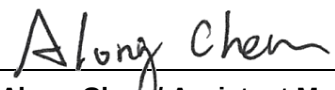


FCC C2PC Test Report

FCC ID : 2ABLK-814G-1
Equipment : GigaHub
Model No. : 814G-1
Brand Name : Calix Inc.
Applicant : Calix Inc.
Address : 1035 N. McDowell Blvd. Petaluma, CA 94954
Standard : 47 CFR FCC Part 15.407
Received Date : Nov. 30, 2017
Tested Date : Nov. 30, 2017 ~ Feb. 07, 2018

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

Reviewed by:


Along Chen / Assistant Manager

Approved by:

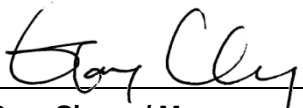

Gary Chang / Manager



Table of Contents

1	GENERAL DESCRIPTION	5
1.1	Information.....	5
1.2	Local Support Equipment List	8
1.3	Test Setup Chart	8
1.4	The Equipment List	9
1.5	Testing Applied Standards	10
1.6	Measurement Uncertainty	11
2	TEST CONFIGURATION	12
2.1	Testing Condition	12
2.2	The Worst Test Modes and Channel Details	12
3	TRANSMITTER TEST RESULTS.....	14
3.1	Conducted Emissions.....	14
3.2	Emission Bandwidth	21
3.3	RF Output Power	29
3.4	Peak Power Spectral Density	36
3.5	Transmitter Radiated and Band Edge Emissions	43
3.6	Frequency Stability	158
4	TEST LABORATORY INFORMATION	160

Release Record

Report No.	Version	Description	Issued Date
FR7N3003-01	Rev. 01	Initial issue	May 02, 2018

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.375MHz 46.32 (Margin -12.07dB) - QP	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5725.00MHz 68.07 (Margin -0.13dB) - PK	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(e)	6dB bandwidth	Meet the requirement of limit	Pass
15.407(a)	RF Output Power	Max Power [dBm]: Non-beamforming mode 5250~5350MHz: 23.66 5470~5725MHz: 23.55 Beamforming mode 5150~5250MHz: 26.10 5250~5350MHz: 21.98 5470~5725MHz: 22.18 5725~5850MHz: 25.86	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 prepared for FCC class II Permissive change (C2PC).

This report is issued as a supplementary report to the original ICC project no. 7N3003. The modifications are concerned as follows:

- ✧ Adding 5250~5350MHz and 5470~5725 MHz band by software setting.
- ✧ Support beamforming function 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
5150-5250 5250-5350 5470-5725 5725-5850	a	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	2	6-54 Mbps
5150-5250 5250-5350 5470-5725 5725-5850	n (HT20)	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	2	MCS 0-15
5150-5250 5250-5350 5470-5725 5725-5850	n (HT40)	5190-5230 5270-5310 5510-5710 5755-5795	38-46 [2] 54-62 [2] 102-142 [6] 151-159 [2]	2	MCS 0-15
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT20)	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	2	MCS 0-9
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT40)	5190-5230 5270-5310 5510-5710 5755-5795	38-46 [2] 54-62 [2] 102-142 [6] 151-159 [2]	2	MCS 0-9
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT80)	5210 5290 5530-5690 5775	42 [1] 58 [1] 106-138 [3] 155 [1]	2	MCS 0-9
Note 1: RF output power specifies that Maximum Conducted Output Power.					
Note 2: 802.11a/n/ac uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.					

1.1.2 Antenna Details

Ant. No.	Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)				
				2400~2483.5	5150~5250	5250~5350	5470~5725	5725~5850
1	PCB antenna	Dipole	IPEX	3.6	---	---	---	---
2	PCB antenna	Dipole	IPEX	4.0	---	---	---	---
3	PCB antenna	Dipole	IPEX	---	3.6	3.7	3.6	2.0
4	PCB antenna	Dipole	IPEX	---	4.1	4.9	5.2	3.8

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: AMIGO Model: AMS157-1202500FU (US) AMS157-1202500FV (EU) I/P: 100-240Vac, 50-60Hz, 1A O/P: 12Vdc, 2.5A Power line: 1.3m non-shielded without core
2	RJ45 cable	1.5m non-shielded without core
3	RJ11 cable	1.5m non-shielded without core

1.1.5 Channel List

802.11 a / HT20 / VHT20		HT40 / VHT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	54	5270
48	5240	62	5310
52	5260	102	5510
56	5280	110	5550
60	5300	118	5590
64	5320	126	5630
100	5500	134	5670
104	5520	142	5710
108	5540	151	5755
112	5560	159	5795
116	5580	VHT80	
120	5600	42	5210
124	5620	58	5290
128	5640	106	5530
132	5660	122	5610
136	5680	138	5690
140	5700	155	5775
144	5720	---	---
149	5745	---	---
153	5765	---	---
157	5785	---	---
161	5805	---	---
165	5825	---	---

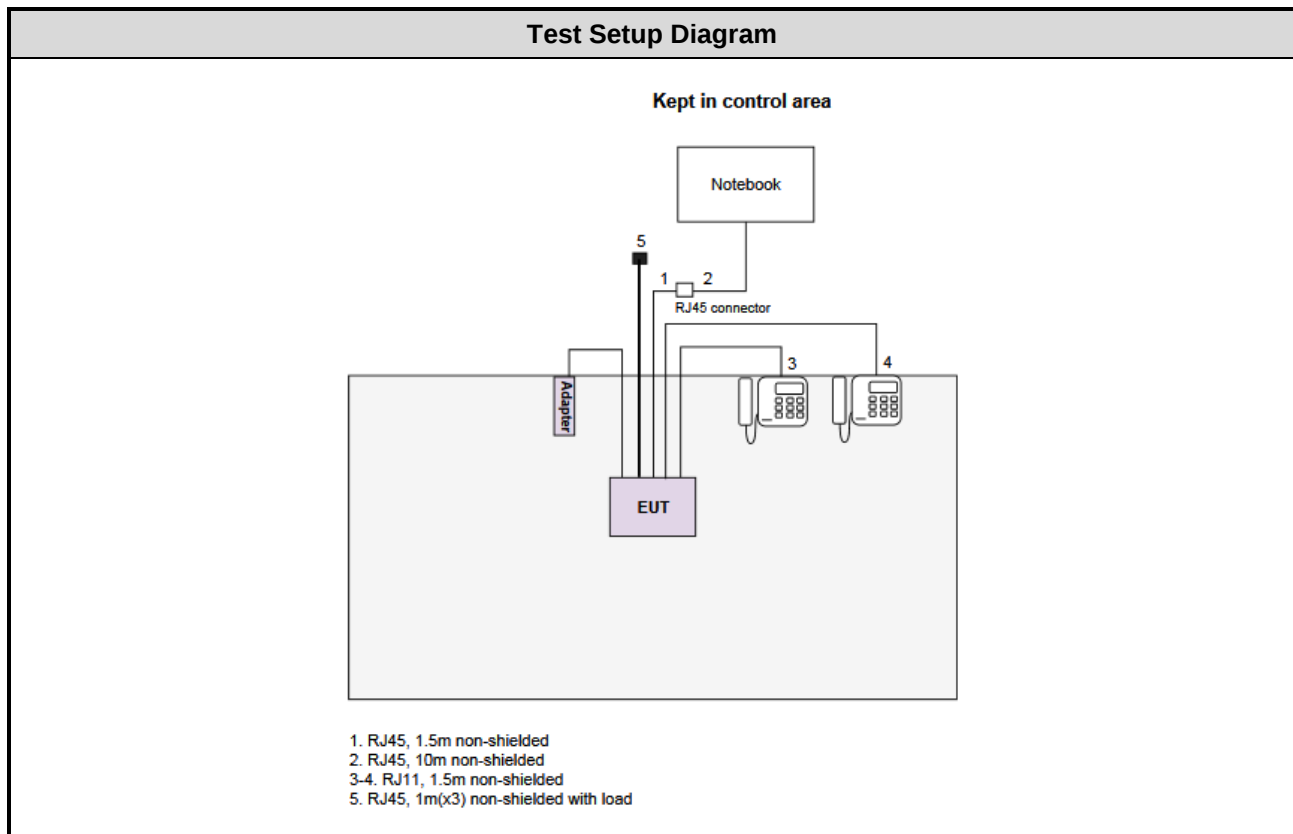
1.1.6 Test Tool and Duty Cycle

Test Tool	Non-beamforming: PUTTY, V0.6 Beamforming: Lan test, V2.0.0.2				
Duty Cycle and Duty Factor	Mode	Non-beamforming		Beamforming	
		Duty cycle (%)	Duty factor (dB)	Duty cycle (%)	Duty factor (dB)
	11a	94.67%	0.24	--	--
	VHT20	95.07%	0.22	90.63%	0.43
	VHT40	85.55%	0.68	90.66%	0.43
	VHT80	75.32%	1.23	92.39%	0.34

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	Telephone	HTT	HTT-806	---	RJ11, 1.5m non-shielded.
3	Telephone	HTT	HTT-806	---	RJ11, 1.5m non-shielded.

1.3 Test Setup Chart



1.4 The Equipment List

Test Item	Radiated Emission below 1GHz test				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Nov. 30, 2017				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101658	Nov. 20, 2017	Nov. 19, 2018
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jul. 25, 2017	Jul. 24, 2018
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 13, 2017	Nov. 12, 2018
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Dec. 09, 2016	Dec. 08, 2017
Preamplifier	EMC	EMC02325	980225	Jul. 28, 2017	Jul. 27, 2018
Preamplifier	Agilent	83017A	MY39501308	Oct. 06, 2017	Oct. 05, 2018
Preamplifier	EMC	EMC184045B	980192	Aug. 22, 2017	Aug. 21, 2018
LF cable 1M	EMC	EMCCFD400-NM-N M-1000	16052	Dec. 09, 2016	Dec. 08, 2017
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Dec. 09, 2016	Dec. 08, 2017
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-002	Dec. 09, 2016	Dec. 08, 2017
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission above 1GHz test				
Test Site	966 chamber1 / (03CH01-WS)				
Tested Date	Jan. 17 ~ Feb. 02, 2018				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101498	Dec. 04, 2017	Dec. 03, 2018
Receiver	R&S	ESR3	101658	Nov. 20, 2017	Nov. 19, 2018
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 20, 2017	Dec. 19, 2018
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 23, 2017	Nov. 22, 2018
Preamplifier	EMC	EMC02325	980225	Jul. 28, 2017	Jul. 27, 2018
Preamplifier	Agilent	83017A	MY39501308	Oct. 06, 2017	Oct. 05, 2018
Preamplifier	EMC	EMC184045B	980192	Aug. 22, 2017	Aug. 21, 2018
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Dec. 07, 2017	Dec. 06, 2018
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Dec. 07, 2017	Dec. 06, 2018
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16139/4	Dec. 07, 2017	Dec. 06, 2018
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Jan. 29, 2018				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101657	Jan. 05, 2018	Jan. 04, 2019
LISN	SCHWARZBECK	Schwarzbeck 8127	8127-667	Nov. 13, 2017	Nov. 12, 2018
RF Cable-CON	EMC	EMCCFD300-BM-BM-6000	50821	Dec. 18, 2017	Dec. 17, 2018
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Jan. 22 ~ Feb. 07, 2018				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101063	Mar. 15, 2017	Mar. 14, 2018
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Nov. 27, 2017	Nov. 26, 2018
Power Meter	Anritsu	ML2495A	1241002	Oct. 16, 2017	Oct. 15, 2018
Power Sensor	Anritsu	MA2411B	1207366	Oct. 16, 2017	Oct. 15, 2018
AC POWER SOURCE	APC	AFC-500W	F312060012	Dec. 01, 2017	Nov. 30, 2018
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 v02r01

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

FCC KDB 412172 D01 Determining ERP and EIRP v01r01

1.6 Measurement Uncertainty

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

Measurement Uncertainty	
Parameters	Uncertainty
Bandwidth	± 34.134 Hz
Conducted power	± 0.808 dB
Frequency error	± 34.134 Hz
Power density	± 0.463 dB
Conducted emission	± 2.670 dB
AC conducted emission	± 2.90 dB
Radiated emission ≤ 1 GHz	± 3.66 dB
Radiated emission > 1 GHz	± 5.63 dB
Time	$\pm 0.1\%$
Temperature	± 0.6 °C

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	21°C / 59%	Alex Tsai
Radiated Emissions	03CH01-WS	25°C / 65%	Akun Chung Roger Lu
RF Conducted	TH01-WS	20°C / 63-64%	Brad Wu

- FCC Designation No.: TW2732
- FCC site registration No.: 181692
- IC site registration No.: 10807A-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	5270	MCS 0	---
Radiated Emissions ≤1GHz	VHT40	5270	MCS 0	---
RF Output Power	11a	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	6 Mbps	---
	HT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	HT40	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	VHT40	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT80	5290 / 5530 / 5610 / 5690	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	6 Mbps	---
	VHT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	VHT40	5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	VHT80	5290 / 5530 / 5610 / 5690	MCS 0	
Frequency Stability	Un-modulation	5320	---	---

Beamforming mode

Frequency band 5150~5350 MHz / 5470~5725 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
Conducted Emissions	VHT20	5240	MCS 0	---
Radiated Emissions ≤1GHz	VHT20	5240	MCS 0	---
RF Output Power	VHT20	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700 / 5720	MCS 0	---
	VHT40	5190 / 5230/ 5270 / 5310 / 5510 5590 / 5670 / 5710	MCS 0	
	VHT80	5210 / 5290 / 5530 / 5610 / 5690	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	VHT20	5180 / 5200 / 5240 / 5260 / 5300 5320 / 5500 / 5580 / 5700 / 5720	MCS 0	---
	VHT40	5190 / 5230/ 5270 / 5310 / 5510 5590 / 5670 / 5710	MCS 0	
	VHT80	5210 / 5290 / 5530 / 5610 / 5690	MCS 0	

Frequency band 5725-5850 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate	Test Configuration
Conducted Emissions	VHT40	5755	MCS 0	---
Radiated Emissions ≤1GHz	VHT40	5755	MCS 0	---
RF Output Power	VHT20	5745 / 5785 / 5825	MCS 0	---
	VHT40	5755 / 5795	MCS 0	
	VHT80	5775	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth 6dB bandwidth Peak Power Spectral Density	VHT20	5745 / 5785 / 5825	MCS 0	---
	VHT40	5755 / 5795	MCS 0	
	VHT80	5775	MCS 0	

3 Transmitter Test Results

3.1 Conducted Emissions

3.1.1 Limit of Conducted Emissions

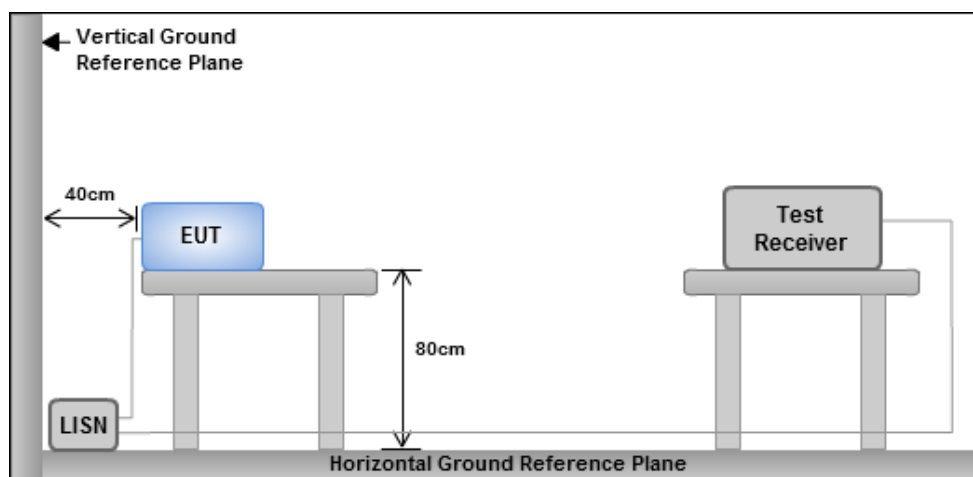
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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

3.1.2 Test Procedures

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

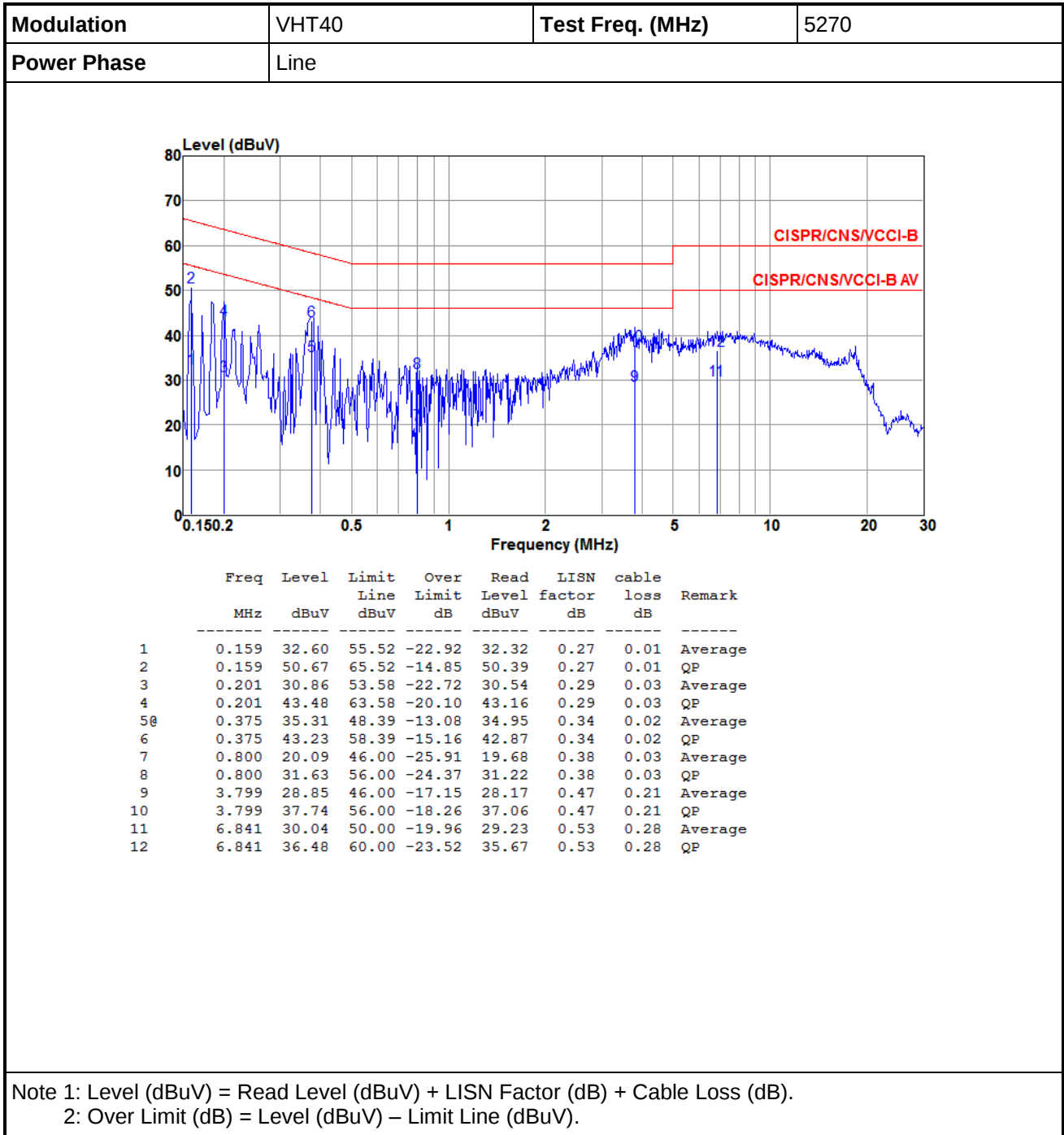
3.1.3 Test Setup



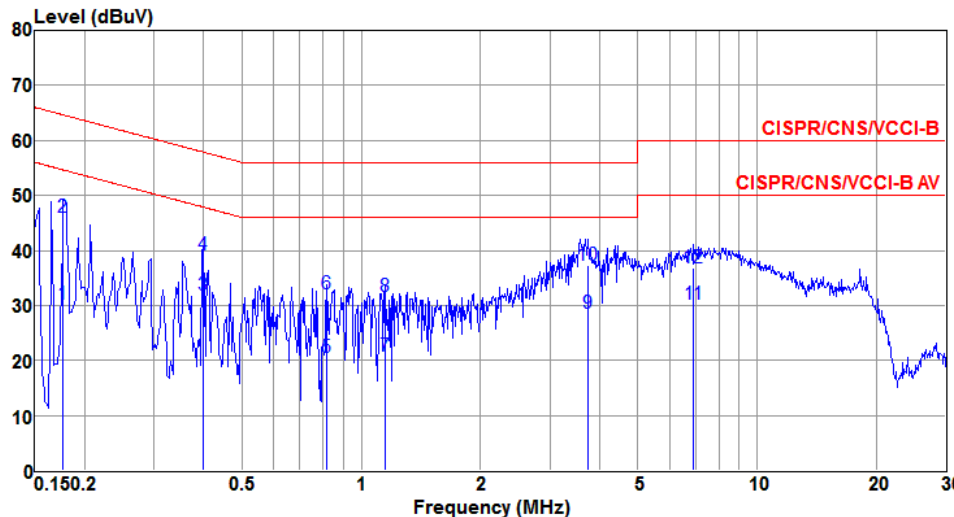
- Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

Non-beamforming mode



Modulation	VHT40	Test Freq. (MHz)	5270
Power Phase	Neutral		



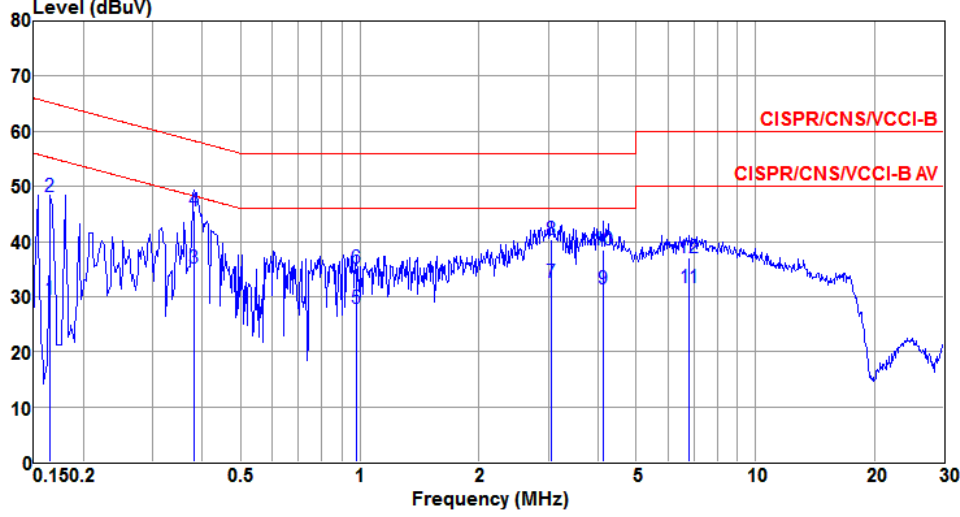
	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.177	30.12	54.64	-24.52	29.95	0.15	0.02	Average
2	0.177	46.10	64.64	-18.54	45.93	0.15	0.02	QP
3@	0.400	31.90	47.86	-15.96	31.69	0.19	0.02	Average
4	0.400	39.23	57.86	-18.63	39.02	0.19	0.02	QP
5	0.817	20.60	46.00	-25.40	20.33	0.24	0.03	Average
6	0.817	32.10	56.00	-23.90	31.83	0.24	0.03	QP
7	1.147	20.89	46.00	-25.11	20.58	0.27	0.04	Average
8	1.147	31.59	56.00	-24.41	31.28	0.27	0.04	QP
9	3.740	28.52	46.00	-17.48	27.96	0.35	0.21	Average
10	3.740	37.41	56.00	-18.59	36.85	0.35	0.21	QP
11	6.914	30.19	50.00	-19.81	29.49	0.42	0.28	Average
12	6.914	36.90	60.00	-23.10	36.20	0.42	0.28	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).

2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

Beamforming mode

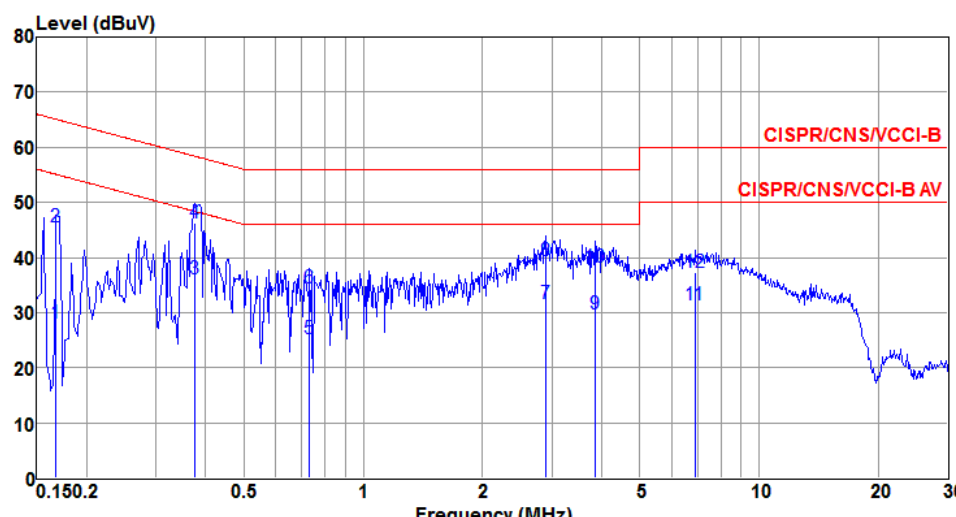
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Line		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.165	29.61	55.21	-25.60	29.31	0.28	0.02	Average
2	0.165	48.04	65.21	-17.17	47.74	0.28	0.02	QP
3	0.381	35.27	48.25	-12.98	34.91	0.34	0.02	Average
4	0.381	45.65	58.25	-12.60	45.29	0.34	0.02	QP
5	0.979	27.89	46.00	-18.11	27.47	0.39	0.03	Average
6	0.979	35.20	56.00	-20.80	34.78	0.39	0.03	QP
7	3.041	32.57	46.00	-13.43	31.95	0.45	0.17	Average
8	3.041	40.25	56.00	-15.75	39.63	0.45	0.17	QP
9	4.114	31.37	46.00	-14.63	30.68	0.47	0.22	Average
10	4.114	38.48	56.00	-17.52	37.79	0.47	0.22	QP
11	6.805	31.52	50.00	-18.48	30.71	0.53	0.28	Average
12	6.805	37.16	60.00	-22.84	36.35	0.53	0.28	QP

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

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

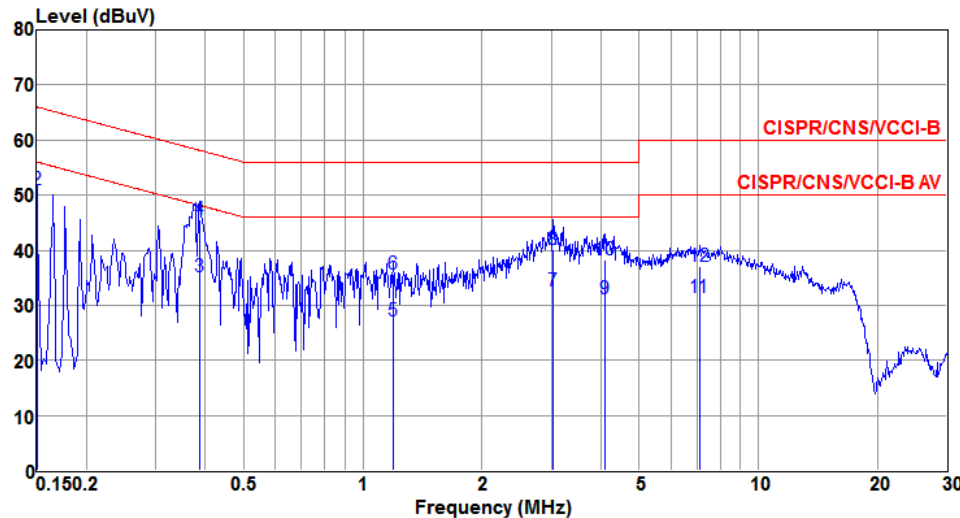


Freq	Level	Limit	Over	Read	LISN	cable	Remark	
MHz	dBuV	Line	Limit	Level	factor	loss		
		dBuV	dB	dBuV	dB	dB		
1	0.168	28.04	55.08	-27.04	27.88	0.14	0.02	Average
2	0.168	45.65	65.08	-19.43	45.49	0.14	0.02	QP
3	0.375	36.07	48.39	-12.32	35.86	0.19	0.02	Average
4	0.375	46.32	58.39	-12.07	46.11	0.19	0.02	QP
5	0.731	25.15	46.00	-20.85	24.88	0.24	0.03	Average
6	0.731	34.41	56.00	-21.59	34.14	0.24	0.03	QP
7	2.884	31.72	46.00	-14.28	31.23	0.33	0.16	Average
8	2.884	39.33	56.00	-16.67	38.84	0.33	0.16	QP
9	3.840	29.83	46.00	-16.17	29.27	0.35	0.21	Average
10	3.840	38.15	56.00	-17.85	37.59	0.35	0.21	QP
11	6.878	31.48	50.00	-18.52	30.79	0.41	0.28	Average
12	6.878	37.26	60.00	-22.74	36.57	0.41	0.28	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).

2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

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



The graph displays the measured level in dBuV across a frequency range from 0.150 to 30 MHz. Two red limit lines are shown: CISPR/CNS/VCCI-B (upper) and CISPR/CNS/VCCI-B AV (lower). The blue trace represents the measured signal, with several peaks labeled 1 through 12. The levels generally decrease as frequency increases, staying below the limits.

