FCC Test Report

FCC ID	:	**MXF-WRTQ-337**
Equipment	:	**Router**
Model No.	:	**AC1300**
Brand Name	:	**Onelink**
Applicant	:	**Gemtek Technology Co., Ltd.**
Address	:	**No.15-1 Zhoughua Rd, Hsinchu Industrial Park, Hukou, Hsinchu, Taiwan, R.O.C**
Standard	:	**47 CFR FCC Part 15.407**
Received Date	:	**Nov. 05, 2018**
Tested Date	:	**Nov. 08 ~ Nov. 19, 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
FR8N0502AN	Rev. 01	Initial issue	Nov. 26, 2018

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 1.858MHz 31.74 (Margin -14.26dB) - AV	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5150.00MHz 52.99 (Margin -1.01dB) - 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: 26.35 5725-5850MHz: 26.97	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

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	2.4GHz single antenna	PCB	No	3	---	---
2	5GHz single antenna	PCB	No	---	5.1	5.1
3	Dual band antenna	Dipole	No	2.7	3.8	3.8

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	12Vdc from adapter

1.1.4 Accessories

Accessories		
No.	**Equipment**	**Description**
1	AC adapter	Brand: APD Model: WB-18D12FU Power Rating: I/P: 100-240Vac, 50-60Hz O/P: 12Vdc, 1.5A Power Line: 1.5m non-shielded without core
2	RJ45 (white)	1.5m non-shielded without core

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	QRCT, V 3.0.106.0		
Duty Cycle and Duty Factor	Mode	Duty cycle (%)	Duty factor (dB)
	11a	96.96%	0.13
	VHT20	99.40%	0.03
	VHT40	98.34%	0.07
	VHT80	94.01%	0.27

1.1.7 Power Setting

For Frequency band 5150-5250 MHz		
Modulation Mode	Test Frequency (MHz)	Power Set
11a	5180	22
11a	5200	22.5
11a	5240	23
VHT20	5180	22
VHT20	5200	23
VHT20	5240	23.5
VHT40	5190	19
VHT40	5230	26
VHT80	5210	18

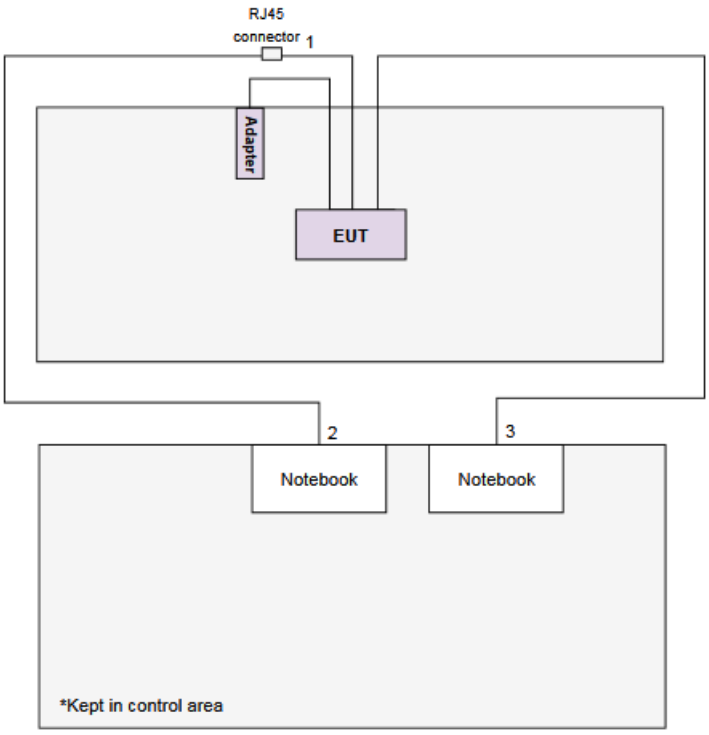
For Frequency band 5725~5850 MHz		
Modulation Mode	Test Frequency (MHz)	Power Set
11a	5745	26
11a	5785	26
11a	5825	26
VHT20	5745	26
VHT20	5785	26
VHT20	5825	26
VHT40	5755	26
VHT40	5795	26
VHT80	5775	26

1.2 Local Support Equipment List

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Remarks**
1	Notebook	DELL	Latitude E6430	DoC	---
2	Notebook	DELL	Latitude E5470	DoC	---

1.3 Test Setup Chart

Test Setup Diagram



No.	Signal cable / Length (m)
1	RJ45, 1.5m non-shielded.
2-3	RJ45, 10m non-shielded.

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Nov. 19, 2018				
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)				
Tested Date	Nov. 08 ~ Nov. 09, 2018				
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	101658	Nov. 20, 2017	Nov. 19, 2018
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. 23, 2017	Nov. 22, 2018
Loop Antenna	TESEQ	HLA 6120	31244	Mar. 29, 2018	Mar. 28, 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	HUBER+SUHNER	SUCOFLEX104	MY22620/4	Nov. 27, 2017	Nov. 26, 2018
RF cable-8M	HUBER+SUHNER	SUCOFLEX104	MY32487/4	Nov. 27, 2017	Nov. 26, 2018
RF cable-1M	HUBER+SUHNER	SUCOFLEX104	MY22624/4	Nov. 27, 2017	Nov. 26, 2018
LF cable-0.8M	EMC	EMC8D-NM-NM-800	EMC8D-NM-NM-800-001	Nov. 27, 2017	Nov. 26, 2018
LF cable-3M	EMC	EMC8D-NM-NM-3000	131103	Nov. 27, 2017	Nov. 26, 2018
LF cable-13M	EMC	EMC8D-NM-NM-13000	131104	Nov. 27, 2017	Nov. 26, 2018
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Nov. 16 ~ Nov. 19, 2018				
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
AC POWER SOURCE	APC	AFC-500W	F312060012	Dec. 01, 2017	Nov. 30, 2018
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 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	25°C / 56%	Alex Tsai
Radiated Emissions	03CH03-WS	24-25°C / 62-63%	Akun Chung Aska Huang
RF Conducted	TH01-WS	23°C / 62%	Felix Sung

- 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	---	---

For Frequency band 5725-5850 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
Conducted Emissions	VHT20	5745	MCS 0	---
Radiated Emissions ≤1GHz	VHT20	5745	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	---	---

3 Transmitter Test Results

3.1 Conducted Emissions

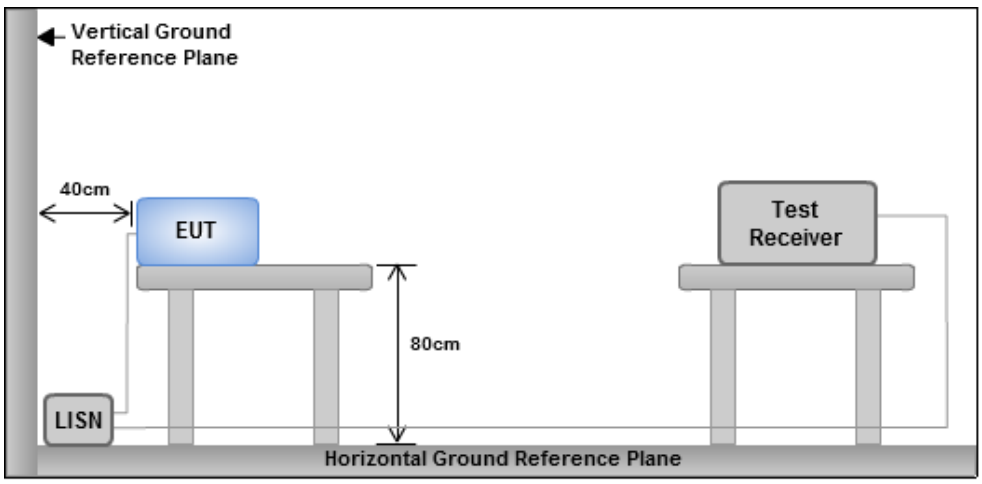
3.1.1 Limit of Conducted Emissions

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

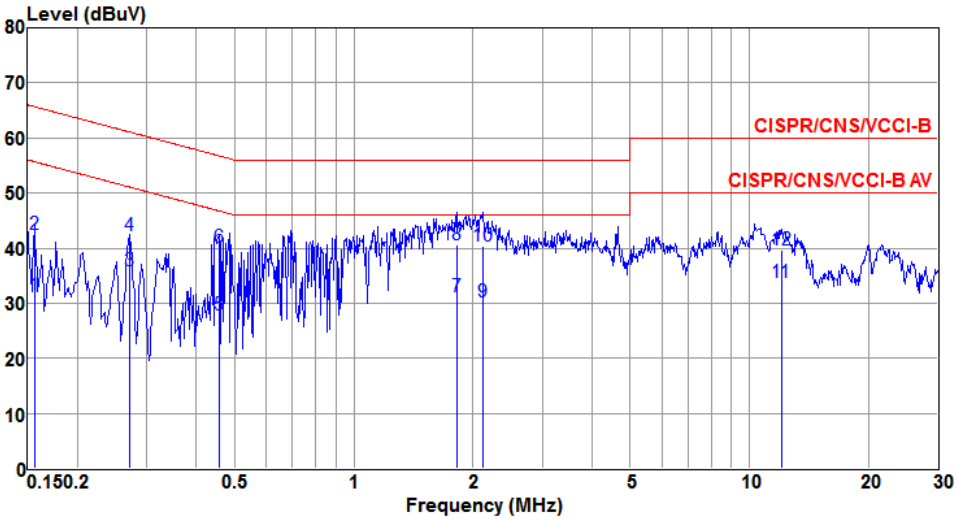


Note: 1. Support units were connected to second LISN.

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

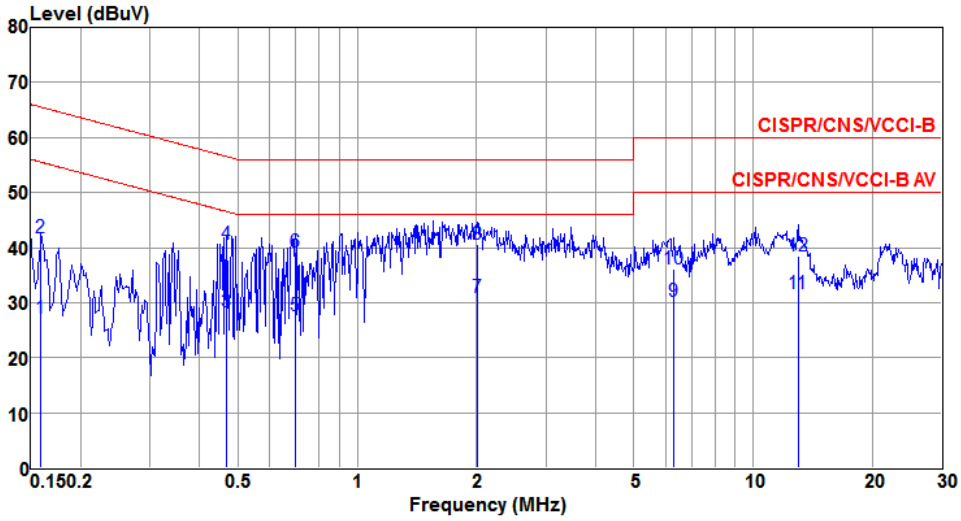
Modulation	VHT40	Test Freq. (MHz)	5230
Power Phase	Line		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.156	31.51	55.69	-24.18	31.23	0.07	0.01	Average
2	0.156	42.54	65.69	-23.15	42.26	0.07	0.01	QP
3	0.270	35.84	51.12	-15.28	35.52	0.06	0.03	Average
4	0.270	42.22	61.12	-18.90	41.90	0.06	0.03	QP
5	0.456	27.75	46.76	-19.01	27.40	0.06	0.02	Average
6	0.456	40.20	56.76	-16.56	39.85	0.06	0.02	QP
7*	1.819	31.09	46.00	-14.91	30.59	0.09	0.09	Average
8	1.819	40.51	56.00	-15.49	40.01	0.09	0.09	QP
9	2.121	30.17	46.00	-15.83	29.65	0.09	0.11	Average
10	2.121	40.40	56.00	-15.60	39.88	0.09	0.11	QP
11	12.060	33.87	50.00	-16.13	32.94	0.20	0.32	Average
12	12.060	39.56	60.00	-20.44	38.63	0.20	0.32	QP

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

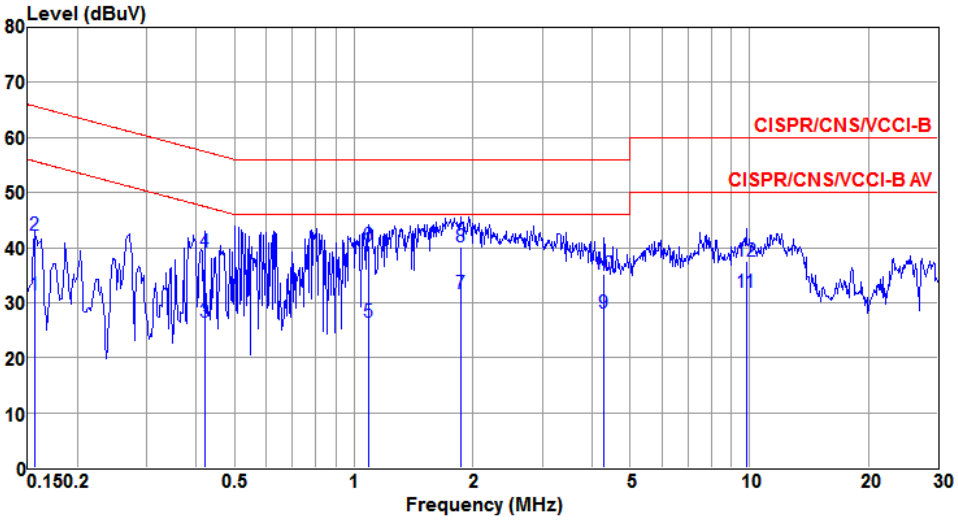
Modulation	VHT40	Test Freq. (MHz)	5230
Power Phase	Neutral		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.159	27.13	55.52	-28.39	26.87	0.05	0.01	Average
2	0.159	41.73	65.52	-23.79	41.47	0.05	0.01	QP
3	0.469	28.24	46.54	-18.30	27.90	0.05	0.02	Average
4	0.469	40.56	56.54	-15.98	40.22	0.05	0.02	QP
5	0.697	27.67	46.00	-18.33	27.30	0.06	0.03	Average
6	0.697	39.12	56.00	-16.88	38.75	0.06	0.03	QP
7*	2.012	30.93	46.00	-15.07	30.44	0.07	0.10	Average
8	2.012	40.60	56.00	-15.40	40.11	0.07	0.10	QP
9	6.319	30.30	50.00	-19.70	29.54	0.13	0.27	Average
10	6.319	36.19	60.00	-23.81	35.43	0.13	0.27	QP
11	12.988	31.70	50.00	-18.30	30.75	0.21	0.32	Average
12	12.988	38.44	60.00	-21.56	37.49	0.21	0.32	QP

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

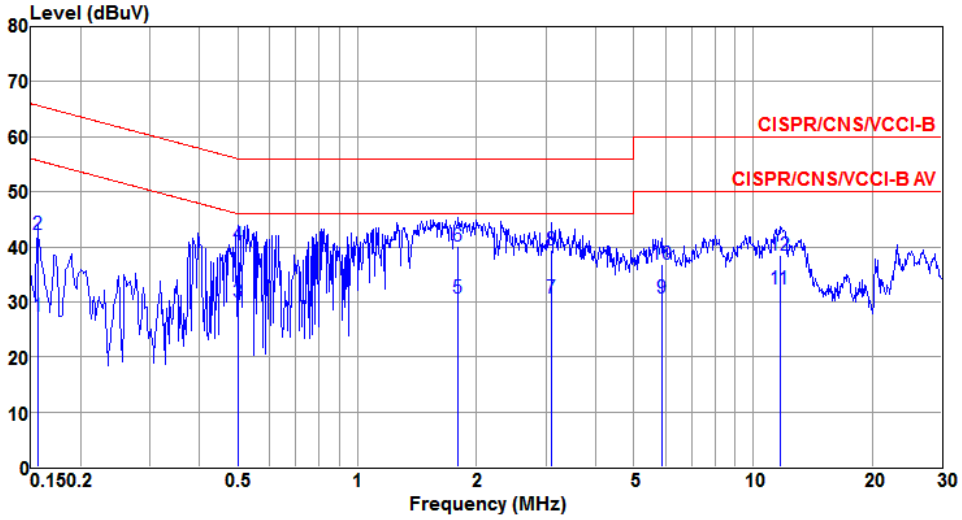
Modulation	VHT20	Test Freq. (MHz)	5745
Power Phase	Line		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.156	31.41	55.69	-24.28	31.13	0.07	0.01	Average
2	0.156	42.26	65.69	-23.43	41.98	0.07	0.01	QP
3	0.419	26.42	47.46	-21.04	26.08	0.06	0.02	Average
4	0.419	39.27	57.46	-18.19	38.93	0.06	0.02	QP
5	1.094	26.40	46.00	-19.60	25.98	0.08	0.04	Average
6	1.094	40.35	56.00	-15.65	39.93	0.08	0.04	QP
7*	1.858	31.74	46.00	-14.26	31.24	0.09	0.09	Average
8	1.858	40.05	56.00	-15.95	39.55	0.09	0.09	QP
9	4.292	28.18	46.00	-17.82	27.50	0.11	0.23	Average
10	4.292	35.16	56.00	-20.84	34.48	0.11	0.23	QP
11	9.809	31.96	50.00	-18.04	31.09	0.18	0.32	Average
12	9.809	37.49	60.00	-22.51	36.62	0.18	0.32	QP

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

Modulation	VHT20	Test Freq. (MHz)	5745
Power Phase	Neutral		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.156	27.33	55.69	-28.36	27.07	0.05	0.01	Average
2	0.156	42.22	65.69	-23.47	41.96	0.05	0.01	QP
3	0.502	29.99	46.00	-16.01	29.65	0.05	0.02	Average
4	0.502	40.39	56.00	-15.61	40.05	0.05	0.02	QP
5	1.800	30.63	46.00	-15.37	30.15	0.07	0.09	Average
6	1.800	40.06	56.00	-15.94	39.58	0.07	0.09	QP
7*	3.107	30.79	46.00	-15.21	30.20	0.08	0.18	Average
8	3.107	39.51	56.00	-16.49	38.92	0.08	0.18	QP
9	5.898	30.79	50.00	-19.21	30.05	0.13	0.26	Average
10	5.898	36.73	60.00	-23.27	35.99	0.13	0.26	QP
11	11.683	32.32	50.00	-17.68	31.40	0.20	0.32	Average
12	11.683	38.47	60.00	-21.53	37.55	0.20	0.32	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.

