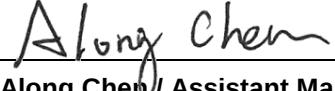


FCC Test Report

FCC ID : I88WAC6303D-S
Equipment : 802.11ac Wave 2 Dual-Radio Unified Pro
Access Point
Model No. : WAC6303D-S
Multiple Listing : Refer to item 1.1.1 for more details
Brand Name : ZYXEL
Applicant : Zyxel Communications Corporation
Address : No.2 Industry East RD. IX, Hsinchu Science
Park, Hsinchu 30075, Taiwan, R.O.C.
Standard : 47 CFR FCC Part 15.407
Received Date : Jun. 22, 2017
Tested Date : Sep. 13 ~ Oct. 06, 2017

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

Reviewed by:


Along Chen / Assistant Manager

Approved by:

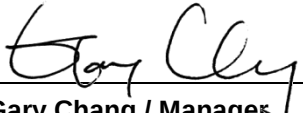

Gary Chang / Manager



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Release Record

Report No.	Version	Description	Issued Date
FR762203AN	Rev. 01	Initial issue	Nov. 13, 2017

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.561MHz 38.72 (Margin -7.28dB) - AV	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5650.00MHz 68.09 (Margin -0.11dB) - PK	Pass
15.407(a)	Emission Bandwidth	Refer to FR762202AN	Pass
15.407(e)	6dB bandwidth	Refer to FR762202AN	Pass
15.407(a)	RF Output Power	Refer to FR762202AN	Pass
15.407(a)	Peak Power Spectral Density	Refer to FR762202AN	Pass
15.407(g)	Frequency Stability	Refer to FR762202AN	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

1 General Description

1.1 Information

1.1.1 Product Details

The following models are provided to this EUT.

Brand Name	Model Name	Product Name
ZYXEL	WAC6303D-S	802.11ac Wave 2 Dual-Radio Unified Pro Access Point
	NWA1123-AC SHD	802.11ac Wave 2 Dual-Radio Nebula Cloud Managed Access Point
✦ All models are electrically identical, different model names are for marketing purpose. ✦ The above models, model WAC6303D-S was selected as a representative one for the final test and only its data was recorded in this report.		

1.1.2 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS
5150-5250	a	5180-5240	36-48 [4]	3	6-54 Mbps
5150-5250	n (HT20)	5180-5240	36-48 [4]	3	MCS 0-23
5150-5250	n (HT40)	5190-5230	38-46 [2]	3	MCS 0-23
5150-5250	ac (VHT20)	5180-5240	36-48 [4]	3	MCS 0-9
5150-5250	ac (VHT40)	5190-5230	38-46 [2]	3	MCS 0-9
5150-5250	ac (VHT80)	5210	42 [1]	3	MCS 0-9
5725-5850	a	5745-5825	149-165 [5]	3	6-54 Mbps
5725-5850	n (HT20)	5745-5825	149-165 [5]	3	MCS 0-23
5725-5850	n (HT40)	5755-5795	151-159 [2]	3	MCS 0-23
5725-5850	ac (VHT20)	5745-5825	149-165 [5]	3	MCS 0-9
5725-5850	ac (VHT40)	5755-5795	151-159 [2]	3	MCS 0-9
5725-5850	ac (VHT80)	5775	155 [1]	3	MCS 0-9
SW Version: V5.10(ABGL.0)b4 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: 802.11n/ac supports beamforming function.					

1.1.3 Antenna Details

Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)		
			2400~2483.5	5150~5250	5725~5850
AD32	Direction	UFL	1.12	---	---
AD32	Direction	UFL	---	1.29	1.07

1.1.4 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	From AC adapter: 12Vdc From PoE: 54Vdc
--------------------------	---

1.1.5 Accessories

N/A

1.1.6 Channel List

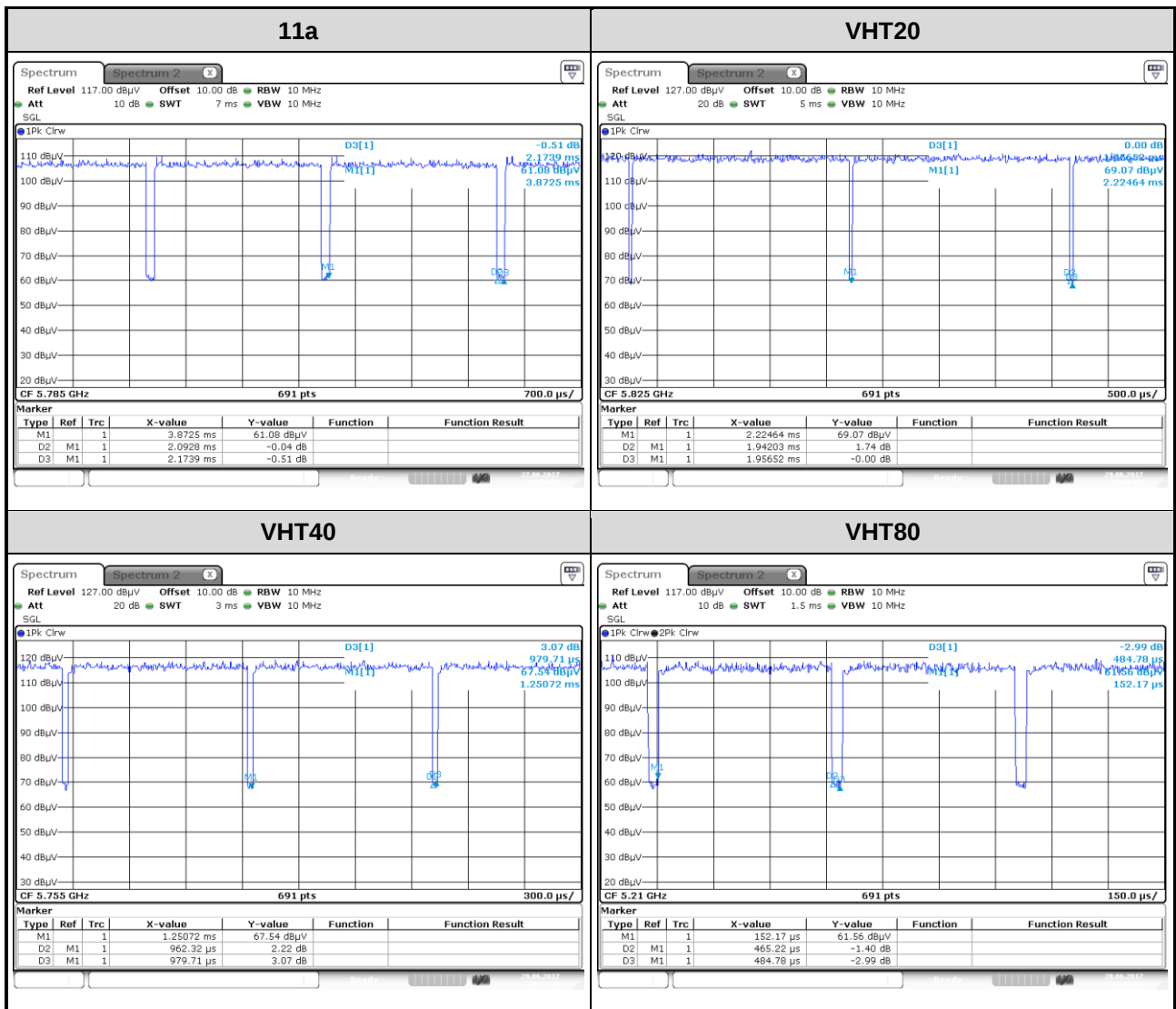
For Frequency band 5150-5250 MHz			
802.11 a / HT20 / VHT20		HT40 / VHT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	VHT80	
48	5240	42	5210

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

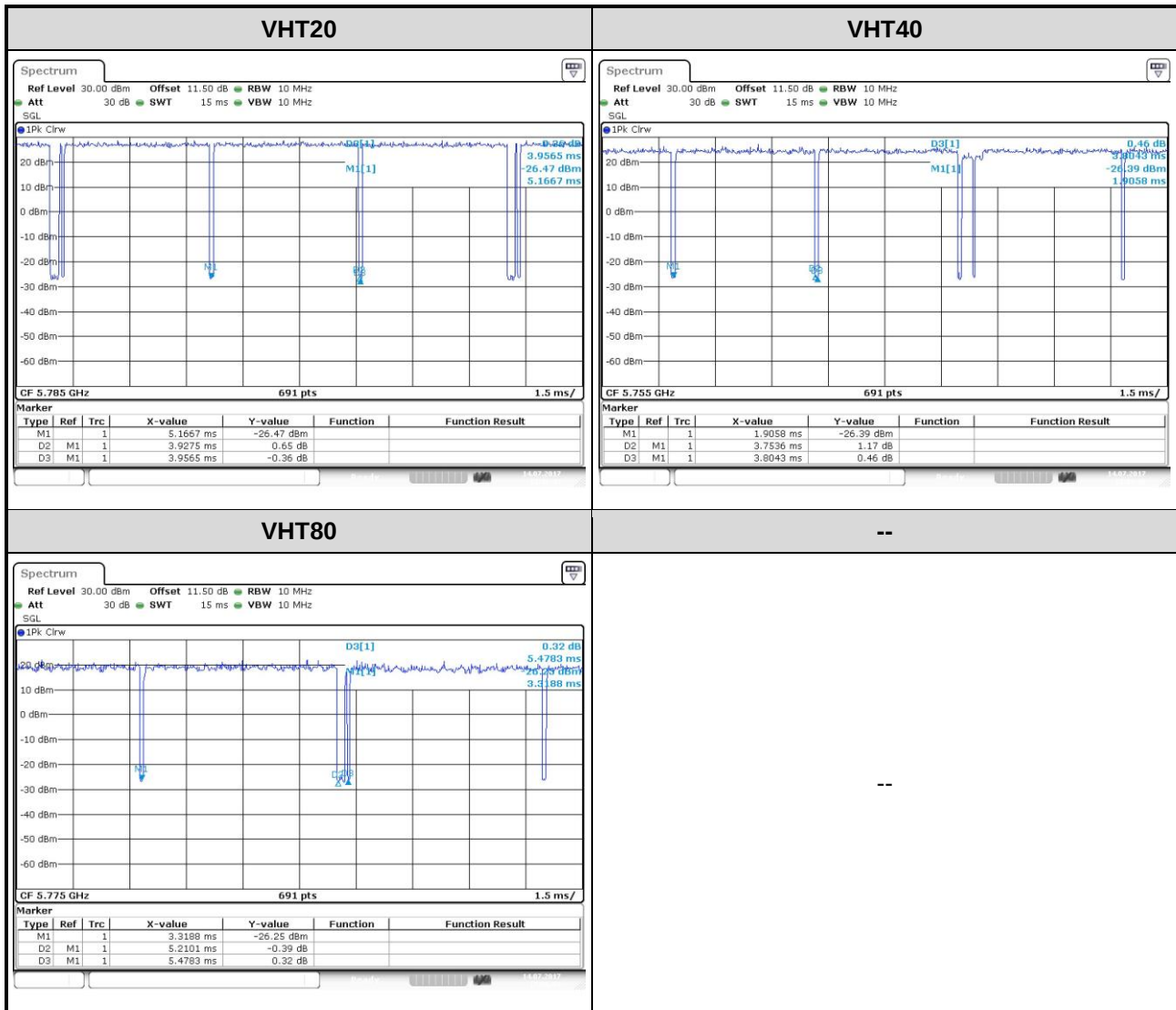
1.1.7 Test Tool and Duty Cycle

Test Tool	putty, V0.6				
Duty Cycle and Duty Factor	Mode	Non-beamforming		Beamforming	
		Duty cycle (%)	Duty factor (dB)	Duty cycle (%)	Duty factor (dB)
	11a	96.27%	0.17	---	---
	VHT20	99.26%	0.03	99.27%	0.03
	VHT40	98.22%	0.08	98.67%	0.06
	VHT80	95.97%	0.18	95.10%	0.22

Non-beamforming mode



Beamforming mode



1.2 Local Support Equipment List

Non-beamforming mode

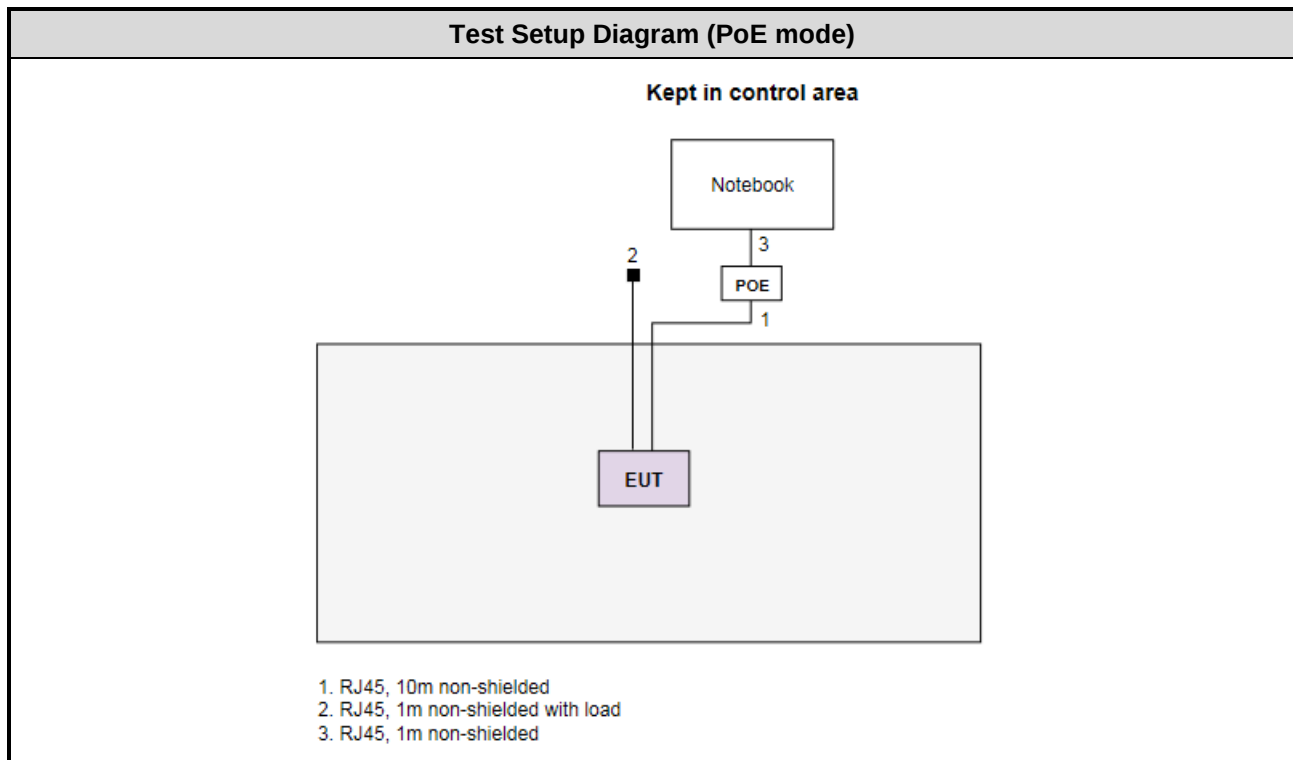
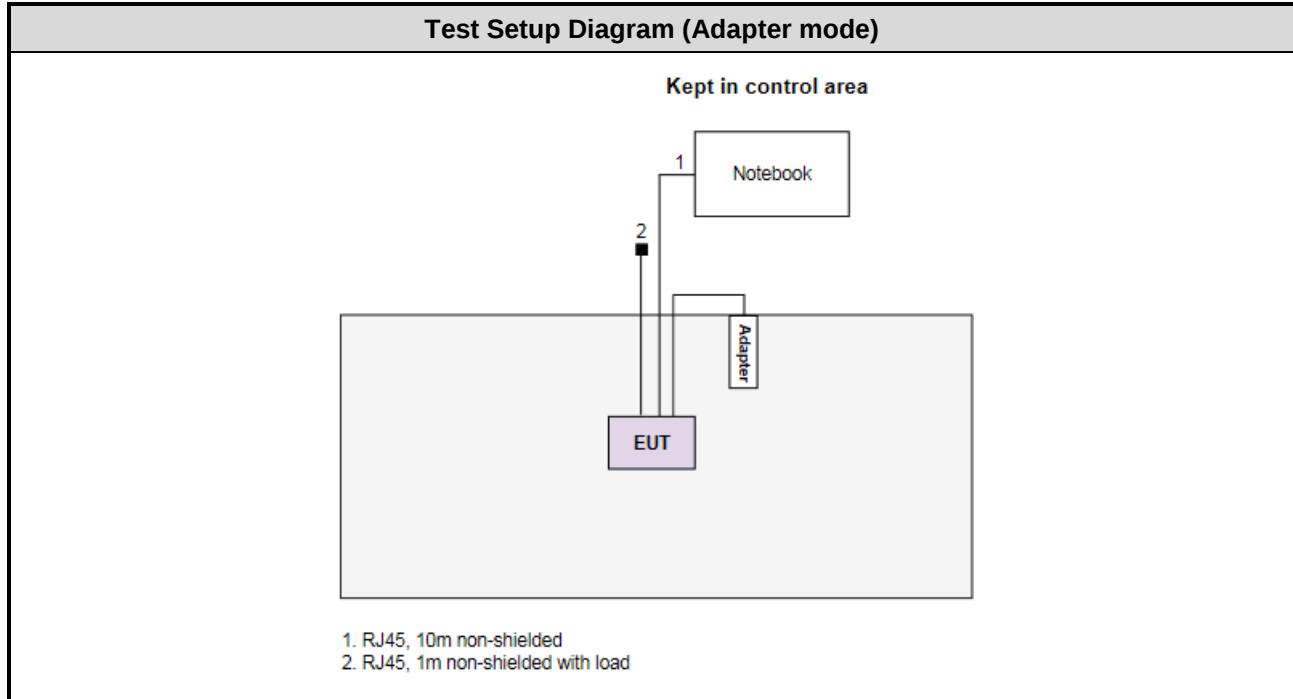
Support Equipment List					
No.	Equipment	Brand	Model	S/N	Signal cable / Length (m)
1	Notebook	DELL	Latitude E6430	9ZFB4X1	RJ45, 10m non-shielded.
2	POE	ZYXEL	GS1900-8HP	---	---
3	Adapter	APD	WA-24Q12R	---	---

Beamforming mode

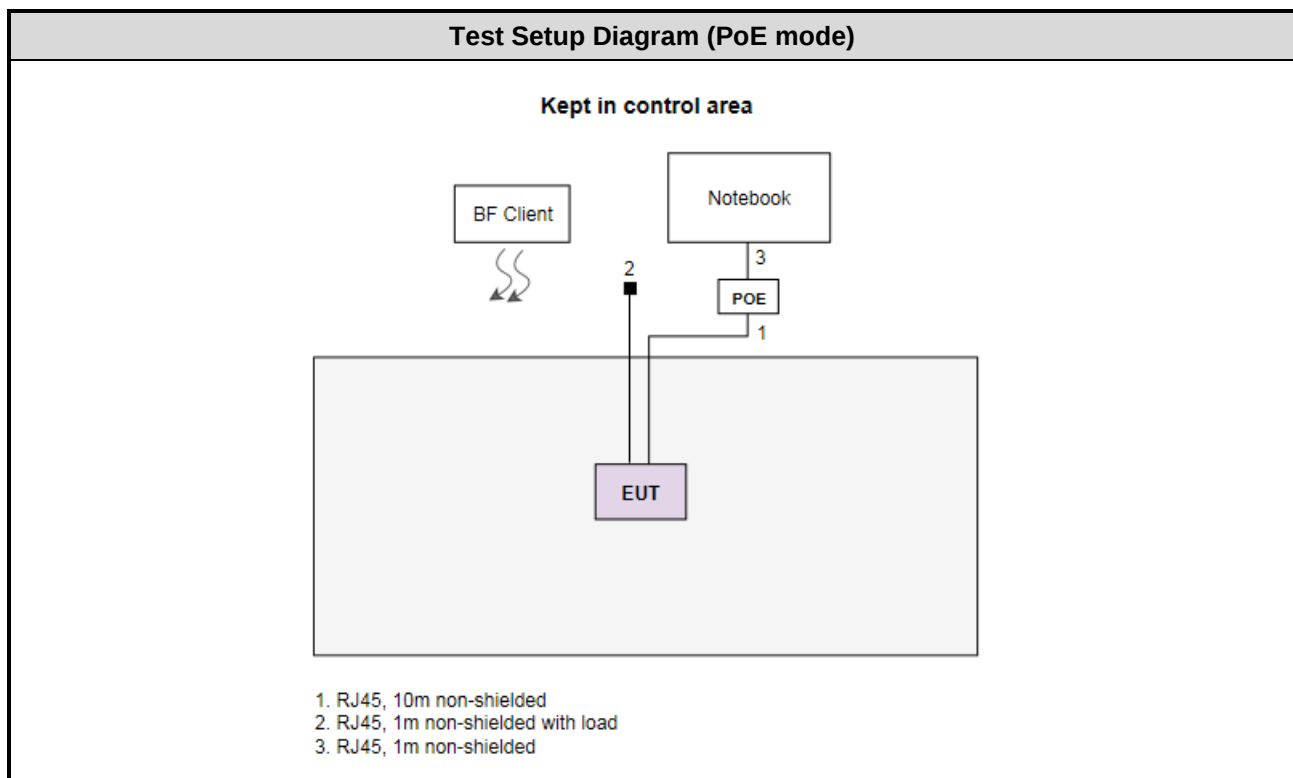
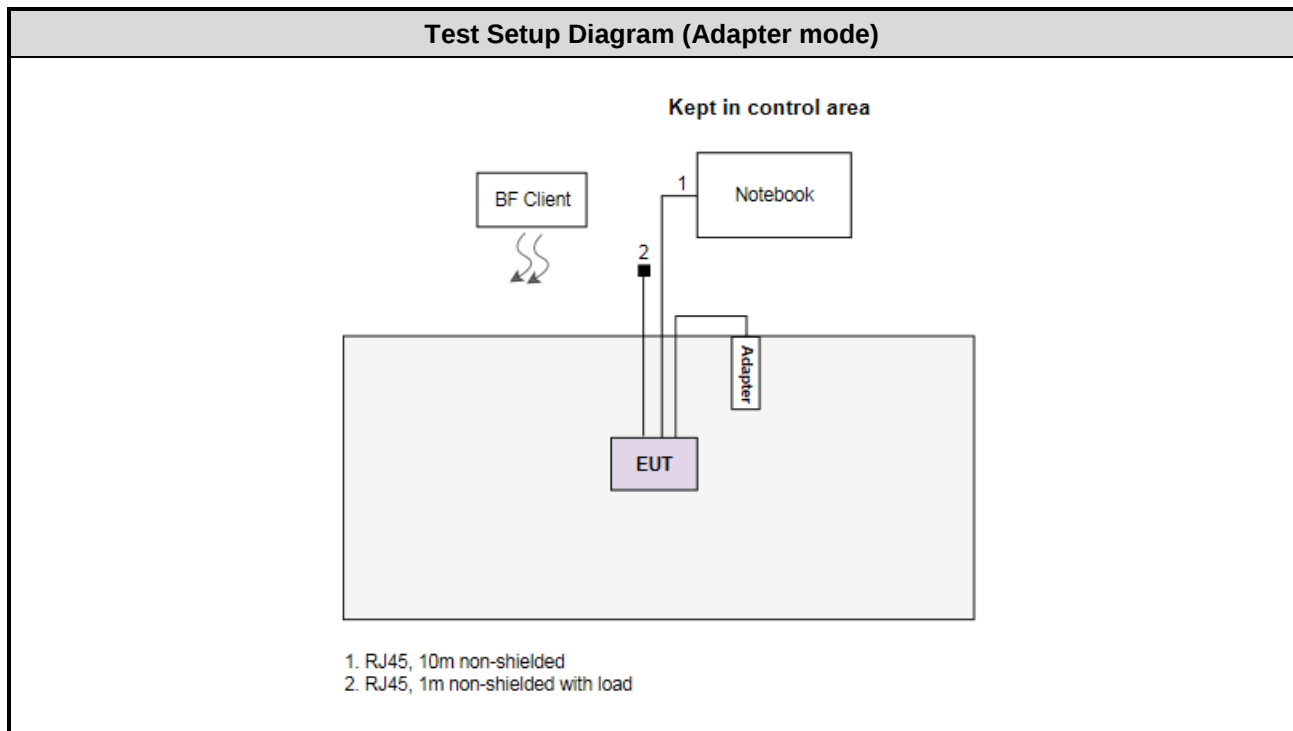
Support Equipment List					
No.	Equipment	Brand	Model	S/N	Signal cable / Length (m)
1	Notebook	DELL	Latitude E6430	9ZFB4X1	RJ45, 10m non-shielded.
2	Client	ASUS	PCE-AC68	---	---
3	POE	ZYXEL	GS1900-8HP	---	---
4	Adapter	APD	WA-24Q12R	---	---

