FCC Test Report

FCC ID	:	**UIDSBR-AC1200P**
Equipment	:	**AC1200 Wi-Fi Router with RipCurrent™ Technology**
Model No.	:	**SBR-AC1200P**
Brand Name	:	**ARRIS**
Applicant	:	**ARRIS Group, Inc.**
Address	:	**3871 Lakefield Drive, Suite 300, Suwanee, Georgia 30024, United States**
Standard	:	**47 CFR FCC Part 15.407**
Received Date	:	**Sep. 22, 2015**
Tested Date	:	**Oct. 04 ~ Oct. 23, 2015**

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

Approved & Reviewed by:

Gary Chang / Manager

Testing Laboratory
2732

Table of Contents

Release Record

Report No.	Version	Description	Issued Date
FR592203AN	Rev. 01	Initial issue	Nov. 20, 2015

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 1.021MHz 42.39 (Margin -3.61dB) - AV	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5150.00MHz 53.00 (Margin -1.00dB) - AV	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(e)	6dB bandwidth	Meet the requirement of limit	Pass
15.407(a)	RF Output Power	Max Power [dBm]: ***Non-beamforming mode*** 5150-5250MHz: 25.11 5725-5850MHz: 23.73 ***Beamforming mode*** 5150-5250MHz: 25.03 5725-5850MHz: 23.53	Pass
15.407(a)	Peak Power Spectral Density	Meet the requirement of limit	Pass
15.407(g)	Frequency Stability	Meet the requirement of limit	Pass
15.203	Antenna Requirement	Meet the requirement of limit	Pass

1 General Description

1.1 Information

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	**IEEE Std. 802.11**	**Ch. Freq. (MHz)**	**Channel Number**	**Transmit Chains (N_{TX})**	**Data Rate / MCS**
5150-5250	a	5180-5240	36-48 [4]	2	6-54 Mbps
5150-5250	n (HT20)	5180-5240	36-48 [4]	2	MCS 0-15
5150-5250	n (HT40)	5190-5230	38-46 [2]	2	MCS 0-15
5150-5250	ac (VHT20)	5180-5240	36-48 [4]	2	MCS 0-9
5150-5250	ac (VHT40)	5190-5230	38-46 [2]	2	MCS 0-9
5150-5250	ac (VHT80)	5210	42 [1]	2	MCS 0-9
5725-5850	a	5745-5825	149-165 [5]	2	6-54 Mbps
5725-5850	n (HT20)	5745-5825	149-165 [5]	2	MCS 0-15
5725-5850	n (HT40)	5755-5795	151-159 [2]	2	MCS 0-15
5725-5850	ac (VHT20)	5745-5825	149-165 [5]	2	MCS 0-9
5725-5850	ac (VHT40)	5755-5795	151-159 [2]	2	MCS 0-9
5725-5850	ac (VHT80)	5775	155 [1]	2	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

Ant. No.	**Model**	**Type**	**Connector**	**Operating Frequency (MHz) / Gain (dBi)**		
				2400~2483.5	**5150~5250**	**5725~5850**
1	617210JN	Dipole	I-pex	1.83	--	--
2	617210JM	Dipole	I-pex	2.02	--	--
3	617210JP	PIFA	I-pex	--	2.87	3.60
4	617210K2	PIFA	I-pex	--	3.23	3.82

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	100-240Vac, 50-60Hz, 1.0A Power line: 1.5m non-shielded without core

1.1.4 Accessories

Accessories		
No.	**Equipment**	**Description**
1	RJ45 cable	1m non-shielded without core

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	MTool, version: 2.0.2.7				
Duty Cycle and Duty Factor	**Mode**	**Non-beamforming**		**Beamforming**	
		Duty cycle (%)	**Duty factor (dB)**	**Duty cycle (%)**	**Duty factor (dB)**
	11a	99.31%	0.03	---	---
	HT20	99.26%	0.03	98.68%	0.06
	HT40	98.23%	0.08	98.47%	0.07
	VHT20	99.26%	0.03	98.68%	0.06
	VHT40	98.23%	0.08	98.47%	0.07
	VHT80	99.36%	0.03	98.62%	0.06

1.1.7 Power Setting

For Frequency band 5150-5250 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5180	94	---
11a	5200	112	---
11a	5240	112	---
HT20	5180	94	78
HT20	5200	112	112
HT20	5240	112	112
HT40	5190	68	66
HT40	5230	112	112
VHT20	5180	94	78
VHT20	5200	112	112
VHT20	5240	112	112
VHT40	5190	68	66
VHT40	5230	112	112
VHT80	5210	62	62

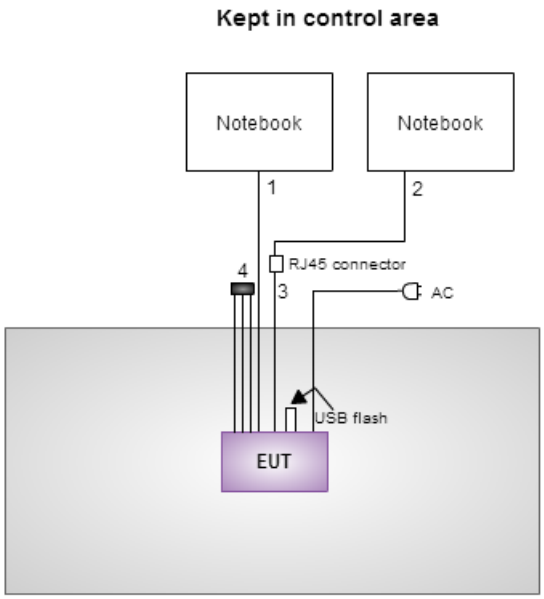
For Frequency band 5725~5850 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5745	68	---
11a	5785	82	---
11a	5825	74	---
HT20	5745	66	66
HT20	5785	82	82
HT20	5825	74	74
HT40	5755	66	66
HT40	5795	76	76
VHT20	5745	66	66
VHT20	5785	82	82
VHT20	5825	74	74
VHT40	5755	66	66
VHT40	5795	76	76
VHT80	5775	60	60

1.2 Local Support Equipment List

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Signal cable / Length (m)**
1	Notebook	DELL	Latitude E6430	DoC	RJ45, 10m non-shielded.
2	Notebook	DELL	Latitude E6430	DoC	RJ45, 10m non-shielded.
3	USB 2.0 flash	Kingston	DTSE9	---	---
4	Load	ICC	---	---	RJ45, 1.5m non-shielded x3.

1.3 Test Setup Chart

Test Setup Diagram



1. RJ45, 10m non-shielded
2. RJ45, 10m non-shielded
3. RJ45, 1m non-shielded
4. RJ45, 1.5m (x3) non-shielded with load

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Oct. 20, 2015				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	101657	Jan. 15, 2015	Jan. 14, 2016
LISN	SCHWARZBECK	Schwarzbeck 8127	8127-667	Nov. 17, 2014	Nov. 16, 2015
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Dec. 31, 2014	Dec. 30, 2015
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission below 1GHz test				
Test Site	966 chamber 2 / (03CH02-WS)				
Tested Date	Oct. 20, 2015				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	101657	Jan. 15, 2015	Jan. 14, 2016
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-524	Oct. 05, 2015	Oct. 04, 2016
Preamplifier	Burgeon	BPA-530	100218	Nov. 10, 2014	Nov. 09, 2015
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-003	Dec. 16, 2014	Dec. 15, 2015
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-004	Dec. 16, 2014	Dec. 15, 2015
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission above 1GHz test				
Test Site	966 chamber 2 / (03CH02-WS)				
Tested Date	Oct. 04 ~ Oct. 12, 2015				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101499	Dec. 31, 2014	Dec. 30, 2015
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1095	Oct. 14, 2014	Oct. 13, 2015
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 10, 2014	Nov. 09, 2015
Preamplifier	Agilent	83017A	MY39501309	Sep. 22, 2015	Sep. 21, 2016
Preamplifier	EMC	EMC184045B	980192	Sep. 01, 2015	Aug. 31, 2016
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16140/4	Dec. 16, 2014	Dec. 15, 2015
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16018/4	Dec. 16, 2014	Dec. 15, 2015
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16015/4	Dec. 16, 2014	Dec. 15, 2015
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Oct. 19 ~ Oct. 23, 2015				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101063	Feb. 03, 2015	Feb. 02, 2016
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Dec. 03, 2014	Dec. 02, 2015
Power Meter	Anritsu	ML2495A	1241002	Sep. 21, 2015	Sep. 20, 2016
Power Sensor	Anritsu	MA2411B	1207366	Sep. 21, 2015	Sep. 20, 2016
Measurement Software	Sporton	Sporton_1	1.3.30	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Testing Applied Standards

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

47 CFR FCC Part 15.407
ANSI C63.10-2013
FCC KDB 789033 D02 General UNII Test Procedures New Rules v01
FCC KDB 644545 D03 Guidance for IEEE 802 11ac New Rules v01
FCC KDB 662911 D01 Multiple Transmitter Output v02r01
FCC KDB 412172 D01 Determining ERP and EIRP v01r01

1.6 Measurement Uncertainty

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

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	±34.134 Hz
Conducted power	±0.808 dB
Frequency error	±34.134 Hz
Power density	±0.463 dB
Conducted emission	±2.670 dB
AC conducted emission	±2.92 dB
Radiated emission ≤ 1GHz	±3.62 dB
Radiated emission > 1GHz	±5.60 dB
Time	±0.1%
Temperature	±0.6 °C

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	21°C / 57%	Peter Lin
Radiated Emissions	03CH02-WS	21-24°C / 66-69%	Morgan Chen Anderson Hung
RF Conducted	TH01-WS	22°C / 61%	Alex Huang

- FCC site registration No.: 657002
- IC site registration No.: 10807A-2

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**	**Test Configuration**
Conducted Emissions	VHT40	5230	MCS 0	---
Radiated Emissions ≤1GHz	VHT40	5230	MCS 0	---
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	---
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	---
Frequency Stability	Un-modulation	5200	---	---

For Frequency band 5725-5850 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
Conducted Emissions	11a	5785	6 Mbps	---
Radiated Emissions ≤1GHz	11a	5785	6 Mbps	---
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	---
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	---
Frequency Stability	Un-modulation	5785	---	---

Beamforming mode

For Frequency band 5150-5250 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
Conducted Emissions	VHT40	5230	MCS 0	---
Radiated Emissions ≤1GHz	VHT40	5230	MCS 0	---
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	---
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	VHT20 VHT40 VHT80	5180 / 5200 / 5240 5190 / 5230 5210	MCS 0 MCS 0 MCS 0	---

For Frequency band 5725-5850 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
Conducted Emissions	VHT20	5785	MCS 0	---
Radiated Emissions ≤1GHz	VHT20	5785	MCS 0	---
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	---
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	---

3 Transmitter Test Results

3.1 Conducted Emissions

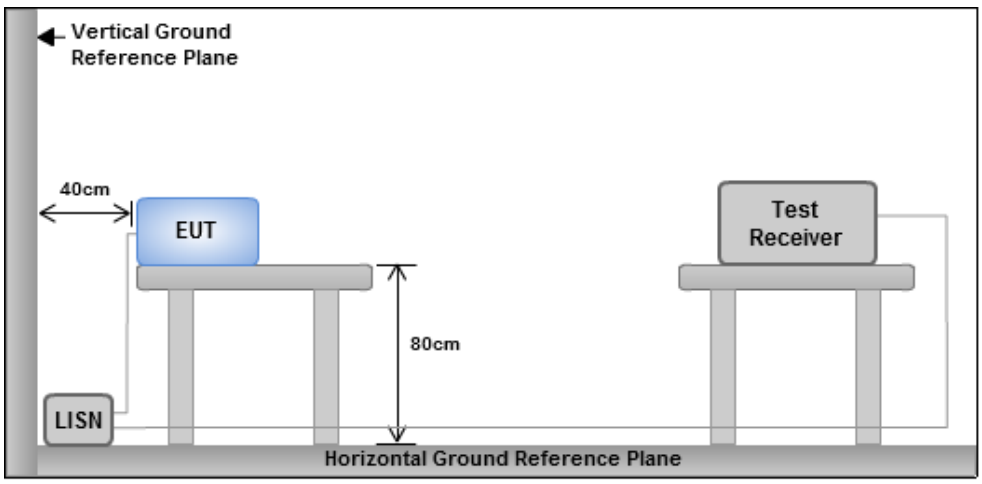
3.1.1 Limit of Conducted Emissions

Conducted Emissions Limit		
Frequency Emission (MHz)	**Quasi-Peak**	**Average**
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50
Note 1: * Decreases with the logarithm of the frequency.		

3.1.2 Test Procedures

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

3.1.3 Test Setup



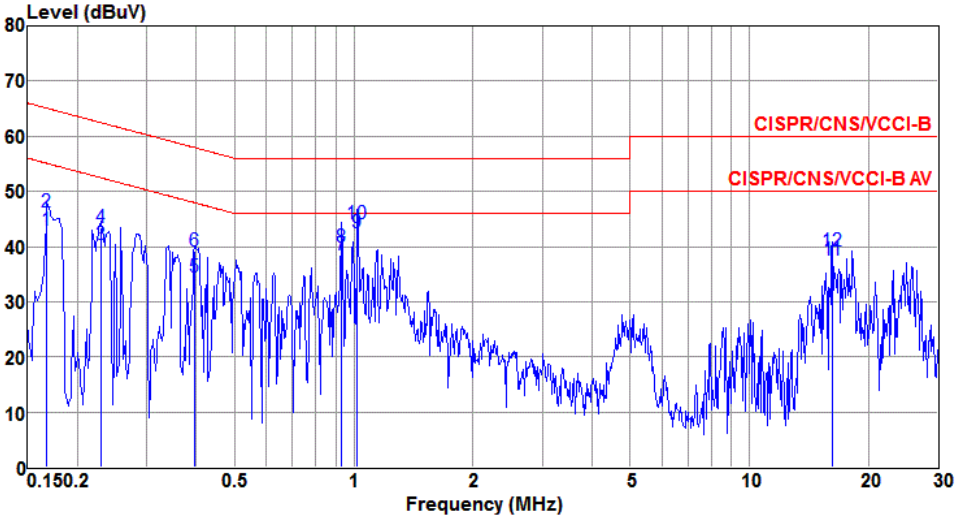
Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

Non-beamforming mode

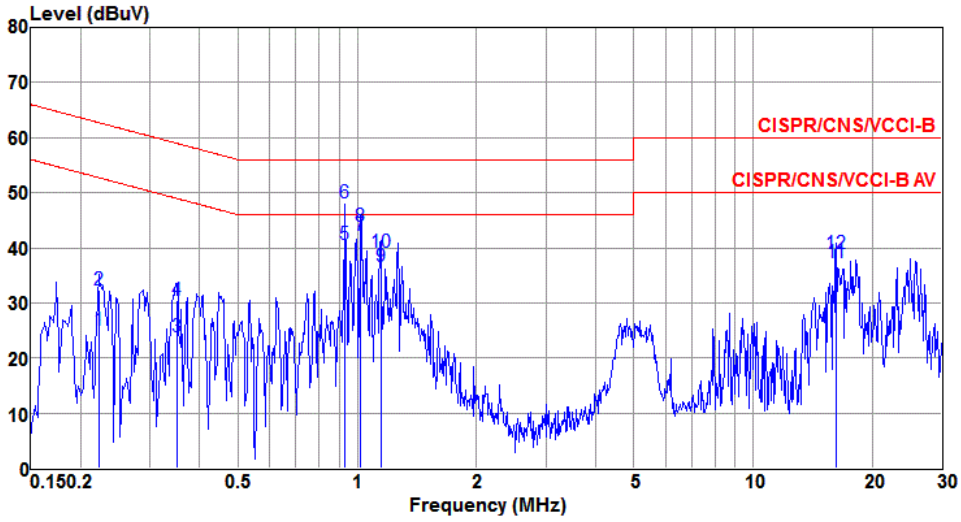
Modulation	VHT40	Test Freq. (MHz)	5230
Power Phase	Line		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.168	42.93	55.08	-12.15	42.78	0.07	0.08	Average
2	0.168	46.35	65.08	-18.73	46.20	0.07	0.08	QP
3	0.230	40.48	52.44	-11.96	40.32	0.07	0.09	Average
4	0.230	43.54	62.44	-18.90	43.38	0.07	0.09	QP
5	0.396	34.55	47.95	-13.40	34.37	0.07	0.11	Average
6	0.396	39.15	57.95	-18.80	38.97	0.07	0.11	QP
7	0.928	38.59	46.00	-7.41	38.35	0.08	0.16	Average
8	0.928	39.97	56.00	-16.03	39.73	0.08	0.16	QP
9@	1.021	42.39	46.00	-3.61	42.15	0.08	0.16	Average
10	1.021	44.17	56.00	-11.83	43.93	0.08	0.16	QP
11	16.226	37.55	50.00	-12.45	37.11	0.29	0.15	Average
12	16.226	39.16	60.00	-20.84	38.72	0.29	0.15	QP

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

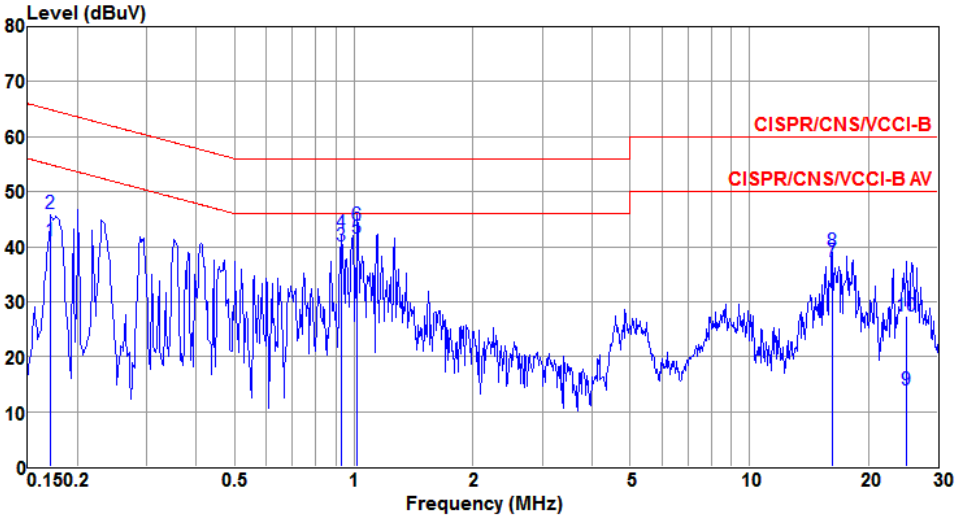
Modulation	VHT40	Test Freq. (MHz)	5230
Power Phase	Neutral		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.222	25.14	52.74	-27.60	24.98	0.07	0.09	Average
2	0.222	32.33	62.74	-30.41	32.17	0.07	0.09	QP
3	0.350	23.94	48.96	-25.02	23.76	0.07	0.11	Average
4	0.350	30.44	58.96	-28.52	30.26	0.07	0.11	QP
5	0.933	40.52	46.00	-5.48	40.28	0.08	0.16	Average
6	0.933	48.08	56.00	-7.92	47.84	0.08	0.16	QP
7@	1.021	42.22	46.00	-3.78	41.98	0.08	0.16	Average
8	1.021	43.99	56.00	-12.01	43.75	0.08	0.16	QP
9	1.147	36.52	46.00	-9.48	36.26	0.08	0.18	Average
10	1.147	39.28	56.00	-16.72	39.02	0.08	0.18	QP
11	16.226	37.31	50.00	-12.69	36.85	0.31	0.15	Average
12	16.226	38.90	60.00	-21.10	38.44	0.31	0.15	QP

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

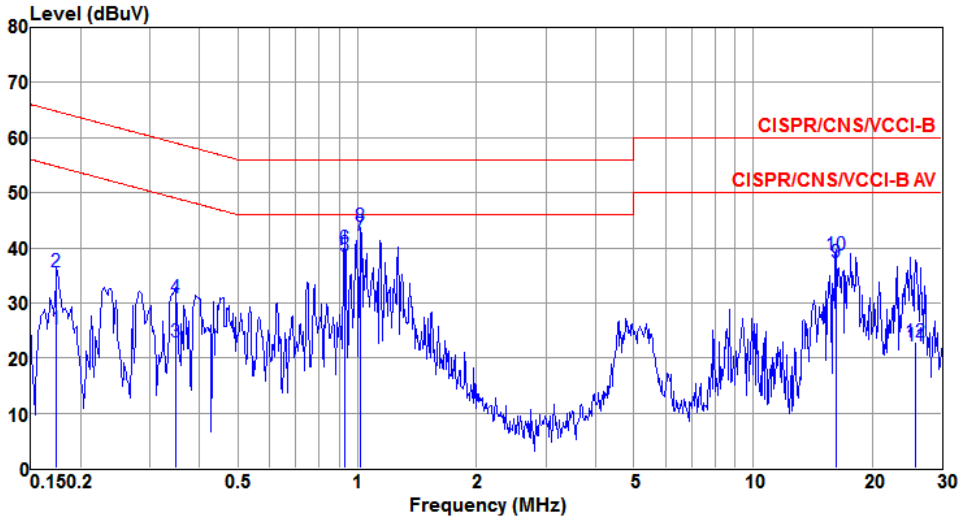
Modulation	11a	Test Freq. (MHz)	5785
Power Phase	Line		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.171	41.05	54.90	-13.85	40.90	0.07	0.08	Average
2	0.171	46.10	64.90	-18.80	45.95	0.07	0.08	QP
3	0.933	40.25	46.00	-5.75	40.01	0.08	0.16	Average
4	0.933	42.51	56.00	-13.49	42.27	0.08	0.16	QP
5@	1.021	41.45	46.00	-4.55	41.21	0.08	0.16	Average
6	1.021	43.97	56.00	-12.03	43.73	0.08	0.16	QP
7	16.226	37.34	50.00	-12.66	36.90	0.29	0.15	Average
8	16.226	39.20	60.00	-20.80	38.76	0.29	0.15	QP
9	24.922	13.84	50.00	-36.16	13.40	0.35	0.09	Average
10	24.922	27.46	60.00	-32.54	27.02	0.35	0.09	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)	5785
Power Phase	Neutral		

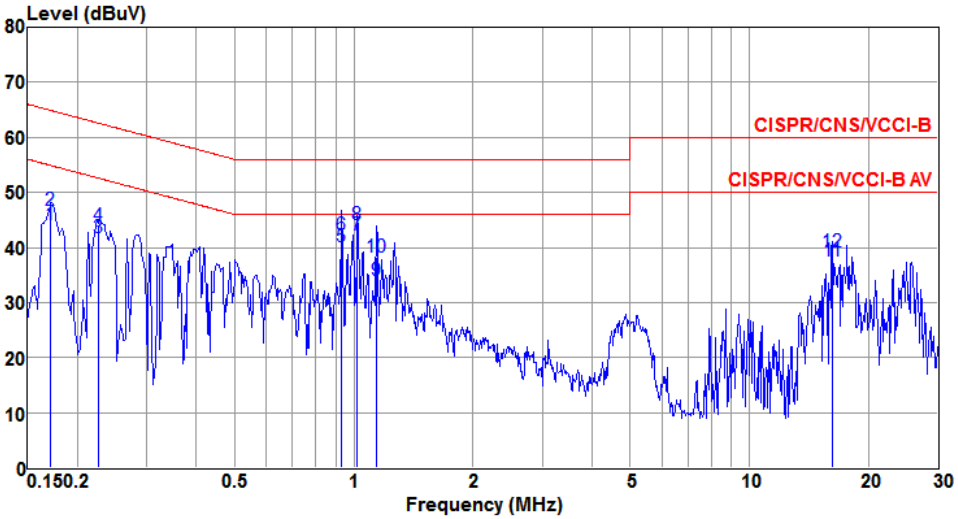


	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.174	25.20	54.77	-29.57	25.04	0.07	0.09	Average
2	0.174	35.75	64.77	-29.02	35.59	0.07	0.09	QP
3	0.348	22.95	49.00	-26.05	22.77	0.07	0.11	Average
4	0.348	31.02	59.00	-27.98	30.84	0.07	0.11	QP
5	0.928	38.51	46.00	-7.49	38.27	0.08	0.16	Average
6	0.928	39.83	56.00	-16.17	39.59	0.08	0.16	QP
7@	1.021	42.36	46.00	-3.64	42.12	0.08	0.16	Average
8	1.021	43.91	56.00	-12.09	43.67	0.08	0.16	QP
9	16.226	37.25	50.00	-12.75	36.79	0.31	0.15	Average
10	16.226	38.81	60.00	-21.19	38.35	0.31	0.15	QP
11	25.727	22.17	50.00	-27.83	21.68	0.40	0.09	Average
12	25.727	22.97	60.00	-37.03	22.48	0.40	0.09	QP

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

Beamforming mode

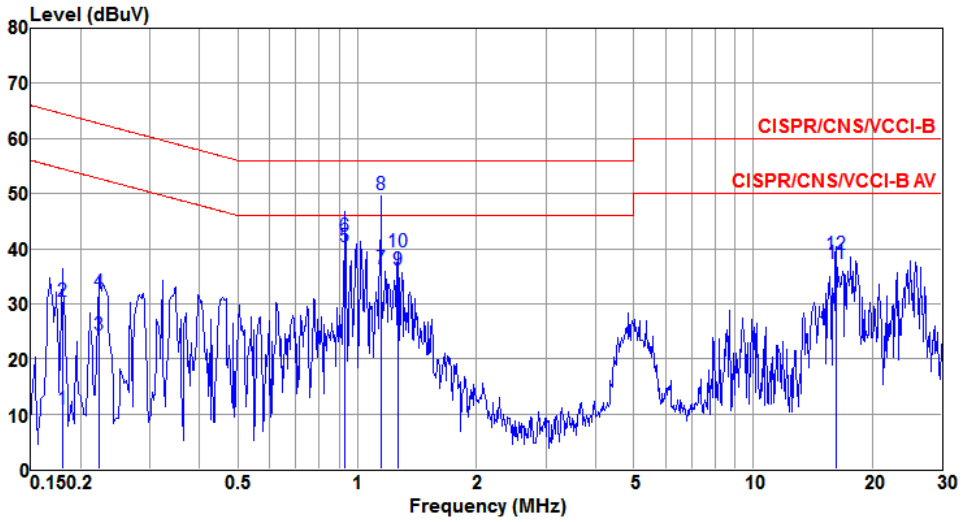
Modulation	VHT40	**Test Freq. (MHz)**	5230
Power Phase	Line		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.171	44.11	54.90	-10.79	43.96	0.07	0.08	Average
2	0.171	46.82	64.90	-18.08	46.67	0.07	0.08	QP
3	0.226	41.84	52.61	-10.77	41.68	0.07	0.09	Average
4	0.226	43.83	62.61	-18.78	43.67	0.07	0.09	QP
5	0.933	40.16	46.00	-5.84	39.92	0.08	0.16	Average
6	0.933	42.24	56.00	-13.76	42.00	0.08	0.16	QP
7@	1.021	42.36	46.00	-3.64	42.12	0.08	0.16	Average
8	1.021	44.11	56.00	-11.89	43.87	0.08	0.16	QP
9	1.141	34.03	46.00	-11.97	33.77	0.08	0.18	Average
10	1.141	38.22	56.00	-17.78	37.96	0.08	0.18	QP
11	16.226	37.52	50.00	-12.48	37.08	0.29	0.15	Average
12	16.226	39.12	60.00	-20.88	38.68	0.29	0.15	QP