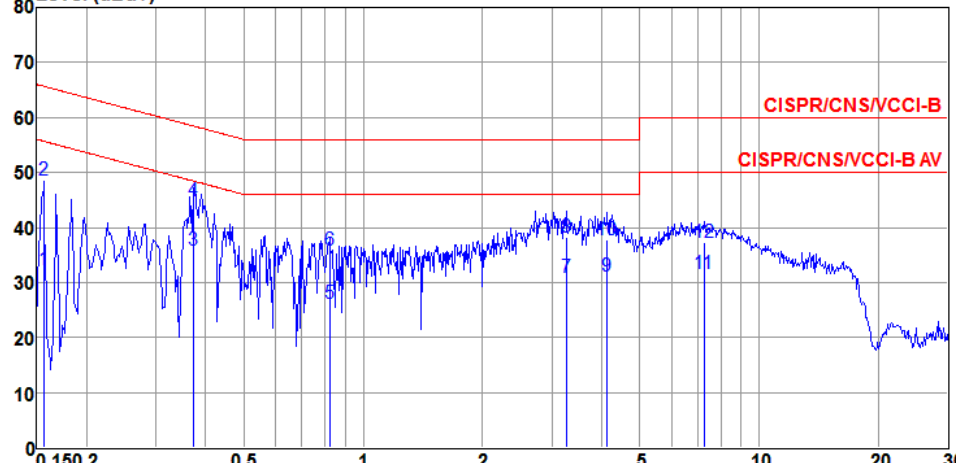
	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1	0.150	34.42	56.00	-21.58	34.14	0.27	0.01	Average
2	0.150	50.95	66.00	-15.05	50.67	0.27	0.01	QP
3	0.387	35.17	48.12	-12.95	34.81	0.34	0.02	Average
4@	0.387	45.62	58.12	-12.50	45.26	0.34	0.02	QP
5	1.191	27.14	46.00	-18.86	26.69	0.40	0.05	Average
6	1.191	35.65	56.00	-20.35	35.20	0.40	0.05	QP
7	3.025	32.59	46.00	-13.41	31.97	0.45	0.17	Average
8	3.025	40.06	56.00	-15.94	39.44	0.45	0.17	QP
9	4.092	31.21	46.00	-14.79	30.52	0.47	0.22	Average
10	4.092	38.30	56.00	-17.70	37.61	0.47	0.22	QP
11	7.100	31.48	50.00	-18.52	30.67	0.53	0.28	Average
12	7.100	36.98	60.00	-23.02	36.17	0.53	0.28	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).

Note 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

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

Level (dBuV)



Frequency (MHz)

	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.156	32.34	55.69	-23.35	32.19	0.14	0.01	Average
2	0.156	48.60	65.69	-17.09	48.45	0.14	0.01	QP
3	0.371	35.88	48.47	-12.59	35.67	0.19	0.02	Average
4	0.371	44.80	58.47	-13.67	44.59	0.19	0.02	QP
5	0.822	26.22	46.00	-19.78	25.94	0.25	0.03	Average
6	0.822	35.80	56.00	-20.20	35.52	0.25	0.03	QP
7	3.258	30.87	46.00	-15.13	30.35	0.34	0.18	Average
8	3.258	38.17	56.00	-17.83	37.65	0.34	0.18	QP
9	4.136	31.13	46.00	-14.87	30.56	0.35	0.22	Average
10	4.136	37.85	56.00	-18.15	37.28	0.35	0.22	QP
11	7.252	31.69	50.00	-18.31	30.99	0.42	0.28	Average
12	7.252	37.31	60.00	-22.69	36.61	0.42	0.28	QP

Note 1: Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB).

Note 2: Over Limit (dB) = Level (dBuV) – Limit Line (dBuV).

3.2 Emission Bandwidth

3.2.1 Limit of Emission Bandwidth

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

3.2.2 Test Procedures

26dB Bandwidth

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

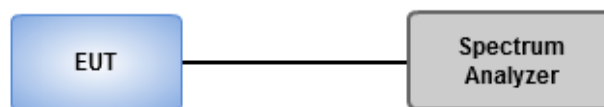
Occupied Bandwidth

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

6dB Bandwidth

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

3.2.3 Test Setup

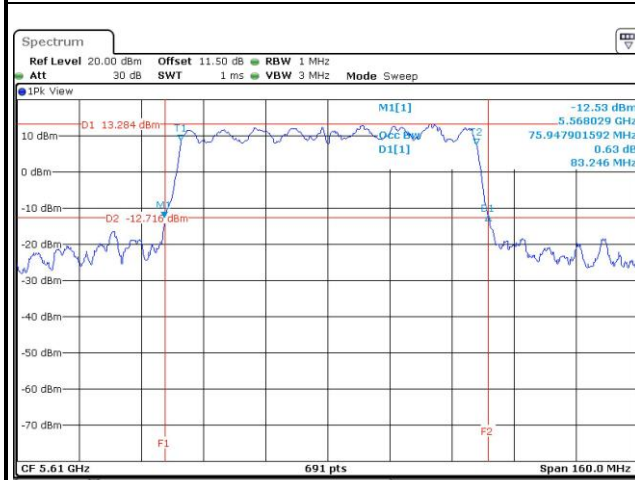


3.2.4 Test Result of Emission Bandwidth

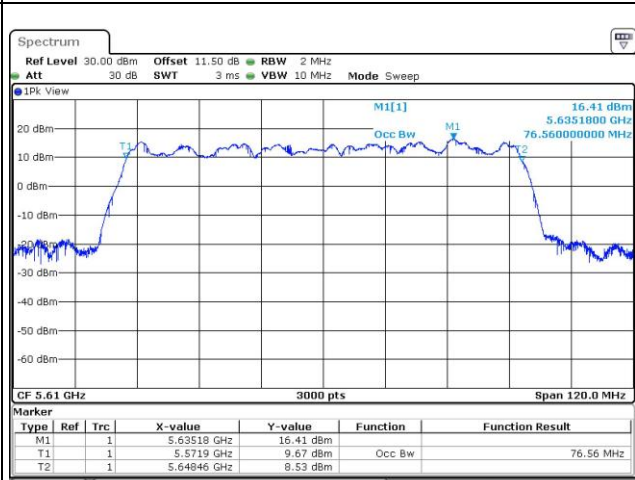
Non-beamforming mode

For Frequency band 5250-5350 MHz, 5470-5725 MHz											
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	2	5260	20.87	21.28	--	--	16.72	16.75	--	--	24.00
11a	2	5300	20.64	21.22	--	--	16.81	16.75	--	--	24.00
11a	2	5320	20.64	21.22	--	--	16.72	16.76	--	--	24.00
VHT20	2	5260	21.33	21.45	--	--	17.78	17.70	--	--	24.00
VHT20	2	5300	21.16	21.45	--	--	17.70	17.71	--	--	24.00
VHT20	2	5320	21.10	21.51	--	--	17.77	17.72	--	--	24.00
VHT40	2	5270	44.75	44.52	--	--	37.14	37.02	--	--	24.00
VHT40	2	5310	44.75	44.41	--	--	37.14	37.06	--	--	24.00
VHT80	2	5290	82.78	83.25	--	--	76.24	76.32	--	--	24.00
11a	2	5500	20.93	21.28	--	--	16.80	16.74	--	--	24.00
11a	2	5580	21.04	21.10	--	--	16.67	16.75	--	--	24.00
11a	2	5700	20.58	21.22	--	--	16.72	16.73	--	--	24.00
VHT20	2	5500	21.39	21.39	--	--	17.63	17.71	--	--	24.00
VHT20	2	5580	21.16	21.45	--	--	17.62	17.70	--	--	24.00
VHT20	2	5700	21.68	21.16	--	--	17.70	17.71	--	--	24.00
VHT40	2	5510	44.29	43.94	--	--	36.92	37.02	--	--	24.00
VHT40	2	5590	44.41	44.06	--	--	37.02	37.08	--	--	24.00
VHT40	2	5670	44.64	43.94	--	--	36.92	37.02	--	--	24.00
VHT80	2	5530	82.32	83.01	--	--	76.08	76.44	--	--	24.00
VHT80	2	5610	83.25	83.01	--	--	76.20	76.56	--	--	24.00

Worst Plot of 26dB Bandwidth



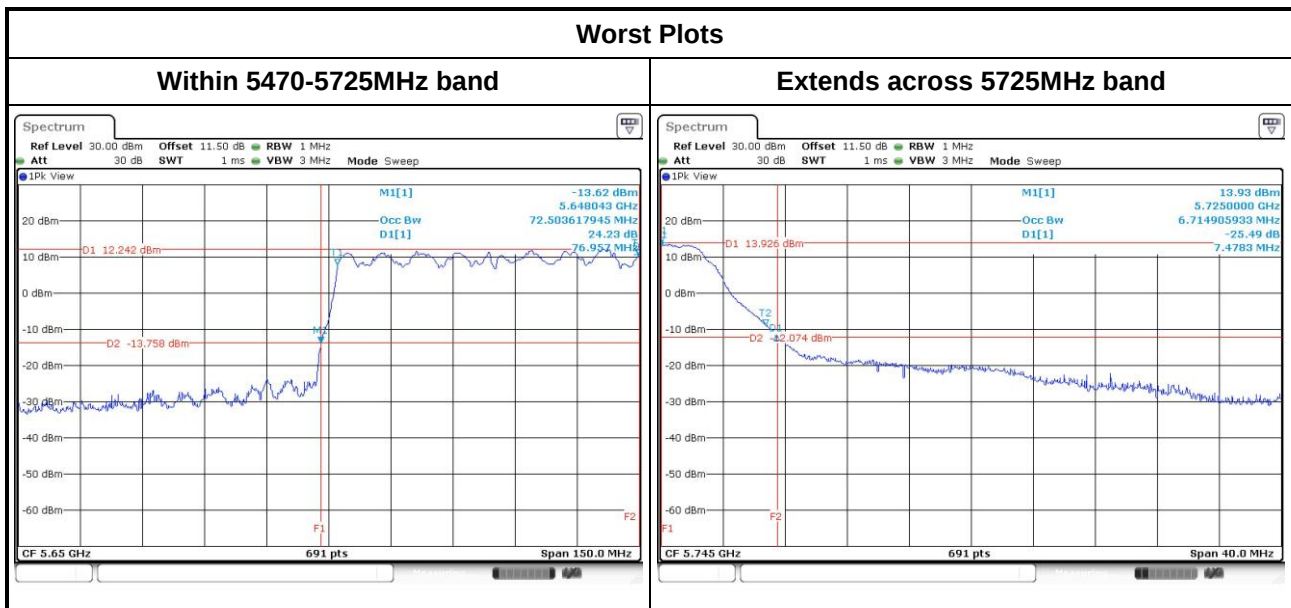
Worst Plot of 99% Bandwidth



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	2	5720	15.52	15.58	--	--	13.50	13.49	--	--	22.91
VHT20	2	5720	15.77	15.77	--	--	13.99	13.99	--	--	22.98
VHT40	2	5710	37.23	36.93	--	--	33.53	33.53	--	--	24.00
VHT80	2	5690	76.96	76.74	--	--	73.10	73.14	--	--	24.00

UNII Emission Bandwidth Result (Extends across 5725MHz band)											
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
11a	2	5720	5.39	5.54	--	--	3.17	3.26	--	--	22.91
VHT20	2	5720	5.61	5.61	--	--	3.72	3.73	--	--	22.98
VHT40	2	5710	7.48	7.30	--	--	3.39	3.49	--	--	24.00
VHT80	2	5690	6.43	6.43	--	--	3.18	3.34	--	--	24.00

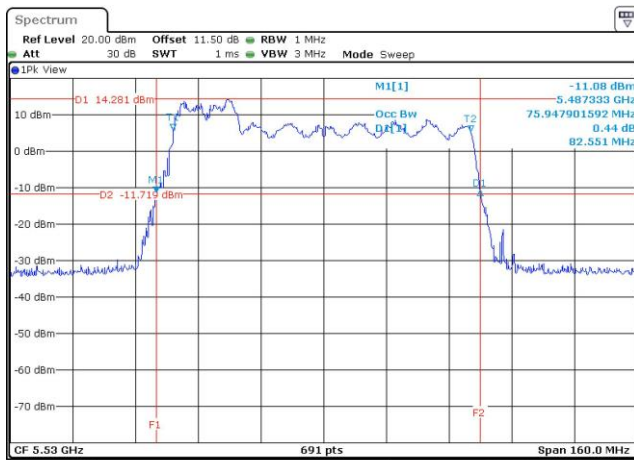


Beamforming mode

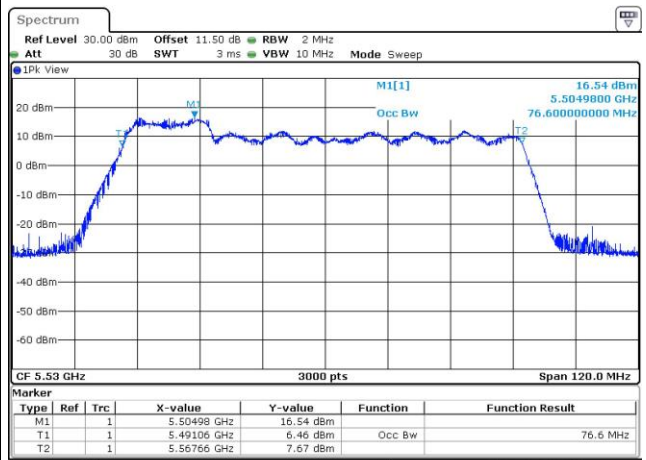
For Frequency band 5150~5250 MHz										
Emission Bandwidth										
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)			
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3
VHT20	2	5180	20.99	21.62	--	--	17.59	17.76	--	--
VHT20	2	5200	21.62	22.03	--	--	17.77	17.85	--	--
VHT20	2	5240	22.03	22.20	--	--	17.61	17.80	--	--
VHT40	2	5190	42.55	43.71	--	--	36.86	36.64	--	--
VHT40	2	5230	44.17	43.13	--	--	37.34	37.14	--	--
VHT80	2	5210	81.86	81.39	--	--	76.44	76.20	--	--

For Frequency band 5250~5350 MHz, 5470-5725 MHz											
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	2	5260	21.39	21.86	--	--	17.59	17.78	--	--	24.00
VHT20	2	5300	21.45	21.62	--	--	17.73	17.80	--	--	24.00
VHT20	2	5320	21.91	21.86	--	--	17.59	17.80	--	--	24.00
VHT40	2	5270	44.17	44.52	--	--	37.20	37.16	--	--	24.00
VHT40	2	5310	43.59	43.01	--	--	37.40	37.00	--	--	24.00
VHT80	2	5290	81.39	81.62	--	--	76.08	76.24	--	--	24.00
VHT20	2	5500	21.10	21.80	--	--	17.75	17.64	--	--	24.00
VHT20	2	5580	21.39	21.80	--	--	17.63	17.76	--	--	24.00
VHT20	2	5700	21.51	21.45	--	--	17.63	17.78	--	--	24.00
VHT40	2	5510	43.83	43.01	--	--	37.42	37.00	--	--	24.00
VHT40	2	5590	44.29	44.41	--	--	37.10	37.18	--	--	24.00
VHT40	2	5670	43.94	44.87	--	--	37.04	37.12	--	--	24.00
VHT80	2	5530	82.55	81.16	--	--	76.60	76.32	--	--	24.00
VHT80	2	5610	82.32	81.62	--	--	76.24	76.44	--	--	24.00

Worst Plot of 26dB Bandwidth



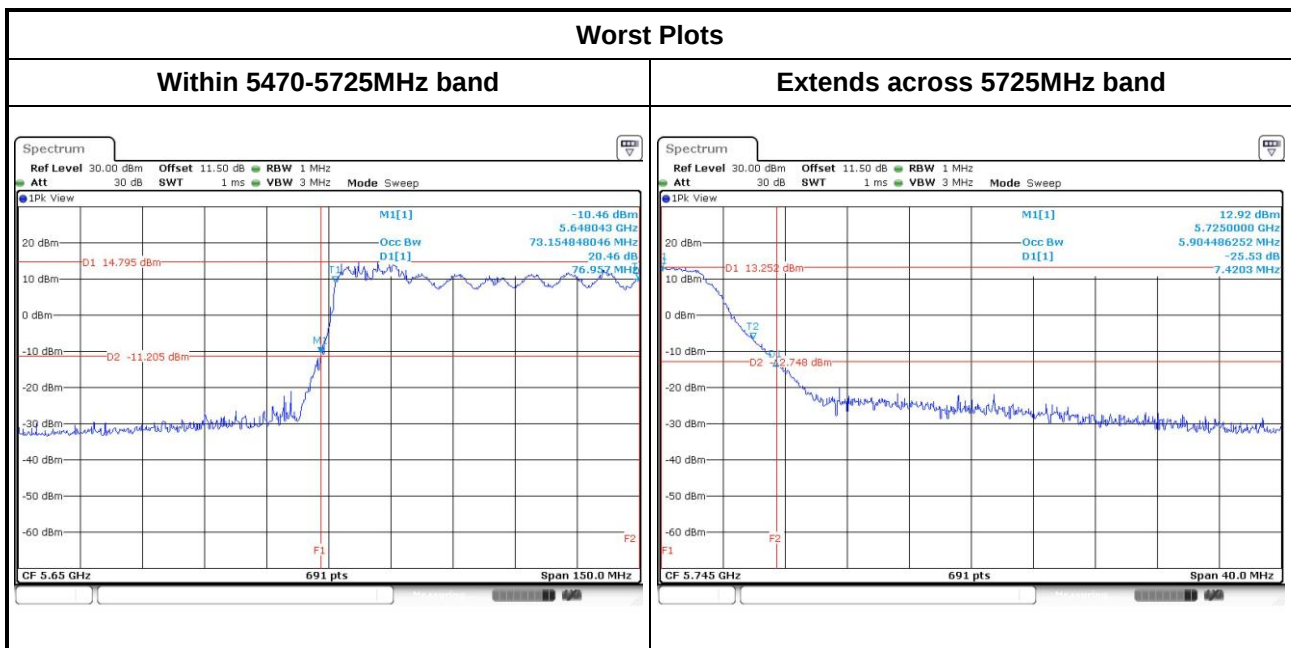
Worst Plot of 99% Bandwidth



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	2	5720	15.71	15.64	--	--	13.80	13.88	--	--	22.94
VHT40	2	5710	37.23	37.33	--	--	33.59	33.63	--	--	24.00
VHT80	2	5690	76.96	76.30	--	--	73.14	73.14	--	--	24.00

UNII Emission Bandwidth Result (Extends across 5725MHz band)											
Mode	N _{TX}	Freq. (MHz)	26dB Bandwidth (MHz)				99% Bandwidth (MHz)				Power Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
VHT20	2	5720	5.76	6.00	--	--	3.79	3.94	--	--	22.94
VHT40	2	5710	7.30	7.42	--	--	3.57	3.49	--	--	24.00
VHT80	2	5690	6.70	6.52	--	--	2.74	2.98	--	--	24.00

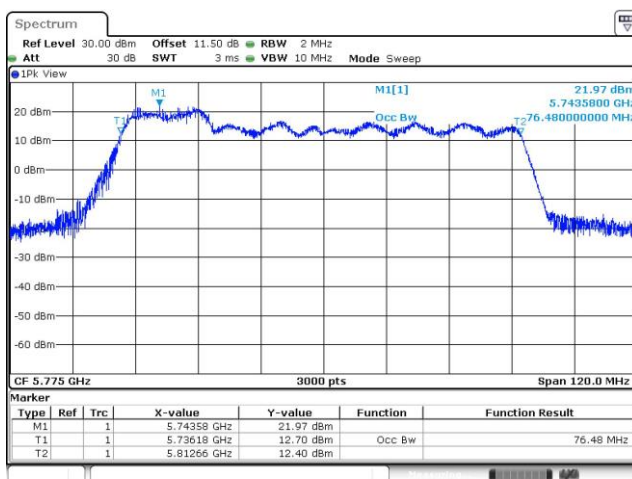


For Frequency band 5725-5850 MHz

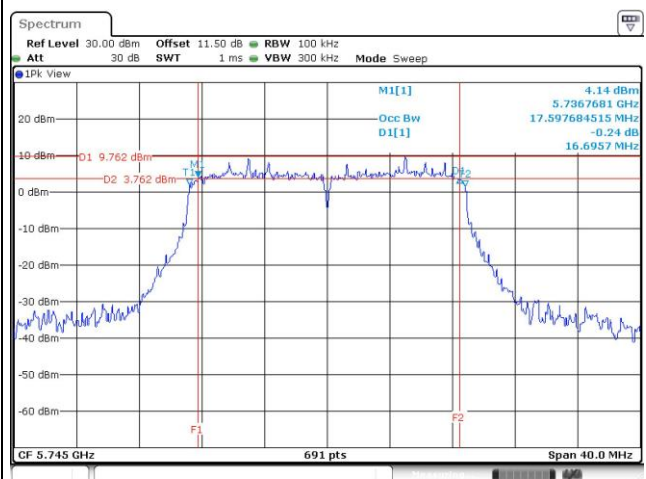
Emission Bandwidth

Mode	N _{TX}	Freq. (MHz)	OBW Bandwidth (MHz)				6dB Bandwidth (MHz)				6dB BW Limit (MHz)
			Chain 0	Chain 1	Chain 2	Chain 3	Chain 0	Chain 1	Chain 2	Chain 3	
VHT20	2	5745	17.86	17.78	--	--	17.39	16.70	--	--	0.5
VHT20	2	5785	17.70	17.85	--	--	16.81	17.16	--	--	0.5
VHT20	2	5825	17.74	17.97	--	--	16.81	16.87	--	--	0.5
VHT40	2	5755	37.42	37.36	--	--	35.59	35.94	--	--	0.5
VHT40	2	5795	37.38	37.34	--	--	35.59	35.59	--	--	0.5
VHT80	2	5775	76.48	76.32	--	--	54.03	72.58	--	--	0.5

Worst Plot of 99% Bandwidth



Worst Plot of 6dB Bandwidth



3.3 RF Output Power

3.3.1 Limit of RF Output Power

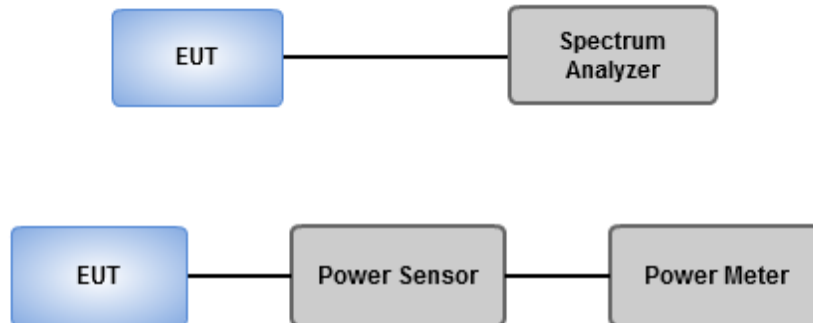
Frequency band 5150-5250 MHz		
Operating Mode		Limit
☐	Outdoor access point	Conducted Power: 1 W The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm)
☒	Indoor access point	Conducted Power: 1 W
☐	Fixed point-to-point access points	Conducted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

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

3.3.2 Test Procedures

- ☒ 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

3.3.3 Test Setup



3.3.4 Test Result of Maximum Conducted Output Power

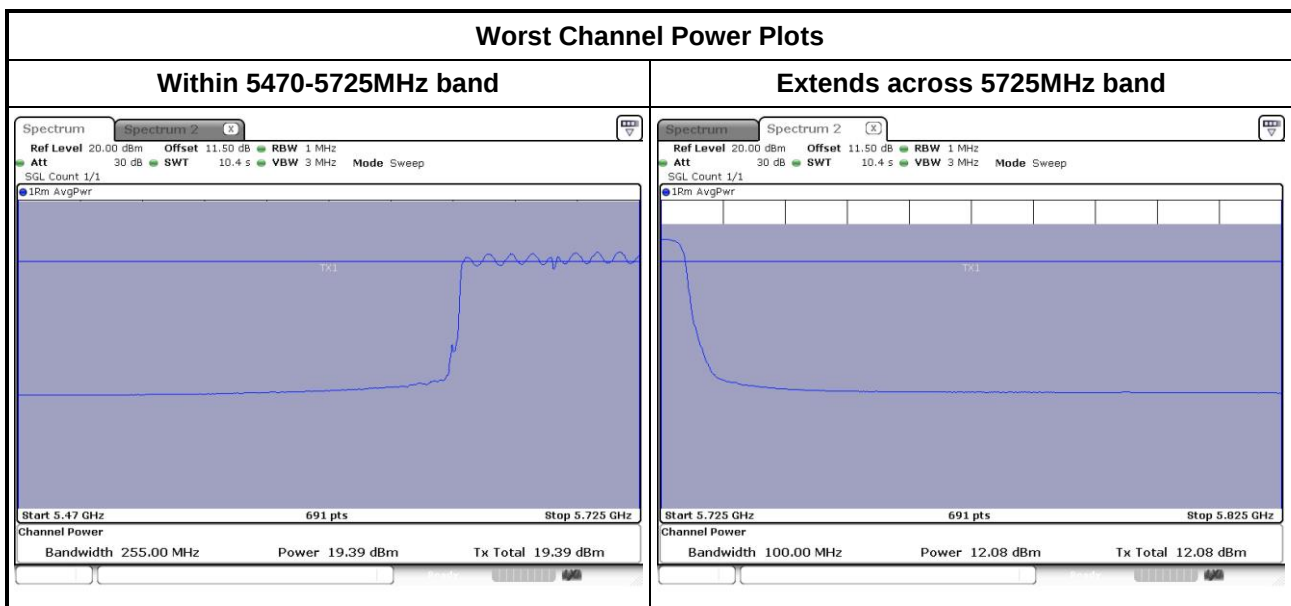
Non-beamforming mode

For Frequency band 5250-5350 MHz, 5470-5725 MHz									
Mode	N _{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
11a	2	5260	19.22	19.40	--	--	170.657	22.32	24.00
11a	2	5300	19.34	19.25	--	--	170.041	22.31	24.00
11a	2	5320	19.24	19.25	--	--	168.086	22.26	24.00
HT20	2	5260	19.52	19.19	--	--	172.522	22.37	24.00
HT20	2	5300	19.31	19.28	--	--	170.033	22.31	24.00
HT20	2	5320	19.22	19.13	--	--	165.407	22.19	24.00
HT40	2	5270	20.54	20.55	--	--	226.741	23.56	24.00
HT40	2	5310	17.42	17.46	--	--	110.926	20.45	24.00
VHT20	2	5260	19.68	19.31	--	--	178.207	22.51	24.00
VHT20	2	5300	19.44	19.41	--	--	175.199	22.44	24.00
VHT20	2	5320	19.34	19.25	--	--	170.041	22.31	24.00
VHT40	2	5270	20.66	20.64	--	--	232.290	23.66	24.00
VHT40	2	5310	17.56	17.58	--	--	114.296	20.58	24.00
VHT80	2	5290	16.51	16.56	--	--	90.061	19.55	24.00
11a	2	5500	19.31	19.36	--	--	171.608	22.35	24.00
11a	2	5580	19.24	19.28	--	--	168.669	22.27	24.00
11a	2	5700	19.52	19.41	--	--	176.834	22.48	24.00
HT20	2	5500	19.45	19.52	--	--	177.641	22.50	24.00
HT20	2	5580	19.08	19.02	--	--	160.709	22.06	24.00
HT20	2	5700	18.91	19.03	--	--	157.787	21.98	24.00
HT40	2	5510	17.24	17.15	--	--	104.846	20.21	24.00
HT40	2	5590	20.53	20.23	--	--	218.418	23.39	24.00
HT40	2	5670	20.12	20.19	--	--	207.274	23.17	24.00
VHT20	2	5500	19.58	19.66	--	--	183.252	22.63	24.00
VHT20	2	5580	19.21	19.13	--	--	165.215	22.18	24.00
VHT20	2	5700	19.02	19.15	--	--	162.024	22.10	24.00
VHT40	2	5510	17.36	17.28	--	--	107.907	20.33	24.00
VHT40	2	5590	20.53	20.23	--	--	218.418	23.39	24.00
VHT40	2	5670	20.25	20.32	--	--	213.572	23.30	24.00
VHT80	2	5530	16.56	16.66	--	--	91.634	19.62	24.00
VHT80	2	5610	20.53	20.34	--	--	221.123	23.45	24.00

Channel that extends across the 5.725 GHz boundary

Maximum Conducted Output Power (Within 5470-5725MHz band)											
Mode	N _{TX}	Freq. (MHz)	Conducted Power without duty factor					Duty factor (dB)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Total Power (dBm)				
11a	2	5720	18.30	17.80	--	--	21.07	0.24	135.129	21.31	22.91
HT20	2	5720	17.64	17.44	--	--	20.55	0.22	119.439	20.77	22.98
HT40	2	5710	19.08	18.76	--	--	21.93	0.68	182.526	22.61	24.00
VHT20	2	5720	17.73	17.51	--	--	20.63	0.22	121.666	20.85	22.98
VHT40	2	5710	19.18	18.77	--	--	21.99	0.68	184.933	22.67	24.00
VHT80	2	5690	19.23	19.39	--	--	22.32	1.23	226.518	23.55	24.00

Maximum Conducted Output Power (Extends across 5725MHz band)											
Mode	N _{TX}	Freq. (MHz)	Conducted Power without duty factor					Duty factor (dB)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Total Power (dBm)				
11a	2	5720	11.77	11.69	--	--	14.74	0.24	31.481	14.98	30.00
HT20	2	5720	11.89	11.74	--	--	14.83	0.22	31.959	15.05	30.00
HT40	2	5710	8.70	8.41	--	--	11.57	0.68	16.779	12.25	30.00
VHT20	2	5720	12.08	11.80	--	--	14.95	0.22	32.905	15.17	30.00
VHT40	2	5710	8.77	8.69	--	--	11.74	0.68	17.460	12.42	30.00
VHT80	2	5690	5.51	6.13	--	--	8.84	1.23	10.166	10.07	30.00



Note: Above plots are without duty factor.

