FCC C2PC Test Report

FCC ID	:	**UIDSBX-AC1200P**
Equipment	:	**AC1200 Wi-Fi Extender with RipCurrent™ Technology**
Model No.	:	**SBX-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	:	**May 31, 2016**
Tested Date	:	**Jun. 01 ~ Jul. 07, 2016**

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

Reviewed by:

Along Chen / Assistant Manager

Approved by:

Gary Chang / Manager

Testing Laboratory 2732

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Release Record

Report No.	Version	Description	Issued Date
FR593001-01AN	Rev. 01	Initial issue	Sep. 14, 2016

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.159MHz 52.49 (Margin -3.03dB) - AV	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5470.00MHz 72.99 (Margin -1.01dB) - PK [dBuV/m at 3m]: 5725.00MHz 52.99 (Margin -1.01dB) - AV	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(a)	RF Output Power	Max Power [dBm]: ***Non-beamforming mode*** 5250~5350MHz: 23.50 5470~5725MHz: 23.58 ***Beamforming mode*** 5250~5350MHz: 23.83 5470~5725MHz: 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

This report is issued as a FCC Class II Permissive Change. The modification is only concerned with adding 5250~5350MHz and 5470~5725 MHz band by software setting.

1.1.1 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	**IEEE Std. 802.11**	**Ch. Freq. (MHz)**	**Channel Number**	**Transmit Chains (N_{TX})**	**Data Rate / MCS**
5250-5350 5470-5725	a	5260-5320 5500-5720	52-64 [4] 100-144 [9]	2	6-54 Mbps
5250-5350 5470-5725	n (HT20)	5260-5320 5500-5720	52-64 [4] 100-144 [9]	2	MCS 0-15
5250-5350 5470-5725	n (HT40)	5270-5310 5510-5710	54-62 [2] 102-142 [4]	2	MCS 0-15
5250-5350 5470-5725	ac (VHT20)	5260-5320 5500-5720	52-64 [4] 100-144 [9]	2	MCS 0-9
5250-5350 5470-5725	ac (VHT40)	5270-5310 5510-5710	54-62 [2] 102-142 [4]	2	MCS 0-9
5250-5350 5470-5725	ac (VHT80)	5290 5530~5690	58 [1] 106-138 [2]	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 mode. Note 4: The device has disabled the 5600-5650MHz band by S/W setting.					

1.1.2 Antenna Details

Ant. No.	Model	Type	Connector	Antenna Gain (dBi)	
				5250~5350 MHz	5470~5725 MHz
1	617210L2	Dipole	I-pex	2.5	2.69
2	617210L3	Dipole	I-pex	2.54	3.16

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	100-240Vac, 50/60Hz, 0.6A Power line: 1m 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

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

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	---	---
	VHT20	99.26%	0.03	98.23%	0.08
	VHT40	98.08%	0.08	98.52%	0.06
	VHT80	99.62%	0.02	98.54%	0.06

1.1.7 Power Setting

For Frequency band 5250~5350 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5260	76	---
11a	5300	76	---
11a	5320	68	---
HT20	5260	78	76
HT20	5300	77	74
HT20	5320	67	70
HT40	5270	76	78
HT40	5310	59	61
VHT20	5260	78	76
VHT20	5300	77	74
VHT20	5320	67	70
VHT40	5270	76	78
VHT40	5310	59	61
VHT80	5290	56	57

For Frequency band 5470~5725 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5500	70	---
11a	5580	80	---
11a	5700	66	---
HT20	5500	66	72
HT20	5580	80	80
HT20	5700	66	70
HT40	5510	54	56
HT40	5550	70	71
HT40	5670	64	64
VHT20	5500	66	72
VHT20	5580	80	80
VHT20	5700	66	70
VHT40	5510	54	56
VHT40	5550	70	71
VHT40	5670	64	64
VHT80	5530	54	56

Channel that extends across the 5.725 GHz boundary

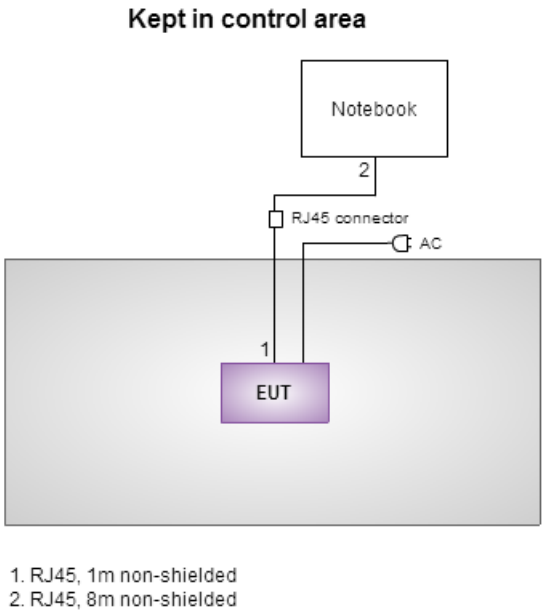
For Frequency band 5470~5725 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5720	80	---
HT20	5720	80	80
HT40	5710	78	76
VHT20	5720	80	80
VHT40	5710	78	76
VHT80	5690	80	80

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, 8m non-shielded.

1.3 Test Setup Chart

Test Setup Diagram



1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
EMC Receiver	R&S	ESCS 30	100169	Oct. 21, 2015	Oct. 20, 2016
LISN	SCHWARZBECK	Schwarzbeck 8127	8127-667	Nov. 13, 2015	Nov. 12, 2016
RF Cable-CON	EMC	EMCCFD300-BM-BM-6000	50821	Dec. 21, 2015	Dec. 20, 2016
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber 3 / (03CH03-WS)				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	Agilent	N9010A	MY53400091	Sep. 14, 2015	Sep. 13, 2016
Receiver	Agilent	N9038A	MY53290044	Oct. 14, 2015	Oct. 13, 2016
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-685	Apr. 26, 2016	Apr. 25, 2017
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1206	Feb. 24, 2016	Feb. 23, 2017
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 04, 2015	Nov. 03, 2016
Preamplifier	EMC	EMC02325	980187	Sep. 21, 2015	Sep. 20, 2016
Preamplifier	Agilent	83017A	MY53270014	Sep. 07, 2015	Sep. 06, 2016
Preamplifier	EMC	EMC184045B	980192	Sep. 01, 2015	Aug. 31, 2016
RF cable-3M	HUBER+SUHNER	SUCOFLEX104	MY22620/4	Feb. 05, 2016	Feb. 04, 2017
RF cable-8M	HUBER+SUHNER	SUCOFLEX104	MY22600/4	Feb. 05, 2016	Feb. 04, 2017
RF cable-1M	HUBER+SUHNER	SUCOFLEX104	MY22624/4	Feb. 05, 2016	Feb. 04, 2017
LF cable-0.8M	EMC	EMC8D-NM-NM-800	EMC8D-NM-NM-800-001	Feb. 05, 2016	Feb. 04, 2017
LF cable-3M	EMC	EMC8D-NM-NM-3000	131103	Feb. 05, 2016	Feb. 04, 2017
LF cable-13M	EMC	EMC8D-NM-NM-13000	131104	Feb. 05, 2016	Feb. 04, 2017
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101063	Feb. 17, 2016	Feb. 16, 2017
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Nov. 27, 2015	Nov. 26, 2016
Power Meter	Anritsu	ML2495A	1241002	Sep. 21, 2015	Sep. 20, 2016
Power Sensor	Anritsu	MA2411B	1207366	Sep. 21, 2015	Sep. 20, 2016
AC POWER SOURCE	APC	AFC-500W	F312060012	Oct. 26, 2015	Oct. 25, 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 v01r02
FCC KDB 644545 D03 Guidance for IEEE 802 11ac New Rules v01
FCC KDB 662911 D01 Multiple Transmitter Output v02r01
FCC KDB 412172 D01 Determining ERP and EIRP v01r01

1.6 Measurement Uncertainty

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

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	±34.134 Hz
Conducted power	±0.808 dB
Frequency error	±34.134 Hz
Power density	±0.463 dB
Conducted emission	±2.670 dB
AC conducted emission	±2.90 dB
Radiated emission ≤ 1GHz	±3.66 dB
Radiated emission > 1GHz	±5.37 dB
Time	±0.1%
Temperature	±0.6 °C

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	23°C / 63%	Howard Huang
Radiated Emissions	03CH03-WS	22°C / 61-64%	Felix Sung Allen Yu
RF Conducted	TH01-WS	22°C / 64%	Alex Huang

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

2.2 The Worst Test Modes and Channel Details

Non-beamforming mode

For Frequency band 5250-5350 MHz, 5470-5725 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
Conducted Emissions	VHT20	5260	MCS 0	---
Radiated Emissions ≤1GHz	VHT20	5260	MCS 0	---
RF Output Power	11a	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	6 Mbps	---
	HT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	HT40	5270 / 5310 5510 / 5550 / 5670 / 5710	MCS 0	
	VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	VHT40	5270 / 5310 5510 / 5550 / 5670 / 5710	MCS 0	
	VHT80	5290 / 5530 / 5690	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	6 Mbps	---
	VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	VHT40	5270 / 5310 5510 / 5550 / 5670 / 5710	MCS 0	
	VHT80	5290 / 5530 / 5690	MCS 0	
Frequency Stability	Un-modulation	5320	---	---

NOTE:

1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Y-plane** results were found as the worst case and were shown in this report.

Beamforming mode

For Frequency band 5250-5350 MHz, 5470-5725 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
Conducted Emissions	VHT40	5270	MCS 0	---
Radiated Emissions ≤1GHz	VHT40	5270	MCS 0	---
RF Output Power	HT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	---
	HT40	5270 / 5310 5510 / 5550 / 5670 / 5710	MCS 0	
	VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	VHT40	5270 / 5310 5510 / 5550 / 5670 / 5710	MCS 0	
	VHT80	5290 / 5530 / 5690	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	---
	VHT40	5270 / 5310 5510 / 5550 / 5670 / 5710	MCS 0	
	VHT80	5290 / 5530 / 5690	MCS 0	

NOTE:

1. The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement – X, Y, and Z-plane. The **Y-plane** results were found as the worst case and were shown in this report.

3 Transmitter Test Results

3.1 Conducted Emissions

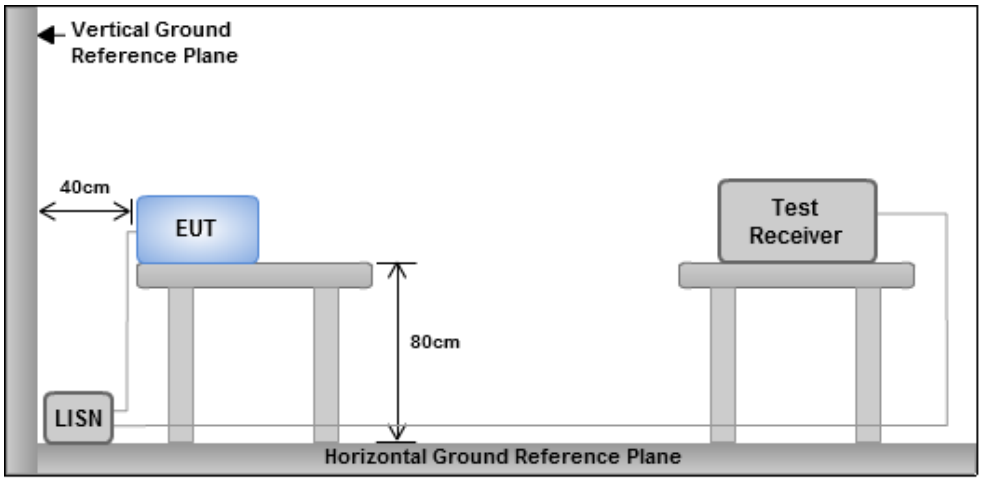
3.1.1 Limit of Conducted Emissions

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

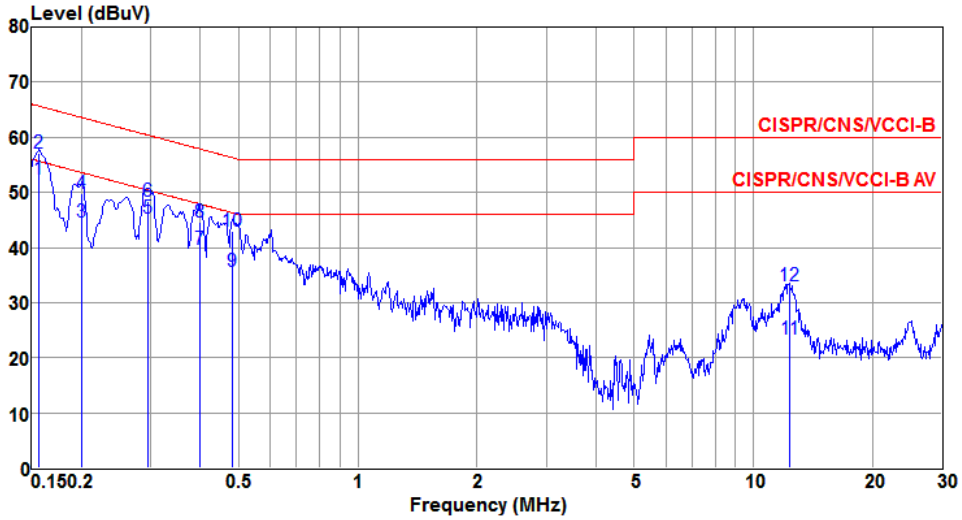


Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

Non- beamforming mode

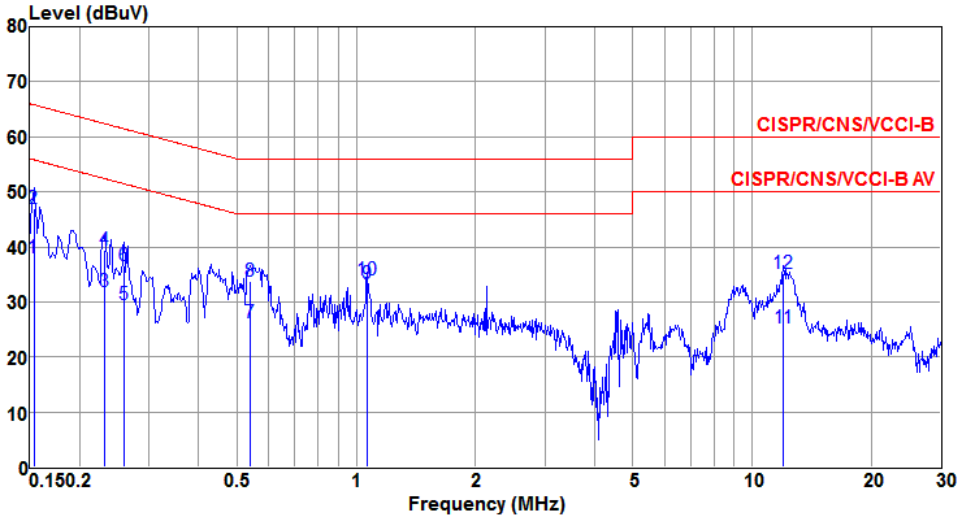
Modulation	VHT20	**Test Freq. (MHz)**	5260
Power Phase	Line		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1@	0.156	52.50	55.65	-3.15	51.66	0.82	0.02	Average
2	0.156	57.06	65.65	-8.59	56.22	0.82	0.02	QP
3	0.201	44.73	53.58	-8.85	44.46	0.25	0.02	Average
4	0.201	49.76	63.58	-13.82	49.49	0.25	0.02	QP
5	0.294	45.44	50.41	-4.97	45.20	0.21	0.03	Average
6	0.294	48.42	60.41	-11.99	48.18	0.21	0.03	QP
7	0.398	39.63	47.90	-8.27	39.42	0.18	0.03	Average
8	0.398	44.72	57.90	-13.18	44.51	0.18	0.03	QP
9	0.481	35.74	46.32	-10.58	35.54	0.16	0.04	Average
10	0.481	42.92	56.32	-13.40	42.72	0.16	0.04	QP
11	12.384	23.27	50.00	-26.73	22.38	0.70	0.19	Average
12	12.384	33.05	60.00	-26.95	32.16	0.70	0.19	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)	5260
Power Phase	Neutral		

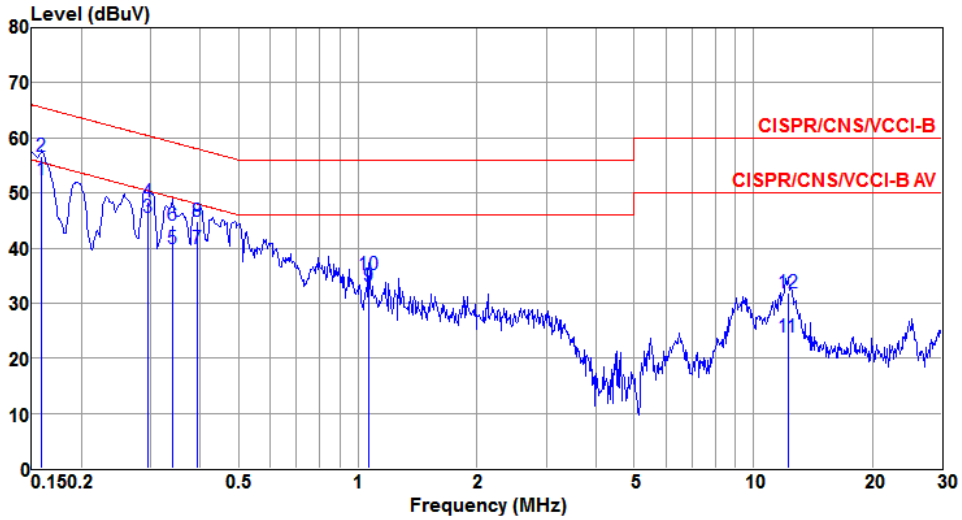


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.153	38.11	55.82	-17.71	37.27	0.82	0.02	Average
2	0.153	46.88	65.82	-18.94	46.04	0.82	0.02	QP
3	0.232	31.94	52.39	-20.45	31.70	0.22	0.02	Average
4	0.232	39.34	62.39	-23.05	39.10	0.22	0.02	QP
5	0.259	29.56	51.47	-21.91	29.34	0.20	0.02	Average
6	0.259	36.54	61.47	-24.93	36.32	0.20	0.02	QP
7	0.538	26.10	46.00	-19.90	25.89	0.17	0.04	Average
8	0.538	33.64	56.00	-22.36	33.43	0.17	0.04	QP
9@	1.065	33.28	46.00	-12.72	32.95	0.27	0.06	Average
10	1.065	34.00	56.00	-22.00	33.67	0.27	0.06	QP
11	11.996	25.33	50.00	-24.67	24.57	0.58	0.18	Average
12	11.996	35.19	60.00	-24.81	34.43	0.58	0.18	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

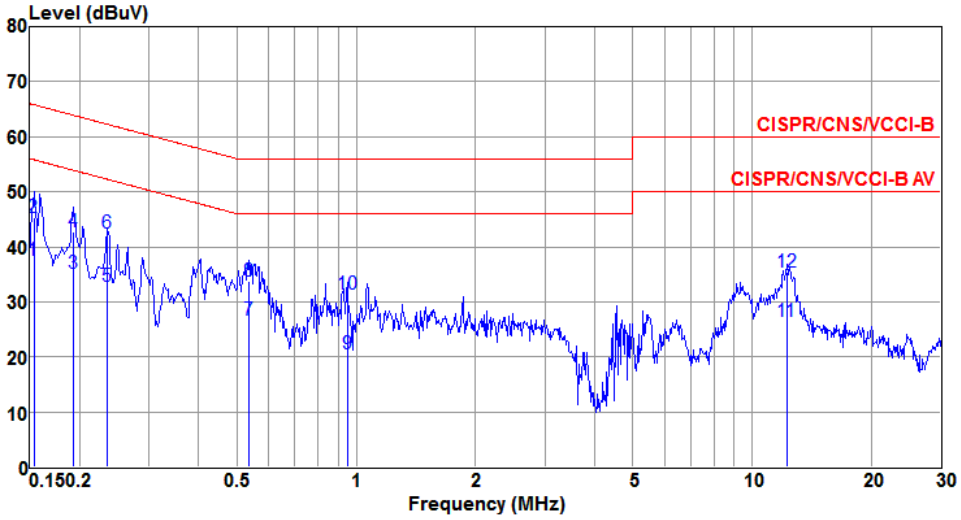
Modulation	VHT40	**Test Freq. (MHz)**	5270
Power Phase	Line		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1@	0.159	52.49	55.52	-3.03	51.68	0.79	0.02	Average
2	0.159	56.71	65.52	-8.81	55.90	0.79	0.02	QP
3	0.295	45.49	50.39	-4.90	45.25	0.21	0.03	Average
4	0.295	48.35	60.39	-12.04	48.11	0.21	0.03	QP
5	0.339	40.00	49.22	-9.22	39.77	0.20	0.03	Average
6	0.339	44.23	59.22	-14.99	44.00	0.20	0.03	QP
7	0.394	39.86	47.98	-8.12	39.65	0.18	0.03	Average
8	0.394	44.86	57.98	-13.12	44.65	0.18	0.03	QP
9	1.065	32.95	46.00	-13.05	32.75	0.14	0.06	Average
10	1.065	35.06	56.00	-20.94	34.86	0.14	0.06	QP
11	12.253	23.92	50.00	-26.08	23.03	0.70	0.19	Average
12	12.253	31.79	60.00	-28.21	30.90	0.70	0.19	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)	5270
Power Phase	Neutral		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1@	0.153	37.53	55.82	-18.29	36.69	0.82	0.02	Average
2	0.153	45.43	65.82	-20.39	44.59	0.82	0.02	QP
3	0.192	35.09	53.93	-18.84	34.76	0.31	0.02	Average
4	0.192	42.80	63.93	-21.13	42.47	0.31	0.02	QP
5	0.234	32.86	52.30	-19.44	32.63	0.21	0.02	Average
6	0.234	42.38	62.30	-19.92	42.15	0.21	0.02	QP
7	0.535	26.66	46.00	-19.34	26.45	0.17	0.04	Average
8	0.535	33.66	56.00	-22.34	33.45	0.17	0.04	QP
9	0.948	20.65	46.00	-25.35	20.33	0.26	0.06	Average
10	0.948	31.38	56.00	-24.62	31.06	0.26	0.06	QP
11	12.253	26.51	50.00	-23.49	25.74	0.58	0.19	Average
12	12.253	35.39	60.00	-24.61	34.62	0.58	0.19	QP

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

3.2 Emission Bandwidth

3.2.1 Test Procedures

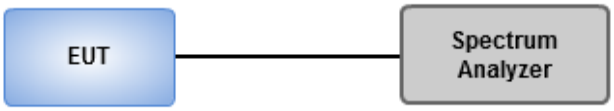
26dB Bandwidth

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

Occupied Bandwidth

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

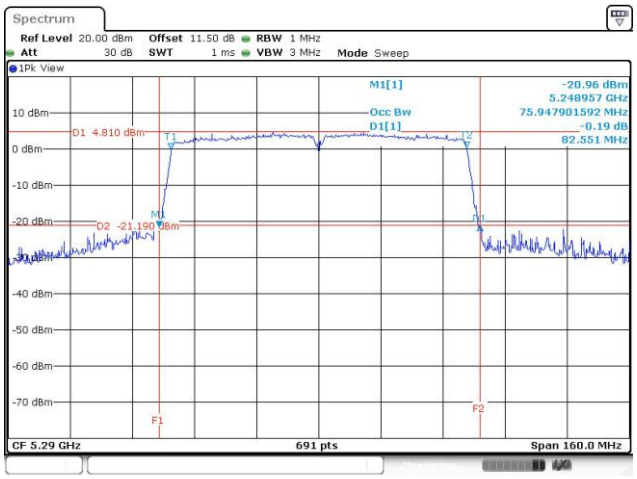
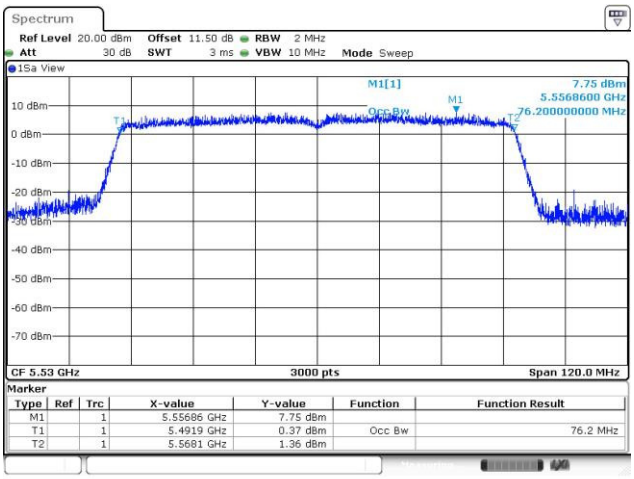
3.2.2 Test Setup



3.2.3 Test Result of Emission Bandwidth

Non-beamforming mode

Emission Bandwidth									
Mode	N_{TX}	Freq. (MHz)	26dB Bandwidth (MHz)			99% Bandwidth (MHz)			Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 0	Chain 1	Chain 2	
11a	2	5260	38.67	37.10	---	18.16	17.63	---	24.00
11a	2	5300	37.91	35.25	---	18.20	17.69	---	24.00
11a	2	5320	25.10	22.55	---	17.02	17.11	---	24.00
VHT20	2	5260	37.57	39.25	---	19.93	19.04	---	24.00
VHT20	2	5300	39.30	38.43	---	19.30	18.74	---	24.00
VHT20	2	5320	25.57	28.75	---	18.01	18.17	---	24.00
VHT40	2	5270	67.01	76.06	---	37.30	37.90	---	24.00
VHT40	2	5310	43.13	57.28	---	36.66	36.74	---	24.00
VHT80	2	5290	81.86	82.55	---	76.04	76.08	---	24.00
11a	2	5500	22.38	26.20	---	17.00	17.21	---	24.00
11a	2	5580	35.13	37.91	---	18.82	19.61	---	24.00
11a	2	5700	21.80	24.17	---	16.97	17.14	---	24.00
VHT20	2	5500	23.13	30.32	---	18.00	18.23	---	24.00
VHT20	2	5580	35.59	39.48	---	18.85	19.82	---	24.00
VHT20	2	5700	22.14	30.38	---	18.02	18.23	---	24.00
VHT40	2	5510	46.61	48.35	---	36.66	36.74	---	24.00
VHT40	2	5550	78.96	77.68	---	36.98	37.16	---	24.00
VHT40	2	5670	74.67	75.83	---	36.80	36.92	---	24.00
VHT80	2	5530	81.62	82.55	---	76.04	76.20	---	24.00

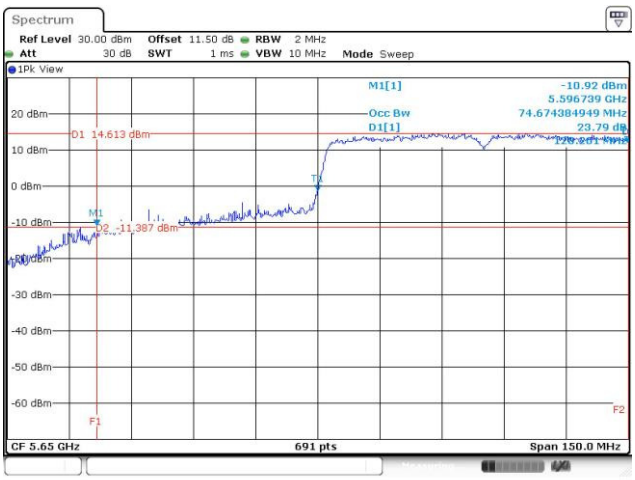
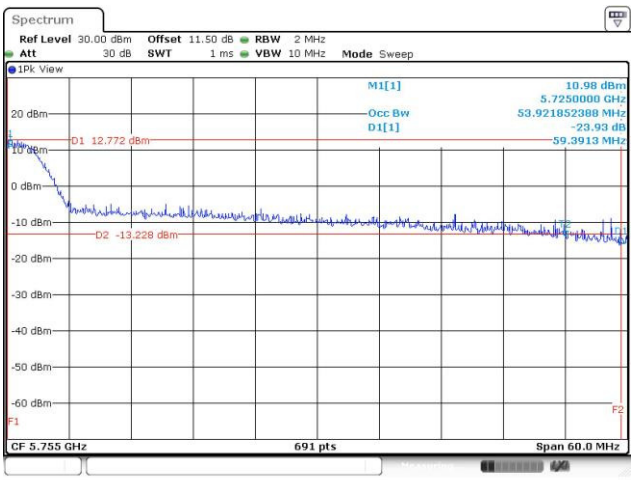
Worst Plot of 26dB Bandwidth	Worst Plot of 99% Bandwidth
	

Channel that extends across the 5.725 GHz boundary

UNII Emission Bandwidth Result (Within 5470-5725MHz band)									
Mode	N_{TX}	Freq. (MHz)	26dB Bandwidth (MHz)			99% Bandwidth (MHz)			Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 0	Chain 1	Chain 2	
11a	2	5720	18.97	23.28	---	13.595	13.835	---	23.78
VHT20	2	5720	21.19	20.82	---	14.135	14.255	---	24.00
VHT40	2	5710	64.83	63.51	---	33.65	33.91	---	24.00
VHT80	2	5690	128.26	114.57	---	73.50	73.38	---	24.00

