FCC Test Report

FCC ID	:	**P27RP052M**
Equipment	:	**WiFi EasyMesh Router ; QW8200-840/IQ Router**
Model No.	:	**RP052M**
Brand Name	:	**Sercomm ; Qolsys**
Applicant	:	**Sercomm Corporation**
Address	:	**8F, No. 3-1, YuanQu St., NanKang, Taipei 115, Taiwan, R.O.C.**
Standard	:	**47 CFR FCC Part 15.407**
Received Date	:	**Sep. 26, 2019**
Tested Date	:	**Oct. 01 ~ Oct. 09, 2019**

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

Reviewed by: **Approved by:**

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

Testing Laboratory 2732

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Release Record

Report No.	Version	Description	Issued Date
FR992602AN	Rev. 01	Initial issue	Oct. 21, 2019

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.491MHz 36.78 (Margin -9.36dB) - 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: 22.60 5725-5850MHz: 23.49	Pass
15.407(a)	Peak Power Spectral Density	Meet the requirement of limit	Pass
15.407(g)	Frequency Stability	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Information

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	**IEEE Std. 802.11**	**Ch. Freq. (MHz)**	**Channel Number**	**Transmit Chains (N_{TX})**	**Data Rate / MCS**
5150-5250	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	2G-1	Dipole	I-pex	3.8	--	--
2	2G-1	Dipole	I-pex	2.5	--	--
3	5G-1	Dipole	I-pex	--	2.9	1.5
4	5G-2	Dipole	I-pex	--	1.6	1.6

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-12G12FU Power Rating: I/P: 100-240Vac, 50-60Hz, 0.3A Max O/P: 12Vdc, 1A Power Line: 1.45m non-shielded without core
2	RJ45 cable	1.45m 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	MT7615 QA, V0.0.2.0		
Duty Cycle and Duty Factor	**Mode**	**Duty Cycle (%)**	**Duty Factor (dB)**
	11a	98.97%	0.04
	VHT20	98.90%	0.05
	VHT40	97.24%	0.12
	VHT80	92.54%	0.34

1.1.7 Power Index of Test Tool

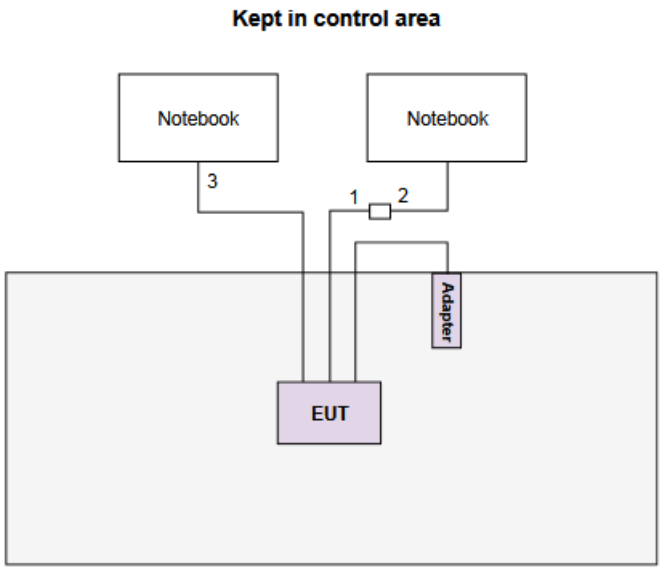
Modulation Mode	Test Frequency (MHz)	Power Index
11a	5180	19
11a	5200	22
11a	5240	22
11a	5745	26
11a	5785	26
11a	5825	26
VHT20	5180	1A
VHT20	5200	24
VHT20	5240	24
VHT20	5745	28
VHT20	5785	28
VHT20	5825	28
VHT40	5190	15
VHT40	5230	20
VHT40	5755	21
VHT40	5795	28
VHT80	5210	11
VHT80	5775	19

1.2 Local Support Equipment List

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Remarks**
1	Notebook	DELL	Latitude E5430	DoC	---
2	Notebook	DELL	Latitude E5430	DoC	---

1.3 Test Setup Chart

Test Setup Diagram



No.	Signal cable / Length (m)
1	RJ45, 1.45m 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	Oct. 09, 2019				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	101657	Jan. 08, 2019	Jan. 07, 2020
LISN	R&S	ENV216	101579	Mar. 08, 2019	Mar. 07, 2020
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 23, 2018	Oct. 22, 2019
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	Oct. 01 ~ Oct. 03, 2019				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101499	Jan. 07, 2019	Jan. 06, 2020
Receiver	R&S	ESR3	101658	Dec. 11, 2018	Dec. 10, 2019
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-685	Apr. 17, 2019	Apr. 16, 2020
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1206	Jan. 07, 2019	Jan. 06, 2020
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. 14, 2019	Aug. 13, 2020
Preamplifier	Agilent	83017A	MY53270014	Aug. 07, 2019	Aug. 06, 2020
Preamplifier	EMC	EMC184045B	980192	Aug. 01, 2019	Jul. 31, 2020
RF cable-3M	HUBER+SUHNER	SUCOFLEX104	MY22620/**4**	Sep. 27, 2019	Sep. 26, 2020
RF cable-8M	EMC	EMC104-SM-SM-8000	181107	Sep. 27, 2019	Sep. 26, 2020
RF cable-1M	HUBER+SUHNER	SUCOFLEX104	MY22624/4	Sep. 27, 2019	Sep. 26, 2020
LF cable-0.8M	EMC	EMC8D-NM-NM-800	EMC8D-NM-NM-800-001	Sep. 27, 2019	Sep. 26, 2020
LF cable-3M	EMC	EMC8D-NM-NM-3000	131103	Sep. 27, 2019	Sep. 26, 2020
LF cable-13M	EMC	EMC8D-NM-NM-13000	131104	Sep. 27, 2019	Sep. 26, 2020
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Oct. 07, 2019				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101063	Apr. 17, 2019	Apr. 16, 2020
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Dec. 05, 2018	Dec. 04, 2019
Power Meter	Anritsu	ML2495A	1241002	Oct. 09, 2018	Oct. 08, 2019
Power Sensor	Anritsu	MA2411B	1207366	Oct. 09, 2018	Oct. 08, 2019
AC POWER SOURCE	APC	AFC-500W	F312060012	Nov. 29, 2018	Nov. 28, 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	±34.130 Hz
Conducted power	±0.808 dB
Frequency error	$\pm 1 \times 10^{-9}$
Power density	±0.583 dB
Conducted emission	±2.715 dB
AC conducted emission	±2.92 dB
Radiated emission ≤ 1GHz	±3.96 dB
Radiated emission > 1GHz	±4.51 dB
Time	±0.1%
Temperature	±0.4 ^{o}C

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	23°C / 59%	Alex Tsai
Radiated Emissions	03CH03-WS	24°C / 64-65%	Akun Chung Roger Lu
RF Conducted	TH01-WS	22°C / 64%	Brad Wu

- FCC Designation No.: TW0009
- FCC site registration No.: 207696
- ISED#: 10807A
- CAB identifier: TW2732

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	VHT20	5200	MCS 0	---
Radiated Emissions ≤1GHz	VHT20	5200	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	11a	5745	6 Mbps	---
Radiated Emissions ≤1GHz	11a	5745	6 Mbps	---
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

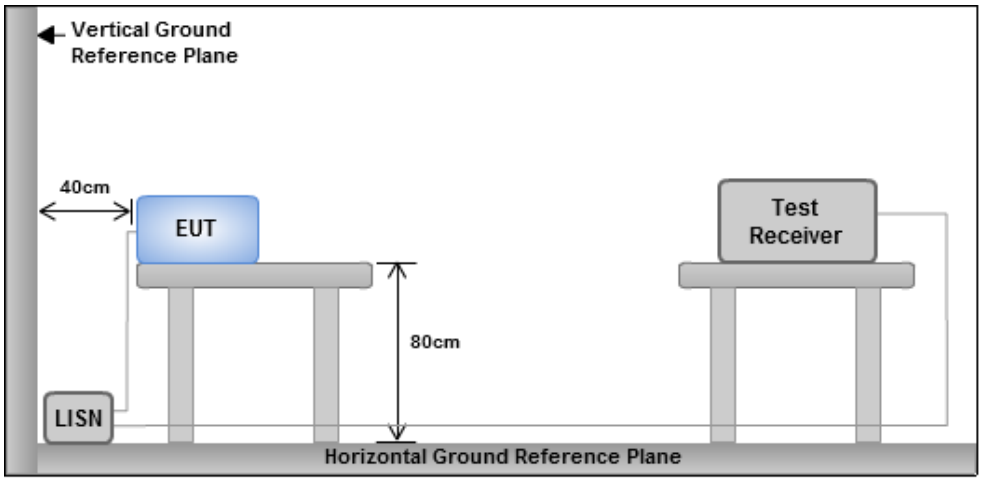
3.1.1 Limit of Conducted Emissions

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.

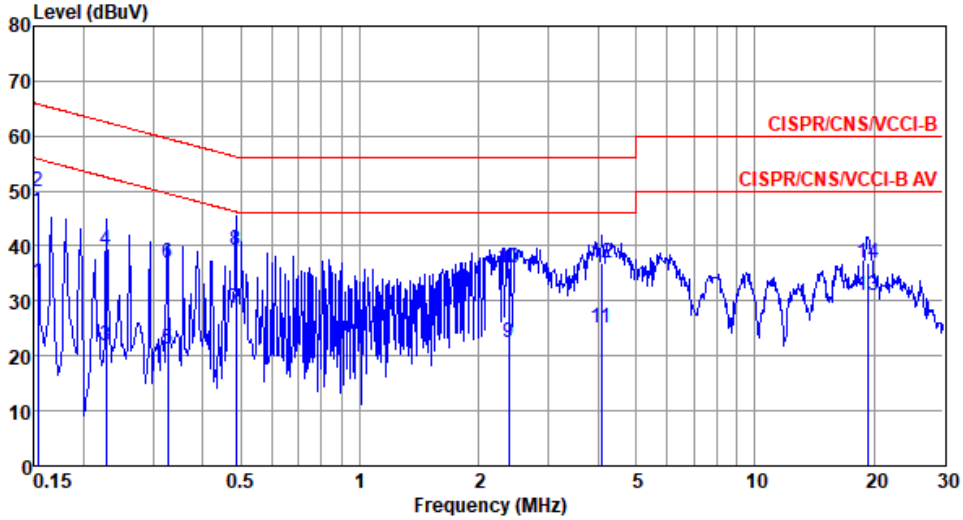
3.1.3 Test Setup



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

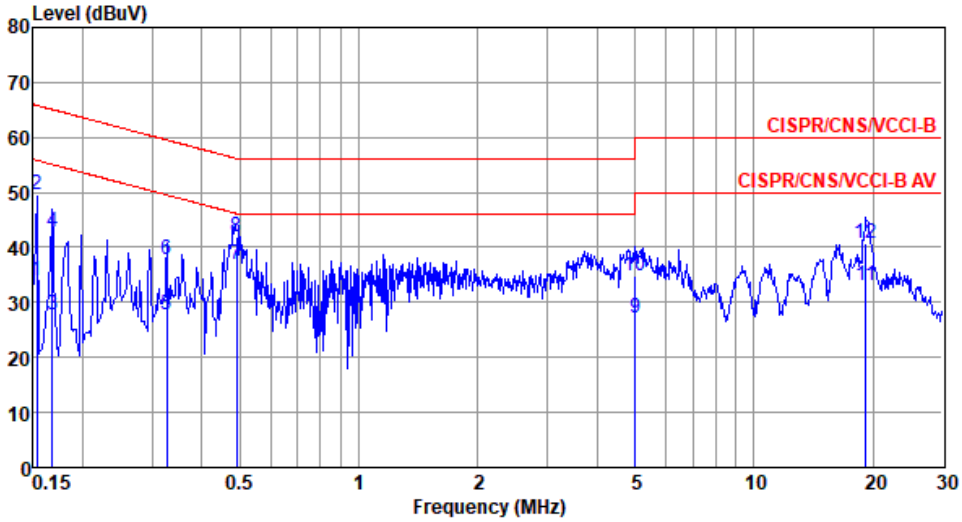
Modulation	VHT20	Test Freq. (MHz)	5200
Power Phase	Line		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.153	33.44	55.82	-22.38	23.73	9.53	0.05	Average
2*	0.153	49.92	65.82	-15.90	40.21	9.53	0.05	QP
3	0.228	21.90	52.52	-30.62	12.08	9.55	0.07	Average
4	0.228	39.19	62.52	-23.33	29.37	9.55	0.07	QP
5	0.327	21.16	49.53	-28.37	11.28	9.56	0.08	Average
6	0.327	36.83	59.53	-22.70	26.95	9.56	0.08	QP
7	0.486	28.71	46.23	-17.52	18.78	9.58	0.08	Average
8	0.486	39.37	56.23	-16.86	29.44	9.58	0.08	QP
9	2.384	22.53	46.00	-23.47	12.37	9.60	0.19	Average
10	2.384	36.12	56.00	-19.88	25.96	9.60	0.19	QP
11	4.092	25.08	46.00	-20.92	14.81	9.61	0.28	Average
12	4.092	36.83	56.00	-19.17	26.56	9.61	0.28	QP
13	19.326	31.04	50.00	-18.96	20.18	9.66	0.60	Average
14	19.326	37.01	60.00	-22.99	26.15	9.66	0.60	QP

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

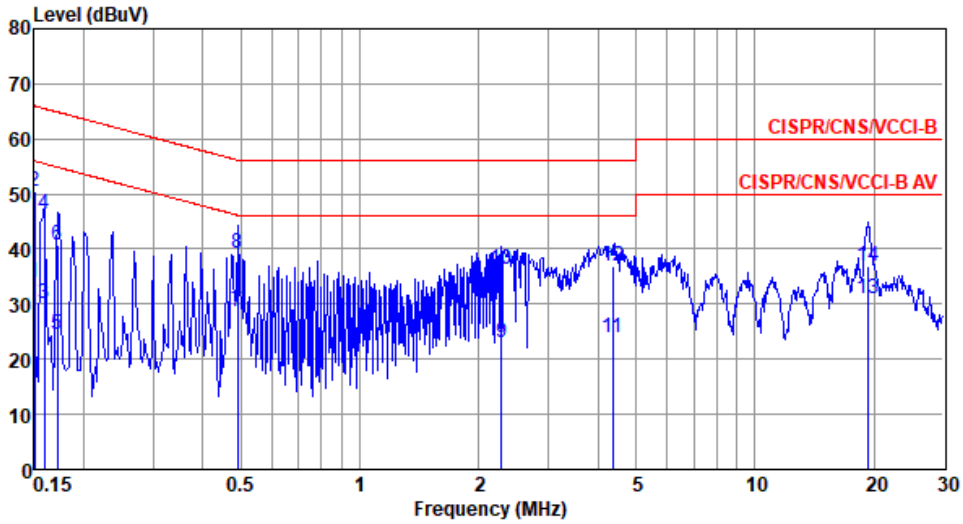
Modulation	VHT20	Test Freq. (MHz)	5200
Power Phase	Neutral		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.153	33.85	55.82	-21.97	24.12	9.57	0.05	Average
2	0.153	49.46	65.82	-16.36	39.73	9.57	0.05	QP
3	0.168	27.86	55.08	-27.22	18.11	9.57	0.06	Average
4	0.168	42.84	65.08	-22.24	33.09	9.57	0.06	QP
5	0.327	27.70	49.53	-21.83	17.89	9.60	0.08	Average
6	0.327	37.68	59.53	-21.85	27.87	9.60	0.08	QP
7*	0.491	36.78	46.14	-9.36	26.94	9.62	0.08	Average
8	0.491	42.01	56.14	-14.13	32.17	9.62	0.08	QP
9	5.005	27.10	50.00	-22.90	16.84	9.67	0.32	Average
10	5.005	34.84	60.00	-25.16	24.58	9.67	0.32	QP
11	19.224	32.99	50.00	-17.01	22.16	9.80	0.59	Average
12	19.224	40.87	60.00	-19.13	30.04	9.80	0.59	QP

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

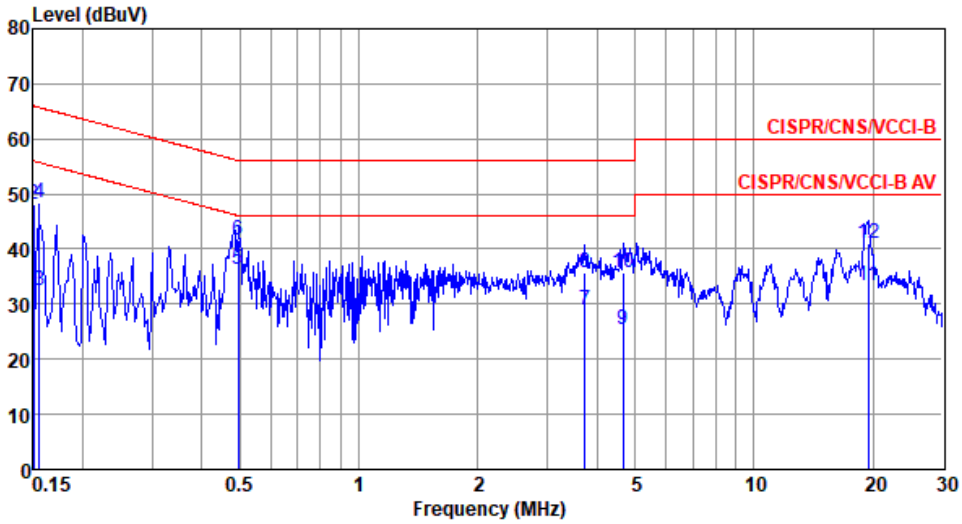
Modulation	11a	Test Freq. (MHz)	5745
Power Phase	Line		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.150	34.08	56.00	-21.92	24.38	9.53	0.05	Average
2*	0.150	50.43	66.00	-15.57	40.73	9.53	0.05	QP
3	0.159	30.04	55.52	-25.48	20.33	9.53	0.05	Average
4	0.159	46.29	65.52	-19.23	36.58	9.53	0.05	QP
5	0.171	24.47	54.90	-30.43	14.73	9.53	0.06	Average
6	0.171	40.89	64.90	-24.01	31.15	9.53	0.06	QP
7	0.491	28.69	46.14	-17.45	18.76	9.58	0.08	Average
8	0.491	39.39	56.14	-16.75	29.46	9.58	0.08	QP
9	2.285	23.13	46.00	-22.87	12.99	9.60	0.18	Average
10	2.285	36.24	56.00	-19.76	26.10	9.60	0.18	QP
11	4.361	23.78	46.00	-22.22	13.50	9.61	0.29	Average
12	4.361	37.03	56.00	-18.97	26.75	9.61	0.29	QP
13	19.326	31.07	50.00	-18.93	20.21	9.66	0.60	Average
14	19.326	37.00	60.00	-23.00	26.14	9.66	0.60	QP

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

Modulation	11a	Test Freq. (MHz)	5745
Power Phase	Neutral		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.150	32.05	56.00	-23.95	22.32	9.57	0.05	Average
2	0.150	48.03	66.00	-17.97	38.30	9.57	0.05	QP
3	0.156	32.46	55.69	-23.23	22.73	9.57	0.05	Average
4	0.156	48.32	65.69	-17.37	38.59	9.57	0.05	QP
5*	0.494	36.29	46.10	-9.81	26.44	9.62	0.08	Average
6	0.494	41.76	56.10	-14.34	31.91	9.62	0.08	QP
7	3.740	29.02	46.00	-16.98	18.83	9.66	0.27	Average
8	3.740	35.81	56.00	-20.19	25.62	9.66	0.27	QP
9	4.672	25.51	46.00	-20.49	15.26	9.67	0.31	Average
10	4.672	35.61	56.00	-20.39	25.36	9.67	0.31	QP
11	19.428	33.33	50.00	-16.67	22.47	9.81	0.60	Average
12	19.428	41.14	60.00	-18.86	30.28	9.81	0.60	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.