Beamforming mode

For Frequency band 5150–5250 MHz, 5250–5350 MHz, 5470-5725 MHz									
Mode	N _{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
VHT20	2	5180	19.01	19.28	--	--	164.339	22.16	29.14
VHT20	2	5200	22.64	23.04	--	--	385.026	25.85	29.14
VHT20	2	5240	23.11	23.06	--	--	406.946	26.10	29.14
VHT40	2	5190	17.35	16.27	--	--	96.689	19.85	29.14
VHT40	2	5230	23.28	22.86	--	--	406.011	26.09	29.14
VHT80	2	5210	16.48	16.91	--	--	93.554	19.71	29.14
VHT20	2	5260	18.8	18.72	--	--	150.331	21.77	22.67
VHT20	2	5300	18.85	18.62	--	--	149.514	21.75	22.67
VHT20	2	5320	18.66	18.52	--	--	144.573	21.60	22.67
VHT40	2	5270	19.05	18.88	--	--	157.621	21.98	22.67
VHT40	2	5310	17.48	17.03	--	--	106.442	20.27	22.67
VHT80	2	5290	16.37	16.05	--	--	83.623	19.22	22.67
VHT20	2	5500	18.81	18.42	--	--	145.535	21.63	22.55
VHT20	2	5580	18.86	18.21	--	--	143.135	21.56	22.55
VHT20	2	5700	18.91	18.27	--	--	144.947	21.61	22.55
VHT40	2	5510	16.82	16.42	--	--	91.937	19.63	22.55
VHT40	2	5590	19.69	18.58	--	--	165.222	22.18	22.55
VHT40	2	5670	18.92	18.22	--	--	144.357	21.59	22.55
VHT80	2	5530	15.95	15.76	--	--	77.025	18.87	22.55
VHT80	2	5610	18.31	17.08	--	--	118.815	20.75	22.55

Note:

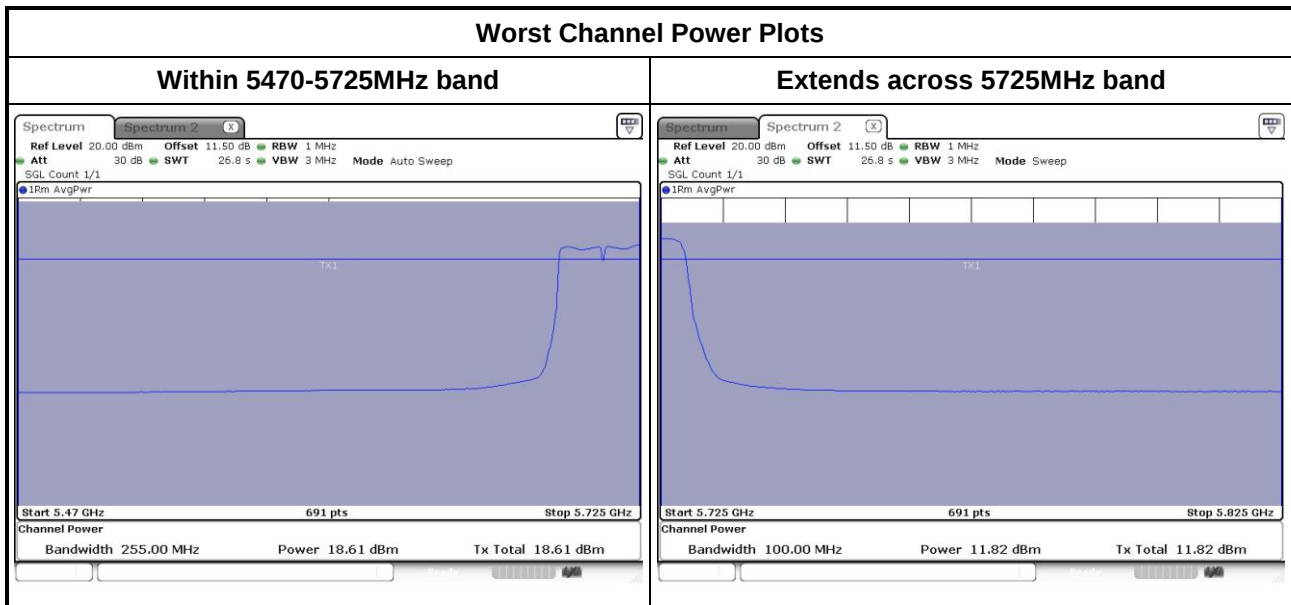
- For 5150–5250 MHz
Directional gain = $10 * \log((10^{3.6/20} + 10^{4.1/20})^2 / 2) = 6.86 \text{ dBi} > 6 \text{ dBi}$
Limit shall be reduced to $30 \text{ dBm} - (6.86 \text{ dBi} - 6 \text{ dBi}) = 29.14 \text{ dBm}$
- For 5250–5350 MHz
Directional gain = $10 * \log((10^{3.7/20} + 10^{4.9/20})^2 / 2) = 7.33 \text{ dBi} > 6 \text{ dBi}$
Limit shall be reduced to $24 \text{ dBm} - (7.33 \text{ dBi} - 6 \text{ dBi}) = 22.67 \text{ dBm}$
- For 5470-5725 MHz
Directional gain = $10 * \log((10^{3.6/20} + 10^{5.2/20})^2 / 2) = 7.45 \text{ dBi} > 6 \text{ dBi}$
Limit shall be reduced to $24 \text{ dBm} - (7.45 \text{ dBi} - 6 \text{ dBi}) = 22.55 \text{ dBm}$

Channel that extends across the 5.725 GHz boundary

Maximum Conducted Output Power (Within 5470-5725MHz band)											
Mode	N _{Tx}	Freq. (MHz)	Conducted Power without duty factor					Duty factor (dB)	Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3	Total Power (dBm)				
VHT20	2	5720	17.30	17.55	--	--	20.44	0.43	122.098	20.87	21.49
VHT40	2	5710	18.61	18.08	--	--	21.36	0.43	151.126	21.79	22.55
VHT80	2	5690	18.31	17.77	--	--	21.06	0.34	137.997	21.40	22.55

Note: Correlated antenna gain is 7.45dBi > 6 dBi. Limit shall be reduced 1.45 dB.

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	2	5720	11.28	11.82	--	--	14.57	0.43	31.613	15.00	30.00
VHT40	2	5710	8.83	8.45	--	--	11.65	0.43	16.160	12.08	30.00
VHT80	2	5690	4.94	4.42	--	--	7.70	0.34	6.365	8.04	30.00



Note: Above plots are without duty factor.

For Frequency band 5725-5850 MHz									
Mode	N _{TX}	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)
			Chain 0	Chain 1	Chain 2	Chain 3			
VHT20	2	5745	21.68	20.33	--	--	255.126	24.07	30.00
VHT20	2	5785	22.81	22.46	--	--	367.183	25.65	30.00
VHT20	2	5825	22.76	22.8	--	--	379.345	25.79	30.00
VHT40	2	5755	23.11	22.57	--	--	385.362	25.86	30.00
VHT40	2	5795	22.81	22.62	--	--	373.795	25.73	30.00
VHT80	2	5775	20.43	20.01	--	--	210.638	23.24	30.00

3.4 Peak Power Spectral Density

3.4.1 Limit of Peak Power Spectral Density

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

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

3.4.2 Test Procedures

For 5150~5250 MHz, 5250~5350 MHz, 5470~5725 MHz

☐ Method SA-1

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

☒ Method SA-2 Alternative

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

For 5725~5850 MHz

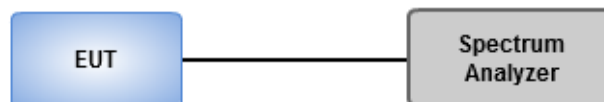
☐ Method SA-1

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

☒ Method SA-2 Alternative

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

3.4.3 Test Setup



3.4.4 Test Result of Peak Power Spectral Density

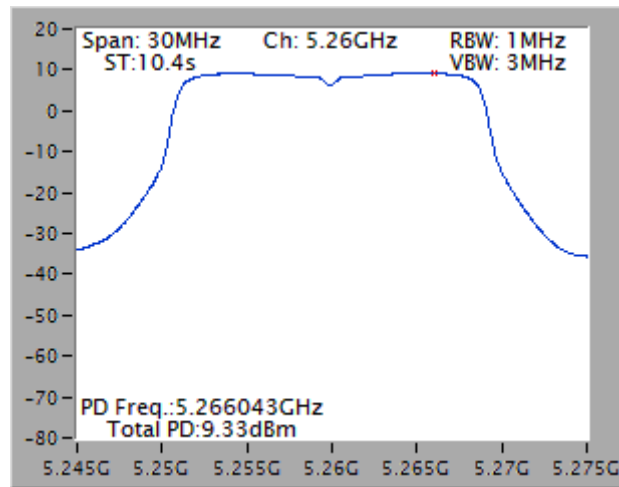
Non-beamforming mode

For Frequency band 5250-5350 MHz, 5470-5725 MHz						
Condition			Peak Power Spectral Density (dBm/MHz)			
Mode	N _{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/MHz)	Duty Factor (dB)	PPSD with D.F (dBm/MHz)	PPSD Limit (dBm/MHz)
11a	2	5260	9.13	0.24	9.37	9.67
11a	2	5300	9.03	0.24	9.27	9.67
11a	2	5320	8.92	0.24	9.16	9.67
VHT20	2	5260	9.33	0.22	9.55	9.67
VHT20	2	5300	8.97	0.22	9.19	9.67
VHT20	2	5320	8.96	0.22	9.18	9.67
VHT40	2	5270	7.17	0.68	7.85	9.67
VHT40	2	5310	4.22	0.68	4.90	9.67
VHT80	2	5290	0.18	1.23	1.41	9.67
11a	2	5500	8.96	0.24	9.20	9.55
11a	2	5580	8.89	0.24	9.13	9.55
11a	2	5700	9.01	0.24	9.25	9.55
11a	2	5720	8.75	0.24	8.99	9.55
VHT20	2	5500	8.99	0.22	9.21	9.55
VHT20	2	5580	9.03	0.22	9.25	9.55
VHT20	2	5700	8.74	0.22	8.96	9.55
VHT20	2	5720	8.78	0.22	9.00	9.55
VHT40	2	5510	3.13	0.68	3.81	9.55
VHT40	2	5590	6.44	0.68	7.12	9.55
VHT40	2	5670	6.77	0.68	7.45	9.55
VHT40	2	5710	5.92	0.68	6.60	9.55
VHT80	2	5530	0.08	1.23	1.31	9.55
VHT80	2	5610	4.23	1.23	5.46	9.55
VHT80	2	5690	4.06	1.23	5.29	9.55

Note:

1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. For 5250-5350 MHz
 $\text{Directional gain} = 10 * \log((10^{3.7/20} + 10^{4.9/20})^2 / 2) = 7.33 \text{ dBi} > 6 \text{ dBi}$
 Limit shall be reduced to 11 dBm – (7.33 dBi – 6 dBi) = 9.67 dBm
4. For 5470-5725 MHz
 $\text{Directional gain} = 10 * \log((10^{3.6/20} + 10^{5.2/20})^2 / 2) = 7.45 \text{ dBi} > 6 \text{ dBi}$
 Limit shall be reduced to 11 dBm – (7.45 dBi – 6 dBi) = 9.55 dBm

Worst Plot



Note: Above plot is without duty factor.

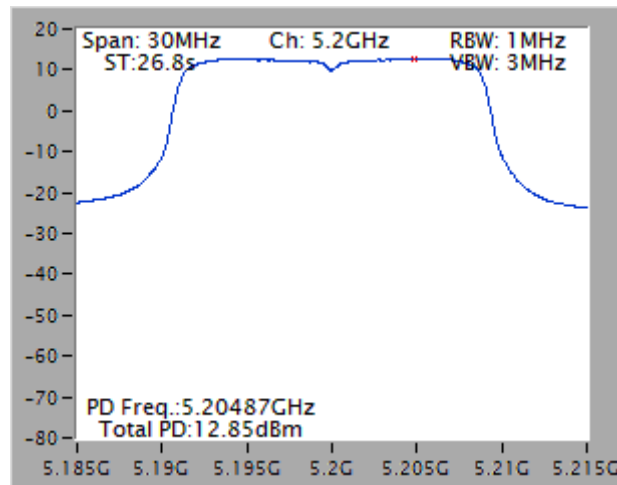
Beamforming mode

Frequency band			5150~5250 MHz, 5250~5350 MHz, 5470~5725 MHz			
Condition			Peak Power Spectral Density (dBm/MHz)			
Mode	N _{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/MHz)	Duty Factor (dB)	PPSD with D.F (dBm/MHz)	PPSD Limit (dBm/MHz)
VHT20	2	5180	8.93	0.43	9.36	16.14
VHT20	2	5200	12.85	0.43	13.28	16.14
VHT20	2	5240	12.25	0.43	12.68	16.14
VHT40	2	5190	3.52	0.43	3.95	16.14
VHT40	2	5230	9.36	0.43	9.79	16.14
VHT80	2	5210	1.25	0.34	1.59	16.14
VHT20	2	5260	8.49	0.43	8.92	9.67
VHT20	2	5300	8.75	0.43	9.18	9.67
VHT20	2	5320	8.61	0.43	9.04	9.67
VHT40	2	5270	5.85	0.43	6.28	9.67
VHT40	2	5310	4.11	0.43	4.54	9.67
VHT80	2	5290	1.27	0.34	1.61	9.67
VHT20	2	5500	8.37	0.43	8.80	9.55
VHT20	2	5580	8.33	0.43	8.76	9.55
VHT20	2	5700	8.50	0.43	8.93	9.55
VHT20	2	5720	8.33	0.43	8.76	9.55
VHT40	2	5510	2.61	0.43	3.04	9.55
VHT40	2	5590	5.48	0.43	5.91	9.55
VHT40	2	5670	5.39	0.43	5.82	9.55
VHT40	2	5710	6.00	0.43	6.43	9.55
VHT80	2	5530	0.19	0.34	0.53	9.55
VHT80	2	5610	3.00	0.34	3.34	9.55
VHT80	2	5690	3.99	0.34	4.33	9.55

Note:

1. D.F is duty factor.
2. Test result is bin-by-bin summing measured value of each TX port.
3. For 5150~5250 MHz
 $\text{Directional gain} = 10 * \log((10^{3.6/20} + 10^{4.1/20})^2 / 2) = 6.86 \text{ dBi} > 6 \text{ dBi}$
 Limit shall be reduced to 17 dBm – (6.86 dBi – 6 dBi) = 16.14 dBm
4. For 5250~5350 MHz
 $\text{Directional gain} = 10 * \log((10^{3.7/20} + 10^{4.9/20})^2 / 2) = 7.33 \text{ dBi} > 6 \text{ dBi}$
 Limit shall be reduced to 11 dBm – (7.33 dBi – 6 dBi) = 9.67 dBm
5. For 5470~5725 MHz
 $\text{Directional gain} = 10 * \log((10^{3.6/20} + 10^{5.2/20})^2 / 2) = 7.45 \text{ dBi} > 6 \text{ dBi}$
 Limit shall be reduced to 11 dBm – (7.45 dBi – 6 dBi) = 9.55 dBm

Worst Plot

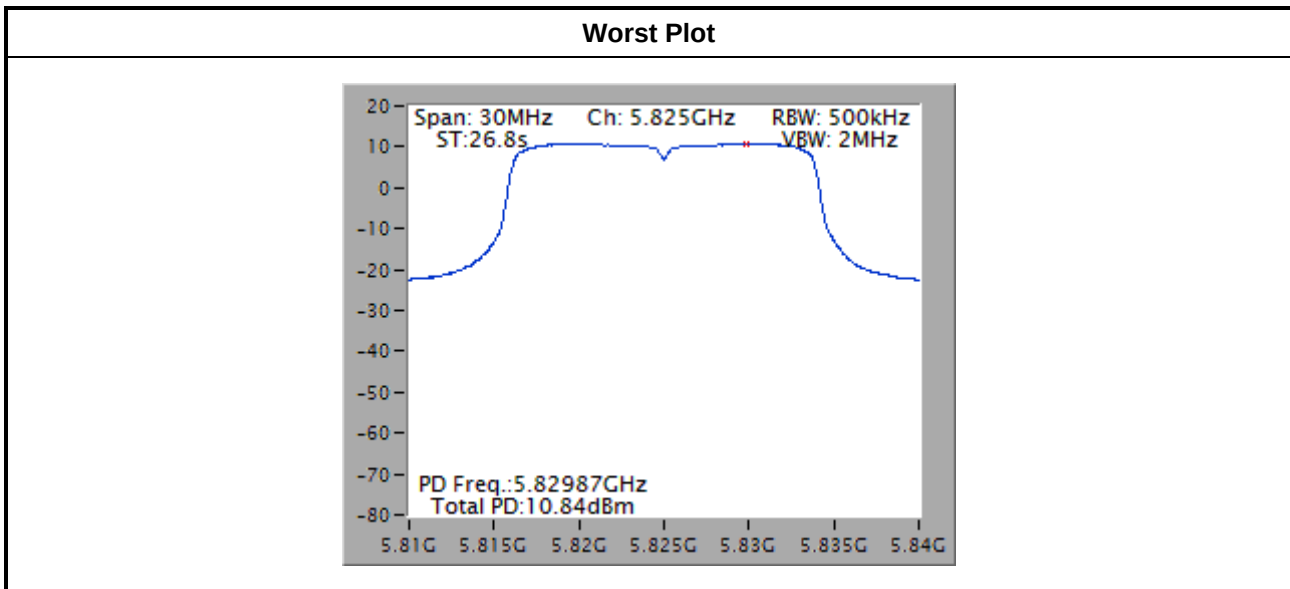


Note: Above plot is without duty factor.

For Frequency band 5725-5850 MHz						
Condition			Peak Power Spectral Density (dBm/500kHz)			
Modulation Mode	N _{TX}	Freq. (MHz)	PPSD w/o D.F (dBm/500kHz)	Duty Factor (dB)	PPSD with D.F (dBm/500kHz)	PPSD Limit (dBm/500kHz)
VHT20	2	5745	9.43	0.43	9.86	30.00
VHT20	2	5785	10.70	0.43	11.13	30.00
VHT20	2	5825	10.84	0.43	11.27	30.00
VHT40	2	5755	8.03	0.43	8.46	30.00
VHT40	2	5795	7.93	0.43	8.36	30.00
VHT80	2	5775	3.04	0.34	3.38	30.00

Note:

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



Note: Above plot is 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
5.15 - 5.25 GHz 5.25 - 5.35 GHz 5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.850 GHz	☒ 15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.
	☐ 15.407(b)(4)(ii) ,compliance with the emission limits in § 15.247(d) Shall be at least 30dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power,. Attenuation below the general limits specified in §15.209(a) is not required. In addition,radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see § 15.205(c))

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

3.5.2 Test Procedures

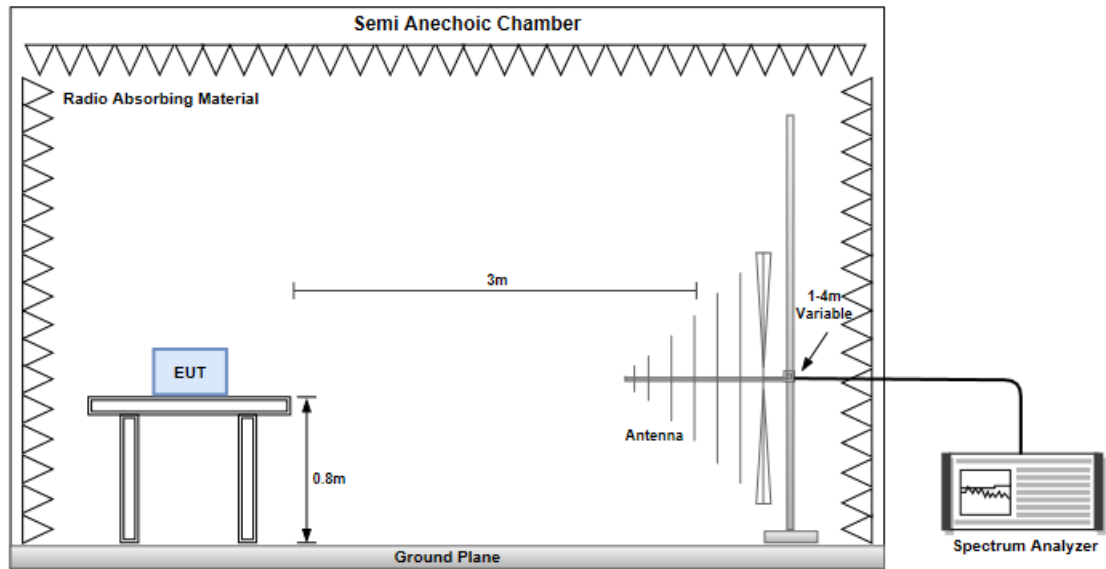
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

Note:

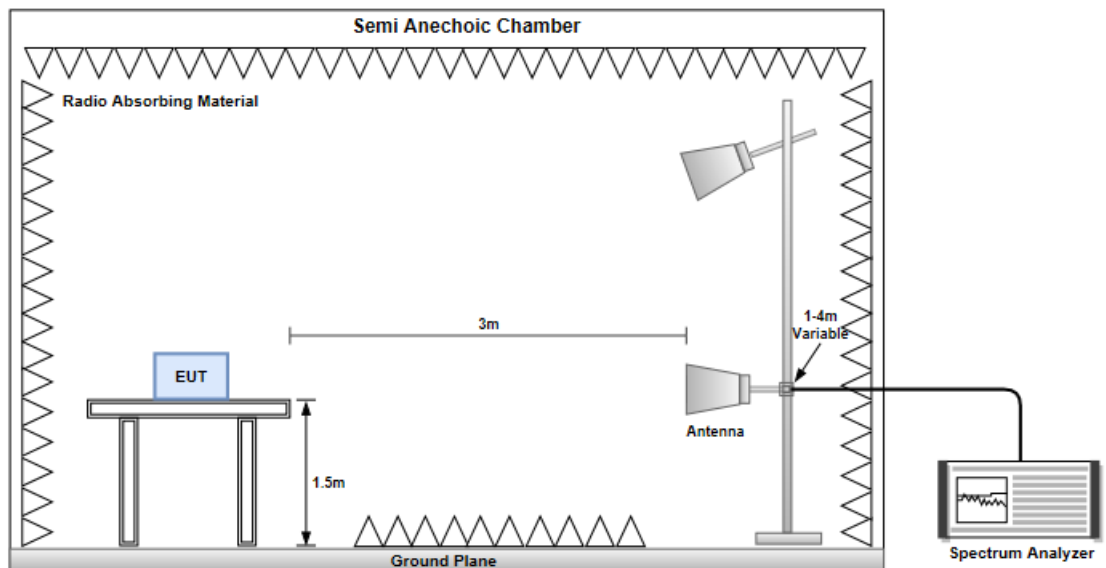
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz



Radiated Emissions above 1 GHz



Non- beamforming mode

3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Horizontal		
Level (dBuV/m) </			

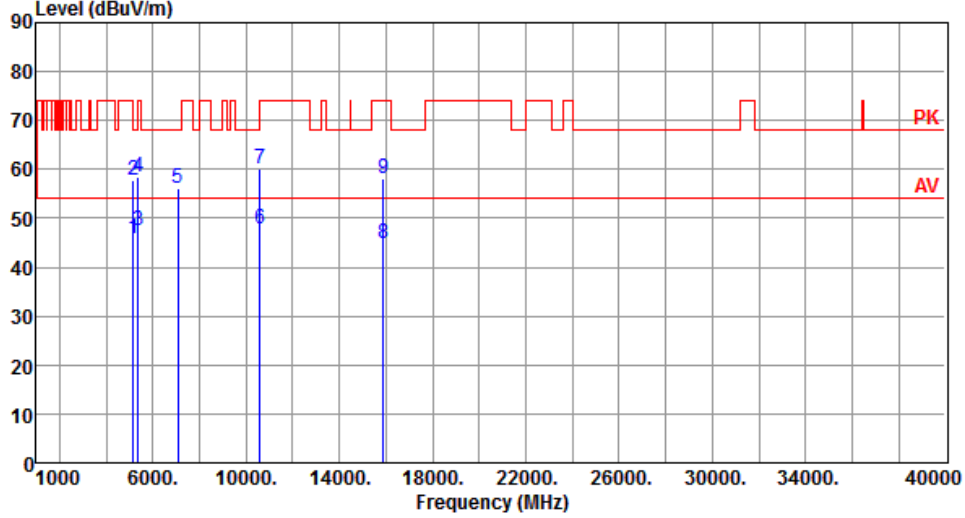
Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical		
Level (dBuV/m)			

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

Modulation	11a	Test Freq. (MHz)	5260
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	11a	Test Freq. (MHz)	5260
Polarization	Vertical		
Level (dBuV/m)			

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.83	54.00	-8.17	41.55	4.28	Average	125	237
2	5150.00	57.80	74.00	-16.20	53.52	4.28	Peak	125	237
3	5350.00	47.41	54.00	-6.59	42.97	4.44	Average	125	237
4	5350.00	58.38	74.00	-15.62	53.94	4.44	Peak	125	237
5	7066.66	56.14	68.20	-12.06	48.46	7.68	Peak	166	275
6	10600.00	47.91	54.00	-6.09	34.11	13.80	Average	139	209
7	10600.00	60.21	74.00	-13.79	46.41	13.80	Peak	139	209
8	15900.00	44.75	54.00	-9.25	30.57	14.18	Average	100	214
9	15900.00	58.00	74.00	-16.00	43.82	14.18	Peak	100	214

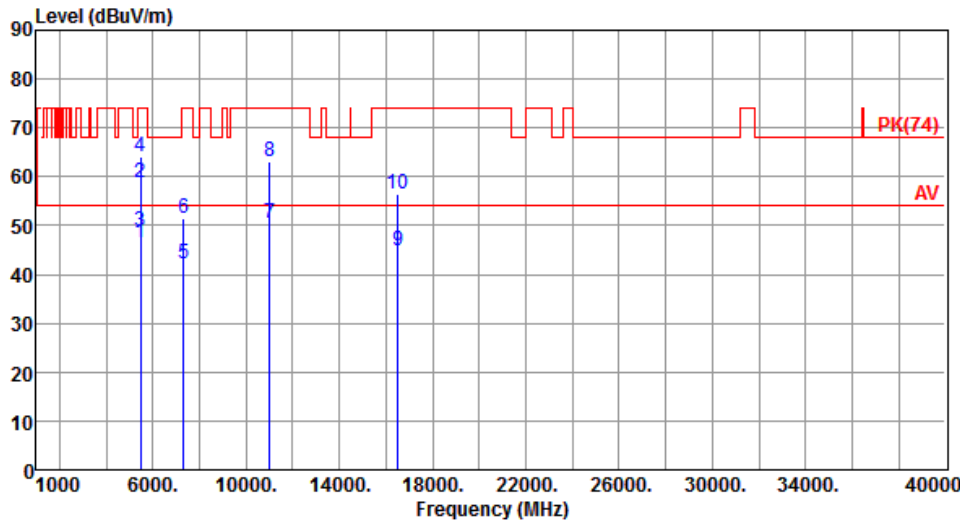
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5300
Polarization	Vertical		
Level (dBuV/m)			

Modulation	11a	Test Freq. (MHz)	5320
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	11a	Test Freq. (MHz)	5320
Polarization	Vertical		
Level (dBuV/m) </			

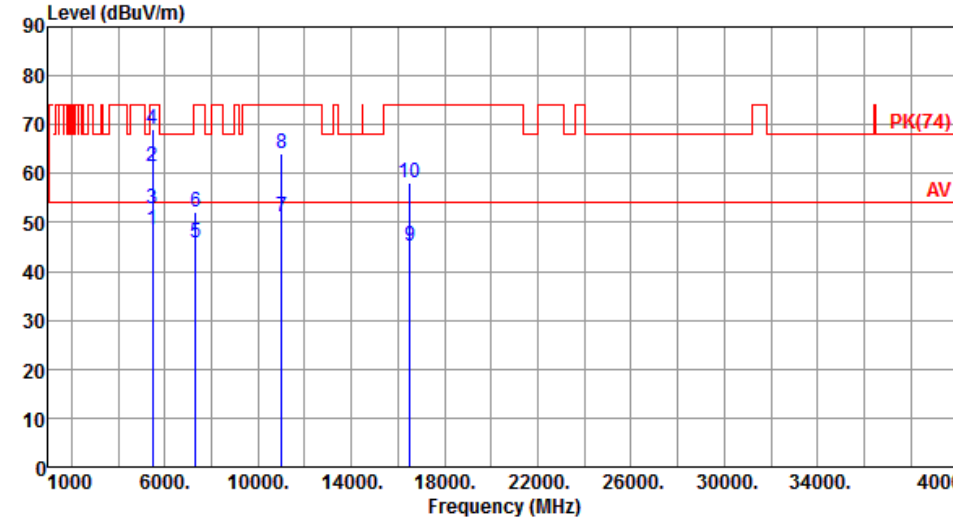
Modulation	11a	Test Freq. (MHz)	5500
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.65	54.00	-7.35	42.14	4.51	Average	179	72
2	5460.00	58.72	74.00	-15.28	54.21	4.51	Peak	179	72
3	5470.00	48.95	54.00	-5.05	44.43	4.52	Average	179	72
4	5470.00	63.93	74.00	-10.07	59.41	4.52	Peak	179	72
5	7333.00	42.14	54.00	-11.86	33.98	8.16	Average	100	78
6	7333.00	51.62	74.00	-22.38	43.46	8.16	Peak	100	78
7	11000.00	50.60	54.00	-3.40	36.45	14.15	Average	100	324
8	11000.00	63.16	74.00	-10.84	49.01	14.15	Peak	100	324
9	16500.00	44.76	54.00	-9.24	28.58	16.18	Average	100	25
10	16500.00	56.49	74.00	-17.51	40.31	16.18	Peak	100	25

