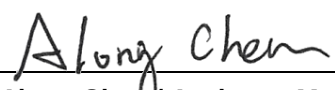


FCC Test Report

FCC ID : NKR-P68
Equipment : Wireless module
Model No. : DHUR-P68
Brand Name : Panasonic
Applicant : Wistron NeWeb Corporation
Address : 20 Park Avenue II, Hsinchu Science Park,
Hsinchu 308,Taiwan,R.O.C.
Standard : 47 CFR FCC Part 15.407
Received Date : Oct. 22, 2019
Tested Date : Oct. 26 ~ Oct. 31, 2019

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:

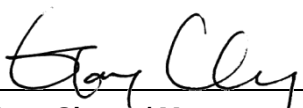

Gary Chang / Manager



Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information.....	5
1.2	Local Support Equipment List	9
1.3	Test Setup Chart	9
1.4	The Equipment List	10
1.5	Testing Applied Standards	12
1.6	Deviation from Test Standard and Measurement Procedure.....	12
1.7	Measurement Uncertainty	12
2	TEST CONFIGURATION	13
2.1	Testing Condition	13
2.2	The Worst Test Modes and Channel Details	13
3	TRANSMITTER TEST RESULTS.....	15
3.1	Conducted Emissions.....	15
3.2	Emission Bandwidth	20
3.3	RF Output Power.....	40
3.4	Peak Power Spectral Density.....	48
3.5	Transmitter Radiated and Band Edge Emissions	69
3.6	Frequency Stability.....	160
4	TEST LABORATORY INFORMATION	162

Release Record

Report No.	Version	Description	Issued Date
FR9O2201AN	Rev. 01	Initial issue	Nov. 28, 2019

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.641MHz 46.91 (Margin -9.09dB) - QP	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5350.00MHz 53.49 (Margin -0.51dB) - AV	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(e)	6dB bandwidth	Meet the requirement of limit	Pass
15.407(a)	RF Output Power	Max Power [dBm]: 5150~5250MHz: 13.10 5250~5350MHz: 15.54 5470~5725MHz: 15.65 5725~5850MHz: 15.66	Pass
15.407(a)	Peak Power Spectral Density	Meet the requirement of limit	Pass
15.407(g)	Frequency Stability	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

Declaration of Conformity:

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

Comments and Explanations:

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

1 General Description

1.1 Information

1.1.1 Specification of the Equipment under Test (EUT)

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

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.

1.1.2 Antenna Details

Ant. No.	Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)				
				2400~2483.5	5150~5250	5250~5350	5470~5725	5725~5850
1	ANT0	PIFA	NA	-0.20	3.51	4.05	3.90	3.52
2	ANT1	PIFA	NA	0.28	3.68	4.23	4.22	4.13

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	5Vdc from host
Hardware Version	v1.0
Software Version	v1.0

1.1.4 Accessories

N/A

1.1.5 Channel List

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

1.1.6 Test Tool and Duty Cycle

Test Tool	MT7668 QA, Version: 0.0.1.98		
Duty Cycle and Duty Factor	Mode	Duty Cycle (%)	Duty Factor (dB)
	11a	98.48	0.07
	VHT20	98.39	0.07
	VHT40	95.79	0.19
	VHT80	90.82	0.42

1.1.7 Power Index of Test Tool

For Frequency band 5150-5250 MHz		
Modulation Mode	Test Frequency (MHz)	Power Index
11a	5180	11
11a	5200	11
11a	5240	11
VHT20	5180	13
VHT20	5200	13
VHT20	5240	13
VHT40	5190	13
VHT40	5230	13
VHT80	5210	14

For Frequency band 5250~5350 MHz		
Modulation Mode	Test Frequency (MHz)	Power Index
11a	5260	17
11a	5300	17
11a	5320	17
VHT20	5260	19
VHT20	5300	19
VHT20	5320	19
VHT40	5270	19
VHT40	5310	19
VHT80	5290	18

For Frequency band 5470~5725 MHz		
Modulation Mode	Test Frequency (MHz)	Power Index
11a	5500	17
11a	5580	16
11a	5700	19
VHT20	5500	19
VHT20	5580	18
VHT20	5700	1B
VHT40	5510	19
VHT40	5590	1A
VHT40	5670	1A
VHT80	5530	18
VHT80	5610	1B

Channel that extends across the 5.725 GHz boundary

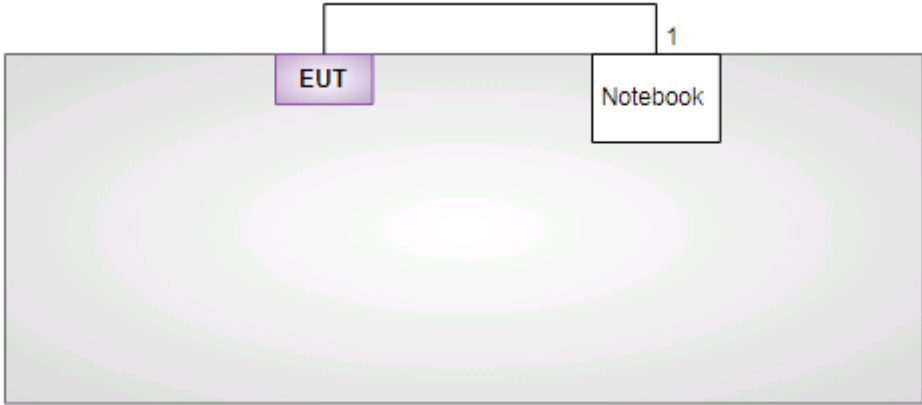
For Frequency band 5470~5725 MHz		
Modulation Mode	Test Frequency (MHz)	Power Index
11a	5720	19
VHT20	5720	1B
VHT40	5710	1C
VHT80	5690	1C

For Frequency band 5725~5850 MHz		
Modulation Mode	Test Frequency (MHz)	Power Index
11a	5745	19
11a	5785	1A
11a	5825	1A
VHT20	5745	1B
VHT20	5785	1C
VHT20	5825	1C
VHT40	5755	1C
VHT40	5795	1C
VHT80	5775	1D

1.2 Local Support Equipment List

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

1.3 Test Setup Chart

Test Setup Diagram	
	
No.	Signal cable / Length (m)
1	USB, 1m shielded.

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Oct. 31, 2019				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101657	Jan. 08, 2019	Jan. 07, 2020
LISN	R&S	ENV216	101579	Mar. 08, 2019	Mar. 07, 2020
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 22, 2019	Oct. 21, 2020
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Oct. 26 ~ Oct. 28, 2019				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101498	Dec. 27, 2018	Dec. 26, 2019
Receiver	R&S	ESR3	101658	Dec. 11, 2018	Dec. 10, 2019
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jul. 12, 2019	Jul. 11, 2020
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 18, 2018	Dec. 17, 2019
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 15, 2018	Nov. 14, 2019
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 09, 2018	Nov. 08, 2019
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 07, 2019	Oct. 06, 2020
Preamplifier	EMC	EMC02325	980225	Jul. 09, 2019	Jul. 08, 2020
Preamplifier	Agilent	83017A	MY39501308	Oct. 08, 2019	Oct. 07, 2020
Preamplifier	EMC	EMC184045B	980192	Aug. 01, 2019	Jul. 31, 2020
RF Cable	EMC	EMC104-SM-SM-8000	181106	Oct. 07, 2019	Oct. 06, 2020
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Oct. 07, 2019	Oct. 06, 2020
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Oct. 07, 2019	Oct. 06, 2020
LF cable 1M	EMC	EMCCFD400-NM-NM-1000	160502	Oct. 07, 2019	Oct. 06, 2020
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 07, 2019	Oct. 06, 2020
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-002	Oct. 07, 2019	Oct. 06, 2020
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Oct. 31, 2019				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101063	Apr. 17, 2019	Apr. 16, 2020
Spectrum Analyzer	R&S	FSV40	101499	Jan. 07, 2019	Jan. 06, 2020
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Dec. 05, 2018	Dec. 04, 2019
Power Meter	Anritsu	ML2495A	1241002	Oct. 23, 2019	Oct. 22, 2020
Power Sensor	Anritsu	MA2411B	1207366	Oct. 23, 2019	Oct. 22, 2020
DC POWER SOURCE	GW INSTEK	GPC-6030D	GES855395	Oct. 29, 2019	Oct. 28, 2020
Measurement Software	Sporton	Sporton_1	1.3.30	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Testing Applied Standards

According to the specification of EUT, the EUT must comply with following standards and KDB documents.

47 CFR FCC Part 15.407

ANSI C63.10-2013

FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

FCC KDB 412172 D01 Determining ERP and EIRP v01r01

1.6 Deviation from Test Standard and Measurement Procedure

None

1.7 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. 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 Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	22°C / 58%	Akun Chung
Radiated Emissions	03CH01-WS	24°C / 63%	Mike Shu
RF Conducted	TH01-WS	22°C / 64%	Brad Wu

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

2.2 The Worst Test Modes and Channel Details

Frequency band 5150~5250 MHz / 5250~5350 MHz / 5470~5725 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	VHT20	5500	MCS 0	---
Radiated Emissions ≤1GHz	VHT20	5500	MCS 0	---
RF Output Power	11a	5180 / 5200 / 5240 / 5260 / 5300 / 5320 / 5500 / 5580 / 5700 / 5720	6 Mbps	---
	VHT20	5180 / 5200 / 5240 / 5260 / 5300 / 5320 / 5500 / 5580 / 5700 / 5720	MCS 0	
	VHT40	5190 / 5230 / 5270 / 5310 / 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT80	5210 / 5290 / 5530 / 5610 / 5690	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a	5180 / 5200 / 5240 / 5260 / 5300 / 5320 / 5500 / 5580 / 5700 / 5720	6 Mbps	---
	VHT20	5180 / 5200 / 5240 / 5260 / 5300 / 5320 / 5500 / 5580 / 5700 / 5720	MCS 0	
	VHT40	5190 / 5230 / 5270 / 5310 / 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT80	5210 / 5290 / 5530 / 5610 / 5690	MCS 0	
Frequency Stability	Un-modulation	5320	---	---
NOTE:				
1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The Y-plane results were found as the worst case and were shown in this report.				

Frequency band 5725-5850 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	11a	5785	6 Mbps	---
Radiated Emissions ≤ 1 GHz	11a	5785	6 Mbps	---
RF Output Power	11a	5745 / 5785 / 5825	6 Mbps	---
	VHT20	5745 / 5785 / 5825	MCS 0	
	VHT40	5755 / 5795	MCS 0	
	VHT80	5775	MCS 0	
Radiated Emissions > 1 GHz Emission Bandwidth 6dB bandwidth Peak Power Spectral Density	11a	5745 / 5785 / 5825	6 Mbps	---
	VHT20	5745 / 5785 / 5825	MCS 0	
	VHT40	5755 / 5795	MCS 0	
	VHT80	5775	MCS 0	
Frequency Stability	Un-modulation	5785	---	---
NOTE: 1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The Y-plane results were found as the worst case and were shown in this report.				

3 Transmitter Test Results

3.1 Conducted Emissions

3.1.1 Limit of Conducted Emissions

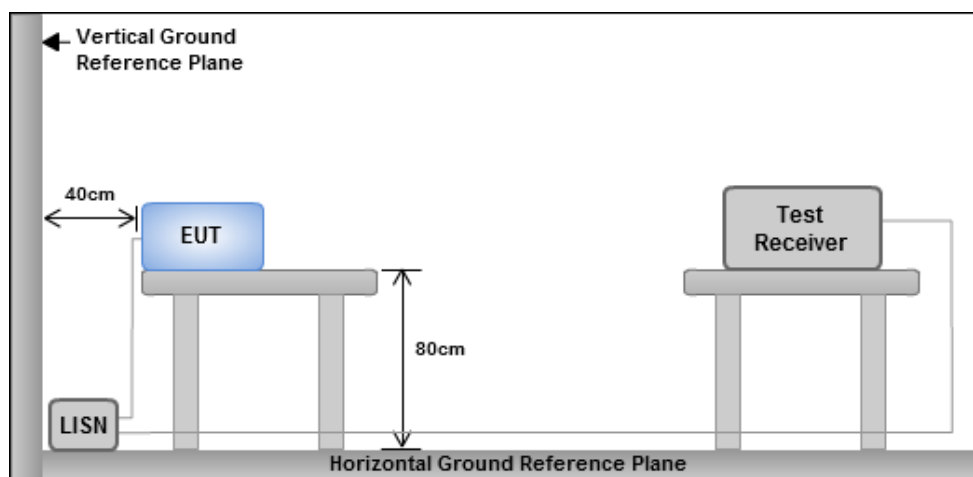
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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

3.1.2 Test Procedures

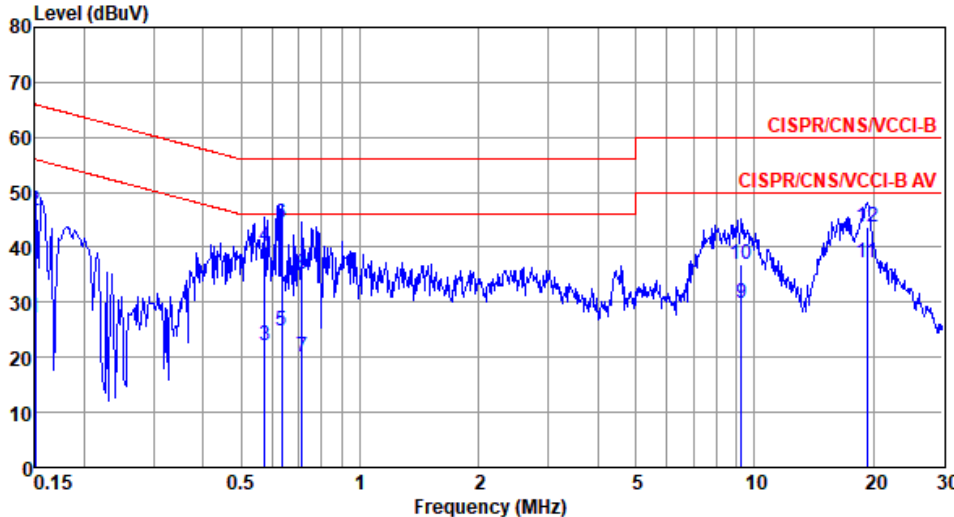
1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50 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

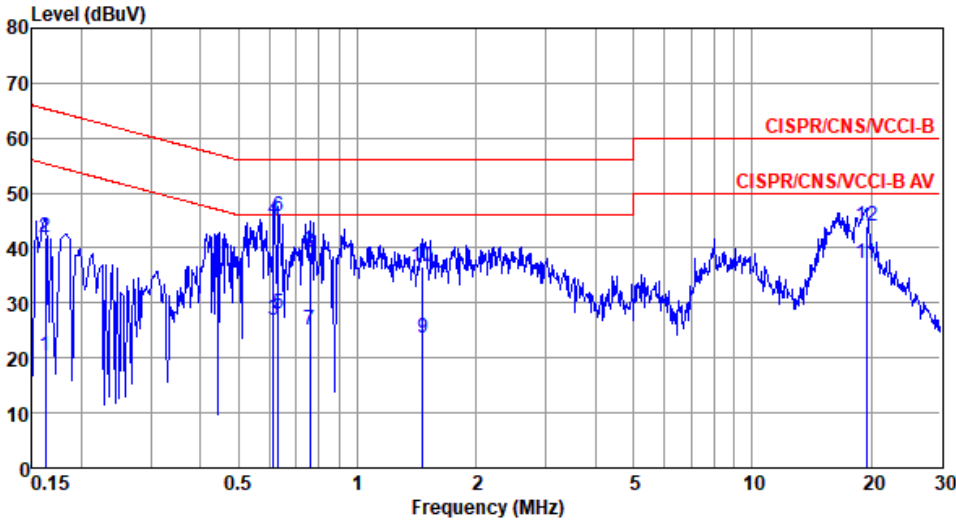


- Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

Modulation	VHT20	Test Freq. (MHz)	5500																																																																																																																																							
Power Phase	Line																																																																																																																																									
Level (dBuV)  Frequency (MHz) <table><thead><tr><th></th><th>Freq</th><th>Level</th><th>Limit</th><th>Over</th><th>Read</th><th>LISN</th><th>cable</th><th></th></tr><tr><th></th><th>MHz</th><th>dBuV</th><th>Line</th><th>Limit</th><th>Level</th><th>factor</th><th>loss</th><th>Remark</th></tr><tr><th></th><th></th><th></th><th>dBuV</th><th>dB</th><th>dBuV</th><th>dB</th><th>dB</th><th></th></tr></thead><tbody><tr><td>1</td><td>0.150</td><td>27.29</td><td>56.00</td><td>-28.71</td><td>17.71</td><td>9.53</td><td>0.05</td><td>Average</td></tr><tr><td>2</td><td>0.150</td><td>46.54</td><td>66.00</td><td>-19.46</td><td>36.96</td><td>9.53</td><td>0.05</td><td>QP</td></tr><tr><td>3</td><td>0.573</td><td>22.16</td><td>46.00</td><td>-23.84</td><td>12.48</td><td>9.58</td><td>0.10</td><td>Average</td></tr><tr><td>4</td><td>0.573</td><td>40.24</td><td>56.00</td><td>-15.76</td><td>30.56</td><td>9.58</td><td>0.10</td><td>QP</td></tr><tr><td>5</td><td>0.634</td><td>24.90</td><td>46.00</td><td>-21.10</td><td>15.22</td><td>9.58</td><td>0.10</td><td>Average</td></tr><tr><td>6*</td><td>0.634</td><td>44.15</td><td>56.00</td><td>-11.85</td><td>34.47</td><td>9.58</td><td>0.10</td><td>QP</td></tr><tr><td>7</td><td>0.712</td><td>20.22</td><td>46.00</td><td>-25.78</td><td>10.52</td><td>9.59</td><td>0.11</td><td>Average</td></tr><tr><td>8</td><td>0.712</td><td>35.04</td><td>56.00</td><td>-20.96</td><td>25.34</td><td>9.59</td><td>0.11</td><td>QP</td></tr><tr><td>9</td><td>9.253</td><td>29.74</td><td>50.00</td><td>-20.26</td><td>19.71</td><td>9.65</td><td>0.38</td><td>Average</td></tr><tr><td>10</td><td>9.253</td><td>36.96</td><td>60.00</td><td>-23.04</td><td>26.93</td><td>9.65</td><td>0.38</td><td>QP</td></tr><tr><td>11</td><td>19.326</td><td>37.08</td><td>50.00</td><td>-12.92</td><td>26.77</td><td>9.66</td><td>0.65</td><td>Average</td></tr><tr><td>12</td><td>19.326</td><td>43.58</td><td>60.00</td><td>-16.42</td><td>33.27</td><td>9.66</td><td>0.65</td><td>QP</td></tr></tbody></table>					Freq	Level	Limit	Over	Read	LISN	cable			MHz	dBuV	Line	Limit	Level	factor	loss	Remark				dBuV	dB	dBuV	dB	dB		1	0.150	27.29	56.00	-28.71	17.71	9.53	0.05	Average	2	0.150	46.54	66.00	-19.46	36.96	9.53	0.05	QP	3	0.573	22.16	46.00	-23.84	12.48	9.58	0.10	Average	4	0.573	40.24	56.00	-15.76	30.56	9.58	0.10	QP	5	0.634	24.90	46.00	-21.10	15.22	9.58	0.10	Average	6*	0.634	44.15	56.00	-11.85	34.47	9.58	0.10	QP	7	0.712	20.22	46.00	-25.78	10.52	9.59	0.11	Average	8	0.712	35.04	56.00	-20.96	25.34	9.59	0.11	QP	9	9.253	29.74	50.00	-20.26	19.71	9.65	0.38	Average	10	9.253	36.96	60.00	-23.04	26.93	9.65	0.38	QP	11	19.326	37.08	50.00	-12.92	26.77	9.66	0.65	Average	12	19.326	43.58	60.00	-16.42	33.27	9.66	0.65	QP
	Freq	Level	Limit	Over	Read	LISN	cable																																																																																																																																			
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark																																																																																																																																		
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8	0.712	35.04	56.00	-20.96	25.34	9.59	0.11	QP																																																																																																																																		
9	9.253	29.74	50.00	-20.26	19.71	9.65	0.38	Average																																																																																																																																		
10	9.253	36.96	60.00	-23.04	26.93	9.65	0.38	QP																																																																																																																																		
11	19.326	37.08	50.00	-12.92	26.77	9.66	0.65	Average																																																																																																																																		
12	19.326	43.58	60.00	-16.42	33.27	9.66	0.65	QP																																																																																																																																		
Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB). 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).																																																																																																																																										

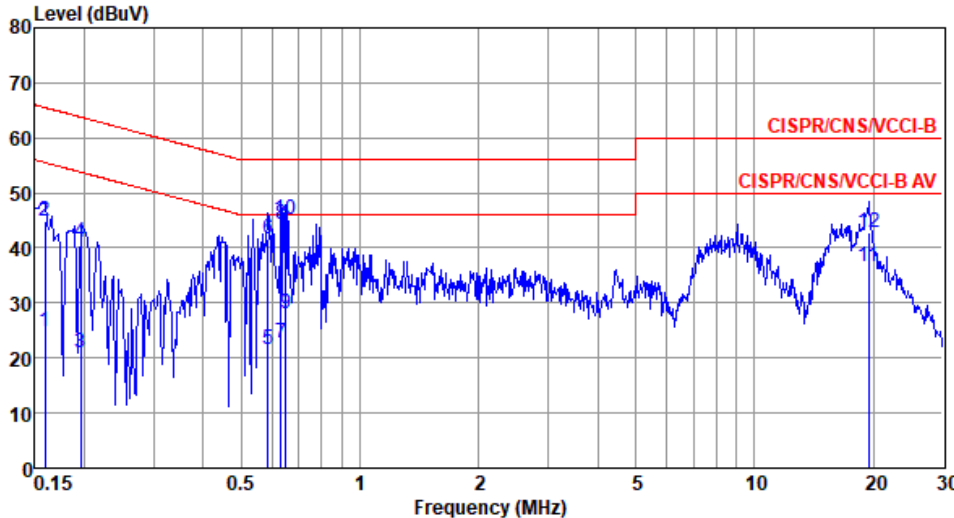
Modulation	VHT20	Test Freq. (MHz)	5500
Power Phase	Neutral		



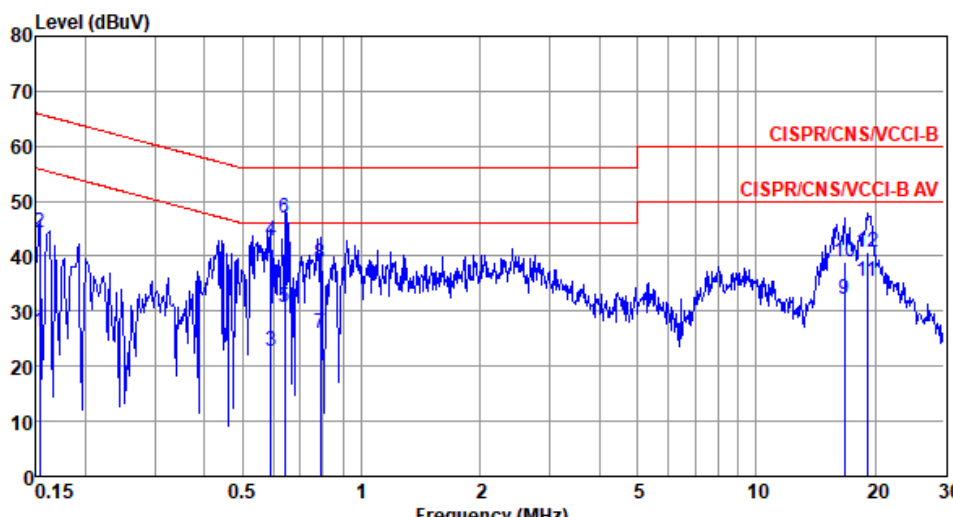
	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.162	20.25	55.34	-35.09	10.63	9.57	0.05	Average
2	0.162	42.00	65.34	-23.34	32.38	9.57	0.05	QP
3	0.614	26.92	46.00	-19.08	17.20	9.62	0.10	Average
4	0.614	45.24	56.00	-10.76	35.52	9.62	0.10	QP
5	0.630	27.91	46.00	-18.09	18.19	9.62	0.10	Average
6*	0.630	45.77	56.00	-10.23	36.05	9.62	0.10	QP
7	0.759	25.07	46.00	-20.93	15.33	9.63	0.11	Average
8	0.759	39.15	56.00	-16.85	29.41	9.63	0.11	QP
9	1.464	23.75	46.00	-22.25	13.95	9.65	0.15	Average
10	1.464	36.65	56.00	-19.35	26.85	9.65	0.15	QP
11	19.428	37.10	50.00	-12.90	26.64	9.81	0.65	Average
12	19.428	43.85	60.00	-16.15	33.39	9.81	0.65	QP

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

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

Modulation	11a	Test Freq. (MHz)	5785																																																																																																																																							
Power Phase	Line																																																																																																																																									
Level (dBuV)  Frequency (MHz) <table><tr><th></th><th>Freq</th><th>Level</th><th>Limit</th><th>Over</th><th>Read</th><th>LISN</th><th>cable</th><th>Remark</th></tr><tr><th></th><th>MHz</th><th>dBuV</th><th>Line</th><th>Limit</th><th>Level</th><th>factor</th><th>loss</th><th></th></tr><tr><th></th><th></th><th></th><th>dBuV</th><th>dB</th><th>dBuV</th><th>dB</th><th>dB</th><th></th></tr><tr><td>1</td><td>0.159</td><td>24.93</td><td>55.52</td><td>-30.59</td><td>15.35</td><td>9.53</td><td>0.05</td><td>Average</td></tr><tr><td>2</td><td>0.159</td><td>44.94</td><td>65.52</td><td>-20.58</td><td>35.36</td><td>9.53</td><td>0.05</td><td>QP</td></tr><tr><td>3</td><td>0.195</td><td>21.03</td><td>53.80</td><td>-32.77</td><td>11.43</td><td>9.54</td><td>0.06</td><td>Average</td></tr><tr><td>4</td><td>0.195</td><td>41.10</td><td>63.80</td><td>-22.70</td><td>31.50</td><td>9.54</td><td>0.06</td><td>QP</td></tr><tr><td>5</td><td>0.585</td><td>21.51</td><td>46.00</td><td>-24.49</td><td>11.83</td><td>9.58</td><td>0.10</td><td>Average</td></tr><tr><td>6</td><td>0.585</td><td>41.74</td><td>56.00</td><td>-14.26</td><td>32.06</td><td>9.58</td><td>0.10</td><td>QP</td></tr><tr><td>7</td><td>0.630</td><td>22.68</td><td>46.00</td><td>-23.32</td><td>13.00</td><td>9.58</td><td>0.10</td><td>Average</td></tr><tr><td>8</td><td>0.630</td><td>44.24</td><td>56.00</td><td>-11.76</td><td>34.56</td><td>9.58</td><td>0.10</td><td>QP</td></tr><tr><td>9</td><td>0.647</td><td>28.15</td><td>46.00</td><td>-17.85</td><td>18.46</td><td>9.59</td><td>0.10</td><td>Average</td></tr><tr><td>10*</td><td>0.647</td><td>45.07</td><td>56.00</td><td>-10.93</td><td>35.38</td><td>9.59</td><td>0.10</td><td>QP</td></tr><tr><td>11</td><td>19.428</td><td>36.74</td><td>50.00</td><td>-13.26</td><td>26.43</td><td>9.66</td><td>0.65</td><td>Average</td></tr><tr><td>12</td><td>19.428</td><td>42.72</td><td>60.00</td><td>-17.28</td><td>32.41</td><td>9.66</td><td>0.65</td><td>QP</td></tr></table>					Freq	Level	Limit	Over	Read	LISN	cable	Remark		MHz	dBuV	Line	Limit	Level	factor	loss					dBuV	dB	dBuV	dB	dB		1	0.159	24.93	55.52	-30.59	15.35	9.53	0.05	Average	2	0.159	44.94	65.52	-20.58	35.36	9.53	0.05	QP	3	0.195	21.03	53.80	-32.77	11.43	9.54	0.06	Average	4	0.195	41.10	63.80	-22.70	31.50	9.54	0.06	QP	5	0.585	21.51	46.00	-24.49	11.83	9.58	0.10	Average	6	0.585	41.74	56.00	-14.26	32.06	9.58	0.10	QP	7	0.630	22.68	46.00	-23.32	13.00	9.58	0.10	Average	8	0.630	44.24	56.00	-11.76	34.56	9.58	0.10	QP	9	0.647	28.15	46.00	-17.85	18.46	9.59	0.10	Average	10*	0.647	45.07	56.00	-10.93	35.38	9.59	0.10	QP	11	19.428	36.74	50.00	-13.26	26.43	9.66	0.65	Average	12	19.428	42.72	60.00	-17.28	32.41	9.66	0.65	QP
	Freq	Level	Limit	Over	Read	LISN	cable	Remark																																																																																																																																		
	MHz	dBuV	Line	Limit	Level	factor	loss																																																																																																																																			
			dBuV	dB	dBuV	dB	dB																																																																																																																																			
1	0.159	24.93	55.52	-30.59	15.35	9.53	0.05	Average																																																																																																																																		
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Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).																																																																																																																																										
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Modulation	11a	Test Freq. (MHz)	5785
Power Phase	Neutral		



	Freq MHz	Level dBUV	Limit Line dBUV	Over Limit dB	Read Level dBUV	LISN factor dB	cable loss dB	Remark
1	0.153	26.15	55.82	-29.67	16.53	9.57	0.05	Average
2	0.153	44.35	65.82	-21.47	34.73	9.57	0.05	QP
3	0.589	22.60	46.00	-23.40	12.88	9.62	0.10	Average
4	0.589	42.80	56.00	-13.20	33.08	9.62	0.10	QP
5	0.641	30.59	46.00	-15.41	20.86	9.63	0.10	Average
6*	0.641	46.91	56.00	-9.09	37.18	9.63	0.10	QP
7	0.788	25.91	46.00	-20.09	16.17	9.63	0.11	Average
8	0.788	38.73	56.00	-17.27	28.99	9.63	0.11	QP
9	16.750	32.22	50.00	-17.78	21.82	9.78	0.62	Average
10	16.750	39.09	60.00	-20.91	28.69	9.78	0.62	QP
11	19.122	35.29	50.00	-14.71	24.84	9.80	0.65	Average
12	19.122	40.82	60.00	-19.18	30.37	9.80	0.65	QP

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

3.2 Emission Bandwidth

3.2.1 Limit of Emission Bandwidth

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

3.2.2 Test Procedures

26dB Bandwidth

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

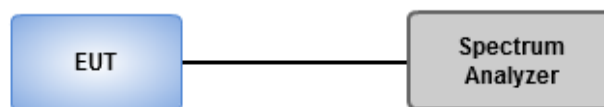
Occupied Bandwidth

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

6dB Bandwidth

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

3.2.3 Test Setup



3.2.4 Test Result of Emission Bandwidth

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	19.71M	16.498M	16M5D1D	19.203M	16.353M
802.11ac VHT20_Nss1,(MCS0)_2TX	20.29M	17.583M	17M6D1D	19.71M	17.438M
802.11ac VHT40_Nss1,(MCS0)_2TX	40.725M	36.179M	36M2D1D	39.855M	36.179M
802.11ac VHT80_Nss1,(MCS0)_2TX	81.739M	75.832M	75M8D1D	80M	75.543M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	19.928M	16.498M	16M5D1D	19.348M	16.353M
802.11ac VHT20_Nss1,(MCS0)_2TX	20.435M	17.583M	17M6D1D	19.783M	17.511M
802.11ac VHT40_Nss1,(MCS0)_2TX	40.58M	36.324M	36M3D1D	39.855M	36.179M
802.11ac VHT80_Nss1,(MCS0)_2TX	82.029M	75.832M	75M8D1D	80.29M	75.543M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	19.71M	16.498M	16M5D1D	14.826M	13.242M
802.11ac VHT20_Nss1,(MCS0)_2TX	20.362M	17.583M	17M6D1D	15.174M	13.849M
802.11ac VHT40_Nss1,(MCS0)_2TX	40.58M	36.179M	36M2D1D	35M	33.025M
802.11ac VHT80_Nss1,(MCS0)_2TX	81.739M	76.122M	76M1D1D	75.217M	72.504M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.304M	16.498M	16M5D1D	3.014M	3.705M
802.11ac VHT20_Nss1,(MCS0)_2TX	16.522M	17.583M	17M6D1D	3.652M	3.994M
802.11ac VHT40_Nss1,(MCS0)_2TX	36.377M	36.179M	36M2D1D	3.014M	4.515M
802.11ac VHT80_Nss1,(MCS0)_2TX	75.942M	76.122M	76M1D1D	3.014M	20.434M

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	-	-	-	-	-	-
5180MHz	Pass	Inf	19.565M	16.498M	19.493M	16.353M
5200MHz	Pass	Inf	19.71M	16.498M	19.275M	16.353M
5240MHz	Pass	Inf	19.638M	16.498M	19.203M	16.353M
5260MHz	Pass	Inf	19.928M	16.498M	19.42M	16.353M
5300MHz	Pass	Inf	19.493M	16.498M	19.348M	16.353M
5320MHz	Pass	Inf	19.493M	16.498M	19.348M	16.353M
5500MHz	Pass	Inf	19.565M	16.498M	19.203M	16.353M
5580MHz	Pass	Inf	19.493M	16.498M	19.42M	16.353M
5700MHz	Pass	Inf	19.71M	16.498M	19.203M	16.353M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	14.87M	13.372M	14.826M	13.242M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.014M	3.821M	3.072M	3.705M
5745MHz	Pass	500k	15.29M	16.498M	15.362M	16.353M
5785MHz	Pass	500k	16.304M	16.425M	16.087M	16.353M
5825MHz	Pass	500k	14.42M	16.498M	16.304M	16.353M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	20.29M	17.583M	19.928M	17.438M
5200MHz	Pass	Inf	20.29M	17.583M	19.928M	17.511M
5240MHz	Pass	Inf	20M	17.583M	19.71M	17.511M
5260MHz	Pass	Inf	20.29M	17.583M	19.855M	17.511M
5300MHz	Pass	Inf	20.29M	17.583M	20M	17.511M
5320MHz	Pass	Inf	20.435M	17.583M	19.783M	17.511M
5500MHz	Pass	Inf	20.362M	17.583M	19.928M	17.438M
5580MHz	Pass	Inf	20.362M	17.583M	20M	17.511M
5700MHz	Pass	Inf	19.928M	17.511M	19.783M	17.511M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.174M	13.849M	15.174M	13.849M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.652M	4.11M	3.652M	3.994M
5745MHz	Pass	500k	14.13M	17.583M	16.522M	17.511M
5785MHz	Pass	500k	15.435M	17.583M	16.522M	17.511M
5825MHz	Pass	500k	15.072M	17.583M	15.725M	17.511M

Mode	Result	Limit	Port 1-N dB	Port 1-OBW	Port 2-N dB	Port 2-OBW
		(Hz)	(Hz)	(Hz)	(Hz)	(Hz)
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	40.435M	36.179M	40.145M	36.179M
5230MHz	Pass	Inf	40.725M	36.179M	39.855M	36.179M
5270MHz	Pass	Inf	40.58M	36.179M	40M	36.324M
5310MHz	Pass	Inf	40.58M	36.179M	39.855M	36.324M
5510MHz	Pass	Inf	40.435M	36.179M	40M	36.179M
5590MHz	Pass	Inf	40.58M	36.179M	40.145M	36.179M
5670MHz	Pass	Inf	40.58M	36.179M	40.29M	36.179M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.406M	33.025M	35M	33.025M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.014M	4.631M	3.014M	4.515M
5755MHz	Pass	500k	35.217M	36.179M	36.377M	36.179M
5795MHz	Pass	500k	34.058M	36.179M	35.217M	36.179M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	81.739M	75.832M	80M	75.543M
5290MHz	Pass	Inf	82.029M	75.832M	80.29M	75.543M
5530MHz	Pass	Inf	81.739M	75.832M	80M	75.543M
5610MHz	Pass	Inf	81.739M	76.122M	80M	75.543M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.652M	72.938M	75.217M	72.504M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.072M	20.55M	3.014M	20.434M
5775MHz	Pass	500k	75.942M	76.122M	75.652M	75.543M

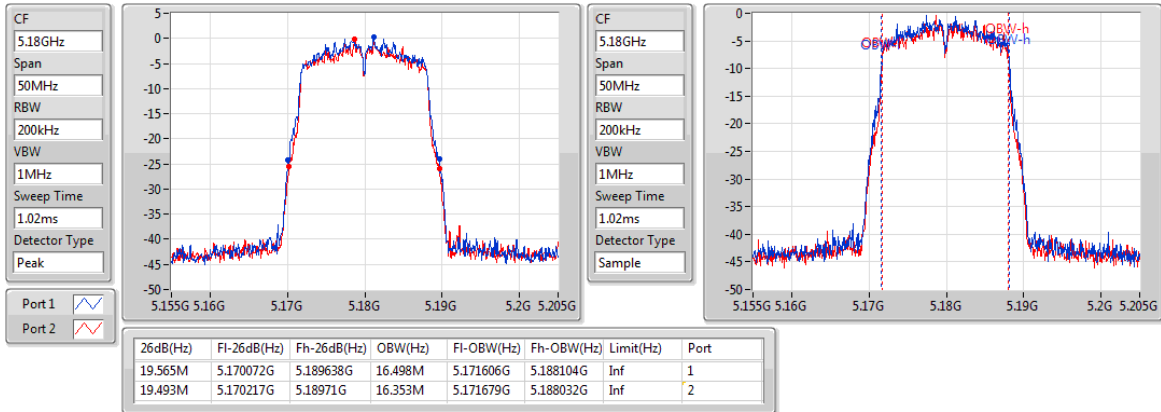
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

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

802.11a_Nss1,(6Mbps)_2TX

EBW

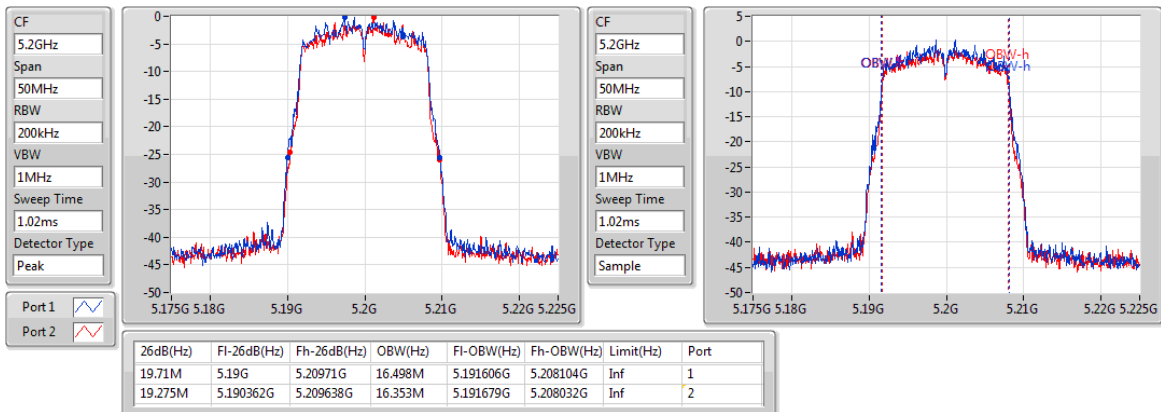
5180MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

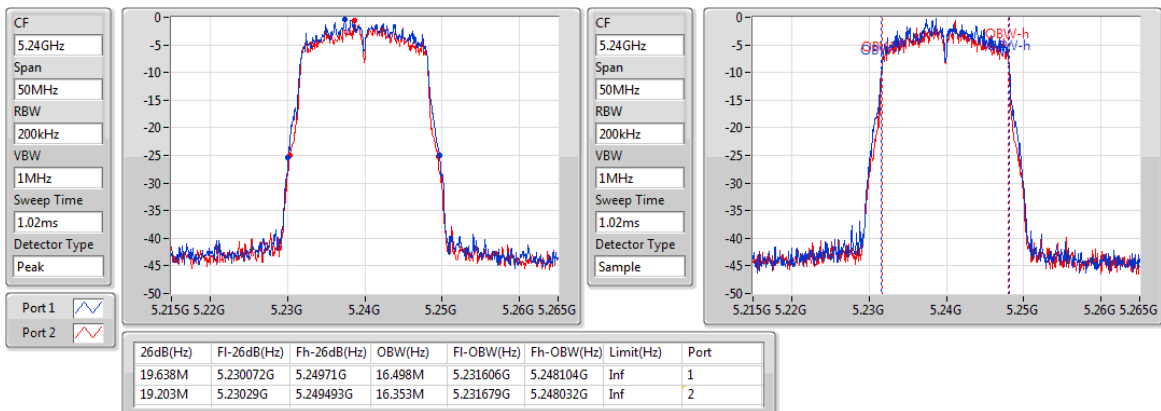
5200MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

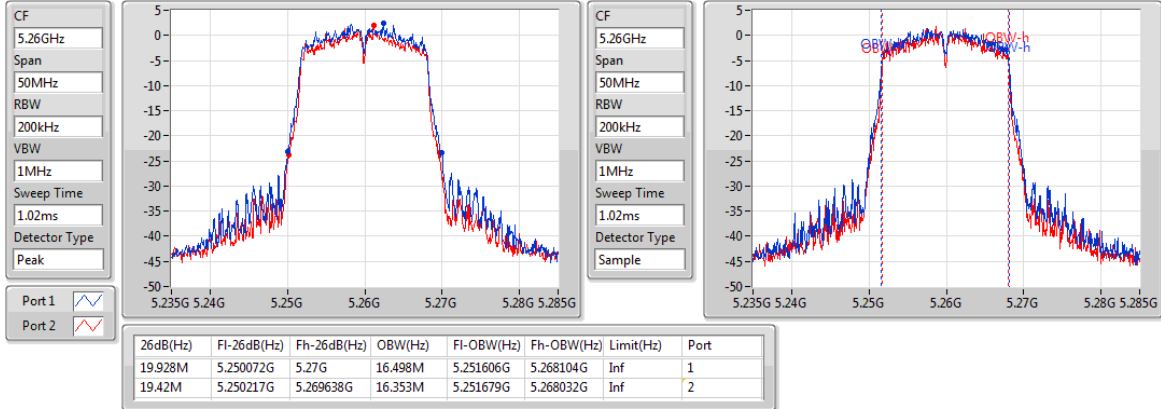
5240MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

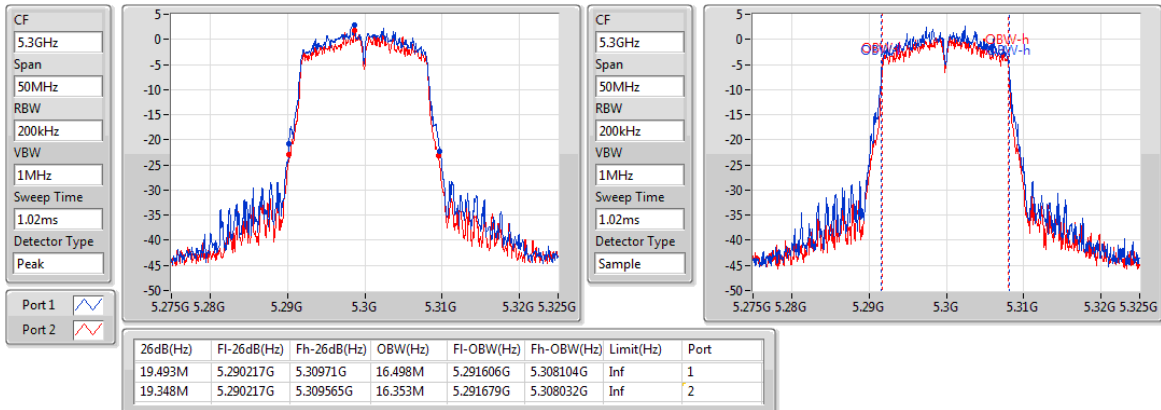
5260MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

