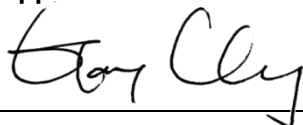


FCC C2PC Test Report

FCC ID : HDCWLAN203XF1
Equipment : 11ac 5G radio module
Model No. : PCE4551AH-BS
Brand Name : Adtran
Applicant : Adtran
Address : 901 Explorer Boulevard Huntsville, AL
35806-2807 United States
Standard : 47 CFR FCC Part 15.407
Received Date : May 13, 2016
Tested Date : May 16 ~ Jun. 10, 2016

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

Approved & Reviewed by:



Gary Chang / Manager



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Release Record

Report No.	Version	Description	Issued Date
FR651301	Rev. 01	Initial issue	Jul. 19, 2016

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.356MHz 38.22 (Margin -10.61dB) - QP	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 11490.00MHz 53.00 (Margin -1.00dB) - AV	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(e)	6dB bandwidth	Meet the requirement of limit	Pass
15.407(a)	RF Output Power	Max Power [dBm]: 5150-5250MHz: 25.36 5725-5850MHz: 25.14	Pass
15.407(a)	Peak Power Spectral Density	Meet the requirement of limit	Pass
15.407(g)	Frequency Stability	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

1 General Description

1.1 Information

This report is prepared for FCC class II change.

This report is issued as a FCC Class II Permissive Change for complying with New U-NII rule requirement. In this test report, all test items has been re-tested and its data was recorded in the following sections.

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS
5150-5250	a	5180-5240	36-48 [4]	3	6-54 Mbps
5150-5250	n (HT20)	5180-5240	36-48 [4]	3	MCS 0-23
5150-5250	n (HT40)	5190-5230	38-46 [2]	3	MCS 0-23
5150-5250	ac (VHT20)	5180-5240	36-48 [4]	3	MCS 0-9
5150-5250	ac (VHT40)	5190-5230	38-46 [2]	3	MCS 0-9
5150-5250	ac (VHT80)	5210	42 [1]	3	MCS 0-9
Note 1: RF output power specifies that Maximum Conducted Output Power.					
Note 2: 802.11a/n/ac uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.					

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS
5725-5850	a	5745-5825	149-165 [5]	3	6-54 Mbps
5725-5850	n (HT20)	5745-5825	149-165 [5]	3	MCS 0-23
5725-5850	n (HT40)	5755-5795	151-159 [2]	3	MCS 0-23
5725-5850	ac (VHT20)	5745-5825	149-165 [5]	3	MCS 0-9
5725-5850	ac (VHT40)	5755-5795	151-159 [2]	3	MCS 0-9
5725-5850	ac (VHT80)	5775	155 [1]	3	MCS 0-9
Note 1: RF output power specifies that Maximum Conducted Output Power.					
Note 2: 802.11a/n/ac uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.					

1.1.2 Antenna Details

Ant. No.	Model	Type	Operating Frequency (MHz) / Gain (dBi)		Connector
			5150~5250	5725~5850	
1	External antenna	Dipole	5.5	5.5	RPSMA
2	Internal antenna	PIFA	6	6	UFL

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	3.3Vdc from host
-------------------	------------------

1.1.4 Accessories

N/A

1.1.5 Channel List

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

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

1.1.6 Test Tool and Duty Cycle

Test Tool	Art2, Version: 4_9_51		
Duty Cycle and Duty Factor	Mode	Duty cycle (%)	Duty factor (dB)
	11a	98.26%	0.08
	VHT20	98.14%	0.08
	VHT40	94.76%	0.23
	VHT80	90.40%	0.44

1.1.7 Power Setting

Dipole antenna

For Frequency band 5150-5250 MHz		
Modulation Mode	Test Frequency (MHz)	Power Set
11a	5180	17.5
11a	5200	20
11a	5240	20
HT20	5180	17
HT20	5200	20
HT20	5240	20.5
HT40	5190	16.0
HT40	5230	21.0
VHT20	5180	17
VHT20	5200	20
VHT20	5240	20.5
VHT40	5190	16.0
VHT40	5230	21.0
VHT80	5210	14.5

For Frequency band 5725~5850 MHz		
Modulation Mode	Test Frequency (MHz)	Power Set
11a	5745	21.00
11a	5785	21.00
11a	5825	21.00
HT20	5745	21.00
HT20	5785	21.00
HT20	5825	21.00
HT40	5755	21.00
HT40	5795	21.00
VHT20	5745	21.00
VHT20	5785	21.00
VHT20	5825	21.00
VHT40	5755	21.00
VHT40	5795	21.00
VHT80	5775	15.50

PIFA antenna

For Frequency band 5150-5250 MHz		
Modulation Mode	Test Frequency (MHz)	Power Set
11a	5180	17.5
11a	5200	20
11a	5240	20
HT20	5180	17
HT20	5200	20
HT20	5240	20
HT40	5190	15.0
HT40	5230	21.0
VHT20	5180	17
VHT20	5200	20
VHT20	5240	20
VHT40	5190	15.0
VHT40	5230	21.0
VHT80	5210	13.0

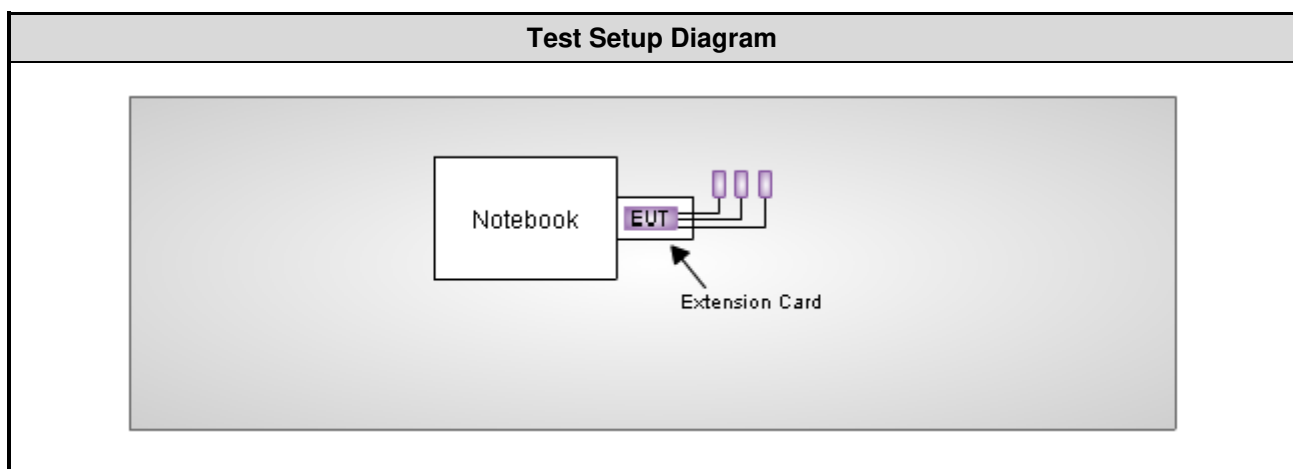
For Frequency band 5725~5850 MHz		
Modulation Mode	Test Frequency (MHz)	Power Set
11a	5745	19.5
11a	5785	19.5
11a	5825	19.5
HT20	5745	19.5
HT20	5785	19.5
HT20	5825	19.5
HT40	5755	20.00
HT40	5795	20.00
VHT20	5745	19.5
VHT20	5785	19.5
VHT20	5825	19.5
VHT40	5755	20.00
VHT40	5795	20.00
VHT80	5775	15.50

1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Signal cable / Length (m)
1	Notebook	DELL	Latitude E6430	DoC	---
2	Extension Card	---	---	---	---

Note: No.2 was provided 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. 21, 2015	Oct. 20, 2016
LISN	SCHWARZBECK	Schwarzbeck 8127	8127-667	Nov. 13, 2015	Nov. 12, 2016
LISN (Support Unit)	SCHWARZBECK	Schwarzbeck 8127	8127-666	Nov. 26, 2015	Nov. 25, 2016
RF Cable-CON	EMC	EMCCFD300-BM-BM-6000	50821	Dec. 21, 2015	Dec. 20, 2016
50 ohm terminal (Support Unit)	NA	50	04	Apr. 12, 2016	Apr. 11, 2017
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. 13, 2015	Dec. 12, 2016
Receiver	R&S	ESR3	101658	Nov. 04, 2015	Nov. 03, 2016
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Aug. 20, 2015	Aug. 19, 2016
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 16, 2015	Dec. 15, 2016
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 04, 2015	Nov. 03, 2016
Loop Antenna	R&S	HFH2-Z2	11900	Nov. 16, 2015	Nov. 15, 2016
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Dec. 10, 2015	Dec. 09, 2016
Preamplifier	Burgeon	BPA-530	SN:100219	Sep. 10, 2015	Sep. 09, 2016
Preamplifier	Agilent	83017A	MY39501308	Oct. 02, 2015	Oct. 01, 2016
Preamplifier	EMC	EMC184045B	980192	Sep. 01, 2015	Aug. 31, 2016
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Dec. 10, 2015	Dec. 09, 2016
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Dec. 10, 2015	Dec. 09, 2016
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16139/4	Dec. 10, 2015	Dec. 09, 2016
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Dec. 10, 2015	Dec. 09, 2016
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-002	Dec. 10, 2015	Dec. 09, 2016
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101063	Feb. 17, 2016	Feb. 16, 2017
Power Meter	Anritsu	ML2495A	1241002	Sep. 21, 2015	Sep. 20, 2016
Power Sensor	Anritsu	MA2411B	1207366	Sep. 21, 2015	Sep. 20, 2016
AC POWER SOURCE	APC	AFC-500W	F312060012	Oct. 26, 2015	Oct. 25, 2016
Measurement Software	Sporton	Sporton_1	1.3.30	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Testing Applied Standards

According to the specification of EUT, the EUT must comply with following standards and KDB documents.

47 CFR FCC Part 15.407

ANSI C63.10-2013

FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r02

FCC KDB 644545 D03 Guidance for IEEE 802.11ac New Rules v01

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

FCC KDB 412172 D01 Determining ERP and EIRP v01r01

1.6 Measurement Uncertainty

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

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	± 34.134 Hz
Conducted power	± 0.808 dB
Frequency error	± 34.134 Hz
Power density	± 0.463 dB
Conducted emission	± 2.670 dB
AC conducted emission	± 2.90 dB
Radiated emission ≤ 1 GHz	± 3.66 dB
Radiated emission > 1 GHz	± 5.63 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	22°C / 64%	Jun Tseng
Radiated Emissions	03CH01-WS	20-22°C / 61-63%	Vincent Yeh Warren Lee
RF Conducted	TH01-WS	23°C / 65%	Felix Sung

➤ FCC site registration No.: 181692

➤ 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	VHT20	5240	MCS 0	1, 2
Radiated Emissions ≤1GHz	VHT20	5240	MCS 0	1, 2
RF Output Power	11a	5180 / 5200 / 5240	6 Mbps	1, 2
	HT20	5180 / 5200 / 5240	MCS 0	
	HT40	5190 / 5230	MCS 0	
	VHT20	5180 / 5200 / 5240	MCS 0	
	VHT40	5190 / 5230	MCS 0	
	VHT80	5210	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a	5180 / 5200 / 5240	6 Mbps	1, 2
	VHT20	5180 / 5200 / 5240	MCS 0	
	VHT40	5190 / 5230	MCS 0	
	VHT80	5210	MCS 0	
Frequency Stability	Un-modulation	5200	---	1, 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 X-plane results were found as the worst case and were shown in this report. 2) 2 types antenna are used for this device, highest gain antenna of each type is selected to perform related tests as below test configuration. 1) Configuration 1 : Dipole antenna with 5.5dBi gain, X-plane 2) Configuration 2 : PIFA antenna with 6dBi gain, X-plane				

For Frequency band 5725-5850 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	VHT20	5745	MCS 0	1, 2
Radiated Emissions ≤1GHz	VHT20	5745	MCS 0	1, 2
RF Output Power	11a	5745 / 5785 / 5825	6 Mbps	1, 2
	HT20	5745 / 5785 / 5825	MCS 0	
	HT40	5755 / 5795	MCS 0	
	VHT20	5745 / 5785 / 5825	MCS 0	
	VHT40	5755 / 5795	MCS 0	
	VHT80	5775	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth 6dB bandwidth Peak Power Spectral Density	11a	5745 / 5785 / 5825	6 Mbps	1, 2
	VHT20	5745 / 5785 / 5825	MCS 0	
	VHT40	5755 / 5795	MCS 0	
	VHT80	5775	MCS 0	
Frequency Stability	Un-modulation	5785	---	1, 2
Note: - The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The X-plane results were found as the worst case and were shown in this report. 2 types antenna are used for this device, highest gain antenna of each type is selected to perform related tests as below test configuration. - Configuration 1 : Dipole antenna with 5.5dBi gain, X-plane - Configuration 2 : PIFA antenna with 6dBi gain, X-plane				

3 Transmitter Test Results

3.1 Conducted Emissions

3.1.1 Limit of Conducted Emissions

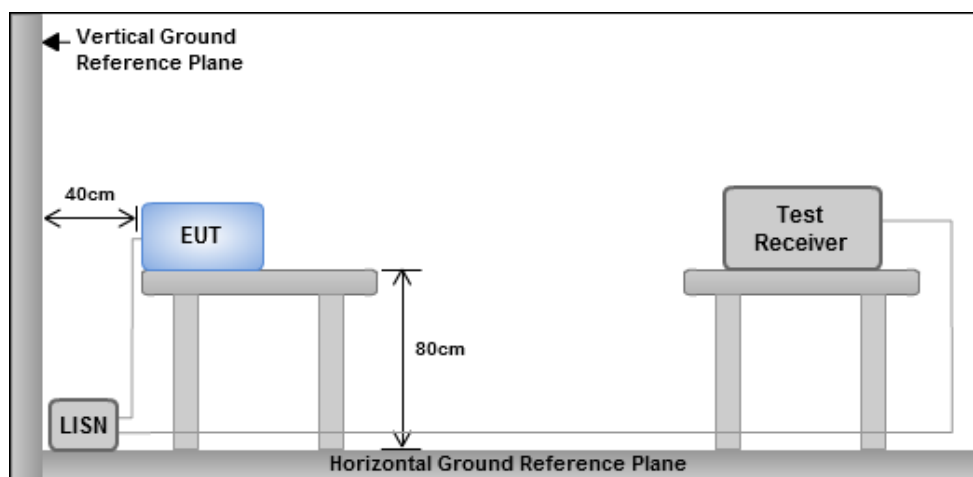
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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

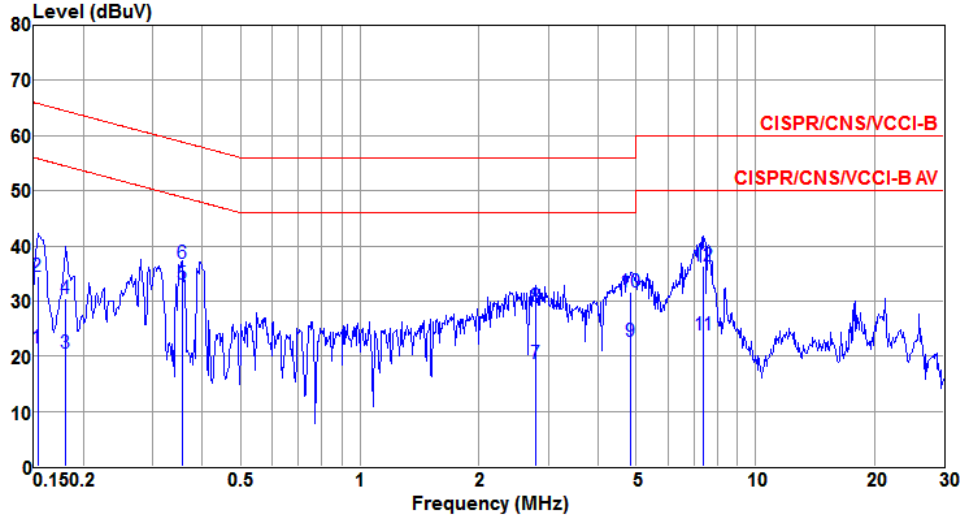


- Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

Dipole antenna

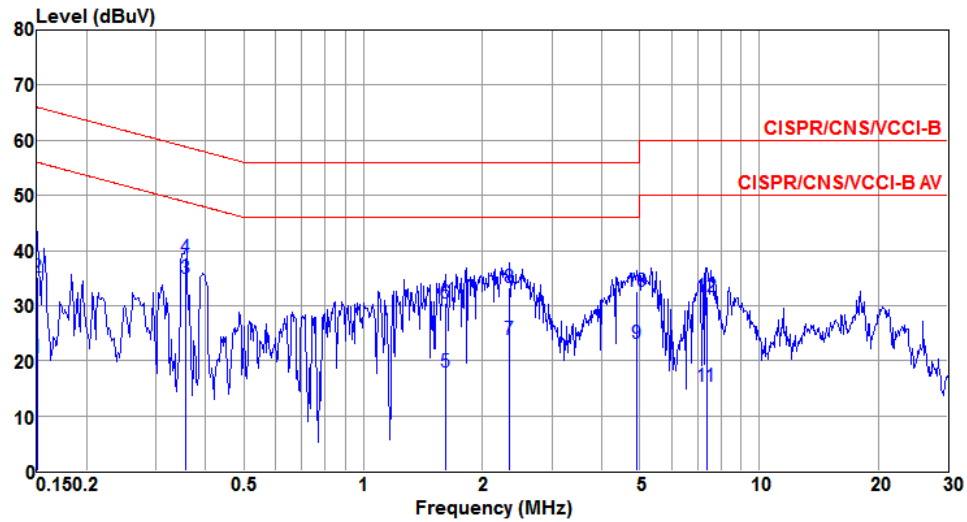
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Line	Test Configuration	1



	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.153	21.45	55.82	-34.37	21.32	0.11	0.02	Average
2	0.153	34.43	65.82	-31.39	34.30	0.11	0.02	QP
3	0.181	20.63	54.46	-33.83	20.50	0.11	0.02	Average
4	0.181	30.34	64.46	-34.12	30.21	0.11	0.02	QP
5@	0.356	33.11	48.83	-15.72	32.95	0.13	0.03	Average
6	0.356	36.84	58.83	-21.99	36.68	0.13	0.03	QP
7	2.779	18.67	46.00	-27.33	18.40	0.17	0.10	Average
8	2.779	29.03	56.00	-26.97	28.76	0.17	0.10	QP
9	4.848	22.64	46.00	-23.36	22.31	0.20	0.13	Average
10	4.848	31.66	56.00	-24.34	31.33	0.20	0.13	QP
11	7.407	23.80	50.00	-26.20	23.43	0.22	0.15	Average
12	7.407	36.25	60.00	-23.75	35.88	0.22	0.15	QP

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

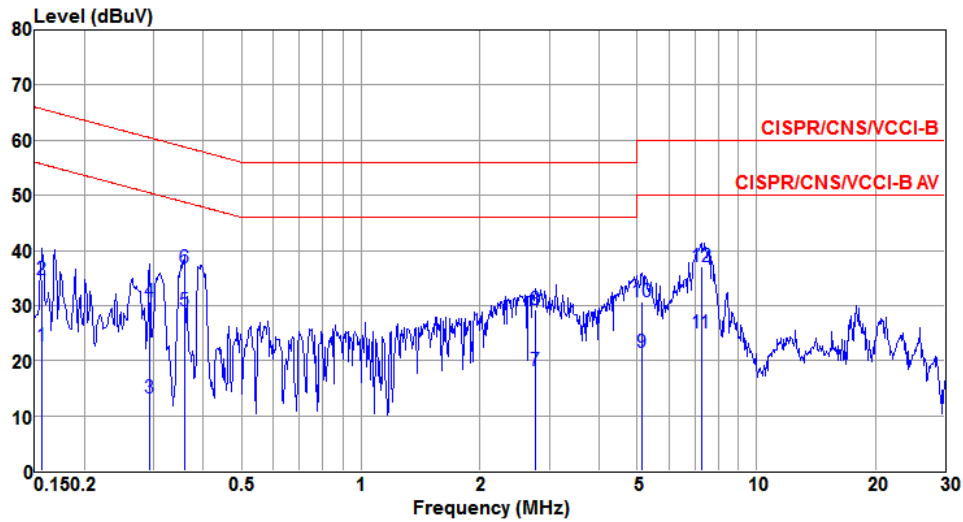
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Neutral	Test Configuration	1



	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1	0.150	20.60	56.00	-35.40	20.45	0.13	0.02	Average
2	0.150	35.06	66.00	-30.94	34.91	0.13	0.02	QP
3	0.356	34.91	48.83	-13.92	34.75	0.13	0.03	Average
4	0.356	38.64	58.83	-20.19	38.48	0.13	0.03	QP
5	1.610	17.90	46.00	-28.10	17.67	0.16	0.07	Average
6	1.610	30.50	56.00	-25.50	30.27	0.16	0.07	QP
7	2.346	23.93	46.00	-22.07	23.67	0.17	0.09	Average
8	2.346	33.38	56.00	-22.62	33.12	0.17	0.09	QP
9	4.900	23.07	46.00	-22.93	22.75	0.19	0.13	Average
10	4.900	32.61	56.00	-23.39	32.29	0.19	0.13	QP
11	7.368	15.26	50.00	-34.74	14.87	0.24	0.15	Average
12	7.368	31.59	60.00	-28.41	31.20	0.24	0.15	QP

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

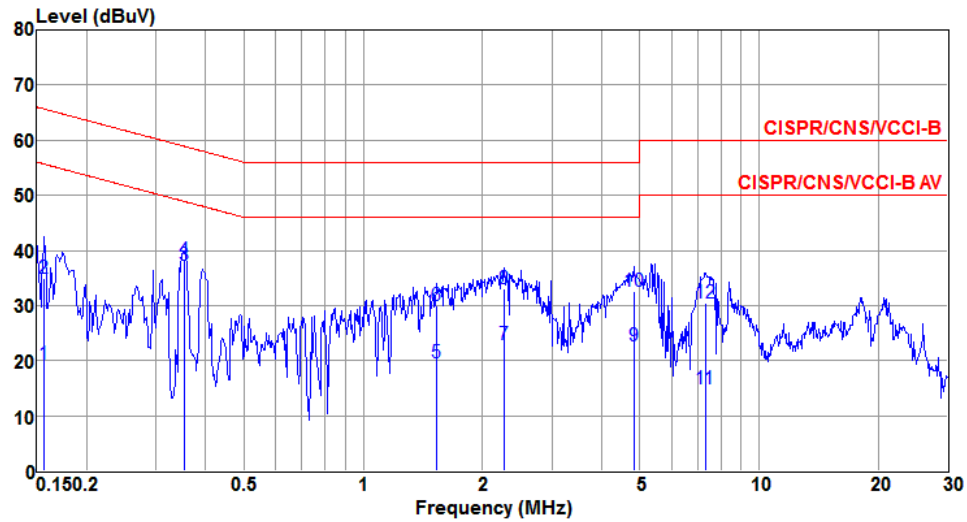
Modulation	VHT20	Test Freq. (MHz)	5745
Power Phase	Line	Test Configuration	1



	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line dBuV	Limit dB	Level dBuV	factor dB	loss dB	
1	0.156	22.78	55.65	-32.87	22.65	0.11	0.02	Average
2	0.156	34.64	65.65	-31.01	34.51	0.11	0.02	QP
3	0.292	13.34	50.46	-37.12	13.19	0.12	0.03	Average
4	0.292	30.78	60.46	-29.68	30.63	0.12	0.03	QP
5@	0.358	29.05	48.78	-19.73	28.89	0.13	0.03	Average
6	0.358	36.88	58.78	-21.90	36.72	0.13	0.03	QP
7	2.765	18.14	46.00	-27.86	17.87	0.17	0.10	Average
8	2.765	29.17	56.00	-26.83	28.90	0.17	0.10	QP
9	5.139	21.54	50.00	-28.46	21.21	0.20	0.13	Average
10	5.139	30.72	60.00	-29.28	30.39	0.20	0.13	QP
11	7.252	24.93	50.00	-25.07	24.56	0.22	0.15	Average
12	7.252	36.99	60.00	-23.01	36.62	0.22	0.15	QP

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

Modulation	VHT20	Test Freq. (MHz)	5745
Power Phase	Neutral	Test Configuration	1

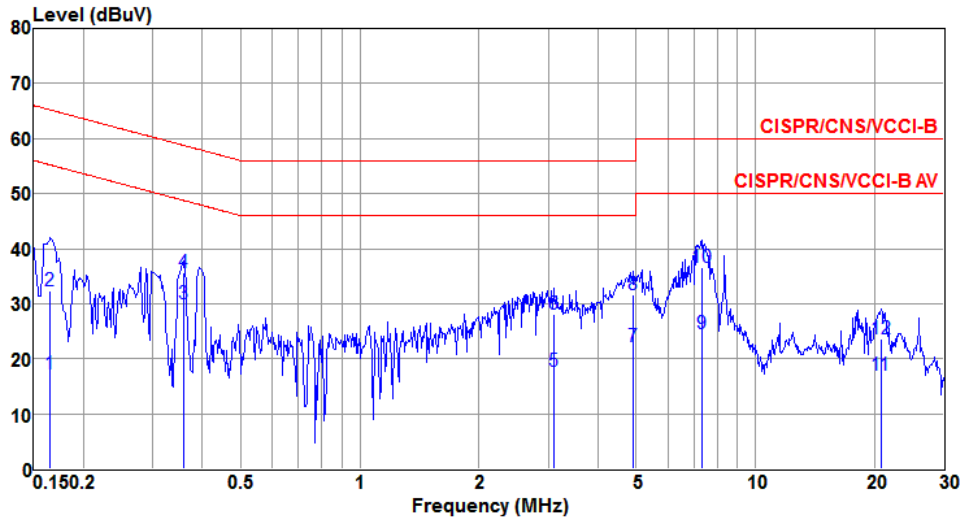


	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1	0.156	19.34	55.65	-36.31	19.19	0.13	0.02	Average
2	0.156	34.86	65.65	-30.79	34.71	0.13	0.02	QP
3@	0.352	37.19	48.91	-11.72	37.03	0.13	0.03	Average
4	0.352	38.33	58.91	-20.58	38.17	0.13	0.03	QP
5	1.527	19.70	46.00	-26.30	19.48	0.15	0.07	Average
6	1.527	30.04	56.00	-25.96	29.82	0.15	0.07	QP
7	2.273	22.99	46.00	-23.01	22.73	0.17	0.09	Average
8	2.273	33.13	56.00	-22.87	32.87	0.17	0.09	QP
9	4.822	22.73	46.00	-23.27	22.41	0.19	0.13	Average
10	4.822	32.53	56.00	-23.47	32.21	0.19	0.13	QP
11	7.329	14.96	50.00	-35.04	14.57	0.24	0.15	Average
12	7.329	30.48	60.00	-29.52	30.09	0.24	0.15	QP

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

PIFA antenna

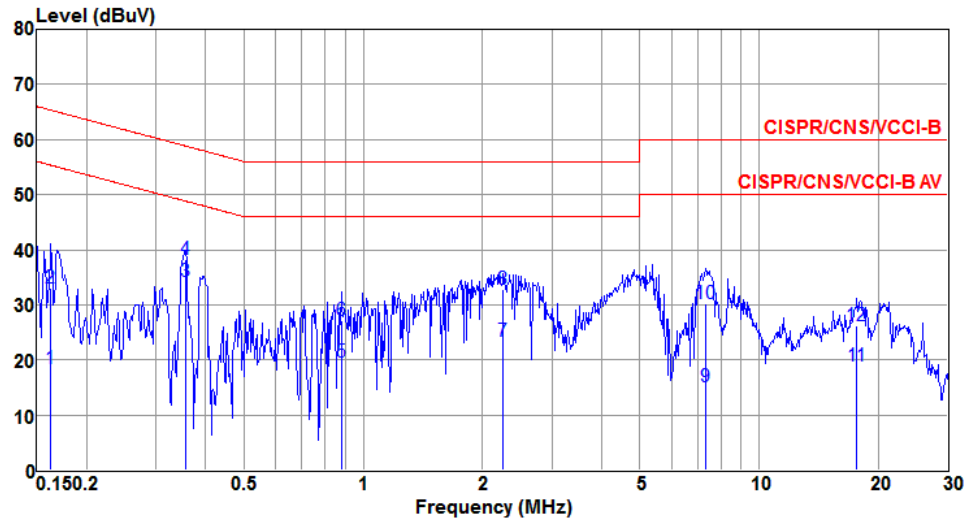
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Line	Test Configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.165	17.19	55.21	-38.02	17.06	0.11	0.02	Average
2	0.165	32.34	65.21	-32.87	32.21	0.11	0.02	QP
3	0.358	30.05	48.78	-18.73	29.89	0.13	0.03	Average
4	0.358	35.73	58.78	-23.05	35.57	0.13	0.03	QP
5	3.090	17.60	46.00	-28.40	17.31	0.18	0.11	Average
6	3.090	28.16	56.00	-27.84	27.87	0.18	0.11	QP
7	4.926	22.11	46.00	-23.89	21.78	0.20	0.13	Average
8	4.926	31.62	56.00	-24.38	31.29	0.20	0.13	QP
9	7.329	24.53	50.00	-25.47	24.16	0.22	0.15	Average
10	7.329	36.62	60.00	-23.38	36.25	0.22	0.15	QP
11	20.814	17.00	50.00	-33.00	16.44	0.38	0.18	Average
12	20.814	23.68	60.00	-36.32	23.12	0.38	0.18	QP

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

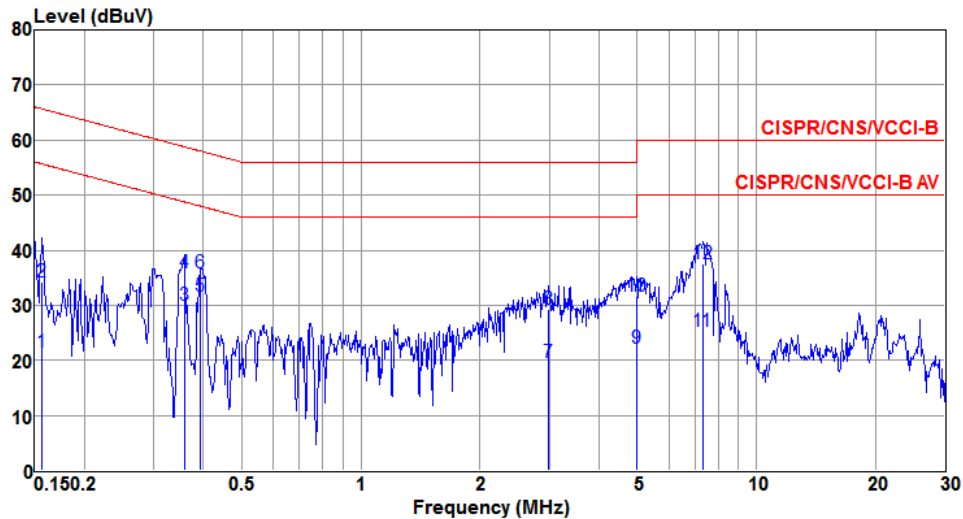
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Neutral	Test Configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1	0.162	18.53	65.34	-46.81	18.39	0.12	0.02	Average
2	0.162	33.16	55.34	-22.18	33.02	0.12	0.02	QP
3	0.356	34.14	58.83	-24.69	33.98	0.13	0.03	Average
4	0.356	38.22	48.83	-10.61	38.06	0.13	0.03	QP
5	0.880	19.53	56.00	-36.47	19.34	0.13	0.06	Average
6	0.880	27.22	46.00	-18.78	27.03	0.13	0.06	QP
7	2.261	23.29	56.00	-32.71	23.03	0.17	0.09	Average
8	2.261	32.84	46.00	-13.16	32.58	0.17	0.09	QP
9	7.329	15.16	60.00	-44.84	14.77	0.24	0.15	Average
10	7.329	30.32	50.00	-19.68	29.93	0.24	0.15	QP
11	17.661	18.82	60.00	-41.18	18.25	0.38	0.19	Average
12	17.661	26.21	50.00	-23.79	25.64	0.38	0.19	QP

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

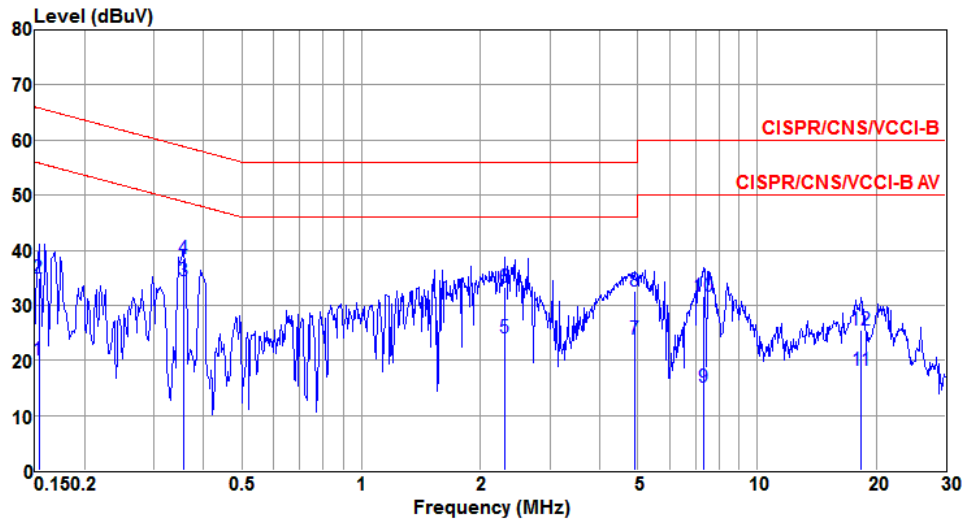
Modulation	VHT20	Test Freq. (MHz)	5745
Power Phase	Line	Test Configuration	2



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.156	21.43	65.65	-44.22	21.30	0.11	0.02	Average
2	0.156	34.22	65.65	-31.43	34.09	0.11	0.02	QP
3	0.358	30.05	58.78	-28.73	29.89	0.13	0.03	Average
4	0.358	35.85	58.78	-22.93	35.69	0.13	0.03	QP
5	0.391	31.72	58.03	-26.31	31.56	0.13	0.03	Average
6	0.391	35.92	58.03	-22.11	35.76	0.13	0.03	QP
7	2.978	19.68	56.00	-36.32	19.40	0.18	0.10	Average
8	2.978	29.32	56.00	-26.68	29.04	0.18	0.10	QP
9	4.978	22.25	56.00	-33.75	21.92	0.20	0.13	Average
10	4.978	31.63	56.00	-24.37	31.30	0.20	0.13	QP
11	7.329	25.28	60.00	-34.72	24.91	0.22	0.15	Average
12	7.329	37.60	60.00	-22.40	37.23	0.22	0.15	QP

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

Modulation	VHT20	Test Freq. (MHz)	5745
Power Phase	Neutral	Test Configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1	0.153	20.07	55.82	-35.75	19.92	0.13	0.02	Average
2	0.153	34.95	65.82	-30.87	34.80	0.13	0.02	QP
3@	0.356	34.37	48.83	-14.46	34.21	0.13	0.03	Average
4	0.356	38.52	58.83	-20.31	38.36	0.13	0.03	QP
5	2.297	23.97	46.00	-22.03	23.71	0.17	0.09	Average
6	2.297	33.33	56.00	-22.67	33.07	0.17	0.09	QP
7	4.900	23.86	46.00	-22.14	23.54	0.19	0.13	Average
8	4.900	32.55	56.00	-23.45	32.23	0.19	0.13	QP
9	7.329	15.09	50.00	-34.91	14.70	0.24	0.15	Average
10	7.329	31.56	60.00	-28.44	31.17	0.24	0.15	QP
11	18.328	18.14	50.00	-31.86	17.58	0.38	0.18	Average
12	18.328	25.61	60.00	-34.39	25.05	0.38	0.18	QP

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

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.

