FCC Test Report

FCC ID	:	**U72OLYM**
Equipment	:	**Olympus WiFi Module**
Model No.	:	**OLYM**
Brand Name	:	**Carestream**
Applicant	:	**Carestream Health, Inc.**
Address	:	**150 Verona Street, Rochester, New York United States 14608**
Standard	:	**47 CFR FCC Part 15.407**
Received Date	:	**Nov. 12, 2018**
Tested Date	:	**Nov. 22 ~ Dec. 11, 2018**

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: **Approved by:**

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

Testing Laboratory 2732

Table of Contents

Release Record

Report No.	Version	Description	Issued Date
FR8N1203AN	Rev. 01	Initial issue	Feb. 20, 2019

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.363MHz 37.25 (Margin -11.40dB) - AV	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 10360.00MHz 67.20 (Margin -1.00dB) - PK [dBuV/m at 3m]: 10400.00MHz 67.20 (Margin -1.00dB) - PK [dBuV/m at 3m]: 11650.00MHz 53.00 (Margin -1.00dB) - AV [dBuV/m at 3m]: 10480.00MHz 67.20 (Margin -1.00dB) - PK [dBuV/m at 3m]: 5150.00MHz 53.00 (Margin -1.00dB) - 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: 15.58 5725-5850MHz: 17.98	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 values of gain for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of the gain.

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	a	5180-5240	36-48 [4]	2	6-54 Mbps
5150-5250	n (HT20)	5180-5240	36-48 [4]	2	MCS 0-15
5150-5250	n (HT40)	5190-5230	38-46 [2]	2	MCS 0-15
5150-5250	ac (VHT20)	5180-5240	36-48 [4]	2	MCS 0-9
5150-5250	ac (VHT40)	5190-5230	38-46 [2]	2	MCS 0-9
5150-5250	ac (VHT80)	5210	42 [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.					

RF General Information					
Frequency Range (MHz)	**IEEE Std. 802.11**	**Ch. Freq. (MHz)**	**Channel Number**	**Transmit Chains (N_{TX})**	**Data Rate / MCS**
5725-5850	a	5745-5825	149-165 [5]	2	6-54 Mbps
5725-5850	n (HT20)	5745-5825	149-165 [5]	2	MCS 0-15
5725-5850	n (HT40)	5755-5795	151-159 [2]	2	MCS 0-15
5725-5850	ac (VHT20)	5745-5825	149-165 [5]	2	MCS 0-9
5725-5850	ac (VHT40)	5755-5795	151-159 [2]	2	MCS 0-9
5725-5850	ac (VHT80)	5775	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**	**5725~5850**
1	ANTX600P001B24553	PCB	ipex	4.6	4.9	5.1
2	ANTX350P001B24553	PCB	ipex	4.6	4.9	5.1

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	3.3Vdc

1.1.4 Accessories

N/A

1.1.5 Channel List

For Frequency band 5150-5250 MHz			
802.11 a / HT20 / VHT20		HT40 / VHT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	VHT80	
48	5240	42	5210

For Frequency band 5725~5850 MHz			
802.11 a / HT20 / VHT20		HT40 / VHT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
149	5745	151	5755
153	5765	159	5795
157	5785	VHT80	
161	5805	155	5775
165	5825	---	---

1.1.6 Test Tool and Duty Cycle

Test Tool	MP_Kit_RTL11ac_8822BU_USB, v0.54		
Duty Cycle and Duty Factor	Mode	Duty Cycle (%)	Duty Factor (dB)
	11a	97.44%	0.11
	VHT20	97.86%	0.09
	VHT40	93.75%	0.28
	VHT80	87.06%	0.60

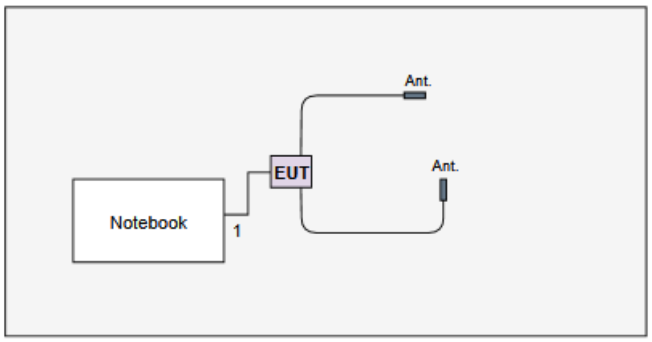
1.1.7 Power Index of Test Tool

Modulation Mode	Test Frequency (MHz)	Power Index
11a	5180	45/45
11a	5200	46/46
11a	5240	47/47
11a	5745	56/57
11a	5785	51/52
11a	5825	53/54
VHT20	5180	45/45
VHT20	5200	46/46
VHT20	5240	47/47
VHT20	5745	56/57
VHT20	5785	51/52
VHT20	5825	53/54
VHT40	5190	46/46
VHT40	5230	49/49
VHT40	5755	56/57
VHT40	5795	55/56
VHT80	5210	43/43
VHT80	5775	57/58

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, 0.36m non-shielded.

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	101657	Jan. 05, 2018	Jan. 04, 2019
LISN	SCHWARZBECK	Schwarzbeck 8127	8127-667	Nov. 05, 2018	Nov. 04, 2019
RF Cable-CON	EMC	EMCCFD300-BM-BM-6000	50821	Dec. 18, 2017	Dec. 17, 2018
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 chamber 3 / (03CH03-WS)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101499	Jan. 03, 2018	Jan. 02, 2019
Receiver	R&S	ESR3	101657	Jan. 05, 2018	Jan. 04, 2019
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-685	Apr. 19, 2018	Apr. 18, 2019
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1206	Jan. 18, 2018	Jan. 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. 08, 2018	Oct. 07, 2019
Preamplifier	EMC	EMC02325	980187	Aug. 24, 2018	Aug. 23, 2019
Preamplifier	Agilent	83017A	MY53270014	Aug. 09, 2018	Aug. 08, 2019
Preamplifier	EMC	EMC184045B	980192	Aug. 09, 2018	Aug. 08, 2019
RF cable-3M	EMC	EMC104-SM-SM-8000	181107	Oct. 30, 2018	Oct. 29, 2019
RF cable-8M	HUBER+SUHNER	SUCOFLEX104	MY32487/4	Oct. 30, 2018	Oct. 29, 2019
RF cable-1M	HUBER+SUHNER	SUCOFLEX104	MY22624/4	Oct. 30, 2018	Oct. 29, 2019
LF cable-0.8M	EMC	EMC8D-NM-NM-800	EMC8D-NM-NM-800 -001	Oct. 30, 2018	Oct. 29, 2019
LF cable-3M	EMC	EMC8D-NM-NM-3000	131103	Oct. 30, 2018	Oct. 29, 2019
LF cable-13M	EMC	EMC8D-NM-NM-13000	131104	Oct. 30, 2018	Oct. 29, 2019
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)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101063	Apr. 16, 2018	Apr. 15, 2019
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Aug. 10, 2018	Aug. 09, 2019
Power Meter	Anritsu	ML2495A	1241002	Oct. 09, 2018	Oct. 08, 2019
Power Sensor	Anritsu	MA2411B	1207366	Oct. 09, 2018	Oct. 08, 2019
DC POWER SOURCE	GW INSTEK	GPC-6030D	EM892433	Oct. 25, 2018	Oct. 24, 2019
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	±34.134 Hz
Conducted power	±0.808 dB
Frequency error	±34.134 Hz
Power density	±0.463 dB
Conducted emission	±2.670 dB
AC conducted emission	±2.90 dB
Radiated emission ≤ 1GHz	±3.66 dB
Radiated emission > 1GHz	±5.37 dB
Time	±0.1%

Temperature	±0.6 °C

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	24°C / 59%	Steve Chin
Radiated Emissions	03CH03-WS	22-25°C / 62-66%	Akun Chung Aska Huang
RF Conducted	TH01-WS	19°C / 66%	Aska Huang

- FCC Designation No.: TW0009
- FCC site registration No.: 207696
- IC site registration No.: 10807C-1

2.2 The Worst Test Modes and Channel Details

For Frequency band 5150-5250 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
Conducted Emissions	VHT40	5230	MCS 0	---
Radiated Emissions ≤1GHz	VHT40	5230	MCS 0	---
RF Output Power Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a VHT20 VHT40 VHT80	5180 / 5200 / 5240 5180 / 5200 / 5240 5190 / 5230 5210	6 Mbps MCS 0 MCS 0 MCS 0	---
Frequency Stability	Un-modulation	5200	---	---
NOTE: 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.				

For Frequency band 5725-5850 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
Conducted Emissions	VHT40	5755	MCS 0	---
Radiated Emissions ≤1GHz	VHT40	5755	MCS 0	---
Radiated Emissions >1GHz Emission Bandwidth 6dB bandwidth Peak Power Spectral Density	11a VHT20 VHT40 VHT80	5745 / 5785 / 5825 5745 / 5785 / 5825 5755 / 5795 5775	6 Mbps MCS 0 MCS 0 MCS 0	---
Frequency Stability	Un-modulation	5785	---	---
NOTE: 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

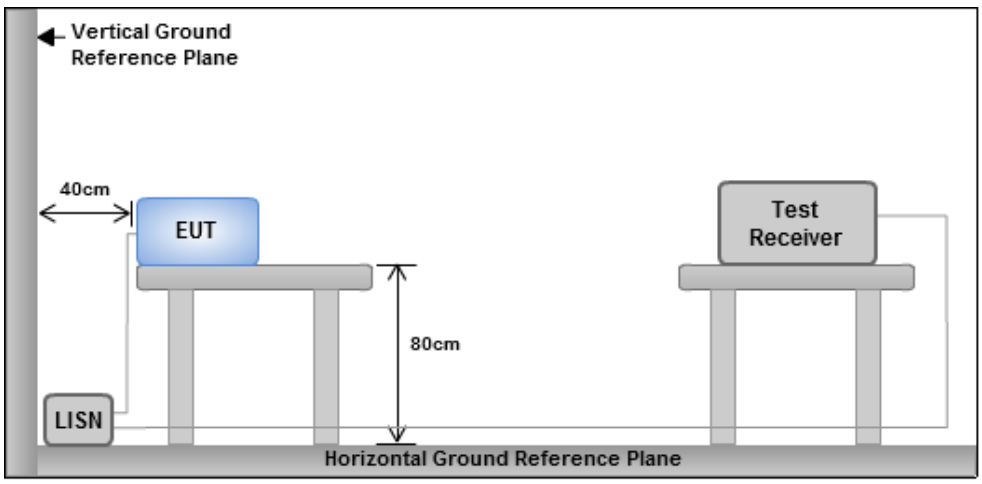
3.1.1 Limit of Conducted Emissions

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

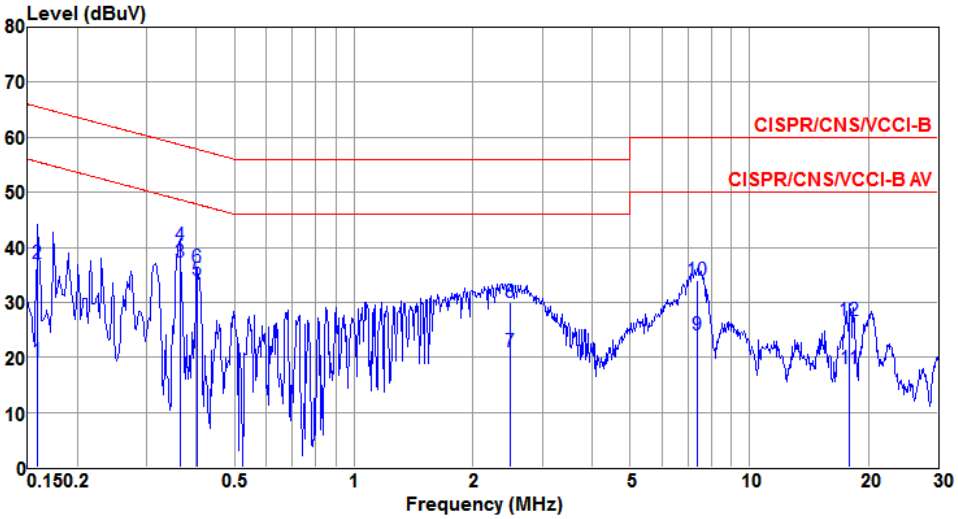


Note: 1. Support units were connected to second LISN.

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

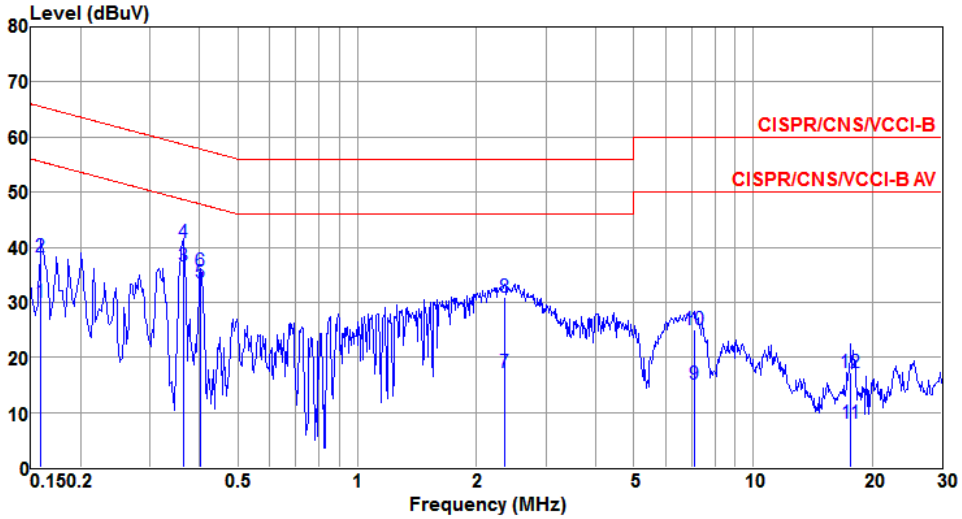
Modulation	VHT40	Test Freq. (MHz)	5230
Power Phase	Line		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.159	19.31	55.52	-36.21	19.23	0.07	0.01	Average
2	0.159	37.16	65.52	-28.36	37.08	0.07	0.01	QP
3*	0.363	37.25	48.65	-11.40	37.17	0.06	0.02	Average
4	0.363	40.43	58.65	-18.22	40.35	0.06	0.02	QP
5	0.402	34.01	47.81	-13.80	33.93	0.06	0.02	Average
6	0.402	36.24	57.81	-21.57	36.16	0.06	0.02	QP
7	2.487	20.98	46.00	-25.02	20.74	0.10	0.14	Average
8	2.487	30.04	56.00	-25.96	29.80	0.10	0.14	QP
9	7.407	24.14	50.00	-25.86	23.69	0.16	0.29	Average
10	7.407	34.11	60.00	-25.89	33.66	0.16	0.29	QP
11	17.944	18.01	50.00	-31.99	17.45	0.23	0.33	Average
12	17.944	26.69	60.00	-33.31	26.13	0.23	0.33	QP

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

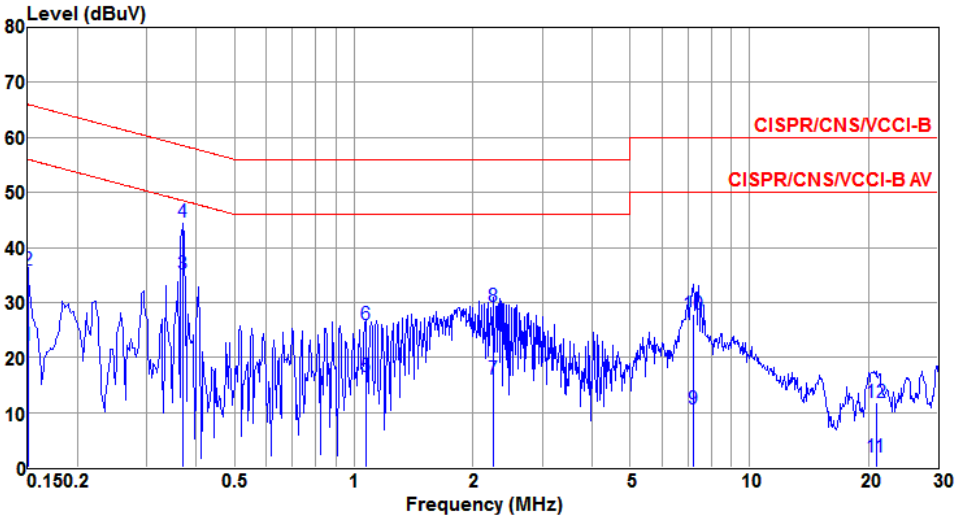
Modulation	VHT40	Test Freq. (MHz)	5230
Power Phase	Neutral		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.159	29.93	55.52	-25.59	29.87	0.05	0.01	Average
2	0.159	38.17	65.52	-27.35	38.11	0.05	0.01	QP
3*	0.363	36.53	48.65	-12.12	36.46	0.05	0.02	Average
4	0.363	40.90	58.65	-17.75	40.83	0.05	0.02	QP
5	0.402	33.60	47.81	-14.21	33.53	0.05	0.02	Average
6	0.402	35.76	57.81	-22.05	35.69	0.05	0.02	QP
7	2.358	17.32	46.00	-28.68	17.12	0.07	0.13	Average
8	2.358	31.02	56.00	-24.98	30.82	0.07	0.13	QP
9	7.100	15.10	50.00	-34.90	14.67	0.15	0.28	Average
10	7.100	25.14	60.00	-34.86	24.71	0.15	0.28	QP
11	17.661	8.07	50.00	-41.93	7.49	0.25	0.33	Average
12	17.661	17.27	60.00	-42.73	16.69	0.25	0.33	QP

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

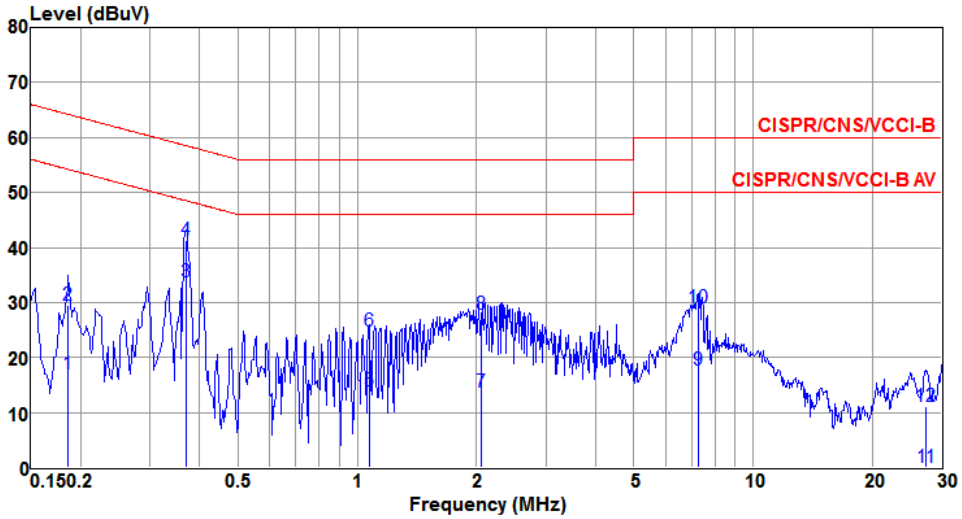
Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Line		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.150	22.20	56.00	-33.80	22.12	0.07	0.01	Average
2	0.150	35.87	66.00	-30.13	35.79	0.07	0.01	QP
3*	0.369	35.12	48.52	-13.40	35.04	0.06	0.02	Average
4	0.369	44.67	58.52	-13.85	44.59	0.06	0.02	QP
5	1.071	16.52	46.00	-29.48	16.40	0.08	0.04	Average
6	1.071	25.95	56.00	-30.05	25.83	0.08	0.04	QP
7	2.249	16.13	46.00	-29.87	15.92	0.09	0.12	Average
8	2.249	29.24	56.00	-26.76	29.03	0.09	0.12	QP
9	7.238	10.71	50.00	-39.29	10.27	0.16	0.28	Average
10	7.238	27.90	60.00	-32.10	27.46	0.16	0.28	QP
11	20.924	1.87	50.00	-48.13	1.28	0.24	0.35	Average
12	20.924	11.89	60.00	-48.11	11.30	0.24	0.35	QP

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

Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Neutral		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.186	17.11	54.20	-37.09	17.04	0.04	0.03	Average
2	0.186	29.57	64.20	-34.63	29.50	0.04	0.03	QP
3*	0.369	33.75	48.52	-14.77	33.68	0.05	0.02	Average
4	0.369	41.22	58.52	-17.30	41.15	0.05	0.02	QP
5	1.071	14.03	46.00	-31.97	13.93	0.06	0.04	Average
6	1.071	24.69	56.00	-31.31	24.59	0.06	0.04	QP
7	2.063	13.75	46.00	-32.25	13.57	0.07	0.11	Average
8	2.063	27.86	56.00	-28.14	27.68	0.07	0.11	QP
9	7.252	17.74	50.00	-32.26	17.31	0.15	0.28	Average
10	7.252	28.98	60.00	-31.02	28.55	0.15	0.28	QP
11	27.416	-0.03	50.00	-50.03	-0.73	0.31	0.39	Average
12	27.416	11.11	60.00	-48.89	10.41	0.31	0.39	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.