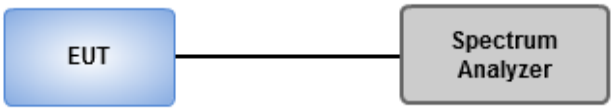
Occupied Bandwidth

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	36.667M	17.945M	17M9D1D	25.362M	16.715M
802.11ac VHT20_Nss1,(MCS0)_2TX	37.536M	18.452M	18M5D1D	24.855M	17.8M
802.11ac VHT40_Nss1,(MCS0)_2TX	81.159M	37.771M	37M8D1D	43.623M	36.469M
802.11ac VHT80_Nss1,(MCS0)_2TX	90.145M	76.411M	76M4D1D	87.246M	75.832M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.377M	21.201M	21M2D1D	15.652M	16.715M
802.11ac VHT20_Nss1,(MCS0)_2TX	17.681M	19.32M	19M3D1D	13.261M	17.656M
802.11ac VHT40_Nss1,(MCS0)_2TX	36.377M	38.35M	38M3D1D	35.362M	36.758M
802.11ac VHT80_Nss1,(MCS0)_2TX	76.232M	79.016M	79M0D1D	75.942M	76.7M

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;

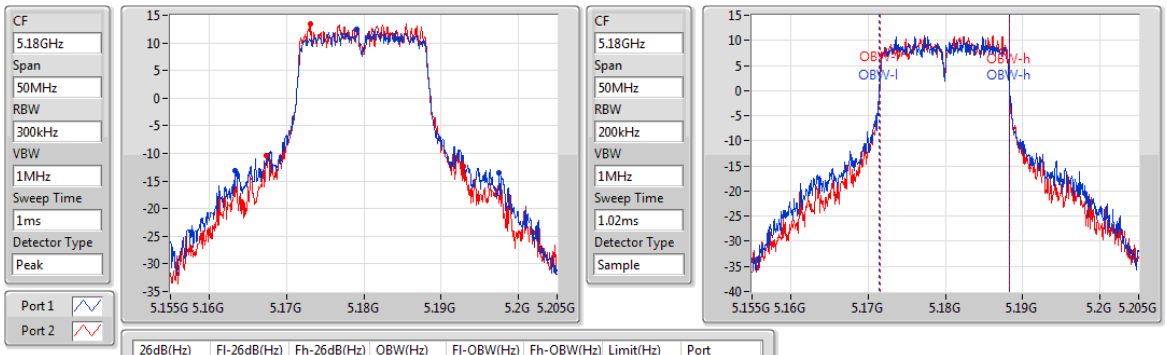
Result

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	34.13M	16.86M	25.507M	16.715M
5200MHz	Pass	Inf	35.942M	17.149M	25.362M	16.715M
5240MHz	Pass	Inf	36.667M	17.945M	27.391M	16.715M
5745MHz	Pass	500k	16.377M	19.609M	15.725M	16.715M
5785MHz	Pass	500k	16.304M	21.201M	15.652M	16.715M
5825MHz	Pass	500k	16.304M	19.247M	15.725M	16.787M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	29.565M	18.017M	24.855M	17.8M
5200MHz	Pass	Inf	35.507M	18.452M	28.406M	18.017M
5240MHz	Pass	Inf	37.536M	18.379M	28.768M	17.945M
5745MHz	Pass	500k	17.681M	18.886M	15.435M	17.656M
5785MHz	Pass	500k	17.609M	19.32M	13.261M	17.656M
5825MHz	Pass	500k	16.667M	19.247M	16.522M	17.8M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	45.072M	36.469M	43.623M	36.469M
5230MHz	Pass	Inf	81.159M	37.771M	70.87M	36.758M
5755MHz	Pass	500k	36.377M	38.35M	35.362M	36.758M
5795MHz	Pass	500k	36.087M	37.627M	35.797M	37.048M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	90.145M	76.411M	87.246M	75.832M
5775MHz	Pass	500k	75.942M	79.016M	76.232M	76.7M

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

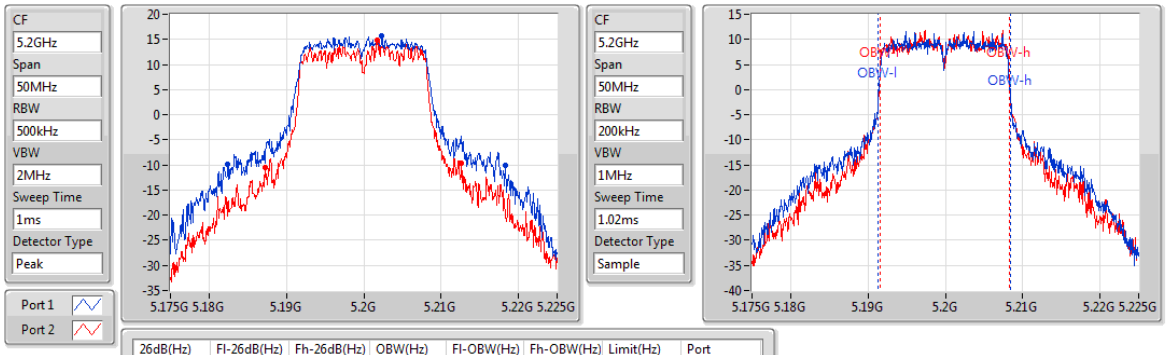
5180MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.13M	5.163406G	5.197536G	16.86M	5.171462G	5.188321G	Inf	1
25.507M	5.167391G	5.192899G	16.715M	5.171534G	5.188249G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

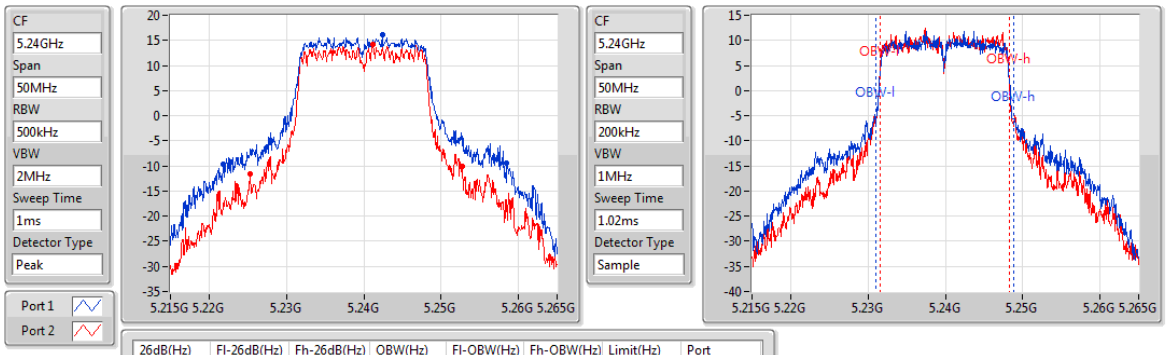
5200MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.942M	5.182391G	5.218333G	17.149M	5.191317G	5.208466G	Inf	1
25.362M	5.187246G	5.212609G	16.715M	5.191534G	5.208249G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

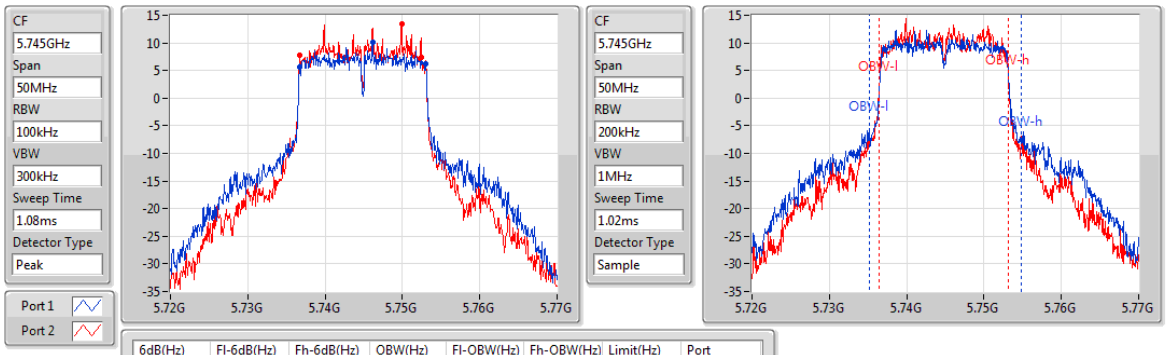
5240MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.667M	5.221812G	5.258478G	17.945M	5.230955G	5.2489G	Inf	1
27.391M	5.225362G	5.252754G	16.715M	5.231534G	5.248249G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

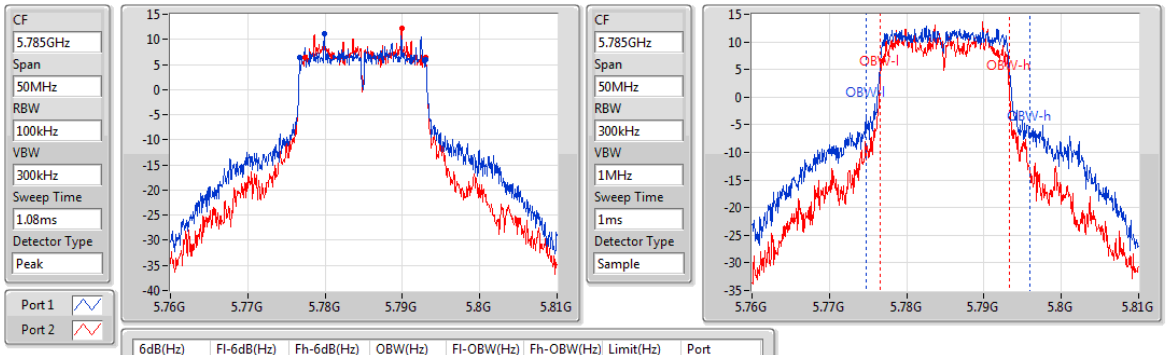
5745MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.377M	5.736667G	5.753043G	19.609M	5.735159G	5.754768G	500k	1
15.725M	5.736739G	5.752464G	16.715M	5.736462G	5.753177G	500k	2

802.11a_Nss1,(6Mbps)_2TX EBW

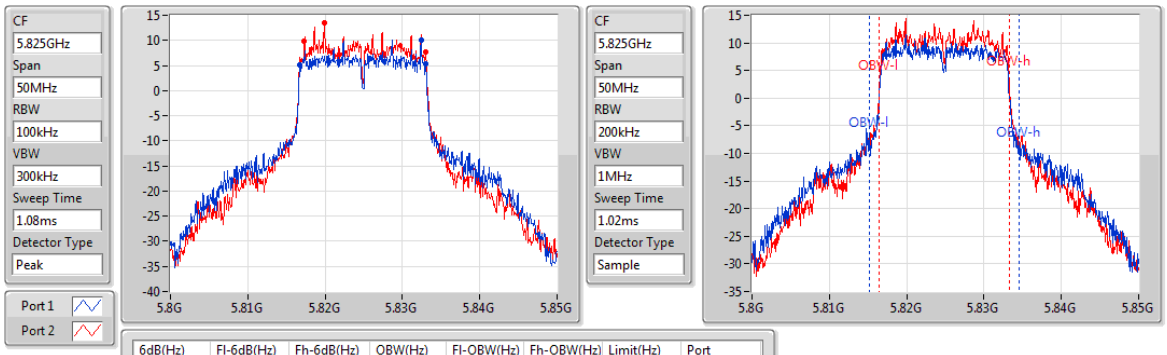
5785MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.304M	5.776739G	5.793043G	21.201M	5.774725G	5.795926G	500k	1
15.652M	5.777391G	5.793043G	16.715M	5.776534G	5.793249G	500k	2

802.11a_Nss1,(6Mbps)_2TX EBW

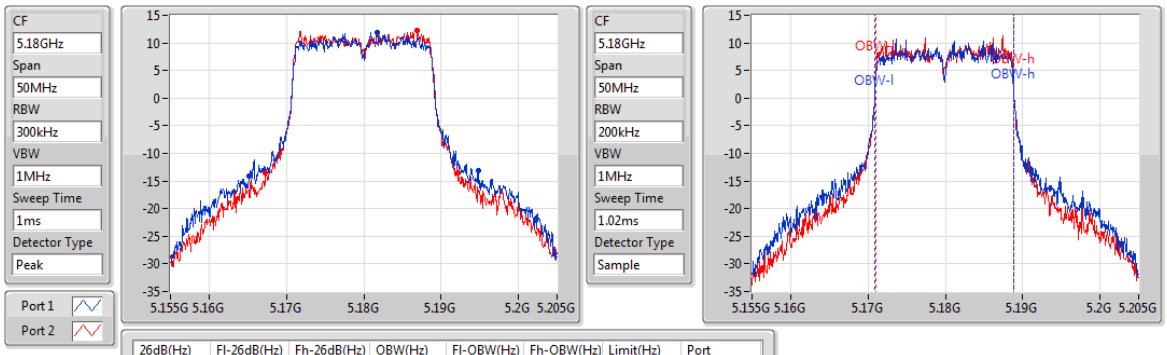
5825MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.304M	5.816739G	5.833043G	19.247M	5.815232G	5.834479G	500k	1
15.725M	5.817319G	5.833043G	16.787M	5.816462G	5.833249G	500k	2

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

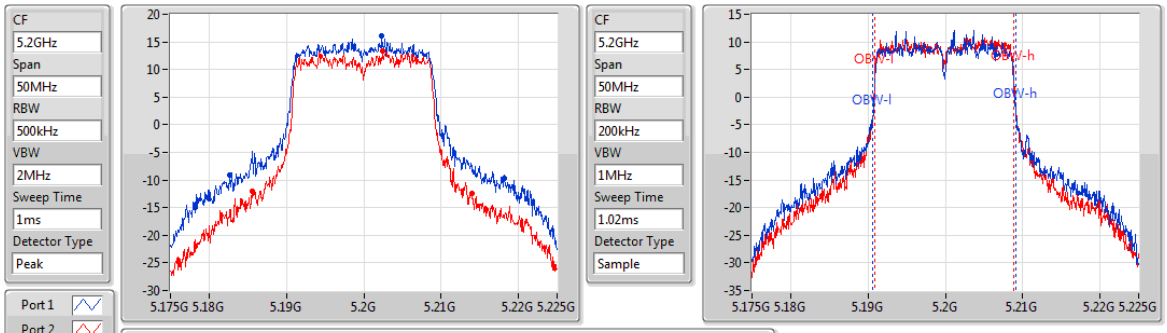
5180MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
29.565M	5.165217G	5.194783G	18.017M	5.170883G	5.1889G	Inf	1
24.855M	5.167319G	5.192174G	17.8M	5.171027G	5.188828G	Inf	2

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

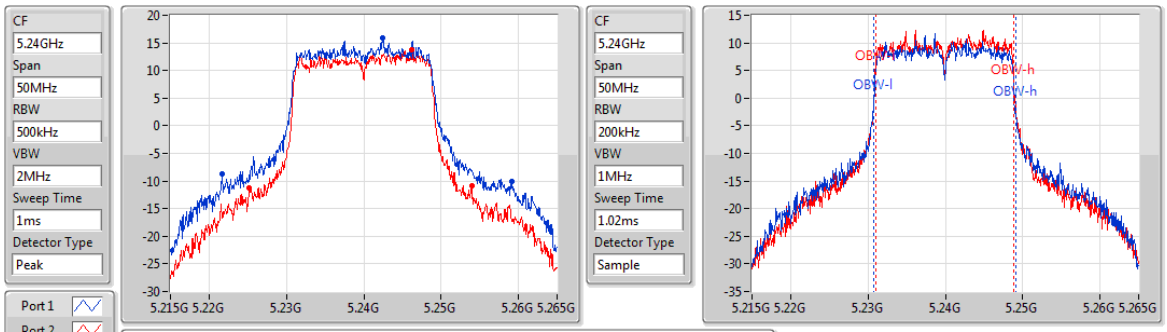
5200MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.507M	5.182681G	5.218188G	18.452M	5.190666G	5.209117G	Inf	1
28.406M	5.18558G	5.213986G	18.017M	5.190883G	5.2089G	Inf	2

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

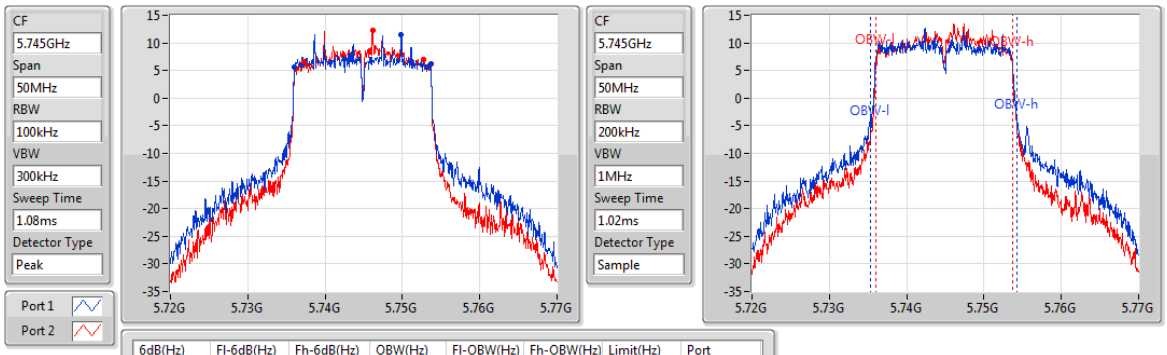
5240MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
37.536M	5.221667G	5.259203G	18.379M	5.230738G	5.249117G	Inf	1
28.768M	5.225217G	5.253986G	17.945M	5.230955G	5.2489G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

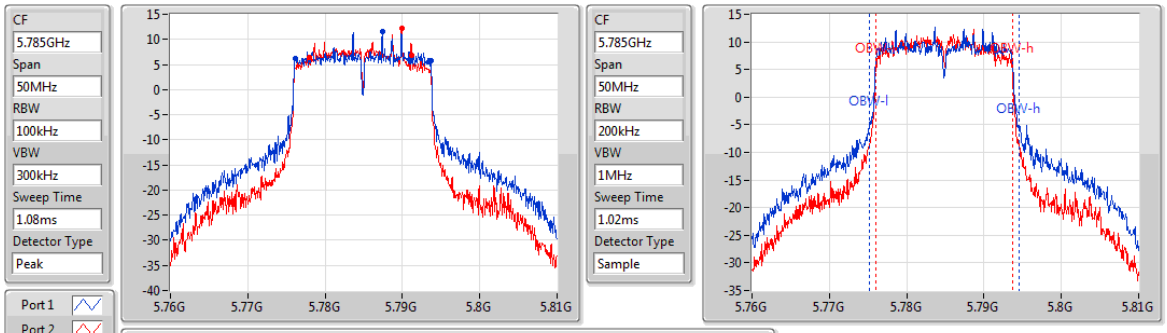
5745MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.681M	5.736014G	5.753696G	18.886M	5.735376G	5.754262G	500k	1
15.435M	5.737319G	5.752754G	17.656M	5.736027G	5.753683G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

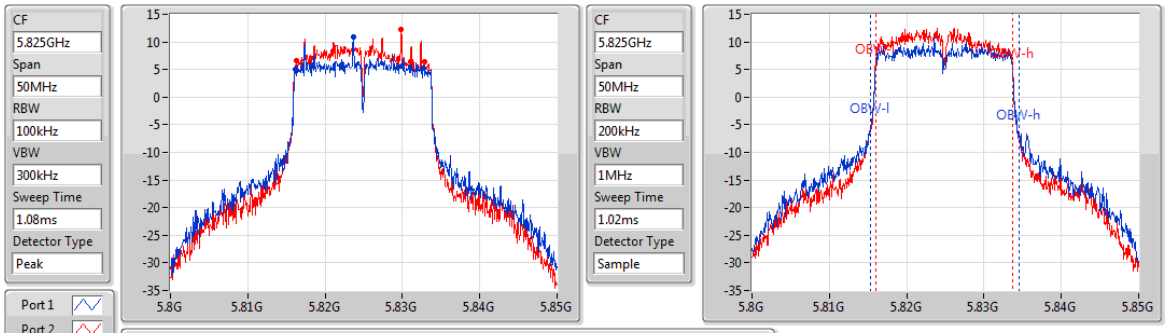
5785MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
17.609M	5.776087G	5.793696G	19.32M	5.775232G	5.794551G	500k	1
13.261M	5.777971G	5.791232G	17.656M	5.776027G	5.793683G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

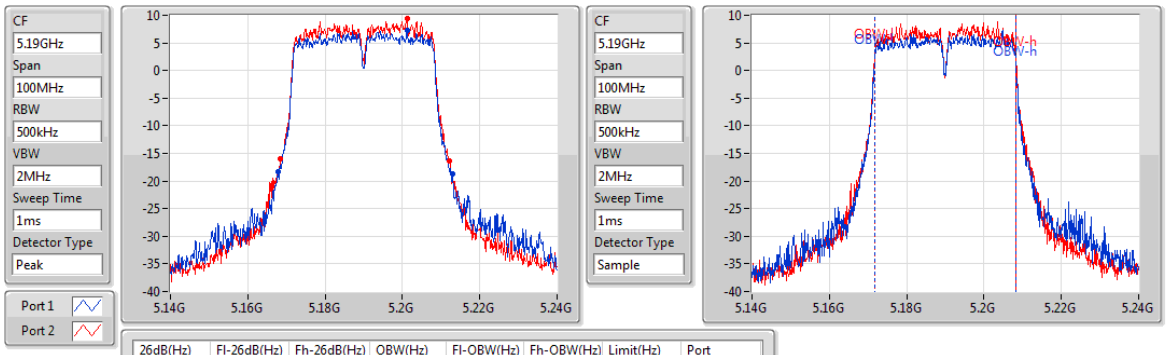
5825MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
16.667M	5.816087G	5.832754G	19.247M	5.815304G	5.834551G	500k	1
16.522M	5.816304G	5.832826G	17.8M	5.815955G	5.833755G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

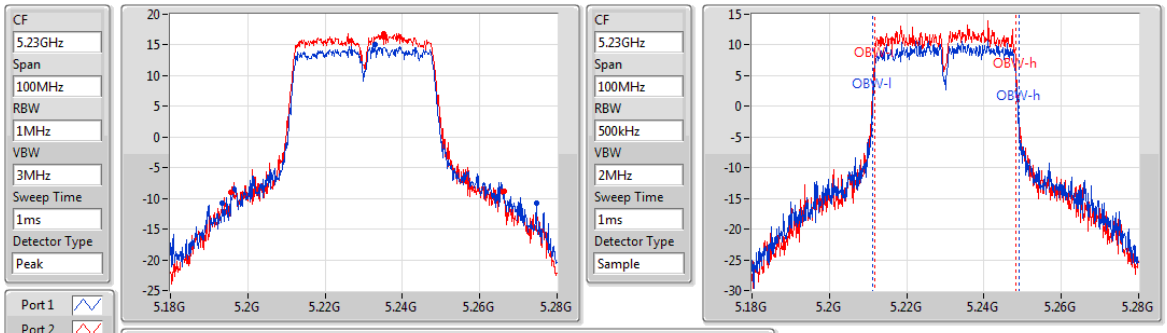
5190MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
45.072M	5.167826G	5.212899G	36.469M	5.171766G	5.208234G	Inf	1
43.623M	5.168551G	5.212174G	36.469M	5.171766G	5.208234G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

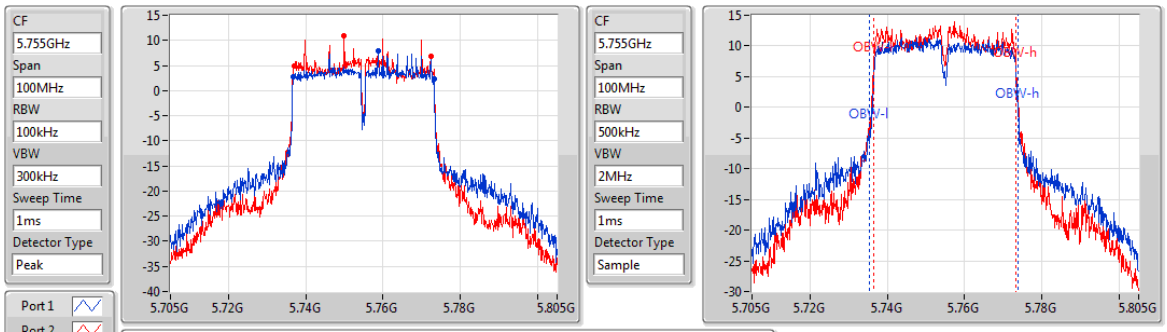
5230MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
81.159M	5.193478G	5.274638G	37.771M	5.211187G	5.248958G	Inf	1
70.87M	5.195507G	5.266377G	36.758M	5.211621G	5.248379G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