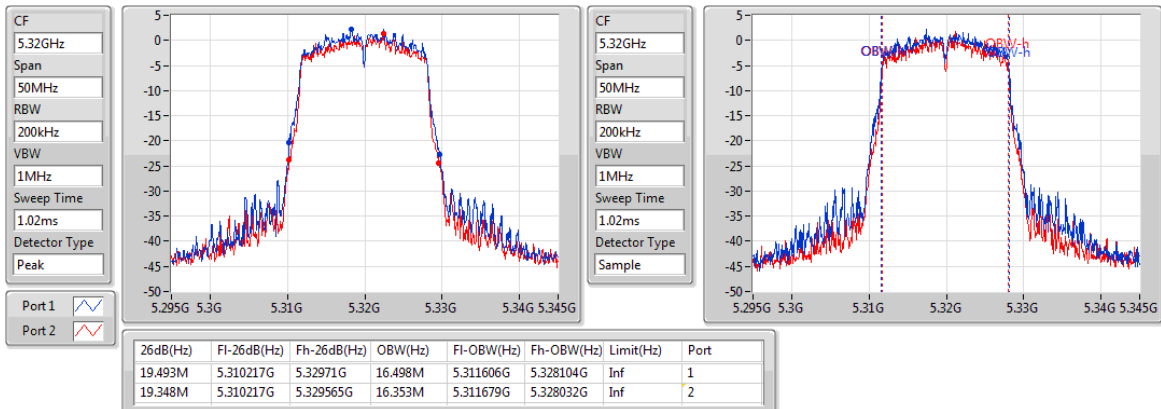
5300MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

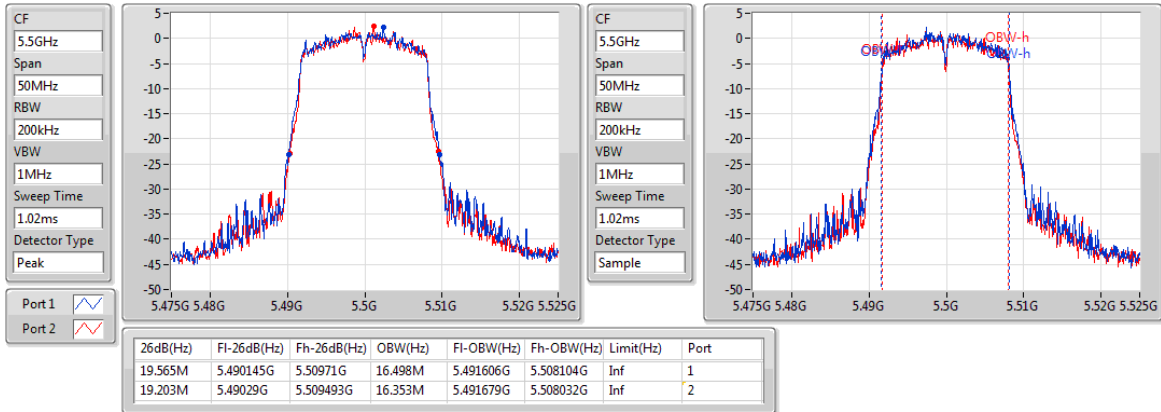
5320MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

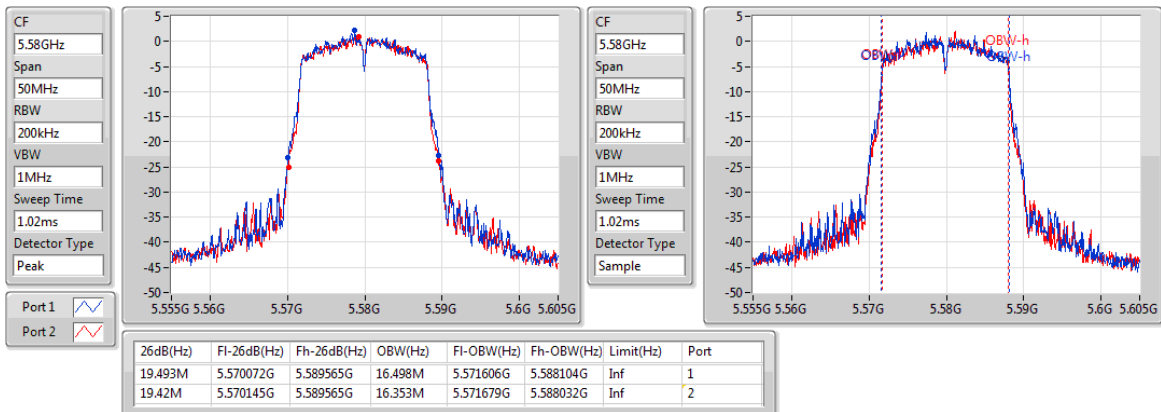
5500MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

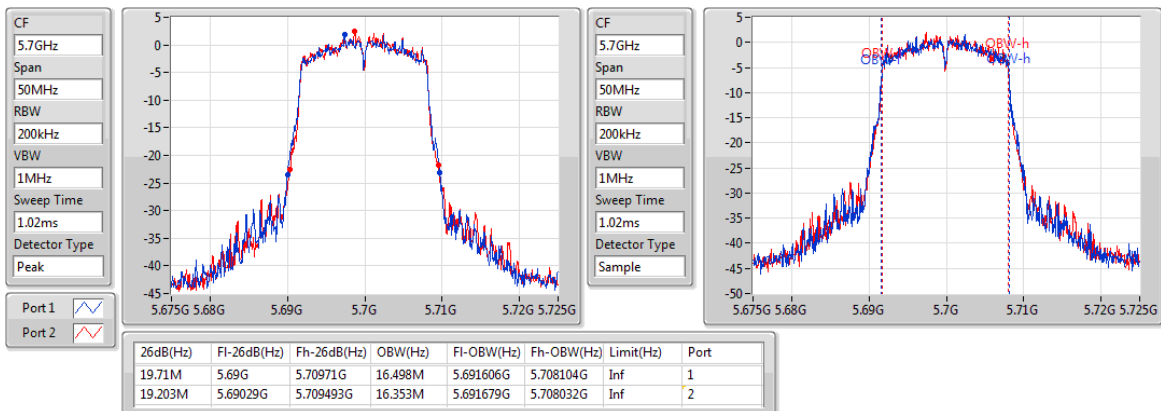
5580MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

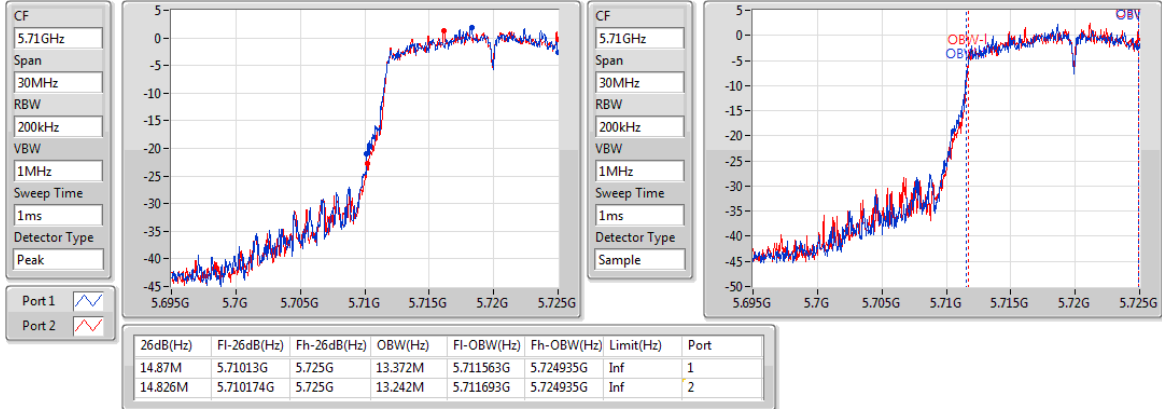
5700MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

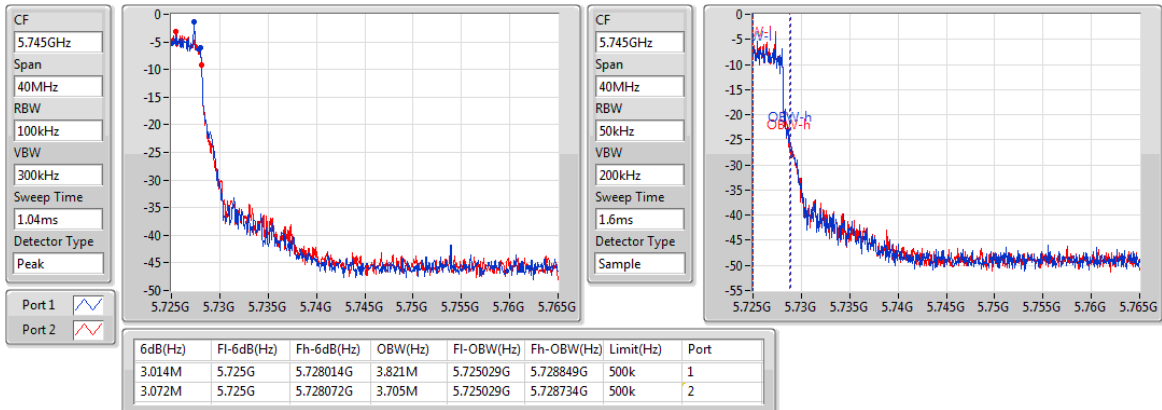
5720MHz Straddle 5.47-5.725GHz



802.11a_Nss1,(6Mbps)_2TX

EBW

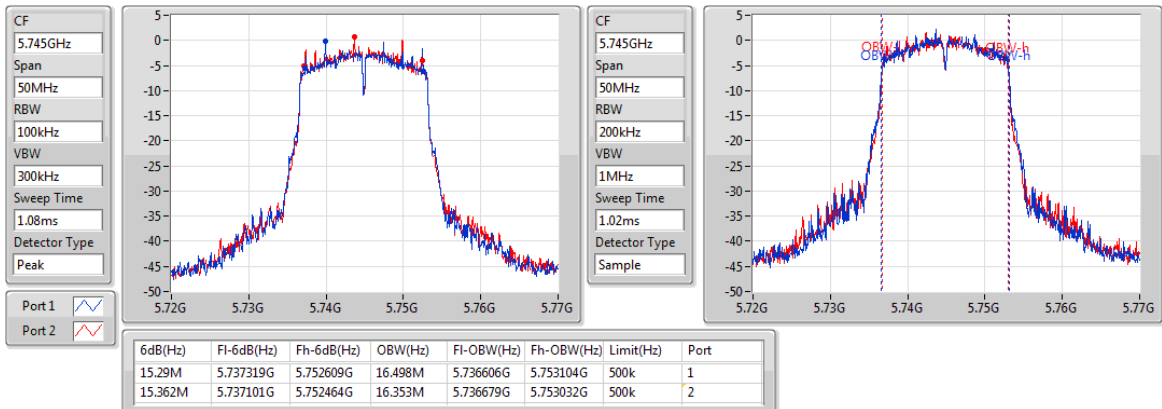
5720MHz Straddle 5.725-5.85GHz



802.11a_Nss1,(6Mbps)_2TX

EBW

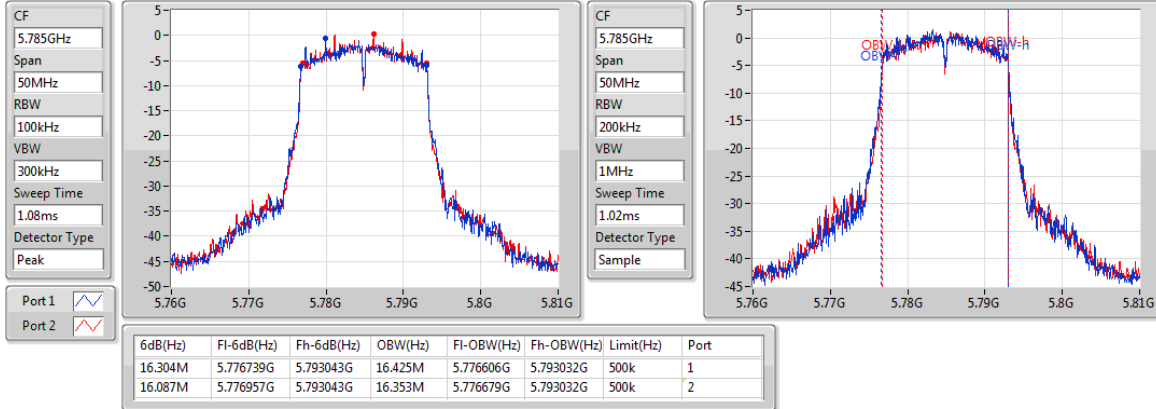
5745MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

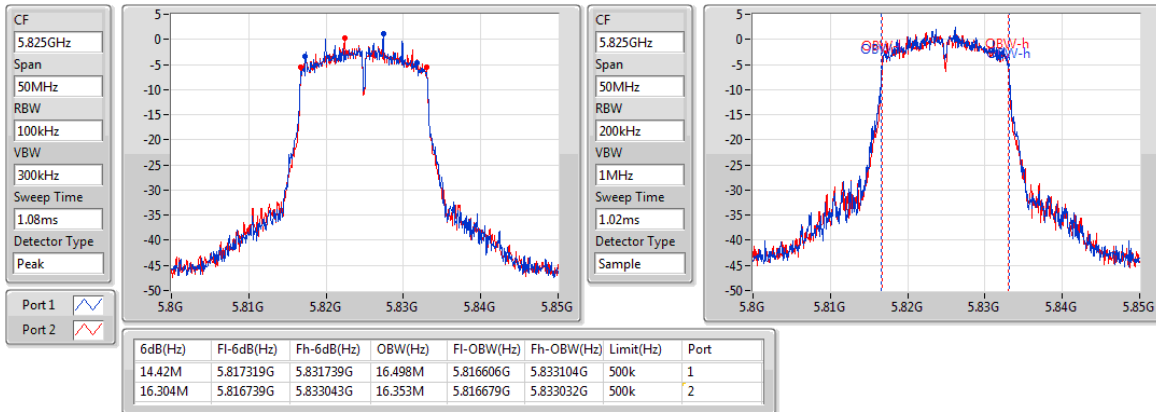
5785MHz



802.11a_Nss1,(6Mbps)_2TX

EBW

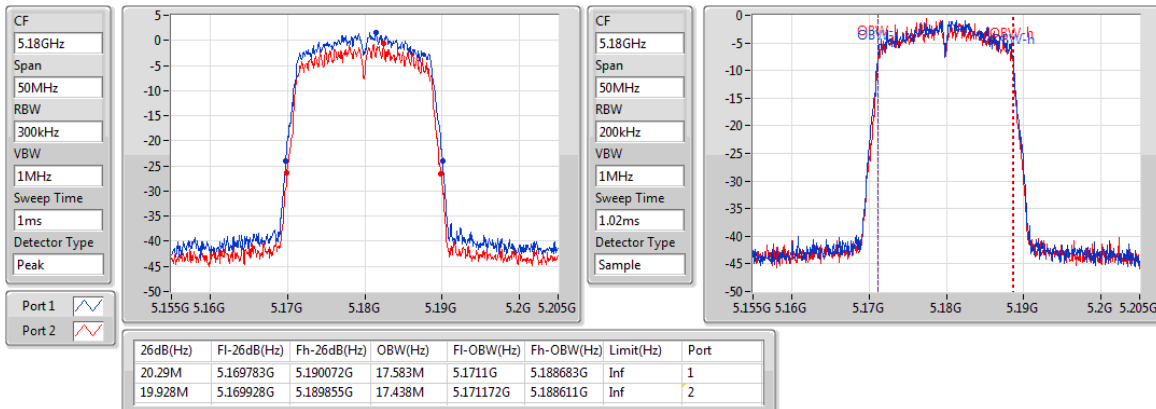
5825MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

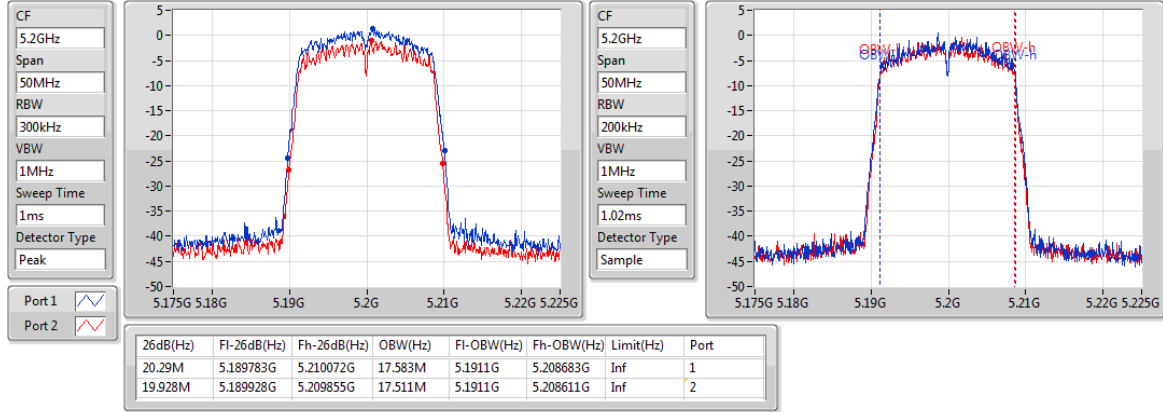
5180MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

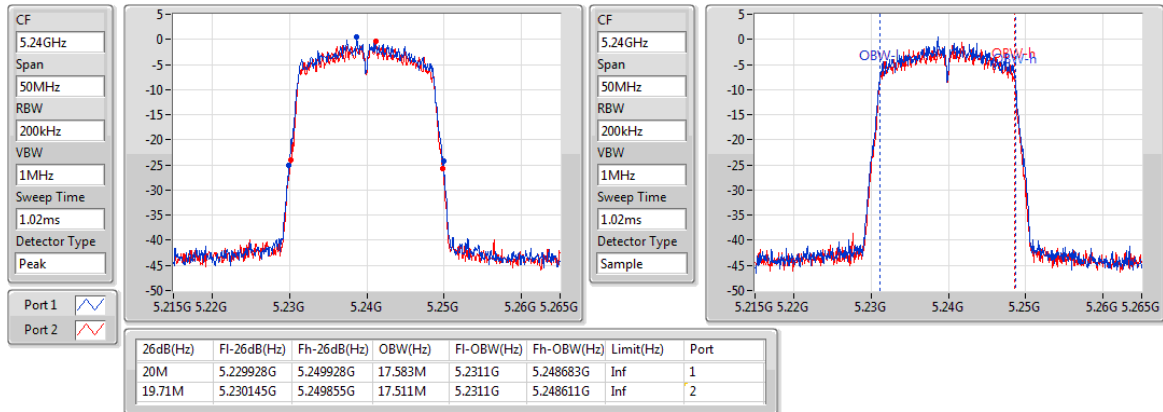
5200MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

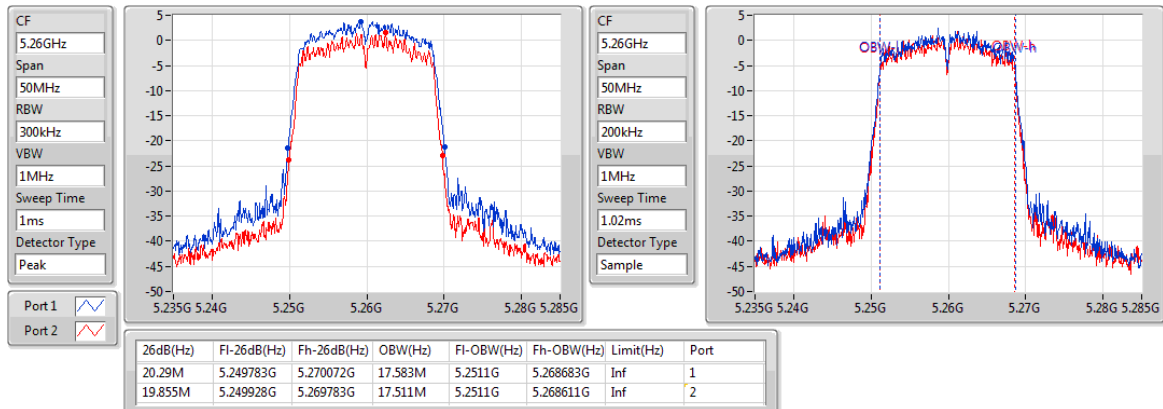
5240MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

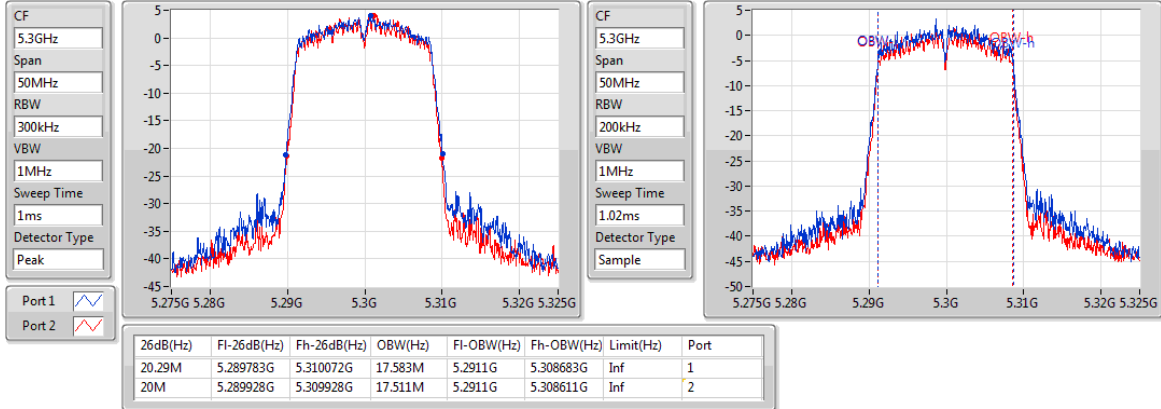
5260MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

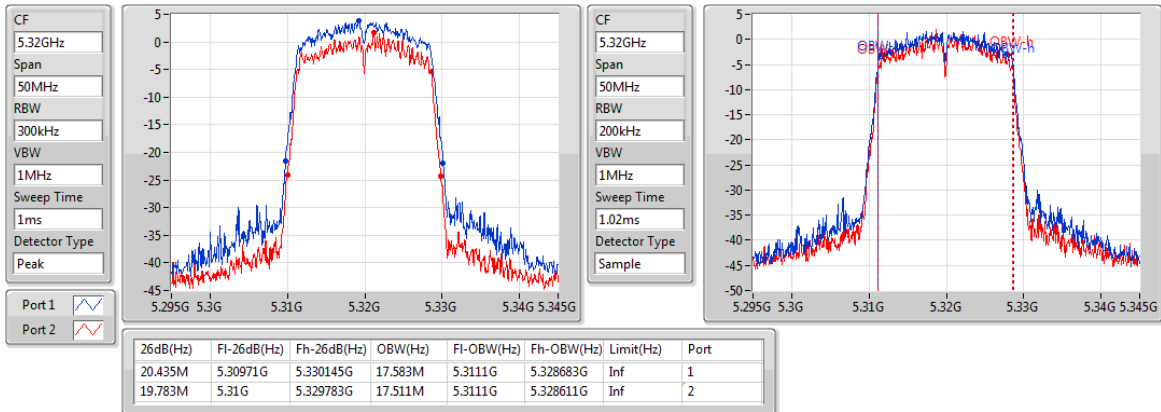
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802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

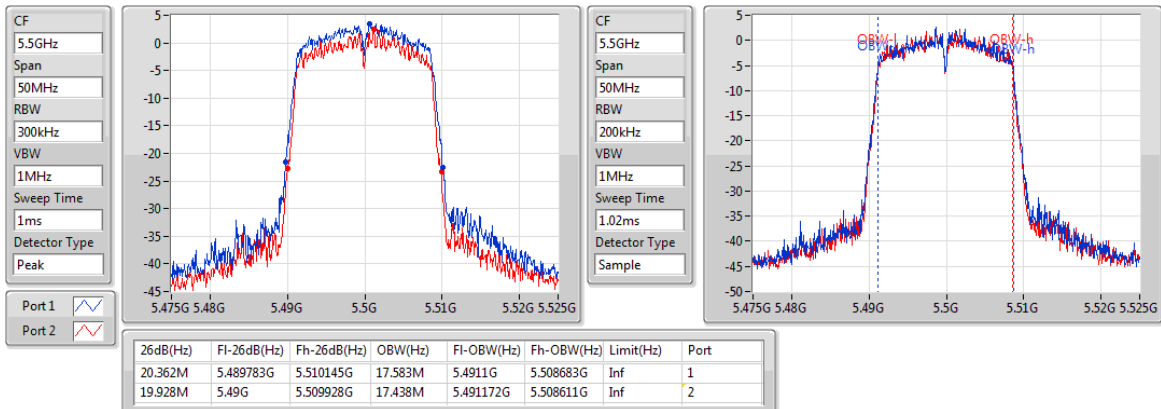
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802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

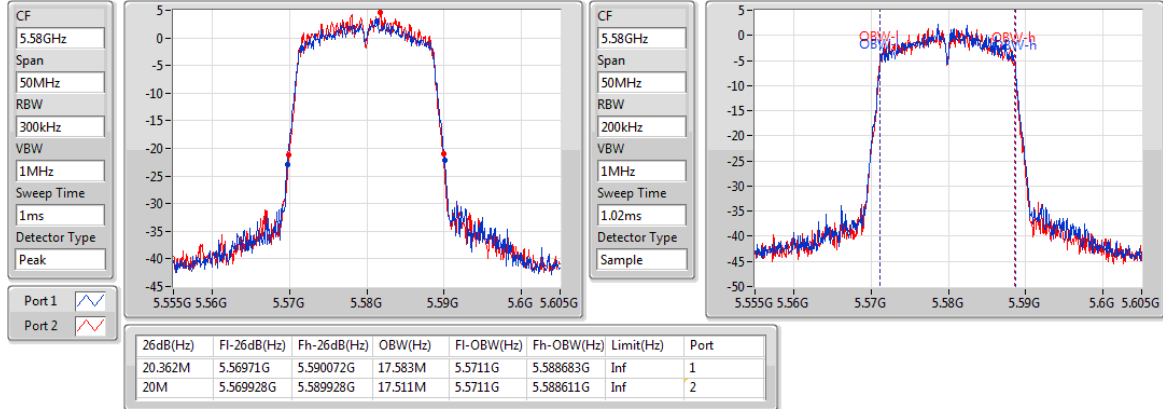
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802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

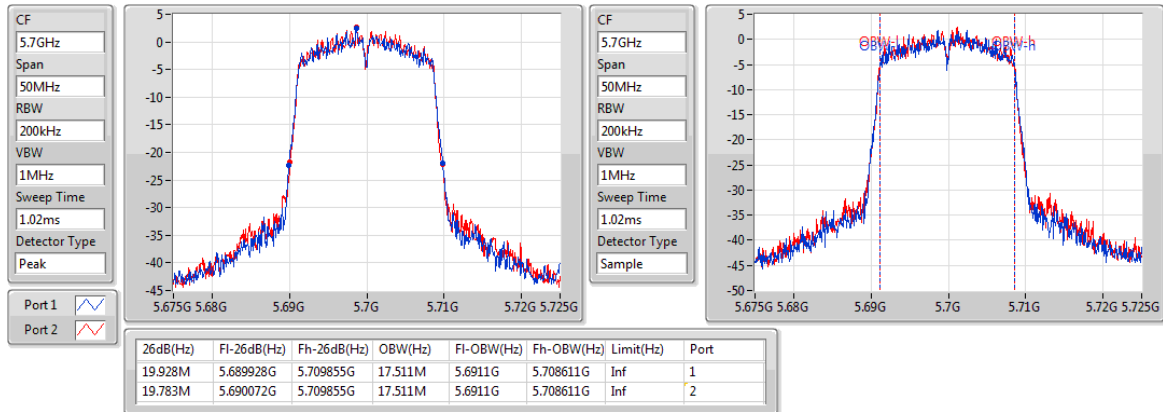
5580MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

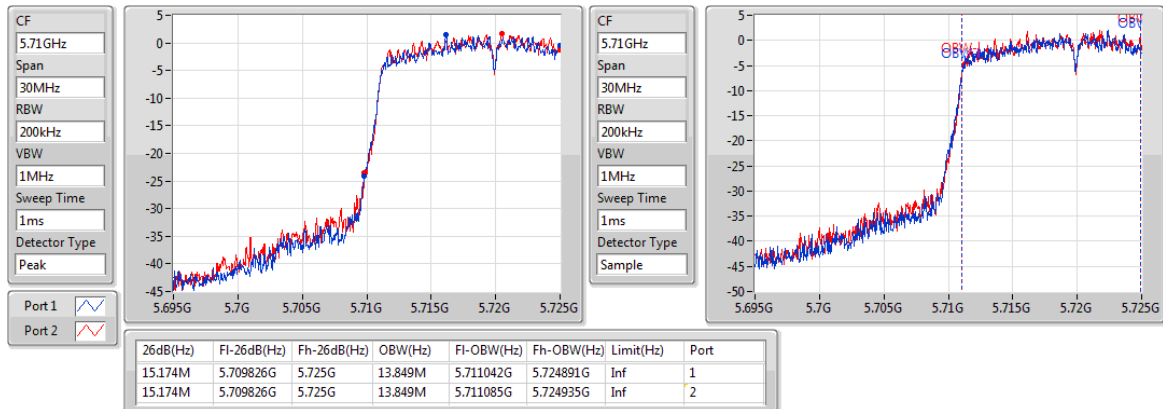
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802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

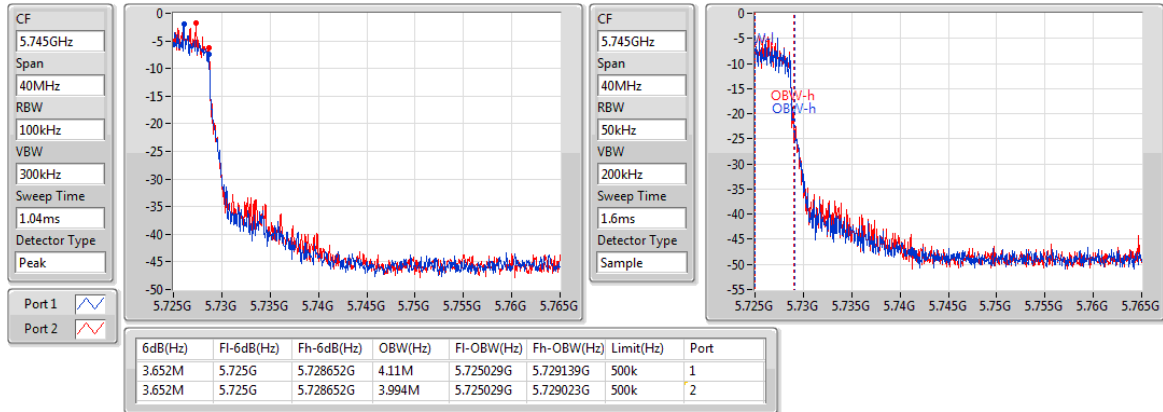
5720MHz Straddle 5.47-5.725GHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

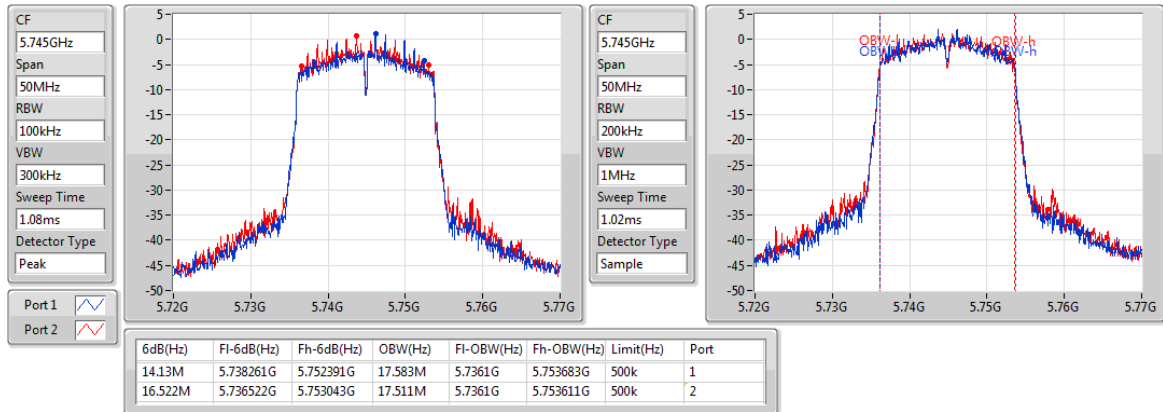
5720MHz Straddle 5.725-5.85GHz



802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

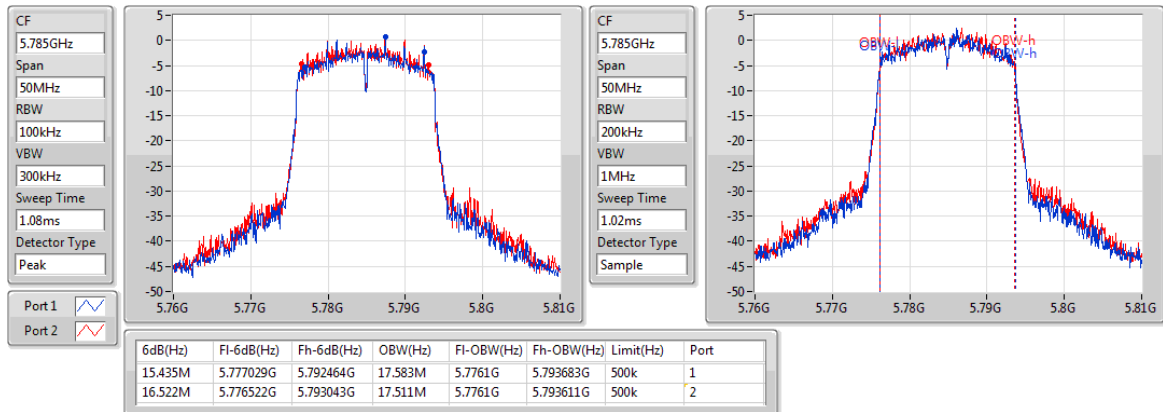
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802.11ac VHT20_Nss1,(MCS0)_2TX

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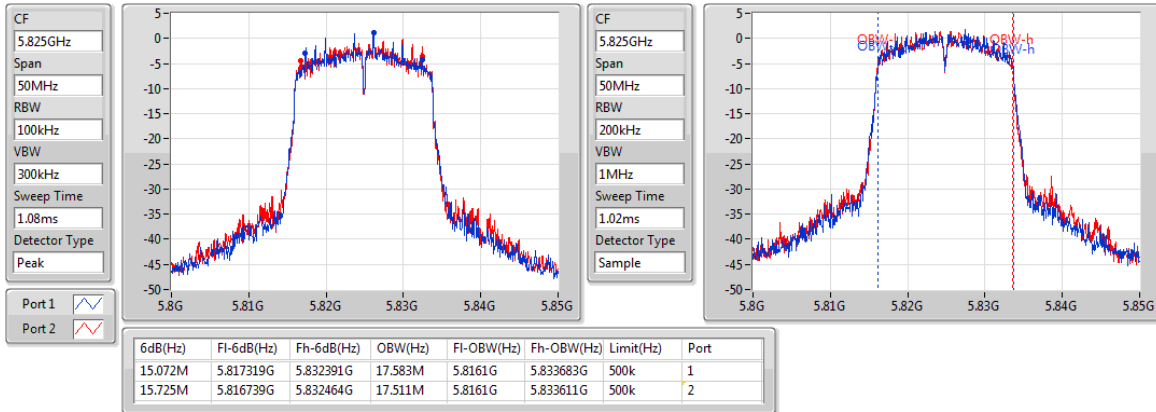
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802.11ac VHT20_Nss1,(MCS0)_2TX

EBW

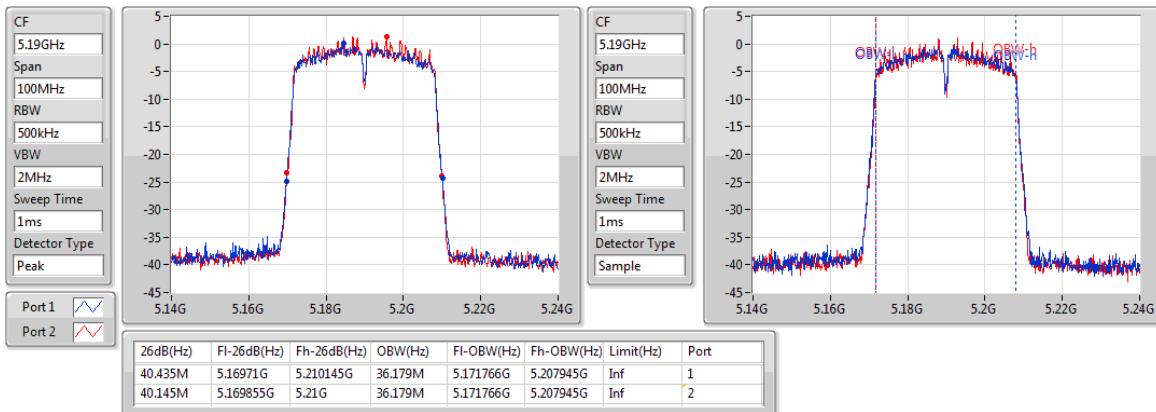
5825MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

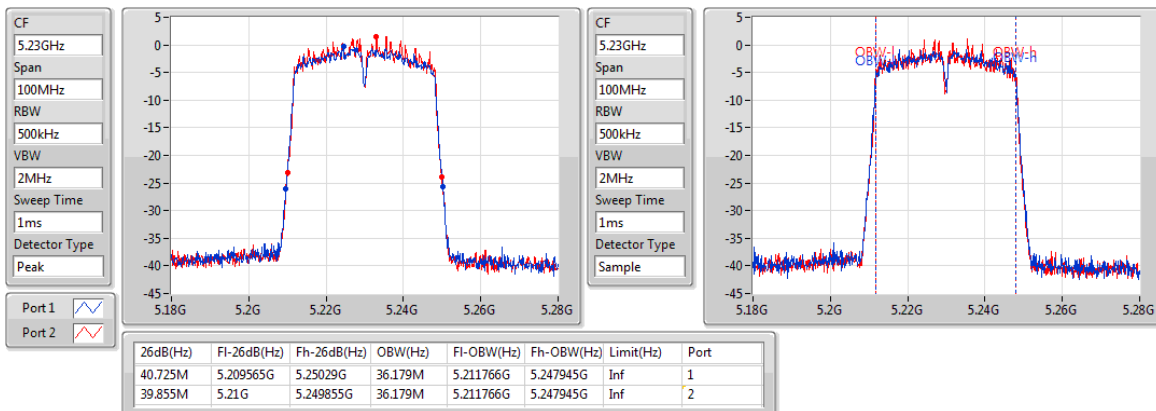
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802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

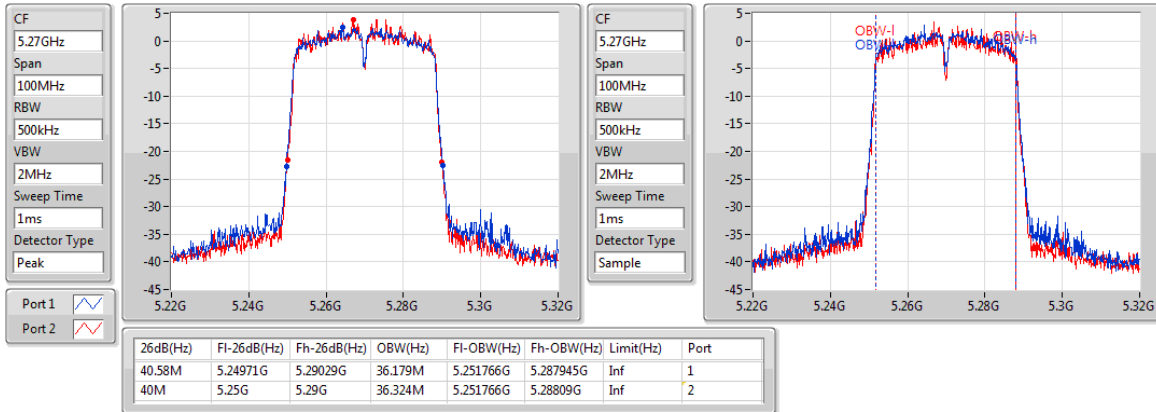
5230MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

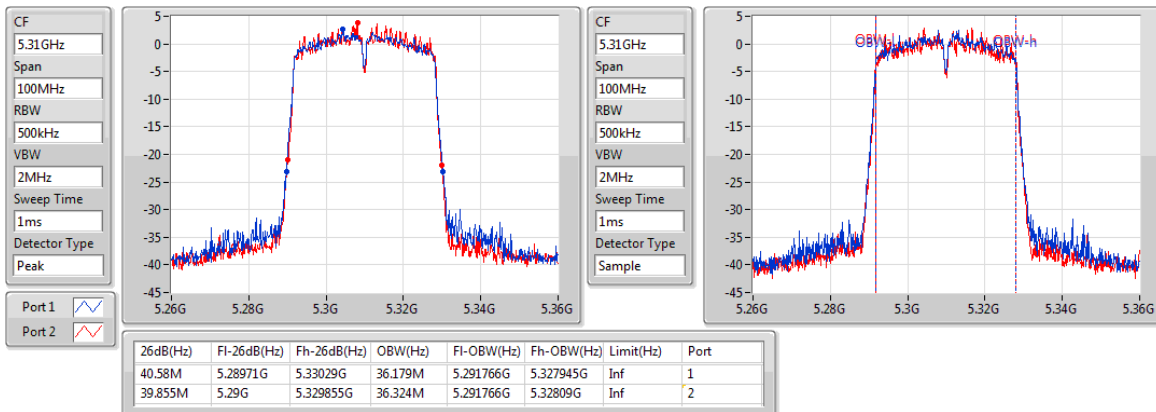
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802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

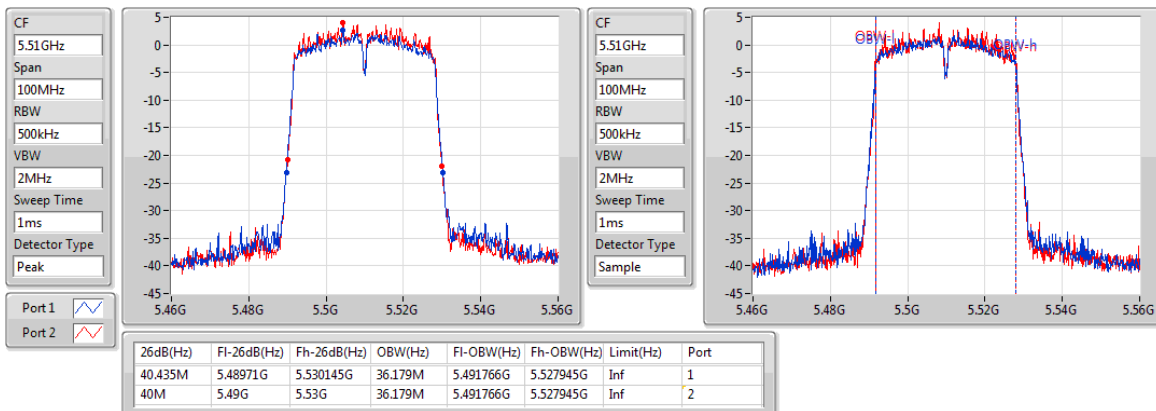
5310MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

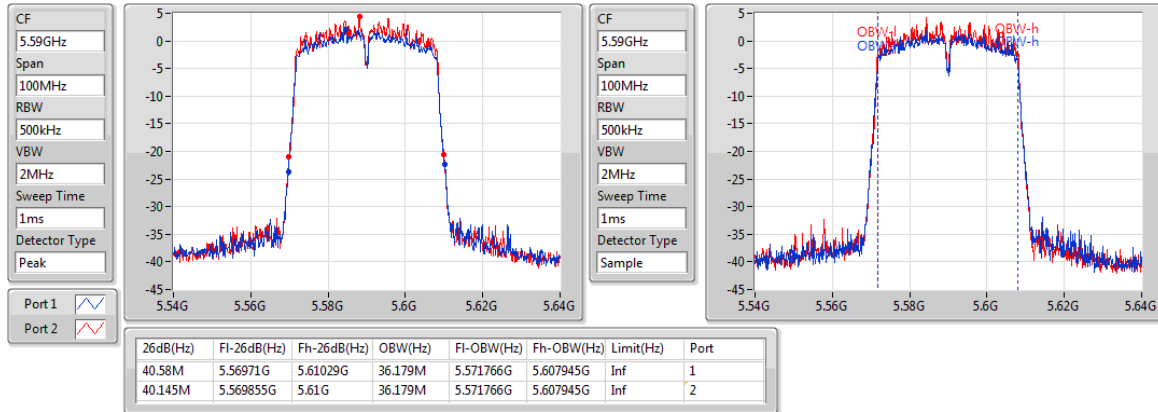
5510MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