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

Modulation	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	48.60	54.00	-5.40	44.09	4.51	Average	109	12
2	5460.00	61.57	74.00	-12.43	57.06	4.51	Peak	109	12
3	5470.00	52.86	54.00	-1.14	48.34	4.52	Average	109	12
4	5470.00	69.04	74.00	-4.96	64.52	4.52	Peak	109	12
5	7333.00	45.77	54.00	-8.23	37.61	8.16	Average	187	159
6	7333.00	52.15	74.00	-21.85	43.99	8.16	Peak	187	159
7	11000.00	51.21	54.00	-2.79	37.06	14.15	Average	124	222
8	11000.00	64.21	74.00	-9.79	50.06	14.15	Peak	124	222
9	16500.00	45.03	54.00	-8.97	28.85	16.18	Average	100	150
10	16500.00	58.13	74.00	-15.87	41.95	16.18	Peak	100	150

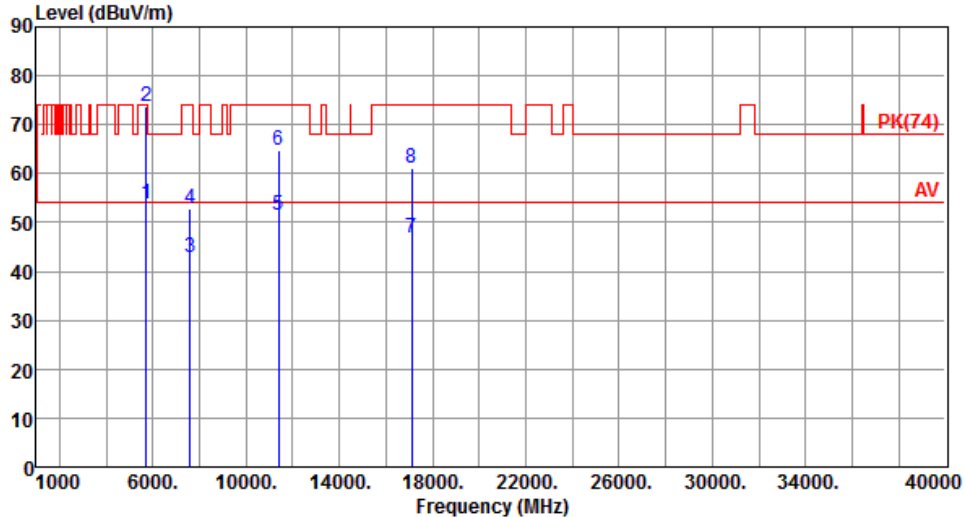
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	11a	Test Freq. (MHz)	5580
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	11a	Test Freq. (MHz)	5580
Polarization	Vertical		
Level (dBuV/m)			

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

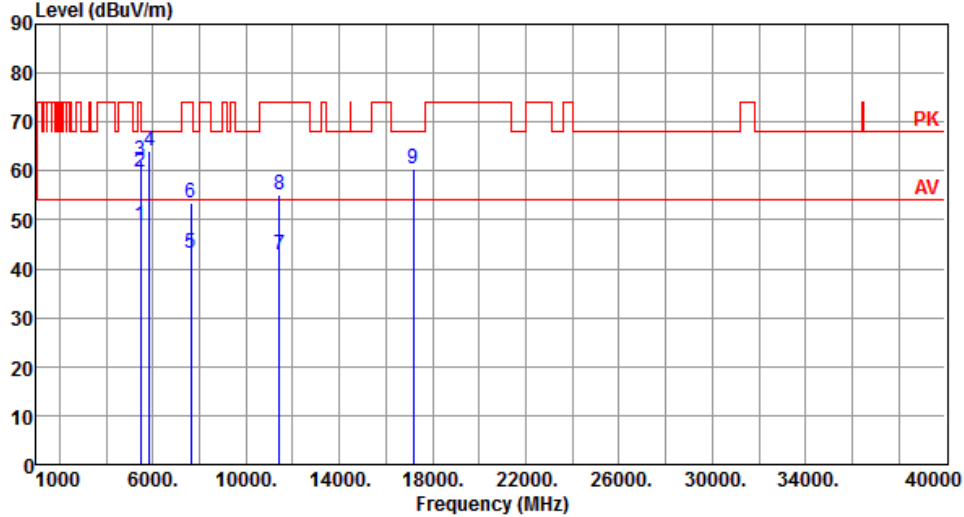
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	53.67	54.00	-0.33	48.83	4.84	Average	193	166
2	5725.00	73.74	74.00	-0.26	68.90	4.84	Peak	193	166
3	7600.00	42.83	54.00	-11.17	34.31	8.52	Average	134	10
4	7600.00	52.94	74.00	-21.06	44.42	8.52	Peak	134	10
5	11400.00	51.34	54.00	-2.66	37.22	14.12	Average	165	224
6	11400.00	64.85	74.00	-9.15	50.73	14.12	Peak	165	224
7	17100.00	46.69	54.00	-7.31	29.09	17.60	Average	100	115
8	17100.00	61.11	74.00	-12.89	43.51	17.60	Peak	100	115

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

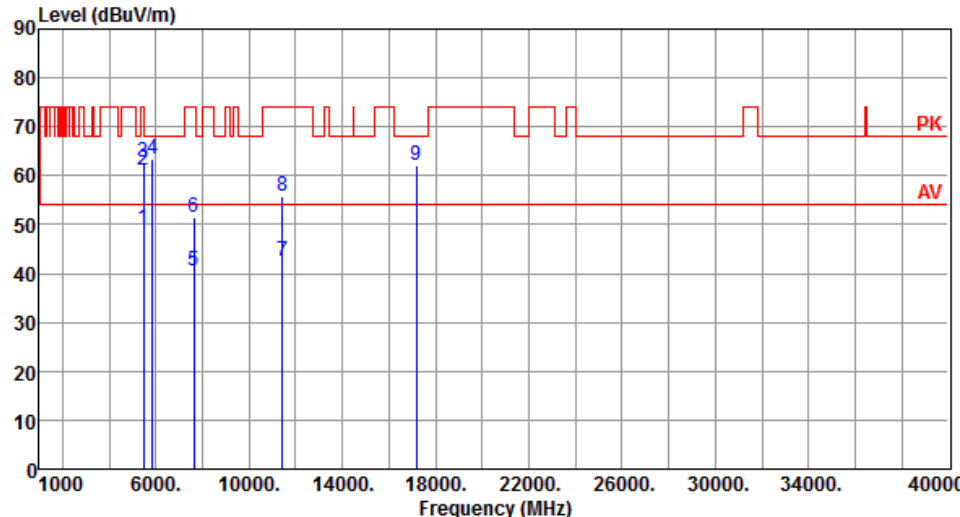
Modulation	11a	Test Freq. (MHz)	5720
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.81	54.00	-5.19	44.30	4.51	Average	253	273
2	5460.00	59.67	74.00	-14.33	55.16	4.51	Peak	253	273
3	5470.00	62.11	68.20	-6.09	57.59	4.52	Peak	253	273
4	5850.00	64.21	68.20	-3.99	59.17	5.04	Peak	253	273
5	7626.00	43.11	54.00	-10.89	34.55	8.56	Average	122	80
6	7626.00	53.42	74.00	-20.58	44.86	8.56	Peak	122	80
7	11440.00	42.89	54.00	-11.11	28.78	14.11	Average	126	312
8	11440.00	55.11	74.00	-18.89	41.00	14.11	Peak	126	312
9	17160.00	60.33	68.20	-7.87	42.58	17.75	Peak	100	68

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

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



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.26	54.00	-4.74	44.75	4.51	Average	156	17
2	5460.00	61.21	74.00	-12.79	56.70	4.51	Peak	156	17
3	5470.00	62.63	68.20	-5.57	58.11	4.52	Peak	156	17
4	5850.00	63.58	68.20	-4.62	58.54	5.04	Peak	156	17
5	7626.00	40.61	54.00	-13.39	32.05	8.56	Average	193	20
6	7626.00	51.36	74.00	-22.64	42.80	8.56	Peak	193	20
7	11440.00	42.39	54.00	-11.61	28.28	14.11	Average	100	228
8	11440.00	55.69	74.00	-18.31	41.58	14.11	Peak	100	228
9	17160.00	61.99	68.20	-6.21	44.24	17.75	Peak	100	23

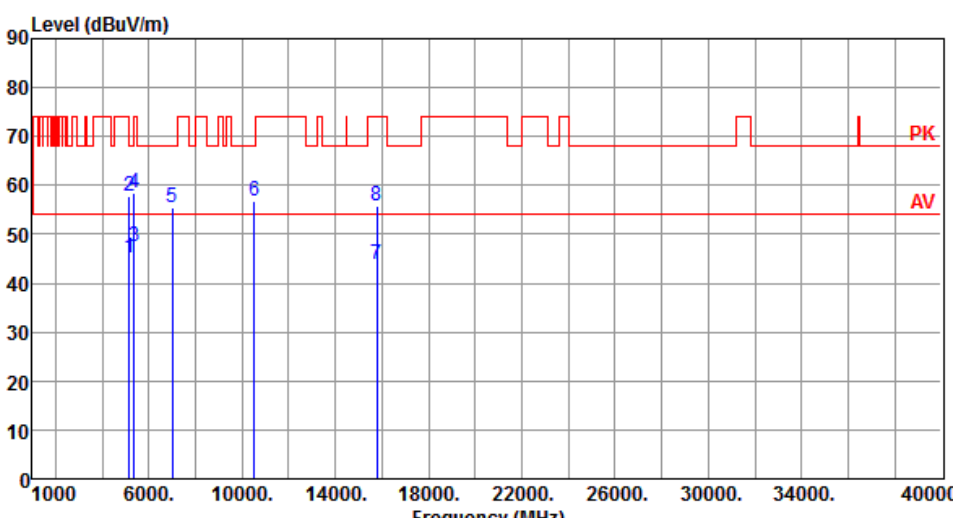
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

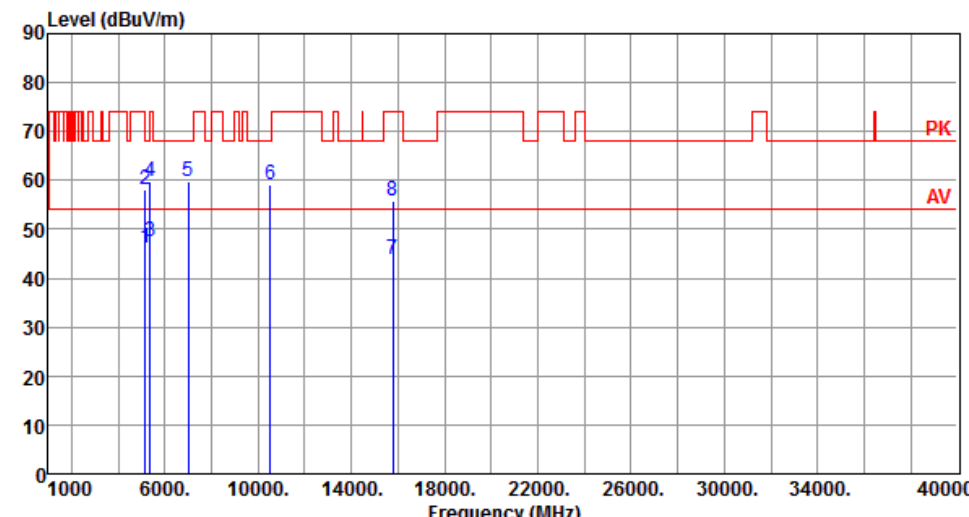
Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.19	54.00	-8.81	40.91	4.28	Average	341	115
2	5150.00	57.88	74.00	-16.12	53.60	4.28	Peak	341	115
3	5350.00	47.61	54.00	-6.39	43.17	4.44	Average	341	115
4	5350.00	58.42	74.00	-15.58	53.98	4.44	Peak	341	115
5	7013.00	55.62	68.20	-12.58	48.06	7.56	Peak	105	252
6	10520.00	56.74	68.20	-11.46	43.02	13.72	Peak	128	329
7	15780.00	43.96	54.00	-10.04	29.62	14.34	Average	100	59
8	15780.00	55.68	74.00	-18.32	41.34	14.34	Peak	100	59

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

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	46.25	54.00	-7.75	41.97	4.28	Average	115	16
2	5150.00	58.14	74.00	-15.86	53.86	4.28	Peak	115	16
3	5350.00	47.45	54.00	-6.55	43.01	4.44	Average	115	16
4	5350.00	59.82	74.00	-14.18	55.38	4.44	Peak	115	16
5	7013.00	59.86	68.20	-8.34	52.30	7.56	Peak	231	165
6	10520.00	59.28	68.20	-8.92	45.56	13.72	Peak	164	229
7	15780.00	43.68	54.00	-10.32	29.34	14.34	Average	100	121
8	15780.00	55.72	74.00	-18.28	41.38	14.34	Peak	100	121

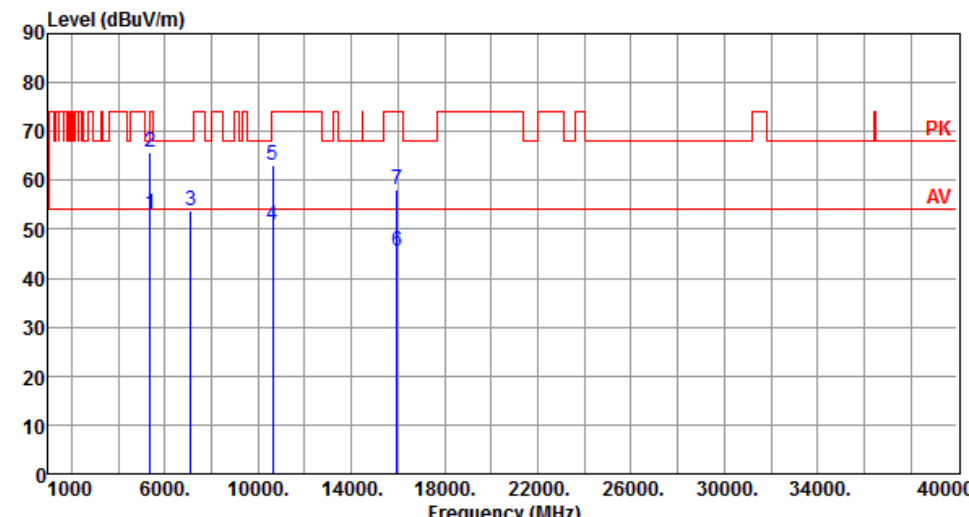
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal		
Level (dBUV/m) </			

Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Vertical		
Level (dBUV/m)			

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

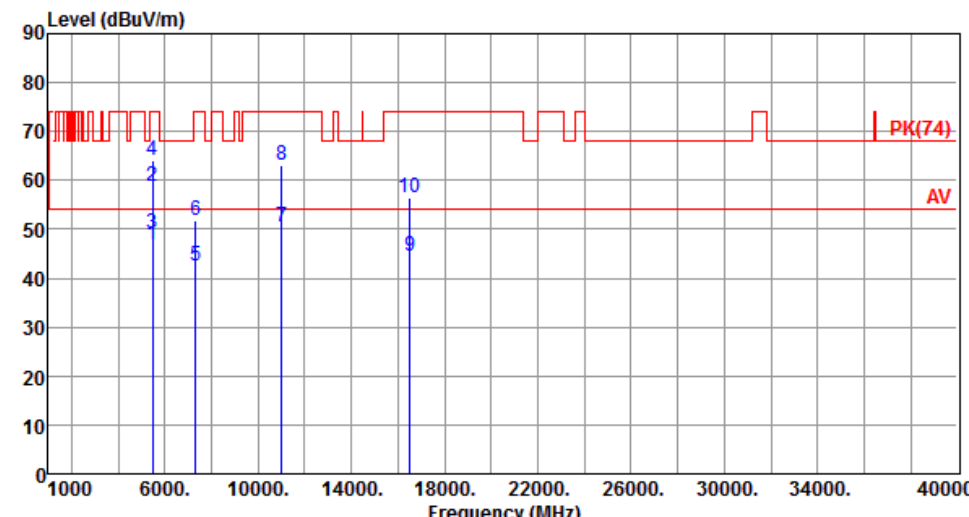
Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	53.24	54.00	-0.76	48.80	4.44	Average	170	7
2	5350.00	65.65	74.00	-8.35	61.21	4.44	Peak	170	7
3	7093.33	53.73	68.20	-14.47	45.99	7.74	Peak	188	10
4	10640.00	50.72	54.00	-3.28	36.88	13.84	Average	235	227
5	10640.00	63.03	74.00	-10.97	49.19	13.84	Peak	235	227
6	15960.00	45.36	54.00	-8.64	31.27	14.09	Average	100	250
7	15960.00	58.22	74.00	-15.78	44.13	14.09	Peak	100	250

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

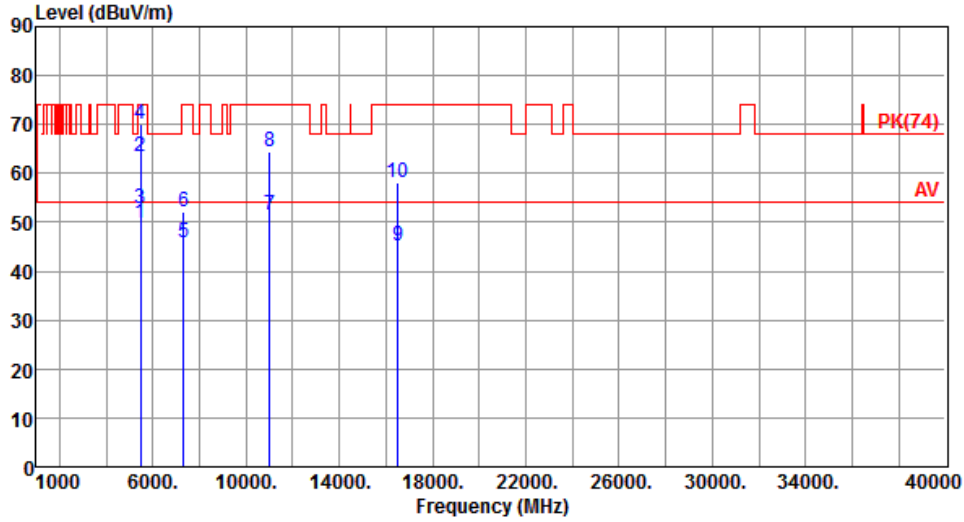
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Horizontal		



	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	46.75	54.00	-7.25	42.24	4.51	Average	179	74
2	5460.00	58.82	74.00	-15.18	54.31	4.51	Peak	179	74
3	5470.00	49.08	54.00	-4.92	44.56	4.52	Average	179	74
4	5470.00	64.12	74.00	-9.88	59.60	4.52	Peak	179	74
5	7333.00	42.35	54.00	-11.65	34.19	8.16	Average	100	81
6	7333.00	51.84	74.00	-22.16	43.68	8.16	Peak	100	81
7	11000.00	50.51	54.00	-3.49	36.36	14.15	Average	100	326
8	11000.00	63.08	74.00	-10.92	48.93	14.15	Peak	100	326
9	16500.00	44.62	54.00	-9.38	28.44	16.18	Average	100	28
10	16500.00	56.31	74.00	-17.69	40.13	16.18	Peak	100	28

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

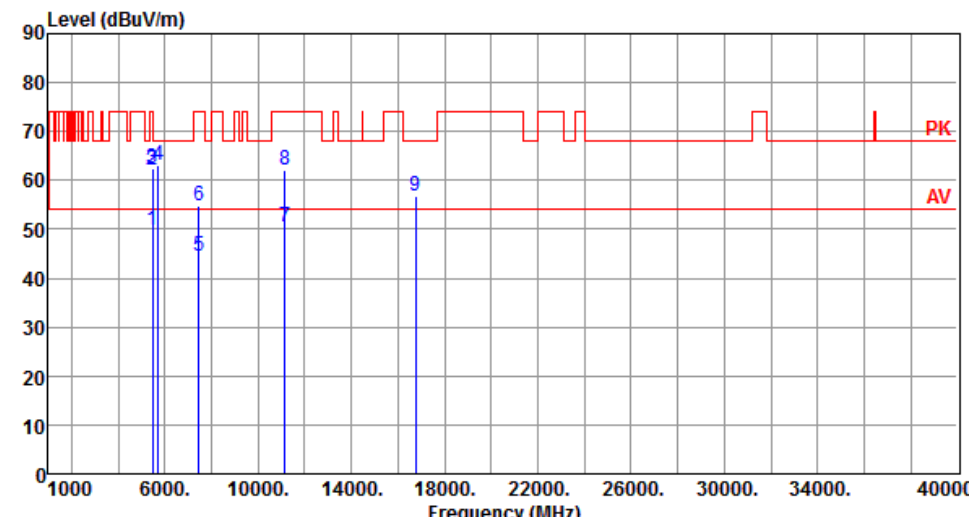
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.77	54.00	-4.23	45.26	4.51	Average	101	14
2	5460.00	63.43	74.00	-10.57	58.92	4.51	Peak	101	14
3	5470.00	52.64	54.00	-1.36	48.12	4.52	Average	101	14
4	5470.00	70.10	74.00	-3.90	65.58	4.52	Peak	101	14
5	7333.00	45.82	54.00	-8.18	37.66	8.16	Average	188	161
6	7333.00	52.24	74.00	-21.76	44.08	8.16	Peak	188	161
7	11000.00	51.36	54.00	-2.64	37.21	14.15	Average	124	231
8	11000.00	64.38	74.00	-9.62	50.23	14.15	Peak	124	231
9	16500.00	45.18	54.00	-8.82	29.00	16.18	Average	100	144
10	16500.00	58.26	74.00	-15.74	42.08	16.18	Peak	100	144

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

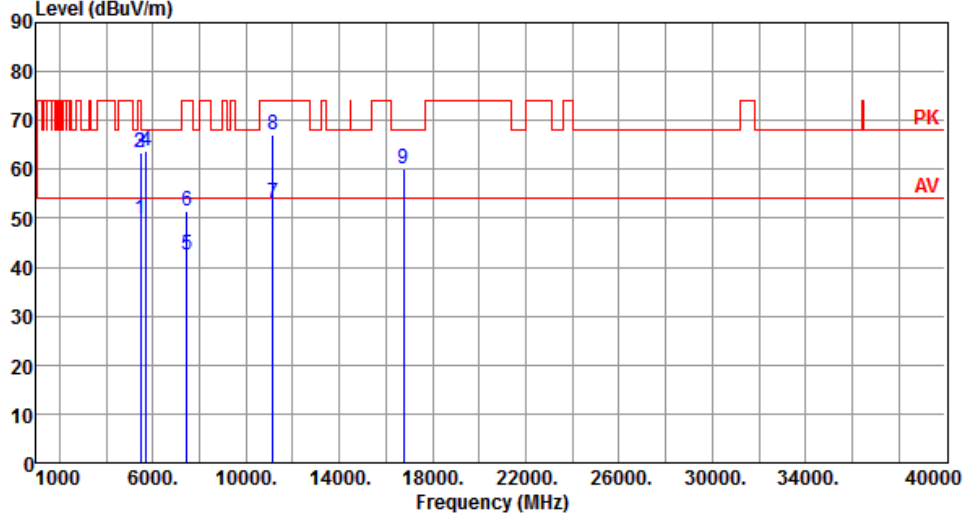
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Horizontal		



	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	49.76	54.00	-4.24	45.25	4.51	Average	135	248
2	5460.00	62.25	74.00	-11.75	57.74	4.51	Peak	135	248
3	5470.00	62.50	68.20	-5.70	57.98	4.52	Peak	135	248
4	5725.00	62.96	68.20	-5.24	58.12	4.84	Peak	135	248
5	7440.00	44.55	54.00	-9.45	36.24	8.31	Average	229	134
6	7440.00	54.66	74.00	-19.34	46.35	8.31	Peak	229	134
7	11160.00	50.38	54.00	-3.62	36.24	14.14	Average	100	320
8	11160.00	61.99	74.00	-12.01	47.85	14.14	Peak	100	320
9	16740.00	56.95	68.20	-11.25	40.21	16.74	Peak	100	25

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

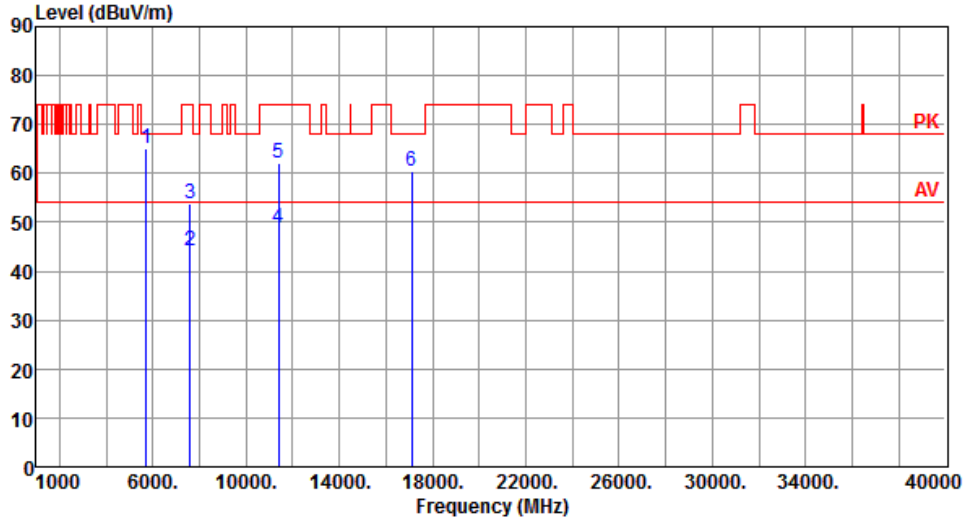
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Vertical		



	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	49.93	54.00	-4.07	45.42	4.51	Average	176	9
2	5460.00	63.49	74.00	-10.51	58.98	4.51	Peak	176	9
3	5470.00	63.37	68.20	-4.83	58.85	4.52	Peak	176	9
4	5725.00	63.62	68.20	-4.58	58.78	4.84	Peak	176	9
5	7440.00	42.53	54.00	-11.47	34.22	8.31	Average	100	159
6	7440.00	51.57	74.00	-22.43	43.26	8.31	Peak	100	159
7	11160.00	53.00	54.00	-1.00	38.86	14.14	Average	121	223
8	11160.00	66.97	74.00	-7.03	52.83	14.14	Peak	121	223
9	16740.00	60.27	68.20	-7.93	43.53	16.74	Peak	100	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).

