FCC C2PC Test Report

FCC ID	:	**I88WAC6503D-S**
Equipment	:	**802.11 ac Unified Pro Access Point**
Model No.	:	**WAC6503D-S、NAP303** **(for marketing purpose only)**
Brand Name	:	**ZyXEL**
Applicant	:	**ZyXEL Communications Corporation**
Address	:	**No. 2, Gongye E. 9th Road, Hsinchu Science Park, Hsinchu, Taiwan**
Standard	:	**47 CFR FCC Part 15.407**
Received Date	:	**Dec. 03, 2015**
Tested Date	:	**Dec. 28, 2015 ~ Feb. 18, 2016**

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.

Approved & Reviewed by:

Gary Chang / Manager

Testing Laboratory
2732

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Release Record

Report No.	Version	Description	Issued Date
FR5D0303	Rev. 01	Initial issue	Apr. 20, 2016

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 16.228MHz 38.98 (Margin -11.02dB) - AV	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5725.00MHz 77.68 (Margin -0.52dB) - PK	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: 27.24 5725-5850MHz: 27.82	Pass
15.407(a)	Peak Power Spectral Density	Meet the requirement of limit	Pass
15.407(g)	Frequency Stability	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

1 General Description

1.1 Information

This report is prepared for FCC class II Permissive change.

This report is issued as a supplementary report to original ICC report no. FR4O0702. The modifications are concerned with following:

- ✧ Additional model NAP303 for marketing purpose
- ✧ Complying with New U-NII rule requirement and increases output power of U-NII band 1 by software setting.

There are No test results of U-NII band 2A/2C in this report since requirement of both bands is not changed and device keeps all conditions of both bands as grant.

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]	3	6-54 Mbps
5150-5250	n (HT20)	5180-5240	36-48 [4]	3	MCS 0-23
5150-5250	n (HT40)	5190-5230	38-46 [2]	3	MCS 0-23
5150-5250	ac (VHT20)	5180-5240	36-48 [4]	3	MCS 0-9
5150-5250	ac (VHT40)	5190-5230	38-46 [2]	3	MCS 0-9
5150-5250	ac (VHT80)	5210	42 [1]	3	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]	3	6-54 Mbps
5725-5850	n (HT20)	5745-5825	149-165 [5]	3	MCS 0-23
5725-5850	n (HT40)	5755-5795	151-159 [2]	3	MCS 0-23
5725-5850	ac (VHT20)	5745-5825	149-165 [5]	3	MCS 0-9
5725-5850	ac (VHT40)	5755-5795	151-159 [2]	3	MCS 0-9
5725-5850	ac (VHT80)	5775	155 [1]	3	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)			
				5150~5250	5250~5350	5470~5725	5725~5850
1	WAC6503D-S	Dipole	IPEX	6	6	6	6

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	1. AC Adapter (support unit only.) Brand: DVE Model: DSA-24CA-12 120120 Rating: I/P: 100-240Vac, 50/60Hz, 0.8A O/P: 12Vdc, 2A
	2. POE Injector (support unit for radiated emission test only.) Brand: ZyXEL Model: PoE12-HP Rating: I/P: 100-240Vac, 50/60Hz, 1.5A max. O/P: 48Vdc, 42.1W
	3. POE Injector (support unit for conducted emission only.) Brand: PowerDsine 3001GC Model: E018205D G Rating: I/P: 100-250Vac, 50/60Hz, 0.5A O/P: 48Vdc, 0.35A

1.1.4 Accessories

N/A

1.1.5 Channel List

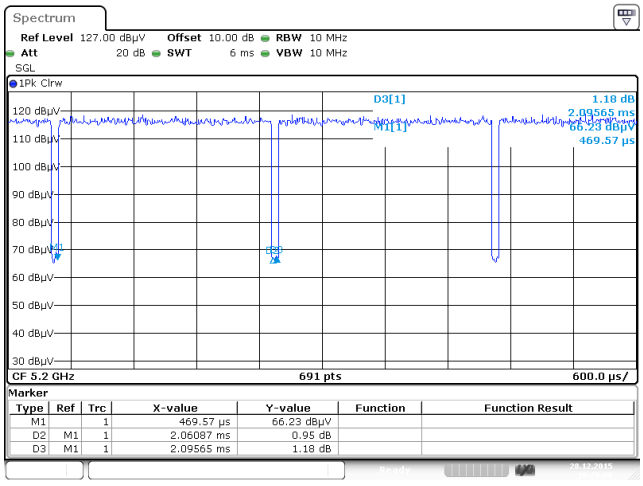
For Frequency band 5150-5250 MHz			
802.11 a / HT20 / VHT20		HT40 / VHT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	VHT80	
48	5240	42	5210

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

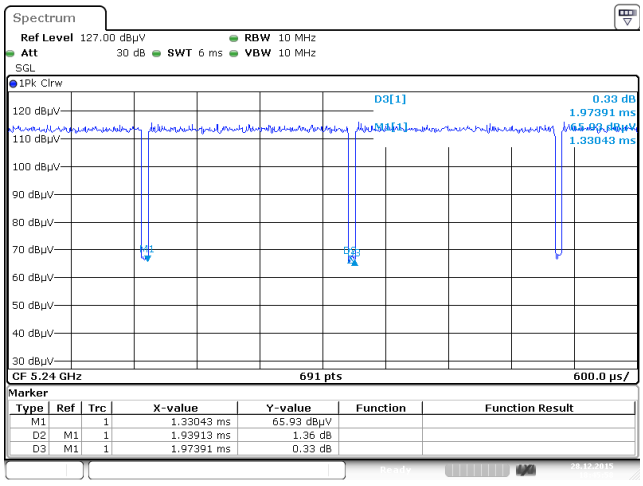
1.1.6 Test Tool and Duty Cycle

Test Tool	ART2, Version: 4_9_802_1_CS_Bin		
Duty Cycle and Duty Factor	Mode	Duty cycle (%)	Duty factor (dB)
	11a	98.34%	0.07
	VHT20	98.24%	0.08
	VHT40	94.85%	0.23
	VHT80	98.07%	0.08

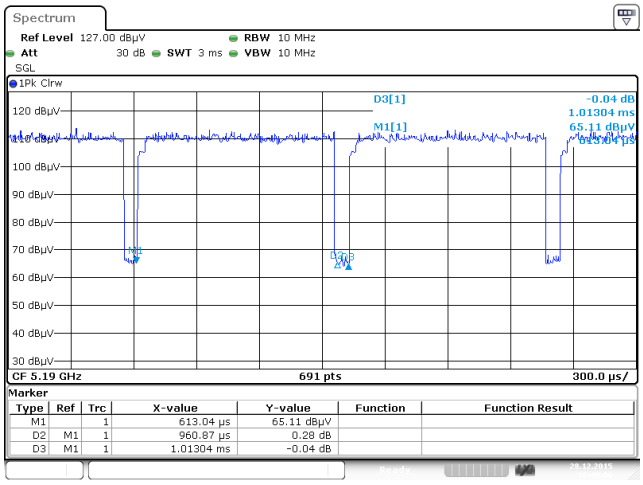
11a



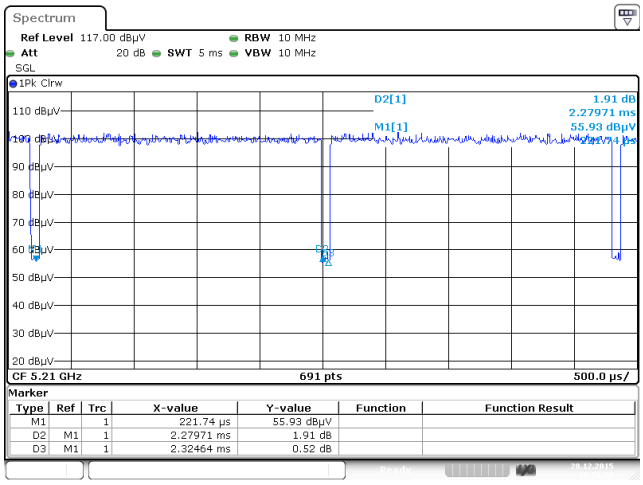
11ac VHT20



11ac VHT40



11ac VHT80



1.1.7 Power Setting

For Frequency band 5150-5250 MHz		
Modulation Mode	**Test Frequency (MHz)**	**Power Set**
11a	5180	19
11a	5200	19
11a	5240	19.5
HT20	5180	19
HT20	5200	19
HT20	5240	19.5
HT40	5190	16.5
HT40	5230	23.5
VHT20	5180	19
VHT20	5200	19
VHT20	5240	19.5
VHT40	5190	16.5
VHT40	5230	23.5
VHT80	5210	14.5

For Frequency band 5725~5850 MHz		
Modulation Mode	**Test Frequency (MHz)**	**Power Set**
11a	5745	21.5
11a	5785	27
11a	5825	23
HT20	5745	21.5
HT20	5785	27
HT20	5825	23
HT40	5755	18.50
HT40	5795	22.50
VHT20	5745	21.5
VHT20	5785	27
VHT20	5825	23
VHT40	5755	18.50
VHT40	5795	22.50
VHT80	5775	14.50

1.2 Local Support Equipment List

Support Equipment List (Adapter Mode)					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Signal cable / Length (m)**
1	Notebook01	DELL	Latitude E5430	C0GB4X1	RJ45, 10m non-shielded w/o core.
2	Notebook02	DELL	Latitude E6440	JMXMD12	RJ45, 10m non-shielded w/o core.
3	AC Adapter	DVE	DSA-24CA-12 120120	---	---

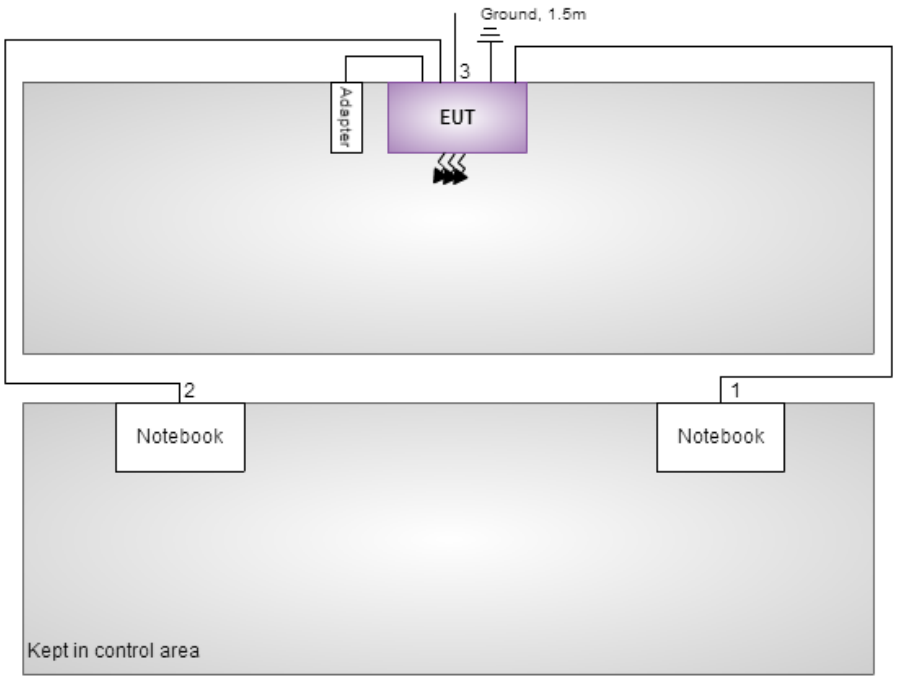
Note: No. 3 was provided by applicant.

Support Equipment List (POE Mode)					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Signal cable / Length (m)**
1	Notebook	DELL	Latitude E5430	C0GB4X1	RJ45, 10m non-shielded w/o core.
2	Notebook	DELL	Latitude E5430	9ZFB4X1	RJ45, 1m non-shielded w/o core.
3	POE Injector	ZyXEL	PoE12-HP	---	RJ45, 10m non-shielded w/o core.
4	POE Injector	PowerDsine 3001GC	E018205D G	---	RJ45, 10m non-shielded w/o core.

Note:
1) No. 3 & 4 were provided by applicant.
2) No. 3 was for radiated emission test used.
3) No. 4 was for conducted emission test used.

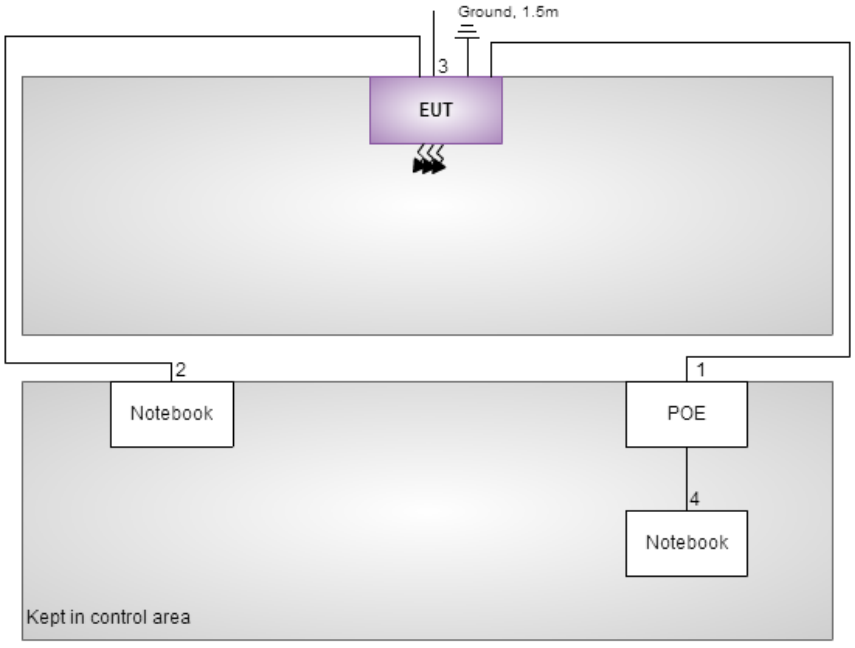
1.3 Test Setup Chart

Test Setup Diagram (Adapter Mode)



1-2. RJ45, 10m non-shielded w/o core
3. Console, 1.8m shielded w/o core

Test Setup Diagram (POE Mode)



1-2. RJ45, 10m non-shielded w/o core
3. Console, 1.8m shielded w/o core
4. RJ45, 1m non-shielded w/o core

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Dec. 30, 2015				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
EMC Receiver	R&S	ESCS 30	100169	Oct. 21, 2015	Oct. 20, 2016
LISN	SCHWARZBECK	Schwarzbeck 8127	8127-667	Nov. 13, 2015	Nov. 12, 2016
ESH3-Z6 V-Network	R&S	ESH3-Z6	100951	Jan. 23, 2015	Jan. 22, 2016
ESH3-Z6 V-Network	R&S	ESH3-Z6	100920	Nov. 26, 2015	Nov. 25, 2016
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 2 / (03CH02-WS)				
Tested Date	Dec. 28, 2015 ~ Jan. 07, 2016				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101499	Dec. 17, 2015	Dec. 16, 2016
Receiver	R&S	ESR3	101657	Jan. 15, 2015	Jan. 14, 2016
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-523	Nov. 09, 2015	Nov. 08, 2016
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1095	Oct. 07, 2015	Oct. 06, 2016
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 04, 2015	Nov. 03, 2016
Loop Antenna	R&S	HFH2-Z2	11900	Nov. 16, 2015	Nov. 15, 2016
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Dec. 10, 2015	Dec. 09, 2016
Preamplifier	Burgeon	BPA-530	100218	Nov. 03, 2015	Nov. 02, 2016
Preamplifier	Agilent	83017A	MY39501309	Sep. 22, 2015	Sep. 21, 2016
Preamplifier	EMC	EMC184045B	980192	Sep. 01, 2015	Aug. 31, 2016
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16140/4	Dec. 10, 2015	Dec. 09, 2016
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16018/4	Dec. 10, 2015	Dec. 09, 2016
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16015/4	Dec. 10, 2015	Dec. 09, 2016
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-003	Dec. 10, 2015	Dec. 09, 2016
LF cable 10M	EMCC	CFD400-E	CFD400-001	Dec. 10, 2015	Dec. 09, 2016
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	Feb. 17 ~ Feb. 18, 2016				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101499	Dec. 17, 2015	Dec. 16, 2016
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Nov. 27, 2015	Nov. 26, 2016
Power Meter	Anritsu	ML2495A	1241002	Sep. 21, 2015	Sep. 20, 2016
Power Sensor	Anritsu	MA2411B	1207366	Sep. 21, 2015	Sep. 20, 2016
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 v01r01
FCC KDB 644545 D03 Guidance for IEEE 802 11ac New Rules v01
FCC KDB 662911 D01 Multiple Transmitter Output v02r01
FCC KDB 412172 D01 Determining ERP and EIRP v01r01

1.6 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

Measurement Uncertainty	
Parameters	**Uncertainty**
Bandwidth	±34.134 Hz
Conducted power	±0.808 dB
Frequency error	±34.134 Hz
Power density	±0.463 dB
Conducted emission	±2.670 dB
AC conducted emission	±2.90 dB
Radiated emission ≤ 1GHz	±3.87 dB
Radiated emission > 1GHz	±5.60 dB
Time	±0.1%
Temperature	±0.6 °C

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	19°C / 55%	Peter Lin
Radiated Emissions	03CH02-WS	20-22°C / 63-69%	Warren Lee
RF Conducted	TH01-WS	22°C / 63%	Brad Wu

FCC site registration No.: 181692

2.2 The Worst Test Modes and Channel Details

For Frequency band 5150-5250 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate (Mbps) / MCS**	**Test Configuration**
Conducted Emissions	VHT40	5230	MCS 0	1.2
Radiated Emissions ≤1GHz	VHT40	5230	MCS 0	1.2
RF Output Power	11a	5180 / 5200 / 5240	6 Mbps	2
	HT20	5180 / 5200 / 5240	MCS 0	
	HT40	5190 / 5230	MCS 0	
	VHT20	5180 / 5200 / 5240	MCS 0	
	VHT40	5190 / 5230	MCS 0	
	VHT80	5210	MCS 0	
Radiated Emissions >1GHz	11a	5180 / 5200 / 5240	6 Mbps	2
	VHT20	5180 / 5200 / 5240	MCS 0	
	VHT40	5190 / 5230	MCS 0	
	VHT80	5210	MCS 0	
Emission Bandwidth Peak Power Spectral Density	11a	5180 / 5200 / 5240	6 Mbps	2
	VHT20	5180 / 5200 / 5240	MCS 0	
	VHT40	5190 / 5230	MCS 0	
	VHT80	5210	MCS 0	
Frequency Stability	Un-modulation	5200	---	---

NOTE:

1. This device can be powered by AC adapter or POE. Each power supply was selected for final testing as below configuration.
2. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Y-plane** results were found as the worst case and were shown in this report.
3. Test configurations are listed as below:
   1) Configuration 1: AC Adapter mode
   2) Configuration 2: POE mode

For Frequency band 5725-5850 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate (Mbps) / MCS**	**Test Configuration**
Conducted Emissions	VHT20	5785	MCS 0	1.2
Radiated Emissions ≤1GHz	VHT20	5785	MCS 0	1.2
RF Output Power	11a	5745 / 5785 / 5825	6 Mbps	2
	HT20	5745 / 5785 / 5825	MCS 0	
	HT40	5755 / 5795	MCS 0	
	VHT20	5745 / 5785 / 5825	MCS 0	
	VHT40	5755 / 5795	MCS 0	
	VHT80	5775	MCS 0	
Radiated Emissions >1GHz	11a	5745 / 5785 / 5825	6 Mbps	2
	VHT20	5745 / 5785 / 5825	MCS 0	
	VHT40	5755 / 5795	MCS 0	
	VHT80	5775	MCS 0	
Emission Bandwidth 6dB bandwidth Peak Power Spectral Density	11a	5745 / 5785 / 5825	6 Mbps	2
	VHT20	5745 / 5785 / 5825	MCS 0	
	VHT40	5755 / 5795	MCS 0	
	VHT80	5775	MCS 0	
Frequency Stability	Un-modulation	5785	---	---

NOTE:

1. This device can be powered by AC adapter or POE. Each power supply was selected for final testing as below configuration.
2. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Y-plane** results were found as the worst case and were shown in this report.
3. Test configurations are listed as below:
   1) Configuration 1: AC Adapter mode
   2) Configuration 2: POE mode

3 Transmitter Test Results

3.1 Conducted Emissions

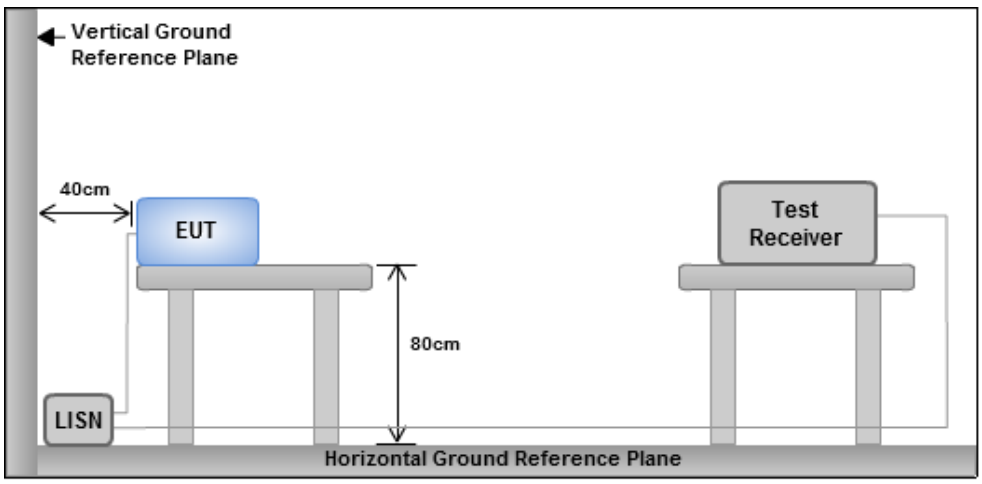
3.1.1 Limit of Conducted Emissions

Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Test Procedures

1. The device is placed on a test table, raised 80 cm above the reference ground plane. The vertical conducting plane is located 40 cm to the rear of the device.
2. The device is connected to line impedance stabilization network (LISN) and other accessories are connected to other LISN. Measured levels of AC power line conducted emission are across the 50 Ω LISN port.
3. AC conducted emission measurements is made over frequency range from 150 kHz to 30 MHz.
4. This measurement was performed with AC 120V / 60Hz.