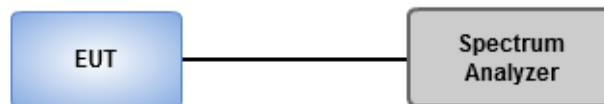
Occupied Bandwidth

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

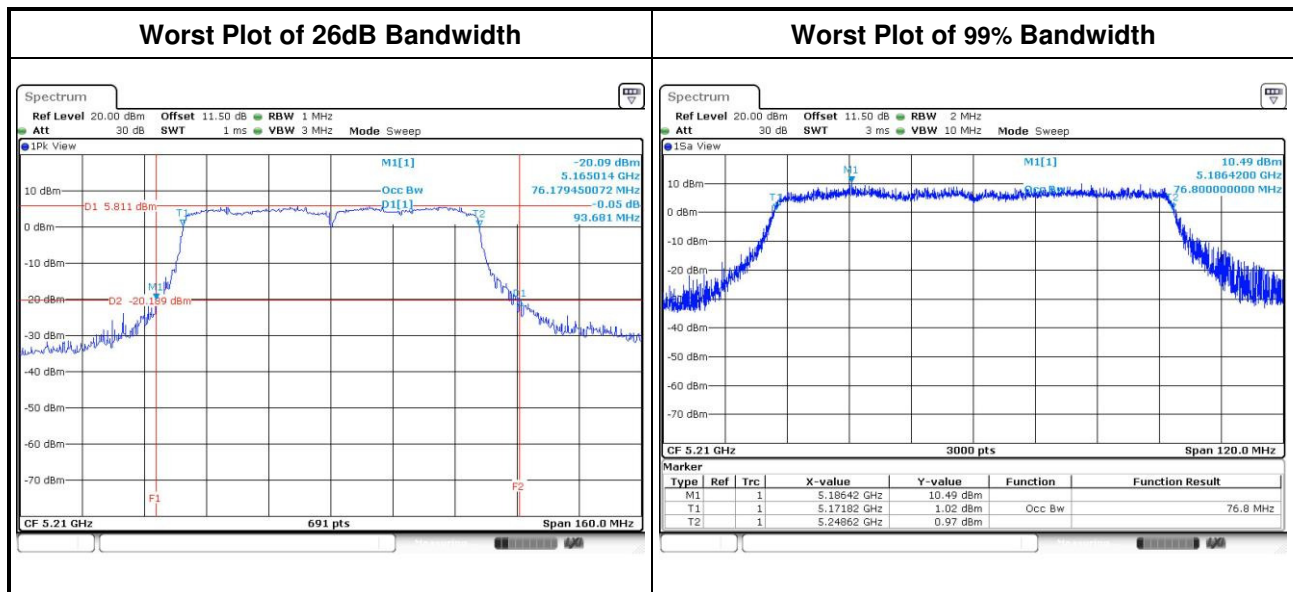
3.2.3 Test Setup



3.2.4 Test Result of Emission Bandwidth

Dipole antenna

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	23.42	23.13	22.72	---	16.97	16.85	16.83	---
11a	3	5200	27.83	27.59	28.64	---	17.02	16.92	16.96	---
11a	3	5240	28.93	26.26	28.35	---	17.11	16.89	16.94	---
VHT20	3	5180	23.83	24.35	24.74	---	18.03	17.99	17.96	---
VHT20	3	5200	29.51	26.84	29.80	---	18.16	18.07	18.09	---
VHT20	3	5240	28.64	24.35	29.68	---	18.32	18.14	18.25	---
VHT40	3	5190	49.74	46.96	50.32	---	37.10	36.96	36.90	---
VHT40	3	5230	62.03	52.75	58.32	---	37.42	37.22	37.12	---
VHT80	3	5210	93.68	92.52	89.97	---	76.48	76.80	76.64	---

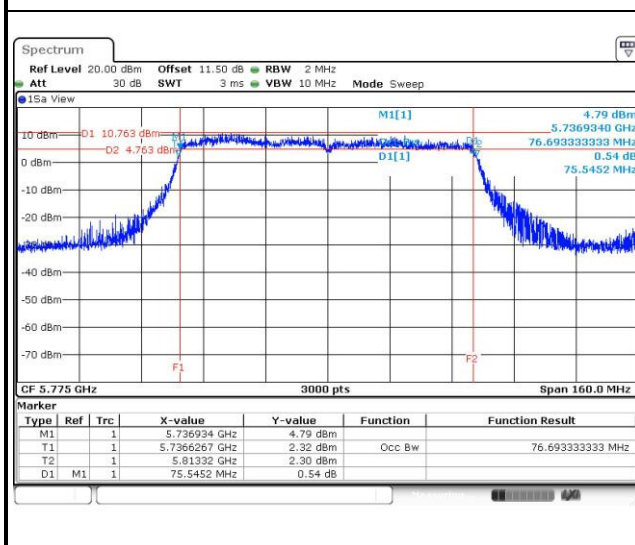


For Frequency band 5725-5850 MHz

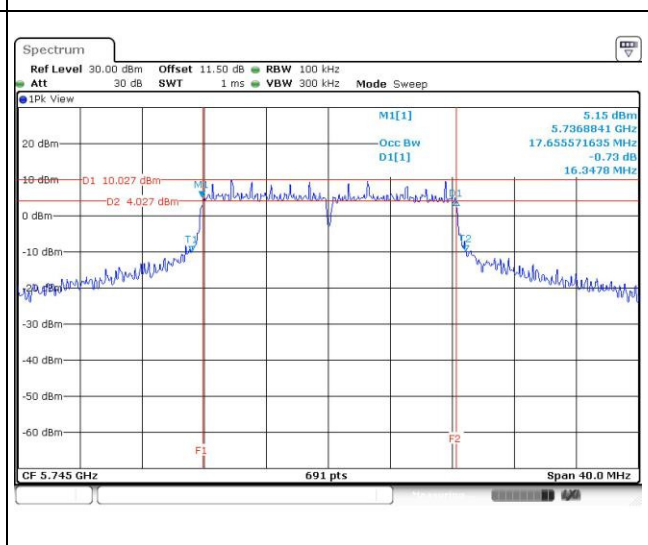
Emission Bandwidth

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	17.32	19.33	19.91	---	16.35	16.35	16.35	---	0.5
11a	3	5785	18.24	17.44	19.67	---	16.35	16.35	16.35	---	0.5
11a	3	5825	19.51	17.08	18.47	---	16.35	16.35	16.35	---	0.5
VHT20	3	5745	20.55	18.47	20.45	---	17.57	17.57	17.57	---	0.5
VHT20	3	5785	19.04	18.45	20.21	---	17.57	17.57	17.57	---	0.5
VHT20	3	5825	19.91	18.25	19.13	---	17.57	17.57	17.57	---	0.5
VHT40	3	5755	39.49	37.68	40.48	---	35.71	36.29	35.71	---	0.5
VHT40	3	5795	39.71	37.47	40.99	---	36.29	36.06	36.29	---	0.5
VHT80	3	5775	76.64	76.69	76.59	---	75.83	75.36	75.59	---	0.5

Worst Plot of 99% Bandwidth

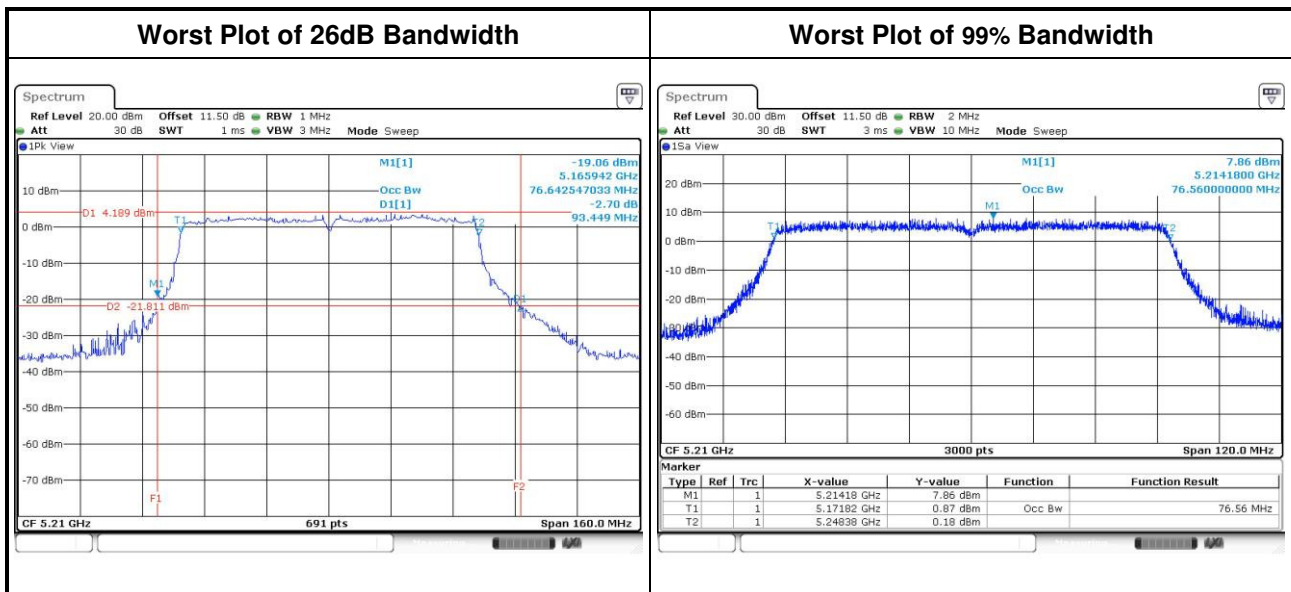


Worst Plot of 6dB Bandwidth



PIFA antenna

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	23.42	23.13	22.72	---	16.97	16.85	16.83	---
11a	3	5200	27.83	27.59	28.64	---	17.02	16.92	16.96	---
11a	3	5240	28.93	26.26	28.35	---	17.11	16.89	16.94	---
VHT20	3	5180	23.83	24.35	24.74	---	18.03	17.99	17.96	---
VHT20	3	5200	29.51	26.84	29.80	---	18.16	18.07	18.09	---
VHT20	3	5240	27.19	23.83	28.58	---	18.07	18.17	18.07	---
VHT40	3	5190	47.77	47.54	45.91	---	37.10	36.86	36.82	---
VHT40	3	5230	62.03	52.75	58.32	---	37.42	37.22	37.12	---
VHT80	3	5210	93.45	93.45	88.58	---	76.48	76.40	76.56	---

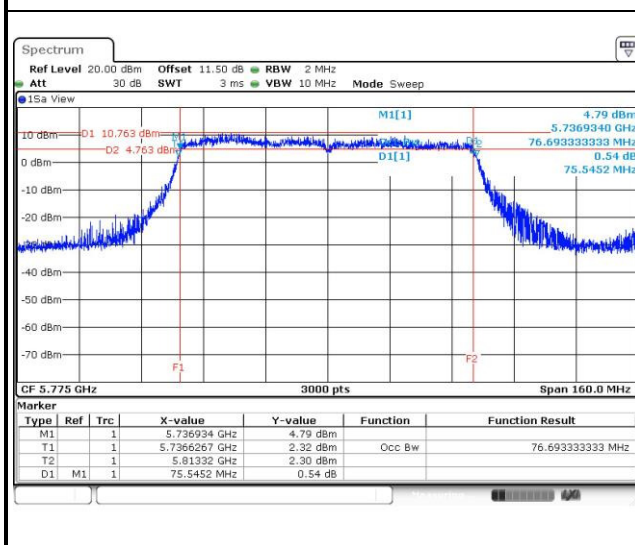


For Frequency band 5725-5850 MHz

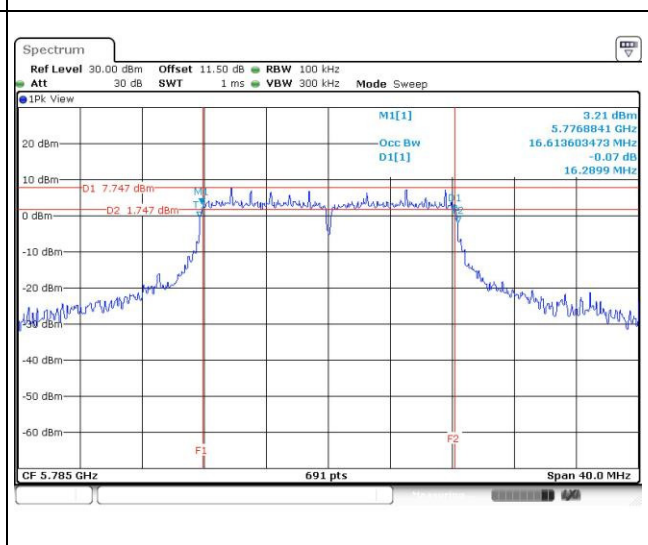
Emission Bandwidth

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	17.63	17.03	17.43	---	16.35	16.35	16.35	---	0.5
11a	3	5785	17.25	17.01	17.33	---	16.29	16.41	16.35	---	0.5
11a	3	5825	17.43	16.93	17.37	---	16.41	16.41	16.41	---	0.5
VHT20	3	5745	18.57	18.15	18.55	---	17.57	17.57	17.57	---	0.5
VHT20	3	5785	18.35	18.17	18.40	---	17.57	17.57	17.57	---	0.5
VHT20	3	5825	18.49	18.09	18.52	---	17.57	17.57	17.57	---	0.5
VHT40	3	5755	37.89	37.39	37.73	---	36.06	36.06	36.29	---	0.5
VHT40	3	5795	38.11	37.33	37.97	---	36.06	35.71	36.29	---	0.5
VHT80	3	5775	76.64	76.69	76.59	---	75.83	75.36	75.59	---	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

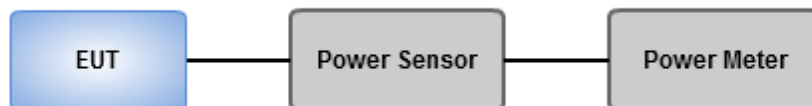
Frequency Band (MHz)	Limit
☐ 5250 ~ 5350	250mW or 11dBm+10 log B
☐ 5470 ~ 5725	250mW or 11dBm+10 log B
☒ 5725 ~ 5850	1 W

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

Dipole antenna

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	17.23	17.79	17.75	---	172.528	22.37	30.00
11a	3	5200	20.69	20.29	20.33	---	332.020	25.21	30.00
11a	3	5240	20.71	19.69	20.27	---	317.286	25.01	30.00
HT20	3	5180	16.89	16.82	16.81	---	144.923	21.61	30.00
HT20	3	5200	20.49	20.06	20.3	---	320.487	25.06	30.00
HT20	3	5240	20.88	20.19	20.38	---	336.078	25.26	30.00
HT40	3	5190	16.29	16.35	16.43	---	129.666	21.13	30.00
HT40	3	5230	20.58	19.53	20.27	---	310.445	24.92	30.00
VHT20	3	5180	16.99	16.86	16.83	---	146.727	21.67	30.00
VHT20	3	5200	20.53	20.09	20.09	---	317.167	25.01	30.00
VHT20	3	5240	20.98	20.32	20.43	---	343.369	25.36	30.00
VHT40	3	5190	16.38	16.48	16.53	---	132.892	21.23	30.00
VHT40	3	5230	20.69	19.66	20.37	---	318.582	25.03	30.00
VHT80	3	5210	14.26	14.09	13.95	---	77.145	18.87	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	20.68	19.81	20.32	---	320.316	25.06	30.00
11a	3	5785	20.25	19.83	20.15	---	305.601	24.85	30.00
11a	3	5825	20.54	19.26	20.23	---	303.012	24.81	30.00
HT20	3	5745	20.65	19.87	20.41	---	323.096	25.09	30.00
HT20	3	5785	20.22	19.86	20.21	---	306.978	24.87	30.00
HT20	3	5825	20.35	19.21	20.11	---	294.326	24.69	30.00
HT40	3	5755	20.02	19.88	20.14	---	301.012	24.79	30.00
HT40	3	5795	20.26	19.34	20.01	---	292.301	24.66	30.00
VHT20	3	5745	20.72	19.90	20.45	---	326.673	25.14	30.00
VHT20	3	5785	20.3	19.92	20.28	---	311.986	24.94	30.00
VHT20	3	5825	20.47	19.32	20.25	---	302.861	24.81	30.00
VHT40	3	5755	20.05	20.02	20.25	---	307.545	24.88	30.00
VHT40	3	5795	20.31	19.48	20.08	---	297.974	24.74	30.00
VHT80	3	5775	15.83	14.69	16.02	---	107.721	20.32	30.00

PIFA antenna

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	17.23	17.79	17.75	---	172.528	22.37	30.00
11a	3	5200	20.69	20.29	20.33	---	332.020	25.21	30.00
11a	3	5240	20.71	19.69	20.27	---	317.286	25.01	30.00
HT20	3	5180	16.89	16.82	16.81	---	144.923	21.61	30.00
HT20	3	5200	20.49	20.06	20.3	---	320.487	25.06	30.00
HT20	3	5240	20.45	19.41	20.11	---	300.780	24.78	30.00
HT40	3	5190	15.22	15.29	15.24	---	100.492	20.02	30.00
HT40	3	5230	20.58	19.53	20.27	---	310.445	24.92	30.00
VHT20	3	5180	16.99	16.86	16.83	---	146.727	21.67	30.00
VHT20	3	5200	20.53	20.09	20.09	---	317.167	25.01	30.00
VHT20	3	5240	20.57	19.53	20.23	---	309.207	24.90	30.00
VHT40	3	5190	15.38	15.38	15.38	---	103.543	20.15	30.00
VHT40	3	5230	20.69	19.66	20.37	---	318.582	25.03	30.00
VHT80	3	5210	12.73	12.65	12.43	---	54.656	17.38	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	19.62	18.67	19.74	---	259.432	24.14	30.00
11a	3	5785	19.06	18.54	19.54	---	241.937	23.84	30.00
11a	3	5825	19.45	17.82	19.51	---	237.970	23.77	30.00
HT20	3	5745	19.51	18.62	19.63	---	253.942	24.05	30.00
HT20	3	5785	18.87	18.59	19.27	---	233.895	23.69	30.00
HT20	3	5825	19.18	18.24	19.35	---	235.574	23.72	30.00
HT40	3	5755	19.82	19.01	19.85	---	272.161	24.35	30.00
HT40	3	5795	19.85	18.31	19.82	---	260.309	24.15	30.00
VHT20	3	5745	19.62	18.67	19.65	---	257.500	24.11	30.00
VHT20	3	5785	18.91	18.65	19.36	---	237.384	23.75	30.00
VHT20	3	5825	19.24	18.26	19.47	---	239.446	23.79	30.00
VHT40	3	5755	19.89	19.02	19.97	---	276.610	24.42	30.00
VHT40	3	5795	19.93	18.43	19.89	---	265.563	24.24	30.00
VHT80	3	5775	15.83	14.69	16.02	---	107.721	20.32	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

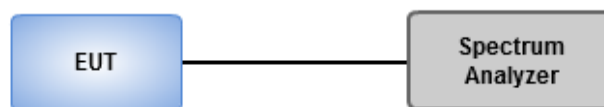
For 5150 ~ 5250 MHz

- ☒ Method SA-1 (For 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 (For 802.11ac VHT40 / VHT 80)
 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 (For 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 (For 802.11ac VHT40 / VHT 80)
 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



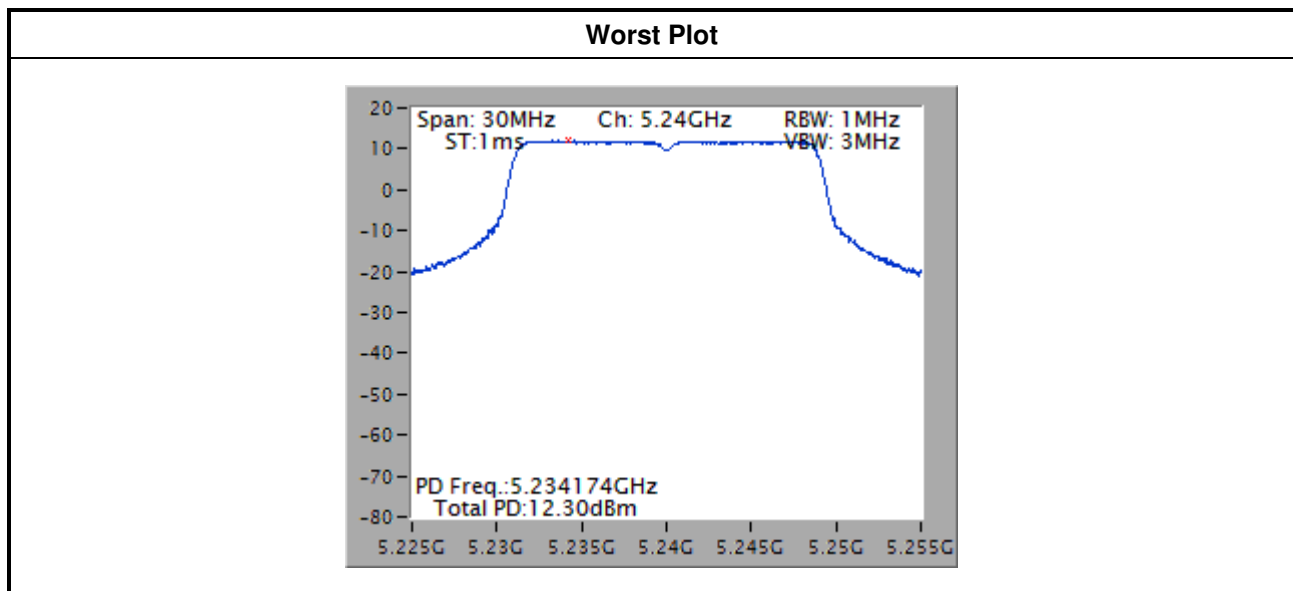
3.4.4 Test Result of Peak Power Spectral Density

Dipole antenna

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	9.93	0.00	9.93	12.73
11a	3	5200	12.12	0.00	12.12	12.73
11a	3	5240	12.01	0.00	12.01	12.73
VHT20	3	5180	8.87	0.00	8.87	12.73
VHT20	3	5200	11.79	0.00	11.79	12.73
VHT20	3	5240	12.30	0.00	12.30	12.73
VHT40	3	5190	4.33	0.23	4.56	12.73
VHT40	3	5230	8.67	0.23	8.90	12.73
VHT80	3	5210	-0.59	0.44	-0.15	12.73

Note:

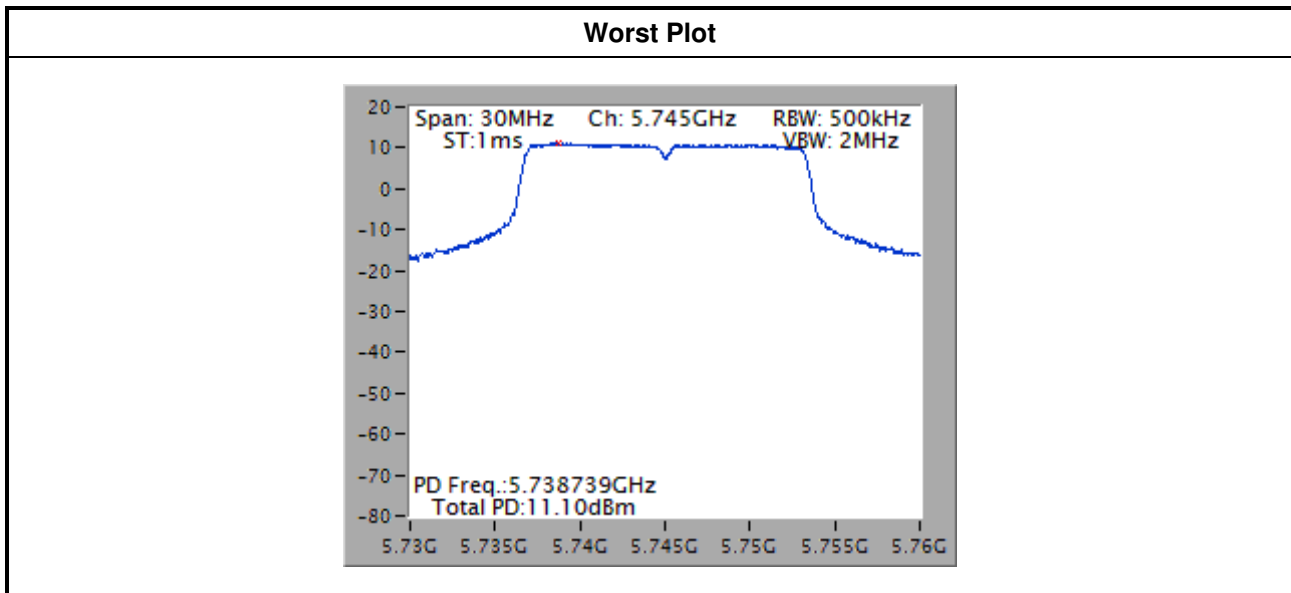
1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. Directional gain = 5.5 dBi + 10*log(3/1) = 10.27 dBi > 6 dBi, limit shall be reduced to 17 dBm – (10.27dBi – 6dBi) = 12.73 dBm



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	11.10	0.00	11.10	25.73
11a	3	5785	10.91	0.00	10.91	25.73
11a	3	5825	10.70	0.00	10.70	25.73
VHT20	3	5745	10.56	0.00	10.56	25.73
VHT20	3	5785	10.48	0.00	10.48	25.73
VHT20	3	5825	10.14	0.00	10.14	25.73
VHT40	3	5755	7.36	0.23	7.59	25.73
VHT40	3	5795	7.11	0.23	7.34	25.73
VHT80	3	5775	-0.71	0.44	-0.27	25.73

Note:

1. D.F is duty factor.
2. Test results are bin-by-bin summing measured value of each TX port.
3. Directional gain = 5.5 dBi + 10*log(3/1) = 10.27 dBi > 6 dBi, limit shall be reduced to 30 dBm – (10.27dBi – 6dBi) = 25.73 dBm



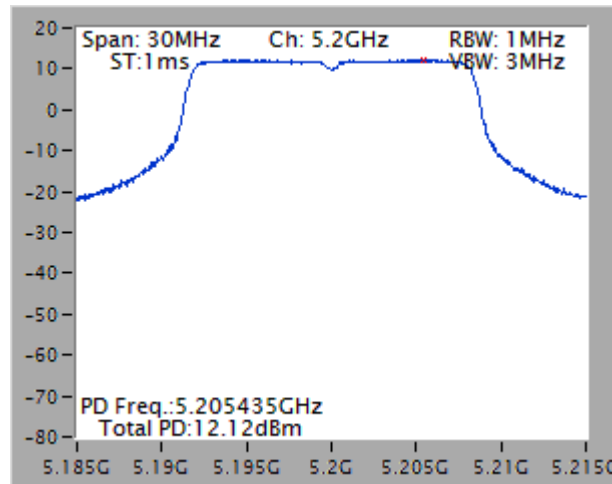
PIFA antenna

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	9.93	0.00	9.93	12.23
11a	3	5200	12.12	0.00	12.12	12.23
11a	3	5240	12.01	0.00	12.01	12.23
VHT20	3	5180	8.87	0.00	8.87	12.23
VHT20	3	5200	11.79	0.00	11.79	12.23
VHT20	3	5240	11.81	0.00	11.81	12.23
VHT40	3	5190	3.34	0.23	3.57	12.23
VHT40	3	5230	8.67	0.23	8.90	12.23
VHT80	3	5210	-2.21	0.44	-1.77	12.23

Note:

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

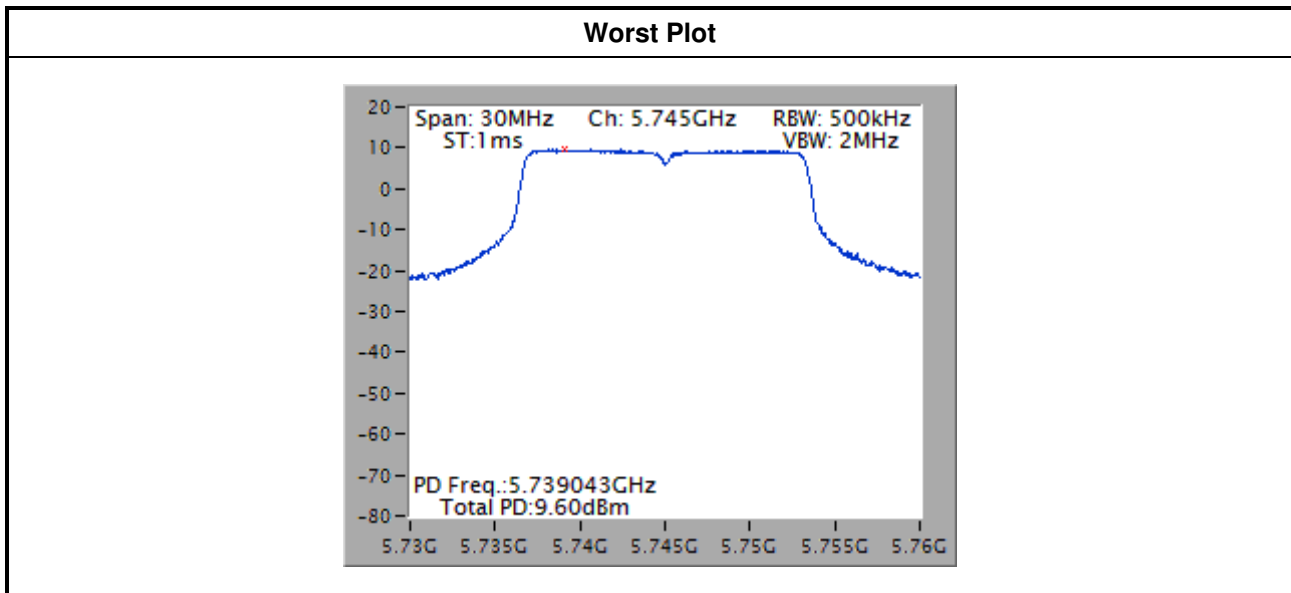
Worst Plot



For Frequency band 5725-5850 MHz						
Condition			Peak Power Spectral Density (dBm/500kHz)			
Modulation Mode	N _{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/500kHz)	Duty Factor (dB)	PPSD with D.F (dBm/500kHz)	PPSD Limit (dBm/500kHz)
11a	3	5745	9.60	0.00	9.60	25.23
11a	3	5785	9.31	0.00	9.31	25.23
11a	3	5825	9.17	0.00	9.17	25.23
VHT20	3	5745	9.30	0.00	9.30	25.23
VHT20	3	5785	8.97	0.00	8.97	25.23
VHT20	3	5825	8.93	0.00	8.93	25.23
VHT40	3	5755	6.24	0.23	6.47	25.23
VHT40	3	5795	6.16	0.23	6.39	25.23
VHT80	3	5775	-0.71	0.44	-0.27	25.23

Note:

1. D.F is duty factor.
2. Test results are bin-by-bin summing measured value of each TX port.
3. Directional gain = 6 dBi + 10*log(3/1) = 10.77 dBi > 6 dBi, limit shall be reduced to 30 dBm – (10.77dBi – 6dBi) = 25.23 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]	
5.725 - 5.850 GHz	☒	15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
	☐	15.407(b)(4)(ii) ,compliance with the emission limits in § 15.247(d) Shall be at least 30dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power,. Attenuation below the general limits specified in §15.209(a) is not required. In addition,radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see § 15.205(c))

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

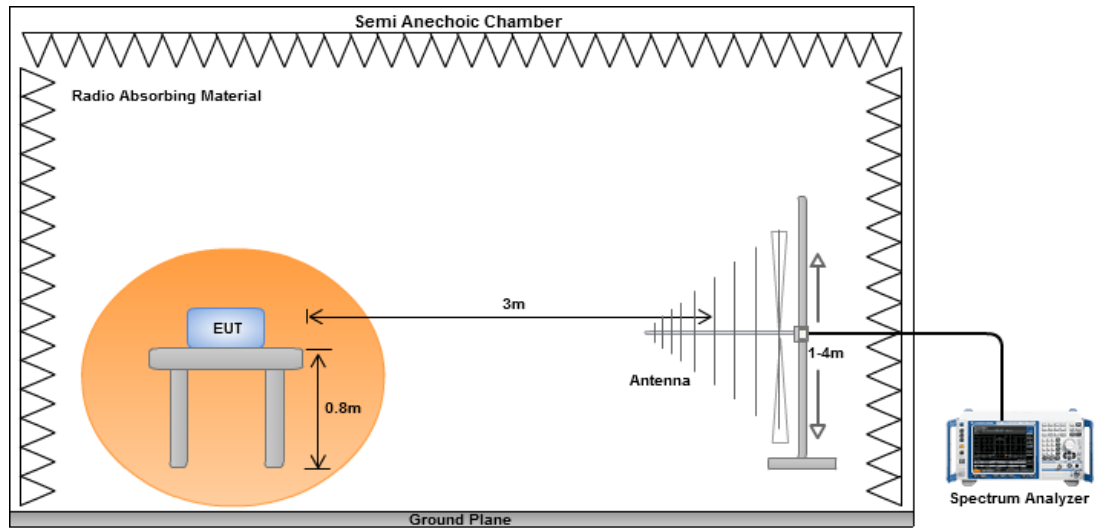
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

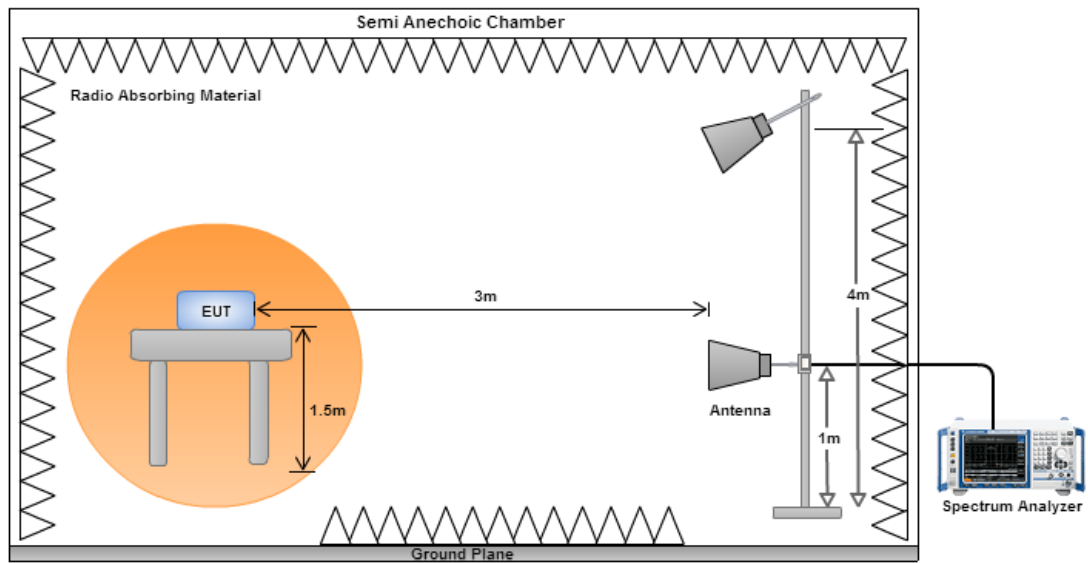
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz



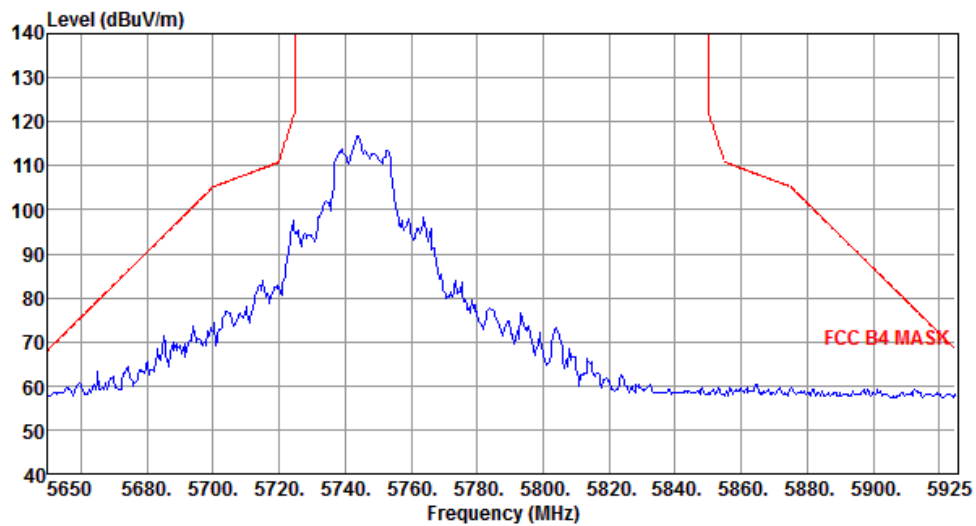
Radiated Emissions above 1 GHz



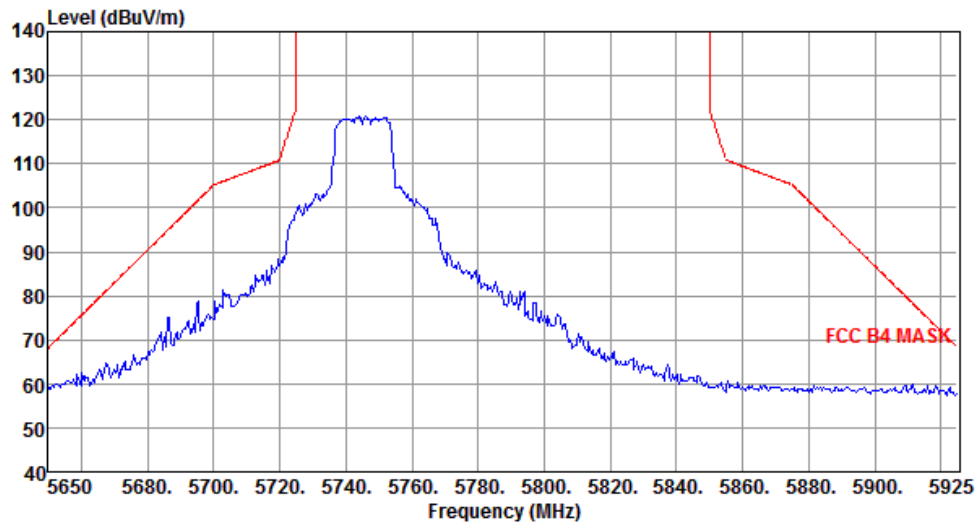
Dipole antenna

3.5.4 Transmitter Radiated Band Edge for 11a

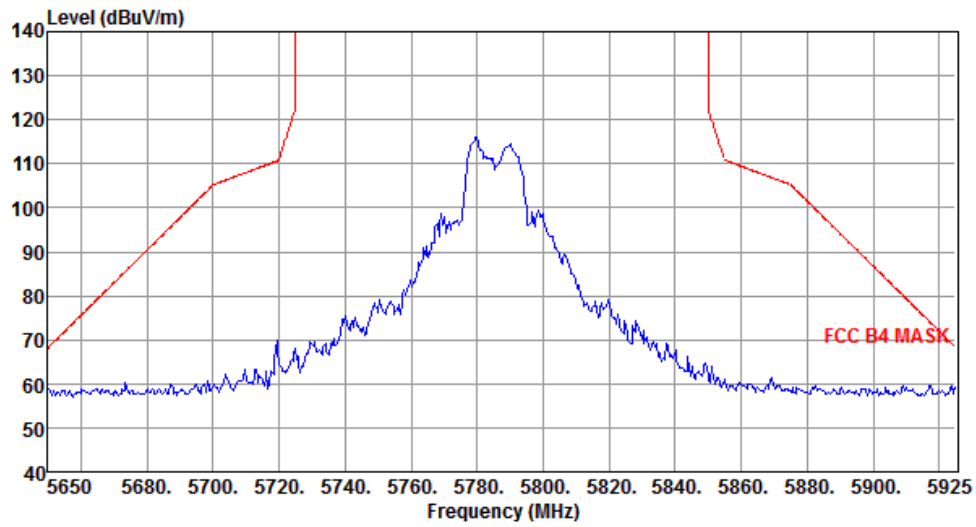
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal	Test Configuration	1



