FCC C2PC Test Report

FCC ID	:	**I88EMG3425Q10A**
Equipment	:	**Simultaneous Dual-Band Wireless AC2200 Gigabit Ethernet Gateway**
Model No.	:	**EMG3425-Q10A**
Brand Name	:	**ZYXEL**
Applicant	:	**ZyXEL Communications Corporation**
Address	:	**No. 2, Gongye E. 9th Road, Hsinchu Science Park, Hsinchu, Taiwan.**
Standard	:	**47 CFR FCC Part 15.407**
Received Date	:	**Sep. 01, 2016**
Tested Date	:	**Sep. 06 ~ Nov. 11, 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: **Approved by:**

Along Chen / Assistant Manager **Gary Chang / Manager**

Testing Laboratory 2732

Table of Contents

1 GENERAL DESCRIPTION 5

1.1 Information 5
1.2 Local Support Equipment List 12
1.3 Test Setup Chart 12
1.4 The Equipment List 14
1.5 Testing Applied Standards 15
1.6 Measurement Uncertainty 15

2 TEST CONFIGURATION 16

2.1 Testing Condition 16
2.2 The Worst Test Modes and Channel Details 17

3 TRANSMITTER TEST RESULTS 19

3.1 Conducted Emissions 19
3.2 Emission Bandwidth 24
3.3 RF Output Power 30
3.4 Peak Power Spectral Density 35
3.5 Transmitter Radiated and Band Edge Emissions 40
3.6 Frequency Stability 125

4 TEST LABORATORY INFORMATION 127

Release Record

Report No.	Version	Description	Issued Date
FR570601-04	Rev. 01	Initial issue	Dec. 02, 2016

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.440MHz 32.70 (Margin -14.37dB) - AV	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5470.00MHz 67.75 (Margin -0.45dB) - PK	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: 23.83 5470~5725MHz: 23.89 ***Beamforming mode*** 5250~5350MHz: 21.85 5470~5725MHz: 21.79	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]	4	6-54 Mbps
5250-5350 5470-5725	n (HT20)	5260-5320 5500-5720	52-64 [4] 100-144 [9]	4	MCS 0-31
5250-5350 5470-5725	n (HT40)	5270-5310 5510-5710	54-62 [2] 102-142 [4]	4	MCS 0-31
5250-5350 5470-5725	ac (VHT20)	5260-5320 5500-5720	52-64 [4] 100-144 [9]	4	MCS 0-9
5250-5350 5470-5725	ac (VHT40)	5270-5310 5510-5710	54-62 [2] 102-142 [4]	4	MCS 0-9
5250-5350 5470-5725	ac (VHT80)	5290 5530-5690	58 [1] 106-138 [2]	4	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: 802.11ac supports beamforming mode. Note 4: The device has disabled the 5600-5650MHz band by S/W setting. Note 5: Model of 5GHz RFIC is QT2518B					

1.1.2 Antenna Details

Ant. No.	Type	Connector	Antenna Gain (dBi)	
			5250~5350 MHz	**5470~5725 MHz**
1	Dipole	UFL	1.92	1.92

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	12Vdc from AC adapter

1.1.4 Accessories

Accessories		
No.	**Equipment**	**Description**
1	AC adapter	Brand Name: APD Model Name: DA-48T12 Power Rating: I/P: 100-240Vac, 50-60Hz, 1.4A Max O/P: 12Vdc, 4A Power Line: AC 1.5m non-shielded cable without core DC 1.2m non-shielded cable without core
2	AC adapter	Brand Name: APD Model Name: WA-36A12FU Power Rating: I/P: 100-240Vac, 50-60Hz, 0.9A Max O/P: 12Vdc, 3A Power Line: DC 1.5m non-shielded cable with one core
3	RJ45 cable	1.0m non-shielded cable with core.

1.1.5 Channel List

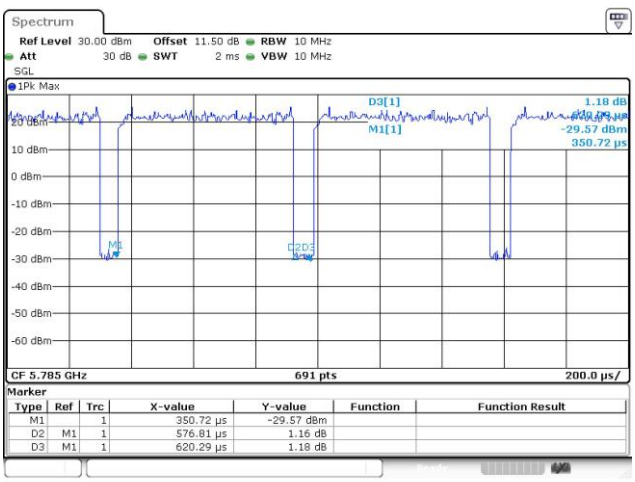
802.11 a / HT20 / VHT20		HT40 / VHT40	
Channel	**Frequency(MHz)**	**Channel**	**Frequency(MHz)**
52	5260	54	5270
56	5280	62	5310
60	5300	102	5510
64	5320	110	5550
100	5500	134	5670
104	5520	142	5710
108	5540	**VHT80**	
112	5560	58	5290
116	5580	106	5530
132	5660	138	5690
136	5680	---	---
140	5700	---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

1.1.6 Test Tool and Duty Cycle

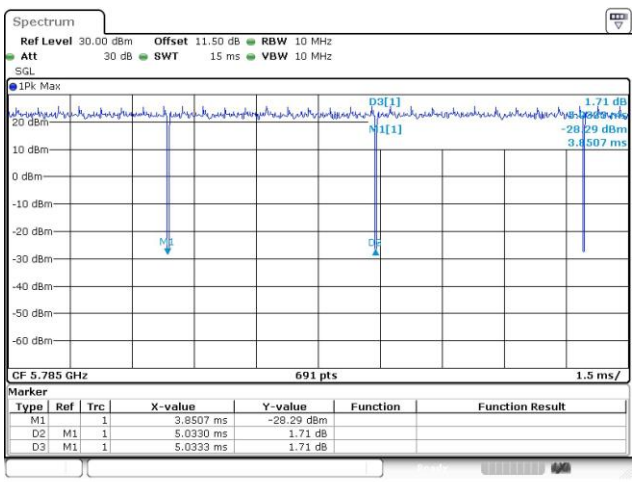
Test Tool	Telnet				
Duty Cycle and Duty Factor	Mode	Non-Beamforming		Beamforming	
		Duty cycle (%)	Duty factor (dB)	Duty cycle (%)	Duty factor (dB)
	11a	92.99%	0.32	---	---
	HT20	99.99%	0.00	---	---
	HT40	99.41%	0.03	---	---
	VHT20	99.57%	0.02	95.04%	0.22
	VHT40	98.54%	0.06	95.12%	0.22
	VHT80	96.62%	0.15	96.80%	0.14

Non-beamforming mode

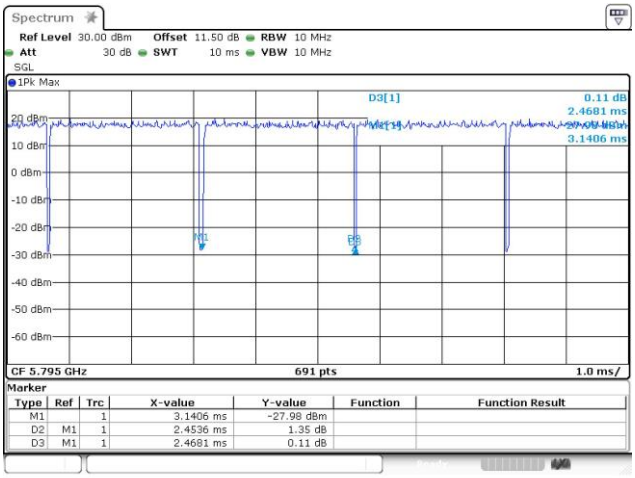
11a



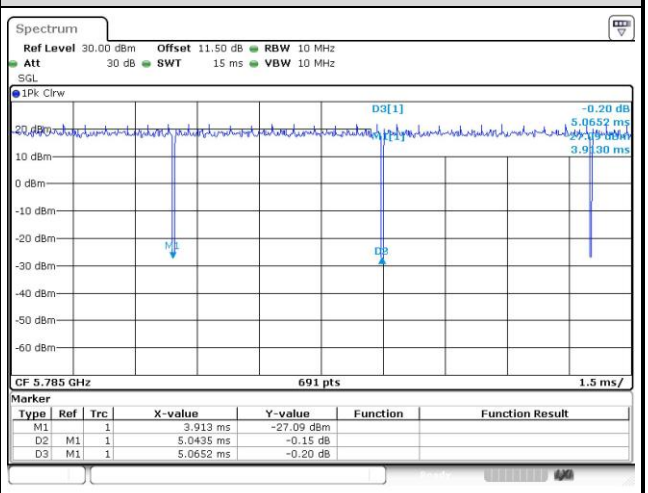
HT20



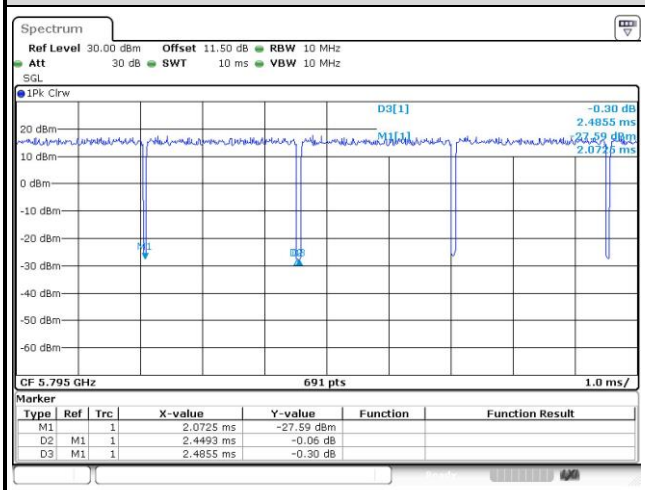
HT40



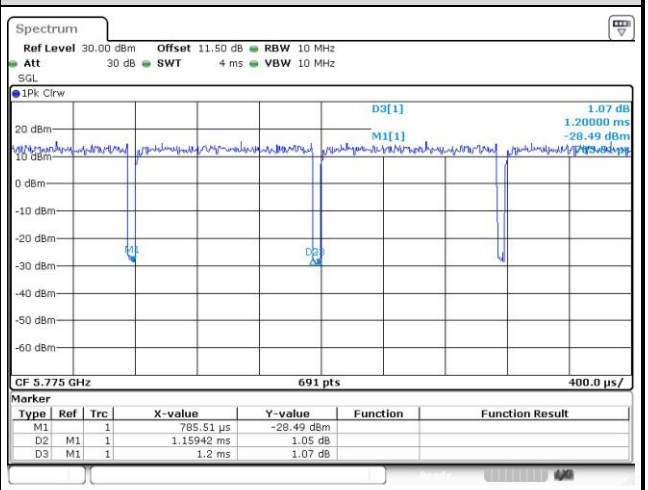
VHT20



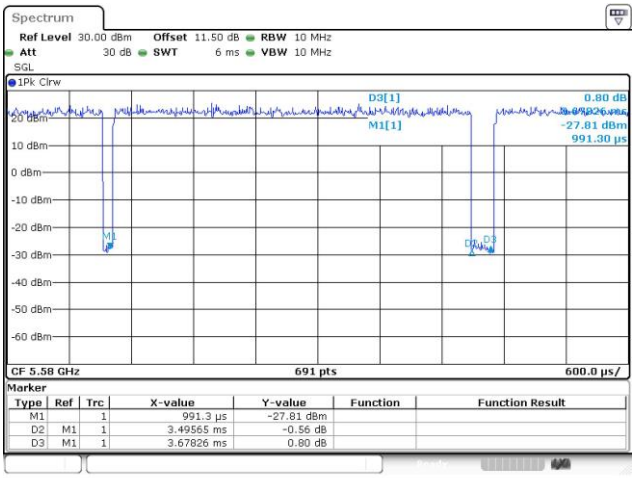
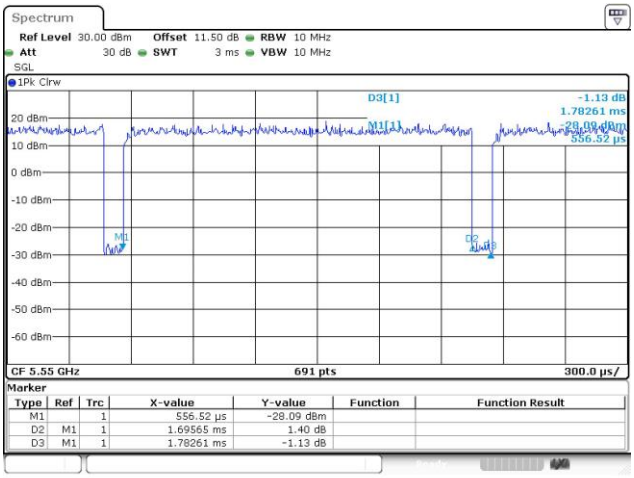
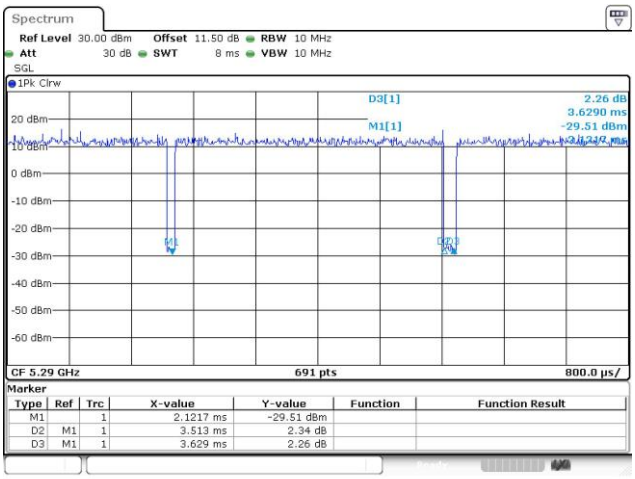
VHT40



VHT80



Beamforming mode

VHT20	VHT40
	
VHT80	**---**
	---

1.1.7 Power Setting

For Frequency band 5250~5350 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5260	18	---
11a	5300	18	---
11a	5320	18	---
HT20	5260	18	---
HT20	5300	18	---
HT20	5320	18	---
HT40	5270	19	---
HT40	5310	17	---
VHT20	5260	18	16
VHT20	5300	18	16
VHT20	5320	18	16
VHT40	5270	19	18
VHT40	5310	17	17
VHT80	5290	17	17

For Frequency band 5470~5725 MHz			
Modulation Mode	Test Frequency (MHz)	Power Set	
		Non-Beamforming	Beamforming
11a	5500	17	---
11a	5580	17	---
11a	5700	16	---
HT20	5500	17	---
HT20	5580	17	---
HT20	5700	15	---
HT40	5510	14	---
HT40	5550	18	---
HT40	5670	18	---
VHT20	5500	17	15
VHT20	5580	17	15
VHT20	5700	15	14
VHT40	5510	14	15
VHT40	5550	18	16
VHT40	5670	18	16
VHT80	5530	14	15

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	16	---
HT20	5720	16	---
HT40	5710	17	---
VHT20	5720	16	13
VHT40	5710	17	14
VHT80	5690	18	15

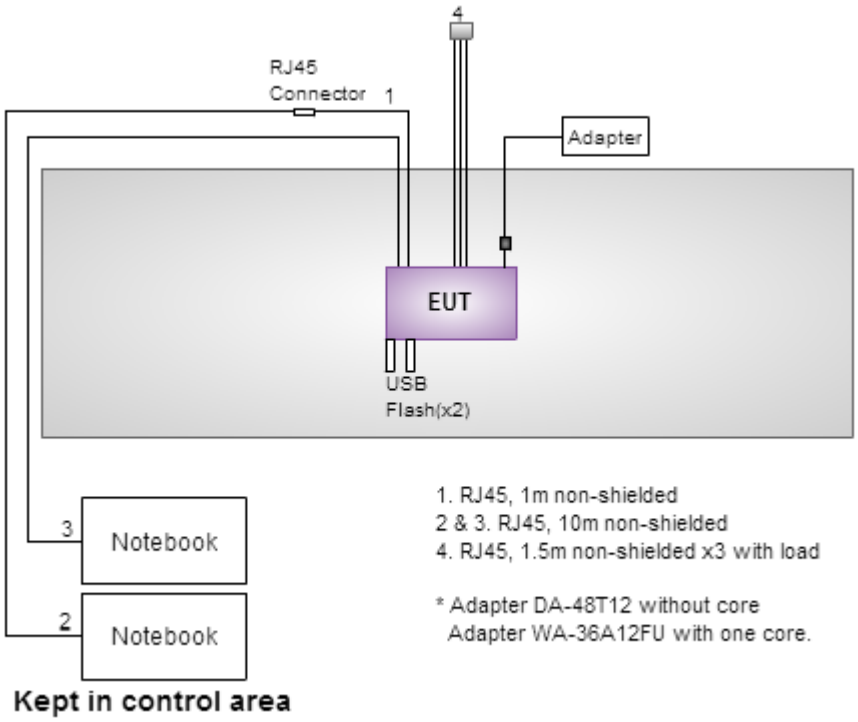
1.2 Local Support Equipment List

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Signal cable / Length (m)**
1	Notebook	DELL	Latitude E6440	DoC	RJ45, 10m non-shielded.
2	Notebook	DELL	Latitude E6440	DoC	RJ45, 10m non-shielded.
3	Notebook	DELL	Latitude E6440	DoC	RJ45, 1m non-shielded.
4	USB Flash	Kingston	DTSE9	---	---
5	USB Flash	Kingston	DTSE9	---	---
6	Load	ICC	---	---	RJ45x3, 1.5m non-shielded.
7	BF client device	ZYXEL	EMG3425-Q10A	---	---

1.3 Test Setup Chart

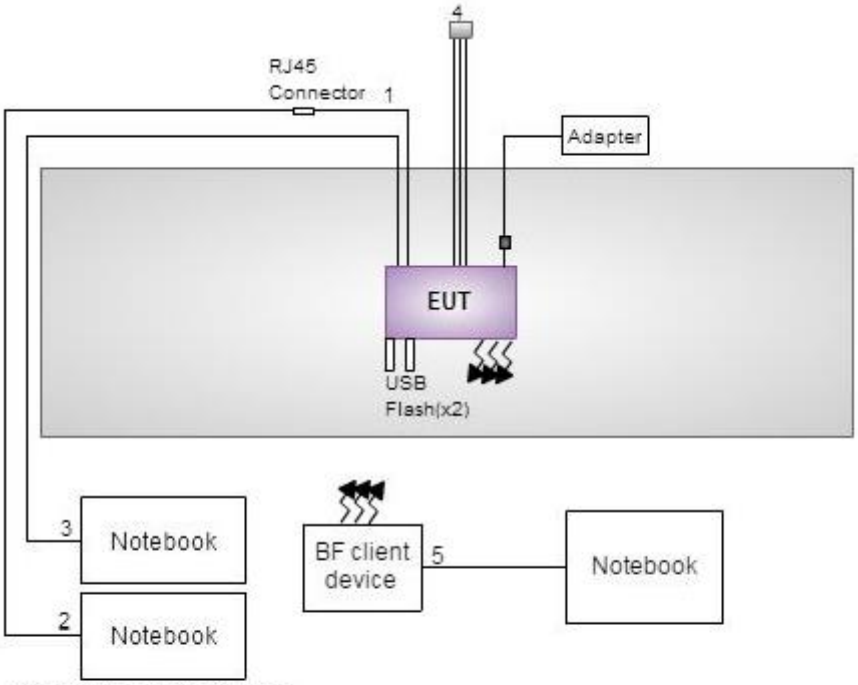
Non- beamforming mode

Test Setup Diagram



Beamforming mode

Test Setup Diagram



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

* Adapter DA-48T12 without core
Adapter WA-36A12FU with one core.

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Test Date	Sep. 19, 2016				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
EMC Receiver	R&S	ESR-3	102052	Apr. 19, 2016	Apr. 18, 2017
LISN	R&S	ENV216	101579	Jan. 11, 2016	Jan. 10, 2017
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)				
Test Date	Sep. 06 ~ Sep. 13, 2016				
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
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 16, 2015	Nov. 15, 2016
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Dec. 10, 2015	Dec. 09, 2016
Preamplifier	EMC	EMC02325	980187	Sep. 21, 2015	Sep. 20, 2016
Preamplifier	Agilent	83017A	MY53270014	Aug. 22, 2016	Aug. 21, 2017
Preamplifier	EMC	EMC184045B	980192	Aug. 24, 2016	Aug. 23, 2017
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)				
Test Date	Nov. 09 ~ Nov. 11, 2016				
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	Oct. 06, 2016	Oct. 05, 2017
Power Sensor	Anritsu	MA2411B	1207366	Oct. 06, 2016	Oct. 05, 2017
AC POWER SOURCE	APC	AFC-500W	F312060012	Oct. 28, 2016	Oct. 27, 2017
Measurement Software	Sporton	Sporton_1	1.3.30	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Testing Applied Standards

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

47 CFR FCC Part 15.407
ANSI C63.10-2013
FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r03
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	±5.37dB
Time	±0.1%
Temperature	±0.6 ^{o}C

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	22°C /55%	Howard Huang
Radiated Emissions	03CH03-WS	22-24°C / 66%	Aska Huang Vincent Yeh Brad Wu
RF Conducted	TH01-WS	22°C / 64%	Brad Wu

- 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	VHT40	5550	MCS 0	2
Radiated Emissions ≤1GHz	VHT40	5550	MCS 0	1
RF Output Power	11a	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	6 Mbps	1
	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	1
	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	---	1

NOTE:

1. Adapter 1 and Adapter 2 had been covered during pretest. Worst adapter was final testing as below test configuration. (Adapter 1: DA-48T12; Adapter 2: WA-36A12FU).
2. Test configurations are listed as below:
   1) Configuration 1: Adapter 1: DA-48T12
   2) Configuration 2: Adapter 2: WA-36A12FU

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	2
Radiated Emissions ≤1GHz	VHT40	5270	MCS 0	1
RF Output Power	VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	1
	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	1
	VHT40	5270 / 5310 5510 / 5550 / 5670 / 5710	MCS 0	
	VHT80	5290 / 5530 / 5690	MCS 0	

NOTE:

1. Adapter 1 and Adapter 2 had been covered during pretest. Worst adapter was final testing as below test configuration. (Adapter 1: DA-48T12; Adapter 2: WA-36A12FU).
2. Test configurations are listed as below:
   1) Configuration 1: Adapter 1: DA-48T12
   2) Configuration 2: Adapter 2: WA-36A12FU

3 Transmitter Test Results

3.1 Conducted Emissions

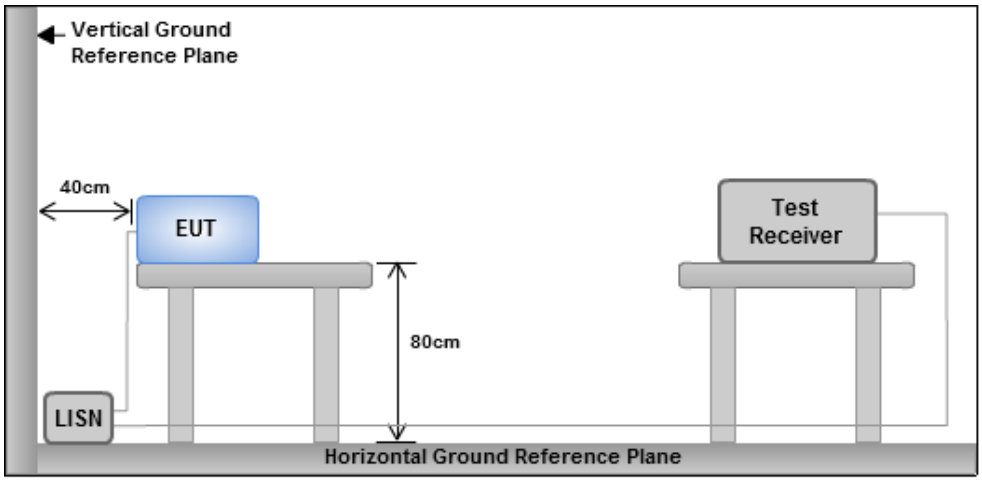
3.1.1 Limit of Conducted Emissions

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

3.1.2 Test Procedures

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

3.1.3 Test Setup

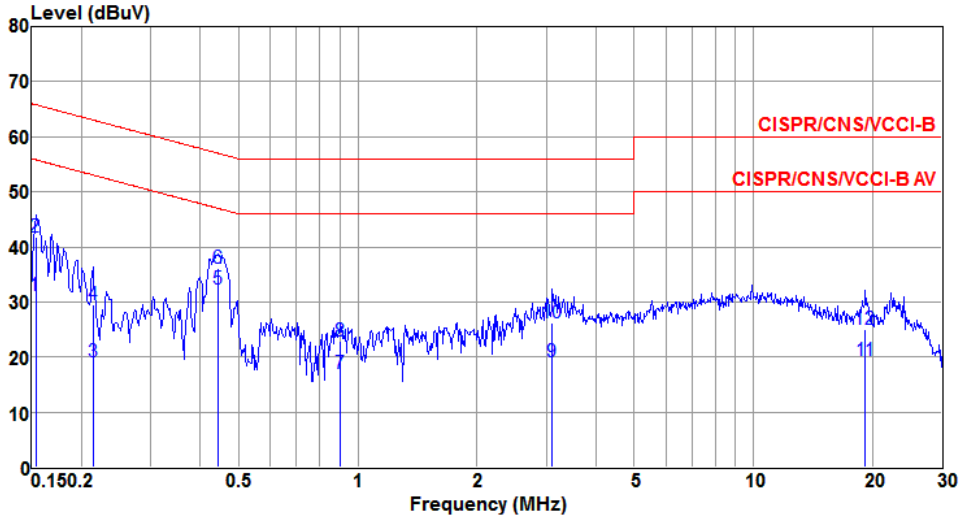


Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

Non- beamforming mode

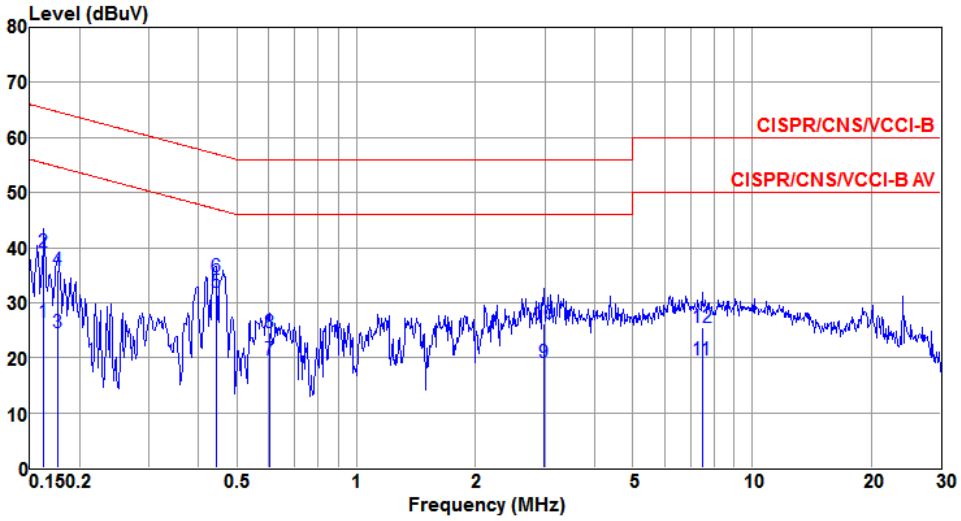
Modulation	VHT40	**Test Freq. (MHz)**	5550
Power Phase	Line		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.153	31.16	55.82	-24.66	21.51	9.63	0.02	Average
2	0.153	41.86	65.82	-23.96	32.21	9.63	0.02	QP
3	0.214	19.18	53.05	-33.87	9.52	9.64	0.02	Average
4	0.214	29.49	63.05	-33.56	19.83	9.64	0.02	QP
5@	0.444	32.30	46.98	-14.68	22.64	9.63	0.03	Average
6	0.444	36.21	56.98	-20.77	26.55	9.63	0.03	QP
7	0.904	17.10	46.00	-28.90	7.41	9.63	0.06	Average
8	0.904	22.95	56.00	-33.05	13.26	9.63	0.06	QP
9	3.107	19.09	46.00	-26.91	9.35	9.63	0.11	Average
10	3.107	26.16	56.00	-29.84	16.42	9.63	0.11	QP
11	19.224	19.30	50.00	-30.70	9.43	9.69	0.18	Average
12	19.224	25.01	60.00	-34.99	15.14	9.69	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).

