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	:	**Jul. 18 ~ 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

Testing Laboratory 2732

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Release Record

Report No.	Version	Description	Issued Date
TR762203AN	Rev. 01	Initial issue	Nov. 03, 2017

Summary of Test Results

NCC Rules	Test Items	Measured	Result
2.3	Conducted Emissions	[dBuV]: 0.561MHz 38.72 (Margin -7.28dB) - AV	Pass
4.7.4 2.8	Radiated Emissions	[dBuV/m at 3m]: 5650.00MHz 68.09 (Margin -0.11dB) - PK	Pass
-	Emission Bandwidth	Meet the requirement of limit	Pass
4.7.5	6dB bandwidth	Meet the requirement of limit	Pass
4.7.3	RF Output Power	Max Power [dBm]: ***Non-beamforming mode*** 5150-5250MHz: 26.86 5725-5850MHz: 28.13 ***Beamforming mode*** 5150-5250MHz: 26.24 5725-5850MHz: 26.60	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

1.1.1 Specification of the Equipment under Test (EUT)

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

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

1.1.2 Antenna Details

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

1.1.3 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

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

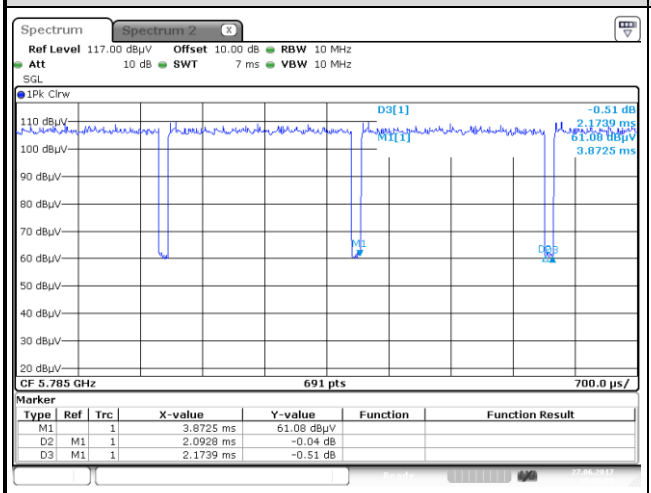
For Frequency band 5725~5850 MHz			
802.11 a / HT20 / VHT20		HT40 / VHT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
149	5745	151	5755
153	5765	159	5795
157	5785	VHT80	
161	5805	155	5775
165	5825	---	---

1.1.6 Test Tool and Duty Cycle

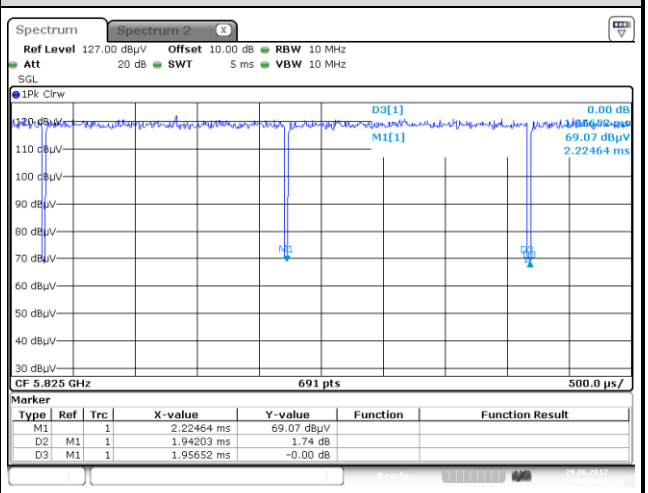
Test Tool	putty, V0.6				
Duty Cycle and Duty Factor	Mode	Non-beamforming		Beamforming	
		Duty cycle (%)	Duty factor (dB)	Duty cycle (%)	Duty factor (dB)
	11a	96.27%	0.17	---	---
	VHT20	99.26%	0.03	99.27%	0.03
	VHT40	98.22%	0.08	98.67%	0.06
	VHT80	95.97%	0.18	95.10%	0.22

Non-beamforming mode

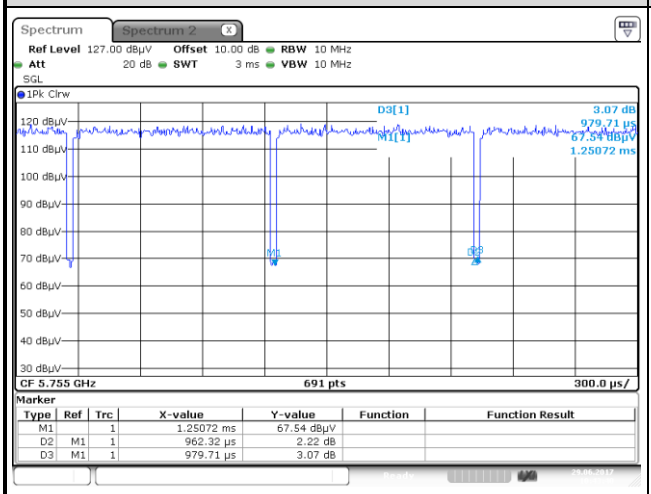
11a



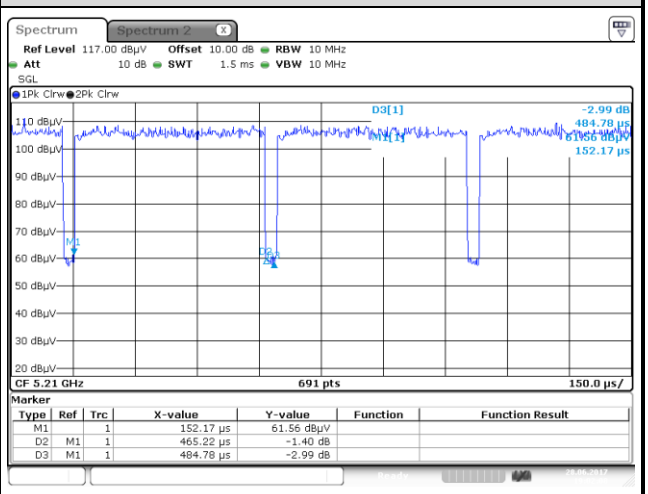
VHT20



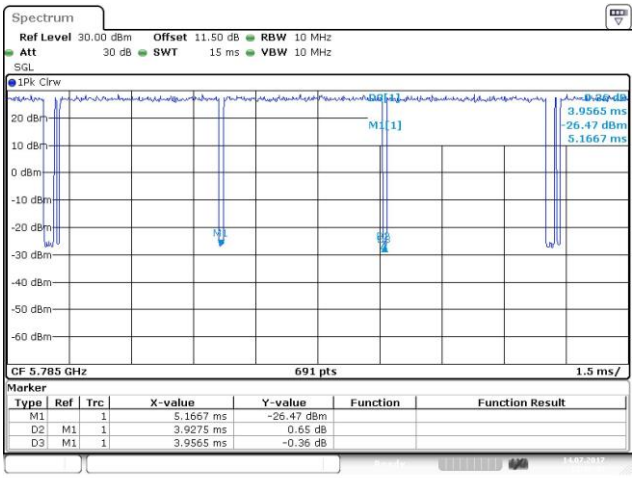
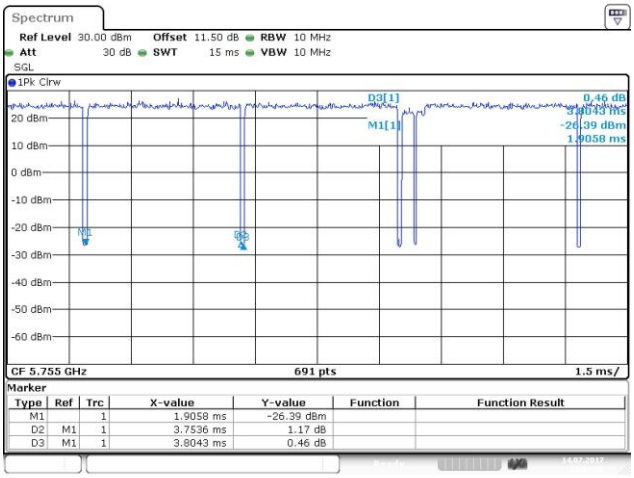
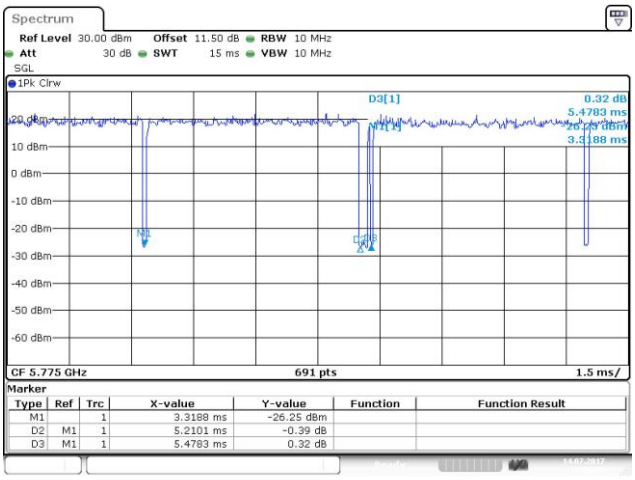
VHT40



VHT80



Beamforming mode

VHT20	VHT40
	
VHT80	**--**
	--

1.1.7 Power Setting

For Frequency band 5150-5250 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5180	82	---
11a	5200	92	---
11a	5240	92	---
HT20	5180	76	76
HT20	5200	90	90
HT20	5240	90	90
HT40	5190	70	62
HT40	5230	74	74
VHT20	5180	76	76
VHT20	5200	90	90
VHT20	5240	90	90
VHT40	5190	70	62
VHT40	5230	74	74
VHT80	5210	68	64

For Frequency band 5725~5850 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5745	96	---
11a	5785	96	---
11a	5825	96	---
HT20	5745	96	92
HT20	5785	96	92
HT20	5825	96	92
HT40	5755	96	92
HT40	5795	96	92
VHT20	5745	96	92
VHT20	5785	96	92
VHT20	5825	96	92
VHT40	5755	96	92
VHT40	5795	96	92
VHT80	5775	87	78

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	---	---

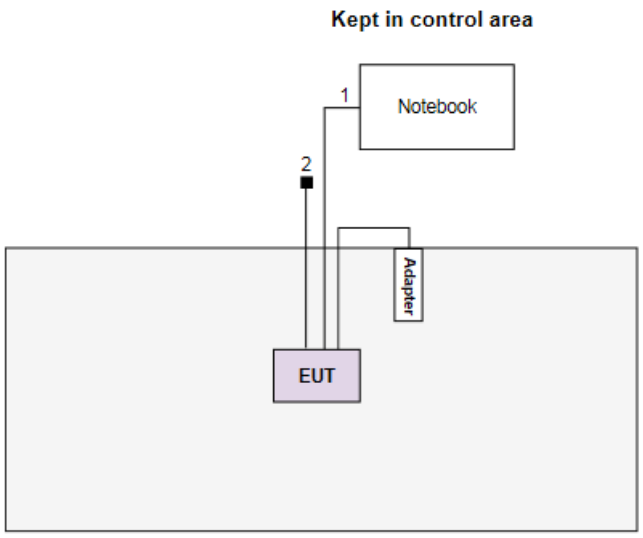
Beamforming mode

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

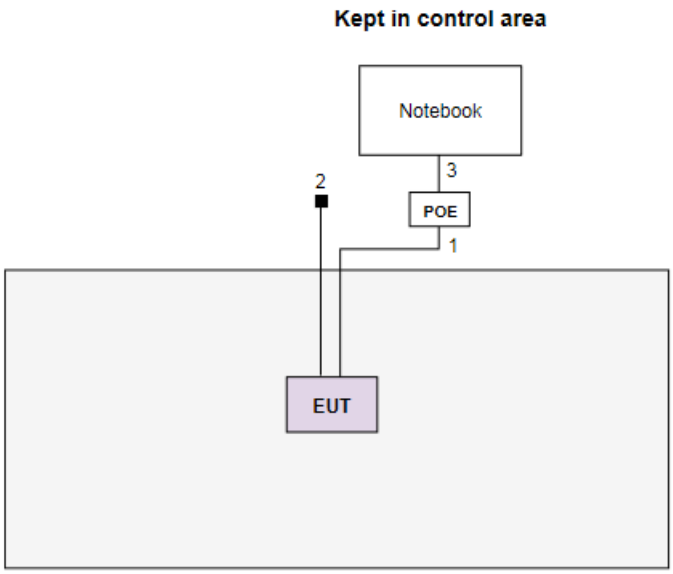
Non-beamforming mode

Test Setup Diagram (Adapter mode)



1. RJ45, 10m non-shielded
2. RJ45, 1m non-shielded with load

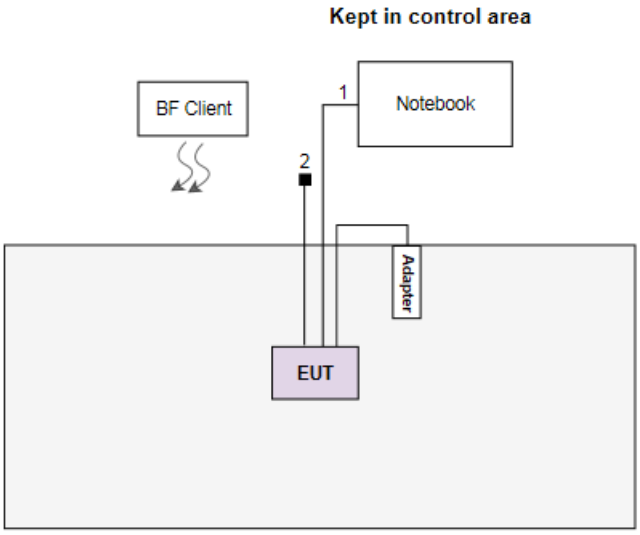
Test Setup Diagram (PoE mode)



1. RJ45, 10m non-shielded
2. RJ45, 1m non-shielded with load
3. RJ45, 1m non-shielded

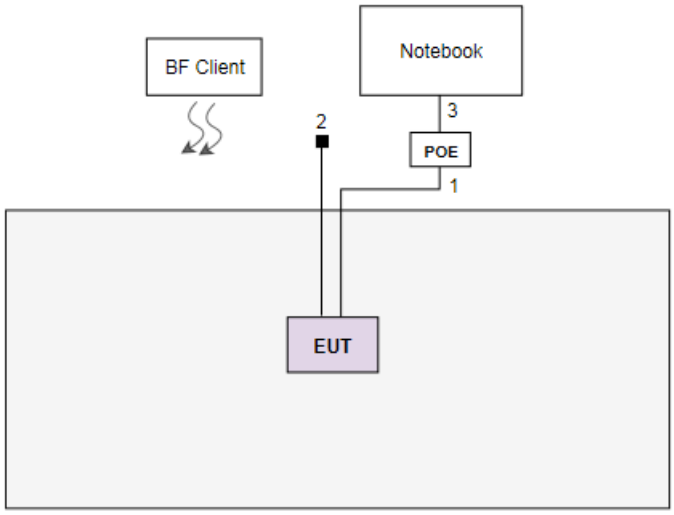
Beamforming mode

Test Setup Diagram (Adapter mode)



1. RJ45, 10m non-shielded
2. RJ45, 1m non-shielded with load

Test Setup Diagram (PoE mode)



1. RJ45, 10m non-shielded
2. RJ45, 1m non-shielded with load
3. RJ45, 1m non-shielded

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	Jul. 18 ~ Jul. 21, 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 ≤ 1GHz	±3.66 dB
Radiated emission > 1GHz	±5.37 dB
Time	±0.1%
Temperature	±0.6 ^{o}C

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	23°C / 59%	Alex Tsai
Radiated Emissions	03CH03-WS	24°C / 66-67%	Aska Huang Brad Wu
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 5150-5250 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate (Mbps) / MCS**	**Test Configuration**
Conducted Emissions	11a	5240	6 Mbps	1, 2
Radiated Emissions ≤1GHz	11a	5240	6 Mbps	1, 2
RF Output Power	11a HT20 HT40 VHT20 VHT40 VHT80	5180 / 5200 / 5240 5180 / 5200 / 5240 5190 / 5230 5180 / 5200 / 5240 5190 / 5230 5210	6 Mbps MCS 0 MCS 0 MCS 0 MCS 0 MCS 0	1
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a VHT20 VHT40 VHT80	5180 / 5200 / 5240 5180 / 5200 / 5240 5190 / 5230 5210	6 Mbps MCS 0 MCS 0 MCS 0	1
Frequency Stability	Un-modulation	5200	---	1
For Frequency band 5725-5850 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate (Mbps) / MCS**	**Test Configuration**
Conducted Emissions	VHT40	5755	MCS 0	1, 2
Radiated Emissions ≤1GHz	VHT40	5755	MCS 0	1, 2
RF Output Power	11a HT20 HT40 VHT20 VHT40 VHT80	5745 / 5785 / 5825 5745 / 5785 / 5825 5755 / 5795 5745 / 5785 / 5825 5755 / 5795 5775	6 Mbps MCS 0 MCS 0 MCS 0 MCS 0 MCS 0	1
Radiated Emissions >1GHz Emission Bandwidth 6dB bandwidth Peak Power Spectral Density	11a VHT20 VHT40 VHT80	5745 / 5785 / 5825 5745 / 5785 / 5825 5755 / 5795 5775	6 Mbps MCS 0 MCS 0 MCS 0	1
Frequency Stability	Un-modulation	5785	---	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 5150-5250 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate (Mbps) / MCS**	**Test Configuration**
Conducted Emissions	VHT20	5240	MCS 0	1, 2
Radiated Emissions ≤1GHz	VHT20	5240	MCS 0	1, 2
RF Output Power	HT20 HT40 VHT20 VHT40 VHT80	5180 / 5200 / 5240 5190 / 5230 5180 / 5200 / 5240 5190 / 5230 5210	MCS 0 MCS 0 MCS 0 MCS 0 MCS 0	1
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	VHT20 VHT40 VHT80	5180 / 5200 / 5240 5190 / 5230 5210	MCS 0 MCS 0 MCS 0	1
Frequency Stability	VHT20	5200	MCS 0	1
For Frequency band 5725-5850 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate (Mbps) / MCS**	**Test Configuration**
Conducted Emissions	VHT40	5755	MCS 0	1, 2
Radiated Emissions ≤1GHz	VHT40	5755	MCS 0	1, 2
RF Output Power	HT20 HT40 VHT20 VHT40 VHT80	5745 / 5785 / 5825 5755 / 5795 5745 / 5785 / 5825 5755 / 5795 5775	MCS 0 MCS 0 MCS 0 MCS 0 MCS 0	1
Radiated Emissions >1GHz Emission Bandwidth 6dB bandwidth Peak Power Spectral Density	VHT20 VHT40 VHT80	5745 / 5785 / 5825 5755 / 5795 5775	MCS 0 MCS 0 MCS 0	1
Frequency Stability	VHT20	5785	MCS 0	1

NOTE:

1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **X-plane** results were found as the worst case and were shown in this report.
2. This device can be powered by AC adapter or POE. Each power supply was selected for final testing as below configuration.
   1) Test configuration 1: POE mode
   2) Test configuration 2: Adapter mode

For Frequency band 5150-5250 / 5725-5850 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Mode**	**Test Configuration**
Conducted Emissions	11a VHT40	5240 5755	RX	1, 2
Radiated Emissions ≤1GHz	11a VHT40	5240 5755	RX	1, 2
Radiated Emissions >1GHz	11a VHT40	5240 5755	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

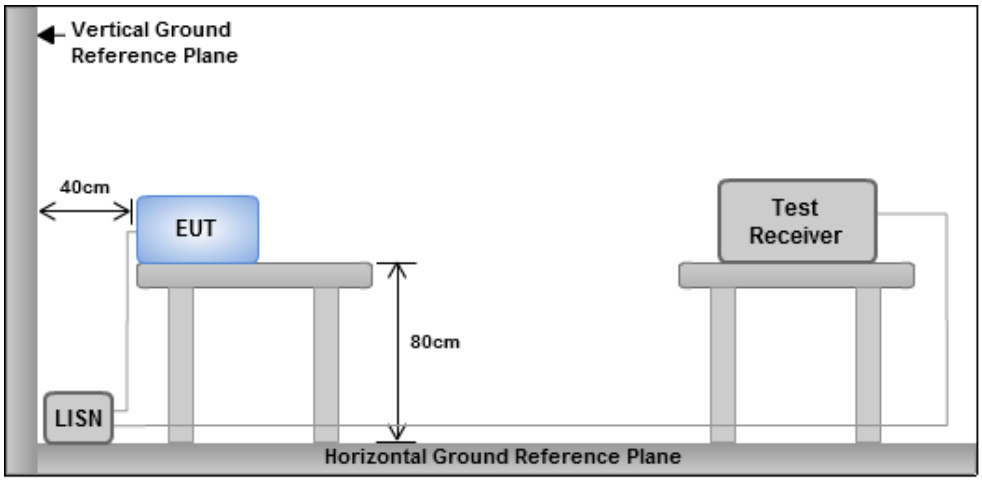
3.1.1 Limit of Conducted Emissions

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

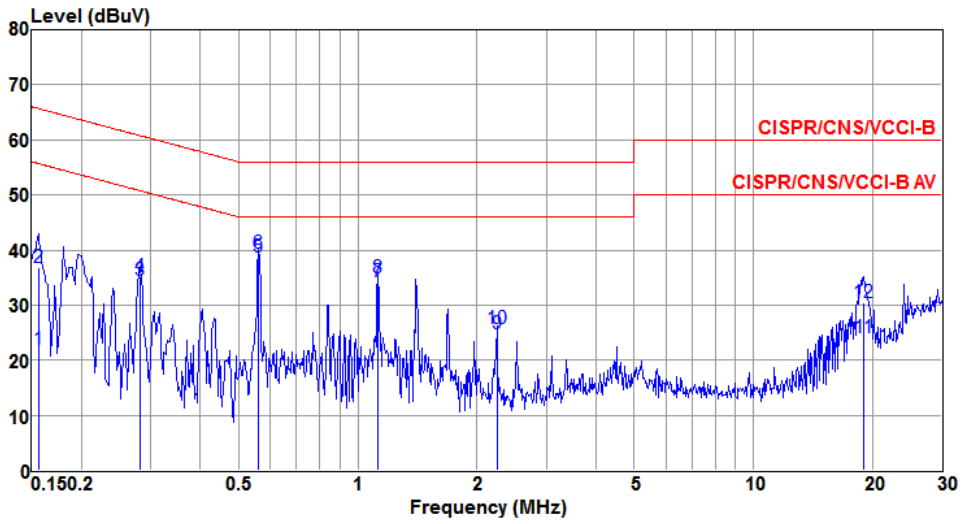


Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

Non-beamforming mode

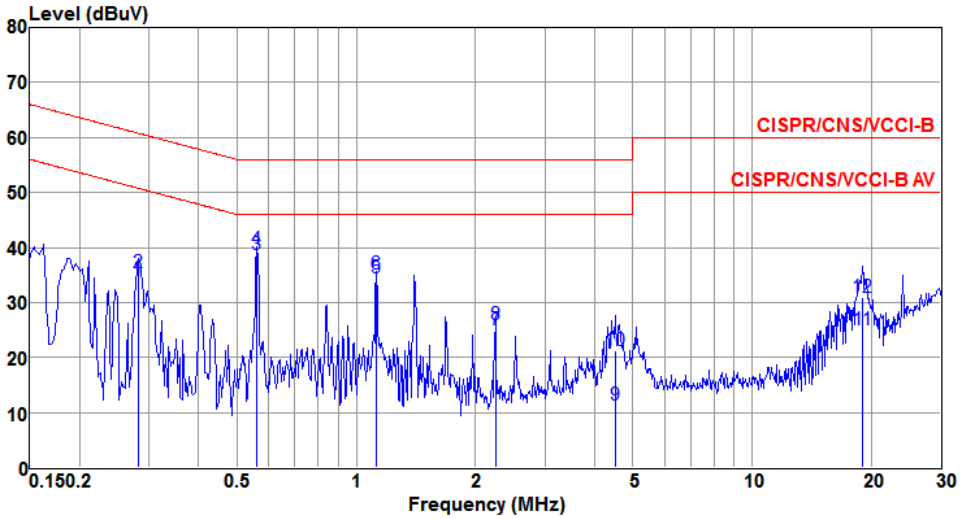
Modulation	11a	Test Freq. (MHz)	5240
Power Phase	Line	Test configuration	1



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

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

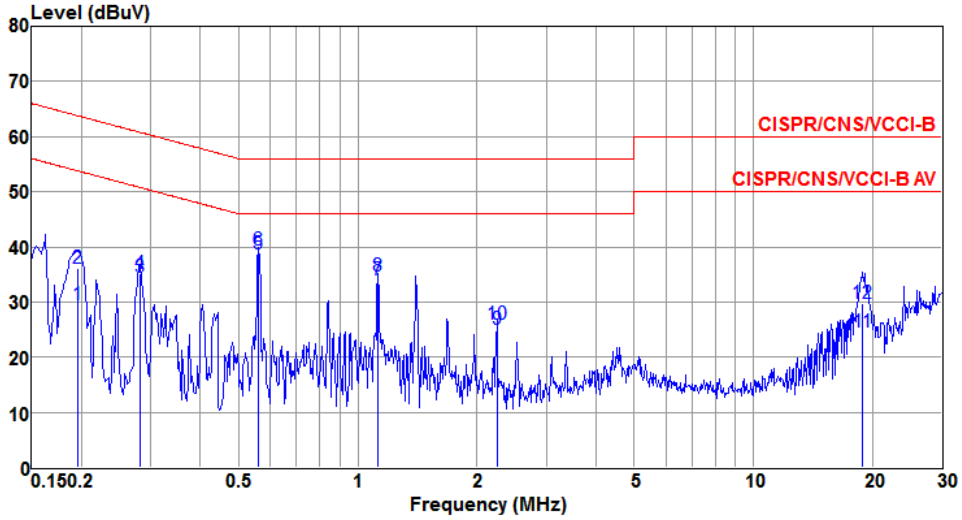
Modulation	11a	Test Freq. (MHz)	5240
Power Phase	Neutral	Test configuration	1



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

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

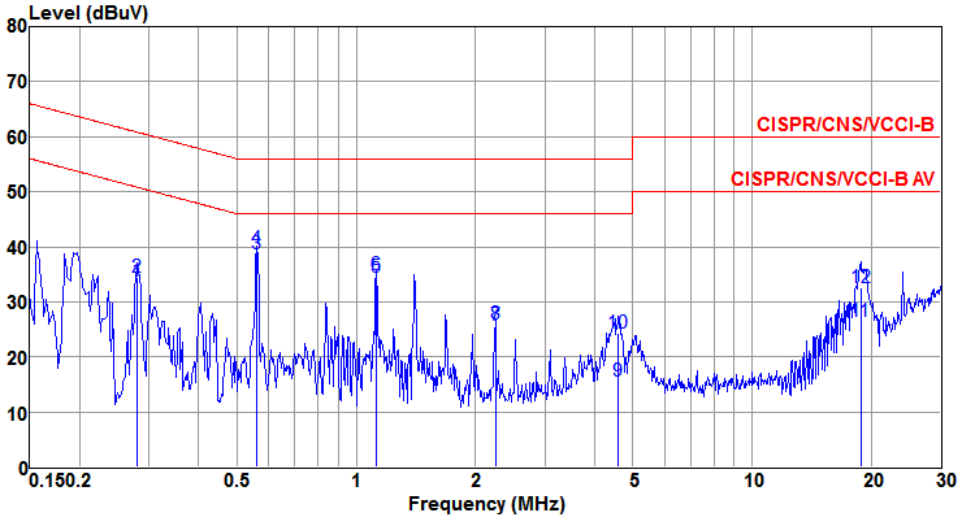
Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Line	Test configuration	1



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

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

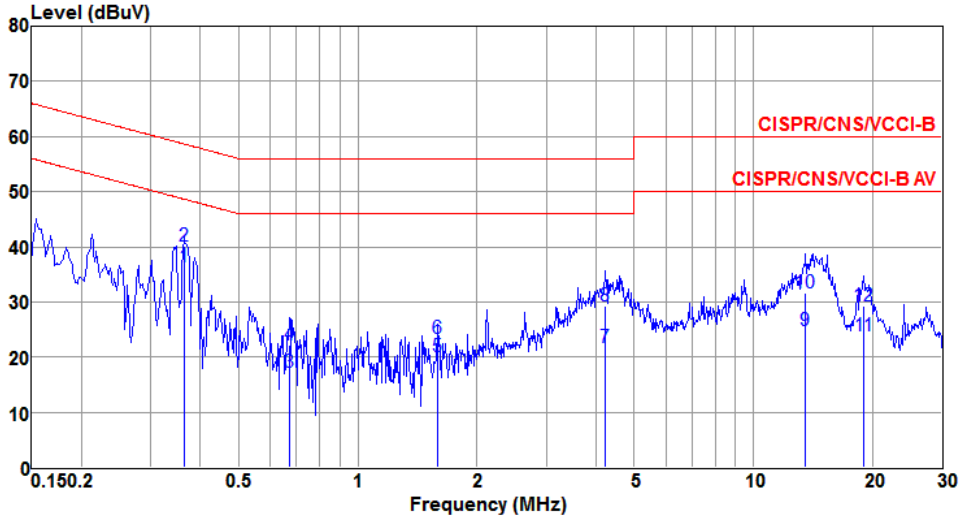
Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Neutral	Test configuration	1



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

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

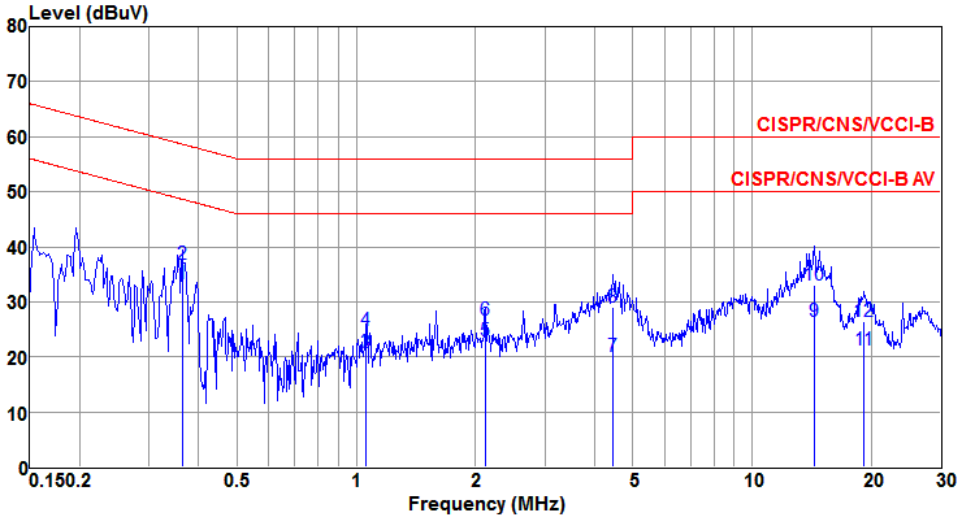
Modulation	11a	Test Freq. (MHz)	5240
Power Phase	Line	Test configuration	2



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

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

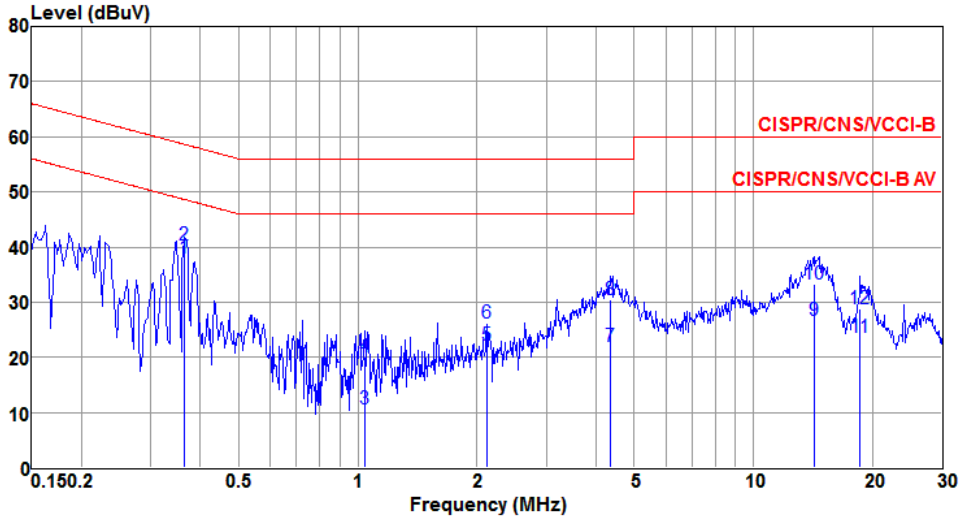
Modulation	11a	Test Freq. (MHz)	5240
Power Phase	Neutral	Test configuration	2



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1@	0.363	33.25	48.65	-15.40	23.66	9.55	0.04	Average
2	0.363	36.93	58.65	-21.72	27.34	9.55	0.04	QP
3	1.060	20.82	46.00	-25.18	11.12	9.66	0.04	Average
4	1.060	24.80	56.00	-31.20	15.10	9.66	0.04	QP
5	2.118	22.99	46.00	-23.01	13.40	9.54	0.05	Average
6	2.118	26.67	56.00	-29.33	17.08	9.54	0.05	QP
7	4.454	20.04	46.00	-25.96	10.16	9.71	0.17	Average
8	4.454	28.93	56.00	-27.07	19.05	9.71	0.17	QP
9	14.364	26.53	50.00	-23.47	16.61	9.69	0.23	Average
10	14.364	33.06	60.00	-26.94	23.14	9.69	0.23	QP
11	19.224	21.22	50.00	-28.78	11.24	9.72	0.26	Average
12	19.224	26.50	60.00	-33.50	16.52	9.72	0.26	QP

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

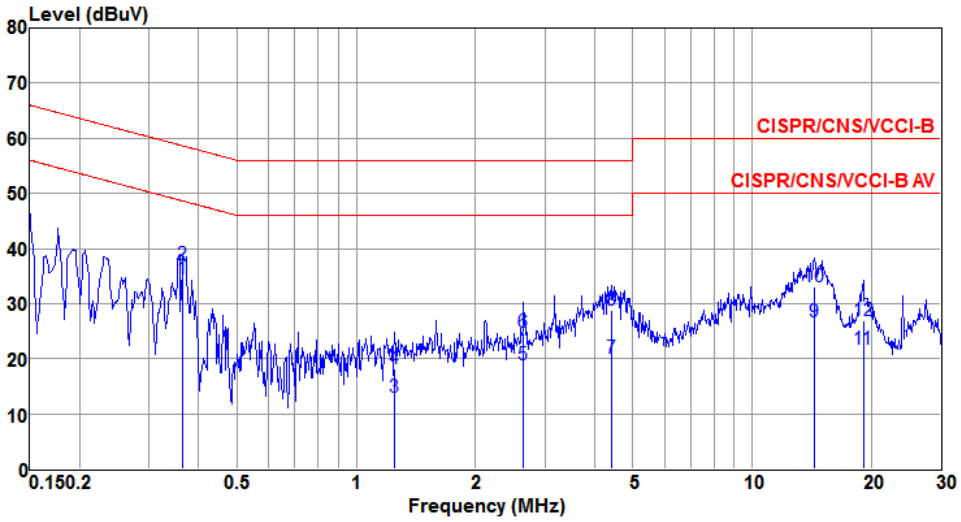
Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Line	Test configuration	2



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

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

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

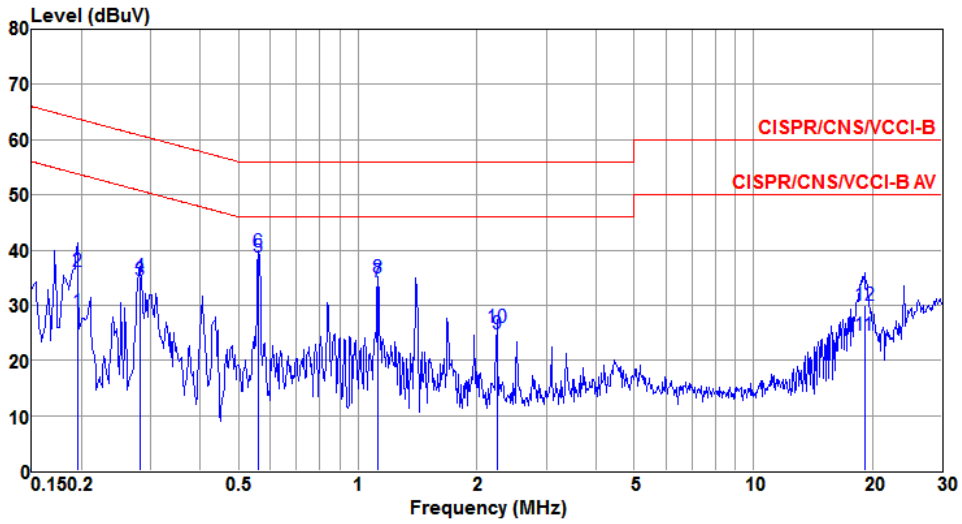


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1@	0.365	34.44	48.61	-14.17	24.85	9.55	0.04	Average
2	0.365	37.03	58.61	-21.58	27.44	9.55	0.04	QP
3	1.249	12.91	46.00	-33.09	3.25	9.62	0.04	Average
4	1.249	18.21	56.00	-37.79	8.55	9.62	0.04	QP
5	2.641	18.82	46.00	-27.18	9.13	9.60	0.09	Average
6	2.641	24.83	56.00	-31.17	15.14	9.60	0.09	QP
7	4.430	20.06	46.00	-25.94	10.18	9.71	0.17	Average
8	4.430	28.87	56.00	-27.13	18.99	9.71	0.17	QP
9	14.364	26.60	50.00	-23.40	16.68	9.69	0.23	Average
10	14.364	33.14	60.00	-26.86	23.22	9.69	0.23	QP
11	19.122	21.67	50.00	-28.33	11.70	9.72	0.25	Average
12	19.122	26.85	60.00	-33.15	16.88	9.72	0.25	QP