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

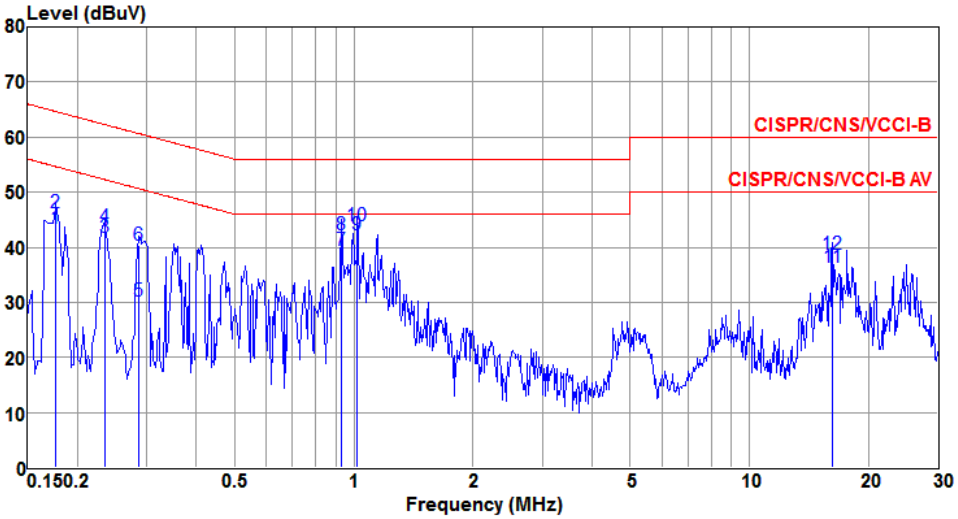
Modulation	VHT40	Test Freq. (MHz)	5230
Power Phase	Neutral		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.180	10.89	54.50	-43.61	10.73	0.07	0.09	Average
2	0.180	30.34	64.50	-34.16	30.18	0.07	0.09	QP
3	0.222	24.36	52.74	-28.38	24.20	0.07	0.09	Average
4	0.222	32.19	62.74	-30.55	32.03	0.07	0.09	QP
5@	0.933	40.26	46.00	-5.74	40.02	0.08	0.16	Average
6	0.933	42.14	56.00	-13.86	41.90	0.08	0.16	QP
7	1.147	36.45	46.00	-9.55	36.19	0.08	0.18	Average
8	1.147	49.78	56.00	-6.22	49.52	0.08	0.18	QP
9	1.269	36.17	46.00	-9.83	35.89	0.09	0.19	Average
10	1.269	39.49	56.00	-16.51	39.21	0.09	0.19	QP
11	16.226	37.31	50.00	-12.69	36.85	0.31	0.15	Average
12	16.226	38.90	60.00	-21.10	38.44	0.31	0.15	QP

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

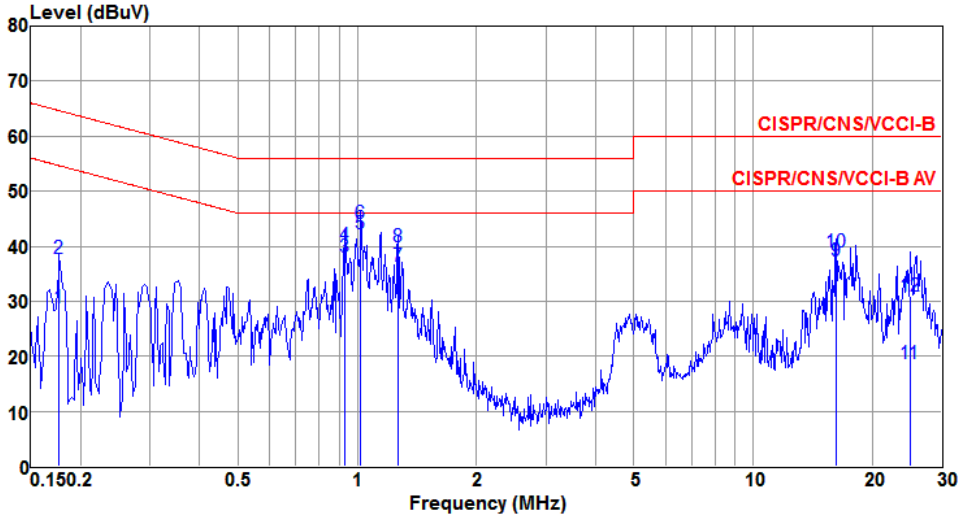
Modulation	VHT20	Test Freq. (MHz)	5785
Power Phase	Line		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.177	43.38	54.64	-11.26	43.22	0.07	0.09	Average
2	0.177	46.28	64.64	-18.36	46.12	0.07	0.09	QP
3	0.234	41.72	52.30	-10.58	41.56	0.07	0.09	Average
4	0.234	43.71	62.30	-18.59	43.55	0.07	0.09	QP
5	0.285	30.22	50.68	-20.46	30.05	0.07	0.10	Average
6	0.285	40.29	60.68	-20.39	40.12	0.07	0.10	QP
7	0.933	39.49	46.00	-6.51	39.25	0.08	0.16	Average
8	0.933	42.18	56.00	-13.82	41.94	0.08	0.16	QP
9@	1.021	42.14	46.00	-3.86	41.90	0.08	0.16	Average
10	1.021	43.89	56.00	-12.11	43.65	0.08	0.16	QP
11	16.226	36.41	50.00	-13.59	35.97	0.29	0.15	Average
12	16.226	38.76	60.00	-21.24	38.32	0.29	0.15	QP

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

Modulation	VHT20	Test Freq. (MHz)	5785
Power Phase	Neutral		



	Freq	Level	Limit Line	Over Limit	Read Level	LISN factor	cable loss	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.177	28.76	54.64	-25.88	28.60	0.07	0.09	Average
2	0.177	37.88	64.64	-26.76	37.72	0.07	0.09	QP
3	0.928	38.02	46.00	-7.98	37.78	0.08	0.16	Average
4	0.928	40.09	56.00	-15.91	39.85	0.08	0.16	QP
5@	1.021	42.18	46.00	-3.82	41.94	0.08	0.16	Average
6	1.021	44.23	56.00	-11.77	43.99	0.08	0.16	QP
7	1.269	36.26	46.00	-9.74	35.98	0.09	0.19	Average
8	1.269	39.94	56.00	-16.06	39.66	0.09	0.19	QP
9	16.226	37.18	50.00	-12.82	36.72	0.31	0.15	Average
10	16.226	39.04	60.00	-20.96	38.58	0.31	0.15	QP
11	24.922	18.62	50.00	-31.38	18.14	0.39	0.09	Average
12	24.922	30.91	60.00	-29.09	30.43	0.39	0.09	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.

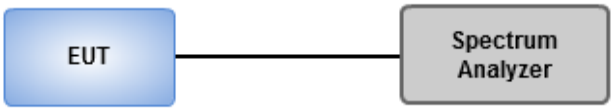
Occupied Bandwidth

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

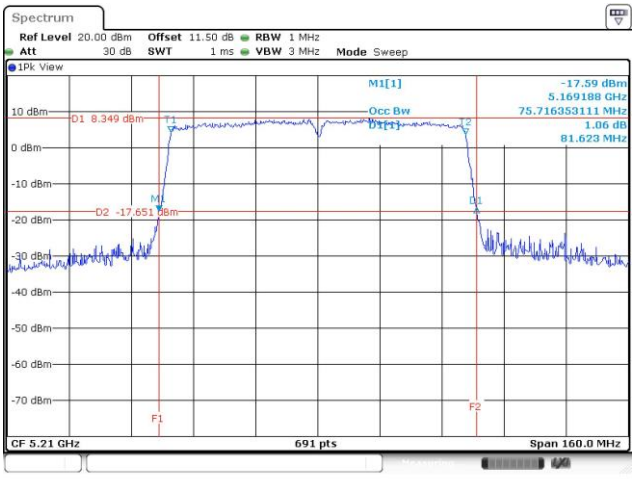
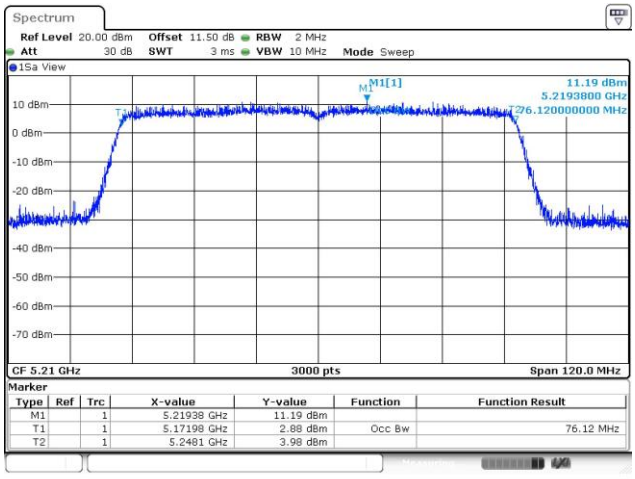
3.2.3 Test Setup



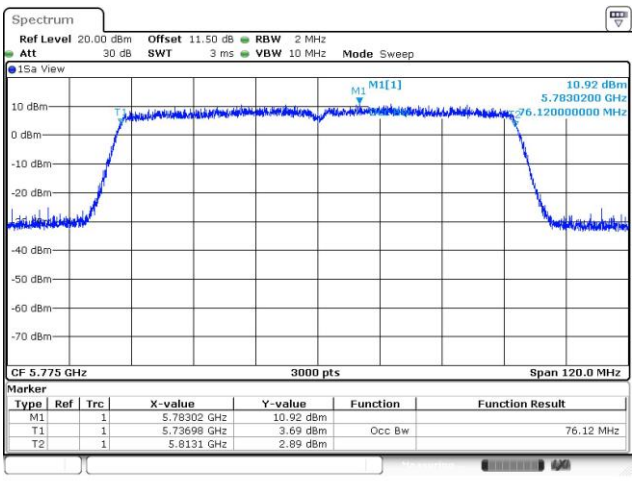
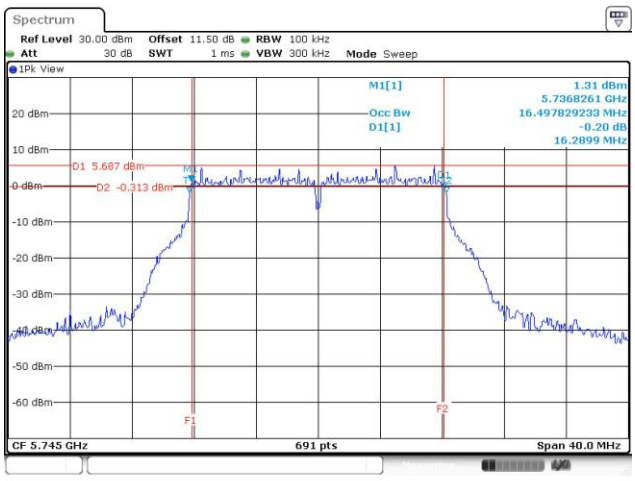
3.2.4 Test Result of Emission Bandwidth

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	2	5180	35.43	33.55	---	---	17.31	17.54	---	---
11a	2	5200	33.41	33.99	---	---	17.37	17.76	---	---
11a	2	5240	35.72	36.45	---	---	17.74	17.89	---	---
VHT20	2	5180	37.75	41.01	---	---	18.40	18.47	---	---
VHT20	2	5200	42.46	39.57	---	---	18.54	18.75	---	---
VHT20	2	5240	43.33	42.54	---	---	18.52	18.86	---	---
VHT40	2	5190	41.51	40.81	---	---	36.66	36.58	---	---
VHT40	2	5230	77.25	79.46	---	---	37.18	37.52	---	---
VHT80	2	5210	81.39	81.62	---	---	76.12	76.04	---	---

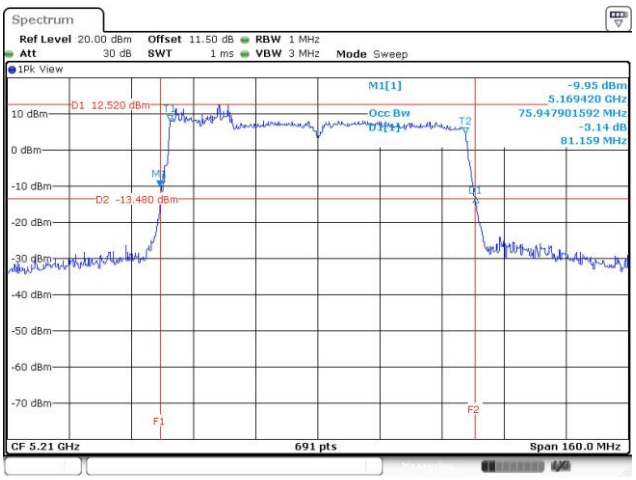
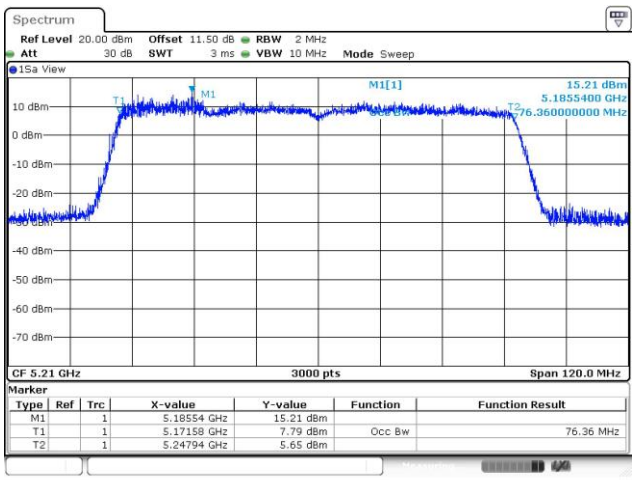
Worst Plot of 26dB Bandwidth	Worst Plot of 99% Bandwidth
	

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	2	5745	17.08	16.96	---	---	16.29	16.41	---	---	0.5
11a	2	5785	17.64	17.68	---	---	16.29	16.29	---	---	0.5
11a	2	5825	17.10	16.98	---	---	16.35	16.41	---	---	0.5
VHT20	2	5745	18.16	17.98	---	---	17.57	17.62	---	---	0.5
VHT20	2	5785	18.48	18.53	---	---	17.57	17.57	---	---	0.5
VHT20	2	5825	18.20	18.05	---	---	17.57	17.57	---	---	0.5
VHT40	2	5755	36.74	36.60	---	---	36.41	36.41	---	---	0.5
VHT40	2	5795	36.84	36.80	---	---	36.41	36.41	---	---	0.5
VHT80	2	5775	76.12	76.00	---	---	75.59	75.83	---	---	0.5

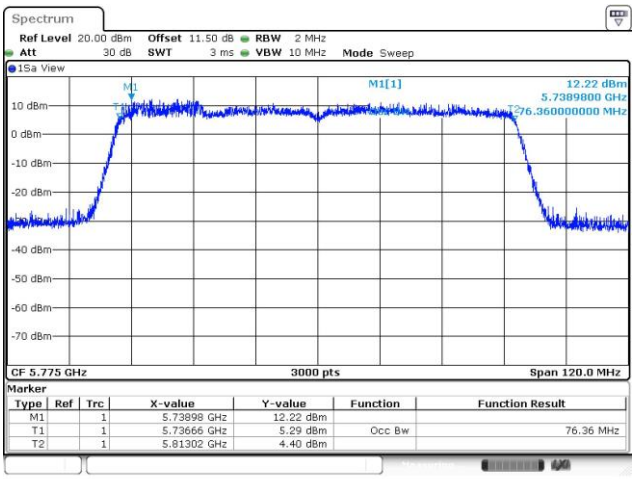
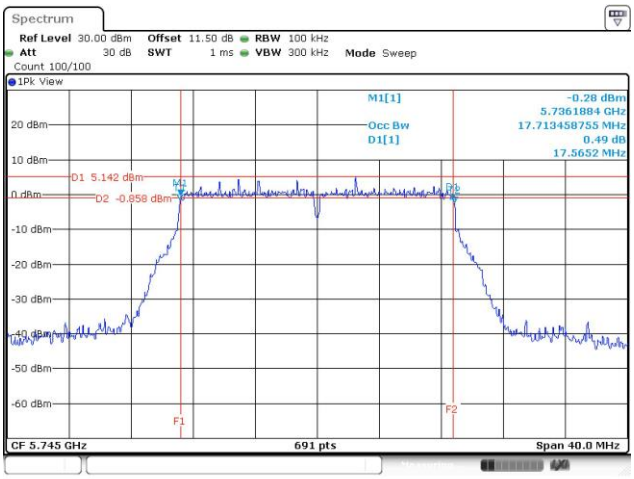
Worst Plot of 99% Bandwidth	Worst Plot of 6dB Bandwidth
	

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	2	5180	22.72	24.00	---	---	18.12	17.98	---	---
VHT20	2	5200	39.42	39.86	---	---	18.40	18.49	---	---
VHT20	2	5240	44.57	43.84	---	---	18.50	18.64	---	---
VHT40	2	5190	40.70	40.58	---	---	36.64	36.62	---	---
VHT40	2	5230	75.07	74.06	---	---	37.14	36.98	---	---
VHT80	2	5210	81.16	81.16	---	---	76.36	76.08	---	---

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)
VHT20	2	5745	18.08	17.90	---	---	17.57	17.62	---	---	0.5
VHT20	2	5785	18.33	18.28	---	---	17.57	17.57	---	---	0.5
VHT20	2	5825	18.11	17.95	---	---	17.57	17.57	---	---	0.5
VHT40	2	5755	36.66	36.60	---	---	36.41	36.06	---	---	0.5
VHT40	2	5795	36.80	36.76	---	---	36.06	35.83	---	---	0.5
VHT80	2	5775	76.36	76.20	---	---	73.51	75.59	---	---	0.5

Worst Plot of 99% Bandwidth	Worst Plot of 6dB Bandwidth
	

3.3 RF Output Power

3.3.1 Limit of RF Output Power

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

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

3.3.2 Test Procedures

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

☒ Measurements 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	2	5180	21.18	21.61	---	---	276.097	24.41	30.00
11a	2	5200	21.02	21.76	---	---	276.442	24.42	30.00
11a	2	5240	21.07	21.71	---	---	276.190	24.41	30.00
HT20	2	5180	20.84	21.03	---	---	248.104	23.95	30.00
HT20	2	5200	20.91	21.13	---	---	253.028	24.03	30.00
HT20	2	5240	20.95	21.49	---	---	265.380	24.24	30.00
HT40	2	5190	16.62	17.65	---	---	104.130	20.18	30.00
HT40	2	5230	21.58	22.49	---	---	321.299	25.07	30.00
VHT20	2	5180	20.88	21.08	---	---	250.695	23.99	30.00
VHT20	2	5200	20.96	21.19	---	---	256.261	24.09	30.00
VHT20	2	5240	21.01	21.56	---	---	269.402	24.30	30.00
VHT40	2	5190	16.66	17.71	---	---	105.365	20.23	30.00
VHT40	2	5230	21.64	22.52	---	---	324.530	**25.11**	30.00
VHT80	2	5210	16.11	16.92	---	---	90.036	19.54	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	2	5745	16.59	17.09	---	---	96.772	19.86	30.00
11a	2	5785	20.52	20.92	---	---	236.314	**23.73**	30.00
11a	2	5825	18.45	18.51	---	---	140.942	21.49	30.00
HT20	2	5745	15.96	16.36	---	---	82.697	19.17	30.00
HT20	2	5785	20.37	20.63	---	---	224.504	23.51	30.00
HT20	2	5825	18.22	18.27	---	---	133.517	21.26	30.00
HT40	2	5755	15.97	17.12	---	---	91.060	19.59	30.00
HT40	2	5795	18.77	19.83	---	---	171.497	22.34	30.00
VHT20	2	5745	16.01	16.39	---	---	83.454	19.21	30.00
VHT20	2	5785	20.41	20.69	---	---	227.120	23.56	30.00
VHT20	2	5825	18.26	18.32	---	---	134.909	21.30	30.00
VHT40	2	5755	16.01	17.15	---	---	91.782	19.63	30.00
VHT40	2	5795	18.81	19.88	---	---	173.307	22.39	30.00
VHT80	2	5775	15.02	15.83	---	---	70.051	18.45	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	2	5180	19.36	19.69	---	---	179.409	22.54	29.94
HT20	2	5200	20.77	21.09	---	---	247.927	23.94	29.94
HT20	2	5240	20.87	21.41	---	---	260.537	24.16	29.94
HT40	2	5190	16.15	17.19	---	---	93.570	19.71	29.94
HT40	2	5230	21.51	22.36	---	---	313.766	24.97	29.94
VHT20	2	5180	19.42	19.73	---	---	181.471	22.59	29.94
VHT20	2	5200	20.83	21.15	---	---	251.376	24.00	29.94
VHT20	2	5240	20.93	21.45	---	---	263.516	24.21	29.94
VHT40	2	5190	16.23	17.26	---	---	95.187	19.79	29.94
VHT40	2	5230	21.56	22.43	---	---	318.203	**25.03**	29.94
VHT80	2	5210	16.02	16.43	---	---	83.949	19.24	29.94

Note:

1. Directional gain = 10 * log((10$^{2.87/20}$+10$^{3.23/20}$)^2/2) = 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	2	5745	15.86	16.21	---	---	80.331	19.05	29.28
HT20	2	5785	20.31	20.59	---	---	221.950	23.46	29.28
HT20	2	5825	18.13	18.24	---	---	131.694	21.20	29.28
HT40	2	5755	15.86	16.75	---	---	85.863	19.34	29.28
HT40	2	5795	18.69	19.61	---	---	165.372	22.18	29.28
VHT20	2	5745	15.89	16.29	---	---	81.375	19.10	29.28
VHT20	2	5785	20.38	20.65	---	---	225.289	**23.53**	29.28
VHT20	2	5825	18.19	18.27	---	---	133.060	21.24	29.28
VHT40	2	5755	15.93	16.83	---	---	87.369	19.41	29.28
VHT40	2	5795	18.73	19.68	---	---	167.542	22.24	29.28
VHT80	2	5775	15.01	15.76	---	---	69.366	18.41	29.28

Note:

1. Directional gain = 10 * log((10$^{3.6/20}$+10$^{3.82/20}$)^2/2) = 6.72 dBi > 6 dBi
   Limit shall be reduced to 30 dBm – (6.72 dBi – 6 dBi) = 29.28 dBm.

3.4 Peak Power Spectral Density

3.4.1 Limit of Peak Power Spectral Density

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

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

3.4.2 Test Procedures

For 5150 ~ 5250 MHz

☒ Method SA-1

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

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

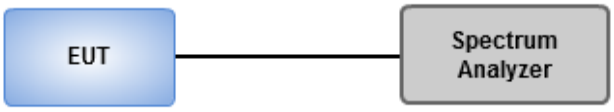
☒ Method SA-1

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

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



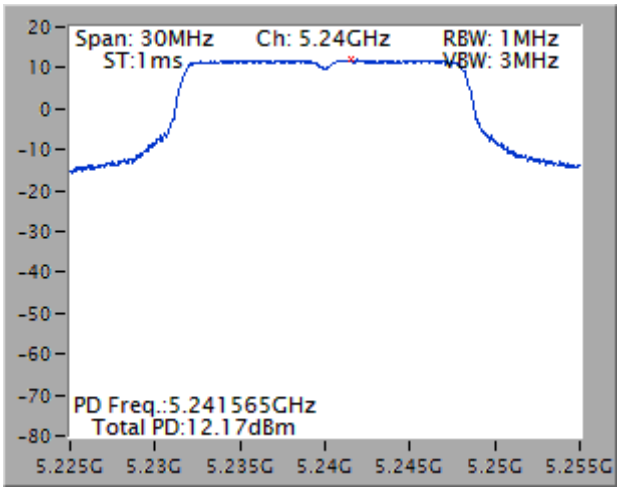
3.4.4 Test Result of Peak Power Spectral Density

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	2	5180	11.72	0.00	11.72	16.94
11a	2	5200	11.64	0.00	11.64	16.94
11a	2	5240	12.17	0.00	12.17	16.94
VHT20	2	5180	11.80	0.00	11.80	16.94
VHT20	2	5200	11.75	0.00	11.75	16.94
VHT20	2	5240	12.01	0.00	12.01	16.94
VHT40	2	5190	4.10	0.00	4.10	16.94
VHT40	2	5230	8.85	0.00	8.85	16.94
VHT80	2	5210	0.19	0.00	0.19	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 = 10 * log((10$^{2.87/20}$+10$^{3.23/20}$)^2/2) = 6.06 dBi > 6 dBi
   Limit shall be reduced to 17 dBm – (6.06 dBi – 6 dBi) = 16.94 dBm.

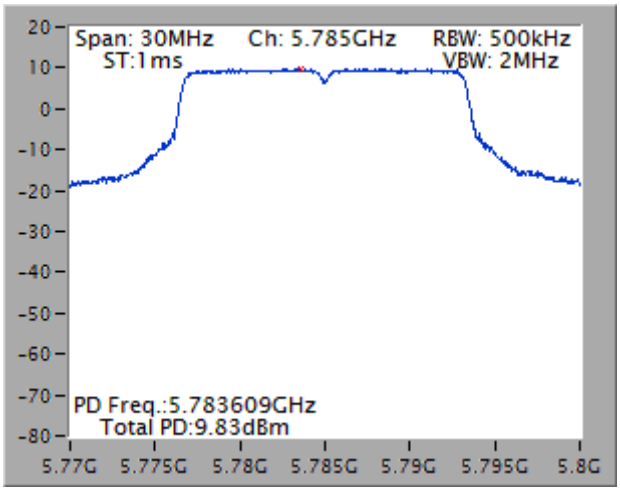
Worst Plot



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)
11a	2	5745	5.94	0.00	5.94	29.28
11a	2	5785	9.83	0.00	9.83	29.28
11a	2	5825	7.59	0.00	7.59	29.28
VHT20	2	5745	4.58	0.00	4.58	29.28
VHT20	2	5785	9.45	0.00	9.45	29.28
VHT20	2	5825	7.35	0.00	7.35	29.28
VHT40	2	5755	2.24	0.00	2.24	29.28
VHT40	2	5795	4.81	0.00	4.81	29.28
VHT80	2	5775	-1.91	0.00	-1.91	29.28

Note:
1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. Directional gain = 10 * log((10$^{3.6/20}$+10$^{3.82/20}$)^2/2) = 6.72 dBi > 6 dBi
   Limit shall be reduced to 30 dBm – (6.72 dBi – 6 dBi) = 29.28 dBm.

Worst Plot

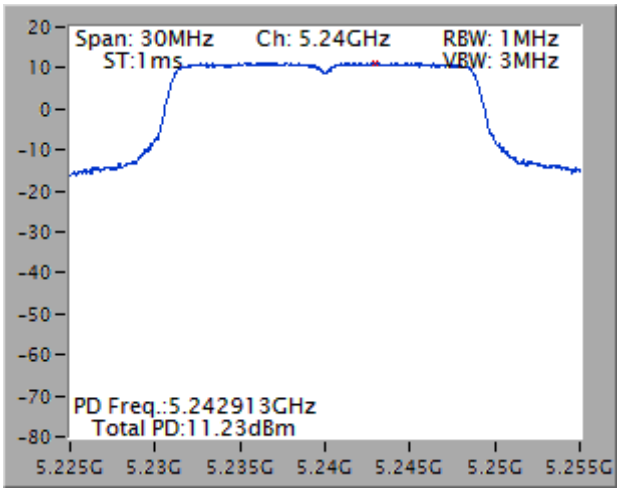


Beamforming mode

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	2	5180	9.20	0.00	9.20	16.94
VHT20	2	5200	10.99	0.00	10.99	16.94
VHT20	2	5240	11.23	0.00	11.23	16.94
VHT40	2	5190	3.25	0.00	3.25	16.94
VHT40	2	5230	8.04	0.00	8.04	16.94
VHT80	2	5210	-0.03	0.00	-0.03	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 = 10 * log((10$^{2.87/20}$+10$^{3.23/20}$)^2/2) = 6.06 dBi > 6 dBi
   Limit shall be reduced to 17 dBm – (6.06 dBi – 6 dBi) = 16.94 dBm.