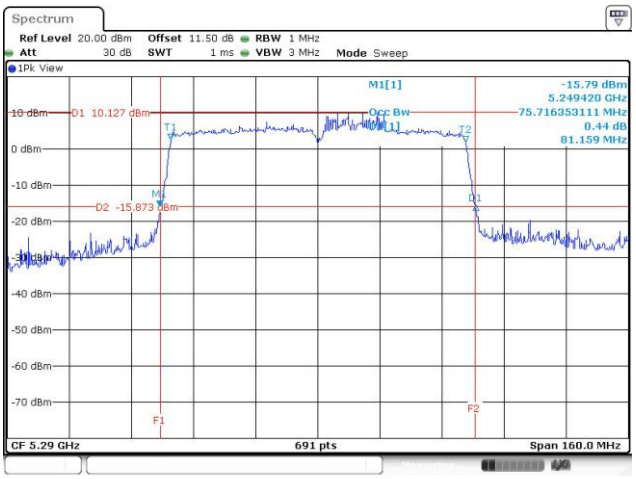
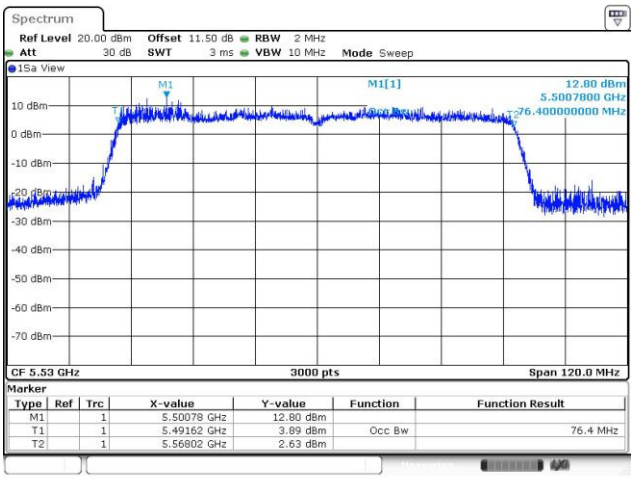
UNII Emission Bandwidth Result (Extends across 5725MHz band)								
Mode	N_{TX}	Freq. (MHz)	26dB Bandwidth (MHz)			99% Bandwidth (MHz)		
			Chain 0	Chain 1	Chain 2	Chain 0	Chain 1	Chain 2
11a	2	5720	11.11	12.70	---	3.575	3.675	---
VHT20	2	5720	13.11	14.52	---	3.975	4.105	---
VHT40	2	5710	34.14	34.84	---	3.73	3.89	---
VHT80	2	5690	58.61	59.39	---	3.38	3.34	---

Worst Plots

Within 5470-5725MHz band	Extends across 5725MHz band
	

Beamforming mode

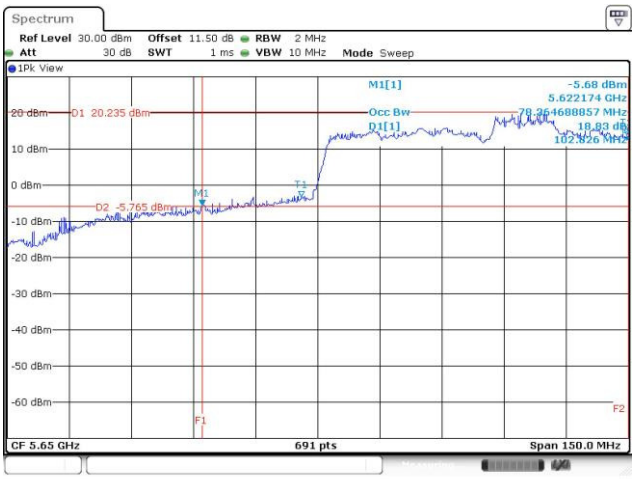
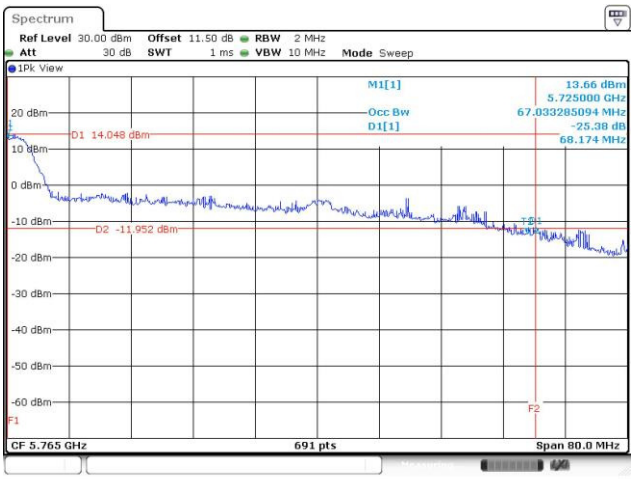
Emission Bandwidth									
Mode	N_{TX}	Freq. (MHz)	26dB Bandwidth (MHz)			99% Bandwidth (MHz)			Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 0	Chain 1	Chain 2	
VHT20	2	5260	31.01	35.94	---	18.77	18.56	---	24.00
VHT20	2	5300	25.57	31.65	---	18.30	18.31	---	24.00
VHT20	2	5320	30.38	29.45	---	17.99	18.12	---	24.00
VHT40	2	5270	61.80	67.71	---	38.14	39.66	---	24.00
VHT40	2	5310	40.70	43.59	---	36.60	36.72	---	24.00
VHT80	2	5290	81.16	80.23	---	75.88	75.92	---	24.00
VHT20	2	5500	27.59	30.55	---	17.99	18.24	---	24.00
VHT20	2	5580	27.83	34.03	---	18.88	19.88	---	24.00
VHT20	2	5700	27.36	31.30	---	17.95	18.25	---	24.00
VHT40	2	5510	40.70	41.28	---	36.60	36.64	---	24.00
VHT40	2	5550	73.51	68.06	---	37.14	37.18	---	24.00
VHT40	2	5670	66.32	51.59	---	36.74	36.80	---	24.00
VHT80	2	5530	80.93	80.70	---	76.24	76.40	---	24.00

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

Channel that extends across the 5.725 GHz boundary

UNII Emission Bandwidth Result (Within 5470-5725MHz band)									
Mode	N_{TX}	Freq. (MHz)	26dB Bandwidth (MHz)			99% Bandwidth (MHz)			Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 0	Chain 1	Chain 2	
VHT20	2	5720	18.85	19.59	---	14.485	14.645	---	23.75
VHT40	2	5710	63.81	60.16	---	33.81	33.93	---	24.00
VHT80	2	5690	102.83	100.22	---	73.66	73.46	---	24.00

UNII Emission Bandwidth Result (Extends across 5725MHz band)								
Mode	N_{TX}	Freq. (MHz)	26dB Bandwidth (MHz)			99% Bandwidth (MHz)		
			Chain 0	Chain 1	Chain 2	Chain 0	Chain 1	Chain 2
VHT20	2	5720	11.76	14.87	---	4.325	4.505	---
VHT40	2	5710	35.13	36.58	---	3.81	4.17	---
VHT80	2	5690	68.17	67.13	---	3.54	3.66	---

Worst Plots	
Within 5470-5725MHz band	Extends across 5725MHz band
	

3.3 RF Output Power

3.3.1 Limit of RF Output Power

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

3.3.2 Test Procedures

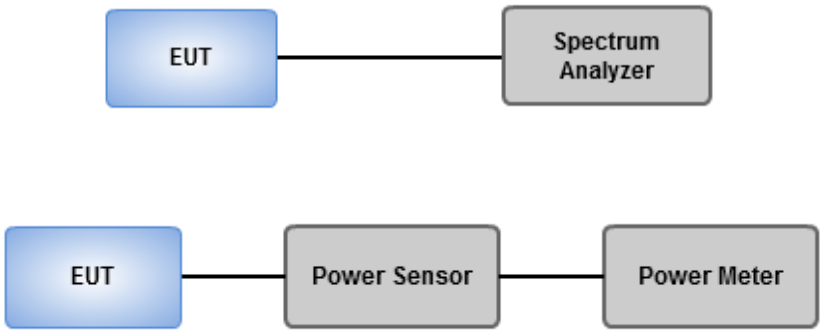
☒ Power meter (For channel that does not extends across the 5.725 GHz boundary)

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

☒ Spectrum analyzer (For channel that extends across the 5.725 GHz boundary)

1. Set RBW=1MHz, VBW=3MHz , Sweep time= Auto, Detector = RMS
2. Trace average at least 100 traces in power averaging mode
3. Compute power by integrating the spectrum across the 26 dB EBW
4. Add 10 log(1/X, X:duty cycle) if duty cycle is <98%)

3.3.3 Test Setup



3.3.4 Test Result of Maximum Conducted Output Power

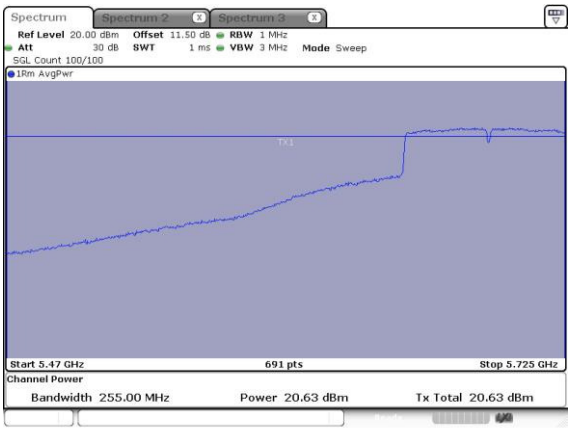
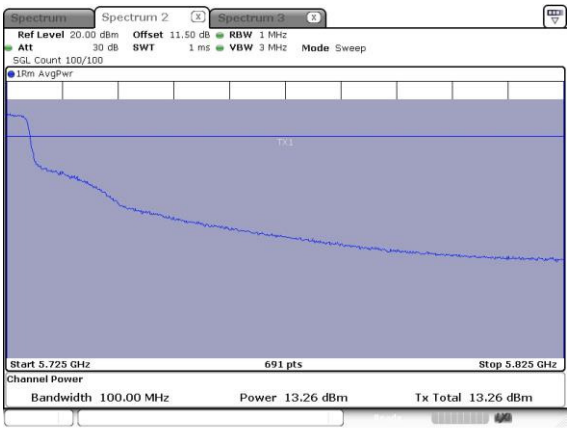
Non-beamforming mode

Mode	N_{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
11a	2	5260	20.29	19.16	---	---	189.319	22.77	24.00
11a	2	5300	20.31	19.11	---	---	188.869	22.76	24.00
11a	2	5320	17.21	16.22	---	---	94.481	19.75	24.00
HT20	2	5260	19.68	21.11	---	---	222.019	23.46	24.00
HT20	2	5300	19.42	20.75	---	---	206.349	23.15	24.00
HT20	2	5320	17.16	16.36	---	---	95.251	19.79	24.00
HT40	2	5270	19.84	20.64	---	---	212.261	23.27	24.00
HT40	2	5310	15.19	14.72	---	---	62.685	17.97	24.00
VHT20	2	5260	19.72	21.15	---	---	224.073	**23.50**	24.00
VHT20	2	5300	19.48	20.79	---	---	208.666	23.19	24.00
VHT20	2	5320	17.19	16.39	---	---	95.911	19.82	24.00
VHT40	2	5270	19.88	20.69	---	---	214.494	23.31	24.00
VHT40	2	5310	15.23	14.78	---	---	63.403	18.02	24.00
VHT80	2	5290	13.85	13.35	---	---	45.893	16.62	24.00
11a	2	5500	17.11	17.45	---	---	106.995	20.29	24.00
11a	2	5580	20.10	20.01	---	---	202.560	**23.07**	24.00
11a	2	5700	15.83	16.11	---	---	79.114	18.98	24.00
HT20	2	5500	16.08	15.84	---	---	78.922	18.97	24.00
HT20	2	5580	20.21	19.75	---	---	199.360	23.00	24.00
HT20	2	5700	15.98	16.29	---	---	82.188	19.15	24.00
HT40	2	5510	13.93	12.94	---	---	44.396	16.47	24.00
HT40	2	5550	18.61	17.87	---	---	133.846	21.27	24.00
HT40	2	5670	16.62	16.33	---	---	88.873	19.49	24.00
VHT20	2	5500	16.11	15.89	---	---	79.647	19.01	24.00
VHT20	2	5580	20.26	19.8	---	---	201.669	23.05	24.00
VHT20	2	5700	16.02	16.33	---	---	82.948	19.19	24.00
VHT40	2	5510	13.95	12.99	---	---	44.738	16.51	24.00
VHT40	2	5550	18.65	17.89	---	---	134.800	21.30	24.00
VHT40	2	5670	16.66	16.35	---	---	89.497	19.52	24.00
VHT80	2	5530	13.77	12.66	---	---	42.273	16.26	24.00

Channel that extends across the 5.725 GHz boundary

Maximum Conducted Output Power (Within 5470-5725MHz band)											
Mode	N_{TX}	Freq. (MHz)	Conducted Power without duty factor					Duty factor (dB)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Total Power (dBm)				
11a	2	5720	19.09	19.25	---	---	22.18	0.00	165.236	22.18	23.78
HT20	2	5720	18.85	18.92	---	---	21.90	0.00	154.719	21.90	24.00
HT40	2	5710	20.48	20.25	---	---	23.38	0.00	217.612	23.38	24.00
VHT20	2	5720	18.83	18.92	---	---	21.89	0.00	154.367	21.89	24.00
VHT40	2	5710	20.53	20.32	---	---	23.44	0.00	220.626	23.44	24.00
VHT80	2	5690	20.63	20.50	---	---	23.58	0.00	227.813	23.58	24.00

Maximum Conducted Output Power (Extends across 5725MHz band)											
Mode	N_{TX}	Freq. (MHz)	Conducted Power without duty factor					Duty factor (dB)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Total Power (dBm)				
11a	2	5720	12.95	12.92	---	---	15.95	0.00	39.313	15.95	30.00
HT20	2	5720	13.16	13.00	---	---	16.09	0.00	40.654	16.09	30.00
HT40	2	5710	10.38	10.13	---	---	13.27	0.00	21.218	13.27	30.00
VHT20	2	5720	13.14	13.26	---	---	16.21	0.00	41.790	16.21	30.00
VHT40	2	5710	10.55	10.13	---	---	13.36	0.00	21.654	13.36	30.00
VHT80	2	5690	7.34	6.92	---	---	10.15	0.00	10.340	10.15	30.00

Worst Channel Power Plots	
Within 5470-5725MHz band	Extends across 5725MHz band
	

Beamforming mode

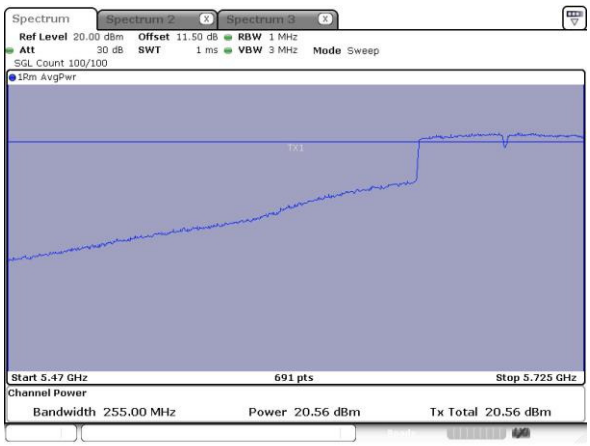
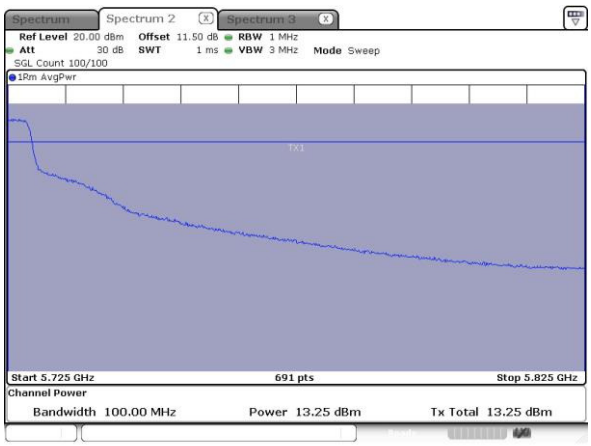
Mode	N_{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
HT20	2	5260	19.08	20.44	---	---	191.572	22.82	24.00
HT20	2	5300	18.50	19.88	---	---	168.069	22.25	24.00
HT20	2	5320	17.43	17.85	---	---	116.289	20.66	24.00
HT40	2	5270	20.61	20.94	---	---	239.245	23.79	24.00
HT40	2	5310	15.51	15.82	---	---	73.758	18.68	24.00
VHT20	2	5260	19.11	20.49	---	---	193.414	22.86	24.00
VHT20	2	5300	18.54	19.92	---	---	169.624	22.29	24.00
VHT20	2	5320	17.45	17.88	---	---	116.967	20.68	24.00
VHT40	2	5270	20.65	20.98	---	---	241.459	23.83	24.00
VHT40	2	5310	15.55	15.88	---	---	74.618	18.73	24.00
VHT80	2	5290	14.32	14.48	---	---	55.094	17.41	24.00
HT20	2	5500	17.71	17.68	---	---	117.634	20.71	24.00
HT20	2	5580	20.14	19.98	---	---	202.817	23.07	24.00
HT20	2	5700	16.84	17.64	---	---	106.382	20.27	24.00
HT40	2	5510	13.81	14.55	---	---	52.554	17.21	24.00
HT40	2	5550	16.98	17.11	---	---	101.293	20.06	24.00
HT40	2	5670	16.63	17.26	---	---	99.236	19.97	24.00
VHT20	2	5500	17.77	17.73	---	---	119.134	20.76	24.00
VHT20	2	5580	20.17	20.01	---	---	204.223	23.10	24.00
VHT20	2	5700	16.88	17.69	---	---	107.502	20.31	24.00
VHT40	2	5510	13.85	14.59	---	---	53.040	17.25	24.00
VHT40	2	5550	17.03	17.15	---	---	102.346	20.10	24.00
VHT40	2	5670	16.68	17.32	---	---	100.510	20.02	24.00
VHT80	2	5530	13.86	14.31	---	---	51.299	17.10	24.00

Channel that extends across the 5.725 GHz boundary

Maximum Conducted Output Power (Within 5470-5725MHz band)											
Mode	N_{TX}	Freq. (MHz)	Conducted Power without duty factor					Duty factor (dB)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Total Power (dBm)				
HT20	2	5720	18.93	18.82	---	---	21.89	0.00	154.371	21.89	23.75
HT40	2	5710	20.18	19.49	---	---	22.86	0.00	193.152	22.86	24.00
VHT20	2	5720	18.95	19.11	---	---	22.04	0.00	159.994	22.04	23.75
VHT40	2	5710	20.21	19.62	---	---	22.94	0.00	196.576	22.94	24.00
VHT80	2	5690	20.56	20.47	---	---	23.53	0.00	225.192	23.53	24.00

Maximum Conducted Output Power (Extends across 5725MHz band)											
Mode	N_{TX}	Freq. (MHz)	Conducted Power without duty factor					Duty factor (dB)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Total Power (dBm)				
HT20	2	5720	12.88	13.14	---	---	16.02	0.00	40.015	16.02	29.91
HT40	2	5710	10.10	9.76	---	---	12.94	0.00	19.695	12.94	29.91
VHT20	2	5720	13.22	13.25	---	---	16.25	0.00	42.124	16.25	29.91
VHT40	2	5710	10.18	9.85	---	---	13.03	0.00	20.084	13.03	29.91
VHT80	2	5690	7.49	7.35	---	---	10.43	0.00	11.043	10.43	29.91

Note: Directional gain = 10 * log((10$^{2.7/20}$+10$^{3.44/20}$)^2/2) = 6.09 dBi, limit shall be reduced to 30 dBm – (6.09 dBi – 6 dBi) = 29.91 dBm

Worst Channel Power Plots	
Within 5470-5725MHz band	Extends across 5725MHz band
	

3.4 Peak Power Spectral Density

3.4.1 Limit of Peak Power Spectral Density

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

3.4.2 Test Procedures

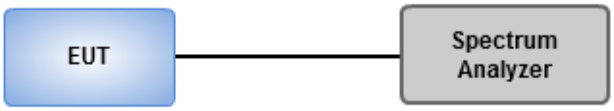
☒ Method SA-1

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 if duty cycle < 98%

3.4.3 Test Setup



3.4.4 Test Result of Peak Power Spectral Density

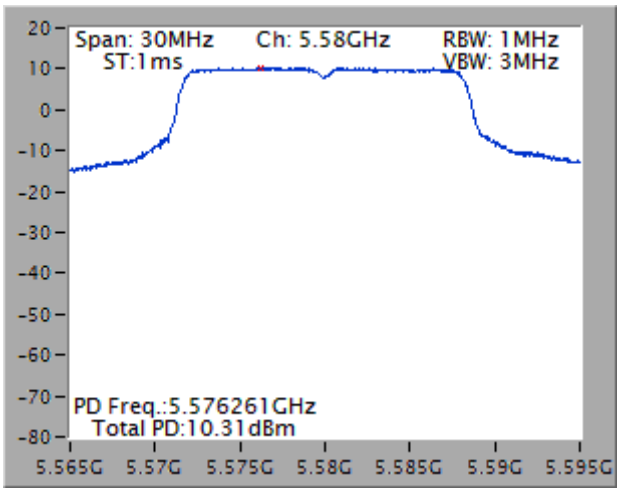
Non-beamforming mode

Condition			Peak Power Spectral Density (dBm/MHz)			
Mode	N_{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/MHz)	Duty Factor (dB)	PPSD with D.F (dBm/MHz)	PPSD Limit (dBm/MHz)
11a	2	5260	10.23	0.00	10.23	11
11a	2	5300	10.13	0.00	10.13	11
11a	2	5320	7.05	0.00	7.05	11
VHT20	2	5260	10.25	0.00	10.25	11
VHT20	2	5300	10.23	0.00	10.23	11
VHT20	2	5320	6.35	0.00	6.35	11
VHT40	2	5270	7.14	0.00	7.14	11
VHT40	2	5310	1.58	0.00	1.58	11
VHT80	2	5290	-2.33	0.00	-2.33	11
11a	2	5500	7.57	0.00	7.57	11
11a	2	5580	10.31	0.00	10.31	11
11a	2	5700	6.25	0.00	6.25	11
11a	2	5720	10.28	0.00	10.28	11
VHT20	2	5500	6.08	0.00	6.08	11
VHT20	2	5580	10.21	0.00	10.21	11
VHT20	2	5700	5.82	0.00	5.82	11
VHT20	2	5720	10.05	0.00	10.05	11
VHT40	2	5510	0.38	0.00	0.38	11
VHT40	2	5550	5.18	0.00	5.18	11
VHT40	2	5670	3.25	0.00	3.25	11
VHT40	2	5710	8.02	0.00	8.02	11
VHT80	2	5530	-2.90	0.00	-2.90	11
VHT80	2	5690	4.74	0.00	4.74	11

Note:

1. D.F is duty factor.
2. Test results are bin-by-bin summing measured value of each TX port.

Worst Plots


Span: 30MHz
ST:1ms
Ch: 5.58GHz
RBW: 1MHz
VBW: 3MHz
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
PD Freq.:5.576261GHz
Total PD:10.31dBm
5.565G
5.57G
5.575G
5.58G
5.585G
5.59G
5.595G

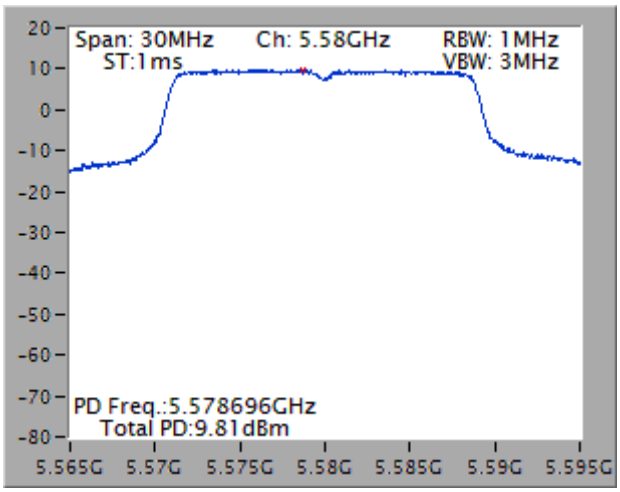
Beamforming mode

Condition			Peak Power Spectral Density (dBm/MHz)			
Mode	N_{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/MHz)	Duty Factor (dB)	PPSD with D.F (dBm/MHz)	PPSD Limit (dBm/MHz)
VHT20	2	5260	9.67	0.00	9.67	11
VHT20	2	5300	8.89	0.00	8.89	11
VHT20	2	5320	7.41	0.00	7.41	11
VHT40	2	5270	7.82	0.00	7.82	11
VHT40	2	5310	2.28	0.00	2.28	11
VHT80	2	5290	-1.74	0.00	-1.74	11
VHT20	2	5500	7.54	0.00	7.54	11
VHT20	2	5580	9.81	0.00	9.81	11
VHT20	2	5700	6.93	0.00	6.93	11
VHT20	2	5720	9.74	0.00	9.74	11
VHT40	2	5510	1.12	0.00	1.12	11
VHT40	2	5550	5.61	0.00	5.61	11
VHT40	2	5670	3.45	0.00	3.45	11
VHT40	2	5710	7.31	0.00	7.31	11
VHT80	2	5530	-1.88	0.00	-1.88	11
VHT80	2	5690	4.90	0.00	4.90	11

Note:

1. D.F is duty factor.
2. Test results are bin-by-bin summing measured value of each TX port.

Worst Plot



3.5 Transmitter Radiated and Band Edge Emissions

3.5.1 Limit of Transmitter Radiated and Band Edge Emissions

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

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

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

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

3.5.2 Test Procedures

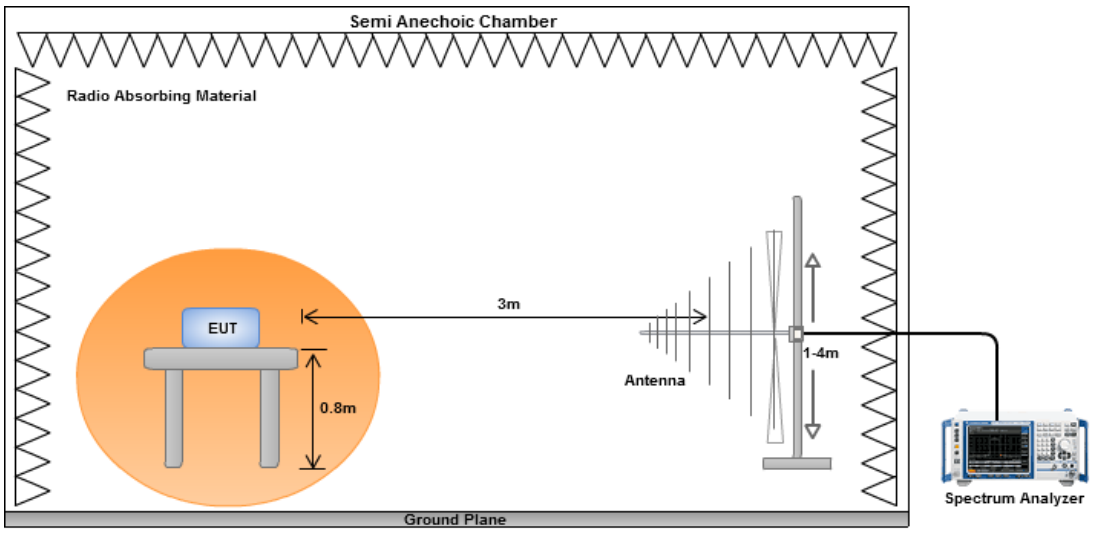
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

Note:

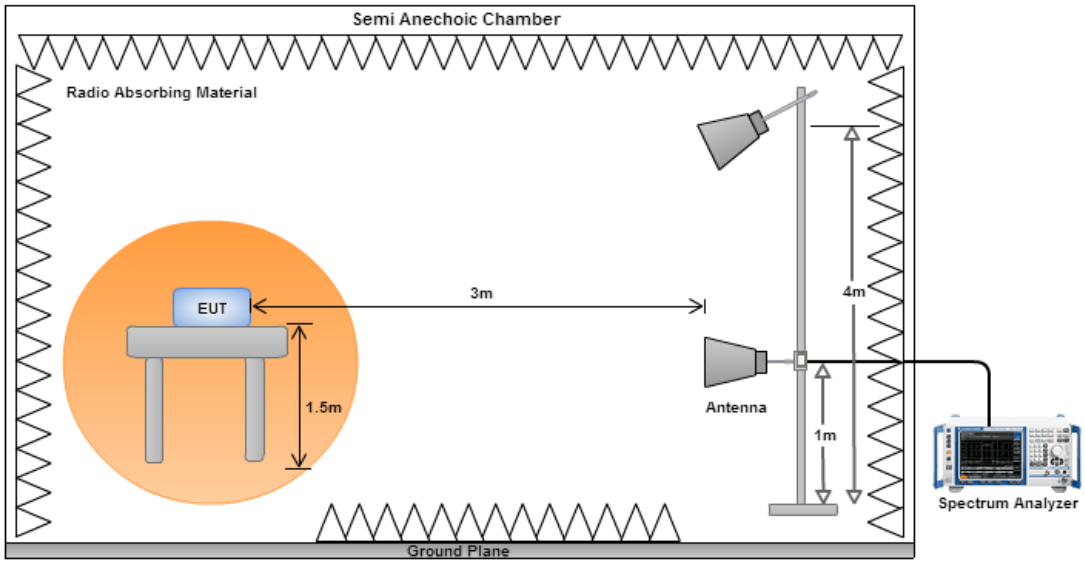
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz