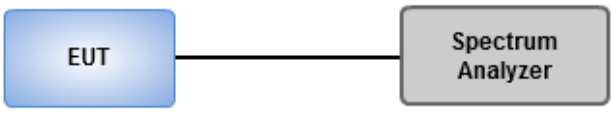
Occupied Bandwidth

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	32.609M	17.656M	17M7D1D	19.42M	16.353M
802.11ac VHT20_Nss1,(MCS0)_2TX	36.739M	18.596M	18M6D1D	19.783M	17.511M
802.11ac VHT40_Nss1,(MCS0)_2TX	73.188M	36.324M	36M3D1D	39.71M	36.035M
802.11ac VHT80_Nss1,(MCS0)_2TX	80.87M	74.964M	75M0D1D	79.42M	74.964M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	15.725M	22.504M	22M5D1D	14.493M	19.247M
802.11ac VHT20_Nss1,(MCS0)_2TX	16.667M	25.398M	25M4D1D	13.116M	21.274M
802.11ac VHT40_Nss1,(MCS0)_2TX	35.072M	49.493M	49M5D1D	35.072M	36.324M
802.11ac VHT80_Nss1,(MCS0)_2TX	73.913M	75.253M	75M3D1D	72.754M	75.253M

Max-N dB = Maximum6dB downbandwidth for 5.725-5.85GHz band / Maximum26dB downbandwidth for other band;
Max-OBW = Maximum99% occupied bandwidth;
Min-N dB = Minimum6dB downbandwidth for 5.725-5.85GHz band / Maximum26dB downbandwidth for other band;
Min-OBW = Minimum99% occupied bandwidth;

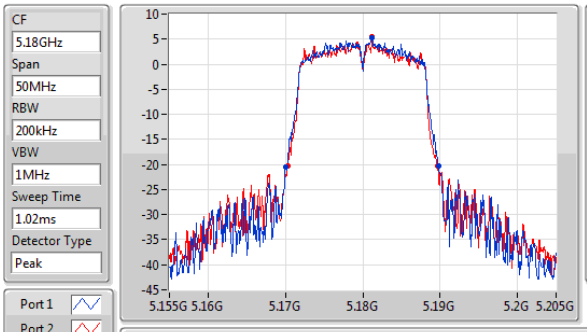
Result

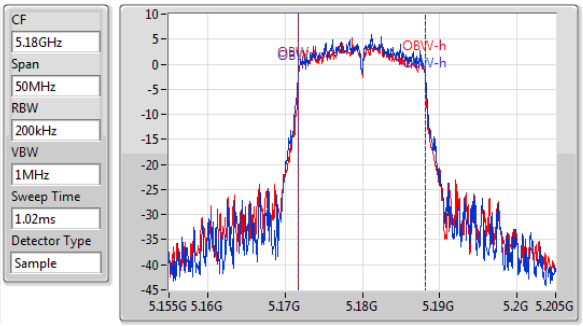
Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	19.783M	16.498M	19.42M	16.353M
5200MHz	Pass	Inf	30.652M	16.932M	32.609M	17.656M
5240MHz	Pass	Inf	31.522M	17.077M	28.841M	16.787M
5745MHz	Pass	500k	15.072M	19.247M	15.725M	22.287M
5785MHz	Pass	500k	14.493M	19.609M	15.072M	22.359M
5825MHz	Pass	500k	15.435M	20.55M	14.493M	22.504M
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	20.217M	17.511M	19.783M	17.511M
5200MHz	Pass	Inf	35.435M	17.945M	36.739M	18.596M
5240MHz	Pass	Inf	34.058M	17.945M	33.333M	18.017M
5745MHz	Pass	500k	15.072M	21.274M	15.942M	25.253M
5785MHz	Pass	500k	15.435M	21.925M	13.188M	24.53M
5825MHz	Pass	500k	13.116M	21.852M	16.667M	25.398M
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	40.145M	36.035M	39.71M	36.035M
5230MHz	Pass	Inf	73.188M	36.324M	68.406M	36.324M
5755MHz	Pass	500k	35.072M	36.324M	35.072M	36.469M
5795MHz	Pass	500k	35.072M	49.493M	35.072M	44.718M
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	80.87M	74.964M	79.42M	74.964M
5775MHz	Pass	500k	73.913M	75.253M	72.754M	75.253M

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

802.11a_Nss1,(6Mbps)_2TX EBW

5180MHz

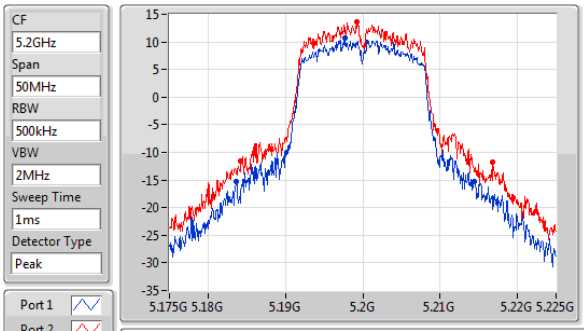


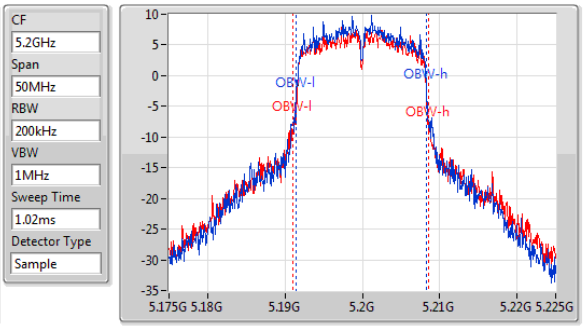


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.783M	5.17G	5.189783G	16.498M	5.171679G	5.188177G	Inf	1
19.42M	5.17029G	5.18971G	16.353M	5.171751G	5.188104G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

5200MHz

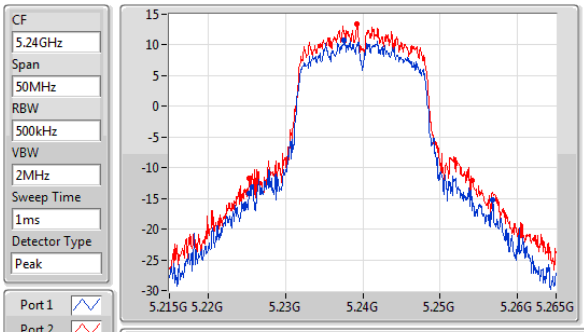


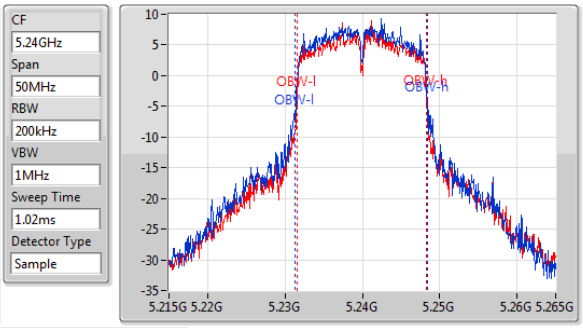


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
30.652M	5.183696G	5.214348G	16.932M	5.191389G	5.208321G	Inf	1
32.609M	5.184203G	5.216812G	17.656M	5.190955G	5.208611G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

5240MHz

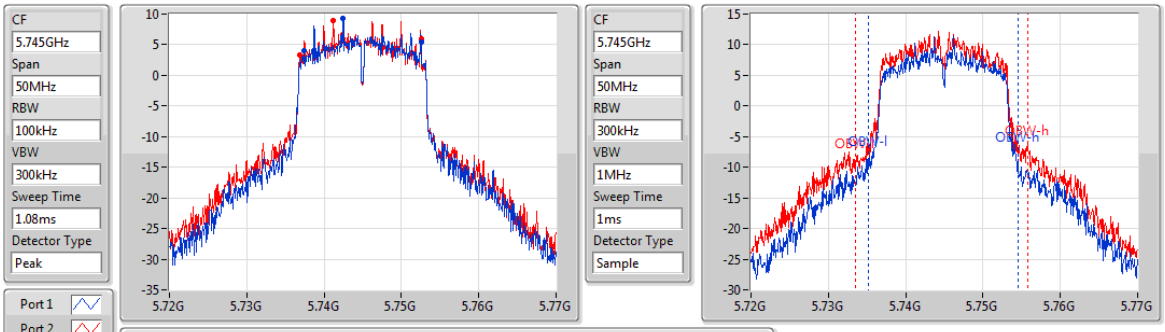




26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
31.522M	5.22529G	5.256812G	17.077M	5.231317G	5.248394G	Inf	1
28.841M	5.225362G	5.254203G	16.787M	5.231534G	5.248321G	Inf	2

802.11a_Nss1,(6Mbps)_2TX EBW

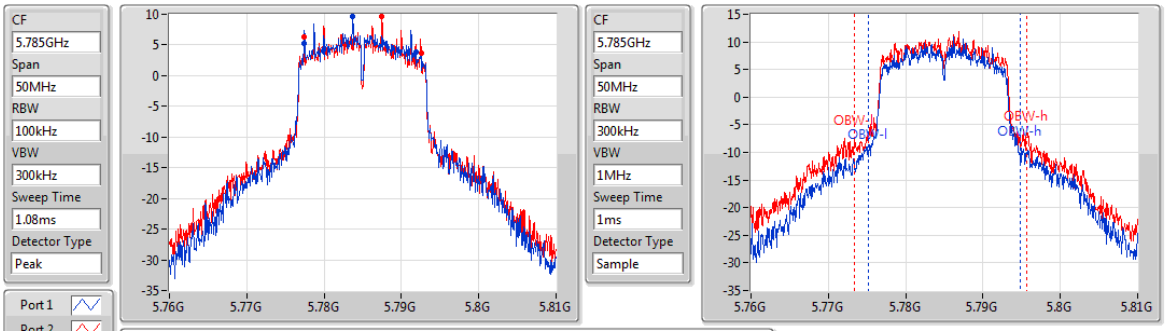
5745MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.072M	5.737464G	5.752536G	19.247M	5.735232G	5.754479G	500k	1
15.725M	5.736812G	5.752536G	22.287M	5.733567G	5.755854G	500k	2

802.11a_Nss1,(6Mbps)_2TX EBW

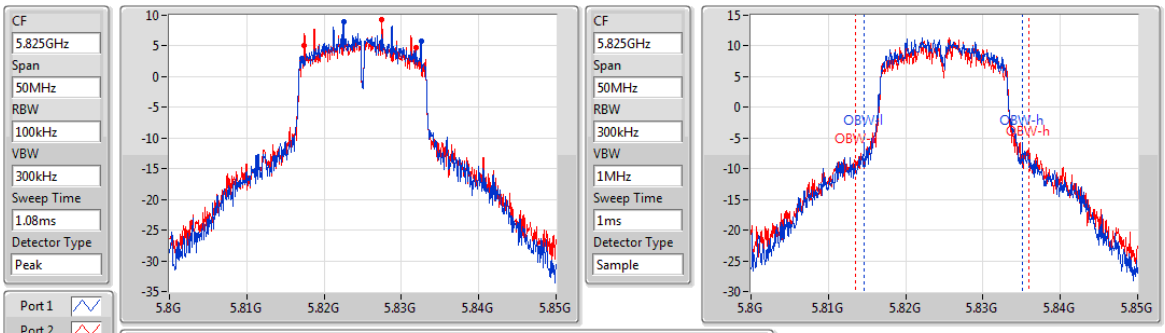
5785MHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
14.493M	5.777391G	5.791884G	19.609M	5.775159G	5.794768G	500k	1
15.072M	5.777464G	5.792536G	22.359M	5.77335G	5.795709G	500k	2

802.11a_Nss1,(6Mbps)_2TX EBW

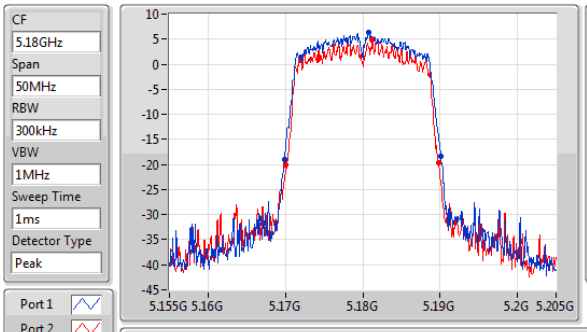
5825MHz

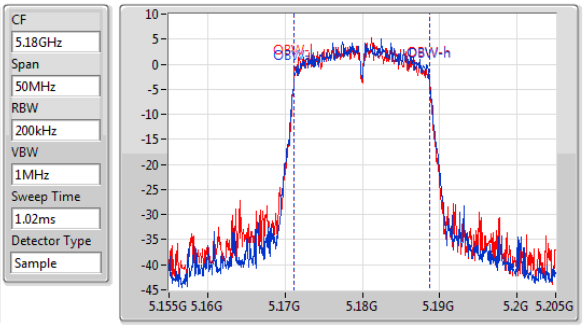


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.435M	5.817101G	5.832536G	20.55M	5.81458G	5.83513G	500k	1
14.493M	5.817391G	5.831884G	22.504M	5.813495G	5.835999G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5180MHz

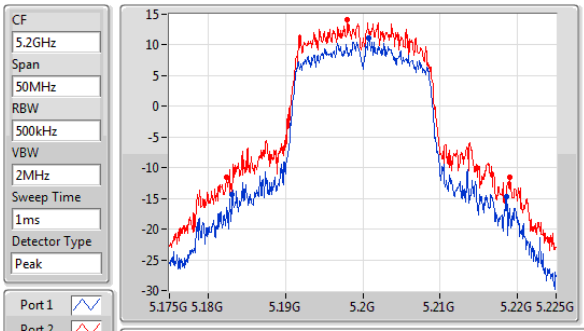


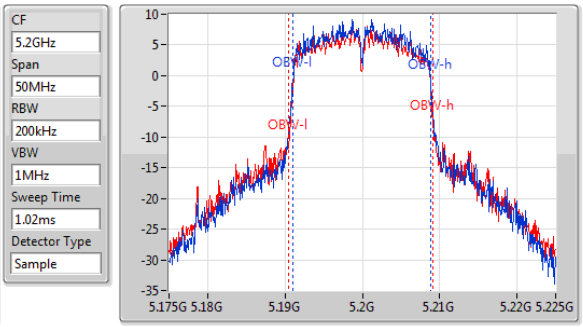


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.217M	5.169855G	5.190072G	17.511M	5.171172G	5.188683G	Inf	1
19.783M	5.170072G	5.189855G	17.511M	5.171172G	5.188683G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5200MHz

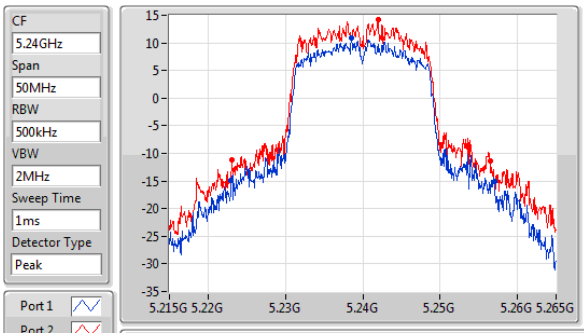


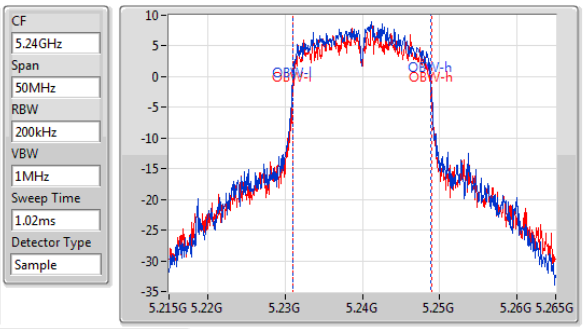


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.435M	5.183116G	5.218551G	17.945M	5.190955G	5.2089G	Inf	1
36.739M	5.182319G	5.219058G	18.596M	5.190521G	5.209117G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5240MHz

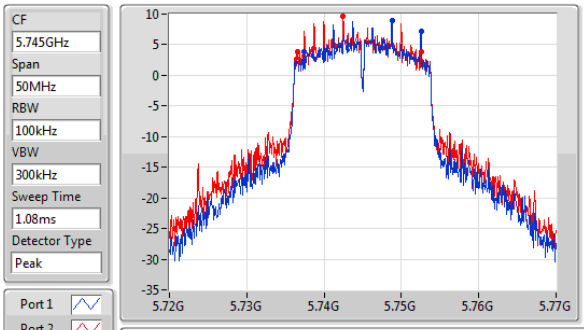


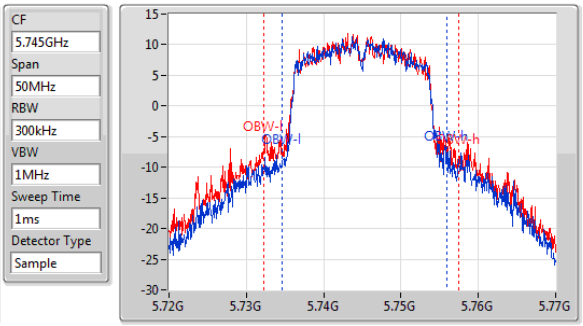


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
34.058M	5.222971G	5.257029G	17.945M	5.230955G	5.2489G	Inf	1
33.333M	5.223116G	5.256449G	18.017M	5.230955G	5.248973G	Inf	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5745MHz

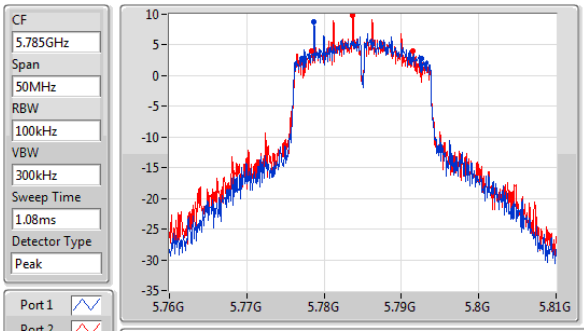


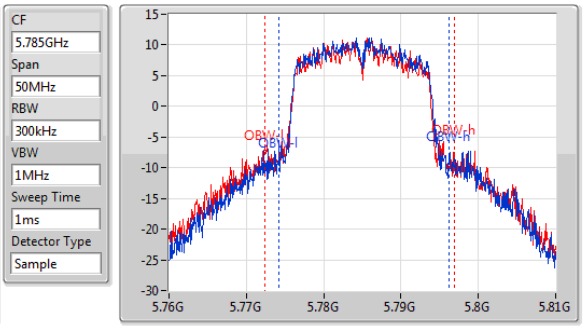


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.072M	5.737464G	5.752536G	21.274M	5.734653G	5.755926G	500k	1
15.942M	5.736594G	5.752536G	25.253M	5.732265G	5.757518G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5785MHz

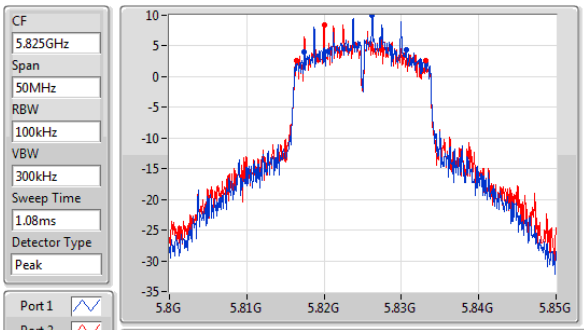


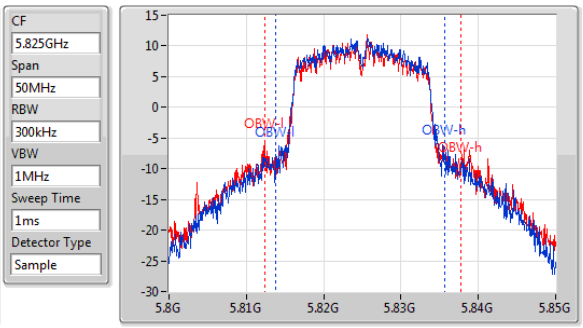


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.435M	5.777101G	5.792536G	21.925M	5.774219G	5.796143G	500k	1
13.188M	5.778333G	5.791522G	24.53M	5.772337G	5.796867G	500k	2

802.11ac VHT20_Nss1,(MCS0)_2TX EBW

5825MHz

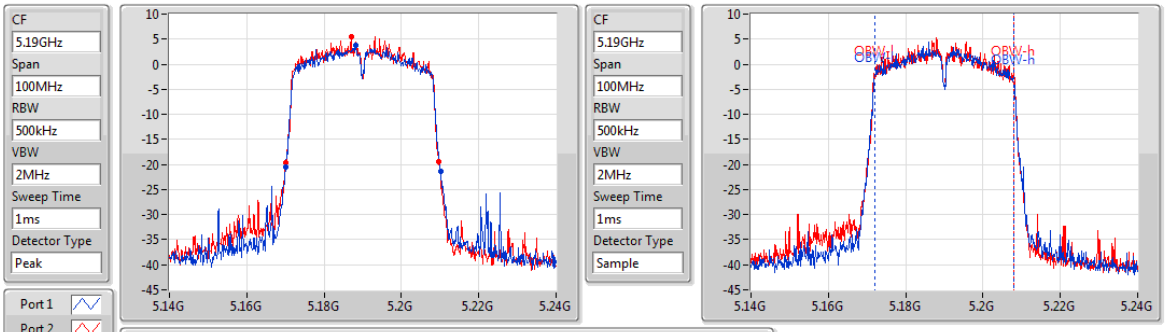




6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
13.116M	5.817464G	5.83058G	21.852M	5.813857G	5.835709G	500k	1
16.667M	5.816449G	5.833116G	25.398M	5.812337G	5.837735G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

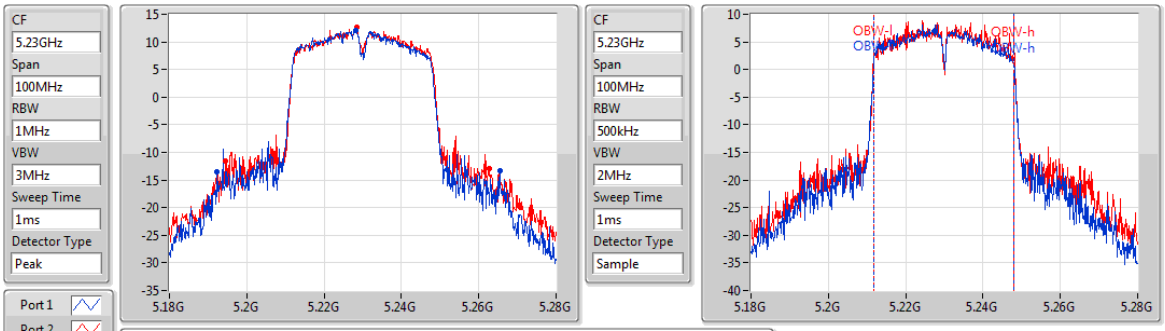
5190MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.145M	5.17G	5.210145G	36.035M	5.17191G	5.207945G	Inf	1
39.71M	5.17G	5.20971G	36.035M	5.17191G	5.207945G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