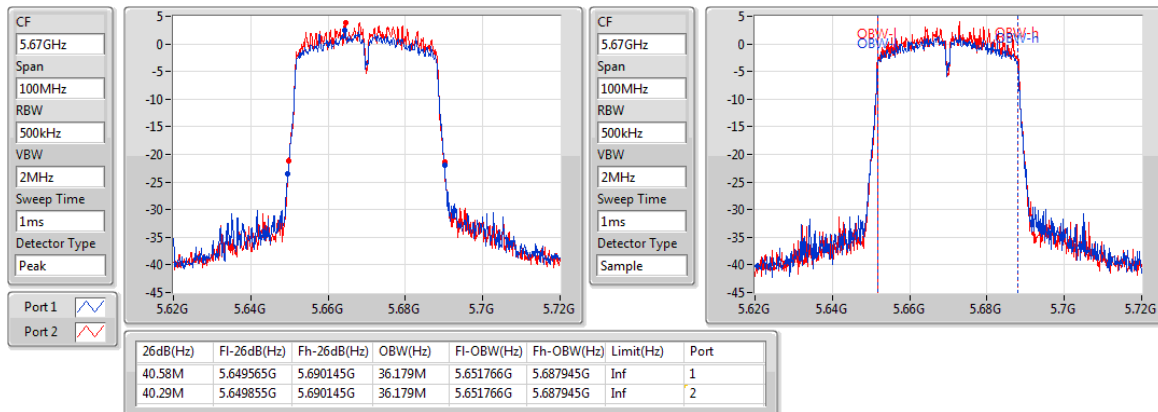
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802.11ac VHT40_Nss1,(MCS0)_2TX

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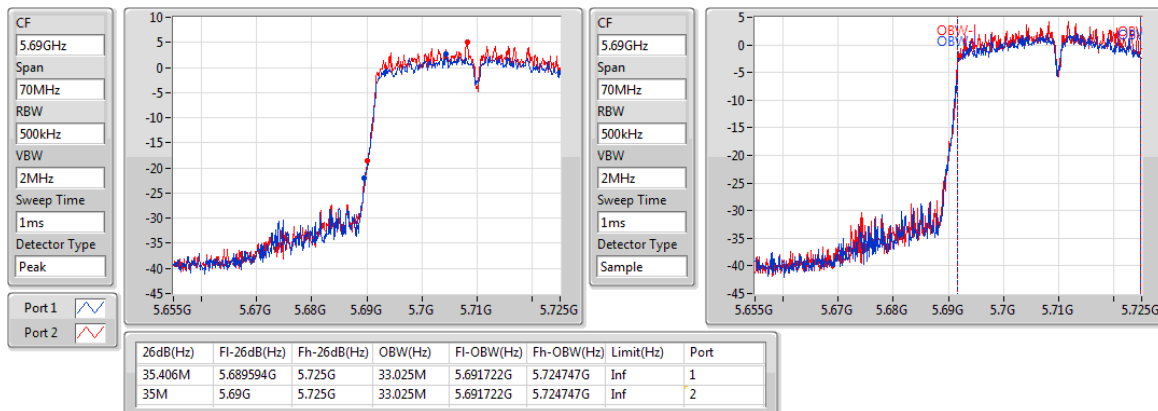
5670MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

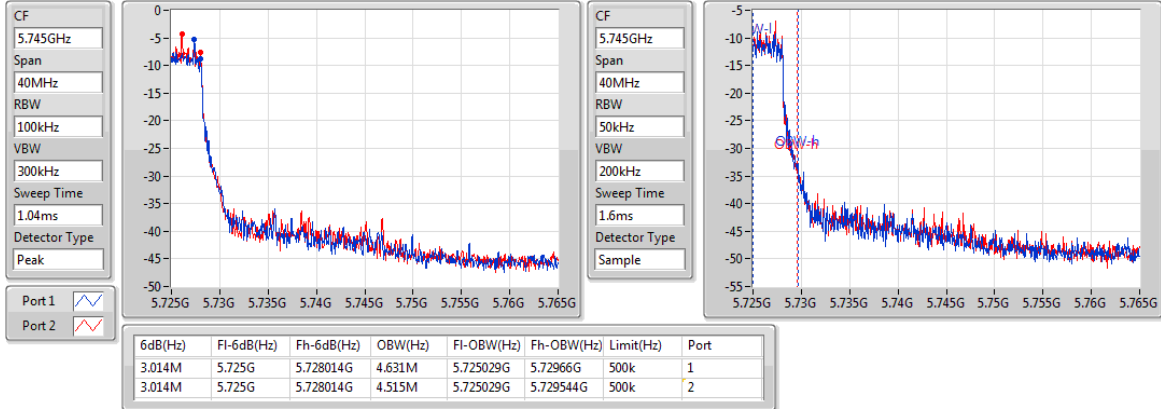
5710MHz Straddle 5.47-5.725GHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

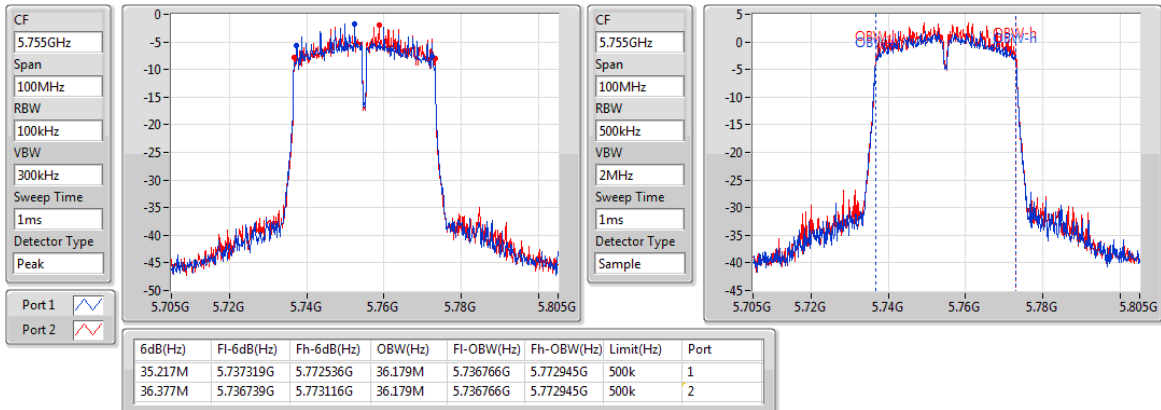
5710MHz Straddle 5.725-5.85GHz



802.11ac VHT40_Nss1,(MCS0)_2TX

EBW

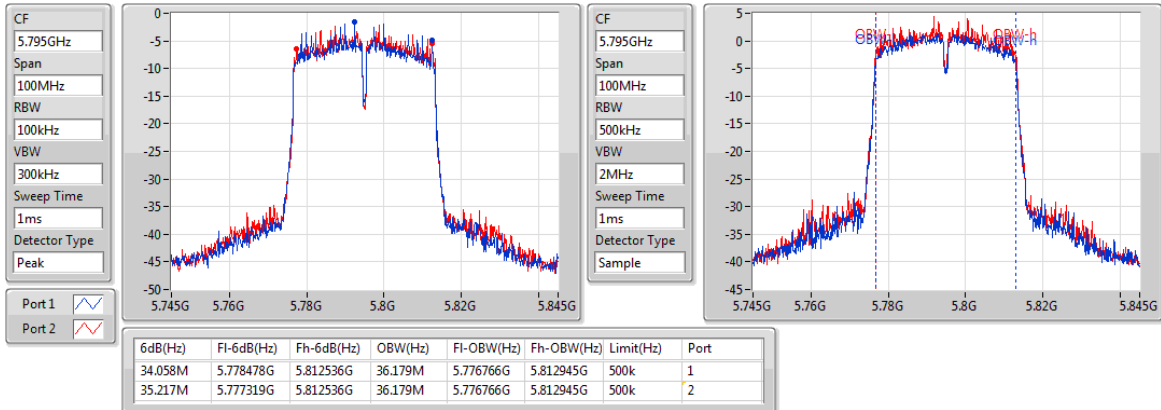
5755MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

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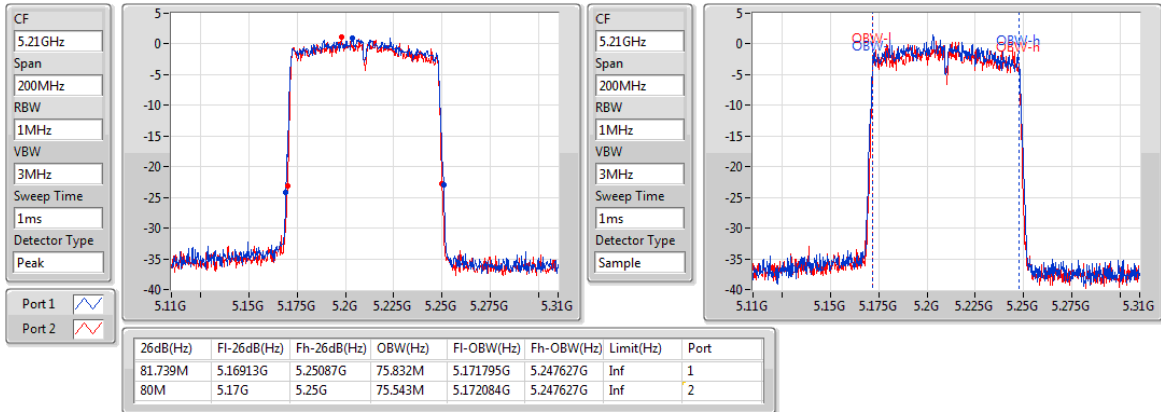
5795MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

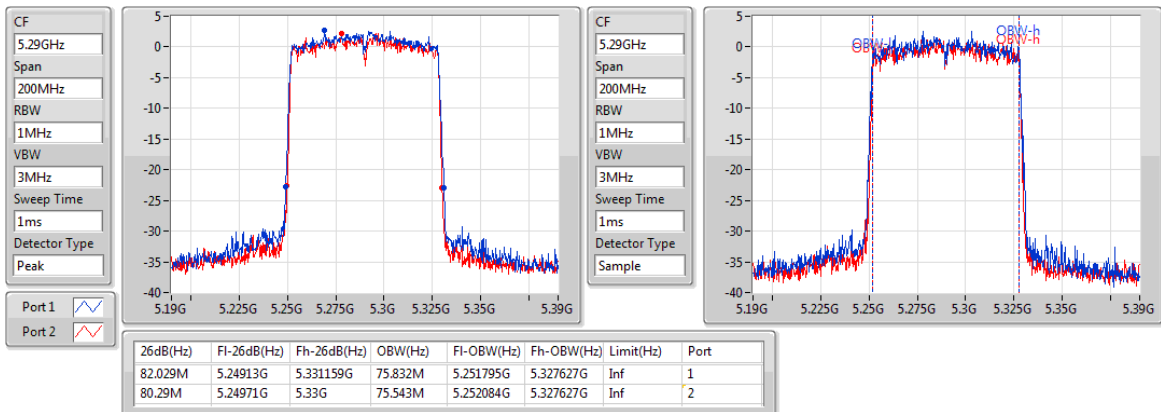
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802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

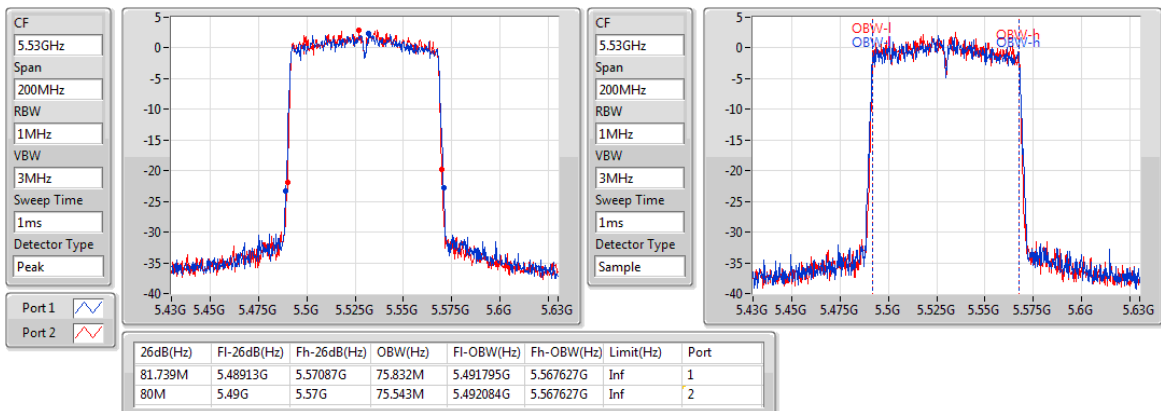
5290MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

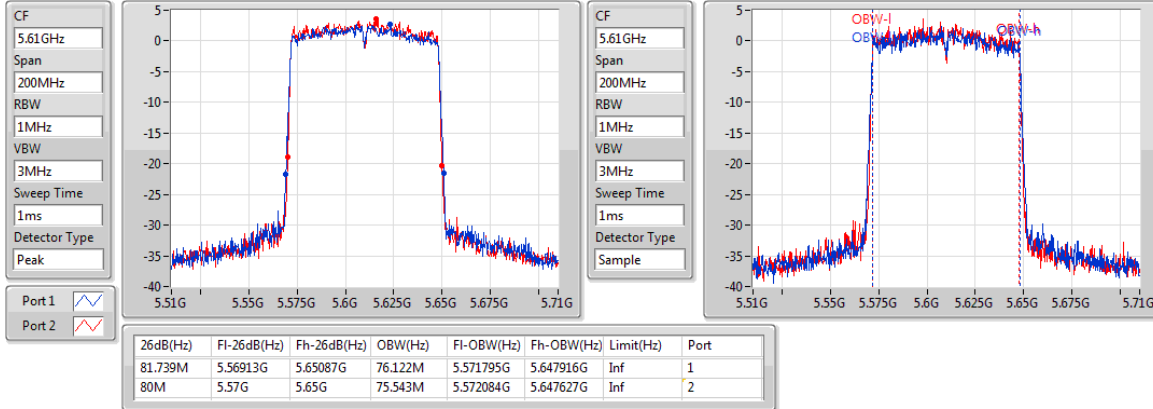
5530MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

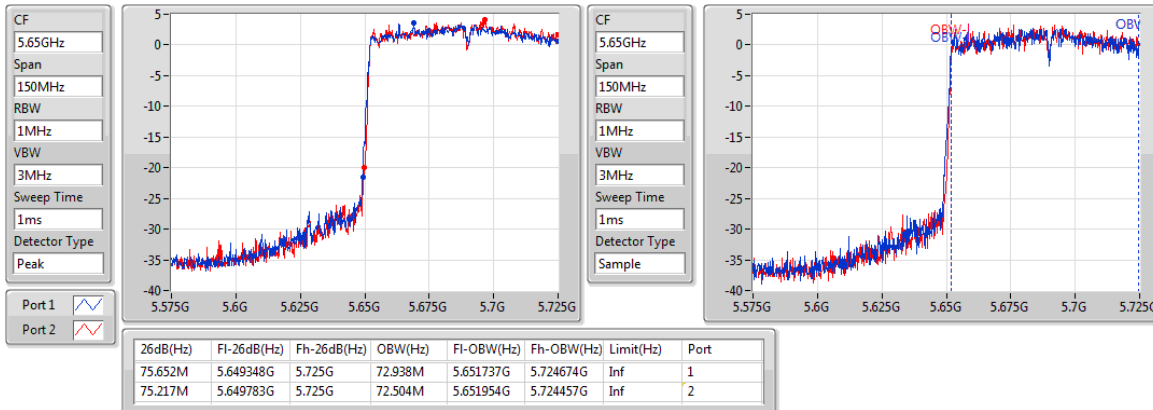
5610MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

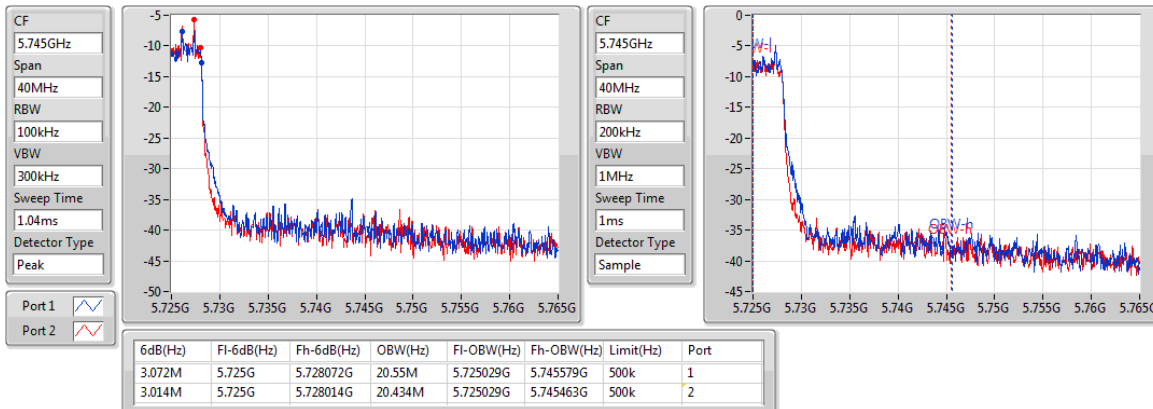
5690MHz Straddle 5.47-5.725GHz



802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

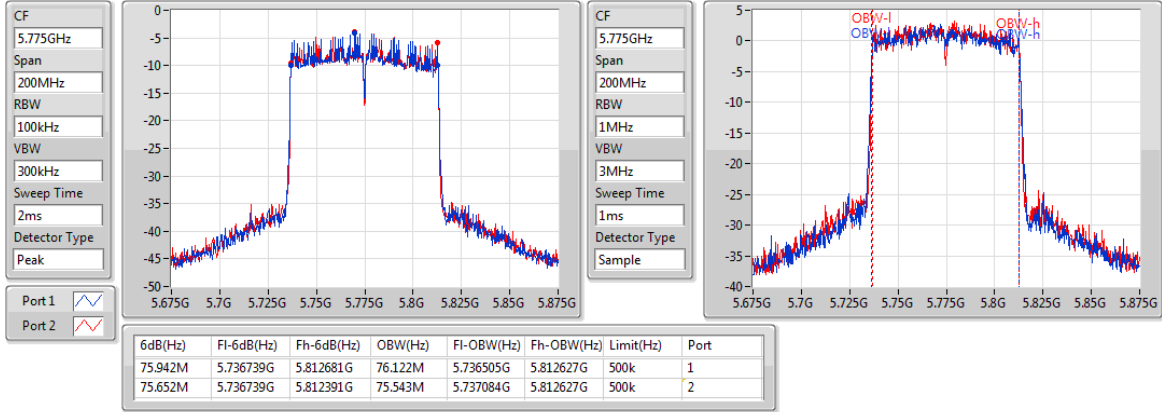
5690MHz Straddle 5.725-5.85GHz



802.11ac VHT80_Nss1,(MCS0)_2TX

EBW

5775MHz



3.3 RF Output Power

3.3.1 Limit of RF Output Power

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

Frequency Band (MHz)		Limit
☒	5250 ~ 5350	Conducted Power: 250mW or 11dBm+10 log B
☒	5470 ~ 5725	Conducted Power: 250mW or 11dBm+10 log B
☒	5725 ~ 5850	Conducted Power: 1 W
Note: "B" is the 26dB emission bandwidth in MHz.		

3.3.2 Test Procedures

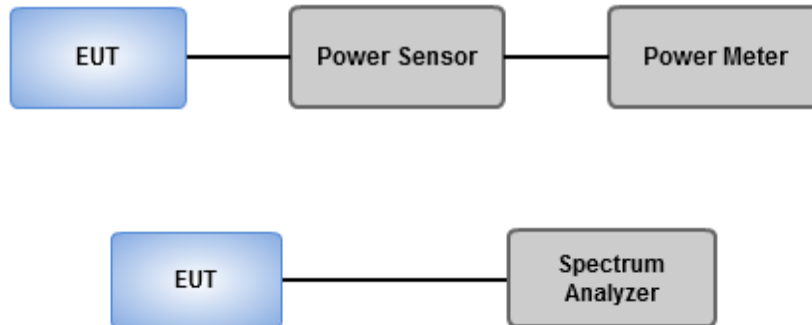
Method PM-G (Measurement using a gated RF average power meter)

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

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

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	13.06	0.02023	16.74	0.04721
802.11ac VHT20_Nss1,(MCS0)_2TX	13.10	0.02042	16.78	0.04764
802.11ac VHT40_Nss1,(MCS0)_2TX	12.82	0.01914	16.50	0.04467
802.11ac VHT80_Nss1,(MCS0)_2TX	12.70	0.01862	16.38	0.04345
5.25-5.35GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	15.49	0.03540	19.72	0.09376
802.11ac VHT20_Nss1,(MCS0)_2TX	15.54	0.03581	19.77	0.09484
802.11ac VHT40_Nss1,(MCS0)_2TX	15.25	0.03350	19.48	0.08872
802.11ac VHT80_Nss1,(MCS0)_2TX	14.03	0.02529	18.26	0.06699
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	15.55	0.03589	19.77	0.09484
802.11ac VHT20_Nss1,(MCS0)_2TX	15.65	0.03673	19.87	0.09705
802.11ac VHT40_Nss1,(MCS0)_2TX	15.44	0.03499	19.66	0.09247
802.11ac VHT80_Nss1,(MCS0)_2TX	15.25	0.03350	19.47	0.08851
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	15.66	0.03681	19.79	0.09528
802.11ac VHT20_Nss1,(MCS0)_2TX	15.60	0.03631	19.73	0.09397
802.11ac VHT40_Nss1,(MCS0)_2TX	15.49	0.03540	19.62	0.09162
802.11ac VHT80_Nss1,(MCS0)_2TX	15.36	0.03436	19.49	0.08892

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	3.68	10.41	9.65	13.06	24.00	16.74	30.00
5200MHz	Pass	3.68	10.35	9.64	13.02	24.00	16.70	30.00
5240MHz	Pass	3.68	10.22	9.46	12.87	24.00	16.55	30.00
5260MHz	Pass	4.23	12.81	12.01	15.44	23.88	19.67	26.99
5300MHz	Pass	4.23	12.83	12.05	15.47	23.87	19.70	26.99
5320MHz	Pass	4.23	12.88	12.04	15.49	23.87	19.72	26.99
5500MHz	Pass	4.22	12.65	12.31	15.49	23.83	19.71	26.99
5580MHz	Pass	4.22	12.39	12.16	15.29	23.88	19.51	26.99
5700MHz	Pass	4.22	12.38	12.69	15.55	23.83	19.77	26.99
5720MHz Straddle 5.47-5.725GHz	Pass	4.22	11.15	11.31	14.24	22.71	18.46	26.99
5720MHz Straddle 5.725-5.85GHz	Pass	4.13	3.8	3.87	6.85	30.00	10.98	36.00
5745MHz	Pass	4.13	12.24	12.65	15.46	30.00	19.59	36.00
5785MHz	Pass	4.13	12.53	12.76	15.66	30.00	19.79	36.00
5825MHz	Pass	4.13	12.29	12.54	15.43	30.00	19.56	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	3.68	10.26	9.91	13.10	24.00	16.78	30.00
5200MHz	Pass	3.68	10.28	9.74	13.03	24.00	16.71	30.00
5240MHz	Pass	3.68	10.15	9.69	12.94	24.00	16.62	30.00
5260MHz	Pass	4.23	12.81	12.19	15.52	23.98	19.75	26.99
5300MHz	Pass	4.23	12.88	12.14	15.54	24.00	19.77	26.99
5320MHz	Pass	4.23	12.83	12.09	15.49	23.96	19.72	26.99
5500MHz	Pass	4.22	12.64	12.63	15.65	23.99	19.87	26.99
5580MHz	Pass	4.22	12.28	12.41	15.36	24.00	19.58	26.99
5700MHz	Pass	4.22	12.16	12.74	15.47	23.96	19.69	26.99
5720MHz Straddle 5.47-5.725GHz	Pass	4.22	11.44	11.81	14.64	22.81	18.86	26.99
5720MHz Straddle 5.725-5.85GHz	Pass	4.13	4.01	4.4	7.22	30.00	11.35	36.00
5745MHz	Pass	4.13	12.19	12.78	15.51	30.00	19.64	36.00
5785MHz	Pass	4.13	12.35	12.81	15.60	30.00	19.73	36.00
5825MHz	Pass	4.13	12.19	12.62	15.42	30.00	19.55	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	3.68	10.11	9.49	12.82	24.00	16.50	30.00
5230MHz	Pass	3.68	10.02	9.46	12.76	24.00	16.44	30.00
5270MHz	Pass	4.23	12.55	11.86	15.23	24.00	19.46	26.99
5310MHz	Pass	4.23	12.62	11.83	15.25	24.00	19.48	26.99

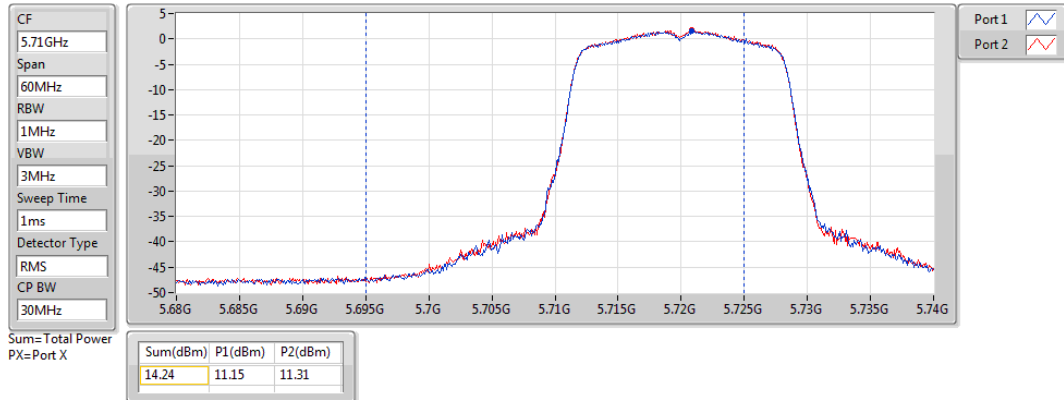
Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
5510MHz	Pass	4.22	12.46	12.14	15.31	24.00	19.53	26.99
5590MHz	Pass	4.22	12.44	12.41	15.44	24.00	19.66	26.99
5670MHz	Pass	4.22	12.28	12.26	15.28	24.00	19.50	26.99
5710MHz Straddle 5.47-5.725GHz	Pass	4.22	11.78	11.8	14.80	24.00	19.02	26.99
5710MHz Straddle 5.725-5.85GHz	Pass	4.13	0.41	0.57	3.50	30.00	7.63	36.00
5755MHz	Pass	4.13	12.36	12.59	15.49	30.00	19.62	36.00
5795MHz	Pass	4.13	12.24	12.52	15.39	30.00	19.52	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	3.68	10.02	9.33	12.70	24.00	16.38	30.00
5290MHz	Pass	4.23	11.36	10.66	14.03	24.00	18.26	26.99
5530MHz	Pass	4.22	10.68	10.65	13.68	24.00	17.90	26.99
5610MHz	Pass	4.22	12.04	12.36	15.21	24.00	19.43	26.99
5690MHz Straddle 5.47-5.725GHz	Pass	4.22	12.35	12.13	15.25	24.00	19.47	26.99
5690MHz Straddle 5.725-5.85GHz	Pass	4.13	-1.54	-1.69	1.40	30.00	5.53	36.00
5775MHz	Pass	4.13	12.22	12.48	15.36	30.00	19.49	36.00

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

802.11a_Nss1,(6Mbps)_2TX

AV Power

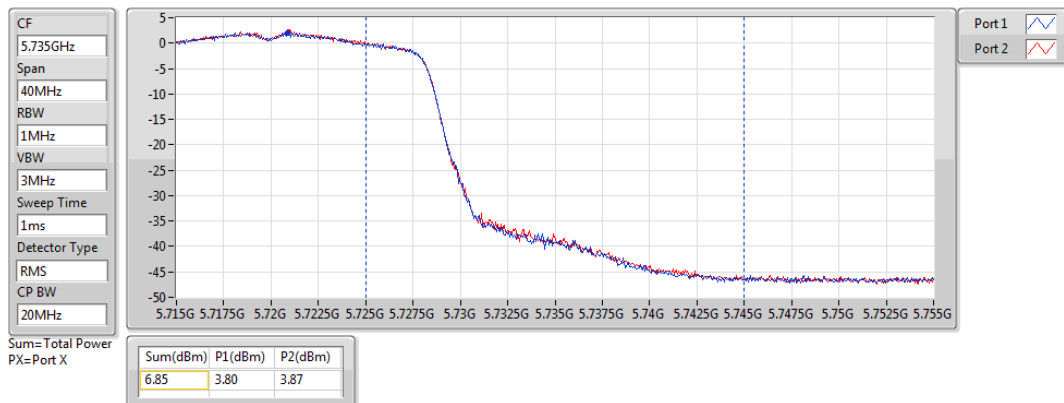
5720MHz Straddle 5.47-5.725GHz



802.11a_Nss1,(6Mbps)_2TX

AV Power

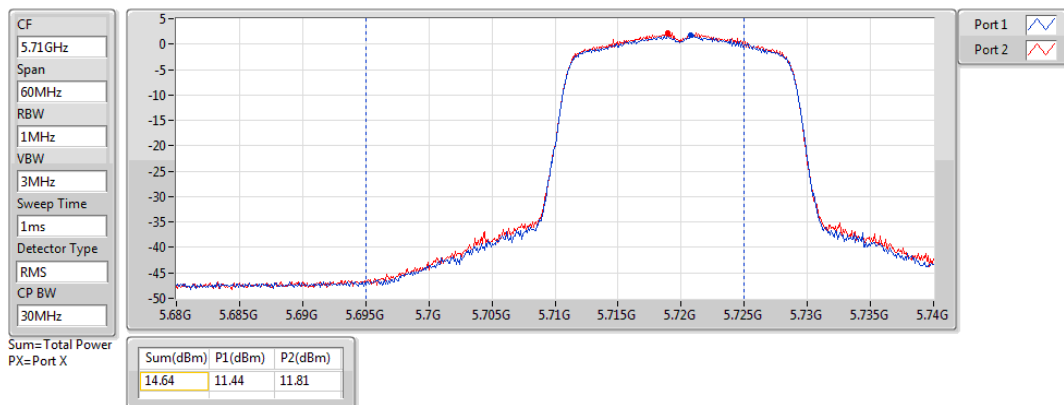
5720MHz Straddle 5.725-5.85GHz



802.11ac VHT20_Nss1,(MCS0)_2TX

AV Power

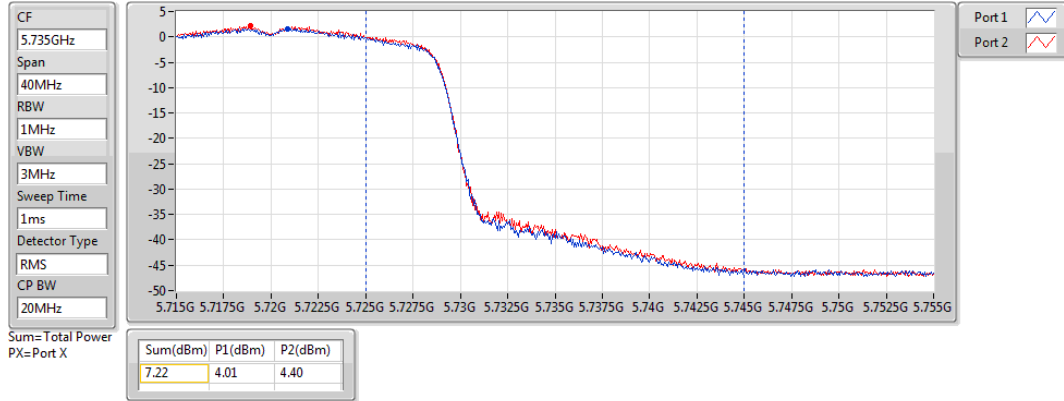
5720MHz Straddle 5.47-5.725GHz



802.11ac VHT20_Nss1,(MCS0)_2TX

AV Power

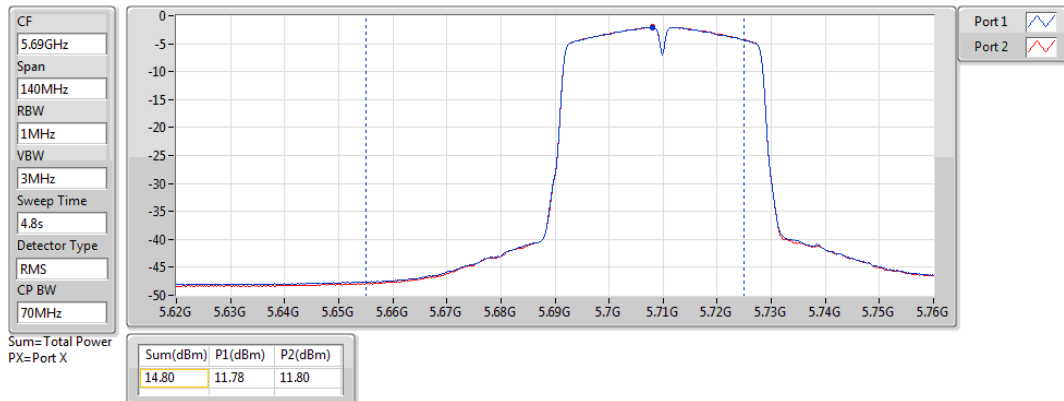
5720MHz Straddle 5.725-5.85GHz



802.11ac VHT40_Nss1,(MCS0)_2TX

AV Power

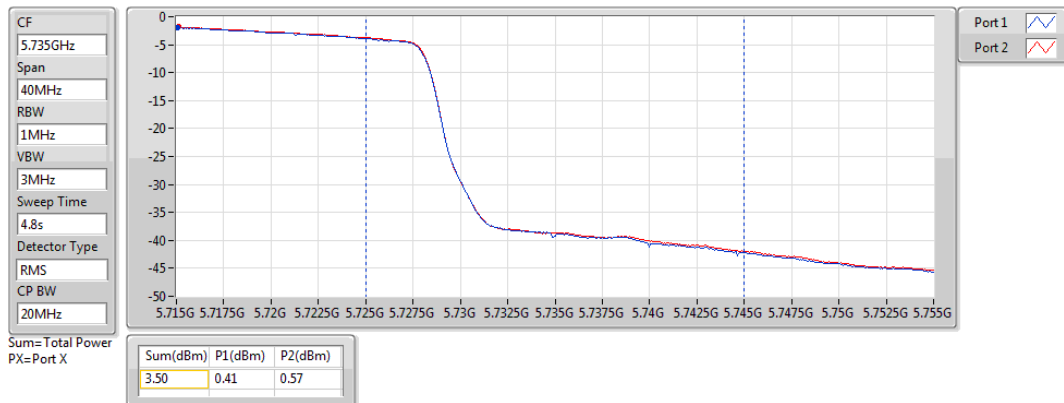
5710MHz Straddle 5.47-5.725GHz



802.11ac VHT40_Nss1,(MCS0)_2TX

AV Power

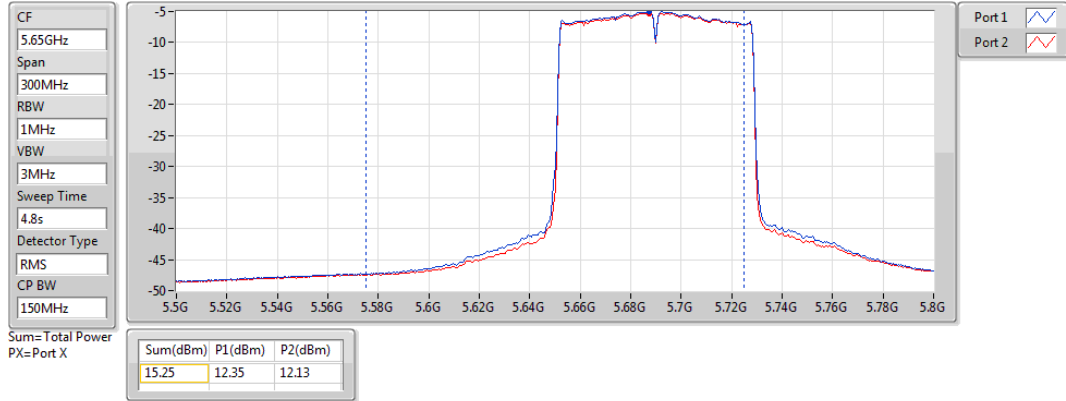
5710MHz Straddle 5.725-5.85GHz



802.11ac VHT80_Nss1,(MCS0)_2TX

AV Power

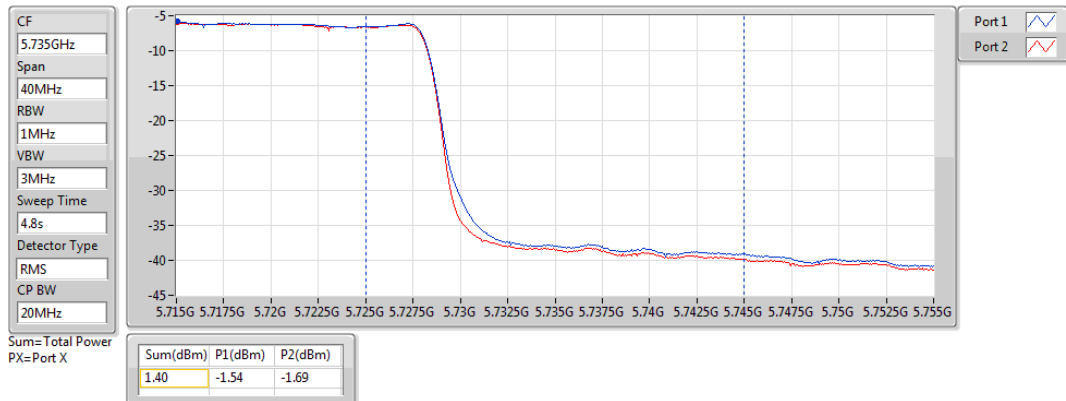
5690MHz Straddle 5.47-5.725GHz



802.11ac VHT80_Nss1,(MCS0)_2TX

AV Power

5690MHz Straddle 5.725-5.85GHz



3.4 Peak Power Spectral Density

3.4.1 Limit of Peak Power Spectral Density

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

Frequency Band (MHz)		Limit
☒	5250 ~ 5350	11 dBm / MHz
☒	5470 ~ 5725	11 dBm / MHz
☒	5725 ~ 5850	30 dBm /500 kHz

3.4.2 Test Procedures

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

Duty cycle $\geq 98\%$

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

Duty cycle $< 98\%$

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

For 5725 ~ 5850 MHz

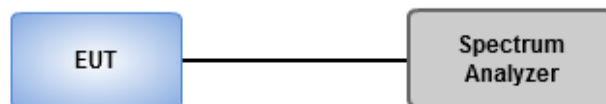
Duty cycle $\geq 98\%$

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

Duty cycle $< 98\%$

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

3.4.3 Test Setup



3.4.4 Test Result of Peak Power Spectral Density

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	1.28	7.89
802.11ac VHT20_Nss1,(MCS0)_2TX	0.95	7.56
802.11ac VHT40_Nss1,(MCS0)_2TX	-3.11	3.50
802.11ac VHT80_Nss1,(MCS0)_2TX	-5.97	0.64
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	3.39	10.54
802.11ac VHT20_Nss1,(MCS0)_2TX	3.25	10.40
802.11ac VHT40_Nss1,(MCS0)_2TX	-0.77	6.38
802.11ac VHT80_Nss1,(MCS0)_2TX	-4.51	2.64
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	3.61	10.68
802.11ac VHT20_Nss1,(MCS0)_2TX	3.22	10.29
802.11ac VHT40_Nss1,(MCS0)_2TX	-0.26	6.81
802.11ac VHT80_Nss1,(MCS0)_2TX	-3.09	3.98
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	2.11	8.95
802.11ac VHT20_Nss1,(MCS0)_2TX	2.11	8.95
802.11ac VHT40_Nss1,(MCS0)_2TX	-2.02	4.82
802.11ac VHT80_Nss1,(MCS0)_2TX	-4.86	1.98

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/R BW)	Port 2 (dBm/R BW)	PD (dBm/R BW)	PD Limit (dBm/R BW)	EIRP PD (dBm/R BW)	EIRP PD Limit (dBm/R BW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	6.61	-1.39	-1.95	1.28	10.39	7.89	17.00
5200MHz	Pass	6.61	-1.59	-2.25	0.96	10.39	7.57	17.00
5240MHz	Pass	6.61	-1.59	-1.87	1.15	10.39	7.76	17.00
5260MHz	Pass	7.15	0.87	-0.03	3.27	9.85	10.42	17.00
5300MHz	Pass	7.15	0.81	-0.19	3.21	9.85	10.36	17.00
5320MHz	Pass	7.15	1.10	-0.13	3.39	9.85	10.54	17.00
5500MHz	Pass	7.07	0.79	0.40	3.61	9.93	10.68	17.00
5580MHz	Pass	7.07	0.20	0.07	3.05	9.93	10.12	17.00
5700MHz	Pass	7.07	0.20	0.58	3.31	9.93	10.38	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	7.07	0.26	0.48	3.29	9.93	10.36	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	6.84	-3.45	-3.03	-0.27	29.16	6.57	36.00
5745MHz	Pass	6.84	-1.01	-1.17	1.71	29.16	8.55	36.00
5785MHz	Pass	6.84	-0.94	-0.44	2.11	29.16	8.95	36.00
5825MHz	Pass	6.84	-1.11	-1.30	1.67	29.16	8.51	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	6.61	-1.65	-2.16	0.90	10.39	7.51	17.00
5200MHz	Pass	6.61	-1.91	-2.18	0.95	10.39	7.56	17.00
5240MHz	Pass	6.61	-1.92	-2.36	0.80	10.39	7.41	17.00
5260MHz	Pass	7.15	0.84	-0.14	3.25	9.85	10.40	17.00
5300MHz	Pass	7.15	0.81	-0.22	3.19	9.85	10.34	17.00
5320MHz	Pass	7.15	0.95	-0.28	3.14	9.85	10.29	17.00
5500MHz	Pass	7.07	0.64	0.43	3.22	9.93	10.29	17.00
5580MHz	Pass	7.07	0.10	0.14	3.02	9.93	10.09	17.00
5700MHz	Pass	7.07	0.15	0.40	3.20	9.93	10.27	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	7.07	-0.06	0.64	3.13	9.93	10.20	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	6.84	-3.06	-3.43	-0.42	29.16	6.42	36.00
5745MHz	Pass	6.84	-1.38	-1.27	1.69	29.16	8.53	36.00
5785MHz	Pass	6.84	-0.92	-0.77	2.11	29.16	8.95	36.00
5825MHz	Pass	6.84	-1.16	-1.18	1.84	29.16	8.68	36.00

Mode	Result	DG (dBi)	Port 1 (dBm/R BW)	Port 2 (dBm/R BW)	PD (dBm/R BW)	PD Limit (dBm/R BW)	EIRP PD (dBm/R BW)	EIRP PD Limit (dBm/R BW)
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	6.61	-5.89	-6.35	-3.11	10.39	3.50	17.00
5230MHz	Pass	6.61	-5.89	-6.65	-3.28	10.39	3.33	17.00
5270MHz	Pass	7.15	-3.30	-4.39	-0.82	9.85	6.33	17.00
5310MHz	Pass	7.15	-3.17	-4.46	-0.77	9.85	6.38	17.00
5510MHz	Pass	7.07	-3.60	-3.92	-0.76	9.93	6.31	17.00
5590MHz	Pass	7.07	-3.65	-3.60	-0.69	9.93	6.38	17.00
5670MHz	Pass	7.07	-3.70	-3.85	-0.78	9.93	6.29	17.00
5710MHz Straddle 5.47-5.725GHz	Pass	7.07	-3.36	-3.18	-0.26	9.93	6.81	17.00
5710MHz Straddle 5.725-5.85GHz	Pass	6.84	-7.21	-6.99	-4.09	29.16	2.75	36.00
5755MHz	Pass	6.84	-5.00	-5.06	-2.02	29.16	4.82	36.00
5795MHz	Pass	6.84	-5.03	-5.12	-2.12	29.16	4.72	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	6.61	-8.64	-9.36	-5.97	10.39	0.64	17.00
5290MHz	Pass	7.15	-7.07	-8.03	-4.51	9.85	2.64	17.00
5530MHz	Pass	7.07	-7.38	-7.49	-4.42	9.93	2.65	17.00
5610MHz	Pass	7.07	-6.95	-6.83	-3.88	9.93	3.19	17.00
5690MHz Straddle 5.47-5.725GHz	Pass	7.07	-5.95	-6.16	-3.09	9.93	3.98	17.00
5690MHz Straddle 5.725-5.85GHz	Pass	6.84	-9.17	-9.40	-6.27	29.16	0.57	36.00
5775MHz	Pass	6.84	-7.94	-7.77	-4.86	29.16	1.98	36.00

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 Xpower density;

