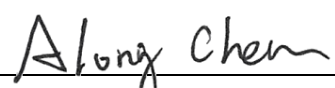


NCC Test Report

Equipment : 802.11ac Wave 2 同步雙頻整合式無線網路基地台
Model No. : WAC6303D-S
Brand Name : ZYXEL
Applicant : 合勤科技股份有限公司
Address : 新北市新店區北新路 3 段 223 號 11 樓
Standard : LP0002 Section 4.7 (2016-08-23)
Received Date : Jun. 22, 2017
Tested Date : Sep. 05 ~ 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:

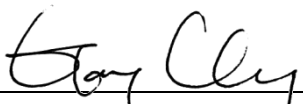

Gary Chang / Manager



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Release Record

Report No.	Version	Description	Issued Date
TR762203-03	Rev. 01	Initial issue	Nov. 15, 2017

Summary of Test Results

NCC Rules	Test Items	Measured	Result
2.3	Conducted Emissions	[dBuV]: 0.561MHz 38.70 (Margin -7.30dB) - AV	Pass
4.7.4 2.8	Radiated Emissions	[dBuV/m at 3m]: 5350.00MHz 53.72 (Margin -0.28dB) - AV	Pass
-	Emission Bandwidth	Meet the requirement of limit	Pass
4.7.3	RF Output Power	Max Power [dBm]: <i>Non-beamforming mode</i> 5250~5350MHz: 22.45 5470~5725MHz: 23.31 <i>Beamforming mode</i> 5250~5350MHz: 21.08 5470~5725MHz: 21.12	Pass
4.7.3	Peak Power Spectral Density	Meet the requirement of limit	Pass
-	Frequency Stability	Meet the requirement of limit	Pass
4.7.8	Antenna Requirement	Meet the requirement of limit	Pass

1 General Description

1.1 Information

This report is issued as a supplementary report to the original ICC report no.: TR762203AN. The modification is only concerned with adding 5250~5350MHz and 5470~5725 MHz band by software setting.

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS
5250-5350 5470-5725	a	5260-5320 5500-5720	52-64 [4] 100-144 [12]	3	6-54 Mbps
5250-5350 5470-5725	n (HT20)	5260-5320 5500-5720	52-64 [4] 100-144 [12]	3	MCS 0-23
5250-5350 5470-5725	n (HT40)	5270-5310 5510-5710	54-62 [2] 102-142 [6]	3	MCS 0-23
5250-5350 5470-5725	ac (VHT20)	5260-5320 5500-5720	52-64 [4] 100-144 [12]	3	MCS 0-9
5250-5350 5470-5725	ac (VHT40)	5270-5310 5510-5710	54-62 [2] 102-142 [6]	3	MCS 0-9
5250-5350 5470-5725	ac (VHT80)	5290 5530-5690	58 [1] 106-138 [3]	3	MCS 0-9
SW Version: V5.10(ABGL.1)b6 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 mode.					

1.1.2 Antenna Details

Model	Type	Connector	Antenna Gain (dBi)	
			5250~5350 MHz	5470~5725 MHz
AD32	Direction	UFL	1.29	1.07

1.1.3 Power Supply Type of Equipment under Test (EUT)

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

1.1.4 Accessories

N/A

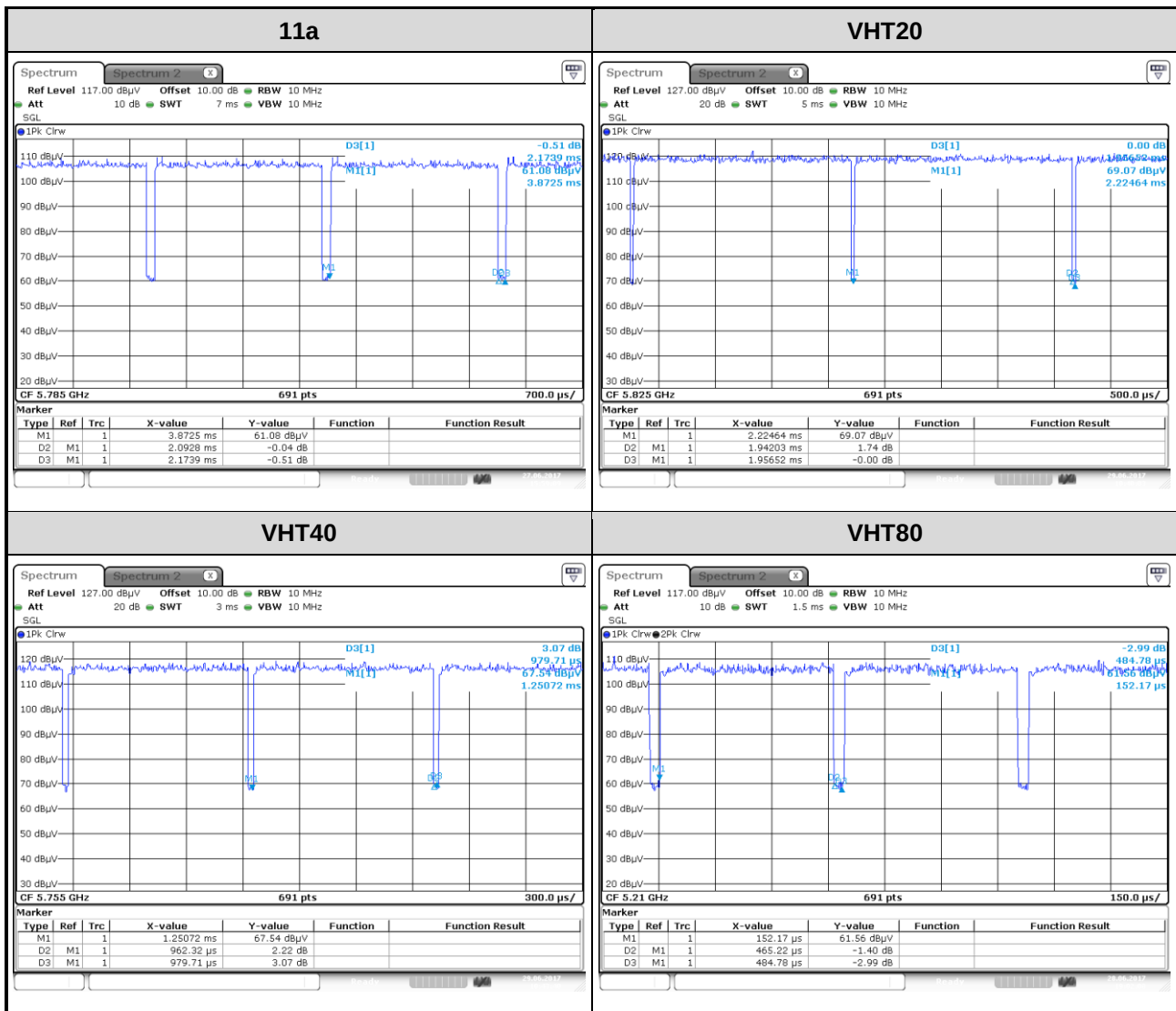
1.1.5 Channel List

802.11 a / HT20 / VHT20		HT40 / VHT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
52	5260	54	5270
56	5280	62	5310
60	5300	102	5510
64	5320	110	5550
100	5500	118	5590
104	5520	126	5630
108	5540	134	5670
112	5560	142	5710
116	5580	VHT80	
120	5600	58	5290
124	5620	106	5530
128	5640	122	5610
132	5660	138	5690
136	5680	---	---
140	5700	---	---
144	5720	---	---

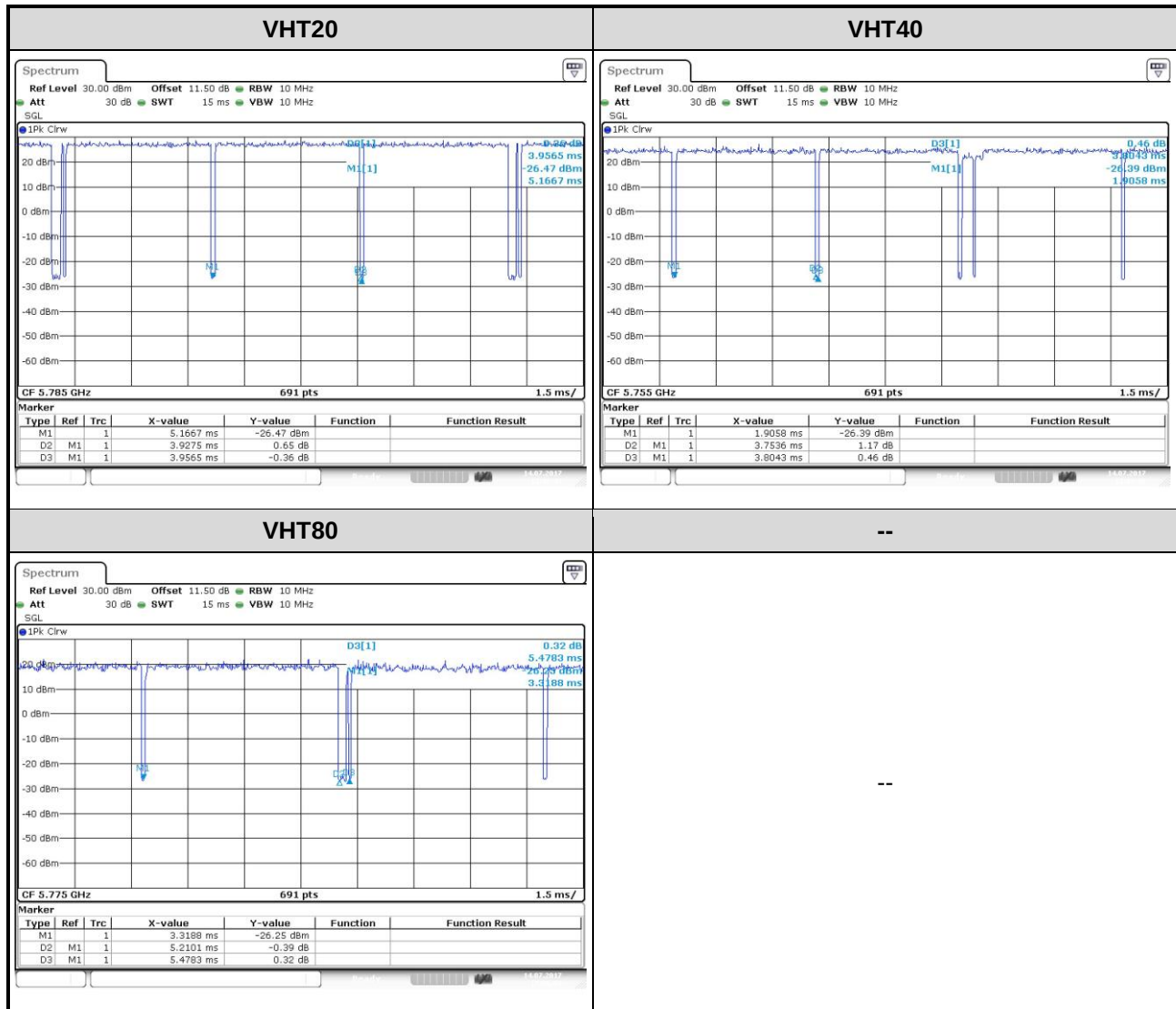
1.1.6 Test Tool and Duty Cycle

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



1.1.7 Power Setting

For Frequency band 5250~5350 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5260	64	---
11a	5300	64	---
11a	5320	64	---
HT20	5260	64	62
HT20	5300	64	62
HT20	5320	64	62
HT40	5270	70	62
HT40	5310	67	56
VHT20	5260	64	62
VHT20	5300	64	62
VHT20	5320	64	62
VHT40	5270	70	62
VHT40	5310	67	56
VHT80	5290	56	50

For Frequency band 5470~5725 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5500	68	---
11a	5580	64	---
11a	5700	68	---
HT20	5500	68	64
HT20	5580	64	60
HT20	5700	64	62
HT40	5510	70	64
HT40	5590	76	66
HT40	5670	72	66
VHT20	5500	68	64
VHT20	5580	64	60
VHT20	5700	64	62
VHT40	5510	70	64
VHT40	5590	76	66
VHT40	5670	72	66
VHT80	5530	58	54
VHT80	5610	70	66

Channel that extends across the 5.725 GHz boundary

For Frequency band 5470~5725 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5720	68	---
HT20	5720	68	62
HT40	5710	74	66
VHT20	5720	68	62
VHT40	5710	74	66
VHT80	5690	80	66

1.2 Local Support Equipment List

Non-beamforming mode

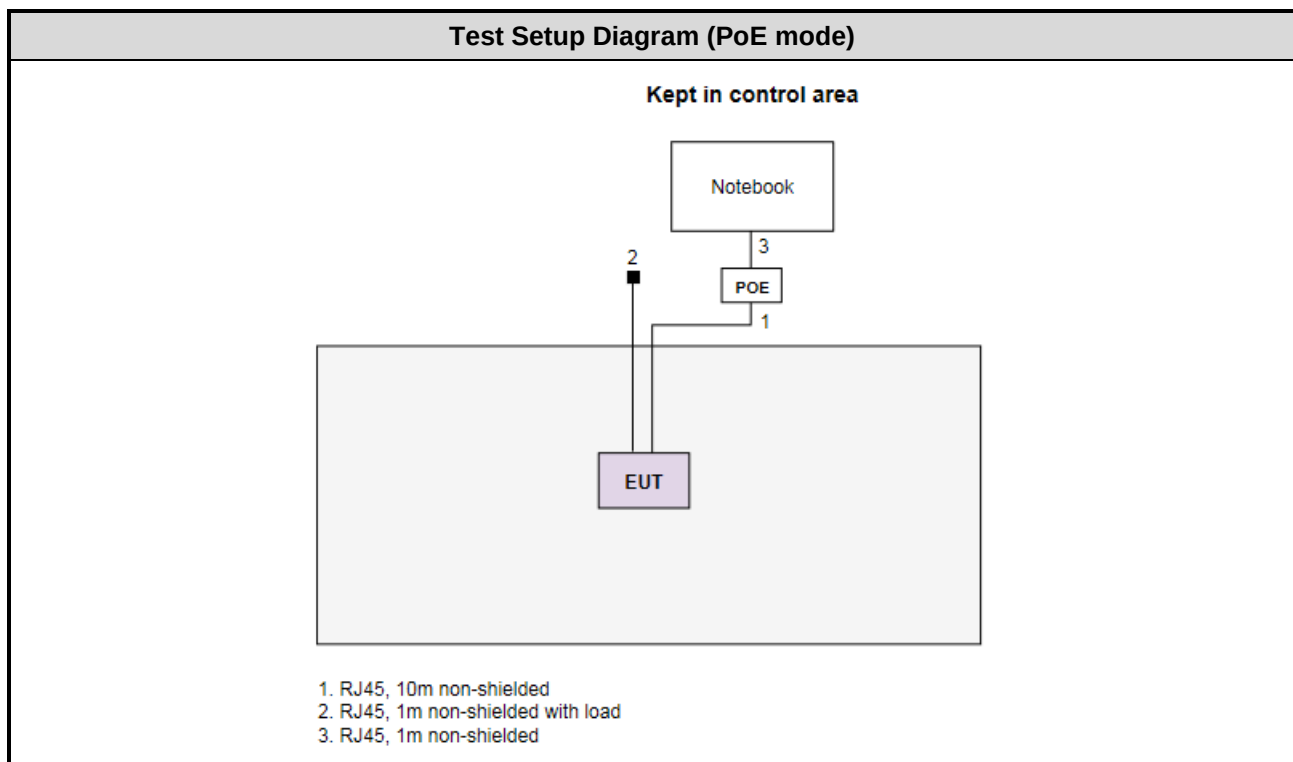
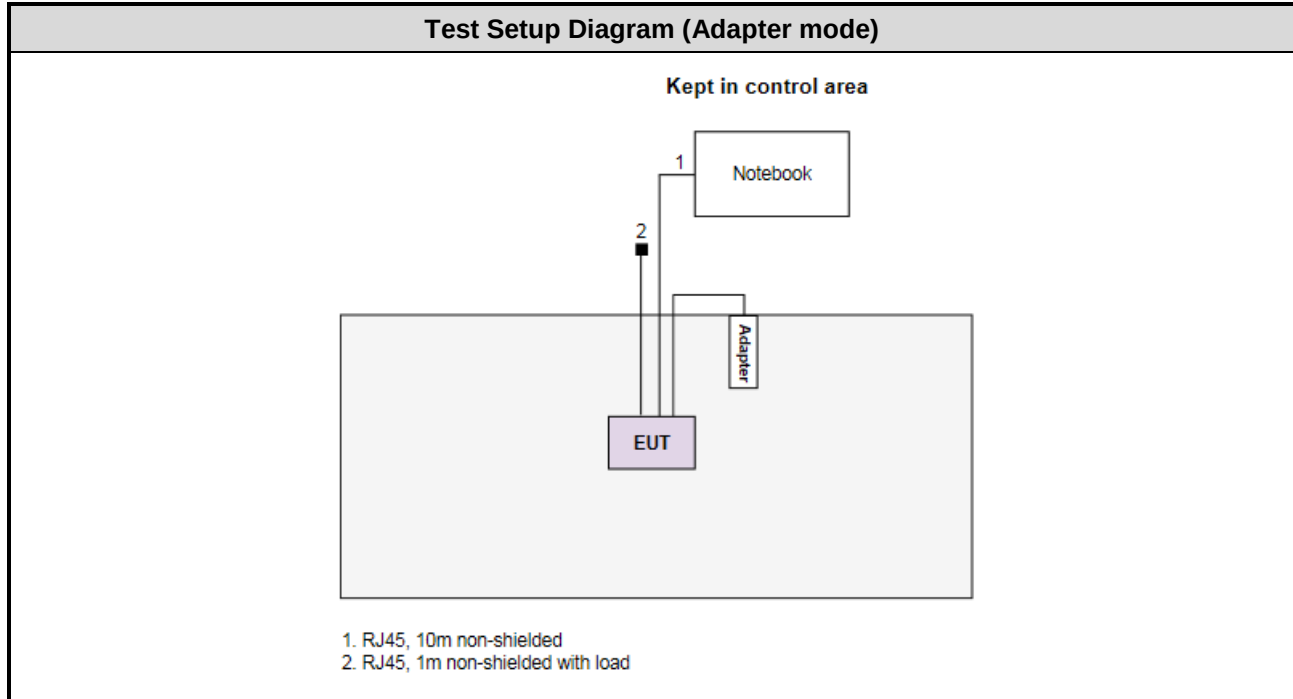
Support Equipment List					
No.	Equipment	Brand	Model	S/N	Signal cable / Length (m)
1	Notebook	DELL	Latitude E6430	9ZFB4X1	RJ45, 10m non-shielded.
2	POE	ZYXEL	GS1900-8HP	---	---
3	Adapter	APD	WA-24Q12R	---	---

Beamforming mode

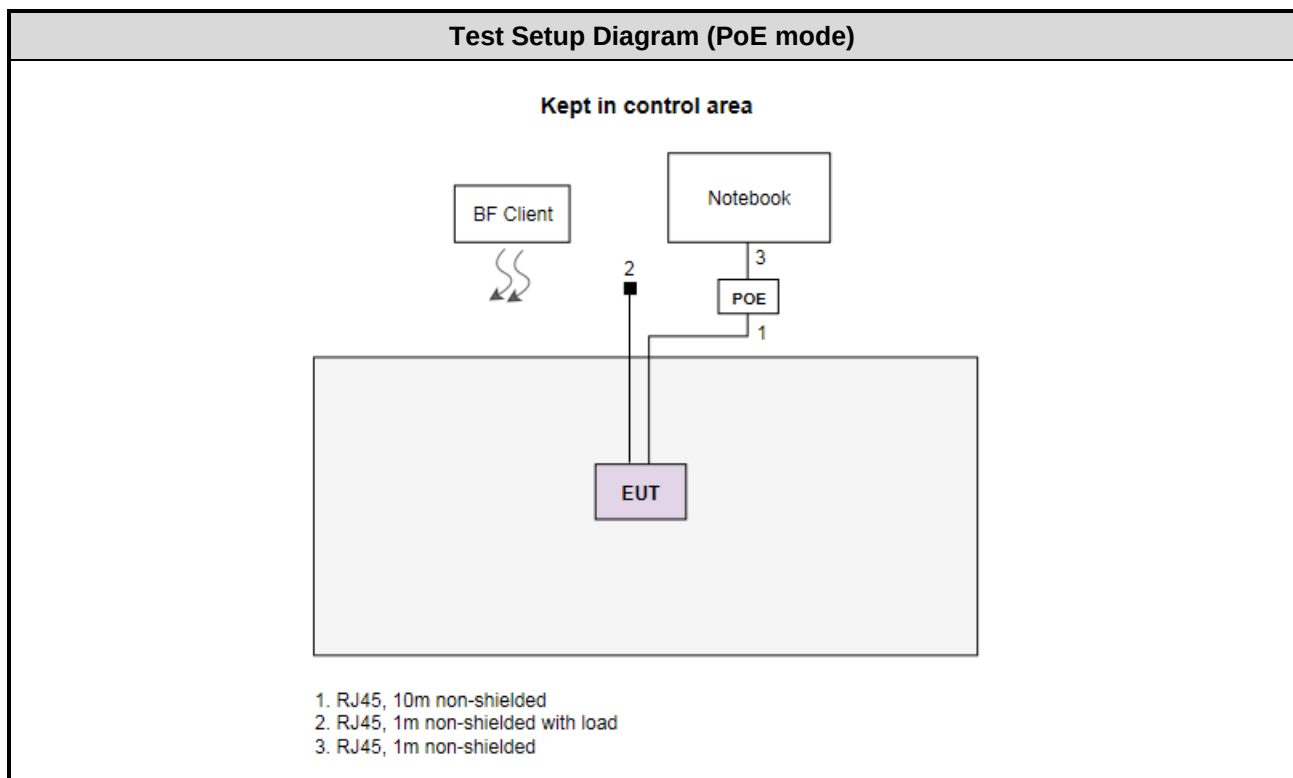
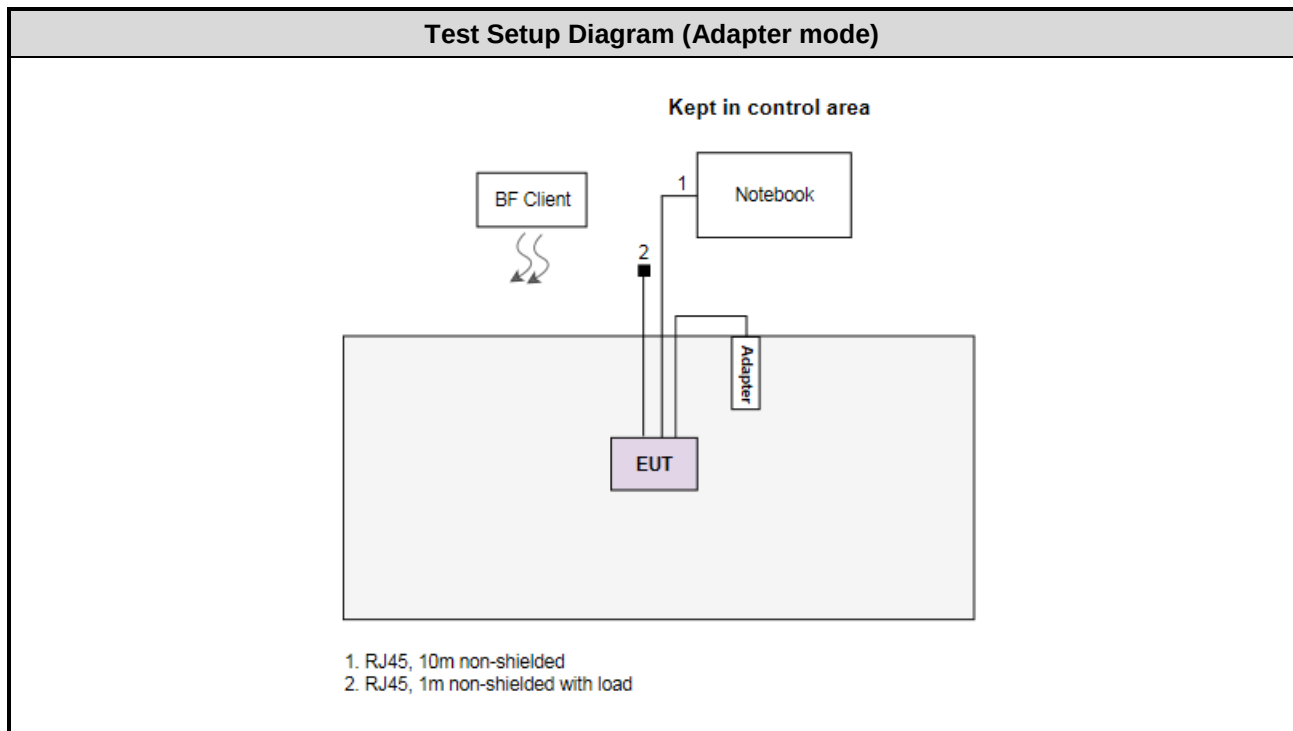
Support Equipment List					
No.	Equipment	Brand	Model	S/N	Signal cable / Length (m)
1	Notebook	DELL	Latitude E6430	9ZFB4X1	RJ45, 10m non-shielded.
2	Client	ASUS	PCE-AC68	---	---
3	POE	ZYXEL	GS1900-8HP	---	---
4	Adapter	APD	WA-24Q12R	---	---

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.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Sep. 05 ~ Sep. 08, 2017				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101063	Mar. 15, 2017	Mar. 14, 2018
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Nov. 21, 2016	Nov. 20, 2017
Power Meter	Anritsu	ML2495A	1241002	Oct. 06, 2016	Oct. 05, 2017
Power Sensor	Anritsu	MA2411B	1207366	Oct. 06, 2016	Oct. 05, 2017
AC POWER SOURCE	APC	AFC-500W	F312060012	Oct. 28, 2016	Oct. 27, 2017
Measurement Software	Sporton	Sporton_1	1.3.30	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Testing Applied Standards

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

LP0002 Section 4.7 (2016-08-23)

ANSI C63.10-2013

ANSI C63.4-2014

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	24-25°C / 65-66%	Aska Huang Brad Wu
RF Conducted	TH01-WS	22°C / 63%	Felix Sung

- 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 5250-5350 MHz, 5470-5725 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
Conducted Emissions	VHT80	5690	MCS 0	1, 2
Radiated Emissions ≤1GHz	VHT80	5690	MCS 0	1, 2
RF Output Power	11a	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	6 Mbps	1
	HT20 / VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	HT40 / VHT40	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT80	5290 / 5530 / 5610 / 5690	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	6 Mbps	1
	VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	VHT40	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT80	5290 / 5530 / 5610 / 5690	MCS 0	
Frequency Stability	Un-modulation	5580	---	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

Beamforming mode

For Frequency band 5250-5350 MHz, 5470-5725 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
Conducted Emissions	VHT40	5670	MCS 0	1, 2
Radiated Emissions ≤1GHz	VHT40	5670	MCS 0	1, 2
RF Output Power	HT20 / VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	1
	HT40 / VHT40	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT80	5290 / 5530 / 5610 / 5690	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	1
	VHT40	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT80	5290 / 5530 / 5610 / 5690	MCS 0	
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				

For Frequency band 5250-5350 MHz, 5470-5725 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Mode	Test Configuration
Conducted Emissions	VHT80	5690	RX	1, 2
Radiated Emissions ≤ 1 GHz	VHT80	5690	RX	1, 2
Radiated Emissions > 1 GHz	VHT80	5690	RX	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

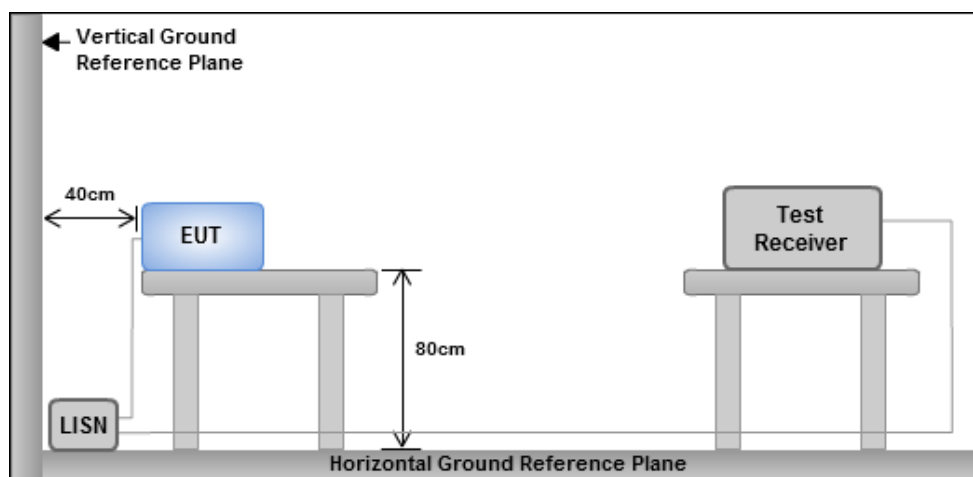
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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

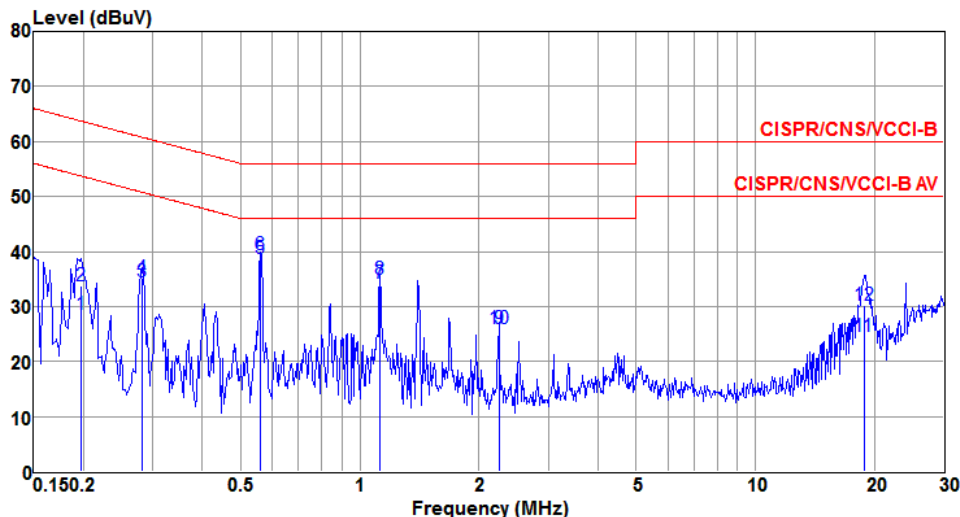


- Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

Non- beamforming mode

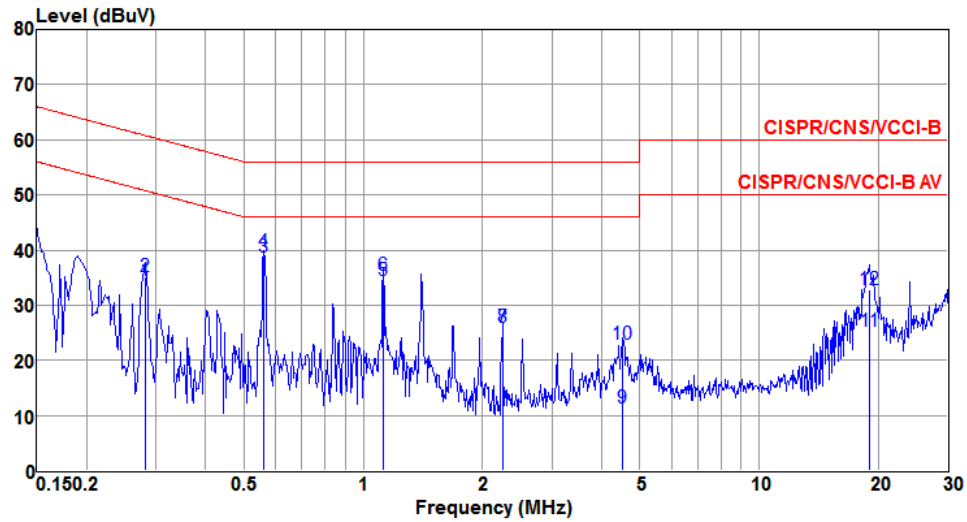
Modulation	VHT80	Test Freq. (MHz)	5690
Power Phase	Line	Test configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.198	28.52	53.71	-25.19	18.98	9.50	0.04	Average
2	0.198	33.80	63.71	-29.91	24.26	9.50	0.04	QP
3	0.282	34.48	50.76	-16.28	24.89	9.55	0.04	Average
4	0.282	35.17	60.76	-25.59	25.58	9.55	0.04	QP
5②	0.561	38.65	46.00	-7.35	29.06	9.55	0.04	Average
6	0.561	39.51	56.00	-16.49	29.92	9.55	0.04	QP
7	1.124	34.17	46.00	-11.83	24.64	9.49	0.04	Average
8	1.124	34.88	56.00	-21.12	25.35	9.49	0.04	QP
9	2.246	25.89	46.00	-20.11	16.22	9.61	0.06	Average
10	2.246	25.95	56.00	-30.05	16.28	9.61	0.06	QP
11	18.820	24.52	50.00	-25.48	14.56	9.71	0.25	Average
12	18.820	30.28	60.00	-29.72	20.32	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).