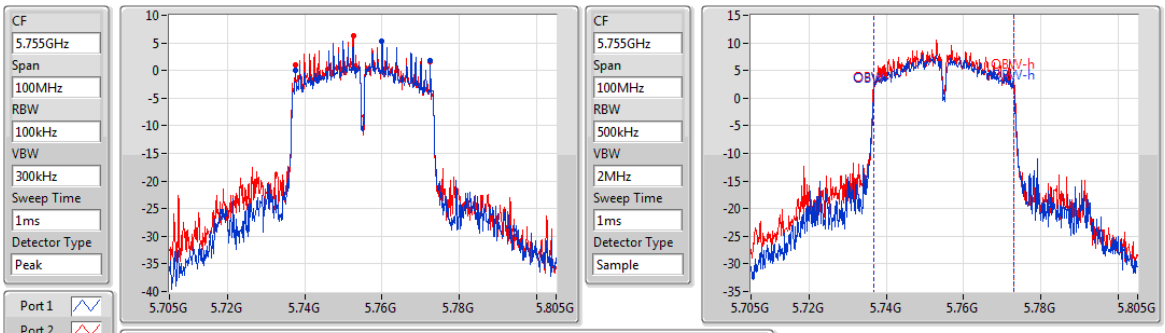
5230MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
73.188M	5.192319G	5.265507G	36.324M	5.211766G	5.24809G	Inf	1
68.406M	5.194348G	5.262754G	36.324M	5.211766G	5.24809G	Inf	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

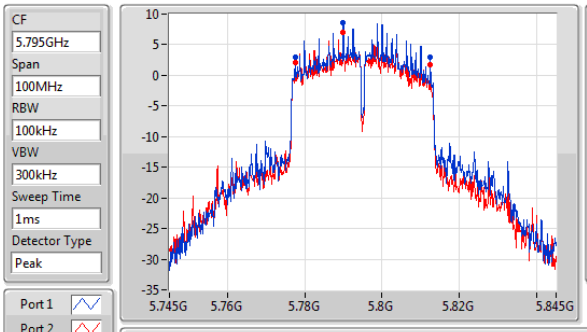
5755MHz

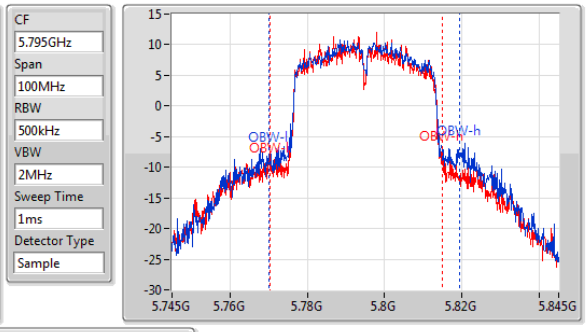


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.072M	5.737464G	5.772536G	36.324M	5.736766G	5.77309G	500k	1
35.072M	5.737464G	5.772536G	36.469M	5.736621G	5.77309G	500k	2

802.11ac VHT40_Nss1,(MCS0)_2TX EBW

5795MHz

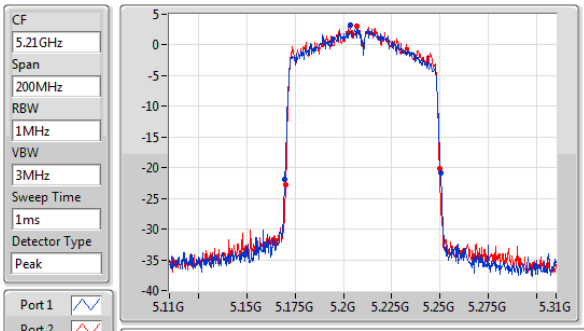


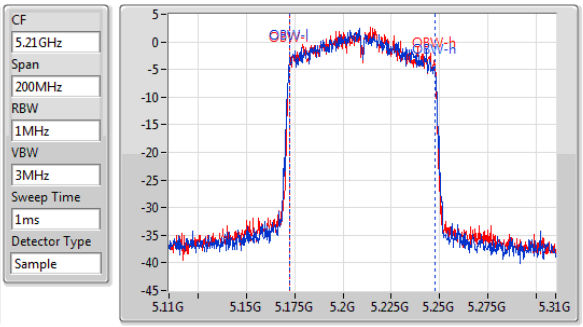


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.072M	5.777464G	5.812536G	49.493M	5.769964G	5.819457G	500k	1
35.072M	5.777464G	5.812536G	44.718M	5.770253G	5.814971G	500k	2

802.11ac VHT80_Nss1,(MCS0)_2TX EBW

5210MHz

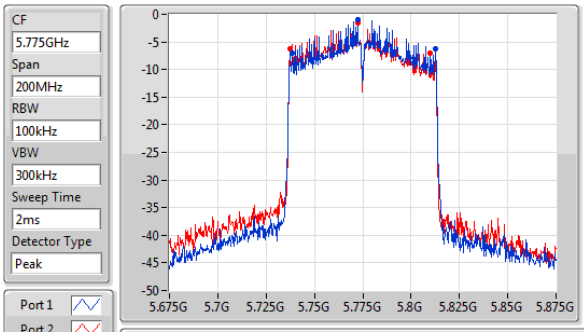


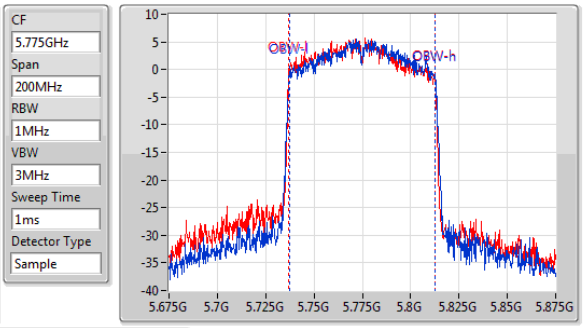


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
80.87M	5.16971G	5.25058G	74.964M	5.172373G	5.247337G	Inf	1
79.42M	5.17029G	5.24971G	74.964M	5.172373G	5.247337G	Inf	2

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
73.913M	5.738768G	5.812681G	75.253M	5.737373G	5.812627G	500k	1
72.754M	5.737319G	5.810072G	75.253M	5.737084G	5.812337G	500k	2

3.3 RF Output Power

3.3.1 Limit of RF Output Power

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

Frequency Band (MHz)		Limit
☒	5725 ~ 5850	Conducted Power: 1 W

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	22.59	0.18155	25.49	0.35400
802.11ac VHT20_Nss1,(MCS0)_2TX	22.60	0.18197	25.50	0.35481
802.11ac VHT40_Nss1,(MCS0)_2TX	21.07	0.12794	23.97	0.24946
802.11ac VHT80_Nss1,(MCS0)_2TX	14.04	0.02535	16.94	0.04943
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	23.49	0.22336	25.09	0.32285
802.11ac VHT20_Nss1,(MCS0)_2TX	23.41	0.21928	25.01	0.31696
802.11ac VHT40_Nss1,(MCS0)_2TX	23.30	0.21380	24.90	0.30903
802.11ac VHT80_Nss1,(MCS0)_2TX	17.42	0.05521	19.02	0.07980

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	2.90	16.06	15.54	18.82	30.00	21.72	36.00
5200MHz	Pass	2.90	19.77	19.39	22.59	30.00	25.49	36.00
5240MHz	Pass	2.90	19.78	19.27	22.54	30.00	25.44	36.00
5745MHz	Pass	1.60	20.57	20.38	23.49	30.00	25.09	36.00
5785MHz	Pass	1.60	20.69	20.22	23.47	30.00	25.07	36.00
5825MHz	Pass	1.60	20.57	20.21	23.40	30.00	25.00	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	2.90	15.39	15.11	18.26	30.00	21.16	36.00
5200MHz	Pass	2.90	19.72	19.45	22.60	30.00	25.50	36.00
5240MHz	Pass	2.90	19.82	19.05	22.46	30.00	25.36	36.00
5745MHz	Pass	1.60	20.53	20.27	23.41	30.00	25.01	36.00
5785MHz	Pass	1.60	20.42	20.22	23.33	30.00	24.93	36.00
5825MHz	Pass	1.60	20.47	20.16	23.33	30.00	24.93	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	2.90	13.21	12.98	16.11	30.00	19.01	36.00
5230MHz	Pass	2.90	18.10	18.02	21.07	30.00	23.97	36.00
5755MHz	Pass	1.60	17.98	17.89	20.95	30.00	22.55	36.00
5795MHz	Pass	1.60	20.46	20.12	23.30	30.00	24.90	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	2.90	11.14	10.92	14.04	30.00	16.94	36.00
5775MHz	Pass	1.60	14.59	14.23	17.42	30.00	19.02	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

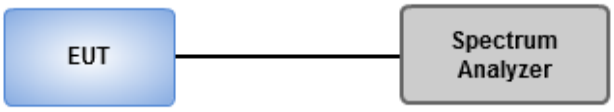
Duty cycle ≥ 98 %

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	10.07	15.35
802.11ac VHT20_Nss1,(MCS0)_2TX	10.12	15.40
802.11ac VHT40_Nss1,(MCS0)_2TX	5.44	10.72
802.11ac VHT80_Nss1,(MCS0)_2TX	-4.04	1.24
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	9.91	14.47
802.11ac VHT20_Nss1,(MCS0)_2TX	9.57	14.13
802.11ac VHT40_Nss1,(MCS0)_2TX	6.06	10.62
802.11ac VHT80_Nss1,(MCS0)_2TX	-2.22	2.34

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

Result

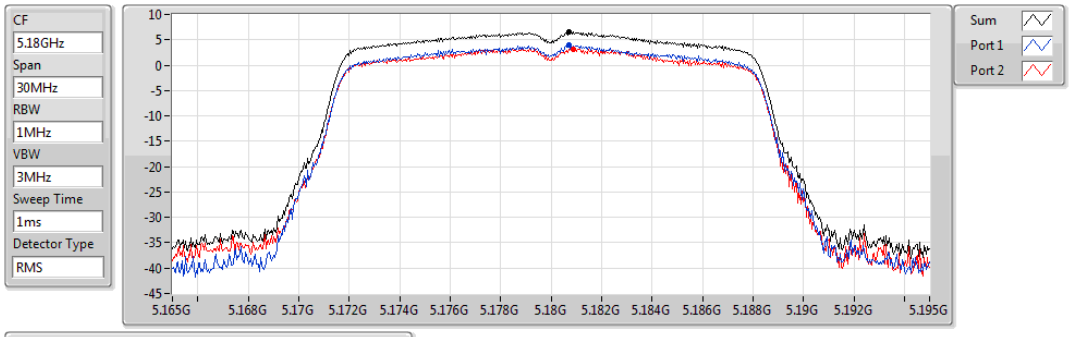
Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.28	3.96	3.23	6.53	17.00	11.81	23.00
5200MHz	Pass	5.28	7.62	6.78	10.07	17.00	15.35	23.00
5240MHz	Pass	5.28	7.64	6.52	10.06	17.00	15.34	23.00
5745MHz	Pass	4.56	6.94	7.03	9.91	30.00	14.47	36.00
5785MHz	Pass	4.56	7.19	6.51	9.59	30.00	14.15	36.00
5825MHz	Pass	4.56	7.15	6.29	9.58	30.00	14.14	36.00
802.11ac VHT20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.28	3.25	3.09	6.07	17.00	11.35	23.00
5200MHz	Pass	5.28	7.54	7.02	10.01	17.00	15.29	23.00
5240MHz	Pass	5.28	7.71	6.65	10.12	17.00	15.40	23.00
5745MHz	Pass	4.56	6.67	6.65	9.57	30.00	14.13	36.00
5785MHz	Pass	4.56	6.80	6.14	9.44	30.00	14.00	36.00
5825MHz	Pass	4.56	6.78	6.16	9.23	30.00	13.79	36.00
802.11ac VHT40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	5.28	-2.25	-2.72	0.53	17.00	5.81	23.00
5230MHz	Pass	5.28	2.62	2.26	5.44	17.00	10.72	23.00
5755MHz	Pass	4.56	0.98	0.93	3.96	30.00	8.52	36.00
5795MHz	Pass	4.56	3.55	2.49	6.06	30.00	10.62	36.00
802.11ac VHT80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	5.28	-6.74	-7.35	-4.04	17.00	1.24	23.00
5775MHz	Pass	4.56	-5.02	-5.37	-2.22	30.00	2.34	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;

For 5.15 ~ 5.25 GHz, Directional Gain= $10 * \log((10^{2.9/20}+10^{1.6/20})^2/2) = 5.28$ dBi
For 5.725 ~ 5.85 GHz, Directional Gain= $10 * \log((10^{1.5/20}+10^{1.6/20})^2/2) = 4.56$ dBi

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

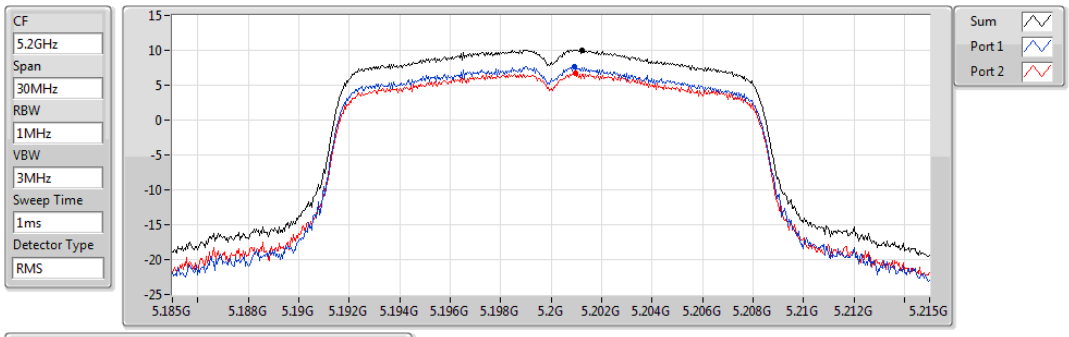
5180MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.53	6.53	3.96	3.23

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

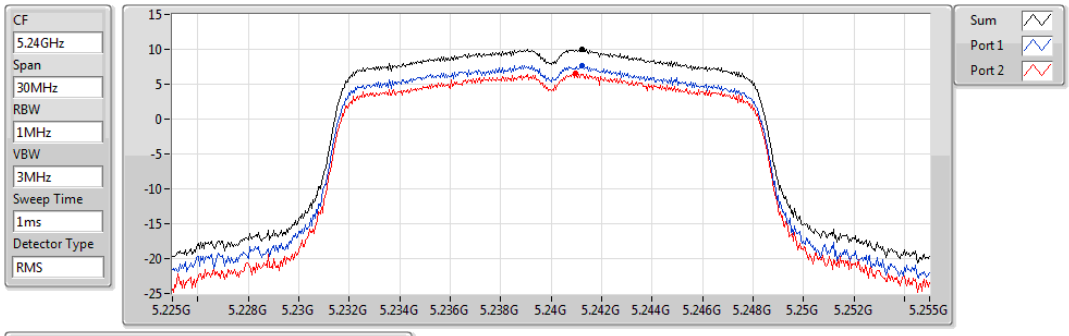
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.07	10.07	7.62	6.78

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

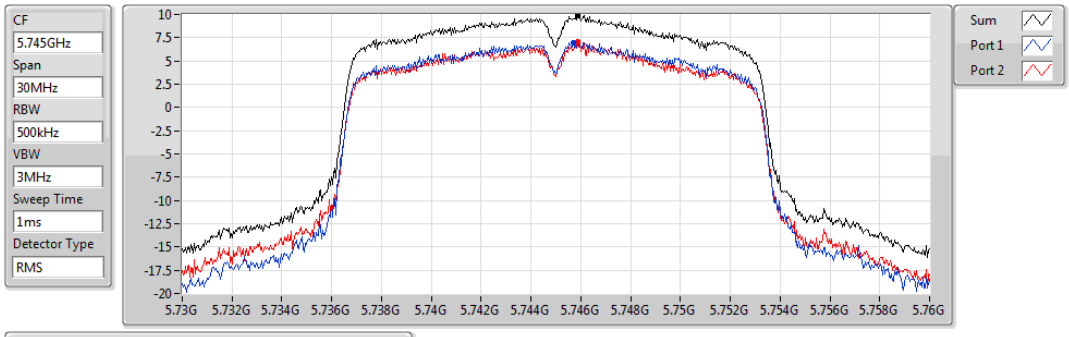
5240MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.06	10.06	7.64	6.52

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

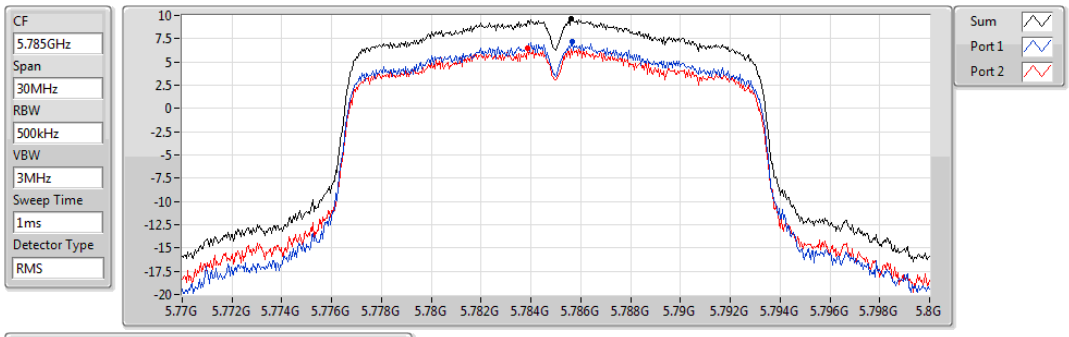
5745MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.91	9.91	6.94	7.03

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

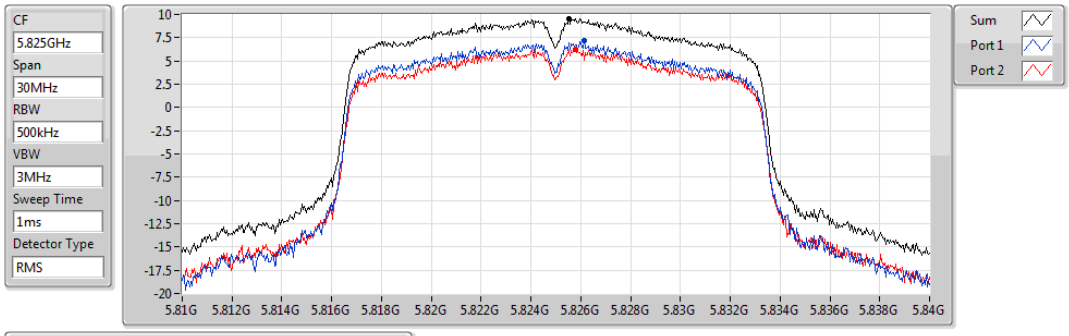
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.59	9.59	7.19	6.51

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

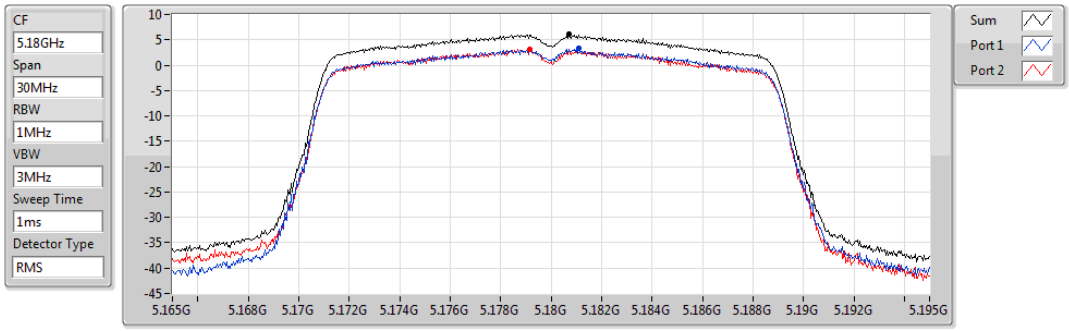
5825MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.58	9.58	7.15	6.29

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

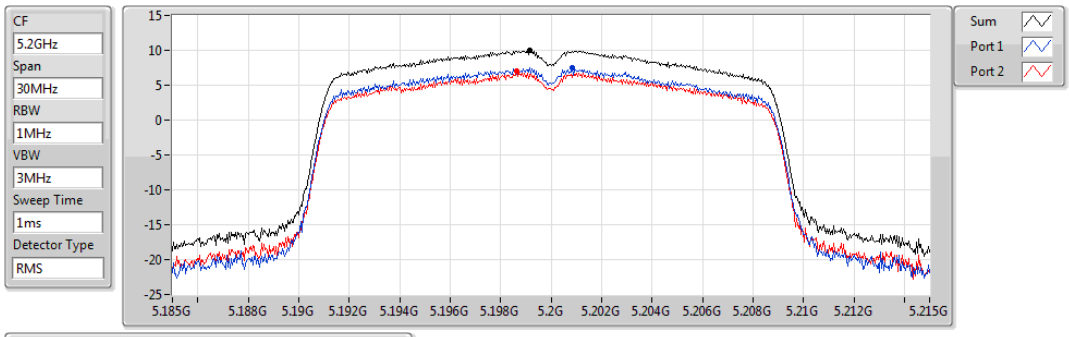
5180MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.07	6.07	3.25	3.09