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

Beamforming mode

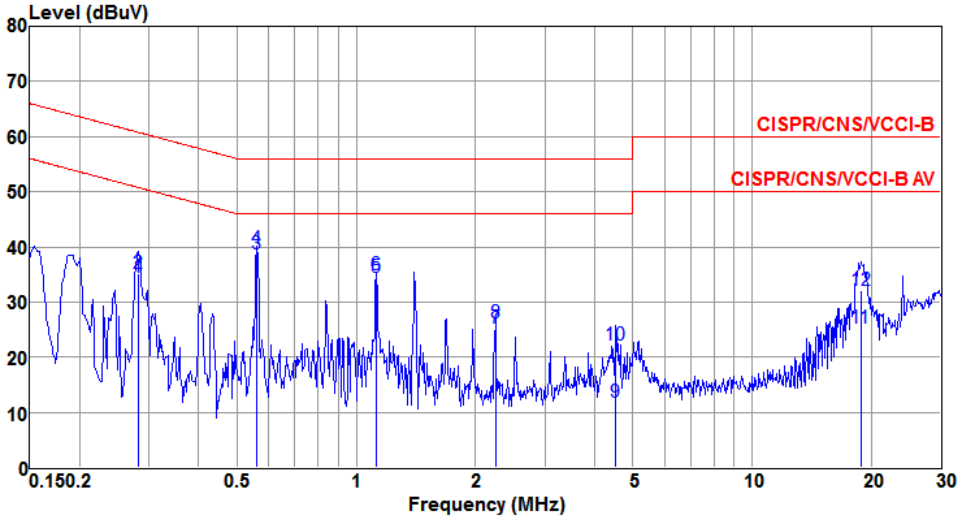
Modulation	VHT20	**Test Freq. (MHz)**	5240
Power Phase	Line	**Test configuration**	1



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

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

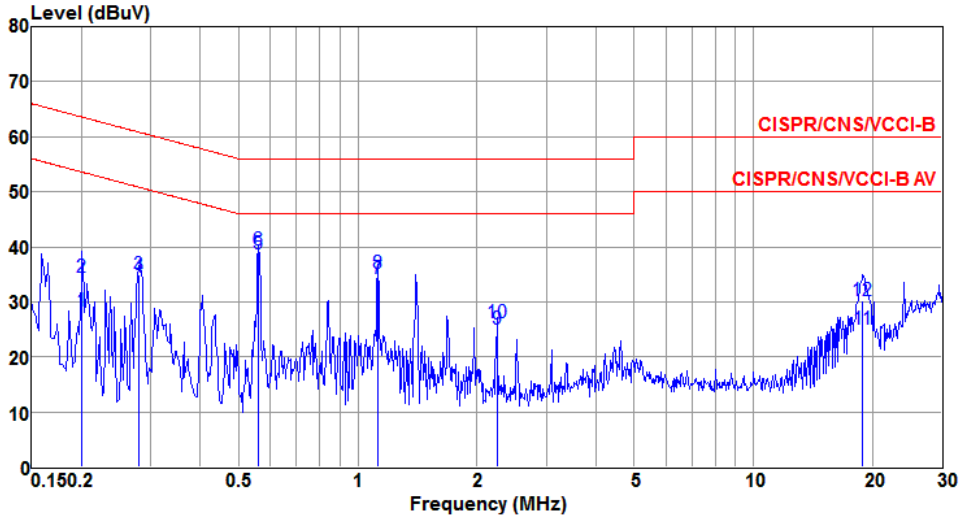
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Neutral	Test configuration	1



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

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

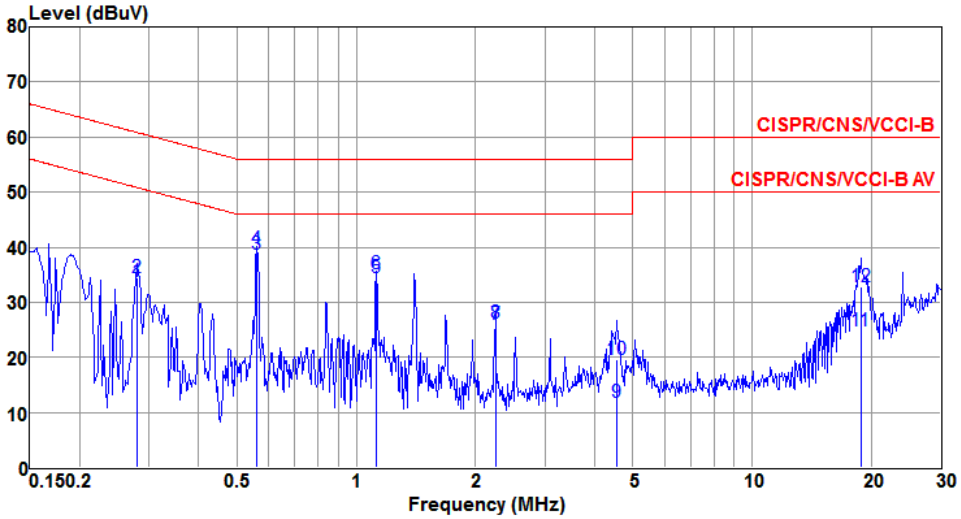
Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Line	Test configuration	1



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

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

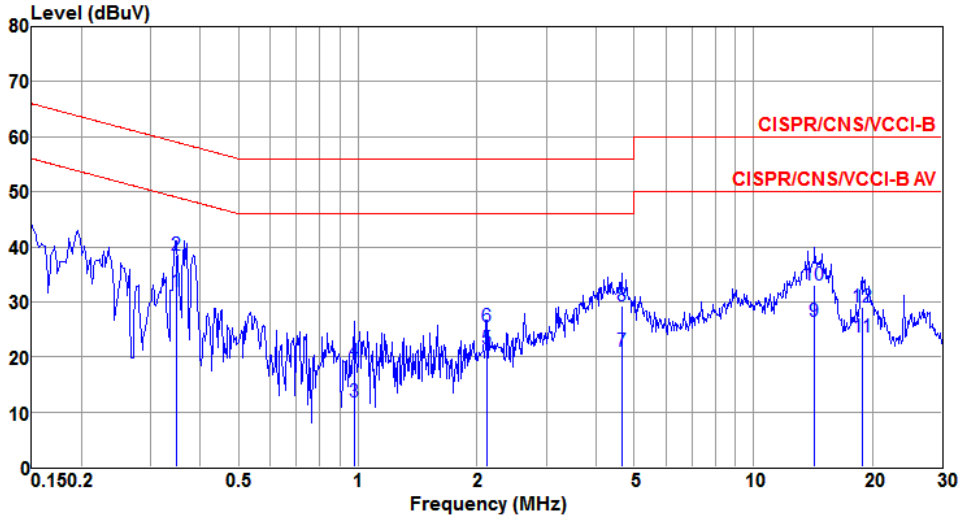
Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Neutral	Test configuration	1



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

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

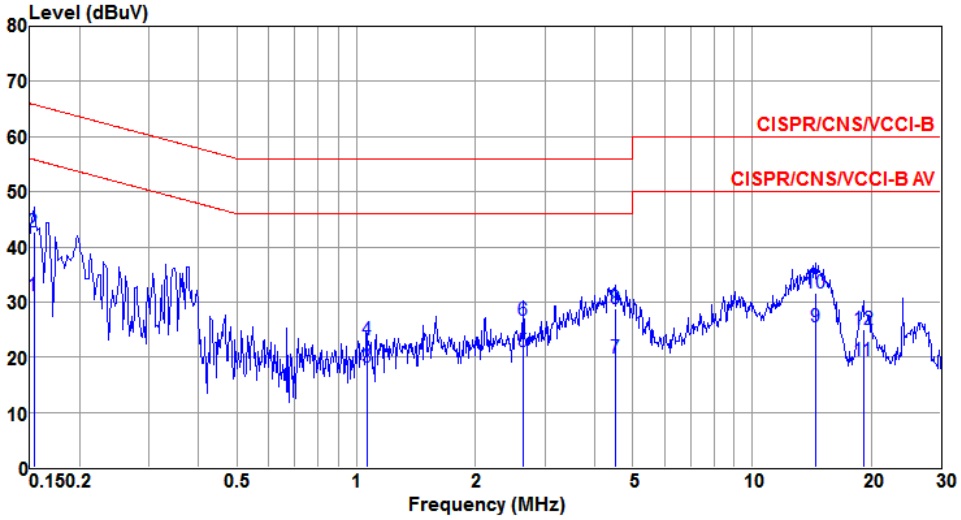
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Line	Test configuration	2



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1@	0.348	31.96	49.00	-17.04	22.34	9.58	0.04	Average
2	0.348	38.52	59.00	-20.48	28.90	9.58	0.04	QP
3	0.979	11.71	46.00	-34.29	2.21	9.46	0.04	Average
4	0.979	19.09	56.00	-36.91	9.59	9.46	0.04	QP
5	2.121	21.60	46.00	-24.40	11.92	9.63	0.05	Average
6	2.121	25.59	56.00	-30.41	15.91	9.63	0.05	QP
7	4.647	21.04	46.00	-24.96	11.36	9.51	0.17	Average
8	4.647	29.24	56.00	-26.76	19.56	9.51	0.17	QP
9	14.288	26.56	50.00	-23.44	16.64	9.69	0.23	Average
10	14.288	33.13	60.00	-26.87	23.21	9.69	0.23	QP
11	18.920	23.63	50.00	-26.37	13.67	9.71	0.25	Average
12	18.920	29.13	60.00	-30.87	19.17	9.71	0.25	QP

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

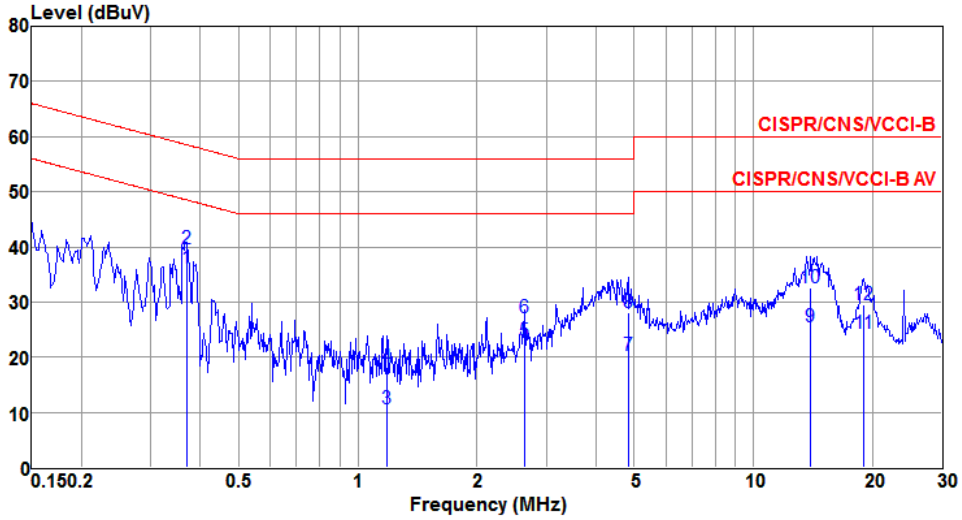
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Neutral	Test configuration	2



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

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

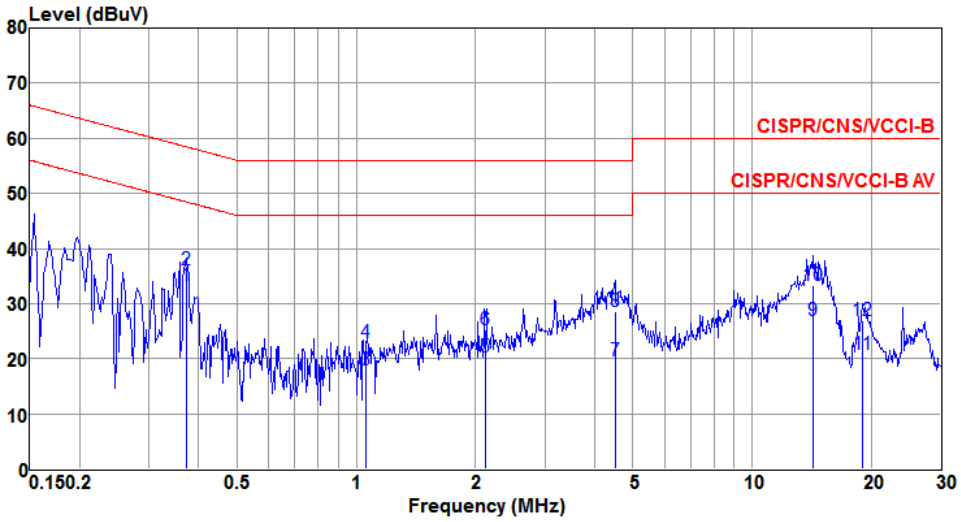
Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Line	Test configuration	2



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

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

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



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1@	0.371	33.39	48.47	-15.08	23.80	9.55	0.04	Average
2	0.371	36.01	58.47	-22.46	26.42	9.55	0.04	QP
3	1.056	17.99	46.00	-28.01	8.29	9.66	0.04	Average
4	1.056	22.94	56.00	-33.06	13.24	9.66	0.04	QP
5	2.119	20.42	46.00	-25.58	10.83	9.54	0.05	Average
6	2.119	25.24	56.00	-30.76	15.65	9.54	0.05	QP
7	4.501	19.68	46.00	-26.32	9.80	9.71	0.17	Average
8	4.501	28.65	56.00	-27.35	18.77	9.71	0.17	QP
9	14.213	26.93	50.00	-23.07	17.01	9.69	0.23	Average
10	14.213	33.34	60.00	-26.66	23.42	9.69	0.23	QP
11	19.021	20.80	50.00	-29.20	10.83	9.72	0.25	Average
12	19.021	26.85	60.00	-33.15	16.88	9.72	0.25	QP

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

3.2 Emission Bandwidth

3.2.1 Limit of Emission bandwidth

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

3.2.2 Test Procedures

26dB Bandwidth

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

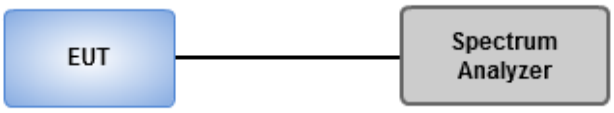
Occupied Bandwidth

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

6dB Bandwidth

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

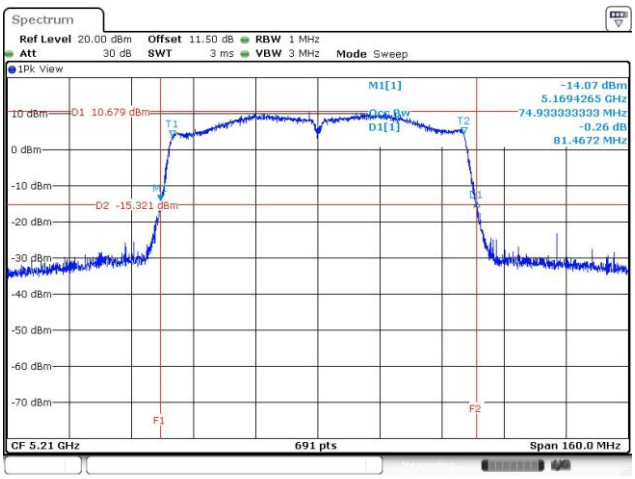
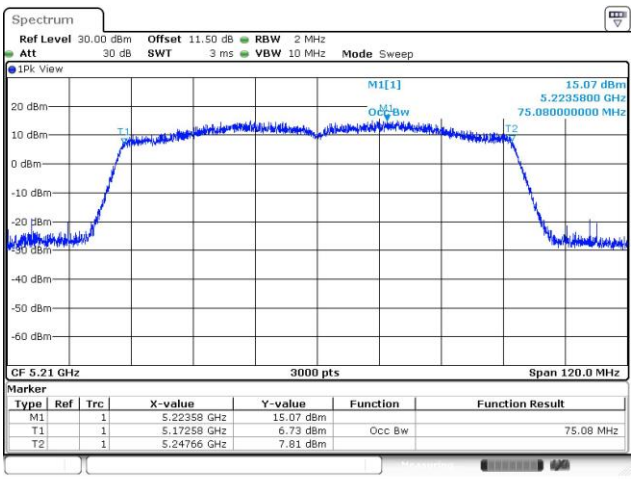
3.2.3 Test Setup



3.2.4 Test Result of Emission Bandwidth

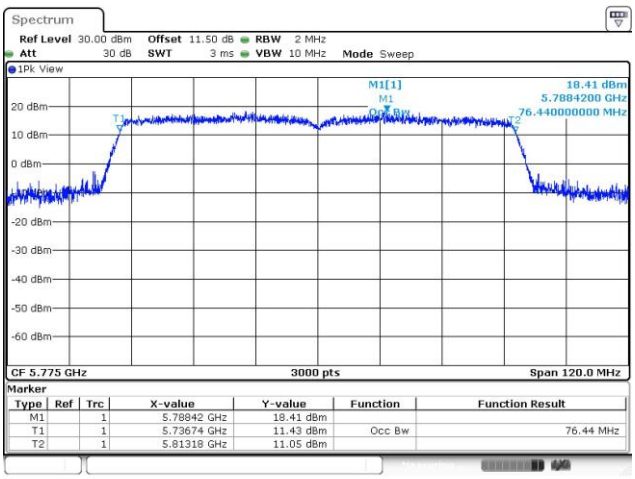
Non-beamforming mode

For Frequency band 5150-5250 MHz										
Emission Bandwidth										
Mode	N_{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3
11a	3	5180	21.57	21.45	21.45	---	17.09	16.91	16.89	---
11a	3	5200	21.74	21.74	21.51	---	17.20	17.02	17.00	---
11a	3	5240	21.68	25.22	21.62	---	17.24	17.05	17.01	---
VHT20	3	5180	21.86	21.57	21.68	---	18.16	17.94	17.96	---
VHT20	3	5200	37.62	38.43	32.17	---	18.24	17.99	18.00	---
VHT20	3	5240	37.80	36.17	31.36	---	18.24	18.01	18.02	---
VHT40	3	5190	41.08	40.60	40.49	---	36.50	36.56	36.66	---
VHT40	3	5230	40.70	40.58	40.58	---	36.64	36.62	36.56	---
VHT80	3	5210	81.47	80.83	80.61	---	75.08	75.08	75.04	---

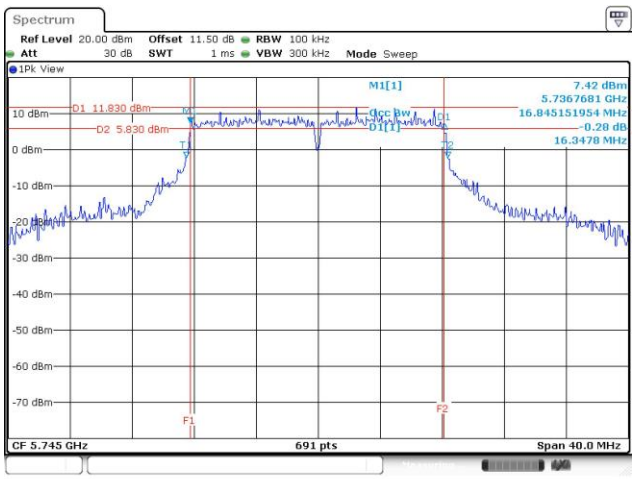
Worst Plot of 26dB Bandwidth	Worst Plot of 99% Bandwidth
	

For Frequency band 5725-5850 MHz											
Emission Bandwidth											
Mode	N_{TX}	Freq. (MHz)	OBW Bandwidth (MHz)				6dB Bandwidth (MHz)				
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	6dB BW Limit (MHz)
11a	3	5745	17.56	17.30	17.10	---	16.35	16.35	16.41	---	0.5
11a	3	5785	17.61	17.55	17.14	---	16.35	16.35	16.35	---	0.5
11a	3	5825	17.71	17.72	17.12	---	16.35	16.35	16.35	---	0.5
VHT20	3	5745	18.58	18.43	18.18	---	17.62	17.62	17.62	---	0.5
VHT20	3	5785	18.59	18.42	18.24	---	17.62	17.62	17.62	---	0.5
VHT20	3	5825	18.66	18.52	18.18	---	17.62	17.62	17.62	---	0.5
VHT40	3	5755	37.62	37.46	36.89	---	36.41	36.41	36.41	---	0.5
VHT40	3	5795	37.64	37.56	37.00	---	36.41	36.41	36.41	---	0.5
VHT80	3	5775	76.44	76.24	76.20	---	76.29	76.35	76.29	---	0.5

Worst Plot of 99% Bandwidth

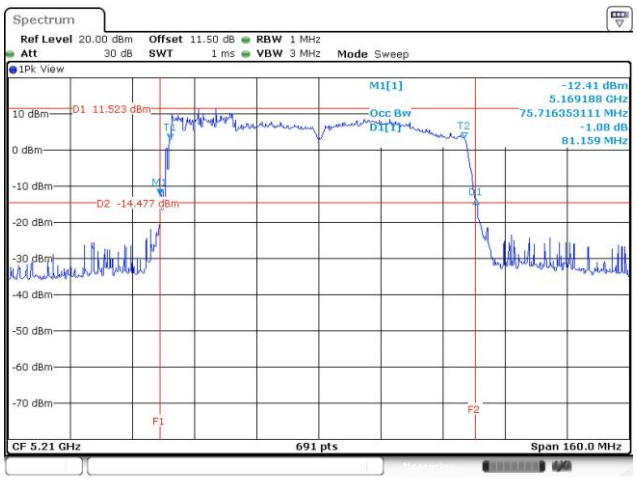
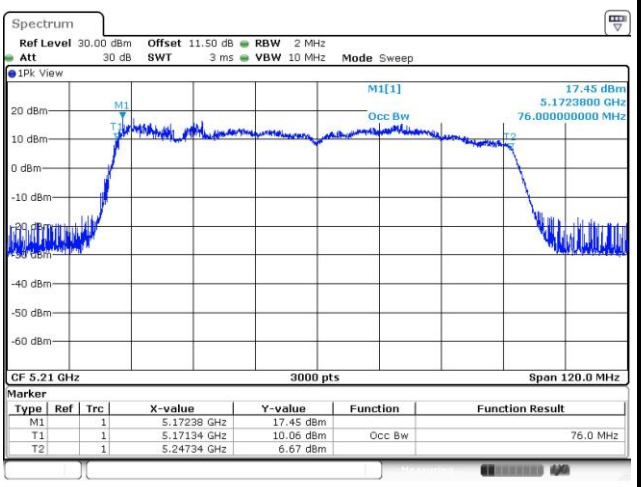


Worst Plot of 6dB Bandwidth

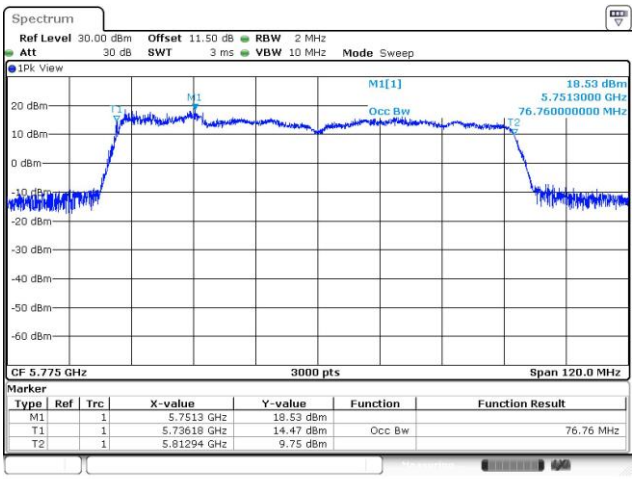
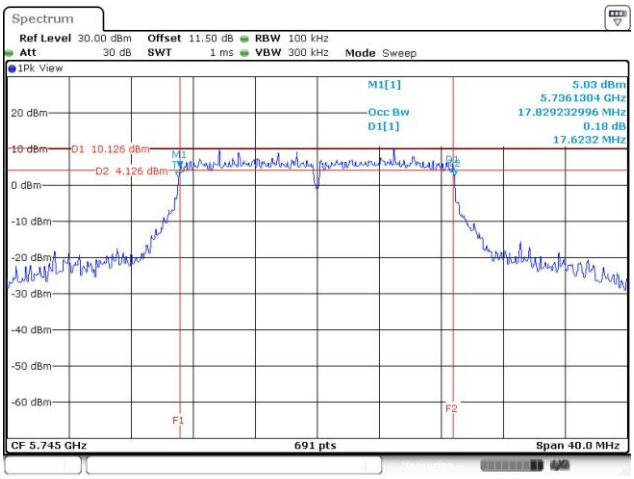


Beamforming mode

For Frequency band 5150-5250 MHz										
Emission Bandwidth										
Mode	N_{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3
VHT20	3	5180	21.97	21.45	21.62	---	18.09	17.85	17.91	---
VHT20	3	5200	23.71	22.14	21.68	---	18.18	17.93	17.94	---
VHT20	3	5240	24.75	24.41	21.68	---	18.19	17.93	18.06	---
VHT40	3	5190	40.81	40.93	40.70	---	36.64	36.52	36.52	---
VHT40	3	5230	40.70	41.28	41.04	---	36.68	36.60	36.58	---
VHT80	3	5210	80.70	81.16	79.54	---	75.64	75.80	76.00	---

Worst Plots of 26dB Bandwidth	Worst Plots of 99% Bandwidth
	

For Frequency band 5725-5850 MHz											
Emission Bandwidth											
Mode	N_{TX}	Freq. (MHz)	OBW Bandwidth (MHz)				6dB Bandwidth (MHz)				
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	6dB BW Limit (MHz)
VHT20	3	5745	18.29	18.08	18.00	---	17.62	17.62	17.62	---	0.5
VHT20	3	5785	18.30	18.10	18.02	---	17.62	17.62	17.62	---	0.5
VHT20	3	5825	18.25	18.14	18.02	---	17.62	17.62	17.62	---	0.5
VHT40	3	5755	37.10	37.08	36.86	---	35.83	35.71	36.29	---	0.5
VHT40	3	5795	37.22	37.22	36.76	---	36.06	36.06	35.83	---	0.5
VHT80	3	5775	76.76	76.56	76.48	---	75.59	75.83	75.83	---	0.5

Worst Plots of 99% Bandwidth	Worst Plots of 6dB Bandwidth
	

3.3 RF Output Power

3.3.1 Limit of RF Output Power

Frequency band 5150-5250 MHz		
Operating Mode		**Limit**
☐	Outdoor access point	Conducted Power: 1 W The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm)
☒	Indoor access point	Conducted Power: 1 W
☐	Fixed point-to-point access points	Conducted Power: 1 W
☐	Client devices	Conducted Power: 250 mW

Frequency Band (MHz)		Limit
☐	5250 ~ 5350	250mW or 11dBm+10 log B
☐	5470 ~ 5725	250mW or 11dBm+10 log B
☒	5725 ~ 5850	1 W
Note: “B” is the 26dB emission bandwidth in MHz.		

3.3.2 Test Procedures

☒ **Method PM-G (Measurement using a gated RF average power meter)**

☒ Measurements is performed using a wideband gated RF power meter provided that the gate parameters are adjusted such that the power is measured only when the EUT is transmitting at its maximum power control level. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

3.3.3 Test Setup

3.3.4 Test Result of Maximum Conducted Output Power

Non-beamforming mode

For Frequency band 5150-5250 MHz									
Mode	N_{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
11a	3	5180	20.39	20.15	19.19	---	295.895	24.71	30.00
11a	3	5200	22.42	22.31	21.44	---	484.114	26.85	30.00
11a	3	5240	22.41	22.39	21.38	---	484.965	26.86	30.00
HT20	3	5180	18.91	18.51	17.62	---	206.571	23.15	30.00
HT20	3	5200	21.73	21.88	21.03	---	429.871	26.33	30.00
HT20	3	5240	21.76	21.99	21.04	---	435.151	26.39	30.00
HT40	3	5190	17.43	17.44	17.35	---	165.123	22.18	30.00
HT40	3	5230	18.36	18.52	18.29	---	207.123	23.16	30.00
VHT20	3	5180	18.96	18.59	17.67	---	209.461	23.21	30.00
VHT20	3	5200	21.82	21.98	21.09	---	438.345	26.42	30.00
VHT20	3	5240	21.85	22.02	21.13	---	442.048	26.45	30.00
VHT40	3	5190	17.55	17.51	17.48	---	169.225	22.28	30.00
VHT40	3	5230	18.51	18.62	18.32	---	211.656	23.26	30.00
VHT80	3	5210	17.23	17.01	17.16	---	155.078	21.91	30.00

For Frequency band 5725-5850 MHz									
Mode	N_{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
11a	3	5745	23.38	23.34	23.01	---	633.532	28.02	30.00
11a	3	5785	23.23	23.26	23.05	---	624.051	27.95	30.00
11a	3	5825	23.26	23.31	22.88	---	620.214	27.93	30.00
HT20	3	5745	23.40	23.06	23.11	---	625.723	27.96	30.00
HT20	3	5785	23.30	23.09	23.01	---	617.487	27.91	30.00
HT20	3	5825	23.19	23.26	22.74	---	608.217	27.84	30.00
HT40	3	5755	23.35	23.52	22.96	---	638.874	28.05	30.00
HT40	3	5795	23.43	23.52	22.77	---	634.432	28.02	30.00
VHT20	3	5745	23.43	23.15	23.22	---	636.725	28.04	30.00
VHT20	3	5785	23.35	23.16	23.05	---	625.123	27.96	30.00
VHT20	3	5825	23.28	23.31	22.87	---	620.745	27.93	30.00
VHT40	3	5755	23.41	23.63	23.02	---	650.402	28.13	30.00
VHT40	3	5795	23.52	23.61	22.85	---	647.273	28.11	30.00
VHT80	3	5775	20.79	20.93	20.52	---	356.549	25.52	30.00

Beamforming mode

For Frequency band 5150-5250 MHz									
Mode	N_{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
HT20	3	5180	18.59	18.11	17.30	---	190.694	22.80	29.94
HT20	3	5200	21.49	21.57	20.76	---	403.602	26.06	29.94
HT20	3	5240	21.59	21.66	20.83	---	411.826	26.15	29.94
HT40	3	5190	15.43	15.39	15.16	---	102.317	20.10	29.94
HT40	3	5230	18.11	18.24	18.06	---	195.368	22.91	29.94
VHT20	3	5180	18.65	18.24	17.35	---	194.288	22.88	29.94
VHT20	3	5200	21.53	21.65	20.88	---	410.912	26.14	29.94
VHT20	3	5240	21.62	21.79	20.95	---	420.671	26.24	29.94
VHT40	3	5190	15.52	15.41	15.29	---	104.205	20.18	29.94
VHT40	3	5230	18.26	18.34	18.10	---	199.788	23.01	29.94
VHT80	3	5210	16.45	15.76	15.03	---	113.669	20.56	29.94

Note:

1. Directional gain = 1.29+10* log(3/1) = 6.06 dBi > 6 dBi.
   Limit shall be reduced to 30 dBm – (6.06 dBi – 6 dBi) = 29.94 dBm.

For Frequency band 5725-5850 MHz									
Mode	N_{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
HT20	3	5745	21.66	21.43	21.44	---	424.866	26.28	30.00
HT20	3	5785	21.65	21.47	21.43	---	425.494	26.29	30.00
HT20	3	5825	21.55	21.49	21.65	---	430.036	26.34	30.00
HT40	3	5755	22.03	21.62	21.59	---	449.011	26.52	30.00
HT40	3	5795	21.98	21.61	21.54	---	445.199	26.49	30.00
VHT20	3	5745	21.75	21.51	21.53	---	433.436	26.37	30.00
VHT20	3	5785	21.76	21.53	21.48	---	432.806	26.36	30.00
VHT20	3	5825	21.63	21.56	21.71	---	437.017	26.40	30.00
VHT40	3	5755	22.06	21.75	21.68	---	457.549	26.60	30.00
VHT40	3	5795	22.04	21.72	21.69	---	456.120	26.59	30.00
VHT80	3	5775	18.52	18.61	18.25	---	210.566	23.23	30.00

3.4 Peak Power Spectral Density

3.4.1 Limit of Peak Power Spectral Density

Frequency band 5150-5250 MHz		
Operating Mode		**Limit**
☐	Outdoor access point	17 dBm / MHz
☒	Indoor access point	17 dBm / MHz
☐	Fixed point-to-point access points	17 dBm / MHz
☐	Client devices	11 dBm / MHz

Frequency Band (MHz)		**Limit**
☐	5250 ~ 5350	11 dBm / MHz
☐	5470 ~ 5725	11 dBm / MHz
☒	5725 ~ 5850	30 dBm /500 kHz

3.4.2 Test Procedures

For 5150 ~ 5250 MHz

☒ Method SA-1 (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 ≥ 10 * (number of points in sweep) * (total on/off period of the transmitted signal).
3. Perform a single sweep.
4. Use the peak marker function to determine the maximum amplitude level.
5. Add 10 log(1/x), where x is the duty cycle.

For 5725 ~ 5850 MHz

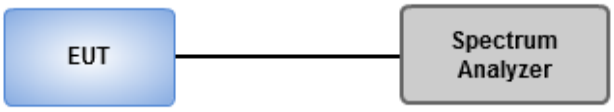
☒ Method SA-1 (Non- Beamforming: VHT20/VHT40 / Beamforming: VHT20/VHT40)

1. Set RBW = 500 kHz, VBW = 2 MHz, Sweep time = auto, Detector = RMS.
2. Trace average 100 traces.
3. Use the peak marker function to determine the maximum amplitude level.

☒ Method SA-2 Alternative (Non- Beamforming: 11a//VHT80 / Beamforming: VHT80)

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

3.4.3 Test Setup



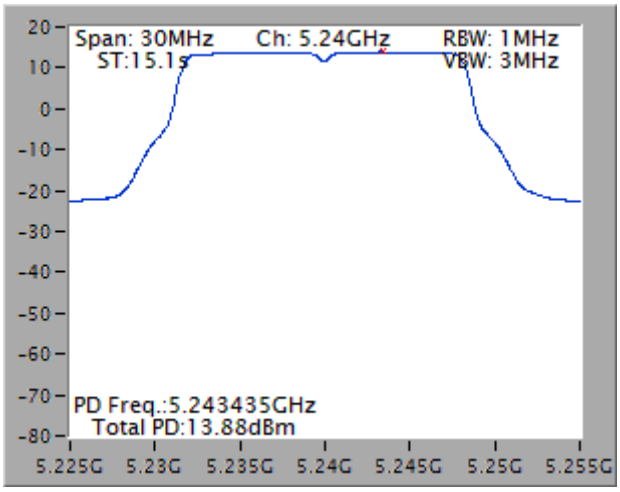
3.4.4 Test Result of Peak Power Spectral Density

Non-beamforming mode

For Frequency band 5150-5250 MHz						
Condition			Peak Power Spectral Density (dBm/MHz)			
Modulation Mode	N_{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/MHz)	Duty Factor (dB)	PPSD with D.F (dBm/MHz)	PPSD Limit (dBm/MHz)
11a	3	5180	11.42	0.17	11.59	16.94
11a	3	5200	13.84	0.17	14.01	16.94
11a	3	5240	13.88	0.17	14.05	16.94
VHT20	3	5180	10.24	0.00	10.24	16.94
VHT20	3	5200	13.70	0.00	13.70	16.94
VHT20	3	5240	13.76	0.00	13.76	16.94
VHT40	3	5190	6.20	0.00	6.20	16.94
VHT40	3	5230	7.57	0.00	7.57	16.94
VHT80	3	5210	4.03	0.18	4.21	16.94

Note:
1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. Directional gain = 1.29+10* log(3/1) = 6.06 dBi > 6dBi.
   Limit shall be reduced to 17 dBm – (6.06 dBi – 6 dBi) = 16.94 dBm.

Worst Plot

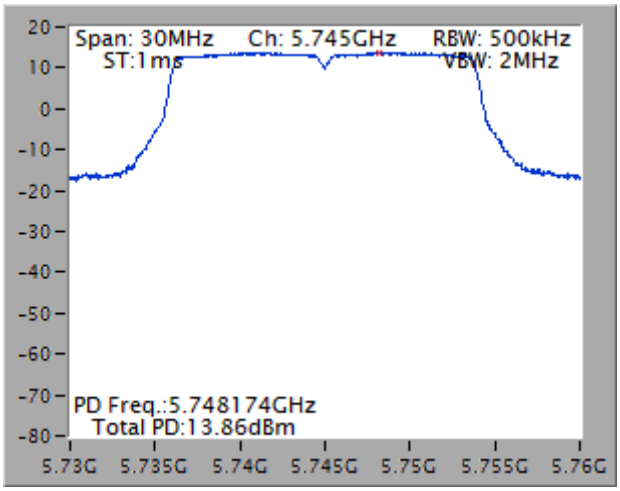


Note: Worst plot is w/o duty factor.

For Frequency band 5725-5850 MHz						
Condition			Peak Power Spectral Density (dBm/500kHz)			
Modulation Mode	N_{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/500kHz)	Duty Factor (dB)	PPSD with D.F (dBm/500kHz)	PPSD Limit (dBm/500kHz)
11a	3	5745	13.48	0.17	13.65	30.00
11a	3	5785	13.28	0.17	13.45	30.00
11a	3	5825	13.13	0.17	13.30	30.00
VHT20	3	5745	13.86	0.00	13.86	30.00
VHT20	3	5785	13.83	0.00	13.83	30.00
VHT20	3	5825	13.45	0.00	13.45	30.00
VHT40	3	5755	10.90	0.00	10.90	30.00
VHT40	3	5795	10.91	0.00	10.91	30.00
VHT80	3	5775	5.43	0.18	5.61	30.00

Note:
1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.