For 5.15 ~ 5.25 GHz

Directional gain = $10 * \log((10^{3.51/20} + 10^{3.68/20})^2 / 2) = 6.61 \text{ dBi} > 6 \text{ dBi}$

Limit shall be reduced to 11 dBm – (6.61 dBi – 6 dBi) = 10.39 dBm

For 5.25 ~ 5.35 GHz

Directional gain = $10 * \log((10^{4.05/20} + 10^{4.23/20})^2 / 2) = 7.15 \text{ dBi} > 6 \text{ dBi}$

Limit shall be reduced to 11 dBm – (7.15dBi – 6 dBi) = 9.85dBm

For 5.47 ~ 5.725 GHz

Directional gain = $10 * \log((10^{3.9/20} + 10^{4.22/20})^2 / 2) = 7.07 \text{ dBi} > 6 \text{ dBi}$

Limit shall be reduced to 11 dBm – (7.07 dBi – 6 dBi) = 9.93 dBm

For 5.725 ~ 5.85 GHz

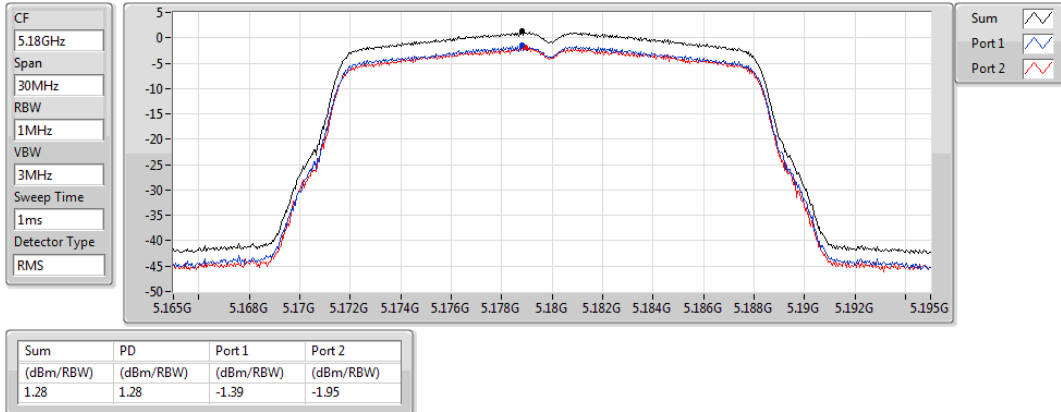
Directional gain = $10 * \log((10^{3.52/20} + 10^{4.13/20})^2 / 2) = 6.84 \text{ dBi} > 6 \text{ dBi}$

Limit shall be reduced to 30 dBm – (6.84 dBi – 6 dBi) = 29.16 dBm

802.11a_Nss1,(6Mbps)_2TX

PSD

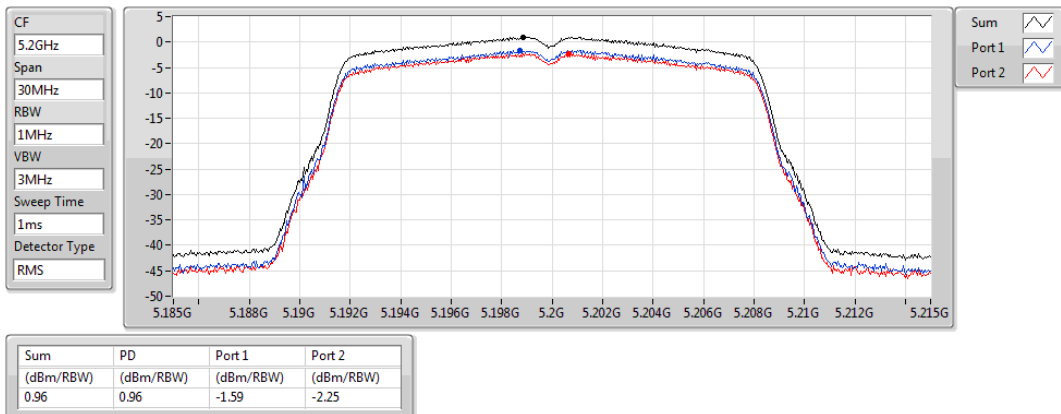
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802.11a_Nss1,(6Mbps)_2TX

PSD

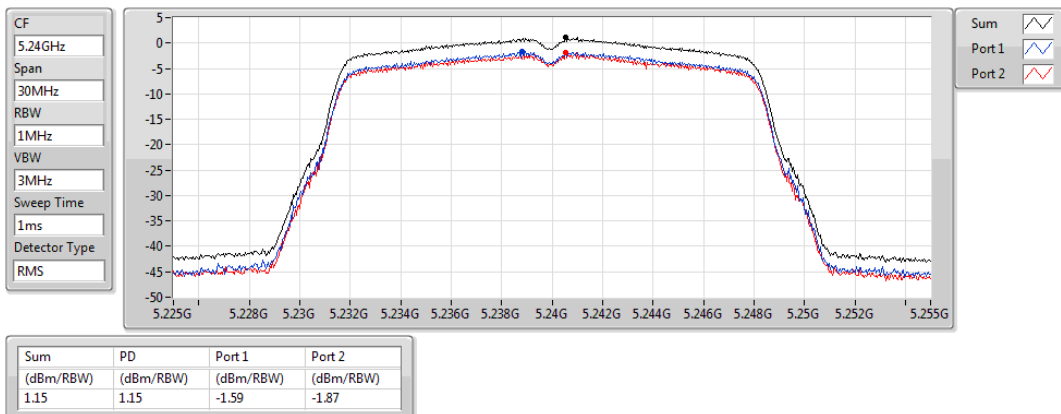
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802.11a_Nss1,(6Mbps)_2TX

PSD

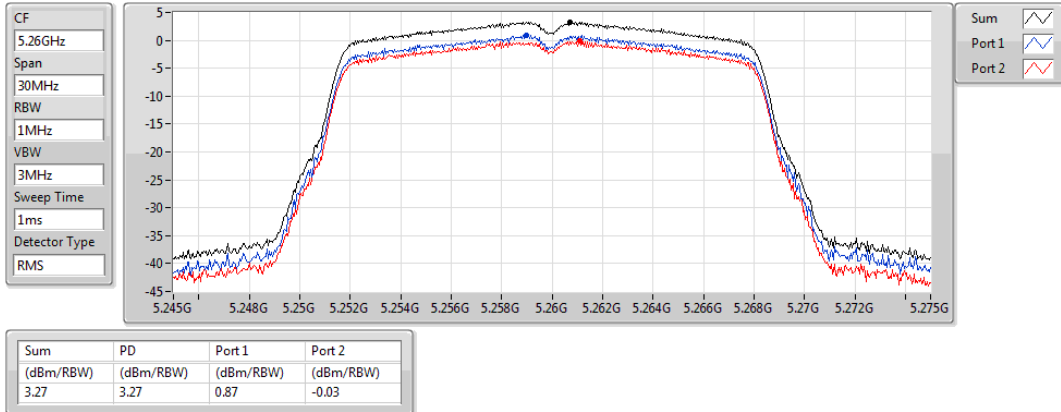
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802.11a_Nss1,(6Mbps)_2TX

PSD

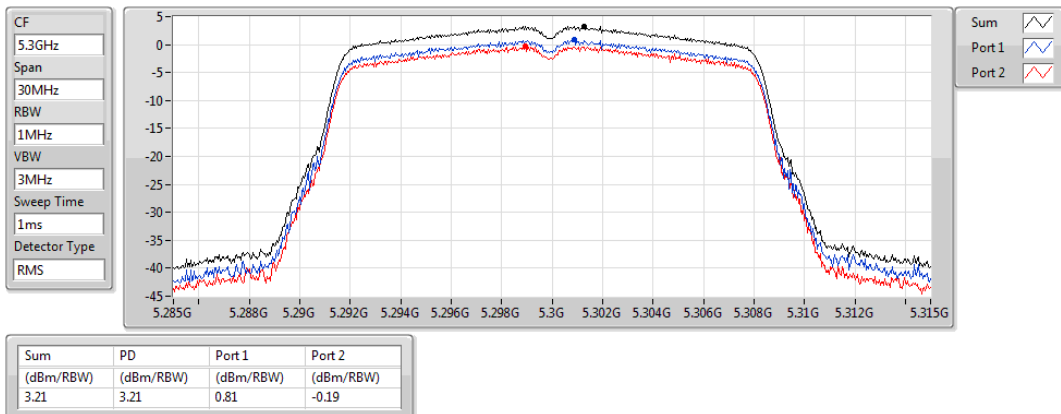
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802.11a_Nss1,(6Mbps)_2TX

PSD

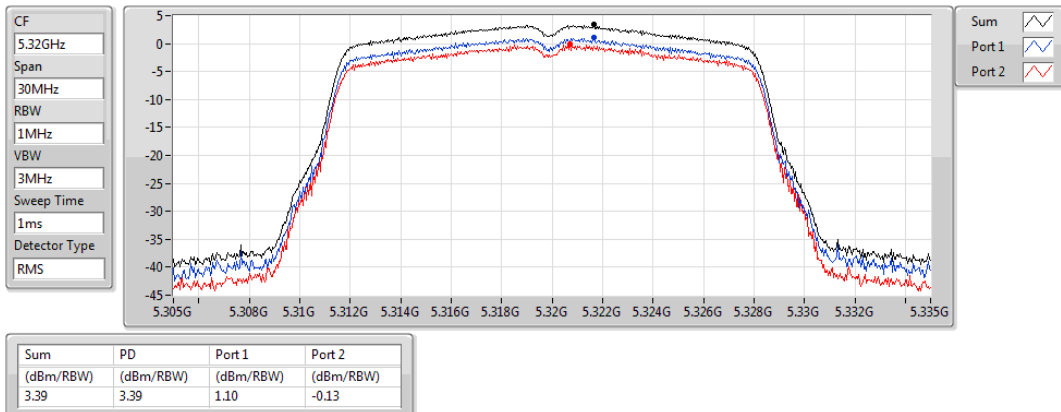
5300MHz



802.11a_Nss1,(6Mbps)_2TX

PSD

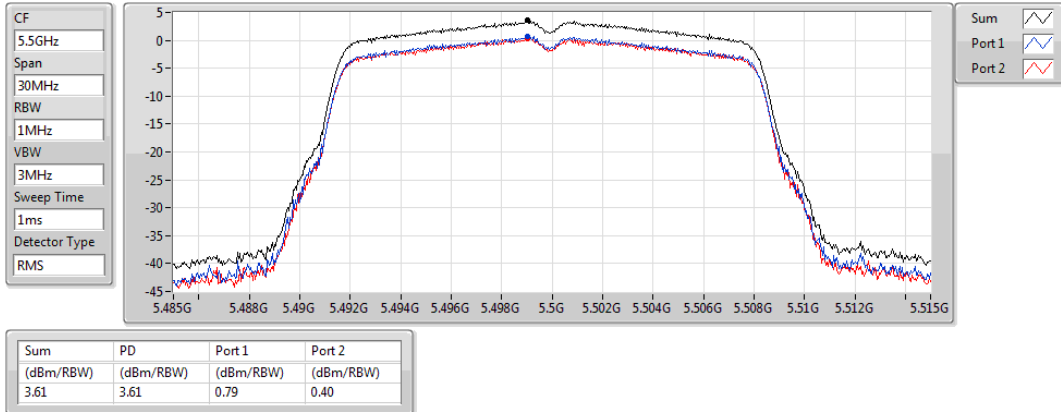
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802.11a_Nss1,(6Mbps)_2TX

PSD

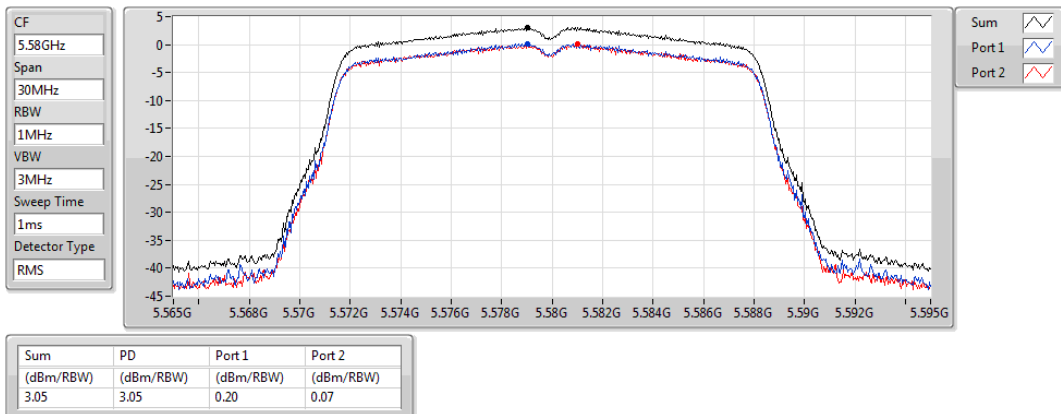
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802.11a_Nss1,(6Mbps)_2TX

PSD

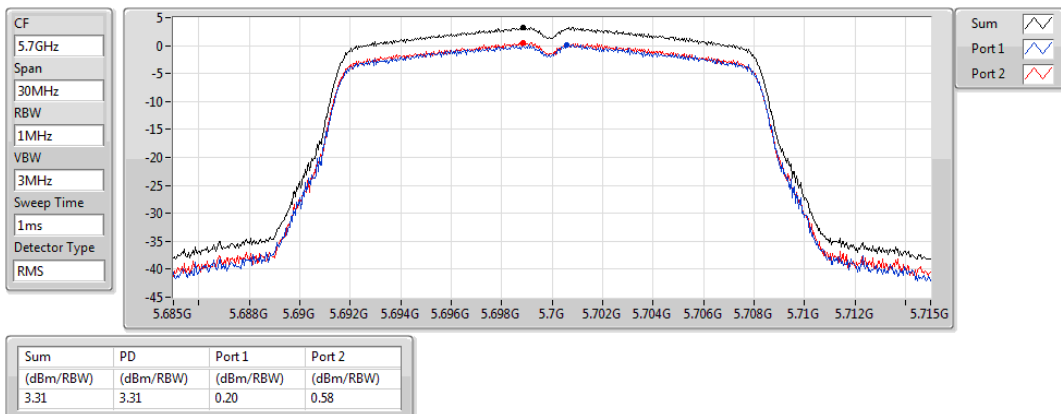
5580MHz



802.11a_Nss1,(6Mbps)_2TX

PSD

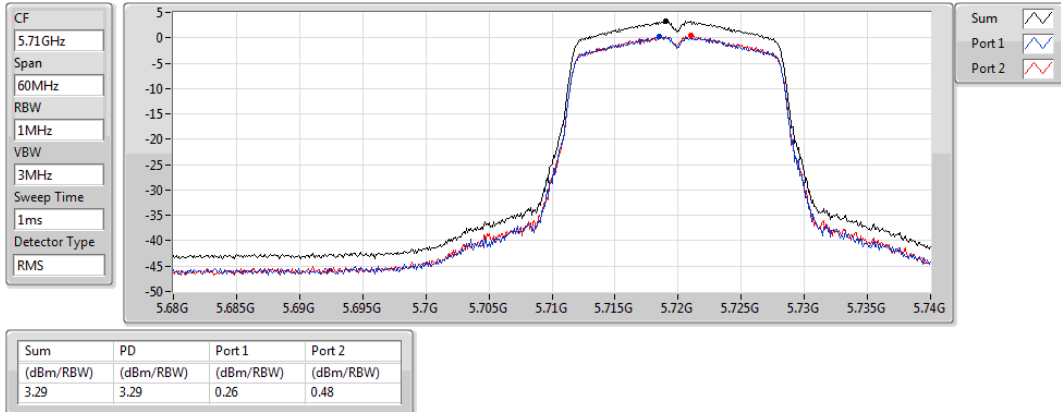
5700MHz



802.11a_Nss1,(6Mbps)_2TX

PSD

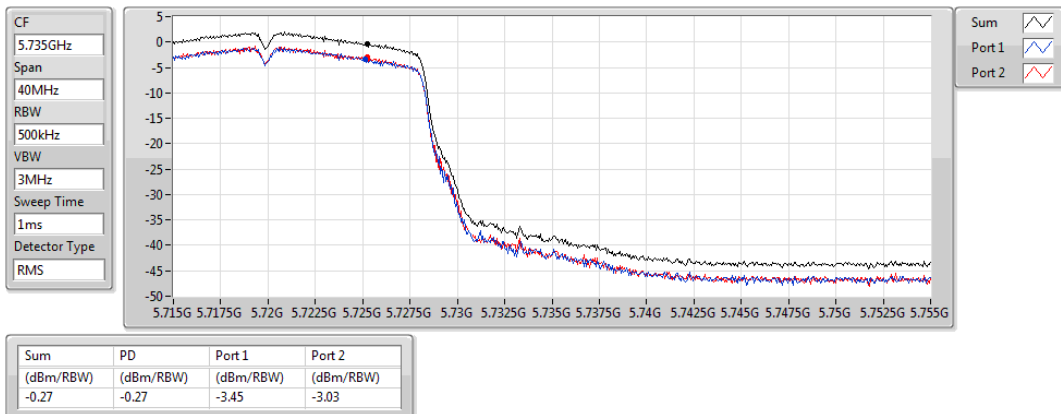
5720MHz Straddle 5.47-5.725GHz



802.11a_Nss1,(6Mbps)_2TX

PSD

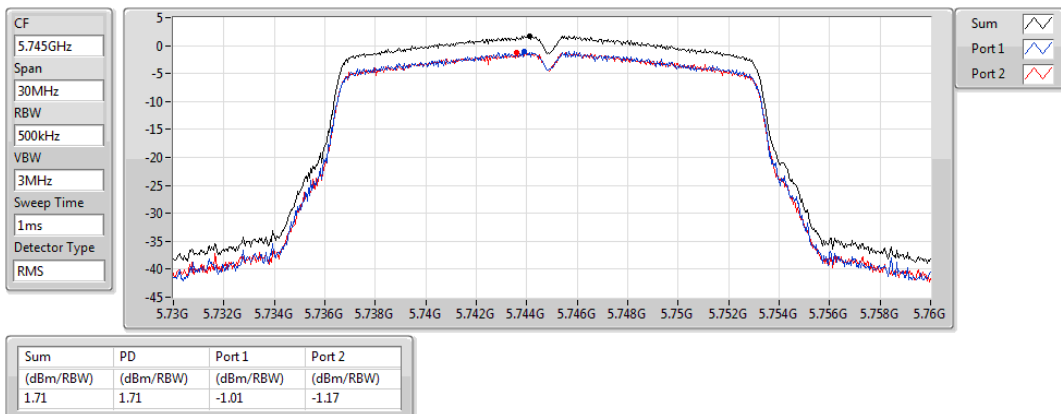
5720MHz Straddle 5.725-5.85GHz



802.11a_Nss1,(6Mbps)_2TX

PSD

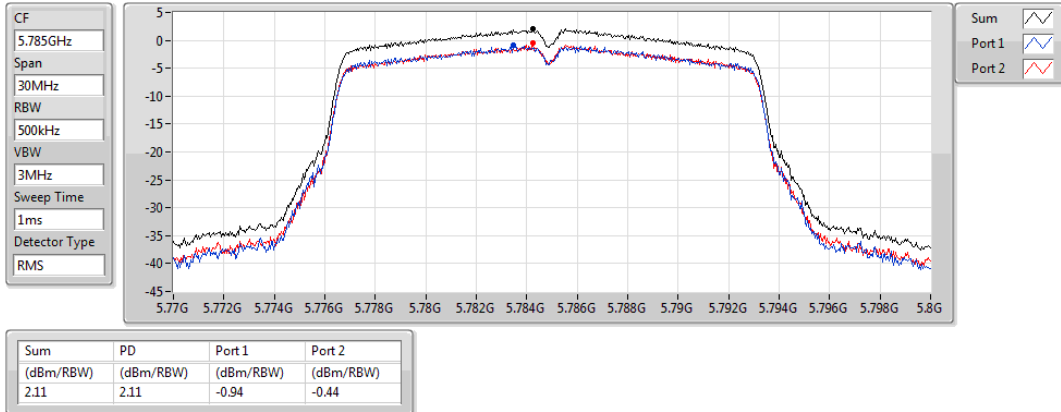
5745MHz



802.11a_Nss1,(6Mbps)_2TX

PSD

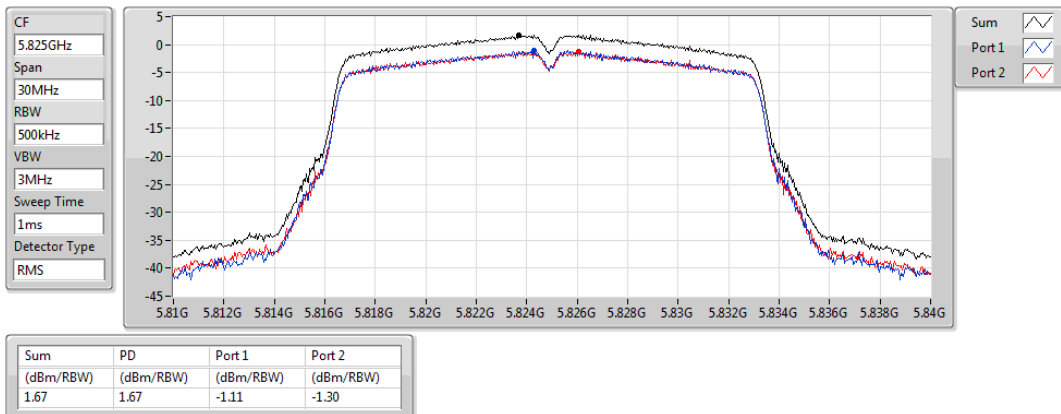
5785MHz



802.11a_Nss1,(6Mbps)_2TX

PSD

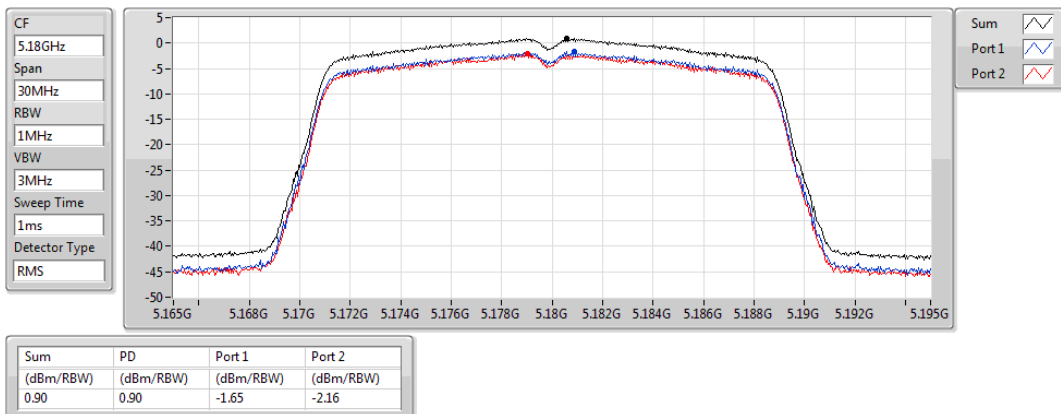
5825MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

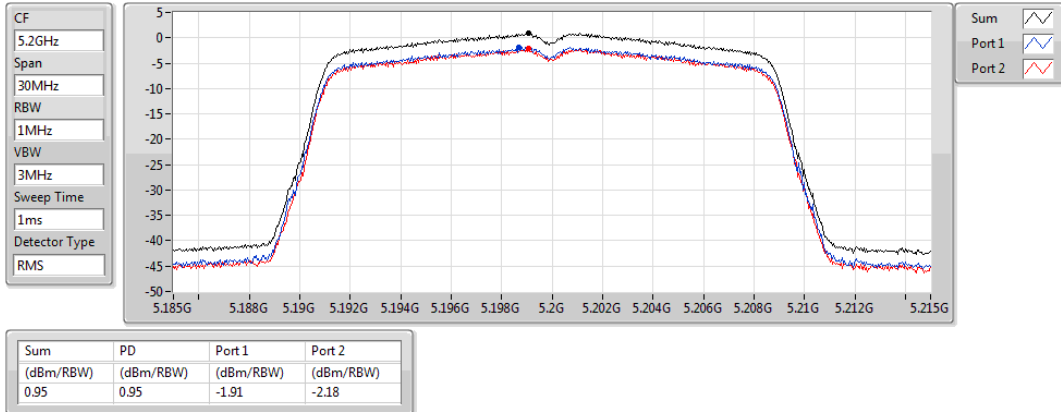
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802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

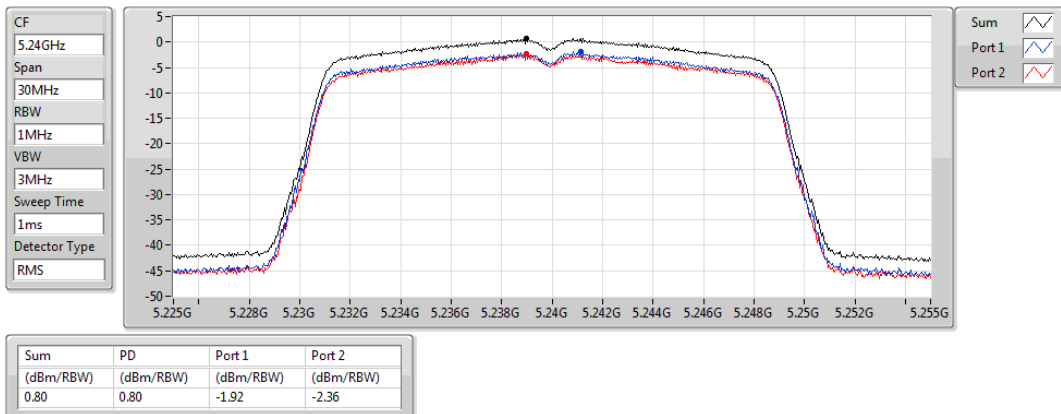
5200MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

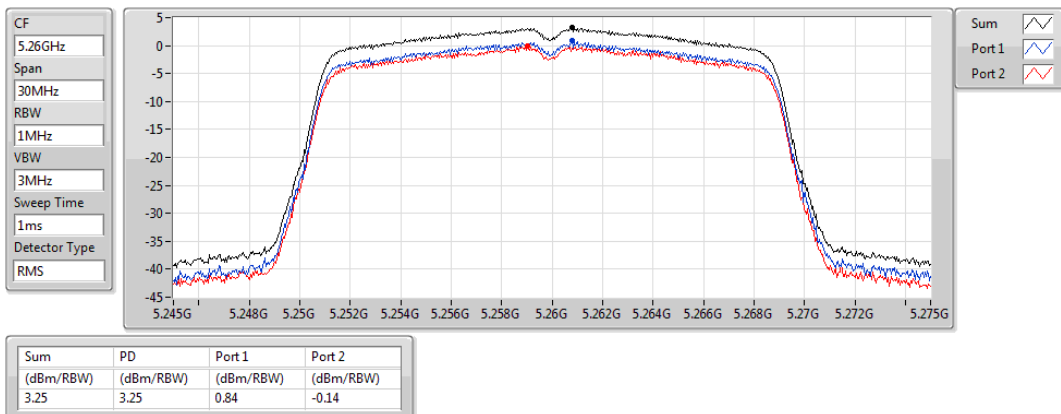
5240MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

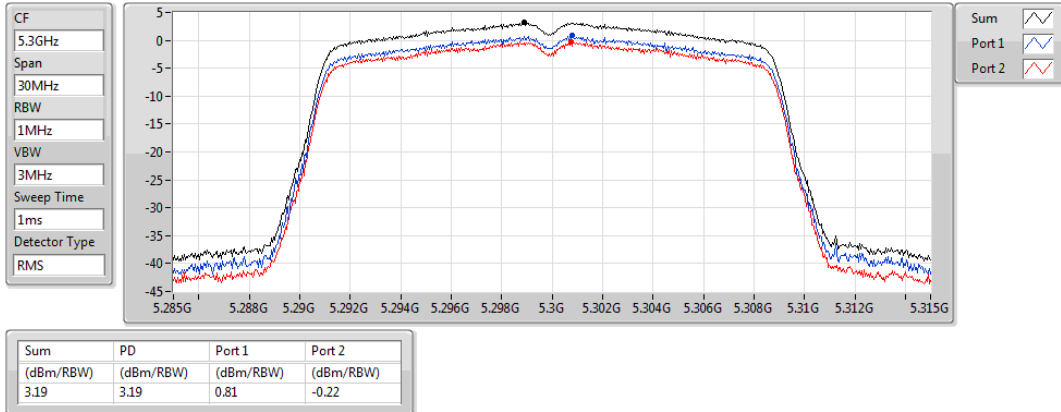
5260MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

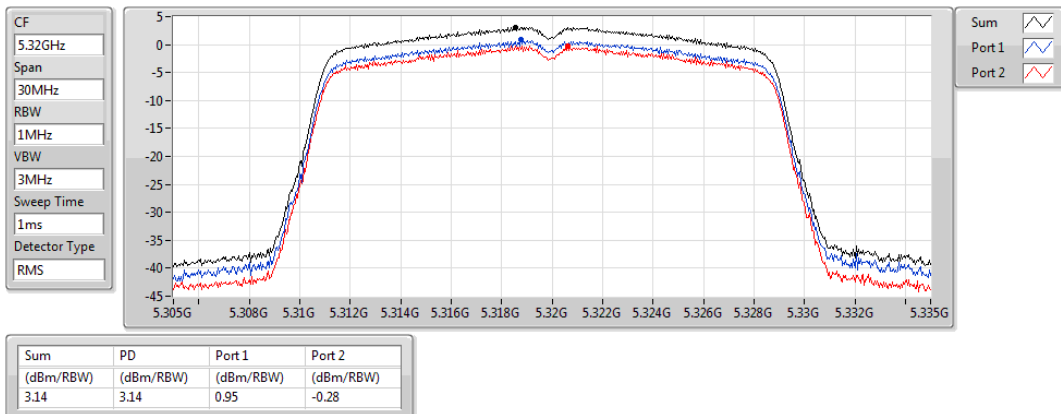
5300MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

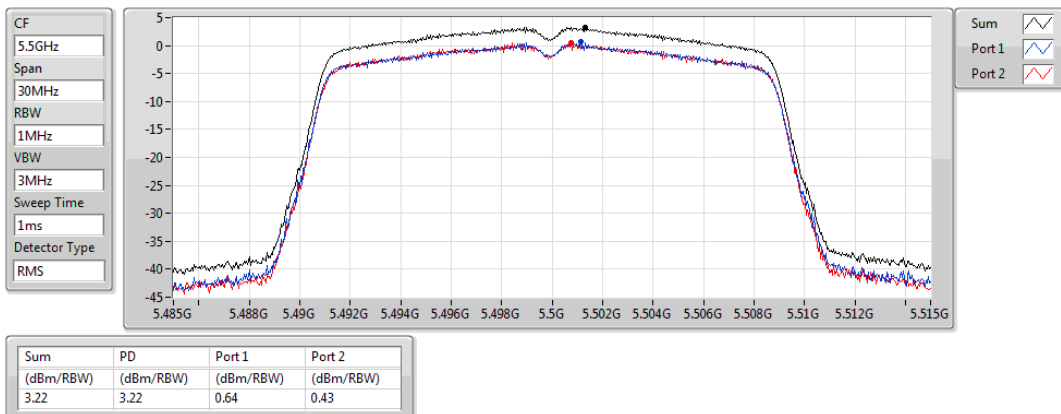
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802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

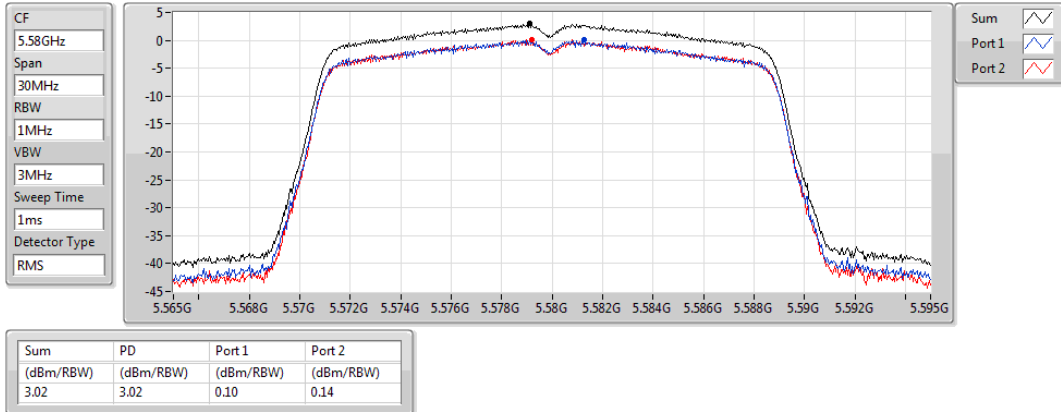
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802.11ac VHT20_Nss1,(MCS0)_2TX

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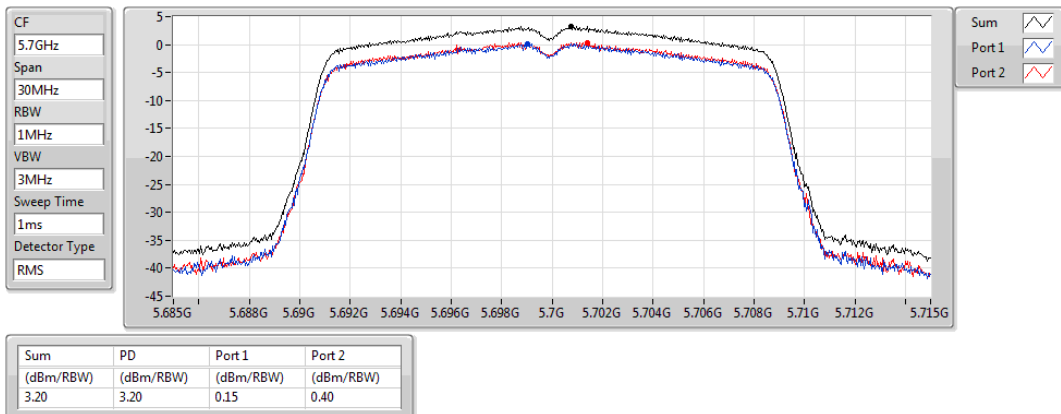
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802.11ac VHT20_Nss1,(MCS0)_2TX

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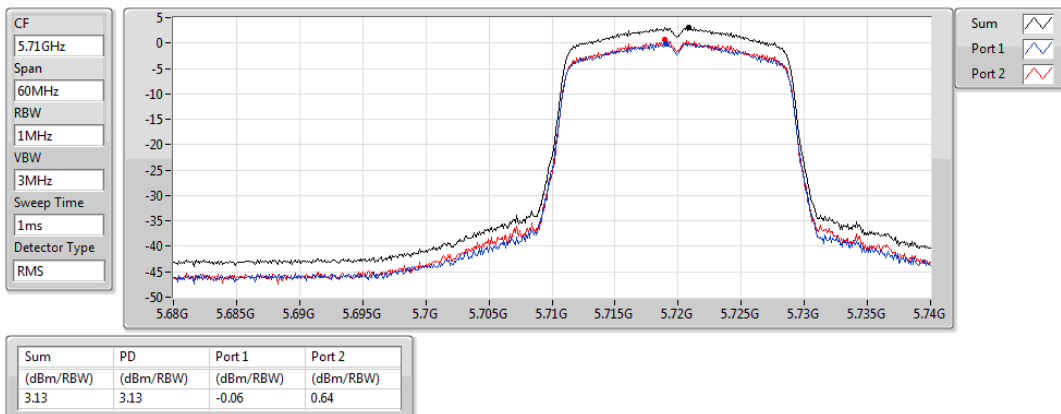
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802.11ac VHT20_Nss1,(MCS0)_2TX

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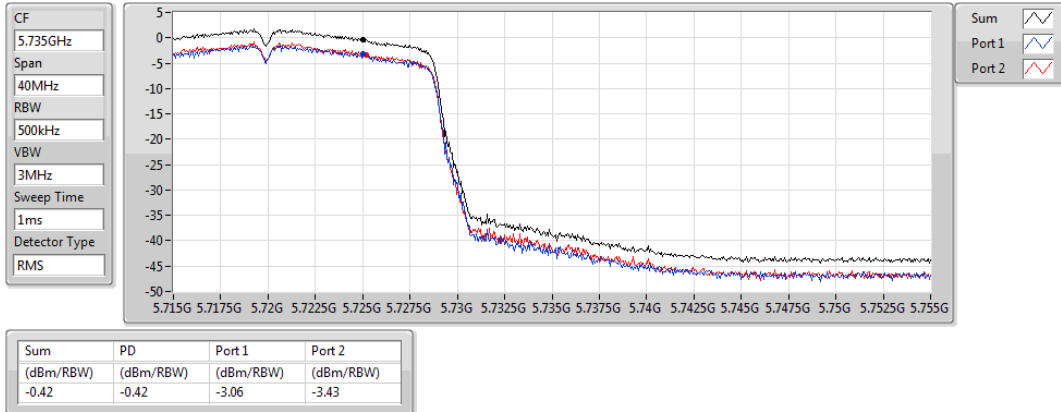
5720MHz Straddle 5.47-5.725GHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

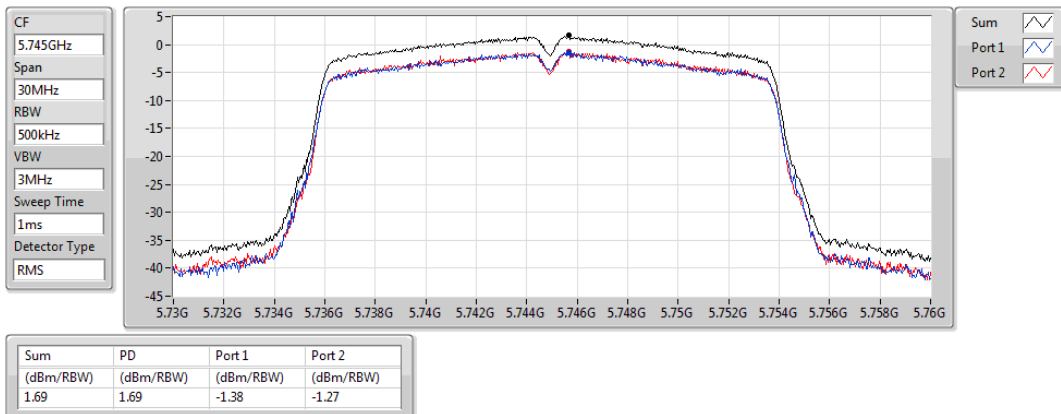
5720MHz Straddle 5.725-5.85GHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

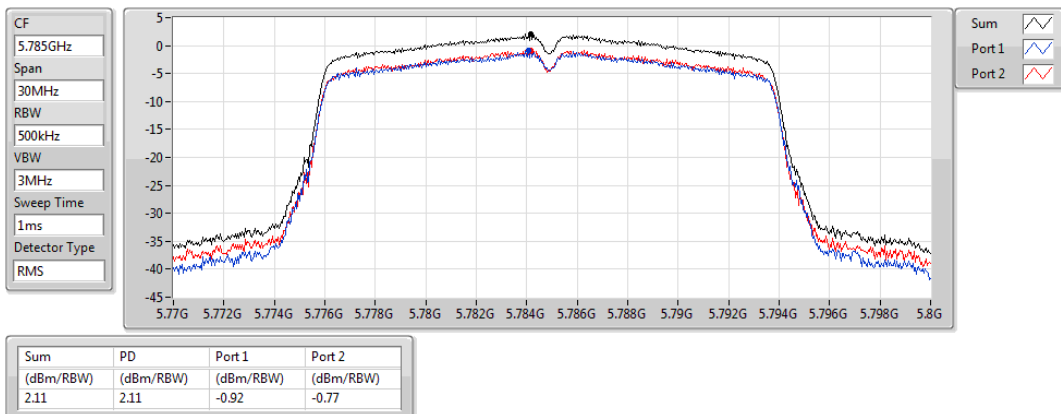
5745MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

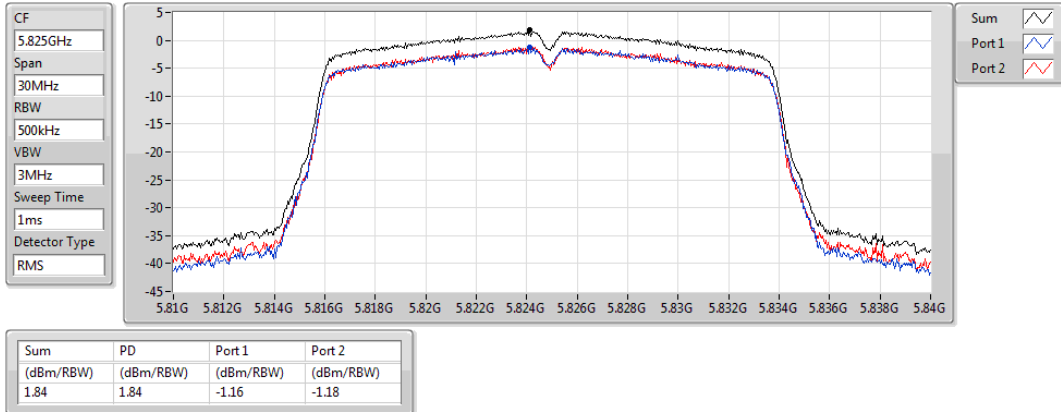
5785MHz



802.11ac VHT20_Nss1,(MCS0)_2TX

PSD

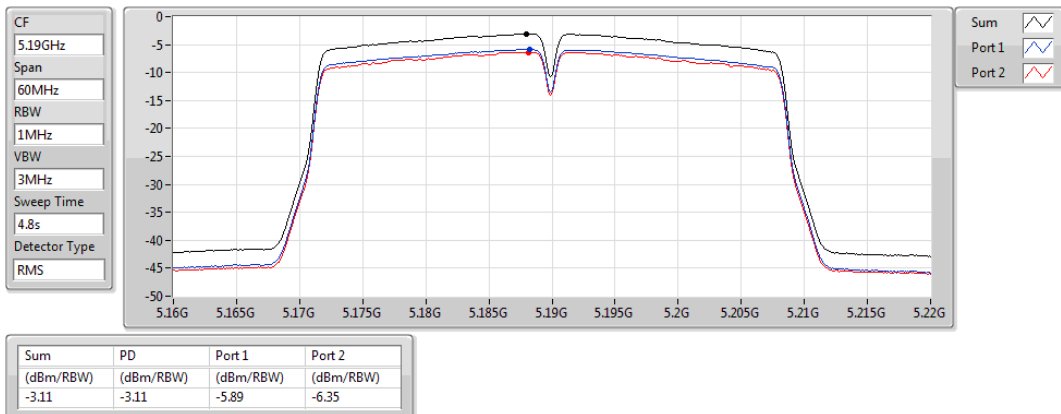
5825MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

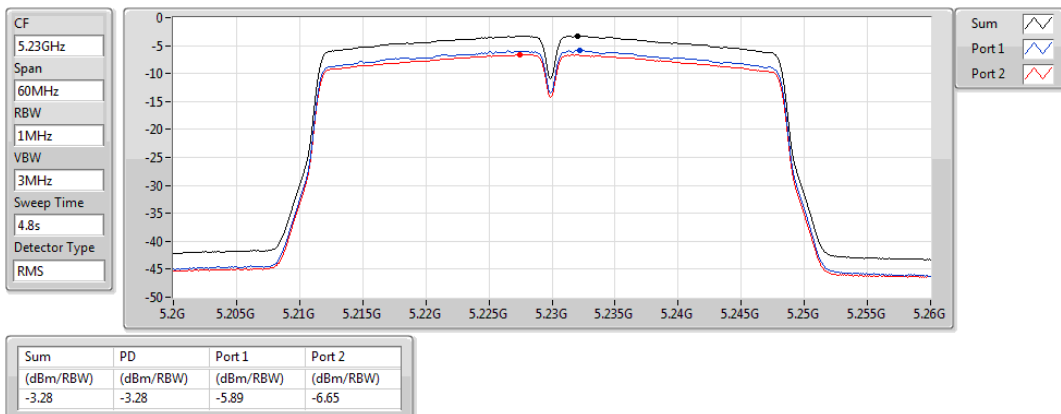
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802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

