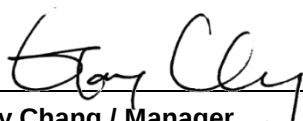


FCC Test Report

FCC ID : I88WAC6103D-I
Equipment : 802.11 ac Unified Pro Access Point
Model No. : WAC6103D-I
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 : Jun. 30, 2015
Tested Date : Jul. 20 ~ Aug. 10, 2015

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



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Release Record

Report No.	Version	Description	Issued Date
FR563002AN	Rev. 01	Initial issue	Aug. 21, 2015
FR563002AN	Rev. 02	Modified product name	Aug. 25, 2015

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 2.540MHz 42.24 (Margin -13.76dB) - QP	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5150.00MHz 52.99 (Margin -1.01dB) - AV	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(e)	6dB bandwidth	Meet the requirement of limit	Pass
15.407(a)	RF Output Power	Max Power [dBm]: 5150-5250MHz: 27.12 5725-5850MHz: 28.33	Pass
15.407(a)	Peak Power Spectral Density	Meet the requirement of limit	Pass
15.407(g)	Frequency Stability	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

1 General Description

1.1 Information

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS
5150-5250	a	5180-5240	36-48 [4]	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 Set Details

Brand / Model	Ant. No.	Type	Connector	Frequencies (MHz) / Antenna Gain (dBi)			Remark
				2400~2483.5	5150~5250	5725~5850	
SINBON / 2.4G & 5G Metal & PCB Antenna	1	PIFA	UFL	3.28	---	---	Ceiling mounted: Antenna 1 / 2 / 3
	2	PIFA	UFL	3.37	---	---	
	3	PIFA	UFL	3.15	---	---	
	4	Dipole	UFL	4.33	---	---	Wall mounted: Antenna 1 / 2 / 4
	5	LOOP	UFL	---	4.38	4.23	Ceiling mounted: Antenna 5 / 6 / 7
	6	LOOP	UFL	---	4.31	4.22	
	7	LOOP	UFL	---	4.38	4.36	Wall mounted: Antenna 5 / 6 / 8
	8	Dipole	UFL	---	5.12	5.20	

Note:

1. The device has a hardware control switch to change operating mode as Ceiling or Wall mounted mode. The difference between both operating modes is only transmission antennas combination.
2. The antenna set includes 8 antennas as above table.

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	48Vdc from POE (support unit only.)
--------------------------	-------------------------------------

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-GUI, Version 2.3		
Duty Cycle and Duty Factor	Mode	Duty cycle (%)	Duty factor (dB)
	11a	98.26%	0.08
	VHT20	98.16%	0.08
	VHT40	93.98%	0.27
	VHT80	90.03%	0.46

1.1.7 Power Setting

For Frequency band 5150-5250 MHz		
Modulation Mode	Test Frequency (MHz)	Power Set
11a	5180	18
11a	5200	22
11a	5240	22.5
HT20	5180	17
HT20	5200	22
HT20	5240	22.5
HT40	5190	13
HT40	5230	20
VHT20	5180	17
VHT20	5200	22
VHT20	5240	22.5
VHT40	5190	13
VHT40	5230	20
VHT80	5210	10

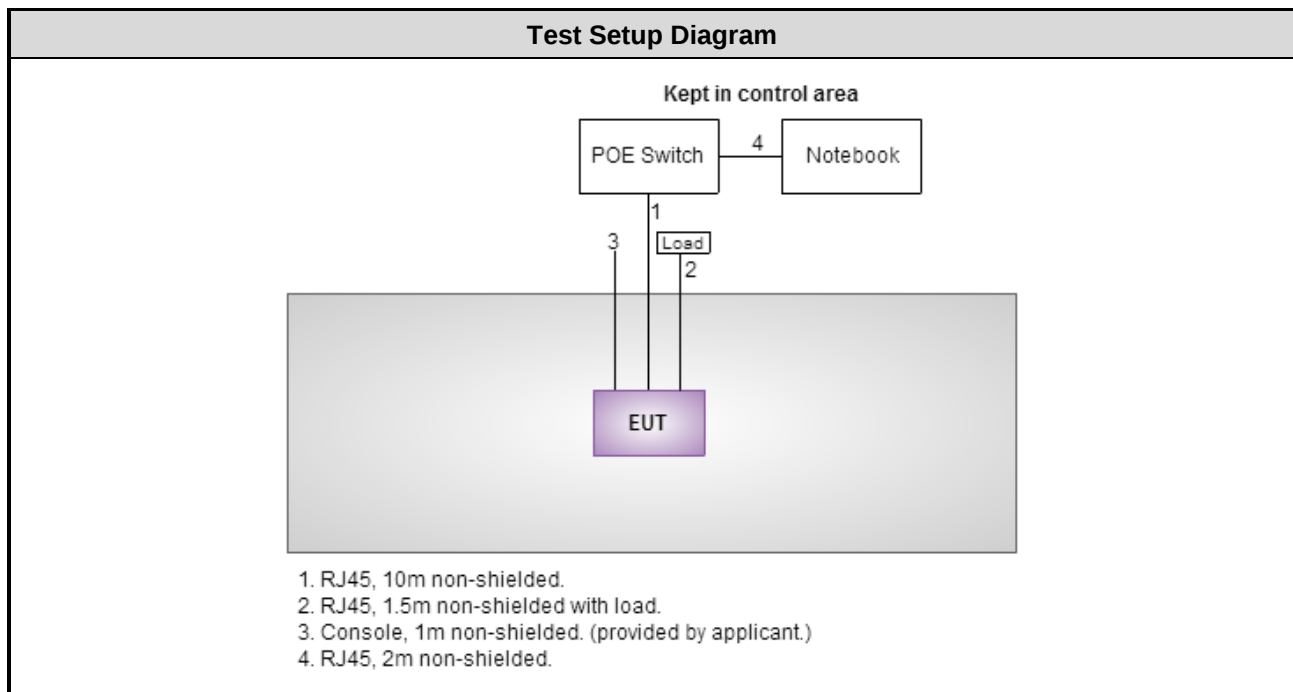
For Frequency band 5725~5850 MHz		
Modulation Mode	Test Frequency (MHz)	Power Set
11a	5745	15
11a	5785	23
11a	5825	18
HT20	5745	15
HT20	5785	23
HT20	5825	18
HT40	5755	13
HT40	5795	16
VHT20	5745	15
VHT20	5785	23
VHT20	5825	18
VHT40	5755	13
VHT40	5795	16
VHT80	5775	10

1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Signal cable / Length (m)
1	Notebook	DELL	Latitude E6440	---	RJ45, 2m non-shielded.
2	Load	ICC	---	---	RJ45, 1.5m non-shielded.
3	POE Switch	DNI	LM-GP201XRA	---	RJ45, 10m non-shielded.

Note: No. 3 was supplied by applicant.

1.3 Test Setup Chart



1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
EMC Receiver	R&S	ESCS 30	100169	Oct. 17, 2014	Oct. 16, 2015
LISN	SCHWARZBECK	Schwarzbeck 8127	8127-667	Nov. 17, 2014	Nov. 16, 2015
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Dec. 31, 2014	Dec. 30, 2015
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101498	Dec. 09, 2014	Dec. 08, 2015
Receiver	R&S	ESR3	101658	Nov. 10, 2014	Nov. 09, 2015
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Sep. 05, 2014	Sep. 04, 2015
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 11, 2014	Dec. 10, 2015
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 10, 2014	Nov. 09, 2015
Loop Antenna	R&S	HFH2-Z2	11900	Nov. 10, 2014	Nov. 09, 2015
Preamplifier	Burgeon	BPA-530	SN:100219	Sep. 09, 2014	Sep. 08, 2015
Preamplifier	Agilent	83017A	MY39501308	Oct. 09, 2014	Oct. 08, 2015
Preamplifier	EMC	EMC184045B	980192	Aug. 26, 2014	Aug. 25, 2015
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Dec. 15, 2014	Dec. 14, 2015
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Dec. 15, 2014	Dec. 14, 2015
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16139/4	Dec. 15, 2014	Dec. 14, 2015
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Dec. 15, 2014	Dec. 14, 2015
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-002	Dec. 15, 2014	Dec. 14, 2015
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101063	Feb. 03, 2015	Feb. 02, 2016
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Dec. 03, 2014	Dec. 02, 2015
Power Meter	Anritsu	ML2495A	1241002	Sep. 29, 2014	Sep. 28, 2015
Power Sensor	Anritsu	MA2411B	1207366	Sep. 29, 2014	Sep. 28, 2015
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 v01

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	± 2.92 dB
Radiated emission ≤ 1 GHz	± 3.72 dB
Radiated emission > 1 GHz	± 5.65 dB
Time	$\pm 0.1\%$
Temperature	± 0.6 °C

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	21°C / 60%	Kevin Ma
Radiated Emissions	03CH01-WS	21-25°C / 61-66%	Anderson Hong Aska Huang Morgan Chen
RF Conducted	TH01-WS	21°C / 63%	Brad Wu

- FCC site registration No.: 657002
- IC site registration No.: 10807A-1

2.2 The Worst Test Modes and Channel Details

For Frequency band 5150-5250 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	11a	5240	6 Mbps	2
Radiated Emissions ≤ 1 GHz	11a	5240	6 Mbps	1, 2
Radiated Emissions > 1 GHz	11a	5180 / 5200 / 5240	6 Mbps	1, 2
	VHT20	5180 / 5200 / 5240	MCS 0	
	VHT40	5190 / 5230	MCS 0	
	VHT80	5210	MCS 0	
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	
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	---	2
NOTE: - The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The Y-plane and Z-plane results were found as the worst case and were shown in this report as below test configuration. - The device was designed to be ceiling mounted or wall mounted with different group of antenna, and was selected to perform radiated emission test as below test configuration. - Test Configurations are listed as below: - Configuration 1: Ceiling mounted, Z-plane. - Configuration 2: Wall mounted, Y-plane				

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	2
Radiated Emissions ≤1GHz	VHT20	5785	MCS 0	1, 2
Radiated Emissions >1GHz	11a	5745 / 5785 / 5825	6 Mbps	1, 2
	VHT20	5745 / 5785 / 5825	MCS 0	
	VHT40	5755 / 5795	MCS 0	
	VHT80	5775	MCS 0	
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	
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	---	2
NOTE: 1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The Y-plane and Z-plane results were found as the worst case and were shown in this report as below test configuration. 2. The device was designed to be ceiling mounted or wall mounted with different group of antenna, and was selected to perform radiated emission test as below test configuration. 3. Test Configurations are listed as below: 1) Configuration 1: Ceiling mounted, Z-plane. 2) Configuration 2: Wall mounted, Y-plane				

3 Transmitter Test Results

3.1 Conducted Emissions

3.1.1 Limit of Conducted Emissions

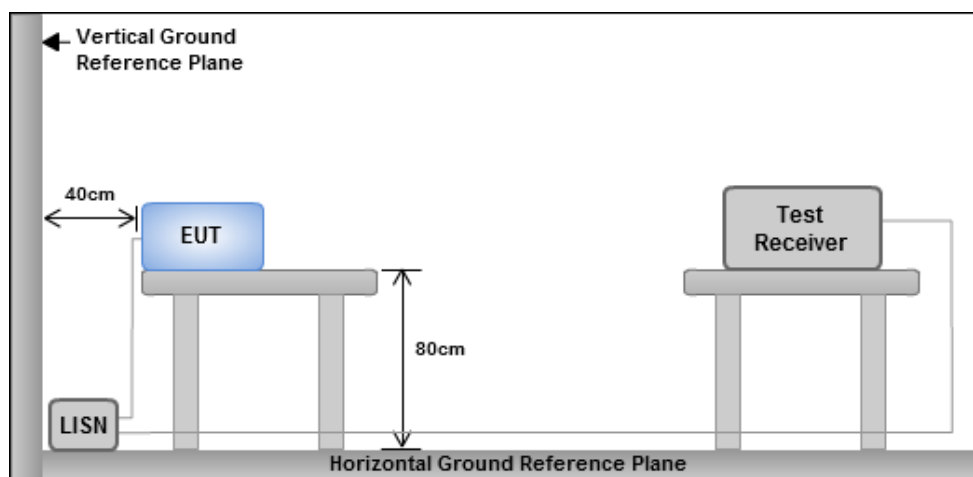
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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

3.1.2 Test Procedures

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

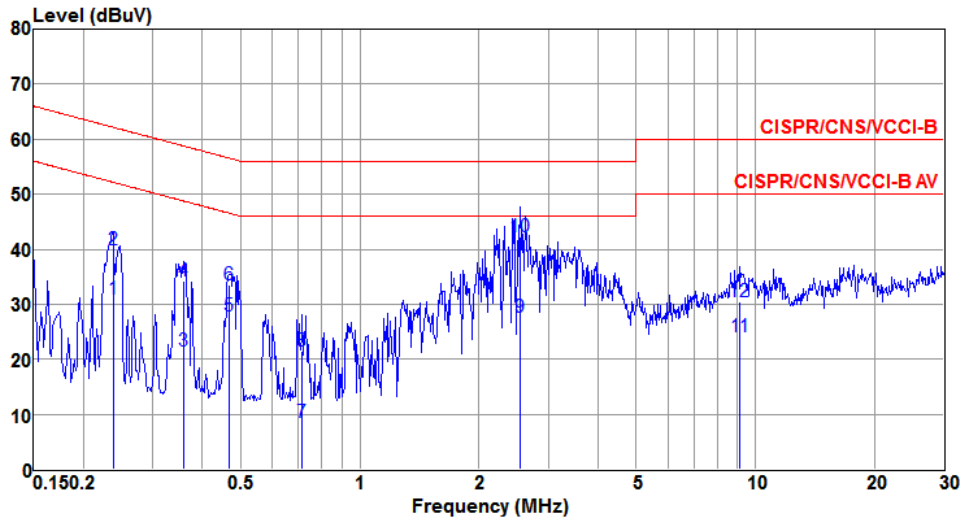
3.1.3 Test Setup



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

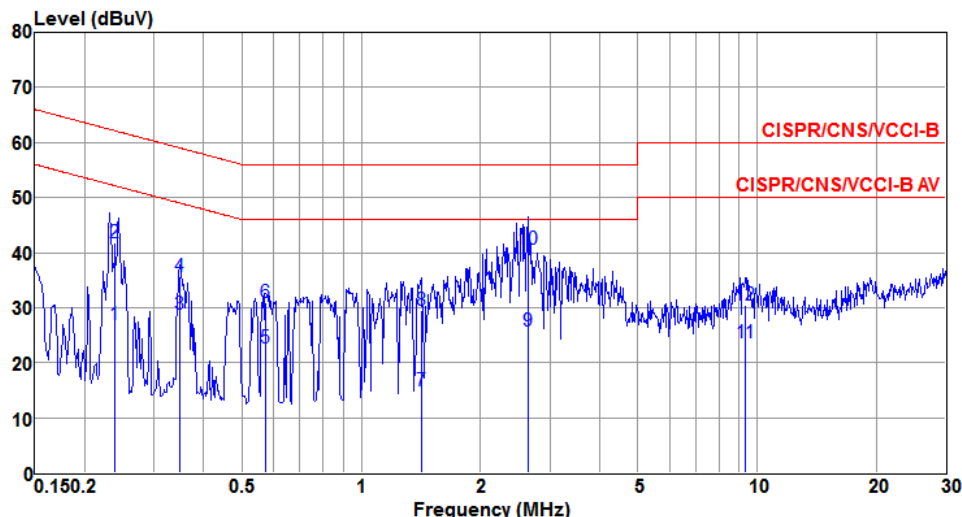
3.1.4 Test Result of Conducted Emissions

Modulation	11a	Test Freq. (MHz)	5240
Power Phase	Line		

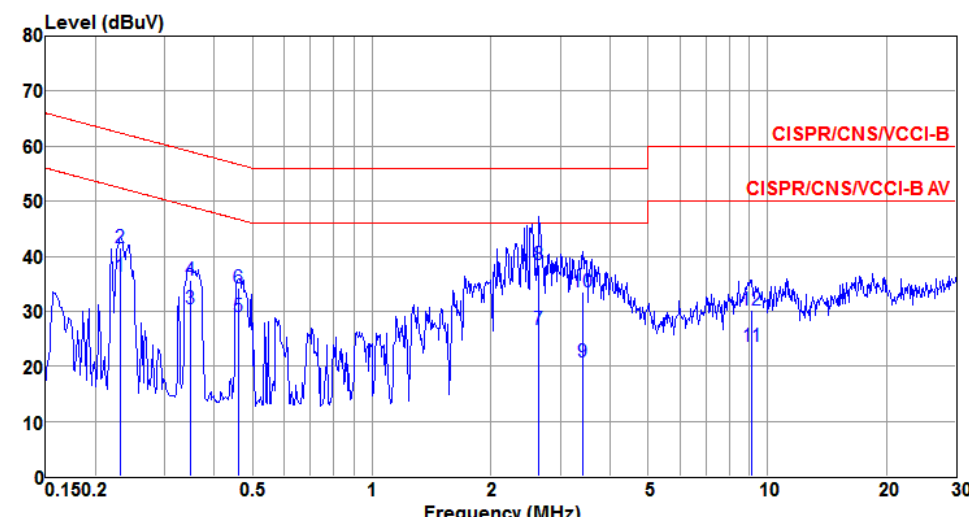


	Freq MHz	Level dBUV	Limit Line dBUV	Over Limit dB	Read Level dBUV	LISN factor dB	cable loss dB	Remark
1	0.238	30.90	52.17	-21.27	21.14	9.66	0.10	Average
2	0.238	39.81	62.17	-22.36	30.05	9.66	0.10	QP
3	0.358	21.38	48.78	-27.40	11.61	9.66	0.11	Average
4	0.358	34.21	58.78	-24.57	24.44	9.66	0.11	QP
5	0.466	27.79	46.58	-18.79	18.01	9.66	0.12	Average
6	0.466	33.52	56.58	-23.06	23.74	9.66	0.12	QP
7	0.716	8.61	46.00	-37.39	-1.19	9.66	0.14	Average
8	0.716	21.42	56.00	-34.58	11.62	9.66	0.14	QP
9	2.540	27.67	46.00	-18.33	17.74	9.67	0.26	Average
10*	2.540	42.24	56.00	-13.76	32.31	9.67	0.26	QP
11	9.156	24.17	50.00	-25.83	14.15	9.72	0.30	Average
12	9.156	30.57	60.00	-29.43	20.55	9.72	0.30	QP

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

Modulation	11a	Test Freq. (MHz)	5240																																																																																																																																							
Power Phase	Neutral																																																																																																																																									
Level (dBuV)  <table><tr><th></th><th>Freq</th><th>Level</th><th>Limit</th><th>Over</th><th>Read</th><th>LISN</th><th>cable</th><th></th></tr><tr><th></th><th>MHz</th><th>dBuV</th><th>Line</th><th>Limit</th><th>Level</th><th>factor</th><th>loss</th><th>Remark</th></tr><tr><th></th><th></th><th></th><th>dBuV</th><th>dB</th><th>dBuV</th><th>dB</th><th>dB</th><th></th></tr><tr><td>1</td><td>0.239</td><td>26.95</td><td>52.13</td><td>-25.18</td><td>17.19</td><td>9.66</td><td>0.10</td><td>Average</td></tr><tr><td>2</td><td>0.239</td><td>41.82</td><td>62.13</td><td>-20.31</td><td>32.06</td><td>9.66</td><td>0.10</td><td>QP</td></tr><tr><td>3</td><td>0.348</td><td>28.87</td><td>49.00</td><td>-20.13</td><td>19.10</td><td>9.66</td><td>0.11</td><td>Average</td></tr><tr><td>4</td><td>0.348</td><td>35.68</td><td>59.00</td><td>-23.32</td><td>25.91</td><td>9.66</td><td>0.11</td><td>QP</td></tr><tr><td>5</td><td>0.573</td><td>22.73</td><td>46.00</td><td>-23.27</td><td>12.94</td><td>9.66</td><td>0.13</td><td>Average</td></tr><tr><td>6</td><td>0.573</td><td>30.99</td><td>56.00</td><td>-25.01</td><td>21.20</td><td>9.66</td><td>0.13</td><td>QP</td></tr><tr><td>7</td><td>1.418</td><td>14.85</td><td>46.00</td><td>-31.15</td><td>4.98</td><td>9.67</td><td>0.20</td><td>Average</td></tr><tr><td>8</td><td>1.418</td><td>29.47</td><td>56.00</td><td>-26.53</td><td>19.60</td><td>9.67</td><td>0.20</td><td>QP</td></tr><tr><td>9</td><td>2.650</td><td>25.74</td><td>46.00</td><td>-20.26</td><td>15.80</td><td>9.67</td><td>0.27</td><td>Average</td></tr><tr><td>10*</td><td>2.650</td><td>40.58</td><td>56.00</td><td>-15.42</td><td>30.64</td><td>9.67</td><td>0.27</td><td>QP</td></tr><tr><td>11</td><td>9.352</td><td>23.54</td><td>50.00</td><td>-26.46</td><td>13.51</td><td>9.73</td><td>0.30</td><td>Average</td></tr><tr><td>12</td><td>9.352</td><td>30.35</td><td>60.00</td><td>-29.65</td><td>20.32</td><td>9.73</td><td>0.30</td><td>QP</td></tr></table>					Freq	Level	Limit	Over	Read	LISN	cable			MHz	dBuV	Line	Limit	Level	factor	loss	Remark				dBuV	dB	dBuV	dB	dB		1	0.239	26.95	52.13	-25.18	17.19	9.66	0.10	Average	2	0.239	41.82	62.13	-20.31	32.06	9.66	0.10	QP	3	0.348	28.87	49.00	-20.13	19.10	9.66	0.11	Average	4	0.348	35.68	59.00	-23.32	25.91	9.66	0.11	QP	5	0.573	22.73	46.00	-23.27	12.94	9.66	0.13	Average	6	0.573	30.99	56.00	-25.01	21.20	9.66	0.13	QP	7	1.418	14.85	46.00	-31.15	4.98	9.67	0.20	Average	8	1.418	29.47	56.00	-26.53	19.60	9.67	0.20	QP	9	2.650	25.74	46.00	-20.26	15.80	9.67	0.27	Average	10*	2.650	40.58	56.00	-15.42	30.64	9.67	0.27	QP	11	9.352	23.54	50.00	-26.46	13.51	9.73	0.30	Average	12	9.352	30.35	60.00	-29.65	20.32	9.73	0.30	QP
	Freq	Level	Limit	Over	Read	LISN	cable																																																																																																																																			
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark																																																																																																																																		
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1	0.239	26.95	52.13	-25.18	17.19	9.66	0.10	Average																																																																																																																																		
2	0.239	41.82	62.13	-20.31	32.06	9.66	0.10	QP																																																																																																																																		
3	0.348	28.87	49.00	-20.13	19.10	9.66	0.11	Average																																																																																																																																		
4	0.348	35.68	59.00	-23.32	25.91	9.66	0.11	QP																																																																																																																																		
5	0.573	22.73	46.00	-23.27	12.94	9.66	0.13	Average																																																																																																																																		
6	0.573	30.99	56.00	-25.01	21.20	9.66	0.13	QP																																																																																																																																		
7	1.418	14.85	46.00	-31.15	4.98	9.67	0.20	Average																																																																																																																																		
8	1.418	29.47	56.00	-26.53	19.60	9.67	0.20	QP																																																																																																																																		
9	2.650	25.74	46.00	-20.26	15.80	9.67	0.27	Average																																																																																																																																		
10*	2.650	40.58	56.00	-15.42	30.64	9.67	0.27	QP																																																																																																																																		
11	9.352	23.54	50.00	-26.46	13.51	9.73	0.30	Average																																																																																																																																		
12	9.352	30.35	60.00	-29.65	20.32	9.73	0.30	QP																																																																																																																																		
Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB). 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).																																																																																																																																										

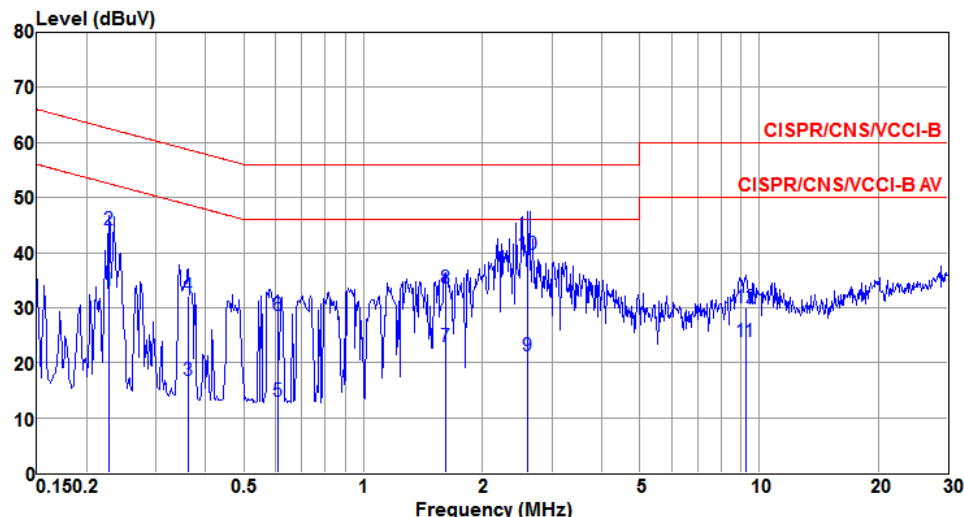
Modulation	VHT20	Test Freq. (MHz)	5785
Power Phase	Line		



	Freq MHz	Level dBUV	Limit Line dBUV	Over Limit dB	Read Level dBUV	LISN factor dB	cable loss dB	Remark
1*	0.232	36.44	52.39	-15.95	26.69	9.66	0.09	Average
2	0.232	41.55	62.39	-20.84	31.80	9.66	0.09	QP
3	0.348	30.57	49.00	-18.43	20.80	9.66	0.11	Average
4	0.348	35.68	59.00	-23.32	25.91	9.66	0.11	QP
5	0.461	29.06	46.67	-17.61	19.28	9.66	0.12	Average
6	0.461	34.26	56.67	-22.41	24.48	9.66	0.12	QP
7	2.636	26.61	46.00	-19.39	16.67	9.67	0.27	Average
8	2.636	38.38	56.00	-17.62	28.44	9.67	0.27	QP
9	3.417	20.74	46.00	-25.26	10.77	9.68	0.29	Average
10	3.417	33.48	56.00	-22.52	23.51	9.68	0.29	QP
11	9.156	23.65	50.00	-26.35	13.63	9.72	0.30	Average
12	9.156	30.24	60.00	-29.76	20.22	9.72	0.30	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		



Freq	Level	Limit	Over	Read	LISN	cable		
MHz	dBuV	Line	Limit	Level	factor	loss	Remark	
		dBuV	dB	dBuV	dB	dB		
1	0.228	33.08	52.52	-19.44	23.33	9.66	0.09	Average
2	0.228	44.19	62.52	-18.33	34.44	9.66	0.09	QP
3	0.361	16.66	48.69	-32.03	6.89	9.66	0.11	Average
4	0.361	32.09	58.69	-26.60	22.32	9.66	0.11	QP
5	0.608	12.96	46.00	-33.04	3.17	9.66	0.13	Average
6	0.608	28.51	56.00	-27.49	18.72	9.66	0.13	QP
7	1.619	22.98	46.00	-23.02	13.09	9.67	0.22	Average
8	1.619	33.41	56.00	-22.59	23.52	9.67	0.22	QP
9	2.608	21.16	46.00	-24.84	11.22	9.67	0.27	Average
10*	2.608	39.66	56.00	-16.34	29.72	9.67	0.27	QP
11	9.253	23.75	50.00	-26.25	13.72	9.73	0.30	Average
12	9.253	30.04	60.00	-29.96	20.01	9.73	0.30	QP