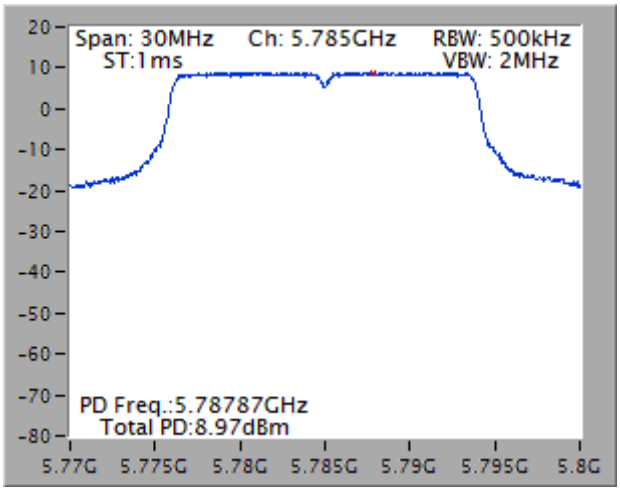
Worst Plot



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	2	5745	4.75	0.00	4.75	29.28
VHT20	2	5785	8.97	0.00	8.97	29.28
VHT20	2	5825	6.99	0.00	6.99	29.28
VHT40	2	5755	1.80	0.00	1.80	29.28
VHT40	2	5795	4.58	0.00	4.58	29.28
VHT80	2	5775	-2.35	0.00	-2.35	29.28

Note:
1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. Directional gain = 10 * log((10$^{3.6/20}$+10$^{3.82/20}$)^2/2) = 6.72 dBi > 6 dBi
   Limit shall be reduced to 30 dBm – (6.72 dBi – 6 dBi) = 29.28 dBm.

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]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.850 GHz	5.715 5.725 GHz: e.i.r.p. -17 dBm [78.2 dBuV/m@3m] 5.85 5.86 GHz: e.i.r.p. -17 dBm [78.2 dBuV/m@3m] Other un-restricted band: e.i.r.p. -27 dBm [68.2 dBuV/m@3m]

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

3.5.2 Test Procedures

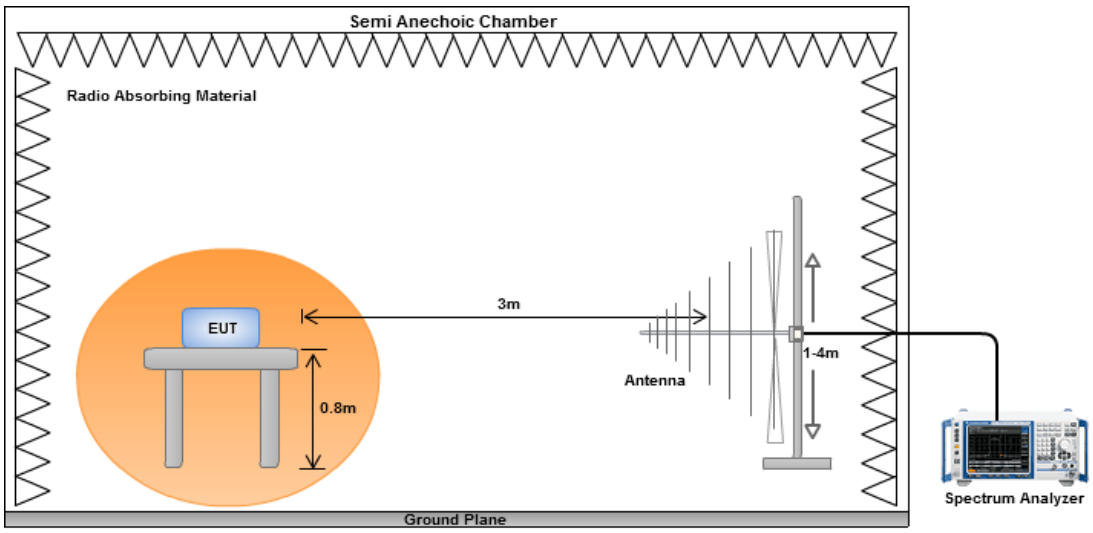
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

Note:

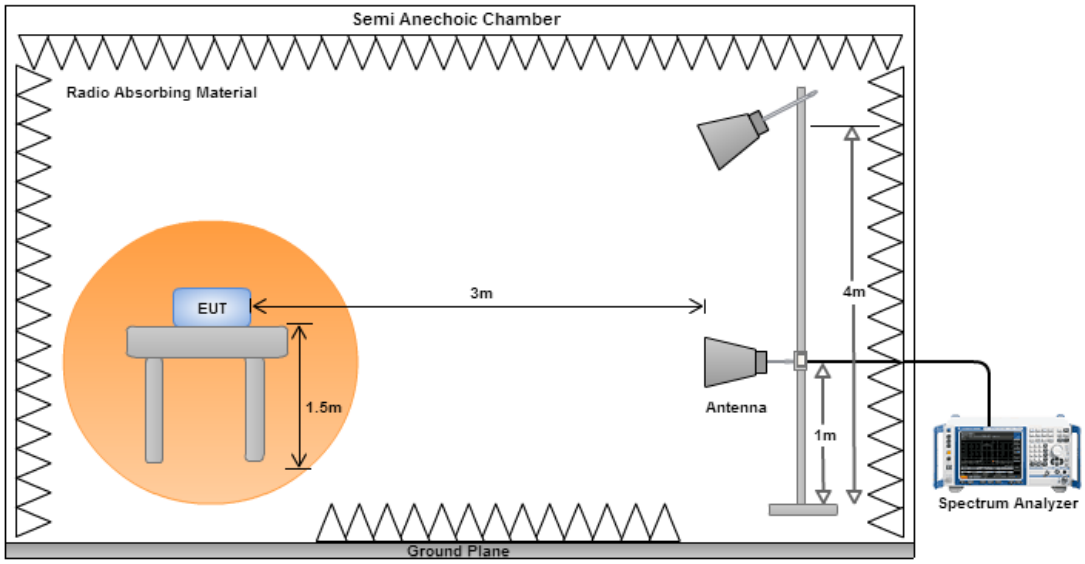
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz



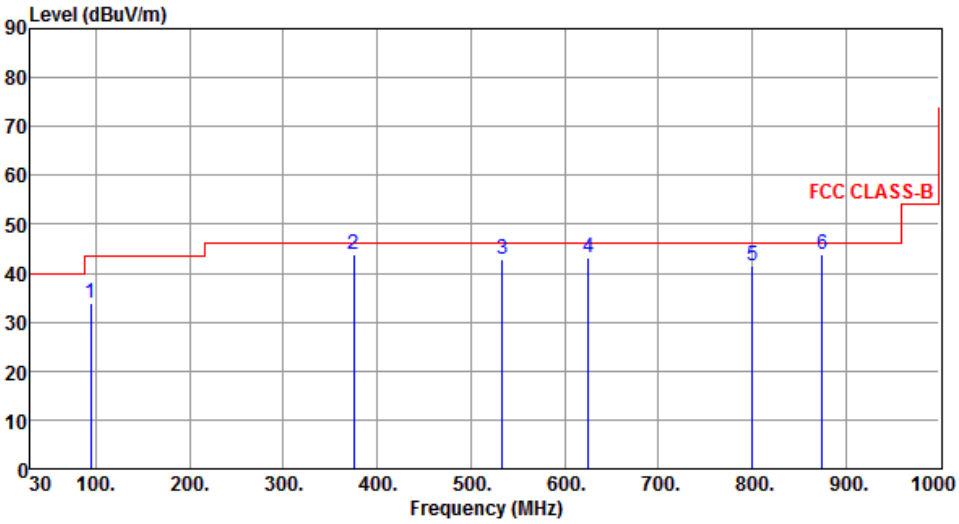
Radiated Emissions above 1 GHz



Non- beamforming mode

3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

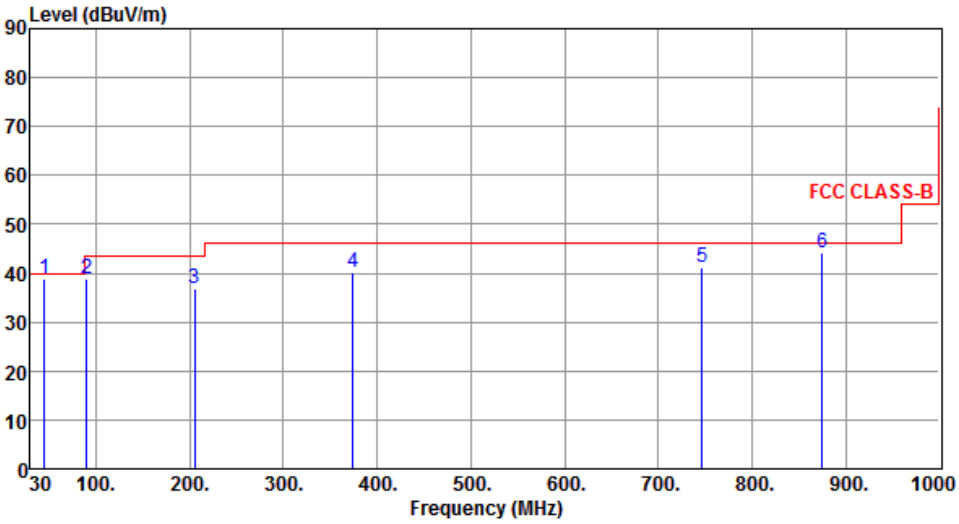
Modulation	VHT40	**Test Freq. (MHz)**	5230
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	94.56	33.86	43.50	-9.64	56.44	-22.58	Peak	---	---
2	375.12	43.94	46.00	-2.06	58.16	-14.22	Peak	---	---
3	533.31	42.80	46.00	-3.20	53.65	-10.85	Peak	---	---
4	625.16	43.32	46.00	-2.68	52.44	-9.12	QP	125	218
5	800.23	41.62	46.00	-4.38	48.44	-6.82	Peak	---	---
6	874.96	43.93	46.00	-2.07	49.55	-5.62	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.

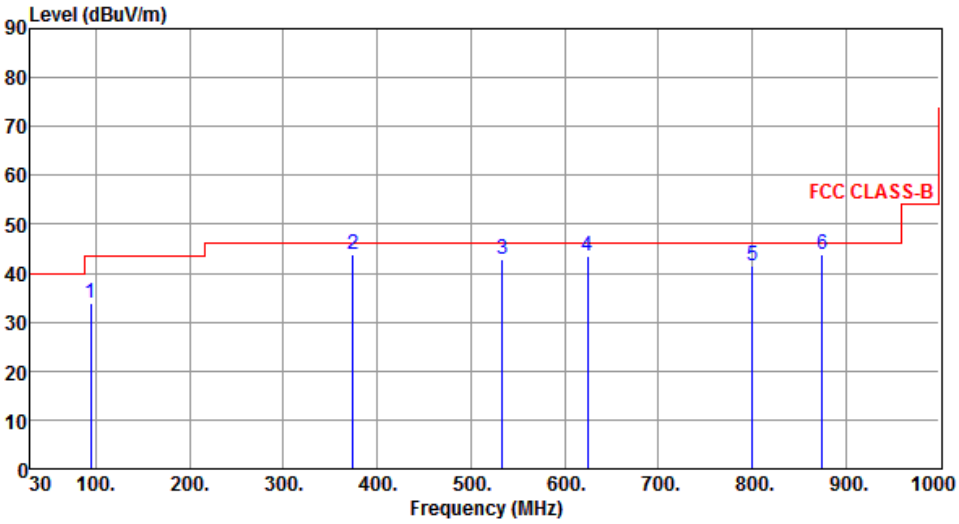
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	45.46	38.72	40.00	-1.28	55.31	-16.59	QP	100	---
2	90.14	38.90	43.50	-4.60	62.15	-23.25	Peak	---	---
3	205.57	36.79	43.50	-6.71	56.23	-19.44	Peak	---	---
4	374.35	40.34	46.00	-5.66	54.58	-14.24	Peak	---	---
5	746.83	41.27	46.00	-4.73	48.52	-7.25	Peak	---	---
6	874.87	44.07	46.00	-1.93	49.69	-5.62	QP	100	206

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

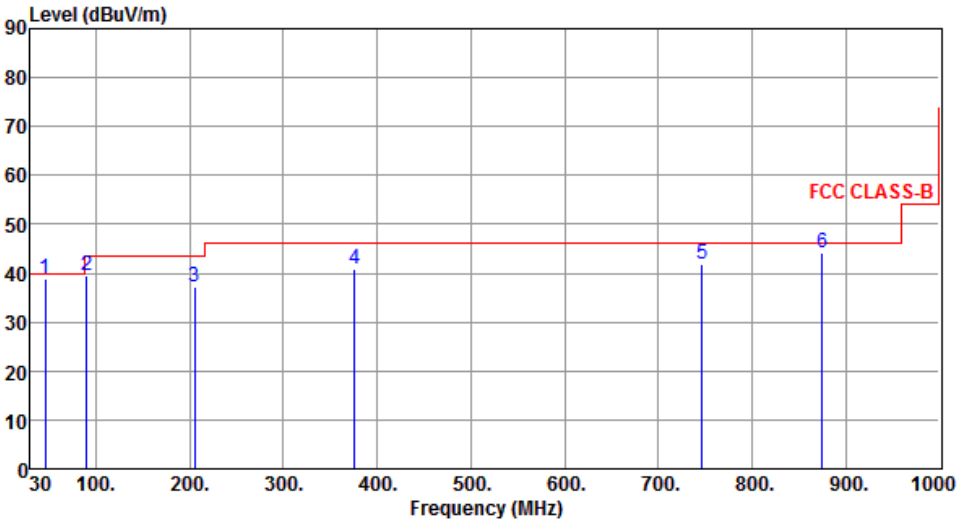
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	94.56	33.95	43.50	-9.55	56.53	-22.58	Peak	---	---
2	374.55	43.93	46.00	-2.07	58.16	-14.23	Peak	---	---
3	533.26	42.80	46.00	-3.20	53.65	-10.85	Peak	---	---
4	624.86	43.37	46.00	-2.63	52.49	-9.12	QP	124	218
5	800.23	41.59	46.00	-4.41	48.41	-6.82	Peak	---	---
6	874.96	43.89	46.00	-2.11	49.51	-5.62	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)	5785
Polarization	Vertical		

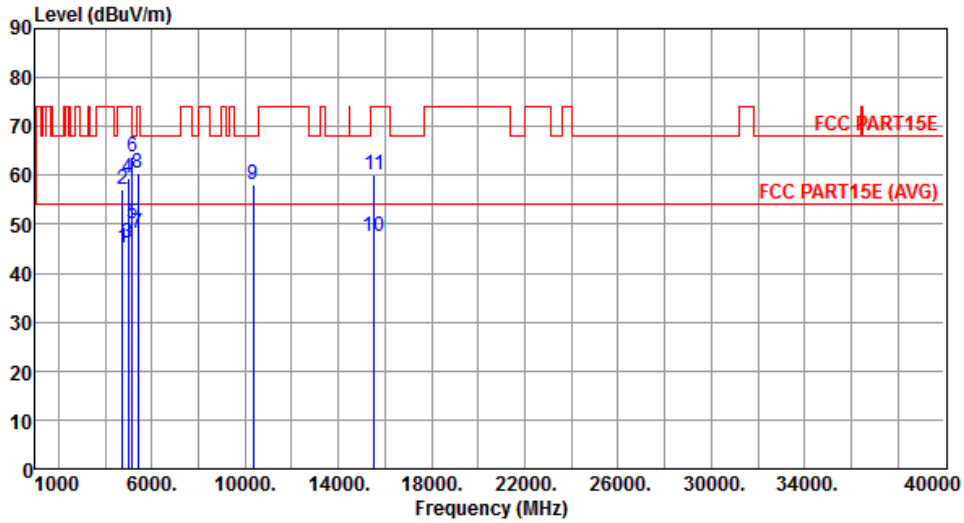


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	45.68	38.92	40.00	-1.08	55.51	-16.59	QP	100	153
2	90.36	39.43	43.50	-4.07	62.65	-23.22	Peak	---	---
3	205.21	37.17	43.50	-6.33	56.63	-19.46	Peak	---	---
4	375.65	40.76	46.00	-5.24	54.96	-14.20	Peak	---	---
5	746.53	41.71	46.00	-4.29	48.96	-7.25	Peak	---	---
6	874.52	44.03	46.00	-1.97	49.66	-5.63	QP	100	212

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

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

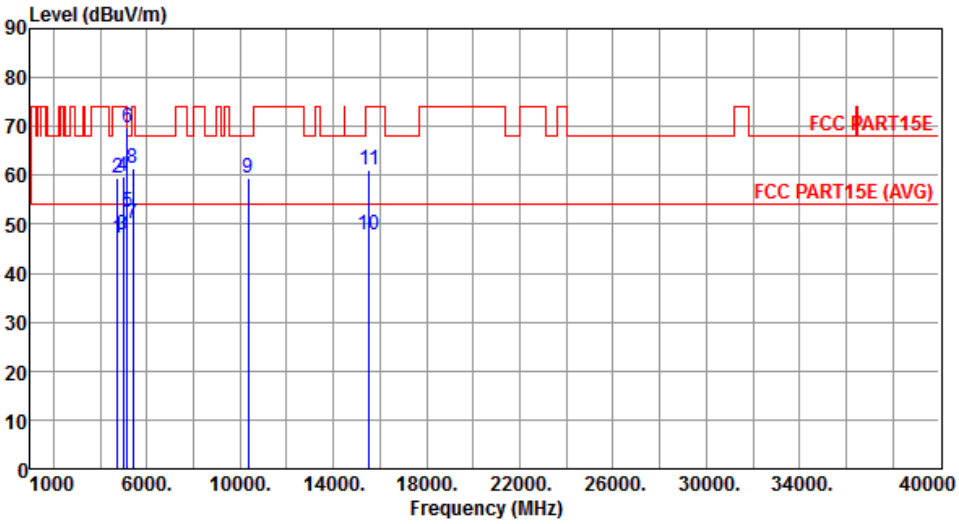
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4745.00	45.19	54.00	-8.81	39.22	5.97	Average	173	244
2	4745.00	57.27	74.00	-16.73	51.30	5.97	Peak	173	244
3	4970.00	46.06	54.00	-7.94	39.17	6.89	Average	173	244
4	4970.00	59.53	74.00	-14.47	52.64	6.89	Peak	173	244
5	5150.00	50.25	54.00	-3.75	42.77	7.48	Average	175	254
6	5150.00	63.84	74.00	-10.16	56.36	7.48	Peak	175	254
7	5387.00	48.19	54.00	-5.81	40.21	7.98	Average	178	326
8	5387.00	60.36	74.00	-13.64	52.38	7.98	Peak	178	326
9	10360.00	57.96	68.20	-10.24	44.71	13.25	Peak	195	358
10	15540.00	47.44	54.00	-6.56	31.15	16.29	Average	188	352
11	15540.00	60.23	74.00	-13.77	43.94	16.29	Peak	188	352

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

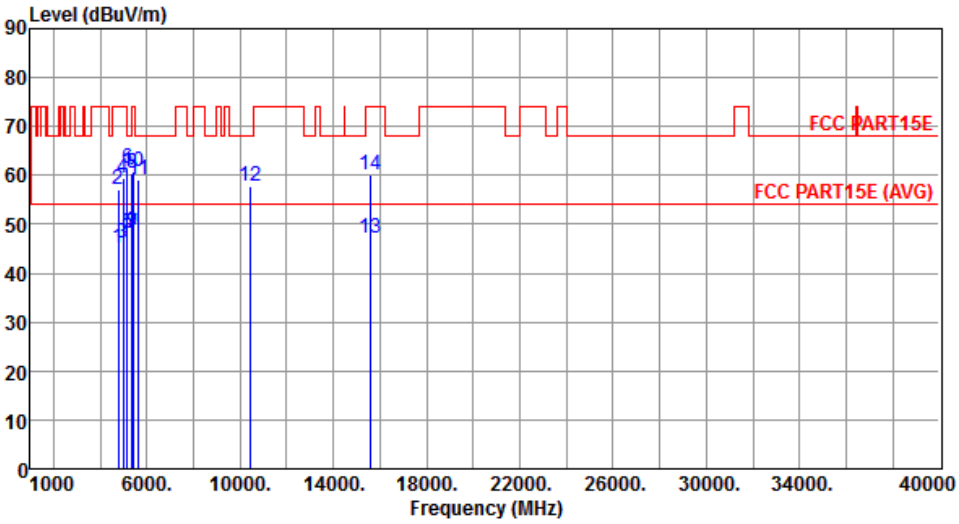
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4745.00	47.00	54.00	-7.00	41.03	5.97	Average	195	345
2	4745.00	59.50	74.00	-14.50	53.53	5.97	Peak	195	345
3	4970.00	47.86	54.00	-6.14	40.97	6.89	Average	195	345
4	4970.00	59.86	74.00	-14.14	52.97	6.89	Peak	195	345
5	5150.00	52.59	54.00	-1.41	45.11	7.48	Average	185	354
6	5150.00	69.77	74.00	-4.23	62.29	7.48	Peak	185	354
7	5387.00	50.26	54.00	-3.74	42.28	7.98	Average	195	345
8	5387.00	61.54	74.00	-12.46	53.56	7.98	Peak	195	345
9	10360.00	59.61	68.20	-8.59	46.36	13.25	Peak	185	322
10	15540.00	47.99	54.00	-6.01	31.70	16.29	Average	175	345
11	15540.00	61.05	74.00	-12.95	44.76	16.29	Peak	175	345

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

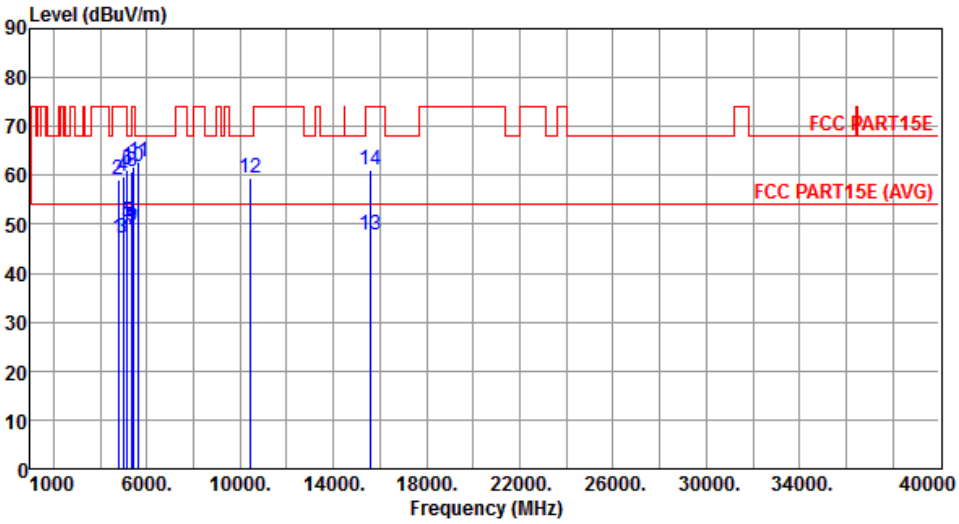
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4765.00	45.25	54.00	-8.75	39.12	6.13	Average	176	240
2	4765.00	57.23	74.00	-16.77	51.10	6.13	Peak	176	240
3	4984.00	46.21	54.00	-7.79	39.29	6.92	Average	176	240
4	4984.00	59.28	74.00	-14.72	52.36	6.92	Peak	176	240
5	5150.00	48.13	54.00	-5.87	40.65	7.48	Average	173	220
6	5150.00	61.37	74.00	-12.63	53.89	7.48	Peak	173	220
7	5360.00	48.12	54.00	-5.88	40.19	7.93	Average	176	240
8	5360.00	60.48	74.00	-13.52	52.55	7.93	Peak	176	240
9	5409.00	48.37	54.00	-5.63	40.35	8.02	Average	176	240
10	5409.00	60.77	74.00	-13.23	52.75	8.02	Peak	176	240
11	5642.00	59.04	68.20	-9.16	50.25	8.79	Peak	176	240
12	10400.00	57.88	68.20	-10.32	44.58	13.30	Peak	236	28
13	15600.00	47.32	54.00	-6.68	31.02	16.30	Average	241	15
14	15600.00	60.15	74.00	-13.85	43.85	16.30	Peak	241	15

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

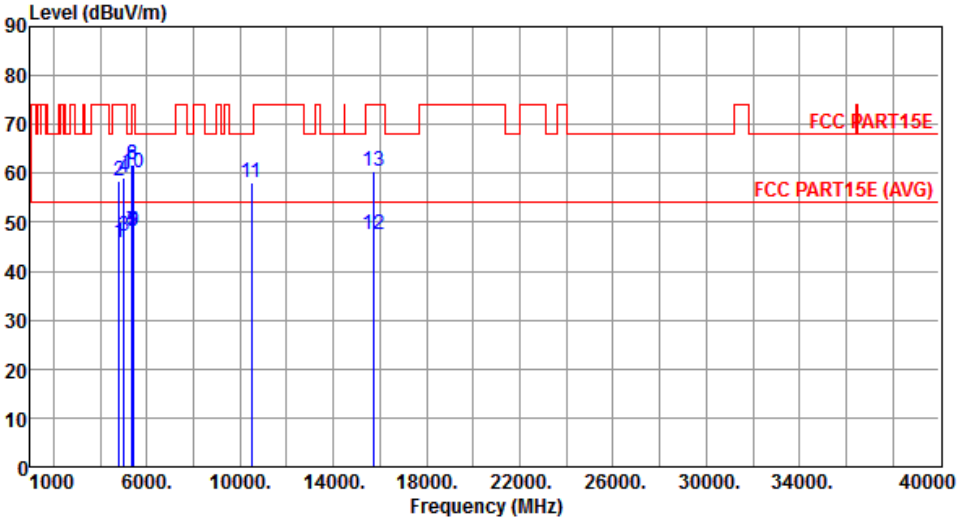
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4765.00	47.00	54.00	-7.00	40.87	6.13	Average	227	57
2	4765.00	59.02	74.00	-14.98	52.89	6.13	Peak	227	57
3	4984.00	47.03	54.00	-6.97	40.11	6.92	Average	227	57
4	4984.00	59.67	74.00	-14.33	52.75	6.92	Peak	227	57
5	5150.00	50.39	54.00	-3.61	42.91	7.48	Average	202	357
6	5150.00	61.14	74.00	-12.86	53.66	7.48	Peak	202	357
7	5360.00	48.91	54.00	-5.09	40.98	7.93	Average	205	338
8	5360.00	60.92	74.00	-13.08	52.99	7.93	Peak	205	338
9	5409.00	49.47	54.00	-4.53	41.45	8.02	Average	227	159
10	5409.00	61.87	74.00	-12.13	53.85	8.02	Peak	227	159
11	5642.00	62.69	68.20	-5.51	53.90	8.79	Peak	202	357
12	10400.00	59.56	68.20	-8.64	46.26	13.30	Peak	189	332
13	15600.00	47.95	54.00	-6.05	31.65	16.30	Average	175	330
14	15600.00	60.98	74.00	-13.02	44.68	16.30	Peak	175	330

