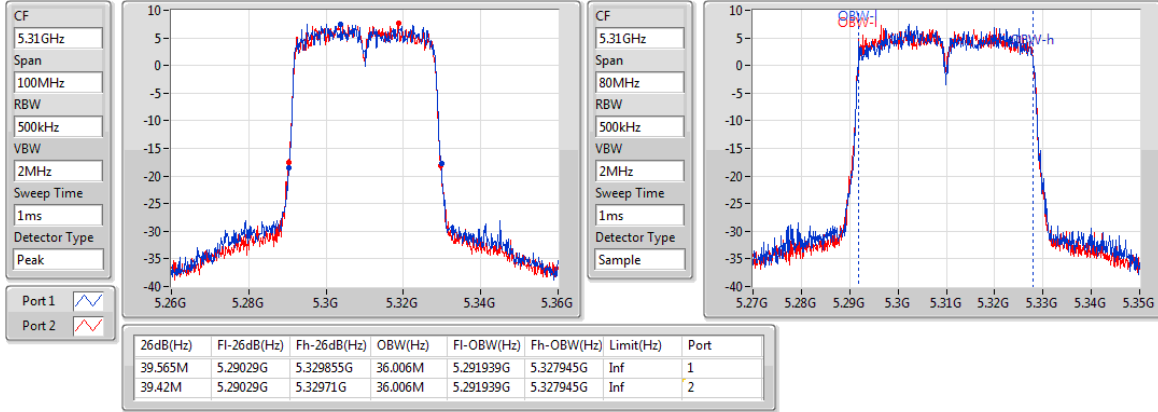
5270MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

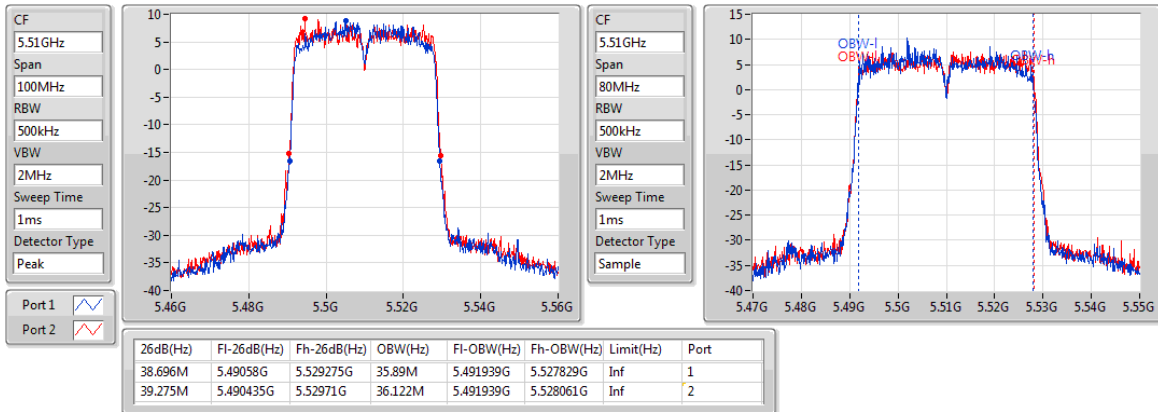
5310MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

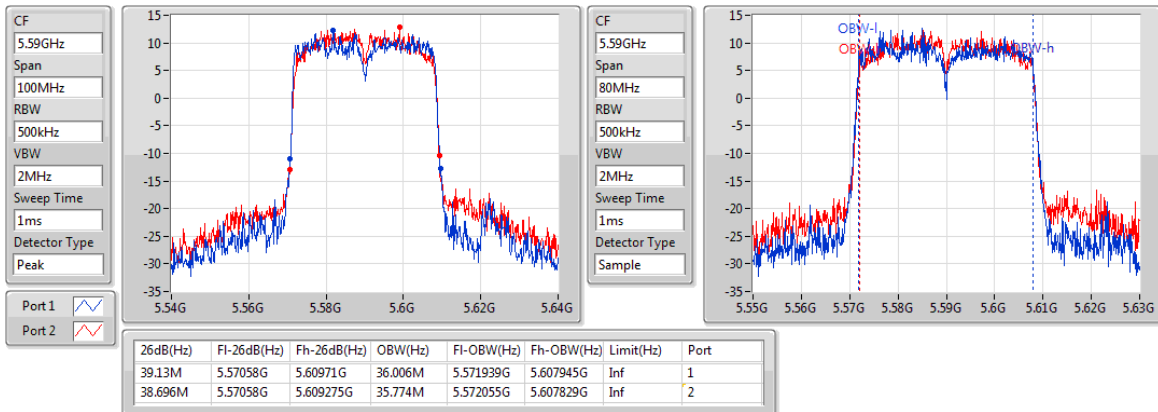
5510MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

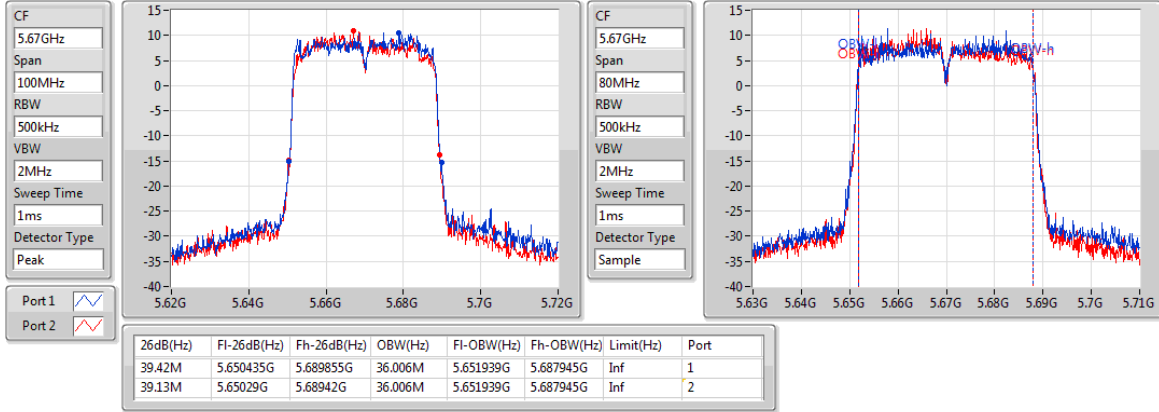
5590MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

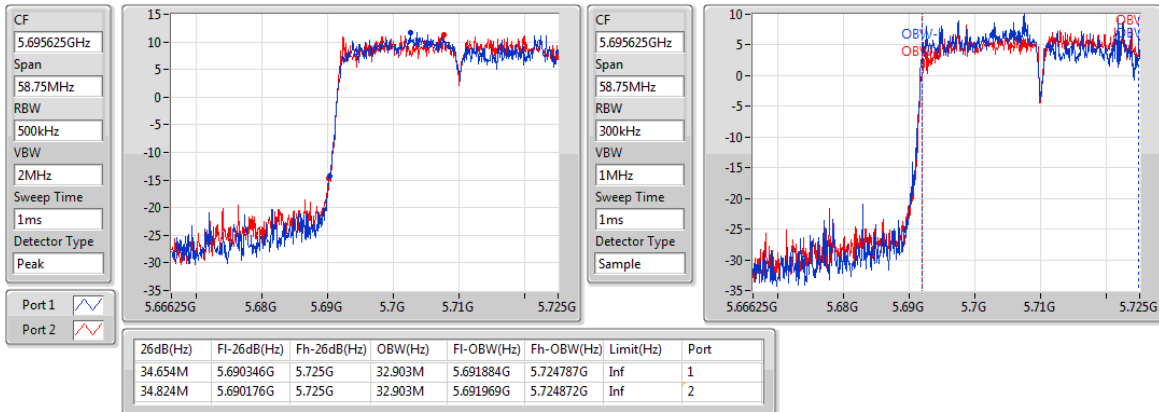
5670MHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

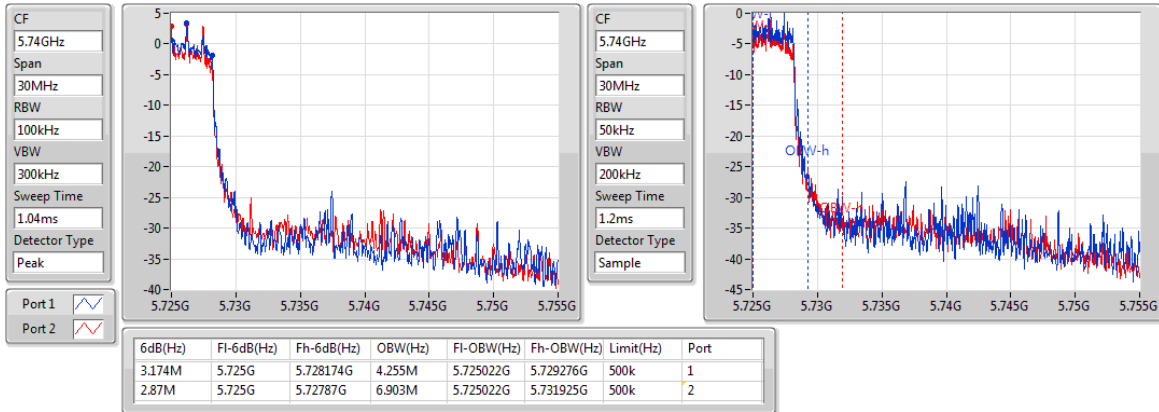
5710MHz Straddle 5.47-5.725GHz



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

EBW

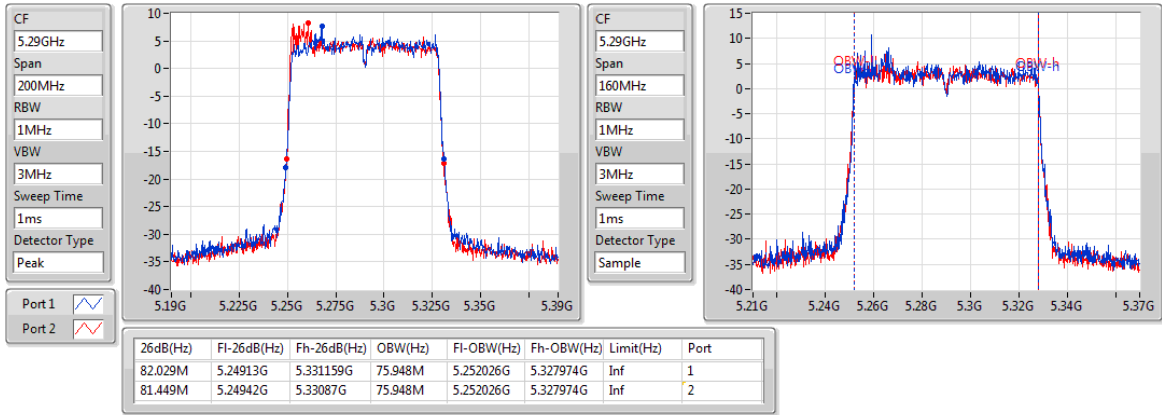
5710MHz Straddle 5.725-5.85GHz



802.11ac VHT80-BF_Nss1,(MCS0)_2TX

EBW

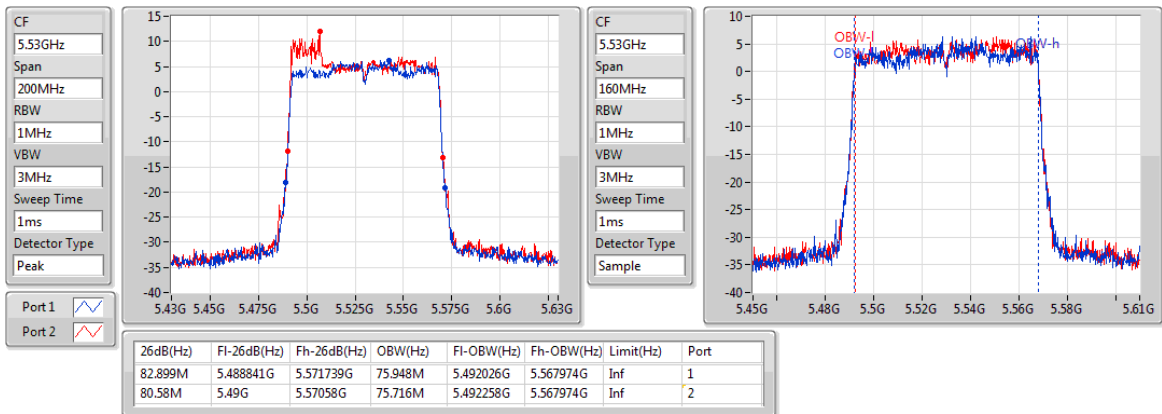
5290MHz



802.11ac VHT80-BF_Nss1,(MCS0)_2TX

EBW

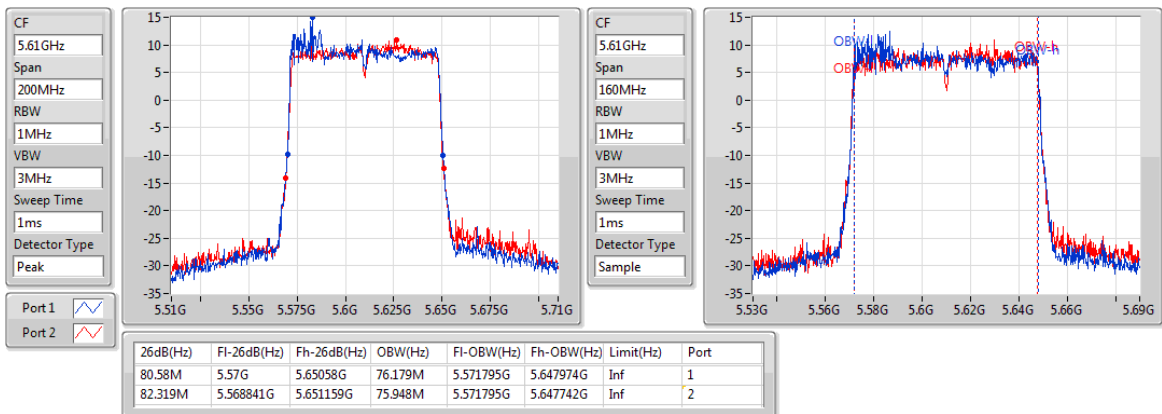
5530MHz



802.11ac VHT80-BF_Nss1,(MCS0)_2TX

EBW

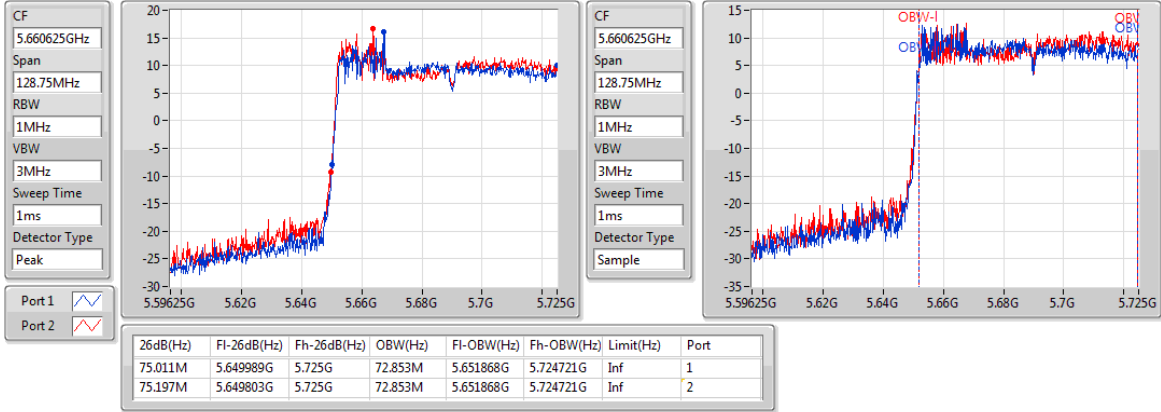
5610MHz



802.11ac VHT80-BF_Nss1,(MCS0)_2TX

EBW

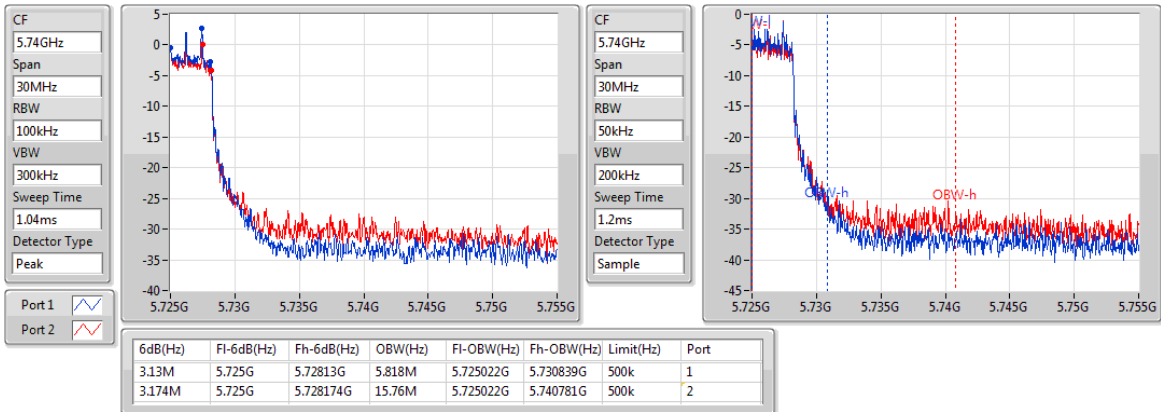
5690MHz Straddle 5.47-5.725GHz



802.11ac VHT80-BF_Nss1,(MCS0)_2TX

EBW

5690MHz Straddle 5.725-5.85GHz



3.3 RF Output Power

3.3.1 Limit of RF Output Power

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

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

3.3.2 Test Procedures

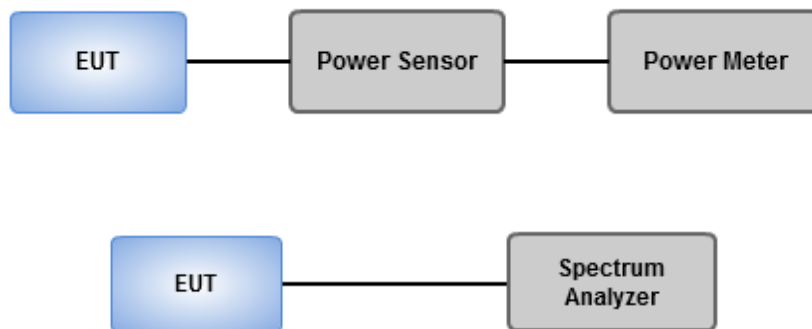
Method PM-G (Measurement using a gated RF average power meter)

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

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

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

3.3.3 Test Setup



3.3.4 Test Result of Maximum Conducted Output Power

Ambient Condition	21~23°C / 65~68%	Tested By	Aska Huang
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Non-beamforming mode

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.25-5.35GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	23.59	0.22856	26.09	0.40644
802.11ac VHT20_Nss1,(MCS0)_2TX	23.55	0.22646	26.05	0.40272
802.11ac VHT40_Nss1,(MCS0)_2TX	23.52	0.22491	26.02	0.39994
802.11ac VHT80_Nss1,(MCS0)_2TX	17.59	0.05741	20.09	0.10209
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	23.61	0.22961	26.11	0.40832
802.11ac VHT20_Nss1,(MCS0)_2TX	23.62	0.23014	26.12	0.40926
802.11ac VHT40_Nss1,(MCS0)_2TX	23.84	0.24210	26.34	0.43053
802.11ac VHT80_Nss1,(MCS0)_2TX	23.18	0.20797	25.68	0.36983
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.02	0.03999	18.52	0.07112
802.11ac VHT20_Nss1,(MCS0)_2TX	16.74	0.04721	19.24	0.08395
802.11ac VHT40_Nss1,(MCS0)_2TX	11.18	0.01312	13.68	0.02333
802.11ac VHT80_Nss1,(MCS0)_2TX	8.96	0.00787	11.46	0.01400

Result

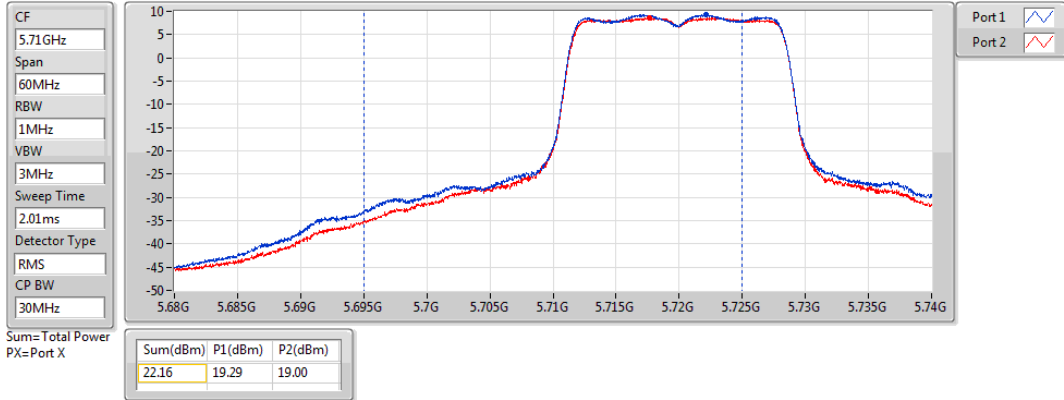
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	2.50	20.72	20.43	23.59	23.82	26.09	29.82
5300MHz	Pass	2.50	20.62	20.35	23.50	23.78	26.00	29.78
5320MHz	Pass	2.50	20.5	20.58	23.55	23.77	26.05	29.77
5500MHz	Pass	2.50	19.15	18.72	21.95	23.78	24.45	29.78
5580MHz	Pass	2.50	20.43	20.76	23.61	23.82	26.11	29.82
5700MHz	Pass	2.50	18.15	17.85	21.01	23.78	23.51	29.78
5720MHz Straddle 5.47-5.725GHz	Pass	2.50	19.29	19.00	22.16	22.58	24.66	28.58
5720MHz Straddle 5.725-5.85GHz	Pass	2.50	13.27	12.73	16.02	30.00	18.52	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	2.50	20.73	20.35	23.55	24.00	26.05	30.00
5300MHz	Pass	2.50	20.65	20.36	23.52	24.00	26.02	30.00
5320MHz	Pass	2.50	20.35	20.22	23.30	24.00	25.80	30.00
5500MHz	Pass	2.50	18.72	18.29	21.52	24.00	24.02	30.00
5580MHz	Pass	2.50	20.51	20.71	23.62	24.00	26.12	30.00
5700MHz	Pass	2.50	17.51	17.35	20.44	24.00	22.94	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	2.50	19.13	19.03	22.09	22.71	24.59	28.71
5720MHz Straddle 5.725-5.85GHz	Pass	2.50	14.16	13.25	16.74	30.00	19.24	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	2.50	20.75	20.25	23.52	24.00	26.02	30.00
5310MHz	Pass	2.50	16.23	16.02	19.14	24.00	21.64	30.00
5510MHz	Pass	2.50	17.22	17.03	20.14	24.00	22.64	30.00
5590MHz	Pass	2.50	20.81	20.85	23.84	24.00	26.34	30.00
5670MHz	Pass	2.50	18.31	18.21	21.27	24.00	23.77	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	2.50	20.15	20.01	23.09	24.00	25.59	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	2.50	7.95	8.37	11.18	30.00	13.68	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	2.50	14.75	14.41	17.59	24.00	20.09	30.00
5530MHz	Pass	2.50	15.56	15.43	18.51	24.00	21.01	30.00
5610MHz	Pass	2.50	18.72	19.16	21.96	24.00	24.46	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	2.50	20.15	20.18	23.18	24.00	25.68	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	2.50	5.61	6.26	8.96	30.00	11.46	36.00

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

802.11a_Nss1,(6Mbps)_2TX

AV Power

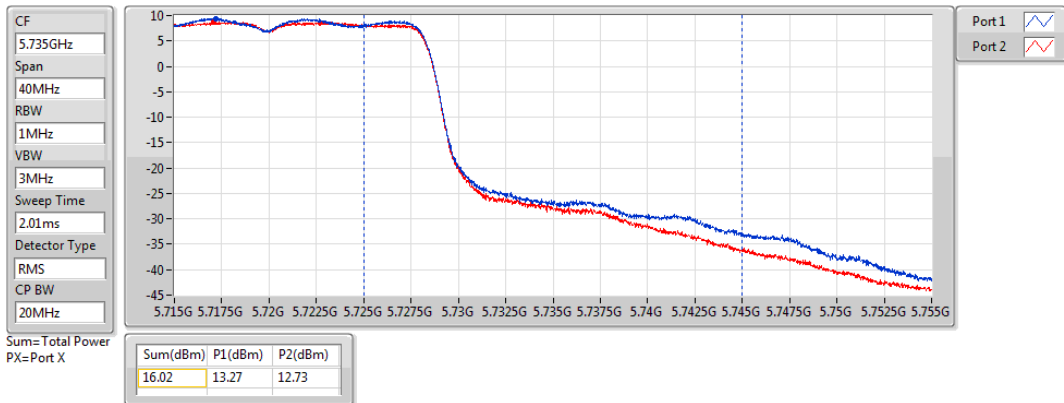
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802.11a_Nss1,(6Mbps)_2TX

AV Power

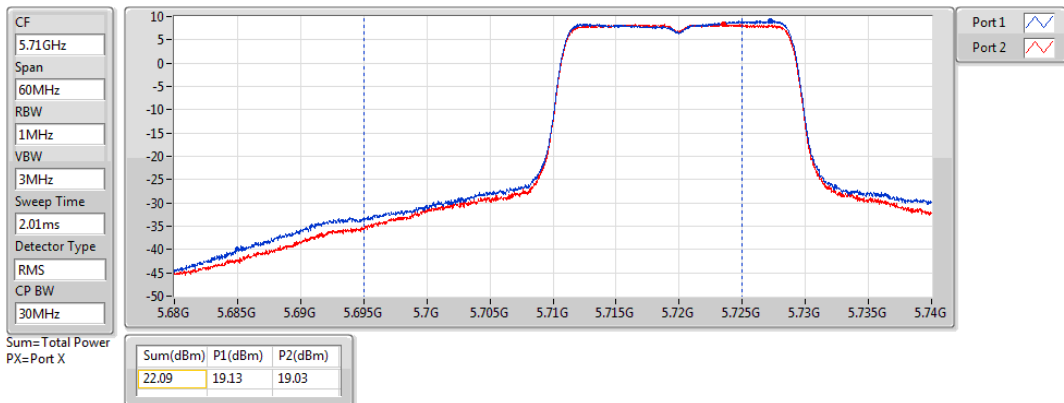
5720MHz Straddle 5.725-5.85GHz_TnomVnom



802.11ac VHT20_Nss1,(MCS0)_2TX

AV Power

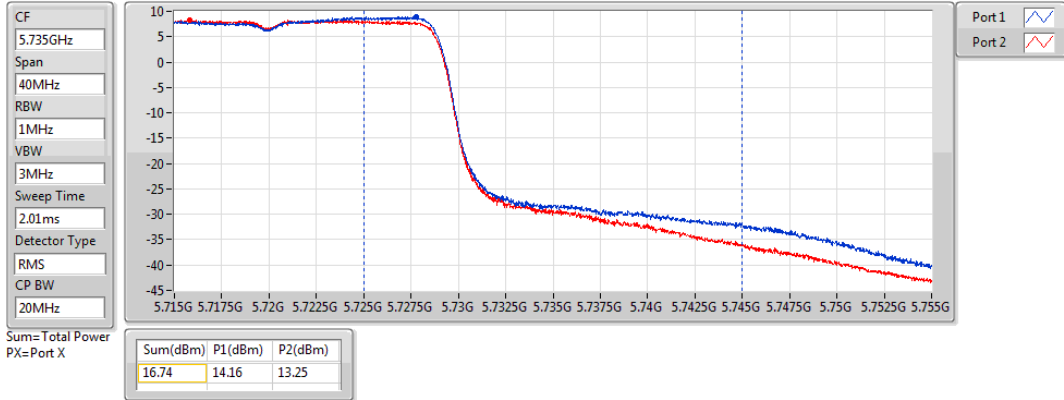
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802.11ac VHT20_Nss1,(MCS0)_2TX

AV Power

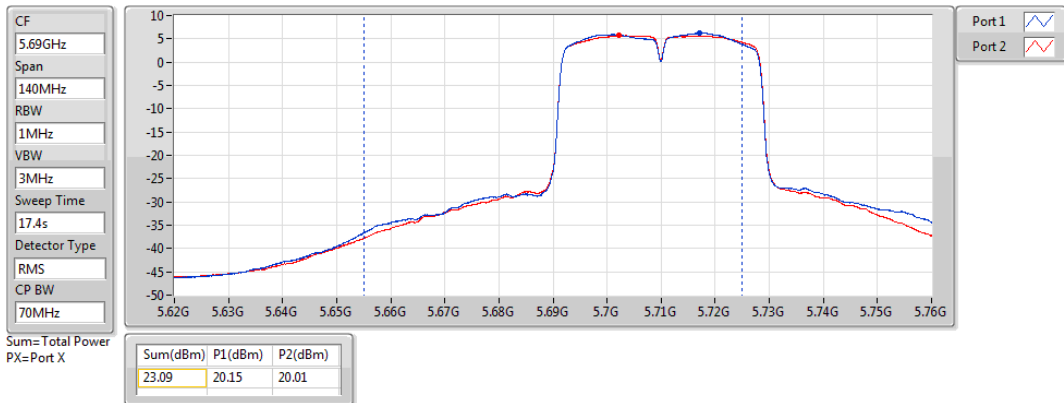
5720MHz Straddle 5.725-5.85GHz_TnomVnom



802.11ac VHT40_Nss1,(MCS0)_2TX

AV Power

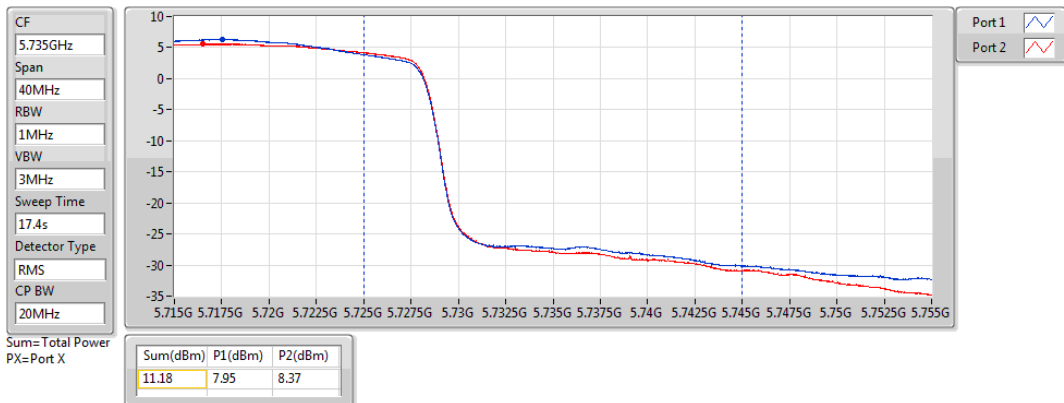
5710MHz Straddle 5.47-5.725GHz_TnomVnom



802.11ac VHT40_Nss1,(MCS0)_2TX

AV Power

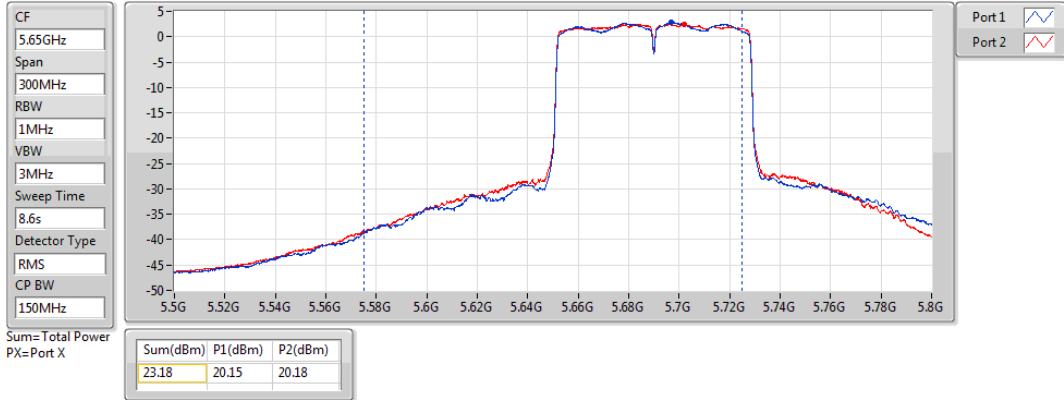
5710MHz Straddle 5.725-5.85GHz_TnomVnom



802.11ac VHT80_Nss1,(MCS0)_2TX

AV Power

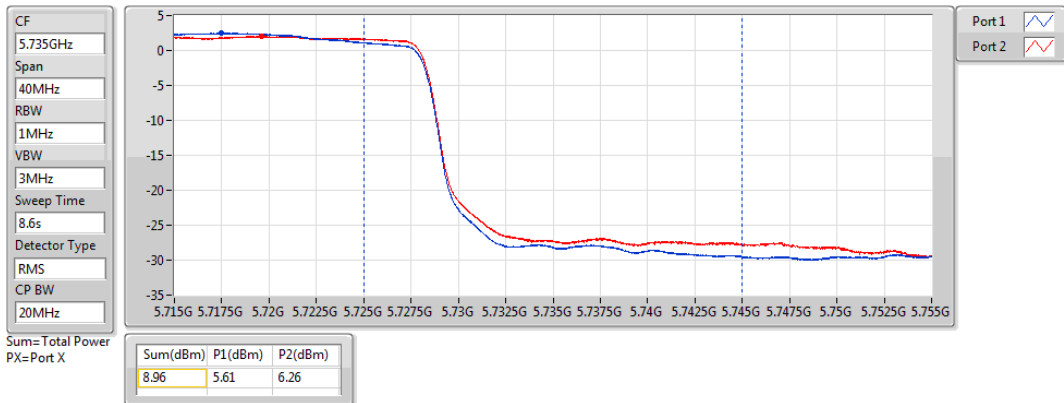
5690MHz Straddle 5.47-5.725GHz_TnomVnom



802.11ac VHT80_Nss1,(MCS0)_2TX

AV Power

5690MHz Straddle 5.725-5.85GHz_TnomVnom



Beamforming mode

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.25-5.35GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	23.49	0.22336	29.00	0.79433
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	23.10	0.20417	28.61	0.72611
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	17.13	0.05164	22.64	0.18365
5.47-5.725GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	23.59	0.22856	29.10	0.81283
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	23.62	0.23014	29.13	0.81846
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	22.63	0.18323	28.14	0.65163
5.725-5.85GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	14.65	0.02917	20.16	0.10375
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	10.16	0.01038	15.67	0.03690
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	8.96	0.00787	14.47	0.02799

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	5.51	20.61	20.35	23.49	24.00	29.00	30.00
5300MHz	Pass	5.51	20.56	20.22	23.40	24.00	28.91	30.00
5320MHz	Pass	5.51	20.43	20.04	23.25	24.00	28.76	30.00
5500MHz	Pass	5.51	18.52	18.21	21.38	24.00	26.89	30.00
5580MHz	Pass	5.51	20.53	20.62	23.59	24.00	29.10	30.00
5700MHz	Pass	5.51	17.14	17.43	20.30	24.00	25.81	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.51	18.64	18.75	21.71	22.76	27.22	28.76
5720MHz Straddle 5.725-5.85GHz	Pass	5.51	11.46	11.82	14.65	30.00	20.16	36.00
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	5.51	20.39	19.77	23.10	24.00	28.61	30.00
5310MHz	Pass	5.51	16.24	15.56	18.92	24.00	24.43	30.00
5510MHz	Pass	5.51	17.12	16.89	20.02	24.00	25.53	30.00
5590MHz	Pass	5.51	20.55	20.67	23.62	24.00	29.13	30.00
5670MHz	Pass	5.51	18.11	18.25	21.19	24.00	26.70	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	5.51	18.81	19.36	22.10	24.00	27.61	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	5.51	7.68	6.54	10.16	30.00	15.67	36.00
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	5.51	14.22	14.02	17.13	24.00	22.64	30.00
5530MHz	Pass	5.51	15.31	15.25	18.29	24.00	23.80	30.00
5610MHz	Pass	5.51	18.55	18.75	21.66	24.00	27.17	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	5.51	19.52	19.71	22.63	24.00	28.14	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	5.51	6.30	5.57	8.96	30.00	14.47	36.00

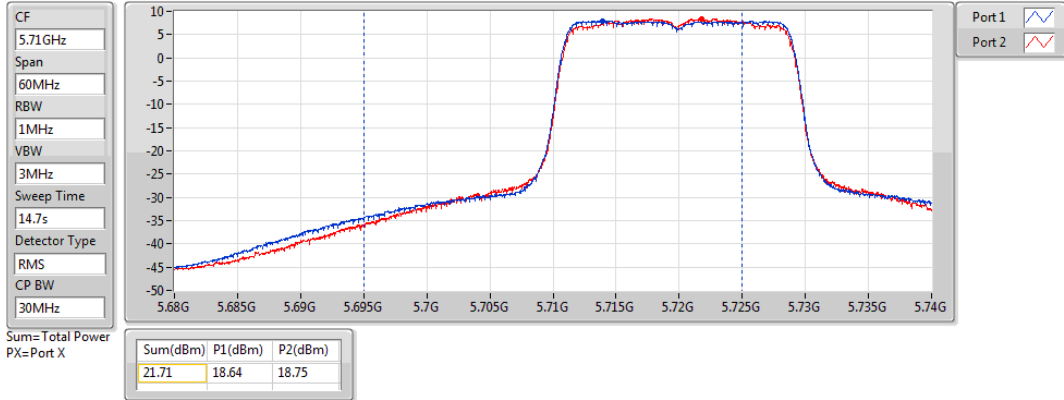
DG = Directional Gain = $2.5 + 10 \cdot \log(2/1) = 5.51$ dBi