Worst Plot

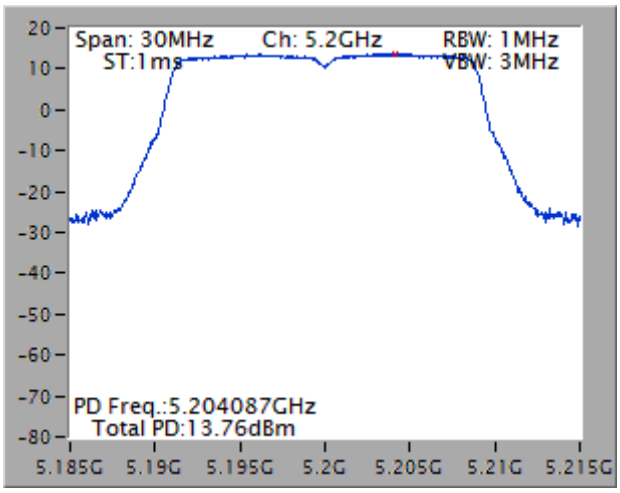


Beamforming mode

For Frequency band 5150-5250 MHz						
Condition			Peak Power Spectral Density (dBm/MHz)			
Modulation Mode	N_{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/MHz)	Duty Factor (dB)	PPSD with D.F (dBm/MHz)	PPSD Limit (dBm/MHz)
VHT20	3	5180	9.62	0.00	9.62	16.94
VHT20	3	5200	13.76	0.00	13.76	16.94
VHT20	3	5240	13.20	0.00	13.20	16.94
VHT40	3	5190	3.84	0.00	3.84	16.94
VHT40	3	5230	6.92	0.00	6.92	16.94
VHT80	3	5210	2.83	0.22	3.05	16.94

Note:
1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. Directional gain = 1.29+10* log(3/1) = 6.06 dBi > 6dBi.
   Limit shall be reduced to 17 dBm – (6.06 dBi – 6 dBi) = 16.94 dBm.

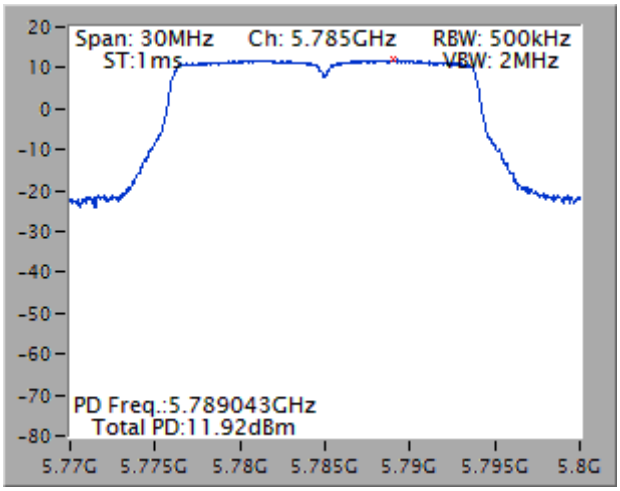
Worst Plot



For Frequency band 5725-5850 MHz						
Condition			Peak Power Spectral Density (dBm/500kHz)			
Modulation Mode	N_{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/500kHz)	Duty Factor (dB)	PPSD with D.F (dBm/500kHz)	PPSD Limit (dBm/500kHz)
VHT20	3	5745	11.91	0.00	11.91	30.00
VHT20	3	5785	11.92	0.00	11.92	30.00
VHT20	3	5825	11.67	0.00	11.67	30.00
VHT40	3	5755	9.19	0.00	9.19	30.00
VHT40	3	5795	9.04	0.00	9.04	30.00
VHT80	3	5775	2.48	0.22	2.70	30.00

Note:
1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.

Worst Plot



3.5 Transmitter Radiated and Band Edge Emissions

3.5.1 Limit of Transmitter Radiated and Band Edge Emissions

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

Note 1:
Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit
Note 2:
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

Un-restricted band emissions above 1GHz Limit		
Operating Band	**Limit**	
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]	
5.725 - 5.850 GHz	☒	15.407(b)(4)(i) All emissions shall be limited to a level of −27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
	☐	15.407(b)(4)(ii) ,compliance with the emission limits in § 15.247(d) Shall be at least 30dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power,. Attenuation below the general limits specified in §15.209(a) is not required. In addition,radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see § 15.205(c))
Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).		

3.5.2 Test Procedures

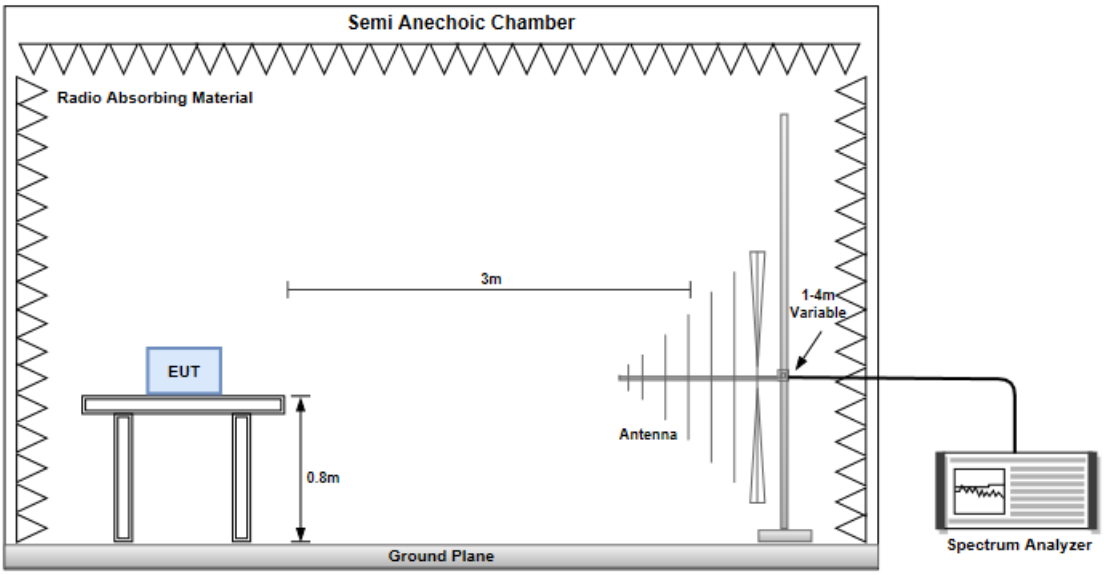
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

Note:

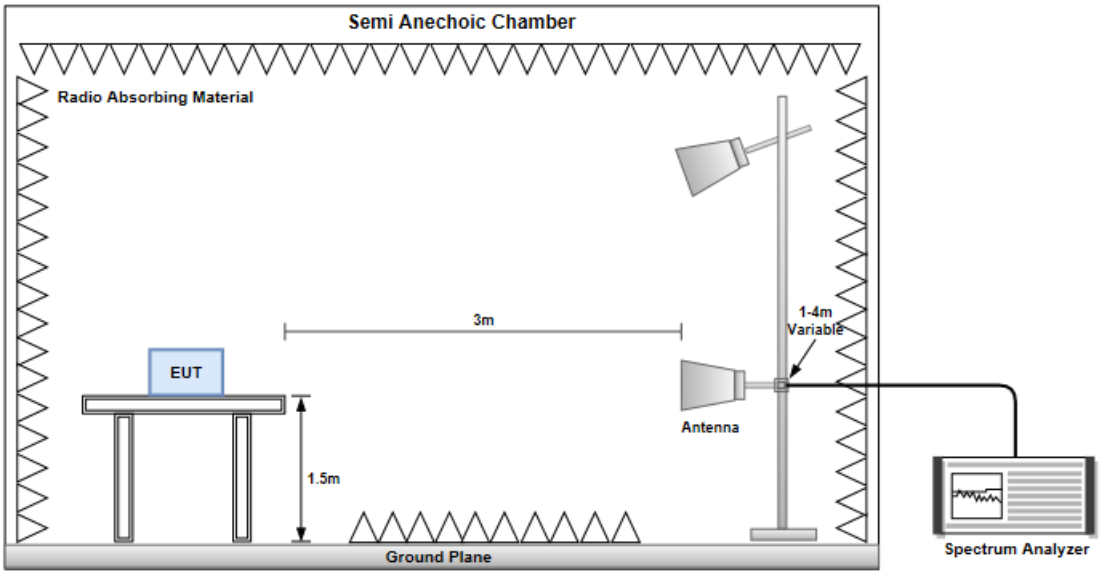
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz



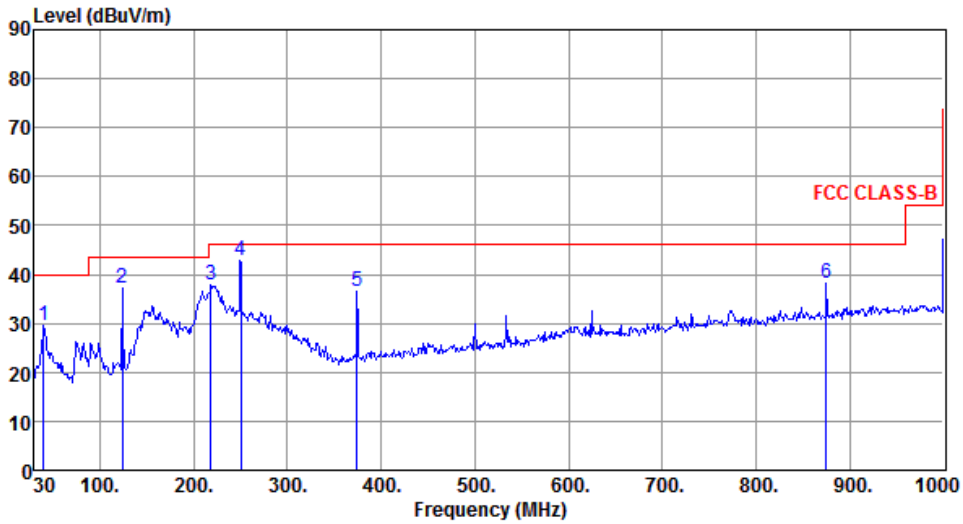
Radiated Emissions above 1 GHz



Non-beamforming mode

3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

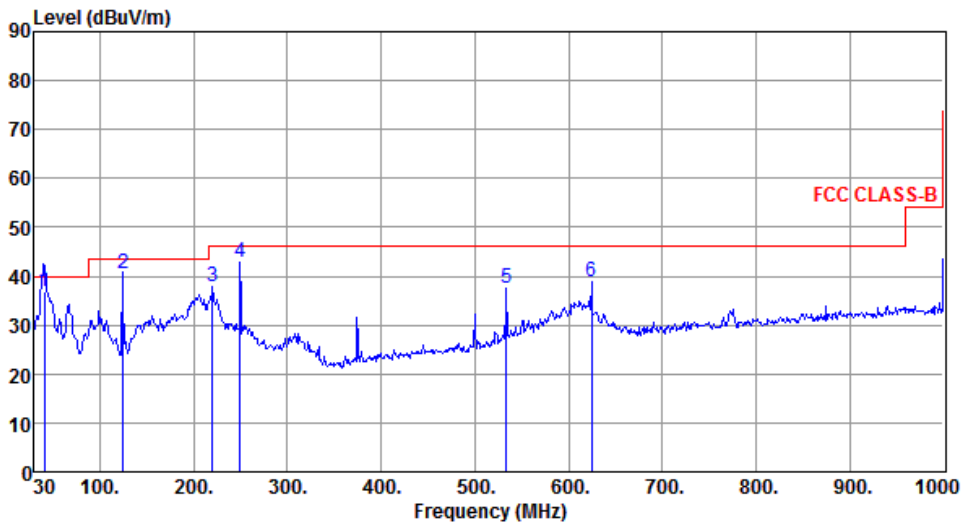
Modulation	11a	**Test Freq. (MHz)**	5240
Polarization	Horizontal	**Test Configuration**	1



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

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

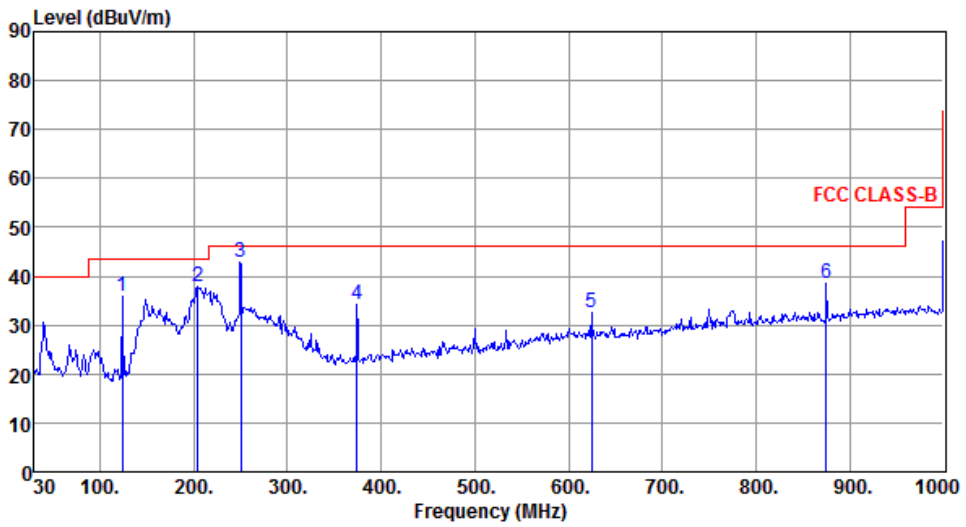
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical	Test Configuration	1



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

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

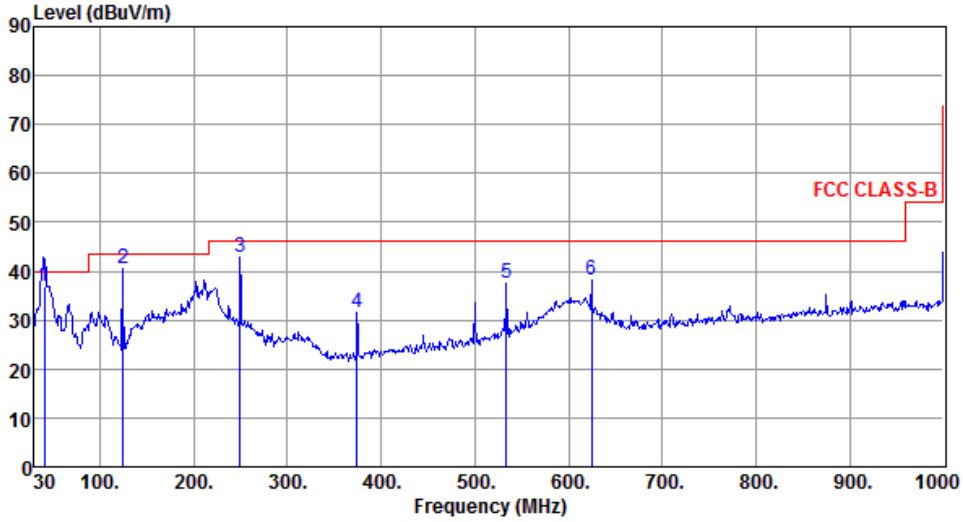
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal	Test Configuration	1



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

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

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

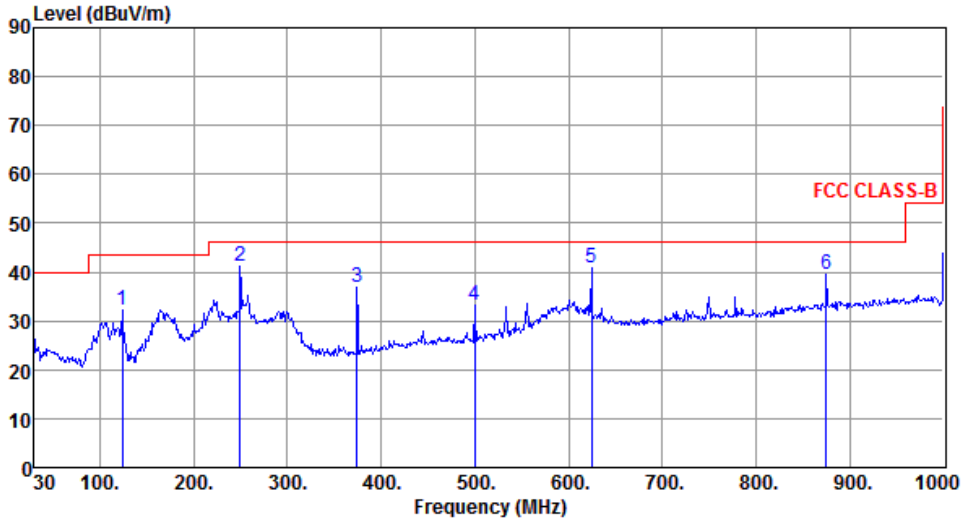


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	40.44	36.93	40.00	-3.07	45.64	-8.71	QP	100	13
2	125.00	40.45	43.50	-3.05	50.90	-10.45	QP	100	83
3	249.22	42.96	46.00	-3.04	52.35	-9.39	Peak	---	---
4	374.35	31.56	46.00	-14.44	37.62	-6.06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

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

3.5.5 Transmitter Radiated Unwanted Emissions (Below 1GHz)

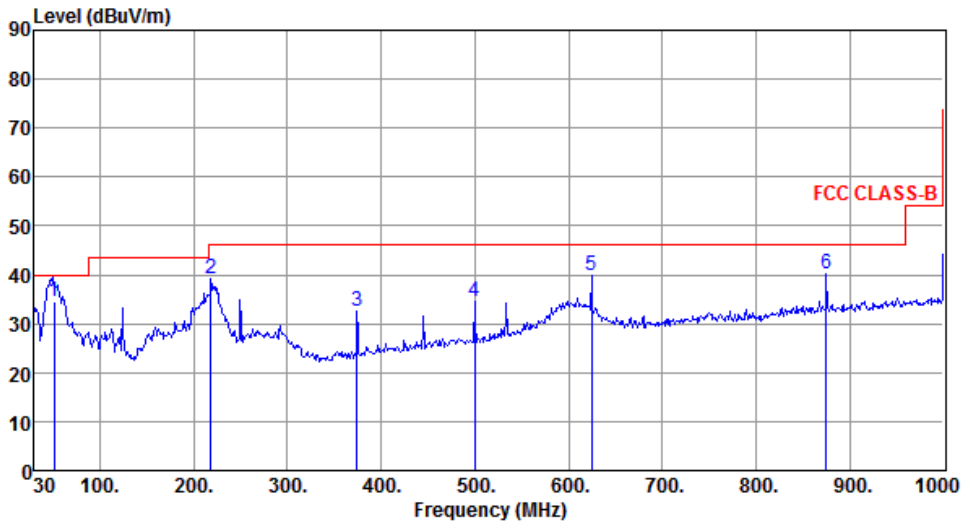
Modulation	11a	**Test Freq. (MHz)**	5240
Polarization	Horizontal	**Test Configuration**	2



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

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

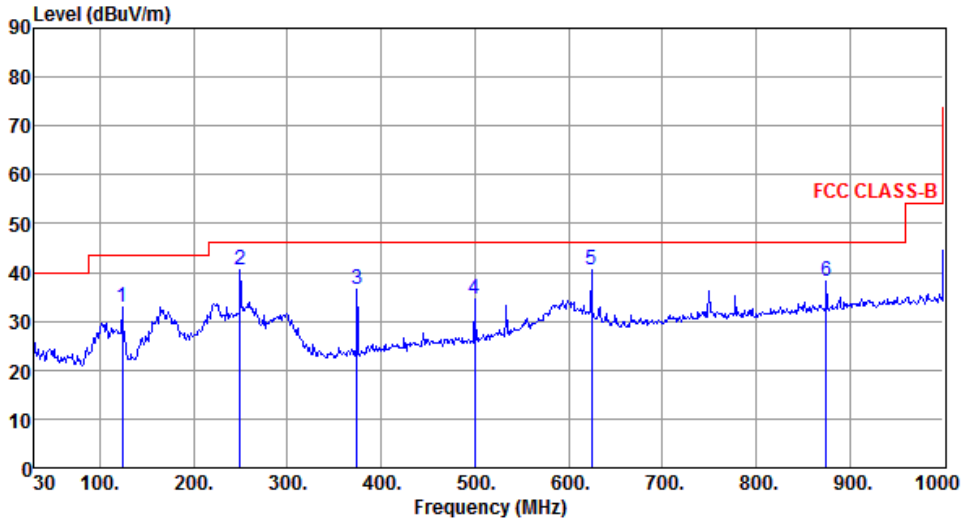
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical	Test Configuration	2



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

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

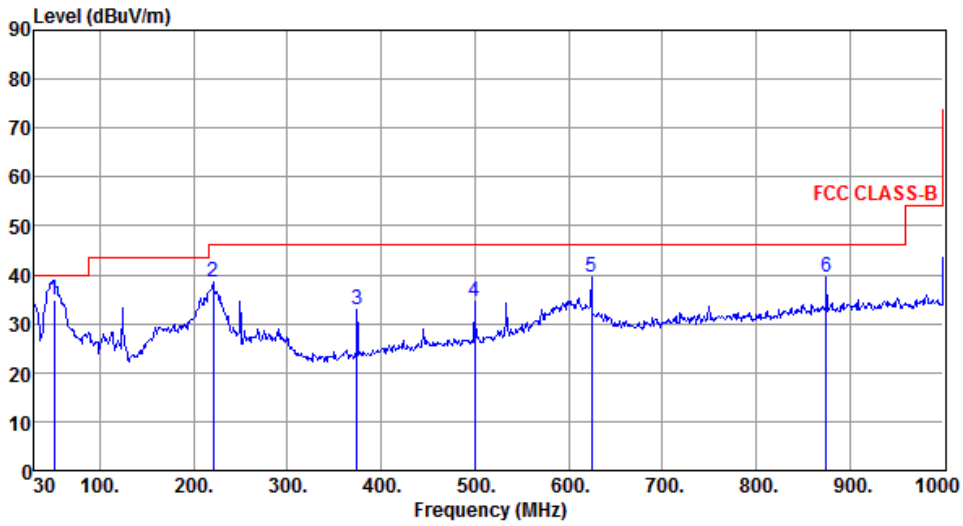
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal	Test Configuration	2



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

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

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

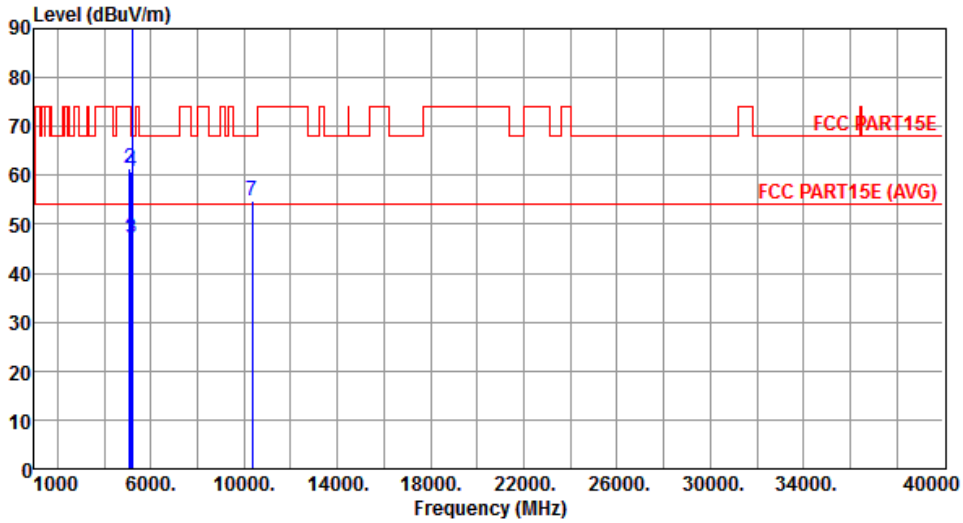


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	51.05	34.75	40.00	-5.25	42.98	-8.23	QP	100	84
2	221.09	38.36	46.00	-7.64	49.25	-10.89	Peak	---	---
3	374.35	32.94	46.00	-13.06	39.00	-6.06	Peak	---	---
4	499.48	34.64	46.00	-11.36	38.00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

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

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

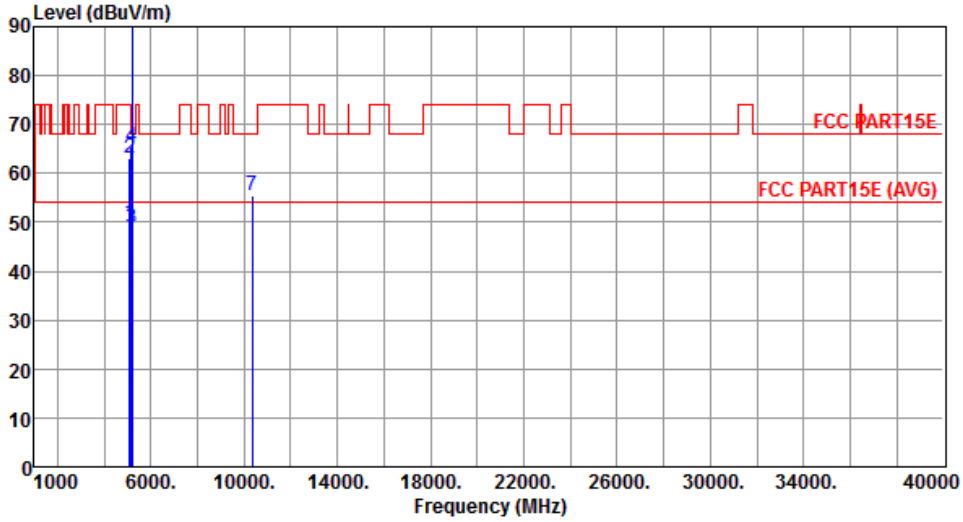
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Horizontal		



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

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

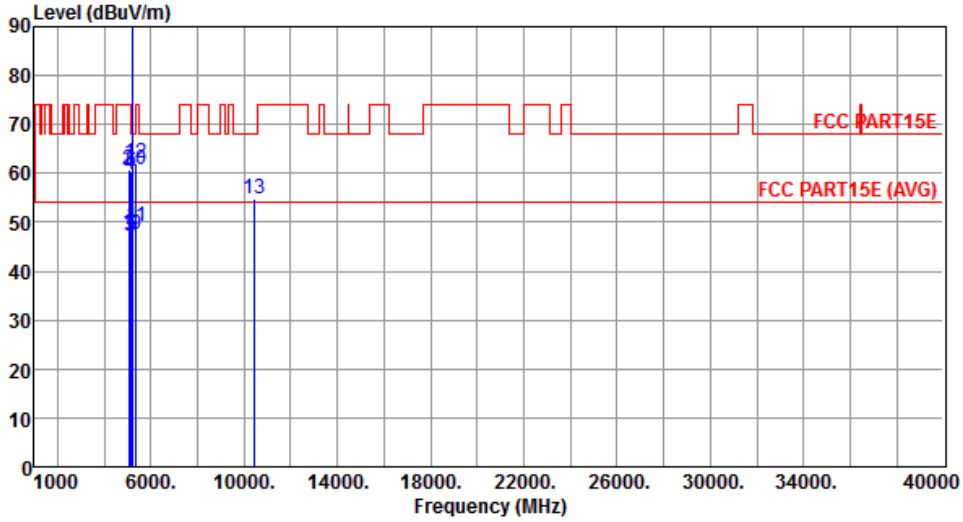
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



		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	49.82	54.00	-4.18	44.68	5.14	Average	355	12
2		5100.00	63.09	74.00	-10.91	57.95	5.14	Peak	355	12
3		5150.00	48.93	54.00	-5.07	43.72	5.21	Average	355	12
4		5150.00	65.31	74.00	-8.69	60.10	5.21	Peak	355	12
5	*	5180.00	106.07			100.82	5.25	Average	355	12
6	*	5180.00	117.47			112.22	5.25	Peak	355	12
7		10360.00	55.46	68.20	-12.74	41.56	13.90	Peak	100	32

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

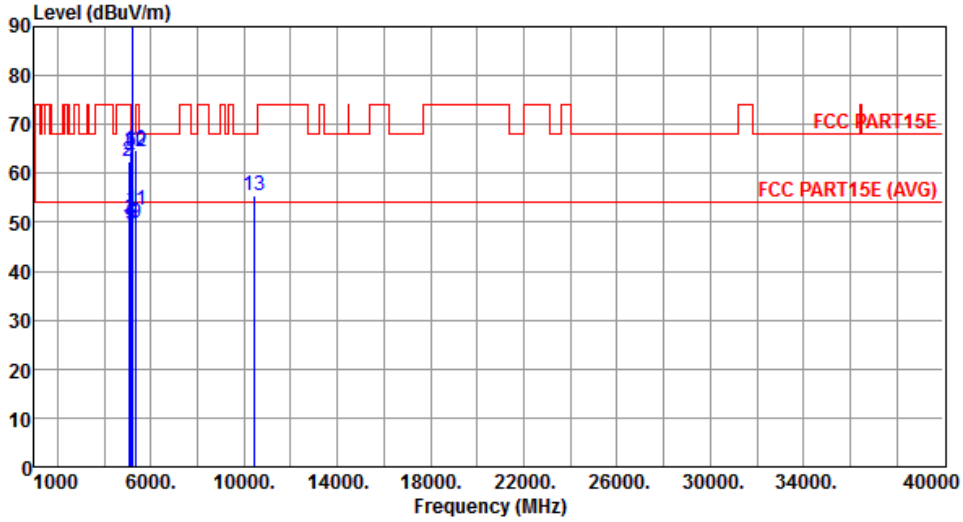
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Horizontal		



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

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

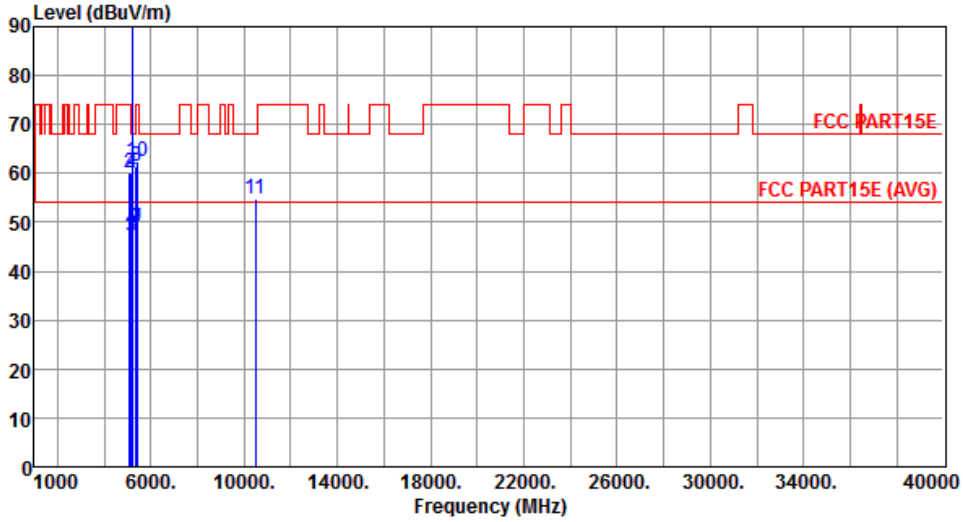
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Vertical		



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

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

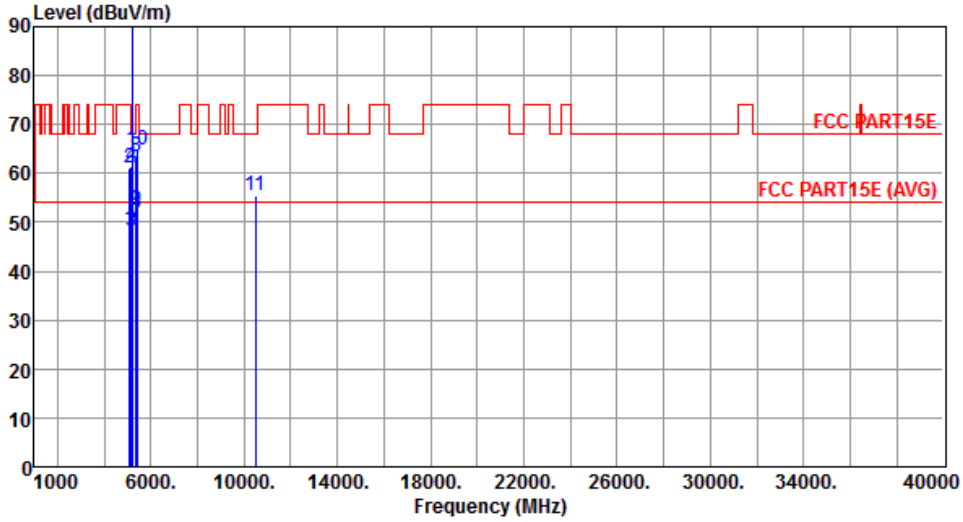
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5080.00	47.28	54.00	-6.72	42.17	5.11	Average	384	112
2		5080.00	59.95	74.00	-14.05	54.84	5.11	Peak	384	112
3		5150.00	47.11	54.00	-6.89	41.90	5.21	Average	384	112
4		5150.00	60.14	74.00	-13.86	54.93	5.21	Peak	384	112
5	*	5240.00	99.95			94.62	5.33	Average	384	112
6	*	5240.00	110.23			104.90	5.33	Peak	384	112
7		5350.00	48.76	54.00	-5.24	43.26	5.50	Average	384	112
8		5350.00	61.49	74.00	-12.51	55.99	5.50	Peak	384	112
9		5400.00	48.94	54.00	-5.06	43.36	5.58	Average	384	112
10		5400.00	62.33	74.00	-11.67	56.75	5.58	Peak	384	112
11		10480.00	54.76	68.20	-13.44	40.81	13.95	Peak	100	53

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

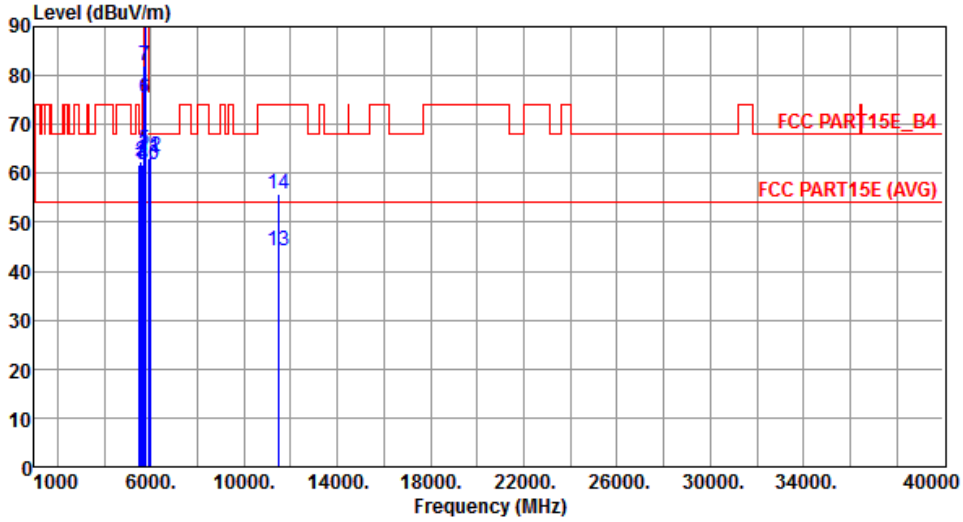
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical		



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

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

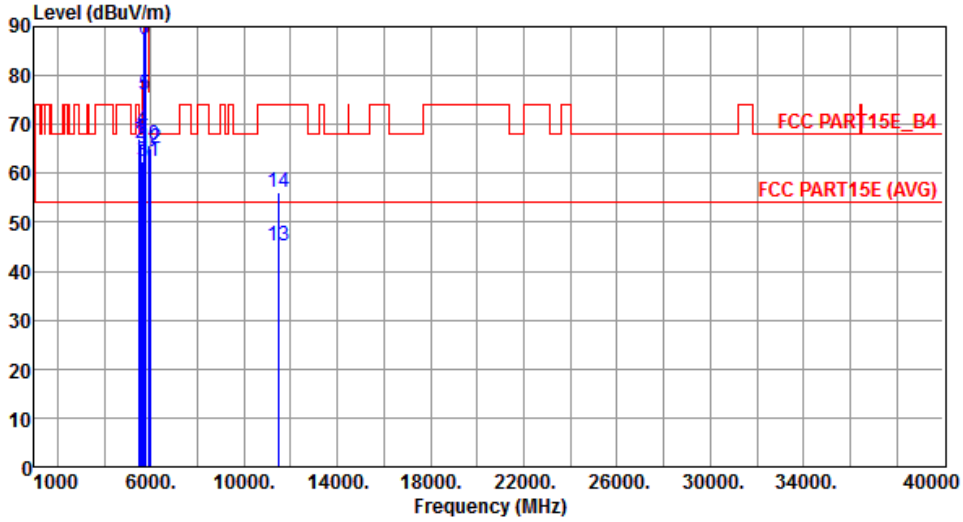
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal		



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

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

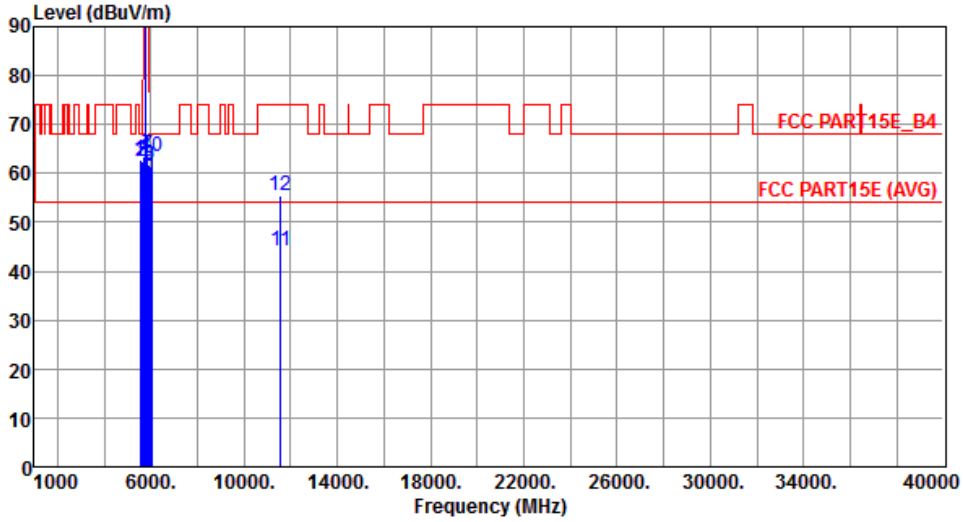
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5505.00	67.00	68.20	-1.20	61.29	5.71	Peak	346	52
2		5585.00	66.13	68.20	-2.07	60.35	5.78	Peak	346	52
3		5650.00	62.42	68.20	-5.78	56.55	5.87	Peak	346	52
4		5665.00	68.93	79.33	-10.40	63.04	5.89	Peak	346	52
5		5700.00	75.99	105.20	-29.21	70.03	5.96	Peak	346	52
6		5720.00	87.30	110.80	-23.50	81.32	5.98	Peak	346	52
7		5725.00	89.08	122.20	-33.12	83.09	5.99	Peak	346	52
8	*	5745.00	112.42			106.40	6.02	Average	346	52
9	*	5745.00	123.45			117.43	6.02	Peak	346	52
10		5905.00	65.78	82.96	-17.18	59.54	6.24	Peak	346	52
11		5925.00	62.46	68.20	-5.74	56.20	6.26	Peak	346	52
12		5985.00	64.96	68.20	-3.24	58.64	6.32	Peak	346	52
13		11490.00	45.13	54.00	-8.87	30.23	14.90	Average	100	116
14		11490.00	56.23	74.00	-17.77	41.33	14.90	Peak	100	116

