

FCC Test Report

FCC ID : ACQ-VIP5662W
Equipment : WiFi STB
Model No. : VIP5662W
Brand Name : ARRIS
Applicant : ARRIS Group, Inc.
Address : 101 Tournament Drive, Horsham,
Pennsylvania, United States, 19044
Standard : 47 CFR FCC Part 15.407
Received Date : Oct. 02, 2015
Tested Date : Oct. 14 ~ Nov. 04, 2015

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

Approved & Reviewed by:



Gary Chang / Manager



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Release Record

Report No.	Version	Description	Issued Date
FR5O0204AN	Rev. 01	Initial issue	Dec. 08, 2015

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.391MHz 41.47 (Margin -6.56dB) - AV	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5.150.00MHz 53.80 (Margin -0.20dB) - 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]: Non-beamforming mode 5150~5250MHz: 26.37 5250~5350MHz: 23.87 5470~5725MHz: 23.60 5725~5850MHz: 23.62 Beamforming mode 5150~5250MHz: 25.94 5250~5350MHz: 23.42 5470~5725MHz: 23.41 5725~5850MHz: 23.46	Pass
15.407(a)	Peak Power Spectral Density	Meet the requirement of limit	Pass
15.407(g)	Frequency Stability	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

1 General Description

1.1 Information

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS
5150-5250 5250-5350 5470-5725 5725-5850	a	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	4	6-54 Mbps
5150-5250 5250-5350 5470-5725 5725-5850	n (HT20)	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	4	MCS 0-31
5150-5250 5250-5350 5470-5725 5725-5850	n (HT40)	5190-5230 5270-5310 5510-5710 5755-5795	38-46 [2] 54-62 [2] 102-142 [6] 151-159 [2]	4	MCS 0-31
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT20)	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	4	MCS 0-9
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT40)	5190-5230 5270-5310 5510-5710 5755-5795	38-46 [2] 54-62 [2] 102-142 [6] 151-159 [2]	4	MCS 0-9
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT80)	5210 5290 5530-5690 5775	42 [1] 58 [1] 106-138 [3] 155 [1]	4	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. Note 3: 802.11ac supports beamforming function. Note 4: The device has two versions for different HDMI port numbers (Version 1: HDMI port *1 / Version 2: HDMI port *2.)					

1.1.2 Antenna Details

The device will be equipped with 2 brands of antennas (TSKY Ant. & Mag.Layers Ant.).

Ant. No.	Brand	Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)			
					5150~5250	5250~5350	5470~5725	5725~5850
1	TSKY	A8-A006-00261 (180-100-0691R)	PCB	MHF PLUG	0.5	0.5	0.5	0.6
2	TSKY	A8-A006-00262 (180-100-0692R)	PCB	MHF PLUG	0.5	0.5	0.5	0.6
3	TSKY	A8-A006-00262 (180-100-0692R)	PCB	MHF PLUG	0.5	0.5	0.5	0.6
4	TSKY	A8-A006-00295 (180-100-0730R)	PCB	MHF PLUG	0.5	0.5	0.5	0.6
1	Mag.Layers	PCA-2108-5G0C1-A22 (180-101-0691R)	PCB	MHF PLUG	0.5	0.5	0.5	0.6
2	Mag.Layers	PCA-2108-5G0C1-A23 (180-101-0692R)	PCB	MHF PLUG	0.5	0.5	0.5	0.6
3	Mag.Layers	PCA-2108-5G0C1-A23 (180-101-0692R)	PCB	MHF PLUG	0.5	0.5	0.5	0.6
4	Mag.Layers	PCA-2108-5G0C1-A26 (180-100-0739R)	PCB	MHF PLUG	0.5	0.5	0.5	0.6

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	12Vdc from AC adapter
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1.1.4 Accessories

Accessories		
No.	Equipment	Description
1	AC adapter	Brand Name: APD Model Name: WA-30J12FU Power Rating: I/P: 100-120Vac, 50-60Hz, 0.9A O/P: 12.0Vdc, 2.5A Power line: DC 1.8m non-shielded cable w/o core
2	AC adapter	Brand Name: Delta Model Name: ADP-30DW B Power Rating: I/P: 100-120Vac, 50-60Hz, 1.0A O/P: 12.0Vdc, 2.5A Power line: DC 1.8m non-shielded cable w/o core
3	AC adapter	Brand Name: LiteOn Model Name: PB-1300-3AR1 Power Rating: I/P: 100-120Vac, 60Hz, 1.0A O/P: 12.0Vdc, 2.5A Power line: DC 1.8m non-shielded cable w/o core
4	AC adapter	Brand Name: NetBit Model Name: NBS30E120250VU Power Rating: I/P: 100-120Vac, 60Hz, 0.9A O/P: 12.0Vdc, 2.5A Power line: DC 1.8m non-shielded cable w/o core
5	HDMI Cable	Brand: WEBB & WELLS; Model: HF1257; 1.83m shielded cable w/o core.
6	Internal HDD	Brand: TOSHIBA; Model name: MQ01ABD100V; Capacity: 1TB
7	Remote control	Brand: Ruwido; Model: 2761-529

1.1.5 Channel List

802.11 a / HT20 / VHT20		HT40 / VHT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	54	5270
48	5240	62	5310
52	5260	102	5510
56	5280	110	5550
60	5300	118	5590
64	5320	126	5630
100	5500	134	5670
104	5520	142	5710
108	5540	151	5755
112	5560	159	5795
116	5580	VHT80	
120	5600	42	5210
124	5620	58	5290
128	5640	106	5530
132	5660	122	5610
136	5680	138	5690
140	5700	155	5775
144	5720	---	---
149	5745	---	---
153	5765	---	---
157	5785	---	---
161	5805	---	---
165	5825	---	---

1.1.6 Test Tool and Duty Cycle

Test Tool	Non-beamforming: Telnet / Beamforming: Iperf				
Duty Cycle and Duty Factor	Mode	Non-beamforming		Beamforming	
		Duty cycle (%)	Duty factor (dB)	Duty cycle (%)	Duty factor (dB)
	11a	99.60%	0.02	---	---
	HT20	99.57%	0.02	---	---
	HT40	99.06%	0.04	---	---
	VHT20	99.54%	0.02	92.79%	0.32
	VHT40	99.06%	0.04	87.34%	0.59
	VHT80	94.96%	0.22	97.48%	0.11

1.1.7 Power Setting

For Frequency band 5150-5250 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5180	16	---
11a	5200	20	---
11a	5240	20	---
HT20	5180	16	---
HT20	5200	20	---
HT20	5240	20	---
HT40	5190	14	---
HT40	5230	20	---
VHT20	5180	16	15
VHT20	5200	20	20
VHT20	5240	20	20
VHT40	5190	14	13
VHT40	5230	20	19
VHT80	5210	13	12

For Frequency band 5250~5350 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5260	18	---
11a	5300	18	---
11a	5320	17	---
HT20	5260	18	---
HT20	5300	18	---
HT20	5320	17	---
HT40	5270	17	---
HT40	5310	15	---
VHT20	5260	18	18
VHT20	5300	18	18
VHT20	5320	17	16
VHT40	5270	17	17
VHT40	5310	15	14
VHT80	5290	14	14

For Frequency band 5470~5725 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5500	17	---
11a	5580	17	---
11a	5700	16	---
HT20	5500	16	---
HT20	5580	17	---
HT20	5700	15	---
HT40	5510	14	---
HT40	5550	17	---
HT40	5670	17	---
VHT20	5500	16	15
VHT20	5580	17	17
VHT20	5700	15	13
VHT40	5510	14	12
VHT40	5590	17	17
VHT40	5670	17	17
VHT80	5530	13	12
VHT80	5610	17	16

Channel that extends across the 5.725 GHz boundary

For Frequency band 5470~5725 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5720	16	---
HT20	5720	16	---
HT40	5710	16	---
VHT20	5720	16	16
VHT40	5710	16	16
VHT80	5690	18	17

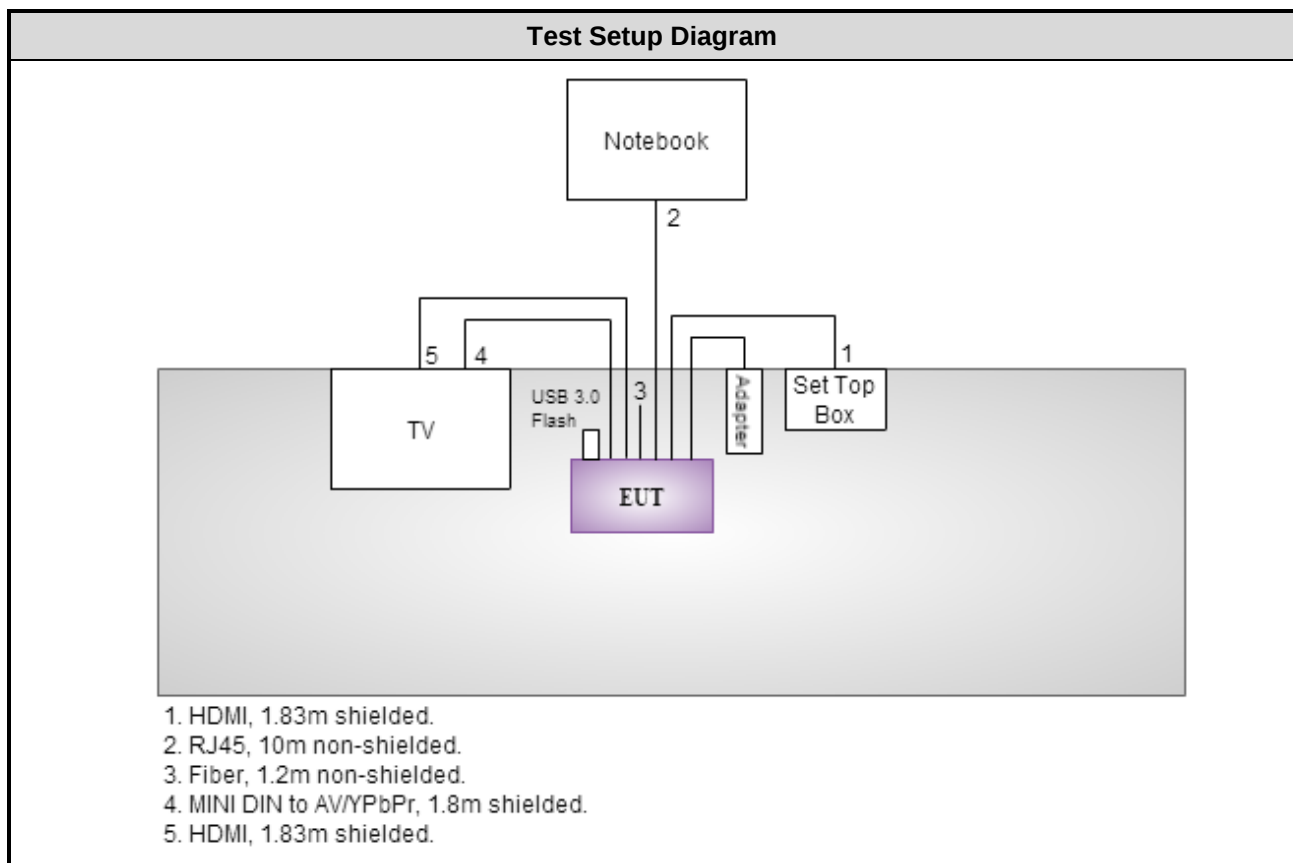
For Frequency band 5725~5850 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5745	15	---
11a	5785	17	---
11a	5825	17	---
HT20	5745	15	---
HT20	5785	17	---
HT20	5825	17	---
HT40	5755	13	---
HT40	5795	17	---
VHT20	5745	15	12
VHT20	5785	17	17
VHT20	5825	17	14
VHT40	5755	13	11
VHT40	5795	17	17
VHT80	5775	12	11

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	RJ45, 10m non-shielded.
2	TV	CHIMEI	TL-24LF500D	---	MINI DIN to AV/YPbPr, 1.8m shielded. HDMI, 1.83m shielded.
3	USB 3.0 Flash	pqi	U273V 16G	---	---
4	Set Top Box	ARRIS	VIP5602	---	HDMI, 1.83m shielded.

Note: No.4, mini DIN to AV/YPbPr cable & HDMI cable were 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	100174	Apr. 15, 2015	Apr. 14, 2016
LISN	SCHWARZBECK	Schwarzbeck 8127	8127-667	Nov. 17, 2014	Nov. 16, 2015
LISN (Support Unit)	SCHWARZBECK	Schwarzbeck 8127	8127-666	Nov. 26, 2014	Nov. 25, 2015
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Dec. 31, 2014	Dec. 30, 2015
50 ohm terminal (Support Unit)	NA	50	04	Apr. 15, 2015	Apr. 14, 2016
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber1 / (03CH01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101498	Dec. 09, 2014	Dec. 08, 2015
Receiver	R&S	ESR3	101657	Jan. 15, 2015	Jan. 14, 2016
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Aug. 20, 2015	Aug. 19, 2016
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1095	Oct. 07, 2015	Oct. 06, 2016
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170508	Jan. 05, 2015	Jan. 04, 2016
Loop Antenna	TESEQ	HLA6120	24155	Mar. 12, 2015	Mar. 11, 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. 15, 2014	Dec. 14, 2015
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Dec. 15, 2014	Dec. 14, 2015
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16139/4	Dec. 15, 2014	Dec. 14, 2015
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Dec. 15, 2014	Dec. 14, 2015
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-002	Dec. 15, 2014	Dec. 14, 2015
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101063	Feb. 03, 2015	Feb. 02, 2016
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Dec. 03, 2014	Dec. 02, 2015
Power Meter	Anritsu	ML2495A	1241002	Sep. 21, 2015	Sep. 20, 2016
Power Sensor	Anritsu	MA2411B	1207366	Sep. 21, 2015	Sep. 20, 2016
Measurement Software	Sporton	Sporton_1	1.3.30	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Testing Applied Standards

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

47 CFR FCC Part 15.407

ANSI C63.10-2013

FCC KDB 789033 D02 General UNII Test Procedures New Rules v01

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

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

FCC KDB 412172 D01 Determining ERP and EIRP v01r01

1.6 Measurement Uncertainty

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

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	± 34.134 Hz
Conducted power	± 0.808 dB
Frequency error	± 34.134 Hz
Power density	± 0.463 dB
Conducted emission	± 2.670 dB
AC conducted emission	± 2.9 dB
Radiated emission ≤ 1 GHz	± 3.72 dB
Radiated emission > 1 GHz	± 5.65 dB
Time	$\pm 0.1\%$
Temperature	± 0.6 °C

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	21°C / 59%	Peter Lin
Radiated Emissions	03CH01-WS	23-24°C / 66-67%	Anderson Hung Aska Huang Morgan Chen
RF Conducted	TH01-WS	22°C / 61-64%	Alex Huang

➤ FCC site registration No.: 657002

➤ IC site registration No.: 10807A-1

2.2 The Worst Test Modes and Channel Details

Non-beamforming mode

Frequency band 5150~5250 MHz / 5250~5350 MHz / 5470~5725 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	VHT40	5230	MCS 0	---
Radiated Emissions ≤1GHz	VHT40	5230	MCS 0	---
RF Output Power	11a	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700 / 5720	6 Mbps	---
	HT20	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700 / 5720	MCS 0	
	HT40	5190 / 5230 / 5270 / 5310 / 5510 5550 / 5670 / 5710	MCS 0	
	VHT20	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700 / 5720	MCS 0	
	VHT40	5190 / 5230 / 5270 / 5310 / 5510 5590 / 5670 / 5710	MCS 0	
	VHT80	5210 / 5290 / 5530 / 5610 / 5690	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700 / 5720	6 Mbps	---
	VHT20	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700 / 5720	MCS 0	
	VHT40	5190 / 5230 / 5270 / 5310 / 5510 5590 / 5670 / 5710	MCS 0	
	VHT80	5210 / 5290 / 5530 / 5610 / 5690	MCS 0	
Frequency Stability	Un-modulation	5320	---	---
NOTE: 1. 4 Adapters had been pretested and found that Adapter 1 was the worst case and was selected for final testing. (Adapter 1: APD; Adapter 2: Delta, Adapter 3: LiteOn Adapter 4: NetBit). 2. The device has two versions for different HDMI port numbers (Version 1: HDMI port *1; Version 2: HDMI port *2). 2 versions had been pretested and found that Version 2 was the worst case and was selected for final testing. 3. Antenna 1 and Antenna 2 had been pretested and found that Antenna1 was the worst case and was selected for final testing. (Antenna 1: TSKY; Antenna 2: Mag.Layers).				

Frequency band 5725-5850 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	VHT40	5795	MCS 0	---
Radiated Emissions ≤ 1 GHz	VHT40	5795	MCS 0	---
RF Output Power	11a	5745 / 5785 / 5825	6 Mbps	---
	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 > 1 GHz Emission Bandwidth 6dB bandwidth Peak Power Spectral Density	11a	5745 / 5785 / 5825	6 Mbps	---
	VHT20	5745 / 5785 / 5825	MCS 0	
	VHT40	5755 / 5795	MCS 0	
	VHT80	5775	MCS 0	
Frequency Stability	Un-modulation	5785	---	---
NOTE: 4 Adapters had been pretested and found that Adapter 1 was the worst case and was selected for final testing. (Adapter 1: APD; Adapter 2: Delta, Adapter 3: LiteOn Adapter 4: NetBit). - The device has two versions for different HDMI port numbers (Version 1: HDMI port *1; Version 2: HDMI port *2). 2 versions had been pretested and found that Version 2 was the worst case and was selected for final testing. - Antenna 1 and Antenna 2 had been pretested and found that Antenna1 was the worst case and was selected for final testing. (Antenna 1: TSKY; Antenna 2: Mag.Layers).				

Beamforming mode

Frequency band 5150~5250 MHz / 5250~5350 MHz / 5470~5725 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	VHT20	5180	MCS 0	---
Radiated Emissions ≤1GHz	VHT20	5180	MCS 0	---
RF Output Power	VHT20	5180 / 5200 / 5240 / 5260 / 5300 / 5320 / 5500 / 5580 / 5700 / 5720	MCS 0	---
	VHT40	5190 / 5230 / 5270 / 5310 / 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT80	5210 / 5290 / 5530 / 5610 / 5690	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	VHT20	5180 / 5200 / 5240 / 5260 / 5300 / 5320 / 5500 / 5580 / 5700 / 5720	MCS 0	
	VHT40	5190 / 5230 / 5270 / 5310 / 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT80	5210 / 5290 / 5530 / 5610 / 5690	MCS 0	

NOTE:

- 4 Adapters had been pretested and found that **Adapter 1** was the worst case and was selected for final testing. (Adapter 1: APD; Adapter 2: Delta, Adapter 3: LiteOn Adapter 4: NetBit).
- The device has two versions for different HDMI port numbers (Version 1: HDMI port *1; Version 2: HDMI port *2). 2 versions had been pretested and found that **Version 2** was the worst case and was selected for final testing.
- Antenna 1 and Antenna 2 had been pretested and found that **Antenna1** was the worst case and was selected for final testing. (Antenna 1: TSKY; Antenna 2: Mag.Layers).

Frequency band 5725-5850 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	VHT40	5795	MCS 0	---
Radiated Emissions ≤1GHz	VHT40	5795	MCS 0	---
RF Output Power	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	VHT20	5745 / 5785 / 5825	MCS 0	
	VHT40	5755 / 5795	MCS 0	
	VHT80	5775	MCS 0	

NOTE:

- 4 Adapters had been pretested and found that **Adapter 1** was the worst case and was selected for final testing. (Adapter 1: APD; Adapter 2: Delta, Adapter 3: LiteOn Adapter 4: NetBit).
- The device has two versions for different HDMI port numbers (Version 1: HDMI port *1; Version 2: HDMI port *2). 2 Versions had been pretested and found that **Version 2** was the worst case and was selected for final testing.
- Antenna 1 and Antenna 2 had been pretested and found that **Antenna1** was the worst case and was selected for final testing. (Antenna 1: TSKY; Antenna 2: Mag.Layers).

3 Transmitter Test Results

3.1 Conducted Emissions

3.1.1 Limit of Conducted Emissions

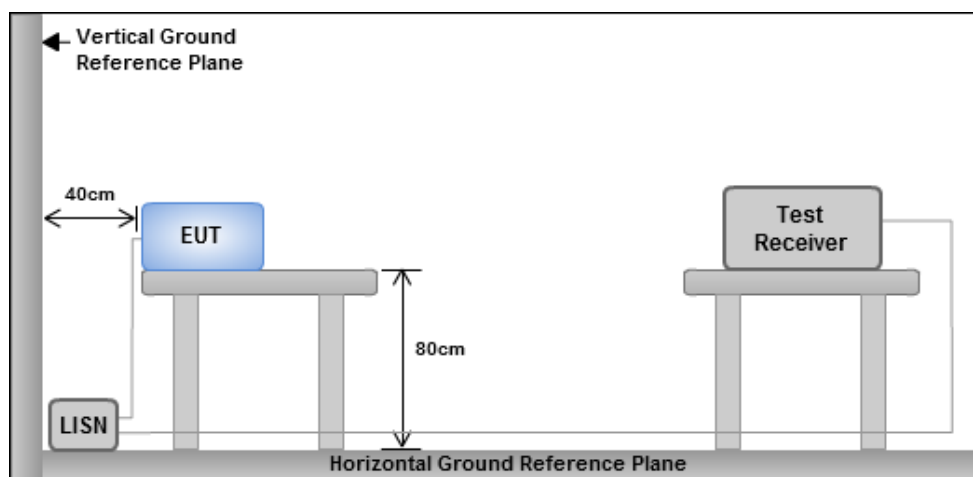
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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

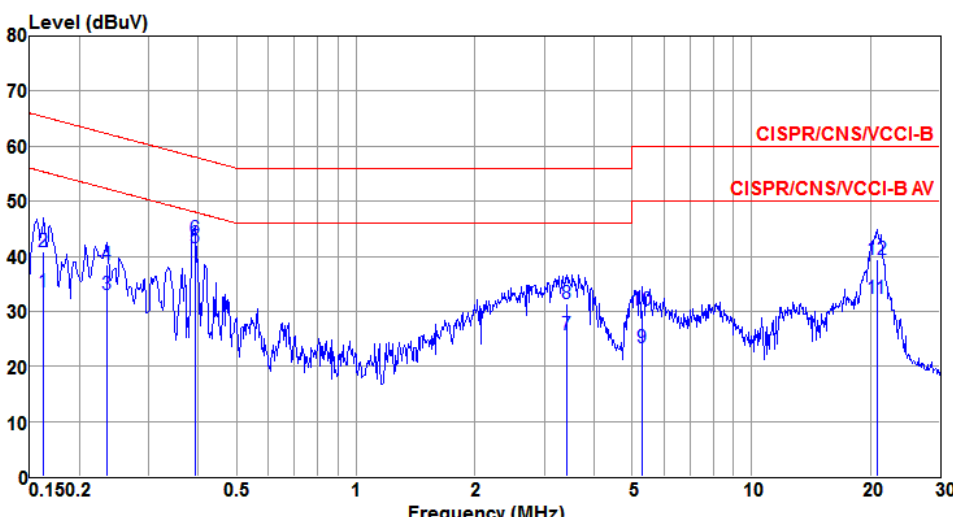


- Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

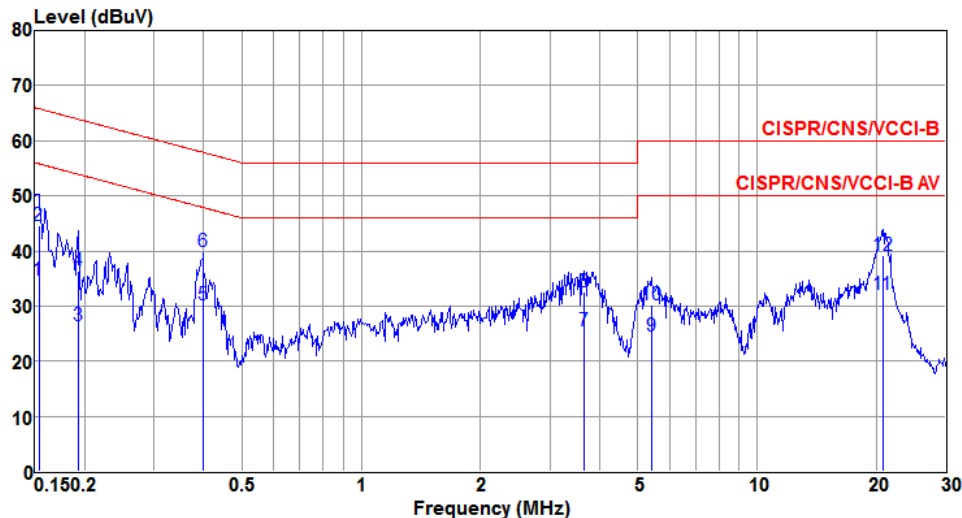
Non-beamforming mode

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

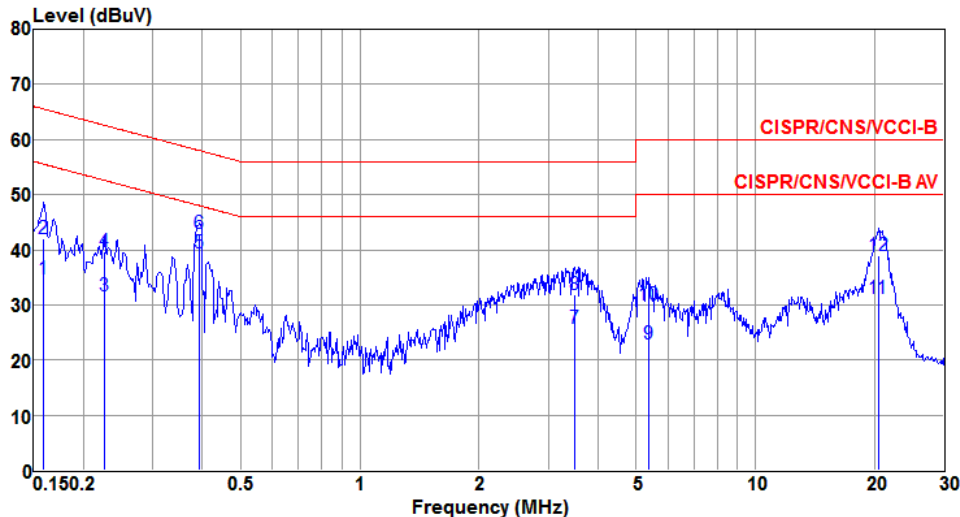


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.162	33.52	55.34	-21.82	32.71	0.73	0.08	Average
2	0.162	40.74	65.34	-24.60	39.93	0.73	0.08	QP
3	0.234	33.11	52.30	-19.19	32.79	0.23	0.09	Average
4	0.234	38.38	62.30	-23.92	38.06	0.23	0.09	QP
5	0.391	41.47	48.03	-6.56	41.18	0.18	0.11	Average
6	0.391	43.12	58.03	-14.91	42.83	0.18	0.11	QP
7	3.417	25.81	46.00	-20.19	25.17	0.35	0.29	Average
8	3.417	31.46	56.00	-24.54	30.82	0.35	0.29	QP
9	5.277	23.36	50.00	-26.64	22.67	0.38	0.31	Average
10	5.277	30.26	60.00	-29.74	29.57	0.38	0.31	QP
11	20.814	32.45	50.00	-17.55	31.61	0.81	0.03	Average
12	20.814	39.33	60.00	-20.67	38.49	0.81	0.03	QP

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

Modulation	VHT40	Test Freq. (MHz)	5230																																																																																																																														
Power Phase	Neutral																																																																																																																																
Level (dBuV)  <table><tr><th></th><th>Freq</th><th>Level</th><th>Limit</th><th>Over</th><th>Read</th><th>LISN</th><th>cable</th><th></th></tr><tr><th></th><th>MHz</th><th>dBuV</th><th>dBuV</th><th>dB</th><th>Level</th><th>factor</th><th>loss</th><th>Remark</th></tr><tr><td>1</td><td>0.153</td><td>34.72</td><td>55.82</td><td>-21.10</td><td>33.82</td><td>0.82</td><td>0.08</td><td>Average</td></tr><tr><td>2</td><td>0.153</td><td>44.50</td><td>65.82</td><td>-21.32</td><td>43.60</td><td>0.82</td><td>0.08</td><td>QP</td></tr><tr><td>3</td><td>0.192</td><td>26.54</td><td>53.93</td><td>-27.39</td><td>26.14</td><td>0.31</td><td>0.09</td><td>Average</td></tr><tr><td>4</td><td>0.192</td><td>36.29</td><td>63.93</td><td>-27.64</td><td>35.89</td><td>0.31</td><td>0.09</td><td>QP</td></tr><tr><td>5</td><td>0.398</td><td>30.29</td><td>47.90</td><td>-17.61</td><td>30.05</td><td>0.13</td><td>0.11</td><td>Average</td></tr><tr><td>6</td><td>0.398</td><td>39.93</td><td>57.90</td><td>-17.97</td><td>39.69</td><td>0.13</td><td>0.11</td><td>QP</td></tr><tr><td>7</td><td>3.642</td><td>25.48</td><td>46.00</td><td>-20.52</td><td>24.51</td><td>0.67</td><td>0.30</td><td>Average</td></tr><tr><td>8</td><td>3.642</td><td>32.47</td><td>56.00</td><td>-23.53</td><td>31.50</td><td>0.67</td><td>0.30</td><td>QP</td></tr><tr><td>9</td><td>5.419</td><td>24.64</td><td>50.00</td><td>-25.36</td><td>23.66</td><td>0.67</td><td>0.31</td><td>Average</td></tr><tr><td>10</td><td>5.419</td><td>30.20</td><td>60.00</td><td>-29.80</td><td>29.22</td><td>0.67</td><td>0.31</td><td>QP</td></tr><tr><td>11</td><td>20.814</td><td>32.19</td><td>50.00</td><td>-17.81</td><td>31.37</td><td>0.79</td><td>0.03</td><td>Average</td></tr><tr><td>12</td><td>20.814</td><td>39.12</td><td>60.00</td><td>-20.88</td><td>38.30</td><td>0.79</td><td>0.03</td><td>QP</td></tr></table> Note 1: Level (dBUV) = Read Level (dBUV) + LISN Factor (dB) + Cable Loss (dB). Note 2: Over Limit (dB) = Level (dBUV) – Limit Line (dBUV).					Freq	Level	Limit	Over	Read	LISN	cable			MHz	dBuV	dBuV	dB	Level	factor	loss	Remark	1	0.153	34.72	55.82	-21.10	33.82	0.82	0.08	Average	2	0.153	44.50	65.82	-21.32	43.60	0.82	0.08	QP	3	0.192	26.54	53.93	-27.39	26.14	0.31	0.09	Average	4	0.192	36.29	63.93	-27.64	35.89	0.31	0.09	QP	5	0.398	30.29	47.90	-17.61	30.05	0.13	0.11	Average	6	0.398	39.93	57.90	-17.97	39.69	0.13	0.11	QP	7	3.642	25.48	46.00	-20.52	24.51	0.67	0.30	Average	8	3.642	32.47	56.00	-23.53	31.50	0.67	0.30	QP	9	5.419	24.64	50.00	-25.36	23.66	0.67	0.31	Average	10	5.419	30.20	60.00	-29.80	29.22	0.67	0.31	QP	11	20.814	32.19	50.00	-17.81	31.37	0.79	0.03	Average	12	20.814	39.12	60.00	-20.88	38.30	0.79	0.03	QP
	Freq	Level	Limit	Over	Read	LISN	cable																																																																																																																										
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Modulation	VHT40	Test Freq. (MHz)	5795
Power Phase	Line		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.159	34.59	55.52	-20.93	33.72	0.79	0.08	Average
2	0.159	41.93	65.52	-23.59	41.06	0.79	0.08	QP
3	0.226	31.67	52.61	-20.94	31.34	0.24	0.09	Average
4	0.226	39.77	62.61	-22.84	39.44	0.24	0.09	QP
5	0.393	39.33	47.99	-8.66	39.04	0.18	0.11	Average
6	0.393	43.07	57.99	-14.92	42.78	0.18	0.11	QP
7	3.491	25.66	46.00	-20.34	25.03	0.33	0.30	Average
8	3.491	31.96	56.00	-24.04	31.33	0.33	0.30	QP
9	5.362	22.82	50.00	-27.18	22.12	0.39	0.31	Average
10	5.362	29.97	60.00	-30.03	29.27	0.39	0.31	QP
11	20.486	31.21	50.00	-18.79	30.39	0.79	0.03	Average
12	20.486	38.84	60.00	-21.16	38.02	0.79	0.03	QP

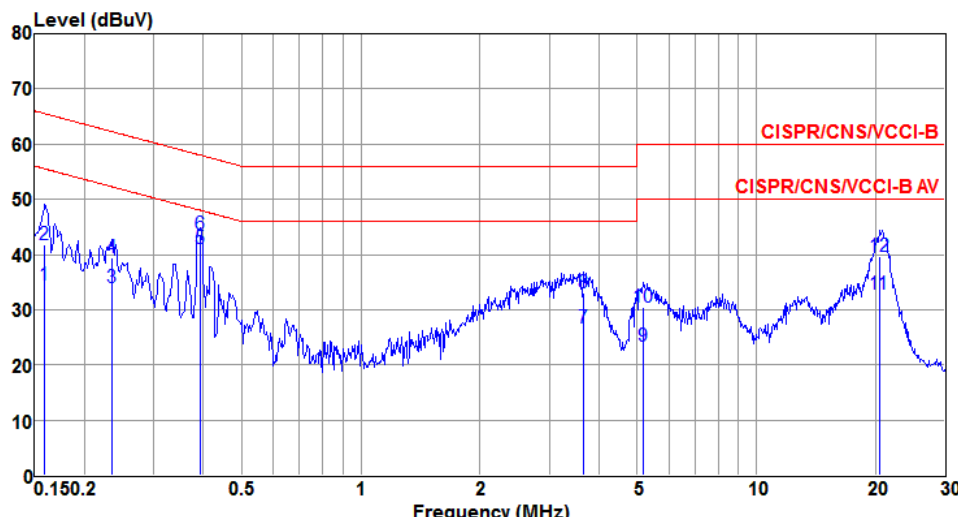
Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).

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

Modulation	VHT40	Test Freq. (MHz)	5795																																																																																																																																							
Power Phase	Neutral																																																																																																																																									
Level (dBuV) <table><thead><tr><th></th><th>Freq</th><th>Level</th><th>Limit</th><th>Over</th><th>Read</th><th>LISN</th><th>cable</th><th></th></tr><tr><th></th><th>MHz</th><th>dBuV</th><th>Line</th><th>Limit</th><th>Level</th><th>factor</th><th>loss</th><th>Remark</th></tr><tr><th></th><th></th><th></th><th>dBuV</th><th>dB</th><th>dBuV</th><th>dB</th><th>dB</th><th></th></tr></thead><tbody><tr><td>1</td><td>0.150</td><td>33.31</td><td>56.00</td><td>-22.69</td><td>32.38</td><td>0.85</td><td>0.08</td><td>Average</td></tr><tr><td>2</td><td>0.150</td><td>42.11</td><td>66.00</td><td>-23.89</td><td>41.18</td><td>0.85</td><td>0.08</td><td>QP</td></tr><tr><td>3</td><td>0.162</td><td>32.69</td><td>55.34</td><td>-22.65</td><td>31.93</td><td>0.68</td><td>0.08</td><td>Average</td></tr><tr><td>4</td><td>0.162</td><td>40.57</td><td>65.34</td><td>-24.77</td><td>39.81</td><td>0.68</td><td>0.08</td><td>QP</td></tr><tr><td>5@</td><td>0.393</td><td>35.37</td><td>47.99</td><td>-12.62</td><td>35.13</td><td>0.13</td><td>0.11</td><td>Average</td></tr><tr><td>6</td><td>0.393</td><td>38.73</td><td>57.99</td><td>-19.26</td><td>38.49</td><td>0.13</td><td>0.11</td><td>QP</td></tr><tr><td>7</td><td>3.207</td><td>24.16</td><td>46.00</td><td>-21.84</td><td>23.30</td><td>0.57</td><td>0.29</td><td>Average</td></tr><tr><td>8</td><td>3.207</td><td>31.19</td><td>56.00</td><td>-24.81</td><td>30.33</td><td>0.57</td><td>0.29</td><td>QP</td></tr><tr><td>9</td><td>5.221</td><td>25.67</td><td>50.00</td><td>-24.33</td><td>24.68</td><td>0.68</td><td>0.31</td><td>Average</td></tr><tr><td>10</td><td>5.221</td><td>31.11</td><td>60.00</td><td>-28.89</td><td>30.12</td><td>0.68</td><td>0.31</td><td>QP</td></tr><tr><td>11</td><td>20.814</td><td>32.34</td><td>50.00</td><td>-17.66</td><td>31.52</td><td>0.79</td><td>0.03</td><td>Average</td></tr><tr><td>12</td><td>20.814</td><td>39.14</td><td>60.00</td><td>-20.86</td><td>38.32</td><td>0.79</td><td>0.03</td><td>QP</td></tr></tbody></table>					Freq	Level	Limit	Over	Read	LISN	cable			MHz	dBuV	Line	Limit	Level	factor	loss	Remark				dBuV	dB	dBuV	dB	dB		1	0.150	33.31	56.00	-22.69	32.38	0.85	0.08	Average	2	0.150	42.11	66.00	-23.89	41.18	0.85	0.08	QP	3	0.162	32.69	55.34	-22.65	31.93	0.68	0.08	Average	4	0.162	40.57	65.34	-24.77	39.81	0.68	0.08	QP	5@	0.393	35.37	47.99	-12.62	35.13	0.13	0.11	Average	6	0.393	38.73	57.99	-19.26	38.49	0.13	0.11	QP	7	3.207	24.16	46.00	-21.84	23.30	0.57	0.29	Average	8	3.207	31.19	56.00	-24.81	30.33	0.57	0.29	QP	9	5.221	25.67	50.00	-24.33	24.68	0.68	0.31	Average	10	5.221	31.11	60.00	-28.89	30.12	0.68	0.31	QP	11	20.814	32.34	50.00	-17.66	31.52	0.79	0.03	Average	12	20.814	39.14	60.00	-20.86	38.32	0.79	0.03	QP
	Freq	Level	Limit	Over	Read	LISN	cable																																																																																																																																			
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Beamforming mode

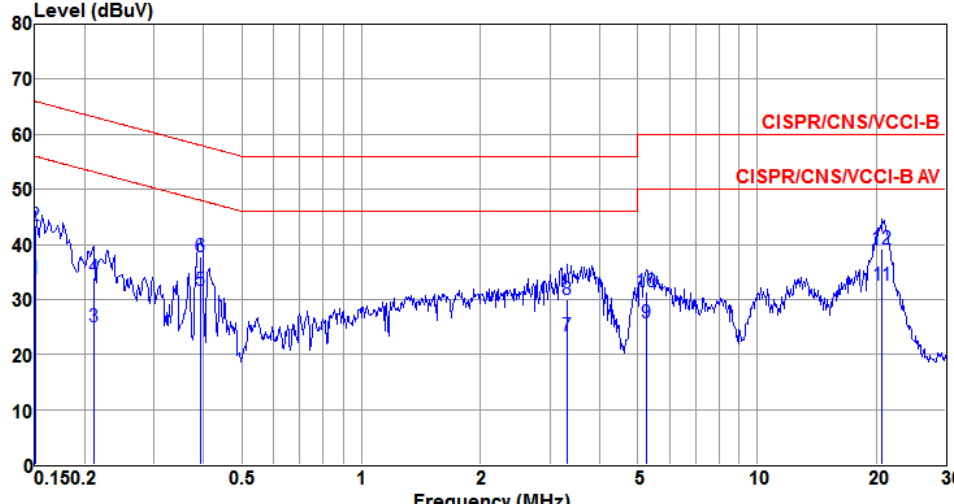
Modulation	VHT20	Test Freq. (MHz)	5180
Power Phase	Line		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.159	34.47	55.52	-21.05	33.60	0.79	0.08	Average
2	0.159	41.82	65.52	-23.70	40.95	0.79	0.08	QP
3	0.234	34.11	52.30	-18.19	33.79	0.23	0.09	Average
4	0.234	39.42	62.30	-22.88	39.10	0.23	0.09	QP
5@	0.391	41.05	48.03	-6.98	40.76	0.18	0.11	Average
6	0.391	43.58	58.03	-14.45	43.29	0.18	0.11	QP
7	3.661	26.76	46.00	-19.24	26.15	0.31	0.30	Average
8	3.661	33.08	56.00	-22.92	32.47	0.31	0.30	QP
9	5.194	23.30	50.00	-26.70	22.61	0.38	0.31	Average
10	5.194	30.38	60.00	-29.62	29.69	0.38	0.31	QP
11	20.486	32.78	50.00	-17.22	31.96	0.79	0.03	Average
12	20.486	39.66	60.00	-20.34	38.84	0.79	0.03	QP

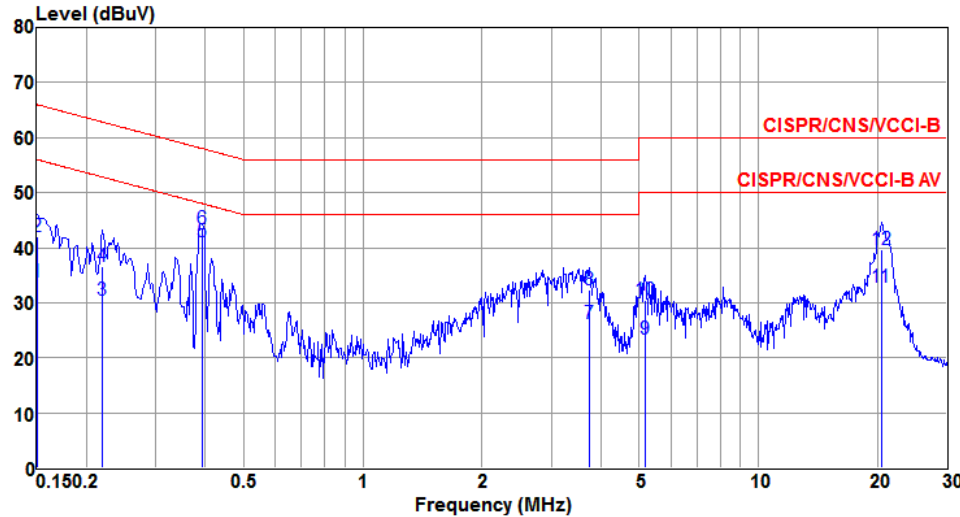
Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).