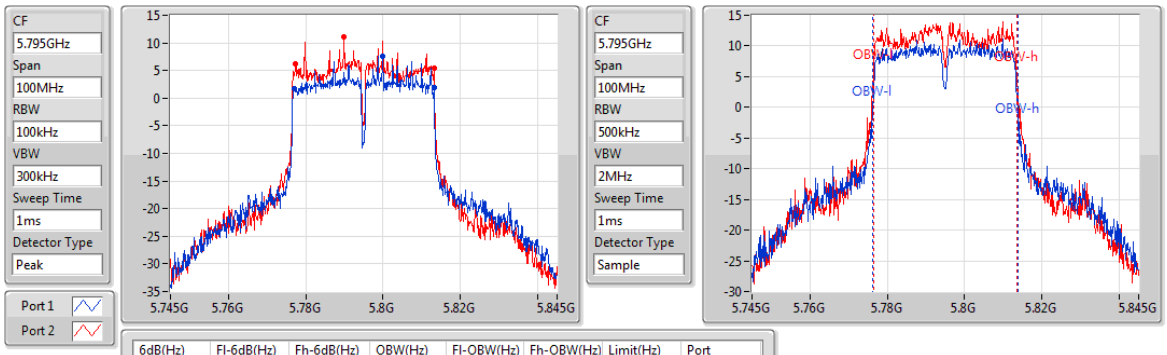
5755MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.377M	5.736739G	5.773116G	38.35M	5.735463G	5.773813G	500k	1
35.362M	5.737029G	5.772391G	36.758M	5.736476G	5.773234G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

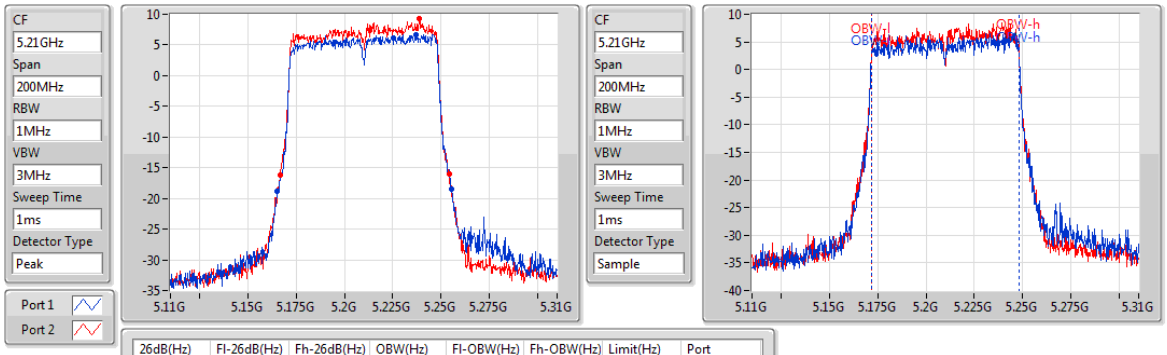
5795MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
36.087M	5.777029G	5.813116G	37.627M	5.776187G	5.813813G	500k	1
35.797M	5.777319G	5.813116G	37.048M	5.776476G	5.813524G	500k	2

802.11ac VHT80_Nss1,(MCS0)_2TX EBW

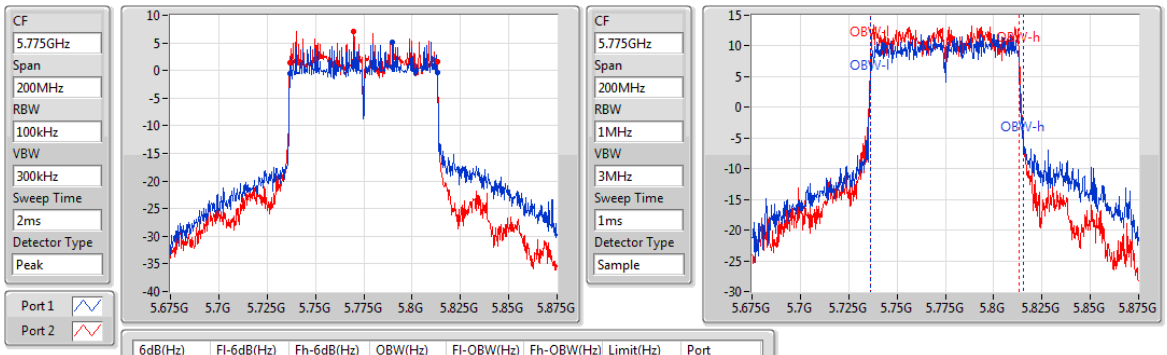
5210MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
90.145M	5.165362G	5.255507G	76.411M	5.171795G	5.248205G	Inf	1
87.246M	5.166812G	5.254058G	75.832M	5.172084G	5.247916G	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
75.942M	5.737029G	5.812971G	79.016M	5.736216G	5.815232G	500k	1
76.232M	5.736739G	5.812971G	76.7M	5.736505G	5.813205G	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	25.71	0.37239	30.81	1.20504
802.11ac VHT20_Nss1,(MCS0)_2TX	25.88	0.38726	30.98	1.25314
802.11ac VHT40_Nss1,(MCS0)_2TX	26.35	0.43152	31.45	1.39637
802.11ac VHT80_Nss1,(MCS0)_2TX	20.40	0.10965	25.50	0.35481
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	26.87	0.48641	31.97	1.57398
802.11ac VHT20_Nss1,(MCS0)_2TX	26.97	0.49774	32.07	1.61065
802.11ac VHT40_Nss1,(MCS0)_2TX	26.56	0.45290	31.66	1.46555
802.11ac VHT80_Nss1,(MCS0)_2TX	26.14	0.41115	31.24	1.33045

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	5.10	22.03	21.82	24.94	30.00	30.04	36.00
5200MHz	Pass	5.10	22.42	22.23	25.34	30.00	30.44	36.00
5240MHz	Pass	5.10	22.67	22.72	25.71	30.00	30.81	36.00
5745MHz	Pass	5.10	24.05	23.66	26.87	30.00	31.97	36.00
5785MHz	Pass	5.10	23.84	23.26	26.57	30.00	31.67	36.00
5825MHz	Pass	5.10	23.23	23.14	26.20	30.00	31.30	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.10	21.86	21.56	24.72	30.00	29.82	36.00
5200MHz	Pass	5.10	22.76	22.51	25.65	30.00	30.75	36.00
5240MHz	Pass	5.10	22.82	22.91	25.88	30.00	30.98	36.00
5745MHz	Pass	5.10	23.99	23.92	26.97	30.00	32.07	36.00
5785MHz	Pass	5.10	23.64	23.26	26.46	30.00	31.56	36.00
5825MHz	Pass	5.10	23.12	23.77	26.47	30.00	31.57	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	5.10	18.84	18.55	21.71	30.00	26.81	36.00
5230MHz	Pass	5.10	22.87	23.77	26.35	30.00	31.45	36.00
5755MHz	Pass	5.10	23.68	23.35	26.53	30.00	31.63	36.00
5795MHz	Pass	5.10	23.48	23.61	26.56	30.00	31.66	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	5.10	17.56	17.22	20.40	30.00	25.50	36.00
5775MHz	Pass	5.10	23.33	22.91	26.14	30.00	31.24	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

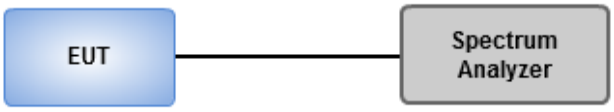
Duty cycle ≥ 98 %

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	12.64	20.12
802.11ac VHT20_Nss1,(MCS0)_2TX	12.51	19.99
802.11ac VHT40_Nss1,(MCS0)_2TX	9.27	16.75
802.11ac VHT80_Nss1,(MCS0)_2TX	0.80	8.28
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	11.98	19.46
802.11ac VHT20_Nss1,(MCS0)_2TX	11.89	19.37
802.11ac VHT40_Nss1,(MCS0)_2TX	8.45	15.93
802.11ac VHT80_Nss1,(MCS0)_2TX	4.22	11.70

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

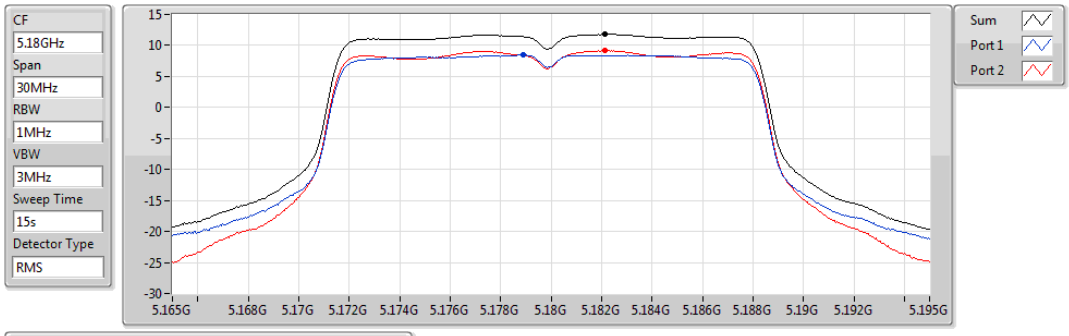
Result

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	7.48	8.44	9.23	11.81	15.52	19.29	23.00
5200MHz	Pass	7.48	8.95	9.78	12.35	15.52	19.83	23.00
5240MHz	Pass	7.48	9.23	10.08	12.64	15.52	20.12	23.00
5745MHz	Pass	7.48	8.00	9.98	11.98	28.52	19.46	36.00
5785MHz	Pass	7.48	7.80	9.02	11.45	28.52	18.93	36.00
5825MHz	Pass	7.48	6.66	9.91	11.58	28.52	19.06	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	7.48	8.43	8.96	11.36	15.52	18.84	23.00
5200MHz	Pass	7.48	9.16	9.73	12.19	15.52	19.67	23.00
5240MHz	Pass	7.48	8.79	10.21	12.51	15.52	19.99	23.00
5745MHz	Pass	7.48	8.43	9.91	11.89	28.52	19.37	36.00
5785MHz	Pass	7.48	7.82	8.94	11.27	28.52	18.75	36.00
5825MHz	Pass	7.48	6.66	9.70	11.35	28.52	18.83	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	7.48	1.38	3.05	5.15	15.52	12.63	23.00
5230MHz	Pass	7.48	4.92	7.41	9.27	15.52	16.75	23.00
5755MHz	Pass	7.48	4.45	6.50	8.41	28.52	15.89	36.00
5795MHz	Pass	7.48	3.72	6.88	8.45	28.52	15.93	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	7.48	-3.07	-1.42	0.80	15.52	8.28	23.00
5775MHz	Pass	7.48	0.29	2.24	4.22	28.52	11.70	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 Xpower density;
Directional gain = $10 * \log((10^{5.1/20}+10^{3.8/20})^2/2) = 7.48$ dBi

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

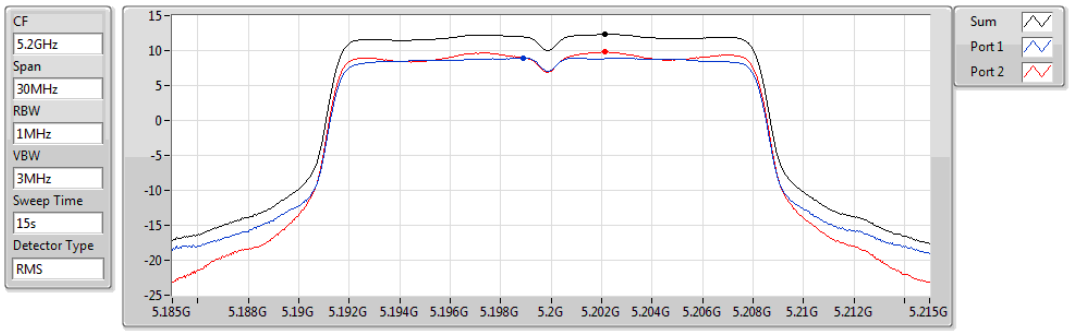
5180MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.81	11.81	8.44	9.23

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

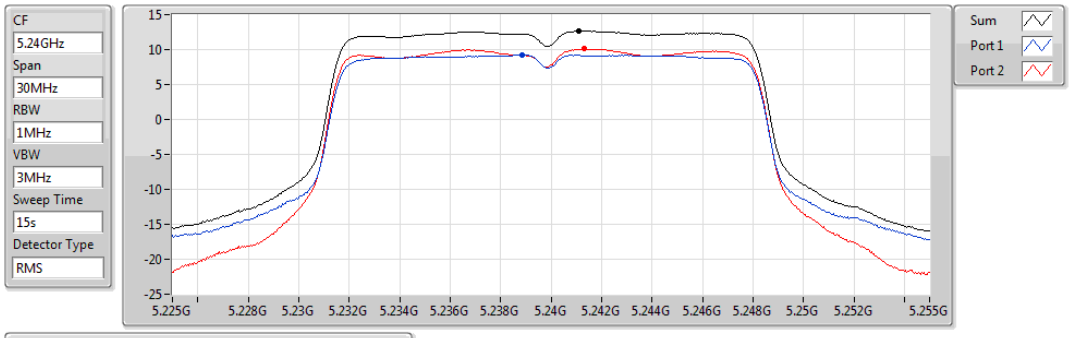
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.35	12.35	8.95	9.78

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

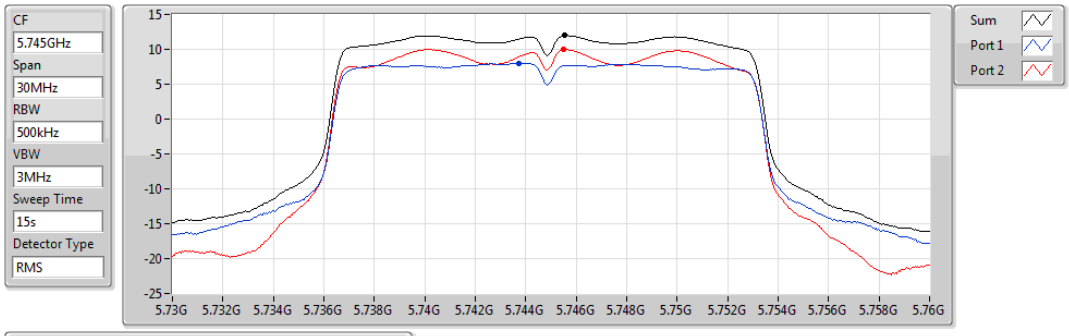
5240MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.64	12.64	9.23	10.08

802.11a_Nss1,(6Mbps)_2TX PSD

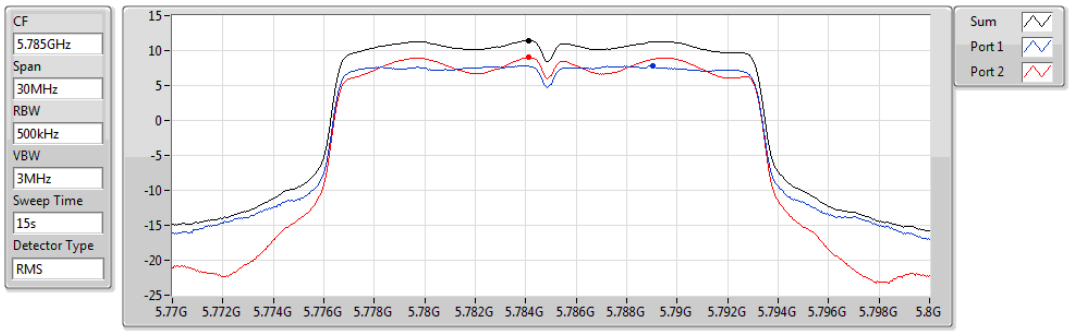
5745MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.98	11.98	8.00	9.98

802.11a_Nss1,(6Mbps)_2TX PSD

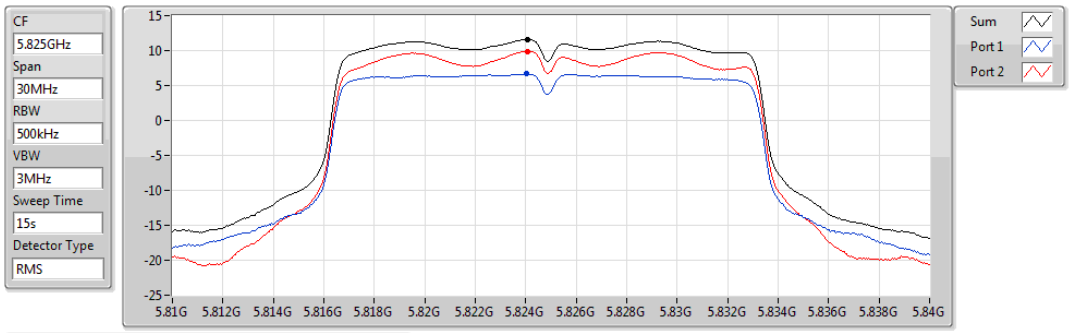
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.45	11.45	7.80	9.02

802.11a_Nss1,(6Mbps)_2TX PSD

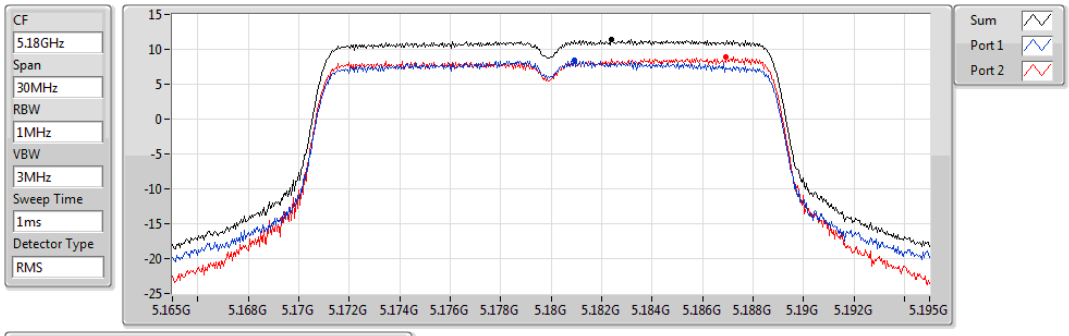
5825MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.58	11.58	6.66	9.91

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

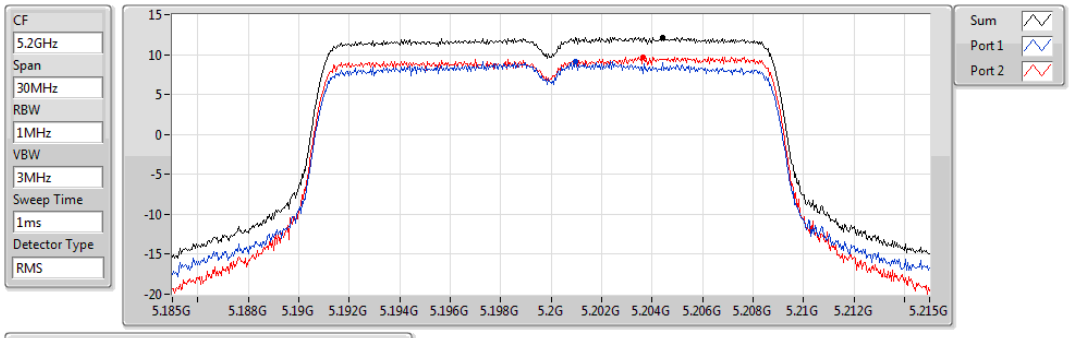
5180MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.36	11.36	8.43	8.96

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

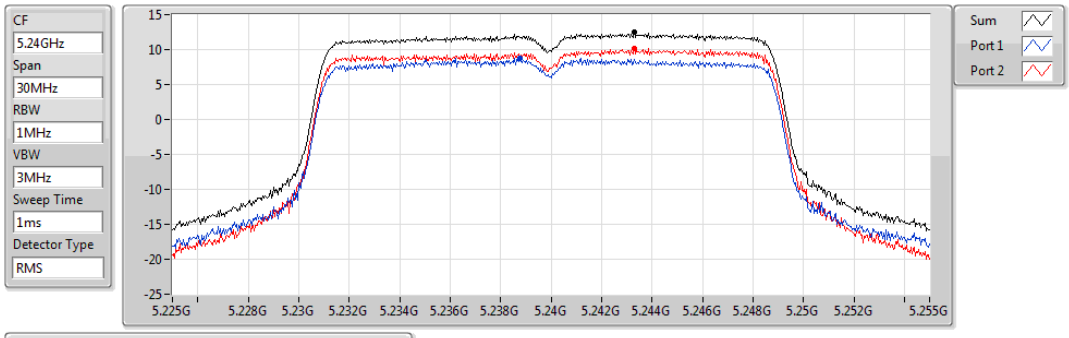
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.19	12.19	9.16	9.73