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

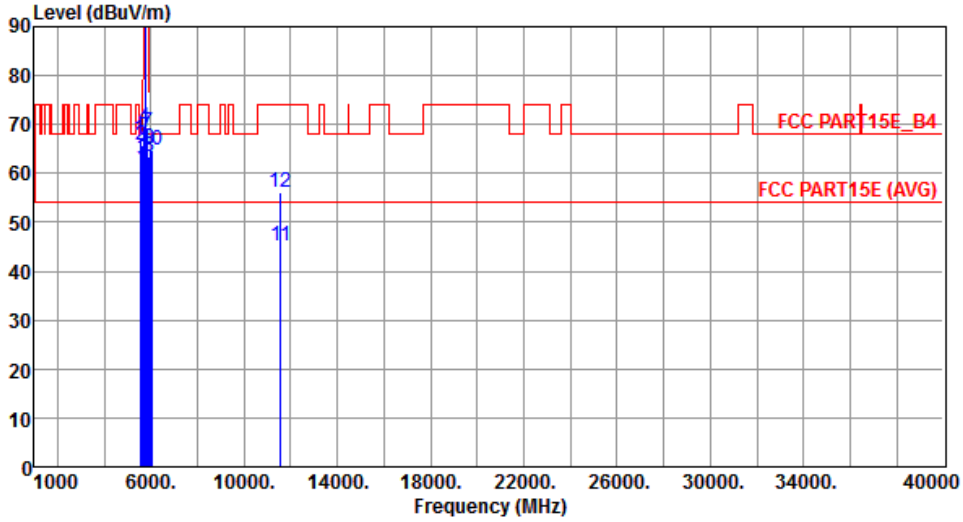
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5545.00	62.88	68.20	-5.32	57.14	5.74	Peak	311	118
2		5625.00	62.44	68.20	-5.76	56.62	5.82	Peak	311	118
3		5650.00	62.37	68.20	-5.83	56.50	5.87	Peak	311	118
4		5705.00	63.44	106.60	-43.16	57.48	5.96	Peak	311	118
5	*	5785.00	102.45			96.36	6.09	Average	311	118
6	*	5785.00	113.20			107.11	6.09	Peak	311	118
7		5865.00	63.79	108.00	-44.21	57.60	6.19	Peak	311	118
8		5925.00	61.72	68.20	-6.48	55.46	6.26	Peak	311	118
9		5945.00	61.43	68.20	-6.77	55.15	6.28	Peak	311	118
10		6025.00	63.51	68.20	-4.69	57.11	6.40	Peak	311	118
11		11570.00	44.15	54.00	-9.85	29.38	14.77	Average	100	249
12		11570.00	55.53	74.00	-18.47	40.76	14.77	Peak	100	249

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

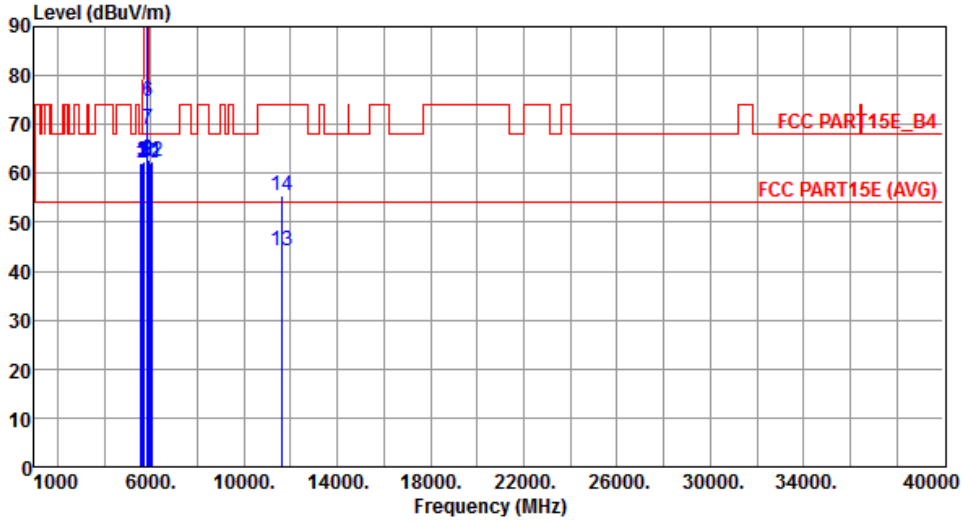
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5545.00	66.94	68.20	-1.26	61.20	5.74	Peak	347	56
2		5625.00	65.91	68.20	-2.29	60.09	5.82	Peak	347	56
3		5650.00	62.83	68.20	-5.37	56.96	5.87	Peak	347	56
4		5705.00	69.31	106.60	-37.29	63.35	5.96	Peak	347	56
5	*	5785.00	112.27			106.18	6.09	Average	347	56
6	*	5785.00	123.33			117.24	6.09	Peak	347	56
7		5865.00	68.33	108.00	-39.67	62.14	6.19	Peak	347	56
8		5925.00	63.32	68.20	-4.88	57.06	6.26	Peak	347	56
9		5945.00	65.20	68.20	-3.00	58.92	6.28	Peak	347	56
10		6025.00	64.91	68.20	-3.29	58.51	6.40	Peak	347	56
11		11570.00	45.19	54.00	-8.81	30.42	14.77	Average	100	112
12		11570.00	56.16	74.00	-17.84	41.39	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

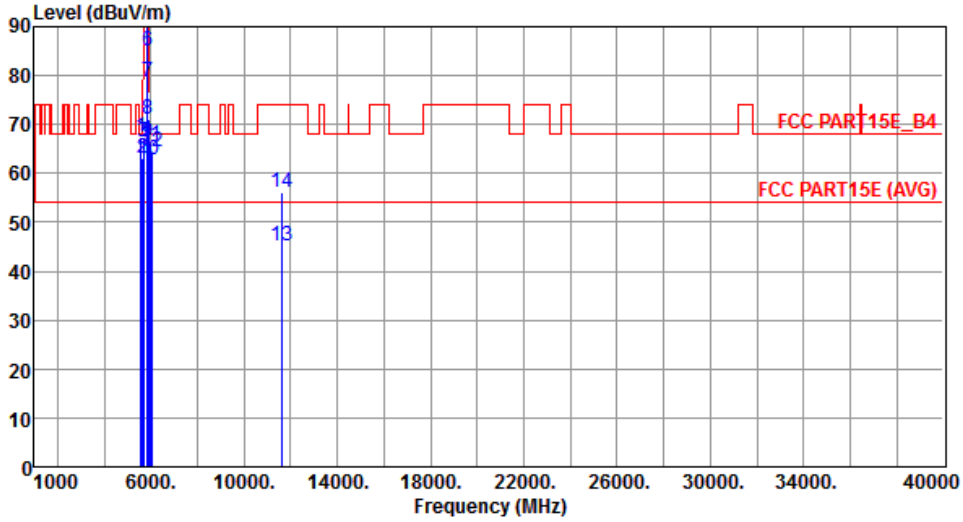
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5585.00	62.17	68.20	-6.03	56.39	5.78	Peak	324	108
2		5650.00	62.09	68.20	-6.11	56.22	5.87	Peak	324	108
3		5665.00	62.45	79.33	-16.88	56.56	5.89	Peak	324	108
4	*	5825.00	102.16			96.02	6.14	Average	324	108
5	*	5825.00	112.43			106.29	6.14	Peak	324	108
6		5850.00	74.72	122.20	-47.48	68.55	6.17	Peak	324	108
7		5855.00	68.98	110.80	-41.82	62.80	6.18	Peak	324	108
8		5875.00	62.30	105.20	-42.90	56.10	6.20	Peak	324	108
9		5905.00	62.74	82.96	-20.22	56.50	6.24	Peak	324	108
10		5925.00	62.01	68.20	-6.19	55.75	6.26	Peak	324	108
11		5985.00	62.20	68.20	-6.00	55.88	6.32	Peak	324	108
12		6065.00	62.57	68.20	-5.63	56.06	6.51	Peak	324	108
13		11650.00	44.03	54.00	-9.97	29.42	14.61	Average	100	256
14		11650.00	55.47	74.00	-18.53	40.86	14.61	Peak	100	256

Note 1: Emission Level (dBuV/m) = SA Reading (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)	5825
Polarization	Vertical		

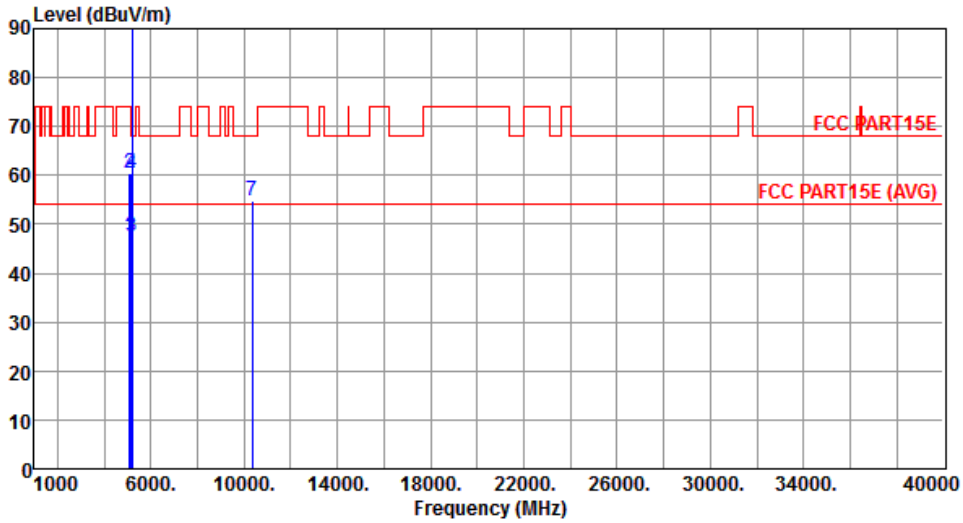


		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5585.00	67.42	68.20	-0.78	61.64	5.78	Peak	355	55
2		5650.00	63.03	68.20	-5.17	57.16	5.87	Peak	355	55
3		5665.00	66.47	79.33	-12.86	60.58	5.89	Peak	355	55
4	*	5825.00	112.18			106.04	6.14	Average	355	55
5	*	5825.00	123.37			117.23	6.14	Peak	355	55
6		5850.00	85.12	122.20	-37.08	78.95	6.17	Peak	355	55
7		5855.00	78.69	110.80	-32.11	72.51	6.18	Peak	355	55
8		5875.00	71.00	105.20	-34.20	64.80	6.20	Peak	355	55
9		5905.00	66.58	82.96	-16.38	60.34	6.24	Peak	355	55
10		5925.00	62.90	68.20	-5.30	56.64	6.26	Peak	355	55
11		5985.00	65.71	68.20	-2.49	59.39	6.32	Peak	355	55
12		6065.00	64.41	68.20	-3.79	57.90	6.51	Peak	355	55
13		11650.00	45.14	54.00	-8.86	30.53	14.61	Average	100	122
14		11650.00	56.13	74.00	-17.87	41.52	14.61	Peak	100	122

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

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

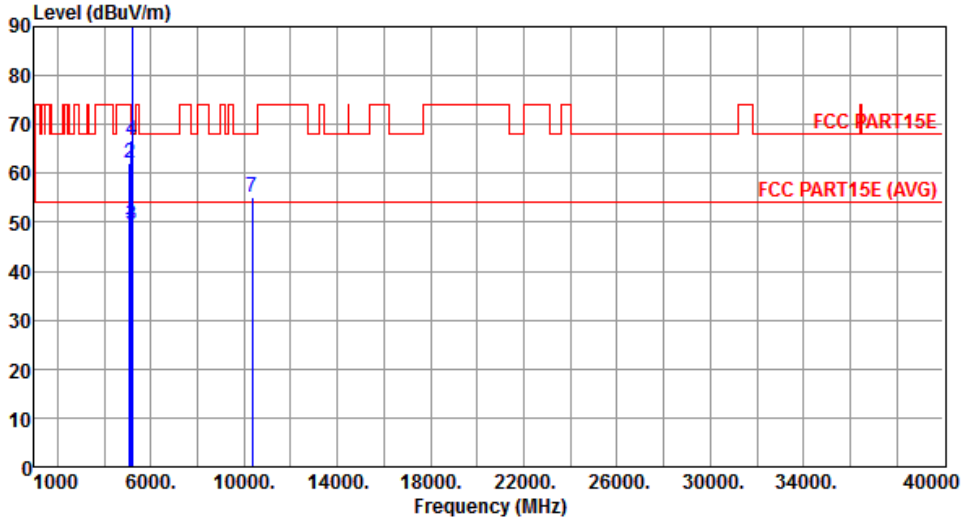
Modulation	VHT20	**Test Freq. (MHz)**	5180
Polarization	Horizontal		



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

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

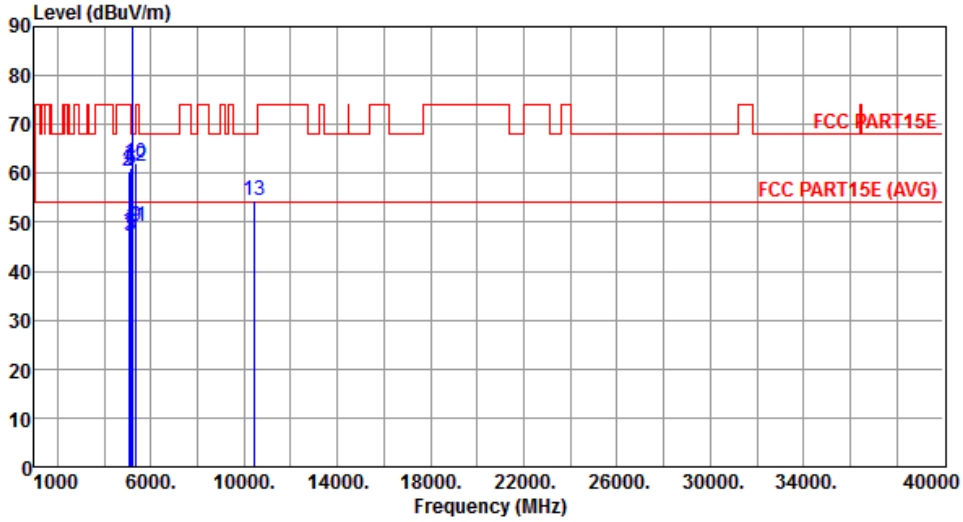
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Vertical		



		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	48.44	54.00	-5.56	43.30	5.14	Average	338	16
2		5100.00	62.12	74.00	-11.88	56.98	5.14	Peak	338	16
3		5150.00	49.36	54.00	-4.64	44.15	5.21	Average	338	16
4		5150.00	66.85	74.00	-7.15	61.64	5.21	Peak	338	16
5	*	5180.00	103.72			98.47	5.25	Average	338	16
6	*	5180.00	114.00			108.75	5.25	Peak	338	16
7		10360.00	55.23	68.20	-12.97	41.33	13.90	Peak	100	40

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

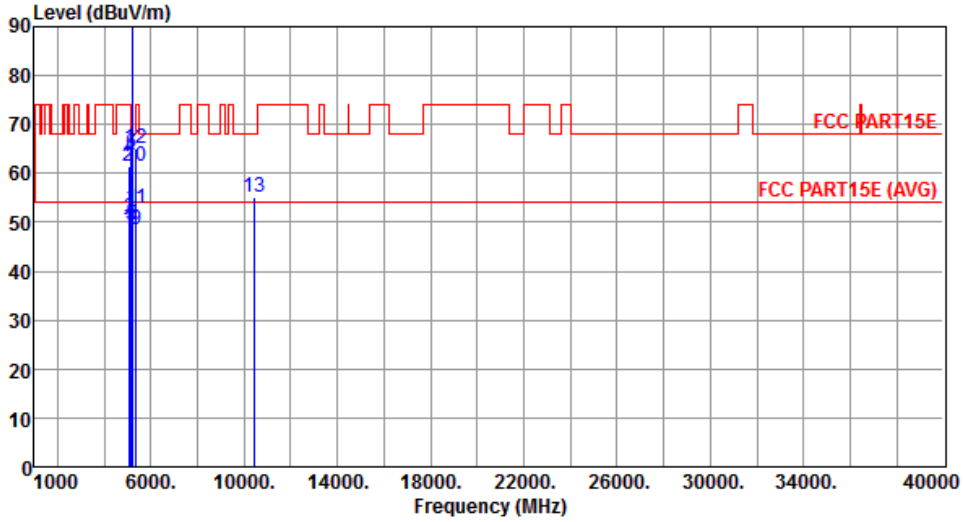
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal		



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

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

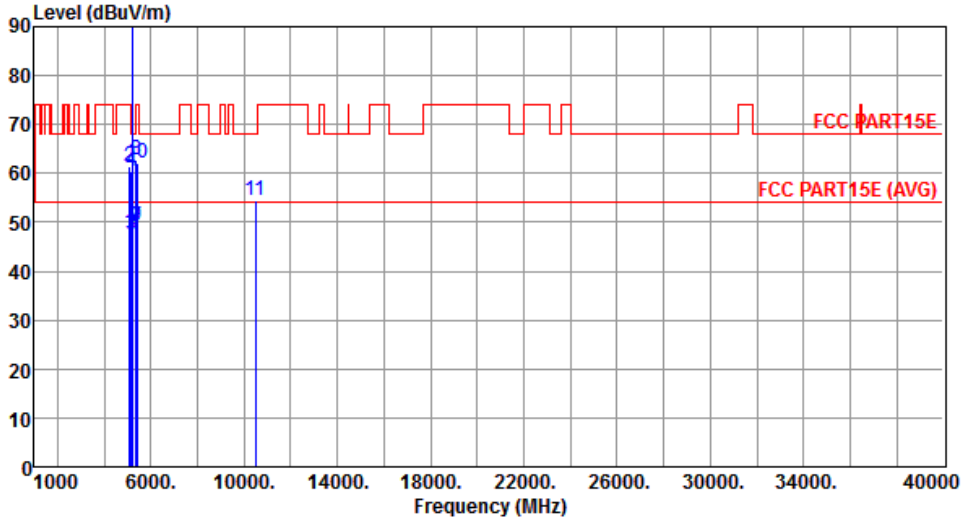
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical		



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

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

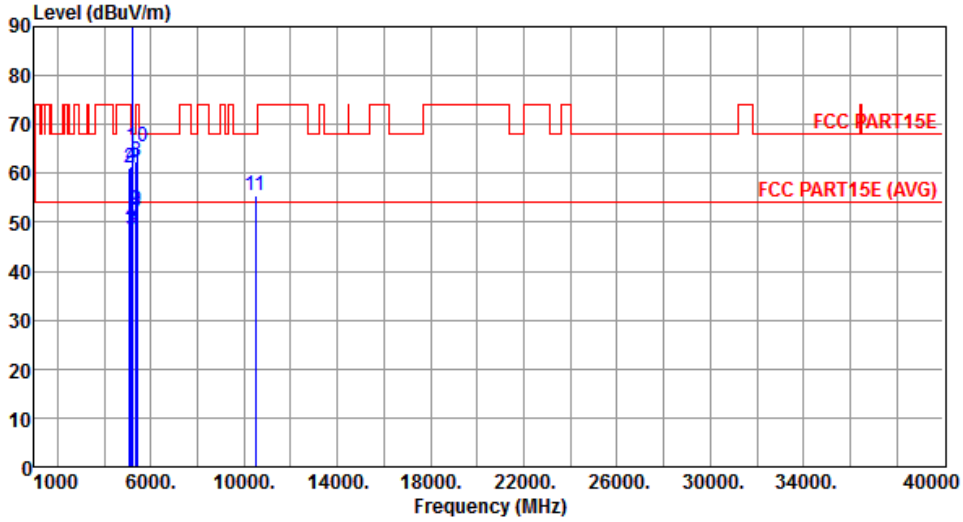
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5080.00	47.67	54.00	-6.33	42.56	5.11	Average	380	108
2		5080.00	61.58	74.00	-12.42	56.47	5.11	Peak	380	108
3		5150.00	47.59	54.00	-6.41	42.38	5.21	Average	380	108
4		5150.00	60.33	74.00	-13.67	55.12	5.21	Peak	380	108
5	*	5240.00	98.73			93.40	5.33	Average	380	108
6	*	5240.00	108.85			103.52	5.33	Peak	380	108
7		5350.00	49.12	54.00	-4.88	43.62	5.50	Average	380	108
8		5350.00	62.85	74.00	-11.15	57.35	5.50	Peak	380	108
9		5400.00	49.16	54.00	-4.84	43.58	5.58	Average	380	108
10		5400.00	62.12	74.00	-11.88	56.54	5.58	Peak	380	108
11		10480.00	54.53	68.20	-13.67	40.58	13.95	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

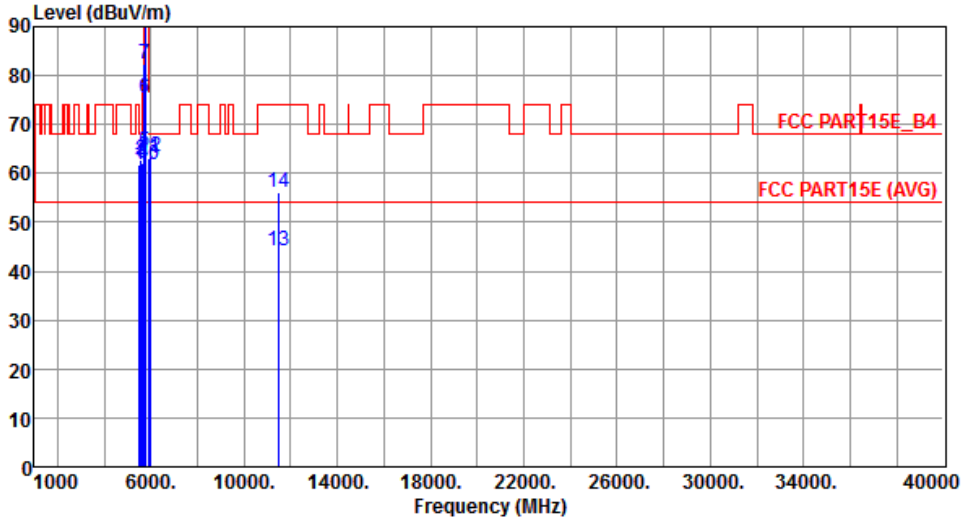
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5080.00	48.55	54.00	-5.45	43.44	5.11	Average	337	19
2		5080.00	61.20	74.00	-12.80	56.09	5.11	Peak	337	19
3		5150.00	48.34	54.00	-5.66	43.13	5.21	Average	337	19
4		5150.00	61.32	74.00	-12.68	56.11	5.21	Peak	337	19
5	*	5240.00	107.65			102.32	5.33	Average	337	19
6	*	5240.00	117.55			112.22	5.33	Peak	337	19
7		5350.00	50.02	54.00	-3.98	44.52	5.50	Average	337	19
8		5350.00	62.57	74.00	-11.43	57.07	5.50	Peak	337	19
9		5400.00	52.38	54.00	-1.62	46.80	5.58	Average	337	19
10		5400.00	65.28	74.00	-8.72	59.70	5.58	Peak	337	19
11		10480.00	55.42	68.20	-12.78	41.47	13.95	Peak	100	46

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

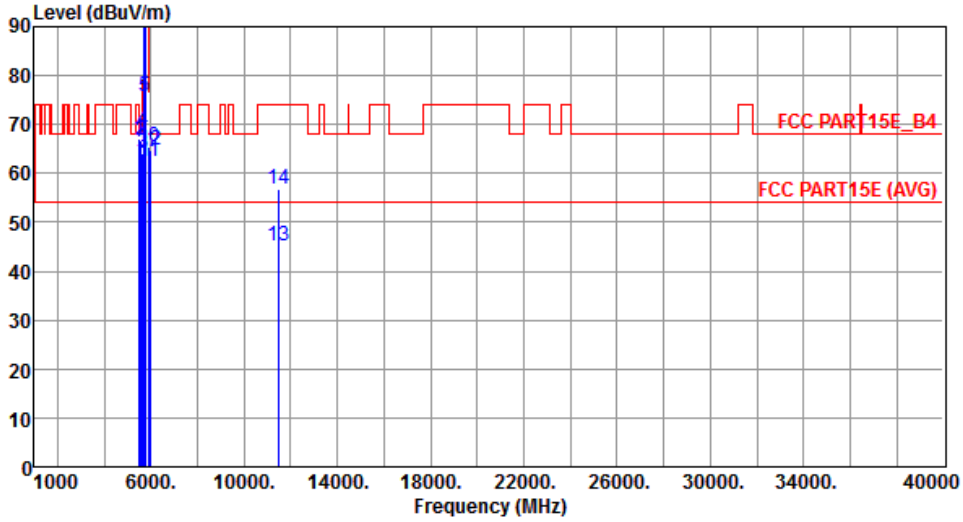
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



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

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

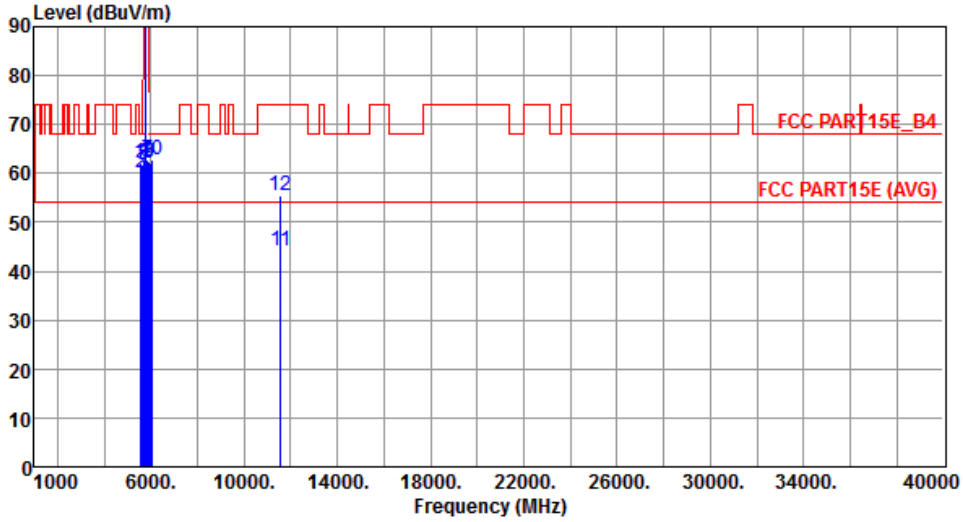
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		



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

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

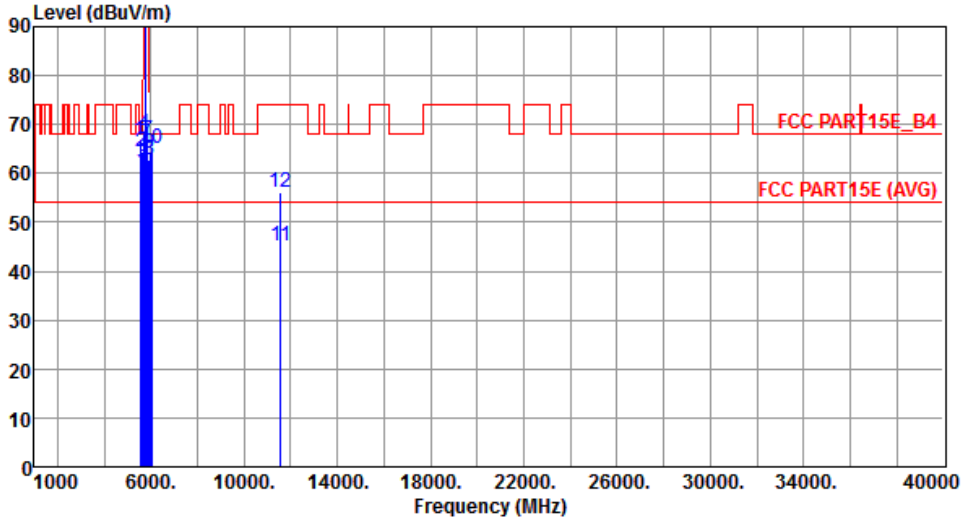
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5545.00	62.22	68.20	-5.98	56.48	5.74	Peak	300	112
2		5625.00	59.95	68.20	-8.25	54.13	5.82	Peak	300	112
3		5650.00	61.75	68.20	-6.45	55.88	5.87	Peak	300	112
4		5705.00	62.71	106.60	-43.89	56.75	5.96	Peak	300	112
5	*	5785.00	100.83			94.74	6.09	Average	300	112
6	*	5785.00	111.46			105.37	6.09	Peak	300	112
7		5865.00	62.87	108.00	-45.13	56.68	6.19	Peak	300	112
8		5925.00	62.43	68.20	-5.77	56.17	6.26	Peak	300	112
9		5945.00	62.17	68.20	-6.03	55.89	6.28	Peak	300	112
10		6025.00	62.86	68.20	-5.34	56.46	6.40	Peak	300	112
11		11570.00	44.20	54.00	-9.80	29.43	14.77	Average	100	237
12		11570.00	55.59	74.00	-18.41	40.82	14.77	Peak	100	237

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

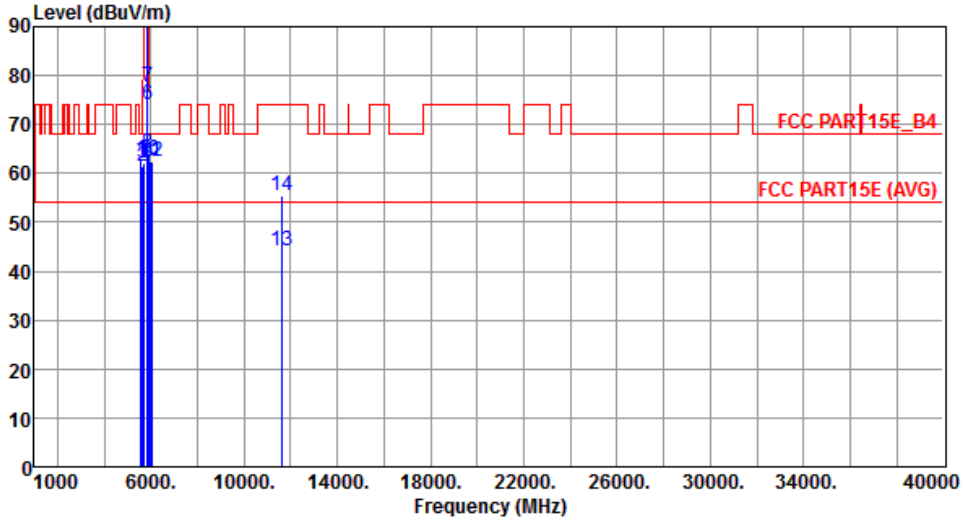
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5545.00	66.63	68.20	-1.57	60.89	5.74	Peak	343	58
2		5625.00	64.58	68.20	-3.62	58.76	5.82	Peak	343	58
3		5650.00	62.15	68.20	-6.05	56.28	5.87	Peak	343	58
4		5705.00	67.98	106.60	-38.62	62.02	5.96	Peak	343	58
5	*	5785.00	110.54			104.45	6.09	Average	343	58
6	*	5785.00	121.68			115.59	6.09	Peak	343	58
7		5865.00	66.81	108.00	-41.19	60.62	6.19	Peak	343	58
8		5925.00	62.84	68.20	-5.36	56.58	6.26	Peak	343	58
9		5945.00	64.23	68.20	-3.97	57.95	6.28	Peak	343	58
10		6025.00	65.04	68.20	-3.16	58.64	6.40	Peak	343	58
11		11570.00	45.26	54.00	-8.74	30.49	14.77	Average	100	121
12		11570.00	56.28	74.00	-17.72	41.51	14.77	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

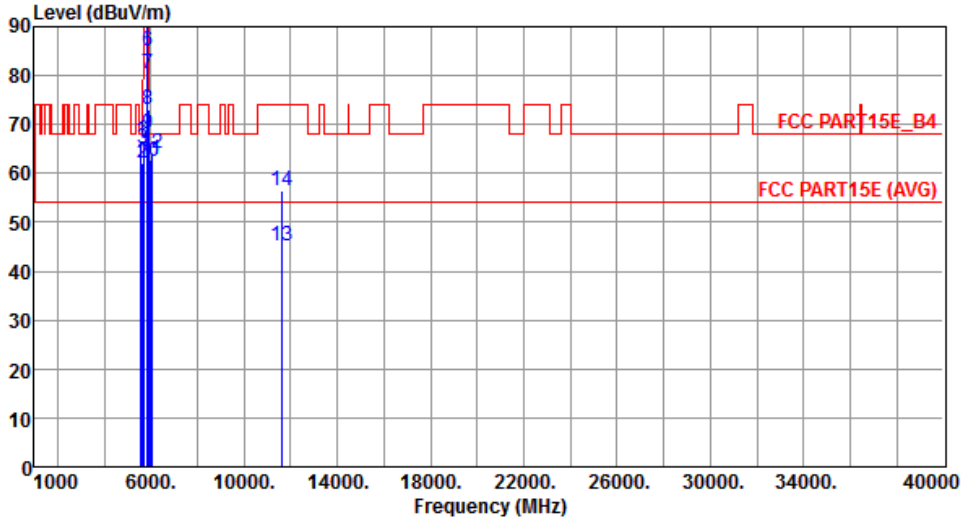
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5585.00	62.79	68.20	-5.41	57.01	5.78	Peak	326	112
2		5650.00	61.53	68.20	-6.67	55.66	5.87	Peak	326	112
3		5665.00	62.06	79.33	-17.27	56.17	5.89	Peak	326	112
4	*	5825.00	101.05			94.91	6.14	Average	326	112
5	*	5825.00	112.05			105.91	6.14	Peak	326	112
6		5850.00	74.02	122.20	-48.18	67.85	6.17	Peak	326	112
7		5855.00	77.57	110.80	-33.23	71.39	6.18	Peak	326	112
8		5875.00	63.95	105.20	-41.25	57.75	6.20	Peak	326	112
9		5905.00	62.11	82.96	-20.85	55.87	6.24	Peak	326	112
10		5925.00	62.61	68.20	-5.59	56.35	6.26	Peak	326	112
11		5985.00	62.36	68.20	-5.84	56.04	6.32	Peak	326	112
12		6065.00	62.46	68.20	-5.74	55.95	6.51	Peak	326	112
13		11650.00	44.24	54.00	-9.76	29.63	14.61	Average	100	246
14		11650.00	55.32	74.00	-18.68	40.71	14.61	Peak	100	246

Note 1: Emission Level (dBuV/m) = SA Reading (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)	5825
Polarization	Vertical		

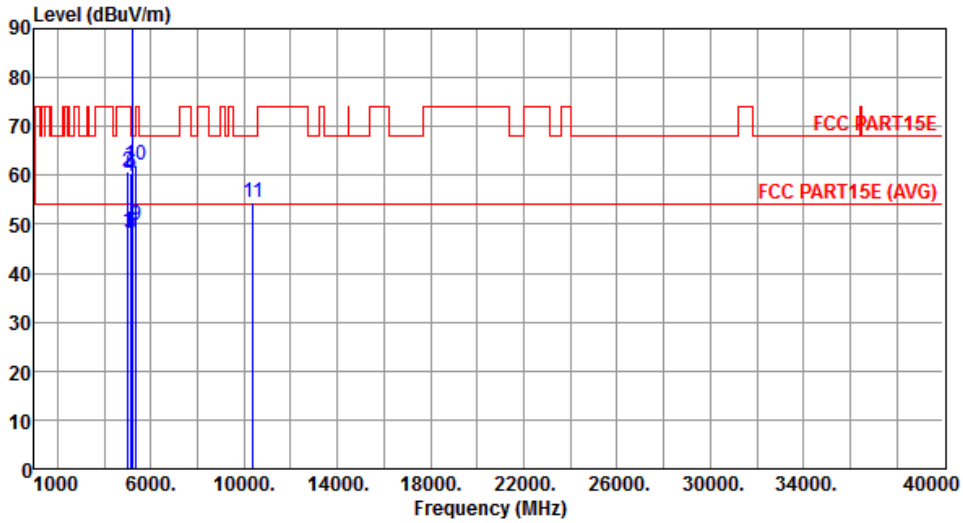


		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5585.00	66.72	68.20	-1.48	60.94	5.78	Peak	350	58
2		5650.00	61.98	68.20	-6.22	56.11	5.87	Peak	350	58
3		5665.00	64.95	79.33	-14.38	59.06	5.89	Peak	350	58
4	*	5825.00	110.66			104.52	6.14	Average	350	58
5	*	5825.00	121.12			114.98	6.14	Peak	350	58
6		5850.00	85.14	122.20	-37.06	78.97	6.17	Peak	350	58
7		5855.00	80.53	110.80	-30.27	74.35	6.18	Peak	350	58
8		5875.00	73.03	105.20	-32.17	66.83	6.20	Peak	350	58
9		5905.00	68.11	82.96	-14.85	61.87	6.24	Peak	350	58
10		5925.00	62.48	68.20	-5.72	56.22	6.26	Peak	350	58
11		5985.00	62.75	68.20	-5.45	56.43	6.32	Peak	350	58
12		6065.00	63.94	68.20	-4.26	57.43	6.51	Peak	350	58
13		11650.00	45.24	54.00	-8.76	30.63	14.61	Average	100	137
14		11650.00	56.29	74.00	-17.71	41.68	14.61	Peak	100	137