Port X = Port X output power

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

AV Power

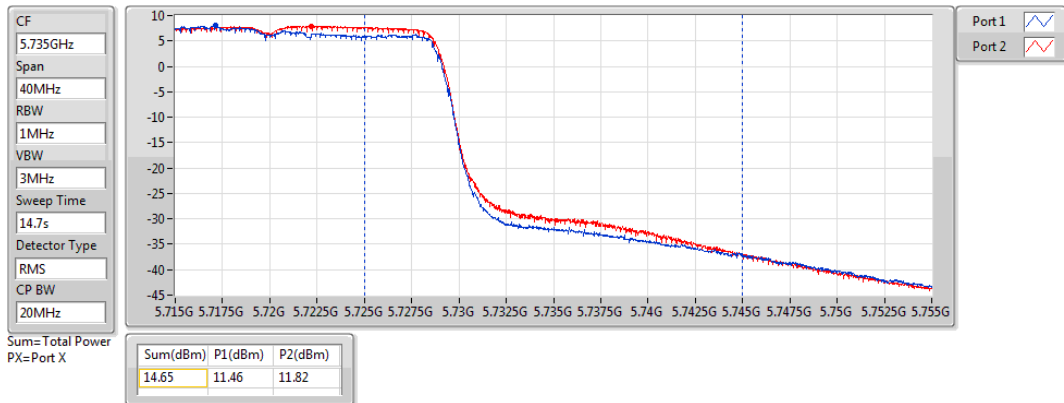
5720MHz Straddle 5.47-5.725GHz_TnomVnom



802.11ac VHT20-BF_Nss1,(MCS0)_2TX

AV Power

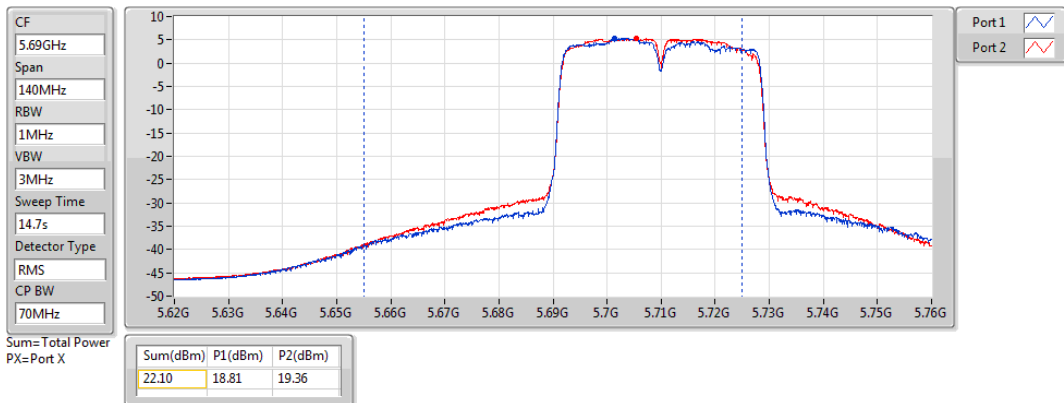
5720MHz Straddle 5.725-5.85GHz_TnomVnom



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

AV Power

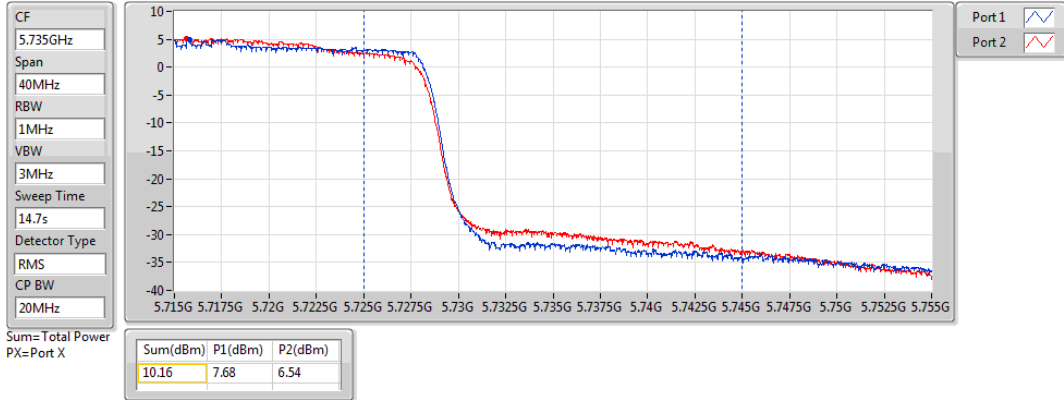
5710MHz Straddle 5.47-5.725GHz_TnomVnom



802.11ac VHT40-BF_Nss1,(MCS0)_2TX

AV Power

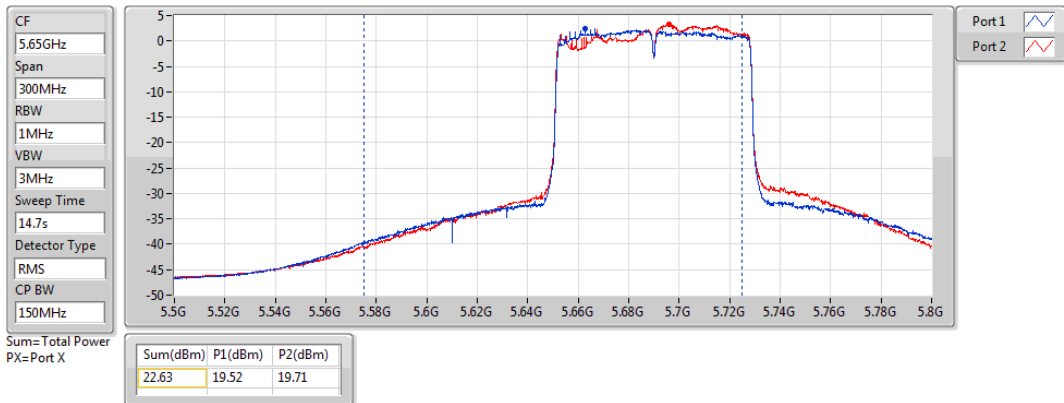
5710MHz Straddle 5.725-5.85GHz_TnomVnom



802.11ac VHT80-BF_Nss1,(MCS0)_2TX

AV Power

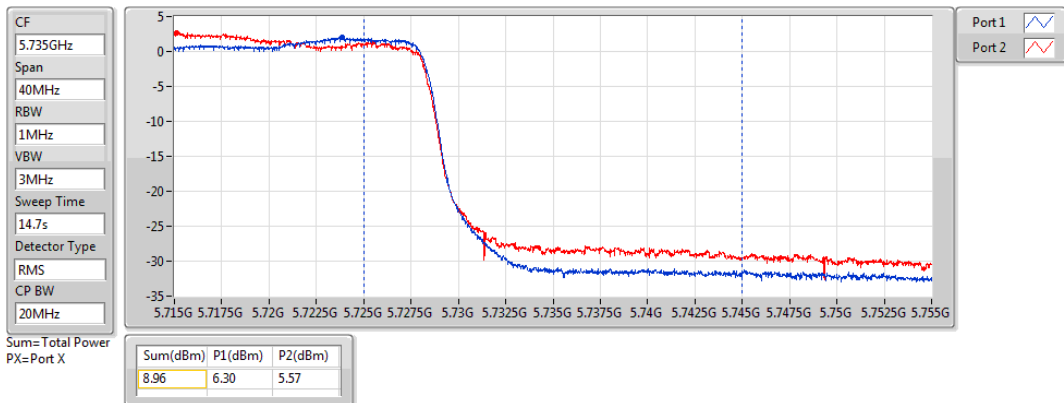
5690MHz Straddle 5.47-5.725GHz_TnomVnom



802.11ac VHT80-BF_Nss1,(MCS0)_2TX

AV Power

5690MHz Straddle 5.725-5.85GHz_TnomVnom



3.4 Peak Power Spectral Density

3.4.1 Limit of Peak Power Spectral Density

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

3.4.2 Test Procedures

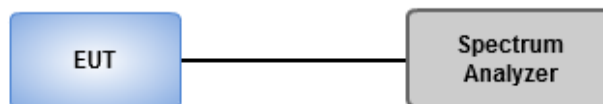
Duty cycle \geq 98 %

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

Duty cycle < 98 %

1. Set RBW = 1 MHz, VBW = 3 MHz, Detector = RMS.
2. Set sweep time \geq 10 * (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	21~23°C / 65~68%	Tested By	Aska Huang
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Non-beamforming mode

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	10.61	16.12
802.11ac VHT20_Nss1,(MCS0)_2TX	10.64	16.15
802.11ac VHT40_Nss1,(MCS0)_2TX	7.78	13.29
802.11ac VHT80_Nss1,(MCS0)_2TX	-1.61	3.90
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	10.77	16.28
802.11ac VHT20_Nss1,(MCS0)_2TX	10.48	15.99
802.11ac VHT40_Nss1,(MCS0)_2TX	8.07	13.58
802.11ac VHT80_Nss1,(MCS0)_2TX	3.92	9.43
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	8.46	13.97
802.11ac VHT20_Nss1,(MCS0)_2TX	8.28	13.79
802.11ac VHT40_Nss1,(MCS0)_2TX	3.92	9.43
802.11ac VHT80_Nss1,(MCS0)_2TX	1.17	6.68

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW W)	Port 2 (dBm/RBW W)	PD (dBm/RBW W)	PD Limit (dBm/RBW W)	EIRP PD (dBm/RBW W)	EIRP PD Limit (dBm/RBW W)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	5.51	8.12	7.30	10.61	11.00	16.12	17.00
5300MHz	Pass	5.51	7.94	7.42	10.58	11.00	16.09	17.00
5320MHz	Pass	5.51	8.02	7.42	10.60	11.00	16.11	17.00
5500MHz	Pass	5.51	6.43	5.88	9.06	11.00	14.57	17.00
5580MHz	Pass	5.51	7.88	7.75	10.77	11.00	16.28	17.00
5700MHz	Pass	5.51	5.67	4.61	8.07	11.00	13.58	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.51	7.69	6.91	10.23	11.00	15.74	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.51	5.84	5.03	8.46	30.00	13.97	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	5.51	8.32	7.15	10.64	11.00	16.15	17.00
5300MHz	Pass	5.51	8.07	7.31	10.62	11.00	16.13	17.00
5320MHz	Pass	5.51	7.74	7.14	10.24	11.00	15.75	17.00
5500MHz	Pass	5.51	5.93	4.97	8.45	11.00	13.96	17.00
5580MHz	Pass	5.51	7.50	7.81	10.48	11.00	15.99	17.00
5700MHz	Pass	5.51	4.78	3.71	7.12	11.00	12.63	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.51	7.29	6.68	9.93	11.00	15.44	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.51	5.65	4.85	8.28	30.00	13.79	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	5.51	5.37	4.24	7.78	11.00	13.29	17.00
5310MHz	Pass	5.51	0.69	-0.09	3.24	11.00	8.75	17.00
5510MHz	Pass	5.51	1.59	0.70	4.16	11.00	9.67	17.00
5590MHz	Pass	5.51	5.27	4.94	8.07	11.00	13.58	17.00
5670MHz	Pass	5.51	2.98	1.95	5.49	11.00	11.00	17.00
5710MHz Straddle 5.47-5.725GHz	Pass	5.51	4.52	3.88	7.19	11.00	12.70	17.00
5710MHz Straddle 5.725-5.85GHz	Pass	5.51	0.60	1.20	3.92	30.00	9.43	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	5.51	-4.02	-5.12	-1.61	11.00	3.90	17.00
5530MHz	Pass	5.51	-3.36	-4.08	-0.73	11.00	4.78	17.00
5610MHz	Pass	5.51	-0.12	-0.44	2.69	11.00	8.20	17.00
5690MHz Straddle 5.47-5.725GHz	Pass	5.51	1.10	0.80	3.92	11.00	9.43	17.00
5690MHz Straddle 5.725-5.85GHz	Pass	5.51	-2.14	-1.56	1.17	30.00	6.68	36.00

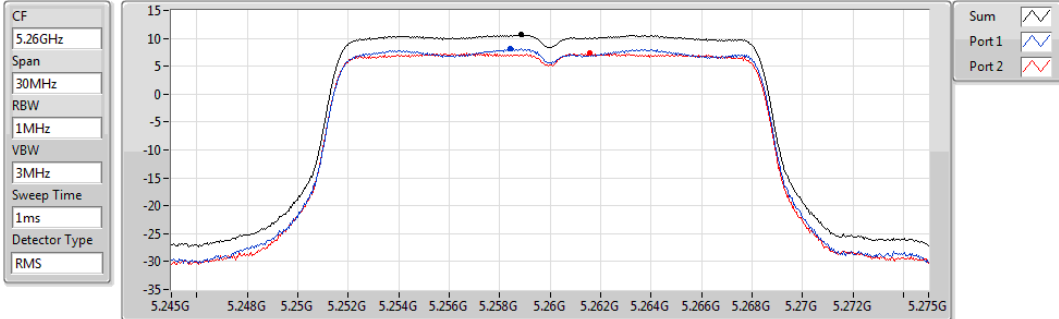
DG = Directional Gain; **RBW** = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

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

802.11a_Nss1,(6Mbps)_2TX

PSD

5260MHz

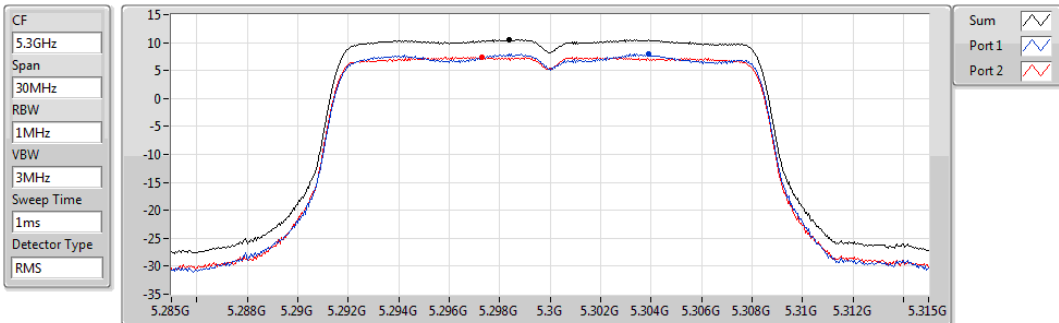


Sum	PD	Port 1	Port 2
(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)
10.61	10.61	8.12	7.30

802.11a_Nss1,(6Mbps)_2TX

PSD

5300MHz

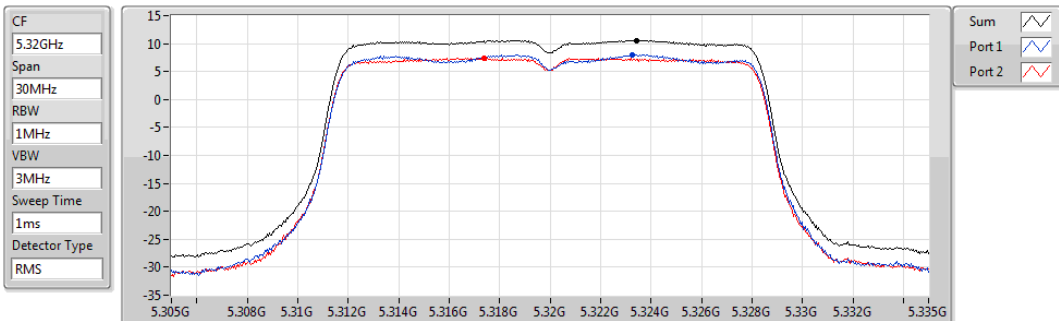


Sum	PD	Port 1	Port 2
(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)
10.58	10.58	7.94	7.42

802.11a_Nss1,(6Mbps)_2TX

PSD

5320MHz

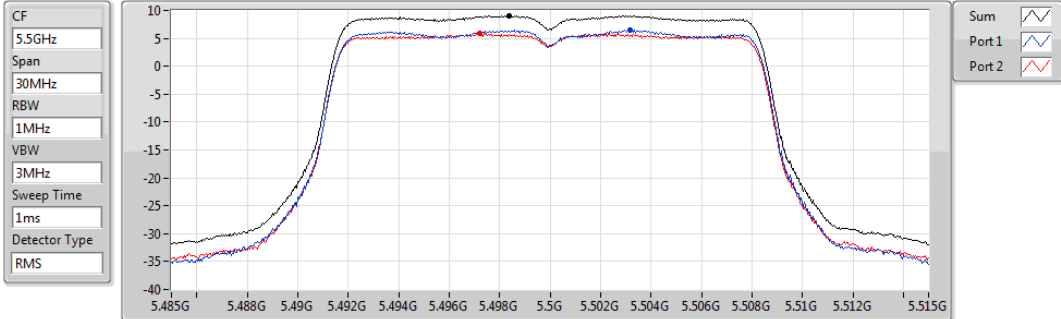


Sum	PD	Port 1	Port 2
(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)
10.60	10.60	8.02	7.42

802.11a_Nss1,(6Mbps)_2TX

PSD

5500MHz

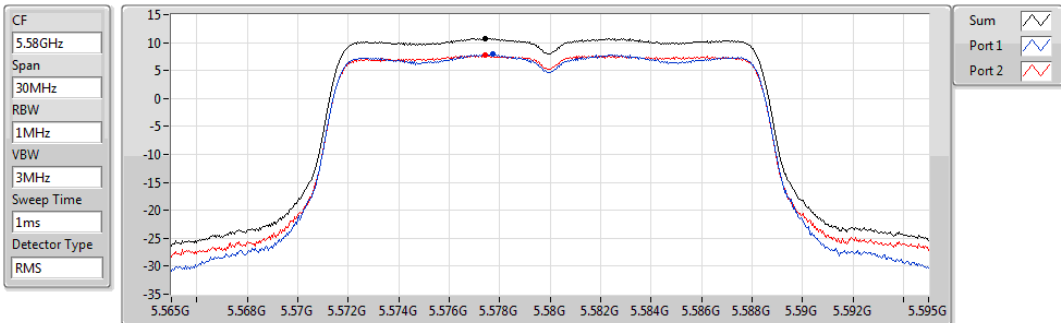


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.06	9.06	6.43	5.88

802.11a_Nss1,(6Mbps)_2TX

PSD

5580MHz

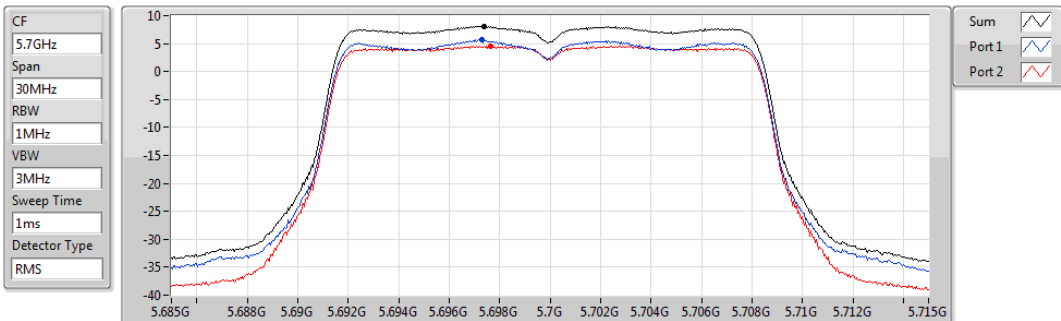


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.77	10.77	7.88	7.75

802.11a_Nss1,(6Mbps)_2TX

PSD

5700MHz

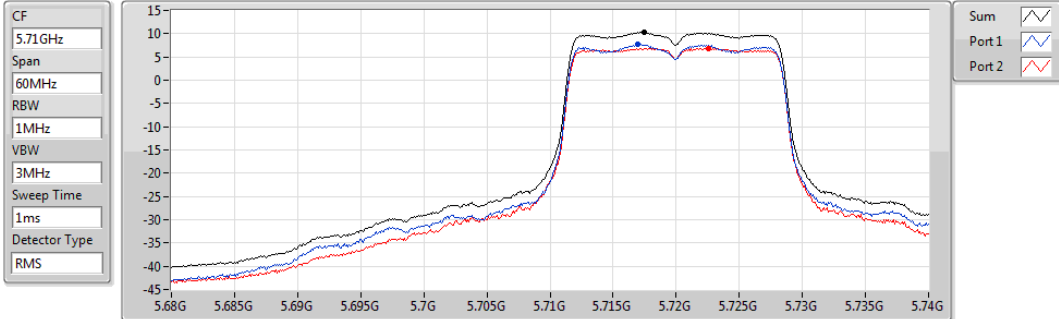


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.07	8.07	5.67	4.61

802.11a_Nss1,(6Mbps)_2TX

PSD

5720MHz Straddle 5.47-5.725GHz

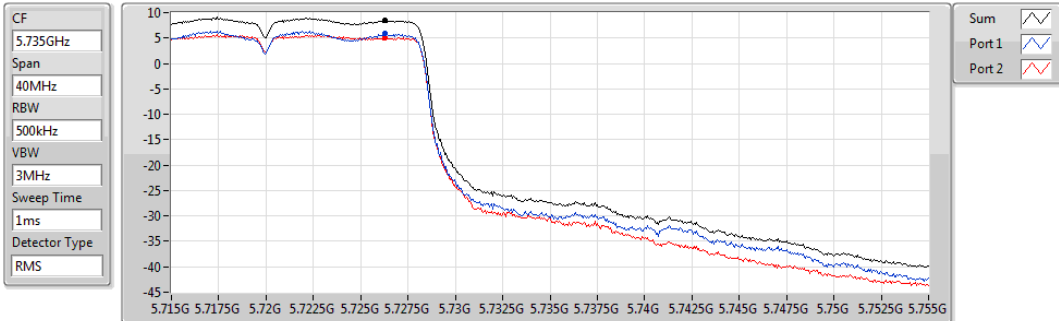


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.23	10.23	7.69	6.91

802.11a_Nss1,(6Mbps)_2TX

PSD

5720MHz Straddle 5.725-5.85GHz

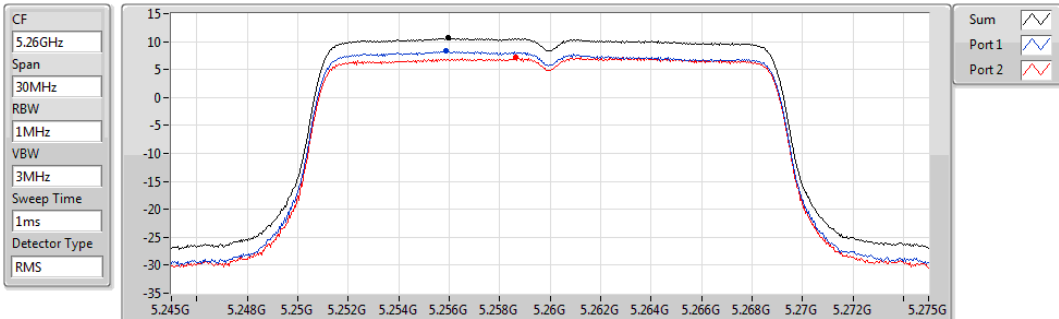


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.46	8.46	5.84	5.03

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5260MHz

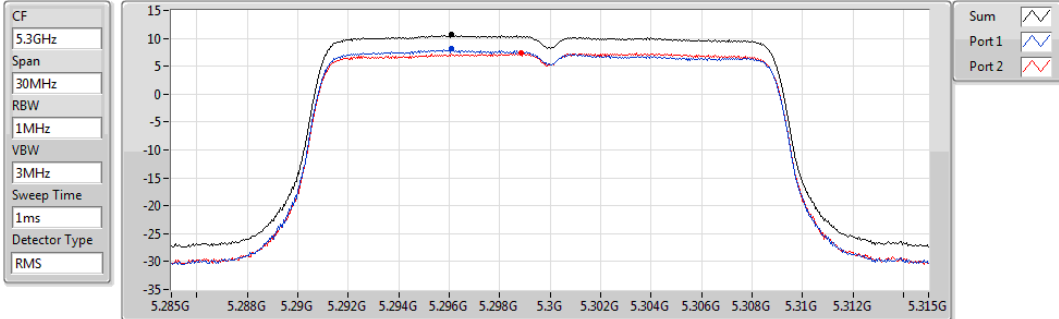


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.64	10.64	8.32	7.15

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5300MHz

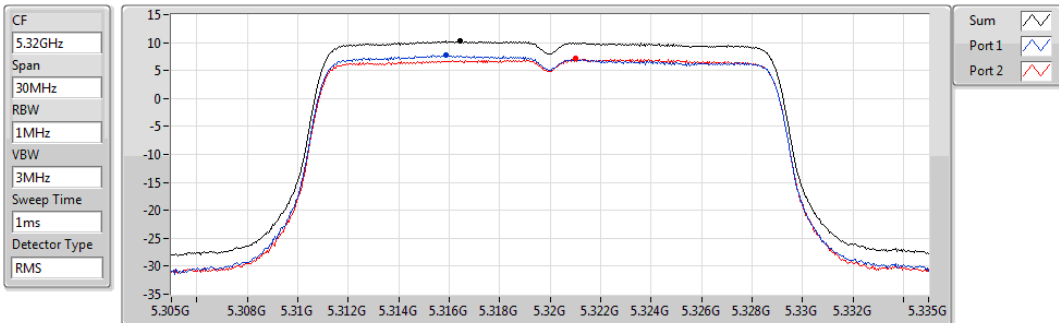


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.62	10.62	8.07	7.31

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5320MHz

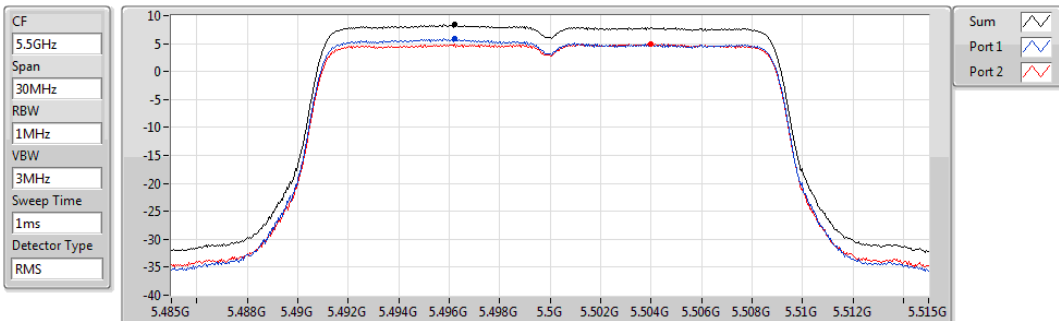


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.24	10.24	7.74	7.14

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5500MHz

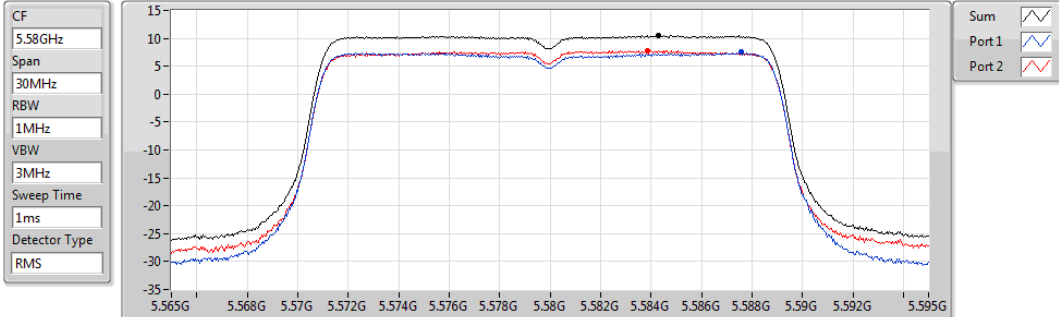


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.45	8.45	5.93	4.97

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5580MHz

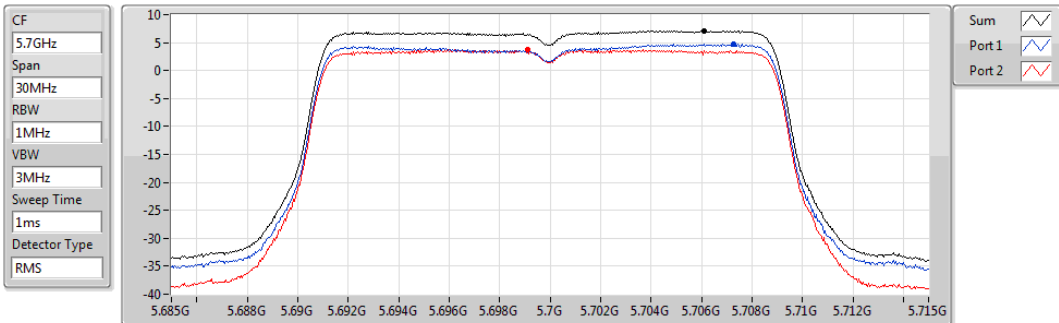


Sum	PD	Port 1	Port 2
(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)
10.48	10.48	7.50	7.81

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5700MHz

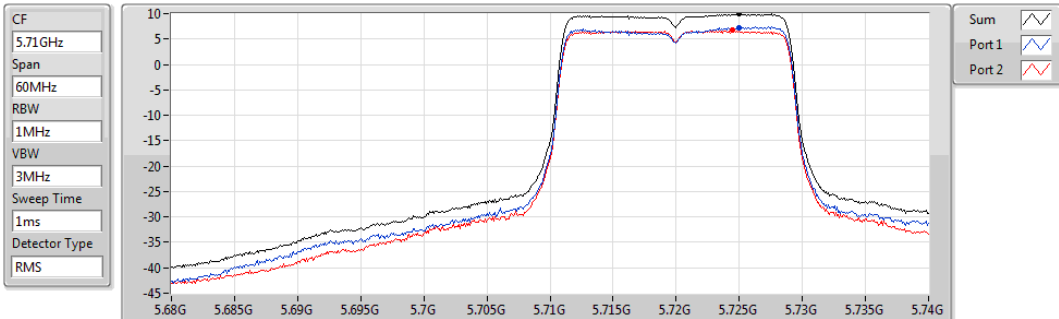


Sum	PD	Port 1	Port 2
(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)
7.12	7.12	4.78	3.71

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5720MHz Straddle 5.47-5.725GHz

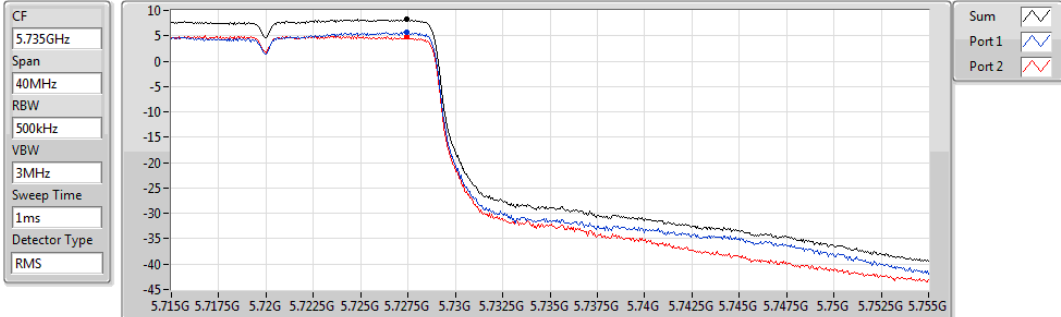


Sum	PD	Port 1	Port 2
(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)	(dBm/1MHz)
9.93	9.93	7.29	6.68

802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

5720MHz Straddle 5.725-5.85GHz

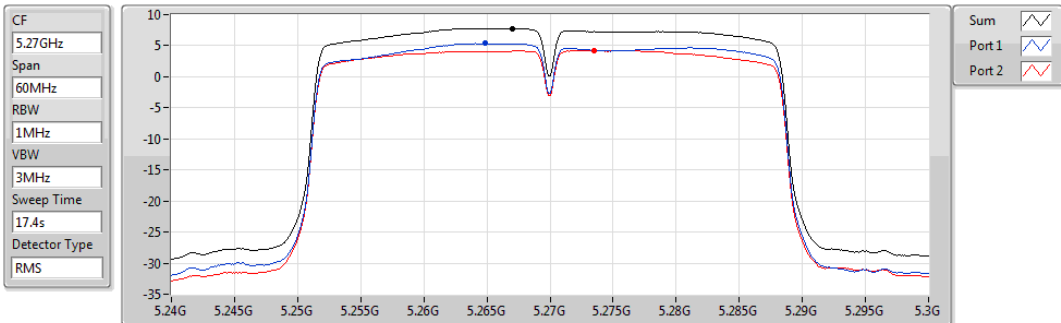


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.28	8.28	5.65	4.85

802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5270MHz

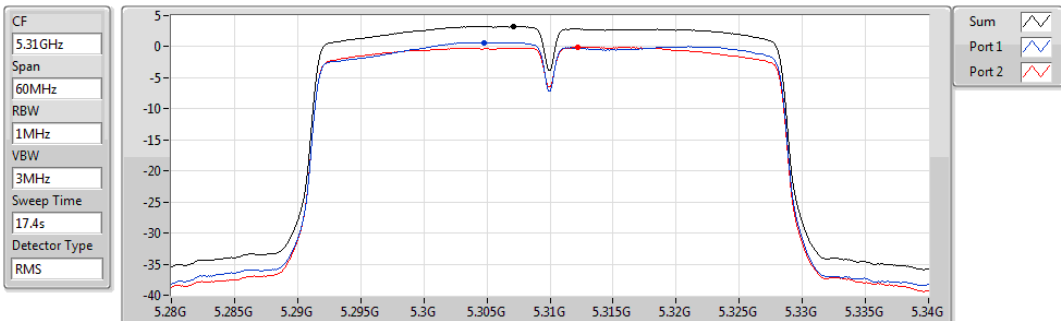


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.78	7.78	5.37	4.24

802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5310MHz

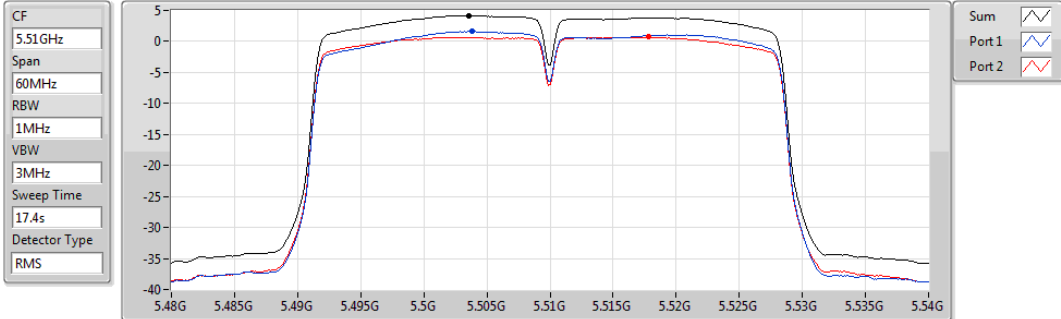


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.24	3.24	0.69	-0.09

802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5510MHz

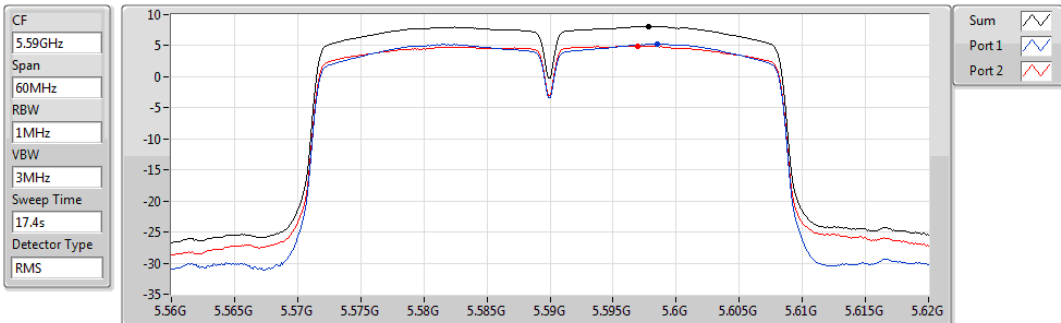


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.16	4.16	1.59	0.70

802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5590MHz

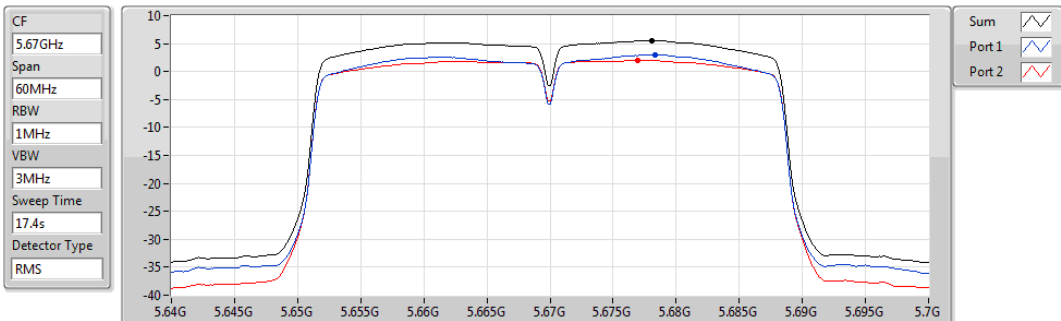


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.07	8.07	5.27	4.94

802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5670MHz

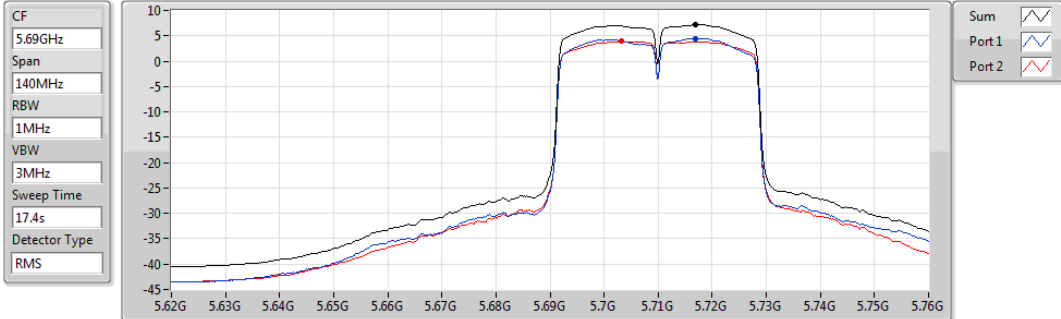


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.49	5.49	2.98	1.95

802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5710MHz Straddle 5.47-5.725GHz

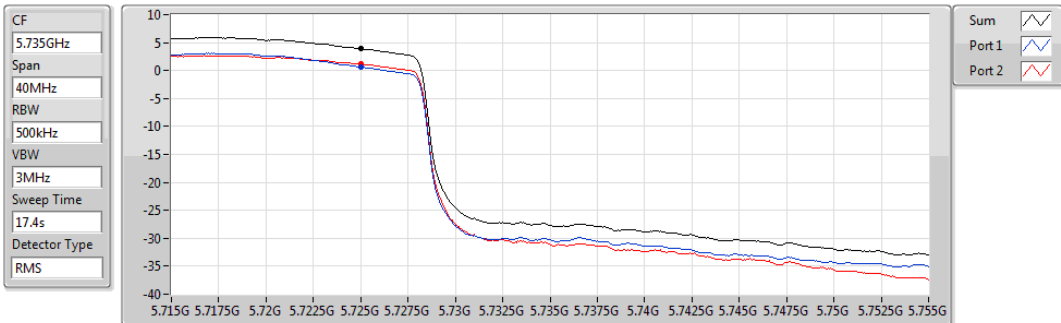


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.19	7.19	4.52	3.88

802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

5710MHz Straddle 5.725-5.85GHz

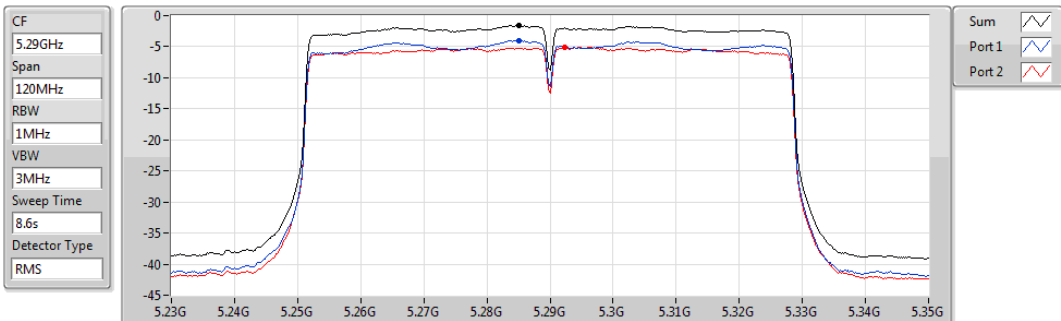


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.92	3.92	0.60	1.20

802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5290MHz

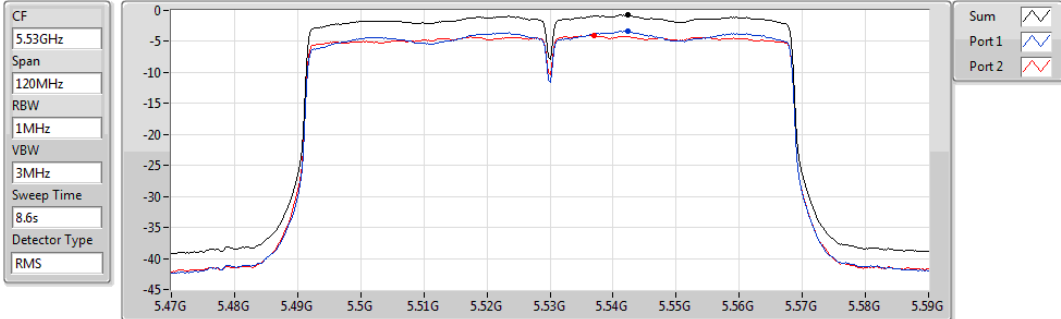


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.61	-1.61	-4.02	-5.12

802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5530MHz

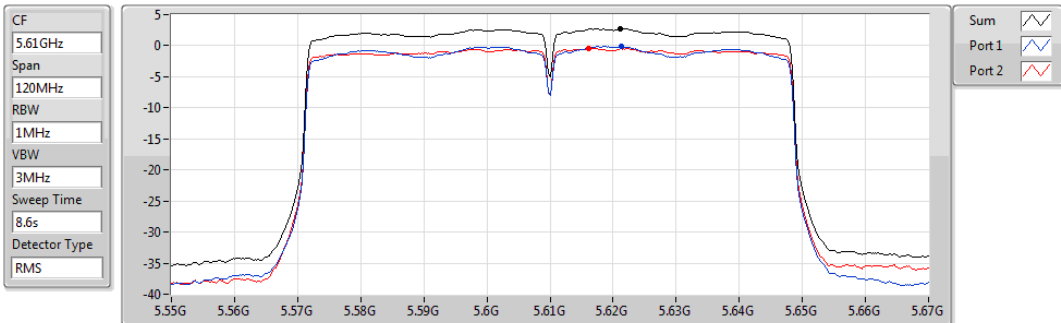


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.73	-0.73	-3.36	-4.08

802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5610MHz

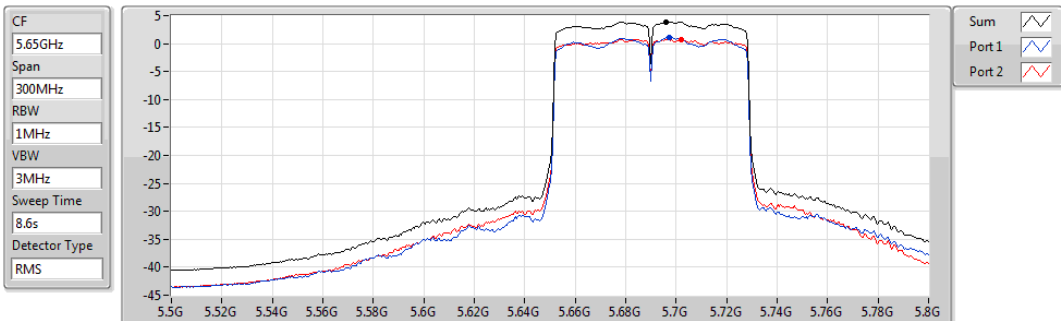


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.69	2.69	-0.12	-0.44

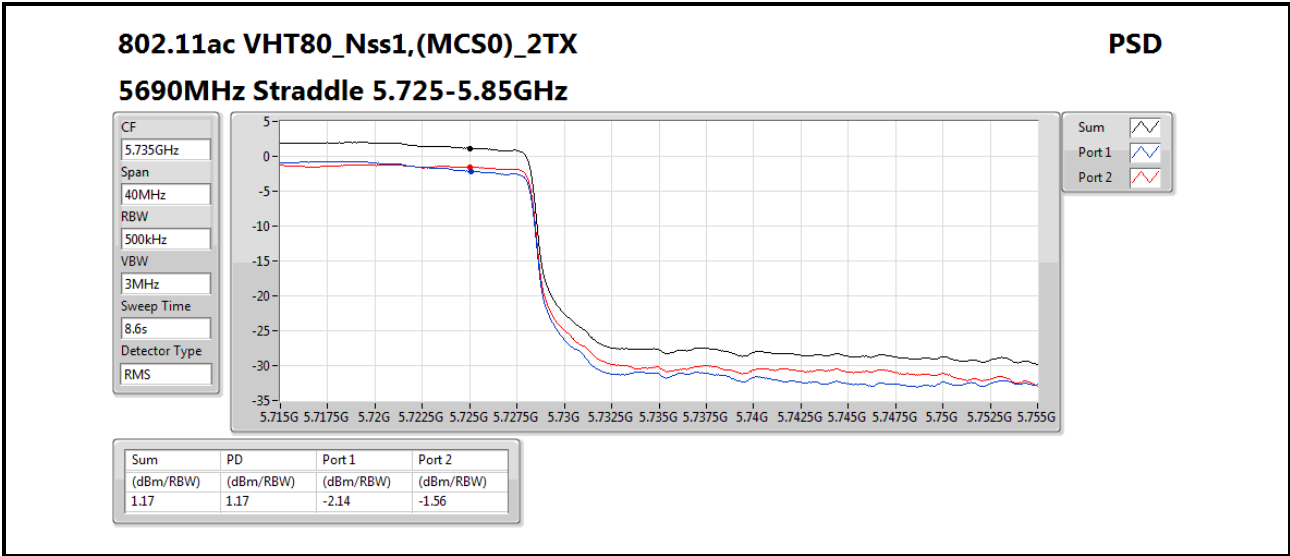
802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5690MHz Straddle 5.47-5.725GHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.92	3.92	1.10	0.80