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

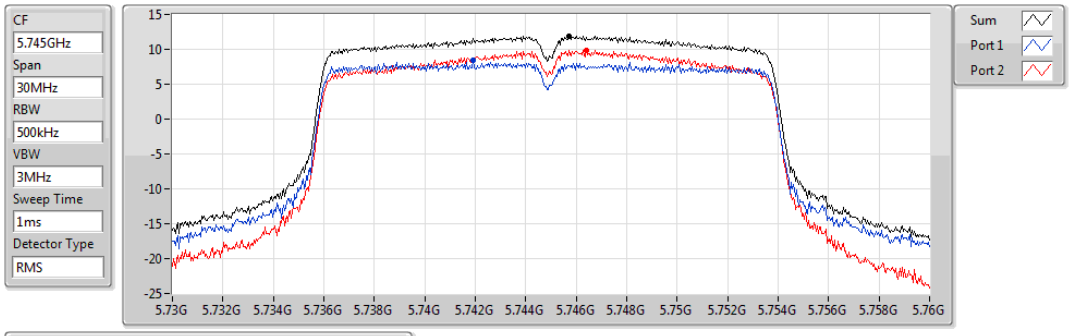
5240MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
12.51	12.51	8.79	10.21

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

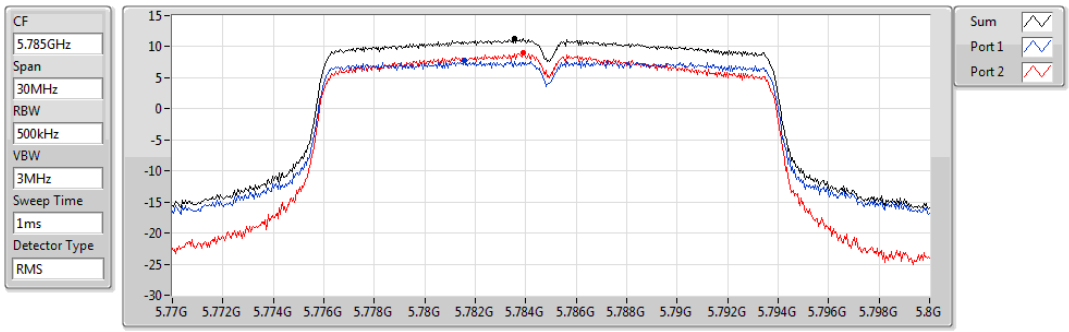
5745MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.89	11.89	8.43	9.91

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

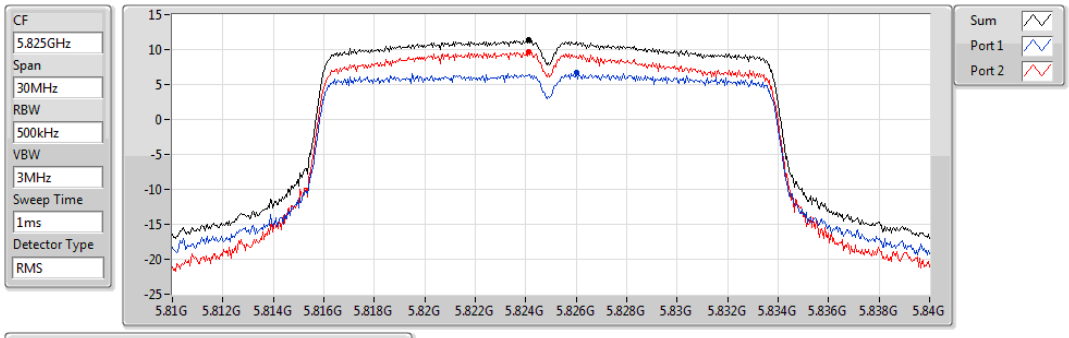
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.27	11.27	7.82	8.94

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

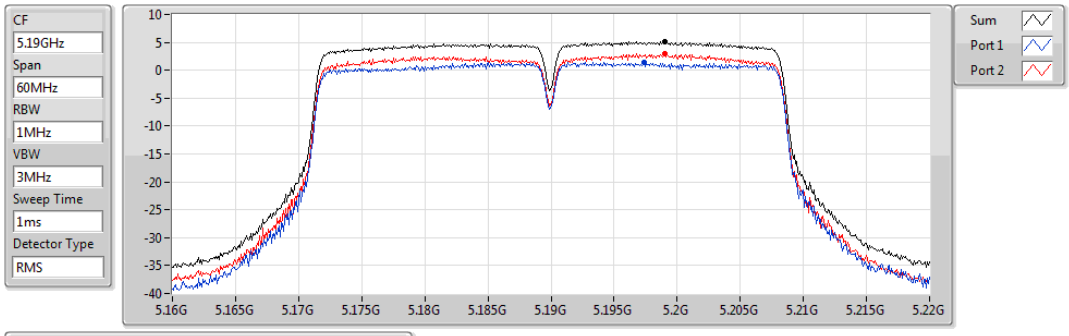
5825MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
11.35	11.35	6.66	9.70

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

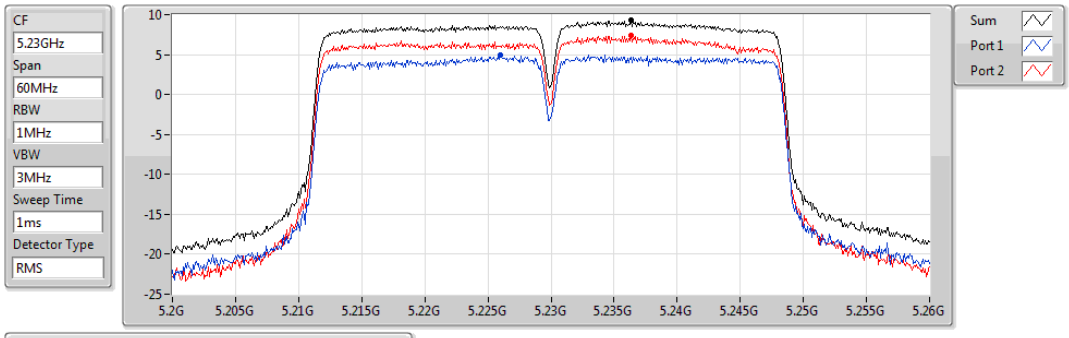
5190MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.15	5.15	1.38	3.05

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

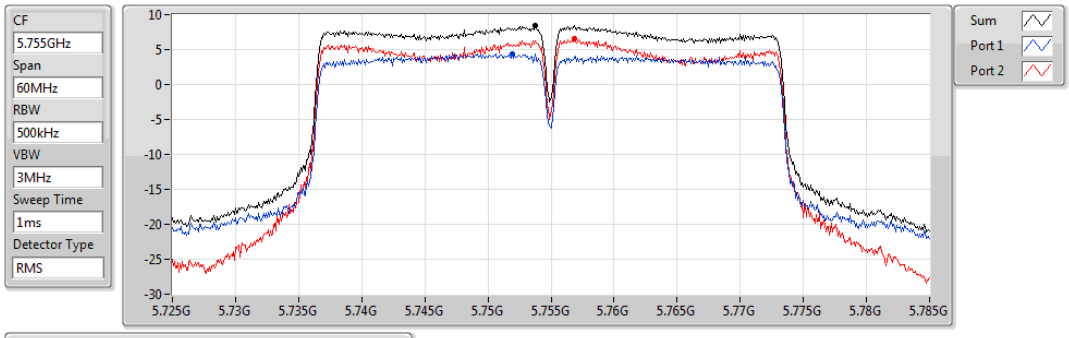
5230MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.27	9.27	4.92	7.41

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

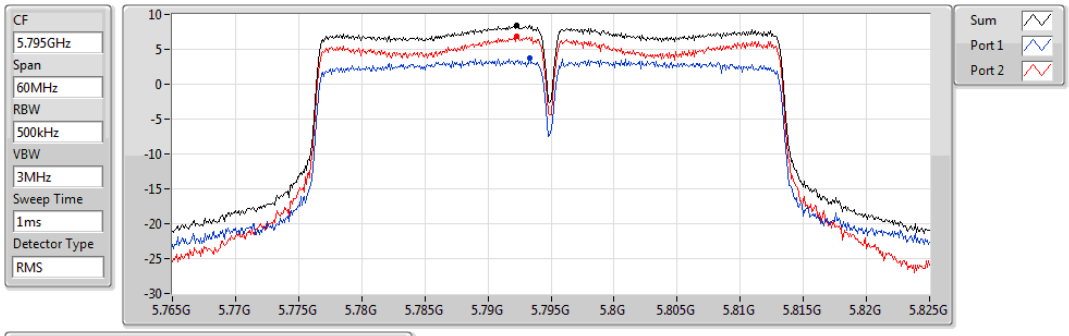
5755MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.41	8.41	4.45	6.50

802.11ac VHT40_Nss1,(MCS0)_2TX PSD

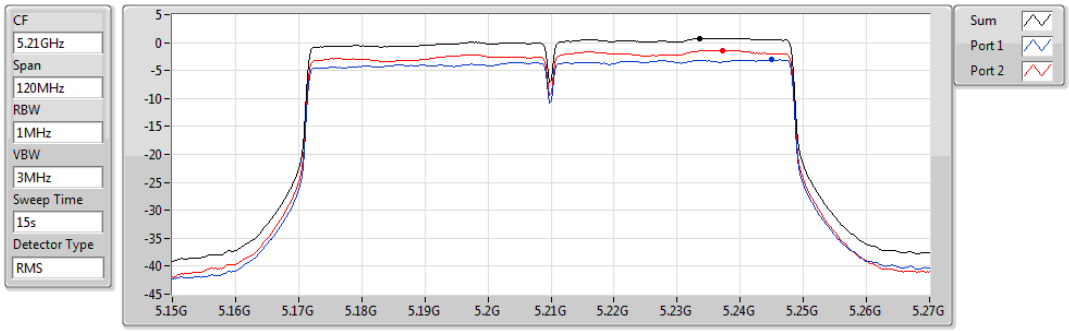
5795MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
8.45	8.45	3.72	6.88

802.11ac VHT80_Nss1,(MCS0)_2TX PSD

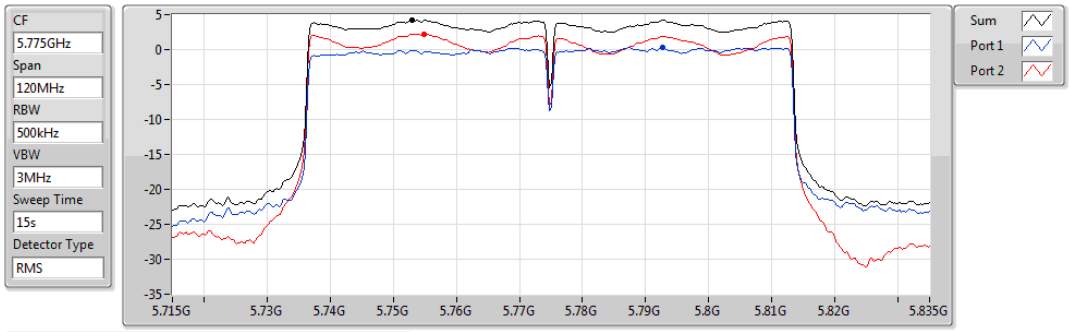
5210MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.80	0.80	-3.07	-1.42

802.11ac VHT80_Nss1,(MCS0)_2TX PSD

5775MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.22	4.22	0.29	2.24

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

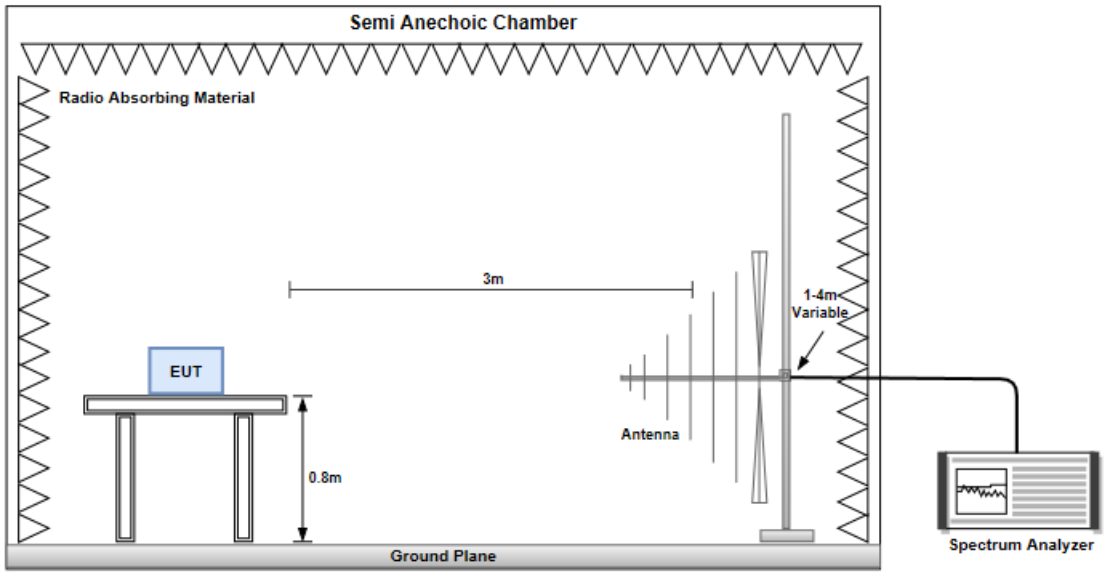
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

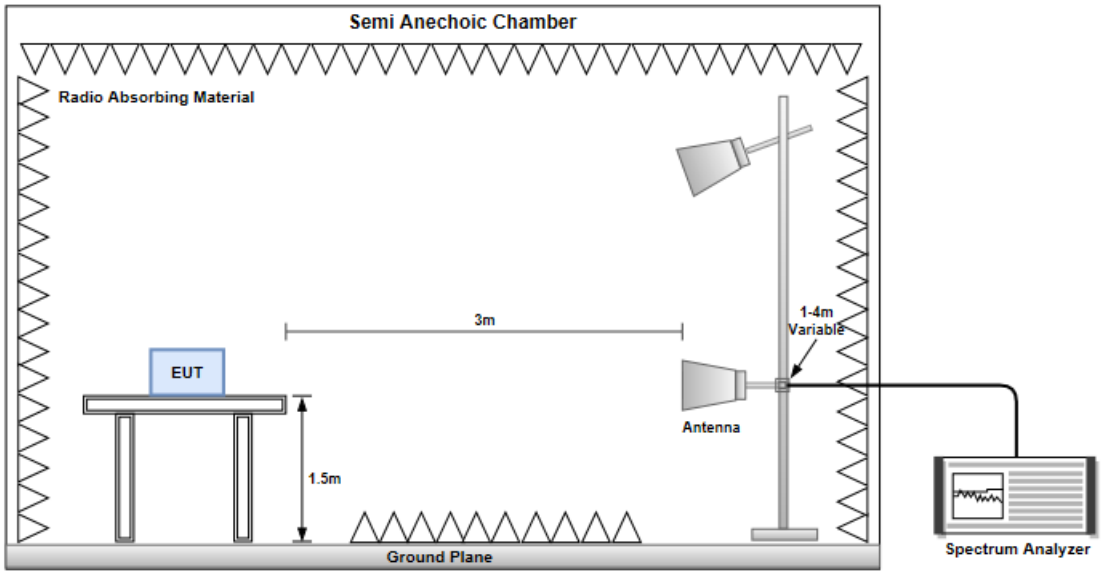
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz

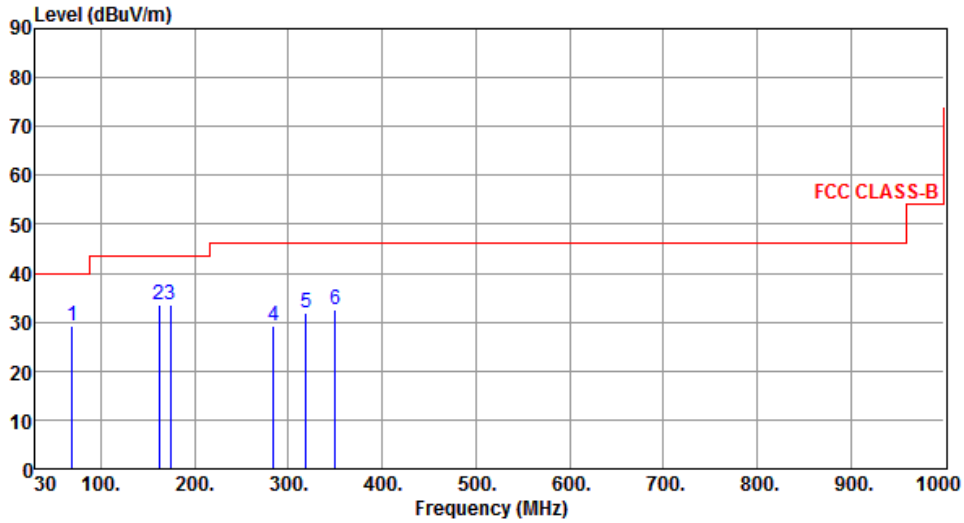


Radiated Emissions above 1 GHz



3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

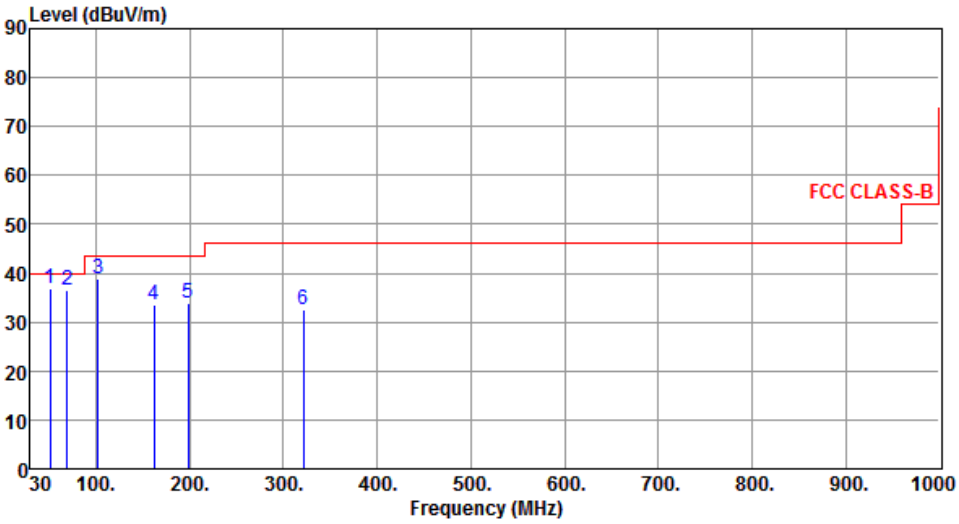
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	69.58	29.23	40.00	-10.77	39.65	-10.42	Peak	---	---
2	161.57	33.45	43.50	-10.05	41.71	-8.26	Peak	---	---
3	174.31	33.52	43.50	-9.98	42.56	-9.04	Peak	---	---
4	284.51	29.36	46.00	-16.64	37.41	-8.05	Peak	---	---
5	318.42	31.99	46.00	-14.01	39.19	-7.20	Peak	---	---
6	350.24	32.47	46.00	-13.53	38.84	-6.37	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.