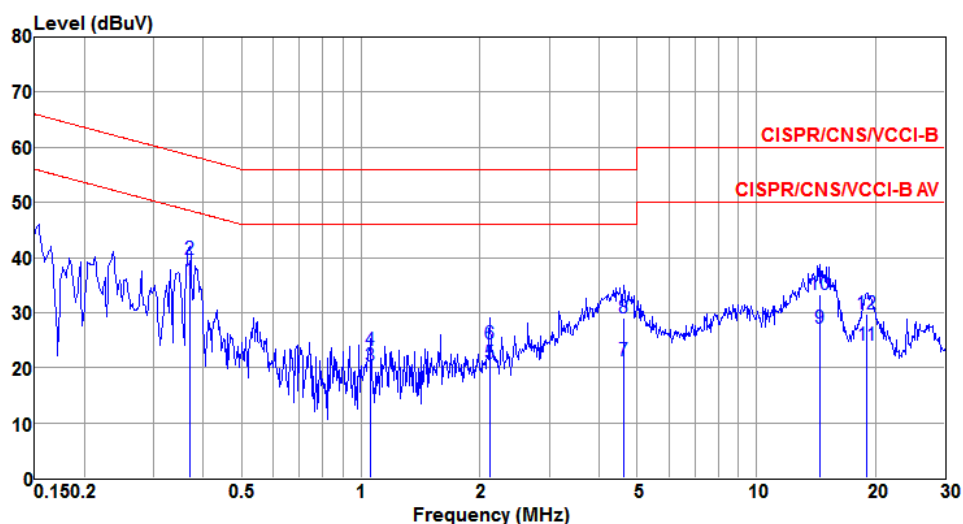
Modulation	VHT80	Test Freq. (MHz)	5690
Power Phase	Neutral	Test configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.282	34.54	50.76	-16.22	24.93	9.57	0.04	Average
2	0.282	35.22	60.76	-25.54	25.61	9.57	0.04	QP
3	0.561	38.70	46.00	-7.30	29.07	9.59	0.04	Average
4	0.561	39.55	56.00	-16.45	29.92	9.59	0.04	QP
5	1.123	34.46	46.00	-11.54	24.77	9.65	0.04	Average
6	1.123	35.35	56.00	-20.65	25.66	9.65	0.04	QP
7	2.247	25.96	46.00	-20.04	16.35	9.55	0.06	Average
8	2.247	26.07	56.00	-29.93	16.46	9.55	0.06	QP
9	4.525	11.34	46.00	-34.66	1.46	9.71	0.17	Average
10	4.525	22.85	56.00	-33.15	12.97	9.71	0.17	QP
11	19.021	25.26	50.00	-24.74	15.29	9.72	0.25	Average
12	19.021	32.76	60.00	-27.24	22.79	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).

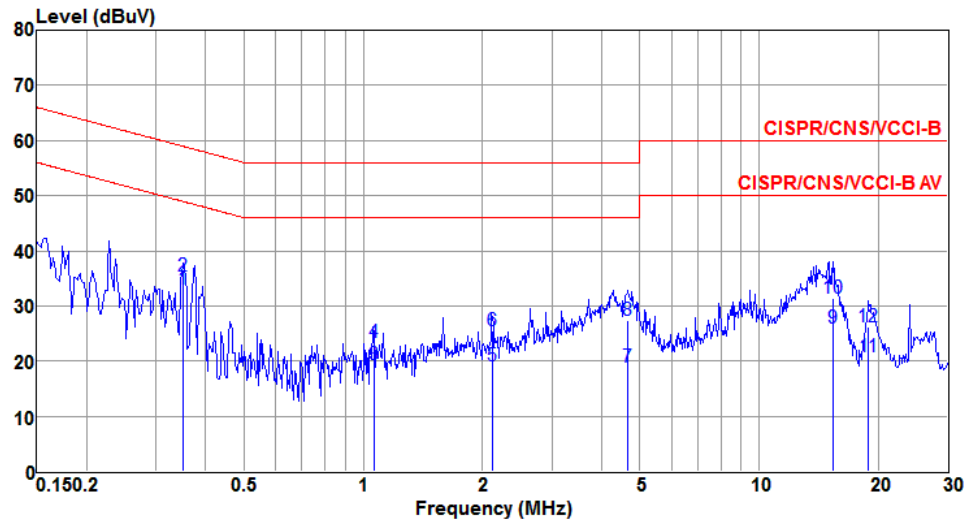
Modulation	VHT80	Test Freq. (MHz)	5690
Power Phase	Line	Test configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line dBuV	Limit dB	Level dBuV	factor dB	loss dB	Remark
1@	0.369	35.91	48.52	-12.61	26.28	9.59	0.04	Average
2	0.369	39.73	58.52	-18.79	30.10	9.59	0.04	QP
3	1.060	20.40	46.00	-25.60	10.89	9.47	0.04	Average
4	1.060	23.03	56.00	-32.97	13.52	9.47	0.04	QP
5	2.115	20.73	46.00	-25.27	11.05	9.63	0.05	Average
6	2.115	24.39	56.00	-31.61	14.71	9.63	0.05	QP
7	4.622	21.14	46.00	-24.86	11.46	9.51	0.17	Average
8	4.622	29.13	56.00	-26.87	19.45	9.51	0.17	QP
9	14.517	27.06	50.00	-22.94	17.14	9.69	0.23	Average
10	14.517	33.26	60.00	-26.74	23.34	9.69	0.23	QP
11	19.021	24.16	50.00	-25.84	14.20	9.71	0.25	Average
12	19.021	29.65	60.00	-30.35	19.69	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	VHT80	Test Freq. (MHz)	5690
Power Phase	Neutral	Test configuration	2

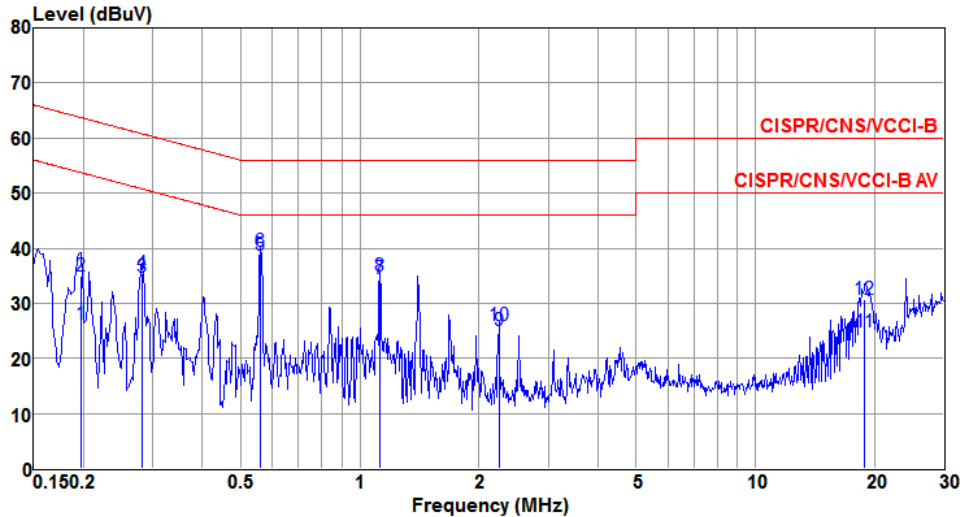


	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1@	0.350	33.08	48.96	-15.88	23.49	9.55	0.04	Average
2	0.350	35.36	58.96	-23.60	25.77	9.55	0.04	QP
3	1.062	19.39	46.00	-26.61	9.69	9.66	0.04	Average
4	1.062	23.40	56.00	-32.60	13.70	9.66	0.04	QP
5	2.128	19.03	46.00	-26.97	9.44	9.54	0.05	Average
6	2.128	25.50	56.00	-30.50	15.91	9.54	0.05	QP
7	4.672	18.96	46.00	-27.04	9.08	9.71	0.17	Average
8	4.672	27.44	56.00	-28.56	17.56	9.71	0.17	QP
9	15.388	26.00	50.00	-24.00	16.08	9.69	0.23	Average
10	15.388	31.44	60.00	-28.56	21.52	9.69	0.23	QP
11	18.920	20.73	50.00	-29.27	10.77	9.71	0.25	Average
12	18.920	26.14	60.00	-33.86	16.18	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).

Beamforming mode

Modulation	VHT40	Test Freq. (MHz)	5670
Power Phase	Line	Test configuration	1

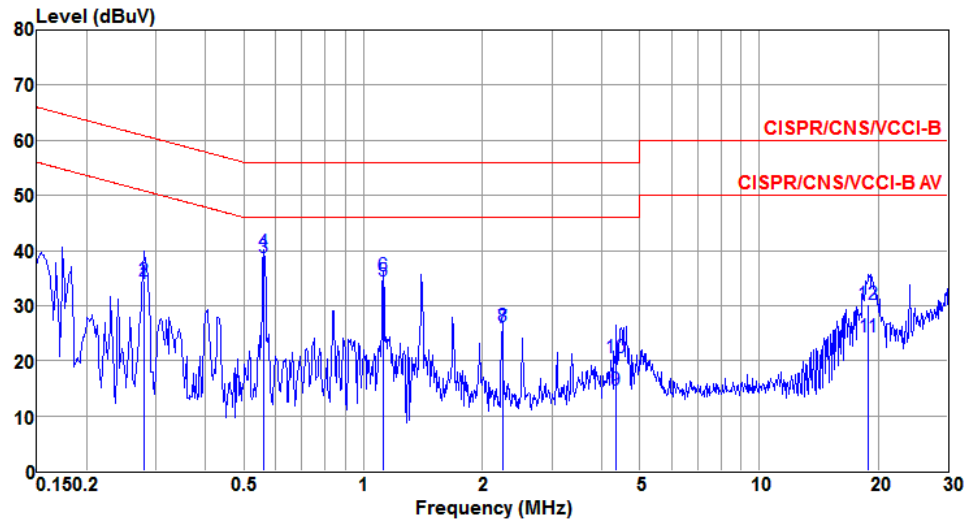


The graph displays the measured level in dBuV across a frequency range from 0.150.2 MHz to 30 MHz. Two red limit lines are shown: CISPR/CNS/VCCI-B (upper) and CISPR/CNS/VCCI-B AV (lower). The measured signal is shown as a blue line with several peaks labeled with numbers 1 through 12. The peaks are generally below the limit lines, indicating compliance.

	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.198	26.32	53.71	-27.39	16.78	9.50	0.04	Average
2	0.198	34.99	63.71	-28.72	25.45	9.50	0.04	QP
3	0.282	34.67	50.76	-16.09	25.08	9.55	0.04	Average
4	0.282	35.39	60.76	-25.37	25.80	9.55	0.04	QP
5@	0.561	38.63	46.00	-7.37	29.04	9.55	0.04	Average
6	0.561	39.52	56.00	-16.48	29.93	9.55	0.04	QP
7	1.124	34.41	46.00	-11.59	24.88	9.49	0.04	Average
8	1.124	35.03	56.00	-20.97	25.50	9.49	0.04	QP
9	2.245	25.02	46.00	-20.98	15.35	9.61	0.06	Average
10	2.245	25.95	56.00	-30.05	16.28	9.61	0.06	QP
11	18.920	24.89	50.00	-25.11	14.93	9.71	0.25	Average
12	18.920	30.79	60.00	-29.21	20.83	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).

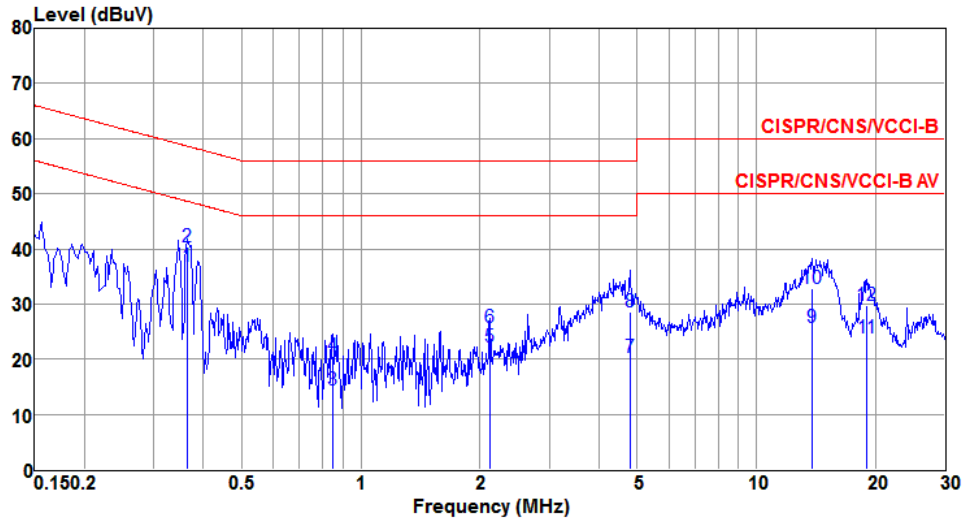
Modulation	VHT40	Test Freq. (MHz)	5670
Power Phase	Neutral	Test configuration	1



	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1	0.279	33.92	50.85	-16.93	24.31	9.57	0.04	Average
2	0.279	34.50	60.85	-26.35	24.89	9.57	0.04	QP
3	0.561	38.69	46.00	-7.31	29.06	9.59	0.04	Average
4	0.561	39.54	56.00	-16.46	29.91	9.59	0.04	QP
5	1.123	34.46	46.00	-11.54	24.77	9.65	0.04	Average
6	1.123	35.39	56.00	-20.61	25.70	9.65	0.04	QP
7	2.246	26.04	46.00	-19.96	16.43	9.55	0.06	Average
8	2.246	26.18	56.00	-29.82	16.57	9.55	0.06	QP
9	4.361	14.65	46.00	-31.35	4.77	9.71	0.17	Average
10	4.361	20.62	56.00	-35.38	10.74	9.71	0.17	QP
11	18.920	24.27	50.00	-25.73	14.31	9.71	0.25	Average
12	18.920	30.26	60.00	-29.74	20.30	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).

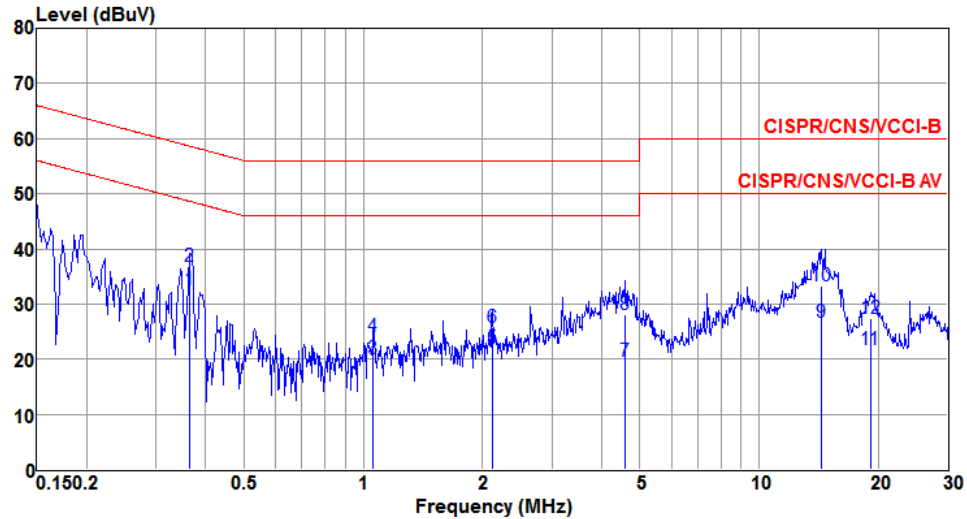
Modulation	VHT40	Test Freq. (MHz)	5670
Power Phase	Line	Test configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line	Limit	Level	factor	loss	
			dBuV	dB	dBuV	dB	dB	
10	0.363	36.72	48.65	-11.93	27.09	9.59	0.04	Average
2	0.363	40.30	58.65	-18.35	30.67	9.59	0.04	QP
3	0.848	14.45	46.00	-31.55	4.92	9.49	0.04	Average
4	0.848	20.58	56.00	-35.42	11.05	9.49	0.04	QP
5	2.121	22.11	46.00	-23.89	12.43	9.63	0.05	Average
6	2.121	25.71	56.00	-30.29	16.03	9.63	0.05	QP
7	4.797	20.40	46.00	-25.60	10.71	9.52	0.17	Average
8	4.797	28.55	56.00	-27.45	18.86	9.52	0.17	QP
9	13.841	25.66	50.00	-24.34	15.74	9.69	0.23	Average
10	13.841	32.79	60.00	-27.21	22.87	9.69	0.23	QP
11	19.021	23.83	50.00	-26.17	13.87	9.71	0.25	Average
12	19.021	29.68	60.00	-30.32	19.72	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)	5670
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	
1@	0.363	32.69	48.65	-15.96	23.10	9.55	0.04	Average
2	0.363	36.71	58.65	-21.94	27.12	9.55	0.04	QP
3	1.061	20.06	46.00	-25.94	10.36	9.66	0.04	Average
4	1.061	24.10	56.00	-31.90	14.40	9.66	0.04	QP
5	2.118	22.02	46.00	-23.98	12.43	9.54	0.05	Average
6	2.118	25.76	56.00	-30.24	16.17	9.54	0.05	QP
7	4.598	19.54	46.00	-26.46	9.66	9.71	0.17	Average
8	4.598	28.11	56.00	-27.89	18.23	9.71	0.17	QP
9	14.364	26.71	50.00	-23.29	16.79	9.69	0.23	Average
10	14.364	33.19	60.00	-26.81	23.27	9.69	0.23	QP
11	19.122	21.76	50.00	-28.24	11.79	9.72	0.25	Average
12	19.122	27.45	60.00	-32.55	17.48	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 Emission Bandwidth

3.2.1 Test Procedures

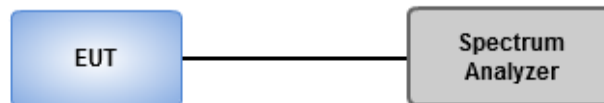
26dB Bandwidth

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

Occupied Bandwidth

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

3.2.2 Test Setup

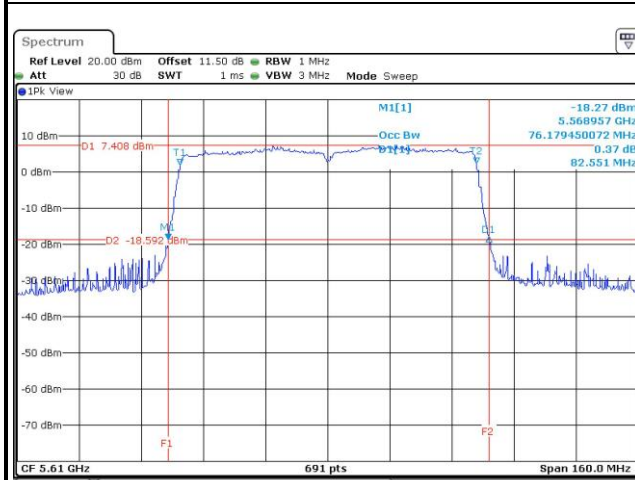


3.2.3 Test Result of Emission Bandwidth

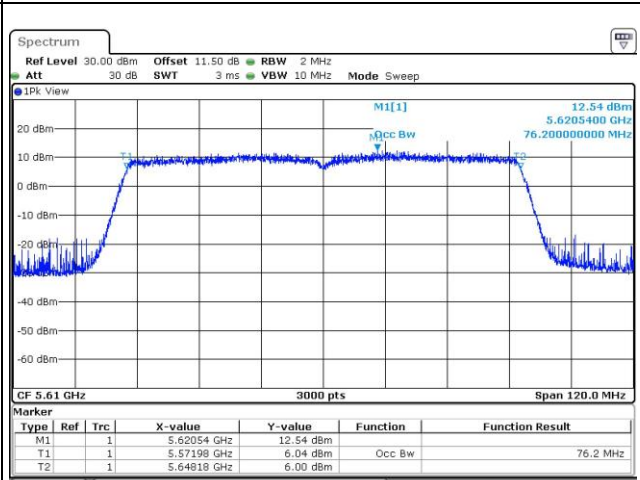
Non-beamforming mode

Emission Bandwidth											
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
11a	3	5260	21.57	21.57	21.51	---	17.03	16.91	16.93	---	24.00
11a	3	5300	21.62	21.51	21.51	---	16.90	16.92	17.06	---	24.00
11a	3	5320	21.57	21.51	21.51	---	17.01	16.91	16.95	---	24.00
VHT20	3	5260	21.97	21.68	21.74	---	18.12	17.93	17.98	---	24.00
VHT20	3	5300	21.86	21.45	21.62	---	18.15	17.94	17.95	---	24.00
VHT20	3	5320	21.86	21.68	21.68	---	18.14	17.92	17.98	---	24.00
VHT40	3	5270	40.93	40.70	40.58	---	36.68	36.60	36.58	---	24.00
VHT40	3	5310	40.93	40.58	40.46	---	36.68	36.60	36.64	---	24.00
VHT80	3	5290	82.32	81.86	81.62	---	76.20	76.00	76.04	---	24.00
11a	3	5500	21.57	21.45	21.45	---	17.04	16.89	16.89	---	24.00
11a	3	5580	21.57	21.57	21.51	---	17.05	16.93	16.92	---	24.00
11a	3	5700	21.57	21.39	21.45	---	17.04	16.89	16.89	---	24.00
VHT20	3	5500	21.91	21.62	21.57	---	18.14	17.92	17.96	---	24.00
VHT20	3	5580	21.97	21.68	21.68	---	18.14	17.92	17.96	---	24.00
VHT20	3	5700	22.03	21.74	21.51	---	18.14	17.93	17.99	---	24.00
VHT40	3	5510	40.93	40.81	40.58	---	36.70	36.64	36.60	---	24.00
VHT40	3	5590	55.65	60.41	41.62	---	36.80	36.66	36.62	---	24.00
VHT40	3	5670	60.64	58.20	40.70	---	36.70	36.62	36.54	---	24.00
VHT80	3	5530	82.09	82.09	81.39	---	76.12	76.00	76.08	---	24.00
VHT80	3	5610	82.55	81.86	81.62	---	76.20	76.04	76.04	---	24.00

Worst Plot of 26dB Bandwidth



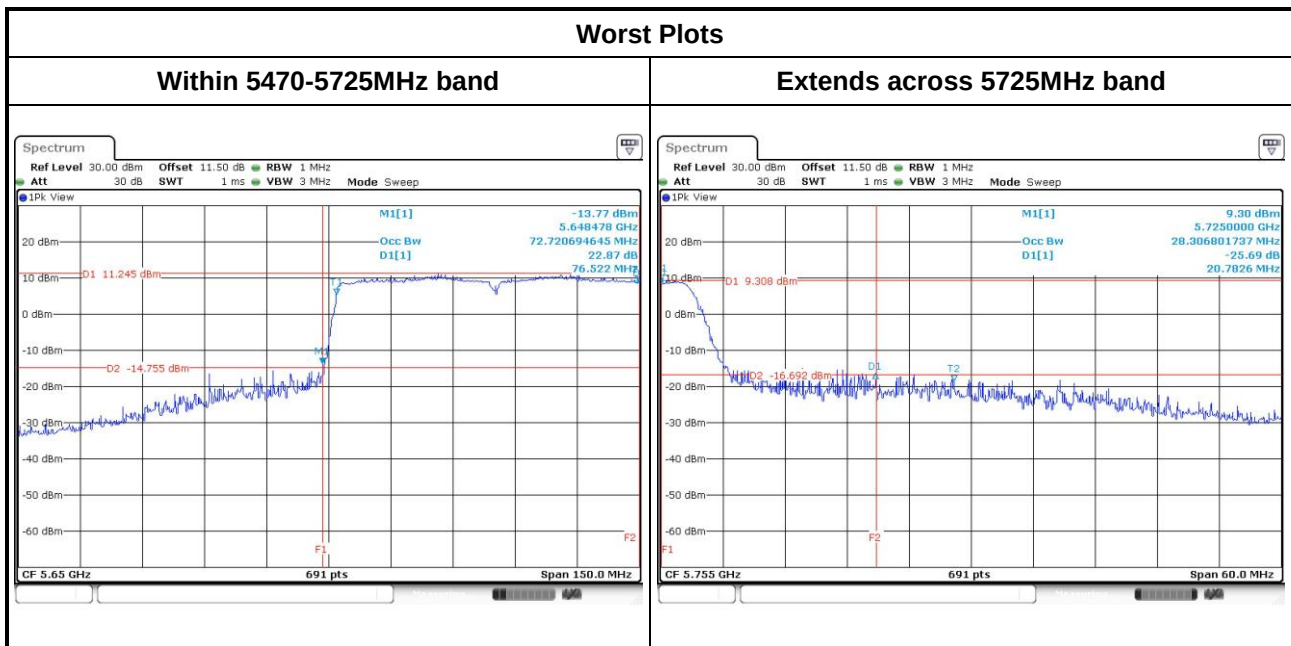
Worst Plot of 99% Bandwidth



Channel that extends across the 5.725 GHz boundary

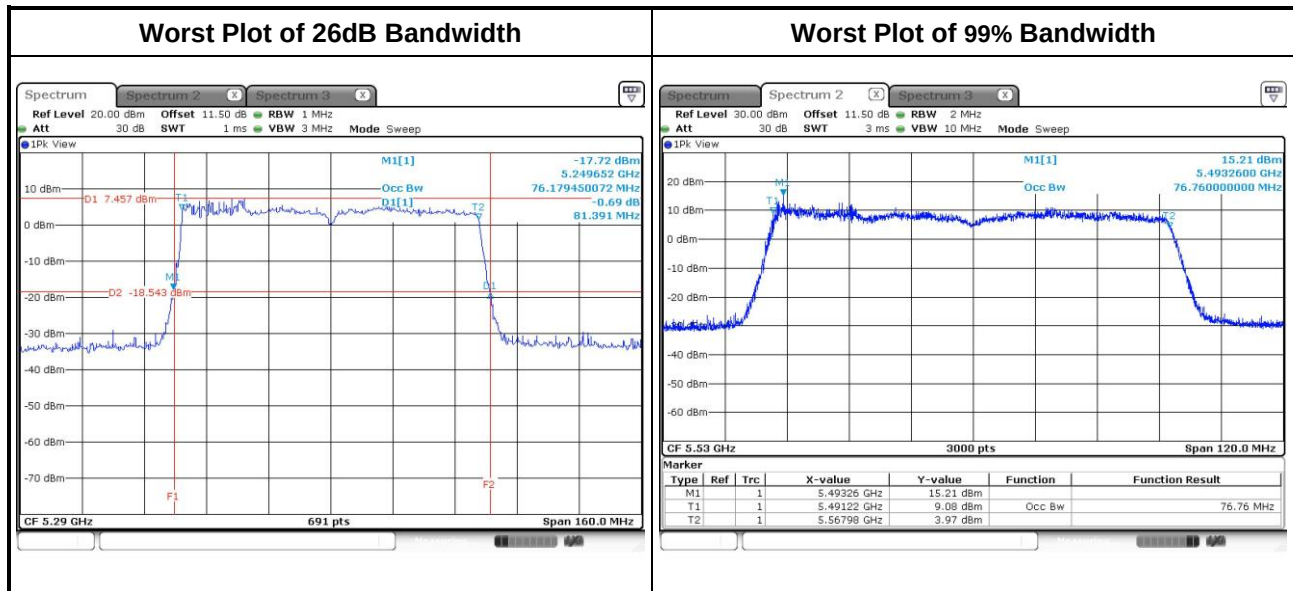
UNII Emission Bandwidth Result (Within 5470-5725MHz band)											
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
11a	3	5720	15.77	15.71	15.64	---	13.60	13.47	13.45	---	22.94
VHT20	3	5720	15.89	15.83	15.83	---	14.15	14.01	14.04	---	22.99
VHT40	3	5710	47.38	45.04	35.30	---	33.39	33.35	33.35	---	24.00
VHT80	3	5690	76.52	75.87	75.65	---	73.06	73.06	73.06	---	24.00

UNII Emission Bandwidth Result (Extends across 5725MHz band)											
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
11a	3	5720	5.78	5.91	5.89	---	3.47	3.44	3.45	---	---
VHT20	3	5720	6.02	5.67	5.85	---	4.04	3.92	3.92	---	---
VHT40	3	5710	19.30	19.07	8.29	---	3.33	3.27	3.25	---	---
VHT80	3	5690	20.78	16.09	6.52	---	3.10	3.06	3.02	---	---



Beamforming mode

Emission Bandwidth											
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
VHT20	3	5260	21.97	21.68	21.57	---	18.11	17.86	17.92	---	24.00
VHT20	3	5300	21.68	21.57	21.68	---	18.11	17.87	17.92	---	24.00
VHT20	3	5320	21.74	21.51	21.51	---	18.12	17.88	17.92	---	24.00
VHT40	3	5270	41.16	40.35	40.81	---	36.56	36.58	36.58	---	24.00
VHT40	3	5310	41.28	40.93	40.70	---	36.66	36.56	36.60	---	24.00
VHT80	3	5290	81.16	81.39	80.46	---	76.44	76.08	76.32	---	24.00
VHT20	3	5500	21.68	21.39	21.51	---	18.09	17.87	17.90	---	24.00
VHT20	3	5580	21.80	21.62	21.45	---	18.10	17.88	17.90	---	24.00
VHT20	3	5700	21.91	21.51	21.51	---	18.13	17.87	17.90	---	24.00
VHT40	3	5510	41.16	41.04	41.28	---	36.60	36.56	36.58	---	24.00
VHT40	3	5590	41.28	40.81	40.81	---	36.70	36.56	36.58	---	24.00
VHT40	3	5670	41.16	40.93	40.81	---	36.72	36.52	36.56	---	24.00
VHT80	3	5530	80.93	80.93	80.93	---	76.76	75.96	75.96	---	24.00
VHT80	3	5610	81.16	81.16	80.93	---	76.12	76.40	75.92	---	24.00



Channel that extends across the 5.725 GHz boundary

UNII Emission Bandwidth Result (Within 5470-5725MHz band)											
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
VHT20	3	5720	15.89	15.83	15.34	---	14.11	14.00	14.00	---	22.86
VHT40	3	5710	36.71	35.51	35.30	---	33.37	33.33	33.29	---	24.00
VHT80	3	5690	75.65	75.44	75.22	---	73.38	72.90	73.42	---	24.00

UNII Emission Bandwidth Result (Extends across 5725MHz band)											
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
VHT20	3	5720	6.02	6.00	5.80	---	4.01	3.89	3.92	---	22.86
VHT40	3	5710	5.68	5.57	5.51	---	3.27	3.23	3.23	---	24.00
VHT80	3	5690	6.61	6.43	6.17	---	2.94	2.86	2.86	---	24.00



3.3 RF Output Power

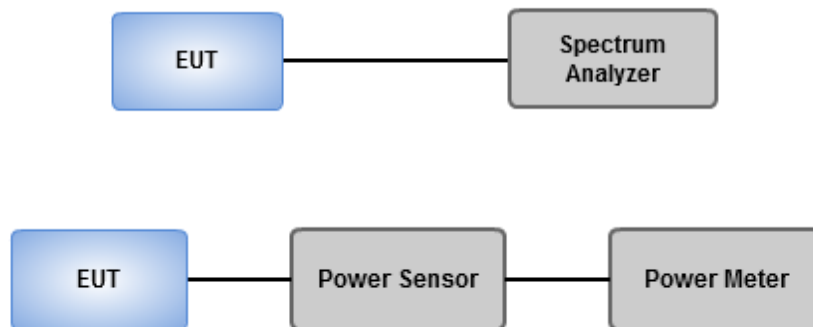
3.3.1 Limit of RF Output Power

Frequency Band (MHz)		Limit
☒	5250 ~ 5350	250mW or 11dBm+10 log B
☒	5470 ~ 5725	250mW or 11dBm+10 log B
Note: "B" is the 26dB emission bandwidth in MHz.		