Beamforming mode

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.25-5.35GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	10.13	15.64
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	6.93	12.44
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-1.77	3.74
5.47-5.725GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	10.20	15.71
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	7.47	12.98
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	3.61	9.12
5.725-5.85GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	7.02	12.53
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	2.80	8.31
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	1.15	6.66

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RB W)	Port 2 (dBm/RB W)	PD (dBm/RB W)	PD Limit (dBm/RB W)	EIRP PD (dBm/RB W)	EIRP PD Limit (dBm/RB W)
802.11ac VHT20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5260MHz	Pass	5.51	7.30	7.62	10.13	11.00	15.64	17.00
5300MHz	Pass	5.51	7.44	6.85	10.09	11.00	15.60	17.00
5320MHz	Pass	5.51	6.84	7.46	9.92	11.00	15.43	17.00
5500MHz	Pass	5.51	4.92	6.30	8.37	11.00	13.88	17.00
5580MHz	Pass	5.51	7.10	7.46	10.20	11.00	15.71	17.00
5700MHz	Pass	5.51	4.28	4.49	7.08	11.00	12.59	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.51	6.25	6.72	9.30	11.00	14.81	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.51	3.88	4.40	7.02	30.00	12.53	36.00
802.11ac VHT40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5270MHz	Pass	5.51	4.16	4.13	6.93	11.00	12.44	17.00
5310MHz	Pass	5.51	0.43	-0.01	3.09	11.00	8.60	17.00
5510MHz	Pass	5.51	0.72	1.16	3.75	11.00	9.26	17.00
5590MHz	Pass	5.51	3.52	5.46	7.47	11.00	12.98	17.00
5670MHz	Pass	5.51	2.77	2.93	5.58	11.00	11.09	17.00
5710MHz Straddle 5.47-5.725GHz	Pass	5.51	3.12	3.68	6.33	11.00	11.84	17.00
5710MHz Straddle 5.725-5.85GHz	Pass	5.51	0.34	-0.75	2.80	30.00	8.31	36.00
802.11ac VHT80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5290MHz	Pass	5.51	-4.10	-4.68	-1.77	11.00	3.74	17.00
5530MHz	Pass	5.51	-3.66	-3.47	-1.08	11.00	4.43	17.00
5610MHz	Pass	5.51	-0.21	0.29	2.54	11.00	8.05	17.00
5690MHz Straddle 5.47-5.725GHz	Pass	5.51	0.96	1.05	3.61	11.00	9.12	17.00
5690MHz Straddle 5.725-5.85GHz	Pass	5.51	-1.49	-2.21	1.15	30.00	6.66	36.00

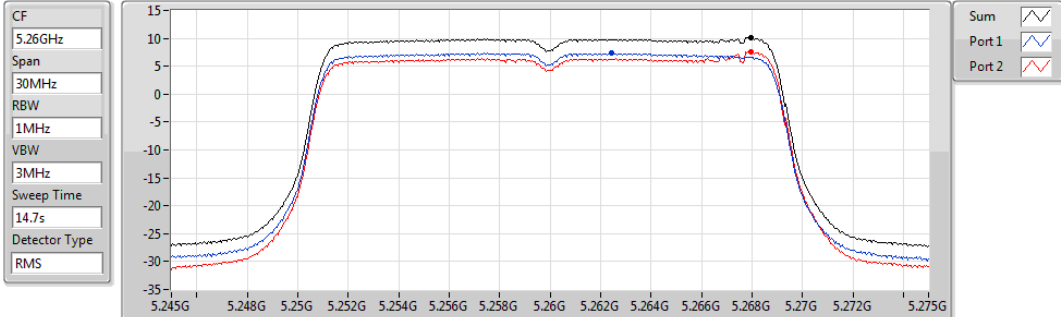
DG = Directional Gain = $2.5 + 10 \cdot \log(2/1) = 5.51$ dBi

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

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5260MHz

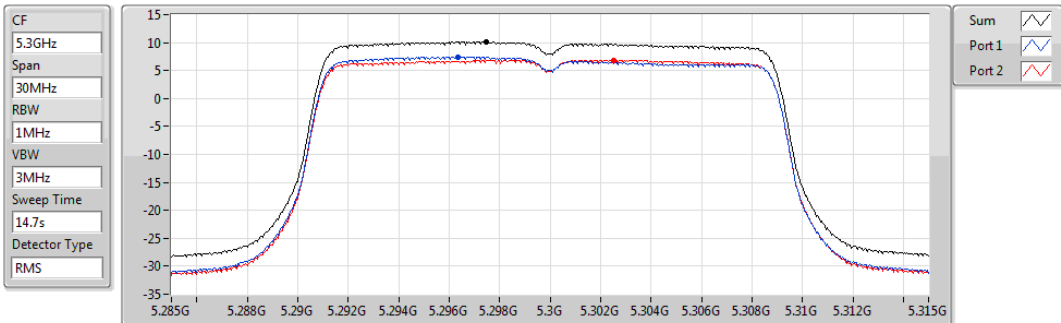


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.13	10.13	7.30	7.62

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5300MHz

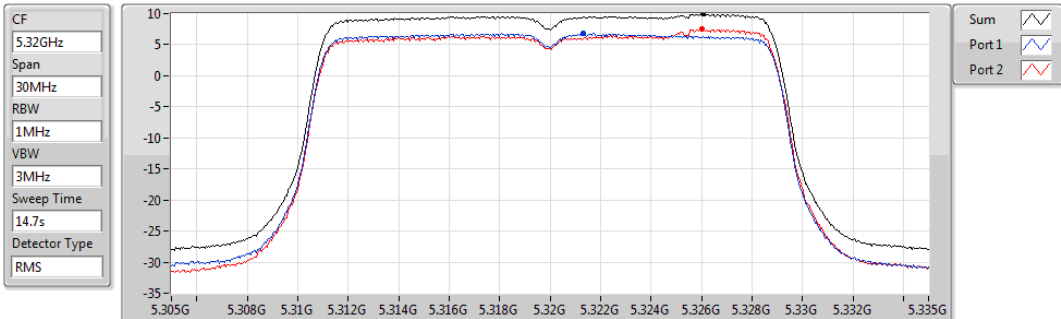


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.09	10.09	7.44	6.85

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5320MHz

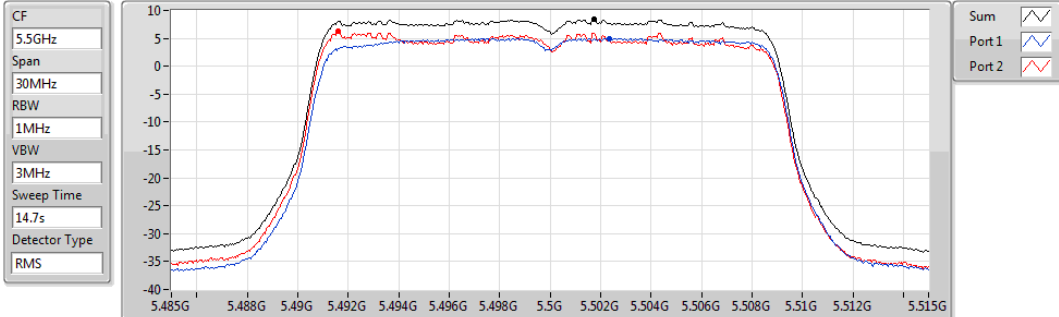


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.92	9.92	6.84	7.46

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5500MHz

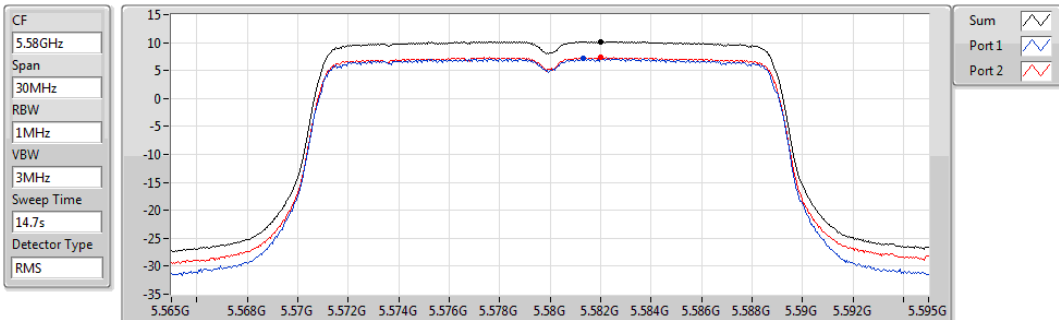


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.37	8.37	4.92	6.30

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5580MHz

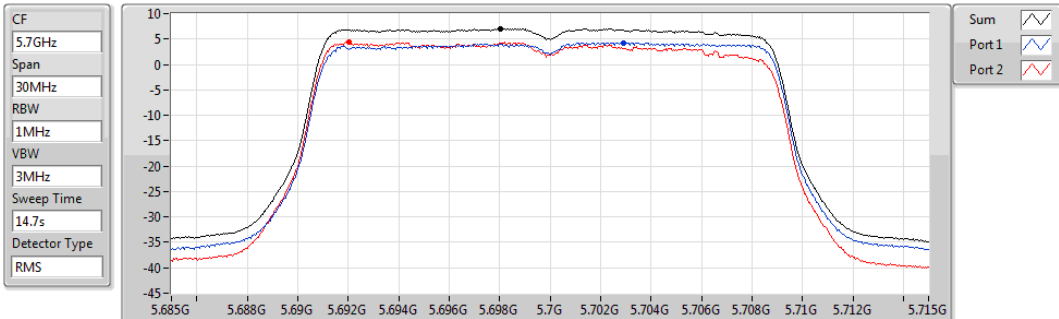


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.20	10.20	7.10	7.46

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5700MHz

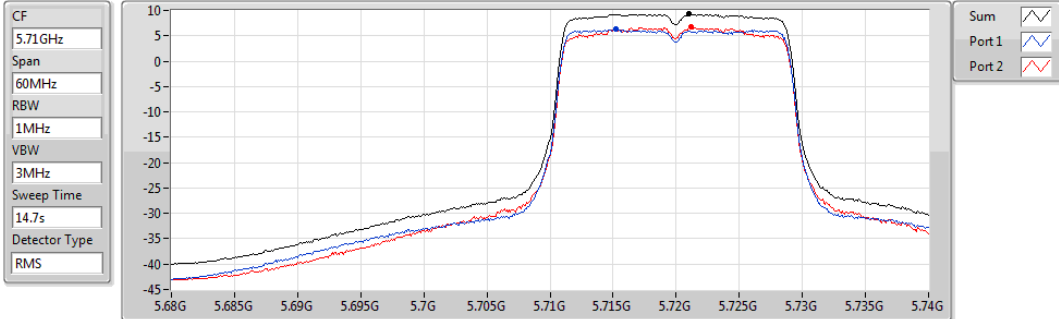


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.08	7.08	4.28	4.49

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5720MHz Straddle 5.47-5.725GHz

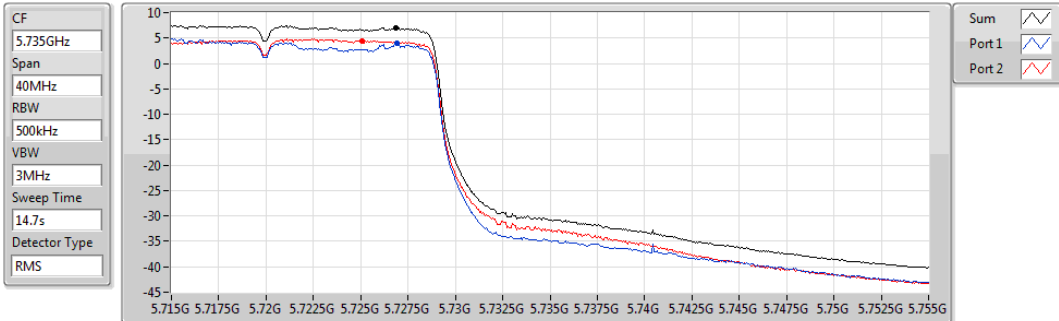


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.30	9.30	6.25	6.72

802.11ac VHT20-BF_Nss1,(MCS0)_2TX

PSD

5720MHz Straddle 5.725-5.85GHz

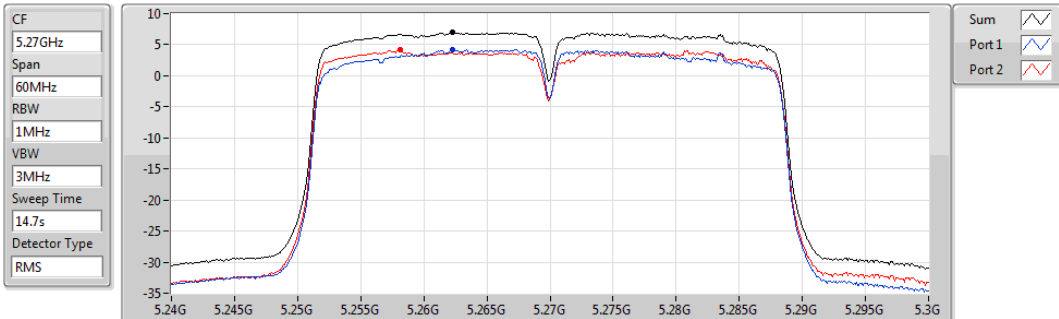


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.02	7.02	3.88	4.40

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

5270MHz

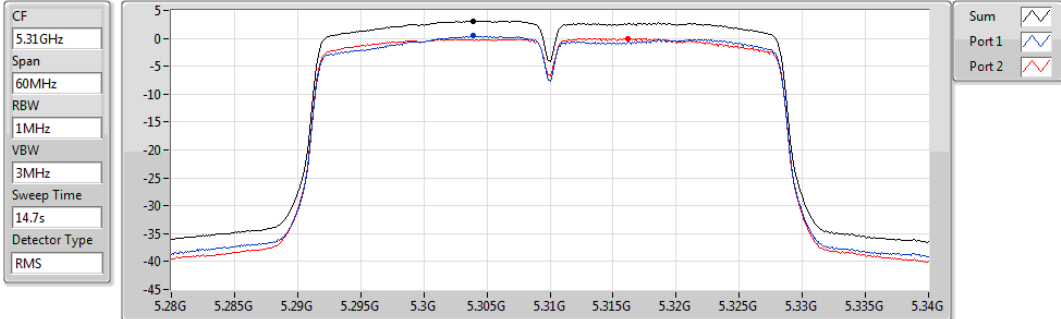


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.93	6.93	4.16	4.13

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

5310MHz

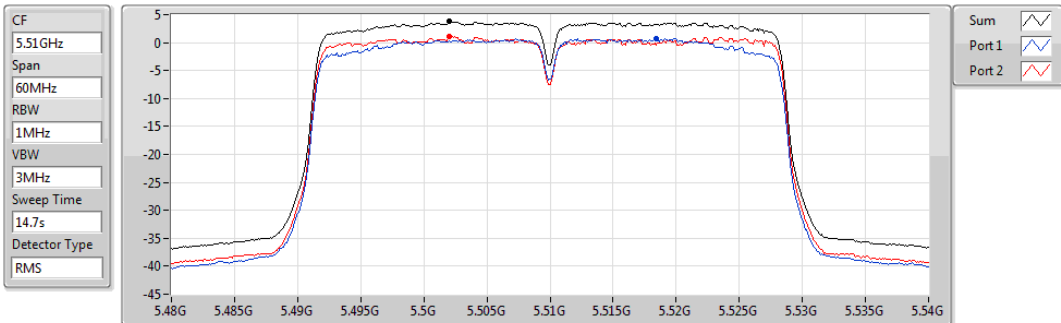


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.09	3.09	0.43	-0.01

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

5510MHz

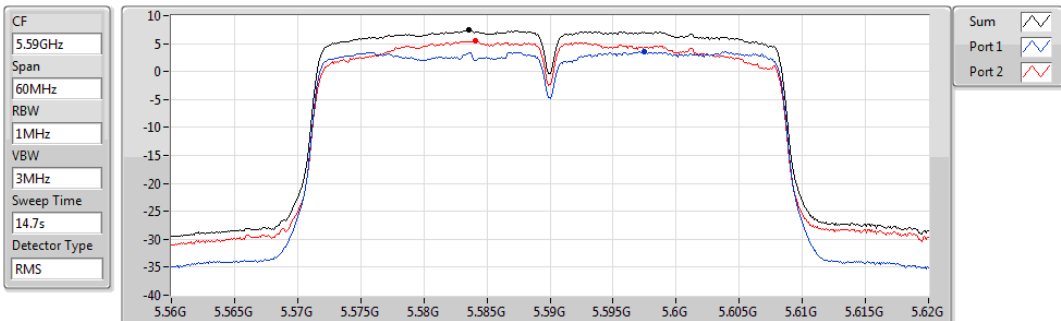


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.75	3.75	0.72	1.16

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

5590MHz

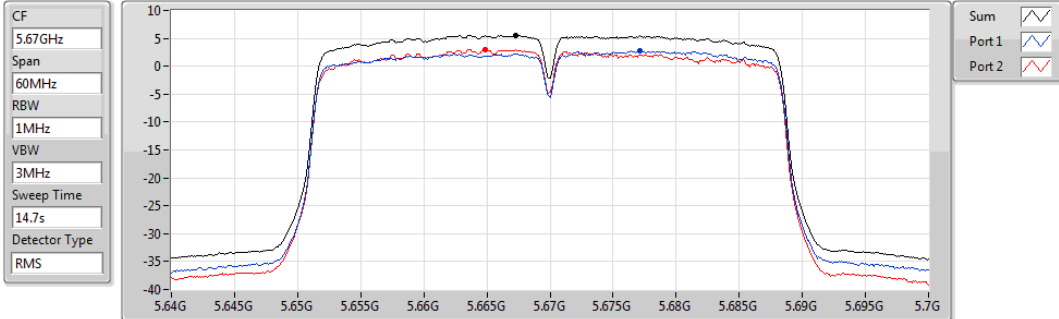


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.47	7.47	3.52	5.46

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

5670MHz

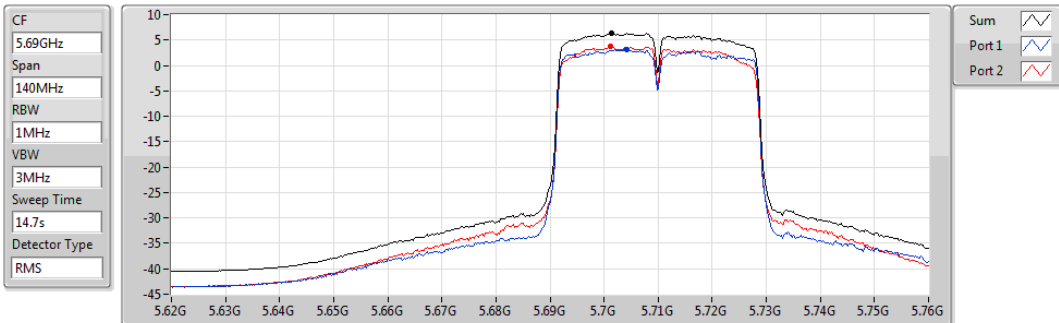


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.58	5.58	2.77	2.93

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

5710MHz Straddle 5.47-5.725GHz

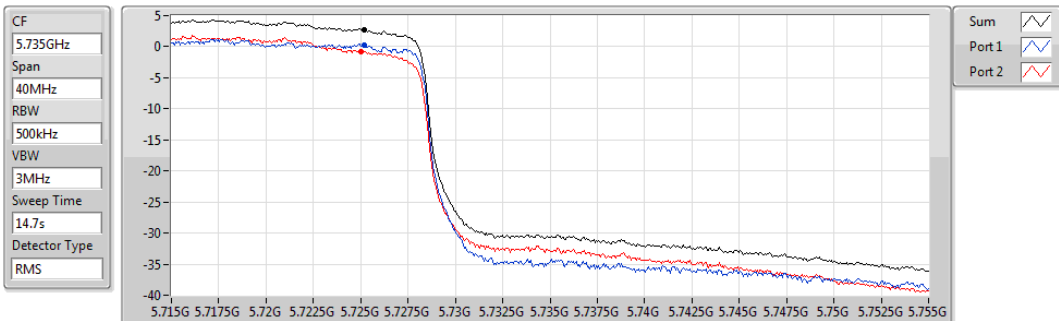


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.33	6.33	3.12	3.68

802.11ac VHT40-BF_Nss1,(MCS0)_2TX

PSD

5710MHz Straddle 5.725-5.85GHz

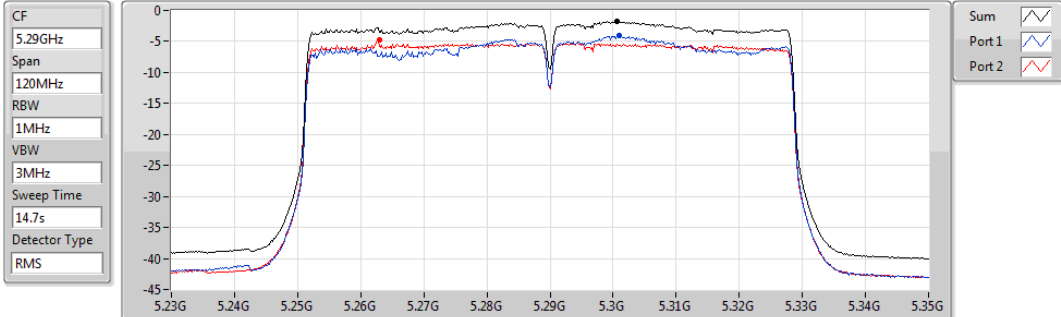


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.80	2.80	0.34	-0.75

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

PSD

5290MHz

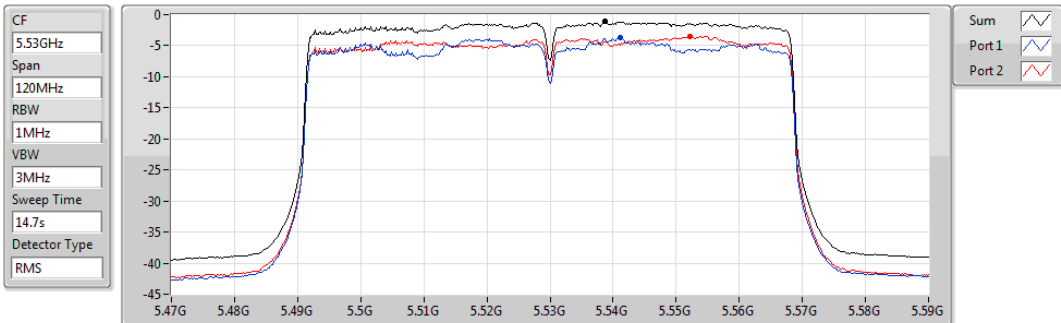


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.77	-1.77	-4.10	-4.68

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

PSD

5530MHz

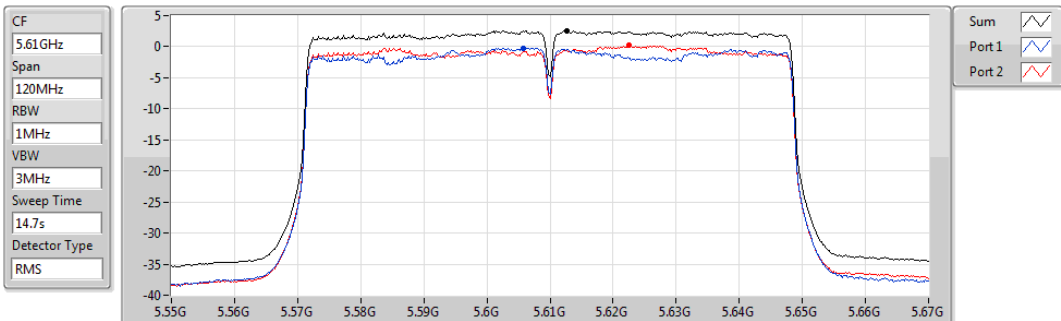


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.08	-1.08	-3.66	-3.47

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

PSD

5610MHz

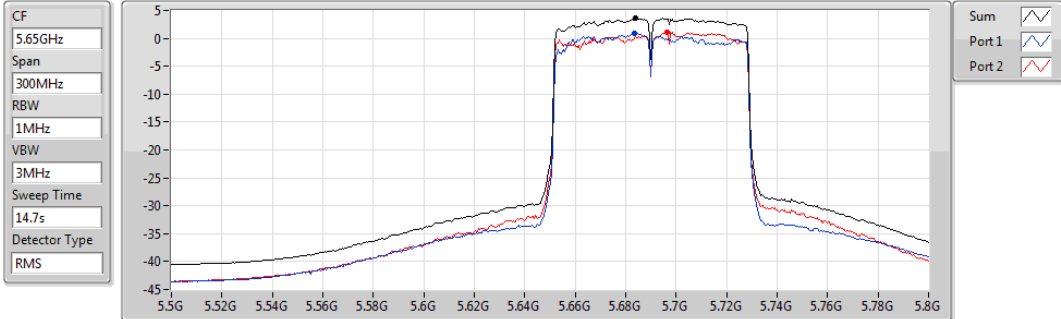


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.54	2.54	-0.21	0.29

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

PSD

5690MHz Straddle 5.47-5.725GHz

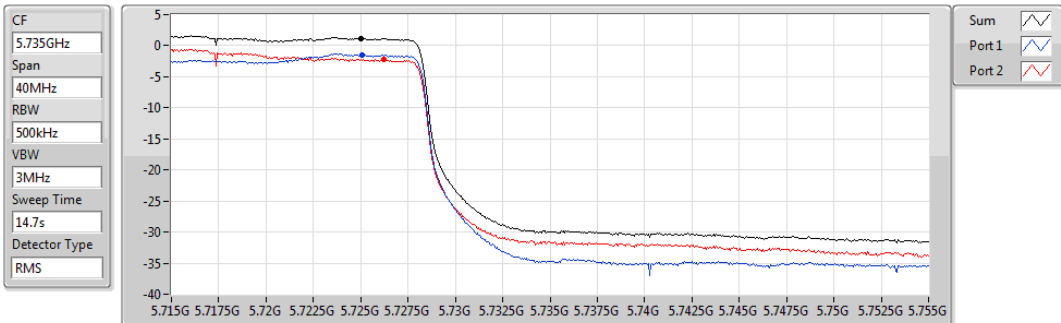


Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.61	3.61	0.96	1.05

802.11ac VHT80-BF_Nss1,(MCS0)_2TX

PSD

5690MHz Straddle 5.725-5.85GHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.15	1.15	-1.49	-2.21

3.5 Transmitter Radiated and Band Edge Emissions

3.5.1 Limit of Transmitter Radiated and Band Edge Emissions

Restricted Band Emissions Limit			
Frequency Range (MHz)	Field Strength (uV/m)	Field Strength (dBuV/m)	Measure Distance (m)
0.009~0.490	2400/F(kHz)	48.5 - 13.8	300
0.490~1.705	24000/F(kHz)	33.8 - 23	30
1.705~30.0	30	29	30
30~88	100	40	3
88~216	150	43.5	3
216~960	200	46	3
Above 960	500	54	3

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

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

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

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

3.5.2 Test Procedures

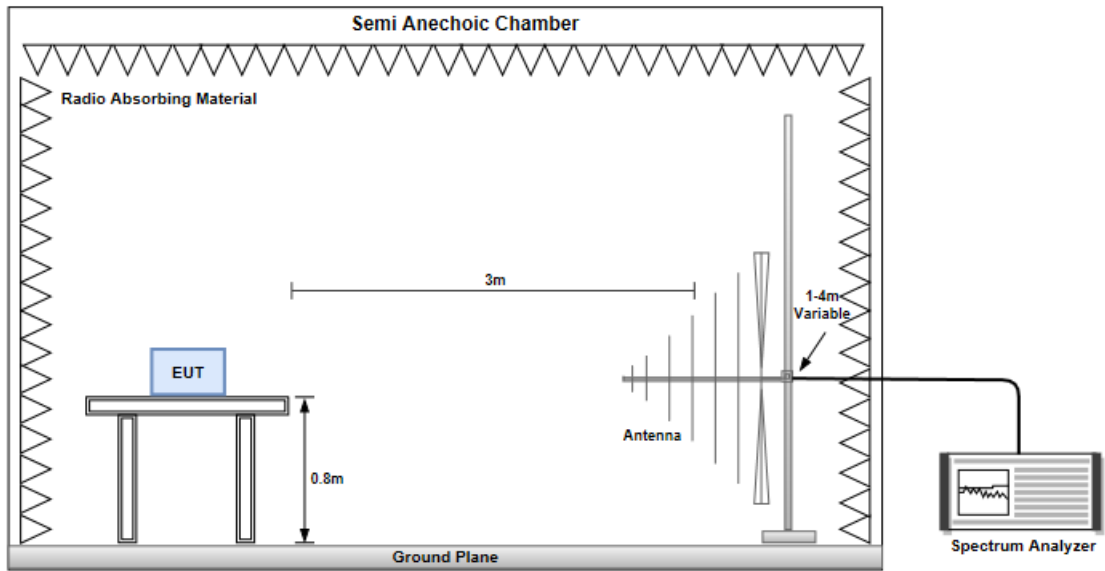
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

Note:

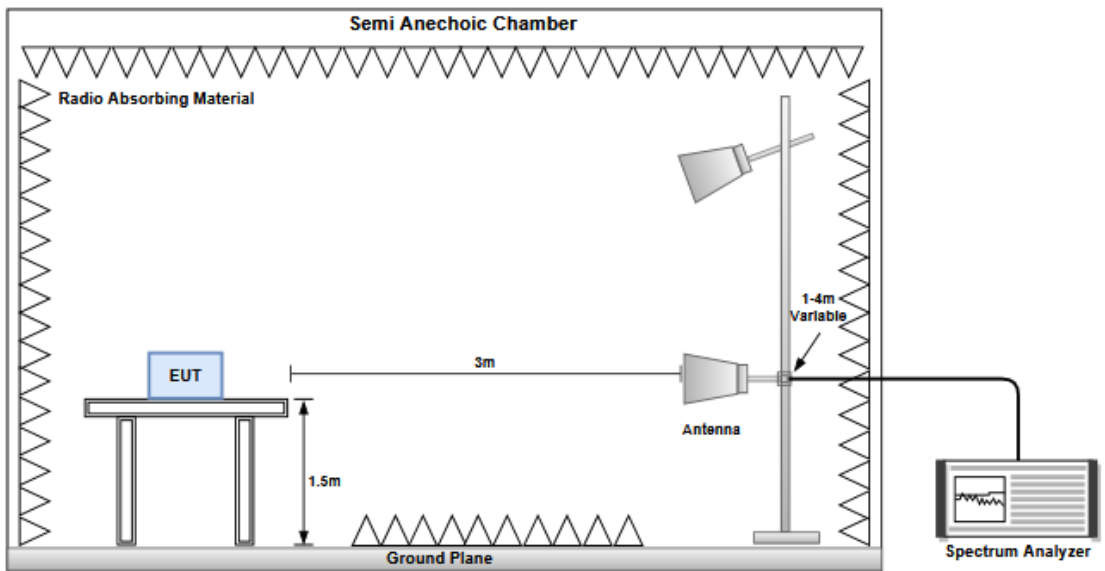
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz

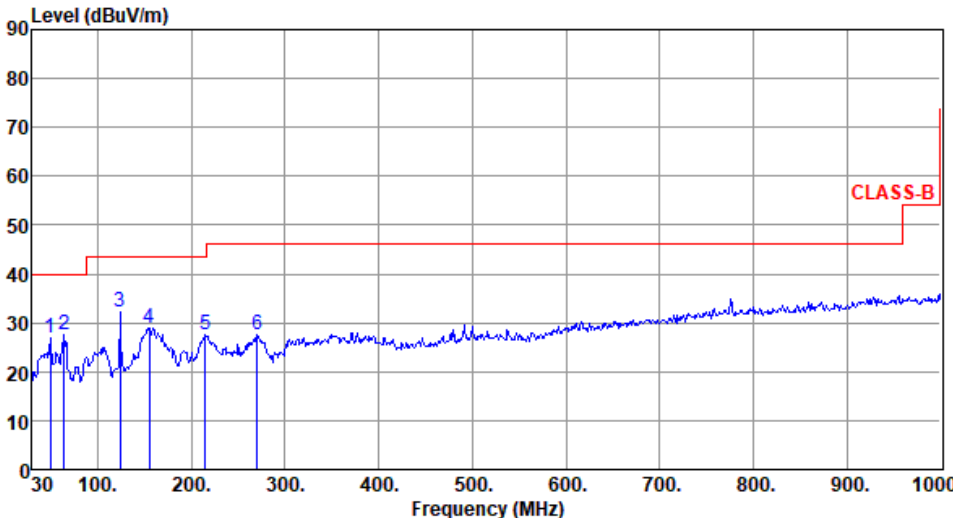


Radiated Emissions above 1 GHz



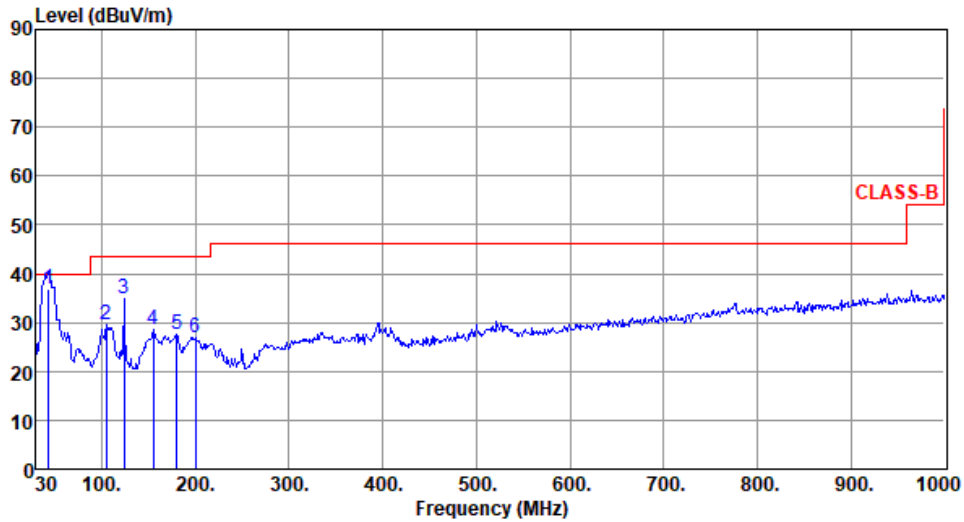
Non- beamforming mode

3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	VHT40	Test Freq. (MHz)	5590																																																																
Polarization	Horizontal	Test Configuration	1																																																																
Test By :BRAD WU Temperature(°C):24 Humidity(%):64																																																																			
																																																																			
	<table border="1"> <thead> <tr> <th>Freq. MHz</th> <th>Emission level dBuV/m</th> <th>Limit dBuV/m</th> <th>Margin dB</th> <th>SA reading dBuV</th> <th>Factor dB</th> <th>Remark</th> <th>ANT High cm</th> <th>Turn Table deg</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>49.40</td> <td>40.00</td> <td>-13.02</td> <td>35.43</td> <td>-8.45</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>2</td> <td>63.95</td> <td>40.00</td> <td>-12.43</td> <td>37.11</td> <td>-9.54</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>3</td> <td>124.09</td> <td>43.50</td> <td>-11.28</td> <td>42.62</td> <td>-10.40</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>4</td> <td>155.13</td> <td>43.50</td> <td>-14.58</td> <td>37.67</td> <td>-8.75</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>5</td> <td>215.27</td> <td>43.50</td> <td>-16.06</td> <td>39.45</td> <td>-12.01</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> <tr> <td>6</td> <td>270.56</td> <td>46.00</td> <td>-18.59</td> <td>36.56</td> <td>-9.15</td> <td>Peak</td> <td>---</td> <td>---</td> </tr> </tbody> </table>	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	49.40	40.00	-13.02	35.43	-8.45	Peak	---	---	2	63.95	40.00	-12.43	37.11	-9.54	Peak	---	---	3	124.09	43.50	-11.28	42.62	-10.40	Peak	---	---	4	155.13	43.50	-14.58	37.67	-8.75	Peak	---	---	5	215.27	43.50	-16.06	39.45	-12.01	Peak	---	---	6	270.56	46.00	-18.59	36.56	-9.15	Peak	---	---			
Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																											
1	49.40	40.00	-13.02	35.43	-8.45	Peak	---	---																																																											
2	63.95	40.00	-12.43	37.11	-9.54	Peak	---	---																																																											
3	124.09	43.50	-11.28	42.62	-10.40	Peak	---	---																																																											
4	155.13	43.50	-14.58	37.67	-8.75	Peak	---	---																																																											
5	215.27	43.50	-16.06	39.45	-12.01	Peak	---	---																																																											
6	270.56	46.00	-18.59	36.56	-9.15	Peak	---	---																																																											
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m). Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.																																																																			

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Vertical	Test Configuration	1

Test By :BRAD WU Temperature(°C):24 Humidity(%):64



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	43.46	36.95	40.00	-3.05	45.33	-8.38	QP	100	140
2	104.69	29.66	43.50	-13.84	42.16	-12.50	Peak	---	---
3	124.09	34.96	43.50	-8.54	45.36	-10.40	Peak	---	---
4	155.13	28.43	43.50	-15.07	37.18	-8.75	Peak	---	---
5	180.35	27.65	43.50	-15.85	38.00	-10.35	Peak	---	---
6	199.75	26.95	43.50	-16.55	38.89	-11.94	Peak	---	---

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

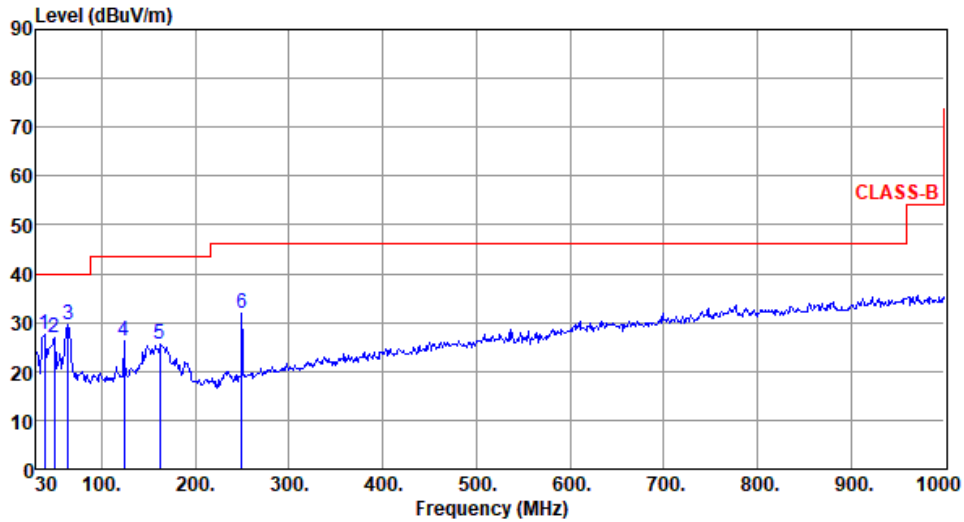
*Factor includes antenna factor, cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Horizontal	Test Configuration	2

