FCC C2PC Test Report

FCC ID	:	**P27RP324**
Equipment	:	**AC2100 Wi-Fi Mesh Extender**
Model No.	:	**RP324**
Multiple Listing	:	**Refer to item 1.1.1 for more details.**
Brand Name	:	**Sercomm**
Applicant	:	**Sercomm Corporation**
Address	:	**8F, No. 3-1, YuanQu St., NanKang, Taipei 115, Taiwan, R.O.C.**
Standard	:	**47 CFR FCC Part 15.407**
Received Date	:	**Oct. 02, 2019**
Tested Date	:	**Oct. 08 ~ Nov. 21, 2019**

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

Reviewed by: **Approved by:**

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

Testing Laboratory 2732

Table of Contents

1 GENERAL DESCRIPTION 5

1.1 Information 5
1.2 Local Support Equipment List 9
1.3 Test Setup Chart 9
1.4 The Equipment List 11
1.5 Testing Applied Standards 13
1.6 Deviation from Test Standard and Measurement Procedure 13
1.7 Measurement Uncertainty 13

2 TEST CONFIGURATION 13

2.1 Testing Condition 14
2.2 The Worst Test Modes and Channel Details 14

3 TRANSMITTER TEST RESULTS 16

3.1 Conducted Emissions 16
3.2 Emission Bandwidth 21
3.3 RF Output Power 43
3.4 Peak Power Spectral Density 53
3.5 Transmitter Radiated and Band Edge Emissions 75
3.6 Frequency Stability 164

4 TEST LABORATORY INFORMATION 166

Release Record

Report No.	Version	Description	Issued Date
FR9O0208-01	Rev. 01	Initial issue	Dec. 11, 2019

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.334MHz 44.46 (Margin -4.89dB) - AV	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5725.00MHz 67.19 (Margin -1.01dB) - PK	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(a)	RF Output Power	Max Power [dBm]: ***Non-beamforming mode*** 5250~5350MHz: 22.59 5470~5725MHz: 23.05 ***Beamforming mode*** 5250~5350MHz: 20.57 5470~5725MHz: 20.46	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

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Information

This is a Class II Permissive Change report (C2PC).
This report is issued as a supplementary report to original ICC report no. FR9O0208AN. The modification is only concerned with adding 5250~5350MHz and 5470~5725 MHz band by software setting.

1.1.1 Product Details

The following models are provided to this EUT.

Model Name	Description
RP324	Main tested model.
RP324XX	the 1st X should be "blank" or "-"; the rest X could be 0 to 9, A to Z, "blank" or "-", for marketing purpose.
✦ All models are electrically identical, different model names are for marketing purpose.	

1.1.2 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	**IEEE Std. 802.11**	**Ch. Freq. (MHz)**	**Channel Number**	**Transmit Chains (N_{TX})**	**Data Rate / MCS**
5250-5350 5470-5725	a	5260-5320 5500-5720	52-64 [4] 100-144 [12]	4	6-54 Mbps
5250-5350 5470-5725	n (HT20)	5260-5320 5500-5720	52-64 [4] 100-144 [12]	4	MCS 0-31
5250-5350 5470-5725	n (HT40)	5270-5310 5510-5710	54-62 [2] 102-142 [6]	4	MCS 0-31
5250-5350 5470-5725	ac (VHT20)	5260-5320 5500-5720	52-64 [4] 100-144 [12]	4	MCS 0-9
5250-5350 5470-5725	ac (VHT40)	5270-5310 5510-5710	54-62 [2] 102-142 [6]	4	MCS 0-9
5250-5350 5470-5725	ac (VHT80)	5290 5530-5690	58 [1] 106-138 [3]	4	MCS 0-9
Note 1: RF output power specifies that Maximum Conducted Output Power. Note 2: 802.11a/n/ac uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation. Note 3: 802.11n/ac supports beamforming mode.					