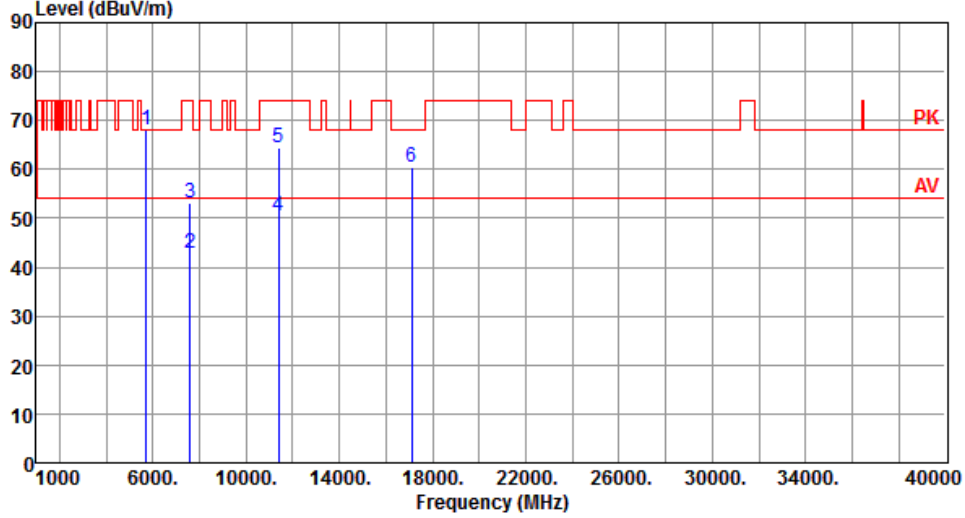
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	65.00	68.20	-3.20	60.16	4.84	Peak	163	277
2	7600.00	44.18	54.00	-9.82	35.66	8.52	Average	220	63
3	7600.00	53.73	74.00	-20.27	45.21	8.52	Peak	220	63
4	11400.00	48.79	54.00	-5.21	34.67	14.12	Average	100	335
5	11400.00	61.97	74.00	-12.03	47.85	14.12	Peak	100	335
6	17100.00	60.49	68.20	-7.71	42.89	17.60	Peak	100	55

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

Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	68.07	68.20	-0.13	63.23	4.84	Peak	157	11
2	7600.00	42.81	54.00	-11.19	34.29	8.52	Average	140	12
3	7600.00	53.10	74.00	-20.90	44.58	8.52	Peak	140	12
4	11400.00	50.56	54.00	-3.44	36.44	14.12	Average	163	221
5	11400.00	64.34	74.00	-9.66	50.22	14.12	Peak	163	221
6	17100.00	60.45	68.20	-7.75	42.85	17.60	Peak	100	15

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

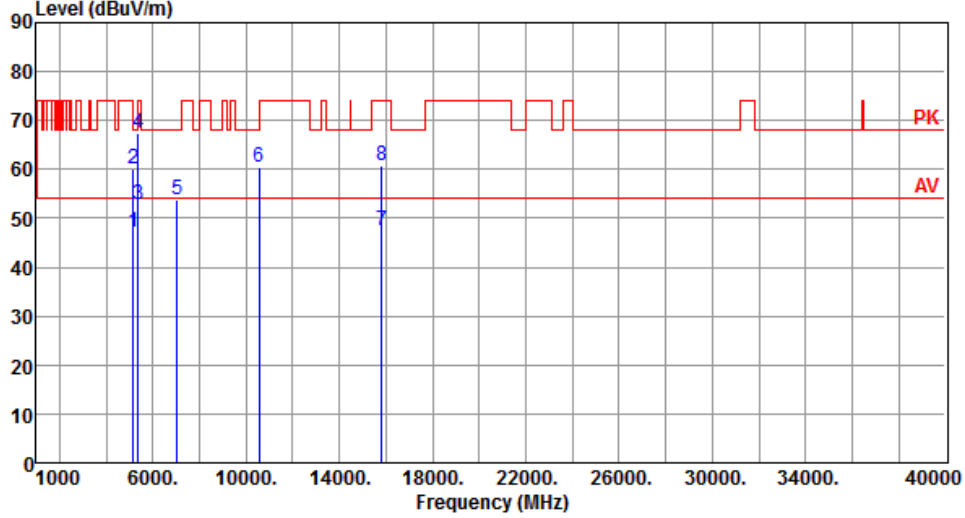
Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Vertical		
Level (dBuV/m) </			

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

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical		

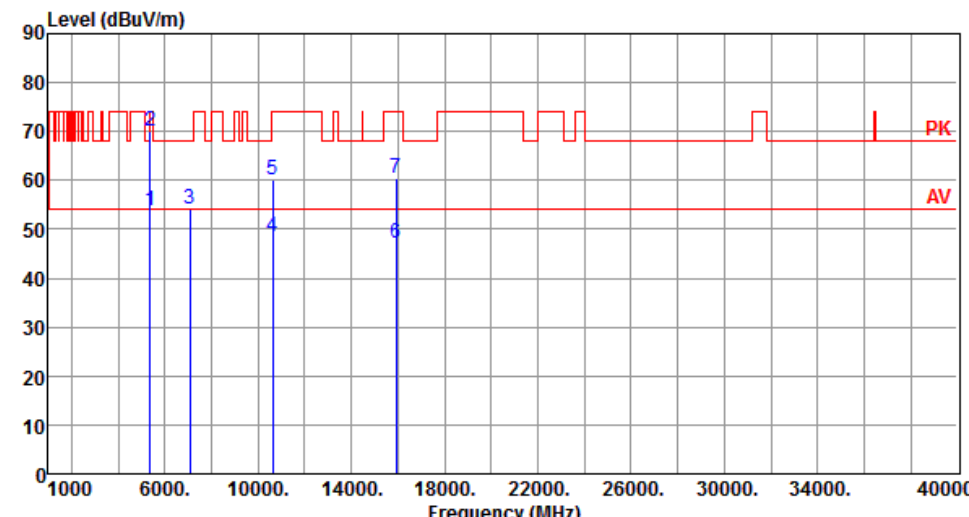


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.02	54.00	-6.98	42.74	4.28	Average	110	11
2	5150.00	59.95	74.00	-14.05	55.67	4.28	Peak	110	11
3	5350.00	52.64	54.00	-1.36	48.20	4.44	Average	110	11
4	5350.00	67.28	74.00	-6.72	62.84	4.44	Peak	110	11
5	7026.66	53.81	68.20	-14.39	46.21	7.60	Peak	183	12
6	10540.00	60.45	68.20	-7.75	46.70	13.75	Peak	108	229
7	15810.00	47.41	54.00	-6.59	33.11	14.30	Average	119	212
8	15810.00	60.75	74.00	-13.25	46.45	14.30	Peak	119	212

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

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

Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Vertical		



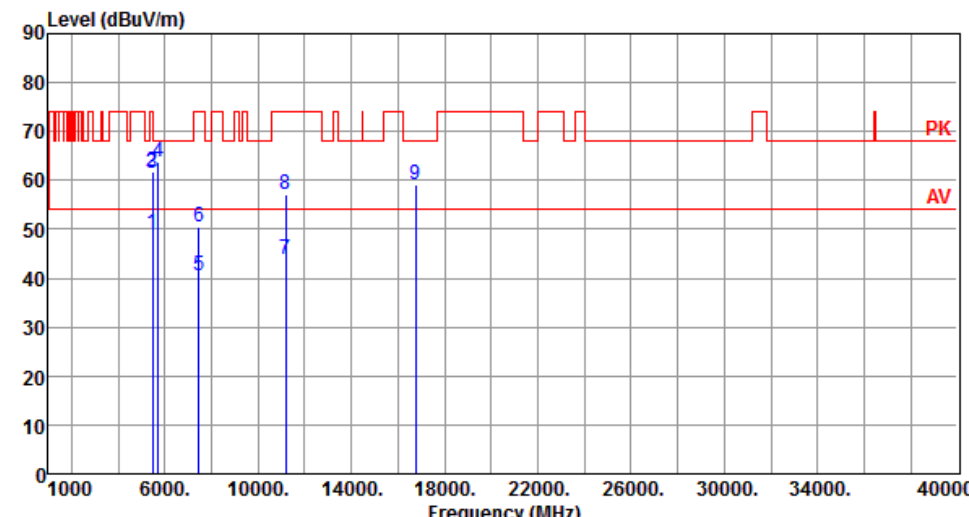
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	53.85	54.00	-0.15	49.41	4.44	Average	109	10
2	5350.00	69.96	74.00	-4.04	65.52	4.44	Peak	109	10
3	7080.00	54.03	68.20	-14.17	46.33	7.70	Peak	188	9
4	10620.00	48.33	54.00	-5.67	34.52	13.81	Average	110	226
5	10620.00	60.21	74.00	-13.79	46.40	13.81	Peak	110	226
6	15930.00	47.25	54.00	-6.75	33.11	14.14	Average	121	214
7	15930.00	60.58	74.00	-13.42	46.44	14.14	Peak	121	214

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

Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical		
Level (dBuV/m)			

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	49.28	54.00	-4.72	44.77	4.51	Average	263	277
2	5460.00	61.76	74.00	-12.24	57.25	4.51	Peak	263	277
3	5470.00	61.50	68.20	-6.70	56.98	4.52	Peak	263	277
4	5725.00	63.68	68.20	-4.52	58.84	4.84	Peak	263	277
5	7453.00	40.63	54.00	-13.37	32.29	8.34	Average	130	72
6	7453.00	50.63	74.00	-23.37	42.29	8.34	Peak	130	72
7	11180.00	43.81	54.00	-10.19	29.67	14.14	Average	100	279
8	11180.00	57.14	74.00	-16.86	43.00	14.14	Peak	100	279
9	16770.00	59.27	68.20	-8.93	42.46	16.81	Peak	100	54

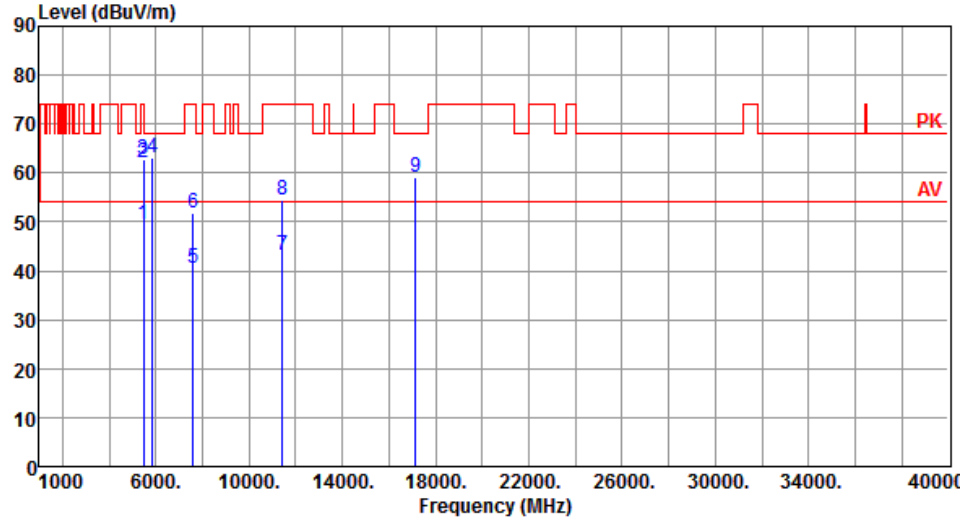
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Vertical		
Level (dBuV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Horizontal		
Level (dBuV/m) </			

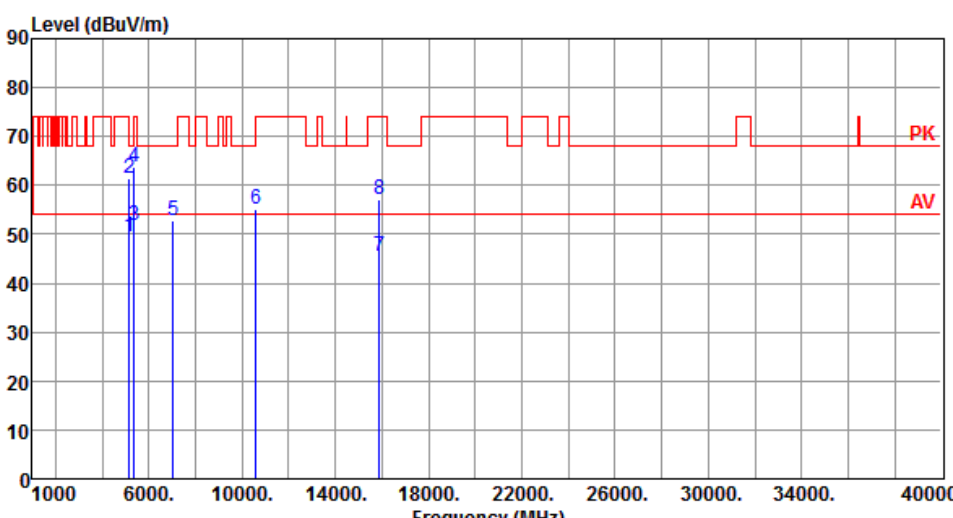
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Vertical		
Level (dBuV/m)			

Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Horizontal		
Level (dBUV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5710																																																																																																				
Polarization	Vertical																																																																																																						
Level (dBuV/m)  <table><thead><tr><th></th><th>Freq. MHz</th><th>Emission level dBuV/m</th><th>Limit dBuV/m</th><th>Margin dB</th><th>SA reading dBuV</th><th>Factor dB</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr></thead><tbody><tr><td>1</td><td>5460.00</td><td>49.35</td><td>54.00</td><td>-4.65</td><td>44.84</td><td>4.51</td><td>Average</td><td>179</td><td>13</td></tr><tr><td>2</td><td>5460.00</td><td>61.96</td><td>74.00</td><td>-12.04</td><td>57.45</td><td>4.51</td><td>Peak</td><td>179</td><td>13</td></tr><tr><td>3</td><td>5470.00</td><td>62.69</td><td>68.20</td><td>-5.51</td><td>58.17</td><td>4.52</td><td>Peak</td><td>179</td><td>13</td></tr><tr><td>4</td><td>5850.00</td><td>63.24</td><td>68.20</td><td>-4.96</td><td>58.20</td><td>5.04</td><td>Peak</td><td>179</td><td>13</td></tr><tr><td>5</td><td>7613.00</td><td>40.62</td><td>54.00</td><td>-13.38</td><td>32.08</td><td>8.54</td><td>Average</td><td>170</td><td>16</td></tr><tr><td>6</td><td>7613.00</td><td>51.79</td><td>74.00</td><td>-22.21</td><td>43.25</td><td>8.54</td><td>Peak</td><td>170</td><td>16</td></tr><tr><td>7</td><td>11420.00</td><td>43.34</td><td>54.00</td><td>-10.66</td><td>29.23</td><td>14.11</td><td>Average</td><td>100</td><td>215</td></tr><tr><td>8</td><td>11420.00</td><td>54.31</td><td>74.00</td><td>-19.69</td><td>40.20</td><td>14.11</td><td>Peak</td><td>100</td><td>215</td></tr><tr><td>9</td><td>17130.00</td><td>59.25</td><td>68.20</td><td>-8.95</td><td>41.57</td><td>17.68</td><td>Peak</td><td>100</td><td>29</td></tr></tbody></table>					Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	5460.00	49.35	54.00	-4.65	44.84	4.51	Average	179	13	2	5460.00	61.96	74.00	-12.04	57.45	4.51	Peak	179	13	3	5470.00	62.69	68.20	-5.51	58.17	4.52	Peak	179	13	4	5850.00	63.24	68.20	-4.96	58.20	5.04	Peak	179	13	5	7613.00	40.62	54.00	-13.38	32.08	8.54	Average	170	16	6	7613.00	51.79	74.00	-22.21	43.25	8.54	Peak	170	16	7	11420.00	43.34	54.00	-10.66	29.23	14.11	Average	100	215	8	11420.00	54.31	74.00	-19.69	40.20	14.11	Peak	100	215	9	17130.00	59.25	68.20	-8.95	41.57	17.68	Peak	100	29
	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	49.35	54.00	-4.65	44.84	4.51	Average	179	13																																																																																														
2	5460.00	61.96	74.00	-12.04	57.45	4.51	Peak	179	13																																																																																														
3	5470.00	62.69	68.20	-5.51	58.17	4.52	Peak	179	13																																																																																														
4	5850.00	63.24	68.20	-4.96	58.20	5.04	Peak	179	13																																																																																														
5	7613.00	40.62	54.00	-13.38	32.08	8.54	Average	170	16																																																																																														
6	7613.00	51.79	74.00	-22.21	43.25	8.54	Peak	170	16																																																																																														
7	11420.00	43.34	54.00	-10.66	29.23	14.11	Average	100	215																																																																																														
8	11420.00	54.31	74.00	-19.69	40.20	14.11	Peak	100	215																																																																																														
9	17130.00	59.25	68.20	-8.95	41.57	17.68	Peak	100	29																																																																																														
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).																																																																																																							

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

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Horizontal		

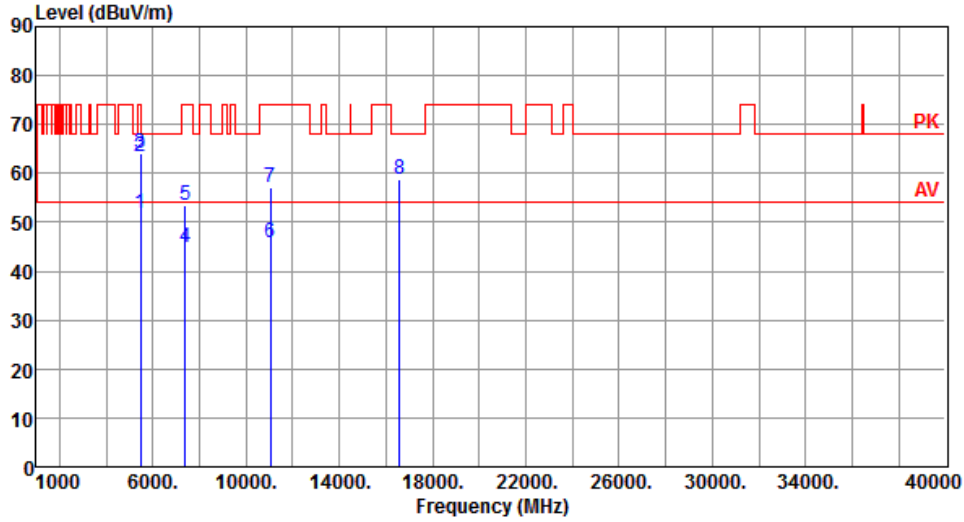


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.51	54.00	-4.49	45.23	4.28	Average	250	230
2	5150.00	61.31	74.00	-12.69	57.03	4.28	Peak	250	230
3	5350.00	51.77	54.00	-2.23	47.33	4.44	Average	250	230
4	5350.00	63.82	74.00	-10.18	59.38	4.44	Peak	250	230
5	7053.33	52.90	68.20	-15.30	45.24	7.66	Peak	100	327
6	10580.00	55.03	68.20	-13.17	41.25	13.78	Peak	100	60
7	15870.00	45.44	54.00	-8.56	31.22	14.22	Average	100	115
8	15870.00	57.04	74.00	-16.96	42.82	14.22	Peak	100	115

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

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical		
Level (dBuV/m)			

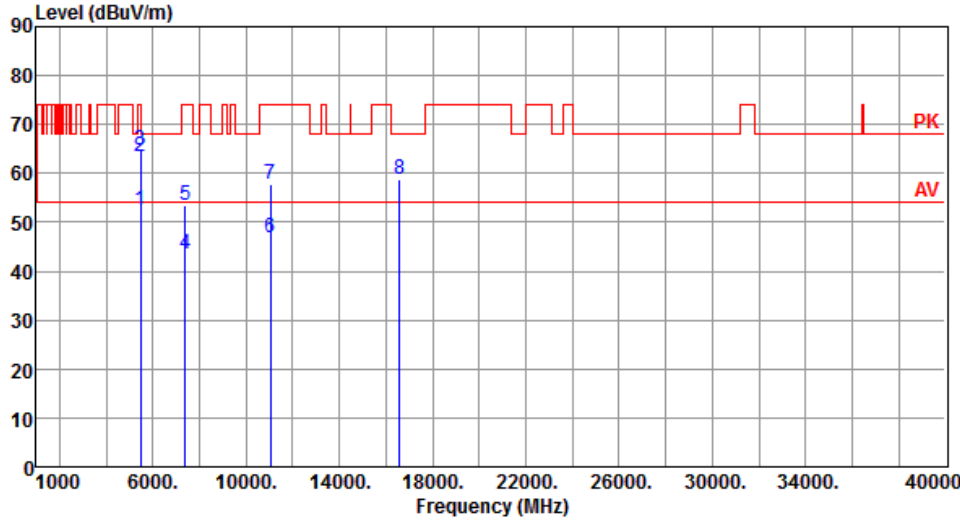
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	51.78	54.00	-2.22	47.27	4.51	Average	189	278
2	5460.00	63.31	74.00	-10.69	58.80	4.51	Peak	189	278
3	5470.00	64.10	68.20	-4.10	59.58	4.52	Peak	189	278
4	7373.33	44.74	54.00	-9.26	36.52	8.22	Average	186	80
5	7373.33	53.51	74.00	-20.49	45.29	8.22	Peak	186	80
6	11060.00	45.77	54.00	-8.23	31.62	14.15	Average	100	45
7	11060.00	57.02	74.00	-16.98	42.87	14.15	Peak	100	45
8	16590.00	58.62	68.20	-9.58	42.24	16.38	Peak	100	85

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

Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical		

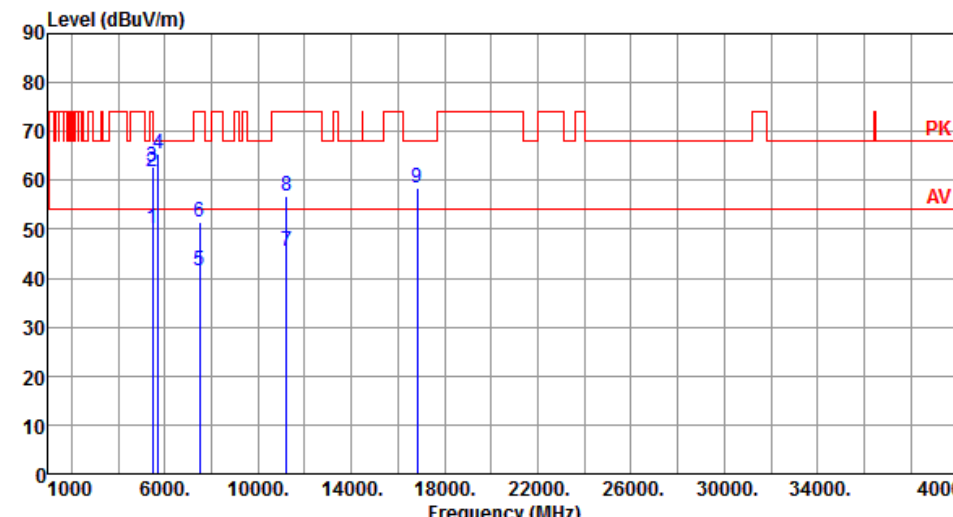


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	52.61	54.00	-1.39	48.10	4.51	Average	190	10
2	5460.00	63.52	74.00	-10.48	59.01	4.51	Peak	190	10
3	5470.00	64.61	68.20	-3.59	60.09	4.52	Peak	190	10
4	7373.33	43.34	54.00	-10.66	35.12	8.22	Average	177	10
5	7373.33	53.58	74.00	-20.42	45.36	8.22	Peak	177	10
6	11060.00	46.67	54.00	-7.33	32.52	14.15	Average	100	219
7	11060.00	57.73	74.00	-16.27	43.58	14.15	Peak	100	219
8	16590.00	58.88	68.20	-9.32	42.50	16.38	Peak	100	60

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

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

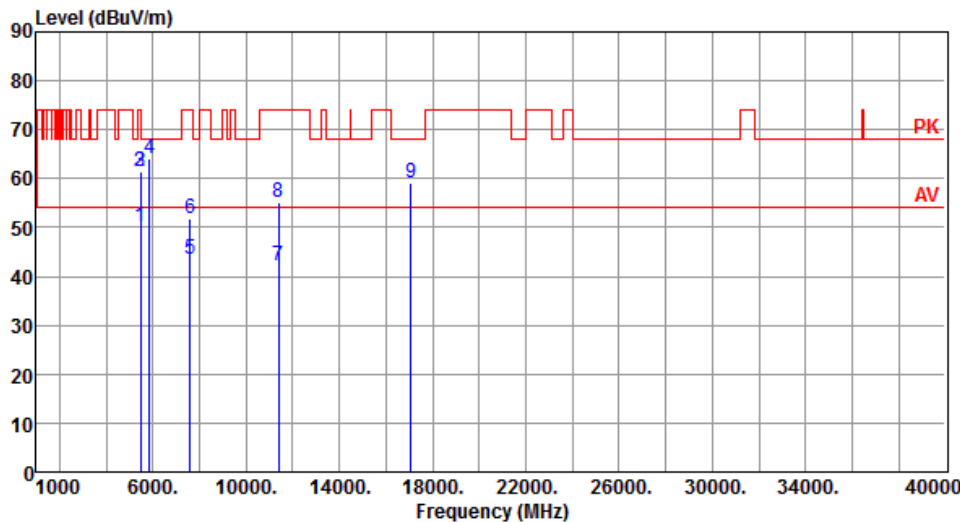
Modulation	VHT80	Test Freq. (MHz)	5610
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	50.26	54.00	-3.74	45.75	4.51	Average	225	8
2	5460.00	61.70	74.00	-12.30	57.19	4.51	Peak	225	8
3	5470.00	62.67	68.20	-5.53	58.15	4.52	Peak	225	8
4	5725.00	65.53	68.20	-2.67	60.69	4.84	Peak	225	8
5	7480.00	41.61	54.00	-12.39	33.24	8.37	Average	170	12
6	7480.00	51.42	74.00	-22.58	43.05	8.37	Peak	170	12
7	11220.00	45.36	54.00	-8.64	31.23	14.13	Average	100	211
8	11220.00	56.91	74.00	-17.09	42.78	14.13	Peak	100	211
9	16830.00	58.40	68.20	-9.80	41.46	16.94	Peak	100	20

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

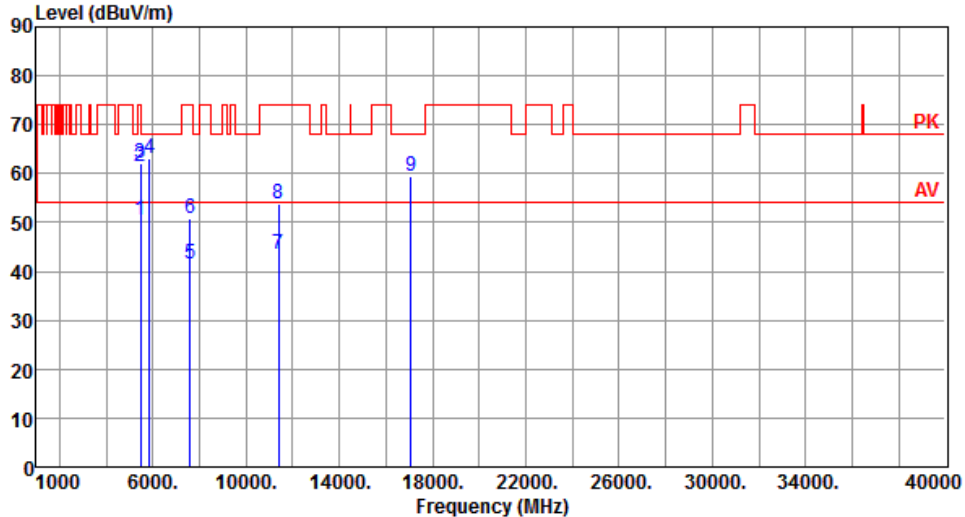
Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	50.25	54.00	-3.75	45.74	4.51	Average	265	282
2	5460.00	61.46	74.00	-12.54	56.95	4.51	Peak	265	282
3	5470.00	61.38	68.20	-6.82	56.86	4.52	Peak	265	282
4	5850.00	64.06	68.20	-4.14	59.02	5.04	Peak	265	282
5	7586.00	43.35	54.00	-10.65	34.84	8.51	Average	131	79
6	7586.00	51.67	74.00	-22.33	43.16	8.51	Peak	131	79
7	11380.00	42.27	54.00	-11.73	28.14	14.13	Average	100	270
8	11380.00	54.97	74.00	-19.03	40.84	14.13	Peak	100	270
9	17070.00	59.17	68.20	-9.03	41.65	17.52	Peak	100	61

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

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	50.44	54.00	-3.56	45.93	4.51	Average	232	8
2	5460.00	61.56	74.00	-12.44	57.05	4.51	Peak	232	8
3	5470.00	62.20	68.20	-6.00	57.68	4.52	Peak	232	8
4	5850.00	63.14	68.20	-5.06	58.10	5.04	Peak	232	8
5	7586.00	41.56	54.00	-12.44	33.05	8.51	Average	165	17
6	7586.00	50.82	74.00	-23.18	42.31	8.51	Peak	165	17
7	11380.00	43.61	54.00	-10.39	29.48	14.13	Average	100	210
8	11380.00	53.70	74.00	-20.30	39.57	14.13	Peak	100	210
9	17070.00	59.51	68.20	-8.69	41.99	17.52	Peak	100	20

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

Beamforming mode

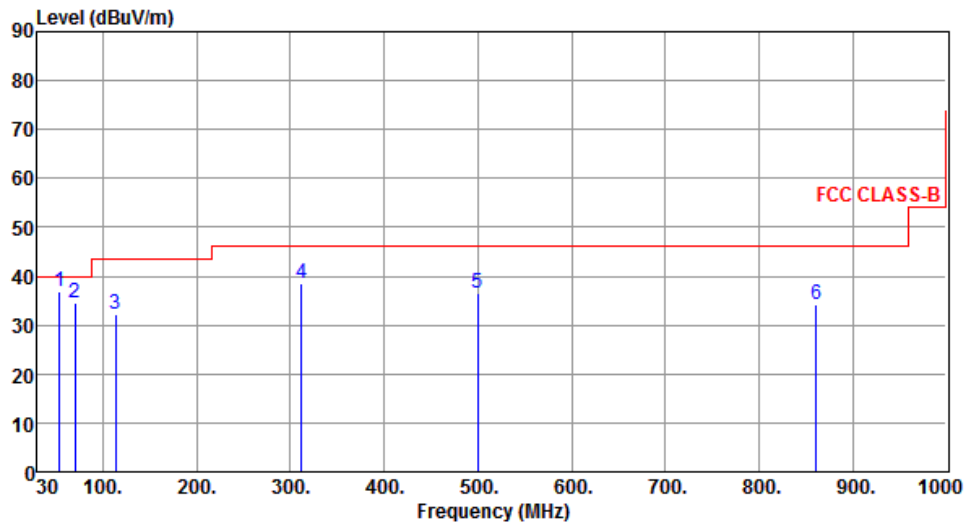
3.5.9 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal		
Level (dBuV/m) <			

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical		
Level (dBuV/m)			

Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	53.48	36.81	40.00	-3.19	44.81	-8.00	QP	100	190
2	70.48	34.58	40.00	-5.42	45.46	-10.88	Peak	---	---
3	113.38	32.24	43.50	-11.26	43.46	-11.22	Peak	---	---
4	312.27	38.57	46.00	-7.43	45.93	-7.36	Peak	---	---
5	499.48	36.47	46.00	-9.53	39.32	-2.85	Peak	---	---
6	861.47	34.21	46.00	-11.79	30.82	3.39	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)	5180
Polarization	Horizontal		
Level (dBUV/m) <			

Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Vertical		
Level (dBuV/m)			

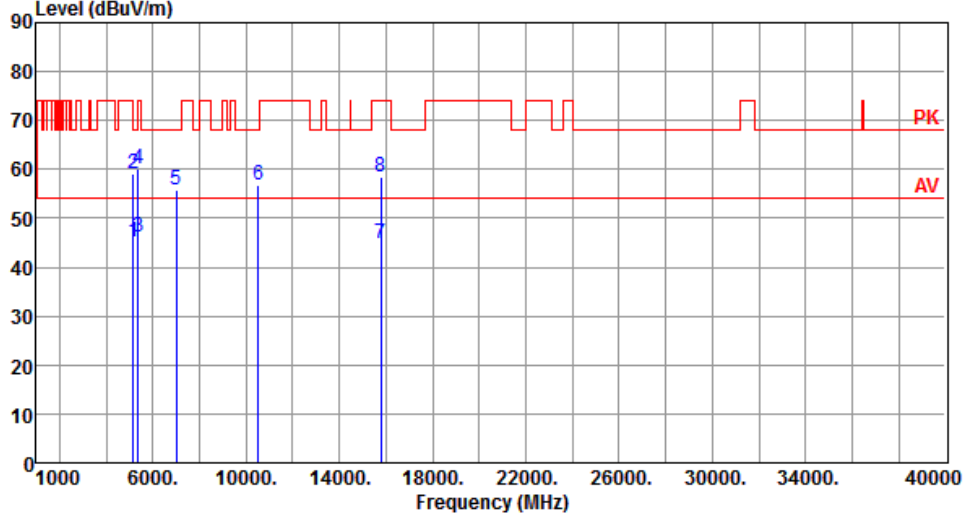
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal		
Level (dBUV/m)			

Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical		
Level (dBuV/m)			

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical		
Level (dBUV/m)			