Modulation	VHT40	Test Freq. (MHz)	5550
Power Phase	Neutral		

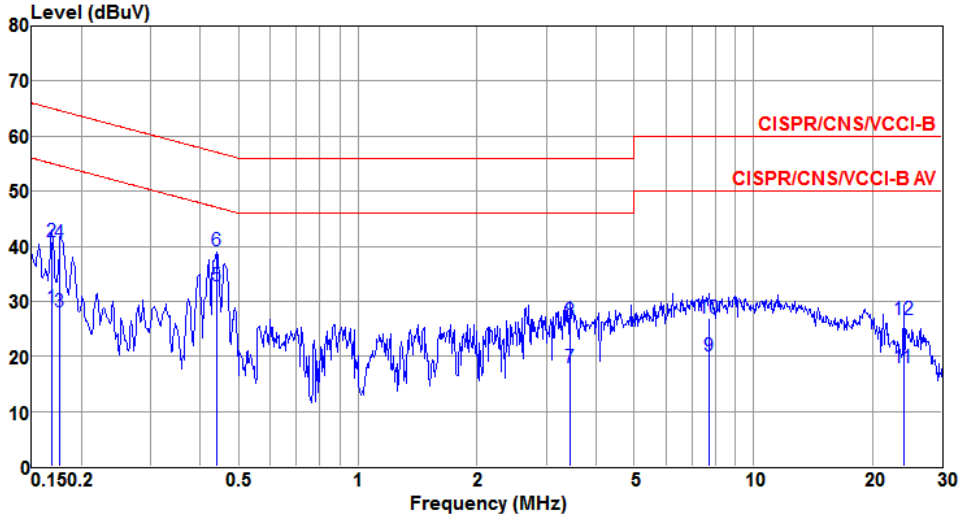


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.162	26.48	55.34	-28.86	16.84	9.62	0.02	Average
2	0.162	39.15	65.34	-26.19	29.51	9.62	0.02	QP
3	0.177	24.54	54.64	-30.10	14.90	9.62	0.02	Average
4	0.177	35.91	64.64	-28.73	26.27	9.62	0.02	QP
5@	0.442	31.80	47.02	-15.22	22.14	9.63	0.03	Average
6	0.442	34.61	57.02	-22.41	24.95	9.63	0.03	QP
7	0.604	19.50	46.00	-26.50	9.83	9.63	0.04	Average
8	0.604	24.64	56.00	-31.36	14.97	9.63	0.04	QP
9	2.978	19.07	46.00	-26.93	9.34	9.63	0.10	Average
10	2.978	26.14	56.00	-29.86	16.41	9.63	0.10	QP
11	7.486	19.58	50.00	-30.42	9.75	9.68	0.15	Average
12	7.486	25.45	60.00	-34.55	15.62	9.68	0.15	QP

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

Beamforming mode

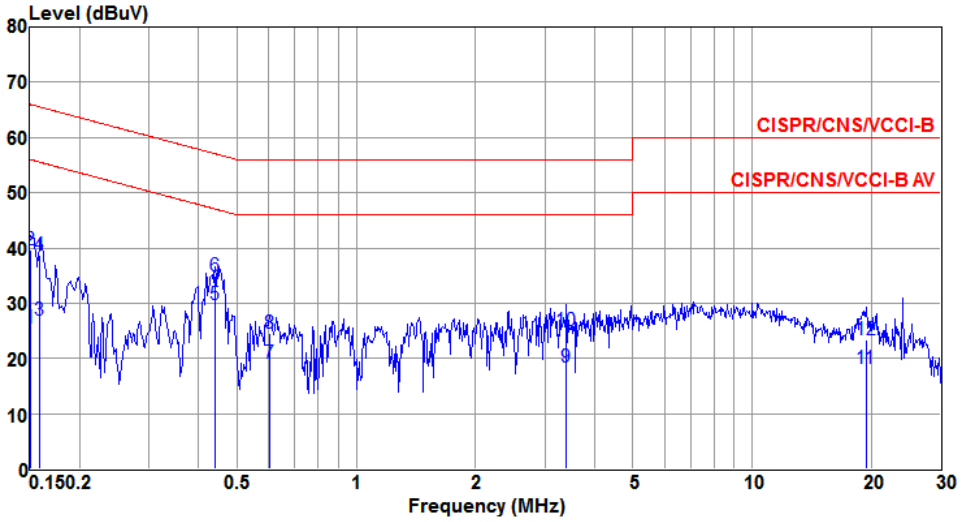
Modulation	VHT40	**Test Freq. (MHz)**	5270
Power Phase	Line		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.169	28.70	55.03	-26.33	19.05	9.63	0.02	Average
2	0.169	40.74	65.03	-24.29	31.09	9.63	0.02	QP
3	0.177	28.05	54.64	-26.59	18.39	9.64	0.02	Average
4	0.177	40.66	64.64	-23.98	31.00	9.64	0.02	QP
5@	0.440	32.70	47.07	-14.37	23.04	9.63	0.03	Average
6	0.440	39.26	57.07	-17.81	29.60	9.63	0.03	QP
7	3.436	18.01	46.00	-27.99	8.26	9.64	0.11	Average
8	3.436	26.52	56.00	-29.48	16.77	9.64	0.11	QP
9	7.728	20.01	50.00	-29.99	10.19	9.67	0.15	Average
10	7.728	26.84	60.00	-33.16	17.02	9.67	0.15	QP
11	24.015	18.01	50.00	-31.99	8.13	9.64	0.24	Average
12	24.015	26.57	60.00	-33.43	16.69	9.64	0.24	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	0.150	25.49	56.00	-30.51	15.85	9.62	0.02	Average
2	0.150	39.75	66.00	-26.25	30.11	9.62	0.02	QP
3	0.159	26.86	55.52	-28.66	17.22	9.62	0.02	Average
4	0.159	38.71	65.52	-26.81	29.07	9.62	0.02	QP
5@	0.440	29.68	47.07	-17.39	20.02	9.63	0.03	Average
6	0.440	34.98	57.07	-22.09	25.32	9.63	0.03	QP
7	0.604	19.13	46.00	-26.87	9.46	9.63	0.04	Average
8	0.604	24.58	56.00	-31.42	14.91	9.63	0.04	QP
9	3.399	18.41	46.00	-27.59	8.67	9.63	0.11	Average
10	3.399	25.04	56.00	-30.96	15.30	9.63	0.11	QP
11	19.428	18.14	50.00	-31.86	8.19	9.78	0.17	Average
12	19.428	23.41	60.00	-36.59	13.46	9.78	0.17	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

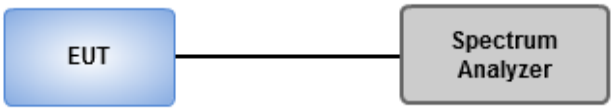
26dB Bandwidth

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

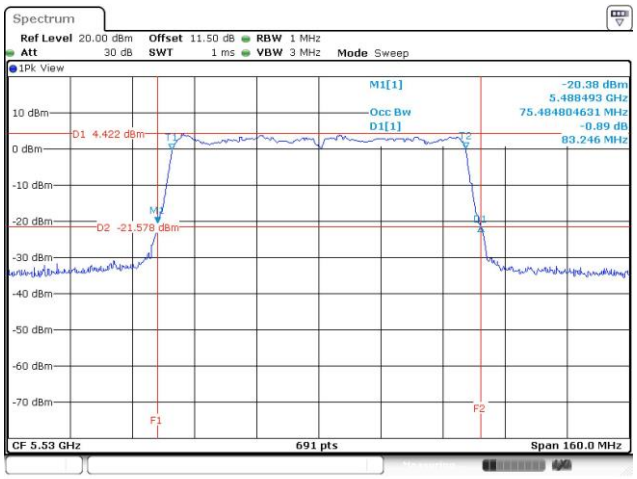
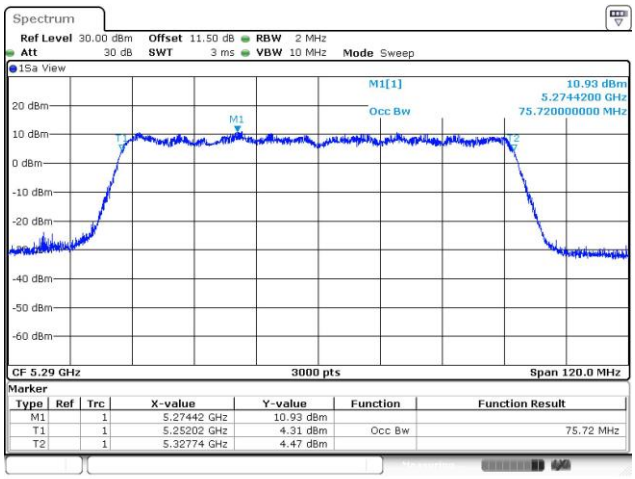
3.2.2 Test Setup



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 3	Chain 0	Chain 1	Chain 2	Chain 3	
11a	4	5260	23.71	23.54	23.48	22.90	16.95	16.94	17.02	16.89	24.00
11a	4	5300	23.77	23.65	23.54	23.07	16.94	16.95	17.03	16.89	24.00
11a	4	5320	23.59	23.65	23.48	23.13	16.95	16.95	17.01	16.87	24.00
VHT20	4	5260	23.83	24.06	24.99	24.99	17.97	18.07	18.24	18.22	24.00
VHT20	4	5300	23.88	24.29	25.04	24.87	18.00	18.08	18.24	18.22	24.00
VHT20	4	5320	23.88	24.35	24.87	24.93	18.01	18.07	18.27	18.22	24.00
VHT40	4	5270	43.71	44.17	43.83	44.29	36.74	37.02	36.78	37.06	24.00
VHT40	4	5310	43.83	44.17	44.06	44.17	36.72	36.98	36.82	37.06	24.00
VHT80	4	5290	82.09	83.25	80.46	83.25	75.68	75.64	75.40	75.72	24.00
11a	4	5500	23.59	23.36	23.65	23.07	16.93	16.92	17.04	16.85	24.00
11a	4	5580	23.54	23.42	23.48	22.90	16.94	16.96	17.03	16.87	24.00
11a	4	5700	23.54	23.19	23.59	23.13	16.98	16.98	17.00	16.88	24.00
VHT20	4	5500	23.83	24.06	25.22	25.10	17.97	18.03	18.27	18.19	24.00
VHT20	4	5580	23.83	24.23	24.87	24.81	17.96	18.06	18.28	18.21	24.00
VHT20	4	5700	24.00	24.46	24.87	25.04	17.97	18.07	18.21	18.24	24.00
VHT40	4	5510	43.59	44.41	44.06	44.29	36.76	37.02	36.78	37.14	24.00
VHT40	4	5550	43.71	44.17	44.06	44.52	36.76	37.02	36.78	37.00	24.00
VHT40	4	5670	44.17	44.17	43.83	44.41	36.74	36.88	36.74	37.04	24.00
VHT80	4	5530	81.86	82.78	80.46	83.25	75.72	75.72	75.32	75.68	24.00

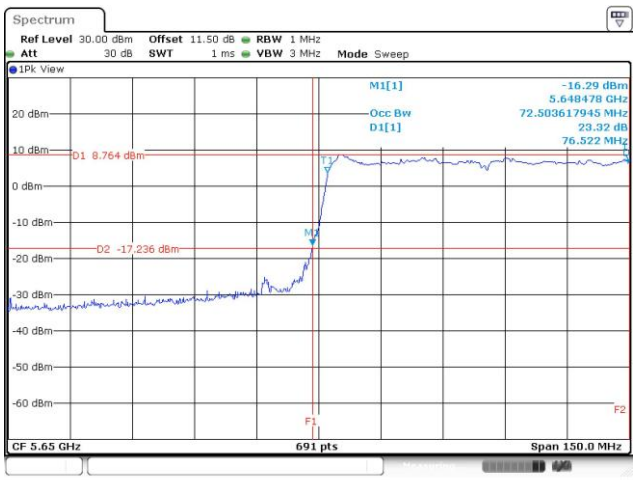
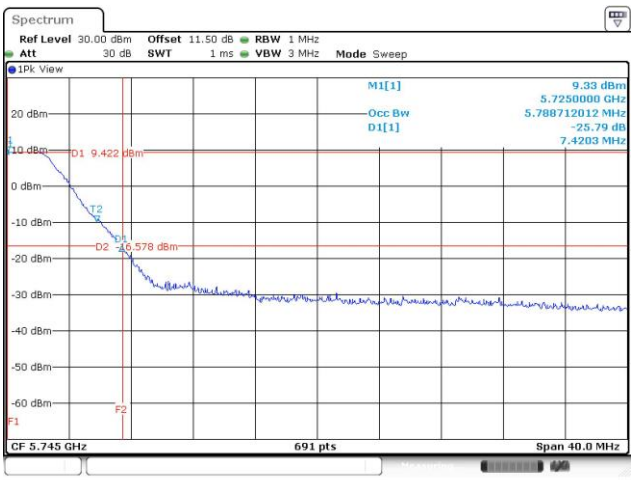
Worst Plot of 26dB Bandwidth	Worst Plot of 99% Bandwidth
	

Channel that extends across the 5.725 GHz boundary

UNII Emission Bandwidth Result (Within 5470-5725MHz band)											
Mode	N_{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
11a	4	5720	16.69	16.63	16.63	16.57	13.54	13.52	13.57	13.58	23.19
VHT20	4	5720	17.80	17.68	17.37	17.06	14.09	14.16	14.25	14.21	23.32
VHT40	4	5710	37.23	37.03	37.03	37.03	33.39	33.45	33.39	33.65	24.00
VHT80	4	5690	76.52	76.09	76.09	76.09	72.90	72.94	72.66	72.94	24.00

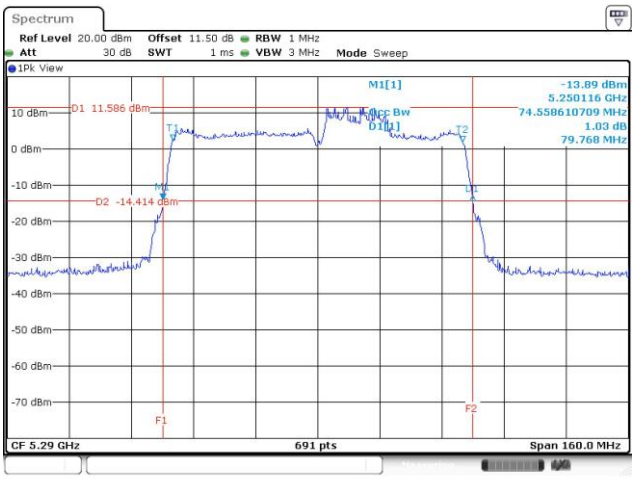
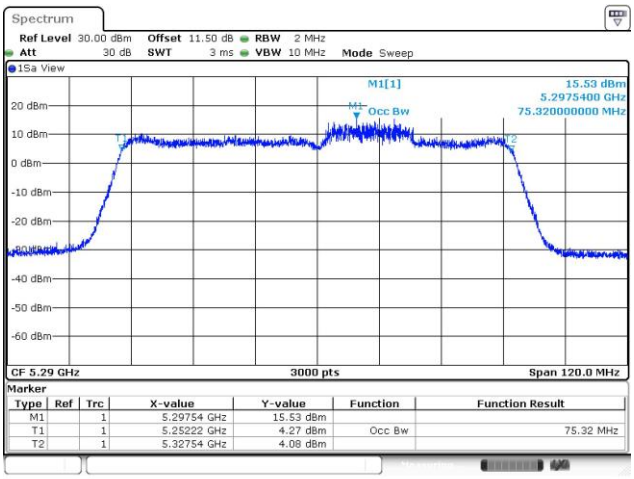
UNII Emission Bandwidth Result (Extends across 5725MHz band)										
Mode	N_{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3
11a	4	5720	6.67	6.74	6.72	6.98	3.44	3.44	3.46	3.34
VHT20	4	5720	7.33	7.22	7.04	6.89	3.90	3.92	4.00	4.01
VHT40	4	5710	7.19	7.01	7.42	6.96	3.27	3.45	3.31	3.45
VHT80	4	5690	6.96	5.57	7.13	7.04	2.74	2.58	2.50	2.70

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 3	Chain 0	Chain 1	Chain 2	Chain 3	
VHT20	4	5260	25.33	25.04	25.16	25.45	18.36	18.32	18.34	18.37	24.00
VHT20	4	5300	25.57	25.62	25.28	25.80	18.33	18.34	18.34	18.33	24.00
VHT20	4	5320	25.45	25.33	25.28	25.10	18.35	18.32	18.35	18.35	24.00
VHT40	4	5270	44.29	43.59	44.06	43.48	36.92	37.02	36.96	36.84	24.00
VHT40	4	5310	43.25	43.48	43.48	43.83	36.96	36.88	36.94	36.96	24.00
VHT80	4	5290	79.77	79.54	79.77	79.54	75.28	75.24	75.28	75.32	24.00
VHT20	4	5500	25.62	25.33	25.33	25.22	18.34	18.35	18.32	18.31	24.00
VHT20	4	5580	25.10	25.16	25.10	25.28	18.34	18.34	18.35	18.33	24.00
VHT20	4	5700	25.45	25.39	25.33	25.45	18.34	18.33	18.32	18.35	24.00
VHT40	4	5510	44.64	43.71	44.29	44.75	36.92	36.90	36.96	36.96	24.00
VHT40	4	5550	44.06	44.29	43.94	44.06	36.92	36.88	36.96	36.90	24.00
VHT40	4	5670	44.41	44.29	44.17	44.52	36.92	37.04	36.92	36.94	24.00
VHT80	4	5530	79.54	79.54	79.30	79.54	75.24	75.20	75.12	75.24	24.00

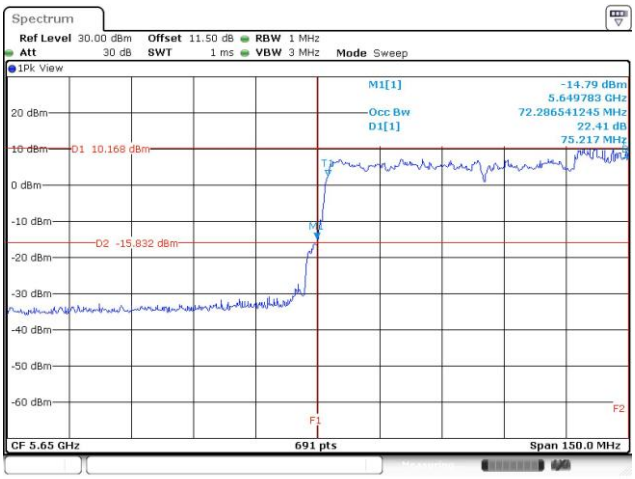
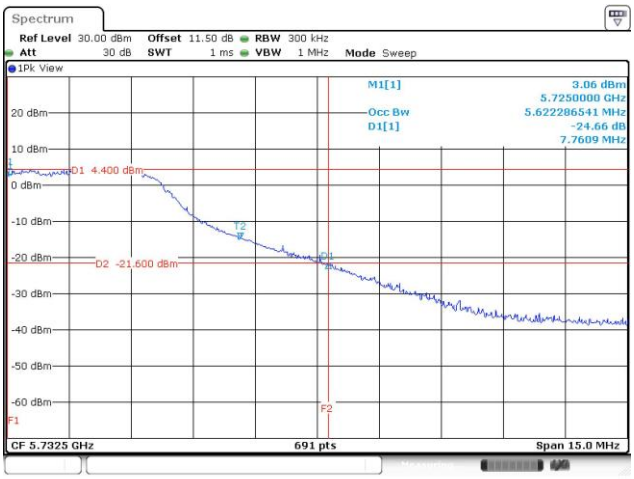
Worst Plot of 26dB Bandwidth	Worst Plot of 99% Bandwidth
	

Channel that extends across the 5.725 GHz boundary

UNII Emission Bandwidth Result (Within 5470-5725MHz band)											
Mode	N_{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
VHT20	4	5720	17.49	17.68	17.74	17.68	14.21	14.22	14.27	14.23	23.43
VHT40	4	5710	36.42	36.42	36.73	36.52	33.57	33.49	33.65	33.55	24.00
VHT80	4	5690	74.57	74.57	75.22	74.78	72.78	72.74	72.86	72.82	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 3	Chain 0	Chain 1	Chain 2	Chain 3
VHT20	4	5720	7.48	7.63	7.65	7.76	4.13	4.13	4.09	4.13
VHT40	4	5710	7.48	7.48	7.48	7.48	3.53	3.59	3.37	3.45
VHT80	4	5690	7.04	7.21	7.30	7.65	4.22	4.46	3.50	3.62

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

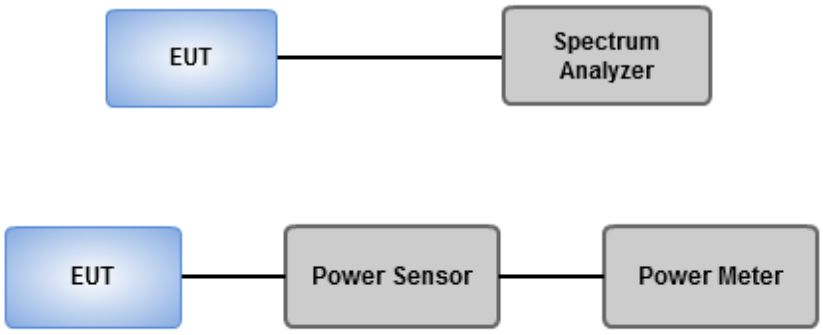
☒ Power meter (For channel that does not extends across the 5.725 GHz boundary)

☒ 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

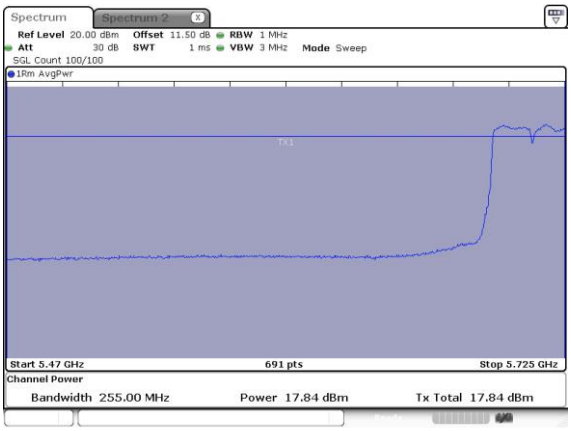
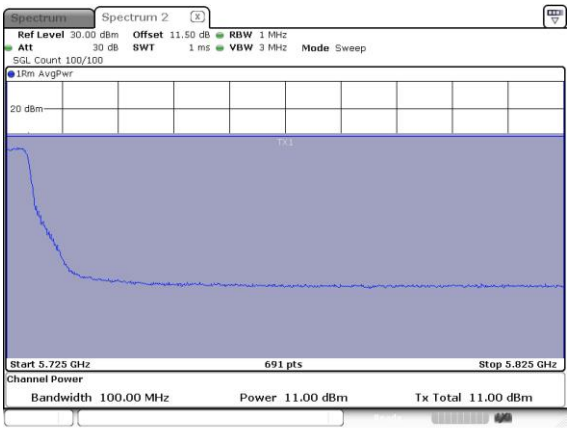
Non-beamforming mode

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	4	5260	16.94	17.26	17.12	16.59	199.768	23.01	24.00
11a	4	5300	16.86	17.14	16.69	16.38	190.406	22.80	24.00
11a	4	5320	16.76	16.91	16.64	16.41	186.399	22.70	24.00
HT20	4	5260	16.73	16.71	16.87	16.83	190.815	22.81	24.00
HT20	4	5300	16.81	16.98	16.91	16.76	194.377	22.89	24.00
HT20	4	5320	16.86	16.89	16.98	16.79	195.035	22.90	24.00
HT40	4	5270	17.88	17.96	17.59	17.53	237.929	23.76	24.00
HT40	4	5310	15.76	16.21	15.73	15.51	152.428	21.83	24.00
VHT20	4	5260	16.84	16.75	17.05	16.94	195.751	22.92	24.00
VHT20	4	5300	16.85	17.04	16.98	16.82	196.972	22.94	24.00
VHT20	4	5320	16.92	17.08	17.24	16.85	201.638	23.05	24.00
VHT40	4	5270	17.92	18.03	17.65	17.62	241.497	**23.83**	24.00
VHT40	4	5310	15.88	16.39	15.80	15.61	156.687	21.95	24.00
VHT80	4	5290	16.28	16.50	16.36	16.03	170.468	22.32	24.00
11a	4	5500	17.76	16.88	16.65	16.62	200.614	23.02	24.00
11a	4	5580	17.53	16.85	16.42	16.68	195.453	22.91	24.00
11a	4	5700	17.24	16.68	16.93	16.65	195.080	22.90	24.00
HT20	4	5500	17.51	16.82	16.49	16.32	191.868	22.83	24.00
HT20	4	5580	17.55	16.83	16.58	16.63	196.605	22.94	24.00
HT20	4	5700	16.53	15.71	16.18	15.92	162.797	22.12	24.00
HT40	4	5510	14.99	14.53	14.06	13.98	110.401	20.43	24.00
HT40	4	5550	18.32	17.49	17.78	17.51	240.368	23.81	24.00
HT40	4	5670	18.43	17.32	17.29	17.48	233.169	23.68	24.00
VHT20	4	5500	17.56	16.92	16.54	16.48	195.765	22.92	24.00
VHT20	4	5580	17.64	16.99	16.7	16.75	202.169	23.06	24.00
VHT20	4	5700	16.61	15.76	16.26	15.98	165.379	22.18	24.00
VHT40	4	5510	15.03	14.61	14.18	14.05	112.340	20.51	24.00
VHT40	4	5550	18.46	17.55	17.81	17.60	244.970	**23.89**	24.00
VHT40	4	5670	18.54	17.42	17.36	17.56	238.124	23.77	24.00
VHT80	4	5530	14.75	14.33	13.60	13.74	103.524	20.15	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	4	5720	14.47	14.85	14.69	15.42	20.89	0.32	132.208	21.21	23.19
HT20	4	5720	14.86	15.05	14.70	15.68	21.11	0.00	129.103	21.11	23.32
HT40	4	5710	17.04	17.38	16.80	17.69	23.26	0.00	211.896	23.26	24.00
VHT20	4	5720	14.79	15.38	14.83	16.12	21.33	0.00	135.979	21.33	23.32
VHT40	4	5710	17.09	17.84	16.48	17.75	23.34	0.00	216.011	23.34	24.00
VHT80	4	5690	17.13	16.78	16.55	17.54	23.04	0.15	208.296	23.19	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	4	5720	8.94	10.25	9.03	9.40	15.46	0.32	37.821	15.78	30.00
HT20	4	5720	9.41	10.39	9.33	10.42	15.94	0.00	39.255	15.94	30.00
HT40	4	5710	6.51	7.08	6.58	6.75	12.76	0.00	18.864	12.76	30.00
VHT20	4	5720	9.66	11.00	9.78	10.67	16.34	0.00	43.010	16.34	30.00
VHT40	4	5710	6.65	7.33	6.09	7.44	12.93	0.00	19.642	12.93	30.00
VHT80	4	5690	2.73	2.43	2.87	2.83	8.74	0.15	7.743	8.89	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			
VHT20	4	5260	15.53	16.14	15.33	15.68	147.944	21.70	22.06
VHT20	4	5300	15.53	15.48	15.70	15.56	144.174	21.59	22.06
VHT20	4	5320	15.79	16.26	15.35	15.59	150.699	21.78	22.06
VHT40	4	5270	15.81	16.50	15.47	15.46	153.168	**21.85**	22.06
VHT40	4	5310	14.68	14.94	14.31	14.03	112.836	20.52	22.06
VHT80	4	5290	14.56	14.68	14.76	13.87	112.253	20.50	22.06
VHT20	4	5500	16.32	15.48	15.32	15.84	150.585	21.78	22.06
VHT20	4	5580	15.48	15.56	15.48	16.46	150.870	**21.79**	22.06
VHT20	4	5700	16.42	15.23	15.85	15.45	150.730	21.78	22.06
VHT40	4	5510	14.27	13.72	13.89	13.51	97.210	19.88	22.06
VHT40	4	5550	15.73	15.31	14.47	14.82	129.702	21.13	22.06
VHT40	4	5670	15.53	15.02	14.75	14.96	128.683	21.10	22.06
VHT80	4	5530	14.15	13.80	13.62	13.50	95.392	19.80	22.06

Note: Directional gain = 1.92+10* log(4/1) = 7.94 dBi > 6 dBi.

Limit shall be reduced to 24 dBm – (7.94 dBi – 6 dBi) = 22.06Bm

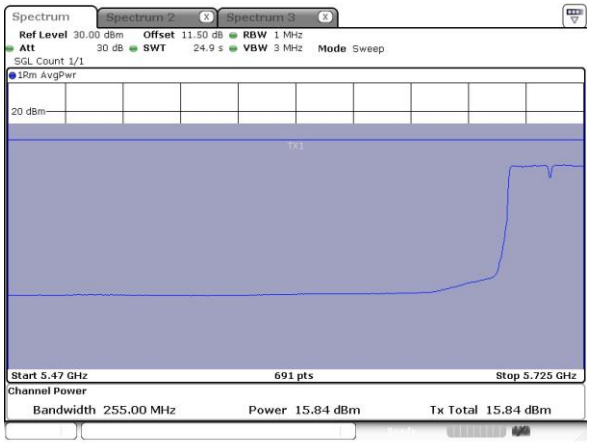
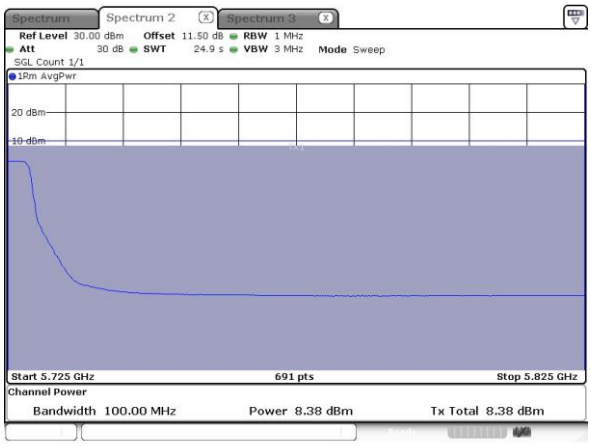
Channel that extends across the 5.725 GHz boundary

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)				
VHT20	4	5720	13.89	12.93	13.80	13.26	19.51	0.22	93.936	19.73	21.49
VHT40	4	5710	15.84	14.55	15.49	14.89	21.24	0.22	140.029	21.46	22.06
VHT80	4	5690	15.23	15.62	15.24	15.62	21.45	0.14	144.290	21.59	22.06

Note: Directional gain = 1.92+10* log(4/1) = 7.94 dBi > 6 dBi, Limit shall be reduced 1.94 dB (7.94dBi – 6 dBi)

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)				
VHT20	4	5720	8.38	7.19	8.21	7.69	13.91	0.22	25.899	14.13	28.06
VHT40	4	5710	5.68	4.15	5.18	4.73	10.99	0.22	13.219	11.21	28.06
VHT80	4	5690	1.03	0.67	0.38	2.00	7.08	0.14	5.278	7.22	28.06

Note: Directional gain = 1.92+10* log(4/1) = 7.94 dBi > 6 dBi, Limit shall be reduced to 30 dBm – (7.94 dBi – 6dBi) = 28.06 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

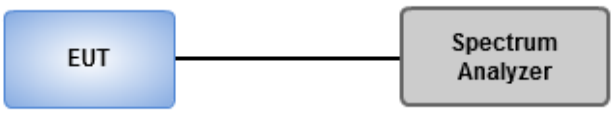
☒ Method SA-1 (Non beamforming: 11ac VHT20 / 11ac VHT40)

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

☒ Method SA-2 Alternative (Non beamforming: 11a / 11ac VHT80, Beamforming mode: VHT20 / 11ac VHT40 / 11ac VHT80)

1. Set RBW = 1 MHz, VBW = 3 MHz, Detector = RMS.
2. Set sweep time ≥ 10 * (number of points in sweep) * (total on/off period of the transmitted signal).
3. Perform a single sweep.
4. Use the peak marker function to determine the maximum amplitude level.
5. Add 10 log(1/x), where x is the duty cycle if duty cycle < 98%

3.4.3 Test Setup



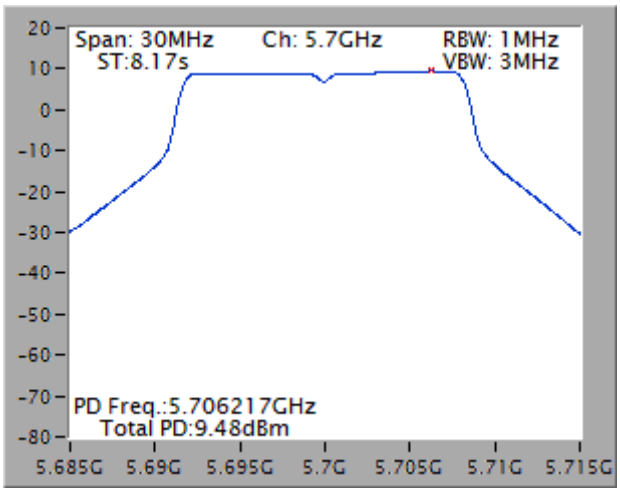
3.4.4 Test Result of Peak Power Spectral Density

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	4	5260	9.22	0.32	9.54	10.31
11a	4	5300	9.02	0.32	9.34	10.31
11a	4	5320	9.01	0.32	9.33	10.31
VHT20	4	5260	9.48	0.00	9.48	10.31
VHT20	4	5300	9.24	0.00	9.24	10.31
VHT20	4	5320	9.21	0.00	9.21	10.31
VHT40	4	5270	7.33	0.00	7.33	10.31
VHT40	4	5310	4.85	0.00	4.85	10.31
VHT80	4	5290	2.16	0.15	2.31	10.31
11a	4	5500	9.25	0.32	9.57	10.31
11a	4	5580	9.18	0.32	9.50	10.31
11a	4	5700	9.48	0.32	9.80	10.31
11a	4	5720	9.44	0.32	9.76	10.31
VHT20	4	5500	9.49	0.00	9.49	10.31
VHT20	4	5580	9.15	0.00	9.15	10.31
VHT20	4	5700	8.96	0.00	8.96	10.31
VHT20	4	5720	9.72	0.00	9.72	10.31
VHT40	4	5510	3.08	0.00	3.08	10.31
VHT40	4	5550	7.60	0.00	7.60	10.31
VHT40	4	5670	7.41	0.00	7.41	10.31
VHT40	4	5710	7.68	0.00	7.68	10.31
VHT80	4	5530	0.17	0.15	0.32	10.31
VHT80	4	5690	4.84	0.15	4.99	10.31

Note:

1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. One Antenna meets definition of cross-polarized antenna
   Directional gain = 1.92+10* log(3/1) = 6.69 dBi
   Limit shall be reduced to 11 dBm – (6.69 dBi – 6 dBi) =10.31 dBm.

Worst Plot


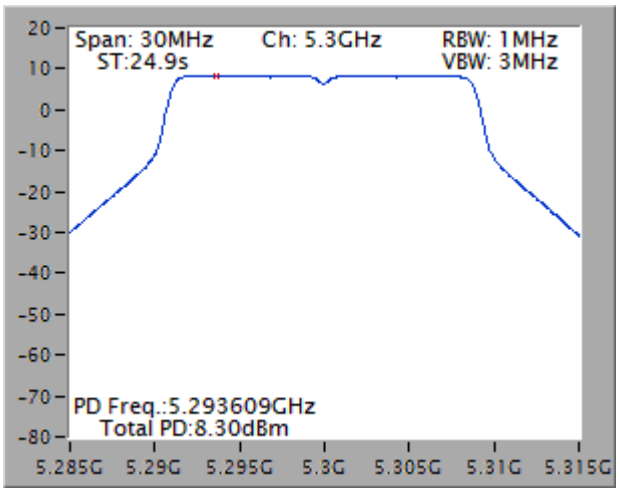
Note: The plot without duty factor.