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

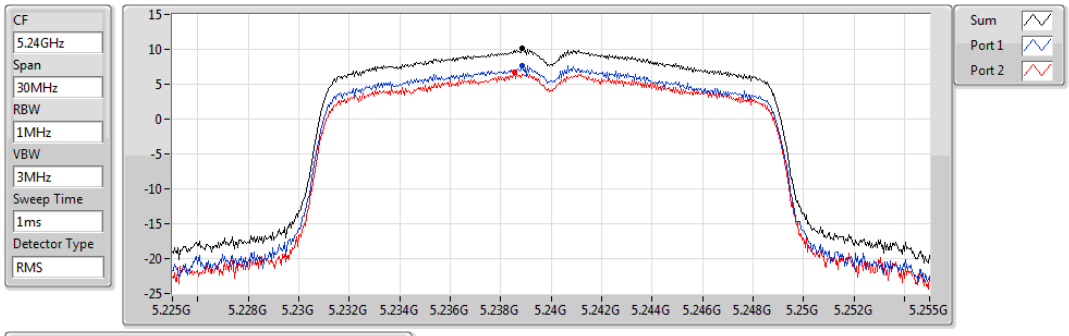
5200MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.01	10.01	7.54	7.02

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

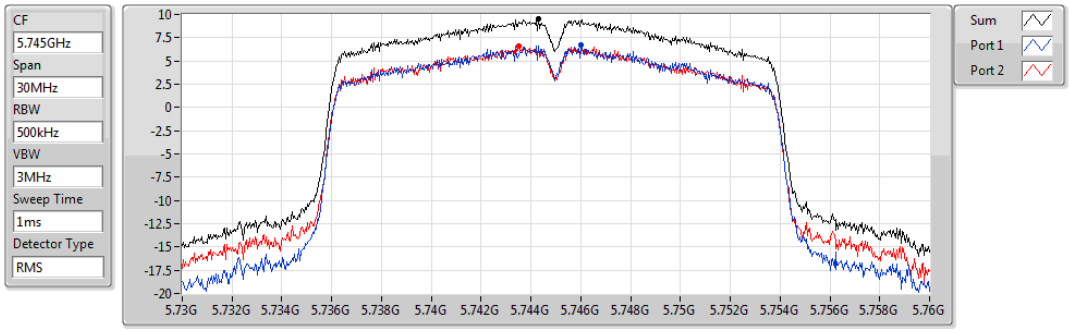
5240MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
10.12	10.12	7.71	6.65

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

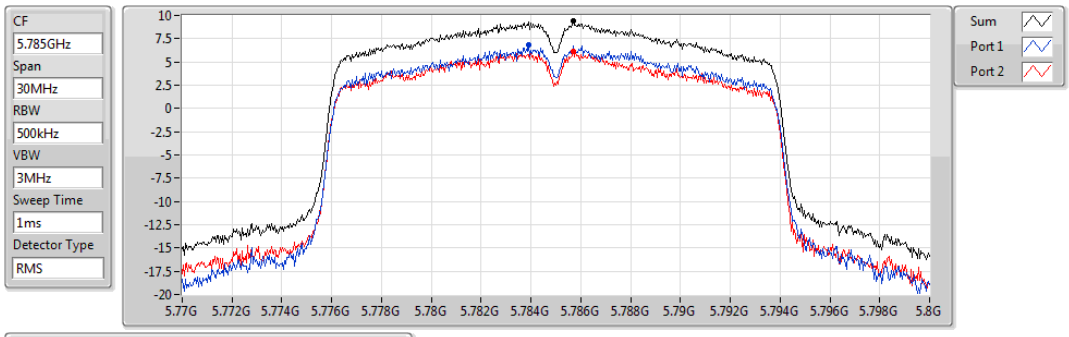
5745MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.57	9.57	6.67	6.65

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

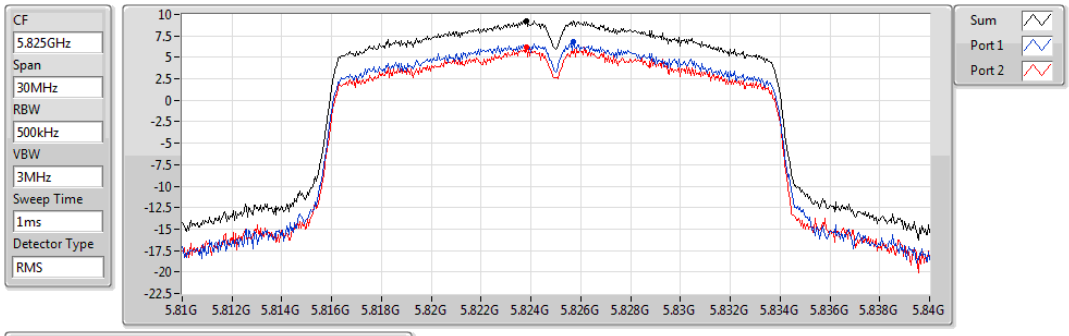
5785MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.44	9.44	6.80	6.14

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

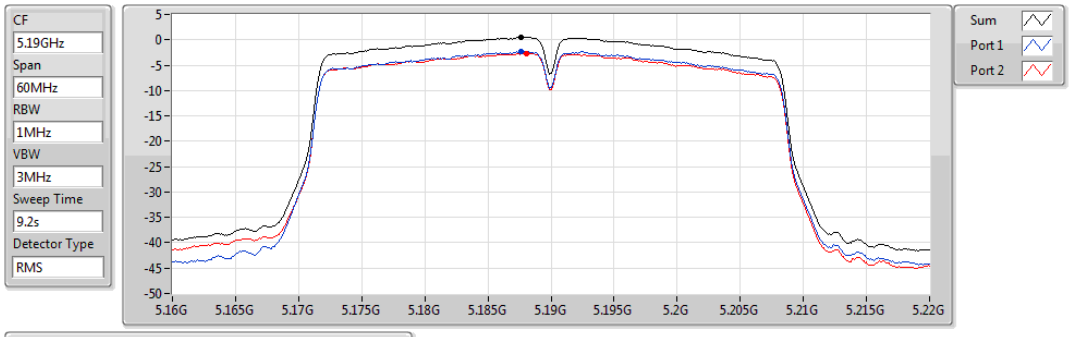
5825MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
9.23	9.23	6.78	6.16

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

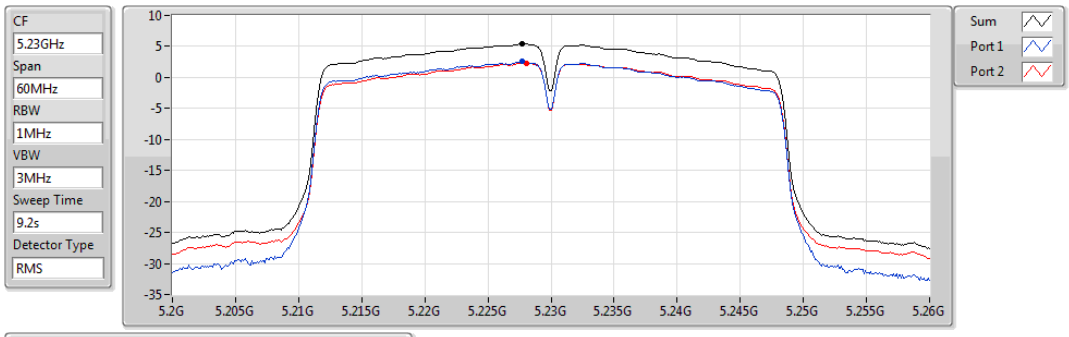
5190MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.53	0.53	-2.25	-2.72

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

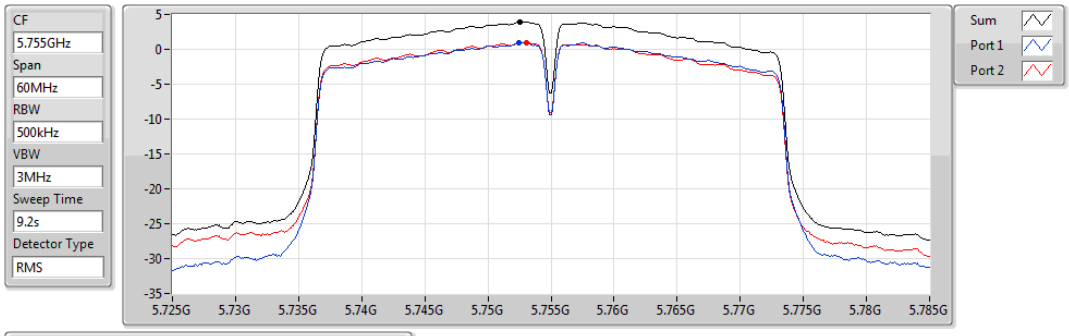
5230MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.44	5.44	2.62	2.26

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

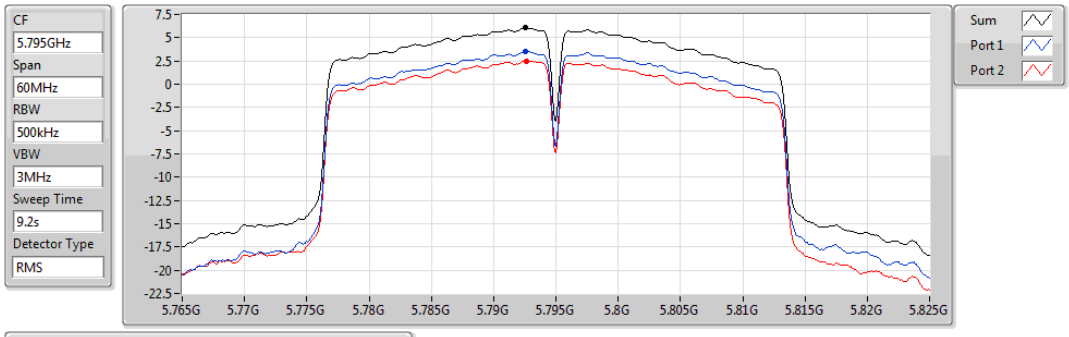
5755MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.96	3.96	0.98	0.93

802.11ac VHT40_Nss1,(MCS0)_2TX PSD

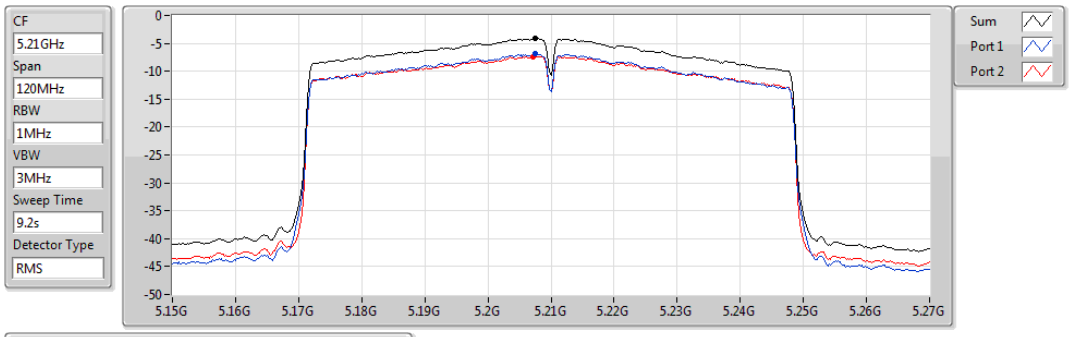
5795MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.06	6.06	3.55	2.49

802.11ac VHT80_Nss1,(MCS0)_2TX PSD

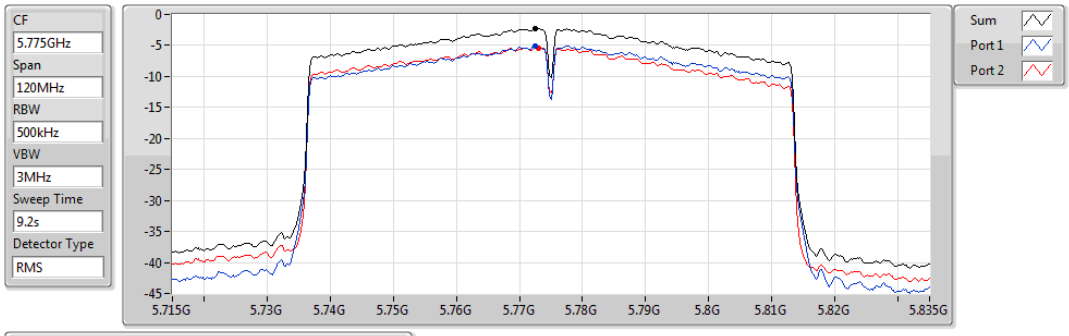
5210MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.04	-4.04	-6.74	-7.35

802.11ac VHT80_Nss1,(MCS0)_2TX PSD

5775MHz



Sum	PD	Port 1	Port 2
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.22	-2.22	-5.02	-5.37

3.5 Transmitter Radiated and Band Edge Emissions

3.5.1 Limit of Transmitter Radiated and Band Edge Emissions

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

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

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

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

3.5.2 Test Procedures

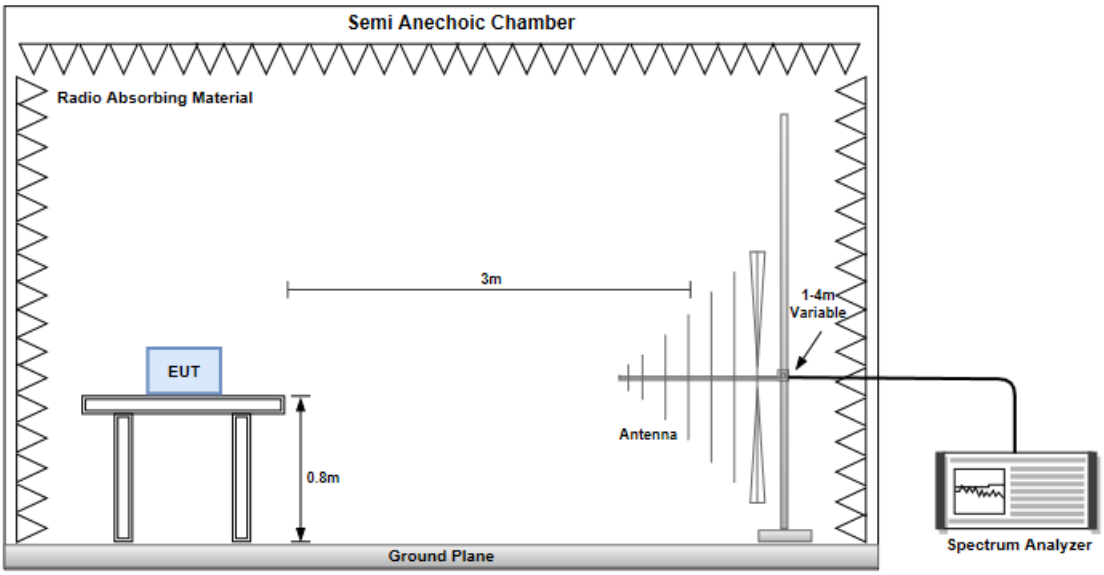
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

Note:

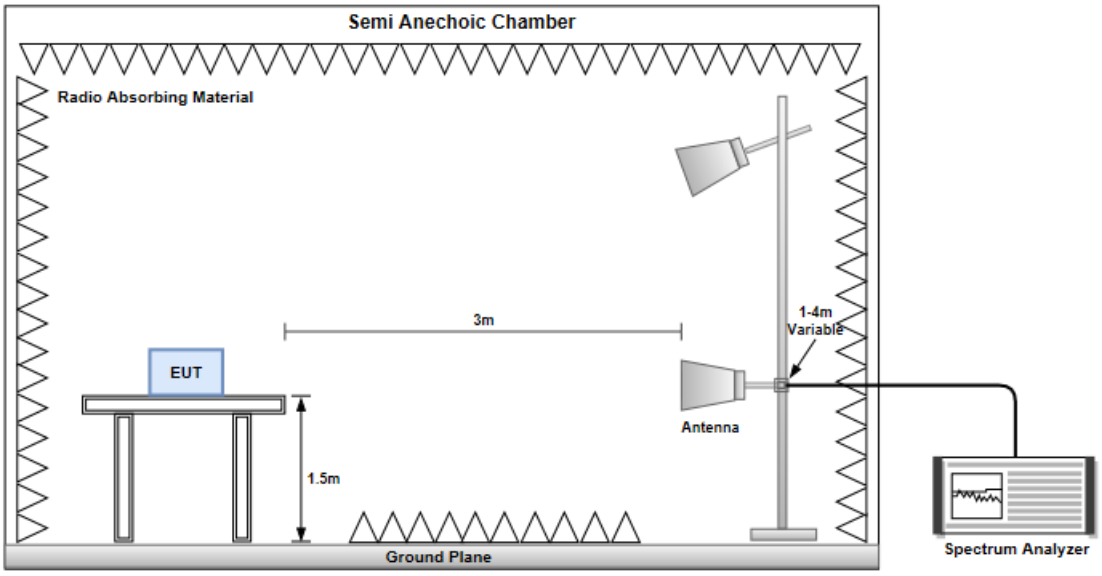
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz

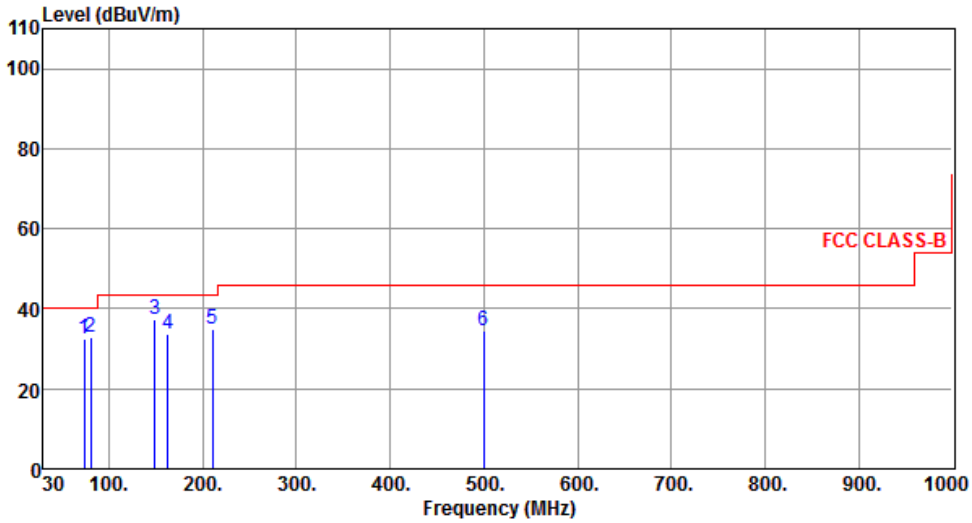


Radiated Emissions above 1 GHz



3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

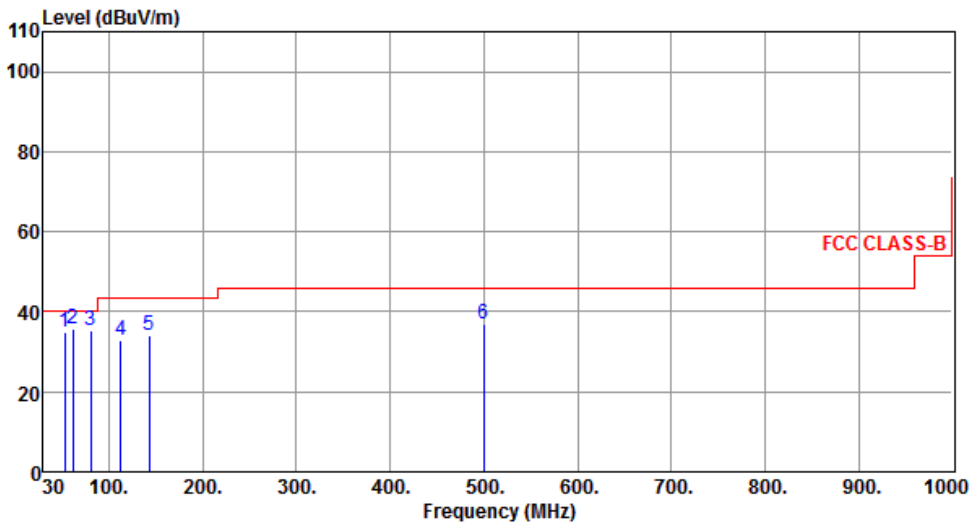
Modulation	VHT20	**Test Freq. (MHz)**	5200
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	73.84	32.52	40.00	-7.48	44.34	-11.82	Peak	---	---
2	80.56	32.96	40.00	-7.04	46.55	-13.59	Peak	---	---
3	148.85	37.25	43.50	-6.25	46.00	-8.75	Peak	---	---
4	162.52	33.88	43.50	-9.62	42.58	-8.70	Peak	---	---
5	210.85	34.74	43.50	-8.76	46.80	-12.06	Peak	---	---
6	499.85	34.55	46.00	-11.45	37.59	-3.04	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.