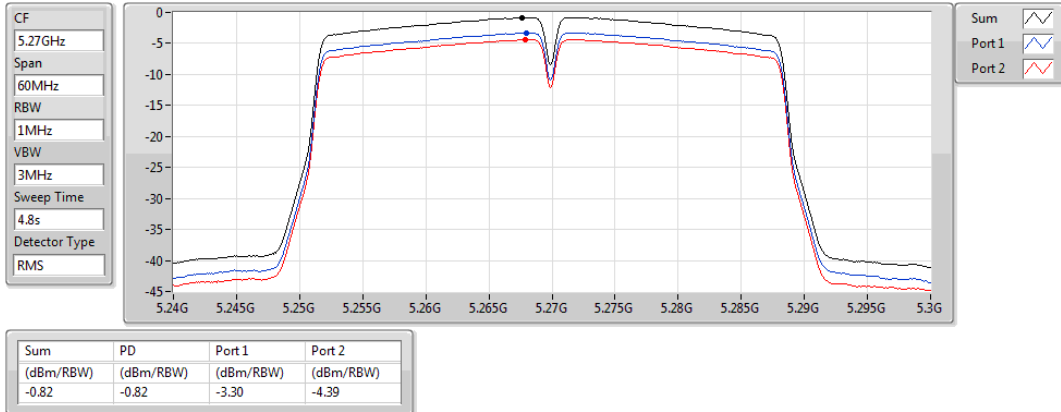
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802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

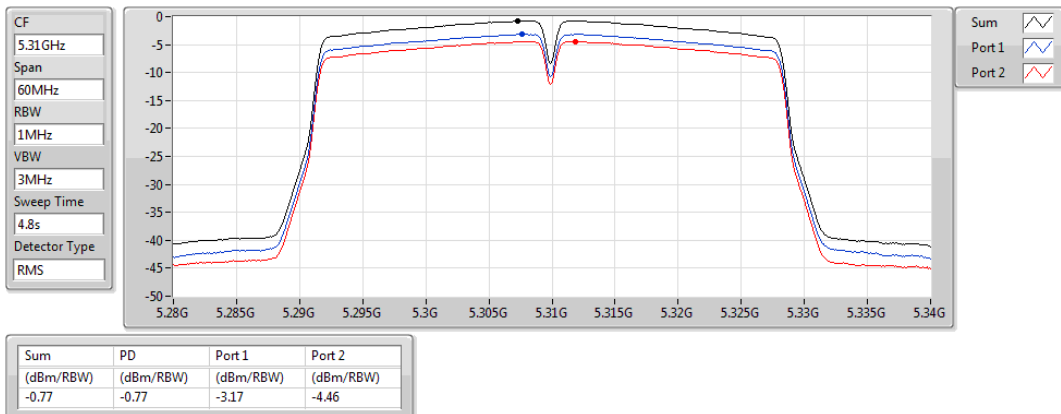
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802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

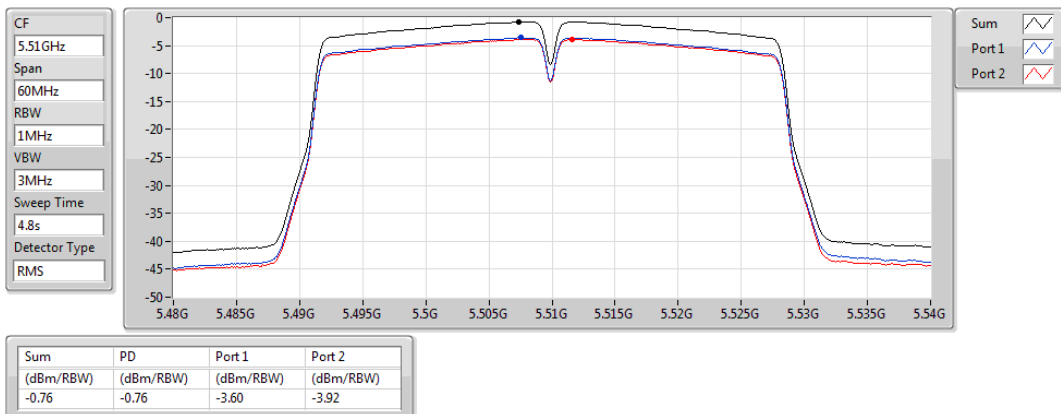
5310MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

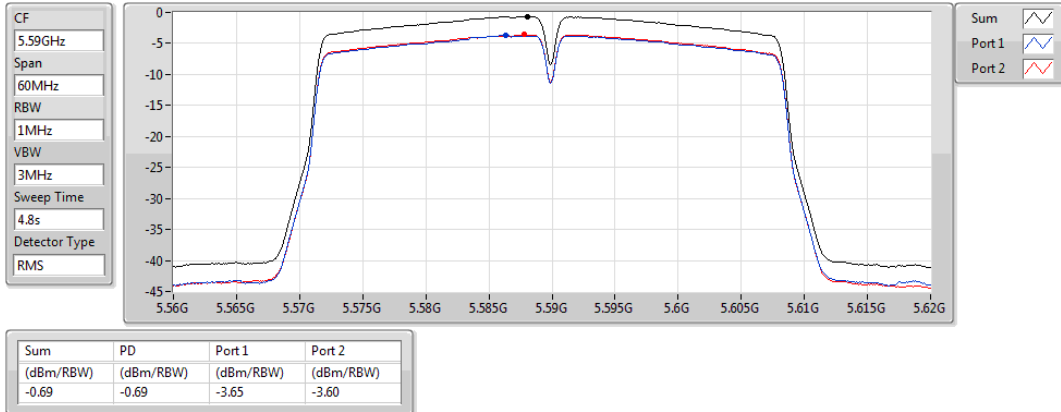
5510MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

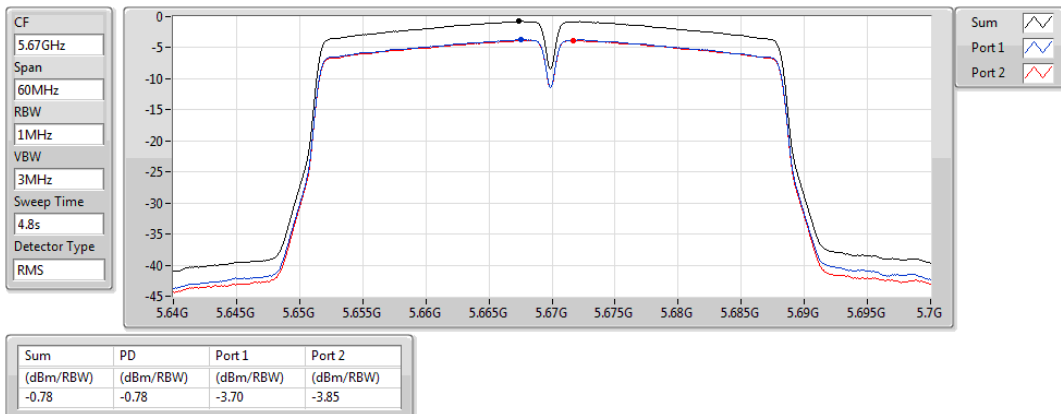
5590MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

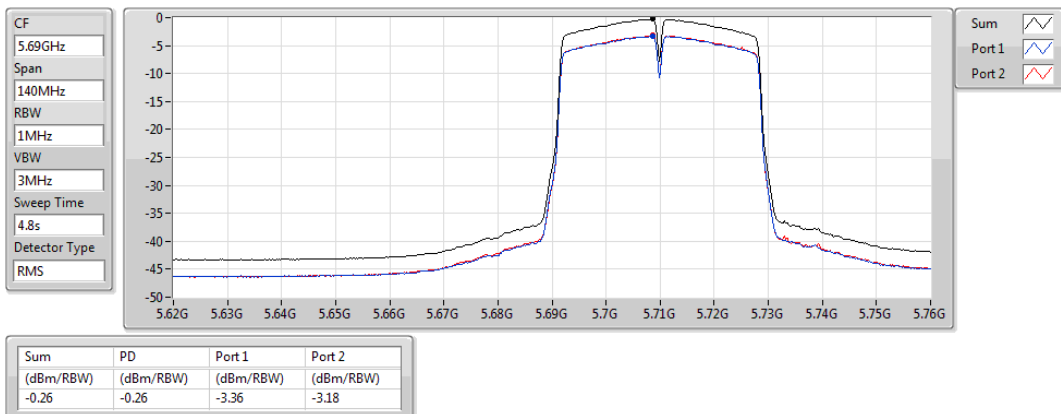
5670MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

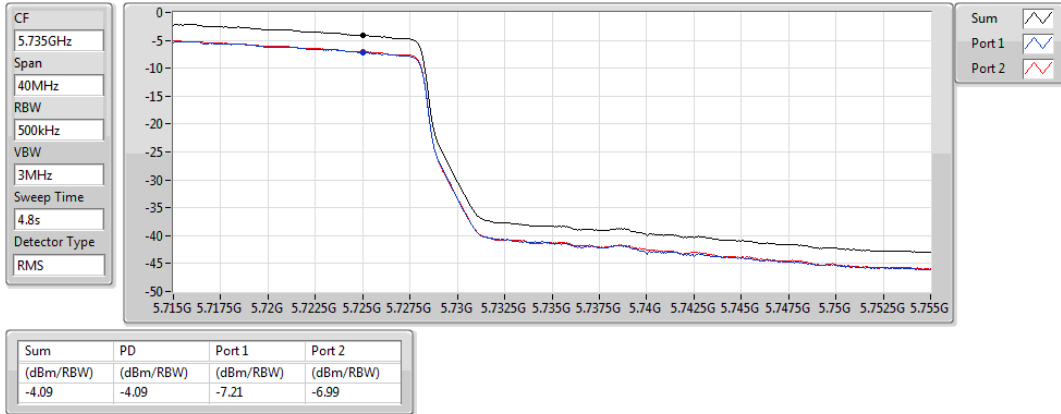
5710MHz Straddle 5.47-5.725GHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

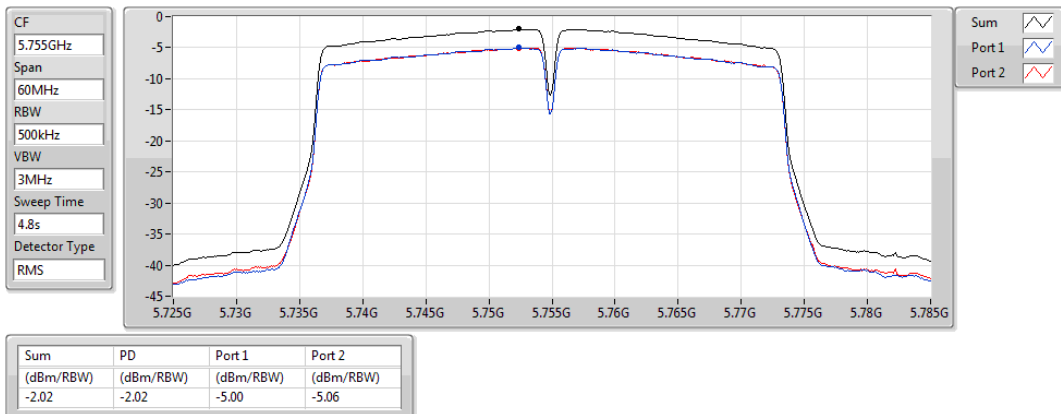
5710MHz Straddle 5.725-5.85GHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

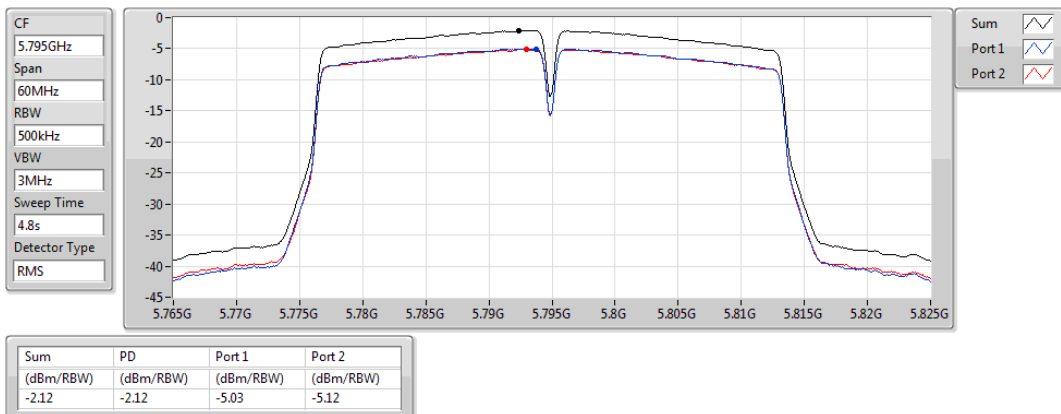
5755MHz



802.11ac VHT40_Nss1,(MCS0)_2TX

PSD

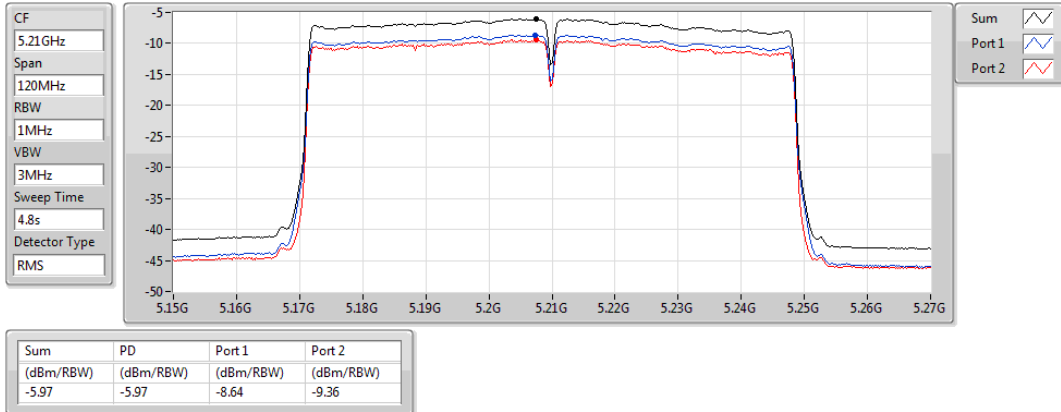
5795MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

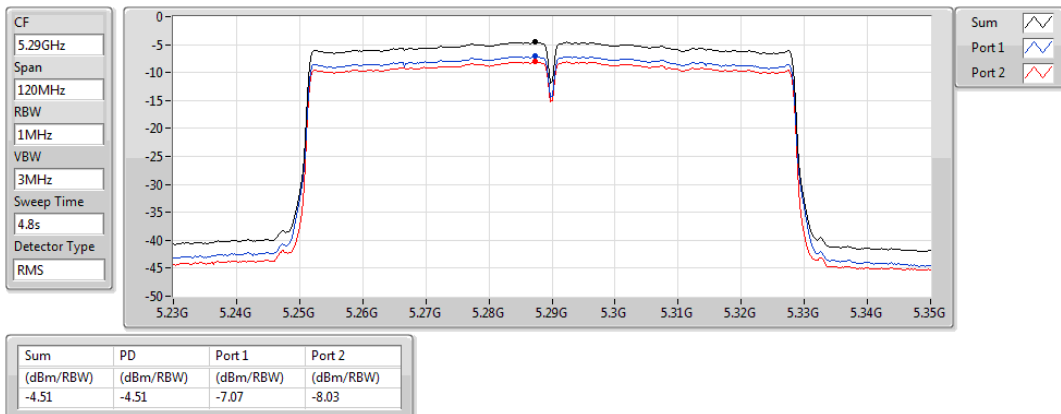
5210MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

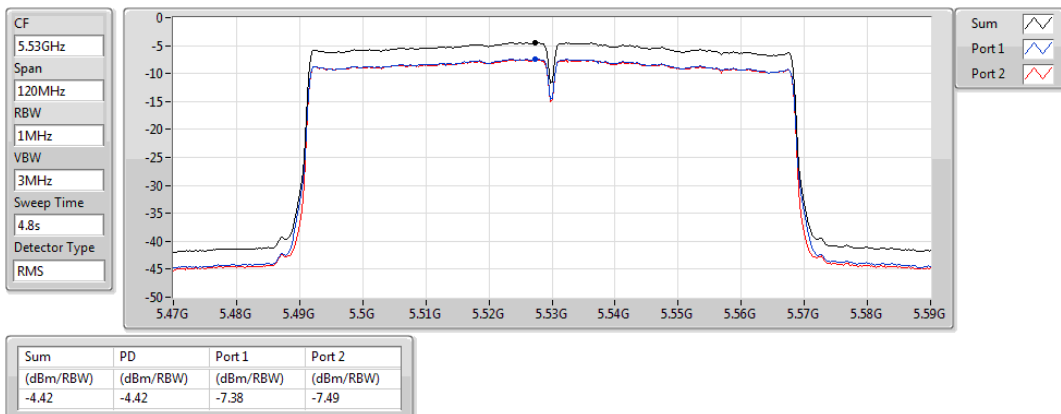
5290MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

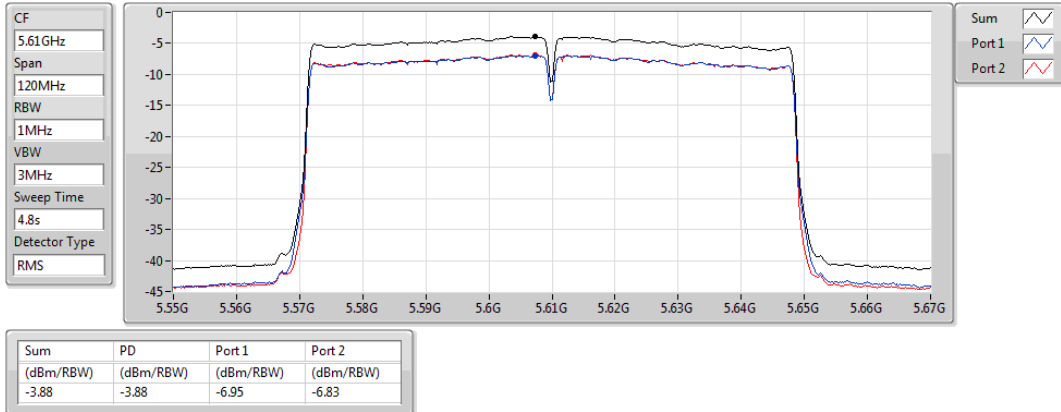
5530MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

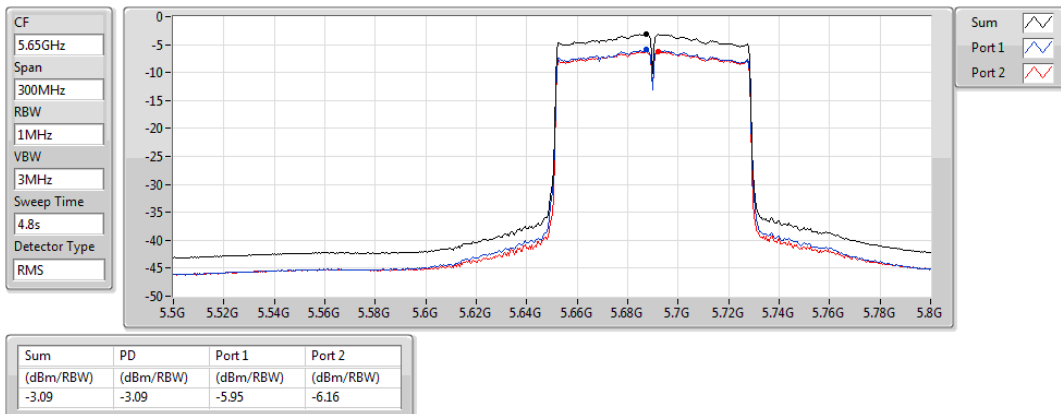
5610MHz



802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

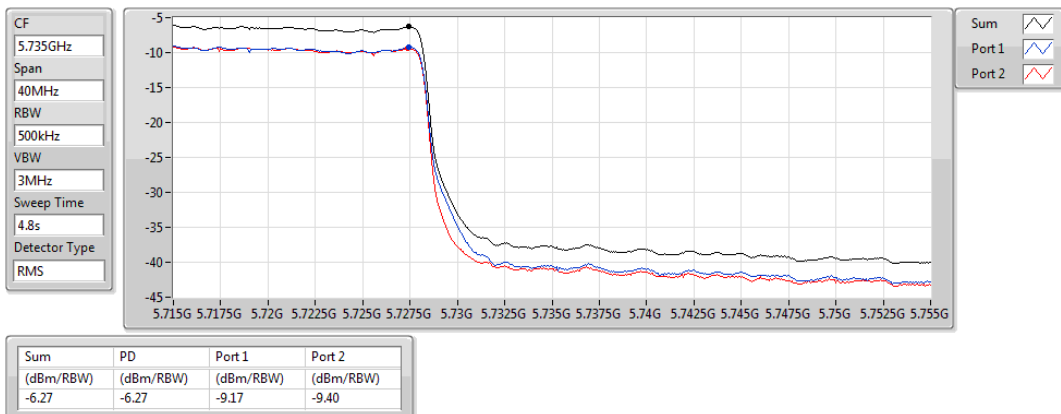
5690MHz Straddle 5.47-5.725GHz



802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

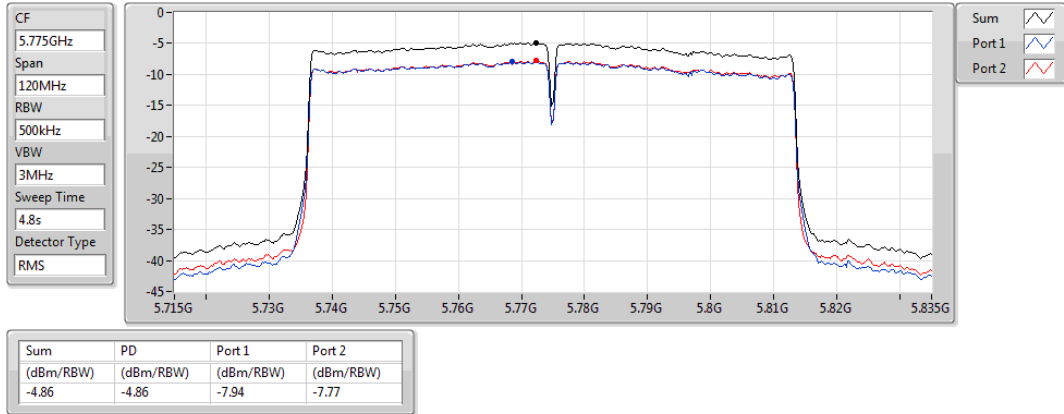
5690MHz Straddle 5.725-5.85GHz



802.11ac VHT80_Nss1,(MCS0)_2TX

PSD

5775MHz



3.5 Transmitter Radiated and Band Edge Emissions

3.5.1 Limit of Transmitter Radiated and Band Edge Emissions

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

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

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

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.850 GHz	All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

3.5.2 Test Procedures

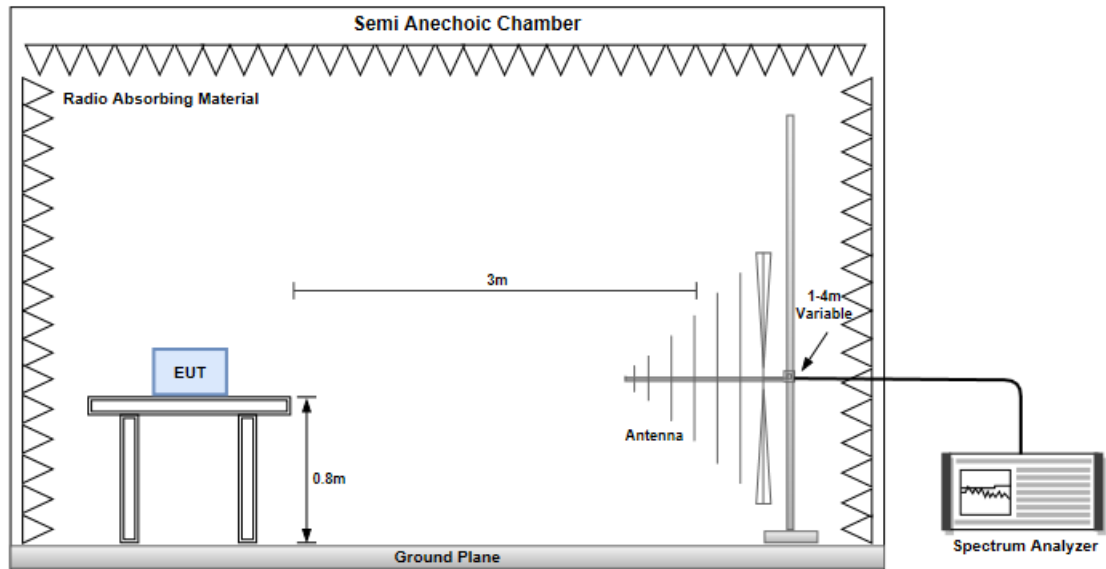
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

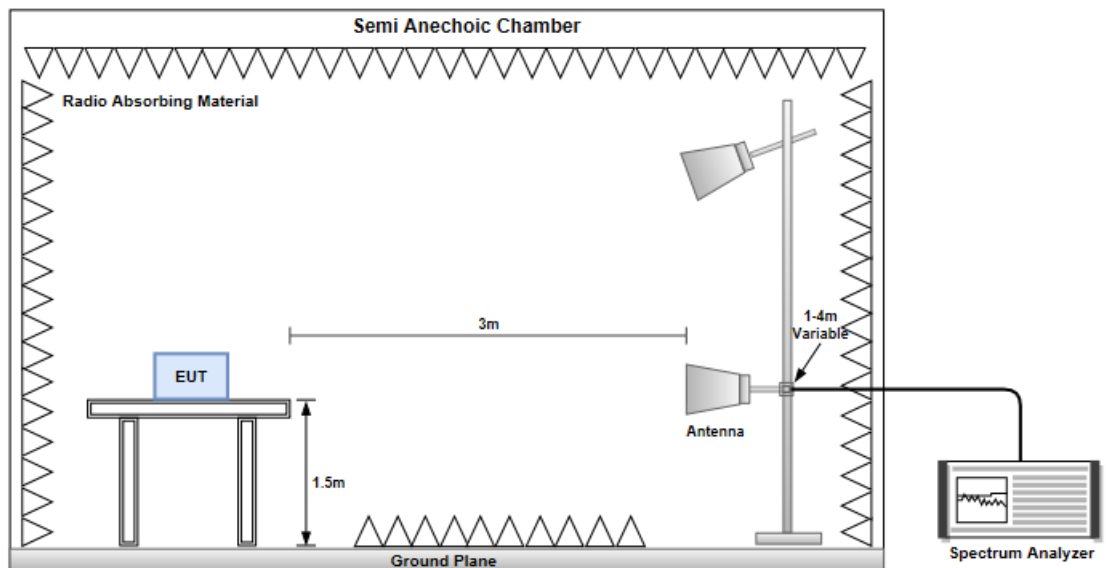
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz

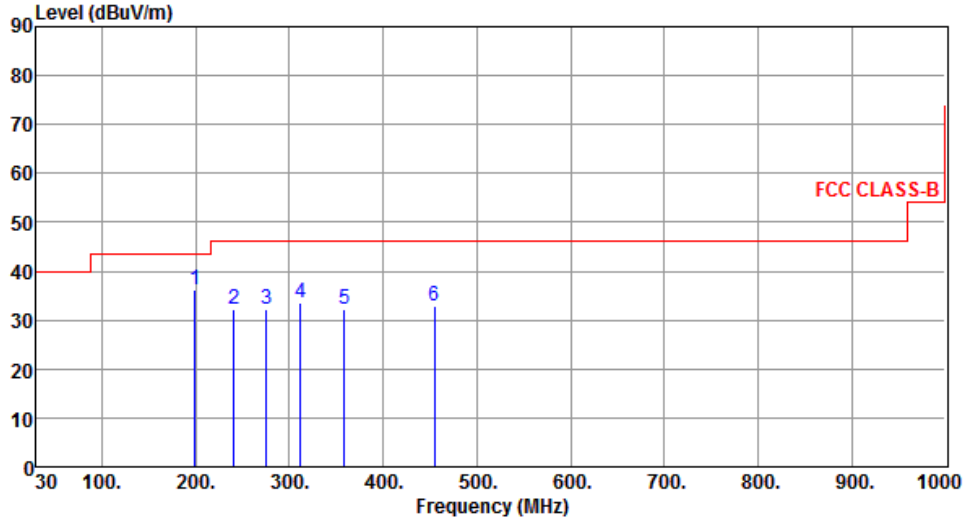


Radiated Emissions above 1 GHz



3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Horizontal		



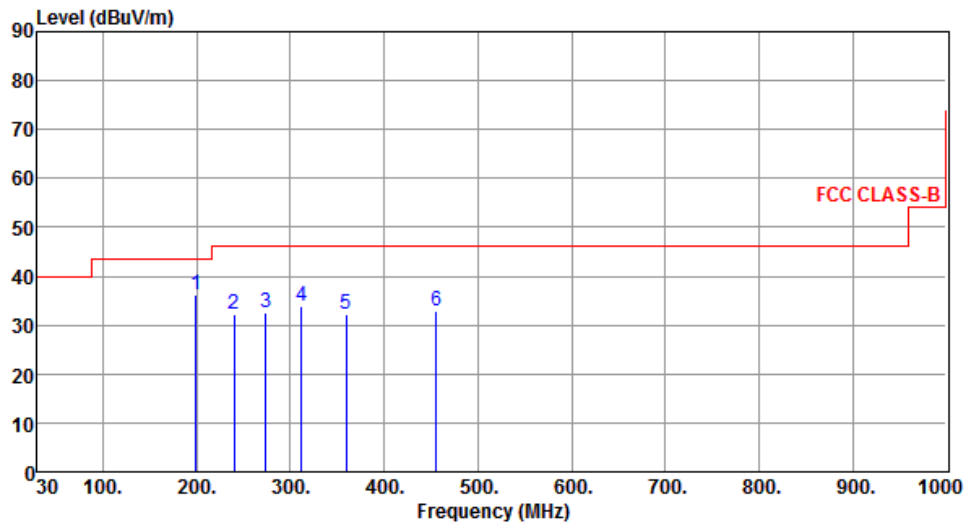
The graph displays the Level (dBuV/m) on the y-axis (0 to 90) against Frequency (MHz) on the x-axis (30 to 1000). A red line represents the FCC CLASS-B limit, which is 40 dBuV/m from 30 to 100 MHz, 45 dBuV/m from 100 to 1000 MHz, and 55 dBuV/m from 1000 to 10000 MHz. Six blue vertical lines indicate measured emission levels at specific frequencies: 199.52 MHz (36.15 dBuV/m), 240.52 MHz (32.20 dBuV/m), 275.25 MHz (32.14 dBuV/m), 312.25 MHz (33.63 dBuV/m), 358.69 MHz (32.05 dBuV/m), and 454.86 MHz (32.95 dBuV/m). All measured levels are well below the FCC CLASS-B limit.

	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	199.52	36.15	43.50	-7.35	48.04	-11.89	Peak	---	---
2	240.52	32.20	46.00	-13.80	42.37	-10.17	Peak	---	---
3	275.25	32.14	46.00	-13.86	40.91	-8.77	Peak	---	---
4	312.25	33.63	46.00	-12.37	41.27	-7.64	Peak	---	---
5	358.69	32.05	46.00	-13.95	38.71	-6.66	Peak	---	---
6	454.86	32.95	46.00	-13.05	36.93	-3.98	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	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical		
Level (dBuV/m) </			

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	199.52	36.05	43.50	-7.45	47.94	-11.89	Peak	---	---
2	240.25	32.36	46.00	-13.64	42.54	-10.18	Peak	---	---
3	274.16	32.40	46.00	-13.60	41.23	-8.83	Peak	---	---
4	311.50	33.87	46.00	-12.13	41.55	-7.68	Peak	---	---
5	359.25	32.17	46.00	-13.83	38.81	-6.64	Peak	---	---
6	455.75	33.01	46.00	-12.99	36.97	-3.96	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).

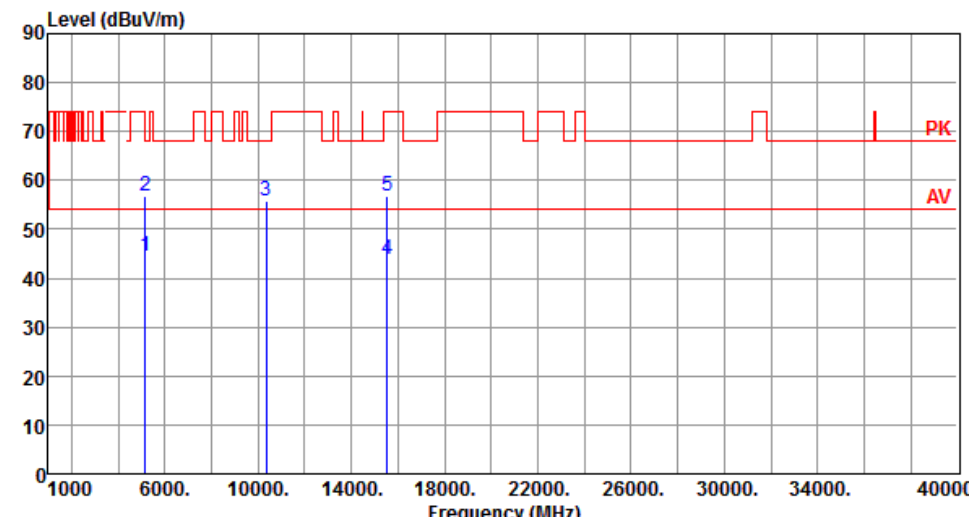
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		
Level (dBuV/m)			

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

Modulation	11a	Test Freq. (MHz)	5180
Polarization	Horizontal		
Level (dBuV/m) <			

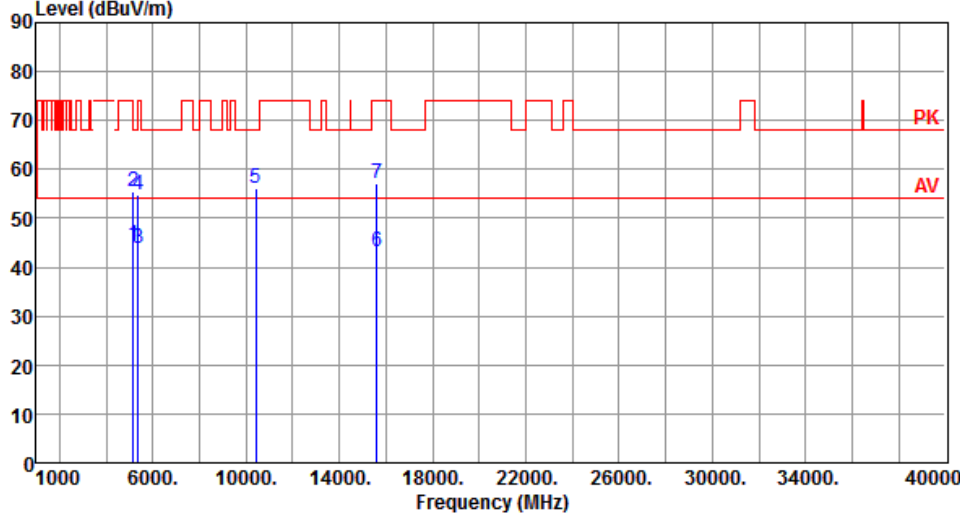
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.46	54.00	-9.54	40.02	4.44	Average	201	342
2	5150.00	56.78	74.00	-17.22	52.34	4.44	Peak	201	342
3	10360.00	55.85	68.20	-12.35	41.56	14.29	Peak	174	31
4	15540.00	43.84	54.00	-10.16	29.29	14.55	Average	100	40
5	15540.00	56.95	74.00	-17.05	42.40	14.55	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).

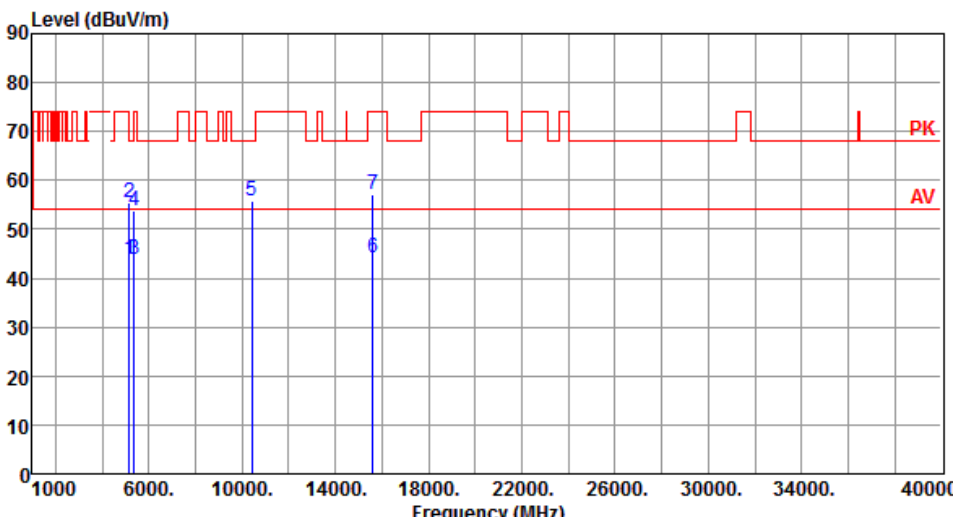
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.46	54.00	-9.54	40.02	4.44	Average	181	46
2	5150.00	55.45	74.00	-18.55	51.01	4.44	Peak	181	46
3	5350.00	43.72	54.00	-10.28	39.78	3.94	Average	181	46
4	5350.00	54.71	74.00	-19.29	50.77	3.94	Peak	181	46
5	10400.00	56.07	68.20	-12.13	41.67	14.40	Peak	100	60
6	15600.00	43.05	54.00	-10.95	28.71	14.34	Average	100	67
7	15600.00	57.22	74.00	-16.78	42.88	14.34	Peak	100	67

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).

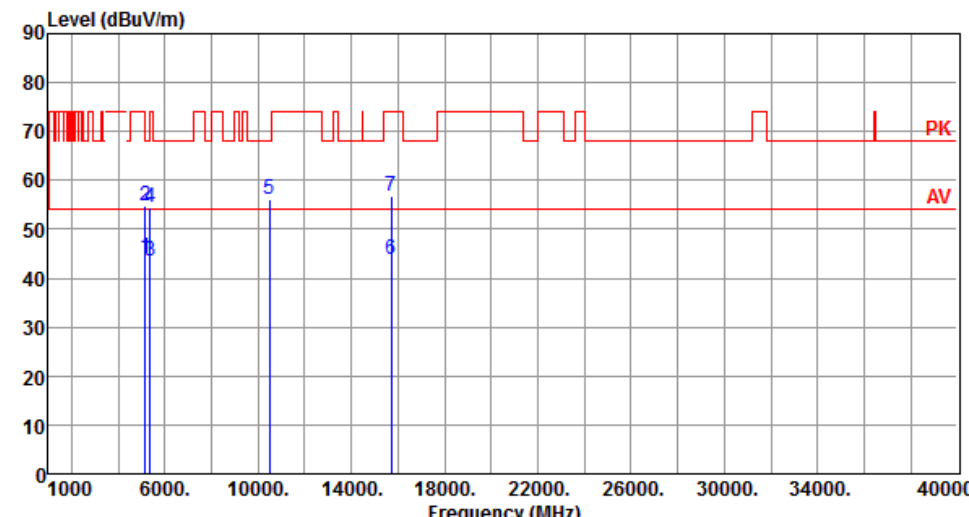
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Vertical		



	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	43.79	54.00	-10.21	39.35	4.44	Average	210	338
2	5150.00	55.46	74.00	-18.54	51.02	4.44	Peak	210	338
3	5350.00	43.68	54.00	-10.32	39.74	3.94	Average	210	338
4	5350.00	53.72	74.00	-20.28	49.78	3.94	Peak	210	338
5	10400.00	55.96	68.20	-12.24	41.56	14.40	Peak	175	36
6	15600.00	44.10	54.00	-9.90	29.76	14.34	Average	100	42
7	15600.00	57.11	74.00	-16.89	42.77	14.34	Peak	100	42

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).

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

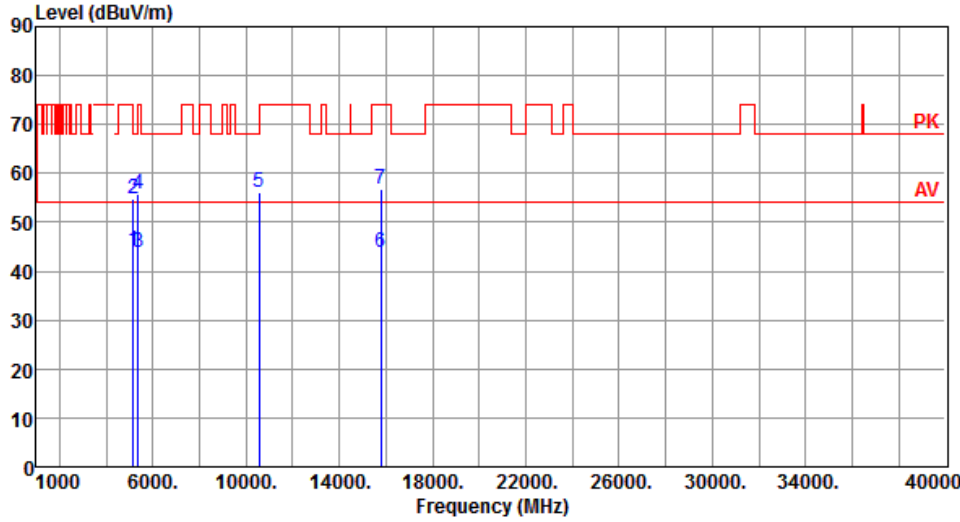


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.13	54.00	-9.87	39.69	4.44	Average	177	42
2	5150.00	54.86	74.00	-19.14	50.42	4.44	Peak	177	42
3	5350.00	43.51	54.00	-10.49	39.57	3.94	Average	177	42
4	5350.00	54.36	74.00	-19.64	50.42	3.94	Peak	177	42
5	10480.00	56.11	68.20	-12.09	41.71	14.40	Peak	100	52
6	15720.00	43.94	54.00	-10.06	29.85	14.09	Average	100	59
7	15720.00	56.94	74.00	-17.06	42.85	14.09	Peak	100	59

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).

Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical		
Level (dBUV/m) </			

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

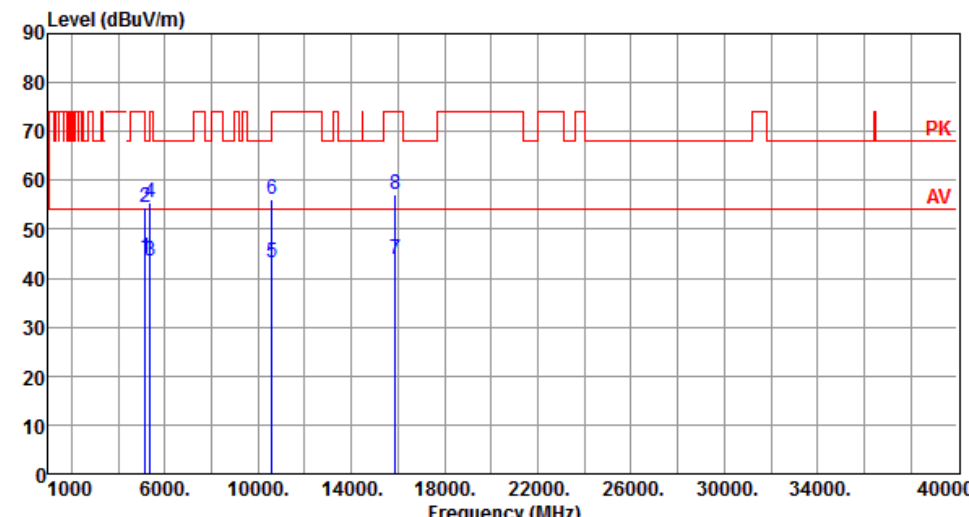


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.13	54.00	-9.87	39.69	4.44	Average	175	46
2	5150.00	54.86	74.00	-19.14	50.42	4.44	Peak	176	46
3	5350.00	43.74	54.00	-10.26	39.80	3.94	Average	176	46
4	5350.00	55.74	74.00	-18.26	51.80	3.94	Peak	176	46
5	10540.00	56.04	68.20	-12.16	41.64	14.40	Peak	100	69
6	15780.00	43.75	54.00	-10.25	29.75	14.00	Average	100	68
7	15780.00	56.85	74.00	-17.15	42.85	14.00	Peak	100	68

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).