1.3 Test Setup Chart

Non-beamforming mode



Beamforming mode



1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Oct. 06, 2017				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101657	Dec. 21, 2016	Dec. 20, 2017
LISN	R&S	ENV216	101579	Jan. 19, 2017	Jan. 18, 2018
RF Cable-CON	EMC	EMCCFD300-BM-BM-6000	50821	Dec. 20, 2016	Dec. 19, 2017
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber 3 / (03CH03-WS)				
Tested Date	Sep. 13 ~ Sep. 28, 2017				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	ROHDE&SCHWARZ	FSV40	101486	Nov. 15, 2016	Nov. 14, 2017
Receiver	Agilent	N9038A	MY53290044	Oct. 06, 2016	Oct. 05, 2017
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-685	Apr. 28, 2017	Apr. 27, 2018
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1206	Feb. 09, 2017	Feb. 08, 2018
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Oct. 25, 2016	Oct. 24, 2017
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 10, 2016	Nov. 09, 2017
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Dec. 09, 2016	Dec. 08, 2017
Preamplifier	EMC	EMC02325	980187	Sep. 04, 2017	Sep. 03, 2018
Preamplifier	Agilent	83017A	MY53270014	Aug. 21, 2017	Aug. 20, 2018
Preamplifier	EMC	EMC184045B	980192	Aug. 22, 2017	Aug. 21, 2018
RF cable-3M	HUBER+SUHNER	SUCOFLEX104	MY22620/4	Feb. 04, 2017	Feb. 03, 2018
RF cable-8M	HUBER+SUHNER	SUCOFLEX104	MY22600/4	Feb. 04, 2017	Feb. 03, 2018
RF cable-1M	HUBER+SUHNER	SUCOFLEX104	MY22624/4	Feb. 04, 2017	Feb. 03, 2018
LF cable-0.8M	EMC	EMC8D-NM-NM-800	EMC8D-NM-NM-800-001	Feb. 04, 2017	Feb. 03, 2018
LF cable-3M	EMC	EMC8D-NM-NM-3000	131103	Feb. 04, 2017	Feb. 03, 2018
LF cable-13M	EMC	EMC8D-NM-NM-13000	131104	Feb. 04, 2017	Feb. 03, 2018
Measurement Software	AUDIX	e3	6.120210g	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 v01r04

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

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

FCC KDB 412172 D01 Determining ERP and EIRP v01r01

1.6 Measurement Uncertainty

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

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	± 34.134 Hz
Conducted power	± 0.808 dB
Frequency error	± 34.134 Hz
Power density	± 0.463 dB
Conducted emission	± 2.670 dB
AC conducted emission	± 2.90 dB
Radiated emission ≤ 1 GHz	± 3.66 dB
Radiated emission > 1 GHz	± 5.37 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	23°C / 59%	Alex Tsai
Radiated Emissions	03CH03-WS	24°C / 66-67%	Aska Huang Brad Wu

- FCC Designation No.: TW0009
- FCC site registration No.: 207696
- IC site registration No.: 10807C-1

2.2 The Worst Test Modes and Channel Details

Non-beamforming mode

For Frequency band 5150-5250 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	11a	5240	6 Mbps	1, 2
Radiated Emissions ≤1GHz	11a	5240	6 Mbps	1, 2
Radiated Emissions >1GHz	11a VHT20 VHT40 VHT80	5180 / 5200 / 5240 5180 / 5200 / 5240 5190 / 5230 5210	6 Mbps MCS 0 MCS 0 MCS 0	1
For Frequency band 5725-5850 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	VHT40	5755	MCS 0	1, 2
Radiated Emissions ≤1GHz	VHT40	5755	MCS 0	1, 2
Radiated Emissions >1GHz	11a VHT20 VHT40 VHT80	5745 / 5785 / 5825 5745 / 5785 / 5825 5755 / 5795 5775	6 Mbps MCS 0 MCS 0 MCS 0	1
NOTE: - The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The X-plane results were found as the worst case and were shown in this report. - This device can be powered by AC adapter or POE. Each power supply was selected for final testing as below configuration. - Test configuration 1: POE mode - Test configuration 2: Adapter mode				

Beamforming mode

For Frequency band 5150-5250 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	VHT20	5240	MCS 0	1, 2
Radiated Emissions ≤ 1 GHz	VHT20	5240	MCS 0	1, 2
Radiated Emissions > 1 GHz	VHT20 VHT40 VHT80	5180 / 5200 / 5240 5190 / 5230 5210	MCS 0 MCS 0 MCS 0	1
For Frequency band 5725-5850 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	VHT40	5755	MCS 0	1, 2
Radiated Emissions ≤ 1 GHz	VHT40	5755	MCS 0	1, 2
Radiated Emissions > 1 GHz	VHT20 VHT40 VHT80	5745 / 5785 / 5825 5755 / 5795 5775	MCS 0 MCS 0 MCS 0	1
NOTE: 1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The X-plane results were found as the worst case and were shown in this report. 2. This device can be powered by AC adapter or POE. Each power supply was selected for final testing as below configuration. 1) Test configuration 1: POE mode 2) Test configuration 2: Adapter mode				

3 Transmitter Test Results

3.1 Conducted Emissions

3.1.1 Limit of Conducted Emissions

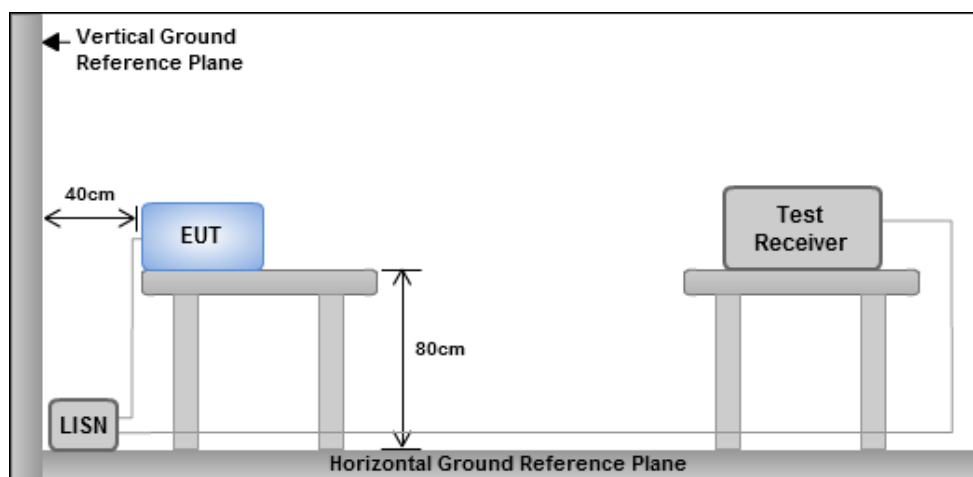
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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

3.1.2 Test Procedures

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

3.1.3 Test Setup

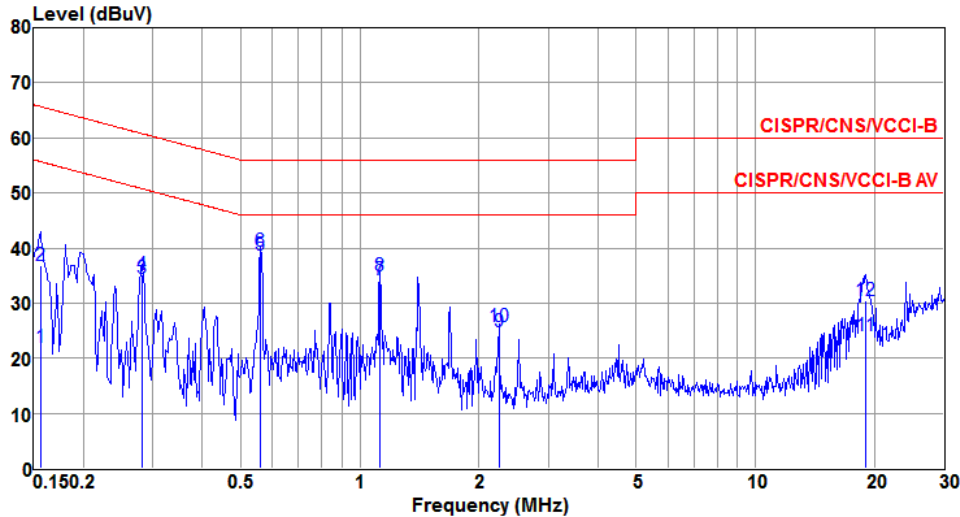


- Note: 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

Non-beamforming mode

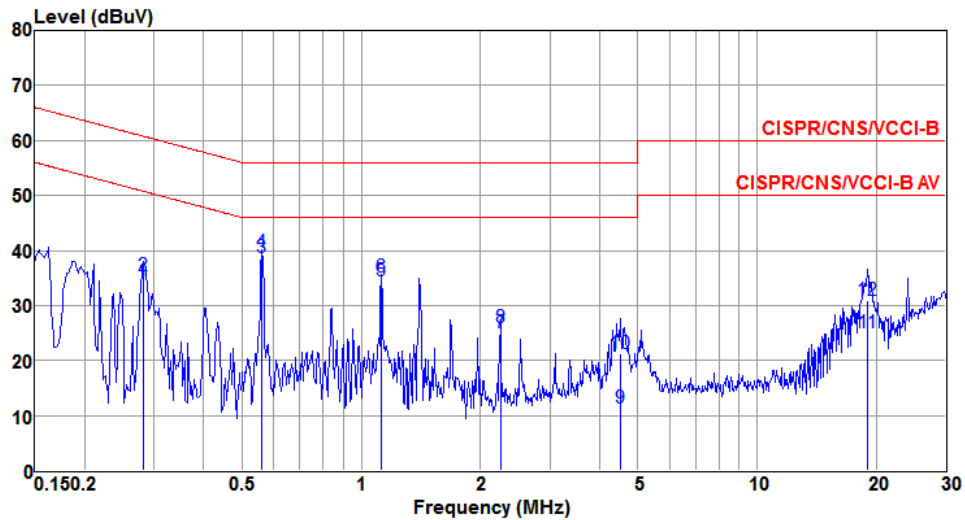
Modulation	11a	Test Freq. (MHz)	5240
Power Phase	Line	Test configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.156	21.93	55.69	-33.76	12.39	9.50	0.04	Average
2	0.156	36.89	65.69	-28.80	27.35	9.50	0.04	QP
3	0.282	34.50	50.76	-16.26	24.91	9.55	0.04	Average
4	0.282	35.18	60.76	-25.58	25.59	9.55	0.04	QP
5@	0.561	38.60	46.00	-7.40	29.01	9.55	0.04	Average
6	0.561	39.50	56.00	-16.50	29.91	9.55	0.04	QP
7	1.123	34.24	46.00	-11.76	24.71	9.49	0.04	Average
8	1.123	34.90	56.00	-21.10	25.37	9.49	0.04	QP
9	2.247	24.88	46.00	-21.12	15.21	9.61	0.06	Average
10	2.247	25.84	56.00	-30.16	16.17	9.61	0.06	QP
11	19.021	24.10	50.00	-25.90	14.14	9.71	0.25	Average
12	19.021	30.43	60.00	-29.57	20.47	9.71	0.25	QP

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

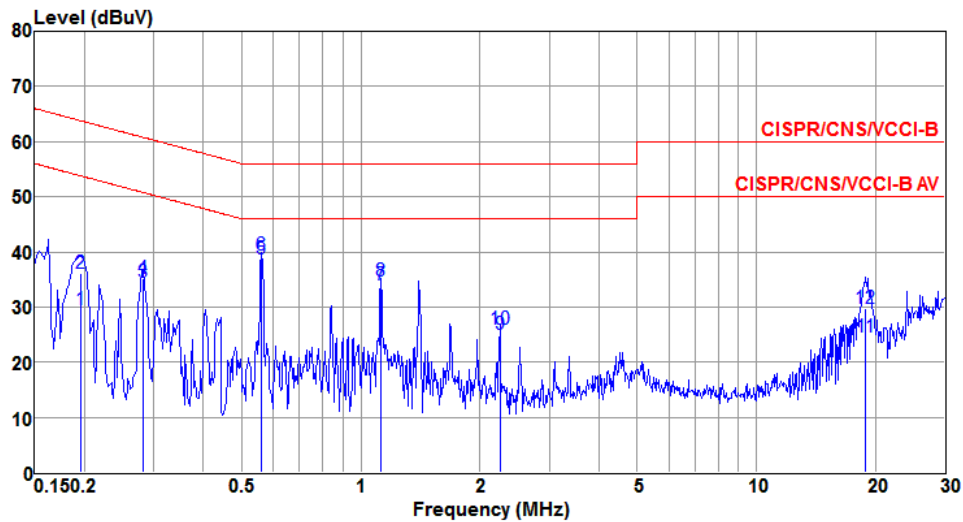
Modulation	11a	Test Freq. (MHz)	5240
Power Phase	Neutral	Test configuration	1



	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line dBuV	Limit dB	Level dBuV	factor dB	loss dB	
1	0.282	34.57	50.76	-16.19	24.96	9.57	0.04	Average
2	0.282	35.30	60.76	-25.46	25.69	9.57	0.04	QP
3	0.561	38.70	46.00	-7.30	29.07	9.59	0.04	Average
4	0.561	39.58	56.00	-16.42	29.95	9.59	0.04	QP
5	1.123	34.58	46.00	-11.42	24.89	9.65	0.04	Average
6	1.123	35.10	56.00	-20.90	25.41	9.65	0.04	QP
7	2.247	25.13	46.00	-20.87	15.52	9.55	0.06	Average
8	2.247	26.07	56.00	-29.93	16.46	9.55	0.06	QP
9	4.501	11.34	46.00	-34.66	1.46	9.71	0.17	Average
10	4.501	21.29	56.00	-34.71	11.41	9.71	0.17	QP
11	19.021	25.06	50.00	-24.94	15.09	9.72	0.25	Average
12	19.021	30.85	60.00	-29.15	20.88	9.72	0.25	QP

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

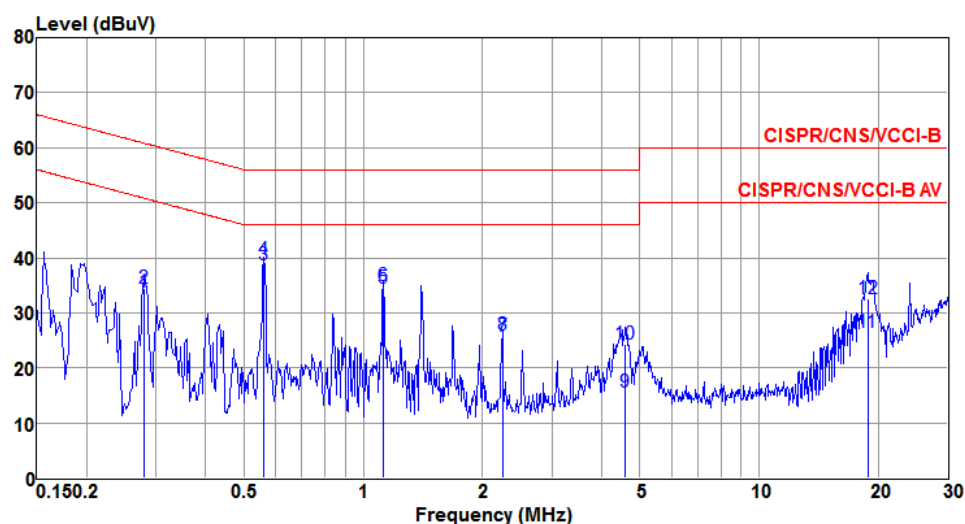
Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Line	Test configuration	1



	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line	Limit	Level	factor	loss	
			dBuV	dB	dBuV	dB	dB	
1	0.195	29.62	53.80	-24.18	20.08	9.50	0.04	Average
2	0.195	36.10	63.80	-27.70	26.56	9.50	0.04	QP
3	0.282	34.52	50.76	-16.24	24.93	9.55	0.04	Average
4	0.282	35.20	60.76	-25.56	25.61	9.55	0.04	QP
5@	0.561	38.63	46.00	-7.37	29.04	9.55	0.04	Average
6	0.561	39.50	56.00	-16.50	29.91	9.55	0.04	QP
7	1.124	33.93	46.00	-12.07	24.40	9.49	0.04	Average
8	1.124	34.78	56.00	-21.22	25.25	9.49	0.04	QP
9	2.246	24.93	46.00	-21.07	15.26	9.61	0.06	Average
10	2.246	25.91	56.00	-30.09	16.24	9.61	0.06	QP
11	18.920	24.58	50.00	-25.42	14.62	9.71	0.25	Average
12	18.920	29.73	60.00	-30.27	19.77	9.71	0.25	QP

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

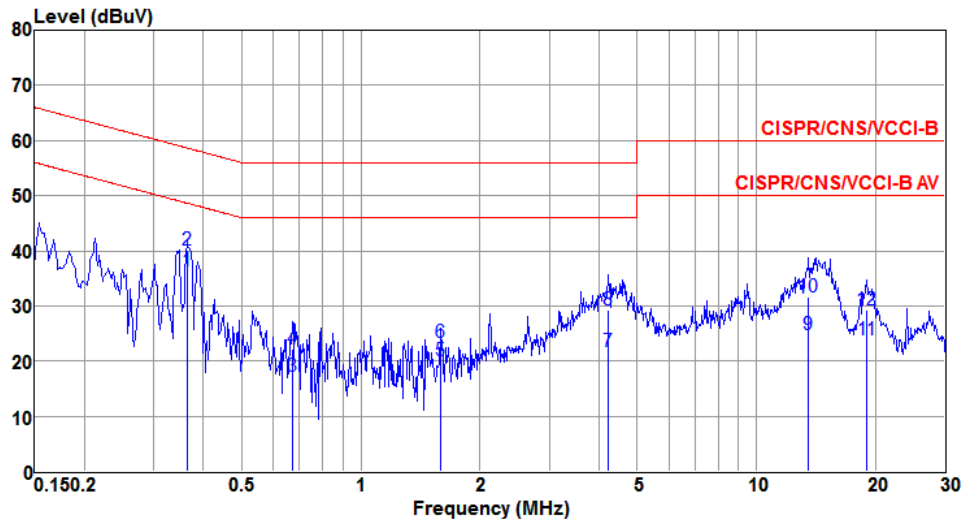
Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Neutral	Test configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.279	33.86	50.85	-16.99	24.25	9.57	0.04	Average
2	0.279	34.46	60.85	-26.39	24.85	9.57	0.04	QP
3	0.561	38.72	46.00	-7.28	29.09	9.59	0.04	Average
4	0.561	39.58	56.00	-16.42	29.95	9.59	0.04	QP
5	1.123	34.45	46.00	-11.55	24.76	9.65	0.04	Average
6	1.123	35.00	56.00	-21.00	25.31	9.65	0.04	QP
7	2.246	25.81	46.00	-20.19	16.20	9.55	0.06	Average
8	2.246	26.00	56.00	-30.00	16.39	9.55	0.06	QP
9	4.598	15.48	46.00	-30.52	5.60	9.71	0.17	Average
10	4.598	24.34	56.00	-31.66	14.46	9.71	0.17	QP
11	18.820	26.40	50.00	-23.60	16.44	9.71	0.25	Average
12	18.820	32.47	60.00	-27.53	22.51	9.71	0.25	QP

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

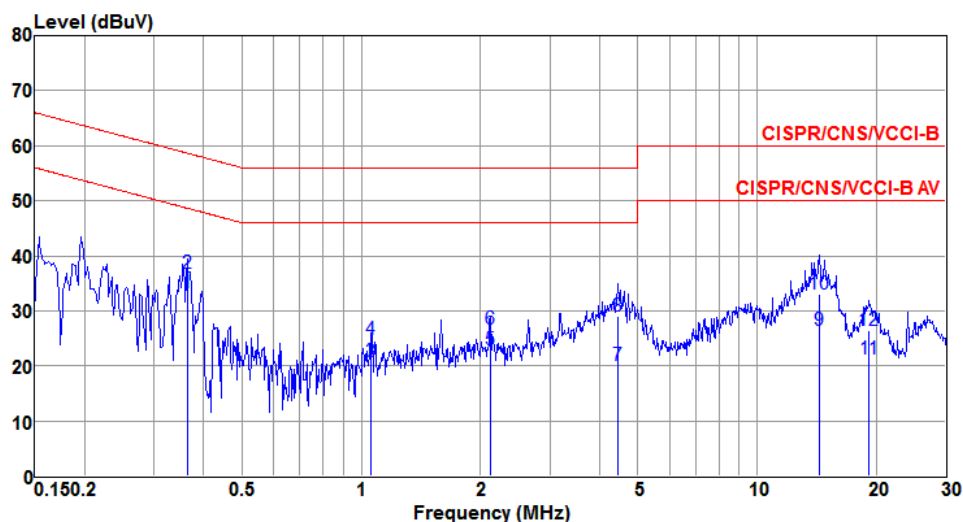
Modulation	11a	Test Freq. (MHz)	5240
Power Phase	Line	Test configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line dBuV	Limit dB	Level dBuV	factor dB	loss dB	
1@	0.363	36.46	48.65	-12.19	26.83	9.59	0.04	Average
2	0.363	40.22	58.65	-18.43	30.59	9.59	0.04	QP
3	0.672	17.31	46.00	-28.69	7.75	9.52	0.04	Average
4	0.672	22.17	56.00	-33.83	12.61	9.52	0.04	QP
5	1.593	20.15	46.00	-25.85	10.53	9.58	0.04	Average
6	1.593	23.30	56.00	-32.70	13.68	9.58	0.04	QP
7	4.224	21.82	46.00	-24.18	12.17	9.49	0.16	Average
8	4.224	29.33	56.00	-26.67	19.68	9.49	0.16	QP
9	13.535	24.78	50.00	-25.22	14.86	9.69	0.23	Average
10	13.535	31.64	60.00	-28.36	21.72	9.69	0.23	QP
11	19.021	23.81	50.00	-26.19	13.85	9.71	0.25	Average
12	19.021	29.16	60.00	-30.84	19.20	9.71	0.25	QP