Note 1: Emission Level (dBuV/m) = SA Reading (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 VHT40

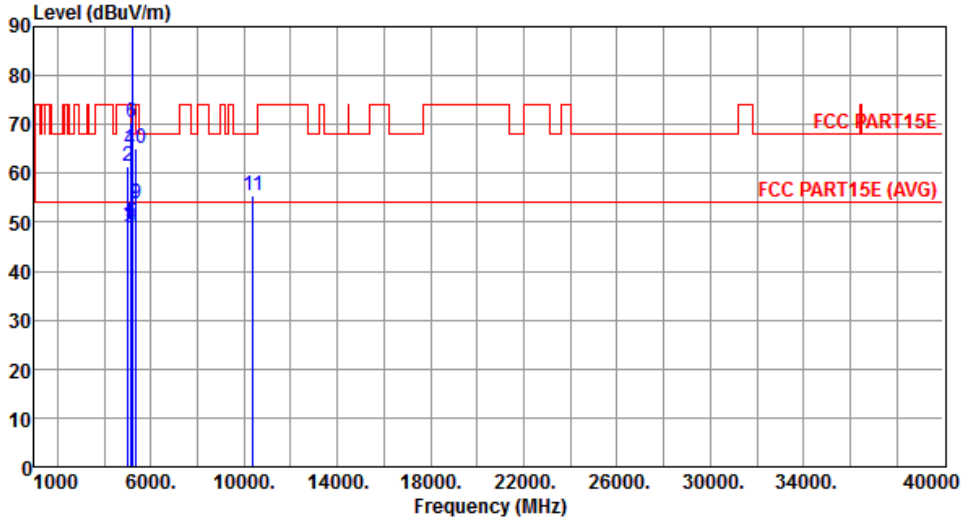
Modulation	VHT40	**Test Freq. (MHz)**	5190
Polarization	Horizontal		



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

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

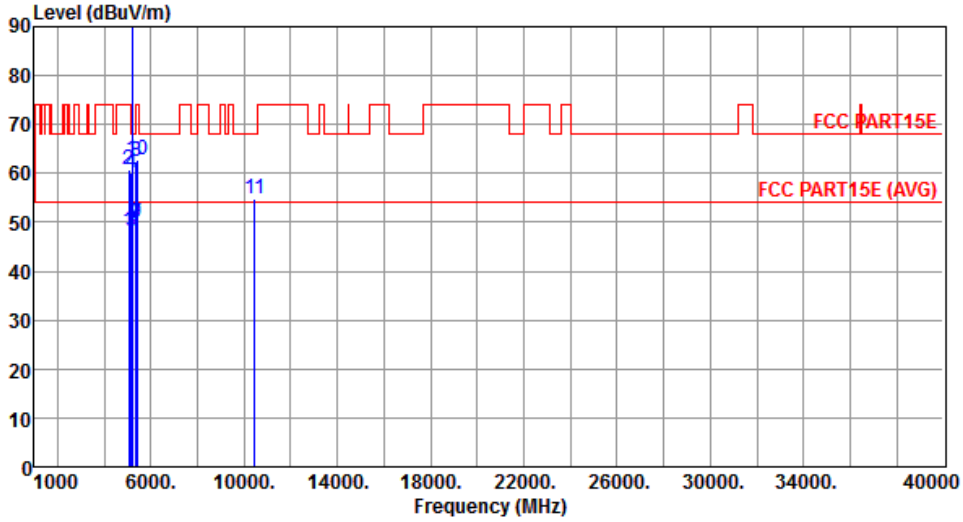
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Vertical		



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

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

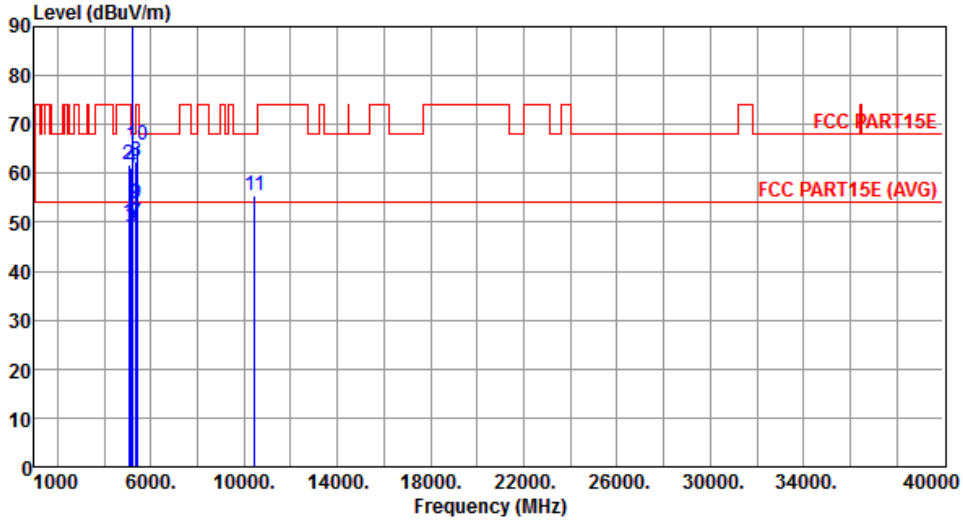
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5070.00	48.31	54.00	-5.69	43.21	5.10	Average	366	111
2		5070.00	60.75	74.00	-13.25	55.65	5.10	Peak	366	111
3		5150.00	48.10	54.00	-5.90	42.89	5.21	Average	366	111
4		5150.00	60.09	74.00	-13.91	54.88	5.21	Peak	366	111
5	*	5230.00	92.85			87.53	5.32	Average	366	111
6	*	5230.00	103.04			97.72	5.32	Peak	366	111
7		5350.00	49.94	54.00	-4.06	44.44	5.50	Average	366	111
8		5350.00	62.27	74.00	-11.73	56.77	5.50	Peak	366	111
9		5390.00	49.90	54.00	-4.10	44.34	5.56	Average	366	111
10		5390.00	62.79	74.00	-11.21	57.23	5.56	Peak	366	111
11		10460.00	54.67	68.20	-13.53	40.73	13.94	Peak	100	44

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

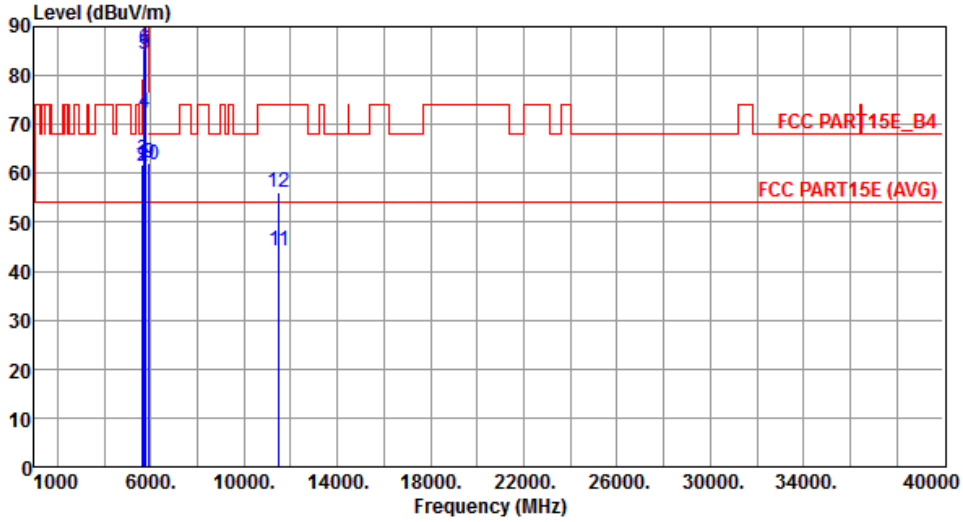
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5070.00	49.70	54.00	-4.30	44.60	5.10	Average	309	16
2		5070.00	61.78	74.00	-12.22	56.68	5.10	Peak	309	16
3		5150.00	48.87	54.00	-5.13	43.66	5.21	Average	309	16
4		5150.00	61.23	74.00	-12.77	56.02	5.21	Peak	309	16
5	*	5230.00	102.06			96.74	5.32	Average	309	16
6	*	5230.00	112.36			107.04	5.32	Peak	309	16
7		5350.00	49.77	54.00	-4.23	44.27	5.50	Average	309	16
8		5350.00	62.51	74.00	-11.49	57.01	5.50	Peak	309	16
9		5390.00	53.85	54.00	-0.15	48.29	5.56	Average	309	16
10		5390.00	65.68	74.00	-8.32	60.12	5.56	Peak	309	16
11		10460.00	55.32	68.20	-12.88	41.38	13.94	Peak	100	42

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

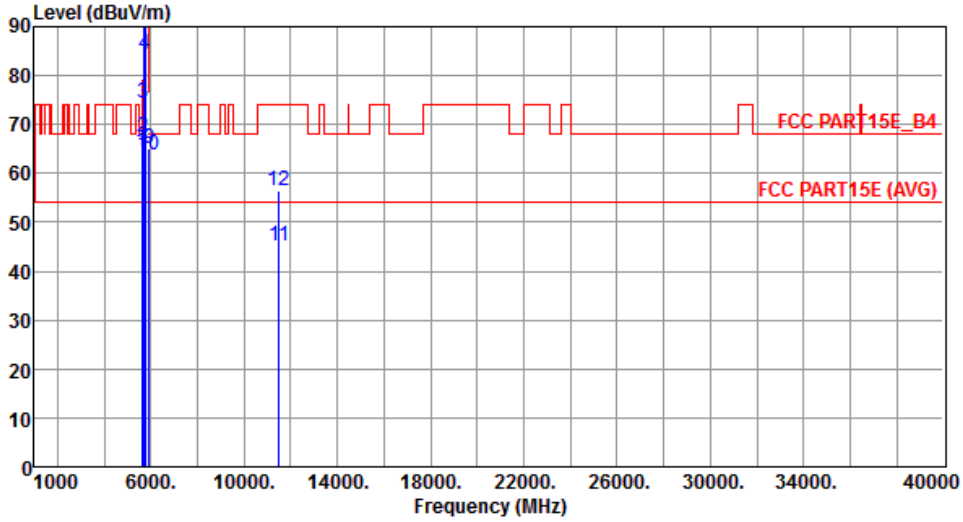
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5595.00	61.83	68.20	-6.37	56.05	5.78	Peak	336	121
2		5650.00	61.57	68.20	-6.63	55.70	5.87	Peak	336	121
3		5675.00	62.92	86.74	-23.82	57.01	5.91	Peak	336	121
4		5700.00	72.35	105.20	-32.85	66.39	5.96	Peak	336	121
5		5720.00	84.25	110.80	-26.55	78.27	5.98	Peak	336	121
6		5725.00	85.35	122.20	-36.85	79.36	5.99	Peak	336	121
7	*	5755.00	98.45			92.40	6.05	Average	336	121
8	*	5755.00	107.95			101.90	6.05	Peak	336	121
9		5915.00	62.19	75.57	-13.38	55.95	6.24	Peak	336	121
10		5925.00	61.68	68.20	-6.52	55.42	6.26	Peak	336	121
11		11510.00	44.23	54.00	-9.77	29.34	14.89	Average	100	238
12		11510.00	56.15	74.00	-17.85	41.26	14.89	Peak	100	238

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

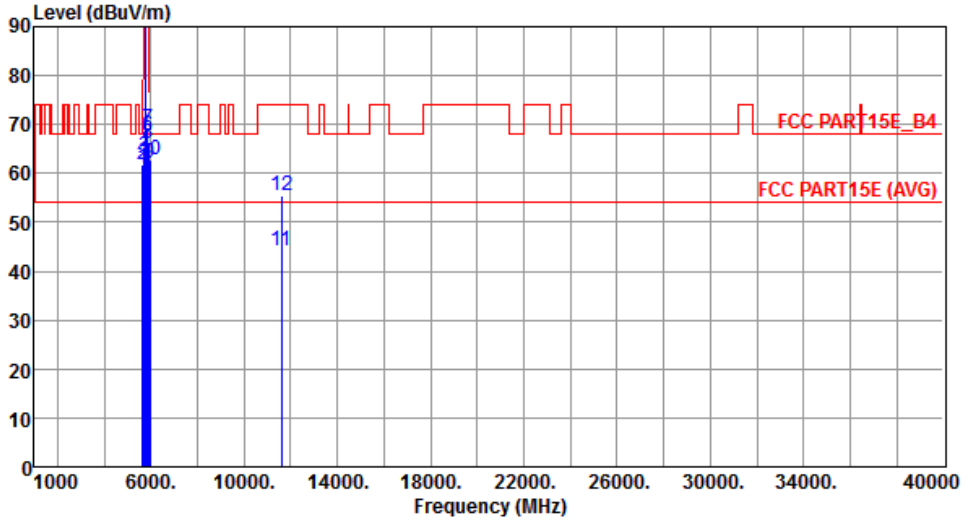
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		



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

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

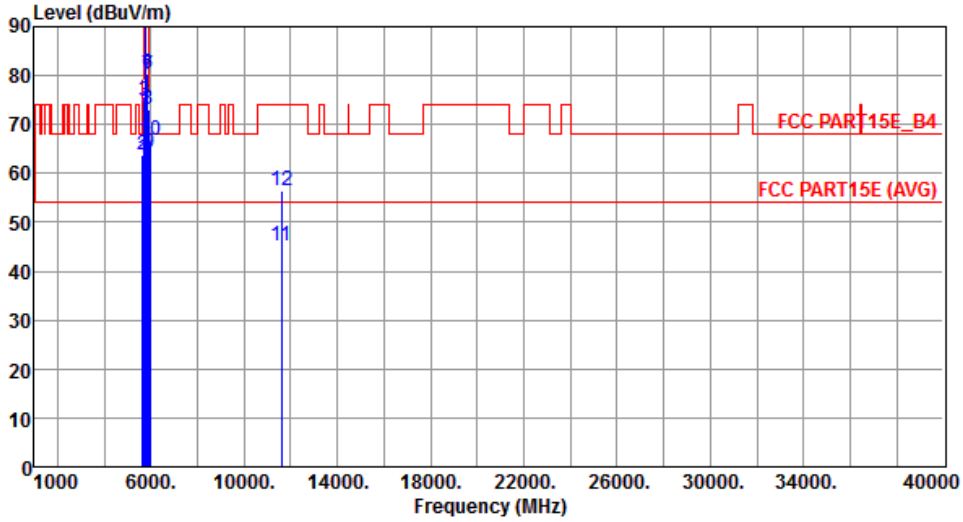
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5635.00	61.13	68.20	-7.07	55.29	5.84	Peak	327	115
2		5650.00	61.69	68.20	-6.51	55.82	5.87	Peak	327	115
3		5715.00	63.43	109.40	-45.97	57.45	5.98	Peak	327	115
4	*	5795.00	98.60			92.49	6.11	Average	327	115
5	*	5795.00	109.49			103.38	6.11	Peak	327	115
6		5850.00	67.65	122.20	-54.55	61.48	6.17	Peak	327	115
7		5855.00	69.23	110.80	-41.57	63.05	6.18	Peak	327	115
8		5875.00	66.16	105.20	-39.04	59.96	6.20	Peak	327	115
9		5925.00	62.22	68.20	-5.98	55.96	6.26	Peak	327	115
10		5955.00	62.63	68.20	-5.57	56.34	6.29	Peak	327	115
11		11590.00	44.18	54.00	-9.82	29.45	14.73	Average	100	282
12		11590.00	55.45	74.00	-18.55	40.72	14.73	Peak	100	282

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

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical		

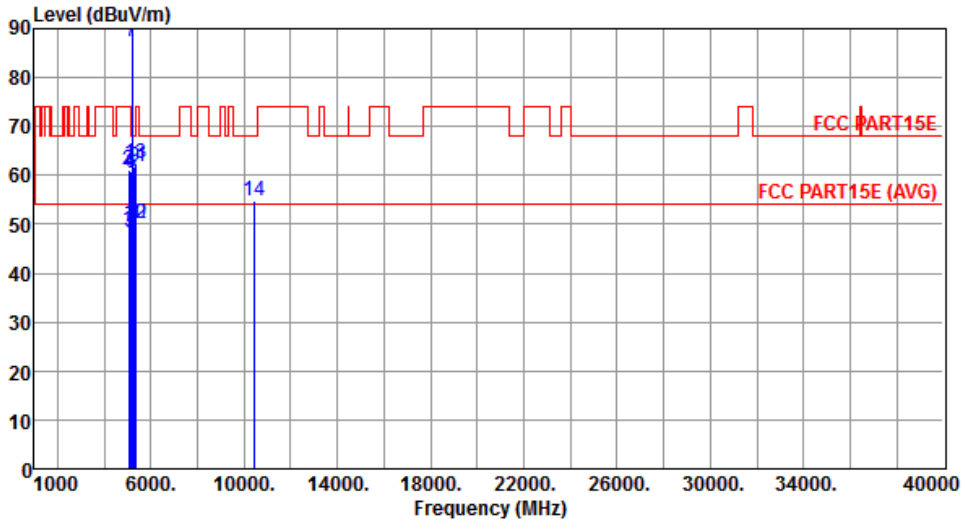


		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5635.00	62.94	68.20	-5.26	57.10	5.84	Peak	322	101
2		5650.00	63.62	68.20	-4.58	57.75	5.87	Peak	322	101
3		5715.00	74.66	109.40	-34.74	68.68	5.98	Peak	322	101
4	*	5795.00	108.19			102.08	6.11	Average	322	101
5	*	5795.00	117.98			111.87	6.11	Peak	322	101
6		5850.00	80.35	122.20	-41.85	74.18	6.17	Peak	322	101
7		5855.00	79.98	110.80	-30.82	73.80	6.18	Peak	322	101
8		5875.00	72.95	105.20	-32.25	66.75	6.20	Peak	322	101
9		5925.00	63.96	68.20	-4.24	57.70	6.26	Peak	322	101
10		5955.00	66.62	68.20	-1.58	60.33	6.29	Peak	322	101
11		11590.00	45.32	54.00	-8.68	30.59	14.73	Average	100	134
12		11590.00	56.36	74.00	-17.64	41.63	14.73	Peak	100	134

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

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

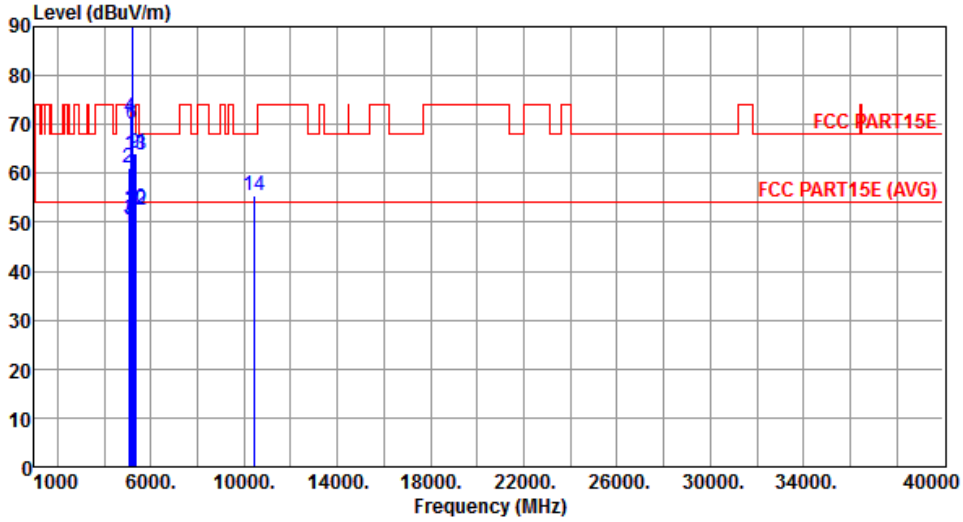
Modulation	VHT80	**Test Freq. (MHz)**	5210
Polarization	Horizontal		



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

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

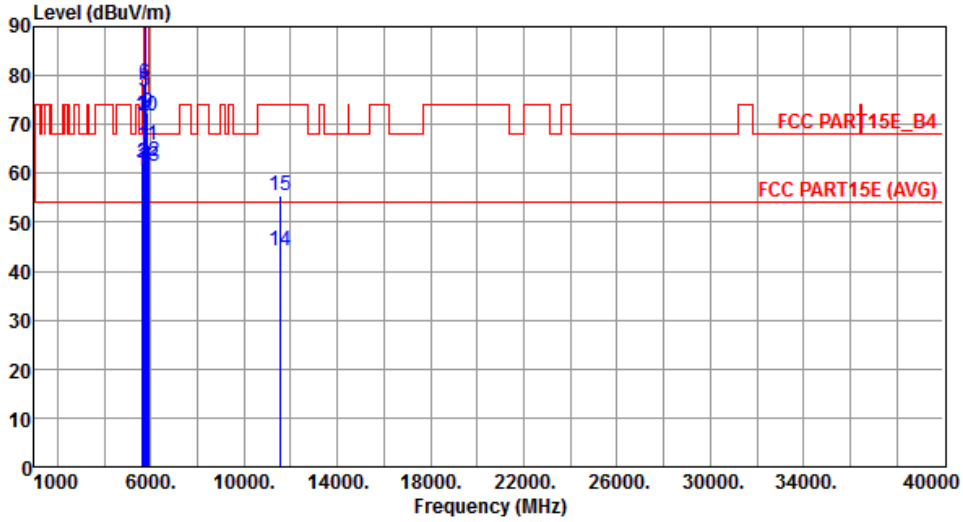
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical		



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

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

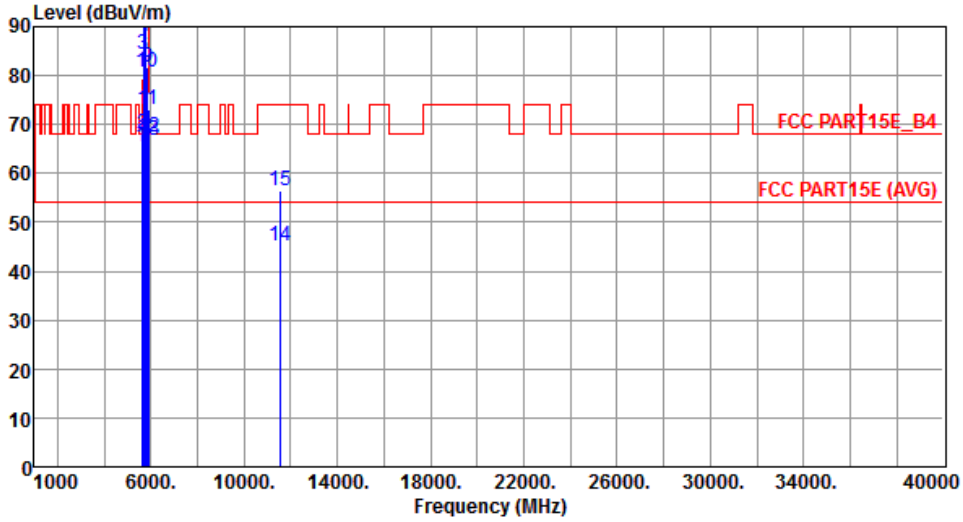
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		



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

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

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Vertical		



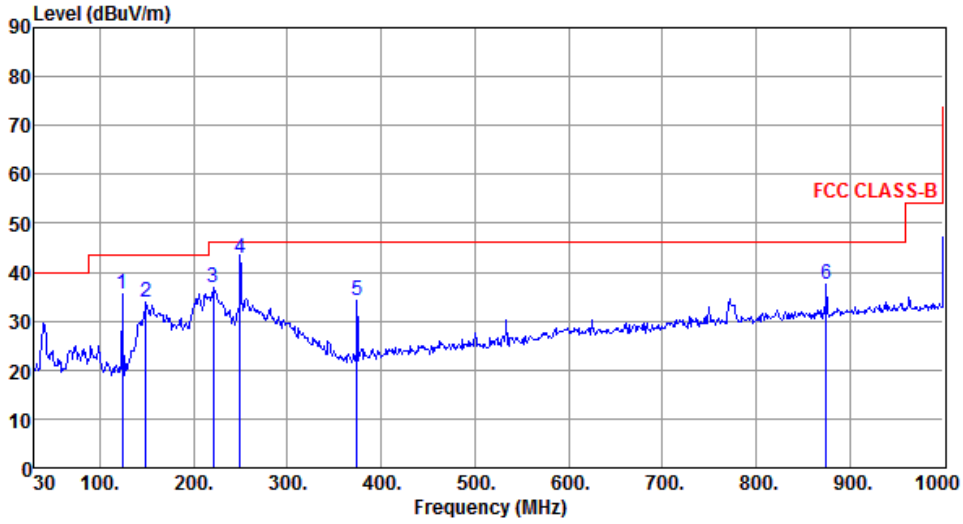
		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5615.00	65.49	68.20	-2.71	59.68	5.81	Peak	325	60
2		5650.00	68.09	68.20	-0.11	62.22	5.87	Peak	325	60
3		5695.00	84.19	101.51	-17.32	78.25	5.94	Peak	325	60
4		5700.00	88.00	105.20	-17.20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

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

Beamforming mode

3.5.10 Transmitter Radiated Unwanted Emissions (Below 1GHz)

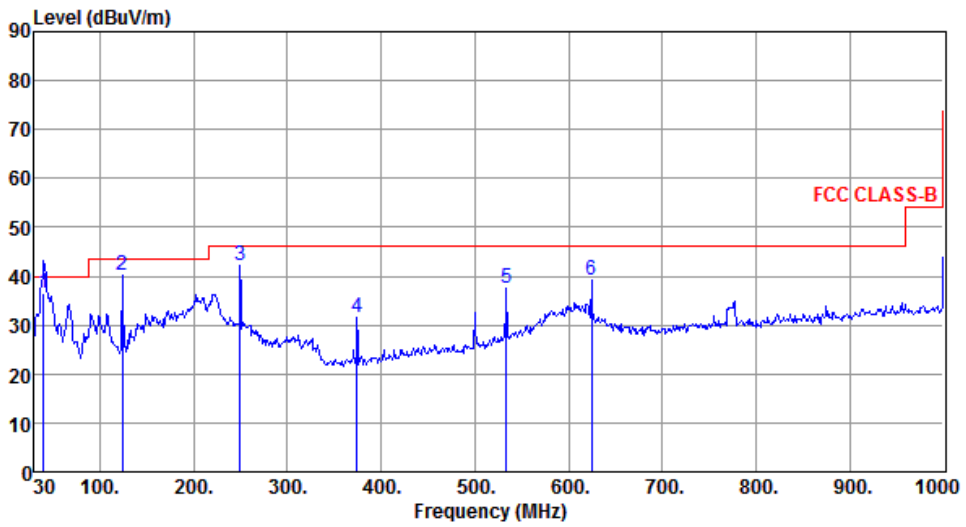
Modulation	VHT20	**Test Freq. (MHz)**	5240
Polarization	Horizontal	**Test Configuration**	1



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

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

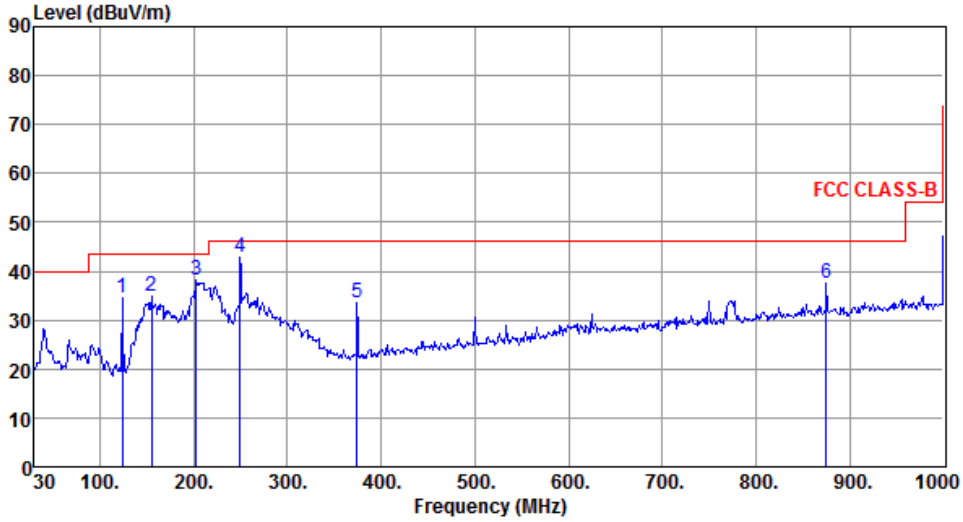
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical	Test Configuration	1



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

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

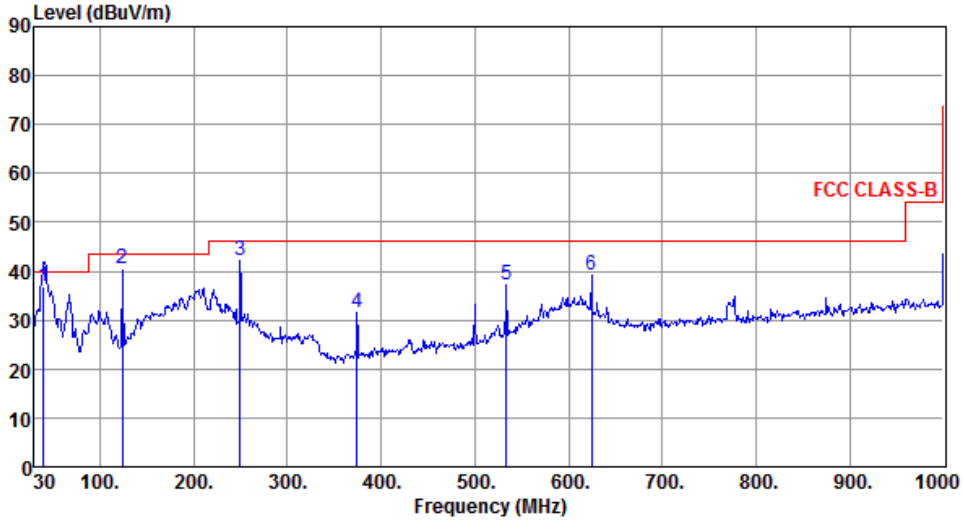
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal	Test Configuration	1



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

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

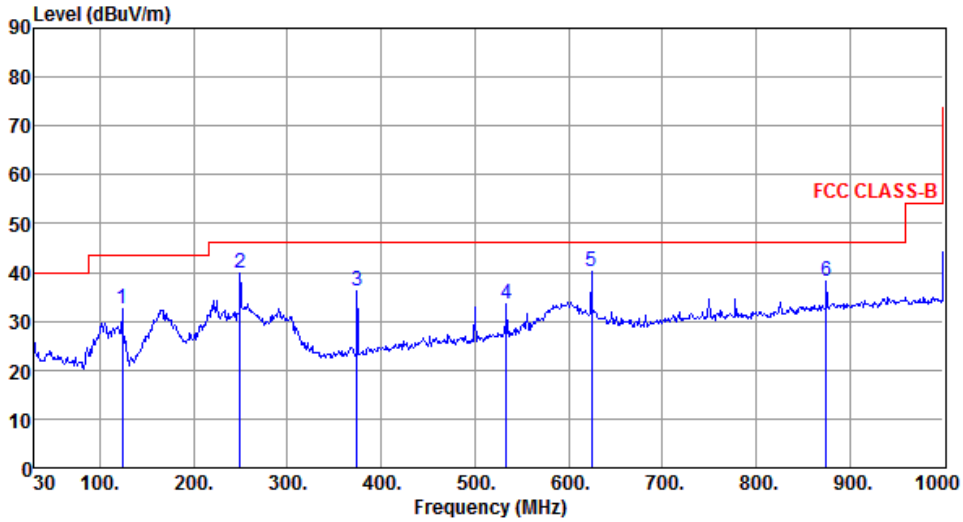
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical	Test Configuration	1



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

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

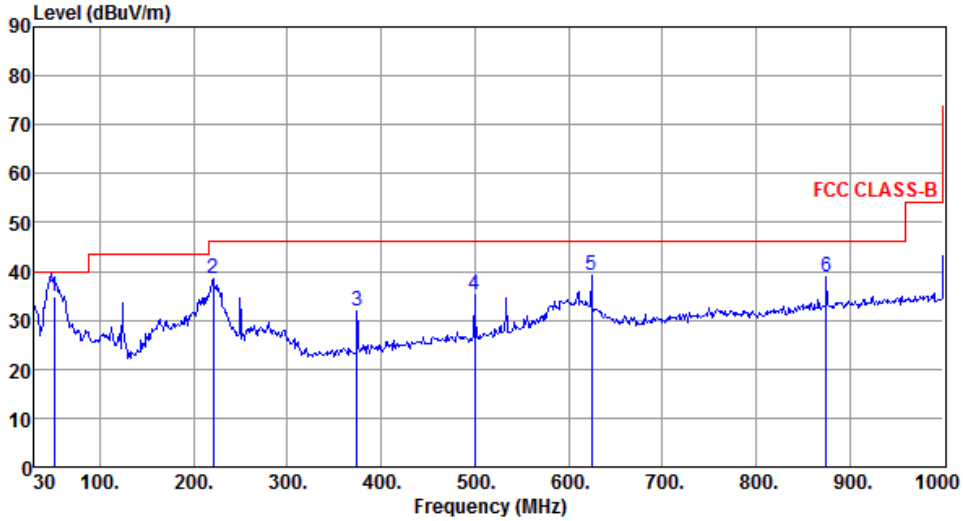
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal	Test Configuration	2



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

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

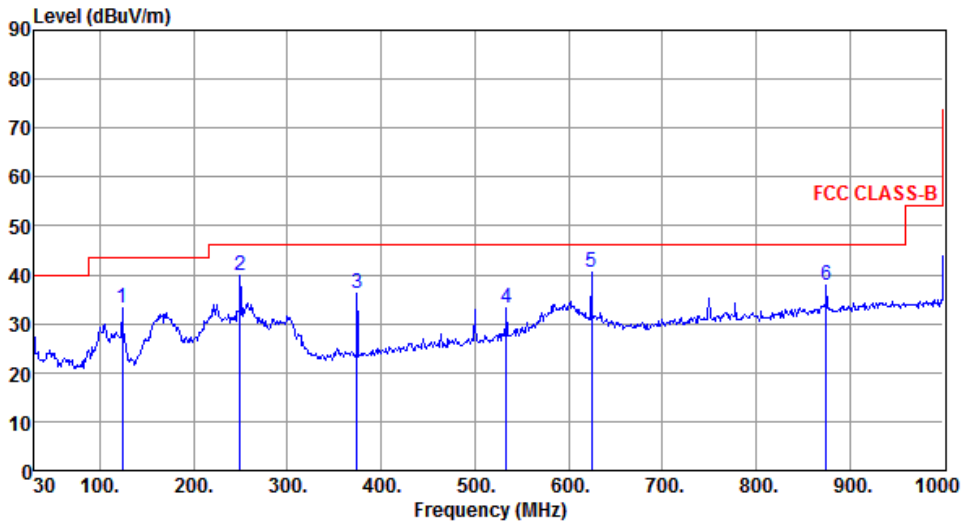
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical	Test Configuration	2



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

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

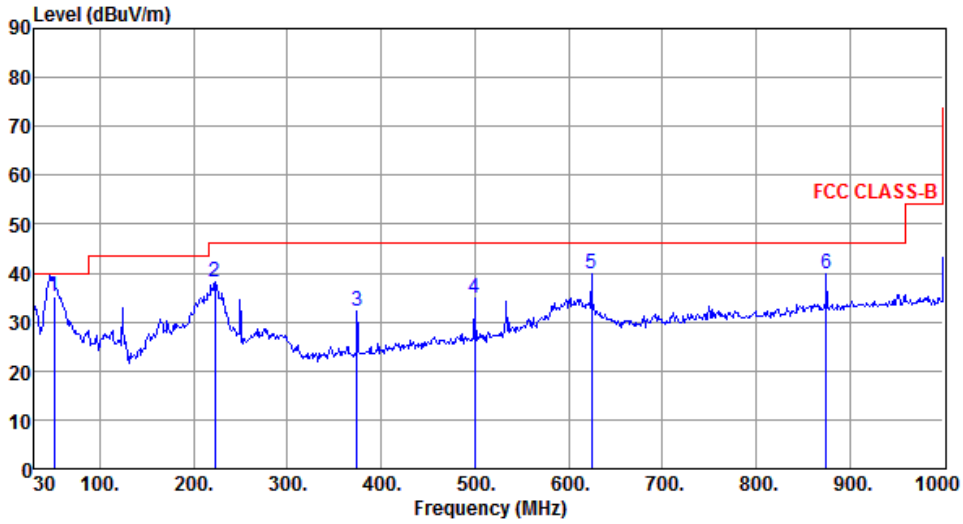
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal	Test Configuration	2



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

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

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

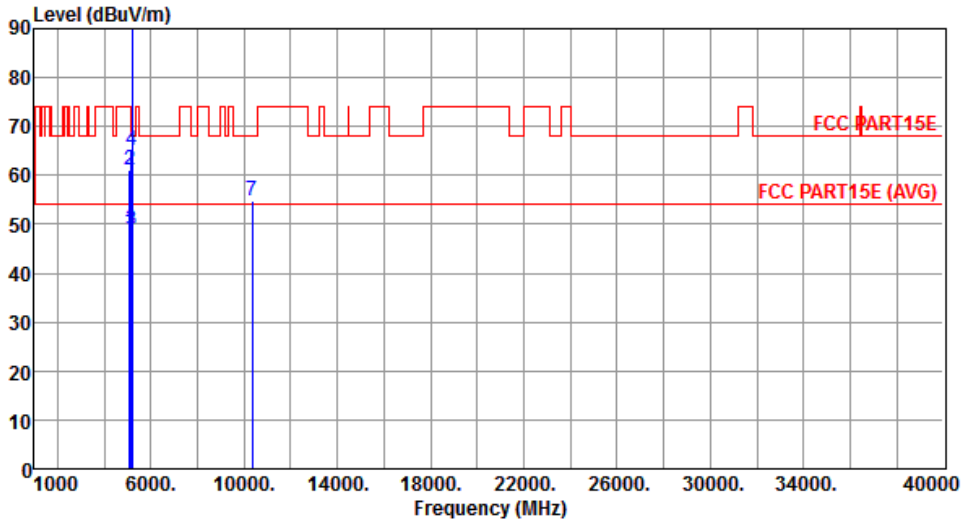


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	51.34	35.33	40.00	-4.67	43.58	-8.25	QP	101	81
2	223.03	38.21	46.00	-7.79	48.98	-10.77	Peak	---	---
3	374.35	32.14	46.00	-13.86	38.20	-6.06	Peak	---	---
4	499.48	34.84	46.00	-11.16	38.20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