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	4	5260	8.20	0.22	8.42	9.06
VHT20	4	5300	8.30	0.22	8.52	9.06
VHT20	4	5320	7.94	0.22	8.16	9.06
VHT40	4	5270	5.35	0.22	5.57	9.06
VHT40	4	5310	4.61	0.22	4.83	9.06
VHT80	4	5290	2.08	0.14	2.22	9.06
VHT20	4	5500	8.03	0.22	8.25	9.06
VHT20	4	5580	7.78	0.22	8.00	9.06
VHT20	4	5700	8.26	0.22	8.48	9.06
VHT20	4	5720	6.87	0.22	7.09	9.06
VHT40	4	5510	3.33	0.22	3.55	9.06
VHT40	4	5550	4.49	0.22	4.71	9.06
VHT40	4	5670	4.61	0.22	4.83	9.06
VHT40	4	5710	4.19	0.22	4.41	9.06
VHT80	4	5530	0.80	0.14	0.94	9.06
VHT80	4	5690	2.04	0.14	2.18	9.06

Note:

1. D.F is duty factor.
2. Test results are bin-by-bin summing measured value of each TX port.
3. Directional gain = 1.92+10* log(4/1) = 7.94 dBi
   Limit shall be reduced to 11 dBm – (7.94 dBi – 6 dBi) = 9.06 dBm.

Worst Plot


Note: The plot without duty factor.

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

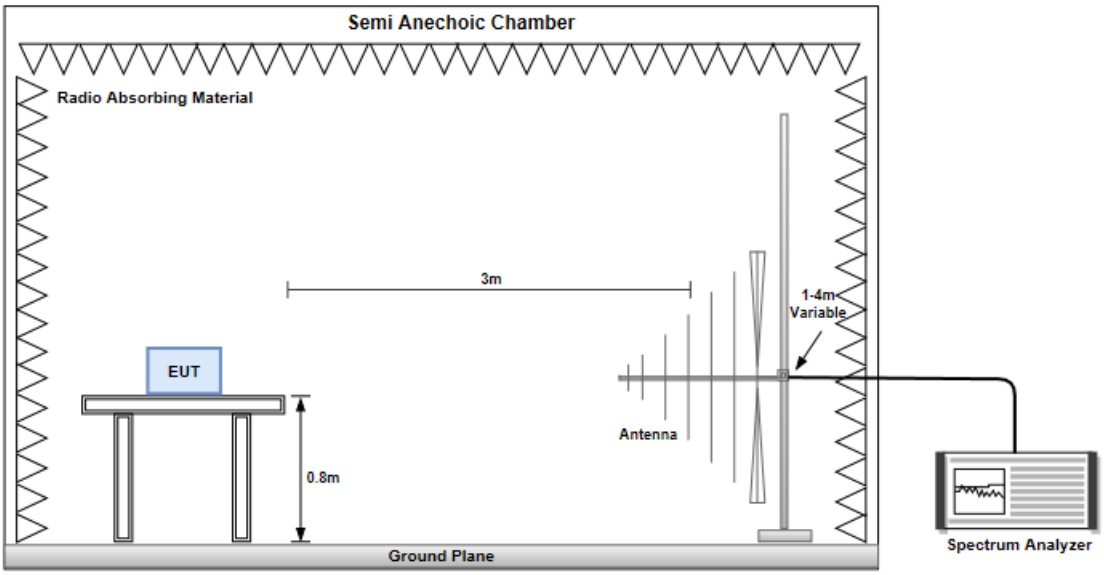
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

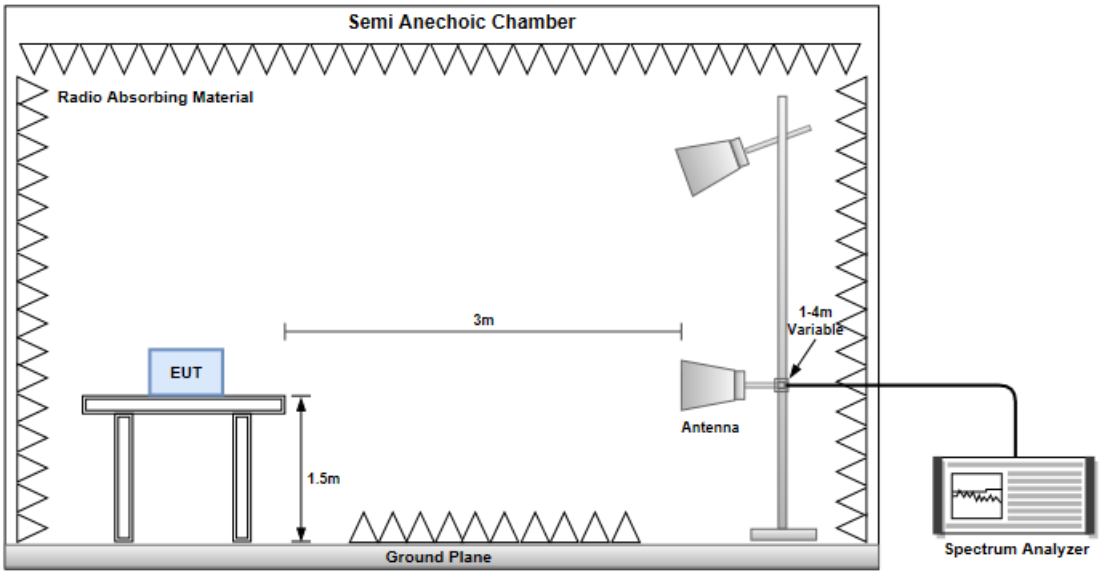
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz



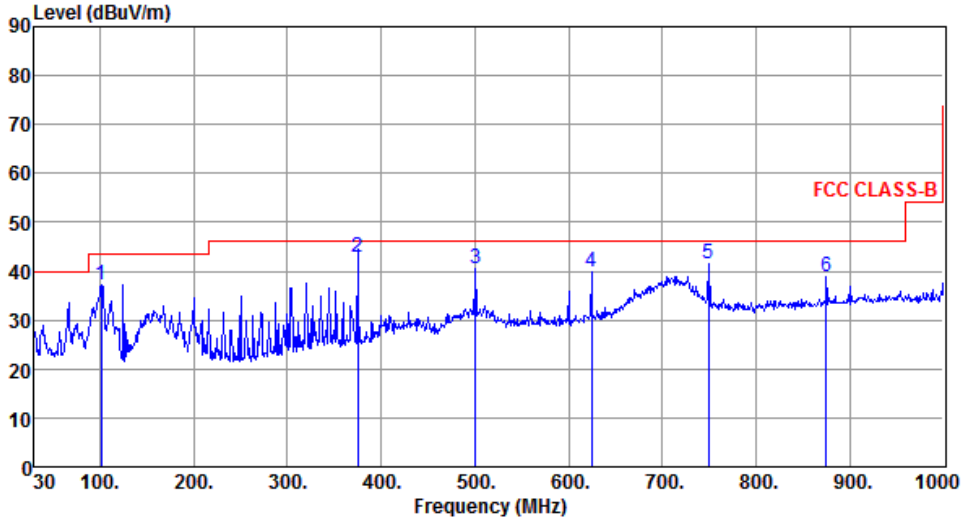
Radiated Emissions above 1 GHz



Non- beamforming mode

3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

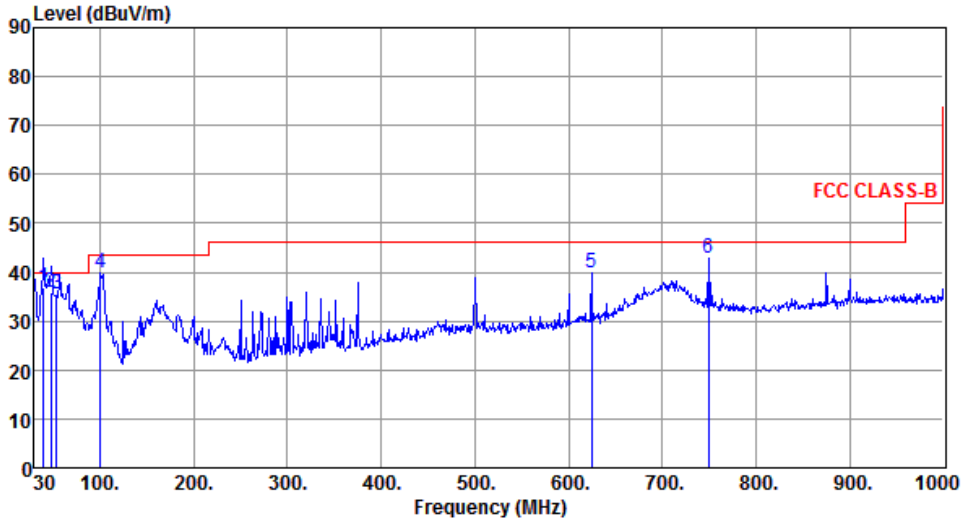
Modulation	VHT40	**Test Freq. (MHz)**	5550
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	101.78	37.29	43.50	-6.21	50.24	-12.95	Peak	---	---
2	374.99	42.85	46.00	-3.15	48.52	-5.67	QP	100	234
3	500.45	40.65	46.00	-5.35	43.57	-2.92	Peak	---	---
4	624.61	39.76	46.00	-6.24	40.14	-0.38	Peak	---	---
5	749.74	41.60	46.00	-4.40	39.71	1.89	Peak	---	---
6	874.87	38.96	46.00	-7.04	35.15	3.81	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)	5550
Polarization	Vertical		

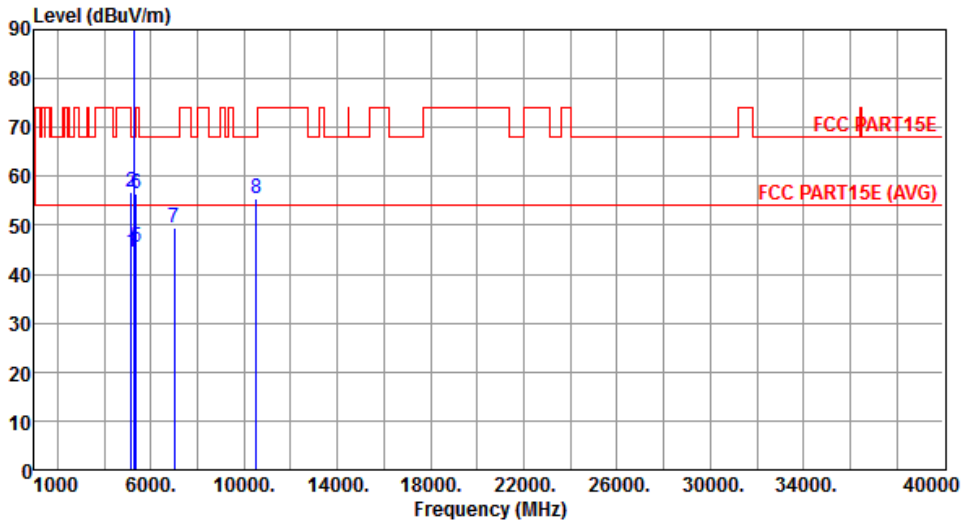


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	39.45	36.95	40.00	-3.05	45.32	-8.37	QP	100	14
2	47.80	35.97	40.00	-4.03	43.83	-7.86	QP	100	46
3	53.56	35.53	40.00	-4.47	43.62	-8.09	QP	100	105
4	100.81	39.70	43.50	-3.80	52.81	-13.11	Peak	---	---
5	624.61	39.78	46.00	-6.22	40.16	-0.38	Peak	---	---
6	749.74	42.91	46.00	-3.09	41.02	1.89	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

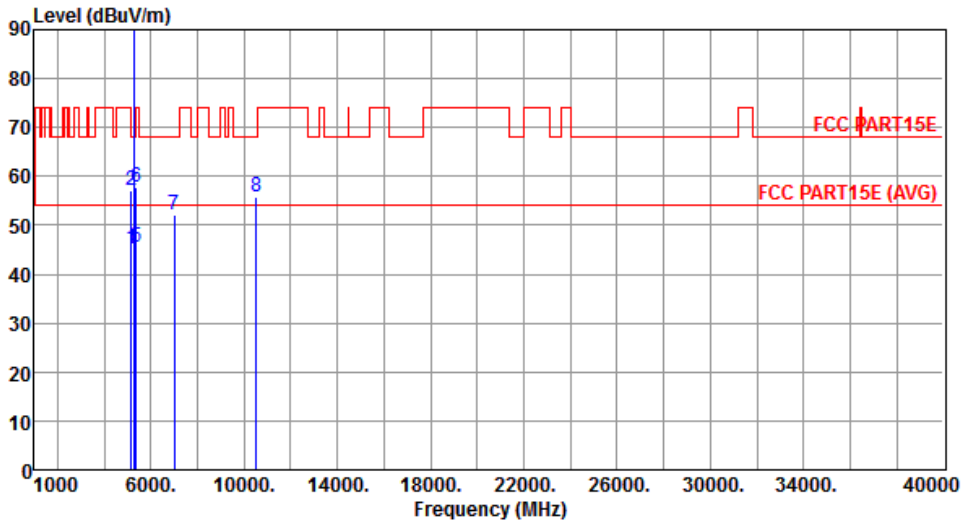
Modulation	11a	**Test Freq. (MHz)**	5260
Polarization	Horizontal		



		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	44.63	54.00	-9.37	38.76	5.87	Average	100	310
2		5150.00	56.84	74.00	-17.16	50.97	5.87	Peak	100	310
3	*	5260.00	100.96			94.92	6.04	Average	100	310
4	*	5260.00	111.02			104.98	6.04	Peak	100	310
5		5350.00	45.50	54.00	-8.50	39.29	6.21	Average	100	310
6		5350.00	56.50	74.00	-17.50	50.29	6.21	Peak	100	310
7		7013.33	49.47	68.20	-18.73	39.68	9.79	Peak	100	166
8		10520.00	55.56	68.20	-12.64	40.15	15.41	Peak	100	196

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

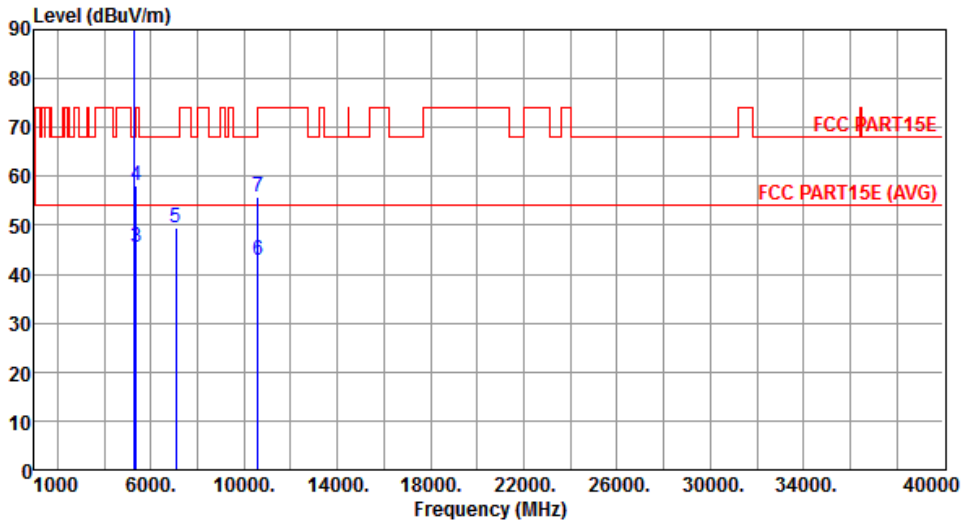
Modulation	11a	Test Freq. (MHz)	5260
Polarization	Vertical		



		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	45.05	54.00	-8.95	39.18	5.87	Average	100	244
2		5150.00	56.99	74.00	-17.01	51.12	5.87	Peak	100	244
3	*	5260.00	105.19			99.15	6.04	Average	100	244
4	*	5260.00	114.52			108.48	6.04	Peak	100	244
5		5350.00	45.53	54.00	-8.47	39.32	6.21	Average	100	244
6		5350.00	57.90	74.00	-16.10	51.69	6.21	Peak	100	244
7		7013.33	52.22	68.20	-15.98	42.43	9.79	Peak	100	152
8		10520.00	55.71	68.20	-12.49	40.30	15.41	Peak	120	158

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

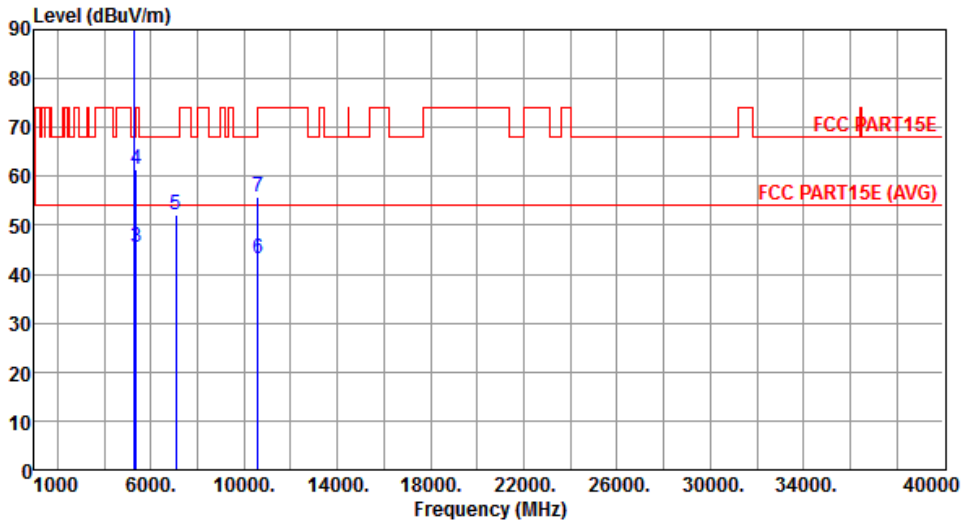
Modulation	11a	Test Freq. (MHz)	5300
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5300.00	100.78			94.66	6.12	Average	100	305
2	*	5300.00	111.15			105.03	6.12	Peak	100	305
3		5350.00	45.53	54.00	-8.47	39.32	6.21	Average	100	305
4		5350.00	58.20	74.00	-15.80	51.99	6.21	Peak	100	305
5		7066.66	49.59	68.20	-18.61	39.73	9.86	Peak	100	165
6		10600.00	42.88	54.00	-11.12	27.42	15.46	Average	100	163
7		10600.00	55.63	74.00	-18.37	40.17	15.46	Peak	100	163

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

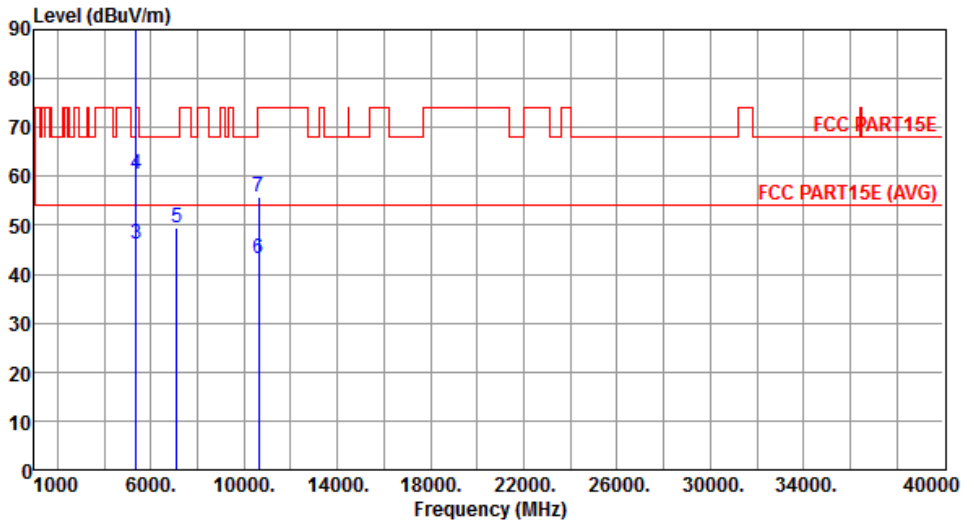
Modulation	11a	Test Freq. (MHz)	5300
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5300.00	105.18			99.06	6.12	Average	100	240
2	*	5300.00	114.40			108.28	6.12	Peak	100	240
3		5350.00	45.60	54.00	-8.40	39.39	6.21	Average	100	240
4		5350.00	61.37	74.00	-12.63	55.16	6.21	Peak	100	240
5		7066.66	52.22	68.20	-15.98	42.36	9.86	Peak	100	152
6		10600.00	43.14	54.00	-10.86	27.68	15.46	Average	120	160
7		10600.00	55.74	74.00	-18.26	40.28	15.46	Peak	120	160

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

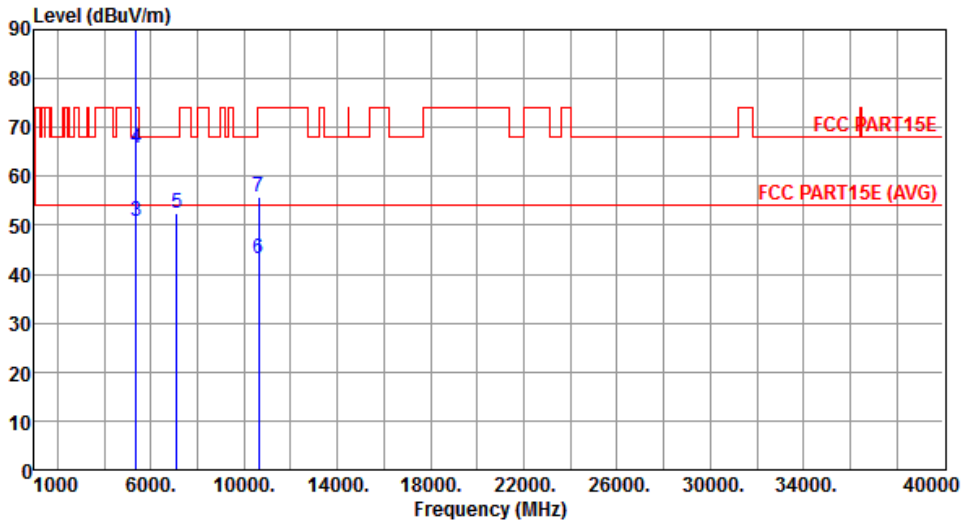
Modulation	11a	Test Freq. (MHz)	5320
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5320.00	101.03			94.87	6.16	Average	100	306
2	*	5320.00	111.37			105.21	6.16	Peak	100	306
3		5350.00	46.16	54.00	-7.84	39.95	6.21	Average	100	306
4		5350.00	60.52	74.00	-13.48	54.31	6.21	Peak	100	306
5		7093.33	49.63	68.20	-18.57	39.72	9.91	Peak	100	168
6		10640.00	43.05	54.00	-10.95	27.56	15.49	Average	100	168
7		10640.00	55.84	74.00	-18.16	40.35	15.49	Peak	100	168

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

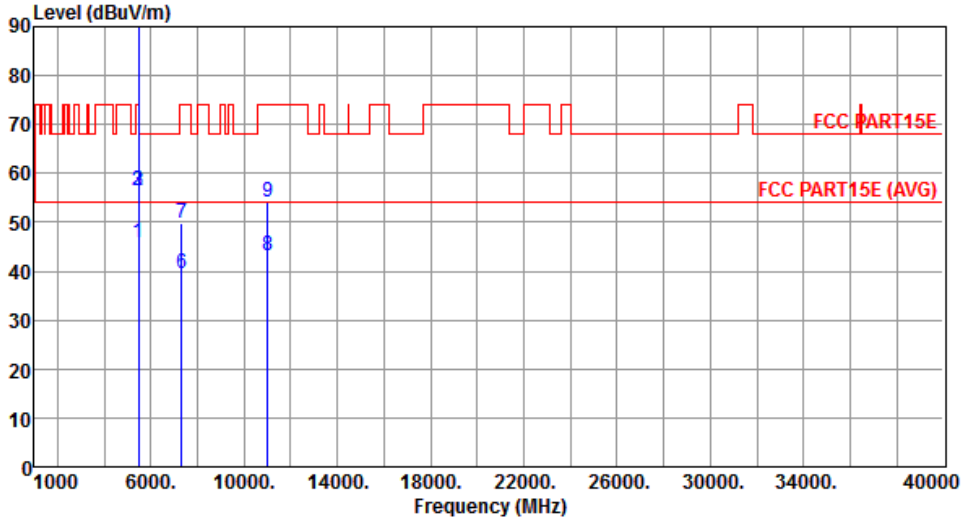
Modulation	11a	Test Freq. (MHz)	5320
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5320.00	105.70			99.54	6.16	Average	100	241
2	*	5320.00	114.53			108.37	6.16	Peak	100	241
3		5350.00	50.82	54.00	-3.18	44.61	6.21	Average	100	241
4		5350.00	65.60	74.00	-8.40	59.39	6.21	Peak	100	241
5		7093.33	52.54	68.20	-15.66	42.63	9.91	Peak	100	156
6		10640.00	43.01	54.00	-10.99	27.52	15.49	Average	122	168
7		10640.00	55.87	74.00	-18.13	40.38	15.49	Peak	122	168

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

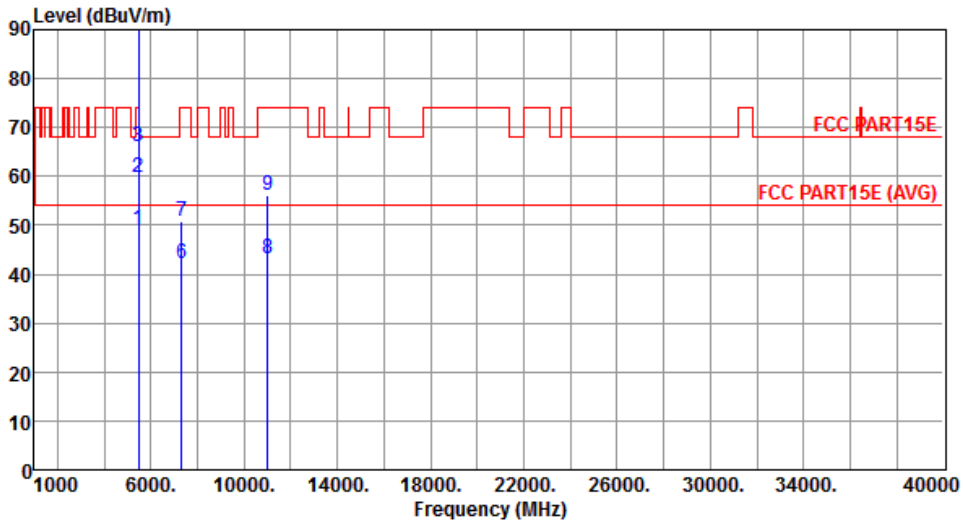
Modulation	11a	Test Freq. (MHz)	5500
Polarization	Horizontal		



		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	45.90	54.00	-8.10	39.54	6.36	Average	100	310
2		5460.00	56.59	74.00	-17.41	50.23	6.36	Peak	100	310
3		5470.00	56.49	68.20	-11.71	50.12	6.37	Peak	100	310
4	*	5500.00	99.00			92.61	6.39	Average	100	310
5	*	5500.00	108.64			102.25	6.39	Peak	100	310
6		7333.33	39.64	54.00	-14.36	29.34	10.30	Average	100	156
7		7333.33	49.88	74.00	-24.12	39.58	10.30	Peak	100	156
8		11000.00	43.28	54.00	-10.72	27.54	15.74	Average	100	156
9		11000.00	53.99	74.00	-20.01	38.25	15.74	Peak	100	156

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

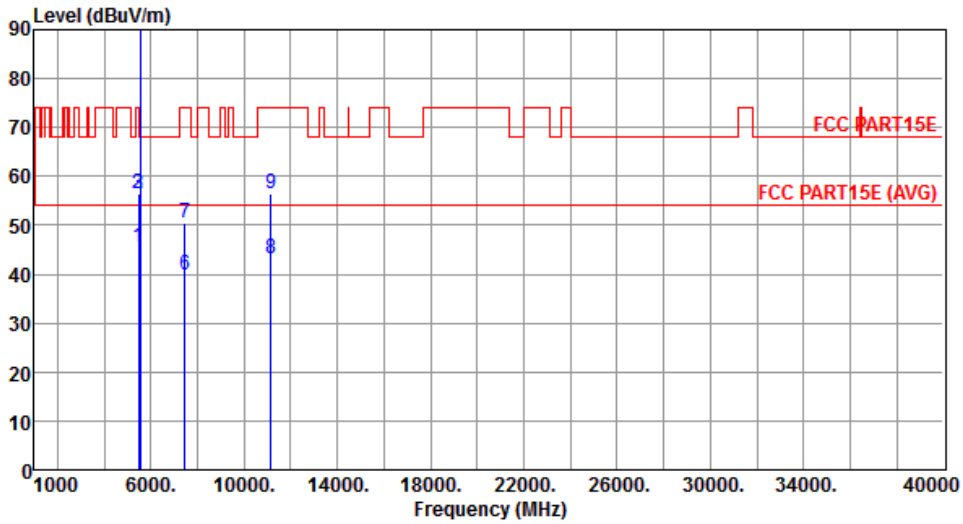
Modulation	11a	Test Freq. (MHz)	5500
Polarization	Vertical		



		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	49.04	54.00	-4.96	42.68	6.36	Average	107	270
2		5460.00	59.88	74.00	-14.12	53.52	6.36	Peak	107	270
3		5470.00	66.17	68.20	-2.03	59.80	6.37	Peak	107	270
4	*	5500.00	105.36			98.97	6.39	Average	107	270
5	*	5500.00	115.35			108.96	6.39	Peak	107	270
6		7333.33	42.02	54.00	-11.98	31.72	10.30	Average	100	227
7		7333.33	50.90	74.00	-23.10	40.60	10.30	Peak	100	227
8		11000.00	43.30	54.00	-10.70	27.56	15.74	Average	183	156
9		11000.00	56.05	74.00	-17.95	40.31	15.74	Peak	183	156

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

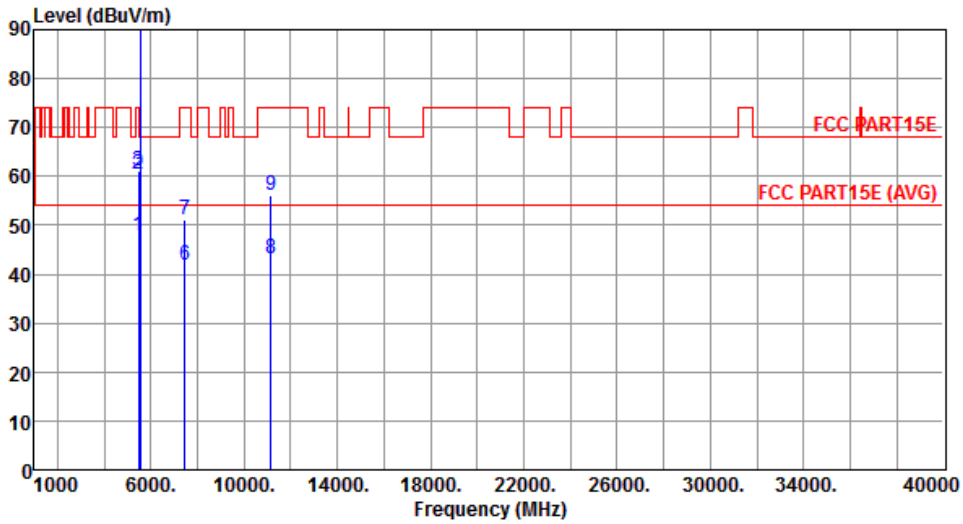
Modulation	11a	Test Freq. (MHz)	5580
Polarization	Horizontal		



		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	45.48	54.00	-8.52	39.12	6.36	Average	100	310
2		5460.00	56.35	74.00	-17.65	49.99	6.36	Peak	100	310
3		5470.00	56.57	68.20	-11.63	50.20	6.37	Peak	100	310
4	*	5580.00	98.90			92.43	6.47	Average	100	310
5	*	5580.00	108.71			102.24	6.47	Peak	100	310
6		7440.00	39.98	54.00	-14.02	29.43	10.55	Average	100	218
7		7440.00	50.58	74.00	-23.42	40.03	10.55	Peak	100	218
8		11160.00	43.15	54.00	-10.85	27.32	15.83	Average	100	156
9		11160.00	56.30	74.00	-17.70	40.47	15.83	Peak	100	156