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

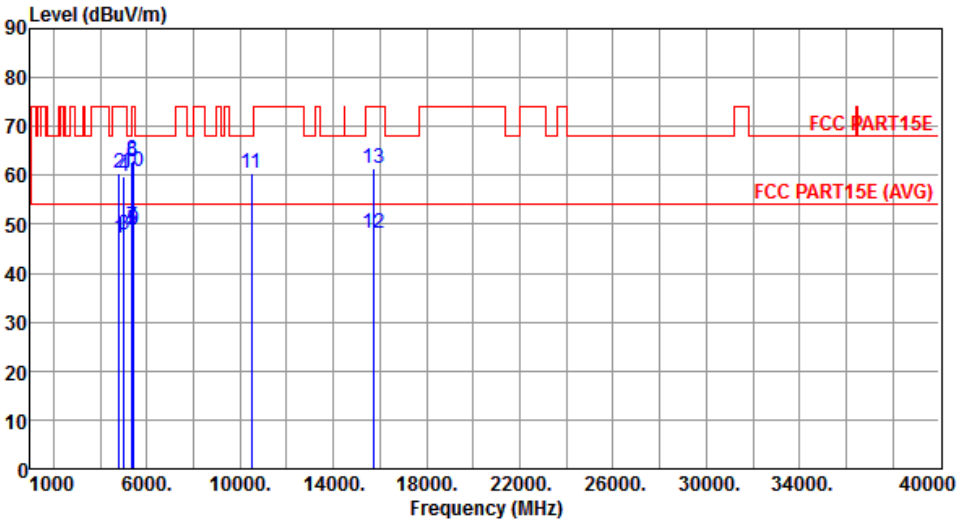
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4809.00	45.69	54.00	-8.31	39.27	6.42	Average	200	250
2	4809.00	58.41	74.00	-15.59	51.99	6.42	Peak	200	250
3	5029.00	47.17	54.00	-6.83	40.10	7.07	Average	200	250
4	5029.00	59.09	74.00	-14.91	52.02	7.07	Peak	200	250
5	5350.00	48.07	54.00	-5.93	40.16	7.91	Average	208	41
6	5350.00	61.71	74.00	-12.29	53.80	7.91	Peak	208	41
7	5393.00	48.28	54.00	-5.72	40.29	7.99	Average	206	175
8	5393.00	61.74	74.00	-12.26	53.75	7.99	Peak	206	175
9	5450.00	48.25	54.00	-5.75	40.12	8.13	Average	200	250
10	5450.00	60.23	74.00	-13.77	52.10	8.13	Peak	200	250
11	10480.00	58.12	68.20	-10.08	44.72	13.40	Peak	202	21
12	15720.00	47.45	54.00	-6.55	31.16	16.29	Average	179	350
13	15720.00	60.51	74.00	-13.49	44.22	16.29	Peak	179	350

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

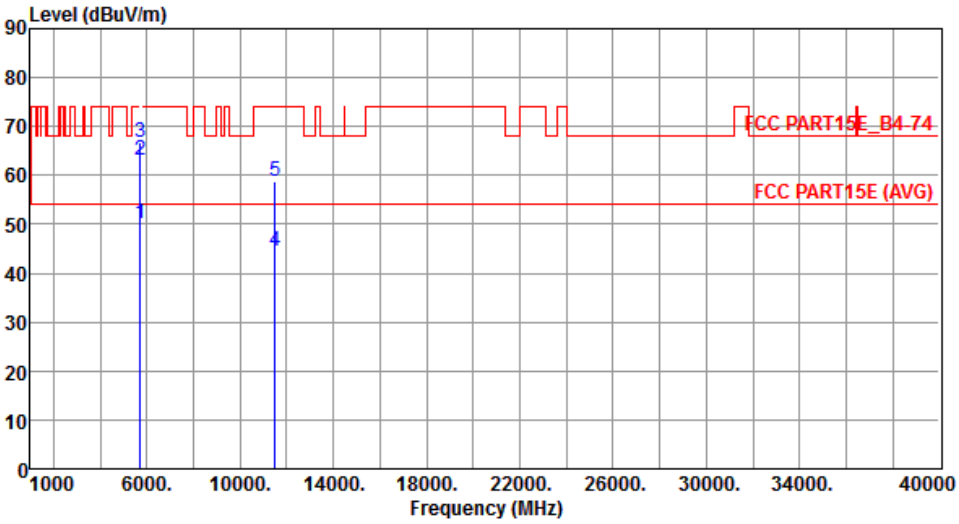
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4809.00	47.20	54.00	-6.80	40.78	6.42	Average	208	189
2	4809.00	60.55	74.00	-13.45	54.13	6.42	Peak	208	189
3	5029.00	47.73	54.00	-6.27	40.66	7.07	Average	208	189
4	5029.00	59.87	74.00	-14.13	52.80	7.07	Peak	208	189
5	5350.00	48.90	54.00	-5.10	40.99	7.91	Average	208	189
6	5350.00	62.70	74.00	-11.30	54.79	7.91	Peak	208	189
7	5393.00	49.34	54.00	-4.66	41.35	7.99	Average	208	189
8	5393.00	62.96	74.00	-11.04	54.97	7.99	Peak	208	189
9	5450.00	48.98	54.00	-5.02	40.85	8.13	Average	208	189
10	5450.00	60.83	74.00	-13.17	52.70	8.13	Peak	208	189
11	10480.00	60.39	68.20	-7.81	46.99	13.40	Peak	179	346
12	15720.00	48.25	54.00	-5.75	31.96	16.29	Average	181	329
13	15720.00	61.45	74.00	-12.55	45.16	16.29	Peak	181	329

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

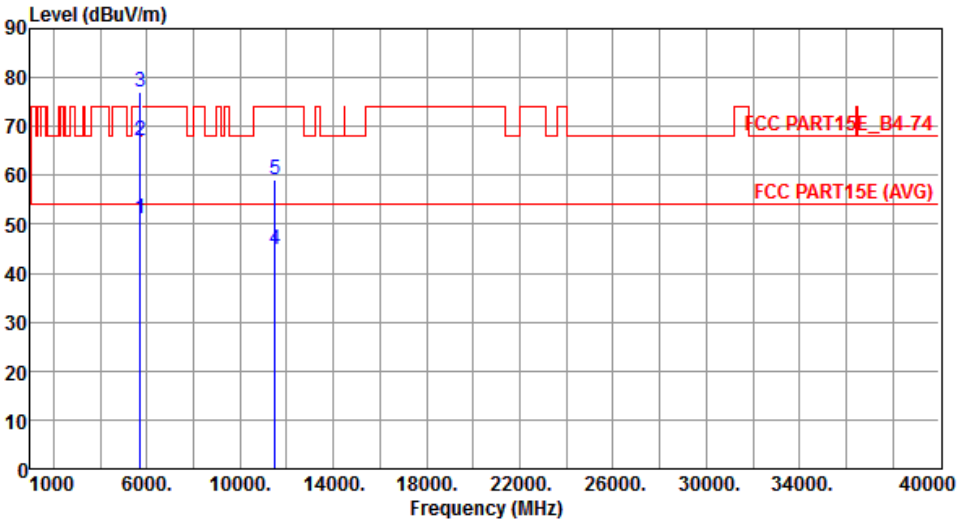
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	50.16	54.00	-3.84	41.11	9.05	Average	229	170
2	5715.00	62.97	74.00	-11.03	53.92	9.05	Peak	229	170
3	5725.00	66.69	78.20	-11.51	57.61	9.08	Peak	229	170
4	11490.00	44.41	54.00	-9.59	29.79	14.62	Average	202	33
5	11490.00	58.76	74.00	-15.24	44.14	14.62	Peak	202	33

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

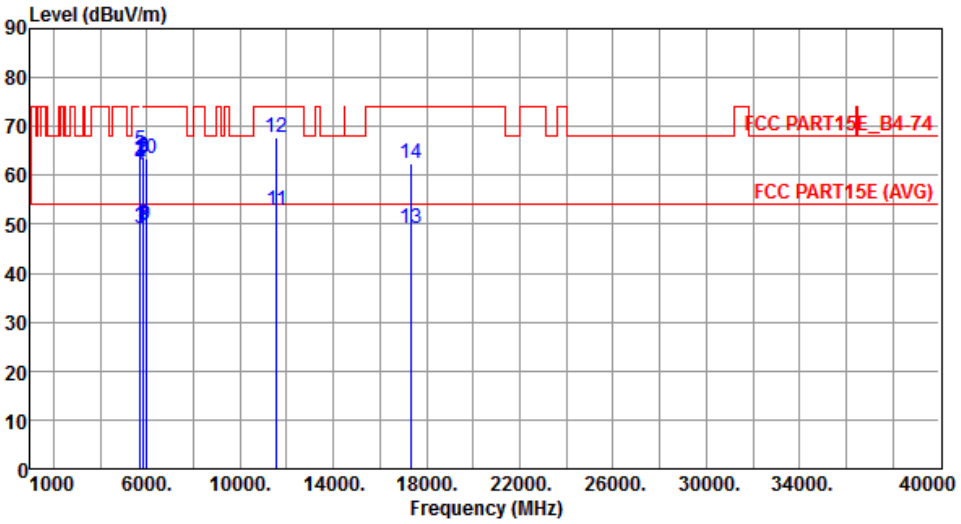
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	51.05	54.00	-2.95	42.00	9.05	Average	173	264
2	5715.00	67.04	74.00	-6.96	57.99	9.05	Peak	173	264
3	5725.00	77.10	78.20	-1.10	68.02	9.08	Peak	173	264
4	11490.00	44.74	54.00	-9.26	30.12	14.62	Average	163	131
5	11490.00	59.21	74.00	-14.79	44.59	14.62	Peak	163	131

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

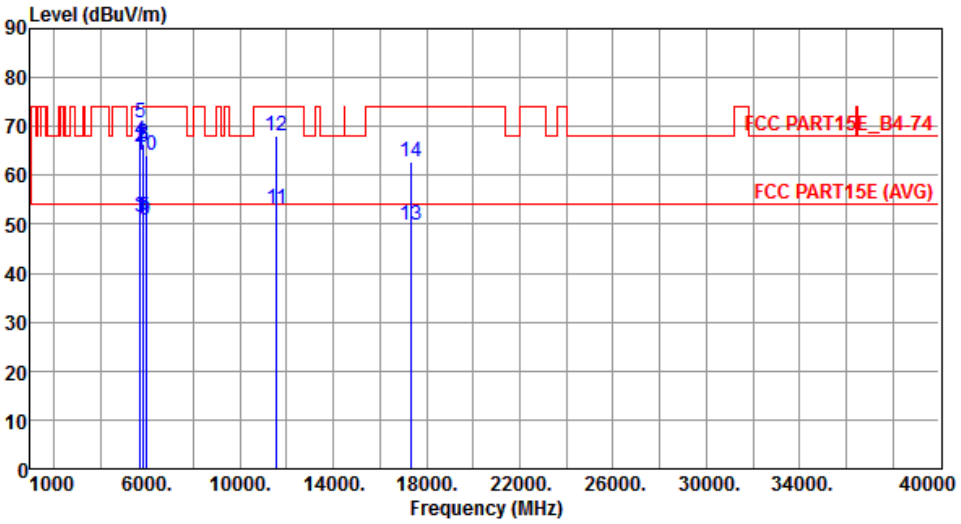
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5704.00	49.82	54.00	-4.18	40.81	9.01	Average	213	169
2	5704.00	63.21	74.00	-10.79	54.20	9.01	Peak	213	169
3	5715.00	49.14	54.00	-4.86	40.09	9.05	Average	213	169
4	5715.00	62.19	74.00	-11.81	53.14	9.05	Peak	213	169
5	5725.00	65.14	78.20	-13.06	56.06	9.08	Peak	213	169
6	5850.00	63.85	78.20	-14.35	54.33	9.52	Peak	213	169
7	5860.00	49.56	54.00	-4.44	40.01	9.55	Average	213	169
8	5860.00	63.53	74.00	-10.47	53.98	9.55	Peak	213	169
9	5945.00	49.82	54.00	-4.18	40.00	9.82	Average	213	169
10	5945.00	63.57	74.00	-10.43	53.75	9.82	Peak	213	169
11	11570.00	52.69	54.00	-1.31	38.02	14.67	Average	214	59
12	11570.00	67.72	74.00	-6.28	53.05	14.67	Peak	214	59
13	17355.00	49.04	54.00	-4.96	28.94	20.10	Average	209	0
14	17355.00	62.27	74.00	-11.73	42.17	20.10	Peak	209	0

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

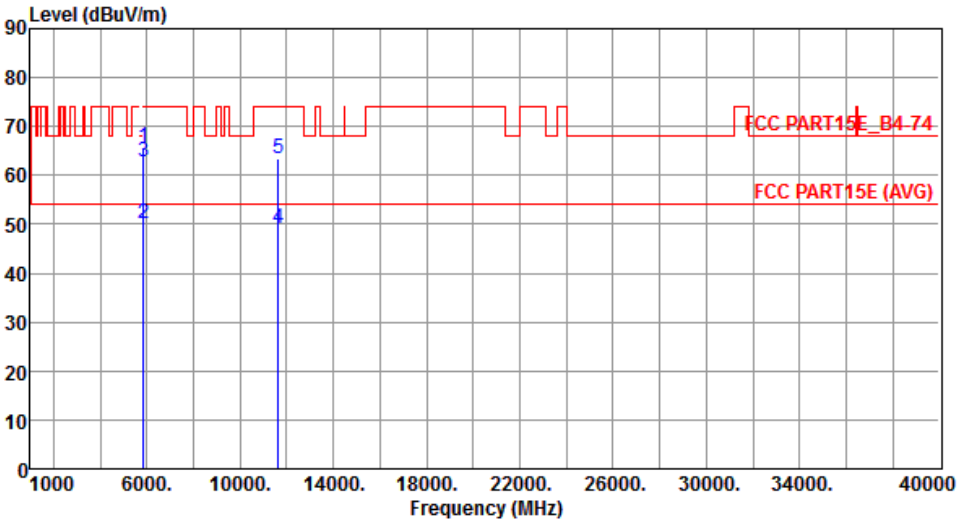
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5704.00	51.56	54.00	-2.44	42.55	9.01	Average	167	269
2	5704.00	65.79	74.00	-8.21	56.78	9.01	Peak	167	269
3	5715.00	51.59	54.00	-2.41	42.54	9.05	Average	174	268
4	5715.00	67.04	74.00	-6.96	57.99	9.05	Peak	174	268
5	5725.00	70.84	78.20	-7.36	61.76	9.08	Peak	174	268
6	5850.00	65.76	78.20	-12.44	56.24	9.52	Peak	167	269
7	5860.00	51.45	54.00	-2.55	41.90	9.55	Average	167	269
8	5860.00	66.44	74.00	-7.56	56.89	9.55	Peak	167	269
9	5945.00	50.70	54.00	-3.30	40.88	9.82	Average	168	255
10	5945.00	63.93	74.00	-10.07	54.11	9.82	Peak	168	255
11	11570.00	52.99	54.00	-1.01	38.32	14.67	Average	165	116
12	11570.00	68.11	74.00	-5.89	53.44	14.67	Peak	165	116
13	17355.00	49.68	54.00	-4.32	29.58	20.10	Average	178	127
14	17355.00	62.77	74.00	-11.23	42.67	20.10	Peak	178	127

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

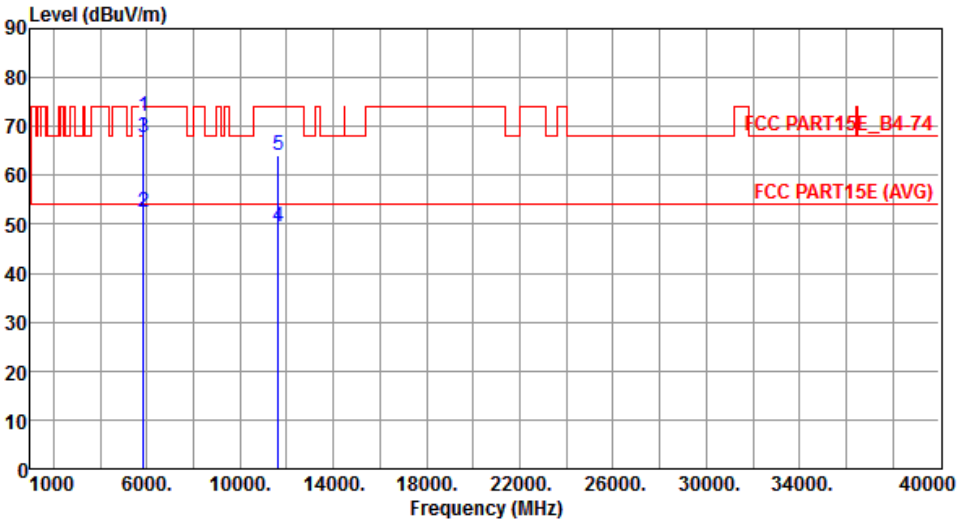
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	65.62	78.20	-12.58	56.10	9.52	Peak	233	173
2	5860.00	50.02	54.00	-3.98	40.47	9.55	Average	233	173
3	5860.00	62.85	74.00	-11.15	53.30	9.55	Peak	233	173
4	11650.00	49.29	54.00	-4.71	34.56	14.73	Average	209	66
5	11650.00	63.57	74.00	-10.43	48.84	14.73	Peak	209	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).

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

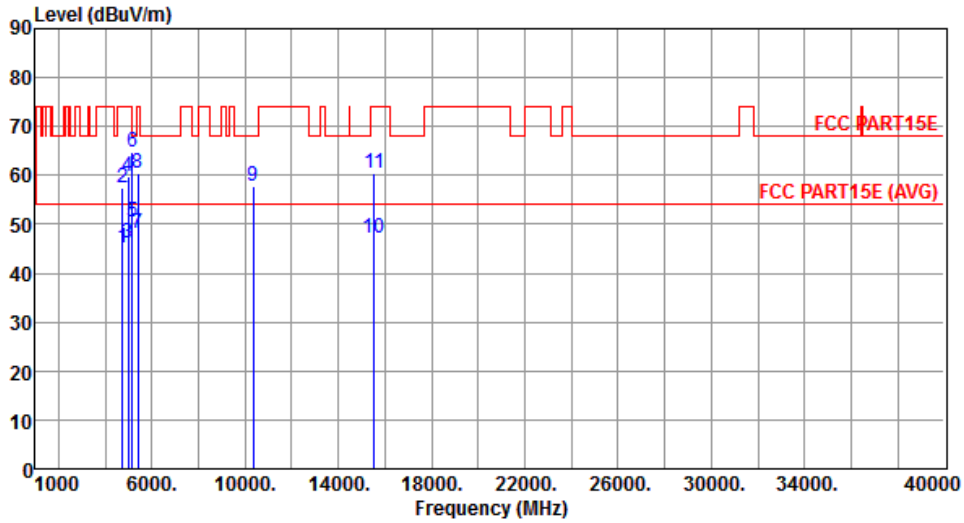


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	71.97	78.20	-6.23	62.45	9.52	Peak	155	157
2	5860.00	52.48	54.00	-1.52	42.93	9.55	Average	155	261
3	5860.00	67.67	74.00	-6.33	58.12	9.55	Peak	155	261
4	11650.00	49.61	54.00	-4.39	34.88	14.73	Average	170	120
5	11650.00	64.13	74.00	-9.87	49.40	14.73	Peak	170	120

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

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

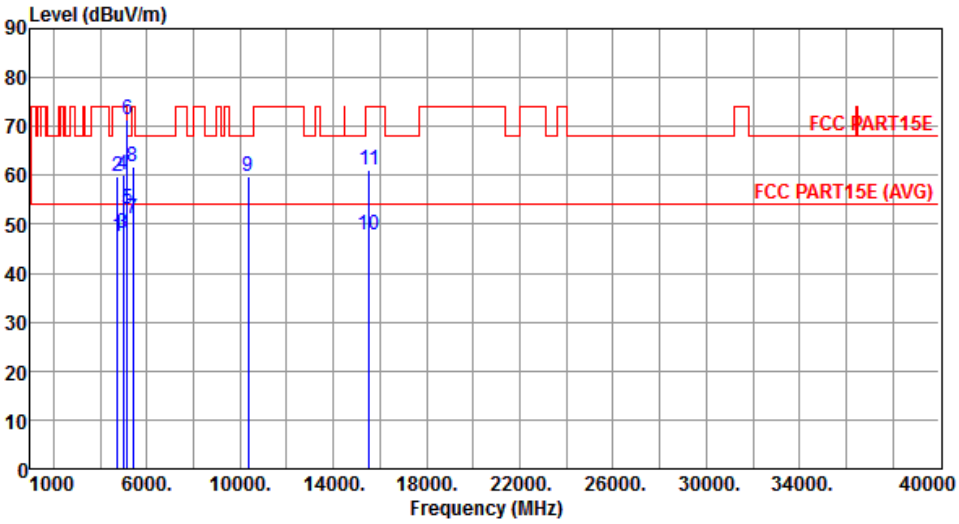
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4745.00	45.32	54.00	-8.68	39.35	5.97	Average	179	344
2	4745.00	57.40	74.00	-16.60	51.43	5.97	Peak	179	344
3	4970.00	46.12	54.00	-7.88	39.23	6.89	Average	179	344
4	4970.00	59.66	74.00	-14.34	52.77	6.89	Peak	179	344
5	5150.00	50.46	54.00	-3.54	42.98	7.48	Average	179	344
6	5150.00	64.73	74.00	-9.27	57.25	7.48	Peak	179	344
7	5387.00	48.09	54.00	-5.91	40.11	7.98	Average	179	344
8	5387.00	60.42	74.00	-13.58	52.44	7.98	Peak	179	344
9	10360.00	57.71	68.20	-10.49	44.46	13.25	Peak	204	354
10	15540.00	47.32	54.00	-6.68	31.03	16.29	Average	182	357
11	15540.00	60.32	74.00	-13.68	44.03	16.29	Peak	182	357

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

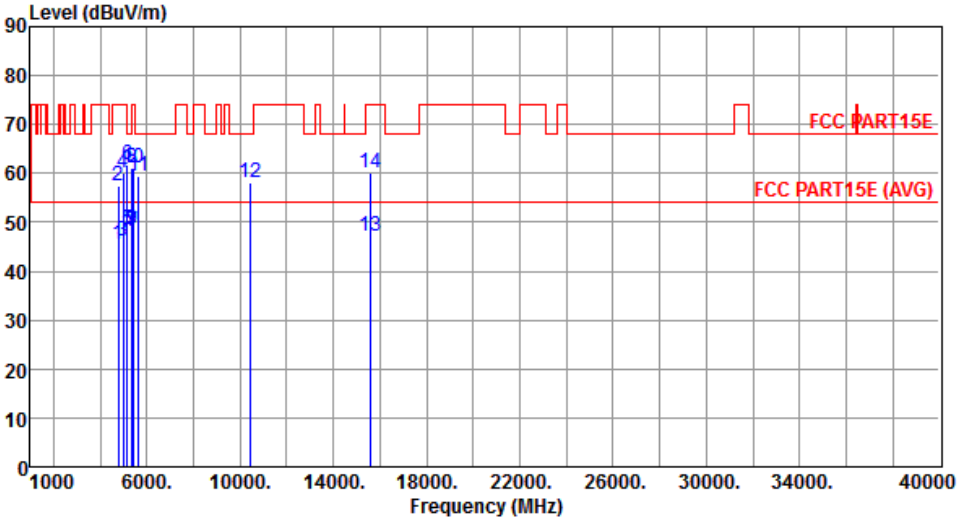
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4745.00	47.40	54.00	-6.60	41.43	5.97	Average	191	338
2	4745.00	59.62	74.00	-14.38	53.65	5.97	Peak	191	338
3	4970.00	48.20	54.00	-5.80	41.31	6.89	Average	191	338
4	4970.00	59.98	74.00	-14.02	53.09	6.89	Peak	191	338
5	5150.00	53.00	54.00	-1.00	45.52	7.48	Average	191	338
6	5150.00	71.41	74.00	-2.59	63.93	7.48	Peak	191	338
7	5387.00	51.07	54.00	-2.93	43.09	7.98	Average	203	336
8	5387.00	61.68	74.00	-12.32	53.70	7.98	Peak	203	336
9	10360.00	59.93	68.20	-8.27	46.68	13.25	Peak	179	313
10	15540.00	47.76	54.00	-6.24	31.47	16.29	Average	180	340
11	15540.00	61.22	74.00	-12.78	44.93	16.29	Peak	180	340

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

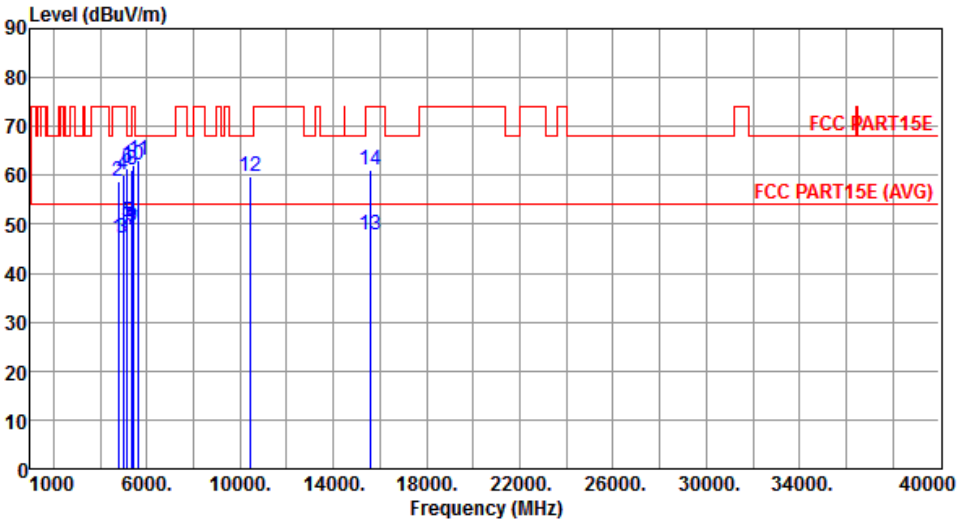
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4765.00	45.38	54.00	-8.62	39.25	6.13	Average	181	255
2	4765.00	57.52	74.00	-16.48	51.39	6.13	Peak	181	255
3	4984.00	46.32	54.00	-7.68	39.40	6.92	Average	181	255
4	4984.00	60.02	74.00	-13.98	53.10	6.92	Peak	181	255
5	5150.00	48.34	54.00	-5.66	40.86	7.48	Average	181	255
6	5150.00	61.88	74.00	-12.12	54.40	7.48	Peak	181	255
7	5360.00	48.31	54.00	-5.69	40.38	7.93	Average	181	255
8	5360.00	61.03	74.00	-12.97	53.10	7.93	Peak	216	333
9	5409.00	48.65	54.00	-5.35	40.63	8.02	Average	216	333
10	5409.00	61.01	74.00	-12.99	52.99	8.02	Peak	216	333
11	5642.00	59.38	68.20	-8.82	50.59	8.79	Peak	216	333
12	10400.00	58.19	68.20	-10.01	44.89	13.30	Peak	243	38
13	15600.00	47.27	54.00	-6.73	30.97	16.30	Average	258	16
14	15600.00	60.23	74.00	-13.77	43.93	16.30	Peak	258	16