3.1.3 Test Setup



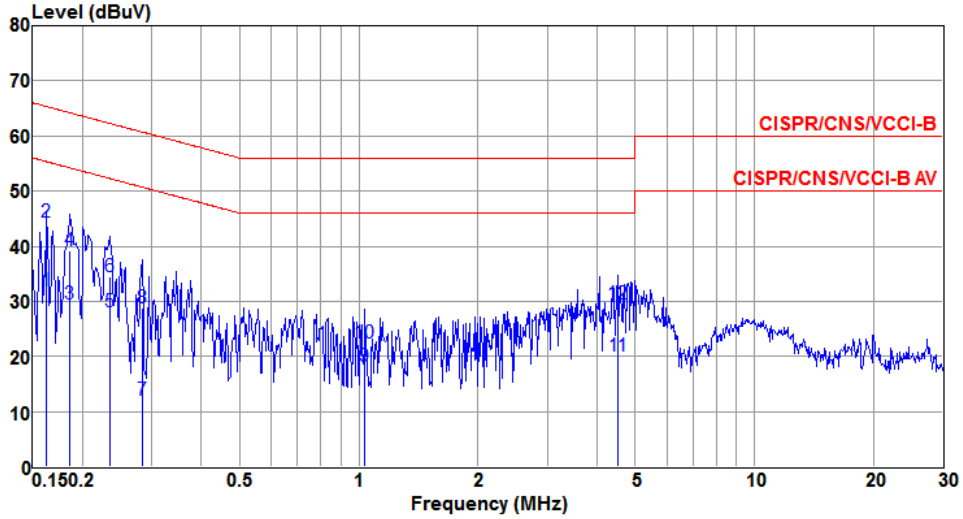
Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

Configuration 1: AC Adapter mode

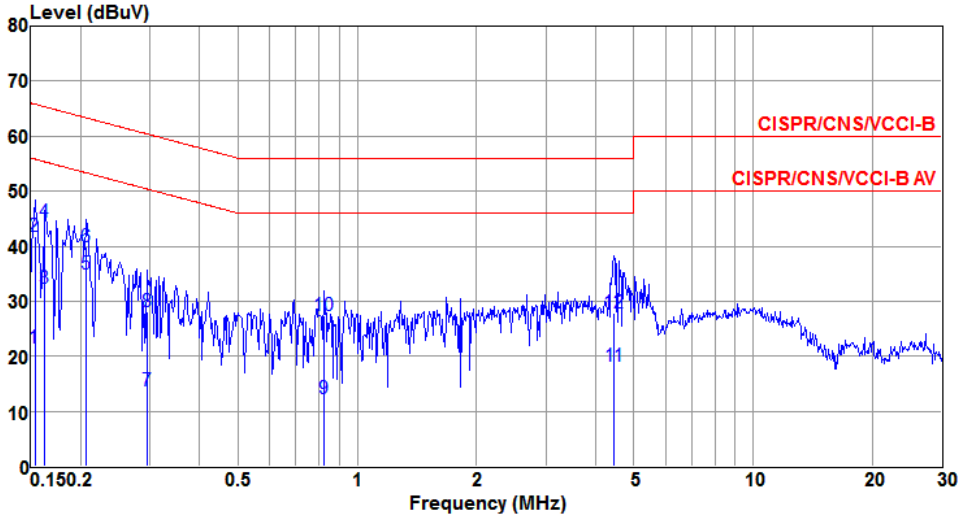
Modulation	VHT40	Test Freq. (MHz)	5230
Power Phase	Line	Test Configuration	1



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.162	31.98	55.34	-23.36	22.29	9.67	0.02	Average
2@	0.162	44.42	65.34	-20.92	34.73	9.67	0.02	QP
3	0.186	29.53	54.20	-24.67	19.85	9.66	0.02	Average
4	0.186	39.14	64.20	-25.06	29.46	9.66	0.02	QP
5	0.234	28.00	52.30	-24.30	18.32	9.66	0.02	Average
6	0.234	34.54	62.30	-27.76	24.86	9.66	0.02	QP
7	0.283	12.07	50.72	-38.65	2.39	9.66	0.02	Average
8	0.283	28.91	60.72	-31.81	19.23	9.66	0.02	QP
9	1.037	18.27	46.00	-27.73	8.55	9.66	0.06	Average
10	1.037	22.44	56.00	-33.56	12.72	9.66	0.06	QP
11	4.525	20.09	46.00	-25.91	10.27	9.69	0.13	Average
12	4.525	29.49	56.00	-26.51	19.67	9.69	0.13	QP

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

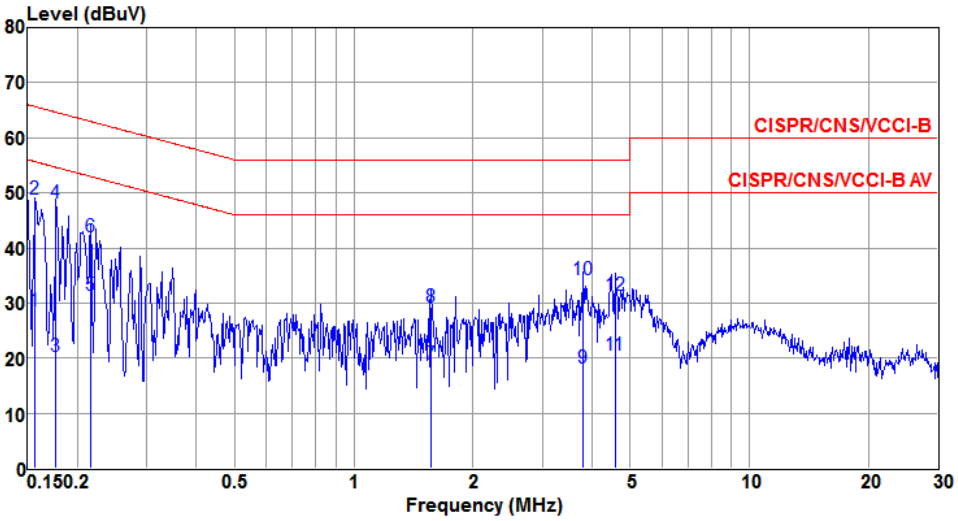
Modulation	VHT40	Test Freq. (MHz)	5230
Power Phase	Neutral	Test Configuration	1



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.153	21.57	55.82	-34.25	11.88	9.67	0.02	Average
2	0.153	41.73	65.82	-24.09	32.04	9.67	0.02	QP
3	0.162	32.29	55.34	-23.05	22.60	9.67	0.02	Average
4	0.162	44.30	65.34	-21.04	34.61	9.67	0.02	QP
5@	0.207	35.03	53.32	-18.29	25.35	9.66	0.02	Average
6	0.207	39.83	63.32	-23.49	30.15	9.66	0.02	QP
7	0.294	13.81	50.41	-36.60	4.12	9.66	0.03	Average
8	0.294	28.13	60.41	-32.28	18.44	9.66	0.03	QP
9	0.822	12.39	46.00	-33.61	2.68	9.66	0.05	Average
10	0.822	27.40	56.00	-28.60	17.69	9.66	0.05	QP
11	4.454	18.23	46.00	-27.77	8.42	9.69	0.12	Average
12	4.454	27.91	56.00	-28.09	18.10	9.69	0.12	QP

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

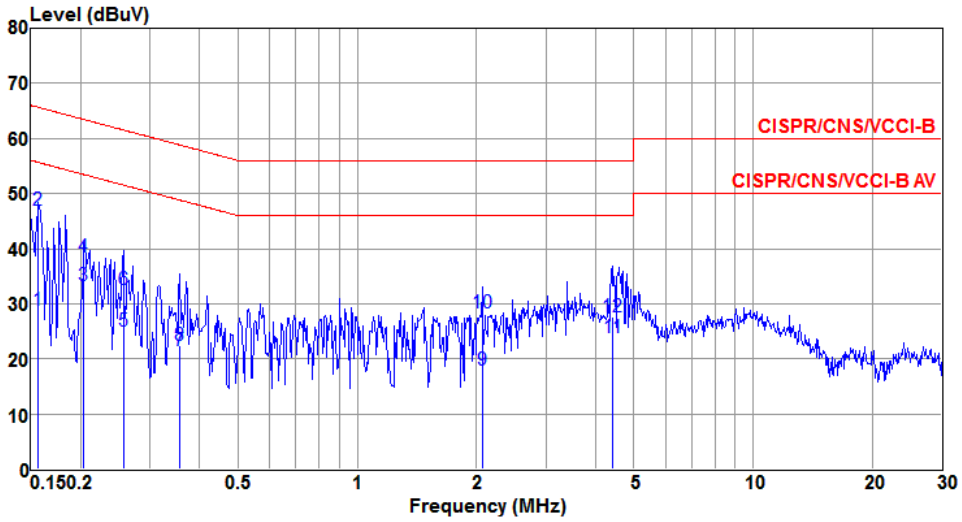
Modulation	VHT20	Test Freq. (MHz)	5785
Power Phase	Line	Test Configuration	1



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.156	28.54	55.65	-27.11	18.85	9.67	0.02	Average
2	0.156	48.86	65.65	-16.79	39.17	9.67	0.02	QP
3	0.177	20.38	54.64	-34.26	10.70	9.66	0.02	Average
4@	0.177	48.05	64.64	-16.59	38.37	9.66	0.02	QP
5	0.216	31.33	52.96	-21.63	21.65	9.66	0.02	Average
6	0.216	41.99	62.96	-20.97	32.31	9.66	0.02	QP
7	1.568	18.78	46.00	-27.22	9.04	9.67	0.07	Average
8	1.568	29.33	56.00	-26.67	19.59	9.67	0.07	QP
9	3.799	18.23	46.00	-27.77	8.43	9.68	0.12	Average
10	3.799	34.22	56.00	-21.78	24.42	9.68	0.12	QP
11	4.574	20.43	46.00	-25.57	10.61	9.69	0.13	Average
12	4.574	31.48	56.00	-24.52	21.66	9.69	0.13	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)**	5785
Power Phase	Neutral	**Test Configuration**	1

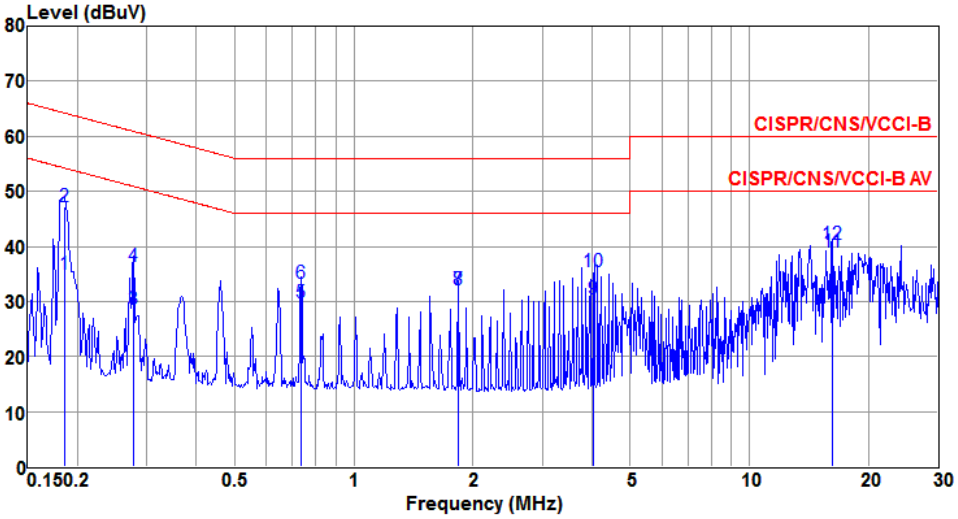


	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.156	28.71	55.65	-26.94	19.02	9.67	0.02	Average
2@	0.156	47.04	65.65	-18.61	37.35	9.67	0.02	QP
3	0.204	33.31	53.45	-20.14	23.63	9.66	0.02	Average
4	0.204	38.41	63.45	-25.04	28.73	9.66	0.02	QP
5	0.256	25.09	51.56	-26.47	15.41	9.66	0.02	Average
6	0.256	32.62	61.56	-28.94	22.94	9.66	0.02	QP
7	0.356	21.44	48.83	-27.39	11.75	9.66	0.03	Average
8	0.356	22.35	58.83	-36.48	12.66	9.66	0.03	QP
9	2.066	17.99	46.00	-28.01	8.24	9.67	0.08	Average
10	2.066	28.28	56.00	-27.72	18.53	9.67	0.08	QP
11	4.430	23.84	46.00	-22.16	14.03	9.69	0.12	Average
12	4.430	27.55	56.00	-28.45	17.74	9.69	0.12	QP

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

Configuration 2: POE mode

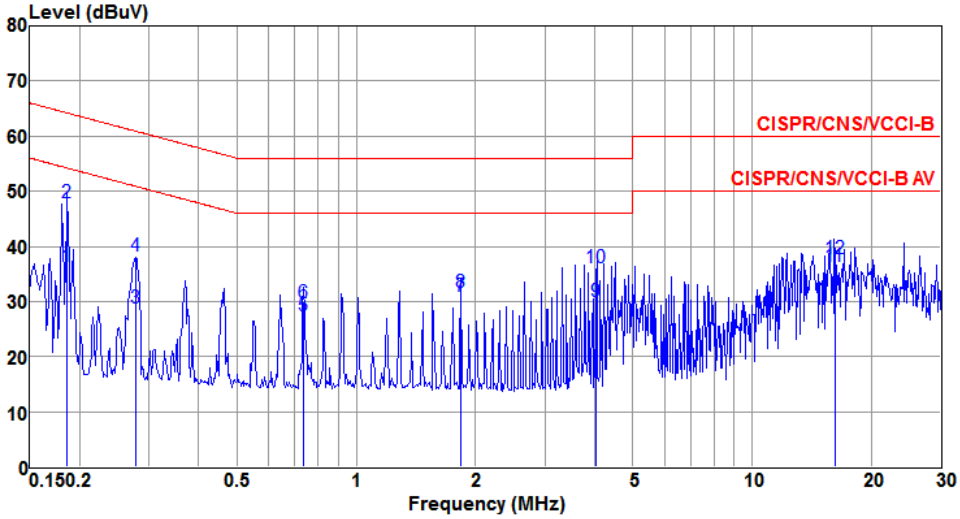
Modulation	VHT40	**Test Freq. (MHz)**	5230
Power Phase	Line	**Test Configuration**	2



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.186	34.97	54.20	-19.23	25.29	9.66	0.02	Average
2	0.186	47.32	64.20	-16.88	37.64	9.66	0.02	QP
3	0.277	28.59	50.90	-22.31	18.91	9.66	0.02	Average
4	0.277	36.28	60.90	-24.62	26.60	9.66	0.02	QP
5	0.735	29.66	46.00	-16.34	19.95	9.66	0.05	Average
6	0.735	33.37	56.00	-22.63	23.66	9.66	0.05	QP
7	1.839	32.00	46.00	-14.00	22.25	9.67	0.08	Average
8	1.839	32.16	56.00	-23.84	22.41	9.67	0.08	QP
9	4.042	30.51	46.00	-15.49	20.71	9.68	0.12	Average
10	4.042	35.42	56.00	-20.58	25.62	9.68	0.12	QP
11@	16.228	38.98	50.00	-11.02	29.07	9.71	0.20	Average
12	16.228	40.35	60.00	-19.65	30.44	9.71	0.20	QP

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

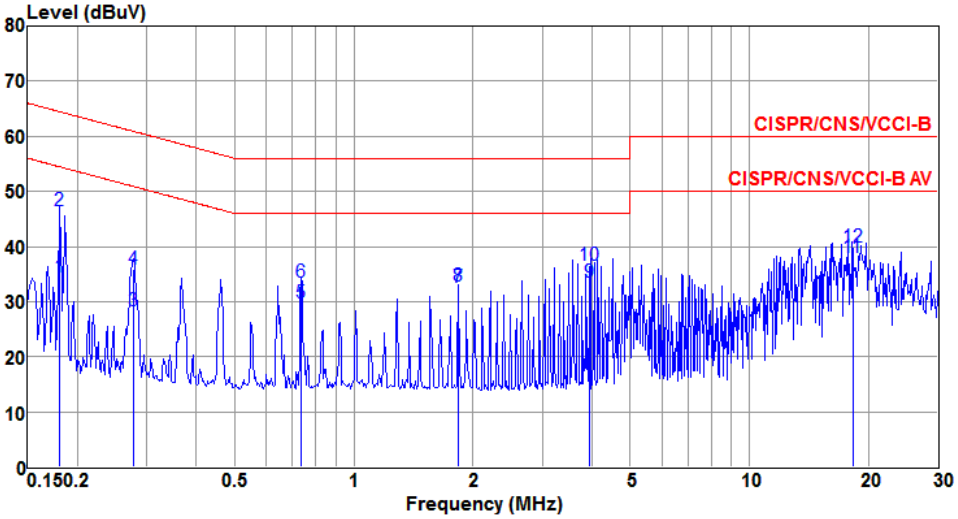
Modulation	VHT40	Test Freq. (MHz)	5230
Power Phase	Neutral	Test Configuration	2



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.186	36.37	54.20	-17.83	26.69	9.66	0.02	Average
2	0.186	47.89	64.20	-16.31	38.21	9.66	0.02	QP
3	0.277	28.91	50.90	-21.99	19.23	9.66	0.02	Average
4	0.277	38.28	60.90	-22.62	28.60	9.66	0.02	QP
5	0.735	27.33	46.00	-18.67	17.62	9.66	0.05	Average
6	0.735	29.70	56.00	-26.30	19.99	9.66	0.05	QP
7	1.839	31.01	46.00	-14.99	21.26	9.67	0.08	Average
8	1.839	31.69	56.00	-24.31	21.94	9.67	0.08	QP
9	4.040	29.97	46.00	-16.03	20.17	9.68	0.12	Average
10	4.040	36.02	56.00	-19.98	26.22	9.68	0.12	QP
11@	16.167	36.25	50.00	-13.75	26.27	9.78	0.20	Average
12	16.167	37.88	60.00	-22.12	27.90	9.78	0.20	QP

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

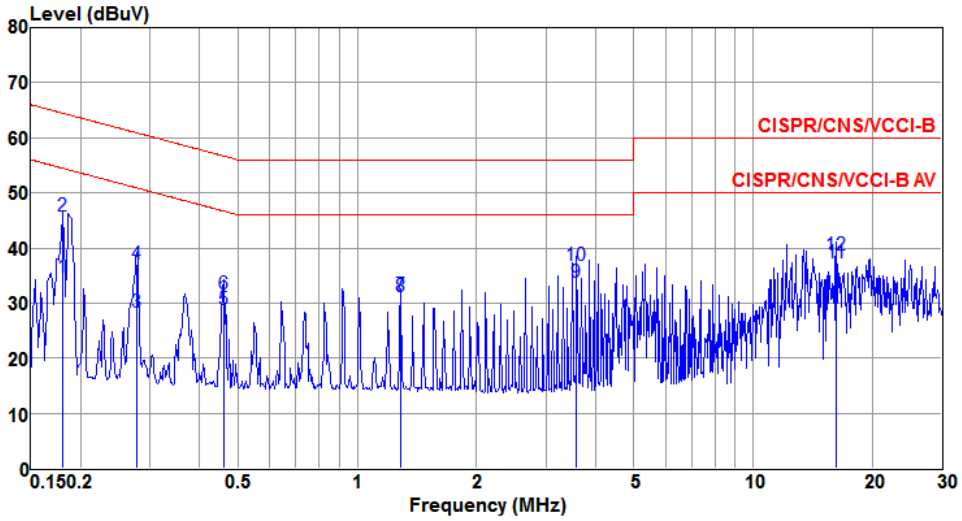
Modulation	VHT20	Test Freq. (MHz)	5785
Power Phase	Line	Test Configuration	2



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.181	34.41	54.46	-20.05	24.73	9.66	0.02	Average
2	0.181	46.60	64.46	-17.86	36.92	9.66	0.02	QP
3	0.277	28.42	50.90	-22.48	18.74	9.66	0.02	Average
4	0.277	35.94	60.90	-24.96	26.26	9.66	0.02	QP
5	0.735	29.81	46.00	-16.19	20.10	9.66	0.05	Average
6	0.735	33.41	56.00	-22.59	23.70	9.66	0.05	QP
7	1.839	32.57	46.00	-13.43	22.82	9.67	0.08	Average
8	1.839	32.70	56.00	-23.30	22.95	9.67	0.08	QP
9	3.953	33.54	46.00	-12.46	23.74	9.68	0.12	Average
10	3.953	36.57	56.00	-19.43	26.77	9.68	0.12	QP
11@	18.243	38.02	50.00	-11.98	28.13	9.71	0.18	Average
12	18.243	39.80	60.00	-20.20	29.91	9.71	0.18	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)**	5785
Power Phase	Neutral	**Test Configuration**	2



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.181	34.81	54.46	-19.65	25.13	9.66	0.02	Average
2	0.181	45.83	64.46	-18.63	36.15	9.66	0.02	QP
3	0.277	28.27	50.90	-22.63	18.59	9.66	0.02	Average
4	0.277	36.95	60.90	-23.95	27.27	9.66	0.02	QP
5	0.461	28.84	46.67	-17.83	19.15	9.66	0.03	Average
6	0.461	31.71	56.67	-24.96	22.02	9.66	0.03	QP
7	1.289	31.42	46.00	-14.58	21.69	9.66	0.07	Average
8	1.289	31.17	56.00	-24.83	21.44	9.66	0.07	QP
9@	3.584	33.71	46.00	-12.29	23.92	9.68	0.11	Average
10	3.584	36.80	56.00	-19.20	27.01	9.68	0.11	QP
11	16.226	37.40	50.00	-12.60	27.42	9.78	0.20	Average
12	16.226	38.60	60.00	-21.40	28.62	9.78	0.20	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.