Modulation	11a	Test Freq. (MHz)	5260
Polarization	Vertical		
Level (dBuV/m) <			

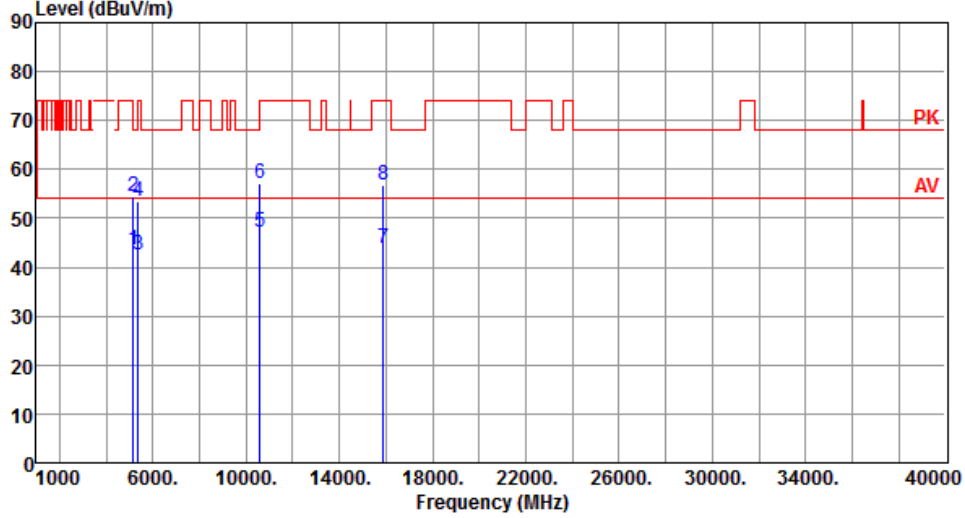
Modulation	11a	Test Freq. (MHz)	5300
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.13	54.00	-9.87	39.69	4.44	Average	188	46
2	5150.00	54.47	74.00	-19.53	50.03	4.44	Peak	188	46
3	5350.00	43.63	54.00	-10.37	39.69	3.94	Average	100	46
4	5350.00	55.45	74.00	-18.55	51.51	3.94	Peak	188	46
5	10600.00	43.17	54.00	-10.83	28.79	14.38	Average	100	63
6	10600.00	56.08	74.00	-17.92	41.70	14.38	Peak	100	63
7	15900.00	43.88	54.00	-10.12	29.93	13.95	Average	100	60
8	15900.00	57.24	74.00	-16.76	43.29	13.95	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).

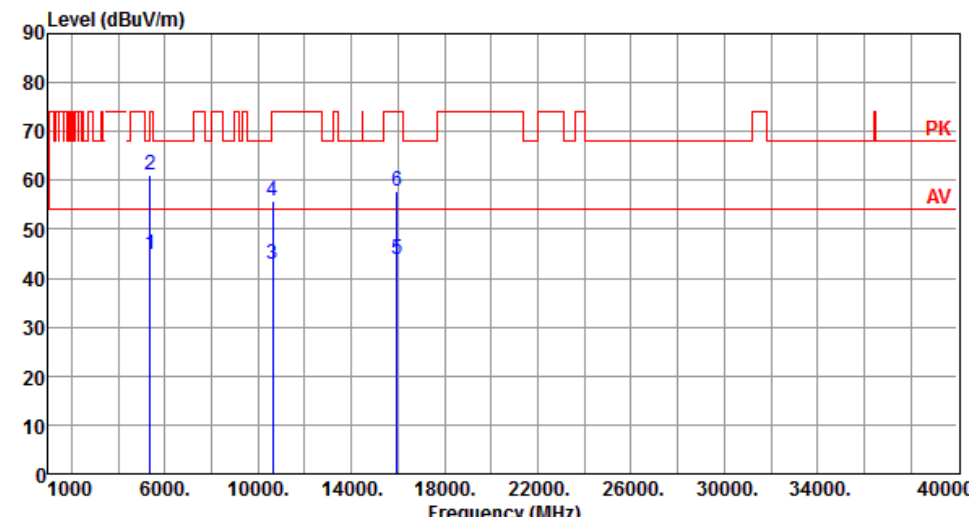
Modulation	11a	Test Freq. (MHz)	5300
Polarization	Vertical		



	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	43.46	54.00	-10.54	39.02	4.44	Average	215	339
2	5150.00	54.36	74.00	-19.64	49.92	4.44	Peak	218	339
3	5350.00	42.41	54.00	-11.59	38.47	3.94	Average	218	339
4	5350.00	53.63	74.00	-20.37	49.69	3.94	Peak	218	339
5	10600.00	47.07	54.00	-6.93	32.69	14.38	Average	177	40
6	10600.00	57.07	74.00	-16.93	42.69	14.38	Peak	177	40
7	15900.00	43.84	54.00	-10.16	29.89	13.95	Average	100	36
8	15900.00	56.84	74.00	-17.16	42.89	13.95	Peak	100	36

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).

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

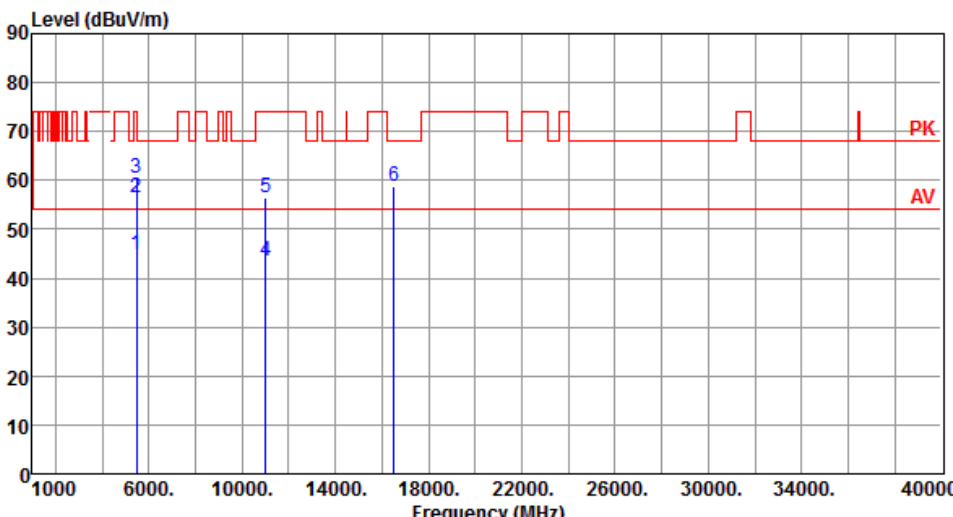


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	44.96	54.00	-9.04	41.02	3.94	Average	189	42
2	5350.00	61.11	74.00	-12.89	57.17	3.94	Peak	189	42
3	10640.00	42.76	54.00	-11.24	28.40	14.36	Average	100	60
4	10640.00	55.76	74.00	-18.24	41.40	14.36	Peak	100	60
5	15960.00	43.90	54.00	-10.10	30.04	13.86	Average	100	67
6	15960.00	57.79	74.00	-16.21	43.93	13.86	Peak	100	67

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).

Modulation	11a	Test Freq. (MHz)	5320
Polarization	Vertical		
Level (dBuV/m)			

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

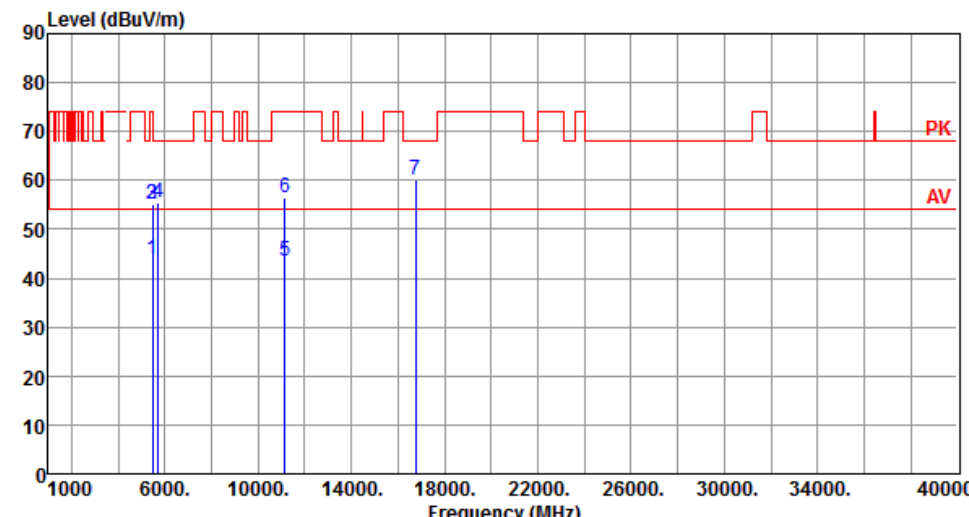


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.92	54.00	-9.08	40.51	4.41	Average	198	29
2	5460.00	56.47	74.00	-17.53	52.06	4.41	Peak	198	29
3	5470.00	60.57	68.20	-7.63	56.15	4.42	Peak	198	29
4	11000.00	43.50	54.00	-10.50	28.72	14.78	Average	100	70
5	11000.00	56.49	74.00	-17.51	41.71	14.78	Peak	100	70
6	16500.00	58.80	68.20	-9.40	42.91	15.89	Peak	100	66

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).

Modulation	11a	Test Freq. (MHz)	5500
Polarization	Vertical		
Level (dBUV/m) <			

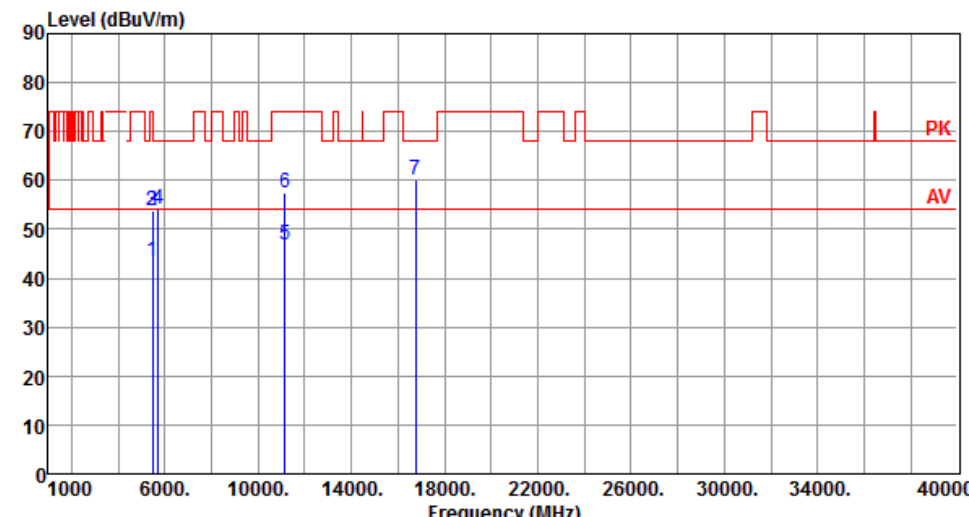
Modulation	11a	Test Freq. (MHz)	5580
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	43.84	54.00	-10.16	39.43	4.41	Average	203	26
2	5460.00	55.24	74.00	-18.76	50.83	4.41	Peak	203	26
3	5470.00	55.16	68.20	-13.04	50.74	4.42	Peak	203	26
4	5725.00	55.30	68.20	-12.90	50.55	4.75	Peak	203	26
5	11160.00	43.50	54.00	-10.50	29.06	14.44	Average	100	62
6	11160.00	56.61	74.00	-17.39	42.17	14.44	Peak	100	62
7	16740.00	60.05	68.20	-8.15	42.78	17.27	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).

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



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	43.51	54.00	-10.49	39.10	4.41	Average	213	342
2	5460.00	53.72	74.00	-20.28	49.31	4.41	Peak	213	342
3	5470.00	53.88	68.20	-14.32	49.46	4.42	Peak	213	342
4	5725.00	54.09	68.20	-14.11	49.34	4.75	Peak	213	342
5	11160.00	46.90	54.00	-7.10	32.46	14.44	Average	175	39
6	11160.00	57.60	74.00	-16.40	43.16	14.44	Peak	175	39
7	16740.00	60.21	68.20	-7.99	42.94	17.27	Peak	100	36

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).

Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical		
Level (dBuV/m)			

Modulation	11a	Test Freq. (MHz)	5720
Polarization	Horizontal		
Level (dBUV/m)			

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

The spectrum plot shows the emission level in dBuV/m on the y-axis (0 to 90) against frequency in MHz on the x-axis (1000 to 40000). A red line represents the emission level, which is mostly flat around 54 dBuV/m but has several sharp peaks. A blue line represents the limit, which is a constant 54 dBuV/m. The peaks are labeled 1 through 7. The average level (AV) is shown as a red line at 54 dBuV/m, and the peak level (PK) is shown as a red line at 74 dBuV/m.

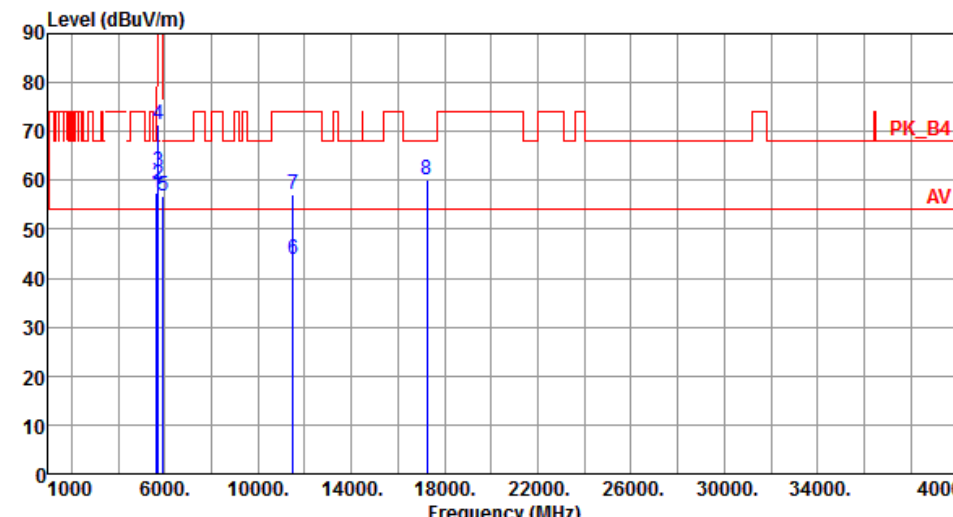
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	43.19	54.00	-10.81	38.78	4.41	Average	211	333
2	5460.00	53.84	74.00	-20.16	49.43	4.41	Peak	211	333
3	5470.00	54.20	68.20	-14.00	49.78	4.42	Peak	211	333
4	5850.00	55.02	68.20	-13.18	49.87	5.15	Peak	211	333
5	11420.00	46.80	54.00	-7.20	32.19	14.61	Average	185	41
6	11420.00	57.80	74.00	-16.20	43.19	14.61	Peak	185	41
7	17160.00	60.08	68.20	-8.12	42.75	17.33	Peak	100	42

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).

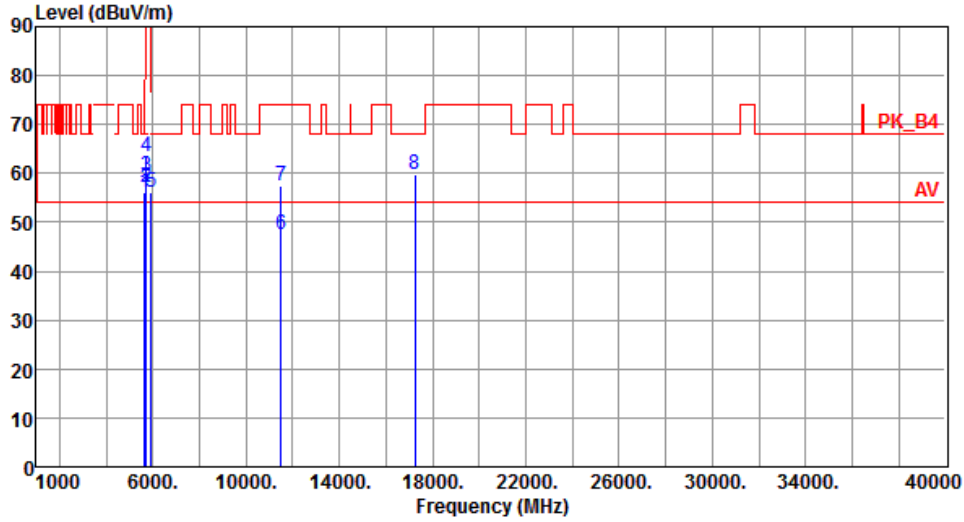
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	57.58	68.20	-10.62	53.04	4.54	Peak	202	28
2	5700.00	59.12	105.20	-46.08	54.44	4.68	Peak	202	28
3	5720.00	61.88	110.80	-48.92	57.15	4.73	Peak	202	28
4	5725.00	71.45	122.20	-50.75	66.70	4.75	Peak	202	28
5	5925.00	56.87	68.20	-11.33	51.59	5.28	Peak	202	28
6	11490.00	43.93	54.00	-10.07	29.22	14.71	Average	100	63
7	11490.00	57.04	74.00	-16.96	42.33	14.71	Peak	100	63
8	17235.00	60.13	68.20	-8.07	42.60	17.53	Peak	100	65

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).

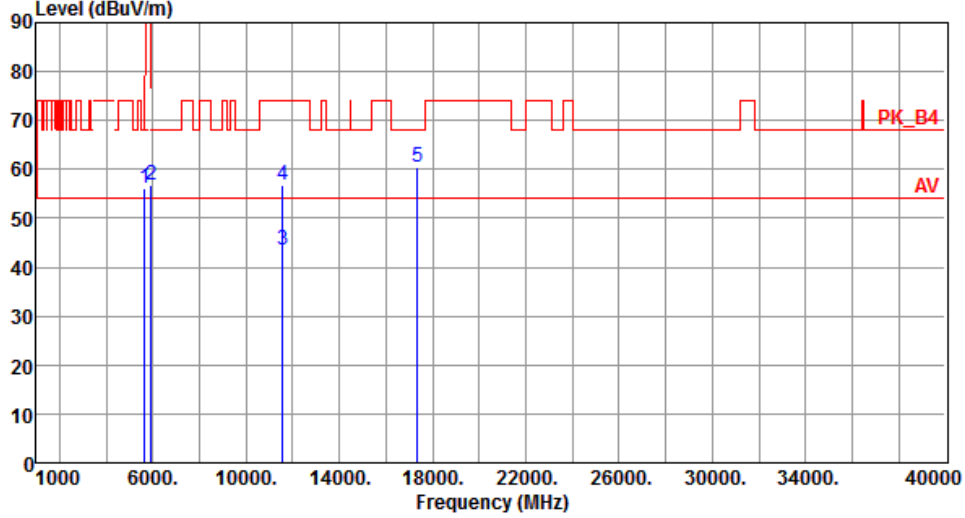
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	56.12	68.20	-12.08	51.58	4.54	Peak	205	347
2	5700.00	57.23	105.20	-47.97	52.55	4.68	Peak	205	347
3	5720.00	59.56	110.80	-51.24	54.83	4.73	Peak	205	347
4	5725.00	63.30	122.20	-58.90	58.55	4.75	Peak	205	341
5	5925.00	55.98	68.20	-12.22	50.70	5.28	Peak	205	341
6	11490.00	47.37	54.00	-6.63	32.66	14.71	Average	176	41
7	11490.00	57.33	74.00	-16.67	42.62	14.71	Peak	176	41
8	17235.00	59.87	68.20	-8.33	42.34	17.53	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).

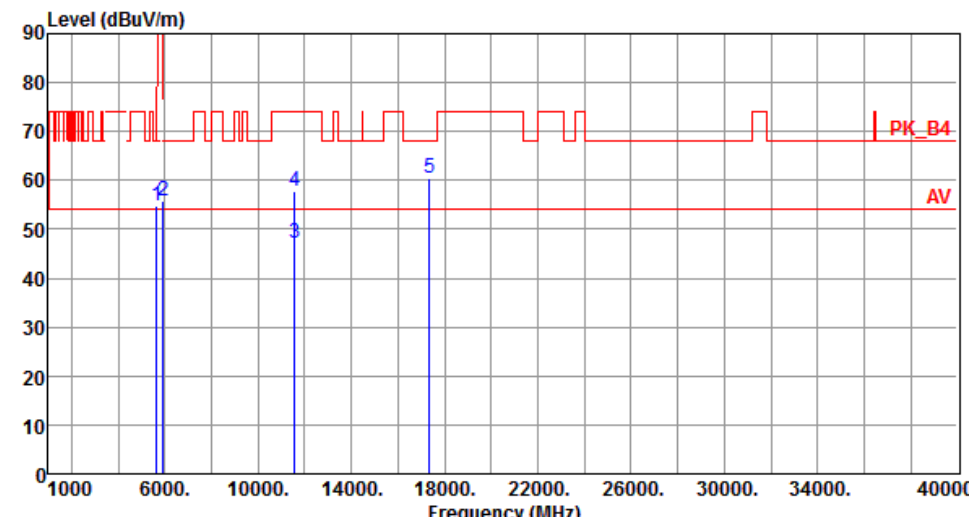
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	56.25	68.20	-11.95	51.71	4.54	Peak	220	25
2	5925.00	56.95	68.20	-11.25	51.67	5.28	Peak	220	25
3	11570.00	43.63	54.00	-10.37	29.10	14.53	Average	100	62
4	11570.00	56.81	74.00	-17.19	42.28	14.53	Peak	100	62
5	17355.00	60.46	68.20	-7.74	42.51	17.95	Peak	100	72

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).

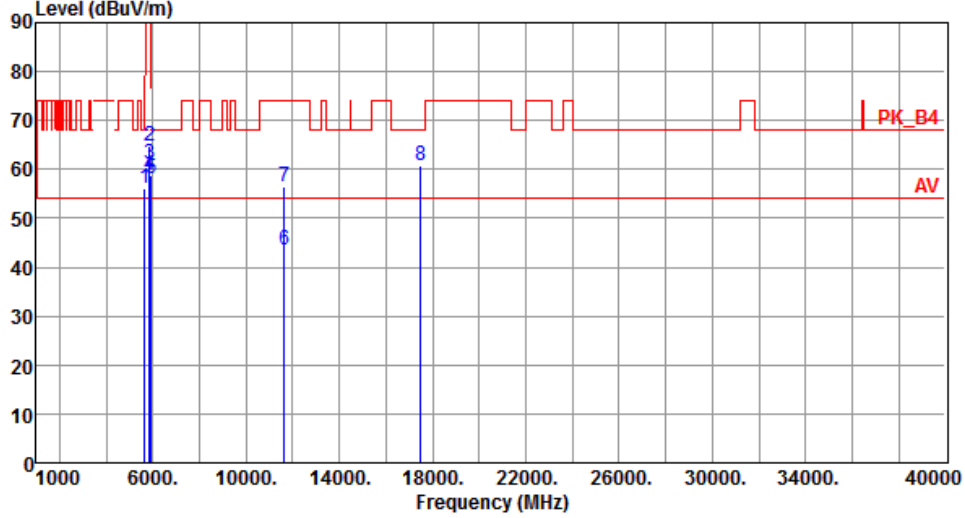
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	54.94	68.20	-13.26	50.40	4.54	Peak	225	338
2	5925.00	55.90	68.20	-12.30	50.62	5.28	Peak	225	338
3	11570.00	46.99	54.00	-7.01	32.46	14.53	Average	175	45
4	11570.00	57.75	74.00	-16.25	43.22	14.53	Peak	175	45
5	17355.00	60.49	68.20	-7.71	42.54	17.95	Peak	100	32

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).

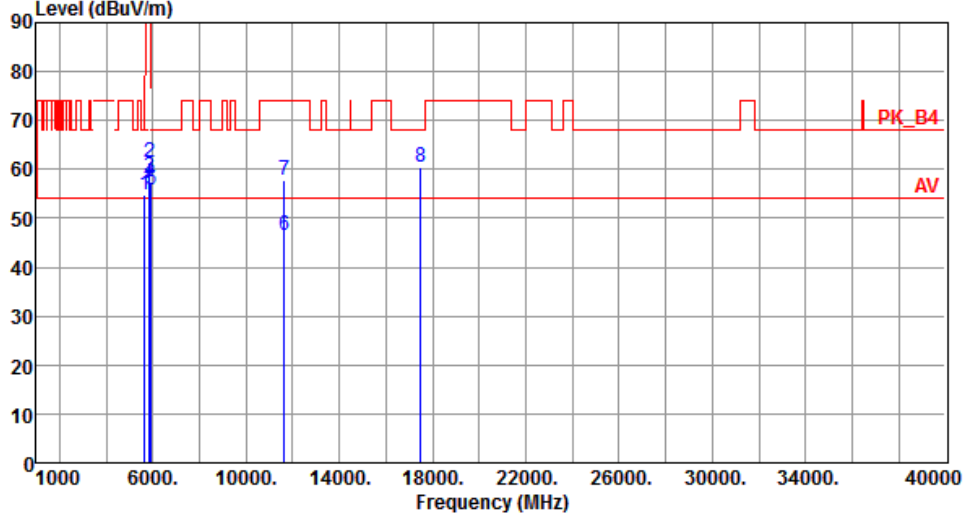
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	56.05	68.20	-12.15	51.51	4.54	Peak	210	23
2	5850.00	64.74	122.20	-57.46	59.59	5.15	Peak	210	23
3	5855.00	61.02	110.80	-49.78	55.87	5.15	Peak	210	23
4	5875.00	58.82	105.20	-46.38	53.63	5.19	Peak	210	23
5	5925.00	58.22	68.20	-9.98	52.94	5.28	Peak	210	23
6	11650.00	43.54	54.00	-10.46	29.33	14.21	Average	100	61
7	11650.00	56.45	74.00	-17.55	42.24	14.21	Peak	100	61
8	17475.00	60.66	68.20	-7.54	42.38	18.28	Peak	100	64

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).

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



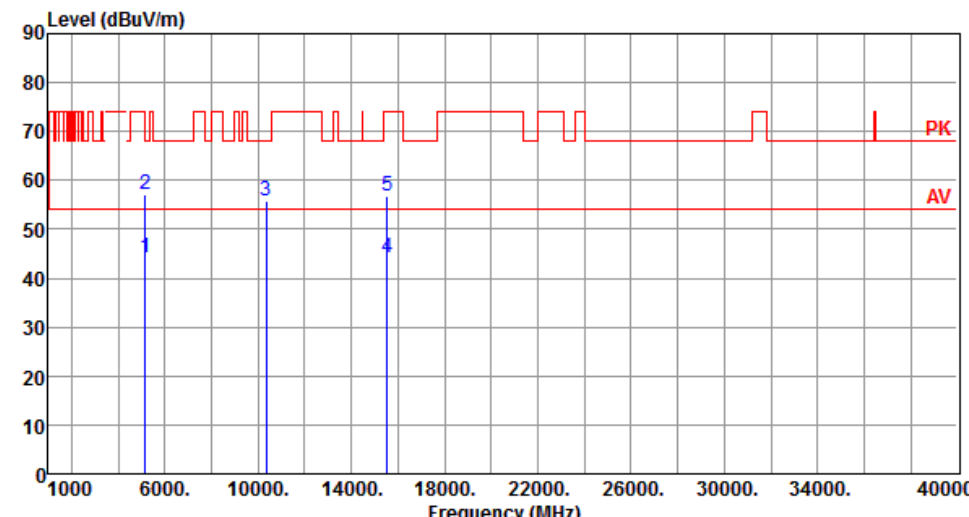
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	54.82	68.20	-13.38	50.28	4.54	Peak	210	336
2	5850.00	61.36	122.20	-60.84	56.21	5.15	Peak	210	336
3	5855.00	58.53	110.80	-52.27	53.38	5.15	Peak	210	336
4	5875.00	57.37	105.20	-47.83	52.18	5.19	Peak	210	336
5	5925.00	55.90	68.20	-12.30	50.62	5.28	Peak	210	336
6	11650.00	46.51	54.00	-7.49	32.30	14.21	Average	180	41
7	11650.00	57.80	74.00	-16.20	43.59	14.21	Peak	180	41
8	17475.00	60.44	68.20	-7.76	42.16	18.28	Peak	112	49

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

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

Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal		
Level (dBuV/m)			

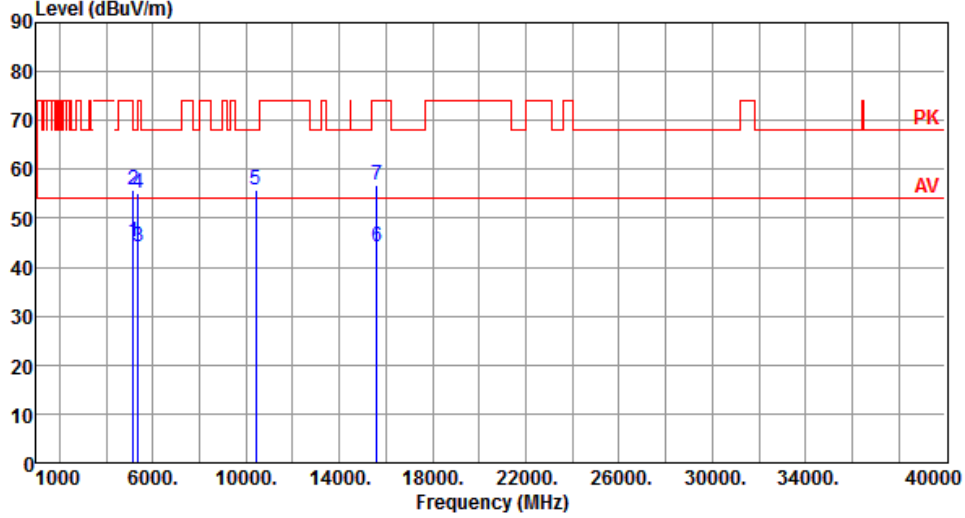
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.19	54.00	-9.81	39.75	4.44	Average	206	343
2	5150.00	57.03	74.00	-16.97	52.59	4.44	Peak	206	343
3	10360.00	55.84	68.20	-12.36	41.55	14.29	Peak	175	32
4	15540.00	44.31	54.00	-9.69	29.76	14.55	Average	100	39
5	15540.00	56.71	74.00	-17.29	42.16	14.55	Peak	100	39

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).

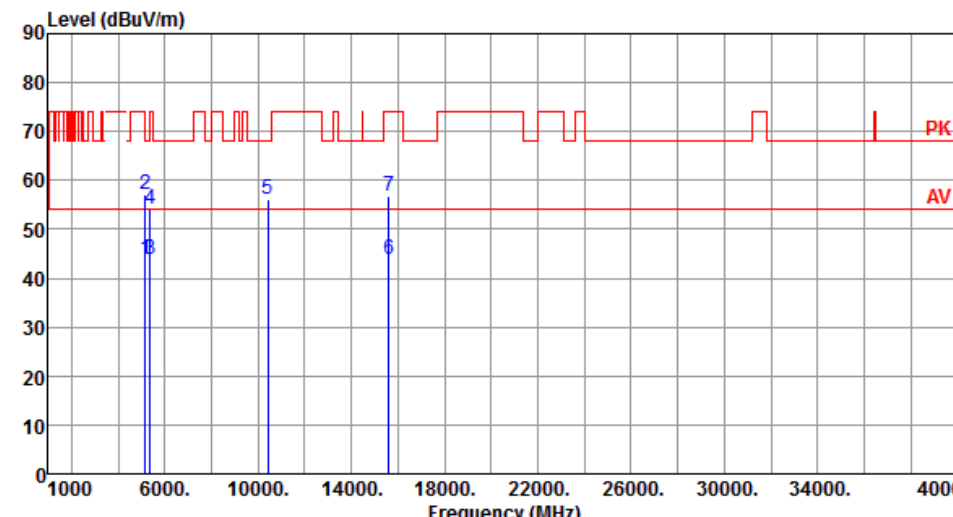
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal		



	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	45.15	54.00	-8.85	40.71	4.44	Average	178	42
2	5150.00	55.86	74.00	-18.14	51.42	4.44	Peak	178	42
3	5350.00	44.03	54.00	-9.97	40.09	3.94	Average	178	42
4	5350.00	55.05	74.00	-18.95	51.11	3.94	Peak	178	42
5	10400.00	55.85	68.20	-12.35	41.45	14.40	Peak	100	56
6	15600.00	44.04	54.00	-9.96	29.70	14.34	Average	100	71
7	15600.00	56.91	74.00	-17.09	42.57	14.34	Peak	100	71

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).

Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical		

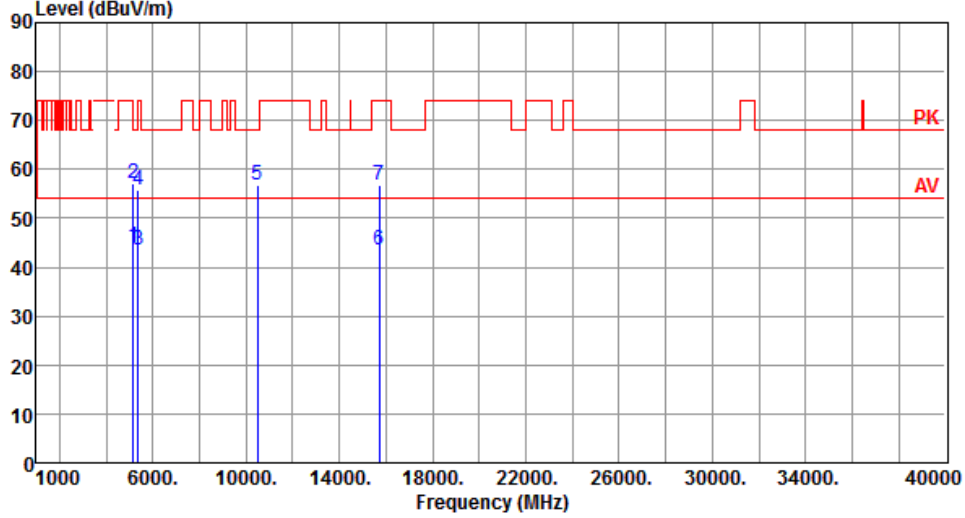


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	43.78	54.00	-10.22	39.34	4.44	Average	207	345
2	5150.00	57.02	74.00	-16.98	52.58	4.44	Peak	207	345
3	5350.00	43.87	54.00	-10.13	39.93	3.94	Average	207	345
4	5350.00	54.04	74.00	-19.96	50.10	3.94	Peak	207	345
5	10400.00	56.03	68.20	-12.17	41.63	14.40	Peak	176	33
6	15600.00	43.77	54.00	-10.23	29.43	14.34	Average	100	35
7	15600.00	56.78	74.00	-17.22	42.44	14.34	Peak	100	35

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).

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal		
Level (dBuV/m) </			

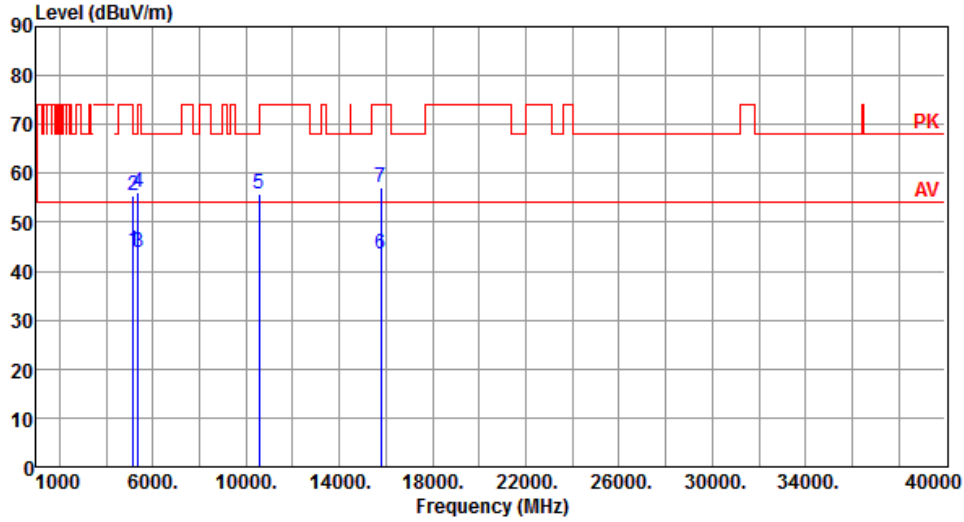
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.03	54.00	-9.97	39.59	4.44	Average	207	341
2	5150.00	57.02	74.00	-16.98	52.58	4.44	Peak	207	341
3	5350.00	43.63	54.00	-10.37	39.69	3.94	Average	207	341
4	5350.00	55.68	74.00	-18.32	51.74	3.94	Peak	207	341
5	10480.00	56.63	68.20	-11.57	42.23	14.40	Peak	171	33
6	15720.00	43.46	54.00	-10.54	29.37	14.09	Average	100	40
7	15720.00	56.65	74.00	-17.35	42.56	14.09	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).

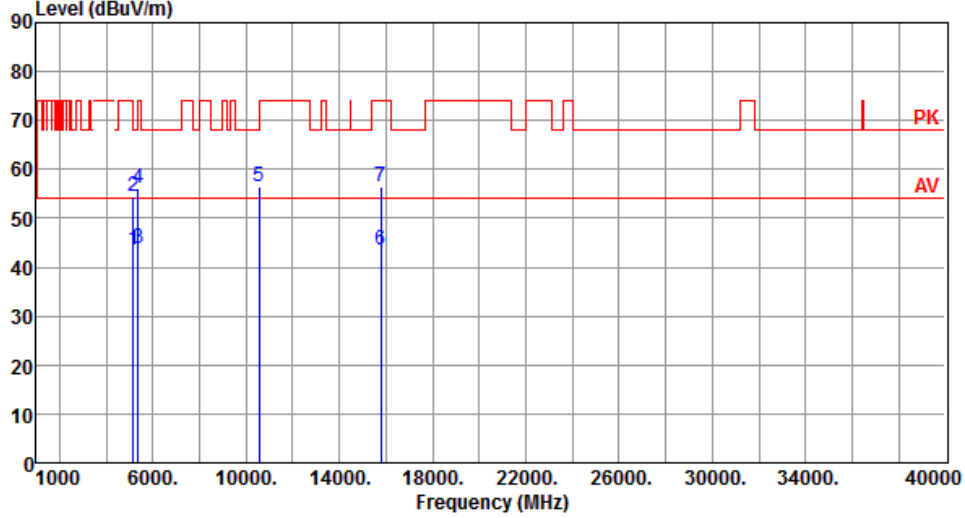
Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.32	54.00	-9.68	39.88	4.44	Average	186	41
2	5150.00	55.45	74.00	-18.55	51.01	4.44	Peak	186	41
3	5350.00	44.00	54.00	-10.00	40.06	3.94	Average	186	41
4	5350.00	56.02	74.00	-17.98	52.08	3.94	Peak	186	41
5	10540.00	55.84	68.20	-12.36	41.44	14.40	Peak	100	66
6	15780.00	43.58	54.00	-10.42	29.58	14.00	Average	100	63
7	15780.00	57.21	74.00	-16.79	43.21	14.00	Peak	100	63

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).

Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Vertical		

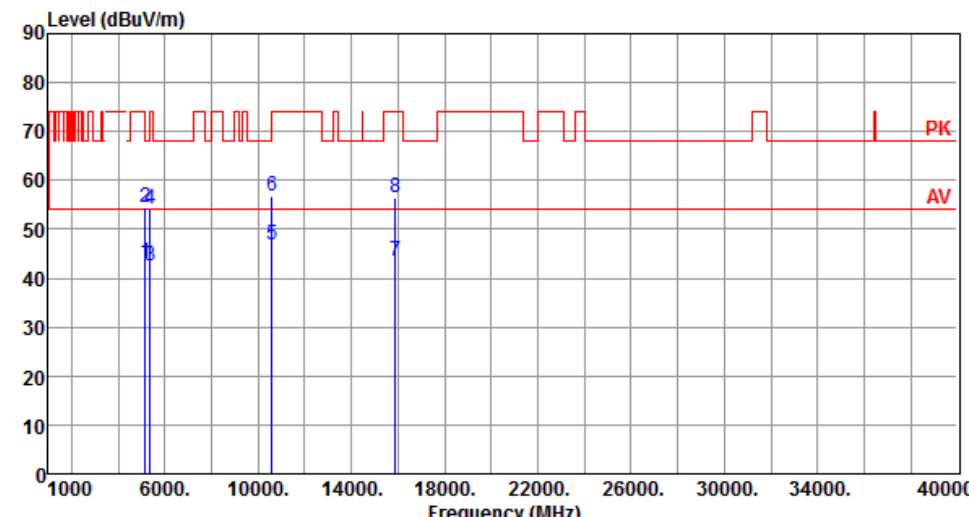


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	43.56	54.00	-10.44	39.12	4.44	Average	208	341
2	5150.00	54.41	74.00	-19.59	49.97	4.44	Peak	208	341
3	5350.00	43.87	54.00	-10.13	39.93	3.94	Average	208	341
4	5350.00	56.01	74.00	-17.99	52.07	3.94	Peak	207	344
5	10540.00	56.44	68.20	-11.76	42.04	14.40	Peak	176	31
6	15780.00	43.58	54.00	-10.42	29.58	14.00	Average	100	32
7	15780.00	56.57	74.00	-17.43	42.57	14.00	Peak	100	32

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).

Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal		
Level (dBUV/m)			

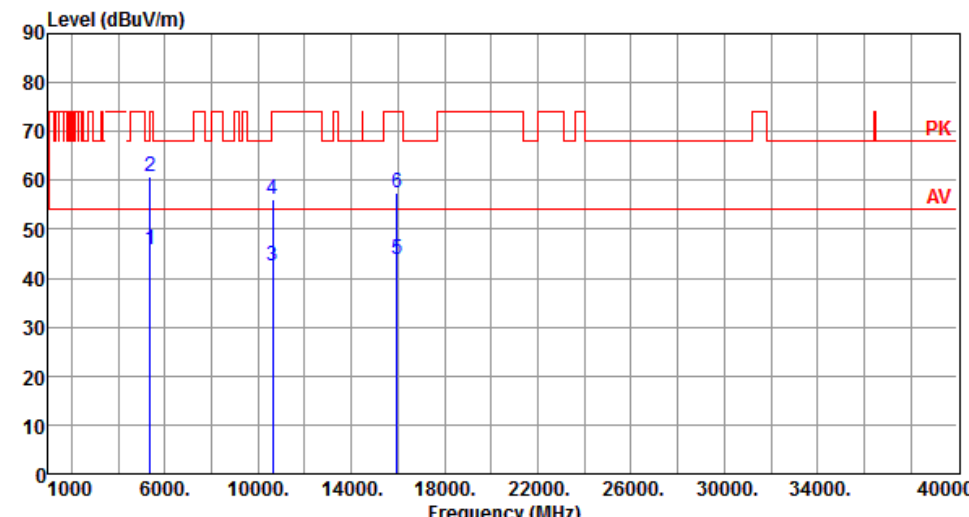
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Vertical		



	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	43.30	54.00	-10.70	38.86	4.44	Average	204	342
2	5150.00	54.38	74.00	-19.62	49.94	4.44	Peak	204	342
3	5350.00	42.63	54.00	-11.37	38.69	3.94	Average	204	342
4	5350.00	54.00	74.00	-20.00	50.06	3.94	Peak	204	342
5	10600.00	46.74	54.00	-7.26	32.36	14.38	Average	176	39
6	10600.00	56.74	74.00	-17.26	42.36	14.38	Peak	176	39
7	15900.00	43.51	54.00	-10.49	29.56	13.95	Average	100	30
8	15900.00	56.57	74.00	-17.43	42.62	13.95	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).

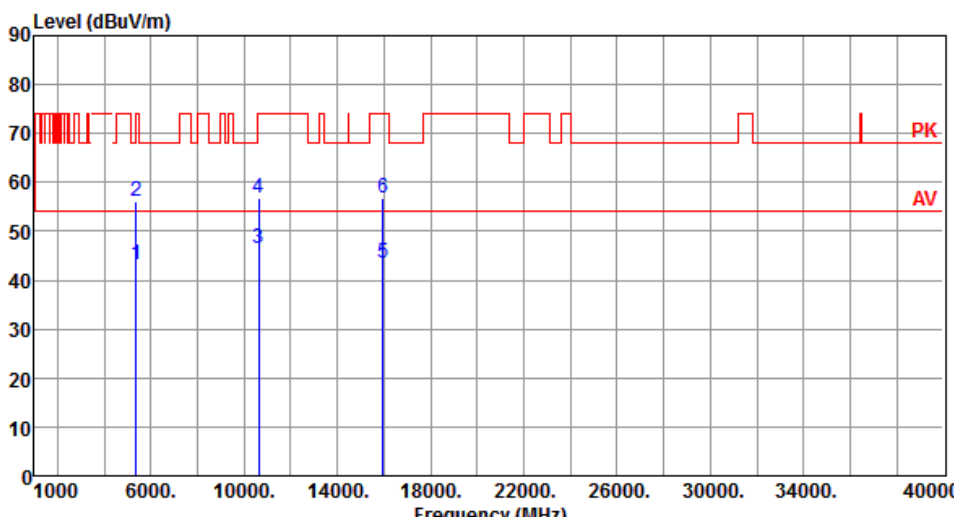
Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	45.90	54.00	-8.10	41.96	3.94	Average	184	39
2	5350.00	60.86	74.00	-13.14	56.92	3.94	Peak	184	39
3	10640.00	42.41	54.00	-11.59	28.05	14.36	Average	100	65
4	10640.00	56.08	74.00	-17.92	41.72	14.36	Peak	100	65
5	15960.00	43.78	54.00	-10.22	29.92	13.86	Average	100	66
6	15960.00	57.52	74.00	-16.48	43.66	13.86	Peak	100	66

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).

Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Vertical		

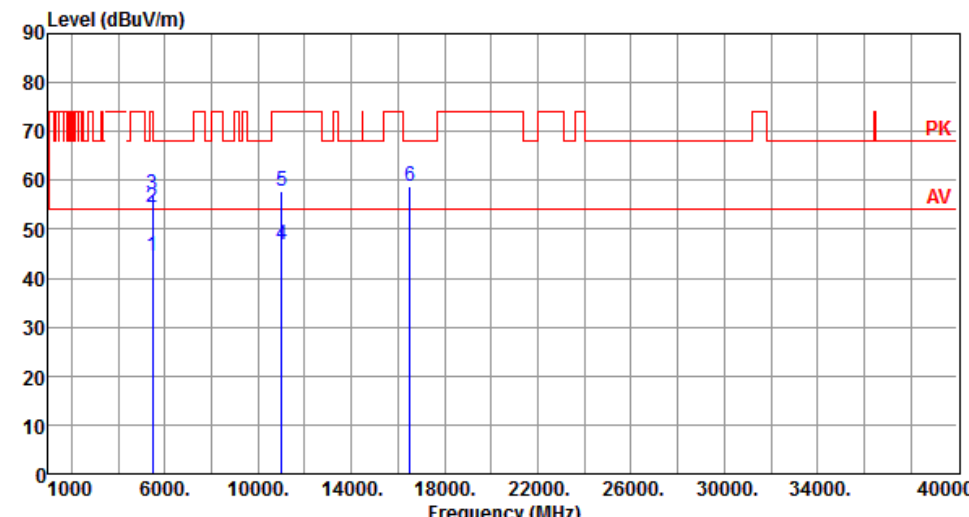


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	43.01	54.00	-10.99	39.07	3.94	Average	207	344
2	5350.00	56.01	74.00	-17.99	52.07	3.94	Peak	207	344
3	10640.00	46.48	54.00	-7.52	32.12	14.36	Average	171	35
4	10640.00	56.82	74.00	-17.18	42.46	14.36	Peak	171	35
5	15960.00	43.64	54.00	-10.36	29.78	13.86	Average	100	31
6	15960.00	56.78	74.00	-17.22	42.92	13.86	Peak	100	31

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).

Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Horizontal		
 <			

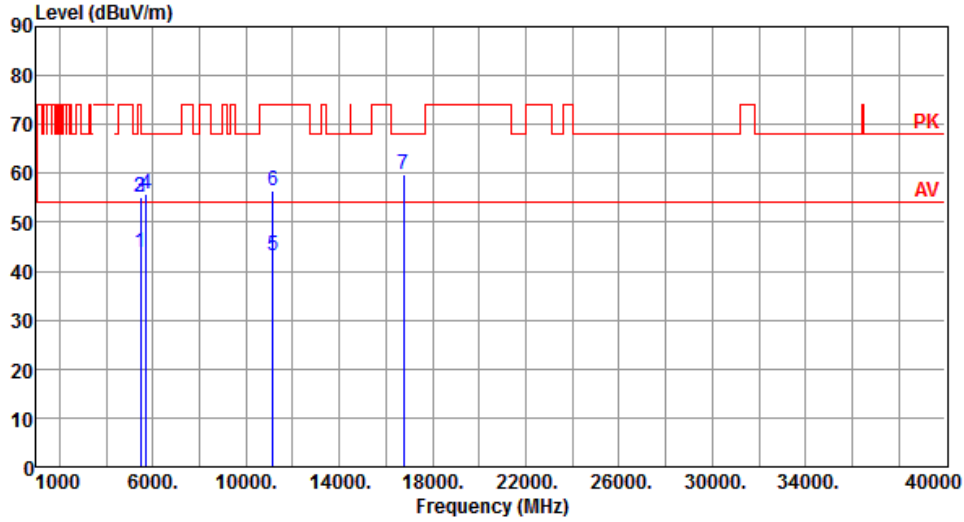
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical		



	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	44.51	54.00	-9.49	40.10	4.41	Average	207	352
2	5460.00	54.57	74.00	-19.43	50.16	4.41	Peak	207	352
3	5470.00	57.22	68.20	-10.98	52.80	4.42	Peak	207	352
4	11000.00	46.68	54.00	-7.32	31.90	14.78	Average	174	39
5	11000.00	57.81	74.00	-16.19	43.03	14.78	Peak	174	39
6	16500.00	58.79	68.20	-9.41	42.90	15.89	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).

Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Horizontal		

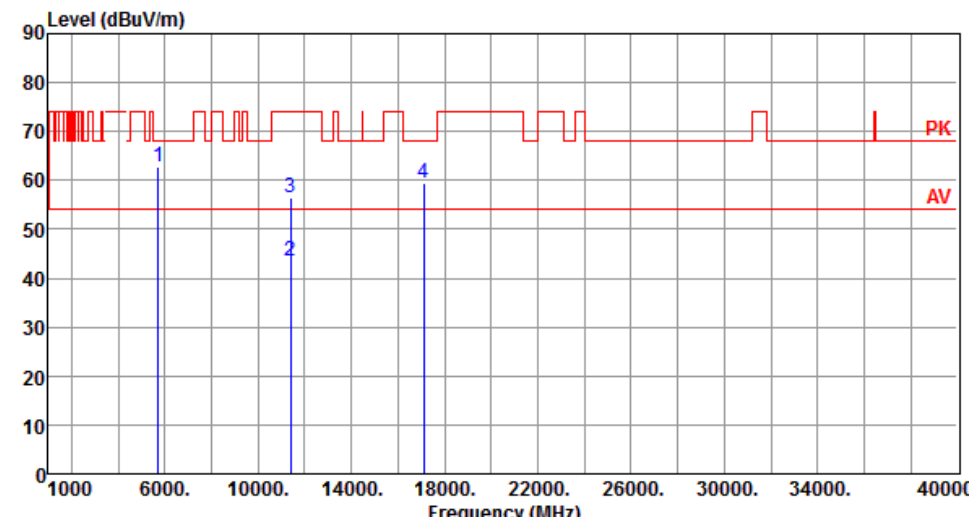


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	43.92	54.00	-10.08	39.51	4.41	Average	199	22
2	5460.00	55.14	74.00	-18.86	50.73	4.41	Peak	199	22
3	5470.00	55.24	68.20	-12.96	50.82	4.42	Peak	199	22
4	5725.00	55.93	68.20	-12.27	51.18	4.75	Peak	199	22
5	11160.00	43.16	54.00	-10.84	28.72	14.44	Average	100	58
6	11160.00	56.49	74.00	-17.51	42.05	14.44	Peak	100	58
7	16740.00	59.76	68.20	-8.44	42.49	17.27	Peak	100	59

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).

Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Vertical		
Level (dBUV/m)			

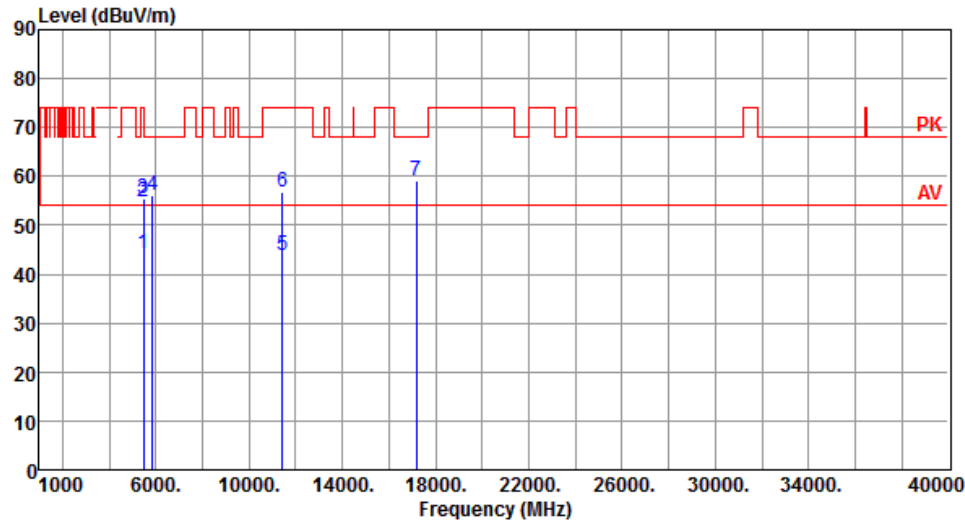
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Horizontal		

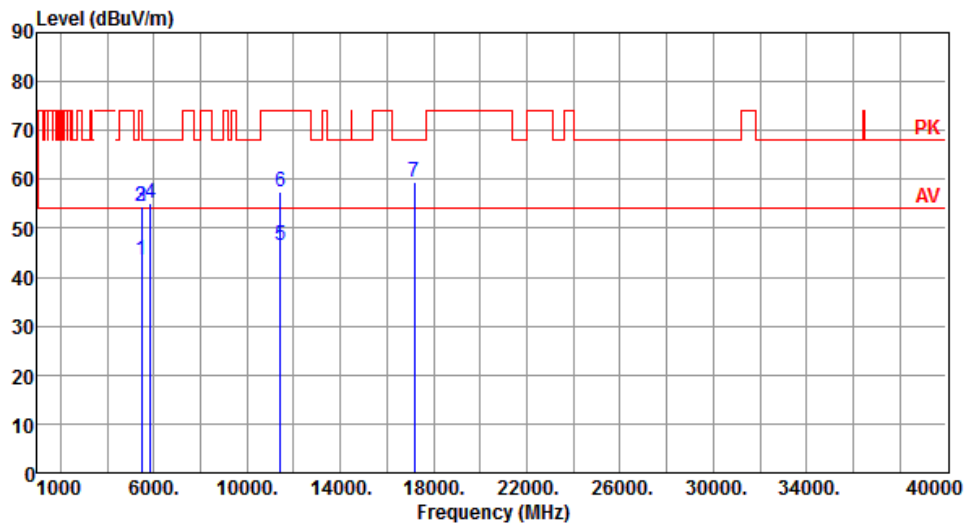


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	62.63	68.20	-5.57	57.88	4.75	Peak	194	15
2	11400.00	43.42	54.00	-10.58	28.84	14.58	Average	100	66
3	11400.00	56.48	74.00	-17.52	41.90	14.58	Peak	100	66
4	17100.00	59.44	68.20	-8.76	42.26	17.18	Peak	100	62

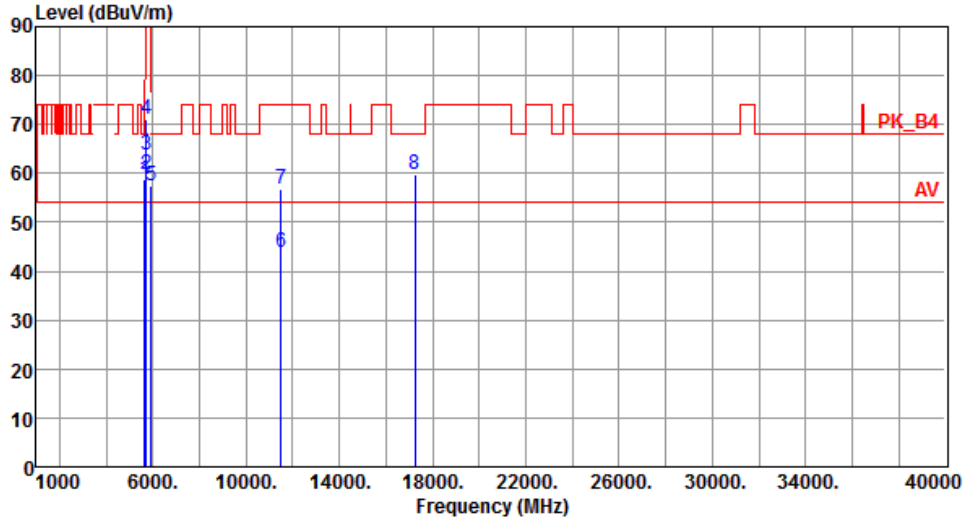
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical		
Level (dBuV/m)			

Modulation	VHT20	Test Freq. (MHz)	5720																																																																																																				
Polarization	Horizontal																																																																																																						
Level (dBuV/m)  Frequency (MHz) <table><tr><th></th><th>Freq.</th><th>Emission</th><th>Limit</th><th>Margin</th><th>SA</th><th>Factor</th><th>Remark</th><th>ANT</th><th>Turn</th></tr><tr><th></th><th>MHz</th><th>level</th><th>dBuV/m</th><th>dB</th><th>reading</th><th>dB</th><th></th><th>High</th><th>Table</th></tr><tr><th></th><th></th><th>dBuV/m</th><th></th><th></th><th>dBuV</th><th></th><th></th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>5460.00</td><td>44.25</td><td>54.00</td><td>-9.75</td><td>39.84</td><td>4.41</td><td>Average</td><td>196</td><td>19</td></tr><tr><td>2</td><td>5460.00</td><td>54.95</td><td>74.00</td><td>-19.05</td><td>50.54</td><td>4.41</td><td>Peak</td><td>196</td><td>19</td></tr><tr><td>3</td><td>5470.00</td><td>55.30</td><td>68.20</td><td>-12.90</td><td>50.88</td><td>4.42</td><td>Peak</td><td>196</td><td>19</td></tr><tr><td>4</td><td>5850.00</td><td>56.02</td><td>68.20</td><td>-12.18</td><td>50.87</td><td>5.15</td><td>Peak</td><td>196</td><td>19</td></tr><tr><td>5</td><td>11420.00</td><td>43.72</td><td>54.00</td><td>-10.28</td><td>29.11</td><td>14.61</td><td>Average</td><td>100</td><td>59</td></tr><tr><td>6</td><td>11420.00</td><td>56.63</td><td>74.00</td><td>-17.37</td><td>42.02</td><td>14.61</td><td>Peak</td><td>100</td><td>59</td></tr><tr><td>7</td><td>17160.00</td><td>59.26</td><td>68.20</td><td>-8.94</td><td>41.93</td><td>17.33</td><td>Peak</td><td>100</td><td>63</td></tr></table>					Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn		MHz	level	dBuV/m	dB	reading	dB		High	Table			dBuV/m			dBuV			cm	deg	1	5460.00	44.25	54.00	-9.75	39.84	4.41	Average	196	19	2	5460.00	54.95	74.00	-19.05	50.54	4.41	Peak	196	19	3	5470.00	55.30	68.20	-12.90	50.88	4.42	Peak	196	19	4	5850.00	56.02	68.20	-12.18	50.87	5.15	Peak	196	19	5	11420.00	43.72	54.00	-10.28	29.11	14.61	Average	100	59	6	11420.00	56.63	74.00	-17.37	42.02	14.61	Peak	100	59	7	17160.00	59.26	68.20	-8.94	41.93	17.33	Peak	100	63
	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn																																																																																														
	MHz	level	dBuV/m	dB	reading	dB		High	Table																																																																																														
		dBuV/m			dBuV			cm	deg																																																																																														
1	5460.00	44.25	54.00	-9.75	39.84	4.41	Average	196	19																																																																																														
2	5460.00	54.95	74.00	-19.05	50.54	4.41	Peak	196	19																																																																																														
3	5470.00	55.30	68.20	-12.90	50.88	4.42	Peak	196	19																																																																																														
4	5850.00	56.02	68.20	-12.18	50.87	5.15	Peak	196	19																																																																																														
5	11420.00	43.72	54.00	-10.28	29.11	14.61	Average	100	59																																																																																														
6	11420.00	56.63	74.00	-17.37	42.02	14.61	Peak	100	59																																																																																														
7	17160.00	59.26	68.20	-8.94	41.93	17.33	Peak	100	63																																																																																														
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).																																																																																																							

Modulation	VHT20	Test Freq. (MHz)	5720																																																																																
Polarization	Vertical																																																																																		
Level (dBUV/m)  Frequency (MHz) <table><tr><th></th><th>Freq. MHz</th><th>Emission level dBUV/m</th><th>Limit dBUV/m</th><th>Margin dB</th><th>SA reading dBUV</th><th>Factor dB</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr><tr><td>1</td><td>5460.00</td><td>43.53</td><td>54.00</td><td>-10.47</td><td>39.12</td><td>4.41</td><td>Average</td><td>219</td><td>339</td></tr><tr><td>2</td><td>5460.00</td><td>54.53</td><td>74.00</td><td>-19.47</td><td>50.12</td><td>4.41</td><td>Peak</td><td>219</td><td>339</td></tr><tr><td>3</td><td>5470.00</td><td>54.32</td><td>68.20</td><td>-13.88</td><td>49.90</td><td>4.42</td><td>Peak</td><td>219</td><td>339</td></tr><tr><td>4</td><td>5850.00</td><td>55.10</td><td>68.20</td><td>-13.10</td><td>49.95</td><td>5.15</td><td>Peak</td><td>219</td><td>339</td></tr><tr><td>5</td><td>11420.00</td><td>46.36</td><td>54.00</td><td>-7.64</td><td>31.75</td><td>14.61</td><td>Average</td><td>172</td><td>43</td></tr><tr><td>6</td><td>11420.00</td><td>57.48</td><td>74.00</td><td>-16.52</td><td>42.87</td><td>14.61</td><td>Peak</td><td>172</td><td>43</td></tr><tr><td>7</td><td>17160.00</td><td>59.40</td><td>68.20</td><td>-8.80</td><td>42.07</td><td>17.33</td><td>Peak</td><td>100</td><td>37</td></tr></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	5460.00	43.53	54.00	-10.47	39.12	4.41	Average	219	339	2	5460.00	54.53	74.00	-19.47	50.12	4.41	Peak	219	339	3	5470.00	54.32	68.20	-13.88	49.90	4.42	Peak	219	339	4	5850.00	55.10	68.20	-13.10	49.95	5.15	Peak	219	339	5	11420.00	46.36	54.00	-7.64	31.75	14.61	Average	172	43	6	11420.00	57.48	74.00	-16.52	42.87	14.61	Peak	172	43	7	17160.00	59.40	68.20	-8.80	42.07	17.33	Peak	100	37
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																										
1	5460.00	43.53	54.00	-10.47	39.12	4.41	Average	219	339																																																																										
2	5460.00	54.53	74.00	-19.47	50.12	4.41	Peak	219	339																																																																										
3	5470.00	54.32	68.20	-13.88	49.90	4.42	Peak	219	339																																																																										
4	5850.00	55.10	68.20	-13.10	49.95	5.15	Peak	219	339																																																																										
5	11420.00	46.36	54.00	-7.64	31.75	14.61	Average	172	43																																																																										
6	11420.00	57.48	74.00	-16.52	42.87	14.61	Peak	172	43																																																																										
7	17160.00	59.40	68.20	-8.80	42.07	17.33	Peak	100	37																																																																										
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).																																																																																			

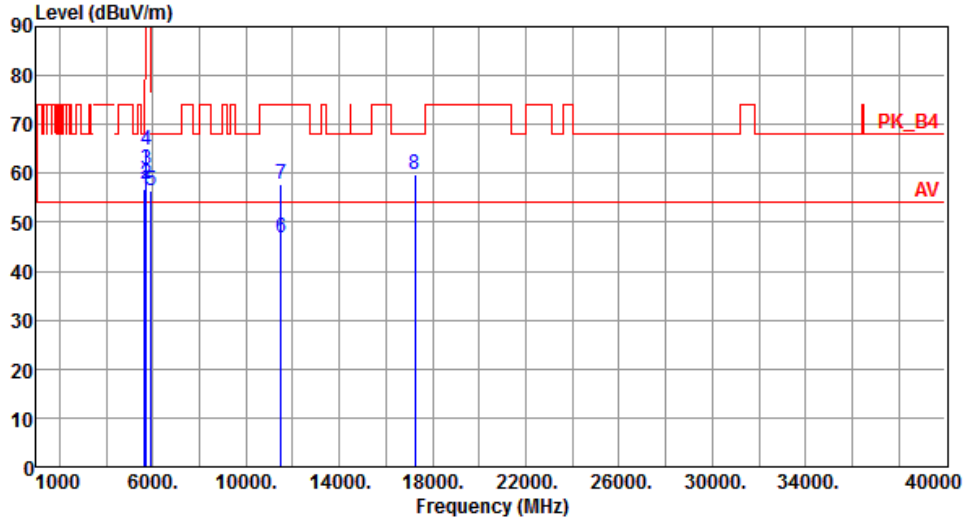
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.70	68.20	-9.50	54.16	4.54	Peak	206	23
2	5700.00	59.86	105.20	-45.34	55.18	4.68	Peak	206	23
3	5720.00	63.90	110.80	-46.90	59.17	4.73	Peak	206	23
4	5725.00	71.02	122.20	-51.18	66.27	4.75	Peak	206	23
5	5925.00	57.58	68.20	-10.62	52.30	5.28	Peak	206	23
6	11490.00	43.70	54.00	-10.30	28.99	14.71	Average	100	60
7	11490.00	56.93	74.00	-17.07	42.22	14.71	Peak	100	60
8	17235.00	59.79	68.20	-8.41	42.26	17.53	Peak	100	67

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).

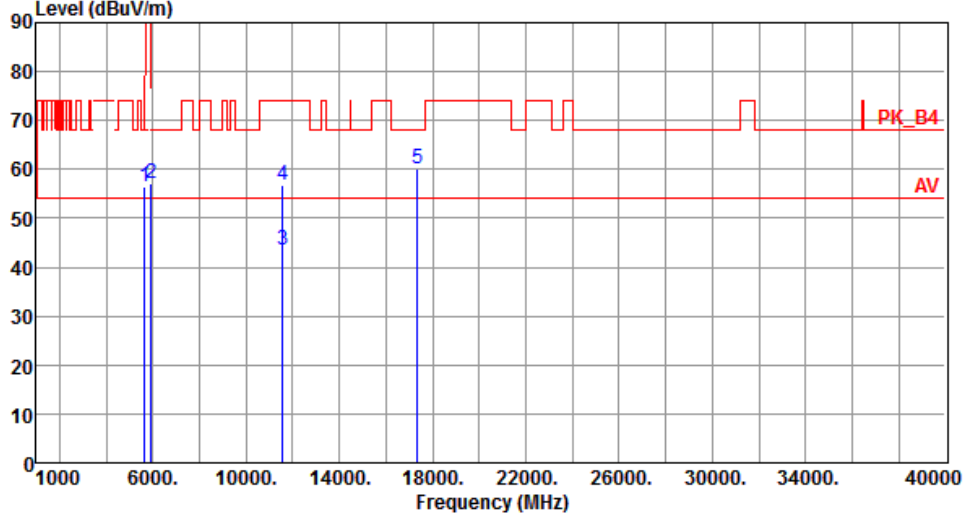
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	56.68	68.20	-11.52	52.14	4.54	Peak	213	341
2	5700.00	57.94	105.20	-47.26	53.26	4.68	Peak	213	341
3	5720.00	60.92	110.80	-49.88	56.19	4.73	Peak	213	341
4	5725.00	64.91	122.20	-57.29	60.16	4.75	Peak	213	341
5	5925.00	56.54	68.20	-11.66	51.26	5.28	Peak	213	341
6	11490.00	46.95	54.00	-7.05	32.24	14.71	Average	175	46
7	11490.00	57.86	74.00	-16.14	43.15	14.71	Peak	175	46
8	17235.00	59.85	68.20	-8.35	42.32	17.53	Peak	100	38

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).

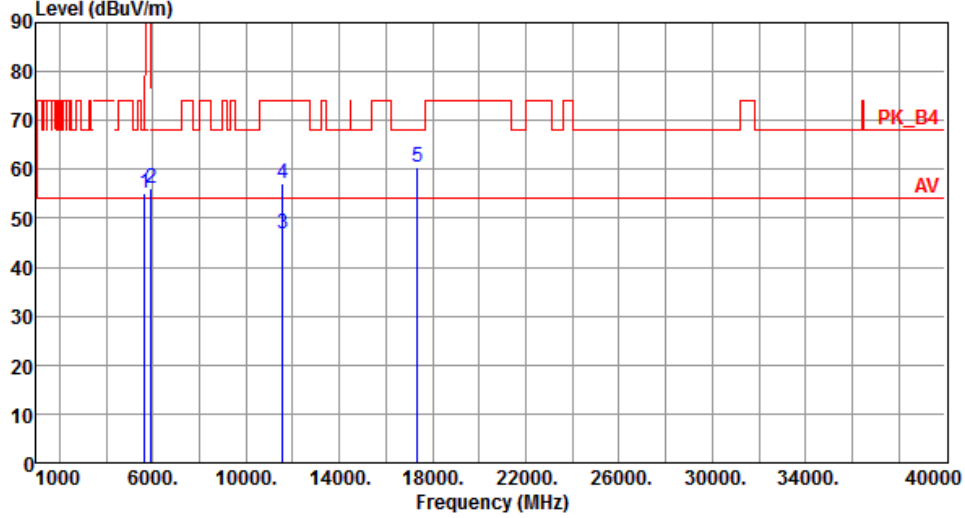
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	56.42	68.20	-11.78	51.88	4.54	Peak	223	24
2	5925.00	57.24	68.20	-10.96	51.96	5.28	Peak	223	24
3	11570.00	43.49	54.00	-10.51	28.96	14.53	Average	100	62
4	11570.00	56.66	74.00	-17.34	42.13	14.53	Peak	100	62
5	17355.00	60.08	68.20	-8.12	42.13	17.95	Peak	100	69

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).

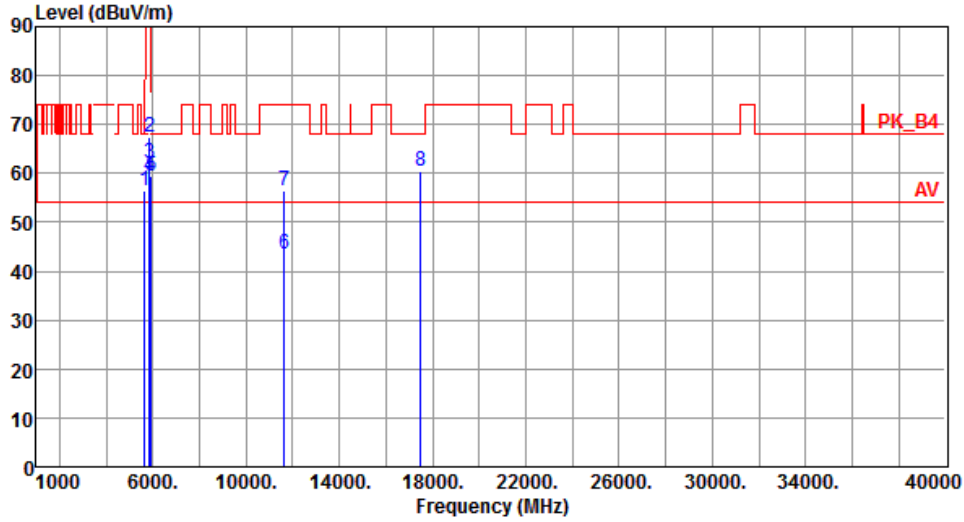
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	55.13	68.20	-13.07	50.59	4.54	Peak	211	342
2	5925.00	55.98	68.20	-12.22	50.70	5.28	Peak	211	342
3	11570.00	46.75	54.00	-7.25	32.22	14.53	Average	173	40
4	11570.00	57.16	74.00	-16.84	42.63	14.53	Peak	173	40
5	17355.00	60.28	68.20	-7.92	42.33	17.95	Peak	100	31

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).

Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



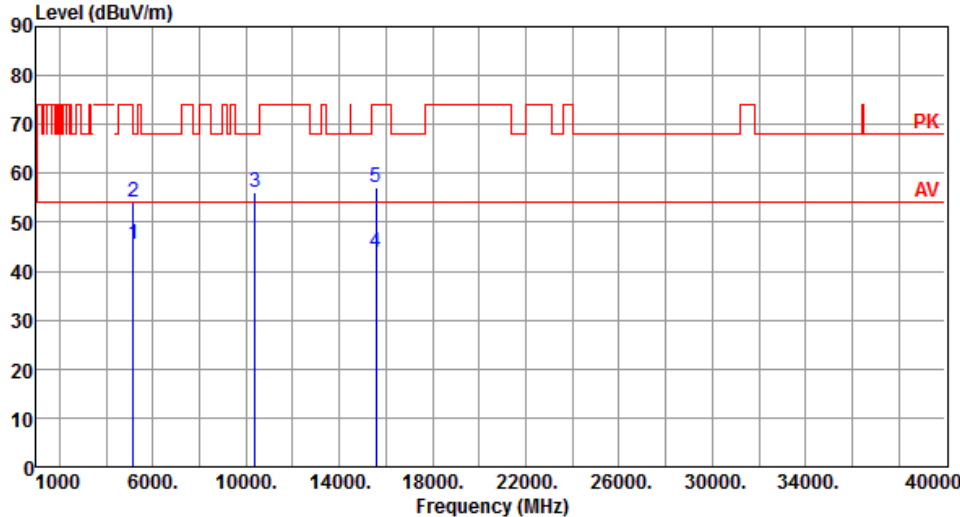
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	56.41	68.20	-11.79	51.87	4.54	Peak	207	27
2	5850.00	67.35	122.20	-54.85	62.20	5.15	Peak	207	27
3	5855.00	62.26	110.80	-48.54	57.11	5.15	Peak	207	27
4	5875.00	59.57	105.20	-45.63	54.38	5.19	Peak	207	27
5	5925.00	59.54	68.20	-8.66	54.26	5.28	Peak	207	27
6	11650.00	43.44	54.00	-10.56	29.23	14.21	Average	100	65
7	11650.00	56.56	74.00	-17.44	42.35	14.21	Peak	100	65
8	17475.00	60.60	68.20	-7.60	42.32	18.28	Peak	100	62

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

Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Vertical		
Level (dBUV/m) <			

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

Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Horizontal		

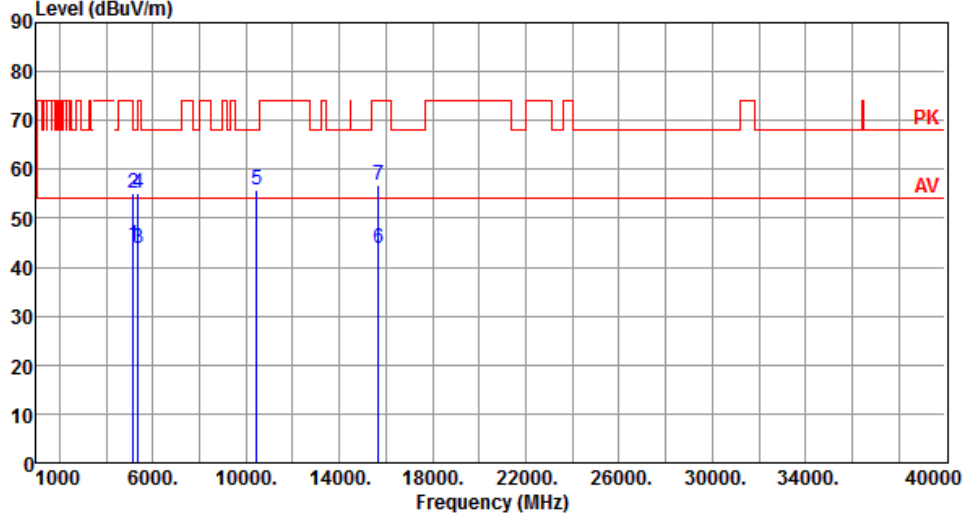


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.45	54.00	-8.55	41.01	4.44	Average	189	42
2	5150.00	54.18	74.00	-19.82	49.74	4.44	Peak	189	42
3	10380.00	55.98	68.20	-12.22	41.64	14.34	Peak	100	62
4	15570.00	43.99	54.00	-10.01	29.54	14.45	Average	100	63
5	15570.00	57.10	74.00	-16.90	42.65	14.45	Peak	100	63

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).

Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Vertical		
Level (dBuV/m)			

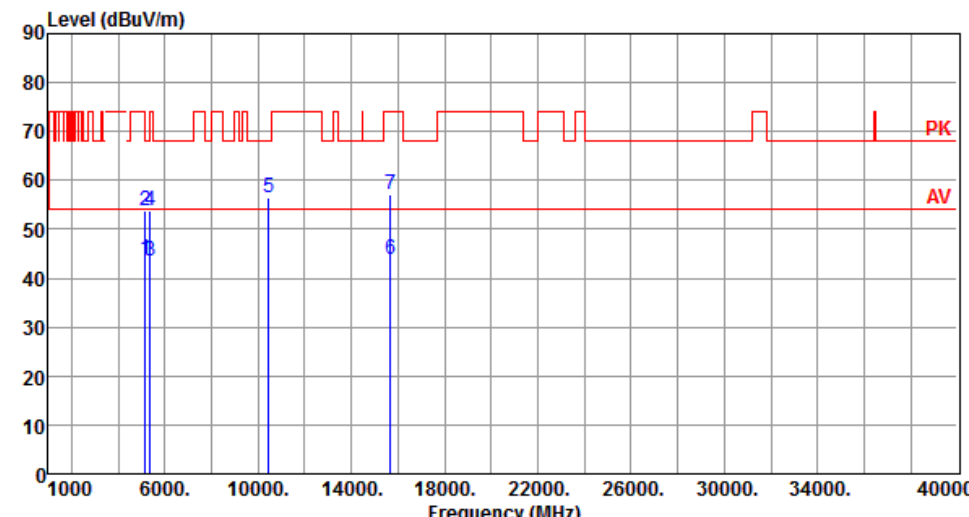
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.48	54.00	-9.52	40.04	4.44	Average	195	46
2	5150.00	55.19	74.00	-18.81	50.75	4.44	Peak	195	46
3	5350.00	44.00	54.00	-10.00	40.06	3.94	Average	195	46
4	5350.00	55.03	74.00	-18.97	51.09	3.94	Peak	195	46
5	10460.00	55.93	68.20	-12.27	41.53	14.40	Peak	100	69
6	15690.00	43.97	54.00	-10.03	29.83	14.14	Average	100	62
7	15690.00	56.80	74.00	-17.20	42.66	14.14	Peak	100	62

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

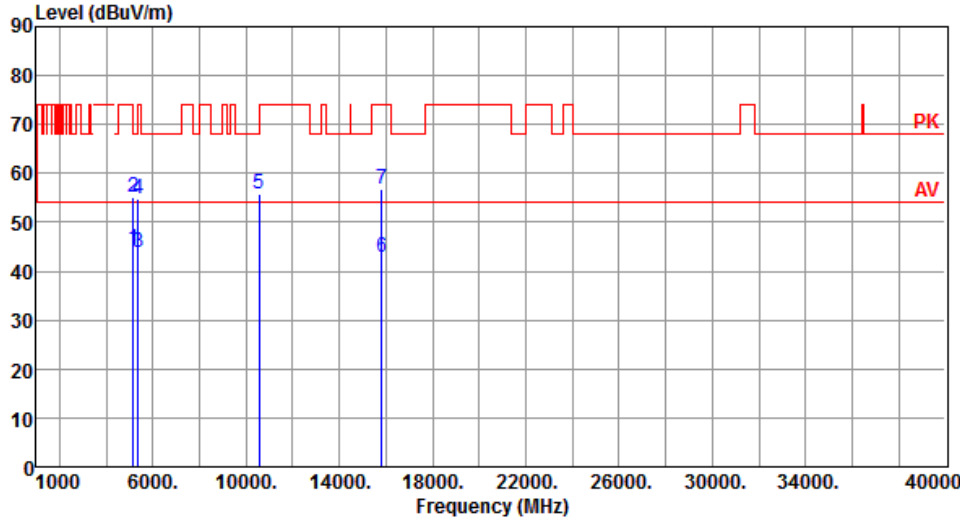
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical		



	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	43.69	54.00	-10.31	39.25	4.44	Average	199	348
2	5150.00	53.75	74.00	-20.25	49.31	4.44	Peak	199	348
3	5350.00	43.41	54.00	-10.59	39.47	3.94	Average	199	348
4	5350.00	53.86	74.00	-20.14	49.92	3.94	Peak	199	348
5	10460.00	56.43	68.20	-11.77	42.03	14.40	Peak	100	32
6	15690.00	43.73	54.00	-10.27	29.59	14.14	Average	100	36
7	15690.00	57.03	74.00	-16.97	42.89	14.14	Peak	100	36

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).

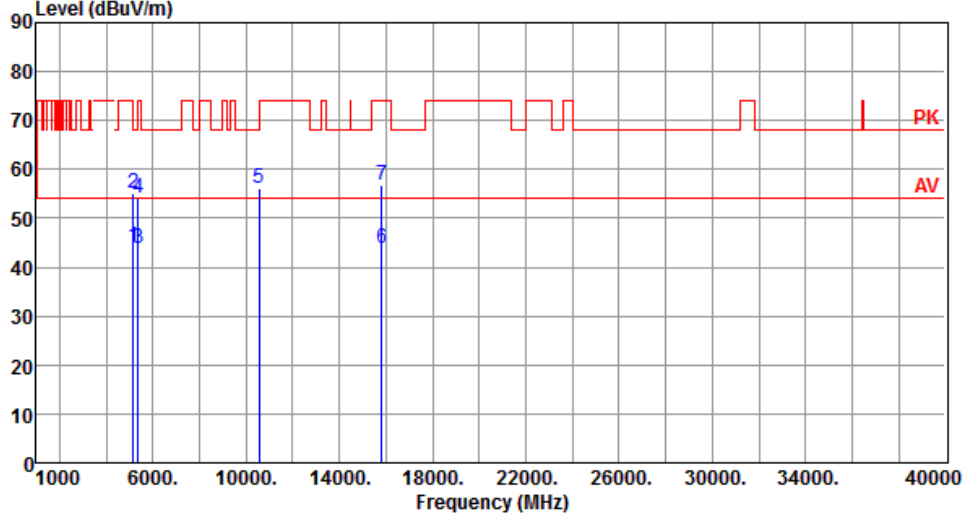
Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.45	54.00	-9.55	40.01	4.44	Average	203	45
2	5150.00	55.00	74.00	-19.00	50.56	4.44	Peak	203	45
3	5350.00	43.90	54.00	-10.10	39.96	3.94	Average	203	45
4	5350.00	54.86	74.00	-19.14	50.92	3.94	Peak	203	45
5	10540.00	55.90	68.20	-12.30	41.50	14.40	Peak	100	70
6	15810.00	42.98	54.00	-11.02	29.01	13.97	Average	100	60
7	15810.00	56.72	74.00	-17.28	42.75	13.97	Peak	100	60

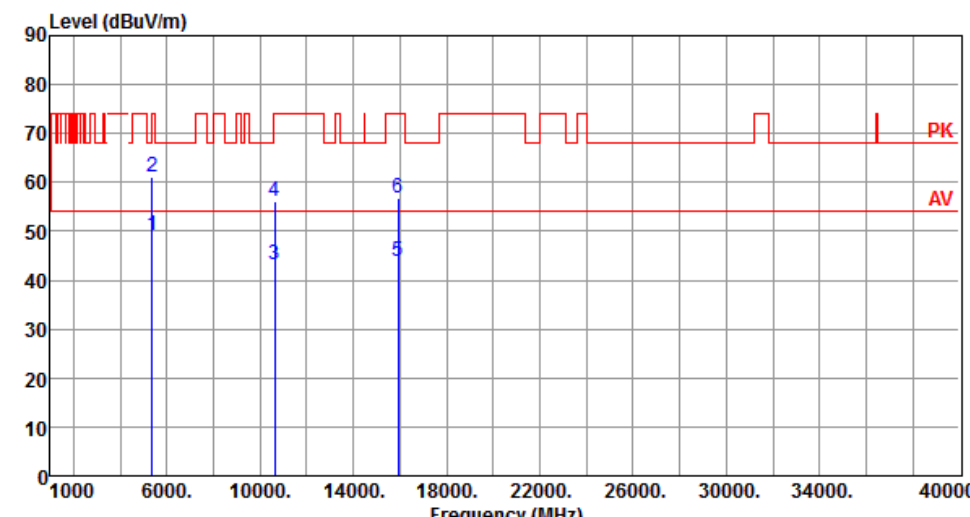
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical		



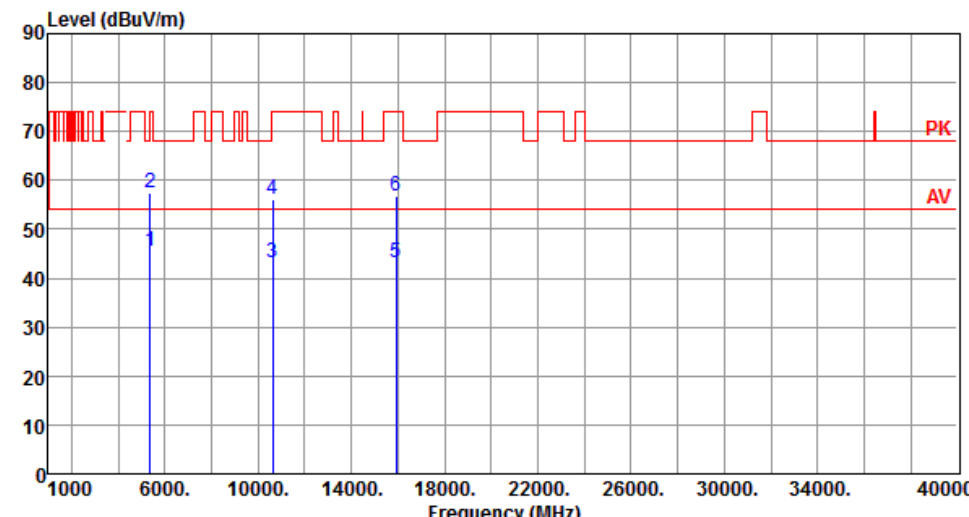
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.32	54.00	-9.68	39.88	4.44	Average	202	344
2	5150.00	55.19	74.00	-18.81	50.75	4.44	Peak	202	344
3	5350.00	44.00	54.00	-10.00	40.06	3.94	Average	202	344
4	5350.00	54.03	74.00	-19.97	50.09	3.94	Peak	202	344
5	10540.00	56.06	68.20	-12.14	41.66	14.40	Peak	100	38
6	15810.00	43.92	54.00	-10.08	29.95	13.97	Average	100	42
7	15810.00	56.91	74.00	-17.09	42.94	13.97	Peak	100	42

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).