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

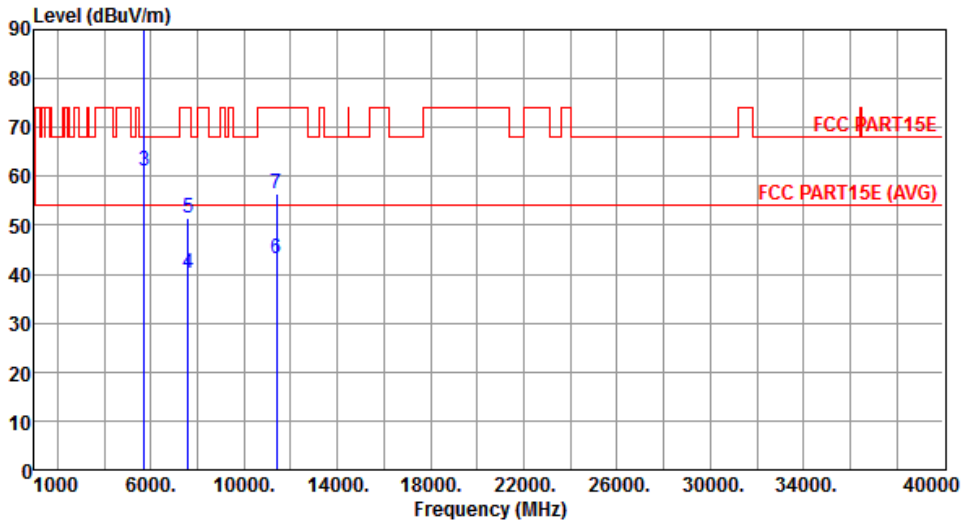
Modulation	11a	Test Freq. (MHz)	5580
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5460.00	47.69	54.00	-6.31	41.33	6.36	Average	109	269
2		5460.00	60.36	74.00	-13.64	54.00	6.36	Peak	109	269
3		5470.00	61.02	68.20	-7.18	54.65	6.37	Peak	109	269
4	*	5580.00	105.30			98.83	6.47	Average	109	269
5	*	5580.00	114.33			107.86	6.47	Peak	109	269
6		7440.00	41.89	54.00	-12.11	31.34	10.55	Average	100	227
7		7440.00	51.12	74.00	-22.88	40.57	10.55	Peak	100	227
8		11160.00	43.06	54.00	-10.94	27.23	15.83	Average	100	168
9		11160.00	56.21	74.00	-17.79	40.38	15.83	Peak	100	168

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

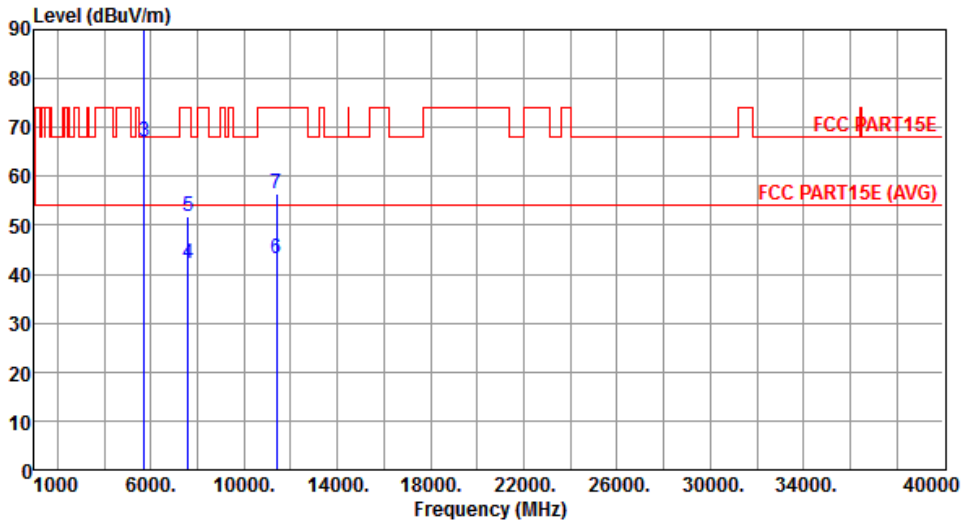
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5700.00	99.31			92.54	6.77	Average	100	321
2	*	5700.00	109.22			102.45	6.77	Peak	100	321
3		5725.00	61.15	68.20	-7.05	54.32	6.83	Peak	100	321
4		7600.00	40.26	54.00	-13.74	29.23	11.03	Average	100	196
5		7600.00	51.36	74.00	-22.64	40.33	11.03	Peak	100	196
6		11400.00	43.27	54.00	-10.73	27.31	15.96	Average	100	137
7		11400.00	56.43	74.00	-17.57	40.47	15.96	Peak	100	137

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

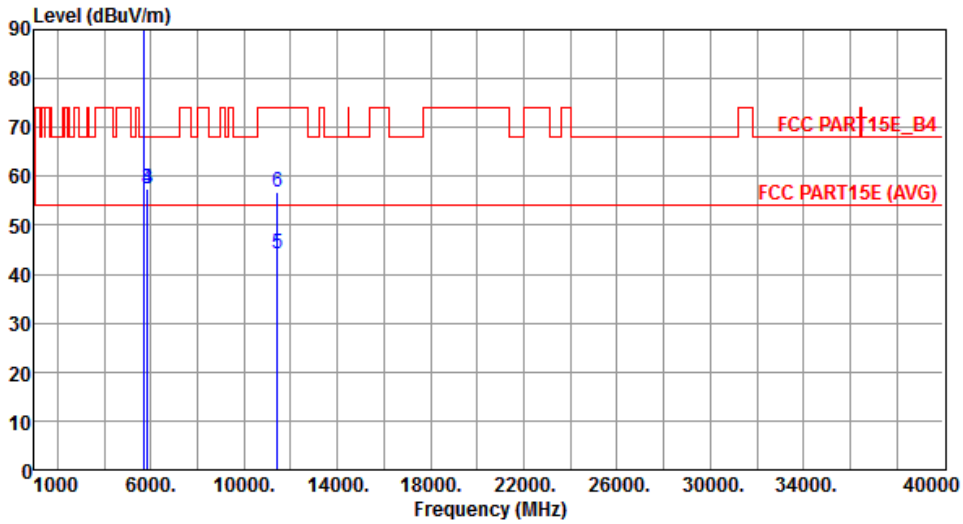
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5700.00	105.67			98.90	6.77	Average	100	264
2	*	5700.00	114.85			108.08	6.77	Peak	100	264
3		5725.00	66.98	68.20	-1.22	60.15	6.83	Peak	100	235
4		7600.00	42.34	54.00	-11.66	31.31	11.03	Average	100	216
5		7600.00	51.70	74.00	-22.30	40.67	11.03	Peak	100	216
6		11400.00	43.29	54.00	-10.71	27.33	15.96	Average	100	175
7		11400.00	56.52	74.00	-17.48	40.56	15.96	Peak	100	175

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

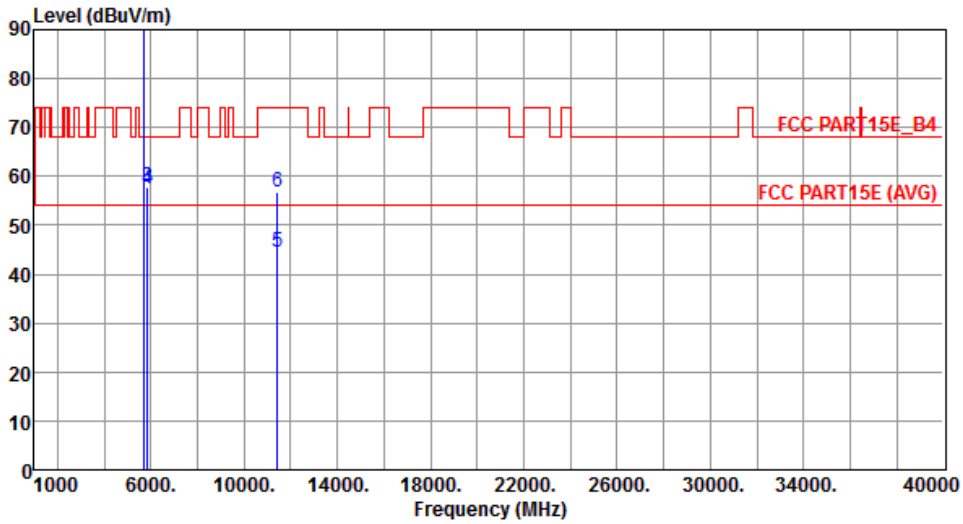
Modulation	11a	Test Freq. (MHz)	5720
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5720.00	101.53			94.71	6.82	Average	214	149
2	*	5720.00	110.74			103.92	6.82	Peak	214	149
3		5850.00	57.60	78.20	-20.60	50.44	7.16	Peak	214	149
4		5860.00	57.50	68.20	-10.70	50.32	7.18	Peak	214	149
5		11440.00	44.08	54.00	-9.92	28.09	15.99	Average	188	153
6		11440.00	56.71	74.00	-17.29	40.72	15.99	Peak	188	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).
Note 3:"*" is Peak / Average value of fundamental frequency.

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

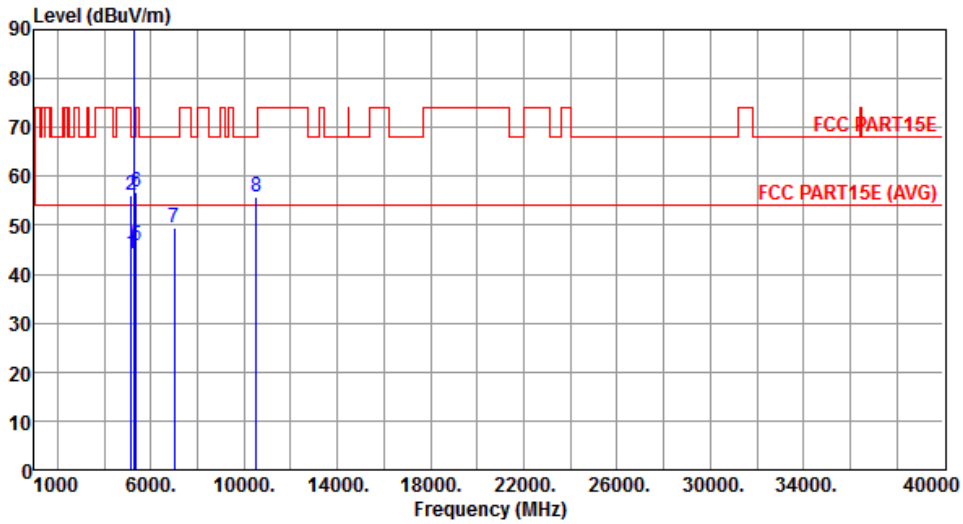


		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5720.00	104.55			97.73	6.82	Average	220	296
2	*	5720.00	113.37			106.55	6.82	Peak	220	296
3		5850.00	57.69	78.20	-20.51	50.53	7.16	Peak	220	296
4		5860.00	57.44	68.20	-10.76	50.26	7.18	Peak	220	296
5		11440.00	44.49	54.00	-9.51	28.50	15.99	Average	168	213
6		11440.00	56.92	74.00	-17.08	40.93	15.99	Peak	168	213

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

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

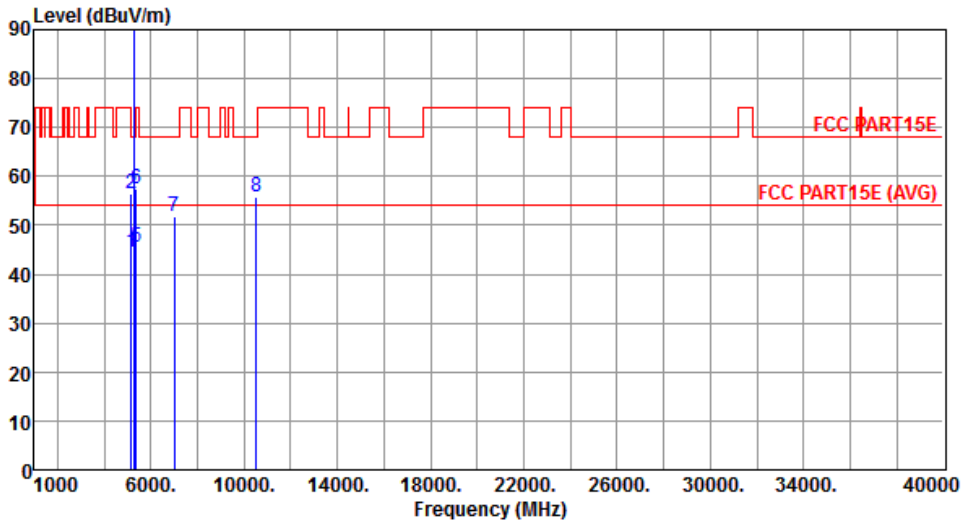
Modulation	VHT20	**Test Freq. (MHz)**	5260
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	44.28	54.00	-9.72	38.41	5.87	Average	100	311
2		5150.00	56.10	74.00	-17.90	50.23	5.87	Peak	100	310
3	*	5260.00	100.93			94.89	6.04	Average	100	311
4	*	5260.00	112.22			106.18	6.04	Peak	100	310
5		5350.00	45.78	54.00	-8.22	39.57	6.21	Average	100	311
6		5350.00	56.70	74.00	-17.30	50.49	6.21	Peak	100	311
7		7013.33	49.64	68.20	-18.56	39.85	9.79	Peak	100	185
8		10520.00	55.93	68.20	-12.27	40.52	15.41	Peak	100	195

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

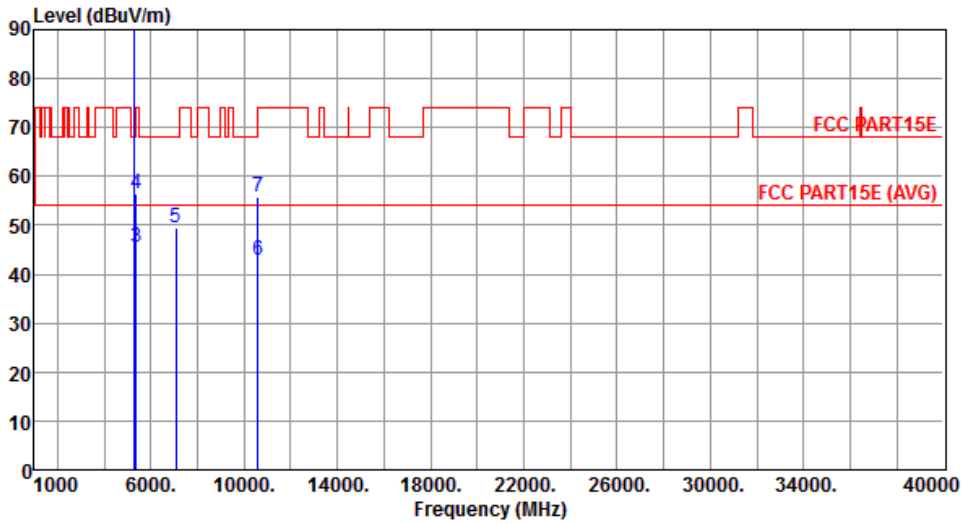
Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	44.40	54.00	-9.60	38.53	5.87	Average	100	243
2		5150.00	56.35	74.00	-17.65	50.48	5.87	Peak	100	243
3	*	5260.00	104.50			98.46	6.04	Average	100	243
4	*	5260.00	114.42			108.38	6.04	Peak	100	243
5		5350.00	45.64	54.00	-8.36	39.43	6.21	Average	100	243
6		5350.00	57.45	74.00	-16.55	51.24	6.21	Peak	100	243
7		7013.33	51.91	68.20	-16.29	42.12	9.79	Peak	100	150
8		10520.00	55.65	68.20	-12.55	40.24	15.41	Peak	120	158

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

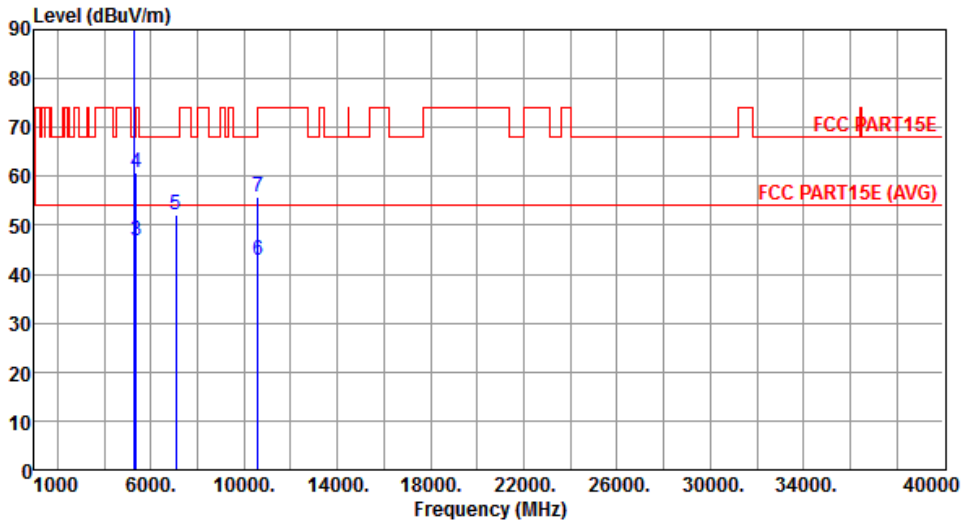
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5300.00	100.90			94.78	6.12	Average	100	308
2	*	5300.00	111.87			105.75	6.12	Peak	100	308
3		5350.00	45.39	54.00	-8.61	39.18	6.21	Average	100	308
4		5350.00	56.48	74.00	-17.52	50.27	6.21	Peak	100	308
5		7066.66	49.34	68.20	-18.86	39.48	9.86	Peak	100	168
6		10600.00	42.90	54.00	-11.10	27.44	15.46	Average	100	166
7		10600.00	55.69	74.00	-18.31	40.23	15.46	Peak	100	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).
Note 3:"*" is Peak / Average value of fundamental frequency.

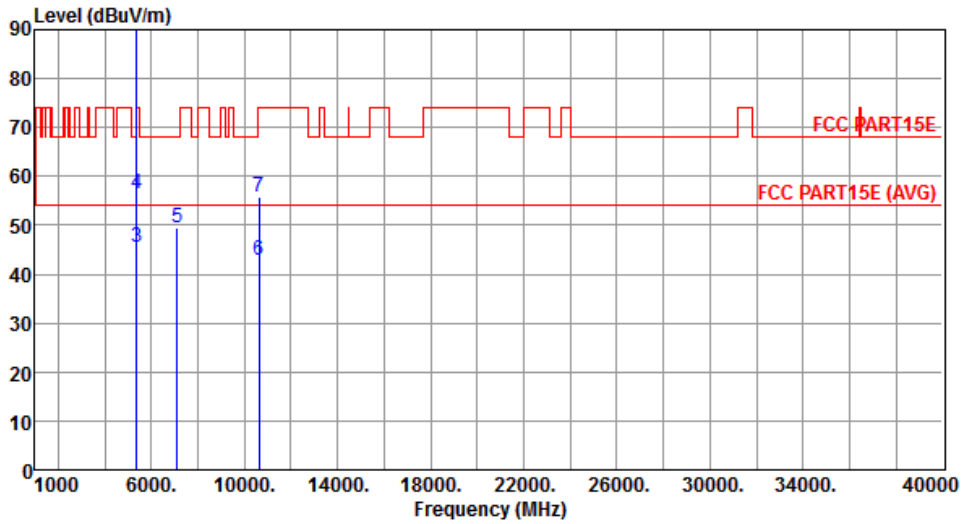
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5300.00	104.49			98.37	6.12	Average	100	242
2	*	5300.00	114.55			108.43	6.12	Peak	100	242
3		5350.00	46.75	54.00	-7.25	40.54	6.21	Average	100	242
4		5350.00	60.64	74.00	-13.36	54.43	6.21	Peak	100	242
5		7066.66	52.03	68.20	-16.17	42.17	9.86	Peak	100	166
6		10600.00	42.84	54.00	-11.16	27.38	15.46	Average	118	159
7		10600.00	55.80	74.00	-18.20	40.34	15.46	Peak	118	159

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

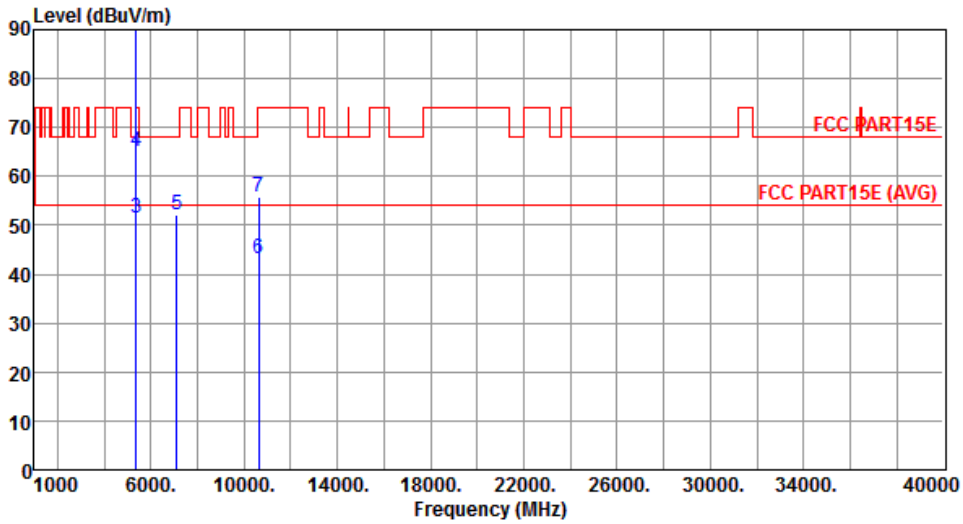
Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5320.00	100.81			94.65	6.16	Average	100	305
2	*	5320.00	111.78			105.62	6.16	Peak	100	305
3		5350.00	45.45	54.00	-8.55	39.24	6.21	Average	100	305
4		5350.00	56.50	74.00	-17.50	50.29	6.21	Peak	100	305
5		7093.33	49.39	68.20	-18.81	39.48	9.91	Peak	100	165
6		10640.00	42.84	54.00	-11.16	27.35	15.49	Average	100	166
7		10640.00	55.65	74.00	-18.35	40.16	15.49	Peak	100	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).
Note 3:"*" is Peak / Average value of fundamental frequency.

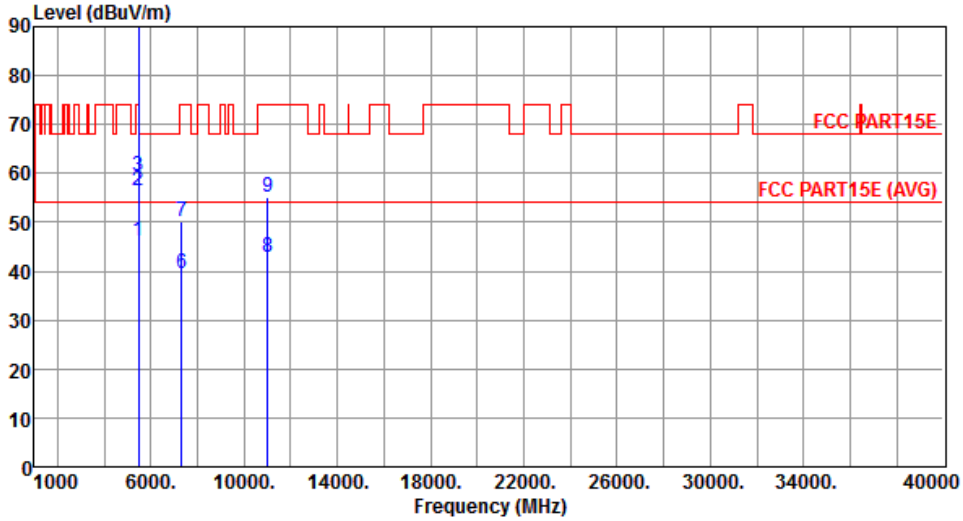
Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5320.00	104.45			98.29	6.16	Average	100	240
2	*	5320.00	114.42			108.26	6.16	Peak	100	240
3		5350.00	51.35	54.00	-2.65	45.14	6.21	Average	100	240
4		5350.00	65.22	74.00	-8.78	59.01	6.21	Peak	100	240
5		7093.33	52.07	68.20	-16.13	42.16	9.91	Peak	100	155
6		10640.00	43.11	54.00	-10.89	27.62	15.49	Average	120	165
7		10640.00	55.90	74.00	-18.10	40.41	15.49	Peak	122	168

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

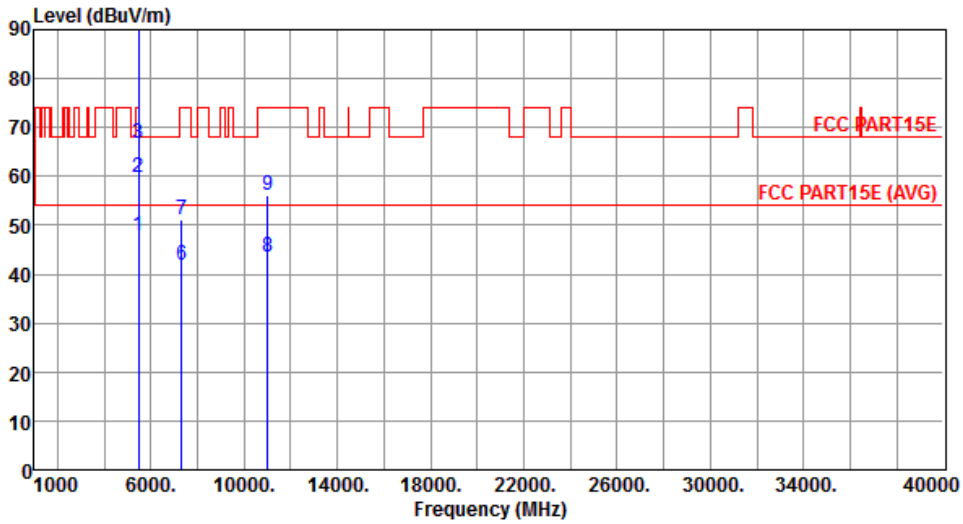
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Horizontal		



		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	46.04	54.00	-7.96	39.68	6.36	Average	100	308
2		5460.00	56.52	74.00	-17.48	50.16	6.36	Peak	100	308
3		5470.00	59.60	68.20	-8.60	53.23	6.37	Peak	100	308
4	*	5500.00	99.12			92.73	6.39	Average	100	308
5	*	5500.00	108.75			102.36	6.39	Peak	100	308
6		7333.33	39.63	54.00	-14.37	29.33	10.30	Average	100	155
7		7333.33	50.02	74.00	-23.98	39.72	10.30	Peak	100	155
8		11000.00	43.00	54.00	-11.00	27.26	15.74	Average	100	168
9		11000.00	55.05	74.00	-18.95	39.31	15.74	Peak	100	168

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

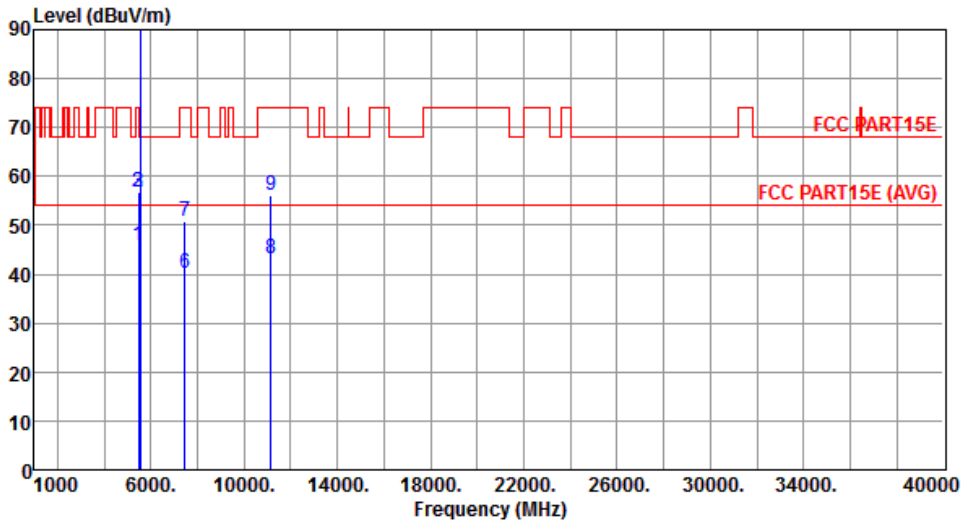
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5460.00	47.67	54.00	-6.33	41.31	6.36	Average	105	270
2		5460.00	59.67	74.00	-14.33	53.31	6.36	Peak	105	270
3		5470.00	66.69	68.20	-1.51	60.32	6.37	Peak	105	270
4	*	5500.00	103.21			96.82	6.39	Average	105	270
5	*	5500.00	113.72			107.33	6.39	Peak	105	270
6		7333.33	41.78	54.00	-12.22	31.48	10.30	Average	100	225
7		7333.33	51.26	74.00	-22.74	40.96	10.30	Peak	100	225
8		11000.00	43.42	54.00	-10.58	27.68	15.74	Average	181	153
9		11000.00	56.21	74.00	-17.79	40.47	15.74	Peak	181	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).
Note 3:"*" is Peak / Average value of fundamental frequency.

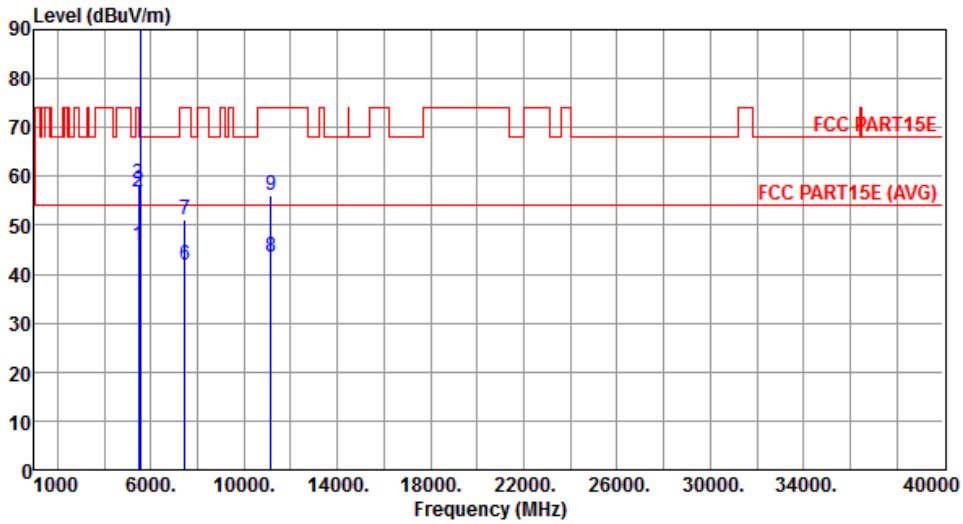
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5460.00	45.74	54.00	-8.26	39.38	6.36	Average	100	311
2		5460.00	56.67	74.00	-17.33	50.31	6.36	Peak	100	311
3		5470.00	56.84	68.20	-11.36	50.47	6.37	Peak	100	311
4	*	5580.00	99.82			93.35	6.47	Average	100	311
5	*	5580.00	109.88			103.41	6.47	Peak	100	311
6		7440.00	40.12	54.00	-13.88	29.57	10.55	Average	100	215
7		7440.00	50.87	74.00	-23.13	40.32	10.55	Peak	100	215
8		11160.00	43.25	54.00	-10.75	27.42	15.83	Average	100	138
9		11160.00	56.14	74.00	-17.86	40.31	15.83	Peak	100	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).
Note 3:"*" is Peak / Average value of fundamental frequency.