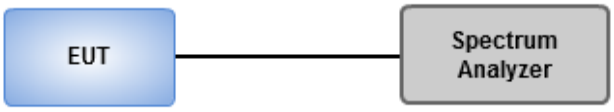
Occupied Bandwidth

1. Set RBW = 1 % to 5 % of the OBW.
2. Set VBW ≥ 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	21.087M	16.57M	16M6D1D	20.725M	16.498M
802.11ac VHT20_Nss1,(MCS0)_2TX	21.884M	17.656M	17M7D1D	20.942M	17.656M
802.11ac VHT40_Nss1,(MCS0)_2TX	44.348M	36.614M	36M6D1D	42.754M	36.324M
802.11ac VHT80_Nss1,(MCS0)_2TX	82.609M	75.832M	75M8D1D	82.029M	75.253M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.304M	16.643M	16M6D1D	15.942M	16.57M
802.11ac VHT20_Nss1,(MCS0)_2TX	17.101M	17.656M	17M7D1D	16.377M	17.583M
802.11ac VHT40_Nss1,(MCS0)_2TX	36.087M	36.614M	36M6D1D	35.072M	36.324M
802.11ac VHT80_Nss1,(MCS0)_2TX	75.362M	76.122M	76M1D1D	74.203M	75.832M

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;

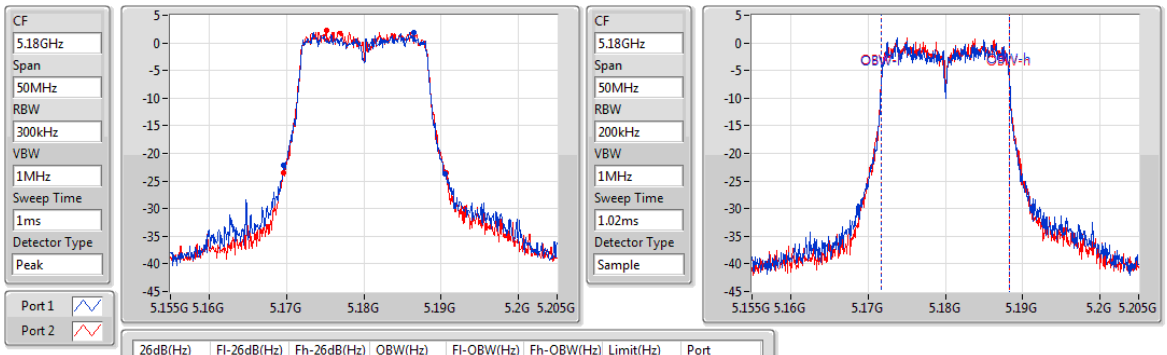
Result

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	21.014M	16.57M	21.087M	16.57M
5200MHz	Pass	Inf	20.725M	16.57M	20.942M	16.57M
5240MHz	Pass	Inf	21.014M	16.57M	20.942M	16.498M
5745MHz	Pass	500k	15.942M	16.643M	16.304M	16.643M
5785MHz	Pass	500k	16.304M	16.57M	16.304M	16.57M
5825MHz	Pass	500k	16.304M	16.57M	16.304M	16.57M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	21.812M	17.656M	21.014M	17.656M
5200MHz	Pass	Inf	21.884M	17.656M	21.232M	17.656M
5240MHz	Pass	Inf	21.884M	17.656M	20.942M	17.656M
5745MHz	Pass	500k	16.884M	17.656M	16.522M	17.656M
5785MHz	Pass	500k	16.884M	17.656M	17.101M	17.583M
5825MHz	Pass	500k	16.739M	17.583M	16.377M	17.583M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	44.348M	36.614M	42.754M	36.324M
5230MHz	Pass	Inf	43.768M	36.469M	42.754M	36.324M
5755MHz	Pass	500k	35.507M	36.614M	35.507M	36.469M
5795MHz	Pass	500k	36.087M	36.469M	35.072M	36.324M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	82.609M	75.832M	82.029M	75.253M
5775MHz	Pass	500k	75.362M	76.122M	74.203M	75.832M

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**

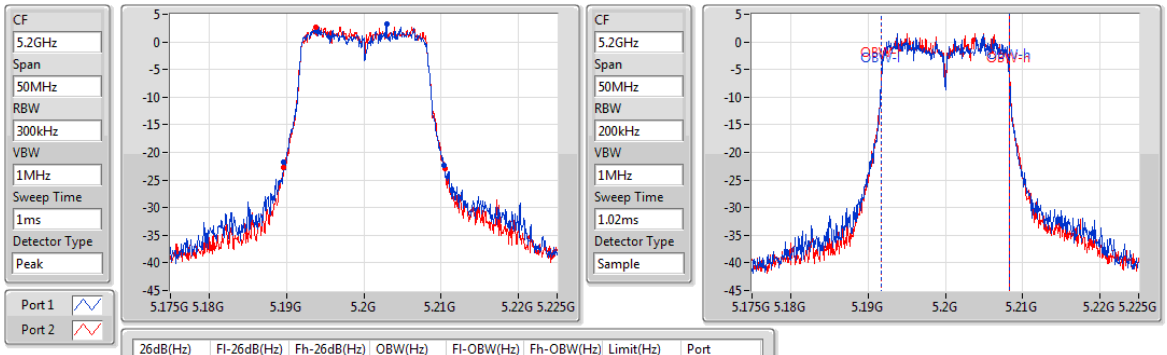
5180MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.014M	5.169565G	5.19058G	16.57M	5.171751G	5.188321G	Inf	1
21.087M	5.169565G	5.190652G	16.57M	5.171751G	5.188321G	Inf	2

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

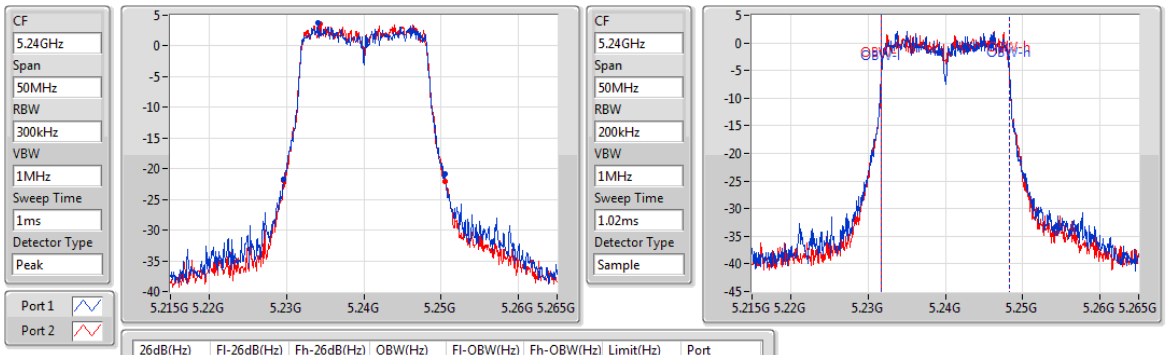
5200MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.725M	5.189638G	5.210362G	16.57M	5.191751G	5.208321G	Inf	1
20.942M	5.189638G	5.21058G	16.57M	5.191751G	5.208321G	Inf	2

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

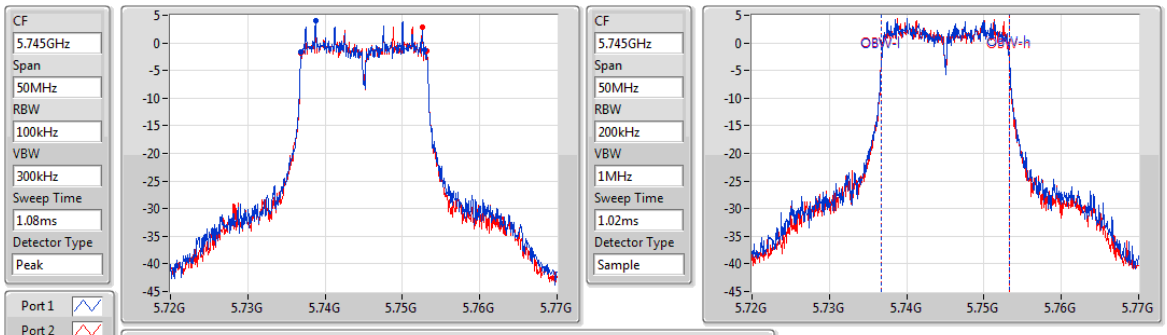
5240MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.014M	5.229565G	5.25058G	16.57M	5.231751G	5.248321G	Inf	1
20.942M	5.229638G	5.25058G	16.498M	5.231751G	5.248249G	Inf	2

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

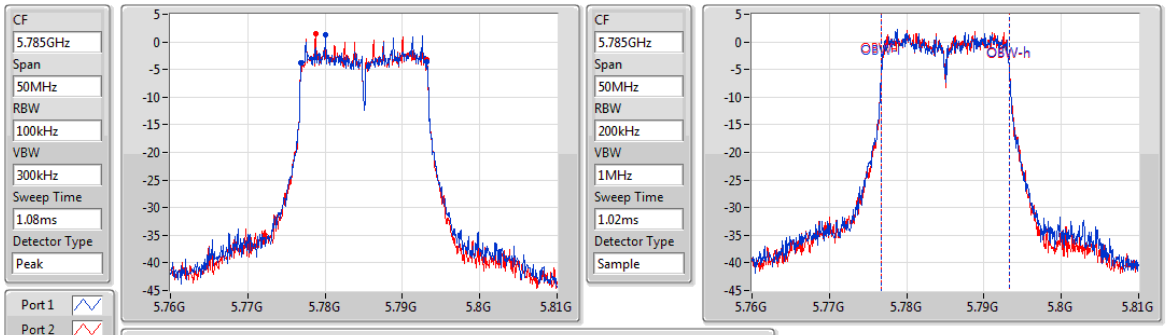
5745MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.942M	5.736884G	5.752826G	16.643M	5.736679G	5.753321G	500k	1
16.304M	5.736884G	5.753188G	16.643M	5.736679G	5.753321G	500k	2

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

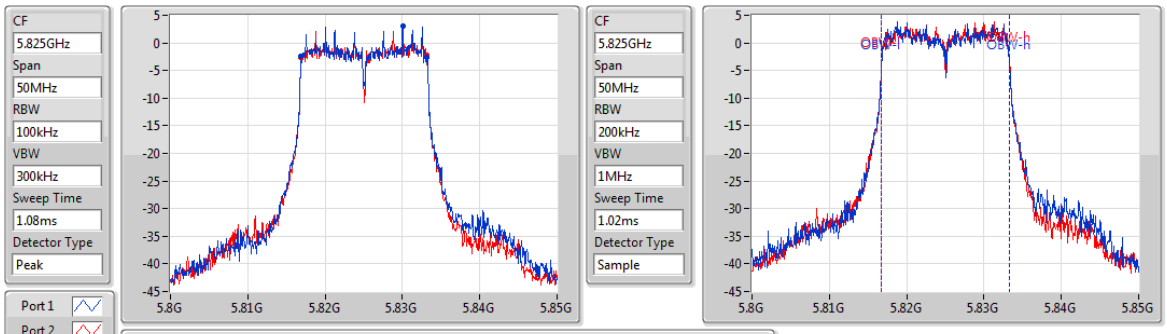
5785MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.304M	5.776884G	5.793188G	16.57M	5.776751G	5.793321G	500k	1
16.304M	5.776884G	5.793188G	16.57M	5.776751G	5.793321G	500k	2

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

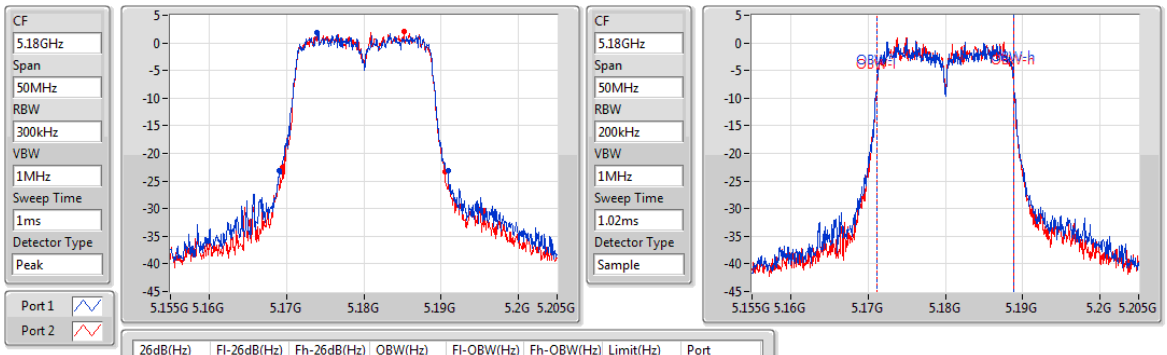
5825MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.304M	5.816884G	5.833188G	16.57M	5.816751G	5.833321G	500k	1
16.304M	5.816884G	5.833188G	16.57M	5.816751G	5.833321G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

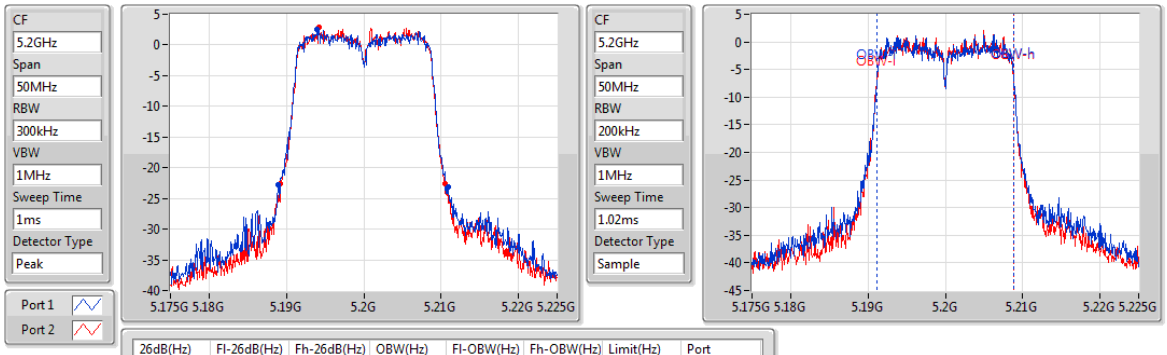
5180MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.812M	5.169058G	5.19087G	17.656M	5.171172G	5.188828G	Inf	1
21.014M	5.169493G	5.190507G	17.656M	5.171172G	5.188828G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

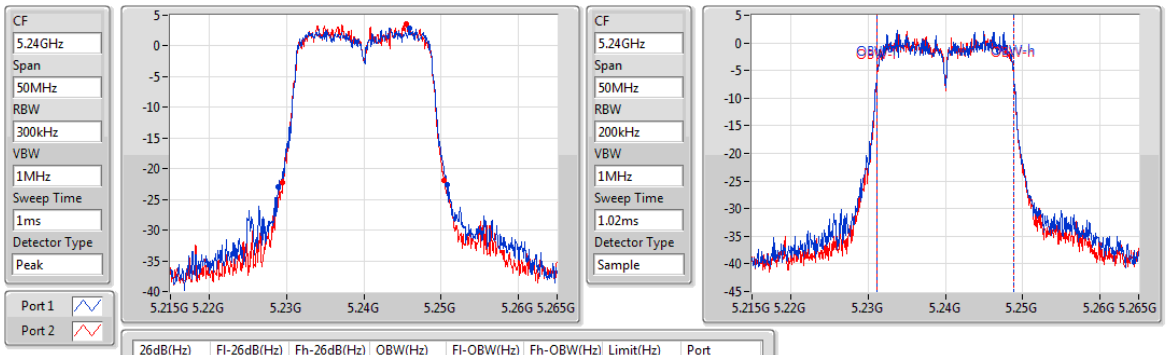
5200MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.884M	5.188986G	5.21087G	17.656M	5.191172G	5.208828G	Inf	1
21.232M	5.189275G	5.210507G	17.656M	5.191172G	5.208828G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

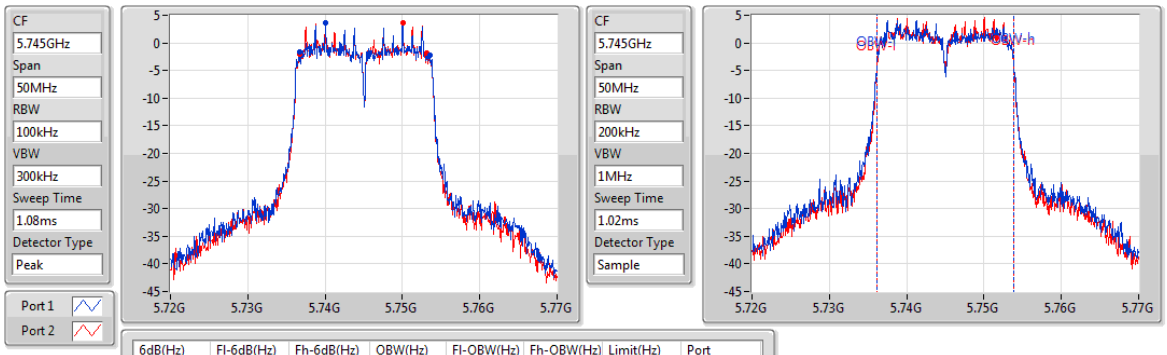
5240MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
21.884M	5.228913G	5.250797G	17.656M	5.231172G	5.248828G	Inf	1
20.942M	5.229493G	5.250435G	17.656M	5.231172G	5.248828G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

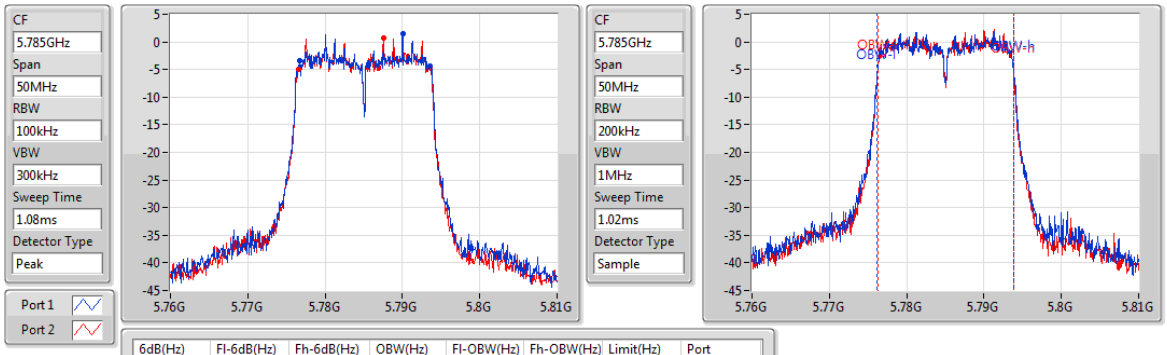
5745MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.884M	5.736667G	5.753551G	17.656M	5.736172G	5.753828G	500k	1
16.522M	5.736667G	5.753188G	17.656M	5.736172G	5.753828G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

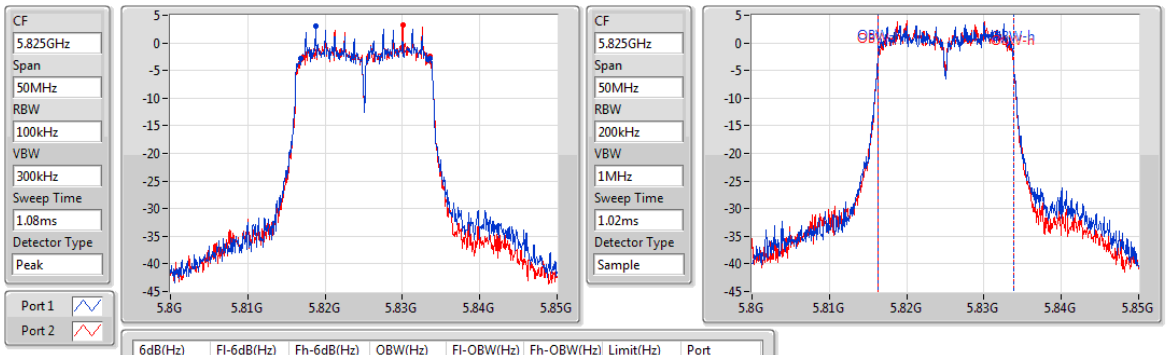
5785MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.884M	5.776667G	5.793551G	17.656M	5.776172G	5.793828G	500k	1
17.101M	5.776522G	5.793623G	17.583M	5.776245G	5.793828G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

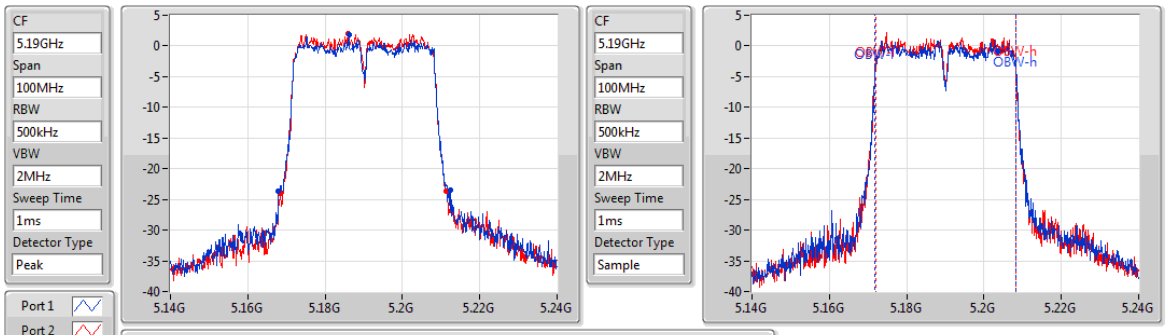
5825MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.739M	5.816884G	5.833623G	17.583M	5.816245G	5.833828G	500k	1
16.377M	5.817174G	5.833551G	17.583M	5.816245G	5.833828G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX **EBW**

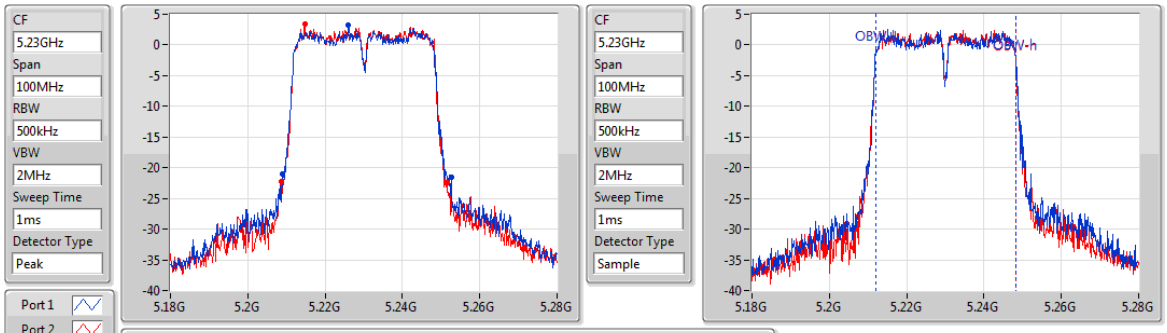
5190MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
44.348M	5.167971G	5.212319G	36.614M	5.171766G	5.208379G	Inf	1
42.754M	5.168551G	5.211304G	36.324M	5.17191G	5.208234G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX **EBW**