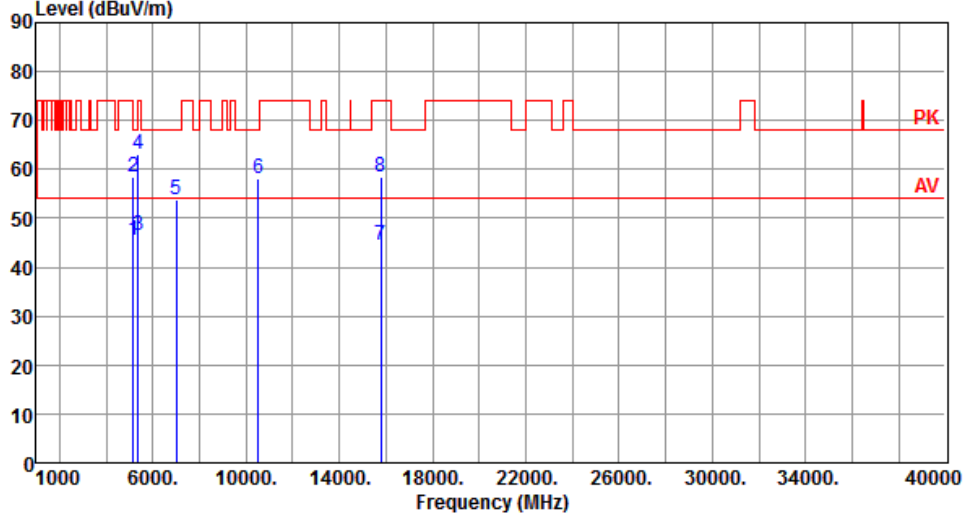
Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Horizontal		



	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	45.02	54.00	-8.98	40.74	4.28	Average	100	326
2	5150.00	59.19	74.00	-14.81	54.91	4.28	Peak	100	326
3	5350.00	46.16	54.00	-7.84	41.72	4.44	Average	100	326
4	5350.00	60.13	74.00	-13.87	55.69	4.44	Peak	100	326
5	7013.30	55.85	68.20	-12.35	48.29	7.56	Peak	215	247
6	10520.00	56.81	68.20	-11.39	43.09	13.72	Peak	100	324
7	15780.00	44.76	54.00	-9.24	30.42	14.34	Average	100	122
8	15780.00	58.33	74.00	-15.67	43.99	14.34	Peak	100	122

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

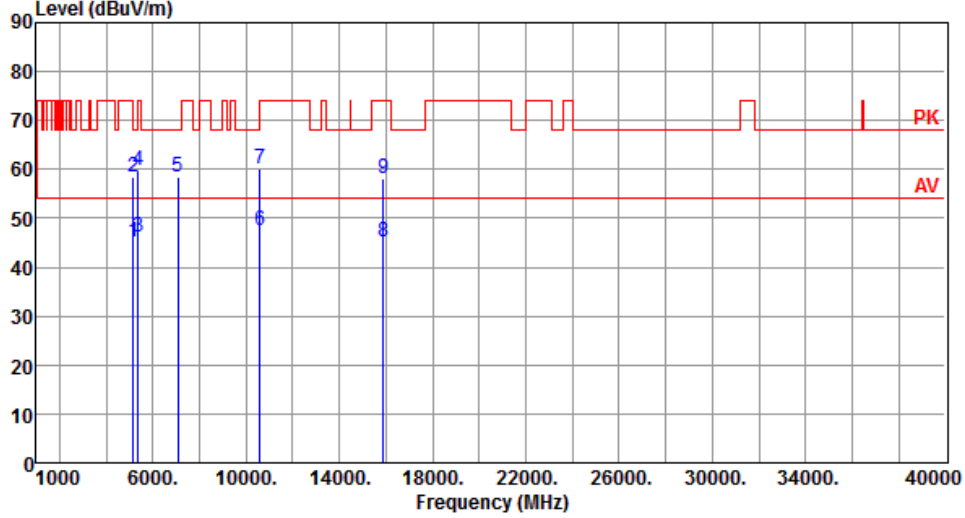
Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Vertical		



	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	45.37	54.00	-8.63	41.09	4.28	Average	100	167
2	5150.00	58.51	74.00	-15.49	54.23	4.28	Peak	100	167
3	5350.00	46.65	54.00	-7.35	42.21	4.44	Average	100	167
4	5350.00	63.01	74.00	-10.99	58.57	4.44	Peak	100	167
5	7013.30	53.67	68.20	-14.53	46.11	7.56	Peak	172	10
6	10520.00	58.25	68.20	-9.95	44.53	13.72	Peak	145	221
7	15780.00	44.44	54.00	-9.56	30.10	14.34	Average	100	37
8	15780.00	58.57	74.00	-15.43	44.23	14.34	Peak	100	37

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

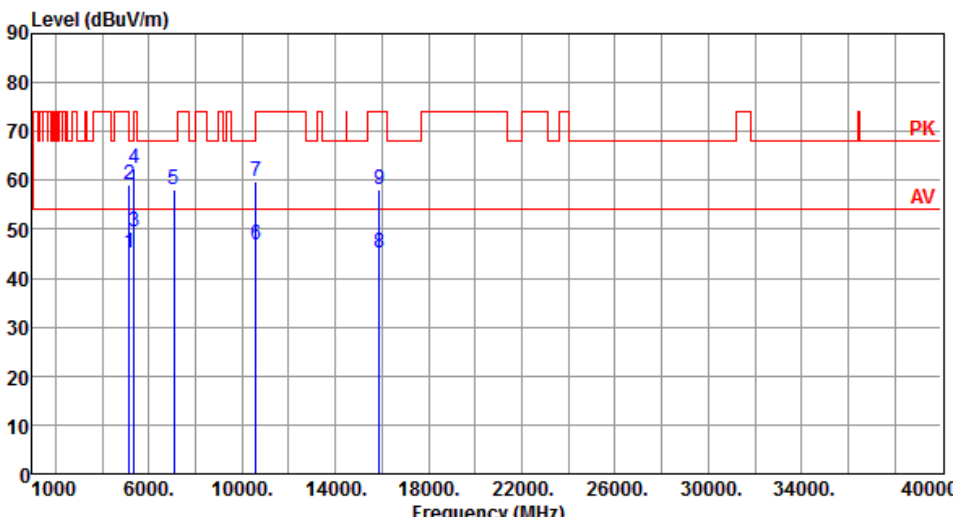
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.04	54.00	-8.96	40.76	4.28	Average	100	324
2	5150.00	58.39	74.00	-15.61	54.11	4.28	Peak	100	324
3	5350.00	46.09	54.00	-7.91	41.65	4.44	Average	100	324
4	5350.00	59.91	74.00	-14.09	55.47	4.44	Peak	100	324
5	7066.66	58.56	68.20	-9.64	50.88	7.68	Peak	100	280
6	10600.00	47.44	54.00	-6.56	33.64	13.80	Average	100	315
7	10600.00	60.00	74.00	-14.00	46.20	13.80	Peak	100	315
8	15900.00	45.18	54.00	-8.82	31.00	14.18	Average	100	15
9	15900.00	58.26	74.00	-15.74	44.08	14.18	Peak	100	15

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

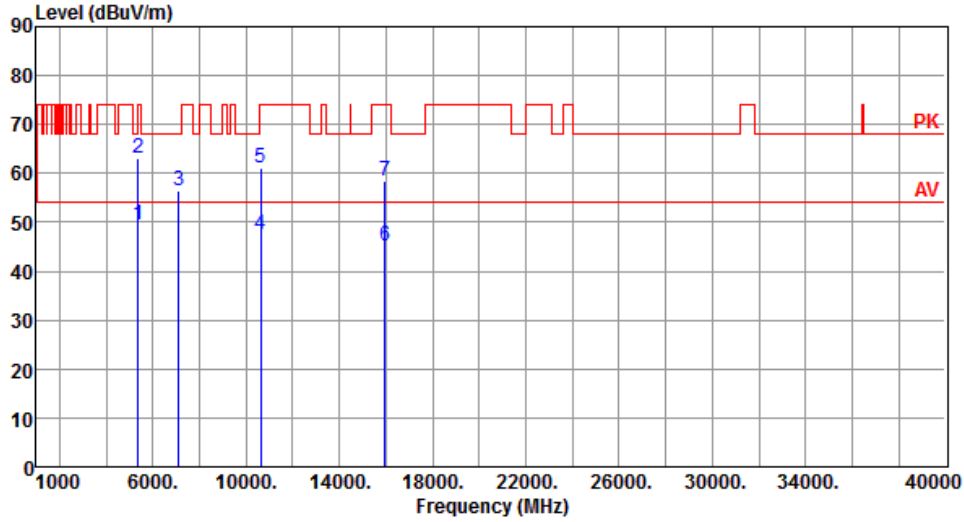
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.11	54.00	-8.89	40.83	4.28	Average	100	169
2	5150.00	59.11	74.00	-14.89	54.83	4.28	Peak	100	169
3	5350.00	49.37	54.00	-4.63	44.93	4.44	Average	100	169
4	5350.00	62.32	74.00	-11.68	57.88	4.44	Peak	100	169
5	7066.66	58.02	68.20	-10.18	50.34	7.68	Peak	167	6
6	10600.00	46.96	54.00	-7.04	33.16	13.80	Average	100	301
7	10600.00	59.66	74.00	-14.34	45.86	13.80	Peak	100	301
8	15900.00	45.03	54.00	-8.97	30.85	14.18	Average	100	50
9	15900.00	58.10	74.00	-15.90	43.92	14.18	Peak	100	50

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

Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Horizontal		

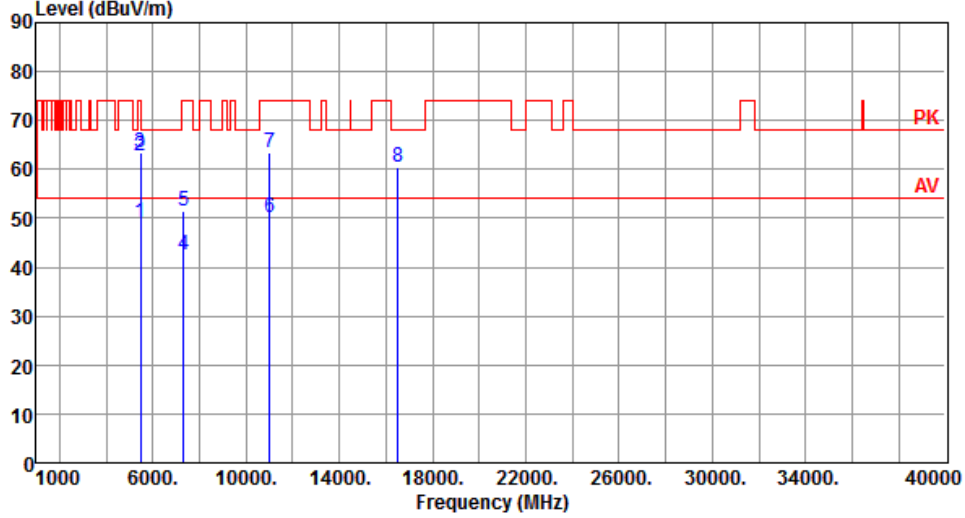


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	49.33	54.00	-4.67	44.89	4.44	Average	100	323
2	5350.00	63.00	74.00	-11.00	58.56	4.44	Peak	100	323
3	7093.33	56.30	68.20	-11.90	48.56	7.74	Peak	100	275
4	10640.00	47.35	54.00	-6.65	33.51	13.84	Average	100	312
5	10640.00	61.15	74.00	-12.85	47.31	13.84	Peak	100	312
6	15960.00	45.07	54.00	-8.93	30.98	14.09	Average	100	40
7	15960.00	58.30	74.00	-15.70	44.21	14.09	Peak	100	40

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

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

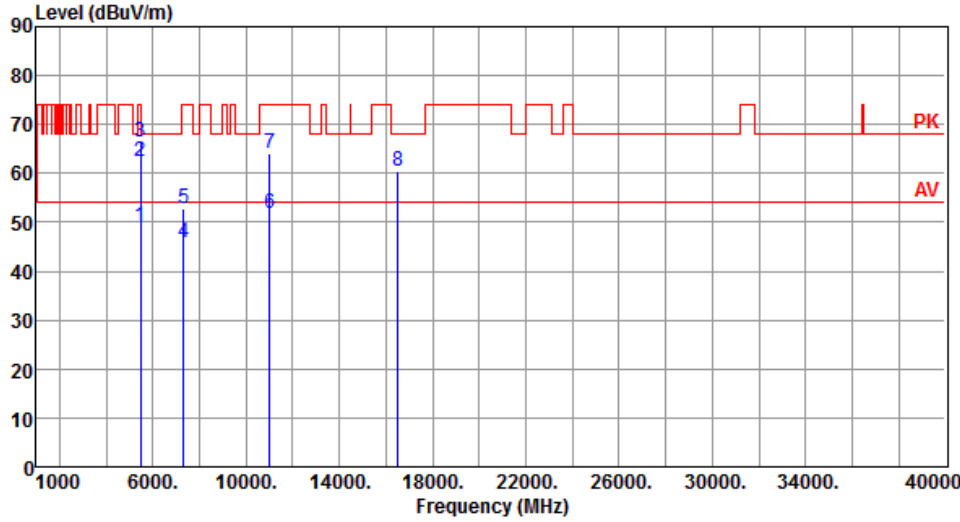
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.02	54.00	-4.98	44.51	4.51	Average	188	263
2	5460.00	62.80	74.00	-11.20	58.29	4.51	Peak	188	263
3	5470.00	63.42	68.20	-4.78	58.90	4.52	Peak	188	263
4	7333.33	42.51	54.00	-11.49	34.35	8.16	Average	100	76
5	7333.33	51.56	74.00	-22.44	43.40	8.16	Peak	100	76
6	11000.00	50.10	54.00	-3.90	35.95	14.15	Average	112	329
7	11000.00	63.54	74.00	-10.46	49.39	14.15	Peak	112	329
8	16500.00	60.40	68.20	-7.80	44.22	16.18	Peak	100	60

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

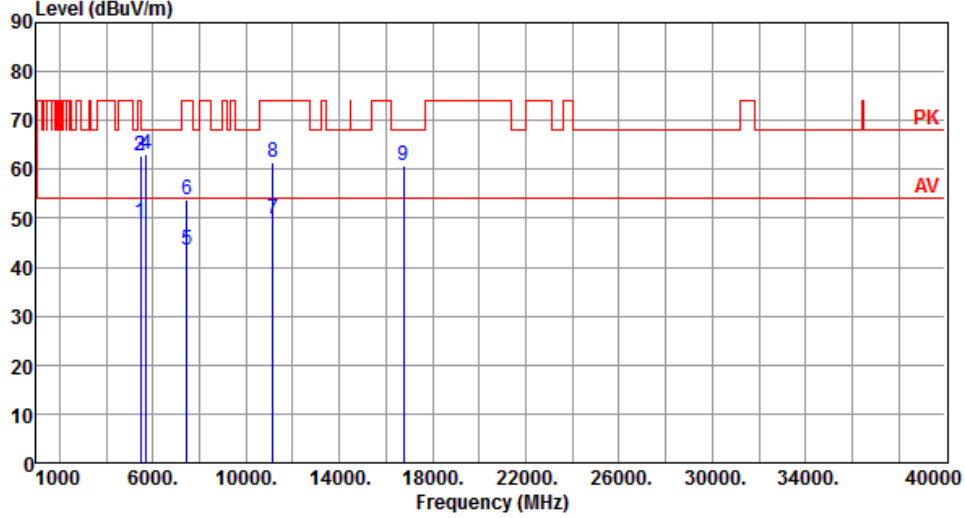
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.13	54.00	-4.87	44.62	4.51	Average	184	13
2	5460.00	62.43	74.00	-11.57	57.92	4.51	Peak	184	13
3	5470.00	66.53	68.20	-1.67	62.01	4.52	Peak	184	13
4	7333.33	45.74	54.00	-8.26	37.58	8.16	Average	152	9
5	7333.33	52.73	74.00	-21.27	44.57	8.16	Peak	152	9
6	11000.00	51.72	54.00	-2.28	37.57	14.15	Average	134	222
7	11000.00	64.16	74.00	-9.84	50.01	14.15	Peak	134	222
8	16500.00	60.44	68.20	-7.76	44.26	16.18	Peak	100	50

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

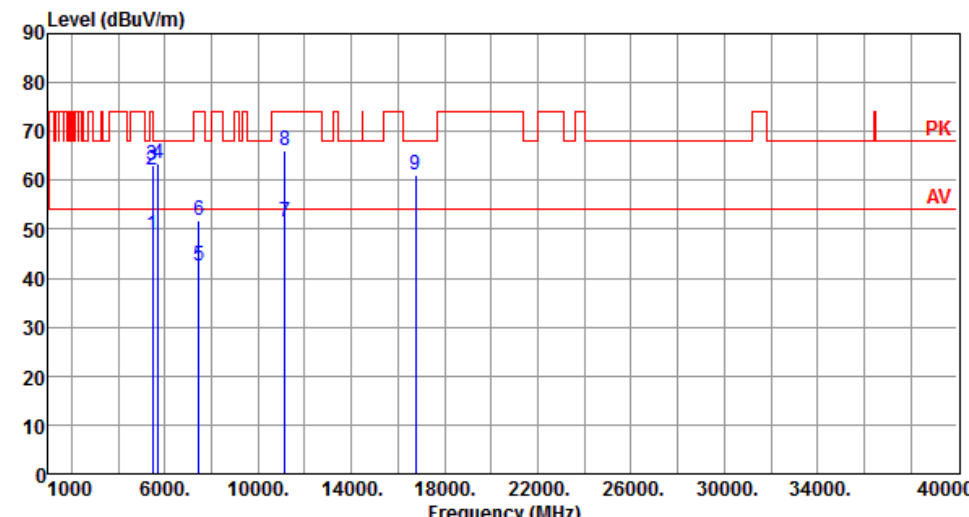
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.04	54.00	-4.96	44.53	4.51	Average	172	273
2	5460.00	62.76	74.00	-11.24	58.25	4.51	Peak	172	273
3	5470.00	62.81	68.20	-5.39	58.29	4.52	Peak	172	273
4	5725.00	63.03	68.20	-5.17	58.19	4.84	Peak	172	273
5	7440.00	43.47	54.00	-10.53	35.16	8.31	Average	100	78
6	7440.00	53.90	74.00	-20.10	45.59	8.31	Peak	100	78
7	11160.00	49.80	54.00	-4.20	35.66	14.14	Average	108	331
8	11160.00	61.35	74.00	-12.65	47.21	14.14	Peak	108	331
9	16740.00	60.86	68.20	-7.34	44.12	16.74	Peak	100	60

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

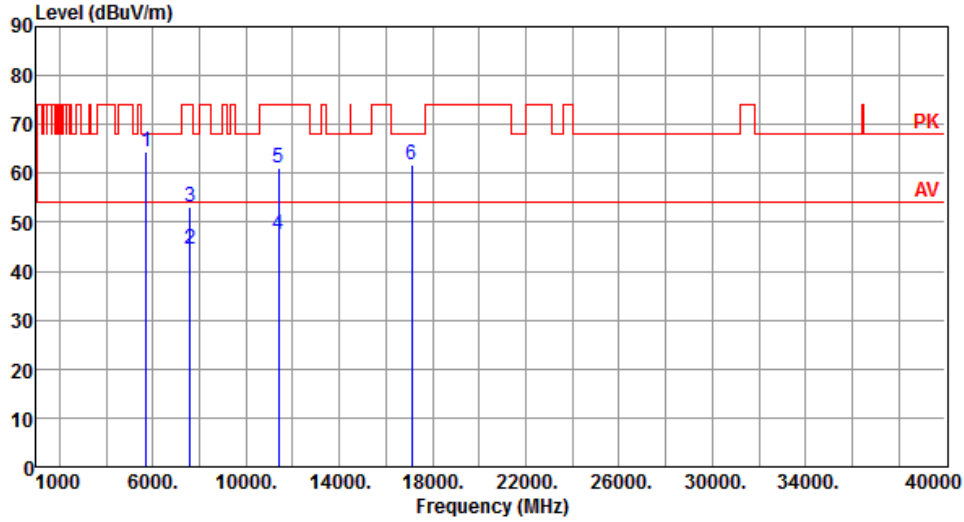
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.98	54.00	-5.02	44.47	4.51	Average	167	15
2	5460.00	62.00	74.00	-12.00	57.49	4.51	Peak	167	15
3	5470.00	63.21	68.20	-4.99	58.69	4.52	Peak	167	15
4	5725.00	63.37	68.20	-4.83	58.53	4.84	Peak	167	15
5	7440.00	42.53	54.00	-11.47	34.22	8.31	Average	148	12
6	7440.00	51.81	74.00	-22.19	43.50	8.31	Peak	148	12
7	11160.00	51.35	54.00	-2.65	37.21	14.14	Average	130	220
8	11160.00	66.13	74.00	-7.87	51.99	14.14	Peak	130	220
9	16740.00	60.99	68.20	-7.21	44.25	16.74	Peak	100	150

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

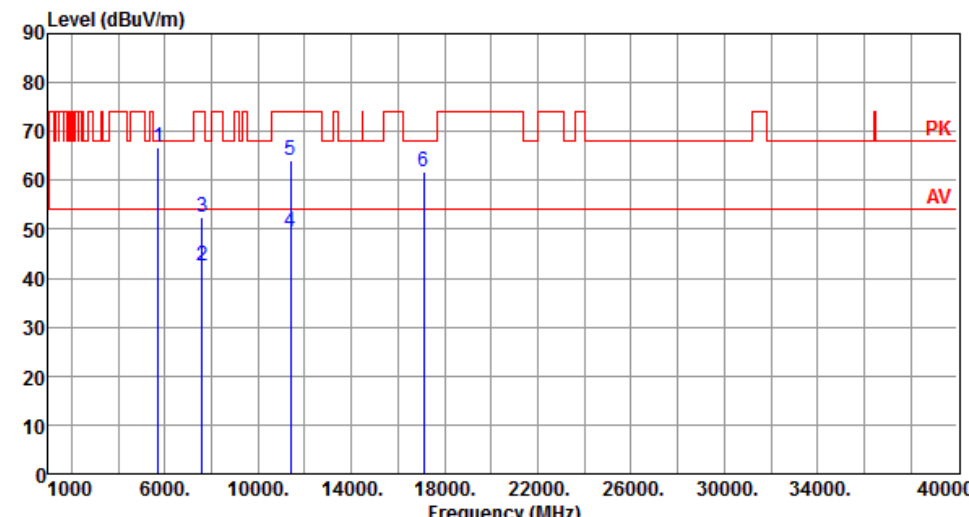
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	64.43	68.20	-3.77	59.59	4.84	Peak	261	266
2	7600.00	44.54	54.00	-9.46	36.02	8.52	Average	100	80
3	7600.00	53.20	74.00	-20.80	44.68	8.52	Peak	100	80
4	11400.00	47.63	54.00	-6.37	33.51	14.12	Average	102	329
5	11400.00	61.25	74.00	-12.75	47.13	14.12	Peak	102	329
6	17100.00	61.85	68.20	-6.35	44.25	17.60	Peak	100	80

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

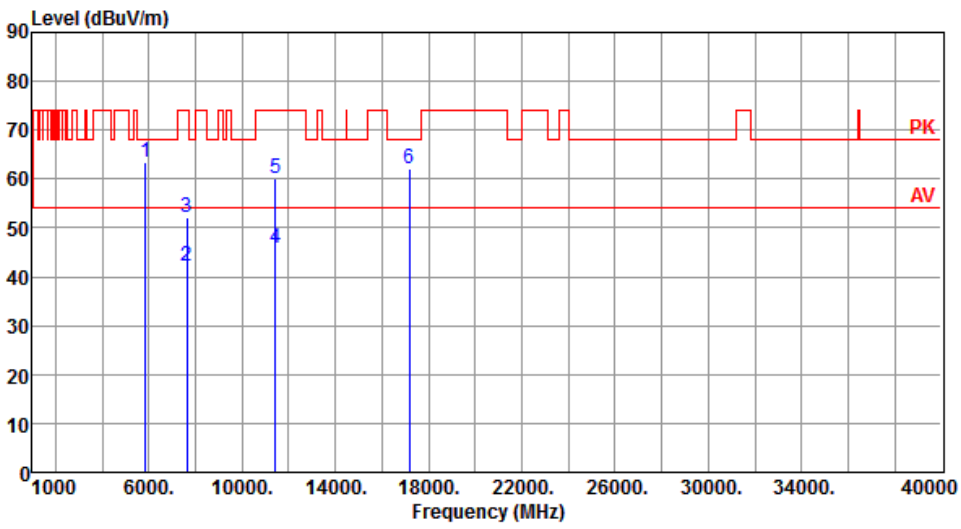
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	66.65	68.20	-1.55	61.81	4.84	Peak	161	15
2	7600.00	42.40	54.00	-11.60	33.88	8.52	Average	145	8
3	7600.00	52.50	74.00	-21.50	43.98	8.52	Peak	145	8
4	11400.00	49.38	54.00	-4.62	35.26	14.12	Average	132	218
5	11400.00	64.14	74.00	-9.86	50.02	14.12	Peak	132	218
6	17100.00	61.89	68.20	-6.31	44.29	17.60	Peak	100	70

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

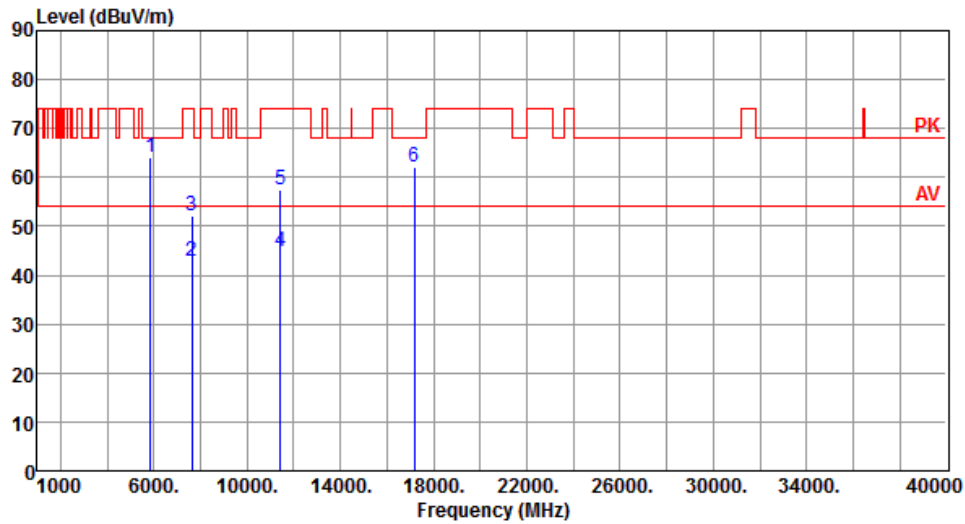
Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	63.56	68.20	-4.64	58.52	5.04	Peak	268	263
2	7626.66	42.01	54.00	-11.99	33.45	8.56	Average	100	79
3	7626.66	52.23	74.00	-21.77	43.67	8.56	Peak	100	79
4	11440.00	45.66	54.00	-8.34	31.55	14.11	Average	100	328
5	11440.00	59.98	74.00	-14.02	45.87	14.11	Peak	100	328
6	17160.00	62.13	68.20	-6.07	44.38	17.75	Peak	100	120

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

Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Vertical		



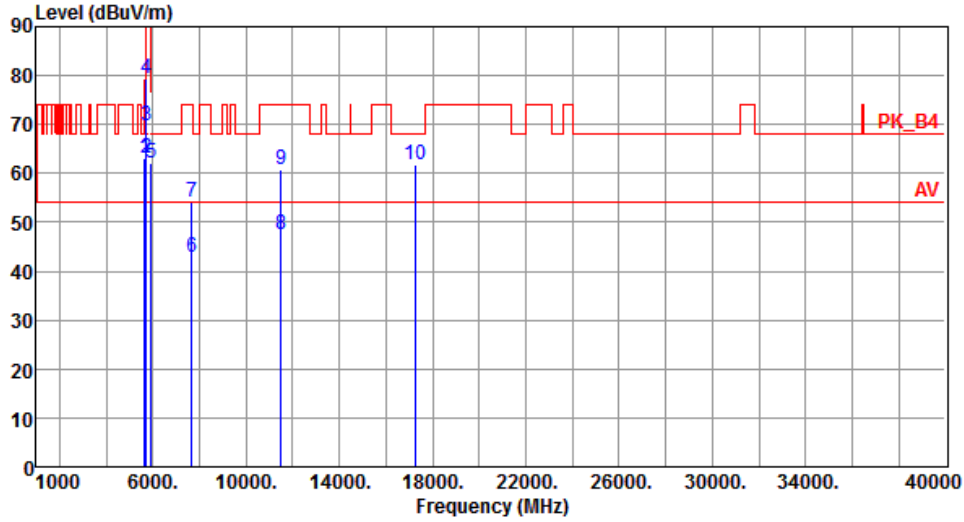
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	64.02	68.20	-4.18	58.98	5.04	Peak	174	13
2	7626.66	42.75	54.00	-11.25	34.19	8.56	Average	100	15
3	7626.66	52.15	74.00	-21.85	43.59	8.56	Peak	100	15
4	11440.00	44.94	54.00	-9.06	30.83	14.11	Average	100	300
5	11440.00	57.46	74.00	-16.54	43.35	14.11	Peak	100	300
6	17160.00	62.04	68.20	-6.16	44.29	17.75	Peak	100	150