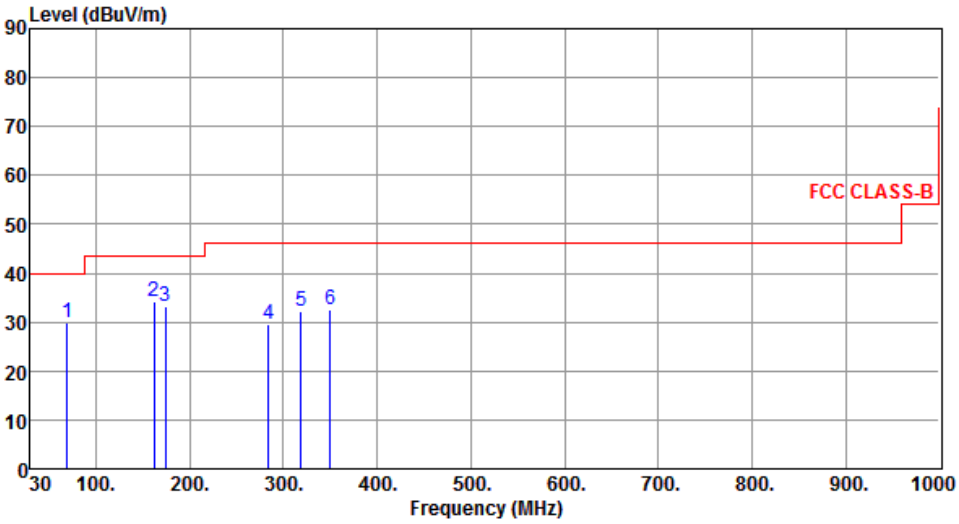
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	51.28	36.75	40.00	-3.25	44.71	-7.96	QP	100	11
2	69.56	36.37	40.00	-3.63	46.79	-10.42	Peak	---	---
3	102.37	38.75	43.50	-4.75	51.85	-13.10	Peak	---	---
4	161.58	33.45	43.50	-10.05	41.71	-8.26	Peak	---	---
5	198.44	33.75	43.50	-9.75	44.72	-10.97	Peak	---	---
6	321.31	32.47	46.00	-13.53	39.59	-7.12	Peak	---	---

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

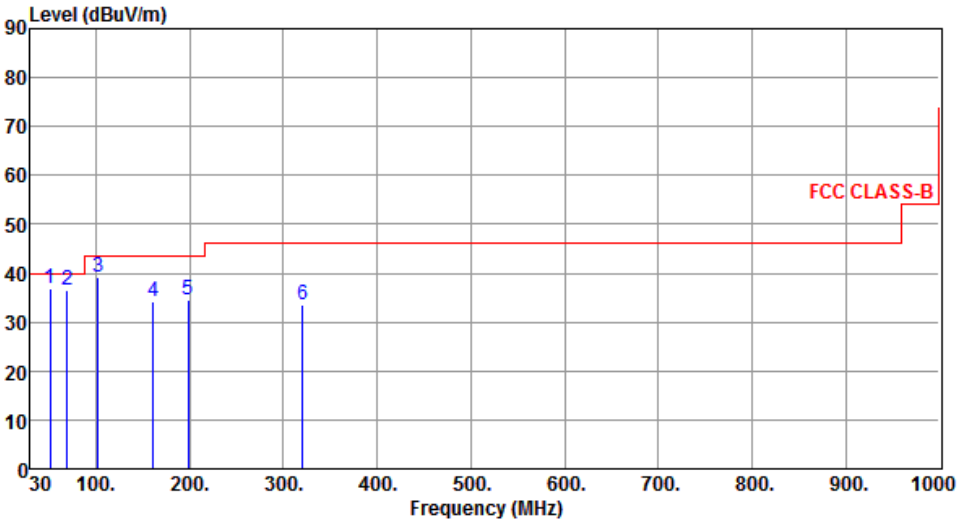
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	69.56	29.82	40.00	-10.18	40.24	-10.42	Peak	---	---
2	161.76	34.31	43.50	-9.19	42.57	-8.26	Peak	---	---
3	174.48	33.26	43.50	-10.24	42.32	-9.06	Peak	---	---
4	284.33	29.63	46.00	-16.37	37.68	-8.05	Peak	---	---
5	318.45	32.34	46.00	-13.66	39.54	-7.20	Peak	---	---
6	350.37	32.67	46.00	-13.33	39.04	-6.37	Peak	---	---

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

Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		

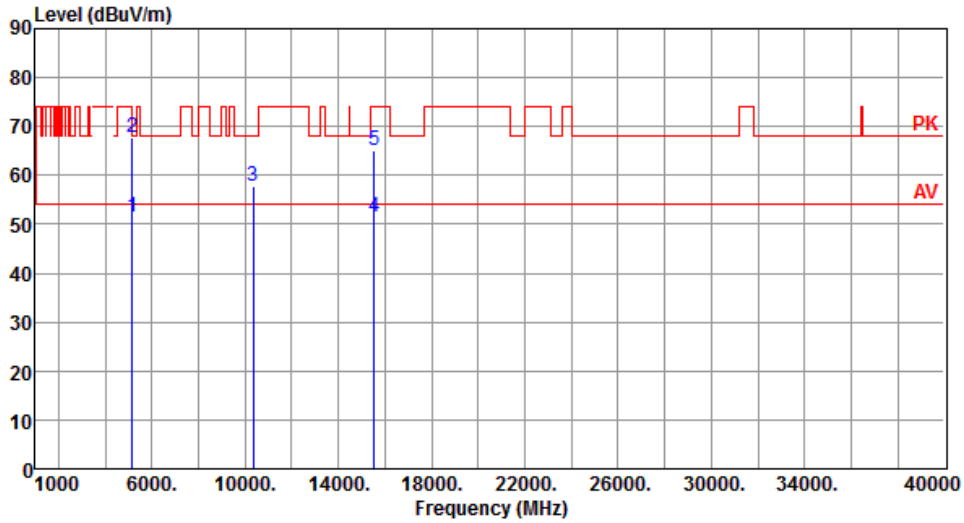


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	51.48	36.71	40.00	-3.29	44.70	-7.99	QP	100	8
2	69.51	36.56	40.00	-3.44	46.97	-10.41	Peak	---	---
3	102.63	39.31	43.50	-4.19	52.36	-13.05	Peak	---	---
4	161.55	34.32	43.50	-9.18	42.58	-8.26	Peak	---	---
5	198.63	34.38	43.50	-9.12	45.36	-10.98	Peak	---	---
6	320.54	33.55	46.00	-12.45	40.71	-7.16	Peak	---	---

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

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

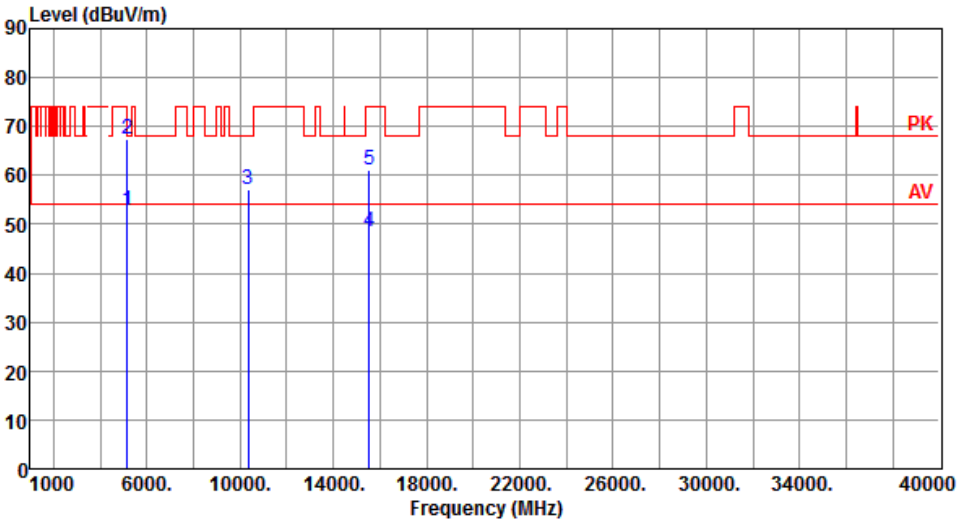
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Horizontal		



	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	51.63	54.00	-2.37	45.54	6.09	Average	206	77
2	5150.00	67.83	74.00	-6.17	61.74	6.09	Peak	206	77
3	10360.00	57.83	68.20	-10.37	42.12	15.71	Peak	100	49
4	15540.00	51.54	54.00	-2.46	35.22	16.32	Average	100	12
5	15540.00	65.02	74.00	-8.98	48.70	16.32	Peak	100	12

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).

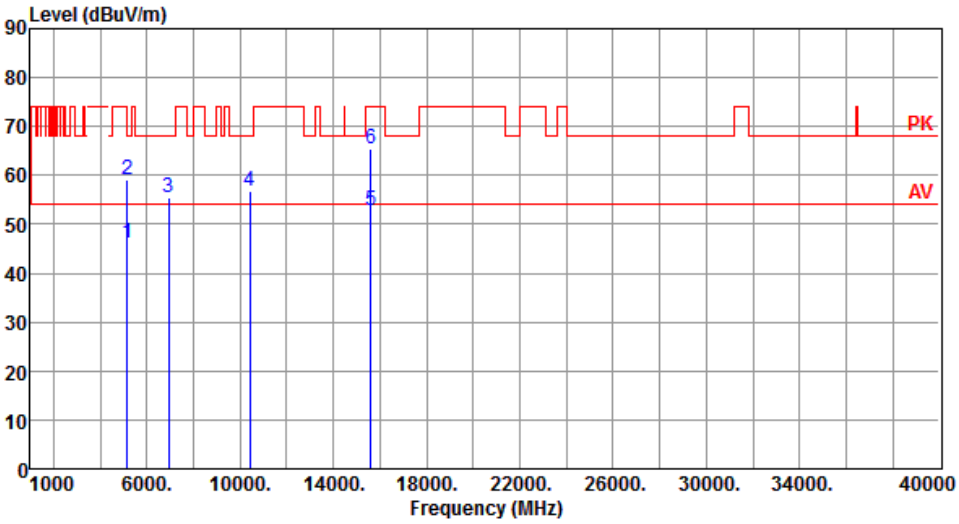
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	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	52.75	54.00	-1.25	46.66	6.09	Average	102	192
2	5150.00	67.56	74.00	-6.44	61.47	6.09	Peak	102	192
3	10360.00	57.26	68.20	-10.94	41.55	15.71	Peak	100	346
4	15540.00	48.54	54.00	-5.46	32.22	16.32	Average	100	218
5	15540.00	61.02	74.00	-12.98	44.70	16.32	Peak	100	218

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).

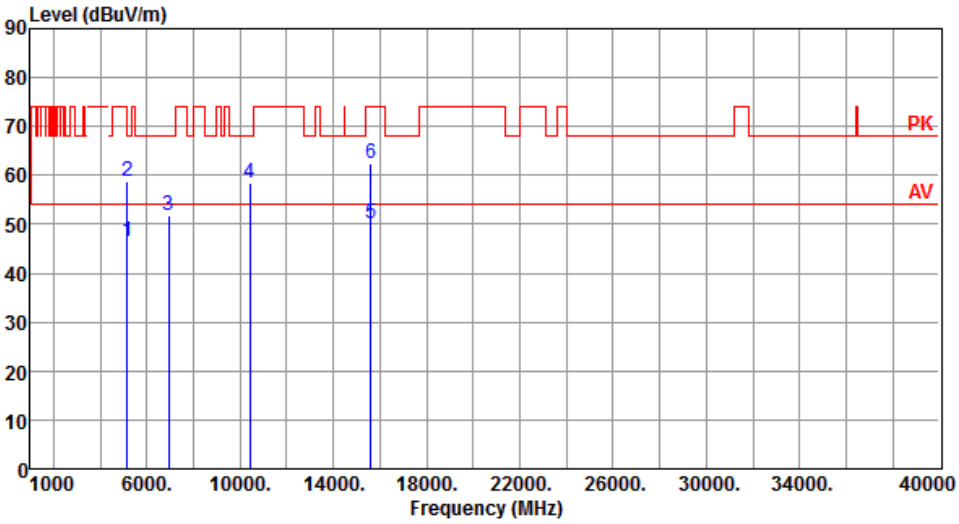
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Horizontal		



	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	46.30	54.00	-7.70	40.21	6.09	Average	200	79
2	5150.00	59.23	74.00	-14.77	53.14	6.09	Peak	200	79
3	6933.33	55.31	68.20	-12.89	45.19	10.12	Peak	100	309
4	10400.00	56.84	68.20	-11.36	41.10	15.74	Peak	100	50
5	15600.00	52.83	54.00	-1.17	36.63	16.20	Average	100	20
6	15600.00	65.46	74.00	-8.54	49.26	16.20	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).

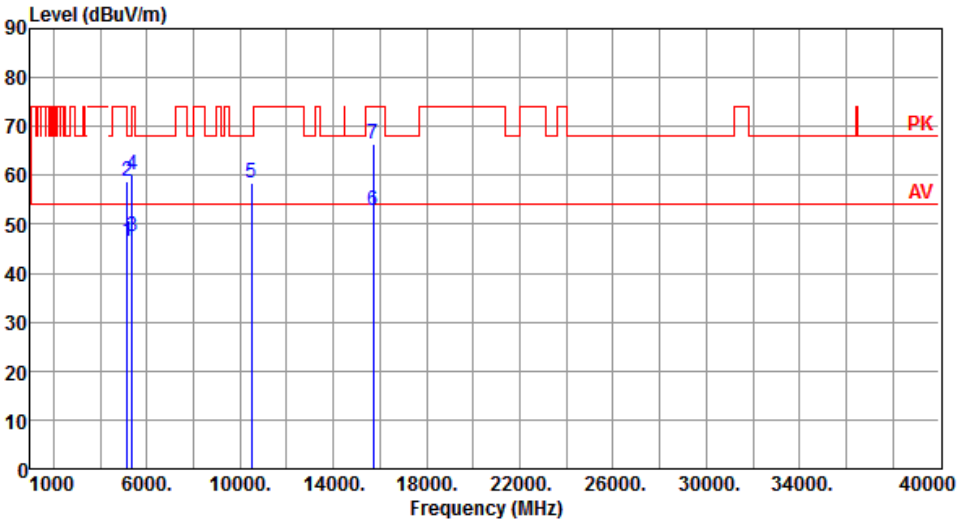
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Vertical		



	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	46.64	54.00	-7.36	40.55	6.09	Average	125	263
2	5150.00	58.78	74.00	-15.22	52.69	6.09	Peak	125	263
3	6933.33	51.97	68.20	-16.23	41.85	10.12	Peak	100	75
4	10400.00	58.38	68.20	-9.82	42.64	15.74	Peak	100	341
5	15600.00	50.00	54.00	-4.00	33.80	16.20	Average	100	223
6	15600.00	62.45	74.00	-11.55	46.25	16.20	Peak	100	223

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).

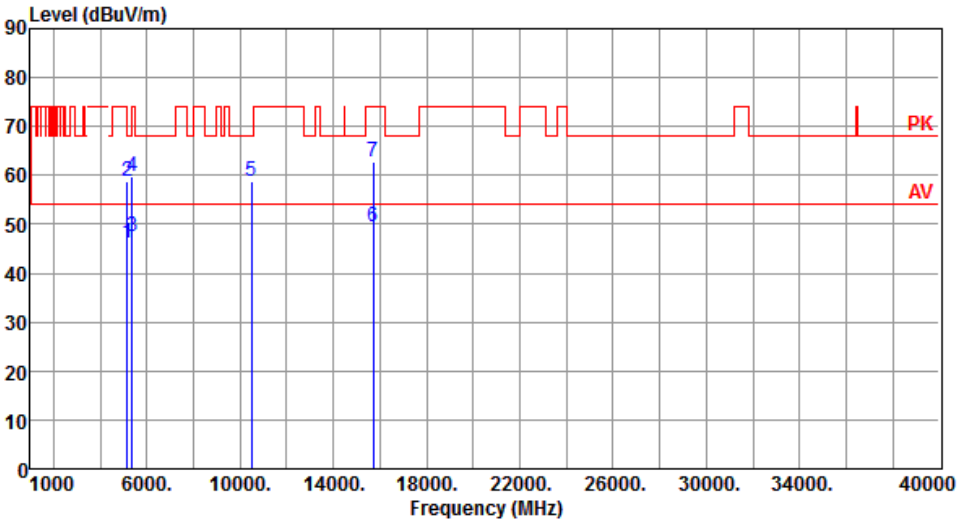
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal		



	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	46.34	54.00	-7.66	40.25	6.09	Average	201	78
2	5150.00	58.88	74.00	-15.12	52.79	6.09	Peak	201	78
3	5350.00	47.65	54.00	-6.35	41.28	6.37	Average	201	78
4	5350.00	60.04	74.00	-13.96	53.67	6.37	Peak	201	78
5	10480.00	58.59	68.20	-9.61	42.79	15.80	Peak	100	51
6	15720.00	52.83	54.00	-1.17	36.89	15.94	Average	100	25
7	15720.00	66.48	74.00	-7.52	50.54	15.94	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).

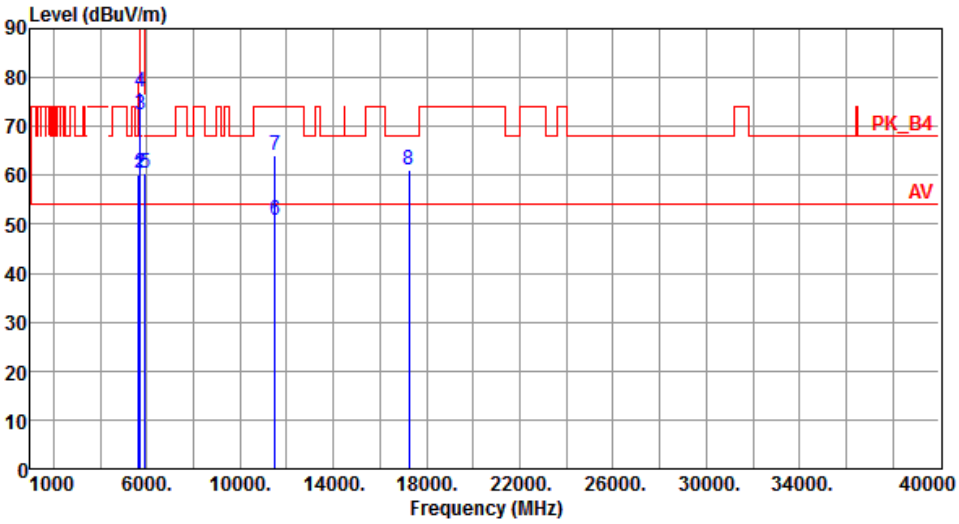
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical		



	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	46.32	54.00	-7.68	40.23	6.09	Average	123	265
2	5150.00	58.94	74.00	-15.06	52.85	6.09	Peak	123	265
3	5350.00	47.58	54.00	-6.42	41.21	6.37	Average	123	265
4	5350.00	59.83	74.00	-14.17	53.46	6.37	Peak	123	265
5	10480.00	58.84	68.20	-9.36	43.04	15.80	Peak	100	345
6	15720.00	49.35	54.00	-4.65	33.41	15.94	Average	100	235
7	15720.00	62.71	74.00	-11.29	46.77	15.94	Peak	100	235

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).

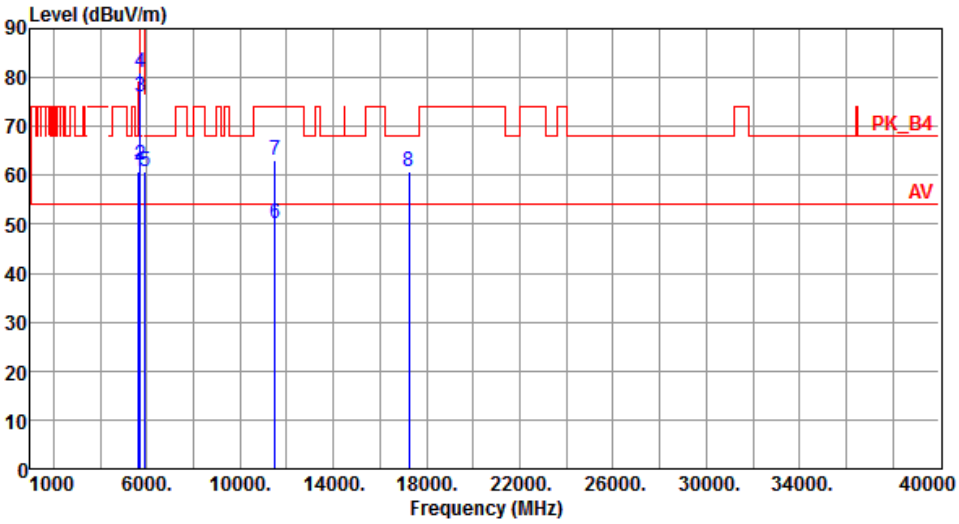
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal		



	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	60.13	68.20	-8.07	53.32	6.81	Peak	205	169
2	5700.00	60.60	105.20	-44.60	53.69	6.91	Peak	205	169
3	5720.00	72.26	110.80	-38.54	65.31	6.95	Peak	205	169
4	5725.00	77.19	122.20	-45.01	70.23	6.96	Peak	205	169
5	5925.00	60.46	68.20	-7.74	53.12	7.34	Peak	205	169
6	11490.00	50.88	54.00	-3.12	34.42	16.46	Average	255	63
7	11490.00	64.11	74.00	-9.89	47.65	16.46	Peak	255	63
8	17235.00	61.00	68.20	-7.20	42.69	18.31	Peak	100	40

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

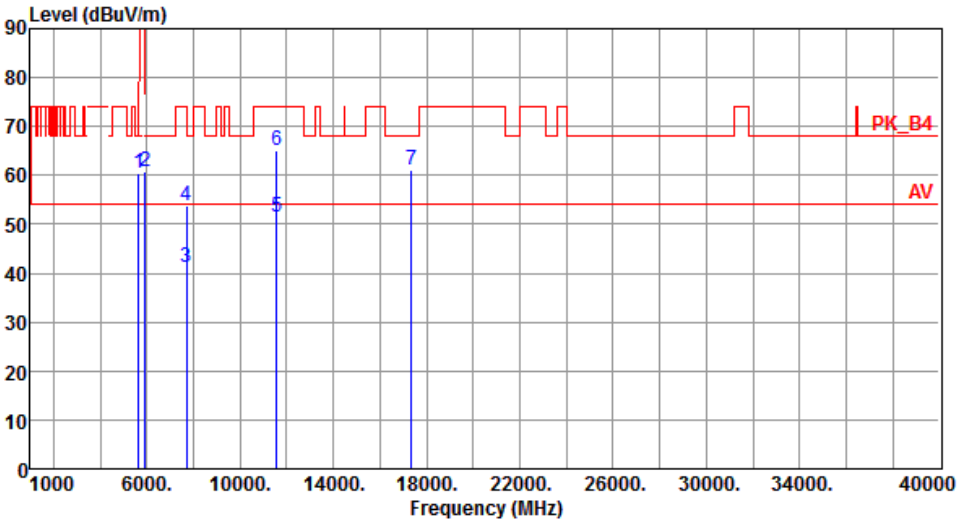
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		



	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	60.66	68.20	-7.54	53.85	6.81	Peak	105	5
2	5700.00	62.03	105.20	-43.17	55.12	6.91	Peak	105	5
3	5720.00	76.18	110.80	-34.62	69.23	6.95	Peak	105	5
4	5725.00	81.09	122.20	-41.11	74.13	6.96	Peak	105	5
5	5925.00	60.68	68.20	-7.52	53.34	7.34	Peak	105	5
6	11490.00	50.11	54.00	-3.89	33.65	16.46	Average	335	67
7	11490.00	62.98	74.00	-11.02	46.52	16.46	Peak	335	67
8	17235.00	60.94	68.20	-7.26	42.63	18.31	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).