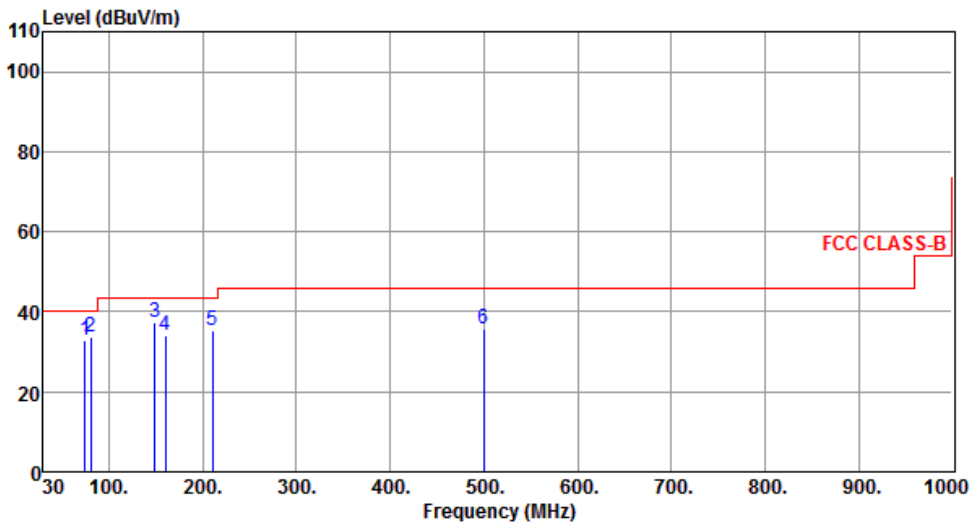
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	52.48	34.88	40.00	-5.12	43.56	-8.68	QP	100	327
2	61.28	35.74	40.00	-4.26	45.22	-9.48	Peak	---	---
3	80.74	35.47	40.00	-4.53	49.11	-13.64	Peak	---	---
4	112.58	32.96	43.50	-10.54	44.73	-11.77	Peak	---	---
5	142.58	33.95	43.50	-9.55	42.95	-9.00	Peak	---	---
6	499.85	37.10	46.00	-8.90	40.14	-3.04	Peak	---	---

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

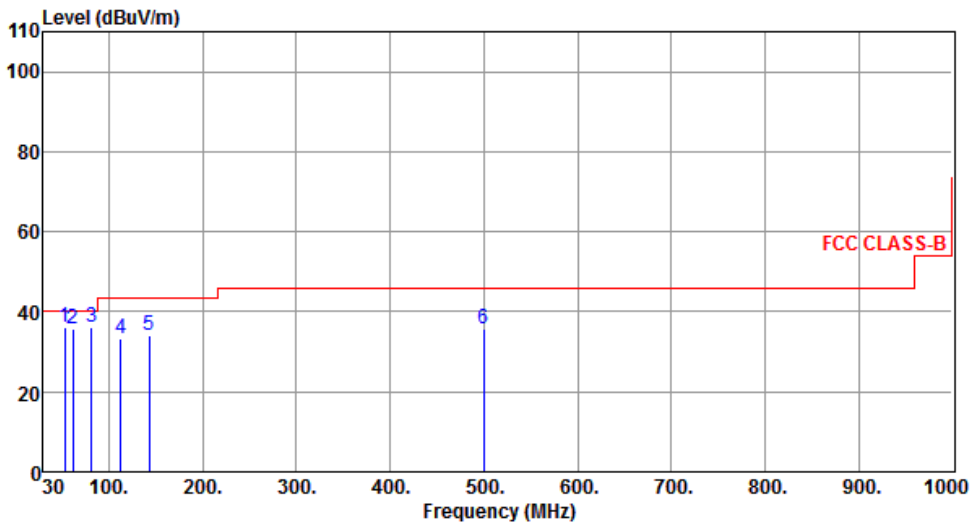
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	74.85	32.81	40.00	-7.19	44.69	-11.88	Peak	---	---
2	80.96	33.50	40.00	-6.50	47.20	-13.70	Peak	---	---
3	148.85	37.49	43.50	-6.01	46.24	-8.75	Peak	---	---
4	160.52	34.20	43.50	-9.30	42.87	-8.67	Peak	---	---
5	210.85	35.25	43.50	-8.25	47.31	-12.06	Peak	---	---
6	500.20	35.92	46.00	-10.08	38.96	-3.04	Peak	---	---

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

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

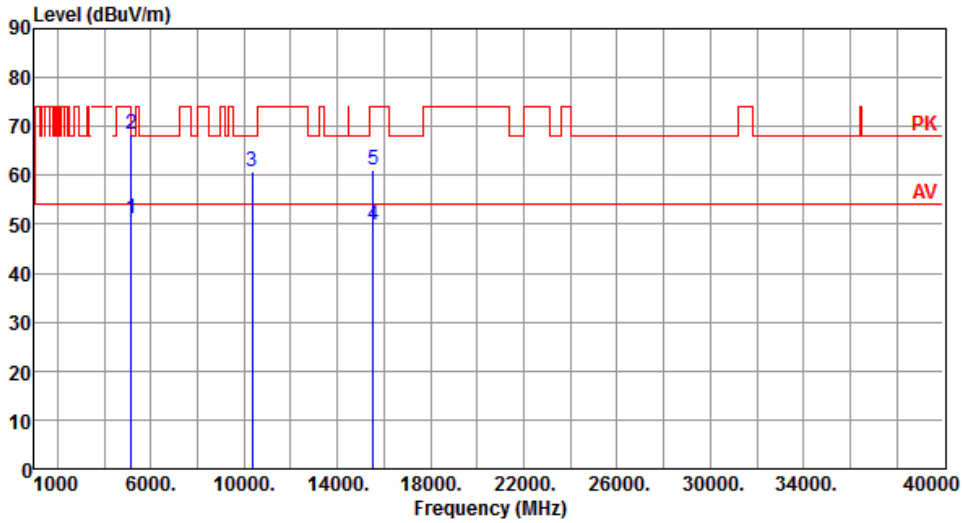


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	52.71	35.93	40.00	-4.07	44.59	-8.66	QP	100	326
2	61.25	35.88	40.00	-4.12	45.35	-9.47	Peak	---	---
3	81.24	36.17	40.00	-3.83	49.94	-13.77	Peak	---	---
4	112.25	33.27	43.50	-10.23	45.08	-11.81	Peak	---	---
5	143.25	33.94	43.50	-9.56	42.87	-8.93	Peak	---	---
6	499.96	35.80	46.00	-10.20	38.84	-3.04	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

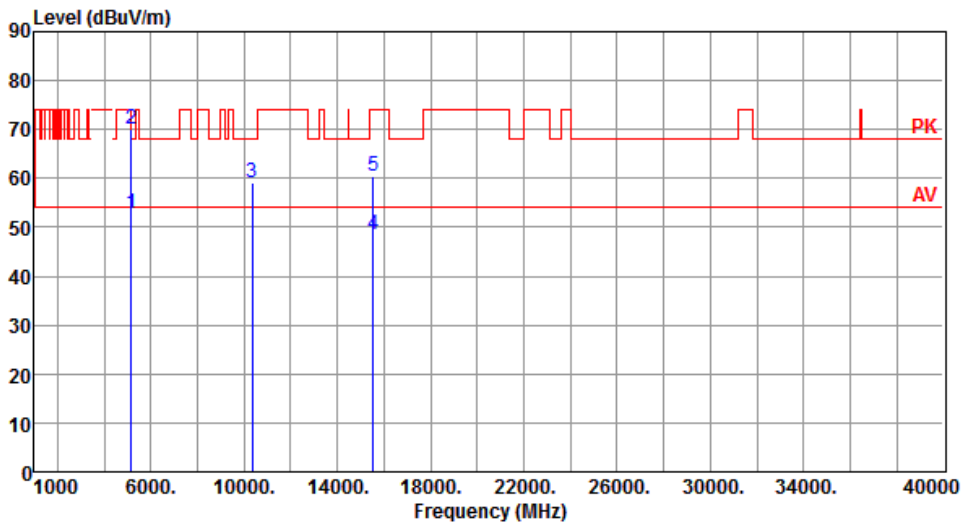
Modulation	11a	**Test Freq. (MHz)**	5180
Polarization	Horizontal		



	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	51.27	54.00	-2.73	43.85	7.42	Average	135	337
2	5150.00	68.28	74.00	-5.72	60.86	7.42	Peak	135	337
3	10360.00	60.63	68.20	-7.57	44.28	16.35	Peak	172	169
4	15540.00	49.87	54.00	-4.13	32.44	17.43	Average	100	36
5	15540.00	61.18	74.00	-12.82	43.75	17.43	Peak	100	36

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

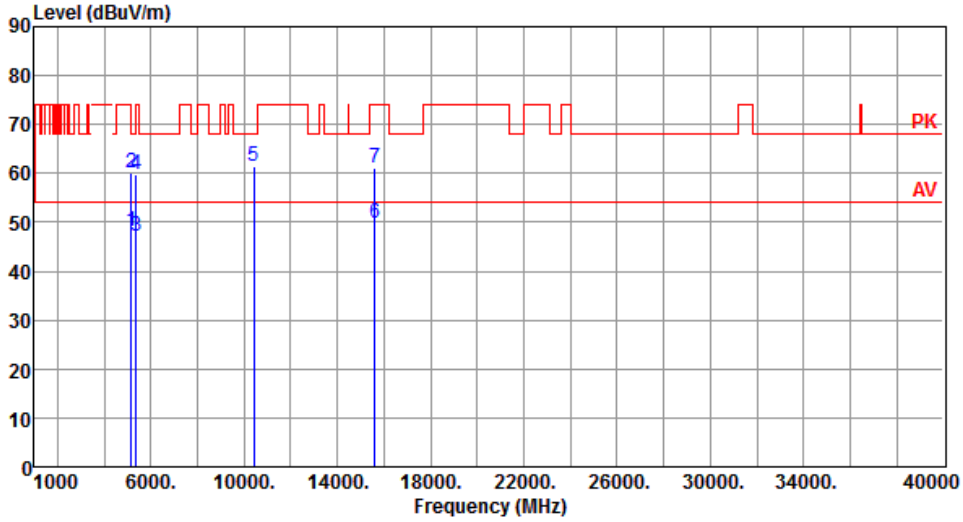
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	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	52.78	54.00	-1.22	45.36	7.42	Average	174	88
2	5150.00	70.21	74.00	-3.79	62.79	7.42	Peak	174	88
3	10360.00	59.19	68.20	-9.01	42.84	16.35	Peak	100	162
4	15540.00	48.53	54.00	-5.47	31.10	17.43	Average	100	156
5	15540.00	60.30	74.00	-13.70	42.87	17.43	Peak	100	156

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).

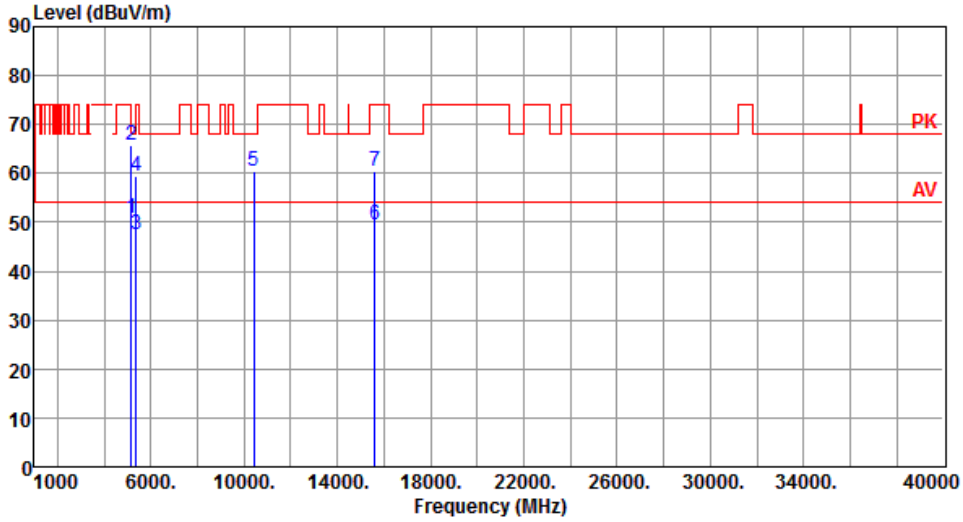
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Horizontal		



	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	48.29	54.00	-5.71	40.87	7.42	Average	135	332
2	5150.00	59.99	74.00	-14.01	52.57	7.42	Peak	135	332
3	5350.00	47.26	54.00	-6.74	40.41	6.85	Average	135	332
4	5350.00	59.80	74.00	-14.20	52.95	6.85	Peak	135	332
5	10400.00	61.56	68.20	-6.64	44.98	16.58	Peak	168	172
6	15600.00	49.86	54.00	-4.14	32.59	17.27	Average	100	32
7	15600.00	61.13	74.00	-12.87	43.86	17.27	Peak	100	32

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

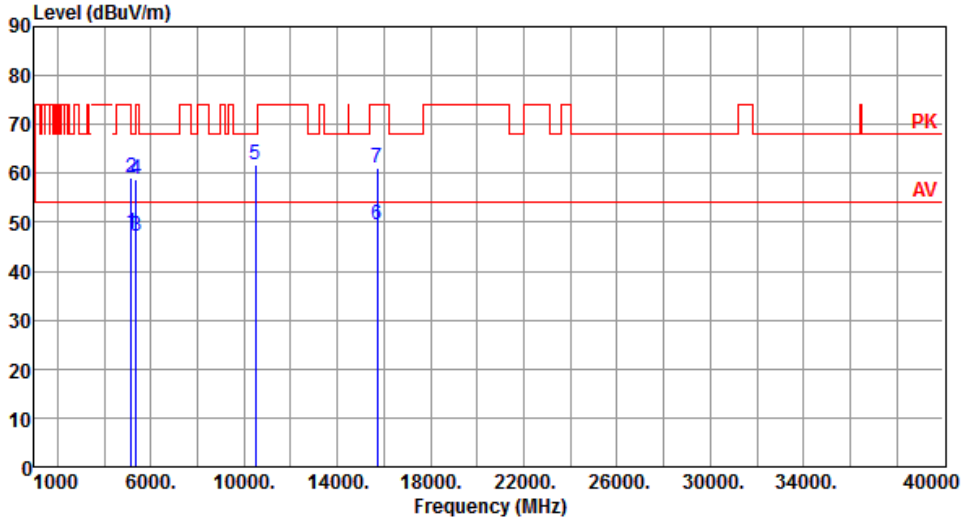
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Vertical		



	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	50.65	54.00	-3.35	43.23	7.42	Average	157	72
2	5150.00	65.75	74.00	-8.25	58.33	7.42	Peak	157	72
3	5350.00	47.43	54.00	-6.57	40.58	6.85	Average	157	72
4	5350.00	59.54	74.00	-14.46	52.69	6.85	Peak	157	72
5	10400.00	60.36	68.20	-7.84	43.78	16.58	Peak	132	158
6	15600.00	49.44	54.00	-4.56	32.17	17.27	Average	100	166
7	15600.00	60.52	74.00	-13.48	43.25	17.27	Peak	100	166

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).

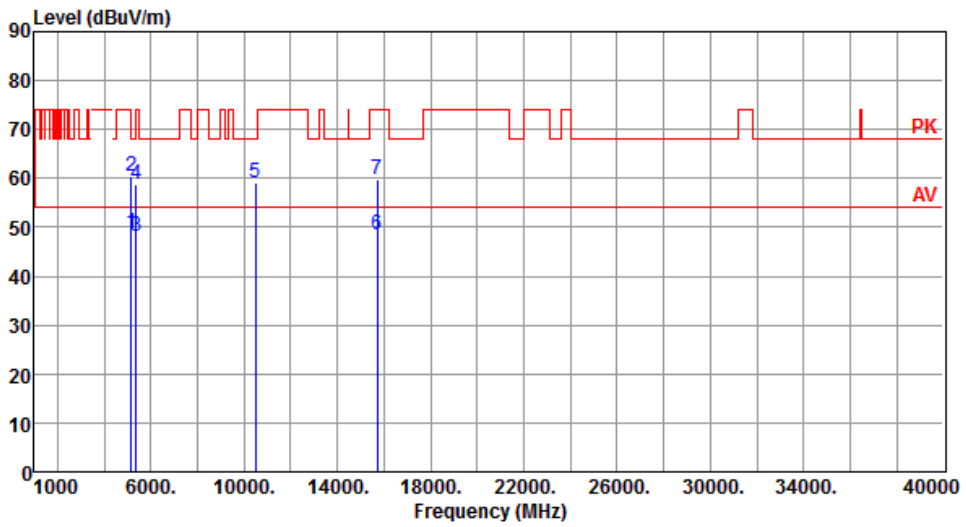
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal		



	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	47.69	54.00	-6.31	40.27	7.42	Average	134	337
2	5150.00	59.12	74.00	-14.88	51.70	7.42	Peak	134	337
3	5350.00	47.02	54.00	-6.98	40.17	6.85	Average	134	337
4	5350.00	58.64	74.00	-15.36	51.79	6.85	Peak	134	337
5	10480.00	61.84	68.20	-6.36	45.29	16.55	Peak	158	176
6	15720.00	49.65	54.00	-4.35	32.63	17.02	Average	100	25
7	15720.00	61.01	74.00	-12.99	43.99	17.02	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).

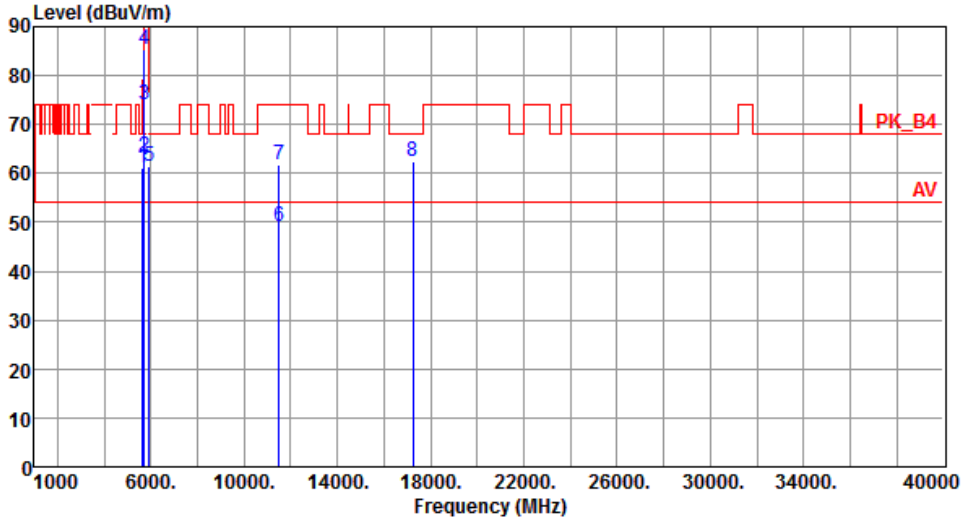
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical		



	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	48.93	54.00	-5.07	41.51	7.42	Average	152	73
2	5150.00	60.38	74.00	-13.62	52.96	7.42	Peak	152	73
3	5350.00	48.05	54.00	-5.95	41.20	6.85	Average	152	73
4	5350.00	58.74	74.00	-15.26	51.89	6.85	Peak	152	73
5	10480.00	59.12	68.20	-9.08	42.57	16.55	Peak	100	168
6	15720.00	48.60	54.00	-5.40	31.58	17.02	Average	100	166
7	15720.00	59.64	74.00	-14.36	42.62	17.02	Peak	100	166

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).

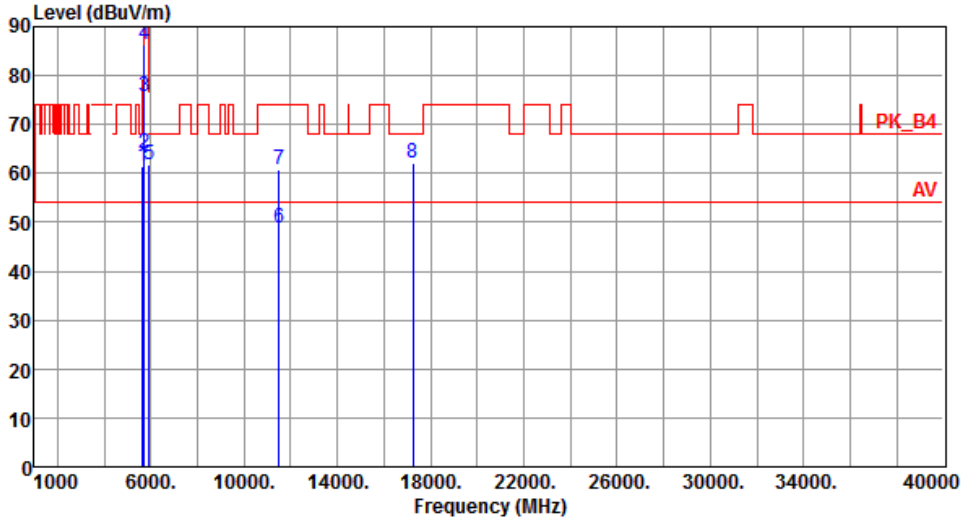
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal		



	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	61.23	68.20	-6.97	53.84	7.39	Peak	178	175
2	5700.00	63.58	105.20	-41.62	55.88	7.70	Peak	178	175
3	5720.00	73.94	110.80	-36.86	66.20	7.74	Peak	178	175
4	5725.00	85.27	122.20	-36.93	77.51	7.76	Peak	178	175
5	5925.00	61.48	68.20	-6.72	53.21	8.27	Peak	178	175
6	11490.00	49.08	54.00	-4.92	32.23	16.85	Average	143	165
7	11490.00	61.80	74.00	-12.20	44.95	16.85	Peak	143	165
8	17235.00	62.47	68.20	-5.73	43.86	18.61	Peak	100	28

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).