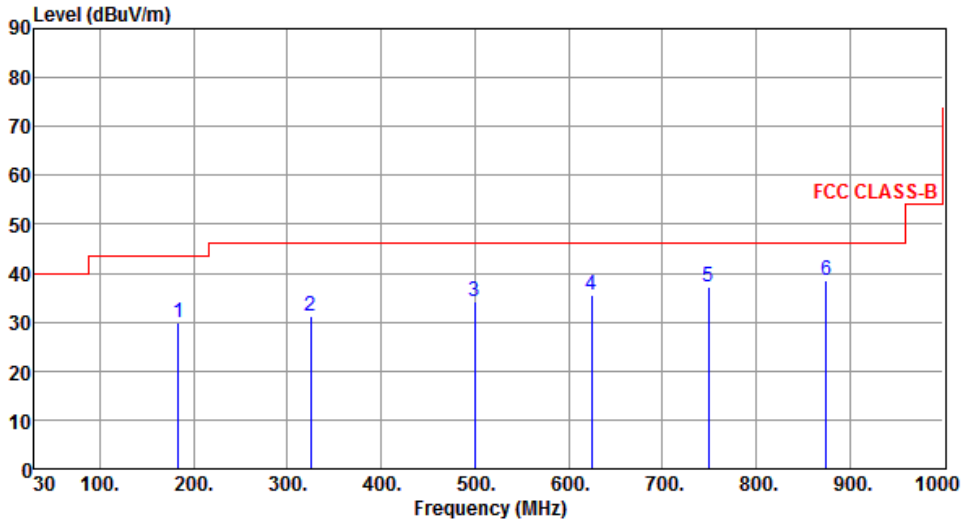
Radiated Emissions above 1 GHz



Non- beamforming mode

3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

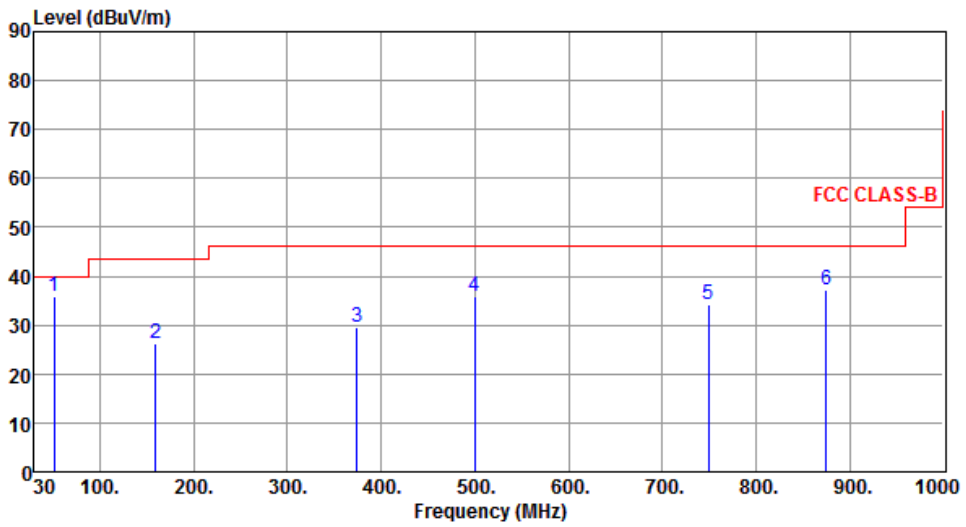
Modulation	VHT20	**Test Freq. (MHz)**	5260
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	183.26	30.01	43.50	-13.49	39.95	-9.94	Peak	---	---
2	324.88	31.31	46.00	-14.69	38.35	-7.04	Peak	---	---
3	499.48	34.19	46.00	-11.81	37.10	-2.91	Peak	---	---
4	624.61	35.51	46.00	-10.49	35.93	-0.42	Peak	---	---
5	749.74	37.23	46.00	-8.77	35.36	1.87	Peak	---	---
6	874.87	38.46	46.00	-7.54	34.62	3.84	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)	5260
Polarization	Vertical		

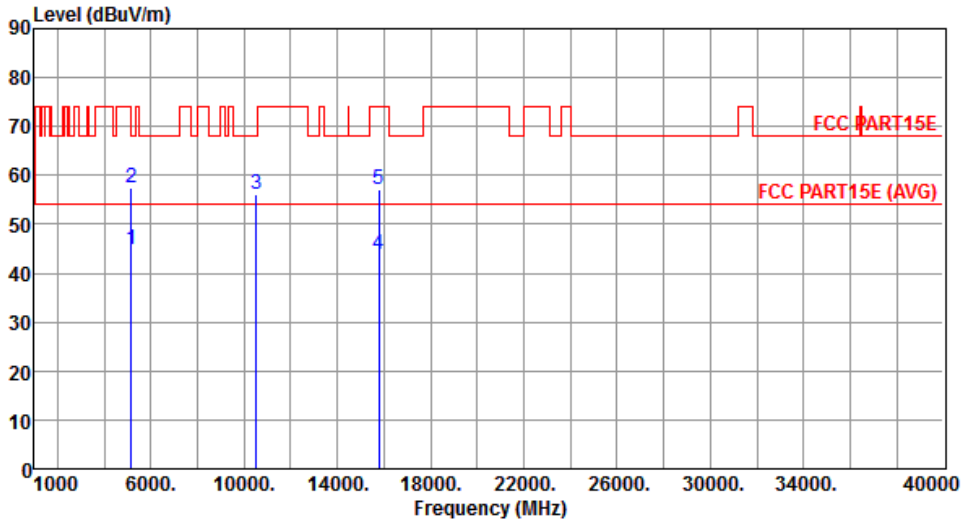


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	51.34	36.03	40.00	-3.97	43.90	-7.87	QP	100	274
2	159.01	26.11	43.50	-17.39	34.11	-8.00	Peak	---	---
3	374.35	29.62	46.00	-16.38	35.31	-5.69	Peak	---	---
4	499.48	35.75	46.00	-10.25	38.66	-2.91	Peak	---	---
5	749.74	34.15	46.00	-11.85	32.28	1.87	Peak	---	---
6	874.87	37.25	46.00	-8.75	33.41	3.84	Peak	---	---

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

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

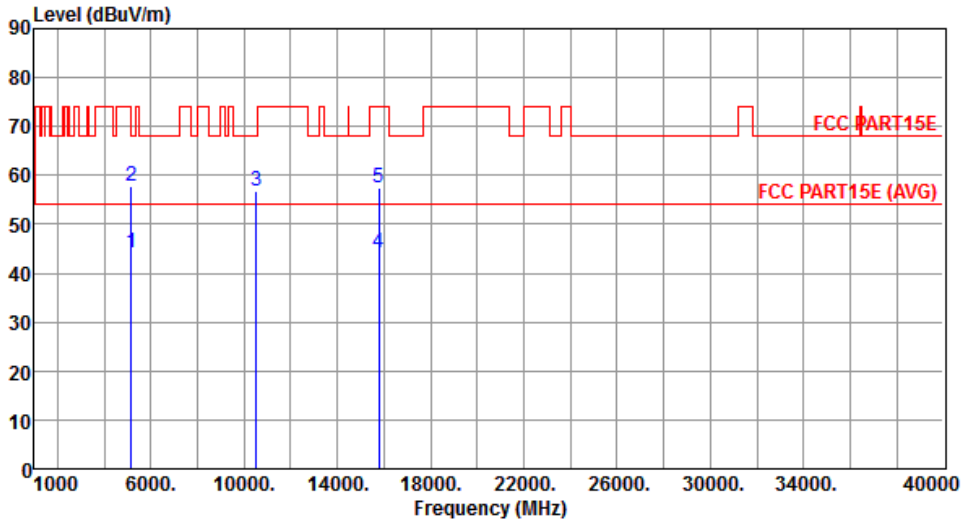
Modulation	11a	Test Freq. (MHz)	5260
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.85	54.00	-9.15	38.99	5.86	Average	245	218
2	5150.00	57.59	74.00	-16.41	51.73	5.86	Peak	245	218
3	10520.00	56.28	68.20	-11.92	40.87	15.41	Peak	165	214
4	15780.00	43.99	54.00	-10.01	28.22	15.77	Average	155	261
5	15780.00	57.20	74.00	-16.80	41.43	15.77	Peak	155	261

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

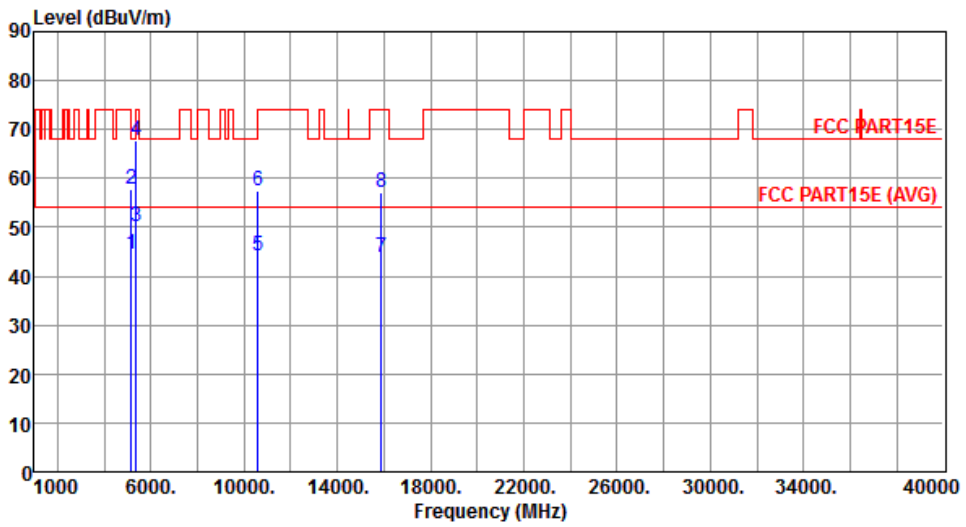
Modulation	11a	Test Freq. (MHz)	5260
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.20	54.00	-9.80	38.34	5.86	Average	100	332
2	5150.00	57.75	74.00	-16.25	51.89	5.86	Peak	100	332
3	10520.00	56.75	68.20	-11.45	41.34	15.41	Peak	155	222
4	15780.00	44.09	54.00	-9.91	28.32	15.77	Average	166	211
5	15780.00	57.36	74.00	-16.64	41.59	15.77	Peak	166	211

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

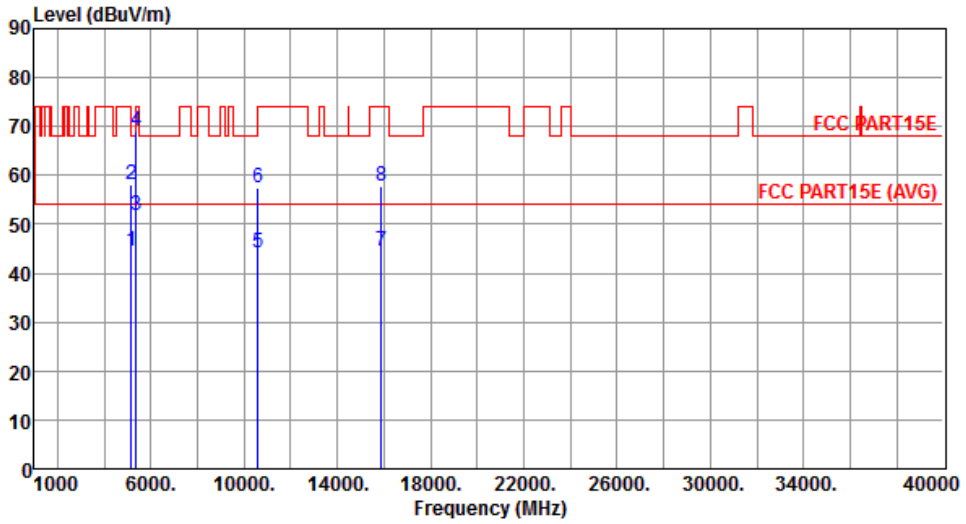
Modulation	11a	Test Freq. (MHz)	5300
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.35	54.00	-9.65	38.49	5.86	Average	251	215
2	5150.00	57.94	74.00	-16.06	52.08	5.86	Peak	251	215
3	5350.00	50.10	54.00	-3.90	43.89	6.21	Average	251	215
4	5350.00	67.78	74.00	-6.22	61.57	6.21	Peak	251	215
5	10600.00	44.01	54.00	-9.99	28.55	15.46	Average	222	111
6	10600.00	57.35	74.00	-16.65	41.89	15.46	Peak	222	111
7	15900.00	43.99	54.00	-10.01	28.38	15.61	Average	165	132
8	15900.00	57.15	74.00	-16.85	41.54	15.61	Peak	165	132

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

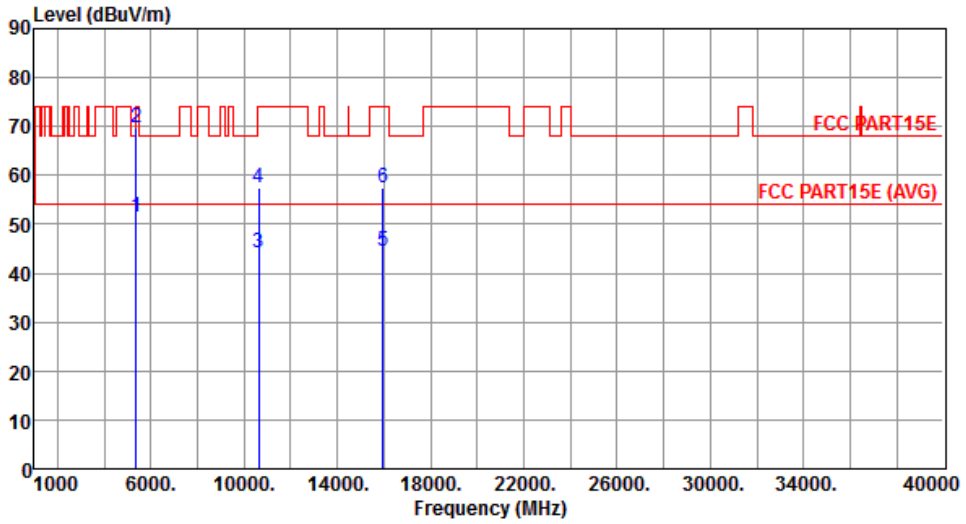
Modulation	11a	Test Freq. (MHz)	5300
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.41	54.00	-9.59	38.55	5.86	Average	100	335
2	5150.00	58.21	74.00	-15.79	52.35	5.86	Peak	100	335
3	5350.00	51.81	54.00	-2.19	45.60	6.21	Average	100	335
4	5350.00	68.99	74.00	-5.01	62.78	6.21	Peak	100	335
5	10600.00	44.09	54.00	-9.91	28.63	15.46	Average	221	153
6	10600.00	57.49	74.00	-16.51	42.03	15.46	Peak	221	153
7	15900.00	44.40	54.00	-9.60	28.79	15.61	Average	213	188
8	15900.00	57.77	74.00	-16.23	42.16	15.61	Peak	213	188

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

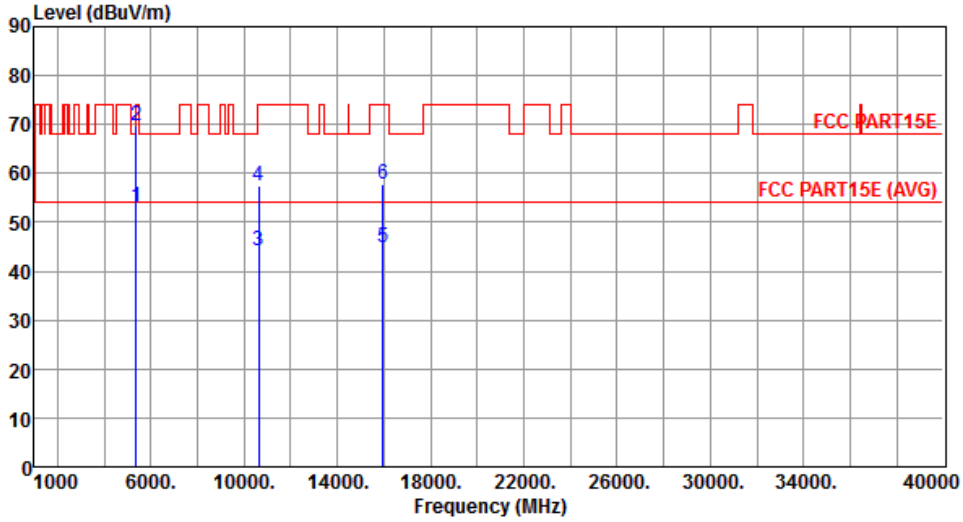
Modulation	11a	Test Freq. (MHz)	5320
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	51.57	54.00	-2.43	45.36	6.21	Average	245	217
2	5350.00	69.88	74.00	-4.12	63.67	6.21	Peak	245	217
3	10640.00	44.14	54.00	-9.86	28.65	15.49	Average	221	196
4	10640.00	57.36	74.00	-16.64	41.87	15.49	Peak	221	196
5	15960.00	44.52	54.00	-9.48	28.98	15.54	Average	221	196
6	15960.00	57.33	74.00	-16.67	41.79	15.54	Peak	221	196

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

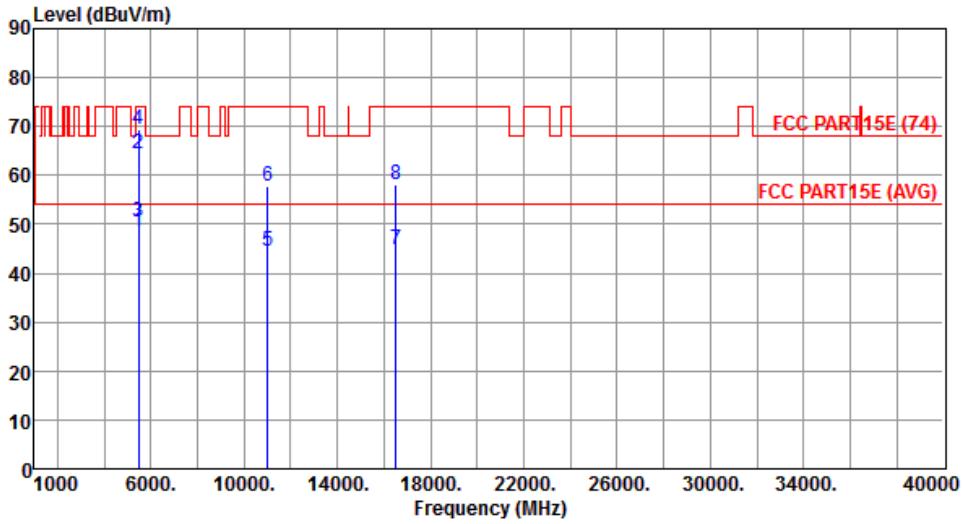
Modulation	11a	Test Freq. (MHz)	5320
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.98	54.00	-1.02	46.77	6.21	Average	100	338
2	5350.00	69.83	74.00	-4.17	63.62	6.21	Peak	100	338
3	10640.00	44.27	54.00	-9.73	28.78	15.49	Average	156	214
4	10640.00	57.57	74.00	-16.43	42.08	15.49	Peak	156	214
5	15960.00	44.68	54.00	-9.32	29.14	15.54	Average	118	226
6	15960.00	57.71	74.00	-16.29	42.17	15.54	Peak	118	226

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

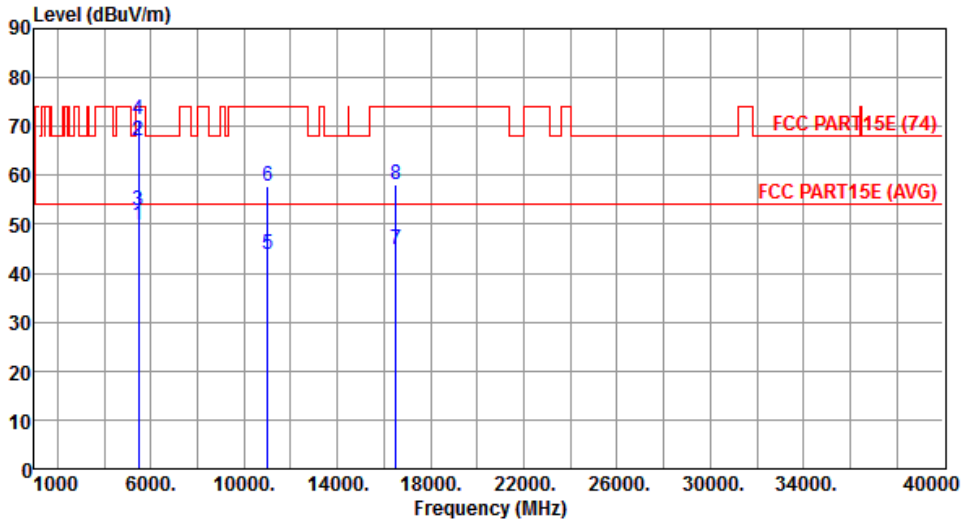
Modulation	11a	Test Freq. (MHz)	5500
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.56	54.00	-5.44	42.19	6.37	Average	209	214
2	5460.00	64.31	74.00	-9.69	57.94	6.37	Peak	209	214
3	5470.00	50.49	54.00	-3.51	44.11	6.38	Average	209	214
4	5470.00	69.52	74.00	-4.48	63.14	6.38	Peak	209	214
5	11000.00	44.61	54.00	-9.39	28.86	15.75	Average	222	153
6	11000.00	57.62	74.00	-16.38	41.87	15.75	Peak	222	153
7	16500.00	44.99	54.00	-9.01	28.94	16.05	Average	211	199
8	16500.00	57.99	74.00	-16.01	41.94	16.05	Peak	211	199

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

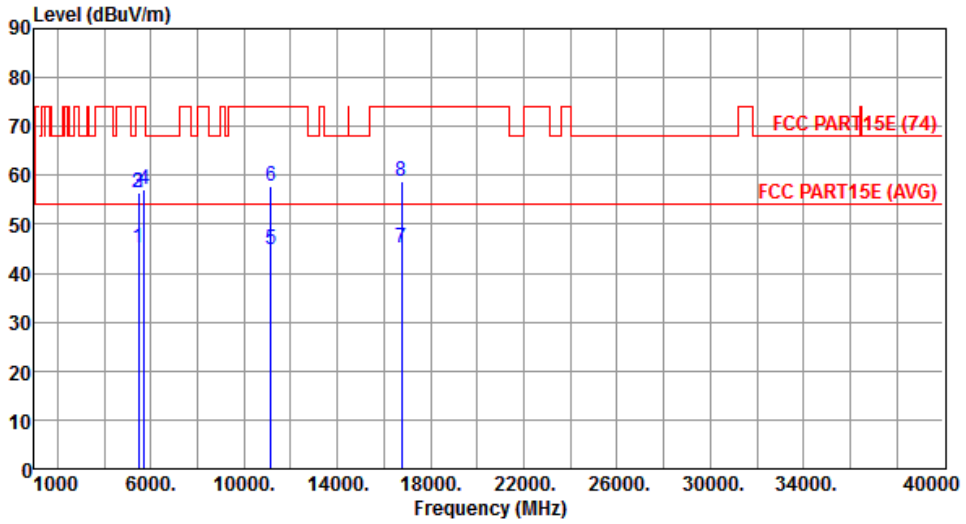
Modulation	11a	Test Freq. (MHz)	5500
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.90	54.00	-4.10	43.53	6.37	Average	100	321
2	5460.00	67.00	74.00	-7.00	60.63	6.37	Peak	100	321
3	5470.00	52.73	54.00	-1.27	46.35	6.38	Average	100	321
4	5470.00	71.32	74.00	-2.68	64.94	6.38	Peak	100	321
5	11000.00	43.91	54.00	-10.09	28.16	15.75	Average	155	32
6	11000.00	57.64	74.00	-16.36	41.89	15.75	Peak	155	32
7	16500.00	44.91	54.00	-9.09	28.86	16.05	Average	165	222
8	16500.00	58.16	74.00	-15.84	42.11	16.05	Peak	165	222

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

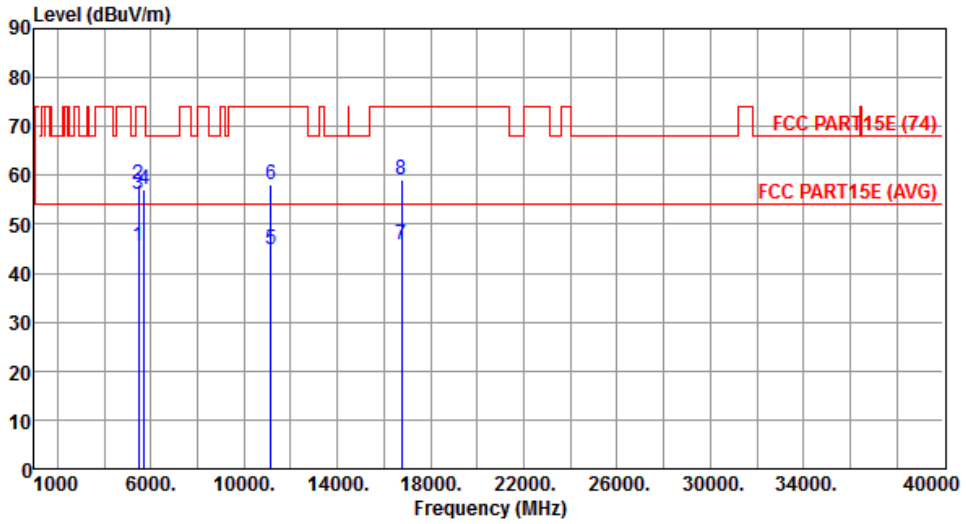
Modulation	11a	Test Freq. (MHz)	5580
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.26	54.00	-8.74	38.89	6.37	Average	229	217
2	5460.00	56.52	74.00	-17.48	50.15	6.37	Peak	229	217
3	5470.00	56.60	74.00	-17.40	50.22	6.38	Peak	229	217
4	5725.00	57.06	74.00	-16.94	50.22	6.84	Peak	229	217
5	11160.00	44.67	54.00	-9.33	28.83	15.84	Average	165	199
6	11160.00	57.72	74.00	-16.28	41.88	15.84	Peak	165	199
7	16740.00	45.32	54.00	-8.68	28.52	16.80	Average	153	321
8	16740.00	58.76	74.00	-15.24	41.96	16.80	Peak	153	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).