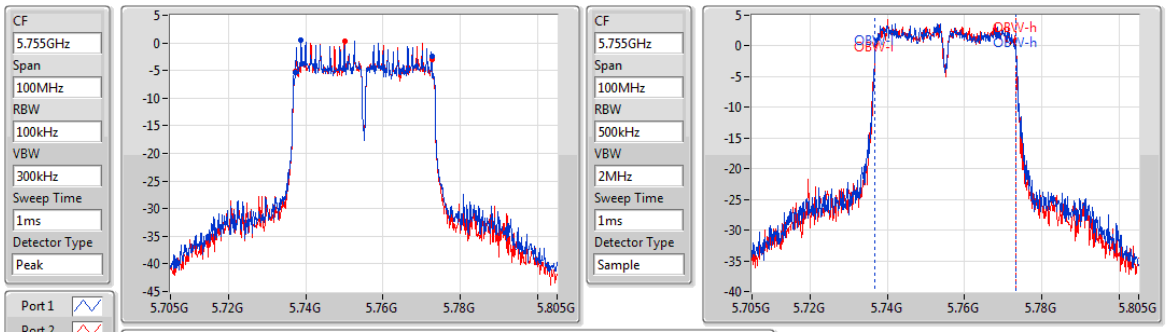
5230MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
43.768M	5.208841G	5.252609G	36.469M	5.21191G	5.248379G	Inf	1
42.754M	5.208696G	5.251449G	36.324M	5.21191G	5.248234G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX **EBW**

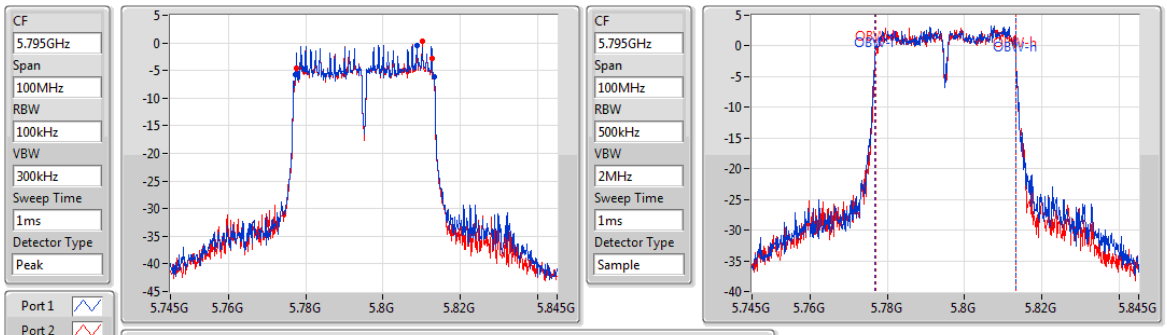
5755MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.507M	5.737174G	5.772681G	36.614M	5.736766G	5.773379G	500k	1
35.507M	5.737174G	5.772681G	36.469M	5.736766G	5.773234G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

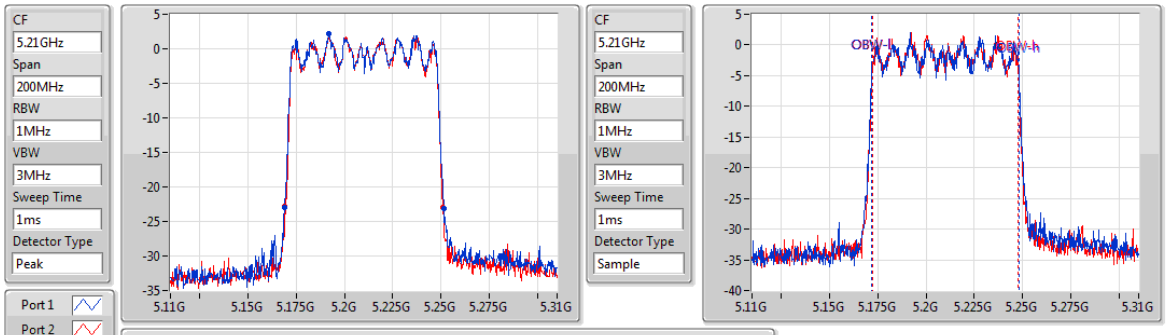
5795MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.087M	5.777174G	5.813261G	36.469M	5.776766G	5.813234G	500k	1
35.072M	5.777609G	5.812681G	36.324M	5.77691G	5.813234G	500k	2

802.11ac VHT80_Nss1,(MCS0)_2TX EBW

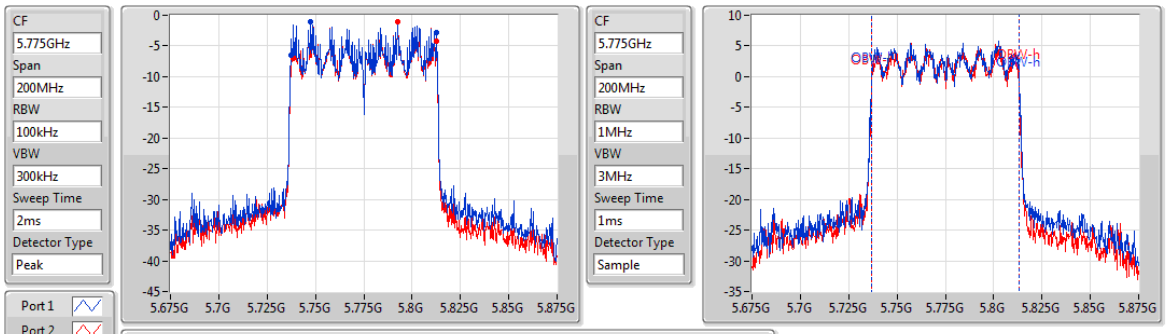
5210MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
82.609M	5.168841G	5.251449G	75.832M	5.172084G	5.247916G	Inf	1
82.029M	5.16913G	5.251159G	75.253M	5.172373G	5.247627G	Inf	2

802.11ac VHT80_Nss1,(MCS0)_2TX EBW

5775MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
75.362M	5.737319G	5.812681G	76.122M	5.737084G	5.813205G	500k	1
74.203M	5.738478G	5.812681G	75.832M	5.737084G	5.812916G	500k	2

3.3 RF Output Power

3.3.1 Limit of RF Output Power

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

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

3.3.2 Test Procedures

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

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

3.3.3 Test Setup

3.3.4 Test Result of Maximum Conducted Output Power

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	14.98	0.03148	19.88	0.09727
802.11ac VHT20_Nss1,(MCS0)_2TX	14.88	0.03076	19.78	0.09506
802.11ac VHT40_Nss1,(MCS0)_2TX	15.58	0.03614	20.48	0.11169
802.11ac VHT80_Nss1,(MCS0)_2TX	13.10	0.02042	18.00	0.06310
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	17.82	0.06053	22.92	0.19588
802.11ac VHT20_Nss1,(MCS0)_2TX	17.63	0.05794	22.73	0.18750
802.11ac VHT40_Nss1,(MCS0)_2TX	17.98	0.06281	23.08	0.20324
802.11ac VHT80_Nss1,(MCS0)_2TX	17.83	0.06067	22.93	0.19634

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	4.90	11.32	11.19	14.27	30.00	19.17	36.00
5200MHz	Pass	4.90	11.94	11.78	14.87	30.00	19.77	36.00
5240MHz	Pass	4.90	12.11	11.83	14.98	30.00	19.88	36.00
5745MHz	Pass	5.10	14.89	14.73	17.82	30.00	22.92	36.00
5785MHz	Pass	5.10	13.26	12.98	16.13	30.00	21.23	36.00
5825MHz	Pass	5.10	14.11	13.78	16.96	30.00	22.06	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	4.90	11.22	11.13	14.19	30.00	19.09	36.00
5200MHz	Pass	4.90	11.63	11.53	14.59	30.00	19.49	36.00
5240MHz	Pass	4.90	11.88	11.86	14.88	30.00	19.78	36.00
5745MHz	Pass	5.10	14.68	14.55	17.63	30.00	22.73	36.00
5785MHz	Pass	5.10	13.19	12.73	15.98	30.00	21.08	36.00
5825MHz	Pass	5.10	14.06	13.85	16.97	30.00	22.07	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	4.90	11.15	11.82	14.51	30.00	19.41	36.00
5230MHz	Pass	4.90	12.61	12.52	15.58	30.00	20.48	36.00
5755MHz	Pass	5.10	15.02	14.91	17.98	30.00	23.08	36.00
5795MHz	Pass	5.10	14.59	14.35	17.48	30.00	22.58	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	4.90	10.11	10.06	13.10	30.00	18.00	36.00
5775MHz	Pass	5.10	14.87	14.76	17.83	30.00	22.93	36.00

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

3.4 Peak Power Spectral Density

3.4.1 Limit of Peak Power Spectral Density

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

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

3.4.2 Test Procedures

For 5150 ~ 5250 MHz

Duty cycle ≥ 98 %

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

Duty cycle < 98 %

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

For 5725 ~ 5850 MHz

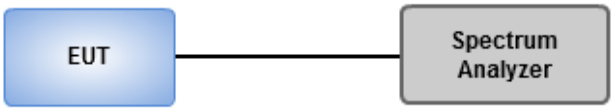
Duty cycle ≥ 98 %

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

Duty cycle < 98 %

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

3.4.3 Test Setup



3.4.4 Test Result of Peak Power Spectral Density

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	1.82	9.73
802.11ac VHT20_Nss1,(MCS0)_2TX	1.59	9.50
802.11ac VHT40_Nss1,(MCS0)_2TX	-0.22	7.69
802.11ac VHT80_Nss1,(MCS0)_2TX	-4.65	3.26
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	3.27	11.38
802.11ac VHT20_Nss1,(MCS0)_2TX	2.90	11.01
802.11ac VHT40_Nss1,(MCS0)_2TX	-0.42	7.69
802.11ac VHT80_Nss1,(MCS0)_2TX	-2.19	5.92

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

Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	7.91	-1.76	-1.99	1.13	15.09	9.04	23.00
5200MHz	Pass	7.91	-1.33	-1.55	1.56	15.09	9.47	23.00
5240MHz	Pass	7.91	-1.19	-1.19	1.82	15.09	9.73	23.00
5745MHz	Pass	8.11	0.27	0.27	3.27	27.89	11.38	36.00
5785MHz	Pass	8.11	-1.76	-1.85	1.20	27.89	9.31	36.00
5825MHz	Pass	8.11	-0.34	-0.37	2.64	27.89	10.75	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	7.91	-2.02	-2.18	0.89	15.09	8.80	23.00
5200MHz	Pass	7.91	-1.56	-1.72	1.36	15.09	9.27	23.00
5240MHz	Pass	7.91	-1.39	-1.45	1.59	15.09	9.50	23.00
5745MHz	Pass	8.11	-0.17	-0.04	2.90	27.89	11.01	36.00
5785MHz	Pass	8.11	-2.18	-2.14	0.83	27.89	8.94	36.00
5825MHz	Pass	8.11	-0.70	-0.69	2.30	27.89	10.41	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	7.91	-4.80	-4.11	-1.43	15.09	6.48	23.00
5230MHz	Pass	7.91	-3.29	-3.17	-0.22	15.09	7.69	23.00
5755MHz	Pass	8.11	-3.42	-3.44	-0.42	27.89	7.69	36.00
5795MHz	Pass	8.11	-3.74	-3.89	-0.80	27.89	7.31	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	7.91	-7.66	-7.66	-4.65	15.09	3.26	23.00
5775MHz	Pass	8.11	-5.04	-5.33	-2.19	27.89	5.92	36.00

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

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

For 5.15 ~ 5.25 GHz

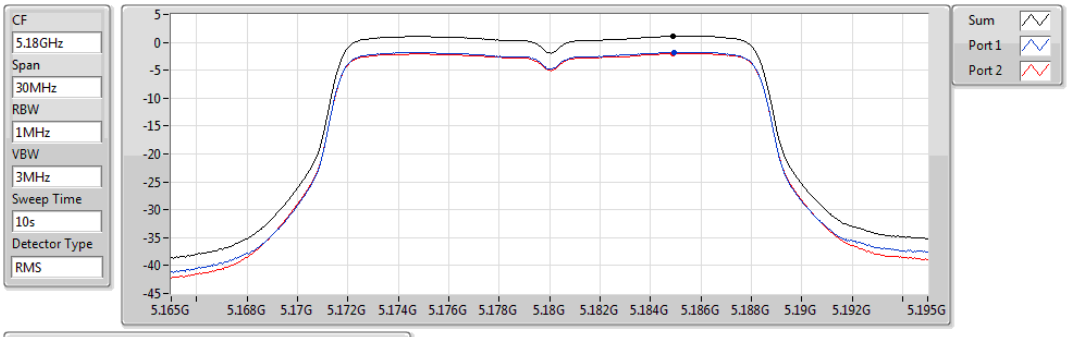
Directional gain = 4.9 + 10*log(2/1)= 7.91 dBi > 6dBi, Limit shall be reduced to 17 dBm – (7.91dBi – 6 dBi) = 15.09 dBm

For 5.725 ~ 5.85 GHz

Directional gain = 5.1 + 10*log(2/1)= 8.11 dBi > 6dBi, Limit shall be reduced to 30 dBm – (8.11dBi – 6 dBi) = 27.89 dBm

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

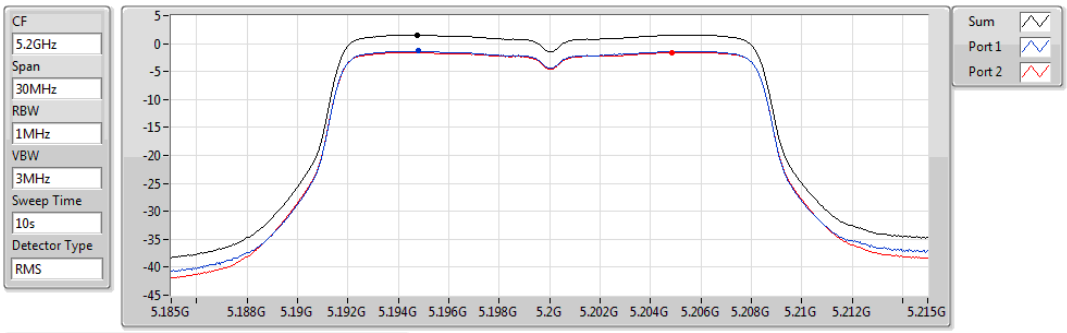
5180MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.13	1.13	-1.76	-1.99

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

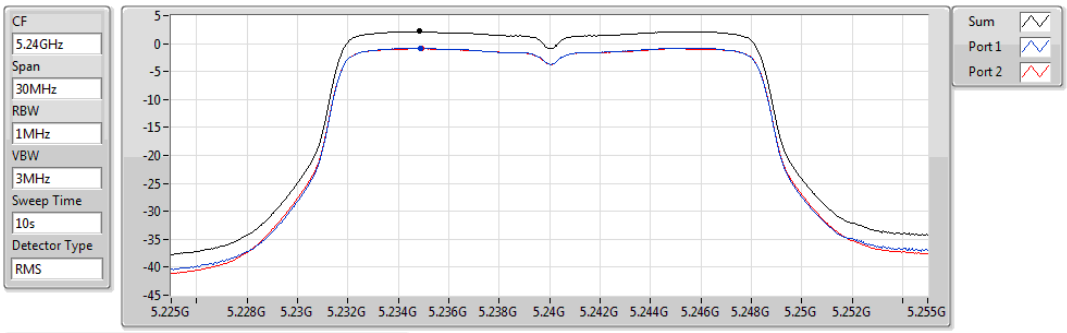
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.56	1.56	-1.33	-1.55

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

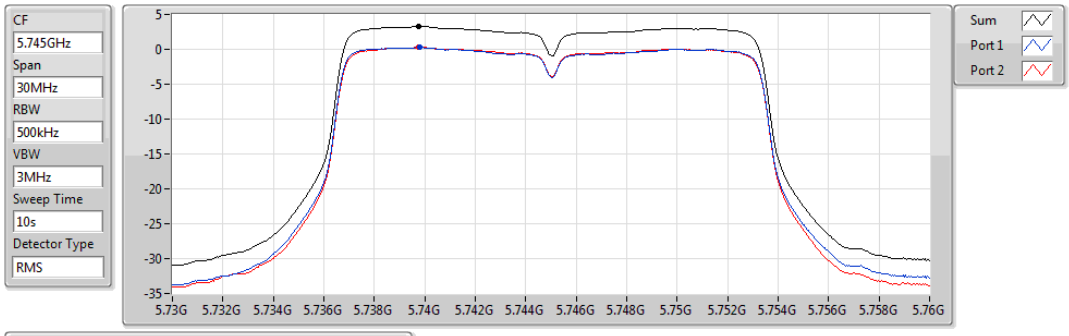
5240MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.82	1.82	-1.19	-1.19

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

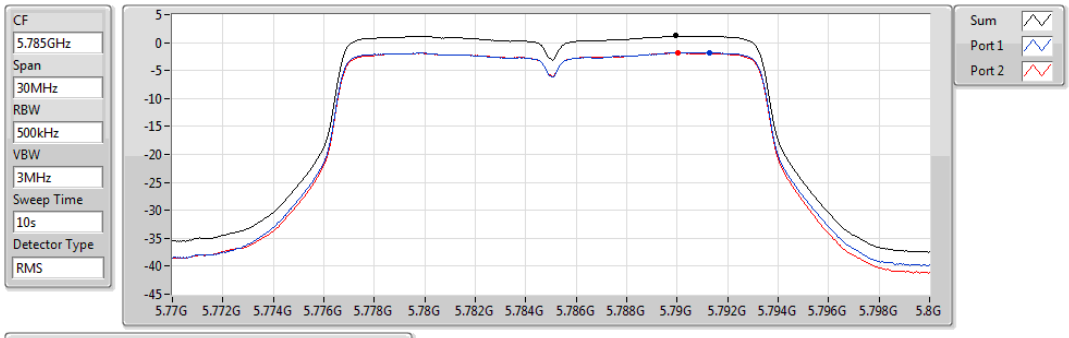
5745MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.27	3.27	0.27	0.27

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

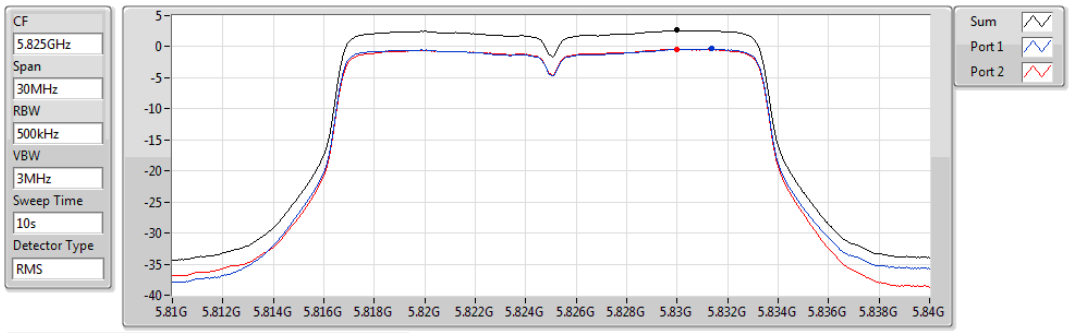
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.20	1.20	-1.76	-1.85

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

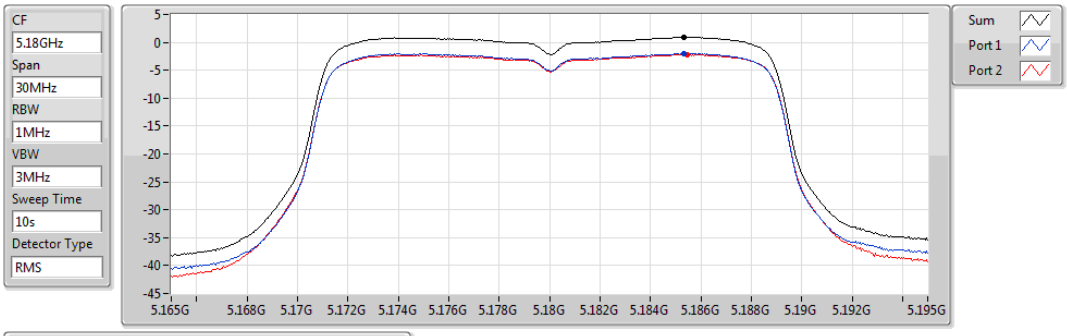
5825MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.64	2.64	-0.34	-0.37

802.11ac VHT20_Nss1,(MCS0)_2TX **PSD**

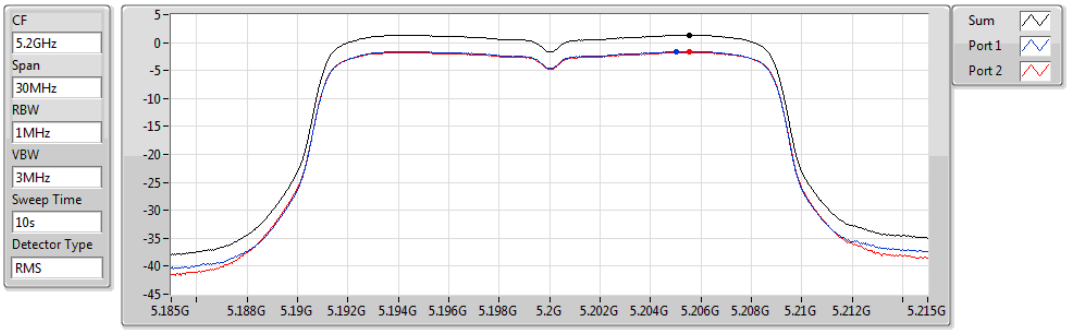
5180MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.89	0.89	-2.02	-2.18