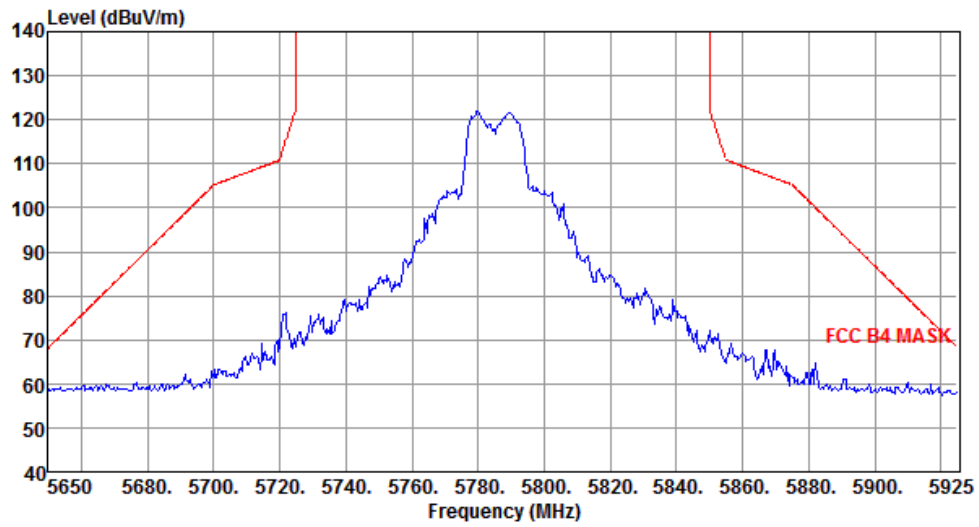
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical	Test Configuration	1



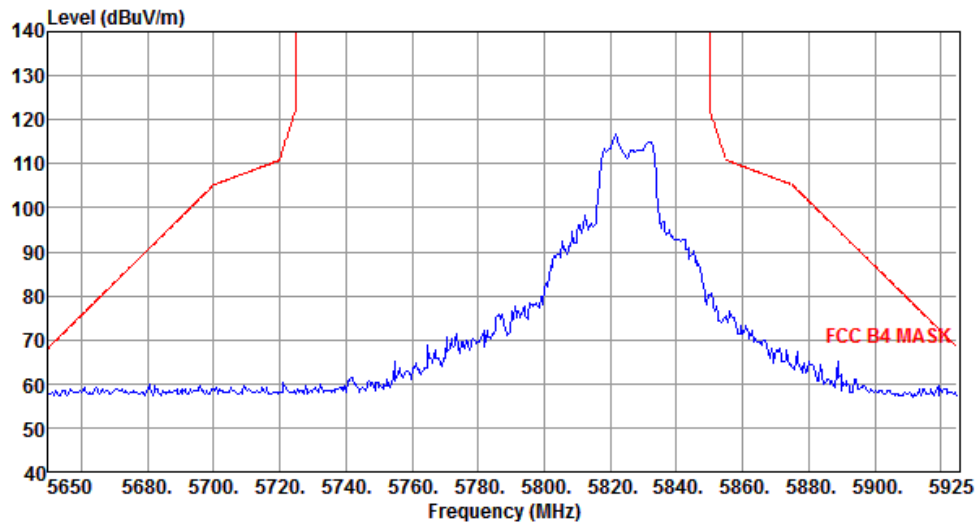
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal	Test Configuration	1



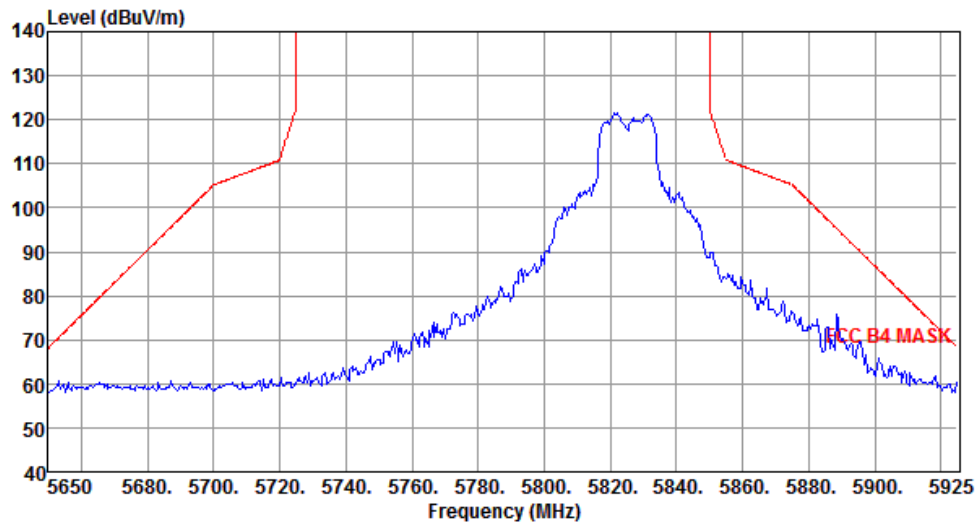
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical	Test Configuration	1



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

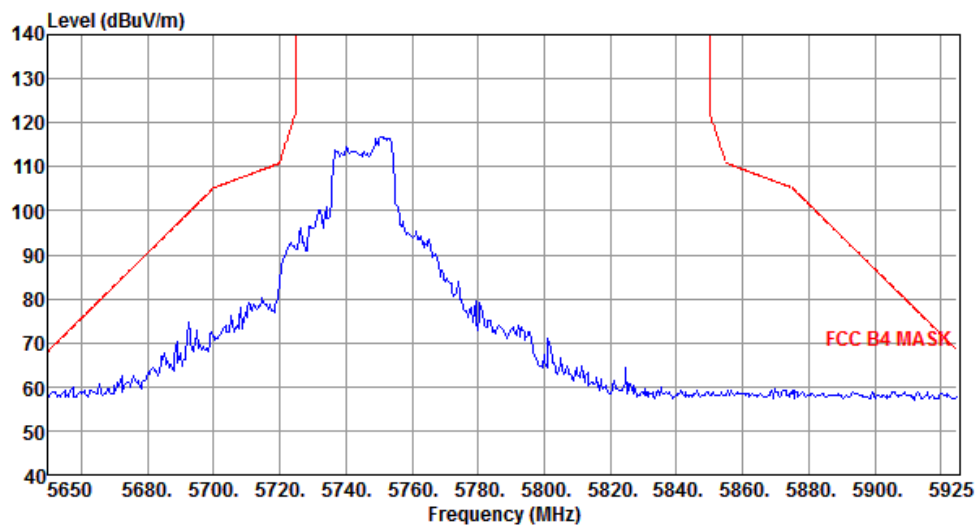


Modulation	11a	Test Freq. (MHz)	5825
Polarization	Vertical	Test Configuration	1

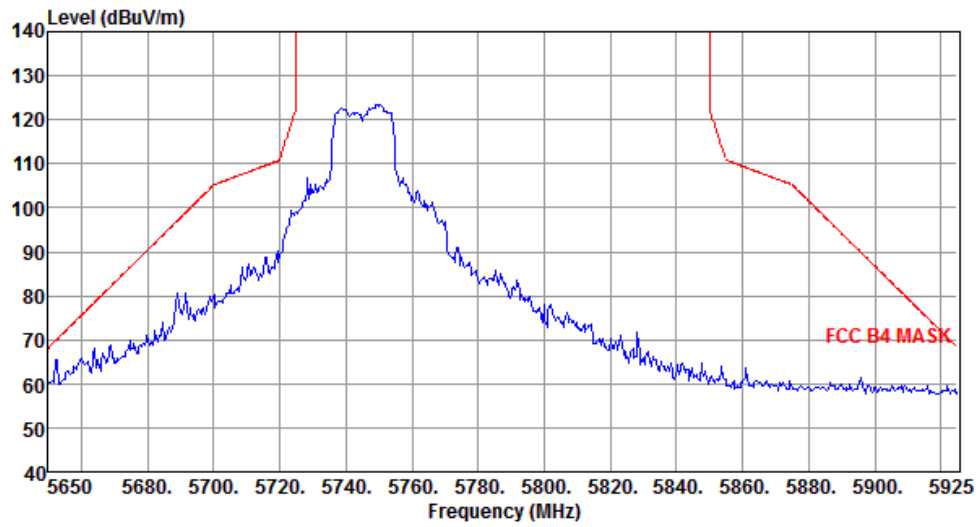


3.5.5 Transmitter Radiated Band Edge for VHT20

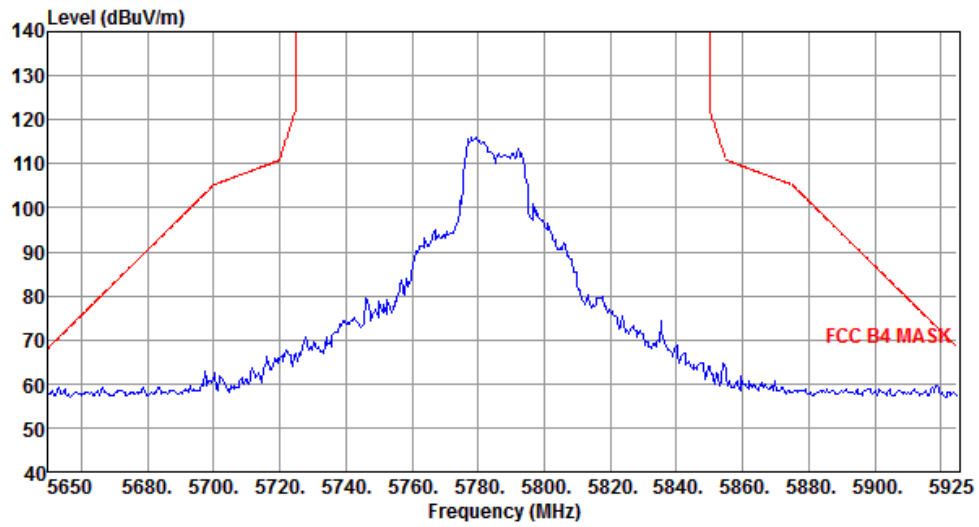
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal	Test Configuration	1



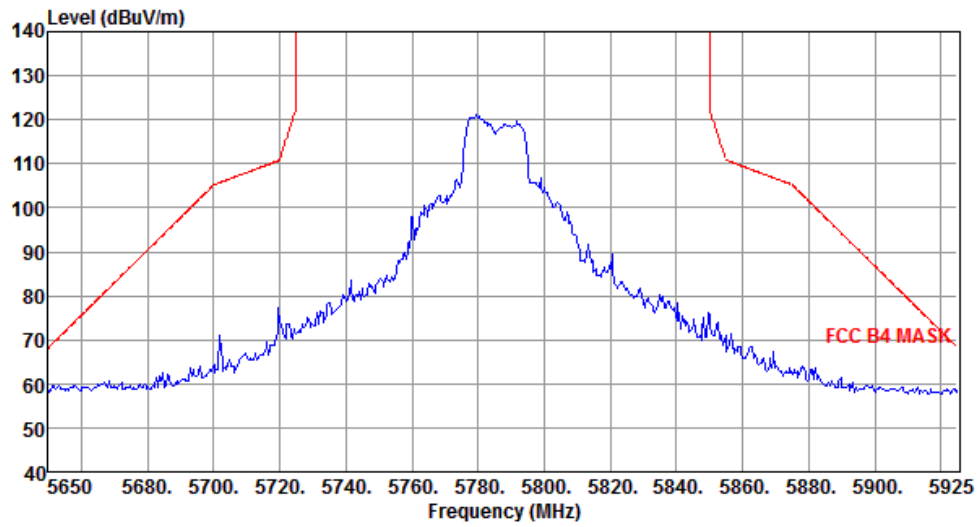
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical	Test Configuration	1



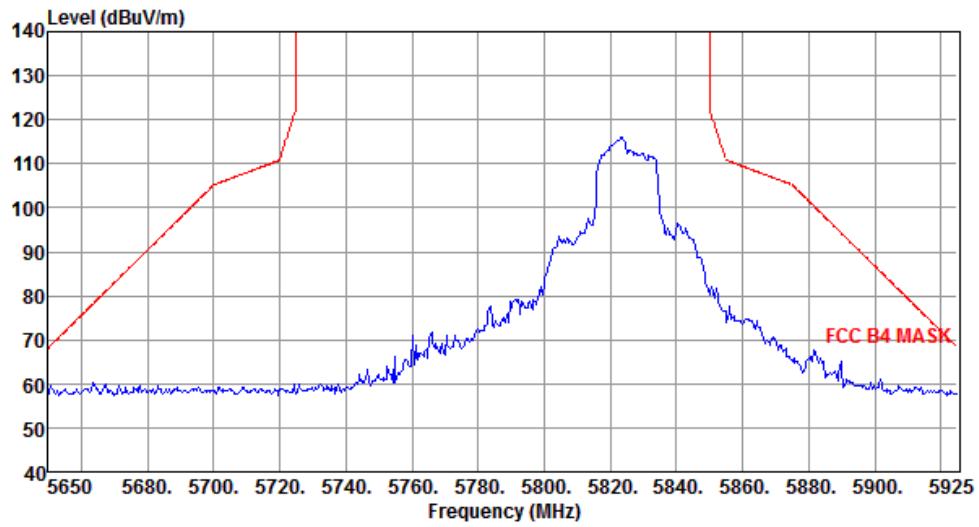
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal	Test Configuration	1



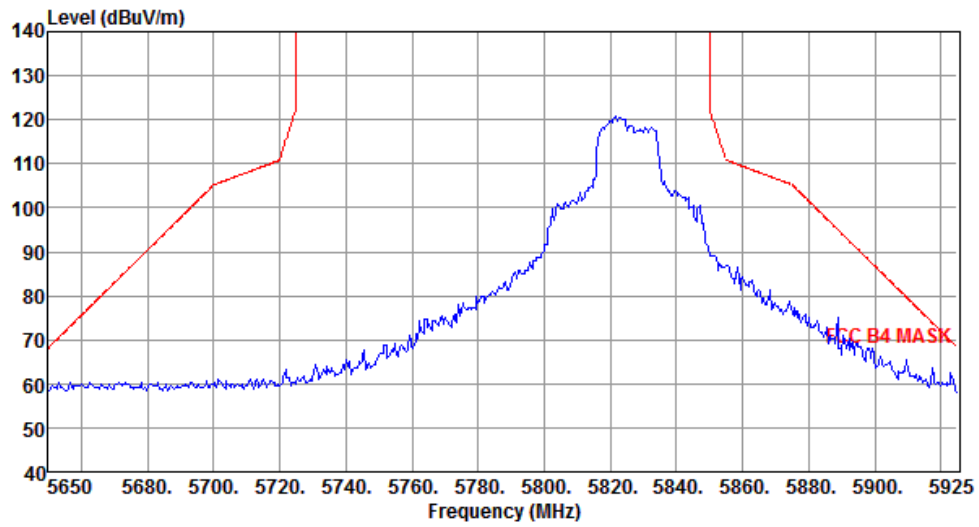
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical	Test Configuration	1



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

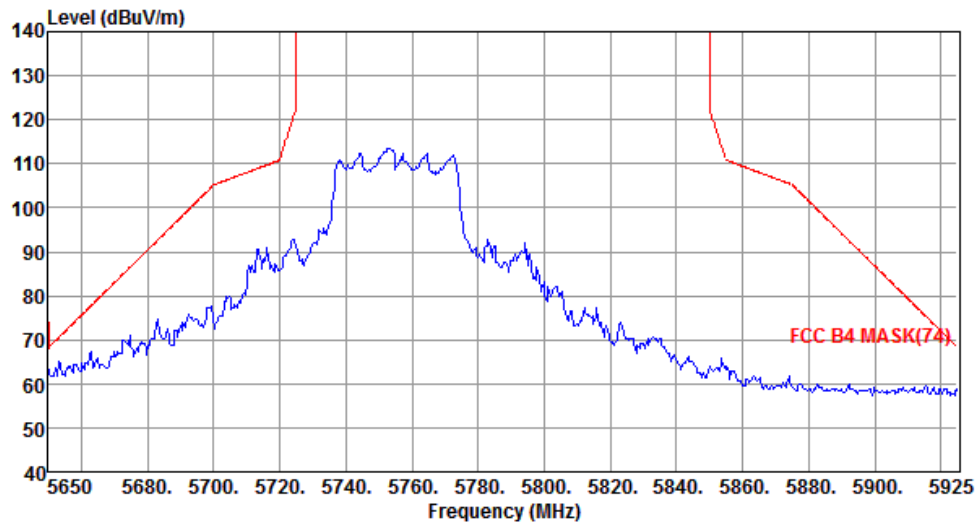


Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Vertical	Test Configuration	1

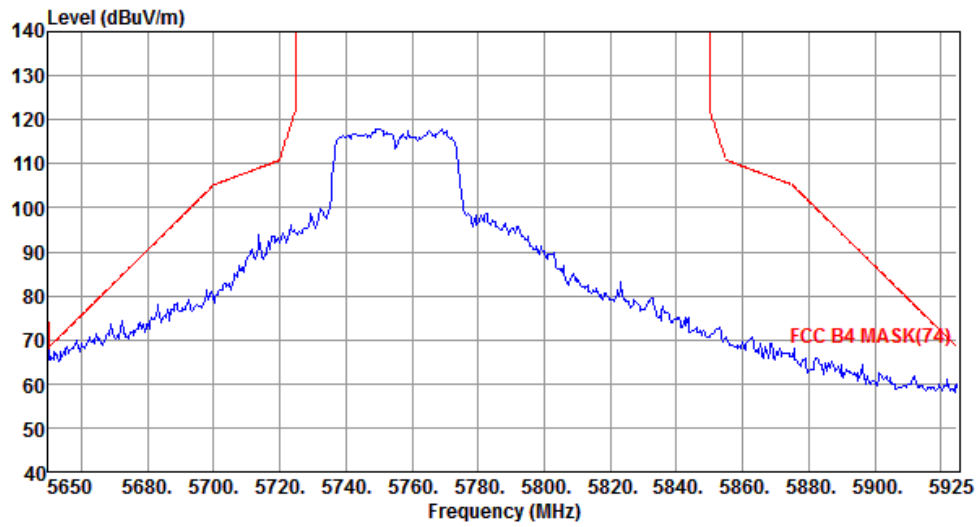


3.5.6 Transmitter Radiated Band Edge for VHT40

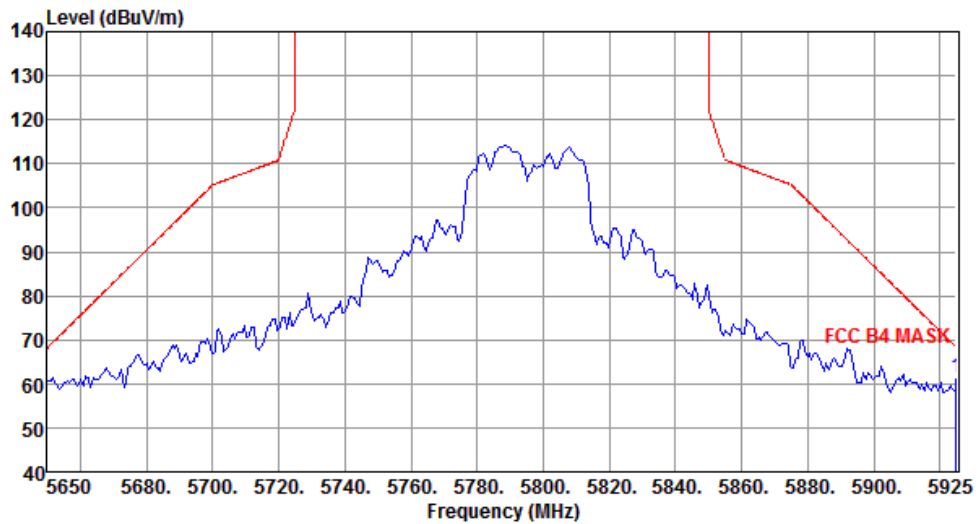
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal	Test Configuration	1



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



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



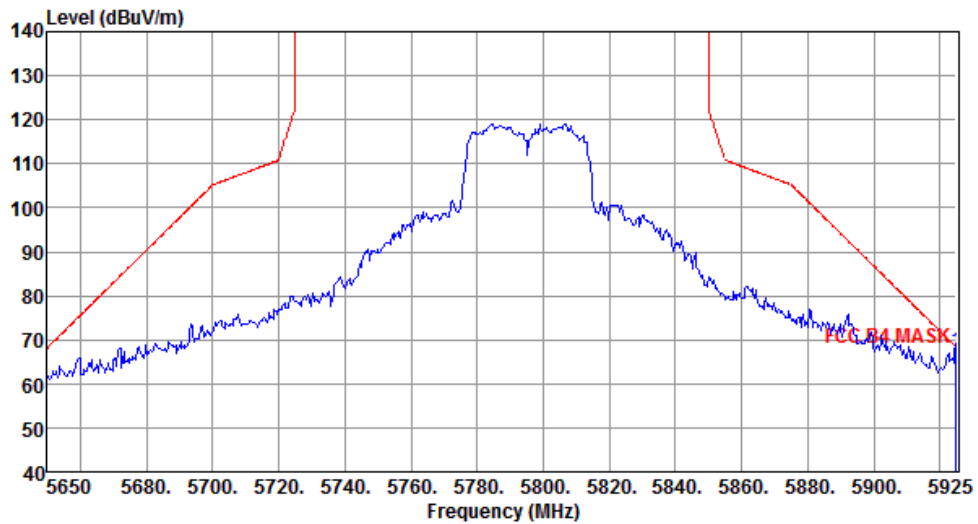
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5925.00	61.53	68.20	-6.67	56.19	5.34	Peak	225	210

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	5925.00	67.19	68.20	-1.01	61.85	5.34	Peak	299	299

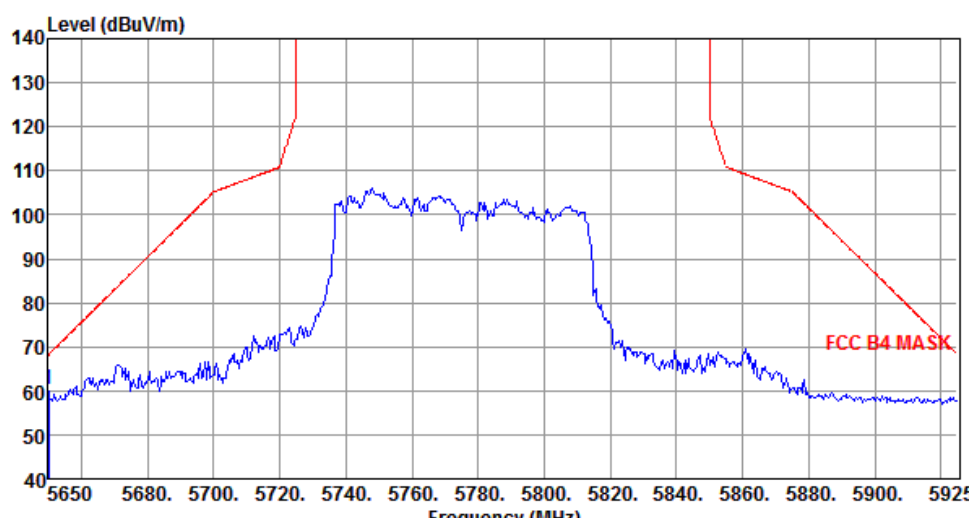
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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 Band Edge for VHT80

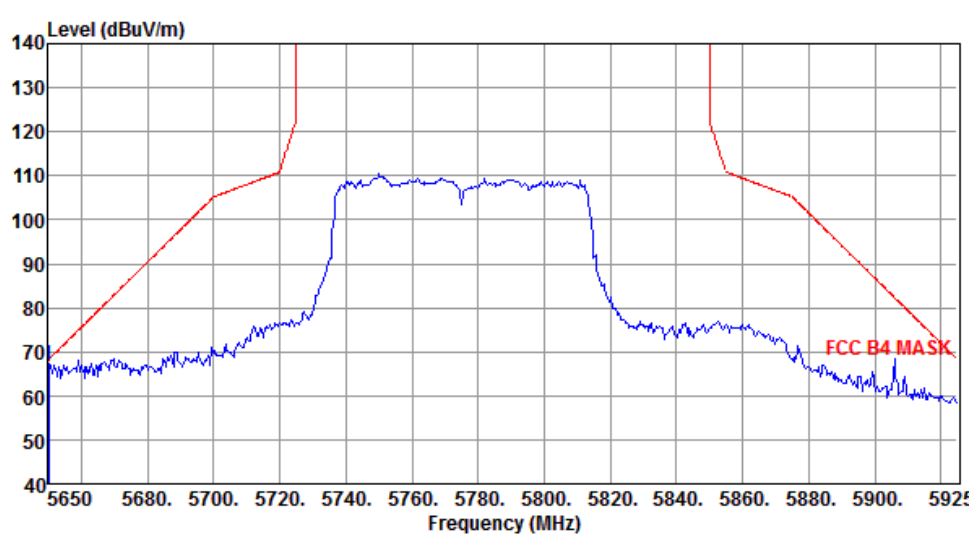
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	60.36	68.20	-7.84	55.36	5.00	Peak	172	184

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



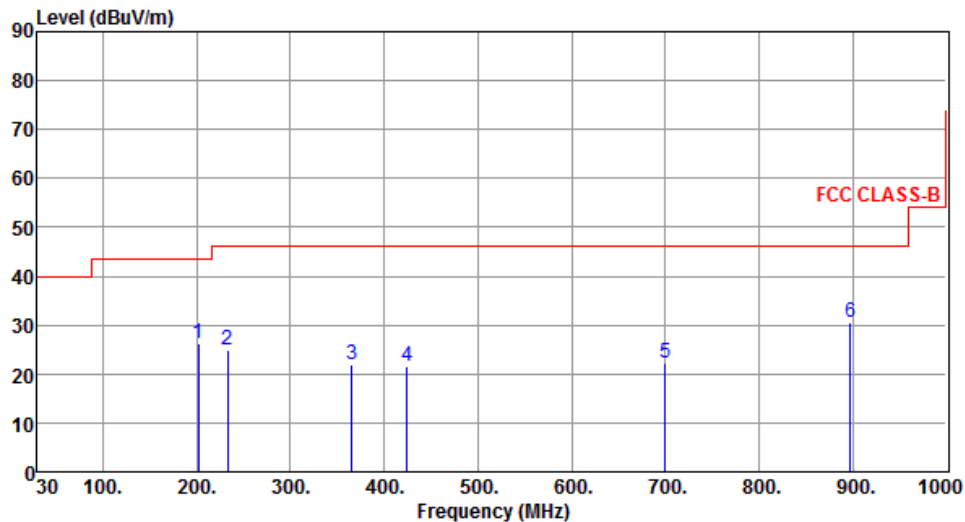
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	67.11	68.20	-1.09	62.11	5.00	Peak	100	40

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

Dipole antenna

3.5.8 Transmitter Radiated Unwanted Emissions (Below 1GHz)

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	201.69	26.09	43.50	-17.41	45.39	-19.30	Peak	---	---
2	232.73	24.98	46.00	-21.02	43.40	-18.42	Peak	---	---
3	365.62	22.05	46.00	-23.95	36.41	-14.36	Peak	---	---
4	424.79	21.74	46.00	-24.26	34.53	-12.79	Peak	---	---
5	700.27	22.27	46.00	-23.73	30.33	-8.06	Peak	---	---
6	897.18	30.63	46.00	-15.37	35.88	-5.25	Peak	---	---

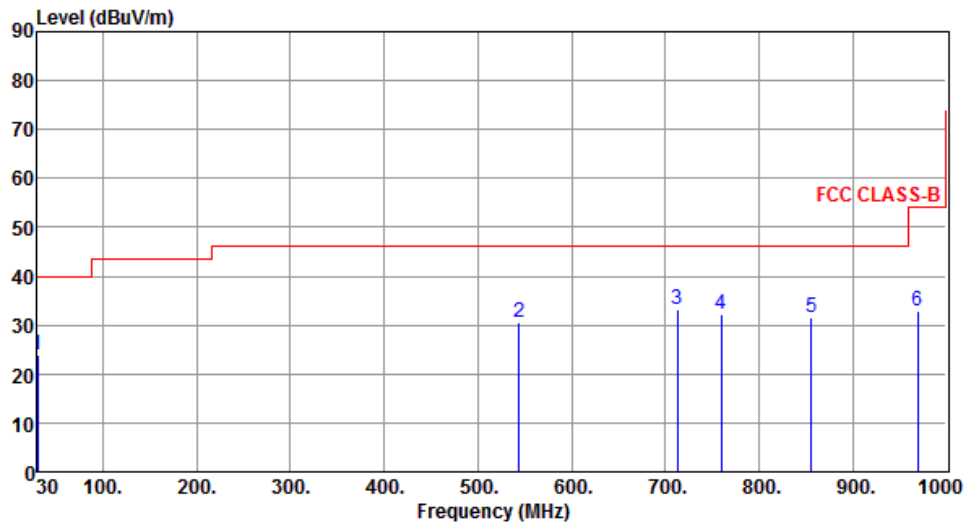
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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)	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	30.00	24.02	40.00	-15.98	41.84	-17.82	Peak	---	---
2	544.10	30.45	46.00	-15.55	41.00	-10.55	Peak	---	---
3	712.88	33.30	46.00	-12.70	41.07	-7.77	Peak	---	---
4	759.44	32.11	46.00	-13.89	38.96	-6.85	Peak	---	---
5	855.47	31.42	46.00	-14.58	37.22	-5.80	Peak	---	---
6	968.96	32.98	54.00	-21.02	37.32	-4.34	Peak	---	---

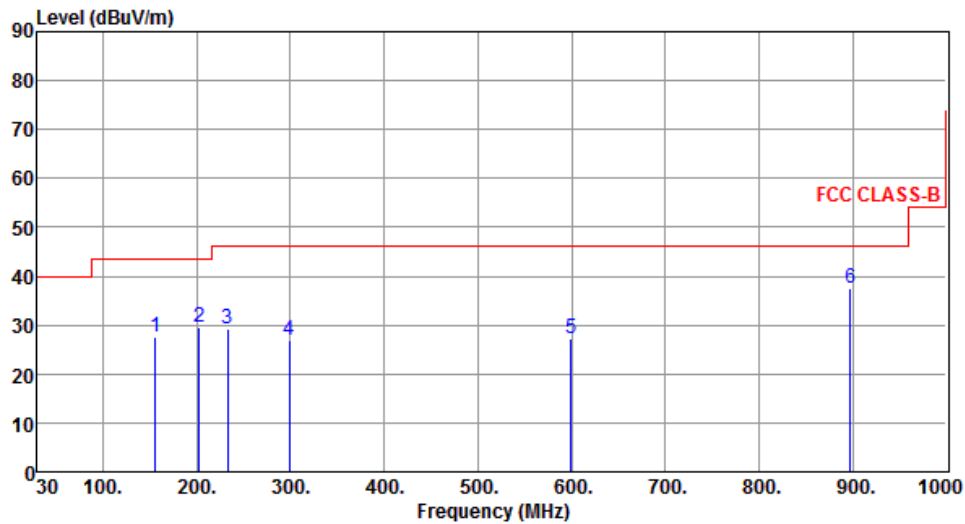
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal	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	156.10	27.66	43.50	-15.84	44.38	-16.72	Peak	---	---
2	202.66	29.72	43.50	-13.78	49.02	-19.30	Peak	---	---
3	232.73	29.16	46.00	-16.84	47.58	-18.42	Peak	---	---
4	298.69	26.78	46.00	-19.22	42.60	-15.82	Peak	---	---
5	599.39	27.29	46.00	-18.71	36.82	-9.53	Peak	---	---
6	897.18	37.61	46.00	-8.39	42.86	-5.25	Peak	---	---

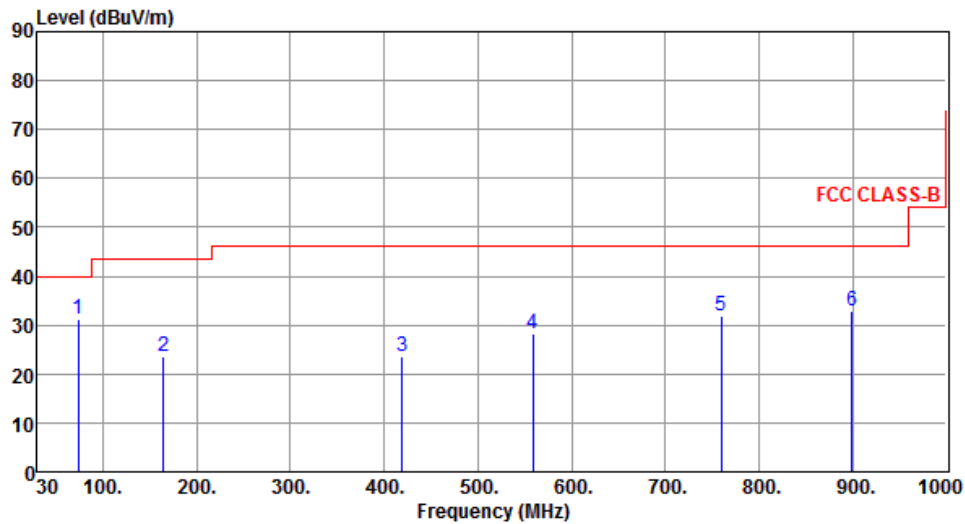
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical	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	73.65	31.09	40.00	-8.91	51.13	-20.04	Peak	---	---
2	164.83	23.55	43.50	-19.95	40.43	-16.88	Peak	---	---
3	418.97	23.70	46.00	-22.30	36.63	-12.93	Peak	---	---
4	558.65	28.39	46.00	-17.61	38.70	-10.31	Peak	---	---
5	759.44	31.87	46.00	-14.13	38.72	-6.85	Peak	---	---
6	899.12	32.82	46.00	-13.18	38.05	-5.23	Peak	---	---

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

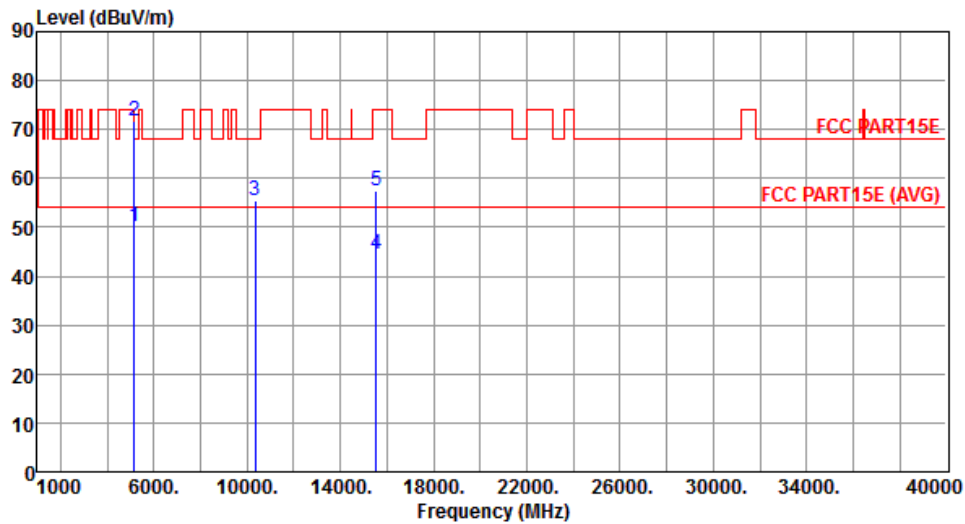
*Factor includes antenna factor , cable loss and amplifier gain

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

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

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

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



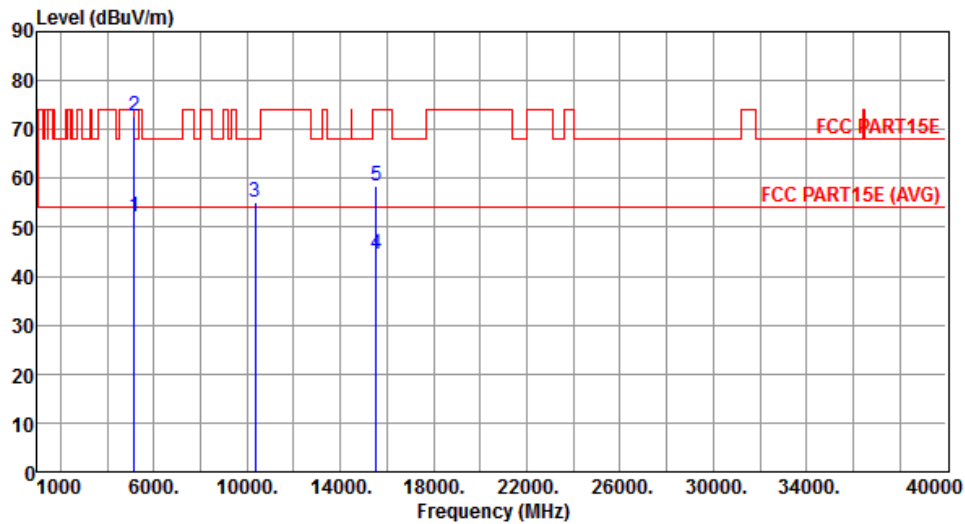
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	50.15	54.00	-3.85	45.75	4.40	Average	100	339
2	5150.00	71.67	74.00	-2.33	67.27	4.40	Peak	100	339
3	10360.00	55.38	68.20	-12.82	41.18	14.20	Peak	100	245
4	15540.00	44.42	54.00	-9.58	29.31	15.11	Average	100	167
5	15540.00	57.47	74.00	-16.53	42.36	15.11	Peak	100	167

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



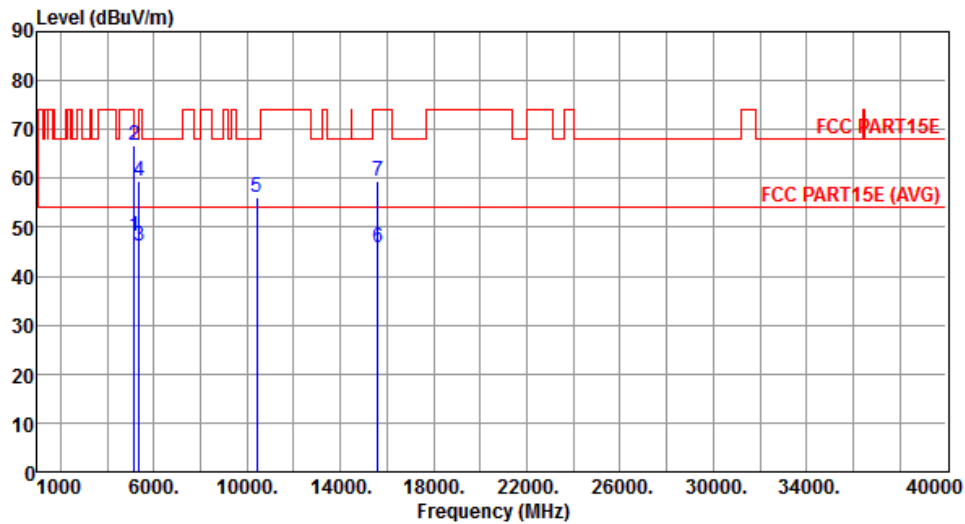
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.98	54.00	-2.02	47.58	4.40	Average	215	251
2	5150.00	72.79	74.00	-1.21	68.39	4.40	Peak	215	251
3	10360.00	55.26	68.20	-12.94	41.06	14.20	Peak	100	117
4	15540.00	44.58	54.00	-9.42	29.47	15.11	Average	100	165
5	15540.00	58.48	74.00	-15.52	43.37	15.11	Peak	100	165