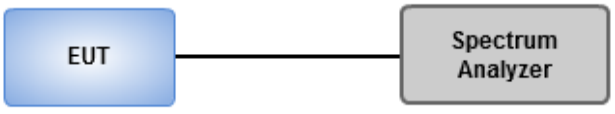
Occupied Bandwidth

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

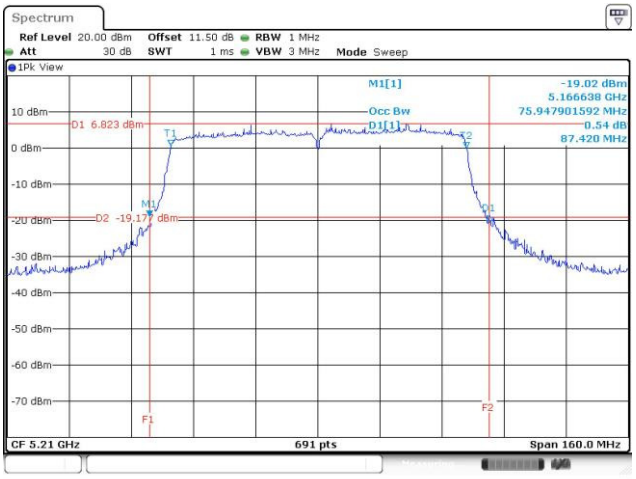
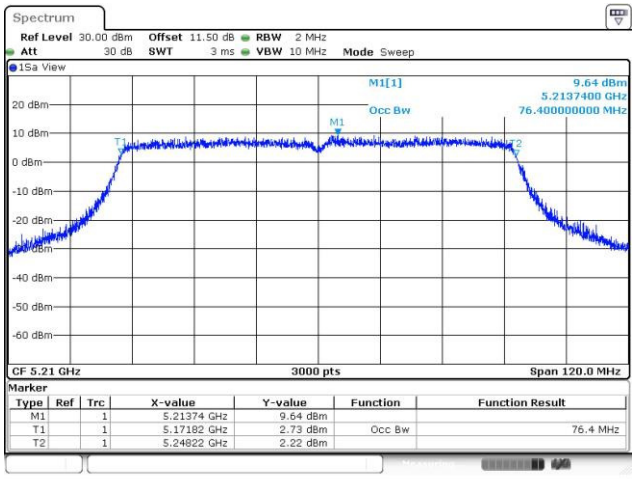
1. Set RBW = 100kHz, VBW = 300kHz
2. Detector = Peak,Trace mode = max hold.
3. Allow the trace to stabilize.
4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB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

3.2.3 Test Setup

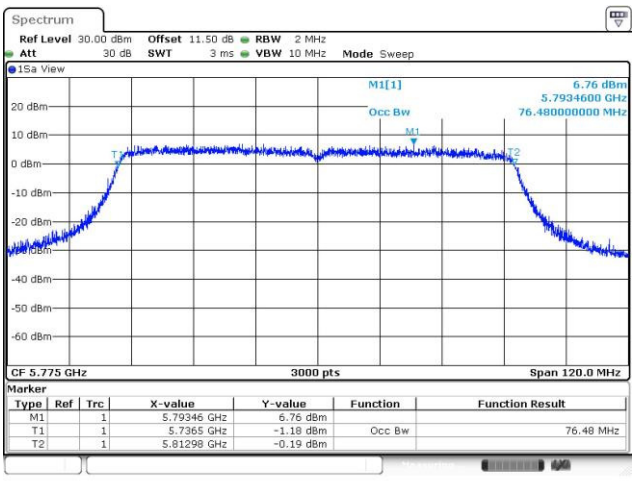
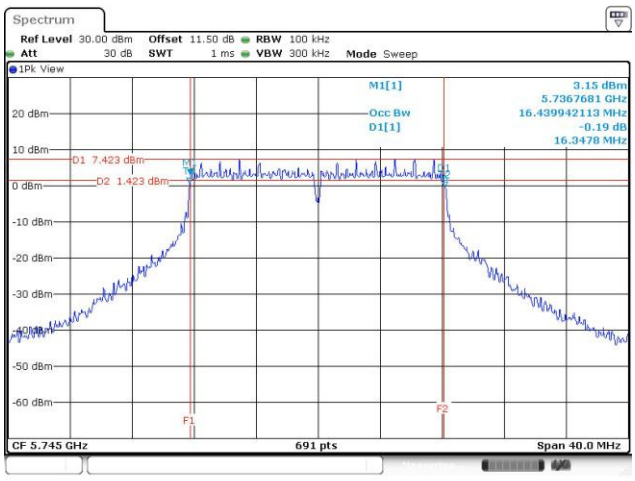


3.2.4 Test Result of Emission Bandwidth

For Frequency band 5150-5250 MHz										
Emission Bandwidth										
Mode	N_{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3
11a	3	5180	22.14	22.09	21.80	---	16.77	16.71	16.67	---
11a	3	5200	22.67	22.38	22.96	---	16.76	16.71	16.65	---
11a	3	5240	22.43	22.49	22.78	---	16.77	16.72	16.69	---
VHT20	3	5180	23.88	23.19	23.25	---	17.91	17.84	17.83	---
VHT20	3	5200	23.01	23.88	23.19	---	17.91	17.84	17.87	---
VHT20	3	5240	23.13	23.30	23.54	---	17.92	17.84	17.80	---
VHT40	3	5190	45.91	45.10	45.80	---	36.74	36.76	36.90	---
VHT40	3	5230	46.96	46.26	55.54	---	36.96	36.90	36.94	---
VHT80	3	5210	85.80	87.42	86.73	---	76.24	76.32	76.40	---

Worst Plot of 26dB Bandwidth	Worst Plot of 99% Bandwidth
	

For Frequency band 5725-5850 MHz											
Emission Bandwidth											
Mode	N_{TX}	Freq. (MHz)	OBW Bandwidth (MHz)				6dB Bandwidth (MHz)				
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	6dB BW Limit (MHz)
11a	3	5745	16.82	16.69	16.67	---	16.35	16.35	16.35	---	0.5
11a	3	5785	17.08	18.89	16.91	---	16.35	16.35	16.35	---	0.5
11a	3	5825	16.82	16.79	16.69	---	16.35	16.35	16.35	---	0.5
VHT20	3	5745	17.94	17.83	17.81	---	17.62	17.57	17.62	---	0.5
VHT20	3	5785	18.08	19.36	18.10	---	17.62	17.57	17.62	---	0.5
VHT20	3	5825	17.94	17.87	17.85	---	17.51	17.51	17.51	---	0.5
VHT40	3	5755	36.76	36.84	36.80	---	35.71	36.29	36.29	---	0.5
VHT40	3	5795	36.82	36.90	36.84	---	35.94	35.36	36.06	---	0.5
VHT80	3	5775	76.24	76.48	76.48	---	75.83	75.83	75.83	---	0.5

Worst Plot of 99% Bandwidth	Worst Plot of 6dB Bandwidth
	

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
☐	Mobile and portable client devices	Conducted Power: 250 mW

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

3.3.2 Test Procedures

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

☒ Measurements may 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

For Frequency band 5150-5250 MHz									
Mode	N_{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
11a	3	5180	19.82	19.45	18.92	---	262.028	24.18	30.00
11a	3	5200	19.65	19.11	18.94	---	252.071	24.02	30.00
11a	3	5240	19.46	19.18	18.93	---	249.265	23.97	30.00
HT20	3	5180	19.68	19.31	18.88	---	255.475	24.07	30.00
HT20	3	5200	19.57	18.98	18.92	---	247.624	23.94	30.00
HT20	3	5240	19.36	19.15	18.91	---	246.326	23.92	30.00
HT40	3	5190	16.41	16.18	15.56	---	121.223	20.84	30.00
HT40	3	5230	22.88	22.42	21.86	---	522.133	27.18	30.00
VHT20	3	5180	19.73	19.38	18.95	---	259.192	24.14	30.00
VHT20	3	5200	19.62	19.03	18.99	---	250.856	23.99	30.00
VHT20	3	5240	19.42	19.21	18.95	---	249.390	23.97	30.00
VHT40	3	5190	16.45	16.24	15.63	---	122.789	20.89	30.00
VHT40	3	5230	22.93	22.47	21.95	---	529.615	**27.24**	30.00
VHT80	3	5210	14.23	14.06	13.43	---	73.983	18.69	30.00

For Frequency band 5725-5850 MHz									
Mode	N_{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
11a	3	5745	18.72	18.05	18.43	---	207.962	23.18	30.00
11a	3	5785	23.3	22.81	22.75	---	593.146	27.73	30.00
11a	3	5825	21.02	20.34	20.35	---	343.010	25.35	30.00
HT20	3	5745	18.63	17.87	18.22	---	200.555	23.02	30.00
HT20	3	5785	23.16	22.76	22.89	---	590.349	27.71	30.00
HT20	3	5825	20.82	20.15	20.13	---	327.334	25.15	30.00
HT40	3	5755	15.56	14.54	15.02	---	96.188	19.83	30.00
HT40	3	5795	20.21	18.88	19.32	---	267.729	24.28	30.00
VHT20	3	5745	18.84	18.09	18.35	---	209.368	23.21	30.00
VHT20	3	5785	23.23	22.88	23.02	---	604.914	**27.82**	30.00
VHT20	3	5825	20.96	20.3	20.31	---	339.289	25.31	30.00
VHT40	3	5755	15.70	14.65	15.11	---	98.762	19.95	30.00
VHT40	3	5795	20.31	19.04	19.42	---	275.065	24.39	30.00
VHT80	3	5775	11.84	10.32	10.83	---	38.146	15.81	30.00

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
☐	Mobile and portable client devices	11 dBm / MHz

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

3.4.2 Test Procedures

For 5150 ~ 5250 MHz

☒ Method SA-1 (802.11a / ac VHT20 / VHT80)

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.

☒ Method SA-2 Alternative (802.11ac VHT40)

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

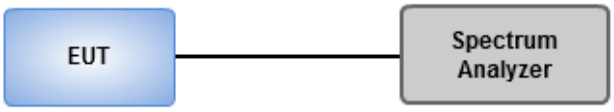
☒ Method SA-1 (802.11a / ac VHT20 / VHT80)

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

☒ Method SA-2 Alternative (802.11ac VHT40)

1. Set RBW = 500 kHz, VBW = 2 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



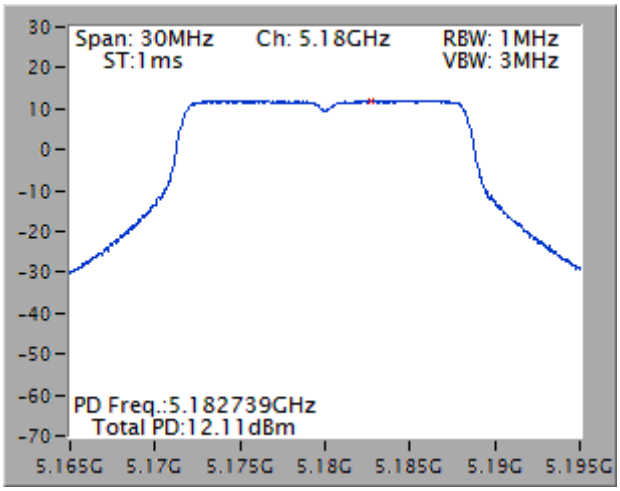
3.4.4 Test Result of Peak Power Spectral Density

For Frequency band 5150-5250 MHz						
Condition			Peak Power Spectral Density (dBm/MHz)			
Modulation Mode	N_{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/MHz)	Duty Factor (dB)	PPSD with D.F (dBm/MHz)	PPSD Limit (dBm/MHz)
11a	3	5180	12.11	0.00	12.11	12.23
11a	3	5200	11.84	0.00	11.84	12.23
11a	3	5240	11.91	0.00	11.91	12.23
VHT20	3	5180	11.85	0.00	11.85	12.23
VHT20	3	5200	11.60	0.00	11.60	12.23
VHT20	3	5240	11.63	0.00	11.63	12.23
VHT40	3	5190	3.72	0.23	3.95	12.23
VHT40	3	5230	11.78	0.23	12.01	12.23
VHT80	3	5210	-0.71	0.00	-0.71	12.23

Note:

1. D.F is duty factor.
2. Test results are bin-by-bin summing measured value of each TX port.
3. Directional gain = 6+10* log(3/1) = 10.77 dBi > 6 dBi.
   Limit shall be reduced to 17 dBm – (10.77 dBi – 6 dBi) = 12.23 dBm.

Worst Plot

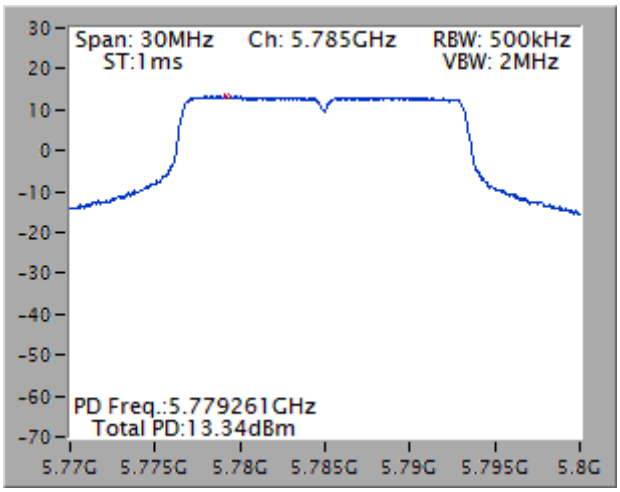


For Frequency band 5725-5850 MHz						
Condition			Peak Power Spectral Density (dBm/500kHz)			
Modulation Mode	N_{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/500kHz)	Duty Factor (dB)	PPSD with D.F (dBm/500kHz)	PPSD Limit (dBm/500kHz)
11a	3	5745	8.73	0.00	8.73	25.23
11a	3	5785	13.34	0.00	13.34	25.23
11a	3	5825	10.61	0.00	10.61	25.23
VHT20	3	5745	8.46	0.00	8.46	25.23
VHT20	3	5785	12.97	0.00	12.97	25.23
VHT20	3	5825	10.48	0.00	10.48	25.23
VHT40	3	5755	2.22	0.23	2.45	25.23
VHT40	3	5795	6.65	0.23	6.88	25.23
VHT80	3	5775	-4.27	0.00	-4.27	25.23

Note:

1. D.F is duty factor.
2. Test results are bin-by-bin summing measured value of each TX port.
3. Directional gain = 6+10* log(3/1) = 10.77 dBi > 6 dBi.
   Limit shall be reduced to 30 dBm – (10.77 dBi – 6 dBi) = 25.23 dBm.

Worst Plot



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	5.715 5.725 GHz: e.i.r.p. -17 dBm [78.2 dBuV/m@3m] 5.85 5.86 GHz: e.i.r.p. -17 dBm [78.2 dBuV/m@3m] Other un-restricted band: e.i.r.p. -27 dBm [68.2 dBuV/m@3m]

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

3.5.2 Test Procedures

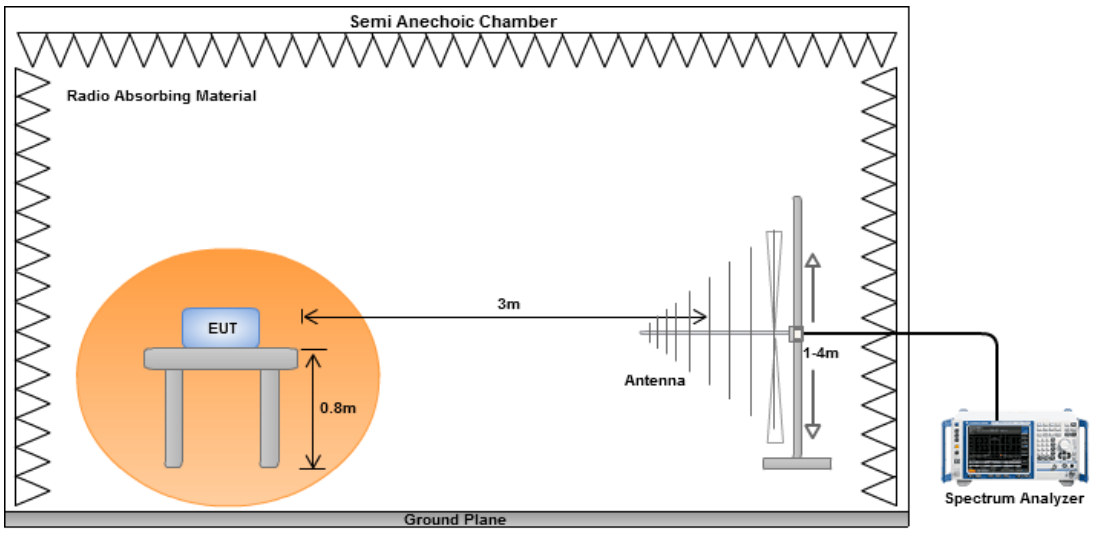
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

Note:

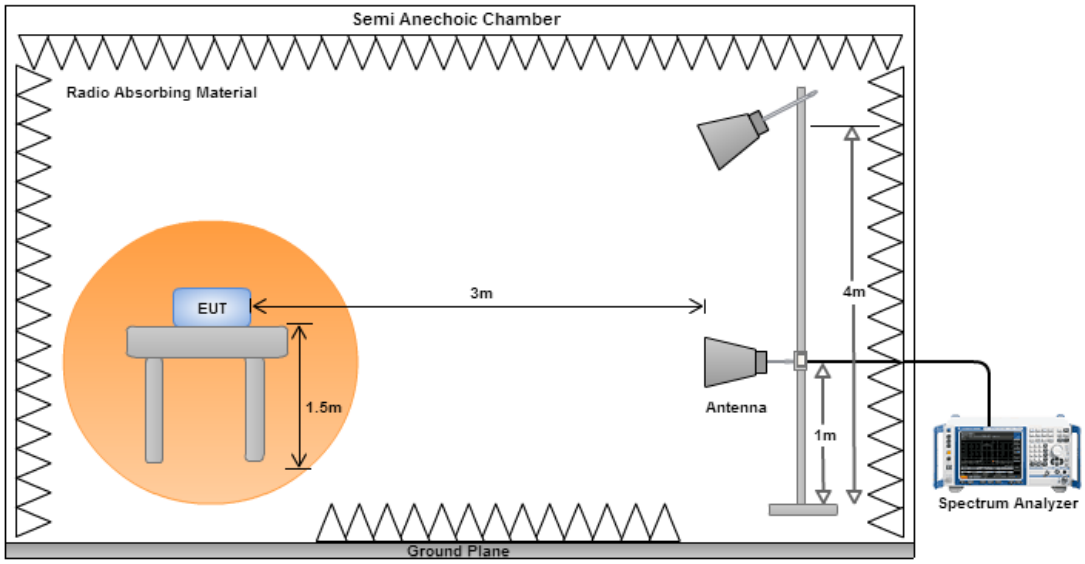
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz