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

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

3.2 Emission Bandwidth

3.2.1 Limit of Emission bandwidth

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

3.2.2 Test Procedures

26dB Bandwidth

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

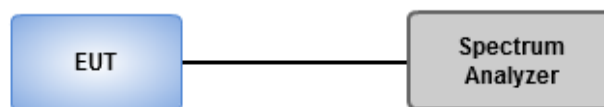
Occupied Bandwidth

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

6dB Bandwidth

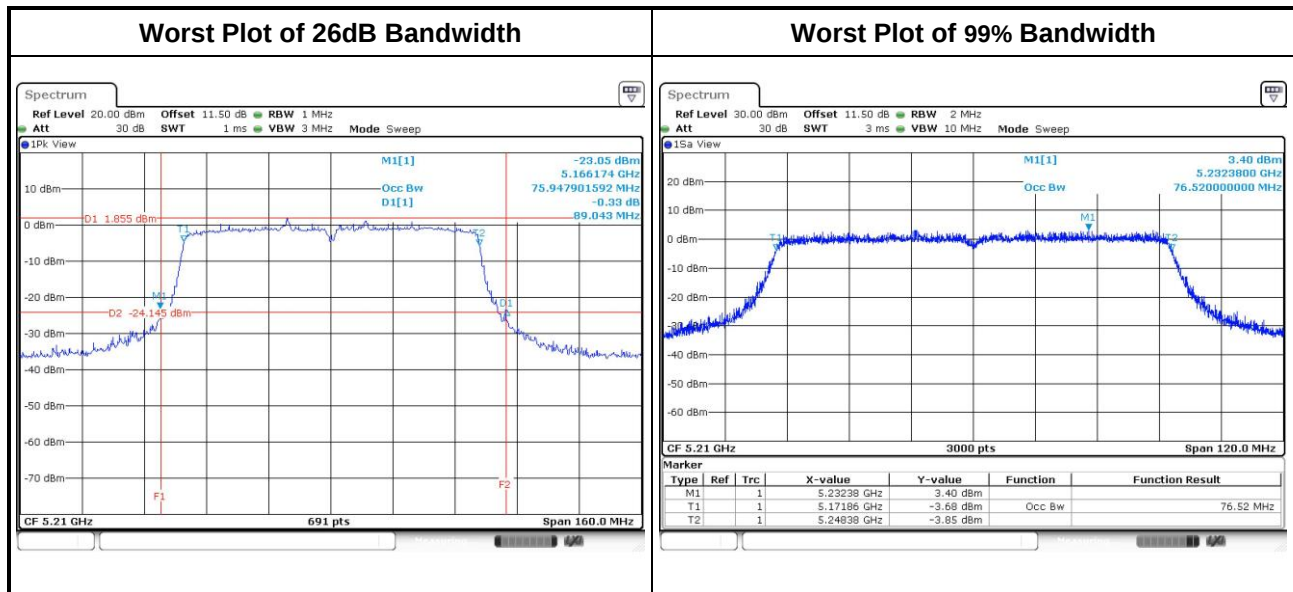
1. Set RBW = 100kHz, VBW = 300kHz
2. Detector = Peak, Trace mode = max hold.
3. Allow the trace to stabilize.
4. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB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

3.2.3 Test Setup



3.2.4 Test Result of Emission Bandwidth

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	22.67	21.91	22.03	---	16.80	16.73	16.70	---
11a	3	5200	23.48	25.39	25.86	---	16.84	16.83	16.85	---
11a	3	5240	22.78	25.22	24.23	---	16.84	16.83	16.81	---
VHT20	3	5180	23.19	23.30	23.19	---	17.91	17.88	17.88	---
VHT20	3	5200	24.00	24.93	25.57	---	17.94	17.95	17.99	---
VHT20	3	5240	23.88	25.80	26.03	---	17.96	17.99	17.96	---
VHT40	3	5190	46.73	45.91	46.03	---	36.92	36.84	36.74	---
VHT40	3	5230	46.03	45.33	44.99	---	37.02	36.92	36.78	---
VHT80	3	5210	86.49	89.04	88.58	---	76.52	76.48	76.48	---

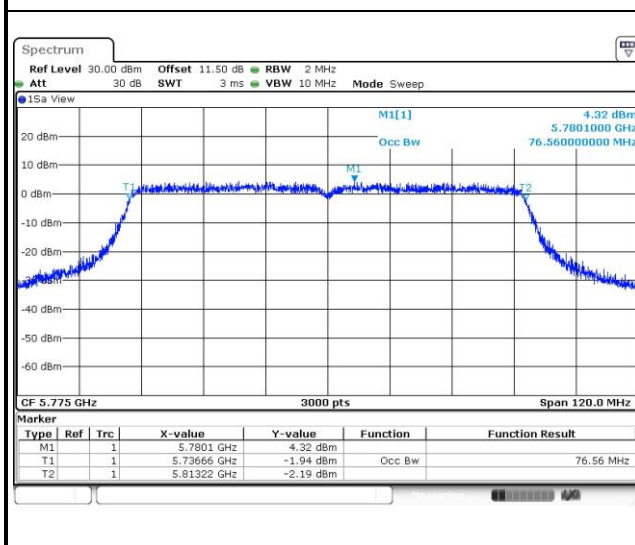


For Frequency band 5725-5850 MHz

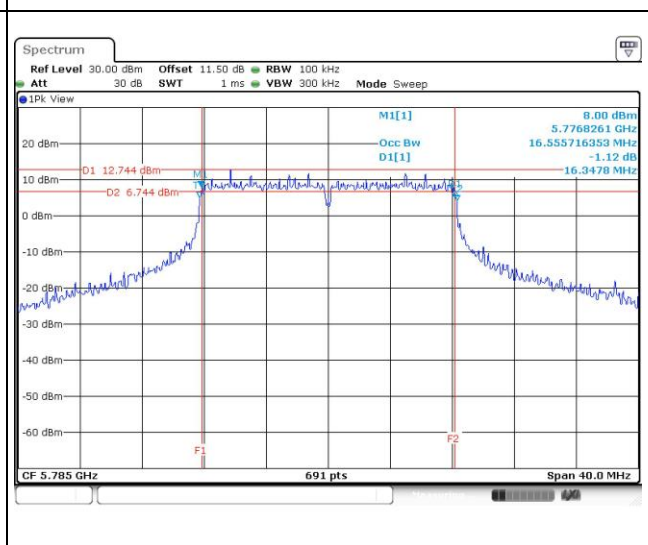
Emission Bandwidth

Mode	N _{TX}	Freq. (MHz)	OBW Bandwidth (MHz)				6dB Bandwidth (MHz)				6dB BW Limit (MHz)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
11a	3	5745	16.81	16.72	16.66	---	16.41	16.41	16.41	---	0.5
11a	3	5785	16.94	16.98	16.99	---	16.35	16.35	16.35	---	0.5
11a	3	5825	16.80	16.71	16.65	---	16.35	16.41	16.35	---	0.5
VHT20	3	5745	17.94	17.88	17.89	---	17.57	17.57	17.57	---	0.5
VHT20	3	5785	18.05	18.03	18.11	---	17.62	17.57	17.62	---	0.5
VHT20	3	5825	17.89	17.84	17.85	---	17.57	17.57	17.57	---	0.5
VHT40	3	5755	36.76	36.86	36.90	---	36.41	36.41	36.41	---	0.5
VHT40	3	5795	36.86	36.84	36.82	---	36.41	36.41	36.41	---	0.5
VHT80	3	5775	76.52	76.56	76.36	---	76.29	76.52	76.52	---	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

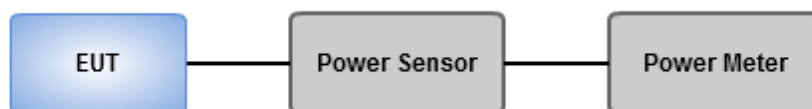
Frequency Band (MHz)	Limit
☐ 5250 ~ 5350	250mW or 11dBm+10 log B
☐ 5470 ~ 5725	250mW or 11dBm+10 log B
☒ 5725 ~ 5850	1 W

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	17.34	18.51	18.37	---	193.865	22.87	30.00
11a	3	5200	21.54	22.32	22.24	---	480.663	26.82	30.00
11a	3	5240	21.82	22.93	22.21	---	514.732	27.12	30.00
HT20	3	5180	16.11	17.47	16.88	---	145.432	21.63	30.00
HT20	3	5200	21.41	22.19	22.31	---	474.149	26.76	30.00
HT20	3	5240	21.66	22.75	22.18	---	500.116	26.99	30.00
HT40	3	5190	11.51	12.71	11.92	---	48.381	16.85	30.00
HT40	3	5230	18.42	20.15	19.11	---	254.487	24.06	30.00
VHT20	3	5180	16.16	17.53	16.94	---	147.360	21.68	30.00
VHT20	3	5200	21.49	22.25	22.35	---	480.600	26.82	30.00
VHT20	3	5240	21.72	22.81	22.23	---	506.688	27.05	30.00
VHT40	3	5190	11.55	12.75	11.96	---	48.829	16.89	30.00
VHT40	3	5230	18.50	20.22	19.20	---	259.167	24.14	30.00
VHT80	3	5210	8.27	8.55	9.15	---	22.098	13.44	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	15.03	15.63	15.23	---	101.744	20.08	30.00
11a	3	5785	23.65	23.76	23.22	---	679.317	28.32	30.00
11a	3	5825	18.37	19.03	18.71	---	222.992	23.48	30.00
HT20	3	5745	14.92	15.79	15.28	---	102.706	20.12	30.00
HT20	3	5785	23.59	23.74	23.16	---	672.166	28.27	30.00
HT20	3	5825	18.29	19.02	18.82	---	223.460	23.49	30.00
HT40	3	5755	12.42	12.86	12.58	---	54.891	17.40	30.00
HT40	3	5795	15.77	16.40	16.05	---	121.681	20.85	30.00
VHT20	3	5745	14.97	15.83	15.35	---	103.964	20.17	30.00
VHT20	3	5785	23.65	23.8	23.2	---	680.552	28.33	30.00
VHT20	3	5825	18.34	19.09	18.86	---	226.243	23.55	30.00
VHT40	3	5755	12.48	12.91	12.62	---	55.525	17.44	30.00
VHT40	3	5795	15.83	16.44	16.11	---	123.170	20.91	30.00
VHT80	3	5775	9.19	9.23	9.23	---	25.049	13.99	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/11ac VHT20)

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 (11ac VHT40/VHT80)

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

For 5725 ~ 5850 MHz

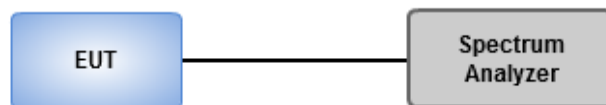
☒ Method SA-1 (802.11a/11ac VHT20)

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 (11ac VHT40/VHT80)

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

3.4.3 Test Setup

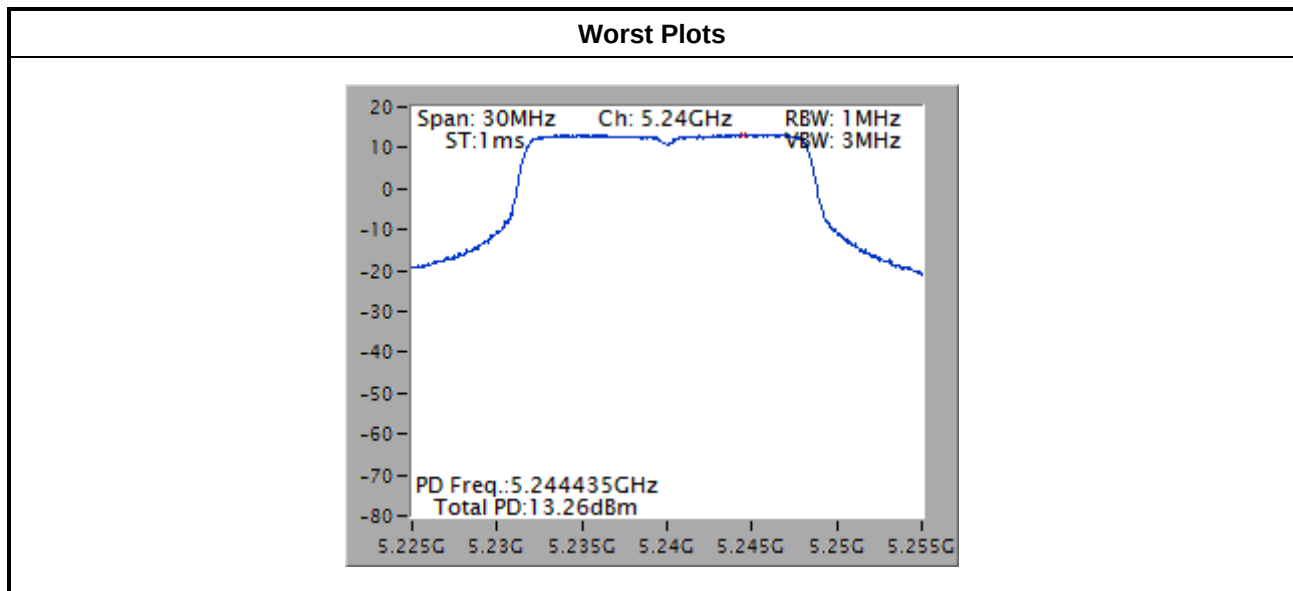


3.4.4 Test Result of Peak Power Spectral Density

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	10.14	0.00	10.14	13.62
11a	3	5200	13.08	0.00	13.08	13.62
11a	3	5240	13.26	0.00	13.26	13.62
VHT20	3	5180	8.42	0.00	8.42	13.62
VHT20	3	5200	13.08	0.00	13.08	13.62
VHT20	3	5240	13.26	0.00	13.26	13.62
VHT40	3	5190	0.30	0.27	0.57	13.62
VHT40	3	5230	7.35	0.27	7.62	13.62
VHT80	3	5210	-6.80	0.46	-6.34	13.62

Note:

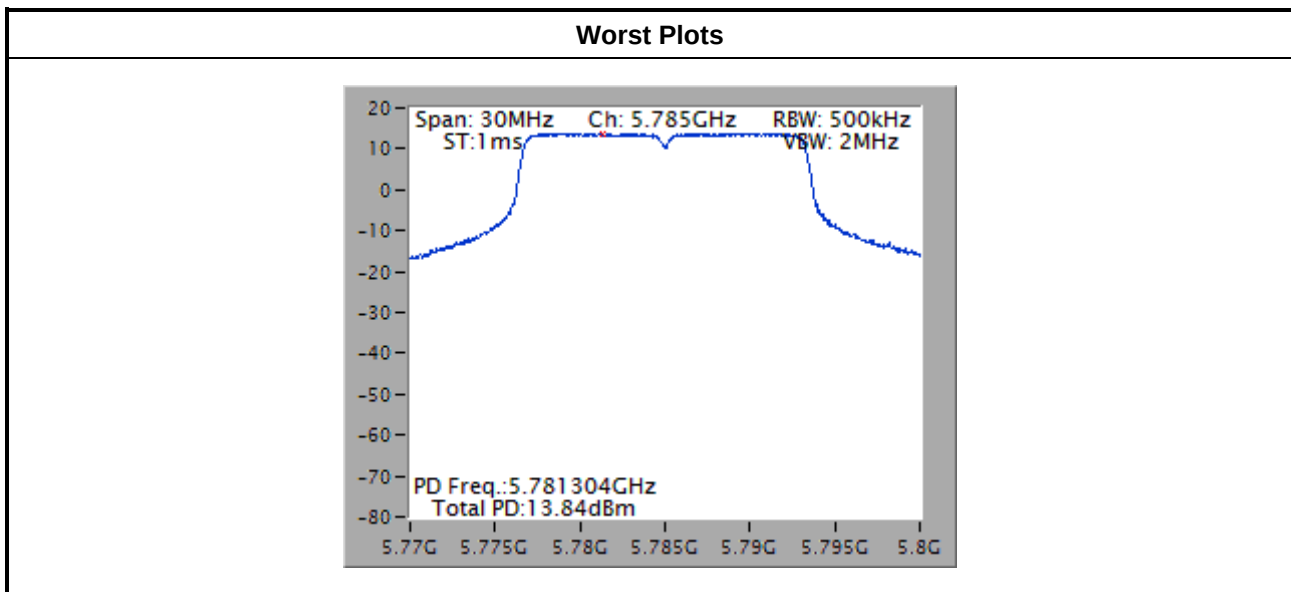
1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. Directional gain = $10 * \log((10^{4.38/20} + 10^{4.31/20} + 10^{5.12/20})^2 / 3) = 9.38 \text{ dBi} > 6 \text{ dBi}$.
Limit shall be reduced to $17 \text{ dBm} - (9.38 \text{ dBi} - 6 \text{ dBi}) = 13.62 \text{ dBm}$.



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	5.68	0.00	5.68	26.67
11a	3	5785	13.84	0.00	13.84	26.67
11a	3	5825	9.17	0.00	9.17	26.67
VHT20	3	5745	4.93	0.00	4.93	26.67
VHT20	3	5785	13.52	0.00	13.52	26.67
VHT20	3	5825	8.72	0.00	8.72	26.67
VHT40	3	5755	-0.82	0.27	-0.55	26.67
VHT40	3	5795	2.76	0.27	3.03	26.67
VHT80	3	5775	-7.55	0.46	-7.09	26.67

Note:

1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. Directional gain = $10 * \log((10^{4.23/20} + 10^{4.22/20} + 10^{5.2/20})^2 / 3) = 9.33 \text{ dBi} > 6 \text{ dBi}$.
Limit shall be reduced to $30 \text{ dBm} - (9.33 \text{ dBi} - 6 \text{ dBi}) = 26.67 \text{ dBm}$.



3.5 Transmitter Radiated and Band Edge Emissions

3.5.1 Limit of Transmitter Radiated and Band Edge Emissions

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

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

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

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.850 GHz	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

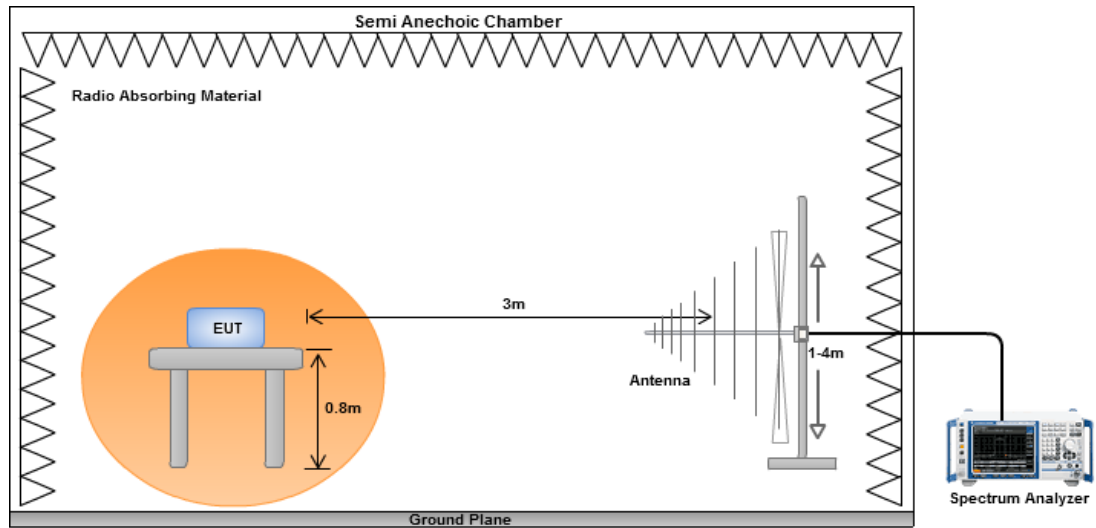
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

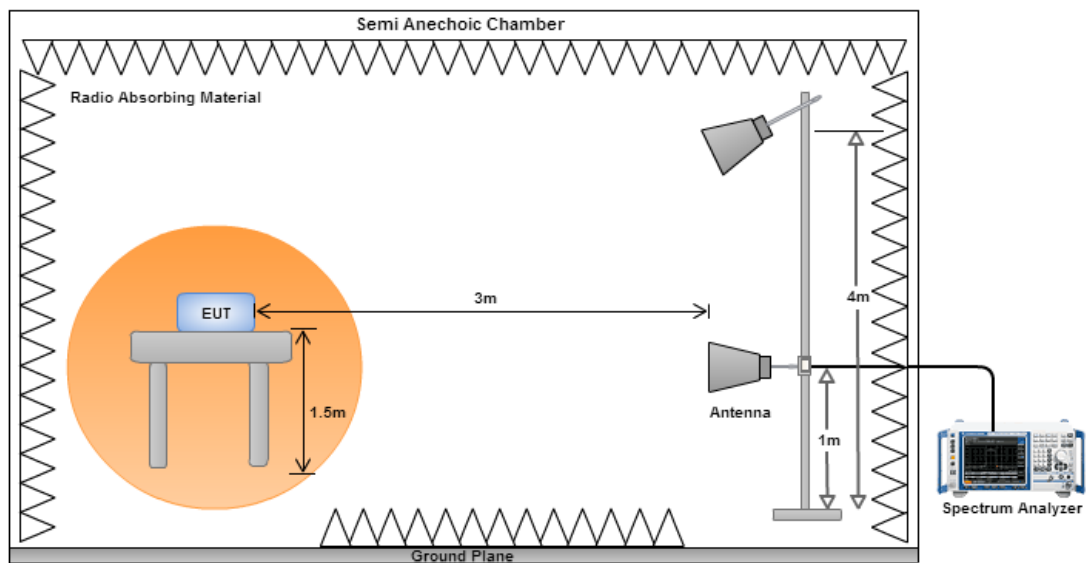
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz

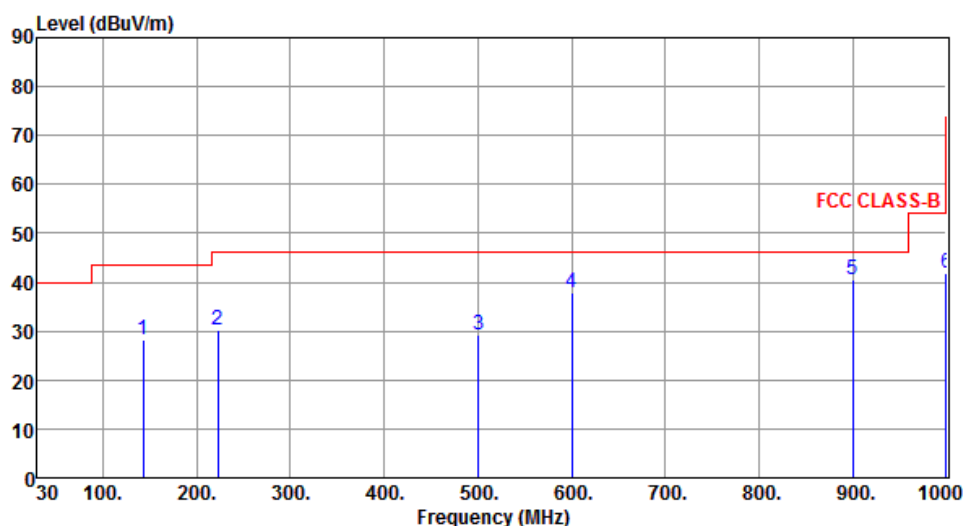


Radiated Emissions above 1 GHz



3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	11a	Test Freq. (MHz)	5240
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	142.52	28.15	43.50	-15.35	44.95	-16.80	Peak	---	---
2	223.03	30.25	46.00	-15.75	48.97	-18.72	Peak	---	---
3	500.45	29.18	46.00	-16.82	40.58	-11.40	Peak	---	---
4	600.36	37.75	46.00	-8.25	47.31	-9.56	Peak	---	---
5	900.09	40.50	46.00	-5.50	45.83	-5.33	Peak	---	---
6	1000.00	41.75	54.00	-12.25	46.10	-4.35	Peak	---	---

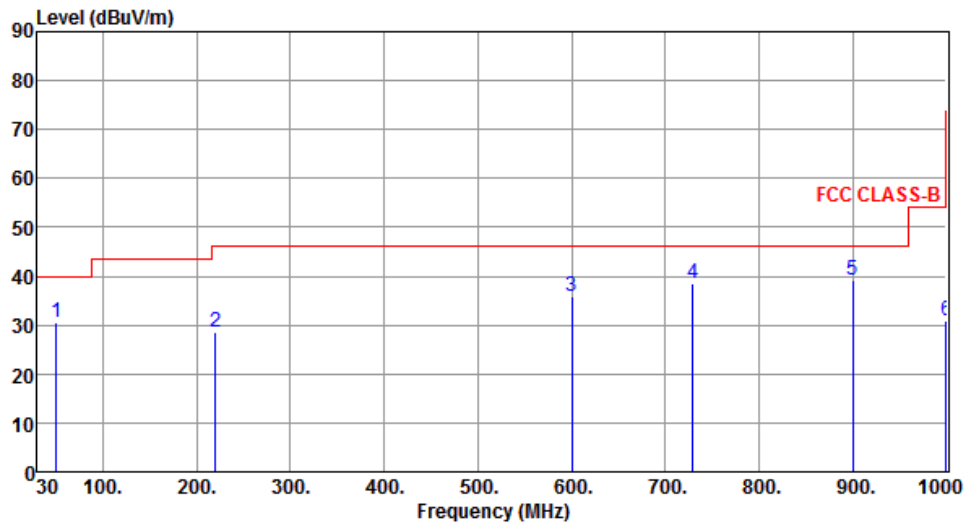
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor, cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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

Modulation	11a	Test Freq. (MHz)	5240
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	50.37	30.70	40.00	-9.30	46.93	-16.23	Peak	---	---
2	220.12	28.59	46.00	-17.41	47.61	-19.02	Peak	---	---
3	600.36	36.03	46.00	-9.97	45.59	-9.56	Peak	---	---
4	729.37	38.49	46.00	-7.51	45.97	-7.48	Peak	---	---
5	900.09	39.16	46.00	-6.84	44.49	-5.33	Peak	---	---
6	1000.00	30.88	54.00	-23.12	35.23	-4.35	Peak	---	---

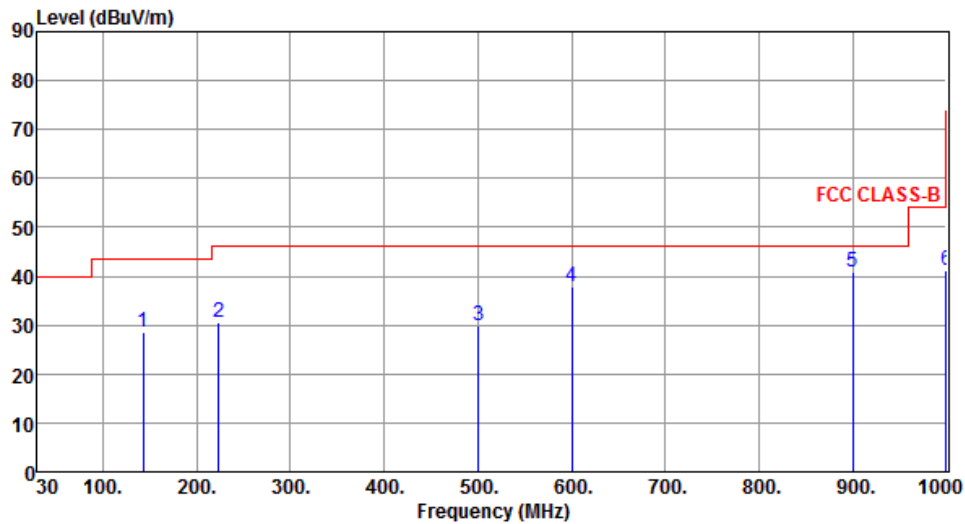
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*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	142.59	28.43	43.50	-15.07	45.23	-16.80	Peak	---	---
2	223.12	30.47	46.00	-15.53	49.18	-18.71	Peak	---	---
3	500.37	29.84	46.00	-16.16	41.24	-11.40	Peak	---	---
4	600.32	37.89	46.00	-8.11	47.45	-9.56	Peak	---	---
5	900.09	40.78	46.00	-5.22	46.11	-5.33	Peak	---	---
6	1000.00	41.24	54.00	-12.76	45.59	-4.35	Peak	---	---