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

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

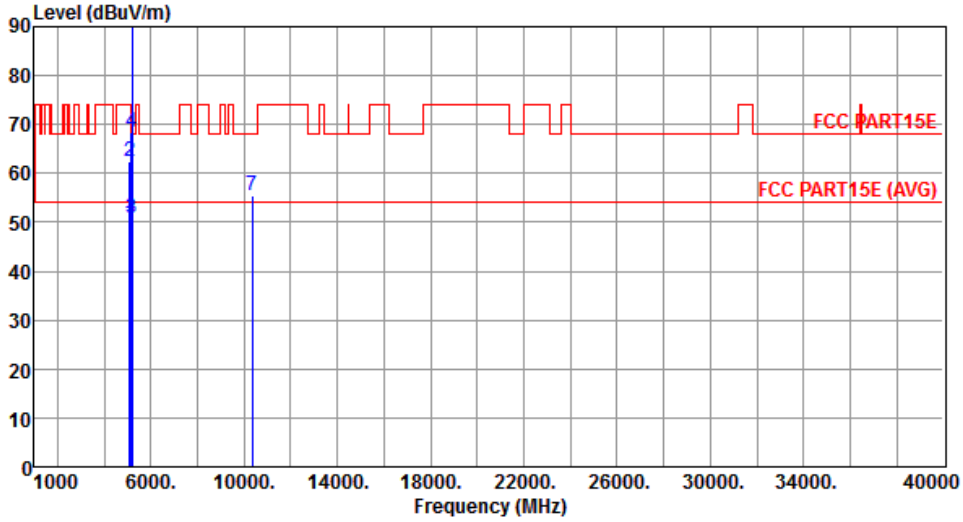
Modulation	VHT20	**Test Freq. (MHz)**	5180
Polarization	Horizontal		



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

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

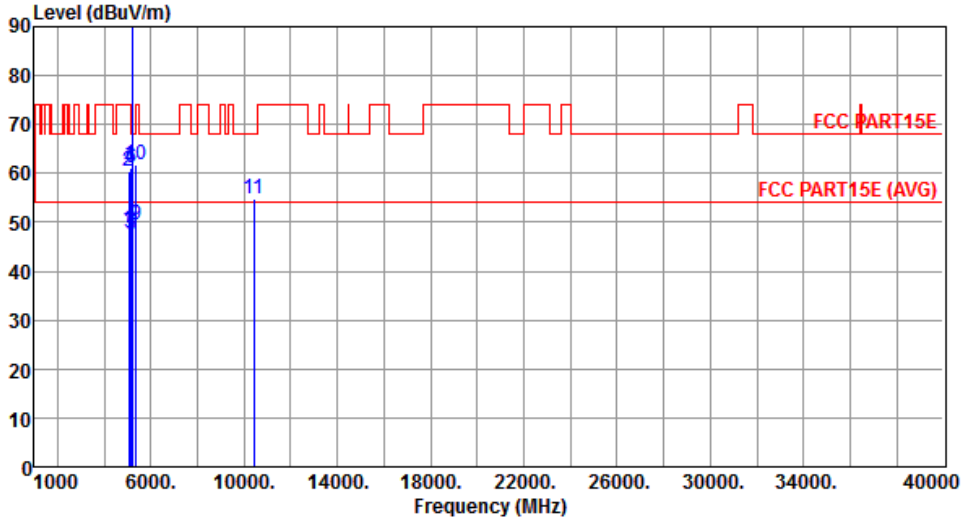
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Vertical		



		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	49.97	54.00	-4.03	44.83	5.14	Average	303	183
2		5100.00	62.47	74.00	-11.53	57.33	5.14	Peak	303	183
3		5150.00	50.73	54.00	-3.27	45.52	5.21	Average	303	183
4		5150.00	68.31	74.00	-5.69	63.10	5.21	Peak	303	183
5	*	5180.00	103.71			98.46	5.25	Average	303	183
6	*	5180.00	116.80			111.55	5.25	Peak	303	183
7		10360.00	55.35	68.20	-12.85	41.45	13.90	Peak	150	45

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

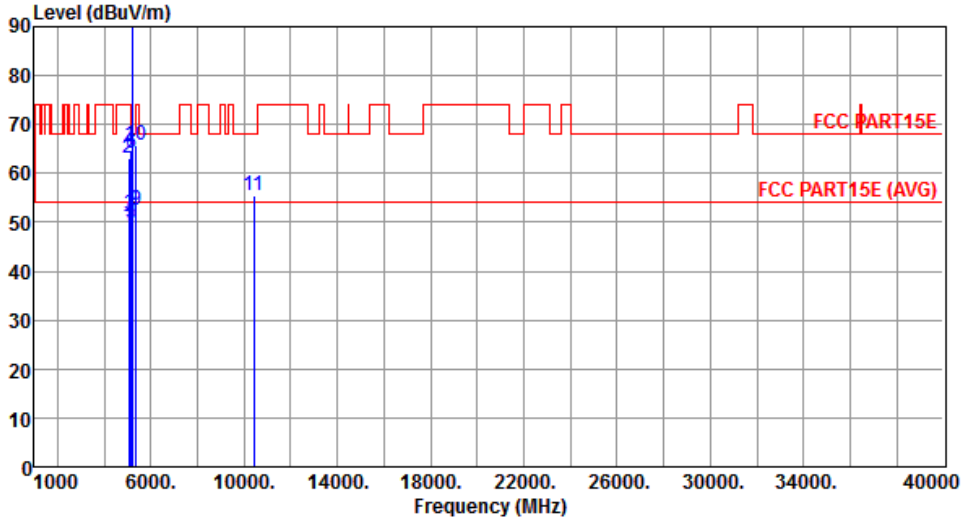
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal		



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

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

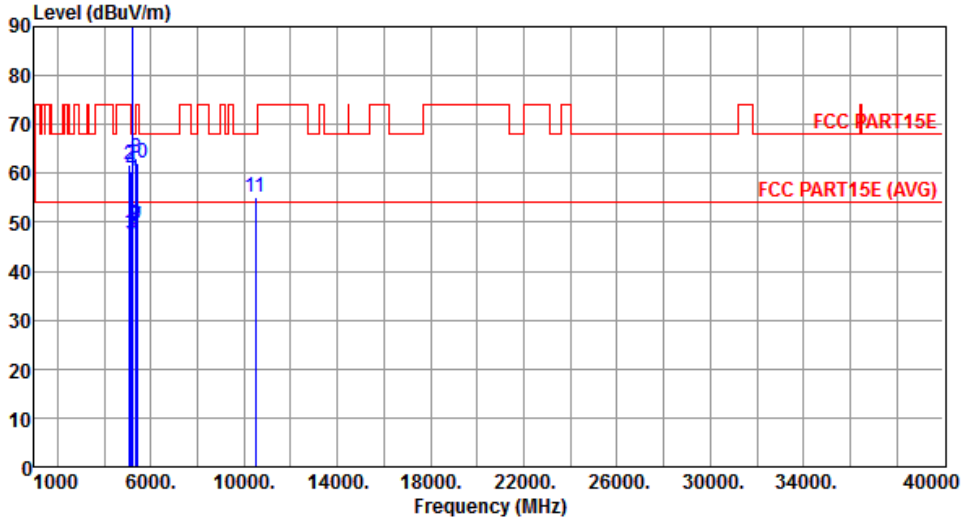
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5040.00	49.28	54.00	-4.72	44.21	5.07	Average	305	103
2		5040.00	62.97	74.00	-11.03	57.90	5.07	Peak	305	103
3		5120.00	51.34	54.00	-2.66	46.17	5.17	Average	305	103
4		5120.00	64.82	74.00	-9.18	59.65	5.17	Peak	305	103
5		5150.00	49.97	54.00	-4.03	44.76	5.21	Average	305	103
6		5150.00	64.06	74.00	-9.94	58.85	5.21	Peak	305	103
7	*	5200.00	107.16			101.89	5.27	Average	305	103
8	*	5200.00	119.96			114.69	5.27	Peak	305	103
9		5360.00	52.47	54.00	-1.53	46.95	5.52	Average	305	103
10		5360.00	65.81	74.00	-8.19	60.29	5.52	Peak	305	103
11		10400.00	55.42	68.20	-12.78	41.50	13.92	Peak	108	49

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

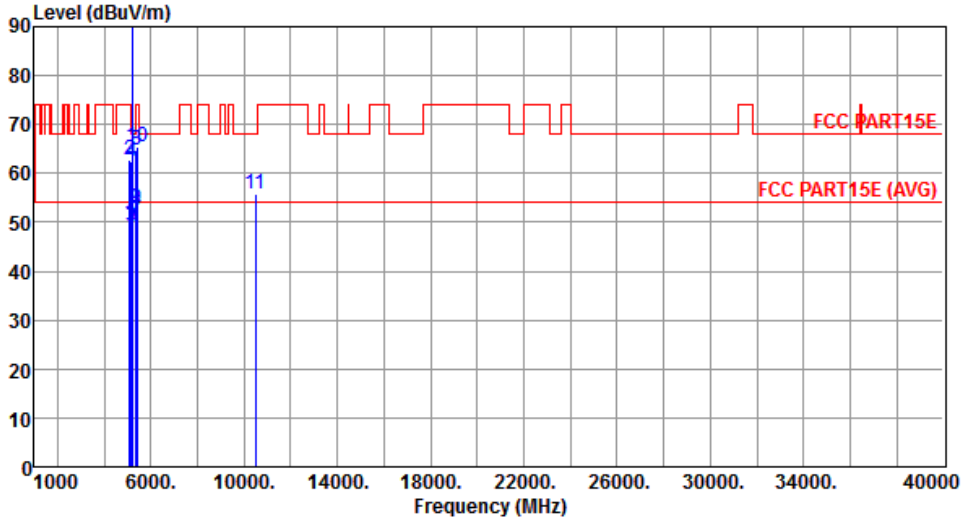
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5080.00	47.84	54.00	-6.16	42.73	5.11	Average	339	145
2		5080.00	61.66	74.00	-12.34	56.55	5.11	Peak	339	145
3		5150.00	47.63	54.00	-6.37	42.42	5.21	Average	339	145
4		5150.00	60.45	74.00	-13.55	55.24	5.21	Peak	339	145
5	*	5240.00	97.02			91.69	5.33	Average	339	145
6	*	5240.00	108.54			103.21	5.33	Peak	339	145
7		5350.00	49.22	54.00	-4.78	43.72	5.50	Average	339	145
8		5350.00	62.98	74.00	-11.02	57.48	5.50	Peak	339	145
9		5400.00	49.33	54.00	-4.67	43.75	5.58	Average	339	145
10		5400.00	62.25	74.00	-11.75	56.67	5.58	Peak	339	145
11		10480.00	55.24	68.20	-12.96	41.29	13.95	Peak	135	46

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

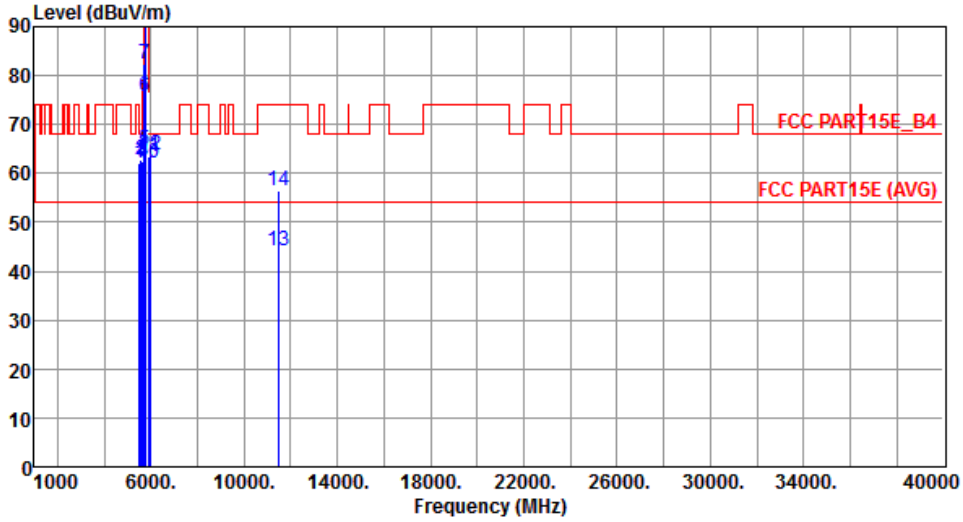
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5080.00	49.81	54.00	-4.19	44.70	5.11	Average	311	202
2		5080.00	62.80	74.00	-11.20	57.69	5.11	Peak	311	202
3		5150.00	49.03	54.00	-4.97	43.82	5.21	Average	311	202
4		5150.00	62.42	74.00	-11.58	57.21	5.21	Peak	311	202
5	*	5240.00	107.04			101.71	5.33	Average	311	202
6	*	5240.00	119.91			114.58	5.33	Peak	311	202
7		5350.00	50.41	54.00	-3.59	44.91	5.50	Average	311	202
8		5350.00	64.75	74.00	-9.25	59.25	5.50	Peak	311	202
9		5400.00	52.82	54.00	-1.18	47.24	5.58	Average	311	202
10		5400.00	65.39	74.00	-8.61	59.81	5.58	Peak	311	202
11		10480.00	55.63	68.20	-12.57	41.68	13.95	Peak	108	51

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

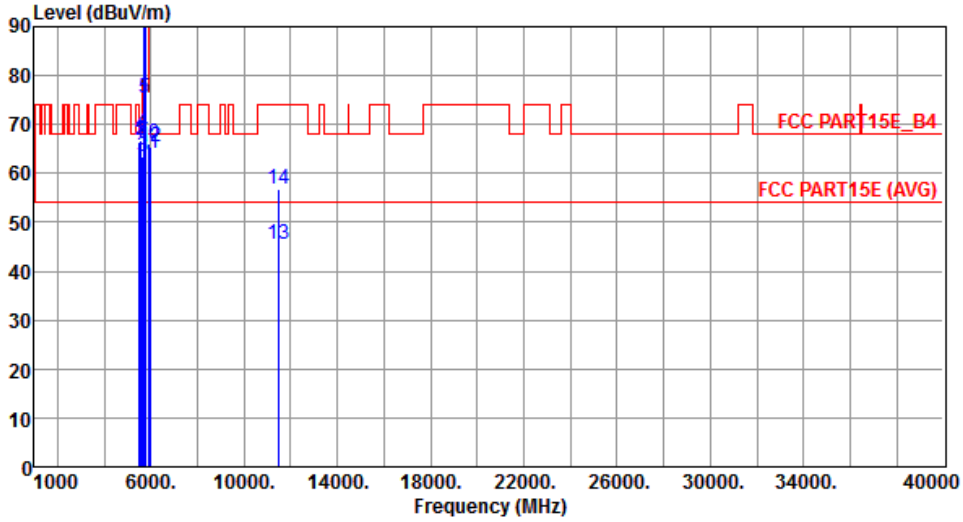
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5505.00	61.95	68.20	-6.25	56.24	5.71	Peak	336	144
2		5585.00	62.75	68.20	-5.45	56.97	5.78	Peak	336	144
3		5650.00	62.35	68.20	-5.85	56.48	5.87	Peak	336	144
4		5665.00	62.43	79.33	-16.90	56.54	5.89	Peak	336	144
5		5700.00	64.81	105.20	-40.39	58.85	5.96	Peak	336	144
6		5720.00	75.62	110.80	-35.18	69.64	5.98	Peak	336	144
7		5725.00	82.39	122.20	-39.81	76.40	5.99	Peak	336	144
8	*	5745.00	100.06			94.04	6.02	Average	336	144
9	*	5745.00	112.05			106.03	6.02	Peak	336	144
10		5905.00	62.18	82.96	-20.78	55.94	6.24	Peak	336	144
11		5925.00	63.44	68.20	-4.76	57.18	6.26	Peak	336	144
12		5985.00	63.87	68.20	-4.33	57.55	6.32	Peak	336	144
13		11490.00	44.25	54.00	-9.75	29.35	14.90	Average	119	35
14		11490.00	56.31	74.00	-17.69	41.41	14.90	Peak	119	35

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

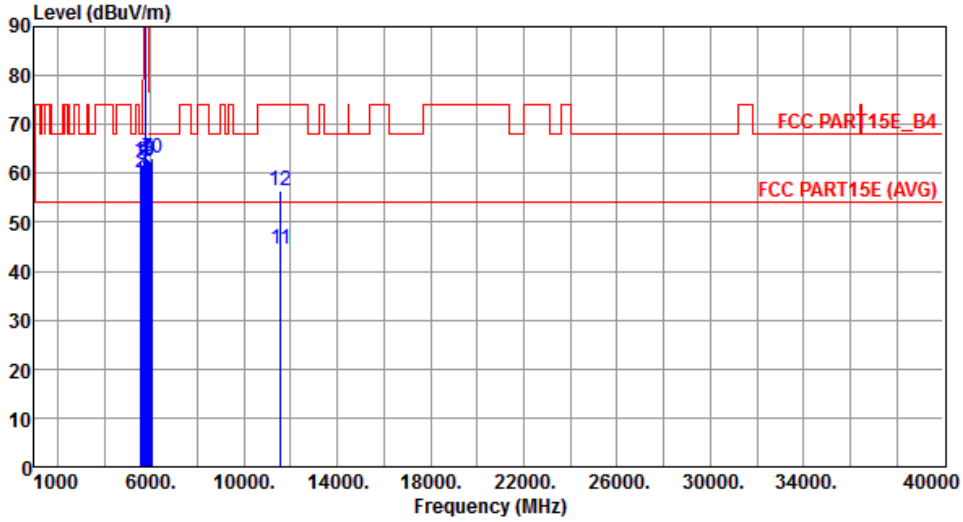
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5505.00	66.58	68.20	-1.62	60.87	5.71	Peak	289	279
2		5585.00	66.86	68.20	-1.34	61.08	5.78	Peak	289	279
3		5650.00	63.36	68.20	-4.84	57.49	5.87	Peak	289	279
4		5665.00	68.34	79.33	-10.99	62.45	5.89	Peak	289	279
5		5700.00	75.50	105.20	-29.70	69.54	5.96	Peak	289	279
6		5720.00	89.44	110.80	-21.36	83.46	5.98	Peak	289	279
7		5725.00	94.58	122.20	-27.62	88.59	5.99	Peak	289	279
8	*	5745.00	111.17			105.15	6.02	Average	289	279
9	*	5745.00	123.22			117.20	6.02	Peak	289	279
10		5905.00	66.21	82.96	-16.75	59.97	6.24	Peak	289	279
11		5925.00	64.22	68.20	-3.98	57.96	6.26	Peak	289	279
12		5985.00	65.44	68.20	-2.76	59.12	6.32	Peak	289	279
13		11490.00	45.38	54.00	-8.62	30.48	14.90	Average	110	49
14		11490.00	56.92	74.00	-17.08	42.02	14.90	Peak	110	49

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

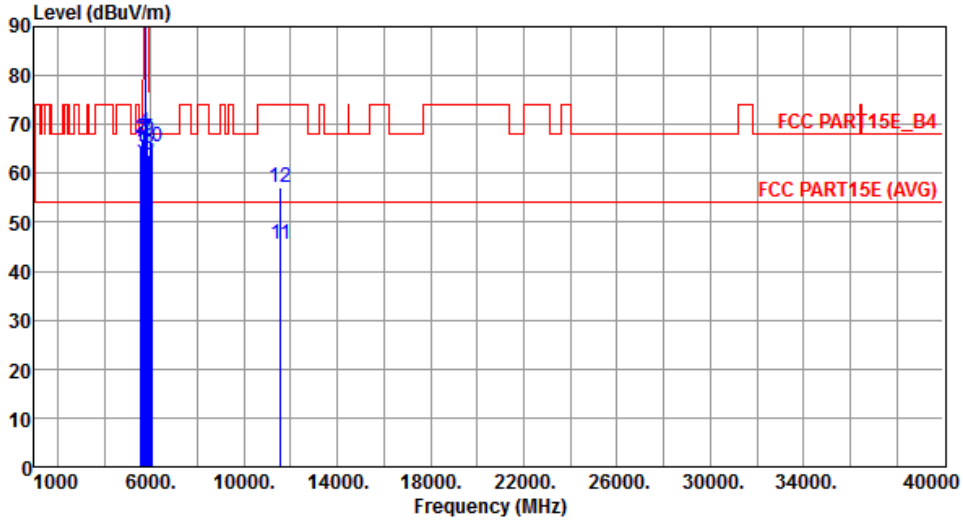
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5545.00	62.38	68.20	-5.82	56.64	5.74	Peak	336	155
2		5625.00	60.13	68.20	-8.07	54.31	5.82	Peak	336	155
3		5650.00	61.62	68.20	-6.58	55.75	5.87	Peak	336	155
4		5705.00	62.84	106.60	-43.76	56.88	5.96	Peak	336	155
5	*	5785.00	100.82			94.73	6.09	Average	336	155
6	*	5785.00	112.94			106.85	6.09	Peak	336	155
7		5865.00	62.95	108.00	-45.05	56.76	6.19	Peak	336	155
8		5925.00	62.81	68.20	-5.39	56.55	6.26	Peak	336	155
9		5945.00	62.39	68.20	-5.81	56.11	6.28	Peak	336	155
10		6025.00	62.99	68.20	-5.21	56.59	6.40	Peak	336	155
11		11570.00	44.35	54.00	-9.65	29.58	14.77	Average	119	35
12		11570.00	56.42	74.00	-17.58	41.65	14.77	Peak	119	35

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

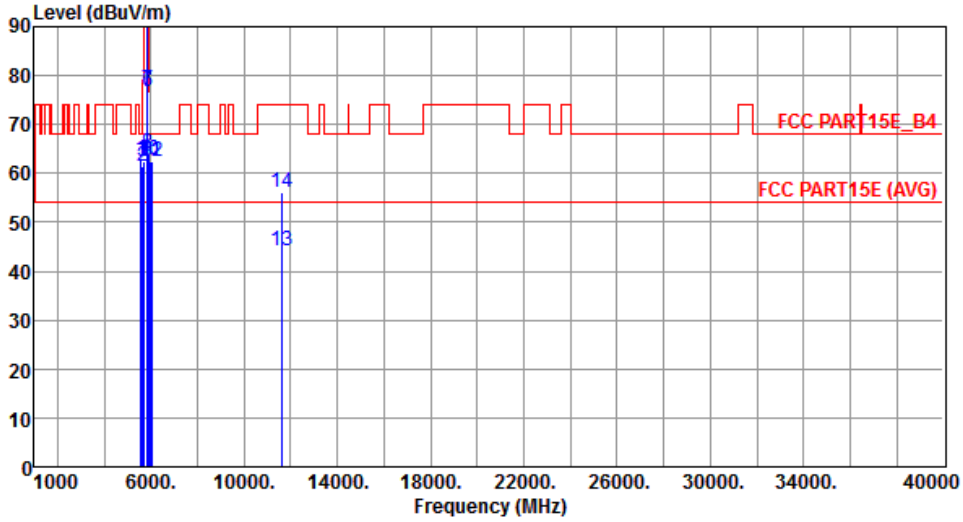
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5545.00	65.48	68.20	-2.72	59.74	5.74	Peak	323	230
2		5625.00	66.93	68.20	-1.27	61.11	5.82	Peak	323	230
3		5650.00	64.06	68.20	-4.14	58.19	5.87	Peak	323	230
4		5705.00	68.29	106.60	-38.31	62.33	5.96	Peak	323	230
5	*	5785.00	108.78			102.69	6.09	Average	323	230
6	*	5785.00	121.00			114.91	6.09	Peak	323	230
7		5865.00	67.21	108.00	-40.79	61.02	6.19	Peak	323	230
8		5925.00	63.68	68.20	-4.52	57.42	6.26	Peak	323	230
9		5945.00	66.62	68.20	-1.58	60.34	6.28	Peak	323	230
10		6025.00	65.46	68.20	-2.74	59.06	6.40	Peak	323	230
11		11570.00	45.46	54.00	-8.54	30.69	14.77	Average	110	42
12		11570.00	57.11	74.00	-16.89	42.34	14.77	Peak	110	42

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

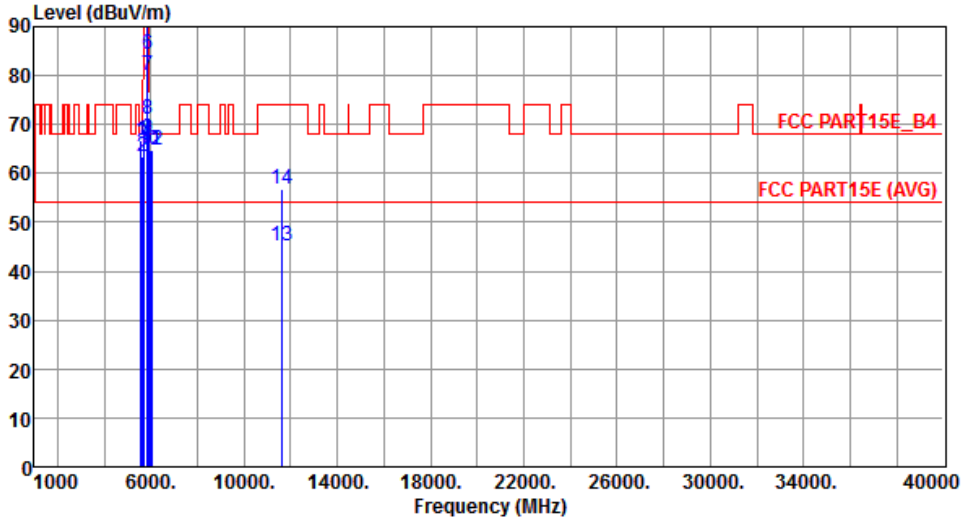
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5585.00	62.84	68.20	-5.36	57.06	5.78	Peak	336	144
2		5650.00	61.49	68.20	-6.71	55.62	5.87	Peak	336	144
3		5665.00	62.38	79.33	-16.95	56.49	5.89	Peak	336	144
4	*	5825.00	100.95			94.81	6.14	Average	336	144
5	*	5825.00	113.06			106.92	6.14	Peak	336	144
6		5850.00	76.84	122.20	-45.36	70.67	6.17	Peak	336	144
7		5855.00	77.19	110.80	-33.61	71.01	6.18	Peak	336	144
8		5875.00	64.22	105.20	-40.98	58.02	6.20	Peak	336	144
9		5905.00	62.38	82.96	-20.58	56.14	6.24	Peak	336	144
10		5925.00	62.84	68.20	-5.36	56.58	6.26	Peak	336	144
11		5985.00	62.44	68.20	-5.76	56.12	6.32	Peak	336	144
12		6065.00	62.31	68.20	-5.89	55.80	6.51	Peak	336	144
13		11650.00	44.18	54.00	-9.82	29.57	14.61	Average	119	31
14		11650.00	56.29	74.00	-17.71	41.68	14.61	Peak	119	31

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

Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Vertical		

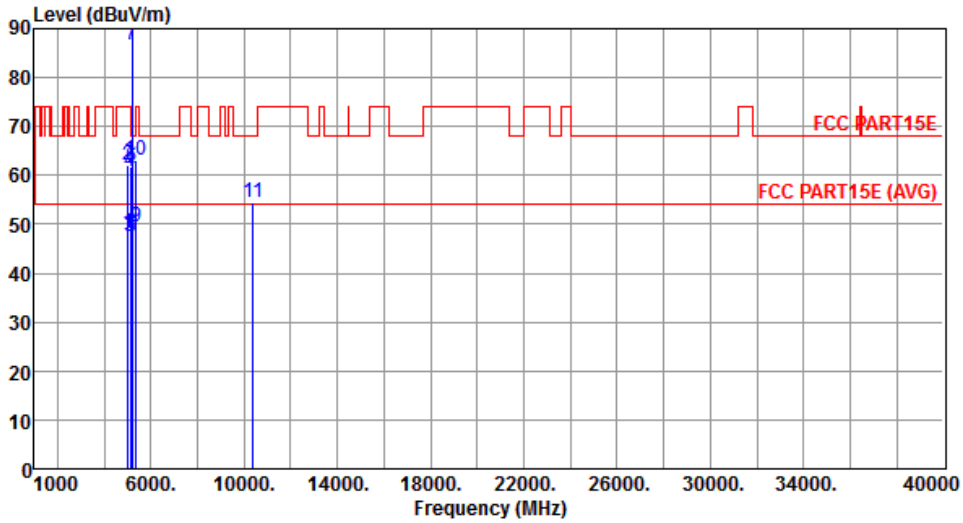


		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5585.00	66.73	68.20	-1.47	60.95	5.78	Peak	308	156
2		5650.00	63.50	68.20	-4.70	57.63	5.87	Peak	308	156
3		5665.00	66.05	79.33	-13.28	60.16	5.89	Peak	308	156
4	*	5825.00	110.98			104.84	6.14	Average	308	156
5	*	5825.00	123.12			116.98	6.14	Peak	308	156
6		5850.00	84.36	122.20	-37.84	78.19	6.17	Peak	308	156
7		5855.00	79.94	110.80	-30.86	73.76	6.18	Peak	308	156
8		5875.00	71.06	105.20	-34.14	64.86	6.20	Peak	308	156
9		5905.00	67.09	82.96	-15.87	60.85	6.24	Peak	308	156
10		5925.00	64.83	68.20	-3.37	58.57	6.26	Peak	308	156
11		5985.00	64.78	68.20	-3.42	58.46	6.32	Peak	308	156
12		6065.00	64.66	68.20	-3.54	58.15	6.51	Peak	308	156
13		11650.00	45.23	54.00	-8.77	30.62	14.61	Average	110	58
14		11650.00	56.95	74.00	-17.05	42.34	14.61	Peak	110	58

Note 1: Emission Level (dBuV/m) = SA Reading (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 VHT40

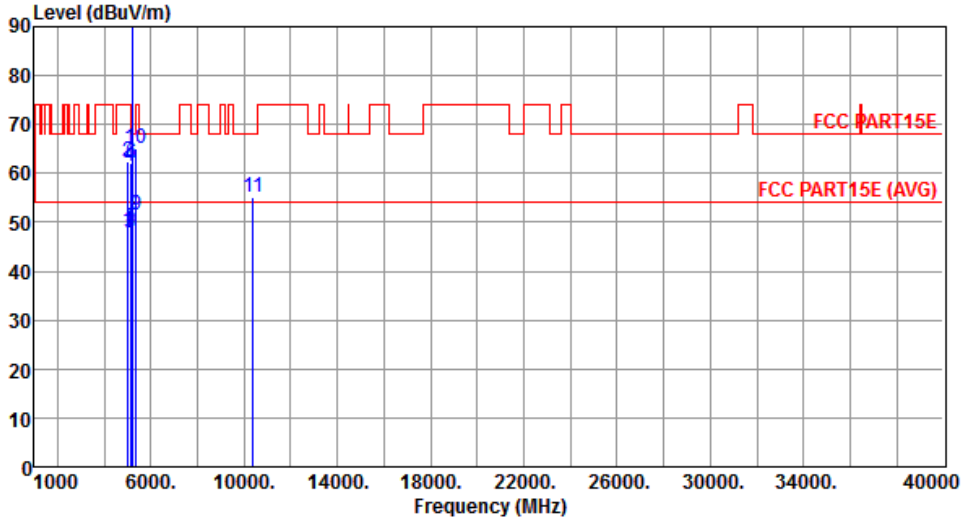
Modulation	VHT40	**Test Freq. (MHz)**	5190
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5030.00	48.07	54.00	-5.93	43.02	5.05	Average	342	146
2		5030.00	61.94	74.00	-12.06	56.89	5.05	Peak	342	146
3		5110.00	47.64	54.00	-6.36	42.49	5.15	Average	342	146
4		5110.00	60.92	74.00	-13.08	55.77	5.15	Peak	342	146
5		5150.00	47.60	54.00	-6.40	42.39	5.21	Average	342	146
6		5150.00	61.66	74.00	-12.34	56.45	5.21	Peak	342	146
7	*	5190.00	86.69			81.43	5.26	Average	342	146
8	*	5190.00	99.24			93.98	5.26	Peak	342	146
9		5350.00	49.38	54.00	-4.62	43.88	5.50	Average	342	146
10		5350.00	63.19	74.00	-10.81	57.69	5.50	Peak	342	146
11		10380.00	54.52	68.20	-13.68	40.62	13.90	Peak	100	59

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

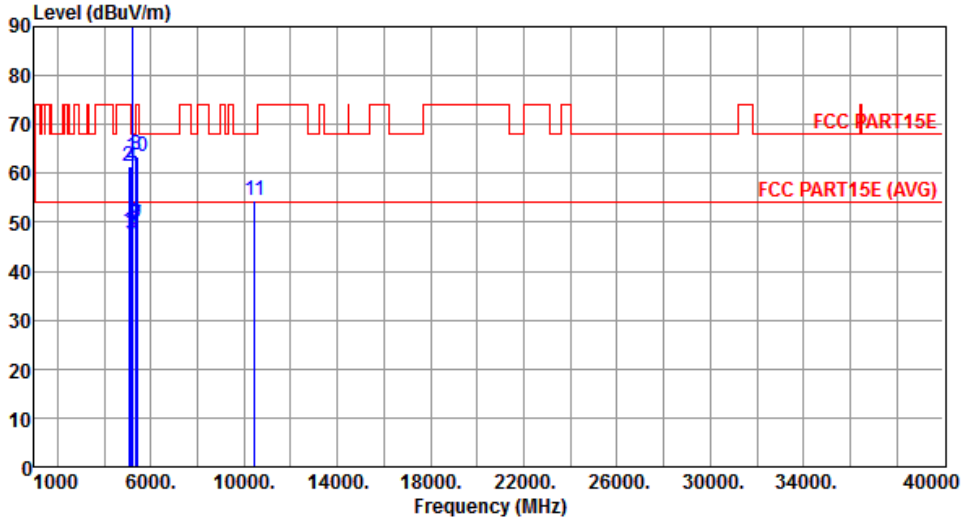
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5030.00	48.24	54.00	-5.76	43.19	5.05	Average	302	177
2		5030.00	62.28	74.00	-11.72	57.23	5.05	Peak	302	177
3		5110.00	47.85	54.00	-6.15	42.70	5.15	Average	302	177
4		5110.00	61.41	74.00	-12.59	56.26	5.15	Peak	302	177
5		5150.00	48.74	54.00	-5.26	43.53	5.21	Average	302	177
6		5150.00	62.21	74.00	-11.79	57.00	5.21	Peak	302	177
7	*	5190.00	96.82			91.56	5.26	Average	302	177
8	*	5190.00	109.23			103.97	5.26	Peak	302	177
9		5350.00	51.63	54.00	-2.37	46.13	5.50	Average	302	177
10		5350.00	65.04	74.00	-8.96	59.54	5.50	Peak	302	177
11		10380.00	55.09	68.20	-13.11	41.19	13.90	Peak	100	47

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

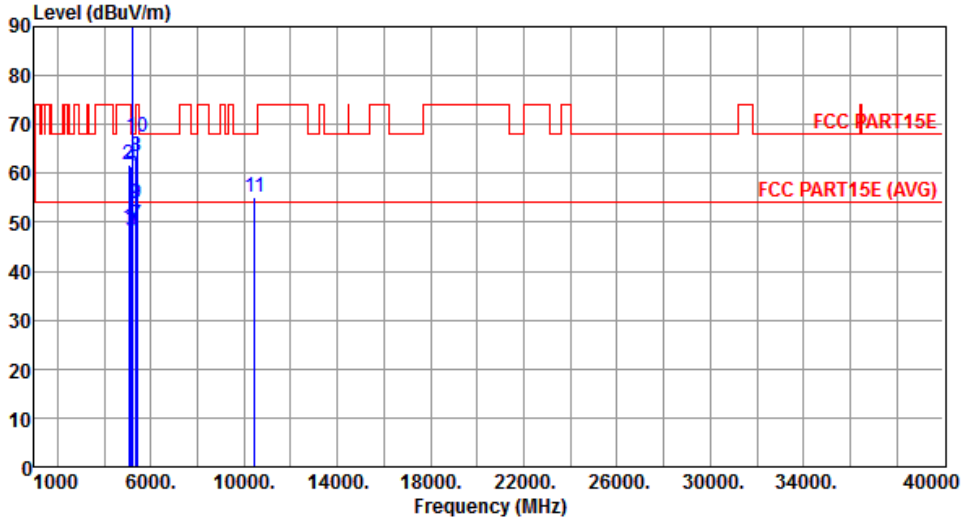
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5070.00	48.07	54.00	-5.93	42.97	5.10	Average	337	149
2		5070.00	61.45	74.00	-12.55	56.35	5.10	Peak	337	149
3		5150.00	47.60	54.00	-6.40	42.39	5.21	Average	337	149
4		5150.00	61.42	74.00	-12.58	56.21	5.21	Peak	337	149
5	*	5230.00	90.91			85.59	5.32	Average	337	149
6	*	5230.00	103.40			98.08	5.32	Peak	337	149
7		5350.00	49.56	54.00	-4.44	44.06	5.50	Average	337	149
8		5350.00	63.66	74.00	-10.34	58.16	5.50	Peak	337	149
9		5390.00	49.68	54.00	-4.32	44.12	5.56	Average	337	149
10		5390.00	63.46	74.00	-10.54	57.90	5.56	Peak	337	149
11		10460.00	54.37	68.20	-13.83	40.43	13.94	Peak	100	48