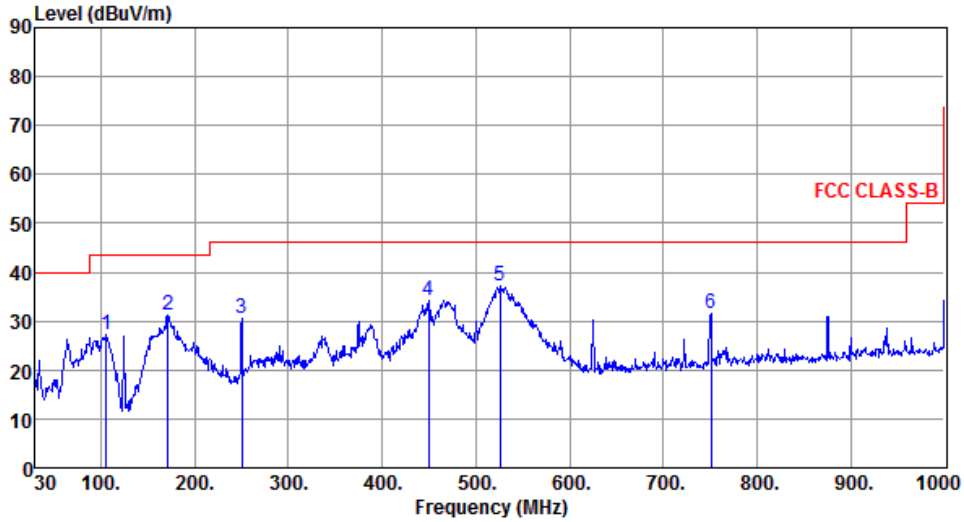
Radiated Emissions above 1 GHz



Configuration 1: model WAC6502D-S, AC Adapter mode

3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

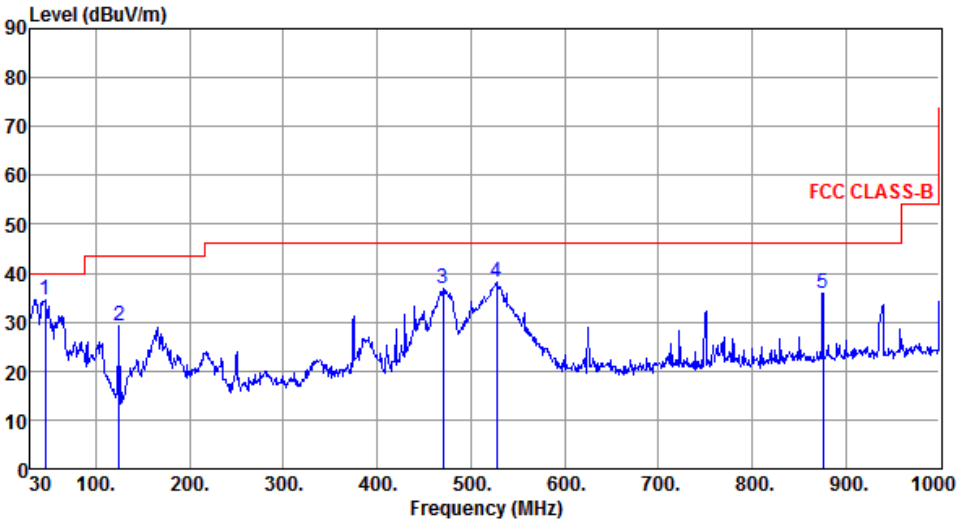
Modulation	VHT40	**Test Freq. (MHz)**	5230
Polarization	Horizontal	**Test Configuration**	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	105.66	27.07	43.50	-16.43	42.78	-15.71	Peak	---	---
2	171.62	31.18	43.50	-12.32	43.36	-12.18	Peak	---	---
3	250.19	30.41	46.00	-15.59	43.18	-12.77	Peak	---	---
4	450.01	34.30	46.00	-11.70	41.84	-7.54	Peak	---	---
5	525.67	37.11	46.00	-8.89	43.17	-6.06	Peak	---	---
6	750.71	31.57	46.00	-14.43	33.93	-2.36	Peak	---	---

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

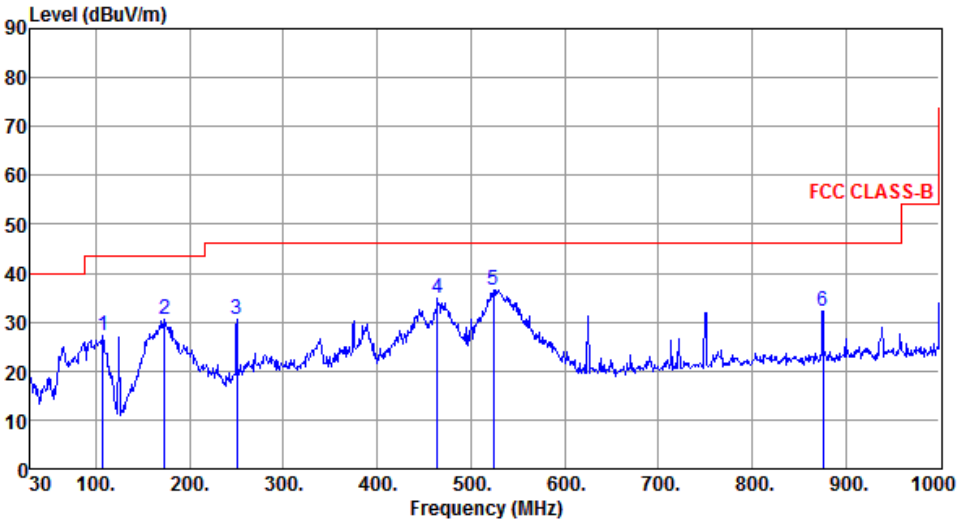
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	45.52	34.54	40.00	-5.46	46.17	-11.63	Peak	---	---
2	125.06	29.34	43.50	-14.16	42.91	-13.57	Peak	---	---
3	470.38	36.76	46.00	-9.24	43.87	-7.11	Peak	---	---
4	527.61	38.14	46.00	-7.86	44.17	-6.03	Peak	---	---
5	875.84	35.81	46.00	-10.19	36.72	-0.91	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.

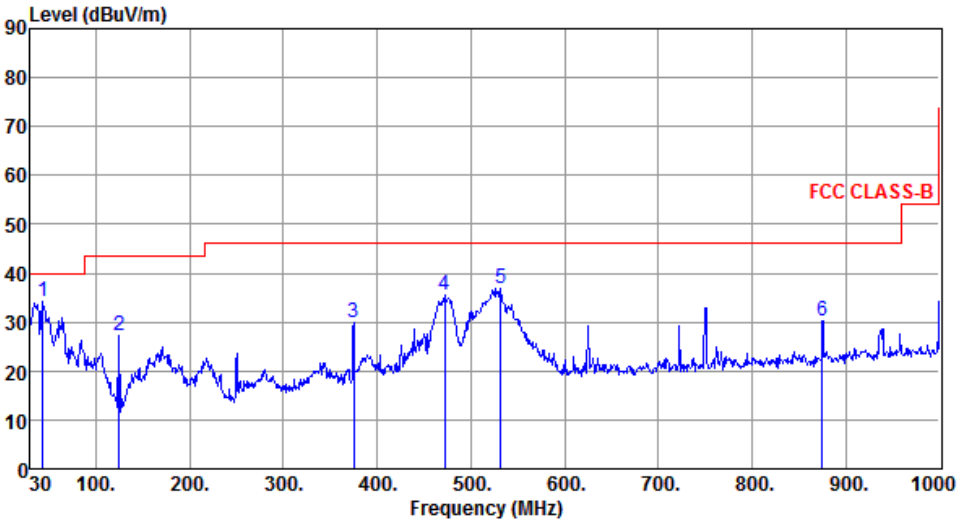
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	107.60	27.15	43.50	-16.35	42.54	-15.39	Peak	---	---
2	173.56	30.69	43.50	-12.81	43.14	-12.45	Peak	---	---
3	250.19	30.54	46.00	-15.46	43.31	-12.77	Peak	---	---
4	464.56	34.82	46.00	-11.18	42.06	-7.24	Peak	---	---
5	523.73	36.64	46.00	-9.36	42.74	-6.10	Peak	---	---
6	875.84	32.13	46.00	-13.87	33.04	-0.91	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)	5785
Polarization	Vertical	Test Configuration	1



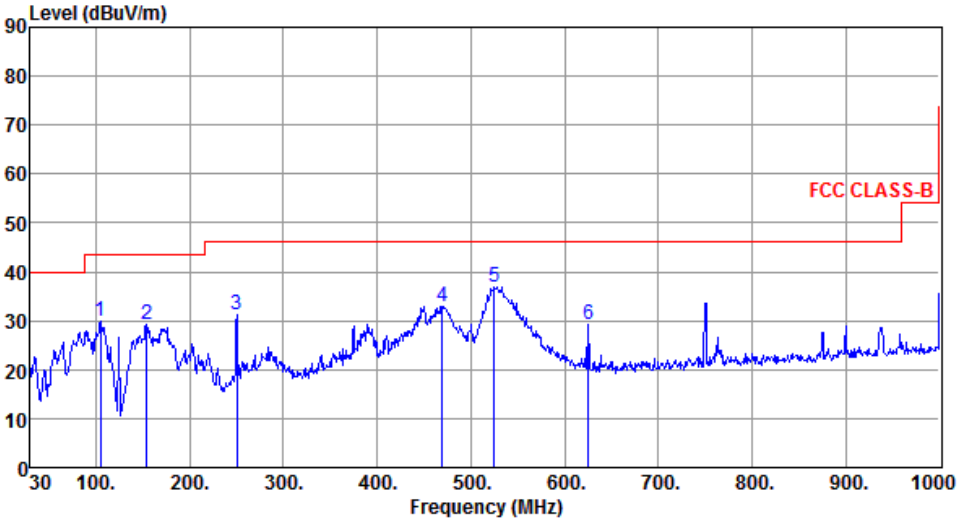
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	43.58	34.13	40.00	-5.87	45.81	-11.68	Peak	---	---
2	125.06	27.39	43.50	-16.11	40.96	-13.57	Peak	---	---
3	375.32	30.02	46.00	-15.98	39.35	-9.33	Peak	---	---
4	472.32	35.54	46.00	-10.46	42.62	-7.08	Peak	---	---
5	531.49	36.82	46.00	-9.18	42.79	-5.97	Peak	---	---
6	874.87	30.33	46.00	-15.67	31.25	-0.92	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.

Configuration 2: model WAC6502D-S, POE mode

3.5.5 Transmitter Radiated Unwanted Emissions (Below 1GHz)

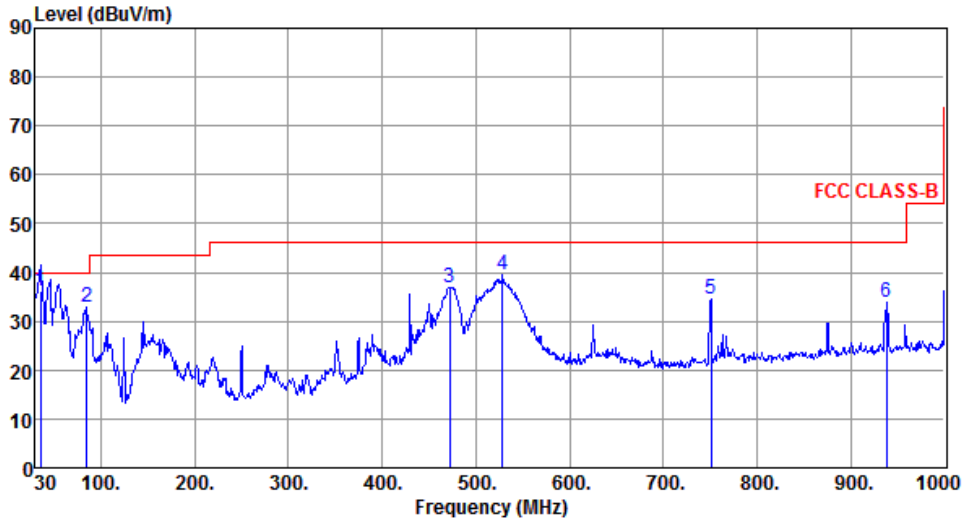
Modulation	VHT40	**Test Freq. (MHz)**	5230
Polarization	Horizontal	**Test Configuration**	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	104.69	29.74	43.50	-13.76	45.62	-15.88	Peak	---	---
2	154.16	29.16	43.50	-14.34	41.00	-11.84	Peak	---	---
3	250.19	31.18	46.00	-14.82	43.95	-12.77	Peak	---	---
4	469.41	32.97	46.00	-13.03	40.12	-7.15	Peak	---	---
5	524.70	36.90	46.00	-9.10	42.98	-6.08	Peak	---	---
6	625.58	29.31	46.00	-16.69	33.58	-4.27	Peak	---	---

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

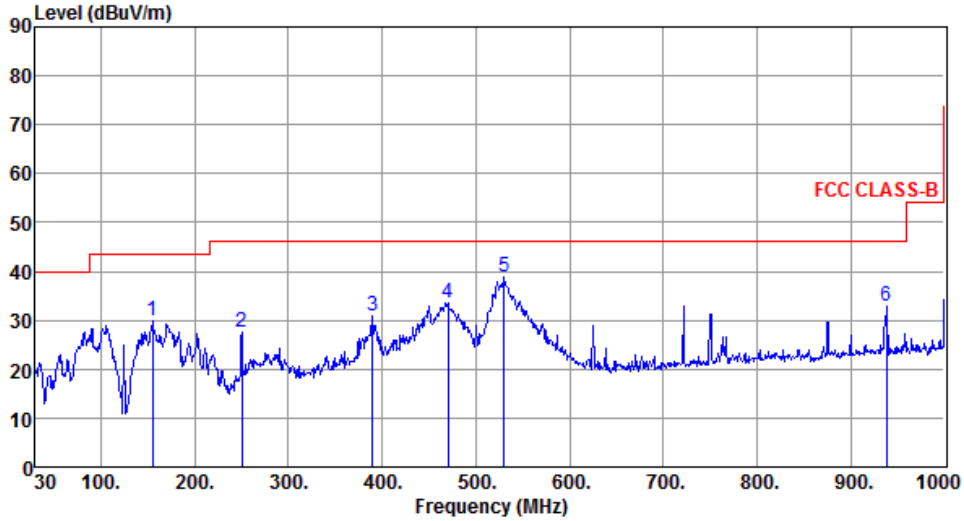
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	35.82	36.21	40.00	-3.79	48.50	-12.29	QP	100	20
2	85.29	32.86	40.00	-7.14	50.04	-17.18	Peak	---	---
3	472.32	36.96	46.00	-9.04	44.04	-7.08	Peak	---	---
4	528.58	39.58	46.00	-6.42	45.59	-6.01	Peak	---	---
5	750.71	34.42	46.00	-11.58	36.78	-2.36	Peak	---	---
6	937.92	34.02	46.00	-11.98	34.12	-0.10	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.

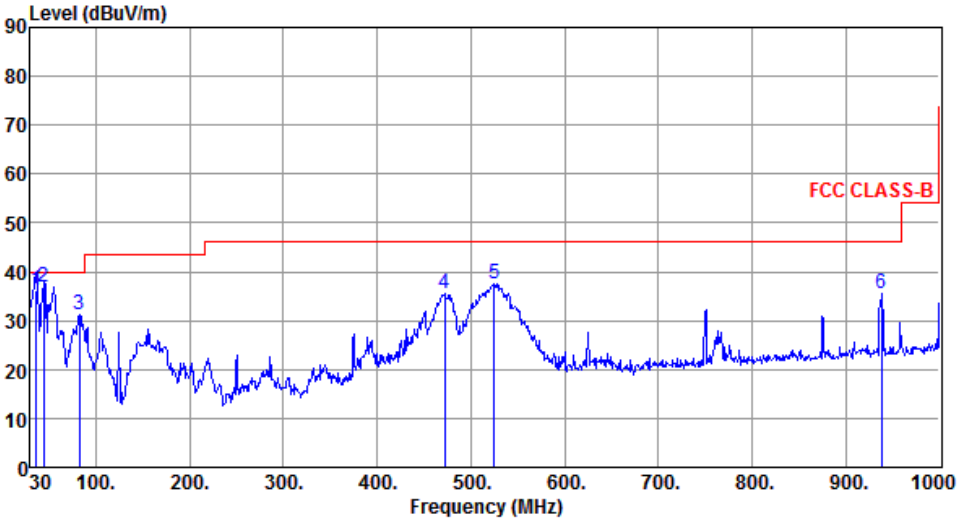
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	155.13	29.83	43.50	-13.67	41.64	-11.81	Peak	---	---
2	250.19	27.50	46.00	-18.50	40.27	-12.77	Peak	---	---
3	389.87	31.02	46.00	-14.98	39.95	-8.93	Peak	---	---
4	470.38	33.65	46.00	-12.35	40.76	-7.11	Peak	---	---
5	530.52	38.92	46.00	-7.08	44.90	-5.98	Peak	---	---
6	937.92	32.95	46.00	-13.05	33.05	-0.10	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)	5785
Polarization	Vertical	Test Configuration	2

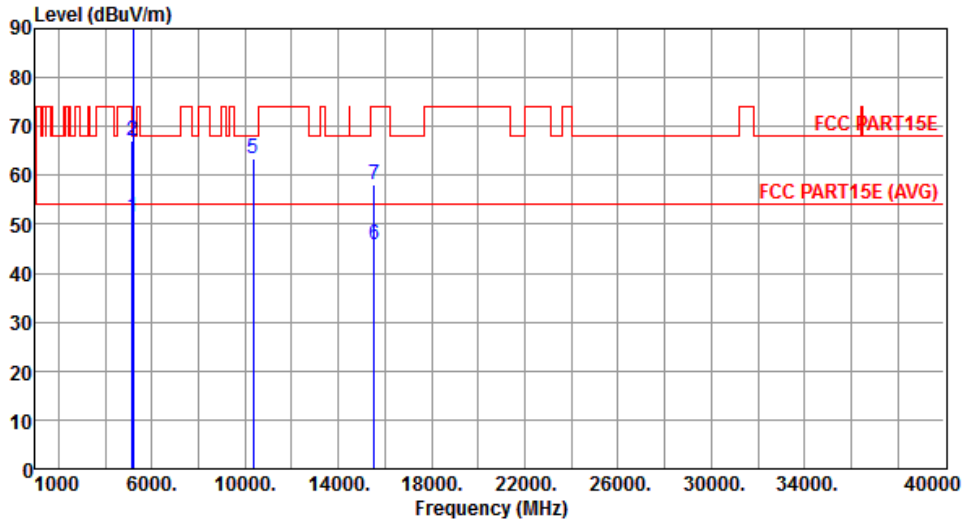


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	36.79	36.06	40.00	-3.94	48.25	-12.19	QP	118	25
2	44.55	36.80	40.00	-3.20	48.44	-11.64	Peak	---	---
3	82.38	31.30	40.00	-8.70	47.92	-16.62	Peak	---	---
4	472.32	35.51	46.00	-10.49	42.59	-7.08	Peak	---	---
5	524.70	37.68	46.00	-8.32	43.76	-6.08	Peak	---	---
6	937.92	35.46	46.00	-10.54	35.56	-0.10	Peak	---	---

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

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

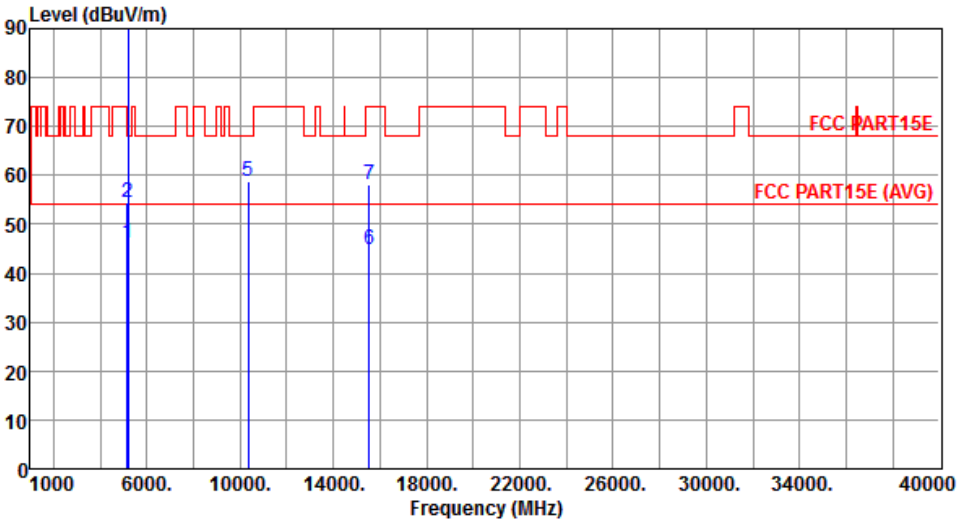
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Horizontal	Test Configuration	2



		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	51.49	54.00	-2.51	46.59	4.90	Average	233	290
2		5150.00	67.15	74.00	-6.85	62.25	4.90	Peak	233	290
3	*	5180.00	107.34			102.41	4.93	Average	233	290
4	*	5180.00	119.65			114.72	4.93	Peak	233	290
5		10360.00	63.52	68.20	-4.68	49.85	13.67	Peak	228	325
6		15540.00	45.67	54.00	-8.33	29.95	15.72	Average	248	201
7		15540.00	58.28	74.00	-15.72	42.56	15.72	Peak	248	201