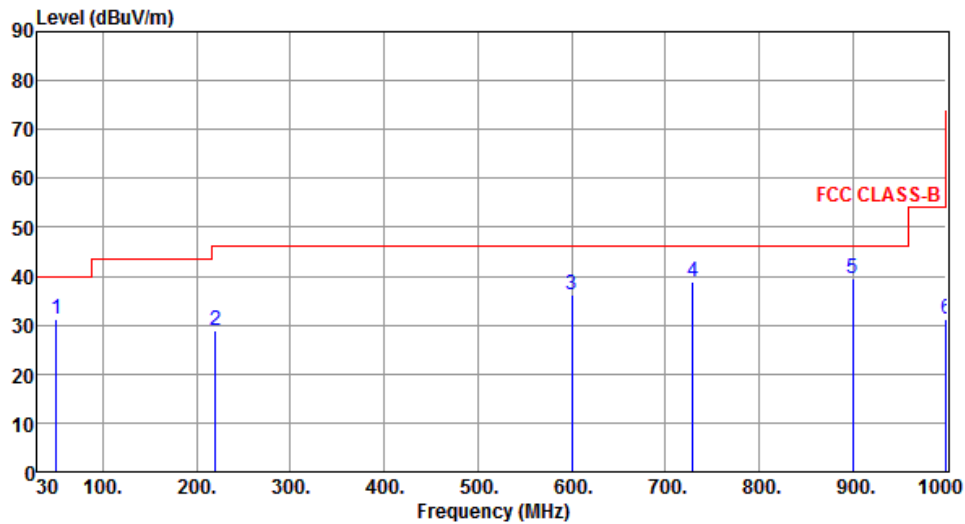
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*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	50.24	31.11	40.00	-8.89	47.33	-16.22	Peak	---	---
2	220.19	28.96	46.00	-17.04	47.97	-19.01	Peak	---	---
3	600.43	36.34	46.00	-9.66	45.89	-9.55	Peak	---	---
4	729.33	38.75	46.00	-7.25	46.23	-7.48	Peak	---	---
5	900.09	39.48	46.00	-6.52	44.81	-5.33	Peak	---	---
6	1000.00	31.15	54.00	-22.85	35.50	-4.35	Peak	---	---

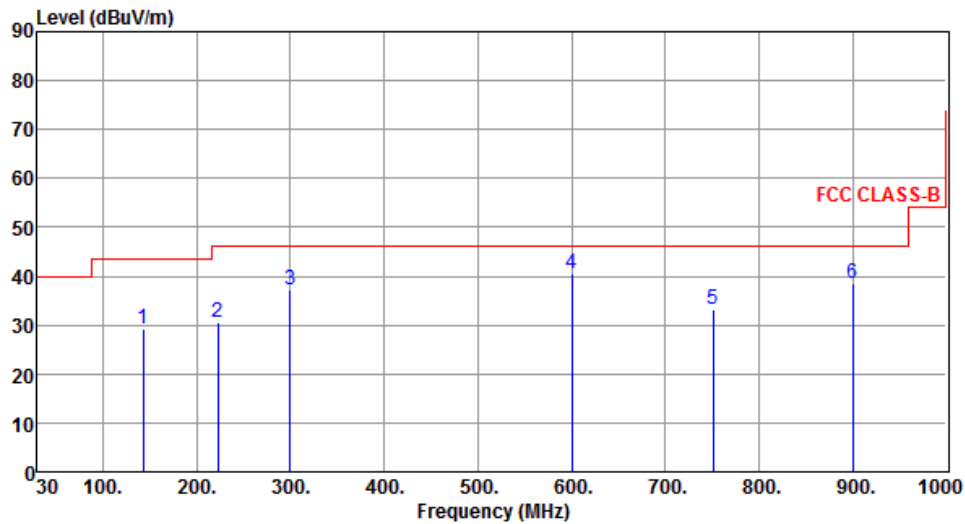
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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

Modulation	11a	Test Freq. (MHz)	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	142.52	29.17	43.50	-14.33	45.97	-16.80	Peak	---	---
2	223.03	30.69	46.00	-15.31	49.41	-18.72	Peak	---	---
3	299.66	37.07	46.00	-8.93	53.10	-16.03	Peak	---	---
4	600.36	40.52	46.00	-5.48	50.08	-9.56	Peak	---	---
5	750.71	33.33	46.00	-12.67	40.43	-7.10	Peak	---	---
6	900.09	38.62	46.00	-7.38	43.95	-5.33	Peak	---	---

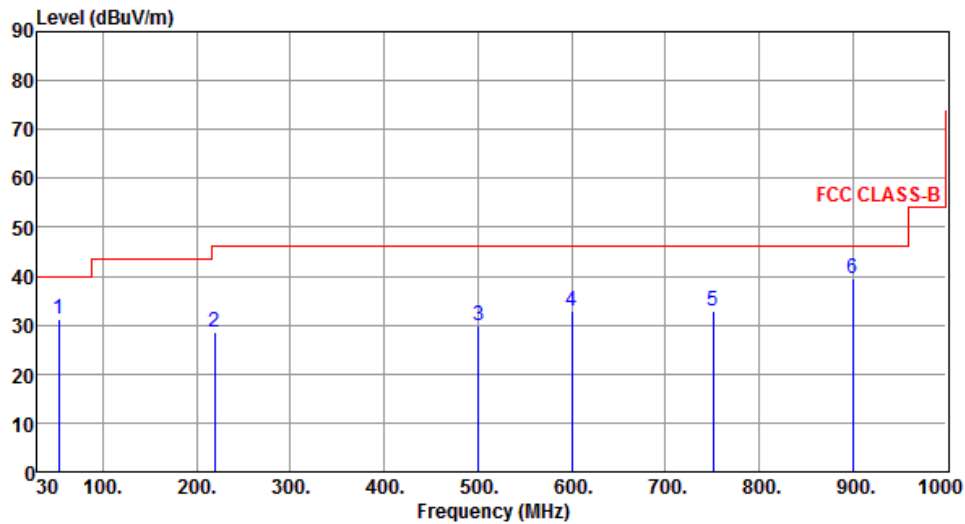
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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

Modulation	11a	Test Freq. (MHz)	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	53.28	31.27	40.00	-8.73	47.75	-16.48	Peak	---	---
2	219.15	28.40	46.00	-17.60	47.43	-19.03	Peak	---	---
3	500.45	29.97	46.00	-16.03	41.37	-11.40	Peak	---	---
4	600.36	32.93	46.00	-13.07	42.49	-9.56	Peak	---	---
5	750.71	32.80	46.00	-13.20	39.90	-7.10	Peak	---	---
6	900.09	39.60	46.00	-6.40	44.93	-5.33	QP	100	131

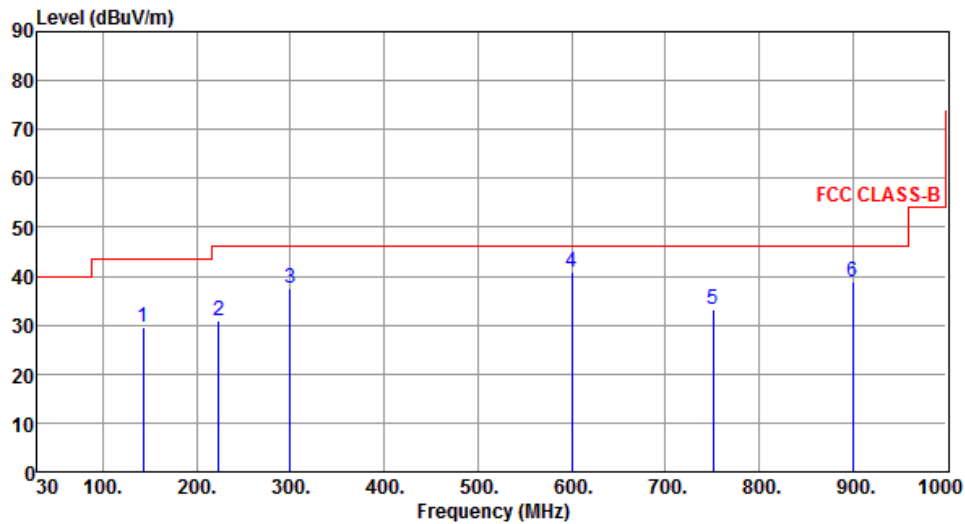
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*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	142.55	29.63	43.50	-13.87	46.43	-16.80	Peak	---	---
2	223.08	30.87	46.00	-15.13	49.58	-18.71	Peak	---	---
3	299.72	37.42	46.00	-8.58	53.45	-16.03	Peak	---	---
4	600.36	40.89	46.00	-5.11	50.45	-9.56	Peak	---	---
5	750.75	33.35	46.00	-12.65	40.45	-7.10	Peak	---	---
6	900.09	38.78	46.00	-7.22	44.11	-5.33	Peak	---	---

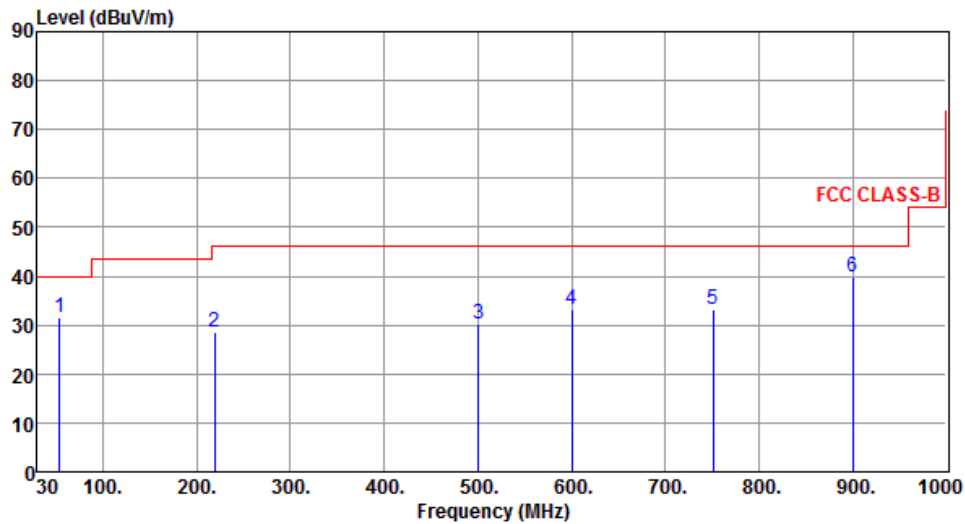
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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	53.35	31.55	40.00	-8.45	48.03	-16.48	Peak	---	---
2	219.24	28.71	46.00	-17.29	47.74	-19.03	Peak	---	---
3	500.51	30.33	46.00	-15.67	41.73	-11.40	Peak	---	---
4	600.32	33.14	46.00	-12.86	42.70	-9.56	Peak	---	---
5	750.71	33.29	46.00	-12.71	40.39	-7.10	Peak	---	---
6	900.09	39.91	46.00	-6.09	45.24	-5.33	QP	100	122

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

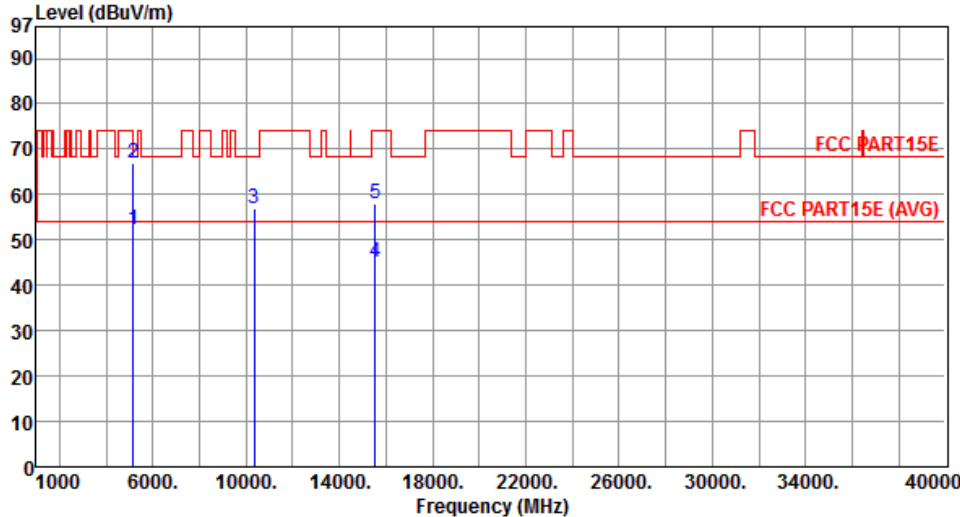
*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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

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

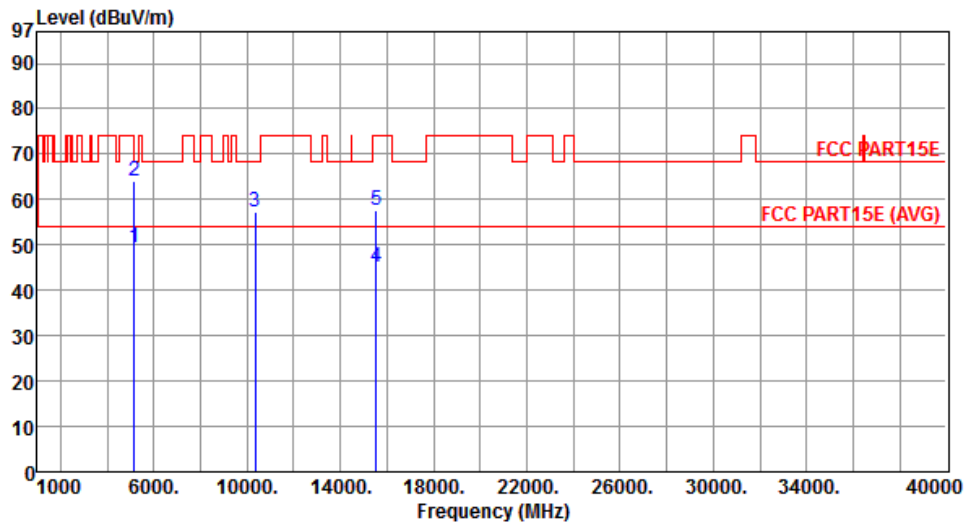
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.34	54.00	-1.66	46.88	5.46	Average	272	51
2	5150.00	66.84	74.00	-7.16	61.38	5.46	Peak	272	51
3	10360.00	56.92	68.20	-11.28	41.51	15.41	Peak	195	37
4	15540.00	45.23	54.00	-8.77	29.43	15.80	Average	200	45
5	15540.00	58.01	74.00	-15.99	42.21	15.80	Peak	200	45

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

Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical	Test Configuration	1



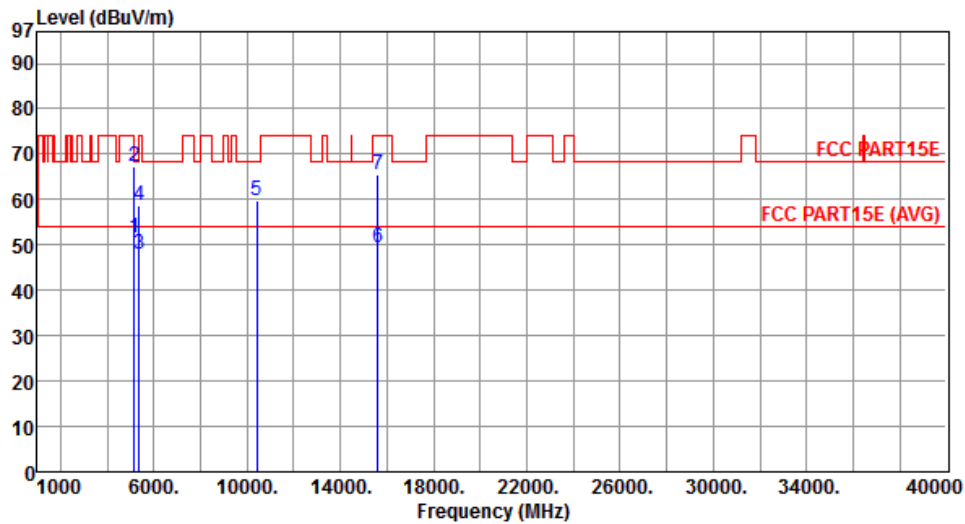
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.46	54.00	-4.54	44.00	5.46	Average	256	6
2	5150.00	64.01	74.00	-9.99	58.55	5.46	Peak	256	6
3	10360.00	57.38	68.20	-10.82	41.97	15.41	Peak	195	341
4	15540.00	44.92	54.00	-9.08	29.12	15.80	Average	203	332
5	15540.00	57.66	74.00	-16.34	41.86	15.80	Peak	203	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).

Modulation	11a	Test Freq. (MHz)	5200
Polarization	Horizontal	Test Configuration	1



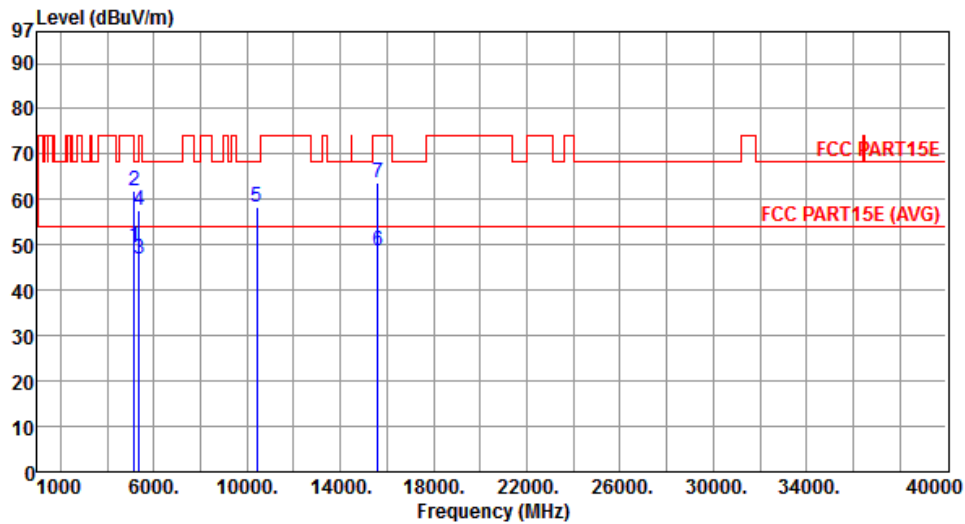
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.46	54.00	-2.54	46.00	5.46	Average	308	56
2	5150.00	67.19	74.00	-6.81	61.73	5.46	Peak	308	56
3	5350.00	47.92	54.00	-6.08	42.36	5.56	Average	308	56
4	5350.00	58.69	74.00	-15.31	53.13	5.56	Peak	308	56
5	10400.00	59.62	68.20	-8.58	44.07	15.55	Peak	208	16
6	15600.00	49.22	54.00	-4.78	33.66	15.56	Average	233	271
7	15600.00	65.43	74.00	-8.57	49.87	15.56	Peak	233	271

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5200
Polarization	Vertical	Test Configuration	1



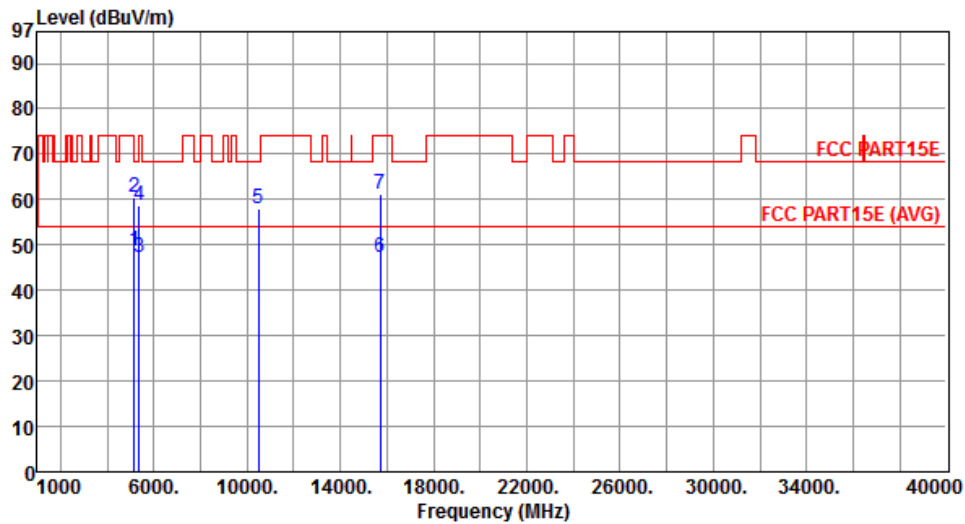
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.90	54.00	-4.10	44.44	5.46	Average	257	6
2	5150.00	62.04	74.00	-11.96	56.58	5.46	Peak	257	6
3	5350.00	46.93	54.00	-7.07	41.37	5.56	Average	257	6
4	5350.00	57.55	74.00	-16.45	51.99	5.56	Peak	257	6
5	10400.00	58.36	68.20	-9.84	42.81	15.55	Peak	211	65
6	15600.00	48.80	54.00	-5.20	33.24	15.56	Average	215	266
7	15600.00	63.80	74.00	-10.20	48.24	15.56	Peak	215	266

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal	Test Configuration	1



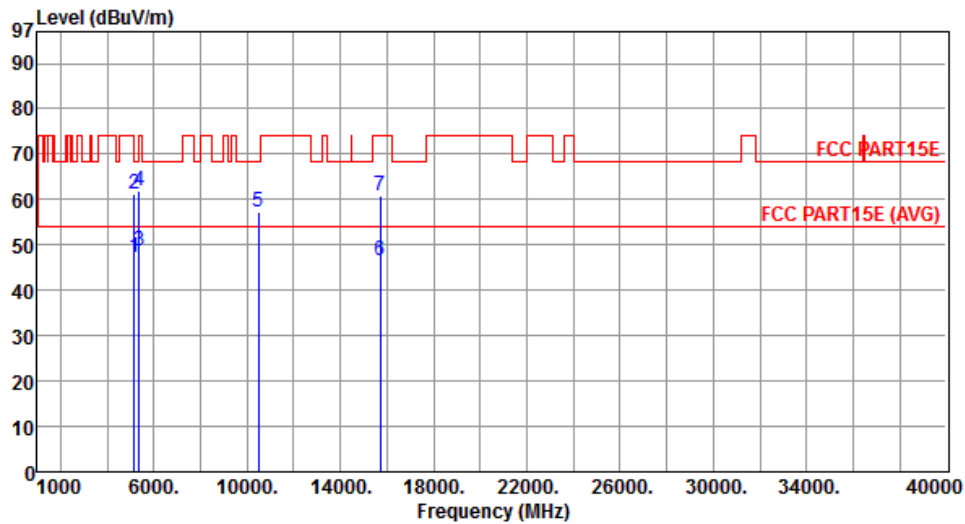
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.70	54.00	-5.30	43.24	5.46	Average	247	67
2	5150.00	60.43	74.00	-13.57	54.97	5.46	Peak	247	67
3	5350.00	47.38	54.00	-6.62	41.82	5.56	Average	247	67
4	5350.00	58.76	74.00	-15.24	53.20	5.56	Peak	247	67
5	10480.00	57.88	68.20	-10.32	42.02	15.86	Peak	263	358
6	15720.00	47.12	54.00	-6.88	32.03	15.09	Average	258	349
7	15720.00	61.07	74.00	-12.93	45.98	15.09	Peak	258	349

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical	Test Configuration	1



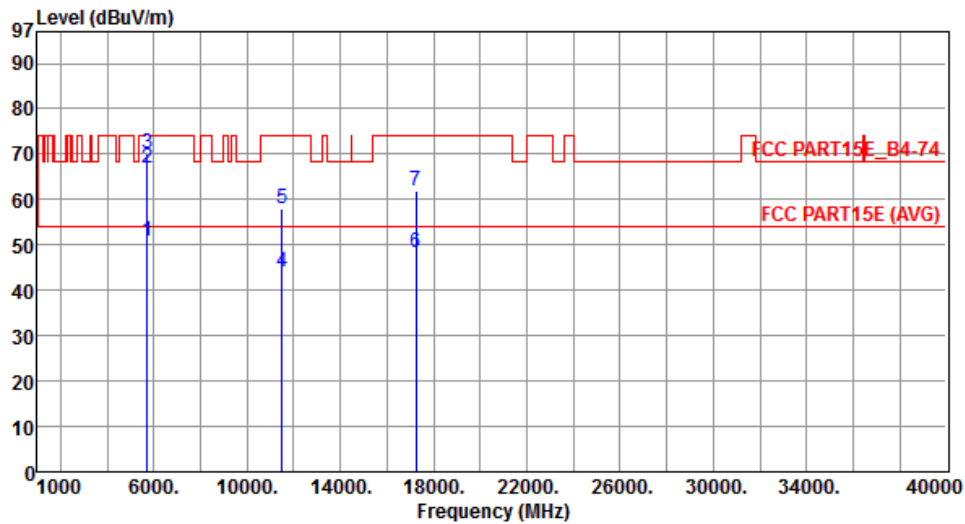
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.34	54.00	-6.66	41.88	5.46	Average	258	12
2	5150.00	61.23	74.00	-12.77	55.77	5.46	Peak	258	12
3	5350.00	48.59	54.00	-5.41	43.03	5.56	Average	258	12
4	5350.00	61.79	74.00	-12.21	56.23	5.56	Peak	258	12
5	10480.00	57.41	68.20	-10.79	41.55	15.86	Peak	200	355
6	15720.00	46.68	54.00	-7.32	31.59	15.09	Average	222	311
7	15720.00	60.85	74.00	-13.15	45.76	15.09	Peak	222	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).

Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal	Test Configuration	1



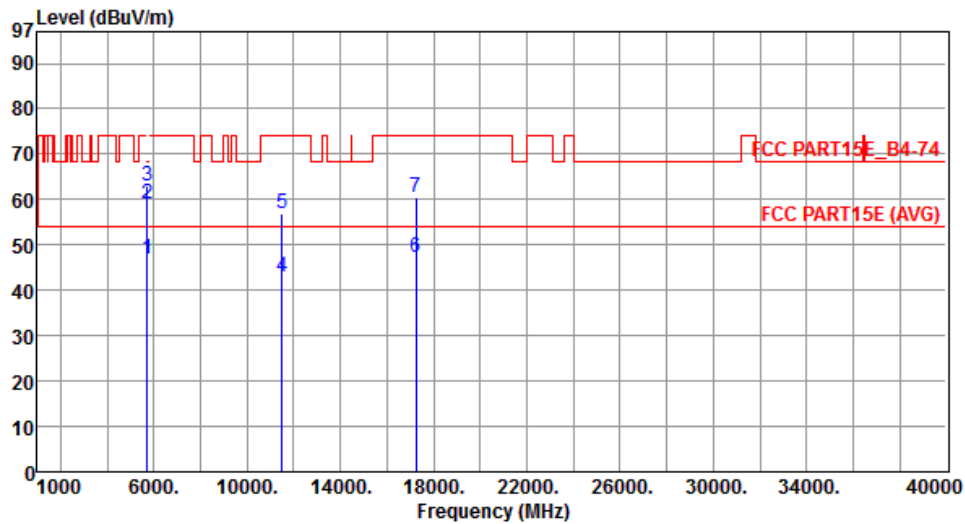
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	50.65	54.00	-3.35	45.00	5.65	Average	236	300
2	5715.00	66.76	74.00	-7.24	61.11	5.65	Peak	236	300
3	5725.00	69.98	78.20	-8.22	64.34	5.64	Peak	236	300
4	11490.00	43.98	54.00	-10.02	28.05	15.93	Average	186	329
5	11490.00	57.88	74.00	-16.12	41.95	15.93	Peak	186	329
6	17235.00	48.35	54.00	-5.65	29.30	19.05	Average	190	312
7	17235.00	61.85	74.00	-12.15	42.80	19.05	Peak	190	312

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical	Test Configuration	1



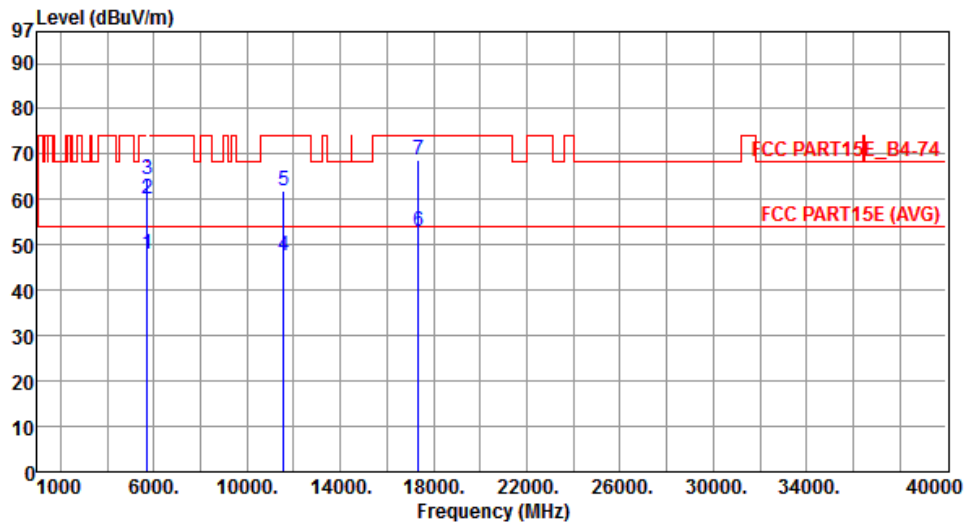
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	46.71	54.00	-7.29	41.06	5.65	Average	349	352
2	5715.00	58.92	74.00	-15.08	53.27	5.65	Peak	349	352
3	5725.00	63.12	78.20	-15.08	57.48	5.64	Peak	349	352
4	11490.00	42.99	54.00	-11.01	27.06	15.93	Average	305	19
5	11490.00	56.98	74.00	-17.02	41.05	15.93	Peak	305	19
6	17235.00	47.19	54.00	-6.81	28.14	19.05	Average	289	350
7	17235.00	60.51	68.20	-7.69	41.46	19.05	Peak	289	350

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal	Test Configuration	1



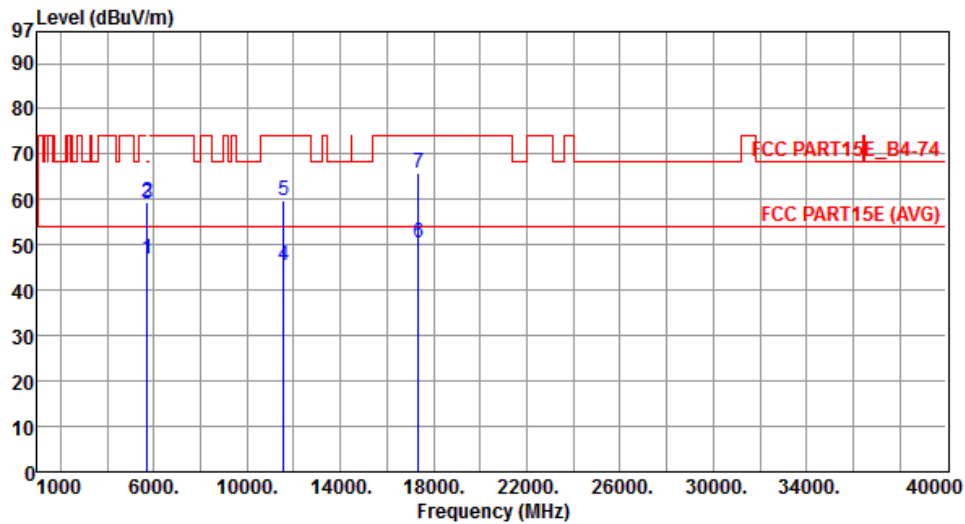
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	47.92	54.00	-6.08	42.27	5.65	Average	233	306
2	5715.00	60.07	74.00	-13.93	54.42	5.65	Peak	233	306
3	5725.00	64.39	78.20	-13.81	58.75	5.64	Peak	233	306
4	11570.00	47.43	54.00	-6.57	31.66	15.77	Average	233	316
5	11570.00	61.95	74.00	-12.05	46.18	15.77	Peak	233	316
6	17355.00	52.98	54.00	-1.02	33.25	19.73	Average	258	322
7	17355.00	68.65	74.00	-5.35	48.92	19.73	Peak	258	322

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical	Test Configuration	1



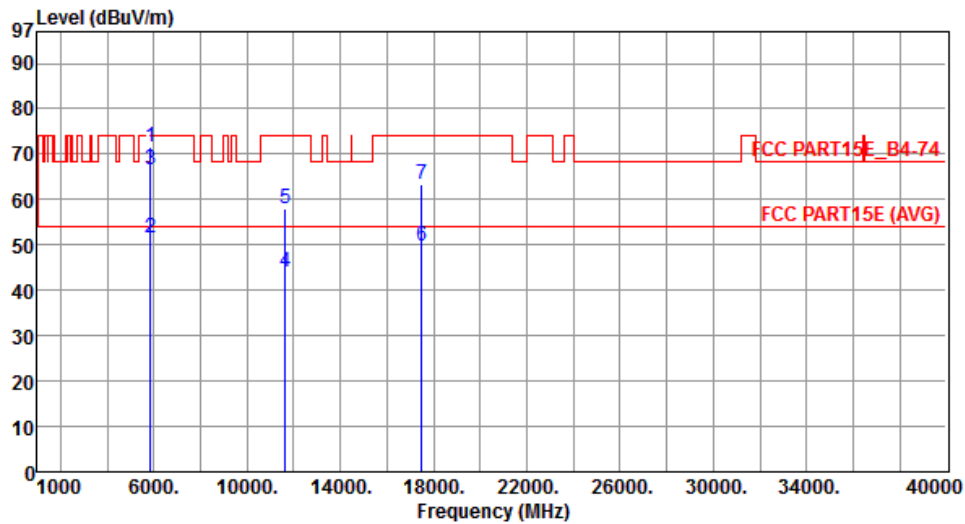
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	46.76	54.00	-7.24	41.11	5.65	Average	345	345
2	5715.00	59.32	74.00	-14.68	53.67	5.65	Peak	345	345
3	5725.00	58.94	78.20	-19.26	53.30	5.64	Peak	233	306
4	11570.00	45.51	54.00	-8.49	29.74	15.77	Average	215	69
5	11570.00	59.85	74.00	-14.15	44.08	15.77	Peak	215	69
6	17355.00	50.43	54.00	-3.57	30.70	19.73	Average	233	91
7	17355.00	65.71	74.00	-8.29	45.98	19.73	Peak	233	91

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal	Test Configuration	1



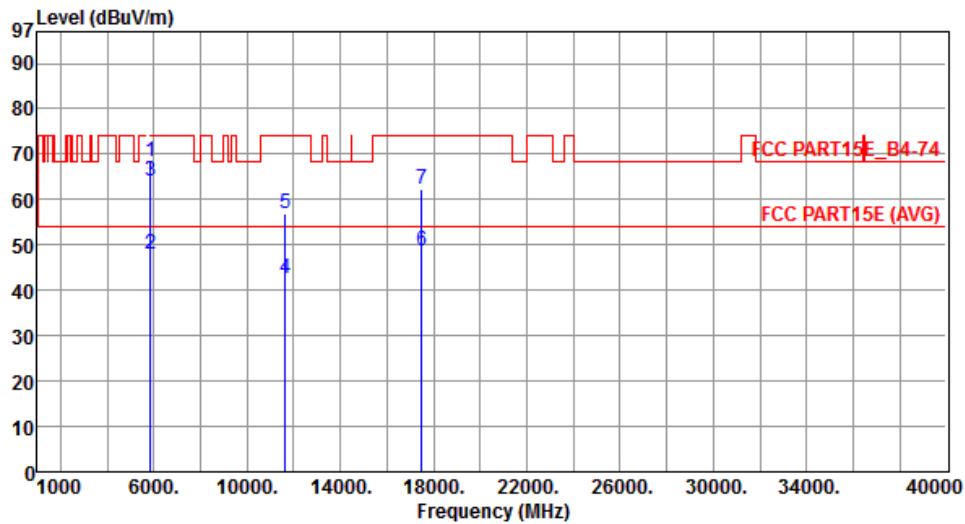
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	71.43	78.20	-6.77	65.68	5.75	Peak	191	295
2	5860.00	51.63	54.00	-2.37	45.87	5.76	Average	191	301
3	5860.00	66.74	74.00	-7.26	60.98	5.76	Peak	191	301
4	11650.00	43.89	54.00	-10.11	28.33	15.56	Average	253	347
5	11650.00	57.98	74.00	-16.02	42.42	15.56	Peak	253	347
6	17475.00	49.76	54.00	-4.24	29.34	20.42	Average	250	333
7	17475.00	63.25	74.00	-10.75	42.83	20.42	Peak	250	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).

Modulation	11a	Test Freq. (MHz)	5825
Polarization	Vertical	Test Configuration	1



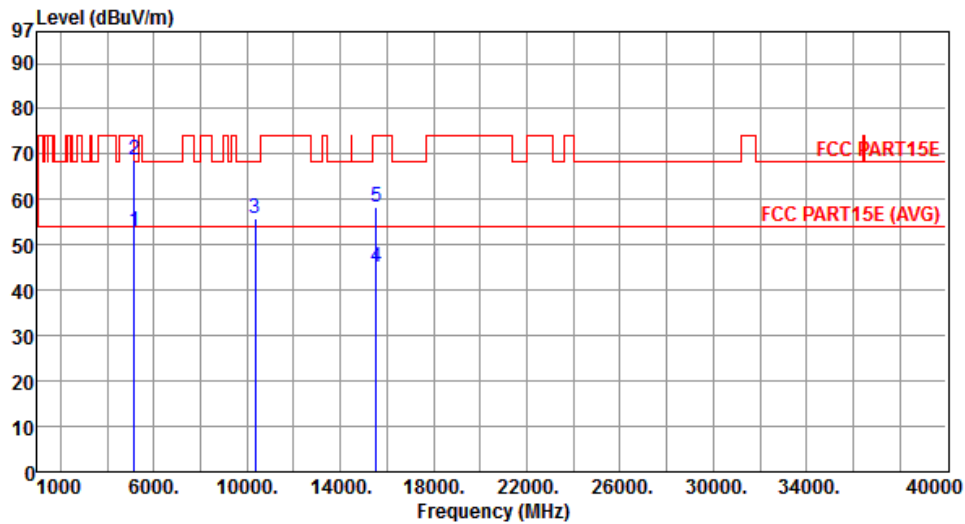
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	68.22	78.20	-9.98	62.47	5.75	Peak	338	355
2	5860.00	48.12	54.00	-5.88	42.36	5.76	Average	338	355
3	5860.00	64.01	74.00	-9.99	58.25	5.76	Peak	338	355
4	11650.00	42.63	54.00	-11.37	27.07	15.56	Average	320	342
5	11650.00	56.79	74.00	-17.21	41.23	15.56	Peak	320	342
6	17475.00	48.67	54.00	-5.33	28.25	20.42	Average	300	330
7	17475.00	62.12	74.00	-11.88	41.70	20.42	Peak	300	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).

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



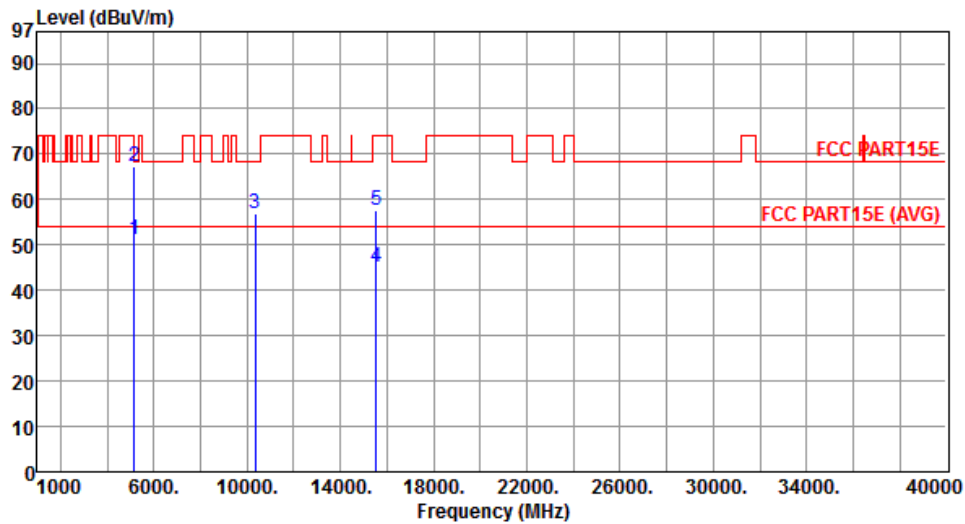
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.99	54.00	-1.01	47.53	5.46	Average	218	332
2	5150.00	68.81	74.00	-5.19	63.35	5.46	Peak	218	332
3	10360.00	55.93	68.20	-12.27	40.52	15.41	Peak	166	248
4	15540.00	45.04	54.00	-8.96	29.24	15.80	Average	143	154
5	15540.00	58.33	74.00	-15.67	42.53	15.80	Peak	143	154

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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



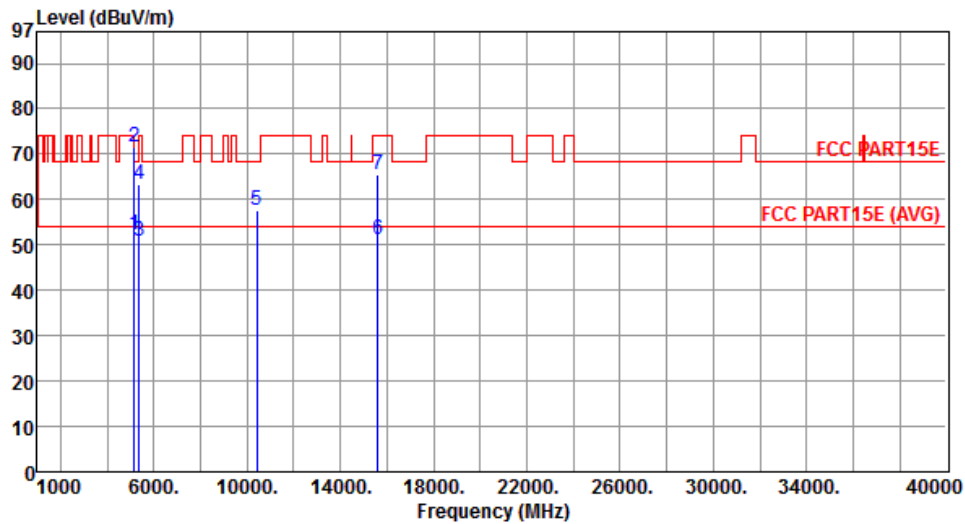
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.35	54.00	-2.65	45.89	5.46	Average	335	336
2	5150.00	67.41	74.00	-6.59	61.95	5.46	Peak	335	336
3	10360.00	56.73	68.20	-11.47	41.32	15.41	Peak	156	23
4	15540.00	45.01	54.00	-8.99	29.21	15.80	Average	167	53
5	15540.00	57.80	74.00	-16.20	42.00	15.80	Peak	167	53

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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



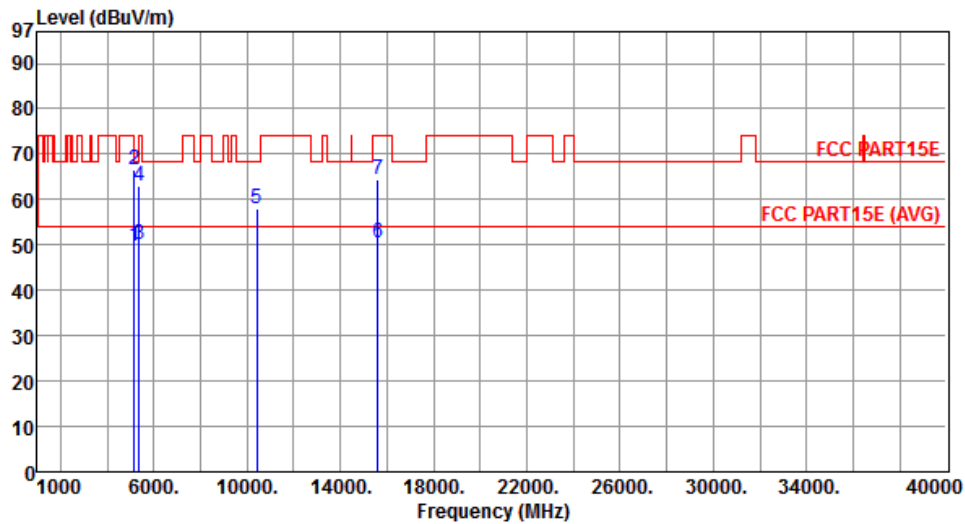
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.17	54.00	-1.83	46.71	5.46	Average	191	332
2	5150.00	71.62	74.00	-2.38	66.16	5.46	Peak	191	332
3	5350.00	50.86	54.00	-3.14	45.30	5.56	Average	191	332
4	5350.00	63.39	74.00	-10.61	57.83	5.56	Peak	191	332
5	10400.00	57.58	68.20	-10.62	42.03	15.55	Peak	175	311
6	15600.00	51.21	54.00	-2.79	35.65	15.56	Average	180	303
7	15600.00	65.44	74.00	-8.56	49.88	15.56	Peak	180	303

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



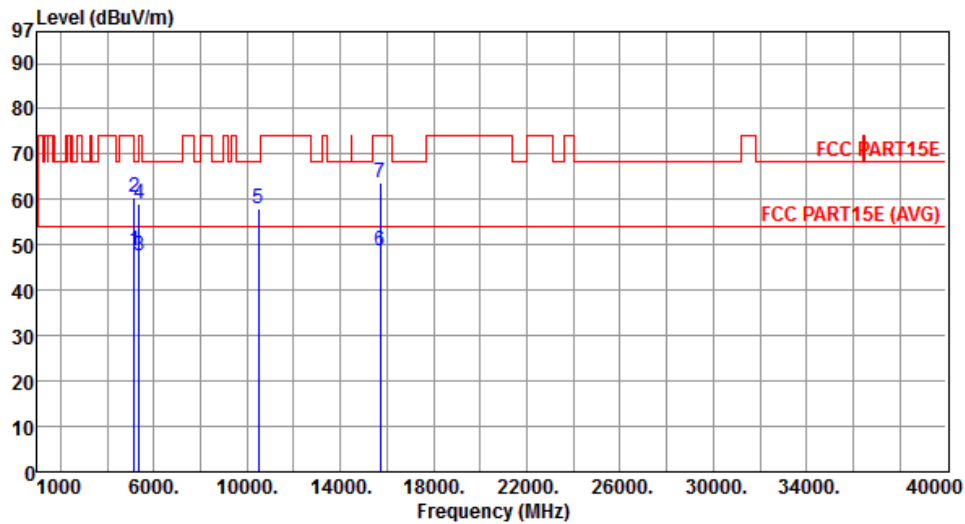
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.72	54.00	-4.28	44.26	5.46	Average	331	336
2	5150.00	66.61	74.00	-7.39	61.15	5.46	Peak	331	336
3	5350.00	50.08	54.00	-3.92	44.52	5.56	Average	331	336
4	5350.00	62.87	74.00	-11.13	57.31	5.56	Peak	331	336
5	10400.00	57.82	68.20	-10.38	42.27	15.55	Peak	156	25
6	15600.00	50.33	54.00	-3.67	34.77	15.56	Average	156	25
7	15600.00	64.42	74.00	-9.58	48.86	15.56	Peak	156	25

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



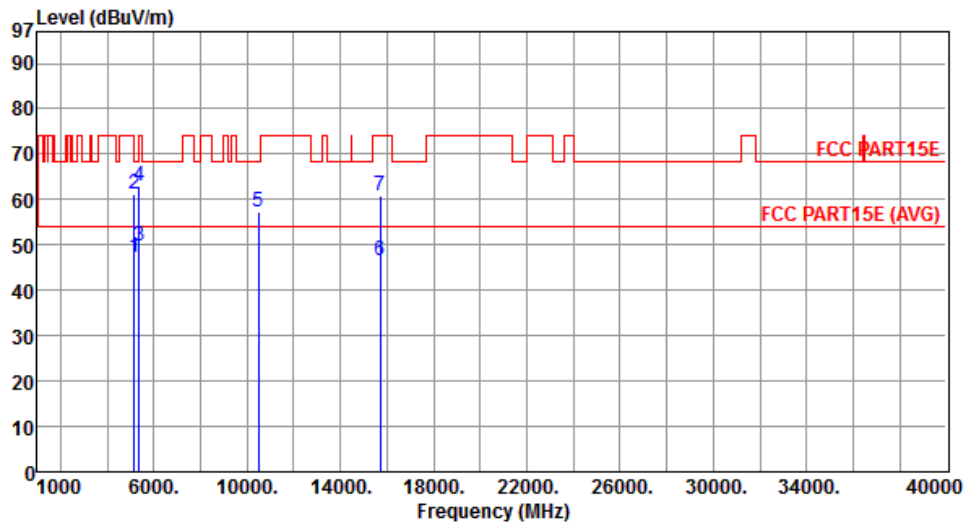
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.81	54.00	-5.19	43.35	5.46	Average	393	306
2	5150.00	60.65	74.00	-13.35	55.19	5.46	Peak	393	306
3	5350.00	47.52	54.00	-6.48	41.96	5.56	Average	393	306
4	5350.00	58.96	74.00	-15.04	53.40	5.56	Peak	393	306
5	10480.00	58.10	68.20	-10.10	42.24	15.86	Peak	168	302
6	15720.00	48.69	54.00	-5.31	33.60	15.09	Average	168	302
7	15720.00	63.79	74.00	-10.21	48.70	15.09	Peak	168	302

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



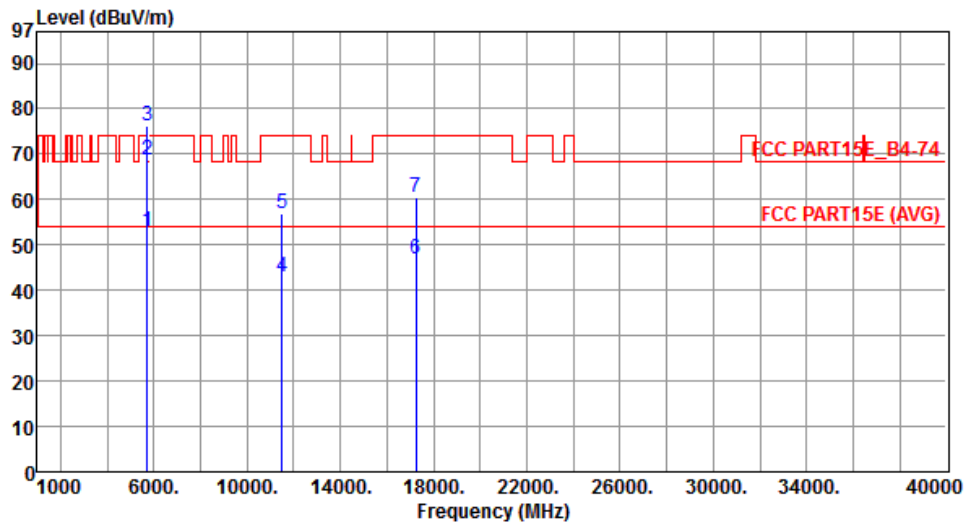
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.25	54.00	-6.75	41.79	5.46	Average	380	332
2	5150.00	61.26	74.00	-12.74	55.80	5.46	Peak	380	332
3	5350.00	49.67	54.00	-4.33	44.11	5.56	Average	380	332
4	5350.00	62.94	74.00	-11.06	57.38	5.56	Peak	380	332
5	10480.00	57.34	68.20	-10.86	41.48	15.86	Peak	189	71
6	15720.00	46.55	54.00	-7.45	31.46	15.09	Average	189	341
7	15720.00	60.79	74.00	-13.21	45.70	15.09	Peak	189	341

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



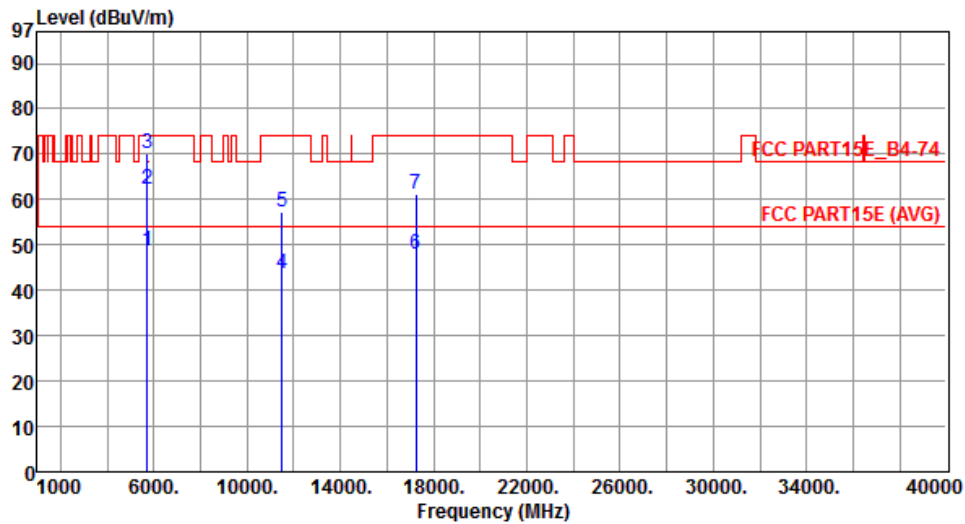
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	52.80	54.00	-1.20	47.15	5.65	Average	238	305
2	5715.00	68.71	74.00	-5.29	63.06	5.65	Peak	238	305
3	5725.00	76.35	78.20	-1.85	70.71	5.64	Peak	238	305
4	11490.00	42.92	54.00	-11.08	26.99	15.93	Average	264	294
5	11490.00	56.82	74.00	-17.18	40.89	15.93	Peak	264	294
6	17235.00	47.05	54.00	-6.95	28.00	19.05	Average	252	298
7	17235.00	60.36	74.00	-13.64	41.31	19.05	Peak	252	298

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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



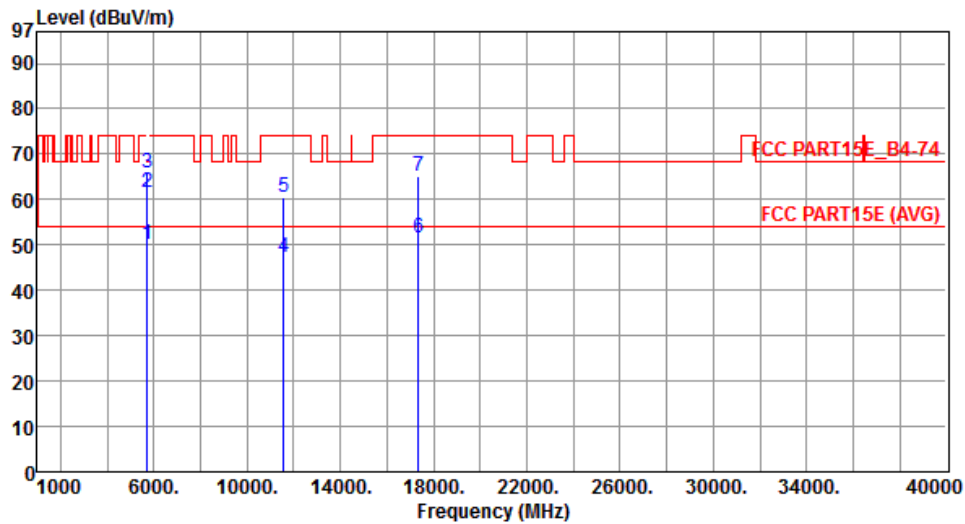
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	48.79	54.00	-5.21	43.14	5.65	Average	291	348
2	5715.00	62.42	74.00	-11.58	56.77	5.65	Peak	291	348
3	5715.00	70.27	74.00	-3.73	64.62	5.65	Peak	291	348
4	11490.00	43.80	54.00	-10.20	27.87	15.93	Average	248	182
5	11490.00	57.16	74.00	-16.84	41.23	15.93	Peak	248	182
6	17235.00	47.99	54.00	-6.01	28.94	19.05	Average	267	151
7	17235.00	61.21	74.00	-12.79	42.16	19.05	Peak	267	151