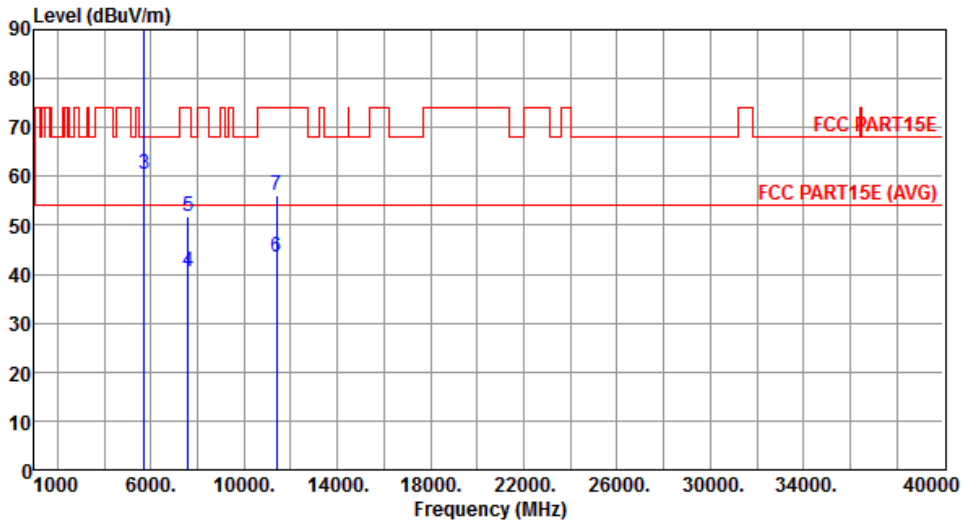
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5460.00	45.84	54.00	-8.16	39.48	6.36	Average	108	270
2		5460.00	56.92	74.00	-17.08	50.56	6.36	Peak	108	270
3		5470.00	58.33	68.20	-9.87	51.96	6.37	Peak	108	270
4	*	5580.00	103.15			96.68	6.47	Average	108	270
5	*	5580.00	113.43			106.96	6.47	Peak	108	270
6		7440.00	41.98	54.00	-12.02	31.43	10.55	Average	100	225
7		7440.00	50.99	74.00	-23.01	40.44	10.55	Peak	100	225
8		11160.00	43.46	54.00	-10.54	27.63	15.83	Average	100	165
9		11160.00	56.26	74.00	-17.74	40.43	15.83	Peak	100	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).
Note 3:"*" is Peak / Average value of fundamental frequency.

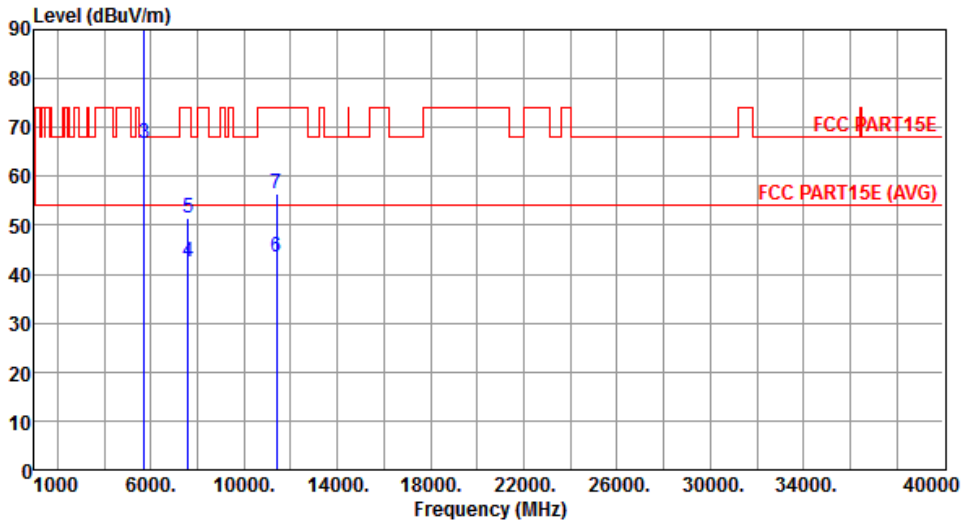
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5700.00	99.20			92.43	6.77	Average	100	320
2	*	5700.00	109.29			102.52	6.77	Peak	100	320
3		5725.00	60.47	68.20	-7.73	53.64	6.83	Peak	100	320
4		7600.00	40.41	54.00	-13.59	29.38	11.03	Average	100	192
5		7600.00	51.75	74.00	-22.25	40.72	11.03	Peak	100	192
6		11400.00	43.42	54.00	-10.58	27.46	15.96	Average	100	135
7		11400.00	56.27	74.00	-17.73	40.31	15.96	Peak	100	135

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

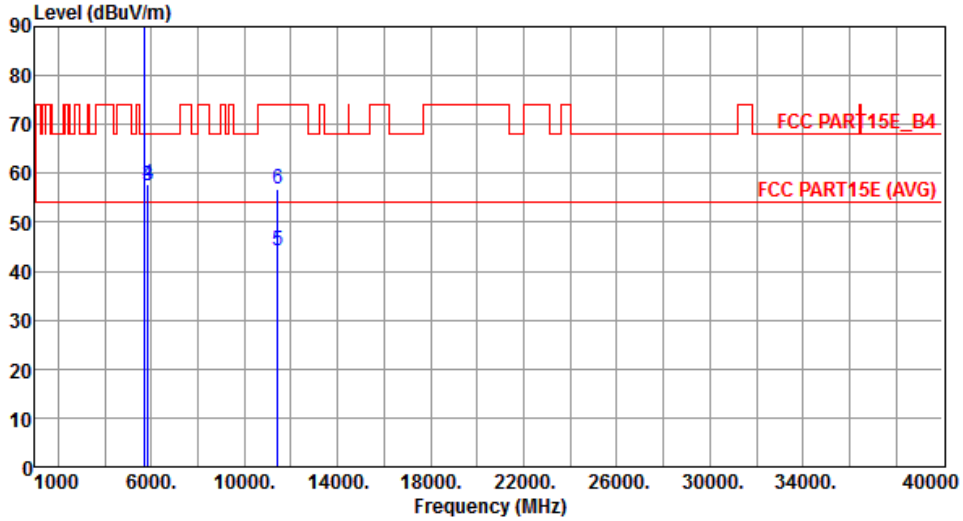
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5700.00	103.77			97.00	6.77	Average	100	263
2	*	5700.00	114.25			107.48	6.77	Peak	100	263
3		5725.00	66.88	68.20	-1.32	60.05	6.83	Peak	100	263
4		7600.00	42.56	54.00	-11.44	31.53	11.03	Average	100	210
5		7600.00	51.52	74.00	-22.48	40.49	11.03	Peak	100	210
6		11400.00	43.52	54.00	-10.48	27.56	15.96	Average	100	172
7		11400.00	56.34	74.00	-17.66	40.38	15.96	Peak	100	172

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

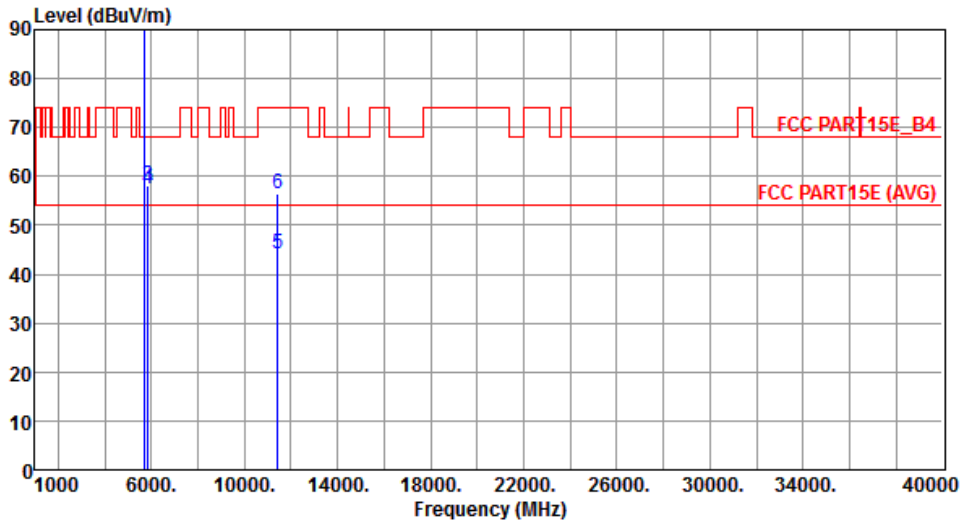
Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5720.00	101.86			95.04	6.82	Average	214	147
2	*	5720.00	111.60			104.78	6.82	Peak	214	147
3		5850.00	57.52	78.20	-20.68	50.36	7.16	Peak	214	147
4		5860.00	57.64	68.20	-10.56	50.46	7.18	Peak	214	147
5		11440.00	44.11	54.00	-9.89	28.12	15.99	Average	156	138
6		11440.00	56.71	74.00	-17.29	40.72	15.99	Peak	156	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).
Note 3:"*" is Peak / Average value of fundamental frequency.

Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Vertical		

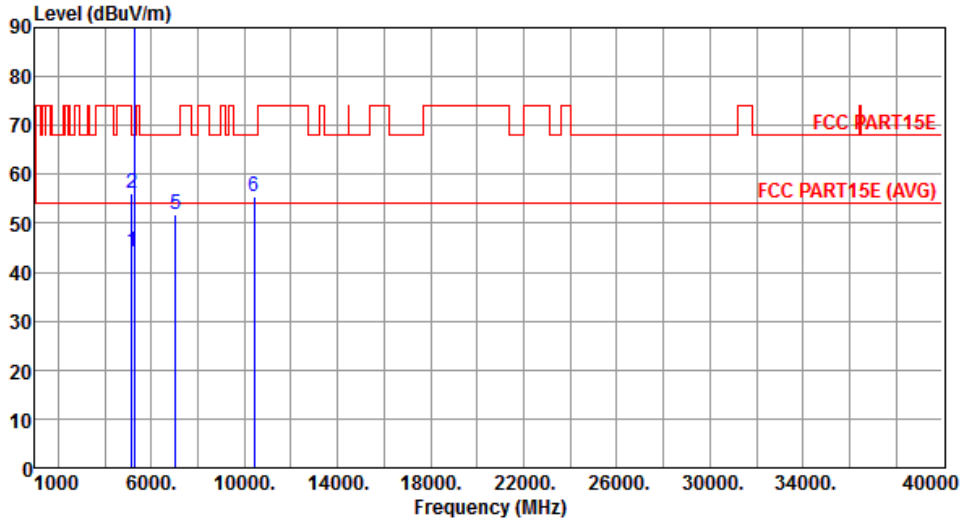


		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5720.00	104.66			97.84	6.82	Average	220	296
2	*	5720.00	114.45			107.63	6.82	Peak	220	296
3		5850.00	58.09	78.20	-20.11	50.93	7.16	Peak	220	296
4		5860.00	57.62	68.20	-10.58	50.44	7.18	Peak	220	296
5		11440.00	44.15	54.00	-9.85	28.16	15.99	Average	143	218
6		11440.00	56.36	74.00	-17.64	40.37	15.99	Peak	143	218

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

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

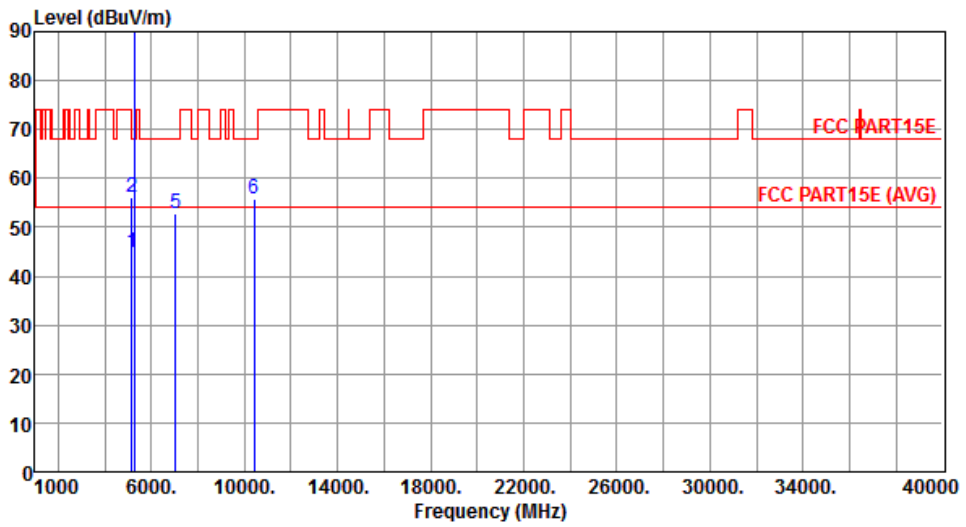
Modulation	VHT40	**Test Freq. (MHz)**	5270
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	44.11	54.00	-9.89	38.24	5.87	Average	156	64
2		5150.00	55.98	74.00	-18.02	50.11	5.87	Peak	156	64
3	*	5270.00	94.63			88.57	6.06	Average	156	64
4	*	5270.00	105.59			99.53	6.06	Peak	156	64
5		7026.66	51.67	68.20	-16.53	41.86	9.81	Peak	155	298
6		10400.00	55.53	68.20	-12.67	40.26	15.27	Peak	142	301

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

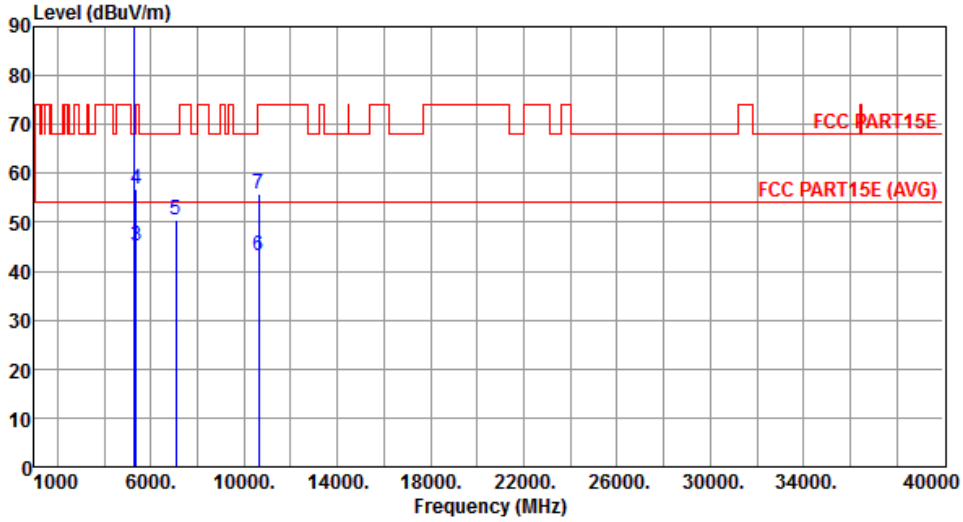
Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	44.70	54.00	-9.30	38.83	5.87	Average	164	314
2		5150.00	56.12	74.00	-17.88	50.25	5.87	Peak	164	314
3	*	5270.00	101.85			95.79	6.06	Average	164	314
4	*	5270.00	112.26			106.20	6.06	Peak	164	314
5		7026.66	52.95	68.20	-15.25	43.14	9.81	Peak	135	98
6		10400.00	55.86	68.20	-12.34	40.59	15.27	Peak	148	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).
Note 3:"*" is Peak / Average value of fundamental frequency.

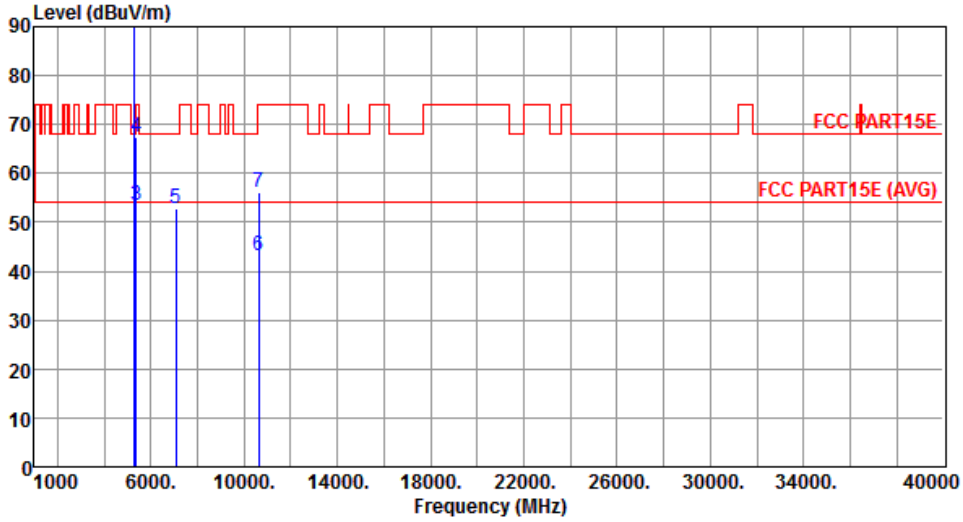
Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5310.00	94.38			88.24	6.14	Average	155	69
2	*	5310.00	105.33			99.19	6.14	Peak	155	69
3		5350.00	45.25	54.00	-8.75	39.04	6.21	Average	155	69
4		5350.00	56.91	74.00	-17.09	50.70	6.21	Peak	155	69
5		7080.00	50.45	68.20	-17.75	40.56	9.89	Peak	156	308
6		10620.00	43.02	54.00	-10.98	27.54	15.48	Average	141	306
7		10620.00	55.81	74.00	-18.19	40.33	15.48	Peak	141	306

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

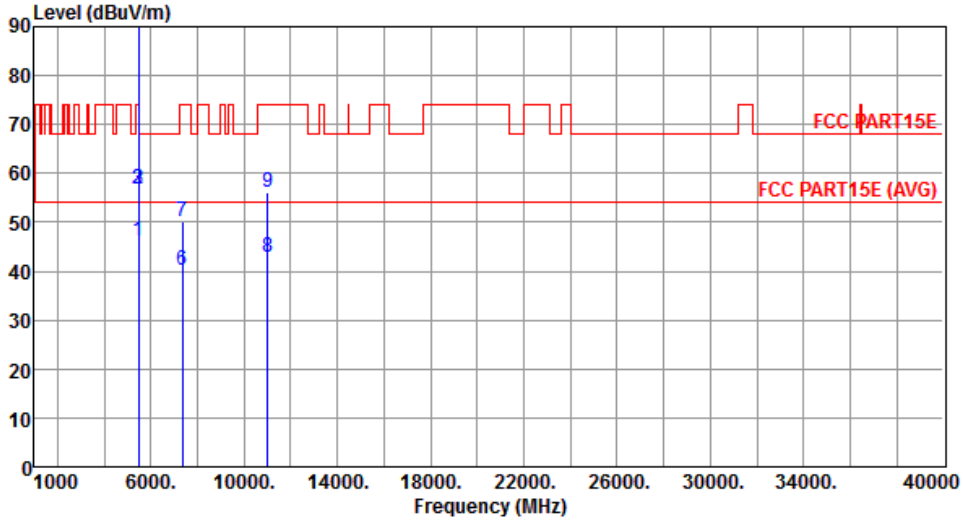
Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5310.00	101.24			95.10	6.14	Average	155	315
2	*	5310.00	112.27			106.13	6.14	Peak	155	315
3		5350.00	53.43	54.00	-0.57	47.22	6.21	Average	133	199
4		5350.00	67.46	74.00	-6.54	61.25	6.21	Peak	133	199
5		7080.00	52.81	68.20	-15.39	42.92	9.89	Peak	136	101
6		10620.00	43.15	54.00	-10.85	27.67	15.48	Average	124	181
7		10620.00	55.96	74.00	-18.04	40.48	15.48	Peak	124	181

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

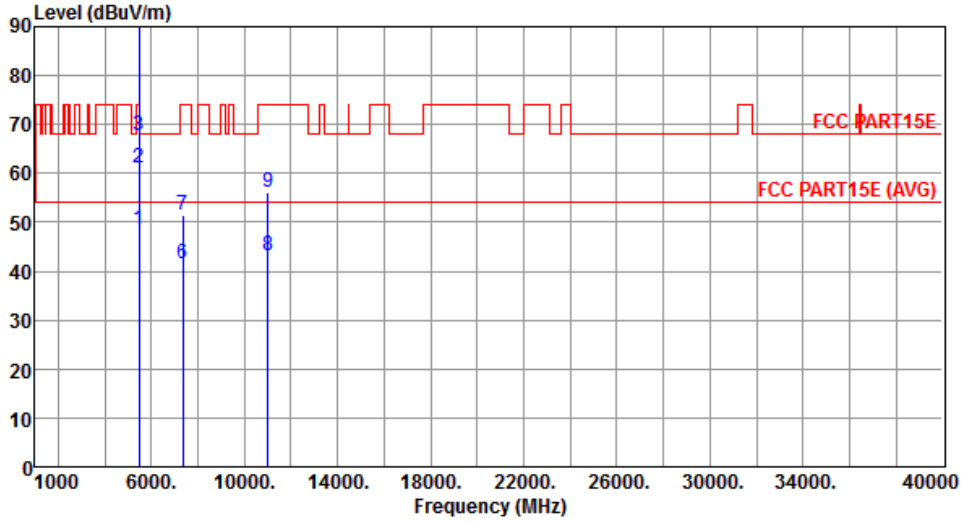
Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Horizontal		



		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	46.15	54.00	-7.85	39.79	6.36	Average	156	81
2		5460.00	56.69	74.00	-17.31	50.33	6.36	Peak	156	81
3		5470.00	56.82	68.20	-11.38	50.45	6.37	Peak	156	81
4	*	5510.00	90.06			83.65	6.41	Average	156	81
5	*	5510.00	101.65			95.24	6.41	Peak	156	81
6		7346.00	40.25	54.00	-13.75	29.93	10.32	Average	144	61
7		7346.00	50.16	74.00	-23.84	39.84	10.32	Peak	144	61
8		11020.00	42.88	54.00	-11.12	27.13	15.75	Average	161	134
9		11020.00	55.96	74.00	-18.04	40.21	15.75	Peak	161	134

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

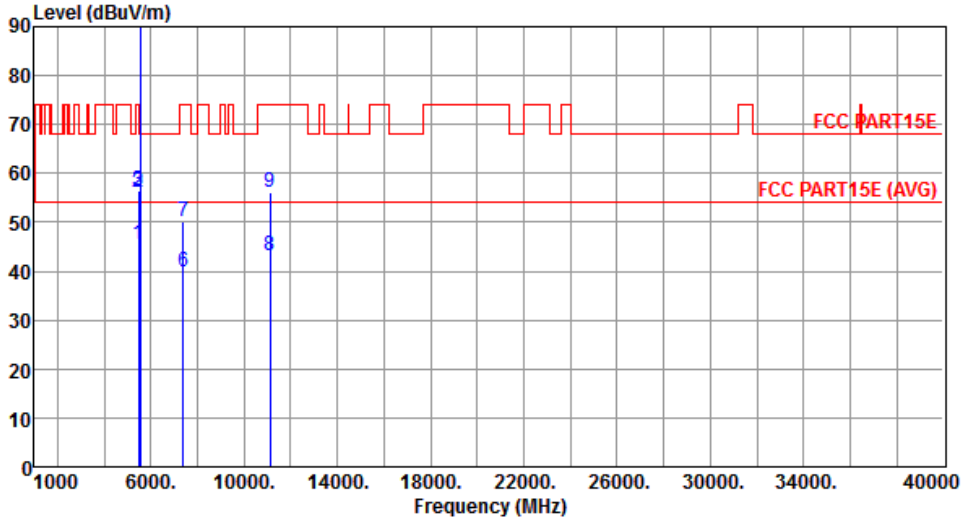
Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical		



		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	48.54	54.00	-5.46	42.18	6.36	Average	145	348
2		5460.00	60.94	74.00	-13.06	54.58	6.36	Peak	145	348
3		5470.00	67.64	68.20	-0.56	61.27	6.37	Peak	146	199
4	*	5510.00	97.18			90.77	6.41	Average	140	351
5	*	5510.00	107.81			101.40	6.41	Peak	140	351
6		7346.00	41.52	54.00	-12.48	31.20	10.32	Average	150	226
7		7346.00	51.33	74.00	-22.67	41.01	10.32	Peak	150	226
8		11020.00	43.14	54.00	-10.86	27.39	15.75	Average	180	161
9		11020.00	56.02	74.00	-17.98	40.27	15.75	Peak	180	161

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

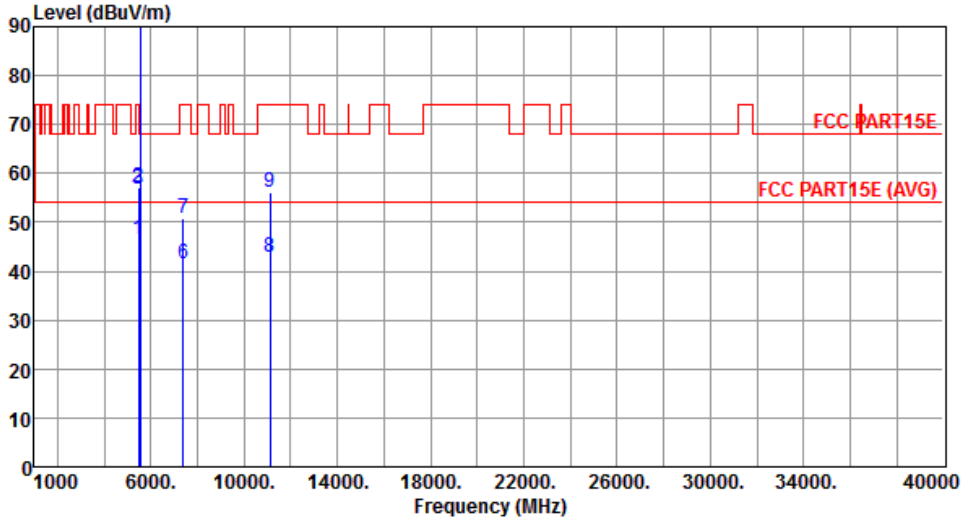
Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5460.00	45.38	54.00	-8.62	39.02	6.36	Average	161	109
2		5460.00	56.22	74.00	-17.78	49.86	6.36	Peak	161	109
3		5470.00	56.41	68.20	-11.79	50.04	6.37	Peak	161	109
4	*	5550.00	92.45			86.00	6.45	Average	161	109
5	*	5550.00	102.68			96.23	6.45	Peak	161	109
6		7400.00	39.85	54.00	-14.15	29.43	10.42	Average	140	236
7		7400.00	50.14	74.00	-23.86	39.72	10.42	Peak	140	236
8		11100.00	43.02	54.00	-10.98	27.22	15.80	Average	164	221
9		11100.00	56.11	74.00	-17.89	40.31	15.80	Peak	164	221

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

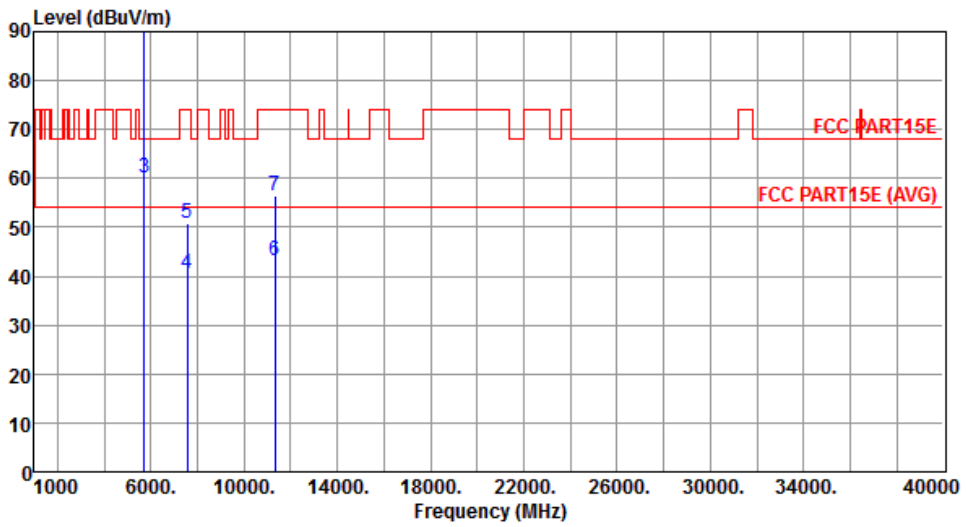
Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5460.00	46.51	54.00	-7.49	40.15	6.36	Average	141	351
2		5460.00	56.98	74.00	-17.02	50.62	6.36	Peak	141	351
3		5470.00	56.84	68.20	-11.36	50.47	6.37	Peak	141	351
4	*	5550.00	99.84			93.39	6.45	Average	141	351
5	*	5550.00	110.27			103.82	6.45	Peak	141	351
6		7400.00	41.65	54.00	-12.35	31.23	10.42	Average	156	248
7		7400.00	50.92	74.00	-23.08	40.50	10.42	Peak	156	248
8		11100.00	42.95	54.00	-11.05	27.15	15.80	Average	126	195
9		11100.00	56.03	74.00	-17.97	40.23	15.80	Peak	126	195

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

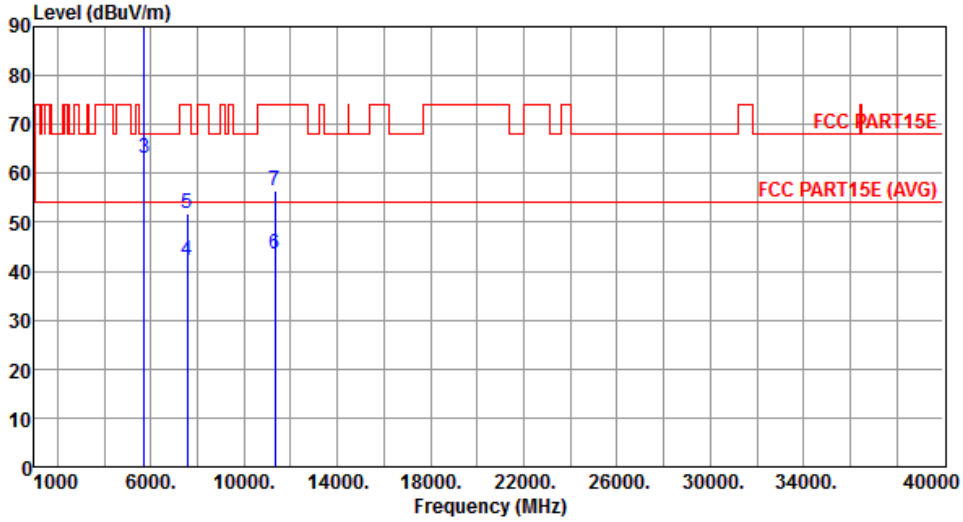
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5670.00	98.04			91.35	6.69	Average	226	181
2	*	5670.00	108.26			101.57	6.69	Peak	226	181
3		5725.00	60.05	68.20	-8.15	53.22	6.83	Peak	226	181
4		7560.00	40.43	54.00	-13.57	29.51	10.92	Average	188	143
5		7560.00	50.88	74.00	-23.12	39.96	10.92	Peak	188	143
6		11340.00	43.17	54.00	-10.83	27.24	15.93	Average	175	218
7		11340.00	56.40	74.00	-17.60	40.47	15.93	Peak	175	218

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

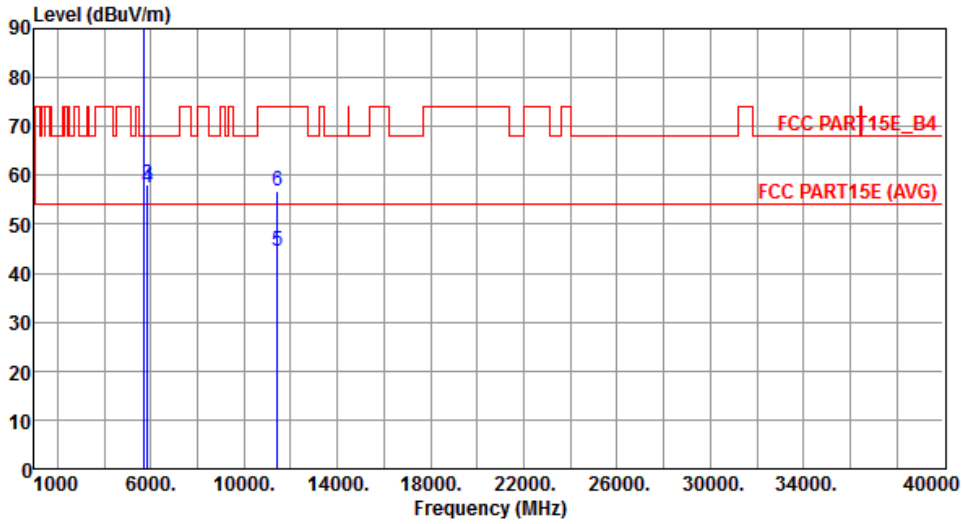
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5670.00	101.98			95.29	6.69	Average	100	272
2	*	5670.00	112.94			106.25	6.69	Peak	100	272
3		5725.00	63.07	68.20	-5.13	56.24	6.83	Peak	100	272
4		7560.00	42.25	54.00	-11.75	31.33	10.92	Average	100	241
5		7560.00	51.88	74.00	-22.12	40.96	10.92	Peak	100	241
6		11340.00	43.35	54.00	-10.65	27.42	15.93	Average	100	168
7		11340.00	56.46	74.00	-17.54	40.53	15.93	Peak	100	168