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

*Factor includes antenna factor, cable loss and amplifier gain

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

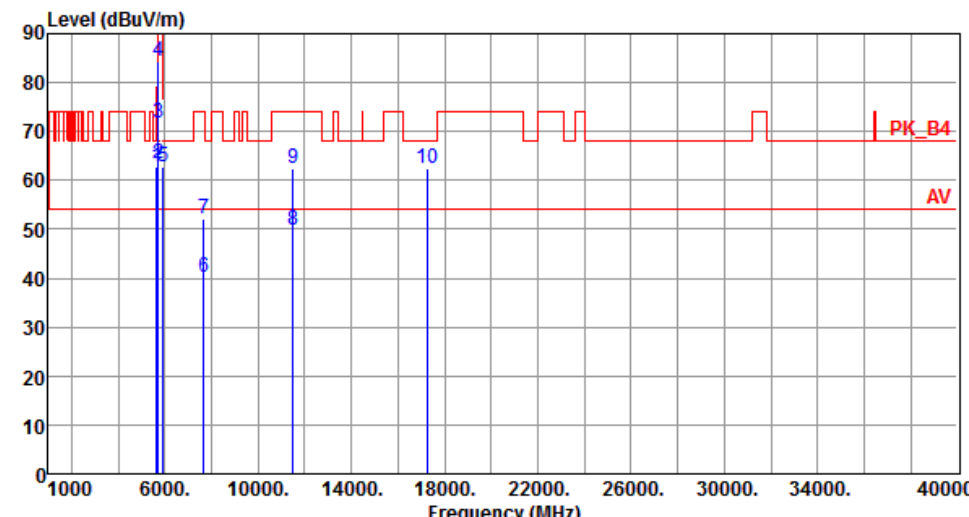
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	62.96	68.20	-5.24	58.23	4.73	Peak	100	207
2	5700.00	63.12	105.20	-42.08	58.31	4.81	Peak	100	207
3	5720.00	69.91	110.80	-40.89	65.07	4.84	Peak	100	207
4	5725.00	79.26	122.20	-42.94	74.42	4.84	Peak	100	207
5	5925.00	62.26	68.20	-5.94	57.13	5.13	Peak	100	207
6	7660.00	42.72	54.00	-11.28	34.10	8.62	Average	100	83
7	7660.00	54.21	74.00	-19.79	45.59	8.62	Peak	100	83
8	11490.00	47.38	54.00	-6.62	33.27	14.11	Average	100	331
9	11490.00	60.75	74.00	-13.25	46.64	14.11	Peak	100	331
10	17235.00	61.83	68.20	-6.37	43.89	17.94	Peak	100	25

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

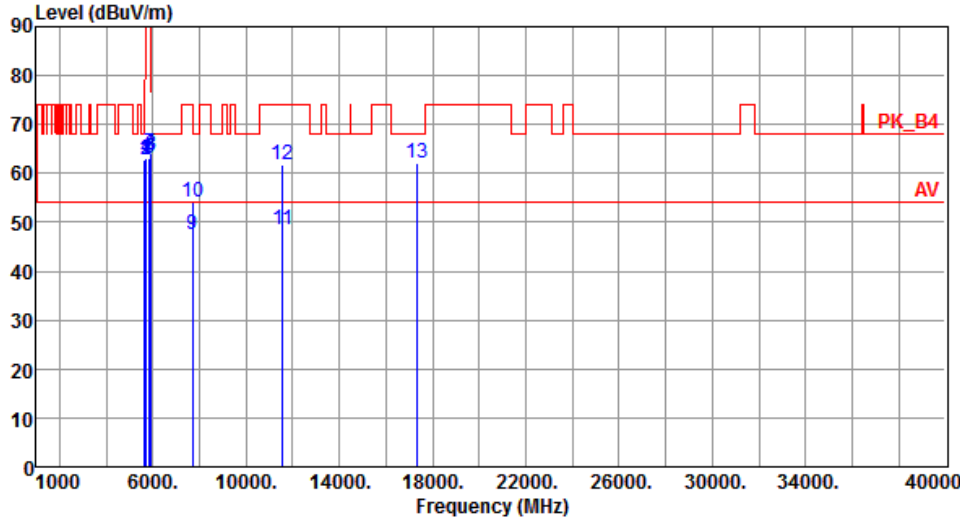
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	62.82	68.20	-5.38	58.09	4.73	Peak	100	18
2	5700.00	63.44	105.20	-41.76	58.63	4.81	Peak	100	18
3	5720.00	71.84	110.80	-38.96	67.00	4.84	Peak	100	18
4	5725.00	84.27	122.20	-37.93	79.43	4.84	Peak	100	18
5	5925.00	62.85	68.20	-5.35	57.72	5.13	Peak	100	18
6	7660.00	40.05	54.00	-13.95	31.43	8.62	Average	133	379
7	7660.00	52.06	74.00	-21.94	43.44	8.62	Peak	133	379
8	11490.00	49.97	54.00	-4.03	35.86	14.11	Average	118	228
9	11490.00	62.32	74.00	-11.68	48.21	14.11	Peak	118	228
10	17235.00	62.47	68.20	-5.73	44.53	17.94	Peak	100	28

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

Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal		

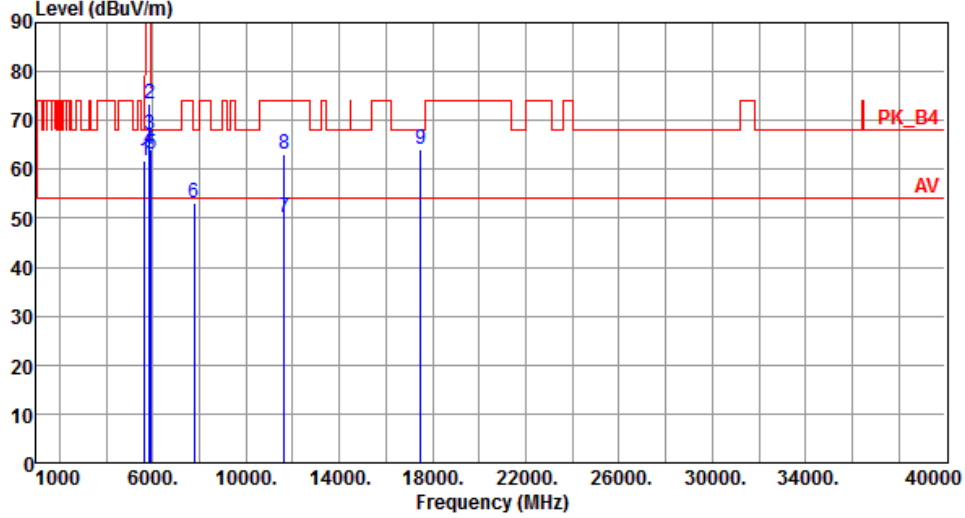


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	62.72	68.20	-5.48	57.99	4.73	Peak	104	208
2	5700.00	62.62	105.20	-42.58	57.81	4.81	Peak	104	208
3	5720.00	62.61	110.80	-48.19	57.77	4.84	Peak	104	208
4	5725.00	63.02	122.20	-59.18	58.18	4.84	Peak	104	208
5	5850.00	62.99	122.20	-59.21	57.95	5.04	Peak	104	208
6	5855.00	63.24	110.80	-47.56	58.20	5.04	Peak	104	208
7	5875.00	64.07	105.20	-41.13	59.00	5.07	Peak	104	208
8	5925.00	63.76	68.20	-4.44	58.63	5.13	Peak	104	208
9	7713.30	47.53	54.00	-6.47	38.83	8.70	Average	100	84
10	7713.30	54.24	74.00	-19.76	45.54	8.70	Peak	100	84
11	11570.00	48.38	54.00	-5.62	34.40	13.98	Average	100	344
12	11570.00	61.78	74.00	-12.22	47.80	13.98	Peak	100	344
13	17355.00	62.13	68.20	-6.07	43.88	18.25	Peak	100	21

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

Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical		
Level (dBuV/m) </			

Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	61.83	68.20	-6.37	57.10	4.73	Peak	100	209
2	5850.00	73.26	122.20	-48.94	68.22	5.04	Peak	100	209
3	5855.00	67.14	110.80	-43.66	62.10	5.04	Peak	100	209
4	5875.00	64.03	105.20	-41.17	58.96	5.07	Peak	100	209
5	5925.00	63.06	68.20	-5.14	57.93	5.13	Peak	100	209
6	7766.60	53.00	68.20	-15.20	44.22	8.78	Peak	100	83
7	11650.00	50.04	54.00	-3.96	36.21	13.83	Average	100	347
8	11650.00	63.03	74.00	-10.97	49.20	13.83	Peak	100	347
9	17475.00	64.26	68.20	-3.94	45.71	18.55	Peak	100	25

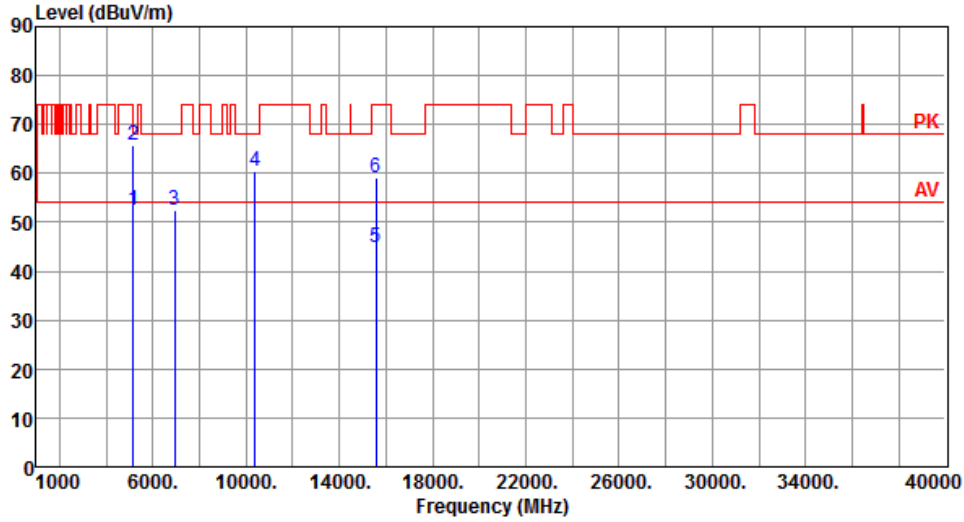
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Vertical		
Level (dBuV/m)			

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

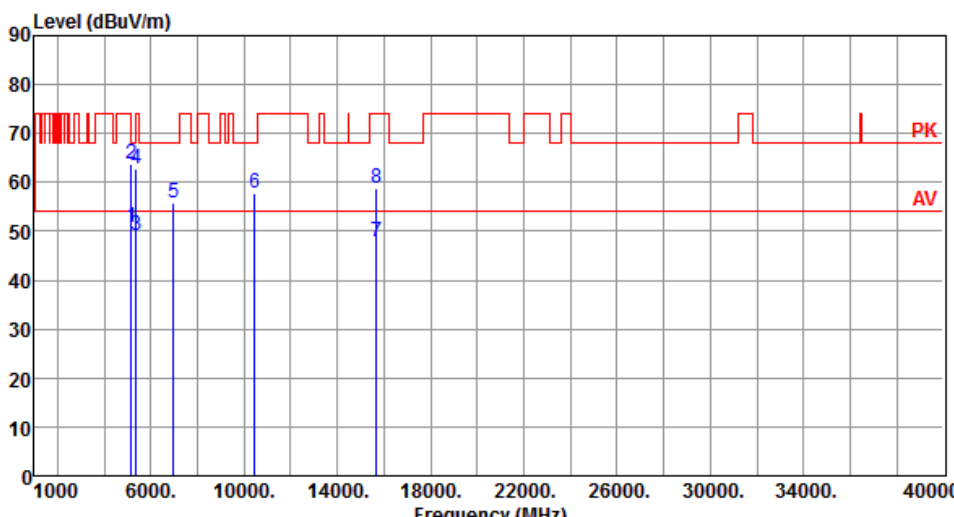
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Horizontal		
Level (dBUV/m) <			

Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Vertical		

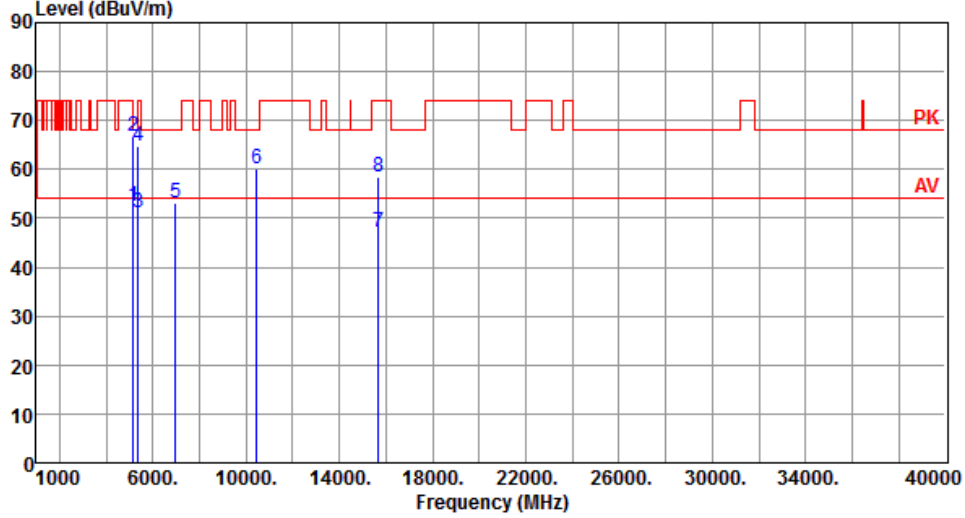


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.31	54.00	-1.69	48.03	4.28	Average	110	12
2	5150.00	65.79	74.00	-8.21	61.51	4.28	Peak	110	12
3	6920.00	52.36	68.20	-15.84	44.88	7.48	Peak	179	5
4	10380.00	60.49	68.20	-7.71	46.87	13.62	Peak	100	120
5	15570.00	44.86	54.00	-9.14	30.24	14.62	Average	100	60
6	15570.00	59.01	74.00	-14.99	44.39	14.62	Peak	100	60

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

Modulation	VHT40	Test Freq. (MHz)	5230																																																																																										
Polarization	Horizontal																																																																																												
 <table><tr><th></th><th>Freq. MHz</th><th>Emission level dBuV/m</th><th>Limit dBuV/m</th><th>Margin dB</th><th>SA reading dBuV</th><th>Factor dB</th><th>Remark</th><th>ANT High cm</th><th>Turn Table deg</th></tr><tr><td>1</td><td>5150.00</td><td>50.78</td><td>54.00</td><td>-3.22</td><td>46.50</td><td>4.28</td><td>Average</td><td>100</td><td>317</td></tr><tr><td>2</td><td>5150.00</td><td>63.92</td><td>74.00</td><td>-10.08</td><td>59.64</td><td>4.28</td><td>Peak</td><td>100</td><td>317</td></tr><tr><td>3</td><td>5350.00</td><td>49.18</td><td>54.00</td><td>-4.82</td><td>44.74</td><td>4.44</td><td>Average</td><td>100</td><td>317</td></tr><tr><td>4</td><td>5350.00</td><td>62.79</td><td>74.00</td><td>-11.21</td><td>58.35</td><td>4.44</td><td>Peak</td><td>100</td><td>317</td></tr><tr><td>5</td><td>6973.33</td><td>55.67</td><td>68.20</td><td>-12.53</td><td>48.15</td><td>7.52</td><td>Peak</td><td>117</td><td>253</td></tr><tr><td>6</td><td>10460.00</td><td>57.88</td><td>68.20</td><td>-10.32</td><td>44.21</td><td>13.67</td><td>Peak</td><td>100</td><td>314</td></tr><tr><td>7</td><td>15690.00</td><td>47.70</td><td>54.00</td><td>-6.30</td><td>33.24</td><td>14.46</td><td>Average</td><td>100</td><td>110</td></tr><tr><td>8</td><td>15690.00</td><td>58.75</td><td>74.00</td><td>-15.25</td><td>44.29</td><td>14.46</td><td>Peak</td><td>100</td><td>110</td></tr></table>					Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg	1	5150.00	50.78	54.00	-3.22	46.50	4.28	Average	100	317	2	5150.00	63.92	74.00	-10.08	59.64	4.28	Peak	100	317	3	5350.00	49.18	54.00	-4.82	44.74	4.44	Average	100	317	4	5350.00	62.79	74.00	-11.21	58.35	4.44	Peak	100	317	5	6973.33	55.67	68.20	-12.53	48.15	7.52	Peak	117	253	6	10460.00	57.88	68.20	-10.32	44.21	13.67	Peak	100	314	7	15690.00	47.70	54.00	-6.30	33.24	14.46	Average	100	110	8	15690.00	58.75	74.00	-15.25	44.29	14.46	Peak	100	110
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg																																																																																				
1	5150.00	50.78	54.00	-3.22	46.50	4.28	Average	100	317																																																																																				
2	5150.00	63.92	74.00	-10.08	59.64	4.28	Peak	100	317																																																																																				
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Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB) *Factor includes antenna factor , cable loss and amplifier gain Note 2: Margin (dB) = Emission level (dBUV/m) – Limit (dBUV/m).																																																																																													

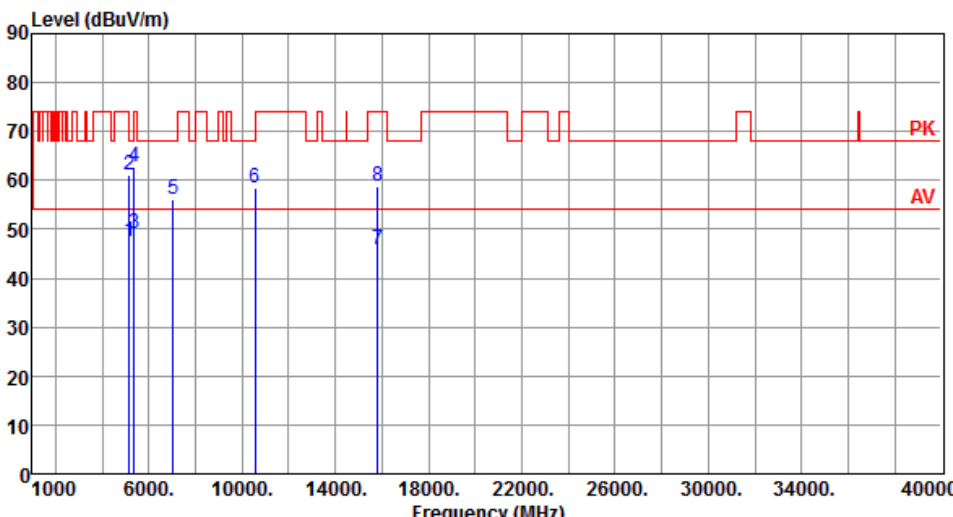
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.34	54.00	-1.66	48.06	4.28	Average	100	165
2	5150.00	66.71	74.00	-7.29	62.43	4.28	Peak	100	165
3	5350.00	51.09	54.00	-2.91	46.65	4.44	Average	100	165
4	5350.00	64.64	74.00	-9.36	60.20	4.44	Peak	100	165
5	6973.33	53.21	68.20	-14.99	45.69	7.52	Peak	182	4
6	10460.00	60.26	68.20	-7.94	46.59	13.67	Peak	100	223
7	15690.00	47.02	54.00	-6.98	32.56	14.46	Average	100	100
8	15690.00	58.45	74.00	-15.55	43.99	14.46	Peak	100	100

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

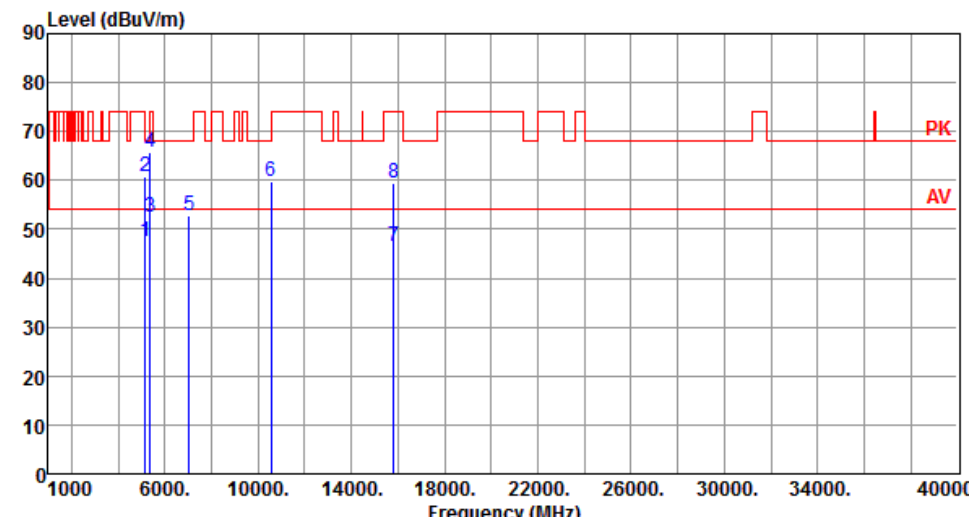
Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Horizontal		



	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	47.54	54.00	-6.46	43.26	4.28	Average	100	324
2	5150.00	61.14	74.00	-12.86	56.86	4.28	Peak	100	324
3	5350.00	49.16	54.00	-4.84	44.72	4.44	Average	100	324
4	5350.00	62.65	74.00	-11.35	58.21	4.44	Peak	100	324
5	7026.66	55.98	68.20	-12.22	48.38	7.60	Peak	113	247
6	10540.00	58.60	68.20	-9.60	44.85	13.75	Peak	100	20
7	15810.00	45.68	54.00	-8.32	31.38	14.30	Average	100	50
8	15810.00	58.88	74.00	-15.12	44.58	14.30	Peak	100	50

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

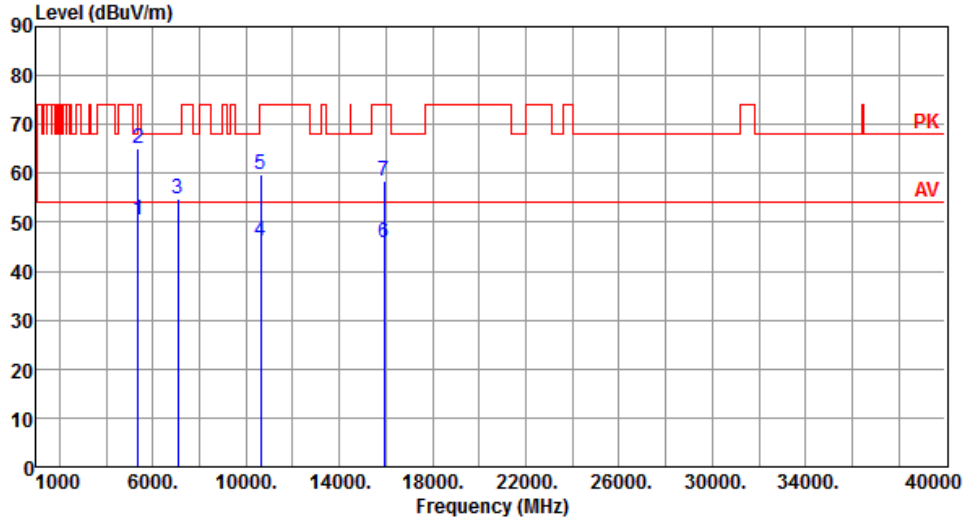
Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.60	54.00	-6.40	43.32	4.28	Average	100	162
2	5150.00	60.89	74.00	-13.11	56.61	4.28	Peak	100	162
3	5350.00	52.39	54.00	-1.61	47.95	4.44	Average	100	162
4	5350.00	65.77	74.00	-8.23	61.33	4.44	Peak	100	162
5	7026.66	52.72	68.20	-15.48	45.12	7.60	Peak	175	10
6	10540.00	59.73	68.20	-8.47	45.98	13.75	Peak	100	100
7	15810.00	46.61	54.00	-7.39	32.31	14.30	Average	100	40
8	15810.00	59.42	74.00	-14.58	45.12	14.30	Peak	100	40

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

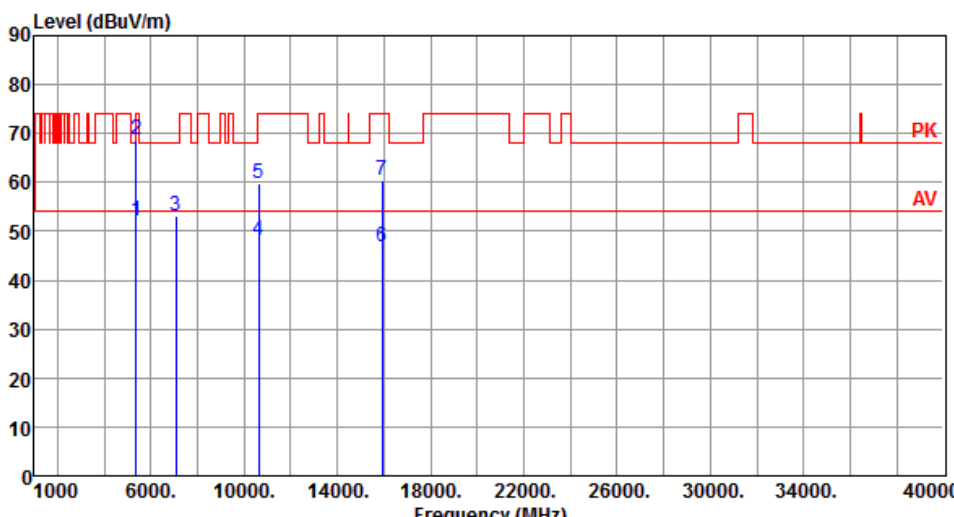
Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	50.60	54.00	-3.40	46.16	4.44	Average	100	327
2	5350.00	65.08	74.00	-8.92	60.64	4.44	Peak	100	327
3	7080.00	54.82	68.20	-13.38	47.12	7.70	Peak	113	250
4	10620.00	46.07	54.00	-7.93	32.26	13.81	Average	100	20
5	10620.00	59.69	74.00	-14.31	45.88	13.81	Peak	100	20
6	15930.00	45.68	54.00	-8.32	31.54	14.14	Average	100	50
7	15930.00	58.40	74.00	-15.60	44.26	14.14	Peak	100	50

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

Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Vertical		



The spectrum plot shows the emission level in dBuV/m on the y-axis (0 to 90) against frequency in MHz on the x-axis (1000 to 40000). A red line represents the emission level, and a blue line represents the limit. The emission level is generally higher than the limit, indicating a violation. The plot is labeled with 'PK' for peak and 'AV' for average. The plot shows several peaks, with the highest peak at 5350 MHz (Peak level 68.63 dBuV/m). The plot also shows a significant violation at 15930 MHz (Peak level 60.52 dBuV/m).