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

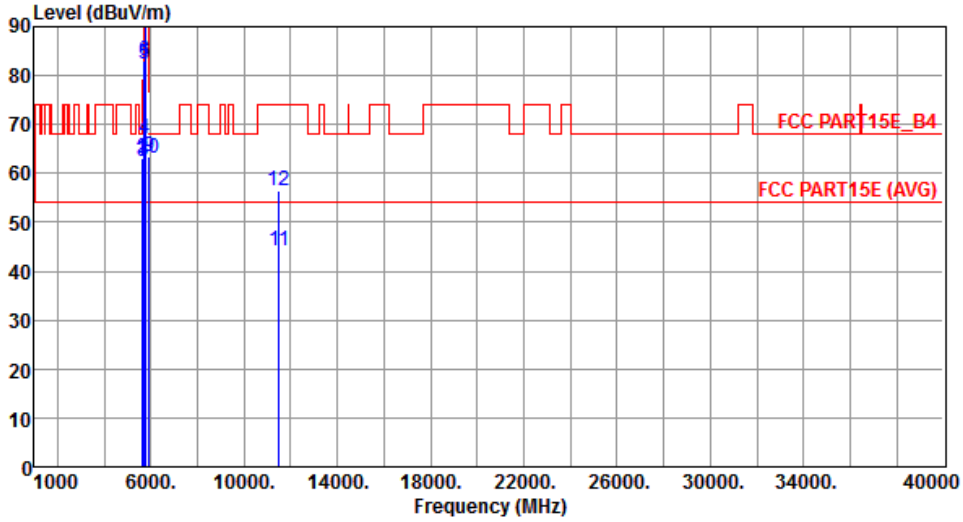
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5070.00	48.86	54.00	-5.14	43.76	5.10	Average	288	107
2		5070.00	61.82	74.00	-12.18	56.72	5.10	Peak	288	107
3		5150.00	48.29	54.00	-5.71	43.08	5.21	Average	288	107
4		5150.00	61.49	74.00	-12.51	56.28	5.21	Peak	288	107
5	*	5230.00	101.73			96.41	5.32	Average	288	107
6	*	5230.00	113.56			108.24	5.32	Peak	288	107
7		5350.00	49.60	54.00	-4.40	44.10	5.50	Average	288	107
8		5350.00	63.28	74.00	-10.72	57.78	5.50	Peak	288	107
9		5390.00	53.83	54.00	-0.17	48.27	5.56	Average	288	107
10		5390.00	67.45	74.00	-6.55	61.89	5.56	Peak	288	107
11		10460.00	55.16	68.20	-13.04	41.22	13.94	Peak	100	51

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

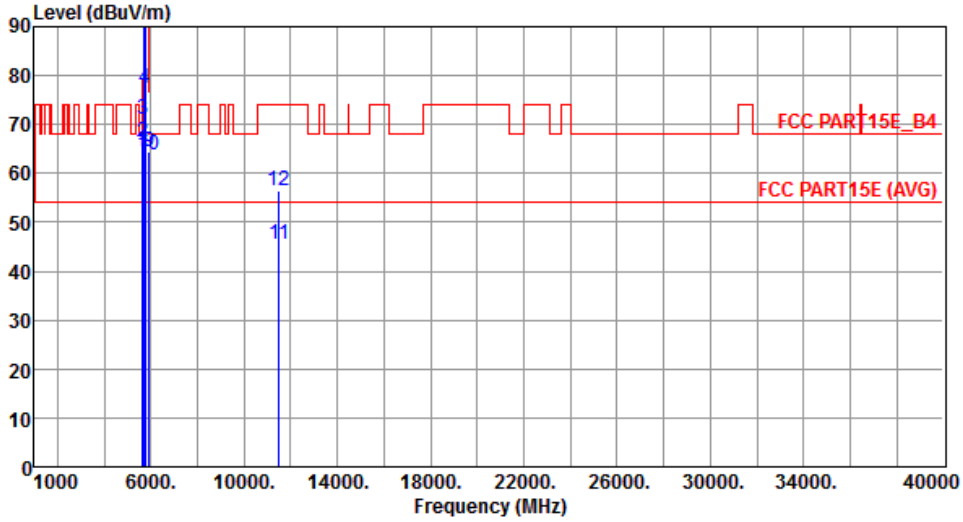
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5595.00	62.78	68.20	-5.42	57.00	5.78	Peak	375	124
2		5650.00	62.97	68.20	-5.23	57.10	5.87	Peak	375	124
3		5675.00	62.39	86.74	-24.35	56.48	5.91	Peak	375	124
4		5700.00	67.03	105.20	-38.17	61.07	5.96	Peak	375	124
5		5720.00	82.40	110.80	-28.40	76.42	5.98	Peak	375	124
6		5725.00	83.06	122.20	-39.14	77.07	5.99	Peak	375	124
7	*	5755.00	97.15			91.10	6.05	Average	375	124
8	*	5755.00	109.04			102.99	6.05	Peak	375	124
9		5915.00	63.31	75.57	-12.26	57.07	6.24	Peak	375	124
10		5925.00	63.09	68.20	-5.11	56.83	6.26	Peak	375	124
11		11510.00	44.31	54.00	-9.69	29.42	14.89	Average	100	247
12		11510.00	56.32	74.00	-17.68	41.43	14.89	Peak	100	247

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

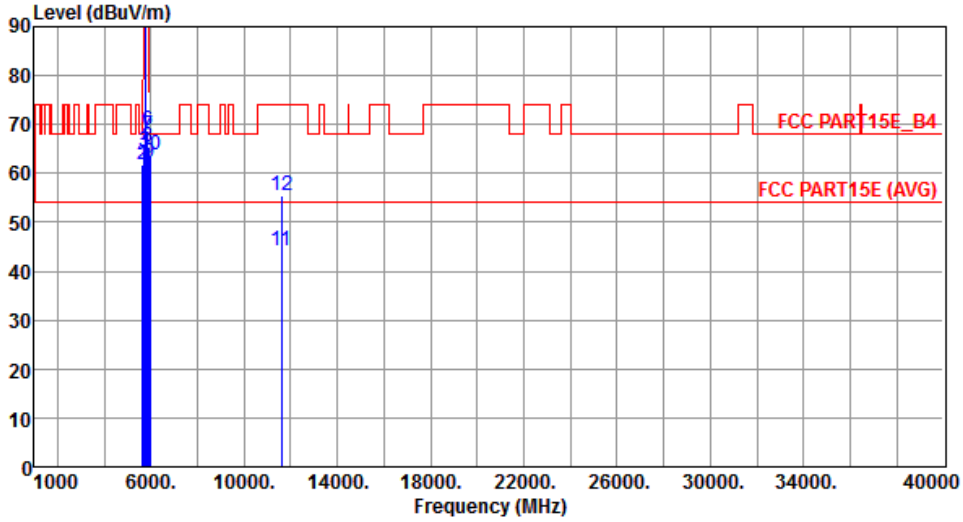
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5595.00	64.49	68.20	-3.71	58.71	5.78	Peak	299	277
2		5650.00	66.48	68.20	-1.72	60.61	5.87	Peak	299	277
3		5675.00	71.02	86.74	-15.72	65.11	5.91	Peak	299	277
4		5700.00	77.51	105.20	-27.69	71.55	5.96	Peak	299	277
5		5720.00	91.54	110.80	-19.26	85.56	5.98	Peak	299	277
6		5725.00	94.56	122.20	-27.64	88.57	5.99	Peak	299	277
7	*	5755.00	106.10			100.05	6.05	Average	299	277
8	*	5755.00	118.83			112.78	6.05	Peak	299	277
9		5915.00	64.55	75.57	-11.02	58.31	6.24	Peak	299	277
10		5925.00	63.87	68.20	-4.33	57.61	6.26	Peak	299	277
11		11510.00	45.40	54.00	-8.60	30.51	14.89	Average	100	133
12		11510.00	56.56	74.00	-17.44	41.67	14.89	Peak	100	133

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

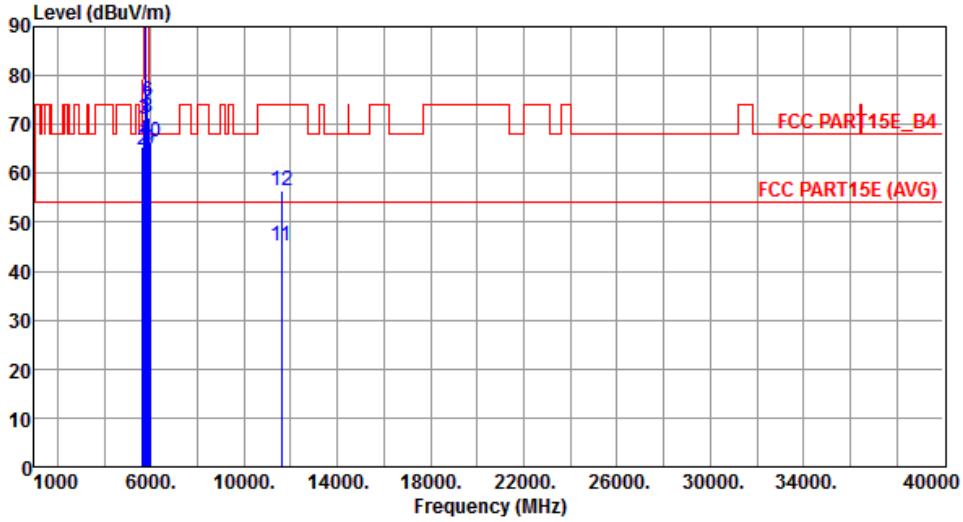
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5635.00	61.65	68.20	-6.55	55.81	5.84	Peak	362	220
2		5650.00	61.91	68.20	-6.29	56.04	5.87	Peak	362	220
3		5715.00	64.33	109.40	-45.07	58.35	5.98	Peak	362	220
4	*	5795.00	95.85			89.74	6.11	Average	362	220
5	*	5795.00	108.90			102.79	6.11	Peak	362	220
6		5850.00	68.88	122.20	-53.32	62.71	6.17	Peak	362	220
7		5855.00	67.66	110.80	-43.14	61.48	6.18	Peak	362	220
8		5875.00	65.56	105.20	-39.64	59.36	6.20	Peak	362	220
9		5925.00	62.17	68.20	-6.03	55.91	6.26	Peak	362	220
10		5955.00	63.66	68.20	-4.54	57.37	6.29	Peak	362	220
11		11590.00	44.12	54.00	-9.88	29.39	14.73	Average	100	276
12		11590.00	55.32	74.00	-18.68	40.59	14.73	Peak	100	276

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

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical		

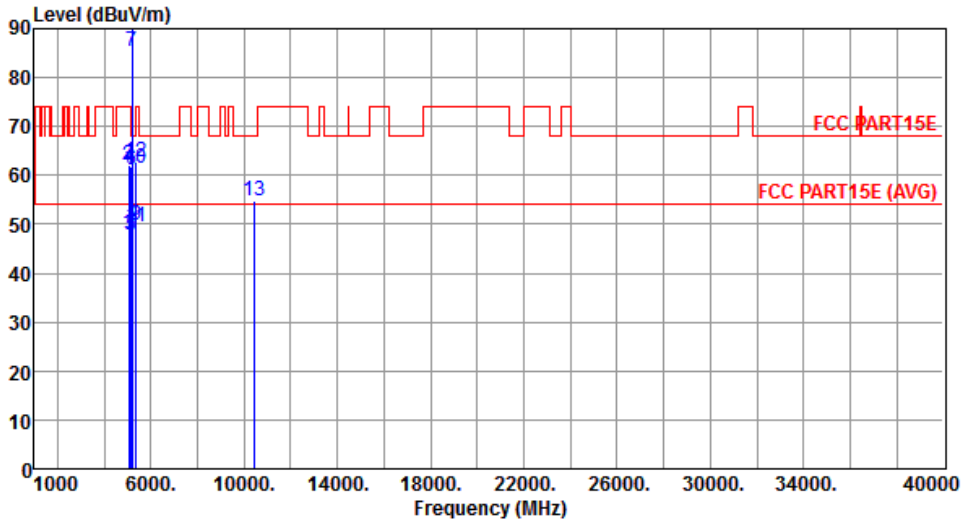


		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5635.00	65.30	68.20	-2.90	59.46	5.84	Peak	343	225
2		5650.00	64.88	68.20	-3.32	59.01	5.87	Peak	343	225
3		5715.00	71.21	109.40	-38.19	65.23	5.98	Peak	343	225
4	*	5795.00	105.33			99.22	6.11	Average	343	225
5	*	5795.00	118.33			112.22	6.11	Peak	343	225
6		5850.00	74.82	122.20	-47.38	68.65	6.17	Peak	343	225
7		5855.00	73.03	110.80	-37.77	66.85	6.18	Peak	343	225
8		5875.00	71.38	105.20	-33.82	65.18	6.20	Peak	343	225
9		5925.00	64.75	68.20	-3.45	58.49	6.26	Peak	343	225
10		5955.00	66.53	68.20	-1.67	60.24	6.29	Peak	343	225
11		11590.00	45.18	54.00	-8.82	30.45	14.73	Average	100	126
12		11590.00	56.34	74.00	-17.66	41.61	14.73	Peak	100	126

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

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

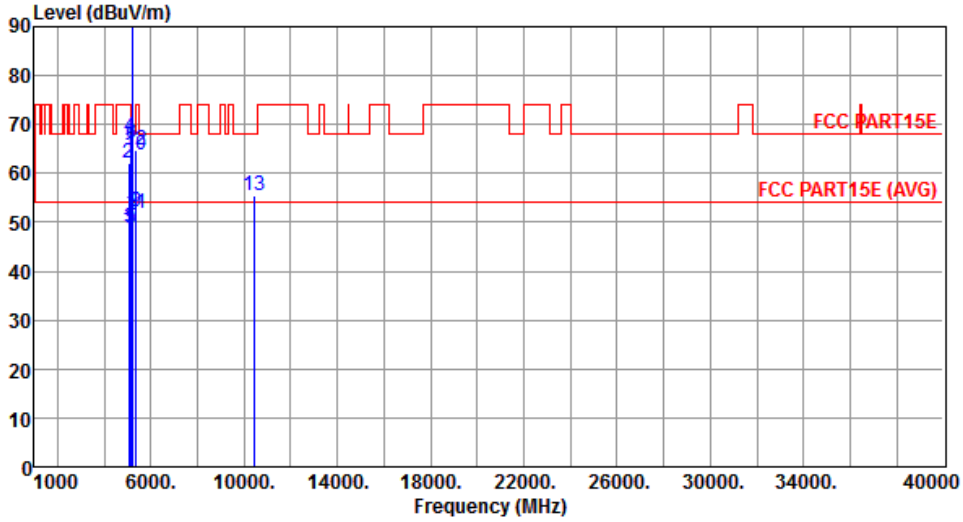
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5050.00	48.03	54.00	-5.97	42.95	5.08	Average	326	143
2		5050.00	62.27	74.00	-11.73	57.19	5.08	Peak	326	143
3		5130.00	47.69	54.00	-6.31	42.51	5.18	Average	326	143
4		5130.00	61.67	74.00	-12.33	56.49	5.18	Peak	326	143
5		5150.00	47.84	54.00	-6.16	42.63	5.21	Average	326	143
6		5150.00	61.12	74.00	-12.88	55.91	5.21	Peak	326	143
7	*	5210.00	85.44			80.15	5.29	Average	326	143
8	*	5210.00	97.45			92.16	5.29	Peak	326	143
9		5350.00	49.88	54.00	-4.12	44.38	5.50	Average	326	143
10		5350.00	61.46	74.00	-12.54	55.96	5.50	Peak	326	143
11		5370.00	49.61	54.00	-4.39	44.08	5.53	Average	326	143
12		5370.00	62.86	74.00	-11.14	57.33	5.53	Peak	326	143
13		10420.00	54.69	68.20	-13.51	40.77	13.92	Peak	100	130

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

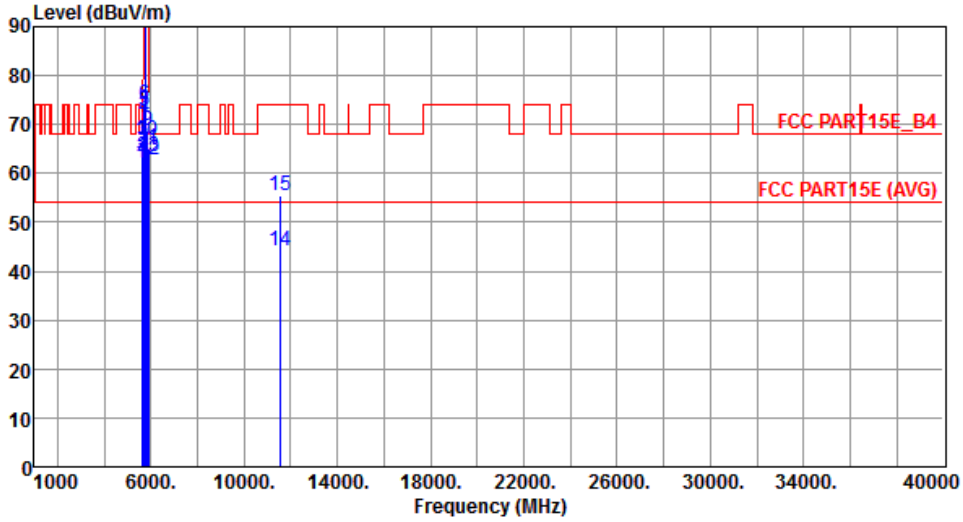
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical		



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

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

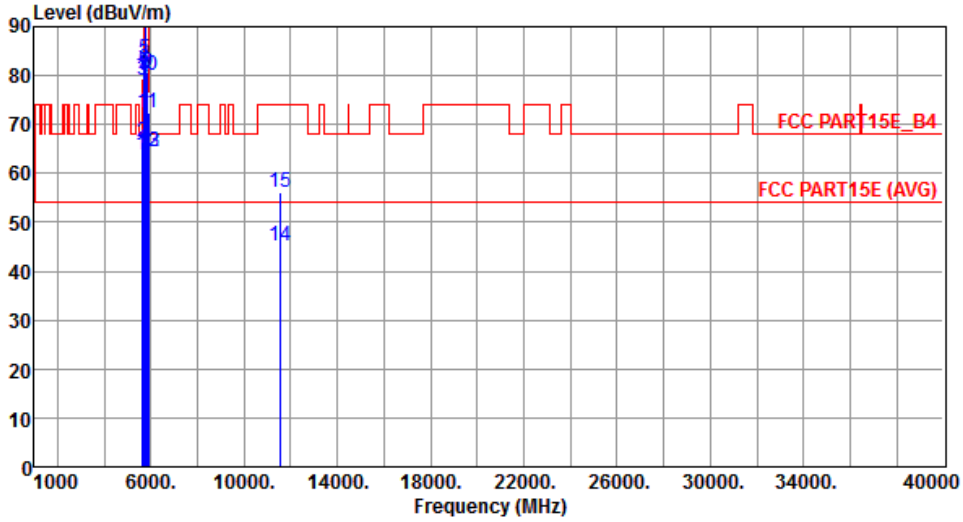
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		



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

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

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Vertical		



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

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

3.6 Frequency Stability

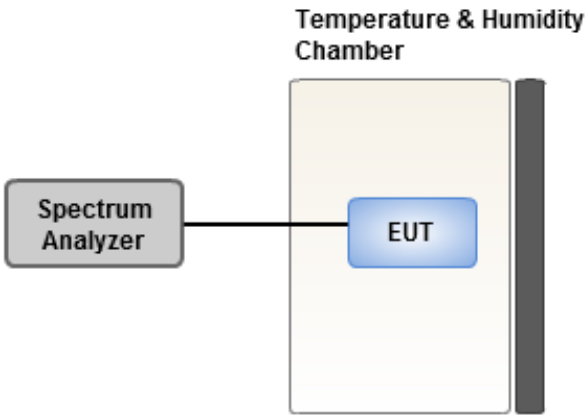
3.6.1 Limit of Frequency Stability

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

Non-beamforming mode

Frequency: 5200 MHz	Frequency Drift (ppm)			
Temperature (°C)	**0 minute**	**2 minutes**	**5 minutes**	**10 minutes**
T20°CVmax	0.93	0.71	1.14	1.04
T20°CVmin	-0.25	-0.33	-0.03	0.61
T50°CVnom	0.74	1.03	1.31	1.93
T40°CVnom	0.90	1.26	1.46	1.47
T30°CVnom	2.36	1.57	1.61	2.19
T20°CVnom	0.30	0.00	0.06	0.57
T10°CVnom	1.67	1.51	1.93	2.03
T0°CVnom	1.05	0.86	1.00	1.11
T-10°CVnom	0.84	1.35	0.89	1.33
T-20°CVnom	2.01	1.91	2.11	1.88
T-30°CVnom	-0.17	0.55	-0.04	0.41
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

Frequency: 5785 MHz	Frequency Drift (ppm)			
Temperature (°C)	**0 minute**	**2 minutes**	**5 minutes**	**10 minutes**
T20°CVmax	0.85	0.90	0.80	0.42
T20°CVmin	-0.28	-0.36	0.52	0.11
T50°CVnom	0.97	0.22	1.11	0.96
T40°CVnom	0.96	0.87	0.67	1.30
T30°CVnom	1.92	2.69	1.84	2.85
T20°CVnom	0.57	0.35	0.55	0.75
T10°CVnom	1.84	1.64	1.90	1.42
T0°CVnom	1.08	0.89	0.91	1.10
T-10°CVnom	0.62	0.05	0.84	0.75
T-20°CVnom	2.02	1.81	2.33	1.65
T-30°CVnom	0.10	-0.12	-0.21	-0.01
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

Beamforming mode

Frequency: 5200 MHz	Frequency Drift (ppm)			
Temperature (°C)	**0 minute**	**2 minutes**	**5 minutes**	**10 minutes**
T20°CVmax	0.79	0.47	0.94	1.11
T20°CVmin	0.31	0.83	0.24	0.17
T50°CVnom	0.88	1.16	1.00	1.44
T40°CVnom	0.79	0.24	0.12	0.44
T30°CVnom	1.06	0.79	0.83	-0.01
T20°CVnom	0.05	-0.12	0.59	0.41
T10°CVnom	0.71	0.73	0.22	0.96
T0°CVnom	0.70	0.32	0.73	1.17
T-10°CVnom	0.82	0.95	1.16	0.49
T-20°CVnom	0.87	0.84	0.76	0.72
T-30°CVnom	-0.10	0.51	-0.32	0.41
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

Frequency: 5785 MHz	Frequency Drift (ppm)			
Temperature (°C)	**0 minute**	**2 minutes**	**5 minutes**	**10 minutes**
T20°CVmax	0.99	1.24	1.20	1.35
T20°CVmin	-0.63	-0.10	-0.40	-0.55
T50°CVnom	0.92	1.07	1.28	1.23
T40°CVnom	1.32	1.00	1.48	1.39
T30°CVnom	2.53	2.22	2.84	1.93
T20°CVnom	0.43	0.68	0.80	1.16
T10°CVnom	1.39	1.84	1.84	1.93
T0°CVnom	1.71	2.41	1.98	1.97
T-10°CVnom	0.30	0.26	0.43	0.71
T-20°CVnom	1.98	1.93	2.36	2.67
T-30°CVnom	0.87	0.86	0.44	0.11
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

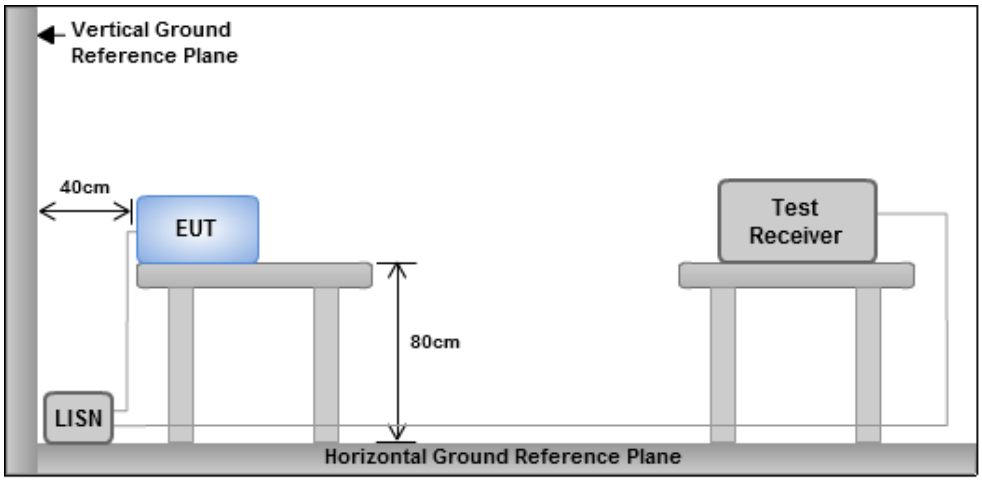
4.1.1 Limit of Conducted Emissions

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.

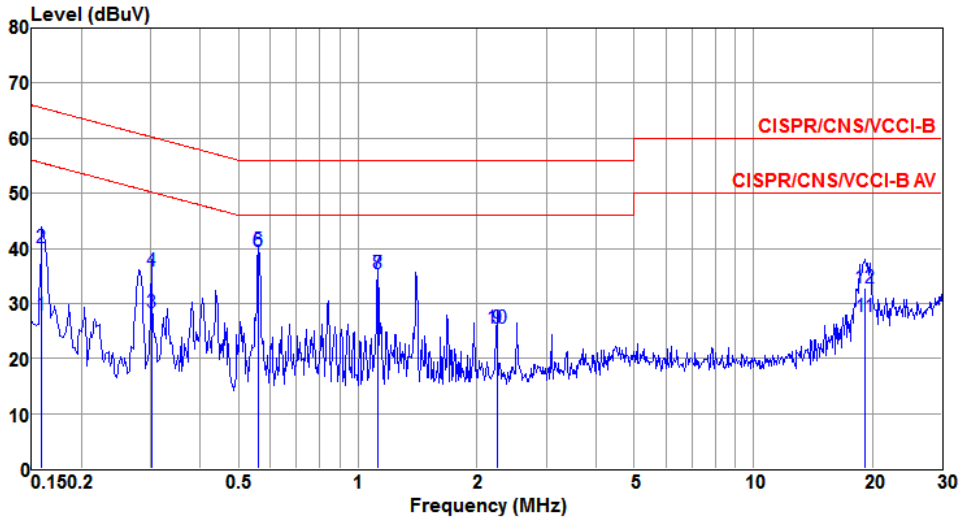
4.1.3 Test Setup



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

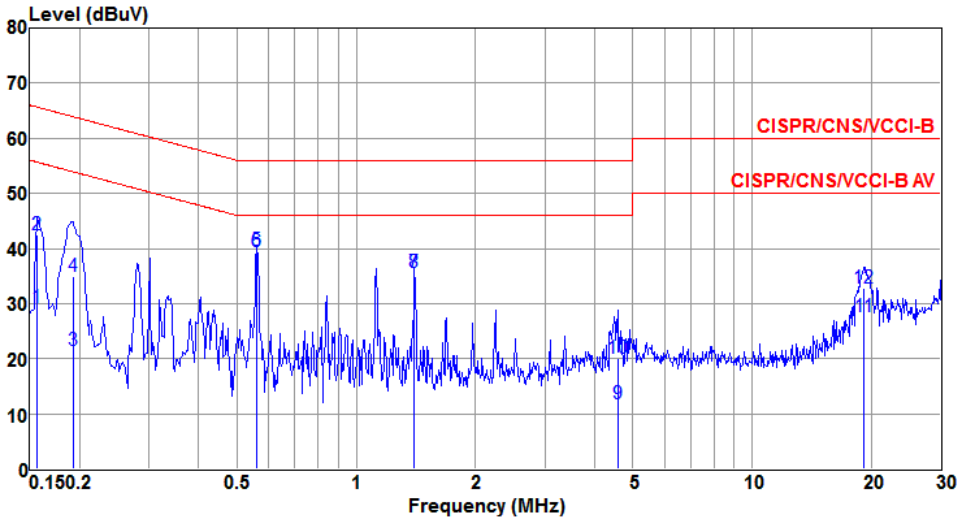
Modulation	11a	Test Freq. (MHz)	5240
Power Phase	Line	Test configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.159	27.91	55.52	-27.61	18.37	9.50	0.04	Average
2	0.159	40.09	65.52	-25.43	30.55	9.50	0.04	QP
3	0.300	28.32	50.24	-21.92	18.72	9.56	0.04	Average
4	0.300	35.80	60.24	-24.44	26.20	9.56	0.04	QP
5@	0.561	39.58	46.00	-6.42	29.99	9.55	0.04	Average
6	0.561	39.31	56.00	-16.69	29.72	9.55	0.04	QP
7	1.123	35.48	46.00	-10.52	25.95	9.49	0.04	Average
8	1.123	35.47	56.00	-20.53	25.94	9.49	0.04	QP
9	2.249	25.40	46.00	-20.60	15.73	9.61	0.06	Average
10	2.249	25.56	56.00	-30.44	15.89	9.61	0.06	QP
11	19.224	27.61	50.00	-22.39	17.64	9.71	0.26	Average
12	19.224	32.76	60.00	-27.24	22.79	9.71	0.26	QP

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

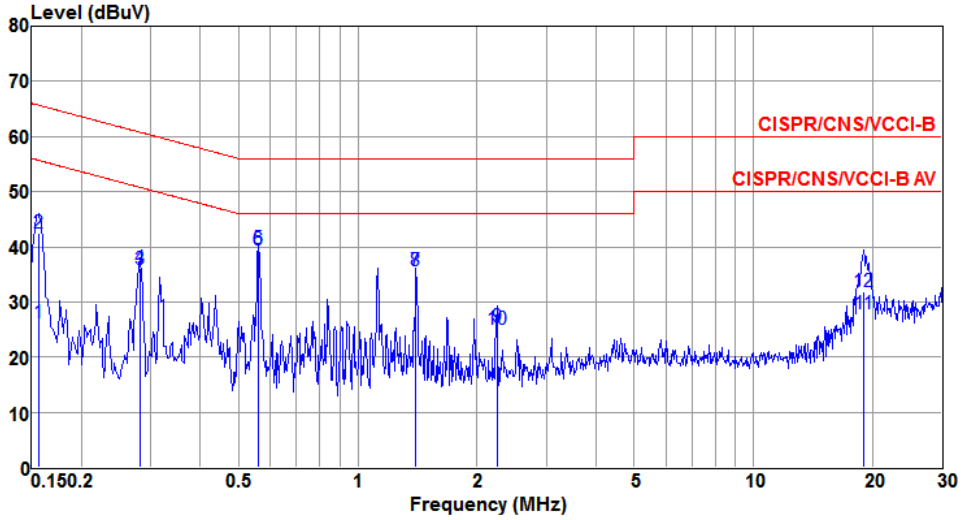
Modulation	11a	Test Freq. (MHz)	5240
Power Phase	Neutral	Test configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.156	29.20	55.69	-26.49	19.58	9.58	0.04	Average
2	0.156	42.44	65.69	-23.25	32.82	9.58	0.04	QP
3	0.192	21.47	53.93	-32.46	11.83	9.60	0.04	Average
4	0.192	34.97	63.93	-28.96	25.33	9.60	0.04	QP
5@	0.561	39.67	46.00	-6.33	30.04	9.59	0.04	Average
6	0.561	39.39	56.00	-16.61	29.76	9.59	0.04	QP
7	1.403	35.61	46.00	-10.39	25.97	9.60	0.04	Average
8	1.403	35.54	56.00	-20.46	25.90	9.60	0.04	QP
9	4.574	11.90	46.00	-34.10	2.02	9.71	0.17	Average
10	4.574	19.96	56.00	-36.04	10.08	9.71	0.17	QP
11	19.224	27.51	50.00	-22.49	17.53	9.72	0.26	Average
12	19.224	32.81	60.00	-27.19	22.83	9.72	0.26	QP

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

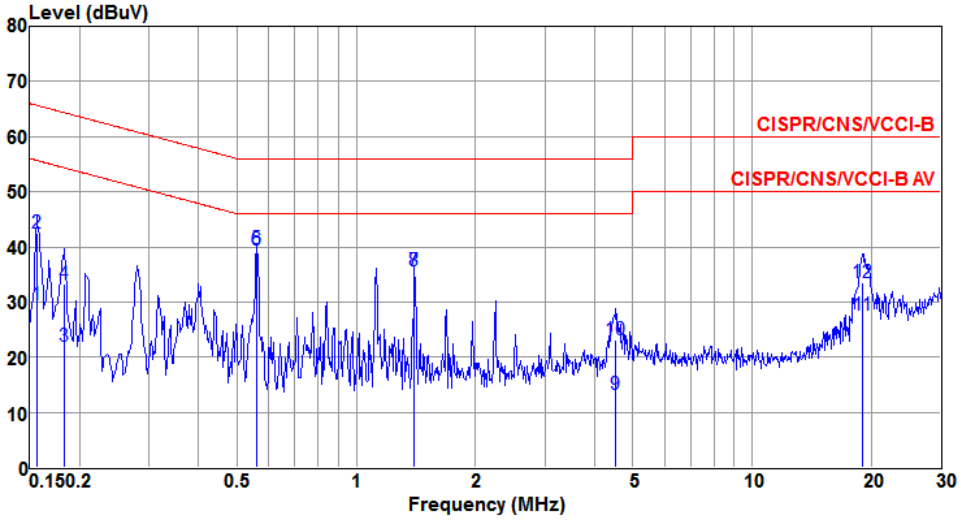
Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Line	Test configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.156	26.27	55.69	-29.42	16.73	9.50	0.04	Average
2	0.156	42.37	65.69	-23.32	32.83	9.50	0.04	QP
3	0.282	35.96	50.76	-14.80	26.37	9.55	0.04	Average
4	0.282	36.21	60.76	-24.55	26.62	9.55	0.04	QP
5@	0.561	39.58	46.00	-6.42	29.99	9.55	0.04	Average
6	0.561	39.33	56.00	-16.67	29.74	9.55	0.04	QP
7	1.403	35.60	46.00	-10.40	26.01	9.55	0.04	Average
8	1.403	35.55	56.00	-20.45	25.96	9.55	0.04	QP
9	2.249	25.46	46.00	-20.54	15.79	9.61	0.06	Average
10	2.249	25.12	56.00	-30.88	15.45	9.61	0.06	QP
11	19.021	27.75	50.00	-22.25	17.79	9.71	0.25	Average
12	19.021	31.77	60.00	-28.23	21.81	9.71	0.25	QP

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

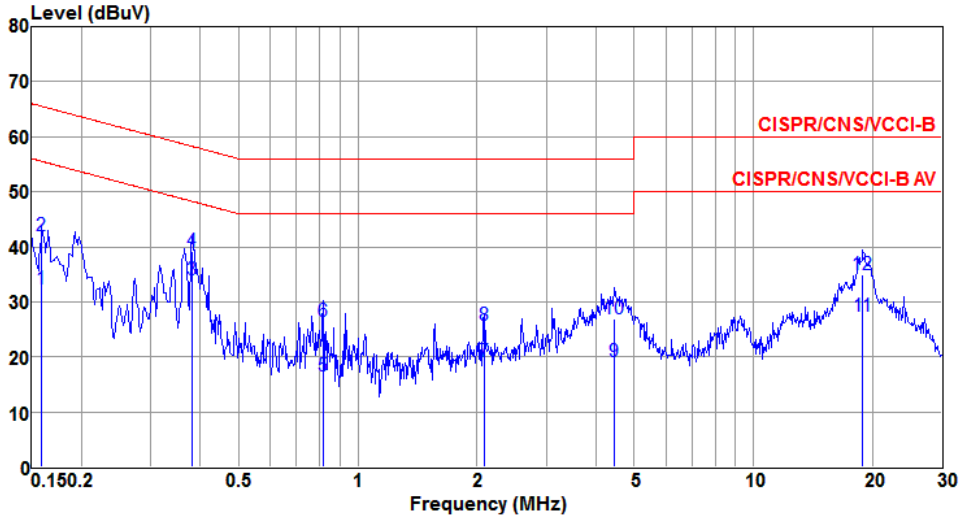
Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Neutral	Test configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.156	29.41	55.69	-26.28	19.79	9.58	0.04	Average
2	0.156	42.40	65.69	-23.29	32.78	9.58	0.04	QP
3	0.183	21.97	54.33	-32.36	12.34	9.59	0.04	Average
4	0.183	33.32	64.33	-31.01	23.69	9.59	0.04	QP
5@	0.561	39.66	46.00	-6.34	30.03	9.59	0.04	Average
6	0.561	39.40	56.00	-16.60	29.77	9.59	0.04	QP
7	1.403	35.64	46.00	-10.36	26.00	9.60	0.04	Average
8	1.403	35.55	56.00	-20.45	25.91	9.60	0.04	QP
9	4.525	13.21	46.00	-32.79	3.33	9.71	0.17	Average
10	4.525	23.13	56.00	-32.87	13.25	9.71	0.17	QP
11	19.021	27.65	50.00	-22.35	17.68	9.72	0.25	Average
12	19.021	33.51	60.00	-26.49	23.54	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).