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



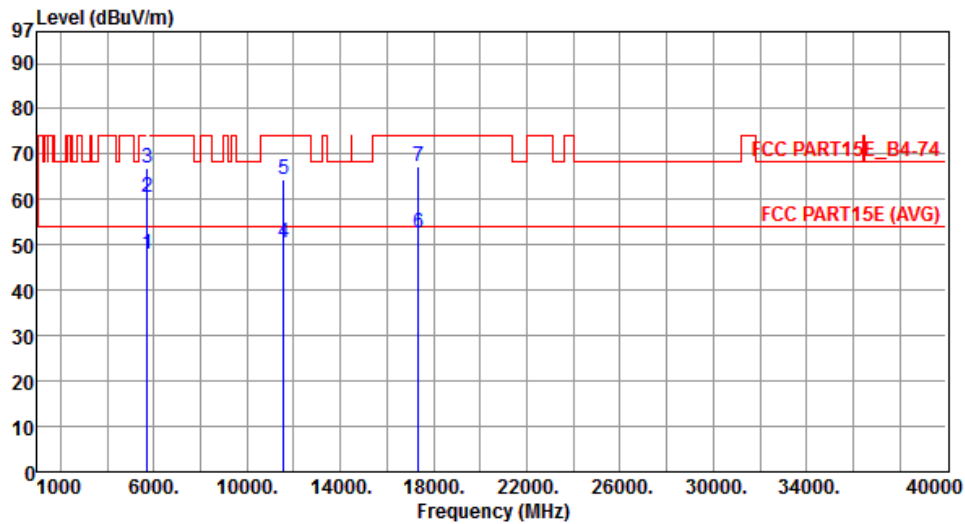
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	49.94	54.00	-4.06	44.29	5.65	Average	233	313
2	5715.00	61.60	74.00	-12.40	55.95	5.65	Peak	233	313
3	5725.00	65.96	78.20	-12.24	60.32	5.64	Peak	233	313
4	11570.00	47.41	54.00	-6.59	31.64	15.77	Average	232	307
5	11570.00	60.32	74.00	-13.68	44.55	15.77	Peak	232	307
6	17355.00	51.44	54.00	-2.56	31.71	19.73	Average	259	297
7	17355.00	65.22	74.00	-8.78	45.49	19.73	Peak	259	297

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



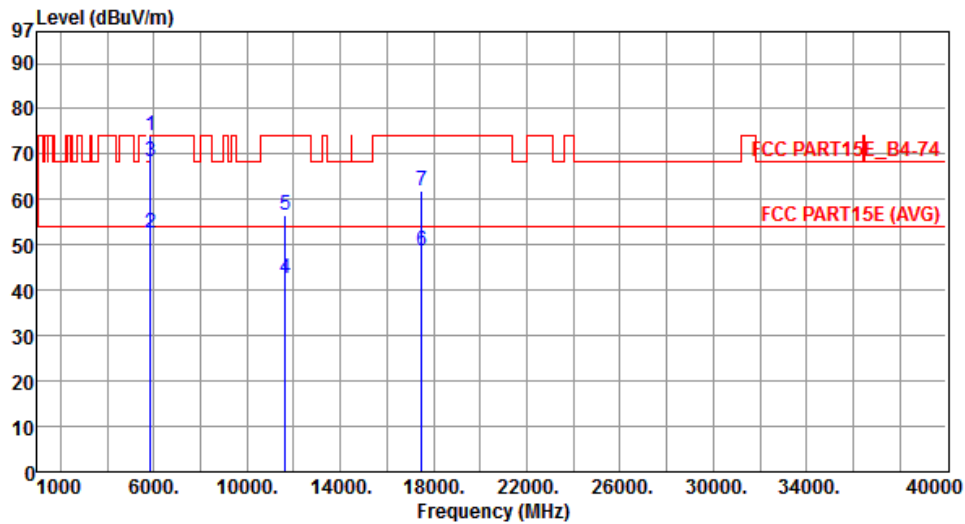
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	47.97	54.00	-6.03	42.32	5.65	Average	331	344
2	5715.00	60.66	74.00	-13.34	55.01	5.65	Peak	331	344
3	5725.00	66.88	78.20	-11.32	61.24	5.64	Peak	332	344
4	11570.00	50.30	54.00	-3.70	34.53	15.77	Average	274	115
5	11570.00	64.41	74.00	-9.59	48.64	15.77	Peak	274	115
6	17355.00	52.71	54.00	-1.29	32.98	19.73	Average	272	188
7	17355.00	67.40	74.00	-6.60	47.67	19.73	Peak	272	188

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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



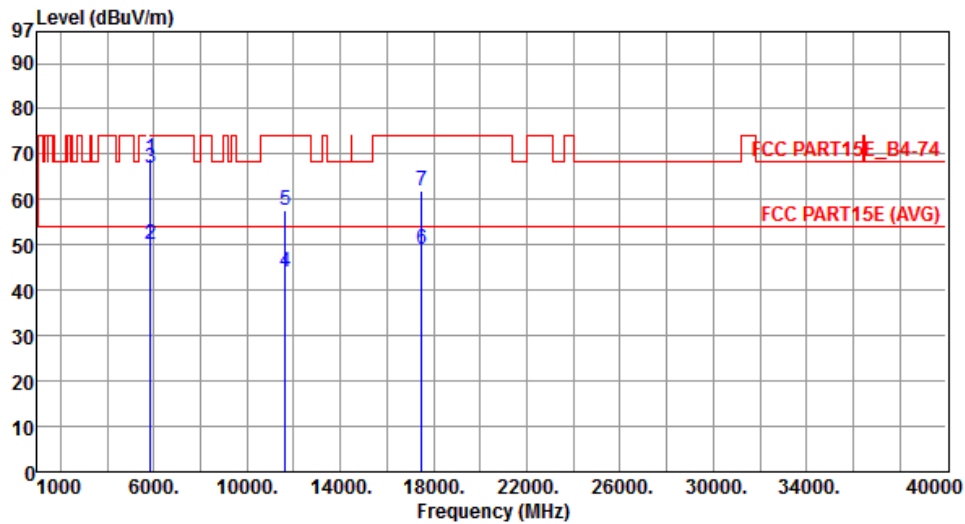
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	74.01	78.20	-4.19	68.26	5.75	Peak	237	323
2	5860.00	52.78	54.00	-1.22	47.02	5.76	Average	237	323
3	5860.00	68.34	74.00	-5.66	62.58	5.76	Peak	237	323
4	11650.00	42.59	54.00	-11.41	27.03	15.56	Average	302	172
5	11650.00	56.66	74.00	-17.34	41.10	15.56	Peak	302	172
6	17475.00	48.55	54.00	-5.45	28.13	20.42	Average	247	284
7	17475.00	62.01	74.00	-11.99	41.59	20.42	Peak	247	284

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	11a	Test Freq. (MHz)	5825
Polarization	Vertical	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	5850.00	68.96	78.20	-9.24	63.21	5.75	Peak	285	341
2	5860.00	50.04	54.00	-3.96	44.28	5.76	Average	285	341
3	5860.00	66.96	74.00	-7.04	61.20	5.76	Peak	285	341
4	11650.00	43.87	54.00	-10.13	28.31	15.56	Average	302	156
5	11650.00	57.60	74.00	-16.40	42.04	15.56	Peak	302	156
6	17475.00	49.09	54.00	-4.91	28.67	20.42	Average	285	341
7	17475.00	62.00	74.00	-12.00	41.58	20.42	Peak	285	341

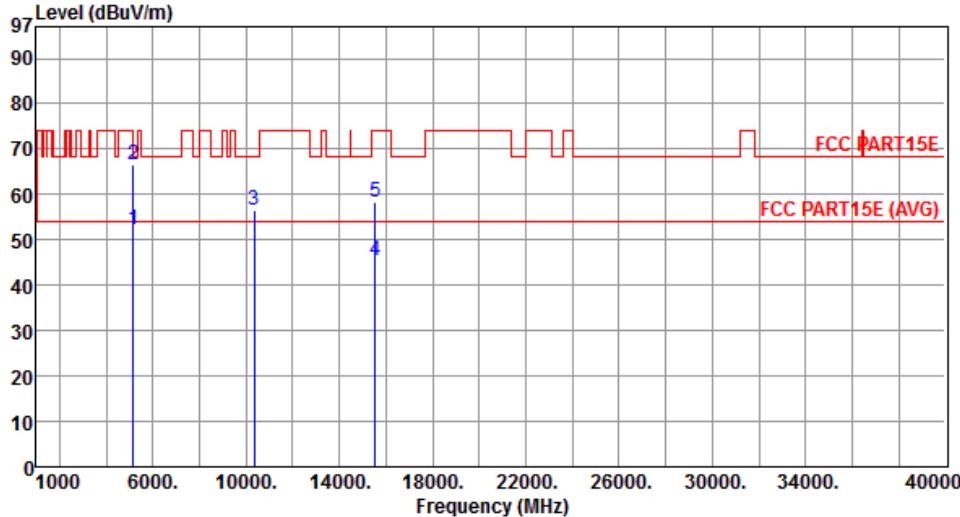
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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

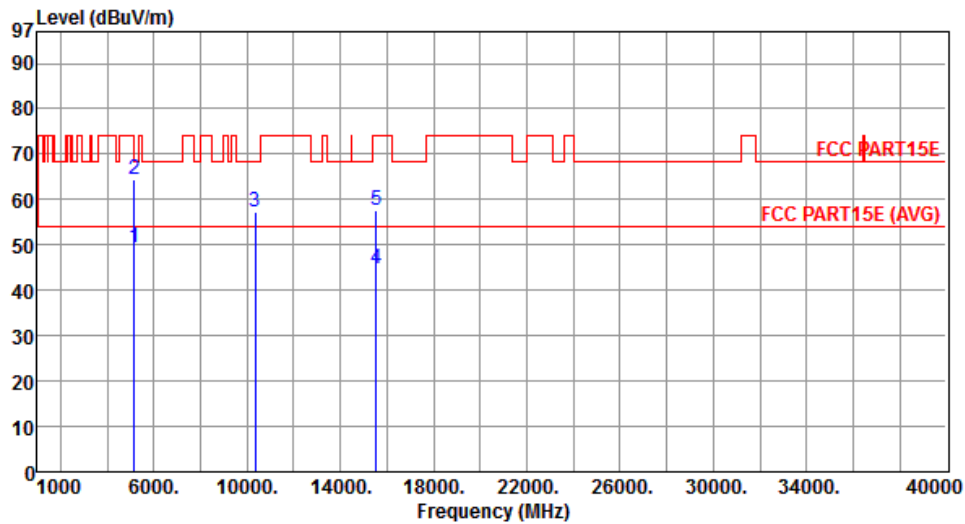
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.23	54.00	-1.77	46.77	5.46	Average	191	71
2	5150.00	66.59	74.00	-7.41	61.13	5.46	Peak	191	71
3	10360.00	56.65	68.20	-11.55	41.24	15.41	Peak	200	58
4	15540.00	45.32	54.00	-8.68	29.52	15.80	Average	185	43
5	15540.00	58.46	74.00	-15.54	42.66	15.80	Peak	185	43

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

Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Vertical	Test Configuration	1



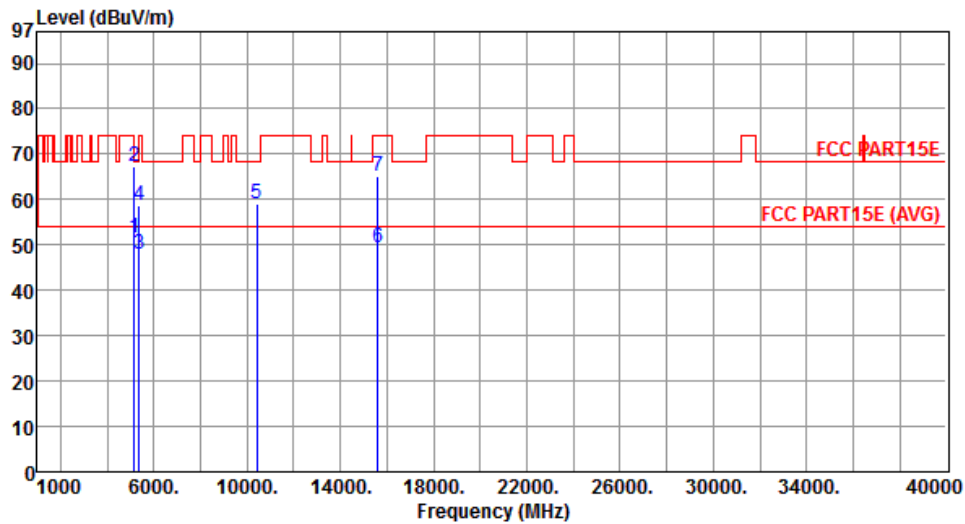
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.52	54.00	-4.48	44.06	5.46	Average	286	60
2	5150.00	64.56	74.00	-9.44	59.10	5.46	Peak	286	60
3	10360.00	57.13	68.20	-11.07	41.72	15.41	Peak	286	60
4	15540.00	44.74	54.00	-9.26	28.94	15.80	Average	290	66
5	15540.00	57.49	74.00	-16.51	41.69	15.80	Peak	290	66

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal	Test Configuration	1



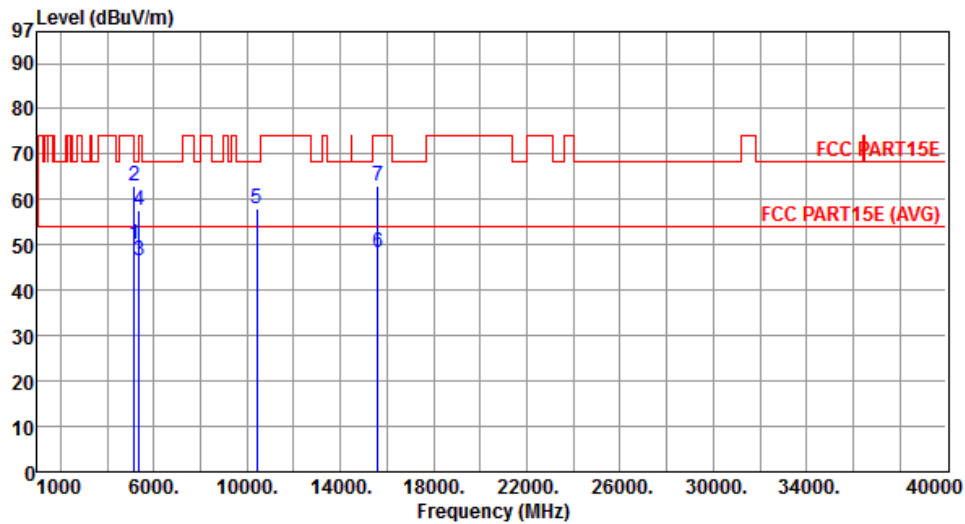
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.58	54.00	-2.42	46.12	5.46	Average	293	34
2	5150.00	67.36	74.00	-6.64	61.90	5.46	Peak	293	34
3	5350.00	47.99	54.00	-6.01	42.43	5.56	Average	293	34
4	5350.00	58.85	74.00	-15.15	53.29	5.56	Peak	293	34
5	10400.00	59.15	68.20	-9.05	43.60	15.55	Peak	213	9
6	15600.00	49.45	54.00	-4.55	33.89	15.56	Average	230	269
7	15600.00	65.02	74.00	-8.98	49.46	15.56	Peak	230	269

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical	Test Configuration	1



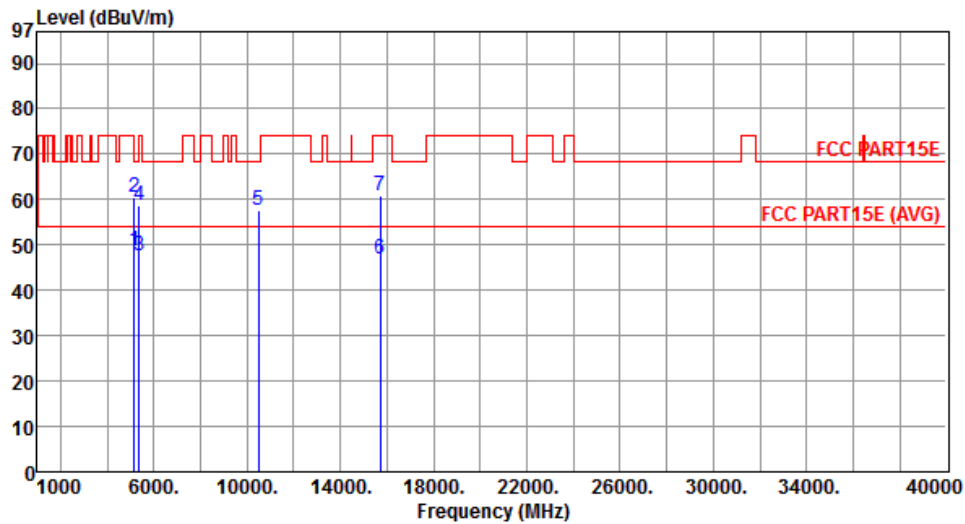
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	50.03	54.00	-3.97	44.57	5.46	Average	266	16
2	5150.00	62.89	74.00	-11.11	57.43	5.46	Peak	266	16
3	5350.00	46.71	54.00	-7.29	41.15	5.56	Average	266	16
4	5350.00	57.62	74.00	-16.38	52.06	5.56	Peak	266	16
5	10400.00	57.81	68.20	-10.39	42.26	15.55	Peak	246	13
6	15600.00	48.15	54.00	-5.85	32.59	15.56	Average	246	13
7	15600.00	63.01	74.00	-10.99	47.45	15.56	Peak	246	13

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal	Test Configuration	1



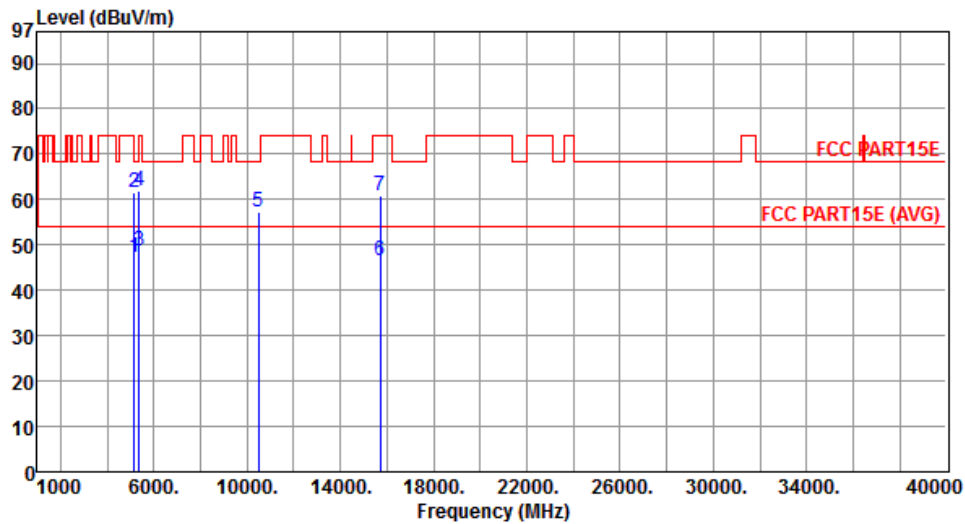
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.85	54.00	-5.15	43.39	5.46	Average	255	91
2	5150.00	60.51	74.00	-13.49	55.05	5.46	Peak	255	91
3	5350.00	47.45	54.00	-6.55	41.89	5.56	Average	255	91
4	5350.00	58.85	74.00	-15.15	53.29	5.56	Peak	255	91
5	10480.00	57.71	68.20	-10.49	41.85	15.86	Peak	200	344
6	15720.00	47.02	54.00	-6.98	31.93	15.09	Average	232	334
7	15720.00	60.85	74.00	-13.15	45.76	15.09	Peak	232	334

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical	Test Configuration	1



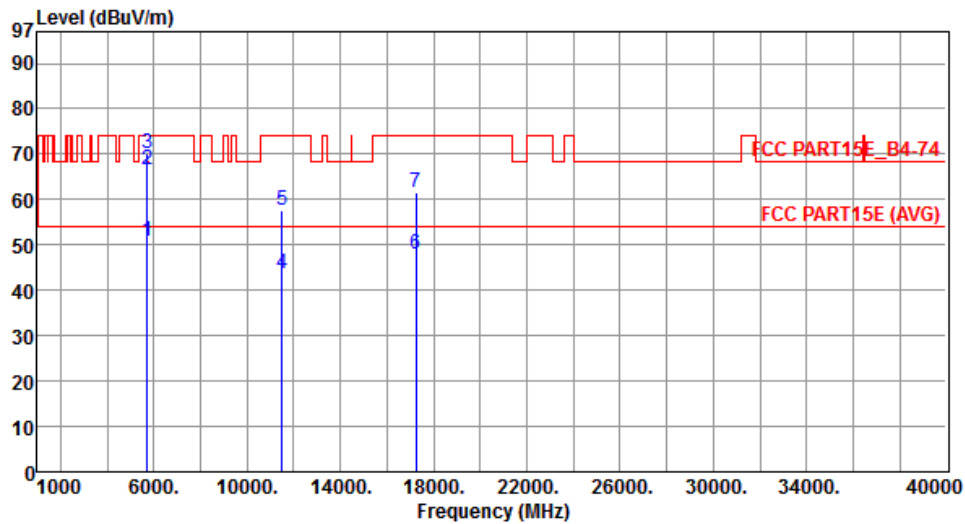
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.41	54.00	-6.59	41.95	5.46	Average	253	35
2	5150.00	61.42	74.00	-12.58	55.96	5.46	Peak	253	35
3	5350.00	48.75	54.00	-5.25	43.19	5.56	Average	253	35
4	5350.00	61.85	74.00	-12.15	56.29	5.56	Peak	253	35
5	10480.00	57.29	68.20	-10.91	41.43	15.86	Peak	222	358
6	15720.00	46.57	54.00	-7.43	31.48	15.09	Average	199	320
7	15720.00	60.71	74.00	-13.29	45.62	15.09	Peak	199	320

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal	Test Configuration	1



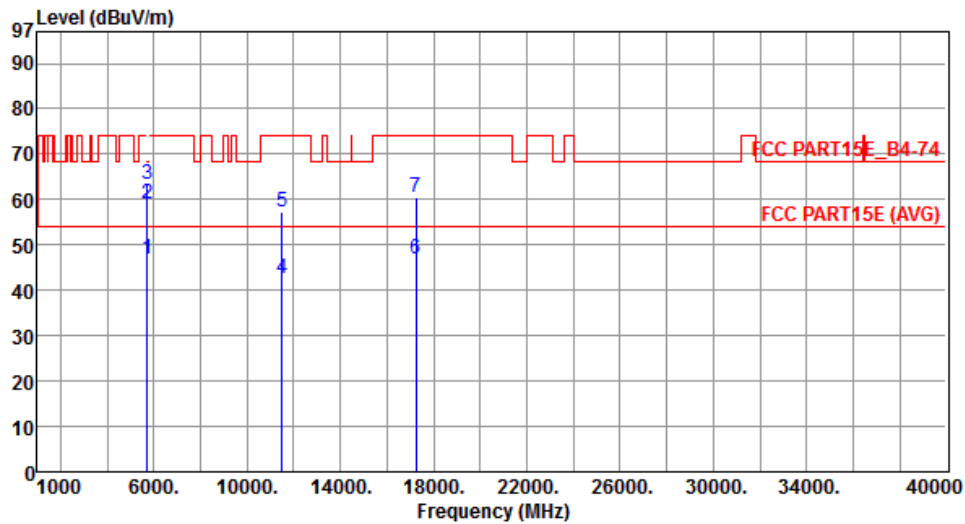
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	50.98	54.00	-3.02	45.33	5.65	Average	251	38
2	5715.00	66.66	74.00	-7.34	61.01	5.65	Peak	251	38
3	5725.00	70.01	78.20	-8.19	64.37	5.64	Peak	251	38
4	11490.00	43.75	54.00	-10.25	27.82	15.93	Average	190	339
5	11490.00	57.65	74.00	-16.35	41.72	15.93	Peak	190	339
6	17235.00	48.01	54.00	-5.99	28.96	19.05	Average	197	336
7	17235.00	61.68	74.00	-12.32	42.63	19.05	Peak	197	336

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical	Test Configuration	1



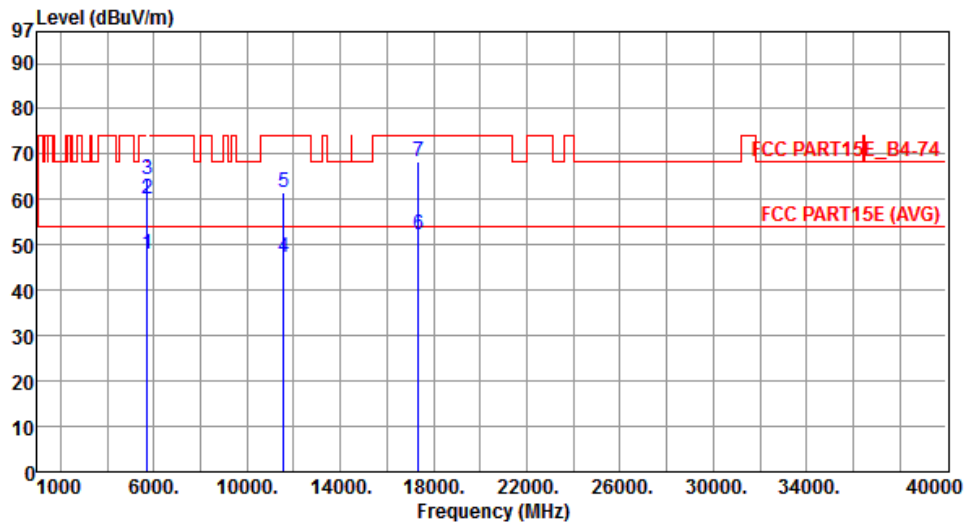
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	46.83	54.00	-7.17	41.18	5.65	Average	350	345
2	5715.00	58.99	74.00	-15.01	53.34	5.65	Peak	350	345
3	5725.00	63.32	78.20	-14.88	57.68	5.64	Peak	350	345
4	11490.00	42.43	54.00	-11.57	26.50	15.93	Average	300	346
5	11490.00	57.36	74.00	-16.64	41.43	15.93	Peak	300	346
6	17235.00	47.01	54.00	-6.99	27.96	19.05	Average	299	347
7	17235.00	60.37	74.00	-13.63	41.32	19.05	Peak	299	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).