Modulation	VHT40	Test Freq. (MHz)	5310						
Polarization	Horizontal								
									
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	49.01	54.00	-4.99	45.07	3.94	Average	202	42
2	5350.00	61.11	74.00	-12.89	57.17	3.94	Peak	202	42
3	10620.00	43.04	54.00	-10.96	28.66	14.38	Average	100	59
4	10620.00	56.17	74.00	-17.83	41.79	14.38	Peak	100	59
5	15930.00	43.67	54.00	-10.33	29.77	13.90	Average	100	60
6	15930.00	56.80	74.00	-17.20	42.90	13.90	Peak	100	60

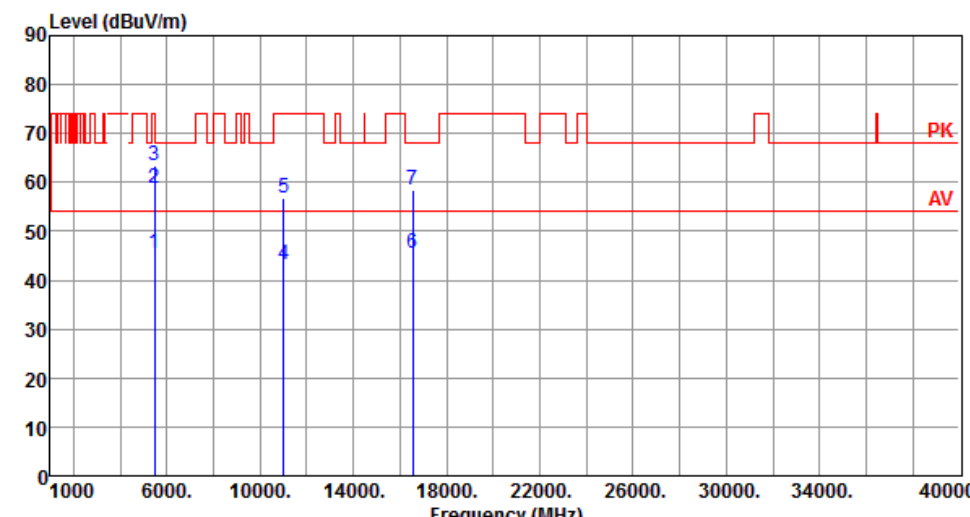
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Vertical		

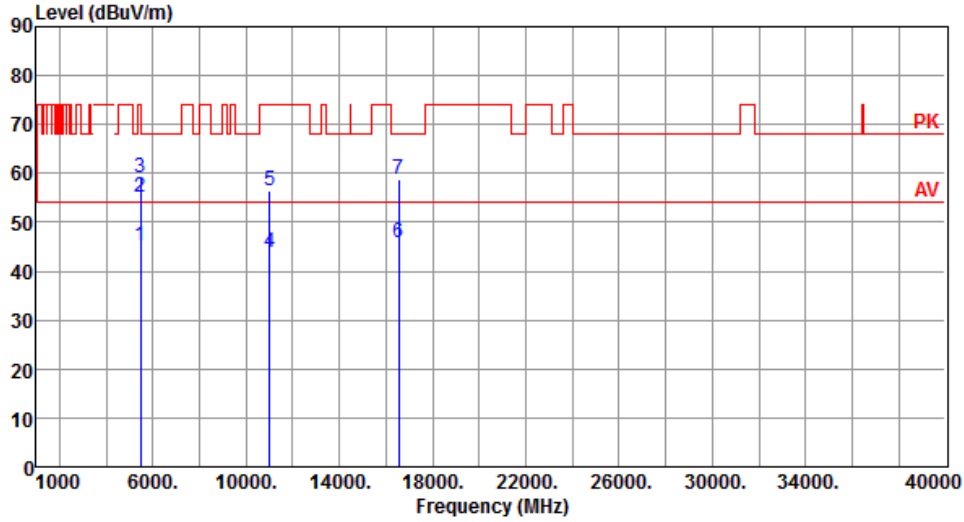


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	45.64	54.00	-8.36	41.70	3.94	Average	206	342
2	5350.00	57.41	74.00	-16.59	53.47	3.94	Peak	206	342
3	10620.00	43.24	54.00	-10.76	28.86	14.38	Average	100	32
4	10620.00	56.07	74.00	-17.93	41.69	14.38	Peak	100	32
5	15930.00	43.07	54.00	-10.93	29.17	13.90	Average	100	33
6	15930.00	56.67	74.00	-17.33	42.77	13.90	Peak	100	33

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).

Modulation	VHT40	Test Freq. (MHz)	5510																																																																																
Polarization	Horizontal																																																																																		
 <table><thead><tr><th></th><th>Freq. MHz</th><th>Emission level dBuV/m</th><th>Limit dBuV/m</th><th>Margin dB</th><th>SA reading dBuV</th><th>Factor dB</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr></thead><tbody><tr><td>1</td><td>5460.00</td><td>45.52</td><td>54.00</td><td>-8.48</td><td>41.11</td><td>4.41</td><td>Average</td><td>205</td><td>28</td></tr><tr><td>2</td><td>5460.00</td><td>58.69</td><td>74.00</td><td>-15.31</td><td>54.28</td><td>4.41</td><td>Peak</td><td>205</td><td>28</td></tr><tr><td>3</td><td>5470.00</td><td>63.30</td><td>68.20</td><td>-4.90</td><td>58.88</td><td>4.42</td><td>Peak</td><td>205</td><td>28</td></tr><tr><td>4</td><td>11020.00</td><td>43.29</td><td>54.00</td><td>-10.71</td><td>28.56</td><td>14.73</td><td>Average</td><td>100</td><td>72</td></tr><tr><td>5</td><td>11020.00</td><td>56.72</td><td>74.00</td><td>-17.28</td><td>41.99</td><td>14.73</td><td>Peak</td><td>100</td><td>72</td></tr><tr><td>6</td><td>16530.00</td><td>45.45</td><td>54.00</td><td>-8.55</td><td>29.45</td><td>16.00</td><td>Average</td><td>100</td><td>63</td></tr><tr><td>7</td><td>16530.00</td><td>58.52</td><td>68.20</td><td>-9.68</td><td>42.52</td><td>16.00</td><td>Peak</td><td>100</td><td>63</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	5460.00	45.52	54.00	-8.48	41.11	4.41	Average	205	28	2	5460.00	58.69	74.00	-15.31	54.28	4.41	Peak	205	28	3	5470.00	63.30	68.20	-4.90	58.88	4.42	Peak	205	28	4	11020.00	43.29	54.00	-10.71	28.56	14.73	Average	100	72	5	11020.00	56.72	74.00	-17.28	41.99	14.73	Peak	100	72	6	16530.00	45.45	54.00	-8.55	29.45	16.00	Average	100	63	7	16530.00	58.52	68.20	-9.68	42.52	16.00	Peak	100	63
	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	45.52	54.00	-8.48	41.11	4.41	Average	205	28																																																																										
2	5460.00	58.69	74.00	-15.31	54.28	4.41	Peak	205	28																																																																										
3	5470.00	63.30	68.20	-4.90	58.88	4.42	Peak	205	28																																																																										
4	11020.00	43.29	54.00	-10.71	28.56	14.73	Average	100	72																																																																										
5	11020.00	56.72	74.00	-17.28	41.99	14.73	Peak	100	72																																																																										
6	16530.00	45.45	54.00	-8.55	29.45	16.00	Average	100	63																																																																										
7	16530.00	58.52	68.20	-9.68	42.52	16.00	Peak	100	63																																																																										
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).																																																																																			

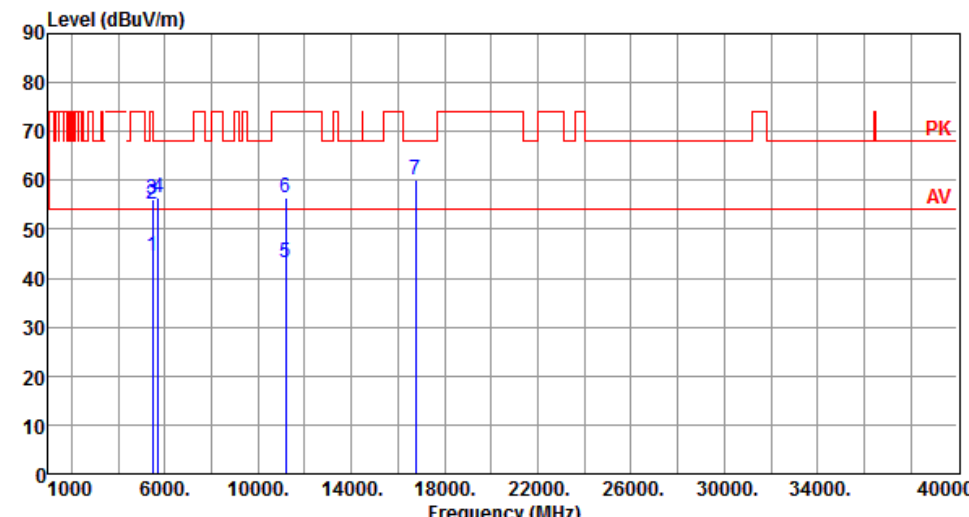
Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical		



	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	45.22	54.00	-8.78	40.81	4.41	Average	207	339
2	5460.00	55.25	74.00	-18.75	50.84	4.41	Peak	207	339
3	5470.00	59.23	68.20	-8.97	54.81	4.42	Peak	207	339
4	11020.00	43.82	54.00	-10.18	29.09	14.73	Average	100	31
5	11020.00	56.57	74.00	-17.43	41.84	14.73	Peak	100	31
6	16530.00	45.68	54.00	-8.32	29.68	16.00	Average	100	33
7	16530.00	58.89	68.20	-9.31	42.89	16.00	Peak	100	33

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).

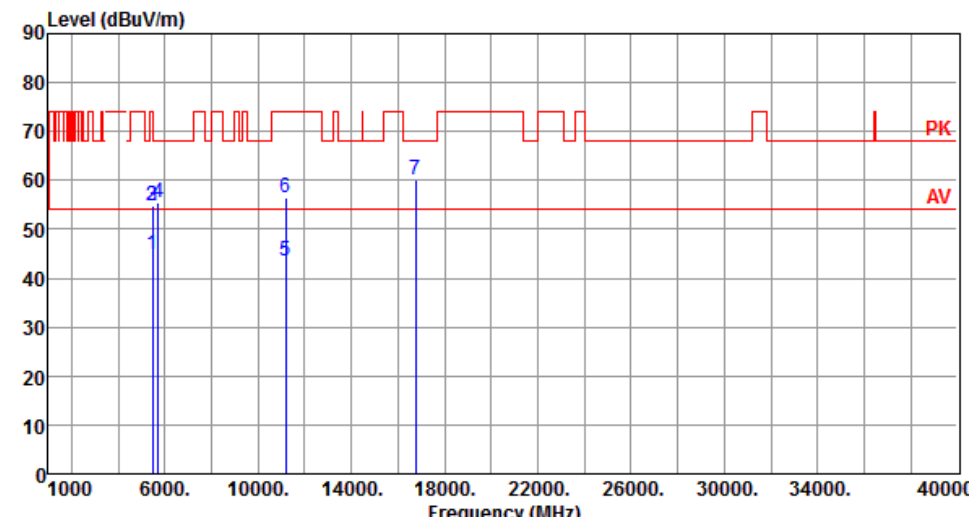
Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Horizontal		



	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	44.61	54.00	-9.39	40.20	4.41	Average	207	33
2	5460.00	55.25	74.00	-18.75	50.84	4.41	Peak	207	33
3	5470.00	56.24	68.20	-11.96	51.82	4.42	Peak	207	33
4	5725.00	56.38	68.20	-11.82	51.63	4.75	Peak	207	33
5	11180.00	43.08	54.00	-10.92	28.67	14.41	Average	100	63
6	11180.00	56.47	74.00	-17.53	42.06	14.41	Peak	100	63
7	16770.00	60.06	68.20	-8.14	42.68	17.38	Peak	100	62

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

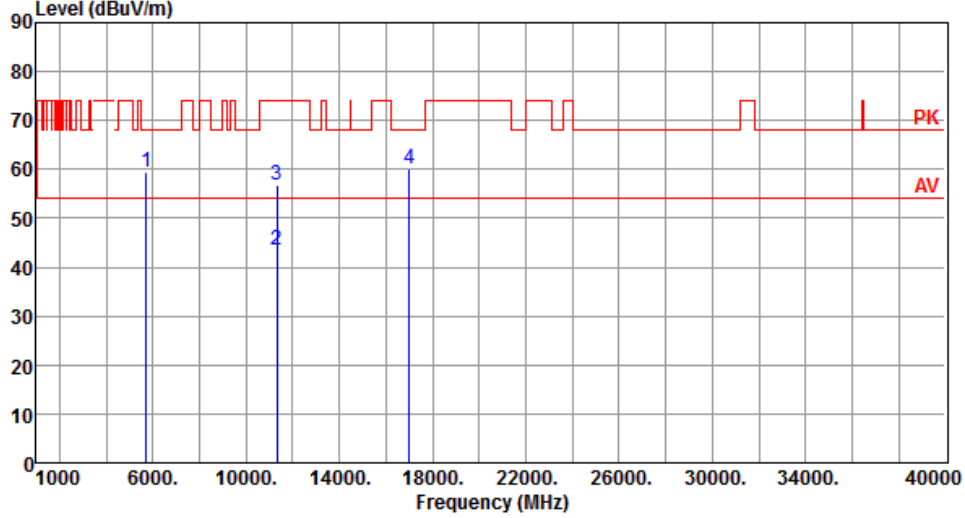
Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Vertical		



	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	44.87	54.00	-9.13	40.46	4.41	Average	211	343
2	5460.00	54.88	74.00	-19.12	50.47	4.41	Peak	211	343
3	5470.00	54.93	68.20	-13.27	50.51	4.42	Peak	211	343
4	5725.00	55.41	68.20	-12.79	50.66	4.75	Peak	211	343
5	11180.00	43.34	54.00	-10.66	28.93	14.41	Average	100	69
6	11180.00	56.59	74.00	-17.41	42.18	14.41	Peak	100	69
7	16770.00	60.21	68.20	-7.99	42.83	17.38	Peak	100	62

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

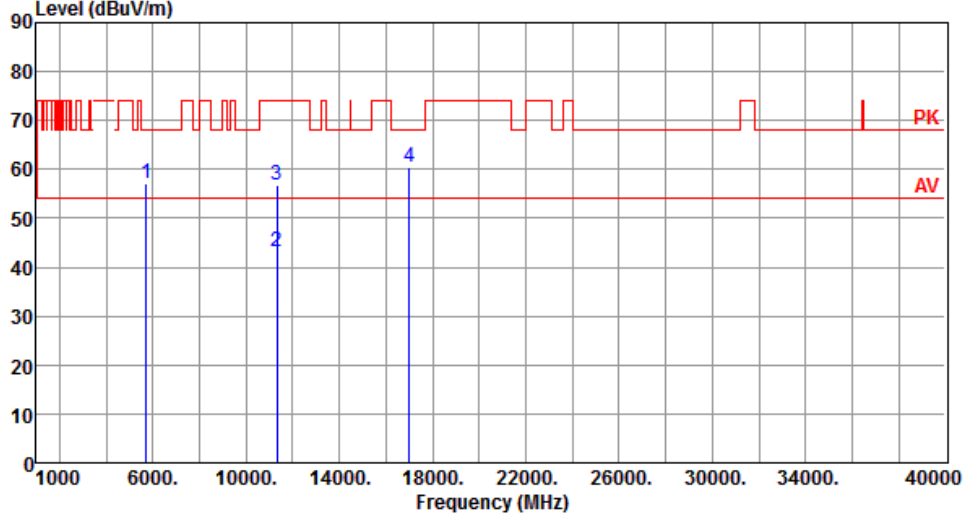
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	59.55	68.20	-8.65	54.80	4.75	Peak	213	29
2	11340.00	43.50	54.00	-10.50	29.01	14.49	Average	100	58
3	11340.00	56.63	74.00	-17.37	42.14	14.49	Peak	100	58
4	17010.00	60.08	68.20	-8.12	42.60	17.48	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).

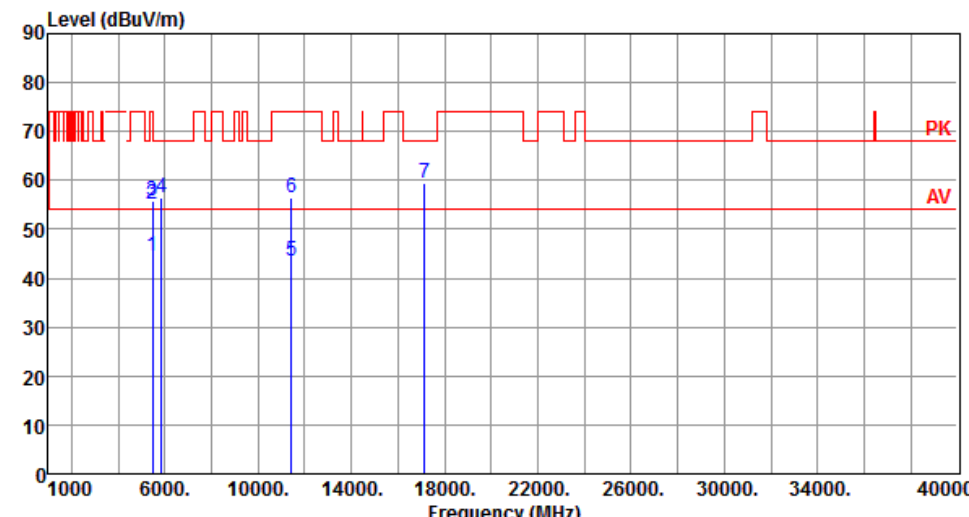
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	57.01	68.20	-11.19	52.26	4.75	Peak	218	342
2	11340.00	43.20	54.00	-10.80	28.71	14.49	Average	100	29
3	11340.00	56.73	74.00	-17.27	42.24	14.49	Peak	100	29
4	17010.00	60.31	68.20	-7.89	42.83	17.48	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).

Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Horizontal		



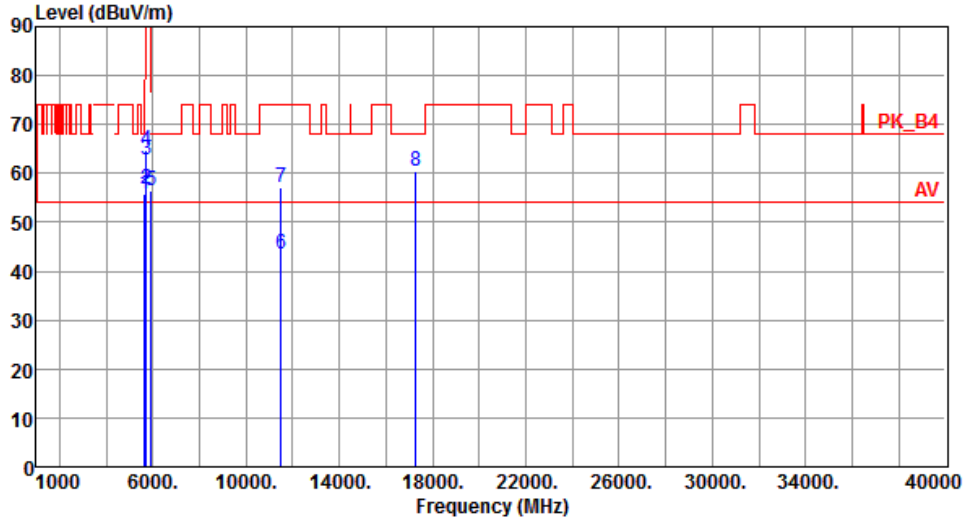
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.51	54.00	-9.49	40.10	4.41	Average	216	30
2	5460.00	55.25	74.00	-18.75	50.84	4.41	Peak	216	30
3	5470.00	55.64	68.20	-12.56	51.22	4.42	Peak	216	30
4	5850.00	56.34	68.20	-11.86	51.19	5.15	Peak	216	30
5	11420.00	43.36	54.00	-10.64	28.75	14.61	Average	100	62
6	11420.00	56.41	74.00	-17.59	41.80	14.61	Peak	100	62
7	17130.00	59.56	68.20	-8.64	42.30	17.26	Peak	100	63

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).

Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Vertical		
Level (dBuV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		
Level (dBuV/m)			

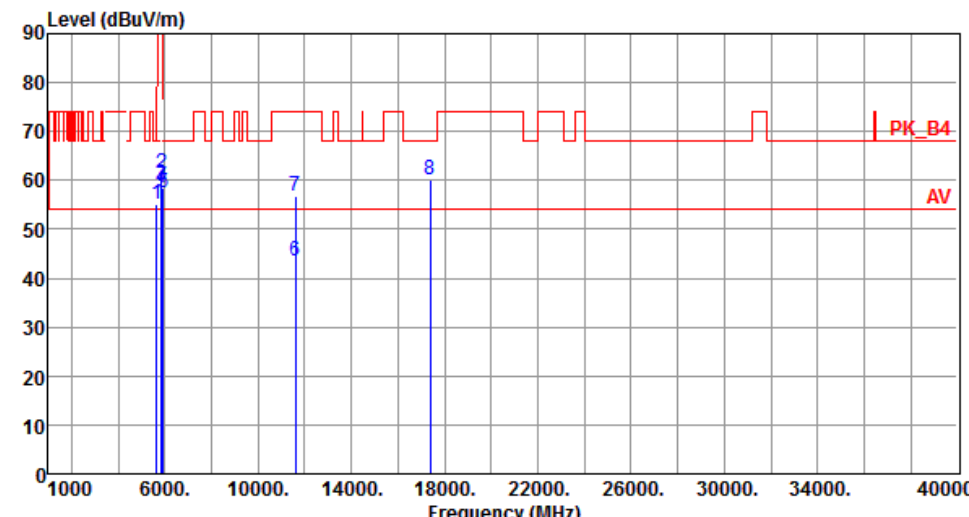
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	55.68	68.20	-12.52	51.14	4.54	Peak	215	355
2	5700.00	56.84	105.20	-48.36	52.16	4.68	Peak	215	355
3	5720.00	62.91	110.80	-47.89	58.18	4.73	Peak	215	355
4	5725.00	64.83	122.20	-57.37	60.08	4.75	Peak	215	355
5	5925.00	56.58	68.20	-11.62	51.30	5.28	Peak	215	355
6	11510.00	43.48	54.00	-10.52	28.78	14.70	Average	100	38
7	11510.00	56.96	74.00	-17.04	42.26	14.70	Peak	100	38
8	17265.00	60.31	68.20	-7.89	42.70	17.61	Peak	100	39

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).

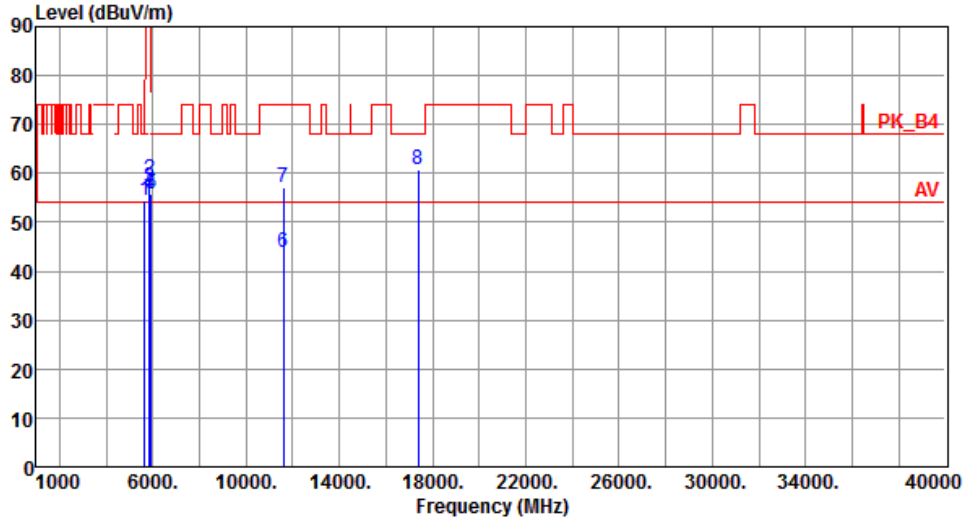
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	55.05	68.20	-13.15	50.51	4.54	Peak	211	32
2	5850.00	61.44	122.20	-60.76	56.29	5.15	Peak	211	32
3	5855.00	59.10	110.80	-51.70	53.95	5.15	Peak	211	32
4	5875.00	58.54	105.20	-46.66	53.35	5.19	Peak	211	32
5	5925.00	57.54	68.20	-10.66	52.26	5.28	Peak	211	32
6	11590.00	43.57	54.00	-10.43	29.10	14.47	Average	100	69
7	11590.00	56.70	74.00	-17.30	42.23	14.47	Peak	100	69
8	17385.00	60.17	68.20	-8.03	42.08	18.09	Peak	100	65

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).

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical		

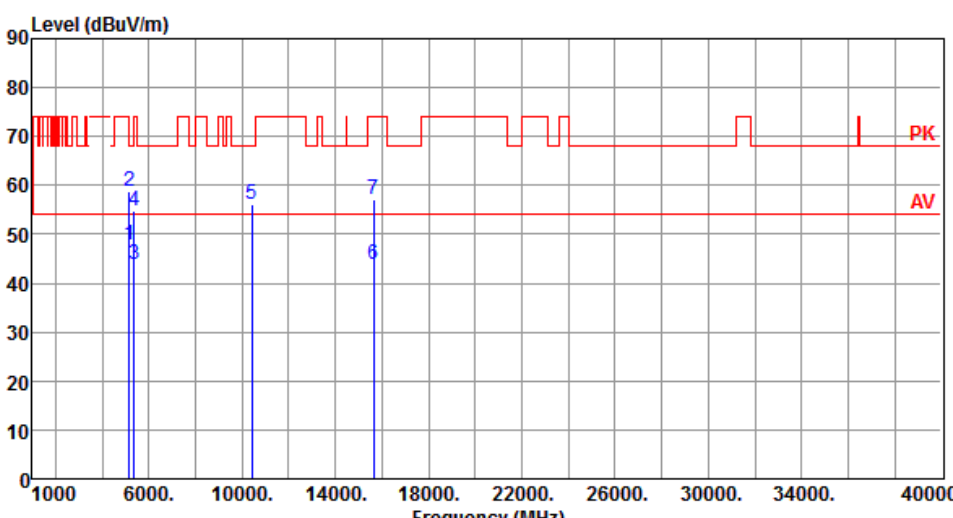


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	54.55	68.20	-13.65	50.01	4.54	Peak	204	348
2	5850.00	58.70	122.20	-63.50	53.55	5.15	Peak	204	348
3	5855.00	57.09	110.80	-53.71	51.94	5.15	Peak	204	348
4	5875.00	55.81	105.20	-49.39	50.62	5.19	Peak	204	348
5	5925.00	55.69	68.20	-12.51	50.41	5.28	Peak	204	348
6	11590.00	43.76	54.00	-10.24	29.29	14.47	Average	100	38
7	11590.00	57.06	74.00	-16.94	42.59	14.47	Peak	100	38
8	17385.00	60.93	68.20	-7.27	42.84	18.09	Peak	100	34

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

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

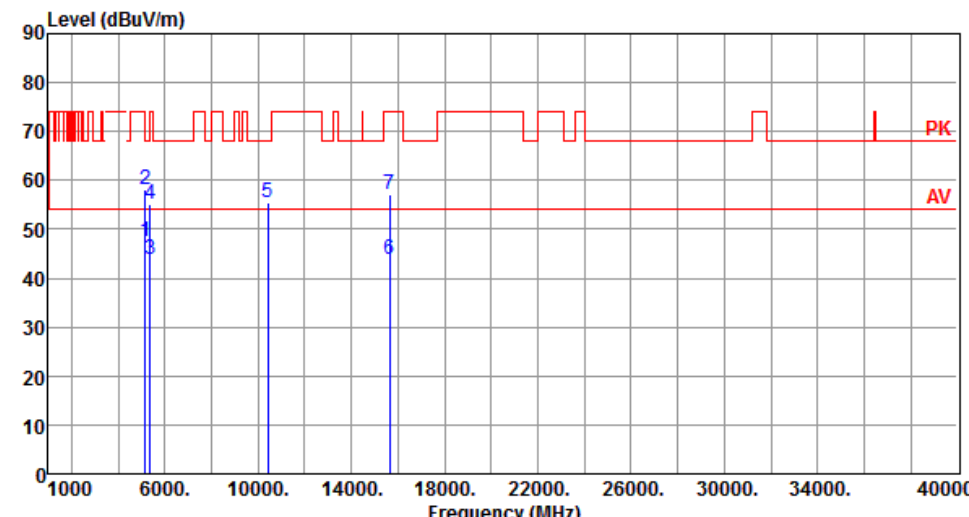
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal		



	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	47.70	54.00	-6.30	43.26	4.44	Average	176	43
2	5150.00	58.67	74.00	-15.33	54.23	4.44	Peak	176	43
3	5350.00	44.00	54.00	-10.00	40.06	3.94	Average	176	43
4	5350.00	54.73	74.00	-19.27	50.79	3.94	Peak	176	43
5	10420.00	56.06	68.20	-12.14	41.66	14.40	Peak	100	62
6	15630.00	43.84	54.00	-10.16	29.57	14.27	Average	100	63
7	15630.00	57.05	74.00	-16.95	42.78	14.27	Peak	100	63

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).

Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical		



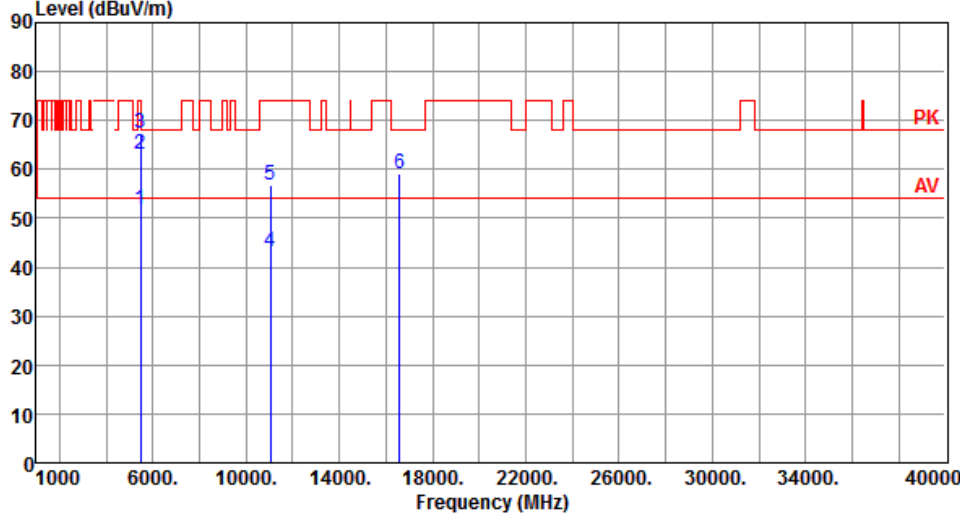
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.41	54.00	-6.59	42.97	4.44	Average	203	323
2	5150.00	58.25	74.00	-15.75	53.81	4.44	Peak	203	323
3	5350.00	43.87	54.00	-10.13	39.93	3.94	Average	203	323
4	5350.00	55.00	74.00	-19.00	51.06	3.94	Peak	203	323
5	10420.00	55.62	68.20	-12.58	41.22	14.40	Peak	100	29
6	15630.00	43.77	54.00	-10.23	29.50	14.27	Average	100	30
7	15630.00	57.15	74.00	-16.85	42.88	14.27	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).

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Horizontal		
Level (dBuV/m) <			

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical		
Level (dBUV/m)			

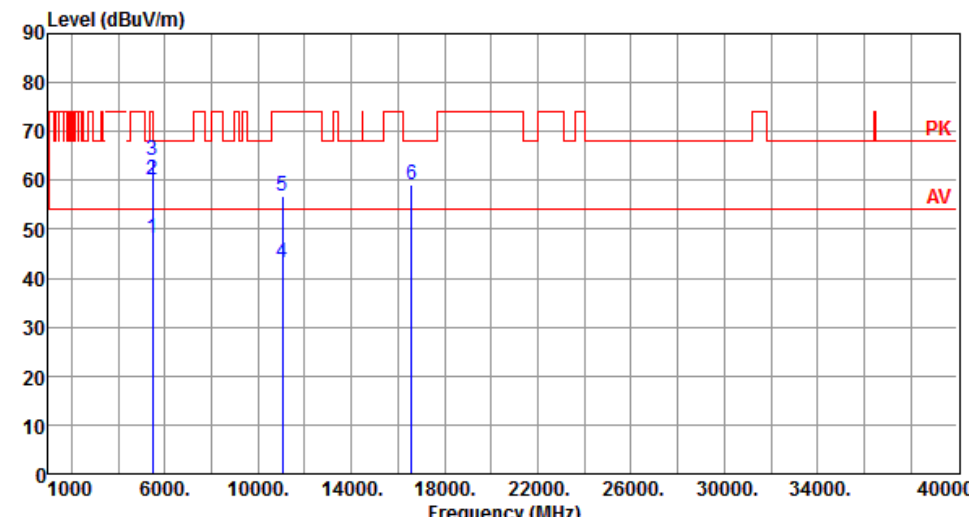
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Horizontal		



	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	51.65	54.00	-2.35	47.24	4.41	Average	185	31
2	5460.00	63.24	74.00	-10.76	58.83	4.41	Peak	185	31
3	5470.00	67.30	68.20	-0.90	62.88	4.42	Peak	185	31
4	11060.00	43.20	54.00	-10.80	28.57	14.63	Average	100	66
5	11060.00	56.64	74.00	-17.36	42.01	14.63	Peak	100	66
6	16590.00	59.09	68.20	-9.11	42.87	16.22	Peak	100	63

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).

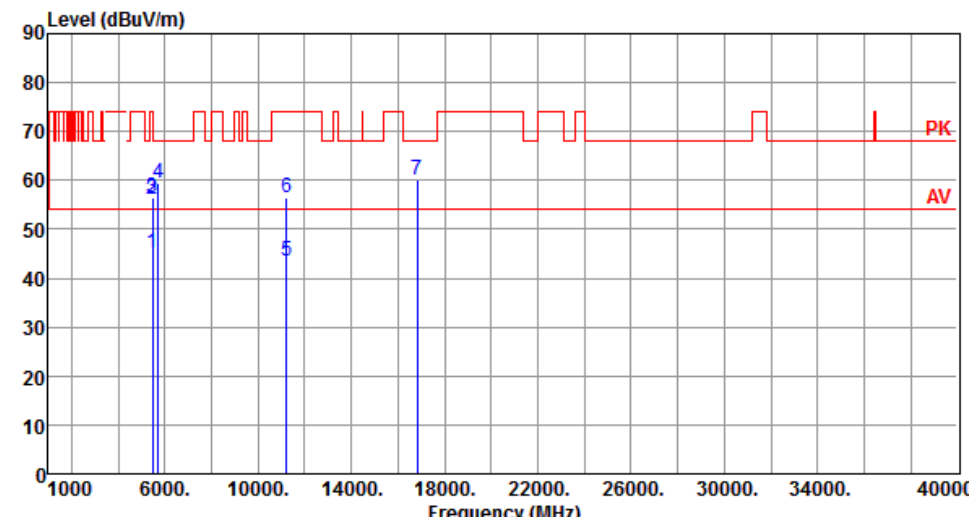
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical		



	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	48.25	54.00	-5.75	43.84	4.41	Average	200	348
2	5460.00	60.14	74.00	-13.86	55.73	4.41	Peak	200	348
3	5470.00	64.20	68.20	-4.00	59.78	4.42	Peak	200	348
4	11060.00	43.24	54.00	-10.76	28.61	14.63	Average	100	39
5	11060.00	56.67	74.00	-17.33	42.04	14.63	Peak	100	39
6	16590.00	59.19	68.20	-9.01	42.97	16.22	Peak	100	35

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).

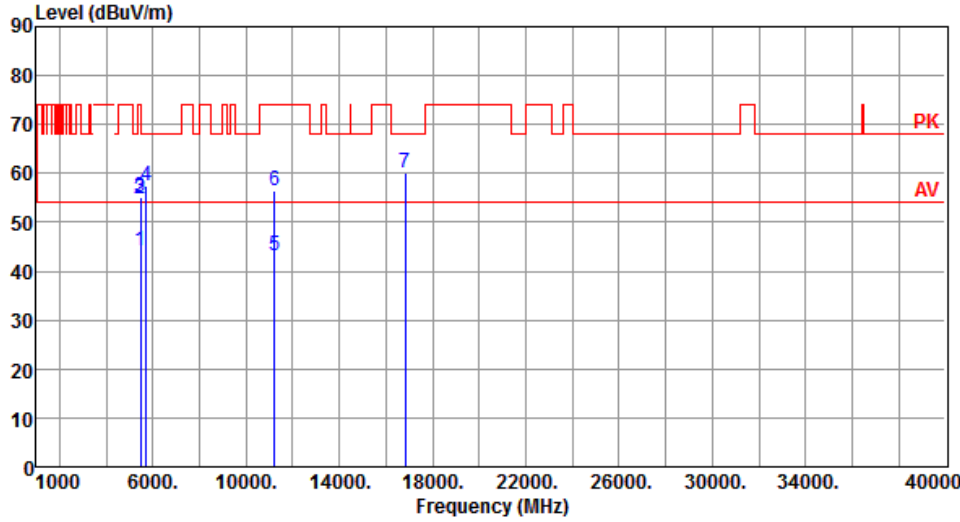
Modulation	VHT80	Test Freq. (MHz)	5610
Polarization	Horizontal		



	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	45.25	54.00	-8.75	40.84	4.41	Average	190	23
2	5460.00	56.25	74.00	-17.75	51.84	4.41	Peak	190	23
3	5470.00	56.54	68.20	-11.66	52.12	4.42	Peak	190	23
4	5725.00	59.60	68.20	-8.60	54.85	4.75	Peak	190	23
5	11220.00	43.57	54.00	-10.43	29.18	14.39	Average	100	62
6	11220.00	56.54	74.00	-17.46	42.15	14.39	Peak	100	62
7	16830.00	60.24	68.20	-7.96	42.79	17.45	Peak	100	63

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).

Modulation	VHT80	Test Freq. (MHz)	5610
Polarization	Vertical		



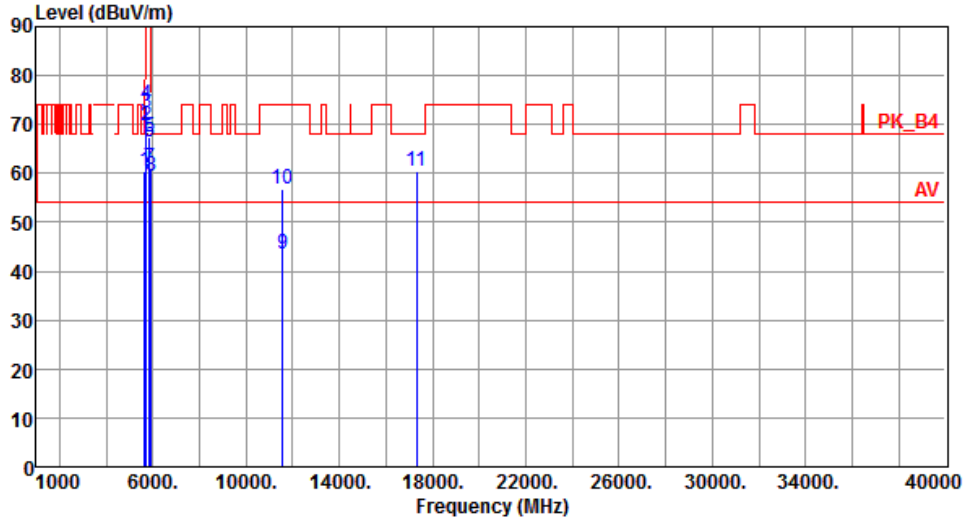
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.14	54.00	-9.86	39.73	4.41	Average	206	351
2	5460.00	54.92	74.00	-19.08	50.51	4.41	Peak	206	351
3	5470.00	55.26	68.20	-12.94	50.84	4.42	Peak	206	351
4	5725.00	57.29	68.20	-10.91	52.54	4.75	Peak	206	351
5	11220.00	43.27	54.00	-10.73	28.88	14.39	Average	100	32
6	11220.00	56.61	74.00	-17.39	42.22	14.39	Peak	100	32
7	16830.00	60.15	68.20	-8.05	42.70	17.45	Peak	100	39

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).

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Vertical		
Level (dBuV/m)			

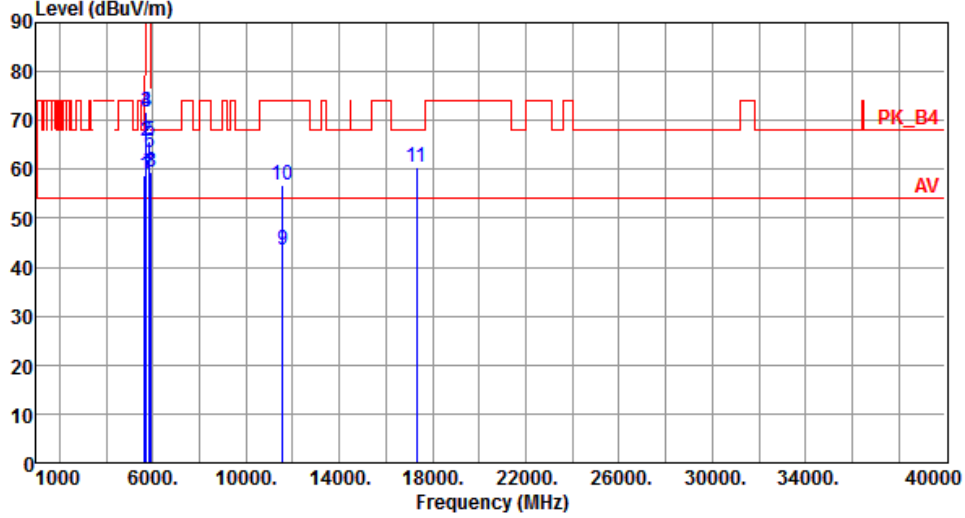
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	60.43	68.20	-7.77	55.89	4.54	Peak	168	18
2	5700.00	69.67	105.20	-35.53	64.99	4.68	Peak	168	18
3	5720.00	72.48	110.80	-38.32	67.75	4.73	Peak	168	18
4	5725.00	74.13	122.20	-48.07	69.38	4.75	Peak	168	18
5	5850.00	67.50	122.20	-54.70	62.35	5.15	Peak	168	18
6	5855.00	66.53	110.80	-44.27	61.38	5.15	Peak	168	18
7	5875.00	61.07	105.20	-44.13	55.88	5.19	Peak	168	18
8	5925.00	59.55	68.20	-8.65	54.27	5.28	Peak	168	18
9	11550.00	43.57	54.00	-10.43	28.99	14.58	Average	100	62
10	11550.00	56.84	74.00	-17.16	42.26	14.58	Peak	100	62
11	17325.00	60.33	68.20	-7.87	42.51	17.82	Peak	100	67

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).

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.64	68.20	-9.56	54.10	4.54	Peak	204	325
2	5700.00	65.65	105.20	-39.55	60.97	4.68	Peak	204	325
3	5720.00	71.58	110.80	-39.22	66.85	4.73	Peak	204	325
4	5725.00	71.81	122.20	-50.39	67.06	4.75	Peak	204	325
5	5850.00	65.86	122.20	-56.34	60.71	5.15	Peak	204	325
6	5855.00	63.42	110.80	-47.38	58.27	5.15	Peak	204	325
7	5875.00	59.11	105.20	-46.09	53.92	5.19	Peak	204	325
8	5925.00	59.40	68.20	-8.80	54.12	5.28	Peak	204	325
9	11550.00	43.61	54.00	-10.39	29.03	14.58	Average	100	39
10	11550.00	56.81	74.00	-17.19	42.23	14.58	Peak	100	39
11	17325.00	60.45	68.20	-7.75	42.63	17.82	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).

3.6 Frequency Stability

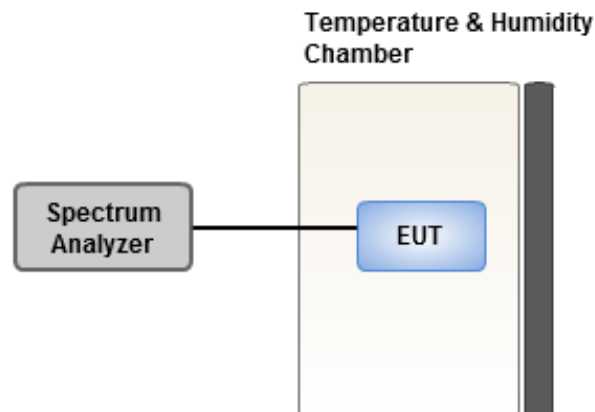
3.6.1 Limit of Frequency Stability

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

Frequency: 5320 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°C Vmax	-1.13	-1.08	-0.83	-1.51
T20°C Vmin	-0.49	0.09	-0.10	-0.15
T60°C Vnom	-0.50	-0.76	-0.79	-0.54
T50°C Vnom	-0.95	-0.31	-0.42	-0.74
T40°C Vnom	-0.91	-0.96	-0.07	-0.93
T30°C Vnom	-1.09	-0.69	-0.76	-0.39
T20°C Vnom	-1.08	-0.69	-0.94	-1.03
T10°C Vnom	-4.40	-4.58	-4.27	-4.44
T0°C Vnom	-4.37	-4.06	-3.98	-4.43
T-10°C Vnom	-4.19	-3.52	-3.88	-4.05
T-20°C Vnom	-7.14	-7.14	-6.85	-7.02
T-30°C Vnom	-9.20	-8.63	-9.22	-9.40
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 60		Tmin [°C]: -30

Frequency: 5785 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°C Vmax	-0.07	0.14	-0.05	-0.37
T20°C Vmin	-0.10	0.13	-0.08	-0.44
T60°C Vnom	0.40	0.04	0.23	0.89
T50°C Vnom	0.59	0.75	0.62	0.77
T40°C Vnom	-0.03	0.31	0.22	0.75
T30°C Vnom	0.03	-0.17	-0.04	-0.03
T20°C Vnom	0.02	-0.46	0.35	0.19
T10°C Vnom	-3.92	-3.26	-3.41	-3.38
T0°C Vnom	-4.25	-3.92	-3.83	-4.35
T-10°C Vnom	-3.43	-2.93	-3.60	-3.32
T-20°C Vnom	-5.93	-5.82	-5.17	-5.86
T-30°C Vnom	-8.12	-8.02	-8.23	-7.71
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 60		Tmin [°C]: -30

4 Test laboratory information

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

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

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

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