802.11ac VHT20_Nss1,(MCS0)_2TX **PSD**

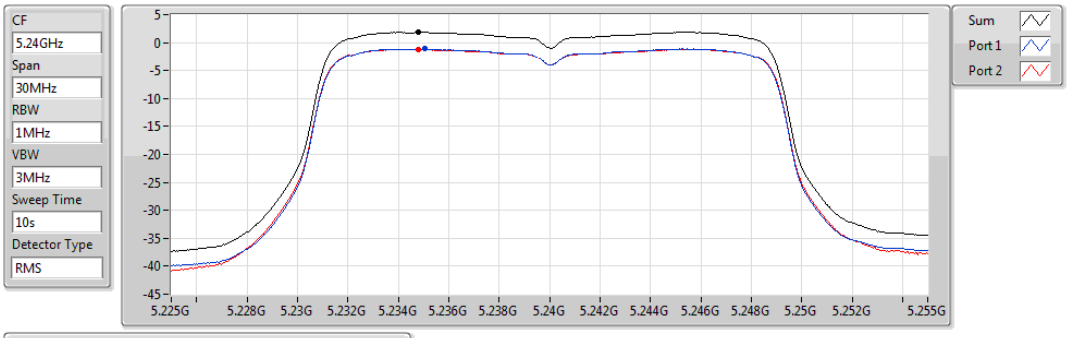
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.36	1.36	-1.56	-1.72

802.11ac VHT20_Nss1,(MCS0)_2TX **PSD**

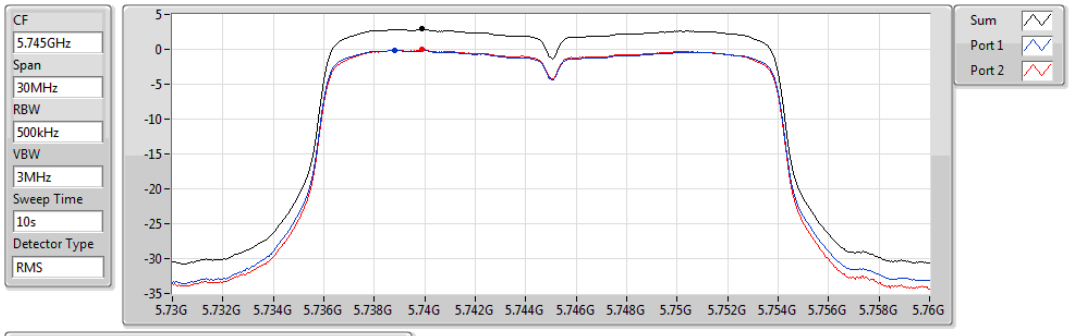
5240MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.59	1.59	-1.39	-1.45

802.11ac VHT20_Nss1,(MCS0)_2TX **PSD**

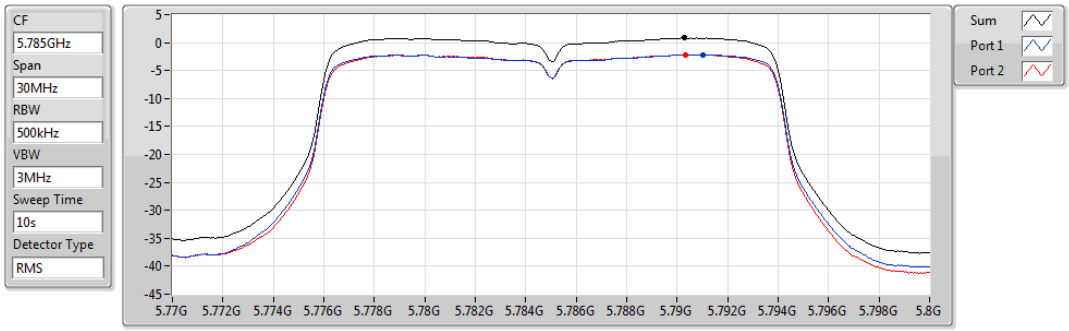
5745MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.90	2.90	-0.17	-0.04

802.11ac VHT20_Nss1,(MCS0)_2TX **PSD**

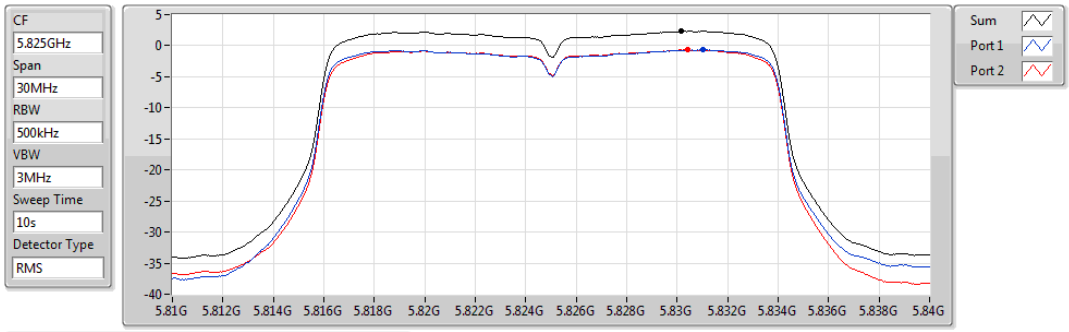
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.83	0.83	-2.18	-2.14

802.11ac VHT20_Nss1,(MCS0)_2TX **PSD**

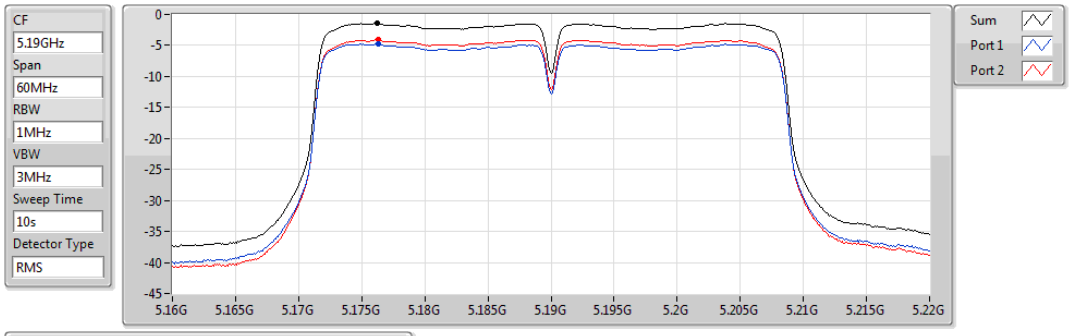
5825MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.30	2.30	-0.70	-0.69

802.11ac VHT40_Nss1,(MCS0)_2TX **PSD**

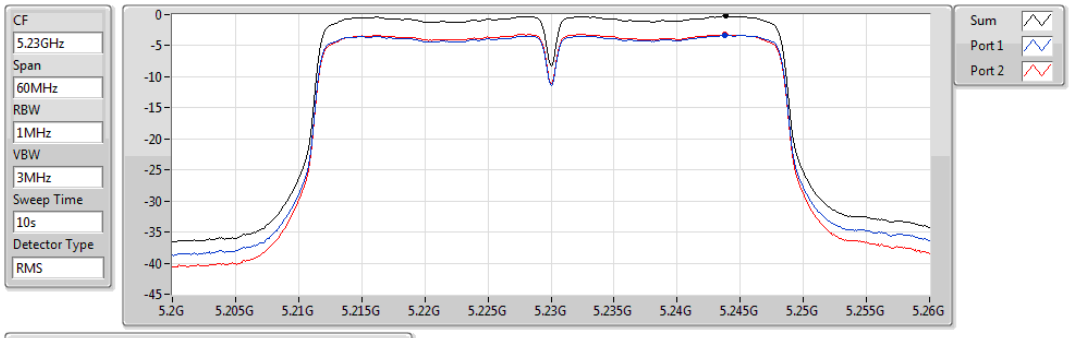
5190MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.43	-1.43	-4.80	-4.11

802.11ac VHT40_Nss1,(MCS0)_2TX **PSD**

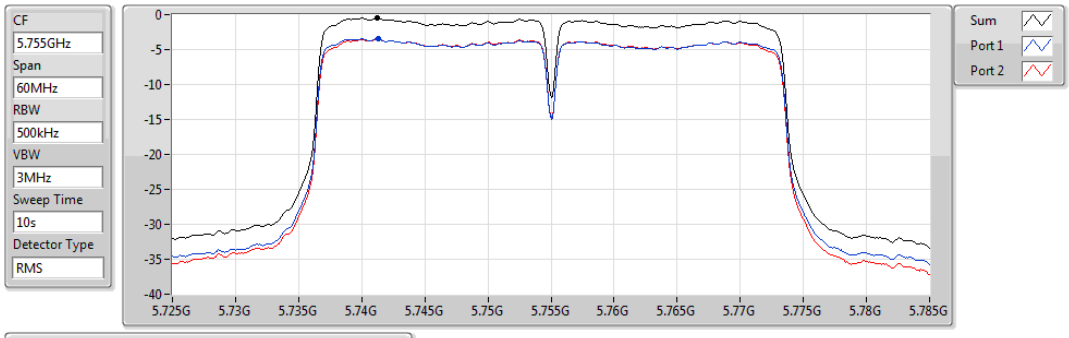
5230MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.22	-0.22	-3.29	-3.17

802.11ac VHT40_Nss1,(MCS0)_2TX **PSD**

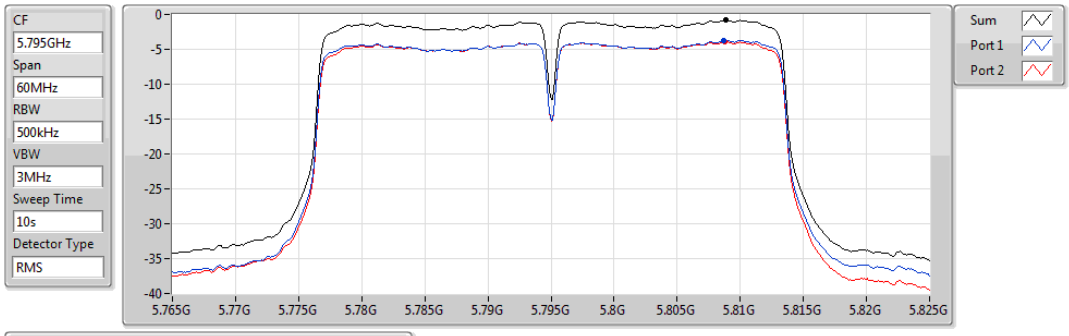
5755MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.42	-0.42	-3.42	-3.44

802.11ac VHT40_Nss1,(MCS0)_2TX **PSD**

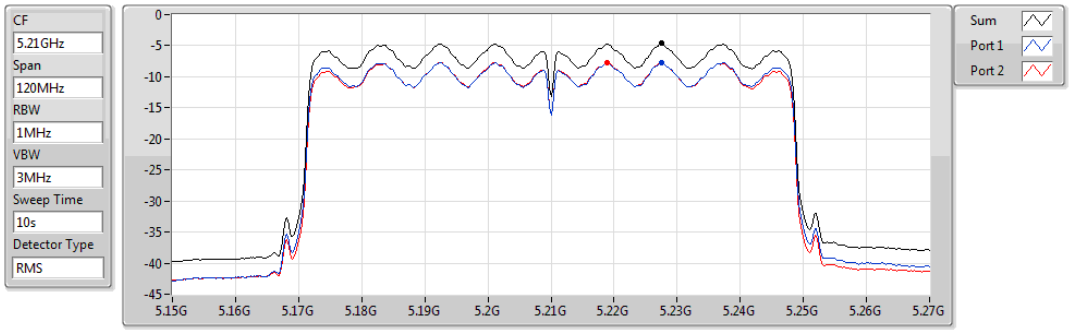
5795MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.80	-0.80	-3.74	-3.89

802.11ac VHT80_Nss1,(MCS0)_2TX **PSD**

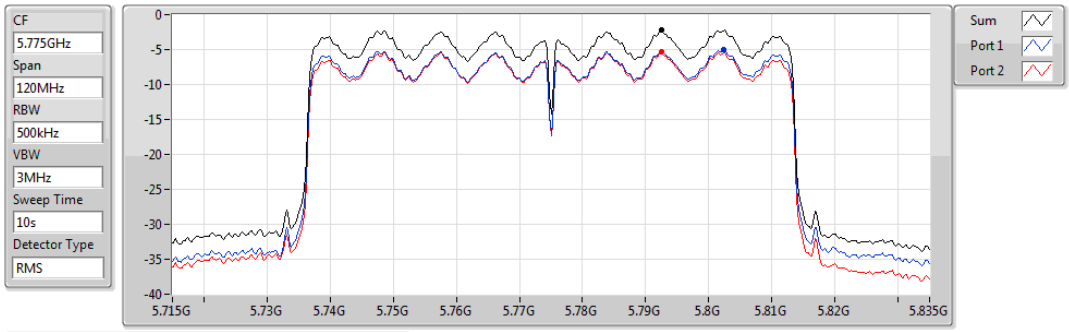
5210MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.65	-4.65	-7.66	-7.66

802.11ac VHT80_Nss1,(MCS0)_2TX **PSD**

5775MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.19	-2.19	-5.04	-5.33

3.5 Transmitter Radiated and Band Edge Emissions

3.5.1 Limit of Transmitter Radiated and Band Edge Emissions

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

Note 1:
Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit
Note 2:
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

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

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

3.5.2 Test Procedures

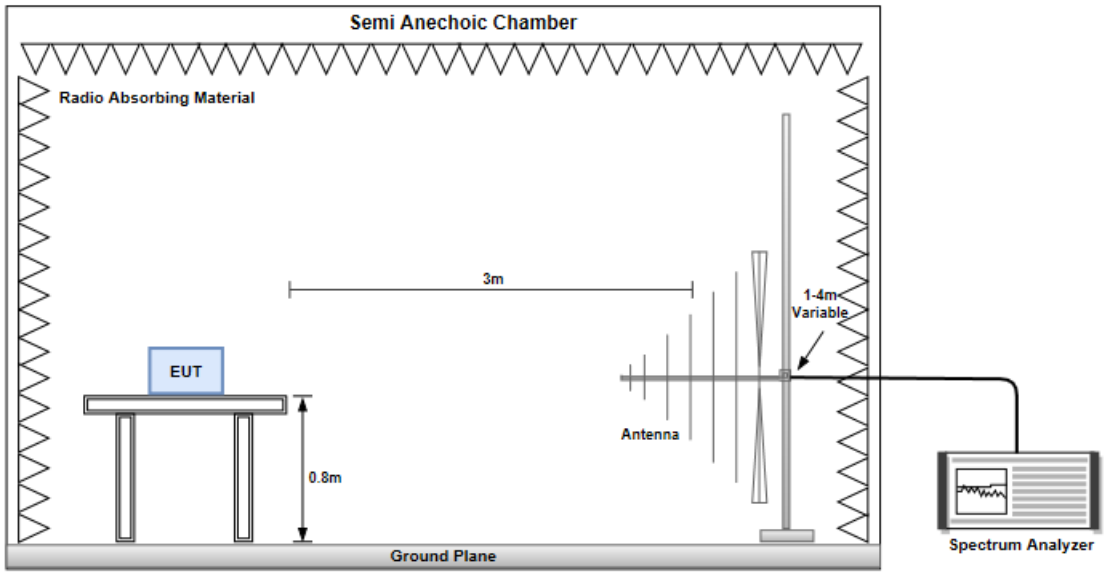
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

Note:

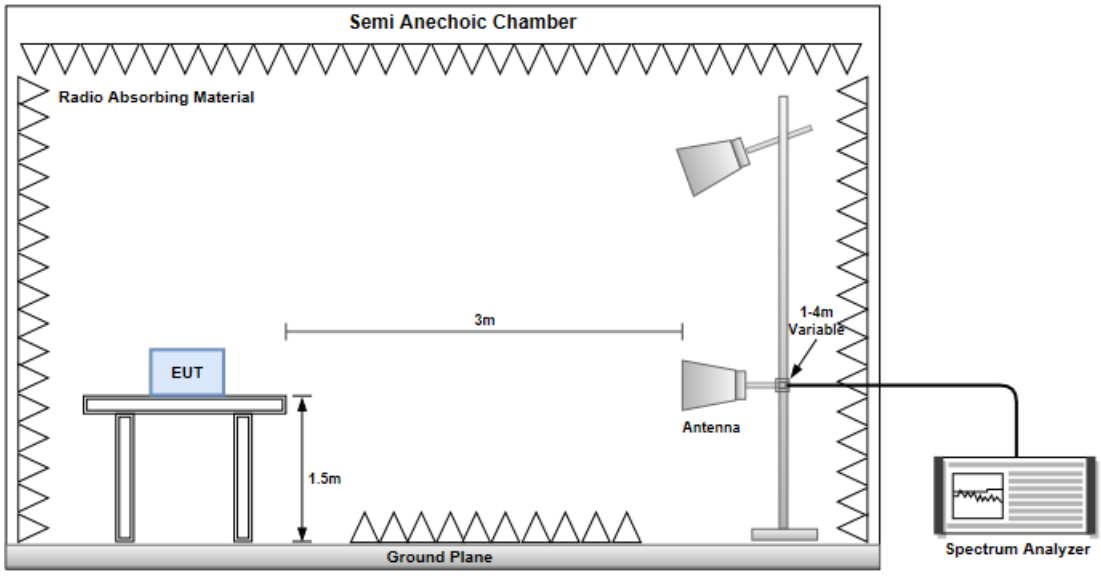
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz

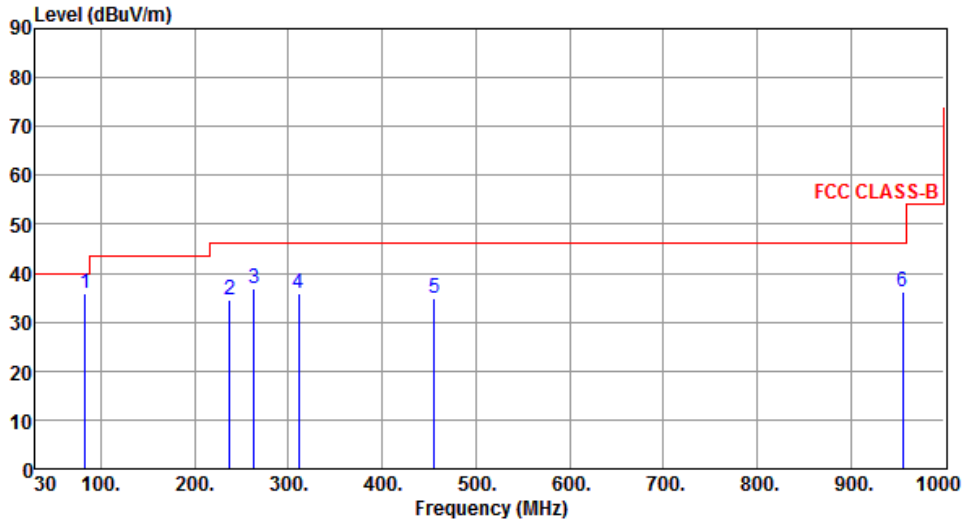


Radiated Emissions above 1 GHz



3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

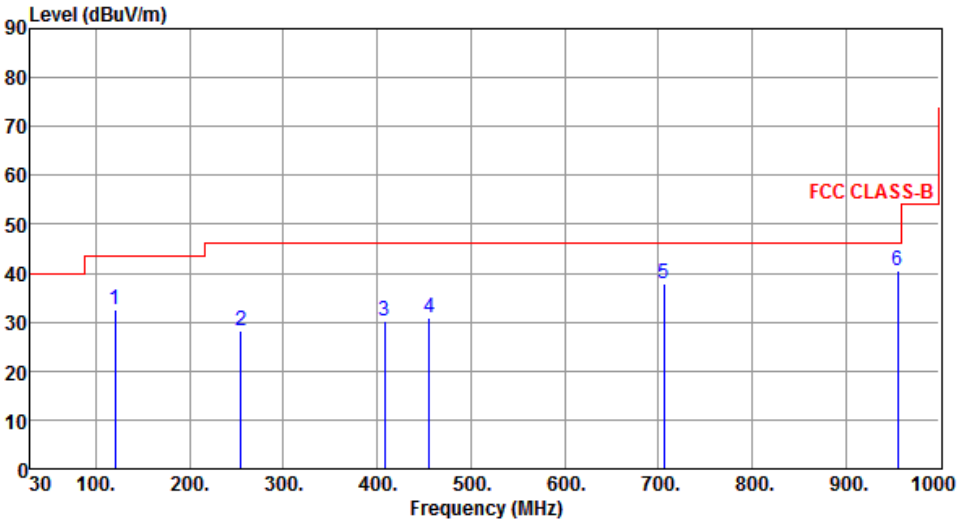
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	83.35	36.03	40.00	-3.97	49.48	-13.45	Peak	---	---
2	237.58	34.46	46.00	-11.54	44.14	-9.68	Peak	---	---
3	263.77	36.86	46.00	-9.14	45.73	-8.87	Peak	---	---
4	311.30	35.87	46.00	-10.13	43.26	-7.39	Peak	---	---
5	455.83	34.77	46.00	-11.23	38.39	-3.62	Peak	---	---
6	955.38	36.30	46.00	-9.70	30.54	5.76	Peak	---	---

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

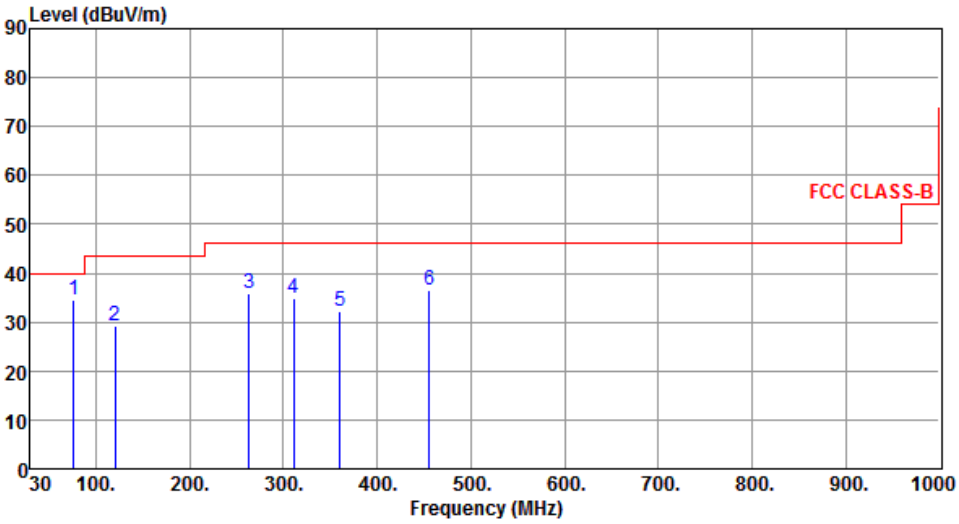
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	120.21	32.51	43.50	-10.99	43.33	-10.82	Peak	---	---
2	255.04	28.16	46.00	-17.84	37.31	-9.15	Peak	---	---
3	408.30	30.27	46.00	-15.73	35.04	-4.77	Peak	---	---
4	455.83	30.90	46.00	-15.10	34.52	-3.62	Peak	---	---
5	706.09	37.72	46.00	-8.28	36.45	1.27	Peak	---	---
6	955.38	40.37	46.00	-5.63	34.61	5.76	Peak	---	---