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

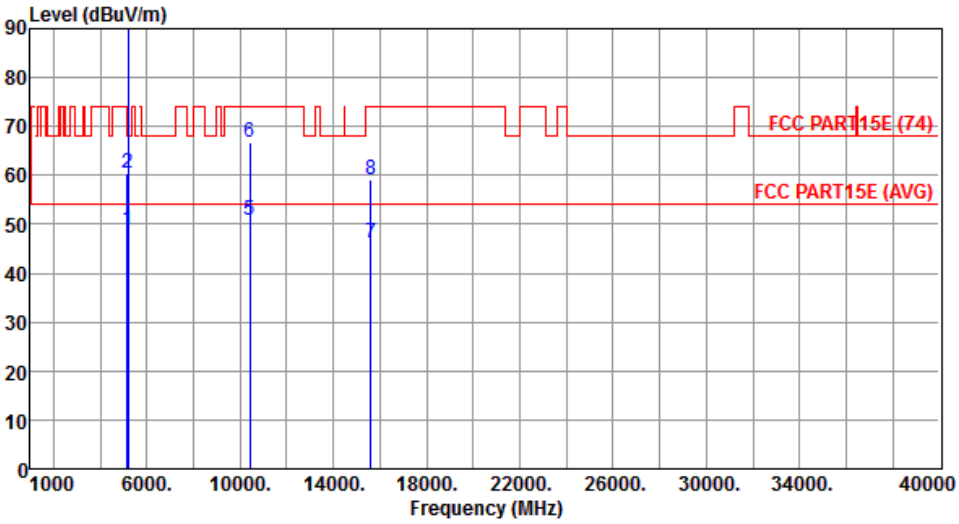
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	46.15	54.00	-7.85	41.25	4.90	Average	247	292
2		5150.00	54.58	74.00	-19.42	49.68	4.90	Peak	247	292
3	*	5180.00	95.41			90.48	4.93	Average	247	292
4	*	5180.00	107.51			102.58	4.93	Peak	247	292
5		10360.00	58.77	68.20	-9.43	45.10	13.67	Peak	265	339
6		15540.00	44.73	54.00	-9.27	29.01	15.72	Average	302	201
7		15540.00	58.03	74.00	-15.97	42.31	15.72	Peak	302	201

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

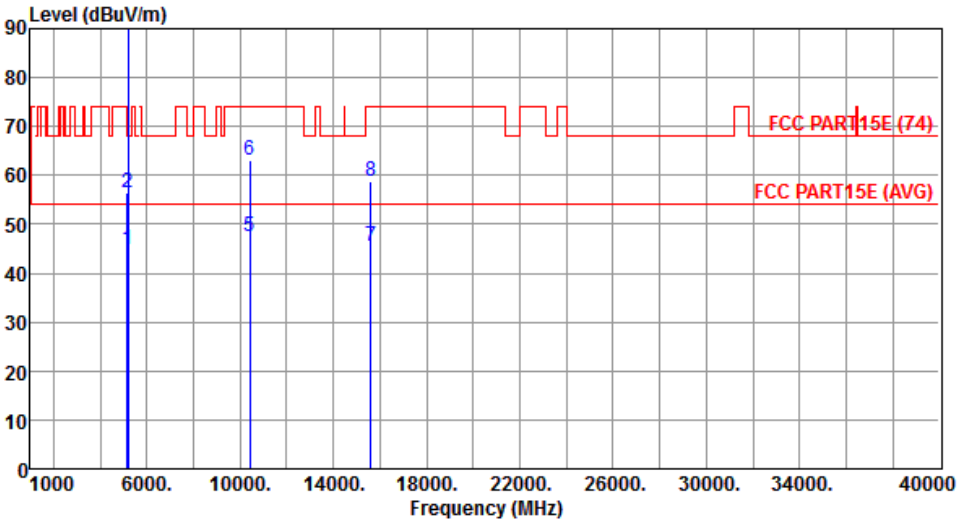
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Horizontal	Test Configuration	2



		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	48.74	54.00	-5.26	43.84	4.90	Average	215	294
2		5150.00	60.56	74.00	-13.44	55.66	4.90	Peak	215	294
3	*	5200.00	108.01			103.06	4.95	Average	215	291
4	*	5200.00	120.25			115.30	4.95	Peak	215	291
5		10400.00	50.91	54.00	-3.09	37.16	13.75	Average	224	303
6		10400.00	66.85	74.00	-7.15	53.10	13.75	Peak	224	303
7		15600.00	46.16	54.00	-7.84	30.55	15.61	Average	239	305
8		15600.00	59.12	74.00	-14.88	43.51	15.61	Peak	239	305

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

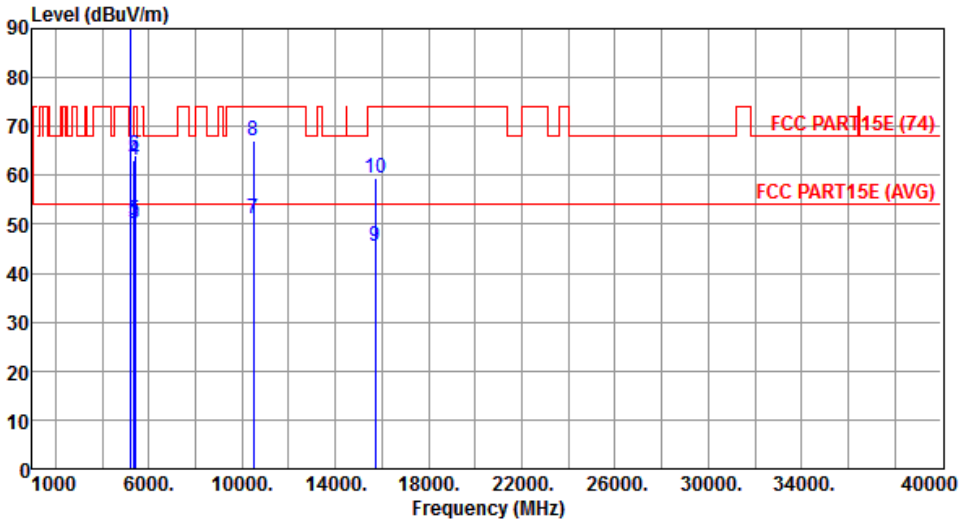
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Vertical	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	44.89	54.00	-9.11	39.99	4.90	Average	240	288
2		5150.00	56.35	74.00	-17.65	51.45	4.90	Peak	240	288
3	*	5200.00	95.87			90.92	4.95	Average	240	288
4	*	5200.00	107.99			103.04	4.95	Peak	240	288
5		10400.00	47.65	54.00	-6.35	33.90	13.75	Average	106	9
6		10400.00	63.22	74.00	-10.78	49.47	13.75	Peak	106	9
7		15600.00	45.59	54.00	-8.41	29.98	15.61	Average	175	347
8		15600.00	58.70	74.00	-15.30	43.09	15.61	Peak	175	347

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

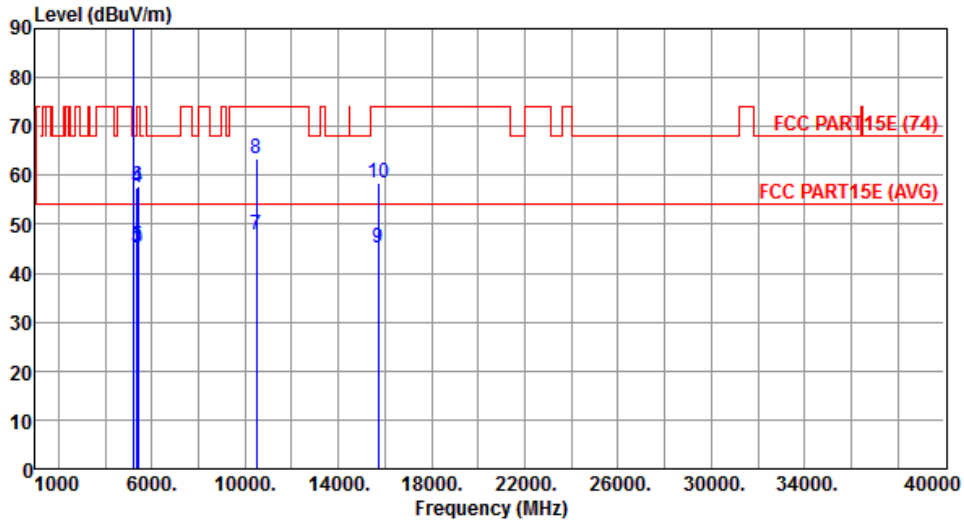
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5240.00	108.74			103.74	5.00	Average	242	290
2	*	5240.00	120.98			115.98	5.00	Peak	242	290
3		5350.00	50.11	54.00	-3.89	44.98	5.13	Average	242	290
4		5350.00	63.25	74.00	-10.75	58.12	5.13	Peak	242	290
5		5400.00	50.95	54.00	-3.05	45.76	5.19	Average	242	290
6		5400.00	64.17	74.00	-9.83	58.98	5.19	Peak	242	290
7		10480.00	50.98	54.00	-3.02	37.08	13.90	Average	217	299
8		10480.00	66.98	74.00	-7.02	53.08	13.90	Peak	217	299
9		15720.00	45.62	54.00	-8.38	30.23	15.39	Average	258	339
10		15720.00	59.50	74.00	-14.50	44.11	15.39	Peak	258	339

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

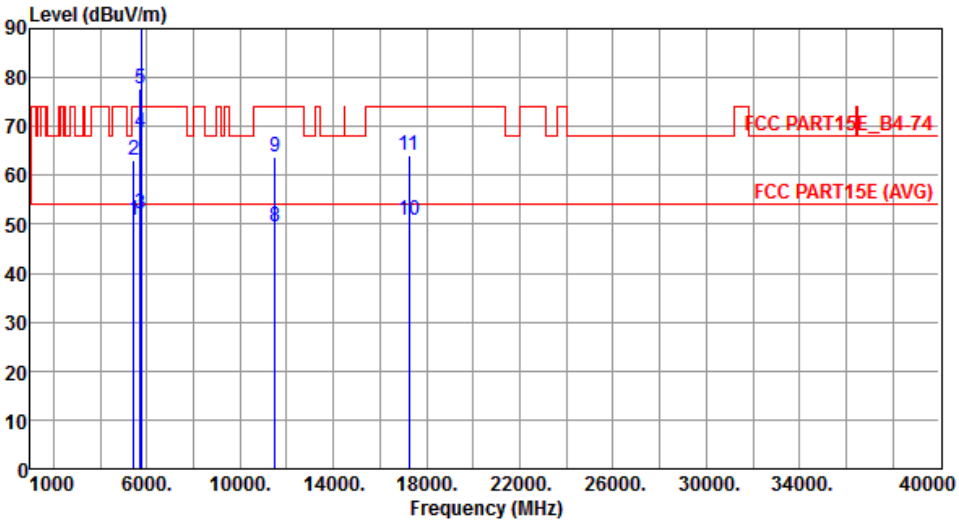
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5240.00	95.58			90.58	5.00	Average	241	293
2	*	5240.00	107.95			102.95	5.00	Peak	241	293
3		5350.00	45.28	54.00	-8.72	40.15	5.13	Average	241	293
4		5350.00	57.46	74.00	-16.54	52.33	5.13	Peak	241	293
5		5400.00	45.45	54.00	-8.55	40.26	5.19	Average	241	293
6		5400.00	57.95	74.00	-16.05	52.76	5.19	Peak	241	293
7		10480.00	47.80	54.00	-6.20	33.90	13.90	Average	269	322
8		10480.00	63.47	74.00	-10.53	49.57	13.90	Peak	269	322
9		15720.00	45.27	54.00	-8.73	29.88	15.39	Average	258	230
10		15720.00	58.50	74.00	-15.50	43.11	15.39	Peak	258	230

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

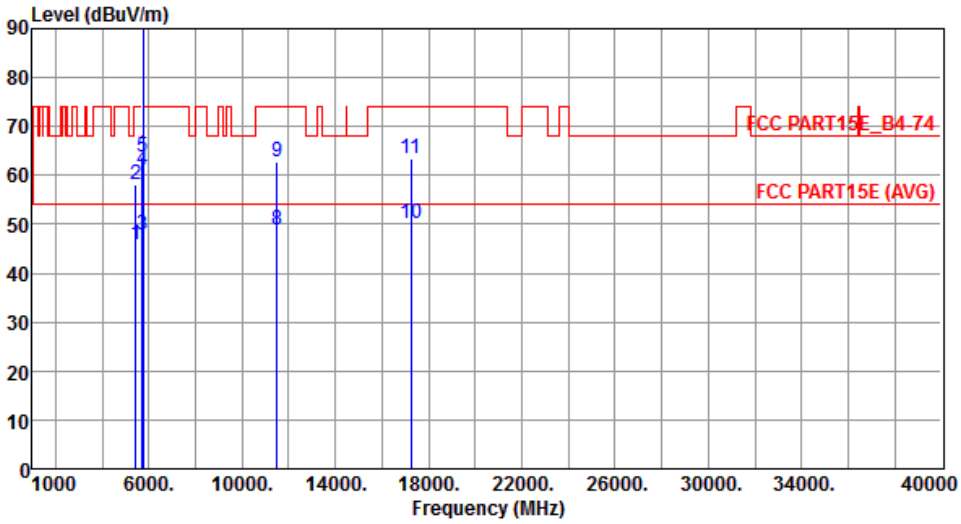
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5420.00	50.79	54.00	-3.21	45.58	5.21	Average	211	295
2		5420.00	63.06	74.00	-10.94	57.85	5.21	Peak	211	295
3		5715.00	52.22	54.00	-1.78	46.52	5.70	Average	211	295
4		5715.00	68.64	74.00	-5.36	62.94	5.70	Peak	211	295
5		5725.00	77.58	78.20	-0.62	71.87	5.71	Peak	211	295
6	*	5745.00	107.41			101.65	5.76	Average	211	295
7	*	5745.00	119.27			113.51	5.76	Peak	211	295
8		11490.00	49.57	54.00	-4.43	34.95	14.62	Average	236	207
9		11490.00	63.91	74.00	-10.09	49.29	14.62	Peak	236	207
10		17235.00	50.77	54.00	-3.23	30.13	20.64	Average	255	305
11		17235.00	64.05	74.00	-9.95	43.41	20.64	Peak	255	305

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

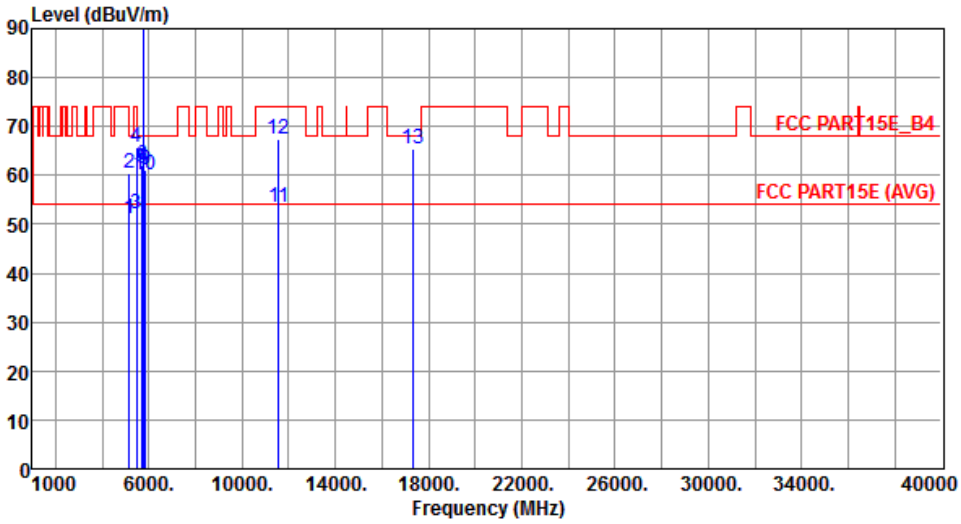
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5420.00	45.76	54.00	-8.24	40.55	5.21	Average	227	25
2		5420.00	57.98	74.00	-16.02	52.77	5.21	Peak	227	25
3		5715.00	47.91	54.00	-6.09	42.21	5.70	Average	227	25
4		5715.00	61.08	74.00	-12.92	55.38	5.70	Peak	227	25
5		5725.00	63.65	78.20	-14.55	57.94	5.71	Peak	227	25
6	*	5745.00	99.75			93.99	5.76	Average	227	25
7	*	5745.00	111.87			106.11	5.76	Peak	227	25
8		11490.00	48.74	54.00	-5.26	34.12	14.62	Average	227	25
9		11490.00	62.85	74.00	-11.15	48.23	14.62	Peak	227	25
10		17235.00	50.06	54.00	-3.94	29.42	20.64	Average	266	345
11		17235.00	63.58	74.00	-10.42	42.94	20.64	Peak	266	345

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

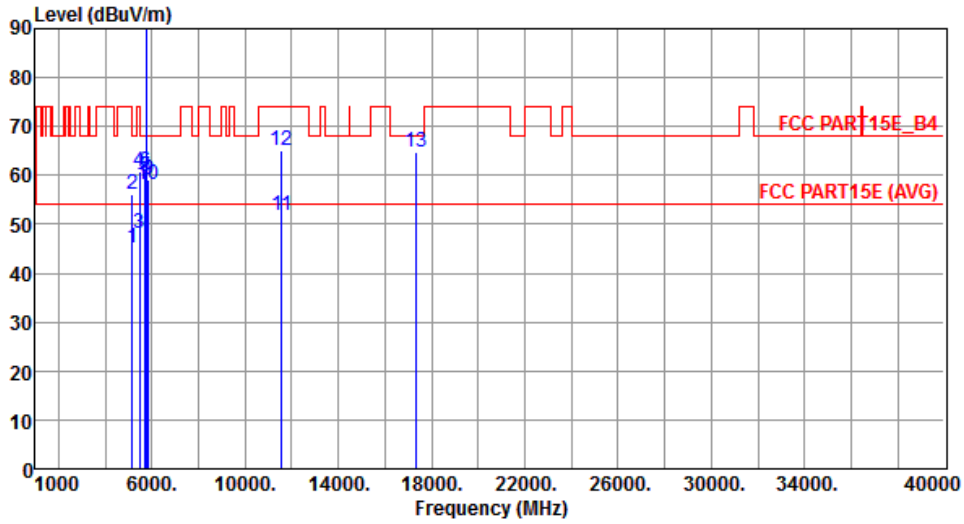
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal	Test Configuration	2



		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	51.00	54.00	-3.00	46.10	4.90	Average	189	330
2		5150.00	60.44	74.00	-13.56	55.54	4.90	Peak	189	330
3		5460.00	51.98	54.00	-2.02	46.72	5.26	Average	189	330
4		5460.00	65.72	74.00	-8.28	60.46	5.26	Peak	189	330
5		5715.00	61.42	68.20	-6.78	55.72	5.70	Peak	198	289
6		5725.00	61.97	78.20	-16.23	56.26	5.71	Peak	198	289
7	*	5785.00	110.67			104.82	5.85	Average	198	289
8	*	5785.00	122.85			117.00	5.85	Peak	198	289
9		5850.00	61.15	78.20	-17.05	55.18	5.97	Peak	198	289
10		5860.00	60.01	68.20	-8.19	54.03	5.98	Peak	198	289
11		11570.00	53.35	54.00	-0.65	38.83	14.52	Average	171	302
12		11570.00	67.39	74.00	-6.61	52.87	14.52	Peak	171	302
13		17355.00	65.58	68.20	-2.62	44.29	21.29	Peak	189	330

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

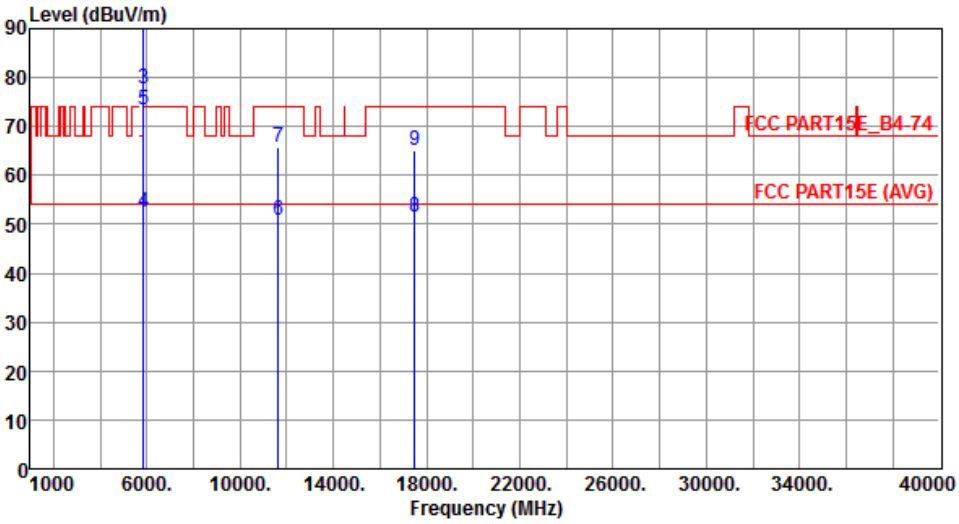
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	45.02	54.00	-8.98	40.12	4.90	Average	206	6
2		5150.00	56.12	74.00	-17.88	51.22	4.90	Peak	206	6
3		5460.00	48.25	54.00	-5.75	42.99	5.26	Average	206	6
4		5460.00	60.84	74.00	-13.16	55.58	5.26	Peak	206	6
5		5715.00	59.82	68.20	-8.38	54.12	5.70	Peak	206	6
6		5725.00	60.81	78.20	-17.39	55.10	5.71	Peak	206	6
7	*	5785.00	103.10			97.25	5.85	Average	206	6
8	*	5785.00	115.22			109.37	5.85	Peak	206	6
9		5850.00	58.99	78.20	-19.21	53.02	5.97	Peak	206	6
10		5860.00	58.10	68.20	-10.10	52.12	5.98	Peak	206	6
11		11570.00	51.81	54.00	-2.19	37.29	14.52	Average	206	6
12		11570.00	65.21	74.00	-8.79	50.69	14.52	Peak	206	6
13		17355.00	64.84	68.20	-3.36	43.55	21.29	Peak	184	354