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

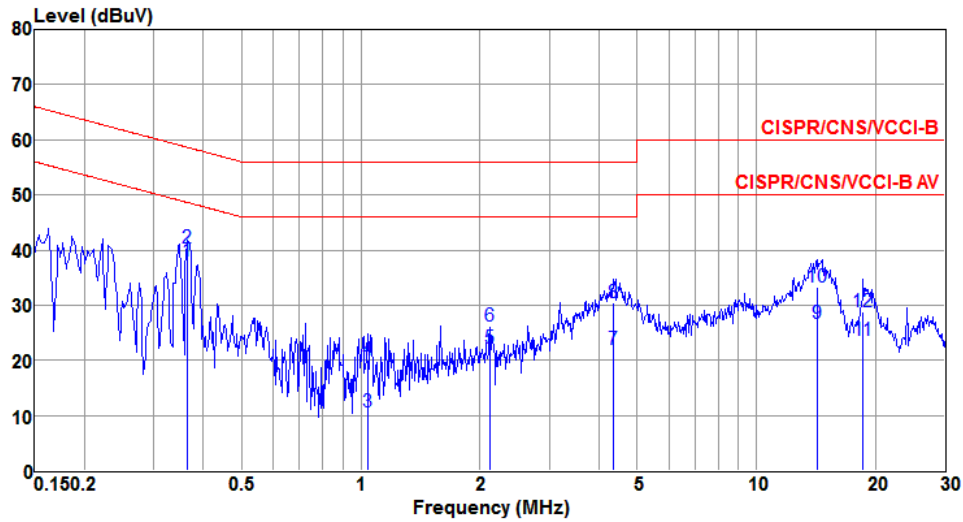
Modulation	11a	Test Freq. (MHz)	5240
Power Phase	Neutral	Test configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line dBuV	Limit dB	Level dBuV	factor dB	loss dB	Remark
10	0.363	33.25	48.65	-15.40	23.66	9.55	0.04	Average
2	0.363	36.93	58.65	-21.72	27.34	9.55	0.04	QP
3	1.060	20.82	46.00	-25.18	11.12	9.66	0.04	Average
4	1.060	24.80	56.00	-31.20	15.10	9.66	0.04	QP
5	2.118	22.99	46.00	-23.01	13.40	9.54	0.05	Average
6	2.118	26.67	56.00	-29.33	17.08	9.54	0.05	QP
7	4.454	20.04	46.00	-25.96	10.16	9.71	0.17	Average
8	4.454	28.93	56.00	-27.07	19.05	9.71	0.17	QP
9	14.364	26.53	50.00	-23.47	16.61	9.69	0.23	Average
10	14.364	33.06	60.00	-26.94	23.14	9.69	0.23	QP
11	19.224	21.22	50.00	-28.78	11.24	9.72	0.26	Average
12	19.224	26.50	60.00	-33.50	16.52	9.72	0.26	QP

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

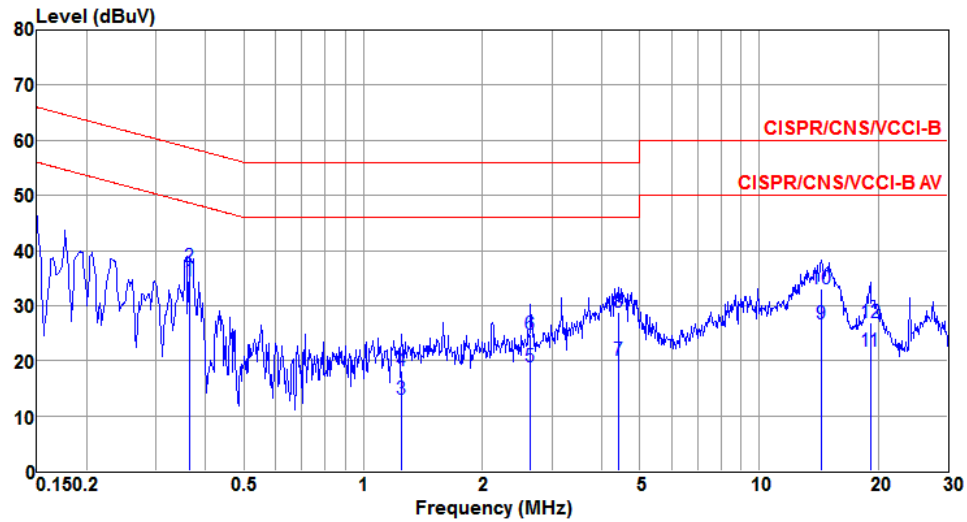
Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Line	Test configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line	Limit	Level	factor	loss	
			dBuV	dB	dBuV	dB	dB	
1@	0.365	37.97	48.61	-10.64	28.34	9.59	0.04	Average
2	0.365	40.42	58.61	-18.19	30.79	9.59	0.04	QP
3	1.043	10.72	46.00	-35.28	1.21	9.47	0.04	Average
4	1.043	19.97	56.00	-36.03	10.46	9.47	0.04	QP
5	2.121	22.30	46.00	-23.70	12.62	9.63	0.05	Average
6	2.121	26.09	56.00	-29.91	16.41	9.63	0.05	QP
7	4.338	22.05	46.00	-23.95	12.38	9.50	0.17	Average
8	4.338	30.41	56.00	-25.59	20.74	9.50	0.17	QP
9	14.288	26.79	50.00	-23.21	16.87	9.69	0.23	Average
10	14.288	33.25	60.00	-26.75	23.33	9.69	0.23	QP
11	18.622	23.57	50.00	-26.43	13.61	9.71	0.25	Average
12	18.622	28.84	60.00	-31.16	18.88	9.71	0.25	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)	5755
Power Phase	Neutral	Test configuration	2

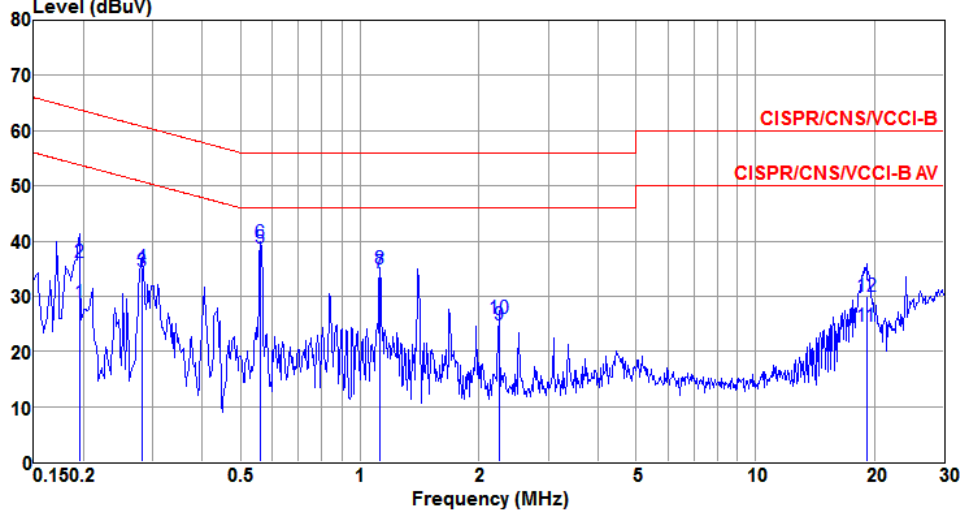


	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line	Limit	Level	factor	loss	
			dBuV	dB	dBuV	dB	dB	
10	0.365	34.44	48.61	-14.17	24.85	9.55	0.04	Average
2	0.365	37.03	58.61	-21.58	27.44	9.55	0.04	QP
3	1.249	12.91	46.00	-33.09	3.25	9.62	0.04	Average
4	1.249	18.21	56.00	-37.79	8.55	9.62	0.04	QP
5	2.641	18.82	46.00	-27.18	9.13	9.60	0.09	Average
6	2.641	24.83	56.00	-31.17	15.14	9.60	0.09	QP
7	4.430	20.06	46.00	-25.94	10.18	9.71	0.17	Average
8	4.430	28.87	56.00	-27.13	18.99	9.71	0.17	QP
9	14.364	26.60	50.00	-23.40	16.68	9.69	0.23	Average
10	14.364	33.14	60.00	-26.86	23.22	9.69	0.23	QP
11	19.122	21.67	50.00	-28.33	11.70	9.72	0.25	Average
12	19.122	26.85	60.00	-33.15	16.88	9.72	0.25	QP

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

Beamforming mode

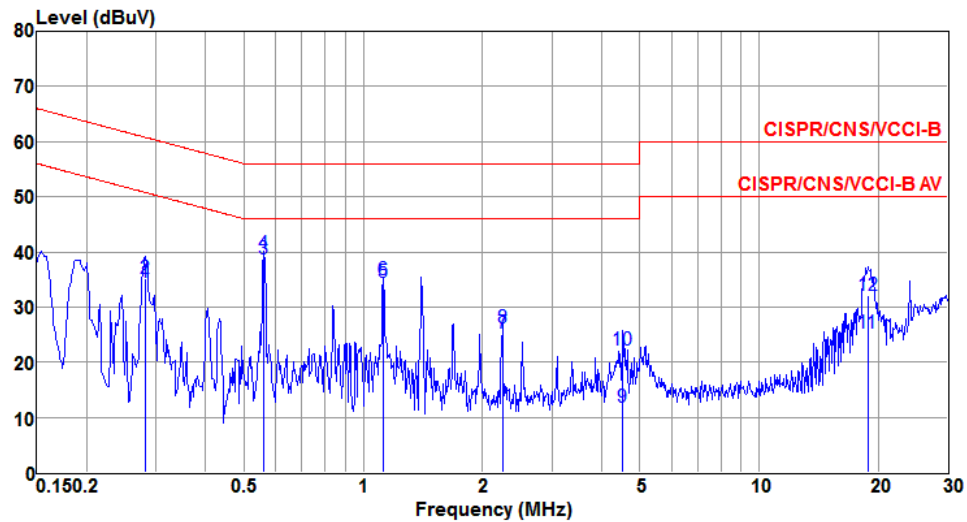
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Line	Test configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.195	28.74	53.80	-25.06	19.20	9.50	0.04	Average
2	0.195	36.06	63.80	-27.74	26.52	9.50	0.04	QP
3	0.282	34.54	50.76	-16.22	24.95	9.55	0.04	Average
4	0.282	35.28	60.76	-25.48	25.69	9.55	0.04	QP
5@	0.561	38.70	46.00	-7.30	29.11	9.55	0.04	Average
6	0.561	39.59	56.00	-16.41	30.00	9.55	0.04	QP
7	1.123	34.34	46.00	-11.66	24.81	9.49	0.04	Average
8	1.123	34.95	56.00	-21.05	25.42	9.49	0.04	QP
9	2.247	24.89	46.00	-21.11	15.22	9.61	0.06	Average
10	2.247	25.88	56.00	-30.12	16.21	9.61	0.06	QP
11	19.122	24.55	50.00	-25.45	14.59	9.71	0.25	Average
12	19.122	29.90	60.00	-30.10	19.94	9.71	0.25	QP

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

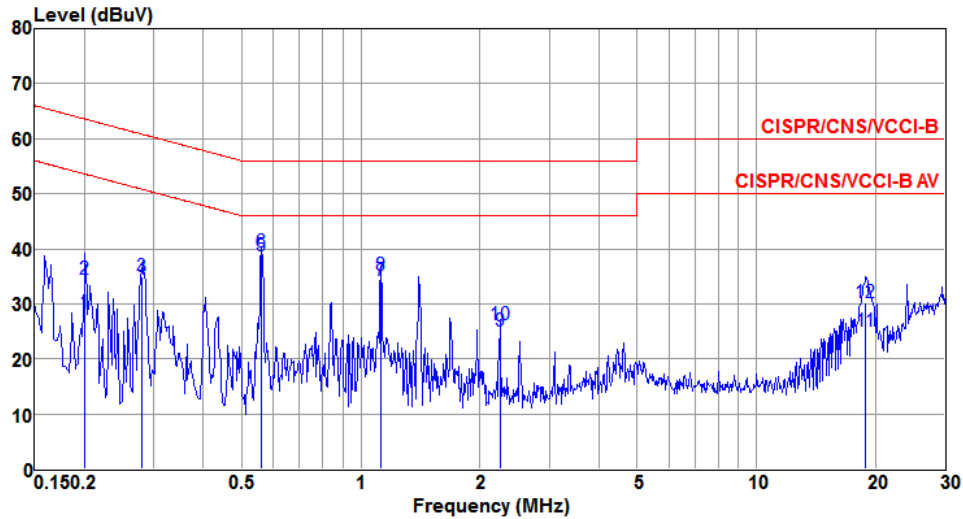
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Neutral	Test configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.282	34.55	50.76	-16.21	24.94	9.57	0.04	Average
2	0.282	35.23	60.76	-25.53	25.62	9.57	0.04	QP
3@	0.561	38.70	46.00	-7.30	29.07	9.59	0.04	Average
4	0.561	39.56	56.00	-16.44	29.93	9.59	0.04	QP
5	1.123	34.53	46.00	-11.47	24.84	9.65	0.04	Average
6	1.123	35.03	56.00	-20.97	25.34	9.65	0.04	QP
7	2.246	25.19	46.00	-20.81	15.58	9.55	0.06	Average
8	2.246	26.15	56.00	-29.85	16.54	9.55	0.06	QP
9	4.525	11.72	46.00	-34.28	1.84	9.71	0.17	Average
10	4.525	22.27	56.00	-33.73	12.39	9.71	0.17	QP
11	18.820	25.31	50.00	-24.69	15.35	9.71	0.25	Average
12	18.820	32.14	60.00	-27.86	22.18	9.71	0.25	QP

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

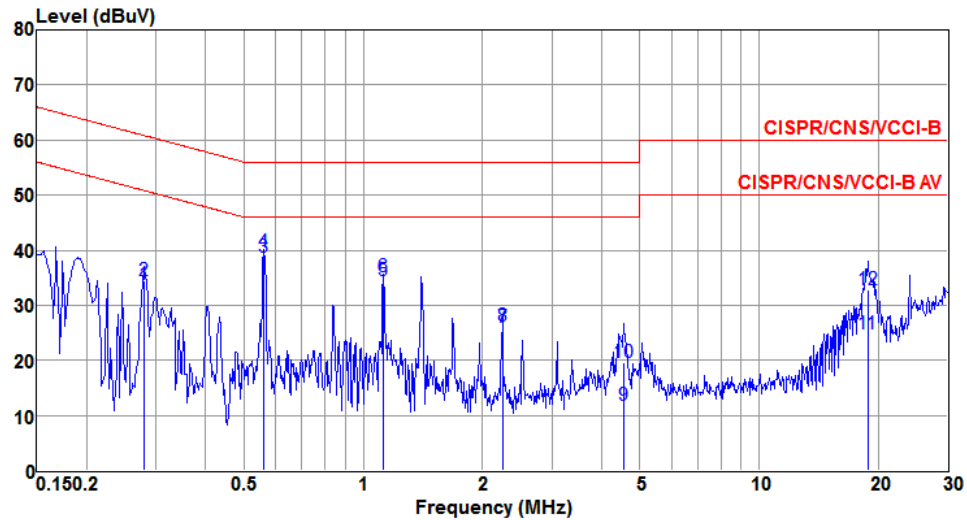
Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Line	Test configuration	1



	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1	0.201	28.31	53.58	-25.27	18.77	9.50	0.04	Average
2	0.201	34.39	63.58	-29.19	24.85	9.50	0.04	QP
3	0.279	34.83	50.85	-16.02	25.24	9.55	0.04	Average
4	0.279	34.50	60.85	-26.35	24.91	9.55	0.04	QP
5@	0.561	38.65	46.00	-7.35	29.06	9.55	0.04	Average
6	0.561	39.52	56.00	-16.48	29.93	9.55	0.04	QP
7	1.123	34.34	46.00	-11.66	24.81	9.49	0.04	Average
8	1.123	35.15	56.00	-20.85	25.62	9.49	0.04	QP
9	2.246	25.00	46.00	-21.00	15.33	9.61	0.06	Average
10	2.246	26.17	56.00	-29.83	16.50	9.61	0.06	QP
11	18.920	24.92	50.00	-25.08	14.96	9.71	0.25	Average
12	18.920	30.25	60.00	-29.75	20.29	9.71	0.25	QP

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

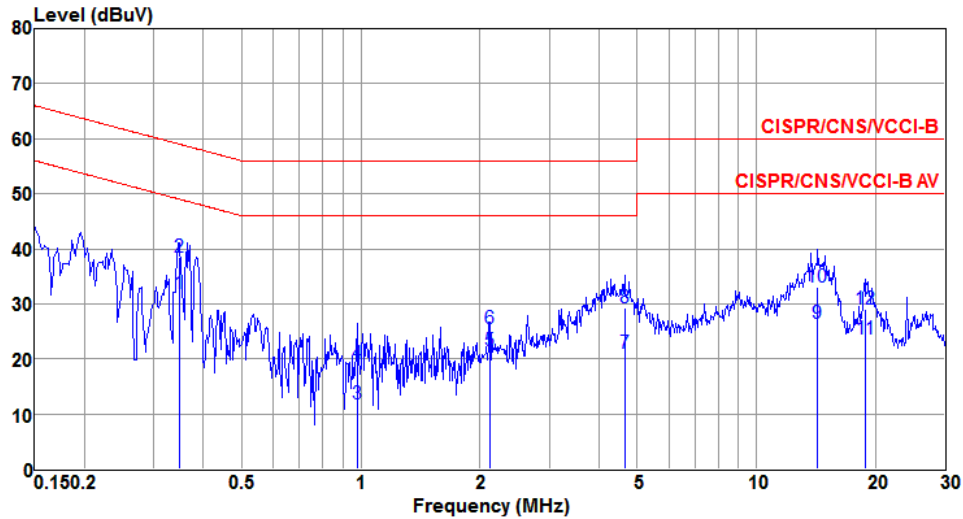
Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Neutral	Test configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.279	33.84	50.85	-17.01	24.23	9.57	0.04	Average
2	0.279	34.44	60.85	-26.41	24.83	9.57	0.04	QP
3@	0.561	38.71	46.00	-7.29	29.08	9.59	0.04	Average
4	0.561	39.56	56.00	-16.44	29.93	9.59	0.04	QP
5	1.123	34.51	46.00	-11.49	24.82	9.65	0.04	Average
6	1.123	35.07	56.00	-20.93	25.38	9.65	0.04	QP
7	2.246	26.07	46.00	-19.93	16.46	9.55	0.06	Average
8	2.246	26.11	56.00	-29.89	16.50	9.55	0.06	QP
9	4.549	11.81	46.00	-34.19	1.93	9.71	0.17	Average
10	4.549	19.65	56.00	-36.35	9.77	9.71	0.17	QP
11	18.820	24.73	50.00	-25.27	14.77	9.71	0.25	Average
12	18.820	32.77	60.00	-27.23	22.81	9.71	0.25	QP

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

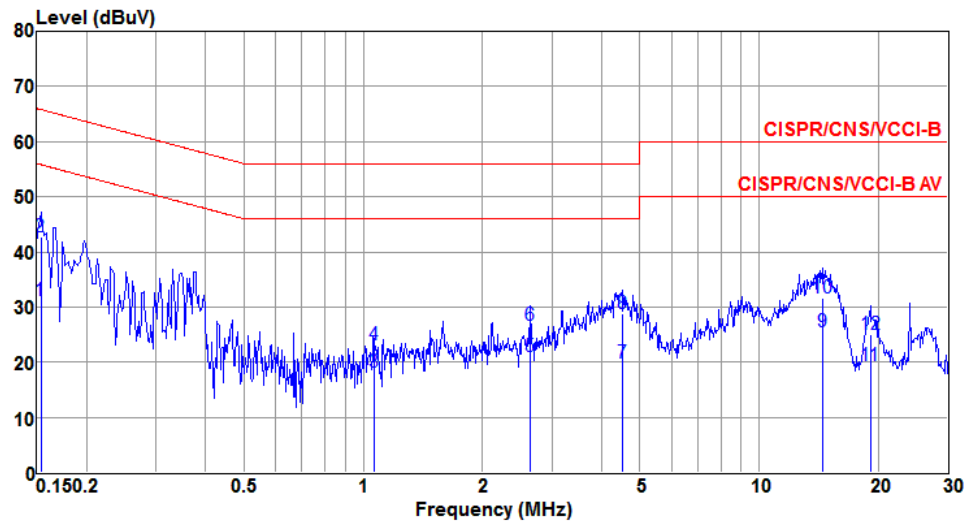
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Line	Test configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
10	0.348	31.96	49.00	-17.04	22.34	9.58	0.04	Average
2	0.348	38.52	59.00	-20.48	28.90	9.58	0.04	QP
3	0.979	11.71	46.00	-34.29	2.21	9.46	0.04	Average
4	0.979	19.09	56.00	-36.91	9.59	9.46	0.04	QP
5	2.121	21.60	46.00	-24.40	11.92	9.63	0.05	Average
6	2.121	25.59	56.00	-30.41	15.91	9.63	0.05	QP
7	4.647	21.04	46.00	-24.96	11.36	9.51	0.17	Average
8	4.647	29.24	56.00	-26.76	19.56	9.51	0.17	QP
9	14.288	26.56	50.00	-23.44	16.64	9.69	0.23	Average
10	14.288	33.13	60.00	-26.87	23.21	9.69	0.23	QP
11	18.920	23.63	50.00	-26.37	13.67	9.71	0.25	Average
12	18.920	29.13	60.00	-30.87	19.17	9.71	0.25	QP

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

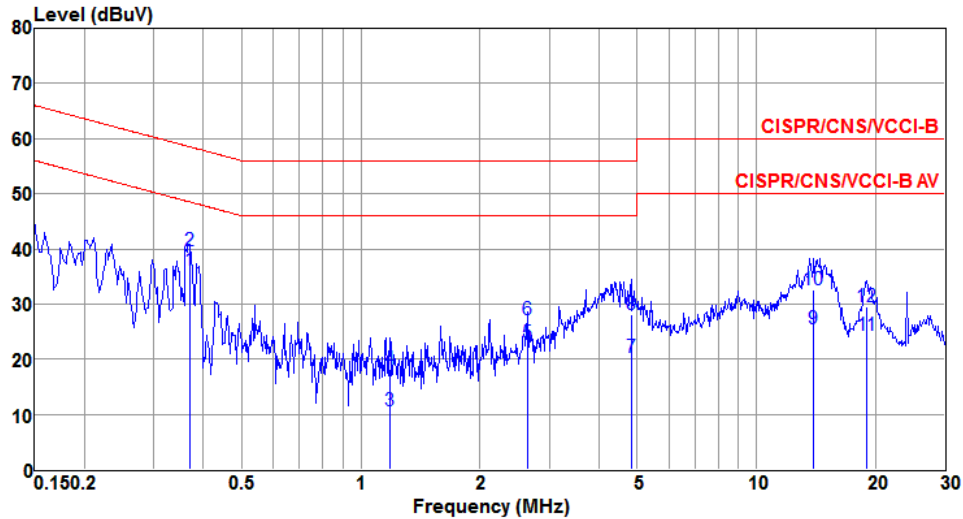
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Neutral	Test configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line dBuV	Limit dB	Level dBuV	factor dB	loss dB	
1	0.153	31.16	55.82	-24.66	21.54	9.58	0.04	Average
2	0.153	42.84	65.82	-22.98	33.22	9.58	0.04	QP
3	1.063	18.22	46.00	-27.78	8.52	9.66	0.04	Average
4	1.063	23.07	56.00	-32.93	13.37	9.66	0.04	QP
5	2.641	21.09	46.00	-24.91	11.40	9.60	0.09	Average
6	2.641	26.60	56.00	-29.40	16.91	9.60	0.09	QP
7	4.501	19.74	46.00	-26.26	9.86	9.71	0.17	Average
8	4.501	28.75	56.00	-27.25	18.87	9.71	0.17	QP
9	14.517	25.58	50.00	-24.42	15.66	9.69	0.23	Average
10	14.517	31.71	60.00	-28.29	21.79	9.69	0.23	QP
11	19.122	19.32	50.00	-30.68	9.35	9.72	0.25	Average
12	19.122	24.97	60.00	-35.03	15.00	9.72	0.25	QP