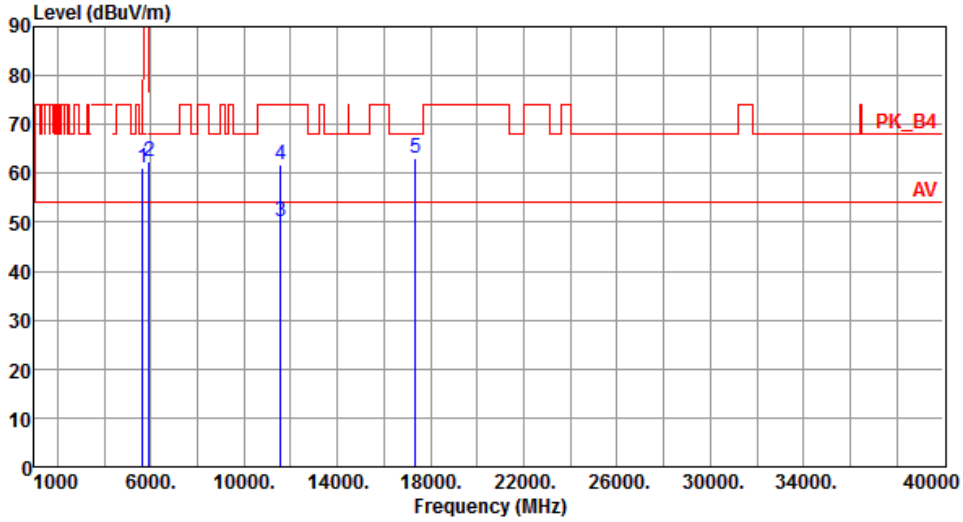
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		



	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	61.35	68.20	-6.85	53.96	7.39	Peak	231	210
2	5700.00	63.95	105.20	-41.25	56.25	7.70	Peak	231	210
3	5720.00	75.59	110.80	-35.21	67.85	7.74	Peak	231	210
4	5725.00	86.25	122.20	-35.95	78.49	7.76	Peak	231	210
5	5925.00	61.86	68.20	-6.34	53.59	8.27	Peak	231	210
6	11490.00	48.88	54.00	-5.12	32.03	16.85	Average	100	162
7	11490.00	60.71	74.00	-13.29	43.86	16.85	Peak	100	162
8	17235.00	62.13	68.20	-6.07	43.52	18.61	Peak	100	159

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).

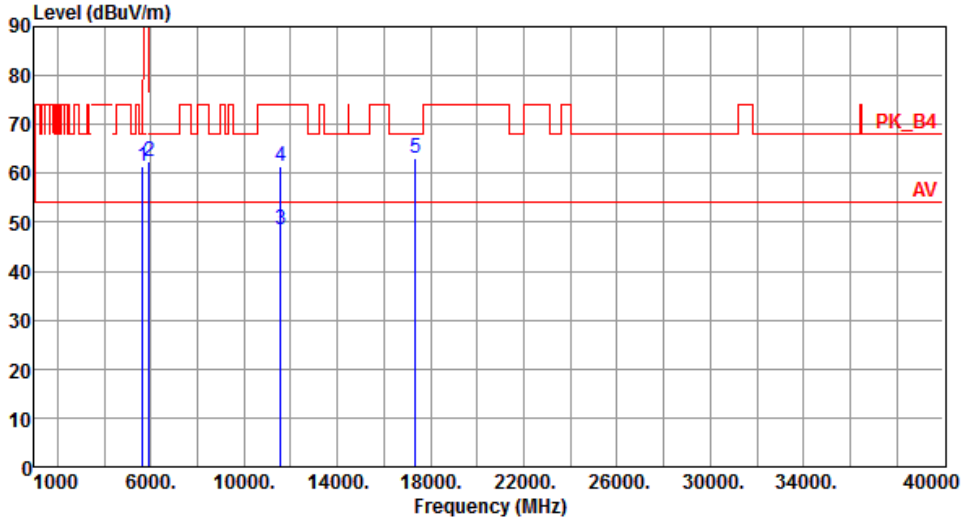
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



	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	60.97	68.20	-7.23	53.58	7.39	Peak	173	164
2	5925.00	62.48	68.20	-5.72	54.21	8.27	Peak	173	164
3	11570.00	50.26	54.00	-3.74	33.55	16.71	Average	135	164
4	11570.00	61.65	74.00	-12.35	44.94	16.71	Peak	135	164
5	17355.00	63.18	68.20	-5.02	43.94	19.24	Peak	100	26

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).

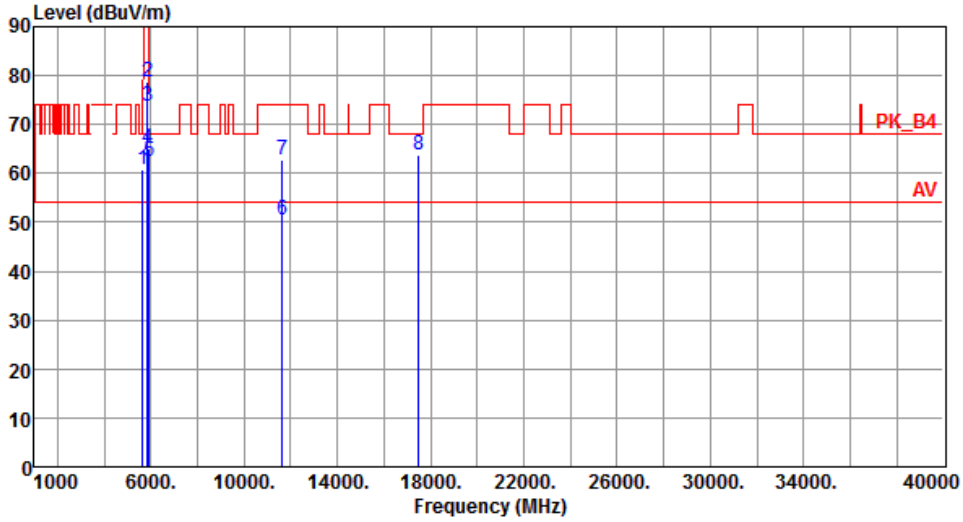
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		



	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	61.59	68.20	-6.61	54.20	7.39	Peak	199	203
2	5925.00	62.58	68.20	-5.62	54.31	8.27	Peak	199	203
3	11570.00	48.61	54.00	-5.39	31.90	16.71	Average	249	165
4	11570.00	61.43	74.00	-12.57	44.72	16.71	Peak	249	165
5	17355.00	63.07	68.20	-5.13	43.83	19.24	Peak	100	177

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).

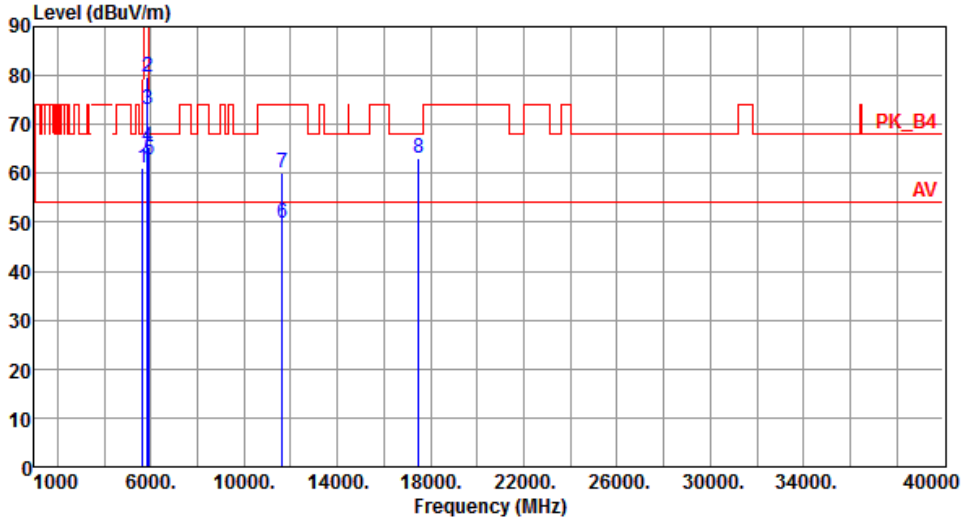
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal		



	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	60.64	68.20	-7.56	53.25	7.39	Peak	185	183
2	5850.00	78.70	122.20	-43.50	70.58	8.12	Peak	185	183
3	5855.00	73.71	110.80	-37.09	65.58	8.13	Peak	185	183
4	5875.00	65.07	105.20	-40.13	56.89	8.18	Peak	185	183
5	5925.00	62.48	68.20	-5.72	54.21	8.27	Peak	185	183
6	11650.00	50.64	54.00	-3.36	34.16	16.48	Average	156	163
7	11650.00	62.88	74.00	-11.12	46.40	16.48	Peak	156	163
8	17475.00	63.69	68.20	-4.51	43.85	19.84	Peak	100	24

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		

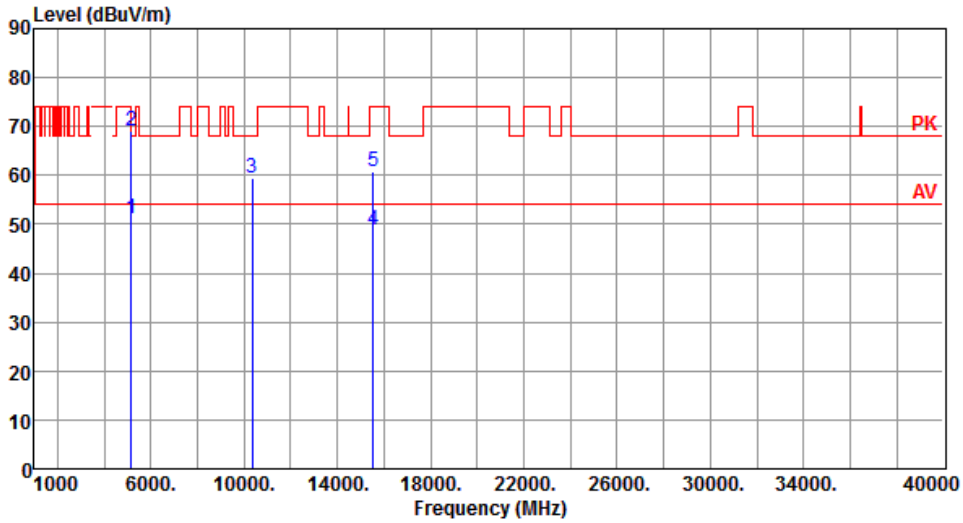


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	60.97	68.20	-7.23	53.58	7.39	Peak	210	215
2	5850.00	79.62	122.20	-42.58	71.50	8.12	Peak	210	215
3	5855.00	72.98	110.80	-37.82	64.85	8.13	Peak	210	215
4	5875.00	65.37	105.20	-39.83	57.19	8.18	Peak	210	215
5	5925.00	62.84	68.20	-5.36	54.57	8.27	Peak	210	215
6	11650.00	49.73	54.00	-4.27	33.25	16.48	Average	100	168
7	11650.00	59.98	74.00	-14.02	43.50	16.48	Peak	100	168
8	17475.00	63.08	68.20	-5.12	43.24	19.84	Peak	100	159

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

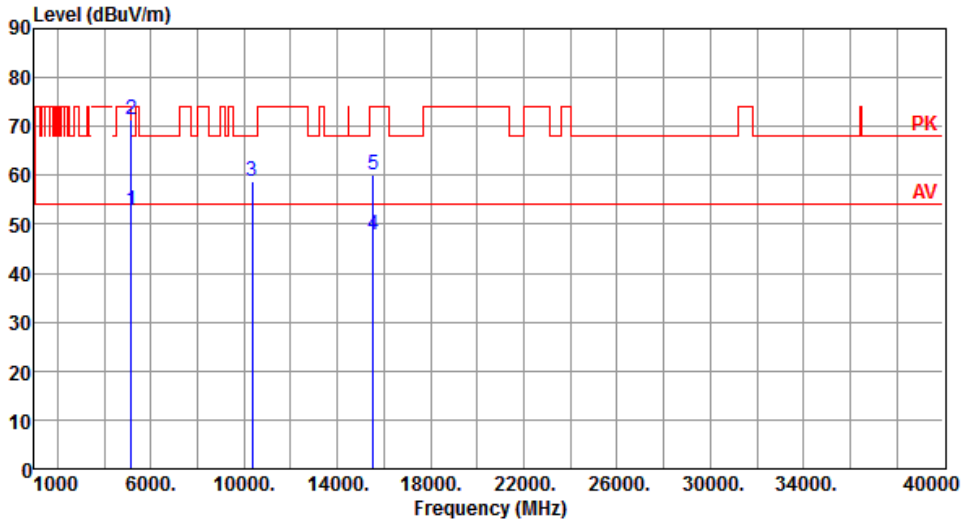
Modulation	VHT20	**Test Freq. (MHz)**	5180
Polarization	Horizontal		



	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	51.26	54.00	-2.74	43.84	7.42	Average	138	335
2	5150.00	69.00	74.00	-5.00	61.58	7.42	Peak	138	335
3	10360.00	59.56	68.20	-8.64	43.21	16.35	Peak	100	172
4	15540.00	48.67	54.00	-5.33	31.24	17.43	Average	100	39
5	15540.00	60.65	74.00	-13.35	43.22	17.43	Peak	100	39

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

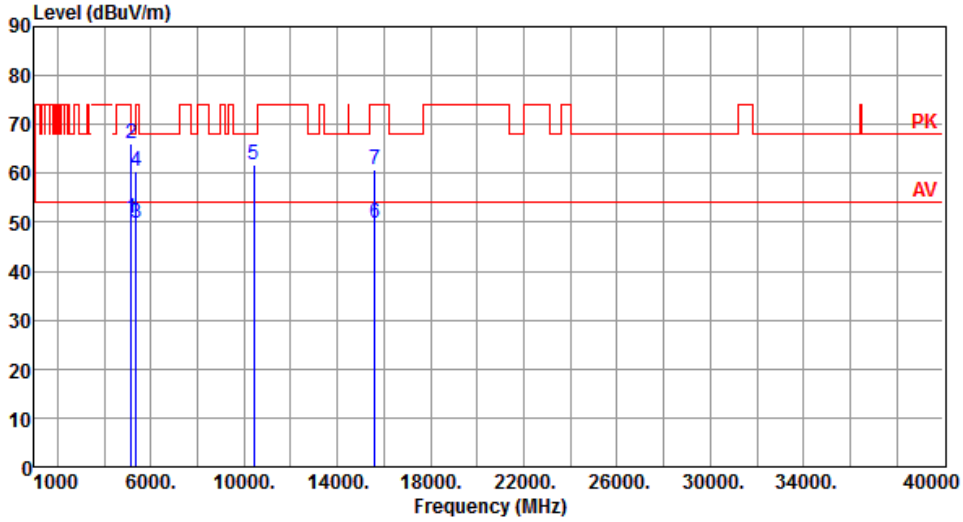
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	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	52.65	54.00	-1.35	45.23	7.42	Average	171	85
2	5150.00	71.39	74.00	-2.61	63.97	7.42	Peak	171	85
3	10360.00	58.90	68.20	-9.30	42.55	16.35	Peak	100	171
4	15540.00	47.68	54.00	-6.32	30.25	17.43	Average	100	166
5	15540.00	59.95	74.00	-14.05	42.52	17.43	Peak	100	166

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).

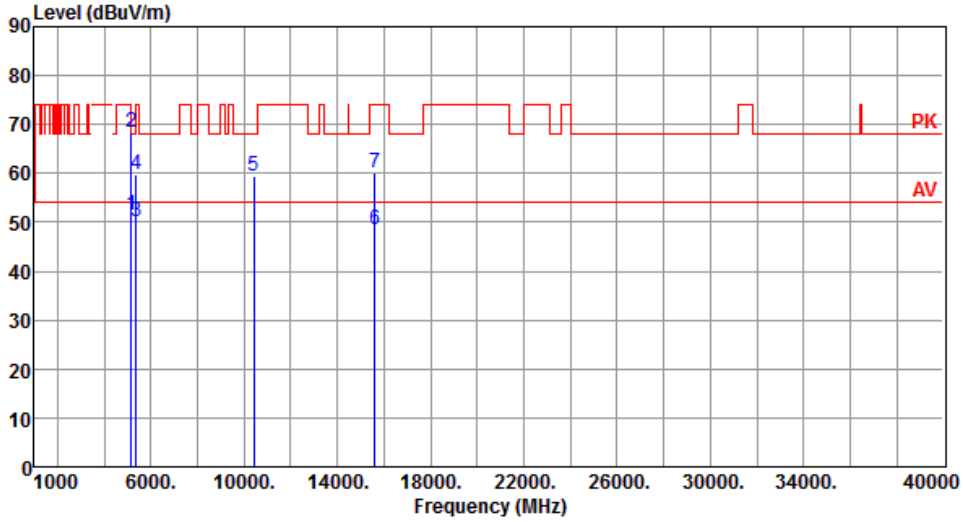
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal		



	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	50.69	54.00	-3.31	43.27	7.42	Average	135	339
2	5150.00	65.94	74.00	-8.06	58.52	7.42	Peak	135	339
3	5350.00	49.72	54.00	-4.28	42.87	6.85	Average	135	339
4	5350.00	60.35	74.00	-13.65	53.50	6.85	Peak	135	339
5	10400.00	61.73	68.20	-6.47	45.15	16.58	Peak	152	180
6	15600.00	49.66	54.00	-4.34	32.39	17.27	Average	100	30
7	15600.00	60.79	74.00	-13.21	43.52	17.27	Peak	100	30

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

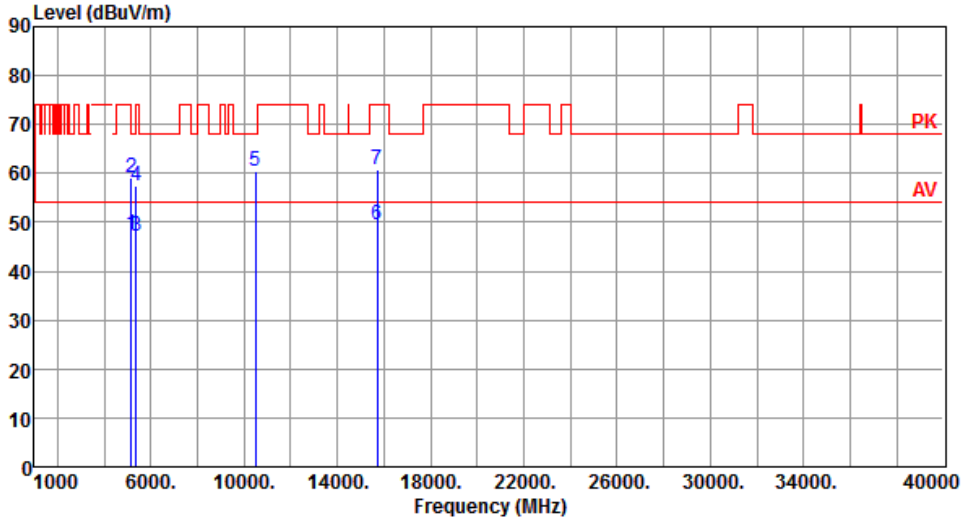
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical		



	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	51.51	54.00	-2.49	44.09	7.42	Average	165	78
2	5150.00	68.36	74.00	-5.64	60.94	7.42	Peak	165	78
3	5350.00	50.05	54.00	-3.95	43.20	6.85	Average	165	70
4	5350.00	59.72	74.00	-14.28	52.87	6.85	Peak	165	70
5	10400.00	59.52	68.20	-8.68	42.94	16.58	Peak	100	159
6	15600.00	48.48	54.00	-5.52	31.21	17.27	Average	100	156
7	15600.00	60.07	74.00	-13.93	42.80	17.27	Peak	100	156

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).

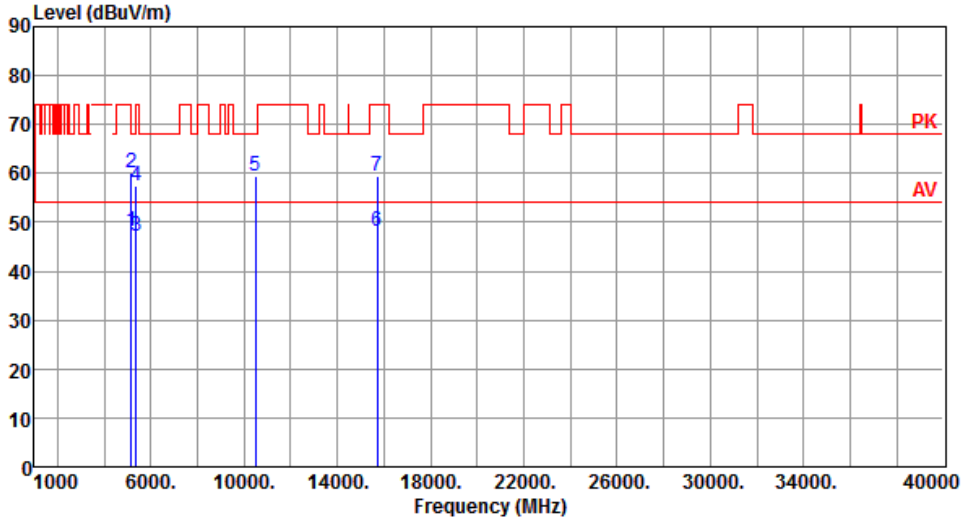
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal		



	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	47.65	54.00	-6.35	40.23	7.42	Average	132	339
2	5150.00	59.26	74.00	-14.74	51.84	7.42	Peak	132	339
3	5350.00	47.02	54.00	-6.98	40.17	6.85	Average	132	339
4	5350.00	57.45	74.00	-16.55	50.60	6.85	Peak	132	339
5	10480.00	60.39	68.20	-7.81	43.84	16.55	Peak	100	166
6	15720.00	49.54	54.00	-4.46	32.52	17.02	Average	100	35
7	15720.00	60.72	74.00	-13.28	43.70	17.02	Peak	100	35

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

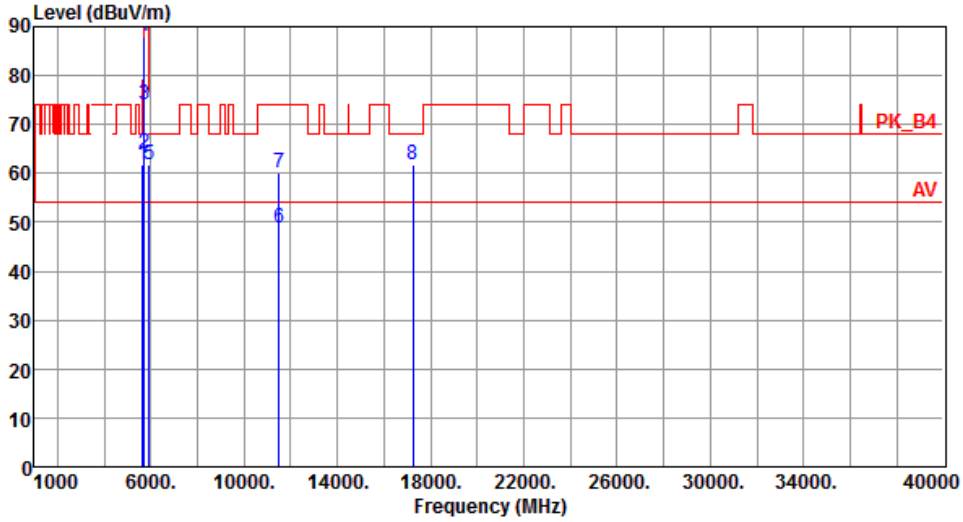
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical		



	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	48.26	54.00	-5.74	40.84	7.42	Average	172	68
2	5150.00	60.26	74.00	-13.74	52.84	7.42	Peak	172	68
3	5350.00	47.13	54.00	-6.87	40.28	6.85	Average	172	68
4	5350.00	57.59	74.00	-16.41	50.74	6.85	Peak	172	68
5	10480.00	59.36	68.20	-8.84	42.81	16.55	Peak	100	163
6	15720.00	48.27	54.00	-5.73	31.25	17.02	Average	100	159
7	15720.00	59.54	74.00	-14.46	42.52	17.02	Peak	100	159

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).