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

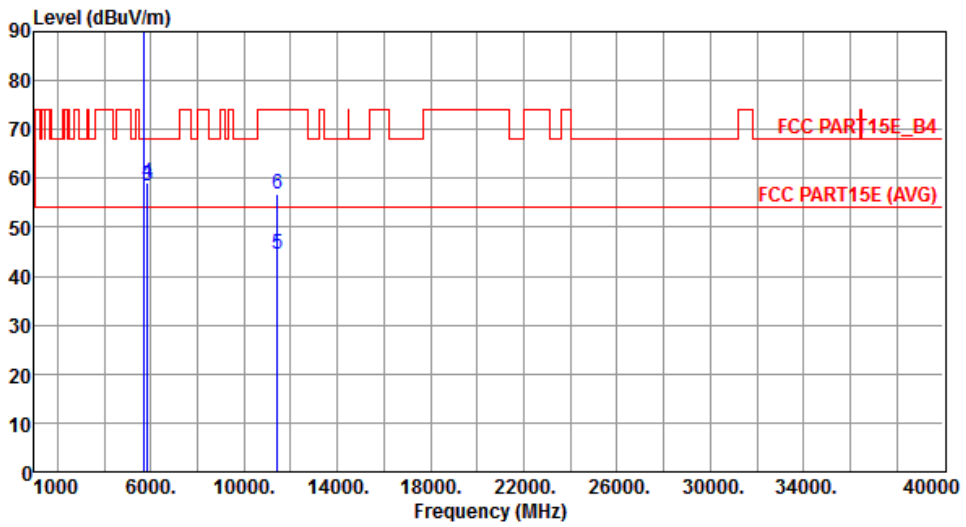
Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5710.00	99.27			92.48	6.79	Average	219	147
2	*	5710.00	109.45			102.66	6.79	Peak	219	147
3		5850.00	58.14	78.20	-20.06	50.98	7.16	Peak	219	147
4		5860.00	57.43	68.20	-10.77	50.25	7.18	Peak	219	147
5		11420.00	44.39	54.00	-9.61	28.41	15.98	Average	158	215
6		11420.00	56.69	74.00	-17.31	40.71	15.98	Peak	158	215

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

Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Vertical		

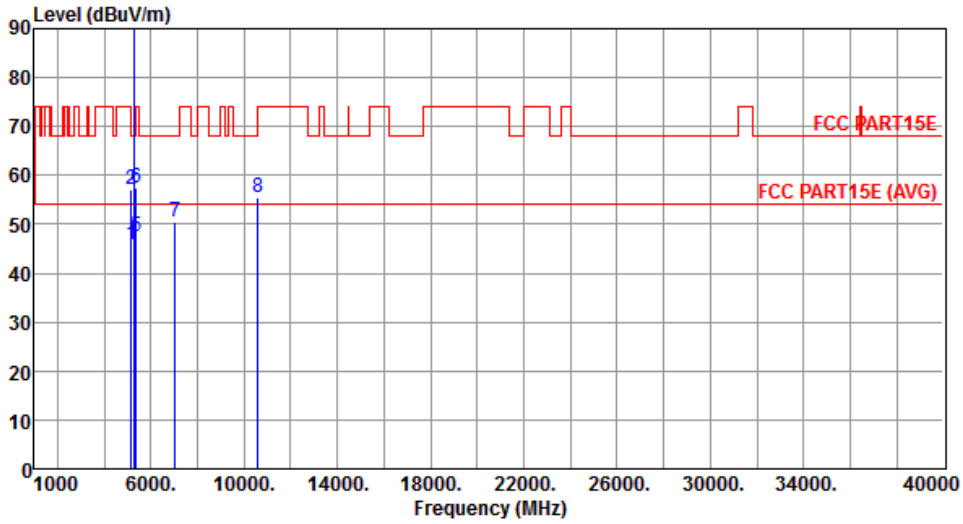


		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5710.00	102.29			95.50	6.79	Average	220	293
2	*	5710.00	112.08			105.29	6.79	Peak	220	293
3		5850.00	58.49	78.20	-19.71	51.33	7.16	Peak	220	293
4		5860.00	59.24	68.20	-8.96	52.06	7.18	Peak	220	293
5		11420.00	44.53	54.00	-9.47	28.55	15.98	Average	122	156
6		11420.00	56.70	74.00	-17.30	40.72	15.98	Peak	122	156

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

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

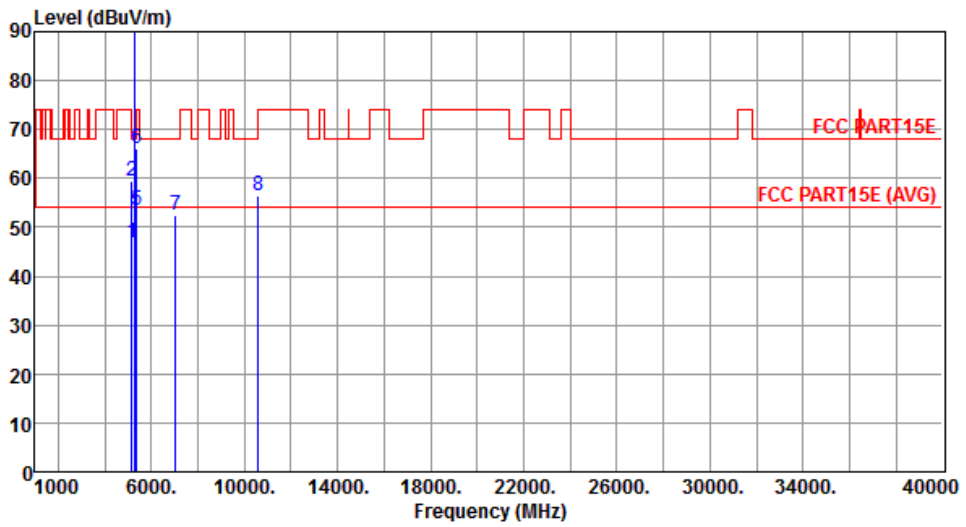
Modulation	VHT80	**Test Freq. (MHz)**	5290
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	45.85	54.00	-8.15	39.98	5.87	Average	100	70
2		5150.00	57.00	74.00	-17.00	51.13	5.87	Peak	100	70
3	*	5290.00	91.92			85.82	6.10	Average	100	70
4	*	5290.00	100.86			94.76	6.10	Peak	100	70
5		5350.00	47.64	54.00	-6.36	41.43	6.21	Average	100	70
6		5350.00	57.52	74.00	-16.48	51.31	6.21	Peak	100	70
7		7053.33	50.39	68.20	-17.81	40.54	9.85	Peak	100	166
8		10580.00	55.61	68.20	-12.59	40.17	15.44	Peak	100	193

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

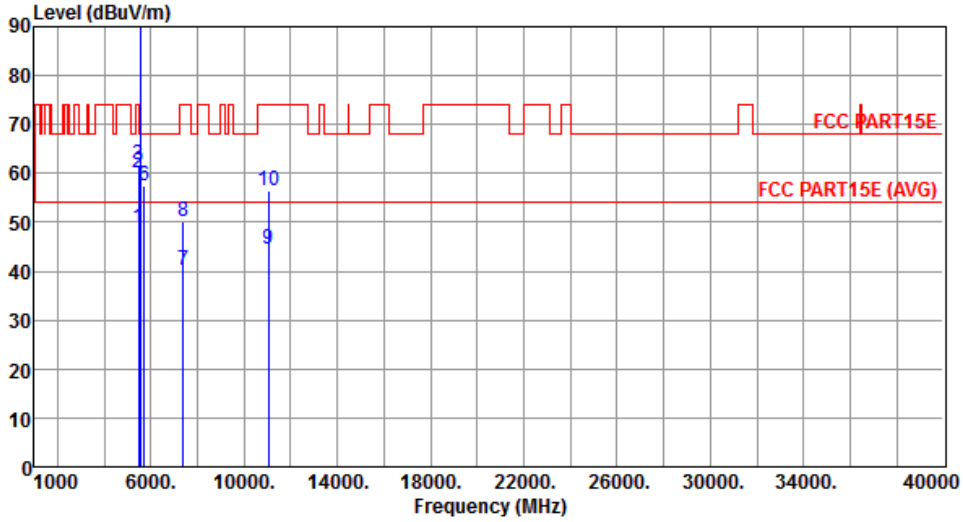
Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical		



		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	46.85	54.00	-7.15	40.98	5.87	Average	100	297
2		5150.00	59.41	74.00	-14.59	53.54	5.87	Peak	100	297
3	*	5290.00	97.72			91.62	6.10	Average	100	264
4	*	5290.00	107.42			101.32	6.10	Peak	100	264
5		5350.00	53.42	54.00	-0.58	47.21	6.21	Average	100	297
6		5350.00	66.10	74.00	-7.90	59.89	6.21	Peak	100	297
7		7053.33	52.38	68.20	-15.82	42.53	9.85	Peak	100	196
8		10580.00	56.30	68.20	-11.90	40.86	15.44	Peak	100	168

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

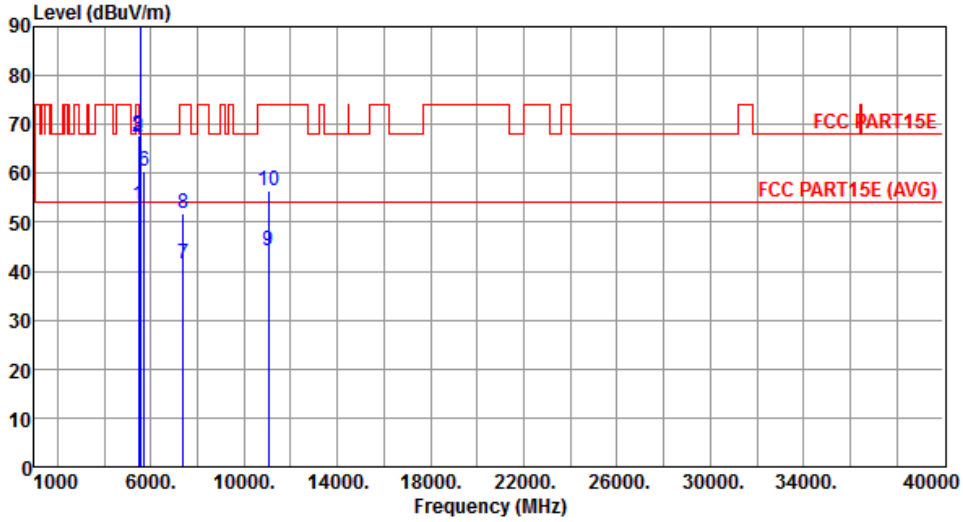
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Horizontal		



		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	48.86	54.00	-5.14	42.50	6.36	Average	219	178
2		5460.00	60.09	74.00	-13.91	53.73	6.36	Peak	219	178
3		5470.00	61.65	68.20	-6.55	55.28	6.37	Peak	219	178
4	*	5530.00	94.18			87.75	6.43	Average	219	178
5	*	5530.00	102.47			96.04	6.43	Peak	219	178
6		5725.00	57.52	68.20	-10.68	50.69	6.83	Peak	219	178
7		7373.33	40.02	54.00	-13.98	29.65	10.37	Average	100	196
8		7373.33	50.01	74.00	-23.99	39.64	10.37	Peak	100	196
9		11060.00	44.41	54.00	-9.59	28.64	15.77	Average	100	165
10		11060.00	56.50	74.00	-17.50	40.73	15.77	Peak	100	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).
Note 3:"*" is Peak / Average value of fundamental frequency.

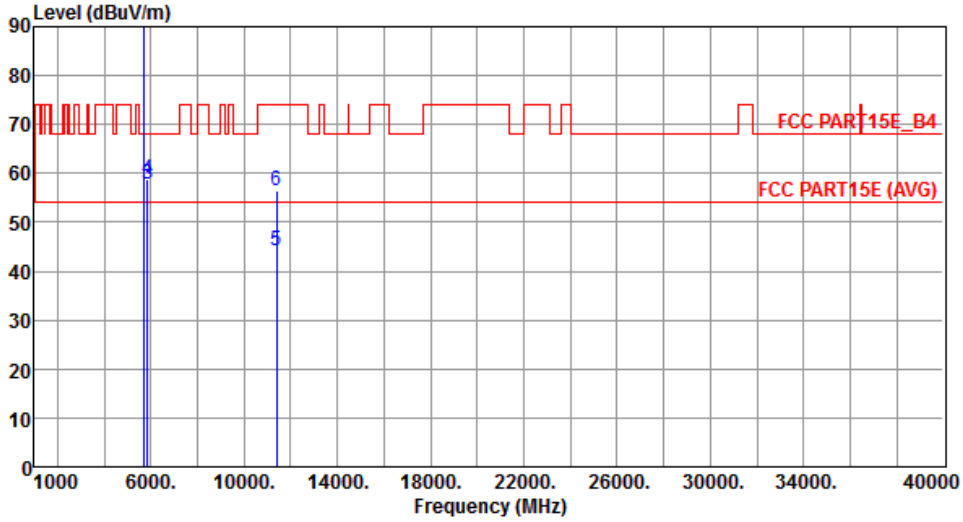
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical		



		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	53.48	54.00	-0.52	47.12	6.36	Average	100	5
2		5460.00	67.27	74.00	-6.73	60.91	6.36	Peak	100	5
3		5470.00	67.75	68.20	-0.45	61.38	6.37	Peak	100	190
4	*	5530.00	97.56			91.13	6.43	Average	100	9
5	*	5530.00	106.77			100.34	6.43	Peak	100	9
6		5725.00	60.58	68.20	-7.62	53.75	6.83	Peak	100	9
7		7373.33	41.61	54.00	-12.39	31.24	10.37	Average	100	212
8		7373.33	51.90	74.00	-22.10	41.53	10.37	Peak	100	212
9		11060.00	44.30	54.00	-9.70	28.53	15.77	Average	100	248
10		11060.00	56.49	74.00	-17.51	40.72	15.77	Peak	100	248

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

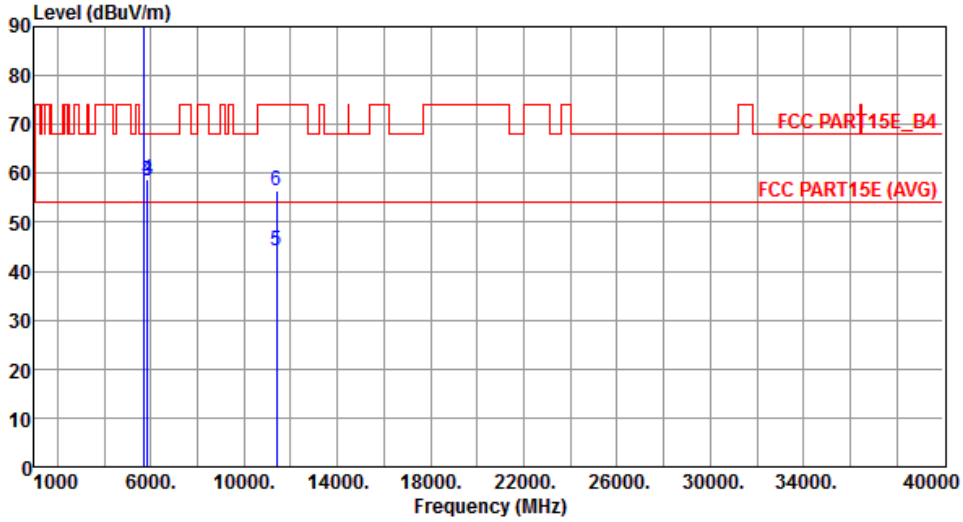
Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5690.00	97.31			90.56	6.75	Average	219	148
2	*	5690.00	105.77			99.02	6.75	Peak	219	148
3		5850.00	57.71	78.20	-20.49	50.55	7.16	Peak	219	148
4		5860.00	58.68	68.20	-9.52	51.50	7.18	Peak	219	148
5		11380.00	44.19	54.00	-9.81	28.24	15.95	Average	165	210
6		11380.00	56.51	74.00	-17.49	40.56	15.95	Peak	165	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).
Note 3:"*" is Peak / Average value of fundamental frequency.

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Vertical		



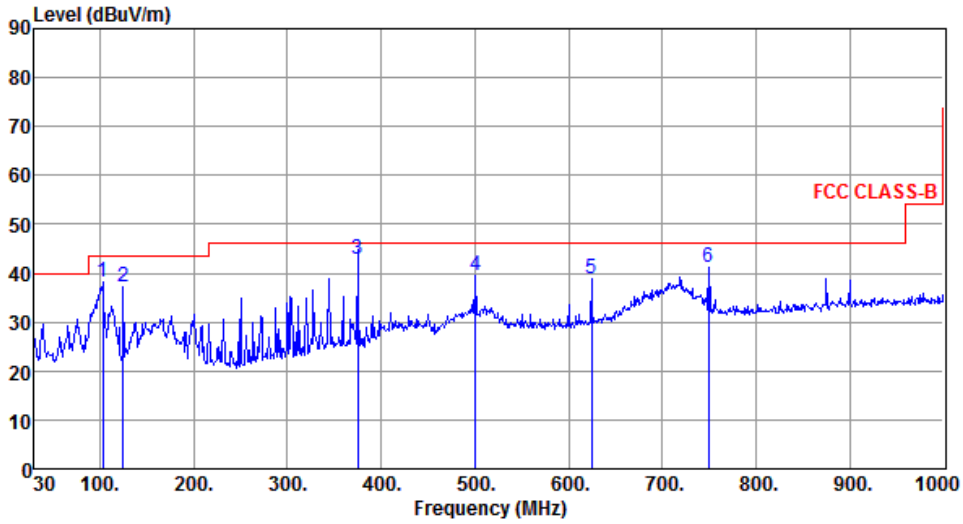
		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5690.00	99.74			92.99	6.75	Average	218	344
2	*	5690.00	108.97			102.22	6.75	Peak	218	344
3		5850.00	58.29	78.20	-19.91	51.13	7.16	Peak	218	344
4		5860.00	58.87	68.20	-9.33	51.69	7.18	Peak	218	344
5		11380.00	44.19	54.00	-9.81	28.24	15.95	Average	148	156
6		11380.00	56.32	74.00	-17.68	40.37	15.95	Peak	148	156

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

Beamforming mode

3.5.9 Transmitter Radiated Unwanted Emissions (Below 1GHz)

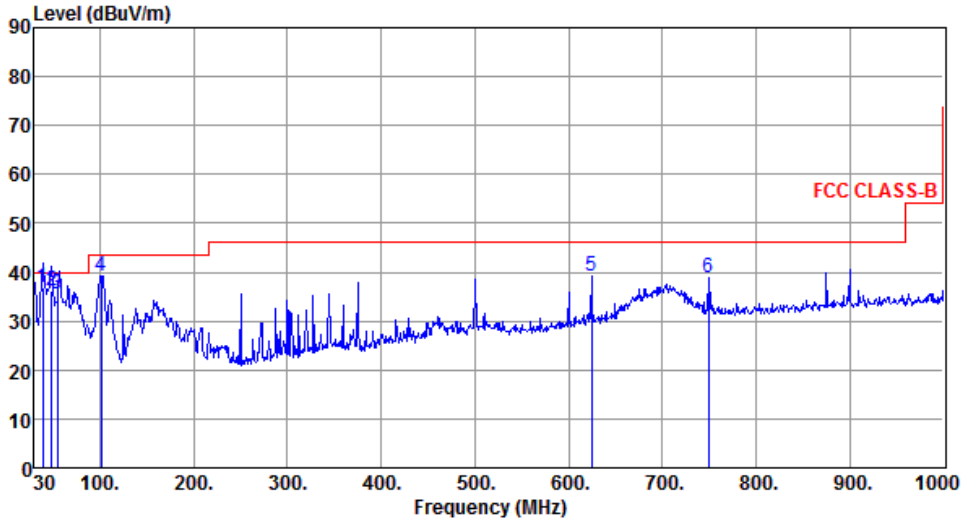
Modulation	VHT40	**Test Freq. (MHz)**	5270
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	102.75	38.22	43.50	-5.28	51.00	-12.78	Peak	---	---
2	125.06	37.20	43.50	-6.30	47.44	-10.24	Peak	---	---
3	375.32	42.91	46.00	-3.09	48.57	-5.66	QP	100	241
4	500.45	39.64	46.00	-6.36	42.56	-2.92	Peak	---	---
5	624.61	38.72	46.00	-7.28	39.10	-0.38	Peak	---	---
6	749.74	41.07	46.00	-4.93	39.18	1.89	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		

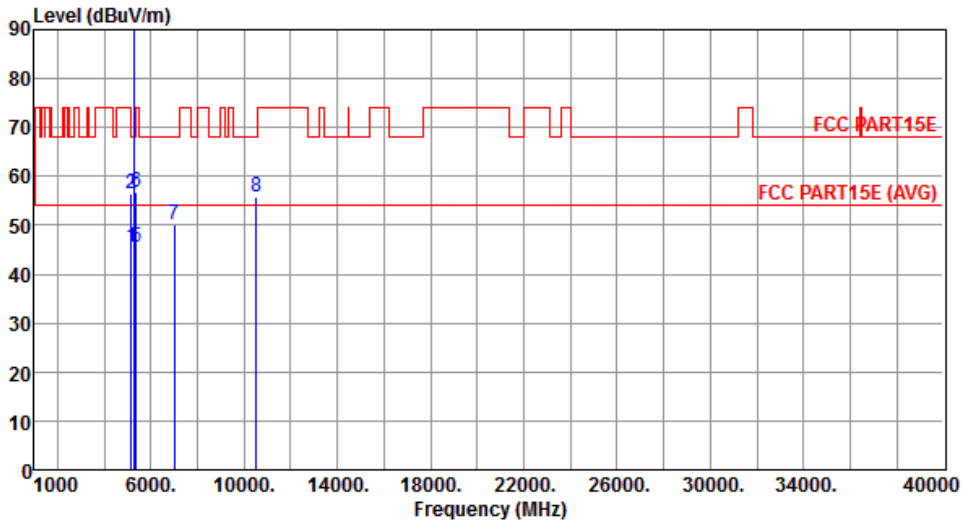


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	38.73	36.83	40.00	-3.17	45.27	-8.44	QP	100	27
2	48.43	36.18	40.00	-3.82	44.02	-7.84	QP	100	63
3	54.19	35.42	40.00	-4.58	43.56	-8.14	QP	100	111
4	101.78	39.33	43.50	-4.17	52.28	-12.95	Peak	---	---
5	624.61	39.33	46.00	-6.67	39.71	-0.38	Peak	---	---
6	749.74	38.88	46.00	-7.12	36.99	1.89	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

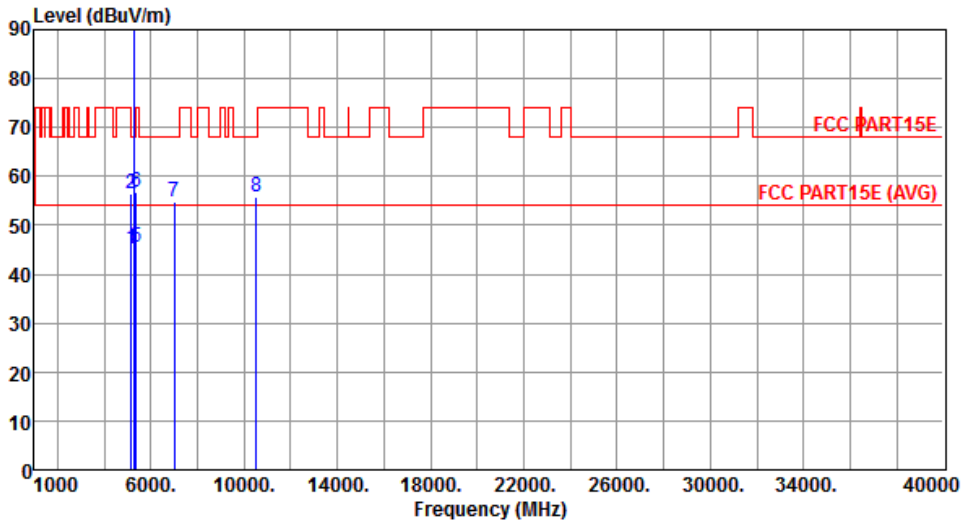
Modulation	VHT20	**Test Freq. (MHz)**	5260
Polarization	Horizontal		



		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	45.34	54.00	-8.66	39.47	5.87	Average	100	305
2		5150.00	56.45	74.00	-17.55	50.58	5.87	Peak	100	305
3	*	5260.00	97.16			91.12	6.04	Average	100	305
4	*	5260.00	109.25			103.21	6.04	Peak	100	305
5		5350.00	45.46	54.00	-8.54	39.25	6.21	Average	100	305
6		5350.00	56.64	74.00	-17.36	50.43	6.21	Peak	100	305
7		7013.33	50.12	68.20	-18.08	40.33	9.79	Peak	100	235
8		10520.00	55.81	68.20	-12.39	40.40	15.41	Peak	100	152

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

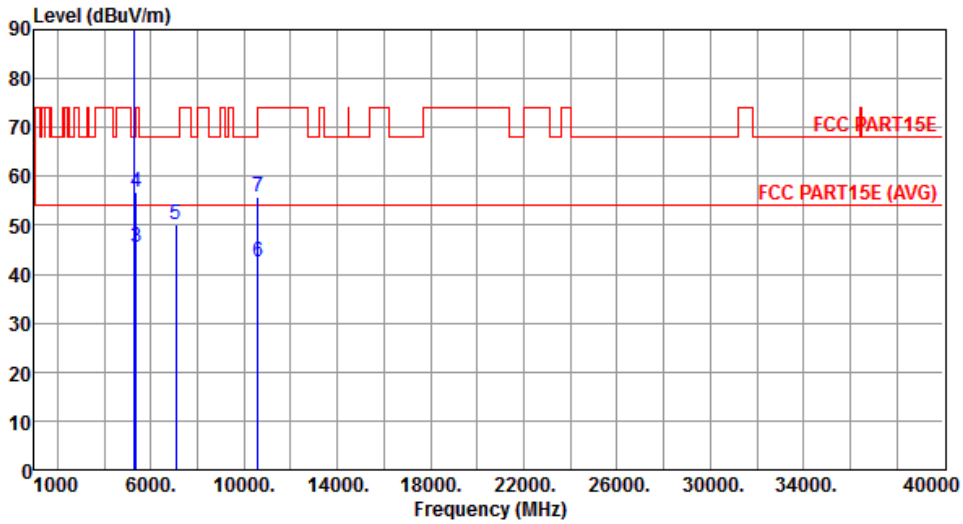
Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	45.20	54.00	-8.80	39.33	5.87	Average	175	295
2		5150.00	56.30	74.00	-17.70	50.43	5.87	Peak	175	295
3	*	5260.00	105.00			98.96	6.04	Average	175	295
4	*	5260.00	116.72			110.68	6.04	Peak	175	295
5		5350.00	45.47	54.00	-8.53	39.26	6.21	Average	175	295
6		5350.00	56.66	74.00	-17.34	50.45	6.21	Peak	175	295
7		7013.33	54.75	68.20	-13.45	44.96	9.79	Peak	100	225
8		10520.00	55.71	68.20	-12.49	40.30	15.41	Peak	150	155

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

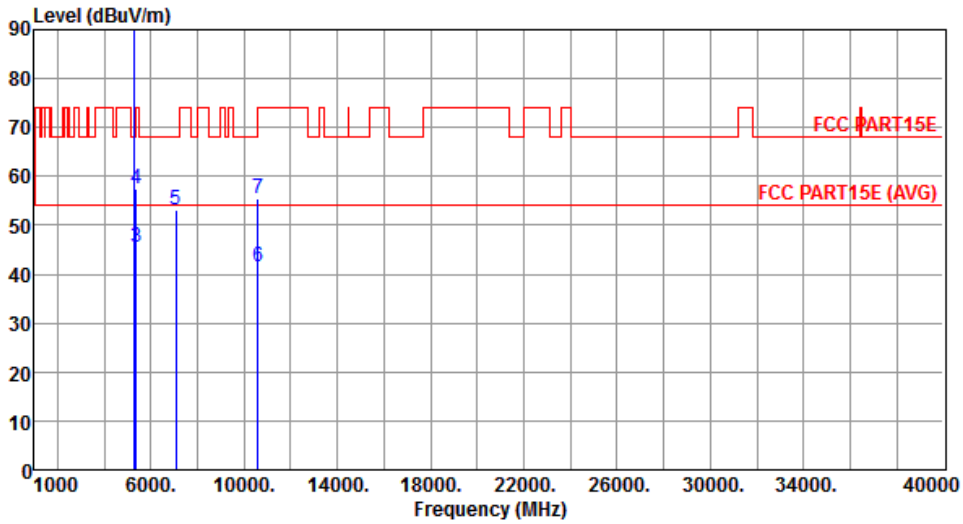
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5300.00	97.24			91.12	6.12	Average	100	310
2	*	5300.00	109.25			103.13	6.12	Peak	100	310
3		5350.00	45.46	54.00	-8.54	39.25	6.21	Average	100	310
4		5350.00	56.70	74.00	-17.30	50.49	6.21	Peak	100	310
5		7066.66	50.15	68.20	-18.05	40.29	9.86	Peak	100	240
6		10600.00	42.62	54.00	-11.38	27.16	15.46	Average	100	155
7		10600.00	55.77	74.00	-18.23	40.31	15.46	Peak	100	155

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

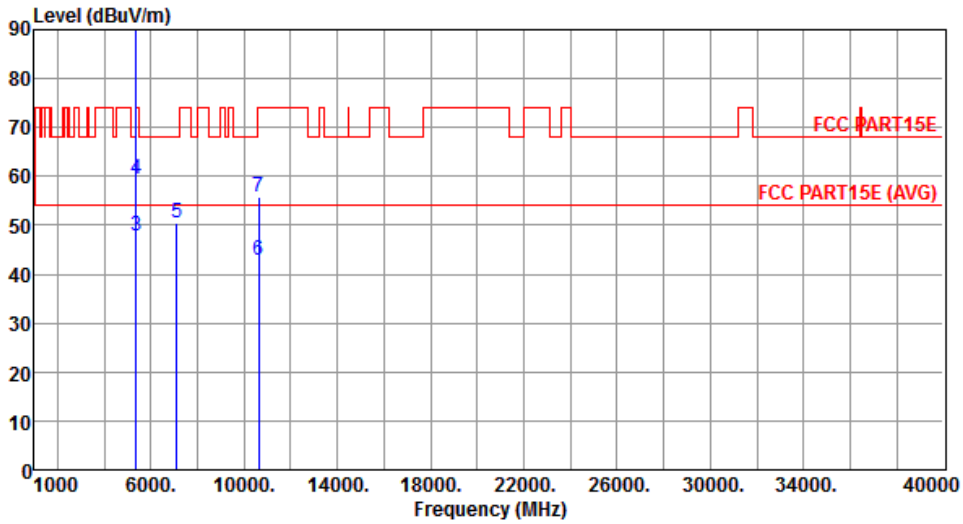
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5300.00	104.98			98.86	6.12	Average	175	293
2	*	5300.00	116.88			110.76	6.12	Peak	175	293
3		5350.00	45.53	54.00	-8.47	39.32	6.21	Average	175	293
4		5350.00	57.35	74.00	-16.65	51.14	6.21	Peak	175	293
5		7066.66	53.15	68.20	-15.05	43.29	9.86	Peak	100	225
6		10600.00	41.58	54.00	-12.42	26.12	15.46	Average	152	165
7		10600.00	55.59	74.00	-18.41	40.13	15.46	Peak	155	168