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

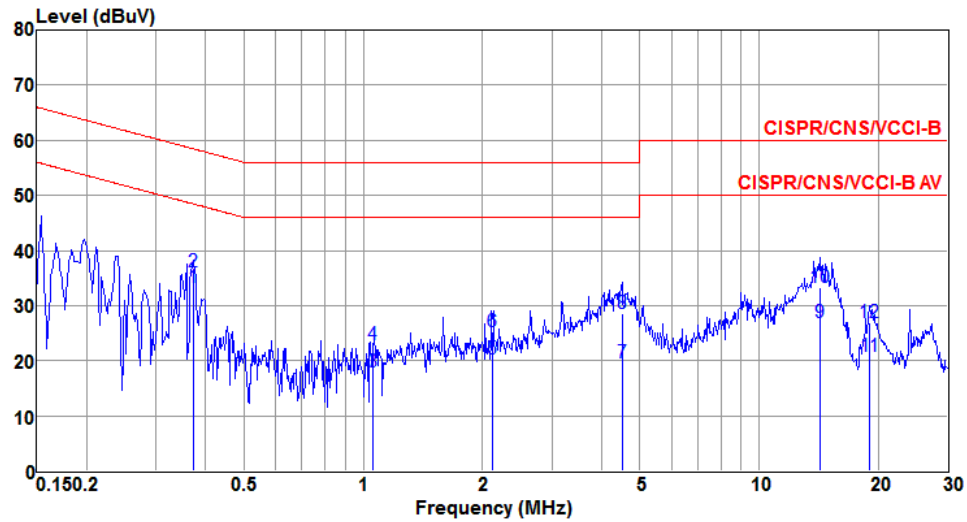
Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Line	Test configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1@	0.369	36.14	48.52	-12.38	26.51	9.59	0.04	Average
2	0.369	39.72	58.52	-18.80	30.09	9.59	0.04	QP
3	1.184	10.56	46.00	-35.44	1.02	9.50	0.04	Average
4	1.184	18.28	56.00	-37.72	8.74	9.50	0.04	QP
5	2.650	22.79	46.00	-23.21	13.13	9.57	0.09	Average
6	2.650	27.12	56.00	-28.88	17.46	9.57	0.09	QP
7	4.822	20.23	46.00	-25.77	10.54	9.52	0.17	Average
8	4.822	28.03	56.00	-27.97	18.34	9.52	0.17	QP
9	13.989	25.58	50.00	-24.42	15.66	9.69	0.23	Average
10	13.989	32.54	60.00	-27.46	22.62	9.69	0.23	QP
11	19.021	24.23	50.00	-25.77	14.27	9.71	0.25	Average
12	19.021	29.55	60.00	-30.45	19.59	9.71	0.25	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)	5755
Power Phase	Neutral	Test configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
10	0.371	33.39	48.47	-15.08	23.80	9.55	0.04	Average
2	0.371	36.01	58.47	-22.46	26.42	9.55	0.04	QP
3	1.056	17.99	46.00	-28.01	8.29	9.66	0.04	Average
4	1.056	22.94	56.00	-33.06	13.24	9.66	0.04	QP
5	2.119	20.42	46.00	-25.58	10.83	9.54	0.05	Average
6	2.119	25.24	56.00	-30.76	15.65	9.54	0.05	QP
7	4.501	19.68	46.00	-26.32	9.80	9.71	0.17	Average
8	4.501	28.65	56.00	-27.35	18.77	9.71	0.17	QP
9	14.213	26.93	50.00	-23.07	17.01	9.69	0.23	Average
10	14.213	33.34	60.00	-26.66	23.42	9.69	0.23	QP
11	19.021	20.80	50.00	-29.20	10.83	9.72	0.25	Average
12	19.021	26.85	60.00	-33.15	16.88	9.72	0.25	QP

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

3.2 Transmitter Radiated and Band Edge Emissions

3.2.1 Limit of Transmitter Radiated and Band Edge Emissions

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

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

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

Un-restricted band emissions above 1GHz Limit		
Operating Band	Limit	
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]	
5.725 - 5.850 GHz	☒	15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
	☐	15.407(b)(4)(ii) ,compliance with the emission limits in § 15.247(d) Shall be at least 30dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power,. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see § 15.205(c))

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

3.2.2 Test Procedures

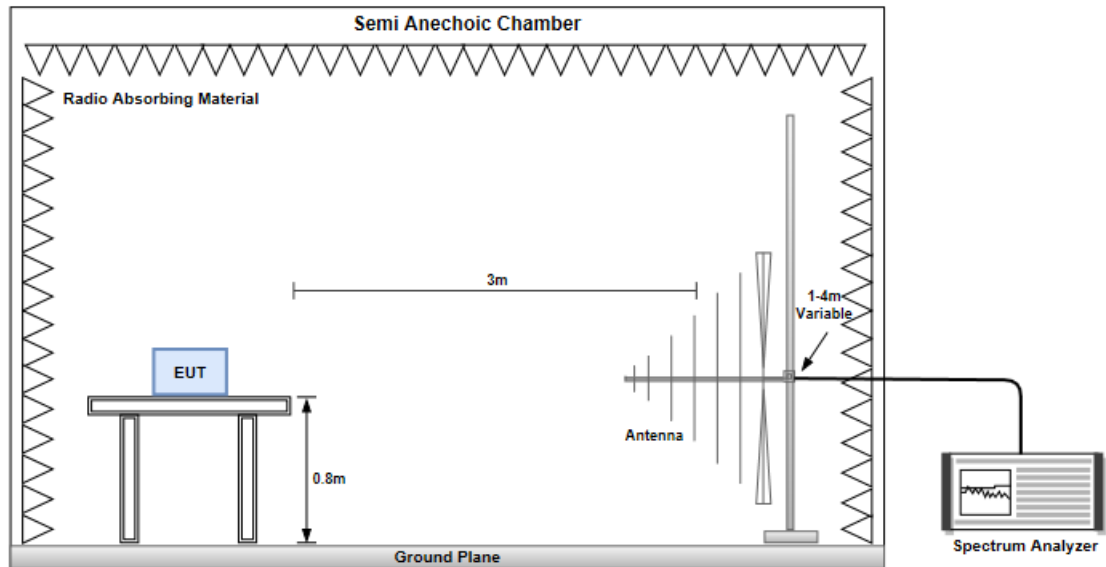
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

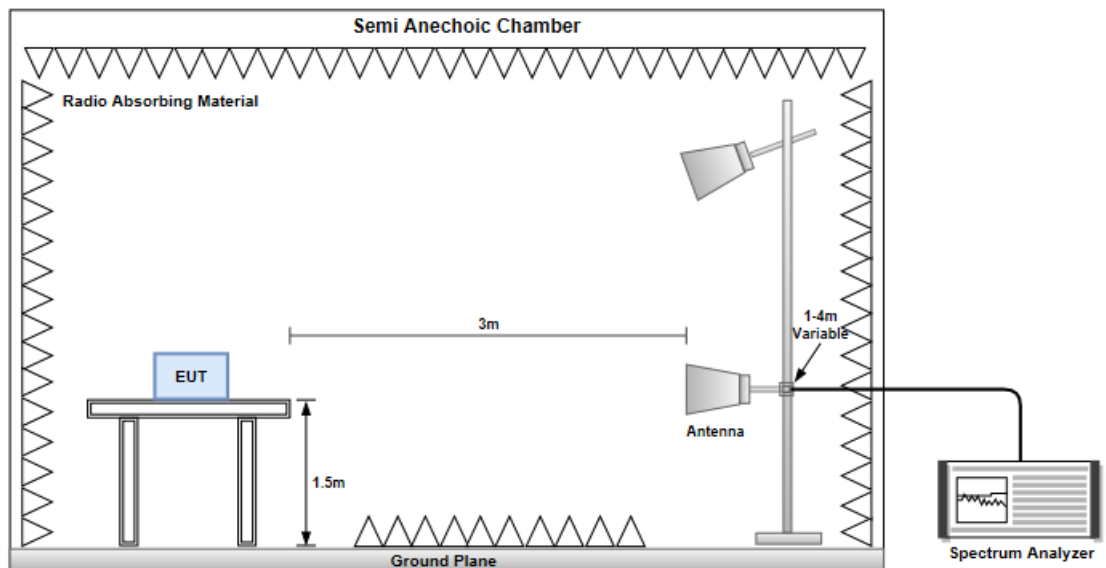
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.2.3 Test Setup

Radiated Emissions below 1 GHz



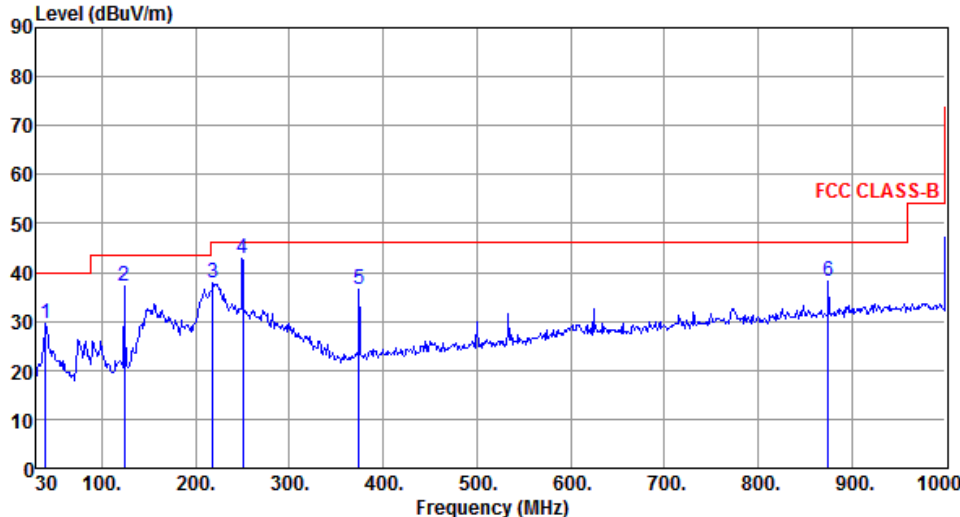
Radiated Emissions above 1 GHz



Non-beamforming mode

3.2.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

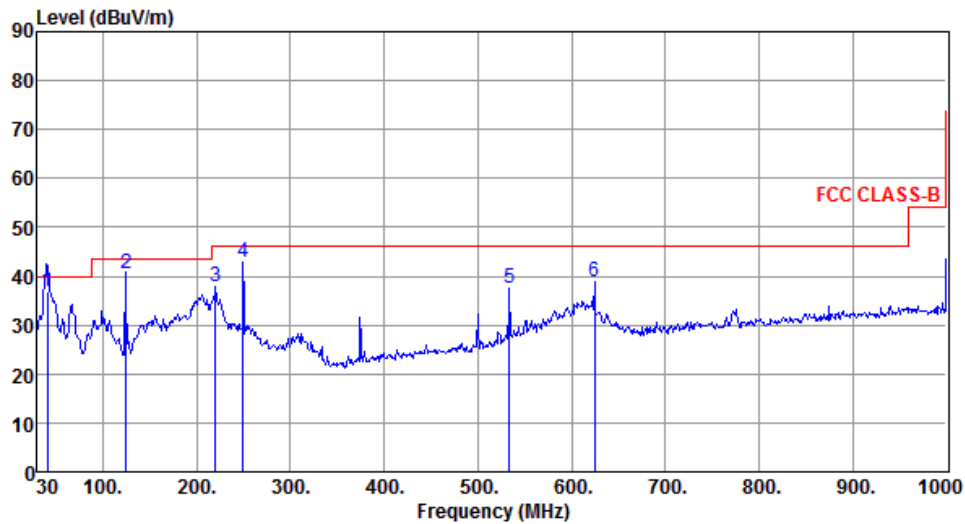
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	39.70	29.65	40.00	-10.35	38.43	-8.78	Peak	---	---
2	124.09	37.14	43.50	-6.36	47.67	-10.53	Peak	---	---
3	218.18	37.85	46.00	-8.15	48.82	-10.97	Peak	---	---
4	250.00	42.93	46.00	-3.07	52.30	-9.37	QP	100	110
5	374.35	36.64	46.00	-9.36	42.70	-6.06	Peak	---	---
6	874.87	38.07	46.00	-7.93	34.83	3.24	Peak	---	---

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

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	40.55	36.86	40.00	-3.14	45.57	-8.71	QP	100	12
2	125.00	40.45	43.50	-3.05	50.90	-10.45	QP	100	86
3	220.12	37.81	46.00	-8.19	48.76	-10.95	Peak	---	---
4	249.22	42.73	46.00	-3.27	52.12	-9.39	Peak	---	---
5	533.43	37.56	46.00	-8.44	40.22	-2.66	Peak	---	---
6	624.61	38.96	46.00	-7.04	39.67	-0.71	Peak	---	---

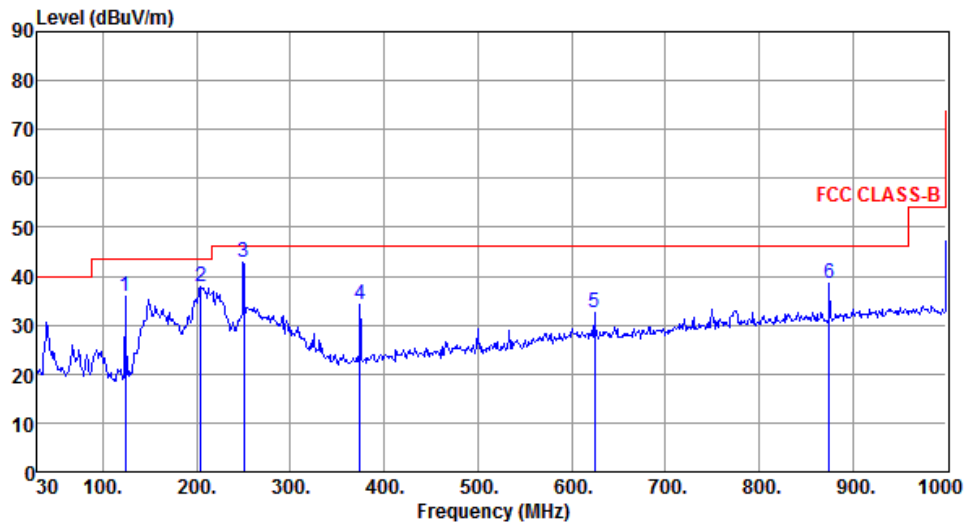
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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)	5755
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	124.09	35.78	43.50	-7.72	46.31	-10.53	Peak	---	---
2	204.60	37.87	43.50	-5.63	48.92	-11.05	Peak	---	---
3	250.00	42.94	46.00	-3.06	52.31	-9.37	QP	100	116
4	374.35	34.27	46.00	-11.73	40.33	-6.06	Peak	---	---
5	624.61	32.66	46.00	-13.34	33.37	-0.71	Peak	---	---
6	874.87	38.52	46.00	-7.48	35.28	3.24	Peak	---	---

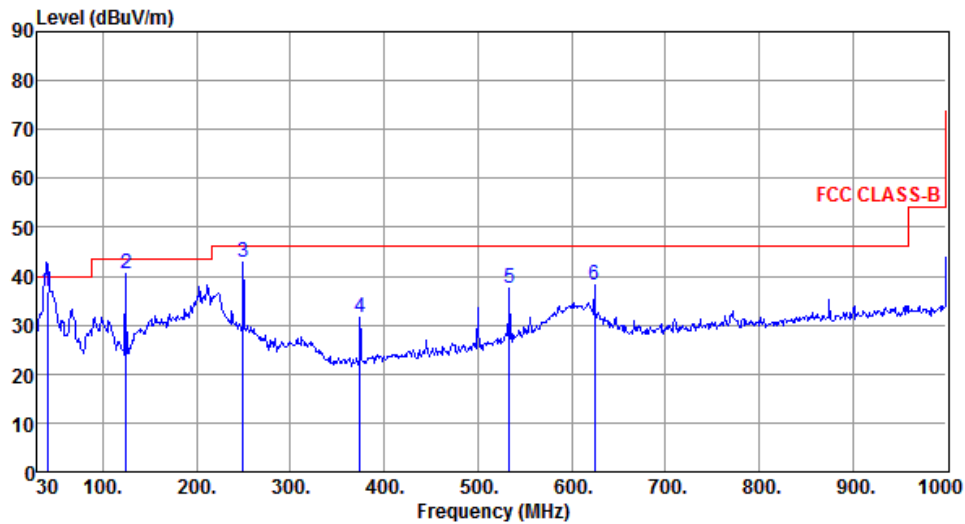
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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)	5755
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	40.44	36.93	40.00	-3.07	45.64	-8.71	QP	100	13
2	125.00	40.45	43.50	-3.05	50.90	-10.45	QP	100	83
3	249.22	42.96	46.00	-3.04	52.35	-9.39	Peak	---	---
4	374.35	31.56	46.00	-14.44	37.62	-6.06	Peak	---	---
5	533.43	37.53	46.00	-8.47	40.19	-2.66	Peak	---	---
6	624.61	38.11	46.00	-7.89	38.82	-0.71	Peak	---	---

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

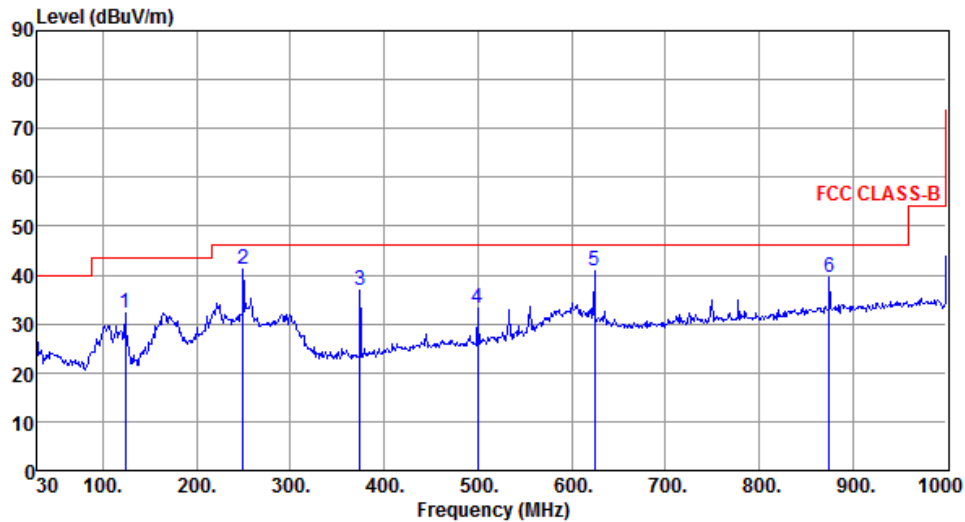
*Factor includes antenna factor , cable loss and amplifier gain

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.

3.2.5 Transmitter Radiated Unwanted Emissions (Below 1GHz)

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	124.09	32.20	43.50	-11.30	42.73	-10.53	Peak	---	---
2	249.22	41.11	46.00	-4.89	50.50	-9.39	Peak	---	---
3	374.35	36.77	46.00	-9.23	42.83	-6.06	Peak	---	---
4	499.48	33.11	46.00	-12.89	36.47	-3.36	Peak	---	---
5	624.61	40.77	46.00	-5.23	41.48	-0.71	Peak	---	---
6	874.87	39.50	46.00	-6.50	36.26	3.24	Peak	---	---

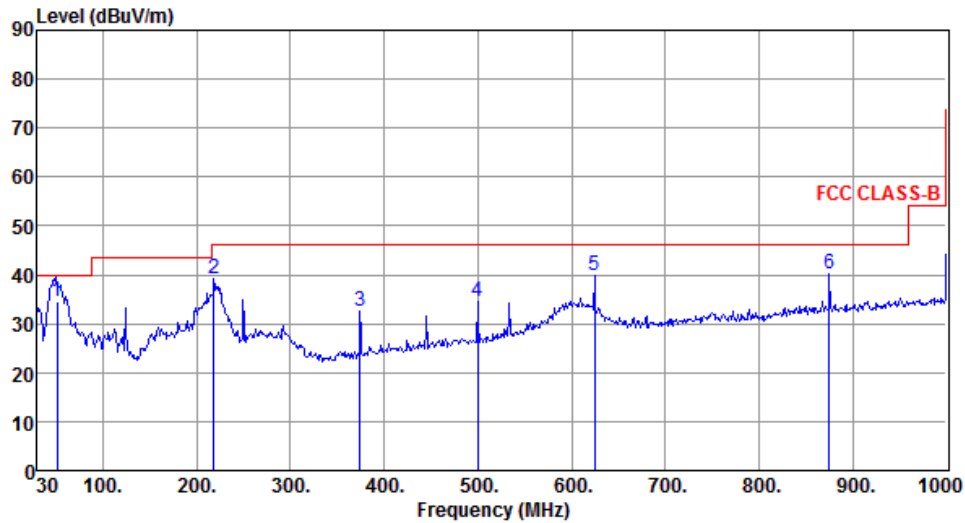
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	51.16	34.68	40.00	-5.32	42.92	-8.24	QP	100	82
2	218.18	39.03	46.00	-6.97	50.00	-10.97	Peak	---	---
3	374.35	32.62	46.00	-13.38	38.68	-6.06	Peak	---	---
4	499.48	34.38	46.00	-11.62	37.74	-3.36	Peak	---	---
5	624.61	39.86	46.00	-6.14	40.57	-0.71	Peak	---	---
6	874.87	40.15	46.00	-5.85	36.91	3.24	Peak	---	---

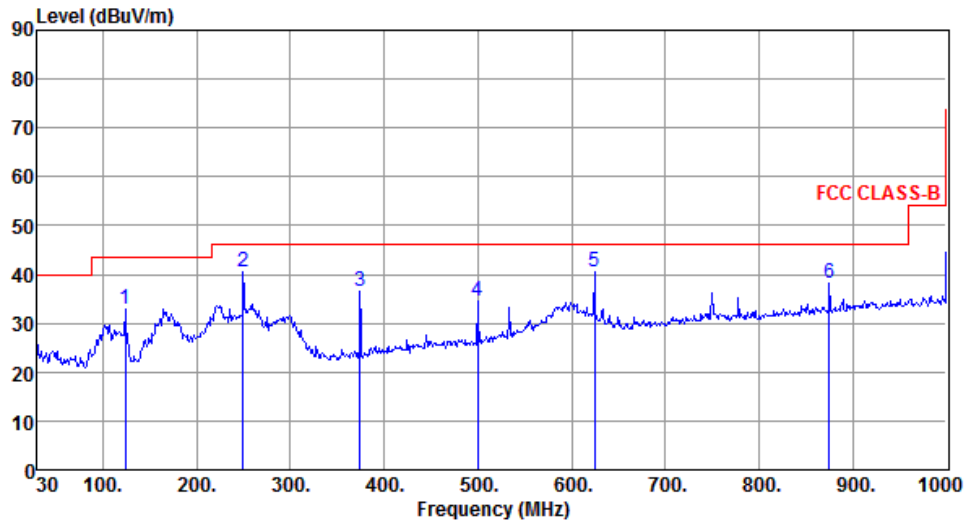
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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)	5755
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	124.09	33.01	43.50	-10.49	43.54	-10.53	Peak	---	---
2	249.22	40.40	46.00	-5.60	49.79	-9.39	Peak	---	---
3	374.35	36.46	46.00	-9.54	42.52	-6.06	Peak	---	---
4	499.48	34.69	46.00	-11.31	38.05	-3.36	Peak	---	---
5	624.61	40.42	46.00	-5.58	41.13	-0.71	Peak	---	---
6	874.87	38.14	46.00	-7.86	34.90	3.24	Peak	---	---

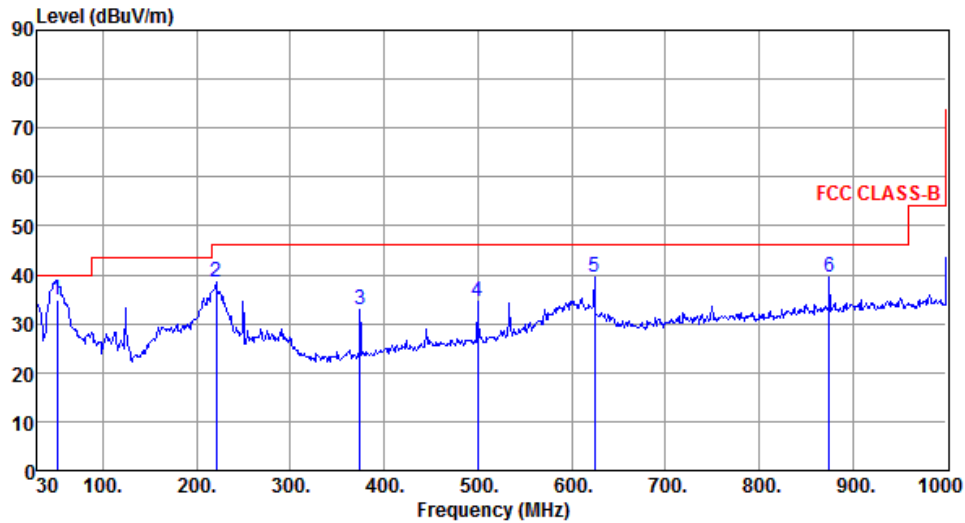
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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)	5755
Polarization	Vertical	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	51.05	34.75	40.00	-5.25	42.98	-8.23	QP	100	84
2	221.09	38.36	46.00	-7.64	49.25	-10.89	Peak	---	---
3	374.35	32.94	46.00	-13.06	39.00	-6.06	Peak	---	---
4	499.48	34.64	46.00	-11.36	38.00	-3.36	Peak	---	---
5	624.61	39.46	46.00	-6.54	40.17	-0.71	Peak	---	---
6	874.87	39.59	46.00	-6.41	36.35	3.24	Peak	---	---

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

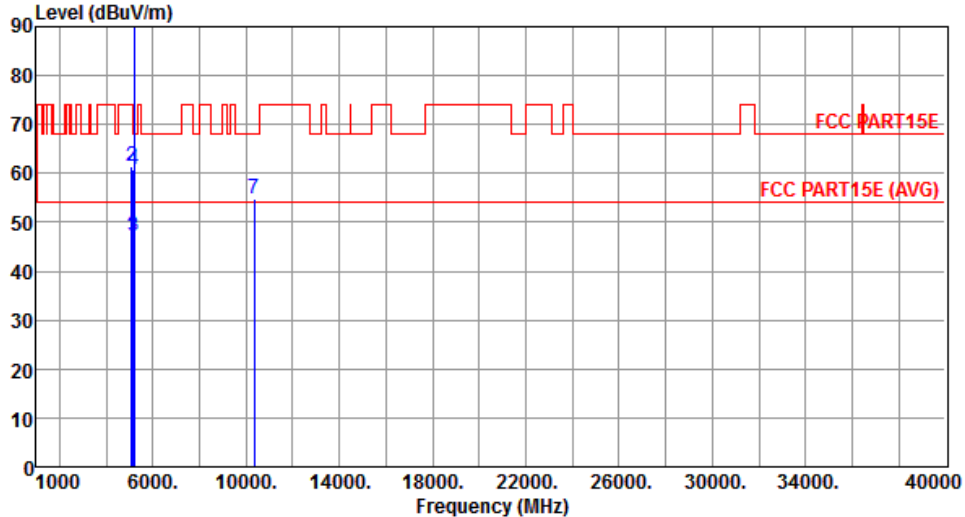
*Factor includes antenna factor , cable loss and amplifier gain

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.