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

*Factor includes antenna factor , cable loss and amplifier gain

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

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



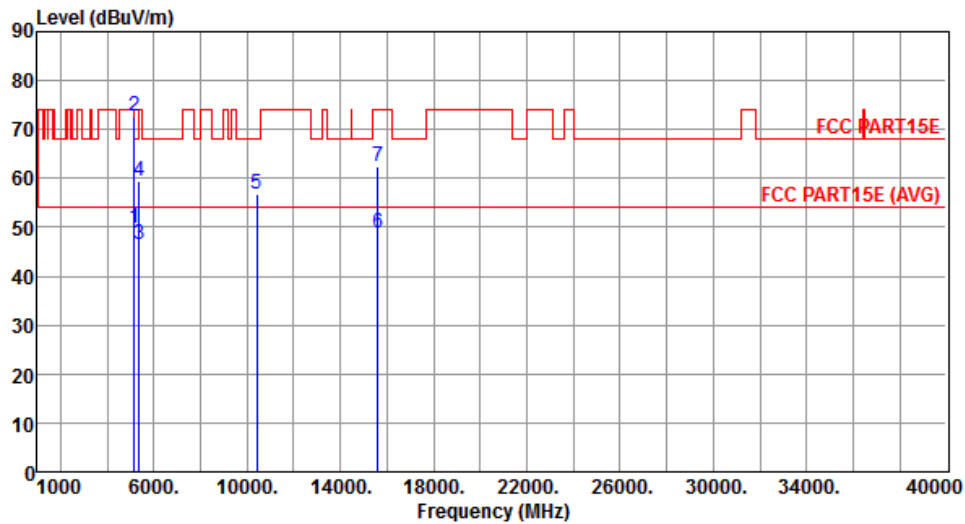
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.28	54.00	-5.72	43.88	4.40	Average	100	340
2	5150.00	66.66	74.00	-7.34	62.26	4.40	Peak	100	340
3	5350.00	46.14	54.00	-7.86	41.50	4.64	Average	100	340
4	5350.00	59.50	74.00	-14.50	54.86	4.64	Peak	100	340
5	10400.00	55.99	68.20	-12.21	41.71	14.28	Peak	100	89
6	15600.00	45.90	54.00	-8.10	30.88	15.02	Average	209	186
7	15600.00	59.61	74.00	-14.39	44.59	15.02	Peak	209	186

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



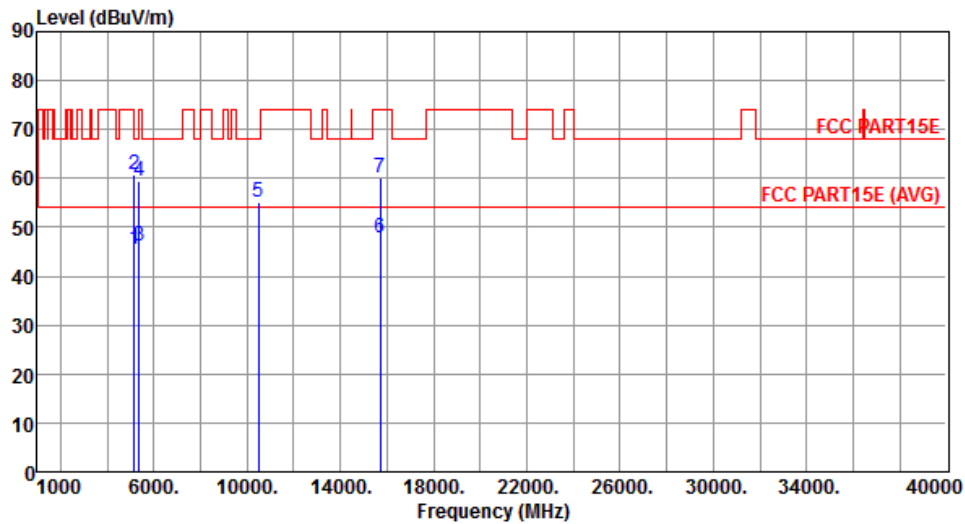
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.65	54.00	-4.35	45.25	4.40	Average	234	252
2	5150.00	72.68	74.00	-1.32	68.28	4.40	Peak	234	252
3	5350.00	46.41	54.00	-7.59	41.77	4.64	Average	234	252
4	5350.00	59.30	74.00	-14.70	54.66	4.64	Peak	234	252
5	10400.00	56.84	68.20	-11.36	42.56	14.28	Peak	100	233
6	15600.00	48.85	54.00	-5.15	33.83	15.02	Average	210	314
7	15600.00	62.54	74.00	-11.46	47.52	15.02	Peak	210	314

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



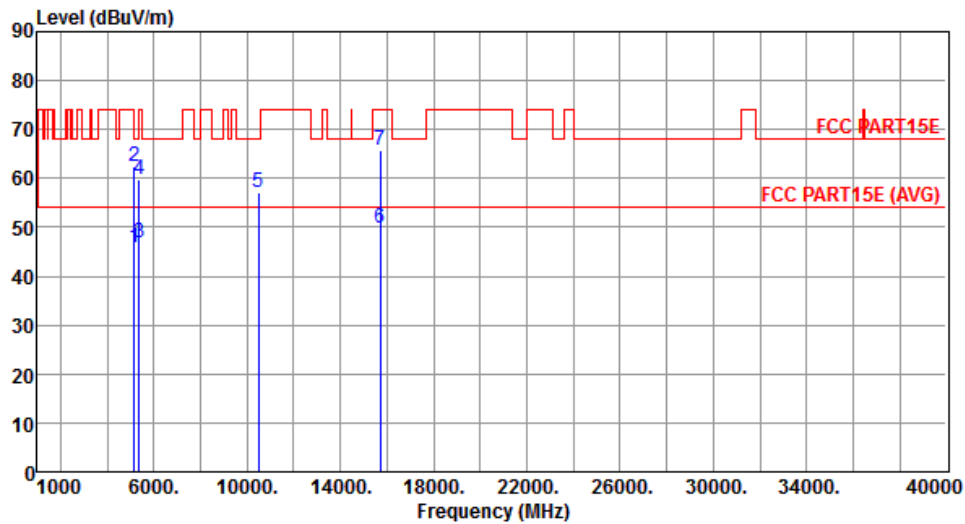
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.48	54.00	-8.52	41.08	4.40	Average	100	340
2	5150.00	60.72	74.00	-13.28	56.32	4.40	Peak	100	340
3	5350.00	46.10	54.00	-7.90	41.46	4.64	Average	100	340
4	5350.00	59.44	74.00	-14.56	54.80	4.64	Peak	100	340
5	10480.00	55.16	68.20	-13.04	40.73	14.43	Peak	100	47
6	15720.00	47.87	54.00	-6.13	33.00	14.87	Average	100	122
7	15720.00	60.02	74.00	-13.98	45.15	14.87	Peak	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).

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



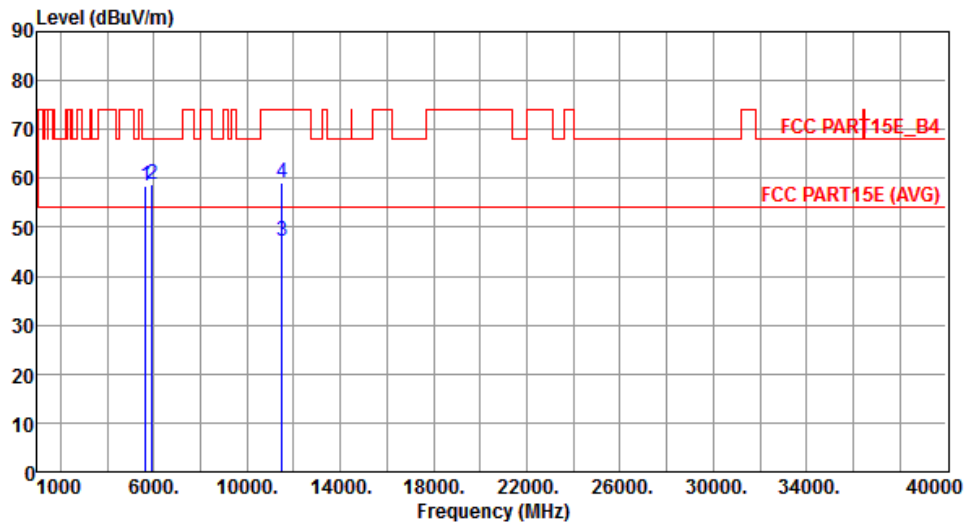
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.84	54.00	-8.16	41.44	4.40	Average	228	254
2	5150.00	62.38	74.00	-11.62	57.98	4.40	Peak	228	254
3	5350.00	46.86	54.00	-7.14	42.22	4.64	Average	314	175
4	5350.00	59.81	74.00	-14.19	55.17	4.64	Peak	314	175
5	10480.00	57.16	68.20	-11.04	42.73	14.43	Peak	100	140
6	15720.00	49.79	54.00	-4.21	34.92	14.87	Average	314	175
7	15720.00	65.88	74.00	-8.12	51.01	14.87	Peak	314	175

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



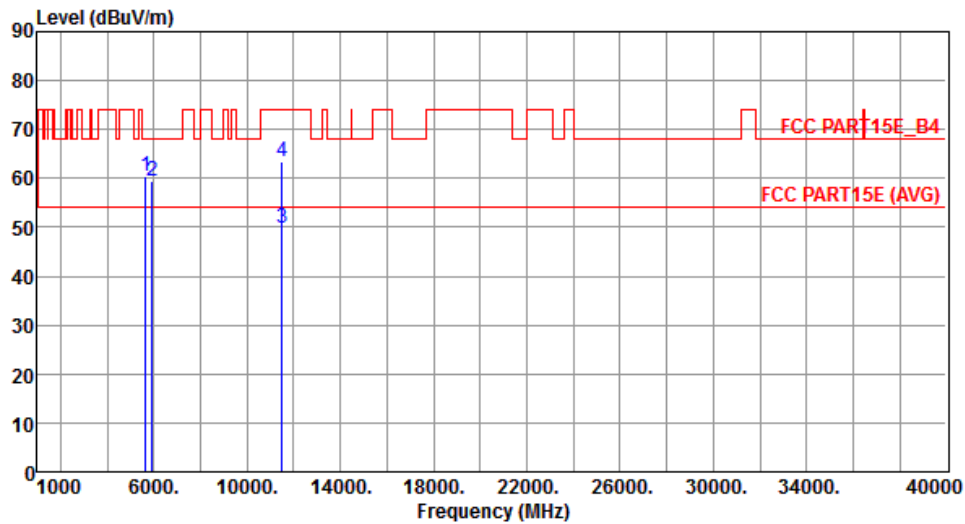
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	58.58	68.20	-9.62	53.58	5.00	Peak	264	207
2	5925.10	58.80	68.20	-9.40	53.46	5.34	Peak	264	207
3	11490.00	47.14	54.00	-6.86	31.61	15.53	Average	325	126
4	11490.00	59.19	74.00	-14.81	43.66	15.53	Peak	325	126

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



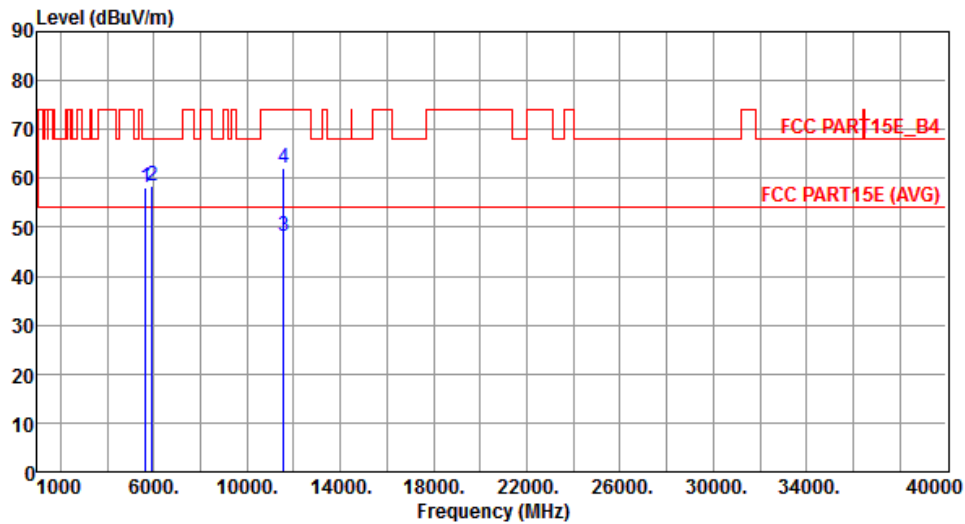
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	60.33	68.20	-7.87	55.33	5.00	Peak	186	65
2	5925.10	59.36	68.20	-8.84	54.02	5.34	Peak	186	65
3	11490.00	49.76	54.00	-4.24	34.23	15.53	Average	102	143
4	11490.00	63.48	74.00	-10.52	47.95	15.53	Peak	102	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	11a	Test Freq. (MHz)	5785
Polarization	Horizontal	Test Configuration	1



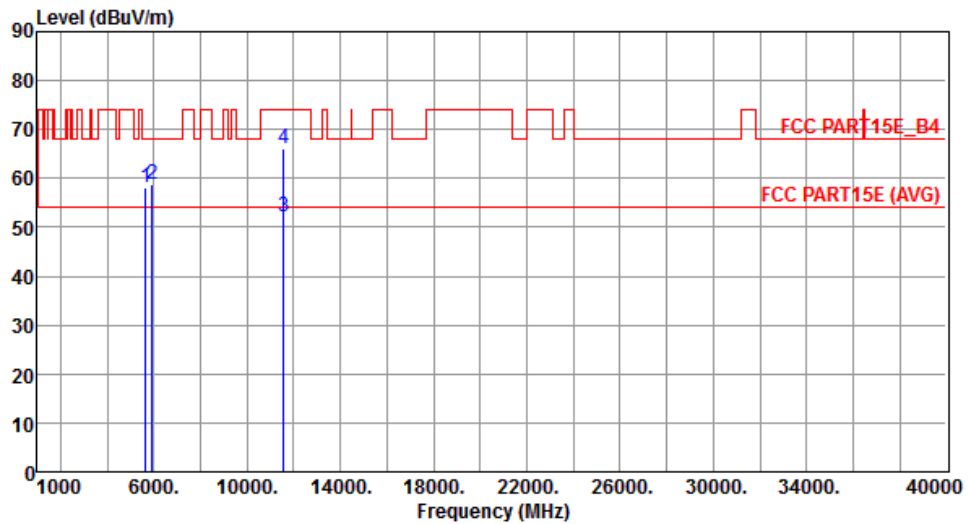
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	58.25	68.20	-9.95	53.25	5.00	Peak	241	206
2	5925.10	58.44	68.20	-9.76	53.10	5.34	Peak	241	206
3	11570.00	48.29	54.00	-5.71	32.96	15.33	Average	100	126
4	11570.00	62.09	74.00	-11.91	46.76	15.33	Peak	100	126

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



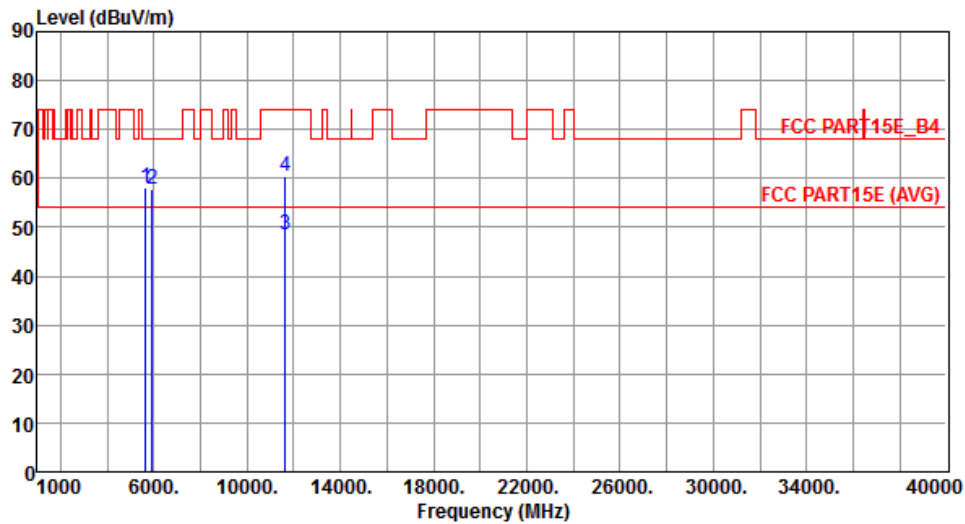
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	58.26	68.20	-9.94	53.26	5.00	Peak	155	62
2	5925.10	58.63	68.20	-9.57	53.29	5.34	Peak	155	62
3	11570.00	52.14	54.00	-1.86	36.81	15.33	Average	100	136
4	11570.00	66.09	74.00	-7.91	50.76	15.33	Peak	100	136

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



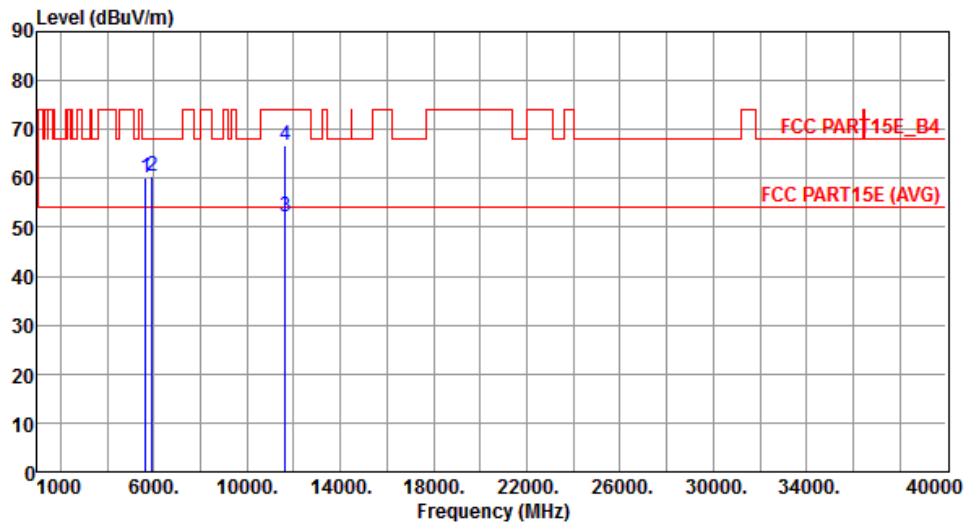
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	58.03	68.20	-10.17	53.03	5.00	Peak	257	208
2	5925.10	57.69	68.20	-10.51	52.35	5.34	Peak	257	208
3	11650.00	48.49	54.00	-5.51	33.40	15.09	Average	112	115
4	11650.00	60.55	74.00	-13.45	45.46	15.09	Peak	112	115

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	5649.90	60.02	68.20	-8.18	55.02	5.00	Peak	148	61
2	5925.10	60.36	68.20	-7.84	55.02	5.34	Peak	148	61
3	11650.00	52.22	54.00	-1.78	37.13	15.09	Average	100	136
4	11650.00	66.73	74.00	-7.27	51.64	15.09	Peak	100	136

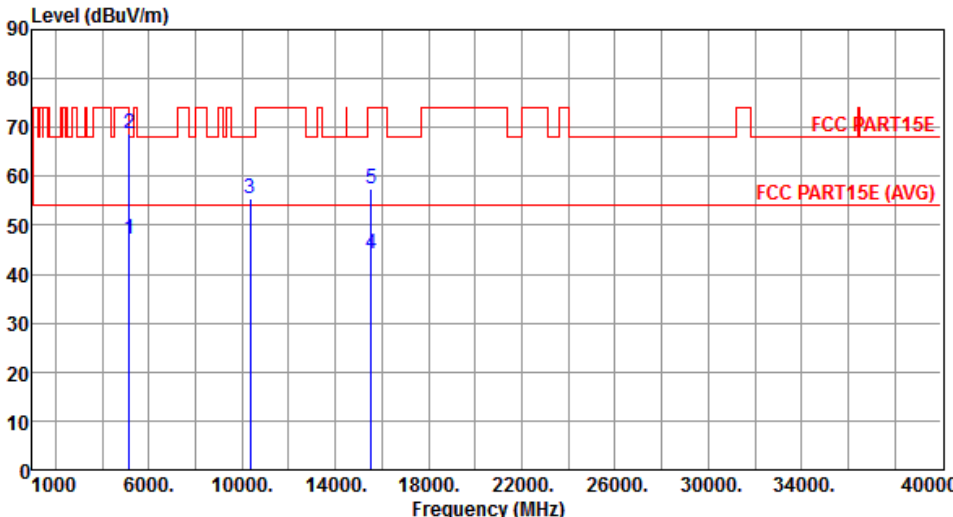
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

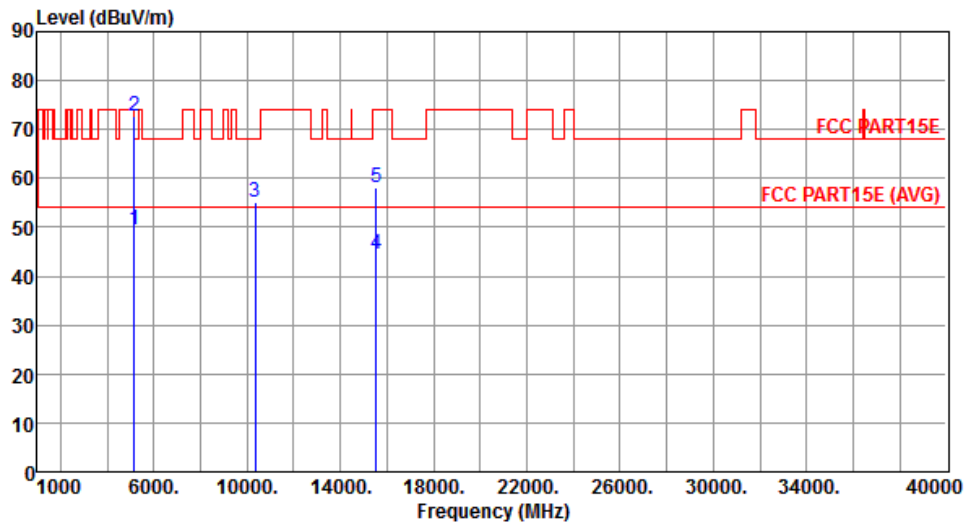
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal	Test Configuration	1



	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	47.21	54.00	-6.79	42.81	4.40	Average	100	339
2	5150.00	68.61	74.00	-5.39	64.21	4.40	Peak	100	339
3	10360.00	55.41	68.20	-12.79	41.21	14.20	Peak	100	206
4	15540.00	44.28	54.00	-9.72	29.17	15.11	Average	100	118
5	15540.00	57.37	74.00	-16.63	42.26	15.11	Peak	100	118

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



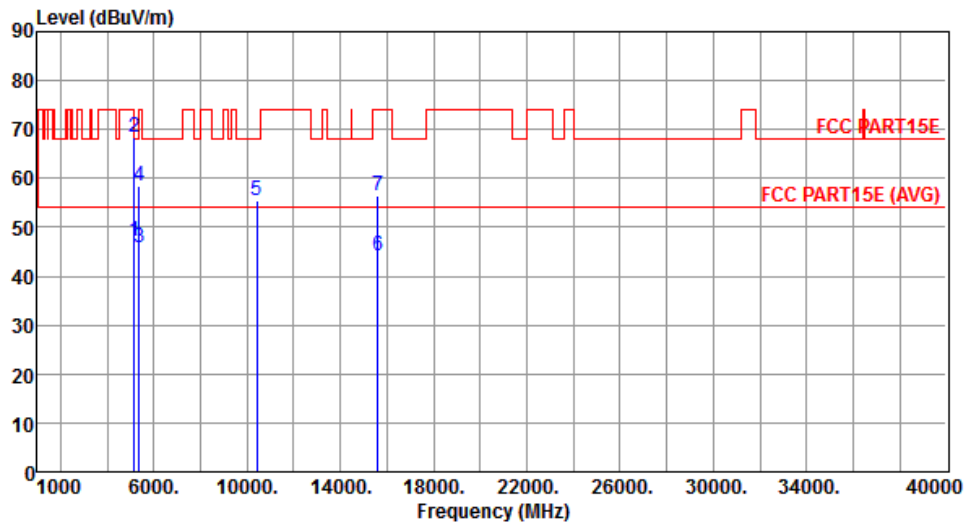
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.51	54.00	-4.49	45.11	4.40	Average	236	255
2	5150.00	72.80	74.00	-1.20	68.40	4.40	Peak	236	255
3	10360.00	55.26	68.20	-12.94	41.06	14.20	Peak	100	86
4	15540.00	44.44	54.00	-9.56	29.33	15.11	Average	100	107
5	15540.00	58.22	74.00	-15.78	43.11	15.11	Peak	100	107

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



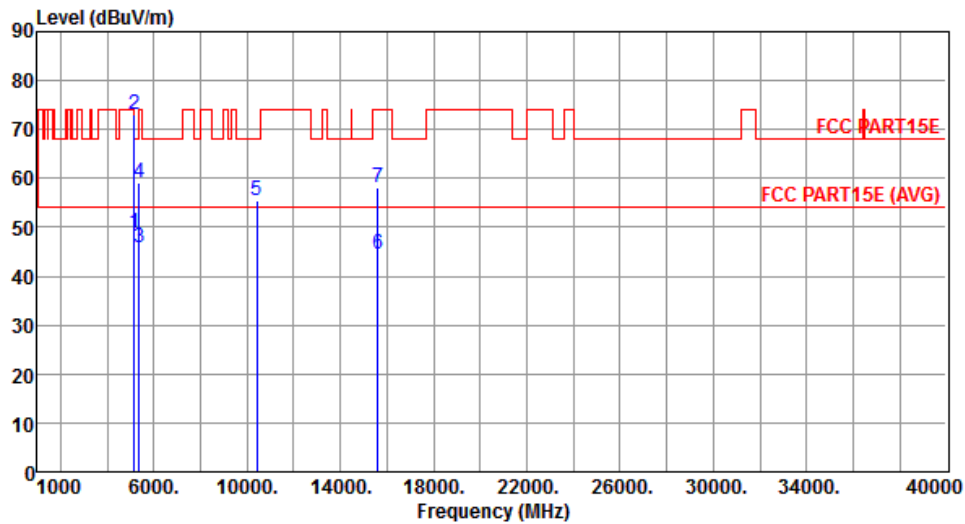
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.03	54.00	-6.97	42.63	4.40	Average	100	202
2	5150.00	68.26	74.00	-5.74	63.86	4.40	Peak	100	202
3	5350.00	45.76	54.00	-8.24	41.12	4.64	Average	100	202
4	5350.00	58.54	74.00	-15.46	53.90	4.64	Peak	100	202
5	10400.00	55.52	68.20	-12.68	41.24	14.28	Peak	100	208
6	15600.00	44.17	54.00	-9.83	29.15	15.02	Average	100	163
7	15600.00	56.62	74.00	-17.38	41.60	15.02	Peak	100	163

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

*Factor includes antenna factor , cable loss and amplifier gain

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

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



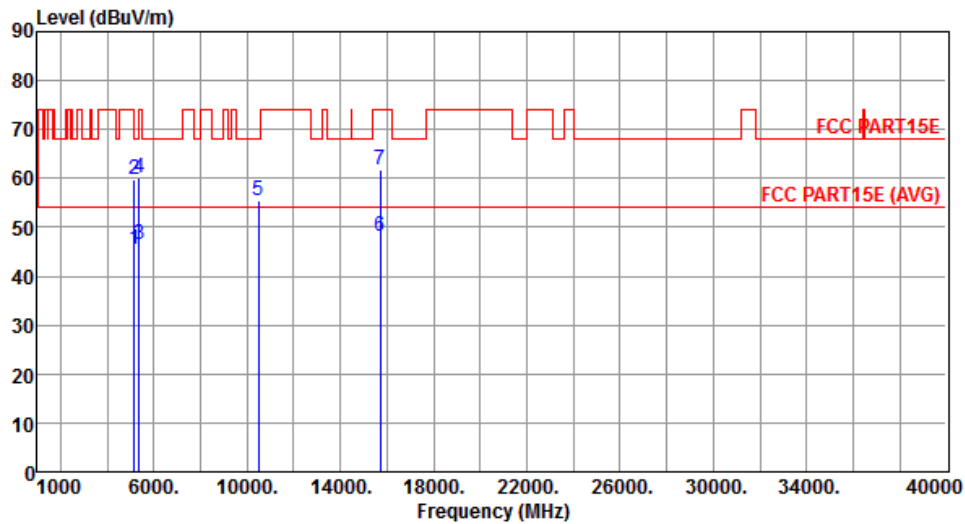
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.89	54.00	-5.11	44.49	4.40	Average	236	255
2	5150.00	72.93	74.00	-1.07	68.53	4.40	Peak	236	255
3	5350.00	45.96	54.00	-8.04	41.32	4.64	Average	236	255
4	5350.00	59.15	74.00	-14.85	54.51	4.64	Peak	236	255
5	10400.00	55.56	68.20	-12.64	41.28	14.28	Peak	100	50
6	15600.00	44.44	54.00	-9.56	29.42	15.02	Average	100	14
7	15600.00	58.23	74.00	-15.77	43.21	15.02	Peak	100	14

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



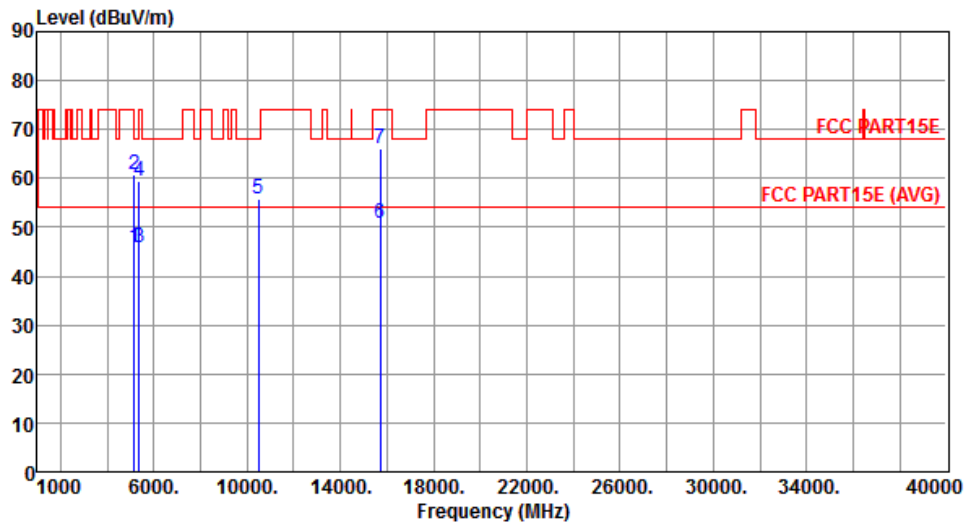
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.46	54.00	-8.54	41.06	4.40	Average	100	311
2	5150.00	59.69	74.00	-14.31	55.29	4.40	Peak	100	311
3	5350.00	46.37	54.00	-7.63	41.73	4.64	Average	100	311
4	5350.00	59.96	74.00	-14.04	55.32	4.64	Peak	100	311
5	10480.00	55.60	68.20	-12.60	41.17	14.43	Peak	100	46
6	15720.00	48.10	54.00	-5.90	33.23	14.87	Average	221	155
7	15720.00	61.69	74.00	-12.31	46.82	14.87	Peak	221	155

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



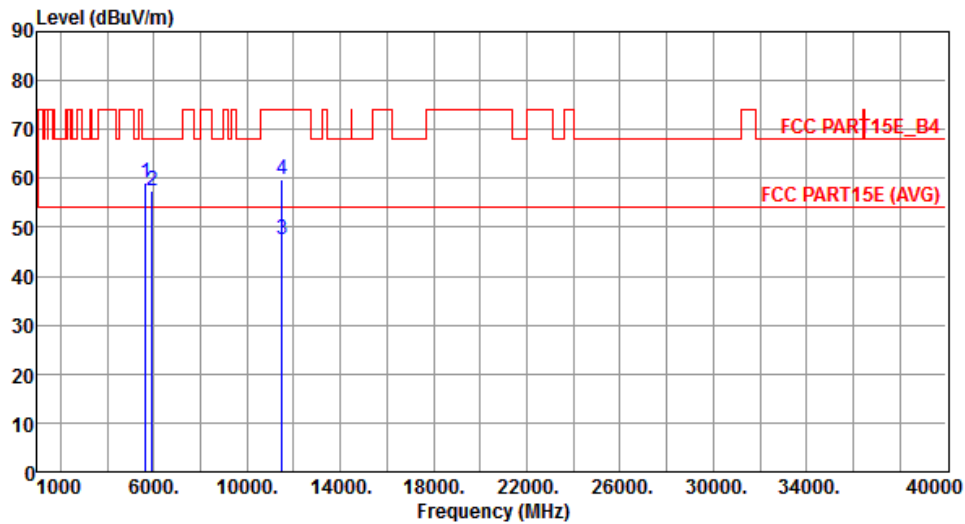
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.72	54.00	-8.28	41.32	4.40	Average	350	204
2	5150.00	60.94	74.00	-13.06	56.54	4.40	Peak	350	204
3	5350.00	45.88	54.00	-8.12	41.24	4.64	Average	350	204
4	5350.00	59.50	74.00	-14.50	54.86	4.64	Peak	350	204
5	10480.00	55.80	68.20	-12.40	41.37	14.43	Peak	100	278
6	15720.00	50.69	54.00	-3.31	35.82	14.87	Average	335	182
7	15720.00	65.98	74.00	-8.02	51.11	14.87	Peak	335	182

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



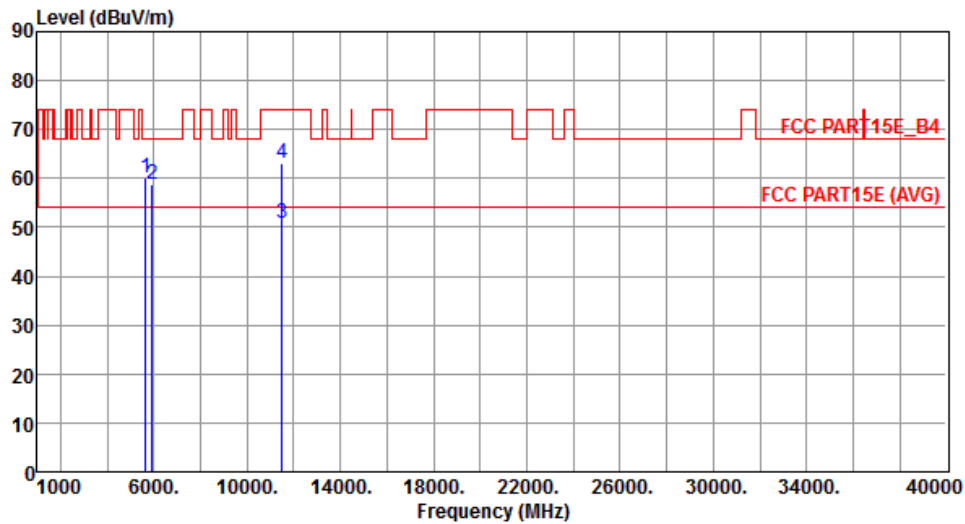
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	59.03	68.20	-9.17	54.03	5.00	Peak	338	209
2	5925.10	57.59	68.20	-10.61	52.25	5.34	Peak	338	209
3	11490.00	47.35	54.00	-6.65	31.82	15.53	Average	342	124
4	11490.00	59.93	74.00	-14.07	44.40	15.53	Peak	342	124

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



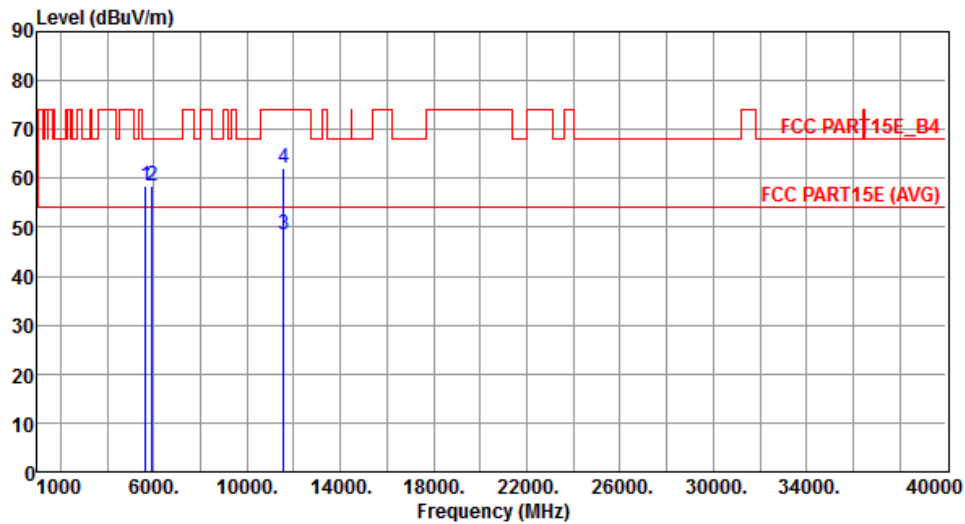
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	60.03	68.20	-8.17	55.03	5.00	Peak	230	221
2	5925.10	58.90	68.20	-9.30	53.56	5.34	Peak	230	221
3	11490.00	50.86	54.00	-3.14	35.33	15.53	Average	100	267
4	11490.00	62.95	74.00	-11.05	47.42	15.53	Peak	100	267