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

Modulation	VHT20	Test Freq. (MHz)	5180																																																																																																																																							
Power Phase	Neutral																																																																																																																																									
Level (dBuV)  Frequency (MHz) <table><thead><tr><th></th><th>Freq</th><th>Level</th><th>Limit</th><th>Over</th><th>Read</th><th>LISN</th><th>cable</th><th></th></tr><tr><th></th><th>MHz</th><th>dBuV</th><th>Line</th><th>Limit</th><th>Level</th><th>factor</th><th>loss</th><th>Remark</th></tr><tr><th></th><th></th><th></th><th>dBuV</th><th>dB</th><th>dBuV</th><th>dB</th><th>dB</th><th></th></tr></thead><tbody><tr><td>1</td><td>0.150</td><td>33.87</td><td>56.00</td><td>-22.13</td><td>32.94</td><td>0.85</td><td>0.08</td><td>Average</td></tr><tr><td>2</td><td>0.150</td><td>43.53</td><td>66.00</td><td>-22.47</td><td>42.60</td><td>0.85</td><td>0.08</td><td>QP</td></tr><tr><td>3</td><td>0.211</td><td>25.07</td><td>53.18</td><td>-28.11</td><td>24.75</td><td>0.23</td><td>0.09</td><td>Average</td></tr><tr><td>4</td><td>0.211</td><td>34.09</td><td>63.18</td><td>-29.09</td><td>33.77</td><td>0.23</td><td>0.09</td><td>QP</td></tr><tr><td>5</td><td>0.393</td><td>31.64</td><td>47.99</td><td>-16.35</td><td>31.40</td><td>0.13</td><td>0.11</td><td>Average</td></tr><tr><td>6</td><td>0.393</td><td>37.79</td><td>57.99</td><td>-20.20</td><td>37.55</td><td>0.13</td><td>0.11</td><td>QP</td></tr><tr><td>7</td><td>3.310</td><td>23.38</td><td>46.00</td><td>-22.62</td><td>22.50</td><td>0.59</td><td>0.29</td><td>Average</td></tr><tr><td>8</td><td>3.310</td><td>30.01</td><td>56.00</td><td>-25.99</td><td>29.13</td><td>0.59</td><td>0.29</td><td>QP</td></tr><tr><td>9</td><td>5.249</td><td>25.69</td><td>50.00</td><td>-24.31</td><td>24.70</td><td>0.68</td><td>0.31</td><td>Average</td></tr><tr><td>10</td><td>5.249</td><td>31.30</td><td>60.00</td><td>-28.70</td><td>30.31</td><td>0.68</td><td>0.31</td><td>QP</td></tr><tr><td>11</td><td>20.704</td><td>32.61</td><td>50.00</td><td>-17.39</td><td>31.80</td><td>0.78</td><td>0.03</td><td>Average</td></tr><tr><td>12</td><td>20.704</td><td>39.20</td><td>60.00</td><td>-20.80</td><td>38.39</td><td>0.78</td><td>0.03</td><td>QP</td></tr></tbody></table> Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB). Note 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).					Freq	Level	Limit	Over	Read	LISN	cable			MHz	dBuV	Line	Limit	Level	factor	loss	Remark				dBuV	dB	dBuV	dB	dB		1	0.150	33.87	56.00	-22.13	32.94	0.85	0.08	Average	2	0.150	43.53	66.00	-22.47	42.60	0.85	0.08	QP	3	0.211	25.07	53.18	-28.11	24.75	0.23	0.09	Average	4	0.211	34.09	63.18	-29.09	33.77	0.23	0.09	QP	5	0.393	31.64	47.99	-16.35	31.40	0.13	0.11	Average	6	0.393	37.79	57.99	-20.20	37.55	0.13	0.11	QP	7	3.310	23.38	46.00	-22.62	22.50	0.59	0.29	Average	8	3.310	30.01	56.00	-25.99	29.13	0.59	0.29	QP	9	5.249	25.69	50.00	-24.31	24.70	0.68	0.31	Average	10	5.249	31.30	60.00	-28.70	30.31	0.68	0.31	QP	11	20.704	32.61	50.00	-17.39	31.80	0.78	0.03	Average	12	20.704	39.20	60.00	-20.80	38.39	0.78	0.03	QP
	Freq	Level	Limit	Over	Read	LISN	cable																																																																																																																																			
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Modulation	VHT40	Test Freq. (MHz)	5795
Power Phase	Line		

Level (dBuV)



The graph displays the measured level in dBuV against frequency in MHz. Two red lines represent the CISPR/CNS/VCCI-B and CISPR/CNS/VCCI-B AV limits. The blue line shows the measured signal, with several peaks labeled 1 through 12. The x-axis ranges from 0.150 to 30 MHz, and the y-axis ranges from 0 to 80 dBuV.

Frequency (MHz)

	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1	0.150	33.82	56.00	-22.18	32.82	0.92	0.08	Average
2	0.150	41.92	66.00	-24.08	40.92	0.92	0.08	QP
3	0.220	30.44	52.83	-22.39	30.11	0.24	0.09	Average
4	0.220	36.70	62.83	-26.13	36.37	0.24	0.09	QP
5	0.391	41.12	48.03	-6.91	40.83	0.18	0.11	Average
6	0.391	43.50	58.03	-14.53	43.21	0.18	0.11	QP
7	3.740	26.21	46.00	-19.79	25.61	0.30	0.30	Average
8	3.740	32.28	56.00	-23.72	31.68	0.30	0.30	QP
9	5.166	23.38	50.00	-26.62	22.70	0.37	0.31	Average
10	5.166	30.43	60.00	-29.57	29.75	0.37	0.31	QP
11	20.486	32.85	50.00	-17.15	32.03	0.79	0.03	Average
12	20.486	39.76	60.00	-20.24	38.94	0.79	0.03	QP

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

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

Modulation	VHT40	Test Freq. (MHz)	5795
Power Phase	Neutral		

Level (dBuV)

The graph displays the measured level in dBuV across a frequency range from 0.150.2 MHz to 30 MHz. Two red limit lines are shown: CISPR/CNS/VCCI-B (upper) and CISPR/CNS/VCCI-B AV (lower). The measured signal is represented by a blue line with several peaks. Vertical lines connect specific frequency points on the graph to the data table below.

	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.169	30.98	55.03	-24.05	30.29	0.61	0.08	Average
2	0.169	39.64	65.03	-25.39	38.95	0.61	0.08	QP
3	0.234	27.89	52.30	-24.41	27.59	0.21	0.09	Average
4	0.234	35.35	62.30	-26.95	35.05	0.21	0.09	QP
5	0.391	37.56	48.03	-10.47	37.32	0.13	0.11	Average
6	0.391	38.73	58.03	-19.30	38.49	0.13	0.11	QP
7	3.642	23.18	46.00	-22.82	22.21	0.67	0.30	Average
8	3.642	32.05	56.00	-23.95	31.08	0.67	0.30	QP
9	5.249	25.94	50.00	-24.06	24.95	0.68	0.31	Average
10	5.249	31.46	60.00	-28.54	30.47	0.68	0.31	QP
11	20.486	32.15	50.00	-17.85	31.35	0.77	0.03	Average
12	20.486	39.01	60.00	-20.99	38.21	0.77	0.03	QP

Frequency (MHz)

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.

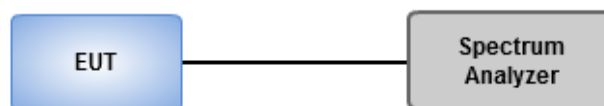
Occupied Bandwidth

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

Non-beamforming mode

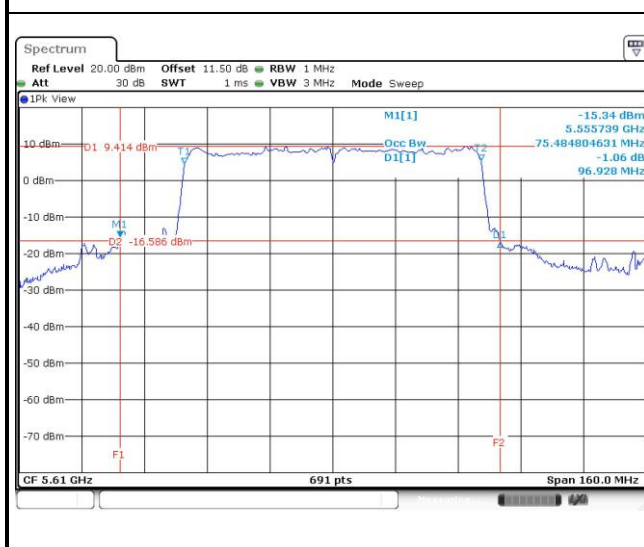
For Frequency band 5150~5250 MHz										
Emission Bandwidth										
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3
11a	4	5180	22.90	23.59	23.07	23.36	16.90	16.98	16.83	16.87
11a	4	5200	40.07	39.93	25.22	35.22	17.89	18.35	16.86	17.15
11a	4	5240	37.97	37.97	25.14	33.62	18.08	18.08	16.85	17.10
VHT20	4	5180	24.93	25.10	24.12	23.65	18.18	18.18	18.03	17.92
VHT20	4	5200	44.71	43.91	27.90	41.23	19.70	18.80	18.07	18.17
VHT20	4	5240	45.00	43.33	25.29	34.57	19.45	18.83	18.06	18.21
VHT40	4	5190	44.23	43.94	44.17	43.71	36.98	36.84	36.92	36.86
VHT40	4	5230	75.01	75.59	44.17	58.55	38.00	37.60	37.06	37.14
VHT80	4	5210	83.94	81.86	83.25	82.78	75.64	75.48	75.56	75.88

For Frequency band 5250~5350 MHz											
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
11a	4	5260	25.22	24.06	22.96	23.59	16.92	17.03	16.81	16.87	24.00
11a	4	5300	23.77	23.77	23.13	23.65	16.93	17.02	16.86	16.90	24.00
11a	4	5320	22.84	23.54	23.07	23.59	16.88	17.00	16.86	16.91	24.00
VHT20	4	5260	25.28	25.51	24.12	23.77	18.21	18.25	18.01	17.94	24.00
VHT20	4	5300	25.39	25.16	24.06	23.59	18.22	18.22	18.06	17.97	24.00
VHT20	4	5320	24.64	25.10	24.52	23.77	18.19	18.20	18.07	17.97	24.00
VHT40	4	5270	55.88	46.61	44.06	43.59	37.14	36.86	36.98	36.88	24.00
VHT40	4	5310	44.64	43.94	44.06	43.71	37.06	36.80	36.88	36.78	24.00
VHT80	4	5290	83.71	80.93	83.01	83.25	75.68	75.32	75.60	75.76	24.00

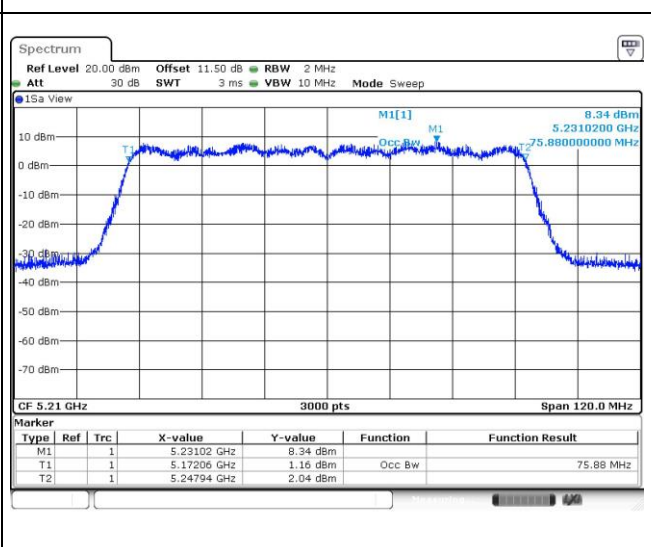
For Frequency band 5470~5725 MHz

Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
11a	4	5500	22.84	23.65	23.42	23.48	16.90	16.99	16.88	16.92	24.00
11a	4	5580	22.90	23.65	23.13	23.54	16.89	16.99	16.91	16.91	24.00
11a	4	5700	22.78	23.65	23.13	23.13	16.85	17.01	16.89	16.96	24.00
VHT20	4	5500	24.70	25.22	24.46	24.12	18.22	18.22	18.10	17.98	24.00
VHT20	4	5580	24.93	25.28	24.41	24.00	18.23	18.22	18.13	17.97	24.00
VHT20	4	5700	24.75	24.99	24.29	23.83	18.14	18.26	18.07	18.04	24.00
VHT40	4	5510	44.52	44.06	44.17	43.71	37.02	36.84	36.92	36.72	24.00
VHT40	4	5590	44.41	46.73	44.17	44.06	37.08	36.88	36.92	36.86	24.00
VHT40	4	5670	44.52	46.15	44.17	43.83	37.08	36.88	36.90	36.82	24.00
VHT80	4	5530	83.94	81.16	83.48	83.01	75.68	75.44	75.56	75.68	24.00
VHT80	4	5610	96.70	96.93	85.10	83.25	75.76	75.48	75.56	75.76	24.00

Worst Plot of 26dB Bandwidth



Worst Plot of 99% Bandwidth

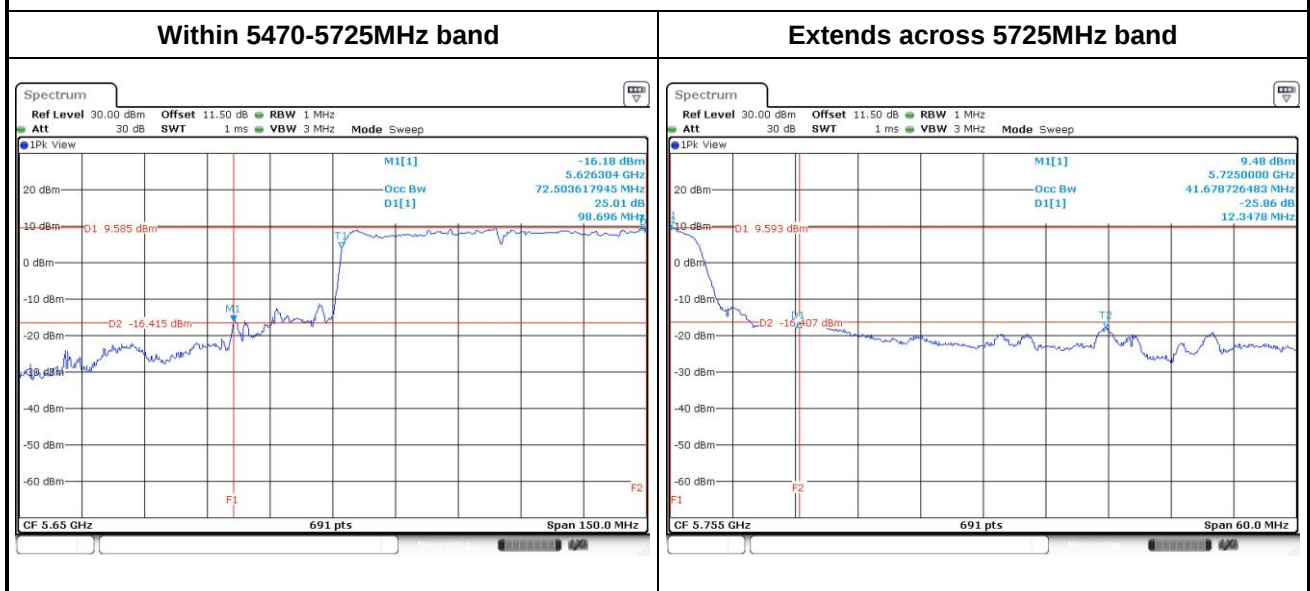


Channel that extends across the 5.725 GHz boundary

Frequency band			UNII Emission Bandwidth Result (Within 5470-5725MHz band)								
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
11a	4	5720	16.32	16.94	16.88	16.57	13.52	13.60	13.52	13.60	23.13
VHT20	4	5720	17.37	17.92	17.49	17.25	14.18	14.28	14.20	14.15	23.37
VHT40	4	5710	37.23	37.84	37.13	36.73	33.55	33.39	33.39	33.27	24.00
VHT80	4	5690	98.48	98.70	88.91	79.13	72.94	72.70	72.78	72.74	24.00

Frequency band			UNII Emission Bandwidth Result (Extends across 5725MHz band)								
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
11a	4	5720	6.65	6.72	6.46	7.09	3.34	3.40	3.36	3.40	30.00
VHT20	4	5720	7.41	7.57	7.11	7.00	4.03	3.98	3.94	3.94	30.00
VHT40	4	5710	7.30	7.42	7.13	6.96	3.47	3.45	3.43	3.41	30.00
VHT80	4	5690	12.09	12.35	7.91	7.65	2.86	2.78	2.78	3.10	30.00

Worst Plots

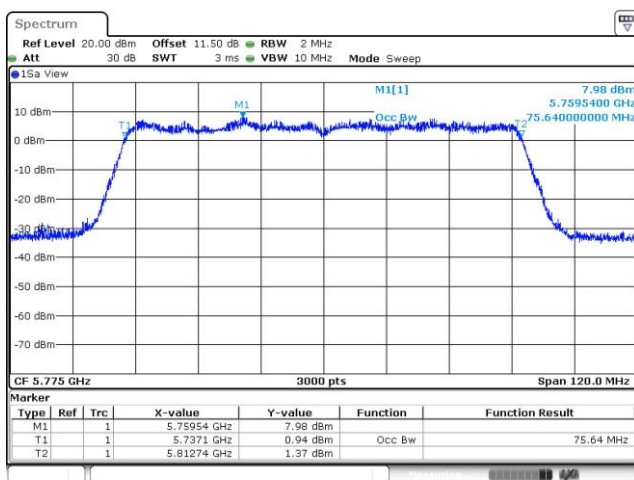


For Frequency band 5725-5850 MHz

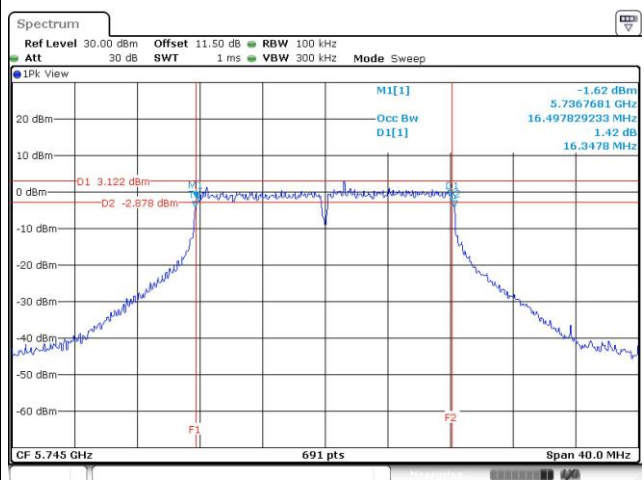
Emission Bandwidth

Mode	N _{TX}	Freq. (MHz)	OBW Bandwidth (MHz)				6dB Bandwidth (MHz)				
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	6dB BW Limit (MHz)
11a	4	5745	16.87	17.00	16.88	17.01	16.35	16.35	16.35	16.46	0.5
11a	4	5785	16.93	16.99	16.89	17.06	16.35	16.35	16.35	16.35	0.5
11a	4	5825	16.90	16.99	16.89	17.01	16.35	16.35	16.35	16.41	0.5
VHT20	4	5745	18.22	18.25	18.10	18.11	17.62	17.62	17.62	17.62	0.5
VHT20	4	5785	18.21	18.24	18.10	18.12	17.62	17.62	17.62	17.62	0.5
VHT20	4	5825	18.23	18.22	18.12	18.10	17.62	17.62	17.62	17.57	0.5
VHT40	4	5755	37.02	36.80	36.82	36.50	36.29	36.29	36.29	35.25	0.5
VHT40	4	5795	36.94	36.84	36.84	36.50	36.29	36.17	36.41	35.48	0.5
VHT80	4	5775	75.64	75.36	75.44	75.28	75.13	75.13	75.13	75.13	0.5

Worst Plot of 99% Bandwidth



Worst Plot of 6dB Bandwidth



Beamforming mode

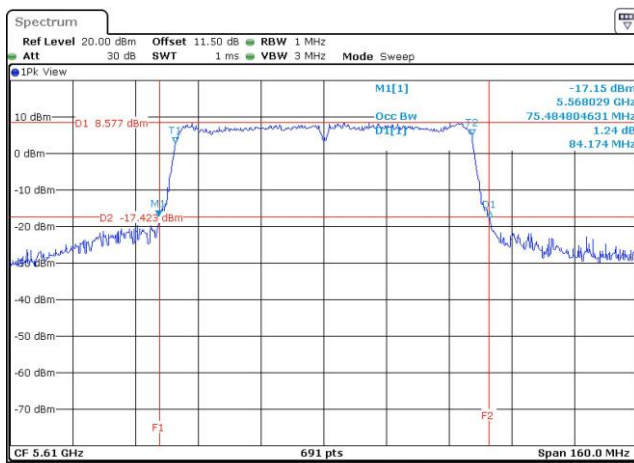
For Frequency band 5150~5250 MHz										
Emission Bandwidth										
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3
VHT20	4	5180	24.70	24.99	25.22	24.81	18.23	18.23	18.26	18.32
VHT20	4	5200	43.19	41.01	27.46	37.25	18.76	18.63	18.27	18.40
VHT20	4	5240	43.19	41.59	29.57	37.10	18.79	18.43	18.29	18.38
VHT40	4	5190	43.83	43.36	43.94	43.83	37.02	37.02	36.94	37.02
VHT40	4	5230	76.23	62.61	43.77	61.59	37.46	37.30	36.96	37.22
VHT80	4	5210	83.48	83.71	80.93	83.71	75.76	75.84	75.76	75.80

For Frequency band 5250~5350 MHz											
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
VHT20	4	5260	29.93	30.72	26.09	28.04	18.30	18.28	18.26	18.26	24.00
VHT20	4	5300	33.04	28.62	25.72	26.01	18.26	18.27	18.26	18.24	24.00
VHT20	4	5320	24.99	25.04	25.62	25.10	18.26	18.26	18.25	18.25	24.00
VHT40	4	5270	58.32	50.20	45.10	43.94	37.12	37.10	37.04	37.02	24.00
VHT40	4	5310	44.41	43.83	43.71	44.17	37.00	37.04	37.04	37.02	24.00
VHT80	4	5290	82.32	81.16	83.48	83.25	75.76	75.76	75.88	75.72	24.00

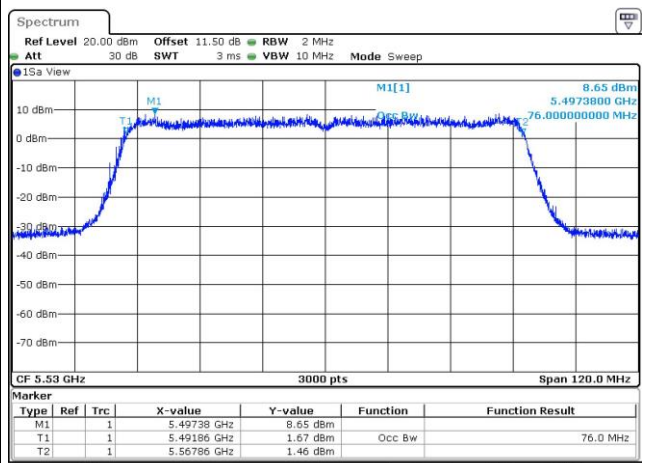
For Frequency band 5470~5725 MHz

Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
VHT20	4	5500	25.10	24.93	24.87	25.62	18.27	18.26	18.25	18.25	24.00
VHT20	4	5580	27.48	25.80	25.22	25.45	18.25	18.25	18.26	18.24	24.00
VHT20	4	5700	25.57	24.93	25.16	25.10	18.27	18.24	18.25	18.25	24.00
VHT40	4	5510	44.06	44.99	44.06	44.29	37.04	37.08	37.02	37.02	24.00
VHT40	4	5590	48.00	49.97	43.83	43.71	37.08	37.08	37.06	37.08	24.00
VHT40	4	5670	46.03	48.23	44.29	44.29	36.98	37.04	37.06	36.98	24.00
VHT80	4	5530	82.32	83.48	80.46	83.25	75.76	76.00	75.72	75.72	24.00
VHT80	4	5610	80.93	84.17	81.16	80.93	75.76	75.76	75.72	75.72	24.00

Worst Plot of 26dB Bandwidth



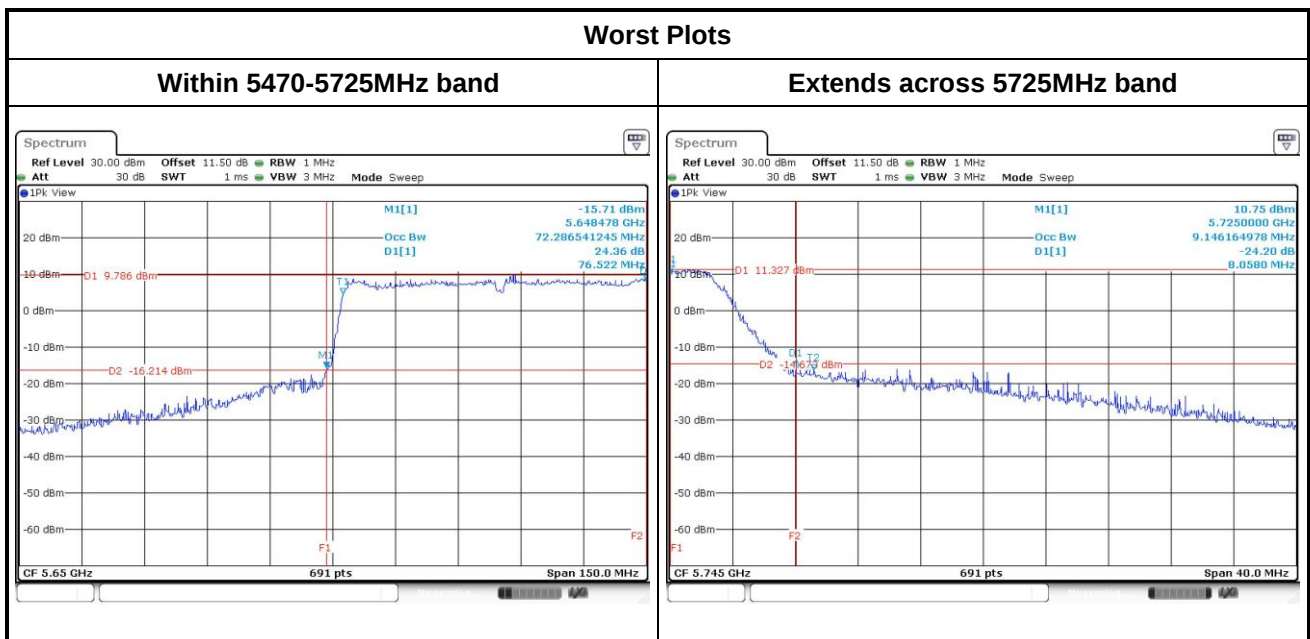
Worst Plot of 99% Bandwidth



Channel that extends across the 5.725 GHz boundary

Frequency band			UNII Emission Bandwidth Result (Within 5470-5725MHz band)								
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
VHT20	4	5720	17.99	17.55	17.43	17.49	14.185	14.175	14.165	14.195	23.41
VHT40	4	5710	37.33	39.67	37.03	37.23	33.55	33.55	33.51	33.53	24.00
VHT80	4	5690	75.22	76.52	75.87	75.44	72.79	72.79	72.79	72.94	24.00

Frequency band			UNII Emission Bandwidth Result (Extends across 5725MHz band)								
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
VHT20	4	5720	7.72	7.74	7.57	7.70	4.07	4.06	4.06	4.07	30.00
VHT40	4	5710	8.06	7.07	7.30	7.01	3.49	3.47	3.41	3.43	30.00
VHT80	4	5690	7.83	7.48	7.04	7.04	2.90	2.90	2.90	2.82	30.00

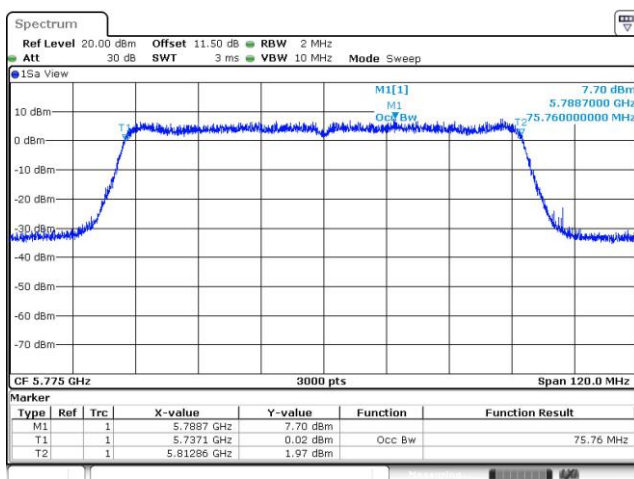


For Frequency band 5725-5850 MHz

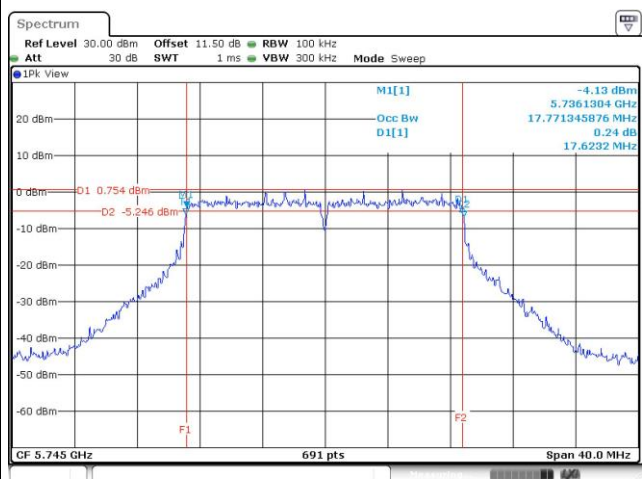
Emission Bandwidth

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	
VHT20	4	5745	18.27	18.27	18.28	18.25	17.62	17.62	17.62	17.62	0.5
VHT20	4	5785	18.24	18.28	18.27	18.26	17.62	17.62	17.62	17.62	0.5
VHT20	4	5825	18.28	18.25	18.26	18.27	17.62	17.62	17.62	17.62	0.5
VHT40	4	5755	37.04	37.04	37.02	37.04	36.52	35.94	35.25	36.52	0.5
VHT40	4	5795	37.04	37.22	36.98	37.06	36.52	36.41	35.13	36.52	0.5
VHT80	4	5775	75.76	75.76	75.68	75.76	70.03	75.13	75.13	73.97	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

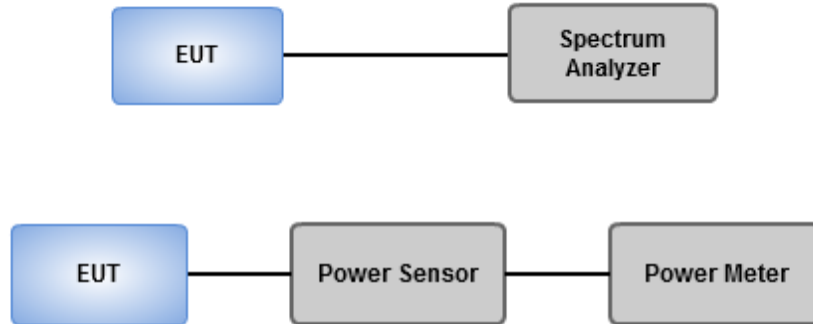
Frequency band 5150-5250 MHz		
Operating Mode		Limit
☐	Outdoor access point	Conducted Power: 1 W The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm)
☒	Indoor access point	Conducted Power: 1 W
☐	Fixed point-to-point access points	Conducted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

- ☒ Power meter (For channel that does not extends across the 5.725 GHz boundary)
 - ☒ Measurements is performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required
- ☒ Spectrum analyzer (For channel that extends across the 5.725 GHz boundary)
 1. Set RBW=1MHz, VBW=3MHz , Sweep time= Auto, Detector = RMS
 2. Trace average at least 100 traces in power averaging mode
 3. Compute power by integrating the spectrum across the 26 dB EBW

3.3.3 Test Setup



3.3.4 Test Result of Maximum Conducted Output Power

Non-beamforming mode

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	4	5180	16.68	15.91	16.26	16.11	168.652	22.27	30.00
11a	4	5200	20.42	20.09	20.21	20.03	417.895	26.21	30.00
11a	4	5240	20.04	20.01	20.32	20.07	410.427	26.13	30.00
HT20	4	5180	16.75	15.89	16.15	16.12	168.266	22.26	30.00
HT20	4	5200	20.31	19.91	19.79	19.96	399.711	26.02	30.00
HT20	4	5240	19.98	20.01	20.03	19.85	397.069	25.99	30.00
HT40	4	5190	15.11	14.39	14.15	14.41	113.520	20.55	30.00
HT40	4	5230	21.01	20.31	20.03	19.69	427.386	26.31	30.00
VHT20	4	5180	16.79	15.97	16.23	16.18	170.761	22.32	30.00
VHT20	4	5200	20.43	19.96	19.84	19.99	405.644	26.08	30.00
VHT20	4	5240	20.04	20.06	20.09	20.01	404.641	26.07	30.00
VHT40	4	5190	15.25	14.49	14.21	14.47	115.969	20.64	30.00
VHT40	4	5230	21.05	20.39	20.09	19.74	433.029	26.37	30.00
VHT80	4	5210	13.82	13.01	12.94	12.76	82.656	19.17	30.00