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

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

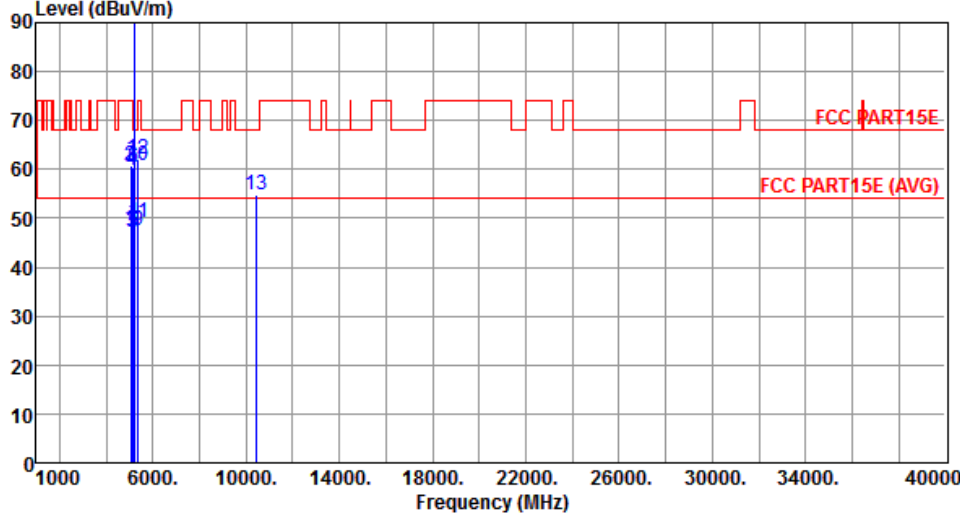


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5100.00	47.17	54.00	-6.83	42.03	5.14	Average	320	36
2	5100.00	61.33	74.00	-12.67	56.19	5.14	Peak	320	36
3	5150.00	47.28	54.00	-6.72	42.07	5.21	Average	320	36
4	5150.00	60.71	74.00	-13.29	55.50	5.21	Peak	320	36
5 *	5180.00	94.83			89.58	5.25	Average	320	36
6 *	5180.00	106.66			101.41	5.25	Peak	320	36
7	10360.00	54.82	68.20	-13.38	40.92	13.90	Peak	100	52

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

Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		
Level (dBuV/m) </			

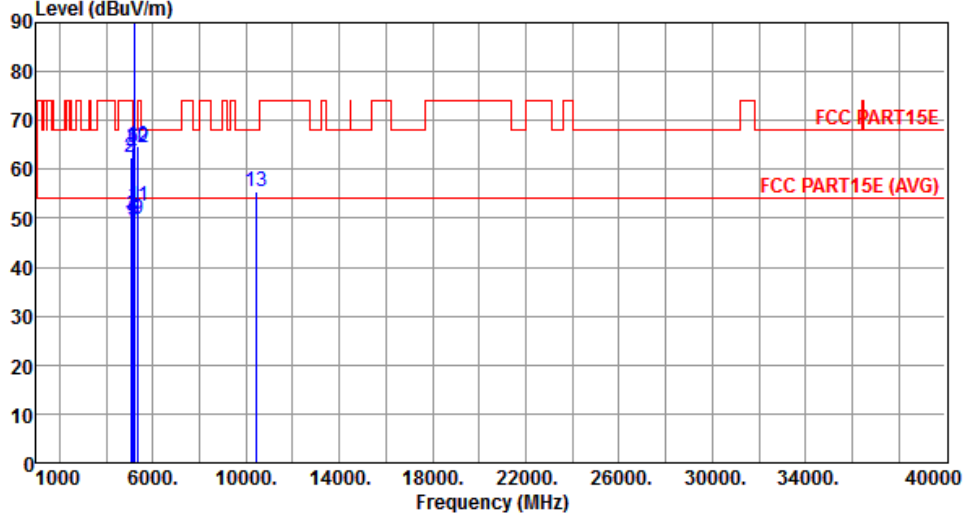
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5040.00	47.68	54.00	-6.32	42.61	5.07	Average	331	32
2	5040.00	60.88	74.00	-13.12	55.81	5.07	Peak	331	32
3	5120.00	47.17	54.00	-6.83	42.00	5.17	Average	331	32
4	5120.00	59.83	74.00	-14.17	54.66	5.17	Peak	331	32
5	5150.00	47.16	54.00	-6.84	41.95	5.21	Average	331	32
6	5150.00	60.54	74.00	-13.46	55.33	5.21	Peak	331	32
7 *	5200.00	97.74			92.47	5.27	Average	331	32
8 *	5200.00	108.93			103.66	5.27	Peak	331	32
9	5350.00	47.64	54.00	-6.36	42.14	5.50	Average	331	32
10	5350.00	60.72	74.00	-13.28	55.22	5.50	Peak	331	32
11	5360.00	49.11	54.00	-4.89	43.59	5.52	Average	331	32
12	5360.00	61.98	74.00	-12.02	56.46	5.52	Peak	331	32
13	10400.00	54.80	68.20	-13.40	40.88	13.92	Peak	100	51

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

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



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5040.00	49.09	54.00	-4.91	44.02	5.07	Average	341	11
2	5040.00	62.47	74.00	-11.53	57.40	5.07	Peak	341	11
3	5120.00	50.50	54.00	-3.50	45.33	5.17	Average	341	11
4	5120.00	63.05	74.00	-10.95	57.88	5.17	Peak	341	11
5	5150.00	49.44	54.00	-4.56	44.23	5.21	Average	341	11
6	5150.00	64.51	74.00	-9.49	59.30	5.21	Peak	341	11
7 *	5200.00	108.08			102.81	5.27	Average	341	11
8 *	5200.00	118.76			113.49	5.27	Peak	341	11
9	5350.00	49.66	54.00	-4.34	44.16	5.50	Average	341	11
10	5350.00	64.66	74.00	-9.34	59.16	5.50	Peak	341	11
11	5360.00	52.43	54.00	-1.57	46.91	5.52	Average	341	11
12	5360.00	64.54	74.00	-9.46	59.02	5.52	Peak	341	11
13	10400.00	55.35	68.20	-12.85	41.43	13.92	Peak	100	38

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

Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal		
Level (dBuV/m) <			

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

	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5080.00	48.48	54.00	-5.52	43.37	5.11	Average	346	59
2	5080.00	61.27	74.00	-12.73	56.16	5.11	Peak	346	59
3	5150.00	48.17	54.00	-5.83	42.96	5.21	Average	346	59
4	5150.00	61.37	74.00	-12.63	56.16	5.21	Peak	346	59
5 *	5240.00	108.65			103.32	5.33	Average	346	59
6 *	5240.00	119.73			114.40	5.33	Peak	346	59
7	5350.00	49.85	54.00	-4.15	44.35	5.50	Average	346	59
8	5350.00	63.46	74.00	-10.54	57.96	5.50	Peak	346	59
9	5400.00	52.31	54.00	-1.69	46.73	5.58	Average	346	59
10	5400.00	64.88	74.00	-9.12	59.30	5.58	Peak	346	59
11	10480.00	55.59	68.20	-12.61	41.64	13.95	Peak	100	41

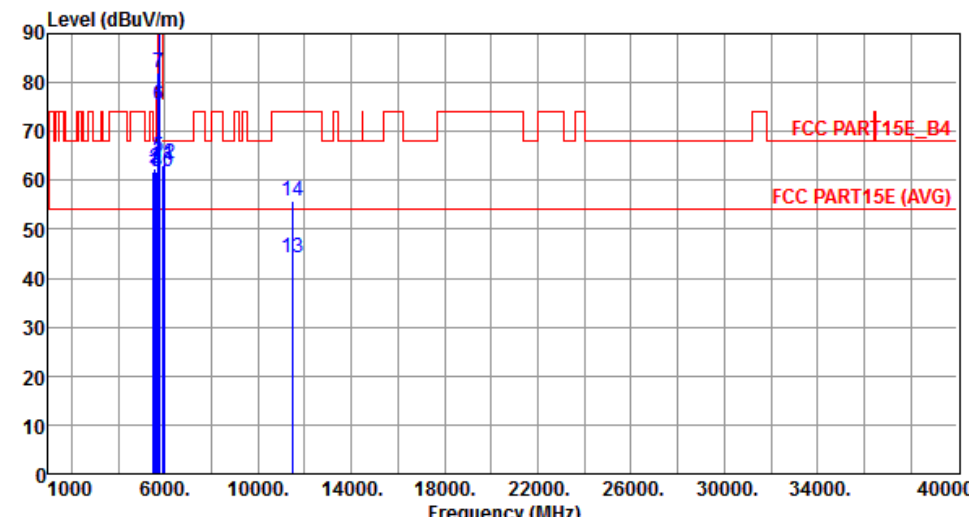
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

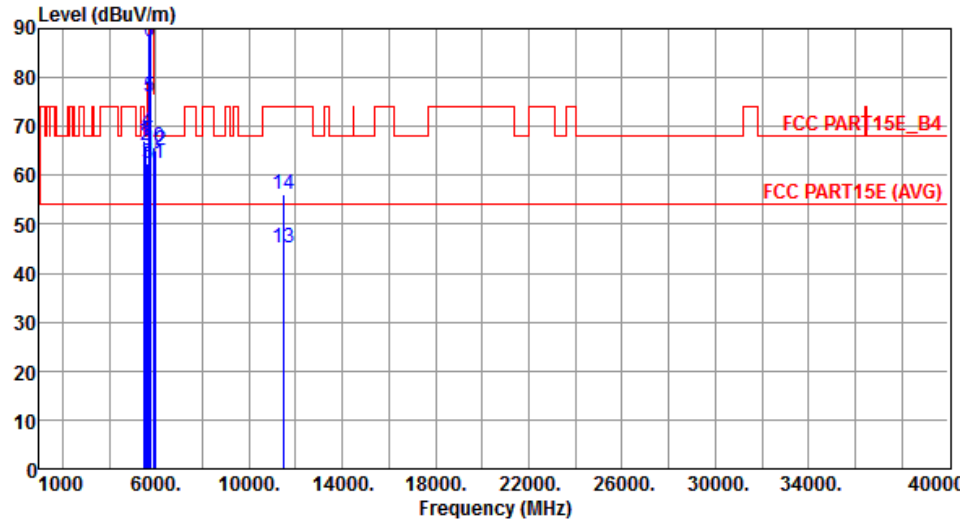
Note 3:"*" is Peak / Average value of fundamental frequency

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5505.00	61.76	68.20	-6.44	56.05	5.71	Peak	317	110
2	5585.00	62.51	68.20	-5.69	56.73	5.78	Peak	317	110
3	5650.00	61.90	68.20	-6.30	56.03	5.87	Peak	317	110
4	5665.00	61.71	79.33	-17.62	55.82	5.89	Peak	317	110
5	5700.00	64.68	105.20	-40.52	58.72	5.96	Peak	317	110
6	5720.00	75.33	110.80	-35.47	69.35	5.98	Peak	317	110
7	5725.00	81.97	122.20	-40.23	75.98	5.99	Peak	317	110
8 *	5745.00	101.55			95.53	6.02	Average	317	110
9 *	5745.00	112.13			106.11	6.02	Peak	317	110
10	5905.00	61.87	82.96	-21.09	55.63	6.24	Peak	317	110
11	5925.00	62.98	68.20	-5.22	56.72	6.26	Peak	317	110
12	5985.00	63.44	68.20	-4.76	57.12	6.32	Peak	317	110
13	11490.00	44.03	54.00	-9.97	29.13	14.90	Average	100	252
14	11490.00	55.63	74.00	-18.37	40.73	14.90	Peak	100	252

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

Modulation	11a	Test Freq. (MHz)	5745																																																																																																																																																							
Polarization	Vertical																																																																																																																																																									
																																																																																																																																																										
	<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>5505.00</td><td>67.00</td><td>68.20</td><td>-1.20</td><td>61.29</td><td>5.71</td><td>Peak</td><td>346</td><td>52</td></tr><tr><td>2</td><td>5585.00</td><td>66.13</td><td>68.20</td><td>-2.07</td><td>60.35</td><td>5.78</td><td>Peak</td><td>346</td><td>52</td></tr><tr><td>3</td><td>5650.00</td><td>62.42</td><td>68.20</td><td>-5.78</td><td>56.55</td><td>5.87</td><td>Peak</td><td>346</td><td>52</td></tr><tr><td>4</td><td>5665.00</td><td>68.93</td><td>79.33</td><td>-10.40</td><td>63.04</td><td>5.89</td><td>Peak</td><td>346</td><td>52</td></tr><tr><td>5</td><td>5700.00</td><td>75.99</td><td>105.20</td><td>-29.21</td><td>70.03</td><td>5.96</td><td>Peak</td><td>346</td><td>52</td></tr><tr><td>6</td><td>5720.00</td><td>87.30</td><td>110.80</td><td>-23.50</td><td>81.32</td><td>5.98</td><td>Peak</td><td>346</td><td>52</td></tr><tr><td>7</td><td>5725.00</td><td>89.08</td><td>122.20</td><td>-33.12</td><td>83.09</td><td>5.99</td><td>Peak</td><td>346</td><td>52</td></tr><tr><td>8 *</td><td>5745.00</td><td>112.42</td><td></td><td></td><td>106.40</td><td>6.02</td><td>Average</td><td>346</td><td>52</td></tr><tr><td>9 *</td><td>5745.00</td><td>123.45</td><td></td><td></td><td>117.43</td><td>6.02</td><td>Peak</td><td>346</td><td>52</td></tr><tr><td>10</td><td>5905.00</td><td>65.78</td><td>82.96</td><td>-17.18</td><td>59.54</td><td>6.24</td><td>Peak</td><td>346</td><td>52</td></tr><tr><td>11</td><td>5925.00</td><td>62.46</td><td>68.20</td><td>-5.74</td><td>56.20</td><td>6.26</td><td>Peak</td><td>346</td><td>52</td></tr><tr><td>12</td><td>5985.00</td><td>64.96</td><td>68.20</td><td>-3.24</td><td>58.64</td><td>6.32</td><td>Peak</td><td>346</td><td>52</td></tr><tr><td>13</td><td>11490.00</td><td>45.13</td><td>54.00</td><td>-8.87</td><td>30.23</td><td>14.90</td><td>Average</td><td>100</td><td>116</td></tr><tr><td>14</td><td>11490.00</td><td>56.23</td><td>74.00</td><td>-17.77</td><td>41.33</td><td>14.90</td><td>Peak</td><td>100</td><td>116</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	5505.00	67.00	68.20	-1.20	61.29	5.71	Peak	346	52	2	5585.00	66.13	68.20	-2.07	60.35	5.78	Peak	346	52	3	5650.00	62.42	68.20	-5.78	56.55	5.87	Peak	346	52	4	5665.00	68.93	79.33	-10.40	63.04	5.89	Peak	346	52	5	5700.00	75.99	105.20	-29.21	70.03	5.96	Peak	346	52	6	5720.00	87.30	110.80	-23.50	81.32	5.98	Peak	346	52	7	5725.00	89.08	122.20	-33.12	83.09	5.99	Peak	346	52	8 *	5745.00	112.42			106.40	6.02	Average	346	52	9 *	5745.00	123.45			117.43	6.02	Peak	346	52	10	5905.00	65.78	82.96	-17.18	59.54	6.24	Peak	346	52	11	5925.00	62.46	68.20	-5.74	56.20	6.26	Peak	346	52	12	5985.00	64.96	68.20	-3.24	58.64	6.32	Peak	346	52	13	11490.00	45.13	54.00	-8.87	30.23	14.90	Average	100	116	14	11490.00	56.23	74.00	-17.77	41.33	14.90	Peak	100	116			
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																																																																																																	
1	5505.00	67.00	68.20	-1.20	61.29	5.71	Peak	346	52																																																																																																																																																	
2	5585.00	66.13	68.20	-2.07	60.35	5.78	Peak	346	52																																																																																																																																																	
3	5650.00	62.42	68.20	-5.78	56.55	5.87	Peak	346	52																																																																																																																																																	
4	5665.00	68.93	79.33	-10.40	63.04	5.89	Peak	346	52																																																																																																																																																	
5	5700.00	75.99	105.20	-29.21	70.03	5.96	Peak	346	52																																																																																																																																																	
6	5720.00	87.30	110.80	-23.50	81.32	5.98	Peak	346	52																																																																																																																																																	
7	5725.00	89.08	122.20	-33.12	83.09	5.99	Peak	346	52																																																																																																																																																	
8 *	5745.00	112.42			106.40	6.02	Average	346	52																																																																																																																																																	
9 *	5745.00	123.45			117.43	6.02	Peak	346	52																																																																																																																																																	
10	5905.00	65.78	82.96	-17.18	59.54	6.24	Peak	346	52																																																																																																																																																	
11	5925.00	62.46	68.20	-5.74	56.20	6.26	Peak	346	52																																																																																																																																																	
12	5985.00	64.96	68.20	-3.24	58.64	6.32	Peak	346	52																																																																																																																																																	
13	11490.00	45.13	54.00	-8.87	30.23	14.90	Average	100	116																																																																																																																																																	
14	11490.00	56.23	74.00	-17.77	41.33	14.90	Peak	100	116																																																																																																																																																	
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m). Note 3: "*" is Peak / Average value of fundamental frequency																																																																																																																																																										

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

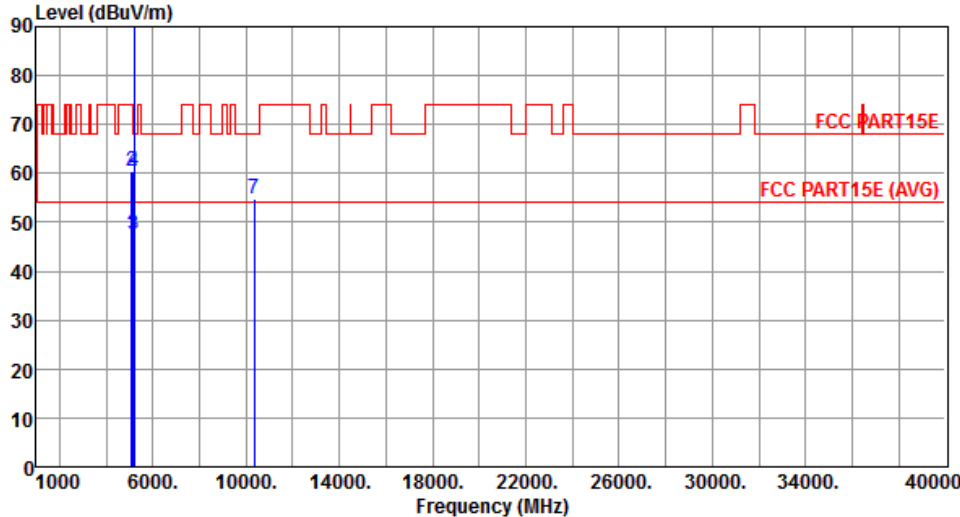
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		
Level (dBuV/m)			

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

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

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

Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal		

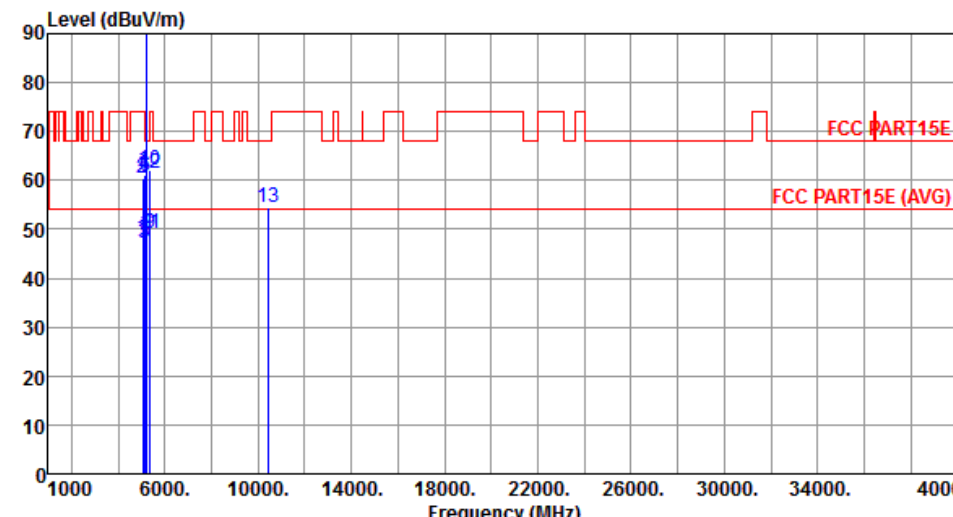


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5100.00	47.46	54.00	-6.54	42.32	5.14	Average	338	16
2	5100.00	60.30	74.00	-13.70	55.16	5.14	Peak	338	16
3	5150.00	47.48	54.00	-6.52	42.27	5.21	Average	338	16
4	5150.00	60.41	74.00	-13.59	55.20	5.21	Peak	338	16
5 *	5180.00	92.90			87.65	5.25	Average	338	16
6 *	5180.00	103.29			98.04	5.25	Peak	338	16
7	10360.00	54.71	68.20	-13.49	40.81	13.90	Peak	100	65