3.3.2 Test Procedures

- ☒ Power meter (For channel that does not extends across the 5.725 GHz boundary)
 - ☒ Measurements is performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required
- ☒ Spectrum analyzer (For channel that extends across the 5.725 GHz boundary)
 1. Set RBW=1MHz, VBW=3MHz , Sweep time= Auto, Detector = RMS
 2. Trace average at least 100 traces in power averaging mode
 3. Compute power by integrating the spectrum across the 26 dB EBW
 4. Add 10 log(1/X, X:duty cycle) if duty cycle is <98%)

3.3.3 Test Setup



3.3.4 Test Result of Maximum Conducted Output Power

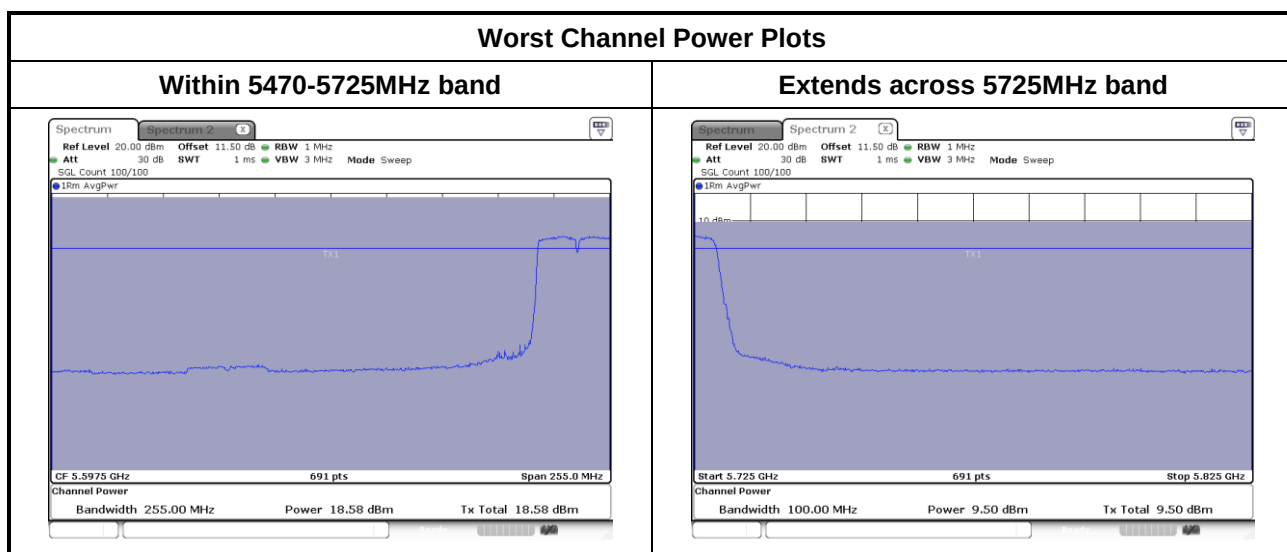
Non-beamforming mode

Mode	N _{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
11a	3	5260	16.24	15.89	15.55	---	116.780	20.67	24.00
11a	3	5300	16.11	15.81	15.59	---	115.163	20.61	24.00
11a	3	5320	16.22	15.92	15.62	---	117.439	20.70	24.00
HT20	3	5260	16.39	15.99	16.06	---	123.635	20.92	24.00
HT20	3	5300	16.19	15.88	15.69	---	117.385	20.70	24.00
HT20	3	5320	16.54	16.03	16.19	---	126.759	21.03	24.00
HT40	3	5270	17.59	17.35	17.72	---	170.893	22.33	24.00
HT40	3	5310	16.15	16.66	16.83	---	135.749	21.33	24.00
VHT20	3	5260	16.45	16.03	16.12	---	125.170	20.97	24.00
VHT20	3	5300	16.25	15.92	15.78	---	119.098	20.76	24.00
VHT20	3	5320	16.61	16.15	16.24	---	129.097	21.11	24.00
VHT40	3	5270	17.68	17.49	17.85	---	175.672	22.45	24.00
VHT40	3	5310	16.20	16.73	16.99	---	138.788	21.42	24.00
VHT80	3	5290	13.36	13.56	13.62	---	67.390	18.29	24.00
11a	3	5500	16.52	15.76	15.89	---	121.360	20.84	24.00
11a	3	5580	15.53	14.68	15.04	---	97.019	19.87	24.00
11a	3	5700	16.41	16.51	16.18	---	130.019	21.14	24.00
HT20	3	5500	16.35	15.87	16.03	---	121.875	20.86	24.00
HT20	3	5580	15.22	15.03	15.19	---	98.145	19.92	24.00
HT20	3	5700	15.76	15.58	15.42	---	108.645	20.36	24.00
HT40	3	5510	17.19	17.11	17.25	---	156.853	21.95	24.00
HT40	3	5590	18.54	18.26	18.06	---	202.412	23.06	24.00
HT40	3	5670	17.98	17.92	18.11	---	189.464	22.78	24.00
VHT20	3	5500	16.42	15.98	16.11	---	124.313	20.95	24.00
VHT20	3	5580	15.31	15.08	15.24	---	99.593	19.98	24.00
VHT20	3	5700	15.81	15.65	15.54	---	110.644	20.44	24.00
VHT40	3	5510	17.25	17.19	17.38	---	160.150	22.05	24.00
VHT40	3	5590	18.56	18.31	18.11	---	204.258	23.10	24.00
VHT40	3	5670	18.02	17.96	18.25	---	192.739	22.85	24.00
VHT80	3	5530	13.73	13.86	14.12	---	73.749	18.68	24.00
VHT80	3	5610	16.28	16.27	16.52	---	129.701	21.13	24.00

Channel that extends across the 5.725 GHz boundary

Maximum Conducted Output Power (Within 5470-5725MHz band)											
Mode	N _{Tx}	Freq. (MHz)	Conducted Power without duty factor					Duty factor (dB)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Total Power (dBm)				
11a	3	5720	14.66	15.23	14.62	---	19.62	0.17	95.213	19.79	22.94
HT20	3	5720	15.00	15.17	15.01	---	19.83	0.00	96.204	19.83	22.99
HT40	3	5710	17.75	17.75	17.59	---	22.47	0.00	176.544	22.47	24.00
VHT20	3	5720	15.06	15.27	15.23	---	19.96	0.00	99.056	19.96	22.99
VHT40	3	5710	17.66	18.53	18.58	---	23.05	0.00	201.741	23.05	24.00
VHT80	3	5690	18.52	18.13	18.42	---	23.13	0.18	214.339	23.31	24.00

Maximum Conducted Output Power (Extends across 5725MHz band)											
Mode	N _{Tx}	Freq. (MHz)	Conducted Power without duty factor					Duty factor (dB)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Total Power (dBm)				
11a	3	5720	8.38	8.89	8.21	---	13.27	0.17	22.102	13.44	30.00
HT20	3	5720	9.20	9.42	9.19	---	14.04	0.00	25.366	14.04	30.00
HT40	3	5710	7.39	7.39	7.95	---	12.36	0.00	17.203	12.36	30.00
VHT20	3	5720	9.45	9.50	9.31	---	14.19	0.00	26.254	14.19	30.00
VHT40	3	5710	7.02	8.03	8.03	---	12.49	0.00	17.742	12.49	30.00
VHT80	3	5690	4.44	4.13	4.47	---	9.12	0.18	8.513	9.30	30.00



Beamforming mode

Mode	N _{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
HT20	3	5260	16.16	16.02	16.03	---	121.386	20.84	23.94
HT20	3	5300	16.05	16.00	15.55	---	115.975	20.64	23.94
HT20	3	5320	16.24	16.29	16.01	---	124.535	20.95	23.94
HT40	3	5270	16.09	16.04	16.58	---	126.322	21.01	23.94
HT40	3	5310	14.32	14.87	15.29	---	91.536	19.62	23.94
VHT20	3	5260	16.22	16.03	16.09	---	122.610	20.89	23.94
VHT20	3	5300	16.11	16.08	15.63	---	117.942	20.72	23.94
VHT20	3	5320	16.33	16.35	16.05	---	126.377	21.02	23.94
VHT40	3	5270	16.14	16.11	16.65	---	128.185	21.08	23.94
VHT40	3	5310	14.52	14.94	15.38	---	94.017	19.73	23.94
VHT80	3	5290	12.58	12.75	12.63	---	55.273	17.43	23.94
HT20	3	5500	15.73	15.26	15.21	---	104.174	20.18	24.00
HT20	3	5580	14.88	14.65	14.59	---	88.709	19.48	24.00
HT20	3	5700	15.32	15.37	15.06	---	100.539	20.02	24.00
HT40	3	5510	16.29	15.87	15.80	---	119.215	20.76	24.00
HT40	3	5590	16.28	16.11	16.09	---	123.938	20.93	24.00
HT40	3	5670	16.43	16.27	16.18	---	127.814	21.07	24.00
VHT20	3	5500	15.76	15.35	15.29	---	105.754	20.24	24.00
VHT20	3	5580	14.93	14.72	14.65	---	89.940	19.54	24.00
VHT20	3	5700	15.4	15.49	15.15	---	102.807	20.12	24.00
VHT40	3	5510	16.38	15.95	15.89	---	121.621	20.85	24.00
VHT40	3	5590	16.31	16.25	16.19	---	126.517	21.02	24.00
VHT40	3	5670	16.51	16.32	16.22	---	129.506	21.12	24.00
VHT80	3	5530	13.14	13.35	13.55	---	64.880	18.12	24.00
VHT80	3	5610	16.03	15.98	16.32	---	122.569	20.88	24.00

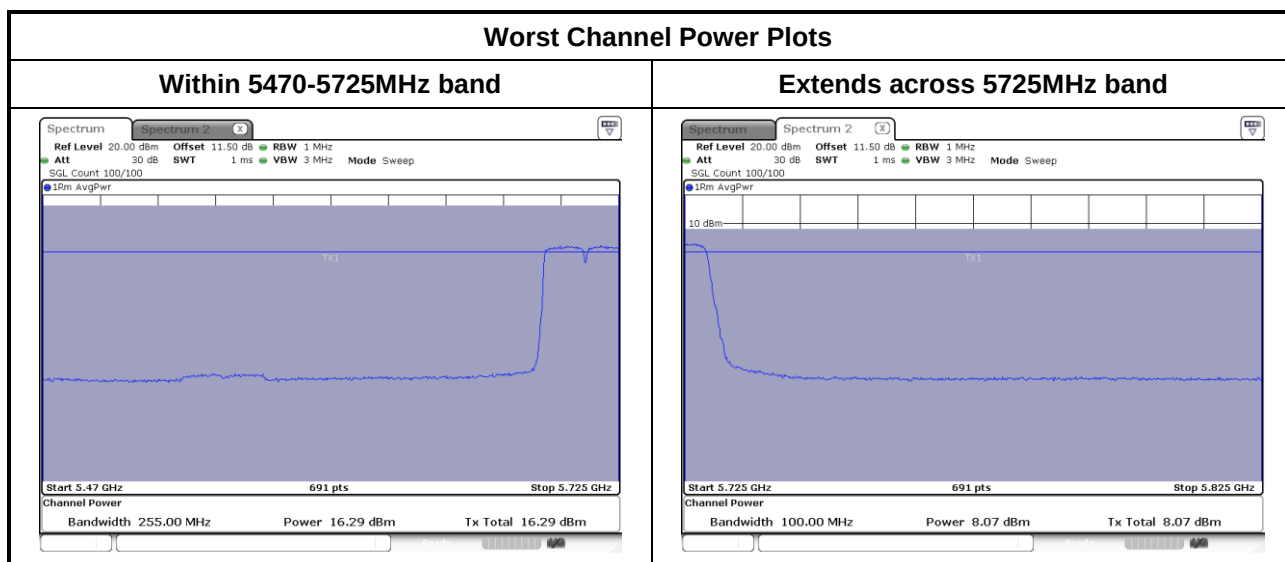
Note:

- For 5250 ~ 5350 MHz band, Directional gain = $1.29 + 10 \cdot \log(3/1) = 6.06 \text{ dBi} > 6 \text{ dBi}$.
Limit shall be reduced to $24 \text{ dBm} - (6.06 \text{ dBi} - 6 \text{ dBi}) = 23.94 \text{ dBm}$

Channel that extends across the 5.725 GHz boundary

Maximum Conducted Output Power (Within 5470-5725MHz band)											
Mode	N _{TX}	Freq. (MHz)	Conducted Power without duty factor					Duty factor (dB)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Total Power (dBm)				
HT20	3	5720	13.40	13.73	13.42	---	18.29	0.00	67.461	18.29	22.86
HT40	3	5710	15.49	15.43	15.23	---	20.16	0.00	103.656	20.16	24.00
VHT20	3	5720	13.47	13.75	13.44	---	18.33	0.00	68.027	18.33	22.86
VHT40	3	5710	16.29	16.06	15.72	---	20.80	0.00	120.249	20.80	24.00
VHT80	3	5690	15.32	14.90	15.18	---	19.91	0.22	102.992	20.13	24.00

Maximum Conducted Output Power (Extends across 5725MHz band)											
Mode	N _{TX}	Freq. (MHz)	Conducted Power without duty factor					Duty factor (dB)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Total Power (dBm)				
HT20	3	5720	7.56	7.95	7.68	---	12.50	0.00	17.800	12.50	30.00
HT40	3	5710	5.26	5.01	4.68	---	9.76	0.00	9.465	9.76	30.00
VHT20	3	5720	7.63	8.07	7.83	---	12.62	0.00	18.274	12.62	30.00
VHT40	3	5710	5.49	5.84	5.19	---	10.29	0.00	10.681	10.29	30.00
VHT80	3	5690	1.19	0.87	1.09	---	5.82	0.22	4.021	6.04	30.00



3.4 Peak Power Spectral Density

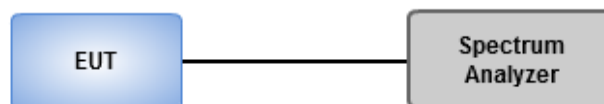
3.4.1 Limit of Peak Power Spectral Density

Frequency Band (MHz)		Limit
☒	5250 ~ 5350	11 dBm / MHz
☒	5470 ~ 5725	11 dBm / MHz

3.4.2 Test Procedures

- ☒ Method SA-1 (Non- Beamforming: VHT20/VHT40 / Beamforming: VHT20/VHT40)
 1. Set RBW = 1 MHz, VBW = 3 MHz, Sweep time = auto, Detector = RMS.
 2. Trace average 100 traces.
 3. Use the peak marker function to determine the maximum amplitude level.
- ☒ Method SA-2 Alternative (Non- Beamforming: 11a/VHT80 / Beamforming: VHT80)
 1. Set RBW = 1 MHz, VBW = 3 MHz, Detector = RMS.
 2. Set sweep time $\geq 10 * (\text{number of points in sweep}) * (\text{total on/off period of the transmitted signal})$.
 3. Perform a single sweep.
 4. Use the peak marker function to determine the maximum amplitude level.
 5. Add $10 \log(1/x)$, where x is the duty cycle if duty cycle < 98%

3.4.3 Test Setup



3.4.4 Test Result of Peak Power Spectral Density

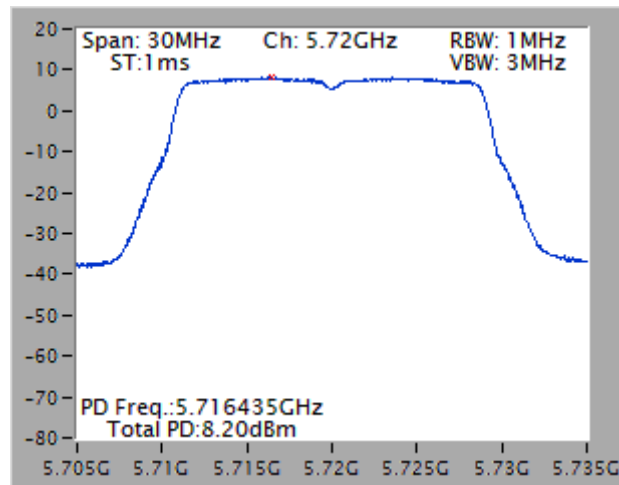
Non-beamforming mode

Condition			Peak Power Spectral Density (dBm/MHz)			
Mode	N _{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/MHz)	Duty Factor (dB)	PPSD with D.F (dBm/MHz)	PPSD Limit (dBm/MHz)
11a	3	5260	7.50	0.17	7.67	10.94
11a	3	5300	7.57	0.17	7.74	10.94
11a	3	5320	7.30	0.17	7.47	10.94
VHT20	3	5260	7.39	0.00	7.39	10.94
VHT20	3	5300	7.96	0.00	7.96	10.94
VHT20	3	5320	7.62	0.00	7.62	10.94
VHT40	3	5270	7.85	0.00	7.85	10.94
VHT40	3	5310	5.50	0.00	5.50	10.94
VHT80	3	5290	-0.56	0.18	-0.38	10.94
11a	3	5500	6.93	0.17	7.10	11
11a	3	5580	5.79	0.17	5.96	11
11a	3	5700	7.51	0.17	7.68	11
11a	3	5720	7.87	0.17	8.04	11
VHT20	3	5500	7.16	0.00	7.16	11
VHT20	3	5580	6.19	0.00	6.19	11
VHT20	3	5700	6.84	0.00	6.84	11
VHT20	3	5720	8.20	0.00	8.20	11
VHT40	3	5510	4.95	0.00	4.95	11
VHT40	3	5590	7.31	0.00	7.31	11
VHT40	3	5670	6.73	0.00	6.73	11
VHT40	3	5710	7.38	0.00	7.38	11
VHT80	3	5530	-0.85	0.18	-0.67	11
VHT80	3	5610	1.88	0.18	2.06	11
VHT80	3	5690	4.56	0.18	4.74	11

Note:

1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. For 5250 ~ 5350 MHz band, Directional gain = $1.29 + 10 \cdot \log(3/1) = 6.06 \text{ dBi} > 6 \text{ dBi}$.
Limit shall be reduced to $11 \text{ dBm} - (6.06 \text{ dBi} - 6 \text{ dBi}) = 10.94 \text{ dBm}$.

Worst Plot

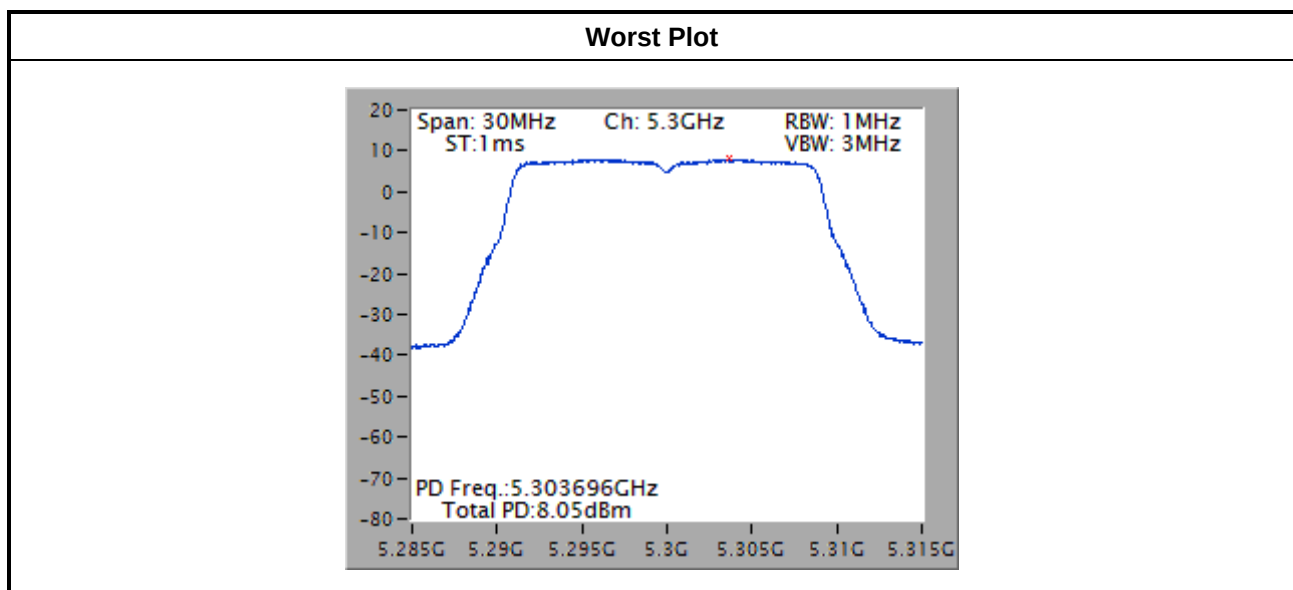


Beamforming mode

Condition			Peak Power Spectral Density (dBm/MHz)			
Mode	N _{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/MHz)	Duty Factor (dB)	PPSD with D.F (dBm/MHz)	PPSD Limit (dBm/MHz)
VHT20	3	5260	7.83	0.00	7.83	10.94
VHT20	3	5300	8.05	0.00	8.05	10.94
VHT20	3	5320	7.79	0.00	7.79	10.94
VHT40	3	5270	4.78	0.00	4.78	10.94
VHT40	3	5310	3.39	0.00	3.39	10.94
VHT80	3	5290	-1.76	0.22	-1.54	10.94
VHT20	3	5500	6.87	0.00	6.87	11
VHT20	3	5580	5.90	0.00	5.90	11
VHT20	3	5700	7.05	0.00	7.05	11
VHT20	3	5720	7.20	0.00	7.20	11
VHT40	3	5510	4.01	0.00	4.01	11
VHT40	3	5590	4.62	0.00	4.62	11
VHT40	3	5670	5.75	0.00	5.75	11
VHT40	3	5710	5.77	0.00	5.77	11
VHT80	3	5530	-1.49	0.22	-1.27	11
VHT80	3	5610	1.08	0.22	1.30	11
VHT80	3	5690	1.21	0.22	1.43	11

Note:

1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. For 5250 ~ 5350 MHz band, Directional gain = $1.29 + 10 \cdot \log(3/1) = 6.06 \text{ dBi} > 6 \text{ dBi}$.
Limit shall be reduced to 11 dBm – (6.06 dBi – 6 dBi) = 10.94 dBm.



3.5 Transmitter Radiated and Band Edge Emissions

3.5.1 Limit of Transmitter Radiated and Band Edge Emissions

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

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

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

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

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

3.5.2 Test Procedures

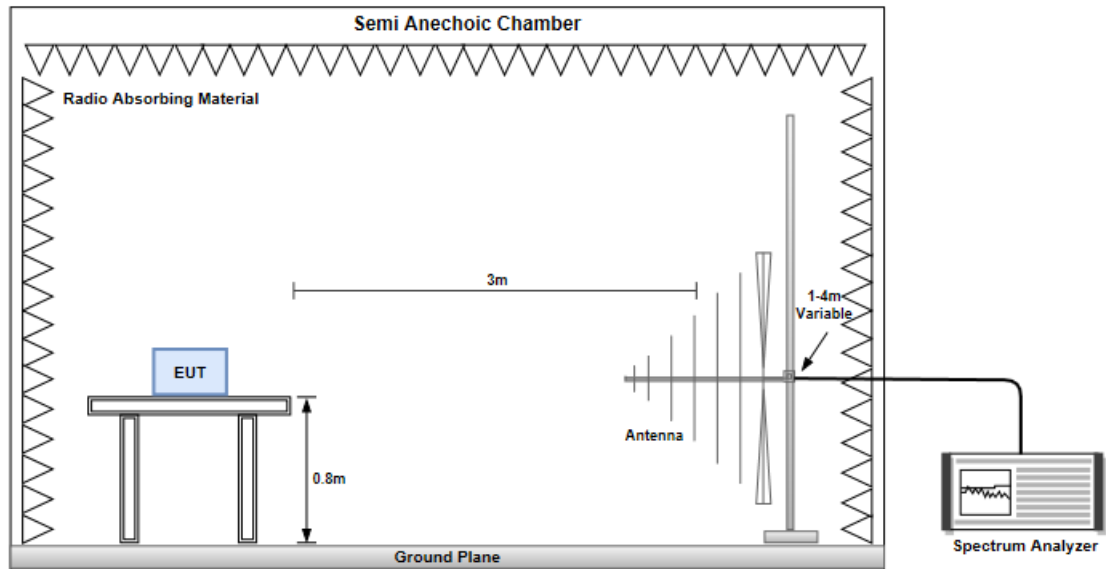
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360° . A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

Note:

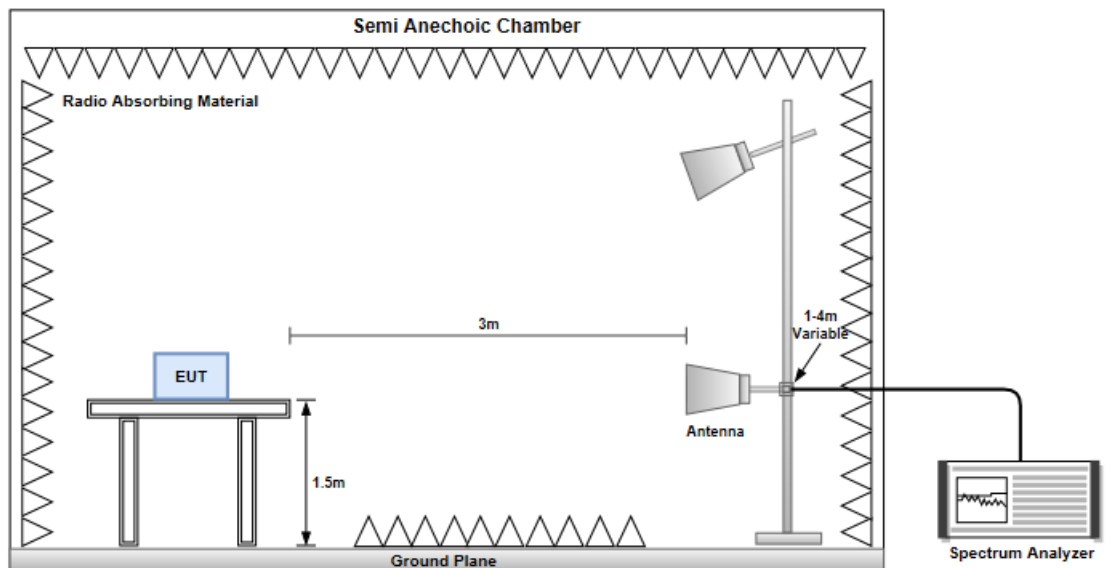
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz



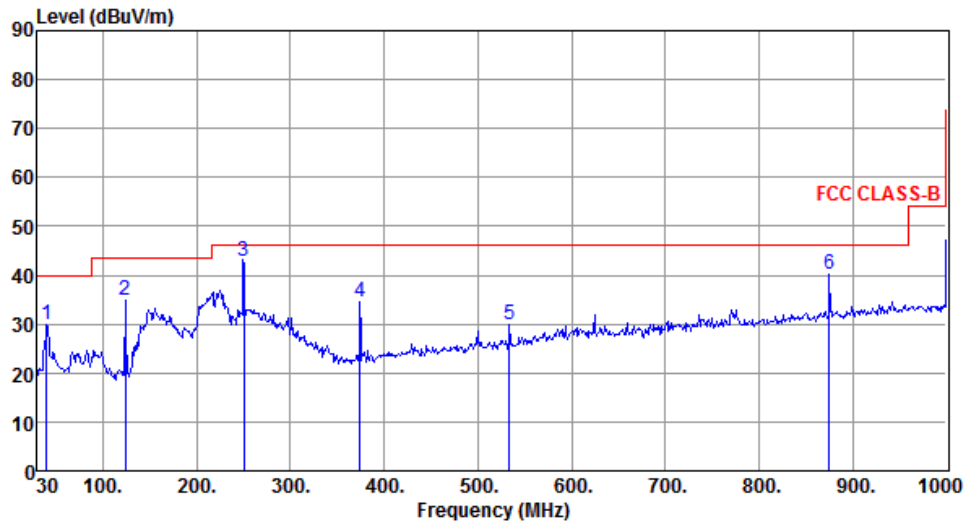
Radiated Emissions above 1 GHz



Non-beamforming mode

3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	VHT80	Test Freq. (MHz)	5690
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	29.87	40.00	-10.13	38.65	-8.78	Peak	---	---
2	124.09	34.71	43.50	-8.79	45.24	-10.53	Peak	---	---
3	250.00	42.92	46.00	-3.08	52.29	-9.37	QP	100	116
4	374.35	34.68	46.00	-11.32	40.74	-6.06	Peak	---	---
5	533.43	29.75	46.00	-16.25	32.41	-2.66	Peak	---	---
6	874.87	40.09	46.00	-5.91	36.85	3.24	Peak	---	---

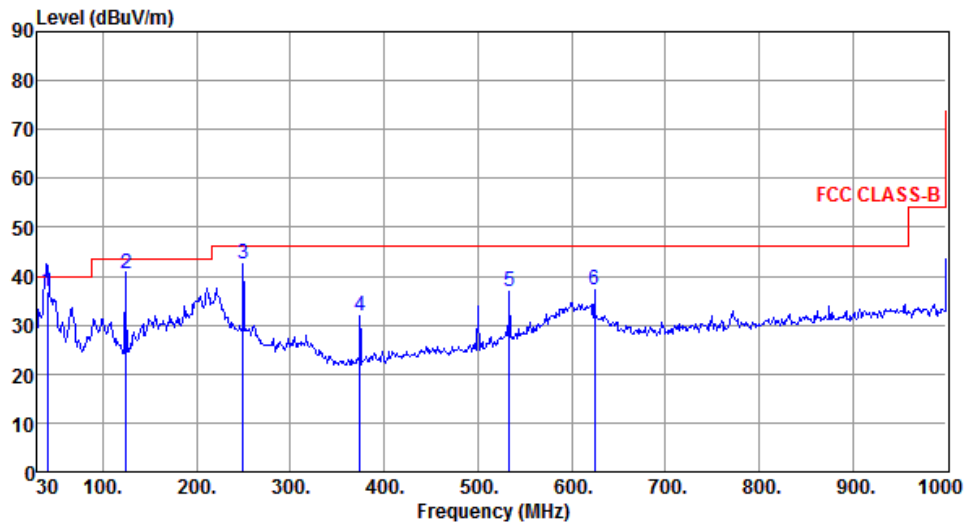
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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	VHT80	Test Freq. (MHz)	5690
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	40.56	36.86	40.00	-3.14	45.57	-8.71	QP	100	18
2	125.00	40.46	43.50	-3.04	50.91	-10.45	QP	100	89
3	249.22	42.56	46.00	-3.44	51.95	-9.39	Peak	---	---
4	374.35	31.83	46.00	-14.17	37.89	-6.06	Peak	---	---
5	533.43	36.95	46.00	-9.05	39.61	-2.66	Peak	---	---
6	624.61	37.22	46.00	-8.78	37.93	-0.71	Peak	---	---

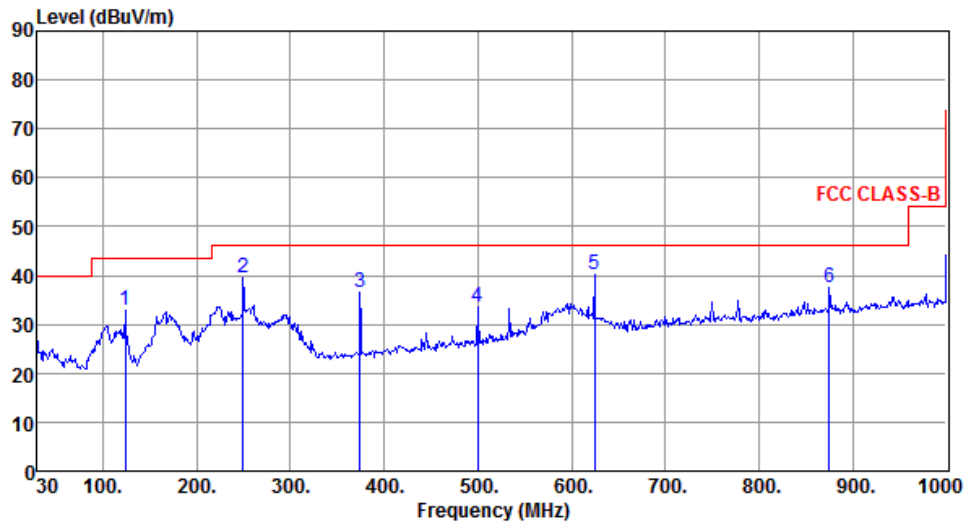
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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	VHT80	Test Freq. (MHz)	5690
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	32.98	43.50	-10.52	43.51	-10.53	Peak	---	---
2	249.22	39.59	46.00	-6.41	48.98	-9.39	Peak	---	---
3	374.35	36.47	46.00	-9.53	42.53	-6.06	Peak	---	---
4	499.48	33.53	46.00	-12.47	36.89	-3.36	Peak	---	---
5	624.61	40.30	46.00	-5.70	41.01	-0.71	Peak	---	---
6	874.87	37.68	46.00	-8.32	34.44	3.24	Peak	---	---

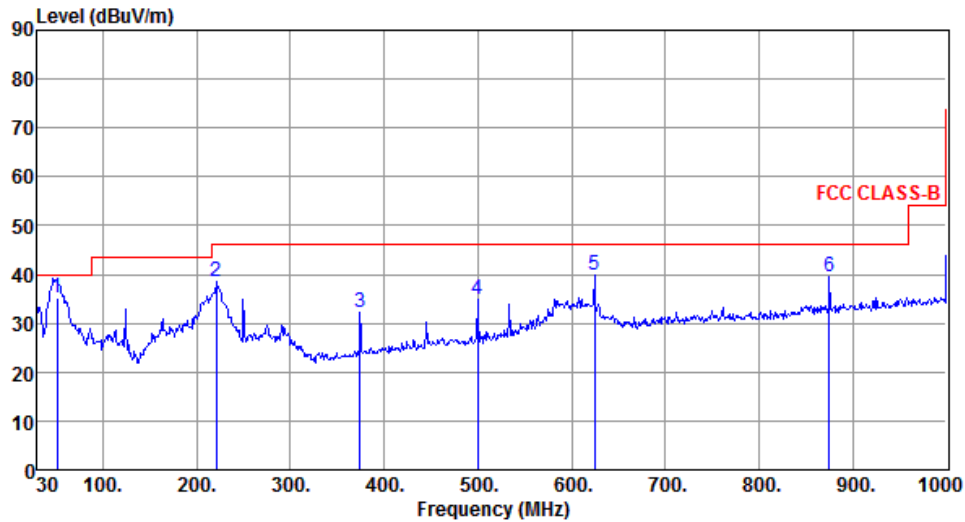
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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	VHT80	Test Freq. (MHz)	5690
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	50.87	35.25	40.00	-4.75	43.47	-8.22	QP	101	84
2	221.09	38.40	46.00	-7.60	49.29	-10.89	Peak	---	---
3	374.35	32.13	46.00	-13.87	38.19	-6.06	Peak	---	---
4	499.48	34.97	46.00	-11.03	38.33	-3.36	Peak	---	---
5	624.61	39.97	46.00	-6.03	40.68	-0.71	Peak	---	---
6	874.87	39.68	46.00	-6.32	36.44	3.24	Peak	---	---

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

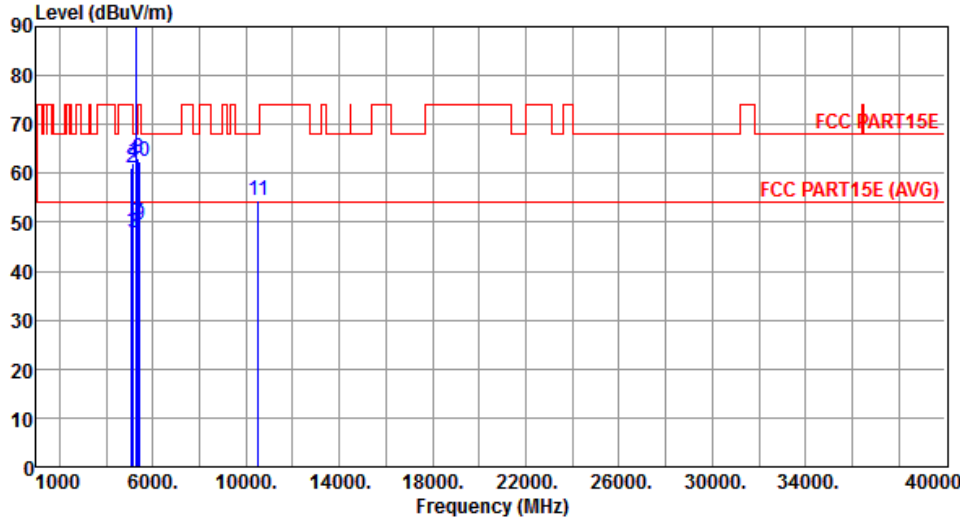
*Factor includes antenna factor , cable loss and amplifier gain

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.