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



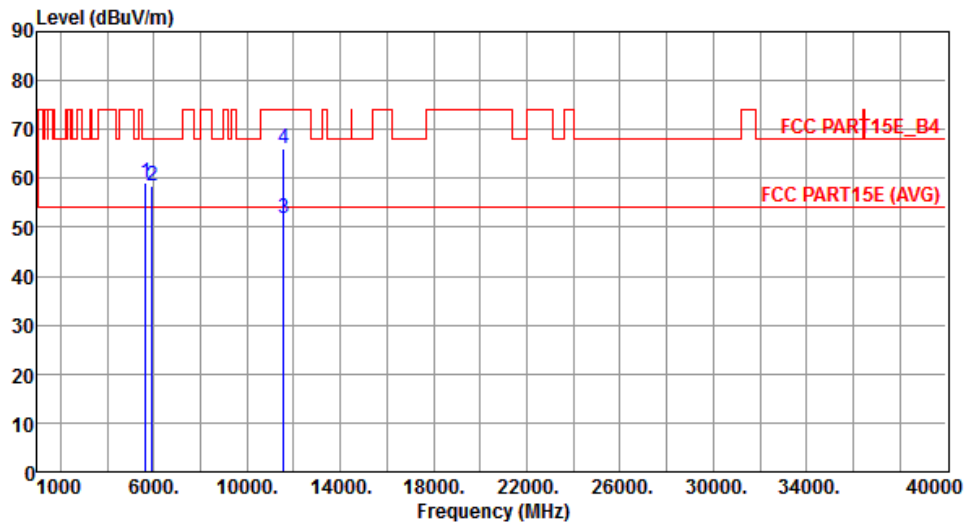
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	58.52	68.20	-9.68	53.52	5.00	Peak	242	206
2	5925.10	58.57	68.20	-9.63	53.23	5.34	Peak	242	206
3	11570.00	48.40	54.00	-5.60	33.07	15.33	Average	295	127
4	11570.00	62.03	74.00	-11.97	46.70	15.33	Peak	295	127

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



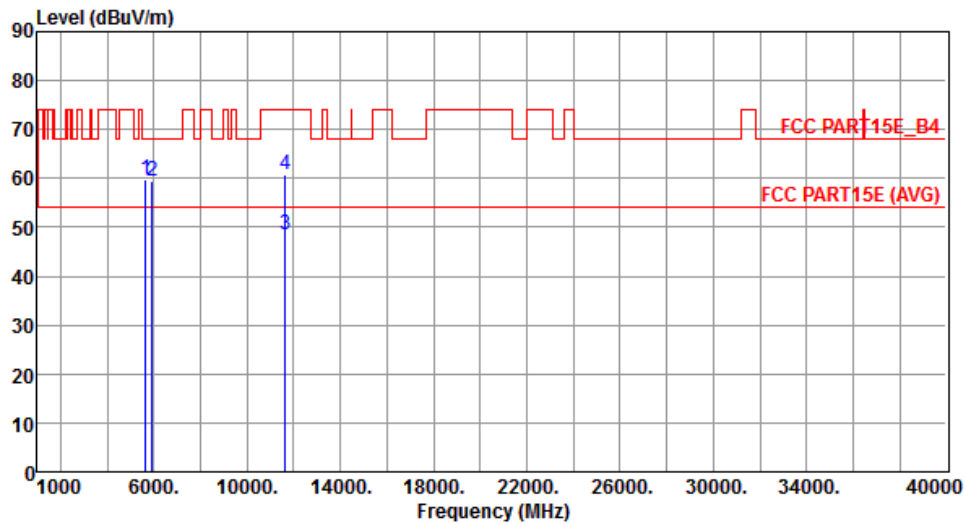
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	59.12	68.20	-9.08	54.12	5.00	Peak	179	62
2	5925.10	58.54	68.20	-9.66	53.20	5.34	Peak	179	62
3	11570.00	51.97	54.00	-2.03	36.64	15.33	Average	100	163
4	11570.00	65.93	74.00	-8.07	50.60	15.33	Peak	100	163

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

*Factor includes antenna factor , cable loss and amplifier gain

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

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



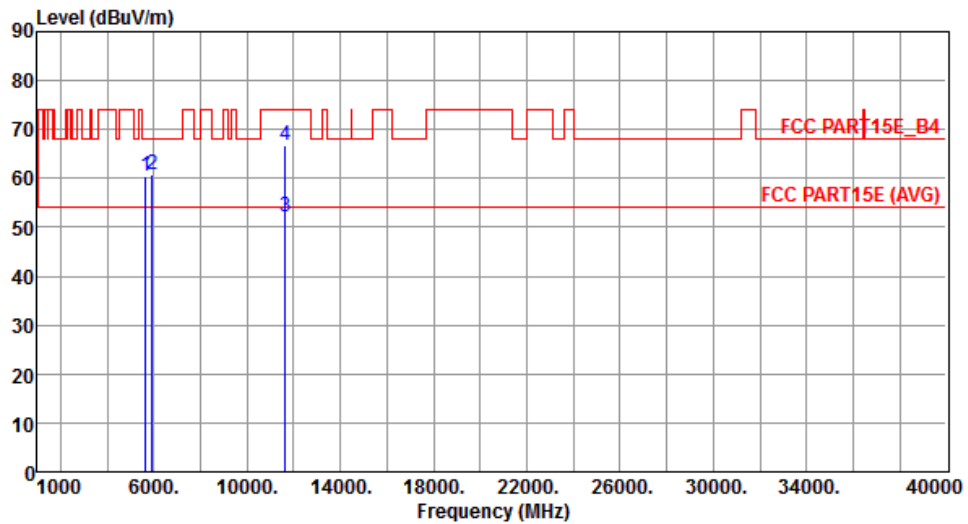
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	59.66	68.20	-8.54	54.66	5.00	Peak	239	208
2	5925.10	59.59	68.20	-8.61	54.25	5.34	Peak	239	208
3	11650.00	48.42	54.00	-5.58	33.33	15.09	Average	100	117
4	11650.00	60.67	74.00	-13.33	45.58	15.09	Peak	100	117

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	5649.90	60.30	68.20	-7.90	55.30	5.00	Peak	164	60
2	5925.10	60.66	68.20	-7.54	55.32	5.34	Peak	164	60
3	11650.00	52.25	54.00	-1.75	37.16	15.09	Average	100	135
4	11650.00	66.66	74.00	-7.34	51.57	15.09	Peak	100	135

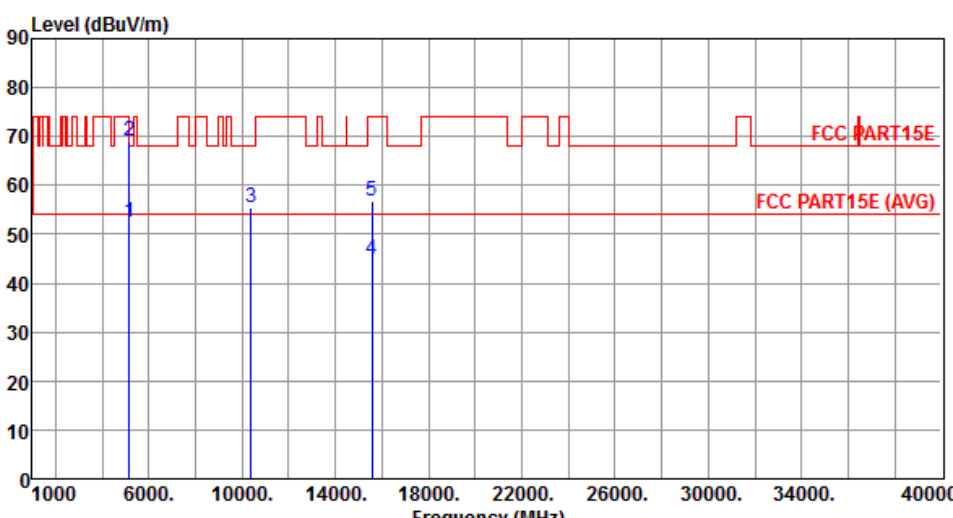
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

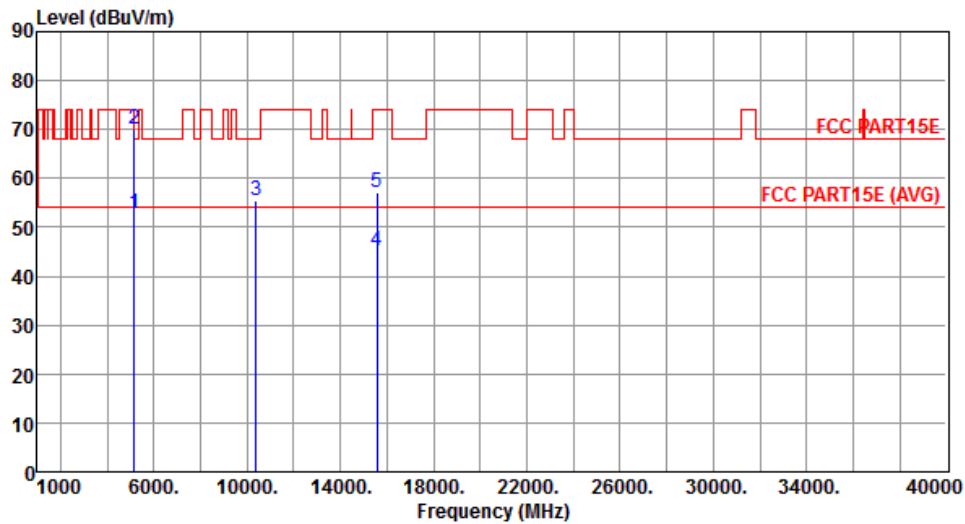
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Horizontal	Test Configuration	1



	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	52.36	54.00	-1.64	47.96	4.40	Average	100	327
2	5150.00	69.23	74.00	-4.77	64.83	4.40	Peak	100	327
3	10380.00	55.48	68.20	-12.72	41.23	14.25	Peak	100	141
4	15570.00	44.75	54.00	-9.25	29.69	15.06	Average	100	221
5	15570.00	56.81	74.00	-17.19	41.75	15.06	Peak	100	221

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

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



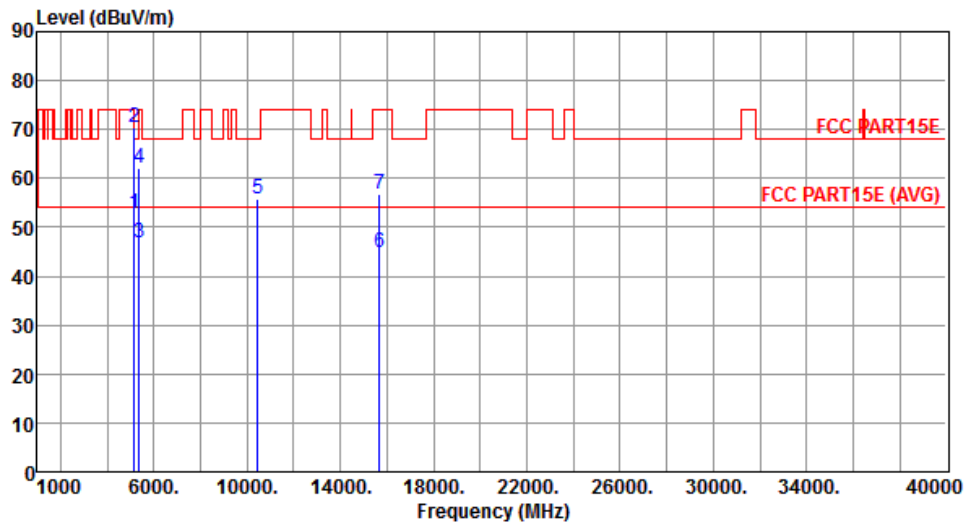
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.76	54.00	-1.24	48.36	4.40	Average	100	130
2	5150.00	70.06	74.00	-3.94	65.66	4.40	Peak	100	130
3	10380.00	55.60	68.20	-12.60	41.35	14.25	Peak	100	85
4	15570.00	45.04	54.00	-8.96	29.98	15.06	Average	100	213
5	15570.00	57.00	74.00	-17.00	41.94	15.06	Peak	100	213

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



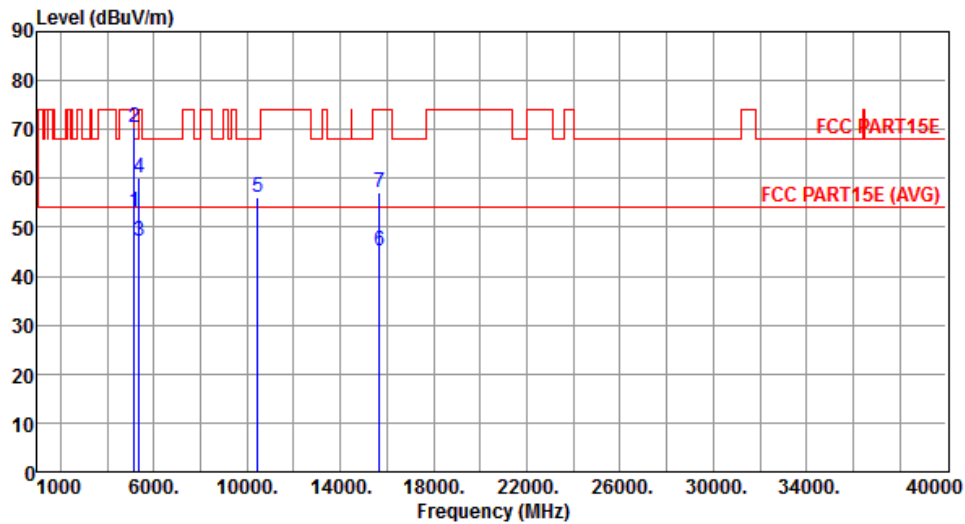
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.77	54.00	-1.23	48.37	4.40	Average	100	205
2	5150.00	70.41	74.00	-3.59	66.01	4.40	Peak	100	205
3	5350.00	46.92	54.00	-7.08	42.28	4.64	Average	100	205
4	5350.00	61.97	74.00	-12.03	57.33	4.64	Peak	100	205
5	10460.00	55.92	68.20	-12.28	41.52	14.40	Peak	100	134
6	15690.00	44.77	54.00	-9.23	29.86	14.91	Average	100	232
7	15690.00	56.88	74.00	-17.12	41.97	14.91	Peak	100	232

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



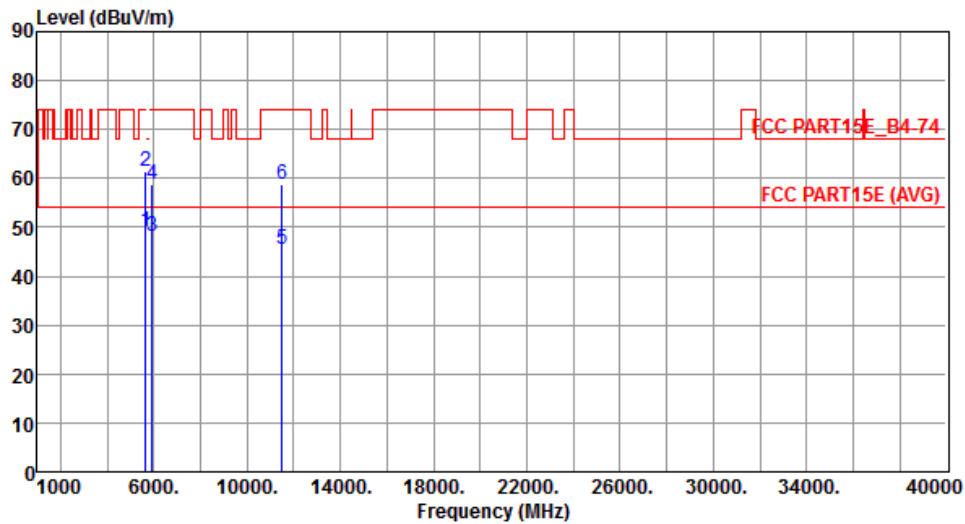
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.99	54.00	-1.01	48.59	4.40	Average	260	288
2	5150.00	70.47	74.00	-3.53	66.07	4.40	Peak	260	288
3	5350.00	47.08	54.00	-6.92	42.44	4.64	Average	260	288
4	5350.00	60.01	74.00	-13.99	55.37	4.64	Peak	260	288
5	10460.00	56.22	68.20	-11.98	41.82	14.40	Peak	100	274
6	15690.00	45.06	54.00	-8.94	30.15	14.91	Average	100	108
7	15690.00	57.19	74.00	-16.81	42.28	14.91	Peak	100	108

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



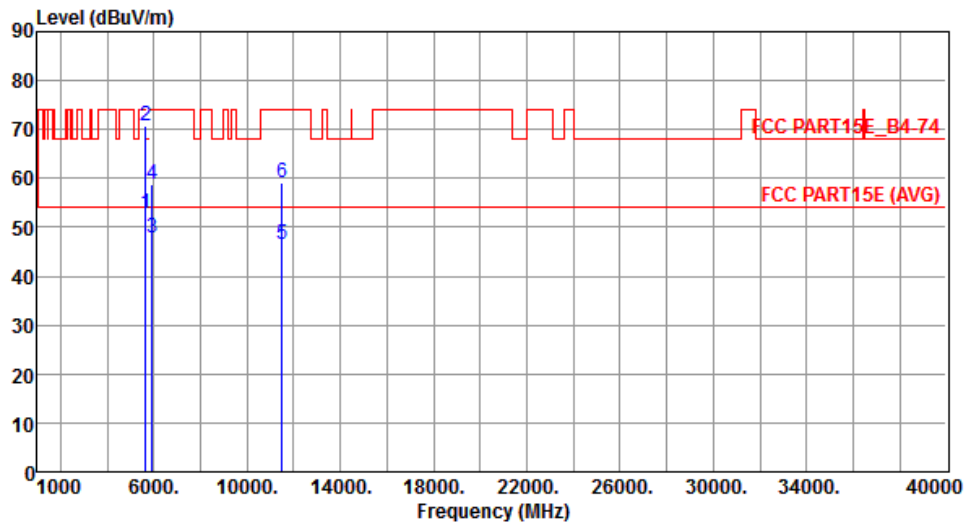
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	49.20	54.00	-4.80	44.20	5.00	Average	251	209
2	5649.90	61.36	74.00	-12.64	56.36	5.00	Peak	251	209
3	5925.10	47.99	54.00	-6.01	42.65	5.34	Average	251	209
4	5925.10	58.89	74.00	-15.11	53.55	5.34	Peak	251	209
5	11510.00	45.40	54.00	-8.60	29.89	15.51	Average	285	225
6	11510.00	58.76	74.00	-15.24	43.25	15.51	Peak	285	225

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

*Factor includes antenna factor , cable loss and amplifier gain

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

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



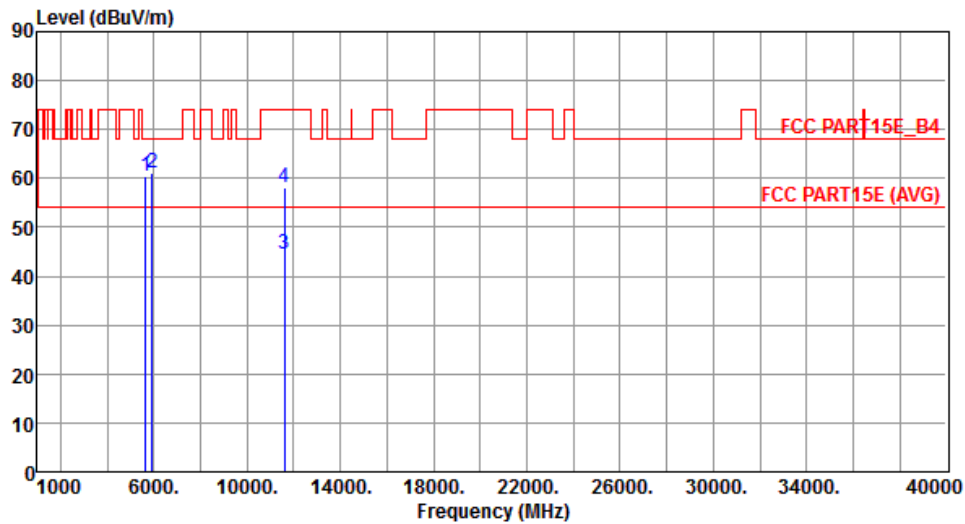
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	52.92	54.00	-1.08	47.92	5.00	Average	239	285
2	5649.90	70.77	74.00	-3.23	65.77	5.00	Peak	239	285
3	5925.10	47.97	54.00	-6.03	42.63	5.34	Average	216	220
4	5925.10	58.94	74.00	-15.06	53.60	5.34	Peak	216	220
5	11510.00	46.64	54.00	-7.36	31.13	15.51	Average	100	126
6	11510.00	59.16	74.00	-14.84	43.65	15.51	Peak	100	126

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



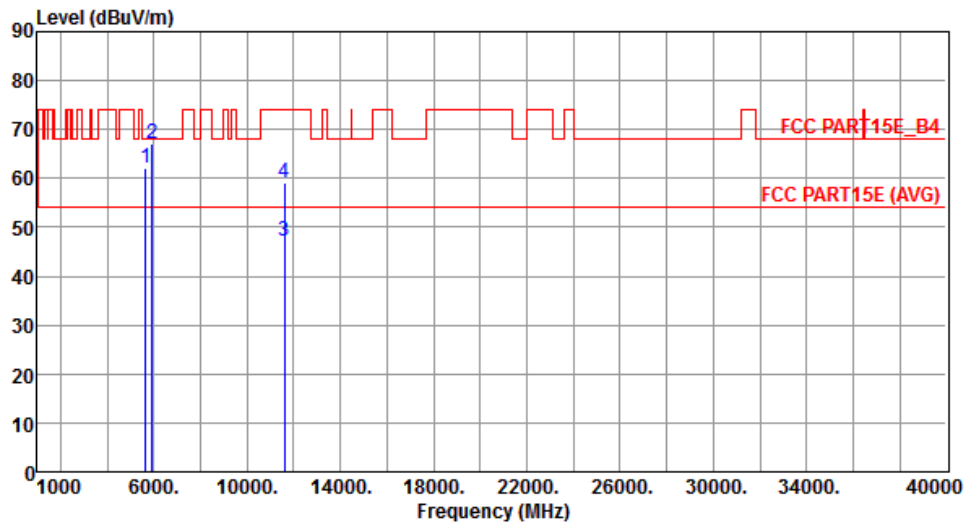
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	60.53	68.20	-7.67	55.53	5.00	Peak	225	210
2	5925.10	61.23	68.20	-6.97	55.89	5.34	Peak	225	210
3	11590.00	44.56	54.00	-9.44	29.29	15.27	Average	295	275
4	11590.00	58.23	74.00	-15.77	42.96	15.27	Peak	295	275

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	5649.90	62.02	68.20	-6.18	57.02	5.00	Peak	229	224
2	5925.10	66.99	68.20	-1.21	61.65	5.34	Peak	229	229
3	11590.00	47.05	54.00	-6.95	31.78	15.27	Average	100	95
4	11590.00	59.26	74.00	-14.74	43.99	15.27	Peak	100	95

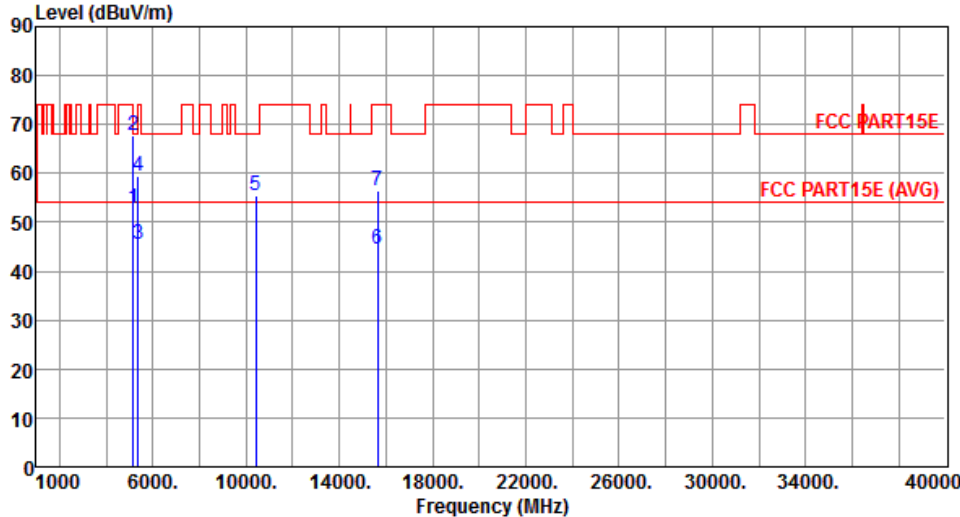
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

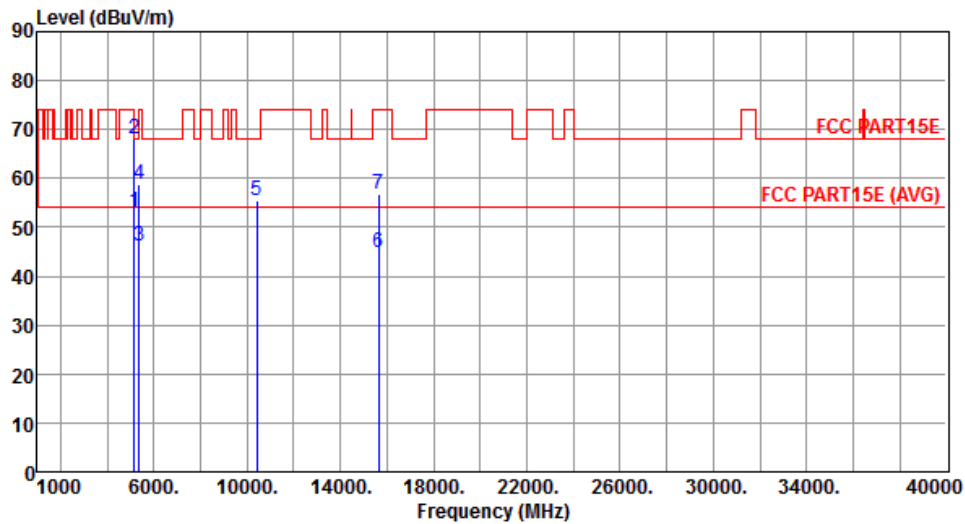
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal	Test Configuration	1



	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	52.73	54.00	-1.27	48.33	4.40	Average	100	350
2	5150.00	67.70	74.00	-6.30	63.30	4.40	Peak	100	350
3	5350.00	45.59	54.00	-8.41	40.95	4.64	Average	100	350
4	5350.00	59.44	74.00	-14.56	54.80	4.64	Peak	100	350
5	10420.00	55.34	68.20	-12.86	41.02	14.32	Peak	100	115
6	15630.00	44.54	54.00	-9.46	29.55	14.99	Average	100	196
7	15630.00	56.51	74.00	-17.49	41.52	14.99	Peak	100	196

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



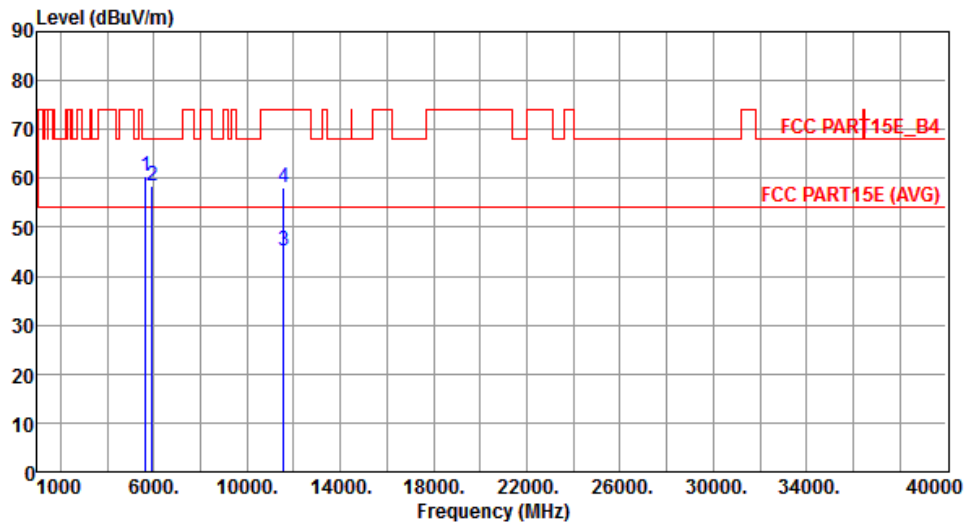
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.99	54.00	-1.01	48.59	4.40	Average	315	258
2	5150.00	68.04	74.00	-5.96	63.64	4.40	Peak	315	258
3	5350.00	46.02	54.00	-7.98	41.38	4.64	Average	315	299
4	5350.00	58.90	74.00	-15.10	54.26	4.64	Peak	315	299
5	10420.00	55.49	68.20	-12.71	41.17	14.32	Peak	100	246
6	15630.00	44.70	54.00	-9.30	29.71	14.99	Average	100	204
7	15630.00	56.84	74.00	-17.16	41.85	14.99	Peak	100	204

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



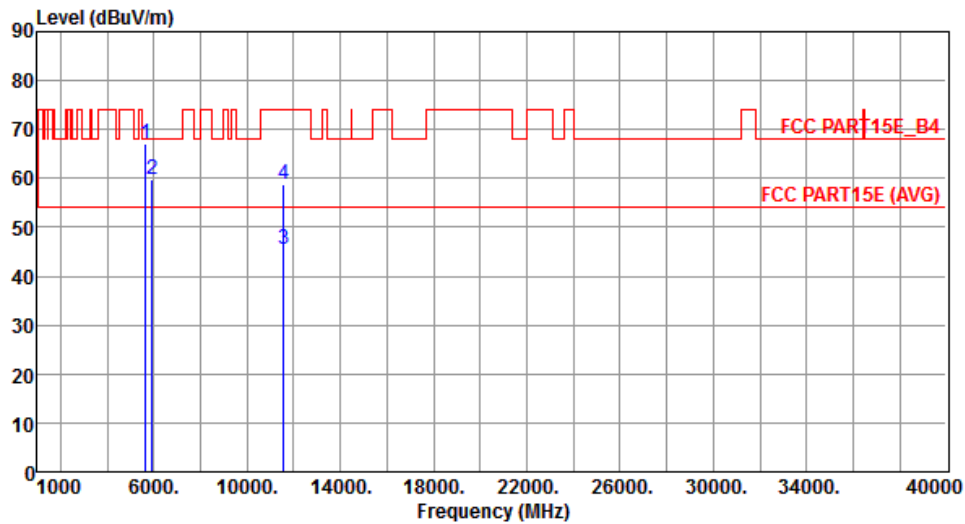
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	60.36	68.20	-7.84	55.36	5.00	Peak	172	184
2	5925.10	58.58	68.20	-9.62	53.24	5.34	Peak	253	208
3	11550.00	45.28	54.00	-8.72	29.88	15.40	Average	295	157
4	11550.00	58.28	74.00	-15.72	42.88	15.40	Peak	295	157

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	5649.90	67.11	68.20	-1.09	62.11	5.00	Peak	100	40
2	5925.10	59.66	68.20	-8.54	54.32	5.34	Peak	159	64
3	11550.00	45.49	54.00	-8.51	30.09	15.40	Average	100	265
4	11550.00	58.65	74.00	-15.35	43.25	15.40	Peak	100	265

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

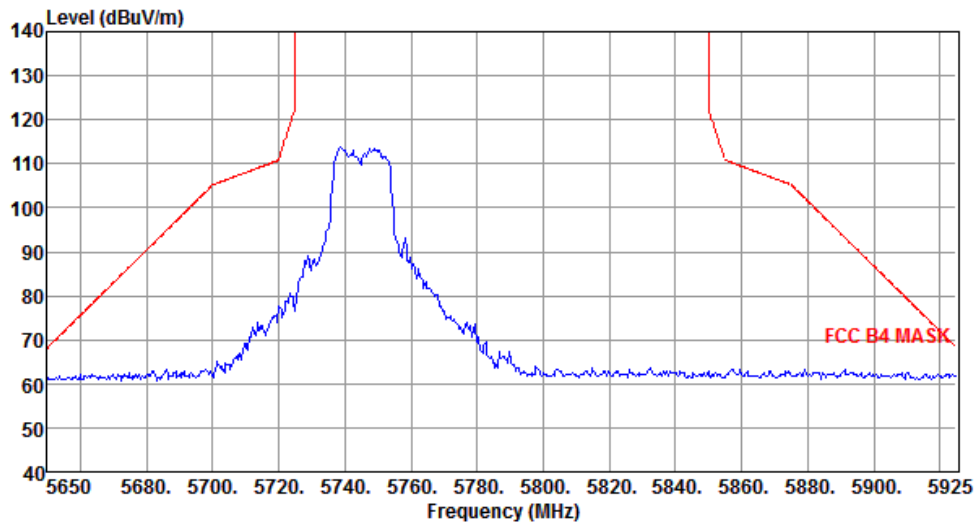
*Factor includes antenna factor , cable loss and amplifier gain

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

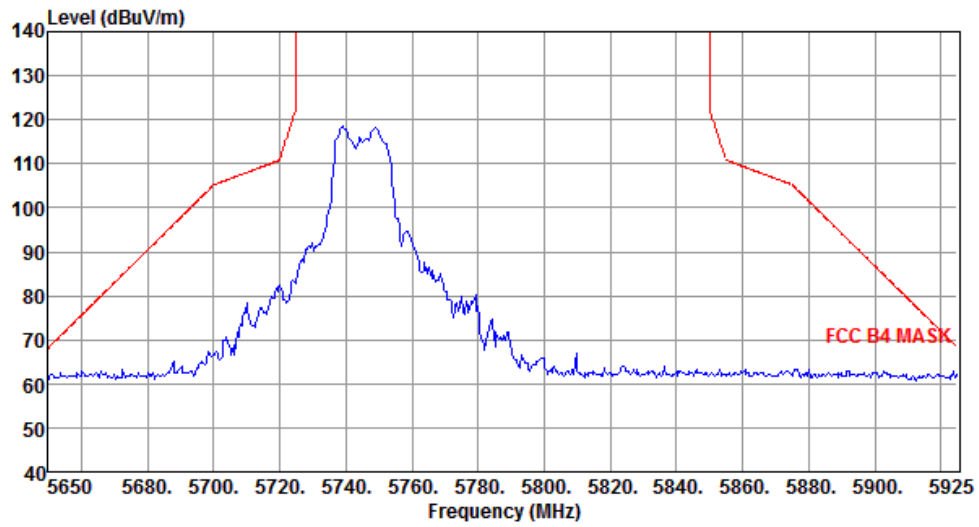
PIFA antenna

3.5.13 Transmitter Radiated Band Edge for 11a

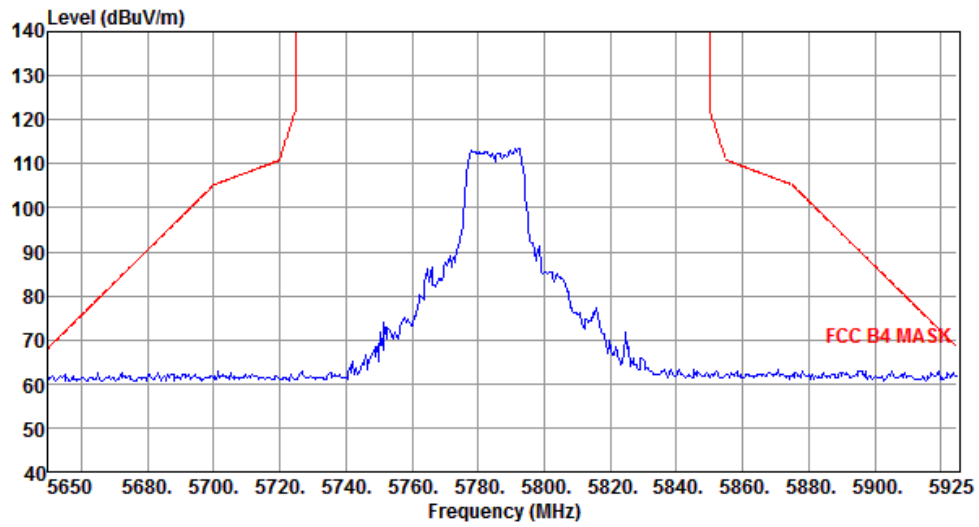
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal	Test Configuration	2



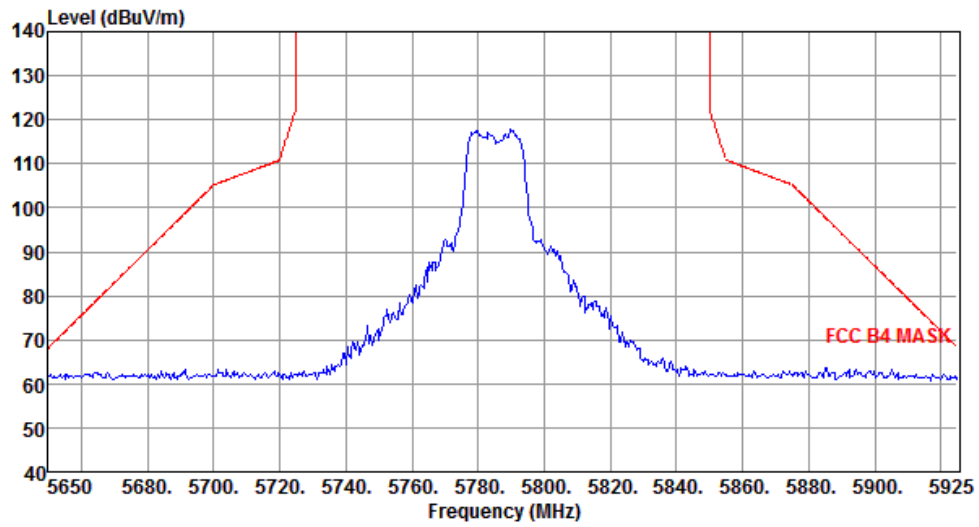
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical	Test Configuration	2