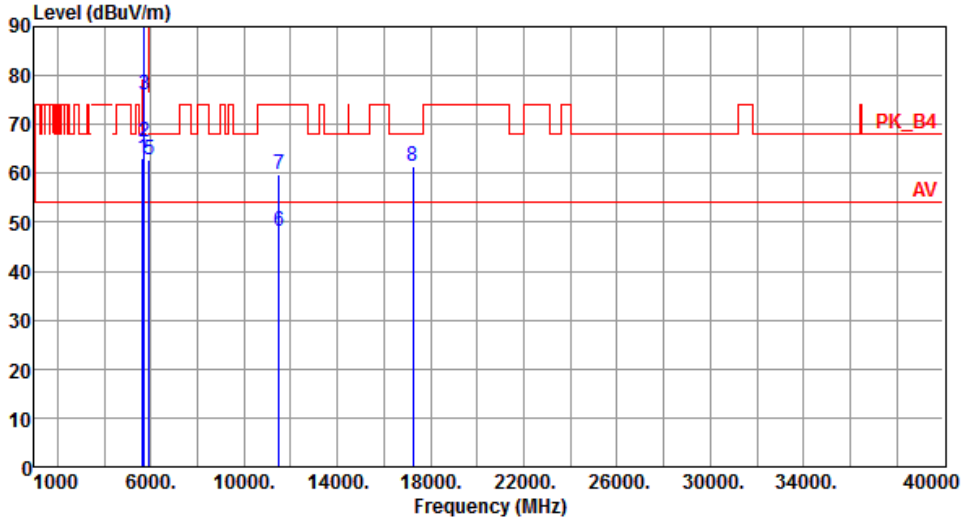
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



	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	61.64	68.20	-6.56	54.25	7.39	Peak	177	179
2	5700.00	63.94	105.20	-41.26	56.24	7.70	Peak	177	179
3	5720.00	73.99	110.80	-36.81	66.25	7.74	Peak	177	179
4	5725.00	87.99	122.20	-34.21	80.23	7.76	Peak	177	179
5	5925.00	61.86	68.20	-6.34	53.59	8.27	Peak	177	179
6	11490.00	48.70	54.00	-5.30	31.85	16.85	Average	100	169
7	11490.00	60.11	74.00	-13.89	43.26	16.85	Peak	100	169
8	17235.00	61.86	68.20	-6.34	43.25	18.61	Peak	100	38

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

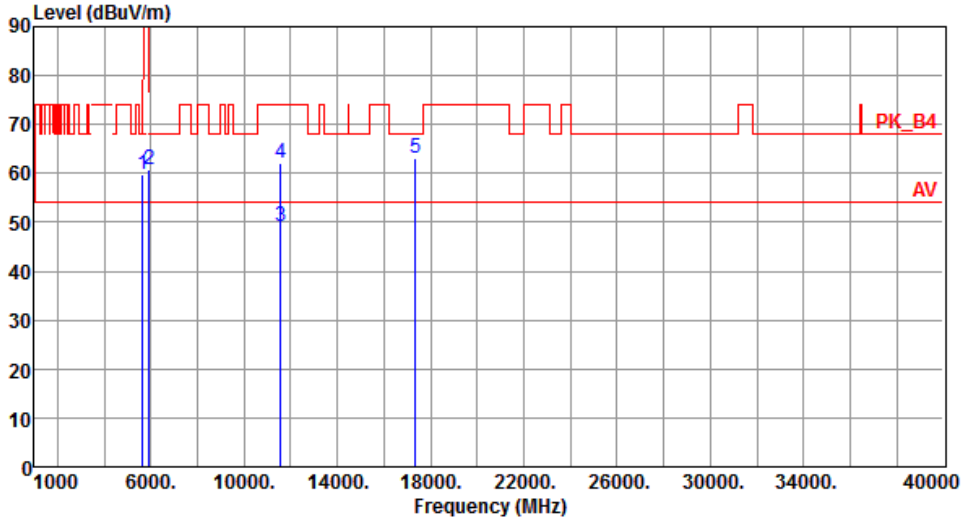
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		



	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	62.95	68.20	-5.25	55.56	7.39	Peak	181	215
2	5700.00	66.30	105.20	-38.90	58.60	7.70	Peak	181	215
3	5720.00	75.94	110.80	-34.86	68.20	7.74	Peak	181	215
4	5725.00	92.95	122.20	-29.25	85.19	7.76	Peak	181	215
5	5925.00	62.88	68.20	-5.32	54.61	8.27	Peak	181	215
6	11490.00	48.28	54.00	-5.72	31.43	16.85	Average	100	168
7	11490.00	59.70	74.00	-14.30	42.85	16.85	Peak	100	168
8	17235.00	61.36	68.20	-6.84	42.75	18.61	Peak	100	170

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).

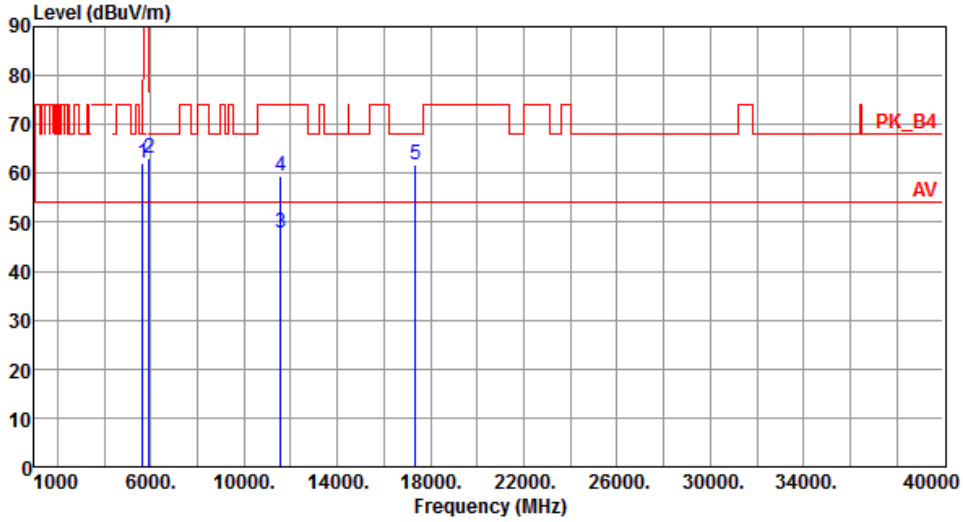
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	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	59.86	68.20	-8.34	52.47	7.39	Peak	175	182
2	5925.00	60.88	68.20	-7.32	52.61	8.27	Peak	175	182
3	11570.00	49.24	54.00	-4.76	32.53	16.71	Average	148	159
4	11570.00	62.15	74.00	-11.85	45.44	16.71	Peak	148	159
5	17355.00	63.09	68.20	-5.11	43.85	19.24	Peak	100	29

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).

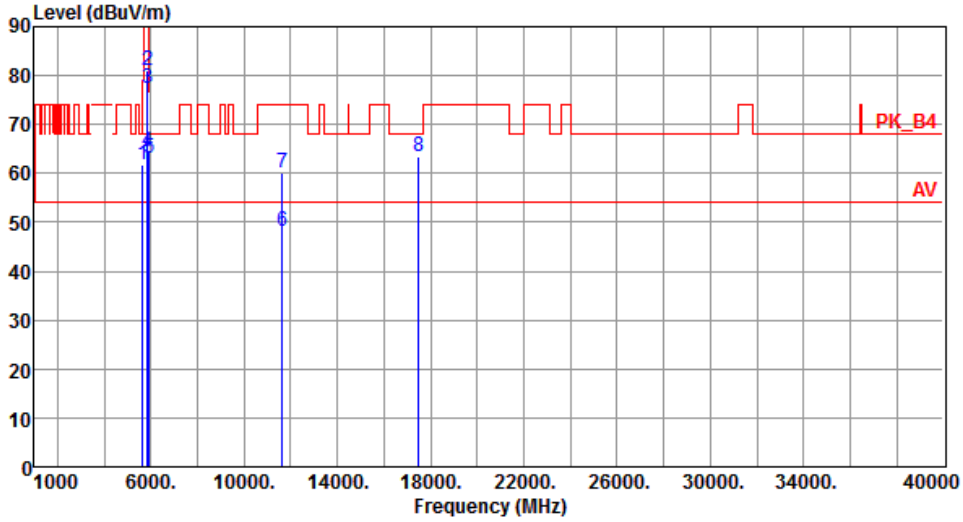
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		



	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	62.25	68.20	-5.95	54.86	7.39	Peak	200	217
2	5925.00	62.99	68.20	-5.21	54.72	8.27	Peak	200	217
3	11570.00	47.96	54.00	-6.04	31.25	16.71	Average	100	170
4	11570.00	59.29	74.00	-14.71	42.58	16.71	Peak	100	170
5	17355.00	61.75	68.20	-6.45	42.51	19.24	Peak	100	36

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

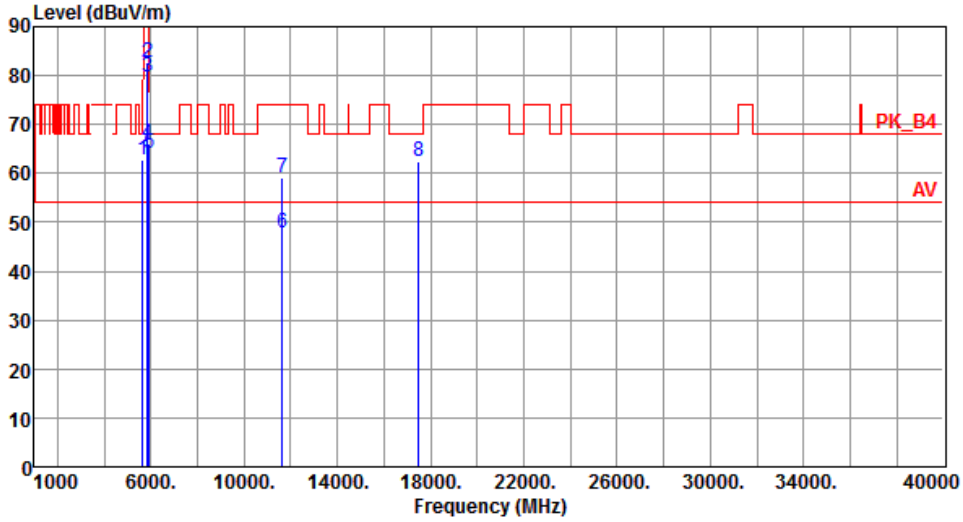
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



	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	61.64	68.20	-6.56	54.25	7.39	Peak	189	179
2	5850.00	80.96	122.20	-41.24	72.84	8.12	Peak	189	179
3	5855.00	77.38	110.80	-33.42	69.25	8.13	Peak	189	179
4	5875.00	64.42	105.20	-40.78	56.24	8.18	Peak	189	179
5	5925.00	63.14	68.20	-5.06	54.87	8.27	Peak	189	179
6	11650.00	48.16	54.00	-5.84	31.68	16.48	Average	100	168
7	11650.00	60.06	74.00	-13.94	43.58	16.48	Peak	100	168
8	17475.00	63.45	68.20	-4.75	43.61	19.84	Peak	100	159

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		

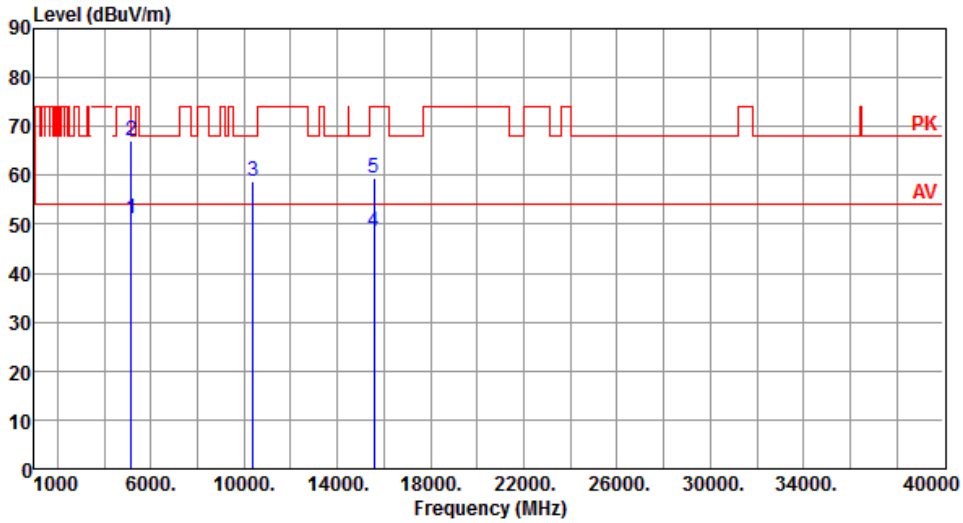


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	62.80	68.20	-5.40	55.41	7.39	Peak	219	218
2	5850.00	82.82	122.20	-39.38	74.70	8.12	Peak	219	218
3	5855.00	79.68	110.80	-31.12	71.55	8.13	Peak	219	218
4	5875.00	66.03	105.20	-39.17	57.85	8.18	Peak	219	218
5	5925.00	63.97	68.20	-4.23	55.70	8.27	Peak	219	218
6	11650.00	47.89	54.00	-6.11	31.41	16.48	Average	100	165
7	11650.00	59.00	74.00	-15.00	42.52	16.48	Peak	100	165
8	17475.00	62.51	68.20	-5.69	42.67	19.84	Peak	100	163

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

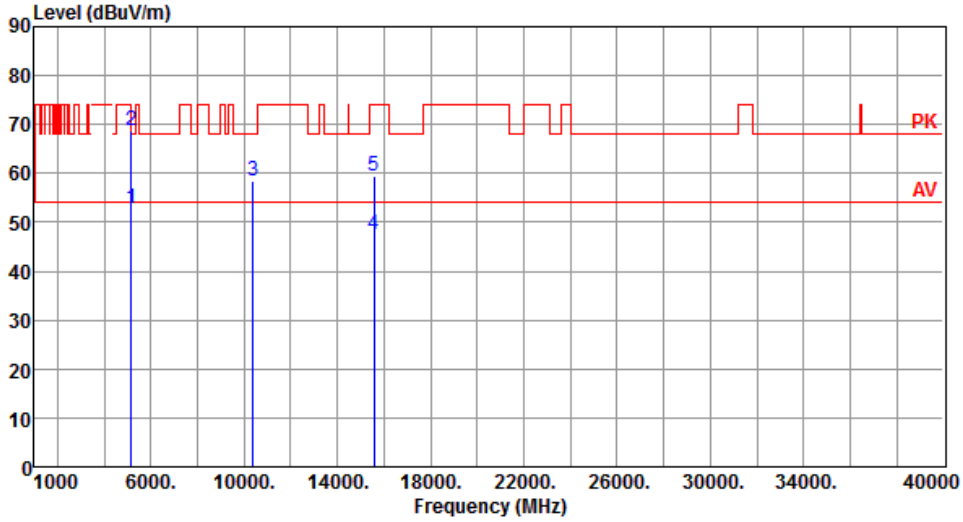
Modulation	VHT40	**Test Freq. (MHz)**	5190
Polarization	Horizontal		



	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	51.12	54.00	-2.88	43.70	7.42	Average	138	335
2	5150.00	66.93	74.00	-7.07	59.51	7.42	Peak	138	335
3	10380.00	58.75	68.20	-9.45	42.29	16.46	Peak	100	181
4	15570.00	48.60	54.00	-5.40	31.25	17.35	Average	100	32
5	15570.00	59.52	74.00	-14.48	42.17	17.35	Peak	100	32

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

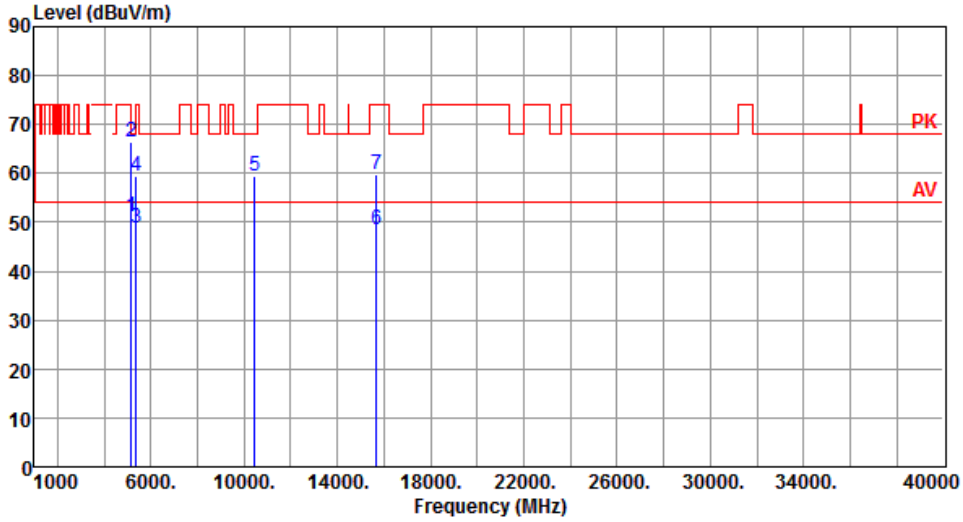
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Vertical		



	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	52.74	54.00	-1.26	45.32	7.42	Average	177	81
2	5150.00	68.61	74.00	-5.39	61.19	7.42	Peak	177	81
3	10380.00	58.61	68.20	-9.59	42.15	16.46	Peak	100	162
4	15570.00	47.60	54.00	-6.40	30.25	17.35	Average	100	158
5	15570.00	59.41	74.00	-14.59	42.06	17.35	Peak	100	158

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).

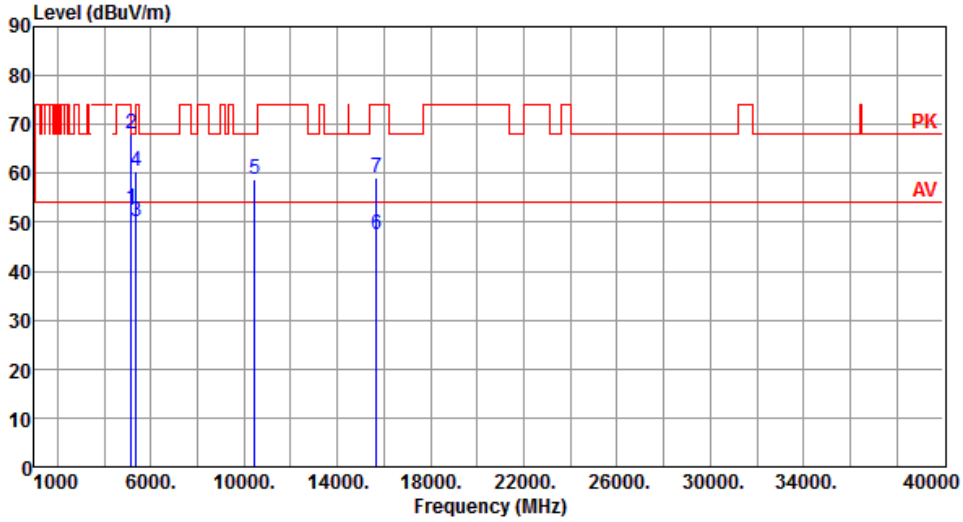
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Horizontal		



	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	51.15	54.00	-2.85	43.73	7.42	Average	140	330
2	5150.00	66.29	74.00	-7.71	58.87	7.42	Peak	140	330
3	5350.00	48.73	54.00	-5.27	41.88	6.85	Average	140	330
4	5350.00	59.37	74.00	-14.63	52.52	6.85	Peak	140	330
5	10460.00	59.40	68.20	-8.80	42.85	16.55	Peak	100	175
6	15690.00	48.38	54.00	-5.62	31.25	17.13	Average	100	32
7	15690.00	59.65	74.00	-14.35	42.52	17.13	Peak	100	32

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

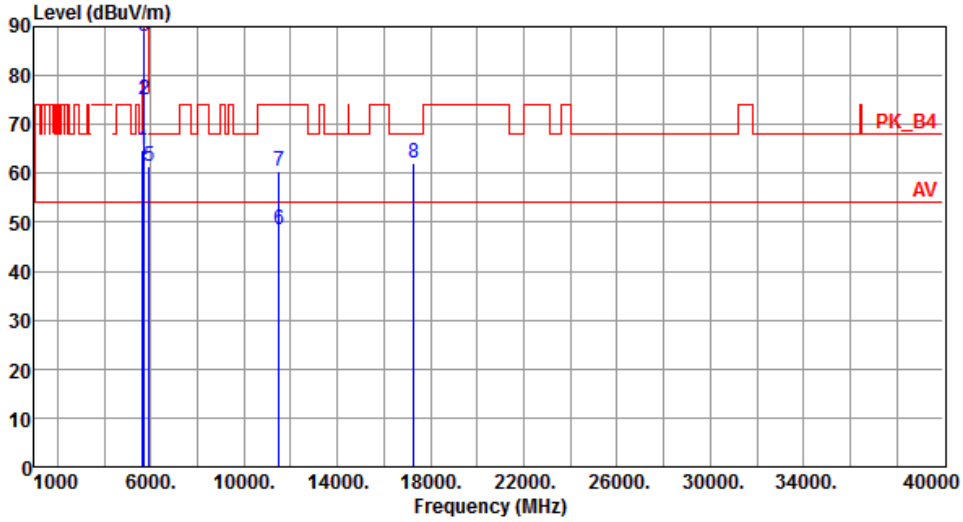
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical		



	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	52.90	54.00	-1.10	45.48	7.42	Average	197	75
2	5150.00	67.96	74.00	-6.04	60.54	7.42	Peak	197	75
3	5350.00	50.00	54.00	-4.00	43.15	6.85	Average	197	75
4	5350.00	60.43	74.00	-13.57	53.58	6.85	Peak	197	75
5	10460.00	58.73	68.20	-9.47	42.18	16.55	Peak	100	168
6	15690.00	47.38	54.00	-6.62	30.25	17.13	Average	100	162
7	15690.00	59.22	74.00	-14.78	42.09	17.13	Peak	100	162

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).