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

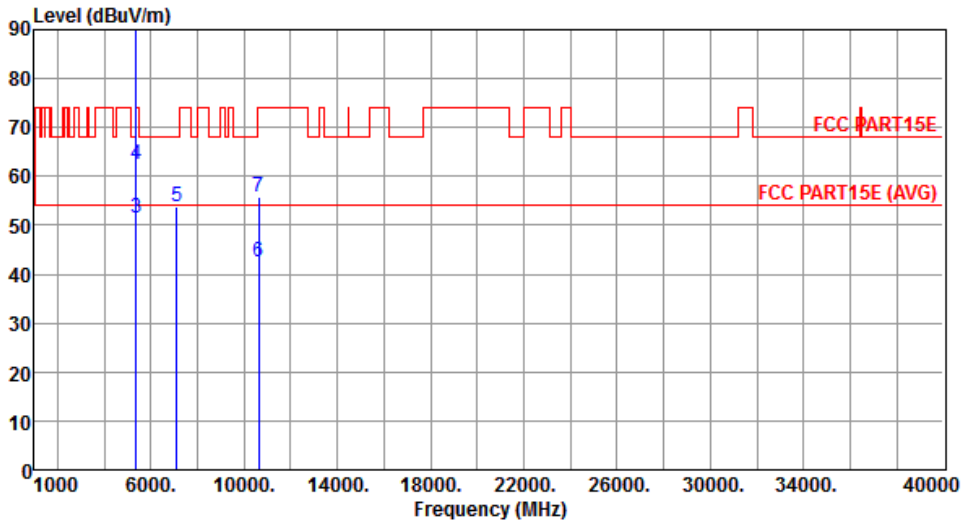
Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5320.00	96.89			90.73	6.16	Average	100	311
2	*	5320.00	109.11			102.95	6.16	Peak	100	311
3		5350.00	47.85	54.00	-6.15	41.64	6.21	Average	100	311
4		5350.00	59.43	74.00	-14.57	53.22	6.21	Peak	100	311
5		7093.33	50.41	68.20	-17.79	40.50	9.91	Peak	100	241
6		10640.00	42.73	54.00	-11.27	27.24	15.49	Average	100	156
7		10640.00	55.80	74.00	-18.20	40.31	15.49	Peak	100	156

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

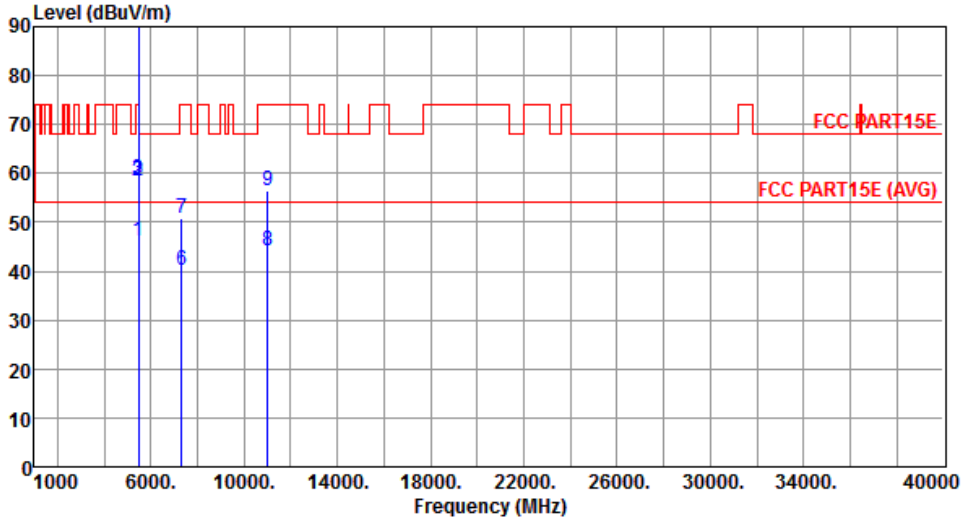
Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5320.00	104.84			98.68	6.16	Average	177	295
2	*	5320.00	117.36			111.20	6.16	Peak	177	295
3		5350.00	51.35	54.00	-2.65	45.14	6.21	Average	177	295
4		5350.00	62.37	74.00	-11.63	56.16	6.21	Peak	177	295
5		7093.33	53.95	68.20	-14.25	44.04	9.91	Peak	100	227
6		10640.00	42.35	54.00	-11.65	26.86	15.49	Average	155	168
7		10640.00	55.91	74.00	-18.09	40.42	15.49	Peak	155	168

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

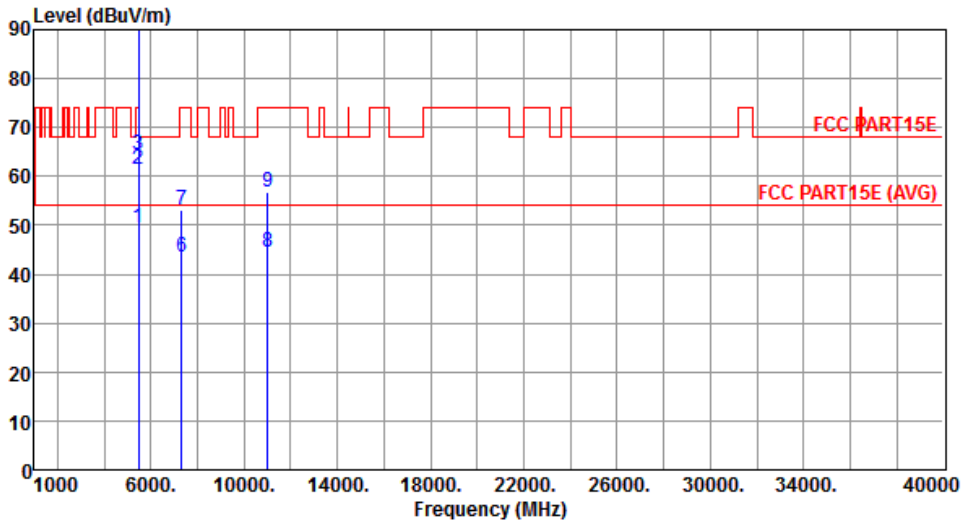
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Horizontal		



		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	46.26	54.00	-7.74	39.90	6.36	Average	109	304
2		5460.00	58.42	74.00	-15.58	52.06	6.36	Peak	109	304
3		5470.00	58.82	68.20	-9.38	52.45	6.37	Peak	109	304
4	*	5500.00	97.15			90.76	6.39	Average	109	304
5	*	5500.00	109.88			103.49	6.39	Peak	109	304
6		7333.33	40.19	54.00	-13.81	29.89	10.30	Average	100	123
7		7333.33	50.71	74.00	-23.29	40.41	10.30	Peak	100	123
8		11000.00	44.16	54.00	-9.84	28.42	15.74	Average	100	123
9		11000.00	56.40	74.00	-17.60	40.66	15.74	Peak	100	123

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

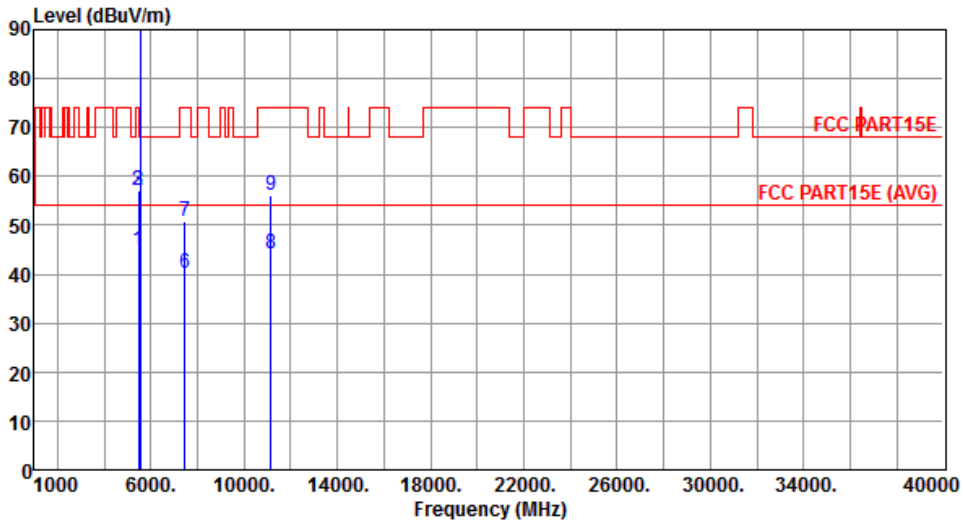
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical		



		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	49.51	54.00	-4.49	43.15	6.36	Average	168	230
2		5460.00	61.43	74.00	-12.57	55.07	6.36	Peak	168	230
3		5470.00	64.38	68.20	-3.82	58.01	6.37	Peak	168	230
4	*	5500.00	104.57			98.18	6.39	Average	168	230
5	*	5500.00	116.07			109.68	6.39	Peak	168	230
6		7333.33	43.43	54.00	-10.57	33.13	10.30	Average	100	226
7		7333.33	53.28	74.00	-20.72	42.98	10.30	Peak	100	226
8		11000.00	44.63	54.00	-9.37	28.89	15.74	Average	100	4
9		11000.00	56.72	74.00	-17.28	40.98	15.74	Peak	100	4

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

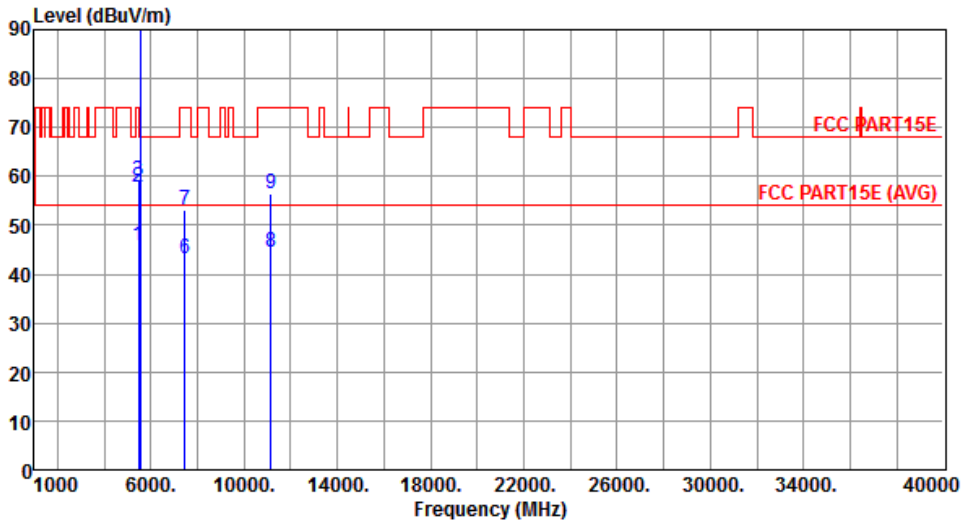
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5460.00	44.90	54.00	-9.10	38.54	6.36	Average	108	302
2		5460.00	57.04	74.00	-16.96	50.68	6.36	Peak	108	302
3		5470.00	57.09	68.20	-11.11	50.72	6.37	Peak	108	302
4	*	5580.00	97.00			90.53	6.47	Average	108	302
5	*	5580.00	109.12			102.65	6.47	Peak	108	302
6		7440.00	40.09	54.00	-13.91	29.54	10.55	Average	100	122
7		7440.00	50.87	74.00	-23.13	40.32	10.55	Peak	100	122
8		11160.00	44.14	54.00	-9.86	28.31	15.83	Average	100	125
9		11160.00	56.26	74.00	-17.74	40.43	15.83	Peak	100	125

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

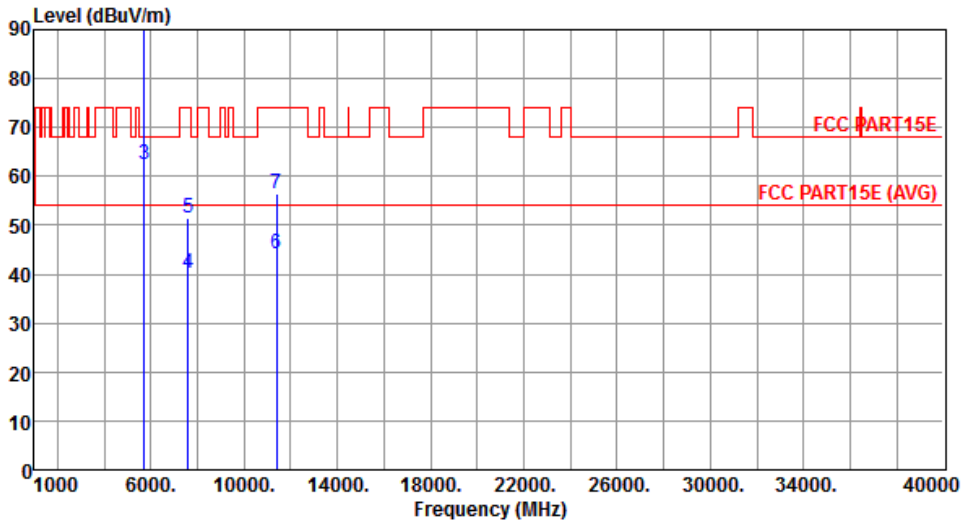
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Vertical		



		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	45.67	54.00	-8.33	39.31	6.36	Average	165	228
2		5460.00	57.67	74.00	-16.33	51.31	6.36	Peak	165	228
3		5470.00	59.15	68.20	-9.05	52.78	6.37	Peak	165	228
4	*	5580.00	104.12			97.65	6.47	Average	165	228
5	*	5580.00	116.88			110.41	6.47	Peak	165	228
6		7440.00	43.13	54.00	-10.87	32.58	10.55	Average	100	225
7		7440.00	53.03	74.00	-20.97	42.48	10.55	Peak	100	225
8		11160.00	44.59	54.00	-9.41	28.76	15.83	Average	100	10
9		11160.00	56.48	74.00	-17.52	40.65	15.83	Peak	100	10

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

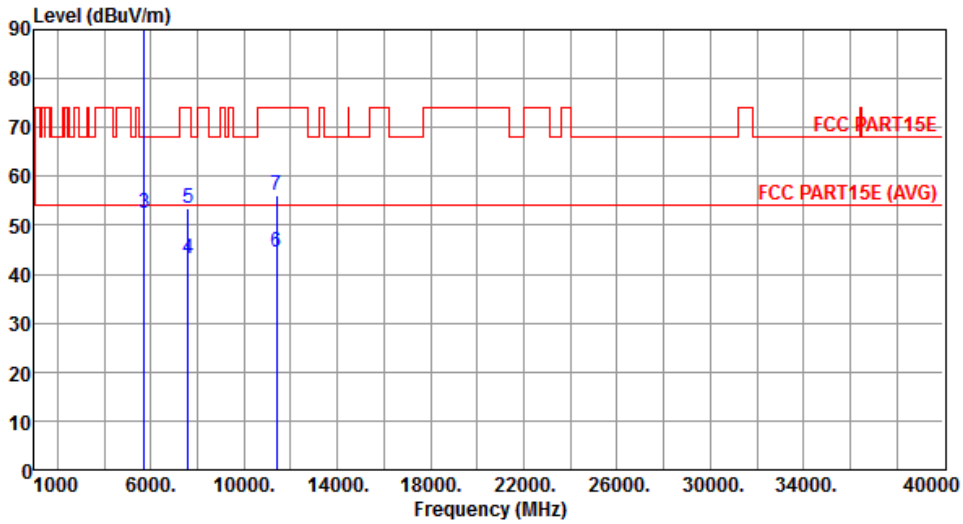
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5700.00	101.64			94.87	6.77	Average	145	184
2	*	5700.00	113.94			107.17	6.77	Peak	145	184
3		5725.00	62.60	68.20	-5.60	55.77	6.83	Peak	145	184
4		7600.00	40.34	54.00	-13.66	29.31	11.03	Average	100	123
5		7600.00	51.55	74.00	-22.45	40.52	11.03	Peak	100	123
6		11400.00	44.19	54.00	-9.81	28.23	15.96	Average	100	163
7		11400.00	56.53	74.00	-17.47	40.57	15.96	Peak	100	163

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

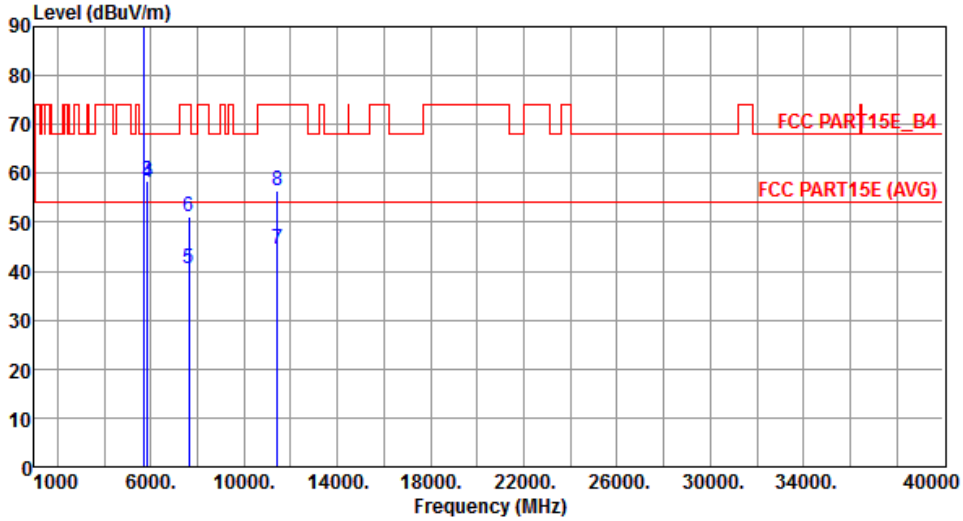
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5700.00	105.48			98.71	6.77	Average	122	234
2	*	5700.00	116.94			110.17	6.77	Peak	122	234
3		5725.00	52.58	68.20	-15.62	45.75	6.83	Peak	122	234
4		7600.00	43.34	54.00	-10.66	32.31	11.03	Average	100	156
5		7600.00	53.56	74.00	-20.44	42.53	11.03	Peak	100	156
6		11400.00	44.41	54.00	-9.59	28.45	15.96	Average	100	196
7		11400.00	56.27	74.00	-17.73	40.31	15.96	Peak	100	196

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

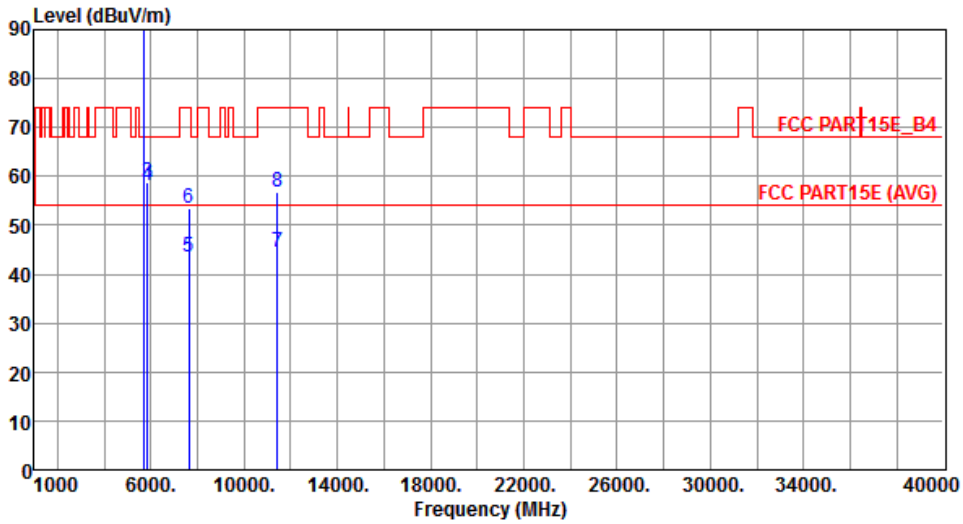
Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5720.00	102.57			95.75	6.82	Average	143	184
2	*	5720.00	114.46			107.64	6.82	Peak	143	184
3		5850.00	58.47	78.20	-19.73	51.31	7.16	Peak	143	184
4		5860.00	57.96	68.20	-10.24	50.78	7.18	Peak	143	184
5		7626.66	40.55	54.00	-13.45	29.53	11.02	Average	100	173
6		7626.66	51.27	74.00	-22.73	40.25	11.02	Peak	100	173
7		11440.00	44.53	54.00	-9.47	28.54	15.99	Average	100	173
8		11440.00	56.61	74.00	-17.39	40.62	15.99	Peak	100	173

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

Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Vertical		

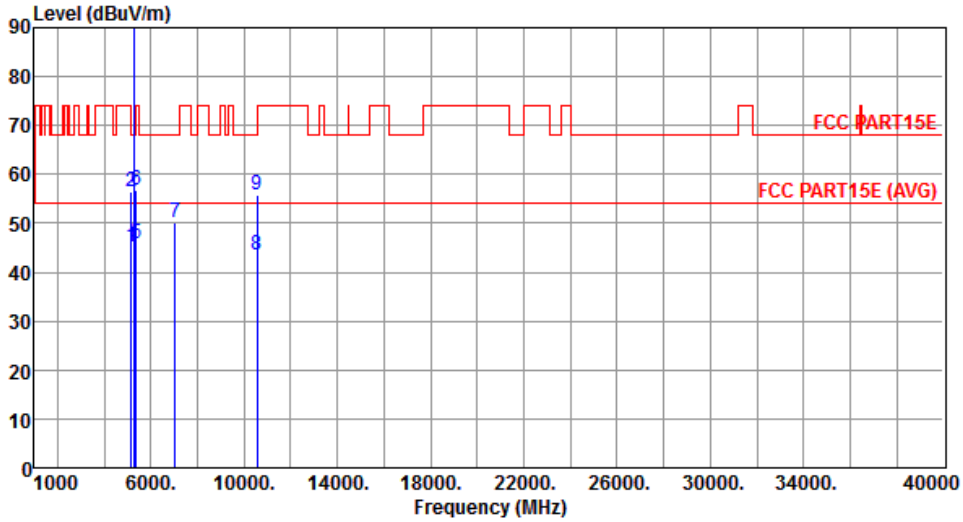


		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5720.00	104.64			97.82	6.82	Average	100	264
2	*	5720.00	115.68			108.86	6.82	Peak	100	264
3		5850.00	58.93	78.20	-19.27	51.77	7.16	Peak	100	264
4		5860.00	58.02	68.20	-10.18	50.84	7.18	Peak	100	264
5		7626.66	43.35	54.00	-10.65	32.33	11.02	Average	100	156
6		7626.66	53.47	74.00	-20.53	42.45	11.02	Peak	100	156
7		11440.00	44.51	54.00	-9.49	28.52	15.99	Average	100	156
8		11440.00	56.72	74.00	-17.28	40.73	15.99	Peak	100	156

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

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

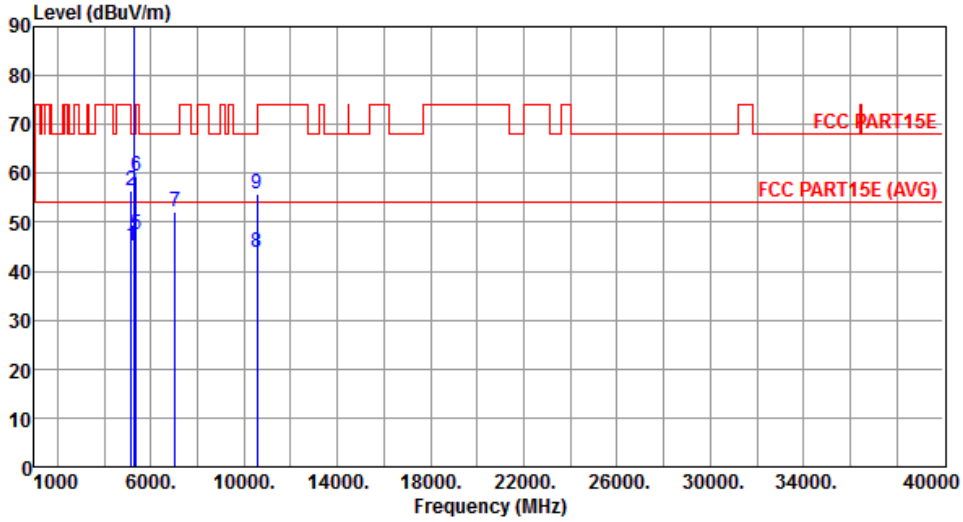
Modulation	VHT40	**Test Freq. (MHz)**	5270
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	45.11	54.00	-8.89	39.24	5.87	Average	100	310
2		5150.00	56.30	74.00	-17.70	50.43	5.87	Peak	100	310
3	*	5270.00	94.51			88.45	6.06	Average	100	310
4	*	5270.00	106.21			100.15	6.06	Peak	100	310
5		5350.00	45.75	54.00	-8.25	39.54	6.21	Average	100	310
6		5350.00	56.84	74.00	-17.16	50.63	6.21	Peak	100	310
7		7026.66	50.12	68.20	-18.08	40.31	9.81	Peak	100	151
8		10540.00	43.65	54.00	-10.35	28.23	15.42	Average	100	165
9		10540.00	55.63	68.20	-12.57	40.21	15.42	Peak	100	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).
Note 3:"*" is Peak / Average value of fundamental frequency.

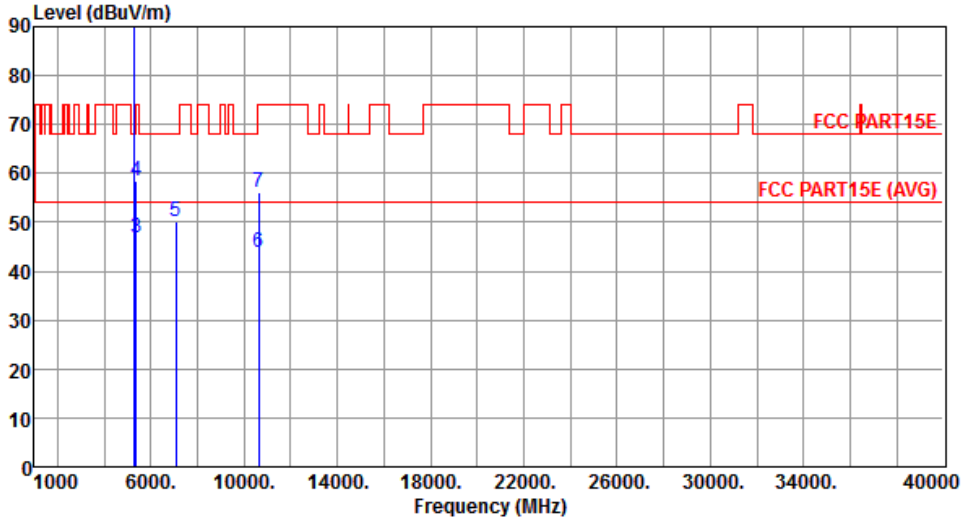
Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5150.00	45.20	54.00	-8.80	39.33	5.87	Average	180	231
2		5150.00	56.55	74.00	-17.45	50.68	5.87	Peak	180	231
3	*	5270.00	102.48			96.42	6.06	Average	180	231
4	*	5270.00	113.74			107.68	6.06	Peak	180	231
5		5350.00	47.57	54.00	-6.43	41.36	6.21	Average	180	231
6		5350.00	59.34	74.00	-14.66	53.13	6.21	Peak	180	231
7		7026.66	52.25	68.20	-15.95	42.44	9.81	Peak	150	168
8		10540.00	43.83	54.00	-10.17	28.41	15.42	Average	100	145
9		10540.00	55.63	68.20	-12.57	40.21	15.42	Peak	100	145

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

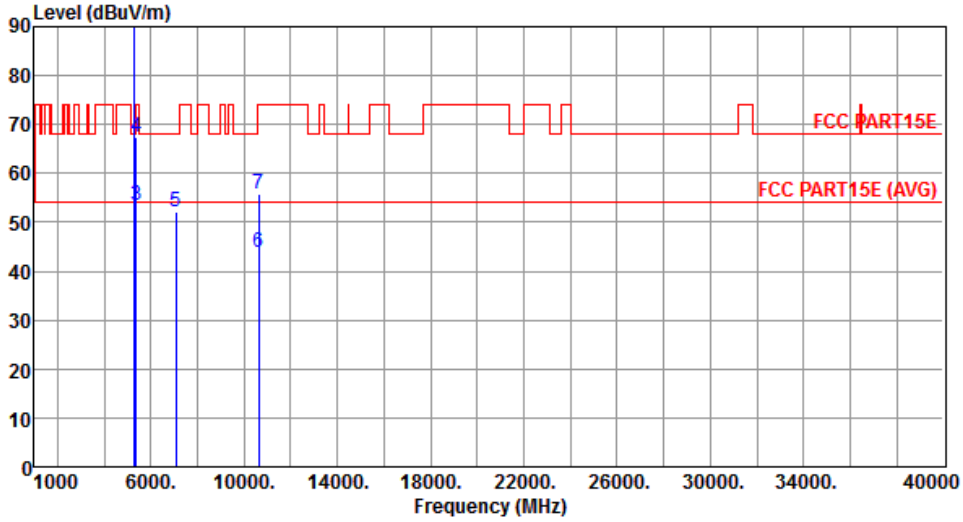
Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5310.00	94.43			88.29	6.14	Average	100	308
2	*	5310.00	106.12			99.98	6.14	Peak	100	308
3		5350.00	46.98	54.00	-7.02	40.77	6.21	Average	100	308
4		5350.00	58.57	74.00	-15.43	52.36	6.21	Peak	100	308
5		7080.00	50.01	68.20	-18.19	40.12	9.89	Peak	100	154
6		10620.00	43.71	54.00	-10.29	28.23	15.48	Average	100	168
7		10620.00	56.00	74.00	-18.00	40.52	15.48	Peak	100	168

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

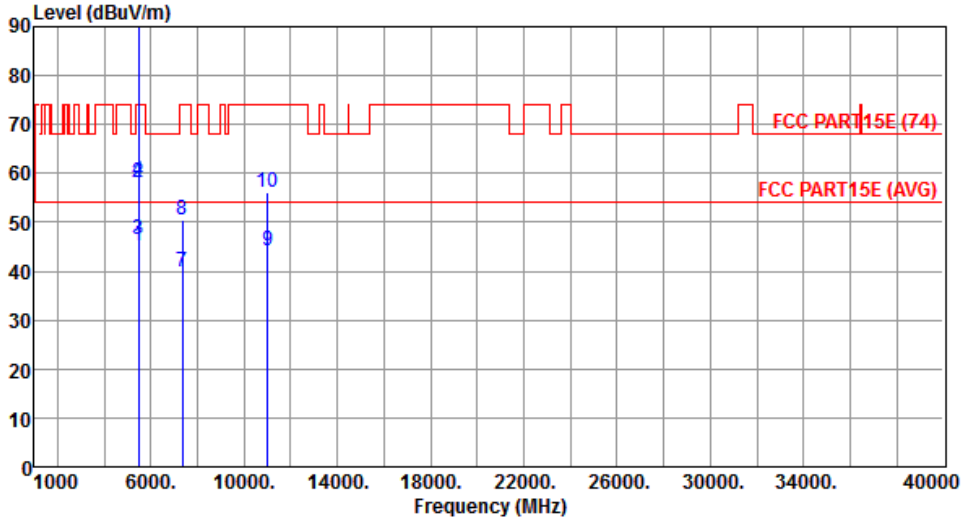
Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5310.00	105.59			99.45	6.14	Average	181	233
2	*	5310.00	114.18			108.04	6.14	Peak	181	233
3		5350.00	53.51	54.00	-0.49	47.30	6.21	Average	181	233
4		5350.00	67.44	74.00	-6.56	61.23	6.21	Peak	181	233
5		7080.00	52.20	68.20	-16.00	42.31	9.89	Peak	155	216
6		10620.00	43.71	54.00	-10.29	28.23	15.48	Average	100	162
7		10620.00	55.82	74.00	-18.18	40.34	15.48	Peak	155	162