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

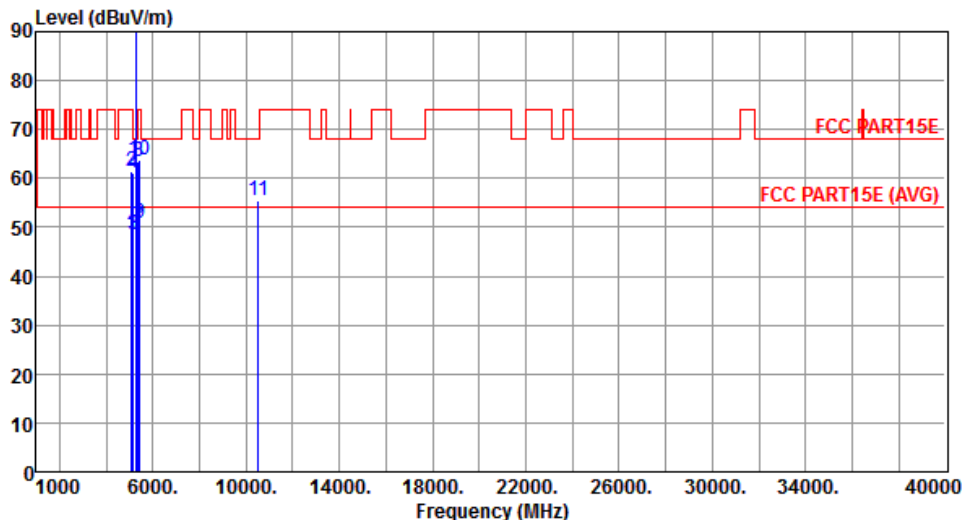
Modulation	11a	Test Freq. (MHz)	5260
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5100.00	48.05	54.00	-5.95	42.91	5.14	Average	379	105
2	5100.00	60.98	74.00	-13.02	55.84	5.14	Peak	379	105
3	5150.00	47.97	54.00	-6.03	42.76	5.21	Average	379	105
4	5150.00	61.94	74.00	-12.06	56.73	5.21	Peak	379	105
5 *	5260.00	95.81			90.44	5.37	Average	379	105
6 *	5260.00	106.26			100.89	5.37	Peak	379	105
7	5350.00	49.68	54.00	-4.32	44.18	5.50	Average	379	105
8	5350.00	63.07	74.00	-10.93	57.57	5.50	Peak	379	105
9	5420.00	49.62	54.00	-4.38	44.01	5.61	Average	379	105
10	5420.00	62.38	74.00	-11.62	56.77	5.61	Peak	379	105
11	10520.00	54.36	68.20	-13.84	40.38	13.98	Peak	100	63

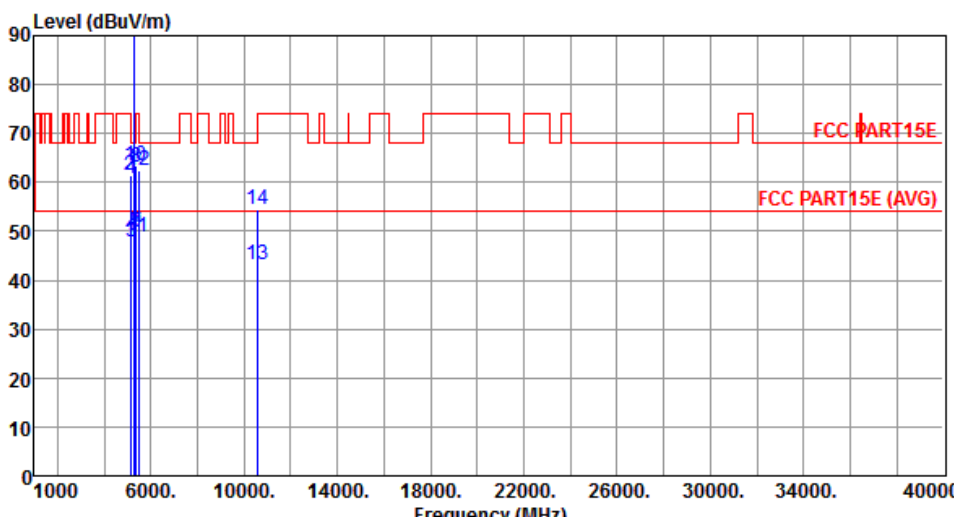
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
 *Factor includes antenna factor , cable loss and amplifier gain
 Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
 Note 3: "*" is Peak / Average value of fundamental frequency

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



Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg	
1	5100.00	48.42	54.00	-5.58	43.28	5.14	Average	320	57
2	5100.00	61.34	74.00	-12.66	56.20	5.14	Peak	320	57
3	5150.00	48.41	54.00	-5.59	43.20	5.21	Average	320	57
4	5150.00	61.25	74.00	-12.75	56.04	5.21	Peak	320	57
5 *	5260.00	105.07		99.70	5.37	Average	320	57	
6 *	5260.00	116.58		111.21	5.37	Peak	320	57	
7	5350.00	50.30	54.00	-3.70	44.80	5.50	Average	320	57
8	5350.00	63.58	74.00	-10.42	58.08	5.50	Peak	320	57
9	5420.00	50.71	54.00	-3.29	45.10	5.61	Average	320	57
10	5420.00	63.67	74.00	-10.33	58.06	5.61	Peak	320	57
11	10520.00	55.40	68.20	-12.80	41.42	13.98	Peak	100	37

Note 1: Emission Level (dBUV/m) = SA Reading (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)	5300						
Polarization	Horizontal								
									
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5140.00	47.88	54.00	-6.12	42.68	5.20	Average	376	108
2	5140.00	61.32	74.00	-12.68	56.12	5.20	Peak	376	108
3	5150.00	47.99	54.00	-6.01	42.78	5.21	Average	376	108
4	5150.00	60.84	74.00	-13.16	55.63	5.21	Peak	376	108
5 *	5300.00	95.51			90.08	5.43	Average	376	108
6 *	5300.00	106.33			100.90	5.43	Peak	376	108
7	5350.00	49.87	54.00	-4.13	44.37	5.50	Average	376	108
8	5350.00	62.95	74.00	-11.05	57.45	5.50	Peak	376	108
9	5380.00	49.97	54.00	-4.03	44.42	5.55	Average	376	108
10	5380.00	63.40	74.00	-10.60	57.85	5.55	Peak	376	108
11	5460.00	48.97	54.00	-5.03	43.32	5.65	Average	376	108
12	5460.00	62.30	74.00	-11.70	56.65	5.65	Peak	376	108
13	10600.00	43.32	54.00	-10.68	29.26	14.06	Average	100	225
14	10600.00	54.55	74.00	-19.45	40.49	14.06	Peak	100	225

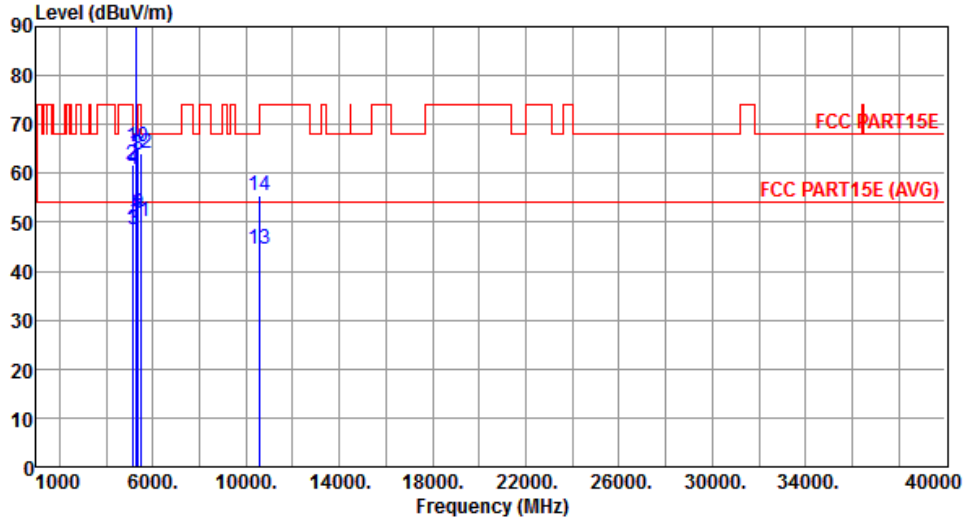
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

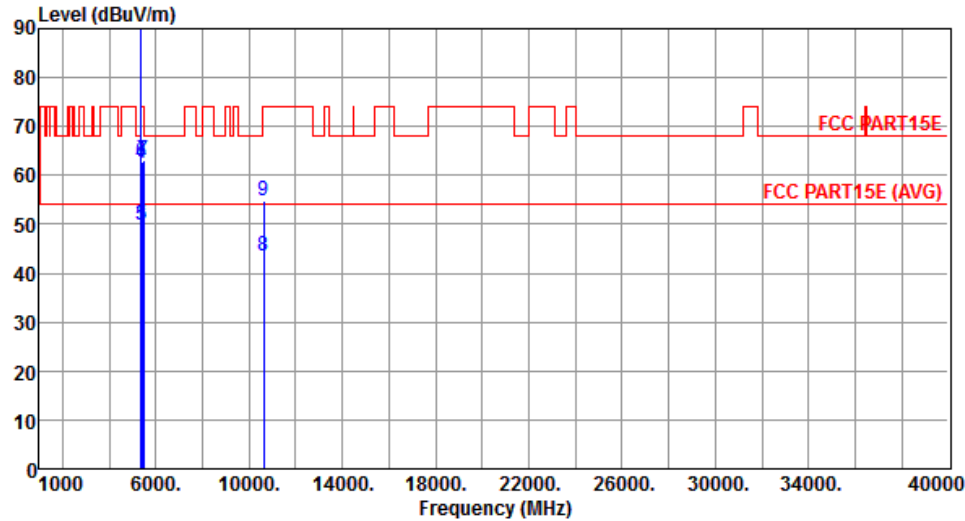
Modulation	11a	Test Freq. (MHz)	5300
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5140.00	48.59	54.00	-5.41	43.39	5.20	Average	333	62
2	5140.00	61.87	74.00	-12.13	56.67	5.20	Peak	333	62
3	5150.00	48.39	54.00	-5.61	43.18	5.21	Average	333	62
4	5150.00	60.90	74.00	-13.10	55.69	5.21	Peak	333	62
5 *	5300.00	105.30			99.87	5.43	Average	333	62
6 *	5300.00	116.82			111.39	5.43	Peak	333	62
7	5350.00	50.82	54.00	-3.18	45.32	5.50	Average	333	62
8	5350.00	63.66	74.00	-10.34	58.16	5.50	Peak	333	62
9	5380.00	51.85	54.00	-2.15	46.30	5.55	Average	333	62
10	5380.00	65.30	74.00	-8.70	59.75	5.55	Peak	333	62
11	5460.00	50.13	54.00	-3.87	44.48	5.65	Average	333	62
12	5460.00	63.96	74.00	-10.04	58.31	5.65	Peak	333	62
13	10600.00	44.47	54.00	-9.53	30.41	14.06	Average	100	102
14	10600.00	55.34	74.00	-18.66	41.28	14.06	Peak	100	102

Note 1: Emission Level (dBuV/m) = SA Reading (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)	5320
Polarization	Horizontal		

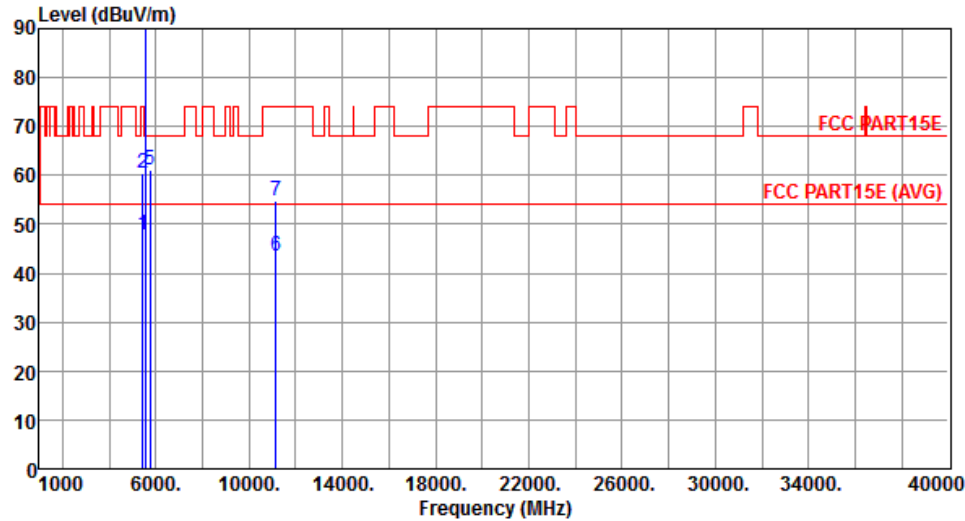


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	
1	*	5320.00	95.80		90.35	5.45	Average	367	106	
2	*	5320.00	105.95		100.50	5.45	Peak	367	106	
3		5350.00	49.79	54.00	-4.21	44.29	5.50	Average	367	106
4		5350.00	62.43	74.00	-11.57	56.93	5.50	Peak	367	106
5		5400.00	49.87	54.00	-4.13	44.29	5.58	Average	367	106
6		5400.00	62.92	74.00	-11.08	57.34	5.58	Peak	367	106
7		5480.00	63.07	68.20	-5.13	57.40	5.67	Peak	367	106
8		10640.00	43.42	54.00	-10.58	29.31	14.11	Average	100	221
9		10640.00	54.65	74.00	-19.35	40.54	14.11	Peak	100	221

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

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

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

Modulation	11a	Test Freq. (MHz)	5580						
Polarization	Horizontal								
									
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5420.00	47.75	54.00	-6.25	42.14	5.61	Average	367	106
2	5420.00	60.48	74.00	-13.52	54.87	5.61	Peak	367	106
3 *	5580.00	94.86			89.09	5.77	Average	367	106
4 *	5580.00	105.02			99.25	5.77	Peak	367	106
5	5740.00	61.23	68.20	-6.97	55.21	6.02	Peak	367	106
6	11160.00	43.54	54.00	-10.46	28.94	14.60	Average	100	209
7	11160.00	54.68	74.00	-19.32	40.08	14.60	Peak	100	209

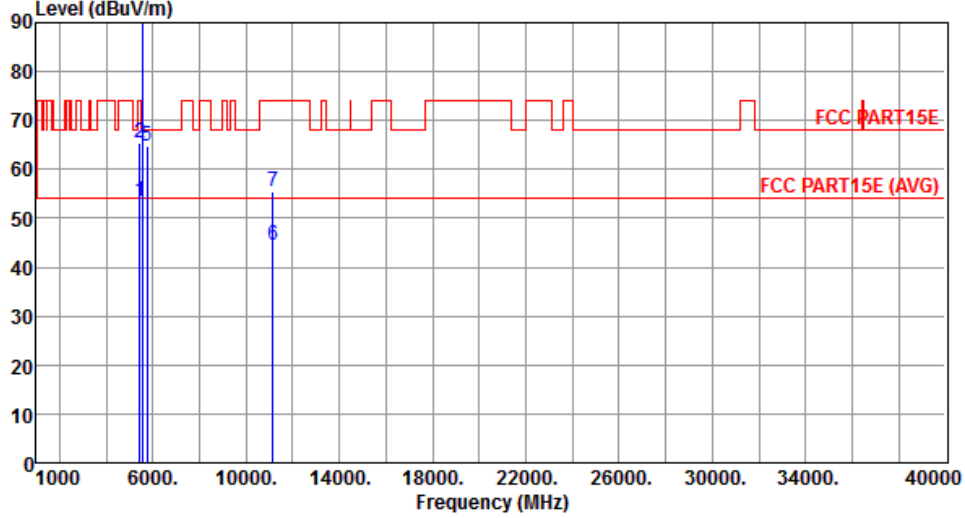
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*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

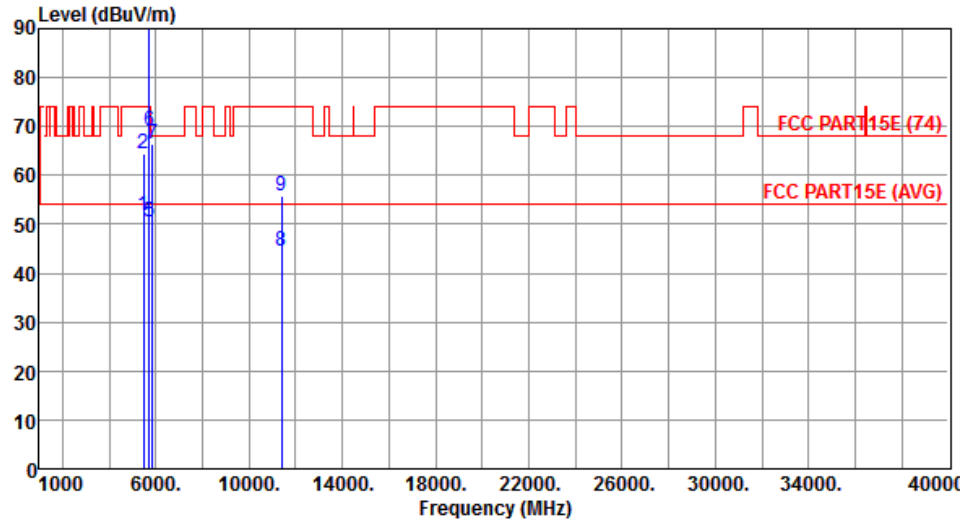
Modulation	11a	Test Freq. (MHz)	5580
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5420.00	53.60	54.00	-0.40	47.99	5.61	Average	329	62
2	5420.00	65.37	74.00	-8.63	59.76	5.61	Peak	329	62
3 *	5580.00	105.07			99.30	5.77	Average	329	62
4 *	5580.00	116.79			111.02	5.77	Peak	329	62
5	5740.00	64.87	68.20	-3.33	58.85	6.02	Peak	329	62
6	11160.00	44.36	54.00	-9.64	29.76	14.60	Average	100	98
7	11160.00	55.42	74.00	-18.58	40.82	14.60	Peak	100	98

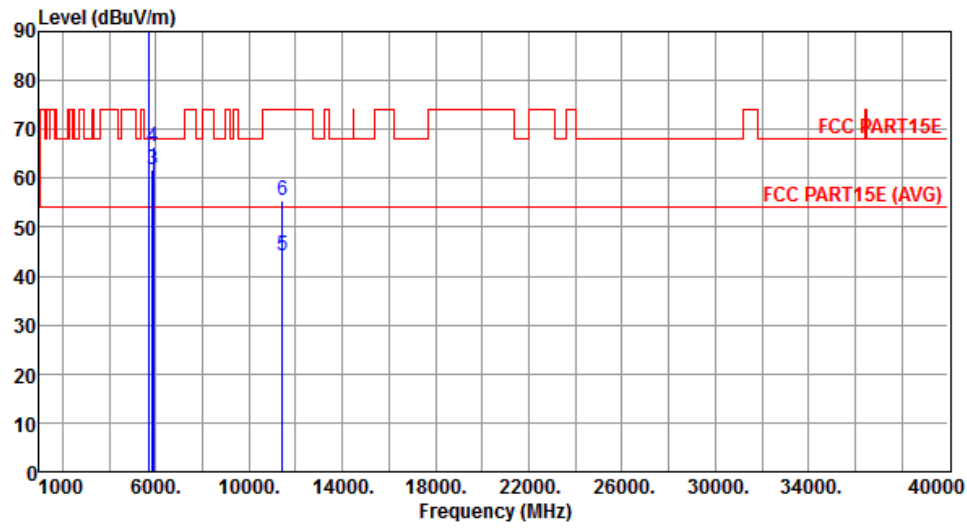
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
 *Factor includes antenna factor , cable loss and amplifier gain
 Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).
 Note 3: "*" is Peak / Average value of fundamental frequency

Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	11a	Test Freq. (MHz)	5700																																																																																																				
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>5460.00</td><td>51.83</td><td>54.00</td><td>-2.17</td><td>46.18</td><td>5.65</td><td>Average</td><td>328</td><td>61</td></tr><tr><td>2</td><td>5460.00</td><td>64.30</td><td>74.00</td><td>-9.70</td><td>58.65</td><td>5.65</td><td>Peak</td><td>328</td><td>61</td></tr><tr><td>3 *</td><td>5700.00</td><td>106.26</td><td></td><td></td><td>100.30</td><td>5.96</td><td>Average</td><td>328</td><td>61</td></tr><tr><td>4 *</td><td>5700.00</td><td>118.11</td><td></td><td></td><td>112.15</td><td>5.96</td><td>Peak</td><td>328</td><td>61</td></tr><tr><td>5</td><td>5725.00</td><td>50.49</td><td>54.00</td><td>-3.51</td><td>44.50</td><td>5.99</td><td>Average</td><td>328</td><td>61</td></tr><tr><td>6</td><td>5725.00</td><td>69.17</td><td>74.00</td><td>-4.83</td><td>63.18</td><td>5.99</td><td>Peak</td><td>328</td><td>61</td></tr><tr><td>7</td><td>5860.00</td><td>66.37</td><td>68.20</td><td>-1.83</td><td>60.19</td><td>6.18</td><td>Peak</td><td>328</td><td>61</td></tr><tr><td>8</td><td>11400.00</td><td>44.54</td><td>54.00</td><td>-9.46</td><td>29.72</td><td>14.82</td><td>Average</td><td>100</td><td>121</td></tr><tr><td>9</td><td>11400.00</td><td>55.63</td><td>74.00</td><td>-18.37</td><td>40.81</td><td>14.82</td><td>Peak</td><td>100</td><td>121</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	5460.00	51.83	54.00	-2.17	46.18	5.65	Average	328	61	2	5460.00	64.30	74.00	-9.70	58.65	5.65	Peak	328	61	3 *	5700.00	106.26			100.30	5.96	Average	328	61	4 *	5700.00	118.11			112.15	5.96	Peak	328	61	5	5725.00	50.49	54.00	-3.51	44.50	5.99	Average	328	61	6	5725.00	69.17	74.00	-4.83	63.18	5.99	Peak	328	61	7	5860.00	66.37	68.20	-1.83	60.19	6.18	Peak	328	61	8	11400.00	44.54	54.00	-9.46	29.72	14.82	Average	100	121	9	11400.00	55.63	74.00	-18.37	40.81	14.82	Peak	100	121
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																																														
1	5460.00	51.83	54.00	-2.17	46.18	5.65	Average	328	61																																																																																														
2	5460.00	64.30	74.00	-9.70	58.65	5.65	Peak	328	61																																																																																														
3 *	5700.00	106.26			100.30	5.96	Average	328	61																																																																																														
4 *	5700.00	118.11			112.15	5.96	Peak	328	61																																																																																														
5	5725.00	50.49	54.00	-3.51	44.50	5.99	Average	328	61																																																																																														
6	5725.00	69.17	74.00	-4.83	63.18	5.99	Peak	328	61																																																																																														
7	5860.00	66.37	68.20	-1.83	60.19	6.18	Peak	328	61																																																																																														
8	11400.00	44.54	54.00	-9.46	29.72	14.82	Average	100	121																																																																																														
9	11400.00	55.63	74.00	-18.37	40.81	14.82	Peak	100	121																																																																																														
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m). Note 3:"*" is Peak / Average value of fundamental frequency																																																																																																							

Modulation	11a	Test Freq. (MHz)	5720
Polarization	Horizontal		
Level (dBuV/m)			

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



		Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
		MHz	level			reading			High	Table
			dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	*	5720.00	105.80			99.82	5.98	Average	320	63
2	*	5720.00	117.56			111.58	5.98	Peak	320	63
3		5850.00	61.73	68.20	-6.47	55.56	6.17	Peak	320	63
4		5880.00	66.35	68.20	-1.85	60.14	6.21	Peak	320	63
5		11440.00	44.25	54.00	-9.75	29.39	14.86	Average	105	103
6		11440.00	55.36	74.00	-18.64	40.50	14.86	Peak	105	103

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

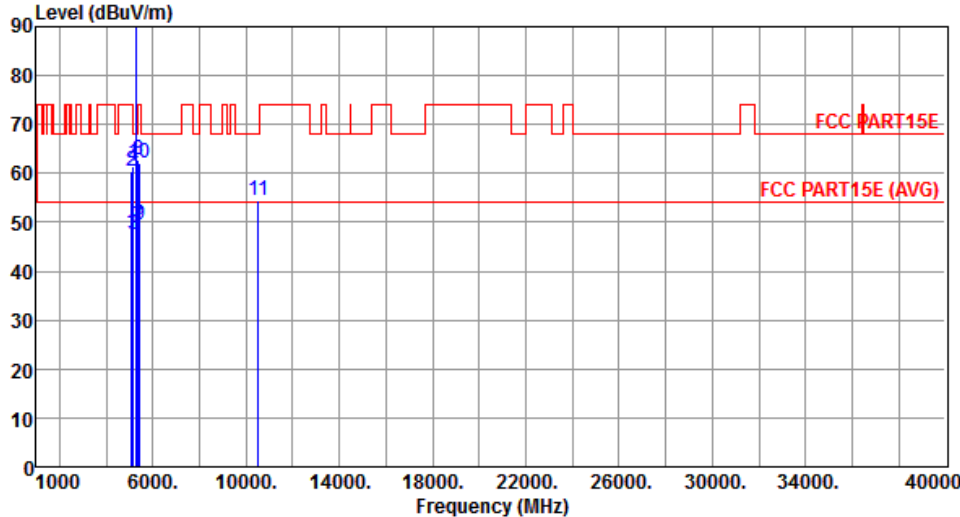
*Factor includes antenna factor , cable loss and amplifier gain

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

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

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

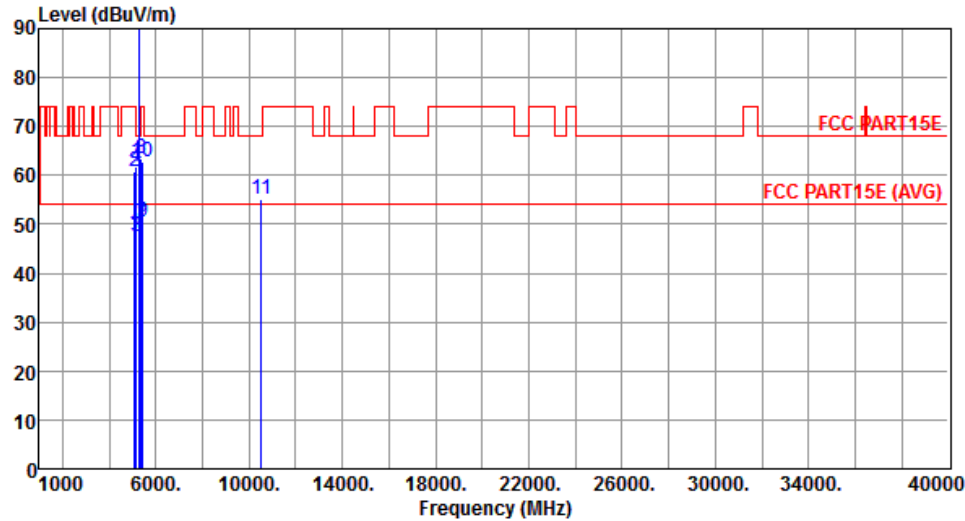
Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5100.00	47.68	54.00	-6.32	42.54	5.14	Average	359	108
2	5100.00	60.52	74.00	-13.48	55.38	5.14	Peak	359	108
3	5150.00	47.45	54.00	-6.55	42.24	5.21	Average	359	108
4	5150.00	61.52	74.00	-12.48	56.31	5.21	Peak	359	108
5 *	5260.00	94.06			88.69	5.37	Average	359	108
6 *	5260.00	104.45			99.08	5.37	Peak	359	108
7	5350.00	49.21	54.00	-4.79	43.71	5.50	Average	359	108
8	5350.00	62.64	74.00	-11.36	57.14	5.50	Peak	359	108
9	5420.00	49.33	54.00	-4.67	43.72	5.61	Average	359	108
10	5420.00	62.05	74.00	-11.95	56.44	5.61	Peak	359	108
11	10520.00	54.48	68.20	-13.72	40.50	13.98	Peak	109	186

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

Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5100.00	48.05	54.00	-5.95	42.91	5.14	Average	303	59
2	5100.00	60.62	74.00	-13.38	55.48	5.14	Peak	303	59
3	5150.00	47.64	54.00	-6.36	42.43	5.21	Average	303	59
4	5150.00	61.90	74.00	-12.10	56.69	5.21	Peak	303	59
5 *	5260.00	104.53			99.16	5.37	Average	303	59
6 *	5260.00	115.82			110.45	5.37	Peak	303	59
7	5350.00	50.15	54.00	-3.85	44.65	5.50	Average	303	59
8	5350.00	63.32	74.00	-10.68	57.82	5.50	Peak	303	59
9	5420.00	50.48	54.00	-3.52	44.87	5.61	Average	303	59
10	5420.00	62.90	74.00	-11.10	57.29	5.61	Peak	303	59
11	10520.00	55.12	68.20	-13.08	41.14	13.98	Peak	106	114

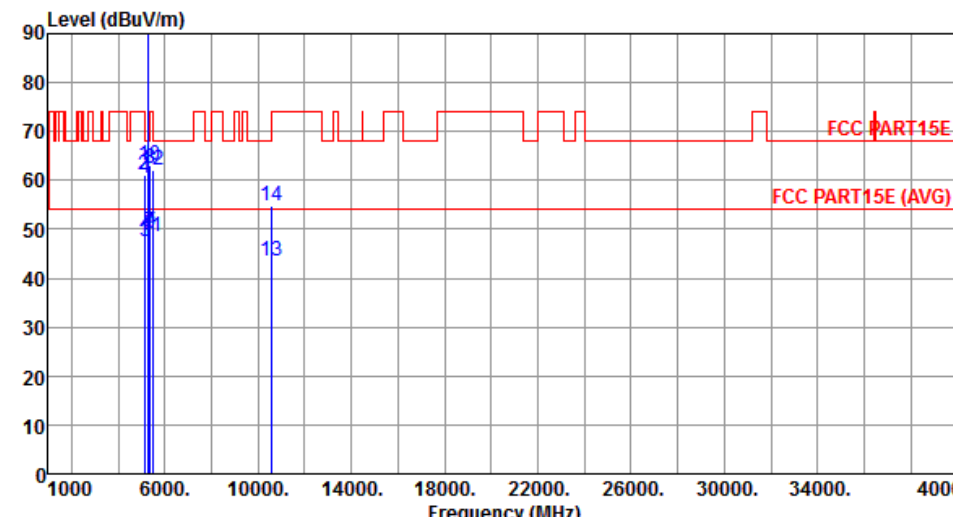
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*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

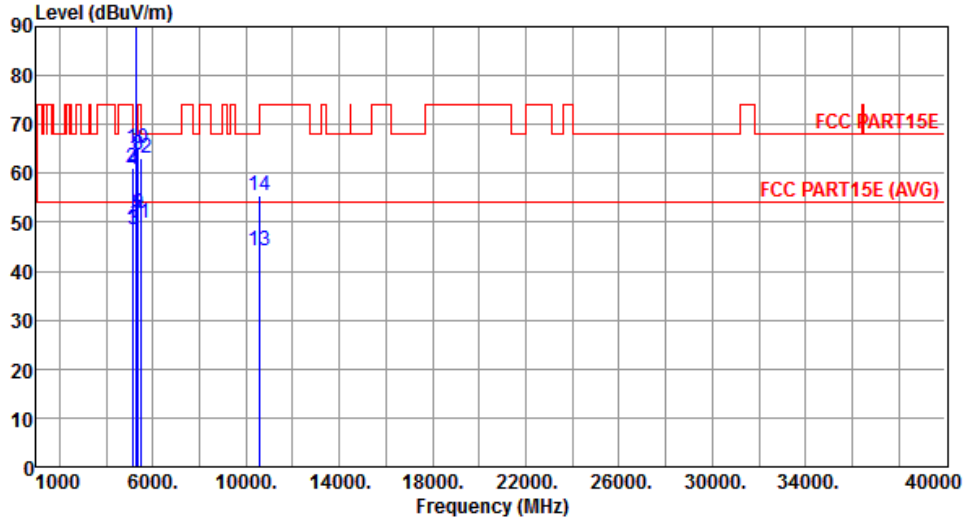
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5140.00	47.65	54.00	-6.35	42.45	5.20	Average	355	106
2	5140.00	60.95	74.00	-13.05	55.75	5.20	Peak	355	106
3	5150.00	47.56	54.00	-6.44	42.35	5.21	Average	355	106
4	5150.00	60.32	74.00	-13.68	55.11	5.21	Peak	355	106
5 *	5300.00	94.14			88.71	5.43	Average	355	106
6 *	5300.00	104.69			99.26	5.43	Peak	355	106
7	5350.00	49.45	54.00	-4.55	43.95	5.50	Average	355	106
8	5350.00	62.58	74.00	-11.42	57.08	5.50	Peak	355	106
9	5380.00	49.22	54.00	-4.78	43.67	5.55	Average	355	106
10	5380.00	62.95	74.00	-11.05	57.40	5.55	Peak	355	106
11	5460.00	48.35	54.00	-5.65	42.70	5.65	Average	355	106
12	5460.00	61.94	74.00	-12.06	56.29	5.65	Peak	355	106
13	10600.00	43.62	54.00	-10.38	29.56	14.06	Average	103	181
14	10600.00	54.69	74.00	-19.31	40.63	14.06	Peak	103	181

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

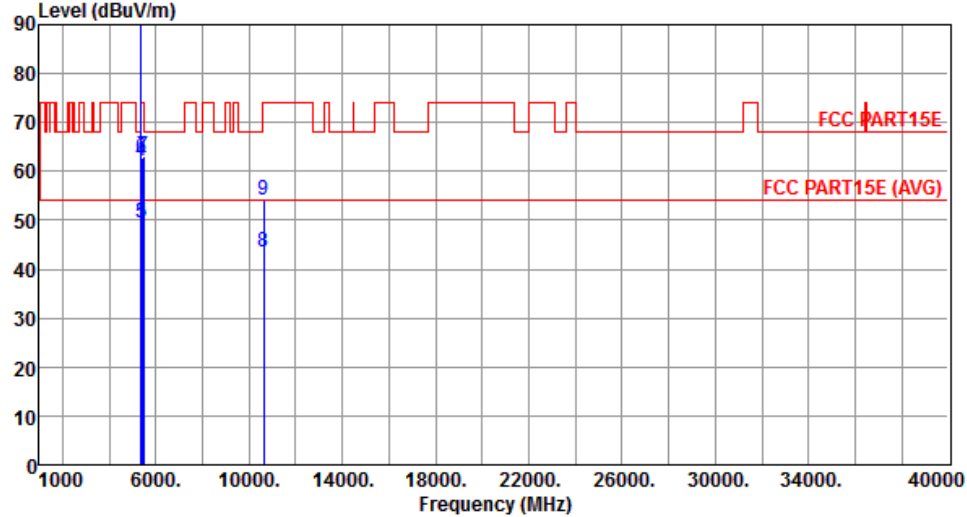
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5140.00	48.65	54.00	-5.35	43.45	5.20	Average	303	60
2	5140.00	61.02	74.00	-12.98	55.82	5.20	Peak	303	60
3	5150.00	48.58	54.00	-5.42	43.37	5.21	Average	303	60
4	5150.00	60.65	74.00	-13.35	55.44	5.21	Peak	303	60
5 *	5300.00	104.25			98.82	5.43	Average	303	60
6 *	5300.00	115.64			110.21	5.43	Peak	303	60
7	5350.00	50.62	54.00	-3.38	45.12	5.50	Average	303	60
8	5350.00	63.74	74.00	-10.26	58.24	5.50	Peak	303	60
9	5380.00	51.86	54.00	-2.14	46.31	5.55	Average	303	60
10	5380.00	65.12	74.00	-8.88	59.57	5.55	Peak	303	60
11	5460.00	49.69	54.00	-4.31	44.04	5.65	Average	303	60
12	5460.00	63.04	74.00	-10.96	57.39	5.65	Peak	303	60
13	10600.00	44.28	54.00	-9.72	30.22	14.06	Average	109	111
14	10600.00	55.31	74.00	-18.69	41.25	14.06	Peak	109	111