Test By :BRAD WU Temperature(°C):24 Humidity(%):64



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	38.73	27.46	40.00	-12.54	36.23	-8.77	Peak	---	---
2	49.40	26.75	40.00	-13.25	35.20	-8.45	Peak	---	---
3	63.95	29.72	40.00	-10.28	39.26	-9.54	Peak	---	---
4	124.09	26.15	43.50	-17.35	36.55	-10.40	Peak	---	---
5	161.92	25.55	43.50	-17.95	34.47	-8.92	Peak	---	---
6	249.22	31.79	46.00	-14.21	41.96	-10.17	Peak	---	---

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

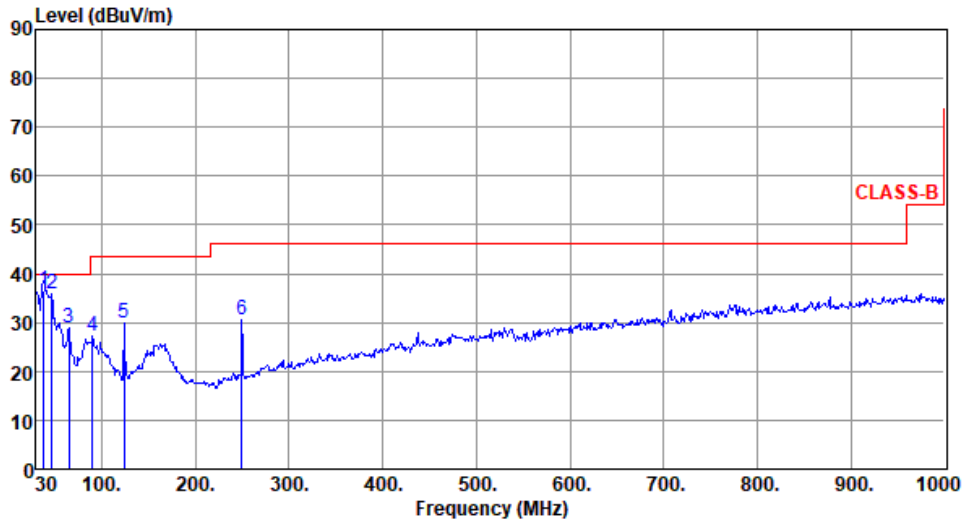
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Vertical	Test Configuration	2

Test By :BRAD WU Temperature(°C):24 Humidity(%):64



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	38.24	36.47	40.00	-3.53	45.30	-8.83	QP	100	138
2	46.49	36.02	40.00	-3.98	44.35	-8.33	Peak	---	---
3	64.92	29.03	40.00	-10.97	38.75	-9.72	Peak	---	---
4	90.14	27.20	43.50	-16.30	41.77	-14.57	Peak	---	---
5	124.09	30.00	43.50	-13.50	40.40	-10.40	Peak	---	---
6	249.22	30.70	46.00	-15.30	40.87	-10.17	Peak	---	---

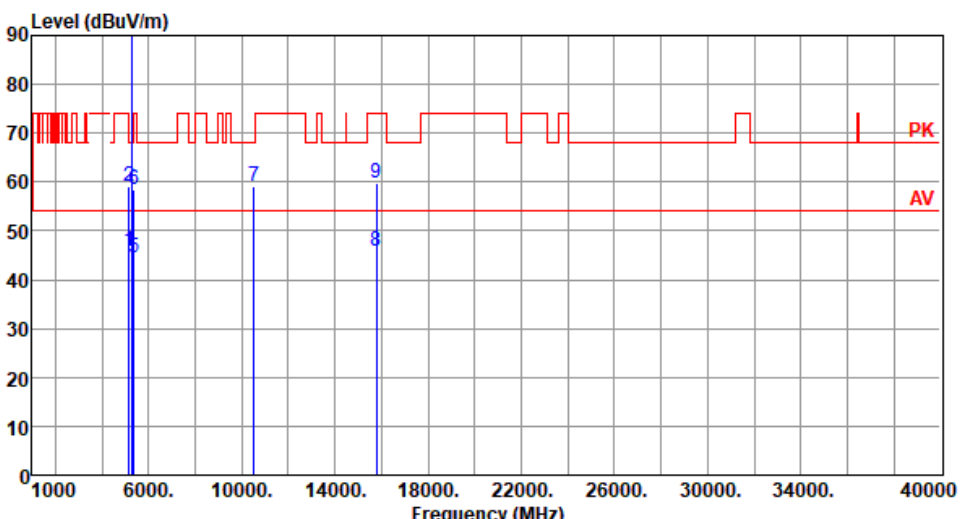
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

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

Modulation	11a	Test Freq. (MHz)	5260						
Polarization	Horizontal	Test Configuration	1						
Test By : Akun Chung Temperature(°C): 22 Humidity(%): 65									
									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.84	54.00	-8.16	41.56	4.28	Average	305	3
2	5150.00	58.96	74.00	-15.04	54.68	4.28	Peak	305	3
3 *	5260.00	100.54			96.76	3.78	Average	305	3
4 *	5260.00	111.39			107.61	3.78	Peak	305	3
5	5350.00	44.46	54.00	-9.54	40.69	3.77	Average	305	3
6	5350.00	58.45	74.00	-15.55	54.68	3.77	Peak	305	3
7	10520.00	59.24	68.20	-8.96	44.59	14.65	Peak	265	175
8	15780.00	45.72	54.00	-8.28	31.45	14.27	Average	135	98
9	15780.00	59.81	74.00	-14.19	45.54	14.27	Peak	135	98

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

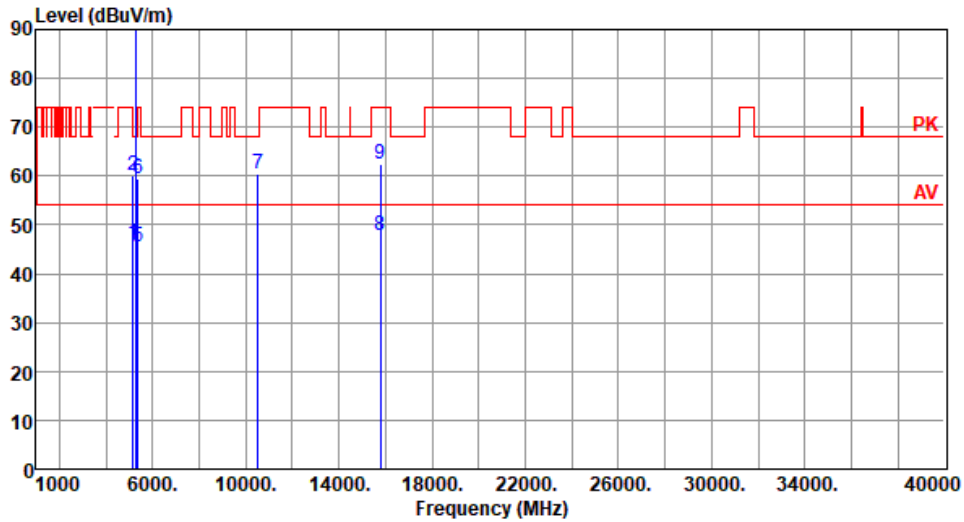
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	11a	Test Freq. (MHz)	5260
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.15	54.00	-7.85	41.87	4.28	Average	147	344
2	5150.00	60.14	74.00	-13.86	55.86	4.28	Peak	147	344
3 *	5260.00	103.72			99.94	3.78	Average	147	344
4 *	5260.00	114.43			110.65	3.78	Peak	147	344
5	5350.00	45.55	54.00	-8.45	41.78	3.77	Average	147	344
6	5350.00	59.57	74.00	-14.43	55.80	3.77	Peak	147	344
7	10520.00	60.31	68.20	-7.89	45.66	14.65	Peak	181	177
8	15780.00	47.80	54.00	-6.20	33.53	14.27	Average	214	193
9	15780.00	62.59	74.00	-11.41	48.32	14.27	Peak	214	193

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

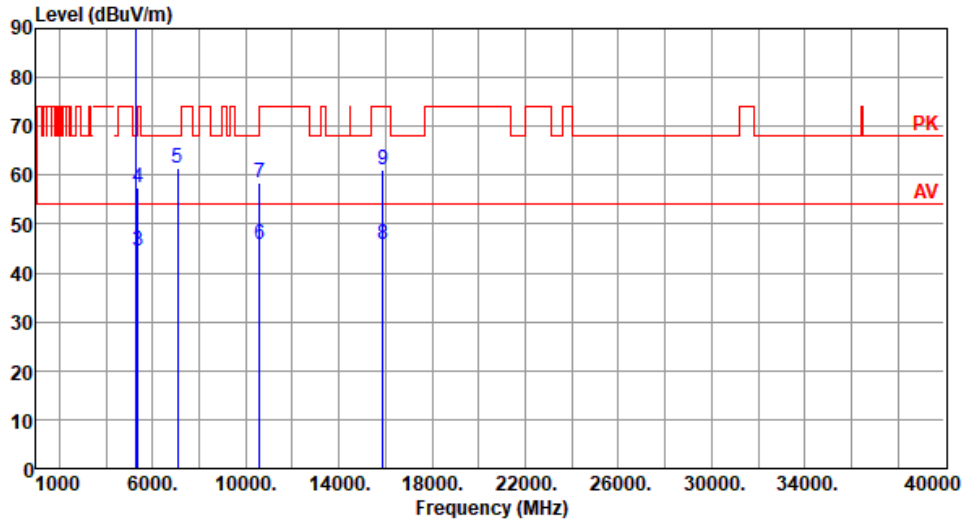
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	11a	Test Freq. (MHz)	5300
Polarization	Horizontal	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	
1	*	5300.00	100.90		97.26	3.64	Average	305	5	
2	*	5300.00	111.51		107.87	3.64	Peak	305	5	
3		5350.00	44.36	54.00	-9.64	40.59	3.77	Average	305	5
4		5350.00	57.39	74.00	-16.61	53.62	3.77	Peak	305	5
5		7066.66	61.37	68.20	-6.83	53.02	8.35	Peak	119	291
6		10600.00	45.69	54.00	-8.31	31.12	14.57	Average	264	172
7		10600.00	58.52	74.00	-15.48	43.95	14.57	Peak	264	172
8		15900.00	45.94	54.00	-8.06	31.81	14.13	Average	134	96
9		15900.00	61.17	74.00	-12.83	47.04	14.13	Peak	134	96

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

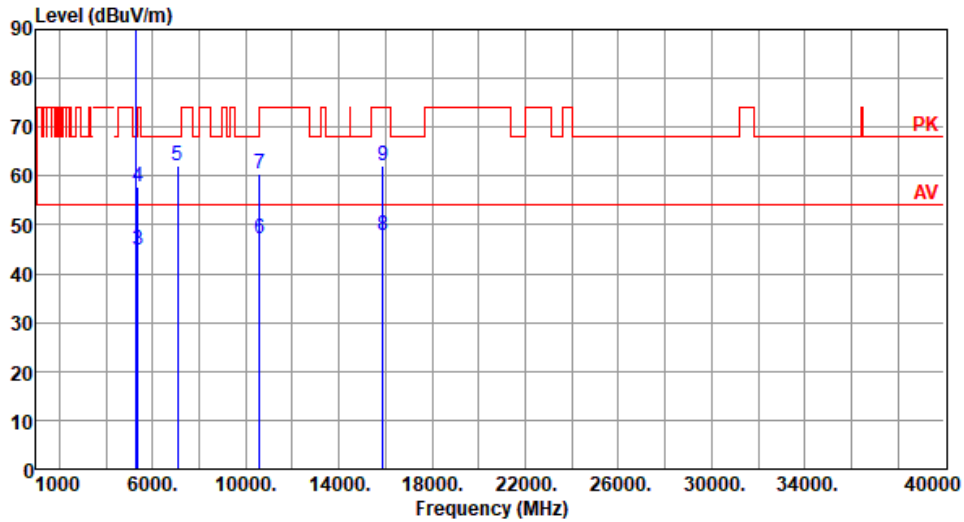
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	11a	Test Freq. (MHz)	5300
Polarization	Vertical	Test Configuration	1

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



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5300.00	104.21			100.57	3.64	Average	145	345
2	*	5300.00	114.90			111.26	3.64	Peak	145	345
3		5350.00	44.85	54.00	-9.15	41.08	3.77	Average	145	345
4		5350.00	57.62	74.00	-16.38	53.85	3.77	Peak	145	345
5		7066.66	62.14	68.20	-6.06	53.79	8.35	Peak	283	277
6		10600.00	47.19	54.00	-6.81	32.62	14.57	Average	179	178
7		10600.00	60.36	74.00	-13.64	45.79	14.57	Peak	179	178
8		15900.00	47.72	54.00	-6.28	33.59	14.13	Average	215	195
9		15900.00	62.26	74.00	-11.74	48.13	14.13	Peak	215	195

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

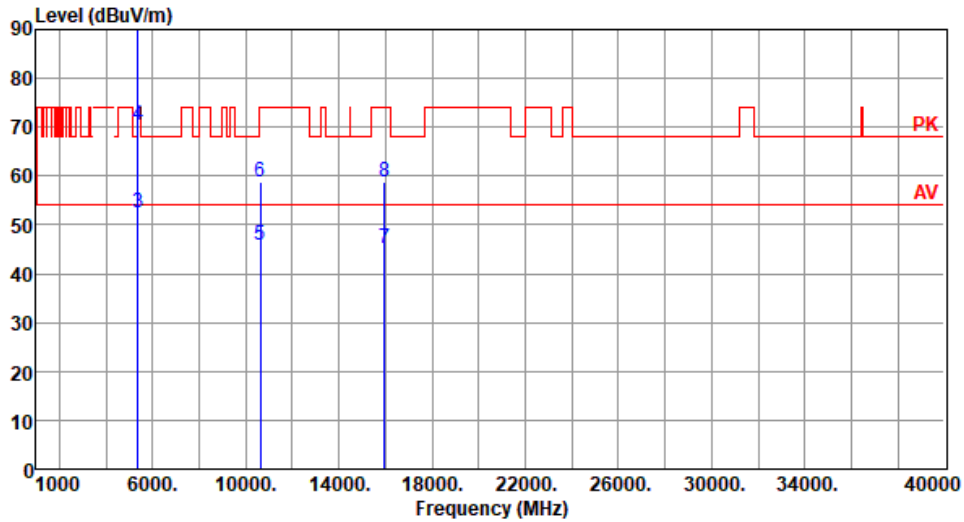
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	11a	Test Freq. (MHz)	5320
Polarization	Horizontal	Test Configuration	1

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



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5320.00	100.46			96.76	3.70	Average	303	1
2	*	5320.00	112.96			109.26	3.70	Peak	303	1
3		5350.00	52.44	54.00	-1.56	48.67	3.77	Average	303	1
4		5350.00	70.46	74.00	-3.54	66.69	3.77	Peak	303	1
5		10640.00	45.87	54.00	-8.13	31.27	14.60	Average	265	175
6		10640.00	58.90	74.00	-15.10	44.30	14.60	Peak	265	175
7		15960.00	45.32	54.00	-8.68	31.26	14.06	Average	135	99
8		15960.00	58.64	74.00	-15.36	44.58	14.06	Peak	135	99

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

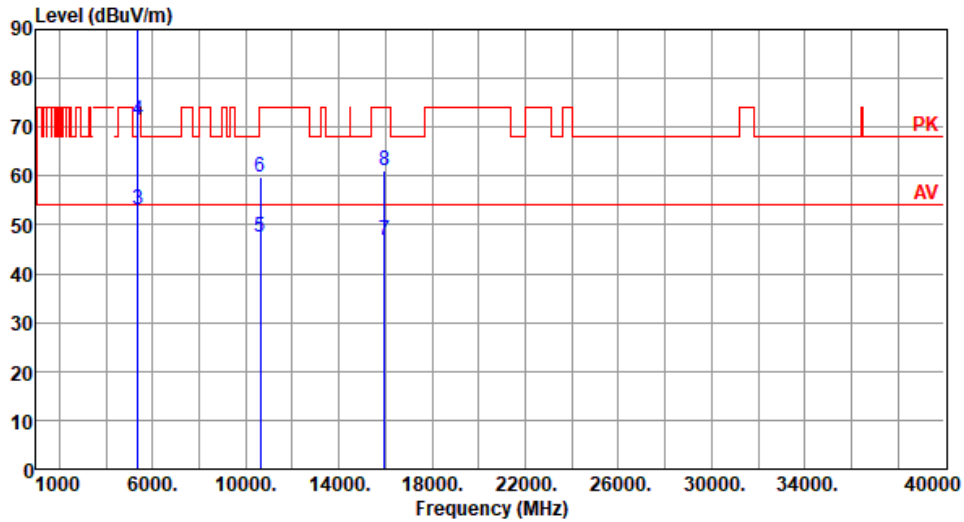
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	11a	Test Freq. (MHz)	5320
Polarization	Vertical	Test Configuration	1

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



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5320.00	103.87			100.17	3.70	Average	183	358
2	*	5320.00	114.73			111.03	3.70	Peak	183	358
3		5350.00	53.10	54.00	-0.90	49.33	3.77	Average	143	343
4		5350.00	71.26	74.00	-2.74	67.49	3.77	Peak	143	343
5		10640.00	47.33	54.00	-6.67	32.73	14.60	Average	162	142
6		10640.00	59.82	74.00	-14.18	45.22	14.60	Peak	162	142
7		15960.00	46.80	54.00	-7.20	32.74	14.06	Average	225	154
8		15960.00	60.97	74.00	-13.03	46.91	14.06	Peak	225	154

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

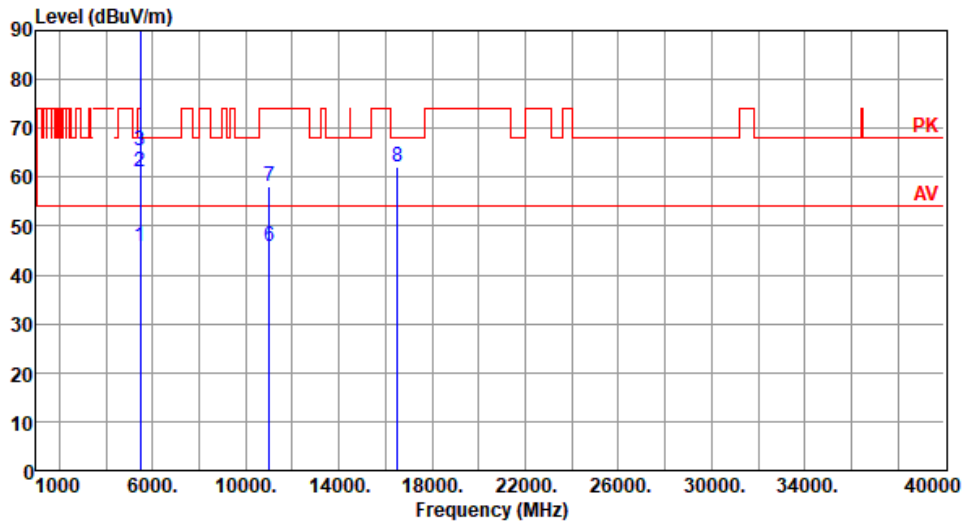
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	11a	Test Freq. (MHz)	5500
Polarization	Horizontal	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.93	54.00	-8.07	41.66	4.27	Average	293	59
2	5460.00	61.16	74.00	-12.84	56.89	4.27	Peak	293	59
3	5470.00	65.38	68.20	-2.82	61.09	4.29	Peak	293	59
4 *	5500.00	99.94			95.57	4.37	Average	293	59
5 *	5500.00	110.00			105.63	4.37	Peak	293	59
6	11000.00	45.98	54.00	-8.02	30.82	15.16	Average	100	22
7	11000.00	58.04	74.00	-15.96	42.88	15.16	Peak	100	22
8	16500.00	62.20	68.20	-6.00	45.65	16.55	Peak	100	100

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

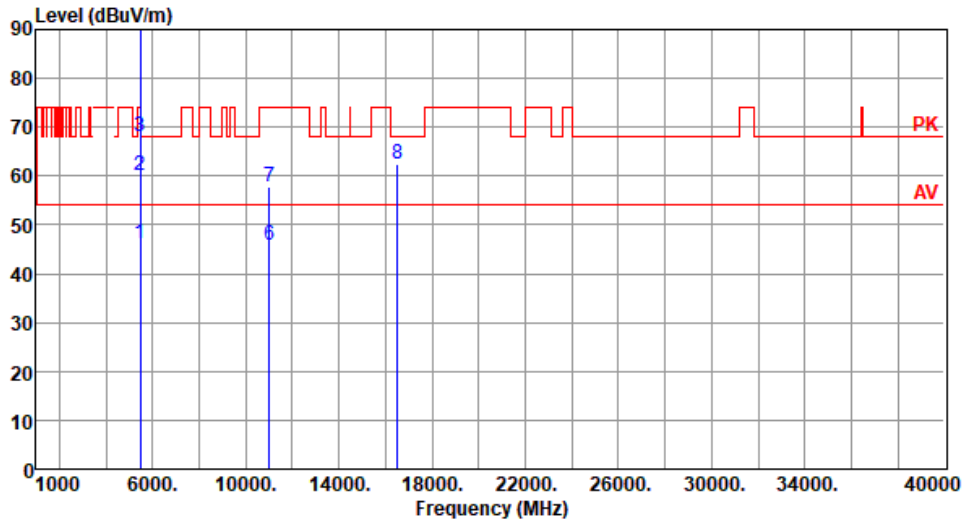
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	11a	Test Freq. (MHz)	5500
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.13	54.00	-7.87	41.86	4.27	Average	110	356
2	5460.00	60.14	74.00	-13.86	55.87	4.27	Peak	110	356
3	5470.00	68.07	68.20	-0.13	63.78	4.29	Peak	110	356
4 *	5500.00	102.54			98.17	4.37	Average	110	356
5 *	5500.00	112.75			108.38	4.37	Peak	110	356
6	11000.00	45.81	54.00	-8.19	30.65	15.16	Average	100	50
7	11000.00	57.84	74.00	-16.16	42.68	15.16	Peak	100	50
8	16500.00	62.41	68.20	-5.79	45.86	16.55	Peak	100	50

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

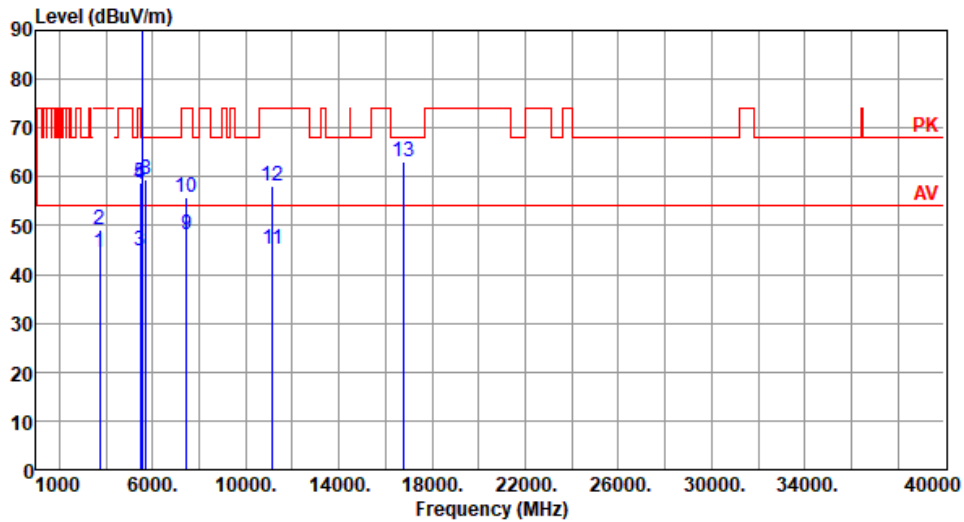
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	11a	Test Freq. (MHz)	5580
Polarization	Horizontal	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	3720.00	44.67	54.00	-9.33	44.24	0.43	Average	323	351
2	3720.00	49.27	74.00	-24.73	48.84	0.43	Peak	323	351
3	5460.00	44.85	54.00	-9.15	40.58	4.27	Average	295	60
4	5460.00	58.53	74.00	-15.47	54.26	4.27	Peak	295	60
5	5470.00	58.62	68.20	-9.58	54.33	4.29	Peak	295	60
6 *	5580.00	100.40			96.15	4.25	Average	295	60
7 *	5580.00	110.60			106.35	4.25	Peak	295	60
8	5725.00	59.33	68.20	-8.87	54.67	4.66	Peak	295	60
9	7440.00	48.12	54.00	-5.88	39.32	8.80	Average	109	282
10	7440.00	55.71	74.00	-18.29	46.91	8.80	Peak	109	282
11	11160.00	45.14	54.00	-8.86	30.56	14.58	Average	100	30
12	11160.00	58.15	74.00	-15.85	43.57	14.58	Peak	100	30
13	16740.00	63.21	68.20	-4.99	45.83	17.38	Peak	312	101

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

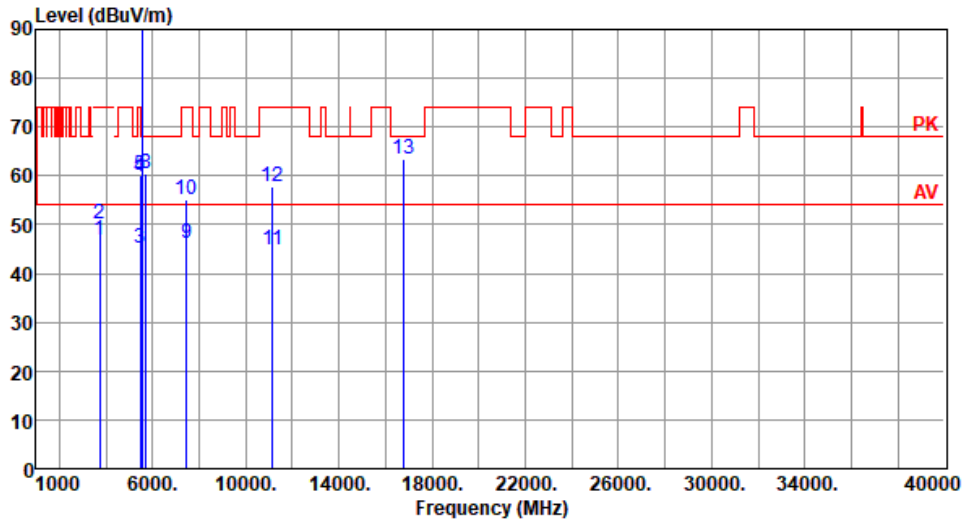
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	11a	Test Freq. (MHz)	5580
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	3720.00	46.93	54.00	-7.07	46.50	0.43	Average	210	307
2	3720.00	50.10	74.00	-23.90	49.67	0.43	Peak	210	307
3	5460.00	45.13	54.00	-8.87	40.86	4.27	Average	156	359
4	5460.00	59.74	74.00	-14.26	55.47	4.27	Peak	156	359
5	5470.00	60.18	68.20	-8.02	55.89	4.29	Peak	156	359
6 *	5580.00	103.45			99.20	4.25	Average	156	359
7 *	5580.00	113.91			109.66	4.25	Peak	156	359
8	5725.00	60.55	68.20	-7.65	55.89	4.66	Peak	156	359
9	7440.00	46.11	54.00	-7.89	37.31	8.80	Average	259	287
10	7440.00	55.03	74.00	-18.97	46.23	8.80	Peak	259	287
11	11160.00	45.00	54.00	-9.00	30.42	14.58	Average	100	50
12	11160.00	57.73	74.00	-16.27	43.15	14.58	Peak	100	50
13	16740.00	63.38	68.20	-4.82	46.00	17.38	Peak	198	152

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

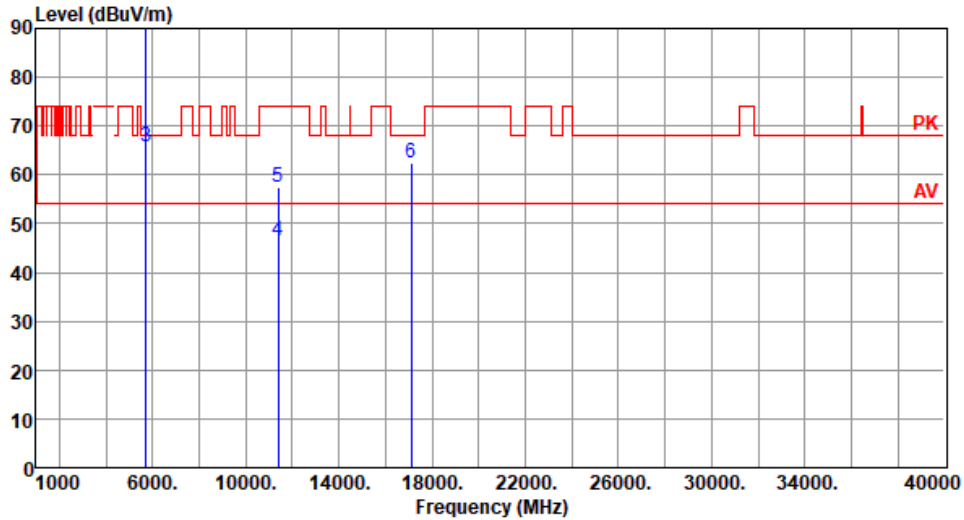
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal	Test Configuration	1

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



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5700.00	98.46			93.87	4.59	Average	295	61
2	*	5700.00	108.54			103.95	4.59	Peak	295	61
3		5725.00	65.81	68.20	-2.39	61.15	4.66	Peak	295	61
4		11400.00	46.47	54.00	-7.53	31.82	14.65	Average	100	33
5		11400.00	57.51	74.00	-16.49	42.86	14.65	Peak	100	33
6		17100.00	62.32	68.20	-5.88	44.55	17.77	Peak	100	103

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

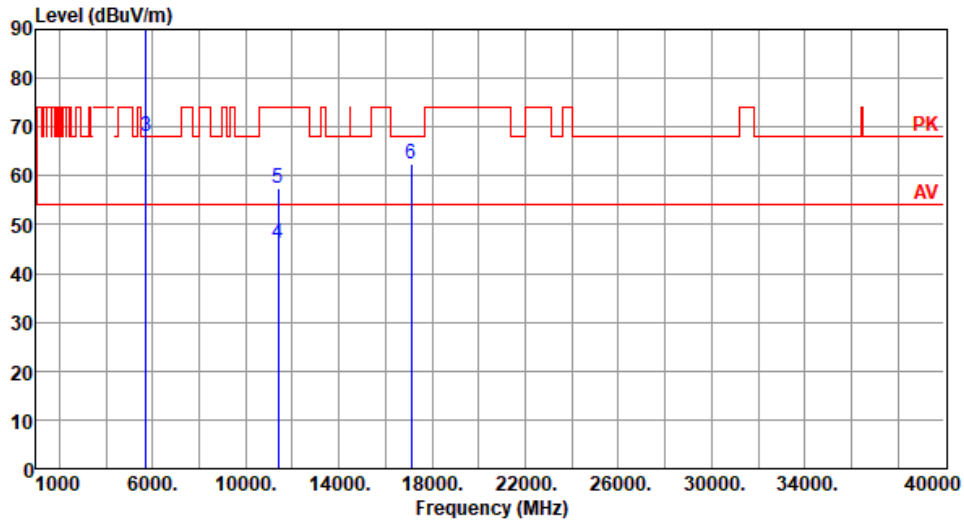
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical	Test Configuration	1

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



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5700.00	101.58			96.99	4.59	Average	128	280
2	*	5700.00	111.47			106.88	4.59	Peak	128	280
3		5725.00	67.94	68.20	-0.26	63.28	4.66	Peak	128	340
4		11400.00	46.21	54.00	-7.79	31.56	14.65	Average	100	40
5		11400.00	57.33	74.00	-16.67	42.68	14.65	Peak	100	40
6		17100.00	62.39	68.20	-5.81	44.62	17.77	Peak	100	60

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

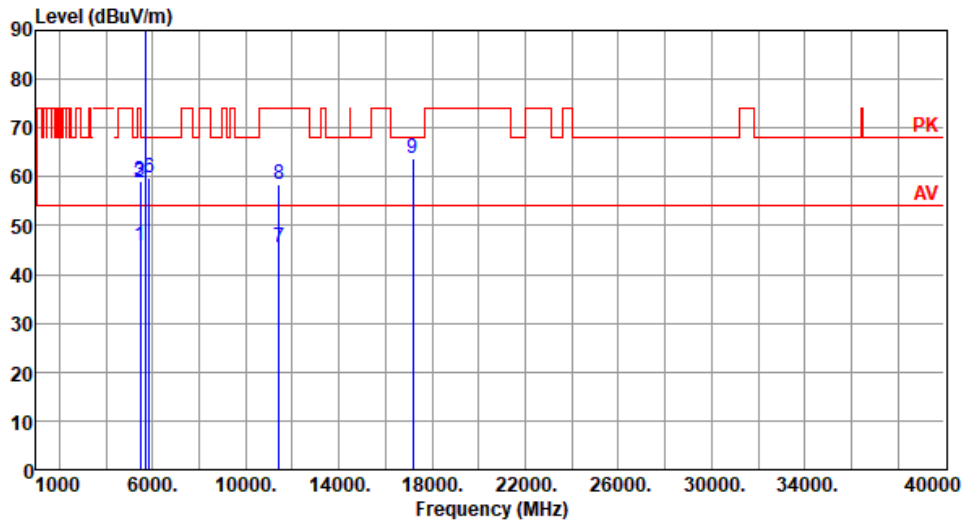
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	11a	Test Freq. (MHz)	5720
Polarization	Horizontal	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.83	54.00	-8.17	41.56	4.27	Average	296	62
2	5460.00	58.95	74.00	-15.05	54.68	4.27	Peak	296	62
3	5470.00	58.98	68.20	-9.22	54.69	4.29	Peak	296	62
4 *	5720.00	101.33			96.68	4.65	Average	296	62
5 *	5720.00	111.51			106.86	4.65	Peak	296	62
6	5850.00	59.75	68.20	-8.45	54.67	5.08	Peak	296	62
7	11440.00	45.38	54.00	-8.62	30.69	14.69	Average	100	39
8	11440.00	58.37	74.00	-15.63	43.68	14.69	Peak	100	39
9	17160.00	63.79	68.20	-4.41	45.85	17.94	Peak	305	100

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

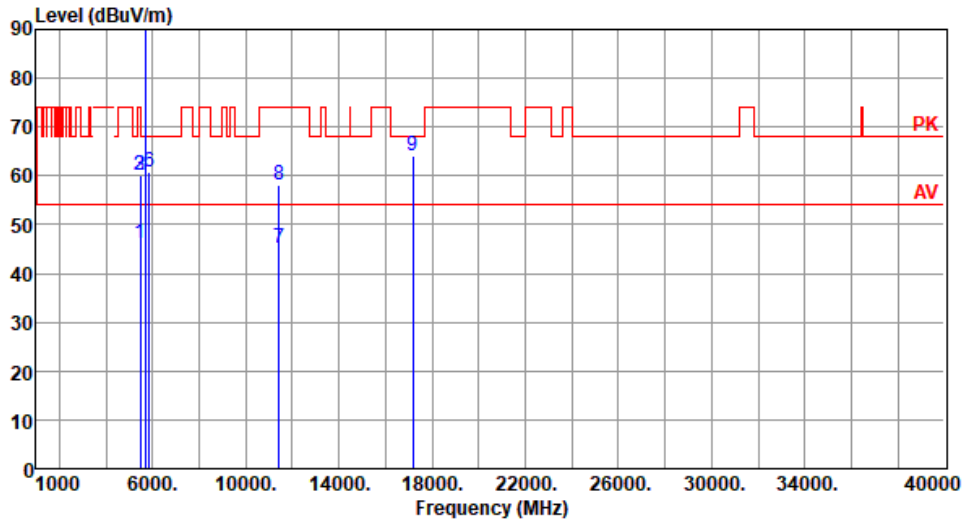
*Factor includes antenna factor, cable loss and amplifier gain

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

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

Modulation	11a	Test Freq. (MHz)	5720
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.05	54.00	-7.95	41.78	4.27	Average	203	264
2	5460.00	60.03	74.00	-13.97	55.76	4.27	Peak	203	264
3	5470.00	60.07	68.20	-8.13	55.78	4.29	Peak	203	264
4 *	5720.00	104.40			99.75	4.65	Average	203	264
5 *	5720.00	114.28			109.63	4.65	Peak	203	264
6	5850.00	60.93	68.20	-7.27	55.85	5.08	Peak	203	264
7	11440.00	45.14	54.00	-8.86	30.45	14.69	Average	100	30
8	11440.00	58.28	74.00	-15.72	43.59	14.69	Peak	100	30
9	17160.00	64.15	68.20	-4.05	46.21	17.94	Peak	195	149

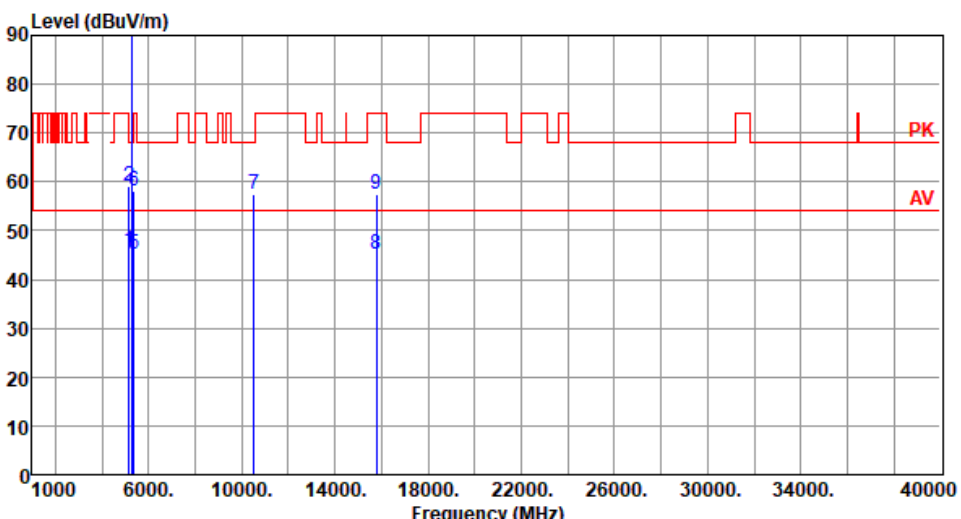
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

3.5.2 Transmitter Radiated Unwanted Emissions (Above 1GHz) for ac VHT20

Modulation	VHT20	Test Freq. (MHz)	5260						
Polarization	Horizontal	Test Configuration	1						
Test By : Akun Chung Temperature(°C): 22 Humidity(%): 65									
									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.84	54.00	-8.16	41.56	4.28	Average	304	3
2	5150.00	58.95	74.00	-15.05	54.67	4.28	Peak	304	3
3 *	5260.00	100.93			97.15	3.78	Average	304	3
4 *	5260.00	111.26			107.48	3.78	Peak	304	3
5	5350.00	45.26	54.00	-8.74	41.49	3.77	Average	304	3
6	5350.00	58.14	74.00	-15.86	54.37	3.77	Peak	304	3
7	10520.00	57.33	68.20	-10.87	42.68	14.65	Peak	265	175
8	15780.00	45.05	54.00	-8.95	30.78	14.27	Average	100	95
9	15780.00	57.41	74.00	-16.59	43.14	14.27	Peak	100	95

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

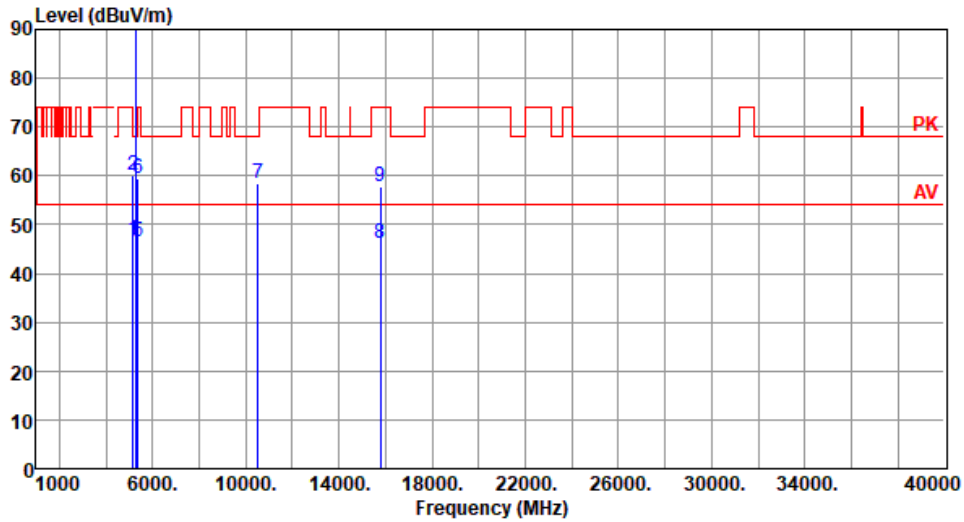
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.96	54.00	-7.04	42.68	4.28	Average	174	352
2	5150.00	60.03	74.00	-13.97	55.75	4.28	Peak	174	352
3 *	5260.00	104.06			100.28	3.78	Average	174	352
4 *	5260.00	115.56			111.78	3.78	Peak	174	352
5	5350.00	46.35	54.00	-7.65	42.58	3.77	Average	174	352
6	5350.00	59.46	74.00	-14.54	55.69	3.77	Peak	174	352
7	10520.00	58.40	68.20	-9.80	43.75	14.65	Peak	100	187
8	15780.00	46.14	54.00	-7.86	31.87	14.27	Average	100	189
9	15780.00	57.94	74.00	-16.06	43.67	14.27	Peak	100	189