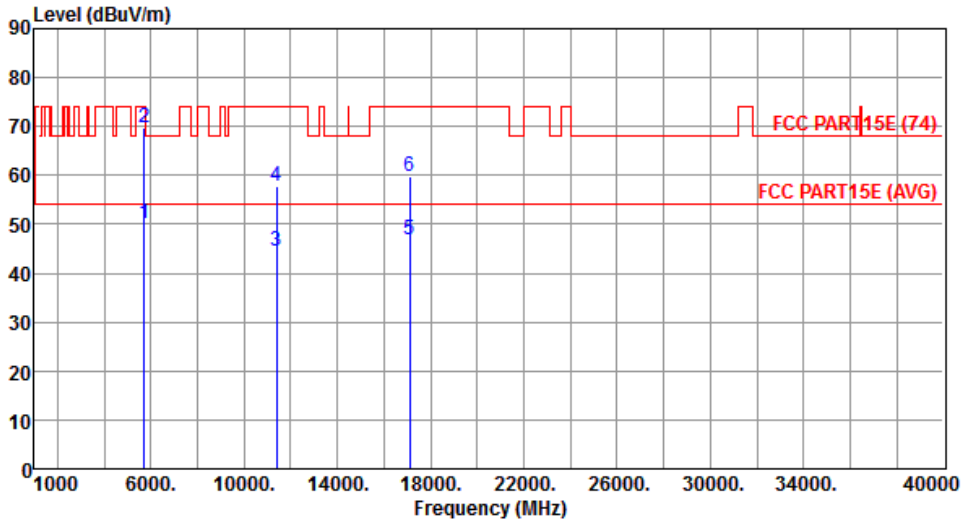
Modulation	11a	Test Freq. (MHz)	5580
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.48	54.00	-8.52	39.11	6.37	Average	108	317
2	5460.00	58.06	74.00	-15.94	51.69	6.37	Peak	108	317
3	5470.00	55.99	74.00	-18.01	49.61	6.38	Peak	108	317
4	5725.00	57.17	74.00	-16.83	50.33	6.84	Peak	108	317
5	11160.00	44.95	54.00	-9.05	29.11	15.84	Average	177	166
6	11160.00	58.19	74.00	-15.81	42.35	15.84	Peak	177	166
7	16740.00	45.69	54.00	-8.31	28.89	16.80	Average	222	153
8	16740.00	59.15	74.00	-14.85	42.35	16.80	Peak	222	153

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

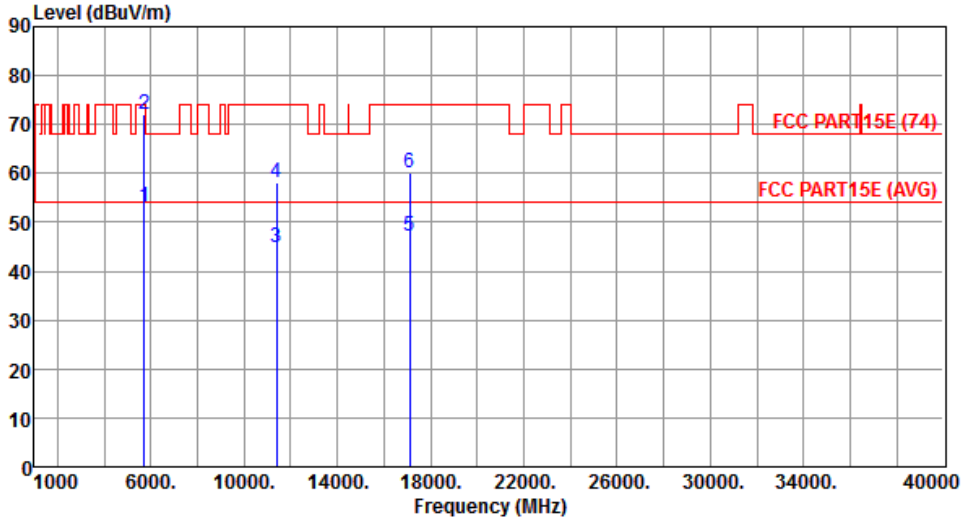
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	50.28	54.00	-3.72	43.44	6.84	Average	242	215
2	5725.00	69.68	74.00	-4.32	62.84	6.84	Peak	242	215
3	11400.00	44.56	54.00	-9.44	28.59	15.97	Average	221	183
4	11400.00	57.83	74.00	-16.17	41.86	15.97	Peak	221	183
5	17100.00	46.69	54.00	-7.31	28.73	17.96	Average	178	78
6	17100.00	59.93	74.00	-14.07	41.97	17.96	Peak	178	78

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

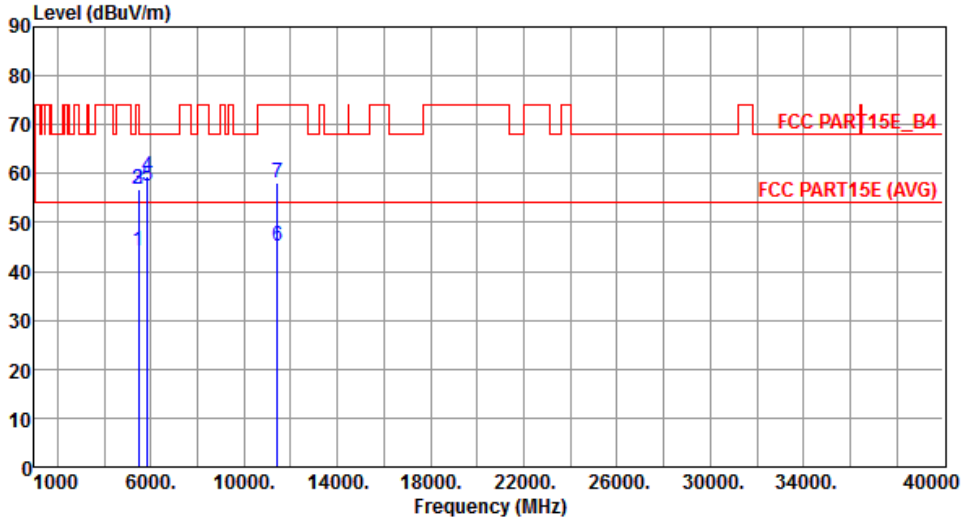
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	52.98	54.00	-1.02	46.14	6.84	Average	100	313
2	5725.00	72.20	74.00	-1.80	65.36	6.84	Peak	100	313
3	11400.00	44.96	54.00	-9.04	28.99	15.97	Average	165	299
4	11400.00	58.08	74.00	-15.92	42.11	15.97	Peak	165	299
5	17100.00	47.01	54.00	-6.99	29.05	17.96	Average	212	35
6	17100.00	60.06	74.00	-13.94	42.10	17.96	Peak	212	35

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

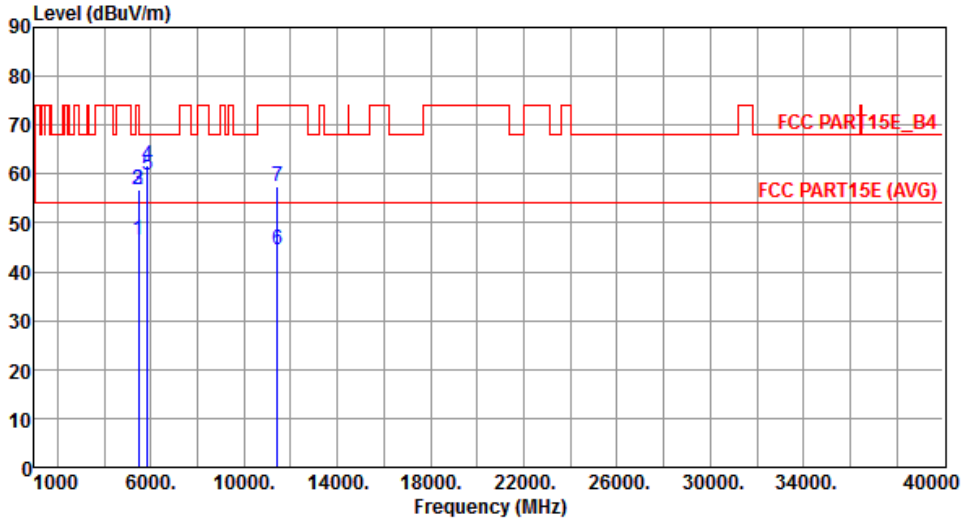
Modulation	11a	Test Freq. (MHz)	5720
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.16	54.00	-9.84	37.79	6.37	Average	240	214
2	5460.00	56.76	74.00	-17.24	50.39	6.37	Peak	240	214
3	5470.00	56.87	68.20	-11.33	50.49	6.38	Peak	240	214
4	5850.00	59.56	78.20	-18.64	52.39	7.17	Peak	214	139
5	5860.00	57.59	68.20	-10.61	50.41	7.18	Peak	214	139
6	11440.00	45.03	54.00	-8.97	29.03	16.00	Average	235	200
7	11440.00	58.09	74.00	-15.91	42.09	16.00	Peak	235	200

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

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

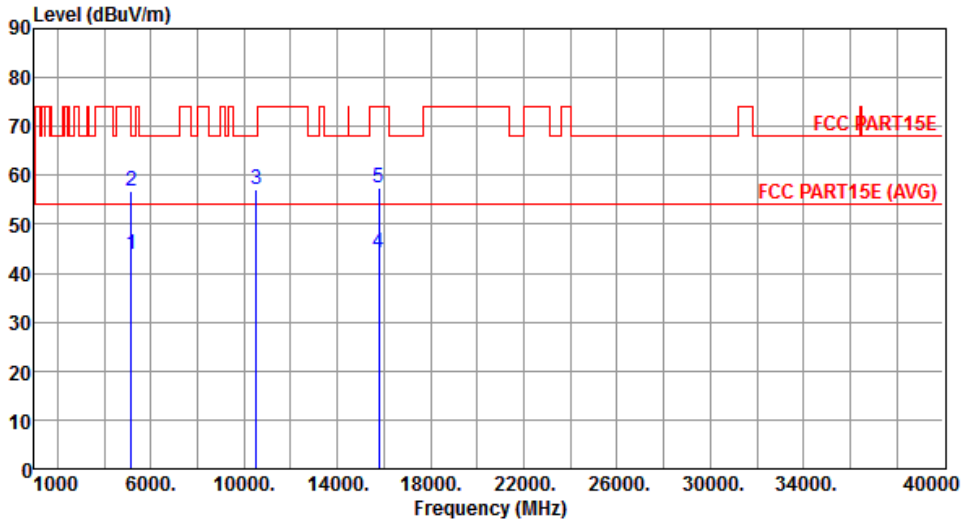


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.50	54.00	-7.50	40.13	6.37	Average	100	314
2	5460.00	56.66	74.00	-17.34	50.29	6.37	Peak	100	314
3	5470.00	56.73	68.20	-11.47	50.35	6.38	Peak	100	314
4	5850.00	61.77	78.20	-16.43	54.60	7.17	Peak	236	279
5	5860.00	59.88	68.20	-8.32	52.70	7.18	Peak	236	279
6	11440.00	44.48	54.00	-9.52	28.48	16.00	Average	122	220
7	11440.00	57.50	74.00	-16.50	41.50	16.00	Peak	122	220

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

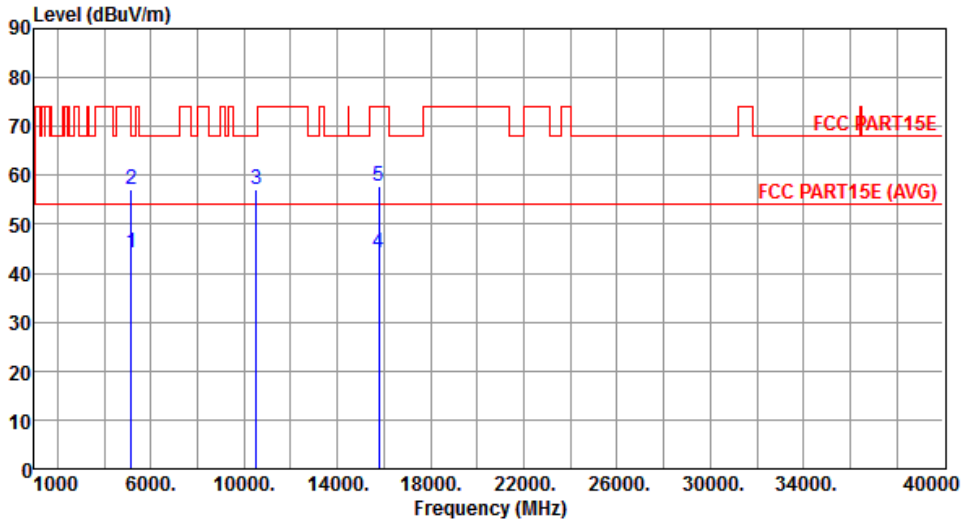
Modulation	VHT20	**Test Freq. (MHz)**	5260
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	43.97	54.00	-10.03	38.11	5.86	Average	248	220
2	5150.00	56.73	74.00	-17.27	50.87	5.86	Peak	248	220
3	10520.00	56.99	68.20	-11.21	41.58	15.41	Peak	211	179
4	15780.00	44.21	54.00	-9.79	28.44	15.77	Average	188	111
5	15780.00	57.56	74.00	-16.44	41.79	15.77	Peak	188	111

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

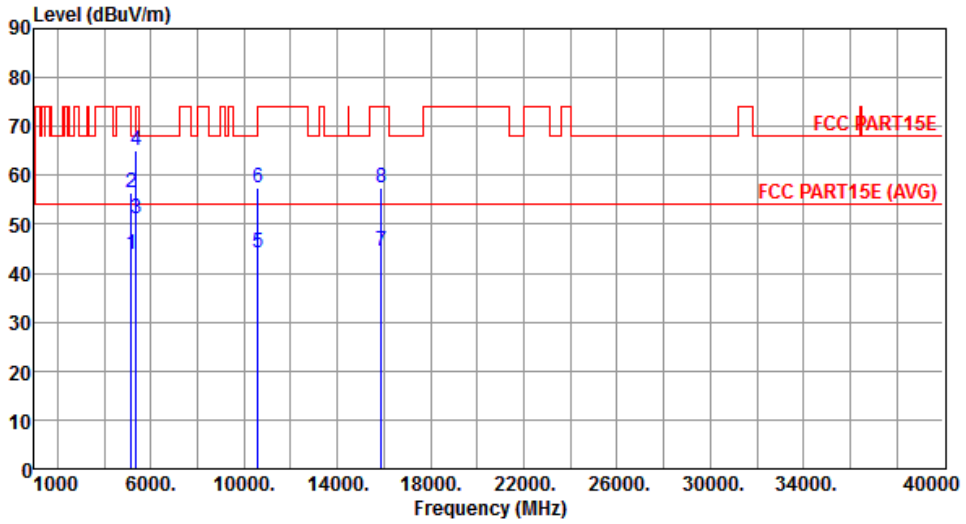
Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.15	54.00	-9.85	38.29	5.86	Average	100	334
2	5150.00	56.97	74.00	-17.03	51.11	5.86	Peak	100	334
3	10520.00	57.16	68.20	-11.04	41.75	15.41	Peak	222	156
4	15780.00	44.31	54.00	-9.69	28.54	15.77	Average	165	144
5	15780.00	57.65	74.00	-16.35	41.88	15.77	Peak	165	144

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

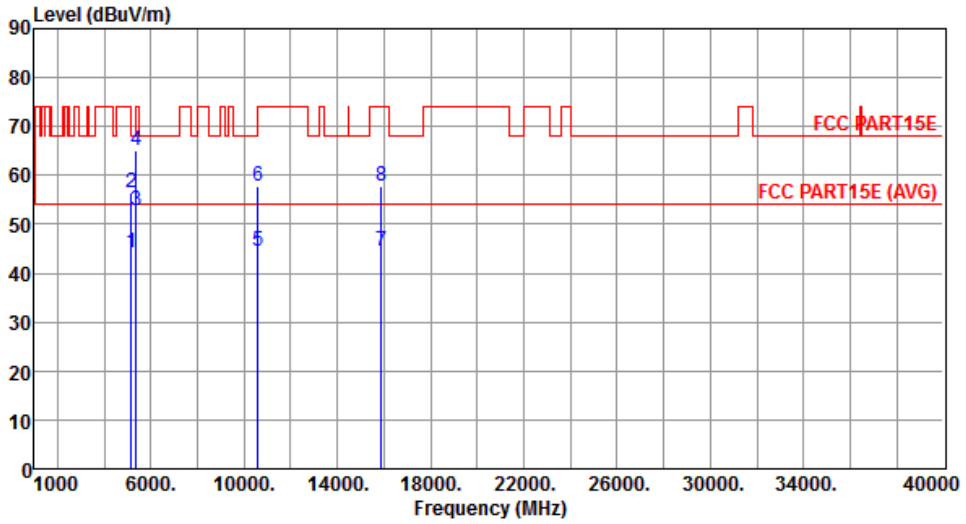
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	43.95	54.00	-10.05	38.09	5.86	Average	233	218
2	5150.00	56.41	74.00	-17.59	50.55	5.86	Peak	233	218
3	5350.00	51.31	54.00	-2.69	45.10	6.21	Average	233	218
4	5350.00	65.01	74.00	-8.99	58.80	6.21	Peak	233	218
5	10600.00	44.20	54.00	-9.80	28.74	15.46	Average	165	166
6	10600.00	57.33	74.00	-16.67	41.87	15.46	Peak	165	166
7	15900.00	44.48	54.00	-9.52	28.87	15.61	Average	155	317
8	15900.00	57.54	74.00	-16.46	41.93	15.61	Peak	155	317

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

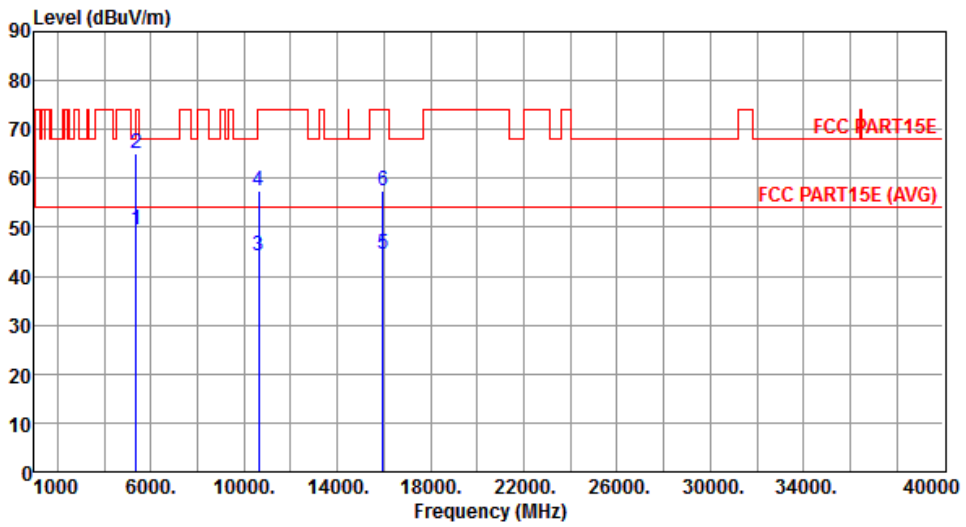
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.21	54.00	-9.79	38.35	5.86	Average	113	332
2	5150.00	56.51	74.00	-17.49	50.65	5.86	Peak	113	332
3	5350.00	52.71	54.00	-1.29	46.50	6.21	Average	113	332
4	5350.00	65.04	74.00	-8.96	58.83	6.21	Peak	113	332
5	10600.00	44.49	54.00	-9.51	29.03	15.46	Average	221	43
6	10600.00	57.65	74.00	-16.35	42.19	15.46	Peak	221	43
7	15900.00	44.61	54.00	-9.39	29.00	15.61	Average	118	19
8	15900.00	57.65	74.00	-16.35	42.04	15.61	Peak	118	19

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

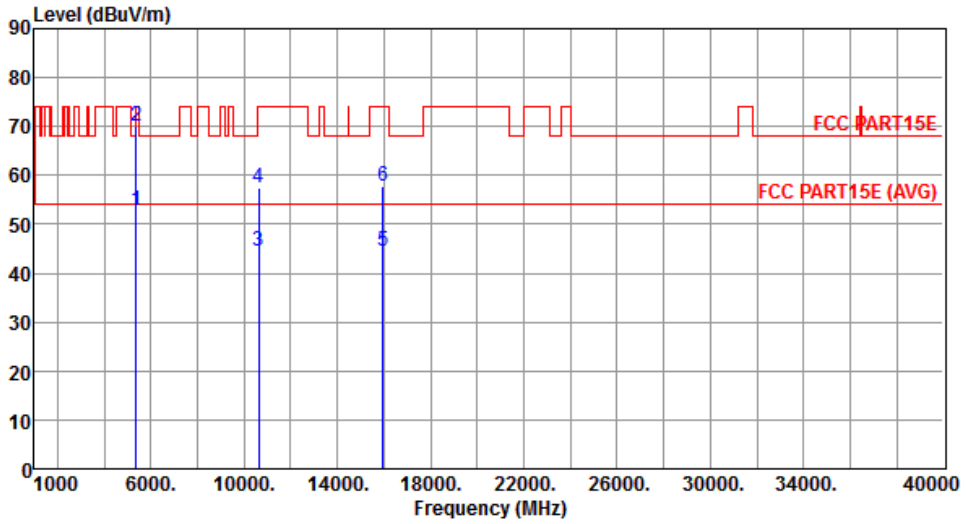
Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	49.57	54.00	-4.43	43.36	6.21	Average	248	217
2	5350.00	65.11	74.00	-8.89	58.90	6.21	Peak	248	217
3	10640.00	44.33	54.00	-9.67	28.84	15.49	Average	199	211
4	10640.00	57.40	74.00	-16.60	41.91	15.49	Peak	199	211
5	15960.00	44.38	54.00	-9.62	28.84	15.54	Average	166	214
6	15960.00	57.41	74.00	-16.59	41.87	15.54	Peak	166	214

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

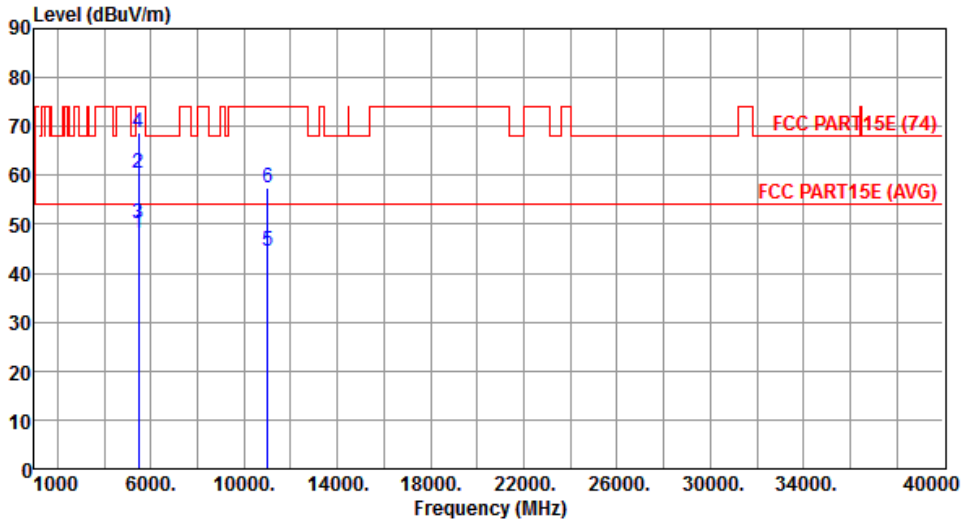
Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.81	54.00	-1.19	46.60	6.21	Average	100	337
2	5350.00	70.04	74.00	-3.96	63.83	6.21	Peak	100	337
3	10640.00	44.45	54.00	-9.55	28.96	15.49	Average	111	153
4	10640.00	57.57	74.00	-16.43	42.08	15.49	Peak	111	153
5	15960.00	44.61	54.00	-9.39	29.07	15.54	Average	123	222
6	15960.00	57.69	74.00	-16.31	42.15	15.54	Peak	123	222

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

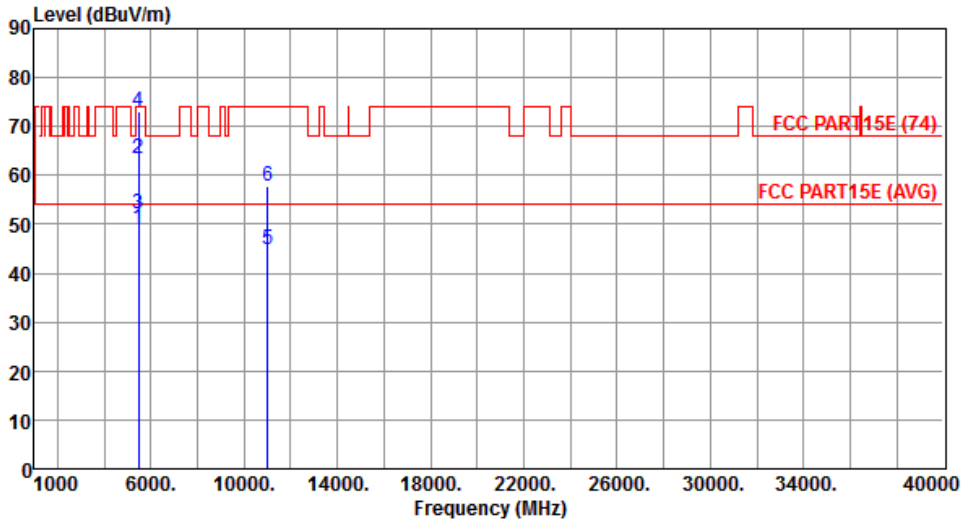
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.02	54.00	-5.98	41.65	6.37	Average	220	216
2	5460.00	60.36	74.00	-13.64	53.99	6.37	Peak	220	216
3	5470.00	50.22	54.00	-3.78	43.84	6.38	Average	220	216
4	5470.00	68.67	74.00	-5.33	62.29	6.38	Peak	220	216
5	11000.00	44.42	54.00	-9.58	28.67	15.75	Average	194	183
6	11000.00	57.53	74.00	-16.47	41.78	15.75	Peak	194	183

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

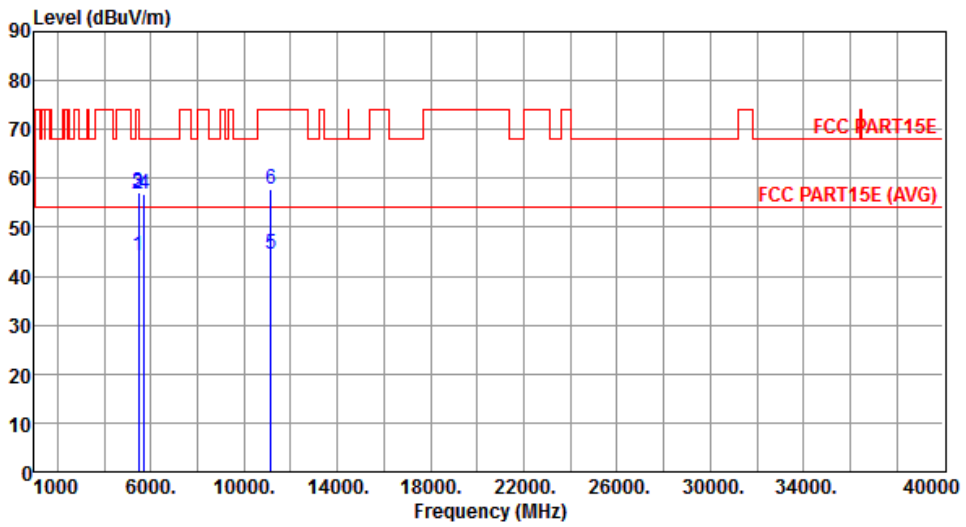
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.02	54.00	-4.98	42.65	6.37	Average	100	328
2	5460.00	63.32	74.00	-10.68	56.95	6.37	Peak	100	328
3	5470.00	52.16	54.00	-1.84	45.78	6.38	Average	100	328
4	5470.00	72.99	74.00	-1.01	66.61	6.38	Peak	100	328
5	11000.00	44.72	54.00	-9.28	28.97	15.75	Average	222	153
6	11000.00	57.71	74.00	-16.29	41.96	15.75	Peak	222	153

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

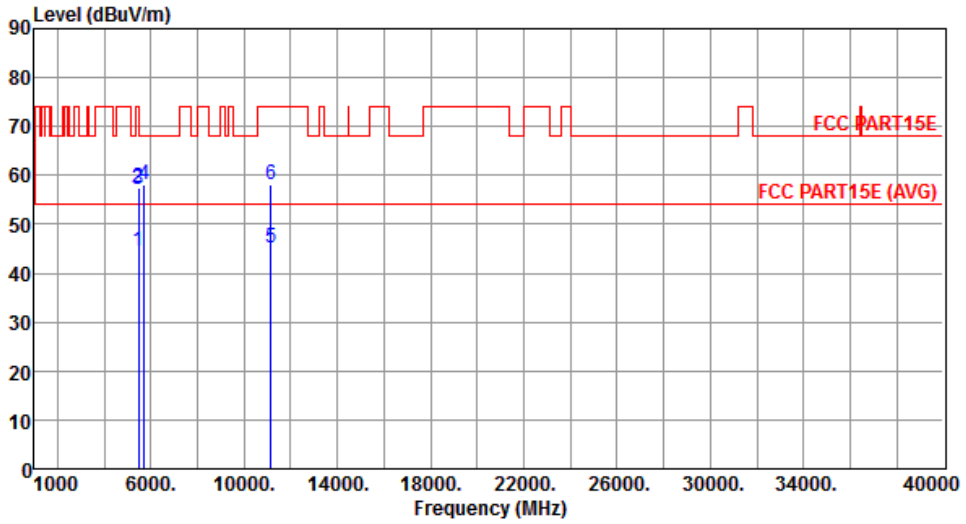
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.25	54.00	-9.75	37.88	6.37	Average	212	217
2	5460.00	56.92	74.00	-17.08	50.55	6.37	Peak	212	217
3	5470.00	57.03	68.20	-11.17	50.65	6.38	Peak	212	217
4	5725.00	56.67	68.20	-11.53	49.83	6.84	Peak	212	217
5	11160.00	44.51	54.00	-9.49	28.67	15.84	Average	222	341
6	11160.00	57.70	74.00	-16.30	41.86	15.84	Peak	222	341

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

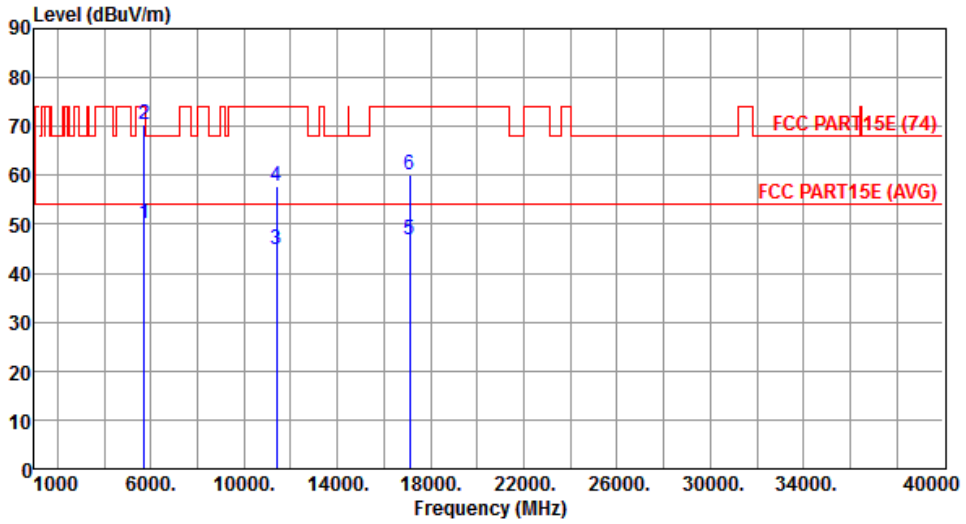
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.36	54.00	-9.64	37.99	6.37	Average	100	319
2	5460.00	57.54	74.00	-16.46	51.17	6.37	Peak	100	319
3	5470.00	57.04	68.20	-11.16	50.66	6.38	Peak	100	319
4	5725.00	58.27	68.20	-9.93	51.43	6.84	Peak	100	319
5	11160.00	45.05	54.00	-8.95	29.21	15.84	Average	166	214
6	11160.00	58.03	74.00	-15.97	42.19	15.84	Peak	166	214

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

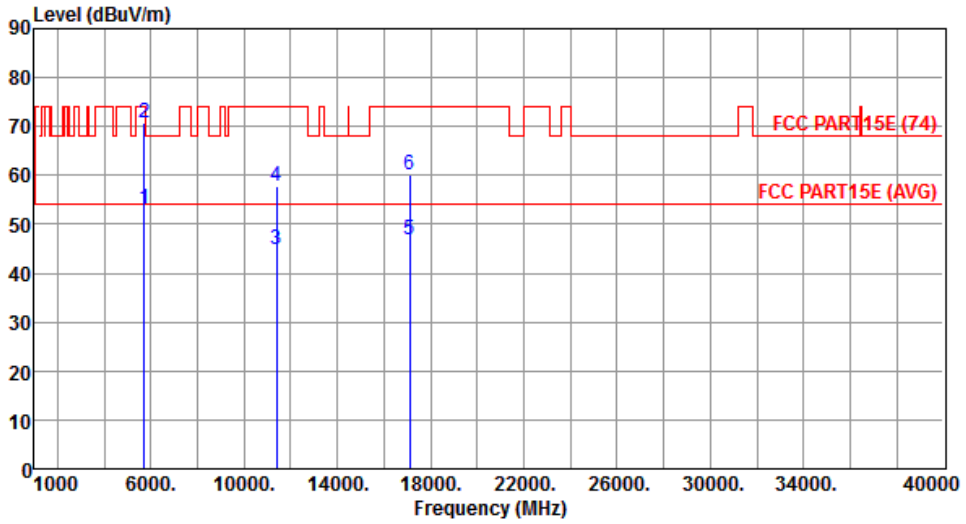
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	50.23	54.00	-3.77	43.39	6.84	Average	220	216
2	5725.00	70.43	74.00	-3.57	63.59	6.84	Peak	220	216
3	11400.00	44.73	54.00	-9.27	28.76	15.97	Average	234	178
4	11400.00	57.64	74.00	-16.36	41.67	15.97	Peak	234	178
5	17100.00	46.81	54.00	-7.19	28.85	17.96	Average	222	311
6	17100.00	60.00	74.00	-14.00	42.04	17.96	Peak	222	311