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

Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Horizontal		



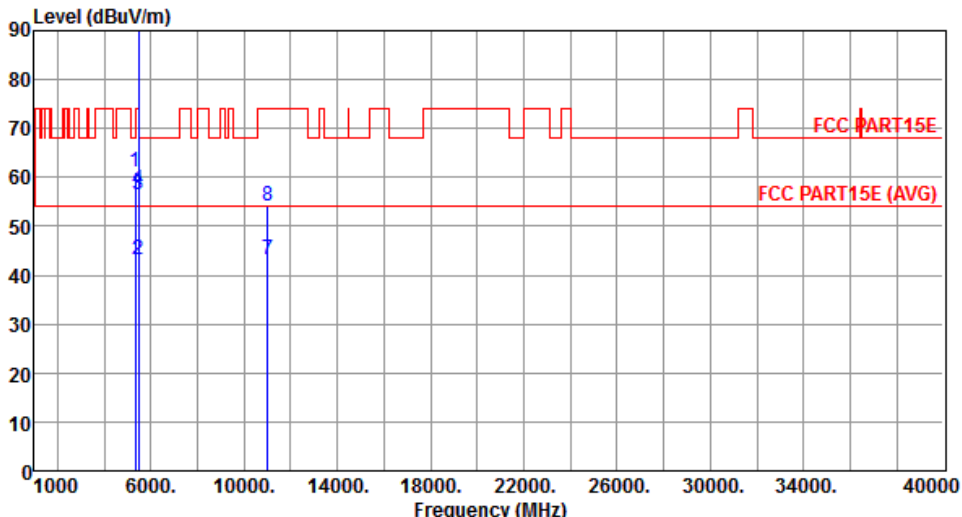
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	
1	*	5320.00	94.65		89.20	5.45	Average	351	109	
2	*	5320.00	104.92		99.47	5.45	Peak	351	109	
3		5350.00	49.56	54.00	-4.44	44.06	5.50	Average	351	109
4		5350.00	62.14	74.00	-11.86	56.64	5.50	Peak	351	109
5		5400.00	49.62	54.00	-4.38	44.04	5.58	Average	351	109
6		5400.00	62.74	74.00	-11.26	57.16	5.58	Peak	351	109
7		5480.00	62.95	68.20	-5.25	57.28	5.67	Peak	351	109
8		10640.00	43.35	54.00	-10.65	29.24	14.11	Average	105	192
9		10640.00	54.28	74.00	-19.72	40.17	14.11	Peak	105	192

Note 1: Emission Level (dBuV/m) = SA Reading (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)	5500
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	5340.00	61.04	68.20	-7.16	55.56	5.48	Peak	349	110
2	5460.00	43.29	54.00	-10.71	37.64	5.65	Average	349	110
3	5460.00	56.33	74.00	-17.67	50.68	5.65	Peak	349	110
4	5470.00	57.61	68.20	-10.59	51.95	5.66	Peak	349	110
5 *	5500.00	94.81			89.11	5.70	Average	349	110
6 *	5500.00	105.06			99.36	5.70	Peak	349	110
7	11000.00	43.12	54.00	-10.88	28.66	14.46	Average	105	192
8	11000.00	54.06	74.00	-19.94	39.60	14.46	Peak	105	192

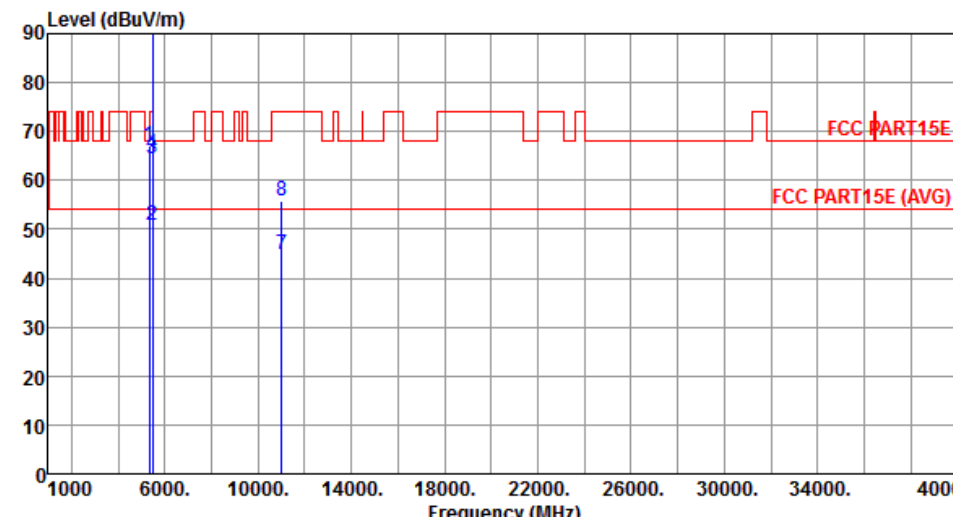
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*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

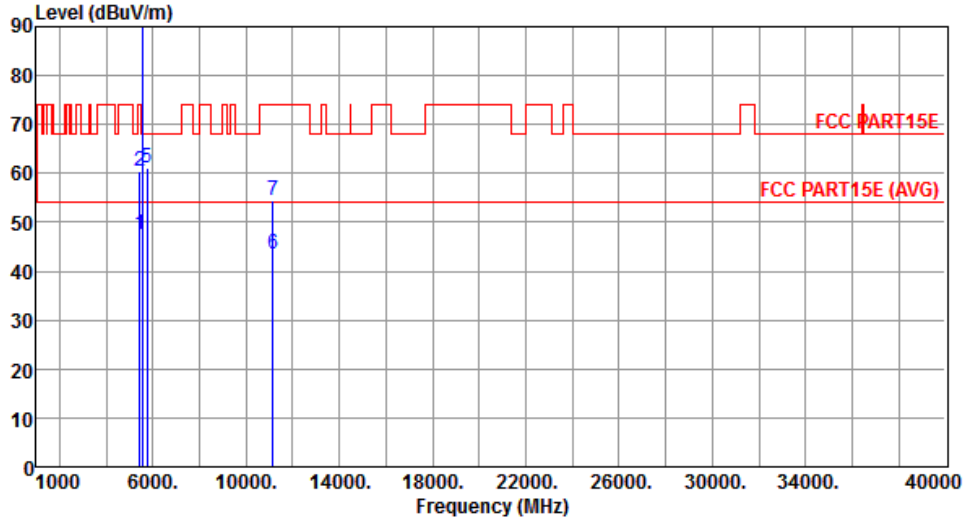
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5340.00	66.95	68.20	-1.25	61.47	5.48	Peak	326	65
2	5460.00	50.86	54.00	-3.14	45.21	5.65	Average	326	65
3	5460.00	64.51	74.00	-9.49	58.86	5.65	Peak	326	65
4	5470.00	65.32	68.20	-2.88	59.66	5.66	Peak	326	65
5 *	5500.00	105.89			100.19	5.70	Average	326	65
6 *	5500.00	117.16			111.46	5.70	Peak	326	65
7	11000.00	44.86	54.00	-9.14	30.40	14.46	Average	108	123
8	11000.00	55.91	74.00	-18.09	41.45	14.46	Peak	108	123

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



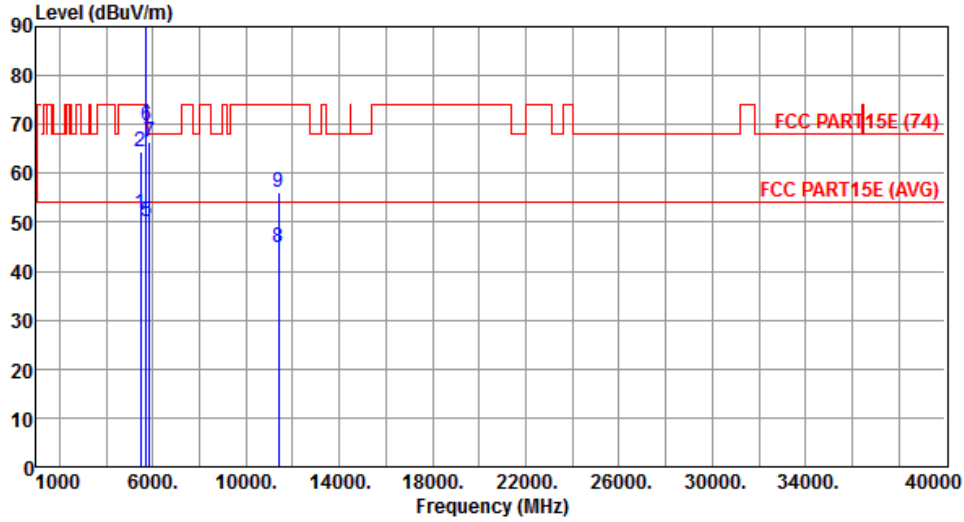
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5420.00	47.61	54.00	-6.39	42.00	5.61	Average	349	102
2	5420.00	60.35	74.00	-13.65	54.74	5.61	Peak	349	102
3 *	5580.00	93.25			87.48	5.77	Average	349	102
4 *	5580.00	104.82			99.05	5.77	Peak	349	102
5	5740.00	61.12	68.20	-7.08	55.10	6.02	Peak	349	102
6	11160.00	43.65	54.00	-10.35	29.05	14.60	Average	105	188
7	11160.00	54.52	74.00	-19.48	39.92	14.60	Peak	105	188

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

Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Vertical		
Level (dBuV/m)			

Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Horizontal		
Level (dBuV/m) <			

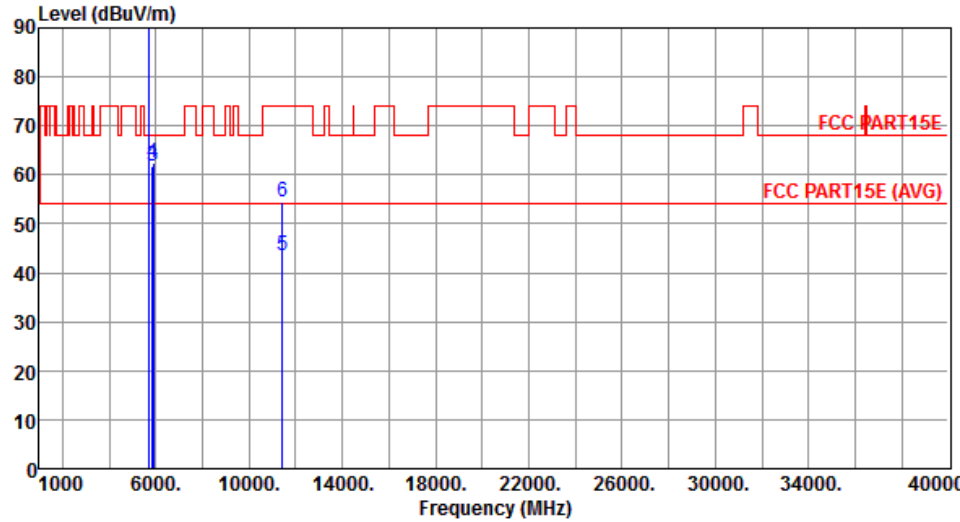
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	51.68	54.00	-2.32	46.03	5.65	Average	326	64
2	5460.00	64.53	74.00	-9.47	58.88	5.65	Peak	326	64
3 *	5700.00	104.69			98.73	5.96	Average	326	64
4 *	5700.00	116.38			110.42	5.96	Peak	326	64
5	5725.00	50.31	54.00	-3.69	44.32	5.99	Average	326	64
6	5725.00	69.65	74.00	-4.35	63.66	5.99	Peak	326	64
7	5860.00	66.52	68.20	-1.68	60.34	6.18	Peak	326	64
8	11400.00	44.83	54.00	-9.17	30.01	14.82	Average	113	115
9	11400.00	55.96	74.00	-18.04	41.14	14.82	Peak	113	115

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

Modulation	VHT20	Test Freq. (MHz)	5720
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	*	5720.00	95.16			89.18	5.98	Average	344	110
2	*	5720.00	105.33			99.35	5.98	Peak	344	110
3		5850.00	61.75	68.20	-6.45	55.58	6.17	Peak	344	110
4		5880.00	62.43	68.20	-5.77	56.22	6.21	Peak	344	110
5		11440.00	43.36	54.00	-10.64	28.50	14.86	Average	101	196
6		11440.00	54.45	74.00	-19.55	39.59	14.86	Peak	101	196

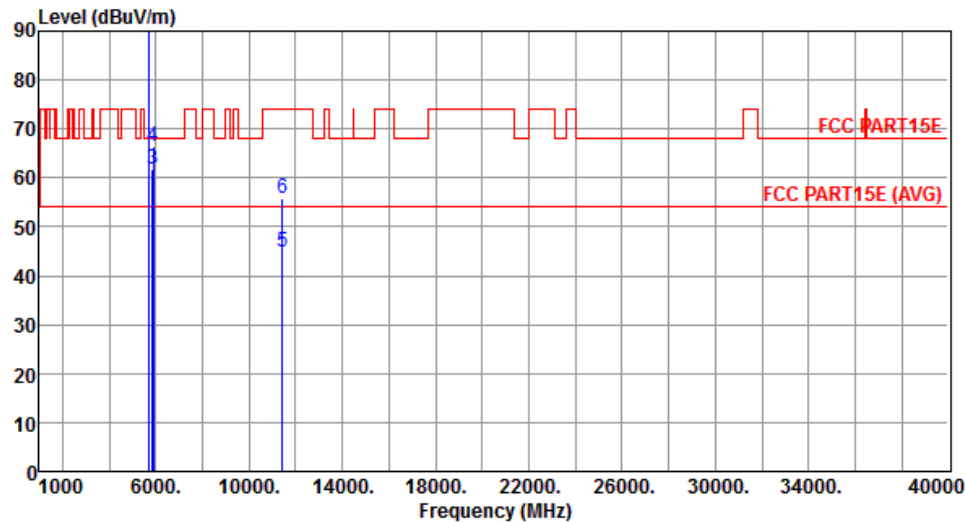
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Vertical		

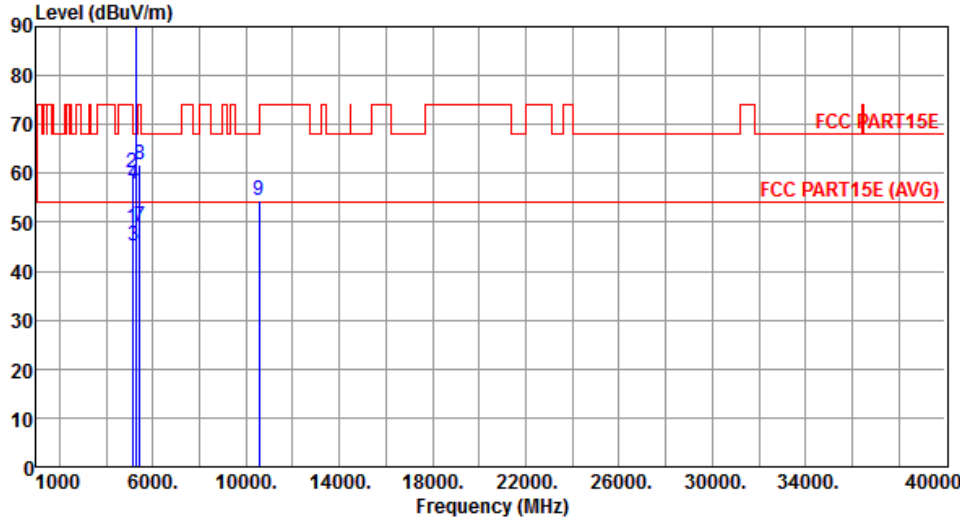


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	
1	*	5720.00	105.36			99.38	5.98	Average	326	61
2	*	5720.00	117.08			111.10	5.98	Peak	326	61
3		5850.00	61.88	68.20	-6.32	55.71	6.17	Peak	326	61
4		5880.00	66.51	68.20	-1.69	60.30	6.21	Peak	326	61
5		11440.00	44.96	54.00	-9.04	30.10	14.86	Average	115	103
6		11440.00	55.87	74.00	-18.13	41.01	14.86	Peak	115	103

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

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

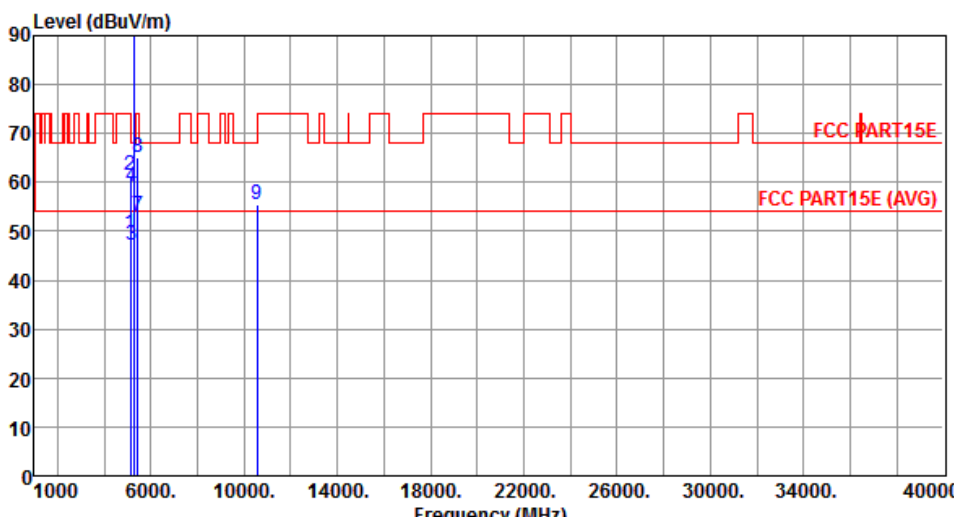
Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5110.00	48.84	54.00	-5.16	43.69	5.15	Average	341	105
2	5110.00	60.12	74.00	-13.88	54.97	5.15	Peak	341	105
3	5150.00	45.11	54.00	-8.89	39.90	5.21	Average	341	105
4	5150.00	57.82	74.00	-16.18	52.61	5.21	Peak	341	105
5 *	5270.00	93.24			87.86	5.38	Average	341	105
6 *	5270.00	103.65			98.27	5.38	Peak	341	105
7	5430.00	49.25	54.00	-4.75	43.63	5.62	Average	341	105
8	5430.00	61.91	74.00	-12.09	56.29	5.62	Peak	341	105
9	10540.00	54.62	68.20	-13.58	40.62	14.00	Peak	101	158

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

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5110.00	49.45	54.00	-4.55	44.30	5.15	Average	308	23
2	5110.00	61.42	74.00	-12.58	56.27	5.15	Peak	308	23
3	5150.00	47.29	54.00	-6.71	42.08	5.21	Average	308	23
4	5150.00	59.06	74.00	-14.94	53.85	5.21	Peak	308	23
5 *	5270.00	103.84			98.46	5.38	Average	308	23
6 *	5270.00	114.86			109.48	5.38	Peak	308	23
7	5430.00	53.04	54.00	-0.96	47.42	5.62	Average	308	23
8	5430.00	65.10	74.00	-8.90	59.48	5.62	Peak	308	23
9	10540.00	55.47	68.20	-12.73	41.47	14.00	Peak	115	101

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

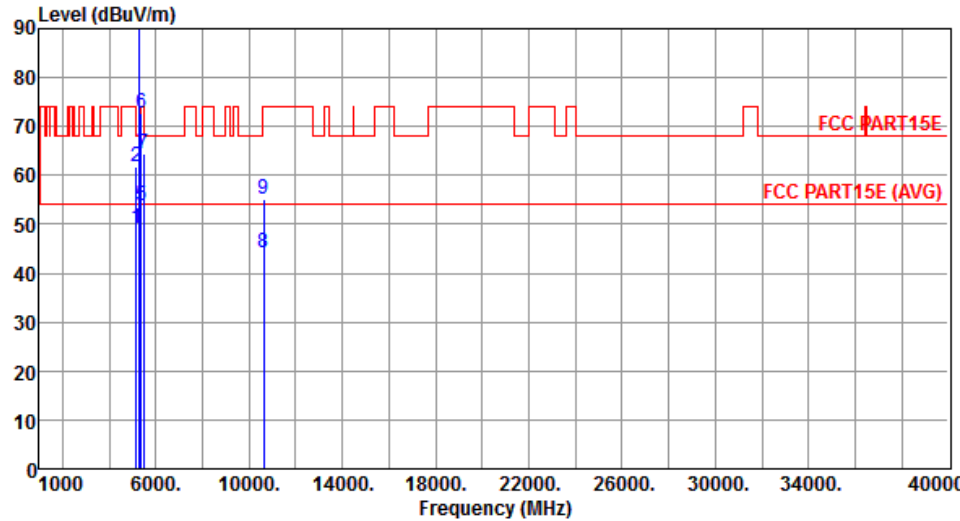
*Factor includes antenna factor , cable loss and amplifier gain

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)	5310
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.14	54.00	-4.86	43.93	5.21	Average	319	24
2	5150.00	61.85	74.00	-12.15	56.64	5.21	Peak	319	24
3 *	5310.00	103.56			98.11	5.45	Average	319	24
4 *	5310.00	114.38			108.93	5.45	Peak	319	24
5	5350.00	53.66	54.00	-0.34	48.16	5.50	Average	319	24
6	5350.00	72.72	74.00	-1.28	67.22	5.50	Peak	319	24
7	5470.00	64.32	68.20	-3.88	58.66	5.66	Peak	319	24
8	10620.00	44.21	54.00	-9.79	30.14	14.07	Average	113	92
9	10620.00	55.26	74.00	-18.74	41.19	14.07	Peak	113	92

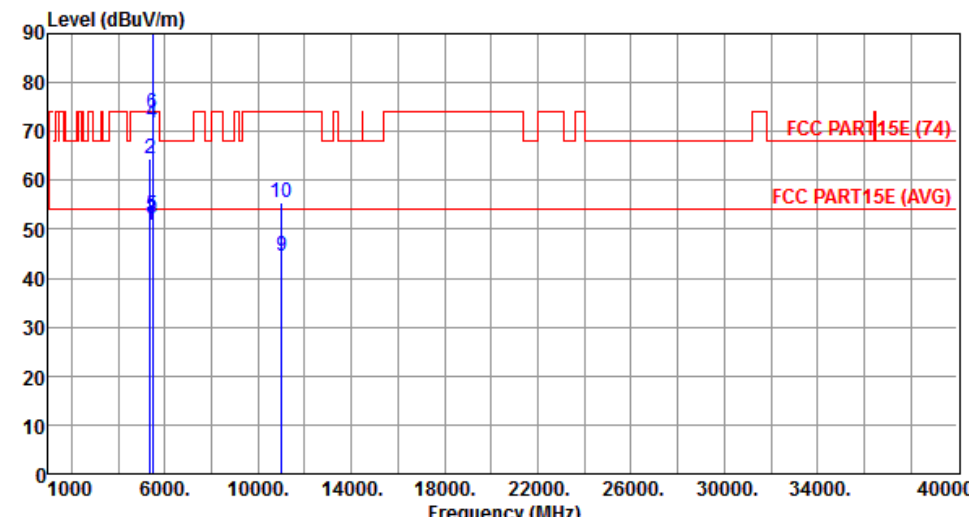
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain

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)	5510
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical		

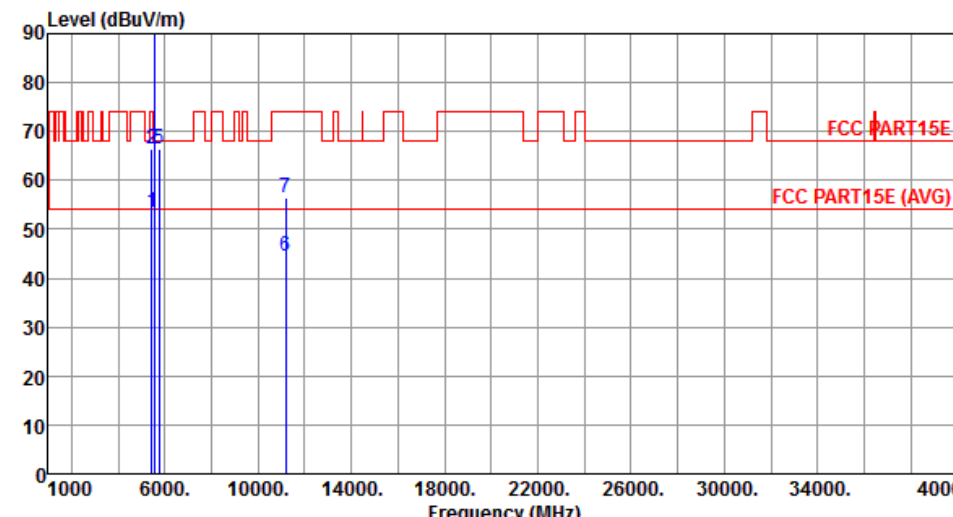


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	50.86	54.00	-3.14	45.36	5.50	Average	320	63
2	5350.00	64.52	74.00	-9.48	59.02	5.50	Peak	320	63
3	5460.00	52.05	54.00	-1.95	46.40	5.65	Average	320	63
4	5460.00	71.75	74.00	-2.25	66.10	5.65	Peak	320	63
5	5470.00	52.81	54.00	-1.19	47.15	5.66	Average	320	63
6	5470.00	73.68	74.00	-0.32	68.02	5.66	Peak	320	63
7 *	5510.00	103.13			97.43	5.70	Average	320	63
8 *	5510.00	114.16			108.46	5.70	Peak	320	63
9	11020.00	44.35	54.00	-9.65	29.87	14.48	Average	103	96
10	11020.00	55.31	74.00	-18.69	40.83	14.48	Peak	103	96

Note 1: Emission Level (dBuV/m) = SA Reading (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)	5590
Polarization	Horizontal		
Level (dBuV/m) </			

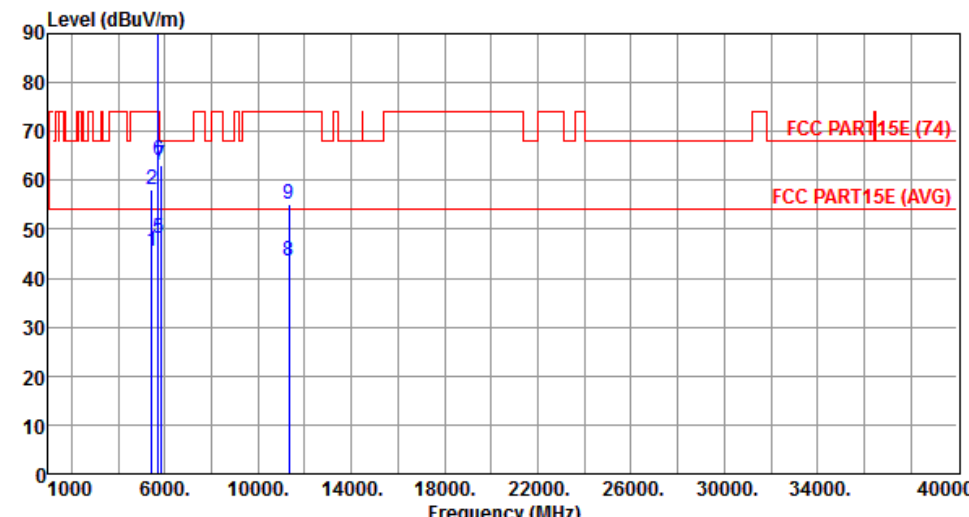
Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5430.00	53.41	54.00	-0.59	47.79	5.62	Average	320	62
2	5430.00	66.42	74.00	-7.58	60.80	5.62	Peak	320	62
3 *	5590.00	103.60			97.82	5.78	Average	320	62
4 *	5590.00	114.96			109.18	5.78	Peak	320	62
5	5750.00	66.36	68.20	-1.84	60.33	6.03	Peak	320	62
6	11180.00	44.62	54.00	-9.38	30.00	14.62	Average	109	100
7	11180.00	56.48	74.00	-17.52	41.86	14.62	Peak	109	100

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

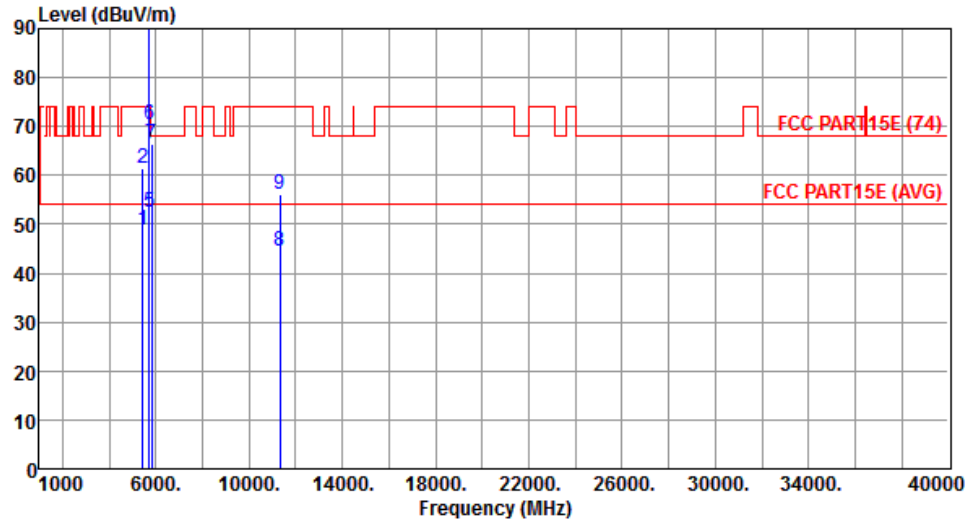
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5430.00	45.34	54.00	-8.66	39.72	5.62	Average	336	115
2	5430.00	58.02	74.00	-15.98	52.40	5.62	Peak	336	115
3 *	5670.00	93.02			87.12	5.90	Average	336	115
4 *	5670.00	103.24			97.34	5.90	Peak	336	115
5	5725.00	48.21	54.00	-5.79	42.22	5.99	Average	336	115
6	5725.00	63.95	74.00	-10.05	57.96	5.99	Peak	336	115
7	5830.00	63.14	68.20	-5.06	56.99	6.15	Peak	336	115
8	11340.00	43.45	54.00	-10.55	28.68	14.77	Average	103	146
9	11340.00	55.02	74.00	-18.98	40.25	14.77	Peak	103	146

Note 1: Emission Level (dBUV/m) = SA Reading (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)	5670
Polarization	Vertical		



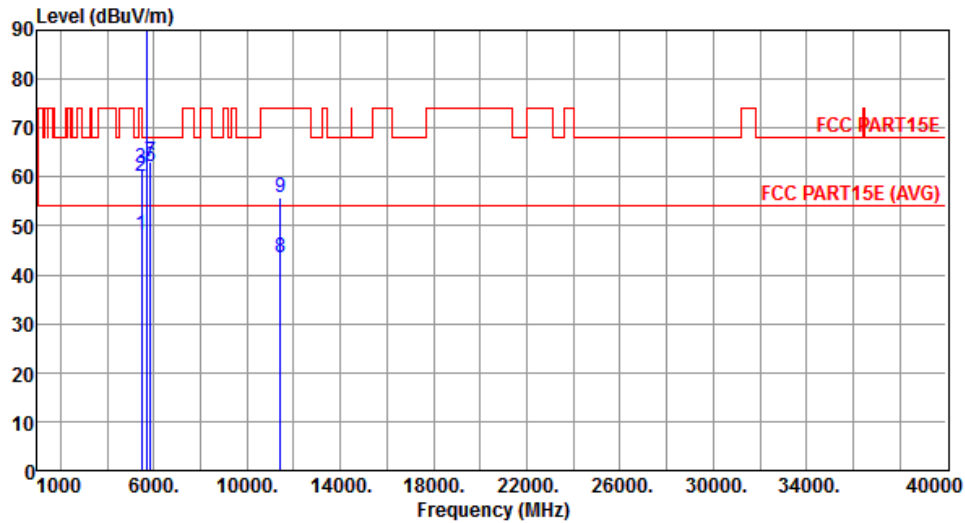
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5430.00	48.90	54.00	-5.10	43.28	5.62	Average	320	61
2	5430.00	61.32	74.00	-12.68	55.70	5.62	Peak	320	61
3 *	5670.00	104.04			98.14	5.90	Average	320	61
4 *	5670.00	114.85			108.95	5.90	Peak	320	61
5	5725.00	52.33	54.00	-1.67	46.34	5.99	Average	320	61
6	5725.00	70.57	74.00	-3.43	64.58	5.99	Peak	320	61
7	5830.00	66.40	68.20	-1.80	60.25	6.15	Peak	320	61
8	11340.00	44.39	54.00	-9.61	29.62	14.77	Average	110	94
9	11340.00	56.21	74.00	-17.79	41.44	14.77	Peak	110	94