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

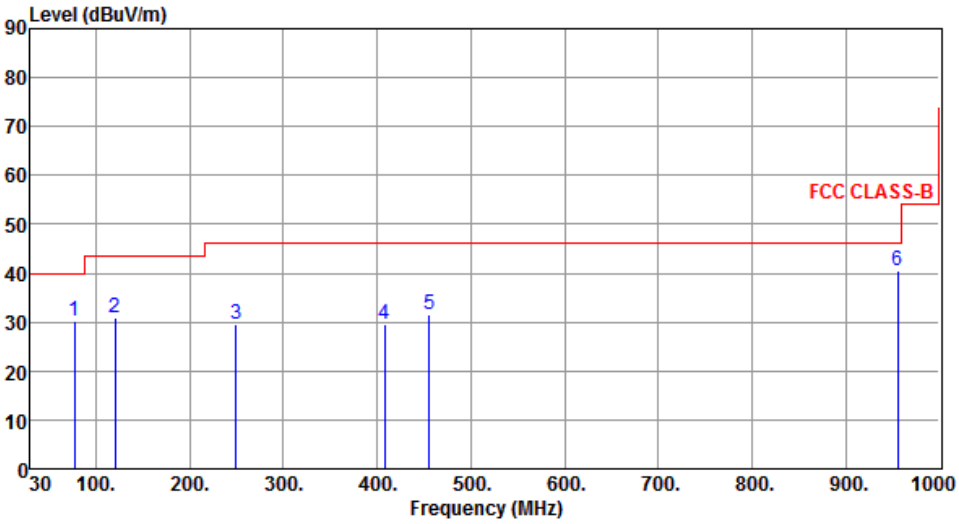
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	76.56	34.67	40.00	-5.33	46.77	-12.10	Peak	---	---
2	120.21	29.21	43.50	-14.29	40.03	-10.82	Peak	---	---
3	263.77	35.84	46.00	-10.16	44.71	-8.87	Peak	---	---
4	311.30	34.89	46.00	-11.11	42.28	-7.39	Peak	---	---
5	360.77	32.29	46.00	-13.71	38.36	-6.07	Peak	---	---
6	455.83	36.43	46.00	-9.57	40.05	-3.62	Peak	---	---

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

Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		

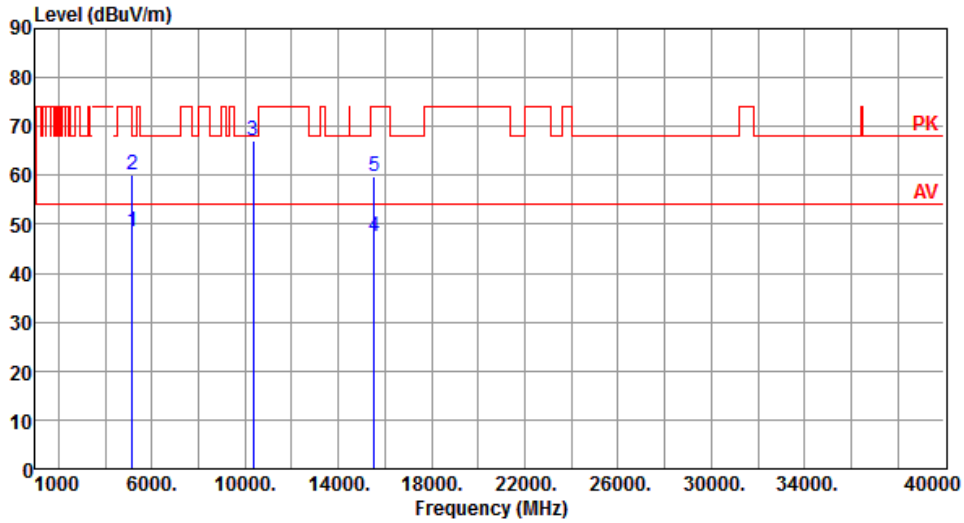


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	77.53	30.38	40.00	-9.62	42.72	-12.34	Peak	---	---
2	120.21	30.97	43.50	-12.53	41.79	-10.82	Peak	---	---
3	249.22	29.43	46.00	-16.57	38.72	-9.29	Peak	---	---
4	408.30	29.56	46.00	-16.44	34.33	-4.77	Peak	---	---
5	455.83	31.39	46.00	-14.61	35.01	-3.62	Peak	---	---
6	955.38	40.66	46.00	-5.34	34.90	5.76	Peak	---	---

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

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

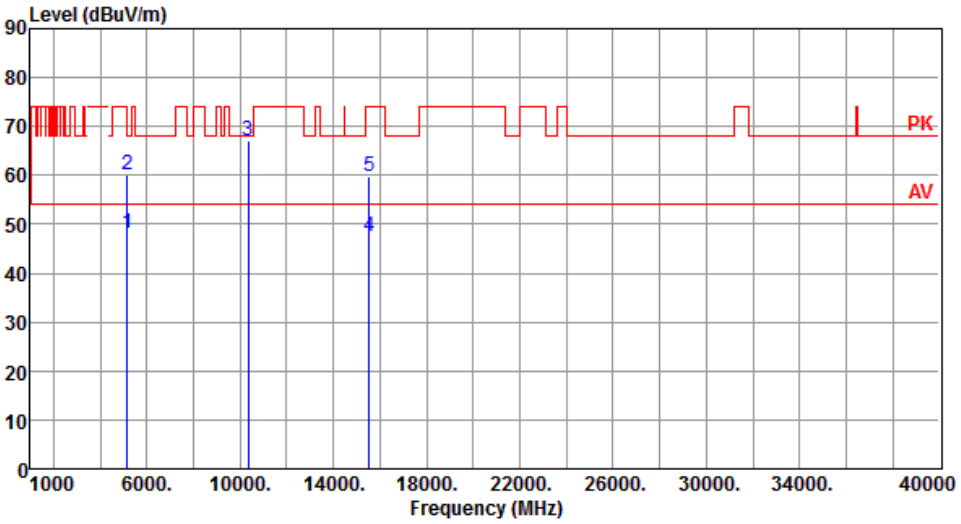
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Horizontal		



	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	48.46	54.00	-5.54	42.85	5.61	Average	213	283
2	5150.00	59.96	74.00	-14.04	54.35	5.61	Peak	213	283
3	10360.00	67.08	68.20	-1.12	52.24	14.84	Peak	210	60
4	15540.00	47.33	54.00	-6.67	32.16	15.17	Average	100	324
5	15540.00	59.87	74.00	-14.13	44.70	15.17	Peak	100	324

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).

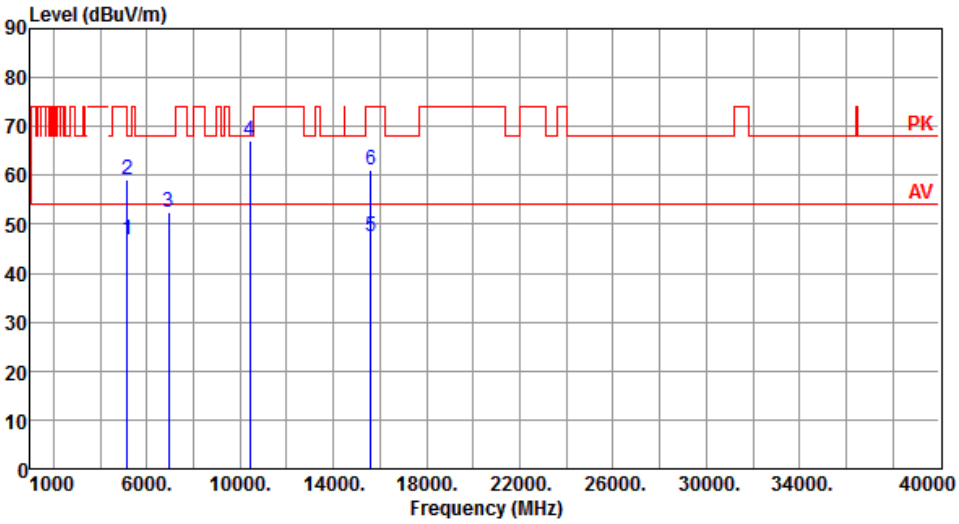
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	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	48.13	54.00	-5.87	42.52	5.61	Average	316	262
2	5150.00	60.00	74.00	-14.00	54.39	5.61	Peak	316	262
3	10360.00	67.20	68.20	-1.00	52.36	14.84	Peak	100	19
4	15540.00	47.45	54.00	-6.55	32.28	15.17	Average	100	30
5	15540.00	59.75	74.00	-14.25	44.58	15.17	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).

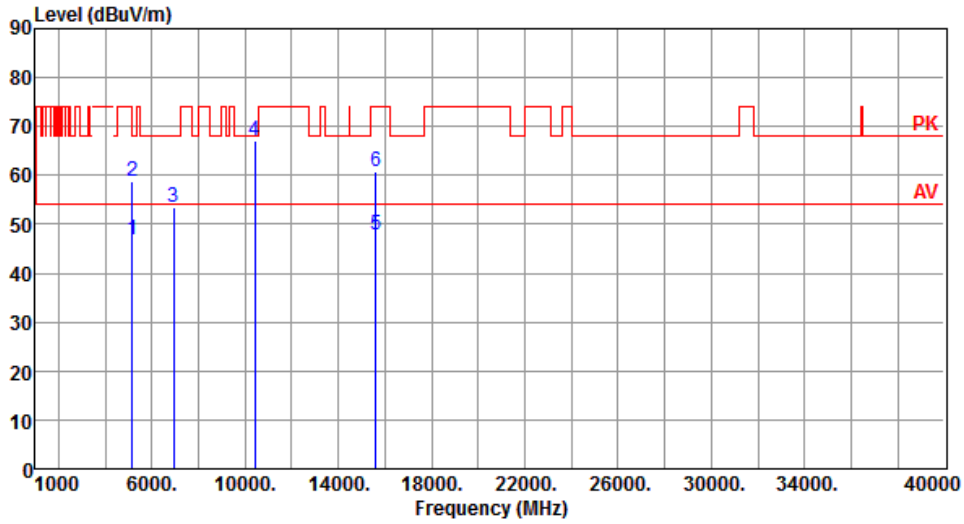
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Horizontal		



	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	46.93	54.00	-7.07	41.32	5.61	Average	204	284
2	5150.00	59.06	74.00	-14.94	53.45	5.61	Peak	204	284
3	6933.33	52.63	68.20	-15.57	43.41	9.22	Peak	100	334
4	10400.00	67.14	68.20	-1.06	52.25	14.89	Peak	264	45
5	15600.00	47.50	54.00	-6.50	32.45	15.05	Average	100	325
6	15600.00	61.14	74.00	-12.86	46.09	15.05	Peak	100	325

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

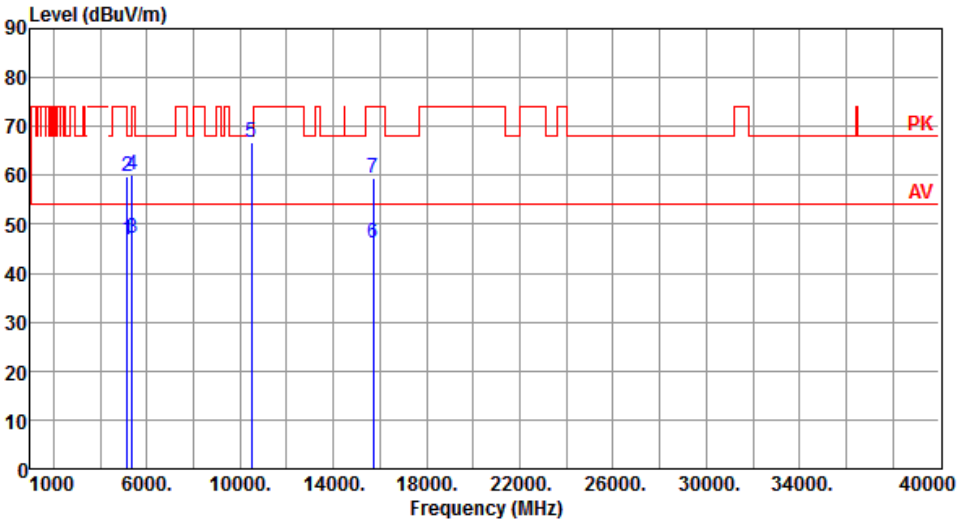
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Vertical		



	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	46.86	54.00	-7.14	41.25	5.61	Average	335	259
2	5150.00	58.85	74.00	-15.15	53.24	5.61	Peak	335	259
3	6933.33	53.39	68.20	-14.81	44.17	9.22	Peak	115	324
4	10400.00	67.20	68.20	-1.00	52.31	14.89	Peak	100	19
5	15600.00	47.72	54.00	-6.28	32.67	15.05	Average	100	20
6	15600.00	60.70	74.00	-13.30	45.65	15.05	Peak	100	20

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).

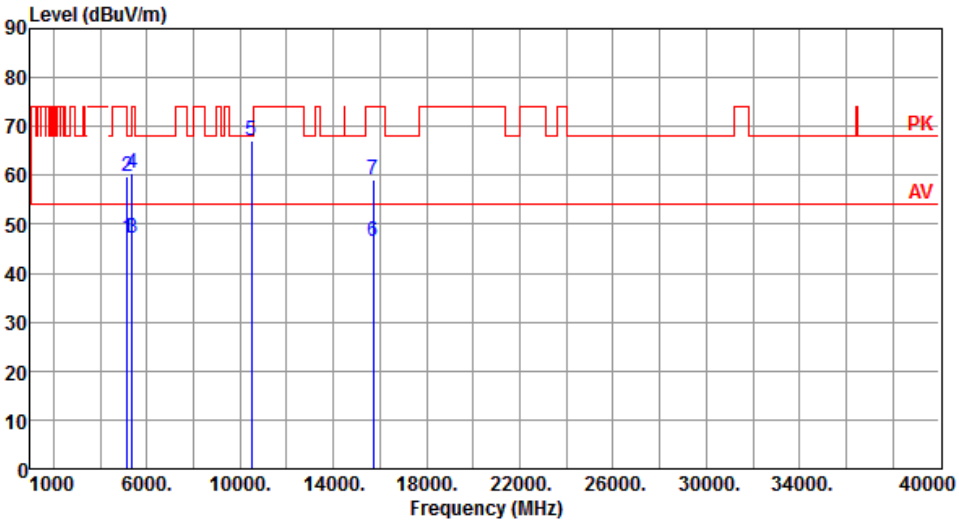
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal		



	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	46.86	54.00	-7.14	41.25	5.61	Average	205	279
2	5150.00	59.92	74.00	-14.08	54.31	5.61	Peak	205	279
3	5350.00	47.11	54.00	-6.89	41.27	5.84	Average	205	279
4	5350.00	59.96	74.00	-14.04	54.12	5.84	Peak	205	279
5	10480.00	66.90	68.20	-1.30	51.92	14.98	Peak	263	49
6	15720.00	46.25	54.00	-7.75	31.45	14.80	Average	100	320
7	15720.00	59.37	74.00	-14.63	44.57	14.80	Peak	100	320

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).

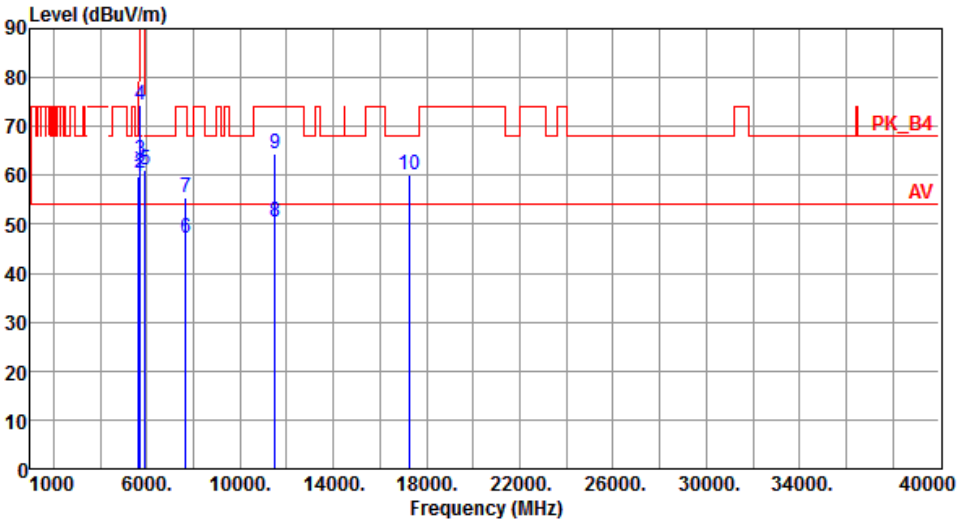
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical		



	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	47.00	54.00	-7.00	41.39	5.61	Average	330	260
2	5150.00	59.64	74.00	-14.36	54.03	5.61	Peak	330	260
3	5350.00	47.11	54.00	-6.89	41.27	5.84	Average	330	260
4	5350.00	60.49	74.00	-13.51	54.65	5.84	Peak	330	260
5	10480.00	67.10	68.20	-1.10	52.12	14.98	Peak	100	14
6	15720.00	46.45	54.00	-7.55	31.65	14.80	Average	100	25
7	15720.00	59.16	74.00	-14.84	44.36	14.80	Peak	100	25

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).

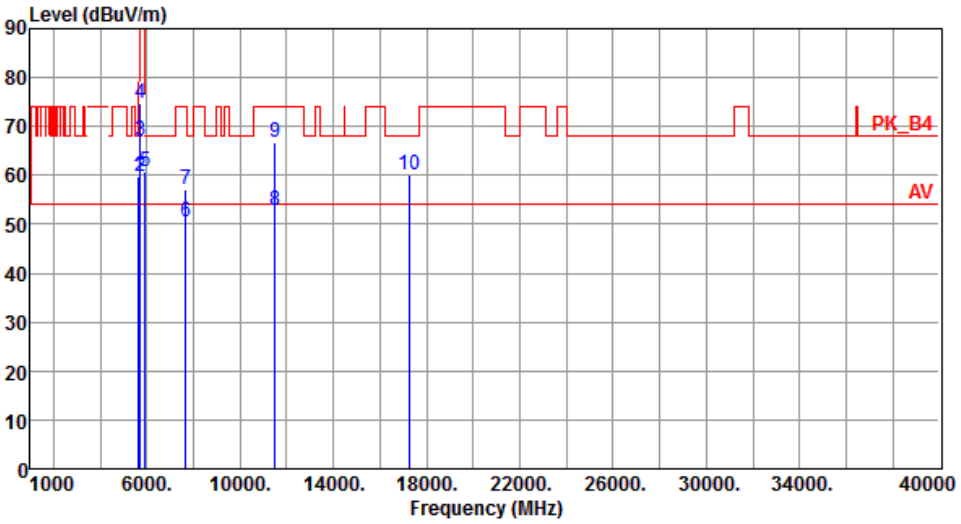
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal		



	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	59.71	68.20	-8.49	53.46	6.25	Peak	126	298
2	5700.00	60.56	105.20	-44.64	54.21	6.35	Peak	126	298
3	5720.00	63.18	110.80	-47.62	56.79	6.39	Peak	126	298
4	5725.00	74.26	122.20	-47.94	67.86	6.40	Peak	126	298
5	5925.00	61.14	68.20	-7.06	54.39	6.75	Peak	126	298
6	7660.00	47.06	54.00	-6.94	36.44	10.62	Average	100	11
7	7660.00	55.44	74.00	-18.56	44.82	10.62	Peak	100	11
8	11490.00	50.44	54.00	-3.56	35.17	15.27	Average	100	18
9	11490.00	64.55	74.00	-9.45	49.28	15.27	Peak	100	18
10	17235.00	60.12	68.20	-8.08	42.87	17.25	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).

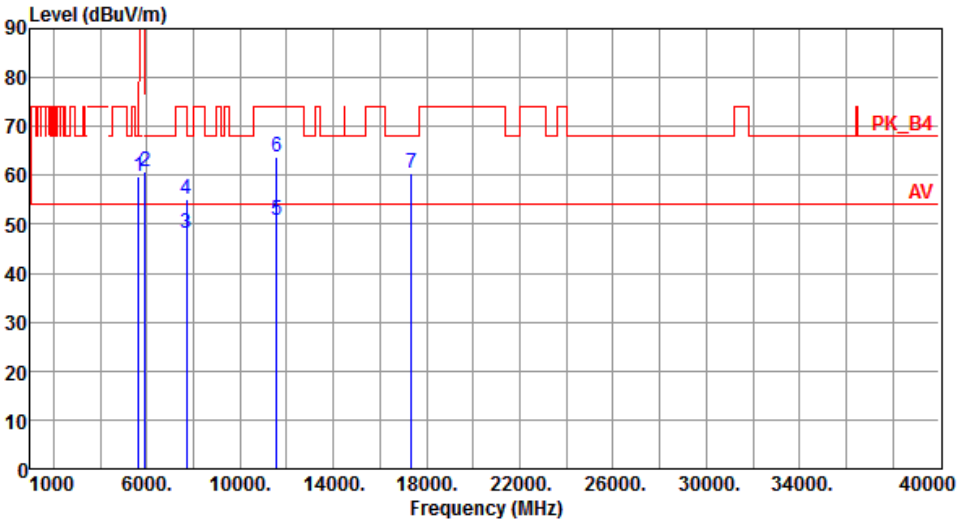
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		



	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	59.71	68.20	-8.49	53.46	6.25	Peak	125	256
2	5700.00	59.89	105.20	-45.31	53.54	6.35	Peak	125	256
3	5720.00	67.00	110.80	-43.80	60.61	6.39	Peak	125	256
4	5725.00	74.86	122.20	-47.34	68.46	6.40	Peak	125	256
5	5925.00	60.88	68.20	-7.32	54.13	6.75	Peak	125	256
6	7660.00	50.48	54.00	-3.52	39.86	10.62	Average	100	13
7	7660.00	57.00	74.00	-17.00	46.38	10.62	Peak	100	13
8	11490.00	52.78	54.00	-1.22	37.51	15.27	Average	100	17
9	11490.00	66.71	74.00	-7.29	51.44	15.27	Peak	100	17
10	17235.00	60.11	68.20	-8.09	42.86	17.25	Peak	100	20

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).