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

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

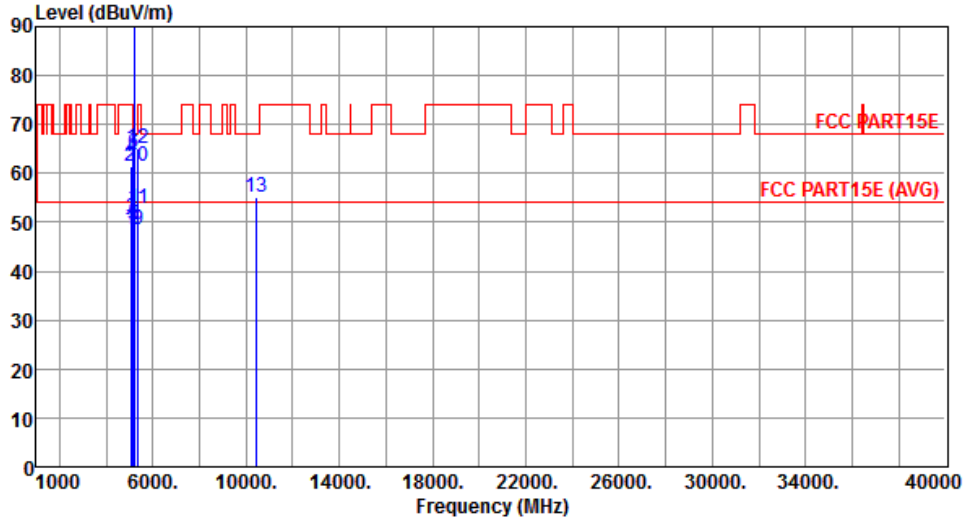
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5040.00	48.11	54.00	-5.89	43.04	5.07	Average	355	17
2	5040.00	60.47	74.00	-13.53	55.40	5.07	Peak	355	17
3	5120.00	47.29	54.00	-6.71	42.12	5.17	Average	355	17
4	5120.00	60.99	74.00	-13.01	55.82	5.17	Peak	355	17
5	5150.00	47.57	54.00	-6.43	42.36	5.21	Average	355	17
6	5150.00	60.63	74.00	-13.37	55.42	5.21	Peak	355	17
7 *	5200.00	96.53			91.26	5.27	Average	355	17
8 *	5200.00	107.04			101.77	5.27	Peak	355	17
9	5350.00	49.24	54.00	-4.76	43.74	5.50	Average	355	17
10	5350.00	62.02	74.00	-11.98	56.52	5.50	Peak	355	17
11	5360.00	49.23	54.00	-4.77	43.71	5.52	Average	355	17
12	5360.00	61.56	74.00	-12.44	56.04	5.52	Peak	355	17
13	10400.00	54.54	68.20	-13.66	40.62	13.92	Peak	100	46

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

Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical		

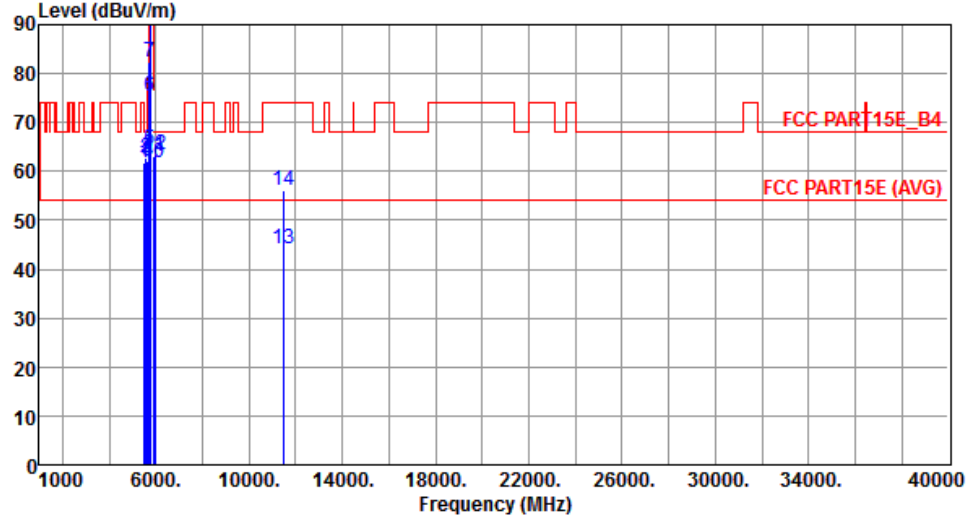


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5040.00	48.56	54.00	-5.44	43.49	5.07	Average	345	16
2	5040.00	61.59	74.00	-12.41	56.52	5.07	Peak	345	16
3	5120.00	50.66	54.00	-3.34	45.49	5.17	Average	345	16
4	5120.00	63.21	74.00	-10.79	58.04	5.17	Peak	345	16
5	5150.00	49.49	54.00	-4.51	44.28	5.21	Average	345	16
6	5150.00	64.14	74.00	-9.86	58.93	5.21	Peak	345	16
7 *	5200.00	107.22			101.95	5.27	Average	345	16
8 *	5200.00	117.17			111.90	5.27	Peak	345	16
9	5350.00	48.64	54.00	-5.36	43.14	5.50	Average	345	16
10	5350.00	61.45	74.00	-12.55	55.95	5.50	Peak	345	16
11	5360.00	52.72	54.00	-1.28	47.20	5.52	Average	345	16
12	5360.00	65.25	74.00	-8.75	59.73	5.52	Peak	345	16
13	10400.00	55.29	68.20	-12.91	41.37	13.92	Peak	100	108

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

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)	5745						
Polarization	Horizontal								
									
	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
	MHz	level			reading			High	Table
		dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	5505.00	61.82	68.20	-6.38	56.11	5.71	Peak	319	111
2	5585.00	62.69	68.20	-5.51	56.91	5.78	Peak	319	111
3	5650.00	62.14	68.20	-6.06	56.27	5.87	Peak	319	111
4	5665.00	62.22	79.33	-17.11	56.33	5.89	Peak	319	111
5	5700.00	64.53	105.20	-40.67	58.57	5.96	Peak	319	111
6	5720.00	75.46	110.80	-35.34	69.48	5.98	Peak	319	111
7	5725.00	82.24	122.20	-39.96	76.25	5.99	Peak	319	111
8 *	5745.00	100.42			94.40	6.02	Average	319	111
9 *	5745.00	111.09			105.07	6.02	Peak	319	111
10	5905.00	61.92	82.96	-21.04	55.68	6.24	Peak	319	111
11	5925.00	63.14	68.20	-5.06	56.88	6.26	Peak	319	111
12	5985.00	63.56	68.20	-4.64	57.24	6.32	Peak	319	111
13	11490.00	44.18	54.00	-9.82	29.28	14.90	Average	100	247
14	11490.00	56.02	74.00	-17.98	41.12	14.90	Peak	100	247

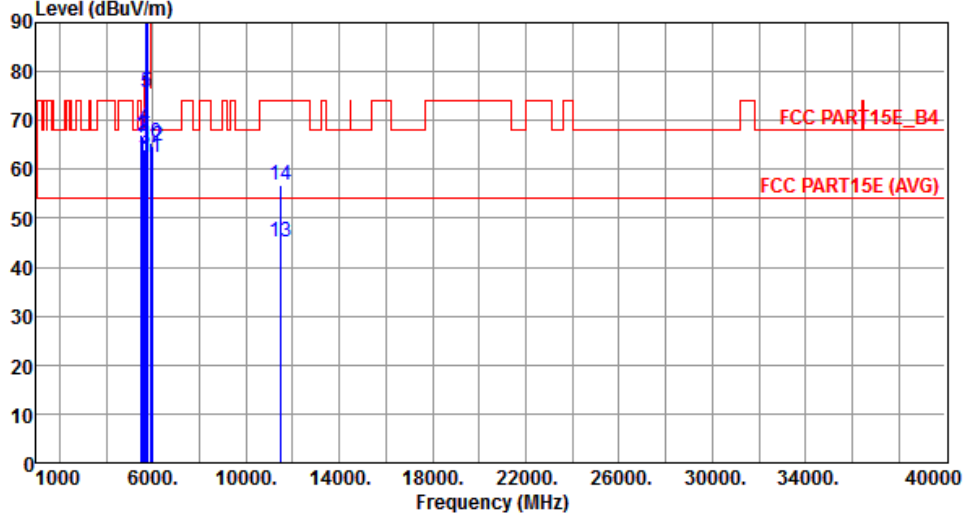
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

Note 3:"*" is Peak / Average value of fundamental frequency

Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5505.00	66.95	68.20	-1.25	61.24	5.71	Peak	334	226
2	5585.00	66.88	68.20	-1.32	61.10	5.78	Peak	334	226
3	5650.00	64.12	68.20	-4.08	58.25	5.87	Peak	334	226
4	5665.00	68.73	79.33	-10.60	62.84	5.89	Peak	334	226
5	5700.00	75.77	105.20	-29.43	69.81	5.96	Peak	334	226
6	5720.00	90.30	110.80	-20.50	84.32	5.98	Peak	334	226
7	5725.00	94.99	122.20	-27.21	89.00	5.99	Peak	334	226
8 *	5745.00	111.84			105.82	6.02	Average	334	226
9 *	5745.00	121.91			115.89	6.02	Peak	334	226
10	5905.00	65.38	82.96	-17.58	59.14	6.24	Peak	334	226
11	5925.00	62.31	68.20	-5.89	56.05	6.26	Peak	334	226
12	5985.00	64.88	68.20	-3.32	58.56	6.32	Peak	334	226
13	11490.00	45.31	54.00	-8.69	30.41	14.90	Average	100	132
14	11490.00	56.66	74.00	-17.34	41.76	14.90	Peak	100	132

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

Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		
Level (dBuV/m) <			

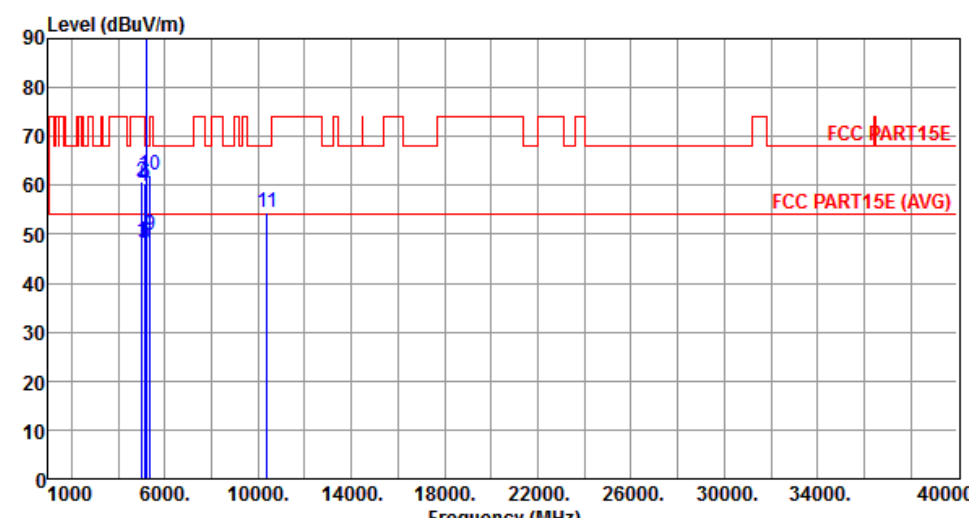
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		
Level (dBuV/m)			

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

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

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

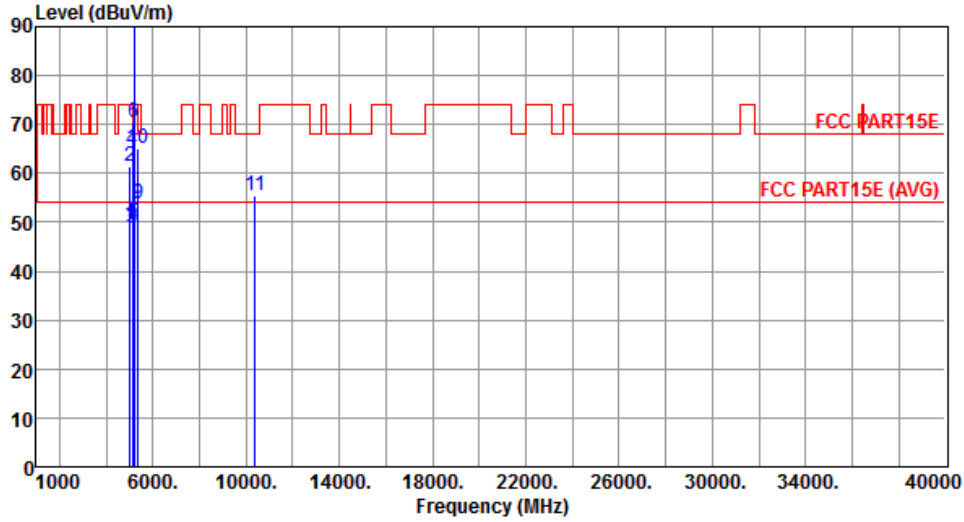
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5030.00	48.36	54.00	-5.64	43.31	5.05	Average	373	167
2	5030.00	60.81	74.00	-13.19	55.76	5.05	Peak	373	167
3	5110.00	48.19	54.00	-5.81	43.04	5.15	Average	373	167
4	5110.00	59.85	74.00	-14.15	54.70	5.15	Peak	373	167
5	5150.00	48.02	54.00	-5.98	42.81	5.21	Average	373	167
6	5150.00	60.55	74.00	-13.45	55.34	5.21	Peak	373	167
7 *	5190.00	90.96			85.70	5.26	Average	373	167
8 *	5190.00	101.32			96.06	5.26	Peak	373	167
9	5350.00	49.75	54.00	-4.25	44.25	5.50	Average	373	167
10	5350.00	61.98	74.00	-12.02	56.48	5.50	Peak	373	167
11	10380.00	54.40	68.20	-13.80	40.50	13.90	Peak	100	249

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

Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Vertical		

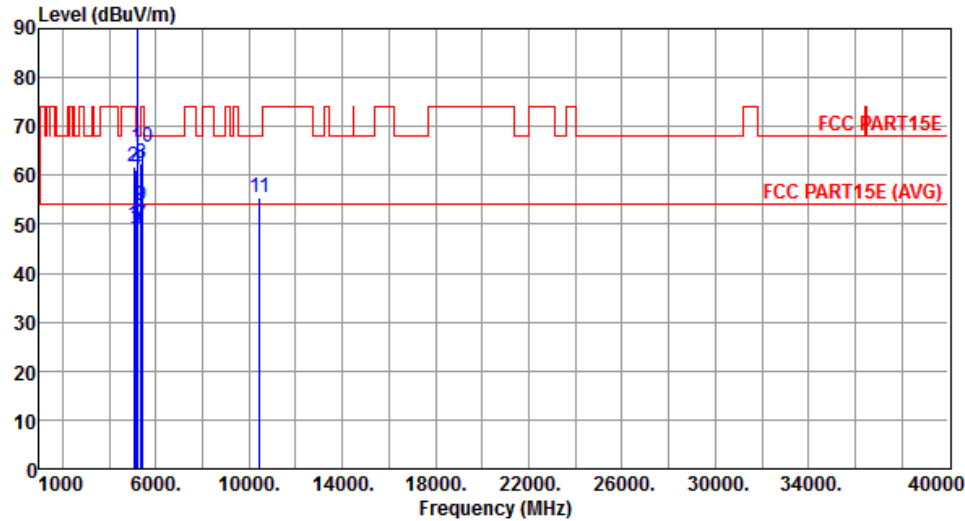


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5030.00	49.48	54.00	-4.52	44.43	5.05	Average	330	16
2	5030.00	61.41	74.00	-12.59	56.36	5.05	Peak	330	16
3	5110.00	48.91	54.00	-5.09	43.76	5.15	Average	330	16
4	5110.00	64.71	74.00	-9.29	59.56	5.15	Peak	330	16
5	5150.00	49.78	54.00	-4.22	44.57	5.21	Average	330	16
6	5150.00	70.39	74.00	-3.61	65.18	5.21	Peak	330	16
7 *	5190.00	100.46			95.20	5.26	Average	330	16
8 *	5190.00	110.25			104.99	5.26	Peak	330	16
9	5350.00	53.71	54.00	-0.29	48.21	5.50	Average	330	16
10	5350.00	64.96	74.00	-9.04	59.46	5.50	Peak	330	16
11	10380.00	55.30	68.20	-12.90	41.40	13.90	Peak	100	42

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

Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Horizontal		
Level (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	5070.00	49.70	54.00	-4.30	44.60	5.10	Average	309	16
2	5070.00	61.78	74.00	-12.22	56.68	5.10	Peak	309	16
3	5150.00	48.87	54.00	-5.13	43.66	5.21	Average	309	16
4	5150.00	61.23	74.00	-12.77	56.02	5.21	Peak	309	16
5 *	5230.00	102.06			96.74	5.32	Average	309	16
6 *	5230.00	112.36			107.04	5.32	Peak	309	16
7	5350.00	49.77	54.00	-4.23	44.27	5.50	Average	309	16
8	5350.00	62.51	74.00	-11.49	57.01	5.50	Peak	309	16
9	5390.00	53.85	54.00	-0.15	48.29	5.56	Average	309	16
10	5390.00	65.68	74.00	-8.32	60.12	5.56	Peak	309	16
11	10460.00	55.32	68.20	-12.88	41.38	13.94	Peak	100	42

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

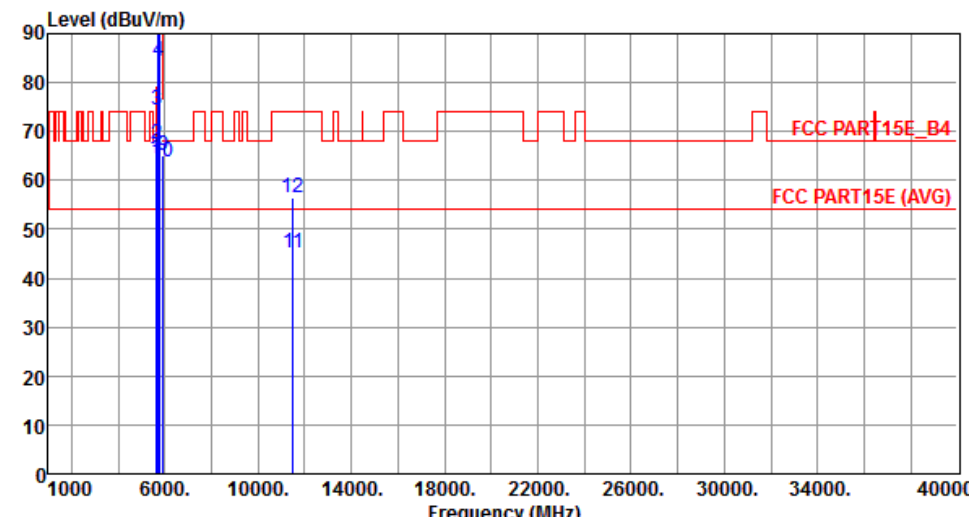
*Factor includes antenna factor , cable loss and amplifier gain

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

Note 3: "*" is Peak / Average value of fundamental frequency

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

Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		



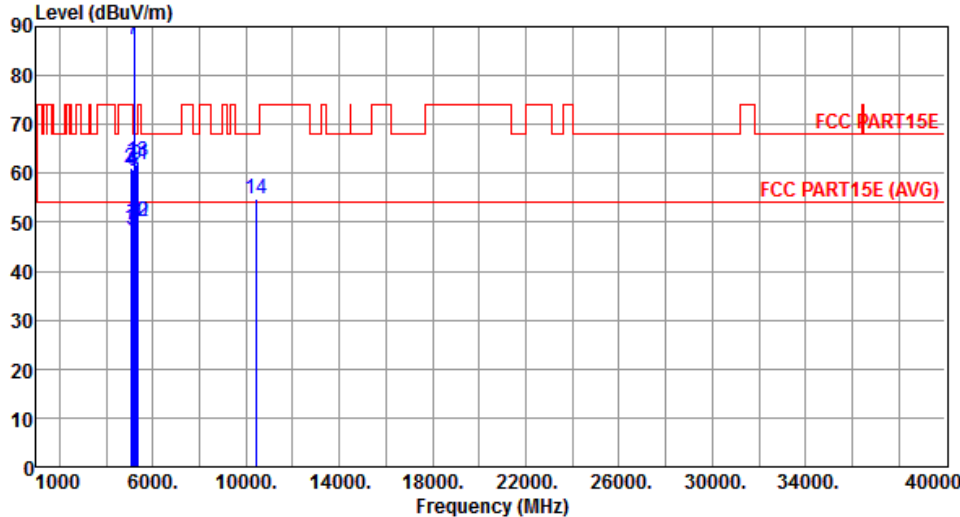
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5595.00	64.56	68.20	-3.64	58.78	5.78	Peak	340	61
2	5650.00	67.50	68.20	-0.70	61.63	5.87	Peak	340	61
3	5675.00	74.37	86.74	-12.37	68.46	5.91	Peak	340	61
4	5700.00	84.24	105.20	-20.96	78.28	5.96	Peak	340	61
5	5720.00	97.00	110.80	-13.80	91.02	5.98	Peak	340	61
6	5725.00	96.65	122.20	-25.55	90.66	5.99	Peak	340	61
7 *	5755.00	108.16			102.11	6.05	Average	340	61
8 *	5755.00	118.40			112.35	6.05	Peak	340	61
9	5915.00	65.25	75.57	-10.32	59.01	6.24	Peak	340	61
10	5925.00	63.90	68.20	-4.30	57.64	6.26	Peak	340	61
11	11510.00	45.18	54.00	-8.82	30.29	14.89	Average	100	126
12	11510.00	56.46	74.00	-17.54	41.57	14.89	Peak	100	126

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

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

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

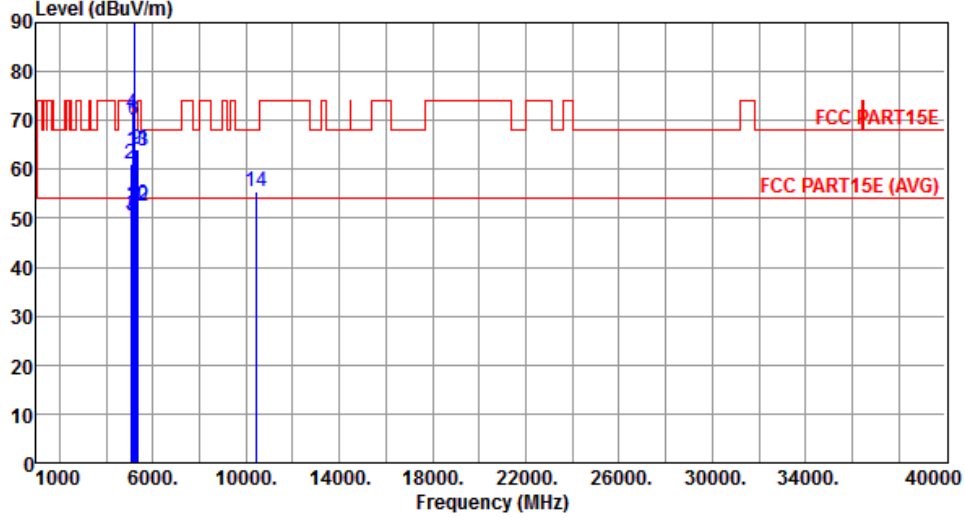
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5050.00	48.75	54.00	-5.25	43.67	5.08	Average	358	107
2	5050.00	61.14	74.00	-12.86	56.06	5.08	Peak	358	107
3	5130.00	48.33	54.00	-5.67	43.15	5.18	Average	358	107
4	5130.00	60.81	74.00	-13.19	55.63	5.18	Peak	358	107
5	5150.00	48.24	54.00	-5.76	43.03	5.21	Average	358	107
6	5150.00	60.35	74.00	-13.65	55.14	5.21	Peak	358	107
7 *	5210.00	87.50			82.21	5.29	Average	358	107
8 *	5210.00	97.32			92.03	5.29	Peak	358	107
9	5290.00	61.81	68.20	-6.39	56.40	5.41	Peak	358	107
10	5350.00	50.15	54.00	-3.85	44.65	5.50	Average	358	107
11	5350.00	61.89	74.00	-12.11	56.39	5.50	Peak	358	107
12	5370.00	50.16	54.00	-3.84	44.63	5.53	Average	358	107
13	5370.00	62.37	74.00	-11.63	56.84	5.53	Peak	358	107
14	10420.00	54.74	68.20	-13.46	40.82	13.92	Peak	100	128