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

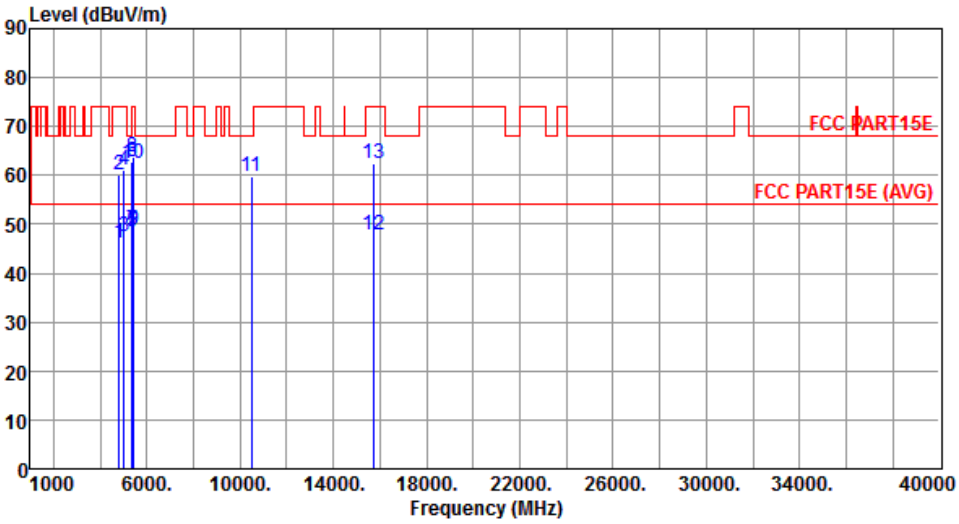
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4765.00	47.04	54.00	-6.96	40.91	6.13	Average	216	333
2	4765.00	58.91	74.00	-15.09	52.78	6.13	Peak	216	333
3	4984.00	47.15	54.00	-6.85	40.23	6.92	Average	216	333
4	4984.00	60.02	74.00	-13.98	53.10	6.92	Peak	216	333
5	5150.00	50.47	54.00	-3.53	42.99	7.48	Average	216	333
6	5150.00	61.44	74.00	-12.56	53.96	7.48	Peak	216	333
7	5360.00	48.95	54.00	-5.05	41.02	7.93	Average	216	333
8	5360.00	61.05	74.00	-12.95	53.12	7.93	Peak	216	333
9	5409.00	49.57	54.00	-4.43	41.55	8.02	Average	216	333
10	5409.00	62.14	74.00	-11.86	54.12	8.02	Peak	216	333
11	5642.00	63.09	68.20	-5.11	54.30	8.79	Peak	216	333
12	10400.00	59.63	68.20	-8.57	46.33	13.30	Peak	193	348
13	15600.00	47.87	54.00	-6.13	31.57	16.30	Average	187	342
14	15600.00	61.08	74.00	-12.92	44.78	16.30	Peak	187	342

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

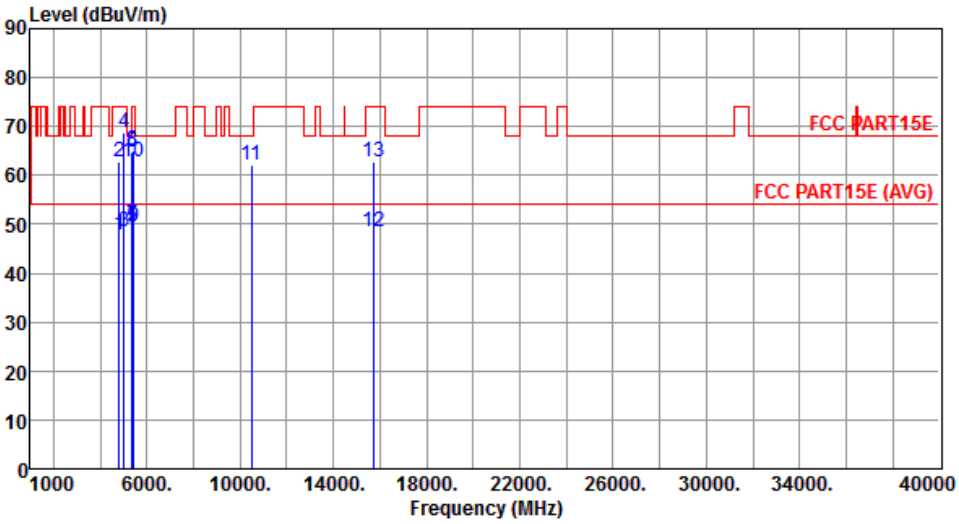
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4809.00	46.28	54.00	-7.72	39.86	6.42	Average	211	260
2	4809.00	60.02	74.00	-13.98	53.60	6.42	Peak	211	260
3	5029.00	47.46	54.00	-6.54	40.39	7.07	Average	211	260
4	5029.00	61.10	74.00	-12.90	54.03	7.07	Peak	211	260
5	5350.00	48.60	54.00	-5.40	40.69	7.91	Average	211	260
6	5350.00	62.79	74.00	-11.21	54.88	7.91	Peak	211	260
7	5393.00	48.87	54.00	-5.13	40.88	7.99	Average	190	187
8	5393.00	63.88	74.00	-10.12	55.89	7.99	Peak	211	260
9	5450.00	48.81	54.00	-5.19	40.68	8.13	Average	211	260
10	5450.00	62.49	74.00	-11.51	54.36	8.13	Peak	211	260
11	10480.00	59.63	68.20	-8.57	46.23	13.40	Peak	247	32
12	15720.00	47.81	54.00	-6.19	31.52	16.29	Average	183	346
13	15720.00	62.27	74.00	-11.73	45.98	16.29	Peak	183	346

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

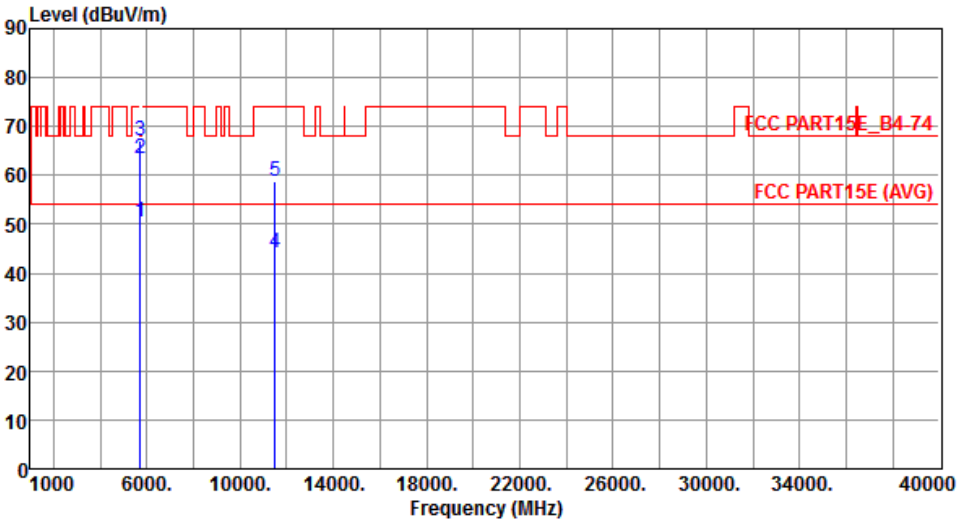
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4809.00	47.75	54.00	-6.25	41.33	6.42	Average	190	187
2	4809.00	62.66	74.00	-11.34	56.24	6.42	Peak	190	187
3	5029.00	48.39	54.00	-5.61	41.32	7.07	Average	190	187
4	5029.00	68.77	74.00	-5.23	61.70	7.07	Peak	190	187
5	5350.00	49.47	54.00	-4.53	41.56	7.91	Average	190	187
6	5350.00	64.86	74.00	-9.14	56.95	7.91	Peak	190	187
7	5393.00	49.88	54.00	-4.12	41.89	7.99	Average	190	187
8	5393.00	64.97	74.00	-9.03	56.98	7.99	Peak	190	187
9	5450.00	49.46	54.00	-4.54	41.33	8.13	Average	190	187
10	5450.00	62.67	74.00	-11.33	54.54	8.13	Peak	190	187
11	10480.00	62.25	68.20	-5.95	48.85	13.40	Peak	177	339
12	15720.00	48.48	54.00	-5.52	32.19	16.29	Average	186	346
13	15720.00	62.89	74.00	-11.11	46.60	16.29	Peak	186	346

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

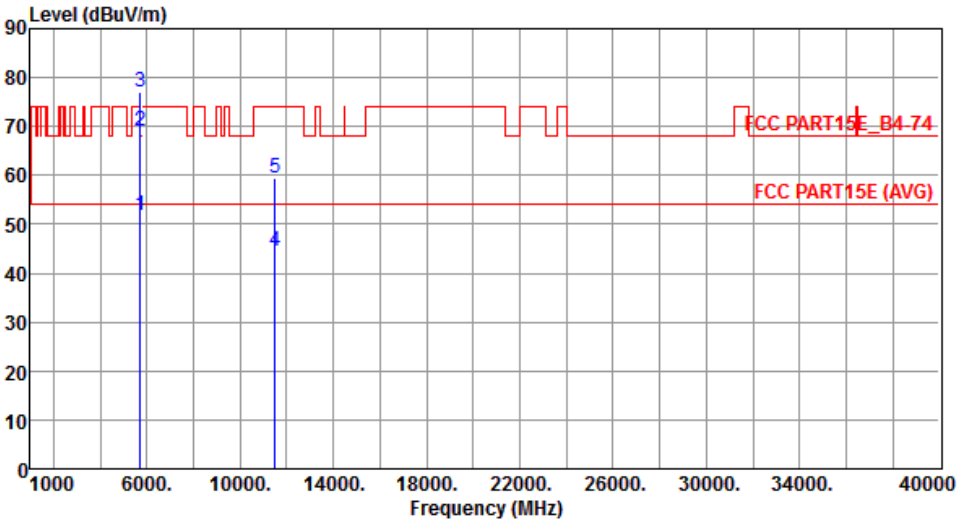
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	50.43	54.00	-3.57	41.38	9.05	Average	211	177
2	5715.00	63.35	74.00	-10.65	54.30	9.05	Peak	211	177
3	5725.00	67.07	78.20	-11.13	57.99	9.08	Peak	211	177
4	11490.00	44.07	54.00	-9.93	29.45	14.62	Average	199	25
5	11490.00	58.93	74.00	-15.07	44.31	14.62	Peak	199	25

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

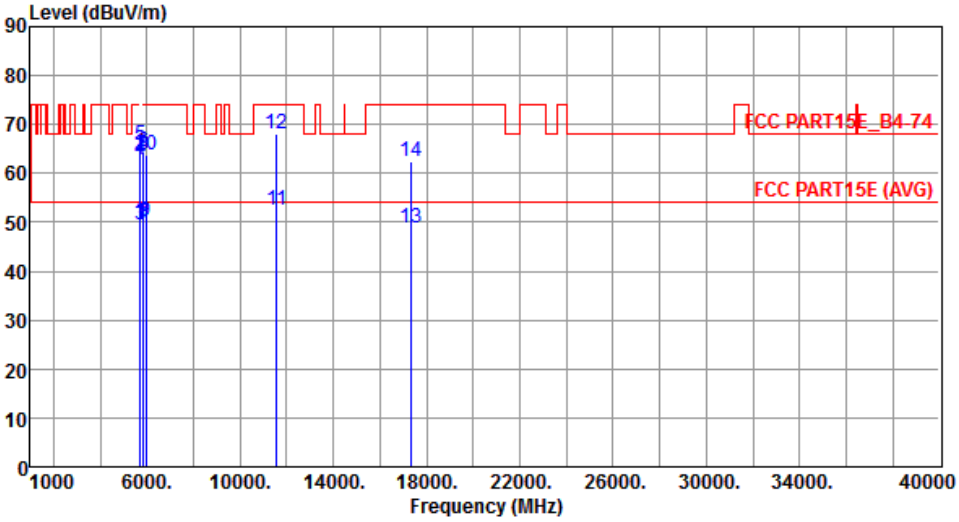
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	51.75	54.00	-2.25	42.70	9.05	Average	162	264
2	5715.00	69.05	74.00	-4.95	60.00	9.05	Peak	162	264
3	5725.00	76.99	78.20	-1.21	67.91	9.08	Peak	162	264
4	11490.00	44.62	54.00	-9.38	30.00	14.62	Average	166	140
5	11490.00	59.31	74.00	-14.69	44.69	14.62	Peak	166	140

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

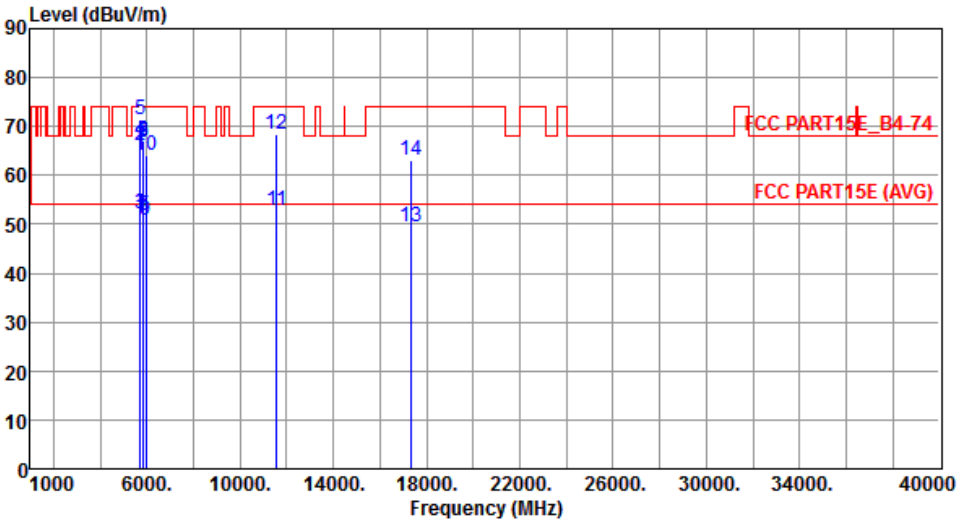
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5704.00	49.94	54.00	-4.06	40.93	9.01	Average	208	165
2	5704.00	63.74	74.00	-10.26	54.73	9.01	Peak	208	165
3	5715.00	49.36	54.00	-4.64	40.31	9.05	Average	208	165
4	5715.00	62.66	74.00	-11.34	53.61	9.05	Peak	208	165
5	5725.00	65.77	78.20	-12.43	56.69	9.08	Peak	208	165
6	5850.00	64.37	78.20	-13.83	54.85	9.52	Peak	208	165
7	5860.00	49.78	54.00	-4.22	40.23	9.55	Average	208	165
8	5860.00	63.67	74.00	-10.33	54.12	9.55	Peak	208	165
9	5945.00	50.19	54.00	-3.81	40.37	9.82	Average	208	165
10	5945.00	63.88	74.00	-10.12	54.06	9.82	Peak	208	165
11	11570.00	52.37	54.00	-1.63	37.70	14.67	Average	209	63
12	11570.00	68.13	74.00	-5.87	53.46	14.67	Peak	209	63
13	17355.00	48.88	54.00	-5.12	28.78	20.10	Average	200	3
14	17355.00	62.48	74.00	-11.52	42.38	20.10	Peak	200	3

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

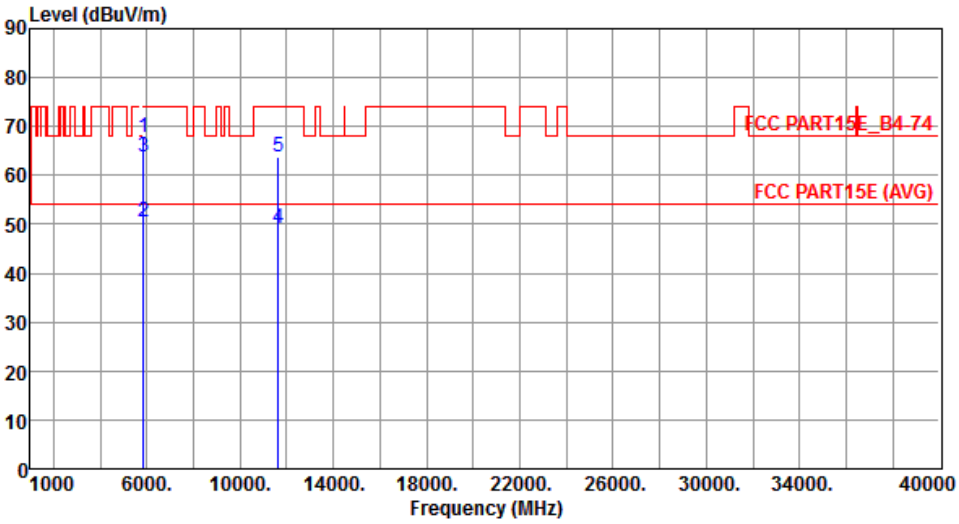
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5704.00	51.43	54.00	-2.57	42.42	9.01	Average	169	273
2	5704.00	66.00	74.00	-8.00	56.99	9.01	Peak	169	273
3	5715.00	51.99	54.00	-2.01	42.94	9.05	Average	176	262
4	5715.00	67.17	74.00	-6.83	58.12	9.05	Peak	176	268
5	5725.00	71.44	78.20	-6.76	62.36	9.08	Peak	176	262
6	5850.00	67.18	78.20	-11.02	57.66	9.52	Peak	176	262
7	5860.00	51.94	54.00	-2.06	42.39	9.55	Average	176	261
8	5860.00	66.65	74.00	-7.35	57.10	9.55	Peak	176	261
9	5945.00	50.73	54.00	-3.27	40.91	9.82	Average	169	273
10	5945.00	64.11	74.00	-9.89	54.29	9.82	Peak	169	273
11	11570.00	52.82	54.00	-1.18	38.15	14.67	Average	158	120
12	11570.00	68.46	74.00	-5.54	53.79	14.67	Peak	158	120
13	17355.00	49.49	54.00	-4.51	29.39	20.10	Average	170	113
14	17355.00	63.21	74.00	-10.79	43.11	20.10	Peak	170	113

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

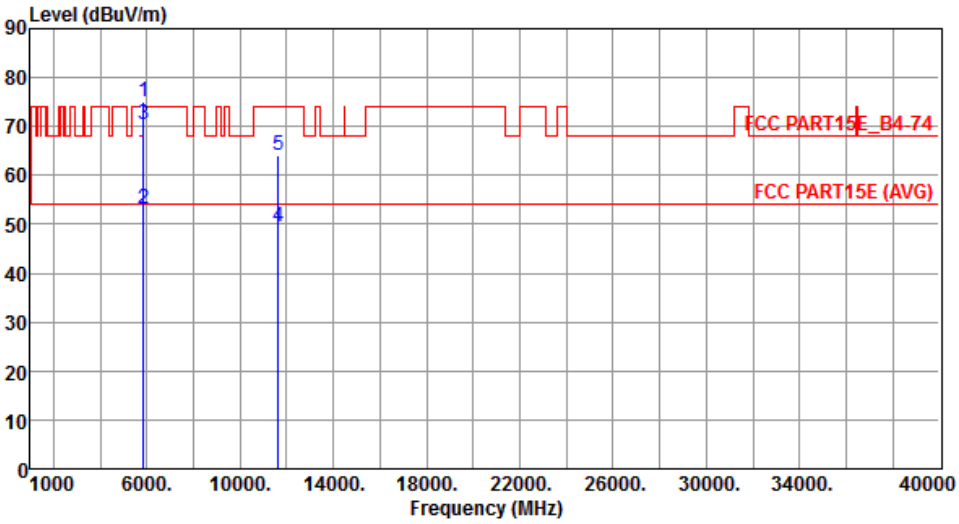
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	67.82	78.20	-10.38	58.30	9.52	Peak	241	179
2	5860.00	50.36	54.00	-3.64	40.81	9.55	Average	241	179
3	5860.00	63.67	74.00	-10.33	54.12	9.55	Peak	241	179
4	11650.00	49.02	54.00	-4.98	34.29	14.73	Average	202	52
5	11650.00	63.89	74.00	-10.11	49.16	14.73	Peak	202	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).

Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Vertical		

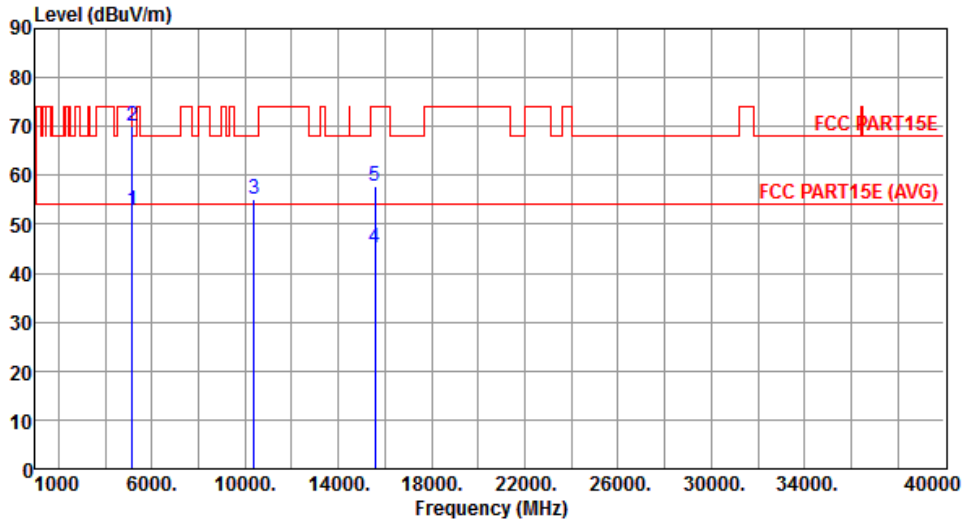


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	74.90	78.20	-3.30	65.38	9.52	Peak	163	263
2	5860.00	52.99	54.00	-1.01	43.44	9.55	Average	163	263
3	5860.00	70.57	74.00	-3.43	61.02	9.55	Peak	163	263
4	11650.00	49.42	54.00	-4.58	34.69	14.73	Average	174	128
5	11650.00	64.25	74.00	-9.75	49.52	14.73	Peak	174	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).

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

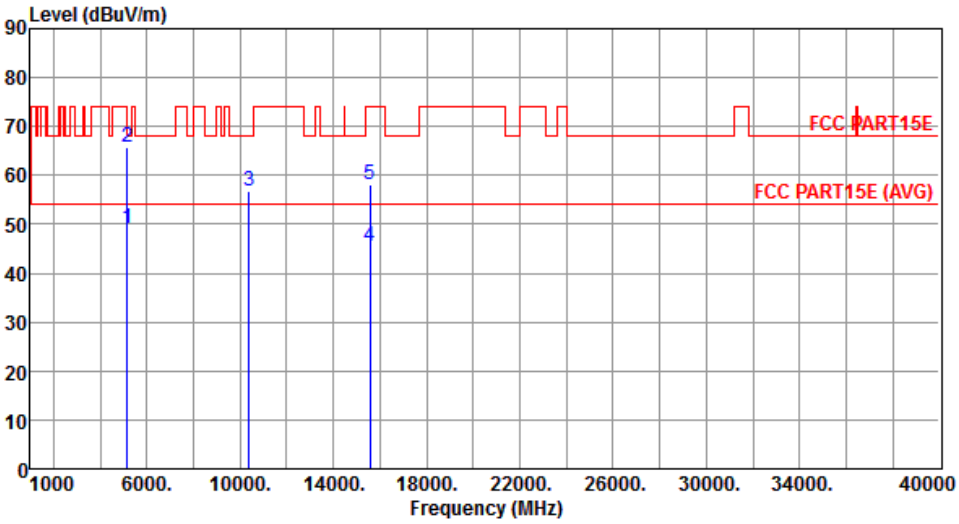
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.78	54.00	-1.22	45.30	7.48	Average	139	178
2	5150.00	70.17	74.00	-3.83	62.69	7.48	Peak	139	178
3	10380.00	55.21	68.20	-12.99	41.94	13.27	Peak	248	11
4	15570.00	45.12	54.00	-8.88	28.82	16.30	Average	268	347
5	15570.00	57.87	74.00	-16.13	41.57	16.30	Peak	268	347

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

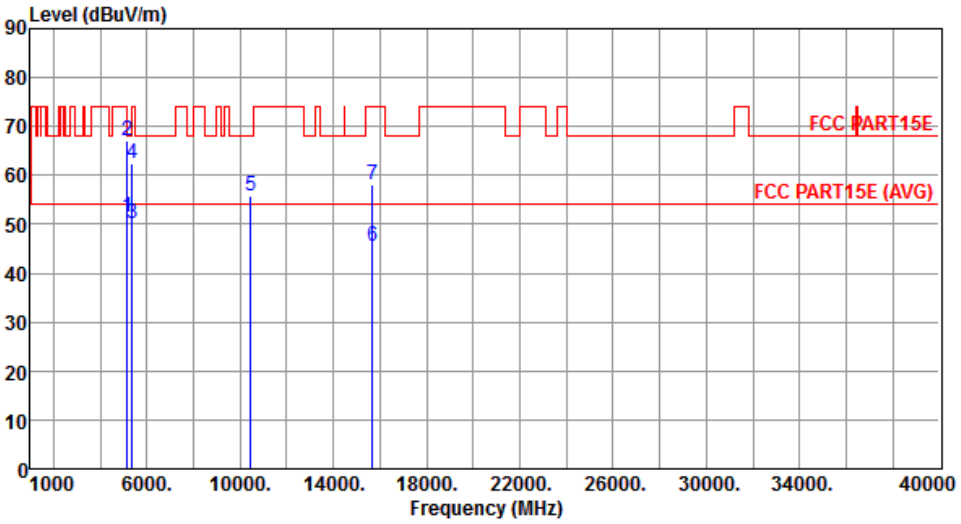
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.07	54.00	-4.93	41.59	7.48	Average	132	175
2	5150.00	65.71	74.00	-8.29	58.23	7.48	Peak	132	175
3	10380.00	56.64	68.20	-11.56	43.37	13.27	Peak	205	84
4	15570.00	45.52	54.00	-8.48	29.22	16.30	Average	246	255
5	15570.00	58.09	74.00	-15.91	41.79	16.30	Peak	246	255

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

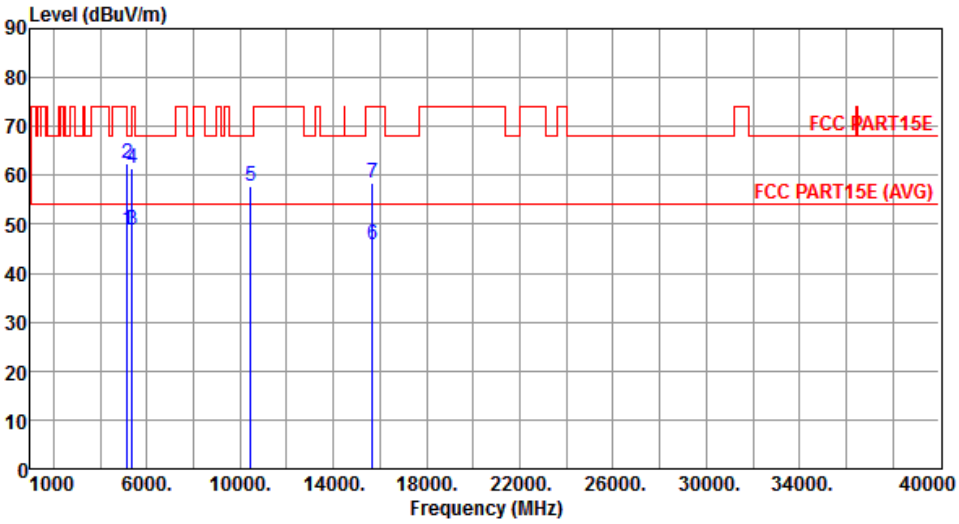
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.44	54.00	-2.56	43.96	7.48	Average	182	187
2	5150.00	67.25	74.00	-6.75	59.77	7.48	Peak	182	187
3	5350.00	50.01	54.00	-3.99	42.10	7.91	Average	182	187
4	5350.00	62.42	74.00	-11.58	54.51	7.91	Peak	182	187
5	10460.00	55.83	68.20	-12.37	42.46	13.37	Peak	243	3
6	15690.00	45.35	54.00	-8.65	29.06	16.29	Average	277	351
7	15690.00	58.20	74.00	-15.80	41.91	16.29	Peak	277	351

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

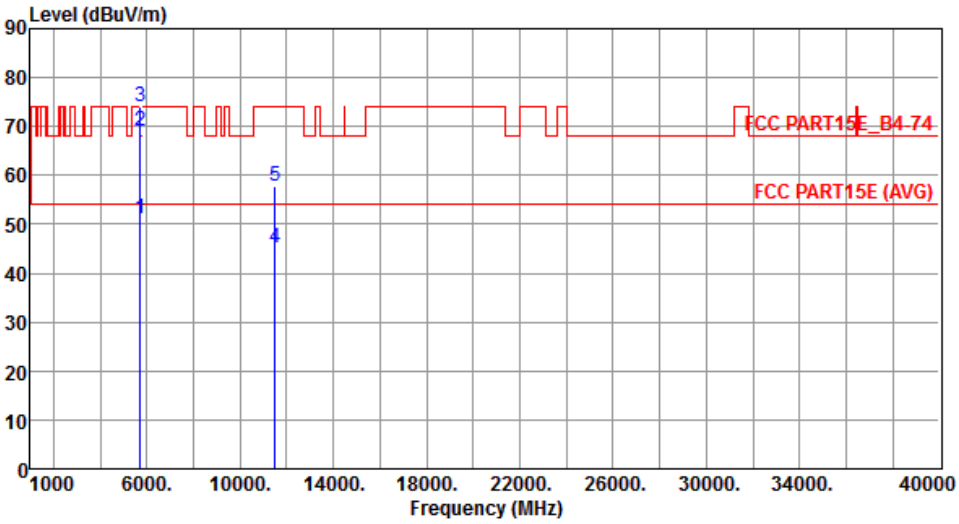
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.69	54.00	-5.31	41.21	7.48	Average	212	248
2	5150.00	62.39	74.00	-11.61	54.91	7.48	Peak	212	248
3	5350.00	48.94	54.00	-5.06	41.03	7.91	Average	212	248
4	5350.00	61.56	74.00	-12.44	53.65	7.91	Peak	212	248
5	10460.00	57.84	68.20	-10.36	44.47	13.37	Peak	212	80
6	15690.00	45.74	54.00	-8.26	29.45	16.29	Average	241	252
7	15690.00	58.33	74.00	-15.67	42.04	16.29	Peak	241	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).