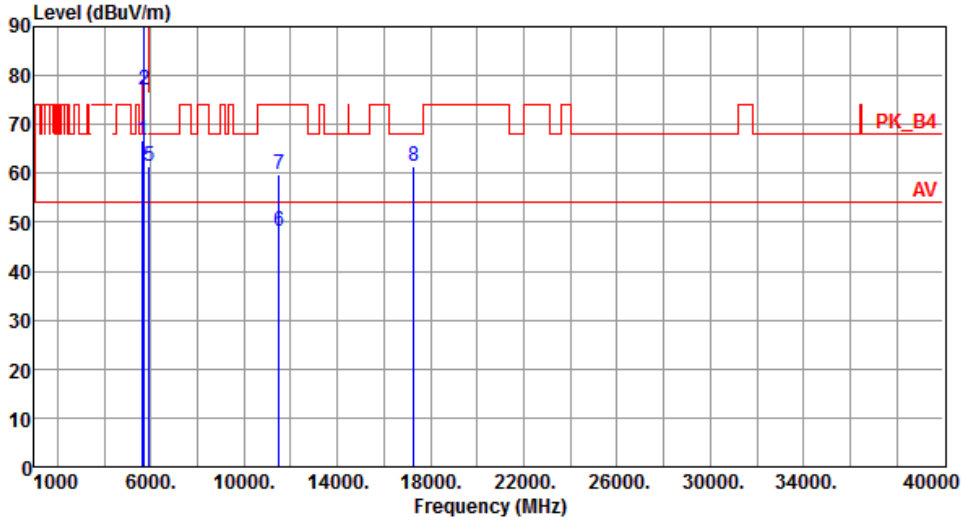
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



	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	64.91	68.20	-3.29	57.52	7.39	Peak	185	192
2	5700.00	75.22	105.20	-29.98	67.52	7.70	Peak	185	192
3	5720.00	87.99	110.80	-22.81	80.25	7.74	Peak	185	192
4	5725.00	88.95	122.20	-33.25	81.19	7.76	Peak	185	192
5	5925.00	61.48	68.20	-6.72	53.21	8.27	Peak	185	192
6	11510.00	48.41	54.00	-5.59	31.56	16.85	Average	100	176
7	11510.00	60.32	74.00	-13.68	43.47	16.85	Peak	100	176
8	17265.00	61.99	68.20	-6.21	43.25	18.74	Peak	100	38

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

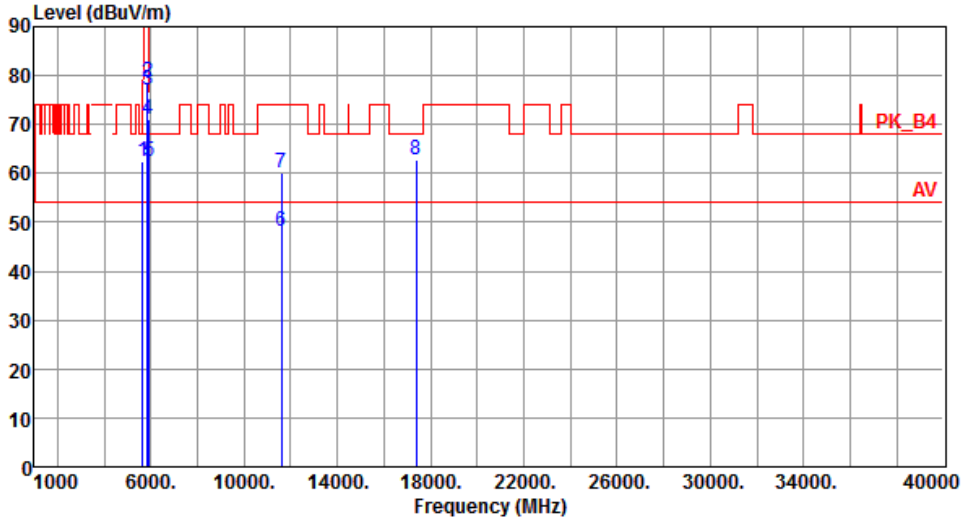
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		



	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	66.85	68.20	-1.35	59.46	7.39	Peak	191	210
2	5700.00	77.12	105.20	-28.08	69.42	7.70	Peak	191	210
3	5720.00	89.74	110.80	-21.06	82.00	7.74	Peak	191	210
4	5725.00	90.71	122.20	-31.49	82.95	7.76	Peak	191	210
5	5925.00	61.53	68.20	-6.67	53.26	8.27	Peak	191	210
6	11510.00	48.02	54.00	-5.98	31.17	16.85	Average	100	159
7	11510.00	59.65	74.00	-14.35	42.80	16.85	Peak	100	159
8	17265.00	61.28	68.20	-6.92	42.54	18.74	Peak	100	160

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).

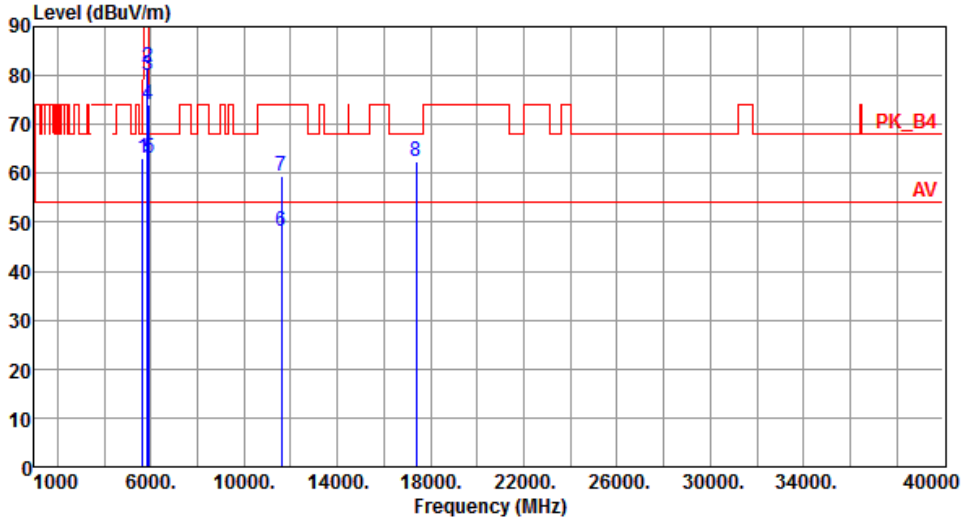
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal		



	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	62.56	68.20	-5.64	55.17	7.39	Peak	185	188
2	5850.00	78.70	122.20	-43.50	70.58	8.12	Peak	185	188
3	5855.00	76.98	110.80	-33.82	68.85	8.13	Peak	185	188
4	5875.00	71.02	105.20	-34.18	62.84	8.18	Peak	185	188
5	5925.00	62.53	68.20	-5.67	54.26	8.27	Peak	185	188
6	11590.00	48.24	54.00	-5.76	31.57	16.67	Average	100	186
7	11590.00	60.24	74.00	-13.76	43.57	16.67	Peak	100	186
8	17385.00	62.92	68.20	-5.28	43.50	19.42	Peak	100	30

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

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical		

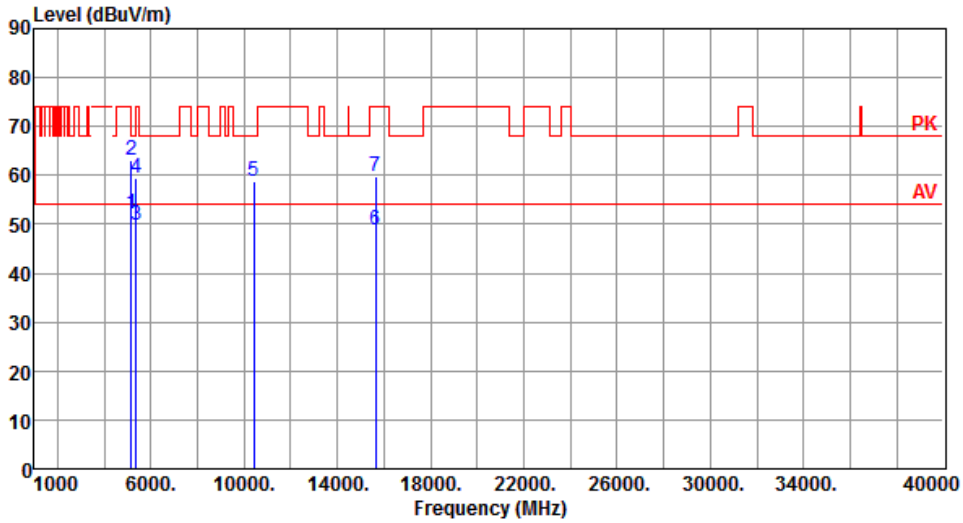


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	62.97	68.20	-5.23	55.58	7.39	Peak	182	214
2	5850.00	81.86	122.20	-40.34	73.74	8.12	Peak	182	214
3	5855.00	80.06	110.80	-30.74	71.93	8.13	Peak	182	214
4	5875.00	74.12	105.20	-31.08	65.94	8.18	Peak	182	214
5	5925.00	63.01	68.20	-5.19	54.74	8.27	Peak	182	214
6	11590.00	48.02	54.00	-5.98	31.35	16.67	Average	100	170
7	11590.00	59.50	74.00	-14.50	42.83	16.67	Peak	100	170
8	17385.00	62.37	68.20	-5.83	42.95	19.42	Peak	100	35

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

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

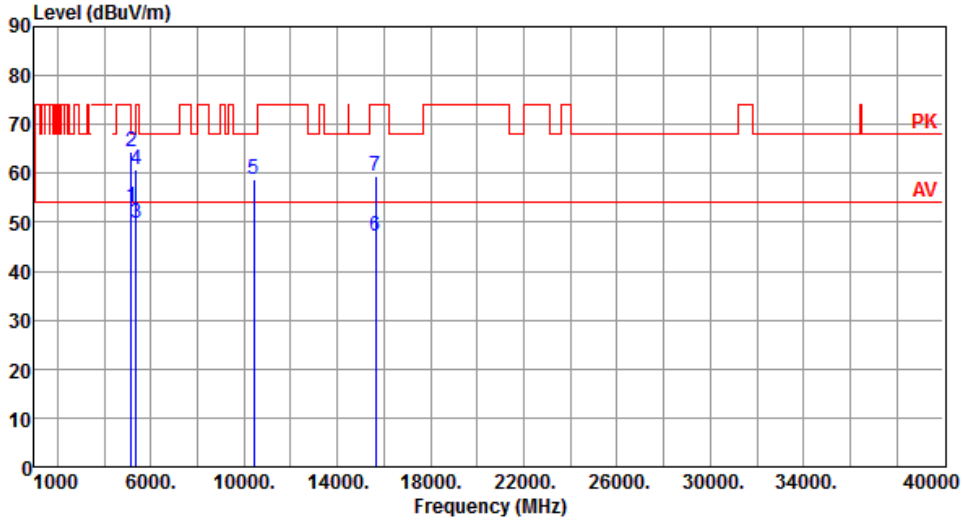
Modulation	VHT80	**Test Freq. (MHz)**	5210
Polarization	Horizontal		



	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	51.97	54.00	-2.03	44.55	7.42	Average	136	329
2	5150.00	63.01	74.00	-10.99	55.59	7.42	Peak	136	329
3	5350.00	49.69	54.00	-4.31	42.84	6.85	Average	177	329
4	5350.00	59.35	74.00	-14.65	52.50	6.85	Peak	177	329
5	10420.00	58.78	68.20	-9.42	42.21	16.57	Peak	100	176
6	15630.00	48.72	54.00	-5.28	31.49	17.23	Average	100	39
7	15630.00	59.85	74.00	-14.15	42.62	17.23	Peak	100	39

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

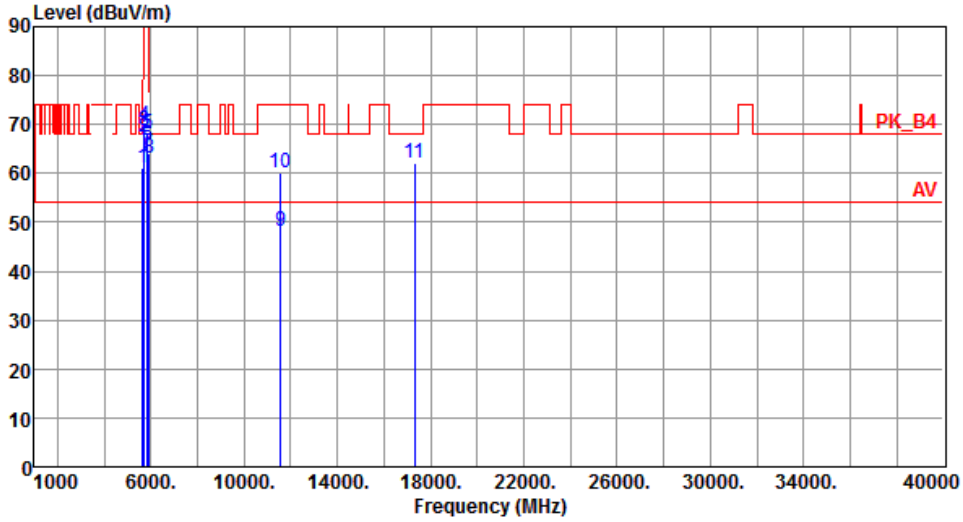
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical		



	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	45.57	7.42	Average	100	78
2	5150.00	64.38	74.00	-9.62	56.96	7.42	Peak	100	78
3	5350.00	49.82	54.00	-4.18	42.97	6.85	Average	100	69
4	5350.00	60.83	74.00	-13.17	53.98	6.85	Peak	100	69
5	10420.00	58.62	68.20	-9.58	42.05	16.57	Peak	100	163
6	15630.00	47.30	54.00	-6.70	30.07	17.23	Average	100	159
7	15630.00	59.41	74.00	-14.59	42.18	17.23	Peak	100	159

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).

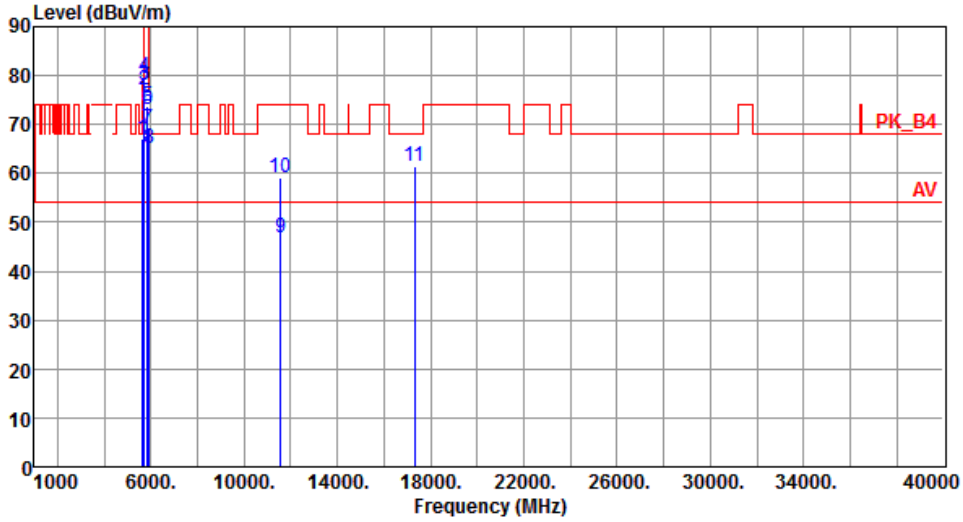
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		



	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	61.23	68.20	-6.97	53.84	7.39	Peak	181	160
2	5700.00	67.58	105.20	-37.62	59.88	7.70	Peak	181	160
3	5720.00	68.60	110.80	-42.20	60.86	7.74	Peak	181	160
4	5725.00	69.65	122.20	-52.55	61.89	7.76	Peak	181	160
5	5850.00	67.92	122.20	-54.28	59.80	8.12	Peak	181	160
6	5855.00	65.72	110.80	-45.08	57.59	8.13	Peak	181	160
7	5875.00	64.05	105.20	-41.15	55.87	8.18	Peak	181	160
8	5925.00	63.12	68.20	-5.08	54.85	8.27	Peak	181	160
9	11550.00	48.25	54.00	-5.75	31.49	16.76	Average	100	175
10	11550.00	60.01	74.00	-13.99	43.25	16.76	Peak	100	175
11	17325.00	62.24	68.20	-5.96	43.20	19.04	Peak	100	39

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

Modulation	VHT80	Test Freq. (MHz)	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	59.53	7.39	Peak	188	218
2	5700.00	77.09	105.20	-28.11	69.39	7.70	Peak	188	218
3	5720.00	77.99	110.80	-32.81	70.25	7.74	Peak	188	218
4	5725.00	79.64	122.20	-42.56	71.88	7.76	Peak	188	218
5	5850.00	73.71	122.20	-48.49	65.59	8.12	Peak	188	218
6	5855.00	72.93	110.80	-37.87	64.80	8.13	Peak	188	218
7	5875.00	69.15	105.20	-36.05	60.97	8.18	Peak	188	218
8	5925.00	65.13	68.20	-3.07	56.86	8.27	Peak	188	218
9	11550.00	46.81	54.00	-7.19	30.05	16.76	Average	100	176
10	11550.00	59.26	74.00	-14.74	42.50	16.76	Peak	100	176
11	17325.00	61.50	68.20	-6.70	42.46	19.04	Peak	100	172

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

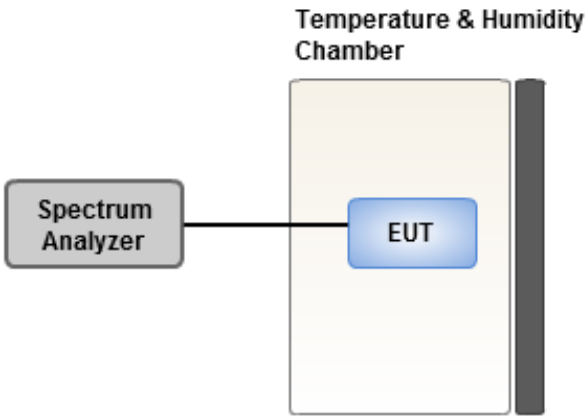
3.6.1 Limit of Frequency Stability

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	5.94	5.98	6.35	6.37
T20°CVmin	5.83	5.79	6.44	6.22
T50°CVnom	5.07	4.91	5.49	4.86
T40°CVnom	4.58	5.38	4.48	4.29
T30°CVnom	5.60	5.59	5.19	5.38
T20°CVnom	5.77	5.78	6.35	6.16
T10°CVnom	3.11	3.28	2.79	2.99
T0°CVnom	4.44	5.13	4.30	4.16
T-10°CVnom	3.75	3.99	4.26	3.97
T-20°CVnom	1.30	1.53	1.48	1.19
T-30°CVnom	1.25	1.76	2.05	1.48
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	5.41	5.14	5.41	5.60
T20°CVmin	5.27	5.92	5.91	5.44
T50°CVnom	4.28	4.49	4.19	4.85
T40°CVnom	4.59	4.48	4.68	4.41
T30°CVnom	4.80	5.15	5.03	4.80
T20°CVnom	5.71	5.75	6.22	5.38
T10°CVnom	3.44	3.80	3.28	3.74
T0°CVnom	3.68	3.40	3.73	3.43
T-10°CVnom	3.52	3.58	3.30	4.17
T-20°CVnom	1.77	2.11	1.47	1.36
T-30°CVnom	0.78	0.70	1.15	0.78
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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