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

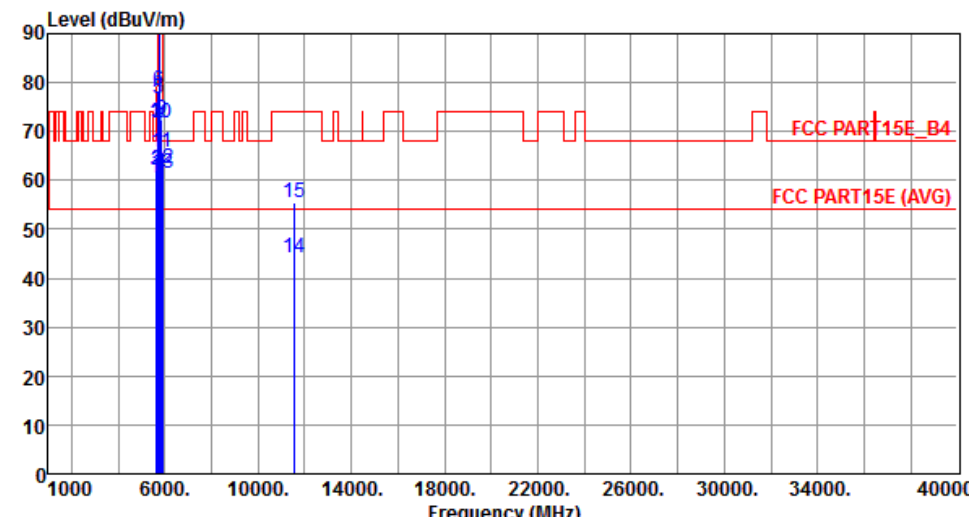
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5050.00	49.29	54.00	-4.71	44.21	5.08	Average	322	13
2	5050.00	61.05	74.00	-12.95	55.97	5.08	Peak	322	13
3	5130.00	50.40	54.00	-3.60	45.22	5.18	Average	322	13
4	5130.00	71.33	74.00	-2.67	66.15	5.18	Peak	322	13
5	5150.00	50.60	54.00	-3.40	45.39	5.21	Average	322	13
6	5150.00	70.11	74.00	-3.89	64.90	5.21	Peak	322	13
7 *	5210.00	97.81			92.52	5.29	Average	322	13
8 *	5210.00	107.01			101.72	5.29	Peak	322	13
9	5290.00	64.20	68.20	-4.00	58.79	5.41	Peak	322	13
10	5350.00	52.78	54.00	-1.22	47.28	5.50	Average	322	13
11	5350.00	64.12	74.00	-9.88	58.62	5.50	Peak	322	13
12	5370.00	52.51	54.00	-1.49	46.98	5.53	Average	322	13
13	5370.00	63.64	74.00	-10.36	58.11	5.53	Peak	322	13
14	10420.00	55.35	68.20	-12.85	41.43	13.92	Peak	100	112

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

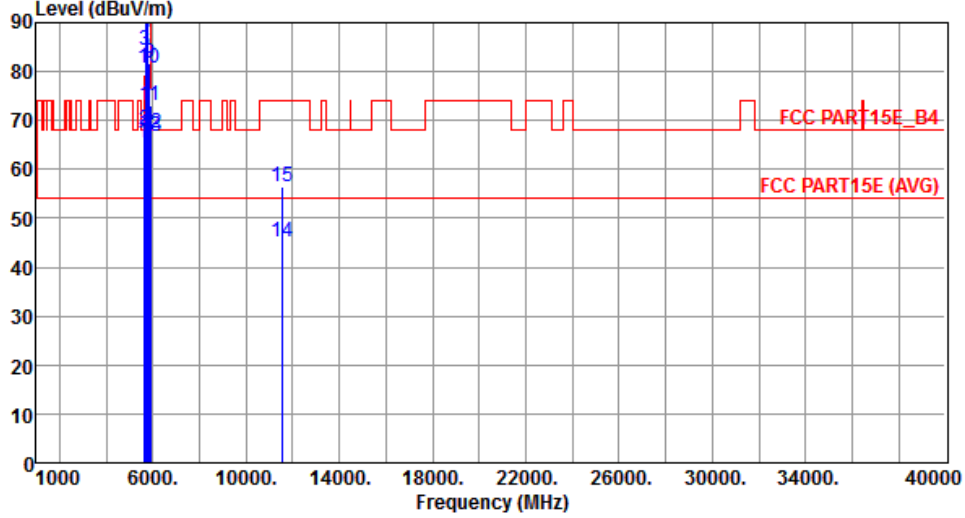
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5615.00	60.28	68.20	-7.92	54.47	5.81	Peak	315	112
2	5650.00	62.00	68.20	-6.20	56.13	5.87	Peak	315	112
3	5695.00	71.62	101.51	-29.89	65.68	5.94	Peak	315	112
4	5700.00	70.92	105.20	-34.28	64.96	5.96	Peak	315	112
5	5720.00	76.68	110.80	-34.12	70.70	5.98	Peak	315	112
6	5725.00	78.46	122.20	-43.74	72.47	5.99	Peak	315	112
7 *	5775.00	93.71			87.63	6.08	Average	315	112
8 *	5775.00	103.49			97.41	6.08	Peak	315	112
9	5850.00	72.54	122.20	-49.66	66.37	6.17	Peak	315	112
10	5855.00	71.75	110.80	-39.05	65.57	6.18	Peak	315	112
11	5875.00	65.60	105.20	-39.60	59.40	6.20	Peak	315	112
12	5925.00	62.58	68.20	-5.62	56.32	6.26	Peak	315	112
13	5935.00	61.43	68.20	-6.77	55.17	6.26	Peak	315	112
14	11550.00	44.27	54.00	-9.73	29.46	14.81	Average	100	254
15	11550.00	55.40	74.00	-18.60	40.59	14.81	Peak	100	254

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

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Vertical		



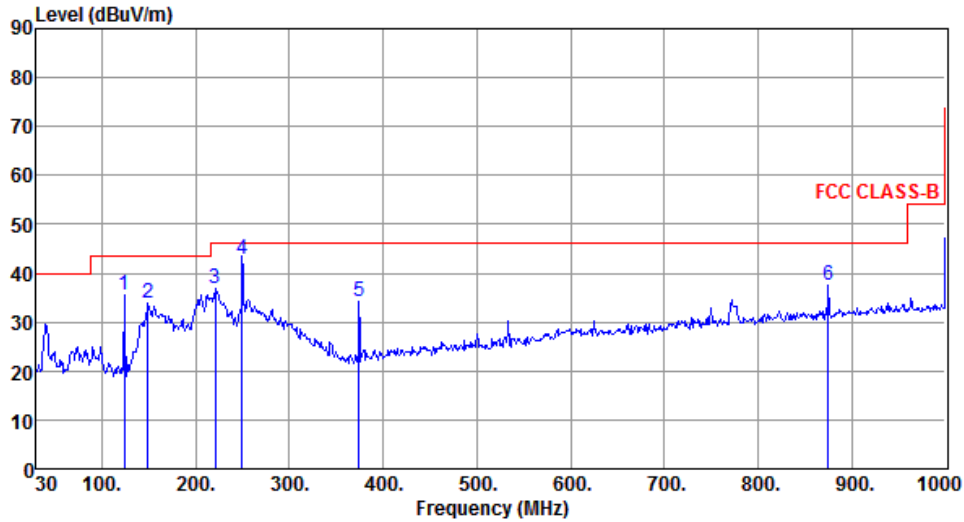
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5615.00	65.49	68.20	-2.71	59.68	5.81	Peak	325	60
2	5650.00	68.09	68.20	-0.11	62.22	5.87	Peak	325	60
3	5695.00	84.19	101.51	-17.32	78.25	5.94	Peak	325	60
4	5700.00	88.00	105.20	-17.20	82.04	5.96	Peak	325	60
5	5720.00	90.21	110.80	-20.59	84.23	5.98	Peak	325	60
6	5725.00	88.60	122.20	-33.60	82.61	5.99	Peak	325	60
7 *	5775.00	103.65			97.57	6.08	Average	325	60
8 *	5775.00	112.81			106.73	6.08	Peak	325	60
9	5850.00	81.63	122.20	-40.57	75.46	6.17	Peak	325	60
10	5855.00	80.83	110.80	-29.97	74.65	6.18	Peak	325	60
11	5875.00	73.04	105.20	-32.16	66.84	6.20	Peak	325	60
12	5925.00	67.36	68.20	-0.84	61.10	6.26	Peak	325	60
13	5935.00	66.77	68.20	-1.43	60.51	6.26	Peak	325	60
14	11550.00	45.29	54.00	-8.71	30.48	14.81	Average	100	131
15	11550.00	56.32	74.00	-17.68	41.51	14.81	Peak	100	131

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

Beamforming mode

3.2.10 Transmitter Radiated Unwanted Emissions (Below 1GHz)

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

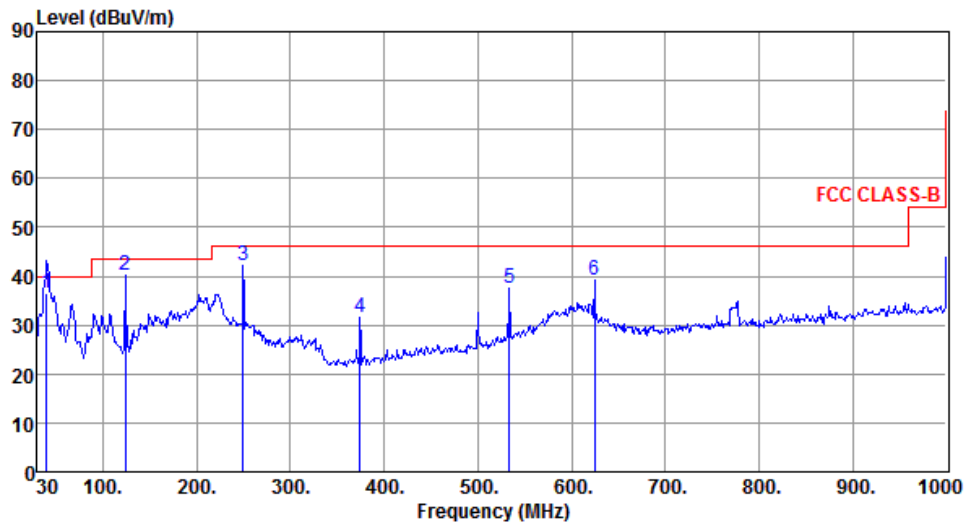


The graph displays the emission level in dBuV/m on the y-axis (0 to 90) against frequency in MHz on the x-axis (30 to 1000). A red line represents the FCC CLASS-B limit, which is 40 dBuV/m from 30 to 100 MHz, 45 dBuV/m from 100 to 300 MHz, and 55 dBuV/m from 300 to 1000 MHz. A blue line shows the measured emission level, with six specific peaks labeled 1 through 6. The emission level is generally below the limit, with a margin of -8.06 dB at 124.09 MHz and -11.69 dB at 374.35 MHz.

	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	124.09	35.44	43.50	-8.06	45.97	-10.53	Peak	---	---
2	149.31	33.83	43.50	-9.67	42.27	-8.44	Peak	---	---
3	221.09	36.91	46.00	-9.09	47.80	-10.89	Peak	---	---
4	249.22	42.95	46.00	-3.05	52.34	-9.39	QP	100	116
5	374.35	34.31	46.00	-11.69	40.37	-6.06	Peak	---	---
6	874.87	37.69	46.00	-8.31	34.45	3.24	Peak	---	---

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

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	39.70	36.58	40.00	-3.42	45.36	-8.78	QP	100	21
2	124.09	40.12	43.50	-3.38	50.65	-10.53	QP	100	96
3	249.22	42.15	46.00	-3.85	51.54	-9.39	Peak	---	---
4	374.35	31.61	46.00	-14.39	37.67	-6.06	Peak	---	---
5	533.43	37.59	46.00	-8.41	40.25	-2.66	Peak	---	---
6	624.61	39.03	46.00	-6.97	39.74	-0.71	Peak	---	---

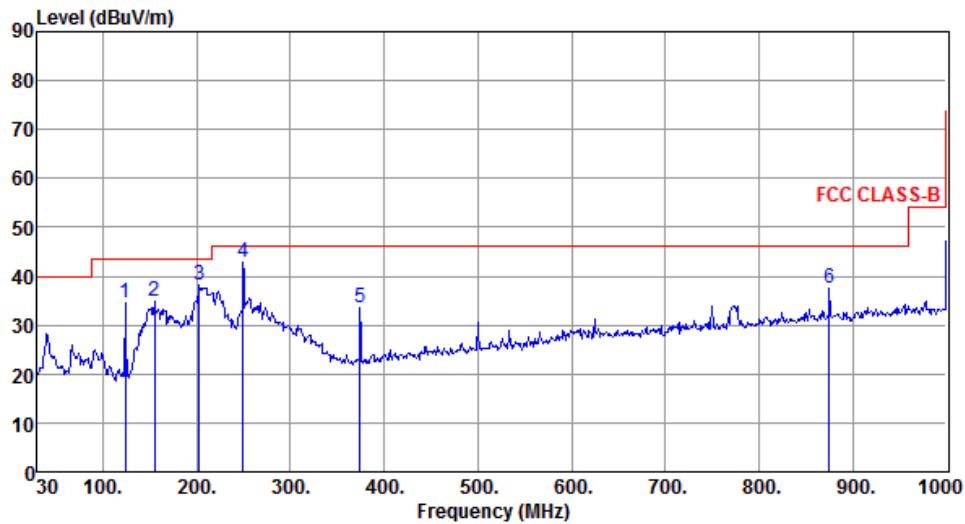
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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)	5755
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	124.09	34.57	43.50	-8.93	45.10	-10.53	Peak	---	---
2	155.13	34.76	43.50	-8.74	43.11	-8.35	Peak	---	---
3	202.66	38.03	43.50	-5.47	49.11	-11.08	Peak	---	---
4	249.22	42.94	46.00	-3.06	52.33	-9.39	QP	100	103
5	374.35	33.43	46.00	-12.57	39.49	-6.06	Peak	---	---
6	874.87	37.59	46.00	-8.41	34.35	3.24	Peak	---	---

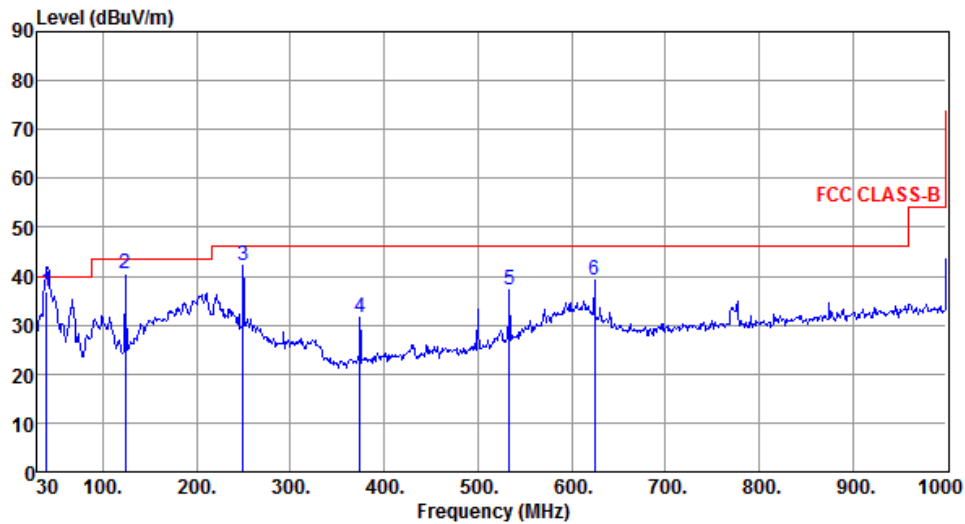
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*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)	5755
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	39.70	36.82	40.00	-3.18	45.60	-8.78	QP	100	18
2	124.09	40.46	43.50	-3.04	50.99	-10.53	QP	100	95
3	249.22	42.33	46.00	-3.67	51.72	-9.39	Peak	---	---
4	374.35	31.70	46.00	-14.30	37.76	-6.06	Peak	---	---
5	533.43	37.30	46.00	-8.70	39.96	-2.66	Peak	---	---
6	624.61	39.04	46.00	-6.96	39.75	-0.71	Peak	---	---

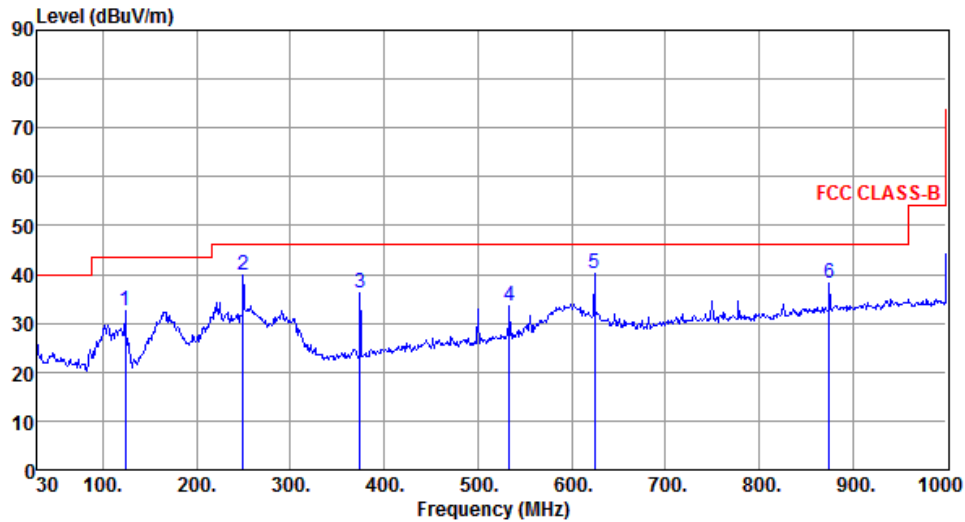
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	124.09	32.49	43.50	-11.01	43.02	-10.53	Peak	---	---
2	249.22	39.90	46.00	-6.10	49.29	-9.39	Peak	---	---
3	374.35	36.35	46.00	-9.65	42.41	-6.06	Peak	---	---
4	533.43	33.67	46.00	-12.33	36.33	-2.66	Peak	---	---
5	624.61	40.18	46.00	-5.82	40.89	-0.71	Peak	---	---
6	874.87	38.04	46.00	-7.96	34.80	3.24	Peak	---	---

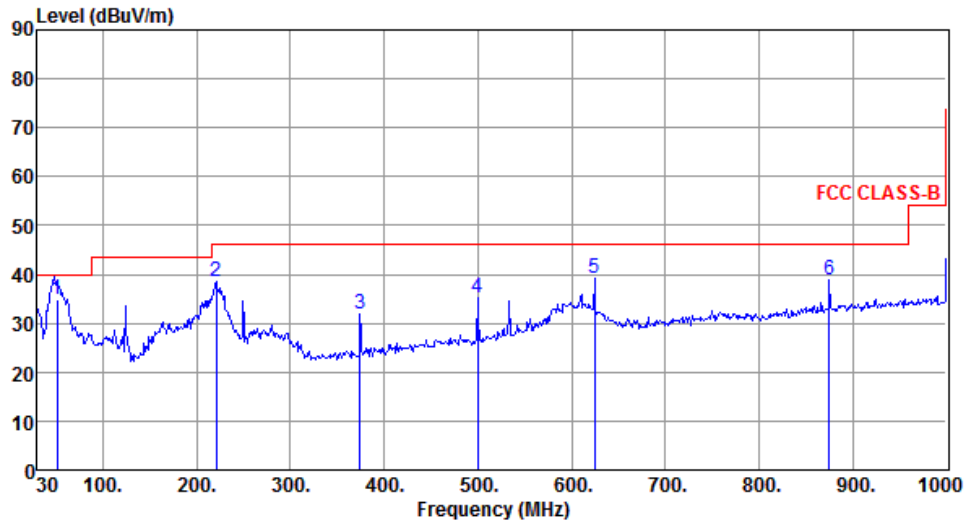
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	51.00	34.75	40.00	-5.25	42.98	-8.23	QP	102	78
2	221.09	38.56	46.00	-7.44	49.45	-10.89	Peak	---	---
3	374.35	31.86	46.00	-14.14	37.92	-6.06	Peak	---	---
4	499.48	35.06	46.00	-10.94	38.42	-3.36	Peak	---	---
5	624.61	39.29	46.00	-6.71	40.00	-0.71	Peak	---	---
6	874.87	39.02	46.00	-6.98	35.78	3.24	Peak	---	---

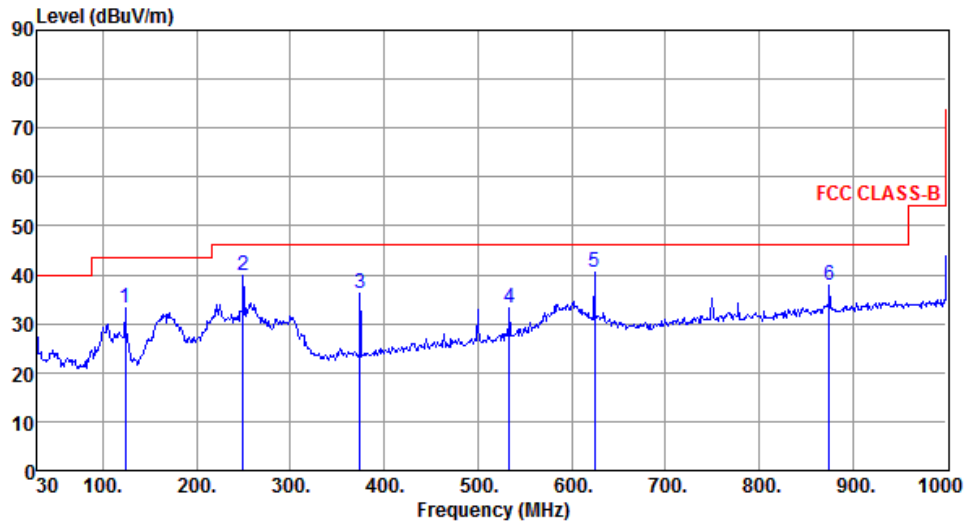
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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)	5755
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	124.09	33.28	43.50	-10.22	43.81	-10.53	Peak	---	---
2	249.22	39.75	46.00	-6.25	49.14	-9.39	Peak	---	---
3	374.35	36.05	46.00	-9.95	42.11	-6.06	Peak	---	---
4	533.43	33.14	46.00	-12.86	35.80	-2.66	Peak	---	---
5	624.61	40.58	46.00	-5.42	41.29	-0.71	Peak	---	---
6	874.87	37.77	46.00	-8.23	34.53	3.24	Peak	---	---