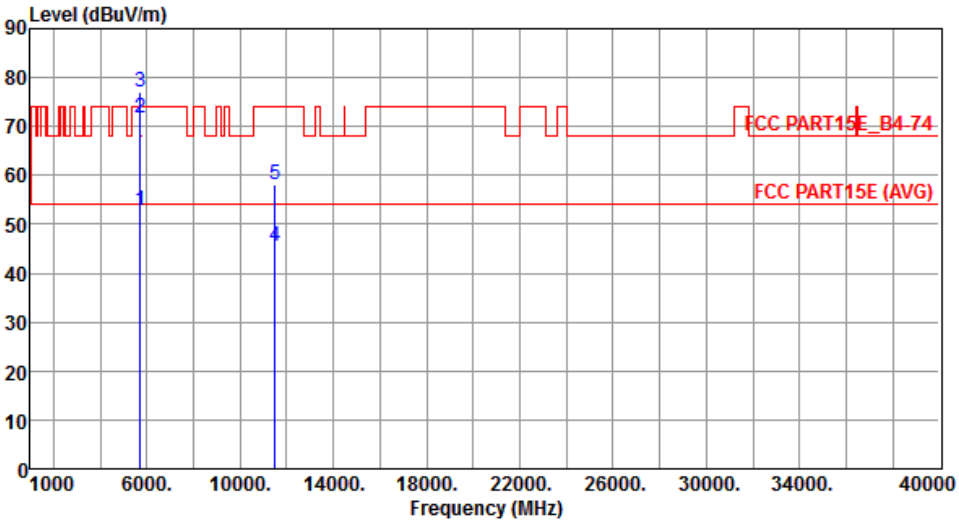
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	51.05	54.00	-2.95	42.00	9.05	Average	295	249
2	5715.00	69.16	74.00	-4.84	60.11	9.05	Peak	295	249
3	5725.00	73.91	78.20	-4.29	64.83	9.08	Peak	295	249
4	11510.00	45.08	54.00	-8.92	30.45	14.63	Average	272	258
5	11510.00	57.86	74.00	-16.14	43.23	14.63	Peak	272	258

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

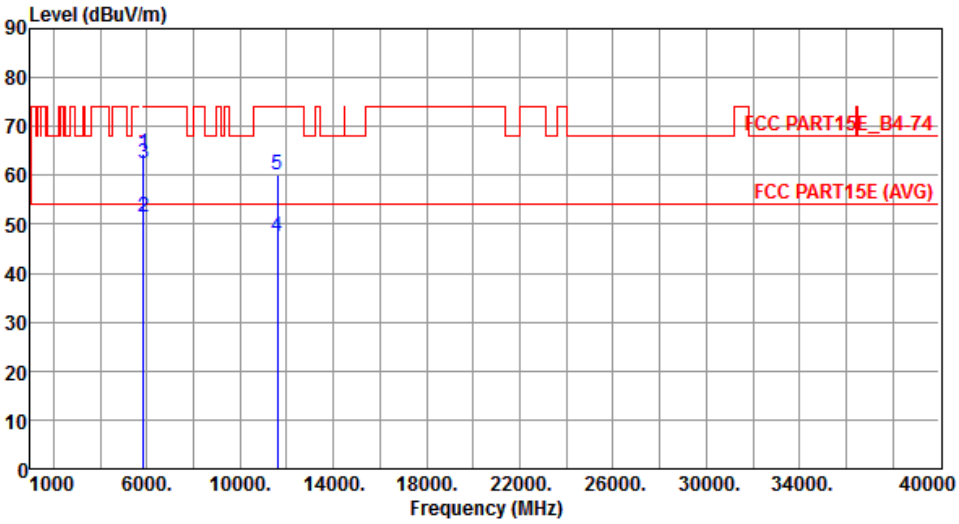
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	52.80	54.00	-1.20	43.75	9.05	Average	311	340
2	5715.00	71.69	74.00	-2.31	62.64	9.05	Peak	311	340
3	5725.00	77.18	78.20	-1.02	68.10	9.08	Peak	311	340
4	11510.00	45.39	54.00	-8.61	30.76	14.63	Average	275	40
5	11510.00	58.05	74.00	-15.95	43.42	14.63	Peak	275	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).

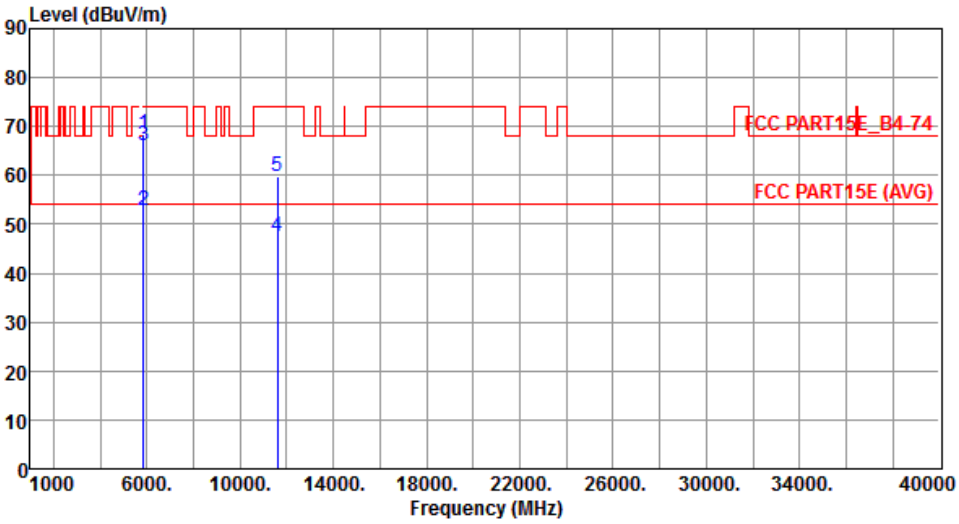
Modulation	VHT40	**Test Freq. (MHz)**	5795
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	64.51	78.20	-13.69	54.99	9.52	Peak	289	253
2	5860.00	51.47	54.00	-2.53	41.92	9.55	Average	289	253
3	5860.00	62.54	74.00	-11.46	52.99	9.55	Peak	289	253
4	11590.00	47.53	54.00	-6.47	32.84	14.69	Average	269	118
5	11590.00	60.21	74.00	-13.79	45.52	14.69	Peak	269	118

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

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical		

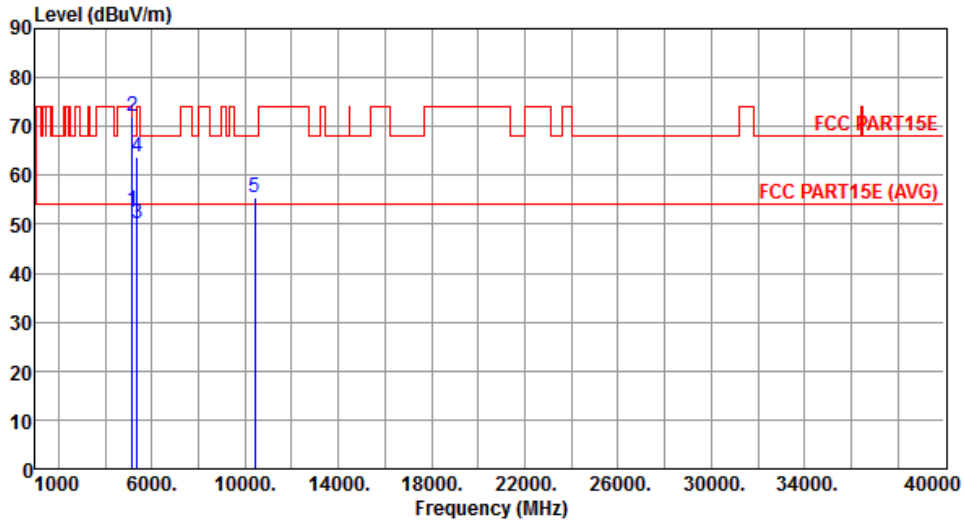


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	68.50	78.20	-9.70	58.98	9.52	Peak	284	340
2	5860.00	52.75	54.00	-1.25	43.20	9.55	Average	284	340
3	5860.00	65.96	74.00	-8.04	56.41	9.55	Peak	284	340
4	11590.00	47.34	54.00	-6.66	32.65	14.69	Average	269	32
5	11590.00	59.90	74.00	-14.10	45.21	14.69	Peak	269	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).

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

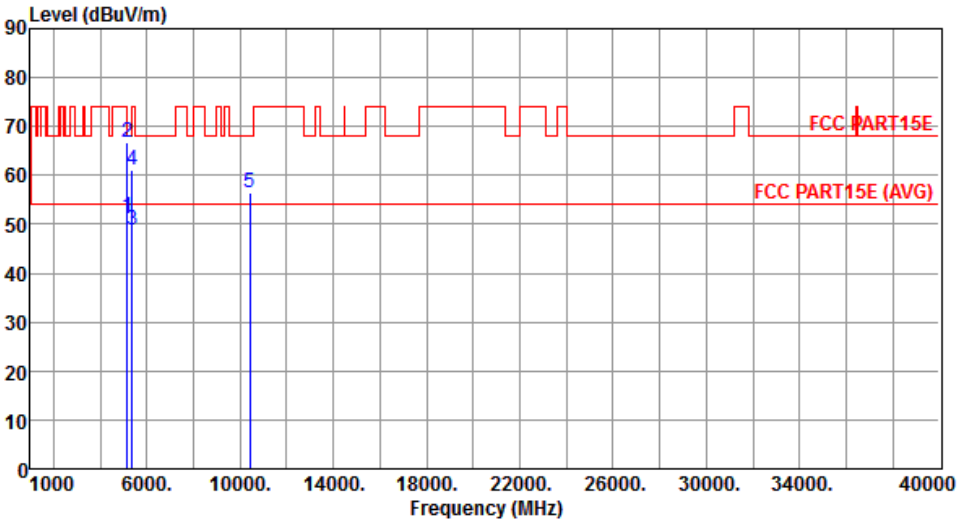
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.96	54.00	-1.04	45.48	7.48	Average	217	230
2	5150.00	72.20	74.00	-1.80	64.72	7.48	Peak	217	230
3	5350.00	50.10	54.00	-3.90	42.19	7.91	Average	217	230
4	5350.00	63.67	74.00	-10.33	55.76	7.91	Peak	217	230
5	10420.00	55.33	68.20	-12.87	42.01	13.32	Peak	244	16

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

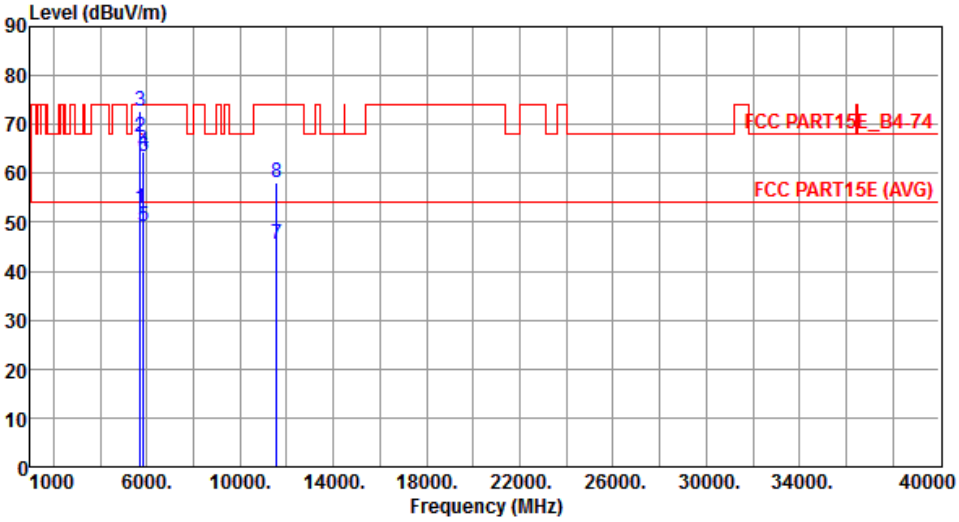
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.56	54.00	-2.44	44.08	7.48	Average	297	327
2	5150.00	66.70	74.00	-7.30	59.22	7.48	Peak	297	327
3	5350.00	48.74	54.00	-5.26	40.83	7.91	Average	297	327
4	5350.00	61.20	74.00	-12.80	53.29	7.91	Peak	297	327
5	10420.00	56.37	68.20	-11.83	43.05	13.32	Peak	211	89

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

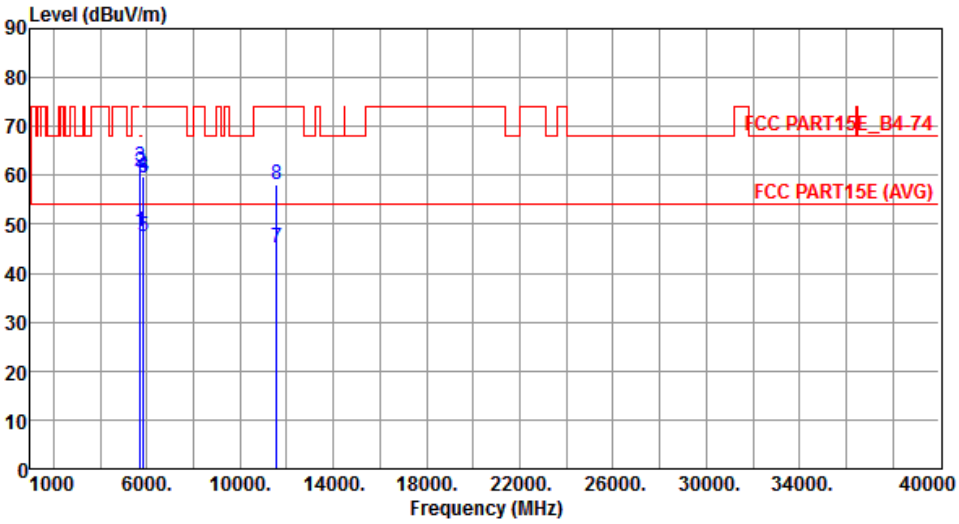
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	52.69	54.00	-1.31	43.64	9.05	Average	172	262
2	5715.00	67.44	74.00	-6.56	58.39	9.05	Peak	172	262
3	5725.00	72.71	78.20	-5.49	63.63	9.08	Peak	172	262
4	5850.00	64.34	78.20	-13.86	54.82	9.52	Peak	172	262
5	5860.00	49.20	54.00	-4.80	39.65	9.55	Average	172	262
6	5860.00	63.35	74.00	-10.65	53.80	9.55	Peak	172	262
7	11550.00	45.61	54.00	-8.39	30.95	14.66	Average	278	46
8	11550.00	58.12	74.00	-15.88	43.46	14.66	Peak	278	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).

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Vertical		



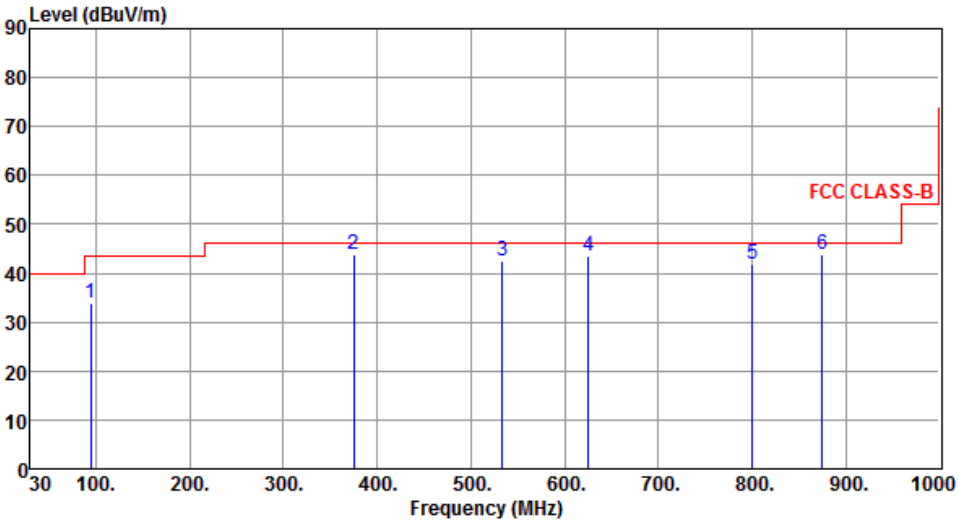
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	48.40	54.00	-5.60	39.35	9.05	Average	324	336
2	5715.00	60.71	74.00	-13.29	51.66	9.05	Peak	324	336
3	5725.00	61.72	78.20	-16.48	52.64	9.08	Peak	324	336
4	5850.00	59.82	78.20	-18.38	50.30	9.52	Peak	324	336
5	5860.00	47.61	54.00	-6.39	38.06	9.55	Average	324	336
6	5860.00	59.38	74.00	-14.62	49.83	9.55	Peak	324	336
7	11550.00	45.33	54.00	-8.67	30.67	14.66	Average	264	250
8	11550.00	57.99	74.00	-16.01	43.33	14.66	Peak	264	250

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

Beamforming mode

3.5.9 Transmitter Radiated Unwanted Emissions (Below 1GHz)

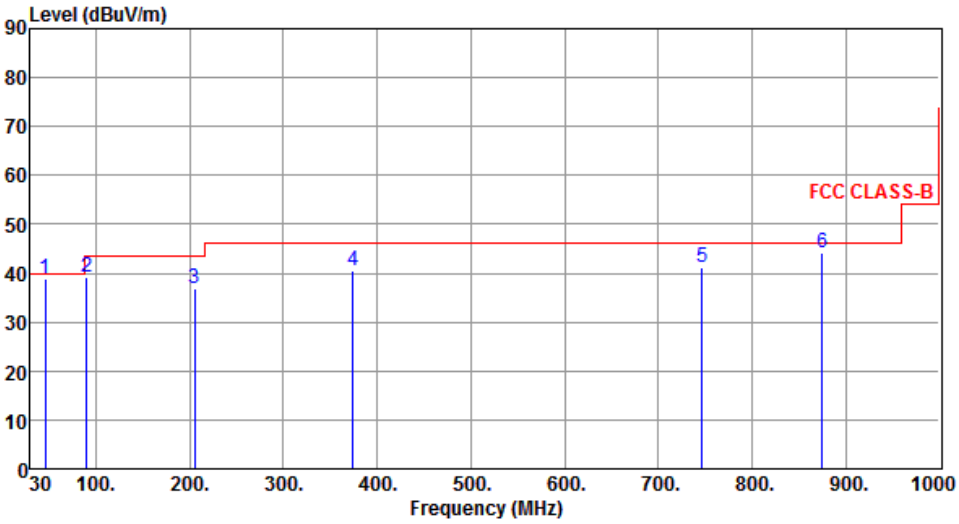
Modulation	VHT40	**Test Freq. (MHz)**	5230
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	94.23	33.94	43.50	-9.56	56.57	-22.63	Peak	---	---
2	375.10	43.89	46.00	-2.11	58.11	-14.22	Peak	---	---
3	533.26	42.67	46.00	-3.33	53.52	-10.85	Peak	---	---
4	625.12	43.51	46.00	-2.49	52.63	-9.12	QP	128	215
5	800.41	41.75	46.00	-4.25	48.57	-6.82	Peak	---	---
6	874.96	43.85	46.00	-2.15	49.47	-5.62	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.

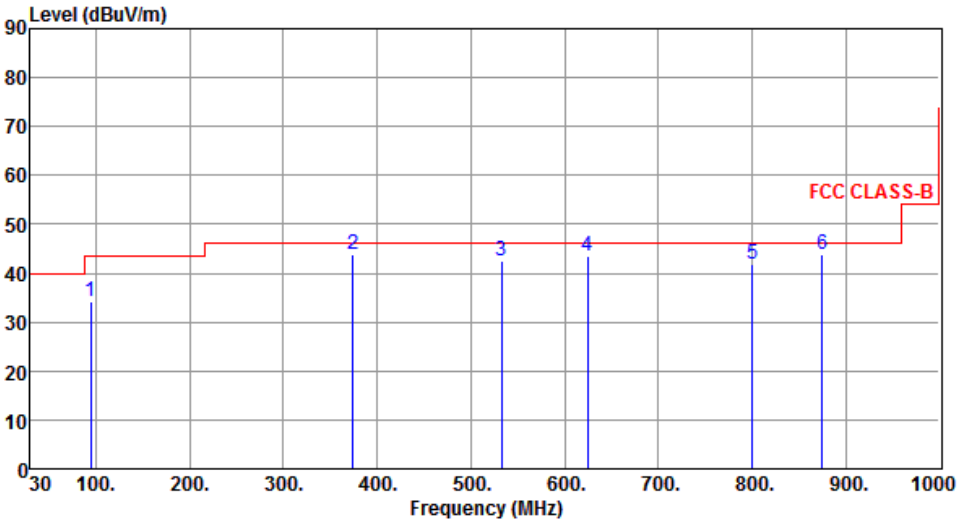
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	45.65	38.82	40.00	-1.18	55.41	-16.59	QP	100	28
2	90.26	39.32	43.50	-4.18	62.55	-23.23	Peak	---	---
3	205.42	36.96	43.50	-6.54	56.41	-19.45	Peak	---	---
4	374.55	40.42	46.00	-5.58	54.65	-14.23	Peak	---	---
5	746.55	41.29	46.00	-4.71	48.54	-7.25	Peak	---	---
6	875.11	44.04	46.00	-1.96	49.66	-5.62	QP	100	212

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

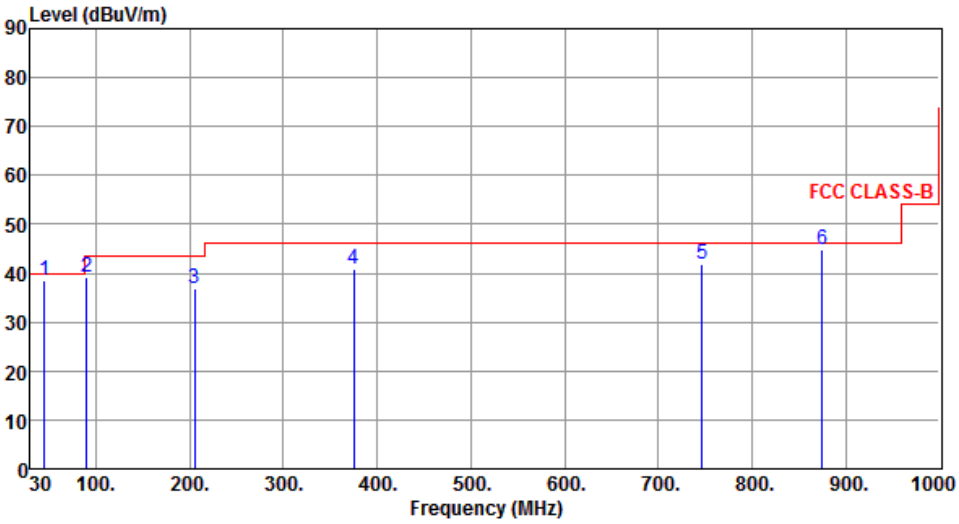
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	94.44	34.16	43.50	-9.34	56.75	-22.59	Peak	---	---
2	374.65	43.99	46.00	-2.01	58.22	-14.23	Peak	---	---
3	533.16	42.60	46.00	-3.40	53.45	-10.85	Peak	---	---
4	624.54	43.52	46.00	-2.48	52.64	-9.12	QP	124	218
5	800.31	41.73	46.00	-4.27	48.55	-6.82	Peak	---	---
6	875.02	43.90	46.00	-2.10	49.52	-5.62	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)	5785
Polarization	Vertical		

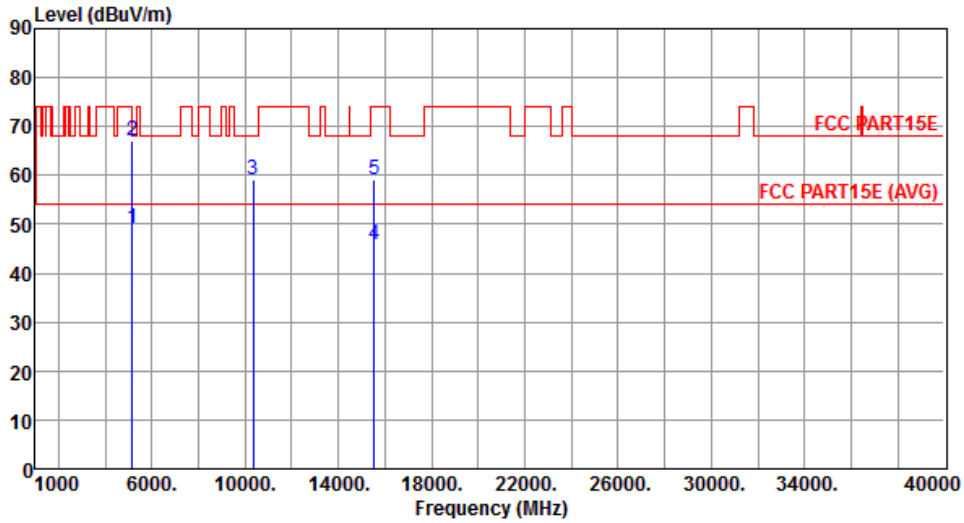


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	45.32	38.62	40.00	-1.38	55.21	-16.59	QP	100	146
2	90.52	39.25	43.50	-4.25	62.44	-23.19	Peak	---	---
3	205.21	37.02	43.50	-6.48	56.48	-19.46	Peak	---	---
4	375.41	40.81	46.00	-5.19	55.02	-14.21	Peak	---	---
5	746.32	41.95	46.00	-4.05	49.21	-7.26	Peak	---	---
6	875.12	44.71	46.00	-1.29	50.33	-5.62	QP	100	215