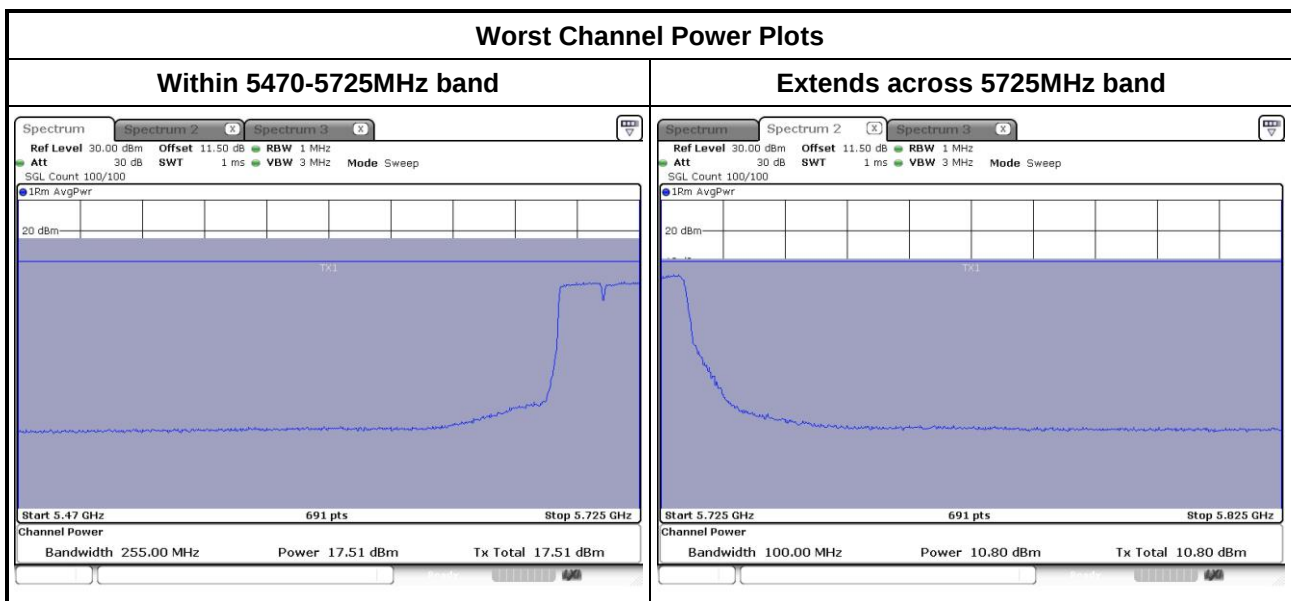
For Frequency band 5250~5350 MHz									
Mode	N _{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
11a	4	5260	18.21	17.69	17.58	17.82	242.784	23.85	24.00
11a	4	5300	18.06	17.25	17.51	17.25	226.514	23.55	24.00
11a	4	5320	16.96	16.27	16.48	16.16	177.791	22.50	24.00
HT20	4	5260	18.19	17.71	17.69	17.52	240.180	23.81	24.00
HT20	4	5300	17.91	17.45	17.47	17.44	228.702	23.59	24.00
HT20	4	5320	16.83	16.21	16.19	16.11	172.401	22.37	24.00
HT40	4	5270	17.75	16.85	16.65	16.71	201.103	23.03	24.00
HT40	4	5310	15.22	14.36	14.65	14.42	117.399	20.70	24.00
VHT20	4	5260	18.24	17.77	17.78	17.59	243.913	23.87	24.00
VHT20	4	5300	17.99	17.51	17.53	17.50	232.172	23.66	24.00
VHT20	4	5320	16.90	16.26	16.27	16.18	175.104	22.43	24.00
VHT40	4	5270	17.81	16.93	16.71	16.78	204.237	23.10	24.00
VHT40	4	5310	15.29	14.43	14.72	14.48	119.242	20.76	24.00
VHT80	4	5290	14.18	13.38	13.66	13.19	92.031	19.64	24.00

For Frequency band 5470~5725 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	4	5500	17.72	18.05	17.11	17.06	225.203	23.53	24.00
11a	4	5580	17.63	17.90	17.54	16.88	225.110	23.52	24.00
11a	4	5700	17.01	17.19	16.31	16.94	194.782	22.90	24.00
HT20	4	5500	17.03	17.15	15.98	16.15	183.184	22.63	24.00
HT20	4	5580	17.36	17.72	17.36	17.13	219.698	23.42	24.00
HT20	4	5700	15.83	16.36	15.73	15.53	154.672	21.89	24.00
HT40	4	5510	15.06	15.16	14.02	14.57	118.749	20.75	24.00
HT40	4	5590	17.78	18.12	17.16	16.96	226.501	23.55	24.00
HT40	4	5670	17.51	17.81	17.42	16.85	220.384	23.43	24.00
VHT20	4	5500	17.11	17.21	16.04	16.21	185.968	22.69	24.00
VHT20	4	5580	17.44	17.80	17.43	17.19	223.414	23.49	24.00
VHT20	4	5700	15.89	16.22	15.77	15.57	154.509	21.89	24.00
VHT40	4	5510	15.11	15.24	14.13	14.61	120.642	20.81	24.00
VHT40	4	5590	17.84	18.15	17.2	17.02	228.957	23.60	24.00
VHT40	4	5670	17.56	17.86	17.48	16.91	223.177	23.49	24.00
VHT80	4	5530	13.91	14.04	13.26	13.36	92.816	19.68	24.00
VHT80	4	5610	17.48	17.56	16.98	16.87	211.521	23.25	24.00

Channel that extends across the 5.725 GHz boundary

Maximum Conducted Output Power (Within 5470-5725MHz band)											
Mode	N _{TX}	Freq. (MHz)	Conducted Power without duty factor					Duty factor (dB)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Total Power (dBm)				
11a	4	5720	15.03	15.07	14.40	14.33	20.74	0.00	118.623	20.74	23.13
HT20	4	5720	14.86	14.94	14.32	14.97	20.80	0.00	120.253	20.80	23.37
HT40	4	5710	16.57	16.38	17.37	17.24	22.93	0.00	196.387	22.93	24.00
VHT20	4	5720	15.81	15.45	16.24	15.65	21.82	0.00	151.983	21.82	23.37
VHT40	4	5710	16.64	16.88	17.51	17.39	23.14	0.00	206.076	23.14	24.00
VHT80	4	5690	17.09	17.25	16.88	16.21	22.90	0.22	204.914	23.12	24.00

Maximum Conducted Output Power (Extends across 5725MHz band)											
Mode	N _{TX}	Freq. (MHz)	Conducted Power without duty factor					Duty factor (dB)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Total Power (dBm)				
11a	4	5720	9.41	9.24	8.87	8.58	15.06	0.00	32.044	15.06	30.00
HT20	4	5720	9.63	9.56	9.28	9.31	15.47	0.00	35.223	15.47	30.00
HT40	4	5710	7.17	6.52	7.69	7.18	13.18	0.00	20.798	13.18	30.00
VHT20	4	5720	10.10	10.11	10.80	10.54	16.42	0.00	43.836	16.42	30.00
VHT40	4	5710	7.21	6.11	7.52	6.86	12.98	0.00	19.846	12.98	30.00
VHT80	4	5690	3.17	3.59	2.82	2.74	9.11	0.22	8.578	9.33	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	4	5745	16.01	16.11	15.37	15.3	149.054	21.73	30.00
11a	4	5785	17.48	17.50	17.18	17.16	216.449	23.35	30.00
11a	4	5825	17.09	17.31	17.19	16.98	207.244	23.16	30.00
HT20	4	5745	15.88	16.07	15.31	15.62	149.621	21.75	30.00
HT20	4	5785	17.36	17.55	17.06	17.15	214.032	23.30	30.00
HT20	4	5825	16.86	17.45	17.23	16.72	203.953	23.10	30.00
HT40	4	5755	14.13	14.03	13.69	13.75	98.277	19.92	30.00
HT40	4	5795	17.62	17.69	17.41	17.44	227.102	23.56	30.00
VHT20	4	5745	15.91	16.11	15.37	15.68	151.244	21.80	30.00
VHT20	4	5785	17.43	17.59	17.11	17.21	216.753	23.36	30.00
VHT20	4	5825	16.91	17.51	17.29	16.76	206.458	23.15	30.00
VHT40	4	5755	14.17	14.07	13.75	13.8	99.351	19.97	30.00
VHT40	4	5795	17.67	17.76	17.47	17.48	230.005	23.62	30.00
VHT80	4	5775	12.78	12.77	12.31	12.47	72.572	18.61	30.00

Beamforming mode

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			
VHT20	4	5180	16.01	15.22	15.13	14.86	136.372	21.35	29.48
VHT20	4	5200	20.52	19.70	19.91	19.48	392.710	25.94	29.48
VHT20	4	5240	20.21	19.33	19.56	19.36	367.321	25.65	29.48
VHT40	4	5190	14.26	13.85	13.46	13.61	96.078	19.83	29.48
VHT40	4	5230	20.01	18.75	19.04	18.94	333.731	25.23	29.48
VHT80	4	5210	13.08	12.54	12.25	12.23	71.770	18.56	29.48

Note: Directional gain = $0.5 + 10 \cdot \log(4/1) = 6.52 \text{ dBi} > 6 \text{ dBi}$.

Limit shall be reduced to $30 \text{ dBm} - (6.52 \text{ dBi} - 6 \text{ dBi}) = 29.48 \text{ dBm}$.

For Frequency band 5250~5350 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			
VHT20	4	5260	17.77	17.29	17.24	17.05	217.086	23.37	23.48
VHT20	4	5300	17.85	17.37	17.27	17.05	219.562	23.42	23.48
VHT20	4	5320	15.94	14.99	15.55	14.89	137.539	21.38	23.48
VHT40	4	5270	17.72	16.86	16.49	16.65	198.489	22.98	23.48
VHT40	4	5310	14.41	13.51	13.68	13.72	96.930	19.86	23.48
VHT80	4	5290	13.87	13.61	13.62	13.6	93.263	19.70	23.48

Note: Directional gain = $0.5 + 10 \cdot \log(4/1) = 6.52 \text{ dBi} > 6 \text{ dBi}$.

Limit shall be reduced to $24 \text{ dBm} - (6.52 \text{ dBi} - 6 \text{ dBi}) = 23.48 \text{ dBm}$.

For Frequency band 5470~5725 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			
VHT20	4	5500	15.98	16.08	15.05	15.07	144.304	21.59	23.48
VHT20	4	5580	17.79	17.77	17.14	16.79	219.472	23.41	23.48
VHT20	4	5700	13.98	14.17	13.93	13.55	98.489	19.93	23.48
VHT40	4	5510	13.16	12.87	12.48	12.25	74.555	18.72	23.48
VHT40	4	5590	17.38	17.53	17.36	17.02	216.126	23.35	23.48
VHT40	4	5670	17.64	17.91	17.04	16.65	216.699	23.36	23.48
VHT80	4	5530	12.57	12.47	11.64	11.8	65.456	18.16	23.48
VHT80	4	5610	16.23	16.37	15.7	15.45	157.556	21.97	23.48

Note: Directional gain = $0.5 + 10 \cdot \log(4/1) = 6.52 \text{ dBi} > 6 \text{ dBi}$.

Limit shall be reduced to $24 \text{ dBm} - (6.52 \text{ dBi} - 6 \text{ dBi}) = 23.48 \text{ dBm}$.

Channel that extends across the 5.725 GHz boundary

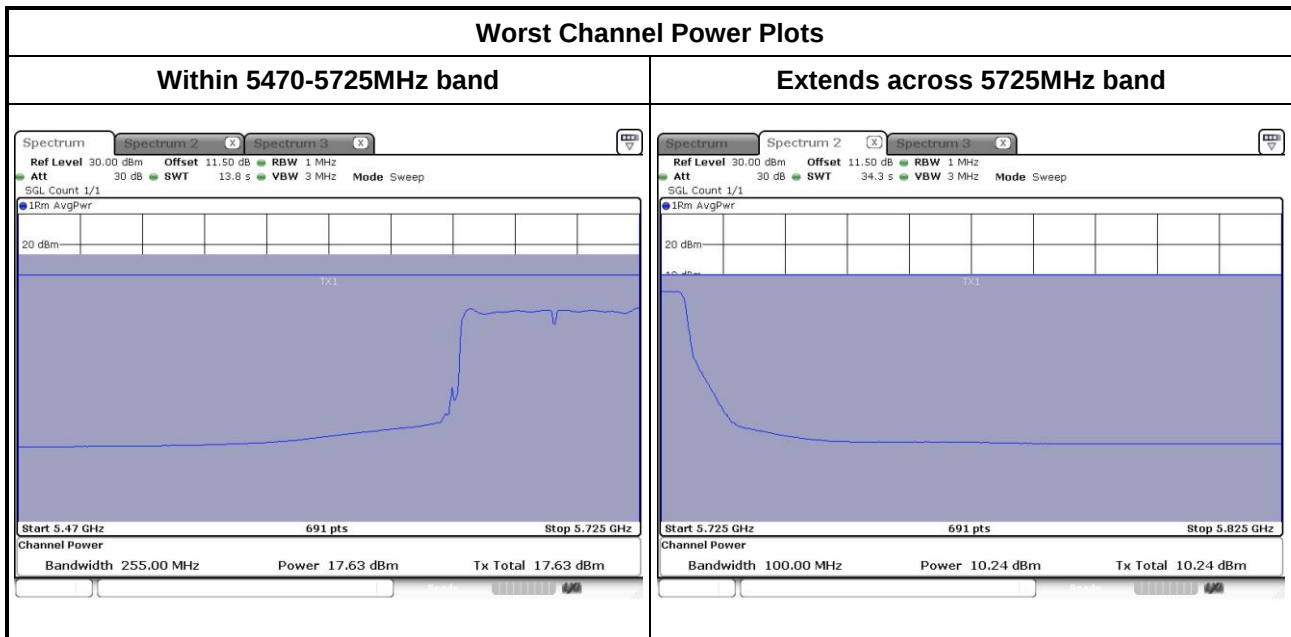
Maximum Conducted Output Power (Within 5470-5725MHz band)											
Mode	N _{TX}	Freq. (MHz)	Conducted Power without duty factor					Duty factor (dB)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Total Power (dBm)				
VHT20	4	5720	15.23	14.80	15.88	15.49	21.39	0.32	148.194	21.71	22.89
VHT40	4	5710	16.04	15.78	16.92	16.31	22.30	0.59	194.718	22.89	23.48
VHT80	4	5690	17.35	17.63	16.95	16.79	23.21	0.11	214.942	23.32	23.48

Note: Directional gain = $0.5 + 10 \cdot \log(4/1) = 6.52 \text{ dBi} > 6 \text{ dBi}$. Limit shall be reduced 0.52 dB (6.52 dBi – 6 dBi)

Maximum Conducted Output Power (Extends across 5725MHz band)											
Mode	N _{TX}	Freq. (MHz)	Conducted Power without duty factor					Duty factor (dB)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Total Power (dBm)				
VHT20	4	5720	9.53	9.53	10.22	10.24	15.91	0.32	42.021	16.23	29.38
VHT40	4	5710	6.03	5.79	6.86	6.40	12.31	0.59	19.496	12.90	29.38
VHT80	4	5690	3.71	3.78	3.43	3.03	9.52	0.11	9.179	9.63	29.38

Note: Directional gain = $0.6 + 10 \cdot \log(4/1) = 6.62 \text{ dBi} > 6 \text{ dBi}$.

Limit shall be reduced to 30 dBm – (6.62 dBi – 6 dBi) = 29.38 dBm.



Note: Above plots are without duty factor.

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			
VHT20	4	5745	12.58	12.84	12.34	12.26	71.311	18.53	29.38
VHT20	4	5785	17.11	17.34	17.28	17.02	209.411	23.21	29.38
VHT20	4	5825	14.24	14.33	14.15	13.61	102.611	20.11	29.38
VHT40	4	5755	11.46	11.88	11.15	11.24	55.749	17.46	29.38
VHT40	4	5795	17.55	17.64	17.28	17.27	221.752	23.46	29.38
VHT80	4	5775	11.72	11.87	11.11	11.99	58.966	17.71	29.38

Note: Directional gain = $0.6 + 10 \cdot \log(4/1) = 6.62 \text{ dBi} > 6 \text{ dBi}$.

Limit shall be reduced to $30 \text{ dBm} - (6.62 \text{ dBi} - 6 \text{ dBi}) = 29.38 \text{ dBm}$.

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

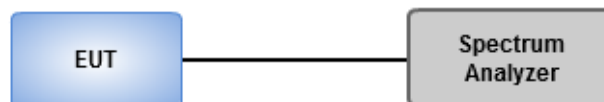
For 5150~5250 MHz, 5250~5350 MHz, 5470~5725 MHz

- ☒ Method SA-1 (For Non-Beamforming 802.11a / 11ac VHT20 / VHT 40)
 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 Non-Beamforming 11ac VHT80 / For Beamforming)
 1. Set RBW = 1 MHz, VBW = 3 MHz, Detector = RMS.
 2. Set sweep time $\geq 10 \times (\text{number of points in sweep}) \times (\text{total on/off period of the transmitted signal})$.
 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 Non-Beamforming 802.11a / 11ac VHT20 / VHT 40)
 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 Non-Beamforming 11ac VHT80 / For Beamforming)
 1. Set RBW = 500 kHz, VBW = 2 MHz, Detector = RMS.
 2. Set sweep time $\geq 10 \times (\text{number of points in sweep}) \times (\text{total on/off period of the transmitted signal})$.
 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

Non-beamforming mode

Frequency band			5150~5250 MHz / 5250~5350 MHz			
Condition			Peak Power Spectral Density (dBm/MHz)			
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	4	5180	9.75	0.00	9.75	16.48
11a	4	5200	14.27	0.00	14.27	16.48
11a	4	5240	14.06	0.00	14.06	16.48
VHT20	4	5180	9.08	0.00	9.08	16.48
VHT20	4	5200	13.87	0.00	13.87	16.48
VHT20	4	5240	13.40	0.00	13.40	16.48
VHT40	4	5190	4.30	0.00	4.30	16.48
VHT40	4	5230	10.20	0.00	10.20	16.48
VHT80	4	5210	1.30	0.22	1.52	16.48
11a	4	5260	10.24	0.00	10.24	10.48
11a	4	5300	10.46	0.00	10.46	10.48
11a	4	5320	9.57	0.00	9.57	10.48
VHT20	4	5260	10.15	0.00	10.15	10.48
VHT20	4	5300	10.11	0.00	10.11	10.48
VHT20	4	5320	9.00	0.00	9.00	10.48
VHT40	4	5270	6.56	0.00	6.56	10.48
VHT40	4	5310	4.07	0.00	4.07	10.48
VHT80	4	5290	1.69	0.22	1.91	10.48

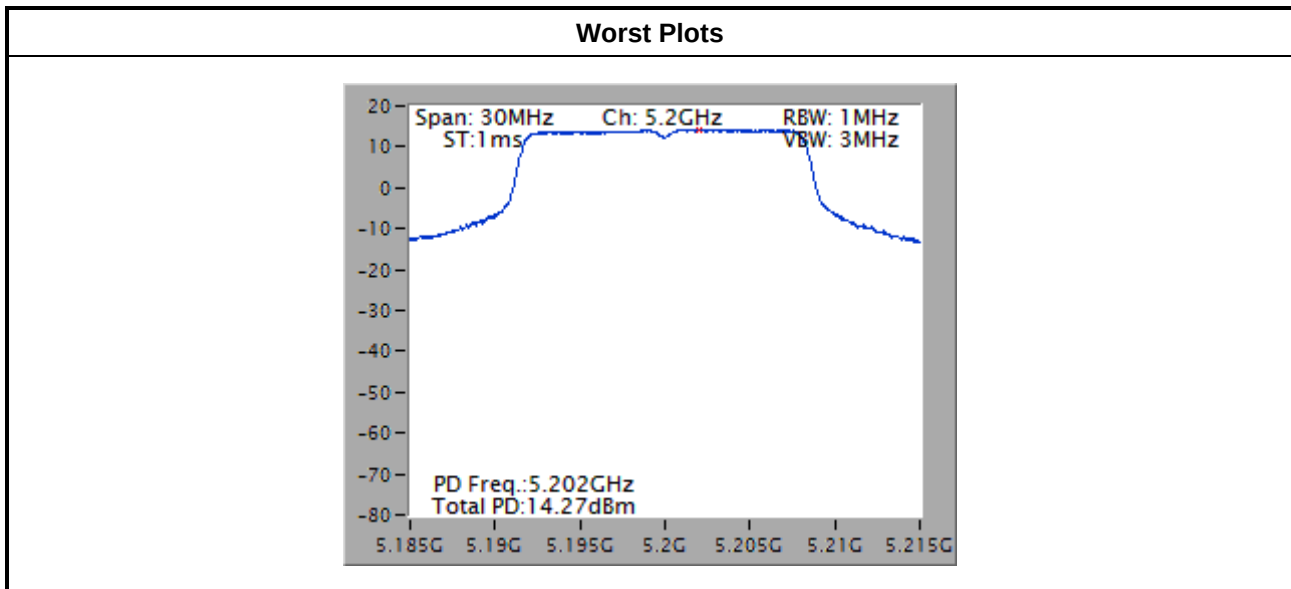
Note:

1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. For 5180 ~ 5240 MHz band
 Directional gain = $0.5 + 10 \cdot \log(4/1) = 6.52 \text{ dBi} > 6 \text{ dBi}$.
 Limit shall be reduced to 17 dBm – (6.52 dBi – 6 dBi) = 16.48 dBm.
 For 5260 ~ 5320MHz band
 Directional gain = $0.5 + 10 \cdot \log(4/1) = 6.52 \text{ dBi} > 6 \text{ dBi}$.
 Limit shall be reduced to 11 dBm – (6.52 dBi – 6 dBi) = 10.48 dBm.

Frequency band			5470~5725 MHz			
Condition			Peak Power Spectral Density (dBm/MHz)			
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	4	5500	10.34	0.00	10.34	10.48
11a	4	5580	10.06	0.00	10.06	10.48
11a	4	5700	9.67	0.00	9.67	10.48
11a	4	5720	9.62	0.00	9.62	10.48
VHT20	4	5500	9.55	0.00	9.55	10.48
VHT20	4	5580	10.32	0.00	10.32	10.48
VHT20	4	5700	8.37	0.00	8.37	10.48
VHT20	4	5720	9.33	0.00	9.33	10.48
VHT40	4	5510	4.62	0.00	4.62	10.48
VHT40	4	5590	7.02	0.00	7.02	10.48
VHT40	4	5670	7.04	0.00	7.04	10.48
VHT40	4	5710	6.76	0.00	6.76	10.48
VHT80	4	5530	2.25	0.22	2.47	10.48
VHT80	4	5610	5.77	0.22	5.99	10.48
VHT80	4	5690	6.28	0.22	6.50	10.48

Note:

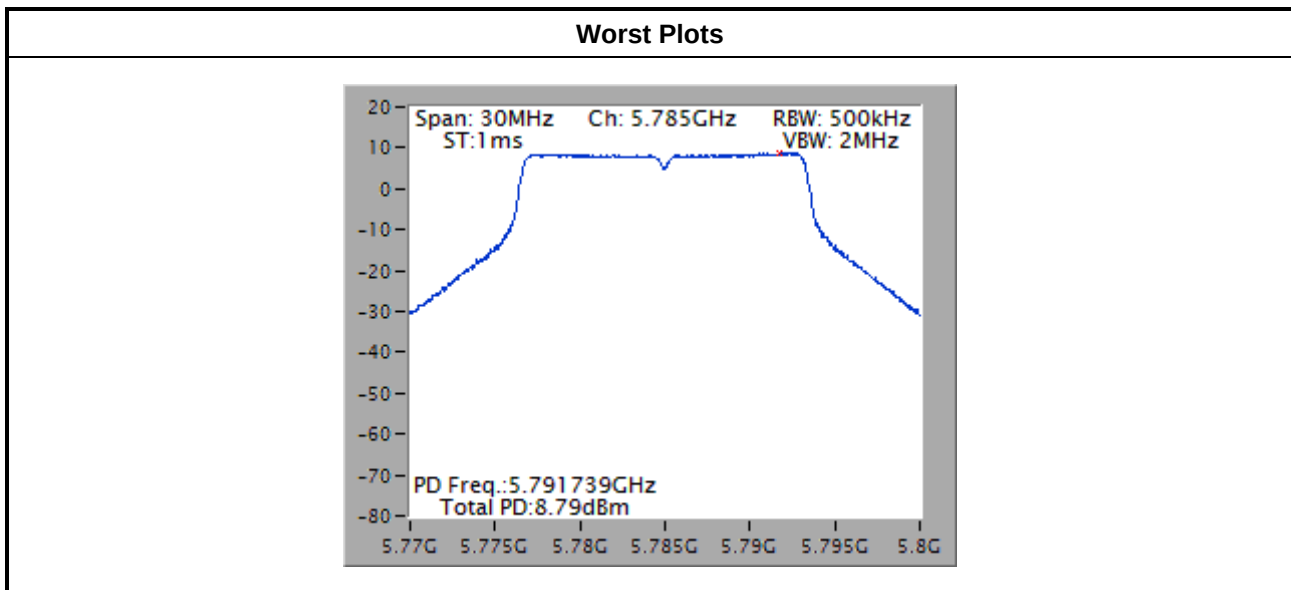
1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. Directional gain = $0.5 + 10 \cdot \log(4/1) = 6.52 \text{ dBi} > 6 \text{ dBi}$.
Limit shall be reduced to $11 \text{ dBm} - (6.52 \text{ dBi} - 6 \text{ dBi}) = 10.48 \text{ dBm}$.



For Frequency band 5725-5850 MHz						
Condition			Peak Power Spectral Density (dBm/500kHz)			
Modulation Mode	N _{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/500kHz)	Duty Factor (dB)	PPSD with D.F (dBm/500kHz)	PPSD Limit (dBm/500kHz)
11a	4	5745	6.93	0.00	6.93	29.38
11a	4	5785	8.79	0.00	8.79	29.38
11a	4	5825	8.49	0.00	8.49	29.38
VHT20	4	5745	6.79	0.00	6.79	29.38
VHT20	4	5785	8.46	0.00	8.46	29.38
VHT20	4	5825	8.25	0.00	8.25	29.38
VHT40	4	5755	2.00	0.00	2.00	29.38
VHT40	4	5795	5.74	0.00	5.74	29.38
VHT80	4	5775	-2.24	0.22	-2.02	29.38

Note:

1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. Directional gain = $0.6 + 10 \cdot \log(4/1) = 6.62 \text{ dBi} > 6 \text{ dBi}$.
Limit shall be reduced to 11 dBm – (6.62 dBi – 6 dBi) = 29.38 dBm.



Beamforming mode

Frequency band			5150~5250 MHz / 5250~5350 MHz			
Condition			Peak Power Spectral Density (dBm/MHz)			
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)
VHT20	4	5180	7.34	0.32	7.66	16.48
VHT20	4	5200	11.87	0.32	12.19	16.48
VHT20	4	5240	11.54	0.32	11.86	16.48
VHT40	4	5190	2.30	0.59	2.89	16.48
VHT40	4	5230	8.10	0.59	8.69	16.48
VHT80	4	5210	-1.40	0.11	-1.29	16.48
VHT20	4	5260	9.24	0.32	9.56	10.48
VHT20	4	5300	9.17	0.32	9.49	10.48
VHT20	4	5320	7.26	0.32	7.58	10.48
VHT40	4	5270	5.72	0.59	6.31	10.48
VHT40	4	5310	2.41	0.59	3.00	10.48
VHT80	4	5290	0.10	0.11	0.21	10.48

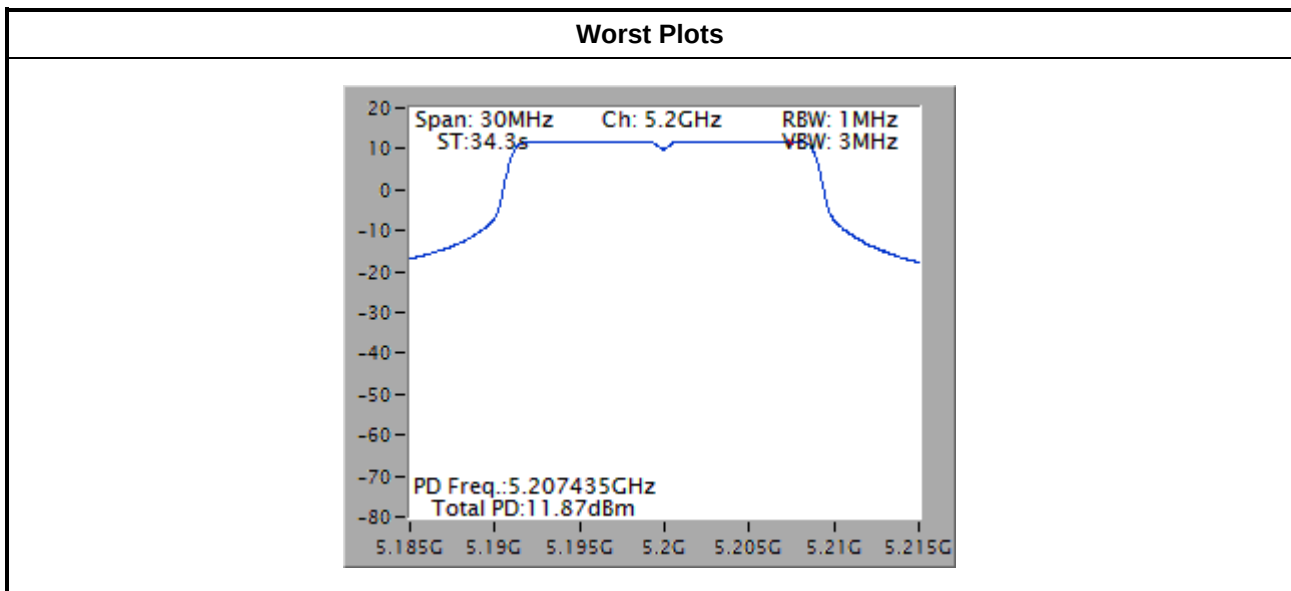
Note:

1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. For 5180 ~ 5240 MHz band
 Directional gain = $0.5 + 10 \cdot \log(4/1) = 6.52 \text{ dBi} > 6 \text{ dBi}$.
 Limit shall be reduced to $17 \text{ dBm} - (6.52 \text{ dBi} - 6 \text{ dBi}) = 16.48 \text{ dBm}$.
 For 5260 ~ 5320MHz band
 Directional gain = $0.5 + 10 \cdot \log(4/1) = 6.52 \text{ dBi} > 6 \text{ dBi}$.
 Limit shall be reduced to $11 \text{ dBm} - (6.52 \text{ dBi} - 6 \text{ dBi}) = 10.48 \text{ dBm}$.

Frequency band			5470~5725 MHz			
Condition			Peak Power Spectral Density (dBm/MHz)			
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)
VHT20	4	5500	7.86	0.32	8.18	10.48
VHT20	4	5580	9.69	0.32	10.01	10.48
VHT20	4	5700	5.82	0.32	6.14	10.48
VHT20	4	5720	8.99	0.32	9.31	10.48
VHT40	4	5510	2.10	0.59	2.69	10.48
VHT40	4	5590	6.66	0.59	7.25	10.48
VHT40	4	5670	5.96	0.59	6.55	10.48
VHT40	4	5710	6.29	0.59	6.88	10.48
VHT80	4	5530	-0.59	0.11	-0.48	10.48
VHT80	4	5610	3.02	0.11	3.13	10.48
VHT80	4	5690	3.77	0.11	3.88	10.48

Note:

1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. Directional gain = $0.5 + 10 \cdot \log(4/1) = 6.52 \text{ dBi} > 6 \text{ dBi}$.
Limit shall be reduced to $11 \text{ dBm} - (6.52 \text{ dBi} - 6 \text{ dBi}) = 10.48 \text{ dBm}$.

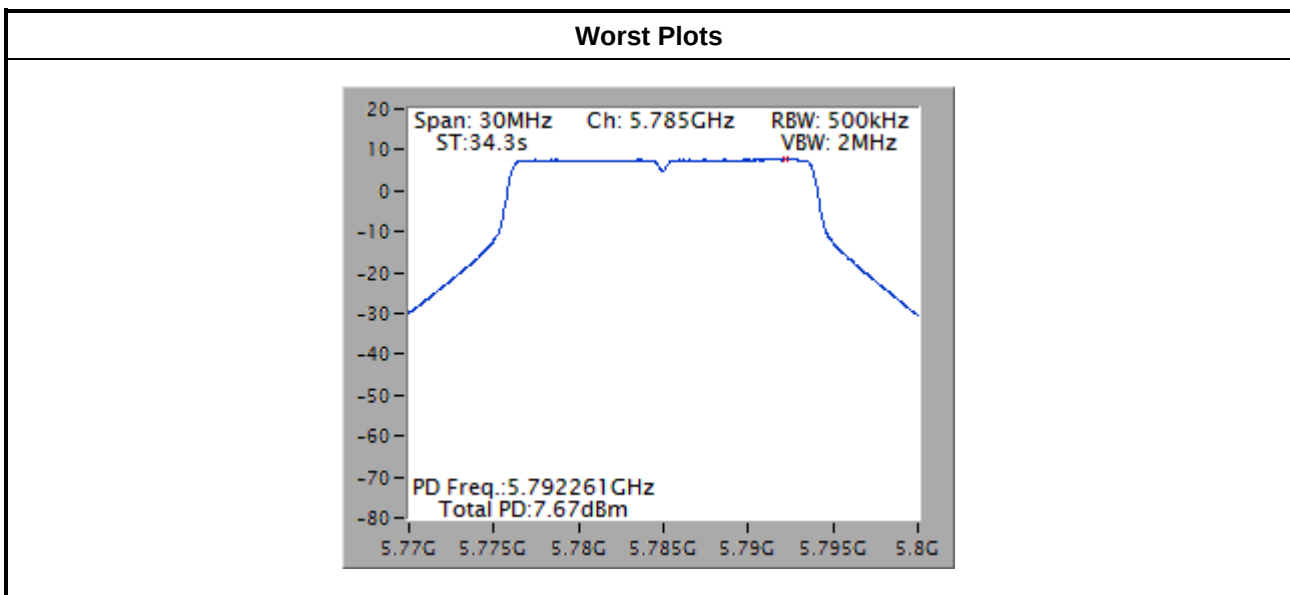


Note: Above plots are without duty factor.

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)
VHT20	4	5745	2.97	0.32	3.29	29.38
VHT20	4	5785	7.67	0.32	7.99	29.38
VHT20	4	5825	4.70	0.32	5.02	29.38
VHT40	4	5755	-0.78	0.59	-0.19	29.38
VHT40	4	5795	5.06	0.59	5.65	29.38
VHT80	4	5775	-3.40	0.11	-3.29	29.38

Note:

1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. Directional gain = $0.6 + 10 \cdot \log(4/1) = 6.62 \text{ dBi} > 6 \text{ dBi}$.
Limit shall be reduced to $11 \text{ dBm} - (6.62 \text{ dBi} - 6 \text{ dBi}) = 29.38 \text{ dBm}$.



Note: Above plots are without duty factor.