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

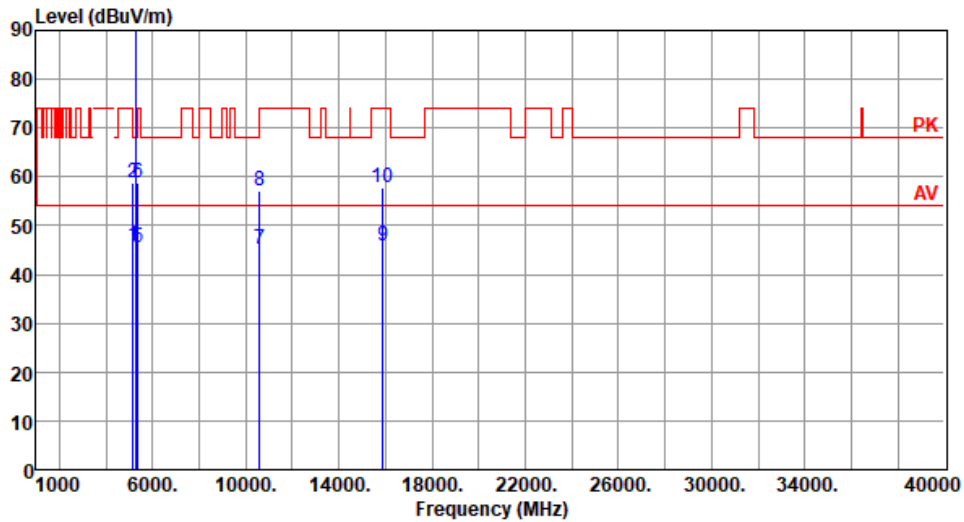
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.74	54.00	-8.26	41.46	4.28	Average	305	4
2	5150.00	58.92	74.00	-15.08	54.64	4.28	Peak	305	4
3 *	5300.00	100.90			97.26	3.64	Average	305	4
4 *	5300.00	111.12			107.48	3.64	Peak	305	4
5	5350.00	45.44	54.00	-8.56	41.67	3.77	Average	305	4
6	5350.00	58.65	74.00	-15.35	54.88	3.77	Peak	305	4
7	10600.00	45.02	54.00	-8.98	30.45	14.57	Average	100	175
8	10600.00	57.22	74.00	-16.78	42.65	14.57	Peak	100	175
9	15900.00	45.70	54.00	-8.30	31.57	14.13	Average	135	93
10	15900.00	57.80	74.00	-16.20	43.67	14.13	Peak	135	93

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

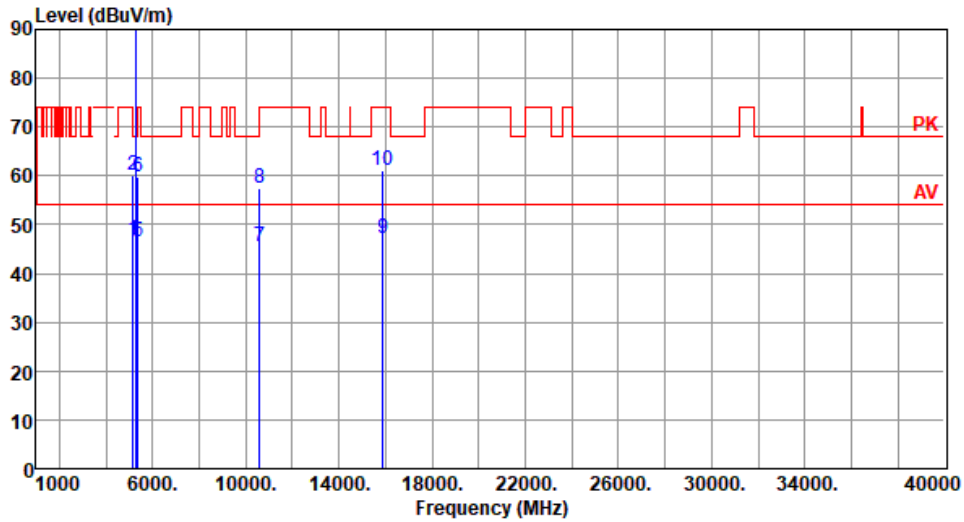
*Factor includes antenna factor, cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.98	54.00	-7.02	42.70	4.28	Average	172	354
2	5150.00	60.10	74.00	-13.90	55.82	4.28	Peak	172	354
3 *	5300.00	104.00			100.36	3.64	Average	172	354
4 *	5300.00	115.51			111.87	3.64	Peak	172	354
5	5350.00	46.59	54.00	-7.41	42.82	3.77	Average	172	354
6	5350.00	59.71	74.00	-14.29	55.94	3.77	Peak	172	354
7	10600.00	45.34	54.00	-8.66	30.77	14.57	Average	100	181
8	10600.00	57.34	74.00	-16.66	42.77	14.57	Peak	100	181
9	15900.00	47.32	54.00	-6.68	33.19	14.13	Average	200	188
10	15900.00	61.00	74.00	-13.00	46.87	14.13	Peak	200	188

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

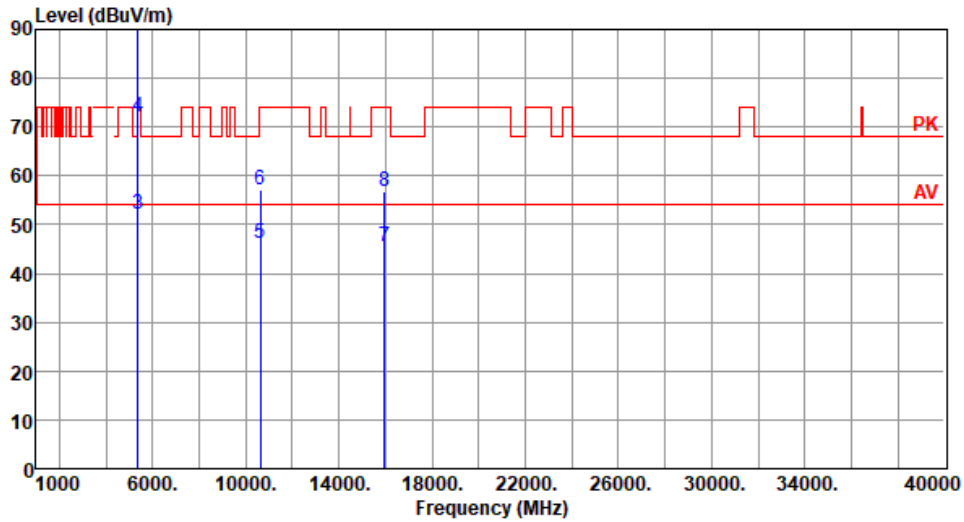
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Horizontal	Test Configuration	1

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



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5320.00	101.38			97.68	3.70	Average	296	54
2	*	5320.00	112.45			108.75	3.70	Peak	296	54
3		5350.00	52.02	54.00	-1.98	48.25	3.77	Average	296	347
4		5350.00	71.92	74.00	-2.08	68.15	3.77	Peak	296	347
5		10640.00	46.17	54.00	-7.83	31.57	14.60	Average	100	30
6		10640.00	57.19	74.00	-16.81	42.59	14.60	Peak	100	30
7		15960.00	45.51	54.00	-8.49	31.45	14.06	Average	100	50
8		15960.00	56.73	74.00	-17.27	42.67	14.06	Peak	100	50

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

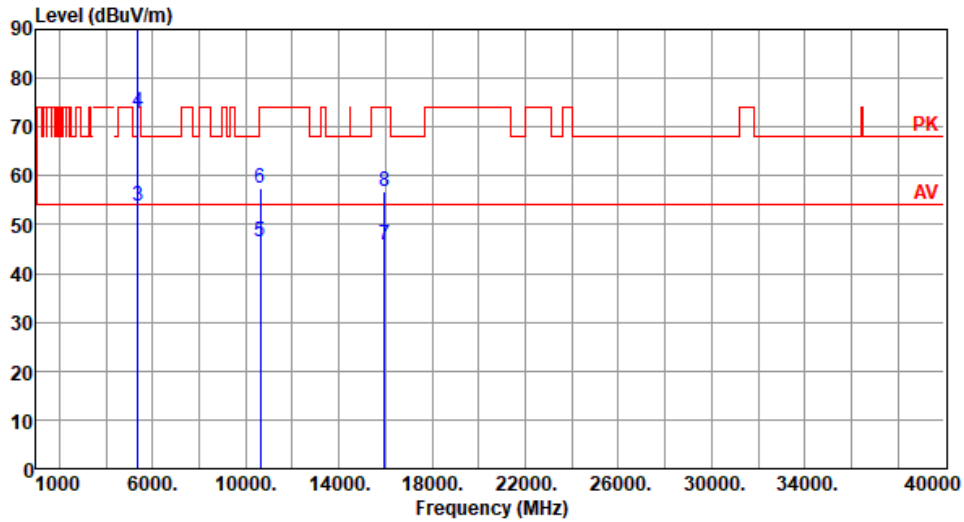
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Vertical	Test Configuration	1

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



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5320.00	104.24			100.54	3.70	Average	169	354
2	*	5320.00	115.39			111.69	3.70	Peak	169	354
3		5350.00	53.88	54.00	-0.12	50.11	3.77	Average	232	288
4		5350.00	73.15	74.00	-0.85	69.38	3.77	Peak	232	288
5		10640.00	46.48	54.00	-7.52	31.88	14.60	Average	100	177
6		10640.00	57.46	74.00	-16.54	42.86	14.60	Peak	100	177
7		15960.00	45.83	54.00	-8.17	31.77	14.06	Average	100	187
8		15960.00	56.88	74.00	-17.12	42.82	14.06	Peak	100	187

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

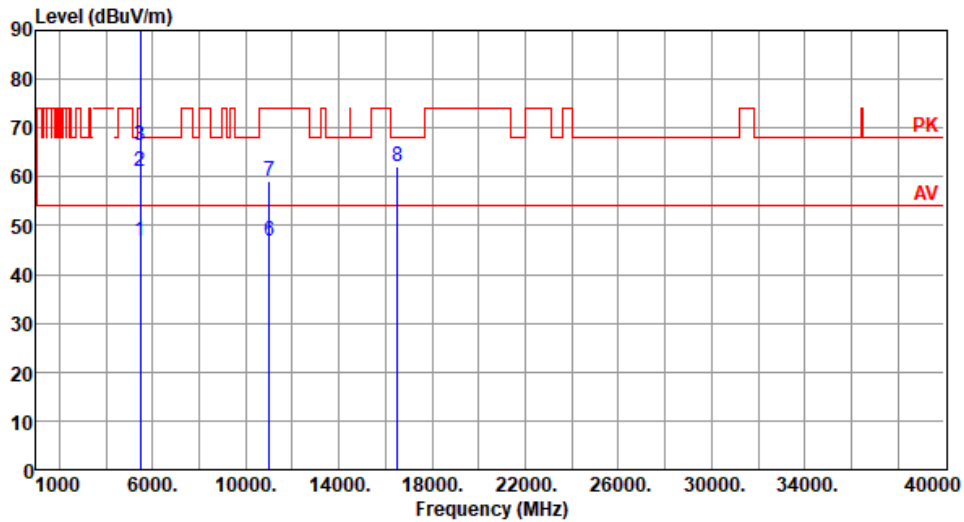
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Horizontal	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.75	54.00	-7.25	42.48	4.27	Average	309	58
2	5460.00	61.16	74.00	-12.84	56.89	4.27	Peak	309	58
3	5470.00	66.57	68.20	-1.63	62.28	4.29	Peak	308	342
4 *	5500.00	99.71			95.34	4.37	Average	309	58
5 *	5500.00	110.86			106.49	4.37	Peak	308	58
6	11000.00	46.82	54.00	-7.18	31.66	15.16	Average	100	28
7	11000.00	59.01	74.00	-14.99	43.85	15.16	Peak	100	28
8	16500.00	62.17	68.20	-6.03	45.62	16.55	Peak	100	105

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

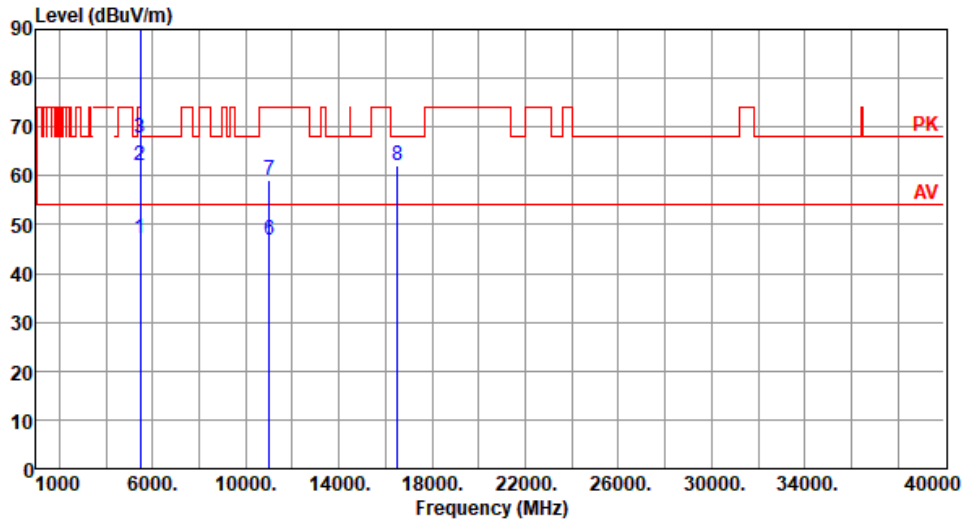
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.14	54.00	-6.86	42.87	4.27	Average	207	271
2	5460.00	62.02	74.00	-11.98	57.75	4.27	Peak	207	271
3	5470.00	67.76	68.20	-0.44	63.47	4.29	Peak	207	271
4 *	5500.00	102.58			98.21	4.37	Average	207	271
5 *	5500.00	113.46			109.09	4.37	Peak	207	271
6	11000.00	46.91	54.00	-7.09	31.75	15.16	Average	100	30
7	11000.00	59.10	74.00	-14.90	43.94	15.16	Peak	100	30
8	16500.00	62.00	68.20	-6.20	45.45	16.55	Peak	100	90

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

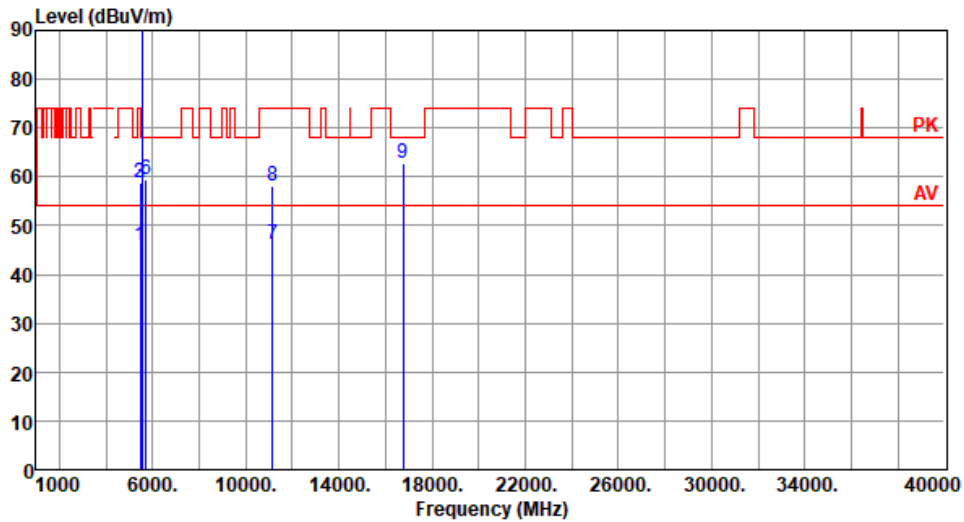
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Horizontal	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.85	54.00	-8.15	41.58	4.27	Average	294	63
2	5460.00	58.62	74.00	-15.38	54.35	4.27	Peak	294	63
3	5470.00	58.85	68.20	-9.35	54.56	4.29	Peak	294	63
4 *	5580.00	101.50			97.25	4.25	Average	294	63
5 *	5580.00	111.73			107.48	4.25	Peak	294	63
6	5725.00	59.41	68.20	-8.79	54.75	4.66	Peak	294	63
7	11160.00	46.03	54.00	-7.97	31.45	14.58	Average	100	40
8	11160.00	58.06	74.00	-15.94	43.48	14.58	Peak	100	40
9	16740.00	62.83	68.20	-5.37	45.45	17.38	Peak	311	105

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

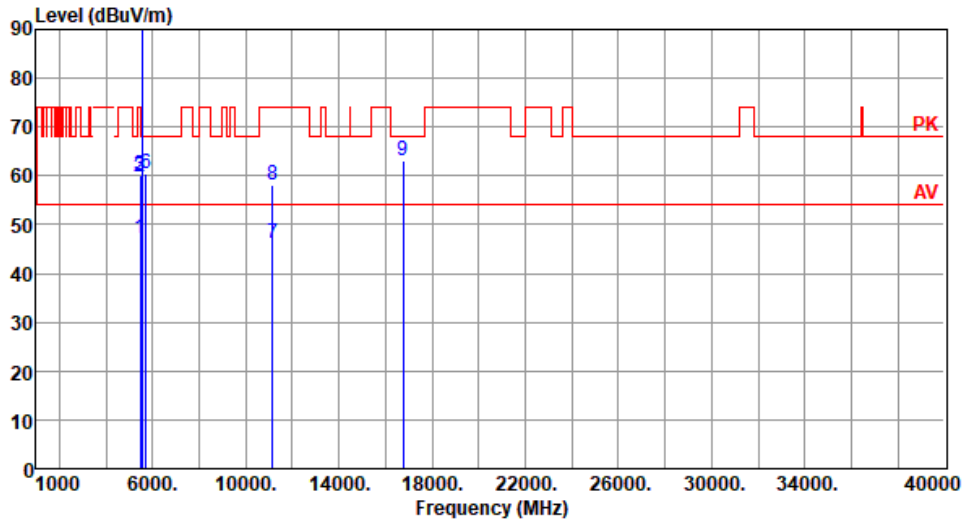
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.16	54.00	-6.84	42.89	4.27	Average	217	270
2	5460.00	59.73	74.00	-14.27	55.46	4.27	Peak	217	270
3	5470.00	60.18	68.20	-8.02	55.89	4.29	Peak	217	270
4 *	5580.00	104.64			100.39	4.25	Average	217	270
5 *	5580.00	115.99			111.74	4.25	Peak	217	270
6	5725.00	60.38	68.20	-7.82	55.72	4.66	Peak	217	270
7	11160.00	46.26	54.00	-7.74	31.68	14.58	Average	100	24
8	11160.00	58.25	74.00	-15.75	43.67	14.58	Peak	100	24
9	16740.00	62.98	68.20	-5.22	45.60	17.38	Peak	100	107

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

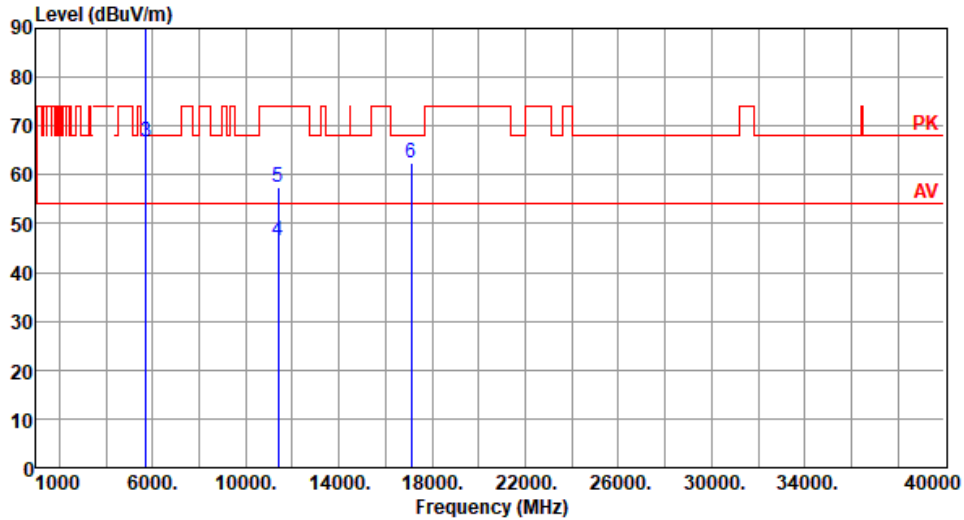
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Horizontal	Test Configuration	1

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



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5700.00	99.49			94.90	4.59	Average	298	52
2	*	5700.00	109.83			105.24	4.59	Peak	298	52
3		5725.00	66.75	68.20	-1.45	62.09	4.66	Peak	298	343
4		11400.00	46.40	54.00	-7.60	31.75	14.65	Average	100	29
5		11400.00	57.45	74.00	-16.55	42.80	14.65	Peak	100	29
6		17100.00	62.41	68.20	-5.79	44.64	17.77	Peak	100	107

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

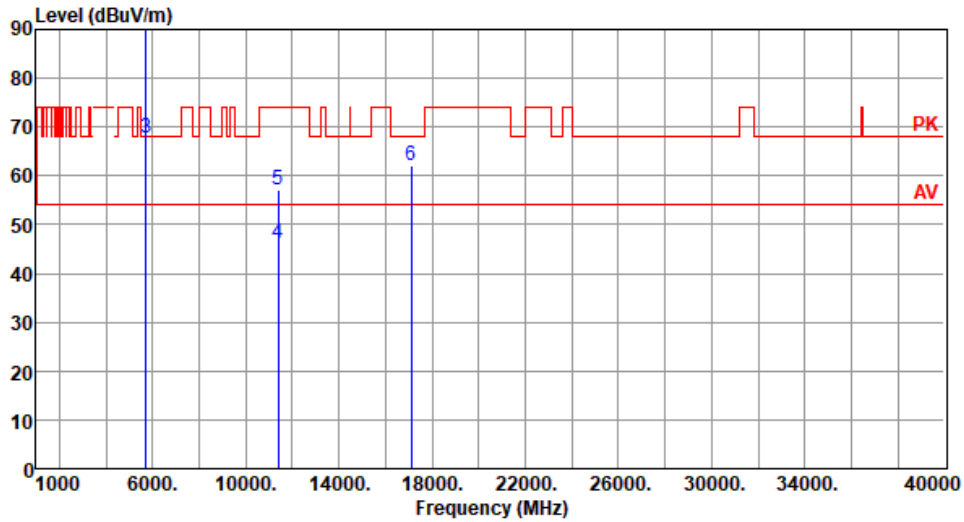
*Factor includes antenna factor, cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical	Test Configuration	1

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



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5700.00	102.32			97.73	4.59	Average	217	265
2	*	5700.00	113.58			108.99	4.59	Peak	217	265
3		5725.00	67.81	68.20	-0.39	63.15	4.66	Peak	217	265
4		11400.00	46.11	54.00	-7.89	31.46	14.65	Average	100	60
5		11400.00	57.23	74.00	-16.77	42.58	14.65	Peak	100	60
6		17100.00	62.23	68.20	-5.97	44.46	17.77	Peak	100	55

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

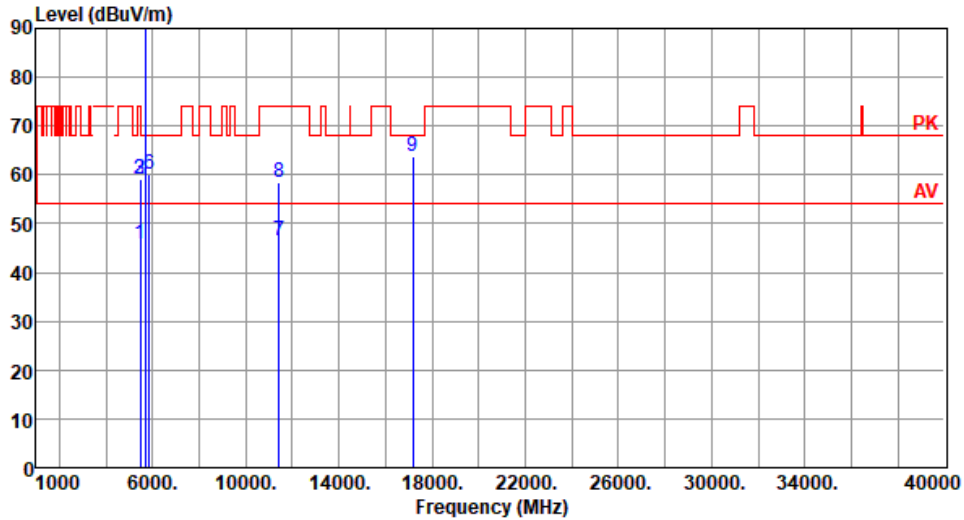
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Horizontal	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.85	54.00	-8.15	41.58	4.27	Average	295	64
2	5460.00	59.13	74.00	-14.87	54.86	4.27	Peak	295	64
3	5470.00	58.96	68.20	-9.24	54.67	4.29	Peak	295	64
4 *	5720.00	100.80			96.15	4.65	Average	295	64
5 *	5720.00	111.13			106.48	4.65	Peak	295	64
6	5850.00	59.94	68.20	-8.26	54.86	5.08	Peak	295	64
7	11440.00	46.54	54.00	-7.46	31.85	14.69	Average	100	29
8	11440.00	58.54	74.00	-15.46	43.85	14.69	Peak	100	29
9	17160.00	63.92	68.20	-4.28	45.98	17.94	Peak	300	100

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

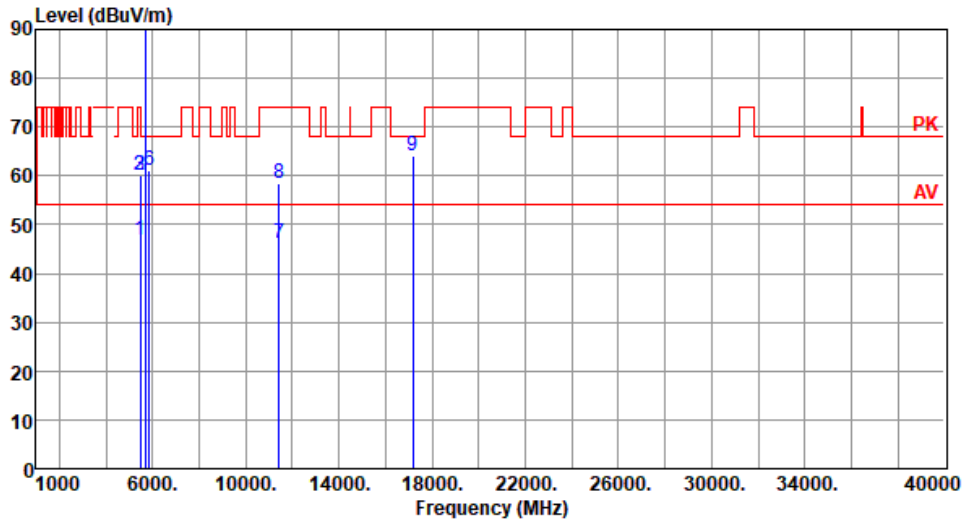
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.90	54.00	-7.10	42.63	4.27	Average	216	272
2	5460.00	59.96	74.00	-14.04	55.69	4.27	Peak	216	272
3	5470.00	60.17	68.20	-8.03	55.88	4.29	Peak	216	272
4 *	5720.00	103.93			99.28	4.65	Average	216	272
5 *	5720.00	115.51			110.86	4.65	Peak	216	272
6	5850.00	61.03	68.20	-7.17	55.95	5.08	Peak	216	272
7	11440.00	46.31	54.00	-7.69	31.62	14.69	Average	100	50
8	11440.00	58.36	74.00	-15.64	43.67	14.69	Peak	100	50
9	17160.00	64.06	68.20	-4.14	46.12	17.94	Peak	195	148

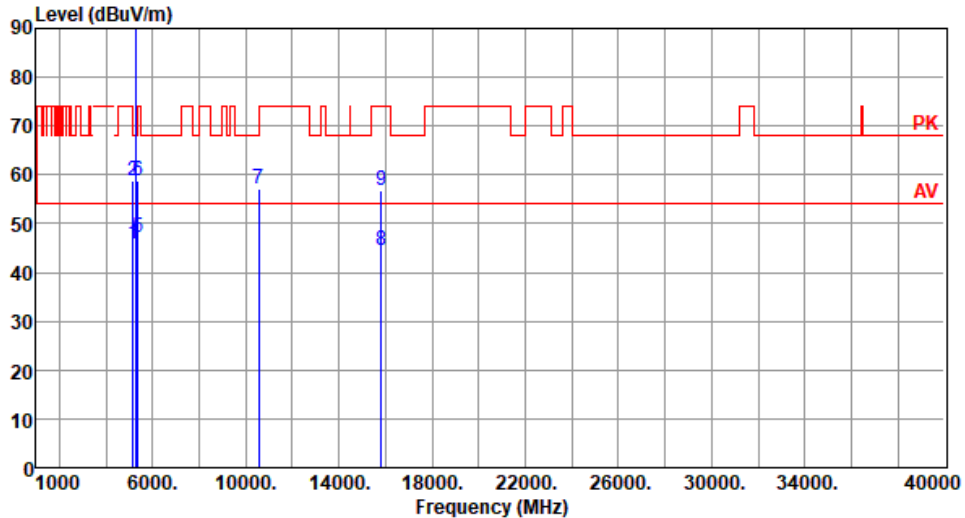
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

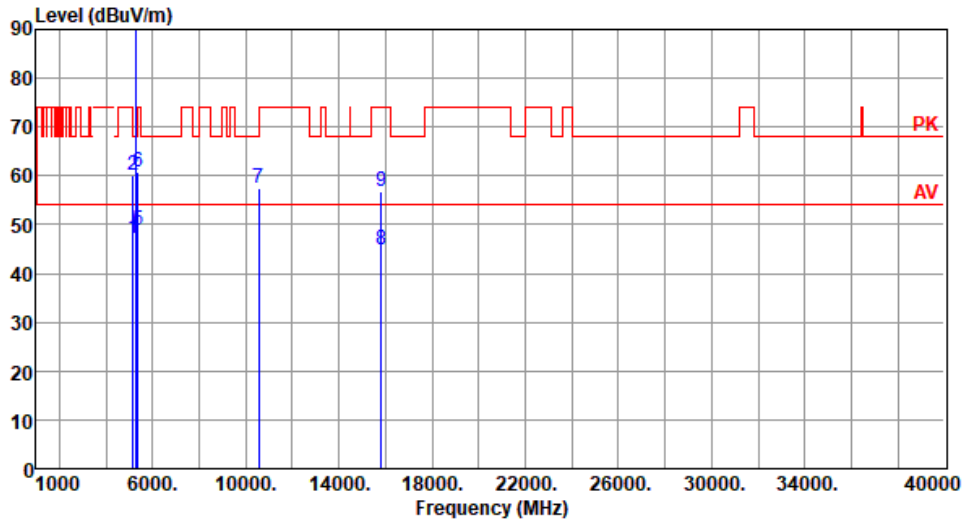
3.5.3 Transmitter Radiated Unwanted Emissions (Above 1GHz) for ac VHT40

Modulation	VHT40	Test Freq. (MHz)	5270						
Polarization	Horizontal	Test Configuration	1						
Test By : Akun Chung Temperature(°C): 22 Humidity(%): 65									
									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.86	54.00	-8.14	41.58	4.28	Average	304	2
2	5150.00	58.93	74.00	-15.07	54.65	4.28	Peak	304	2
3 *	5270.00	100.80			97.05	3.75	Average	304	2
4 *	5270.00	111.20			107.45	3.75	Peak	304	2
5	5350.00	47.02	54.00	-6.98	43.25	3.77	Average	304	2
6	5350.00	58.93	74.00	-15.07	55.16	3.77	Peak	304	2
7	10540.00	57.21	68.20	-10.99	42.58	14.63	Peak	100	30
8	15810.00	44.66	54.00	-9.34	30.45	14.21	Average	100	90
9	15810.00	56.79	74.00	-17.21	42.58	14.21	Peak	100	90

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

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.15	54.00	-6.85	42.87	4.28	Average	142	358
2	5150.00	60.06	74.00	-13.94	55.78	4.28	Peak	142	358
3 *	5270.00	103.90			100.15	3.75	Average	142	358
4 *	5270.00	113.35			109.60	3.75	Peak	142	358
5	5350.00	48.91	54.00	-5.09	45.14	3.77	Average	142	358
6	5350.00	60.77	74.00	-13.23	57.00	3.77	Peak	142	358
7	10540.00	57.32	68.20	-10.88	42.69	14.63	Peak	100	180
8	15810.00	44.87	54.00	-9.13	30.66	14.21	Average	100	185
9	15810.00	56.90	74.00	-17.10	42.69	14.21	Peak	100	185

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

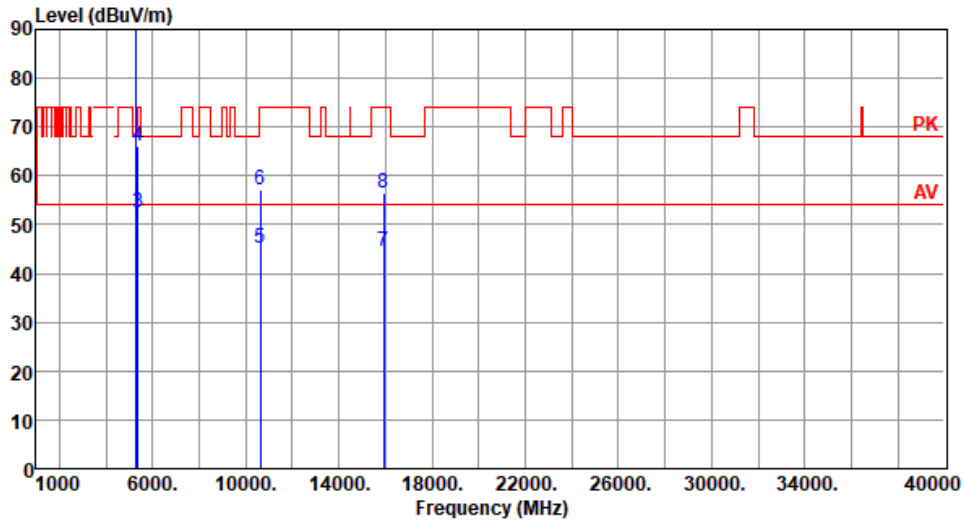
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Horizontal	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1 *	5310.00	96.54			92.87	3.67	Average	294	56
2 *	5310.00	105.92			102.25	3.67	Peak	294	56
3	5350.00	52.46	54.00	-1.54	48.69	3.77	Average	300	353
4	5350.00	65.95	74.00	-8.05	62.18	3.77	Peak	300	353
5	10620.00	45.04	54.00	-8.96	30.45	14.59	Average	100	60
6	10620.00	57.07	74.00	-16.93	42.48	14.59	Peak	100	60
7	15930.00	44.57	54.00	-9.43	30.48	14.09	Average	100	50
8	15930.00	56.56	74.00	-17.44	42.47	14.09	Peak	100	50

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

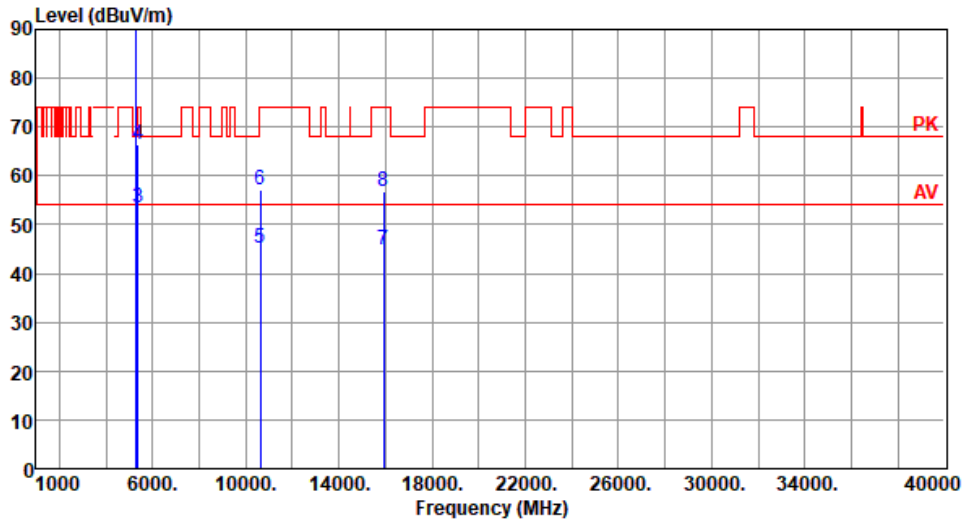
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Vertical	Test Configuration	1

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



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5310.00	99.67			96.00	3.67	Average	150	1
2	*	5310.00	109.00			105.33	3.67	Peak	150	1
3		5350.00	53.54	54.00	-0.46	49.77	3.77	Average	140	342
4		5350.00	66.57	74.00	-7.43	62.80	3.77	Peak	140	342
5		10620.00	45.25	54.00	-8.75	30.66	14.59	Average	100	178
6		10620.00	57.27	74.00	-16.73	42.68	14.59	Peak	100	178
7		15930.00	44.77	54.00	-9.23	30.68	14.09	Average	100	186
8		15930.00	56.78	74.00	-17.22	42.69	14.09	Peak	100	186

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

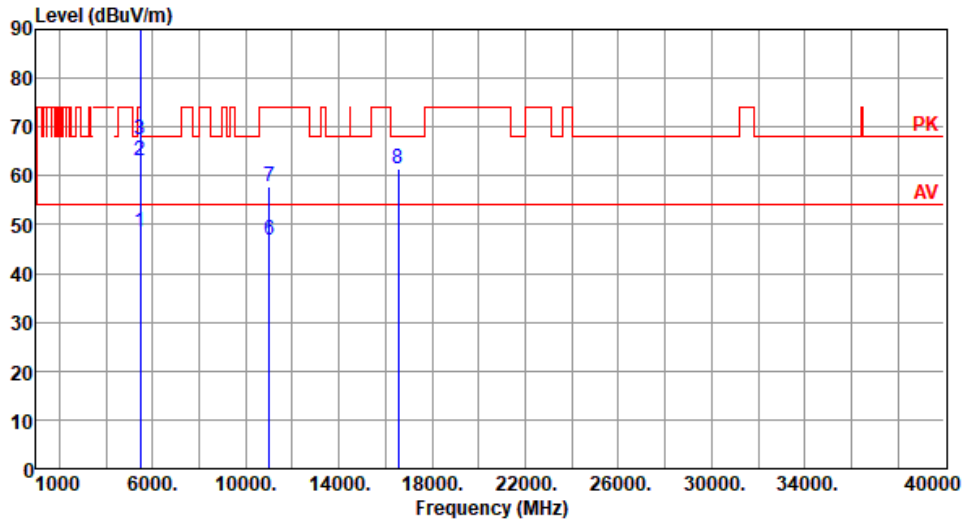
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Horizontal	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.52	54.00	-5.48	44.25	4.27	Average	284	62
2	5460.00	63.25	74.00	-10.75	58.98	4.27	Peak	284	62
3	5470.00	67.36	68.20	-0.84	63.07	4.29	Peak	294	342
4 *	5510.00	96.38			92.02	4.36	Average	220	291
5 *	5510.00	106.76			102.40	4.36	Peak	220	291
6	11020.00	46.76	54.00	-7.24	31.68	15.08	Average	100	27
7	11020.00	57.90	74.00	-16.10	42.82	15.08	Peak	100	27
8	16530.00	61.40	68.20	-6.80	44.89	16.51	Peak	100	106

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

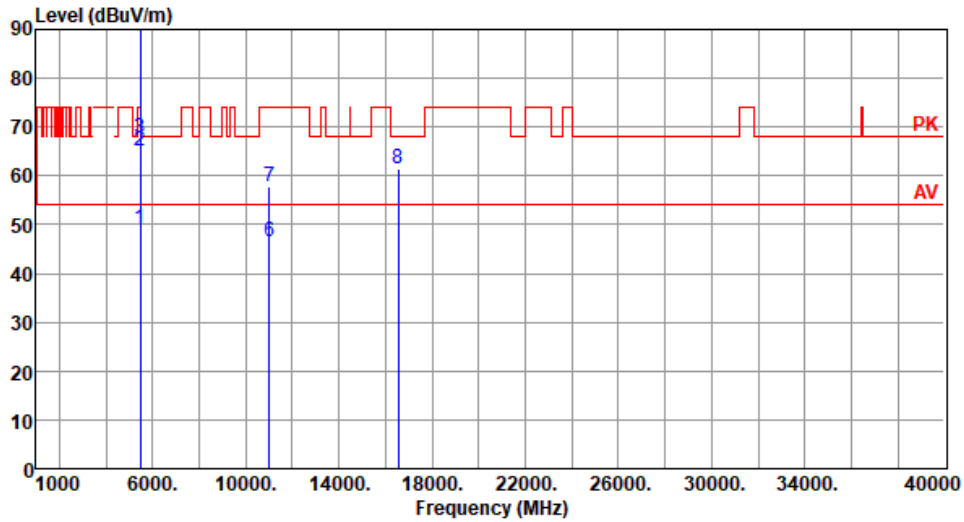
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.27	54.00	-4.73	45.00	4.27	Average	220	291
2	5460.00	64.96	74.00	-9.04	60.69	4.27	Peak	220	291
3	5470.00	67.71	68.20	-0.49	63.42	4.29	Peak	125	339
4 *	5510.00	99.08			94.72	4.36	Average	220	291
5 *	5510.00	109.02			104.66	4.36	Peak	220	291
6	11020.00	46.53	54.00	-7.47	31.45	15.08	Average	100	50
7	11020.00	57.76	74.00	-16.24	42.68	15.08	Peak	100	50
8	16530.00	61.53	68.20	-6.67	45.02	16.51	Peak	100	145