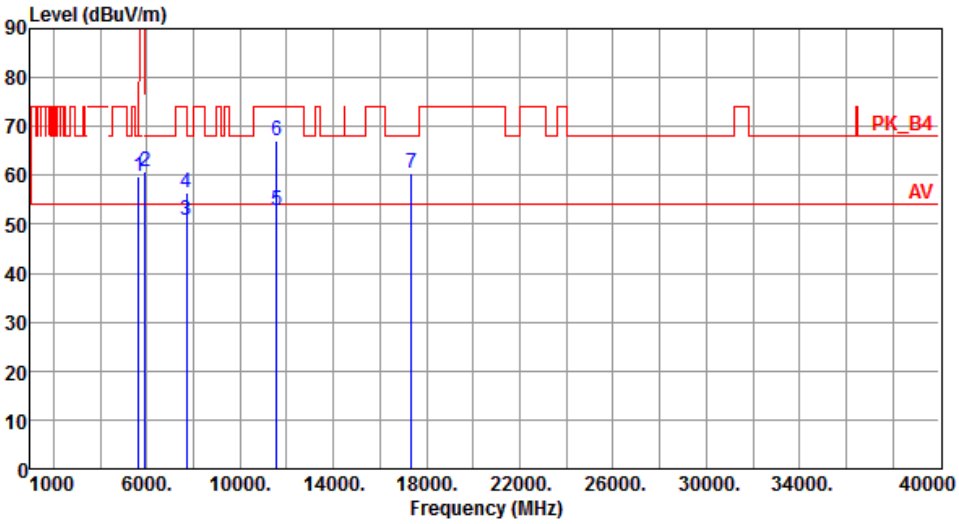
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



	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	59.76	68.20	-8.44	53.51	6.25	Peak	129	300
2	5925.00	60.91	68.20	-7.29	54.16	6.75	Peak	129	300
3	7713.33	48.22	54.00	-5.78	37.50	10.72	Average	100	11
4	7713.33	55.23	74.00	-18.77	44.51	10.72	Peak	100	11
5	11570.00	50.91	54.00	-3.09	35.74	15.17	Average	100	1
6	11570.00	63.69	74.00	-10.31	48.52	15.17	Peak	100	1
7	17355.00	60.51	68.20	-7.69	42.87	17.64	Peak	100	20

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).

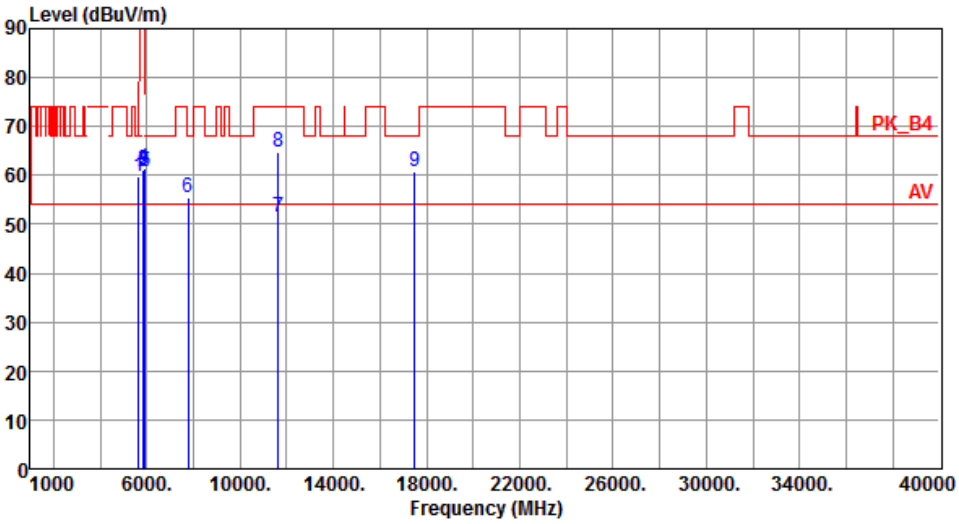
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		



	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	59.70	68.20	-8.50	53.45	6.25	Peak	167	254
2	5925.00	60.87	68.20	-7.33	54.12	6.75	Peak	167	254
3	7713.33	50.69	54.00	-3.31	39.97	10.72	Average	100	14
4	7713.33	56.61	74.00	-17.39	45.89	10.72	Peak	100	14
5	11570.00	52.82	54.00	-1.18	37.65	15.17	Average	100	17
6	11570.00	67.24	74.00	-6.76	52.07	15.17	Peak	100	17
7	17355.00	60.60	68.20	-7.60	42.96	17.64	Peak	100	20

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).

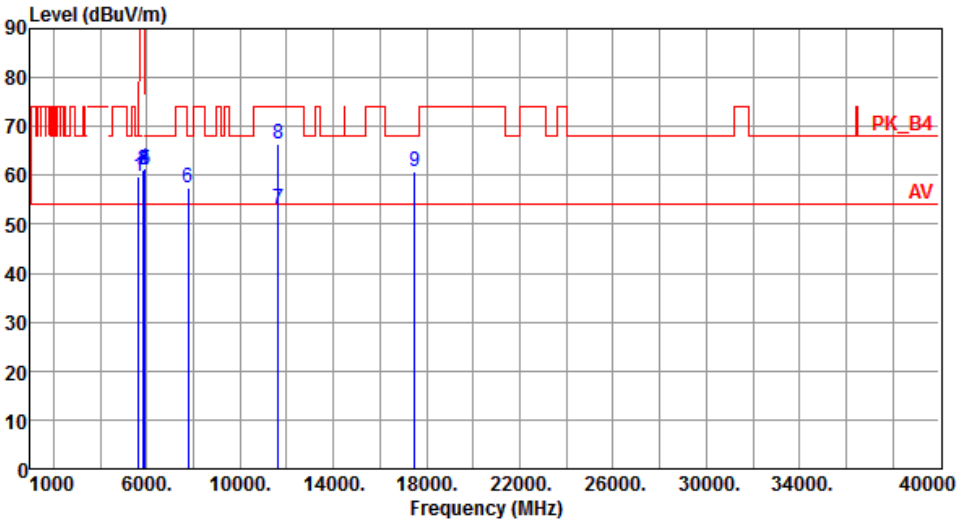
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal		



	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	59.72	68.20	-8.48	53.47	6.25	Peak	120	302
2	5850.00	60.86	122.20	-61.34	54.23	6.63	Peak	120	302
3	5855.00	61.00	110.80	-49.80	54.36	6.64	Peak	120	302
4	5875.00	61.30	105.20	-43.90	54.63	6.67	Peak	120	302
5	5925.00	60.77	68.20	-7.43	54.02	6.75	Peak	120	302
6	7766.66	55.32	68.20	-12.88	44.47	10.85	Peak	100	2
7	11650.00	51.44	54.00	-2.56	36.38	15.06	Average	100	2
8	11650.00	64.87	74.00	-9.13	49.81	15.06	Peak	100	2
9	17475.00	60.89	68.20	-7.31	42.84	18.05	Peak	100	50

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

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

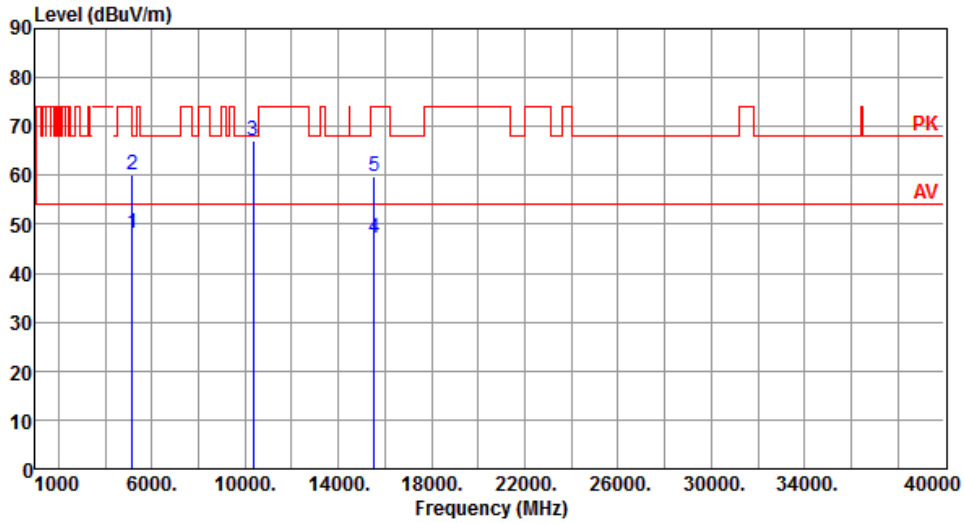


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	59.71	68.20	-8.49	53.46	6.25	Peak	100	256
2	5850.00	60.99	122.20	-61.21	54.36	6.63	Peak	100	256
3	5855.00	61.22	110.80	-49.58	54.58	6.64	Peak	100	256
4	5875.00	61.34	105.20	-43.86	54.67	6.67	Peak	100	256
5	5925.00	61.11	68.20	-7.09	54.36	6.75	Peak	100	256
6	7766.66	57.41	68.20	-10.79	46.56	10.85	Peak	100	15
7	11650.00	53.00	54.00	-1.00	37.94	15.06	Average	100	12
8	11650.00	66.48	74.00	-7.52	51.42	15.06	Peak	100	12
9	17475.00	60.92	68.20	-7.28	42.87	18.05	Peak	100	20

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

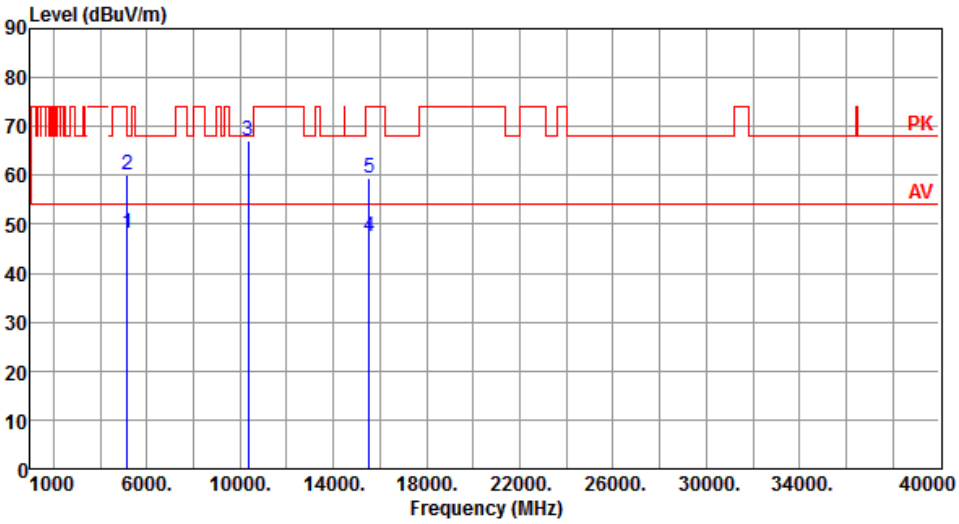
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal		



	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	48.17	54.00	-5.83	42.56	5.61	Average	206	277
2	5150.00	60.02	74.00	-13.98	54.41	5.61	Peak	206	277
3	10360.00	67.15	68.20	-1.05	52.31	14.84	Peak	208	55
4	15540.00	47.21	54.00	-6.79	32.04	15.17	Average	100	329
5	15540.00	59.74	74.00	-14.26	44.57	15.17	Peak	100	329

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).

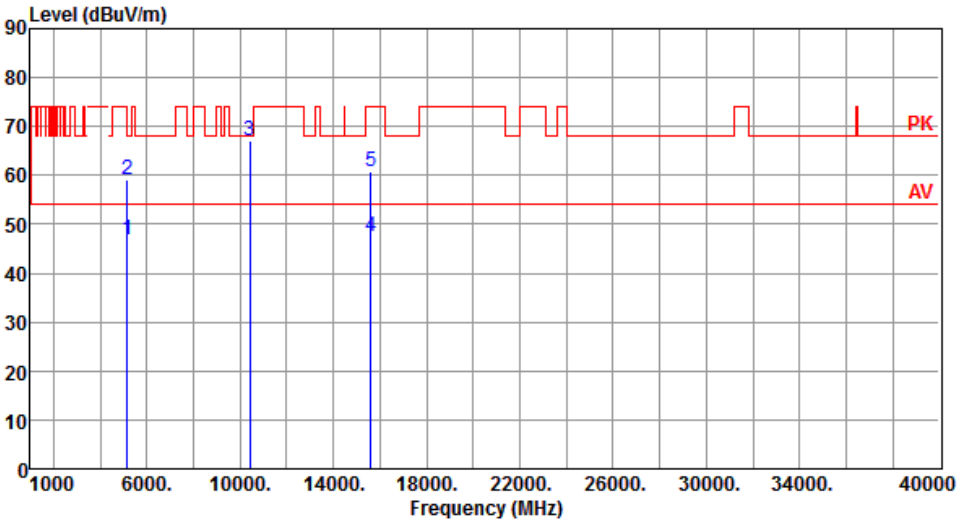
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	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	48.07	54.00	-5.93	42.46	5.61	Average	310	258
2	5150.00	60.00	74.00	-14.00	54.39	5.61	Peak	310	258
3	10360.00	67.20	68.20	-1.00	52.36	14.84	Peak	100	18
4	15540.00	47.63	54.00	-6.37	32.46	15.17	Average	100	20
5	15540.00	59.30	74.00	-14.70	44.13	15.17	Peak	100	20

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).

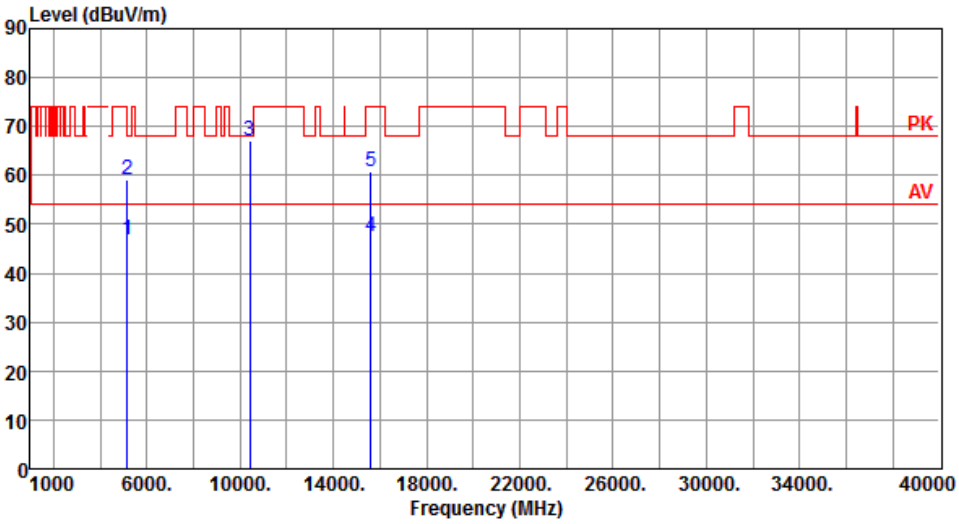
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal		



	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	46.90	54.00	-7.10	41.29	5.61	Average	200	284
2	5150.00	59.17	74.00	-14.83	53.56	5.61	Peak	200	284
3	10400.00	67.17	68.20	-1.03	52.28	14.89	Peak	260	46
4	15600.00	47.38	54.00	-6.62	32.33	15.05	Average	100	329
5	15600.00	60.91	74.00	-13.09	45.86	15.05	Peak	100	329

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).

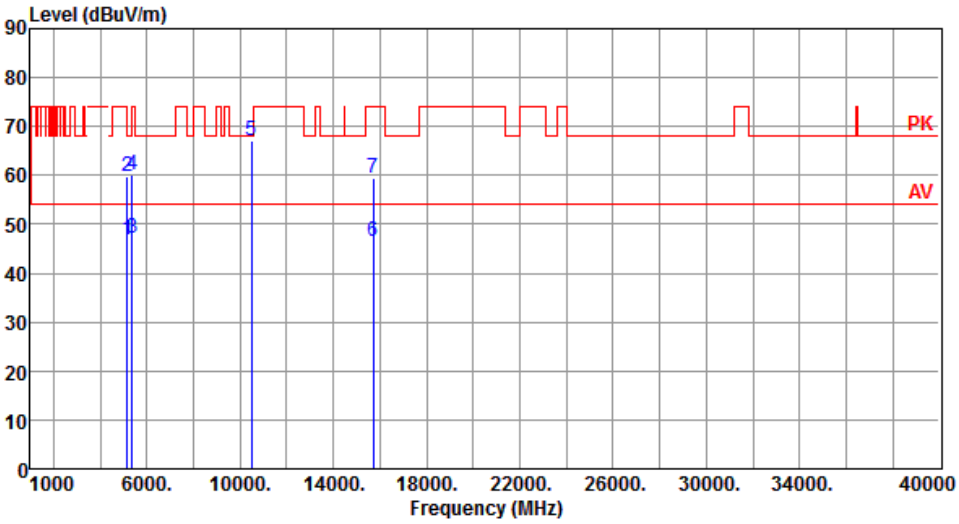
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical		



	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	46.94	54.00	-7.06	41.33	5.61	Average	300	259
2	5150.00	58.97	74.00	-15.03	53.36	5.61	Peak	300	259
3	10400.00	67.18	68.20	-1.02	52.29	14.89	Peak	100	19
4	15600.00	47.56	54.00	-6.44	32.51	15.05	Average	100	30
5	15600.00	60.64	74.00	-13.36	45.59	15.05	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).

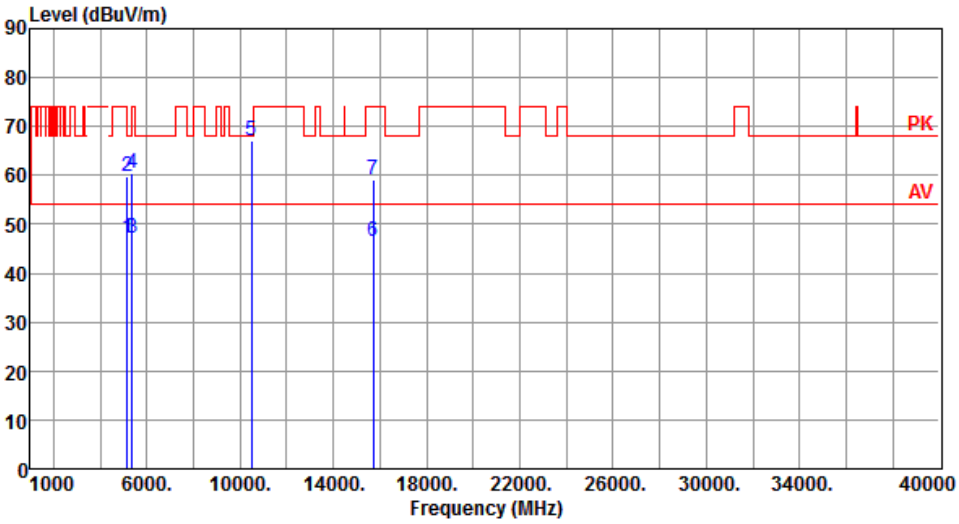
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal		



	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	46.97	54.00	-7.03	41.36	5.61	Average	205	276
2	5150.00	59.90	74.00	-14.10	54.29	5.61	Peak	205	276
3	5350.00	47.20	54.00	-6.80	41.36	5.84	Average	205	276
4	5350.00	60.00	74.00	-14.00	54.16	5.84	Peak	205	276
5	10480.00	67.14	68.20	-1.06	52.16	14.98	Peak	255	49
6	15720.00	46.36	54.00	-7.64	31.56	14.80	Average	100	321
7	15720.00	59.48	74.00	-14.52	44.68	14.80	Peak	100	321

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).

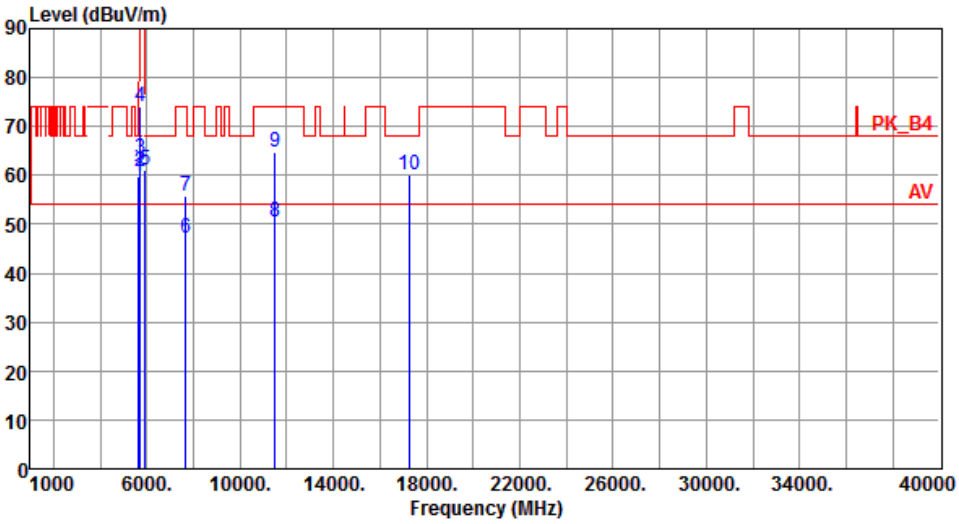
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical		



	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	47.07	54.00	-6.93	41.46	5.61	Average	320	260
2	5150.00	59.73	74.00	-14.27	54.12	5.61	Peak	320	260
3	5350.00	47.26	54.00	-6.74	41.42	5.84	Average	320	260
4	5350.00	60.36	74.00	-13.64	54.52	5.84	Peak	320	260
5	10480.00	67.20	68.20	-1.00	52.22	14.98	Peak	100	15
6	15720.00	46.36	54.00	-7.64	31.56	14.80	Average	100	20
7	15720.00	59.18	74.00	-14.82	44.38	14.80	Peak	100	20

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).