3.5 Transmitter Radiated and Band Edge Emissions

3.5.1 Limit of Transmitter Radiated and Band Edge Emissions

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

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

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

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.850 GHz	5.715 5.725 GHz: e.i.r.p. -17 dBm [78.2 dBuV/m@3m] 5.825 5.835 GHz: e.i.r.p. -17 dBm [78.2 dBuV/m@3m] Other un-restricted band: e.i.r.p. -27 dBm [68.2 dBuV/m@3m]

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

3.5.2 Test Procedures

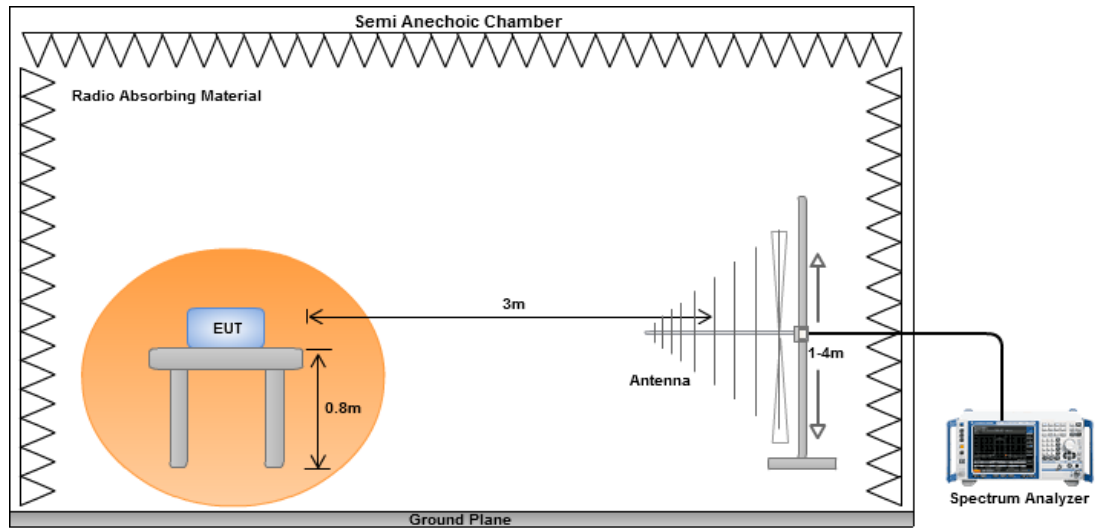
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360° . A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

Note:

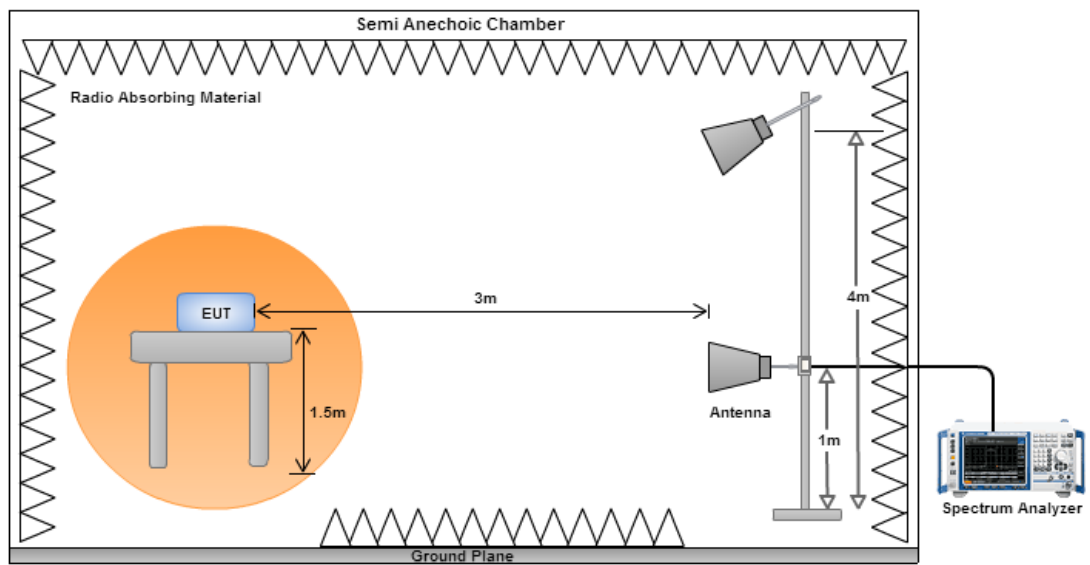
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz



Radiated Emissions above 1 GHz



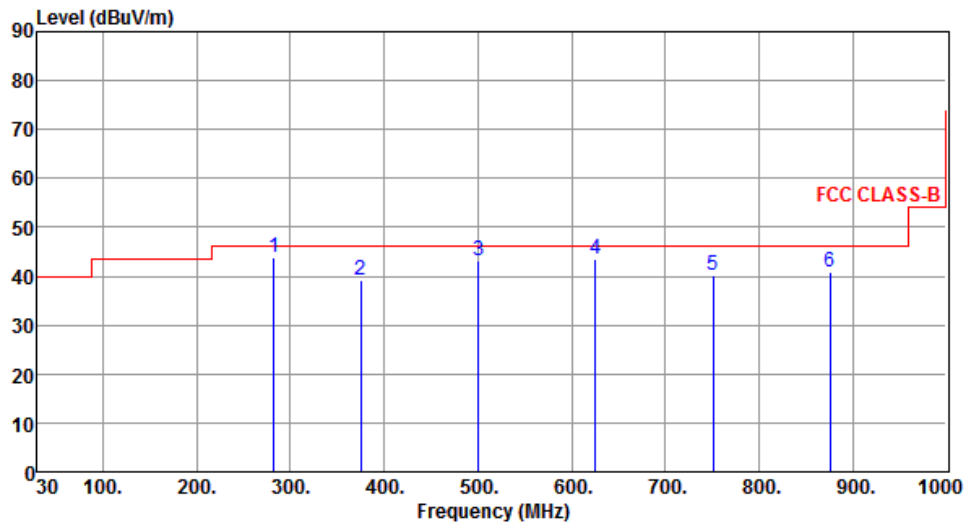
Non-beamforming mode

3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical		
Level (dBuV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	282.20	43.75	46.00	-2.25	60.18	-16.43	Peak	---	---
2	375.32	39.08	46.00	-6.92	53.26	-14.18	Peak	---	---
3	500.45	43.09	46.00	-2.91	54.30	-11.21	Peak	---	---
4	625.58	43.50	46.00	-2.50	52.67	-9.17	Peak	---	---
5	750.71	40.26	46.00	-5.74	47.34	-7.08	Peak	---	---
6	875.84	40.77	46.00	-5.23	46.44	-5.67	Peak	---	---

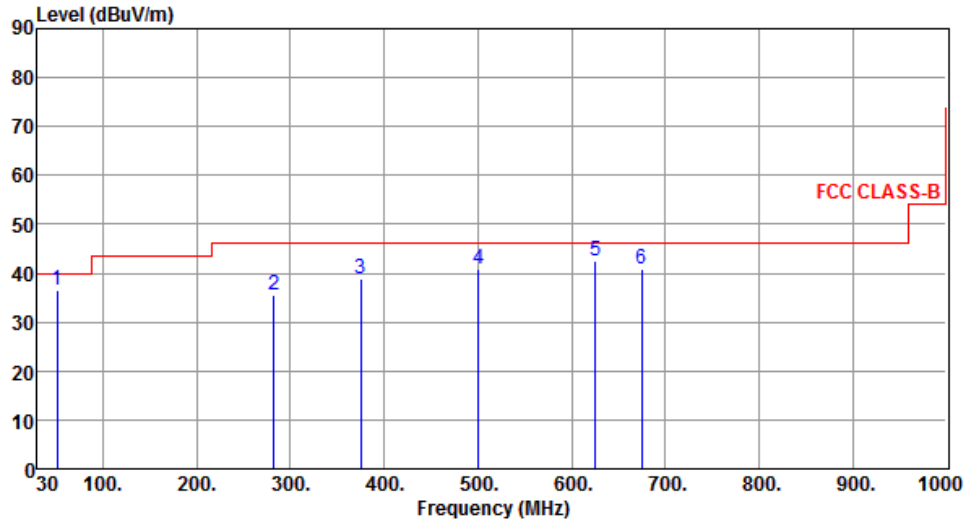
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	51.34	36.48	40.00	-3.52	52.97	-16.49	Peak	---	---
2	282.20	35.37	46.00	-10.63	51.80	-16.43	Peak	---	---
3	375.32	38.99	46.00	-7.01	53.17	-14.18	Peak	---	---
4	500.45	41.01	46.00	-4.99	52.22	-11.21	Peak	---	---
5	625.58	42.40	46.00	-3.60	51.57	-9.17	Peak	---	---
6	675.05	41.00	46.00	-5.00	49.45	-8.45	Peak	---	---

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

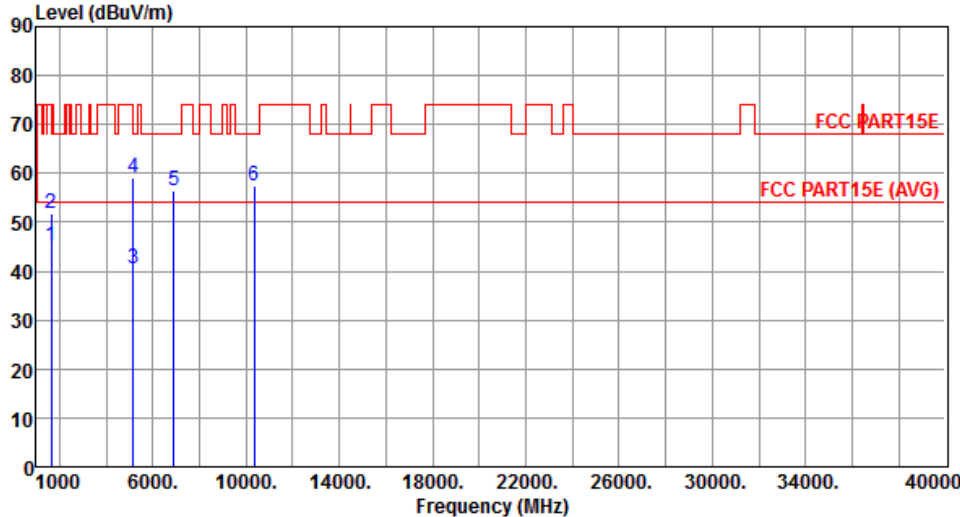
*Factor includes antenna factor , cable loss and amplifier gain

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

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

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

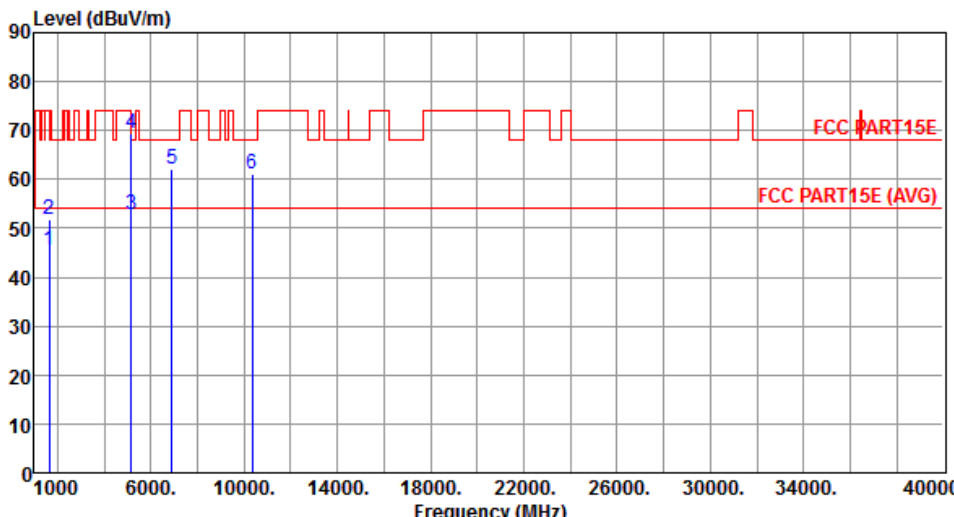
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1625.00	45.02	54.00	-8.98	51.13	-6.11	Average	195	339
2	1625.00	51.68	74.00	-22.32	57.79	-6.11	Peak	195	339
3	5150.00	40.66	54.00	-13.34	35.11	5.55	Average	160	182
4	5150.00	59.21	74.00	-14.79	53.66	5.55	Peak	160	182
5	6906.00	56.32	68.20	-11.88	47.93	8.39	Peak	200	225
6	10360.00	57.31	68.20	-10.89	41.89	15.42	Peak	177	329

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

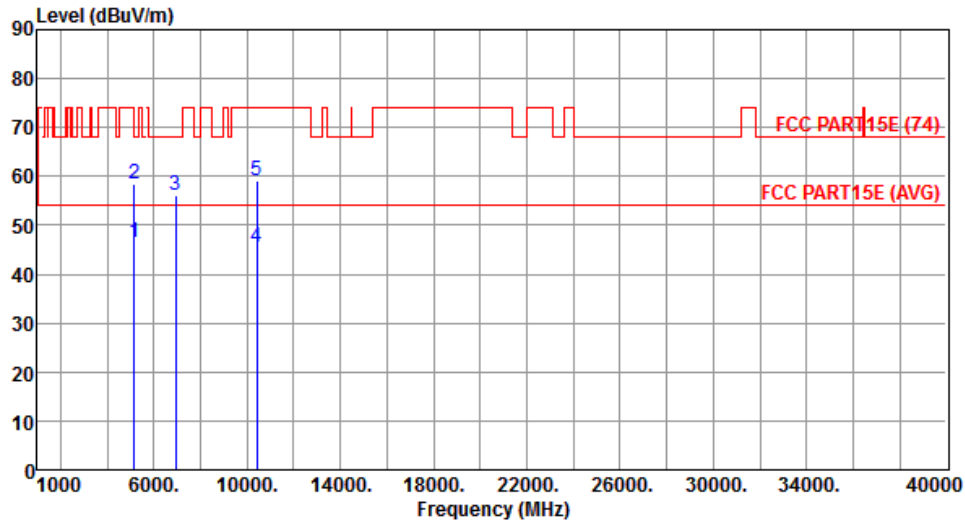
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1625.00	45.41	54.00	-8.59	51.52	-6.11	Average	197	241
2	1625.00	51.78	74.00	-22.22	57.89	-6.11	Peak	197	241
3	5150.00	52.80	54.00	-1.20	47.25	5.55	Average	165	177
4	5150.00	69.55	74.00	-4.45	64.00	5.55	Peak	165	177
5	6906.00	62.01	68.20	-6.19	53.62	8.39	Peak	222	351
6	10360.00	61.19	68.20	-7.01	45.77	15.42	Peak	212	161

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

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



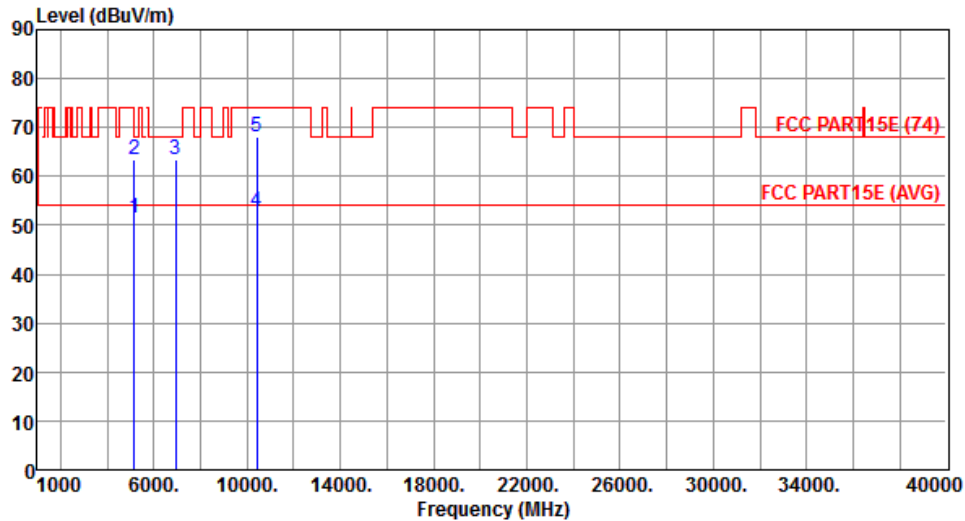
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.61	54.00	-7.39	41.06	5.55	Average	165	175
2	5150.00	58.39	74.00	-15.61	52.84	5.55	Peak	165	175
3	6933.00	56.02	68.20	-12.18	47.60	8.42	Peak	196	332
4	10400.00	45.58	54.00	-8.42	30.01	15.57	Average	255	320
5	10400.00	59.12	74.00	-14.88	43.55	15.57	Peak	255	320

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

*Factor includes antenna factor , cable loss and amplifier gain

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

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



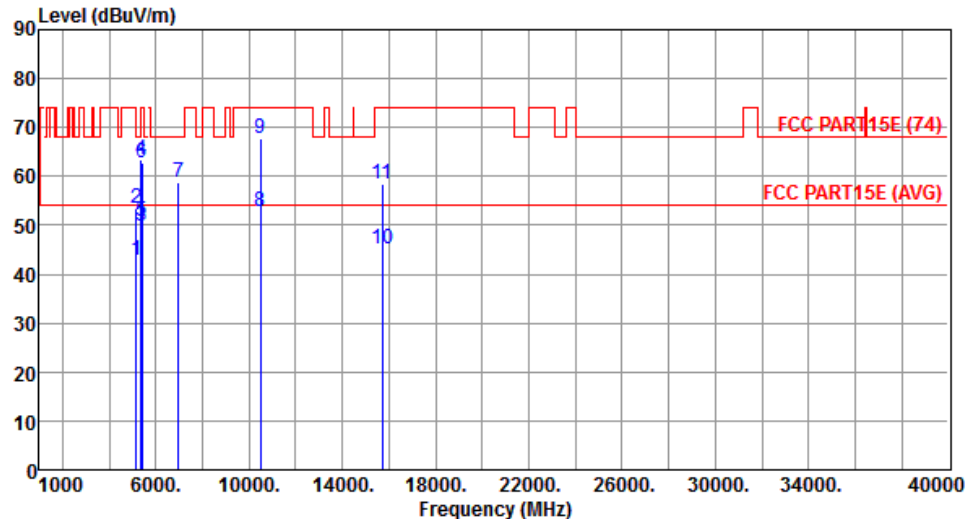
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.51	54.00	-2.49	45.96	5.55	Average	200	251
2	5150.00	63.55	74.00	-10.45	58.00	5.55	Peak	200	251
3	6933.00	63.52	68.20	-4.68	55.10	8.42	Peak	197	346
4	10400.00	52.71	54.00	-1.29	37.14	15.57	Average	220	160
5	10400.00	68.10	74.00	-5.90	52.53	15.57	Peak	220	160

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

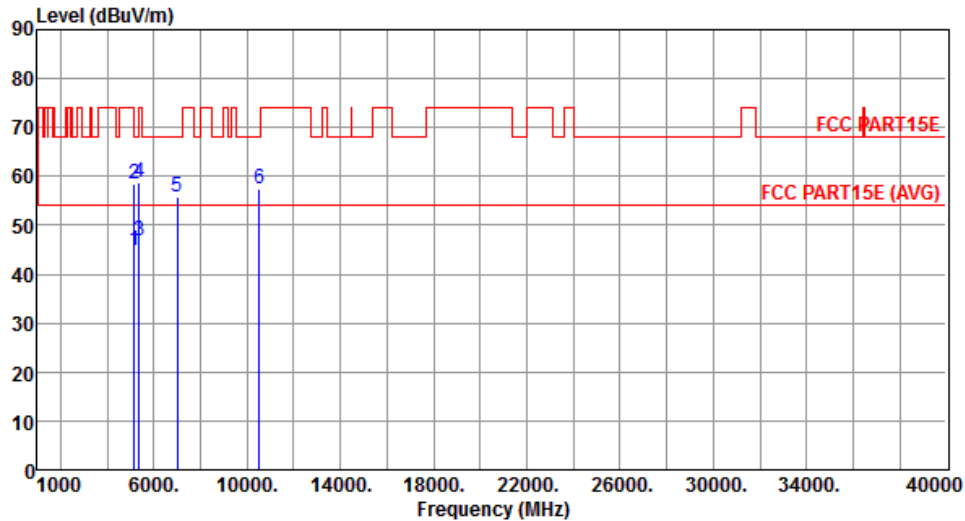
*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	11a	Test Freq. (MHz)	5240																																																																																																																								
Polarization	Horizontal																																																																																																																										
Level (dBuV/m) Frequency (MHz) <table><thead><tr><th></th><th>Freq. MHz</th><th>Emission level dBuV/m</th><th>Limit dBuV/m</th><th>Margin dB</th><th>SA reading dBuV</th><th>Factor dB</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr></thead><tbody><tr><td>1</td><td>5150.00</td><td>46.73</td><td>54.00</td><td>-7.27</td><td>41.18</td><td>5.55</td><td>Average</td><td>170</td><td>191</td></tr><tr><td>2</td><td>5150.00</td><td>57.98</td><td>74.00</td><td>-16.02</td><td>52.43</td><td>5.55</td><td>Peak</td><td>170</td><td>191</td></tr><tr><td>3</td><td>5350.00</td><td>47.22</td><td>54.00</td><td>-6.78</td><td>41.55</td><td>5.67</td><td>Average</td><td>170</td><td>195</td></tr><tr><td>4</td><td>5350.00</td><td>61.22</td><td>74.00</td><td>-12.78</td><td>55.55</td><td>5.67</td><td>Peak</td><td>170</td><td>195</td></tr><tr><td>5</td><td>5400.00</td><td>46.98</td><td>54.00</td><td>-7.02</td><td>41.28</td><td>5.70</td><td>Average</td><td>170</td><td>195</td></tr><tr><td>6</td><td>5400.00</td><td>60.38</td><td>74.00</td><td>-13.62</td><td>54.68</td><td>5.70</td><td>Peak</td><td>170</td><td>195</td></tr><tr><td>7</td><td>6986.00</td><td>62.28</td><td>68.20</td><td>-5.92</td><td>53.82</td><td>8.46</td><td>Peak</td><td>211</td><td>302</td></tr><tr><td>8</td><td>10480.00</td><td>49.11</td><td>54.00</td><td>-4.89</td><td>33.23</td><td>15.88</td><td>Average</td><td>189</td><td>330</td></tr><tr><td>9</td><td>10480.00</td><td>63.55</td><td>74.00</td><td>-10.45</td><td>47.67</td><td>15.88</td><td>Peak</td><td>189</td><td>330</td></tr><tr><td>10</td><td>15720.00</td><td>44.09</td><td>54.00</td><td>-9.91</td><td>29.05</td><td>15.04</td><td>Average</td><td>190</td><td>344</td></tr><tr><td>11</td><td>15720.00</td><td>58.41</td><td>74.00</td><td>-15.59</td><td>43.37</td><td>15.04</td><td>Peak</td><td>190</td><td>344</td></tr></tbody></table>					Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	5150.00	46.73	54.00	-7.27	41.18	5.55	Average	170	191	2	5150.00	57.98	74.00	-16.02	52.43	5.55	Peak	170	191	3	5350.00	47.22	54.00	-6.78	41.55	5.67	Average	170	195	4	5350.00	61.22	74.00	-12.78	55.55	5.67	Peak	170	195	5	5400.00	46.98	54.00	-7.02	41.28	5.70	Average	170	195	6	5400.00	60.38	74.00	-13.62	54.68	5.70	Peak	170	195	7	6986.00	62.28	68.20	-5.92	53.82	8.46	Peak	211	302	8	10480.00	49.11	54.00	-4.89	33.23	15.88	Average	189	330	9	10480.00	63.55	74.00	-10.45	47.67	15.88	Peak	189	330	10	15720.00	44.09	54.00	-9.91	29.05	15.04	Average	190	344	11	15720.00	58.41	74.00	-15.59	43.37	15.04	Peak	190	344
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																																																																		
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5	5400.00	46.98	54.00	-7.02	41.28	5.70	Average	170	195																																																																																																																		
6	5400.00	60.38	74.00	-13.62	54.68	5.70	Peak	170	195																																																																																																																		
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Modulation	11a	Test Freq. (MHz)	5240																																																																																																																																												
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	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn																																																																																																																																						
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Modulation	11a	Test Freq. (MHz)	5260
Polarization	Horizontal		



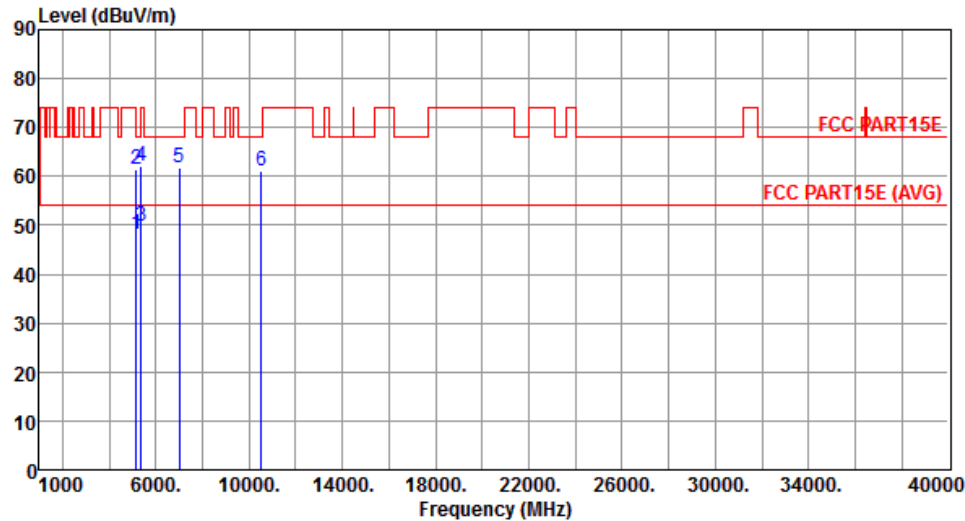
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.96	54.00	-9.04	39.41	5.55	Average	105	336
2	5150.00	58.52	74.00	-15.48	52.97	5.55	Peak	105	336
3	5350.00	46.96	54.00	-7.04	41.29	5.67	Average	105	336
4	5350.00	58.68	74.00	-15.32	53.01	5.67	Peak	105	336
5	7013.00	55.70	68.20	-12.50	47.17	8.53	Peak	106	312
6	10520.00	57.34	68.20	-10.86	41.40	15.94	Peak	105	133

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

*Factor includes antenna factor , cable loss and amplifier gain

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

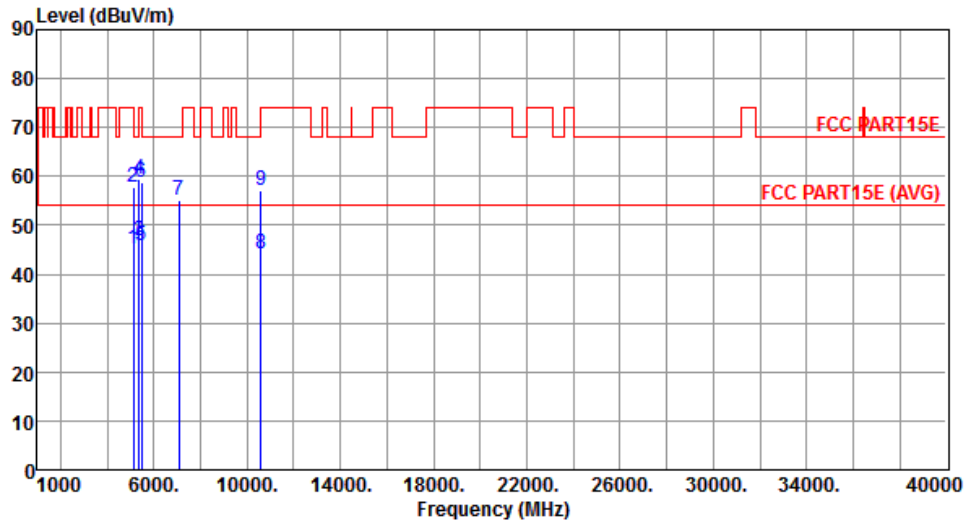
Modulation	11a	Test Freq. (MHz)	5260
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.09	54.00	-5.91	42.54	5.55	Average	101	124
2	5150.00	61.39	74.00	-12.61	55.84	5.55	Peak	101	124
3	5350.00	49.84	54.00	-4.16	44.17	5.67	Average	101	124
4	5350.00	62.05	74.00	-11.95	56.38	5.67	Peak	101	124
5	7013.00	61.66	68.20	-6.54	53.13	8.53	Peak	223	163
6	10520.00	60.96	68.20	-7.24	45.02	15.94	Peak	222	11

Note 1: Emission Level (dBuV/m) = SA Reading (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)	5300
Polarization	Horizontal		



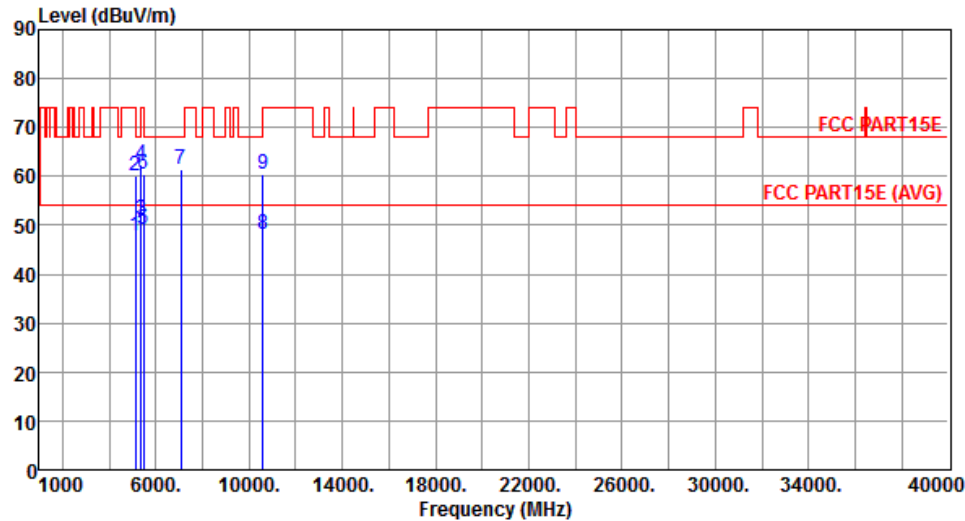
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5140.00	45.29	54.00	-8.71	39.75	5.54	Average	102	338
2	5140.00	57.88	74.00	-16.12	52.34	5.54	Peak	102	338
3	5350.00	46.84	54.00	-7.16	41.17	5.67	Average	102	338
4	5350.00	59.61	74.00	-14.39	53.94	5.67	Peak	102	338
5	5460.00	45.85	54.00	-8.15	40.13	5.72	Average	102	338
6	5460.00	58.78	74.00	-15.22	53.06	5.72	Peak	102	338
7	7066.00	55.26	68.20	-12.94	46.52	8.74	Peak	102	327
8	10600.00	44.30	54.00	-9.70	28.42	15.88	Average	102	139
9	10600.00	57.02	74.00	-16.98	41.14	15.88	Peak	102	139

Note 1: Emission Level (dBuV/m) = SA Reading (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)	5300
Polarization	Vertical		



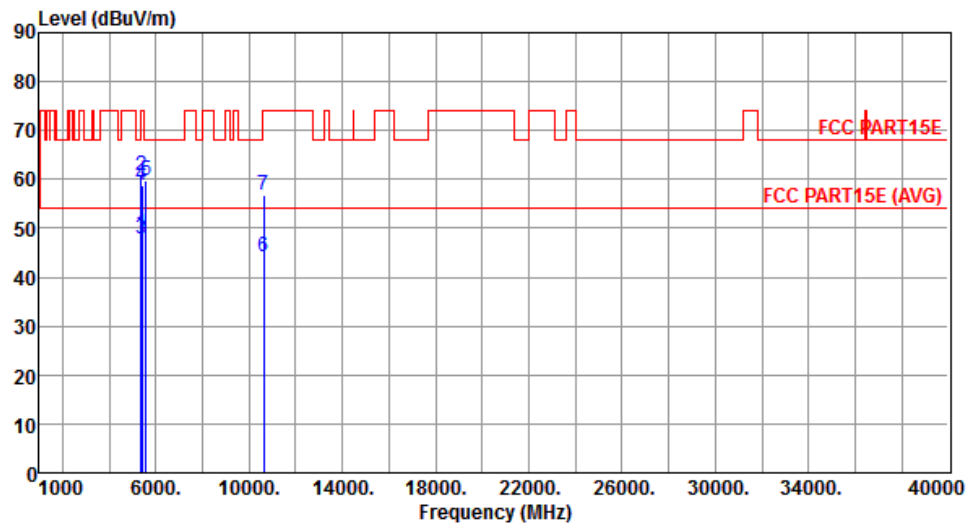
The spectrum plot shows the emission level in dBUV/m across a frequency range from 1000 to 40000 MHz. The y-axis ranges from 0 to 90 dBUV/m. A red line represents the emission level, which is mostly below 70 dBUV/m. A blue line represents the FCC PART15E limit, which is constant at 54 dBUV/m. A horizontal red line at 54 dBUV/m is labeled 'FCC PART15E (AVG)'. Several peaks are labeled with blue numbers 1 through 9, corresponding to the data in the table below.

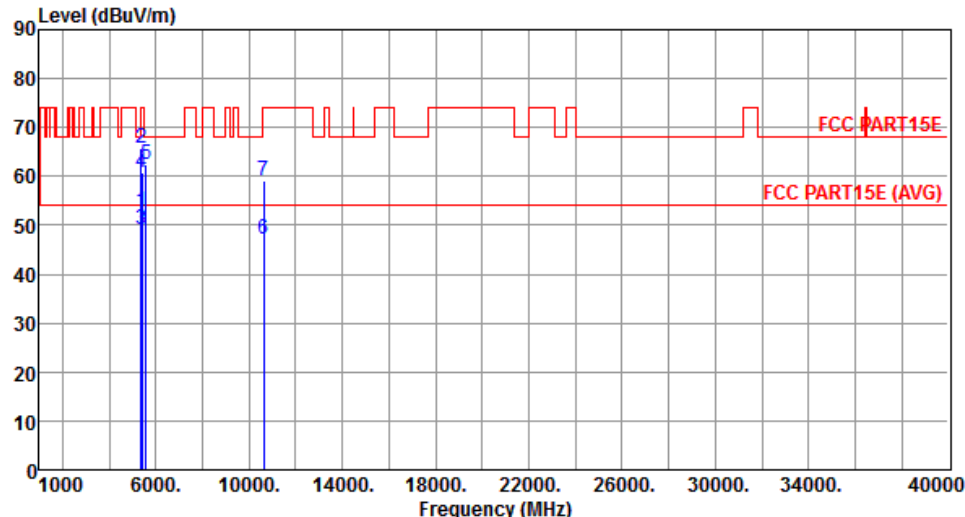
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5140.00	47.81	54.00	-6.19	42.27	5.54	Average	130	353
2	5140.00	60.21	74.00	-13.79	54.67	5.54	Peak	130	353
3	5350.00	51.29	54.00	-2.71	45.62	5.67	Average	130	353
4	5350.00	62.39	74.00	-11.61	56.72	5.67	Peak	130	353
5	5460.00	49.09	54.00	-4.91	43.37	5.72	Average	130	353
6	5460.00	60.54	74.00	-13.46	54.82	5.72	Peak	130	353
7	7066.00	61.37	68.20	-6.83	52.63	8.74	Peak	226	168
8	10600.00	48.30	54.00	-5.70	32.42	15.88	Average	217	8
9	10600.00	60.52	74.00	-13.48	44.64	15.88	Peak	217	8

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

*Factor includes antenna factor , cable loss and amplifier gain

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

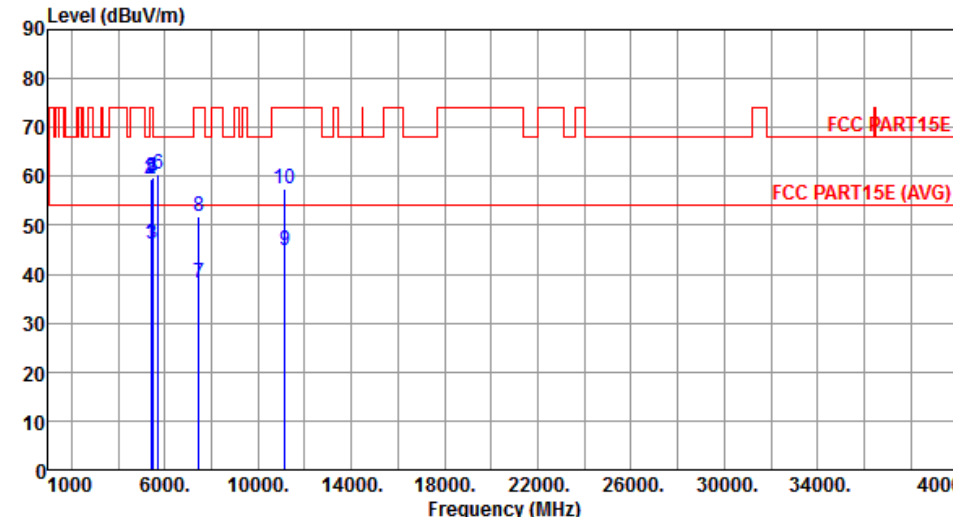
Modulation	11a	Test Freq. (MHz)	5320																																																																																
Polarization	Horizontal																																																																																		
Level (dBuV/m)  FCC PART15E FCC PART15E (AVG) <table><thead><tr><th></th><th>Freq. MHz</th><th>Emission level dBuV/m</th><th>Limit dBuV/m</th><th>Margin dB</th><th>SA reading dBuV</th><th>Factor dB</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr></thead><tbody><tr><td>1</td><td>5350.00</td><td>48.75</td><td>54.00</td><td>-5.25</td><td>43.08</td><td>5.67</td><td>Average</td><td>112</td><td>332</td></tr><tr><td>2</td><td>5350.00</td><td>60.77</td><td>74.00</td><td>-13.23</td><td>55.10</td><td>5.67</td><td>Peak</td><td>112</td><td>332</td></tr><tr><td>3</td><td>5400.00</td><td>47.86</td><td>54.00</td><td>-6.14</td><td>42.16</td><td>5.70</td><td>Average</td><td>112</td><td>332</td></tr><tr><td>4</td><td>5400.00</td><td>58.79</td><td>74.00</td><td>-15.21</td><td>53.09</td><td>5.70</td><td>Peak</td><td>112</td><td>332</td></tr><tr><td>5</td><td>5560.00</td><td>59.78</td><td>68.20</td><td>-8.42</td><td>54.03</td><td>5.75</td><td>Peak</td><td>112</td><td>332</td></tr><tr><td>6</td><td>10640.00</td><td>44.15</td><td>54.00</td><td>-9.85</td><td>28.30</td><td>15.85</td><td>Average</td><td>100</td><td>155</td></tr><tr><td>7</td><td>10640.00</td><td>56.87</td><td>74.00</td><td>-17.13</td><td>41.02</td><td>15.85</td><td>Peak</td><td>100</td><td>155</td></tr></tbody></table>					Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	5350.00	48.75	54.00	-5.25	43.08	5.67	Average	112	332	2	5350.00	60.77	74.00	-13.23	55.10	5.67	Peak	112	332	3	5400.00	47.86	54.00	-6.14	42.16	5.70	Average	112	332	4	5400.00	58.79	74.00	-15.21	53.09	5.70	Peak	112	332	5	5560.00	59.78	68.20	-8.42	54.03	5.75	Peak	112	332	6	10640.00	44.15	54.00	-9.85	28.30	15.85	Average	100	155	7	10640.00	56.87	74.00	-17.13	41.02	15.85	Peak	100	155
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																										
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5	5560.00	59.78	68.20	-8.42	54.03	5.75	Peak	112	332																																																																										
6	10640.00	44.15	54.00	-9.85	28.30	15.85	Average	100	155																																																																										
7	10640.00	56.87	74.00	-17.13	41.02	15.85	Peak	100	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	11a	Test Freq. (MHz)	5320																																																																																																	
Polarization	Vertical																																																																																																			
Level (dBUV/m)  Frequency (MHz) <table><tr><th>Freq.</th><th>Emission</th><th>Limit</th><th>Margin</th><th>SA</th><th>Factor</th><th>Remark</th><th>ANT</th><th>Turn</th></tr><tr><th>MHz</th><th>level</th><th>dBuV/m</th><th>dB</th><th>reading</th><th>dB</th><th></th><th>High</th><th>Table</th></tr><tr><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>5350.00</td><td>52.91</td><td>54.00</td><td>-1.09</td><td>47.24</td><td>5.67</td><td>Average</td><td>140</td><td>179</td></tr><tr><td>2</td><td>5350.00</td><td>65.83</td><td>74.00</td><td>-8.17</td><td>60.16</td><td>5.67</td><td>Peak</td><td>140</td><td>179</td></tr><tr><td>3</td><td>5400.00</td><td>49.17</td><td>54.00</td><td>-4.83</td><td>43.47</td><td>5.70</td><td>Average</td><td>126</td><td>165</td></tr><tr><td>4</td><td>5400.00</td><td>60.79</td><td>74.00</td><td>-13.21</td><td>55.09</td><td>5.70</td><td>Peak</td><td>126</td><td>165</td></tr><tr><td>5</td><td>5560.00</td><td>62.30</td><td>68.20</td><td>-5.90</td><td>56.55</td><td>5.75</td><td>Peak</td><td>260</td><td>2</td></tr><tr><td>6</td><td>10640.00</td><td>47.11</td><td>54.00</td><td>-6.89</td><td>31.26</td><td>15.85</td><td>Average</td><td>213</td><td>13</td></tr><tr><td>7</td><td>10640.00</td><td>59.22</td><td>74.00</td><td>-14.78</td><td>43.37</td><td>15.85</td><td>Peak</td><td>213</td><td>13</td></tr></table>				Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn	MHz	level	dBuV/m	dB	reading	dB		High	Table								cm	deg	1	5350.00	52.91	54.00	-1.09	47.24	5.67	Average	140	179	2	5350.00	65.83	74.00	-8.17	60.16	5.67	Peak	140	179	3	5400.00	49.17	54.00	-4.83	43.47	5.70	Average	126	165	4	5400.00	60.79	74.00	-13.21	55.09	5.70	Peak	126	165	5	5560.00	62.30	68.20	-5.90	56.55	5.75	Peak	260	2	6	10640.00	47.11	54.00	-6.89	31.26	15.85	Average	213	13	7	10640.00	59.22	74.00	-14.78	43.37	15.85	Peak	213	13
Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn																																																																																												
MHz	level	dBuV/m	dB	reading	dB		High	Table																																																																																												
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1	5350.00	52.91	54.00	-1.09	47.24	5.67	Average	140	179																																																																																											
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3	5400.00	49.17	54.00	-4.83	43.47	5.70	Average	126	165																																																																																											
4	5400.00	60.79	74.00	-13.21	55.09	5.70	Peak	126	165																																																																																											
5	5560.00	62.30	68.20	-5.90	56.55	5.75	Peak	260	2																																																																																											
6	10640.00	47.11	54.00	-6.89	31.26	15.85	Average	213	13																																																																																											
7	10640.00	59.22	74.00	-14.78	43.37	15.85	Peak	213	13																																																																																											
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).																																																																																																				

Modulation	11a	Test Freq. (MHz)	5500
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	11a	Test Freq. (MHz)	5500
Polarization	Vertical		
Level (dBUV/m) <			