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.21	54.00	-5.79	42.56	5.65	Average	335	113
2	5460.00	60.14	74.00	-13.86	54.49	5.65	Peak	335	113
3	5470.00	61.75	68.20	-6.45	56.09	5.66	Peak	335	113
4 *	5710.00	93.25			87.29	5.96	Average	335	113
5 *	5710.00	103.46			97.50	5.96	Peak	335	113
6	5850.00	62.13	68.20	-6.07	55.96	6.17	Peak	335	113
7	5870.00	63.24	68.20	-4.96	57.05	6.19	Peak	335	113
8	11420.00	43.59	54.00	-10.41	28.75	14.84	Average	106	151
9	11420.00	55.64	74.00	-18.36	40.80	14.84	Peak	106	151

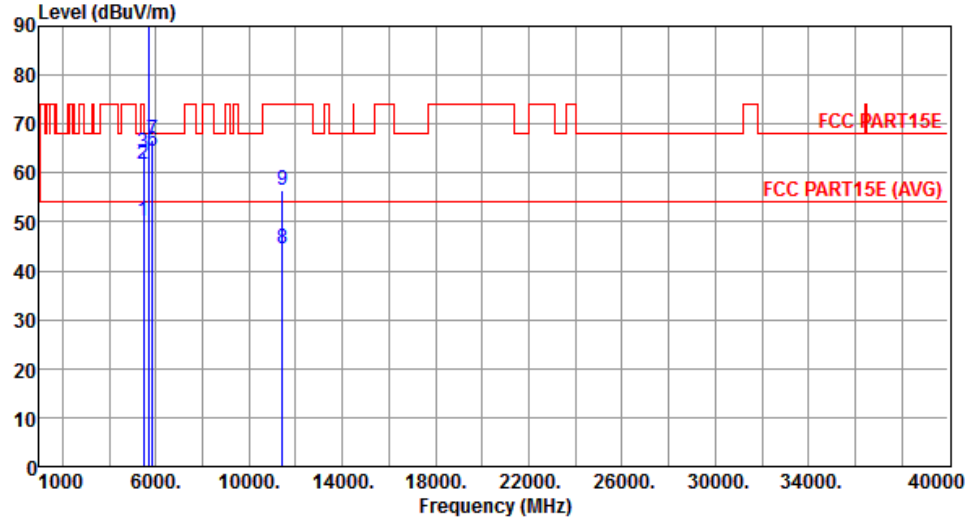
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Vertical		

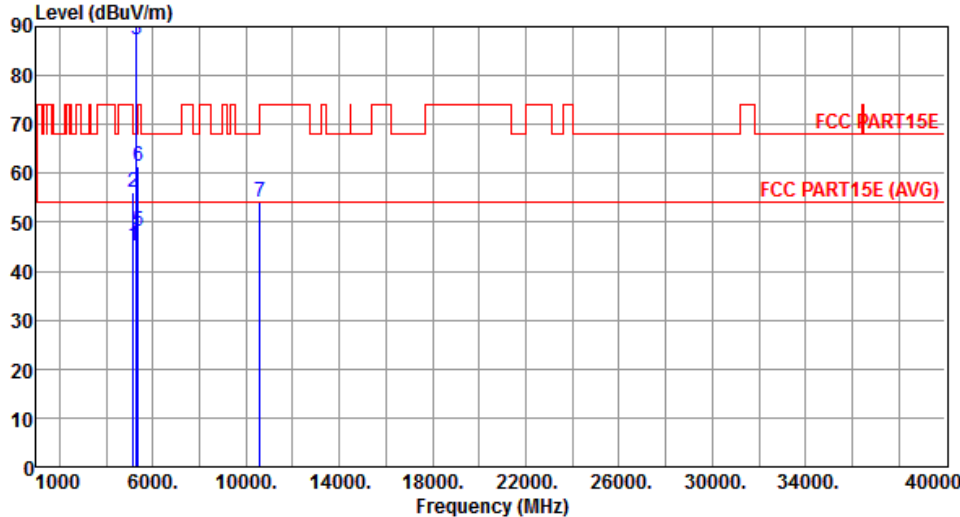


Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	5460.00	50.09	54.00	-3.91	44.44	5.65	Average	321 66
2	5460.00	61.75	74.00	-12.25	56.10	5.65	Peak	321 66
3	5470.00	64.02	68.20	-4.18	58.36	5.66	Peak	321 66
4 *	5710.00	104.62			98.66	5.96	Average	321 66
5 *	5710.00	115.51			109.55	5.96	Peak	321 66
6	5850.00	64.56	68.20	-3.64	58.39	6.17	Peak	321 66
7	5870.00	66.70	68.20	-1.50	60.51	6.19	Peak	321 66
8	11420.00	44.51	54.00	-9.49	29.67	14.84	Average	110 87
9	11420.00	56.35	74.00	-17.65	41.51	14.84	Peak	110 87

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

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

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Horizontal		

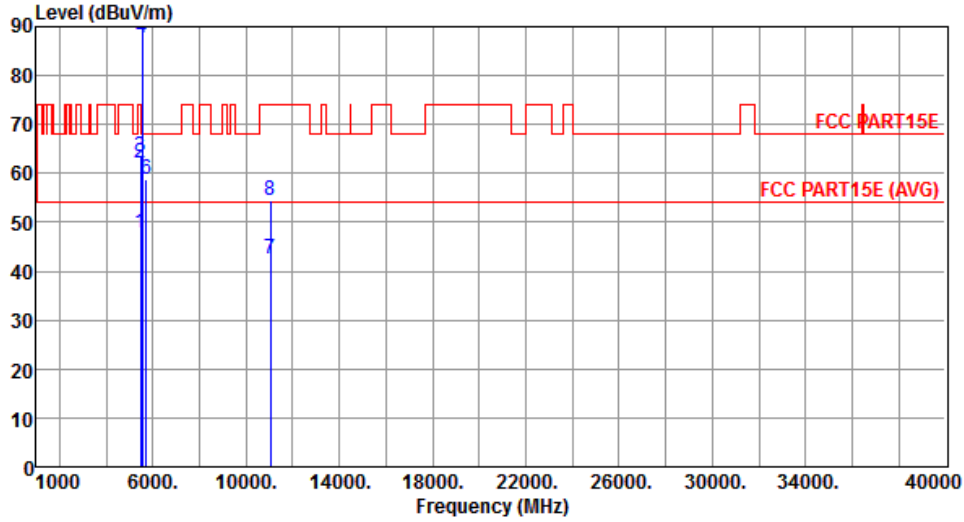


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.13	54.00	-8.87	39.92	5.21	Average	344	103
2	5150.00	56.22	74.00	-17.78	51.01	5.21	Peak	344	103
3 *	5290.00	87.45			82.04	5.41	Average	344	103
4 *	5290.00	97.53			92.12	5.41	Peak	344	103
5	5350.00	48.14	54.00	-5.86	42.64	5.50	Average	344	103
6	5350.00	61.53	74.00	-12.47	56.03	5.50	Peak	344	103
7	10580.00	54.23	68.20	-13.97	40.19	14.04	Peak	108	144

Note 1: Emission Level (dBUV/m) = SA Reading (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)	5290
Polarization	Vertical		
Level (dBuV/m)			

Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Horizontal		



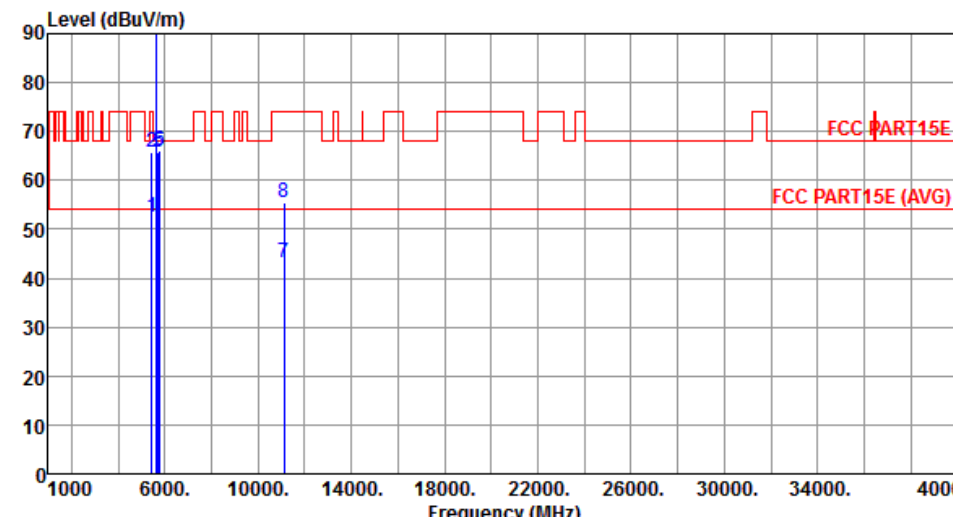
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.86	54.00	-6.14	42.21	5.65	Average	341	106
2	5460.00	62.14	74.00	-11.86	56.49	5.65	Peak	341	106
3	5470.00	63.45	68.20	-4.75	57.79	5.66	Peak	341	106
4 *	5530.00	87.62			81.90	5.72	Average	341	106
5 *	5530.00	97.68			91.96	5.72	Peak	341	106
6	5725.00	58.66	68.20	-9.54	52.67	5.99	Peak	341	106
7	11060.00	42.45	54.00	-11.55	27.94	14.51	Average	114	139
8	11060.00	54.63	74.00	-19.37	40.12	14.51	Peak	114	139

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

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

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

Modulation	VHT80	Test Freq. (MHz)	5610
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5450.00	52.49	54.00	-1.51	46.86	5.63	Average	301	62
2	5450.00	65.78	74.00	-8.22	60.15	5.63	Peak	301	62
3 *	5610.00	99.71			93.91	5.80	Average	301	62
4 *	5610.00	109.90			104.10	5.80	Peak	301	62
5	5725.00	65.77	68.20	-2.43	59.78	5.99	Peak	301	62
6	5770.00	65.93	68.20	-2.27	59.87	6.06	Peak	301	62
7	11120.00	43.18	54.00	-10.82	28.61	14.57	Average	119	106
8	11120.00	55.62	74.00	-18.38	41.05	14.57	Peak	119	106

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

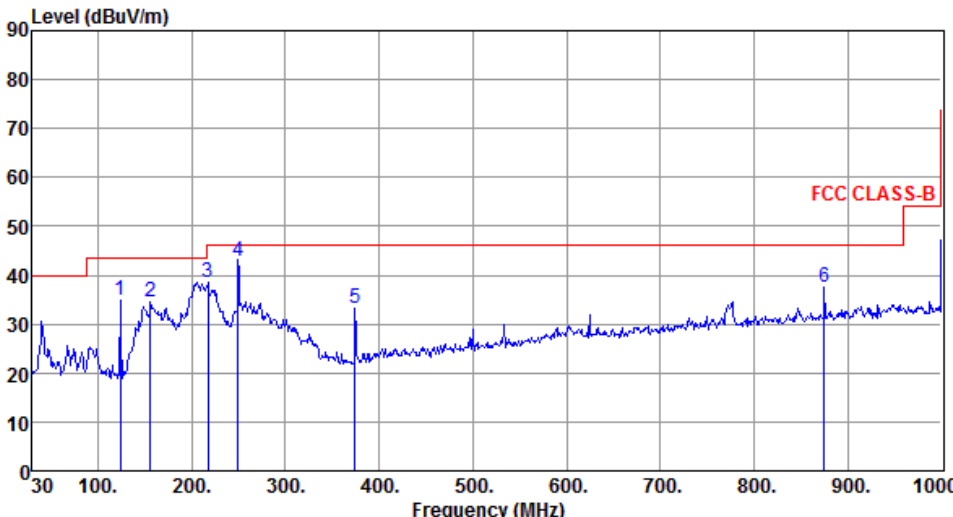
Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Horizontal		
Level (dBuV/m) </			

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

Beamforming mode

3.5.9 Transmitter Radiated Unwanted Emissions (Below 1GHz)

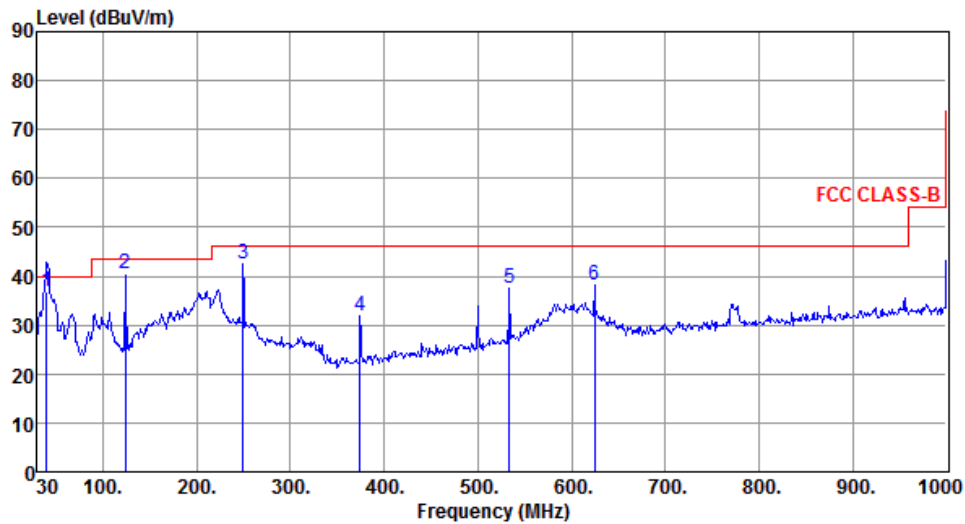
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Horizontal	Test configuration	1



	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	34.93	43.50	-8.57	45.46	-10.53	Peak	---	---
2	156.10	34.60	43.50	-8.90	42.94	-8.34	Peak	---	---
3	217.21	38.51	46.00	-7.49	49.48	-10.97	Peak	---	---
4	249.22	42.95	46.00	-3.05	52.34	-9.39	QP	100	108
5	374.35	33.15	46.00	-12.85	39.21	-6.06	Peak	---	---
6	874.87	37.40	46.00	-8.60	34.16	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)	5670
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	21
2	124.09	40.42	43.50	-3.08	50.95	-10.53	QP	100	81
3	249.22	42.45	46.00	-3.55	51.84	-9.39	Peak	---	---
4	374.35	31.88	46.00	-14.12	37.94	-6.06	Peak	---	---
5	533.43	37.41	46.00	-8.59	40.07	-2.66	Peak	---	---
6	624.61	38.16	46.00	-7.84	38.87	-0.71	Peak	---	---

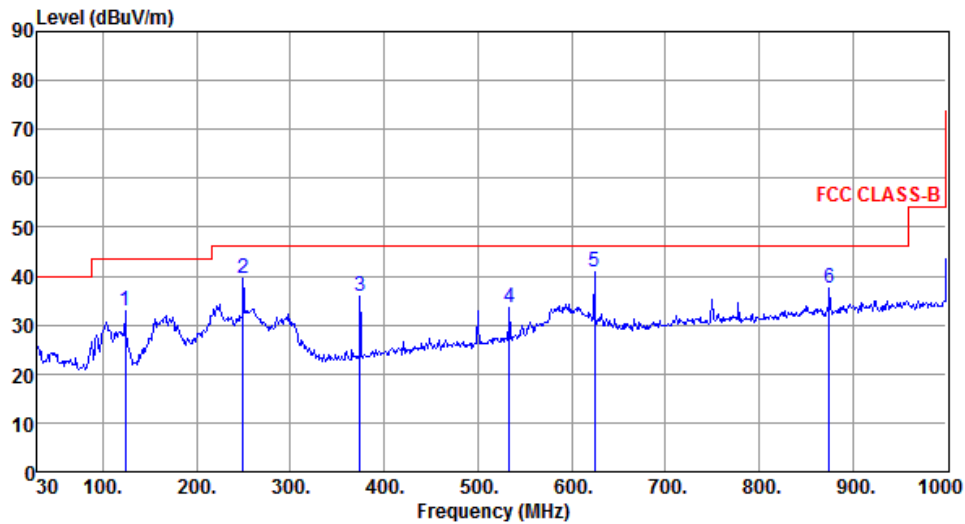
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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)	5670
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	33.04	43.50	-10.46	43.57	-10.53	Peak	---	---
2	249.22	39.47	46.00	-6.53	48.86	-9.39	Peak	---	---
3	374.35	35.82	46.00	-10.18	41.88	-6.06	Peak	---	---
4	533.43	33.51	46.00	-12.49	36.17	-2.66	Peak	---	---
5	624.61	40.78	46.00	-5.22	41.49	-0.71	Peak	---	---
6	874.87	37.51	46.00	-8.49	34.27	3.24	Peak	---	---

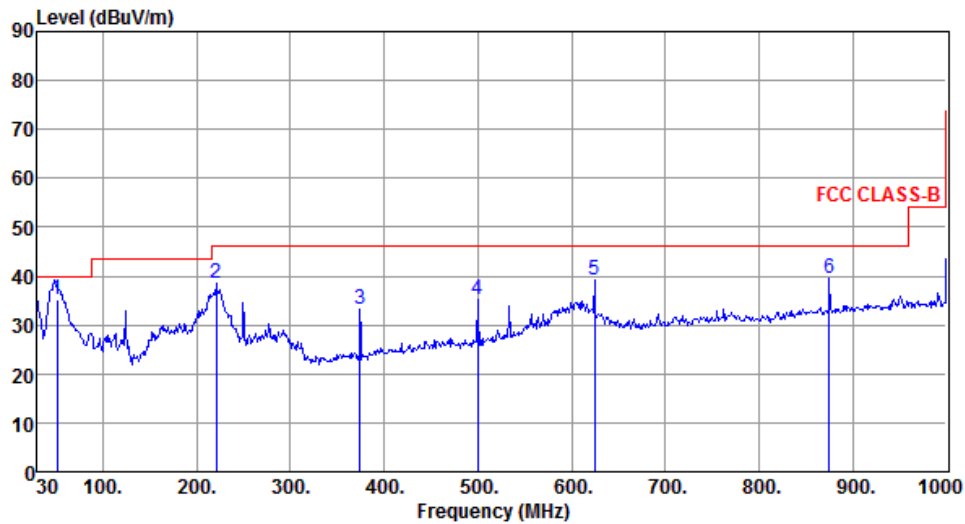
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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)	5670
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	50.88	35.23	40.00	-4.77	43.45	-8.22	QP	102	81
2	221.09	38.68	46.00	-7.32	49.57	-10.89	Peak	---	---
3	374.35	33.27	46.00	-12.73	39.33	-6.06	Peak	---	---
4	499.48	35.30	46.00	-10.70	38.66	-3.36	Peak	---	---
5	624.61	39.10	46.00	-6.90	39.81	-0.71	Peak	---	---
6	874.87	39.35	46.00	-6.65	36.11	3.24	Peak	---	---

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

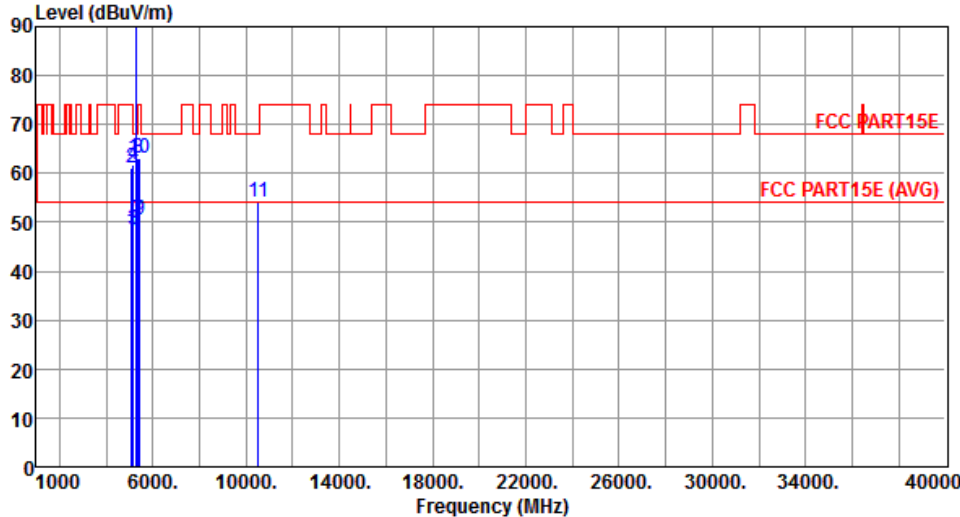
*Factor includes antenna factor , cable loss and amplifier gain

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.

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

Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Horizontal		

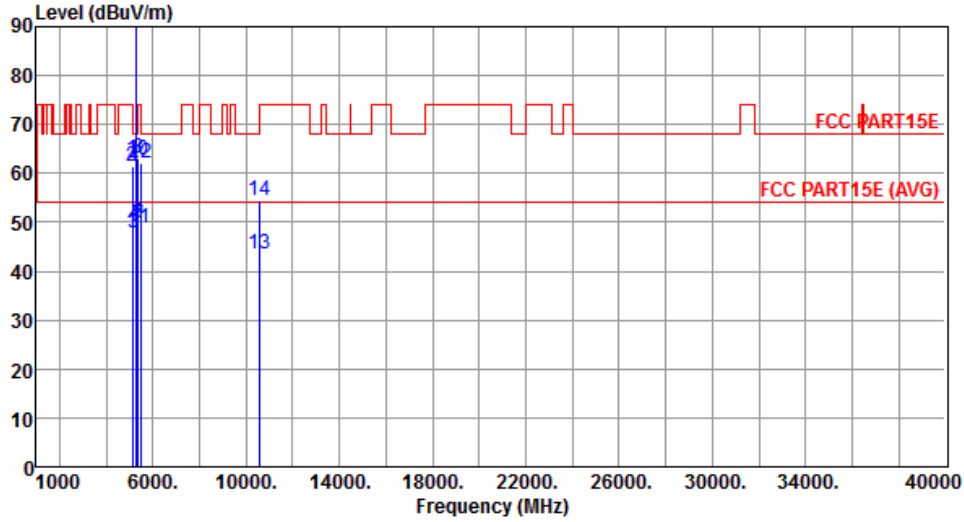


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5100.00	48.27	54.00	-5.73	43.13	5.14	Average	308	135
2	5100.00	61.08	74.00	-12.92	55.94	5.14	Peak	308	135
3	5150.00	48.61	54.00	-5.39	43.40	5.21	Average	308	135
4	5150.00	61.67	74.00	-12.33	56.46	5.21	Peak	308	135
5 *	5260.00	93.70			88.33	5.37	Average	308	135
6 *	5260.00	104.59			99.22	5.37	Peak	308	135
7	5350.00	50.41	54.00	-3.59	44.91	5.50	Average	308	135
8	5350.00	63.26	74.00	-10.74	57.76	5.50	Peak	308	135
9	5420.00	50.36	54.00	-3.64	44.75	5.61	Average	308	135
10	5420.00	63.00	74.00	-11.00	57.39	5.61	Peak	308	135
11	10520.00	54.27	68.20	-13.93	40.29	13.98	Peak	100	175

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

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

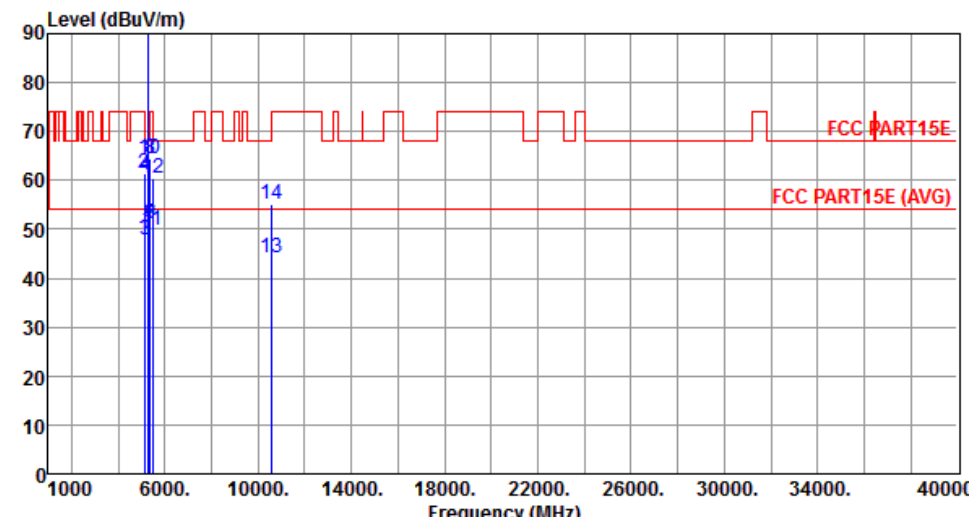
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5140.00	47.81	54.00	-6.19	42.61	5.20	Average	355	112
2	5140.00	61.42	74.00	-12.58	56.22	5.20	Peak	355	112
3	5150.00	47.79	54.00	-6.21	42.58	5.21	Average	355	112
4	5150.00	61.44	74.00	-12.56	56.23	5.21	Peak	355	112
5 *	5300.00	93.91			88.48	5.43	Average	355	112
6 *	5300.00	105.81			100.38	5.43	Peak	355	112
7	5350.00	49.59	54.00	-4.41	44.09	5.50	Average	355	112
8	5350.00	63.15	74.00	-10.85	57.65	5.50	Peak	355	112
9	5380.00	49.68	54.00	-4.32	44.13	5.55	Average	355	112
10	5380.00	62.88	74.00	-11.12	57.33	5.55	Peak	355	112
11	5460.00	48.83	54.00	-5.17	43.18	5.65	Average	355	112
12	5460.00	62.18	74.00	-11.82	56.53	5.65	Peak	355	112
13	10600.00	43.48	54.00	-10.52	29.42	14.06	Average	100	178
14	10600.00	54.45	74.00	-19.55	40.39	14.06	Peak	100	178

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5140.00	47.99	54.00	-6.01	42.79	5.20	Average	329	62
2	5140.00	61.47	74.00	-12.53	56.27	5.20	Peak	329	62
3	5150.00	47.99	54.00	-6.01	42.78	5.21	Average	329	62
4	5150.00	61.17	74.00	-12.83	55.96	5.21	Peak	329	62
5	* 5300.00	103.75			98.32	5.43	Average	329	62
6	* 5300.00	116.55			111.12	5.43	Peak	329	62
7	5350.00	50.93	54.00	-3.07	45.43	5.50	Average	329	62
8	5350.00	64.27	74.00	-9.73	58.77	5.50	Peak	329	62
9	5380.00	51.17	54.00	-2.83	45.62	5.55	Average	329	62
10	5380.00	64.46	74.00	-9.54	58.91	5.55	Peak	329	62
11	5460.00	49.67	54.00	-4.33	44.02	5.65	Average	329	62
12	5460.00	60.35	74.00	-13.65	54.70	5.65	Peak	329	62
13	10600.00	44.24	54.00	-9.76	30.18	14.06	Average	100	102
14	10600.00	55.14	74.00	-18.86	41.08	14.06	Peak	100	102

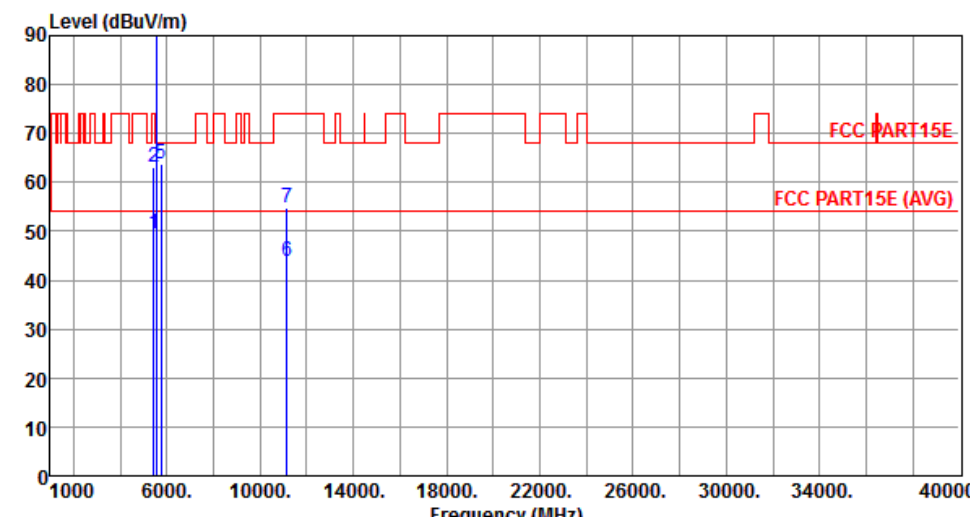
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: "*" is Peak / Average value of fundamental frequency

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

Modulation		VHT20			Test Freq. (MHz)		5320			
Polarization		Vertical								
Level (dBuV/m) </										

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

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

Modulation	VHT20	Test Freq. (MHz)	5580						
Polarization	Horizontal								
									
	Freq.	Emission level	Limit	Margin	SA reading	Factor	Remark	ANT High	Turn Table
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	5420.00	49.63	54.00	-4.37	44.02	5.61	Average	359	112
2	5420.00	63.10	74.00	-10.90	57.49	5.61	Peak	359	112
3 *	5580.00	94.15			88.38	5.77	Average	359	112
4 *	5580.00	105.53			99.76	5.77	Peak	359	112
5	5740.00	63.63	68.20	-4.57	57.61	6.02	Peak	359	112
6	11160.00	43.95	54.00	-10.05	29.35	14.60	Average	100	172
7	11160.00	54.79	74.00	-19.21	40.19	14.60	Peak	100	172

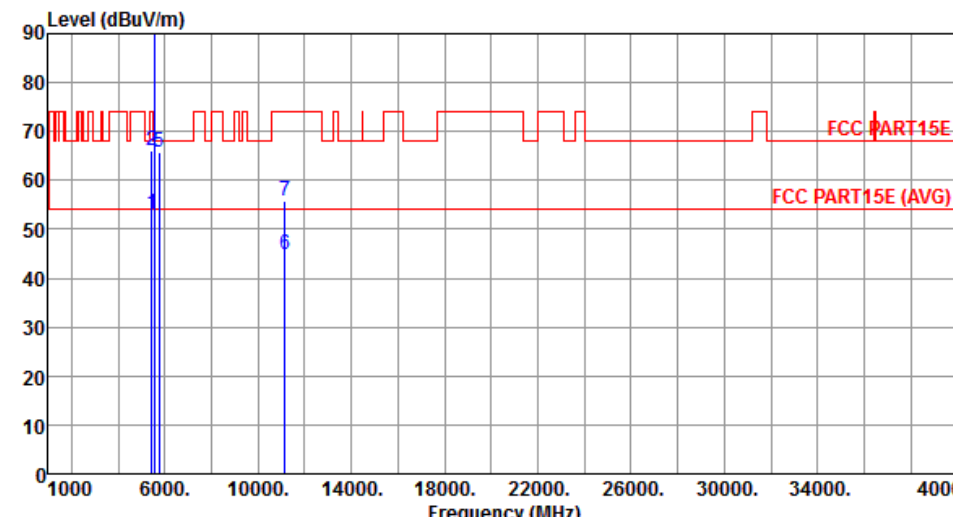
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*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)	5580
Polarization	Vertical		

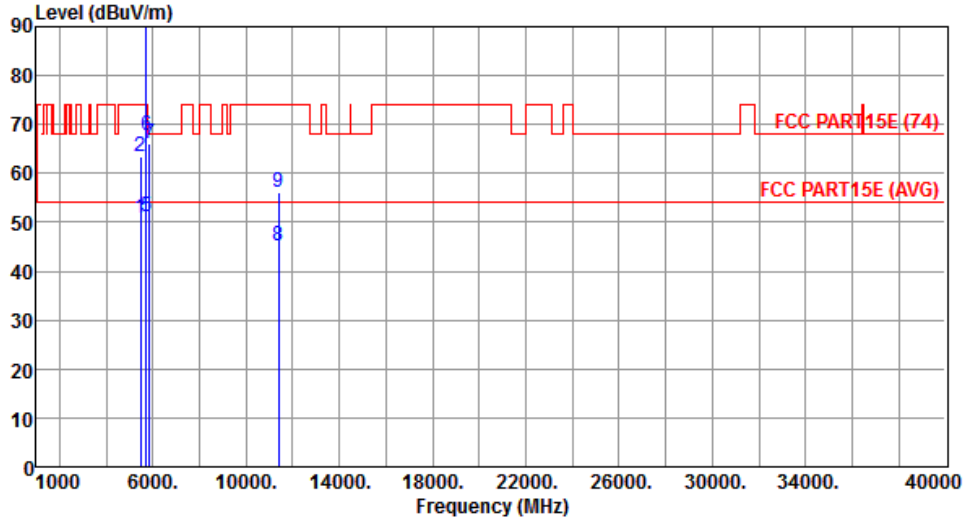


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5420.00	53.23	54.00	-0.77	47.62	5.61	Average	313	5
2	5420.00	66.04	74.00	-7.96	60.43	5.61	Peak	313	5
3 *	5580.00	104.57			98.80	5.77	Average	313	5
4 *	5580.00	116.71			110.94	5.77	Peak	313	5
5	5740.00	65.79	68.20	-2.41	59.77	6.02	Peak	313	5
6	11160.00	44.87	54.00	-9.13	30.27	14.60	Average	100	132
7	11160.00	55.88	74.00	-18.12	41.28	14.60	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)	5700
Polarization	Horizontal		
Level (dBuV/m) </			

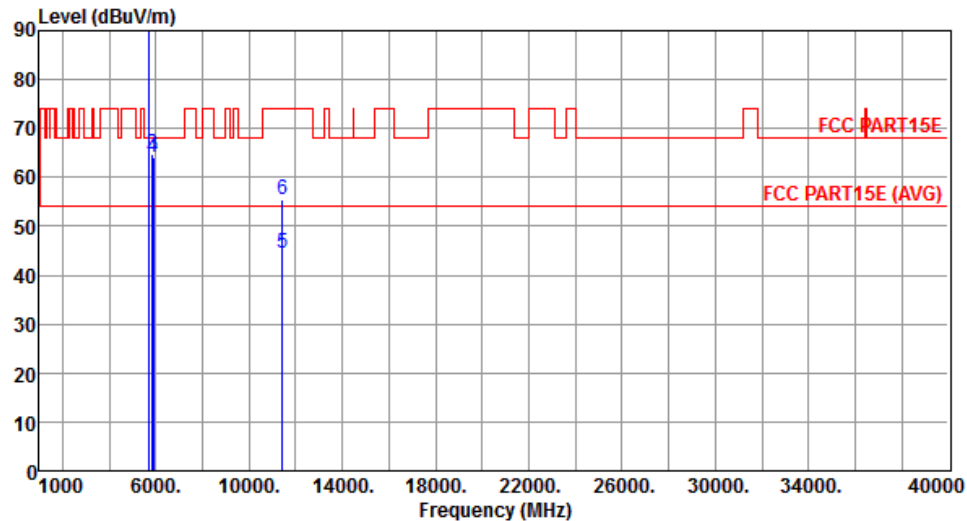
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	50.73	54.00	-3.27	45.08	5.65	Average	330	109
2	5460.00	63.54	74.00	-10.46	57.89	5.65	Peak	330	109
3 *	5700.00	106.75			100.79	5.96	Average	330	109
4 *	5700.00	117.63			111.67	5.96	Peak	330	109
5	5725.00	51.25	54.00	-2.75	45.26	5.99	Average	330	109
6	5725.00	67.59	74.00	-6.41	61.60	5.99	Peak	330	109
7	5860.00	66.03	68.20	-2.17	59.85	6.18	Peak	330	109
8	11400.00	45.20	54.00	-8.80	30.38	14.82	Average	100	104
9	11400.00	56.28	74.00	-17.72	41.46	14.82	Peak	100	104

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



The spectrum plot shows the emission level in dBUV/m on the y-axis (0 to 90) against frequency in MHz on the x-axis (1000 to 40000). A red line represents the emission level, which is mostly below the FCC PART15E limit (blue line). A red line also indicates the FCC PART15E (AVG) limit. Two vertical blue lines mark the test frequencies at 5720 MHz and 11440 MHz. The emission level at 5720 MHz is 95.72 dBUV/m, and at 11440 MHz it is 55.35 dBUV/m. The FCC PART15E limit at 11440 MHz is 74.00 dBUV/m.

		Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn
		MHz	level			reading			High	Table
			dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg
1	*	5720.00	95.72			89.74	5.98	Average	239	194
2	*	5720.00	105.18			99.20	5.98	Peak	239	194
3		5850.00	64.92	68.20	-3.28	58.75	6.17	Peak	239	194
4		5880.00	64.18	68.20	-4.02	57.97	6.21	Peak	239	194
5		11440.00	44.49	54.00	-9.51	29.63	14.86	Average	100	182
6		11440.00	55.35	74.00	-18.65	40.49	14.86	Peak	100	182

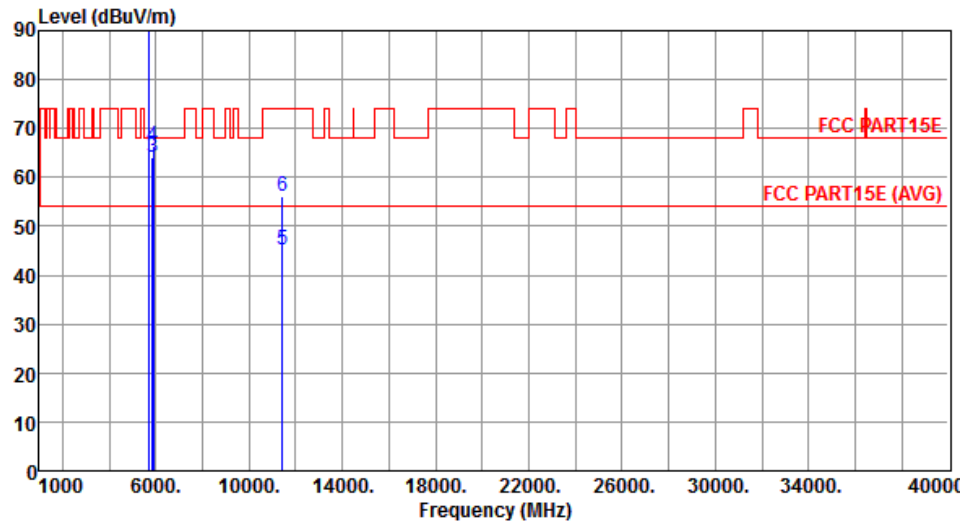
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Vertical		



The spectrum plot shows the emission level in dBUV/m across a frequency range from 1000 to 40000 MHz. The y-axis ranges from 0 to 90 dBUV/m. A red line represents the emission level, which shows a significant peak at 5720 MHz. A blue line represents the FCC PART15E limit, which is constant at 54 dBUV/m. The average emission level is indicated by a red line at approximately 56 dBUV/m.

		Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5720.00	106.44			100.46	5.98	Average	325	66
2	*	5720.00	117.10			111.12	5.98	Peak	325	66
3		5850.00	64.25	68.20	-3.95	58.08	6.17	Peak	325	66
4		5880.00	66.45	68.20	-1.75	60.24	6.21	Peak	325	66
5		11440.00	45.19	54.00	-8.81	30.33	14.86	Average	100	114
6		11440.00	56.14	74.00	-17.86	41.28	14.86	Peak	100	114

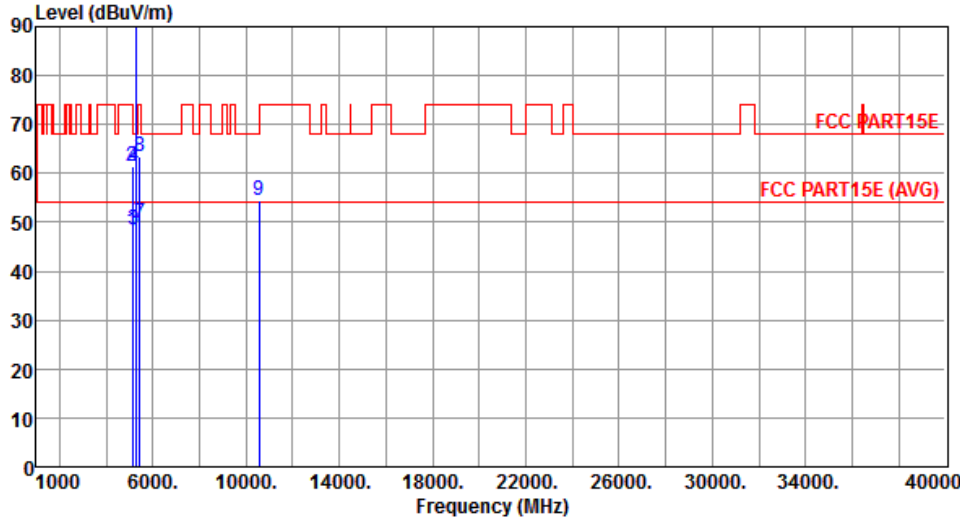
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain

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

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

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

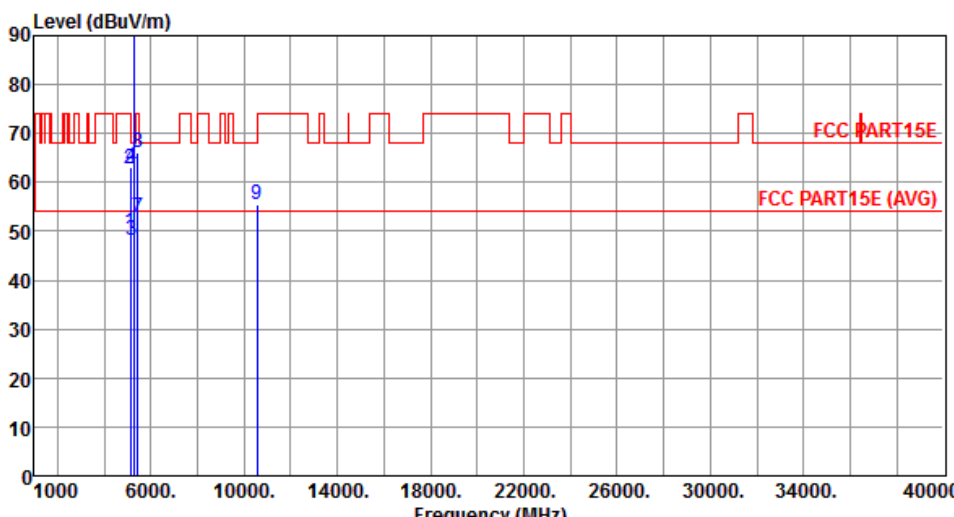
Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5110.00	48.31	54.00	-5.69	43.16	5.15	Average	396	141
2	5110.00	61.30	74.00	-12.70	56.15	5.15	Peak	396	141
3	5150.00	48.41	54.00	-5.59	43.20	5.21	Average	396	141
4	5150.00	61.56	74.00	-12.44	56.35	5.21	Peak	396	141
5 *	5270.00	92.57			87.19	5.38	Average	396	141
6 *	5270.00	103.91			98.53	5.38	Peak	396	141
7	5430.00	49.96	54.00	-4.04	44.34	5.62	Average	396	141
8	5430.00	63.57	74.00	-10.43	57.95	5.62	Peak	396	141
9	10540.00	54.46	68.20	-13.74	40.46	14.00	Peak	100	135

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

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5110.00	49.86	54.00	-4.14	44.71	5.15	Average	339	57
2	5110.00	62.72	74.00	-11.28	57.57	5.15	Peak	339	57
3	5150.00	48.23	54.00	-5.77	43.02	5.21	Average	339	57
4	5150.00	62.97	74.00	-11.03	57.76	5.21	Peak	339	57
5 *	5270.00	103.06			97.68	5.38	Average	339	57
6 *	5270.00	115.24			109.86	5.38	Peak	339	57
7	5430.00	52.86	54.00	-1.14	47.24	5.62	Average	339	57
8	5430.00	66.14	74.00	-7.86	60.52	5.62	Peak	339	57
9	10540.00	55.32	68.20	-12.88	41.32	14.00	Peak	100	115

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

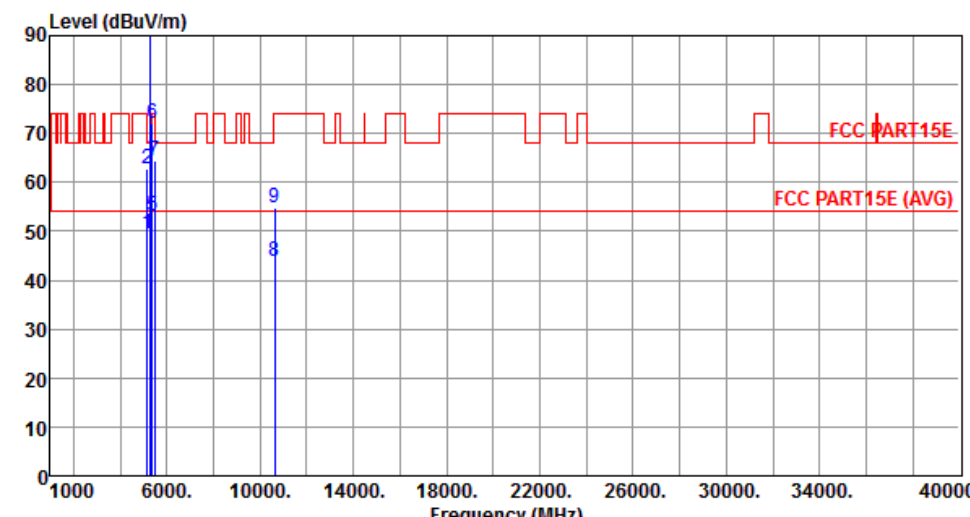
*Factor includes antenna factor , cable loss and amplifier gain

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

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

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

Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.36	54.00	-4.64	44.15	5.21	Average	329	70
2	5150.00	62.73	74.00	-11.27	57.52	5.21	Peak	329	70
3 *	5310.00	103.71			98.26	5.45	Average	329	70
4 *	5310.00	114.25			108.80	5.45	Peak	329	70
5	5350.00	53.12	54.00	-0.88	47.62	5.50	Average	329	70
6	5350.00	71.92	74.00	-2.08	66.42	5.50	Peak	329	70
7	5470.00	64.28	68.20	-3.92	58.62	5.66	Peak	329	70
8	10620.00	43.86	54.00	-10.14	29.79	14.07	Average	100	105
9	10620.00	54.74	74.00	-19.26	40.67	14.07	Peak	100	105

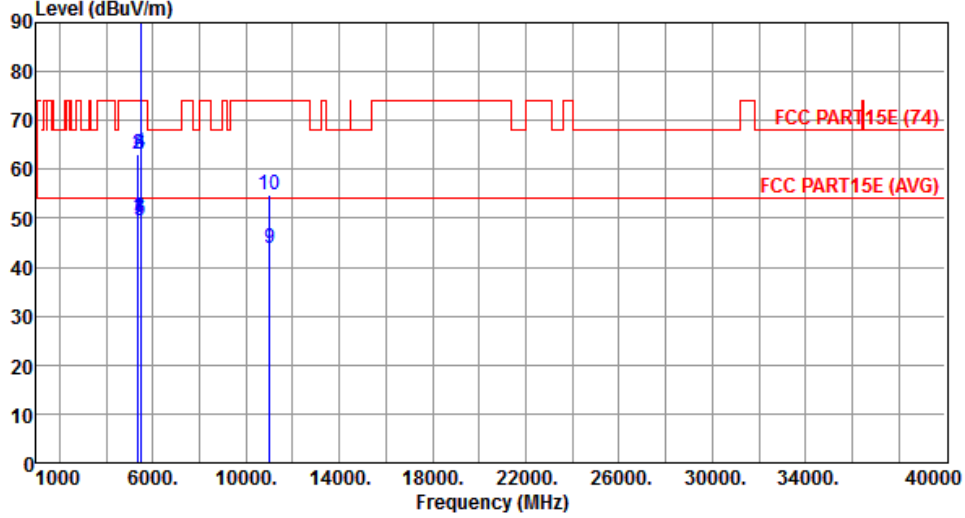
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*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

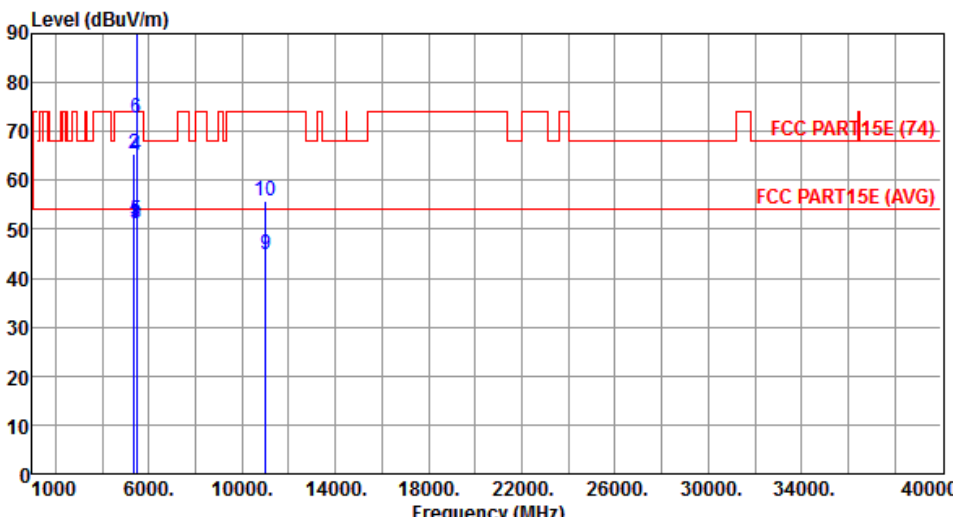
Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	50.20	54.00	-3.80	44.70	5.50	Average	384	112
2	5350.00	63.14	74.00	-10.86	57.64	5.50	Peak	384	112
3	5460.00	50.01	54.00	-3.99	44.36	5.65	Average	384	112
4	5460.00	63.27	74.00	-10.73	57.62	5.65	Peak	384	112
5	5470.00	49.51	54.00	-4.49	43.85	5.66	Average	384	112
6	5470.00	63.12	74.00	-10.88	57.46	5.66	Peak	384	112
7 *	5510.00	93.94			88.24	5.70	Average	384	112
8 *	5510.00	105.33			99.63	5.70	Peak	384	112
9	11020.00	43.90	54.00	-10.10	29.42	14.48	Average	100	158
10	11020.00	54.79	74.00	-19.21	40.31	14.48	Peak	100	158

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

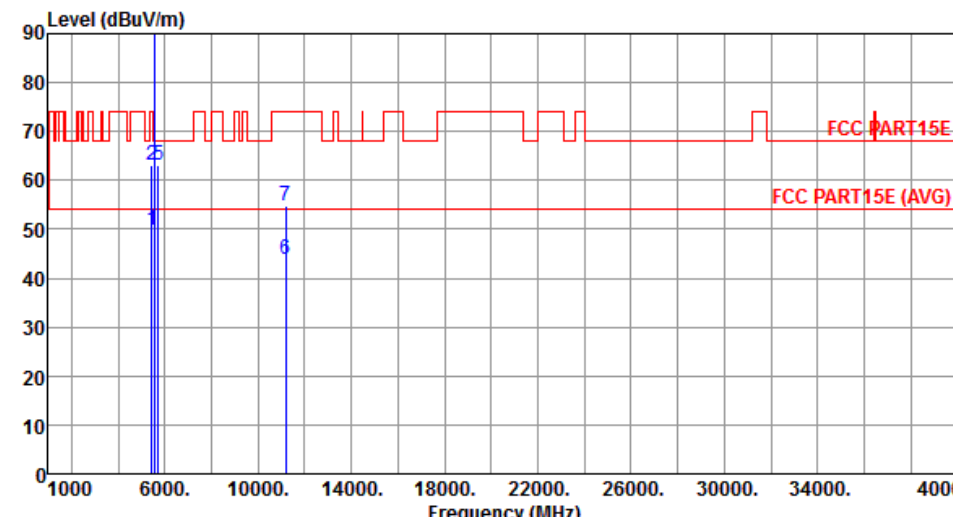
Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	51.16	54.00	-2.84	45.66	5.50	Average	327	55
2	5350.00	65.38	74.00	-8.62	59.88	5.50	Peak	327	55
3	5460.00	51.08	54.00	-2.92	45.43	5.65	Average	327	55
4	5460.00	65.07	74.00	-8.93	59.42	5.65	Peak	327	55
5	5470.00	51.81	54.00	-2.19	46.15	5.66	Average	327	55
6	5470.00	72.82	74.00	-1.18	67.16	5.66	Peak	327	55
7 *	5510.00	103.32			97.62	5.70	Average	327	55
8 *	5510.00	114.38			108.68	5.70	Peak	327	55
9	11020.00	44.82	54.00	-9.18	30.34	14.48	Average	100	101
10	11020.00	55.91	74.00	-18.09	41.43	14.48	Peak	100	101

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

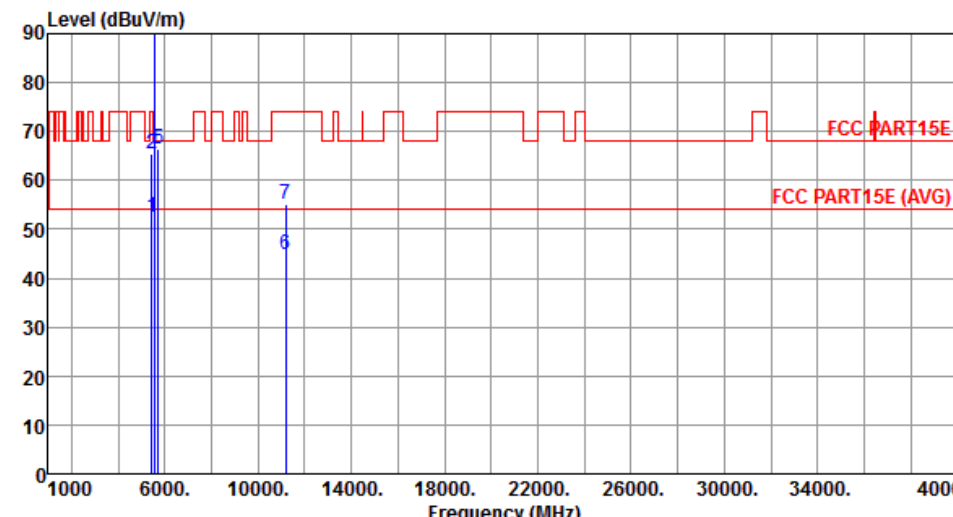
Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5430.00	49.93	54.00	-4.07	44.31	5.62	Average	350	112
2	5430.00	63.14	74.00	-10.86	57.52	5.62	Peak	350	112
3 *	5590.00	94.04			88.26	5.78	Average	350	112
4 *	5590.00	104.31			98.53	5.78	Peak	350	112
5	5725.00	63.06	68.20	-5.14	57.07	5.99	Peak	350	112
6	11180.00	43.80	54.00	-10.20	29.18	14.62	Average	100	155
7	11180.00	54.88	74.00	-19.12	40.26	14.62	Peak	100	155

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

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Vertical		

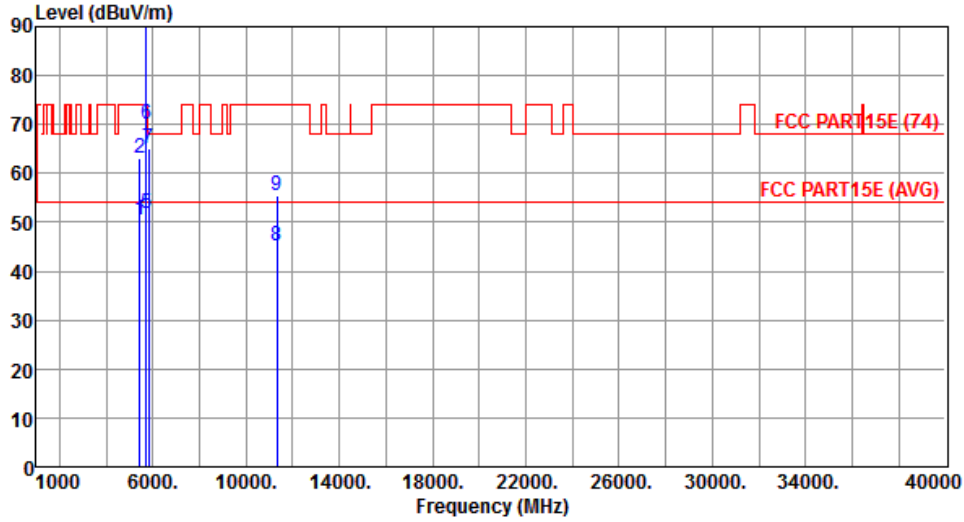


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5430.00	52.53	54.00	-1.47	46.91	5.62	Average	274	102
2	5430.00	65.32	74.00	-8.68	59.70	5.62	Peak	274	102
3 *	5590.00	104.08			98.30	5.78	Average	274	102
4 *	5590.00	114.79			109.01	5.78	Peak	274	102
5	5725.00	66.28	68.20	-1.92	60.29	5.99	Peak	274	102
6	11180.00	44.86	54.00	-9.14	30.24	14.62	Average	100	110
7	11180.00	55.19	74.00	-18.81	40.57	14.62	Peak	100	110

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

Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Vertical		

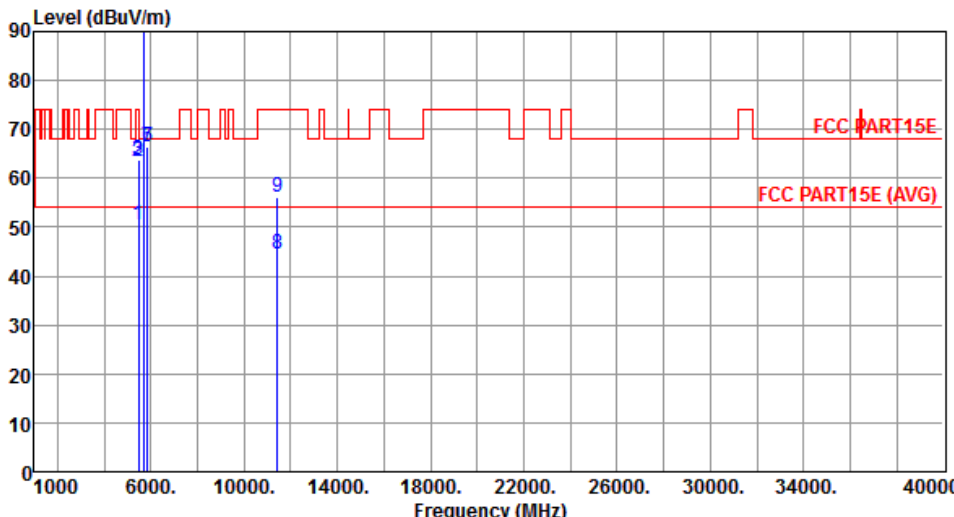


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5430.00	50.50	54.00	-3.50	44.88	5.62	Average	307	154
2	5430.00	63.13	74.00	-10.87	57.51	5.62	Peak	307	154
3 *	5670.00	105.80			99.90	5.90	Average	307	154
4 *	5670.00	115.70			109.80	5.90	Peak	307	154
5	5725.00	51.85	54.00	-2.15	45.86	5.99	Average	307	154
6	5725.00	70.03	74.00	-3.97	64.04	5.99	Peak	307	154
7	5830.00	65.17	68.20	-3.03	59.02	6.15	Peak	307	154
8	11340.00	45.11	54.00	-8.89	30.34	14.77	Average	100	112
9	11340.00	55.59	74.00	-18.41	40.82	14.77	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	VHT40	Test Freq. (MHz)	5710
Polarization	Horizontal		
Level (dBUV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	50.44	54.00	-3.56	44.79	5.65	Average	335	103
2	5460.00	63.54	74.00	-10.46	57.89	5.65	Peak	335	103
3	5470.00	63.78	68.20	-4.42	58.12	5.66	Peak	335	103
4 *	5710.00	105.02			99.06	5.96	Average	335	103
5 *	5710.00	115.72			109.76	5.96	Peak	335	103
6	5850.00	66.27	68.20	-1.93	60.10	6.17	Peak	335	103
7	5870.00	66.47	68.20	-1.73	60.28	6.19	Peak	335	103
8	11420.00	44.39	54.00	-9.61	29.55	14.84	Average	100	125
9	11420.00	56.15	74.00	-17.85	41.31	14.84	Peak	100	125

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

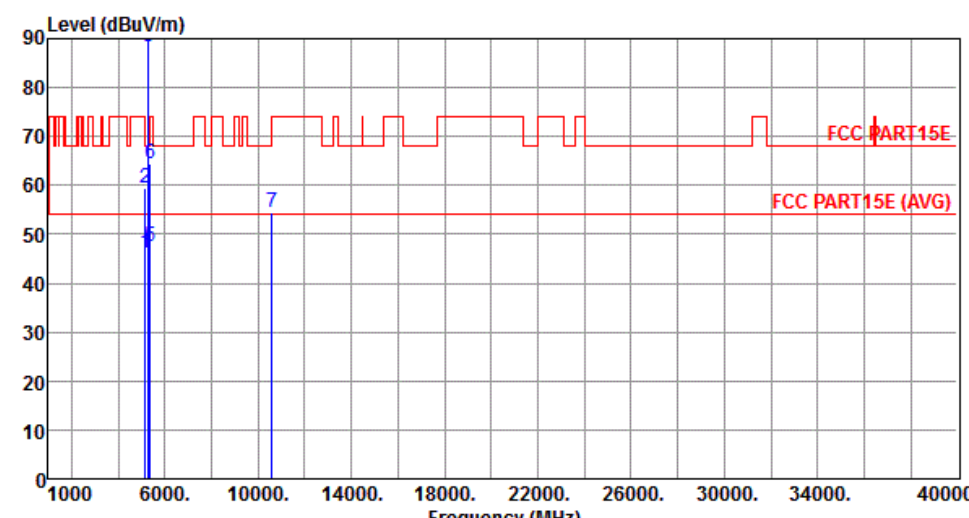
*Factor includes antenna factor , cable loss and amplifier gain

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

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

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

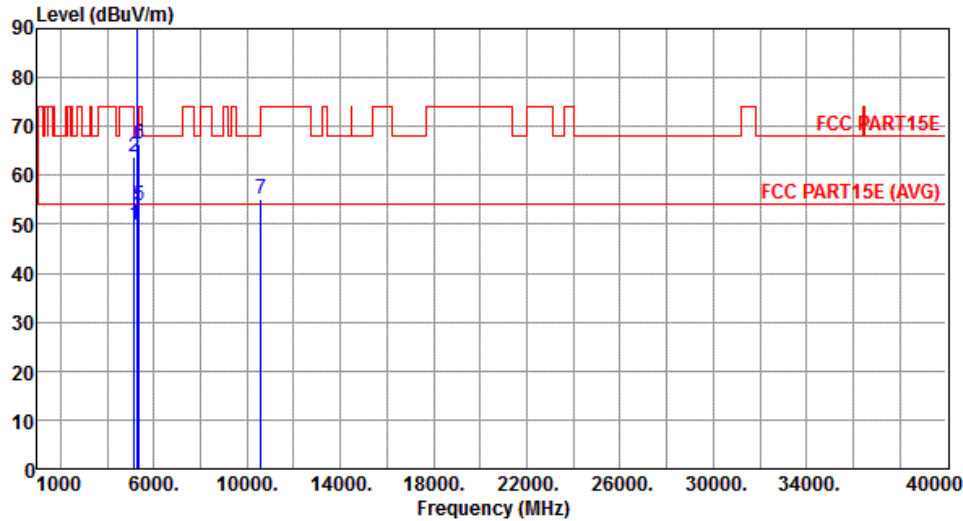
Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.33	54.00	-7.67	41.12	5.21	Average	372	141
2	5150.00	59.49	74.00	-14.51	54.28	5.21	Peak	372	141
3 *	5290.00	88.38			82.97	5.41	Average	372	141
4 *	5290.00	99.51			94.10	5.41	Peak	372	141
5	5350.00	47.63	54.00	-6.37	42.13	5.50	Average	372	141
6	5350.00	64.31	74.00	-9.69	58.81	5.50	Peak	372	141
7	10580.00	54.60	68.20	-13.60	40.56	14.04	Peak	100	196

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

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical		



The spectrum plot displays the emission level in dBUV/m against frequency in MHz. The y-axis ranges from 0 to 90 dBUV/m, and the x-axis ranges from 1000 to 40000 MHz. A red line represents the FCC PART15E limit, and a red line represents the FCC PART15E (AVG) limit. A blue line shows the test signal, with points 1 through 7 marked. Point 1 is at 5150.00 MHz, point 2 is at 5150.00 MHz, point 3 is at 5290.00 MHz, point 4 is at 5290.00 MHz, point 5 is at 5350.00 MHz, point 6 is at 5350.00 MHz, and point 7 is at 10580.00 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	5150.00	49.80	54.00	-4.20	44.59	5.21	Average	318	17
2	5150.00	63.75	74.00	-10.25	58.54	5.21	Peak	318	17
3 *	5290.00	97.46			92.05	5.41	Average	318	17
4 *	5290.00	109.24			103.83	5.41	Peak	318	17
5	5350.00	53.72	54.00	-0.28	48.22	5.50	Average	318	17
6	5350.00	66.39	74.00	-7.61	60.89	5.50	Peak	318	17
7	10580.00	55.29	68.20	-12.91	41.25	14.04	Peak	100	145

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

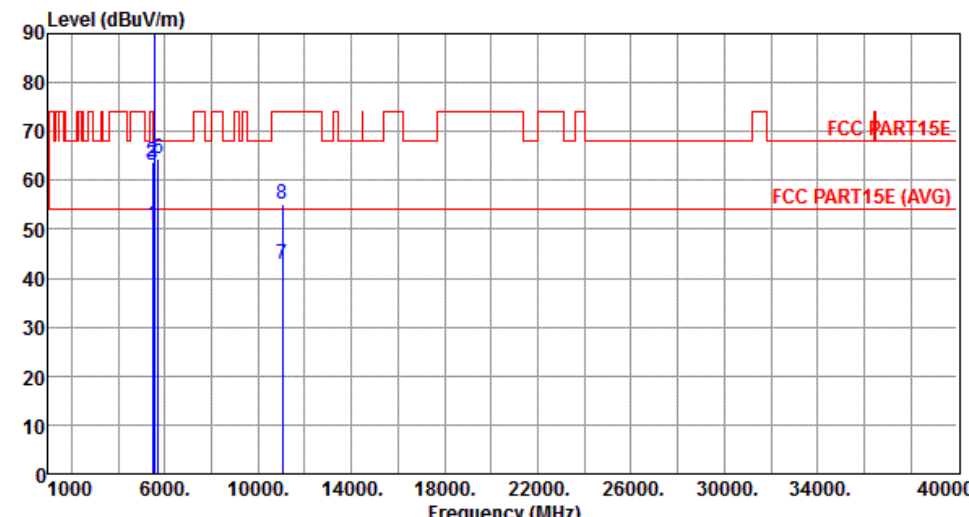
*Factor includes antenna factor , cable loss and amplifier gain

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

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

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

Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical		

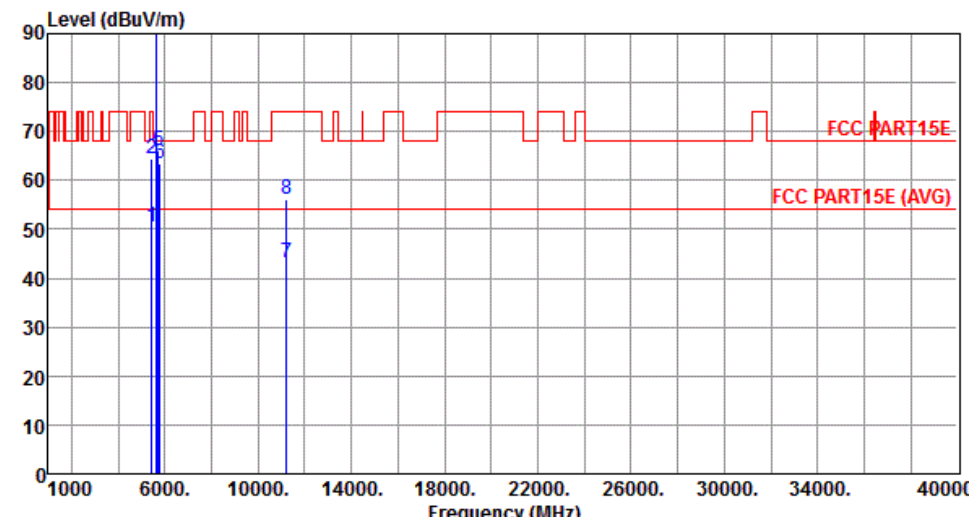


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	50.78	54.00	-3.22	45.13	5.65	Average	346	14
2	5460.00	63.92	74.00	-10.08	58.27	5.65	Peak	346	14
3	5470.00	62.97	68.20	-5.23	57.31	5.66	Peak	346	14
4 *	5530.00	96.60			90.88	5.72	Average	346	14
5 *	5530.00	108.53			102.81	5.72	Peak	346	14
6	5725.00	64.42	68.20	-3.78	58.43	5.99	Peak	346	14
7	11060.00	42.82	54.00	-11.18	28.31	14.51	Average	100	172
8	11060.00	55.24	74.00	-18.76	40.73	14.51	Peak	100	172