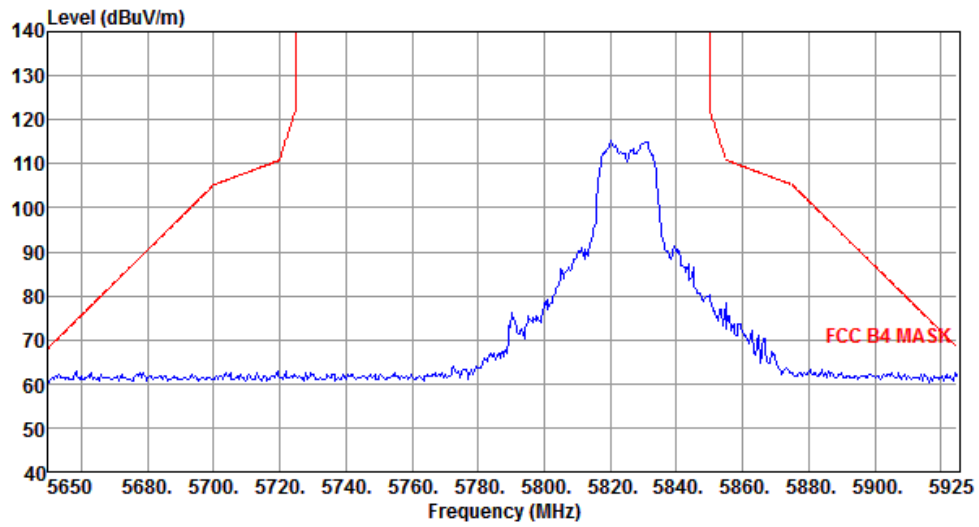
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal	Test Configuration	2



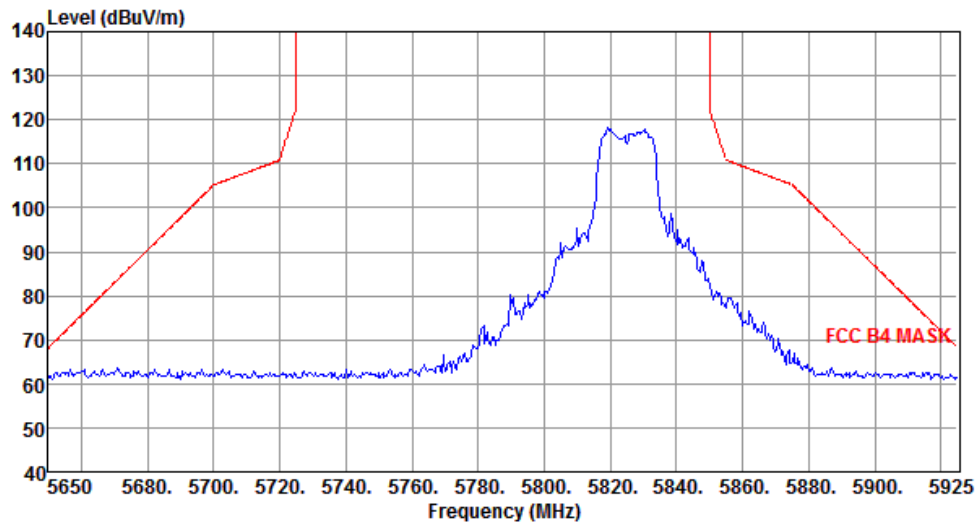
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical	Test Configuration	2



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

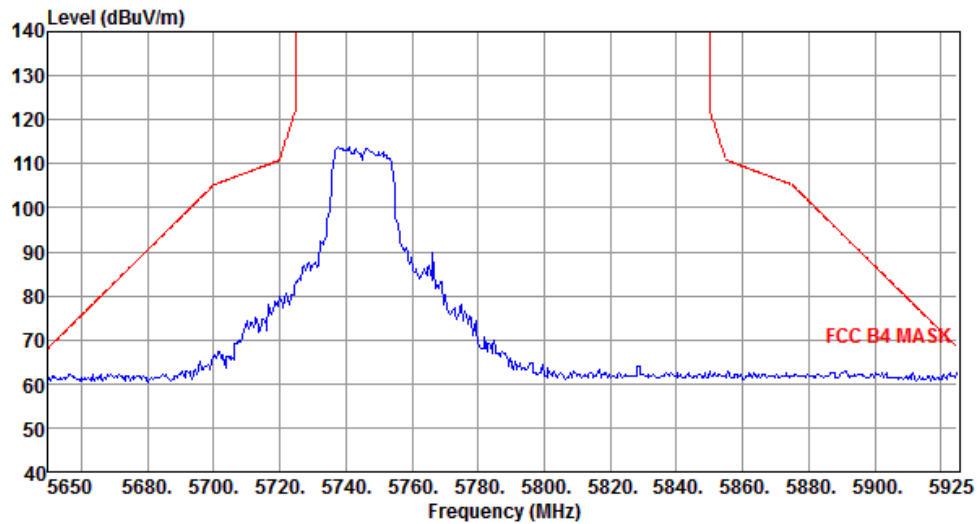


Modulation	11a	Test Freq. (MHz)	5825
Polarization	Vertical	Test Configuration	2

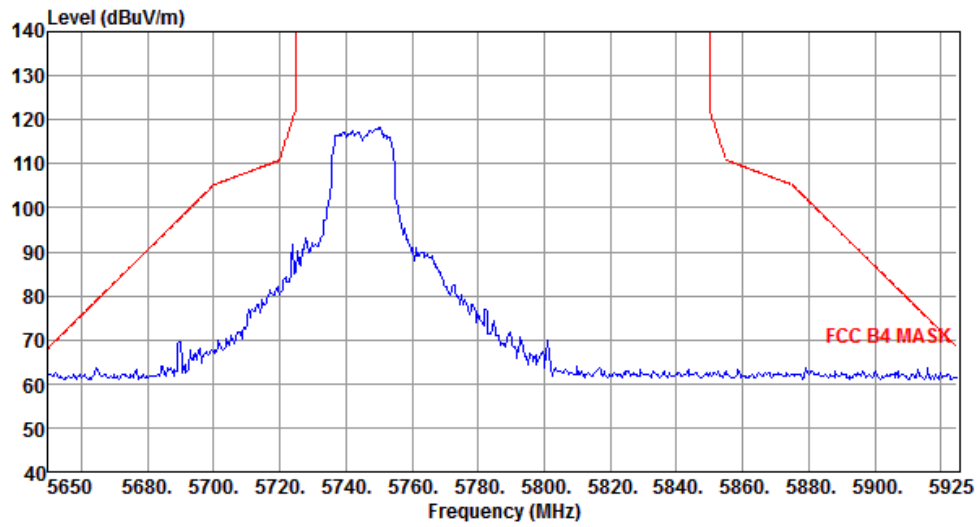


3.5.14 Transmitter Radiated Band Edge for VHT20

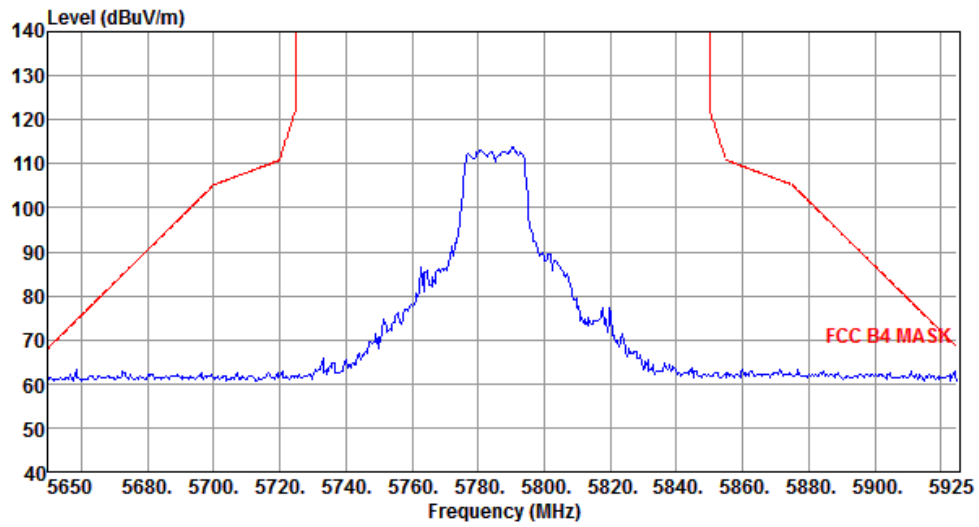
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal	Test Configuration	2



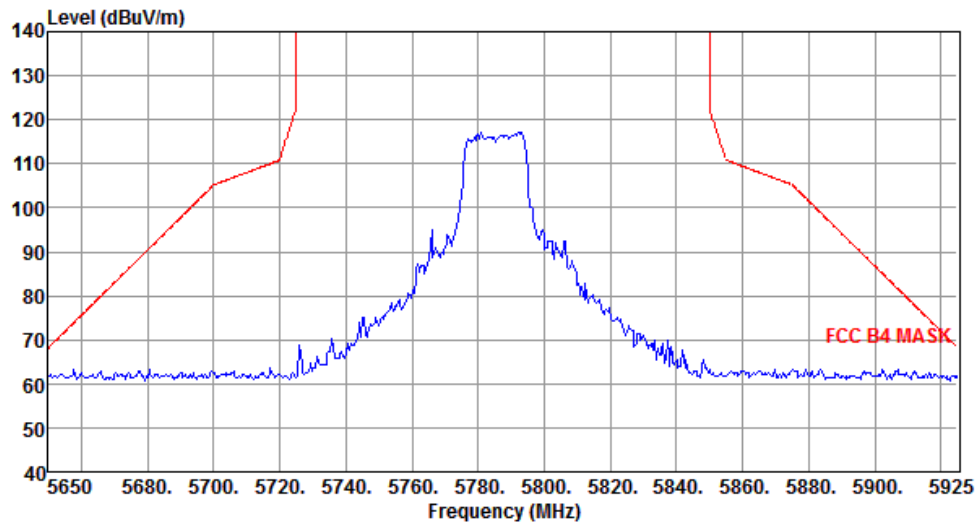
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical	Test Configuration	2



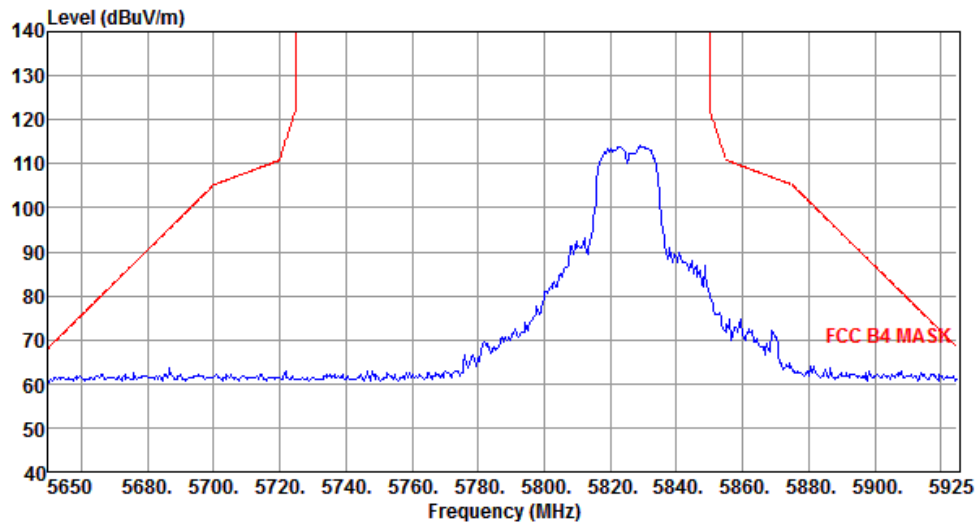
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal	Test Configuration	2



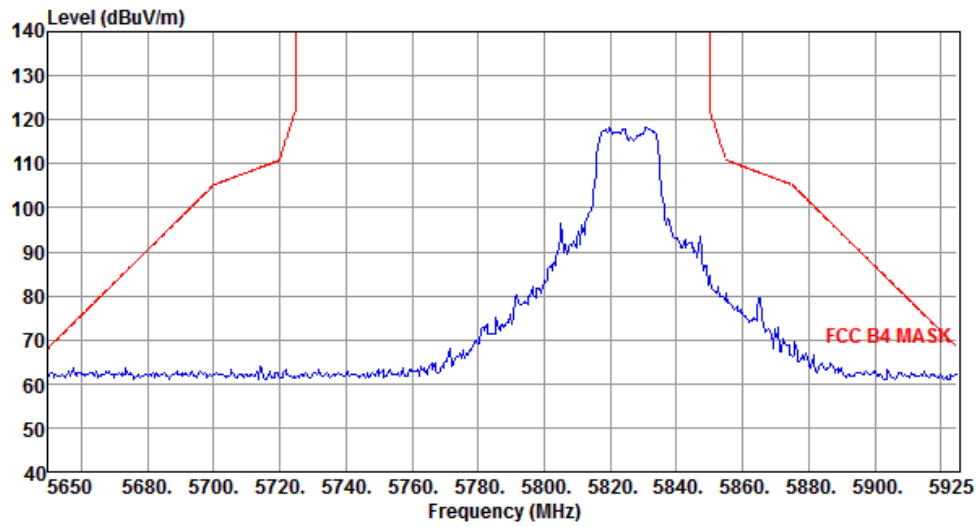
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical	Test Configuration	2



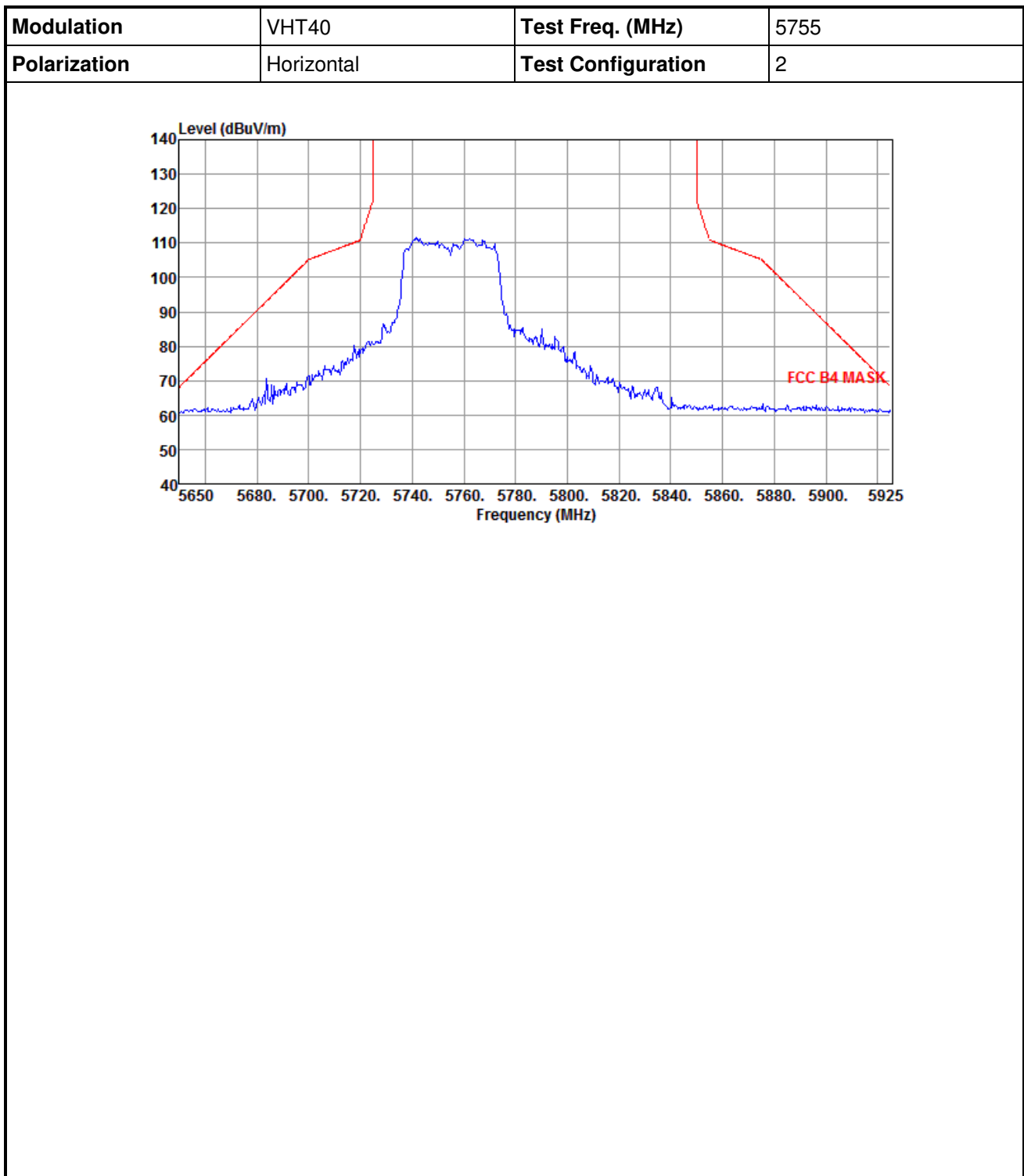
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal	Test Configuration	2



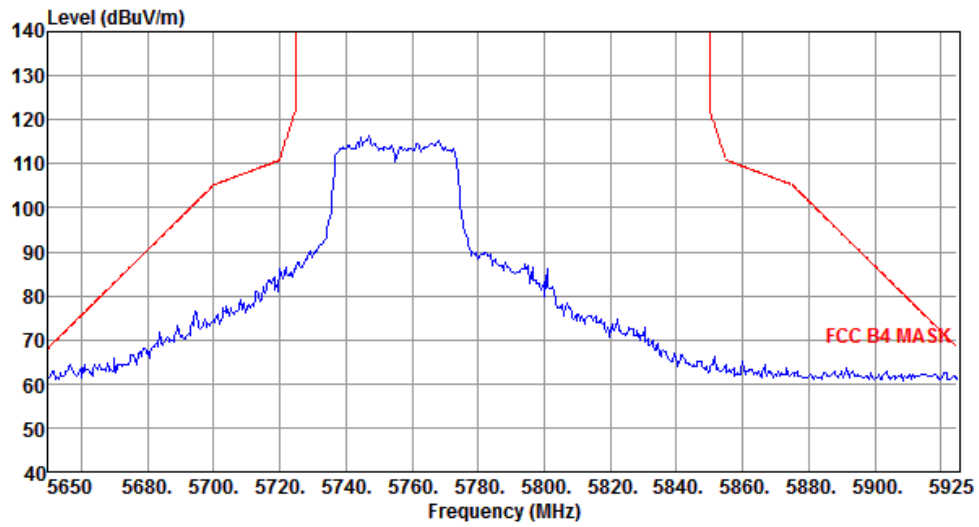
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Vertical	Test Configuration	2



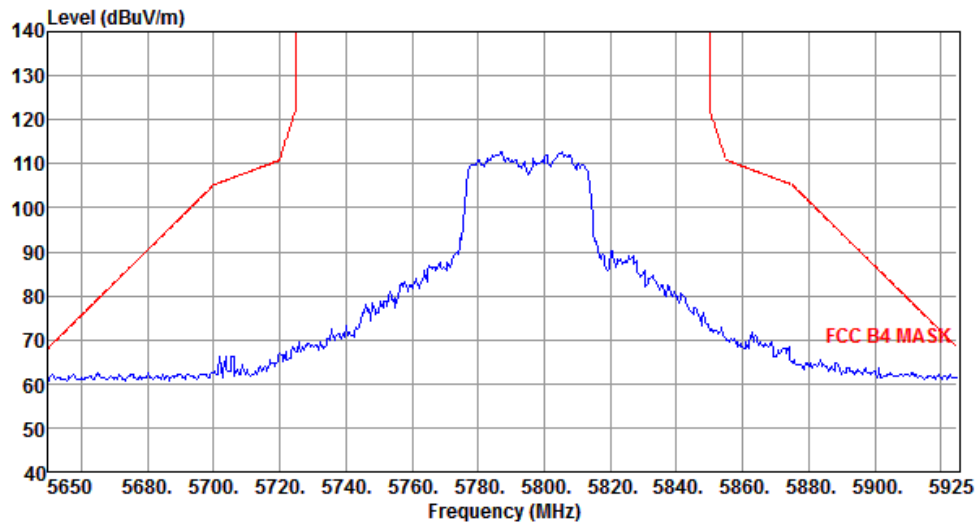
3.5.15 Transmitter Radiated Band Edge for VHT40



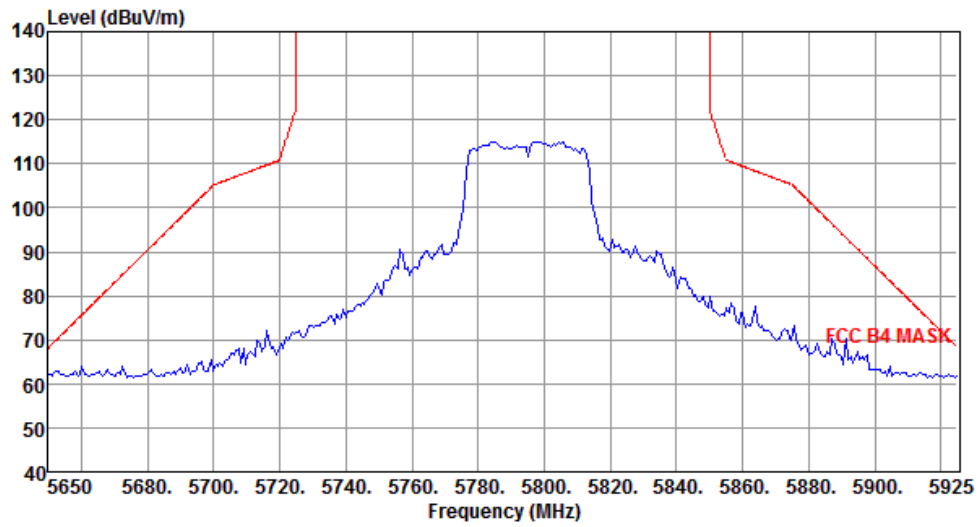
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical	Test Configuration	2



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

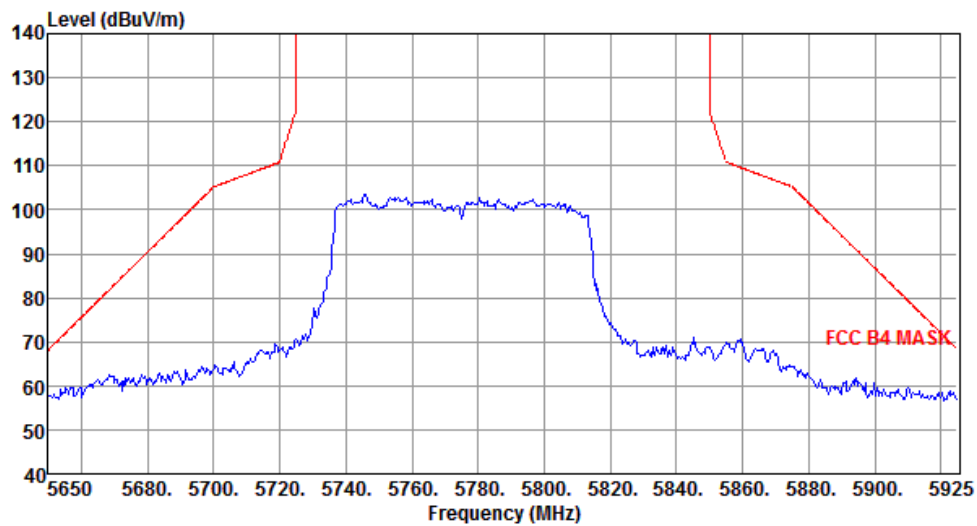


Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical	Test Configuration	2

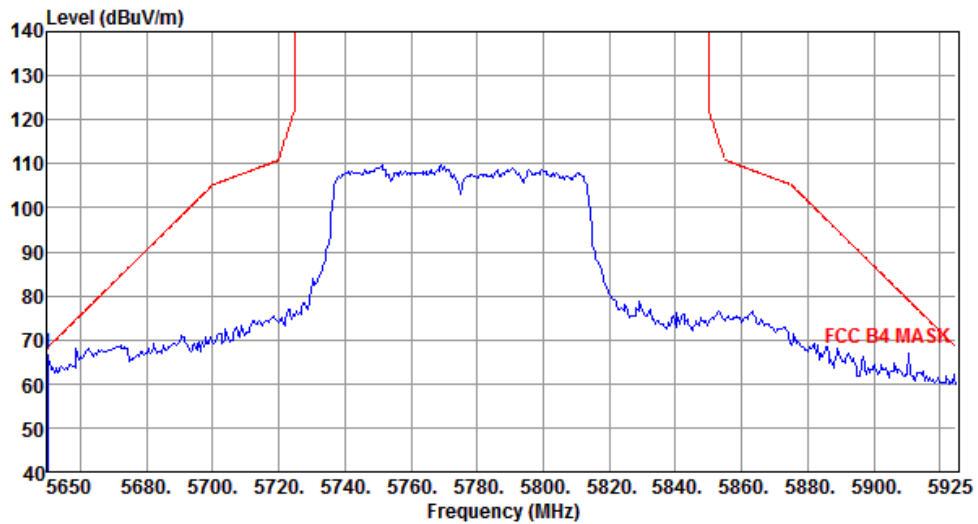


3.5.16 Transmitter Radiated Band Edge for VHT80

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



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	5650.00	66.81	68.20	-1.39	61.81	5.00	Peak	---	---

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

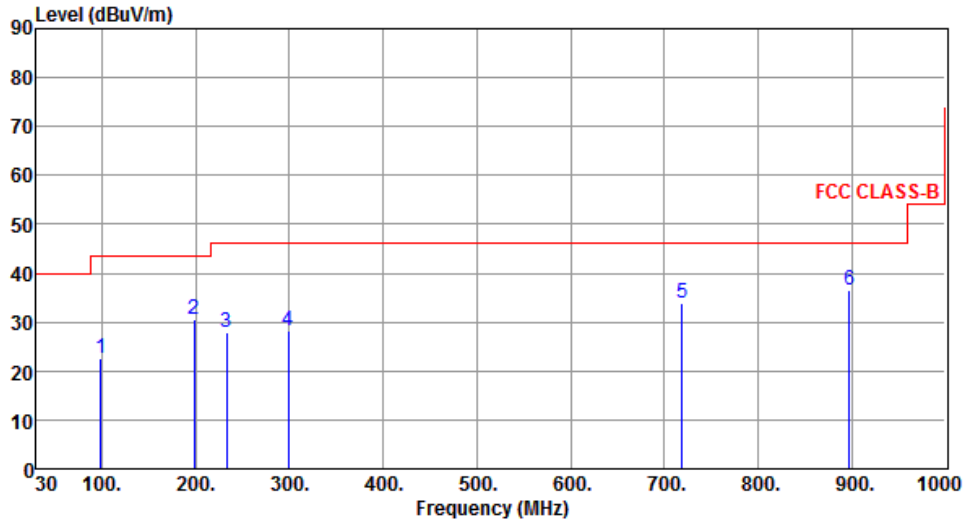
*Factor includes antenna factor , cable loss and amplifier gain

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

PIFA antenna

3.5.17 Transmitter Radiated Unwanted Emissions (Below 1GHz)

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

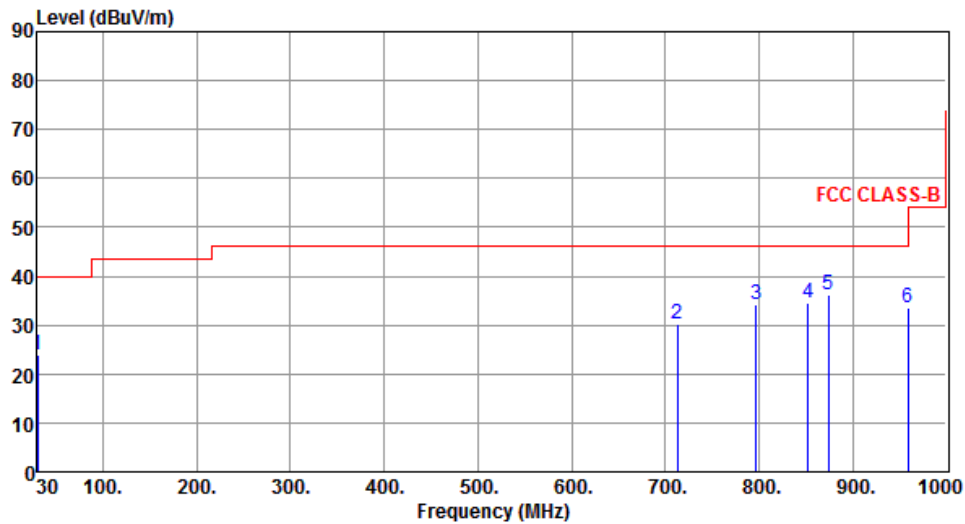


The graph displays the radiated unwanted emissions for a PIFA antenna. The y-axis represents the Level in dBUV/m, ranging from 0 to 90. The x-axis represents the Frequency in MHz, ranging from 30 to 1000. A red line indicates the FCC CLASS-B limit, which is 40 dBUV/m from 30 MHz to 100 MHz, 45 dBUV/m from 100 MHz to 300 MHz, and 55 dBUV/m from 300 MHz to 1000 MHz. Six measured peaks are labeled with numbers 1 through 6, corresponding to the data in the table below.

	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	98.87	22.64	43.50	-20.86	44.14	-21.50	Peak	---	---
2	198.78	30.66	43.50	-12.84	49.92	-19.26	Peak	---	---
3	232.73	27.85	46.00	-18.15	46.27	-18.42	Peak	---	---
4	298.69	28.37	46.00	-17.63	44.19	-15.82	Peak	---	---
5	718.70	33.98	46.00	-12.02	41.63	-7.65	Peak	---	---
6	897.18	36.67	46.00	-9.33	41.92	-5.25	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)	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	30.00	23.77	40.00	-16.23	41.59	-17.82	Peak	---	---
2	712.88	30.31	46.00	-15.69	38.08	-7.77	Peak	---	---
3	797.27	34.34	46.00	-11.66	40.88	-6.54	Peak	---	---
4	852.56	34.69	46.00	-11.31	40.54	-5.85	Peak	---	---
5	873.90	36.09	46.00	-9.91	41.66	-5.57	Peak	---	---
6	959.26	33.42	46.00	-12.58	37.83	-4.41	Peak	---	---

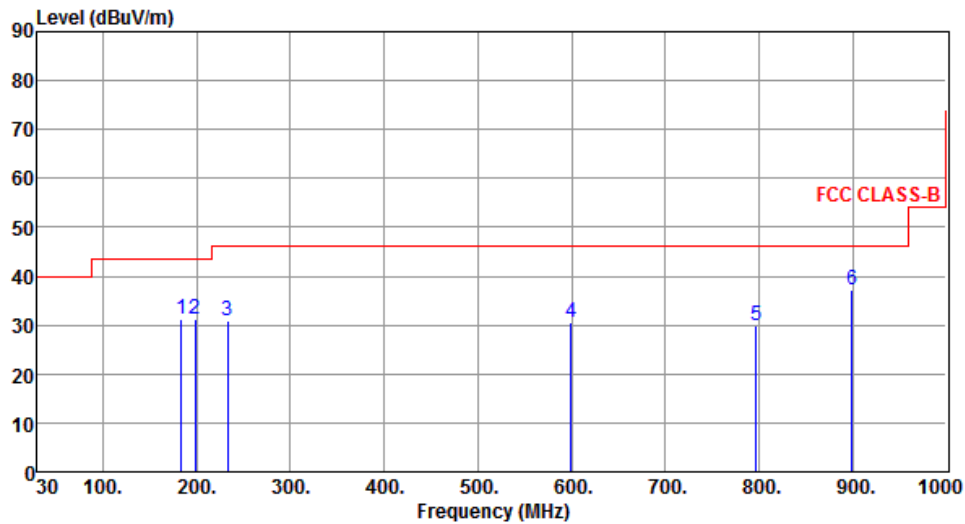
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal	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	183.26	31.09	43.50	-12.41	49.47	-18.38	Peak	---	---
2	198.78	31.07	43.50	-12.43	50.33	-19.26	Peak	---	---
3	232.73	30.72	46.00	-15.28	49.14	-18.42	Peak	---	---
4	599.39	30.59	46.00	-15.41	40.12	-9.53	Peak	---	---
5	797.27	29.87	46.00	-16.13	36.41	-6.54	Peak	---	---
6	899.12	37.09	46.00	-8.91	42.32	-5.23	Peak	---	---

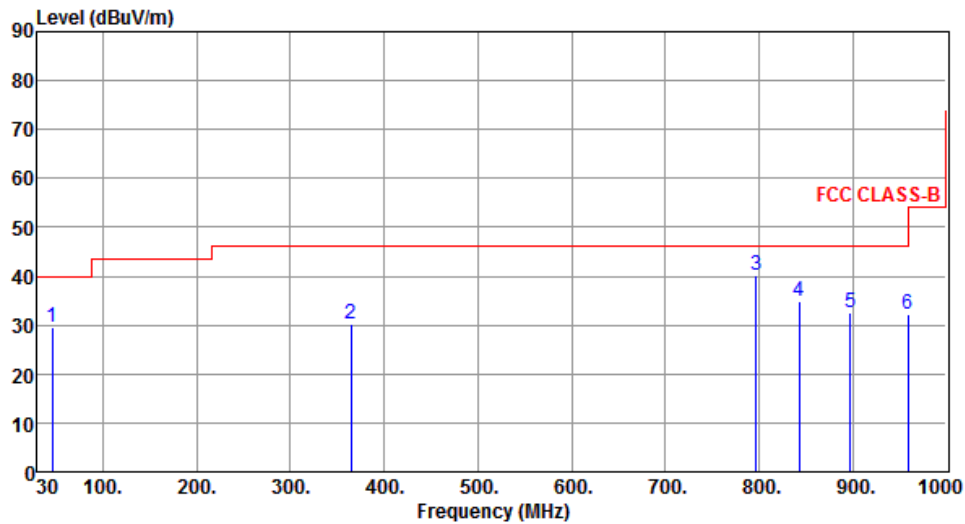
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical	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	45.52	29.59	40.00	-10.41	45.90	-16.31	Peak	---	---
2	364.65	30.21	46.00	-15.79	44.60	-14.39	Peak	---	---
3	797.27	40.07	46.00	-5.93	46.61	-6.54	Peak	---	---
4	842.86	34.80	46.00	-11.20	40.78	-5.98	Peak	---	---
5	897.18	32.61	46.00	-13.39	37.86	-5.25	Peak	---	---
6	959.26	32.20	46.00	-13.80	36.61	-4.41	Peak	---	---

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

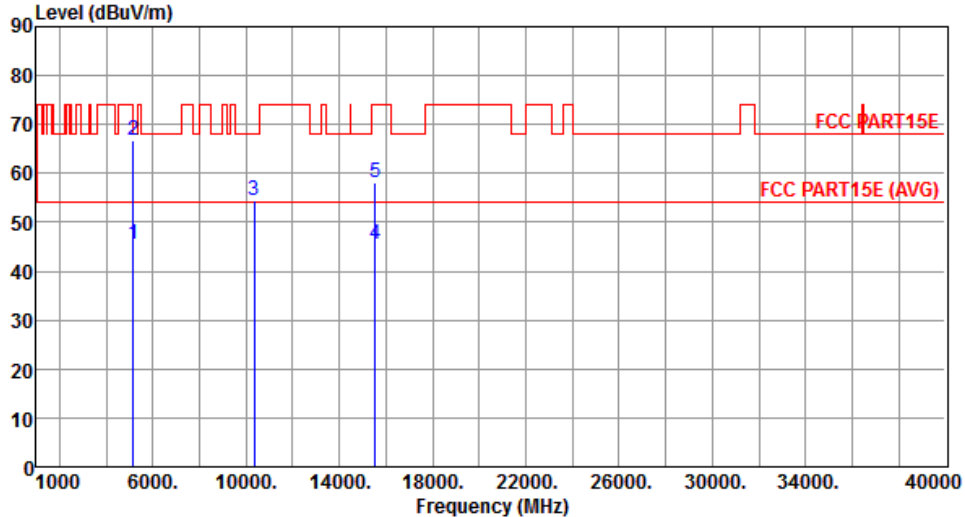
*Factor includes antenna factor , cable loss and amplifier gain

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

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

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

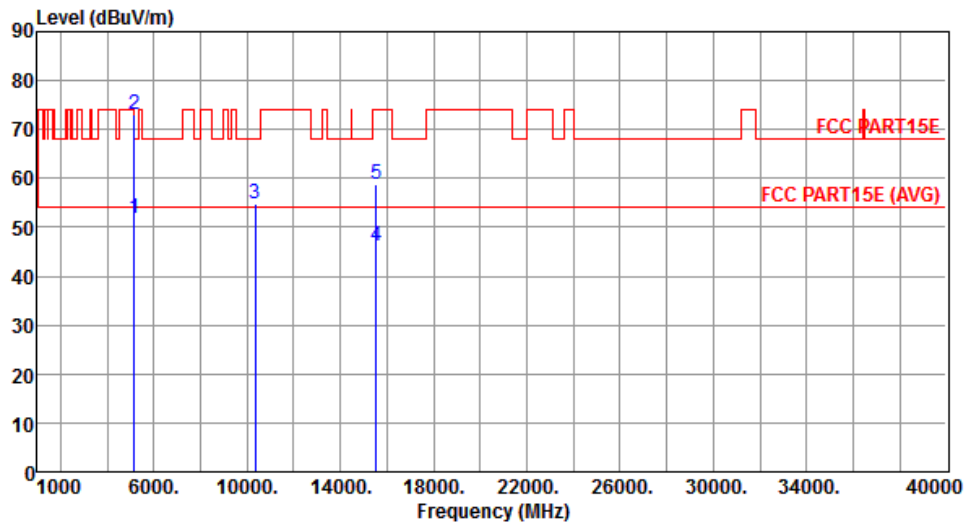
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.54	54.00	-8.46	41.14	4.40	Average	100	306
2	5150.00	66.72	74.00	-7.28	62.32	4.40	Peak	100	306
3	10360.00	54.36	68.20	-13.84	40.16	14.20	Peak	100	284
4	15540.00	45.54	54.00	-8.46	30.43	15.11	Average	100	189
5	15540.00	58.13	74.00	-15.87	43.02	15.11	Peak	100	189