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

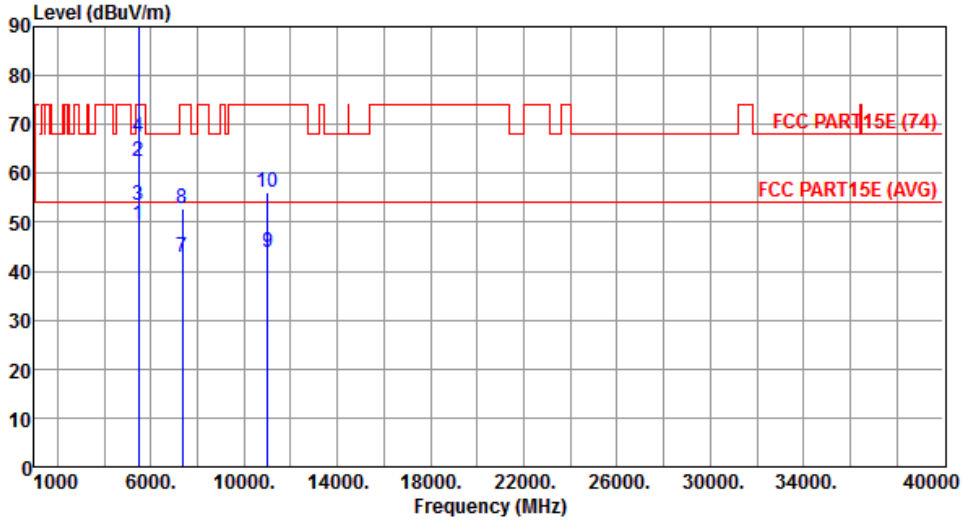
Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5460.00	45.17	54.00	-8.83	38.81	6.36	Average	116	305
2		5460.00	58.12	74.00	-15.88	51.76	6.36	Peak	116	305
3		5470.00	46.58	54.00	-7.42	40.21	6.37	Average	116	305
4		5470.00	58.61	74.00	-15.39	52.24	6.37	Peak	116	305
5	*	5510.00	92.36			85.95	6.41	Average	116	305
6	*	5510.00	103.69			97.28	6.41	Peak	116	305
7		7346.66	39.74	54.00	-14.26	29.42	10.32	Average	100	156
8		7346.66	50.44	74.00	-23.56	40.12	10.32	Peak	100	156
9		11020.00	44.28	54.00	-9.72	28.53	15.75	Average	100	168
10		11020.00	55.96	74.00	-18.04	40.21	15.75	Peak	100	168

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

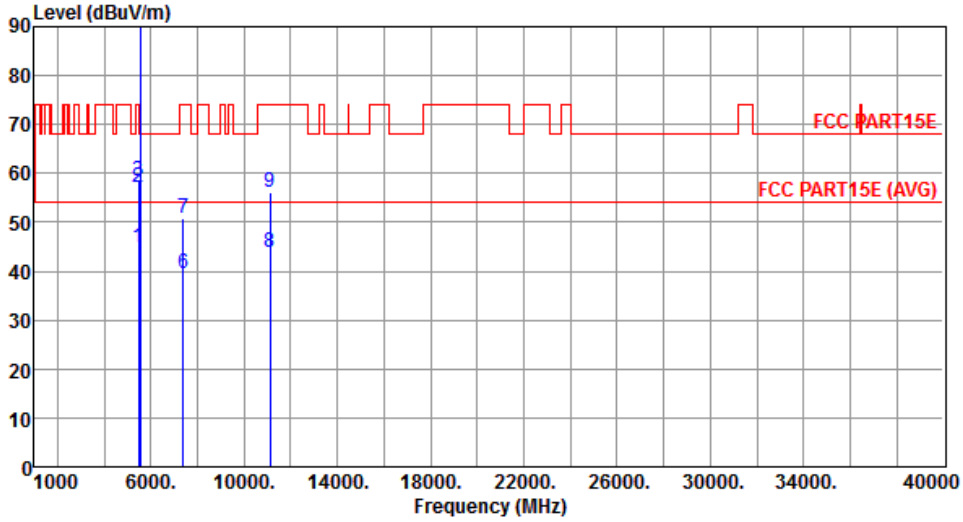
Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5460.00	49.55	54.00	-4.45	43.19	6.36	Average	124	231
2		5460.00	62.32	74.00	-11.68	55.96	6.36	Peak	124	231
3		5470.00	53.49	54.00	-0.51	47.12	6.37	Average	124	231
4		5470.00	67.56	74.00	-6.44	61.19	6.37	Peak	124	231
5	*	5510.00	99.60			93.19	6.41	Average	124	231
6	*	5510.00	110.50			104.09	6.41	Peak	124	231
7		7346.66	42.70	54.00	-11.30	32.38	10.32	Average	100	193
8		7346.66	52.76	74.00	-21.24	42.44	10.32	Peak	100	193
9		11020.00	43.99	54.00	-10.01	28.24	15.75	Average	100	128
10		11020.00	56.22	74.00	-17.78	40.47	15.75	Peak	100	128

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

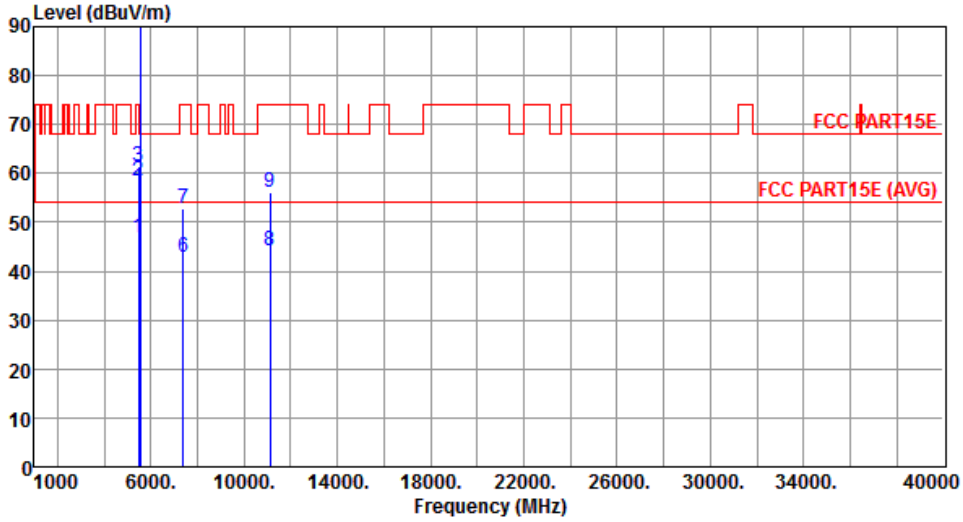
Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5460.00	44.80	54.00	-9.20	38.44	6.36	Average	115	302
2		5460.00	57.01	74.00	-16.99	50.65	6.36	Peak	115	302
3		5470.00	58.58	68.20	-9.62	52.21	6.37	Peak	115	302
4	*	5550.00	92.65			86.20	6.45	Average	115	302
5	*	5550.00	104.46			98.01	6.45	Peak	125	302
6		7400.00	39.58	54.00	-14.42	29.16	10.42	Average	100	144
7		7400.00	50.66	74.00	-23.34	40.24	10.42	Peak	100	144
8		11100.00	43.93	54.00	-10.07	28.13	15.80	Average	100	165
9		11100.00	56.11	74.00	-17.89	40.31	15.80	Peak	100	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).
Note 3:"*" is Peak / Average value of fundamental frequency.

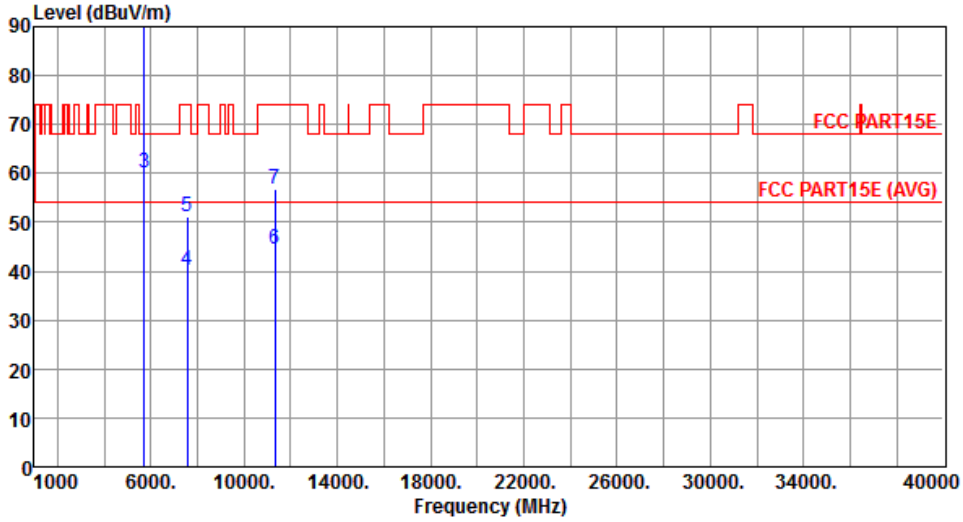
Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5460.00	46.67	54.00	-7.33	40.31	6.36	Average	125	230
2		5460.00	58.57	74.00	-15.43	52.21	6.36	Peak	125	230
3		5470.00	61.58	68.20	-6.62	55.21	6.37	Peak	125	230
4	*	5550.00	100.09			93.64	6.45	Average	125	230
5	*	5550.00	110.66			104.21	6.45	Peak	125	230
6		7400.00	42.83	54.00	-11.17	32.41	10.42	Average	100	190
7		7400.00	52.86	74.00	-21.14	42.44	10.42	Peak	100	190
8		11100.00	44.06	54.00	-9.94	28.26	15.80	Average	100	163
9		11100.00	56.18	74.00	-17.82	40.38	15.80	Peak	100	163

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

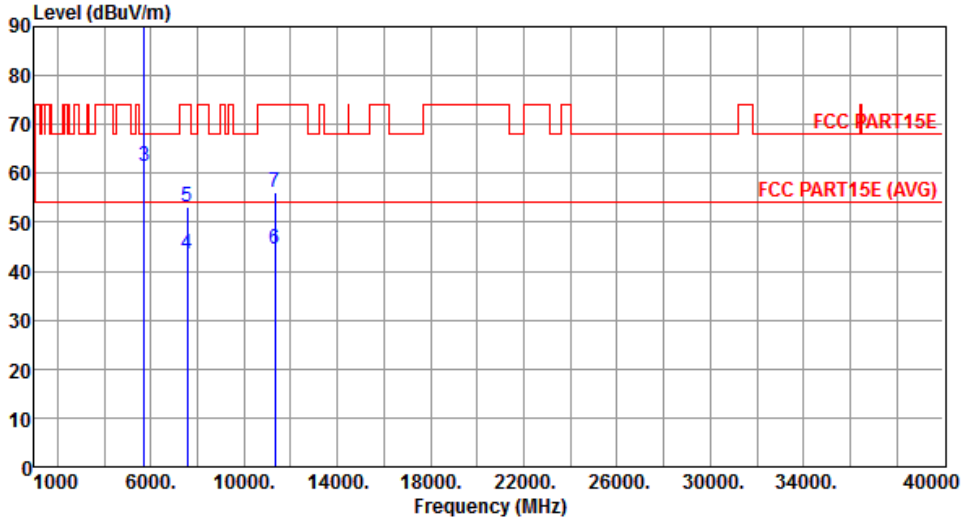
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5670.00	97.22			90.53	6.69	Average	135	183
2	*	5670.00	107.77			101.08	6.69	Peak	135	183
3		5725.00	60.17	68.20	-8.03	53.34	6.83	Peak	135	183
4		7560.00	40.27	54.00	-13.73	29.35	10.92	Average	100	144
5		7560.00	51.17	74.00	-22.83	40.25	10.92	Peak	100	144
6		11340.00	44.35	54.00	-9.65	28.42	15.93	Average	156	122
7		11340.00	56.70	74.00	-17.30	40.77	15.93	Peak	156	122

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

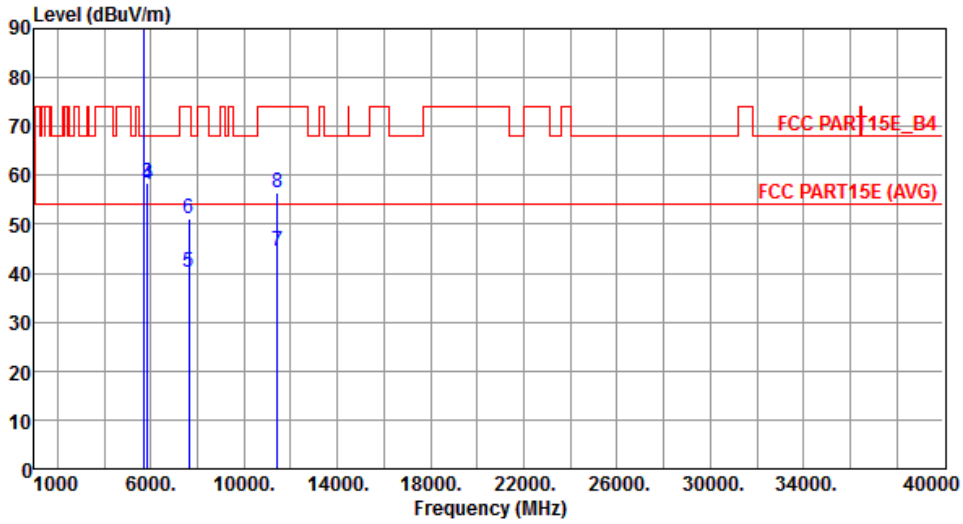
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5670.00	100.83			94.14	6.69	Average	131	165
2	*	5670.00	111.68			104.99	6.69	Peak	131	165
3		5725.00	61.29	68.20	-6.91	54.46	6.83	Peak	131	165
4		7560.00	43.34	54.00	-10.66	32.42	10.92	Average	100	138
5		7560.00	53.30	74.00	-20.70	42.38	10.92	Peak	100	138
6		11340.00	44.49	54.00	-9.51	28.56	15.93	Average	100	163
7		11340.00	56.26	74.00	-17.74	40.33	15.93	Peak	100	163

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

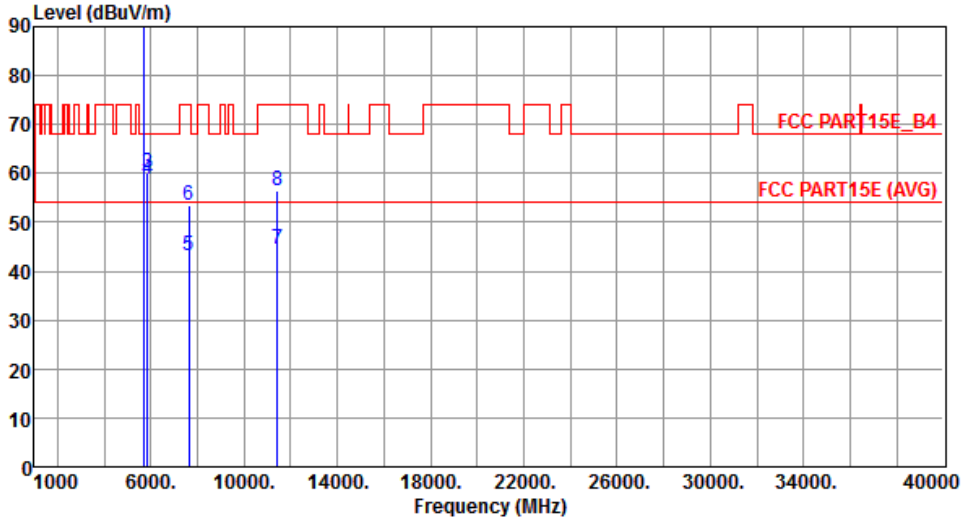
Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5710.00	100.34			93.55	6.79	Average	139	184
2	*	5710.00	111.40			104.61	6.79	Peak	139	184
3		5850.00	58.49	78.20	-19.71	51.33	7.16	Peak	139	184
4		5860.00	58.21	68.20	-9.99	51.03	7.18	Peak	139	184
5		7613.33	40.33	54.00	-13.67	29.30	11.03	Average	100	156
6		7613.33	51.13	74.00	-22.87	40.10	11.03	Peak	100	156
7		11420.00	44.54	54.00	-9.46	28.56	15.98	Average	100	133
8		11420.00	56.39	74.00	-17.61	40.41	15.98	Peak	100	133

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

Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Vertical		

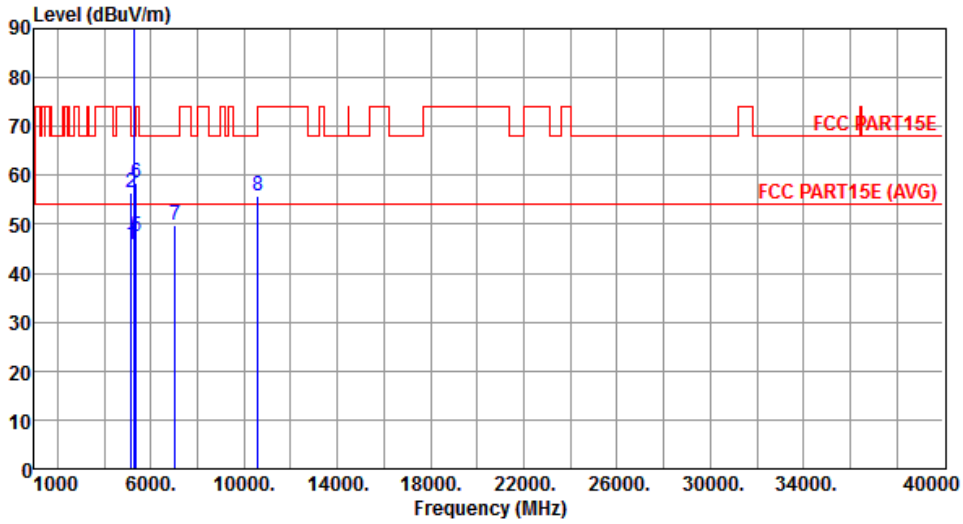


		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5710.00	103.55			96.76	6.79	Average	137	233
2	*	5710.00	114.41			107.62	6.79	Peak	137	233
3		5850.00	60.18	78.20	-18.02	53.02	7.16	Peak	137	233
4		5860.00	58.85	68.20	-9.35	51.67	7.18	Peak	137	233
5		7613.33	43.33	54.00	-10.67	32.30	11.03	Average	100	153
6		7613.33	53.30	74.00	-20.70	42.27	11.03	Peak	100	153
7		11420.00	44.54	54.00	-9.46	28.56	15.98	Average	100	141
8		11420.00	56.35	74.00	-17.65	40.37	15.98	Peak	100	141

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

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

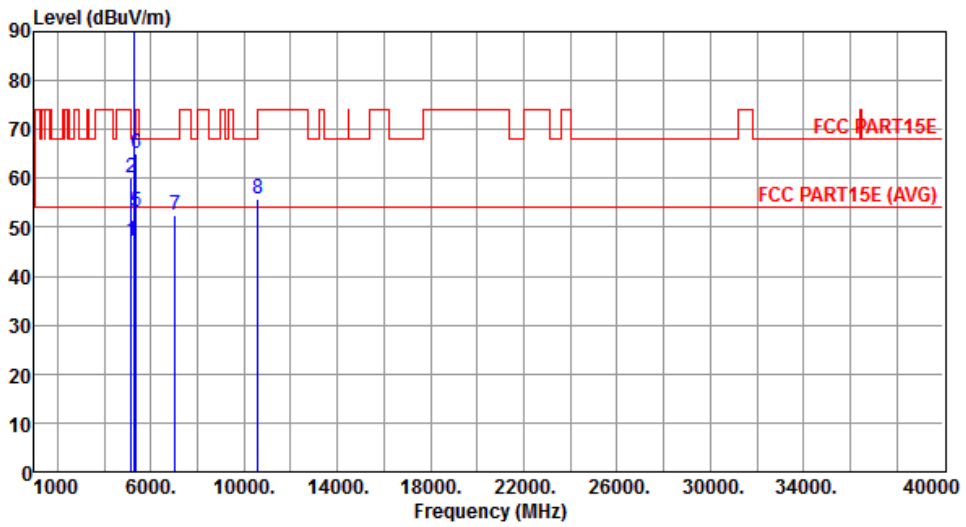
Modulation	VHT80	**Test Freq. (MHz)**	5290
Polarization	Horizontal		



		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	45.70	54.00	-8.30	39.83	5.87	Average	100	309
2		5150.00	56.49	74.00	-17.51	50.62	5.87	Peak	100	309
3	*	5290.00	92.59			86.49	6.10	Average	100	309
4	*	5290.00	104.01			97.91	6.10	Peak	100	309
5		5350.00	47.43	54.00	-6.57	41.22	6.21	Average	100	309
6		5350.00	58.57	74.00	-15.43	52.36	6.21	Peak	100	309
7		7053.33	49.96	68.20	-18.24	40.11	9.85	Peak	100	162
8		10580.00	55.89	68.20	-12.31	40.45	15.44	Peak	100	172

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

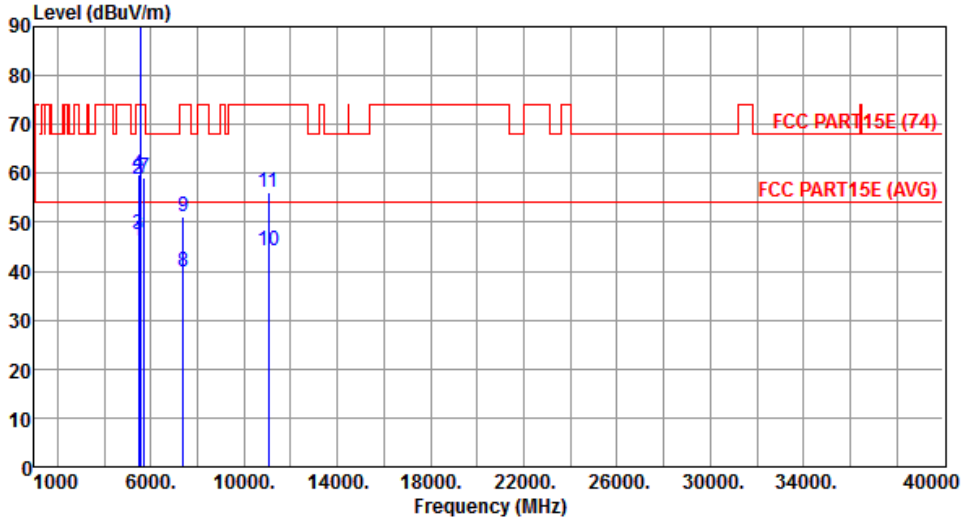
Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical		



		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	47.11	54.00	-6.89	41.24	5.87	Average	181	233
2		5150.00	60.04	74.00	-13.96	54.17	5.87	Peak	181	233
3	*	5290.00	99.23			93.13	6.10	Average	181	233
4	*	5290.00	110.31			104.21	6.10	Peak	181	233
5		5350.00	53.17	54.00	-0.83	46.96	6.21	Average	181	233
6		5350.00	65.25	74.00	-8.75	59.04	6.21	Peak	181	233
7		7053.33	52.33	68.20	-15.87	42.48	9.85	Peak	100	169
8		10580.00	55.88	68.20	-12.32	40.44	15.44	Peak	100	157

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

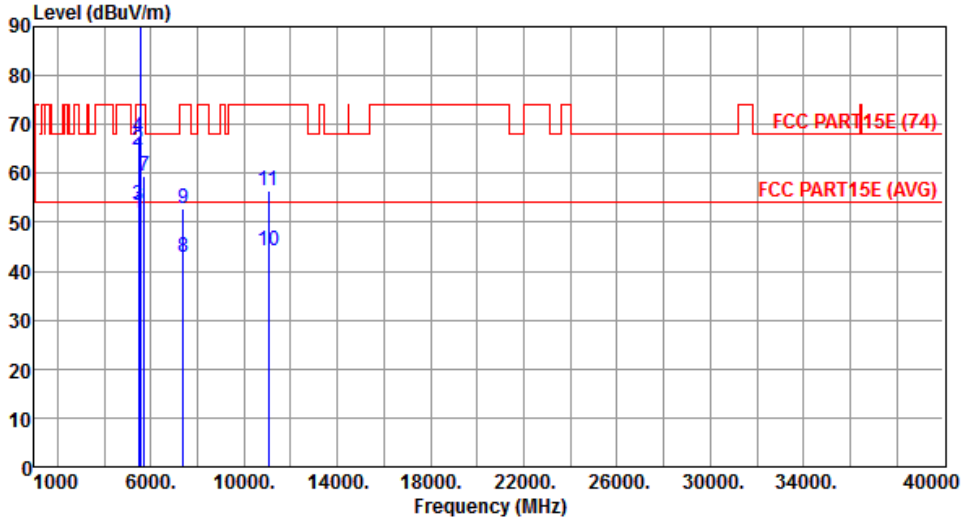
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Horizontal		



		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	46.21	54.00	-7.79	39.85	6.36	Average	111	306
2		5460.00	58.64	74.00	-15.36	52.28	6.36	Peak	111	306
3		5470.00	47.61	54.00	-6.39	41.24	6.37	Average	111	306
4		5470.00	59.93	74.00	-14.07	53.56	6.37	Peak	111	306
5	*	5530.00	91.81			85.38	6.43	Average	111	306
6	*	5530.00	102.97			96.54	6.43	Peak	111	306
7		5725.00	59.05	74.00	-14.95	52.22	6.83	Peak	111	306
8		7373.33	39.70	54.00	-14.30	29.33	10.37	Average	100	156
9		7373.33	51.08	74.00	-22.92	40.71	10.37	Peak	100	156
10		11060.00	44.24	54.00	-9.76	28.47	15.77	Average	162	205
11		11060.00	56.08	74.00	-17.92	40.31	15.77	Peak	162	205

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

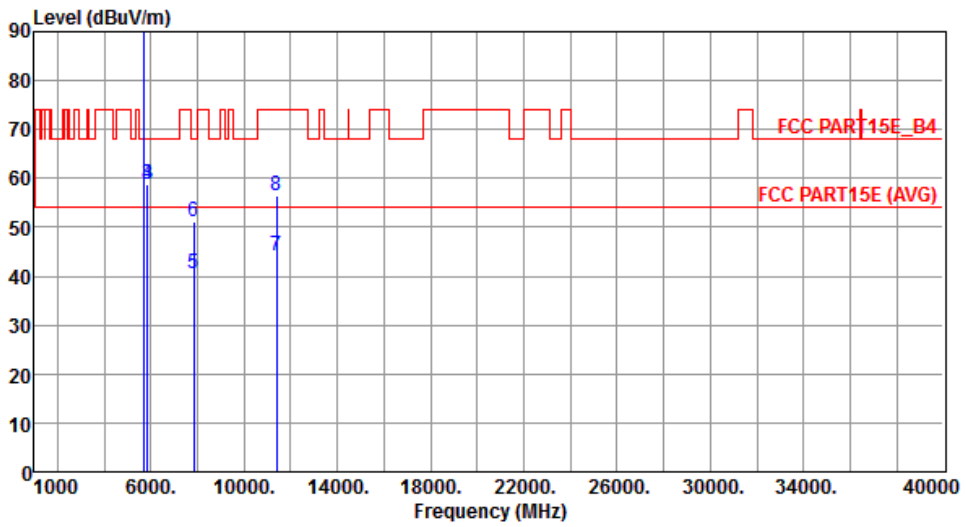
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1		5460.00	51.74	54.00	-2.26	45.38	6.36	Average	119	195
2		5460.00	64.82	74.00	-9.18	58.46	6.36	Peak	119	195
3		5470.00	53.37	54.00	-0.63	47.00	6.37	Average	119	195
4		5470.00	67.42	74.00	-6.58	61.05	6.37	Peak	119	195
5	*	5530.00	98.77			92.34	6.43	Average	119	195
6	*	5530.00	109.18			102.75	6.43	Peak	119	195
7		5725.00	59.44	74.00	-14.56	52.61	6.83	Peak	119	195
8		7373.33	42.68	54.00	-11.32	32.31	10.37	Average	122	143
9		7373.33	52.91	74.00	-21.09	42.54	10.37	Peak	122	143
10		11060.00	44.12	54.00	-9.88	28.35	15.77	Average	100	196
11		11060.00	56.50	74.00	-17.50	40.73	15.77	Peak	100	196

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

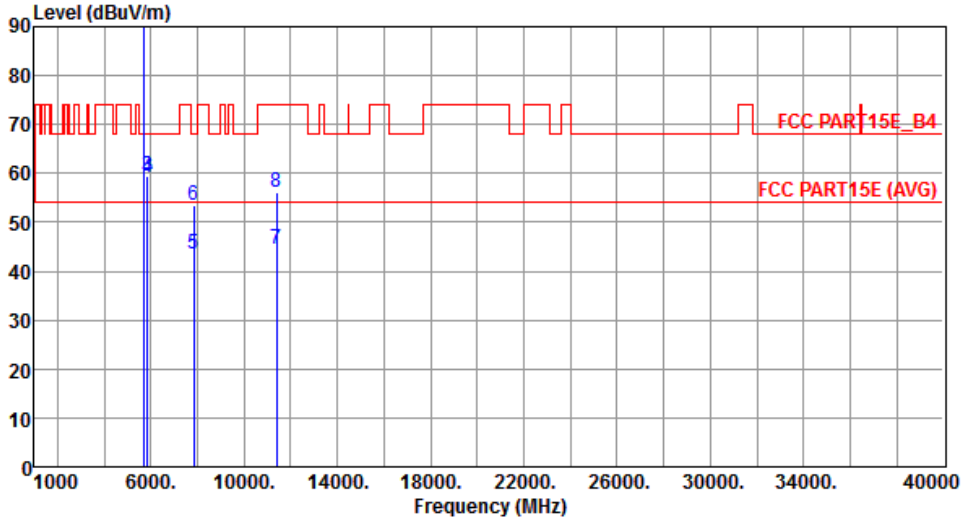
Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Horizontal		



		Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	*	5690.00	99.58			92.83	6.75	Average	139	184
2	*	5690.00	110.52			103.77	6.75	Peak	139	184
3		5850.00	58.90	78.20	-19.30	51.74	7.16	Peak	139	184
4		5860.00	58.64	68.20	-9.56	51.46	7.18	Peak	139	184
5		7856.66	40.45	54.00	-13.55	29.35	11.10	Average	100	143
6		7856.66	51.24	68.20	-16.96	40.14	11.10	Peak	100	143
7		11380.00	44.17	54.00	-9.83	28.22	15.95	Average	165	132
8		11380.00	56.42	74.00	-17.58	40.47	15.95	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).
Note 3:"*" is Peak / Average value of fundamental frequency.

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	*	5690.00	102.35			95.60	6.75	Average	179	233
2	*	5690.00	112.91			106.16	6.75	Peak	179	233
3		5850.00	59.41	78.20	-18.79	52.25	7.16	Peak	179	233
4		5860.00	59.05	68.20	-9.15	51.87	7.18	Peak	179	233
5		7856.66	43.35	54.00	-10.65	32.25	11.10	Average	100	165
6		7856.66	53.55	68.20	-14.65	42.45	11.10	Peak	100	165
7		11380.00	44.48	54.00	-9.52	28.53	15.95	Average	100	128
8		11380.00	56.26	74.00	-17.74	40.31	15.95	Peak	100	128

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

3.6 Frequency Stability

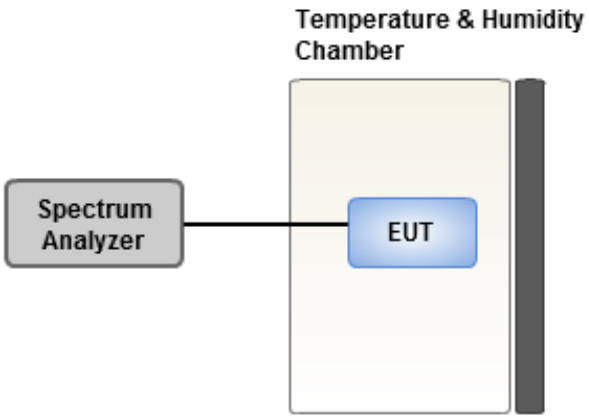
3.6.1 Limit of Frequency Stability

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	3.31	4.01	3.46	3.87
T20°CVmin	2.68	2.48	2.69	3.45
T50°CVnom	3.26	3.75	4.02	3.18
T40°CVnom	1.49	1.51	1.53	1.85
T30°CVnom	2.70	2.16	2.26	2.34
T20°CVnom	3.48	3.87	3.08	3.51
T10°CVnom	2.69	3.07	2.85	3.09
T0°CVnom	2.14	2.68	2.84	2.56
T-10°CVnom	0.98	0.98	0.90	1.38
T-20°CVnom	0.86	1.41	1.27	0.77
T-30°CVnom	0.81	0.77	1.08	0.40
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 District. Location map can be found on our website http://www.icertifi.com.tw.

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

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

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

═END═