Note 1: Emission Level (dBuV/m) = SA Reading (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)	5610
Polarization	Horizontal		
Level (dBuV/m) </			

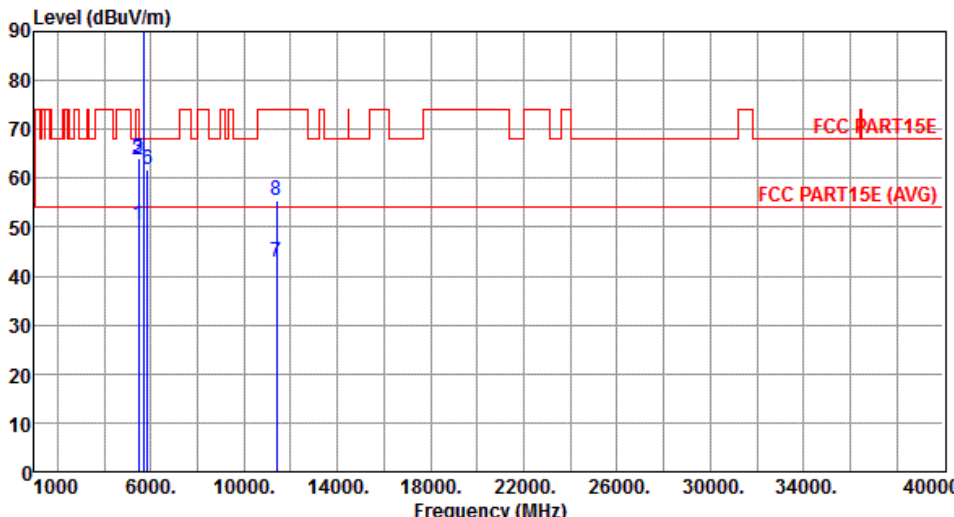
Modulation	VHT80	Test Freq. (MHz)	5610
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5450.00	50.40	54.00	-3.60	44.77	5.63	Average	306	62
2	5450.00	64.45	74.00	-9.55	58.82	5.63	Peak	306	62
3 *	5610.00	100.85			95.05	5.80	Average	306	62
4 *	5610.00	111.42			105.62	5.80	Peak	306	62
5	5725.00	66.06	68.20	-2.14	60.07	5.99	Peak	306	62
6	5770.00	63.52	68.20	-4.68	57.46	6.06	Peak	306	62
7	11220.00	43.04	54.00	-10.96	28.38	14.66	Average	100	163
8	11220.00	56.11	74.00	-17.89	41.45	14.66	Peak	100	163

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

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

Modulation	VHT80	Test Freq. (MHz)	5690																																																																																																														
Polarization	Vertical																																																																																																																
Level (dBuV/m)  <table><tr><th></th><th>Freq.</th><th>Emission</th><th>Limit</th><th>Margin</th><th>SA</th><th>Factor</th><th>Remark</th><th>ANT</th><th>Turn</th></tr><tr><th></th><th>MHz</th><th>level</th><th></th><th></th><th>reading</th><th></th><th></th><th>High</th><th>Table</th></tr><tr><th></th><th></th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB</th><th></th><th>cm</th><th>deg</th></tr><tr><td>1</td><td>5460.00</td><td>50.32</td><td>54.00</td><td>-3.68</td><td>44.67</td><td>5.65</td><td>Average</td><td>328</td><td>20</td></tr><tr><td>2</td><td>5460.00</td><td>63.82</td><td>74.00</td><td>-10.18</td><td>58.17</td><td>5.65</td><td>Peak</td><td>328</td><td>20</td></tr><tr><td>3</td><td>5470.00</td><td>64.24</td><td>68.20</td><td>-3.96</td><td>58.58</td><td>5.66</td><td>Peak</td><td>328</td><td>20</td></tr><tr><td>4 *</td><td>5690.00</td><td>100.94</td><td></td><td></td><td>95.00</td><td>5.94</td><td>Average</td><td>328</td><td>20</td></tr><tr><td>5 *</td><td>5690.00</td><td>110.38</td><td></td><td></td><td>104.44</td><td>5.94</td><td>Peak</td><td>328</td><td>20</td></tr><tr><td>6</td><td>5850.00</td><td>61.87</td><td>68.20</td><td>-6.33</td><td>55.70</td><td>6.17</td><td>Peak</td><td>328</td><td>20</td></tr><tr><td>7</td><td>11380.00</td><td>42.93</td><td>54.00</td><td>-11.07</td><td>28.13</td><td>14.80</td><td>Average</td><td>100</td><td>173</td></tr><tr><td>8</td><td>11380.00</td><td>55.36</td><td>74.00</td><td>-18.64</td><td>40.56</td><td>14.80</td><td>Peak</td><td>100</td><td>173</td></tr></table>					Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn		MHz	level			reading			High	Table			dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg	1	5460.00	50.32	54.00	-3.68	44.67	5.65	Average	328	20	2	5460.00	63.82	74.00	-10.18	58.17	5.65	Peak	328	20	3	5470.00	64.24	68.20	-3.96	58.58	5.66	Peak	328	20	4 *	5690.00	100.94			95.00	5.94	Average	328	20	5 *	5690.00	110.38			104.44	5.94	Peak	328	20	6	5850.00	61.87	68.20	-6.33	55.70	6.17	Peak	328	20	7	11380.00	42.93	54.00	-11.07	28.13	14.80	Average	100	173	8	11380.00	55.36	74.00	-18.64	40.56	14.80	Peak	100	173
	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn																																																																																																								
	MHz	level			reading			High	Table																																																																																																								
		dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg																																																																																																								
1	5460.00	50.32	54.00	-3.68	44.67	5.65	Average	328	20																																																																																																								
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5 *	5690.00	110.38			104.44	5.94	Peak	328	20																																																																																																								
6	5850.00	61.87	68.20	-6.33	55.70	6.17	Peak	328	20																																																																																																								
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8	11380.00	55.36	74.00	-18.64	40.56	14.80	Peak	100	173																																																																																																								
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m). Note 3: "*" is Peak / Average value of fundamental frequency																																																																																																																	

3.6 Frequency Stability

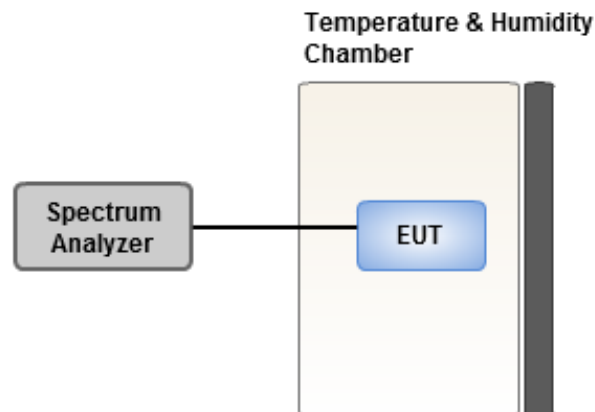
3.6.1 Limit of Frequency Stability

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

3.6.2 Test Procedures

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

3.6.3 Test Setup



3.6.4 Test Result of Frequency Stability

Frequency: 5580 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°C Vmax	-0.06	-0.10	-0.35	-0.51
T20°C Vmin	0.29	0.53	-0.10	0.21
T50°C Vnom	1.29	1.47	1.17	1.04
T40°C Vnom	0.46	0.03	0.23	-0.06
T30°C Vnom	0.47	0.66	0.87	0.73
T20°C Vnom	-0.36	0.61	-0.31	0.03
T10°C Vnom	0.95	1.03	0.91	0.69
T0°C Vnom	0.11	-0.21	0.60	-0.18
T-10°C Vnom	0.39	0.58	0.46	0.39
T-20°C Vnom	0.04	-0.28	0.31	-0.12
T-30°C Vnom	0.68	0.88	0.71	0.73
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

4 Receiver Test Results

4.1 Conducted Emissions

4.1.1 Limit of Conducted Emissions

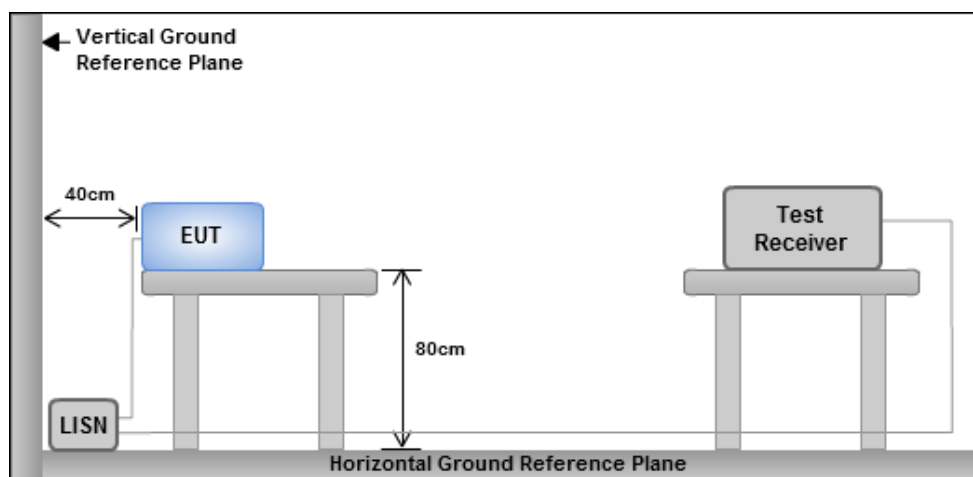
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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

4.1.2 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.

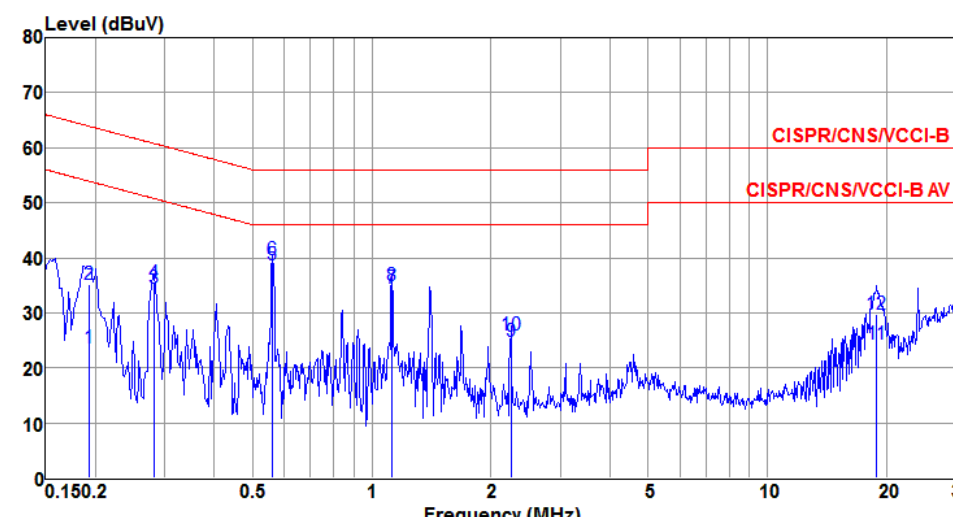
4.1.3 Test Setup



- 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

4.1.4 Test Result of Conducted Emissions

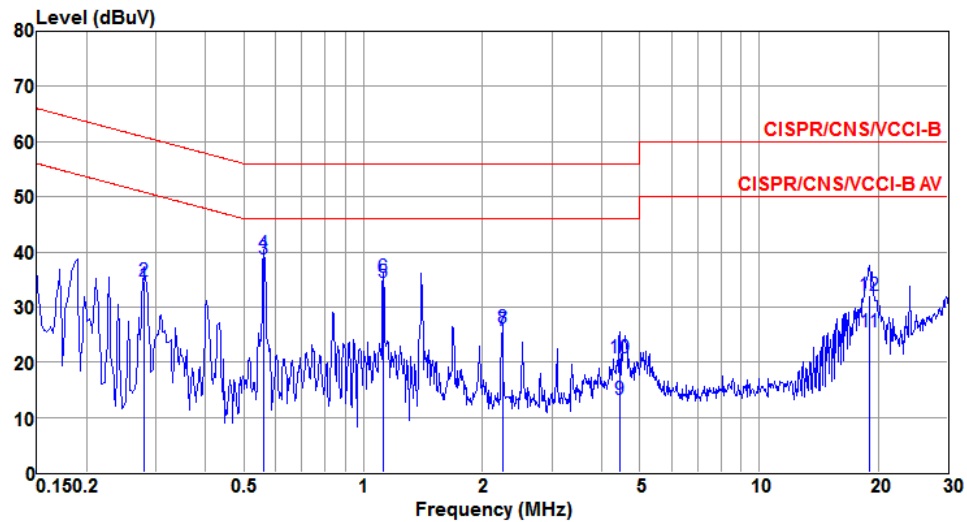
Modulation	VHT80	Test Freq. (MHz)	5690
Power Phase	Line	Test configuration	1



	Freq MHz	Level dBUV	Limit Line dBUV	Over Limit dB	Read Level dBUV	LISN factor dB	cable loss dB	Remark
1	0.193	23.67	53.89	-30.22	14.13	9.50	0.04	Average
2	0.193	35.14	63.89	-28.75	25.60	9.50	0.04	QP
3	0.282	34.57	50.76	-16.19	24.98	9.55	0.04	Average
4	0.282	35.29	60.76	-25.47	25.70	9.55	0.04	QP
5	0.561	38.68	46.00	-7.32	29.09	9.55	0.04	Average
6	0.561	39.55	56.00	-16.45	29.96	9.55	0.04	QP
7	1.123	34.36	46.00	-11.64	24.83	9.49	0.04	Average
8	1.123	34.99	56.00	-21.01	25.46	9.49	0.04	QP
9	2.246	24.90	46.00	-21.10	15.23	9.61	0.06	Average
10	2.246	25.88	56.00	-30.12	16.21	9.61	0.06	QP
11	18.920	24.43	50.00	-25.57	14.47	9.71	0.25	Average
12	18.920	29.63	60.00	-30.37	19.67	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).

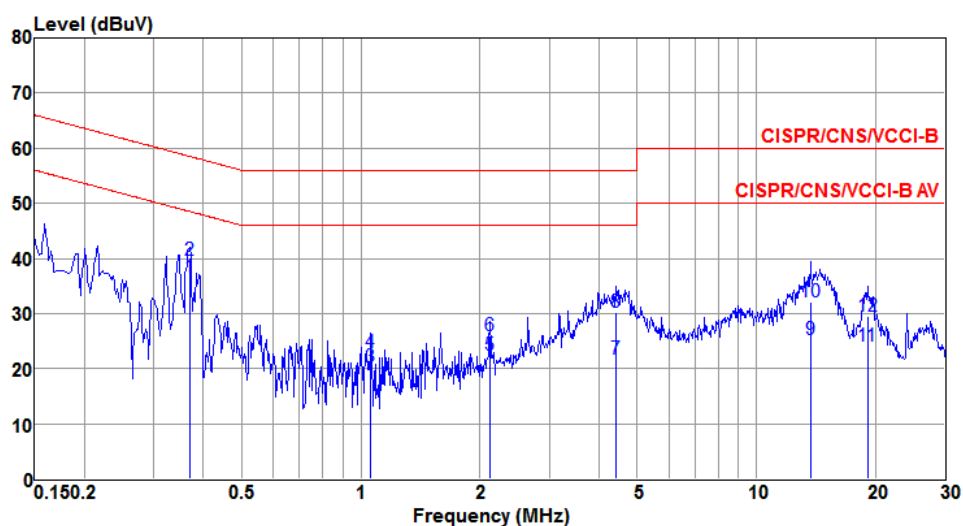
Modulation	VHT80	Test Freq. (MHz)	5690
Power Phase	Neutral	Test configuration	1



	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line	Limit	Level	factor	loss	
			dBuV	dB	dBuV	dB	dB	
1	0.279	33.98	50.85	-16.87	24.37	9.57	0.04	Average
2	0.279	34.67	60.85	-26.18	25.06	9.57	0.04	QP
3@	0.561	38.69	46.00	-7.31	29.06	9.59	0.04	Average
4	0.561	39.55	56.00	-16.45	29.92	9.59	0.04	QP
5	1.123	34.57	46.00	-11.43	24.88	9.65	0.04	Average
6	1.123	35.49	56.00	-20.51	25.80	9.65	0.04	QP
7	2.247	25.80	46.00	-20.20	16.19	9.55	0.06	Average
8	2.247	26.12	56.00	-29.88	16.51	9.55	0.06	QP
9	4.454	13.16	46.00	-32.84	3.28	9.71	0.17	Average
10	4.454	20.89	56.00	-35.11	11.01	9.71	0.17	QP
11	19.021	25.52	50.00	-24.48	15.55	9.72	0.25	Average
12	19.021	32.03	60.00	-27.97	22.06	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).

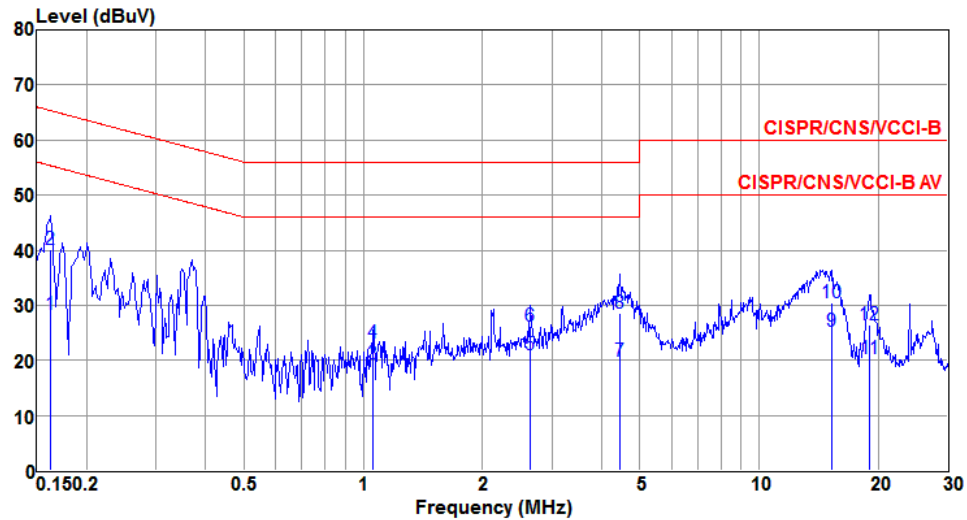
Modulation	VHT80	Test Freq. (MHz)	5690
Power Phase	Line	Test configuration	2



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
10	0.369	36.48	48.52	-12.04	26.85	9.59	0.04	Average
2	0.369	39.74	58.52	-18.78	30.11	9.59	0.04	QP
3	1.060	20.22	46.00	-25.78	10.71	9.47	0.04	Average
4	1.060	23.00	56.00	-33.00	13.49	9.47	0.04	QP
5	2.119	22.55	46.00	-23.45	12.87	9.63	0.05	Average
6	2.119	25.89	56.00	-30.11	16.21	9.63	0.05	QP
7	4.407	21.73	46.00	-24.27	12.06	9.50	0.17	Average
8	4.407	30.13	56.00	-25.87	20.46	9.50	0.17	QP
9	13.695	25.28	50.00	-24.72	15.36	9.69	0.23	Average
10	13.695	32.02	60.00	-27.98	22.10	9.69	0.23	QP
11	19.122	23.97	50.00	-26.03	14.01	9.71	0.25	Average
12	19.122	29.47	60.00	-30.53	19.51	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	VHT80	Test Freq. (MHz)	5690
Power Phase	Neutral	Test configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1	0.162	28.29	55.34	-27.05	18.66	9.59	0.04	Average
2	0.162	40.08	65.34	-25.26	30.45	9.59	0.04	QP
3	1.058	19.31	46.00	-26.69	9.61	9.66	0.04	Average
4	1.058	23.23	56.00	-32.77	13.53	9.66	0.04	QP
5	2.644	21.04	46.00	-24.96	11.35	9.60	0.09	Average
6	2.644	26.23	56.00	-29.77	16.54	9.60	0.09	QP
7	4.454	19.83	46.00	-26.17	9.95	9.71	0.17	Average
8	4.454	28.67	56.00	-27.33	18.79	9.71	0.17	QP
9@	15.307	25.25	50.00	-24.75	15.33	9.69	0.23	Average
10	15.307	30.51	60.00	-29.49	20.59	9.69	0.23	QP
11	19.021	20.41	50.00	-29.59	10.44	9.72	0.25	Average
12	19.021	26.36	60.00	-33.64	16.39	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).

4.2 Radiated Emissions

4.2.1 Limit of Radiated 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:
Quasi-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.

4.2.2 Test Procedures

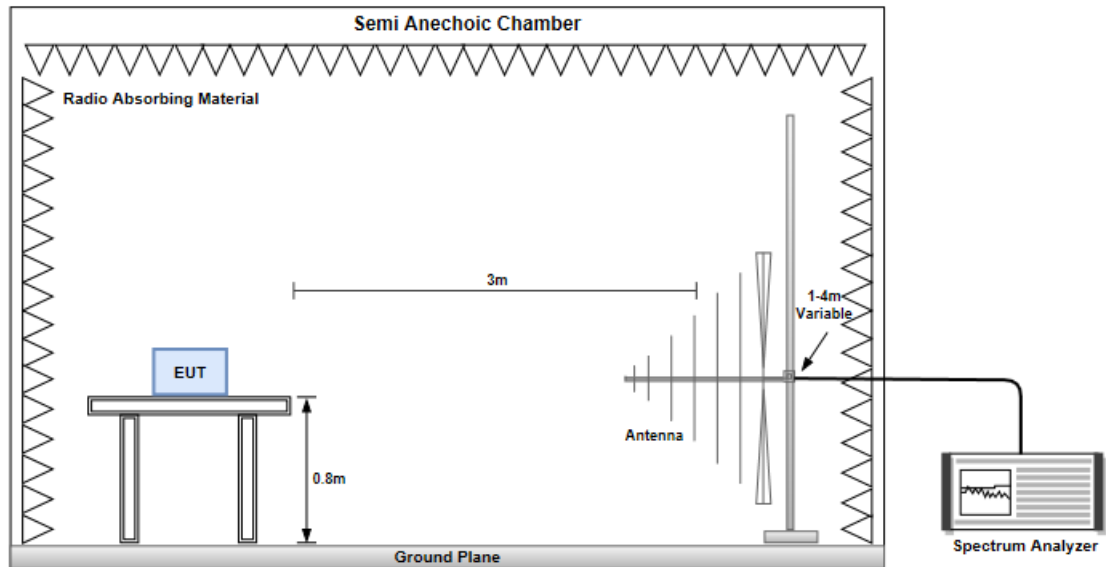
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

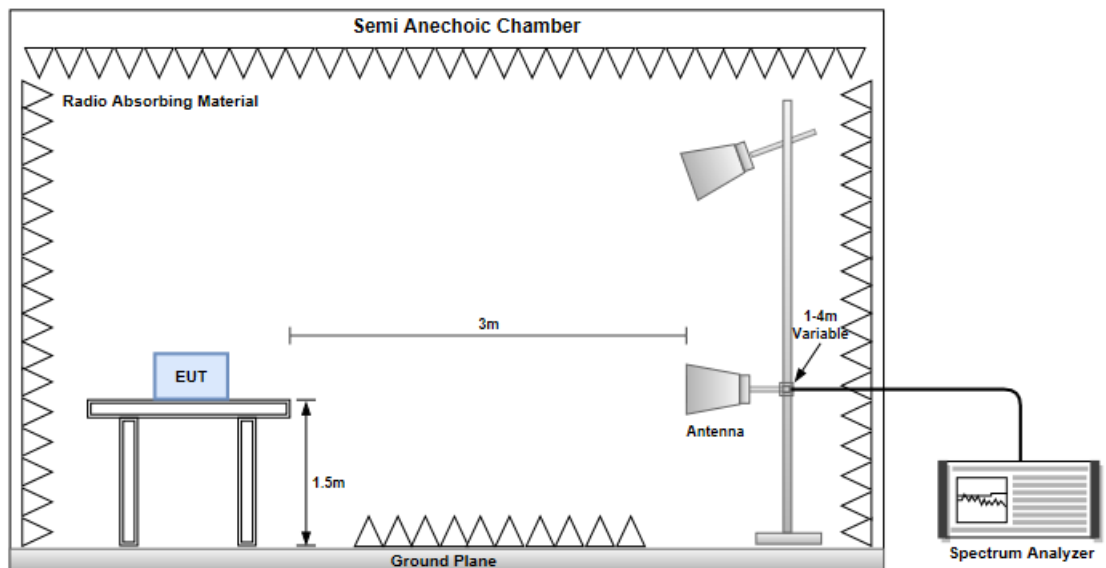
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=3MHz and RMS detector is for average measured value of radiated emission above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

4.2.3 Test Setup

Radiated Emissions below 1 GHz

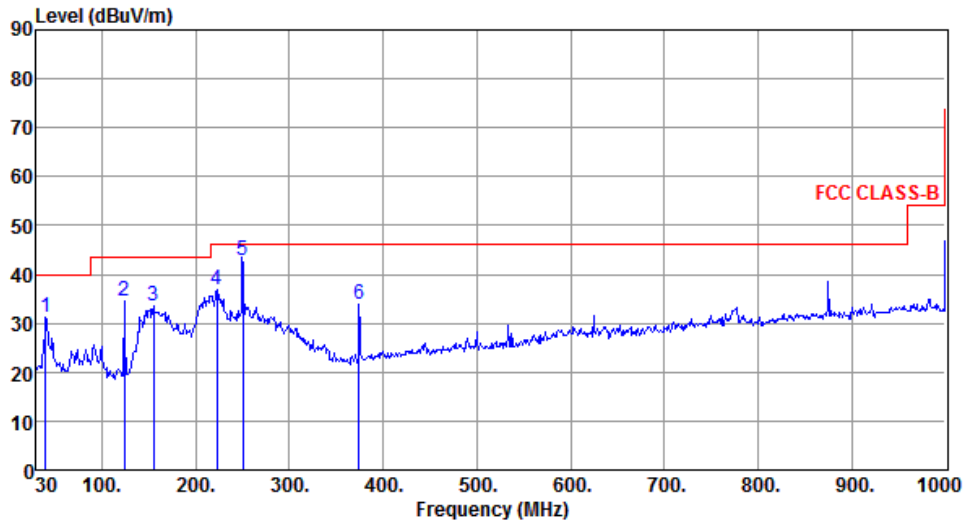


Radiated Emissions above 1 GHz



4.2.4 Receiver Emissions (Below 1GHz)

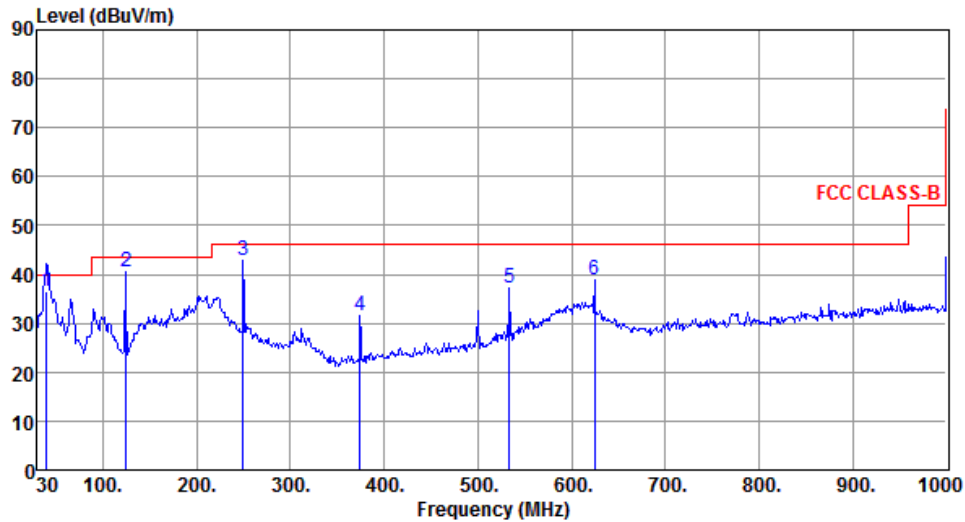
Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Horizontal	Test Configuration	1



	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	31.12	40.00	-8.88	39.90	-8.78	Peak	---	---
2	124.09	34.45	43.50	-9.05	44.98	-10.53	Peak	---	---
3	155.13	33.65	43.50	-9.85	42.00	-8.35	Peak	---	---
4	223.03	36.97	46.00	-9.03	47.74	-10.77	Peak	---	---
5	250.00	42.86	46.00	-3.14	52.23	-9.37	QP	100	113
6	374.35	33.85	46.00	-12.15	39.91	-6.06	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	VHT80	Test Freq. (MHz)	5690
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	36.65	40.00	-3.35	45.43	-8.78	QP	100	13
2	125.00	40.47	43.50	-3.03	50.92	-10.45	QP	100	86
3	249.22	42.80	46.00	-3.20	52.19	-9.39	Peak	---	---
4	374.35	31.42	46.00	-14.58	37.48	-6.06	Peak	---	---
5	533.43	37.09	46.00	-8.91	39.75	-2.66	Peak	---	---
6	624.61	38.71	46.00	-7.29	39.42	-0.71	Peak	---	---

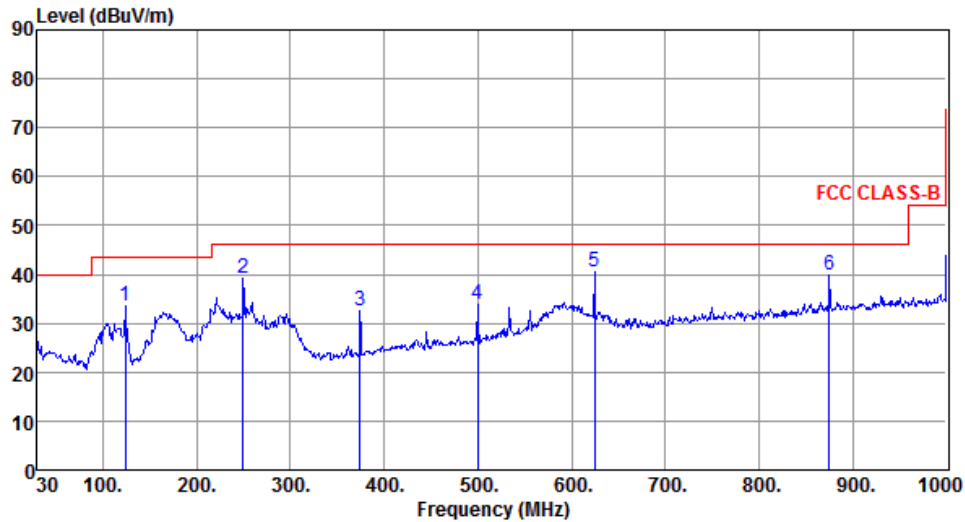
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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	VHT80	Test Freq. (MHz)	5690
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	33.42	43.50	-10.08	43.95	-10.53	Peak	---	---
2	249.22	39.28	46.00	-6.72	48.67	-9.39	Peak	---	---
3	374.35	32.46	46.00	-13.54	38.52	-6.06	Peak	---	---
4	499.48	33.73	46.00	-12.27	37.09	-3.36	Peak	---	---
5	624.61	40.66	46.00	-5.34	41.37	-0.71	Peak	---	---
6	874.87	39.69	46.00	-6.31	36.45	3.24	Peak	---	---

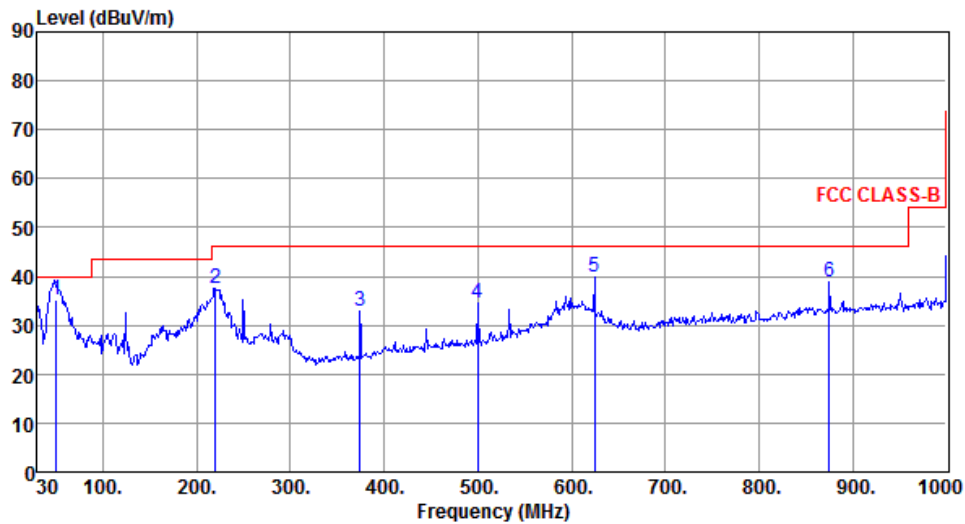
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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	VHT80	Test Freq. (MHz)	5690
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	50.12	35.32	40.00	-4.68	43.48	-8.16	QP	101	82
2	220.12	37.60	46.00	-8.40	48.55	-10.95	Peak	---	---
3	374.35	32.75	46.00	-13.25	38.81	-6.06	Peak	---	---
4	499.48	34.65	46.00	-11.35	38.01	-3.36	Peak	---	---
5	624.61	39.70	46.00	-6.30	40.41	-0.71	Peak	---	---
6	874.87	38.93	46.00	-7.07	35.69	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.

4.2.5 Receiver Emissions (Above 1GHz)

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

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

5 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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