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



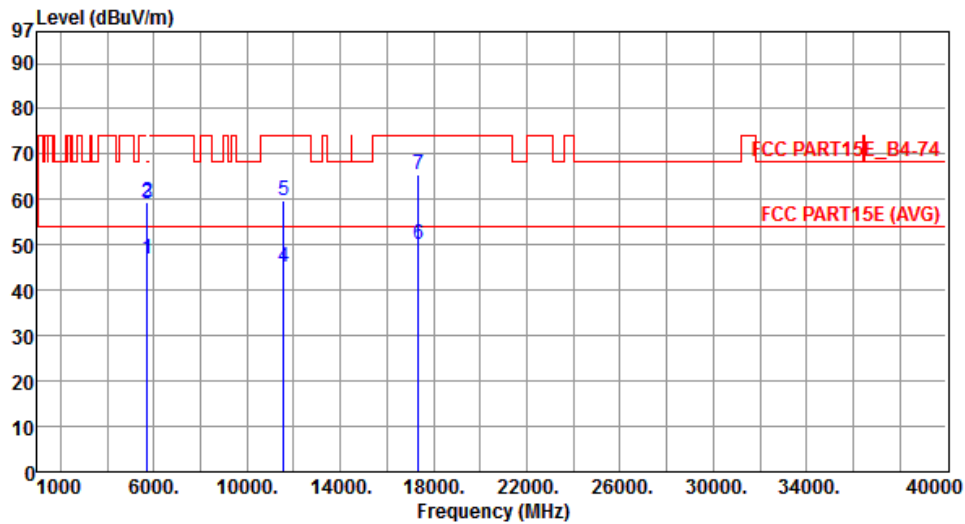
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	48.06	54.00	-5.94	42.41	5.65	Average	240	316
2	5715.00	60.23	74.00	-13.77	54.58	5.65	Peak	240	316
3	5725.00	64.42	78.20	-13.78	58.78	5.64	Peak	240	316
4	11570.00	47.15	54.00	-6.85	31.38	15.77	Average	228	322
5	11570.00	61.71	74.00	-12.29	45.94	15.77	Peak	228	322
6	17355.00	52.39	54.00	-1.61	32.66	19.73	Average	361	336
7	17355.00	68.49	74.00	-5.51	48.76	19.73	Peak	361	336

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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



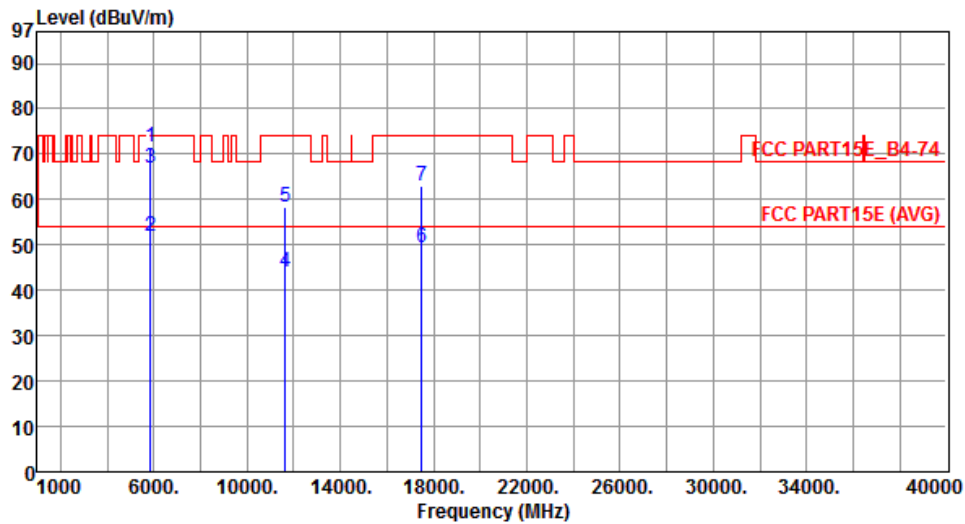
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	46.81	54.00	-7.19	41.16	5.65	Average	350	352
2	5715.00	59.45	74.00	-14.55	53.80	5.65	Peak	350	352
3	5725.00	59.03	78.20	-19.17	53.39	5.64	Peak	350	352
4	11570.00	45.11	54.00	-8.89	29.34	15.77	Average	223	50
5	11570.00	59.73	74.00	-14.27	43.96	15.77	Peak	223	50
6	17355.00	50.12	54.00	-3.88	30.39	19.73	Average	222	444
7	17355.00	65.35	74.00	-8.65	45.62	19.73	Peak	222	444

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal	Test Configuration	1



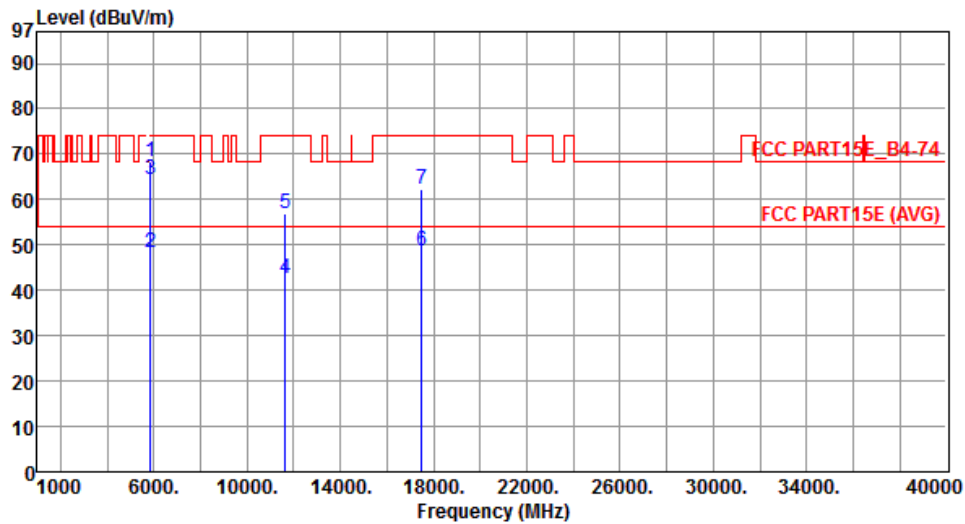
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	71.51	78.20	-6.69	65.76	5.75	Peak	206	355
2	5860.00	51.75	54.00	-2.25	45.99	5.76	Average	206	355
3	5860.00	66.83	74.00	-7.17	61.07	5.76	Peak	206	355
4	11650.00	43.95	54.00	-10.05	28.39	15.56	Average	255	352
5	11650.00	58.21	74.00	-15.79	42.65	15.56	Peak	255	352
6	17475.00	49.55	54.00	-4.45	29.13	20.42	Average	246	347
7	17475.00	62.97	74.00	-11.03	42.55	20.42	Peak	246	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).

Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Vertical	Test Configuration	1



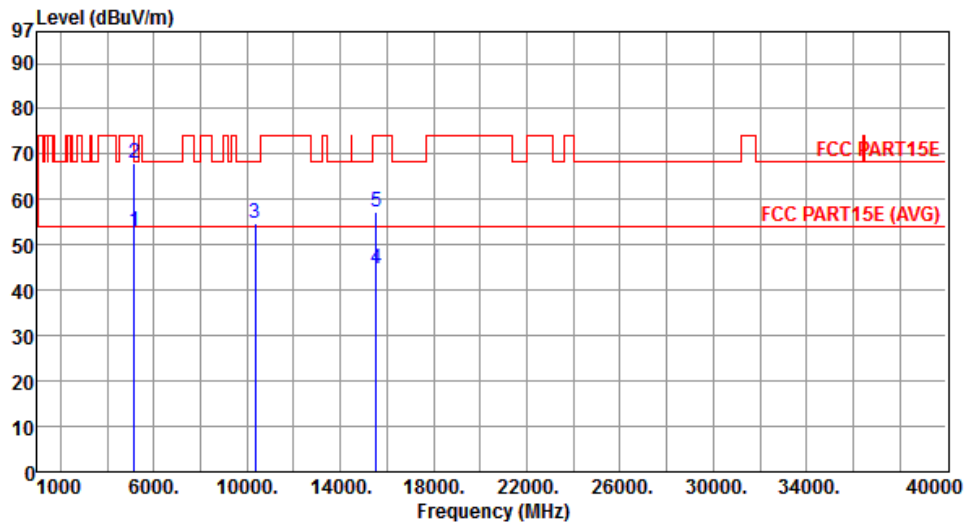
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	68.34	78.20	-9.86	62.59	5.75	Peak	345	349
2	5860.00	48.36	54.00	-5.64	42.60	5.76	Average	345	349
3	5860.00	64.32	74.00	-9.68	58.56	5.76	Peak	345	349
4	11650.00	42.60	54.00	-11.40	27.04	15.56	Average	338	310
5	11650.00	56.83	74.00	-17.17	41.27	15.56	Peak	338	310
6	17475.00	48.85	54.00	-5.15	28.43	20.42	Average	305	342
7	17475.00	62.39	74.00	-11.61	41.97	20.42	Peak	305	342

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



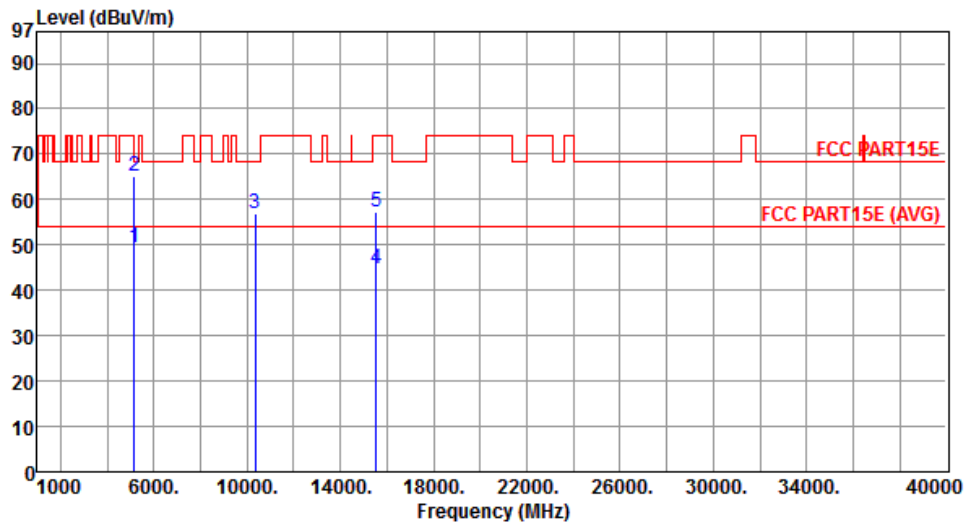
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.93	54.00	-1.07	47.47	5.46	Average	224	322
2	5150.00	67.91	74.00	-6.09	62.45	5.46	Peak	224	322
3	10360.00	54.71	68.20	-13.49	39.30	15.41	Peak	170	233
4	15540.00	44.78	54.00	-9.22	28.98	15.80	Average	150	143
5	15540.00	57.39	74.00	-16.61	41.59	15.80	Peak	150	143

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



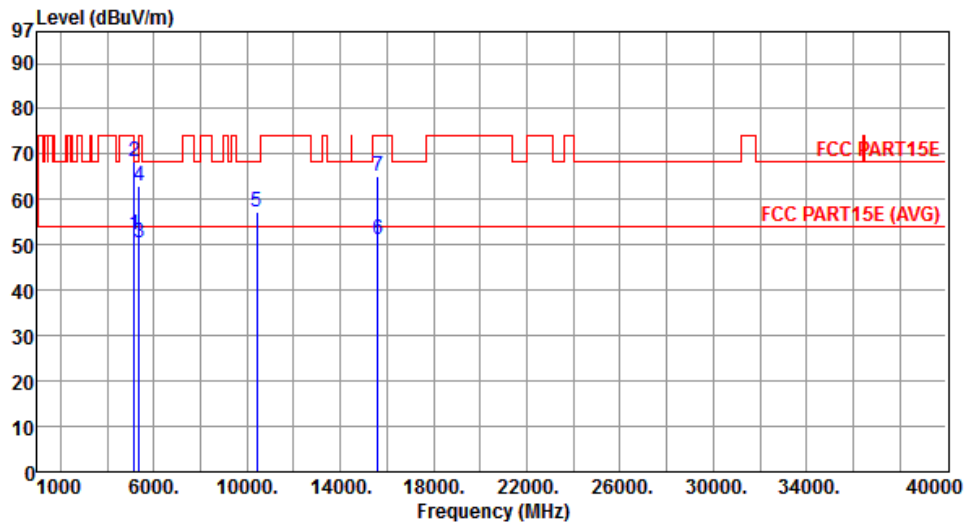
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.48	54.00	-4.52	44.02	5.46	Average	290	311
2	5150.00	65.11	74.00	-8.89	59.65	5.46	Peak	290	311
3	10360.00	56.83	68.20	-11.37	41.42	15.41	Peak	163	54
4	15540.00	44.57	54.00	-9.43	28.77	15.80	Average	170	60
5	15540.00	57.13	74.00	-16.87	41.33	15.80	Peak	170	60

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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



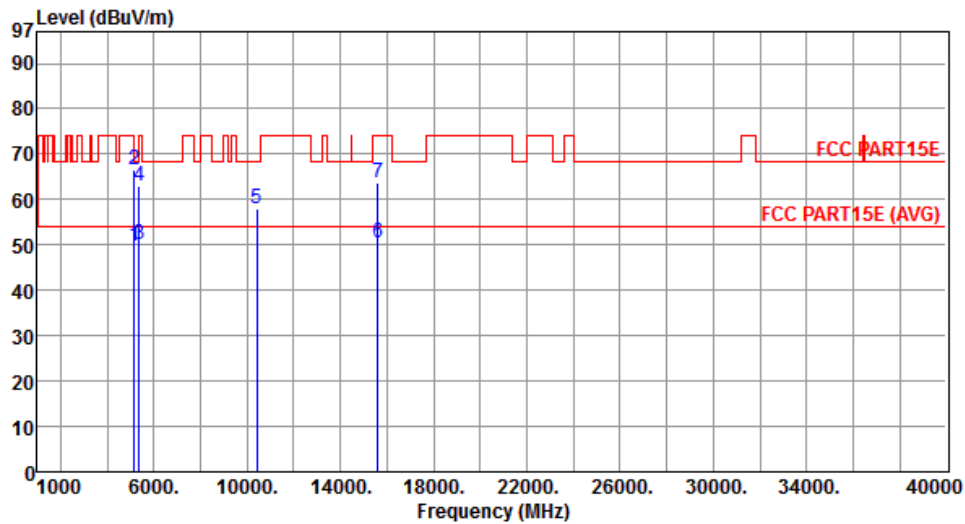
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.21	54.00	-1.79	46.75	5.46	Average	238	327
2	5150.00	68.45	74.00	-5.55	62.99	5.46	Peak	238	327
3	5350.00	50.64	54.00	-3.36	45.08	5.56	Average	238	327
4	5350.00	62.95	74.00	-11.05	57.39	5.56	Peak	238	327
5	10400.00	57.32	68.20	-10.88	41.77	15.55	Peak	168	321
6	15600.00	51.01	54.00	-2.99	35.45	15.56	Average	196	322
7	15600.00	65.25	74.00	-8.75	49.69	15.56	Peak	196	322

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



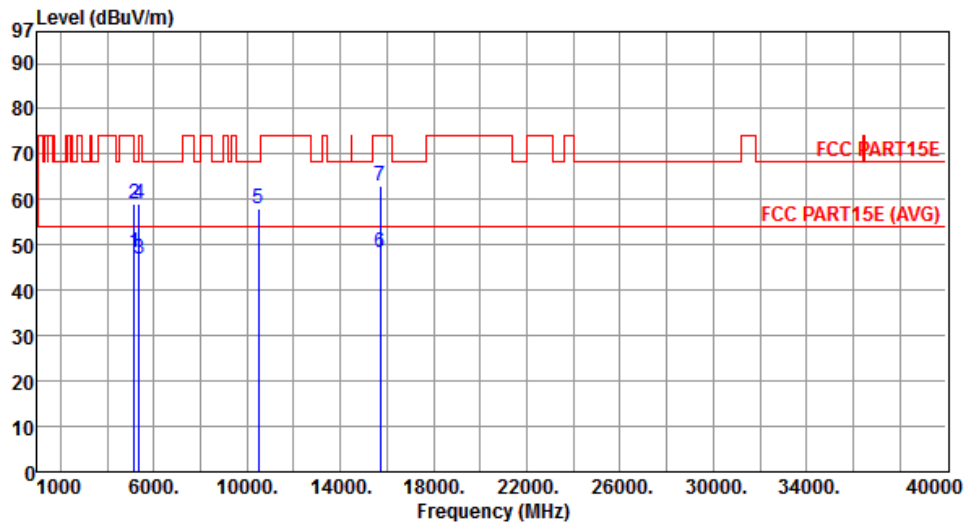
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.72	54.00	-4.28	44.26	5.46	Average	331	336
2	5150.00	66.61	74.00	-7.39	61.15	5.46	Peak	331	336
3	5350.00	50.08	54.00	-3.92	44.52	5.56	Average	331	336
4	5350.00	62.87	74.00	-11.13	57.31	5.56	Peak	331	336
5	10400.00	57.82	68.20	-10.38	42.27	15.55	Peak	160	32
6	15600.00	50.33	54.00	-3.67	34.77	15.56	Average	163	35
7	15600.00	63.85	74.00	-10.15	48.29	15.56	Peak	163	35

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



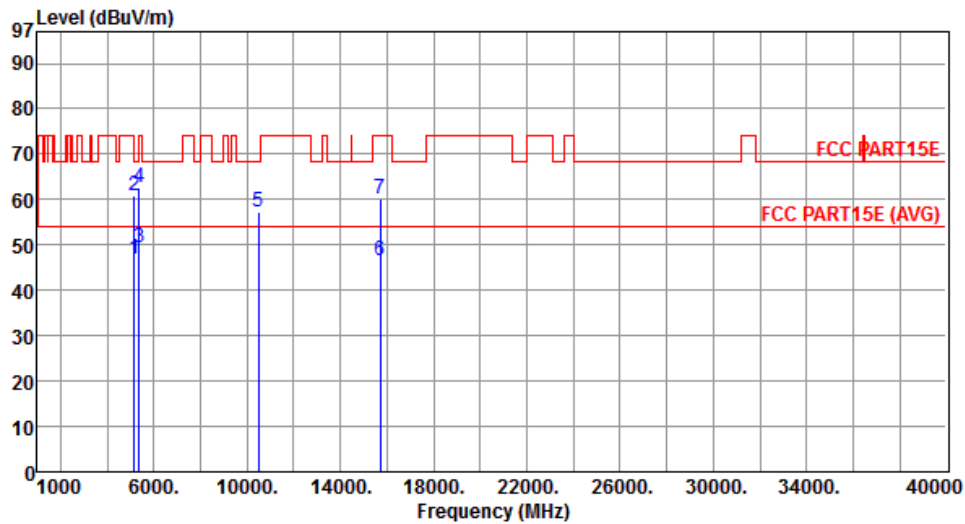
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.23	54.00	-5.77	42.77	5.46	Average	370	302
2	5150.00	58.96	74.00	-15.04	53.50	5.46	Peak	370	302
3	5350.00	47.01	54.00	-6.99	41.45	5.56	Average	370	302
4	5350.00	58.96	74.00	-15.04	53.40	5.56	Peak	370	302
5	10480.00	57.97	68.20	-10.23	42.11	15.86	Peak	163	322
6	15720.00	48.42	54.00	-5.58	33.33	15.09	Average	157	310
7	15720.00	62.91	74.00	-11.09	47.82	15.09	Peak	157	310

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



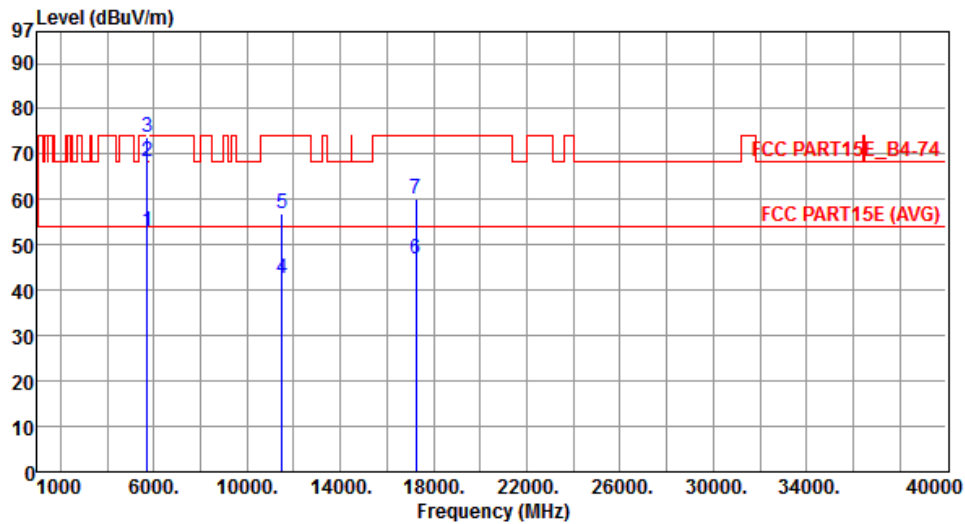
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.03	54.00	-6.97	41.57	5.46	Average	363	338
2	5150.00	60.74	74.00	-13.26	55.28	5.46	Peak	363	338
3	5350.00	49.45	54.00	-4.55	43.89	5.56	Average	363	338
4	5350.00	62.72	74.00	-11.28	57.16	5.56	Peak	363	338
5	10480.00	57.15	68.20	-11.05	41.29	15.86	Peak	177	82
6	15720.00	46.42	54.00	-7.58	31.33	15.09	Average	180	334
7	15720.00	60.28	74.00	-13.72	45.19	15.09	Peak	180	334

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



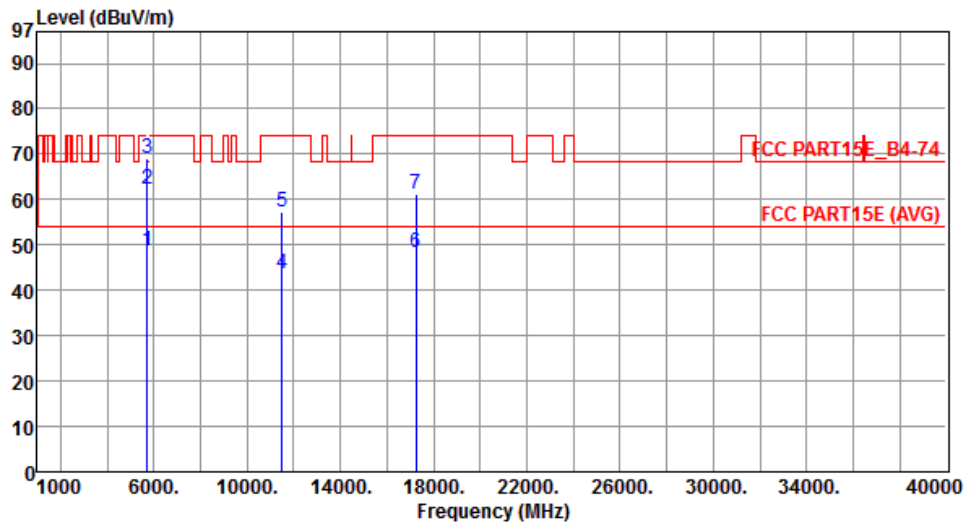
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	52.95	54.00	-1.05	47.30	5.65	Average	223	310
2	5715.00	68.49	74.00	-5.51	62.84	5.65	Peak	223	310
3	5725.00	73.76	78.20	-4.44	68.12	5.64	Peak	223	310
4	11490.00	42.42	54.00	-11.58	26.49	15.93	Average	255	301
5	11490.00	56.84	74.00	-17.16	40.91	15.93	Peak	255	301
6	17235.00	46.99	54.00	-7.01	27.94	19.05	Average	261	279
7	17235.00	60.23	74.00	-13.77	41.18	19.05	Peak	261	279

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



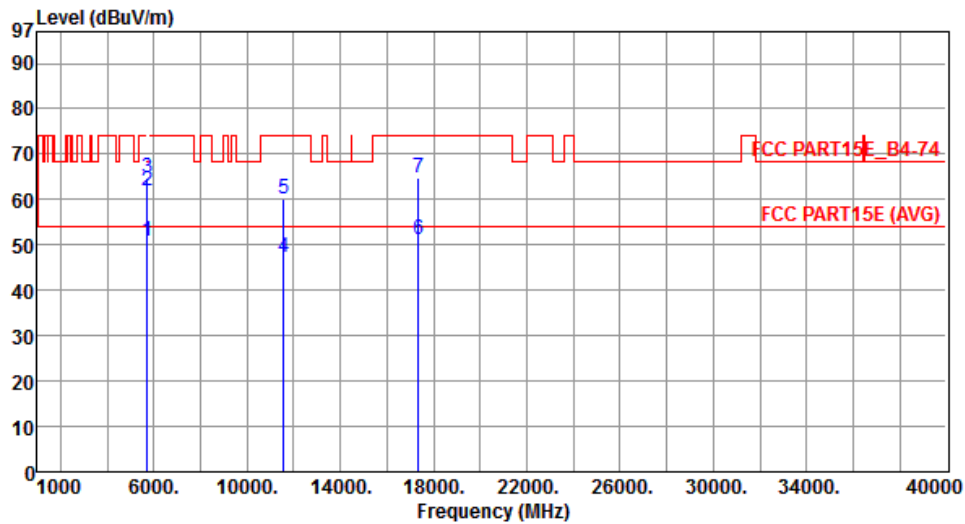
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	48.66	54.00	-5.34	43.01	5.65	Average	305	333
2	5715.00	62.22	74.00	-11.78	56.57	5.65	Peak	305	333
3	5715.00	69.21	74.00	-4.79	63.56	5.65	Peak	305	333
4	11490.00	43.76	54.00	-10.24	27.83	15.93	Average	250	179
5	11490.00	57.25	74.00	-16.75	41.32	15.93	Peak	250	179
6	17235.00	48.15	54.00	-5.85	29.10	19.05	Average	257	149
7	17235.00	61.32	74.00	-12.68	42.27	19.05	Peak	257	149

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



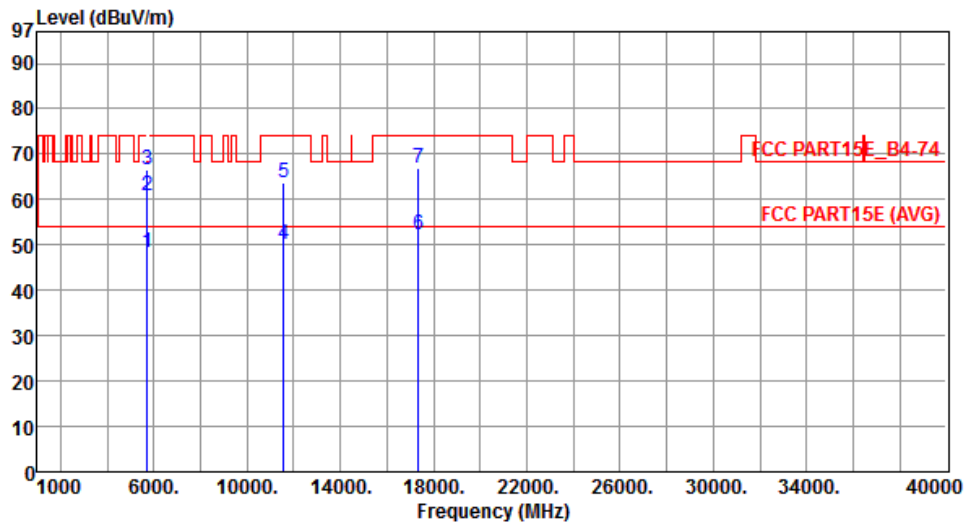
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	50.76	54.00	-3.24	45.11	5.65	Average	238	316
2	5715.00	61.76	74.00	-12.24	56.11	5.65	Peak	238	316
3	5725.00	64.79	78.20	-13.41	59.15	5.64	Peak	238	316
4	11570.00	47.40	54.00	-6.60	31.63	15.77	Average	238	316
5	11570.00	60.08	74.00	-13.92	44.31	15.77	Peak	238	316
6	17355.00	51.06	54.00	-2.94	31.33	19.73	Average	277	300
7	17355.00	64.95	74.00	-9.05	45.22	19.73	Peak	277	300