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

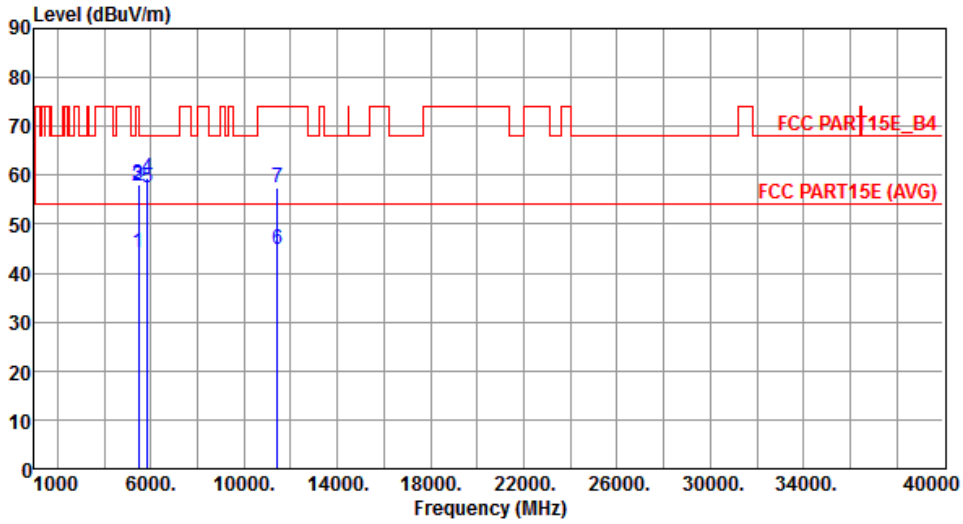
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	52.98	54.00	-1.02	46.14	6.84	Average	100	315
2	5725.00	70.66	74.00	-3.34	63.82	6.84	Peak	100	315
3	11400.00	44.86	54.00	-9.14	28.89	15.97	Average	222	165
4	11400.00	57.84	74.00	-16.16	41.87	15.97	Peak	222	165
5	17100.00	46.90	54.00	-7.10	28.94	17.96	Average	234	178
6	17100.00	60.12	74.00	-13.88	42.16	17.96	Peak	234	178

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

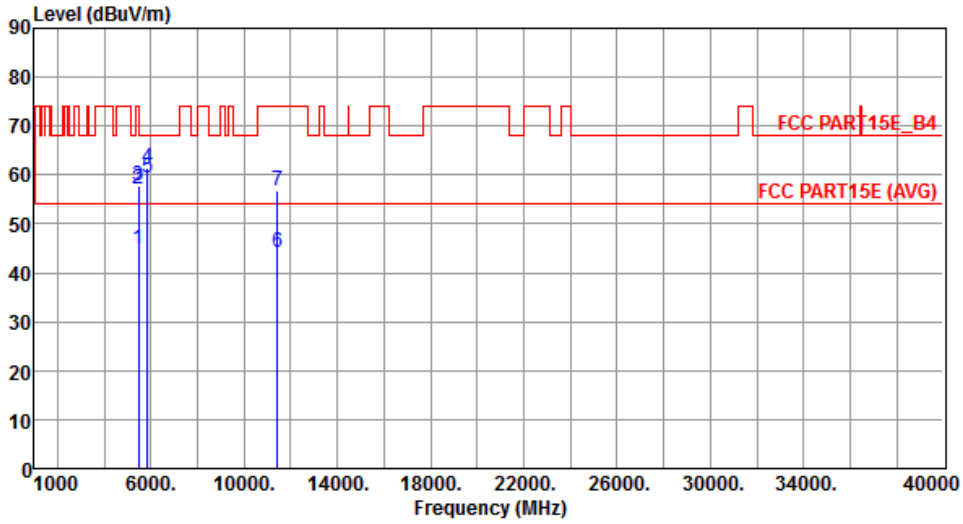
Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.19	54.00	-9.81	37.82	6.37	Average	220	210
2	5460.00	57.67	74.00	-16.33	51.30	6.37	Peak	220	210
3	5470.00	58.28	68.20	-9.92	51.90	6.38	Peak	220	210
4	5850.00	59.47	78.20	-18.73	52.30	7.17	Peak	216	180
5	5860.00	57.38	68.20	-10.82	50.20	7.18	Peak	216	180
6	11440.00	44.91	54.00	-9.09	28.91	16.00	Average	241	212
7	11440.00	57.45	74.00	-16.55	41.45	16.00	Peak	241	212

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

Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Vertical		

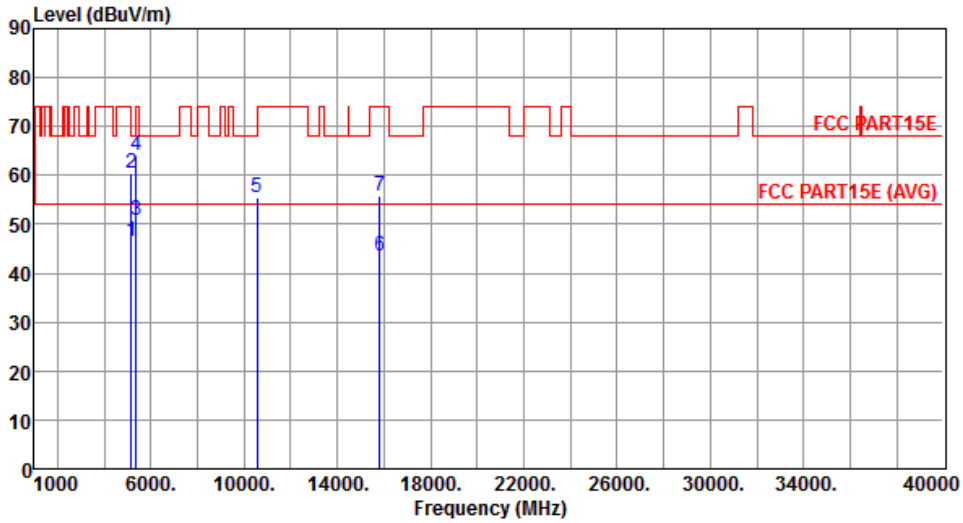


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.88	54.00	-9.12	38.51	6.37	Average	153	305
2	5460.00	57.27	74.00	-16.73	50.90	6.37	Peak	153	305
3	5470.00	57.94	68.20	-10.26	51.56	6.38	Peak	153	305
4	5850.00	61.40	78.20	-16.80	54.23	7.17	Peak	249	301
5	5860.00	59.55	68.20	-8.65	52.37	7.18	Peak	249	301
6	11440.00	44.31	54.00	-9.69	28.31	16.00	Average	120	208
7	11440.00	56.67	74.00	-17.33	40.67	16.00	Peak	120	208

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

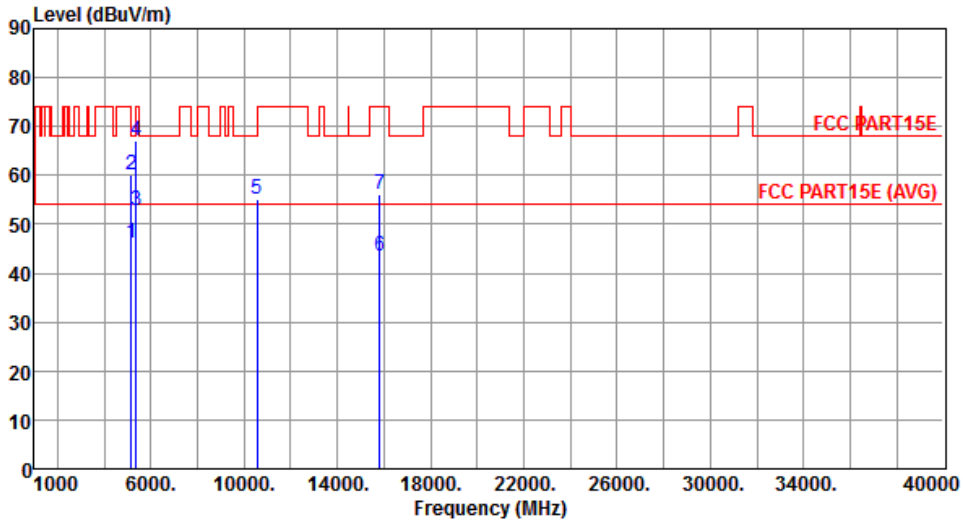
Modulation	VHT40	**Test Freq. (MHz)**	5270
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.39	54.00	-7.61	40.53	5.86	Average	248	221
2	5150.00	60.48	74.00	-13.52	54.62	5.86	Peak	248	221
3	5350.00	50.89	54.00	-3.11	44.68	6.21	Average	248	221
4	5350.00	64.10	74.00	-9.90	57.89	6.21	Peak	248	221
5	10540.00	55.55	68.20	-12.65	40.13	15.42	Peak	211	181
6	15810.00	43.56	54.00	-10.44	27.83	15.73	Average	185	106
7	15810.00	55.80	74.00	-18.20	40.07	15.73	Peak	185	106

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

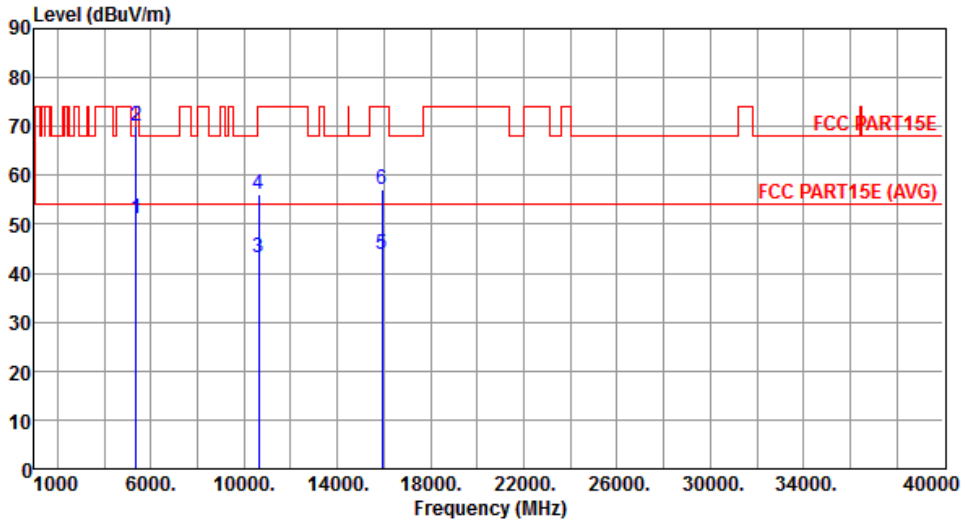
Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.15	54.00	-7.85	40.29	5.86	Average	121	322
2	5150.00	60.15	74.00	-13.85	54.29	5.86	Peak	121	322
3	5350.00	52.94	54.00	-1.06	46.73	6.21	Average	121	322
4	5350.00	66.94	74.00	-7.06	60.73	6.21	Peak	121	322
5	10540.00	55.06	68.20	-13.14	39.64	15.42	Peak	220	154
6	15810.00	43.40	54.00	-10.60	27.67	15.73	Average	157	142
7	15810.00	56.25	74.00	-17.75	40.52	15.73	Peak	157	142

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

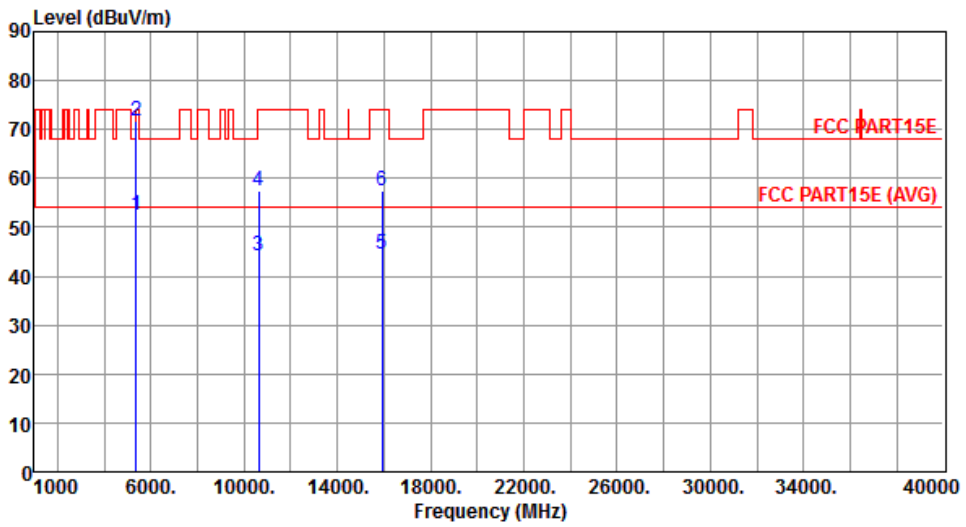
Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	51.23	54.00	-2.77	45.02	6.21	Average	256	213
2	5350.00	69.94	74.00	-4.06	63.73	6.21	Peak	256	213
3	10620.00	43.34	54.00	-10.66	27.86	15.48	Average	200	208
4	10620.00	56.06	74.00	-17.94	40.58	15.48	Peak	200	208
5	15930.00	43.79	54.00	-10.21	28.21	15.58	Average	166	210
6	15930.00	57.24	74.00	-16.76	41.66	15.58	Peak	166	210

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

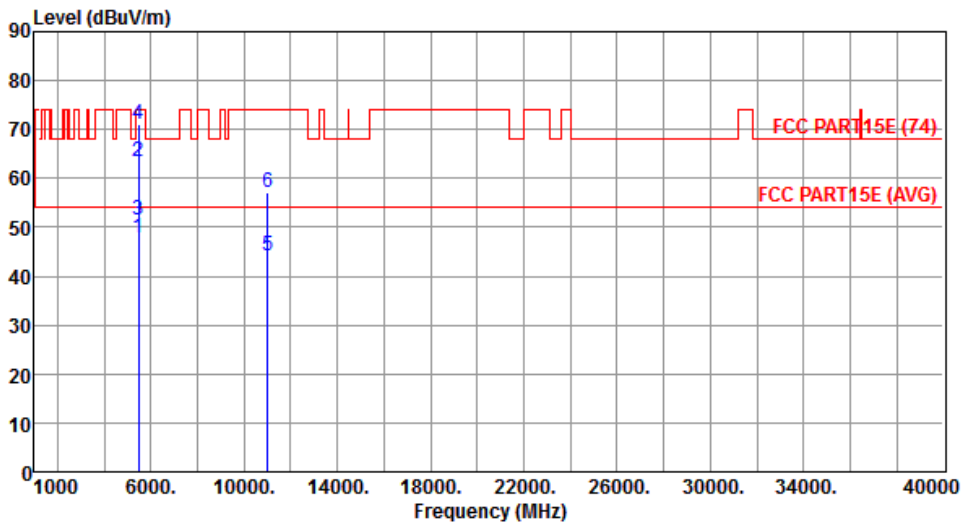
Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.60	54.00	-1.40	46.39	6.21	Average	124	320
2	5350.00	71.69	74.00	-2.31	65.48	6.21	Peak	124	320
3	10620.00	44.23	54.00	-9.77	28.75	15.48	Average	110	152
4	10620.00	57.44	74.00	-16.56	41.96	15.48	Peak	110	152
5	15930.00	44.55	54.00	-9.45	28.97	15.58	Average	120	221
6	15930.00	57.55	74.00	-16.45	41.97	15.58	Peak	120	221

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

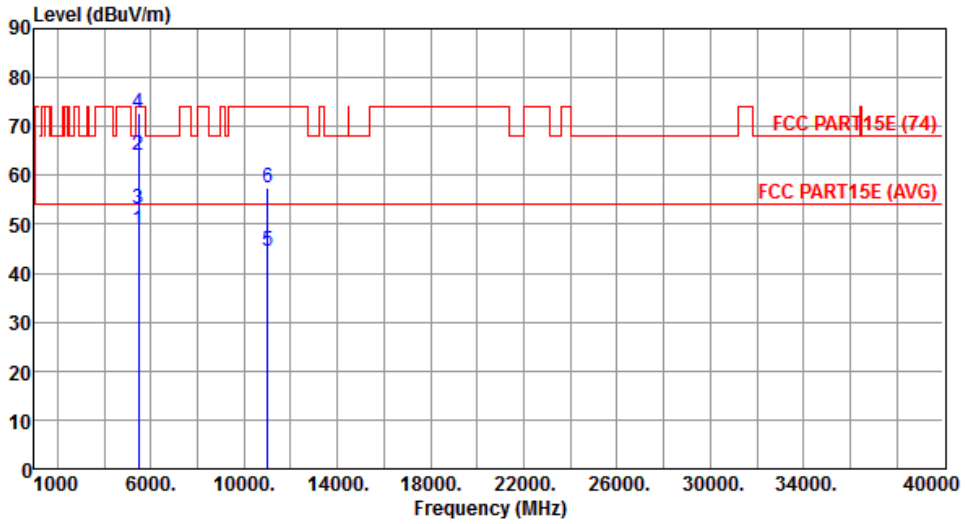
Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.86	54.00	-6.14	41.49	6.37	Average	220	214
2	5460.00	63.49	74.00	-10.51	57.12	6.37	Peak	220	214
3	5470.00	51.38	54.00	-2.62	45.00	6.38	Average	220	214
4	5470.00	71.08	74.00	-2.92	64.70	6.38	Peak	220	214
5	11020.00	44.16	54.00	-9.84	28.40	15.76	Average	195	185
6	11020.00	57.26	74.00	-16.74	41.50	15.76	Peak	195	185

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

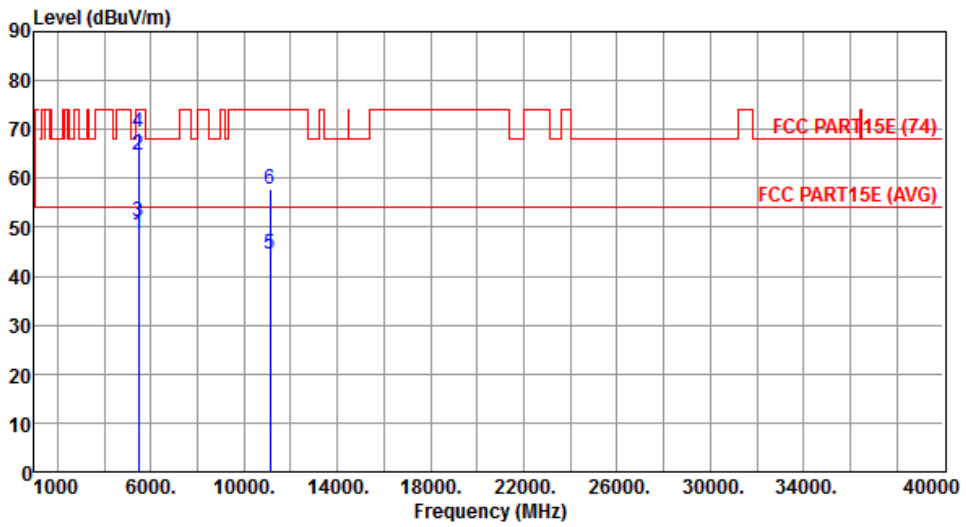
Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.95	54.00	-5.05	42.58	6.37	Average	135	315
2	5460.00	64.05	74.00	-9.95	57.68	6.37	Peak	135	315
3	5470.00	52.98	54.00	-1.02	46.60	6.38	Average	135	315
4	5470.00	72.62	74.00	-1.38	66.24	6.38	Peak	135	315
5	11020.00	44.61	54.00	-9.39	28.85	15.76	Average	220	155
6	11020.00	57.61	74.00	-16.39	41.85	15.76	Peak	220	155

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

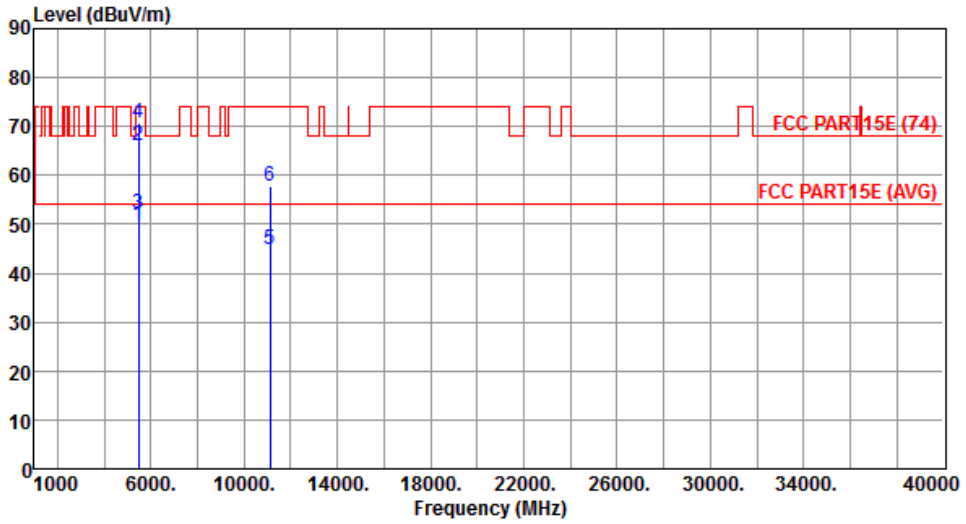
Modulation	VHT40	Test Freq. (MHz)	5550
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.55	54.00	-5.45	42.18	6.37	Average	222	232
2	5460.00	64.86	74.00	-9.14	58.49	6.37	Peak	222	232
3	5470.00	51.09	54.00	-2.91	44.71	6.38	Average	222	232
4	5470.00	69.25	74.00	-4.75	62.87	6.38	Peak	222	232
5	11100.00	44.65	54.00	-9.35	28.84	15.81	Average	321	165
6	11100.00	57.68	74.00	-16.32	41.87	15.81	Peak	321	165

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

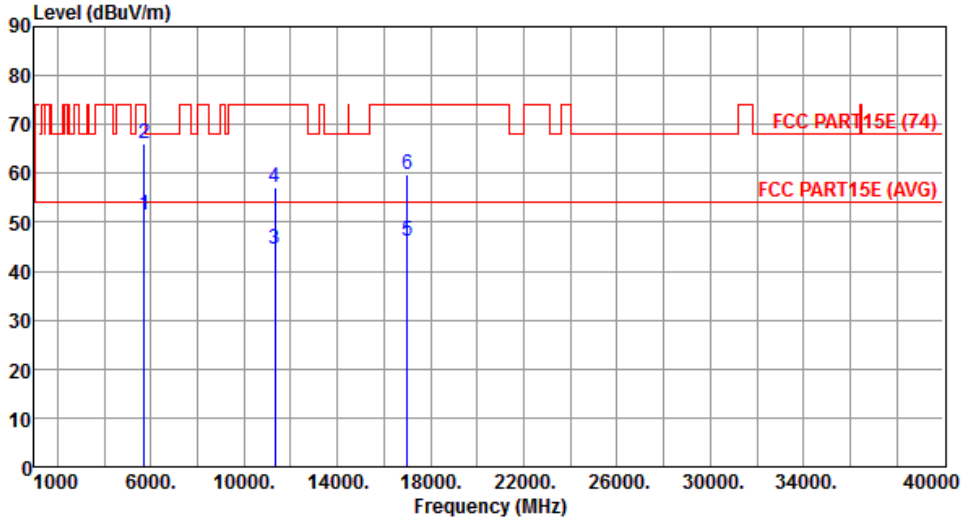
Modulation	VHT40	Test Freq. (MHz)	5550
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.70	54.00	-4.30	43.33	6.37	Average	135	315
2	5460.00	66.06	74.00	-7.94	59.69	6.37	Peak	135	315
3	5470.00	52.21	54.00	-1.79	45.83	6.38	Average	135	315
4	5470.00	70.63	74.00	-3.37	64.25	6.38	Peak	135	315
5	11100.00	44.73	54.00	-9.27	28.92	15.81	Average	222	199
6	11100.00	57.85	74.00	-16.15	42.04	15.81	Peak	222	199

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

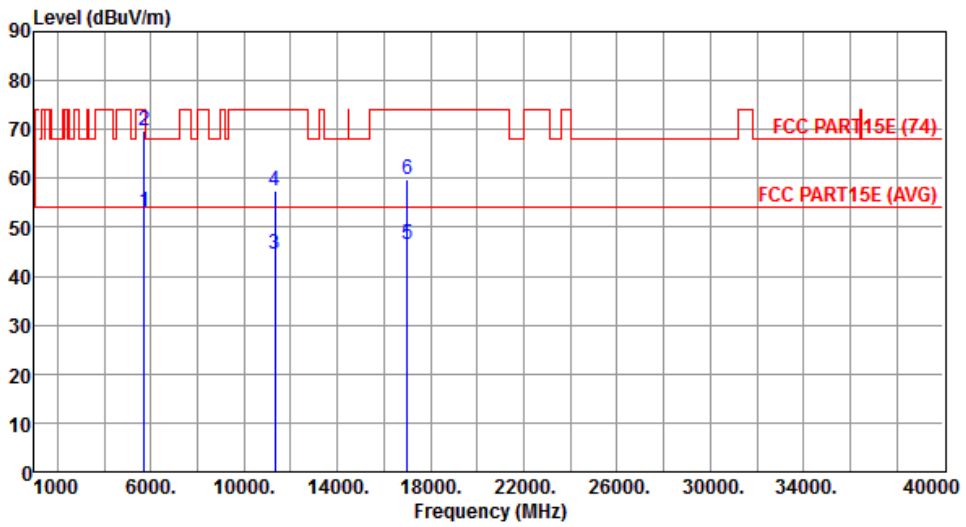
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	51.46	54.00	-2.54	44.62	6.84	Average	233	209
2	5725.00	66.24	74.00	-7.76	59.40	6.84	Peak	233	209
3	11340.00	44.59	54.00	-9.41	28.65	15.94	Average	220	315
4	11340.00	57.19	74.00	-16.81	41.25	15.94	Peak	220	315
5	17010.00	46.31	54.00	-7.69	28.67	17.64	Average	225	312
6	17010.00	59.61	74.00	-14.39	41.97	17.64	Peak	225	312

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

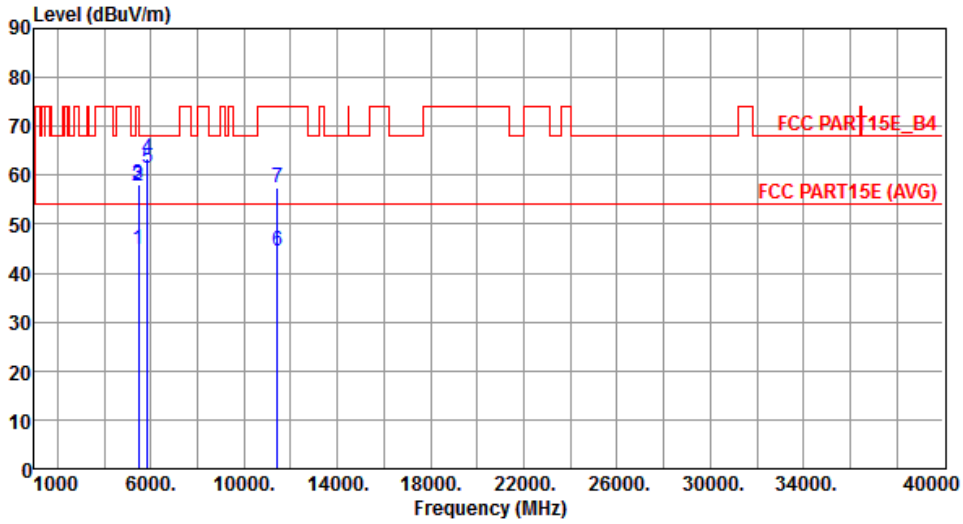
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	52.99	54.00	-1.01	46.15	6.84	Average	151	301
2	5725.00	69.74	74.00	-4.26	62.90	6.84	Peak	151	301
3	11340.00	44.59	54.00	-9.41	28.65	15.94	Average	222	160
4	11340.00	57.48	74.00	-16.52	41.54	15.94	Peak	222	160
5	17010.00	46.43	54.00	-7.57	28.79	17.64	Average	235	175
6	17010.00	59.72	74.00	-14.28	42.08	17.64	Peak	235	175

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

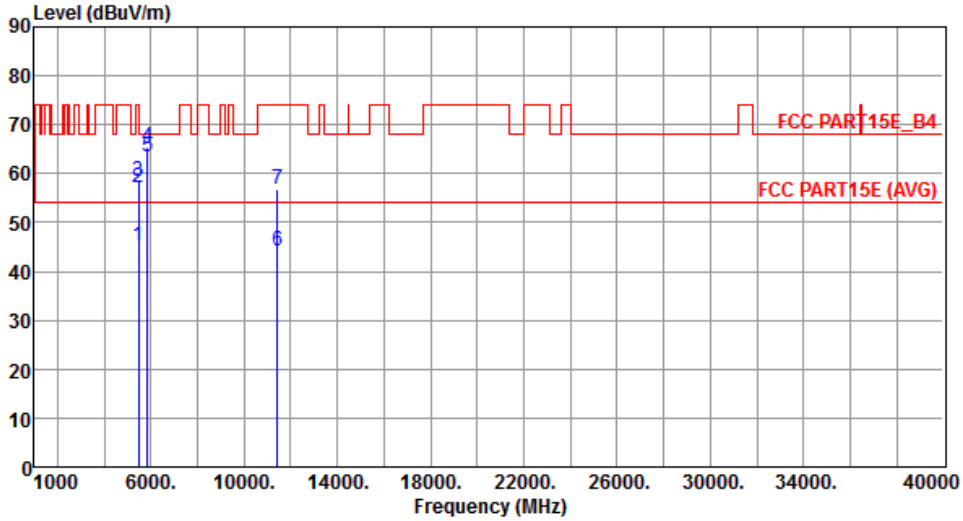
Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.89	54.00	-9.11	38.52	6.37	Average	220	211
2	5460.00	57.89	74.00	-16.11	51.52	6.37	Peak	220	211
3	5470.00	58.22	68.20	-9.98	51.84	6.38	Peak	220	211
4	5850.00	63.50	78.20	-14.70	56.33	7.17	Peak	215	109
5	5860.00	61.52	68.20	-6.68	54.34	7.18	Peak	215	109
6	11420.00	44.52	54.00	-9.48	28.53	15.99	Average	245	204
7	11420.00	57.46	74.00	-16.54	41.47	15.99	Peak	245	204