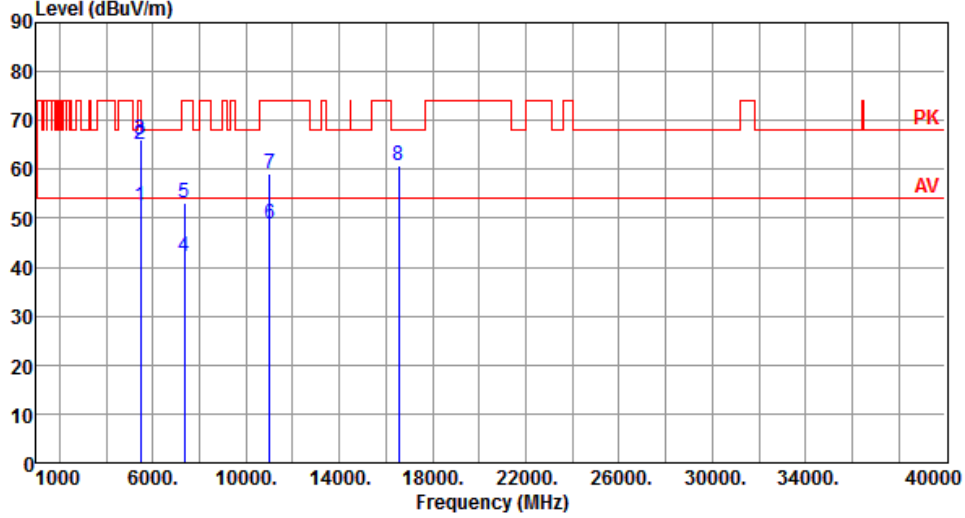
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.28	54.00	-1.72	47.84	4.44	Average	101	164
2	5350.00	68.63	74.00	-5.37	64.19	4.44	Peak	101	164
3	7080.00	53.27	68.20	-14.93	45.57	7.70	Peak	175	8
4	10620.00	48.18	54.00	-5.82	34.37	13.81	Average	100	50
5	10620.00	59.71	74.00	-14.29	45.90	13.81	Peak	100	50
6	15930.00	46.73	54.00	-7.27	32.59	14.14	Average	100	70
7	15930.00	60.52	74.00	-13.48	46.38	14.14	Peak	100	70

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical		

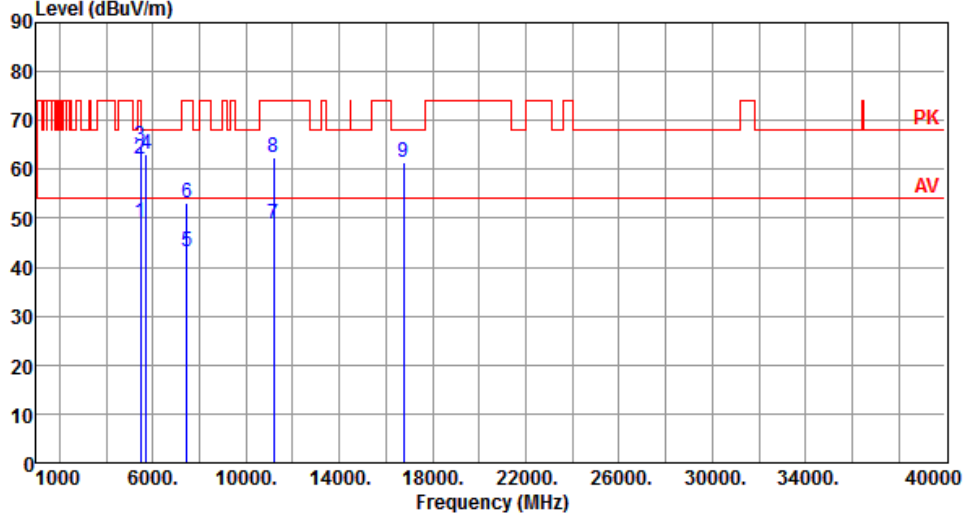


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	52.35	54.00	-1.65	47.84	4.51	Average	202	13
2	5460.00	65.20	74.00	-8.80	60.69	4.51	Peak	202	13
3	5470.00	66.23	68.20	-1.97	61.71	4.52	Peak	202	13
4	7346.66	42.03	54.00	-11.97	33.85	8.18	Average	148	7
5	7346.66	53.03	74.00	-20.97	44.85	8.18	Peak	148	7
6	11020.00	48.67	54.00	-5.33	34.53	14.14	Average	100	60
7	11020.00	59.03	74.00	-14.97	44.89	14.14	Peak	100	60
8	16530.00	60.79	68.20	-7.41	44.54	16.25	Peak	100	70

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

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.18	54.00	-4.82	44.67	4.51	Average	176	13
2	5460.00	62.10	74.00	-11.90	57.59	4.51	Peak	176	13
3	5470.00	64.83	68.20	-3.37	60.31	4.52	Peak	176	13
4	5725.00	63.25	68.20	-4.95	58.41	4.84	Peak	176	13
5	7453.33	43.31	54.00	-10.69	34.97	8.34	Average	149	8
6	7453.33	53.24	74.00	-20.76	44.90	8.34	Peak	149	8
7	11180.00	48.74	54.00	-5.26	34.60	14.14	Average	130	224
8	11180.00	62.34	74.00	-11.66	48.20	14.14	Peak	130	224
9	16770.00	61.39	68.20	-6.81	44.58	16.81	Peak	100	20

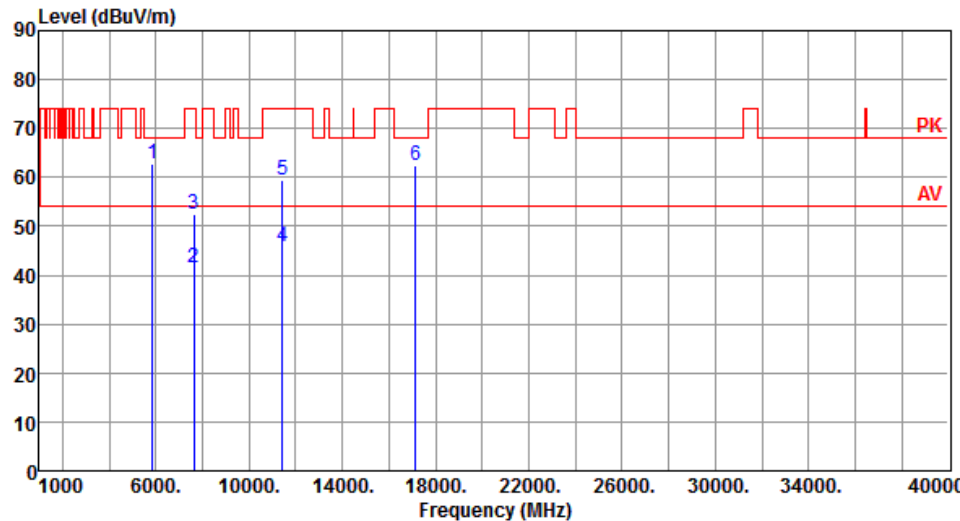
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Horizontal		
Level (dBuV/m) </			

Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Vertical		
Level (dBuV/m) <			

Modulation	VHT40	Test Freq. (MHz)	5710																																																																																										
Polarization	Horizontal																																																																																												
Level (dBuV/m) <table><thead><tr><th></th><th>Freq.</th><th>Emission</th><th>Limit</th><th>Margin</th><th>SA</th><th>Factor</th><th>Remark</th><th>ANT</th><th>Turn</th></tr><tr><th></th><th>MHz</th><th>level</th><th></th><th></th><th>reading</th><th></th><th></th><th>High</th><th>Table</th></tr><tr><th></th><th></th><th>dBuV/m</th><th>dBuV/m</th><th>dB</th><th>dBuV</th><th>dB</th><th></th><th>cm</th><th>deg</th></tr></thead><tbody><tr><td>1</td><td>5850.00</td><td>64.34</td><td>68.20</td><td>-3.86</td><td>59.30</td><td>5.04</td><td>Peak</td><td>173</td><td>269</td></tr><tr><td>2</td><td>7613.33</td><td>41.11</td><td>54.00</td><td>-12.89</td><td>32.57</td><td>8.54</td><td>Average</td><td>100</td><td>75</td></tr><tr><td>3</td><td>7613.33</td><td>52.83</td><td>74.00</td><td>-21.17</td><td>44.29</td><td>8.54</td><td>Peak</td><td>100</td><td>75</td></tr><tr><td>4</td><td>11420.00</td><td>45.99</td><td>54.00</td><td>-8.01</td><td>31.88</td><td>14.11</td><td>Average</td><td>110</td><td>319</td></tr><tr><td>5</td><td>11420.00</td><td>58.97</td><td>74.00</td><td>-15.03</td><td>44.86</td><td>14.11</td><td>Peak</td><td>110</td><td>319</td></tr><tr><td>6</td><td>17130.00</td><td>62.55</td><td>68.20</td><td>-5.65</td><td>44.87</td><td>17.68</td><td>Peak</td><td>100</td><td>20</td></tr></tbody></table>					Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn		MHz	level			reading			High	Table			dBuV/m	dBuV/m	dB	dBuV	dB		cm	deg	1	5850.00	64.34	68.20	-3.86	59.30	5.04	Peak	173	269	2	7613.33	41.11	54.00	-12.89	32.57	8.54	Average	100	75	3	7613.33	52.83	74.00	-21.17	44.29	8.54	Peak	100	75	4	11420.00	45.99	54.00	-8.01	31.88	14.11	Average	110	319	5	11420.00	58.97	74.00	-15.03	44.86	14.11	Peak	110	319	6	17130.00	62.55	68.20	-5.65	44.87	17.68	Peak	100	20
	Freq.	Emission	Limit	Margin	SA	Factor	Remark	ANT	Turn																																																																																				
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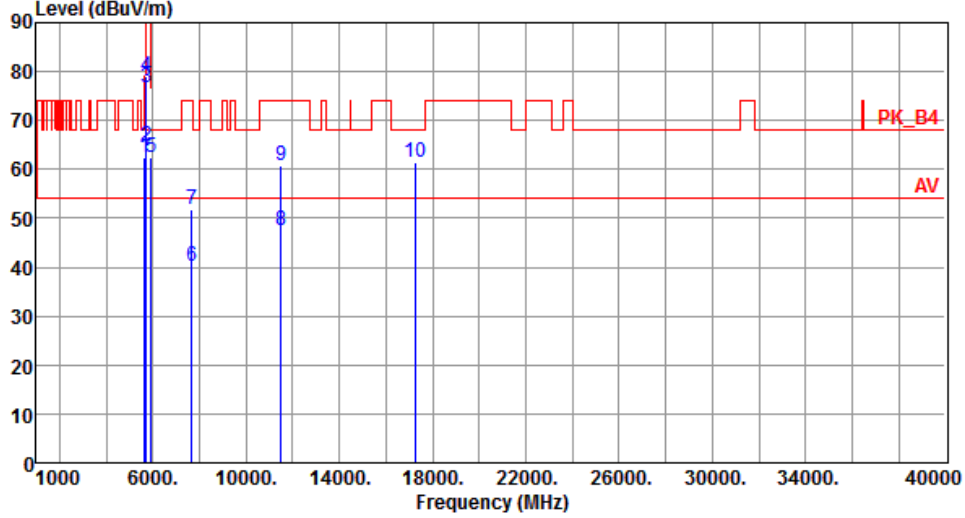
Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	62.91	68.20	-5.29	57.87	5.04	Peak	157	17
2	7613.33	41.38	54.00	-12.62	32.84	8.54	Average	150	7
3	7613.33	52.41	74.00	-21.59	43.87	8.54	Peak	150	7
4	11420.00	45.70	54.00	-8.30	31.59	14.11	Average	125	222
5	11420.00	59.30	74.00	-14.70	45.19	14.11	Peak	125	222
6	17130.00	62.56	68.20	-5.64	44.88	17.68	Peak	100	20

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

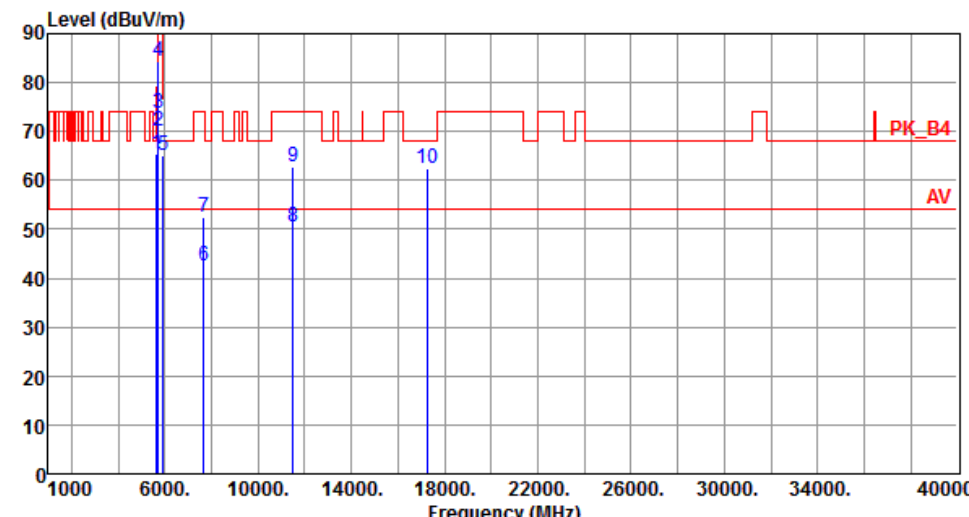
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	62.32	68.20	-5.88	57.59	4.73	Peak	107	208
2	5700.00	64.71	105.20	-40.49	59.90	4.81	Peak	107	208
3	5720.00	76.79	110.80	-34.01	71.95	4.84	Peak	107	208
4	5725.00	79.11	122.20	-43.09	74.27	4.84	Peak	107	208
5	5925.00	62.42	68.20	-5.78	57.29	5.13	Peak	107	208
6	7673.30	40.06	54.00	-13.94	31.42	8.64	Average	100	85
7	7673.30	51.89	74.00	-22.11	43.25	8.64	Peak	100	85
8	11510.00	47.53	54.00	-6.47	33.44	14.09	Average	100	329
9	11510.00	60.87	74.00	-13.13	46.78	14.09	Peak	100	329
10	17265.00	61.60	68.20	-6.60	43.58	18.02	Peak	100	24

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

Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical		

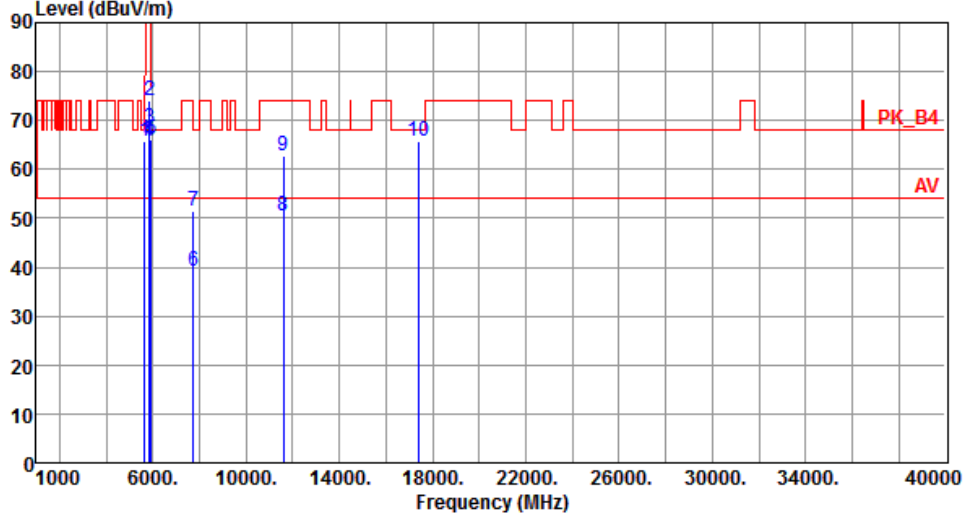


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	65.48	68.20	-2.72	60.75	4.73	Peak	142	20
2	5700.00	70.00	105.20	-35.20	65.19	4.81	Peak	142	20
3	5720.00	73.70	110.80	-37.10	68.86	4.84	Peak	142	20
4	5725.00	84.38	122.20	-37.82	79.54	4.84	Peak	142	20
5	5925.00	65.21	68.20	-2.99	60.08	5.13	Peak	142	20
6	7673.30	42.56	54.00	-11.44	33.92	8.64	Average	100	18
7	7673.30	52.33	74.00	-21.67	43.69	8.64	Peak	100	18
8	11510.00	50.43	54.00	-3.57	36.34	14.09	Average	166	228
9	11510.00	62.77	74.00	-11.23	48.68	14.09	Peak	166	228
10	17265.00	62.53	68.20	-5.67	44.51	18.02	Peak	100	22

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

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Vertical		



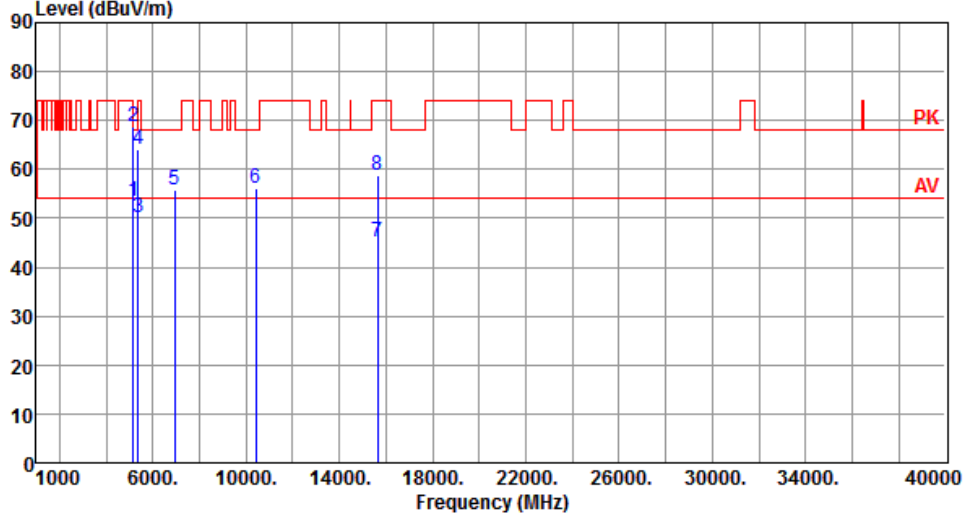
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	65.88	68.20	-2.32	61.15	4.73	Peak	156	18
2	5850.00	73.95	122.20	-48.25	68.91	5.04	Peak	156	18
3	5855.00	68.53	110.80	-42.27	63.49	5.04	Peak	156	18
4	5875.00	65.65	105.20	-39.55	60.58	5.07	Peak	156	18
5	5925.00	66.04	68.20	-2.16	60.91	5.13	Peak	156	18
6	7726.60	39.26	54.00	-14.74	30.54	8.72	Average	100	16
7	7726.60	51.41	74.00	-22.59	42.69	8.72	Peak	100	16
8	11590.00	50.53	54.00	-3.47	36.59	13.94	Average	154	234
9	11590.00	62.82	74.00	-11.18	48.88	13.94	Peak	154	234
10	17385.00	65.69	68.20	-2.51	47.36	18.33	Peak	100	20

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

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

Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal		
Level (dBUV/m) </			

Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical		



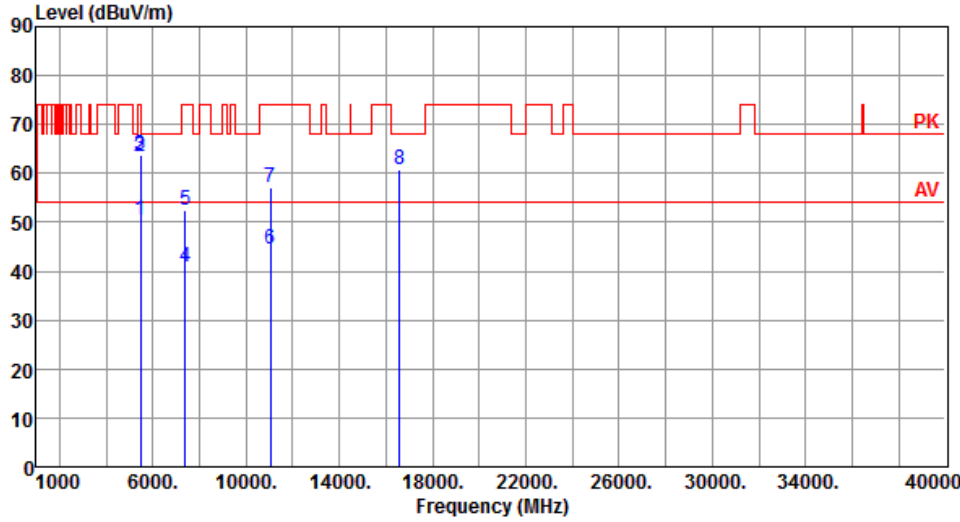
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	53.51	54.00	-0.49	49.23	4.28	Average	112	7
2	5150.00	68.88	74.00	-5.12	64.60	4.28	Peak	112	7
3	5350.00	50.10	54.00	-3.90	45.66	4.44	Average	112	7
4	5350.00	64.17	74.00	-9.83	59.73	4.44	Peak	112	7
5	6946.66	55.70	68.20	-12.50	48.20	7.50	Peak	175	173
6	10420.00	56.12	68.20	-12.08	42.46	13.66	Peak	100	20
7	15630.00	45.11	54.00	-8.89	30.57	14.54	Average	100	30
8	15630.00	58.69	74.00	-15.31	44.15	14.54	Peak	100	30

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

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Horizontal		
Level (dBUV/m) </			

Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical		
Level (dBuV/m)			

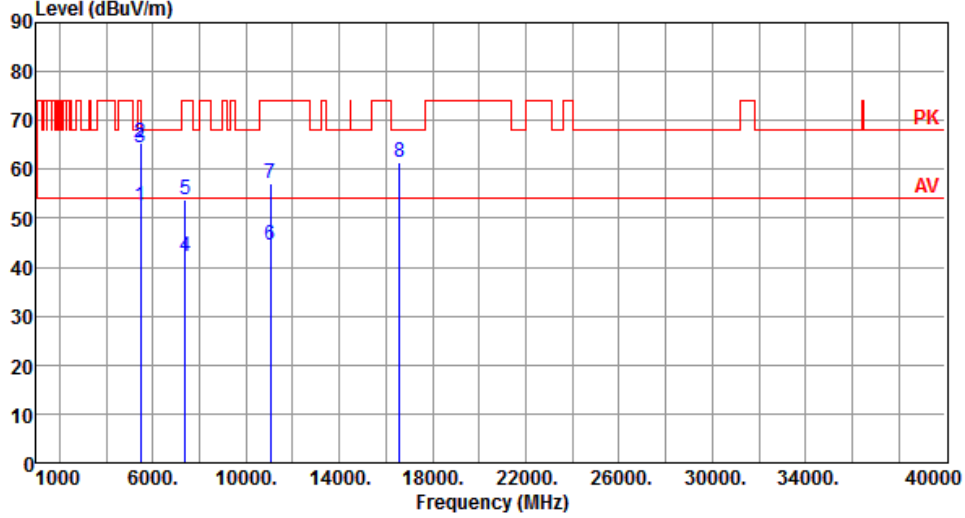
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	50.53	54.00	-3.47	46.02	4.51	Average	183	274
2	5460.00	63.58	74.00	-10.42	59.07	4.51	Peak	183	274
3	5470.00	63.60	68.20	-4.60	59.08	4.52	Peak	183	274
4	7373.33	40.78	54.00	-13.22	32.56	8.22	Average	100	74
5	7373.33	52.48	74.00	-21.52	44.26	8.22	Peak	100	74
6	11060.00	44.40	54.00	-9.60	30.25	14.15	Average	100	120
7	11060.00	57.10	74.00	-16.90	42.95	14.15	Peak	100	120
8	16590.00	60.93	68.20	-7.27	44.55	16.38	Peak	100	25

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

Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical		



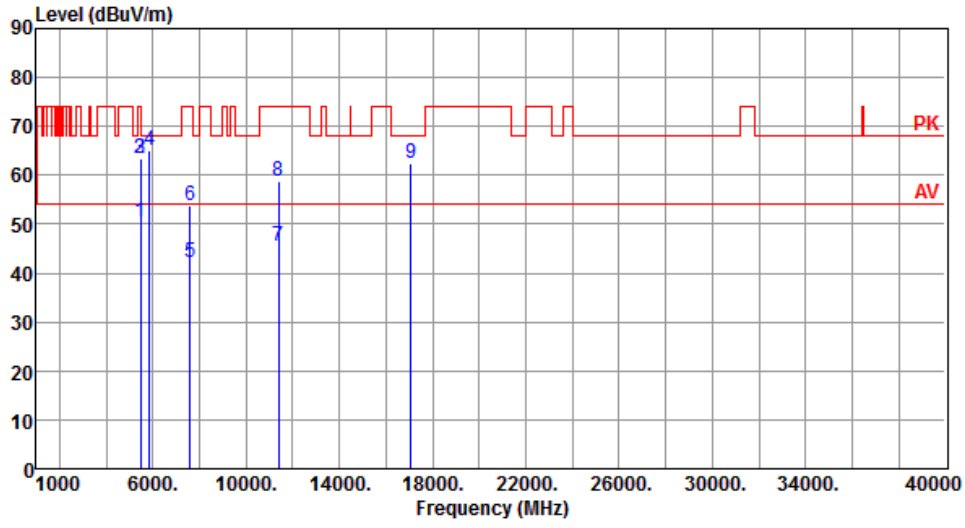
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	52.54	54.00	-1.46	48.03	4.51	Average	182	15
2	5460.00	65.30	74.00	-8.70	60.79	4.51	Peak	182	15
3	5470.00	64.44	68.20	-3.76	59.92	4.52	Peak	182	15
4	7373.33	42.09	54.00	-11.91	33.87	8.22	Average	142	10
5	7373.33	53.80	74.00	-20.20	45.58	8.22	Peak	142	10
6	11060.00	44.36	54.00	-9.64	30.21	14.15	Average	100	25
7	11060.00	57.03	74.00	-16.97	42.88	14.15	Peak	100	25
8	16590.00	61.35	68.20	-6.85	44.97	16.38	Peak	100	40

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

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

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

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Horizontal		

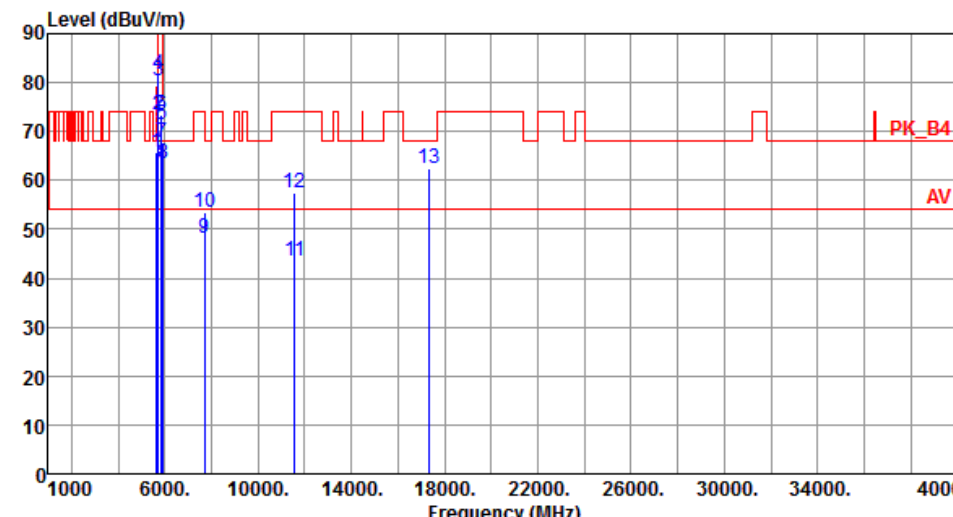


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	50.37	54.00	-3.63	45.86	4.51	Average	208	264
2	5460.00	63.44	74.00	-10.56	58.93	4.51	Peak	208	264
3	5470.00	63.59	68.20	-4.61	59.07	4.52	Peak	208	264
4	5850.00	65.22	68.20	-2.98	60.18	5.04	Peak	208	264
5	7586.66	42.16	54.00	-11.84	33.65	8.51	Average	100	77
6	7586.66	53.91	74.00	-20.09	45.40	8.51	Peak	100	77
7	11380.00	45.37	54.00	-8.63	31.24	14.13	Average	100	320
8	11380.00	58.70	74.00	-15.30	44.57	14.13	Peak	100	320
9	17070.00	62.47	68.20	-5.73	44.95	17.52	Peak	100	20

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

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

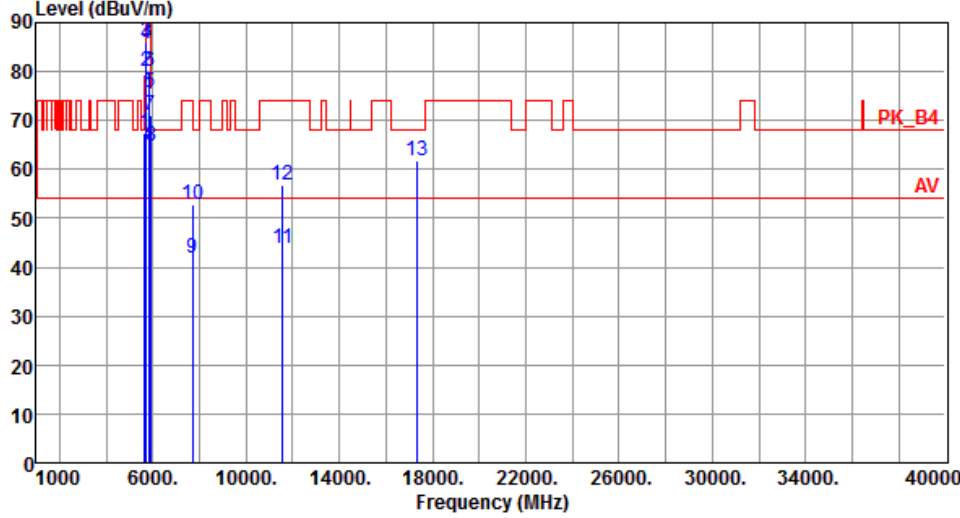
Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	65.84	68.20	-2.36	61.11	4.73	Peak	100	208
2	5700.00	73.39	105.20	-31.81	68.58	4.81	Peak	100	208
3	5720.00	80.47	110.80	-30.33	75.63	4.84	Peak	100	208
4	5725.00	81.76	122.20	-40.44	76.92	4.84	Peak	100	208
5	5850.00	71.24	122.20	-50.96	66.20	5.04	Peak	100	208
6	5855.00	73.46	110.80	-37.34	68.42	5.04	Peak	100	208
7	5875.00	67.64	105.20	-37.56	62.57	5.07	Peak	100	208
8	5925.00	63.44	68.20	-4.76	58.31	5.13	Peak	100	208
9	7700.00	48.30	54.00	-5.70	39.62	8.68	Average	100	85
10	7700.00	53.58	74.00	-20.42	44.90	8.68	Peak	100	85
11	11550.00	43.46	54.00	-10.54	29.45	14.01	Average	100	351
12	11550.00	57.39	74.00	-16.61	43.38	14.01	Peak	100	351
13	17325.00	62.40	68.20	-5.80	44.23	18.17	Peak	100	25

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

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	67.36	68.20	-0.84	62.63	4.73	Peak	149	18
2	5700.00	80.07	105.20	-25.13	75.26	4.81	Peak	149	18
3	5720.00	86.15	110.80	-24.65	81.31	4.84	Peak	149	18
4	5725.00	85.73	122.20	-36.47	80.89	4.84	Peak	149	18
5	5850.00	75.79	122.20	-46.41	70.75	5.04	Peak	149	18
6	5855.00	80.07	110.80	-30.73	75.03	5.04	Peak	149	18
7	5875.00	71.18	105.20	-34.02	66.11	5.07	Peak	149	18
8	5925.00	64.78	68.20	-3.42	59.65	5.13	Peak	149	18
9	7700.00	41.91	54.00	-12.09	33.23	8.68	Average	136	18
10	7700.00	52.68	74.00	-21.32	44.00	8.68	Peak	136	18
11	11550.00	44.00	54.00	-10.00	29.99	14.01	Average	100	230
12	11550.00	56.86	74.00	-17.14	42.85	14.01	Peak	100	230
13	17325.00	61.66	68.20	-6.54	43.49	18.17	Peak	100	21

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

3.6 Frequency Stability

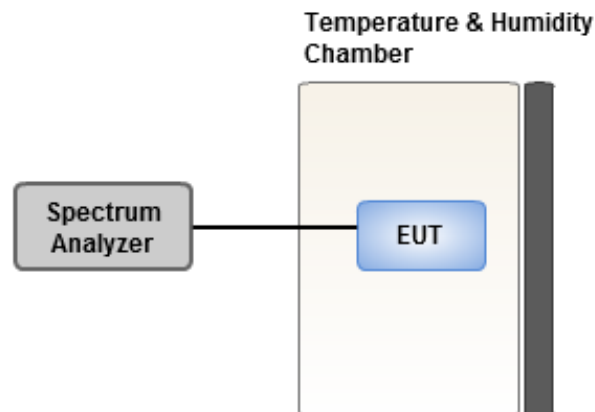
3.6.1 Limit of Frequency Stability

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

3.6.2 Test Procedures

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

3.6.3 Test Setup



3.6.4 Test Result of Frequency Stability

Frequency: 5320 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°C Vmax	5.19	5.56	6.03	5.33
T20°C Vmin	4.21	4.65	4.23	4.22
T50°C Vnom	3.30	4.13	3.43	3.65
T40°C Vnom	3.78	4.18	3.98	4.01
T30°C Vnom	3.44	3.79	3.35	4.24
T20°C Vnom	2.36	2.05	1.99	2.49
T10°C Vnom	2.01	2.22	2.79	2.57
T0°C Vnom	3.40	3.77	2.91	3.20
T-10°C Vnom	2.47	2.82	3.02	2.99
T-20°C Vnom	0.94	1.73	0.91	1.46
T-30°C Vnom	0.22	1.04	-0.13	-0.18
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>.

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

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