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

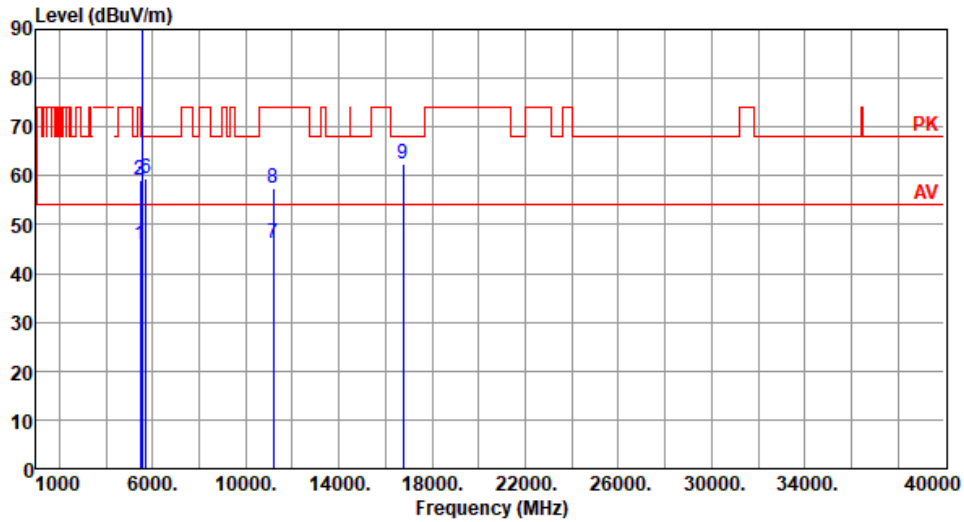
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Horizontal	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.96	54.00	-8.04	41.69	4.27	Average	297	64
2	5460.00	59.15	74.00	-14.85	54.88	4.27	Peak	297	64
3	5470.00	58.97	68.20	-9.23	54.68	4.29	Peak	297	64
4 *	5590.00	99.39			95.16	4.23	Average	297	64
5 *	5590.00	109.92			105.69	4.23	Peak	297	64
6	5725.00	59.29	68.20	-8.91	54.63	4.66	Peak	297	64
7	11180.00	46.30	54.00	-7.70	31.79	14.51	Average	100	23
8	11180.00	57.34	74.00	-16.66	42.83	14.51	Peak	100	23
9	16770.00	62.56	68.20	-5.64	44.89	17.67	Peak	100	109

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

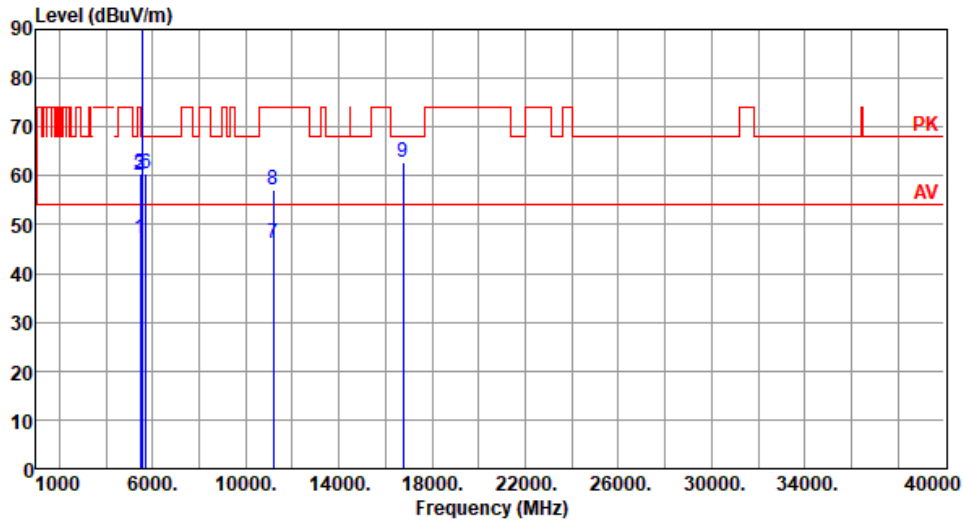
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.15	54.00	-6.85	42.88	4.27	Average	201	271
2	5460.00	60.16	74.00	-13.84	55.89	4.27	Peak	201	271
3	5470.00	60.28	68.20	-7.92	55.99	4.29	Peak	201	271
4 *	5590.00	102.49			98.26	4.23	Average	201	271
5 *	5590.00	113.08			108.85	4.23	Peak	201	271
6	5725.00	60.36	68.20	-7.84	55.70	4.66	Peak	201	271
7	11180.00	46.17	54.00	-7.83	31.66	14.51	Average	100	50
8	11180.00	57.19	74.00	-16.81	42.68	14.51	Peak	100	50
9	16770.00	62.62	68.20	-5.58	44.95	17.67	Peak	100	30

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

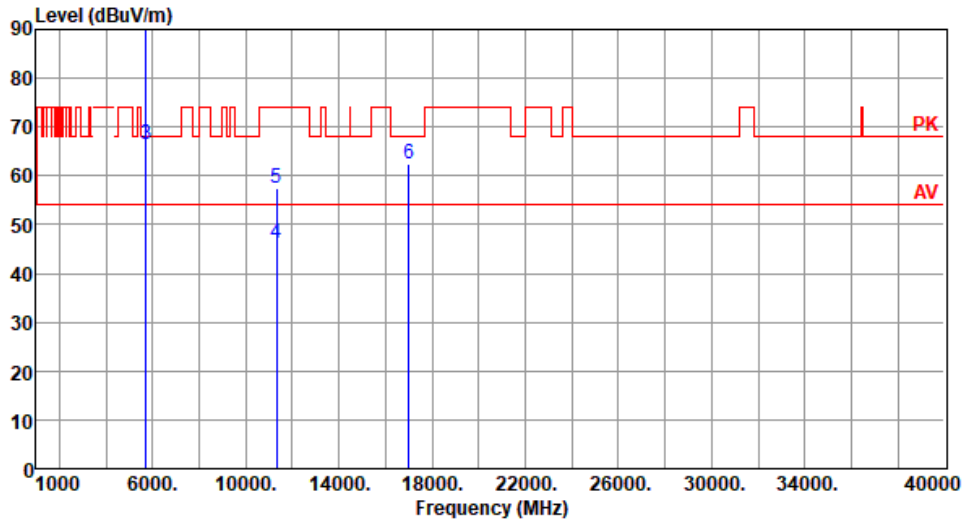
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Horizontal	Test Configuration	1

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



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5670.00	96.83			92.44	4.39	Average	299	55
2	*	5670.00	107.27			102.88	4.39	Peak	299	55
3		5725.00	66.53	68.20	-1.67	61.87	4.66	Peak	299	343
4		11340.00	46.29	54.00	-7.71	31.70	14.59	Average	100	21
5		11340.00	57.39	74.00	-16.61	42.80	14.59	Peak	100	21
6		17010.00	62.49	68.20	-5.71	44.79	17.70	Peak	100	106

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

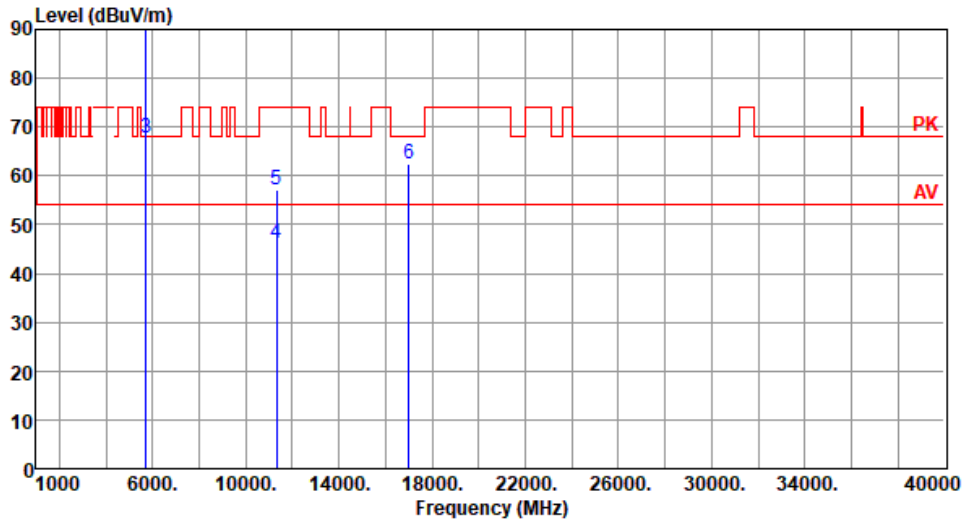
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Vertical	Test Configuration	1

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



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5670.00	100.38			95.99	4.39	Average	199	267
2	*	5670.00	110.31			105.92	4.39	Peak	199	267
3		5725.00	67.76	68.20	-0.44	63.10	4.66	Peak	199	267
4		11340.00	46.04	54.00	-7.96	31.45	14.59	Average	100	50
5		11340.00	57.07	74.00	-16.93	42.48	14.59	Peak	100	50
6		17010.00	62.53	68.20	-5.67	44.83	17.70	Peak	100	80

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

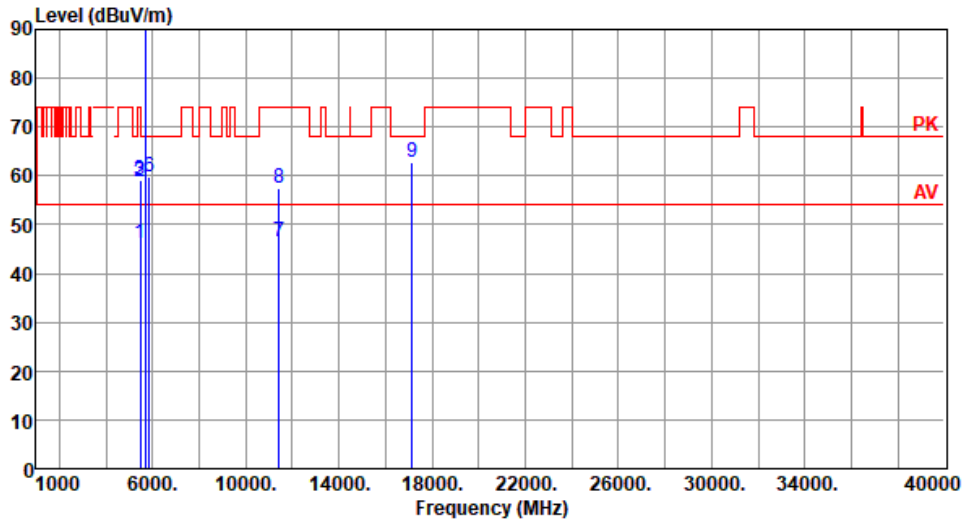
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Horizontal	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.03	54.00	-7.97	41.76	4.27	Average	295	62
2	5460.00	58.94	74.00	-15.06	54.67	4.27	Peak	295	62
3	5470.00	59.08	68.20	-9.12	54.79	4.29	Peak	295	62
4 *	5710.00	99.16			94.53	4.63	Average	295	62
5 *	5710.00	109.48			104.85	4.63	Peak	295	62
6	5850.00	59.93	68.20	-8.27	54.85	5.08	Peak	295	62
7	11420.00	46.50	54.00	-7.50	31.83	14.67	Average	100	28
8	11420.00	57.33	74.00	-16.67	42.66	14.67	Peak	100	28
9	17130.00	62.73	68.20	-5.47	44.87	17.86	Peak	100	107

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

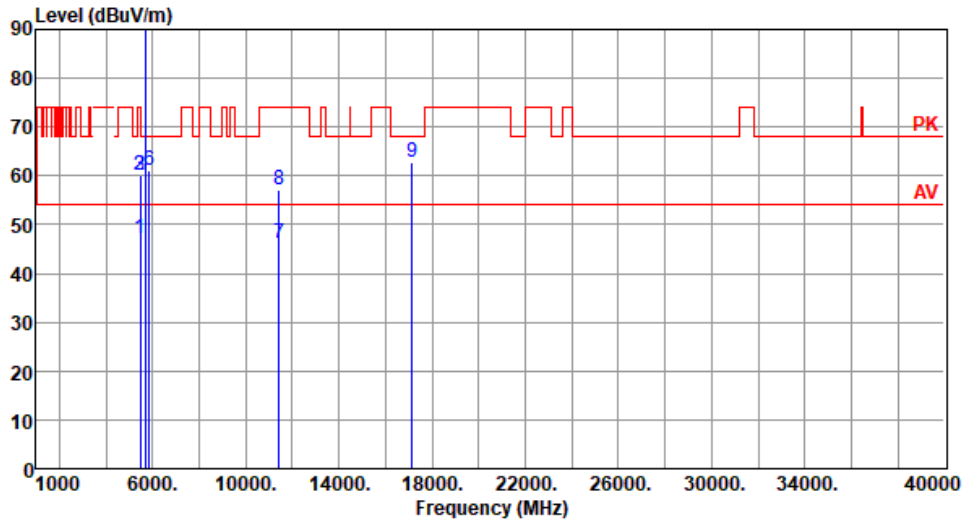
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.13	54.00	-6.87	42.86	4.27	Average	206	278
2	5460.00	60.07	74.00	-13.93	55.80	4.27	Peak	206	278
3	5470.00	60.19	68.20	-8.01	55.90	4.29	Peak	206	278
4 *	5710.00	102.48			97.85	4.63	Average	206	278
5 *	5710.00	112.60			107.97	4.63	Peak	206	278
6	5850.00	61.02	68.20	-7.18	55.94	5.08	Peak	206	278
7	11420.00	46.12	54.00	-7.88	31.45	14.67	Average	100	60
8	11420.00	57.12	74.00	-16.88	42.45	14.67	Peak	100	60
9	17130.00	62.75	68.20	-5.45	44.89	17.86	Peak	100	55

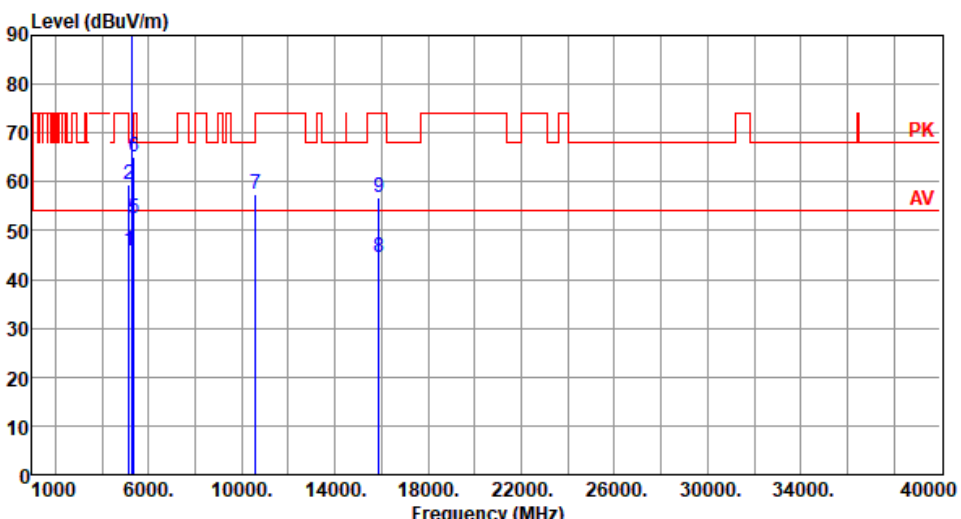
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

3.5.4 Transmitter Radiated Unwanted Emissions (Above 1GHz) for ac VHT80

Modulation	VHT80	Test Freq. (MHz)	5290						
Polarization	Horizontal	Test Configuration	1						
Test By : Akun Chung Temperature(°C): 22 Humidity(%): 65									
									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.84	54.00	-8.16	41.56	4.28	Average	308	344
2	5150.00	59.53	74.00	-14.47	55.25	4.28	Peak	308	344
3 *	5290.00	90.43			86.75	3.68	Average	308	50
4 *	5290.00	100.22			96.54	3.68	Peak	308	50
5	5350.00	52.47	54.00	-1.53	48.70	3.77	Average	308	344
6	5350.00	65.04	74.00	-8.96	61.27	3.77	Peak	308	344
7	10580.00	57.34	68.20	-10.86	42.75	14.59	Peak	100	30
8	15870.00	44.60	54.00	-9.40	30.45	14.15	Average	100	60
9	15870.00	56.83	74.00	-17.17	42.68	14.15	Peak	100	60

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

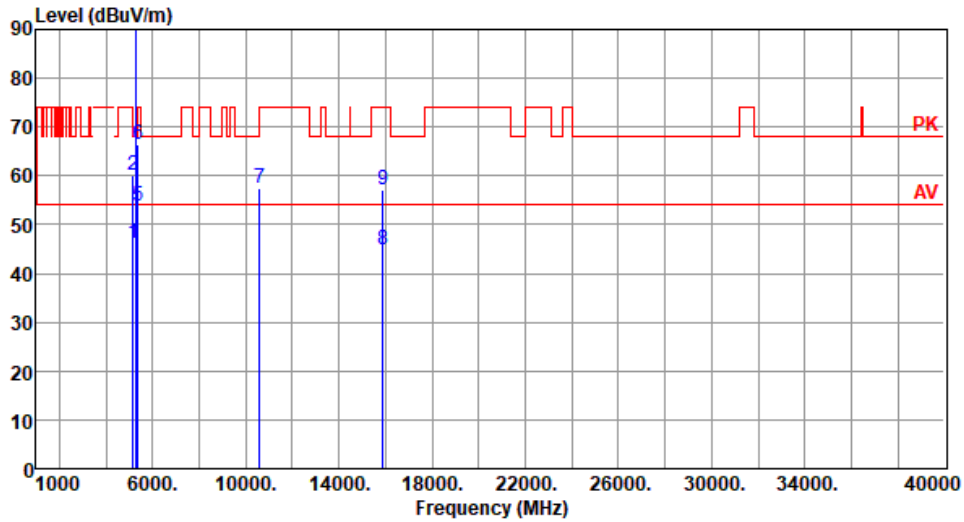
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.15	54.00	-7.85	41.87	4.28	Average	142	348
2	5150.00	60.26	74.00	-13.74	55.98	4.28	Peak	142	348
3 *	5290.00	93.50			89.82	3.68	Average	142	348
4 *	5290.00	102.51			98.83	3.68	Peak	142	348
5	5350.00	53.85	54.00	-0.15	50.08	3.77	Average	133	349
6	5350.00	66.47	74.00	-7.53	62.70	3.77	Peak	133	349
7	10580.00	57.57	68.20	-10.63	42.98	14.59	Peak	100	178
8	15870.00	44.78	54.00	-9.22	30.63	14.15	Average	100	199
9	15870.00	57.00	74.00	-17.00	42.85	14.15	Peak	100	199

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

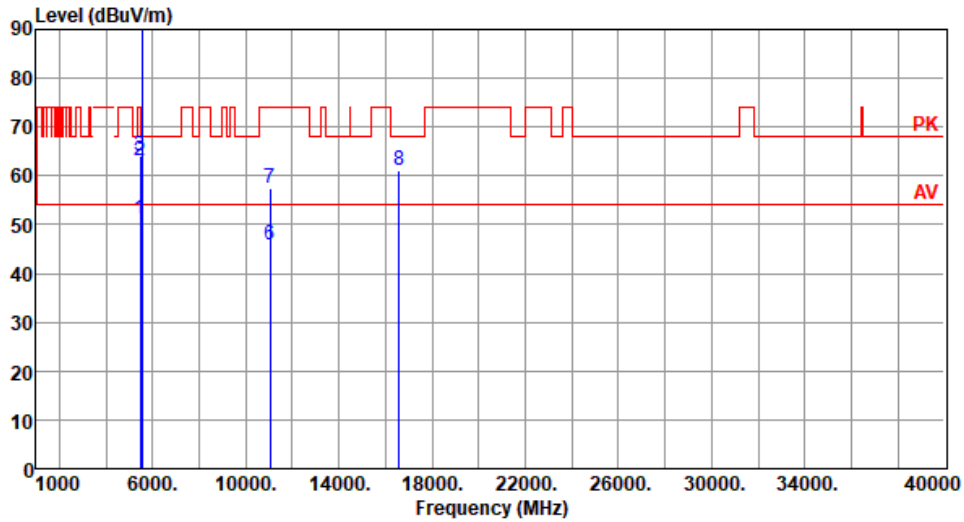
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Horizontal	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	51.16	54.00	-2.84	46.89	4.27	Average	294	51
2	5460.00	63.17	74.00	-10.83	58.90	4.27	Peak	294	51
3	5470.00	64.09	68.20	-4.11	59.80	4.29	Peak	294	351
4 *	5530.00	91.66			87.33	4.33	Average	294	55
5 *	5530.00	102.53			98.20	4.33	Peak	294	55
6	11060.00	45.70	54.00	-8.30	30.78	14.92	Average	100	27
7	11060.00	57.52	74.00	-16.48	42.60	14.92	Peak	100	27
8	16590.00	60.95	68.20	-7.25	44.52	16.43	Peak	100	100

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

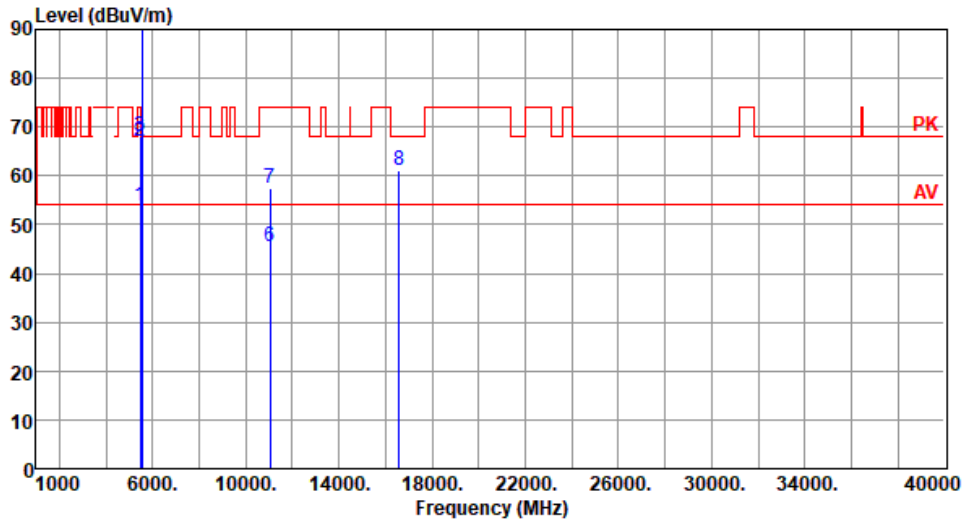
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	53.69	54.00	-0.31	49.42	4.27	Average	203	267
2	5460.00	67.25	74.00	-6.75	62.98	4.27	Peak	203	267
3	5470.00	68.02	68.20	-0.18	63.73	4.29	Peak	109	2
4 *	5530.00	94.88			90.55	4.33	Average	199	270
5 *	5530.00	104.89			100.56	4.33	Peak	199	270
6	11060.00	45.37	54.00	-8.63	30.45	14.92	Average	100	60
7	11060.00	57.38	74.00	-16.62	42.46	14.92	Peak	100	60
8	16590.00	61.04	68.20	-7.16	44.61	16.43	Peak	100	80

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

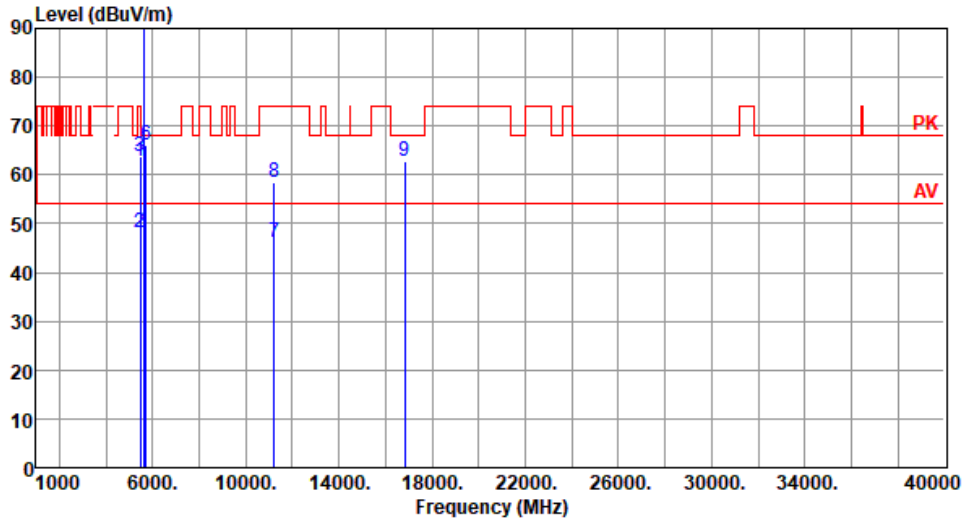
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT80	Test Freq. (MHz)	5610
Polarization	Horizontal	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	62.85	74.00	-11.15	58.58	4.27	Peak	305	56
2	5460.00	48.16	74.00	-25.84	43.89	4.27	Peak	305	56
3	5470.00	63.81	68.20	-4.39	59.52	4.29	Peak	308	56
4 *	5610.00	94.96			90.73	4.23	Average	308	56
5 *	5610.00	105.43			101.20	4.23	Peak	308	56
6	5725.00	65.99	68.20	-2.21	61.33	4.66	Peak	308	56
7	11220.00	46.16	54.00	-7.84	31.68	14.48	Average	100	26
8	11220.00	58.30	74.00	-15.70	43.82	14.48	Peak	100	26
9	16830.00	62.76	68.20	-5.44	44.87	17.89	Peak	100	105

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

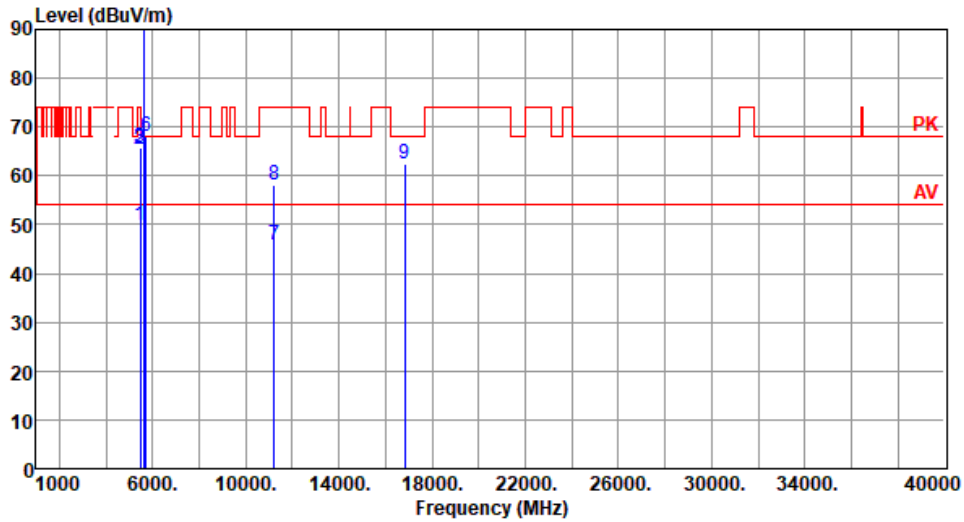
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT80	Test Freq. (MHz)	5610
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.85	54.00	-4.15	45.58	4.27	Average	115	2
2	5460.00	65.47	74.00	-8.53	61.20	4.27	Peak	115	2
3	5470.00	65.68	68.20	-2.52	61.39	4.29	Peak	115	2
4 *	5610.00	97.83			93.60	4.23	Average	202	271
5 *	5610.00	108.31			104.08	4.23	Peak	202	271
6	5725.00	68.06	68.20	-0.14	63.40	4.66	Peak	202	271
7	11220.00	45.93	54.00	-8.07	31.45	14.48	Average	100	30
8	11220.00	58.06	74.00	-15.94	43.58	14.48	Peak	100	30
9	16830.00	62.47	68.20	-5.73	44.58	17.89	Peak	100	50

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

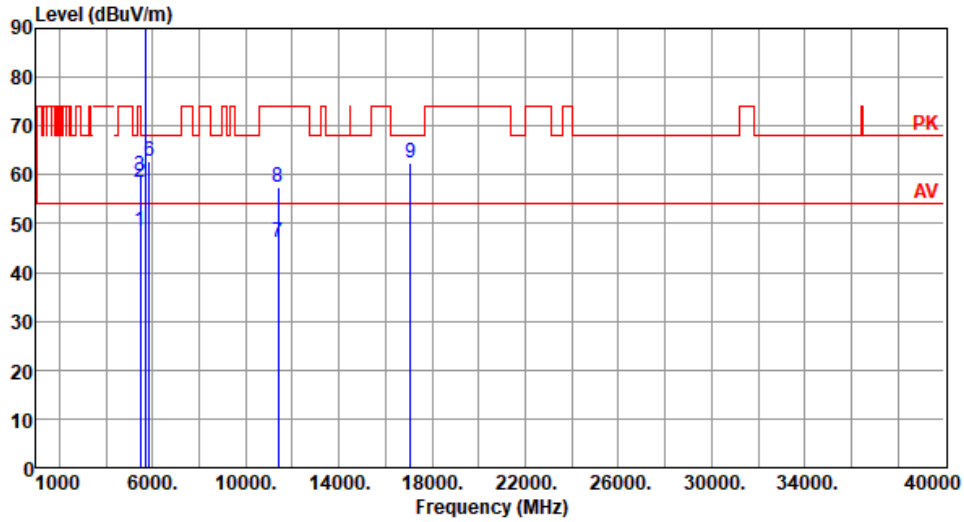
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Horizontal	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.53	54.00	-5.47	44.26	4.27	Average	284	61
2	5460.00	58.52	74.00	-15.48	54.25	4.27	Peak	284	61
3	5470.00	59.94	68.20	-8.26	55.65	4.29	Peak	284	61
4 *	5690.00	96.78			92.26	4.52	Average	284	61
5 *	5690.00	106.98			102.46	4.52	Peak	284	61
6	5850.00	62.63	68.20	-5.57	57.55	5.08	Peak	284	61
7	11380.00	46.23	54.00	-7.77	31.59	14.64	Average	100	29
8	11380.00	57.29	74.00	-16.71	42.65	14.64	Peak	100	29
9	17070.00	62.41	68.20	-5.79	44.66	17.75	Peak	100	107

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

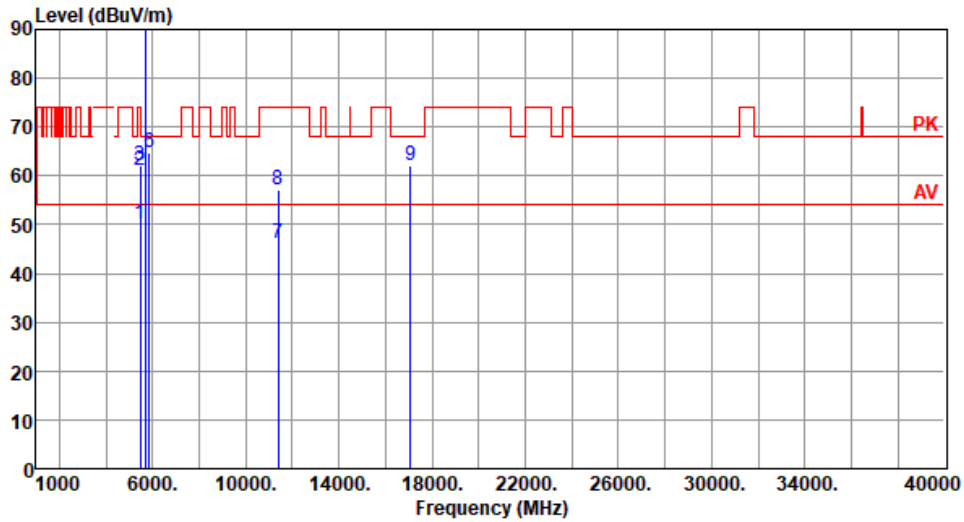
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Vertical	Test Configuration	1

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	50.07	54.00	-3.93	45.80	4.27	Average	194	266
2	5460.00	61.15	74.00	-12.85	56.88	4.27	Peak	194	266
3	5470.00	62.18	68.20	-6.02	57.89	4.29	Peak	194	266
4 *	5690.00	99.69			95.17	4.52	Average	194	266
5 *	5690.00	109.63			105.11	4.52	Peak	194	266
6	5850.00	64.88	68.20	-3.32	59.80	5.08	Peak	194	266
7	11380.00	46.08	54.00	-7.92	31.44	14.64	Average	100	30
8	11380.00	57.21	74.00	-16.79	42.57	14.64	Peak	100	30
9	17070.00	62.20	68.20	-6.00	44.45	17.75	Peak	100	40

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

*Factor includes antenna factor , cable loss and amplifier gain

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

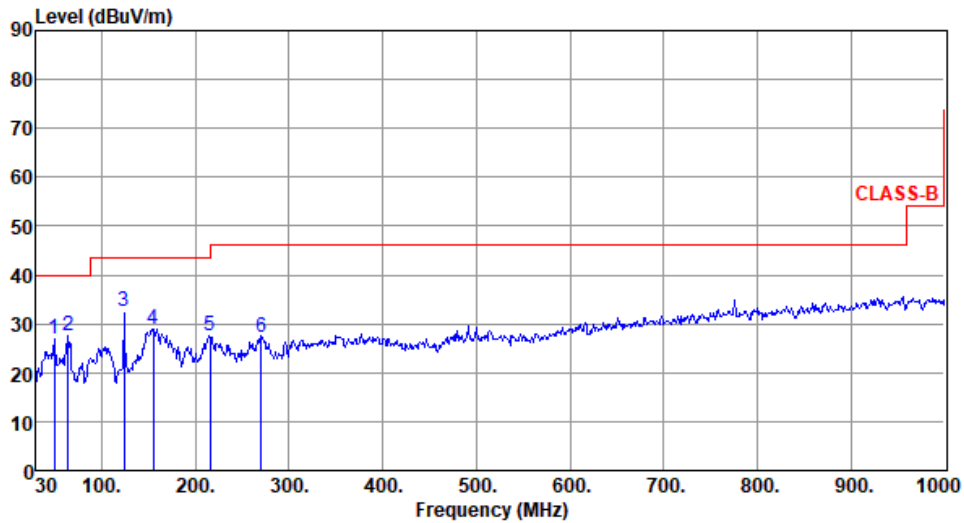
Note 3: "*" is Peak / Average value of fundamental frequency

Beamforming mode

3.5.5 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Horizontal	Test Configuration	1

Test By :BRAD WU Temperature(°C):24 Humidity(%):64



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	49.56	26.84	40.00	-13.16	35.26	-8.42	Peak	---	---
2	64.12	27.65	40.00	-12.35	37.21	-9.56	Peak	---	---
3	124.15	32.41	43.50	-11.09	42.81	-10.40	Peak	---	---
4	155.28	28.84	43.50	-14.66	37.61	-8.77	Peak	---	---
5	215.49	27.65	43.50	-15.85	39.66	-12.01	Peak	---	---
6	270.64	27.28	46.00	-18.72	36.42	-9.14	Peak	---	---

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

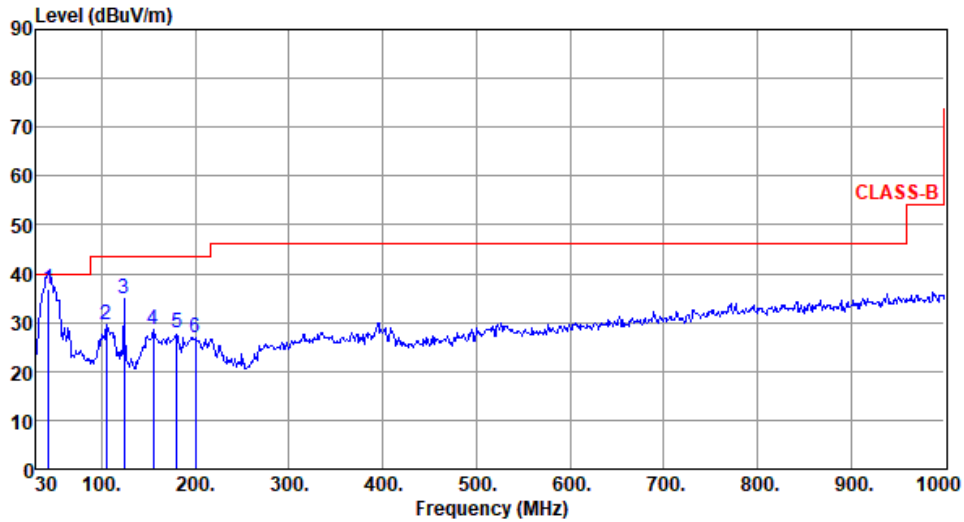
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Vertical	Test Configuration	1

Test By :BRAD WU Temperature(°C):24 Humidity(%):64



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	43.62	36.95	40.00	-3.05	45.38	-8.43	QP	100	137
2	104.58	29.51	43.50	-13.99	42.06	-12.55	Peak	---	---
3	123.96	34.88	43.50	-8.62	45.29	-10.41	Peak	---	---
4	155.29	28.46	43.50	-15.04	37.23	-8.77	Peak	---	---
5	180.44	27.81	43.50	-15.69	38.18	-10.37	Peak	---	---
6	200.04	26.98	43.50	-16.52	38.92	-11.94	Peak	---	---

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

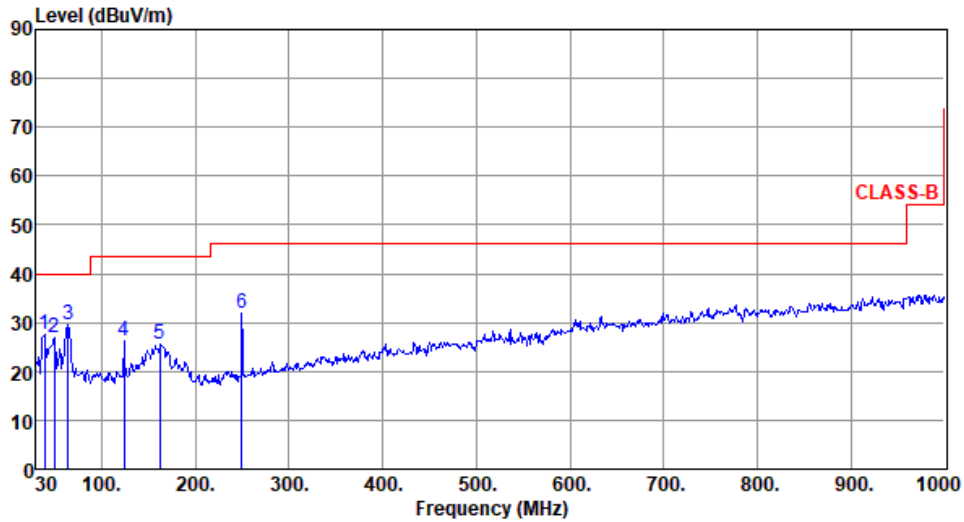
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Horizontal	Test Configuration	2

Test By :BRAD WU Temperature(°C):24 Humidity(%):64



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	38.69	27.55	40.00	-12.45	36.32	-8.77	Peak	---	---
2	49.60	26.81	40.00	-13.19	35.22	-8.41	Peak	---	---
3	64.06	29.54	40.00	-10.46	39.09	-9.55	Peak	---	---
4	124.11	26.28	43.50	-17.22	36.68	-10.40	Peak	---	---
5	161.99	25.43	43.50	-18.07	34.35	-8.92	Peak	---	---
6	249.35	31.86	46.00	-14.14	42.03	-10.17	Peak	---	---

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

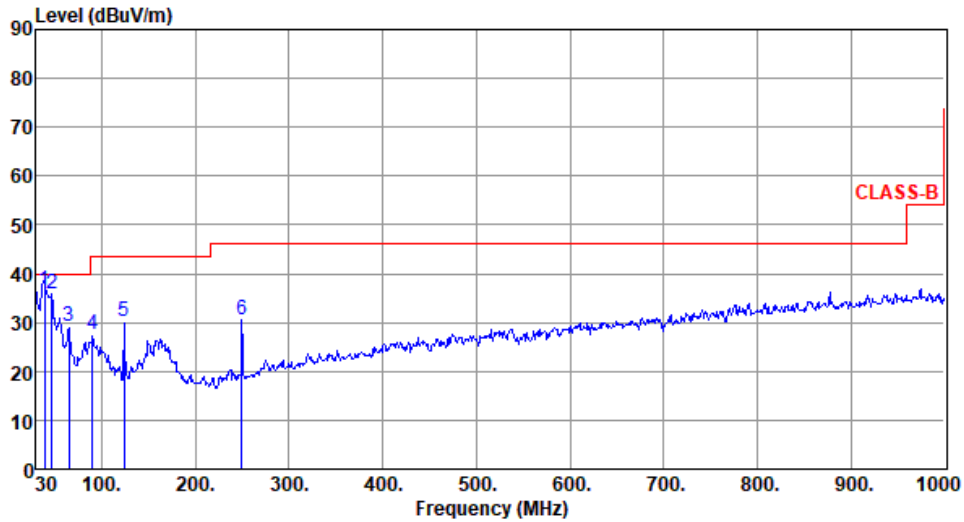
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Vertical	Test Configuration	2