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



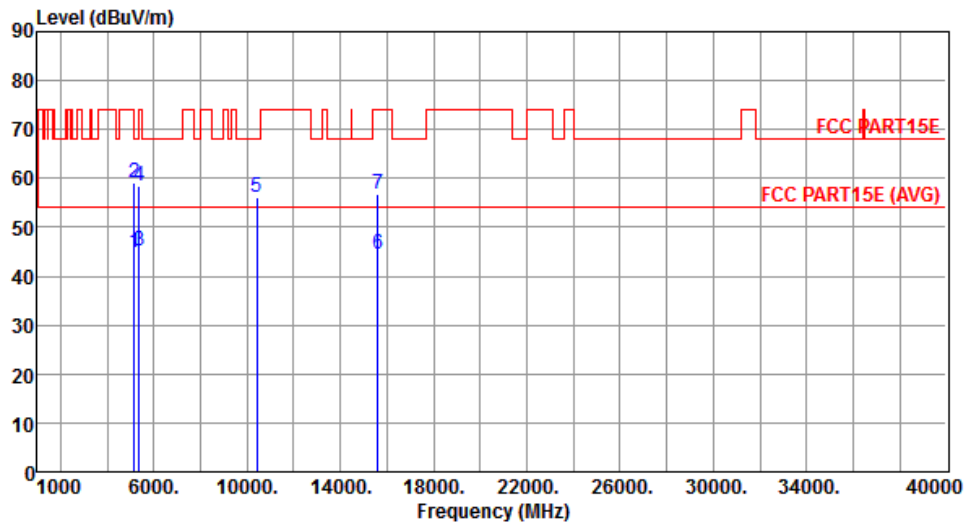
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.94	54.00	-2.06	47.54	4.40	Average	264	195
2	5150.00	72.99	74.00	-1.01	68.59	4.40	Peak	264	195
3	10360.00	54.68	68.20	-13.52	40.48	14.20	Peak	100	261
4	15540.00	46.04	54.00	-7.96	30.93	15.11	Average	100	203
5	15540.00	58.67	74.00	-15.33	43.56	15.11	Peak	100	203

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



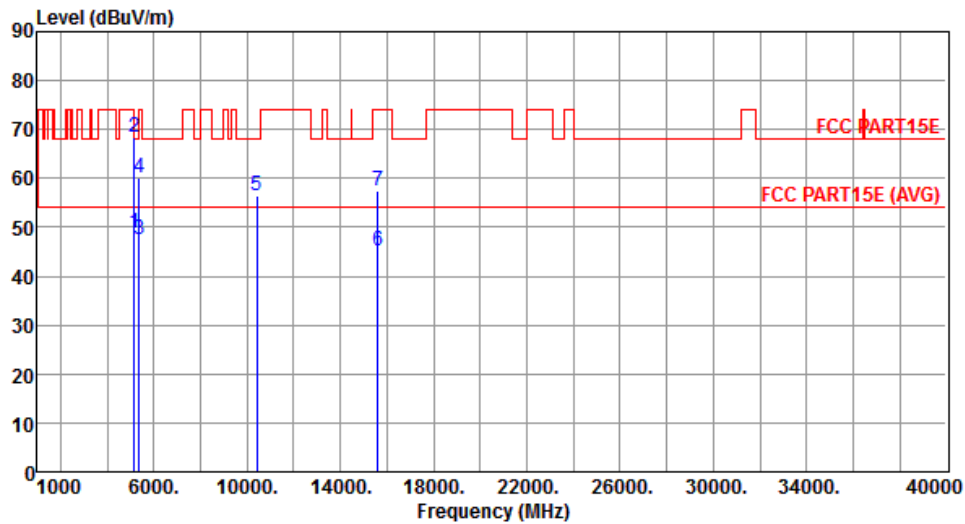
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.79	54.00	-9.21	40.39	4.40	Average	100	306
2	5150.00	58.97	74.00	-15.03	54.57	4.40	Peak	100	306
3	5350.00	45.26	54.00	-8.74	40.62	4.64	Average	100	306
4	5350.00	58.50	74.00	-15.50	53.86	4.64	Peak	100	306
5	10400.00	56.20	68.20	-12.00	41.92	14.28	Peak	100	213
6	15600.00	44.66	54.00	-9.34	29.64	15.02	Average	100	267
7	15600.00	56.66	74.00	-17.34	41.64	15.02	Peak	100	267

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



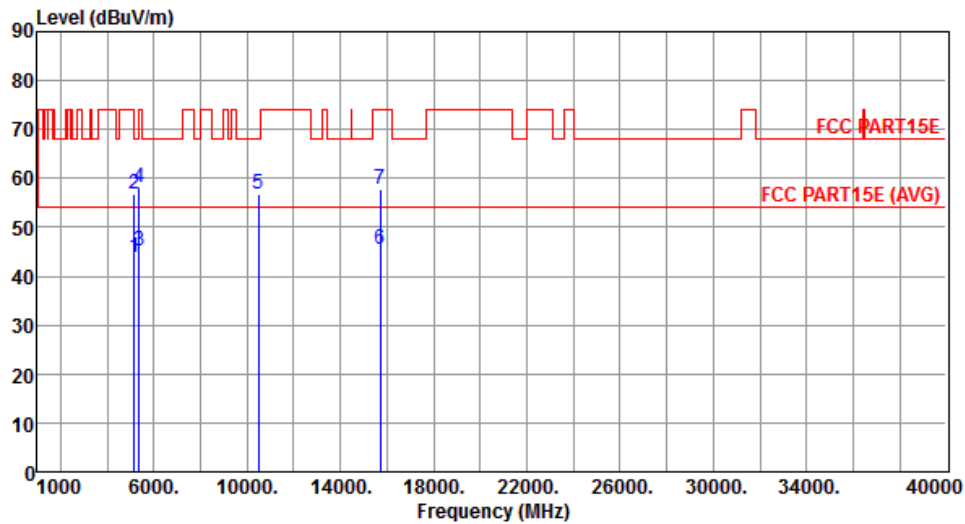
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.82	54.00	-5.18	44.42	4.40	Average	320	322
2	5150.00	68.47	74.00	-5.53	64.07	4.40	Peak	320	322
3	5350.00	47.41	54.00	-6.59	42.77	4.64	Average	320	322
4	5350.00	60.14	74.00	-13.86	55.50	4.64	Peak	320	322
5	10400.00	56.46	68.20	-11.74	42.18	14.28	Peak	100	176
6	15600.00	45.24	54.00	-8.76	30.22	15.02	Average	100	279
7	15600.00	57.34	74.00	-16.66	42.32	15.02	Peak	100	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	11a	Test Freq. (MHz)	5240
Polarization	Horizontal	Test Configuration	2



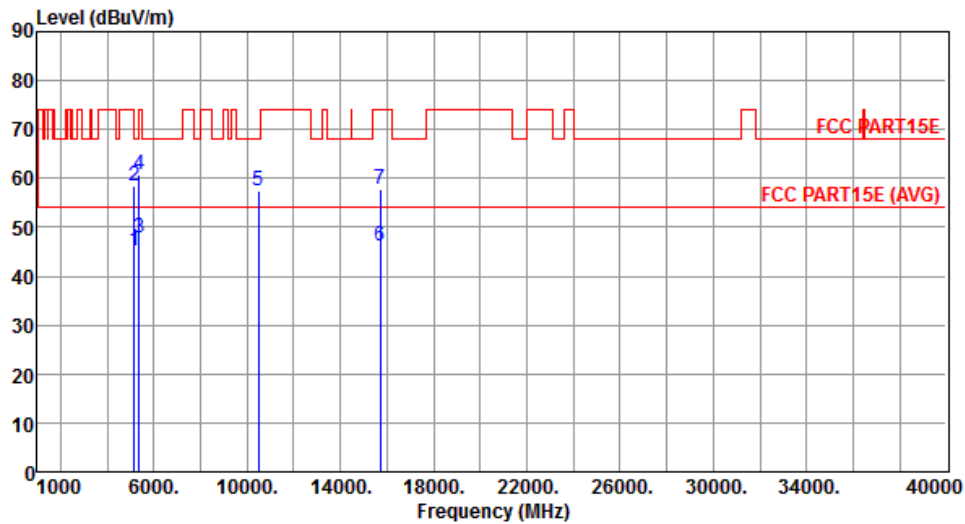
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	43.74	54.00	-10.26	39.34	4.40	Average	100	309
2	5150.00	56.74	74.00	-17.26	52.34	4.40	Peak	100	309
3	5350.00	45.19	54.00	-8.81	40.55	4.64	Average	100	309
4	5350.00	58.02	74.00	-15.98	53.38	4.64	Peak	100	309
5	10480.00	56.71	68.20	-11.49	42.28	14.43	Peak	100	301
6	15720.00	45.51	54.00	-8.49	30.64	14.87	Average	100	268
7	15720.00	57.64	74.00	-16.36	42.77	14.87	Peak	100	268

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



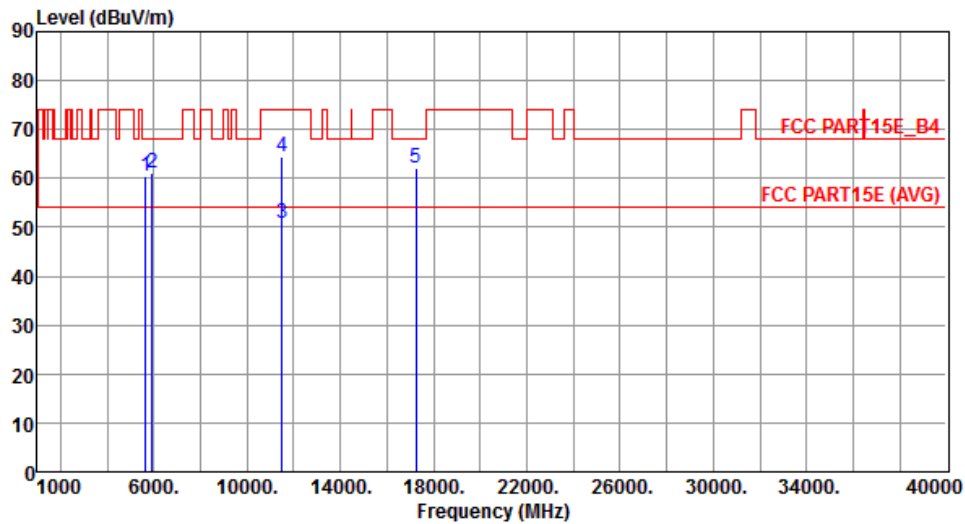
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.31	54.00	-8.69	40.91	4.40	Average	300	140
2	5150.00	58.38	74.00	-15.62	53.98	4.40	Peak	300	140
3	5350.00	47.68	54.00	-6.32	43.04	4.64	Average	300	140
4	5350.00	60.70	74.00	-13.30	56.06	4.64	Peak	300	140
5	10480.00	57.29	68.20	-10.91	42.86	14.43	Peak	100	159
6	15720.00	46.02	54.00	-7.98	31.15	14.87	Average	100	255
7	15720.00	57.89	74.00	-16.11	43.02	14.87	Peak	100	255

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



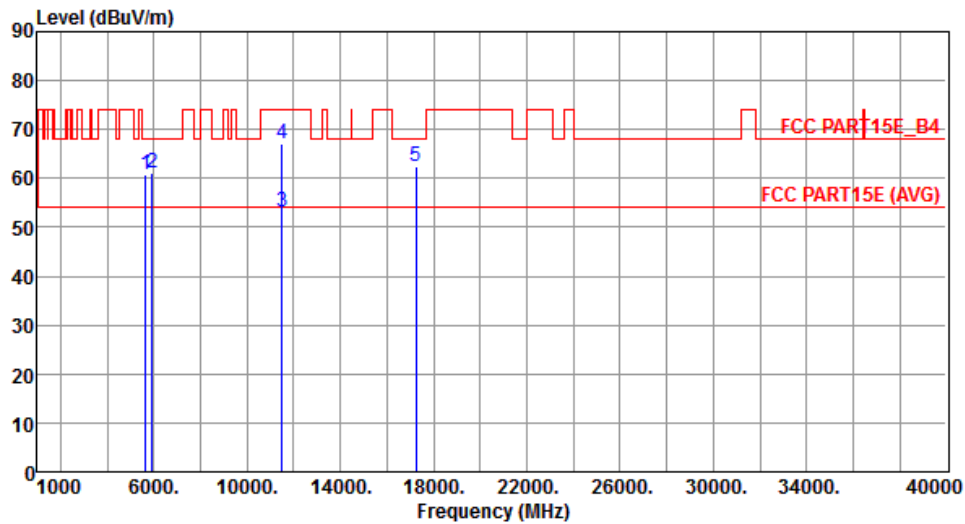
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	60.39	68.20	-7.81	55.39	5.00	Peak	375	68
2	5925.10	61.22	68.20	-6.98	55.88	5.34	Peak	375	68
3	11490.00	50.92	54.00	-3.08	35.39	15.53	Average	375	53
4	11490.00	64.44	74.00	-9.56	48.91	15.53	Peak	375	53
5	17235.00	62.13	68.20	-6.07	43.26	18.87	Peak	300	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)	5745
Polarization	Vertical	Test Configuration	2



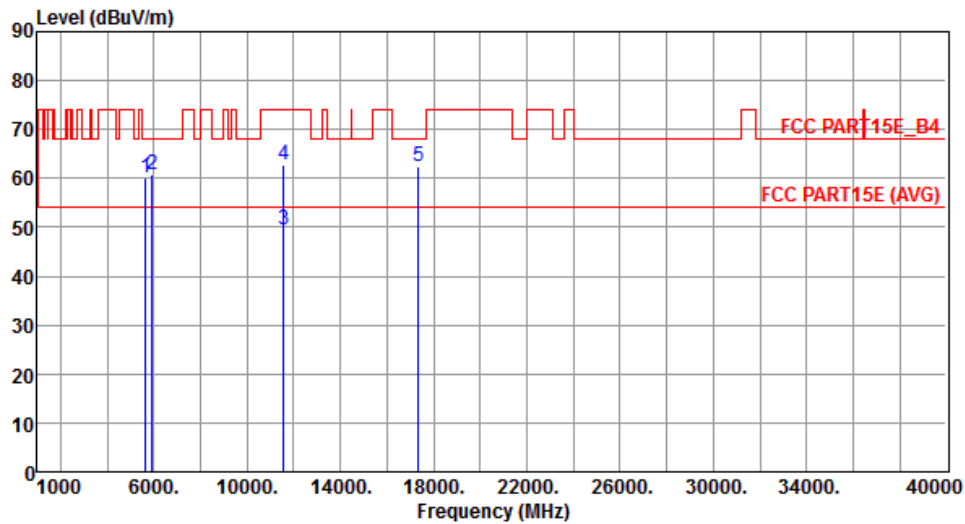
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	60.66	68.20	-7.54	55.66	5.00	Peak	319	274
2	5925.10	61.18	68.20	-7.02	55.84	5.34	Peak	319	274
3	11490.00	52.98	54.00	-1.02	37.45	15.53	Average	222	315
4	11490.00	66.98	74.00	-7.02	51.45	15.53	Peak	222	315
5	17235.00	62.31	68.20	-5.89	43.44	18.87	Peak	278	99

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



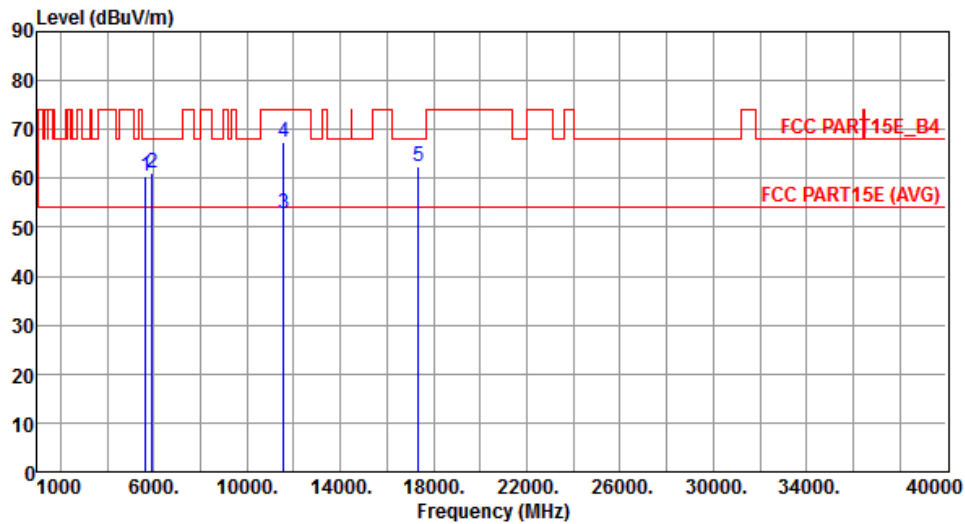
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	60.23	68.20	-7.97	55.23	5.00	Peak	377	128
2	5925.10	60.69	68.20	-7.51	55.35	5.34	Peak	377	128
3	11570.00	49.44	54.00	-4.56	34.11	15.33	Average	383	55
4	11570.00	62.69	74.00	-11.31	47.36	15.33	Peak	383	55
5	17355.00	62.48	68.20	-5.72	43.27	19.21	Peak	303	152

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



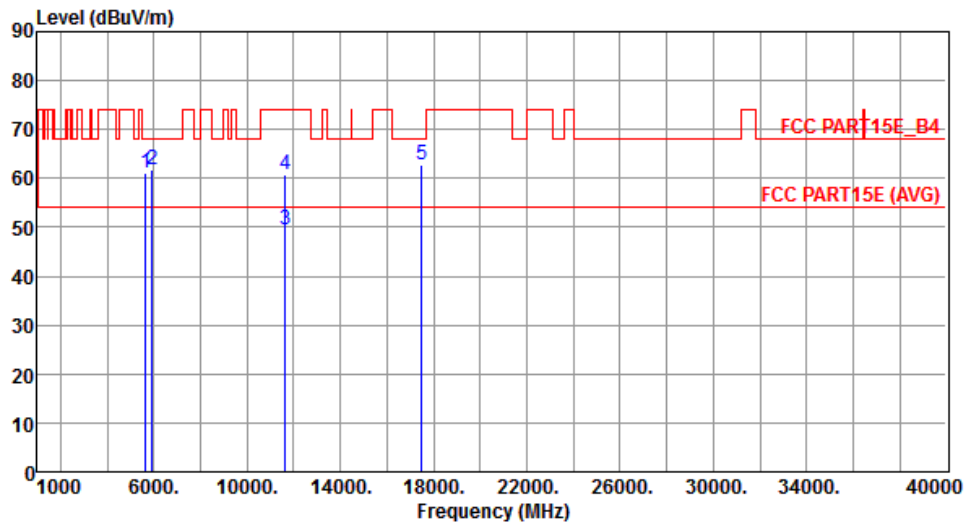
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	60.48	68.20	-7.72	55.48	5.00	Peak	254	111
2	5925.10	61.12	68.20	-7.08	55.78	5.34	Peak	254	111
3	11570.00	52.95	54.00	-1.05	37.62	15.33	Average	220	343
4	11570.00	67.40	74.00	-6.60	52.07	15.33	Peak	220	343
5	17355.00	62.46	68.20	-5.74	43.25	19.21	Peak	269	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)	5825
Polarization	Horizontal	Test Configuration	2



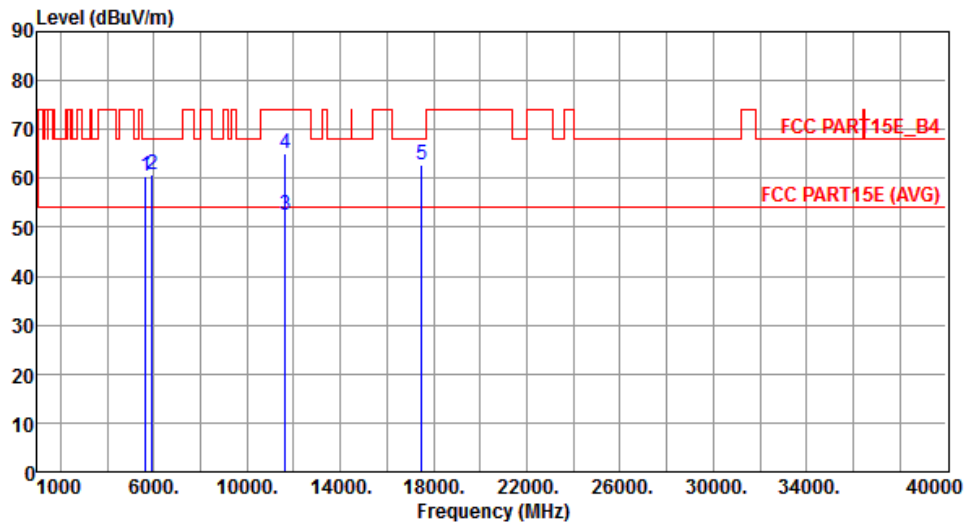
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	61.12	68.20	-7.08	56.12	5.00	Peak	392	9
2	5925.10	61.88	68.20	-6.32	56.54	5.34	Peak	392	9
3	11650.00	49.47	54.00	-4.53	34.38	15.09	Average	367	55
4	11650.00	60.75	74.00	-13.25	45.66	15.09	Peak	367	55
5	17475.00	62.65	68.20	-5.55	43.10	19.55	Peak	302	175

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	5649.90	60.45	68.20	-7.75	55.45	5.00	Peak	290	135
2	5925.10	60.91	68.20	-7.29	55.57	5.34	Peak	290	135
3	11650.00	52.40	54.00	-1.60	37.31	15.09	Average	218	334
4	11650.00	65.20	74.00	-8.80	50.11	15.09	Peak	218	334
5	17475.00	62.89	68.20	-5.31	43.34	19.55	Peak	265	78

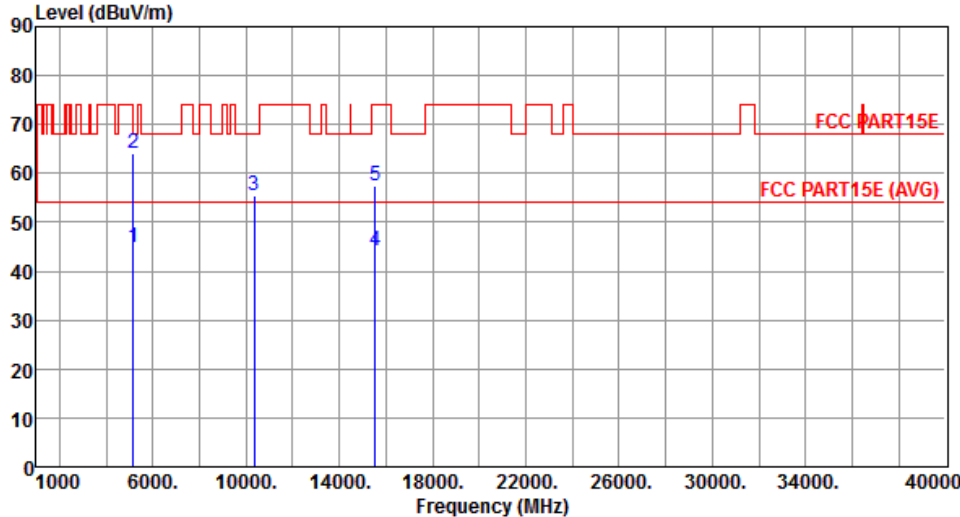
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

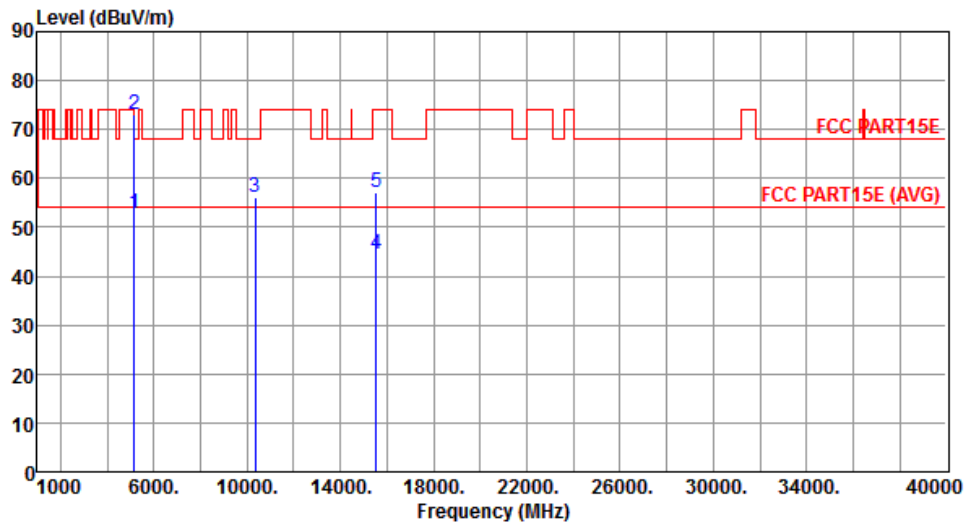
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.97	54.00	-9.03	40.57	4.40	Average	254	305
2	5150.00	64.21	74.00	-9.79	59.81	4.40	Peak	254	305
3	10360.00	55.55	68.20	-12.65	41.35	14.20	Peak	100	263
4	15540.00	44.17	54.00	-9.83	29.06	15.11	Average	100	197
5	15540.00	57.60	74.00	-16.40	42.49	15.11	Peak	100	197

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



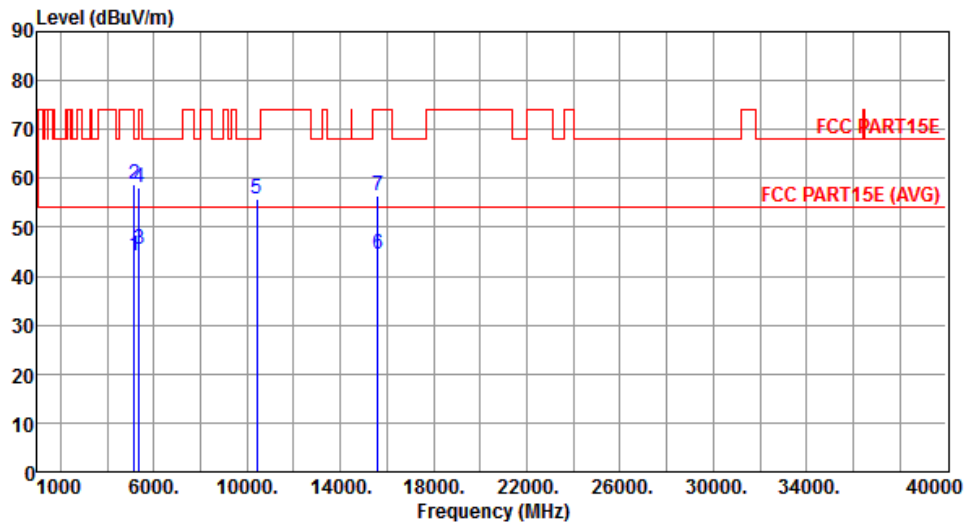
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.97	54.00	-1.03	48.57	4.40	Average	260	32
2	5150.00	72.98	74.00	-1.02	68.58	4.40	Peak	260	32
3	10360.00	56.09	68.20	-12.11	41.89	14.20	Peak	100	289
4	15540.00	44.44	54.00	-9.56	29.33	15.11	Average	100	289
5	15540.00	57.08	74.00	-16.92	41.97	15.11	Peak	100	289

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



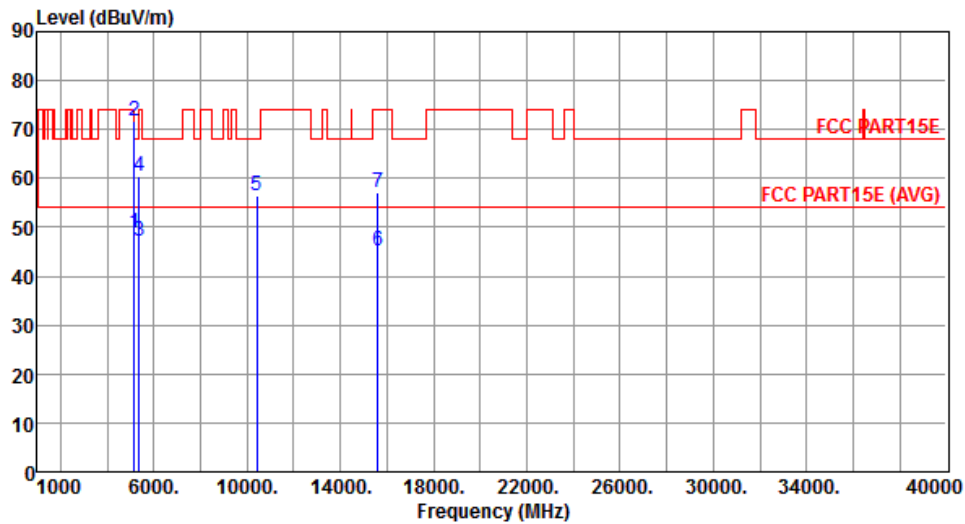
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.28	54.00	-9.72	39.88	4.40	Average	100	307
2	5150.00	58.82	74.00	-15.18	54.42	4.40	Peak	100	307
3	5350.00	45.37	54.00	-8.63	40.73	4.64	Average	100	307
4	5350.00	58.09	74.00	-15.91	53.45	4.64	Peak	100	307
5	10400.00	55.91	68.20	-12.29	41.63	14.28	Peak	100	207
6	15600.00	44.52	54.00	-9.48	29.50	15.02	Average	100	244
7	15600.00	56.39	74.00	-17.61	41.37	15.02	Peak	100	244

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



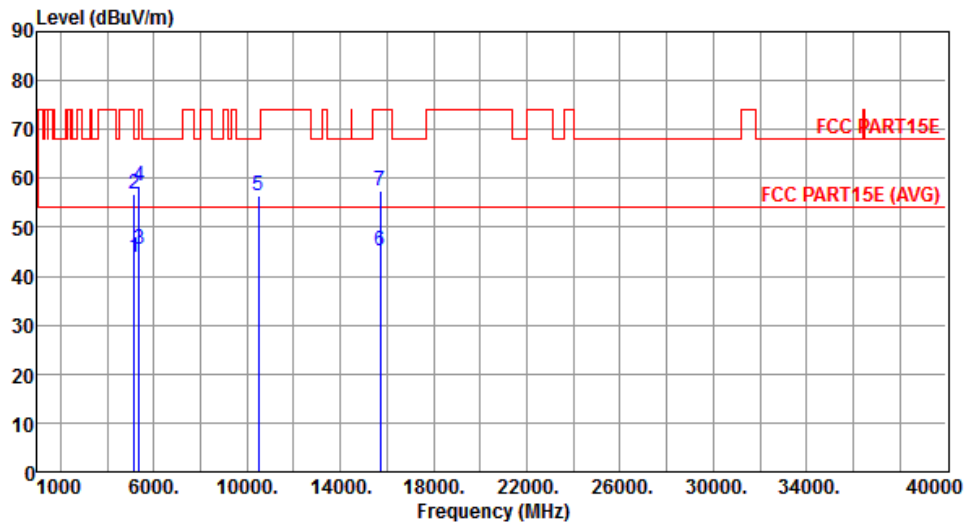
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.75	54.00	-5.25	44.35	4.40	Average	265	160
2	5150.00	71.89	74.00	-2.11	67.49	4.40	Peak	265	160
3	5350.00	47.14	54.00	-6.86	42.50	4.64	Average	265	160
4	5350.00	60.39	74.00	-13.61	55.75	4.64	Peak	265	160
5	10400.00	56.30	68.20	-11.90	42.02	14.28	Peak	100	183
6	15600.00	45.11	54.00	-8.89	30.09	15.02	Average	100	268
7	15600.00	57.11	74.00	-16.89	42.09	15.02	Peak	100	268

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



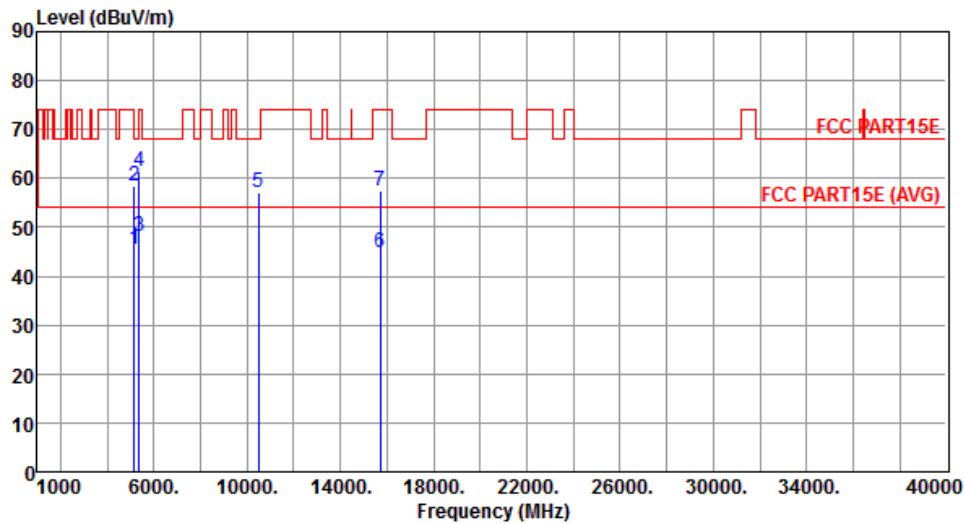
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	43.75	54.00	-10.25	39.35	4.40	Average	100	309
2	5150.00	56.83	74.00	-17.17	52.43	4.40	Peak	100	309
3	5350.00	45.38	54.00	-8.62	40.74	4.64	Average	100	309
4	5350.00	58.34	74.00	-15.66	53.70	4.64	Peak	100	309
5	10480.00	56.56	68.20	-11.64	42.13	14.43	Peak	100	309
6	15720.00	45.24	54.00	-8.76	30.37	14.87	Average	100	258
7	15720.00	57.50	74.00	-16.50	42.63	14.87	Peak	100	258

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



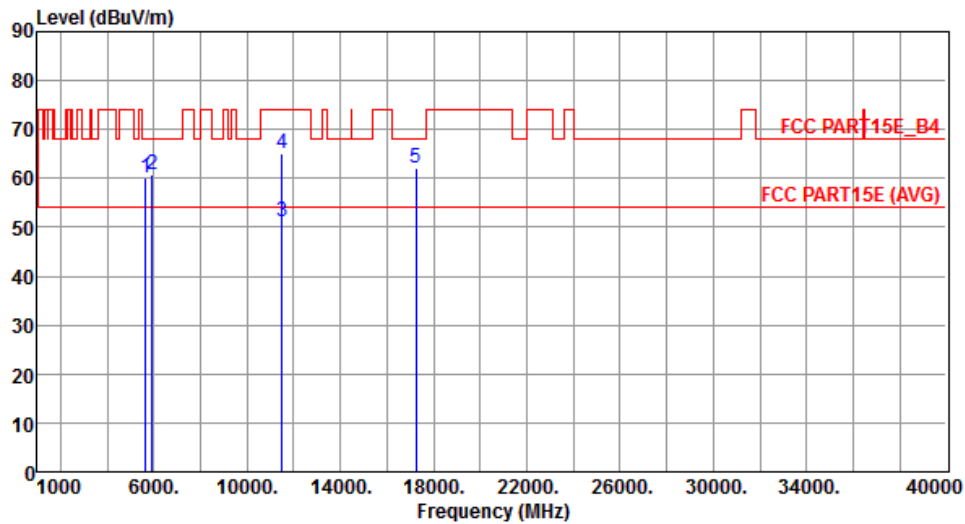
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.62	54.00	-8.38	41.22	4.40	Average	300	141
2	5150.00	58.49	74.00	-15.51	54.09	4.40	Peak	300	141
3	5350.00	48.04	54.00	-5.96	43.40	4.64	Average	300	141
4	5350.00	61.42	74.00	-12.58	56.78	4.64	Peak	300	141
5	10480.00	57.02	68.20	-11.18	42.59	14.43	Peak	100	152
6	15720.00	44.74	54.00	-9.26	29.87	14.87	Average	100	259
7	15720.00	57.60	74.00	-16.40	42.73	14.87	Peak	100	259

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



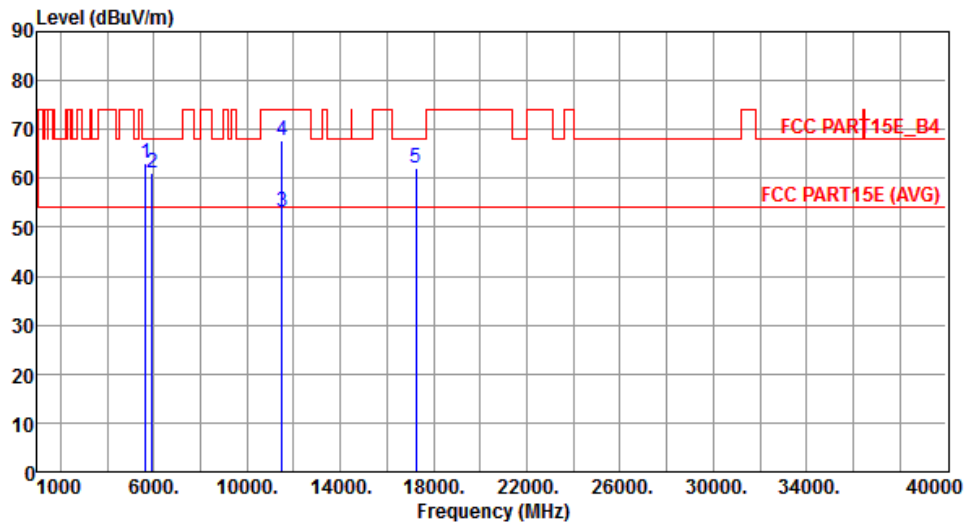
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	60.26	68.20	-7.94	55.26	5.00	Peak	385	7
2	5925.10	60.78	68.20	-7.42	55.44	5.34	Peak	385	7
3	11490.00	50.99	54.00	-3.01	35.46	15.53	Average	365	52
4	11490.00	65.09	74.00	-8.91	49.56	15.53	Peak	365	52
5	17235.00	62.13	68.20	-6.07	43.26	18.87	Peak	303	145