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

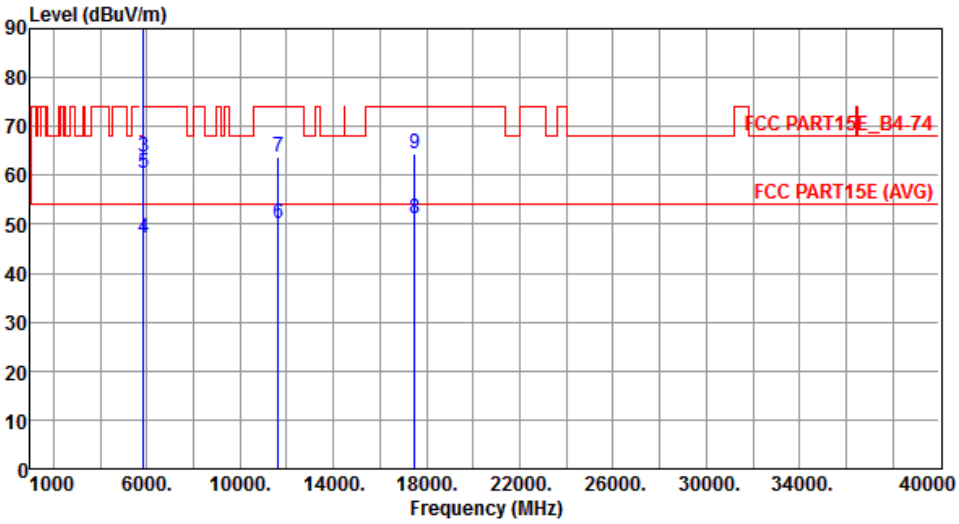
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5825.00	108.38			102.45	5.93	Average	198	287
2	*	5825.00	120.78			114.85	5.93	Peak	198	287
3		5850.00	77.62	78.20	-0.58	71.65	5.97	Peak	198	287
4		5860.00	52.36	54.00	-1.64	46.38	5.98	Average	198	287
5		5860.00	73.40	74.00	-0.60	67.42	5.98	Peak	198	287
6		11650.00	50.74	54.00	-3.26	36.34	14.40	Average	202	299
7		11650.00	65.61	74.00	-8.39	51.21	14.40	Peak	202	299
8		17475.00	51.57	54.00	-2.43	29.63	21.94	Average	250	347
9		17475.00	65.15	74.00	-8.85	43.21	21.94	Peak	250	347

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

Modulation	11a	Test Freq. (MHz)	5825
Polarization	Vertical	Test Configuration	2

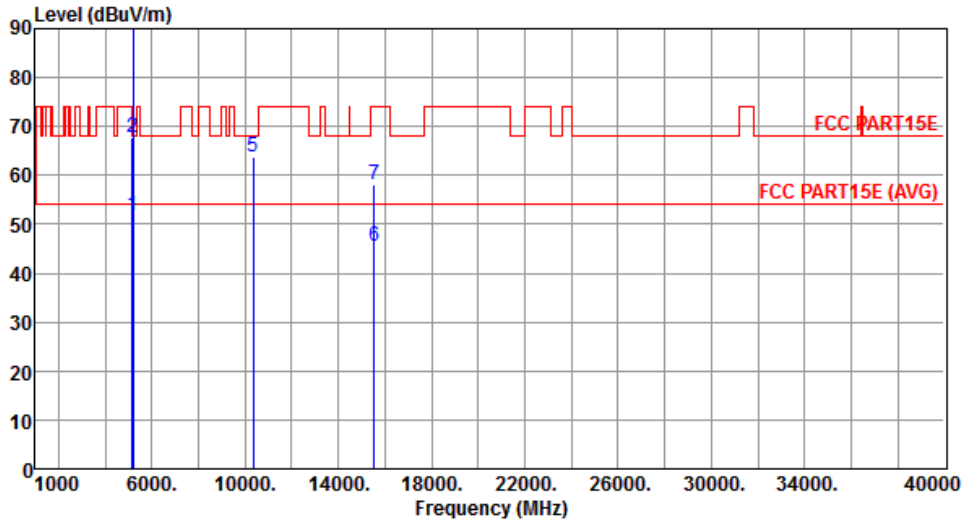


		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5825.00	100.78			94.85	5.93	Average	215	18
2	*	5825.00	112.68			106.75	5.93	Peak	215	18
3		5850.00	63.83	78.20	-14.37	57.86	5.97	Peak	215	18
4		5860.00	47.19	54.00	-6.81	41.21	5.98	Average	215	18
5		5860.00	60.54	74.00	-13.46	54.56	5.98	Peak	215	18
6		11650.00	50.26	54.00	-3.74	35.86	14.40	Average	225	343
7		11650.00	63.72	74.00	-10.28	49.32	14.40	Peak	225	343
8		17475.00	51.28	54.00	-2.72	29.34	21.94	Average	225	343
9		17475.00	64.40	74.00	-9.60	42.46	21.94	Peak	225	343

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

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

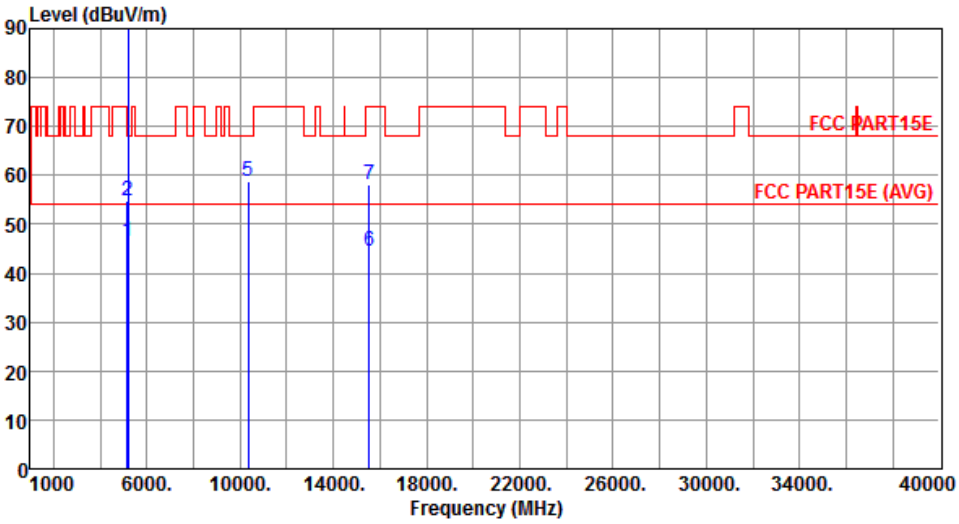
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal	Test Configuration	2



		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	51.96	54.00	-2.04	47.06	4.90	Average	222	295
2		5150.00	67.69	74.00	-6.31	62.79	4.90	Peak	222	295
3	*	5180.00	107.01			102.08	4.93	Average	222	295
4	*	5180.00	119.71			114.78	4.93	Peak	222	295
5		10360.00	63.66	68.20	-4.54	49.99	13.67	Peak	241	334
6		15540.00	45.61	54.00	-8.39	29.89	15.72	Average	252	198
7		15540.00	58.13	74.00	-15.87	42.41	15.72	Peak	252	198

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

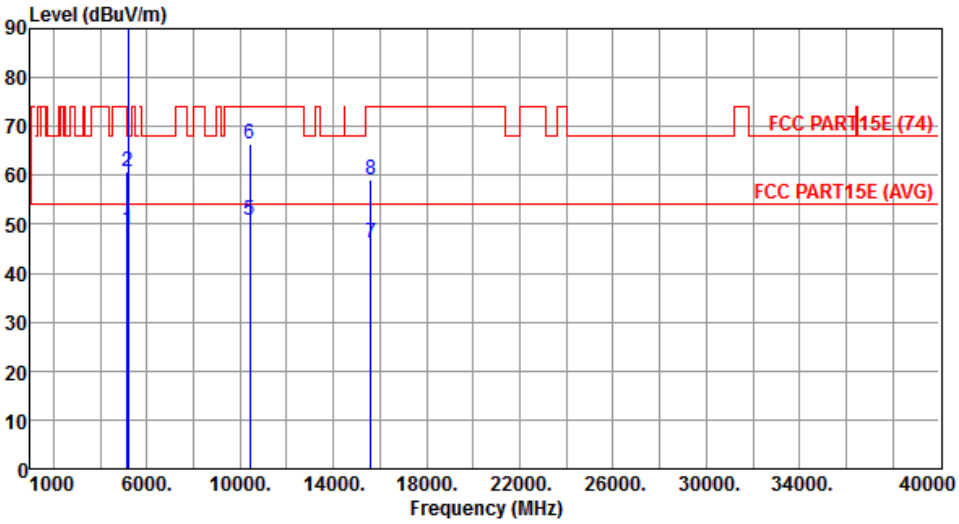
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Vertical	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	46.39	54.00	-7.61	41.49	4.90	Average	257	313
2		5150.00	54.85	74.00	-19.15	49.95	4.90	Peak	257	313
3	*	5180.00	95.19			90.26	4.93	Average	257	313
4	*	5180.00	107.63			102.70	4.93	Peak	257	313
5		10360.00	58.65	68.20	-9.55	44.98	13.67	Peak	288	312
6		15540.00	44.65	54.00	-9.35	28.93	15.72	Average	300	165
7		15540.00	57.98	74.00	-16.02	42.26	15.72	Peak	300	165

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

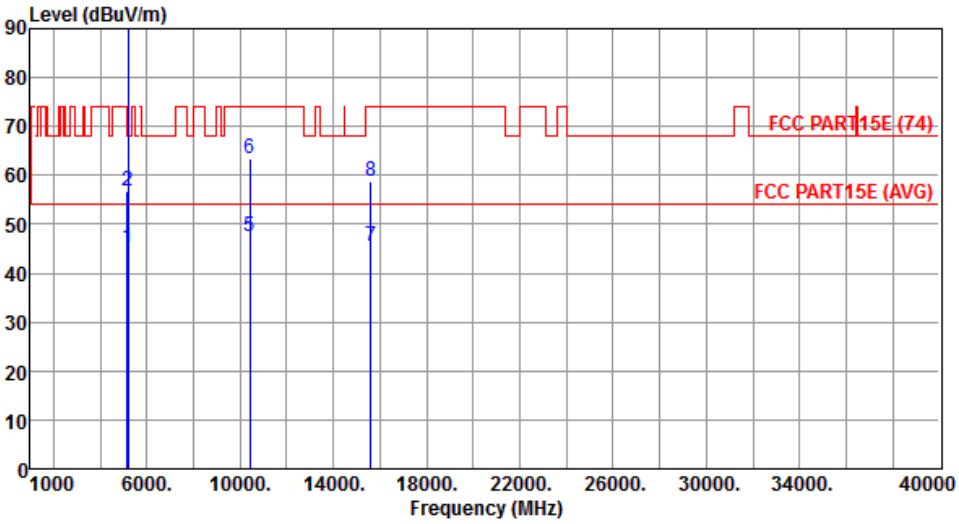
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal	Test Configuration	2



		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	48.88	54.00	-5.12	43.98	4.90	Average	222	290
2		5150.00	60.66	74.00	-13.34	55.76	4.90	Peak	222	290
3	*	5200.00	107.60			102.65	4.95	Average	222	290
4	*	5200.00	120.33			115.38	4.95	Peak	215	291
5		10400.00	50.86	54.00	-3.14	37.11	13.75	Average	228	312
6		10400.00	66.45	74.00	-7.55	52.70	13.75	Peak	228	312
7		15600.00	46.02	54.00	-7.98	30.41	15.61	Average	255	333
8		15600.00	59.06	74.00	-14.94	43.45	15.61	Peak	239	305

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

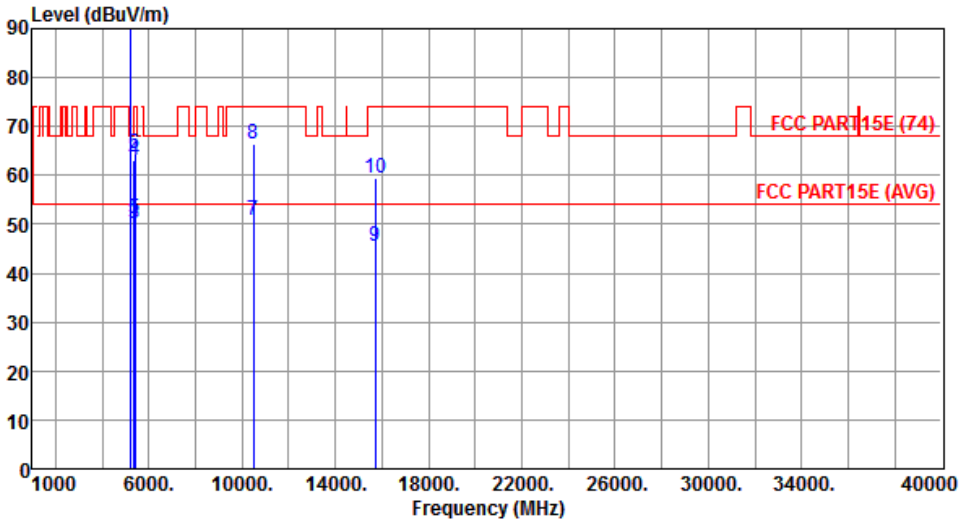
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	45.01	54.00	-8.99	40.11	4.90	Average	245	299
2		5150.00	56.65	74.00	-17.35	51.75	4.90	Peak	245	299
3	*	5200.00	95.45			90.50	4.95	Average	245	299
4	*	5200.00	108.02			103.07	4.95	Peak	245	299
5		10400.00	47.59	54.00	-6.41	33.84	13.75	Average	111	19
6		10400.00	63.55	74.00	-10.45	49.80	13.75	Peak	111	19
7		15600.00	45.42	54.00	-8.58	29.81	15.61	Average	188	12
8		15600.00	58.65	74.00	-15.35	43.04	15.61	Peak	188	12

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

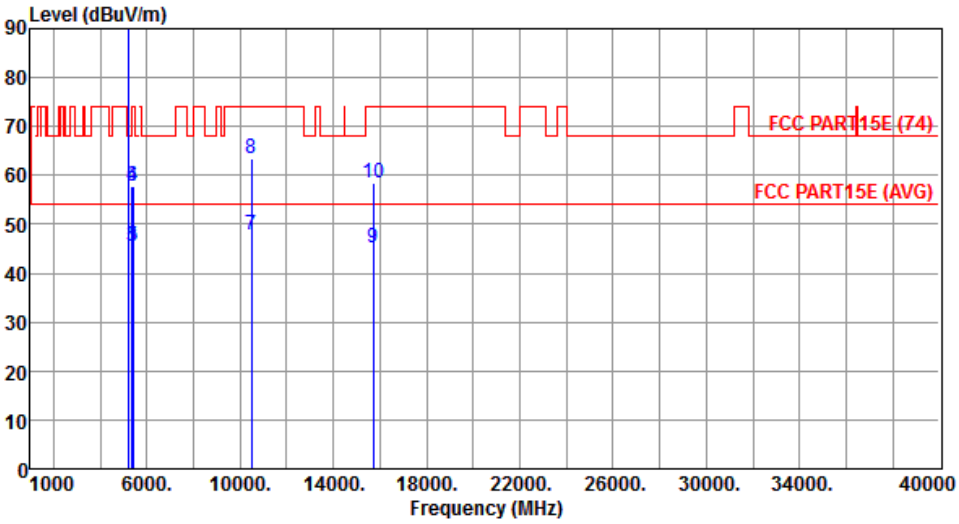
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5240.00	107.35			102.35	5.00	Average	225	284
2	*	5240.00	120.02			115.02	5.00	Peak	225	284
3		5350.00	50.25	54.00	-3.75	45.12	5.13	Average	225	284
4		5350.00	63.11	74.00	-10.89	57.98	5.13	Peak	225	284
5		5400.00	51.12	54.00	-2.88	45.93	5.19	Average	225	284
6		5400.00	64.58	74.00	-9.42	59.39	5.19	Peak	225	284
7		10480.00	50.88	54.00	-3.12	36.98	13.90	Average	220	304
8		10480.00	66.50	74.00	-7.50	52.60	13.90	Peak	220	304
9		15720.00	45.59	54.00	-8.41	30.20	15.39	Average	266	345
10		15720.00	59.46	74.00	-14.54	44.07	15.39	Peak	266	345

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

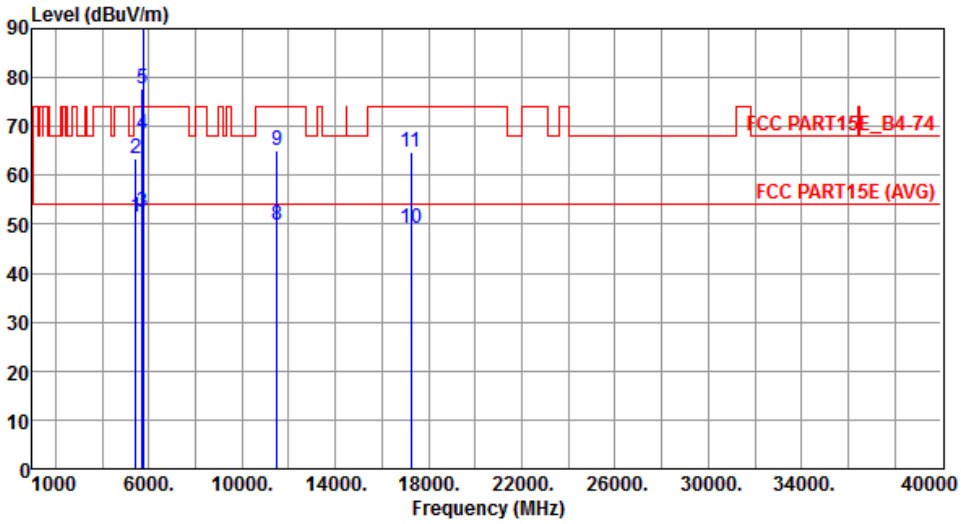
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5240.00	95.17			90.17	5.00	Average	250	303
2	*	5240.00	107.98			102.98	5.00	Peak	250	303
3		5350.00	45.39	54.00	-8.61	40.26	5.13	Average	250	303
4		5350.00	57.85	74.00	-16.15	52.72	5.13	Peak	250	303
5		5400.00	45.66	54.00	-8.34	40.47	5.19	Average	250	303
6		5400.00	57.95	74.00	-16.05	52.76	5.19	Peak	241	293
7		10480.00	47.69	54.00	-6.31	33.79	13.90	Average	274	286
8		10480.00	63.41	74.00	-10.59	49.51	13.90	Peak	274	286
9		15720.00	45.19	54.00	-8.81	29.80	15.39	Average	250	30
10		15720.00	58.41	74.00	-15.59	43.02	15.39	Peak	250	30

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

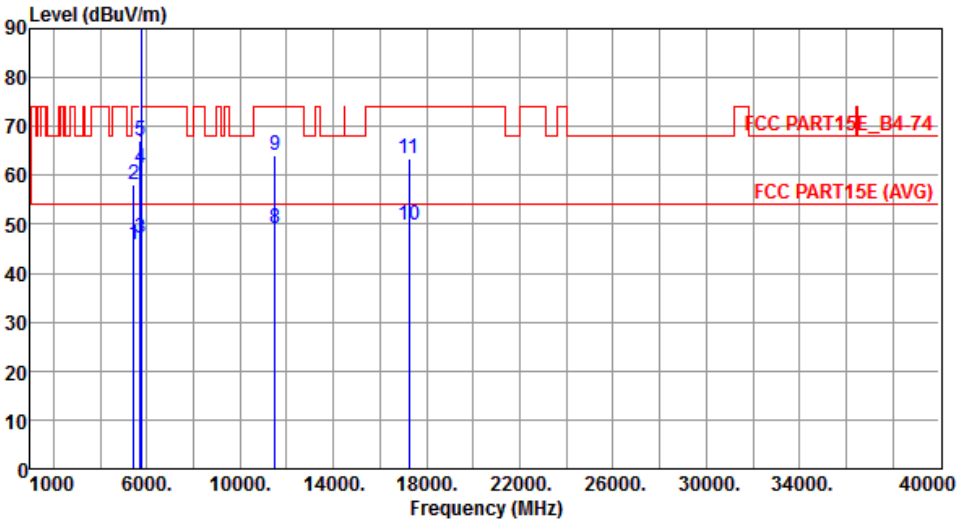
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5420.00	51.33	54.00	-2.67	46.12	5.21	Average	215	291
2		5420.00	63.51	74.00	-10.49	58.30	5.21	Peak	215	291
3		5715.00	52.35	54.00	-1.65	46.65	5.70	Average	215	291
4		5715.00	68.36	74.00	-5.64	62.66	5.70	Peak	215	291
5		5725.00	77.68	78.20	-0.52	71.97	5.71	Peak	211	295
6	*	5745.00	107.28			101.52	5.76	Average	215	291
7	*	5745.00	119.96			114.20	5.76	Peak	211	295
8		11490.00	49.84	54.00	-4.16	35.22	14.62	Average	244	223
9		11490.00	64.96	74.00	-9.04	50.34	14.62	Peak	244	223
10		17235.00	49.08	54.00	-4.92	28.44	20.64	Average	253	311
11		17235.00	64.76	74.00	-9.24	44.12	20.64	Peak	253	311