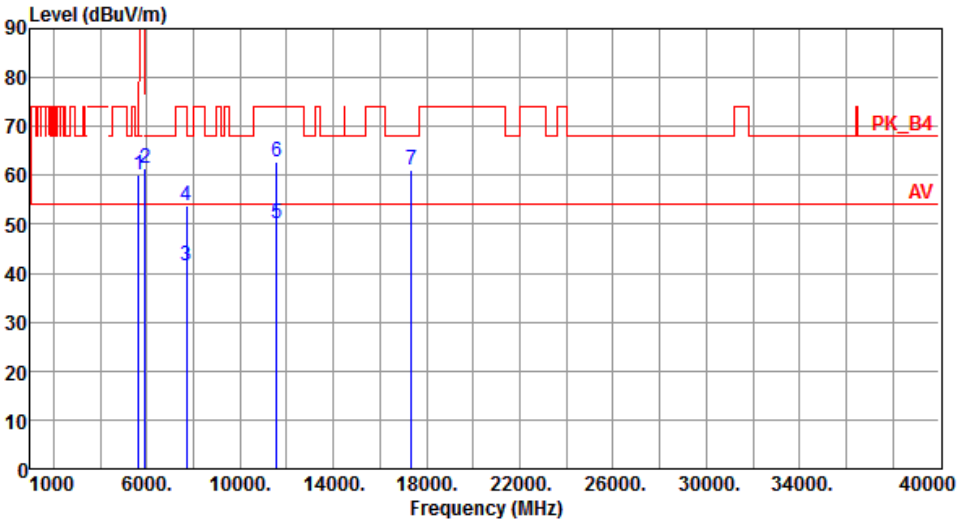
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



	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	60.46	68.20	-7.74	53.65	6.81	Peak	199	172
2	5925.00	60.75	68.20	-7.45	53.41	7.34	Peak	199	172
3	7713.33	41.04	54.00	-12.96	29.69	11.35	Average	100	155
4	7713.33	53.80	74.00	-20.20	42.45	11.35	Peak	100	155
5	11570.00	51.49	54.00	-2.51	35.13	16.36	Average	261	69
6	11570.00	65.16	74.00	-8.84	48.80	16.36	Peak	261	69
7	17355.00	61.10	68.20	-7.10	42.43	18.67	Peak	100	135

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).

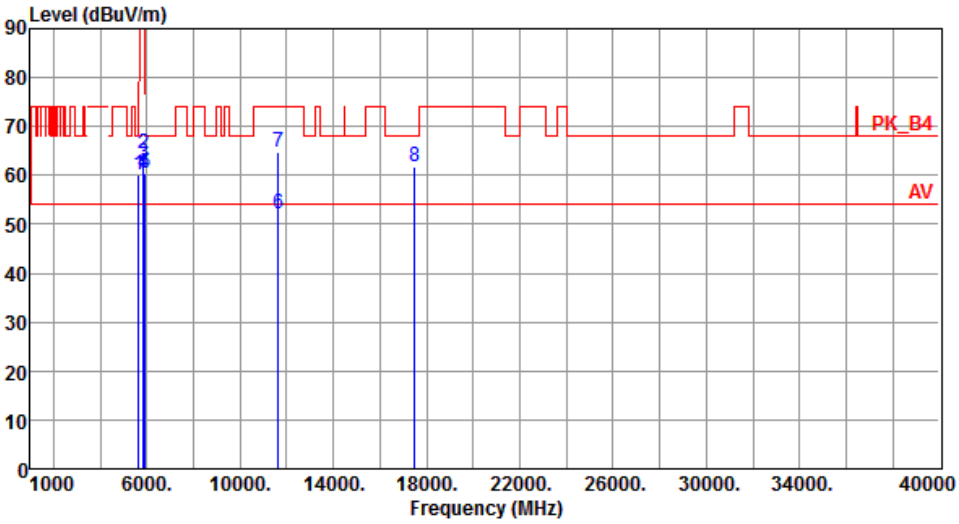
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		



	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	60.23	68.20	-7.97	53.42	6.81	Peak	105	2
2	5925.00	61.46	68.20	-6.74	54.12	7.34	Peak	105	2
3	7713.33	41.63	54.00	-12.37	30.28	11.35	Average	100	354
4	7713.33	53.81	74.00	-20.19	42.46	11.35	Peak	100	354
5	11570.00	50.15	54.00	-3.85	33.79	16.36	Average	340	68
6	11570.00	62.83	74.00	-11.17	46.47	16.36	Peak	340	68
7	17355.00	61.23	68.20	-6.97	42.56	18.67	Peak	100	58

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).

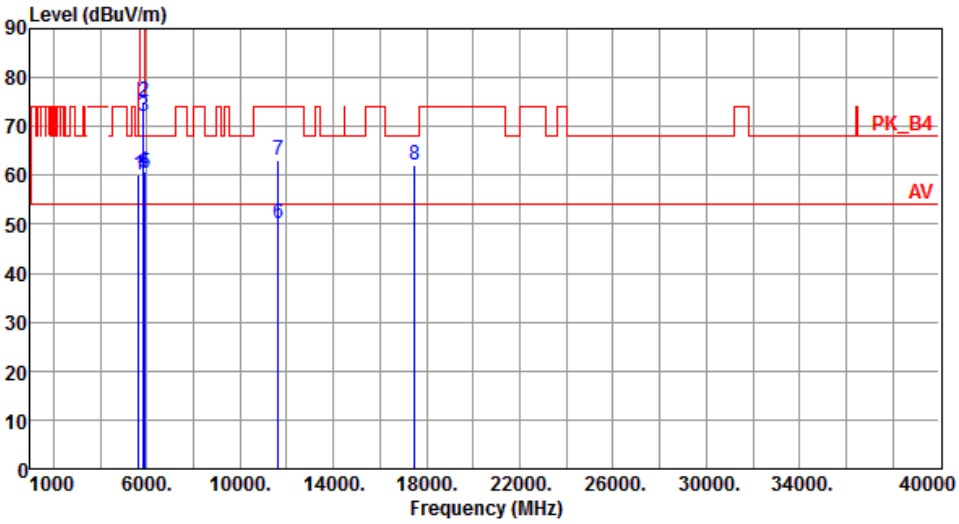
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal		



	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	60.28	68.20	-7.92	53.47	6.81	Peak	204	171
2	5850.00	64.32	122.20	-57.88	57.12	7.20	Peak	204	171
3	5855.00	62.44	110.80	-48.36	55.22	7.22	Peak	204	171
4	5875.00	60.51	105.20	-44.69	53.26	7.25	Peak	204	171
5	5925.00	60.45	68.20	-7.75	53.11	7.34	Peak	204	171
6	11650.00	52.12	54.00	-1.88	35.87	16.25	Average	262	75
7	11650.00	64.81	74.00	-9.19	48.56	16.25	Peak	262	75
8	17475.00	61.79	68.20	-6.41	42.74	19.05	Peak	100	128

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		

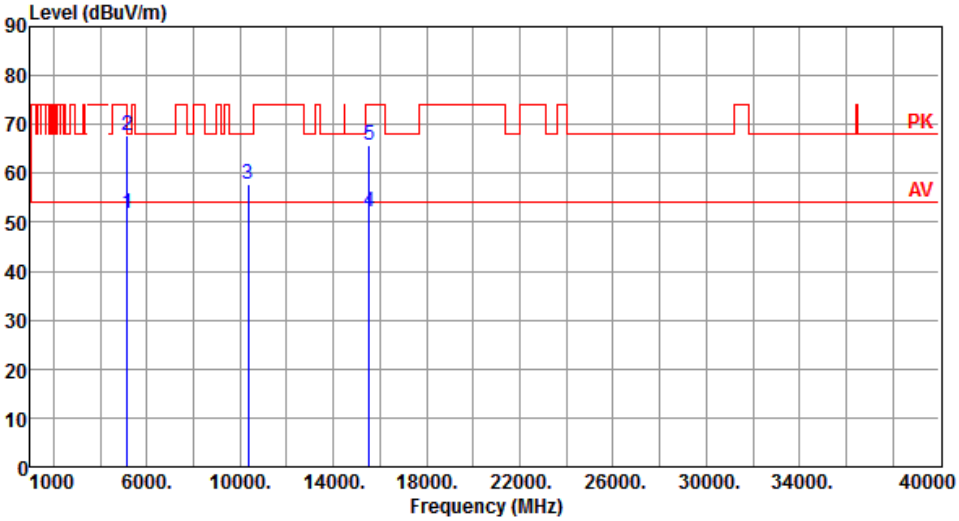


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	60.28	68.20	-7.92	53.47	6.81	Peak	104	9
2	5850.00	75.08	122.20	-47.12	67.88	7.20	Peak	104	9
3	5855.00	71.90	110.80	-38.90	64.68	7.22	Peak	104	9
4	5875.00	60.87	105.20	-44.33	53.62	7.25	Peak	104	9
5	5925.00	60.58	68.20	-7.62	53.24	7.34	Peak	104	9
6	11650.00	50.05	54.00	-3.95	33.80	16.25	Average	342	75
7	11650.00	63.10	74.00	-10.90	46.85	16.25	Peak	342	75
8	17475.00	62.18	68.20	-6.02	43.13	19.05	Peak	100	51

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

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

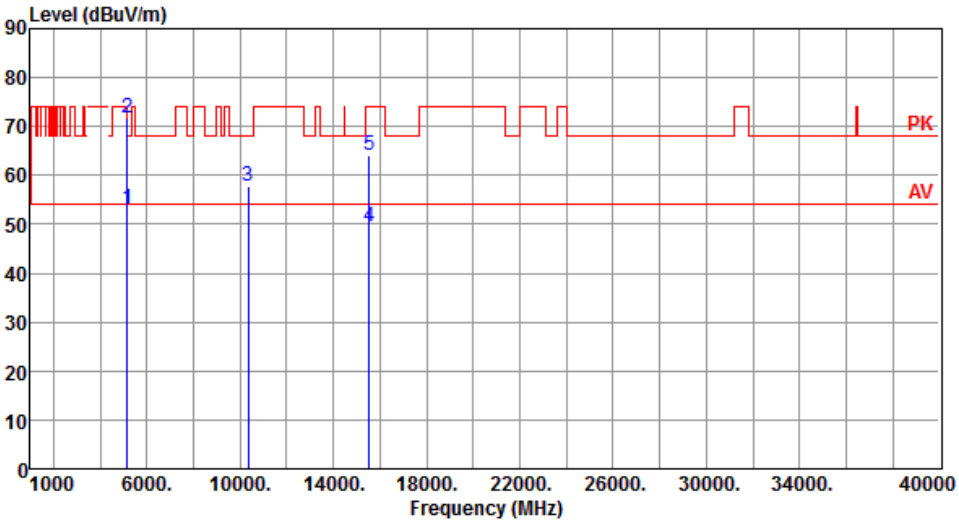
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal		



	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	51.79	54.00	-2.21	45.70	6.09	Average	213	69
2	5150.00	67.72	74.00	-6.28	61.63	6.09	Peak	213	69
3	10360.00	57.87	68.20	-10.33	42.16	15.71	Peak	100	50
4	15540.00	51.98	54.00	-2.02	35.66	16.32	Average	100	15
5	15540.00	65.89	74.00	-8.11	49.57	16.32	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).

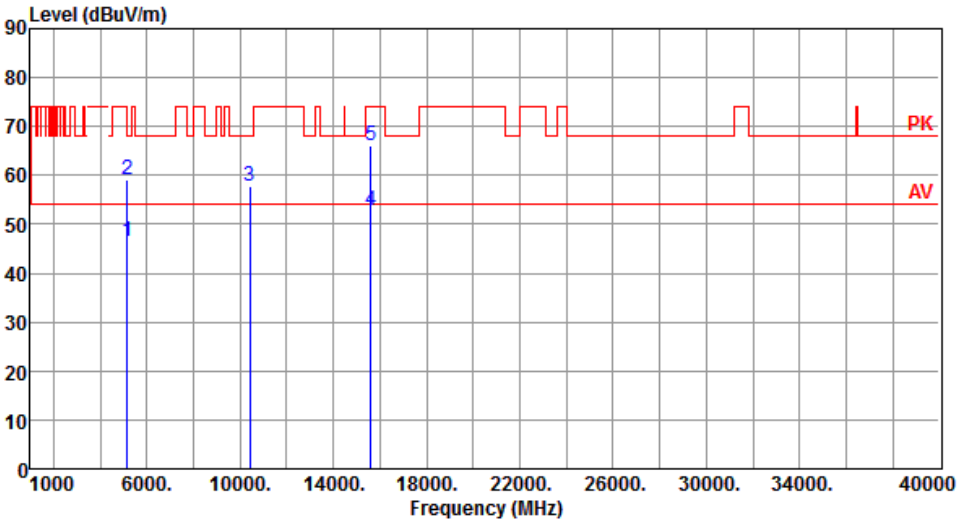
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	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	52.97	54.00	-1.03	46.88	6.09	Average	193	243
2	5150.00	71.63	74.00	-2.37	65.54	6.09	Peak	193	243
3	10360.00	57.85	68.20	-10.35	42.14	15.71	Peak	100	50
4	15540.00	49.62	54.00	-4.38	33.30	16.32	Average	100	221
5	15540.00	63.98	74.00	-10.02	47.66	16.32	Peak	100	221

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).

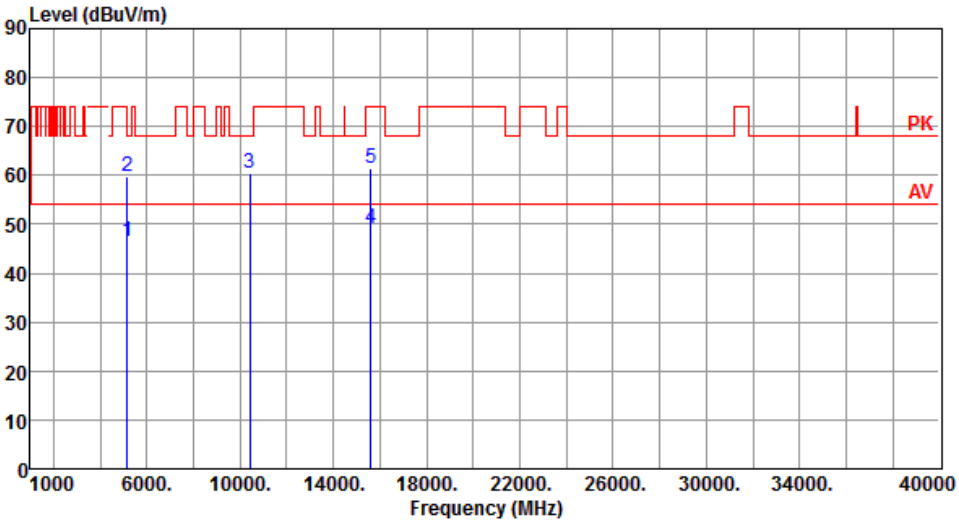
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal		



	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	46.47	54.00	-7.53	40.38	6.09	Average	202	80
2	5150.00	59.21	74.00	-14.79	53.12	6.09	Peak	202	80
3	10400.00	57.90	68.20	-10.30	42.16	15.74	Peak	100	51
4	15600.00	52.88	54.00	-1.12	36.68	16.20	Average	100	12
5	15600.00	65.96	74.00	-8.04	49.76	16.20	Peak	100	12

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).

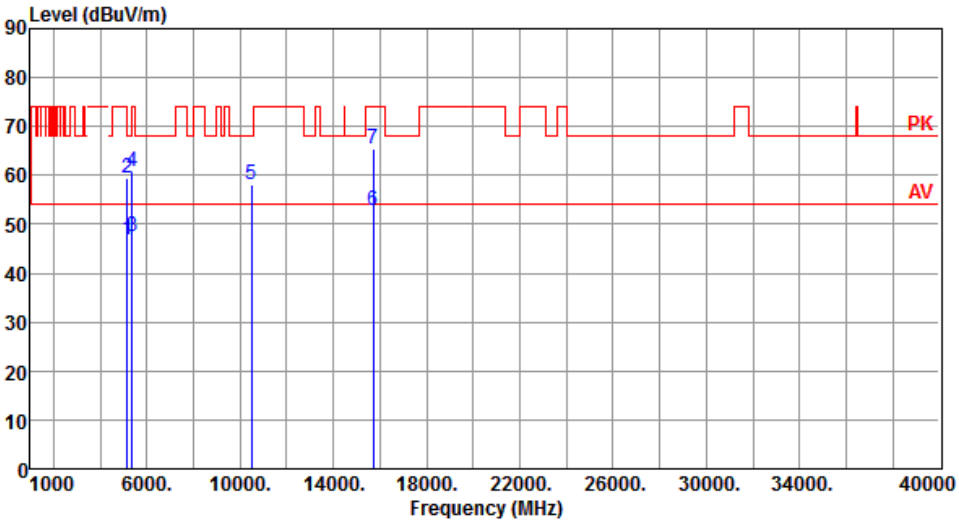
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical		



	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	46.36	54.00	-7.64	40.27	6.09	Average	121	265
2	5150.00	59.73	74.00	-14.27	53.64	6.09	Peak	121	265
3	10400.00	60.58	68.20	-7.62	44.84	15.74	Peak	100	341
4	15600.00	49.17	54.00	-4.83	32.97	16.20	Average	100	219
5	15600.00	61.56	74.00	-12.44	45.36	16.20	Peak	100	219

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).

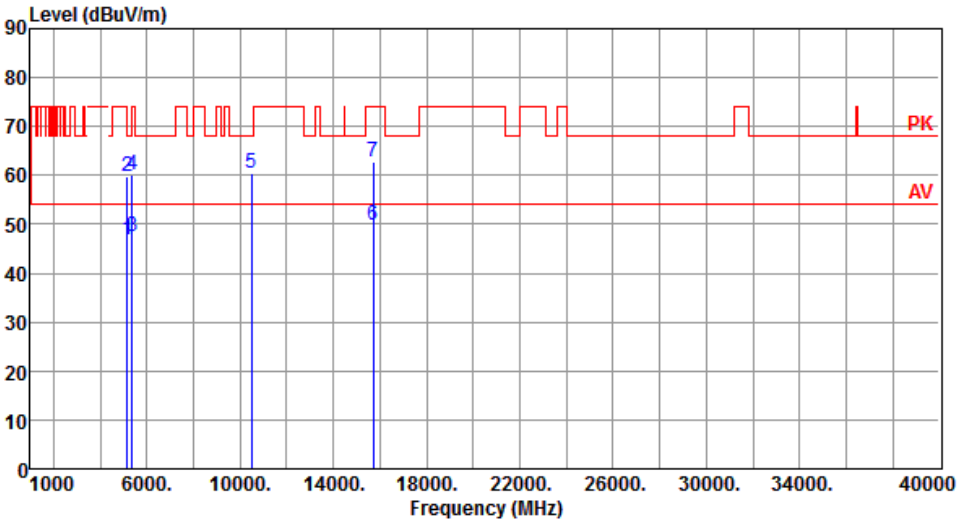
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal		



	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	46.66	54.00	-7.34	40.57	6.09	Average	215	72
2	5150.00	59.55	74.00	-14.45	53.46	6.09	Peak	215	72
3	5350.00	47.58	54.00	-6.42	41.21	6.37	Average	215	72
4	5350.00	60.63	74.00	-13.37	54.26	6.37	Peak	215	72
5	10480.00	58.18	68.20	-10.02	42.38	15.80	Peak	100	53
6	15720.00	52.80	54.00	-1.20	36.86	15.94	Average	100	16
7	15720.00	65.42	74.00	-8.58	49.48	15.94	Peak	100	16

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).

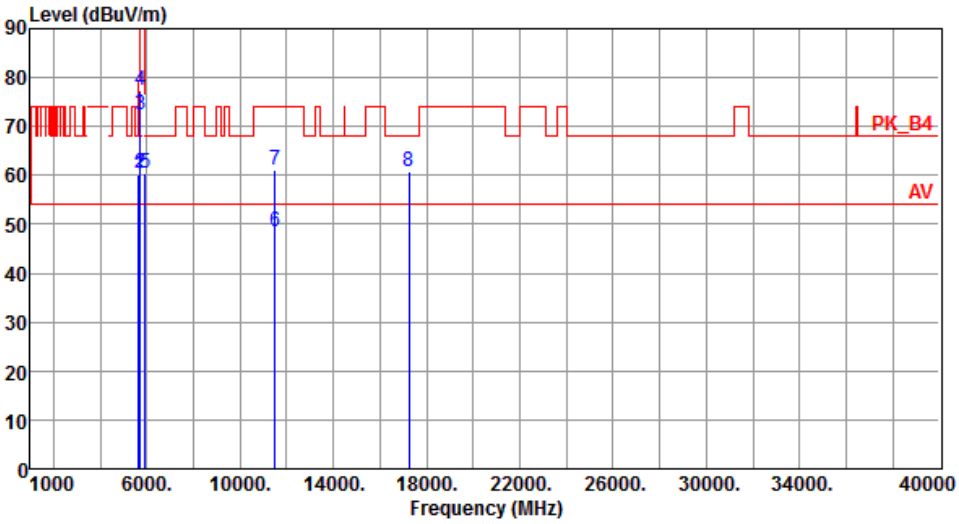
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical		



	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	46.67	54.00	-7.33	40.58	6.09	Average	188	245
2	5150.00	59.65	74.00	-14.35	53.56	6.09	Peak	188	245
3	5350.00	47.59	54.00	-6.41	41.22	6.37	Average	188	245
4	5350.00	60.05	74.00	-13.95	53.68	6.37	Peak	188	245
5	10480.00	60.31	68.20	-7.89	44.51	15.80	Peak	100	343
6	15720.00	49.94	54.00	-4.06	34.00	15.94	Average	100	227
7	15720.00	62.78	74.00	-11.22	46.84	15.94	Peak	100	227

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).