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

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

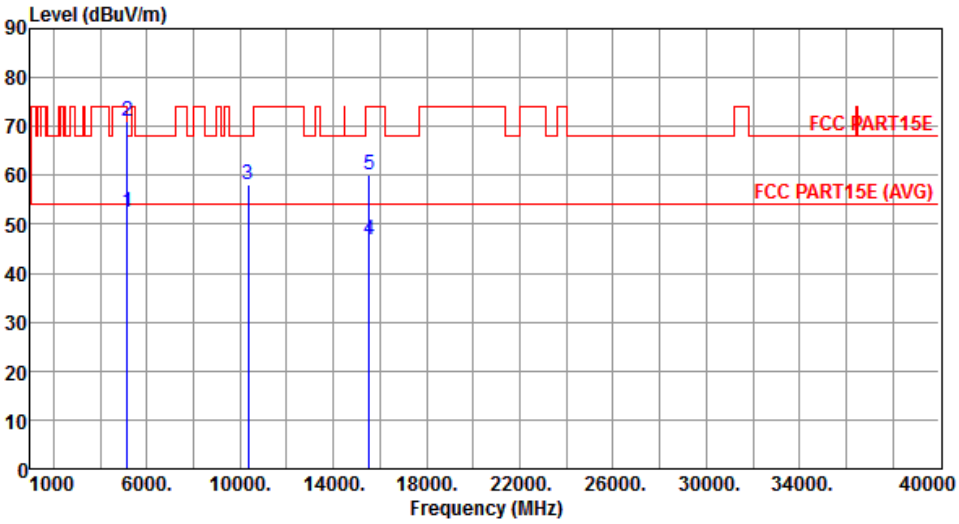
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.11	54.00	-4.89	41.63	7.48	Average	215	2
2	5150.00	67.13	74.00	-6.87	59.65	7.48	Peak	215	2
3	10360.00	59.24	68.20	-8.96	45.99	13.25	Peak	222	96
4	15540.00	45.96	54.00	-8.04	29.67	16.29	Average	189	335
5	15540.00	58.98	74.00	-15.02	42.69	16.29	Peak	189	335

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

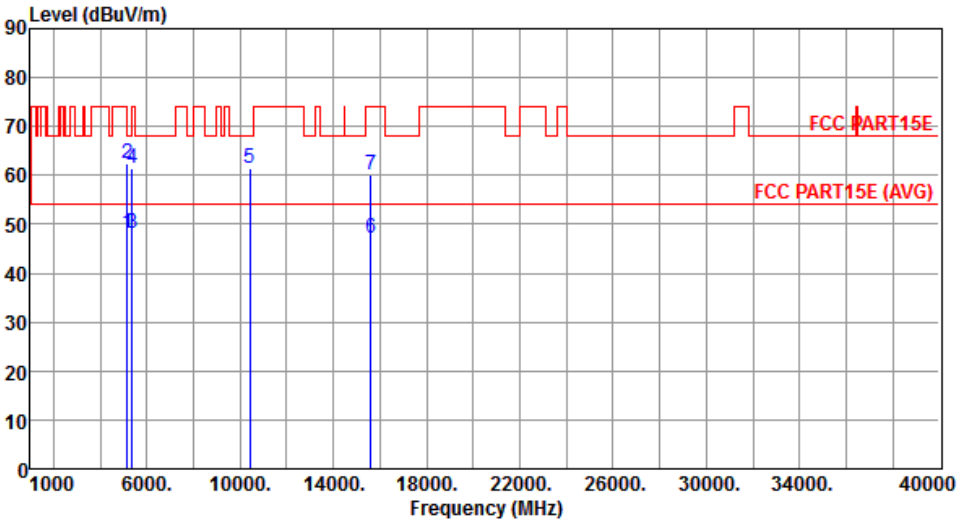
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.50	54.00	-1.50	45.02	7.48	Average	227	236
2	5150.00	70.97	74.00	-3.03	63.49	7.48	Peak	227	236
3	10360.00	58.27	68.20	-9.93	45.02	13.25	Peak	174	333
4	15540.00	46.96	54.00	-7.04	30.67	16.29	Average	178	308
5	15540.00	60.09	74.00	-13.91	43.80	16.29	Peak	178	308

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

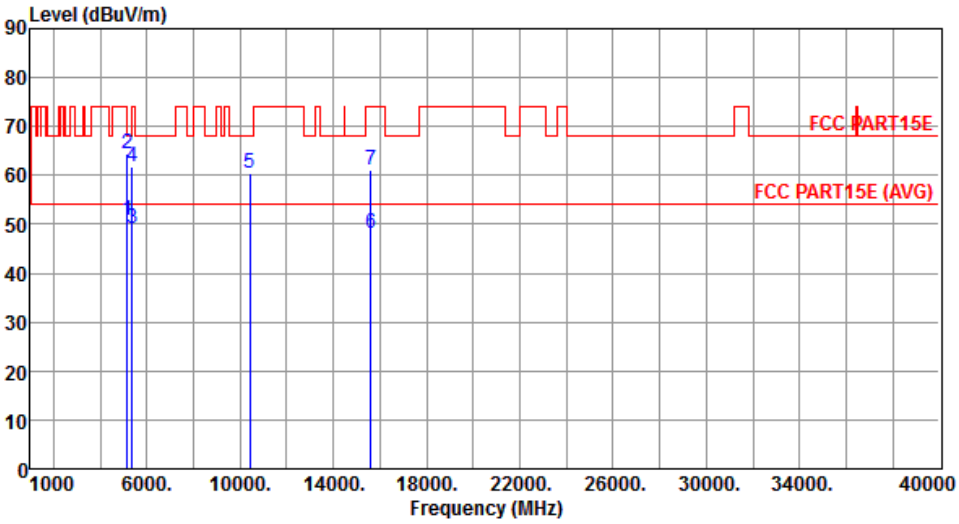
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.13	54.00	-5.87	40.65	7.48	Average	294	220
2	5150.00	62.46	74.00	-11.54	54.98	7.48	Peak	294	220
3	5350.00	48.14	54.00	-5.86	40.23	7.91	Average	294	220
4	5350.00	61.29	74.00	-12.71	53.38	7.91	Peak	294	220
5	10400.00	61.33	68.20	-6.87	48.03	13.30	Peak	223	89
6	15600.00	47.12	54.00	-6.88	30.82	16.30	Average	183	342
7	15600.00	60.19	74.00	-13.81	43.89	16.30	Peak	183	342

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

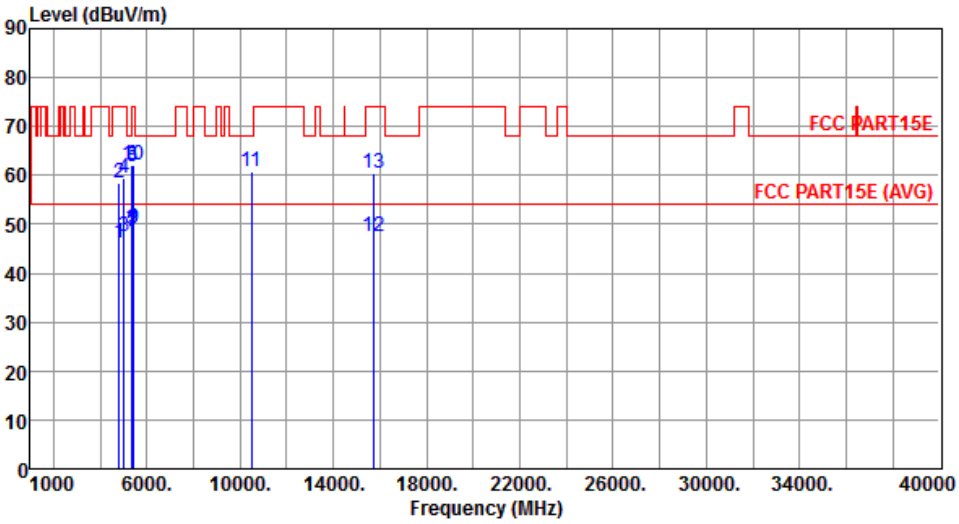
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	50.98	54.00	-3.02	43.50	7.48	Average	202	193
2	5150.00	64.48	74.00	-9.52	57.00	7.48	Peak	202	193
3	5350.00	49.22	54.00	-4.78	41.31	7.91	Average	250	227
4	5350.00	61.74	74.00	-12.26	53.83	7.91	Peak	250	227
5	10400.00	60.55	68.20	-7.65	47.25	13.30	Peak	177	332
6	15600.00	48.02	54.00	-5.98	31.72	16.30	Average	173	325
7	15600.00	61.15	74.00	-12.85	44.85	16.30	Peak	173	325

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

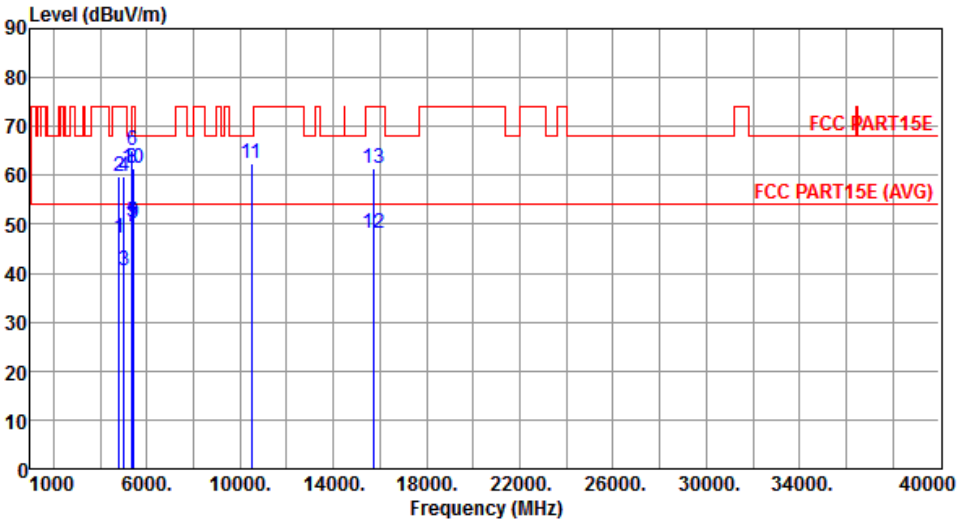
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4809.00	46.20	54.00	-7.80	39.78	6.42	Average	255	49
2	4809.00	58.45	74.00	-15.55	52.03	6.42	Peak	255	49
3	5029.00	47.48	54.00	-6.52	40.41	7.07	Average	255	49
4	5029.00	59.43	74.00	-14.57	52.36	7.07	Peak	255	49
5	5350.00	48.79	54.00	-5.21	40.88	7.91	Average	255	49
6	5350.00	62.12	74.00	-11.88	54.21	7.91	Peak	255	49
7	5393.00	48.46	54.00	-5.54	40.47	7.99	Average	255	49
8	5393.00	61.84	74.00	-12.16	53.85	7.99	Peak	255	49
9	5449.00	49.08	54.00	-4.92	40.95	8.13	Average	255	49
10	5449.00	62.20	74.00	-11.80	54.07	8.13	Peak	255	49
11	10480.00	60.80	68.20	-7.40	47.40	13.40	Peak	220	81
12	15720.00	47.49	54.00	-6.51	31.20	16.29	Average	181	349
13	15720.00	60.59	74.00	-13.41	44.30	16.29	Peak	181	349

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

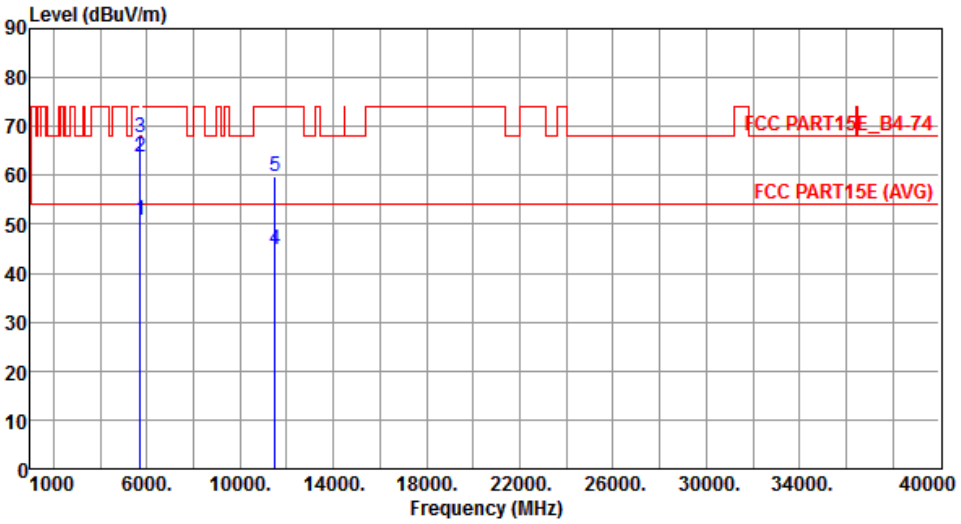
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	4809.00	47.19	54.00	-6.81	40.77	6.42	Average	187	187
2	4809.00	59.73	74.00	-14.27	53.31	6.42	Peak	187	187
3	5029.00	40.55	54.00	-13.45	33.48	7.07	Average	187	187
4	5029.00	59.74	74.00	-14.26	52.67	7.07	Peak	187	187
5	5350.00	50.45	54.00	-3.55	42.54	7.91	Average	187	269
6	5350.00	65.17	74.00	-8.83	57.26	7.91	Peak	187	269
7	5393.00	49.44	54.00	-4.56	41.45	7.99	Average	221	267
8	5393.00	61.59	74.00	-12.41	53.60	7.99	Peak	221	267
9	5449.00	50.02	54.00	-3.98	41.89	8.13	Average	221	267
10	5449.00	61.43	74.00	-12.57	53.30	8.13	Peak	221	267
11	10480.00	62.34	68.20	-5.86	48.94	13.40	Peak	259	38
12	15720.00	48.28	54.00	-5.72	31.99	16.29	Average	222	345
13	15720.00	61.52	74.00	-12.48	45.23	16.29	Peak	222	345

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

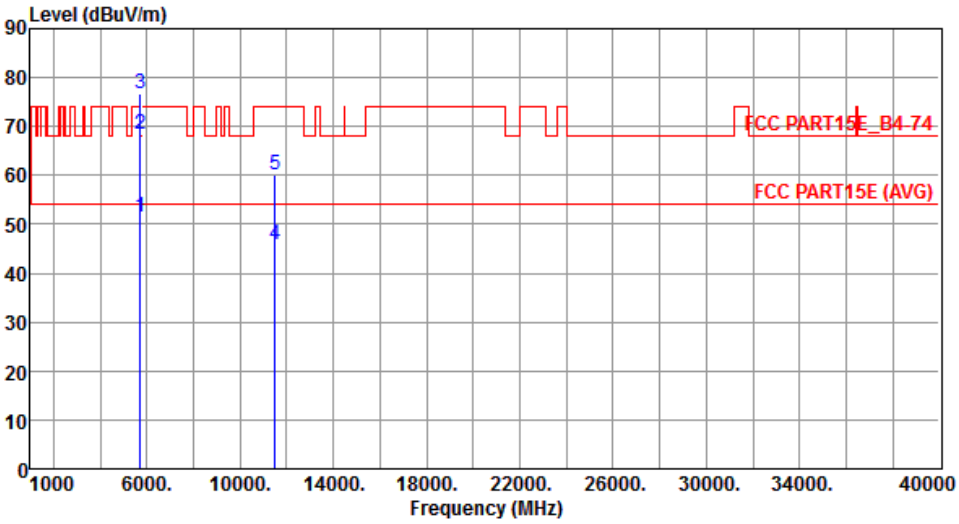
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	50.88	54.00	-3.12	41.83	9.05	Average	215	176
2	5715.00	63.89	74.00	-10.11	54.84	9.05	Peak	215	176
3	5725.00	67.88	78.20	-10.32	58.80	9.08	Peak	215	176
4	11490.00	44.78	54.00	-9.22	30.16	14.62	Average	213	168
5	11490.00	59.72	74.00	-14.28	45.10	14.62	Peak	213	168

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

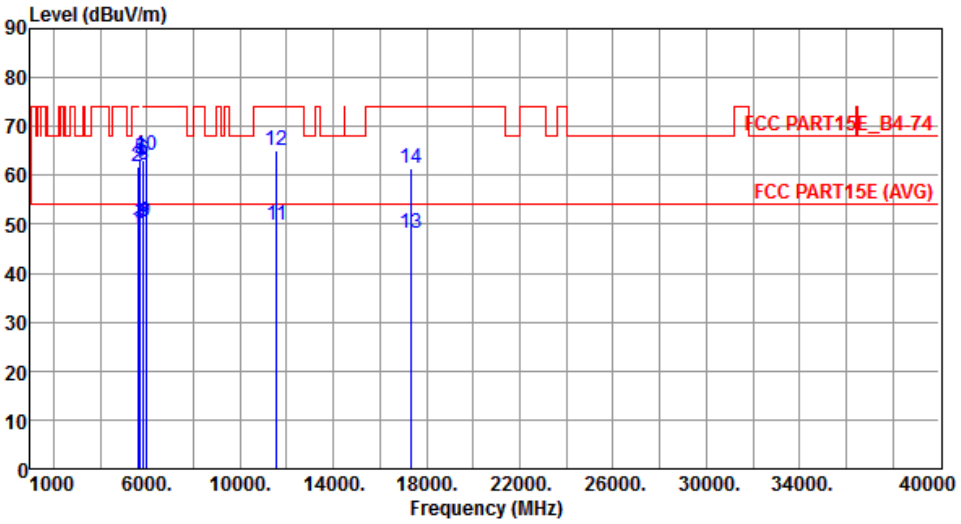
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	51.45	54.00	-2.55	42.40	9.05	Average	211	247
2	5715.00	68.30	74.00	-5.70	59.25	9.05	Peak	211	247
3	5725.00	76.57	78.20	-1.63	67.49	9.08	Peak	211	247
4	11490.00	45.79	54.00	-8.21	31.17	14.62	Average	173	158
5	11490.00	60.27	74.00	-13.73	45.65	14.62	Peak	173	158

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

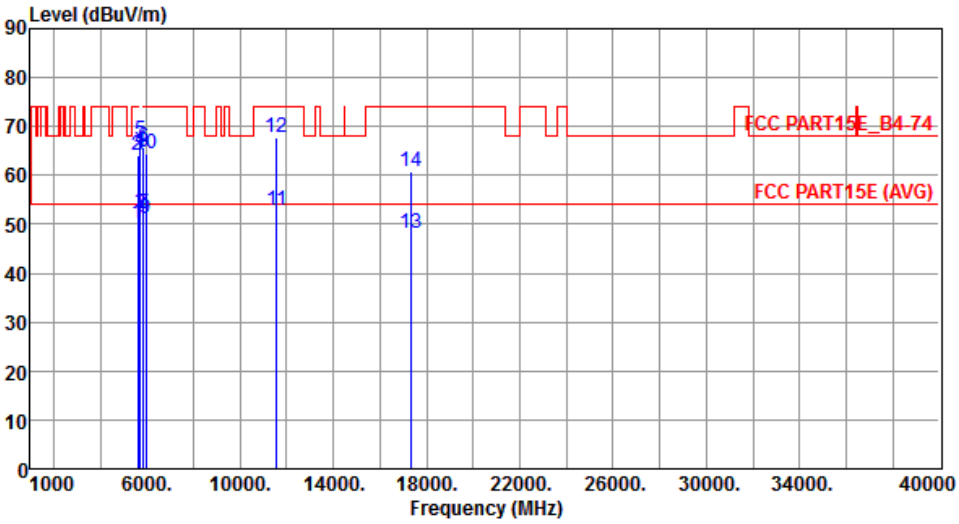
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5626.00	48.98	54.00	-5.02	40.25	8.73	Average	203	161
2	5626.00	61.89	74.00	-12.11	53.16	8.73	Peak	203	161
3	5715.00	49.99	54.00	-4.01	40.94	9.05	Average	228	1
4	5715.00	62.87	74.00	-11.13	53.82	9.05	Peak	228	1
5	5725.00	63.47	78.20	-14.73	54.39	9.08	Peak	228	1
6	5850.00	63.06	78.20	-15.14	53.54	9.52	Peak	228	1
7	5860.00	50.13	54.00	-3.87	40.58	9.55	Average	228	1
8	5860.00	62.18	74.00	-11.82	52.63	9.55	Peak	228	1
9	5945.00	50.36	54.00	-3.64	40.54	9.82	Average	203	161
10	5945.00	64.15	74.00	-9.85	54.33	9.82	Peak	203	161
11	11570.00	49.90	54.00	-4.10	35.23	14.67	Average	210	160
12	11570.00	64.94	74.00	-9.06	50.27	14.67	Peak	210	160
13	17355.00	48.21	54.00	-5.79	28.11	20.10	Average	153	72
14	17355.00	61.42	74.00	-12.58	41.32	20.10	Peak	153	72

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

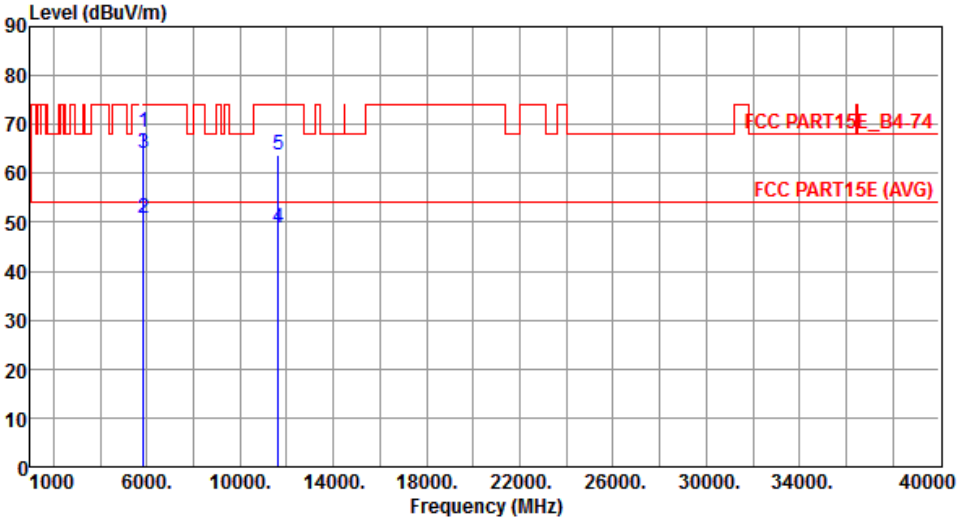
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5626.00	50.12	54.00	-3.88	41.39	8.73	Average	169	273
2	5626.00	64.03	74.00	-9.97	55.30	8.73	Peak	169	273
3	5715.00	52.19	54.00	-1.81	43.14	9.05	Average	220	252
4	5715.00	65.07	74.00	-8.93	56.02	9.05	Peak	220	252
5	5725.00	66.99	78.20	-11.21	57.91	9.08	Peak	220	252
6	5850.00	65.77	78.20	-12.43	56.25	9.52	Peak	220	252
7	5860.00	52.14	54.00	-1.86	42.59	9.55	Average	220	252
8	5860.00	64.87	74.00	-9.13	55.32	9.55	Peak	220	252
9	5945.00	51.06	54.00	-2.94	41.24	9.82	Average	162	278
10	5945.00	64.43	74.00	-9.57	54.61	9.82	Peak	162	278
11	11570.00	52.67	54.00	-1.33	38.00	14.67	Average	178	165
12	11570.00	67.58	74.00	-6.42	52.91	14.67	Peak	178	165
13	17355.00	48.17	54.00	-5.83	28.07	20.10	Average	206	333
14	17355.00	60.75	74.00	-13.25	40.65	20.10	Peak	206	333

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

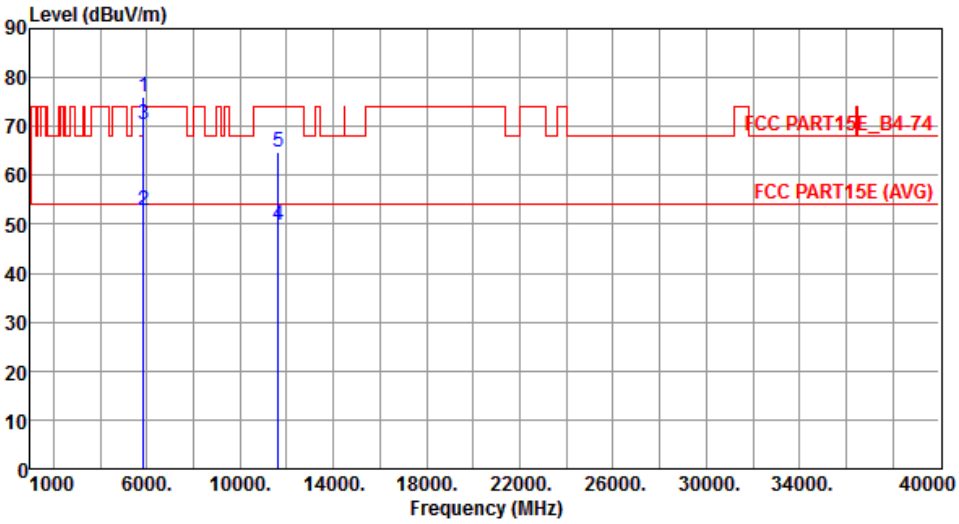
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	68.26	78.20	-9.94	58.74	9.52	Peak	245	173
2	5860.00	50.83	54.00	-3.17	41.28	9.55	Average	245	173
3	5860.00	64.22	74.00	-9.78	54.67	9.55	Peak	245	173
4	11650.00	48.96	54.00	-5.04	34.23	14.73	Average	213	169
5	11650.00	63.85	74.00	-10.15	49.12	14.73	Peak	210	160