Test By :BRAD WU Temperature(°C):24 Humidity(%):64



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	38.57	36.42	40.00	-3.58	45.20	-8.78	QP	100	141
2	46.52	35.95	40.00	-4.05	44.28	-8.33	Peak	---	---
3	64.87	29.39	40.00	-10.61	39.10	-9.71	Peak	---	---
4	90.46	27.45	43.50	-16.05	42.07	-14.62	Peak	---	---
5	123.96	30.23	43.50	-13.27	40.64	-10.41	Peak	---	---
6	249.51	30.62	46.00	-15.38	40.78	-10.16	Peak	---	---

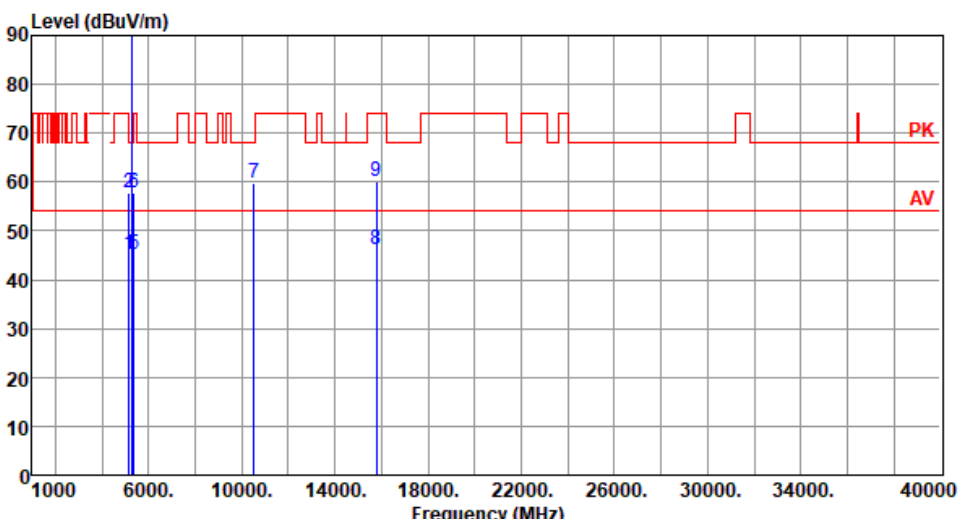
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

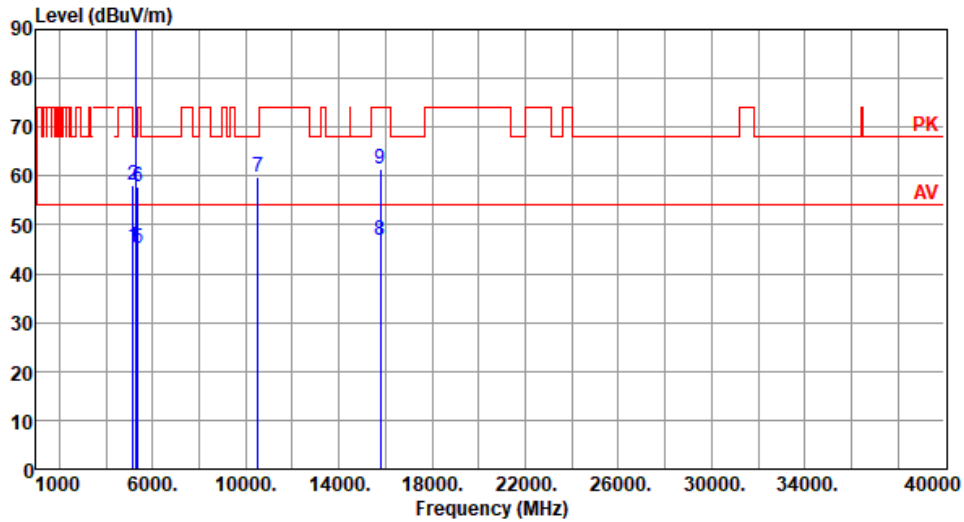
3.5.6 Transmitter Radiated Unwanted Emissions (Above 1GHz) for ac VHT20

Modulation	VHT20	Test Freq. (MHz)	5260						
Polarization	Horizontal	Test Configuration	1						
Test By : Roger Lu Temperature(°C):23 Humidity(%):61									
									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.33	54.00	-8.67	41.05	4.28	Average	252	42
2	5150.00	57.83	74.00	-16.17	53.55	4.28	Peak	252	42
3 *	5260.00	100.53			96.75	3.78	Average	252	42
4 *	5260.00	112.53			108.75	3.78	Peak	252	42
5	5350.00	45.10	54.00	-8.90	41.33	3.77	Average	252	42
6	5350.00	57.82	74.00	-16.18	54.05	3.77	Peak	252	42
7	10520.00	59.71	68.20	-8.49	45.06	14.65	Peak	100	182
8	15780.00	46.14	54.00	-7.86	31.87	14.27	Average	100	93
9	15780.00	60.14	74.00	-13.86	45.87	14.27	Peak	100	93

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

Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.43	54.00	-8.57	41.15	4.28	Average	156	347
2	5150.00	58.04	74.00	-15.96	53.76	4.28	Peak	156	347
3 *	5260.00	103.66			99.88	3.78	Average	156	347
4 *	5260.00	115.62			111.84	3.78	Peak	156	347
5	5350.00	45.12	54.00	-8.88	41.35	3.77	Average	156	347
6	5350.00	57.93	74.00	-16.07	54.16	3.77	Peak	156	347
7	10520.00	59.91	68.20	-8.29	45.26	14.65	Peak	165	145
8	15780.00	46.74	54.00	-7.26	32.47	14.27	Average	215	195
9	15780.00	61.48	74.00	-12.52	47.21	14.27	Peak	215	195

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

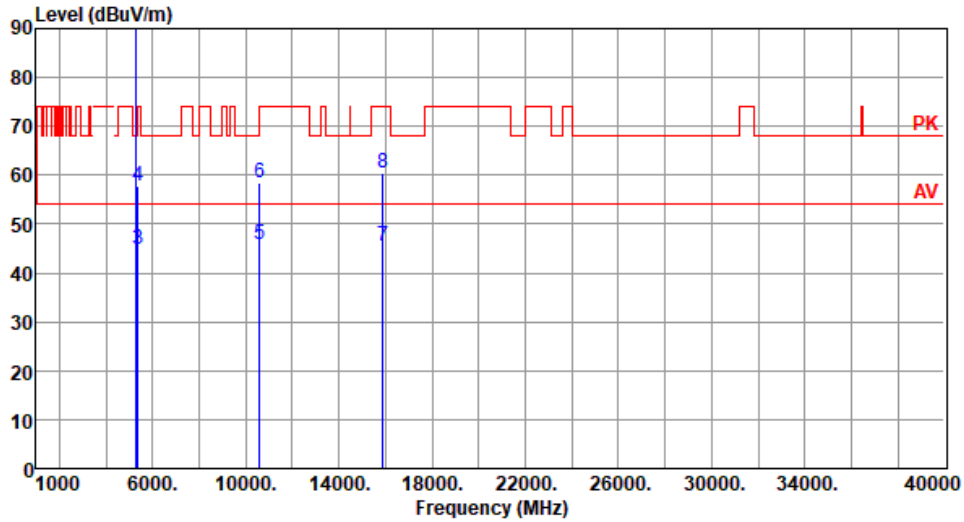
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5300.00	100.90			97.26	3.64	Average	244	44
2	*	5300.00	110.54			106.90	3.64	Peak	244	44
3		5350.00	44.83	54.00	-9.17	41.06	3.77	Average	244	44
4		5350.00	57.77	74.00	-16.23	54.00	3.77	Peak	244	44
5		10600.00	45.83	54.00	-8.17	31.26	14.57	Average	245	177
6		10600.00	58.41	74.00	-15.59	43.84	14.57	Peak	245	177
7		15900.00	45.34	54.00	-8.66	31.21	14.13	Average	100	95
8		15900.00	60.37	74.00	-13.63	46.24	14.13	Peak	100	95

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

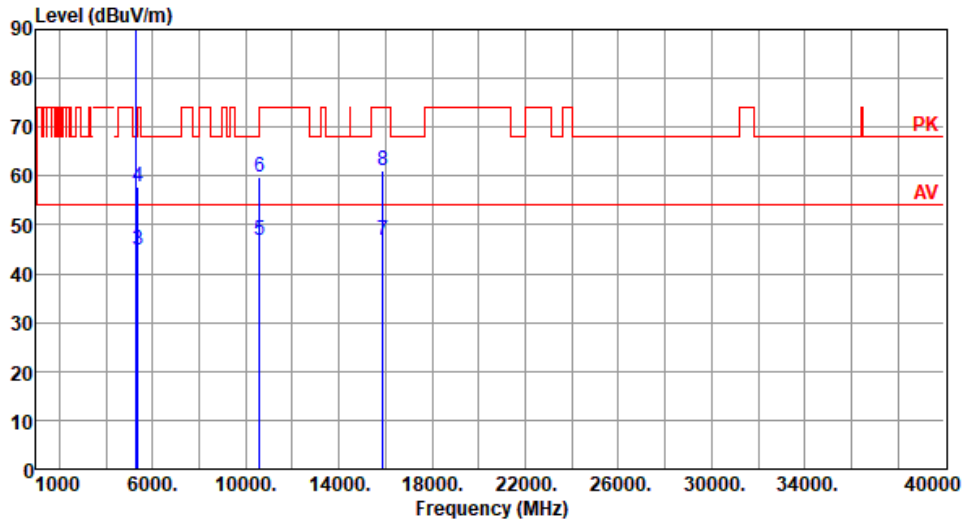
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5300.00	103.69			100.05	3.64	Average	155	344
2	*	5300.00	115.10			111.46	3.64	Peak	155	344
3		5350.00	44.98	54.00	-9.02	41.21	3.77	Average	155	344
4		5350.00	57.79	74.00	-16.21	54.02	3.77	Peak	155	344
5		10600.00	46.97	54.00	-7.03	32.40	14.57	Average	168	143
6		10600.00	59.67	74.00	-14.33	45.10	14.57	Peak	168	143
7		15900.00	46.69	54.00	-7.31	32.56	14.13	Average	211	197
8		15900.00	61.27	74.00	-12.73	47.14	14.13	Peak	211	197

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

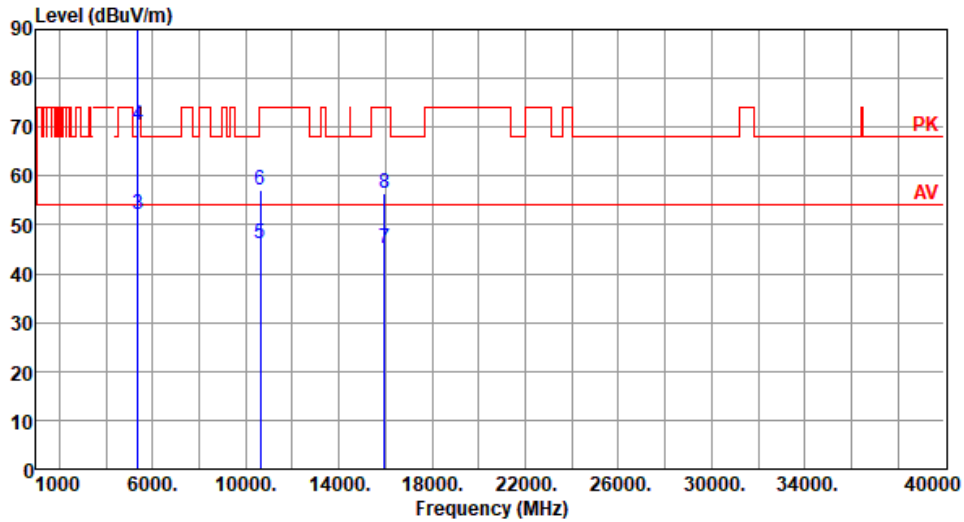
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Horizontal	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5320.00	101.23			97.53	3.70	Average	260	41
2	*	5320.00	112.18			108.48	3.70	Peak	260	41
3		5350.00	52.28	54.00	-1.72	48.51	3.77	Average	260	41
4		5350.00	70.40	74.00	-3.60	66.63	3.77	Peak	260	41
5		10640.00	46.10	54.00	-7.90	31.50	14.60	Average	100	186
6		10640.00	57.17	74.00	-16.83	42.57	14.60	Peak	100	186
7		15960.00	45.06	54.00	-8.94	31.00	14.06	Average	100	96
8		15960.00	56.50	74.00	-17.50	42.44	14.06	Peak	100	96

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

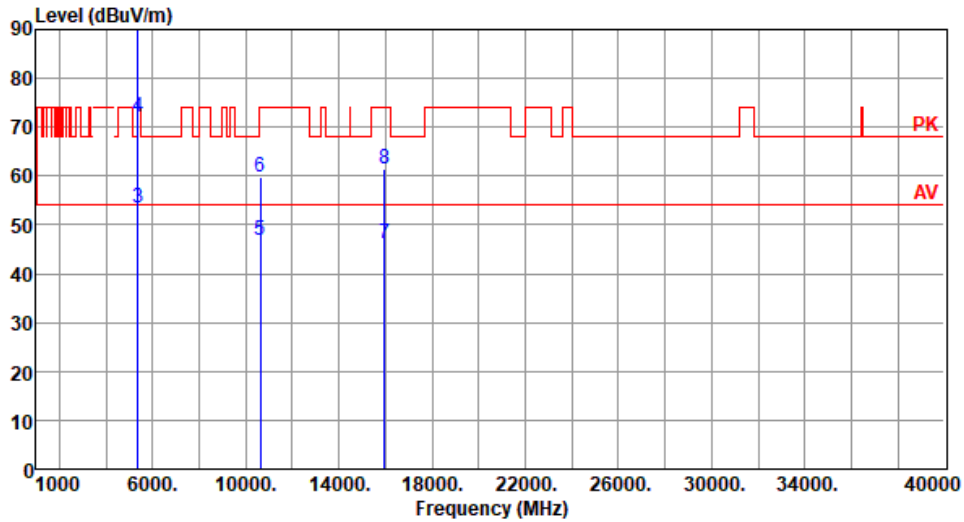
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5320.00	103.91			100.21	3.70	Average	228	340
2	*	5320.00	115.24			111.54	3.70	Peak	228	340
3		5350.00	53.53	54.00	-0.47	49.76	3.77	Average	137	340
4		5350.00	72.06	74.00	-1.94	68.29	3.77	Peak	137	340
5		10640.00	46.93	54.00	-7.07	32.33	14.60	Average	165	145
6		10640.00	59.87	74.00	-14.13	45.27	14.60	Peak	165	145
7		15960.00	46.21	54.00	-7.79	32.15	14.06	Average	215	195
8		15960.00	61.31	74.00	-12.69	47.25	14.06	Peak	215	195

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

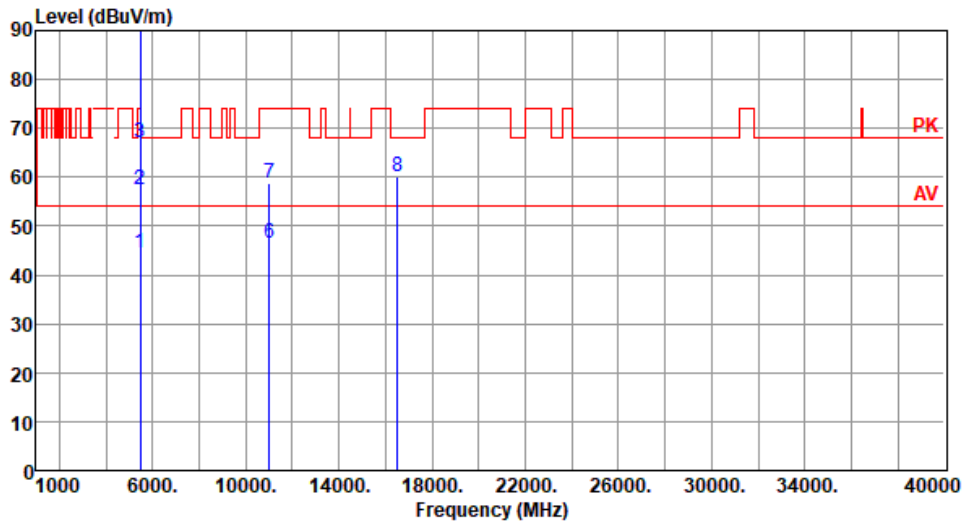
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Horizontal	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.59	54.00	-9.41	40.32	4.27	Average	280	52
2	5460.00	57.42	74.00	-16.58	53.15	4.27	Peak	280	52
3	5470.00	67.08	68.20	-1.12	62.79	4.29	Peak	280	52
4 *	5500.00	99.44			95.07	4.37	Average	280	52
5 *	5500.00	109.83			105.46	4.37	Peak	280	52
6	11000.00	46.64	54.00	-7.36	31.48	15.16	Average	100	48
7	11000.00	58.64	74.00	-15.36	43.48	15.16	Peak	100	48
8	16500.00	59.97	68.20	-8.23	43.42	16.55	Peak	100	109

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

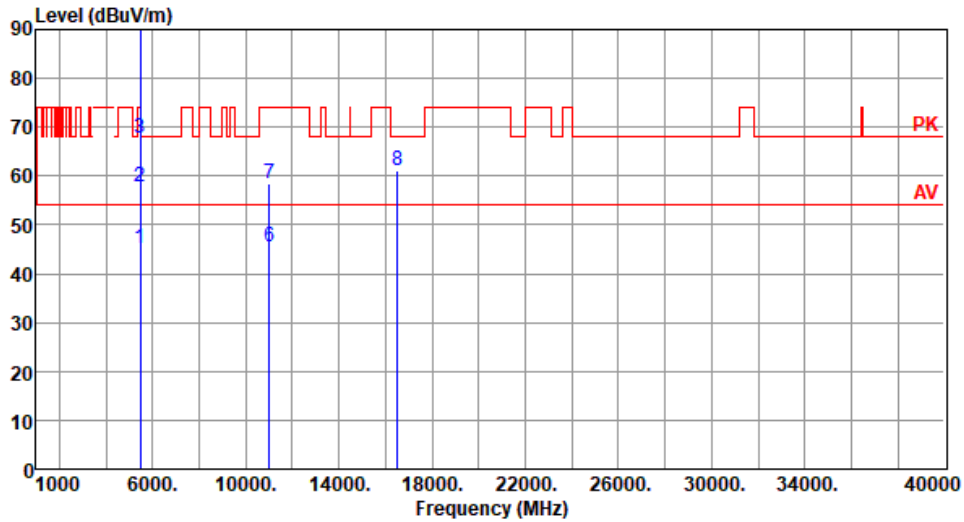
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.13	54.00	-8.87	40.86	4.27	Average	100	349
2	5460.00	57.72	74.00	-16.28	53.45	4.27	Peak	100	349
3	5470.00	67.91	68.20	-0.29	63.62	4.29	Peak	100	349
4 *	5500.00	102.39			98.02	4.37	Average	100	335
5 *	5500.00	113.08			108.71	4.37	Peak	100	335
6	11000.00	45.61	54.00	-8.39	30.45	15.16	Average	100	70
7	11000.00	58.50	74.00	-15.50	43.34	15.16	Peak	100	70
8	16500.00	61.00	68.20	-7.20	44.45	16.55	Peak	100	80

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

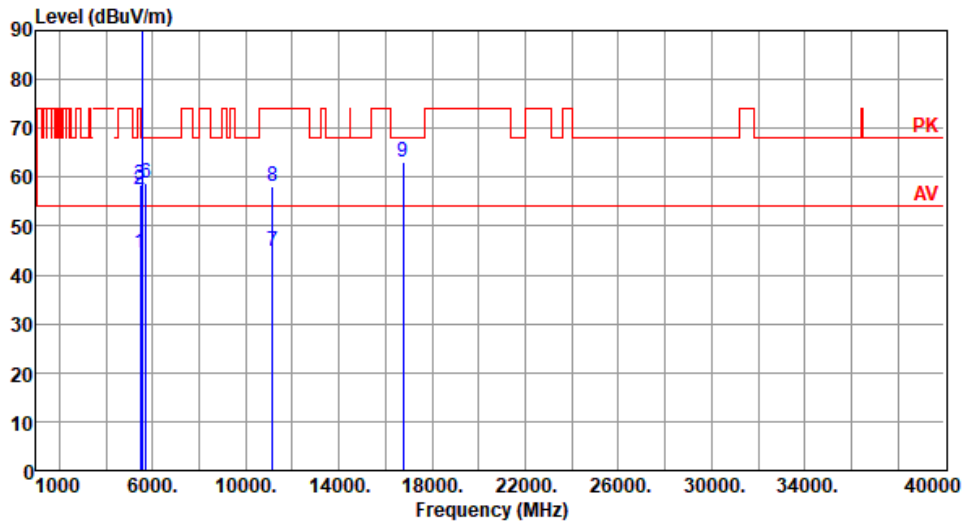
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Horizontal	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.36	54.00	-9.64	40.09	4.27	Average	256	48
2	5460.00	57.32	74.00	-16.68	53.05	4.27	Peak	256	48
3	5470.00	58.34	68.20	-9.86	54.05	4.29	Peak	256	48
4 *	5580.00	101.14			96.89	4.25	Average	256	48
5 *	5580.00	110.14			105.89	4.25	Peak	256	48
6	5725.00	58.85	68.20	-9.35	54.19	4.66	Peak	256	48
7	11160.00	45.00	54.00	-9.00	30.42	14.58	Average	100	40
8	11160.00	58.04	74.00	-15.96	43.46	14.58	Peak	100	40
9	16740.00	62.94	68.20	-5.26	45.56	17.38	Peak	311	105

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

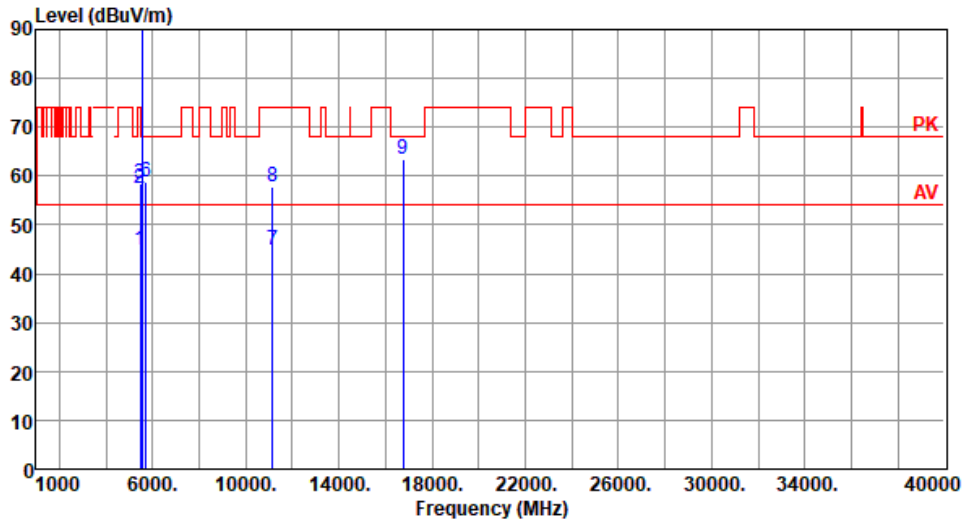
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.85	54.00	-9.15	40.58	4.27	Average	100	342
2	5460.00	57.51	74.00	-16.49	53.24	4.27	Peak	100	342
3	5470.00	58.44	68.20	-9.76	54.15	4.29	Peak	100	342
4 *	5580.00	104.12			99.87	4.25	Average	100	342
5 *	5580.00	114.80			110.55	4.25	Peak	100	342
6	5725.00	58.92	68.20	-9.28	54.26	4.66	Peak	100	342
7	11160.00	44.94	54.00	-9.06	30.36	14.58	Average	100	20
8	11160.00	57.83	74.00	-16.17	43.25	14.58	Peak	100	20
9	16740.00	63.40	68.20	-4.80	46.02	17.38	Peak	199	144

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

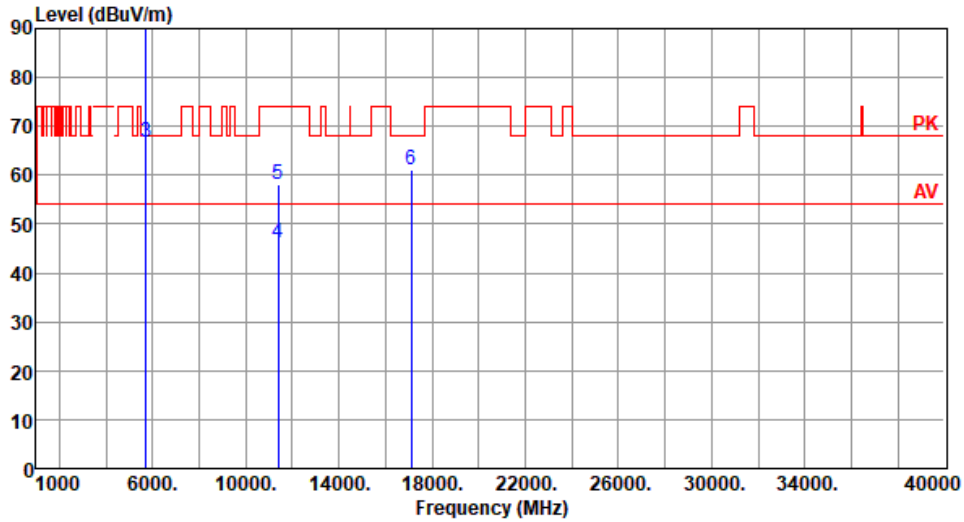
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Horizontal	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5700.00	99.49			94.90	4.59	Average	274	50
2	*	5700.00	109.75			105.16	4.59	Peak	274	50
3		5725.00	66.69	68.20	-1.51	62.03	4.66	Peak	274	50
4		11400.00	46.06	54.00	-7.94	31.41	14.65	Average	100	49
5		11400.00	58.13	74.00	-15.87	43.48	14.65	Peak	100	49
6		17100.00	61.27	68.20	-6.93	43.50	17.77	Peak	100	102

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

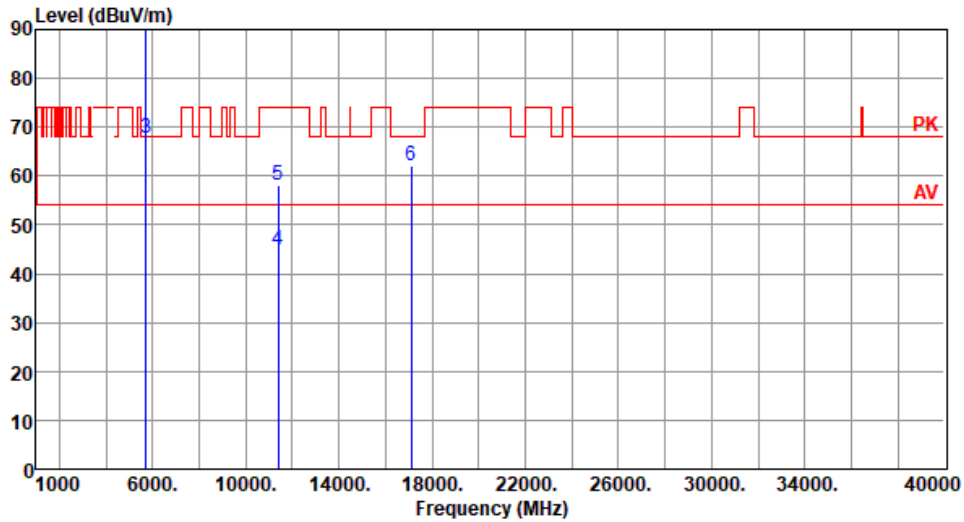
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5700.00	101.61			97.02	4.59	Average	199	272
2	*	5700.00	112.89			108.30	4.59	Peak	199	272
3		5725.00	67.80	68.20	-0.40	63.14	4.66	Peak	199	264
4		11400.00	44.92	54.00	-9.08	30.27	14.65	Average	100	50
5		11400.00	58.08	74.00	-15.92	43.43	14.65	Peak	100	50
6		17100.00	62.12	68.20	-6.08	44.35	17.77	Peak	100	70

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

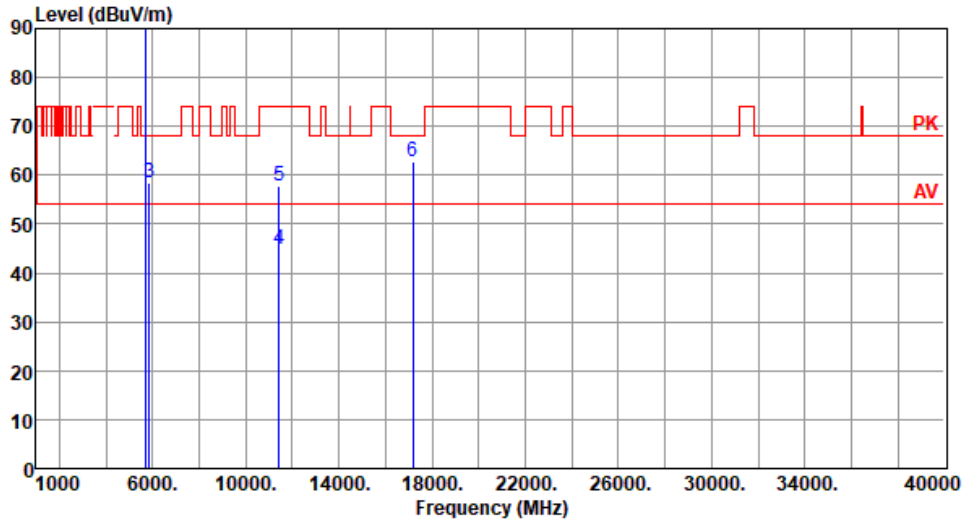
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Horizontal	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



		Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5720.00	101.31			96.66	4.65	Average	253	44
2	*	5720.00	111.21			106.56	4.65	Peak	253	44
3		5850.00	58.29	68.20	-9.91	53.21	5.08	Peak	253	44
4		11440.00	44.75	54.00	-9.25	30.06	14.69	Average	100	45
5		11440.00	57.91	74.00	-16.09	43.22	14.69	Peak	100	45
6		17160.00	62.82	68.20	-5.38	44.88	17.94	Peak	100	103

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

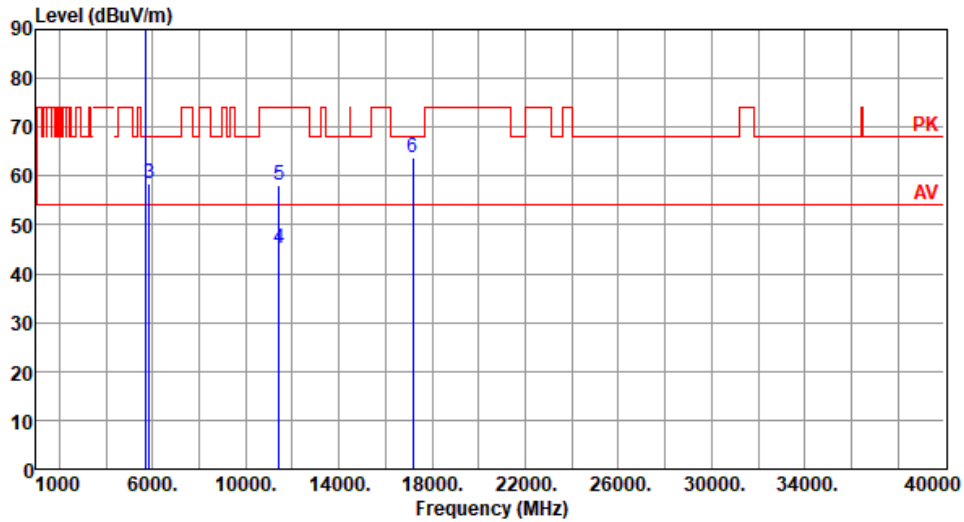
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5720.00	104.00			99.35	4.65	Average	201	274
2	*	5720.00	115.39			110.74	4.65	Peak	201	274
3		5850.00	58.56	68.20	-9.64	53.48	5.08	Peak	201	274
4		11440.00	45.03	54.00	-8.97	30.34	14.69	Average	100	40
5		11440.00	58.16	74.00	-15.84	43.47	14.69	Peak	100	40
6		17160.00	63.89	68.20	-4.31	45.95	17.94	Peak	195	146

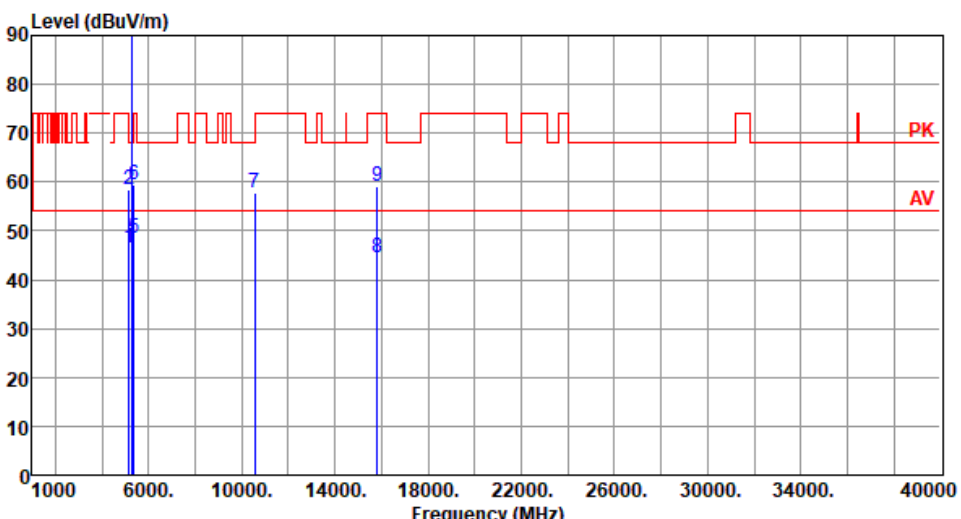
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

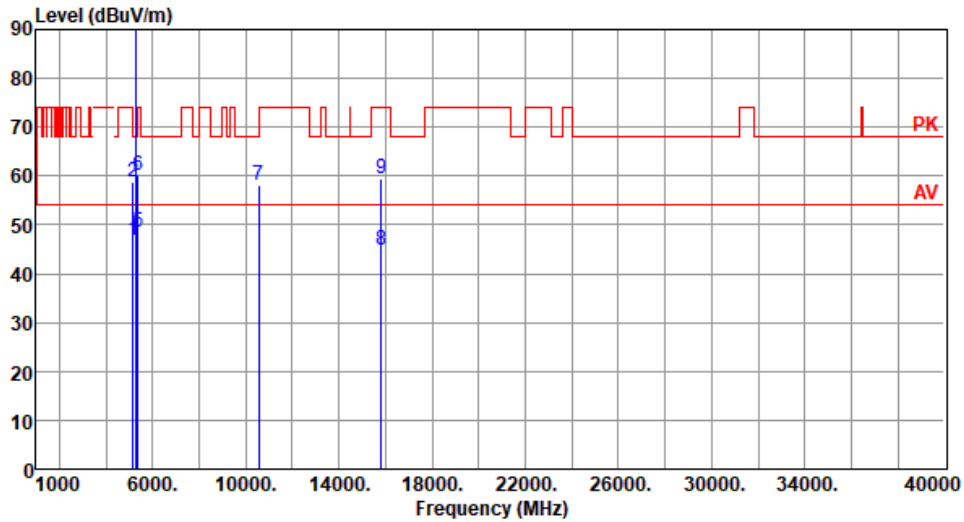
3.5.7 Transmitter Radiated Unwanted Emissions (Above 1GHz) for ac VHT40

Modulation	VHT40	Test Freq. (MHz)	5270						
Polarization	Horizontal	Test Configuration	1						
Test By : Roger Lu Temperature(°C):23 Humidity(%):61									
 <p>The graph displays the radiated unwanted emissions for a VHT40 transmitter. The y-axis represents the emission level in dBuV/m, ranging from 0 to 90. The x-axis represents the frequency in MHz, ranging from 1000 to 40000. A red line indicates the average value (AV) at approximately 55 dBuV/m, and a higher red line indicates the peak value (PK) at approximately 70 dBuV/m. Several peaks are labeled with numbers 2, 5, 7, 8, and 9, corresponding to the data in the table below.</p>									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.60	54.00	-7.40	42.32	4.28	Average	248	46
2	5150.00	58.61	74.00	-15.39	54.33	4.28	Peak	248	46
3 *	5270.00	99.08			95.33	3.75	Average	248	46
4 *	5270.00	110.14			106.39	3.75	Peak	248	46
5	5350.00	48.32	54.00	-5.68	44.55	3.77	Average	248	46
6	5350.00	59.32	74.00	-14.68	55.55	3.77	Peak	248	46
7	10540.00	57.88	68.20	-10.32	43.25	14.63	Peak	100	182
8	15810.00	44.43	54.00	-9.57	30.22	14.21	Average	100	96
9	15810.00	59.09	74.00	-14.91	44.88	14.21	Peak	100	96

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

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.84	54.00	-7.16	42.56	4.28	Average	131	355
2	5150.00	58.87	74.00	-15.13	54.59	4.28	Peak	131	355
3 *	5270.00	102.29			98.54	3.75	Average	131	355
4 *	5270.00	113.07			109.32	3.75	Peak	131	355
5	5350.00	48.37	54.00	-5.63	44.60	3.77	Average	131	355
6	5350.00	60.26	74.00	-13.74	56.49	3.77	Peak	131	355
7	10540.00	57.97	68.20	-10.23	43.34	14.63	Peak	100	80
8	15810.00	44.70	54.00	-9.30	30.49	14.21	Average	100	90
9	15810.00	59.37	74.00	-14.63	45.16	14.21	Peak	100	90

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

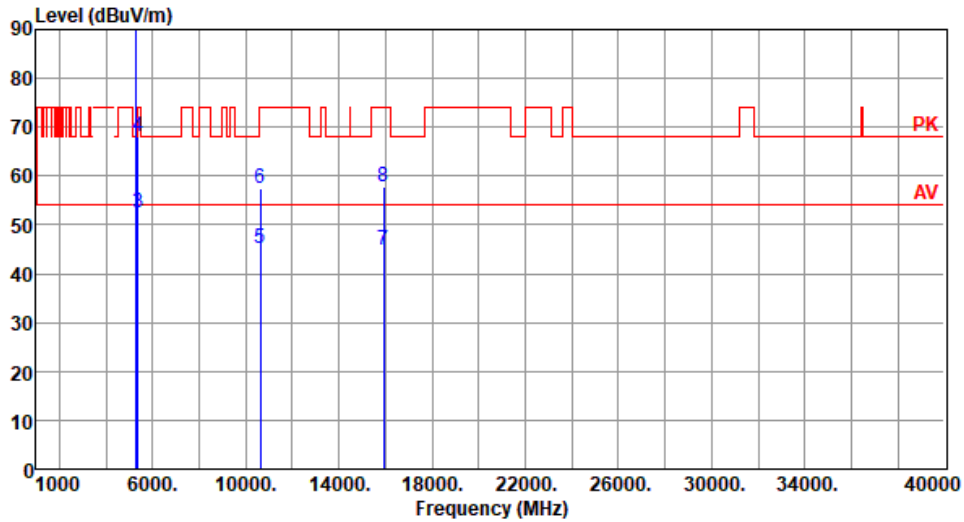
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Horizontal	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5310.00	94.92			91.25	3.67	Average	275	47
2	*	5310.00	106.01			102.34	3.67	Peak	275	47
3		5350.00	52.42	54.00	-1.58	48.65	3.77	Average	275	47
4		5350.00	67.95	74.00	-6.05	64.18	3.77	Peak	275	47
5		10620.00	45.07	54.00	-8.93	30.48	14.59	Average	100	188
6		10620.00	57.45	74.00	-16.55	42.86	14.59	Peak	100	188
7		15930.00	44.78	54.00	-9.22	30.69	14.09	Average	100	87
8		15930.00	57.72	74.00	-16.28	43.63	14.09	Peak	100	87