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



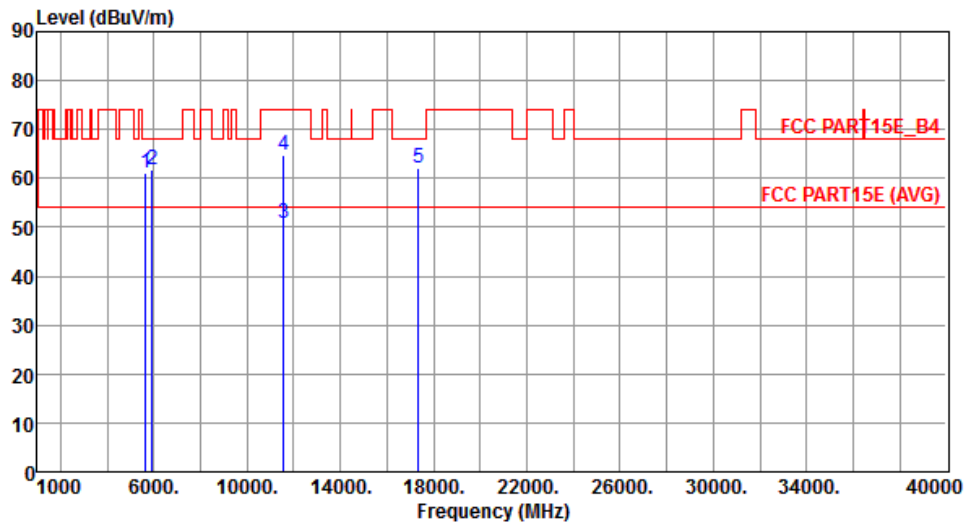
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	63.05	68.20	-5.15	58.05	5.00	Peak	317	286
2	5925.10	61.12	68.20	-7.08	55.78	5.34	Peak	317	286
3	11490.00	53.00	54.00	-1.00	37.47	15.53	Average	233	339
4	11490.00	67.80	74.00	-6.20	52.27	15.53	Peak	233	339
5	17235.00	62.04	68.20	-6.16	43.17	18.87	Peak	279	98

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



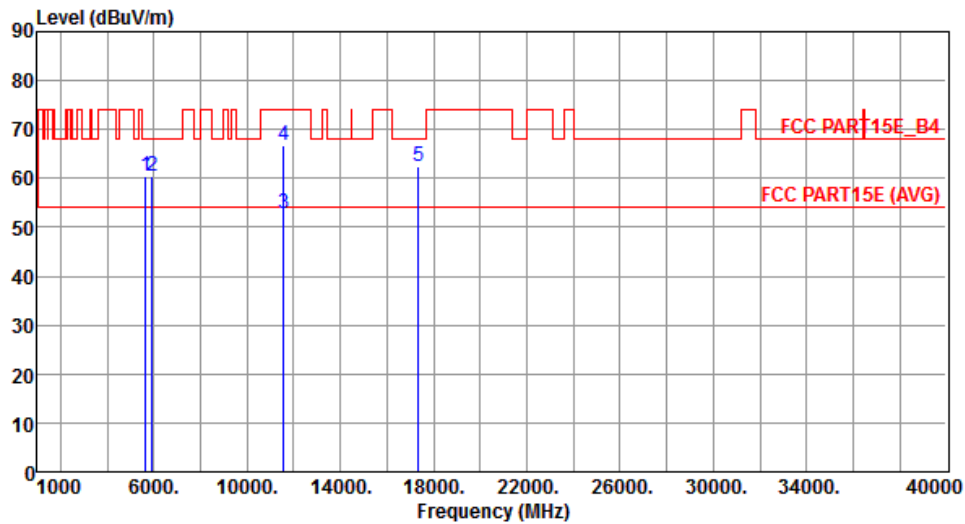
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	61.17	68.20	-7.03	56.17	5.00	Peak	384	73
2	5925.10	61.62	68.20	-6.58	56.28	5.34	Peak	384	73
3	11570.00	50.76	54.00	-3.24	35.43	15.33	Average	374	53
4	11570.00	64.68	74.00	-9.32	49.35	15.33	Peak	374	53
5	17355.00	62.13	68.20	-6.07	42.92	19.21	Peak	312	142

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



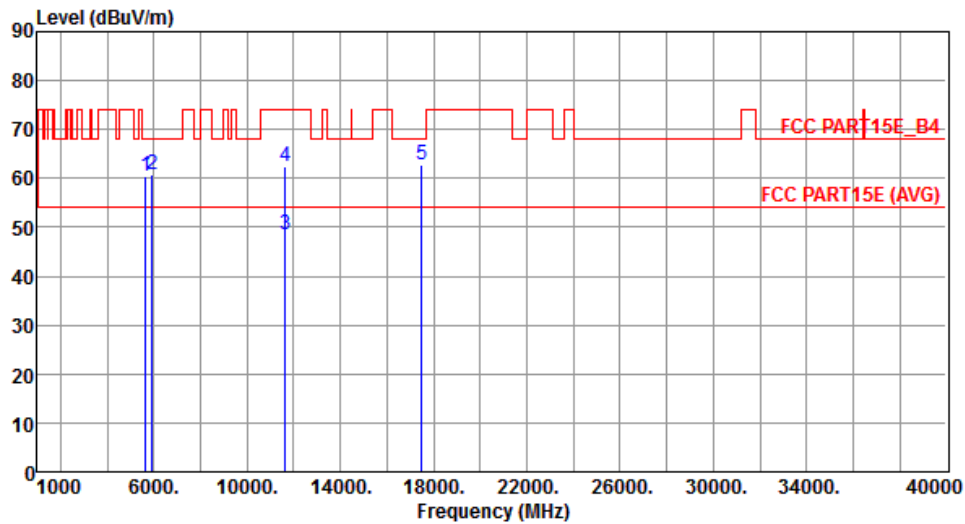
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	60.41	68.20	-7.79	55.41	5.00	Peak	246	138
2	5925.10	60.53	68.20	-7.67	55.19	5.34	Peak	246	138
3	11570.00	52.68	54.00	-1.32	37.35	15.33	Average	255	340
4	11570.00	66.75	74.00	-7.25	51.42	15.33	Peak	255	340
5	17355.00	62.46	68.20	-5.74	43.25	19.21	Peak	265	100

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

*Factor includes antenna factor , cable loss and amplifier gain

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

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



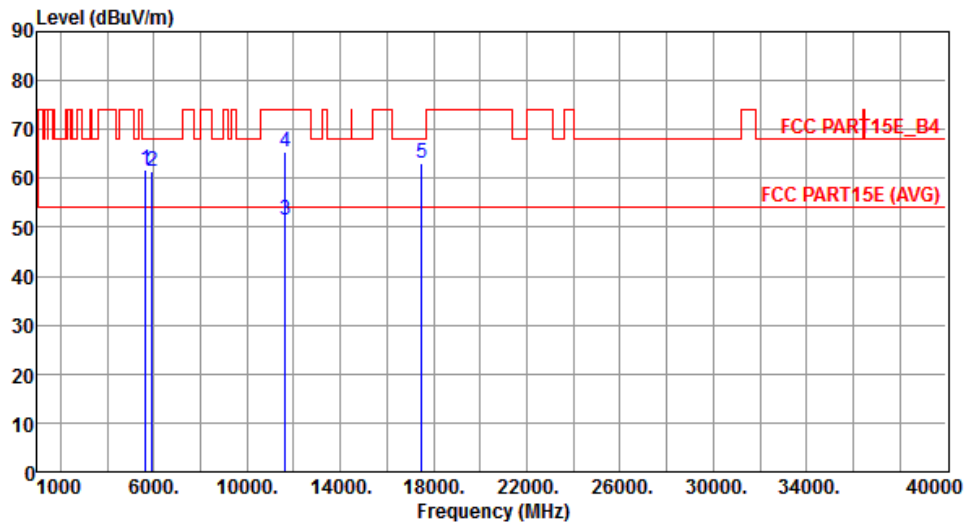
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	60.48	68.20	-7.72	55.48	5.00	Peak	392	18
2	5925.10	60.69	68.20	-7.51	55.35	5.34	Peak	392	18
3	11650.00	48.56	54.00	-5.44	33.47	15.09	Average	377	52
4	11650.00	62.43	74.00	-11.57	47.34	15.09	Peak	377	52
5	17475.00	62.83	68.20	-5.37	43.28	19.55	Peak	298	109

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	5649.90	61.79	68.20	-6.41	56.79	5.00	Peak	313	258
2	5925.10	61.58	68.20	-6.62	56.24	5.34	Peak	313	258
3	11650.00	51.54	54.00	-2.46	36.45	15.09	Average	236	321
4	11650.00	65.47	74.00	-8.53	50.38	15.09	Peak	236	321
5	17475.00	63.14	68.20	-5.06	43.59	19.55	Peak	280	95

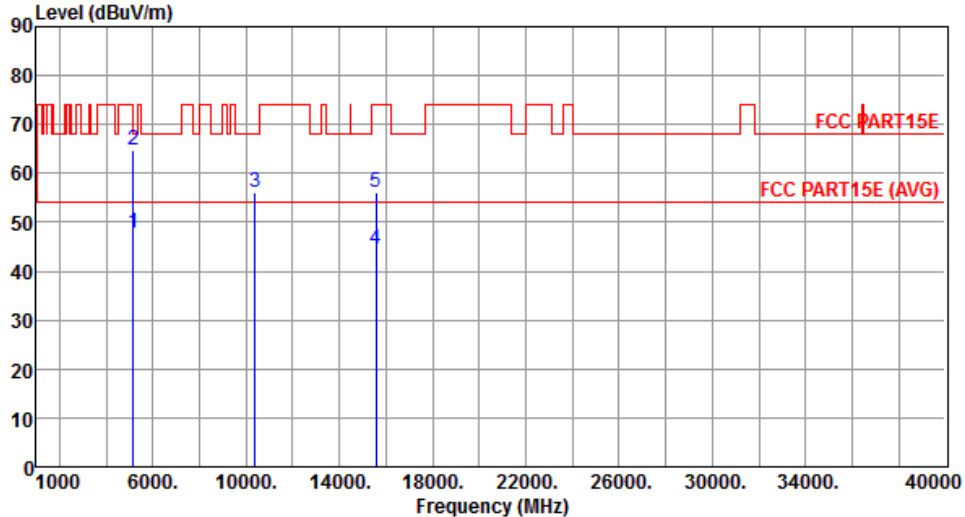
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

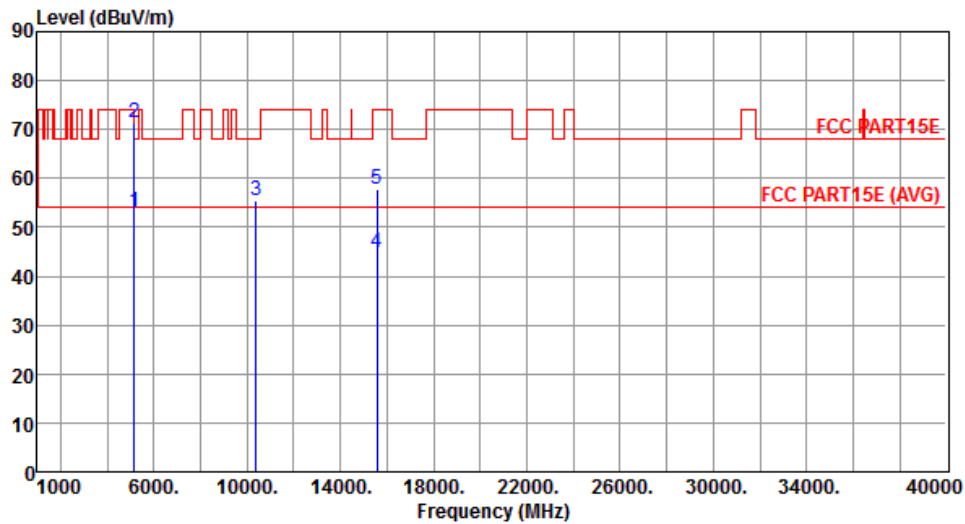
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.66	54.00	-6.34	43.26	4.40	Average	380	265
2	5150.00	64.62	74.00	-9.38	60.22	4.40	Peak	380	265
3	10380.00	56.02	68.20	-12.18	41.77	14.25	Peak	100	133
4	15570.00	44.38	54.00	-9.62	29.32	15.06	Average	100	242
5	15570.00	56.22	74.00	-17.78	41.16	15.06	Peak	100	242

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



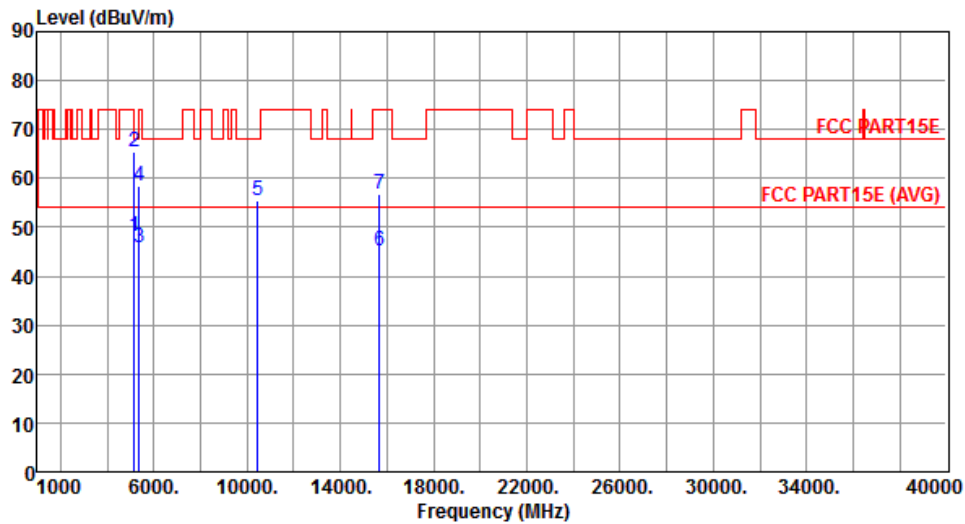
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.98	54.00	-1.02	48.58	4.40	Average	291	161
2	5150.00	71.40	74.00	-2.60	67.00	4.40	Peak	291	161
3	10380.00	55.52	68.20	-12.68	41.27	14.25	Peak	100	226
4	15570.00	44.91	54.00	-9.09	29.85	15.06	Average	100	158
5	15570.00	57.68	74.00	-16.32	42.62	15.06	Peak	100	158

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

*Factor includes antenna factor , cable loss and amplifier gain

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

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



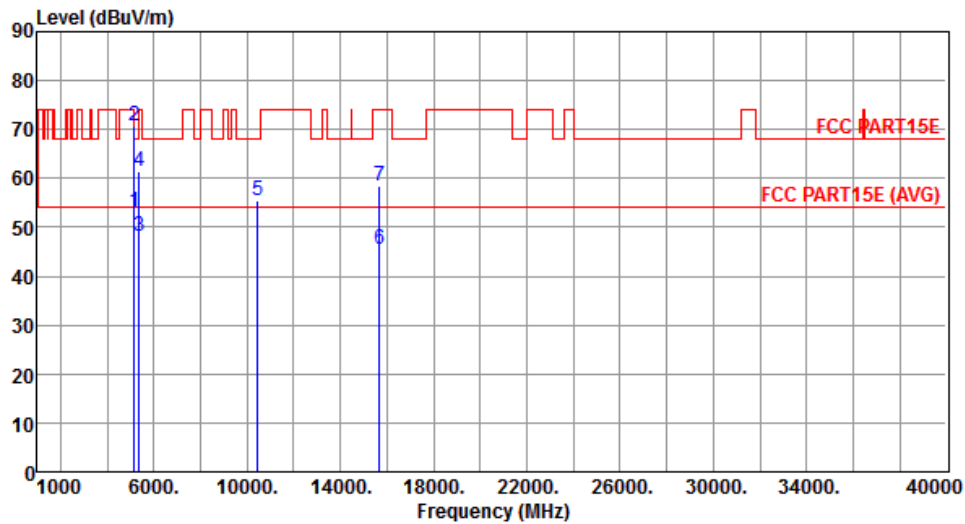
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.13	54.00	-5.87	43.73	4.40	Average	380	267
2	5150.00	65.57	74.00	-8.43	61.17	4.40	Peak	380	267
3	5350.00	45.99	54.00	-8.01	41.35	4.64	Average	380	267
4	5350.00	58.55	74.00	-15.45	53.91	4.64	Peak	380	267
5	10460.00	55.61	68.20	-12.59	41.21	14.40	Peak	100	251
6	15690.00	45.19	54.00	-8.81	30.28	14.91	Average	100	174
7	15690.00	56.65	74.00	-17.35	41.74	14.91	Peak	100	174

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



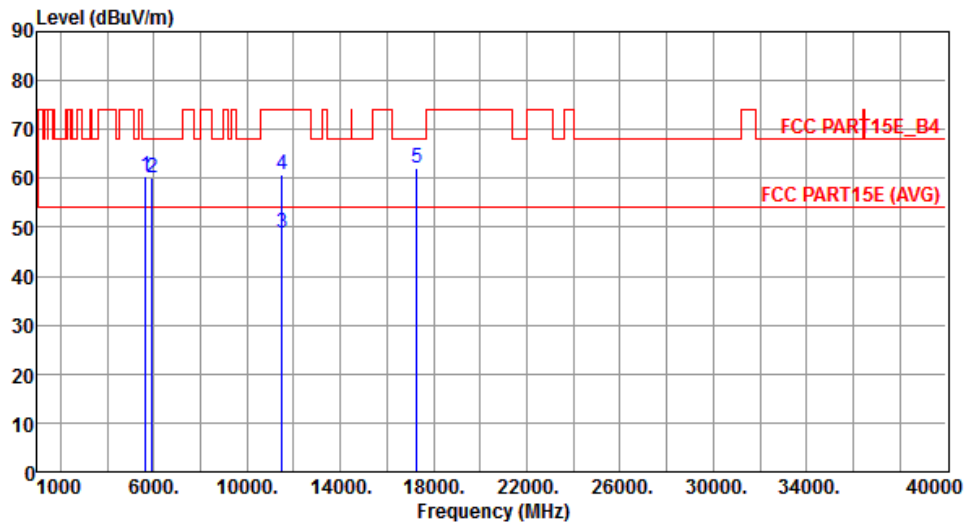
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.99	54.00	-1.01	48.59	4.40	Average	276	316
2	5150.00	70.89	74.00	-3.11	66.49	4.40	Peak	276	316
3	5350.00	48.03	54.00	-5.97	43.39	4.64	Average	276	161
4	5350.00	61.59	74.00	-12.41	56.95	4.64	Peak	276	161
5	10460.00	55.30	68.20	-12.90	40.90	14.40	Peak	100	206
6	15690.00	45.52	54.00	-8.48	30.61	14.91	Average	100	16
7	15690.00	58.31	74.00	-15.69	43.40	14.91	Peak	100	16

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

*Factor includes antenna factor , cable loss and amplifier gain

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

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



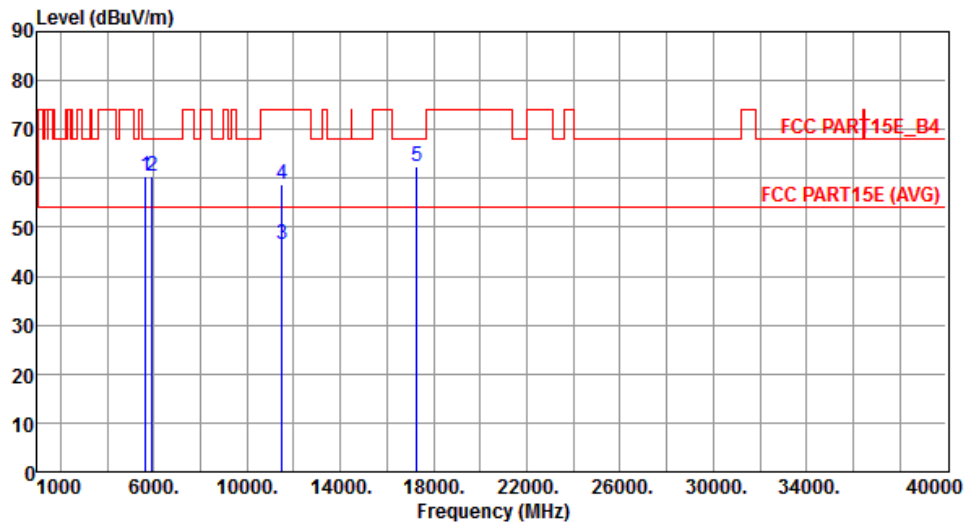
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	60.32	68.20	-7.88	55.32	5.00	Peak	358	250
2	5925.10	60.21	68.20	-7.99	54.87	5.34	Peak	358	250
3	11510.00	48.77	54.00	-5.23	33.26	15.51	Average	224	338
4	11510.00	60.77	74.00	-13.23	45.26	15.51	Peak	224	338
5	17265.00	62.05	68.20	-6.15	43.08	18.97	Peak	319	124

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



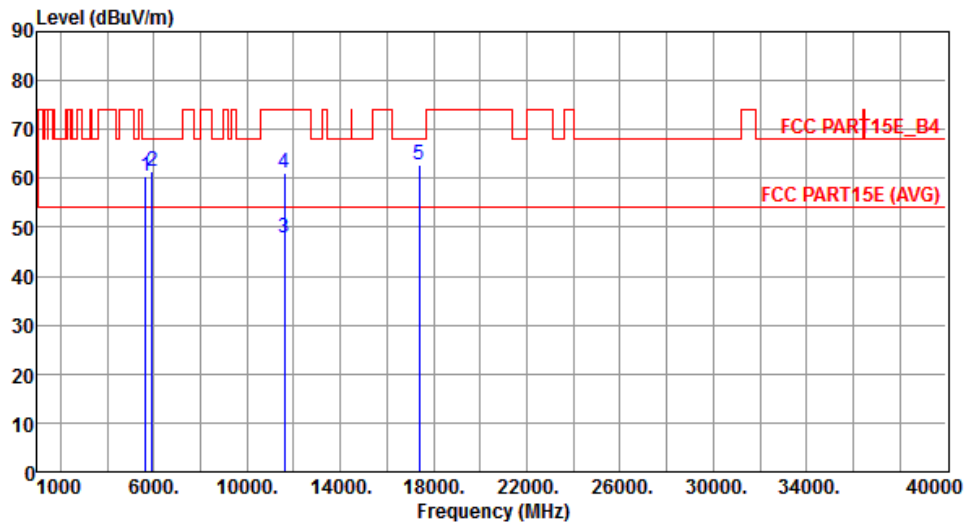
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	60.51	68.20	-7.69	55.51	5.00	Peak	279	135
2	5925.10	60.39	68.20	-7.81	55.05	5.34	Peak	279	135
3	11510.00	46.33	54.00	-7.67	30.82	15.51	Average	369	55
4	11510.00	58.83	74.00	-15.17	43.32	15.51	Peak	369	55
5	17265.00	62.51	68.20	-5.69	43.54	18.97	Peak	276	130

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

*Factor includes antenna factor , cable loss and amplifier gain

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

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



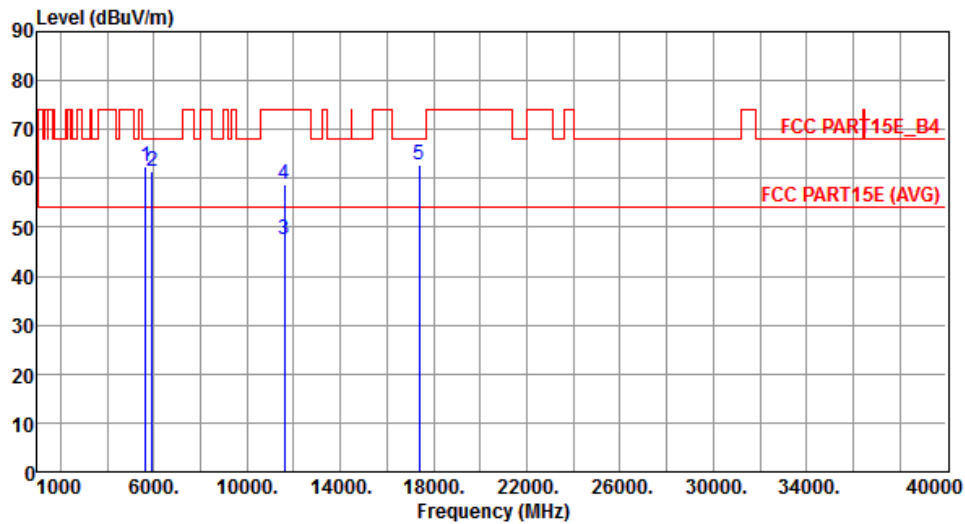
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	60.60	68.20	-7.60	55.60	5.00	Peak	374	6
2	5925.10	61.56	68.20	-6.64	56.22	5.34	Peak	374	6
3	11590.00	47.84	54.00	-6.16	32.57	15.27	Average	243	340
4	11590.00	61.09	74.00	-12.91	45.82	15.27	Peak	243	340
5	17385.00	62.88	68.20	-5.32	43.59	19.29	Peak	300	152

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	5649.90	62.41	68.20	-5.79	57.41	5.00	Peak	274	134
2	5925.10	61.43	68.20	-6.77	56.09	5.34	Peak	274	134
3	11590.00	47.54	54.00	-6.46	32.27	15.27	Average	365	51
4	11590.00	58.67	74.00	-15.33	43.40	15.27	Peak	365	51
5	17385.00	62.72	68.20	-5.48	43.43	19.29	Peak	279	99

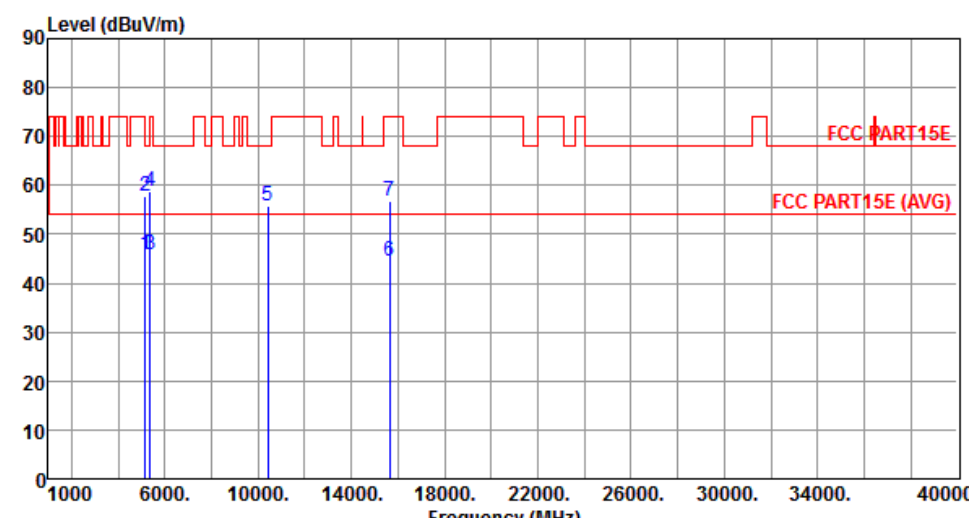
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

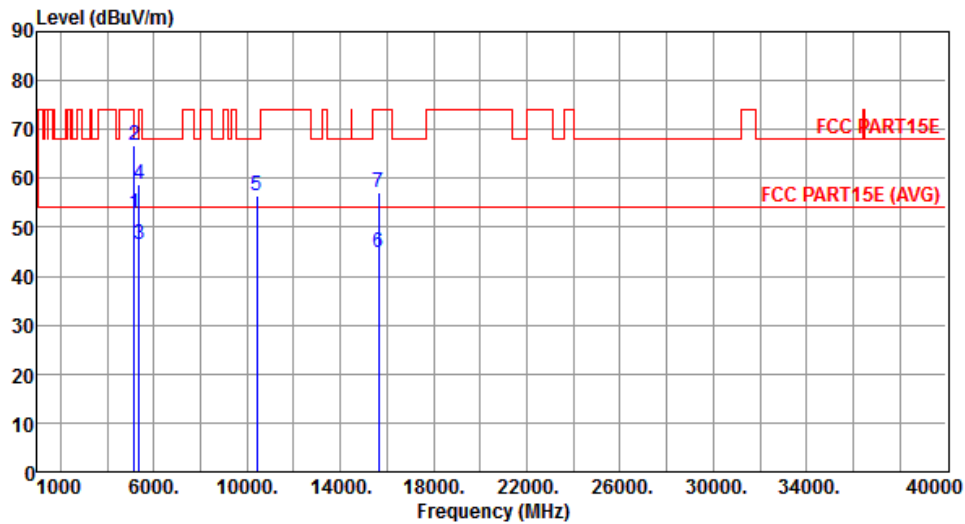
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.75	54.00	-8.25	41.35	4.40	Average	100	308
2	5150.00	57.65	74.00	-16.35	53.25	4.40	Peak	100	308
3	5350.00	45.74	54.00	-8.26	41.10	4.64	Average	100	308
4	5350.00	58.65	74.00	-15.35	54.01	4.64	Peak	100	308
5	10420.00	55.77	68.20	-12.43	41.45	14.32	Peak	100	163
6	15630.00	44.65	54.00	-9.35	29.66	14.99	Average	100	214
7	15630.00	56.83	74.00	-17.17	41.84	14.99	Peak	100	214

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



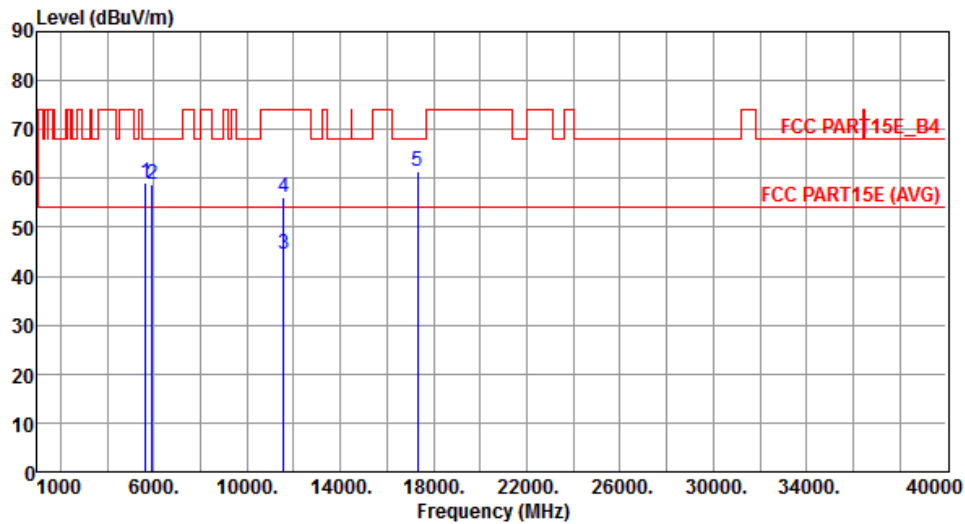
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.68	54.00	-1.32	48.28	4.40	Average	319	37
2	5150.00	66.72	74.00	-7.28	62.32	4.40	Peak	319	37
3	5350.00	46.62	54.00	-7.38	41.98	4.64	Average	319	37
4	5350.00	58.85	74.00	-15.15	54.21	4.64	Peak	319	37
5	10420.00	56.32	68.20	-11.88	42.00	14.32	Peak	319	37
6	15630.00	44.71	54.00	-9.29	29.72	14.99	Average	100	138
7	15630.00	57.03	74.00	-16.97	42.04	14.99	Peak	100	138

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



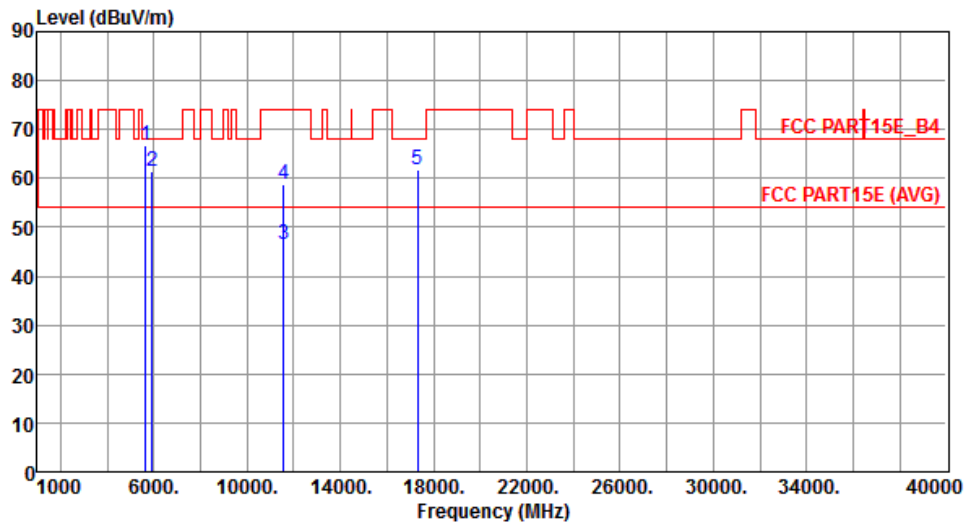
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5649.90	59.23	68.20	-8.97	54.23	5.00	Peak	283	332
2	5925.10	58.83	68.20	-9.37	53.49	5.34	Peak	283	332
3	11550.00	44.36	54.00	-9.64	28.96	15.40	Average	100	335
4	11550.00	56.03	74.00	-17.97	40.63	15.40	Peak	100	335
5	17325.00	61.47	68.20	-6.73	42.34	19.13	Peak	100	169

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	5649.90	66.90	68.20	-1.30	61.90	5.00	Peak	255	246
2	5925.10	61.56	68.20	-6.64	56.22	5.34	Peak	255	246
3	11550.00	46.45	54.00	-7.55	31.05	15.40	Average	100	340
4	11550.00	58.62	74.00	-15.38	43.22	15.40	Peak	100	340
5	17325.00	61.63	68.20	-6.57	42.50	19.13	Peak	100	121

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

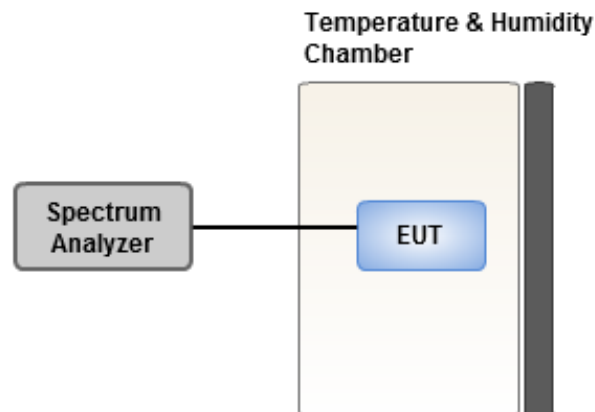
3.6.1 Limit of Frequency Stability

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 55 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

Dipole antenna

Frequency: 5200 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°C Vmax	1.08	1.13	1.11	1.23
T20°C Vmin	3.19	3.76	3.91	3.20
T55°C Vnom	3.51	4.06	4.03	3.38
T50°C Vnom	1.45	1.41	2.06	2.21
T40°C Vnom	1.90	1.88	1.84	2.02
T30°C Vnom	3.23	3.81	3.95	3.23
T20°C Vnom	2.74	2.96	2.56	3.54
T10°C Vnom	3.69	3.68	3.60	3.49
T0°C Vnom	2.33	2.54	2.47	2.45
T-10°C Vnom	1.95	1.72	2.10	1.83
T-20°C Vnom	0.97	1.22	0.77	0.63
T-30°C Vnom	1.16	1.45	1.39	1.52
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 55		Tmin [°C]: -30

Frequency: 5785 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°C Vmax	-0.31	0.69	0.41	0.48
T20°C Vmin	-0.66	-0.48	-0.23	-0.59
T55°C Vnom	1.96	2.11	1.95	1.66
T50°C Vnom	0.93	0.57	-0.17	0.15
T40°C Vnom	1.30	1.41	1.67	1.46
T30°C Vnom	0.68	1.11	0.54	0.89
T20°C Vnom	2.46	2.69	2.17	2.13
T10°C Vnom	1.39	0.81	0.53	0.80
T0°C Vnom	1.32	1.16	0.98	1.27
T-10°C Vnom	0.77	0.39	1.36	1.23
T-20°C Vnom	0.63	0.51	0.37	0.18
T-30°C Vnom	1.29	0.83	0.54	1.19
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 55		Tmin [°C]: -30

PIFA antenna

Frequency: 5200 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°CVmax	0.88	1.31	1.28	1.52
T20°CVmin	0.83	1.12	0.73	1.27
T55°CVnom	1.79	1.85	2.52	1.87
T50°CVnom	1.39	1.52	2.21	2.09
T40°CVnom	1.80	1.88	2.50	1.88
T30°CVnom	3.54	4.17	4.03	3.87
T20°CVnom	2.72	3.29	3.08	2.80
T10°CVnom	3.63	3.95	3.70	3.48
T0°CVnom	2.08	2.00	2.14	2.08
T-10°CVnom	1.56	1.17	1.99	1.89
T-20°CVnom	0.84	1.13	0.74	1.29
T-30°CVnom	1.35	1.58	1.72	1.05
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 55		Tmin [°C]: -30

Frequency: 5785 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°CVmax	-0.17	-0.15	-0.13	-0.07
T20°CVmin	-0.16	0.09	-0.03	0.07
T55°CVnom	2.85	3.09	3.02	2.70
T50°CVnom	1.63	1.73	1.19	1.20
T40°CVnom	1.60	2.19	2.42	2.07
T30°CVnom	1.08	1.46	2.04	1.47
T20°CVnom	2.37	2.49	1.93	2.45
T10°CVnom	2.13	1.95	1.89	1.48
T0°CVnom	1.52	1.99	1.66	1.45
T-10°CVnom	0.95	0.88	1.50	0.74
T-20°CVnom	0.59	1.23	1.45	1.10
T-30°CVnom	1.19	1.38	1.06	1.52
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 55		Tmin [°C]: -30

4 Test laboratory information

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

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

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

Linkou

Tel: 886-2-2601-1640

No. 30-2, Ding Fwu Tsuen, Lin Kou
District, New Taipei City, Taiwan,
R.O.C.

Kwei Shan

Tel: 886-3-271-8666

No. 3-1, Lane 6, Wen San 3rd
St., Kwei Shan District, Tao Yuan
City 333, Taiwan, R.O.C.

Kwei Shan Site II

Tel: 886-3-271-8640

No. 14-1, Lane 19, Wen San 3rd
St., Kwei Shan District, Tao Yuan
City 333, Taiwan, R.O.C.

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

Tel: 886-3-271-8666

Fax: 886-3-318-0155

Email: ICC_Service@icertifi.com.tw

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