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

Modulation	VHT20	**Test Freq. (MHz)**	5825
Polarization	Vertical		

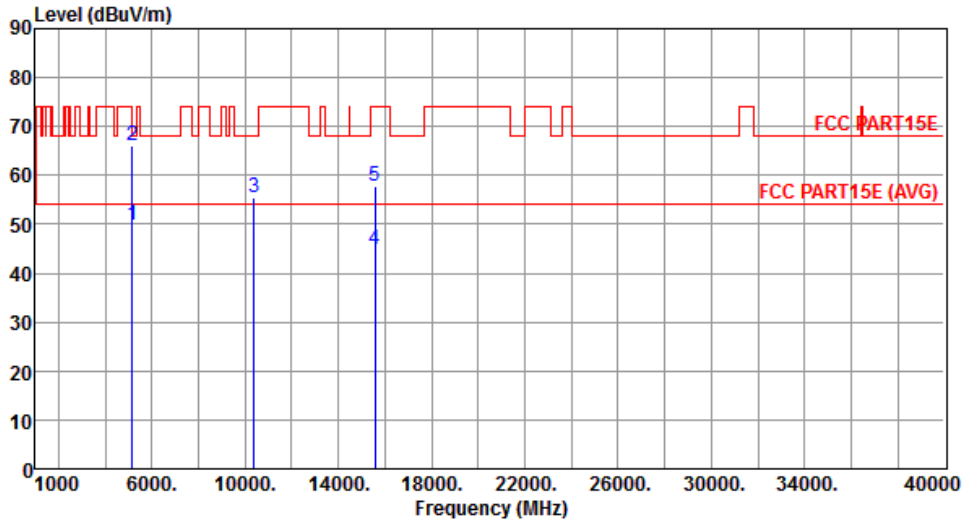


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	76.12	78.20	-2.08	66.60	9.52	Peak	160	266
2	5860.00	52.75	54.00	-1.25	43.20	9.55	Average	158	259
3	5860.00	70.34	74.00	-3.66	60.79	9.55	Peak	158	259
4	11650.00	49.82	54.00	-4.18	35.09	14.73	Average	175	161
5	11650.00	64.75	74.00	-9.25	50.02	14.73	Peak	175	161

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

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

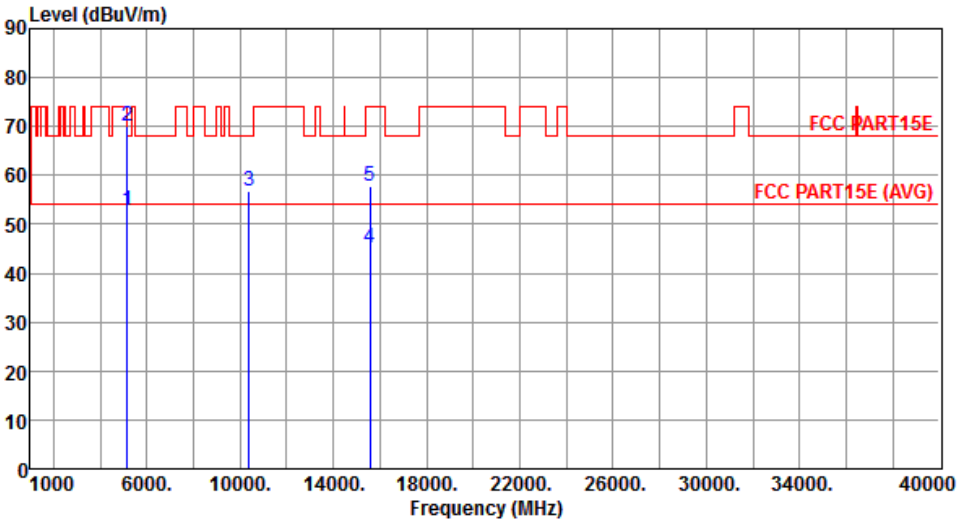
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.95	54.00	-4.05	42.47	7.48	Average	138	167
2	5150.00	66.18	74.00	-7.82	58.70	7.48	Peak	138	167
3	10380.00	55.32	68.20	-12.88	42.05	13.27	Peak	265	303
4	15570.00	44.91	54.00	-9.09	28.61	16.30	Average	213	321
5	15570.00	57.66	74.00	-16.34	41.36	16.30	Peak	213	321

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

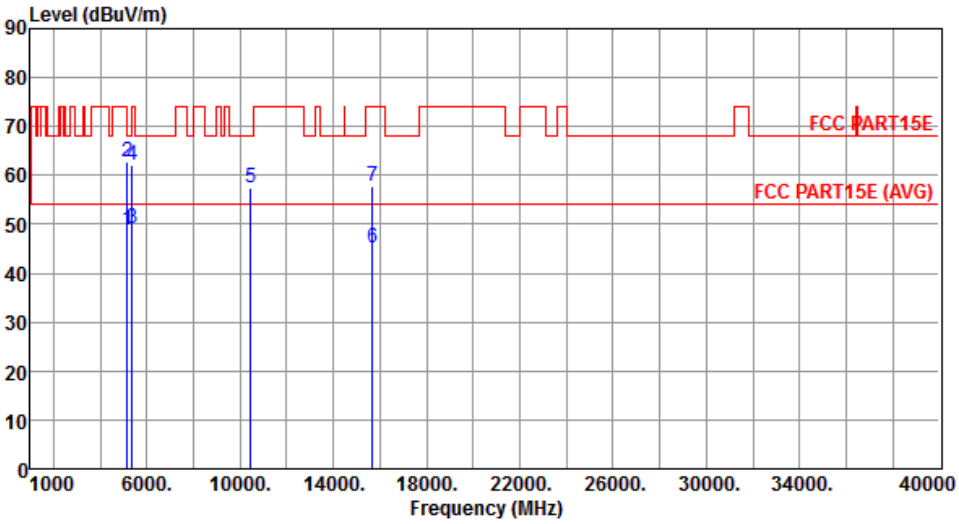
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.85	54.00	-1.15	45.37	7.48	Average	249	237
2	5150.00	69.97	74.00	-4.03	62.49	7.48	Peak	249	237
3	10380.00	56.75	68.20	-11.45	43.48	13.27	Peak	231	339
4	15570.00	45.02	54.00	-8.98	28.72	16.30	Average	260	61
5	15570.00	57.89	74.00	-16.11	41.59	16.30	Peak	260	61

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

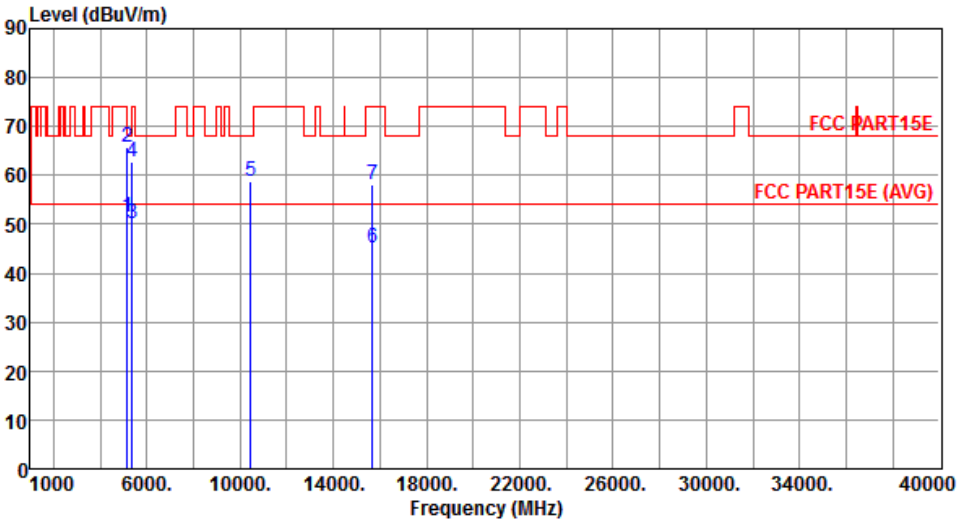
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.96	54.00	-5.04	41.48	7.48	Average	209	256
2	5150.00	62.88	74.00	-11.12	55.40	7.48	Peak	209	256
3	5350.00	49.21	54.00	-4.79	41.30	7.91	Average	209	256
4	5350.00	61.96	74.00	-12.04	54.05	7.91	Peak	209	256
5	10460.00	57.61	68.20	-10.59	44.24	13.37	Peak	266	297
6	15690.00	45.02	54.00	-8.98	28.73	16.29	Average	211	316
7	15690.00	57.89	74.00	-16.11	41.60	16.29	Peak	211	316

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

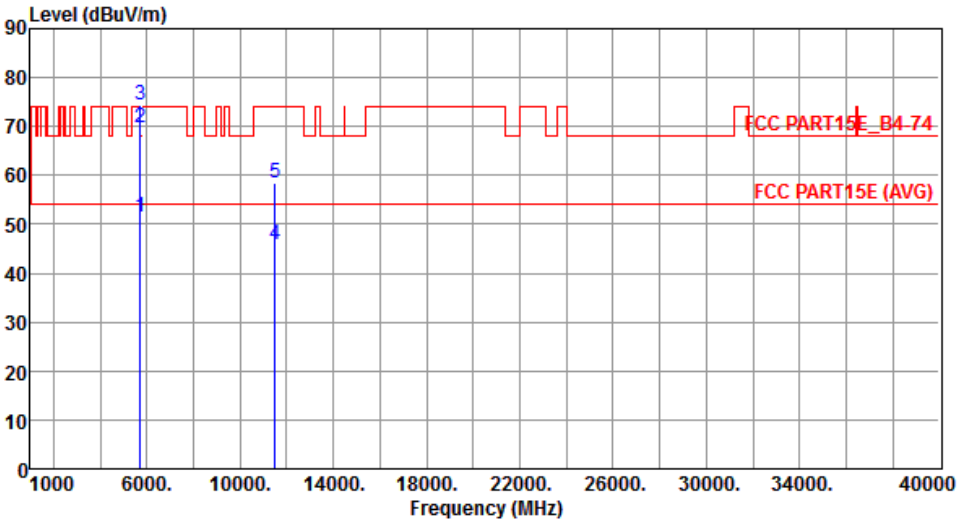
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.52	54.00	-2.48	44.04	7.48	Average	249	236
2	5150.00	65.78	74.00	-8.22	58.30	7.48	Peak	249	236
3	5350.00	50.10	54.00	-3.90	42.19	7.91	Average	249	236
4	5350.00	62.92	74.00	-11.08	55.01	7.91	Peak	249	236
5	10460.00	58.83	68.20	-9.37	45.46	13.37	Peak	237	334
6	15690.00	45.29	54.00	-8.71	29.00	16.29	Average	269	64
7	15690.00	58.12	74.00	-15.88	41.83	16.29	Peak	269	64

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

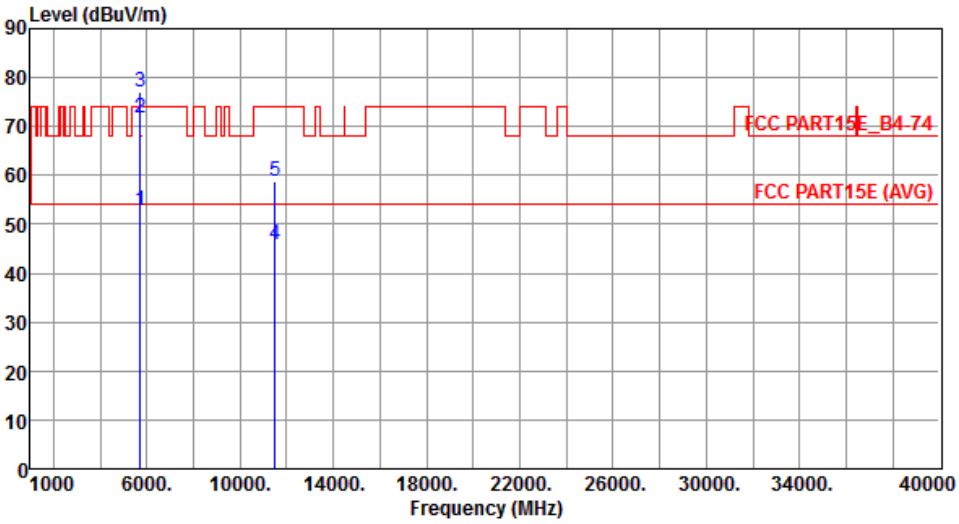
Modulation	VHT40	**Test Freq. (MHz)**	5755
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	51.32	54.00	-2.68	42.27	9.05	Average	283	242
2	5715.00	69.89	74.00	-4.11	60.84	9.05	Peak	283	242
3	5725.00	74.38	78.20	-3.82	65.30	9.08	Peak	283	242
4	11510.00	45.88	54.00	-8.12	31.25	14.63	Average	124	274
5	11510.00	58.29	74.00	-15.71	43.66	14.63	Peak	124	274

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

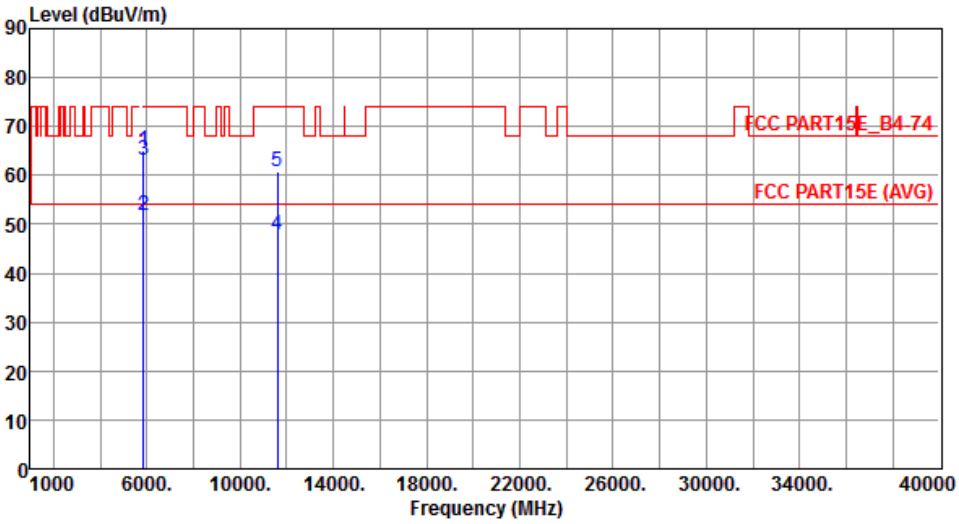
Modulation	VHT40	**Test Freq. (MHz)**	5755
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	52.66	54.00	-1.34	43.61	9.05	Average	279	2
2	5715.00	71.60	74.00	-2.40	62.55	9.05	Peak	279	2
3	5725.00	77.13	78.20	-1.07	68.05	9.08	Peak	279	2
4	11510.00	45.89	54.00	-8.11	31.26	14.63	Average	224	169
5	11510.00	58.78	74.00	-15.22	44.15	14.63	Peak	224	169

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

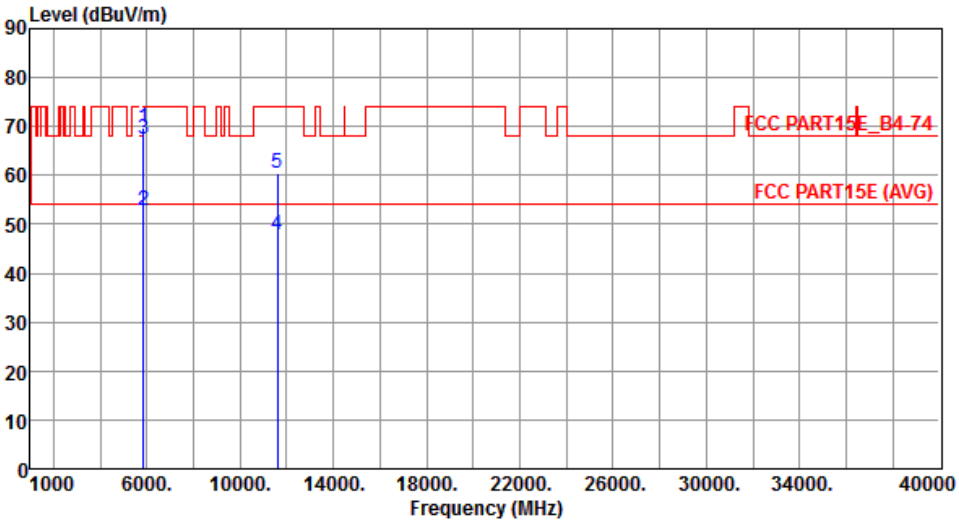
Modulation	VHT40	**Test Freq. (MHz)**	5795
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	65.12	78.20	-13.08	55.60	9.52	Peak	281	241
2	5860.00	51.97	54.00	-2.03	42.42	9.55	Average	281	241
3	5860.00	63.02	74.00	-10.98	53.47	9.55	Peak	281	241
4	11590.00	47.98	54.00	-6.02	33.29	14.69	Average	224	152
5	11590.00	60.65	74.00	-13.35	45.96	14.69	Peak	224	152

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

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical		

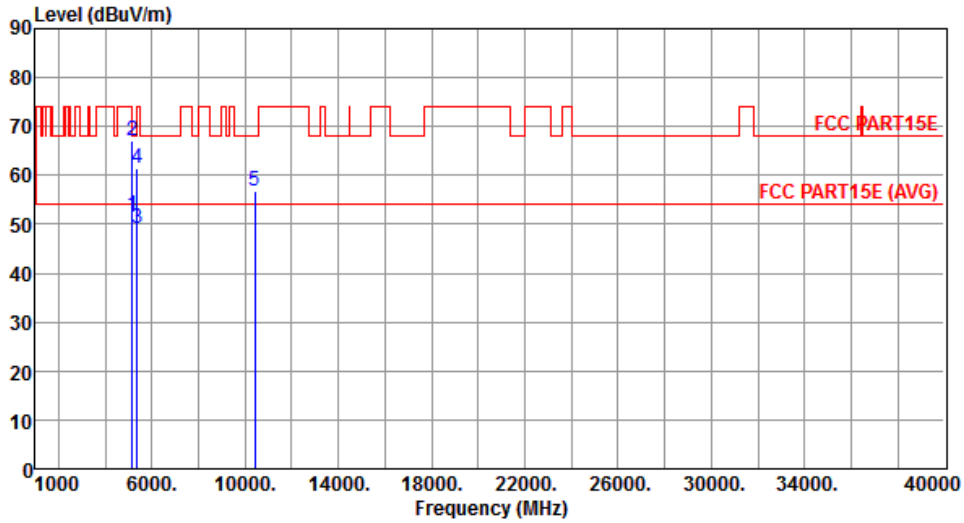


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	69.75	78.20	-8.45	60.23	9.52	Peak	273	2
2	5860.00	52.65	54.00	-1.35	43.10	9.55	Average	273	2
3	5860.00	67.58	74.00	-6.42	58.03	9.55	Peak	273	2
4	11590.00	47.72	54.00	-6.28	33.03	14.69	Average	255	241
5	11590.00	60.28	74.00	-13.72	45.59	14.69	Peak	255	241

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

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

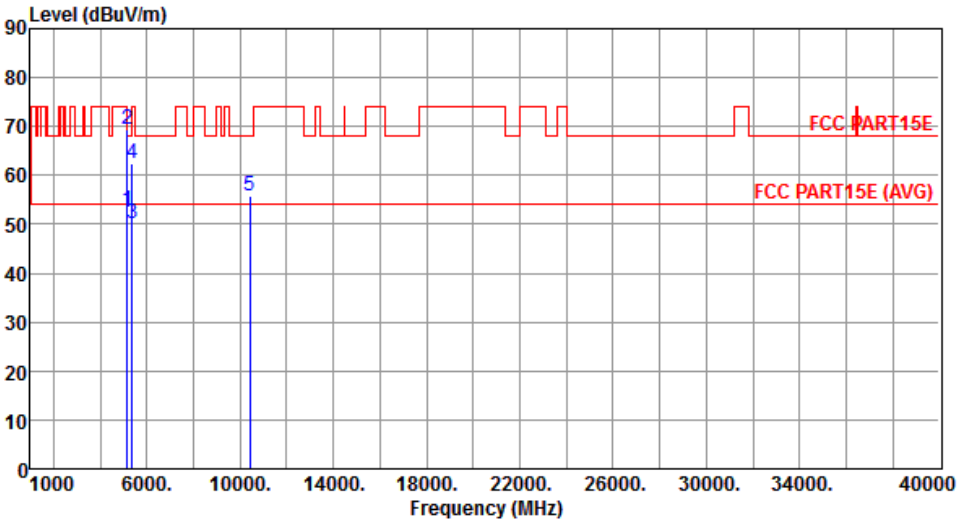
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.90	54.00	-2.10	44.42	7.48	Average	290	333
2	5150.00	66.96	74.00	-7.04	59.48	7.48	Peak	290	333
3	5350.00	49.11	54.00	-4.89	41.20	7.91	Average	290	333
4	5350.00	61.52	74.00	-12.48	53.61	7.91	Peak	290	333
5	10420.00	56.87	68.20	-11.33	43.55	13.32	Peak	218	83

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

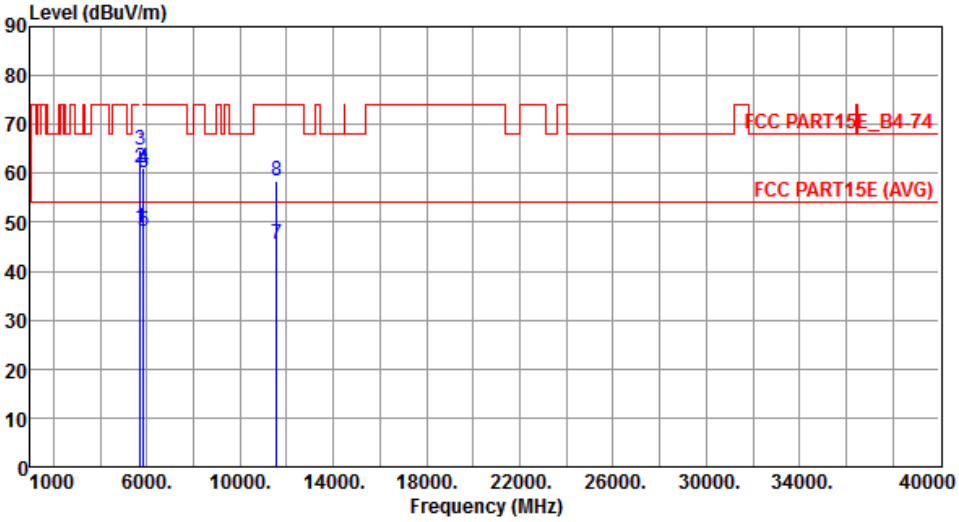
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.74	54.00	-1.26	45.26	7.48	Average	266	239
2	5150.00	69.38	74.00	-4.62	61.90	7.48	Peak	266	239
3	5350.00	50.07	54.00	-3.93	42.16	7.91	Average	266	239
4	5350.00	62.27	74.00	-11.73	54.36	7.91	Peak	266	239
5	10420.00	55.70	68.20	-12.50	42.38	13.32	Peak	243	12

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

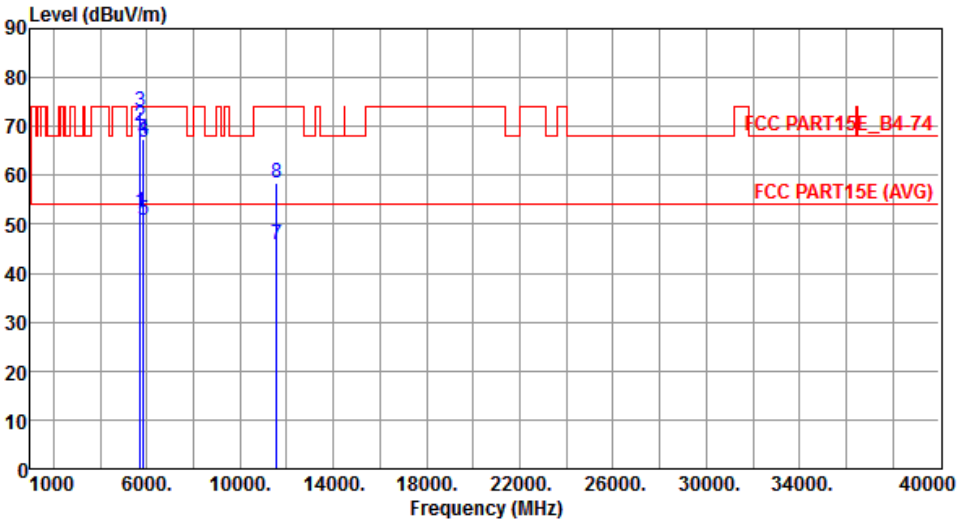
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5715.00	48.82	54.00	-5.18	39.77	9.05	Average	316	322
2	5715.00	61.24	74.00	-12.76	52.19	9.05	Peak	316	322
3	5725.00	64.78	78.20	-13.42	55.70	9.08	Peak	316	322
4	5850.00	61.19	78.20	-17.01	51.67	9.52	Peak	316	322
5	5860.00	48.12	54.00	-5.88	38.57	9.55	Average	316	322
6	5860.00	60.22	74.00	-13.78	50.67	9.55	Peak	316	322
7	11550.00	45.66	54.00	-8.34	31.00	14.66	Average	221	152
8	11550.00	58.36	74.00	-15.64	43.70	14.66	Peak	221	152

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

Modulation	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	5715.00	52.63	54.00	-1.37	43.58	9.05	Average	206	250
2	5715.00	69.98	74.00	-4.02	60.93	9.05	Peak	206	250
3	5725.00	73.15	78.20	-5.05	64.07	9.08	Peak	206	250
4	5850.00	67.58	78.20	-10.62	58.06	9.52	Peak	206	250
5	5860.00	50.73	54.00	-3.27	41.18	9.55	Average	206	250
6	5860.00	66.79	74.00	-7.21	57.24	9.55	Peak	206	250
7	11550.00	45.96	54.00	-8.04	31.30	14.66	Average	302	249
8	11550.00	58.60	74.00	-15.40	43.94	14.66	Peak	302	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).

3.6 Frequency Stability

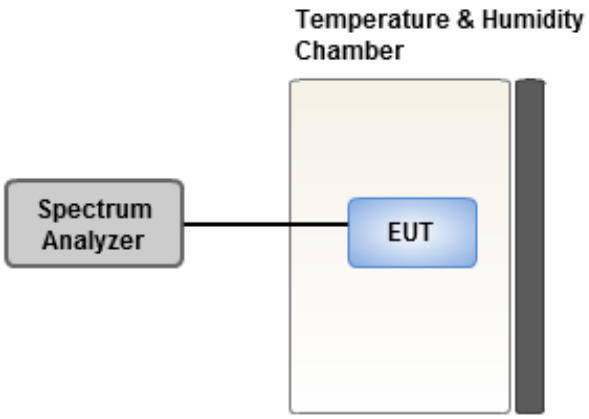
3.6.1 Limit of Frequency Stability

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

3.6.2 Test Procedures

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

3.6.3 Test Setup



3.6.4 Test Result of Frequency Stability

Frequency: 5200 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°CVmax	0.54	0.96	0.90	0.82
T20°CVmin	-0.12	0.03	-0.38	0.33
T50°CVnom	0.88	0.45	1.08	1.28
T40°CVnom	-0.09	0.19	0.28	0.77
T30°CVnom	0.22	0.93	0.17	0.04
T20°CVnom	-0.05	-0.29	0.48	-0.53
T10°CVnom	1.05	0.87	1.11	1.21
T0°CVnom	0.28	0.49	1.04	0.78
T-10°CVnom	0.17	0.63	0.35	0.30
T-20°CVnom	0.12	0.11	0.15	0.21
T-30°CVnom	0.39	0.06	0.22	0.48
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

Frequency: 5785 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°CVmax	5.49	5.53	6.17	5.94
T20°CVmin	4.35	4.18	4.51	4.44
T50°CVnom	3.52	3.21	3.41	3.77
T40°CVnom	3.20	3.54	3.47	3.46
T30°CVnom	2.63	2.95	3.19	2.39
T20°CVnom	2.44	2.57	2.33	3.14
T10°CVnom	2.86	2.54	2.59	2.73
T0°CVnom	2.47	2.80	2.76	2.48
T-10°CVnom	1.73	1.61	2.12	2.04
T-20°CVnom	0.60	0.93	0.58	0.69
T-30°CVnom	0.45	0.79	0.47	0.03
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

4 Test laboratory information

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

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

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

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

==END==