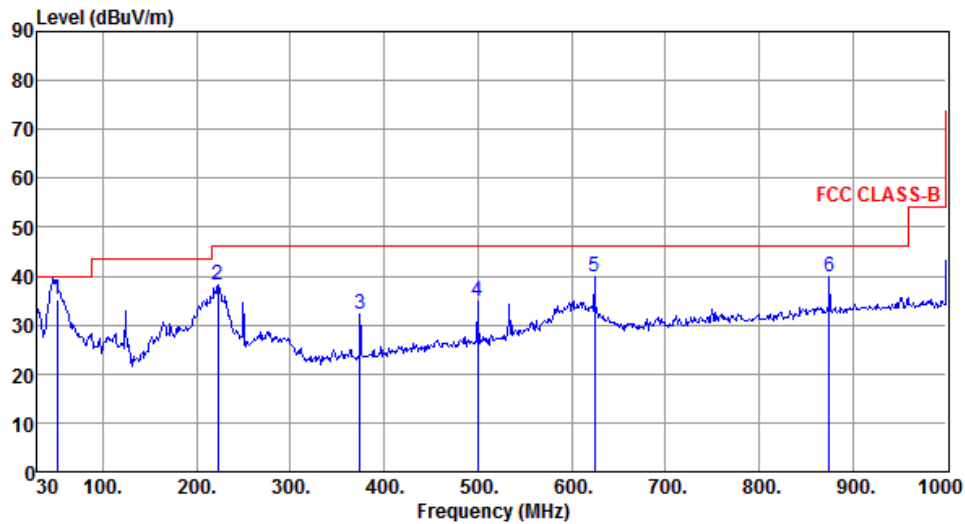
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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)	5755
Polarization	Vertical	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	51.34	35.33	40.00	-4.67	43.58	-8.25	QP	101	81
2	223.03	38.21	46.00	-7.79	48.98	-10.77	Peak	---	---
3	374.35	32.14	46.00	-13.86	38.20	-6.06	Peak	---	---
4	499.48	34.84	46.00	-11.16	38.20	-3.36	Peak	---	---
5	624.61	39.70	46.00	-6.30	40.41	-0.71	Peak	---	---
6	874.87	39.81	46.00	-6.19	36.57	3.24	Peak	---	---

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

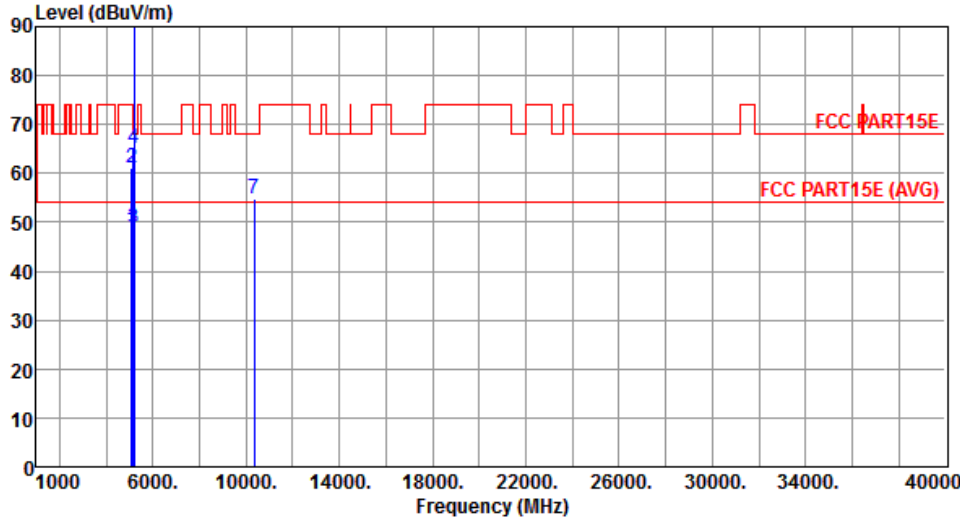
*Factor includes antenna factor , cable loss and amplifier gain

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.

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

Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal		

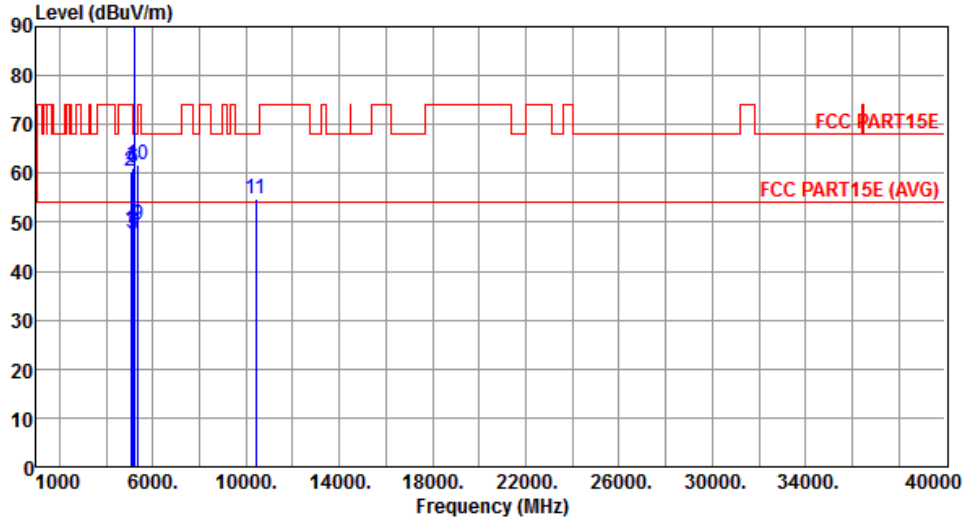


	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	5100.00	48.35	54.00	-5.65	43.21	5.14	Average	342	147
2	5100.00	61.16	74.00	-12.84	56.02	5.14	Peak	342	147
3	5150.00	48.86	54.00	-5.14	43.65	5.21	Average	342	147
4	5150.00	65.23	74.00	-8.77	60.02	5.21	Peak	342	147
5 *	5180.00	94.85			89.60	5.25	Average	342	147
6 *	5180.00	106.51			101.26	5.25	Peak	342	147
7	10360.00	54.82	68.20	-13.38	40.92	13.90	Peak	150	66

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

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

Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5040.00	48.36	54.00	-5.64	43.29	5.07	Average	342	148
2	5040.00	60.59	74.00	-13.41	55.52	5.07	Peak	342	148
3	5120.00	47.84	54.00	-6.16	42.67	5.17	Average	342	148
4	5120.00	61.25	74.00	-12.75	56.08	5.17	Peak	342	148
5	5150.00	47.52	54.00	-6.48	42.31	5.21	Average	342	148
6	5150.00	60.98	74.00	-13.02	55.77	5.21	Peak	342	148
7 *	5200.00	97.16			91.89	5.27	Average	342	148
8 *	5200.00	108.69			103.42	5.27	Peak	342	148
9	5360.00	49.45	54.00	-4.55	43.93	5.52	Average	342	148
10	5360.00	61.82	74.00	-12.18	56.30	5.52	Peak	342	148
11	10400.00	54.96	68.20	-13.24	41.04	13.92	Peak	135	54

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

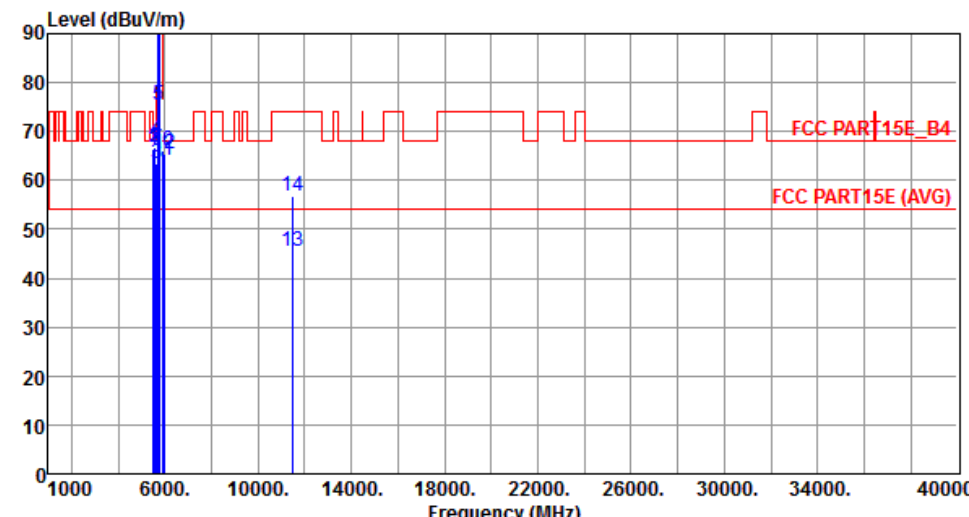
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical		
Level (dBuV/m) <			

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)	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	5505.00	66.58	68.20	-1.62	60.87	5.71	Peak	289	279
2	5585.00	66.86	68.20	-1.34	61.08	5.78	Peak	289	279
3	5650.00	63.36	68.20	-4.84	57.49	5.87	Peak	289	279
4	5665.00	68.34	79.33	-10.99	62.45	5.89	Peak	289	279
5	5700.00	75.50	105.20	-29.70	69.54	5.96	Peak	289	279
6	5720.00	89.44	110.80	-21.36	83.46	5.98	Peak	289	279
7	5725.00	94.58	122.20	-27.62	88.59	5.99	Peak	289	279
8 *	5745.00	111.17			105.15	6.02	Average	289	279
9 *	5745.00	123.22			117.20	6.02	Peak	289	279
10	5905.00	66.21	82.96	-16.75	59.97	6.24	Peak	289	279
11	5925.00	64.22	68.20	-3.98	57.96	6.26	Peak	289	279
12	5985.00	65.44	68.20	-2.76	59.12	6.32	Peak	289	279
13	11490.00	45.38	54.00	-8.62	30.48	14.90	Average	110	49
14	11490.00	56.92	74.00	-17.08	42.02	14.90	Peak	110	49

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

Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		
Level (dBuV/m)			

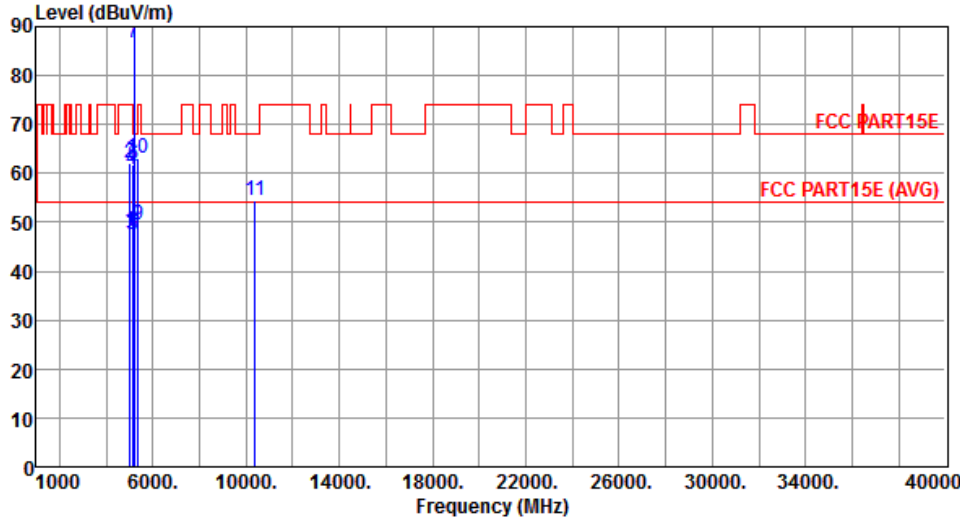
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		
Level (dBuV/m)			

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

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

3.2.12 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	5030.00	48.07	54.00	-5.93	43.02	5.05	Average	342	146
2	5030.00	61.94	74.00	-12.06	56.89	5.05	Peak	342	146
3	5110.00	47.64	54.00	-6.36	42.49	5.15	Average	342	146
4	5110.00	60.92	74.00	-13.08	55.77	5.15	Peak	342	146
5	5150.00	47.60	54.00	-6.40	42.39	5.21	Average	342	146
6	5150.00	61.66	74.00	-12.34	56.45	5.21	Peak	342	146
7 *	5190.00	86.69			81.43	5.26	Average	342	146
8 *	5190.00	99.24			93.98	5.26	Peak	342	146
9	5350.00	49.38	54.00	-4.62	43.88	5.50	Average	342	146
10	5350.00	63.19	74.00	-10.81	57.69	5.50	Peak	342	146
11	10380.00	54.52	68.20	-13.68	40.62	13.90	Peak	100	59

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

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

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)	5755
Polarization	Horizontal		
Level (dBUV/m) </			

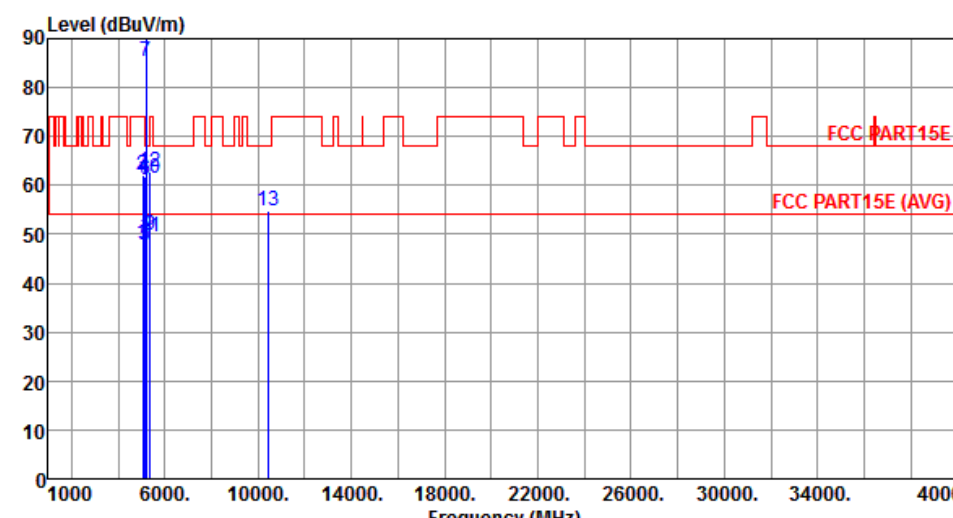
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		
Level (dBuV/m) </			

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

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

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

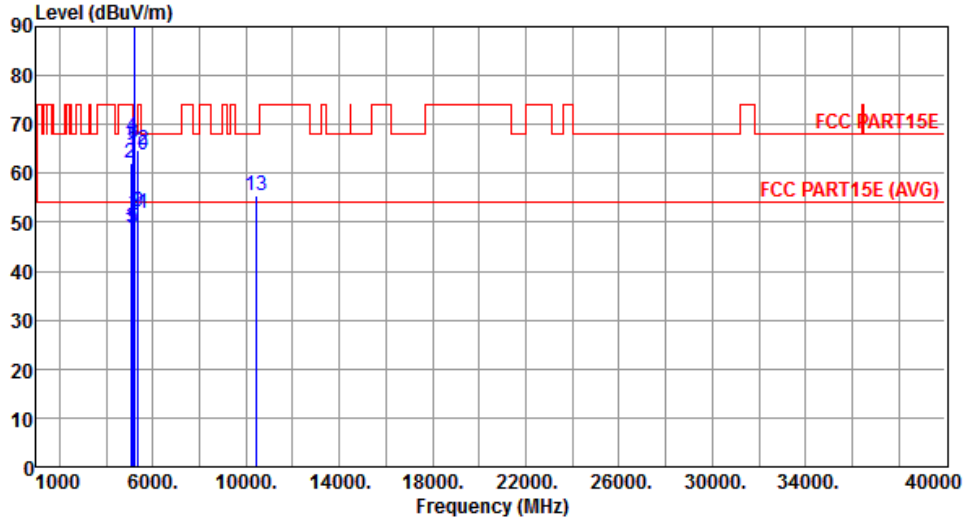
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5050.00	48.03	54.00	-5.97	42.95	5.08	Average	326	143
2	5050.00	62.27	74.00	-11.73	57.19	5.08	Peak	326	143
3	5130.00	47.69	54.00	-6.31	42.51	5.18	Average	326	143
4	5130.00	61.67	74.00	-12.33	56.49	5.18	Peak	326	143
5	5150.00	47.84	54.00	-6.16	42.63	5.21	Average	326	143
6	5150.00	61.12	74.00	-12.88	55.91	5.21	Peak	326	143
7 *	5210.00	85.44			80.15	5.29	Average	326	143
8 *	5210.00	97.45			92.16	5.29	Peak	326	143
9	5350.00	49.88	54.00	-4.12	44.38	5.50	Average	326	143
10	5350.00	61.46	74.00	-12.54	55.96	5.50	Peak	326	143
11	5370.00	49.61	54.00	-4.39	44.08	5.53	Average	326	143
12	5370.00	62.86	74.00	-11.14	57.33	5.53	Peak	326	143
13	10420.00	54.69	68.20	-13.51	40.77	13.92	Peak	100	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).
 Note 3: "*" is Peak / Average value of fundamental frequency

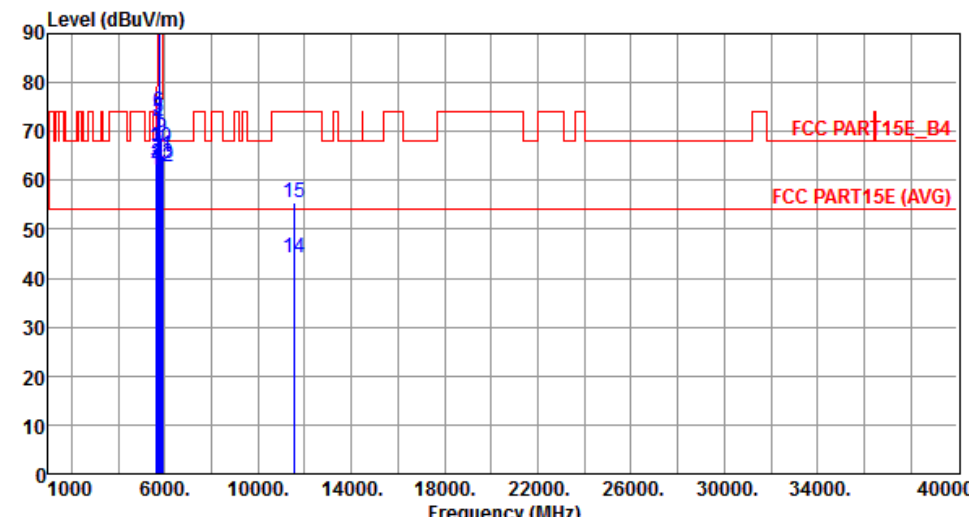
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5050.00	48.60	54.00	-5.40	43.52	5.08	Average	289	108
2	5050.00	62.20	74.00	-11.80	57.12	5.08	Peak	289	108
3	5130.00	48.95	54.00	-5.05	43.77	5.18	Average	289	108
4	5130.00	67.35	74.00	-6.65	62.17	5.18	Peak	289	108
5	5150.00	48.90	54.00	-5.10	43.69	5.21	Average	289	108
6	5150.00	66.23	74.00	-7.77	61.02	5.21	Peak	289	108
7 *	5210.00	96.21			90.92	5.29	Average	289	108
8 *	5210.00	107.41			102.12	5.29	Peak	289	108
9	5350.00	52.12	54.00	-1.88	46.62	5.50	Average	289	108
10	5350.00	63.74	74.00	-10.26	58.24	5.50	Peak	289	108
11	5370.00	51.86	54.00	-2.14	46.33	5.53	Average	289	108
12	5370.00	64.65	74.00	-9.35	59.12	5.53	Peak	289	108
13	10420.00	55.30	68.20	-12.90	41.38	13.92	Peak	100	124

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

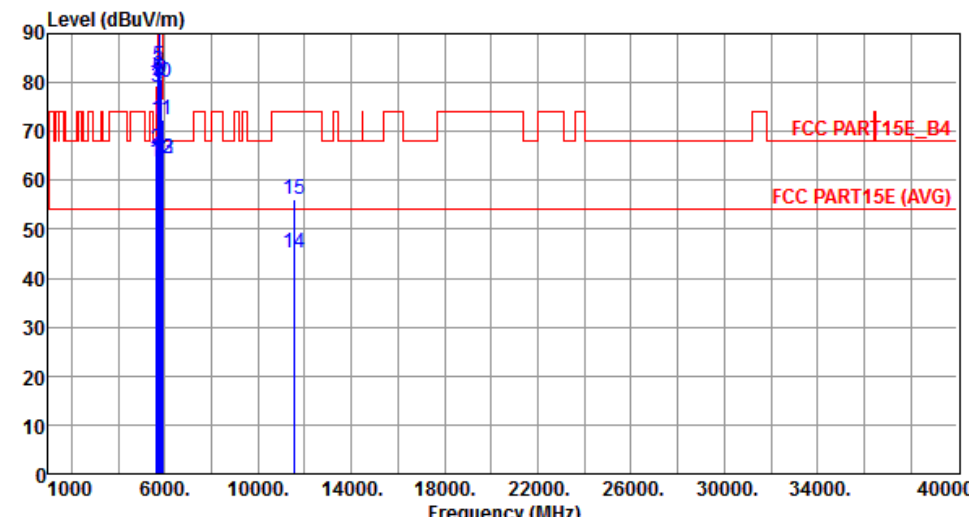
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5615.00	62.10	68.20	-6.10	56.29	5.81	Peak	354	122
2	5650.00	63.40	68.20	-4.80	57.53	5.87	Peak	354	122
3	5695.00	66.59	101.51	-34.92	60.65	5.94	Peak	354	122
4	5700.00	71.28	105.20	-33.92	65.32	5.96	Peak	354	122
5	5720.00	72.60	110.80	-38.20	66.62	5.98	Peak	354	122
6	5725.00	74.05	122.20	-48.15	68.06	5.99	Peak	354	122
7	* 5775.00	93.01			86.93	6.08	Average	354	122
8	* 5775.00	105.99			99.91	6.08	Peak	354	122
9	5850.00	68.58	122.20	-53.62	62.41	6.17	Peak	354	122
10	5855.00	66.66	110.80	-44.14	60.48	6.18	Peak	354	122
11	5875.00	64.95	105.20	-40.25	58.75	6.20	Peak	354	122
12	5925.00	62.63	68.20	-5.57	56.37	6.26	Peak	354	122
13	5935.00	63.28	68.20	-4.92	57.02	6.26	Peak	354	122
14	11550.00	44.27	54.00	-9.73	29.46	14.81	Average	100	262
15	11550.00	55.56	74.00	-18.44	40.75	14.81	Peak	100	262

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

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5615.00	63.91	68.20	-4.29	58.10	5.81	Peak	364	226
2	5650.00	66.57	68.20	-1.63	60.70	5.87	Peak	364	226
3	5695.00	79.03	101.51	-22.48	73.09	5.94	Peak	364	226
4	5700.00	79.55	105.20	-25.65	73.59	5.96	Peak	364	226
5	5720.00	83.36	110.80	-27.44	77.38	5.98	Peak	364	226
6	5725.00	81.39	122.20	-40.81	75.40	5.99	Peak	364	226
7	* 5775.00	101.50			95.42	6.08	Average	364	226
8	* 5775.00	114.40			108.32	6.08	Peak	364	226
9	5850.00	80.66	122.20	-41.54	74.49	6.17	Peak	364	226
10	5855.00	80.10	110.80	-30.70	73.92	6.18	Peak	364	226
11	5875.00	72.33	105.20	-32.87	66.13	6.20	Peak	364	226
12	5925.00	64.54	68.20	-3.66	58.28	6.26	Peak	364	226
13	5935.00	64.38	68.20	-3.82	58.12	6.26	Peak	364	226
14	11550.00	45.14	54.00	-8.86	30.33	14.81	Average	100	141
15	11550.00	56.17	74.00	-17.83	41.36	14.81	Peak	100	141

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

4 Test laboratory information

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

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

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

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