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

Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Vertical		

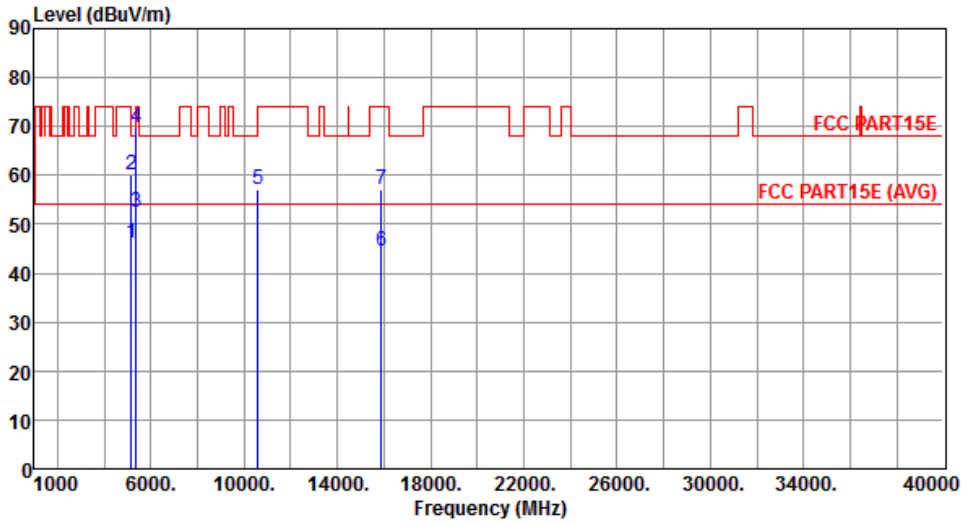


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.06	54.00	-8.94	38.69	6.37	Average	225	317
2	5460.00	57.28	74.00	-16.72	50.91	6.37	Peak	225	317
3	5470.00	58.34	68.20	-9.86	51.96	6.38	Peak	225	317
4	5850.00	65.53	78.20	-12.67	58.36	7.17	Peak	235	279
5	5860.00	63.45	68.20	-4.75	56.27	7.18	Peak	235	279
6	11420.00	44.30	54.00	-9.70	28.31	15.99	Average	118	223
7	11420.00	56.92	74.00	-17.08	40.93	15.99	Peak	118	223

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

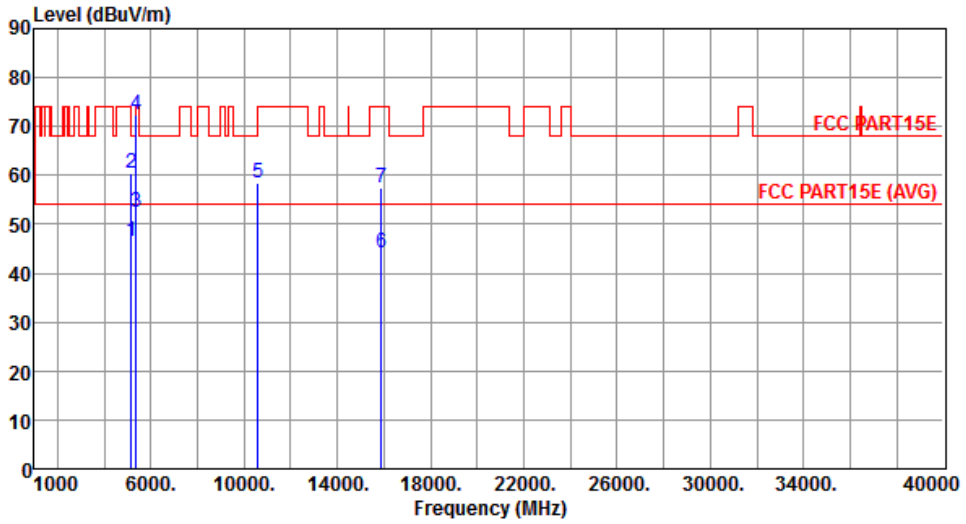
Modulation	VHT80	**Test Freq. (MHz)**	5290
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.25	54.00	-7.75	40.39	5.86	Average	210	211
2	5150.00	60.13	74.00	-13.87	54.27	5.86	Peak	210	211
3	5350.00	52.59	54.00	-1.41	46.38	6.21	Average	210	211
4	5350.00	69.73	74.00	-4.27	63.52	6.21	Peak	210	211
5	10580.00	57.07	68.20	-11.13	41.63	15.44	Peak	160	167
6	15870.00	44.34	54.00	-9.66	28.68	15.66	Average	154	316
7	15870.00	57.18	74.00	-16.82	41.52	15.66	Peak	154	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).

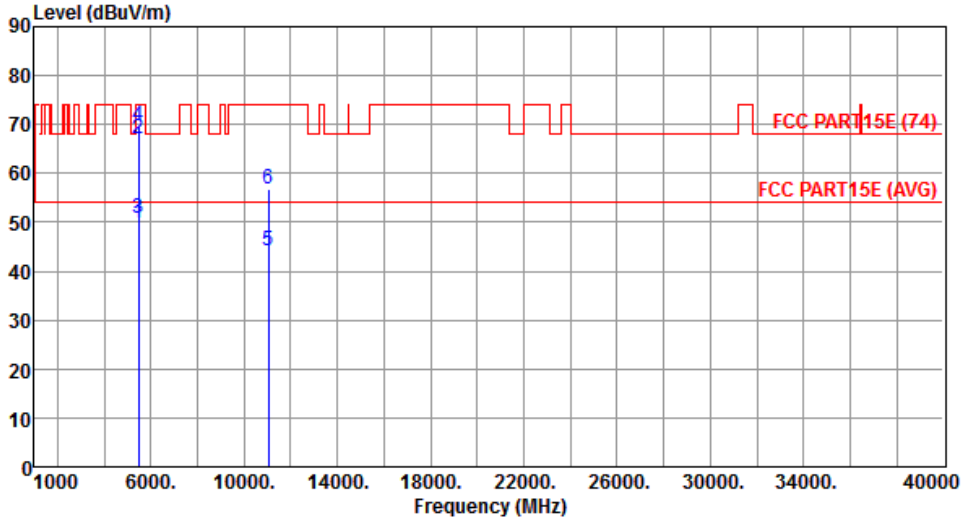
Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.49	54.00	-7.51	40.63	5.86	Average	130	324
2	5150.00	60.58	74.00	-13.42	54.72	5.86	Peak	130	324
3	5350.00	52.62	54.00	-1.38	46.41	6.21	Average	130	324
4	5350.00	72.43	74.00	-1.57	66.22	6.21	Peak	130	324
5	10580.00	58.31	68.20	-9.89	42.87	15.44	Peak	221	45
6	15870.00	44.30	54.00	-9.70	28.64	15.66	Average	120	20
7	15870.00	57.60	74.00	-16.40	41.94	15.66	Peak	120	20

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

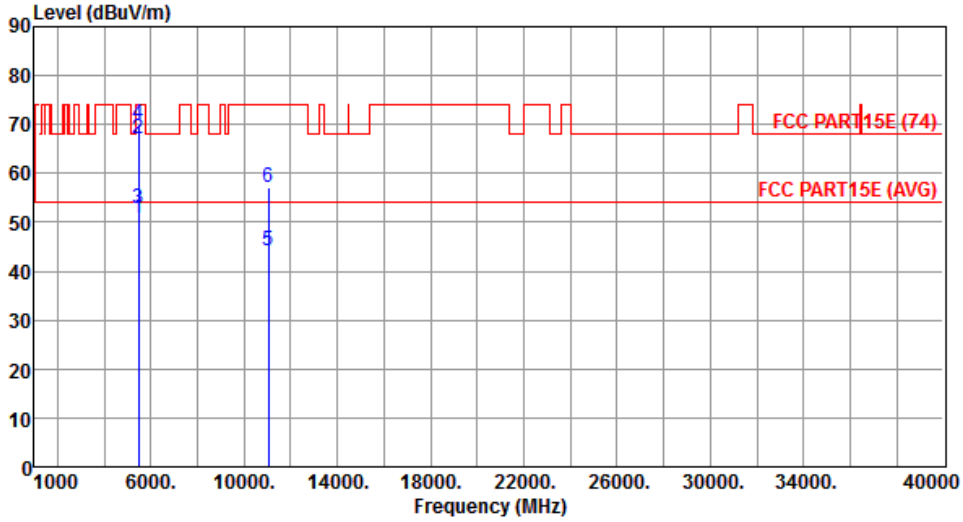
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.71	54.00	-4.29	43.34	6.37	Average	211	211
2	5460.00	67.09	74.00	-6.91	60.72	6.37	Peak	211	211
3	5470.00	50.75	54.00	-3.25	44.37	6.38	Average	211	211
4	5470.00	69.86	74.00	-4.14	63.48	6.38	Peak	211	211
5	11060.00	44.13	54.00	-9.87	28.35	15.78	Average	195	189
6	11060.00	56.74	74.00	-17.26	40.96	15.78	Peak	195	189

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

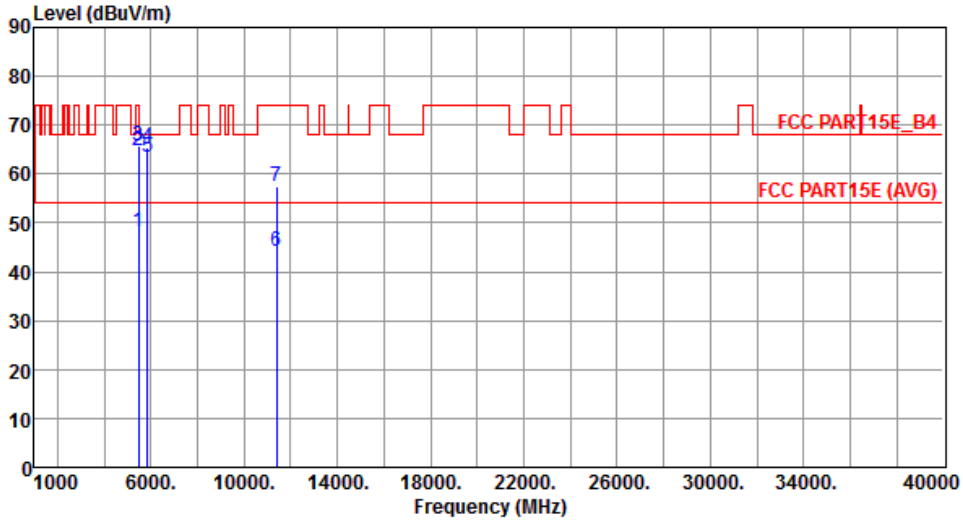
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	50.95	54.00	-3.05	44.58	6.37	Average	133	318
2	5460.00	67.14	74.00	-6.86	60.77	6.37	Peak	133	318
3	5470.00	52.66	54.00	-1.34	46.28	6.38	Average	133	318
4	5470.00	70.20	74.00	-3.80	63.82	6.38	Peak	133	318
5	11060.00	44.11	54.00	-9.89	28.33	15.78	Average	220	158
6	11060.00	57.14	74.00	-16.86	41.36	15.78	Peak	220	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).

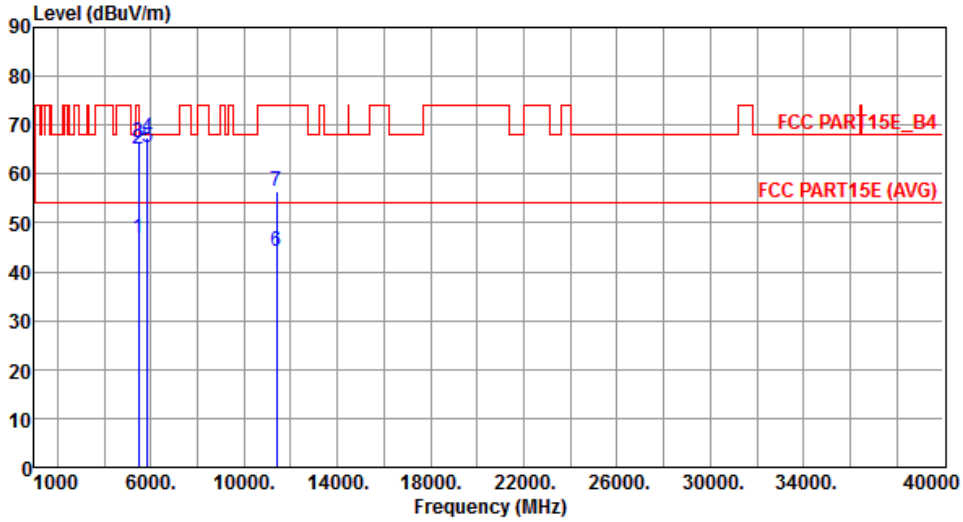
Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.17	54.00	-5.83	41.80	6.37	Average	214	213
2	5460.00	64.63	74.00	-9.37	58.26	6.37	Peak	214	213
3	5470.00	65.66	68.20	-2.54	59.28	6.38	Peak	214	213
4	5850.00	65.53	78.20	-12.67	58.36	7.17	Peak	203	125
5	5860.00	63.55	68.20	-4.65	56.37	7.18	Peak	203	125
6	11380.00	44.01	54.00	-9.99	28.05	15.96	Average	239	216
7	11380.00	57.49	74.00	-16.51	41.53	15.96	Peak	239	216

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

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Vertical		



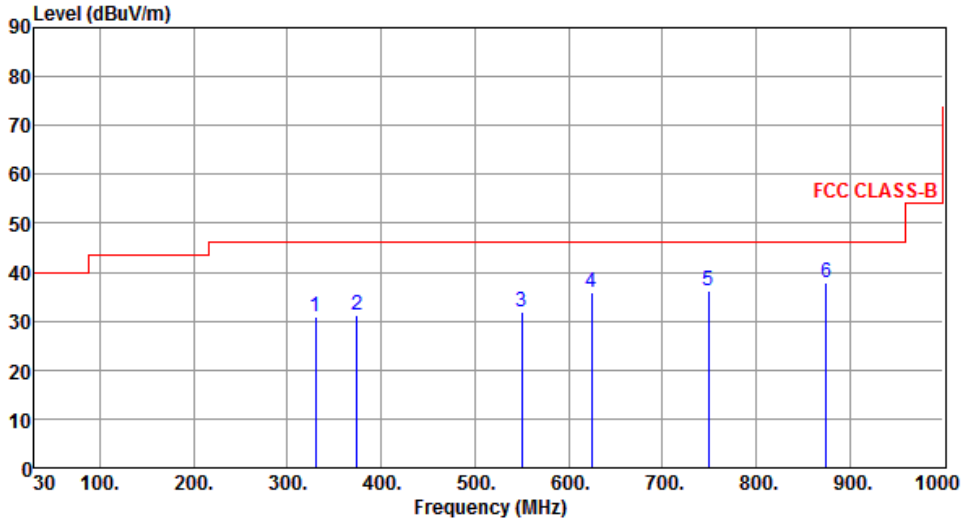
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.71	54.00	-7.29	40.34	6.37	Average	216	323
2	5460.00	65.07	74.00	-8.93	58.70	6.37	Peak	216	323
3	5470.00	66.34	68.20	-1.86	59.96	6.38	Peak	216	323
4	5850.00	67.30	78.20	-10.90	60.13	7.17	Peak	248	290
5	5860.00	65.49	68.20	-2.71	58.31	7.18	Peak	248	290
6	11380.00	44.31	54.00	-9.69	28.35	15.96	Average	120	215
7	11380.00	56.35	74.00	-17.65	40.39	15.96	Peak	120	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).

Beamforming mode

3.5.9 Transmitter Radiated Unwanted Emissions (Below 1GHz)

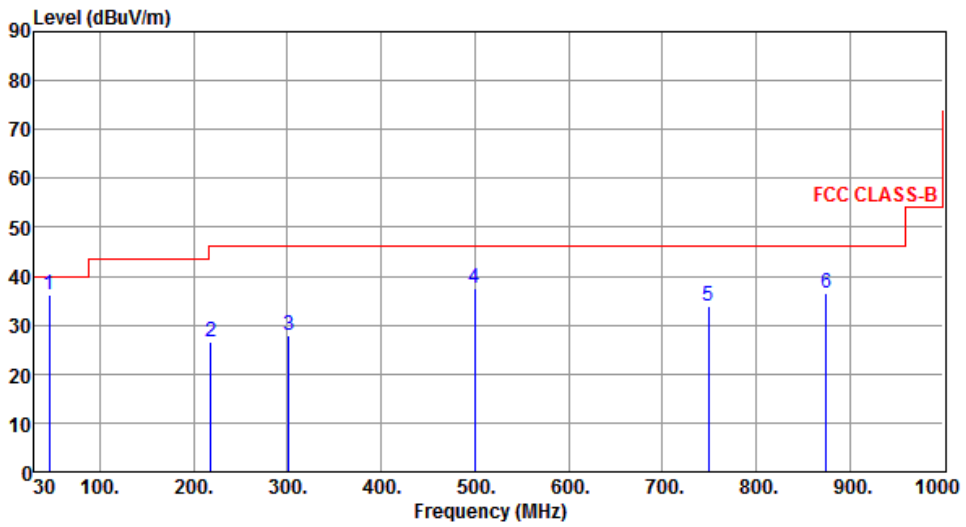
Modulation	VHT40	**Test Freq. (MHz)**	5270
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	329.73	30.88	46.00	-15.12	37.80	-6.92	Peak	---	---
2	374.35	31.22	46.00	-14.78	36.91	-5.69	Peak	---	---
3	549.92	31.77	46.00	-14.23	33.77	-2.00	Peak	---	---
4	624.61	35.97	46.00	-10.03	36.39	-0.42	Peak	---	---
5	749.74	36.36	46.00	-9.64	34.49	1.87	Peak	---	---
6	874.87	37.92	46.00	-8.08	34.08	3.84	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)	5270
Polarization	Vertical		

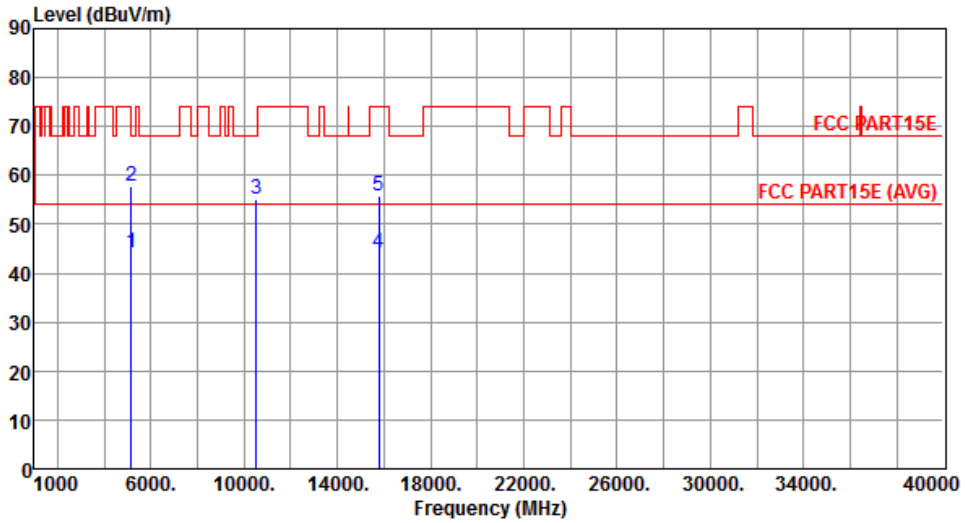


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	45.52	36.07	40.00	-3.93	43.98	-7.91	QP	100	289
2	218.18	26.54	46.00	-19.46	37.33	-10.79	Peak	---	---
3	301.60	27.86	46.00	-18.14	35.55	-7.69	Peak	---	---
4	499.48	37.60	46.00	-8.40	40.51	-2.91	Peak	---	---
5	749.74	33.76	46.00	-12.24	31.89	1.87	Peak	---	---
6	874.87	36.60	46.00	-9.40	32.76	3.84	Peak	---	---

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

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

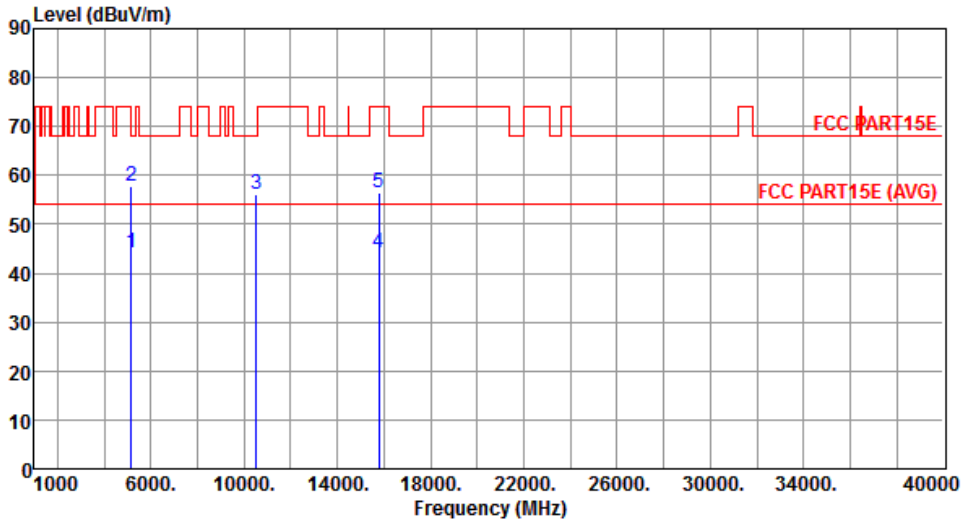
Modulation	VHT20	**Test Freq. (MHz)**	5260
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.15	54.00	-9.85	38.29	5.86	Average	249	219
2	5150.00	57.63	74.00	-16.37	51.77	5.86	Peak	249	219
3	10520.00	54.98	68.20	-13.22	39.57	15.41	Peak	222	153
4	15780.00	44.11	54.00	-9.89	28.34	15.77	Average	198	166
5	15780.00	55.96	74.00	-18.04	40.19	15.77	Peak	198	166

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

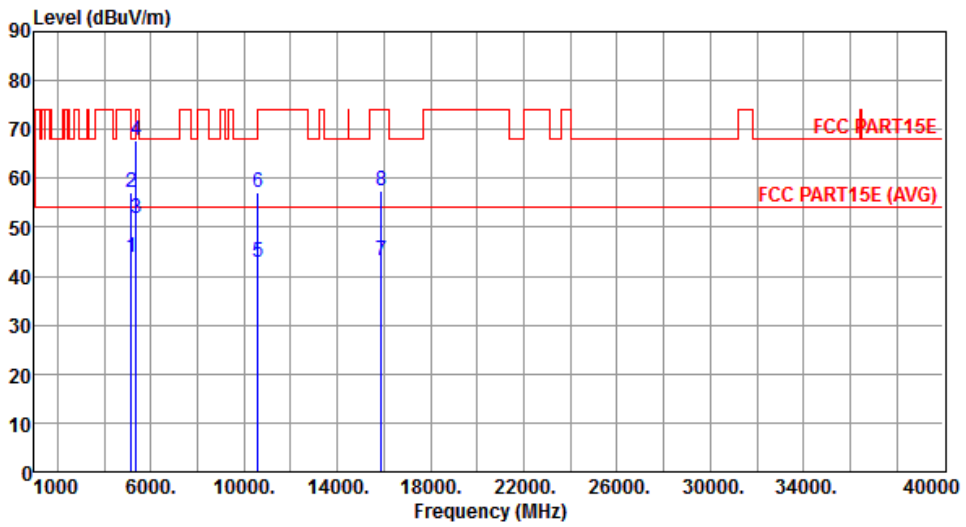
Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.24	54.00	-9.76	38.38	5.86	Average	100	324
2	5150.00	57.85	74.00	-16.15	51.99	5.86	Peak	100	324
3	10520.00	56.08	68.20	-12.12	40.67	15.41	Peak	199	222
4	15780.00	44.24	54.00	-9.76	28.47	15.77	Average	166	251
5	15780.00	56.36	74.00	-17.64	40.59	15.77	Peak	166	251

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

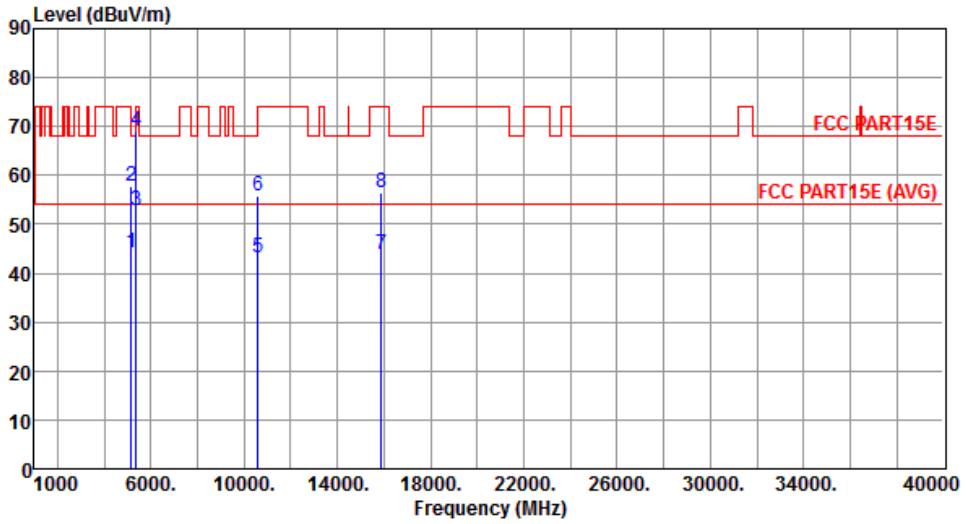
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	43.95	54.00	-10.05	38.09	5.86	Average	230	208
2	5150.00	57.25	74.00	-16.75	51.39	5.86	Peak	230	208
3	5350.00	51.76	54.00	-2.24	45.55	6.21	Average	230	208
4	5350.00	67.71	74.00	-6.29	61.50	6.21	Peak	230	208
5	10600.00	42.99	54.00	-11.01	27.53	15.46	Average	221	198
6	10600.00	56.99	74.00	-17.01	41.53	15.46	Peak	221	198
7	15900.00	43.30	54.00	-10.70	27.69	15.61	Average	166	243
8	15900.00	57.40	74.00	-16.60	41.79	15.61	Peak	166	243

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

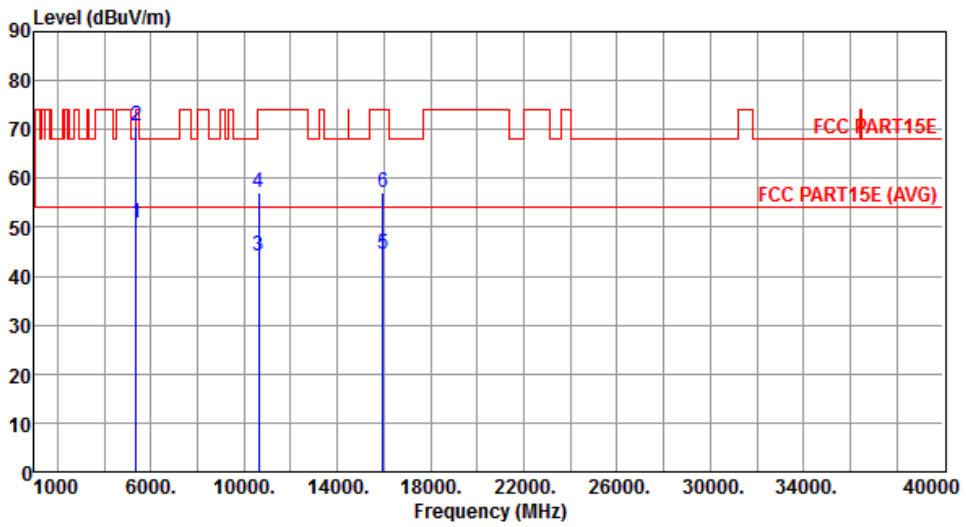
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.18	54.00	-9.82	38.32	5.86	Average	100	336
2	5150.00	57.89	74.00	-16.11	52.03	5.86	Peak	100	336
3	5350.00	52.80	54.00	-1.20	46.59	6.21	Average	100	336
4	5350.00	69.18	74.00	-4.82	62.97	6.21	Peak	100	336
5	10600.00	43.32	54.00	-10.68	27.86	15.46	Average	199	226
6	10600.00	55.80	74.00	-18.20	40.34	15.46	Peak	199	226
7	15900.00	43.71	54.00	-10.29	28.10	15.61	Average	222	116
8	15900.00	56.40	74.00	-17.60	40.79	15.61	Peak	222	116