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

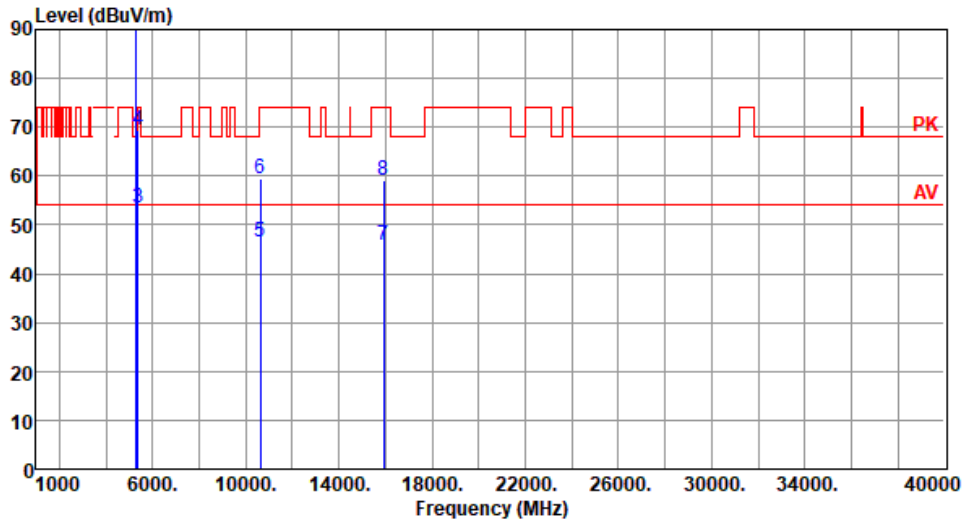
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5310.00	97.97			94.30	3.67	Average	118	352
2	*	5310.00	109.45			105.78	3.67	Peak	118	352
3		5350.00	53.51	54.00	-0.49	49.74	3.77	Average	118	342
4		5350.00	69.29	74.00	-4.71	65.52	3.77	Peak	118	342
5		10620.00	46.57	54.00	-7.43	31.98	14.59	Average	100	145
6		10620.00	59.47	74.00	-14.53	44.88	14.59	Peak	100	145
7		15930.00	45.96	54.00	-8.04	31.87	14.09	Average	100	188
8		15930.00	59.02	74.00	-14.98	44.93	14.09	Peak	100	188

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

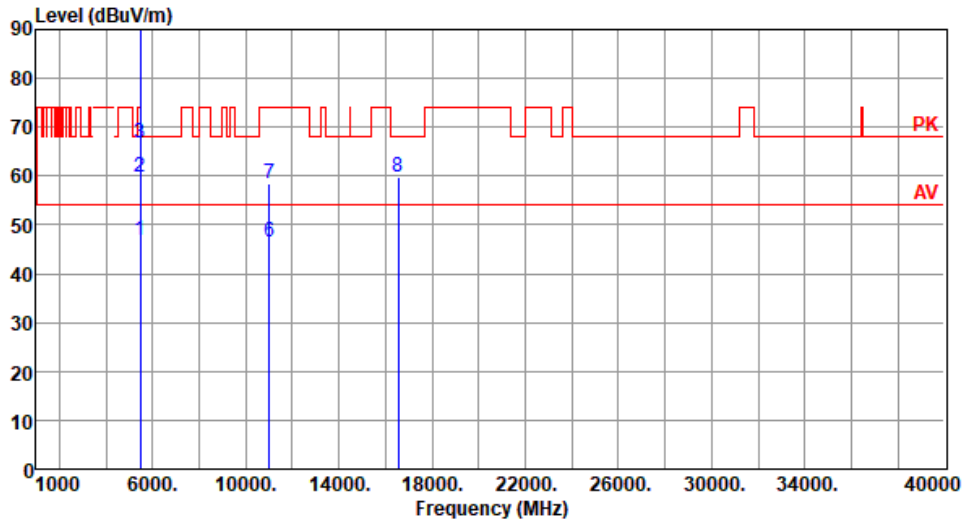
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Horizontal	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.82	54.00	-7.18	42.55	4.27	Average	279	46
2	5460.00	59.65	74.00	-14.35	55.38	4.27	Peak	279	46
3	5470.00	66.75	68.20	-1.45	62.46	4.29	Peak	279	46
4 *	5510.00	95.38			91.02	4.36	Average	279	46
5 *	5510.00	106.49			102.13	4.36	Peak	279	46
6	11020.00	46.46	54.00	-7.54	31.38	15.08	Average	100	42
7	11020.00	58.47	74.00	-15.53	43.39	15.08	Peak	100	42
8	16530.00	59.90	68.20	-8.30	43.39	16.51	Peak	100	102

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

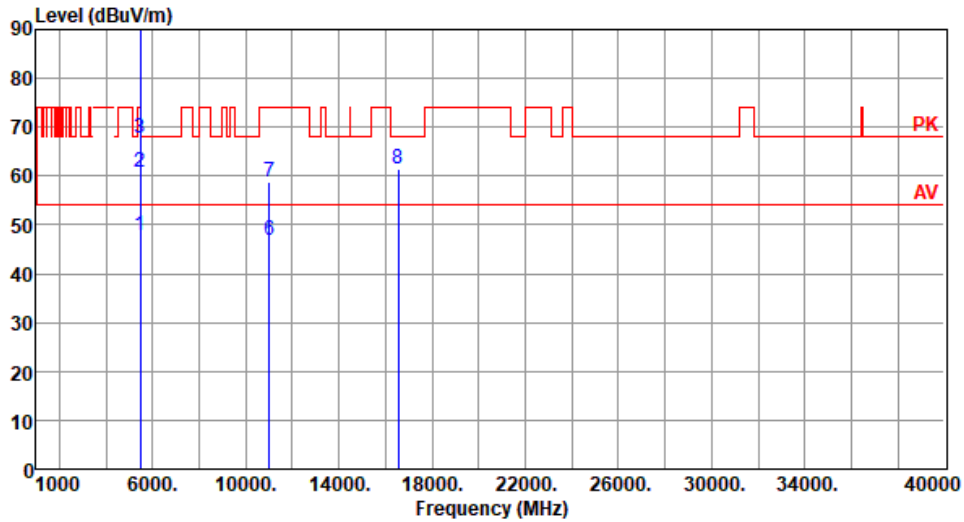
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.87	54.00	-6.13	43.60	4.27	Average	127	348
2	5460.00	60.68	74.00	-13.32	56.41	4.27	Peak	127	348
3	5470.00	67.81	68.20	-0.39	63.52	4.29	Peak	127	348
4 *	5510.00	98.39			94.03	4.36	Average	127	359
5 *	5510.00	109.37			105.01	4.36	Peak	127	359
6	11020.00	46.86	54.00	-7.14	31.78	15.08	Average	100	23
7	11020.00	58.94	74.00	-15.06	43.86	15.08	Peak	100	23
8	16530.00	61.37	68.20	-6.83	44.86	16.51	Peak	100	145

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

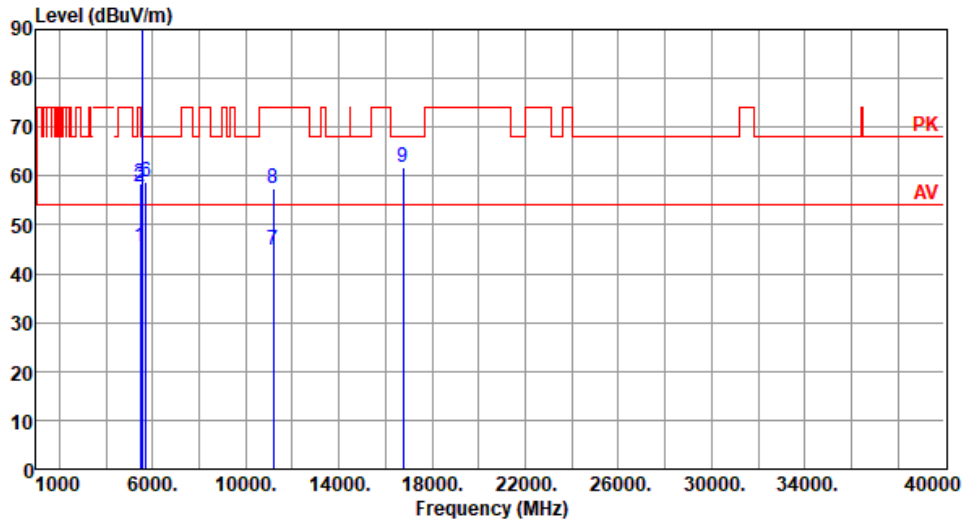
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Horizontal	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.60	54.00	-8.40	41.33	4.27	Average	253	41
2	5460.00	57.93	74.00	-16.07	53.66	4.27	Peak	253	41
3	5470.00	58.34	68.20	-9.86	54.05	4.29	Peak	253	41
4 *	5590.00	99.57			95.34	4.23	Average	253	41
5 *	5590.00	110.49			106.26	4.23	Peak	253	41
6	5725.00	58.68	68.20	-9.52	54.02	4.66	Peak	253	41
7	11180.00	44.85	54.00	-9.15	30.34	14.51	Average	100	46
8	11180.00	57.57	74.00	-16.43	43.06	14.51	Peak	100	46
9	16770.00	61.72	68.20	-6.48	44.05	17.67	Peak	100	105

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

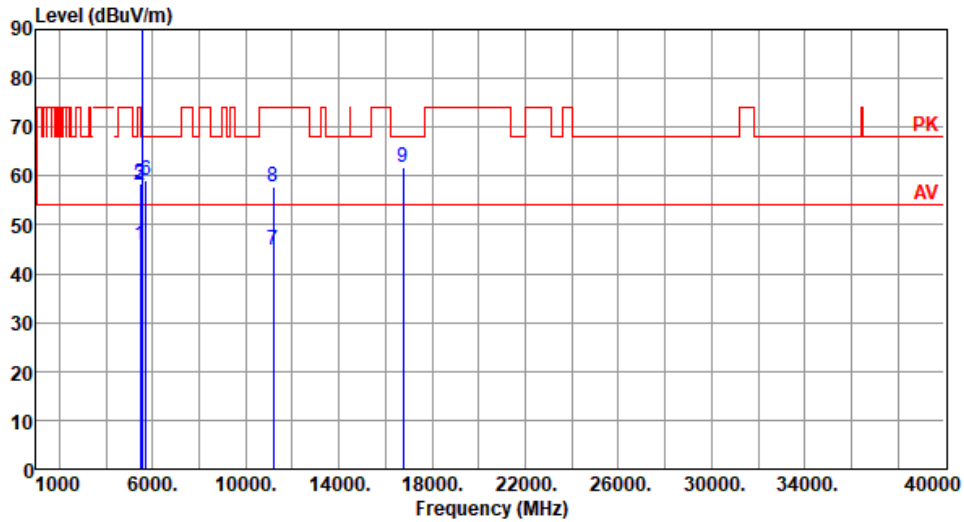
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.72	54.00	-8.28	41.45	4.27	Average	193	271
2	5460.00	58.05	74.00	-15.95	53.78	4.27	Peak	193	271
3	5470.00	58.47	68.20	-9.73	54.18	4.29	Peak	193	271
4 *	5590.00	102.49			98.26	4.23	Average	193	271
5 *	5590.00	113.49			109.26	4.23	Peak	193	271
6	5725.00	58.97	68.20	-9.23	54.31	4.66	Peak	193	271
7	11180.00	45.00	54.00	-9.00	30.49	14.51	Average	100	60
8	11180.00	57.69	74.00	-16.31	43.18	14.51	Peak	100	60
9	16770.00	61.92	68.20	-6.28	44.25	17.67	Peak	100	90

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

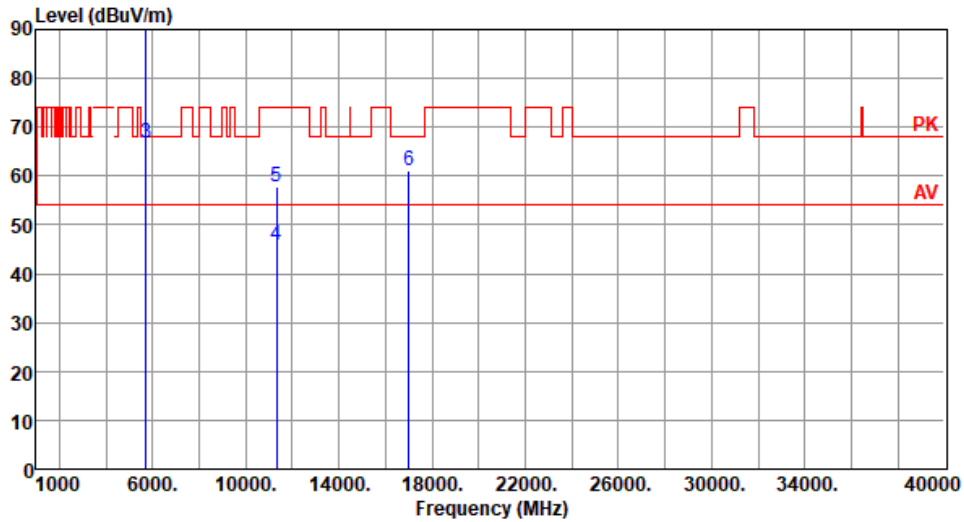
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Horizontal	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5670.00	96.54			92.15	4.39	Average	268	46
2	*	5670.00	107.64			103.25	4.39	Peak	268	46
3		5725.00	66.71	68.20	-1.49	62.05	4.66	Peak	268	46
4		11340.00	45.97	54.00	-8.03	31.38	14.59	Average	100	49
5		11340.00	57.91	74.00	-16.09	43.32	14.59	Peak	100	49
6		17010.00	61.06	68.20	-7.14	43.36	17.70	Peak	100	105

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

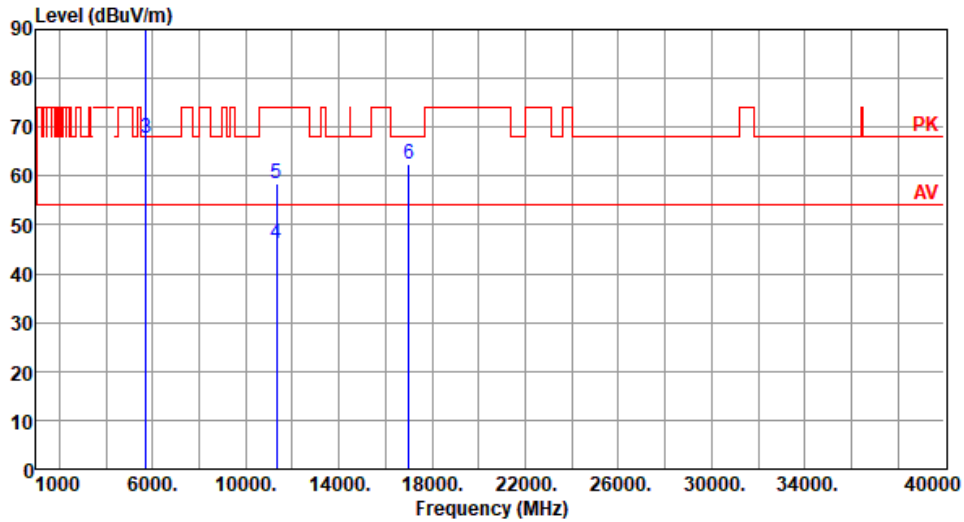
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5670.00	99.76			95.37	4.39	Average	200	277
2	*	5670.00	110.64			106.25	4.39	Peak	200	277
3		5725.00	67.81	68.20	-0.39	63.15	4.66	Peak	200	277
4		11340.00	46.24	54.00	-7.76	31.65	14.59	Average	100	14
5		11340.00	58.35	74.00	-15.65	43.76	14.59	Peak	100	14
6		17010.00	62.37	68.20	-5.83	44.67	17.70	Peak	100	142

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

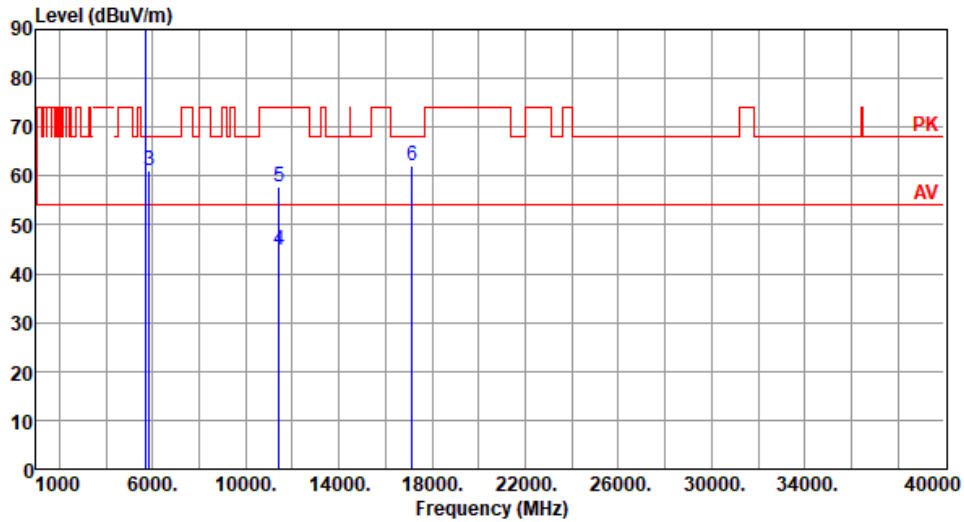
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Horizontal	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



		Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5710.00	100.26			95.63	4.63	Average	256	48
2	*	5710.00	111.50			106.87	4.63	Peak	256	48
3		5850.00	60.95	68.20	-7.25	55.87	5.08	Peak	256	48
4		11420.00	44.72	54.00	-9.28	30.05	14.67	Average	100	49
5		11420.00	57.72	74.00	-16.28	43.05	14.67	Peak	100	49
6		17130.00	61.94	68.20	-6.26	44.08	17.86	Peak	100	107

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

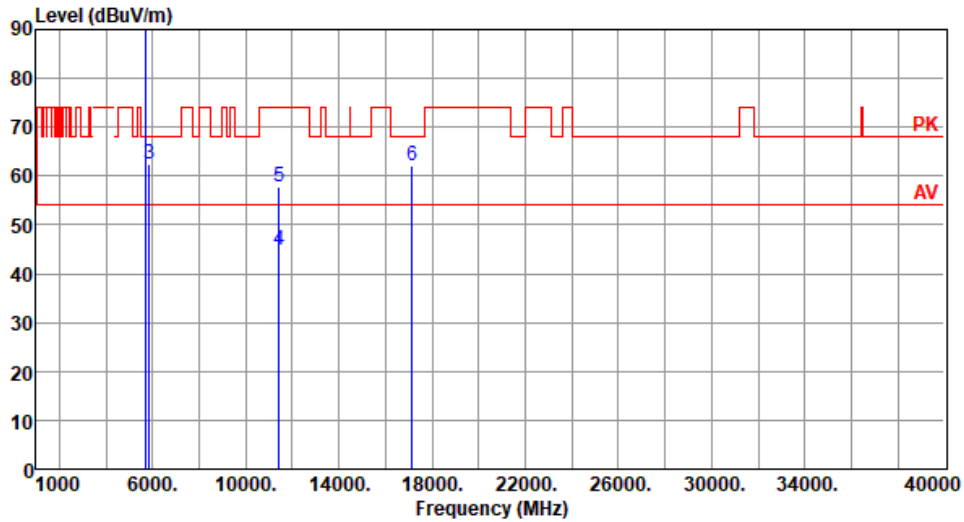
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5710.00	103.00			98.37	4.63	Average	207	266
2	*	5710.00	114.73			110.10	4.63	Peak	207	266
3		5850.00	62.29	68.20	-5.91	57.21	5.08	Peak	207	266
4		11420.00	44.99	54.00	-9.01	30.32	14.67	Average	100	40
5		11420.00	57.89	74.00	-16.11	43.22	14.67	Peak	100	40
6		17130.00	62.01	68.20	-6.19	44.15	17.86	Peak	100	80

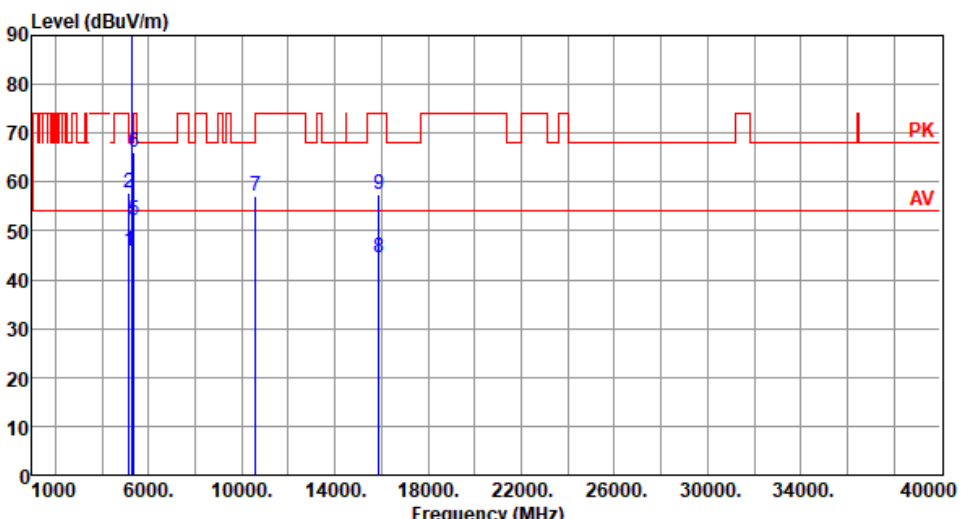
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

3.5.8 Transmitter Radiated Unwanted Emissions (Above 1GHz) for ac VHT80

Modulation	VHT80	Test Freq. (MHz)	5290						
Polarization	Horizontal	Test Configuration	1						
Test By : Roger Lu Temperature(°C):23 Humidity(%):61									
									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.84	54.00	-8.16	41.56	4.28	Average	275	56
2	5150.00	57.95	74.00	-16.05	53.67	4.28	Peak	275	56
3 *	5290.00	89.83			86.15	3.68	Average	275	56
4 *	5290.00	101.82			98.14	3.68	Peak	275	56
5	5350.00	52.03	54.00	-1.97	48.26	3.77	Average	275	56
6	5350.00	66.25	74.00	-7.75	62.48	3.77	Peak	275	56
7	10580.00	57.04	68.20	-11.16	42.45	14.59	Peak	100	188
8	15870.00	44.63	54.00	-9.37	30.48	14.15	Average	100	89
9	15870.00	57.60	74.00	-16.40	43.45	14.15	Peak	100	89

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

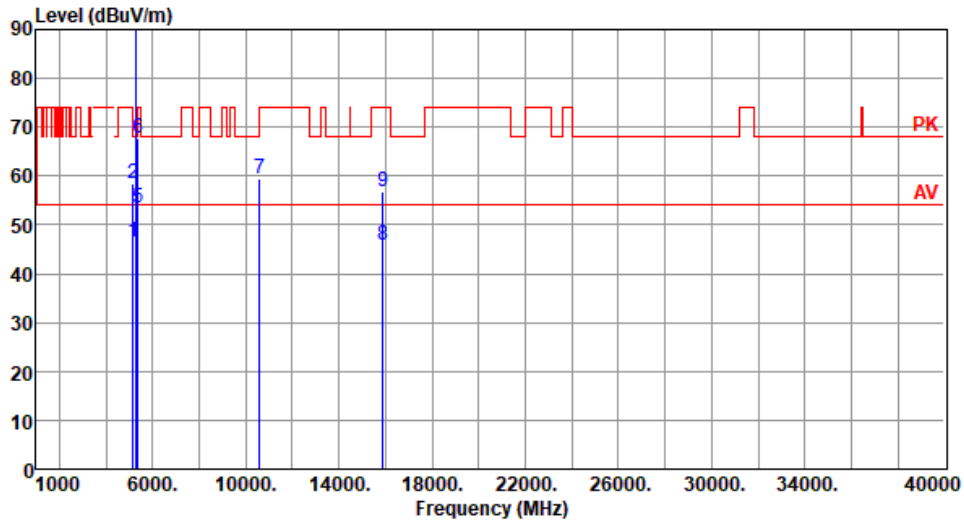
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.63	54.00	-7.37	42.35	4.28	Average	129	359
2	5150.00	58.40	74.00	-15.60	54.12	4.28	Peak	129	359
3 *	5290.00	92.97			89.29	3.68	Average	129	359
4 *	5290.00	104.88			101.20	3.68	Peak	129	359
5	5350.00	53.58	54.00	-0.42	49.81	3.77	Average	129	359
6	5350.00	67.62	74.00	-6.38	63.85	3.77	Peak	129	359
7	10580.00	59.48	68.20	-8.72	44.89	14.59	Peak	100	144
8	15870.00	45.93	54.00	-8.07	31.78	14.15	Average	100	182
9	15870.00	56.93	74.00	-17.07	42.78	14.15	Peak	100	182

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

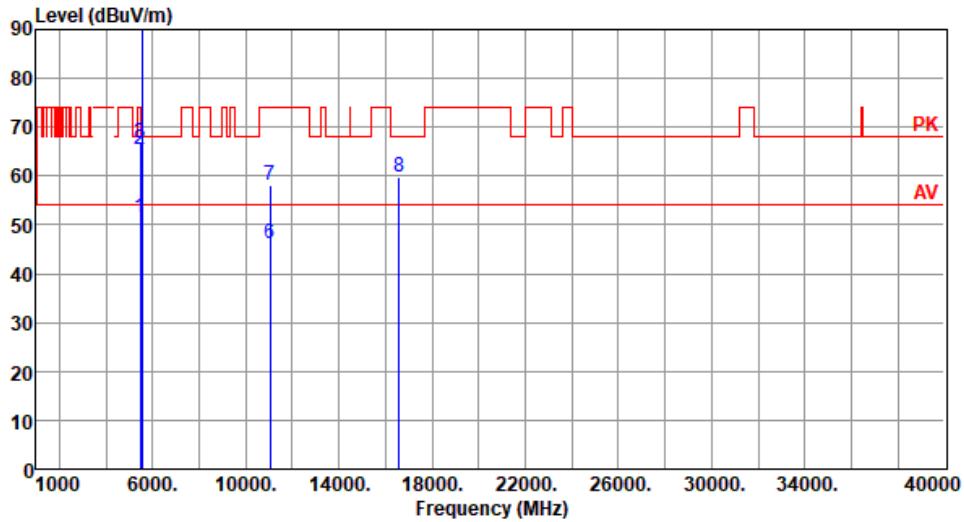
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Horizontal	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	51.52	54.00	-2.48	47.25	4.27	Average	277	48
2	5460.00	65.52	74.00	-8.48	61.25	4.27	Peak	277	48
3	5470.00	66.75	68.20	-1.45	62.46	4.29	Peak	277	48
4 *	5530.00	90.45			86.12	4.33	Average	277	48
5 *	5530.00	101.67			97.34	4.33	Peak	277	48
6	11060.00	46.21	54.00	-7.79	31.29	14.92	Average	100	49
7	11060.00	58.20	74.00	-15.80	43.28	14.92	Peak	100	49
8	16590.00	59.70	68.20	-8.50	43.27	16.43	Peak	100	101

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

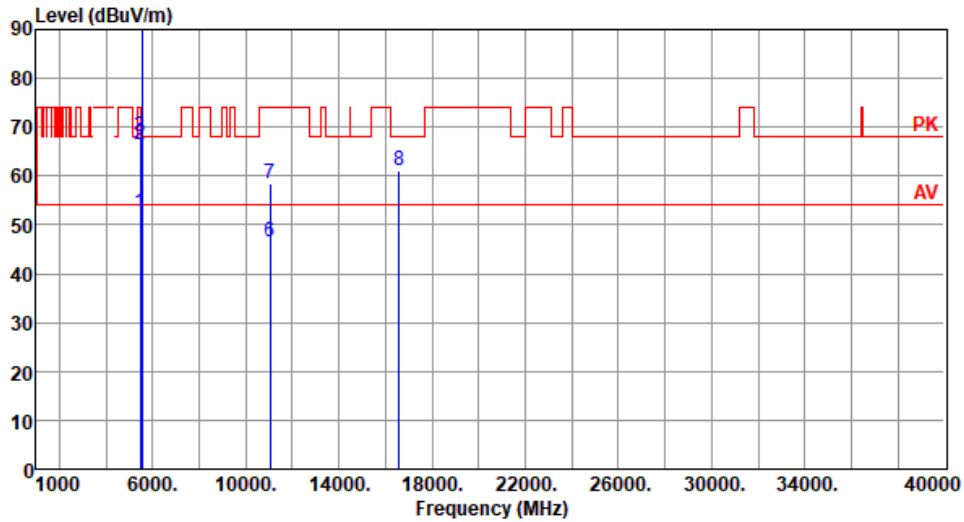
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



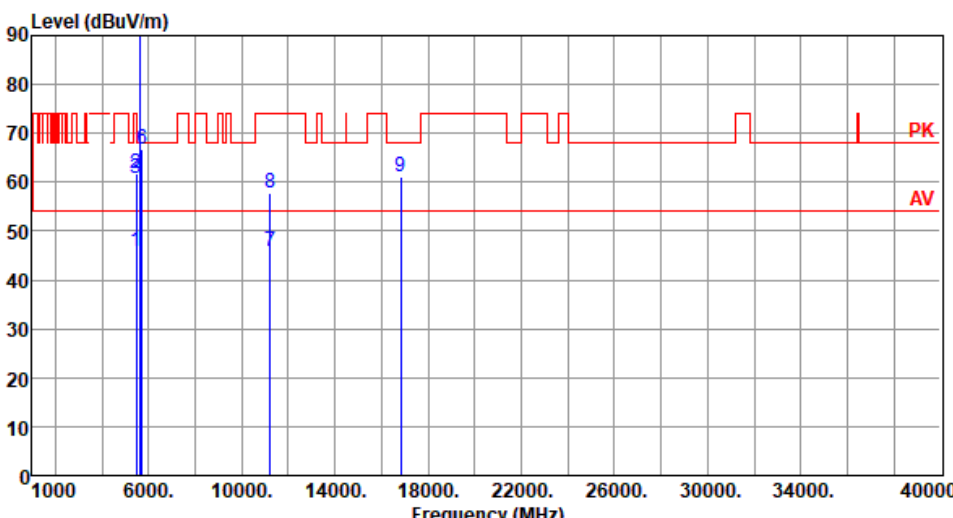
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	52.33	54.00	-1.67	48.06	4.27	Average	131	355
2	5460.00	66.27	74.00	-7.73	62.00	4.27	Peak	131	355
3	5470.00	67.94	68.20	-0.26	63.65	4.29	Peak	131	355
4 *	5530.00	93.34			89.01	4.33	Average	131	355
5 *	5530.00	104.56			100.23	4.33	Peak	131	355
6	11060.00	46.55	54.00	-7.45	31.63	14.92	Average	100	23
7	11060.00	58.57	74.00	-15.43	43.65	14.92	Peak	100	23
8	16590.00	61.05	68.20	-7.15	44.62	16.43	Peak	100	140

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

*Factor includes antenna factor , cable loss and amplifier gain

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

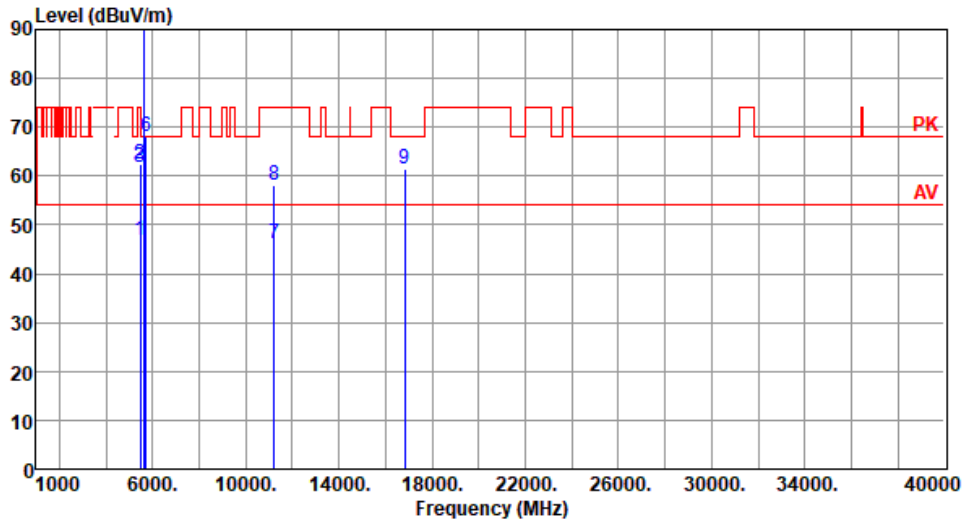
Note 3:"*" is Peak / Average value of fundamental frequency

Modulation	VHT80	Test Freq. (MHz)	5610						
Polarization	Horizontal	Test Configuration	1						
Test By : Roger Lu Temperature(°C):23 Humidity(%):61									
									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.85	54.00	-8.15	41.58	4.27	Average	276	49
2	5460.00	61.83	74.00	-12.17	57.56	4.27	Peak	276	49
3	5470.00	60.78	68.20	-7.42	56.49	4.29	Peak	276	49
4 *	5610.00	93.38			89.15	4.23	Average	276	49
5 *	5610.00	104.58			100.35	4.23	Peak	276	49
6	5725.00	66.77	68.20	-1.43	62.11	4.66	Peak	276	49
7	11220.00	45.77	54.00	-8.23	31.29	14.48	Average	100	42
8	11220.00	57.73	74.00	-16.27	43.25	14.48	Peak	100	42
9	16830.00	61.09	68.20	-7.11	43.20	17.89	Peak	100	109

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

Modulation	VHT80	Test Freq. (MHz)	5610
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.87	54.00	-7.13	42.60	4.27	Average	132	329
2	5460.00	62.46	74.00	-11.54	58.19	4.27	Peak	132	329
3	5470.00	61.89	68.20	-6.31	57.60	4.29	Peak	132	329
4 *	5610.00	96.54			92.31	4.23	Average	100	329
5 *	5610.00	108.20			103.97	4.23	Peak	100	329
6	5725.00	67.96	68.20	-0.24	63.30	4.66	Peak	132	329
7	11220.00	46.13	54.00	-7.87	31.65	14.48	Average	100	23
8	11220.00	58.13	74.00	-15.87	43.65	14.48	Peak	100	23
9	16830.00	61.57	68.20	-6.63	43.68	17.89	Peak	100	142

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

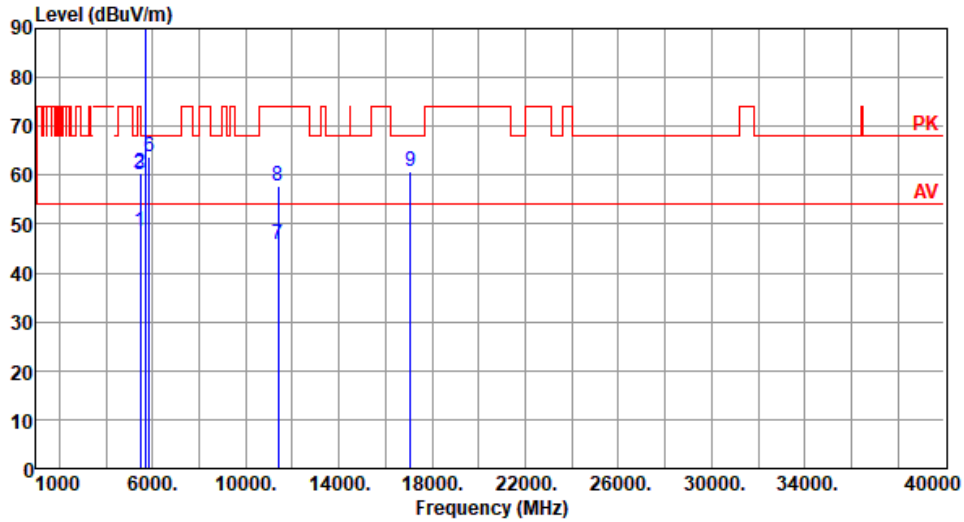
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Horizontal	Test Configuration	1

Test By : Roger Lu Temperature(°C): 23 Humidity(%): 61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.60	54.00	-5.40	44.33	4.27	Average	251	45
2	5460.00	60.60	74.00	-13.40	56.33	4.27	Peak	251	45
3	5470.00	60.13	68.20	-8.07	55.84	4.29	Peak	251	45
4 *	5690.00	95.85			91.33	4.52	Average	251	45
5 *	5690.00	106.88			102.36	4.52	Peak	251	45
6	5850.00	63.74	68.20	-4.46	58.66	5.08	Peak	251	45
7	11380.00	45.84	54.00	-8.16	31.20	14.64	Average	100	41
8	11380.00	57.82	74.00	-16.18	43.18	14.64	Peak	100	41
9	17070.00	60.90	68.20	-7.30	43.15	17.75	Peak	100	106

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

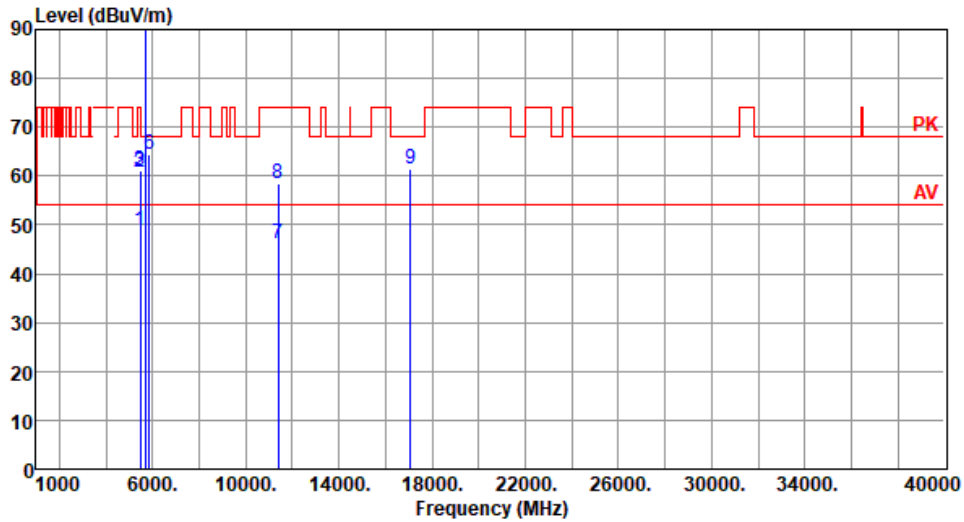
*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Vertical	Test Configuration	1

Test By :Roger Lu Temperature(°C):23 Humidity(%):61



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.75	54.00	-5.25	44.48	4.27	Average	177	266
2	5460.00	60.75	74.00	-13.25	56.48	4.27	Peak	177	266
3	5470.00	61.15	68.20	-7.05	56.86	4.29	Peak	177	266
4 *	5690.00	98.78			94.26	4.52	Average	177	266
5 *	5690.00	110.01			105.49	4.52	Peak	177	266
6	5850.00	64.53	68.20	-3.67	59.45	5.08	Peak	177	266
7	11380.00	46.32	54.00	-7.68	31.68	14.64	Average	100	28
8	11380.00	58.32	74.00	-15.68	43.68	14.64	Peak	100	28
9	17070.00	61.40	68.20	-6.80	43.65	17.75	Peak	100	140

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

*Factor includes antenna factor , cable loss and amplifier gain

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

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

3.6 Frequency Stability

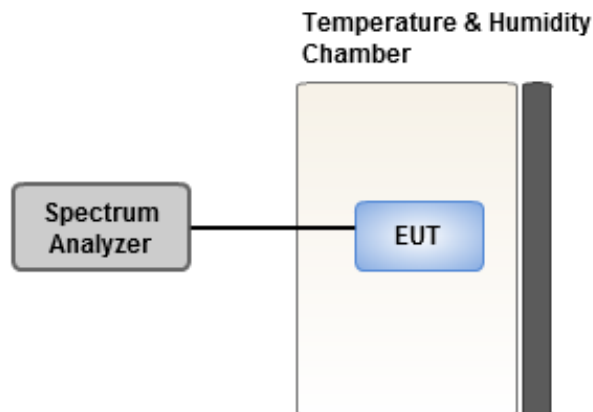
3.6.1 Limit of Frequency Stability

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	21~23°C / 65~68%	Tested By	Aska Huang
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Frequency: 5320 MHz	Frequency Drift (ppm)			
	0 minute	2 minutes	5 minutes	10 minutes
Temperature (°C)				
T20°C _{Vmax}	-5.23	-4.36	-5.10	-5.47
T20°C _{Vmin}	-4.34	-4.49	-3.76	-3.97
T50°C _{Vnom}	-10.14	-10.33	-10.01	-9.57
T40°C _{Vnom}	-8.02	-7.75	-8.08	-7.45
T30°C _{Vnom}	-5.71	-5.87	-5.12	-5.61
T20°C _{Vnom}	-4.39	-3.84	-4.41	-4.44
T10°C _{Vnom}	2.35	2.29	2.82	2.95
T0°C _{Vnom}	5.00	5.70	5.02	5.12
T-10°C _{Vnom}	7.27	7.00	7.58	7.38
T-20°C _{Vnom}	8.95	9.49	8.96	9.35
T-30°C _{Vnom}	10.16	9.89	10.10	10.00
Vnom [V]: 120		Vmax [V]: 138		Vmin [V]: 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 Corp (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

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

Linkou

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Kou District, New Taipei City,
Taiwan, R.O.C.

Kwei Shan

Tel: 886-3-271-8666

No. 3-1, Lane 6, Wen San 3rd St.,
Kwei Shan District, Tao Yuan City
333, Taiwan, R.O.C.

Kwei Shan Site II

Tel: 886-3-271-8640

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

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

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