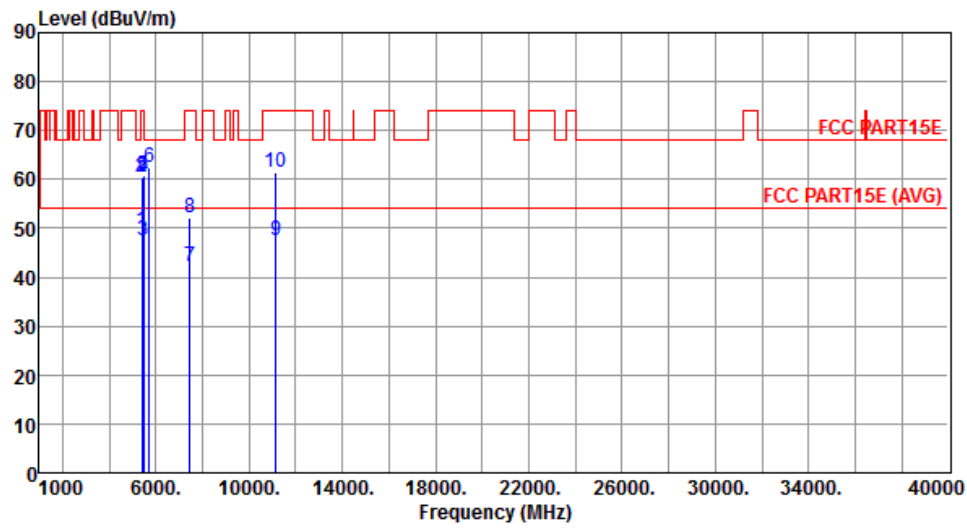
Modulation	11a	Test Freq. (MHz)	5580
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5400.00	46.28	54.00	-7.72	40.58	5.70	Average	120	334
2	5400.00	59.30	74.00	-14.70	53.60	5.70	Peak	120	334
3	5460.00	46.14	54.00	-7.86	40.42	5.72	Average	120	334
4	5460.00	59.46	74.00	-14.54	53.74	5.72	Peak	120	334
5	5470.00	59.64	68.20	-8.56	53.92	5.72	Peak	120	334
6	5725.00	60.28	68.20	-7.92	54.55	5.73	Peak	120	334
7	7440.00	38.32	54.00	-15.68	28.57	9.75	Average	233	24
8	7440.00	51.90	74.00	-22.10	42.15	9.75	Peak	233	24
9	11160.00	44.74	54.00	-9.26	29.05	15.69	Average	307	316
10	11160.00	57.54	74.00	-16.46	41.85	15.69	Peak	307	316

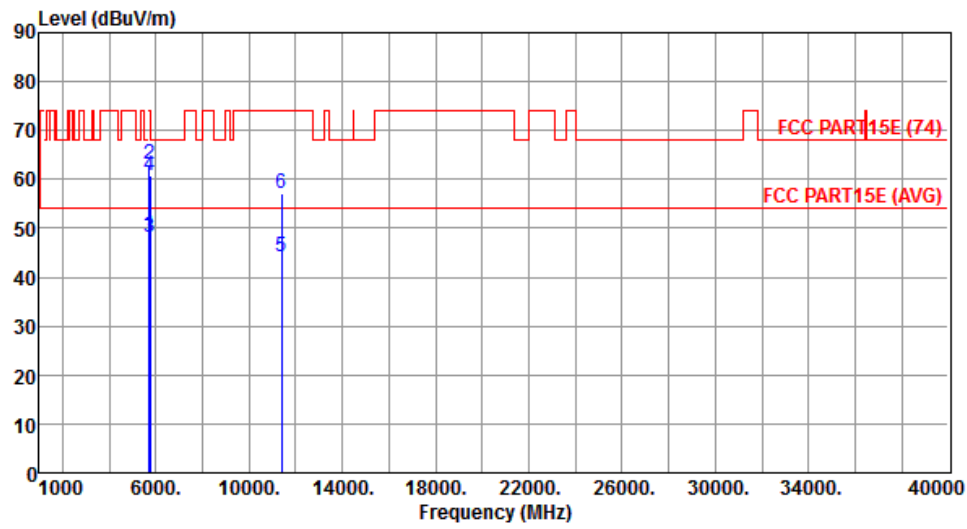
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5580
Polarization	Vertical		

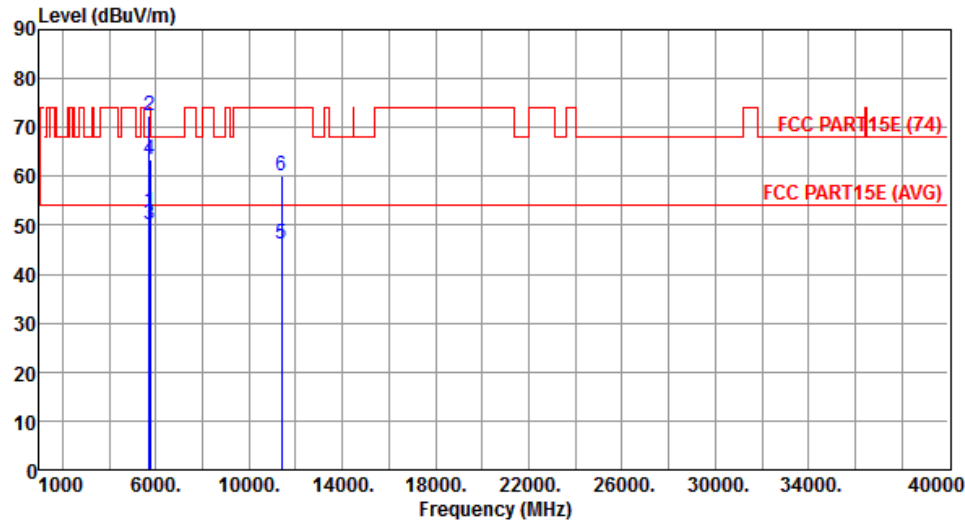


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5400.00	49.51	54.00	-4.49	43.81	5.70	Average	128	169
2	5400.00	60.45	74.00	-13.55	54.75	5.70	Peak	128	169
3	5460.00	47.39	54.00	-6.61	41.67	5.72	Average	109	346
4	5460.00	60.55	74.00	-13.45	54.83	5.72	Peak	109	346
5	5470.00	60.72	68.20	-7.48	55.00	5.72	Peak	109	346
6	5725.00	62.38	68.20	-5.82	56.65	5.73	Peak	109	346
7	7440.00	42.32	54.00	-11.68	32.57	9.75	Average	101	199
8	7440.00	52.06	74.00	-21.94	42.31	9.75	Peak	101	199
9	11160.00	47.58	54.00	-6.42	31.89	15.69	Average	158	129
10	11160.00	61.50	74.00	-12.50	45.81	15.69	Peak	158	129

Note 1: Emission Level (dBUV/m) = SA Reading (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)	5700																																																																						
Polarization	Horizontal																																																																								
Level (dBUV/m)  <table><thead><tr><th></th><th>Freq. MHz</th><th>Emission level dBUV/m</th><th>Limit dBUV/m</th><th>Margin dB</th><th>SA reading dBUV</th><th>Factor dB</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr></thead><tbody><tr><td>1</td><td>5725.00</td><td>48.53</td><td>54.00</td><td>-5.47</td><td>42.80</td><td>5.73</td><td>Average</td><td>123</td><td>333</td></tr><tr><td>2</td><td>5725.00</td><td>63.22</td><td>74.00</td><td>-10.78</td><td>57.49</td><td>5.73</td><td>Peak</td><td>123</td><td>333</td></tr><tr><td>3</td><td>5745.00</td><td>48.13</td><td>54.00</td><td>-5.87</td><td>42.39</td><td>5.74</td><td>Average</td><td>123</td><td>333</td></tr><tr><td>4</td><td>5745.00</td><td>60.89</td><td>74.00</td><td>-13.11</td><td>55.15</td><td>5.74</td><td>Peak</td><td>123</td><td>333</td></tr><tr><td>5</td><td>11400.00</td><td>44.23</td><td>54.00</td><td>-9.77</td><td>28.37</td><td>15.86</td><td>Average</td><td>300</td><td>302</td></tr><tr><td>6</td><td>11400.00</td><td>57.02</td><td>74.00</td><td>-16.98</td><td>41.16</td><td>15.86</td><td>Peak</td><td>300</td><td>302</td></tr></tbody></table> Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).					Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg	1	5725.00	48.53	54.00	-5.47	42.80	5.73	Average	123	333	2	5725.00	63.22	74.00	-10.78	57.49	5.73	Peak	123	333	3	5745.00	48.13	54.00	-5.87	42.39	5.74	Average	123	333	4	5745.00	60.89	74.00	-13.11	55.15	5.74	Peak	123	333	5	11400.00	44.23	54.00	-9.77	28.37	15.86	Average	300	302	6	11400.00	57.02	74.00	-16.98	41.16	15.86	Peak	300	302
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																
1	5725.00	48.53	54.00	-5.47	42.80	5.73	Average	123	333																																																																
2	5725.00	63.22	74.00	-10.78	57.49	5.73	Peak	123	333																																																																
3	5745.00	48.13	54.00	-5.87	42.39	5.74	Average	123	333																																																																
4	5745.00	60.89	74.00	-13.11	55.15	5.74	Peak	123	333																																																																
5	11400.00	44.23	54.00	-9.77	28.37	15.86	Average	300	302																																																																
6	11400.00	57.02	74.00	-16.98	41.16	15.86	Peak	300	302																																																																

Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	52.90	54.00	-1.10	47.17	5.73	Average	123	158
2	5725.00	72.41	74.00	-1.59	66.68	5.73	Peak	123	158
3	5745.00	50.21	54.00	-3.79	44.47	5.74	Average	123	158
4	5745.00	63.56	74.00	-10.44	57.82	5.74	Peak	123	158
5	11400.00	46.32	54.00	-7.68	30.46	15.86	Average	153	122
6	11400.00	60.21	74.00	-13.79	44.35	15.86	Peak	153	122

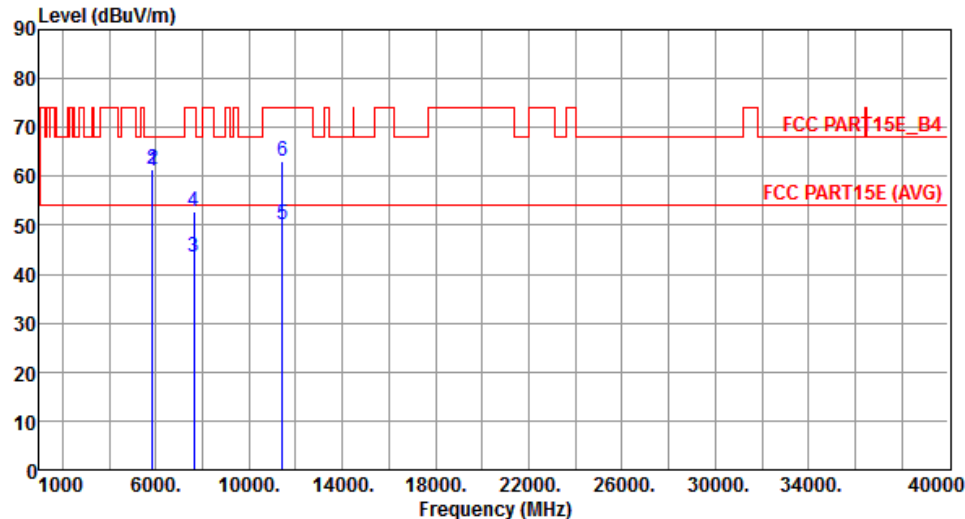
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*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)	5720
Polarization	Horizontal		
Level (dBUV/m) <			

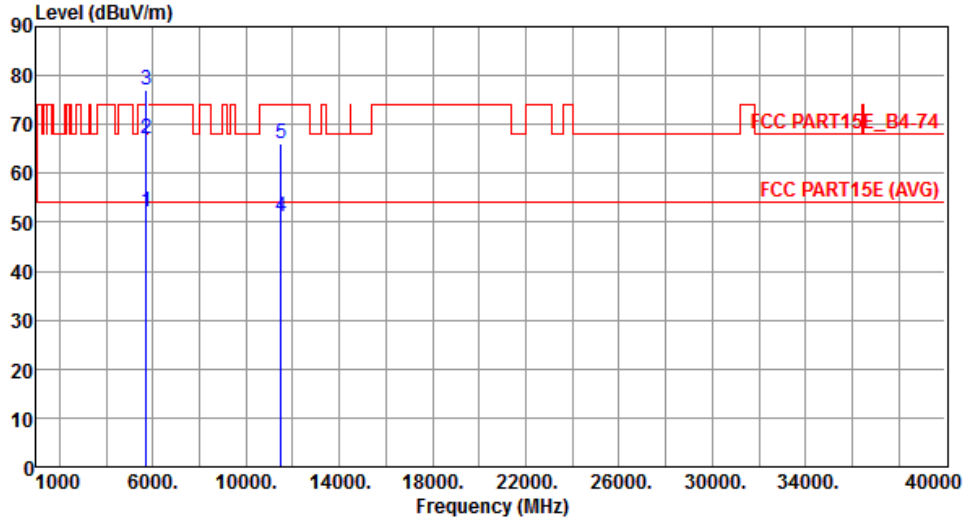
Modulation	11a	Test Freq. (MHz)	5720
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	61.09	78.20	-17.11	55.26	5.83	Peak	100	349
2	5860.00	61.44	68.20	-6.76	55.60	5.84	Peak	100	349
3	7626.66	43.64	54.00	-10.36	33.53	10.11	Average	121	341
4	7626.66	52.97	74.00	-21.03	42.86	10.11	Peak	121	341
5	11440.00	50.29	54.00	-3.71	34.40	15.89	Average	326	350
6	11440.00	63.13	74.00	-10.87	47.24	15.89	Peak	326	350

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

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	52.27	54.00	-1.73	46.52	5.75	Average	100	182
2	5715.00	67.09	74.00	-6.91	61.34	5.75	Peak	100	182
3	5725.00	77.02	78.20	-1.18	71.29	5.73	Peak	121	350
4	11490.00	51.09	54.00	-2.91	35.17	15.92	Average	100	14
5	11490.00	66.11	74.00	-7.89	50.19	15.92	Peak	100	14

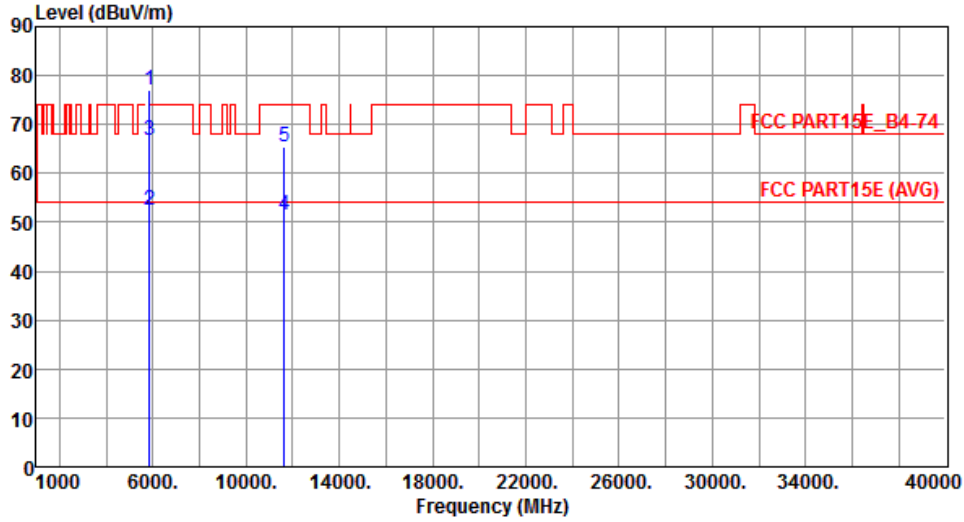
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		
Level (dBuV/m)			

Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		
Level (dBuV/m) <			

Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		
Level (dBuV/m) <			

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	77.15	78.20	-1.05	71.32	5.83	Peak	101	183
2	5860.00	52.51	54.00	-1.49	46.67	5.84	Average	101	183
3	5860.00	66.69	74.00	-7.31	60.85	5.84	Peak	101	183
4	11650.00	51.51	54.00	-2.49	35.97	15.54	Average	221	15
5	11650.00	65.55	74.00	-8.45	50.01	15.54	Peak	221	15

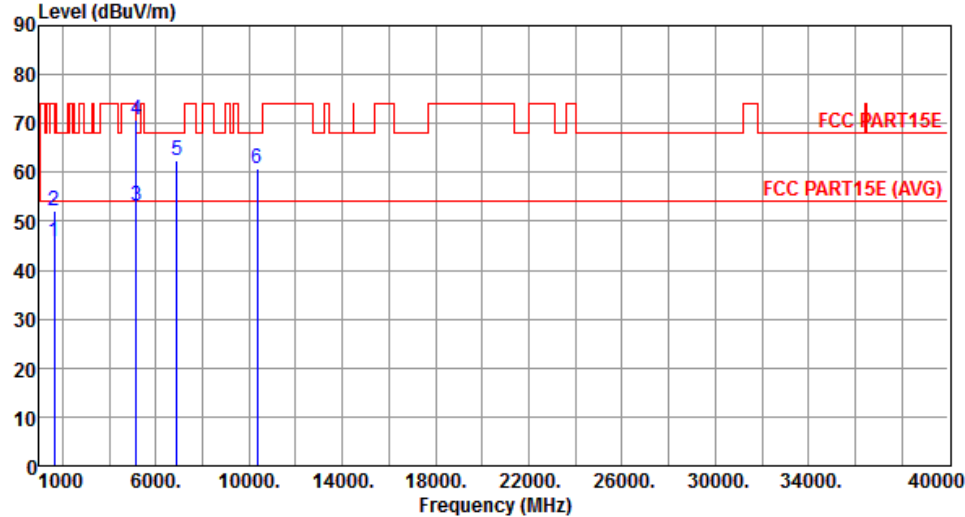
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5825
Polarization	Vertical		
Level (dBuV/m)			

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

Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal		
Level (dBuV/m)			

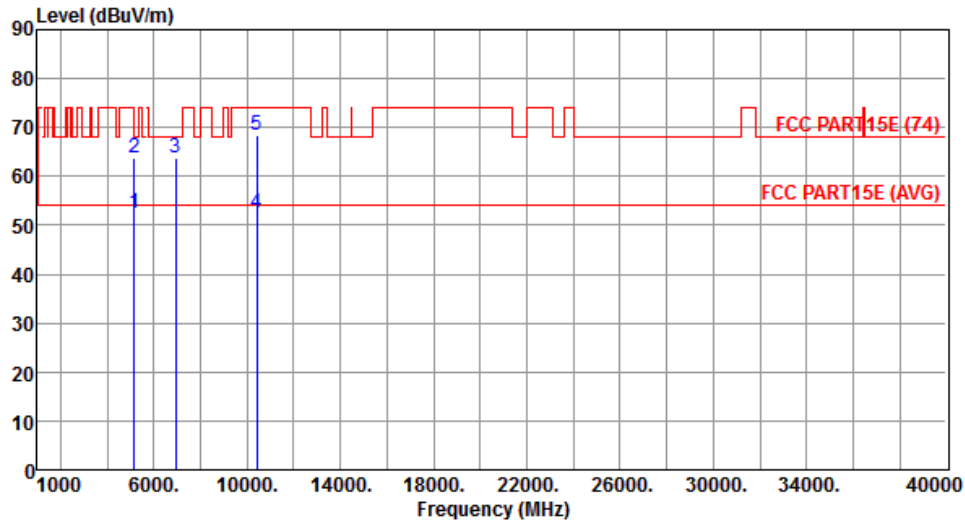
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Vertical		



Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg	
1	1625.00	45.90	54.00	-8.10	52.01	-6.11	Average	183	246
2	1625.00	52.23	74.00	-21.77	58.34	-6.11	Peak	183	246
3	5150.00	52.98	54.00	-1.02	47.43	5.55	Average	100	186
4	5150.00	70.77	74.00	-3.23	65.22	5.55	Peak	100	186
5	6906.00	62.42	68.20	-5.78	54.03	8.39	Peak	225	354
6	10360.00	60.85	68.20	-7.35	45.43	15.42	Peak	218	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)	5200
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.41	54.00	-1.59	46.86	5.55	Average	203	255
2	5150.00	63.82	74.00	-10.18	58.27	5.55	Peak	203	255
3	6933.00	63.84	68.20	-4.36	55.42	8.42	Peak	192	344
4	10400.00	52.31	54.00	-1.69	36.74	15.57	Average	241	161
5	10400.00	68.30	74.00	-5.70	52.73	15.57	Peak	241	161

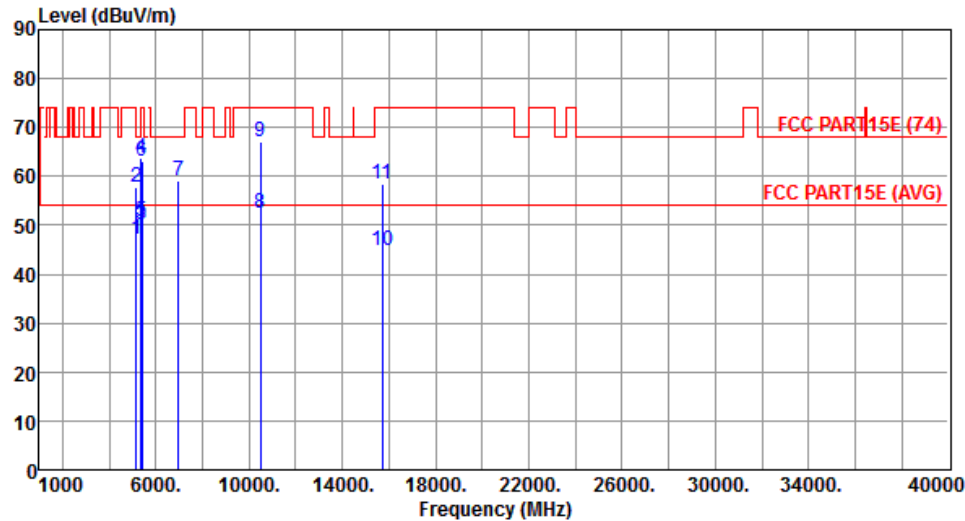
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*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		
 </			

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical		



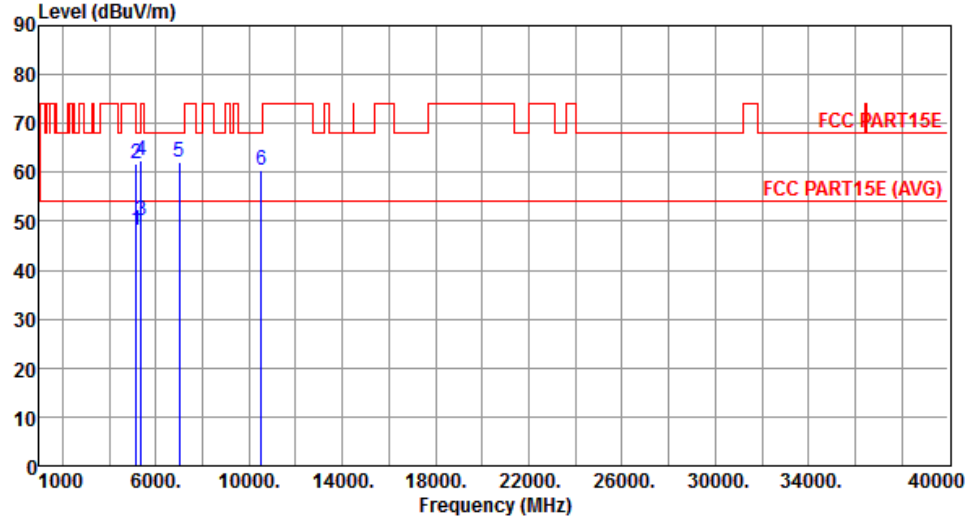
The graph displays the emission level in dBuV/m against frequency in MHz. The y-axis ranges from 0 to 90 dBuV/m, and the x-axis ranges from 1000 to 40000 MHz. A red line represents the FCC Part 15E (74) limit, and a lower red line represents the FCC Part 15E (AVG) limit. Blue vertical lines indicate specific test frequencies, with corresponding data points labeled 1 through 11.

Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	47.08	54.00	-6.92	41.53	5.55	Average	233	309
2	57.84	74.00	-16.16	52.29	5.55	Peak	233	309
3	5350.00	54.00	-3.88	44.45	5.67	Average	233	309
4	5350.00	74.00	-10.17	58.16	5.67	Peak	233	309
5	5400.00	54.00	-3.04	45.26	5.70	Average	233	309
6	5400.00	74.00	-10.85	57.45	5.70	Peak	233	309
7	6986.00	68.20	-8.93	50.81	8.46	Peak	222	350
8	10480.00	54.00	-1.48	36.64	15.88	Average	259	161
9	10480.00	74.00	-6.84	51.28	15.88	Peak	259	161
10	15720.00	54.00	-9.04	29.92	15.04	Average	244	153
11	15720.00	74.00	-15.67	43.29	15.04	Peak	244	153

Note 1: Emission Level (dBuV/m) = SA Reading (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)	5260																																																																						
Polarization	Horizontal																																																																								
Level (dBuV/m) Frequency (MHz) <table><tr><th></th><th>Freq. MHz</th><th>Emission level dBuV/m</th><th>Limit dBuV/m</th><th>Margin dB</th><th>SA reading dBuV</th><th>Factor dB</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr><tr><td>1</td><td>5150.00</td><td>47.00</td><td>54.00</td><td>-7.00</td><td>41.45</td><td>5.55</td><td>Average</td><td>100</td><td>321</td></tr><tr><td>2</td><td>5150.00</td><td>58.96</td><td>74.00</td><td>-15.04</td><td>53.41</td><td>5.55</td><td>Peak</td><td>100</td><td>321</td></tr><tr><td>3</td><td>5350.00</td><td>47.03</td><td>54.00</td><td>-6.97</td><td>41.36</td><td>5.67</td><td>Average</td><td>100</td><td>321</td></tr><tr><td>4</td><td>5350.00</td><td>58.95</td><td>74.00</td><td>-15.05</td><td>53.28</td><td>5.67</td><td>Peak</td><td>100</td><td>321</td></tr><tr><td>5</td><td>7013.00</td><td>55.97</td><td>68.20</td><td>-12.23</td><td>47.44</td><td>8.53</td><td>Peak</td><td>109</td><td>316</td></tr><tr><td>6</td><td>10520.00</td><td>57.10</td><td>68.20</td><td>-11.10</td><td>41.16</td><td>15.94</td><td>Peak</td><td>103</td><td>142</td></tr></table>					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	47.00	54.00	-7.00	41.45	5.55	Average	100	321	2	5150.00	58.96	74.00	-15.04	53.41	5.55	Peak	100	321	3	5350.00	47.03	54.00	-6.97	41.36	5.67	Average	100	321	4	5350.00	58.95	74.00	-15.05	53.28	5.67	Peak	100	321	5	7013.00	55.97	68.20	-12.23	47.44	8.53	Peak	109	316	6	10520.00	57.10	68.20	-11.10	41.16	15.94	Peak	103	142
	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	47.00	54.00	-7.00	41.45	5.55	Average	100	321																																																																
2	5150.00	58.96	74.00	-15.04	53.41	5.55	Peak	100	321																																																																
3	5350.00	47.03	54.00	-6.97	41.36	5.67	Average	100	321																																																																
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Note 1: Emission Level (dBuV/m) = SA Reading (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)	5260
Polarization	Vertical		



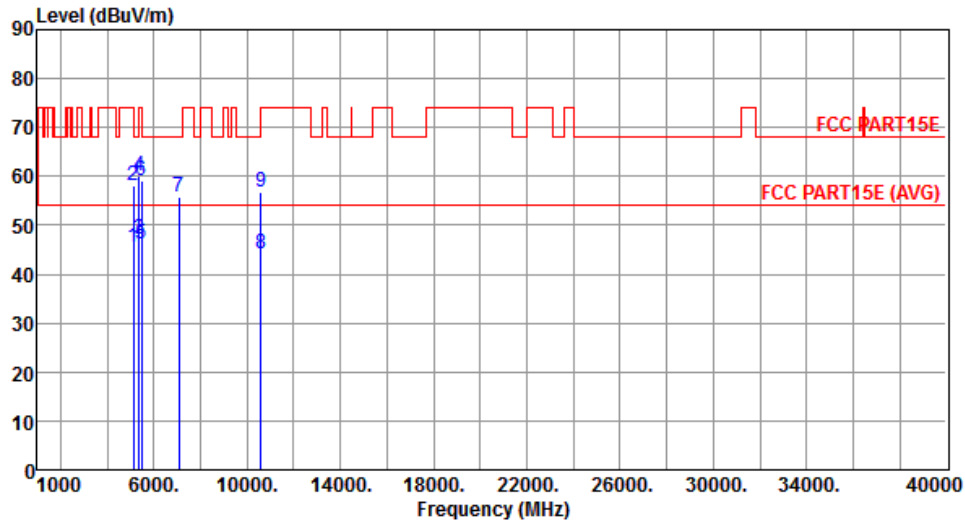
Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn	
MHz	level	dBuV/m	dB	reading	dB		High	Table	
							cm	deg	
1	5150.00	48.21	54.00	-5.79	42.66	5.55	Average	105	126
2	5150.00	61.75	74.00	-12.25	56.20	5.55	Peak	105	126
3	5350.00	50.00	54.00	-4.00	44.33	5.67	Average	105	126
4	5350.00	62.33	74.00	-11.67	56.66	5.67	Peak	105	126
5	7013.00	61.96	68.20	-6.24	53.43	8.53	Peak	222	170
6	10520.00	60.45	68.20	-7.75	44.51	15.94	Peak	223	15

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal		



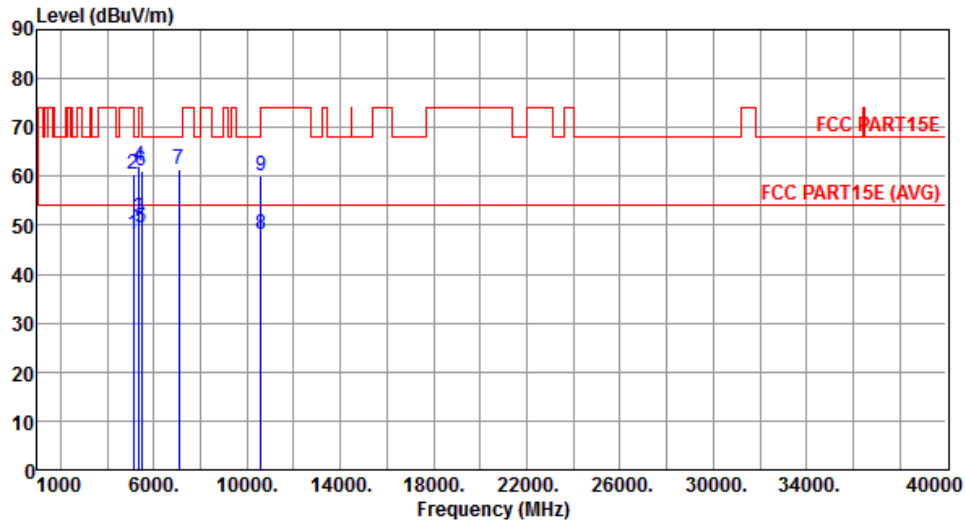
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5140.00	45.56	54.00	-8.44	40.02	5.54	Average	100	333
2	5140.00	58.12	74.00	-15.88	52.58	5.54	Peak	100	333
3	5350.00	47.05	54.00	-6.95	41.38	5.67	Average	100	333
4	5350.00	59.96	74.00	-14.04	54.29	5.67	Peak	100	333
5	5460.00	46.00	54.00	-8.00	40.28	5.72	Average	100	333
6	5460.00	59.14	74.00	-14.86	53.42	5.72	Peak	100	333
7	7066.00	55.70	68.20	-12.50	46.96	8.74	Peak	108	315
8	10600.00	44.11	54.00	-9.89	28.23	15.88	Average	106	134
9	10600.00	56.78	74.00	-17.22	40.90	15.88	Peak	106	134

Note 1: Emission Level (dBuV/m) = SA Reading (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)	5300
Polarization	Vertical		



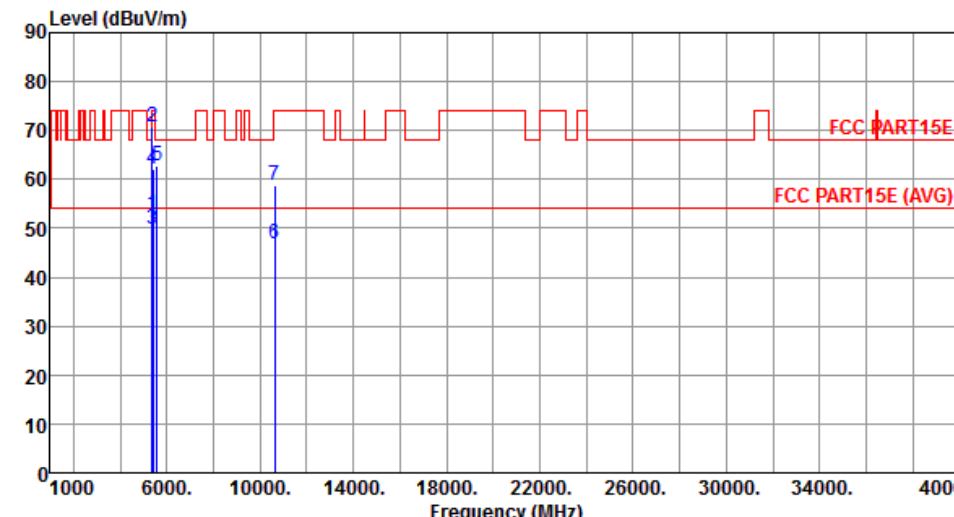
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5140.00	48.13	54.00	-5.87	42.59	5.54	Average	138	342
2	5140.00	60.55	74.00	-13.45	55.01	5.54	Peak	138	342
3	5350.00	51.33	54.00	-2.67	45.66	5.67	Average	138	342
4	5350.00	61.94	74.00	-12.06	56.27	5.67	Peak	138	342
5	5460.00	49.50	54.00	-4.50	43.78	5.72	Average	138	342
6	5460.00	61.02	74.00	-12.98	55.30	5.72	Peak	138	342
7	7066.00	61.53	68.20	-6.67	52.79	8.74	Peak	228	163
8	10600.00	48.03	54.00	-5.97	32.15	15.88	Average	226	162
9	10600.00	60.13	74.00	-13.87	44.25	15.88	Peak	226	162

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

*Factor includes antenna factor , cable loss and amplifier gain

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

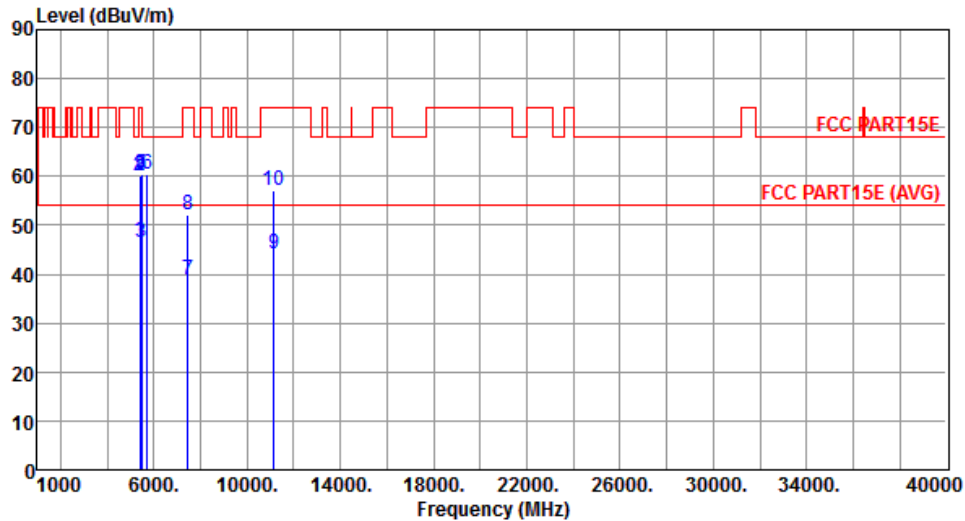
Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Horizontal		
 </			

Modulation	VHT20	Test Freq. (MHz)	5320																																																																																																	
Polarization	Vertical																																																																																																			
Level (dBUV/m)  Frequency (MHz) <table><tr><th>Freq.</th><th>Emission</th><th>Limit</th><th>Margin</th><th>SA</th><th>Factor</th><th>Remark</th><th>ANT</th><th>Turn</th></tr><tr><th>MHz</th><th>level</th><th>dBuV/m</th><th>dB</th><th>reading</th><th>dB</th><th></th><th>High</th><th>Table</th></tr><tr><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>5350.00</td><td>52.89</td><td>54.00</td><td>-1.11</td><td>47.22</td><td>5.67</td><td>Average</td><td>162</td><td>10</td></tr><tr><td>2</td><td>5350.00</td><td>70.67</td><td>74.00</td><td>-3.33</td><td>65.00</td><td>5.67</td><td>Peak</td><td>162</td><td>10</td></tr><tr><td>3</td><td>5400.00</td><td>49.89</td><td>54.00</td><td>-4.11</td><td>44.19</td><td>5.70</td><td>Average</td><td>162</td><td>10</td></tr><tr><td>4</td><td>5400.00</td><td>62.06</td><td>74.00</td><td>-11.94</td><td>56.36</td><td>5.70</td><td>Peak</td><td>162</td><td>10</td></tr><tr><td>5</td><td>5560.00</td><td>62.88</td><td>68.20</td><td>-5.32</td><td>57.13</td><td>5.75</td><td>Peak</td><td>252</td><td>5</td></tr><tr><td>6</td><td>10640.00</td><td>46.83</td><td>54.00</td><td>-7.17</td><td>30.98</td><td>15.85</td><td>Average</td><td>222</td><td>18</td></tr><tr><td>7</td><td>10640.00</td><td>58.78</td><td>74.00</td><td>-15.22</td><td>42.93</td><td>15.85</td><td>Peak</td><td>222</td><td>18</td></tr></table>				Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn	MHz	level	dBuV/m	dB	reading	dB		High	Table								cm	deg	1	5350.00	52.89	54.00	-1.11	47.22	5.67	Average	162	10	2	5350.00	70.67	74.00	-3.33	65.00	5.67	Peak	162	10	3	5400.00	49.89	54.00	-4.11	44.19	5.70	Average	162	10	4	5400.00	62.06	74.00	-11.94	56.36	5.70	Peak	162	10	5	5560.00	62.88	68.20	-5.32	57.13	5.75	Peak	252	5	6	10640.00	46.83	54.00	-7.17	30.98	15.85	Average	222	18	7	10640.00	58.78	74.00	-15.22	42.93	15.85	Peak	222	18
Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn																																																																																												
MHz	level	dBuV/m	dB	reading	dB		High	Table																																																																																												
							cm	deg																																																																																												
1	5350.00	52.89	54.00	-1.11	47.22	5.67	Average	162	10																																																																																											
2	5350.00	70.67	74.00	-3.33	65.00	5.67	Peak	162	10																																																																																											
3	5400.00	49.89	54.00	-4.11	44.19	5.70	Average	162	10																																																																																											
4	5400.00	62.06	74.00	-11.94	56.36	5.70	Peak	162	10																																																																																											
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Note 1: Emission Level (dBUV/m) = SA Reading (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)	5500
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical		
Level (dBuV/m)			

Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Horizontal		



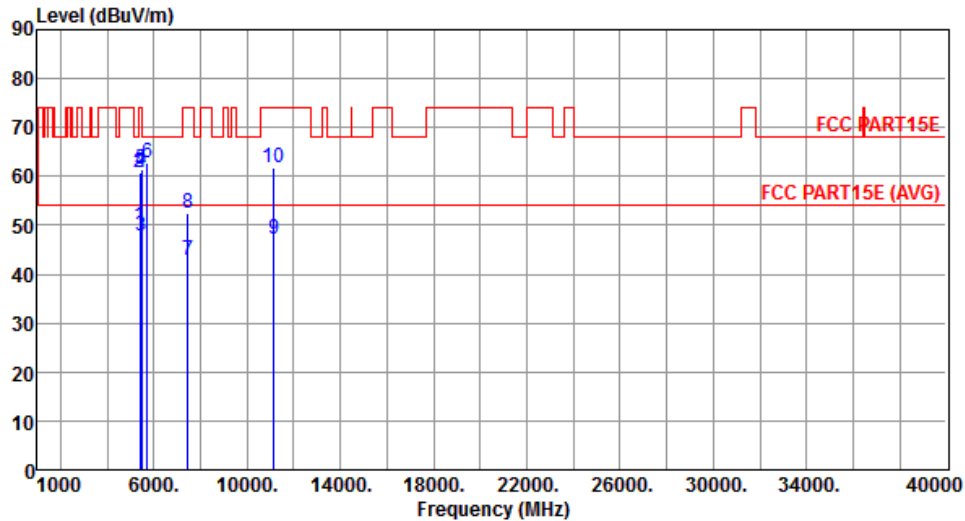
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5400.00	46.67	54.00	-7.33	40.97	5.70	Average	124	339
2	5400.00	59.96	74.00	-14.04	54.26	5.70	Peak	124	339
3	5460.00	46.62	54.00	-7.38	40.90	5.72	Average	124	339
4	5460.00	60.10	74.00	-13.90	54.38	5.72	Peak	124	339
5	5470.00	60.32	68.20	-7.88	54.60	5.72	Peak	124	339
6	5725.00	60.59	68.20	-7.61	54.86	5.73	Peak	124	339
7	7440.00	38.75	54.00	-15.25	29.00	9.75	Average	239	27
8	7440.00	52.26	74.00	-21.74	42.51	9.75	Peak	239	27
9	11160.00	44.29	54.00	-9.71	28.60	15.69	Average	302	311
10	11160.00	57.15	74.00	-16.85	41.46	15.69	Peak	302	311

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Vertical		



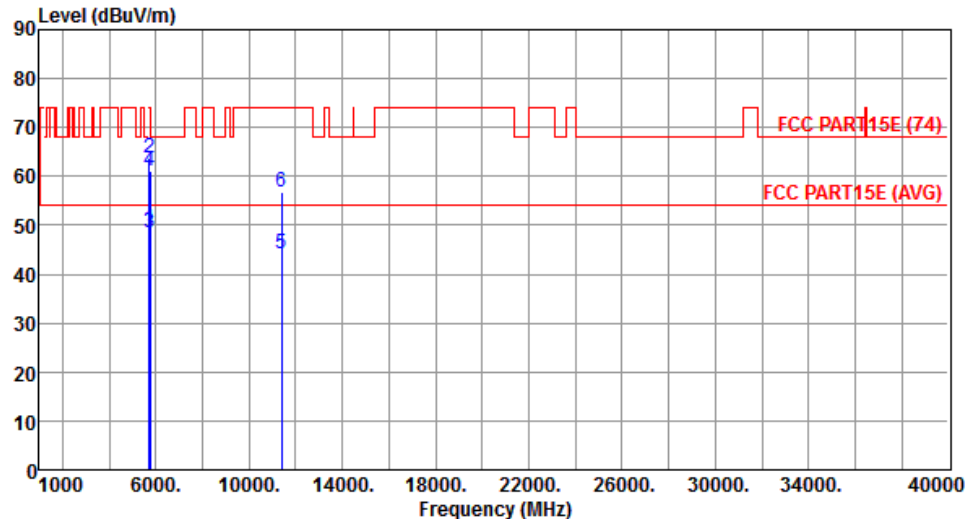
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5400.00	49.97	54.00	-4.03	44.27	5.70	Average	125	163
2	5400.00	60.88	74.00	-13.12	55.18	5.70	Peak	125	163
3	5460.00	47.76	54.00	-6.24	42.04	5.72	Average	103	342
4	5460.00	61.02	74.00	-12.98	55.30	5.72	Peak	103	342
5	5470.00	61.39	68.20	-6.81	55.67	5.72	Peak	103	342
6	5725.00	62.89	68.20	-5.31	57.16	5.73	Peak	103	342
7	7440.00	42.68	54.00	-11.32	32.93	9.75	Average	100	206
8	7440.00	52.45	74.00	-21.55	42.70	9.75	Peak	100	206
9	11160.00	47.12	54.00	-6.88	31.43	15.69	Average	155	133
10	11160.00	61.78	74.00	-12.22	46.09	15.69	Peak	155	133

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

*Factor includes antenna factor , cable loss and amplifier gain

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

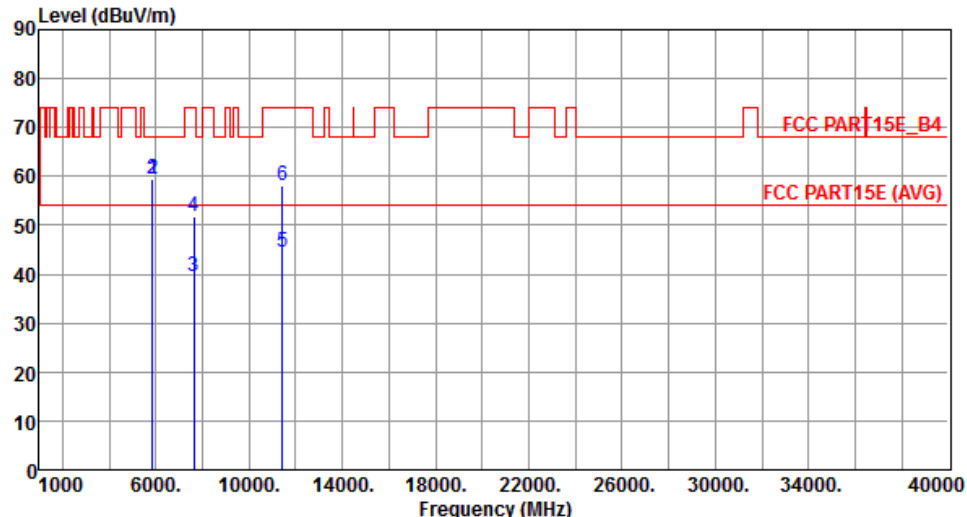
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



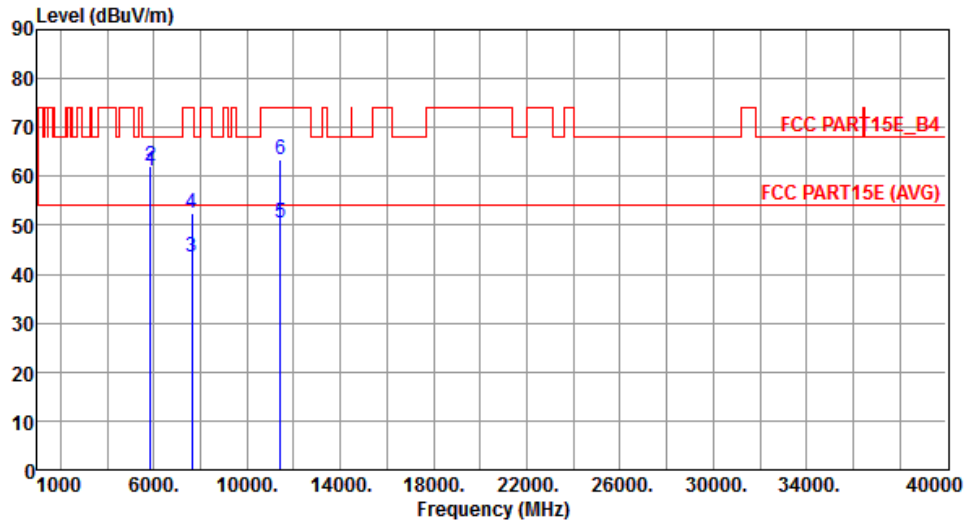
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	49.10	54.00	-4.90	43.37	5.73	Average	112	324
2	5725.00	63.89	74.00	-10.11	58.16	5.73	Peak	112	324
3	5745.00	48.55	54.00	-5.45	42.81	5.74	Average	112	324
4	5745.00	61.22	74.00	-12.78	55.48	5.74	Peak	112	324
5	11400.00	44.07	54.00	-9.93	28.21	15.86	Average	308	299
6	11400.00	56.73	74.00	-17.27	40.87	15.86	Peak	308	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).

Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical		
Level (dBUV/m) </			

Modulation	VHT20	Test Freq. (MHz)	5720																																																																						
Polarization	Horizontal																																																																								
Level (dBuV/m)  Frequency (MHz) <table><thead><tr><th></th><th>Freq. MHz</th><th>Emission level dBuV/m</th><th>Limit dBuV/m</th><th>Margin dB</th><th>SA reading dBuV</th><th>Factor dB</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr></thead><tbody><tr><td>1</td><td>5850.00</td><td>59.51</td><td>78.20</td><td>-18.69</td><td>53.68</td><td>5.83</td><td>Peak</td><td>100</td><td>343</td></tr><tr><td>2</td><td>5860.00</td><td>59.38</td><td>68.20</td><td>-8.82</td><td>53.54</td><td>5.84</td><td>Peak</td><td>100</td><td>343</td></tr><tr><td>3</td><td>7626.66</td><td>39.66</td><td>54.00</td><td>-14.34</td><td>29.55</td><td>10.11</td><td>Average</td><td>140</td><td>186</td></tr><tr><td>4</td><td>7626.66</td><td>51.78</td><td>74.00</td><td>-22.22</td><td>41.67</td><td>10.11</td><td>Peak</td><td>140</td><td>186</td></tr><tr><td>5</td><td>11440.00</td><td>44.56</td><td>54.00</td><td>-9.44</td><td>28.67</td><td>15.89</td><td>Average</td><td>155</td><td>162</td></tr><tr><td>6</td><td>11440.00</td><td>58.01</td><td>74.00</td><td>-15.99</td><td>42.12</td><td>15.89</td><td>Peak</td><td>155</td><td>162</td></tr></tbody></table>					Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	5850.00	59.51	78.20	-18.69	53.68	5.83	Peak	100	343	2	5860.00	59.38	68.20	-8.82	53.54	5.84	Peak	100	343	3	7626.66	39.66	54.00	-14.34	29.55	10.11	Average	140	186	4	7626.66	51.78	74.00	-22.22	41.67	10.11	Peak	140	186	5	11440.00	44.56	54.00	-9.44	28.67	15.89	Average	155	162	6	11440.00	58.01	74.00	-15.99	42.12	15.89	Peak	155	162
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																
1	5850.00	59.51	78.20	-18.69	53.68	5.83	Peak	100	343																																																																
2	5860.00	59.38	68.20	-8.82	53.54	5.84	Peak	100	343																																																																
3	7626.66	39.66	54.00	-14.34	29.55	10.11	Average	140	186																																																																
4	7626.66	51.78	74.00	-22.22	41.67	10.11	Peak	140	186																																																																
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Note 1: Emission Level (dBuV/m) = SA Reading (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)	5720
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	60.99	78.20	-17.21	55.16	5.83	Peak	100	342
2	5860.00	61.97	68.20	-6.23	56.13	5.84	Peak	100	342
3	7626.66	43.63	54.00	-10.37	33.52	10.11	Average	115	335
4	7626.66	52.59	74.00	-21.41	42.48	10.11	Peak	115	335
5	11440.00	50.42	54.00	-3.58	34.53	15.89	Average	316	345
6	11440.00	63.30	74.00	-10.70	47.41	15.89	Peak	316	345

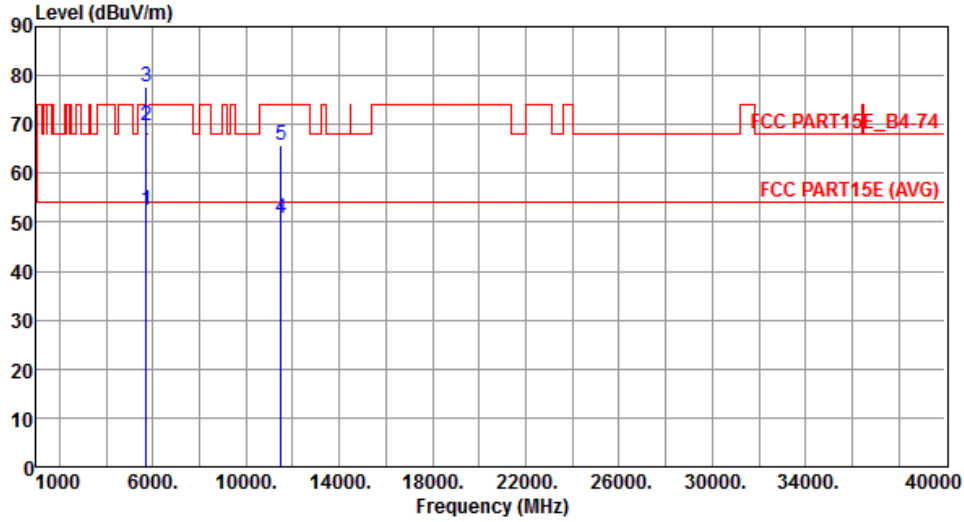
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		

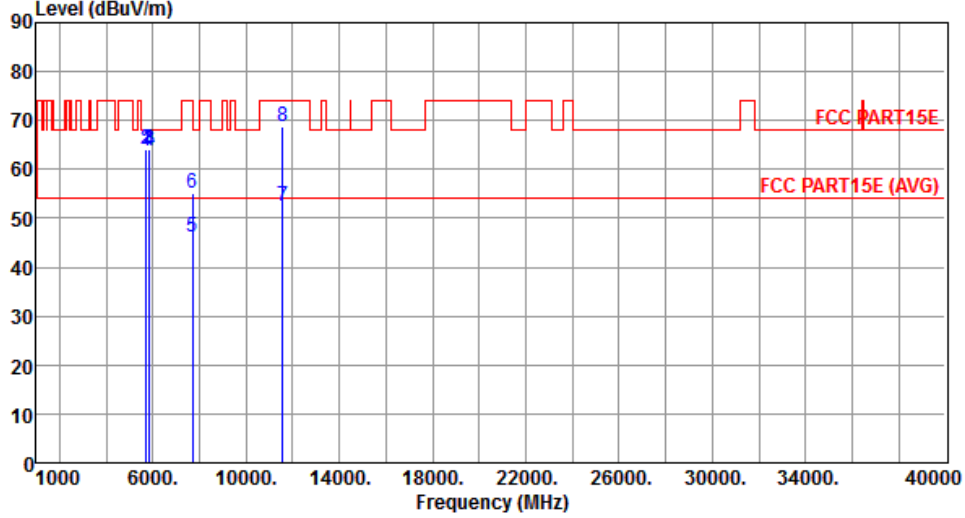


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	52.51	54.00	-1.49	46.76	5.75	Average	100	0
2	5715.00	69.81	74.00	-4.19	64.06	5.75	Peak	100	0
3	5725.00	77.66	78.20	-0.54	71.93	5.73	Peak	261	0
4	11490.00	50.78	54.00	-3.22	34.86	15.92	Average	100	11
5	11490.00	65.69	74.00	-8.31	49.77	15.92	Peak	100	11

Note 1: Emission Level (dBuV/m) = SA Reading (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		
Level (dBuV/m) </			

Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	63.63	68.20	-4.57	57.88	5.75	Peak	100	186
2	5725.00	64.12	68.20	-4.08	58.39	5.73	Peak	100	186
3	5850.00	64.24	68.20	-3.96	58.41	5.83	Peak	100	186
4	5860.00	63.65	68.20	-4.55	57.81	5.84	Peak	100	186
5	7713.00	46.24	54.00	-7.76	36.21	10.03	Average	139	166
6	7713.00	54.97	74.00	-19.03	44.94	10.03	Peak	139	166
7	11570.00	52.62	54.00	-1.38	36.87	15.75	Average	100	12
8	11570.00	68.61	74.00	-5.39	52.86	15.75	Peak	100	12

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

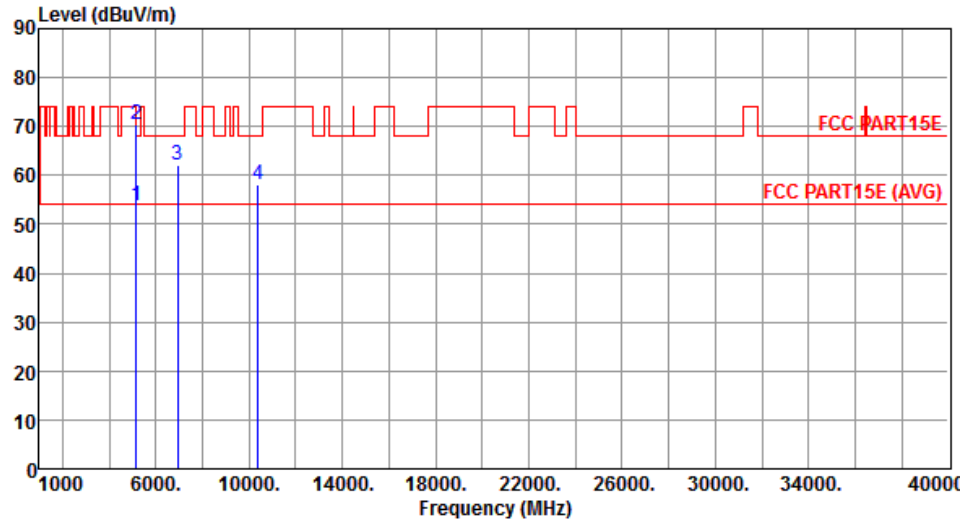
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Vertical		
Level (dBuV/m) </			

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

Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Vertical		



The spectrum plot shows the emission level in dBUV/m on the y-axis (0 to 90) against frequency in MHz on the x-axis (1000 to 40000). A red line represents the emission level, which is mostly flat at approximately 54 dBUV/m with some noise. A red line at 54 dBUV/m represents the FCC PART15E limit, and a red line at approximately 53.8 dBUV/m represents the FCC PART15E (AVG) limit. Four points are marked with blue vertical lines and numbered 1, 2, 3, and 4.

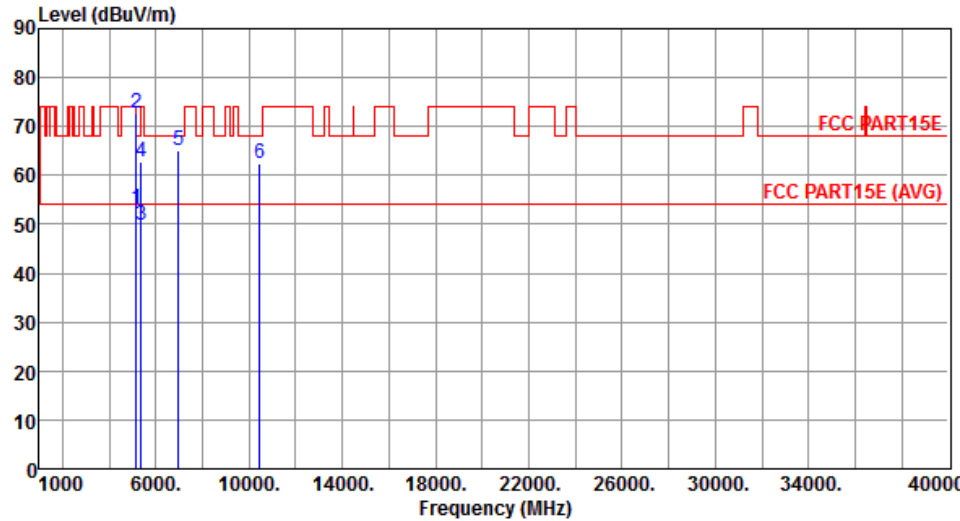
Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg	
1	5150.00	53.80	54.00	-0.20	48.25	5.55	Average	100	222
2	5150.00	70.41	74.00	-3.59	64.86	5.55	Peak	100	222
3	6920.00	62.14	68.20	-6.06	53.74	8.40	Peak	121	0
4	10380.00	58.02	68.20	-10.18	42.52	15.50	Peak	227	153

	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
	MHz	level			reading			High	Table
		dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	5150.00	53.80	54.00	-0.20	48.25	5.55	Average	100	222
2	5150.00	70.41	74.00	-3.59	64.86	5.55	Peak	100	222
3	6920.00	62.14	68.20	-6.06	53.74	8.40	Peak	121	0
4	10380.00	58.02	68.20	-10.18	42.52	15.50	Peak	227	153

Note 1: Emission Level (dBUV/m) = SA Reading (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		
Level (dBuV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical		

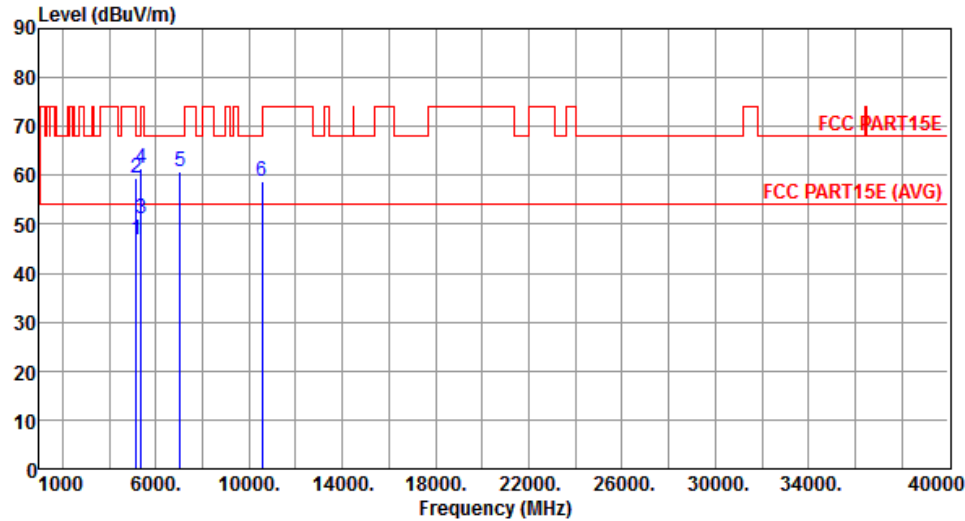


	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
	MHz	level	dBuV/m	dB	reading	dB		High	Table
								cm	deg
1	5150.00	53.25	54.00	-0.75	47.70	5.55	Average	100	42
2	5150.00	72.74	74.00	-1.26	67.19	5.55	Peak	100	42
3	5350.00	49.71	54.00	-4.29	44.04	5.67	Average	100	42
4	5350.00	62.87	74.00	-11.13	57.20	5.67	Peak	100	42
5	6973.33	65.10	68.20	-3.10	56.64	8.46	Peak	106	357
6	10460.00	62.40	68.20	-5.80	46.60	15.80	Peak	223	125

Note 1: Emission Level (dBUV/m) = SA Reading (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)	5270
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical		



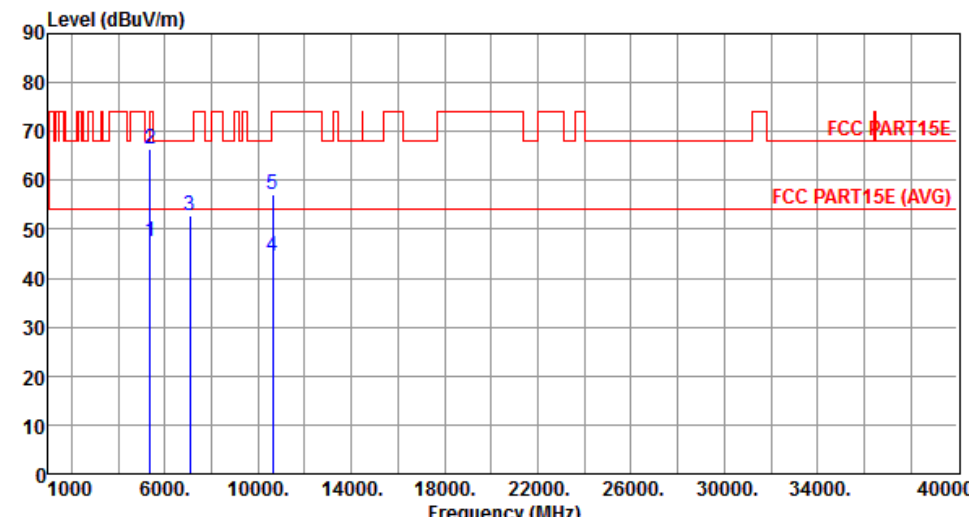
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.67	54.00	-7.33	41.12	5.55	Average	153	1
2	5150.00	59.40	74.00	-14.60	53.85	5.55	Peak	153	1
3	5350.00	50.99	54.00	-3.01	45.32	5.67	Average	153	1
4	5350.00	61.57	74.00	-12.43	55.90	5.67	Peak	153	1
5	7026.66	60.94	68.20	-7.26	52.35	8.59	Peak	116	0
6	10540.00	58.82	68.20	-9.38	42.90	15.92	Peak	182	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	VHT40	Test Freq. (MHz)	5310
Polarization	Horizontal		



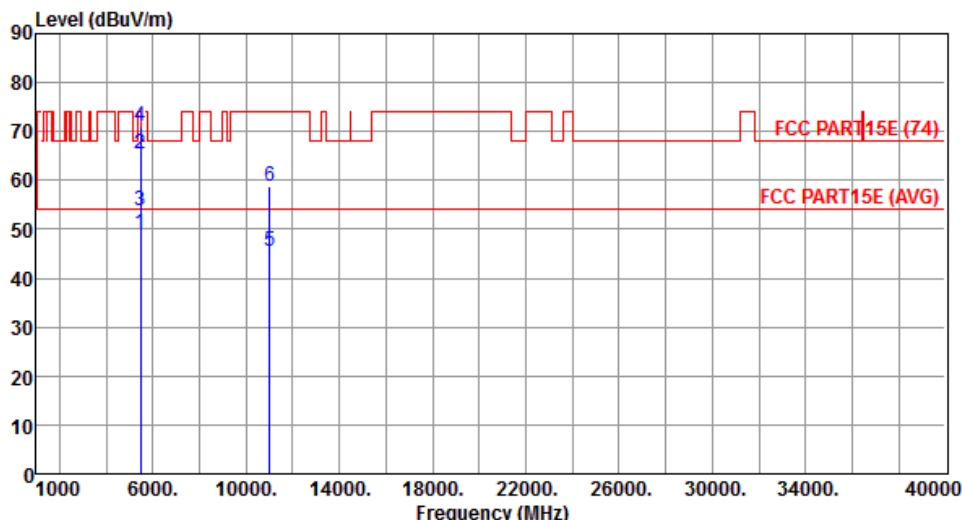
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	47.37	54.00	-6.63	41.70	5.67	Average	104	348
2	5350.00	66.55	74.00	-7.45	60.88	5.67	Peak	104	348
3	7080.00	52.73	68.20	-15.47	43.93	8.80	Peak	103	320
4	10620.00	44.39	54.00	-9.61	28.53	15.86	Average	155	222
5	10620.00	57.24	74.00	-16.76	41.38	15.86	Peak	155	222

Note 1: Emission Level (dBuV/m) = SA Reading (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)	5310
Polarization	Vertical		
Level (dBuV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Horizontal		
Level (dBUV/m) <			

Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.10	54.00	-4.90	43.38	5.72	Average	108	17
2	5460.00	65.49	74.00	-8.51	59.77	5.72	Peak	108	17
3	5470.00	53.77	54.00	-0.23	48.05	5.72	Average	104	348
4	5470.00	70.91	74.00	-3.09	65.19	5.72	Peak	104	348
5	11020.00	45.65	54.00	-8.35	30.05	15.60	Average	103	227
6	11020.00	58.90	74.00	-15.10	43.30	15.60	Peak	103	227

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

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Horizontal		
Level (dBuV/m) <			

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Vertical		
Level (dBuV/m) <			

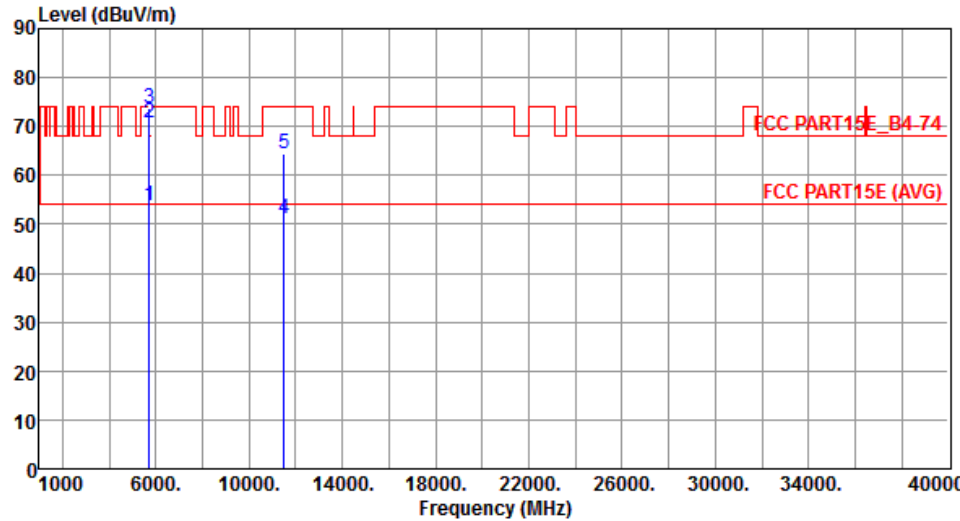
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Vertical		
Level (dBuV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Vertical		
Level (dBuV/m) <			

Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	53.72	54.00	-0.28	47.97	5.75	Average	106	352
2	5715.00	70.78	74.00	-3.22	65.03	5.75	Peak	106	352
3	5725.00	73.85	78.20	-4.35	68.12	5.73	Peak	102	178
4	11510.00	51.04	54.00	-2.96	35.13	15.91	Average	335	341
5	11510.00	64.27	74.00	-9.73	48.36	15.91	Peak	335	341

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

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical		
Level (dBuV/m)			

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

Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal		

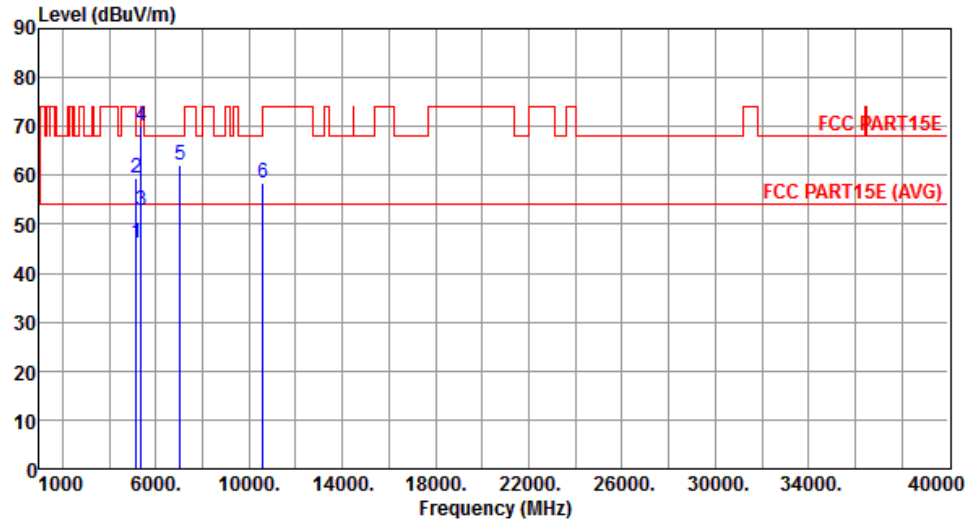
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.90	54.00	-7.10	41.35	5.55	Average	100	349
2	5150.00	60.50	74.00	-13.50	54.95	5.55	Peak	100	349
3	5350.00	46.46	54.00	-7.54	40.79	5.67	Average	100	349
4	5350.00	59.39	74.00	-14.61	53.72	5.67	Peak	100	349
5	6946.00	57.82	68.20	-10.38	49.40	8.42	Peak	113	358
6	10420.00	56.89	68.20	-11.31	41.24	15.65	Peak	159	218

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

Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical		
Level (dBuV/m)			

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical		



The graph displays the emission level in dBuV/m against frequency in MHz. The y-axis ranges from 0 to 90 dBuV/m, and the x-axis ranges from 1000 to 40000 MHz. A red line represents the FCC PART15E limit, which is 74 dBuV/m for frequencies between 1000 and 10000 MHz, and 68 dBuV/m for frequencies above 10000 MHz. A horizontal red line at 55 dBuV/m represents the FCC PART15E (AVG) limit. The test results are shown as a blue line with peaks at 5150.00 MHz, 5350.00 MHz, 7053.00 MHz, and 10580.00 MHz. The peaks are labeled 1, 2, 3, 4, 5, and 6 respectively.

	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.10	54.00	-7.90	40.55	5.55	Average	100	186
2	5150.00	59.48	74.00	-14.52	53.93	5.55	Peak	100	186
3	5350.00	52.91	54.00	-1.09	47.24	5.67	Average	100	188
4	5350.00	69.95	74.00	-4.05	64.28	5.67	Peak	100	188
5	7053.00	62.06	68.20	-6.14	53.36	8.70	Peak	113	2
6	10580.00	58.46	68.20	-9.74	42.57	15.89	Peak	188	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)	5530
Polarization	Horizontal		
Level (dBuV/m) <			

Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical		
Level (dBuV/m) <			

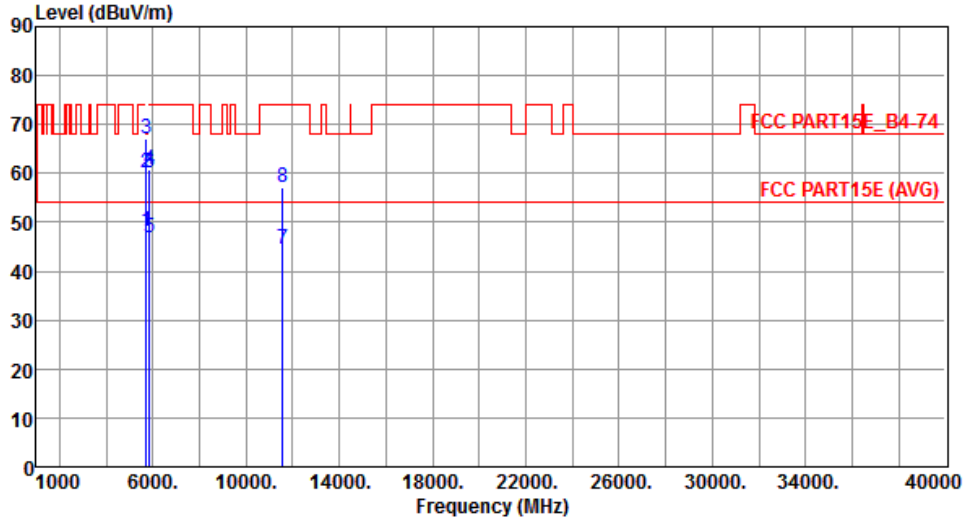
Modulation	VHT80	Test Freq. (MHz)	5610
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT80	Test Freq. (MHz)	5610
Polarization	Vertical		
Level (dBuV/m) <			

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Vertical		
Level (dBuV/m) <			

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	48.23	54.00	-5.77	42.48	5.75	Average	103	325
2	5715.00	59.96	74.00	-14.04	54.21	5.75	Peak	103	325
3	5725.00	67.19	78.20	-11.01	61.46	5.73	Peak	103	325
4	5850.00	60.62	78.20	-17.58	54.79	5.83	Peak	103	325
5	5860.00	46.72	54.00	-7.28	40.88	5.84	Average	103	325
6	5860.00	59.98	74.00	-14.02	54.14	5.84	Peak	103	325
7	11550.00	44.46	54.00	-9.54	28.66	15.80	Average	108	113
8	11550.00	57.02	74.00	-16.98	41.22	15.80	Peak	108	113

Note 1: Emission Level (dBuV/m) = SA Reading (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		
Level (dBuV/m) </			

Beamforming mode

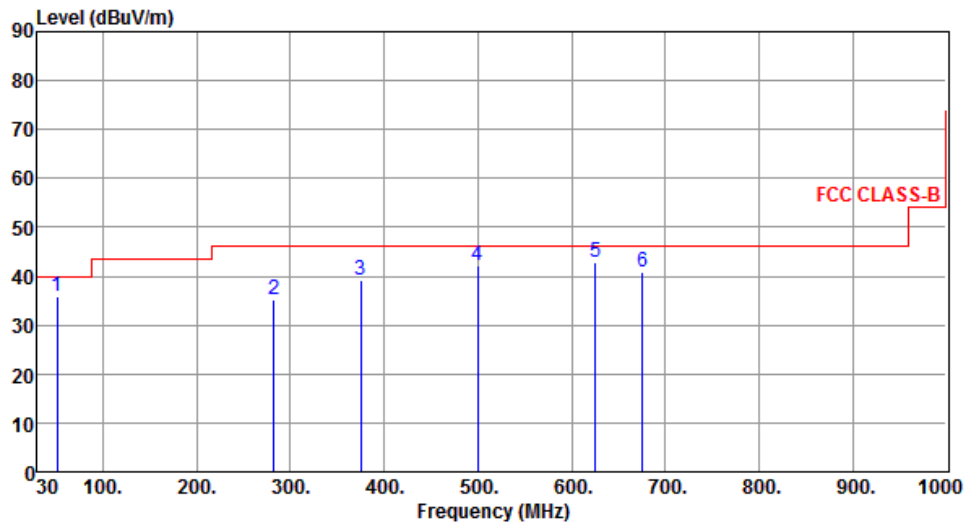
3.5.9 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal		
Level (dBuV/m) <			

Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Vertical		
Level (dBuV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	51.42	35.95	40.00	-4.05	52.45	-16.50	Peak	---	---
2	282.13	35.19	46.00	-10.81	51.63	-16.44	Peak	---	---
3	375.42	39.27	46.00	-6.73	53.45	-14.18	Peak	---	---
4	500.27	42.09	46.00	-3.91	53.31	-11.22	Peak	---	---
5	625.28	42.68	46.00	-3.32	51.86	-9.18	Peak	---	---
6	675.33	40.80	46.00	-5.20	49.25	-8.45	Peak	---	---

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

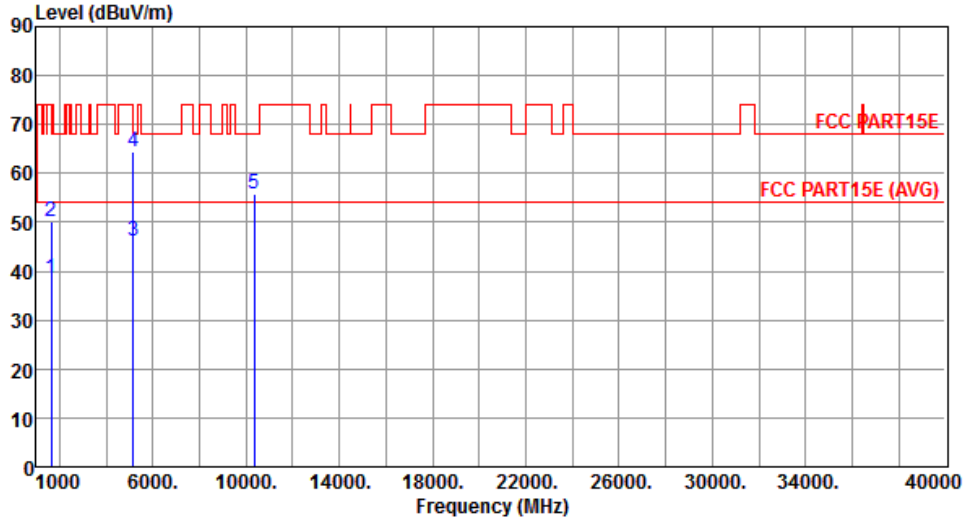
*Factor includes antenna factor , cable loss and amplifier gain

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.