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

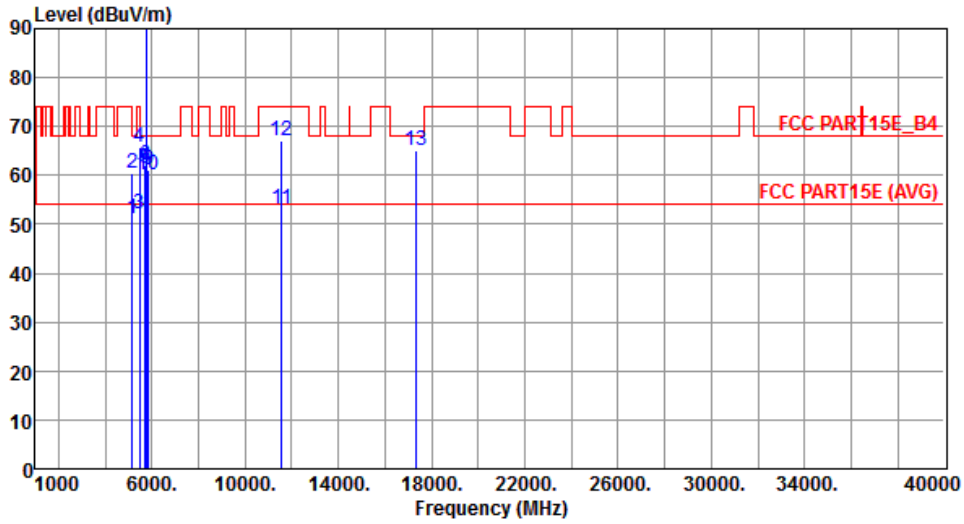
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5420.00	45.89	54.00	-8.11	40.68	5.21	Average	230	28
2		5420.00	58.12	74.00	-15.88	52.91	5.21	Peak	230	28
3		5715.00	47.26	54.00	-6.74	41.56	5.70	Average	230	28
4		5715.00	61.35	74.00	-12.65	55.65	5.70	Peak	230	28
5		5725.00	67.14	78.20	-11.06	61.43	5.71	Peak	230	28
6	*	5745.00	99.58			93.82	5.76	Average	230	28
7	*	5745.00	112.41			106.65	5.76	Peak	230	28
8		11490.00	49.17	54.00	-4.83	34.55	14.62	Average	207	355
9		11490.00	63.97	74.00	-10.03	49.35	14.62	Peak	207	355
10		17235.00	49.97	54.00	-4.03	29.33	20.64	Average	270	332
11		17235.00	63.45	74.00	-10.55	42.81	20.64	Peak	270	332

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

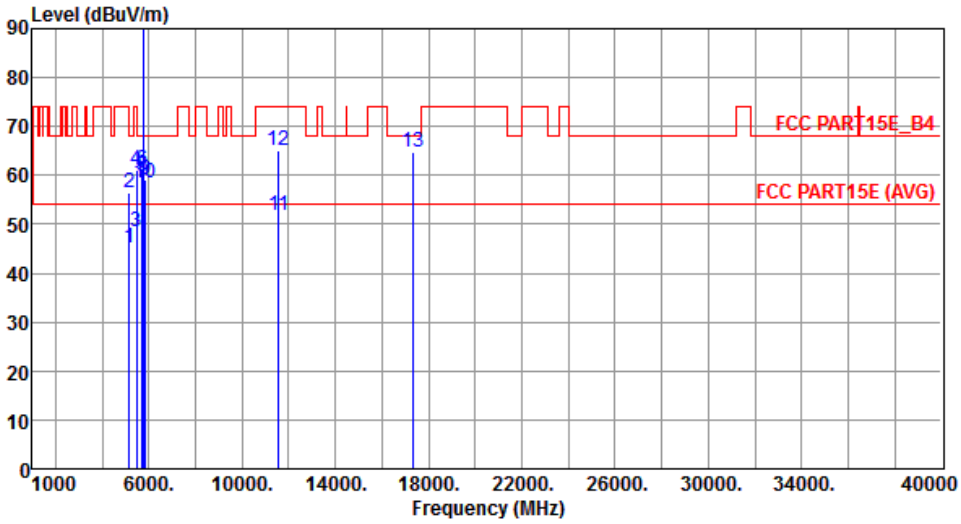
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal	Test Configuration	2



		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	46.22	4.90	Average	212	292
2		5150.00	60.58	74.00	-13.42	55.68	4.90	Peak	212	292
3		5460.00	52.12	54.00	-1.88	46.86	5.26	Average	212	292
4		5460.00	65.88	74.00	-8.12	60.62	5.26	Peak	212	292
5		5715.00	61.58	68.20	-6.62	55.88	5.70	Peak	212	292
6		5725.00	62.12	78.20	-16.08	56.41	5.71	Peak	212	292
7	*	5785.00	110.29			104.44	5.85	Average	212	292
8	*	5785.00	123.15			117.30	5.85	Peak	212	292
9		5850.00	61.25	78.20	-16.95	55.28	5.97	Peak	212	292
10		5860.00	60.25	68.20	-7.95	54.27	5.98	Peak	212	292
11		11570.00	53.02	54.00	-0.98	38.50	14.52	Average	165	312
12		11570.00	67.18	74.00	-6.82	52.66	14.52	Peak	165	312
13		17355.00	65.12	68.20	-3.08	43.83	21.29	Peak	177	333

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

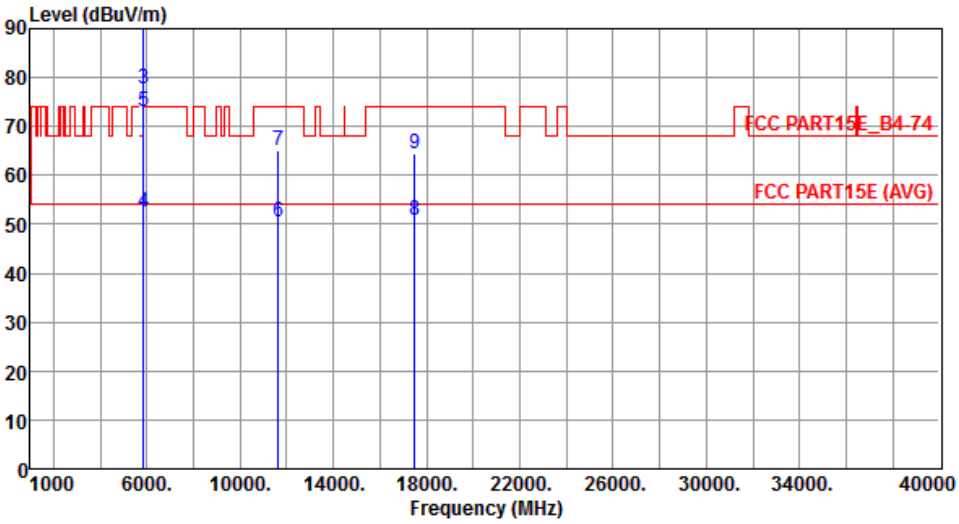
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	45.18	54.00	-8.82	40.28	4.90	Average	228	356
2		5150.00	56.36	74.00	-17.64	51.46	4.90	Peak	228	356
3		5460.00	48.46	54.00	-5.54	43.20	5.26	Average	228	356
4		5460.00	60.98	74.00	-13.02	55.72	5.26	Peak	228	356
5		5715.00	59.93	68.20	-8.27	54.23	5.70	Peak	228	356
6		5725.00	61.02	78.20	-17.18	55.31	5.71	Peak	228	356
7	*	5785.00	102.71			96.86	5.85	Average	228	356
8	*	5785.00	115.49			109.64	5.85	Peak	228	356
9		5850.00	59.12	78.20	-19.08	53.15	5.97	Peak	228	356
10		5860.00	58.36	68.20	-9.84	52.38	5.98	Peak	228	356
11		11570.00	51.70	54.00	-2.30	37.18	14.52	Average	197	38
12		11570.00	65.15	74.00	-8.85	50.63	14.52	Peak	197	38
13		17355.00	64.71	68.20	-3.49	43.42	21.29	Peak	179	340

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

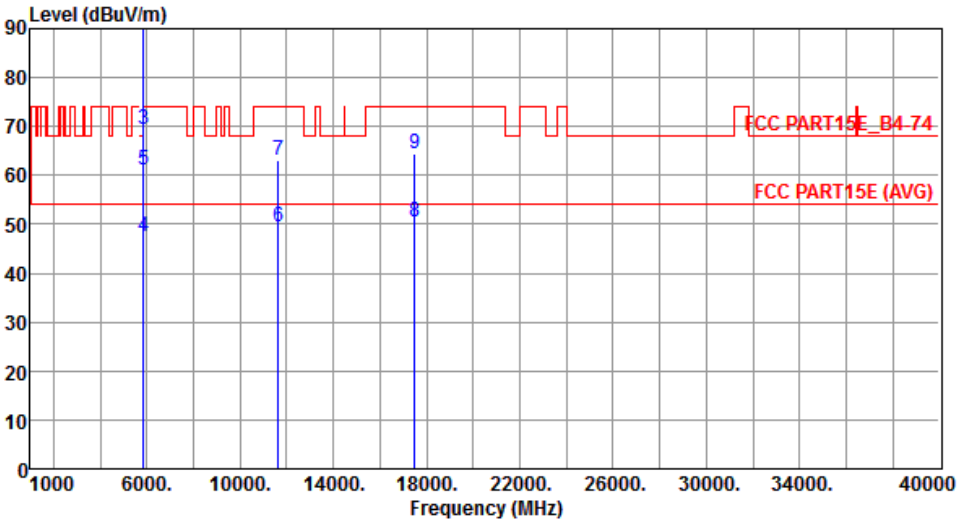
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5825.00	107.36			101.43	5.93	Average	187	297
2	*	5825.00	119.95			114.02	5.93	Peak	187	297
3		5850.00	77.63	78.20	-0.57	71.66	5.97	Peak	187	297
4		5860.00	52.63	54.00	-1.37	46.65	5.98	Average	187	297
5		5860.00	73.01	74.00	-0.99	67.03	5.98	Peak	187	297
6		11650.00	50.62	54.00	-3.38	36.22	14.40	Average	212	233
7		11650.00	65.25	74.00	-8.75	50.85	14.40	Peak	212	233
8		17475.00	50.70	54.00	-3.30	28.76	21.94	Average	240	355
9		17475.00	64.40	74.00	-9.60	42.46	21.94	Peak	240	355

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

Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Vertical	Test Configuration	2

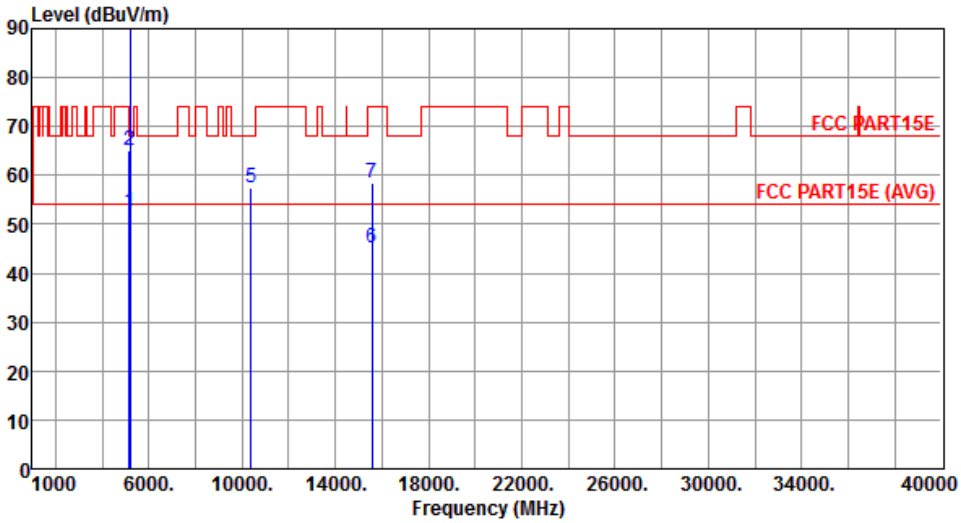


		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5825.00	100.05			94.12	5.93	Average	220	26
2	*	5825.00	112.49			106.56	5.93	Peak	220	26
3		5850.00	69.25	78.20	-8.95	63.28	5.97	Peak	220	26
4		5860.00	47.43	54.00	-6.57	41.45	5.98	Average	220	26
5		5860.00	61.10	74.00	-12.90	55.12	5.98	Peak	220	26
6		11650.00	49.41	54.00	-4.59	35.01	14.40	Average	205	344
7		11650.00	63.15	74.00	-10.85	48.75	14.40	Peak	205	344
8		17475.00	50.59	54.00	-3.41	28.65	21.94	Average	205	308
9		17475.00	64.39	74.00	-9.61	42.45	21.94	Peak	205	308

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

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

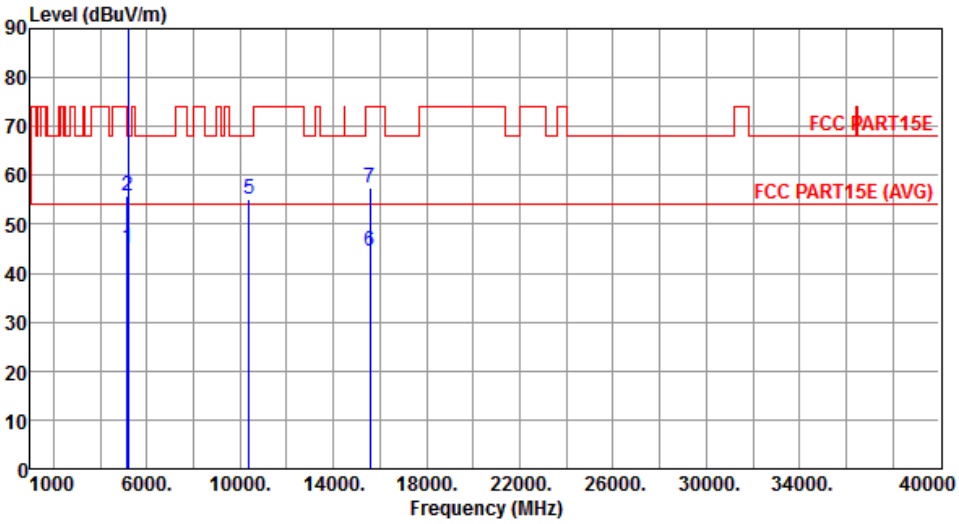
Modulation	VHT40	**Test Freq. (MHz)**	5190
Polarization	Horizontal	**Test Configuration**	2



		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	52.45	54.00	-1.55	47.55	4.90	Average	214	284
2		5150.00	65.22	74.00	-8.78	60.32	4.90	Peak	214	284
3	*	5190.00	103.51			98.57	4.94	Average	214	284
4	*	5190.00	113.69			108.75	4.94	Peak	214	284
5		10380.00	57.36	68.20	-10.84	43.65	13.71	Peak	255	205
6		15570.00	45.19	54.00	-8.81	29.52	15.67	Average	315	225
7		15570.00	58.37	74.00	-15.63	42.70	15.67	Peak	315	225

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

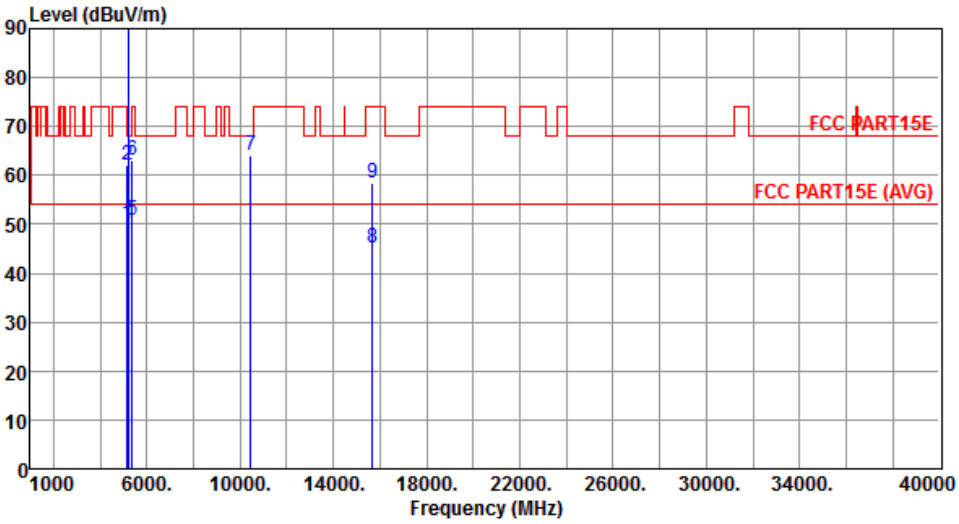
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Vertical	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	45.10	54.00	-8.90	40.20	4.90	Average	255	291
2		5150.00	55.75	74.00	-18.25	50.85	4.90	Peak	255	291
3	*	5190.00	91.29			86.35	4.94	Average	255	291
4	*	5190.00	101.41			96.47	4.94	Peak	255	291
5		10380.00	55.03	68.20	-13.17	41.32	13.71	Peak	212	308
6		15570.00	44.44	54.00	-9.56	28.77	15.67	Average	308	332
7		15570.00	57.37	74.00	-16.63	41.70	15.67	Peak	308	332

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

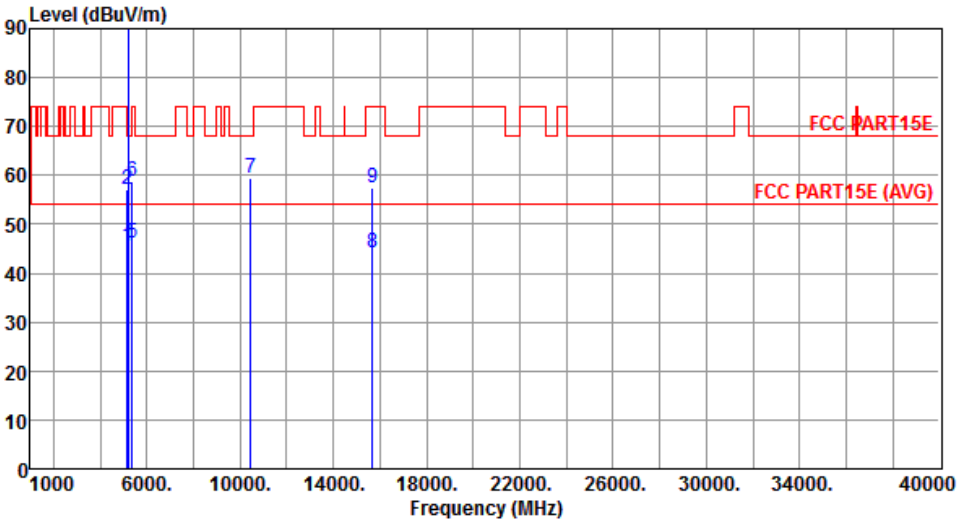
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Horizontal	Test Configuration	2



		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	50.07	54.00	-3.93	45.17	4.90	Average	222	281
2		5150.00	62.15	74.00	-11.85	57.25	4.90	Peak	222	281
3	*	5230.00	111.52			106.53	4.99	Average	222	281
4	*	5230.00	121.68			116.69	4.99	Peak	222	281
5		5350.00	50.93	54.00	-3.07	45.80	5.13	Average	222	281
6		5350.00	62.98	74.00	-11.02	57.85	5.13	Peak	222	281
7		10460.00	64.09	68.20	-4.11	50.23	13.86	Peak	207	296
8		15690.00	45.33	54.00	-8.67	29.90	15.43	Average	257	225
9		15690.00	58.29	74.00	-15.71	42.86	15.43	Peak	257	225