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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



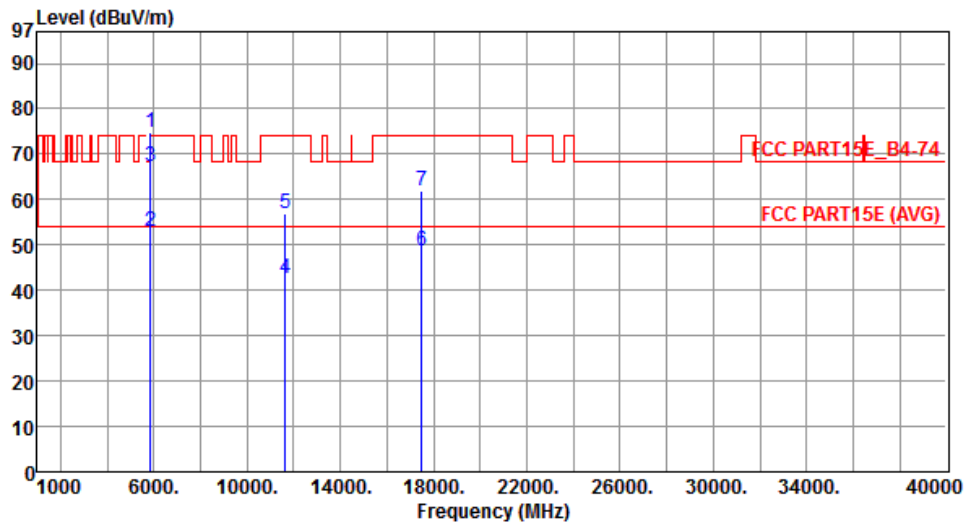
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	48.25	54.00	-5.75	42.60	5.65	Average	340	351
2	5715.00	60.95	74.00	-13.05	55.30	5.65	Peak	340	351
3	5725.00	66.52	78.20	-11.68	60.88	5.64	Peak	340	351
4	11570.00	50.01	54.00	-3.99	34.24	15.77	Average	285	105
5	11570.00	63.66	74.00	-10.34	47.89	15.77	Peak	285	105
6	17355.00	52.32	54.00	-1.68	32.59	19.73	Average	302	111
7	17355.00	66.79	74.00	-7.21	47.06	19.73	Peak	302	111

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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



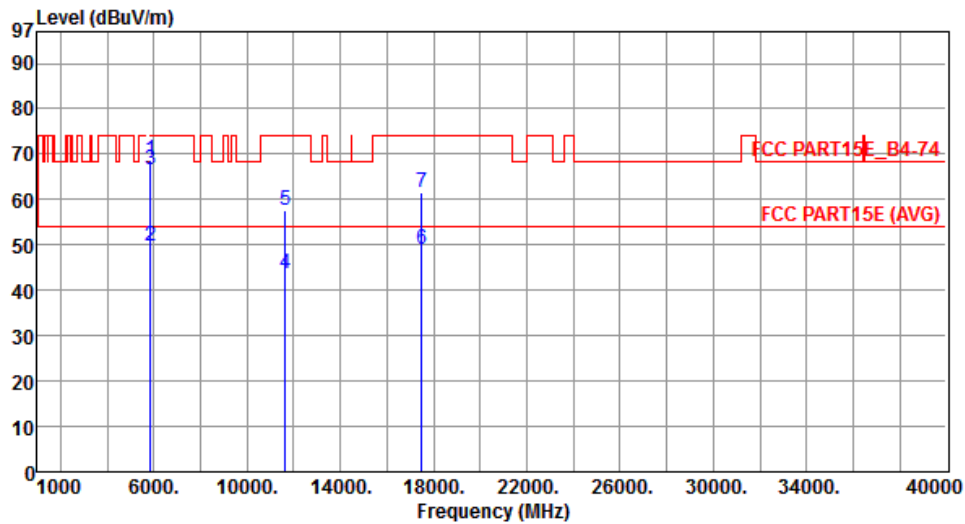
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	74.86	78.20	-3.34	69.11	5.75	Peak	218	318
2	5860.00	52.94	54.00	-1.06	47.18	5.76	Average	218	318
3	5860.00	67.18	74.00	-6.82	61.42	5.76	Peak	218	318
4	11650.00	42.72	54.00	-11.28	27.16	15.56	Average	300	165
5	11650.00	56.89	74.00	-17.11	41.33	15.56	Peak	300	165
6	17475.00	48.68	54.00	-5.32	28.26	20.42	Average	352	291
7	17475.00	62.06	74.00	-11.94	41.64	20.42	Peak	352	291

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Vertical	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	5850.00	68.72	78.20	-9.48	62.97	5.75	Peak	277	353
2	5860.00	49.75	54.00	-4.25	43.99	5.76	Average	277	353
3	5860.00	66.48	74.00	-7.52	60.72	5.76	Peak	285	277
4	11650.00	43.72	54.00	-10.28	28.16	15.56	Average	300	161
5	11650.00	57.70	74.00	-16.30	42.14	15.56	Peak	300	161
6	17475.00	48.97	54.00	-5.03	28.55	20.42	Average	276	335
7	17475.00	61.67	74.00	-12.33	41.25	20.42	Peak	218	318

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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

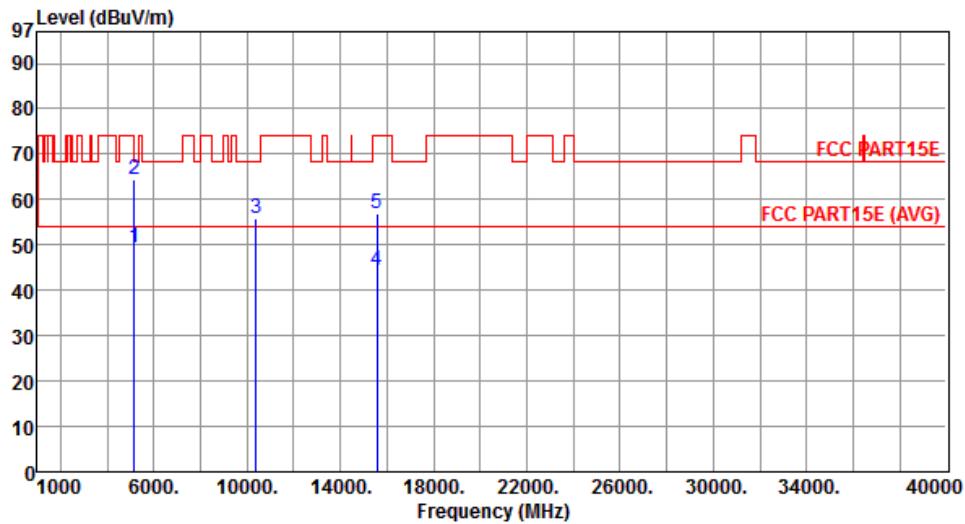
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.95	54.00	-1.05	47.49	5.46	Average	251	63
2	5150.00	65.92	74.00	-8.08	60.46	5.46	Peak	251	63
3	10380.00	55.98	68.20	-12.22	40.50	15.48	Peak	155	325
4	15570.00	44.51	54.00	-9.49	28.83	15.68	Average	173	322
5	15570.00	57.12	74.00	-16.88	41.44	15.68	Peak	173	322

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

Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Vertical	Test Configuration	1



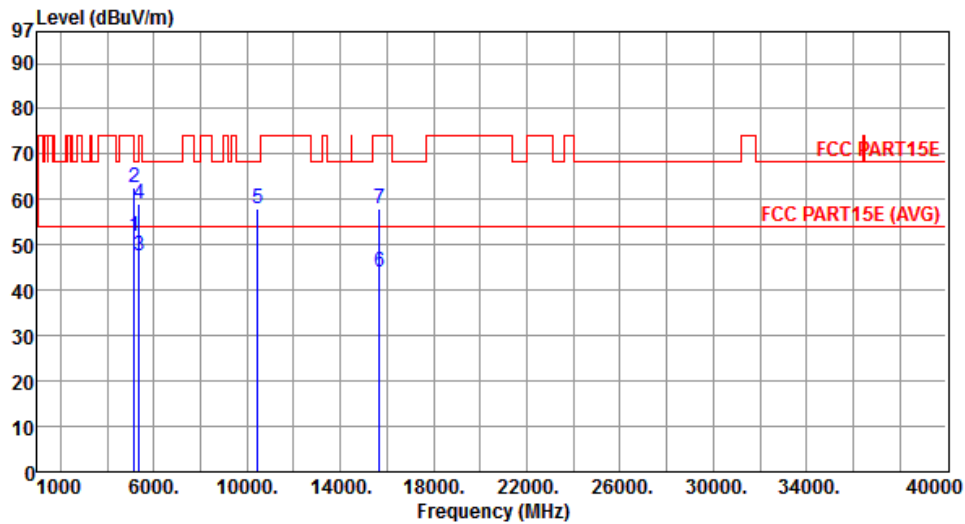
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.31	54.00	-4.69	43.85	5.46	Average	287	2
2	5150.00	64.31	74.00	-9.69	58.85	5.46	Peak	287	2
3	10380.00	55.71	68.20	-12.49	40.23	15.48	Peak	233	339
4	15570.00	44.43	54.00	-9.57	28.75	15.68	Average	246	313
5	15570.00	57.08	74.00	-16.92	41.40	15.68	Peak	246	313

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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



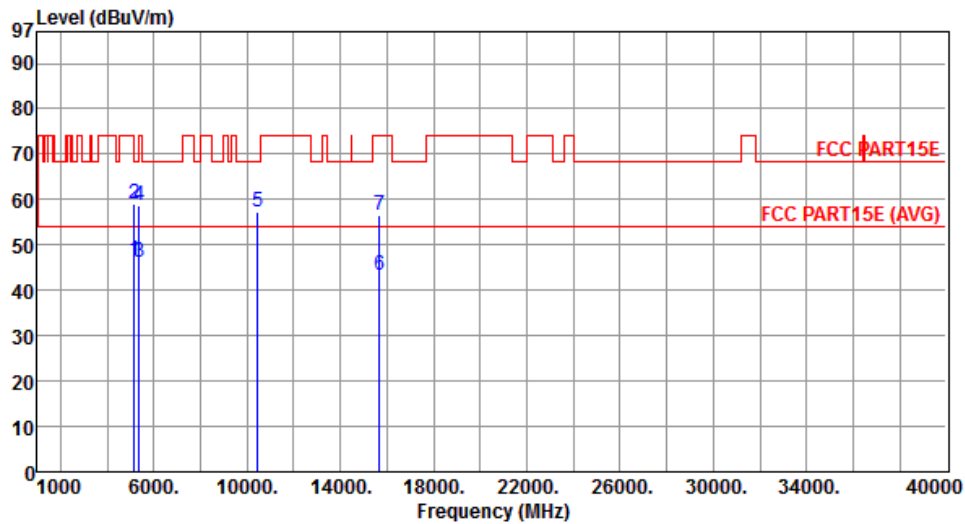
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.89	54.00	-2.11	46.43	5.46	Average	267	57
2	5150.00	62.73	74.00	-11.27	57.27	5.46	Peak	267	57
3	5350.00	47.64	54.00	-6.36	42.08	5.56	Average	267	57
4	5350.00	59.05	74.00	-14.95	53.49	5.56	Peak	267	57
5	10460.00	57.98	68.20	-10.22	42.20	15.78	Peak	195	315
6	15690.00	43.98	54.00	-10.02	28.77	15.21	Average	188	330
7	15690.00	57.87	74.00	-16.13	42.66	15.21	Peak	188	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).

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



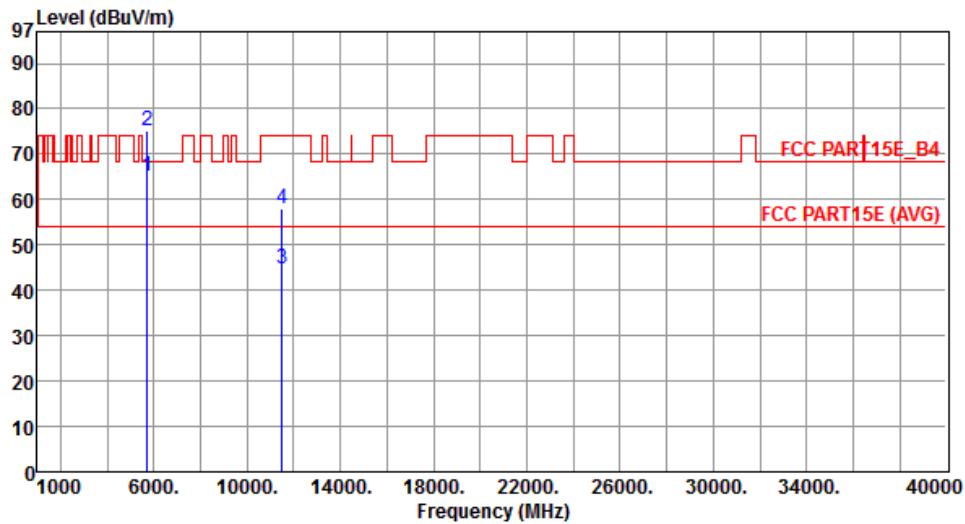
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.59	54.00	-7.41	41.13	5.46	Average	244	344
2	5150.00	59.18	74.00	-14.82	53.72	5.46	Peak	244	344
3	5350.00	46.12	54.00	-7.88	40.56	5.56	Average	244	344
4	5350.00	58.82	74.00	-15.18	53.26	5.56	Peak	244	344
5	10460.00	57.11	68.20	-11.09	41.33	15.78	Peak	169	320
6	15690.00	43.24	54.00	-10.76	28.03	15.21	Average	157	333
7	15690.00	56.61	74.00	-17.39	41.40	15.21	Peak	157	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).

Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal	Test Configuration	1



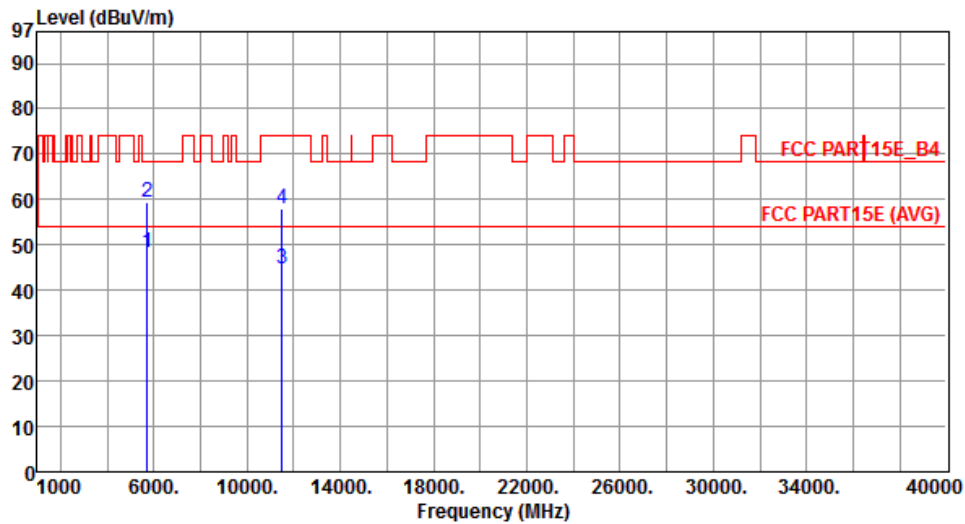
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	64.97	68.20	-3.23	59.32	5.65	Peak	289	50
2	5725.00	75.16	78.20	-3.04	69.52	5.64	Peak	289	50
3	11510.00	44.83	54.00	-9.17	28.91	15.92	Average	256	16
4	11510.00	57.93	74.00	-16.07	42.01	15.92	Peak	256	16

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical	Test Configuration	1



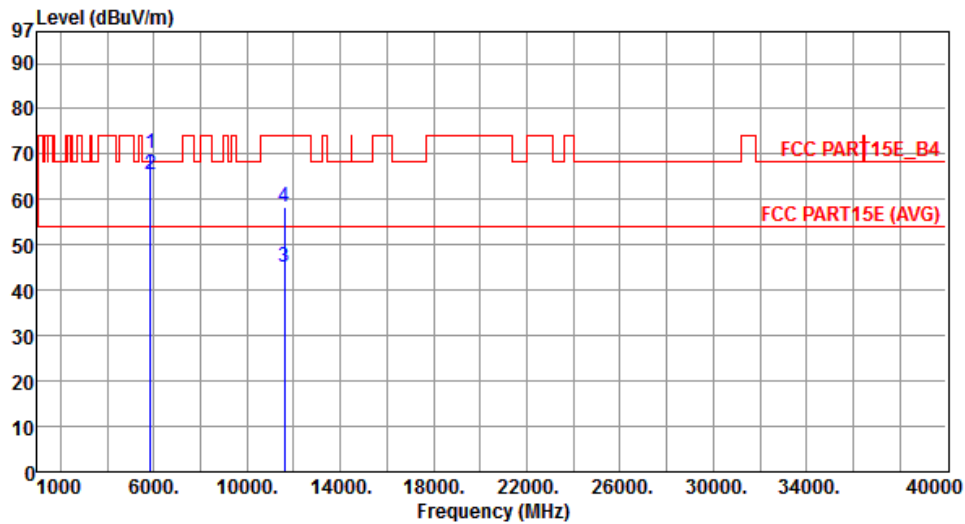
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	48.19	68.20	-20.01	42.54	5.65	Peak	380	18
2	5725.00	59.59	78.20	-18.61	53.95	5.64	Peak	380	18
3	11510.00	44.77	54.00	-9.23	28.85	15.92	Average	186	356
4	11510.00	57.98	74.00	-16.02	42.06	15.92	Peak	186	356

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal	Test Configuration	1



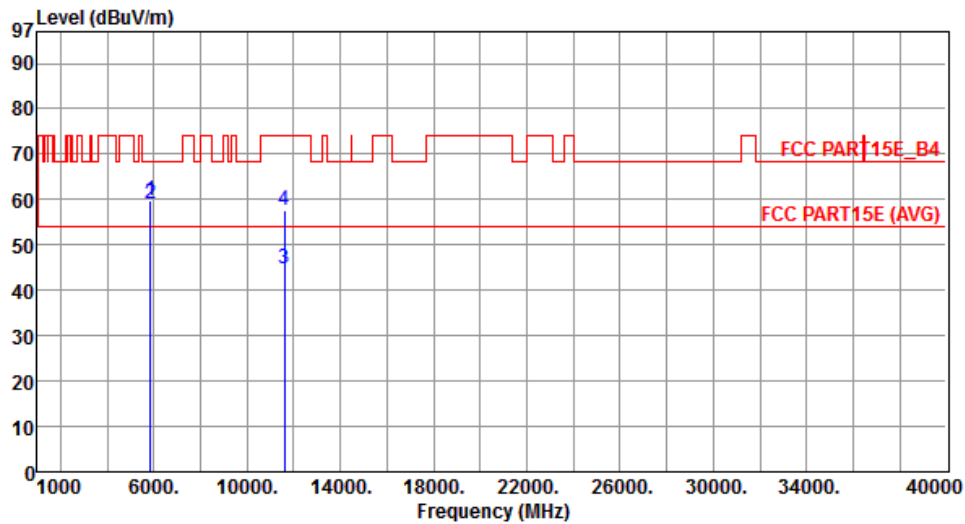
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	70.12	78.20	-8.08	64.37	5.75	Peak	266	52
2	5860.00	65.62	68.20	-2.58	59.86	5.76	Peak	266	52
3	11590.00	44.93	54.00	-9.07	29.22	15.71	Average	246	87
4	11590.00	58.36	74.00	-15.64	42.65	15.71	Peak	246	87

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical	Test Configuration	1



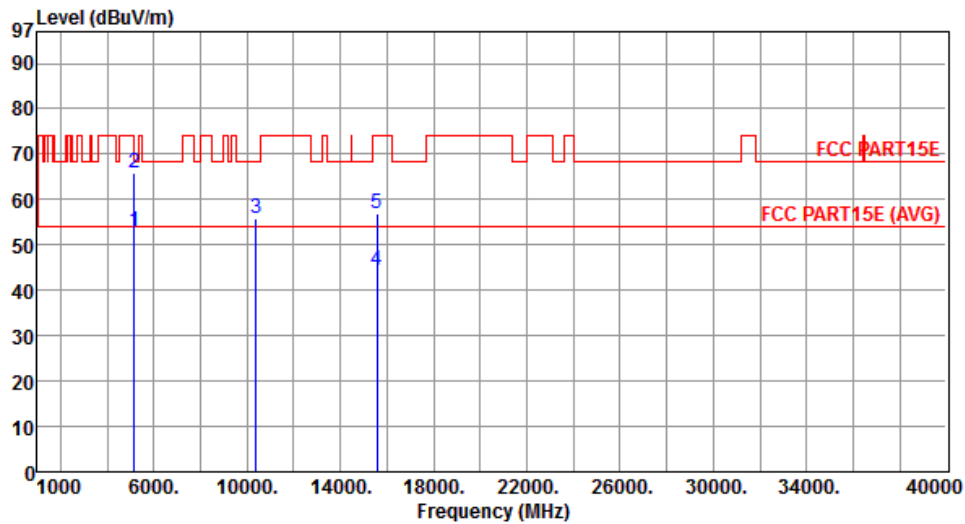
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	59.88	78.20	-18.32	54.13	5.75	Peak	383	19
2	5860.00	59.16	68.20	-9.04	53.40	5.76	Peak	383	19
3	11590.00	44.76	54.00	-9.24	29.05	15.71	Average	177	346
4	11590.00	57.63	74.00	-16.37	41.92	15.71	Peak	177	346

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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



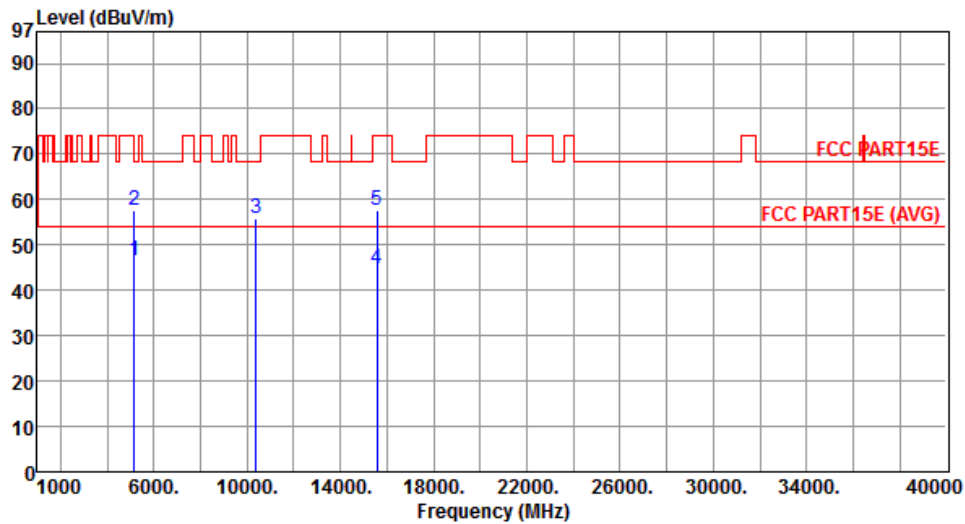
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.91	54.00	-1.09	47.45	5.46	Average	215	327
2	5150.00	65.98	74.00	-8.02	60.52	5.46	Peak	215	327
3	10380.00	55.94	68.20	-12.26	40.46	15.48	Peak	165	333
4	15570.00	44.45	54.00	-9.55	28.77	15.68	Average	186	344
5	15570.00	57.05	74.00	-16.95	41.37	15.68	Peak	186	344

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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



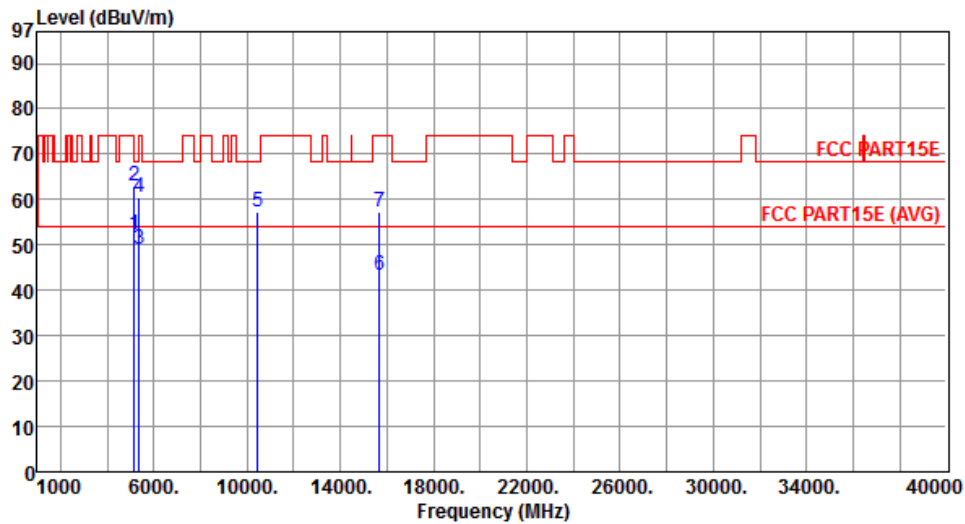
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.65	54.00	-7.35	41.19	5.46	Average	279	17
2	5150.00	57.71	74.00	-16.29	52.25	5.46	Peak	279	17
3	10380.00	55.89	68.20	-12.31	40.41	15.48	Peak	246	345
4	15570.00	44.57	54.00	-9.43	28.89	15.68	Average	251	322
5	15570.00	57.54	74.00	-16.46	41.86	15.68	Peak	251	322

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



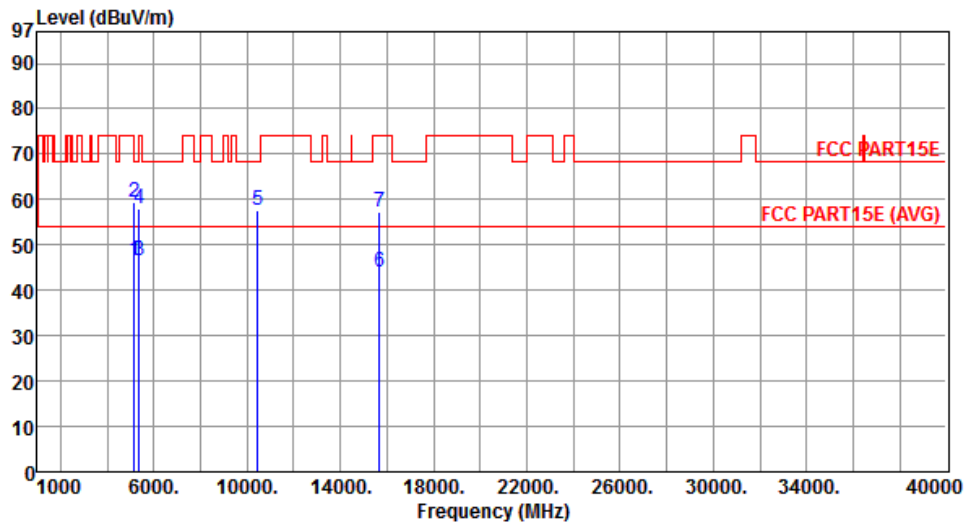
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.17	54.00	-1.83	46.71	5.46	Average	193	326
2	5150.00	62.88	74.00	-11.12	57.42	5.46	Peak	193	326
3	5350.00	48.95	54.00	-5.05	43.39	5.56	Average	193	326
4	5350.00	60.60	74.00	-13.40	55.04	5.56	Peak	193	326
5	10460.00	57.13	68.20	-11.07	41.35	15.78	Peak	156	302
6	15690.00	43.41	54.00	-10.59	28.20	15.21	Average	158	284
7	15690.00	57.14	74.00	-16.86	41.93	15.21	Peak	158	284