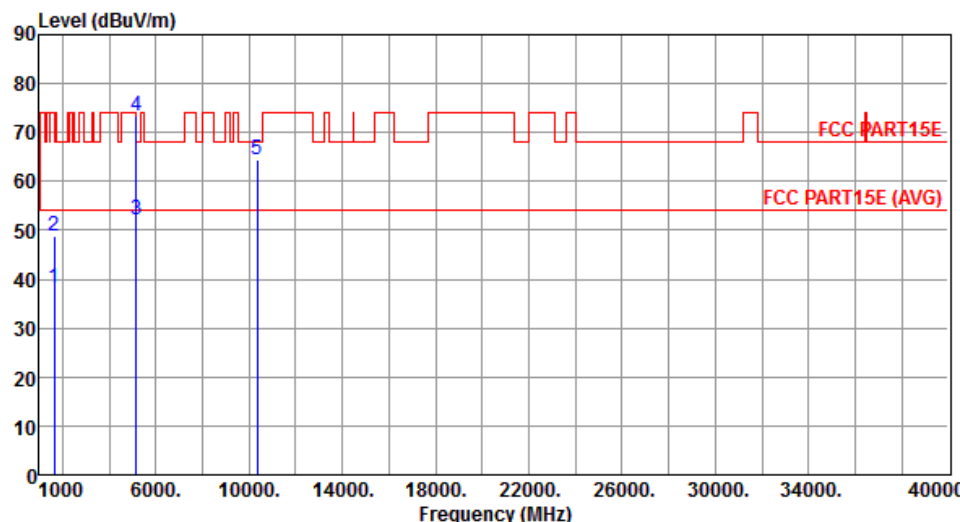
3.5.10 Transmitter Radiated Unwanted Emissions (Above 1GHz) for VHT20

Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1625.00	38.60	54.00	-15.40	44.71	-6.11	Average	110	203
2	1625.00	50.12	74.00	-23.88	56.23	-6.11	Peak	110	203
3	5150.00	46.11	54.00	-7.89	40.56	5.55	Average	302	167
4	5150.00	64.45	74.00	-9.55	58.90	5.55	Peak	302	167
5	10360.00	55.89	68.20	-12.31	40.47	15.42	Peak	254	283

Note 1: Emission Level (dBuV/m) = SA Reading (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																																																																								
 <table><tr><th></th><th>Freq.</th><th>Emission level</th><th>Limit</th><th>Margin</th><th>SA reading</th><th>Factor</th><th>Remark</th><th>ANT High</th><th>Turn Table</th></tr><tr><th></th><th>MHz</th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB</th><th></th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>1625.00</td><td>38.34</td><td>54.00</td><td>-15.66</td><td>44.45</td><td>-6.11</td><td>Average</td><td>110</td><td>264</td></tr><tr><td>2</td><td>1625.00</td><td>48.85</td><td>74.00</td><td>-25.15</td><td>54.96</td><td>-6.11</td><td>Peak</td><td>110</td><td>264</td></tr><tr><td>3</td><td>5150.00</td><td>52.14</td><td>54.00</td><td>-1.86</td><td>46.59</td><td>5.55</td><td>Average</td><td>100</td><td>306</td></tr><tr><td>4</td><td>5150.00</td><td>73.51</td><td>74.00</td><td>-0.49</td><td>67.96</td><td>5.55</td><td>Peak</td><td>100</td><td>306</td></tr><tr><td>5</td><td>10360.00</td><td>64.28</td><td>68.20</td><td>-3.92</td><td>48.86</td><td>15.42</td><td>Peak</td><td>261</td><td>169</td></tr></table>					Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table		MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg	1	1625.00	38.34	54.00	-15.66	44.45	-6.11	Average	110	264	2	1625.00	48.85	74.00	-25.15	54.96	-6.11	Peak	110	264	3	5150.00	52.14	54.00	-1.86	46.59	5.55	Average	100	306	4	5150.00	73.51	74.00	-0.49	67.96	5.55	Peak	100	306	5	10360.00	64.28	68.20	-3.92	48.86	15.42	Peak	261	169
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table																																																																
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Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal		
Level (dBuV/m) <			

Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical		
Level (dBUV/m) <			

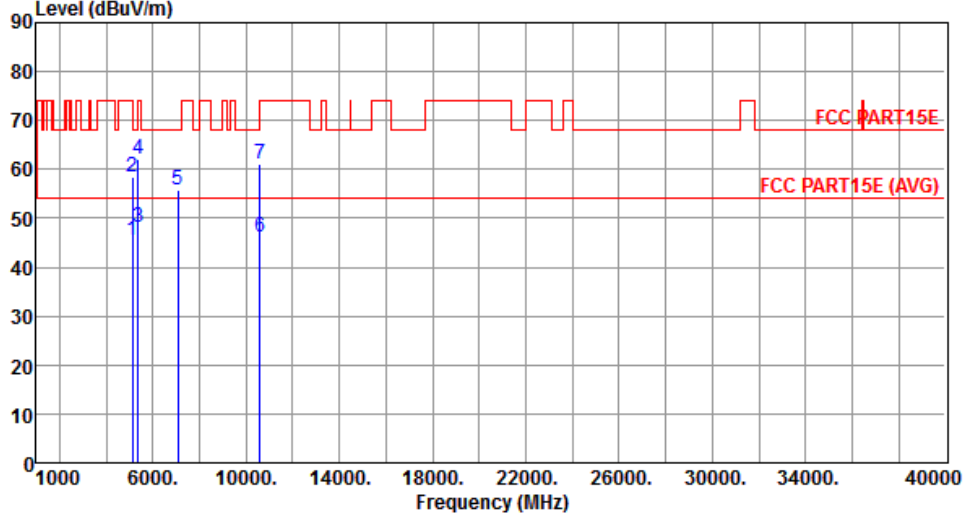
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal		
Level (dBuV/m) <			

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical		
Level (dBuV/m)			

Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Vertical		
Level (dBuV/m)			

Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal		

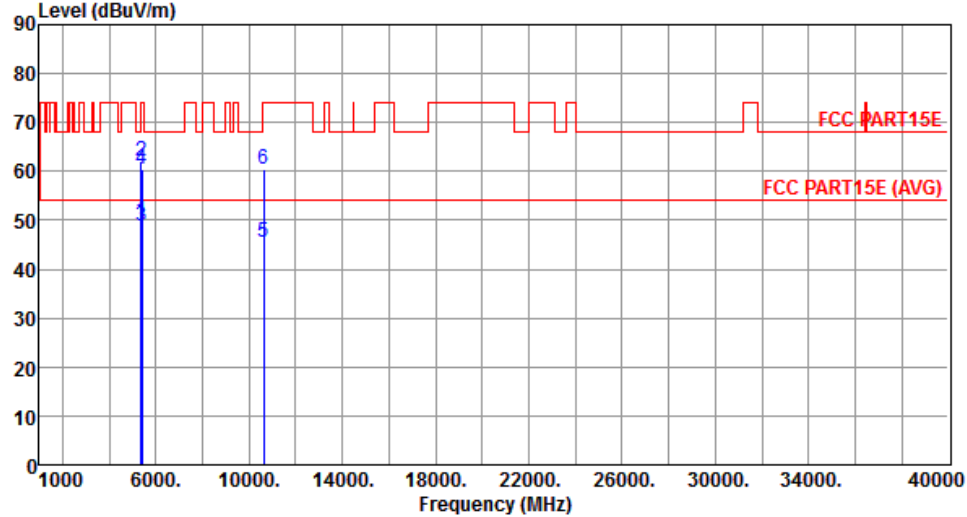


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5140.00	45.61	54.00	-8.39	40.07	5.54	Average	262	161
2	5140.00	58.38	74.00	-15.62	52.84	5.54	Peak	262	161
3	5350.00	48.11	54.00	-5.89	42.44	5.67	Average	262	161
4	5350.00	62.27	74.00	-11.73	56.60	5.67	Peak	262	161
5	7066.00	55.89	68.20	-12.31	47.15	8.74	Peak	100	321
6	10600.00	46.21	54.00	-7.79	30.33	15.88	Average	311	184
7	10600.00	61.03	74.00	-12.97	45.15	15.88	Peak	311	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	VHT20	Test Freq. (MHz)	5300																																																																																										
Polarization	Vertical																																																																																												
Level (dBUV/m) <table><tr><th></th><th>Freq.</th><th>Emission level</th><th>Limit</th><th>Margin</th><th>SA reading</th><th>Factor</th><th>Remark</th><th>ANT High</th><th>Turn Table</th></tr><tr><th></th><th>MHz</th><th>dBUV/m</th><th>dBUV/m</th><th>dB</th><th>dBUV</th><th>dB</th><th></th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>5140.00</td><td>48.89</td><td>54.00</td><td>-5.11</td><td>43.35</td><td>5.54</td><td>Average</td><td>261</td><td>4</td></tr><tr><td>2</td><td>5140.00</td><td>61.78</td><td>74.00</td><td>-12.22</td><td>56.24</td><td>5.54</td><td>Peak</td><td>261</td><td>4</td></tr><tr><td>3</td><td>5350.00</td><td>52.89</td><td>54.00</td><td>-1.11</td><td>47.22</td><td>5.67</td><td>Average</td><td>261</td><td>4</td></tr><tr><td>4</td><td>5350.00</td><td>66.21</td><td>74.00</td><td>-7.79</td><td>60.54</td><td>5.67</td><td>Peak</td><td>261</td><td>4</td></tr><tr><td>5</td><td>7066.00</td><td>62.63</td><td>68.20</td><td>-5.57</td><td>53.89</td><td>8.74</td><td>Peak</td><td>108</td><td>357</td></tr><tr><td>6</td><td>10600.00</td><td>50.35</td><td>54.00</td><td>-3.65</td><td>34.47</td><td>15.88</td><td>Average</td><td>288</td><td>134</td></tr><tr><td>7</td><td>10600.00</td><td>65.05</td><td>74.00</td><td>-8.95</td><td>49.17</td><td>15.88</td><td>Peak</td><td>288</td><td>134</td></tr></table>					Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table		MHz	dBUV/m	dBUV/m	dB	dBUV	dB		cm	deg	1	5140.00	48.89	54.00	-5.11	43.35	5.54	Average	261	4	2	5140.00	61.78	74.00	-12.22	56.24	5.54	Peak	261	4	3	5350.00	52.89	54.00	-1.11	47.22	5.67	Average	261	4	4	5350.00	66.21	74.00	-7.79	60.54	5.67	Peak	261	4	5	7066.00	62.63	68.20	-5.57	53.89	8.74	Peak	108	357	6	10600.00	50.35	54.00	-3.65	34.47	15.88	Average	288	134	7	10600.00	65.05	74.00	-8.95	49.17	15.88	Peak	288	134
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table																																																																																				
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Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Horizontal		



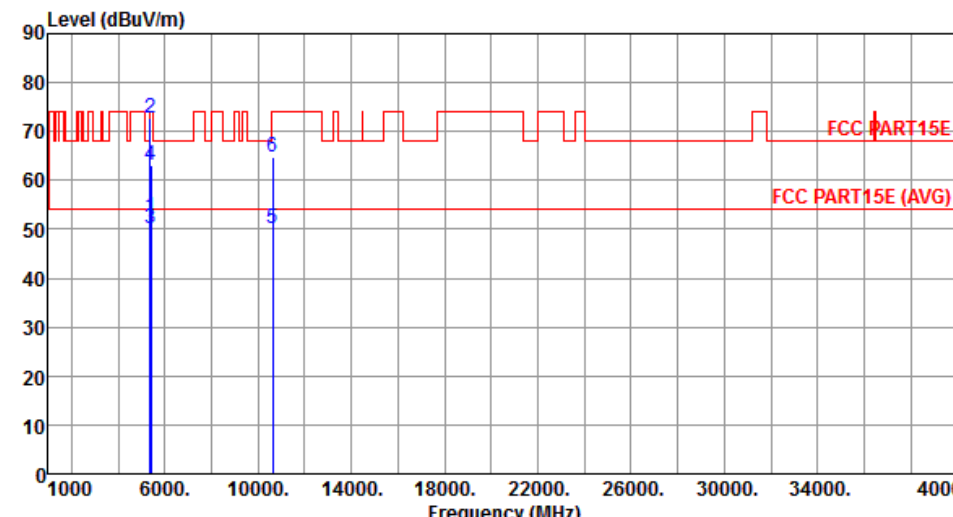
	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
	MHz	level	dBuV/m	dB	reading	dB		High	Table
								cm	deg
1	5350.00	49.93	54.00	-4.07	44.26	5.67	Average	268	165
2	5350.00	62.24	74.00	-11.76	56.57	5.67	Peak	268	165
3	5400.00	48.86	54.00	-5.14	43.16	5.70	Average	268	165
4	5400.00	60.35	74.00	-13.65	54.65	5.70	Peak	268	165
5	10640.00	45.52	54.00	-8.48	29.67	15.85	Average	316	173
6	10640.00	60.43	74.00	-13.57	44.58	15.85	Peak	316	173

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

*Factor includes antenna factor , cable loss and amplifier gain

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

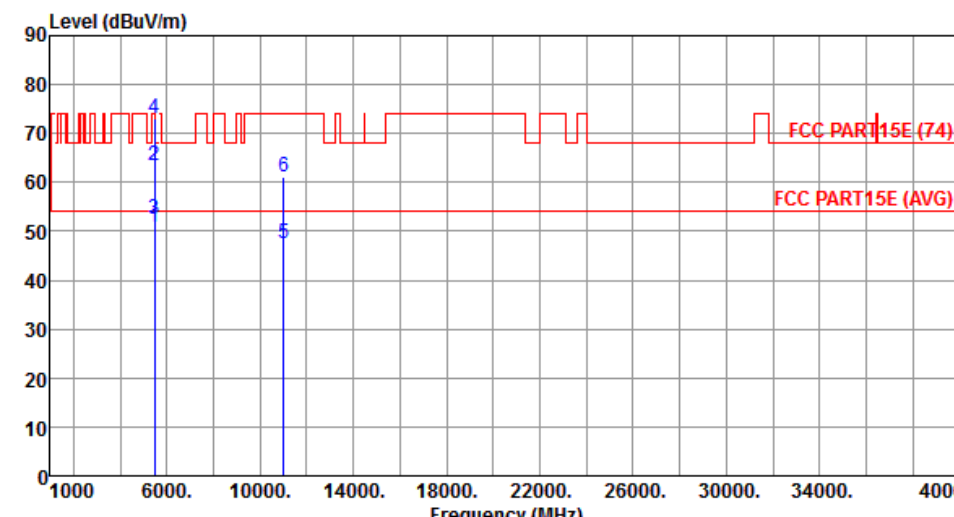
Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Vertical		



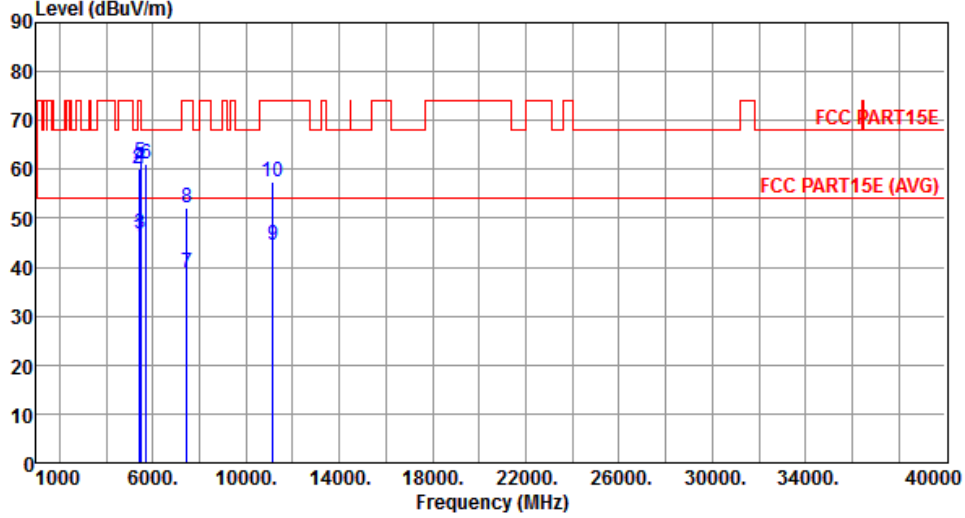
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.52	54.00	-1.48	46.85	5.67	Average	260	307
2	5350.00	72.76	74.00	-1.24	67.09	5.67	Peak	260	307
3	5400.00	50.23	54.00	-3.77	44.53	5.70	Average	260	307
4	5400.00	63.02	74.00	-10.98	57.32	5.70	Peak	260	307
5	10640.00	50.02	54.00	-3.98	34.17	15.85	Average	281	130
6	10640.00	64.72	74.00	-9.28	48.87	15.85	Peak	281	130

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

Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT20	Test Freq. (MHz)	5500																																																																																										
Polarization	Vertical																																																																																												
Level (dBUV/m)  <table><thead><tr><th></th><th>Freq.</th><th>Emission</th><th>Limit</th><th>Margin</th><th>SA</th><th>Factor</th><th>Remark</th><th>ANT</th><th>Turn</th></tr><tr><th></th><th>MHz</th><th>level</th><th>dBuV/m</th><th>dB</th><th>reading</th><th>dB</th><th></th><th>High</th><th>Table</th></tr><tr><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>cm</th><th>deg</th></tr></thead><tbody><tr><td>1</td><td>5460.00</td><td>50.92</td><td>54.00</td><td>-3.08</td><td>45.20</td><td>5.72</td><td>Average</td><td>115</td><td>187</td></tr><tr><td>2</td><td>5460.00</td><td>63.56</td><td>74.00</td><td>-10.44</td><td>57.84</td><td>5.72</td><td>Peak</td><td>115</td><td>187</td></tr><tr><td>3</td><td>5470.00</td><td>52.44</td><td>54.00</td><td>-1.56</td><td>46.72</td><td>5.72</td><td>Average</td><td>115</td><td>187</td></tr><tr><td>4</td><td>5470.00</td><td>72.91</td><td>74.00</td><td>-1.09</td><td>67.19</td><td>5.72</td><td>Peak</td><td>115</td><td>187</td></tr><tr><td>5</td><td>11000.00</td><td>47.34</td><td>54.00</td><td>-6.66</td><td>31.76</td><td>15.58</td><td>Average</td><td>166</td><td>132</td></tr><tr><td>6</td><td>11000.00</td><td>61.23</td><td>74.00</td><td>-12.77</td><td>45.65</td><td>15.58</td><td>Peak</td><td>166</td><td>132</td></tr></tbody></table> Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).					Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn		MHz	level	dBuV/m	dB	reading	dB		High	Table									cm	deg	1	5460.00	50.92	54.00	-3.08	45.20	5.72	Average	115	187	2	5460.00	63.56	74.00	-10.44	57.84	5.72	Peak	115	187	3	5470.00	52.44	54.00	-1.56	46.72	5.72	Average	115	187	4	5470.00	72.91	74.00	-1.09	67.19	5.72	Peak	115	187	5	11000.00	47.34	54.00	-6.66	31.76	15.58	Average	166	132	6	11000.00	61.23	74.00	-12.77	45.65	15.58	Peak	166	132
	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn																																																																																				
	MHz	level	dBuV/m	dB	reading	dB		High	Table																																																																																				
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1	5460.00	50.92	54.00	-3.08	45.20	5.72	Average	115	187																																																																																				
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5	11000.00	47.34	54.00	-6.66	31.76	15.58	Average	166	132																																																																																				
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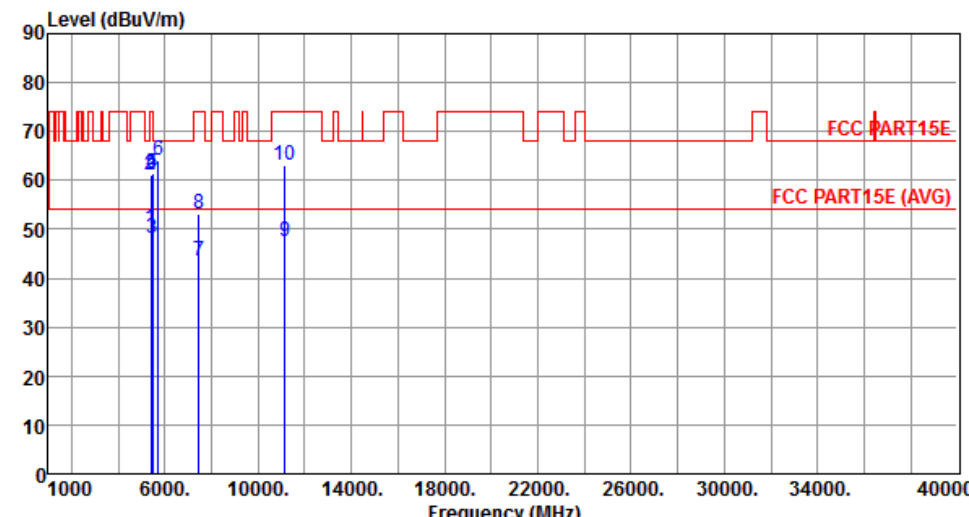
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5400.00	46.23	54.00	-7.77	40.53	5.70	Average	100	341
2	5400.00	60.23	74.00	-13.77	54.53	5.70	Peak	100	341
3	5460.00	46.93	54.00	-7.07	41.21	5.72	Average	100	341
4	5460.00	60.37	74.00	-13.63	54.65	5.72	Peak	100	341
5	5470.00	61.34	68.20	-6.86	55.62	5.72	Peak	100	341
6	5725.00	61.05	68.20	-7.15	55.32	5.73	Peak	100	341
7	7440.00	39.00	54.00	-15.00	29.25	9.75	Average	240	20
8	7440.00	52.18	74.00	-21.82	42.43	9.75	Peak	240	20
9	11160.00	44.34	54.00	-9.66	28.65	15.69	Average	288	308
10	11160.00	57.34	74.00	-16.66	41.65	15.69	Peak	288	3080

Note 1: Emission Level (dBuV/m) = SA Reading (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)	5580
Polarization	Vertical		

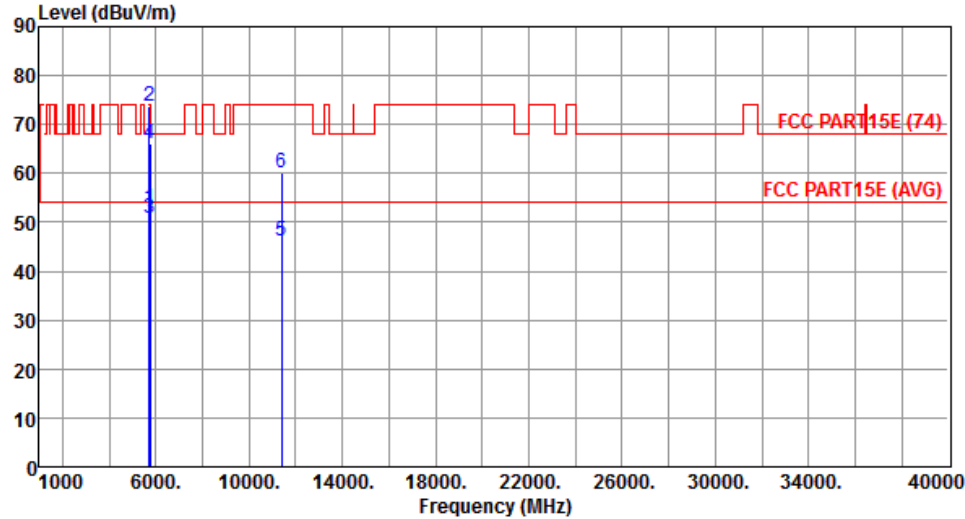


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5400.00	50.23	54.00	-3.77	44.53	5.70	Average	100	353
2	5400.00	60.96	74.00	-13.04	55.26	5.70	Peak	100	353
3	5460.00	48.18	54.00	-5.82	42.46	5.72	Average	100	353
4	5460.00	61.37	74.00	-12.63	55.65	5.72	Peak	100	353
5	5470.00	61.58	68.20	-6.62	55.86	5.72	Peak	100	353
6	5725.00	64.00	68.20	-4.20	58.27	5.73	Peak	100	353
7	7440.00	43.39	54.00	-10.61	33.64	9.75	Average	100	186
8	7440.00	53.05	74.00	-20.95	43.30	9.75	Peak	100	186
9	11160.00	47.55	54.00	-6.45	31.86	15.69	Average	126	165
10	11160.00	63.04	74.00	-10.96	47.35	15.69	Peak	126	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	VHT20	Test Freq. (MHz)	5700
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical		

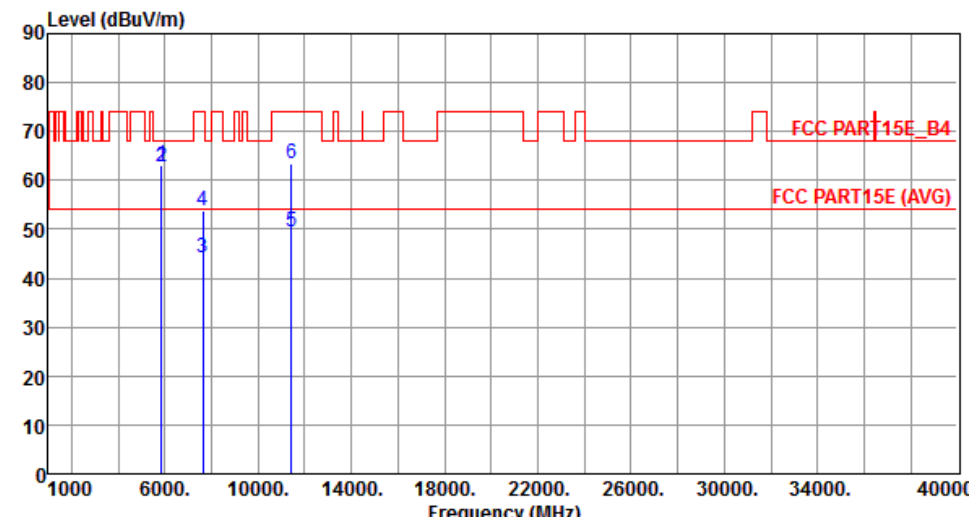


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	52.64	54.00	-1.36	46.91	5.73	Average	118	351
2	5725.00	73.76	74.00	-0.24	68.03	5.73	Peak	118	351
3	5745.00	50.77	54.00	-3.23	45.03	5.74	Average	118	351
4	5745.00	66.08	74.00	-7.92	60.34	5.74	Peak	118	351
5	11400.00	46.09	54.00	-7.91	30.23	15.86	Average	152	133
6	11400.00	59.98	74.00	-14.02	44.12	15.86	Peak	152	133

Note 1: Emission Level (dBUV/m) = SA Reading (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)	5720
Polarization	Horizontal		
Level (dBuV/m) <			

Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Vertical		



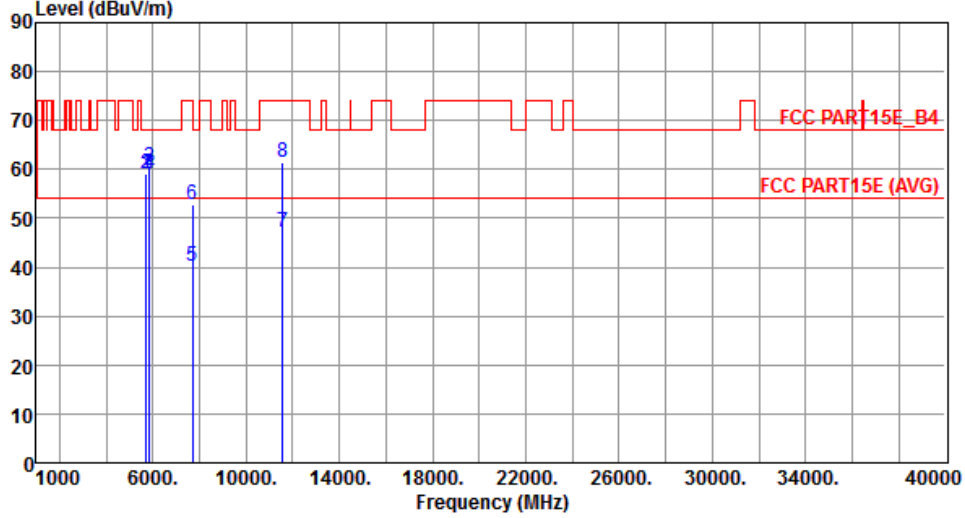
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	63.18	78.20	-15.02	57.35	5.83	Peak	112	353
2	5860.00	62.87	68.20	-5.33	57.03	5.84	Peak	112	353
3	7626.66	44.15	54.00	-9.85	34.04	10.11	Average	100	325
4	7626.66	53.88	74.00	-20.12	43.77	10.11	Peak	100	325
5	11440.00	49.42	54.00	-4.58	33.53	15.89	Average	322	341
6	11440.00	63.45	74.00	-10.55	47.56	15.89	Peak	322	341

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

Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		
Level (dBuV/m) </			

Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		

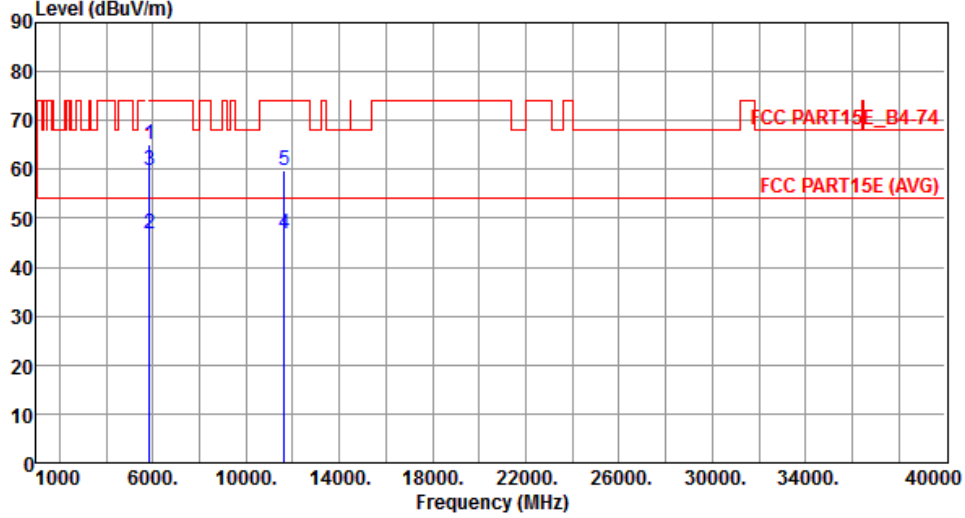


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	59.00	68.20	-9.20	53.25	5.75	Peak	116	212
2	5725.00	59.27	78.20	-18.93	53.54	5.73	Peak	116	212
3	5850.00	60.30	78.20	-17.90	54.47	5.83	Peak	116	212
4	5860.00	59.23	68.20	-8.97	53.39	5.84	Peak	116	212
5	7713.33	40.34	54.00	-13.66	30.31	10.03	Average	125	212
6	7713.33	52.89	74.00	-21.11	42.86	10.03	Peak	125	212
7	11570.00	47.23	54.00	-6.77	31.48	15.75	Average	110	115
8	11570.00	61.37	74.00	-12.63	45.62	15.75	Peak	110	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	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		
Level (dBuV/m) </			

Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



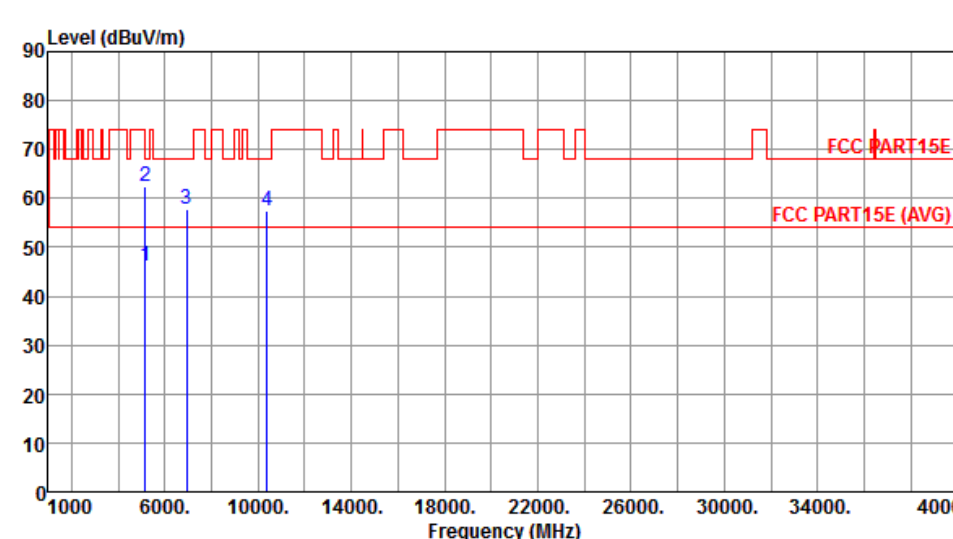
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	64.94	78.20	-13.26	59.11	5.83	Peak	118	26
2	5860.00	46.80	54.00	-7.20	40.96	5.84	Average	118	26
3	5860.00	59.89	74.00	-14.11	54.05	5.84	Peak	118	26
4	11650.00	46.78	54.00	-7.22	31.24	15.54	Average	156	212
5	11650.00	59.90	74.00	-14.10	44.36	15.54	Peak	156	212

Note 1: Emission Level (dBUV/m) = SA Reading (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		
Level (dBuV/m)			

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

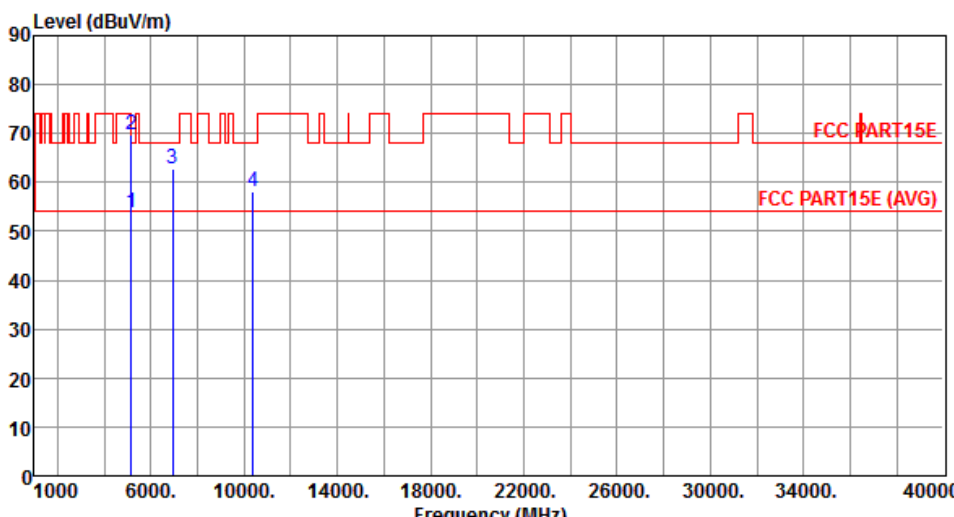
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.30	54.00	-7.70	40.75	5.55	Average	100	346
2	5150.00	62.53	74.00	-11.47	56.98	5.55	Peak	100	346
3	6920.00	57.93	68.20	-10.27	49.53	8.40	Peak	105	212
4	10380.00	57.31	68.20	-10.89	41.81	15.50	Peak	100	133

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

Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Vertical		

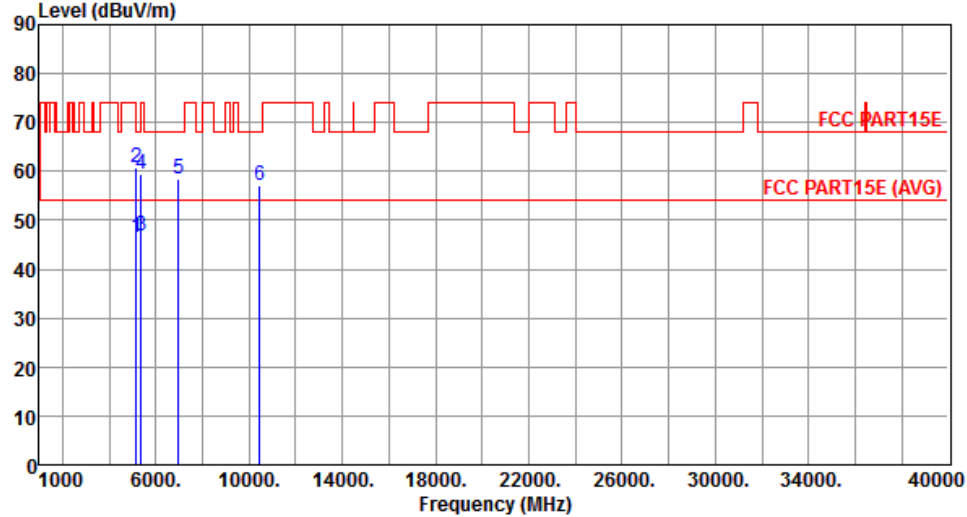


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	53.68	54.00	-0.32	48.13	5.55	Average	104	311
2	5150.00	69.78	74.00	-4.22	64.23	5.55	Peak	104	311
3	6920.00	62.63	68.20	-5.57	54.23	8.40	Peak	118	2
4	10380.00	58.12	68.20	-10.08	42.62	15.50	Peak	100	133

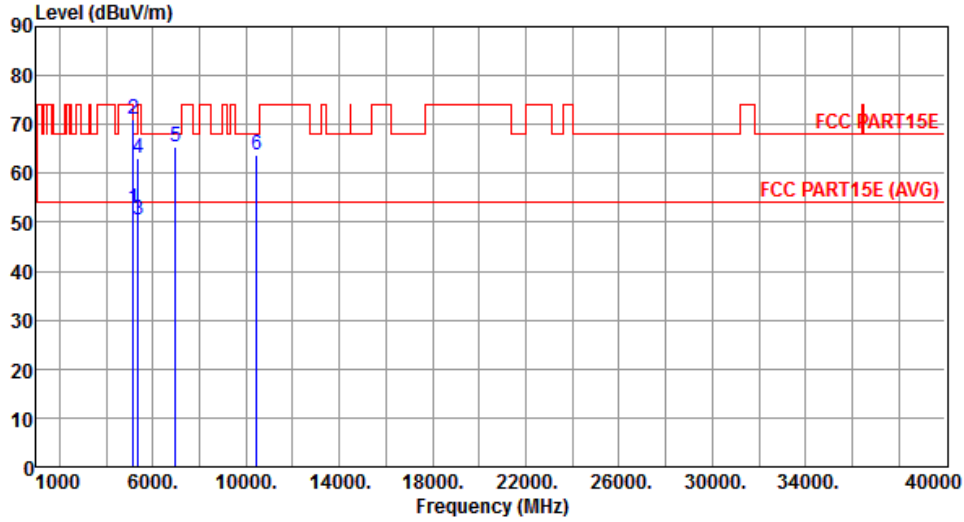
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	VHT40	Test Freq. (MHz)	5230						
Polarization	Horizontal								
									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.50	54.00	-7.50	40.95	5.55	Average	106	346
2	5150.00	60.93	74.00	-13.07	55.38	5.55	Peak	106	346
3	5350.00	46.86	54.00	-7.14	41.19	5.67	Average	106	346
4	5350.00	59.42	74.00	-14.58	53.75	5.67	Peak	106	346
5	6973.33	58.57	68.20	-9.63	50.11	8.46	Peak	100	166
6	10460.00	57.05	68.20	-11.15	41.25	15.80	Peak	100	235
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).									

Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.87	54.00	-1.13	47.32	5.55	Average	100	351
2	5150.00	71.01	74.00	-2.99	65.46	5.55	Peak	100	351
3	5350.00	50.44	54.00	-3.56	44.77	5.67	Average	100	351
4	5350.00	63.00	74.00	-11.00	57.33	5.67	Peak	100	351
5	6973.33	65.30	68.20	-2.90	56.84	8.46	Peak	100	350
6	10460.00	63.65	68.20	-4.55	47.85	15.80	Peak	222	131

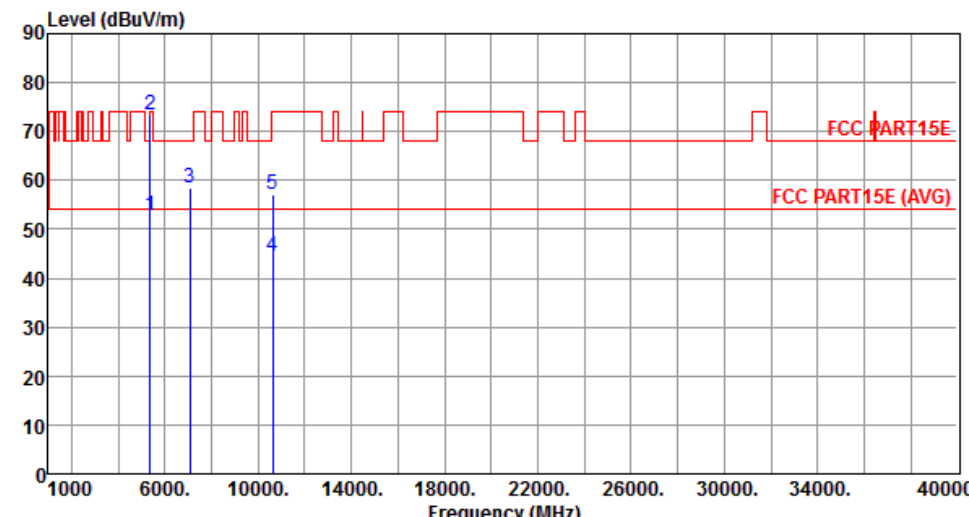
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT40	Test Freq. (MHz)	5270																																																																						
Polarization	Horizontal																																																																								
Level (dBuV/m) Frequency (MHz) <table><thead><tr><th></th><th>Freq. MHz</th><th>Emission level dBuV/m</th><th>Limit dBuV/m</th><th>Margin dB</th><th>SA reading dBuV</th><th>Factor dB</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr></thead><tbody><tr><td>1</td><td>5150.00</td><td>45.63</td><td>54.00</td><td>-8.37</td><td>40.08</td><td>5.55</td><td>Average</td><td>105</td><td>349</td></tr><tr><td>2</td><td>5150.00</td><td>58.31</td><td>74.00</td><td>-15.69</td><td>52.76</td><td>5.55</td><td>Peak</td><td>105</td><td>349</td></tr><tr><td>3</td><td>5350.00</td><td>46.95</td><td>54.00</td><td>-7.05</td><td>41.28</td><td>5.67</td><td>Average</td><td>105</td><td>349</td></tr><tr><td>4</td><td>5350.00</td><td>59.79</td><td>74.00</td><td>-14.21</td><td>54.12</td><td>5.67</td><td>Peak</td><td>105</td><td>349</td></tr><tr><td>5</td><td>7026.66</td><td>55.54</td><td>68.20</td><td>-12.66</td><td>46.95</td><td>8.59</td><td>Peak</td><td>100</td><td>344</td></tr><tr><td>6</td><td>10540.00</td><td>57.88</td><td>68.20</td><td>-10.32</td><td>41.96</td><td>15.92</td><td>Peak</td><td>122</td><td>185</td></tr></tbody></table>					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	45.63	54.00	-8.37	40.08	5.55	Average	105	349	2	5150.00	58.31	74.00	-15.69	52.76	5.55	Peak	105	349	3	5350.00	46.95	54.00	-7.05	41.28	5.67	Average	105	349	4	5350.00	59.79	74.00	-14.21	54.12	5.67	Peak	105	349	5	7026.66	55.54	68.20	-12.66	46.95	8.59	Peak	100	344	6	10540.00	57.88	68.20	-10.32	41.96	15.92	Peak	122	185
	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	45.63	54.00	-8.37	40.08	5.55	Average	105	349																																																																
2	5150.00	58.31	74.00	-15.69	52.76	5.55	Peak	105	349																																																																
3	5350.00	46.95	54.00	-7.05	41.28	5.67	Average	105	349																																																																
4	5350.00	59.79	74.00	-14.21	54.12	5.67	Peak	105	349																																																																
5	7026.66	55.54	68.20	-12.66	46.95	8.59	Peak	100	344																																																																
6	10540.00	57.88	68.20	-10.32	41.96	15.92	Peak	122	185																																																																
Note 1: Emission Level (dBuV/m) = SA Reading (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)	5270
Polarization	Vertical		
Level (dBuV/m)			

Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Vertical		

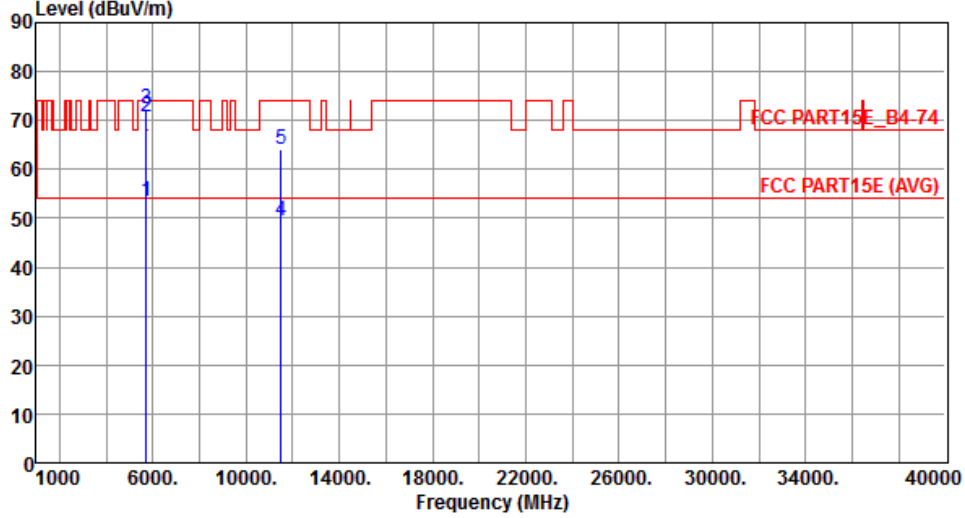


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.75	54.00	-1.25	47.08	5.67	Average	100	310
2	5350.00	73.40	74.00	-0.60	67.73	5.67	Peak	100	310
3	7080.00	58.45	68.20	-9.75	49.65	8.80	Peak	105	348
4	10620.00	44.39	54.00	-9.61	28.53	15.86	Average	155	216
5	10620.00	57.19	74.00	-16.81	41.33	15.86	Peak	155	216

Note 1: Emission Level (dBUV/m) = SA Reading (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)	5510
Polarization	Horizontal		
Level (dBuV/m) </			

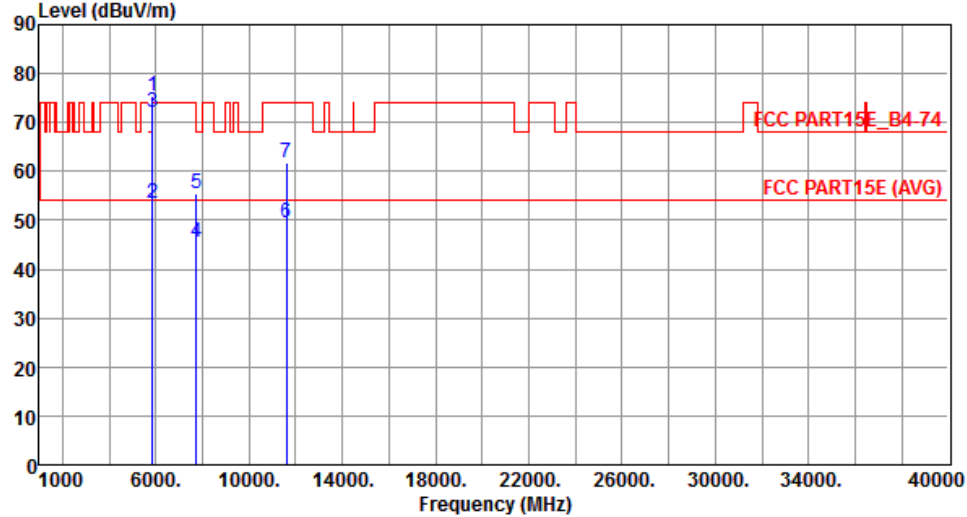
Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	53.38	54.00	-0.62	47.63	5.75	Average	100	353
2	5715.00	70.76	74.00	-3.24	65.01	5.75	Peak	100	353
3	5725.00	72.33	78.20	-5.87	66.60	5.73	Peak	100	353
4	11510.00	49.55	54.00	-4.45	33.64	15.91	Average	330	340
5	11510.00	64.11	74.00	-9.89	48.20	15.91	Peak	330	340

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

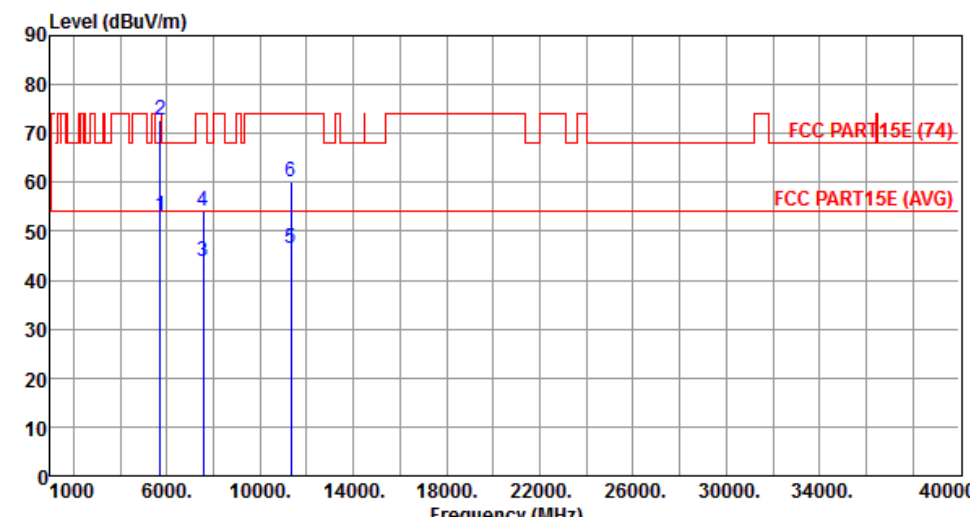
Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5590						
Polarization	Vertical								
									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	75.27	78.20	-2.93	69.44	5.83	Peak	118	355
2	5860.00	53.48	54.00	-0.52	47.64	5.84	Average	118	355
3	5860.00	72.20	74.00	-1.80	66.36	5.84	Peak	118	355
4	7726.00	45.65	54.00	-8.35	35.62	10.03	Average	100	333
5	7726.00	55.44	74.00	-18.56	45.41	10.03	Peak	100	333
6	11590.00	49.46	54.00	-4.54	33.76	15.70	Average	341	357
7	11590.00	61.84	74.00	-12.16	46.14	15.70	Peak	341	357

Note 1: Emission Level (dBuV/m) = SA Reading (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)	5670
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Vertical		

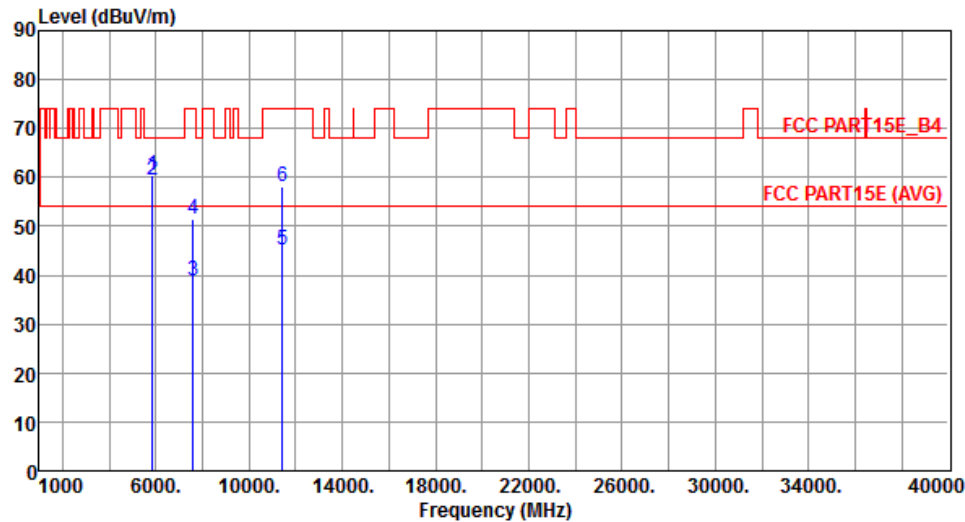


The spectrum plot shows the emission level in dBUV/m on the y-axis (0 to 90) against frequency in MHz on the x-axis (1000 to 40000). A red line represents the emission level, which is mostly below 70 dBUV/m. A blue line represents the FCC Part 15E limit, which is a constant 54 dBUV/m. Two horizontal red lines are labeled 'FCC PART15E (74)' and 'FCC PART15E (AVG)'. Six points are marked on the plot with blue vertical lines and numbered 1 through 6. Points 1, 3, and 5 are at the average level, while points 2, 4, and 6 are at the peak level.

	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	52.99	54.00	-1.01	47.26	5.73	Average	100	353
2	5725.00	72.70	74.00	-1.30	66.97	5.73	Peak	100	353
3	7560.00	43.89	54.00	-10.11	33.86	10.03	Average	153	352
4	7560.00	54.25	74.00	-19.75	44.22	10.03	Peak	153	352
5	11340.00	46.34	54.00	-7.66	30.52	15.82	Average	100	288
6	11340.00	60.20	74.00	-13.80	44.38	15.82	Peak	100	288

Note 1: Emission Level (dBUV/m) = SA Reading (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)	5710
Polarization	Horizontal		



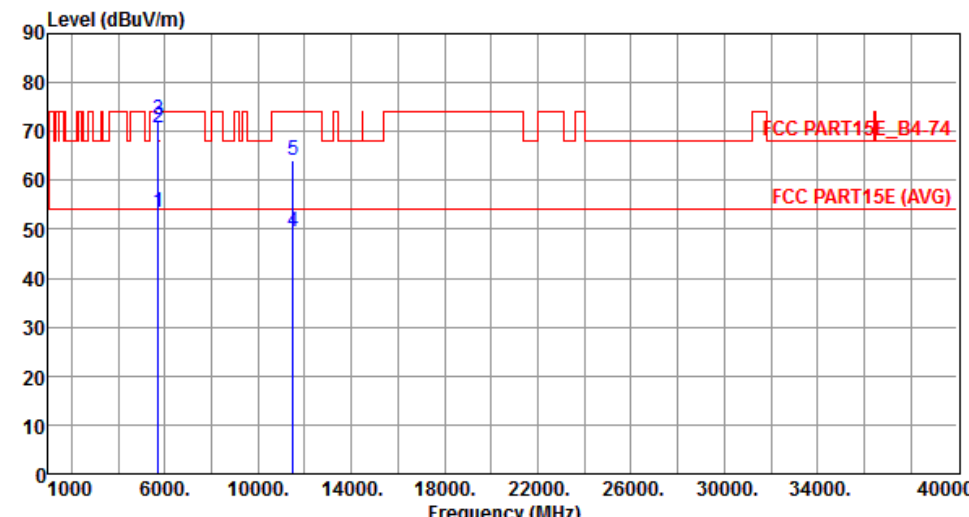
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	60.36	78.20	-17.84	54.53	5.83	Peak	149	343
2	5860.00	59.50	68.20	-8.70	53.66	5.84	Peak	149	343
3	7613.00	38.85	54.00	-15.15	28.73	10.12	Average	155	222
4	7613.00	51.35	74.00	-22.65	41.23	10.12	Peak	155	222
5	11420.00	45.18	54.00	-8.82	29.31	15.87	Average	155	168
6	11420.00	58.15	74.00	-15.85	42.28	15.87	Peak	155	168

Note 1: Emission Level (dBUV/m) = SA Reading (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)	5710
Polarization	Vertical		
Level (dBuV/m)			

Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		
Level (dBuV/m) <			

Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		

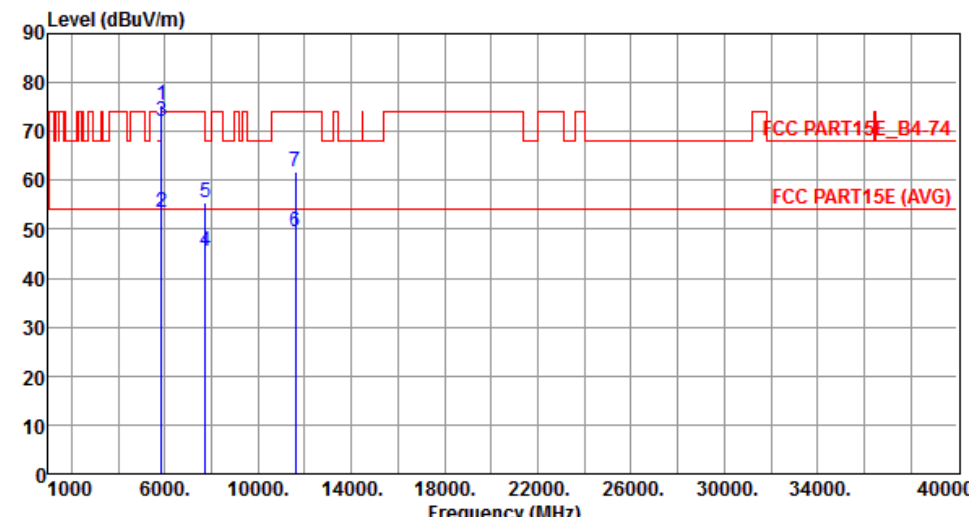


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	53.38	54.00	-0.62	47.63	5.75	Average	100	353
2	5715.00	70.76	74.00	-3.24	65.01	5.75	Peak	100	353
3	5725.00	72.33	78.20	-5.87	66.60	5.73	Peak	100	353
4	11510.00	49.55	54.00	-4.45	33.64	15.91	Average	330	340
5	11510.00	64.11	74.00	-9.89	48.20	15.91	Peak	330	340

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

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical		

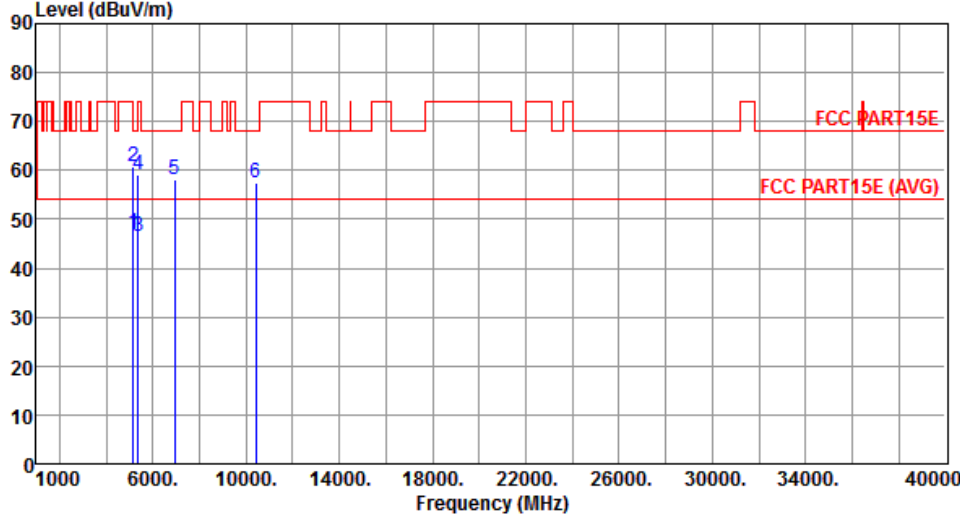


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	75.27	78.20	-2.93	69.44	5.83	Peak	118	355
2	5860.00	53.48	54.00	-0.52	47.64	5.84	Average	118	355
3	5860.00	72.20	74.00	-1.80	66.36	5.84	Peak	118	355
4	7726.00	45.65	54.00	-8.35	35.62	10.03	Average	100	333
5	7726.00	55.44	74.00	-18.56	45.41	10.03	Peak	100	333
6	11590.00	49.46	54.00	-4.54	33.76	15.70	Average	341	357
7	11590.00	61.84	74.00	-12.16	46.14	15.70	Peak	341	357

Note 1: Emission Level (dBUV/m) = SA Reading (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

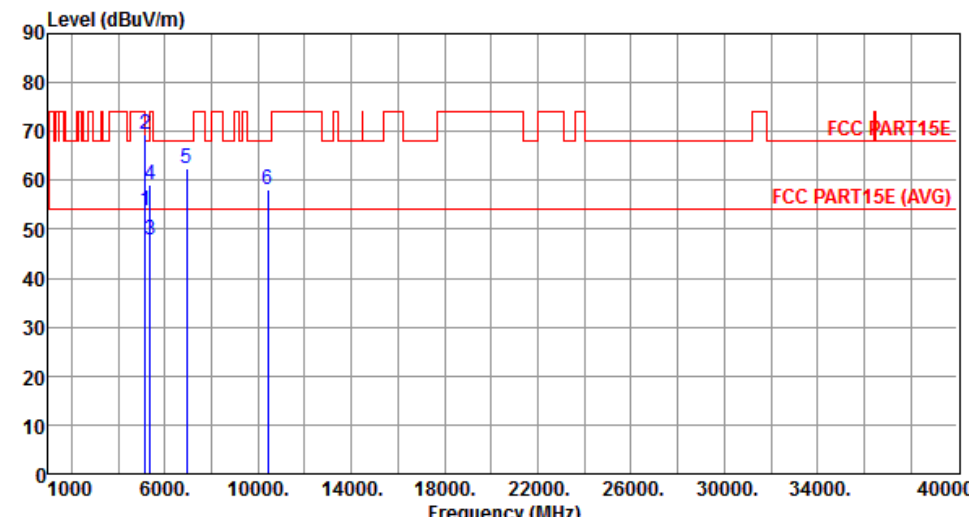
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal		



	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	47.23	54.00	-6.77	41.68	5.55	Average	110	344
2	5150.00	60.76	74.00	-13.24	55.21	5.55	Peak	110	344
3	5350.00	46.42	54.00	-7.58	40.75	5.67	Average	110	344
4	5350.00	59.04	74.00	-14.96	53.37	5.67	Peak	110	344
5	6946.00	58.06	68.20	-10.14	49.64	8.42	Peak	112	351
6	10420.00	57.33	68.20	-10.87	41.68	15.65	Peak	160	222

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

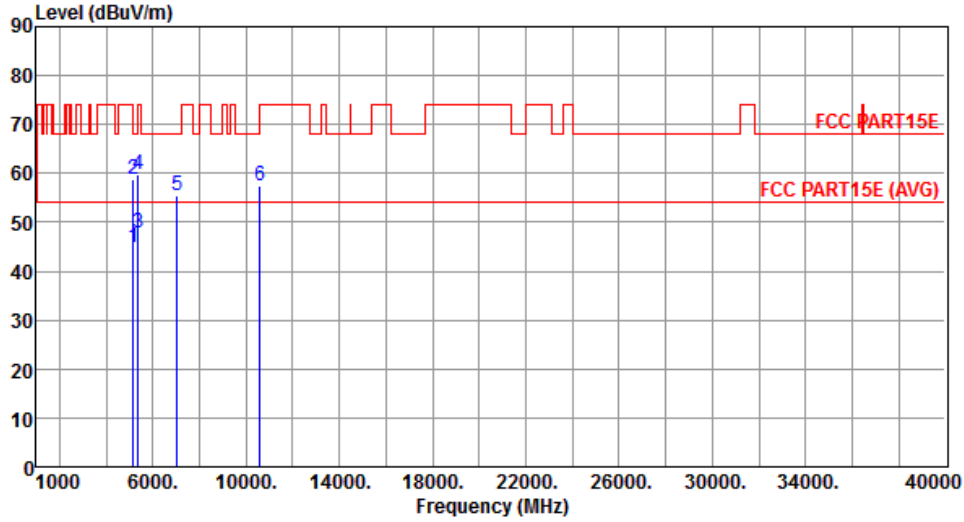
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	53.80	54.00	-0.20	48.25	5.55	Average	117	303
2	5150.00	69.50	74.00	-4.50	63.95	5.55	Peak	117	303
3	5350.00	47.98	54.00	-6.02	42.31	5.67	Average	117	315
4	5350.00	59.10	74.00	-14.90	53.43	5.67	Peak	117	315
5	6946.00	62.54	68.20	-5.66	54.12	8.42	Peak	122	10
6	10420.00	58.28	68.20	-9.92	42.63	15.65	Peak	210	168

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

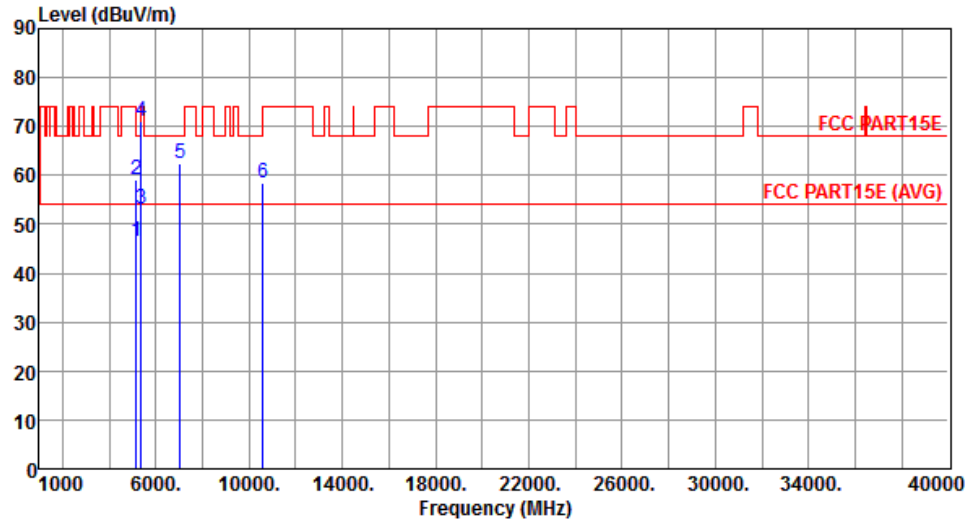
Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.76	54.00	-9.24	39.21	5.55	Average	100	345
2	5150.00	58.82	74.00	-15.18	53.27	5.55	Peak	100	345
3	5350.00	47.90	54.00	-6.10	42.23	5.67	Average	100	345
4	5350.00	59.91	74.00	-14.09	54.24	5.67	Peak	100	345
5	7053.00	55.54	68.20	-12.66	46.84	8.70	Peak	100	335
6	10580.00	57.33	68.20	-10.87	41.44	15.89	Peak	100	335

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

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical		



	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
	MHz	level	dBuV/m	dB	reading	dB		High	Table
								cm	deg
1	5150.00	46.48	54.00	-7.52	40.93	5.55	Average	100	184
2	5150.00	59.00	74.00	-15.00	53.45	5.55	Peak	100	184
3	5350.00	53.21	54.00	-0.79	47.54	5.67	Average	100	184
4	5350.00	71.06	74.00	-2.94	65.39	5.67	Peak	100	184
5	7053.00	62.37	68.20	-5.83	53.67	8.70	Peak	100	345
6	10580.00	58.54	68.20	-9.66	42.65	15.89	Peak	100	345

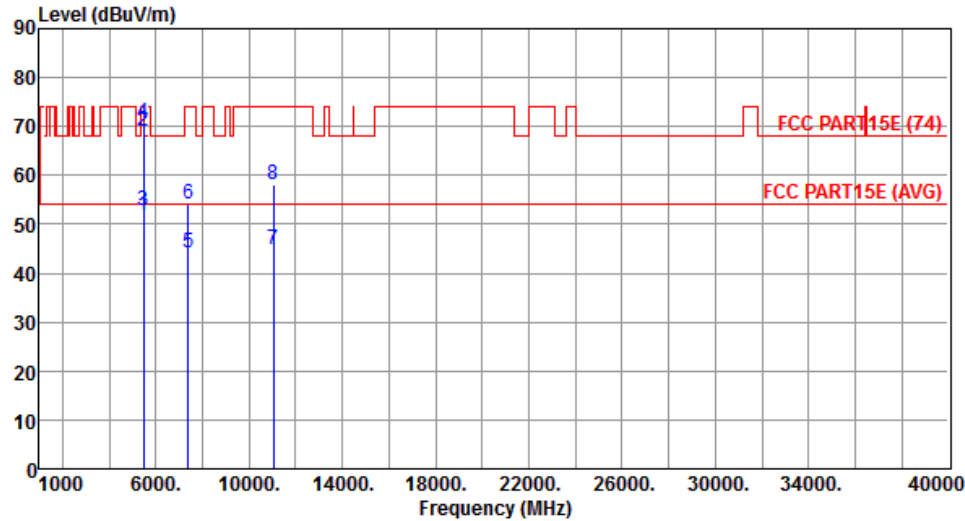
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	51.74	54.00	-2.26	46.02	5.72	Average	100	20
2	5460.00	69.13	74.00	-4.87	63.41	5.72	Peak	100	20
3	5470.00	52.95	54.00	-1.05	47.23	5.72	Average	100	20
4	5470.00	70.81	74.00	-3.19	65.09	5.72	Peak	100	20
5	7373.00	44.24	54.00	-9.76	34.65	9.59	Average	180	320
6	7373.00	54.30	74.00	-19.70	44.71	9.59	Peak	180	320
7	11060.00	44.84	54.00	-9.16	29.22	15.62	Average	260	180
8	11060.00	58.25	74.00	-15.75	42.63	15.62	Peak	260	180

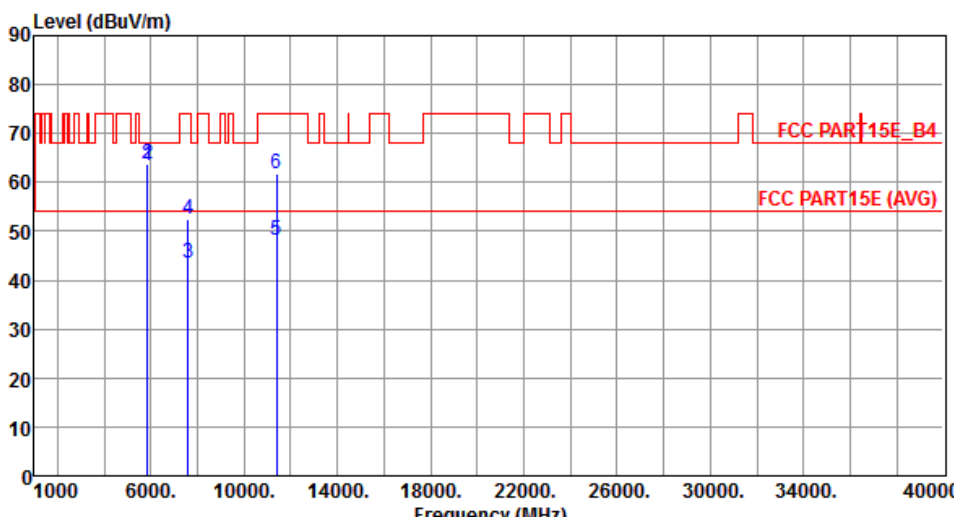
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT80	Test Freq. (MHz)	5610
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT80	Test Freq. (MHz)	5610
Polarization	Vertical		
Level (dBuV/m) </			

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	63.29	78.20	-14.91	57.46	5.83	Peak	101	347
2	5860.00	63.81	68.20	-4.39	57.97	5.84	Peak	101	347
3	7586.00	43.42	54.00	-10.58	33.33	10.09	Average	122	340
4	7586.00	52.63	74.00	-21.37	42.54	10.09	Peak	122	340
5	11380.00	48.11	54.00	-5.89	32.27	15.84	Average	347	346
6	11380.00	61.71	74.00	-12.29	45.87	15.84	Peak	347	346

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		
Level (dBUV/m)			

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Vertical		
Level (dBuV/m) </			

3.6 Frequency Stability

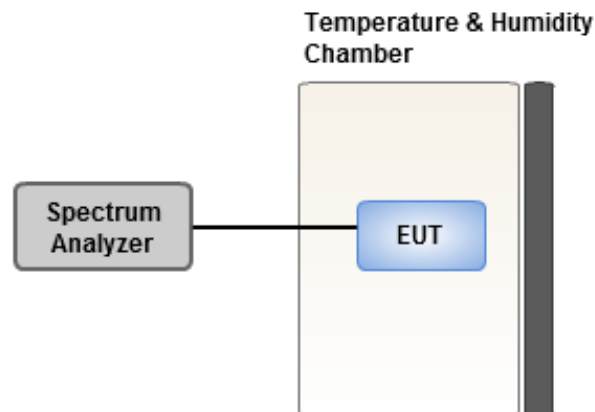
3.6.1 Limit of Frequency Stability

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

3.6.2 Test Procedures

1. The EUT is installed in an environment test chamber with external power source.
2. Set the chamber to operate at 50 centigrade and external power source to output at nominal voltage of EUT.
3. A sufficient stabilization period at each temperature is used prior to each frequency measurement.
4. When temperature is stabled, measure the frequency stability.
5. The test shall be performed under -30 to 50 centigrade and 85 to 115 percent of the nominal voltage. Change setting of chamber and external power source to complete all conditions.

3.6.3 Test Setup



3.6.4 Test Result of Frequency Stability

Frequency: 5320 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°C Vmax	0.26	0.32	-0.06	0.01
T20°C Vmin	0.50	0.89	0.95	0.79
T50°C Vnom	0.47	0.38	0.52	0.13
T40°C Vnom	0.01	0.44	0.36	0.52
T30°C Vnom	0.77	0.91	0.84	0.97
T20°C Vnom	-0.16	0.24	0.30	0.54
T10°C Vnom	1.51	1.16	0.88	1.33
T0°C Vnom	-0.07	-0.21	0.26	0.30
T-10°C Vnom	0.13	0.85	0.25	1.05
T-20°C Vnom	0.87	0.33	1.16	0.31
T-30°C Vnom	-0.04	0.63	0.32	0.48
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

Frequency: 5785 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°C Vmax	6.00	5.68	5.80	5.75
T20°C Vmin	5.13	4.92	4.44	4.79
T50°C Vnom	4.66	5.34	4.85	5.34
T40°C Vnom	4.41	4.45	3.83	4.75
T30°C Vnom	4.71	4.45	4.52	4.43
T20°C Vnom	3.94	4.11	3.30	3.80
T10°C Vnom	3.34	4.05	3.00	3.14
T0°C Vnom	3.29	3.06	3.55	3.45
T-10°C Vnom	1.60	1.70	1.45	2.20
T-20°C Vnom	2.07	1.93	2.04	1.73
T-30°C Vnom	2.66	2.23	2.86	2.66
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

4 Test laboratory information

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

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

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

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Hsien 333, Taiwan, R.O.C.

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

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Email: ICC_Service@icertifi.com.tw

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