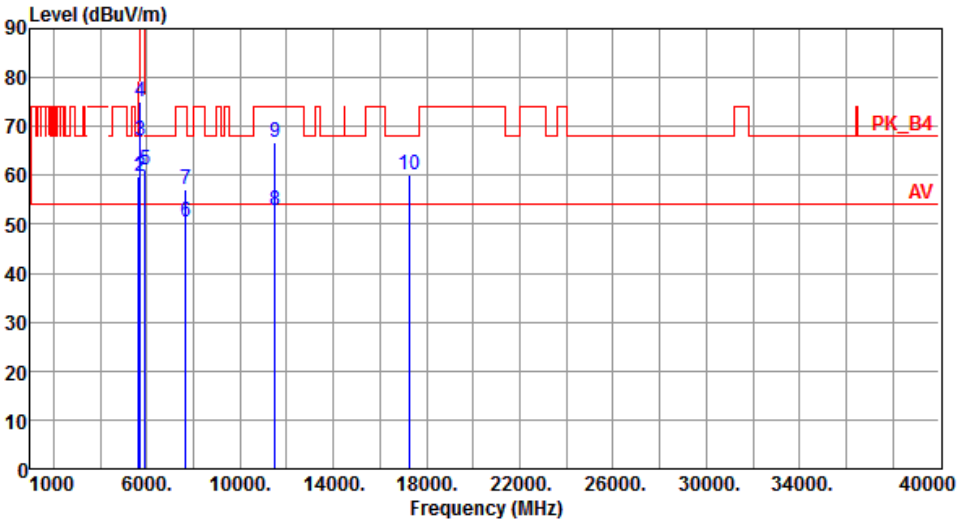
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



	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	59.76	68.20	-8.44	53.51	6.25	Peak	130	295
2	5700.00	60.66	105.20	-44.54	54.31	6.35	Peak	130	295
3	5720.00	63.27	110.80	-47.53	56.88	6.39	Peak	130	295
4	5725.00	74.19	122.20	-48.01	67.79	6.40	Peak	130	295
5	5925.00	61.17	68.20	-7.03	54.42	6.75	Peak	130	295
6	7660.00	47.13	54.00	-6.87	36.51	10.62	Average	100	11
7	7660.00	55.73	74.00	-18.27	45.11	10.62	Peak	100	11
8	11490.00	50.51	54.00	-3.49	35.24	15.27	Average	100	18
9	11490.00	64.62	74.00	-9.38	49.35	15.27	Peak	100	18
10	17235.00	60.10	68.20	-8.10	42.85	17.25	Peak	100	25

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).

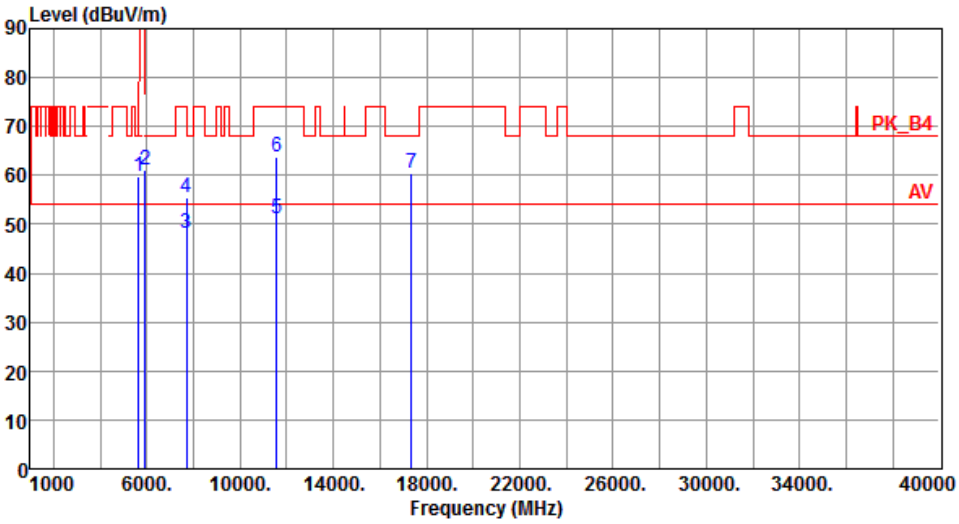
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		



	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	59.77	68.20	-8.43	53.52	6.25	Peak	130	256
2	5700.00	59.84	105.20	-45.36	53.49	6.35	Peak	130	256
3	5720.00	66.95	110.80	-43.85	60.56	6.39	Peak	130	256
4	5725.00	74.96	122.20	-47.24	68.56	6.40	Peak	130	256
5	5925.00	60.95	68.20	-7.25	54.20	6.75	Peak	130	256
6	7660.00	50.56	54.00	-3.44	39.94	10.62	Average	100	15
7	7660.00	57.13	74.00	-16.87	46.51	10.62	Peak	100	15
8	11490.00	52.95	54.00	-1.05	37.68	15.27	Average	100	18
9	11490.00	66.79	74.00	-7.21	51.52	15.27	Peak	100	18
10	17235.00	60.03	68.20	-8.17	42.78	17.25	Peak	100	25

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).

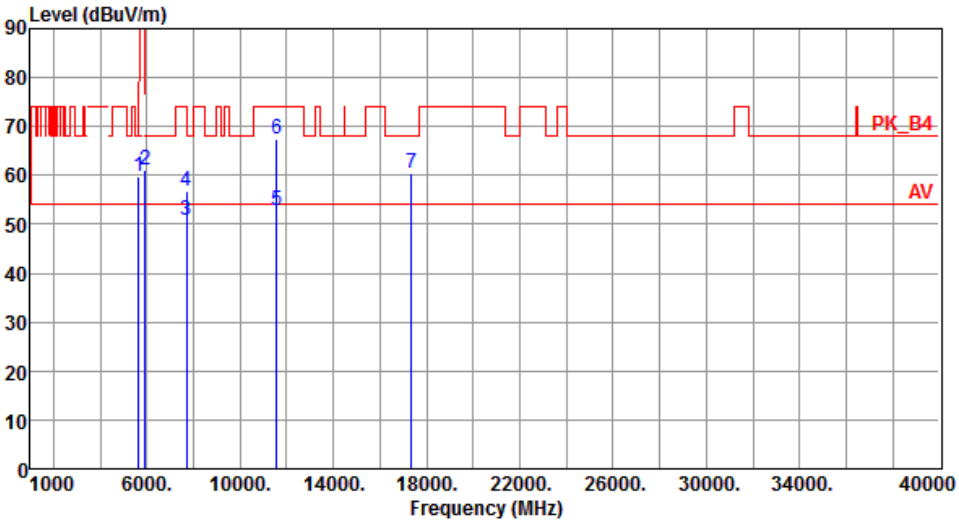
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	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	59.74	68.20	-8.46	53.49	6.25	Peak	129	305
2	5925.00	60.98	68.20	-7.22	54.23	6.75	Peak	129	305
3	7713.33	48.25	54.00	-5.75	37.53	10.72	Average	100	12
4	7713.33	55.36	74.00	-18.64	44.64	10.72	Peak	100	12
5	11570.00	51.06	54.00	-2.94	35.89	15.17	Average	100	2
6	11570.00	63.82	74.00	-10.18	48.65	15.17	Peak	100	2
7	17355.00	60.41	68.20	-7.79	42.77	17.64	Peak	100	25

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).

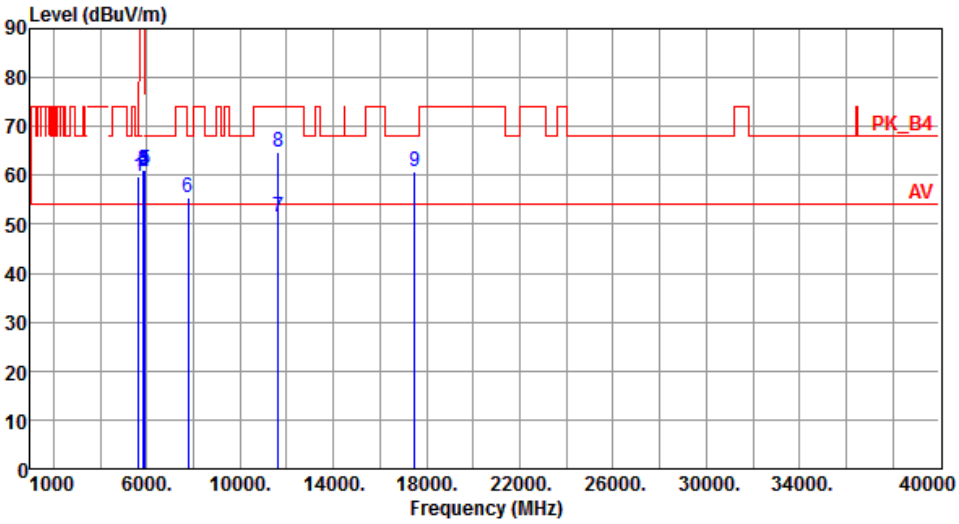
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		



	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	59.94	68.20	-8.26	53.69	6.25	Peak	165	255
2	5925.00	61.02	68.20	-7.18	54.27	6.75	Peak	165	255
3	7713.33	50.73	54.00	-3.27	40.01	10.72	Average	100	13
4	7713.33	56.71	74.00	-17.29	45.99	10.72	Peak	100	13
5	11570.00	52.95	54.00	-1.05	37.78	15.17	Average	100	16
6	11570.00	67.38	74.00	-6.62	52.21	15.17	Peak	100	16
7	17355.00	60.52	68.20	-7.68	42.88	17.64	Peak	100	15

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).

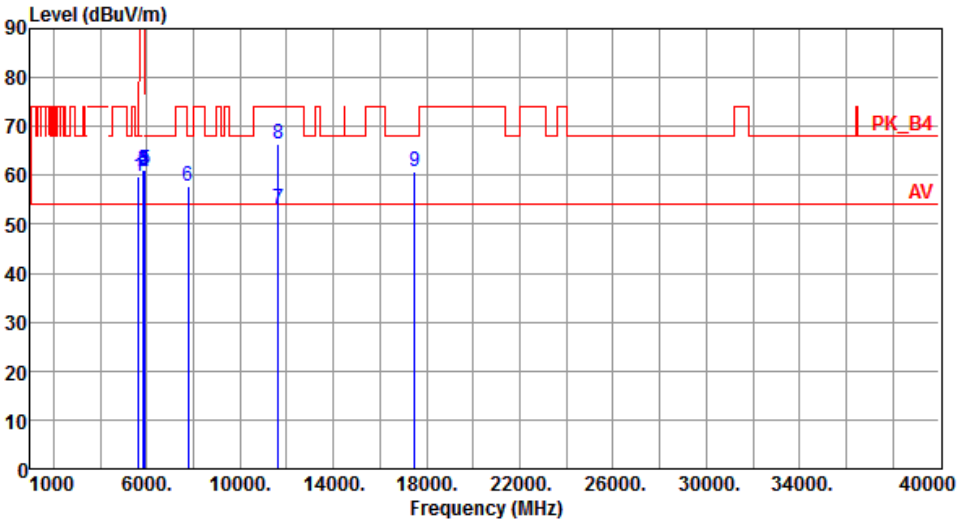
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



	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	59.77	68.20	-8.43	53.52	6.25	Peak	118	302
2	5850.00	60.94	122.20	-61.26	54.31	6.63	Peak	118	302
3	5855.00	61.05	110.80	-49.75	54.41	6.64	Peak	118	302
4	5875.00	61.26	105.20	-43.94	54.59	6.67	Peak	118	302
5	5925.00	60.98	68.20	-7.22	54.23	6.75	Peak	118	302
6	7766.66	55.41	68.20	-12.79	44.56	10.85	Peak	100	3
7	11650.00	51.51	54.00	-2.49	36.45	15.06	Average	100	5
8	11650.00	64.92	74.00	-9.08	49.86	15.06	Peak	100	5
9	17475.00	60.83	68.20	-7.37	42.78	18.05	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)	5825
Polarization	Vertical		

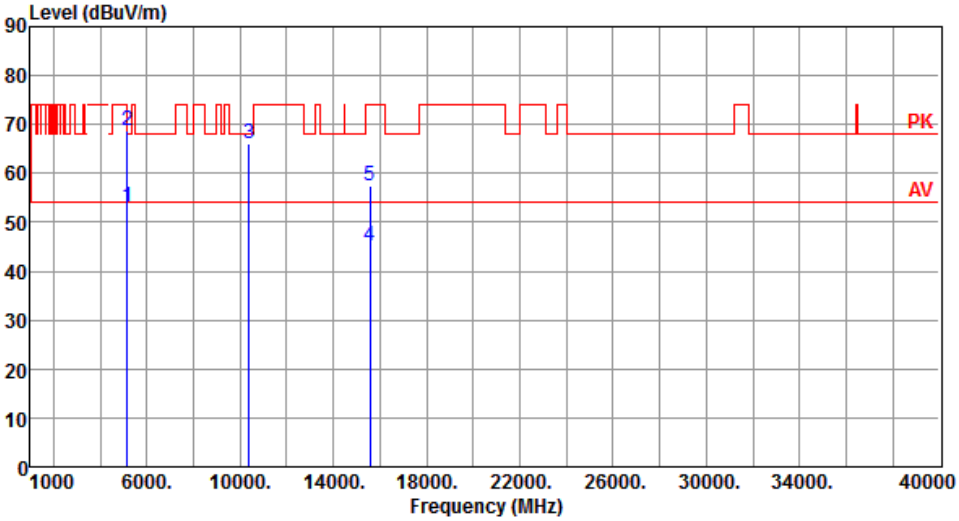


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	59.81	68.20	-8.39	53.56	6.25	Peak	100	259
2	5850.00	60.84	122.20	-61.36	54.21	6.63	Peak	100	259
3	5855.00	61.09	110.80	-49.71	54.45	6.64	Peak	100	259
4	5875.00	61.20	105.20	-44.00	54.53	6.67	Peak	100	259
5	5925.00	61.17	68.20	-7.03	54.42	6.75	Peak	100	259
6	7766.66	57.64	68.20	-10.56	46.79	10.85	Peak	100	14
7	11650.00	52.98	54.00	-1.02	37.92	15.06	Average	100	15
8	11650.00	66.39	74.00	-7.61	51.33	15.06	Peak	100	15
9	17475.00	60.80	68.20	-7.40	42.75	18.05	Peak	100	25

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

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

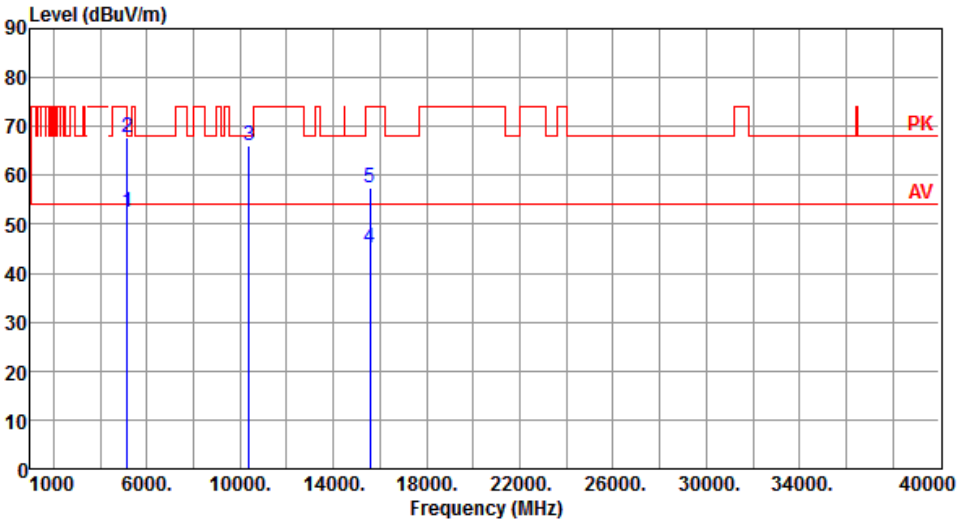
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Horizontal		



	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	53.00	54.00	-1.00	47.39	5.61	Average	216	284
2	5150.00	68.60	74.00	-5.40	62.99	5.61	Peak	216	284
3	10380.00	66.18	68.20	-2.02	51.31	14.87	Peak	260	45
4	15570.00	45.25	54.00	-8.75	30.14	15.11	Average	100	40
5	15570.00	57.56	74.00	-16.44	42.45	15.11	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).

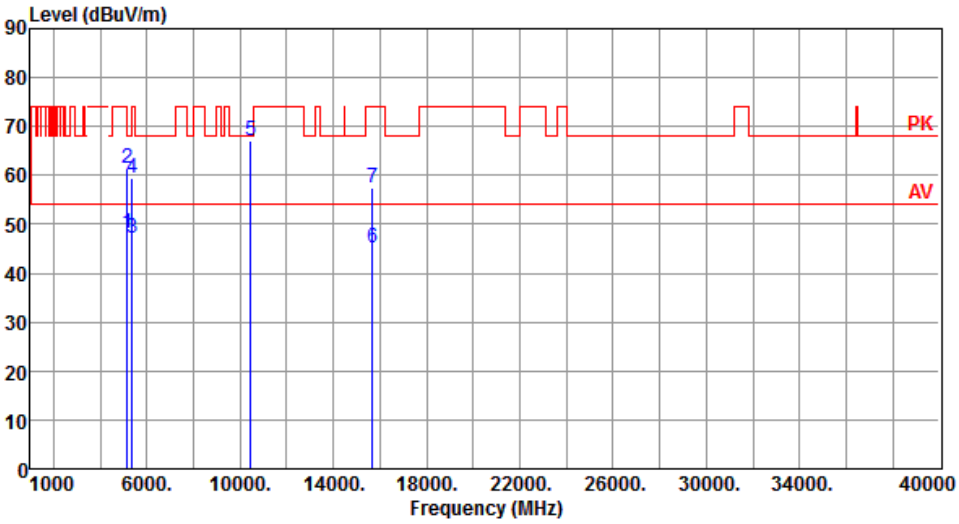
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Vertical		



	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	52.49	54.00	-1.51	46.88	5.61	Average	228	254
2	5150.00	67.80	74.00	-6.20	62.19	5.61	Peak	228	254
3	10380.00	66.16	68.20	-2.04	51.29	14.87	Peak	100	19
4	15570.00	45.23	54.00	-8.77	30.12	15.11	Average	100	20
5	15570.00	57.58	74.00	-16.42	42.47	15.11	Peak	100	20

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).

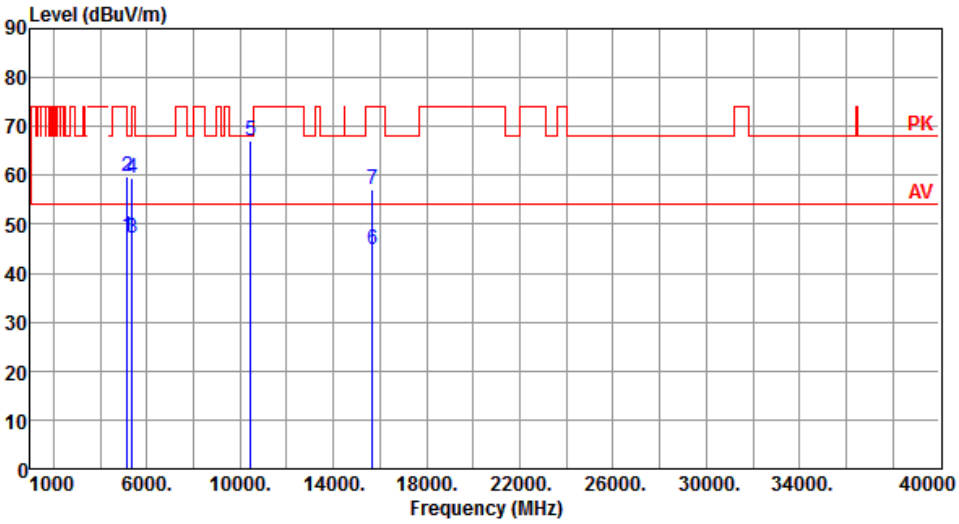
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Horizontal		



	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	48.02	54.00	-5.98	42.41	5.61	Average	216	284
2	5150.00	61.60	74.00	-12.40	55.99	5.61	Peak	216	284
3	5350.00	47.09	54.00	-6.91	41.25	5.84	Average	216	284
4	5350.00	59.29	74.00	-14.71	53.45	5.84	Peak	216	284
5	10460.00	67.08	68.20	-1.12	52.12	14.96	Peak	255	45
6	15690.00	45.07	54.00	-8.93	30.20	14.87	Average	100	40
7	15690.00	57.37	74.00	-16.63	42.50	14.87	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).