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

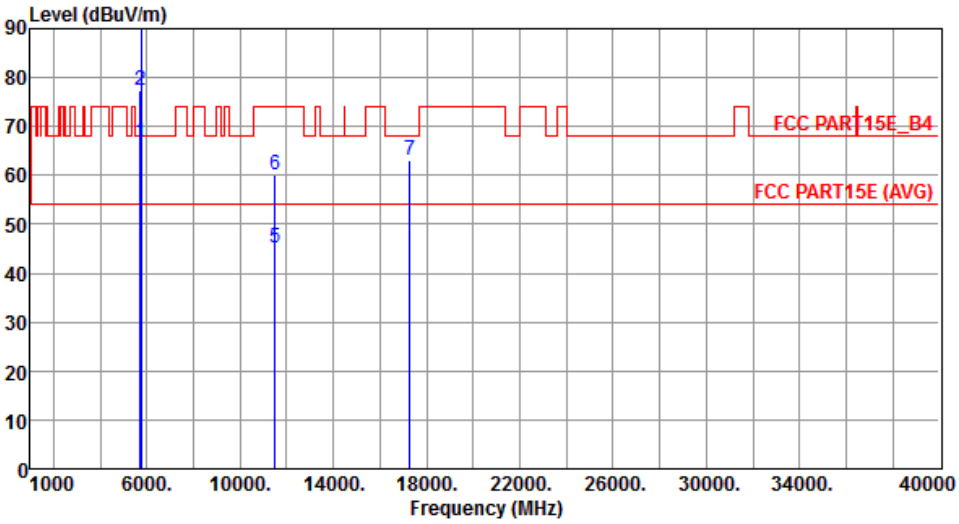
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	45.34	54.00	-8.66	40.44	4.90	Average	195	240
2		5150.00	57.23	74.00	-16.77	52.33	4.90	Peak	195	240
3	*	5230.00	99.85			94.86	4.99	Average	195	240
4	*	5230.00	109.97			104.98	4.99	Peak	195	240
5		5350.00	46.11	54.00	-7.89	40.98	5.13	Average	195	240
6		5350.00	58.68	74.00	-15.32	53.55	5.13	Peak	195	240
7		10460.00	59.30	68.20	-8.90	45.44	13.86	Peak	207	295
8		15690.00	44.32	54.00	-9.68	28.89	15.43	Average	255	331
9		15690.00	57.42	74.00	-16.58	41.99	15.43	Peak	255	331

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

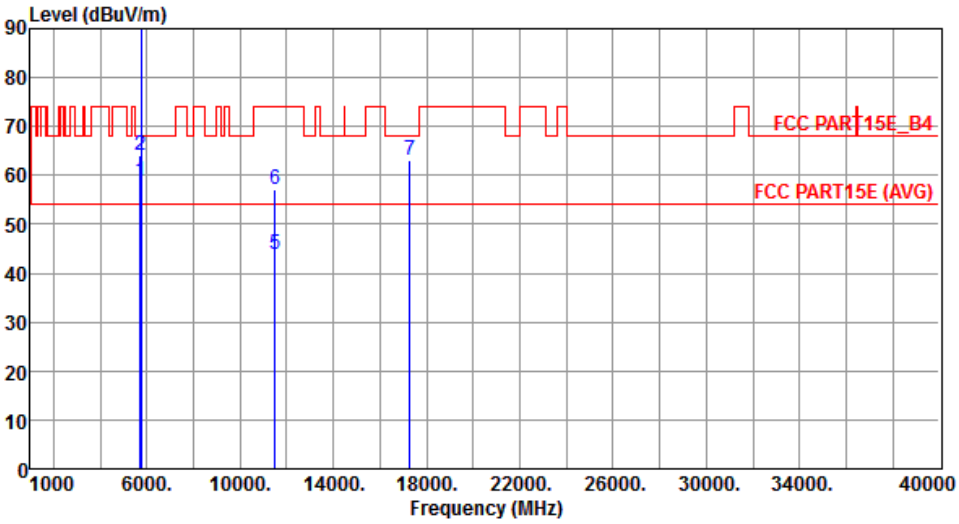
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5715.00	66.82	68.20	-1.38	61.12	5.70	Peak	213	292
2		5725.00	77.52	78.20	-0.68	71.81	5.71	Peak	213	292
3	*	5755.00	104.21			98.42	5.79	Average	213	292
4	*	5755.00	114.31			108.52	5.79	Peak	213	292
5		11510.00	45.12	54.00	-8.88	30.50	14.62	Average	223	328
6		11510.00	60.12	74.00	-13.88	45.50	14.62	Peak	223	328
7		17265.00	63.03	68.20	-5.17	42.22	20.81	Peak	230	332

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

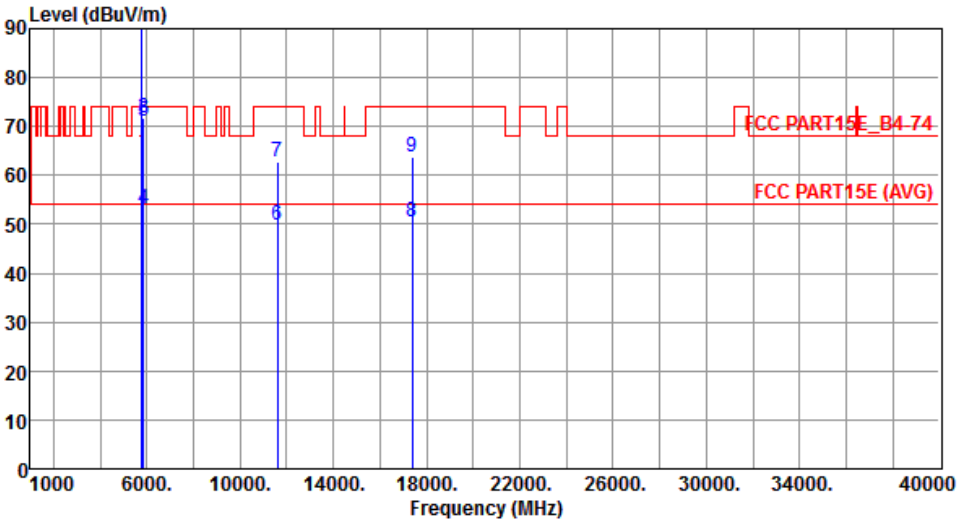
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5715.00	58.82	68.20	-9.38	53.12	5.70	Peak	241	12
2		5725.00	64.05	78.20	-14.15	58.34	5.71	Peak	241	12
3	*	5755.00	95.99			90.20	5.79	Average	241	12
4	*	5755.00	106.18			100.39	5.79	Peak	241	12
5		11510.00	43.97	54.00	-10.03	29.35	14.62	Average	258	225
6		11510.00	57.19	74.00	-16.81	42.57	14.62	Peak	258	225
7		17265.00	63.00	68.20	-5.20	42.19	20.81	Peak	258	225

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

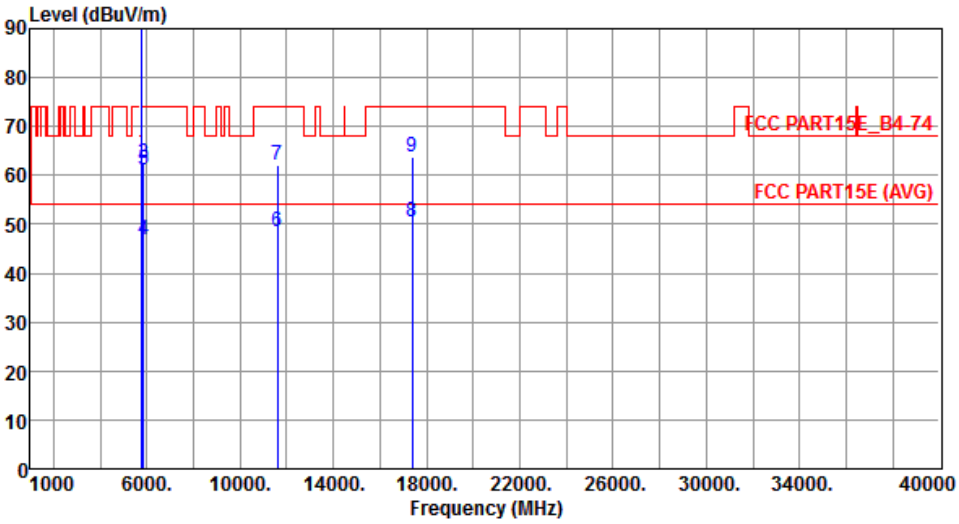
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5795.00	107.73			101.86	5.87	Average	227	286
2	*	5795.00	117.84			111.97	5.87	Peak	227	286
3		5850.00	71.83	78.20	-6.37	65.86	5.97	Peak	227	286
4		5860.00	53.21	54.00	-0.79	47.23	5.98	Average	227	286
5		5860.00	71.19	74.00	-2.81	65.21	5.98	Peak	227	286
6		11590.00	49.71	54.00	-4.29	35.21	14.50	Average	202	302
7		11590.00	62.62	74.00	-11.38	48.12	14.50	Peak	202	302
8		17385.00	50.56	54.00	-3.44	29.10	21.46	Average	211	21
9		17385.00	63.80	74.00	-10.20	42.34	21.46	Peak	211	21

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

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical	Test Configuration	2

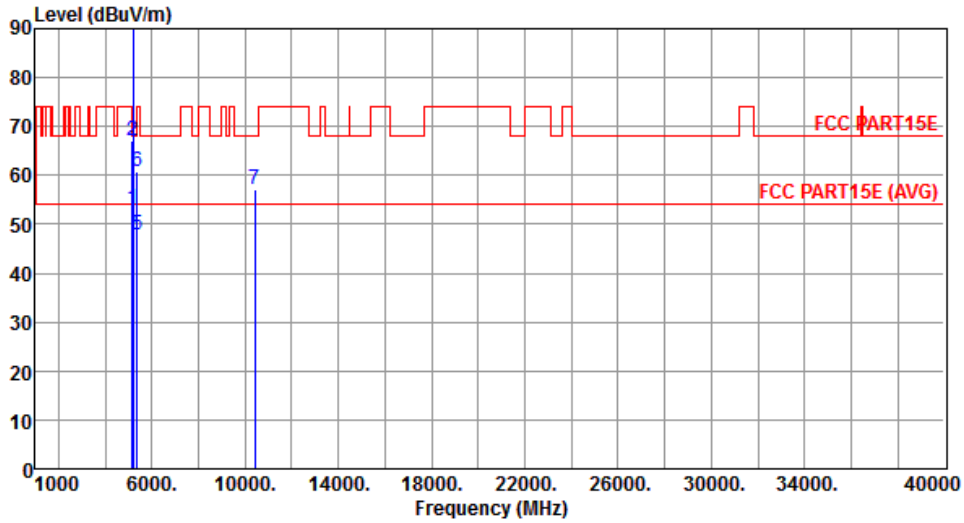


		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5795.00	99.05			93.18	5.87	Average	235	5
2	*	5795.00	108.90			103.03	5.87	Peak	235	5
3		5850.00	62.30	78.20	-15.90	56.33	5.97	Peak	235	5
4		5860.00	46.88	54.00	-7.12	40.90	5.98	Average	235	5
5		5860.00	61.25	74.00	-12.75	55.27	5.98	Peak	235	5
6		11590.00	48.35	54.00	-5.65	33.85	14.50	Average	258	23
7		11590.00	62.08	74.00	-11.92	47.58	14.50	Peak	258	23
8		17385.00	50.45	54.00	-3.55	28.99	21.46	Average	233	308
9		17385.00	63.88	74.00	-10.12	42.42	21.46	Peak	233	308

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

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

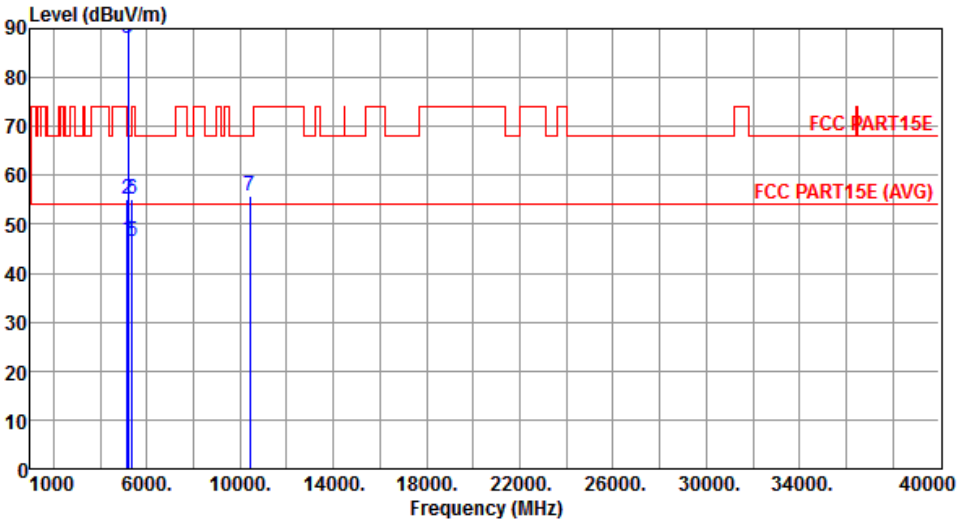
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	53.22	54.00	-0.78	48.32	4.90	Average	233	296
2		5150.00	67.11	74.00	-6.89	62.21	4.90	Peak	233	296
3	*	5210.00	97.09			92.12	4.97	Average	233	296
4	*	5210.00	109.20			104.23	4.97	Peak	233	296
5		5350.00	47.67	54.00	-6.33	42.54	5.13	Average	233	296
6		5350.00	60.76	74.00	-13.24	55.63	5.13	Peak	233	296
7		10420.00	57.22	68.20	-10.98	43.44	13.78	Peak	244	220

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

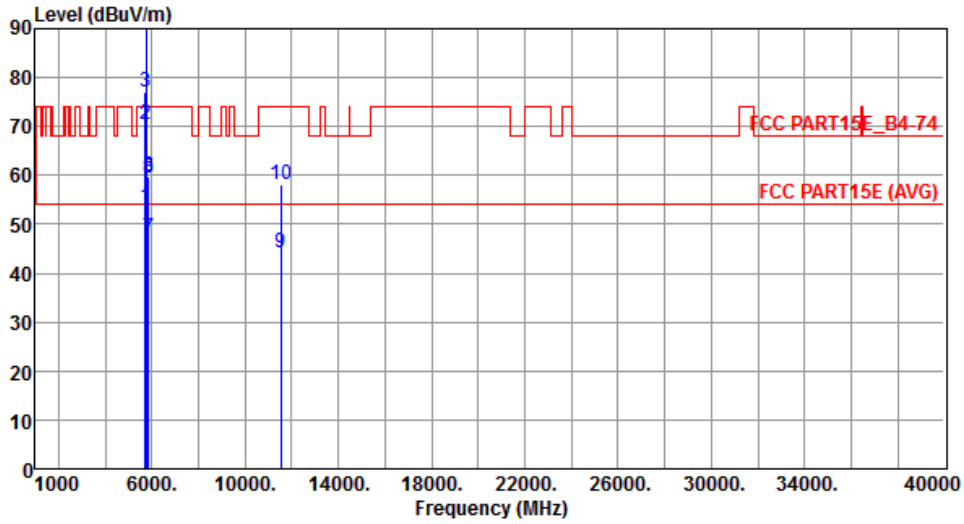
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	46.76	54.00	-7.24	41.86	4.90	Average	185	265
2		5150.00	55.12	74.00	-18.88	50.22	4.90	Peak	185	265
3	*	5210.00	87.91			82.94	4.97	Average	185	265
4	*	5210.00	99.99			95.02	4.97	Peak	185	265
5		5350.00	46.55	54.00	-7.45	41.42	5.13	Average	185	265
6		5350.00	55.02	74.00	-18.98	49.89	5.13	Peak	185	265
7		10420.00	55.80	68.20	-12.40	42.02	13.78	Peak	310	339

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

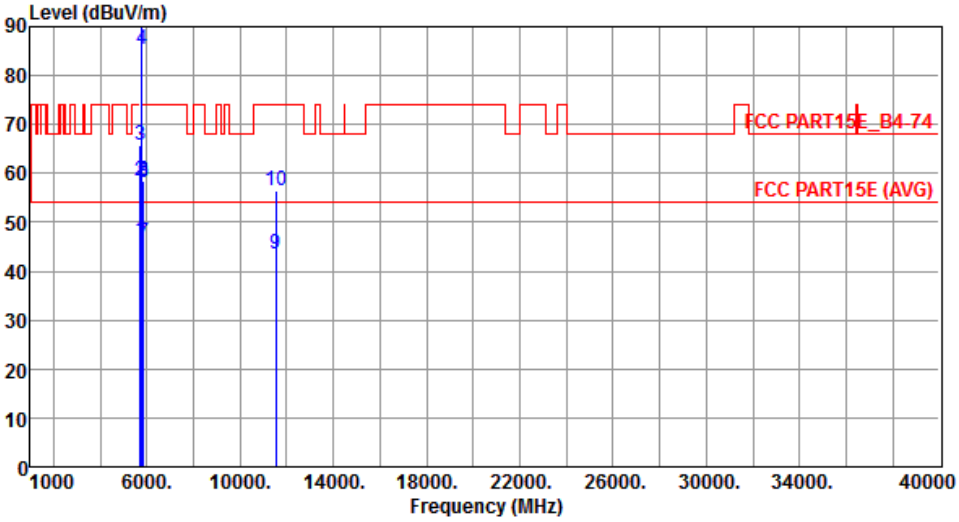
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5715.00	53.35	54.00	-0.65	47.65	5.70	Average	217	294
2		5715.00	70.33	74.00	-3.67	64.63	5.70	Peak	217	294
3		5725.00	76.94	78.20	-1.26	71.23	5.71	Peak	217	294
4	*	5775.00	95.04			89.20	5.84	Average	217	294
5	*	5775.00	107.14			101.30	5.84	Peak	217	294
6		5850.00	59.62	78.20	-18.58	53.65	5.97	Peak	217	294
7		5860.00	47.00	54.00	-7.00	41.02	5.98	Average	217	294
8		5860.00	59.29	74.00	-14.71	53.31	5.98	Peak	217	294
9		11530.00	44.24	54.00	-9.76	29.65	14.59	Average	277	305
10		11530.00	58.10	74.00	-15.90	43.51	14.59	Peak	277	305

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

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Vertical	Test Configuration	2



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5715.00	46.28	54.00	-7.72	40.58	5.70	Average	216	322
2		5715.00	58.58	74.00	-15.42	52.88	5.70	Peak	216	322
3		5725.00	65.92	78.20	-12.28	60.21	5.71	Peak	216	322
4	*	5775.00	85.25			79.41	5.84	Average	216	322
5	*	5775.00	98.57			92.73	5.84	Peak	216	322
6		5850.00	58.60	78.20	-19.60	52.63	5.97	Peak	216	322
7		5860.00	45.99	54.00	-8.01	40.01	5.98	Average	216	322
8		5860.00	57.96	74.00	-16.04	51.98	5.98	Peak	216	322
9		11530.00	43.47	54.00	-10.53	28.88	14.59	Average	255	220
10		11530.00	56.47	74.00	-17.53	41.88	14.59	Peak	255	220

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

3.6 Frequency Stability

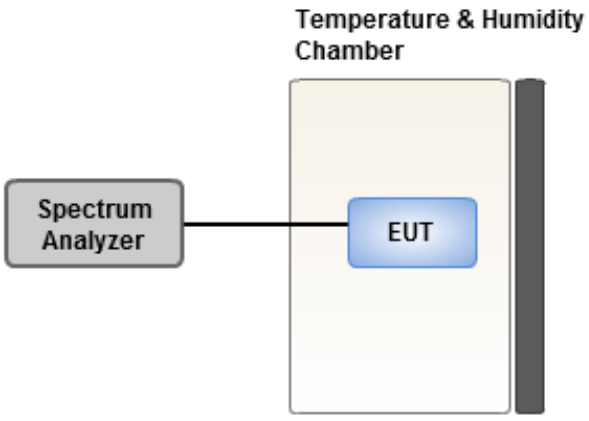
3.6.1 Limit of Frequency Stability

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

3.6.2 Test Procedures

1. The EUT is installed in an environment test chamber with external power source.
2. Set the chamber to operate at 50 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 -30 to 50 centigrade and 85 to 115 percent of the nominal voltage. Change setting of chamber and external power source to complete all conditions.

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	5.77	5.92	6.53	5.67
T20°CVmin	4.47	4.44	4.39	4.27
T50°CVnom	3.56	3.80	3.33	4.18
T40°CVnom	3.47	3.70	3.77	4.17
T30°CVnom	3.75	3.76	3.57	4.62
T20°CVnom	2.40	2.71	2.58	2.68
T10°CVnom	2.66	2.24	3.36	3.17
T0°CVnom	2.72	3.60	2.73	2.90
T-10°CVnom	2.38	3.21	2.20	2.59
T-20°CVnom	0.78	1.17	1.59	1.08
T-30°CVnom	1.37	1.05	1.53	1.06
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	6.45	6.89	6.74	6.87
T20°CVmin	4.60	4.57	4.19	5.18
T50°CVnom	3.40	3.58	3.51	3.39
T40°CVnom	3.73	4.11	3.71	3.67
T30°CVnom	4.40	4.87	4.62	4.42
T20°CVnom	2.03	1.67	2.03	2.41
T10°CVnom	2.96	3.15	3.38	3.58
T0°CVnom	2.73	2.41	2.81	3.19
T-10°CVnom	2.11	2.07	1.68	2.27
T-20°CVnom	1.06	1.25	1.59	1.42
T-30°CVnom	1.44	1.36	1.92	1.40
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, 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 Hsiang. 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 Hsiang, Tao Yuan Hsien 333, Taiwan, R.O.C.	No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan Hsiang, Tao Yuan Hsien 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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