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



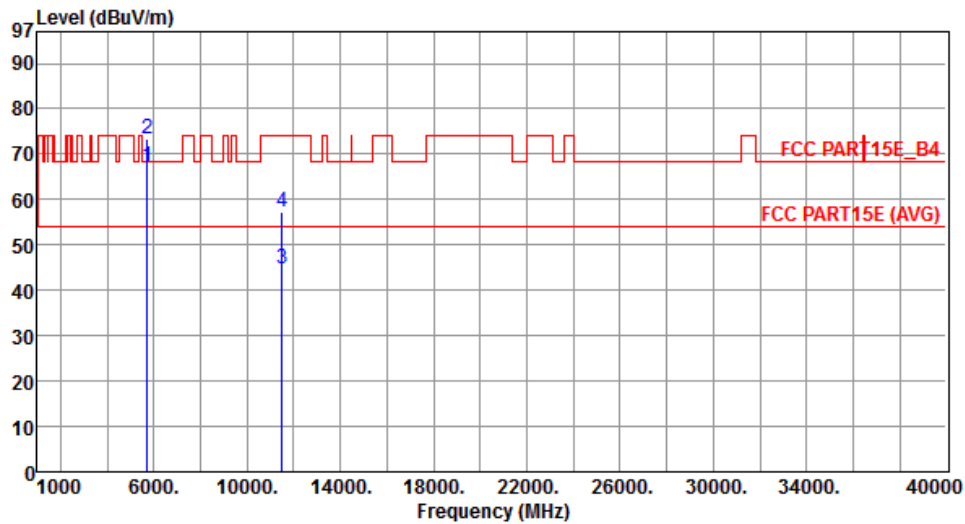
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.67	54.00	-7.33	41.21	5.46	Average	233	326
2	5150.00	59.26	74.00	-14.74	53.80	5.46	Peak	233	326
3	5350.00	46.45	54.00	-7.55	40.89	5.56	Average	233	326
4	5350.00	58.03	74.00	-15.97	52.47	5.56	Peak	233	326
5	10460.00	57.74	68.20	-10.46	41.96	15.78	Peak	210	312
6	15690.00	44.10	54.00	-9.90	28.89	15.21	Average	173	346
7	15690.00	57.24	74.00	-16.76	42.03	15.21	Peak	173	346

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



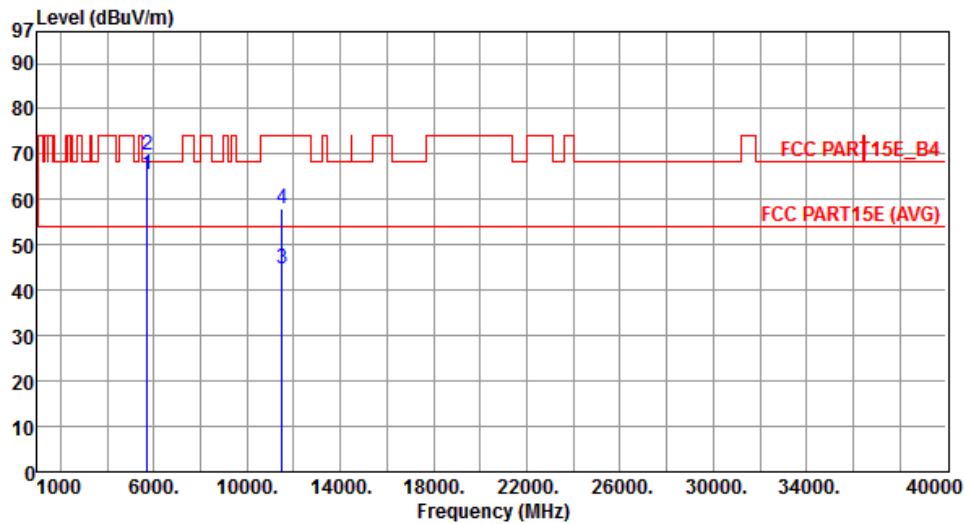
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	67.13	68.20	-1.07	61.48	5.65	Peak	234	302
2	5725.00	73.43	78.20	-4.77	67.79	5.64	Peak	234	302
3	11510.00	44.68	54.00	-9.32	28.76	15.92	Average	213	322
4	11510.00	57.27	74.00	-16.73	41.35	15.92	Peak	213	322

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



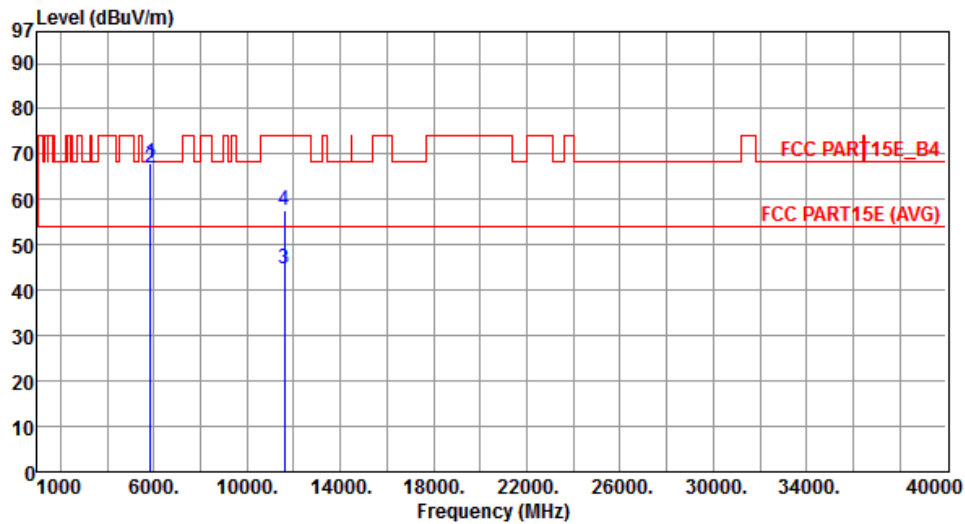
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	65.53	68.20	-2.67	59.88	5.65	Peak	291	342
2	5725.00	69.64	78.20	-8.56	64.00	5.64	Peak	291	342
3	11510.00	44.75	54.00	-9.25	28.83	15.92	Average	177	325
4	11510.00	57.90	74.00	-16.10	41.98	15.92	Peak	177	325

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



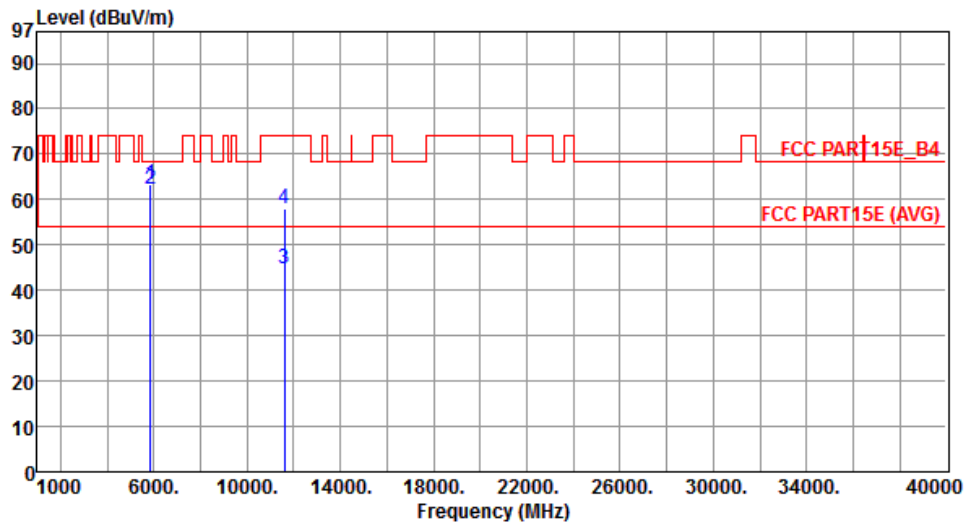
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	68.10	78.20	-10.10	62.35	5.75	Peak	221	304
2	5860.00	67.02	68.20	-1.18	61.26	5.76	Peak	221	304
3	11590.00	44.74	54.00	-9.26	29.03	15.71	Average	198	316
4	11590.00	57.58	74.00	-16.42	41.87	15.71	Peak	198	316

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical	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	5850.00	63.40	78.20	-14.80	57.65	5.75	Peak	257	334
2	5860.00	62.12	68.20	-6.08	56.36	5.76	Peak	257	334
3	11590.00	44.84	54.00	-9.16	29.13	15.71	Average	325	31
4	11590.00	58.04	74.00	-15.96	42.33	15.71	Peak	325	31

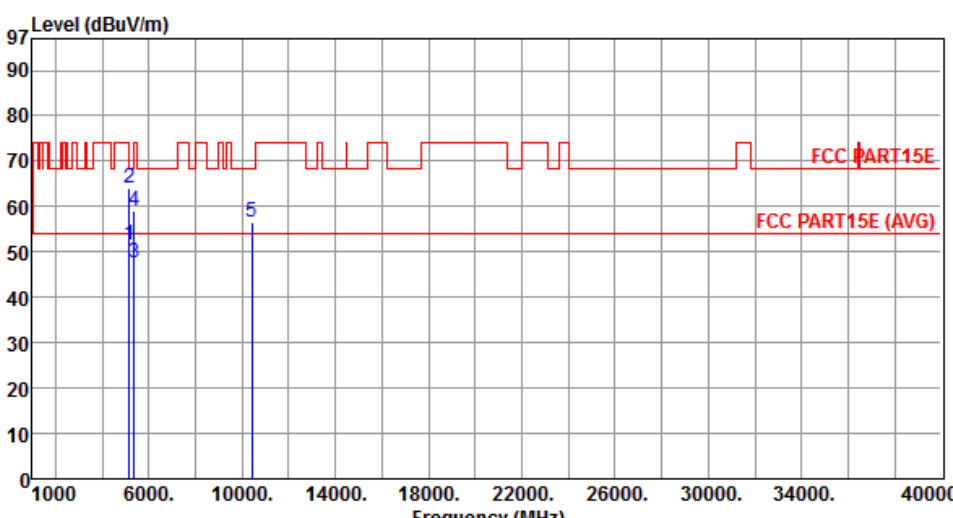
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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

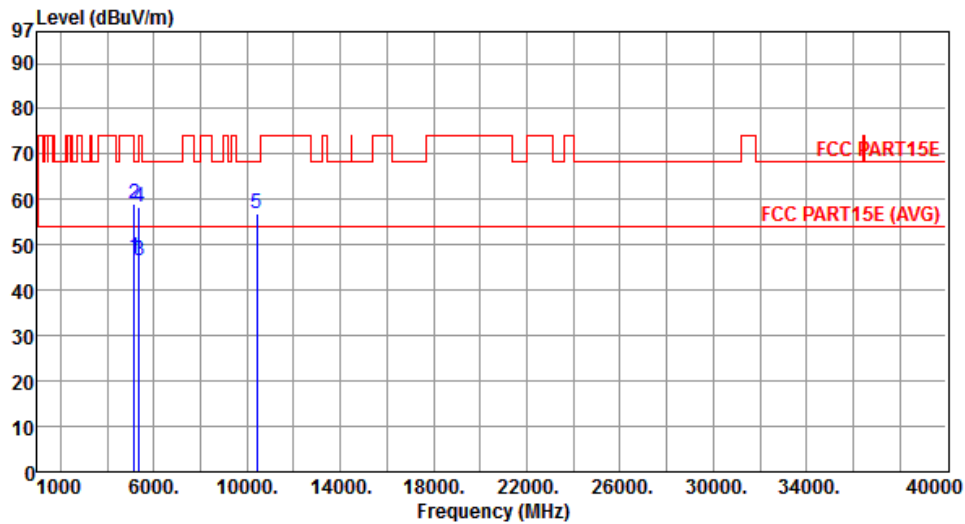
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.40	54.00	-2.60	45.94	5.46	Average	211	44
2	5150.00	64.19	74.00	-9.81	58.73	5.46	Peak	211	44
3	5350.00	47.45	54.00	-6.55	41.89	5.56	Average	285	66
4	5350.00	59.22	74.00	-14.78	53.66	5.56	Peak	285	66
5	10420.00	56.61	68.20	-11.59	40.98	15.63	Peak	187	77

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

Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical	Test Configuration	1



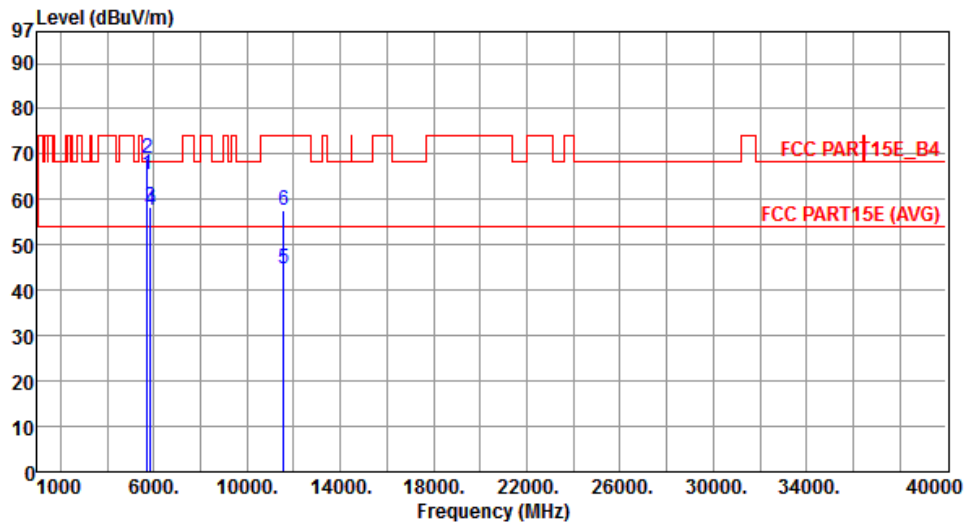
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.16	54.00	-6.84	41.70	5.46	Average	350	14
2	5150.00	58.96	74.00	-15.04	53.50	5.46	Peak	350	14
3	5350.00	46.62	54.00	-7.38	41.06	5.56	Average	350	14
4	5350.00	58.27	74.00	-15.73	52.71	5.56	Peak	350	14
5	10420.00	56.95	68.20	-11.25	41.32	15.63	Peak	198	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).

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal	Test Configuration	1



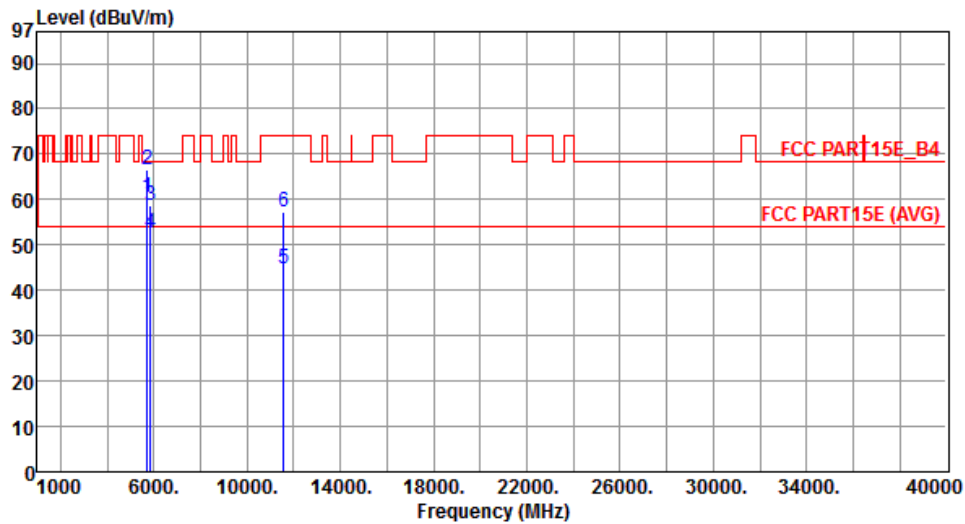
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	65.42	68.20	-2.78	59.77	5.65	Peak	250	50
2	5725.00	68.94	78.20	-9.26	63.30	5.64	Peak	250	50
3	5850.00	58.46	78.20	-19.74	52.71	5.75	Peak	250	50
4	5860.00	57.79	68.20	-10.41	52.03	5.76	Peak	250	50
5	11550.00	44.75	54.00	-9.25	28.94	15.81	Average	182	344
6	11550.00	57.53	74.00	-16.47	41.72	15.81	Peak	182	344

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Vertical	Test Configuration	1



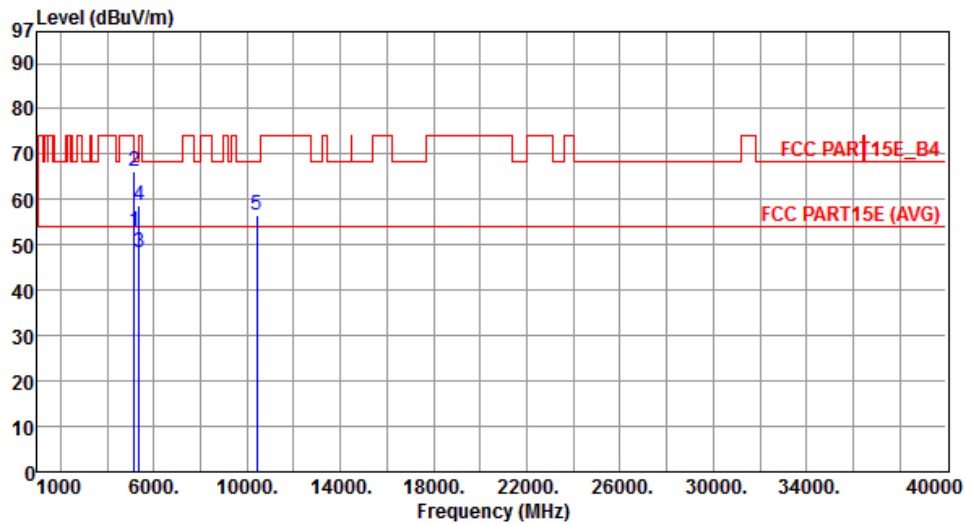
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	60.41	68.20	-7.79	54.76	5.65	Peak	368	0
2	5725.00	66.66	78.20	-11.54	61.02	5.64	Peak	368	0
3	5850.00	58.63	78.20	-19.57	52.88	5.75	Peak	368	0
4	5860.00	52.67	68.20	-15.53	46.91	5.76	Peak	368	0
5	11550.00	44.63	54.00	-9.37	28.82	15.81	Average	188	38
6	11550.00	57.38	74.00	-16.62	41.57	15.81	Peak	188	38

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

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



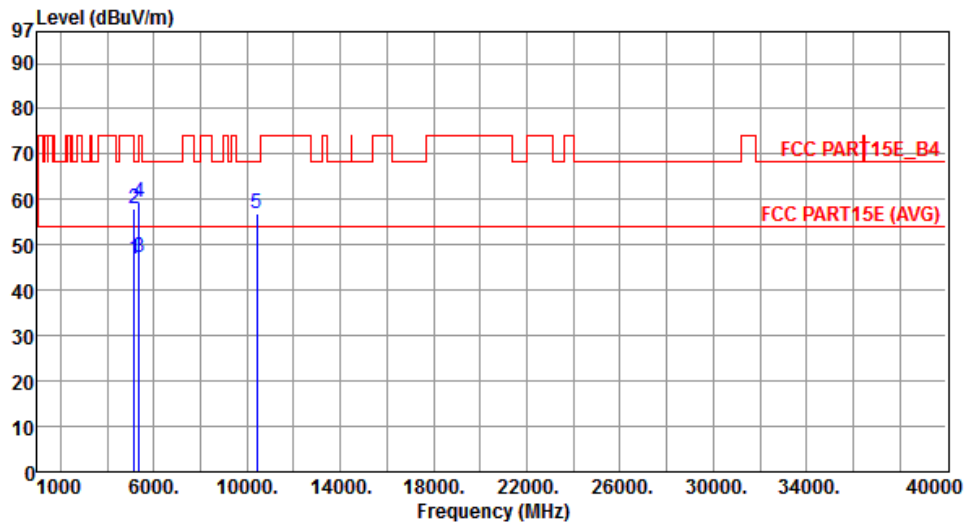
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.99	54.00	-1.01	47.53	5.46	Average	202	322
2	5150.00	66.26	74.00	-7.74	60.80	5.46	Peak	202	322
3	5350.00	48.29	54.00	-5.71	42.73	5.56	Average	202	322
4	5350.00	58.53	74.00	-15.47	52.97	5.56	Peak	202	322
5	10420.00	56.48	68.20	-11.72	40.85	15.63	Peak	156	335

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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



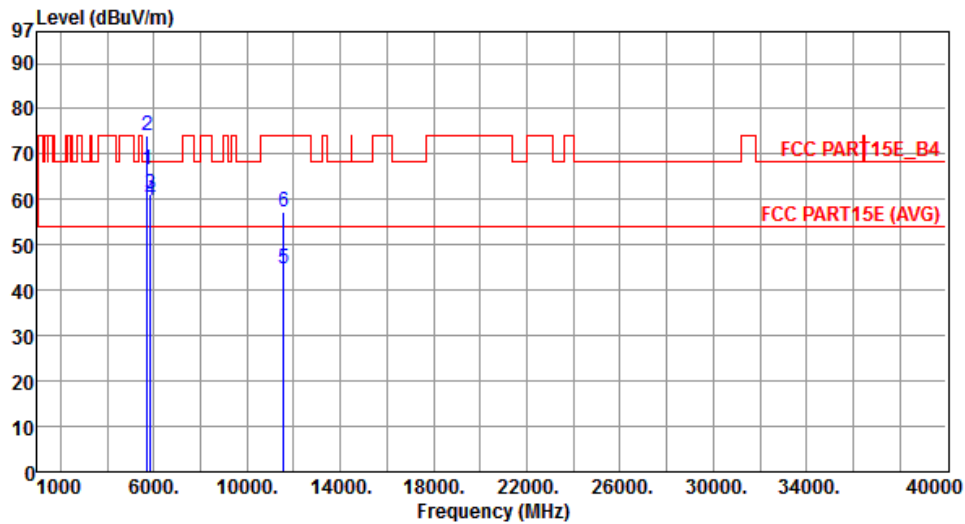
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.04	54.00	-6.96	41.58	5.46	Average	169	333
2	5150.00	58.04	74.00	-15.96	52.58	5.46	Peak	169	333
3	5350.00	47.29	54.00	-6.71	41.73	5.56	Average	169	333
4	5350.00	59.42	74.00	-14.58	53.86	5.56	Peak	169	333
5	10420.00	56.86	68.20	-11.34	41.23	15.63	Peak	150	33

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

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



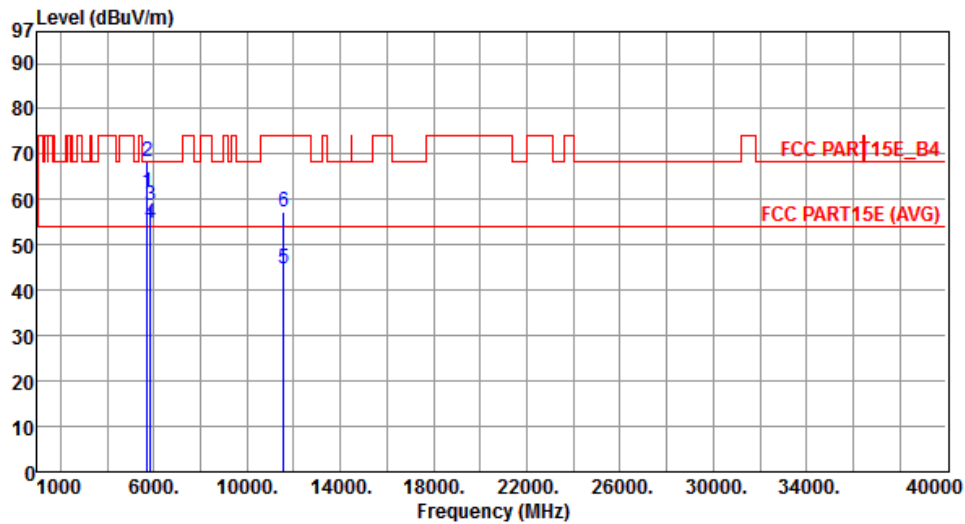
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	66.70	68.20	-1.50	61.05	5.65	Peak	221	309
2	5725.00	74.23	78.20	-3.97	68.59	5.64	Peak	221	309
3	5850.00	61.29	78.20	-16.91	55.54	5.75	Peak	221	309
4	5860.00	59.89	68.20	-8.31	54.13	5.76	Peak	221	309
5	11550.00	44.61	54.00	-9.39	28.80	15.81	Average	181	310
6	11550.00	57.23	74.00	-16.77	41.42	15.81	Peak	181	310

Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Vertical	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	61.40	68.20	-6.80	55.75	5.65	Peak	194	329
2	5725.00	68.35	78.20	-9.85	62.71	5.64	Peak	194	329
3	5850.00	58.63	78.20	-19.57	52.88	5.75	Peak	194	329
4	5860.00	54.69	68.20	-13.51	48.93	5.76	Peak	194	329
5	11550.00	44.68	54.00	-9.32	28.87	15.81	Average	156	347
6	11550.00	57.40	74.00	-16.60	41.59	15.81	Peak	156	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).

3.6 Frequency Stability

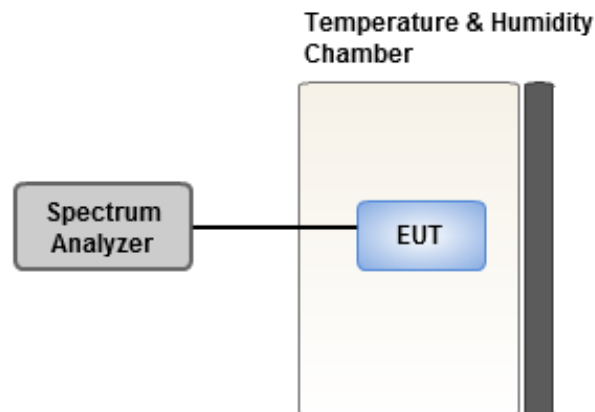
3.6.1 Limit of Frequency Stability

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°C Vmax	6.37	6.98	6.09	6.82
T20°C Vmin	3.85	3.68	3.73	4.26
T50°C Vnom	4.28	3.96	4.12	4.25
T40°C Vnom	3.66	3.65	4.29	4.15
T30°C Vnom	3.41	3.43	3.19	3.30
T20°C Vnom	2.27	2.10	2.75	2.53
T10°C Vnom	2.52	2.58	2.22	2.67
T0°C Vnom	2.79	2.32	2.47	3.18
T-10°C Vnom	1.59	1.49	1.75	2.13
T-20°C Vnom	1.06	1.88	1.16	1.25
T-30°C Vnom	0.81	1.28	1.08	0.88
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°C Vmax	6.32	6.48	5.87	6.05
T20°C Vmin	3.94	4.03	4.59	4.25
T50°C Vnom	4.57	4.58	4.45	4.23
T40°C Vnom	3.84	3.77	3.72	3.74
T30°C Vnom	3.61	3.72	3.66	3.75
T20°C Vnom	2.41	2.67	2.73	2.55
T10°C Vnom	2.66	2.66	2.81	2.85
T0°C Vnom	2.17	1.93	2.13	2.26
T-10°C Vnom	1.80	1.50	2.37	2.33
T-20°C Vnom	1.45	1.31	1.74	1.21
T-30°C Vnom	0.99	1.70	0.90	1.35
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>.

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Kwei Shan Site II

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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

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Email: ICC_Service@icertifi.com.tw

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