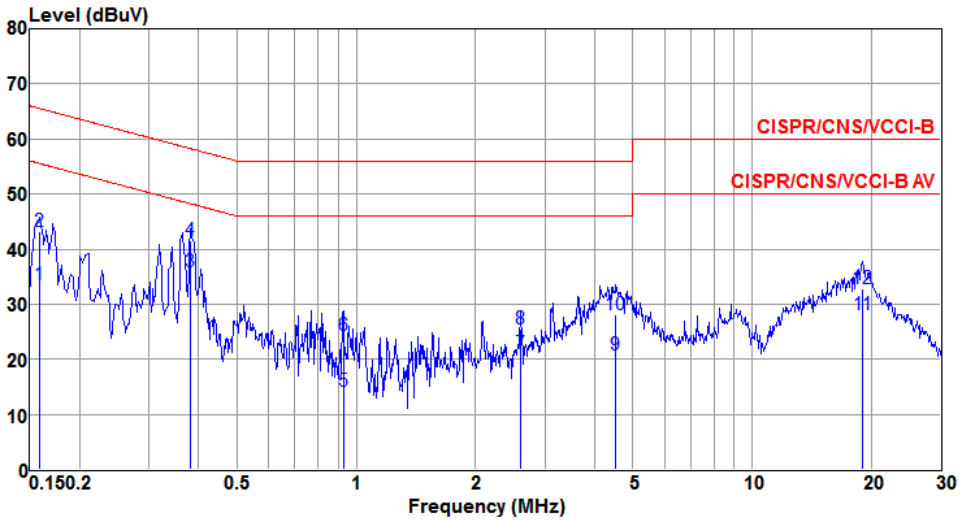
Modulation	11a	Test Freq. (MHz)	5240
Power Phase	Line	Test configuration	2



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.159	32.40	55.52	-23.12	22.86	9.50	0.04	Average
2	0.159	42.09	65.52	-23.43	32.55	9.50	0.04	QP
3@	0.381	34.07	48.25	-14.18	24.44	9.59	0.04	Average
4	0.381	39.12	58.25	-19.13	29.49	9.59	0.04	QP
5	0.817	16.42	46.00	-29.58	6.89	9.49	0.04	Average
6	0.817	26.43	56.00	-29.57	16.90	9.49	0.04	QP
7	2.088	19.14	46.00	-26.86	9.46	9.63	0.05	Average
8	2.088	25.76	56.00	-30.24	16.08	9.63	0.05	QP
9	4.454	19.12	46.00	-26.88	9.45	9.50	0.17	Average
10	4.454	26.98	56.00	-29.02	17.31	9.50	0.17	QP
11	18.920	27.29	50.00	-22.71	17.33	9.71	0.25	Average
12	18.920	34.91	60.00	-25.09	24.95	9.71	0.25	QP

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

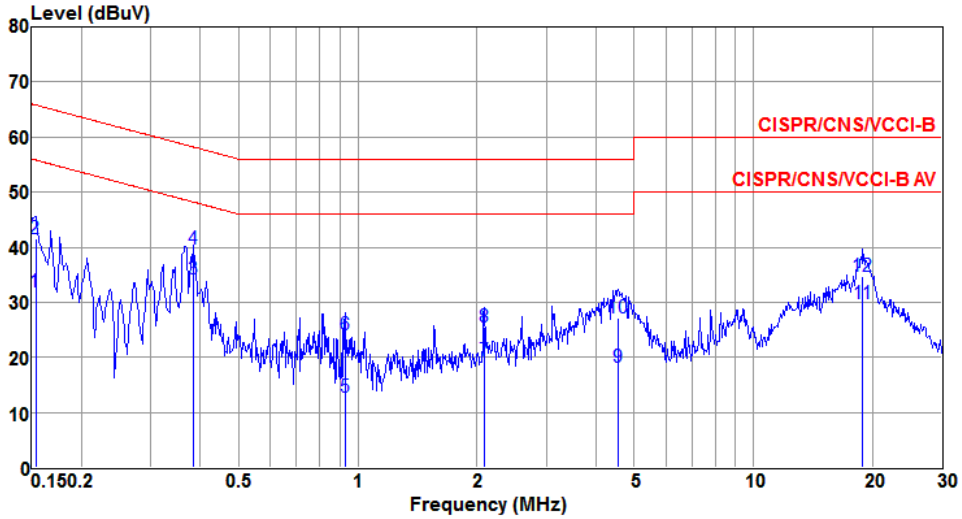
Modulation	11a	Test Freq. (MHz)	5240
Power Phase	Neutral	Test configuration	2



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.159	33.60	55.52	-21.92	23.98	9.58	0.04	Average
2	0.159	43.16	65.52	-22.36	33.54	9.58	0.04	QP
3@	0.381	35.92	48.25	-12.33	26.34	9.54	0.04	Average
4	0.381	41.63	58.25	-16.62	32.05	9.54	0.04	QP
5	0.928	14.22	46.00	-31.78	4.52	9.66	0.04	Average
6	0.928	24.26	56.00	-31.74	14.56	9.66	0.04	QP
7	2.594	20.94	46.00	-25.06	11.27	9.59	0.08	Average
8	2.594	25.55	56.00	-30.45	15.88	9.59	0.08	QP
9	4.525	20.78	46.00	-25.22	10.90	9.71	0.17	Average
10	4.525	28.09	56.00	-27.91	18.21	9.71	0.17	QP
11	19.021	27.99	50.00	-22.01	18.02	9.72	0.25	Average
12	19.021	32.72	60.00	-27.28	22.75	9.72	0.25	QP

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

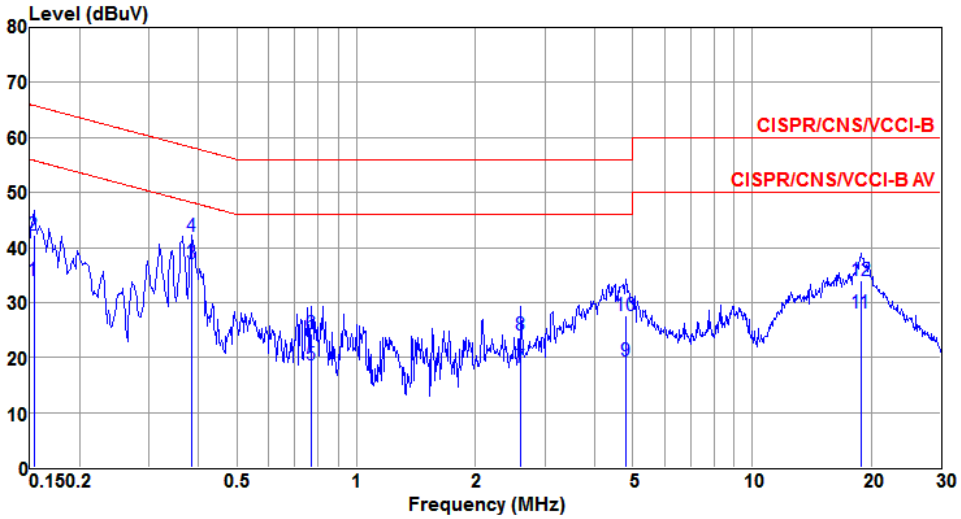
Modulation	VHT40	Test Freq. (MHz)	5755
Power Phase	Line	Test configuration	2



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.153	31.80	55.82	-24.02	22.26	9.50	0.04	Average
2	0.153	41.54	65.82	-24.28	32.00	9.50	0.04	QP
3@	0.383	34.27	48.21	-13.94	24.64	9.59	0.04	Average
4	0.383	39.57	58.21	-18.64	29.94	9.59	0.04	QP
5	0.928	12.77	46.00	-33.23	3.26	9.47	0.04	Average
6	0.928	24.18	56.00	-31.82	14.67	9.47	0.04	QP
7	2.088	19.47	46.00	-26.53	9.79	9.63	0.05	Average
8	2.088	25.44	56.00	-30.56	15.76	9.63	0.05	QP
9	4.549	18.22	46.00	-27.78	8.54	9.51	0.17	Average
10	4.549	27.12	56.00	-28.88	17.44	9.51	0.17	QP
11	18.920	29.65	50.00	-20.35	19.69	9.71	0.25	Average
12	18.920	34.74	60.00	-25.26	24.78	9.71	0.25	QP

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

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



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.153	33.92	55.82	-21.90	24.30	9.58	0.04	Average
2	0.153	42.33	65.82	-23.49	32.71	9.58	0.04	QP
3@	0.383	37.12	48.21	-11.09	27.54	9.54	0.04	Average
4	0.383	42.06	58.21	-16.15	32.48	9.54	0.04	QP
5	0.767	18.69	46.00	-27.31	9.02	9.63	0.04	Average
6	0.767	24.31	56.00	-31.69	14.64	9.63	0.04	QP
7	2.608	18.12	46.00	-27.88	8.43	9.60	0.09	Average
8	2.608	24.12	56.00	-31.88	14.43	9.60	0.09	QP
9	4.797	19.29	46.00	-26.71	9.41	9.71	0.17	Average
10	4.797	27.56	56.00	-28.44	17.68	9.71	0.17	QP
11	18.820	27.98	50.00	-22.02	18.02	9.71	0.25	Average
12	18.820	34.05	60.00	-25.95	24.09	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).

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:
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.

4.2.2 Test Procedures

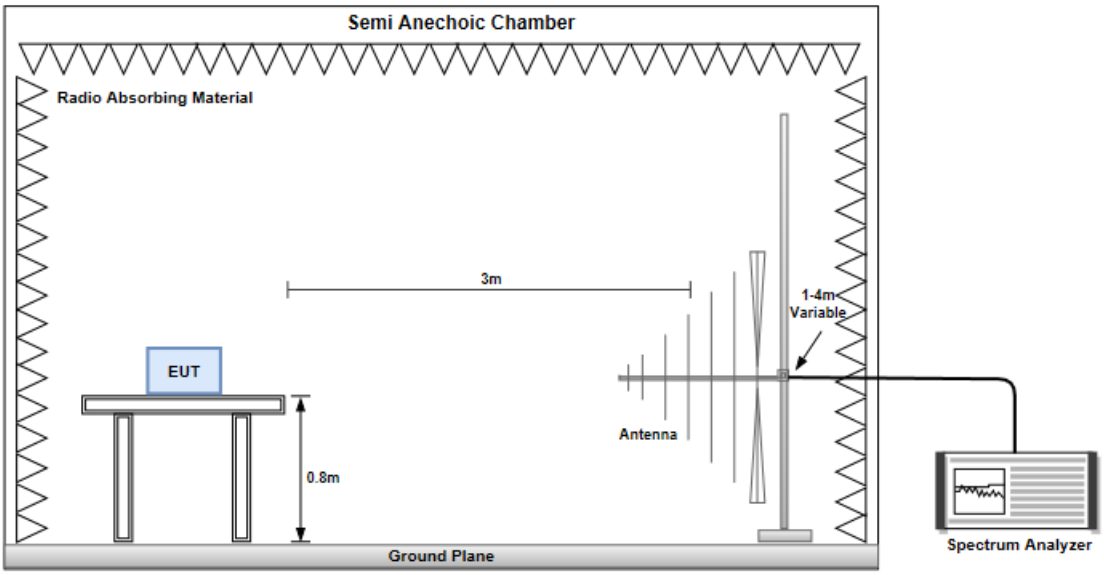
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

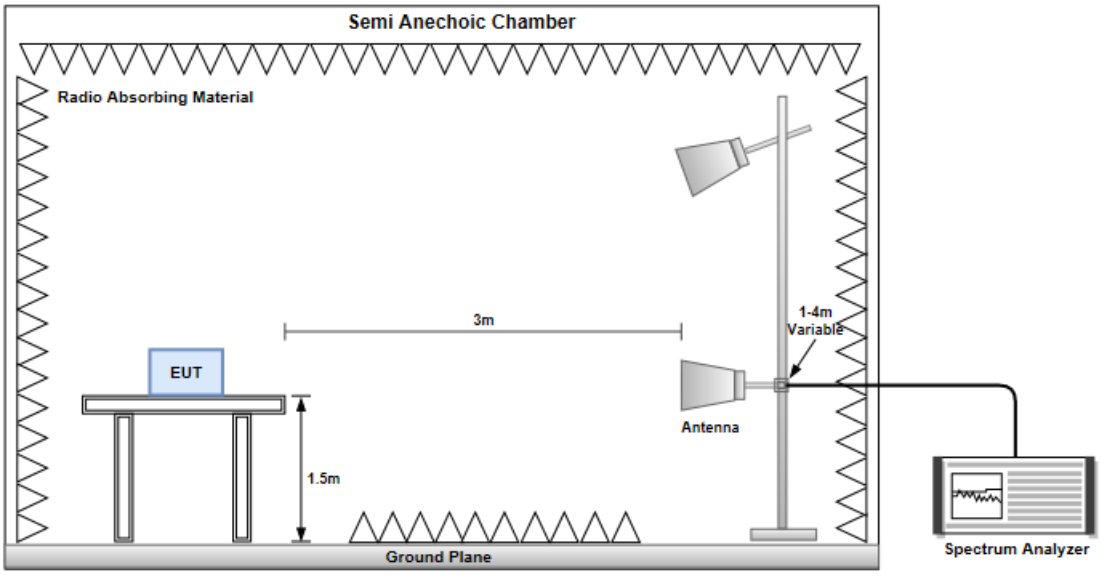
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=3MHz and RMS detector is for average measured value of radiated emission above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

4.2.3 Test Setup

Radiated Emissions below 1 GHz

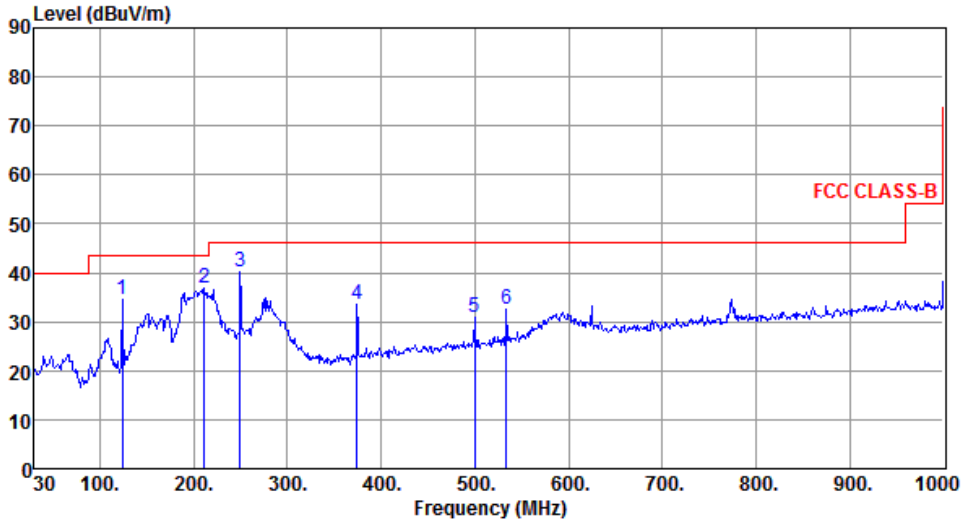


Radiated Emissions above 1 GHz



4.2.4 Receiver Emissions (Below 1GHz)

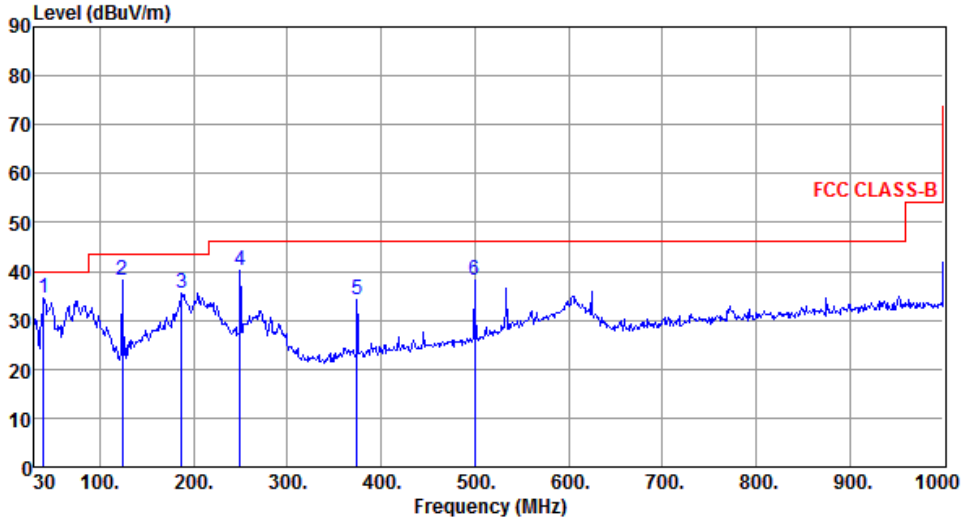
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	124.09	34.43	43.50	-9.07	45.04	-10.61	Peak	---	---
2	211.39	36.73	43.50	-6.77	47.81	-11.08	Peak	---	---
3	249.22	40.27	46.00	-5.73	49.70	-9.43	Peak	---	---
4	374.35	33.64	46.00	-12.36	39.62	-5.98	Peak	---	---
5	499.48	30.76	46.00	-15.24	34.01	-3.25	Peak	---	---
6	533.43	32.47	46.00	-13.53	35.03	-2.56	Peak	---	---

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

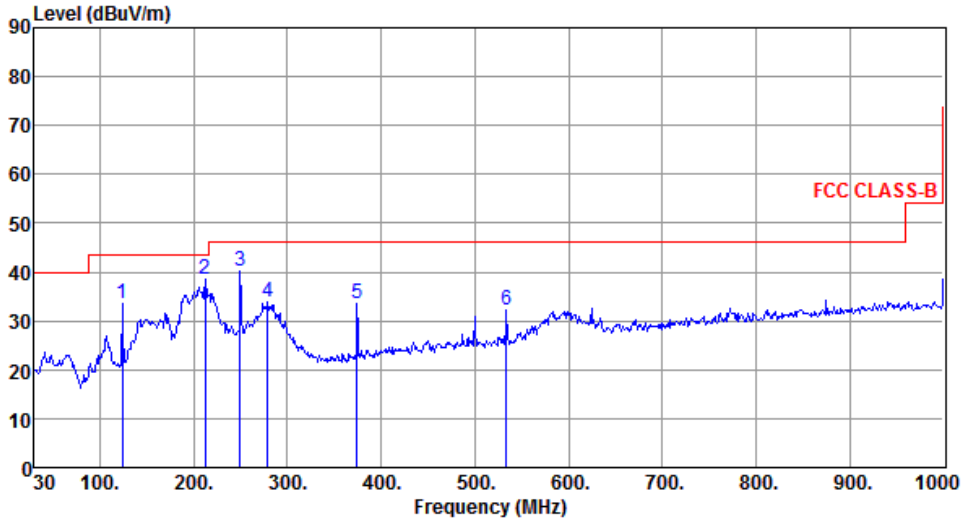
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	39.70	34.51	40.00	-5.49	43.25	-8.74	Peak	---	---
2	124.09	38.29	43.50	-5.21	48.90	-10.61	Peak	---	---
3	187.14	35.69	43.50	-7.81	46.27	-10.58	Peak	---	---
4	249.22	40.11	46.00	-5.89	49.54	-9.43	Peak	---	---
5	374.35	34.19	46.00	-11.81	40.17	-5.98	Peak	---	---
6	499.48	38.11	46.00	-7.89	41.36	-3.25	Peak	---	---

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

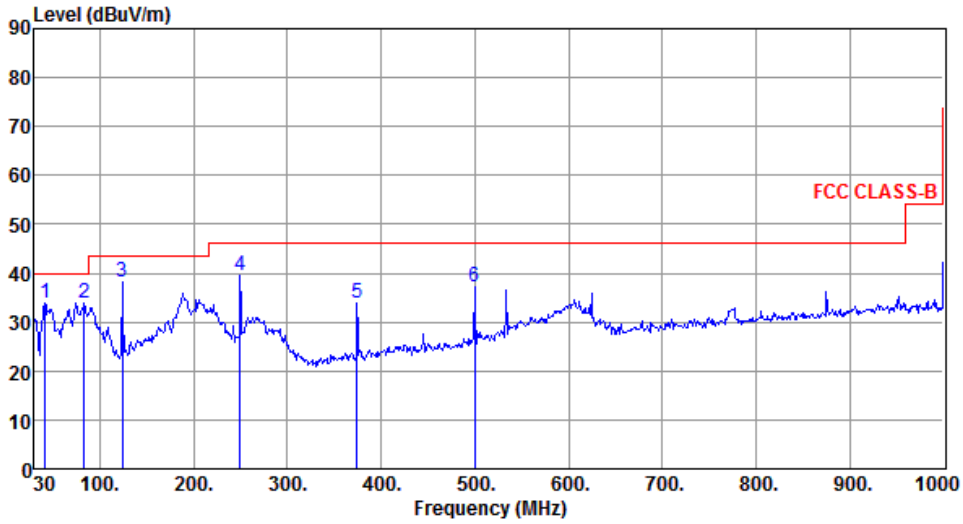
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	124.09	33.66	43.50	-9.84	44.27	-10.61	Peak	---	---
2	212.36	38.39	43.50	-5.11	49.47	-11.08	Peak	---	---
3	249.22	40.02	46.00	-5.98	49.45	-9.43	Peak	---	---
4	279.29	33.74	46.00	-12.26	42.08	-8.34	Peak	---	---
5	374.35	33.61	46.00	-12.39	39.59	-5.98	Peak	---	---
6	533.43	32.24	46.00	-13.76	34.80	-2.56	Peak	---	---

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

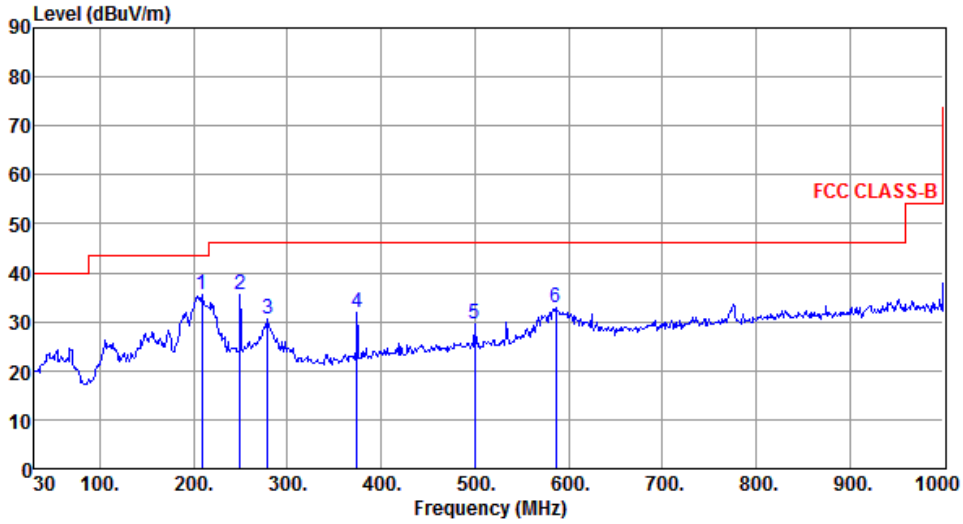
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	41.64	33.96	40.00	-6.04	42.55	-8.59	Peak	---	---
2	83.35	33.86	40.00	-6.14	47.50	-13.64	Peak	---	---
3	124.09	38.06	43.50	-5.44	48.67	-10.61	Peak	---	---
4	249.22	39.59	46.00	-6.41	49.02	-9.43	Peak	---	---
5	374.35	33.87	46.00	-12.13	39.85	-5.98	Peak	---	---
6	499.48	37.24	46.00	-8.76	40.49	-3.25	Peak	---	---

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

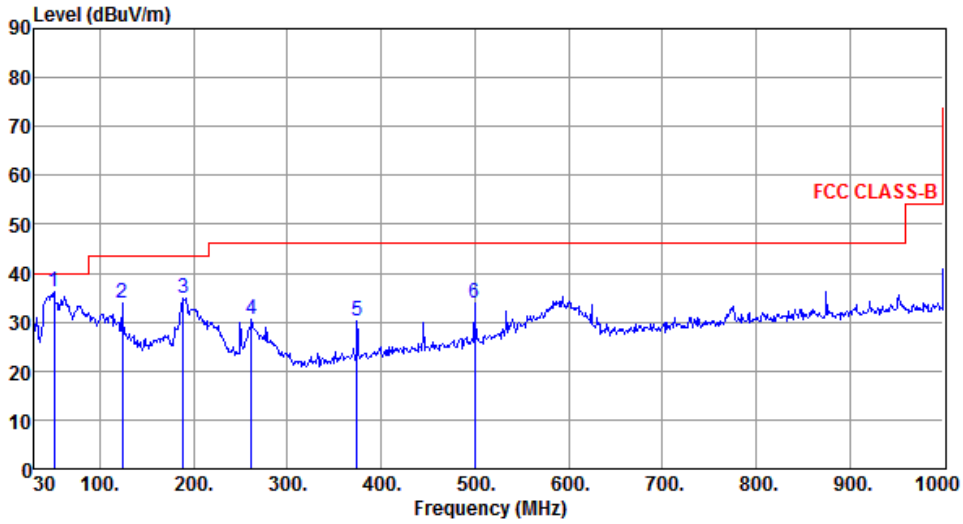
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	208.48	35.59	43.50	-7.91	46.70	-11.11	Peak	---	---
2	249.22	35.56	46.00	-10.44	44.99	-9.43	Peak	---	---
3	279.29	30.61	46.00	-15.39	38.95	-8.34	Peak	---	---
4	374.35	31.88	46.00	-14.12	37.86	-5.98	Peak	---	---
5	499.48	29.68	46.00	-16.32	32.93	-3.25	Peak	---	---
6	586.78	32.85	46.00	-13.15	34.11	-1.26	Peak	---	---

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

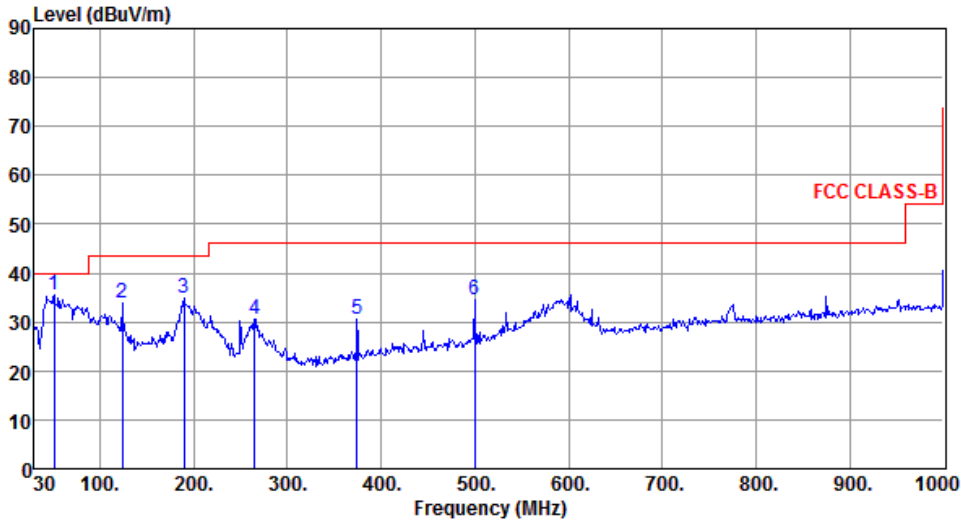
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	51.34	36.14	40.00	-3.86	44.38	-8.24	Peak	---	---
2	124.09	34.04	43.50	-9.46	44.65	-10.61	Peak	---	---
3	189.08	34.94	43.50	-8.56	45.70	-10.76	Peak	---	---
4	261.83	30.60	46.00	-15.40	39.70	-9.10	Peak	---	---
5	374.35	30.37	46.00	-15.63	36.35	-5.98	Peak	---	---
6	499.48	34.01	46.00	-11.99	37.26	-3.25	Peak	---	---

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

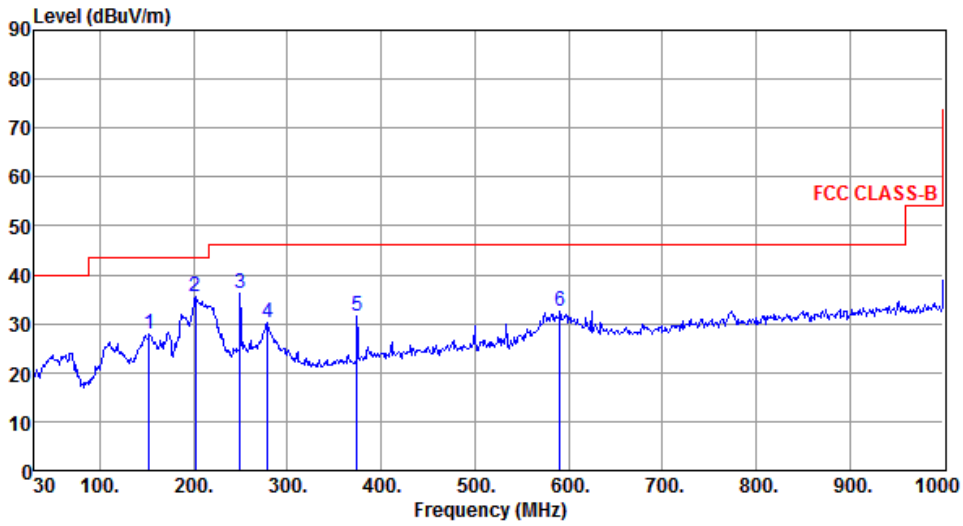
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	51.34	35.65	40.00	-4.35	43.89	-8.24	Peak	---	---
2	124.09	33.72	43.50	-9.78	44.33	-10.61	Peak	---	---
3	190.05	34.85	43.50	-8.65	45.68	-10.83	Peak	---	---
4	264.74	30.70	46.00	-15.30	39.67	-8.97	Peak	---	---
5	374.35	30.67	46.00	-15.33	36.65	-5.98	Peak	---	---
6	499.48	34.47	46.00	-11.53	37.72	-3.25	Peak	---	---

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

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

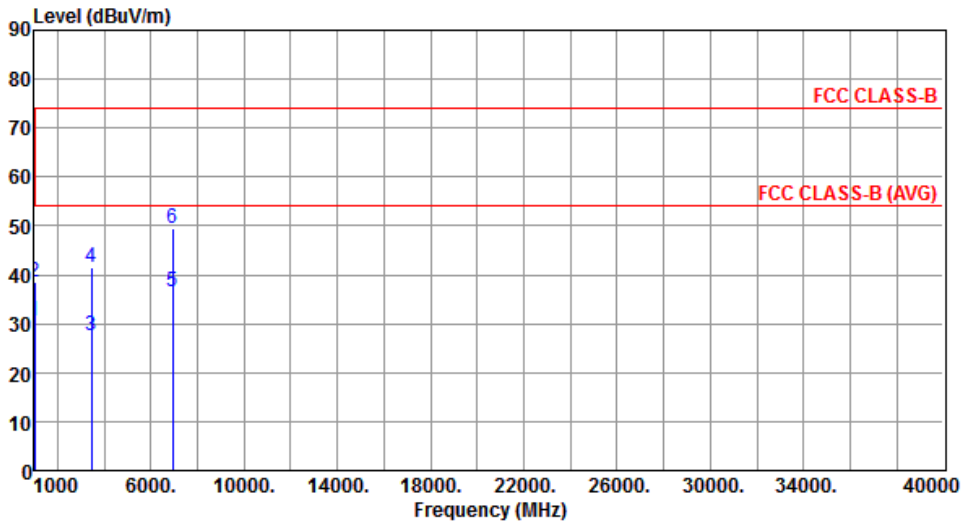


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	152.22	27.85	43.50	-15.65	36.34	-8.49	Peak	---	---
2	201.69	35.59	43.50	-7.91	46.79	-11.20	Peak	---	---
3	249.22	36.14	46.00	-9.86	45.57	-9.43	Peak	---	---
4	279.29	30.10	46.00	-15.90	38.44	-8.34	Peak	---	---
5	374.35	31.45	46.00	-14.55	37.43	-5.98	Peak	---	---
6	590.66	32.70	46.00	-13.30	33.87	-1.17	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)

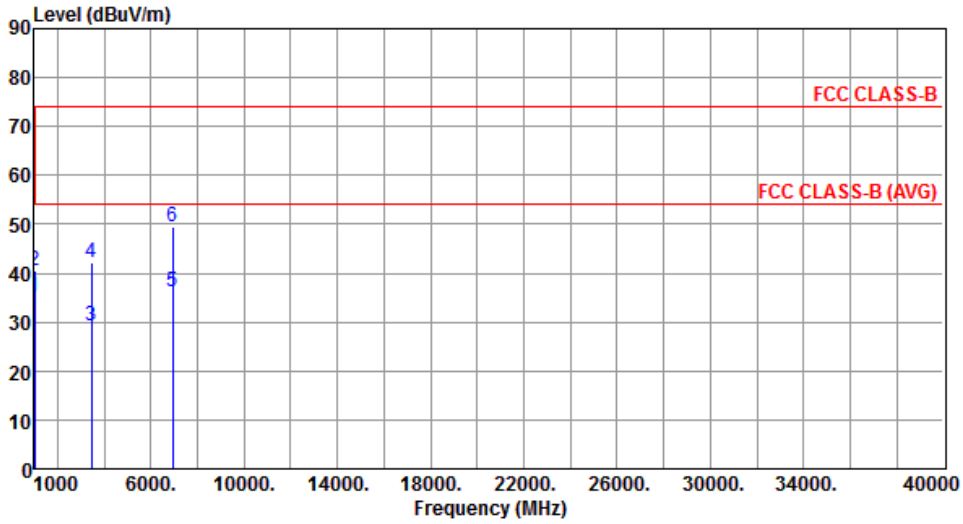
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1000.10	30.45	54.00	-23.55	39.45	-9.00	Average	100	322
2	1000.10	38.43	74.00	-35.57	47.43	-9.00	Peak	100	322
3	3466.66	27.51	54.00	-26.49	26.65	0.86	Average	100	145
4	3466.66	41.39	74.00	-32.61	40.53	0.86	Peak	100	145
5	6933.33	36.48	54.00	-17.52	28.24	8.24	Average	100	20
6	6933.33	49.55	74.00	-24.45	41.31	8.24	Peak	100	20

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

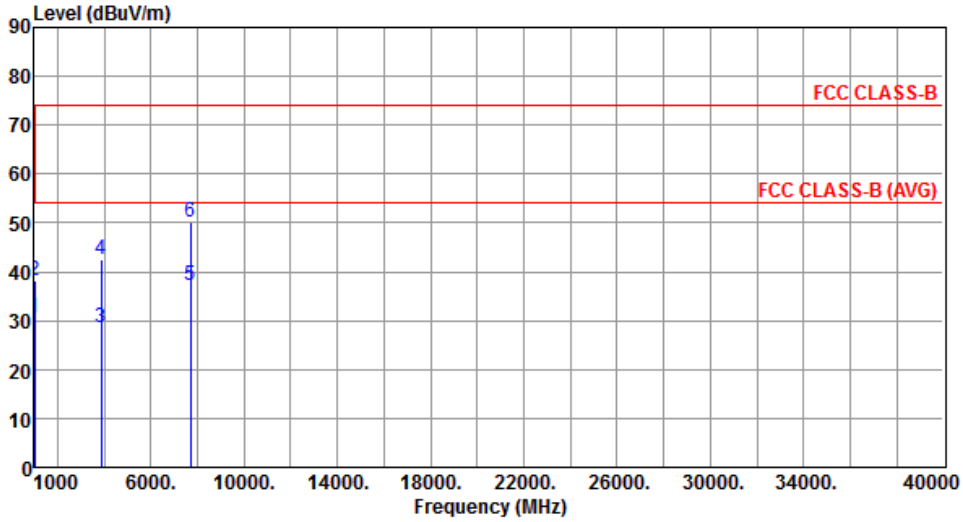
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1000.10	35.21	54.00	-18.79	44.21	-9.00	Average	100	38
2	1000.10	40.35	74.00	-33.65	49.35	-9.00	Peak	100	38
3	3466.66	29.37	54.00	-24.63	28.51	0.86	Average	100	145
4	3466.66	42.29	74.00	-31.71	41.43	0.86	Peak	100	145
5	6933.33	36.22	54.00	-17.78	27.98	8.24	Average	100	18
6	6933.33	49.45	74.00	-24.55	41.21	8.24	Peak	100	18

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

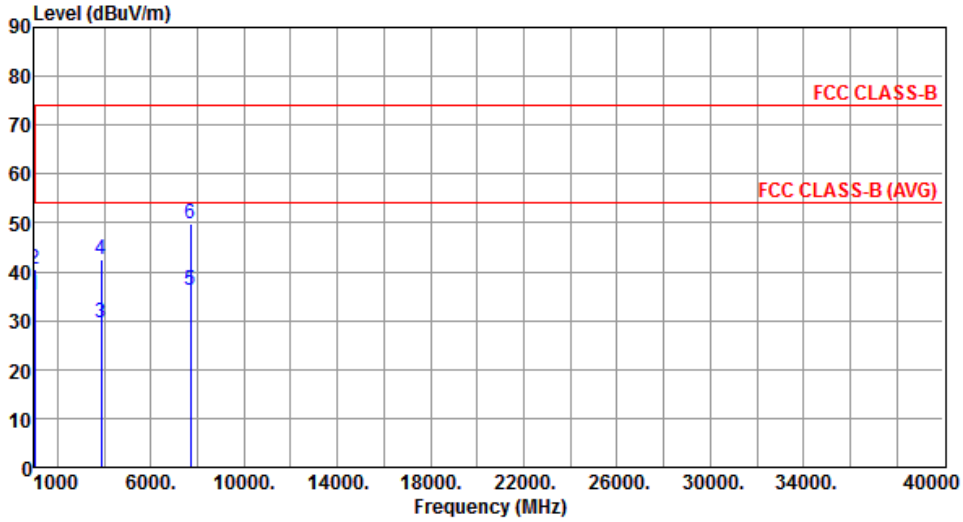
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1000.10	30.65	54.00	-23.35	39.65	-9.00	Average	100	323
2	1000.10	38.28	74.00	-35.72	47.28	-9.00	Peak	100	323
3	3856.66	28.43	54.00	-25.57	26.38	2.05	Average	100	142
4	3856.66	42.48	74.00	-31.52	40.43	2.05	Peak	100	142
5	7713.33	37.11	54.00	-16.89	27.44	9.67	Average	100	18
6	7713.33	49.99	74.00	-24.01	40.32	9.67	Peak	100	18

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

Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	1000.10	35.31	54.00	-18.69	44.31	-9.00	Average	100	42
2	1000.10	40.48	74.00	-33.52	49.48	-9.00	Peak	100	42
3	3856.66	29.67	54.00	-24.33	27.62	2.05	Average	100	132
4	3856.66	42.52	74.00	-31.48	40.47	2.05	Peak	100	132
5	7713.33	36.29	54.00	-17.71	26.62	9.67	Average	100	19
6	7713.33	49.98	74.00	-24.02	40.31	9.67	Peak	100	19

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

Linkou	**Kwei Shan**	**Kwei Shan Site II**
Tel: 886-2-2601-1640	Tel: 886-3-271-8666	Tel: 886-3-271-8640
No. 30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan, R.O.C.	No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.	No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.

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

Tel: 886-3-271-8666
Fax: 886-3-318-0155
Email: ICC_Service@icertifi.com.tw

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