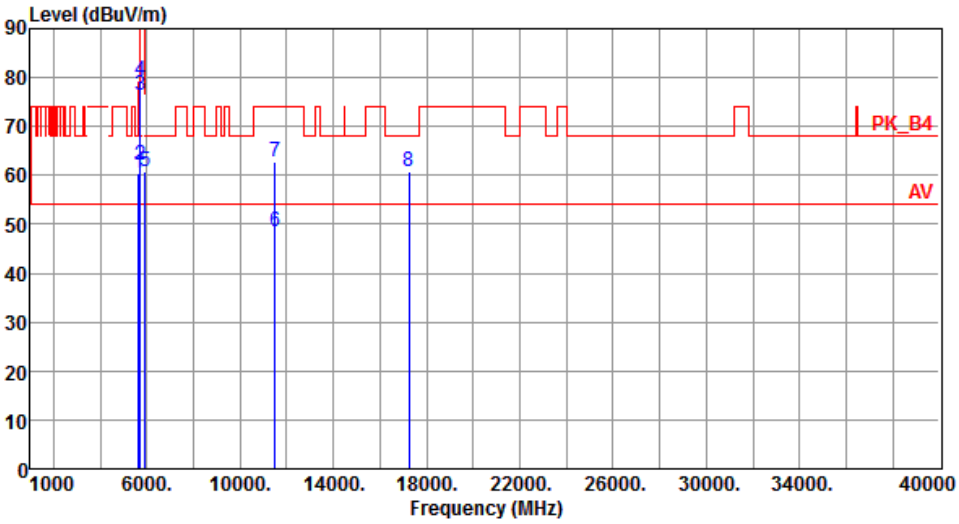
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



	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	60.26	68.20	-7.94	53.45	6.81	Peak	203	165
2	5700.00	60.46	105.20	-44.74	53.55	6.91	Peak	203	165
3	5720.00	72.24	110.80	-38.56	65.29	6.95	Peak	203	165
4	5725.00	77.43	122.20	-44.77	70.47	6.96	Peak	203	165
5	5925.00	60.58	68.20	-7.62	53.24	7.34	Peak	203	165
6	11490.00	48.61	54.00	-5.39	32.15	16.46	Average	255	63
7	11490.00	61.11	74.00	-12.89	44.65	16.46	Peak	255	63
8	17235.00	60.88	68.20	-7.32	42.57	18.31	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).

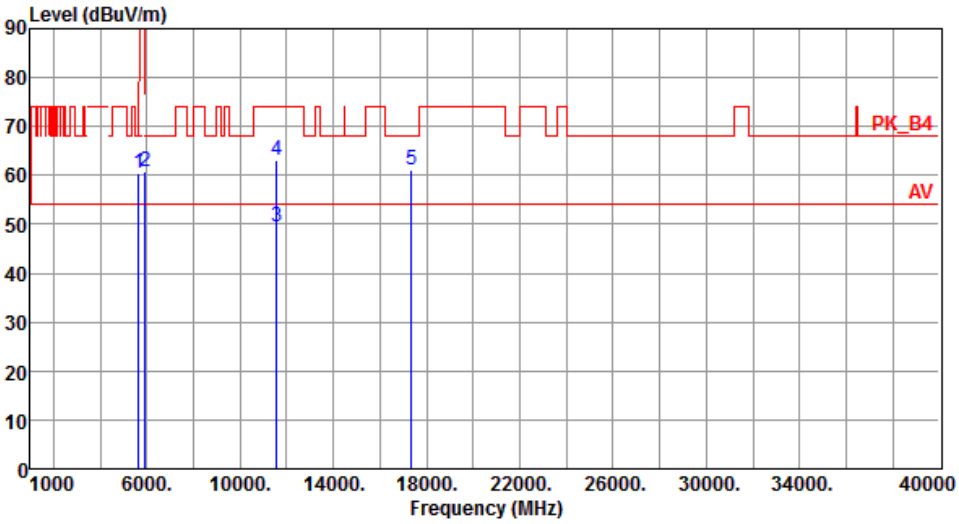
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		



	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	60.57	68.20	-7.63	53.76	6.81	Peak	105	6
2	5700.00	62.14	105.20	-43.06	55.23	6.91	Peak	105	6
3	5720.00	76.36	110.80	-34.44	69.41	6.95	Peak	105	6
4	5725.00	79.52	122.20	-42.68	72.56	6.96	Peak	105	6
5	5925.00	60.79	68.20	-7.41	53.45	7.34	Peak	105	6
6	11490.00	48.35	54.00	-5.65	31.89	16.46	Average	330	65
7	11490.00	62.92	74.00	-11.08	46.46	16.46	Peak	330	65
8	17235.00	60.86	68.20	-7.34	42.55	18.31	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).

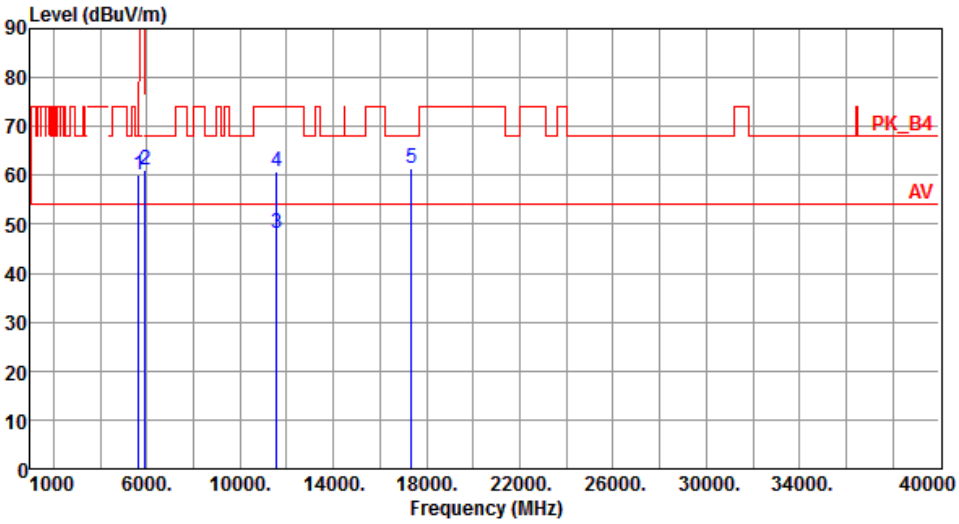
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	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	60.37	68.20	-7.83	53.56	6.81	Peak	200	173
2	5925.00	60.90	68.20	-7.30	53.56	7.34	Peak	200	173
3	11570.00	49.49	54.00	-4.51	33.13	16.36	Average	259	69
4	11570.00	63.16	74.00	-10.84	46.80	16.36	Peak	259	69
5	17355.00	60.99	68.20	-7.21	42.32	18.67	Peak	100	140

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

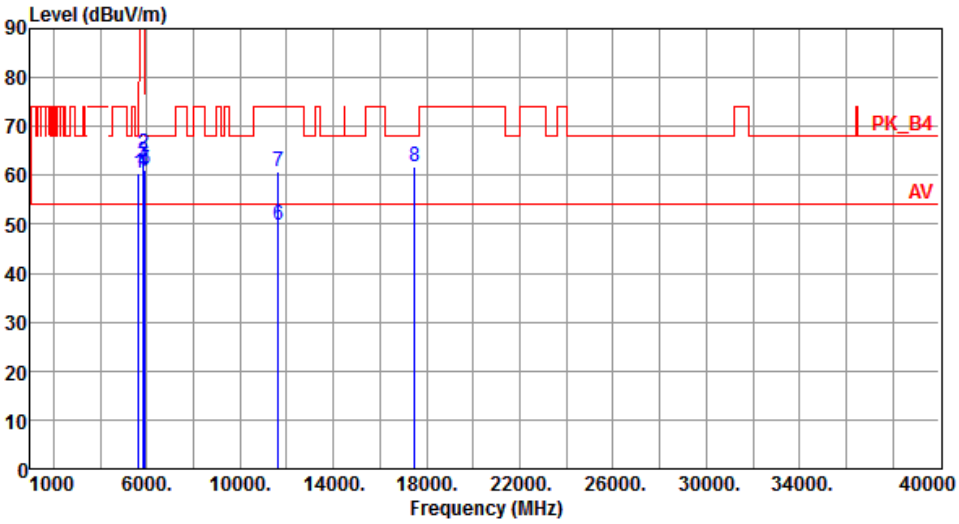
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		



	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	60.16	68.20	-8.04	53.35	6.81	Peak	105	2
2	5925.00	61.02	68.20	-7.18	53.68	7.34	Peak	105	2
3	11570.00	48.15	54.00	-5.85	31.79	16.36	Average	336	68
4	11570.00	60.83	74.00	-13.17	44.47	16.36	Peak	336	68
5	17355.00	61.46	68.20	-6.74	42.79	18.67	Peak	100	60

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

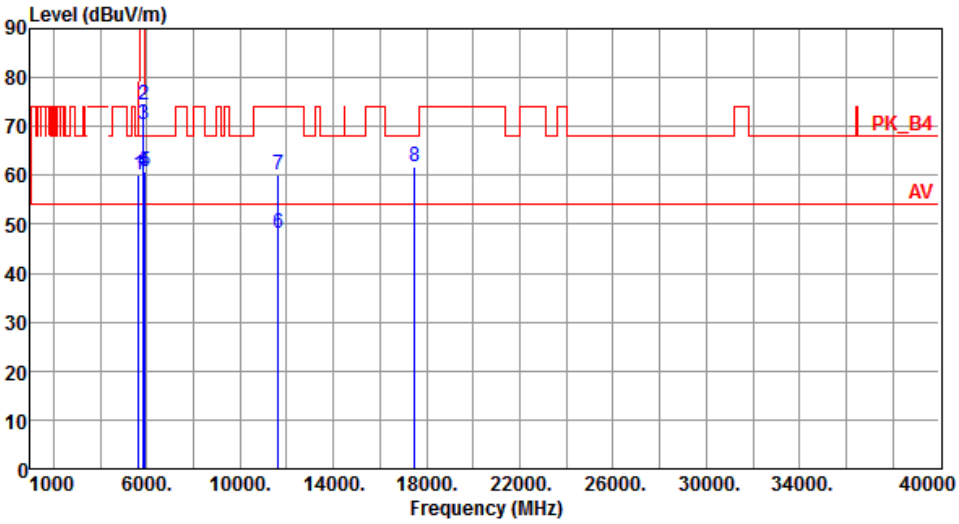
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



	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	60.36	68.20	-7.84	53.55	6.81	Peak	202	166
2	5850.00	64.41	122.20	-57.79	57.21	7.20	Peak	202	166
3	5855.00	62.62	110.80	-48.18	55.40	7.22	Peak	202	166
4	5875.00	60.71	105.20	-44.49	53.46	7.25	Peak	202	166
5	5925.00	61.03	68.20	-7.17	53.69	7.34	Peak	202	166
6	11650.00	49.70	54.00	-4.30	33.45	16.25	Average	256	75
7	11650.00	60.81	74.00	-13.19	44.56	16.25	Peak	256	75
8	17475.00	61.67	68.20	-6.53	42.62	19.05	Peak	100	130

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		

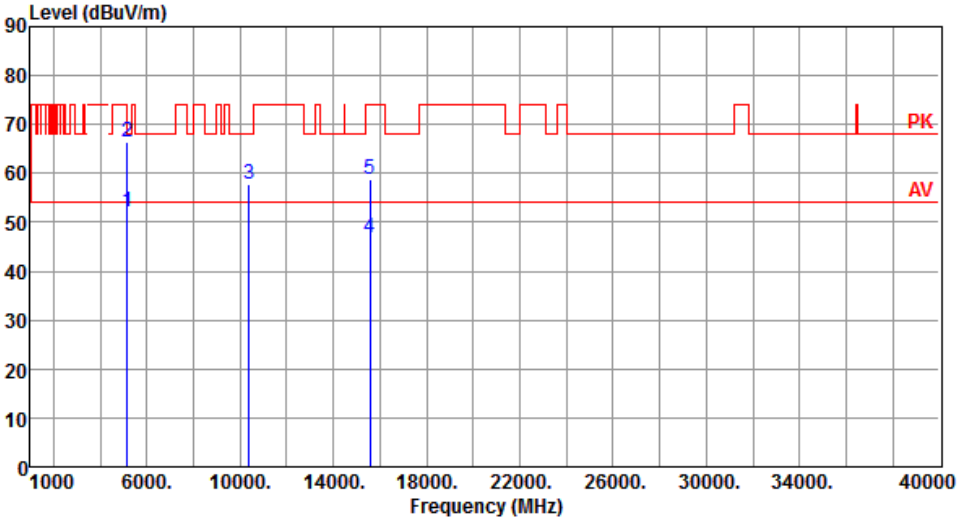


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	60.15	68.20	-8.05	53.34	6.81	Peak	105	9
2	5850.00	74.52	122.20	-47.68	67.32	7.20	Peak	105	9
3	5855.00	70.33	110.80	-40.47	63.11	7.22	Peak	105	9
4	5875.00	60.81	105.20	-44.39	53.56	7.25	Peak	105	9
5	5925.00	60.71	68.20	-7.49	53.37	7.34	Peak	105	9
6	11650.00	48.05	54.00	-5.95	31.80	16.25	Average	339	75
7	11650.00	60.10	74.00	-13.90	43.85	16.25	Peak	339	75
8	17475.00	61.90	68.20	-6.30	42.85	19.05	Peak	100	60

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

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

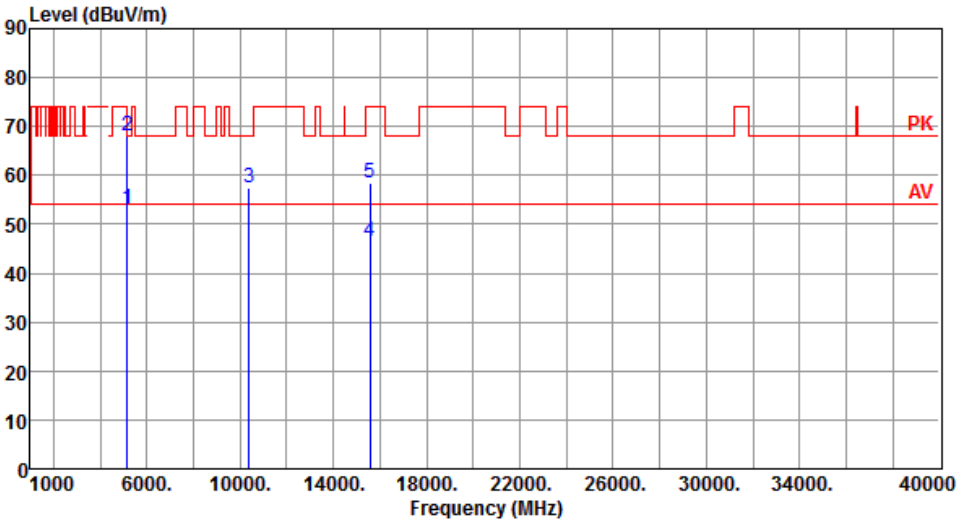
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Horizontal		



	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	52.28	54.00	-1.72	46.19	6.09	Average	107	165
2	5150.00	66.28	74.00	-7.72	60.19	6.09	Peak	107	165
3	10380.00	57.83	68.20	-10.37	42.10	15.73	Peak	100	60
4	15570.00	46.95	54.00	-7.05	30.69	16.26	Average	100	90
5	15570.00	58.73	74.00	-15.27	42.47	16.26	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).

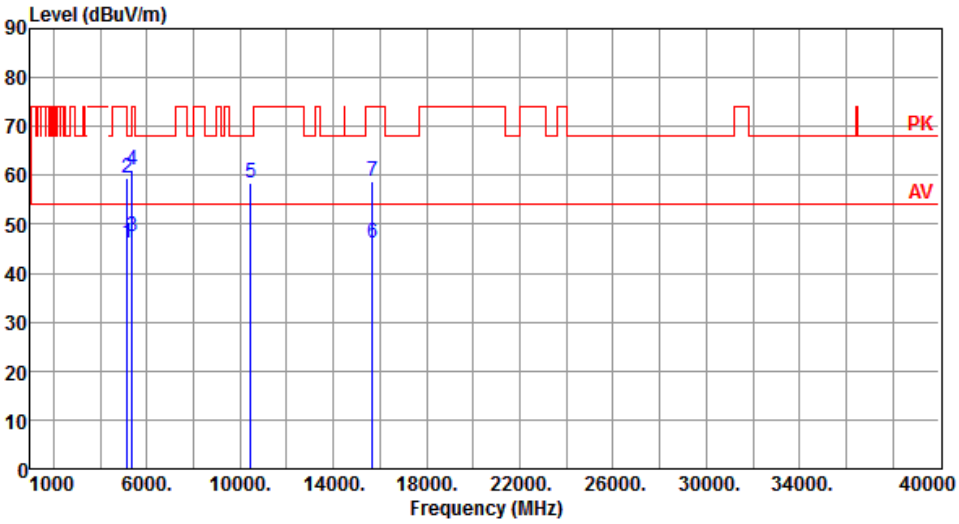
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Vertical		



	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	52.98	54.00	-1.02	46.89	6.09	Average	102	18
2	5150.00	68.20	74.00	-5.80	62.11	6.09	Peak	102	18
3	10380.00	57.42	68.20	-10.78	41.69	15.73	Peak	100	20
4	15570.00	46.41	54.00	-7.59	30.15	16.26	Average	100	90
5	15570.00	58.44	74.00	-15.56	42.18	16.26	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).

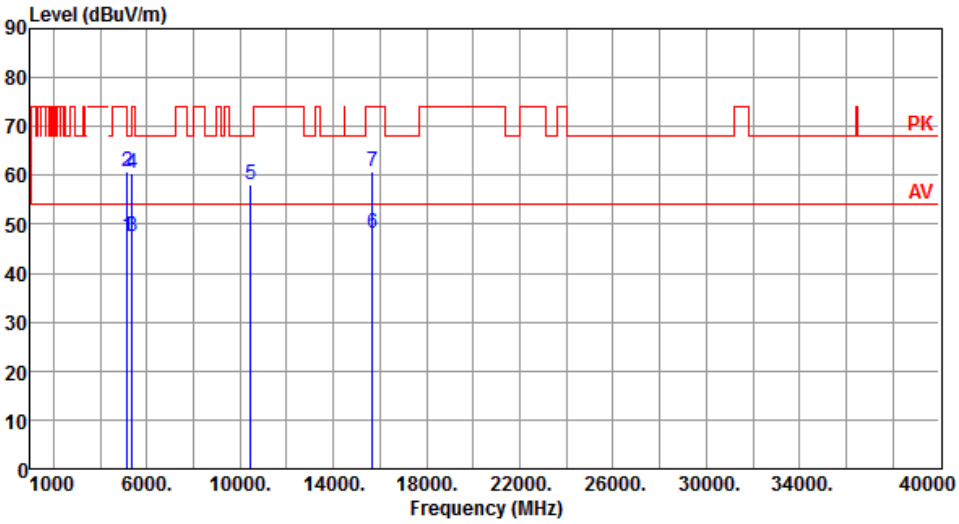
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Horizontal		



	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	46.32	54.00	-7.68	40.23	6.09	Average	210	70
2	5150.00	59.54	74.00	-14.46	53.45	6.09	Peak	210	70
3	5350.00	47.60	54.00	-6.40	41.23	6.37	Average	210	70
4	5350.00	61.06	74.00	-12.94	54.69	6.37	Peak	210	70
5	10460.00	58.36	68.20	-9.84	42.57	15.79	Peak	100	70
6	15690.00	46.15	54.00	-7.85	30.14	16.01	Average	100	40
7	15690.00	58.69	74.00	-15.31	42.68	16.01	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).