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

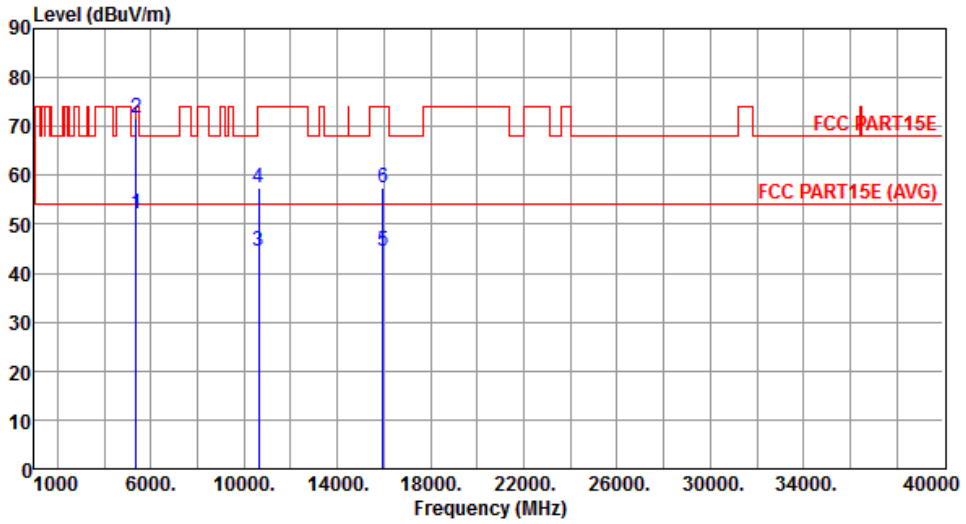
Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	50.97	54.00	-3.03	44.76	6.21	Average	229	217
2	5350.00	70.61	74.00	-3.39	64.40	6.21	Peak	229	217
3	10640.00	44.04	54.00	-9.96	28.55	15.49	Average	216	138
4	10640.00	57.24	74.00	-16.76	41.75	15.49	Peak	216	138
5	15960.00	44.37	54.00	-9.63	28.83	15.54	Average	216	138
6	15960.00	57.23	74.00	-16.77	41.69	15.54	Peak	216	138

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

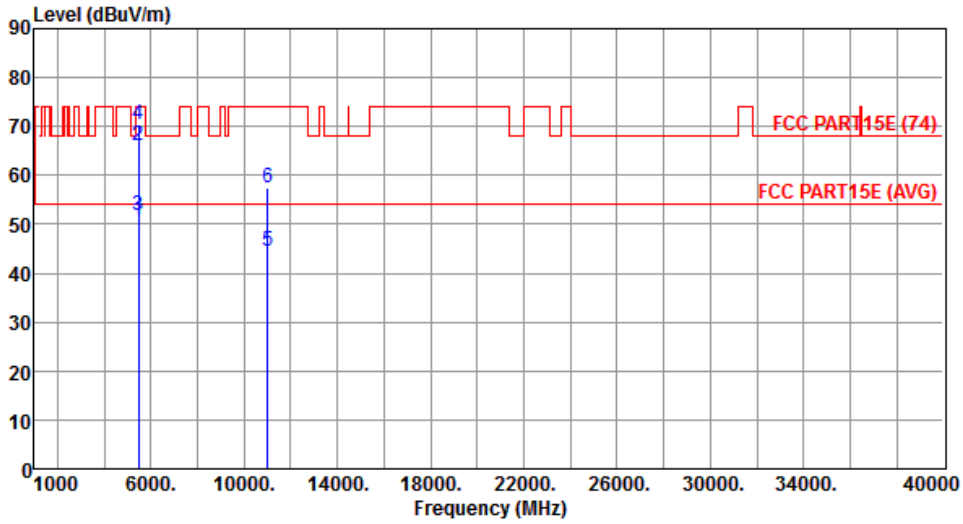
Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.05	54.00	-1.95	45.84	6.21	Average	100	316
2	5350.00	71.81	74.00	-2.19	65.60	6.21	Peak	100	316
3	10640.00	44.37	54.00	-9.63	28.88	15.49	Average	221	69
4	10640.00	57.35	74.00	-16.65	41.86	15.49	Peak	221	69
5	15960.00	44.58	54.00	-9.42	29.04	15.54	Average	299	178
6	15960.00	57.51	74.00	-16.49	41.97	15.54	Peak	299	178

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

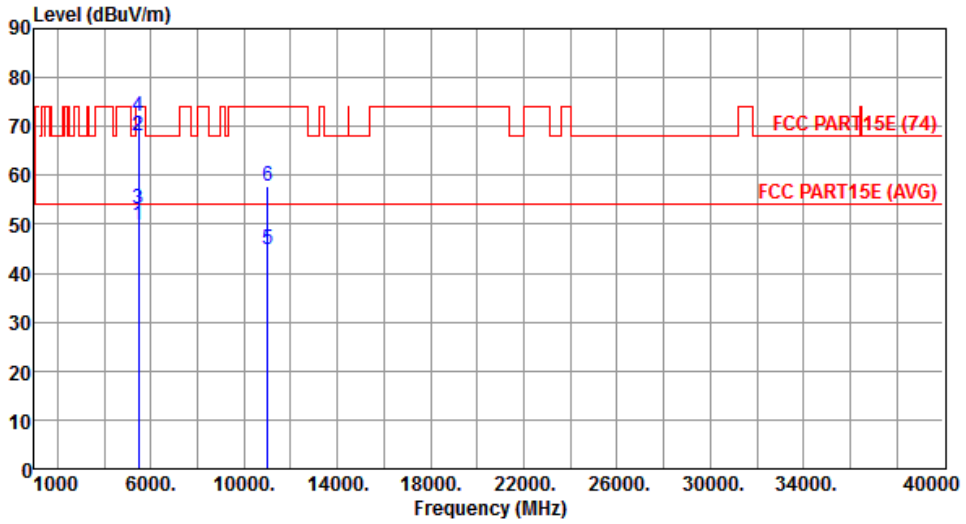
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	50.66	54.00	-3.34	44.29	6.37	Average	212	208
2	5460.00	66.05	74.00	-7.95	59.68	6.37	Peak	212	208
3	5470.00	51.67	54.00	-2.33	45.29	6.38	Average	212	208
4	5470.00	70.32	74.00	-3.68	63.94	6.38	Peak	212	208
5	11000.00	44.39	54.00	-9.61	28.64	15.75	Average	216	143
6	11000.00	57.46	74.00	-16.54	41.71	15.75	Peak	216	143

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

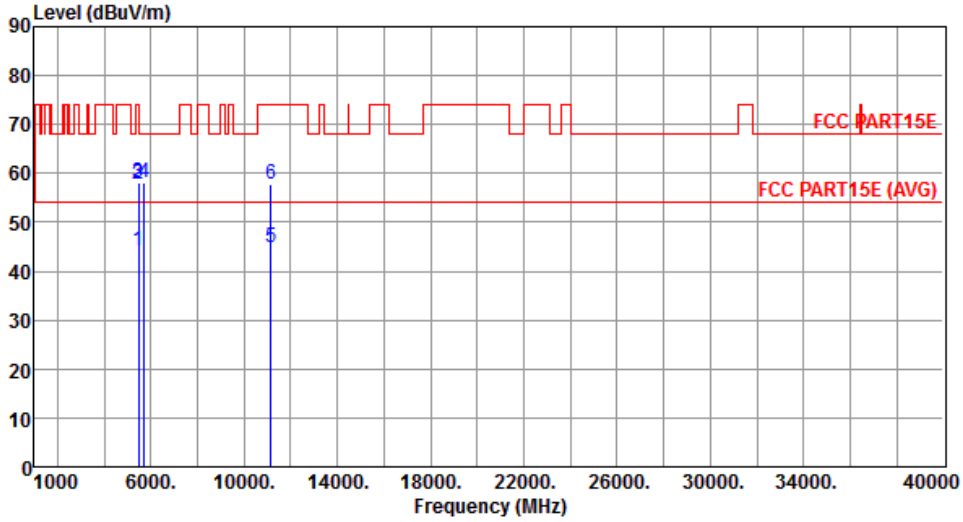
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.79	54.00	-4.21	43.42	6.37	Average	100	314
2	5460.00	67.96	74.00	-6.04	61.59	6.37	Peak	100	314
3	5470.00	52.98	54.00	-1.02	46.60	6.38	Average	100	314
4	5470.00	72.11	74.00	-1.89	65.73	6.38	Peak	100	314
5	11000.00	44.89	54.00	-9.11	29.14	15.75	Average	215	224
6	11000.00	57.82	74.00	-16.18	42.07	15.75	Peak	215	224

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

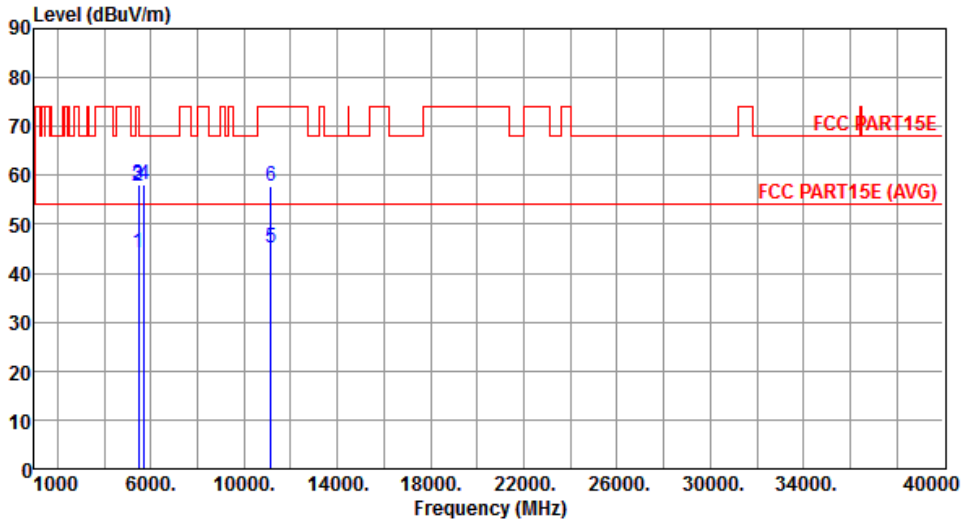
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.23	54.00	-9.77	37.86	6.37	Average	212	217
2	5460.00	57.66	74.00	-16.34	51.29	6.37	Peak	212	217
3	5470.00	58.03	68.20	-10.17	51.65	6.38	Peak	212	217
4	5725.00	58.18	68.20	-10.02	51.34	6.84	Peak	212	217
5	11160.00	44.68	54.00	-9.32	28.84	15.84	Average	166	143
6	11160.00	57.63	74.00	-16.37	41.79	15.84	Peak	166	143

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

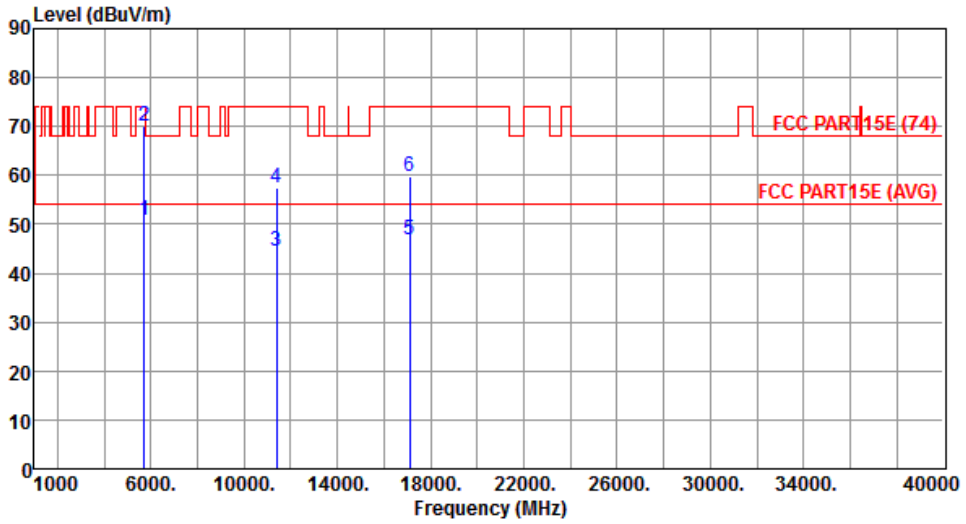
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.33	54.00	-9.67	37.96	6.37	Average	100	308
2	5460.00	57.72	74.00	-16.28	51.35	6.37	Peak	100	308
3	5470.00	58.17	68.20	-10.03	51.79	6.38	Peak	100	308
4	5725.00	58.20	68.20	-10.00	51.36	6.84	Peak	100	308
5	11160.00	45.01	54.00	-8.99	29.17	15.84	Average	221	183
6	11160.00	57.82	74.00	-16.18	41.98	15.84	Peak	221	183

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

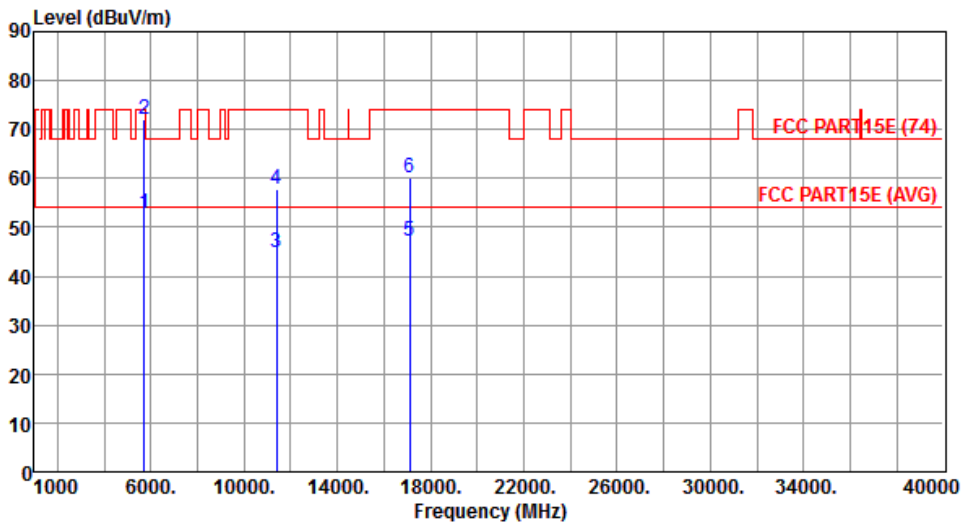
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	50.78	54.00	-3.22	43.94	6.84	Average	202	214
2	5725.00	70.03	74.00	-3.97	63.19	6.84	Peak	202	214
3	11400.00	44.62	54.00	-9.38	28.65	15.97	Average	321	143
4	11400.00	57.51	74.00	-16.49	41.54	15.97	Peak	321	143
5	17100.00	46.83	54.00	-7.17	28.87	17.96	Average	288	69
6	17100.00	59.65	74.00	-14.35	41.69	17.96	Peak	288	69

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

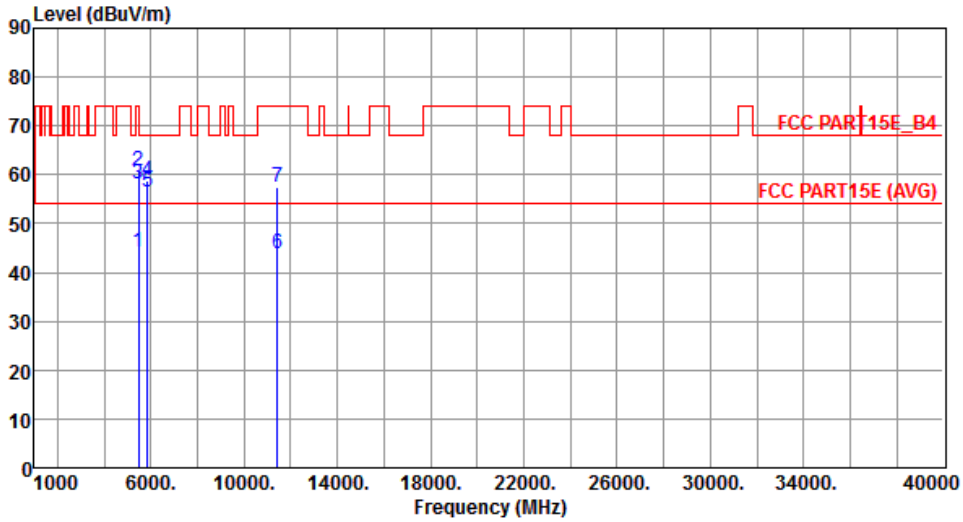
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	52.72	54.00	-1.28	45.88	6.84	Average	100	305
2	5725.00	72.13	74.00	-1.87	65.29	6.84	Peak	100	305
3	11400.00	44.80	54.00	-9.20	28.83	15.97	Average	211	187
4	11400.00	57.93	74.00	-16.07	41.96	15.97	Peak	211	187
5	17100.00	47.07	54.00	-6.93	29.11	17.96	Average	298	33
6	17100.00	60.10	74.00	-13.90	42.14	17.96	Peak	298	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).

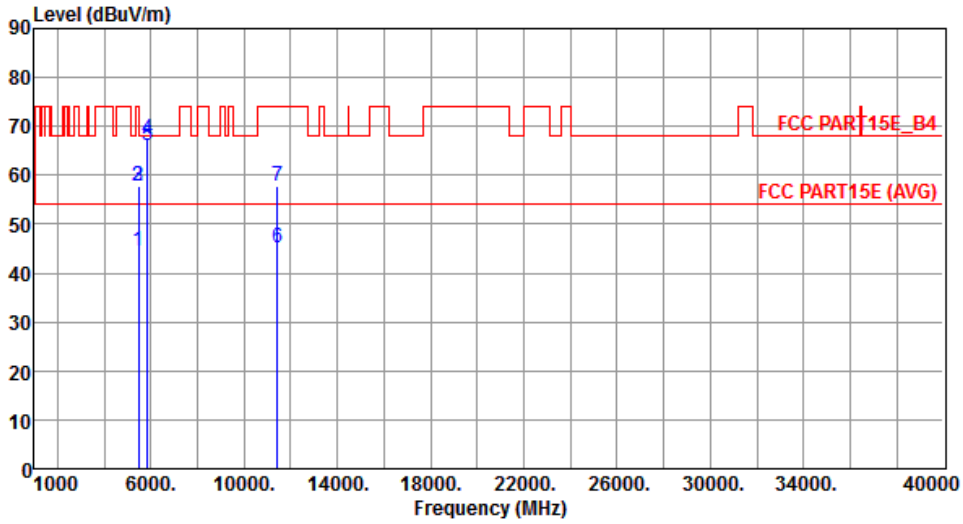
Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.21	54.00	-9.79	37.84	6.37	Average	208	213
2	5460.00	60.69	74.00	-13.31	54.32	6.37	Peak	208	213
3	5470.00	58.04	68.20	-10.16	51.66	6.38	Peak	208	213
4	5850.00	58.67	78.20	-19.53	51.50	7.17	Peak	209	167
5	5860.00	56.39	68.20	-11.81	49.21	7.18	Peak	209	167
6	11440.00	43.84	54.00	-10.16	27.84	16.00	Average	216	321
7	11440.00	57.61	74.00	-16.39	41.61	16.00	Peak	216	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	VHT20	Test Freq. (MHz)	5720
Polarization	Vertical		

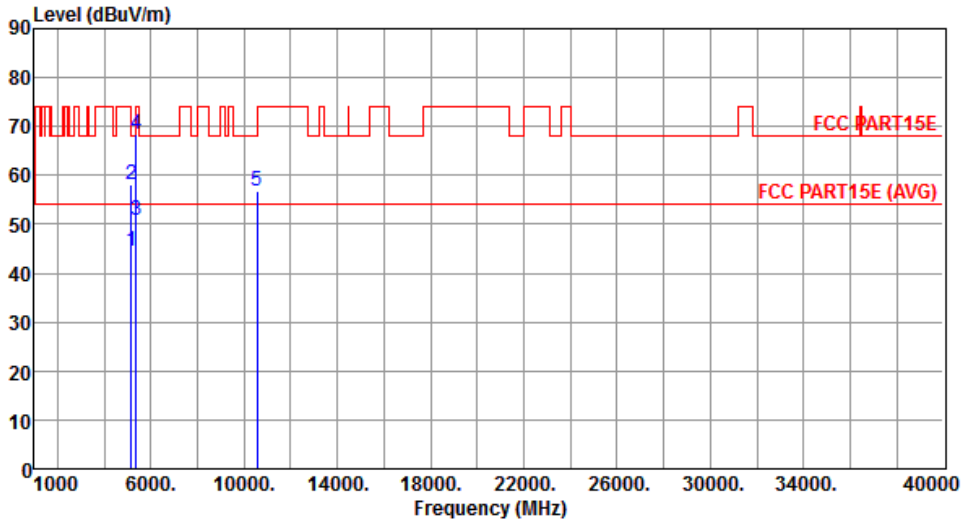


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.36	54.00	-9.64	37.99	6.37	Average	100	306
2	5460.00	57.66	74.00	-16.34	51.29	6.37	Peak	100	306
3	5470.00	57.71	68.20	-10.49	51.33	6.38	Peak	100	306
4	5850.00	67.36	78.20	-10.84	60.19	7.17	Peak	232	319
5	5860.00	65.98	68.20	-2.22	58.80	7.18	Peak	232	319
6	11440.00	45.16	54.00	-8.84	29.16	16.00	Average	222	147
7	11440.00	57.92	74.00	-16.08	41.92	16.00	Peak	222	147

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

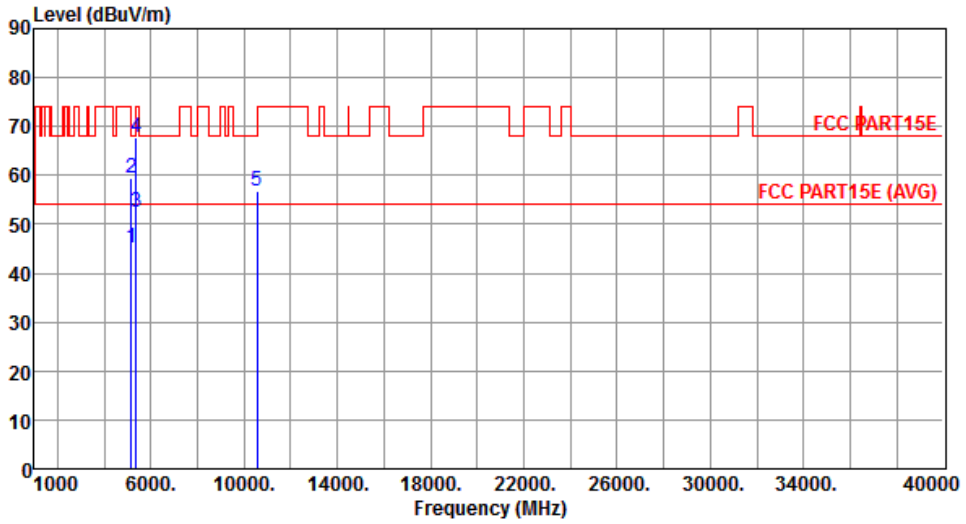
Modulation	VHT40	**Test Freq. (MHz)**	5270
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.59	54.00	-9.41	38.73	5.86	Average	214	213
2	5150.00	58.11	74.00	-15.89	52.25	5.86	Peak	214	213
3	5350.00	50.75	54.00	-3.25	44.54	6.21	Average	214	213
4	5350.00	68.41	74.00	-5.59	62.20	6.21	Peak	214	213
5	10540.00	56.75	68.20	-11.45	41.33	15.42	Peak	222	198

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

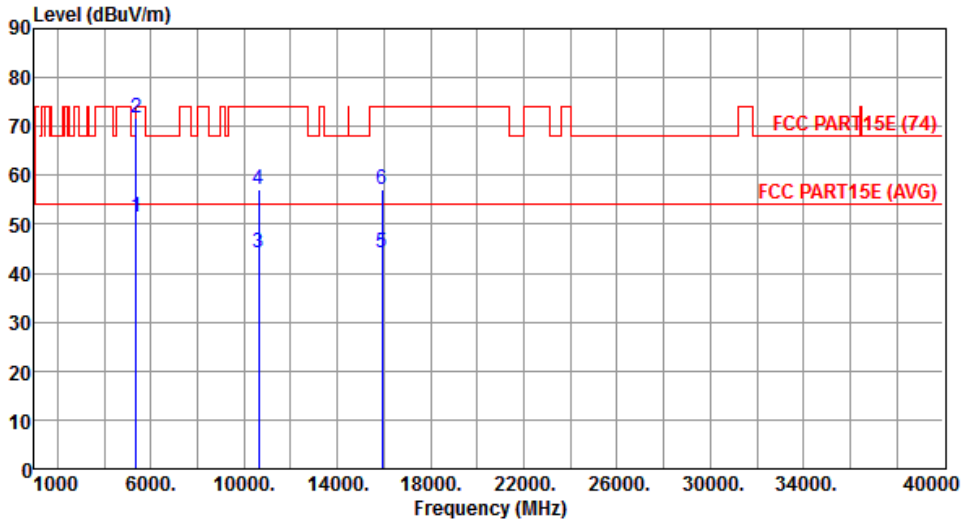
Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.19	54.00	-8.81	39.33	5.86	Average	100	327
2	5150.00	59.52	74.00	-14.48	53.66	5.86	Peak	100	327
3	5350.00	52.33	54.00	-1.67	46.12	6.21	Average	100	327
4	5350.00	67.88	74.00	-6.12	61.67	6.21	Peak	100	327
5	10540.00	56.95	68.20	-11.25	41.53	15.42	Peak	211	134

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

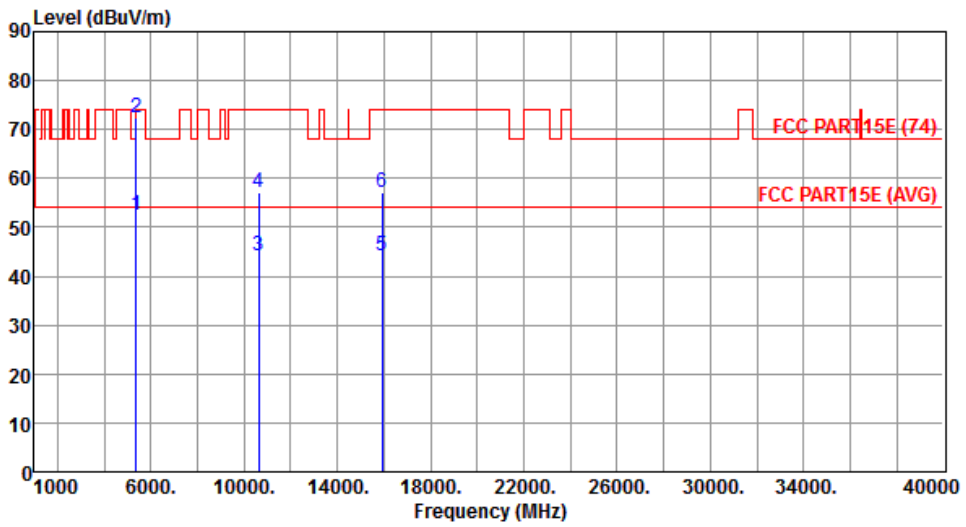
Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	51.51	54.00	-2.49	45.30	6.21	Average	232	213
2	5350.00	71.71	74.00	-2.29	65.50	6.21	Peak	232	213
3	10620.00	44.05	54.00	-9.95	28.57	15.48	Average	321	123
4	10620.00	57.04	74.00	-16.96	41.56	15.48	Peak	321	123
5	15930.00	44.24	54.00	-9.76	28.66	15.58	Average	222	198
6	15930.00	57.16	74.00	-16.84	41.58	15.58	Peak	222	198

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

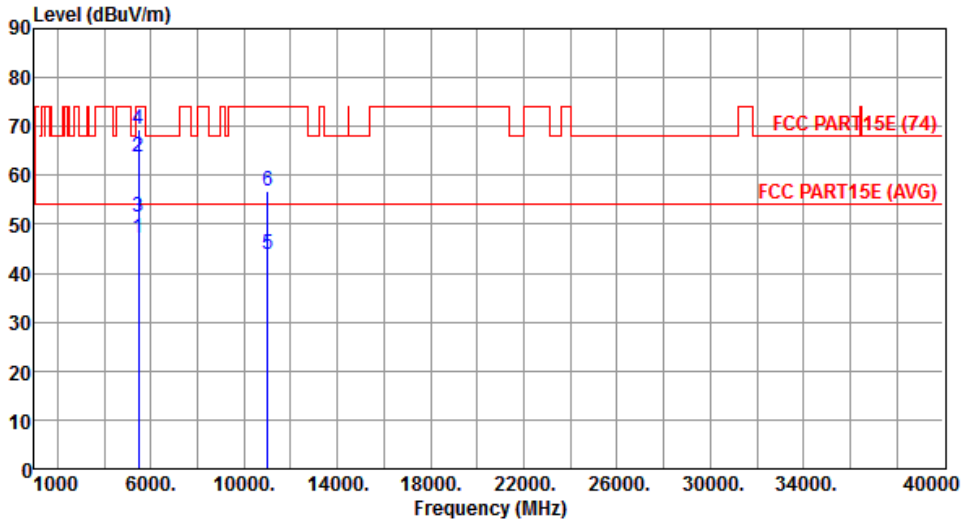
Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.54	54.00	-1.46	46.33	6.21	Average	100	320
2	5350.00	72.41	74.00	-1.59	66.20	6.21	Peak	100	320
3	10620.00	44.13	54.00	-9.87	28.65	15.48	Average	211	333
4	10620.00	57.04	74.00	-16.96	41.56	15.48	Peak	211	333
5	15930.00	44.25	54.00	-9.75	28.67	15.58	Average	199	64
6	15930.00	57.27	74.00	-16.73	41.69	15.58	Peak	199	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).