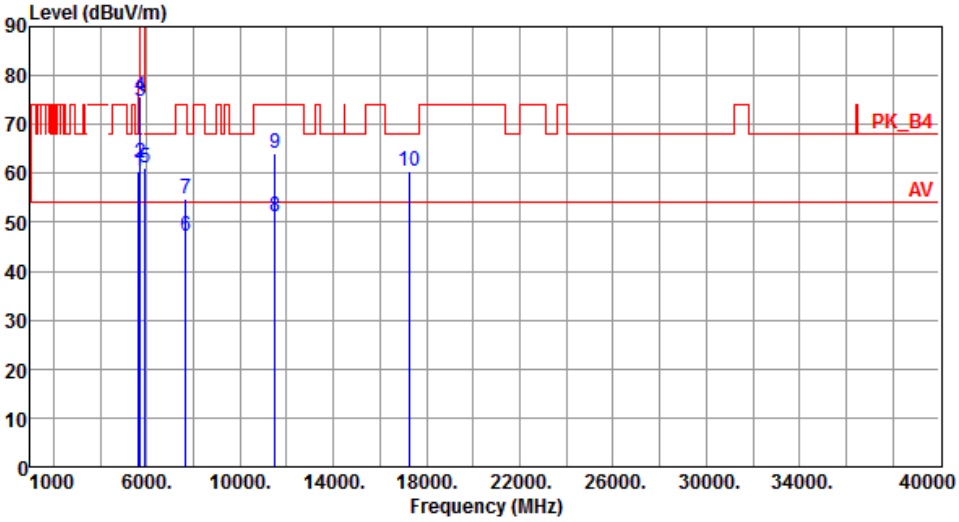
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical		



	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	47.49	54.00	-6.51	41.88	5.61	Average	240	254
2	5150.00	59.80	74.00	-14.20	54.19	5.61	Peak	240	254
3	5350.00	47.19	54.00	-6.81	41.35	5.84	Average	240	254
4	5350.00	59.32	74.00	-14.68	53.48	5.84	Peak	240	254
5	10460.00	67.16	68.20	-1.04	52.20	14.96	Peak	100	18
6	15690.00	44.91	54.00	-9.09	30.04	14.87	Average	100	20
7	15690.00	57.28	74.00	-16.72	42.41	14.87	Peak	100	20

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).

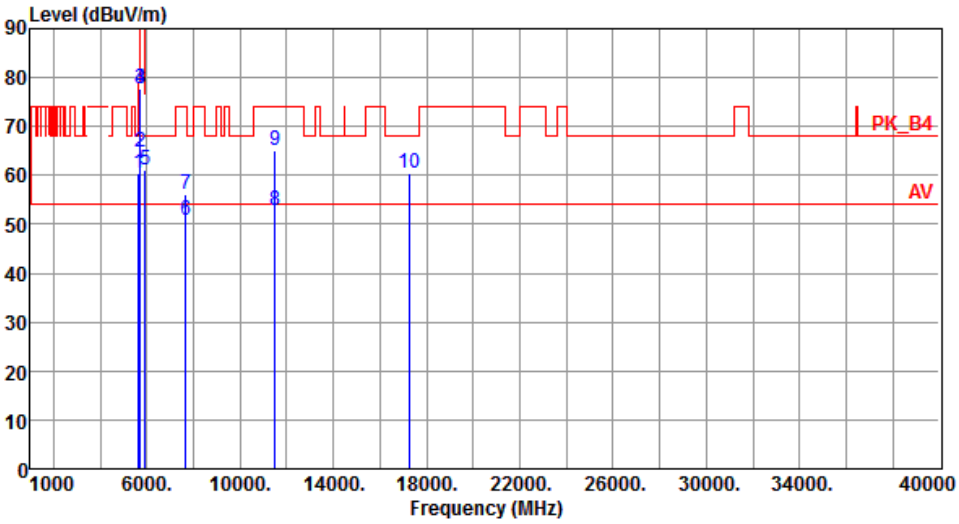
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



	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	60.28	68.20	-7.92	54.03	6.25	Peak	155	286
2	5700.00	62.01	105.20	-43.19	55.66	6.35	Peak	155	286
3	5720.00	74.62	110.80	-36.18	68.23	6.39	Peak	155	286
4	5725.00	75.72	122.20	-46.48	69.32	6.40	Peak	155	286
5	5925.00	61.02	68.20	-7.18	54.27	6.75	Peak	155	286
6	7673.33	47.25	54.00	-6.75	36.61	10.64	Average	100	16
7	7673.33	54.85	74.00	-19.15	44.21	10.64	Peak	100	16
8	11510.00	51.01	54.00	-2.99	35.75	15.26	Average	100	1
9	11510.00	64.22	74.00	-9.78	48.96	15.26	Peak	100	1
10	17265.00	60.41	68.20	-7.79	43.07	17.34	Peak	100	50

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

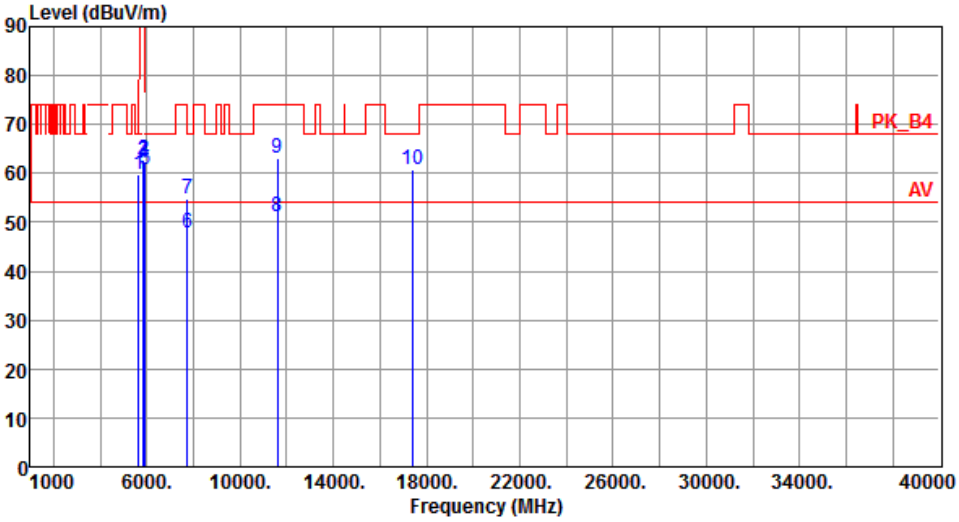
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		



	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	60.46	68.20	-7.74	54.21	6.25	Peak	131	256
2	5700.00	64.91	105.20	-40.29	58.56	6.35	Peak	131	256
3	5720.00	77.70	110.80	-33.10	71.31	6.39	Peak	131	256
4	5725.00	77.71	122.20	-44.49	71.31	6.40	Peak	131	256
5	5925.00	61.17	68.20	-7.03	54.42	6.75	Peak	131	256
6	7673.33	50.71	54.00	-3.29	40.07	10.64	Average	100	13
7	7673.33	56.16	74.00	-17.84	45.52	10.64	Peak	100	13
8	11510.00	52.85	54.00	-1.15	37.59	15.26	Average	100	6
9	11510.00	65.23	74.00	-8.77	49.97	15.26	Peak	100	6
10	17265.00	60.37	68.20	-7.83	43.03	17.34	Peak	100	90

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

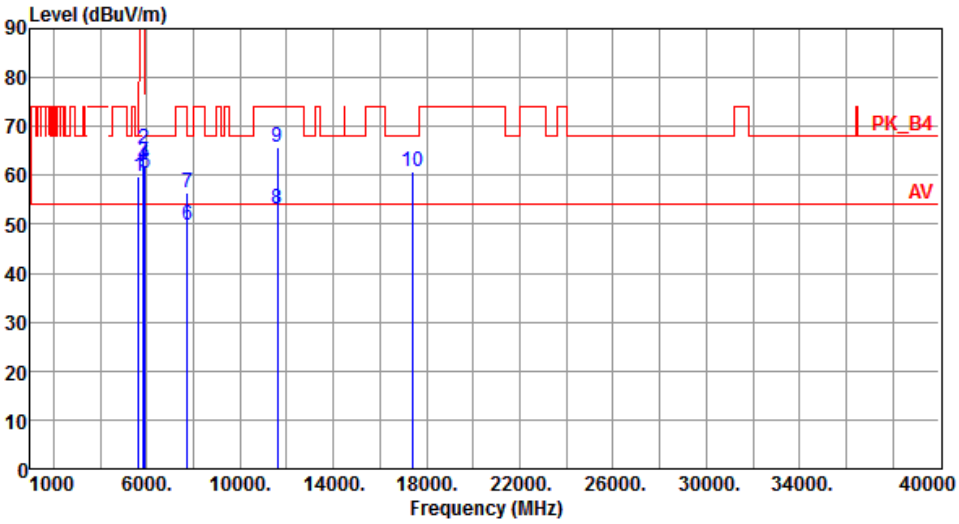
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal		



	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	59.82	68.20	-8.38	53.57	6.25	Peak	135	299
2	5850.00	62.77	122.20	-59.43	56.14	6.63	Peak	135	299
3	5855.00	62.31	110.80	-48.49	55.67	6.64	Peak	135	299
4	5875.00	62.20	105.20	-43.00	55.53	6.67	Peak	135	299
5	5925.00	60.87	68.20	-7.33	54.12	6.75	Peak	135	299
6	7726.66	47.96	54.00	-6.04	37.20	10.76	Average	100	1
7	7726.66	54.92	74.00	-19.08	44.16	10.76	Peak	100	1
8	11590.00	51.05	54.00	-2.95	35.90	15.15	Average	100	12
9	11590.00	63.19	74.00	-10.81	48.04	15.15	Peak	100	12
10	17385.00	60.61	68.20	-7.59	42.86	17.75	Peak	100	50

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

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical		

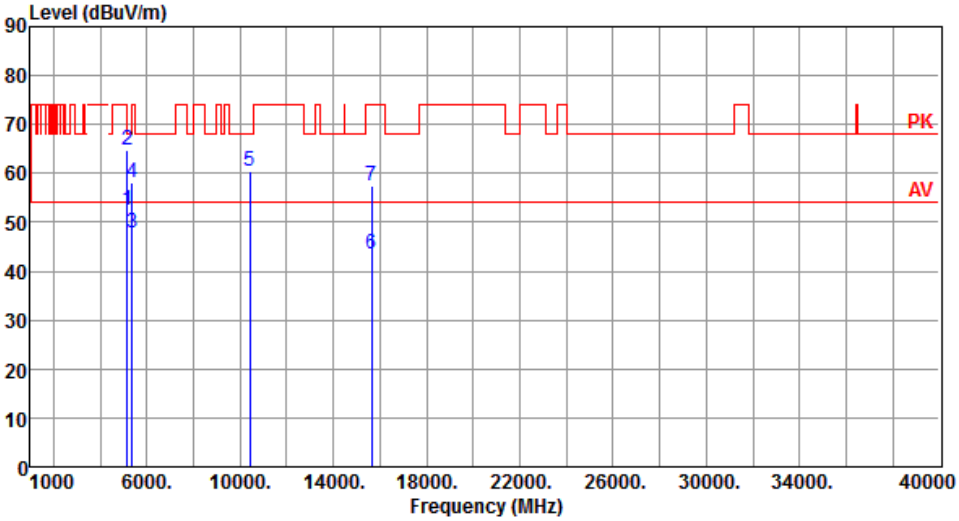


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	59.71	68.20	-8.49	53.46	6.25	Peak	126	256
2	5850.00	65.59	122.20	-56.61	58.96	6.63	Peak	126	256
3	5855.00	62.86	110.80	-47.94	56.22	6.64	Peak	126	256
4	5875.00	61.99	105.20	-43.21	55.32	6.67	Peak	126	256
5	5925.00	60.43	68.20	-7.77	53.68	6.75	Peak	126	256
6	7726.66	49.76	54.00	-4.24	39.00	10.76	Average	100	8
7	7726.66	56.45	74.00	-17.55	45.69	10.76	Peak	100	8
8	11590.00	52.98	54.00	-1.02	37.83	15.15	Average	100	6
9	11590.00	65.91	74.00	-8.09	50.76	15.15	Peak	100	6
10	17385.00	60.87	68.20	-7.33	43.12	17.75	Peak	100	40

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

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

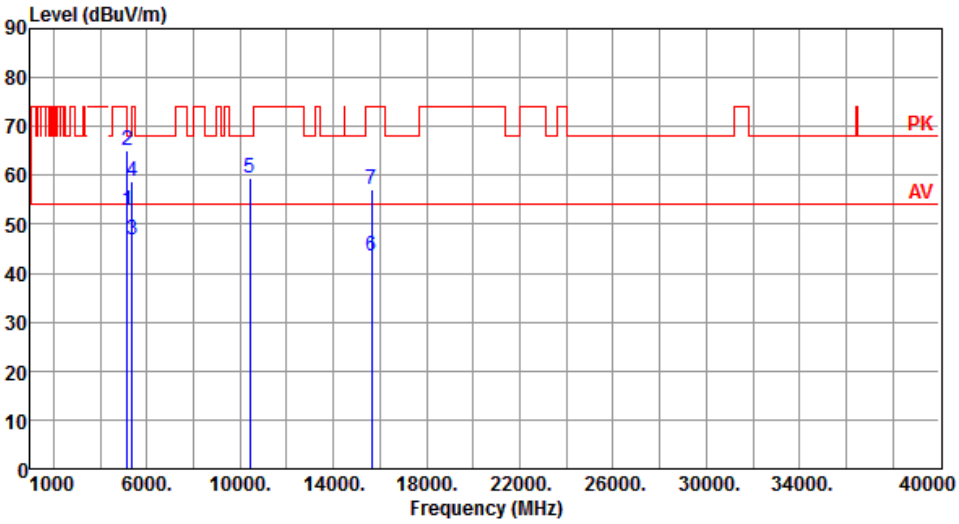
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal		



	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	52.49	54.00	-1.51	46.88	5.61	Average	196	282
2	5150.00	64.89	74.00	-9.11	59.28	5.61	Peak	196	282
3	5350.00	47.97	54.00	-6.03	42.13	5.84	Average	196	282
4	5350.00	58.07	74.00	-15.93	52.23	5.84	Peak	196	282
5	10420.00	60.30	68.20	-7.90	45.39	14.91	Peak	100	45
6	15630.00	43.66	54.00	-10.34	28.67	14.99	Average	100	50
7	15630.00	57.46	74.00	-16.54	42.47	14.99	Peak	100	50

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

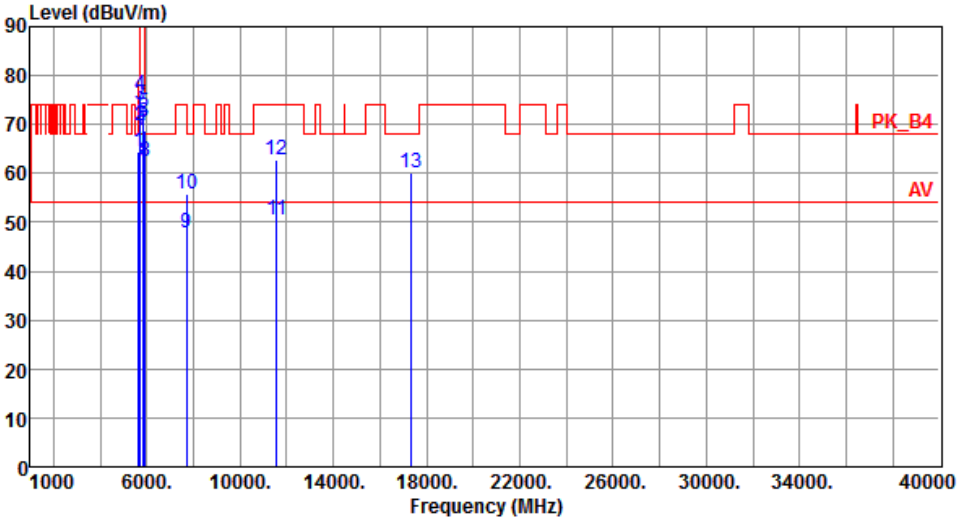
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical		



	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	52.82	54.00	-1.18	47.21	5.61	Average	242	262
2	5150.00	65.11	74.00	-8.89	59.50	5.61	Peak	242	262
3	5350.00	46.99	54.00	-7.01	41.15	5.84	Average	242	262
4	5350.00	58.86	74.00	-15.14	53.02	5.84	Peak	242	262
5	10420.00	59.29	68.20	-8.91	44.38	14.91	Peak	100	20
6	15630.00	43.46	54.00	-10.54	28.47	14.99	Average	100	30
7	15630.00	57.14	74.00	-16.86	42.15	14.99	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).

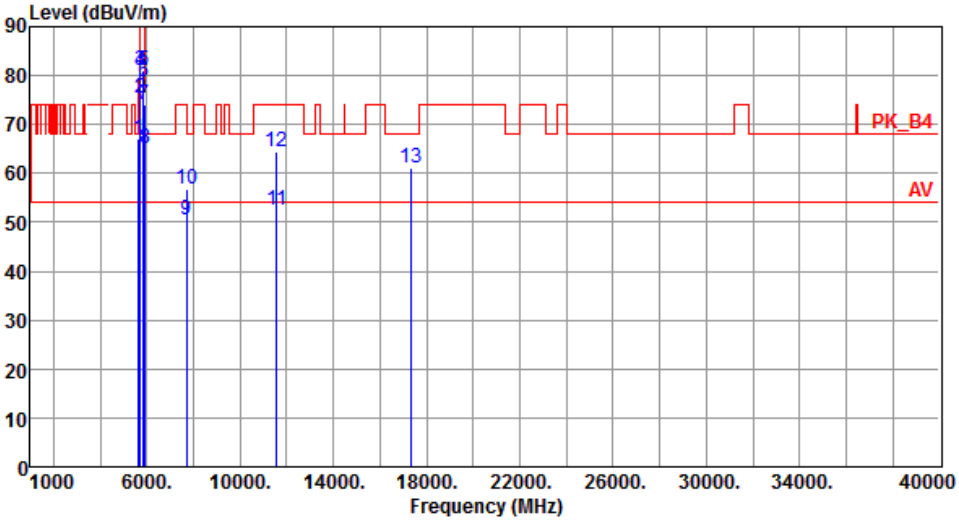
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		



	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	64.58	68.20	-3.62	58.33	6.25	Peak	131	326
2	5700.00	69.61	105.20	-35.59	63.26	6.35	Peak	131	326
3	5720.00	74.15	110.80	-36.65	67.76	6.39	Peak	131	326
4	5725.00	76.10	122.20	-46.10	69.70	6.40	Peak	131	326
5	5850.00	72.30	122.20	-49.90	65.67	6.63	Peak	131	326
6	5855.00	70.51	110.80	-40.29	63.87	6.64	Peak	131	326
7	5875.00	68.72	105.20	-36.48	62.05	6.67	Peak	131	326
8	5925.00	62.44	68.20	-5.76	55.69	6.75	Peak	131	326
9	7700.00	47.87	54.00	-6.13	37.17	10.70	Average	100	11
10	7700.00	55.92	74.00	-18.08	45.22	10.70	Peak	100	11
11	11550.00	50.46	54.00	-3.54	35.26	15.20	Average	100	12
12	11550.00	62.77	74.00	-11.23	47.57	15.20	Peak	100	12
13	17325.00	60.11	68.20	-8.09	42.57	17.54	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)	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	67.06	68.20	-1.14	60.81	6.25	Peak	275	262
2	5700.00	75.48	105.20	-29.72	69.13	6.35	Peak	275	262
3	5720.00	81.18	110.80	-29.62	74.79	6.39	Peak	275	262
4	5725.00	81.06	122.20	-41.14	74.66	6.40	Peak	275	262
5	5850.00	80.95	122.20	-41.25	74.32	6.63	Peak	275	262
6	5855.00	78.54	110.80	-32.26	71.90	6.64	Peak	275	262
7	5875.00	74.21	105.20	-30.99	67.54	6.67	Peak	275	262
8	5925.00	65.03	68.20	-3.17	58.28	6.75	Peak	275	262
9	7700.00	50.55	54.00	-3.45	39.85	10.70	Average	100	14
10	7700.00	56.88	74.00	-17.12	46.18	10.70	Peak	100	14
11	11550.00	52.55	54.00	-1.45	37.35	15.20	Average	100	17
12	11550.00	64.34	74.00	-9.66	49.14	15.20	Peak	100	17
13	17325.00	61.01	68.20	-7.19	43.47	17.54	Peak	100	20

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

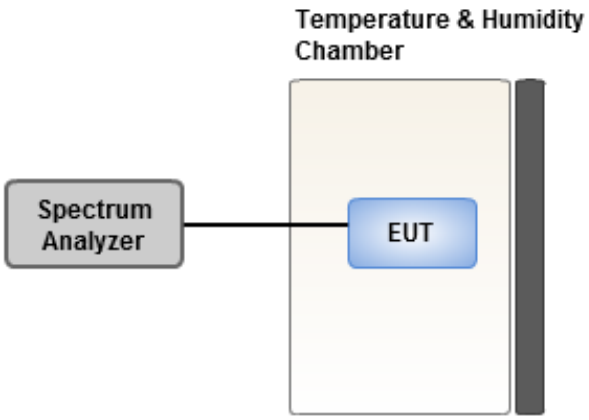
3.6.1 Limit of Frequency Stability

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: 5200 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°CVmax	2.07	2.03	2.34	2.81
T20°CVmin	2.67	3.53	2.89	2.25
T50°CVnom	2.20	2.84	2.61	2.78
T40°CVnom	3.01	3.48	3.84	3.50
T30°CVnom	2.95	3.32	3.37	3.53
T20°CVnom	3.27	3.19	3.61	3.42
T10°CVnom	3.06	2.74	3.75	3.40
T0°CVnom	3.32	3.49	3.77	4.13
T-10°CVnom	2.89	2.72	3.55	3.34
T-20°CVnom	2.93	3.11	3.55	3.41
T-30°CVnom	2.63	2.23	2.45	2.90
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

Frequency: 5785 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°CVmax	1.99	2.43	2.58	2.70
T20°CVmin	1.86	2.45	2.00	1.86
T50°CVnom	2.21	2.41	2.18	2.13
T40°CVnom	1.64	1.50	2.12	1.61
T30°CVnom	2.18	2.42	1.87	2.41
T20°CVnom	2.51	2.73	2.56	2.82
T10°CVnom	2.20	2.25	2.54	2.39
T0°CVnom	2.60	2.75	3.11	2.54
T-10°CVnom	2.05	2.16	2.66	2.06
T-20°CVnom	2.69	3.37	2.80	3.05
T-30°CVnom	2.11	2.53	2.45	2.11
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

4 Test laboratory information

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

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

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

Linkou	**Kwei Shan**	**Kwei Shan Site II**
Tel: 886-2-2601-1640	Tel: 886-3-271-8666	Tel: 886-3-271-8640
No. 30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan, R.O.C.	No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.	No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.

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

Tel: 886-3-271-8666
Fax: 886-3-318-0155
Email: ICC_Service@icertifi.com.tw

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