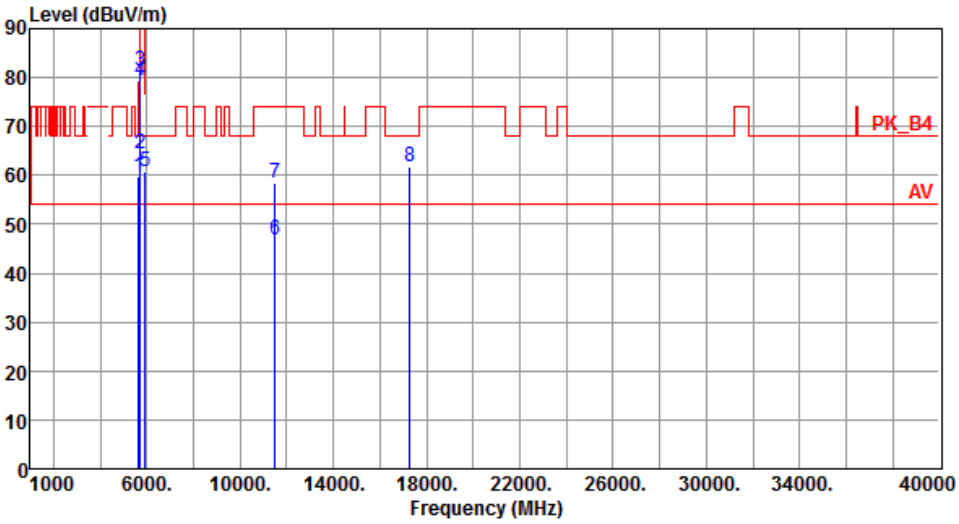
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical		



	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	47.54	54.00	-6.46	41.45	6.09	Average	188	246
2	5150.00	60.78	74.00	-13.22	54.69	6.09	Peak	188	246
3	5350.00	47.60	54.00	-6.40	41.23	6.37	Average	188	246
4	5350.00	60.58	74.00	-13.42	54.21	6.37	Peak	188	246
5	10460.00	58.26	68.20	-9.94	42.47	15.79	Peak	100	30
6	15690.00	48.13	54.00	-5.87	32.12	16.01	Average	100	20
7	15690.00	60.69	74.00	-13.31	44.68	16.01	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).

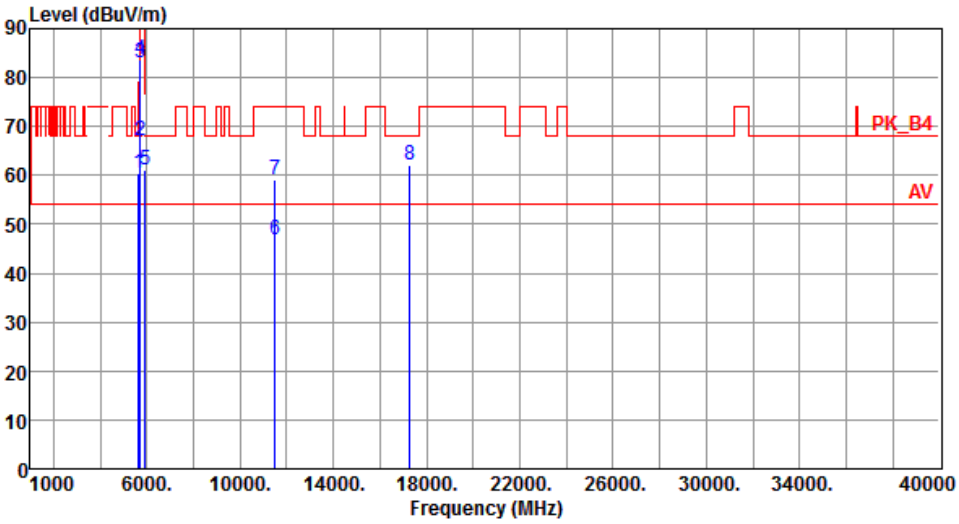
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



	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	59.81	68.20	-8.39	53.00	6.81	Peak	205	166
2	5700.00	64.56	105.20	-40.64	57.65	6.91	Peak	205	166
3	5720.00	81.27	110.80	-29.53	74.32	6.95	Peak	205	166
4	5725.00	79.45	122.20	-42.75	72.49	6.96	Peak	205	166
5	5925.00	60.79	68.20	-7.41	53.45	7.34	Peak	205	166
6	11510.00	46.68	54.00	-7.32	30.23	16.45	Average	100	50
7	11510.00	58.62	74.00	-15.38	42.17	16.45	Peak	100	50
8	17265.00	61.92	68.20	-6.28	43.52	18.40	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).

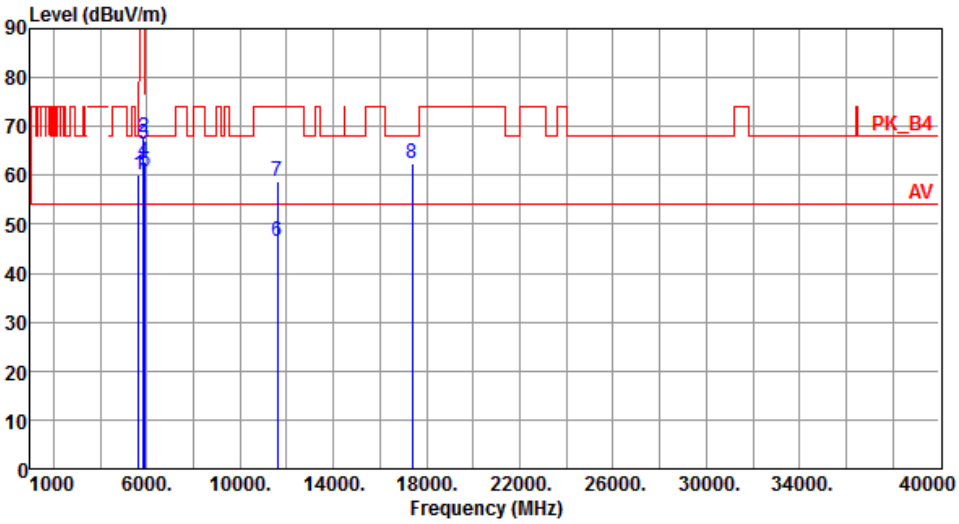
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		



	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	60.37	68.20	-7.83	53.56	6.81	Peak	100	15
2	5700.00	67.03	105.20	-38.17	60.12	6.91	Peak	100	15
3	5720.00	83.18	110.80	-27.62	76.23	6.95	Peak	100	15
4	5725.00	83.61	122.20	-38.59	76.65	6.96	Peak	100	15
5	5925.00	61.03	68.20	-7.17	53.69	7.34	Peak	100	15
6	11510.00	46.72	54.00	-7.28	30.27	16.45	Average	100	20
7	11510.00	59.02	74.00	-14.98	42.57	16.45	Peak	100	20
8	17265.00	62.05	68.20	-6.15	43.65	18.40	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).

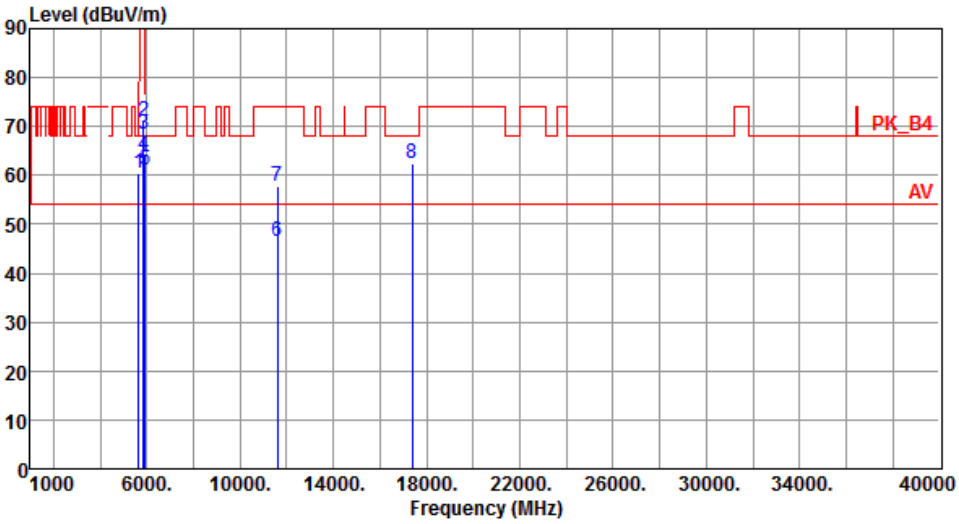
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal		



	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	60.02	68.20	-8.18	53.21	6.81	Peak	206	170
2	5850.00	67.74	122.20	-54.46	60.54	7.20	Peak	206	170
3	5855.00	66.57	110.80	-44.23	59.35	7.22	Peak	206	170
4	5875.00	62.61	105.20	-42.59	55.36	7.25	Peak	206	170
5	5925.00	60.88	68.20	-7.32	53.54	7.34	Peak	206	170
6	11590.00	46.36	54.00	-7.64	30.02	16.34	Average	100	50
7	11590.00	58.68	74.00	-15.32	42.34	16.34	Peak	100	50
8	17385.00	62.28	68.20	-5.92	43.51	18.77	Peak	100	85

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		

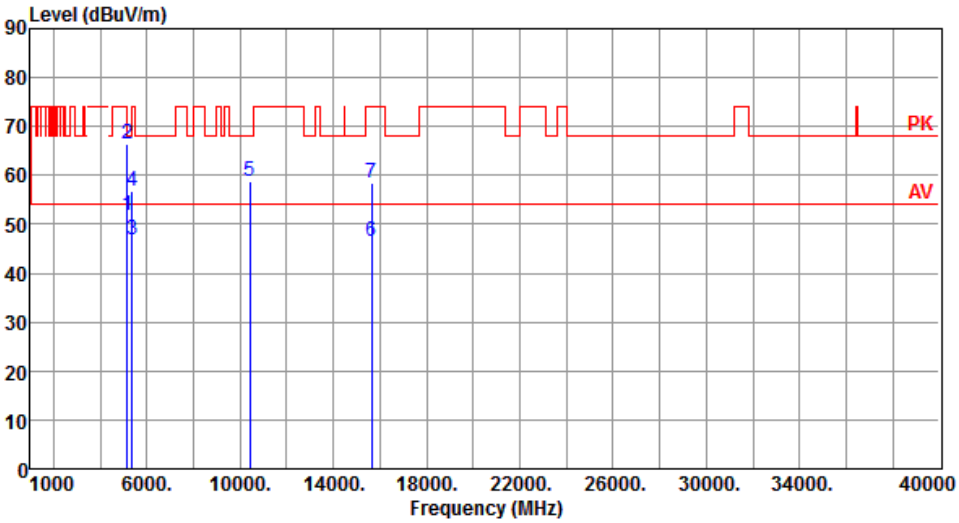


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	60.46	68.20	-7.74	53.65	6.81	Peak	102	3
2	5850.00	71.05	122.20	-51.15	63.85	7.20	Peak	102	3
3	5855.00	68.42	110.80	-42.38	61.20	7.22	Peak	102	3
4	5875.00	64.21	105.20	-40.99	56.96	7.25	Peak	102	3
5	5925.00	61.01	68.20	-7.19	53.67	7.34	Peak	102	3
6	11590.00	46.59	54.00	-7.41	30.25	16.34	Average	100	90
7	11590.00	57.78	74.00	-16.22	41.44	16.34	Peak	100	90
8	17385.00	62.32	68.20	-5.88	43.55	18.77	Peak	100	100

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

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

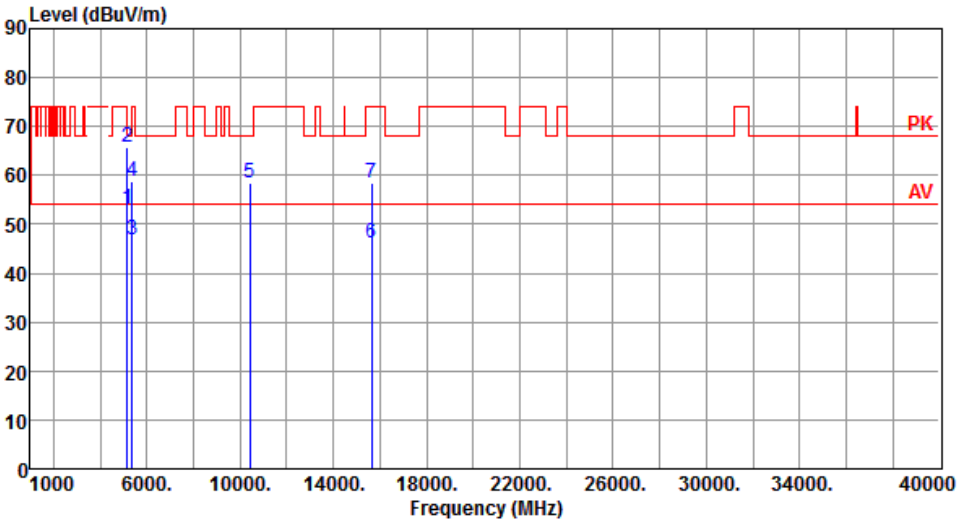
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal		



	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	51.66	54.00	-2.34	45.57	6.09	Average	100	62
2	5150.00	66.26	74.00	-7.74	60.17	6.09	Peak	100	62
3	5350.00	46.95	54.00	-7.05	40.58	6.37	Average	207	81
4	5350.00	56.83	74.00	-17.17	50.46	6.37	Peak	207	81
5	10420.00	58.64	68.20	-9.56	42.88	15.76	Peak	100	53
6	15630.00	46.34	54.00	-7.66	30.20	16.14	Average	100	21
7	15630.00	58.60	74.00	-15.40	42.46	16.14	Peak	100	21

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).

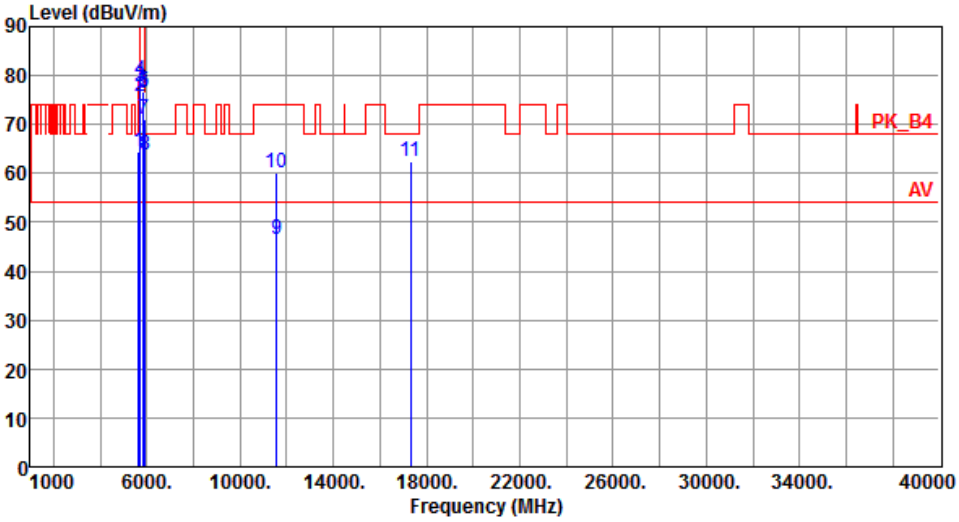
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical		



	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	52.99	54.00	-1.01	46.90	6.09	Average	100	267
2	5150.00	65.77	74.00	-8.23	59.68	6.09	Peak	100	267
3	5350.00	46.89	54.00	-7.11	40.52	6.37	Average	115	267
4	5350.00	58.71	74.00	-15.29	52.34	6.37	Peak	115	267
5	10420.00	58.34	68.20	-9.86	42.58	15.76	Peak	100	345
6	15630.00	46.11	54.00	-7.89	29.97	16.14	Average	100	228
7	15630.00	58.48	74.00	-15.52	42.34	16.14	Peak	100	228

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).

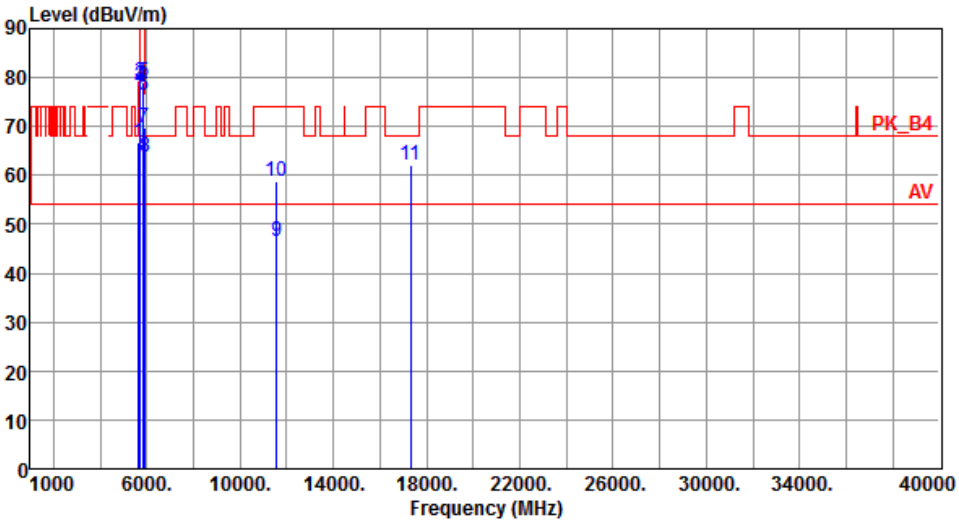
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		



	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	64.41	68.20	-3.79	57.60	6.81	Peak	208	173
2	5700.00	75.60	105.20	-29.60	68.69	6.91	Peak	208	173
3	5720.00	77.81	110.80	-32.99	70.86	6.95	Peak	208	173
4	5725.00	79.05	122.20	-43.15	72.09	6.96	Peak	208	173
5	5850.00	76.70	122.20	-45.50	69.50	7.20	Peak	208	173
6	5855.00	76.49	110.80	-34.31	69.27	7.22	Peak	208	173
7	5875.00	71.18	105.20	-34.02	63.93	7.25	Peak	208	173
8	5925.00	63.63	68.20	-4.57	56.29	7.34	Peak	208	173
9	11550.00	46.51	54.00	-7.49	30.12	16.39	Average	100	50
10	11550.00	59.97	74.00	-14.03	43.58	16.39	Peak	100	50
11	17325.00	62.28	68.20	-5.92	43.70	18.58	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	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	66.92	68.20	-1.28	60.11	6.81	Peak	101	1
2	5700.00	78.35	105.20	-26.85	71.44	6.91	Peak	101	1
3	5720.00	79.14	110.80	-31.66	72.19	6.95	Peak	101	1
4	5725.00	77.96	122.20	-44.24	71.00	6.96	Peak	101	1
5	5850.00	79.08	122.20	-43.12	71.88	7.20	Peak	101	1
6	5855.00	76.42	110.80	-34.38	69.20	7.22	Peak	101	1
7	5875.00	69.61	105.20	-35.59	62.36	7.25	Peak	101	1
8	5925.00	63.84	68.20	-4.36	56.50	7.34	Peak	101	1
9	11550.00	46.62	54.00	-7.38	30.23	16.39	Average	100	20
10	11550.00	58.86	74.00	-15.14	42.47	16.39	Peak	100	20
11	17325.00	62.17	68.20	-6.03	43.59	18.58	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).

3.6 Frequency Stability

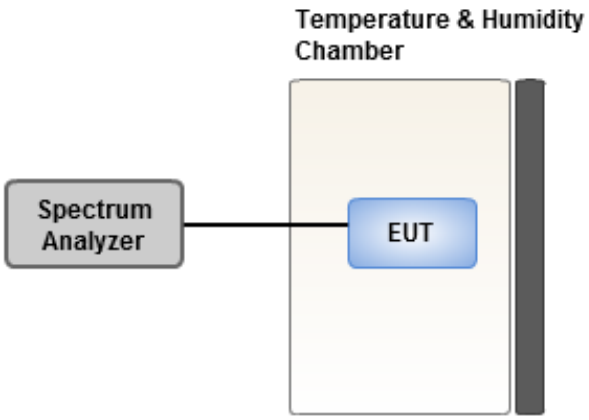
3.6.1 Limit of Frequency Stability

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	-13.71	-13.84	-14.07	-13.02
T20°CVmin	-13.14	-13.50	-13.05	-13.67
T70°CVnom	-13.04	-13.77	-13.36	-13.36
T60°CVnom	-13.32	-13.15	-13.41	-13.85
T50°CVnom	-13.57	-13.35	-13.99	-13.25
T40°CVnom	-13.14	-12.74	-13.27	-13.07
T30°CVnom	-13.01	-13.83	-13.43	-13.14
T20°CVnom	-13.93	-13.95	-13.58	-13.64
T10°CVnom	-13.95	-13.84	-13.16	-13.64
T0°CVnom	-13.13	-13.42	-13.44	-13.35
T-10°CVnom	-13.24	-13.61	-13.02	-14.00
T-20°CVnom	-12.97	-13.31	-13.80	-13.23
T-30°CVnom	-14.03	-13.54	-13.77	-13.04
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 70		Tmin [°C]: -30

Frequency: 5785 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°CVmax	-11.45	-11.53	-11.82	-11.82
T20°CVmin	-10.94	-11.59	-11.00	-11.26
T70°CVnom	-11.11	-11.02	-11.24	-12.00
T60°CVnom	-11.49	-11.71	-11.52	-11.74
T50°CVnom	-11.94	-11.14	-11.93	-11.45
T40°CVnom	-11.67	-11.89	-11.65	-11.16
T30°CVnom	-11.44	-11.78	-11.06	-11.38
T20°CVnom	-11.63	-11.65	-11.67	-11.59
T10°CVnom	-11.62	-11.59	-11.59	-11.59
T0°CVnom	-11.28	-11.26	-10.87	-11.13
T-10°CVnom	-11.61	-11.70	-11.46	-11.59
T-20°CVnom	-11.42	-11.44	-11.25	-11.21
T-30°CVnom	-11.77	-11.53	-11.66	-11.69
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 70		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

==END==