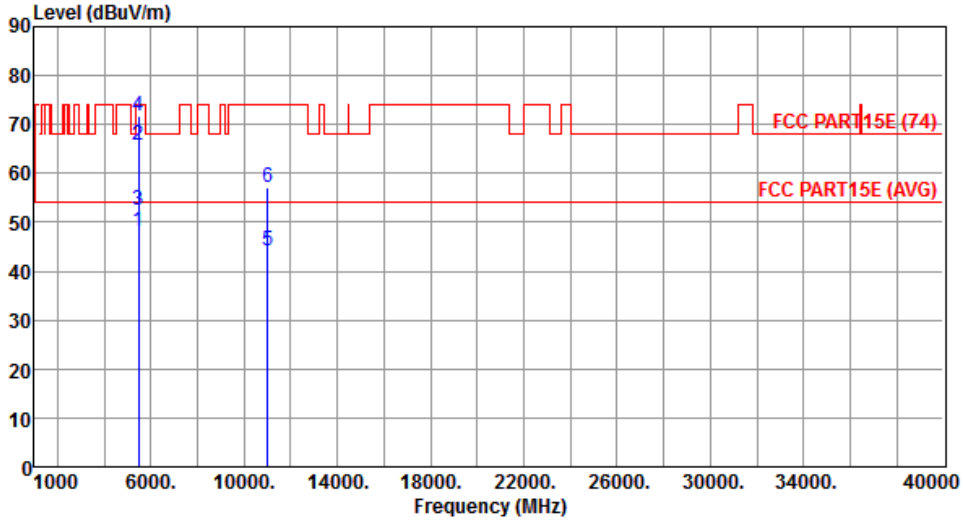
Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.30	54.00	-6.70	40.93	6.37	Average	216	214
2	5460.00	63.66	74.00	-10.34	57.29	6.37	Peak	216	214
3	5470.00	51.35	54.00	-2.65	44.97	6.38	Average	216	214
4	5470.00	69.57	74.00	-4.43	63.19	6.38	Peak	216	214
5	11020.00	43.87	54.00	-10.13	28.11	15.76	Average	199	321
6	11020.00	56.94	74.00	-17.06	41.18	15.76	Peak	199	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).

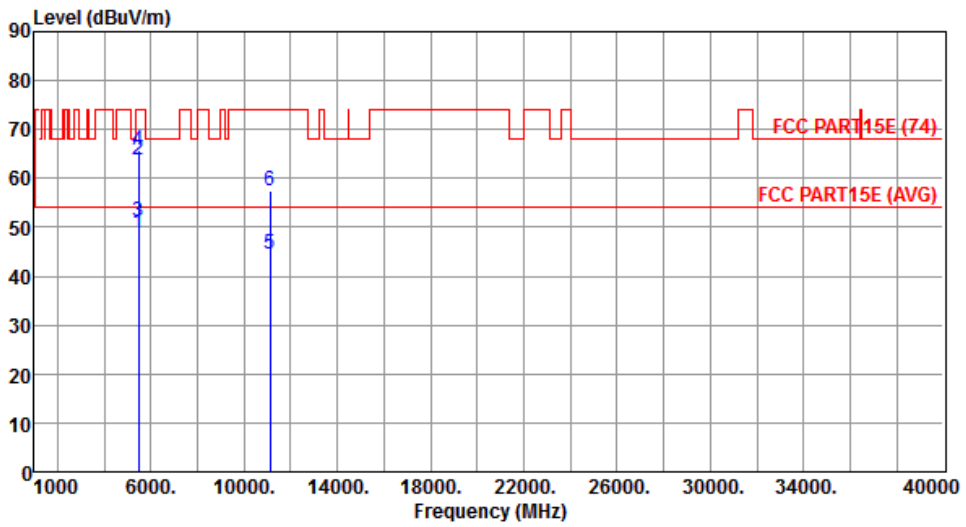
Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.10	54.00	-5.90	41.73	6.37	Average	100	312
2	5460.00	65.60	74.00	-8.40	59.23	6.37	Peak	100	312
3	5470.00	52.61	54.00	-1.39	46.23	6.38	Average	100	312
4	5470.00	71.90	74.00	-2.10	65.52	6.38	Peak	100	312
5	11020.00	44.13	54.00	-9.87	28.37	15.76	Average	188	221
6	11020.00	57.11	74.00	-16.89	41.35	15.76	Peak	188	221

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

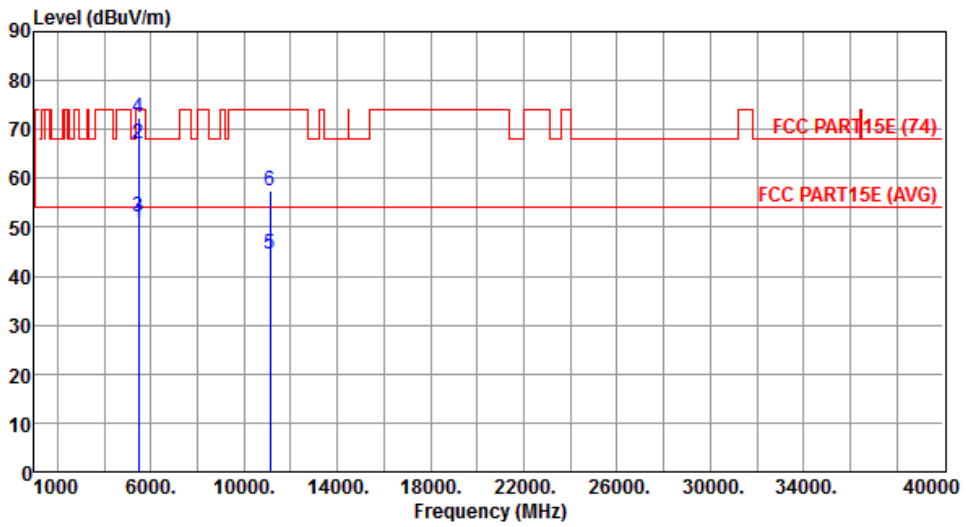
Modulation	VHT40	Test Freq. (MHz)	5550
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.70	54.00	-5.30	42.33	6.37	Average	213	212
2	5460.00	63.76	74.00	-10.24	57.39	6.37	Peak	213	212
3	5470.00	51.17	54.00	-2.83	44.79	6.38	Average	213	212
4	5470.00	65.73	74.00	-8.27	59.35	6.38	Peak	213	212
5	11100.00	44.47	54.00	-9.53	28.66	15.81	Average	211	144
6	11100.00	57.30	74.00	-16.70	41.49	15.81	Peak	211	144

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

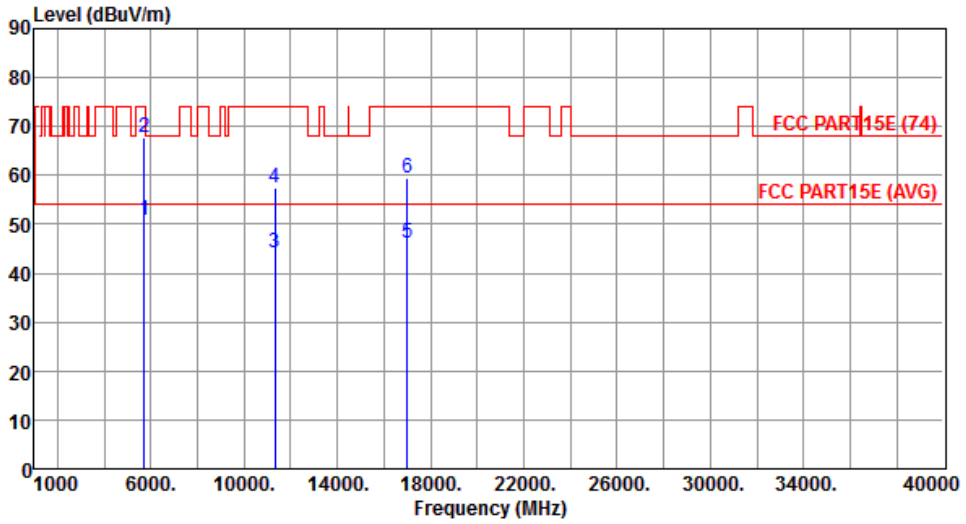
Modulation	VHT40	Test Freq. (MHz)	5550
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	50.90	54.00	-3.10	44.53	6.37	Average	100	313
2	5460.00	66.96	74.00	-7.04	60.59	6.37	Peak	100	313
3	5470.00	52.21	54.00	-1.79	45.83	6.38	Average	100	313
4	5470.00	72.37	74.00	-1.63	65.99	6.38	Peak	100	313
5	11100.00	44.64	54.00	-9.36	28.83	15.81	Average	166	11
6	11100.00	57.50	74.00	-16.50	41.69	15.81	Peak	166	11

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

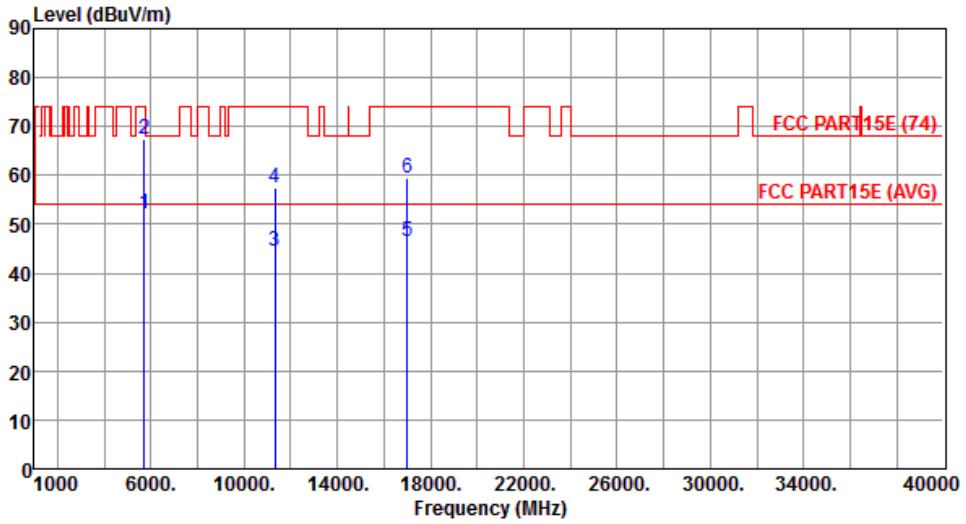
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	50.83	54.00	-3.17	43.99	6.84	Average	211	214
2	5725.00	67.90	74.00	-6.10	61.06	6.84	Peak	211	214
3	11340.00	44.29	54.00	-9.71	28.35	15.94	Average	111	166
4	11340.00	57.53	74.00	-16.47	41.59	15.94	Peak	111	166
5	17010.00	46.29	54.00	-7.71	28.65	17.64	Average	222	214
6	17010.00	59.42	74.00	-14.58	41.78	17.64	Peak	222	214

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

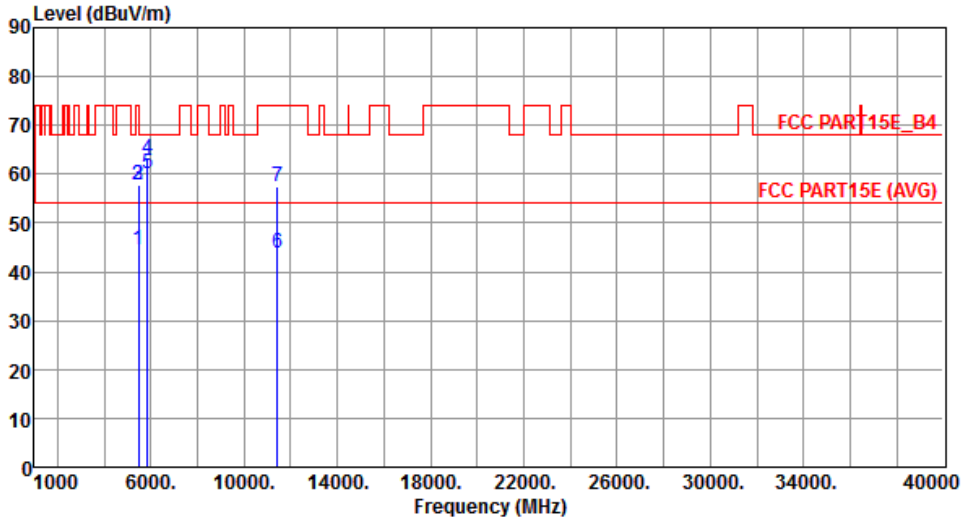
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	52.17	54.00	-1.83	45.33	6.84	Average	100	307
2	5725.00	67.57	74.00	-6.43	60.73	6.84	Peak	100	307
3	11340.00	44.46	54.00	-9.54	28.52	15.94	Average	212	343
4	11340.00	57.61	74.00	-16.39	41.67	15.94	Peak	212	343
5	17010.00	46.42	54.00	-7.58	28.78	17.64	Average	333	29
6	17010.00	59.53	74.00	-14.47	41.89	17.64	Peak	333	29

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

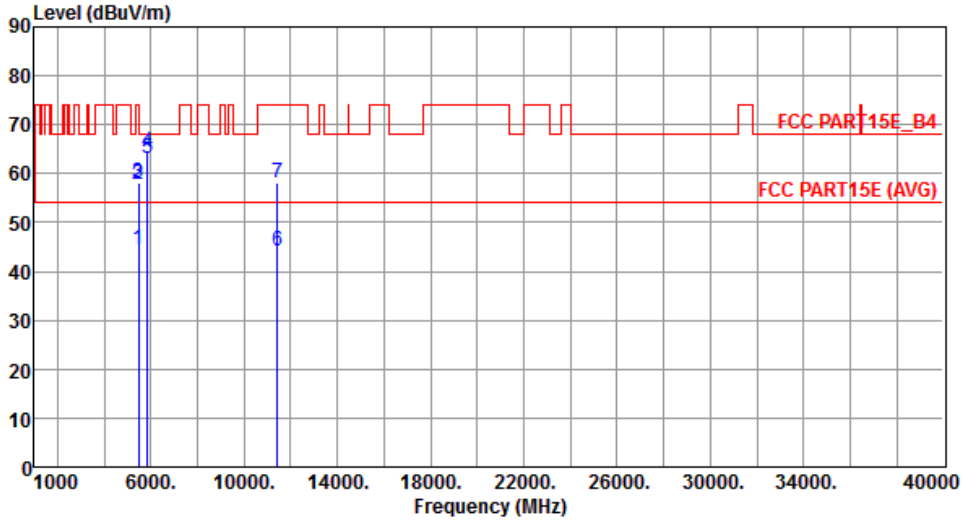
Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.43	54.00	-9.57	38.06	6.37	Average	208	213
2	5460.00	57.86	74.00	-16.14	51.49	6.37	Peak	208	213
3	5470.00	57.93	68.20	-10.27	51.55	6.38	Peak	208	213
4	5850.00	62.98	78.20	-15.22	55.81	7.17	Peak	235	157
5	5860.00	60.19	68.20	-8.01	53.01	7.18	Peak	235	157
6	11420.00	44.00	54.00	-10.00	28.01	15.99	Average	311	43
7	11420.00	57.59	74.00	-16.41	41.60	15.99	Peak	311	43

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

Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Vertical		

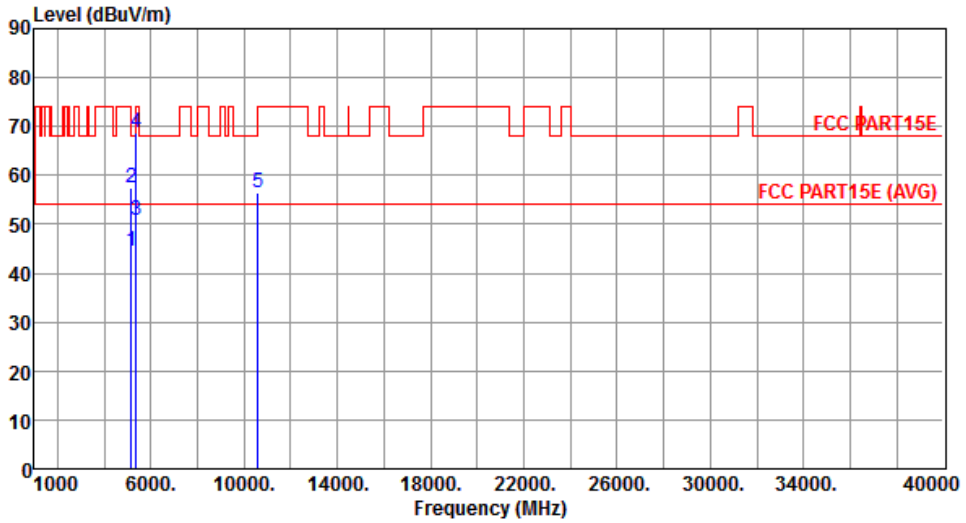


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.48	54.00	-9.52	38.11	6.37	Average	100	311
2	5460.00	57.94	74.00	-16.06	51.57	6.37	Peak	100	311
3	5470.00	58.07	68.20	-10.13	51.69	6.38	Peak	100	311
4	5850.00	64.35	78.20	-13.85	57.18	7.17	Peak	239	290
5	5860.00	62.99	68.20	-5.21	55.81	7.18	Peak	239	290
6	11420.00	44.10	54.00	-9.90	28.11	15.99	Average	222	165
7	11420.00	57.96	74.00	-16.04	41.97	15.99	Peak	222	165

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

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

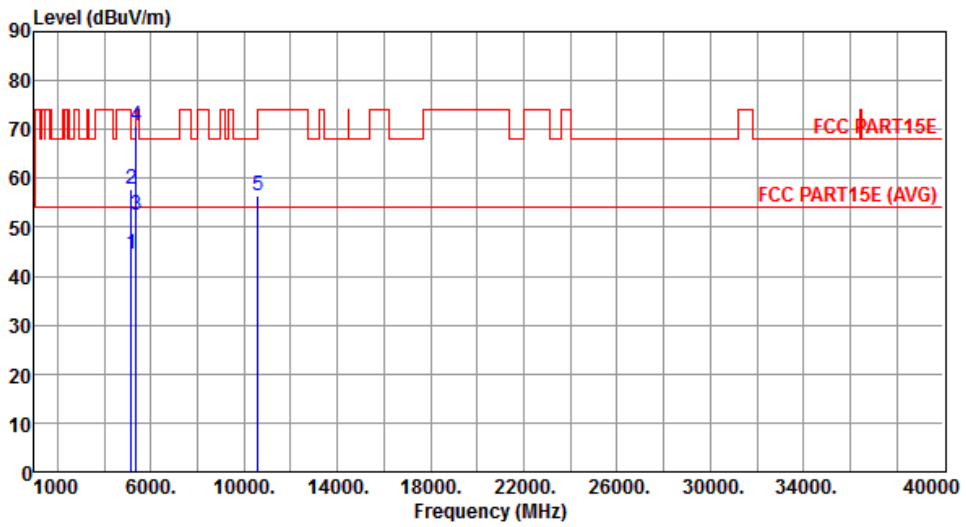
Modulation	VHT80	**Test Freq. (MHz)**	5290
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.41	54.00	-9.59	38.55	5.86	Average	229	215
2	5150.00	57.52	74.00	-16.48	51.66	5.86	Peak	229	215
3	5350.00	50.66	54.00	-3.34	44.45	6.21	Average	229	215
4	5350.00	68.81	74.00	-5.19	62.60	6.21	Peak	229	215
5	10580.00	56.32	68.20	-11.88	40.88	15.44	Peak	311	216

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

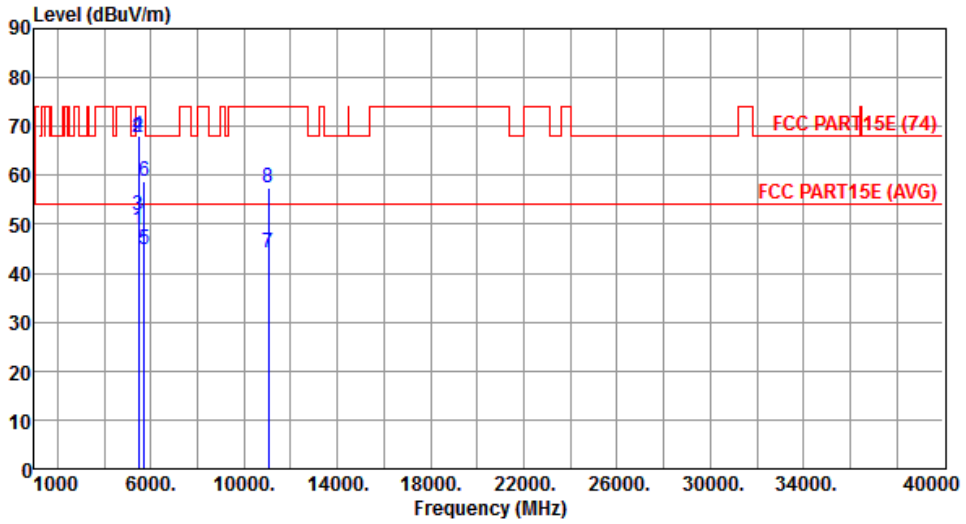
Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical		



	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	44.59	54.00	-9.41	38.73	5.86	Average	100	321
2	5150.00	57.75	74.00	-16.25	51.89	5.86	Peak	100	321
3	5350.00	52.39	54.00	-1.61	46.18	6.21	Average	100	321
4	5350.00	70.81	74.00	-3.19	64.60	6.21	Peak	100	321
5	10580.00	56.44	68.20	-11.76	41.00	15.44	Peak	222	198

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

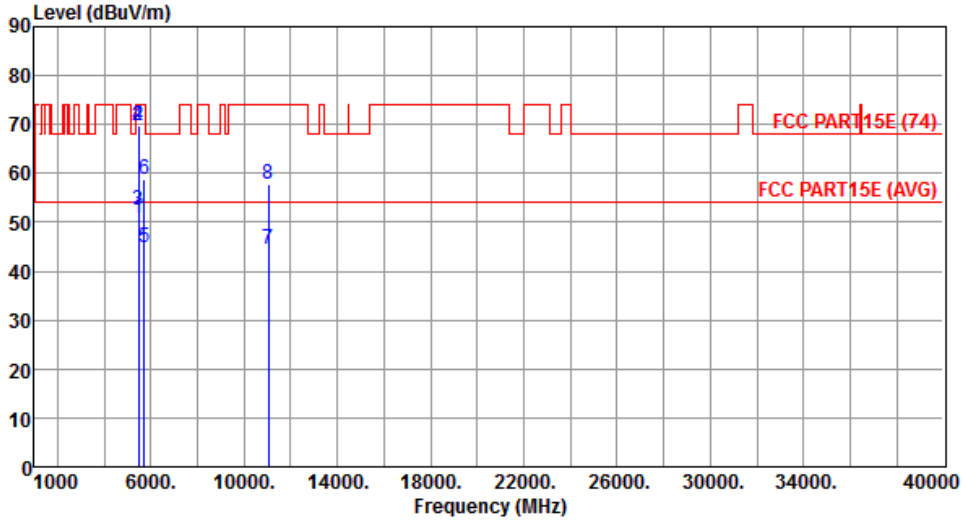
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.92	54.00	-5.08	42.55	6.37	Average	219	214
2	5460.00	67.91	74.00	-6.09	61.54	6.37	Peak	219	214
3	5470.00	51.67	54.00	-2.33	45.29	6.38	Average	219	214
4	5470.00	68.24	74.00	-5.76	61.86	6.38	Peak	219	214
5	5725.00	44.69	54.00	-9.31	37.85	6.84	Average	219	214
6	5725.00	58.70	74.00	-15.30	51.86	6.84	Peak	219	214
7	11060.00	44.13	54.00	-9.87	28.35	15.78	Average	234	166
8	11060.00	57.36	74.00	-16.64	41.58	15.78	Peak	234	166

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

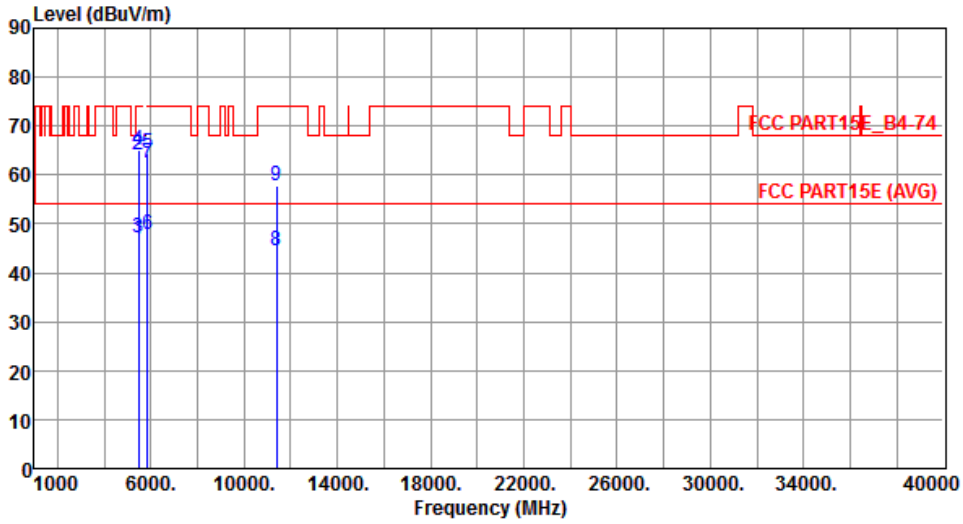
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	50.72	54.00	-3.28	44.35	6.37	Average	100	317
2	5460.00	69.70	74.00	-4.30	63.33	6.37	Peak	100	317
3	5470.00	52.52	54.00	-1.48	46.14	6.38	Average	100	317
4	5470.00	69.90	74.00	-4.10	63.52	6.38	Peak	100	317
5	5725.00	44.83	54.00	-9.17	37.99	6.84	Average	100	317
6	5725.00	58.83	74.00	-15.17	51.99	6.84	Peak	100	317
7	11060.00	44.47	54.00	-9.53	28.69	15.78	Average	213	334
8	11060.00	57.75	74.00	-16.25	41.97	15.78	Peak	213	334

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

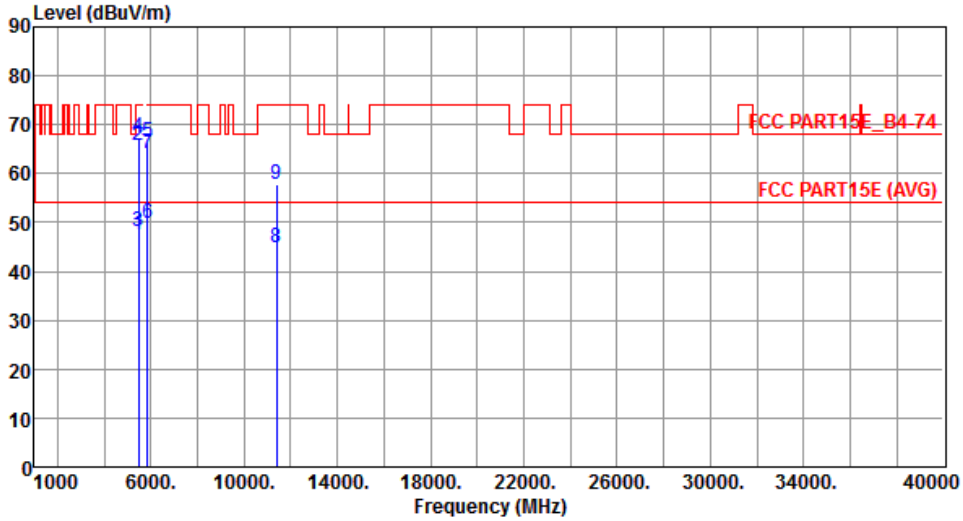
Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.81	54.00	-7.19	40.44	6.37	Average	217	214
2	5460.00	64.09	74.00	-9.91	57.72	6.37	Peak	217	214
3	5470.00	47.17	54.00	-6.83	40.79	6.38	Average	217	214
4	5470.00	65.13	74.00	-8.87	58.75	6.38	Peak	217	214
5	5850.00	64.48	78.20	-13.72	57.31	7.17	Peak	203	215
6	5860.00	47.79	54.00	-6.21	40.61	7.18	Average	203	215
7	5860.00	62.36	74.00	-11.64	55.18	7.18	Peak	203	215
8	11380.00	44.61	54.00	-9.39	28.65	15.96	Average	311	111
9	11380.00	57.65	74.00	-16.35	41.69	15.96	Peak	311	111

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

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.44	54.00	-6.56	41.07	6.37	Average	100	314
2	5460.00	65.60	74.00	-8.40	59.23	6.37	Peak	100	314
3	5470.00	48.05	54.00	-5.95	41.67	6.38	Average	100	314
4	5470.00	67.33	74.00	-6.67	60.95	6.38	Peak	100	314
5	5850.00	66.36	78.20	-11.84	59.19	7.17	Peak	249	279
6	5860.00	49.85	54.00	-4.15	42.67	7.18	Average	249	279
7	5860.00	64.19	74.00	-9.81	57.01	7.18	Peak	249	279
8	11380.00	44.99	54.00	-9.01	29.03	15.96	Average	222	143
9	11380.00	57.83	74.00	-16.17	41.87	15.96	Peak	222	143

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

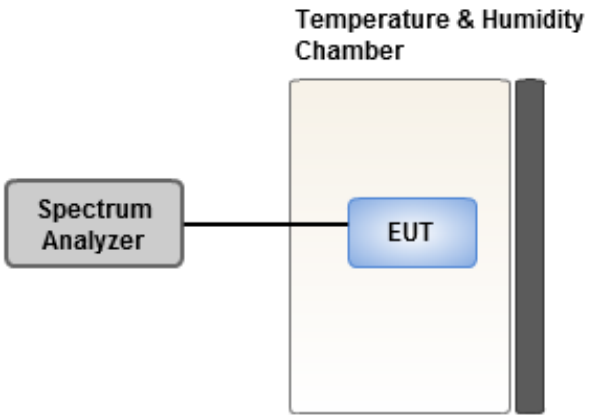
3.6.1 Limit of Frequency Stability

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: 5320 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°CVmax	0.85	0.75	0.87	1.23
T20°CVmin	-0.25	0.07	0.34	-0.21
T50°CVnom	2.92	3.18	2.85	3.01
T40°CVnom	1.29	1.25	1.49	1.74
T30°CVnom	2.40	3.14	2.20	2.34
T20°CVnom	3.93	4.03	3.90	4.19
T10°CVnom	3.45	3.36	3.80	3.68
T0°CVnom	4.27	4.84	4.66	3.95
T-10°CVnom	1.98	2.03	2.34	2.09
T-20°CVnom	1.83	1.99	2.43	1.68
T-30°CVnom	1.62	1.92	1.74	1.90
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 (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan 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 District, Tao Yuan City 333, Taiwan, R.O.C.	No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.

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

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

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