1.1.3 Antenna Details

Ant. No.	Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)	
				5250~5350	5470~5725
1	RP324	Dipole	i-pex	3.49	2.79
2	RP324	Dipole	i-pex	3.32	3.53
3	RP324	PIFA	NA	3.08	3.15
4	RP324	PIFA	NA	3.17	3.28

1.1.4 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	12V/1A

1.1.5 Accessories

N/A

1.1.6 Channel List

802.11 a / HT20 / VHT20		HT40 / VHT40	
Channel	**Frequency(MHz)**	**Channel**	**Frequency(MHz)**
52	5260	54	5270
56	5280	62	5310
60	5300	102	5510
64	5320	110	5550
100	5500	118	5590
104	5520	126	5630
108	5540	134	5670
112	5560	142	5710
116	5580	**VHT80**	
120	5600	58	5290
124	5620	106	5530
128	5640	122	5610
132	5660	138	5690
136	5680	---	---
140	5700	---	---
144	5720	---	---

1.1.7 Test Tool and Duty Cycle

Test Tool	Non-beamforming: MT7615 QA, V0.0.2.0 Beamforming: Putty, V0.60.0.0				
Duty Cycle and Duty Factor	**Mode**	**Non-beamforming**		**Beamforming**	
		Duty cycle (%)	**Duty factor (dB)**	**Duty cycle (%)**	**Duty factor (dB)**
	11a	98.97%	0.05	---	---
	VHT20	98.90%	0.05	99.57%	0.02
	VHT40	96.93%	0.14	96.57%	0.15
	VHT80	93.36%	0.30	97.16%	0.13

1.1.8 Power Index of Test Tool

Modulation Mode	Test Frequency (MHz)	Power Index	
		Non-Beamforming	Beamforming
11a	5260	11	---
11a	5300	11	---
11a	5320	11	---
11a	5500	11	---
11a	5580	11	---
11a	5700	0F	---
VHT20	5260	15	23
VHT20	5300	15	23
VHT20	5320	15	23
VHT20	5500	15	21
VHT20	5580	15	23
VHT20	5700	13	21
VHT40	5270	1A	24
VHT40	5310	12	20
VHT40	5510	14	19
VHT40	5590	1B	25
VHT40	5670	14	22
VHT80	5290	09	12
VHT80	5530	0E	16
VHT80	5610	17	22

Channel that extends across the 5.725 GHz boundary

Modulation Mode	Test Frequency (MHz)	Power Index	
		Non-Beamforming	Beamforming
11a	5720	13	---
VHT20	5720	17	25
VHT40	5710	1C	26
VHT80	5690	1D	25

1.2 Local Support Equipment List

Non-beamforming mode

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Remarks**
1	Notebook	DELL	Latitude E6430	DoC	---

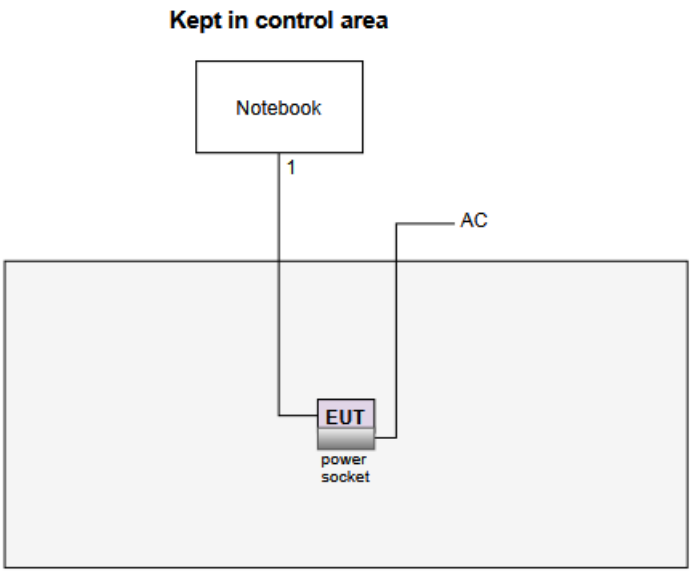
Beamforming mode

Support Equipment List					
No.	**Equipment**	**Brand**	**Model**	**FCC ID**	**Remarks**
1	Notebook	DELL	Latitude E6430	DoC	---
2	Notebook	DELL	Latitude E5470	DoC	---
3	BF Client (AC2100 Wi-Fi Mesh Extender)	Sercomm	RP324	---	---

1.3 Test Setup Chart

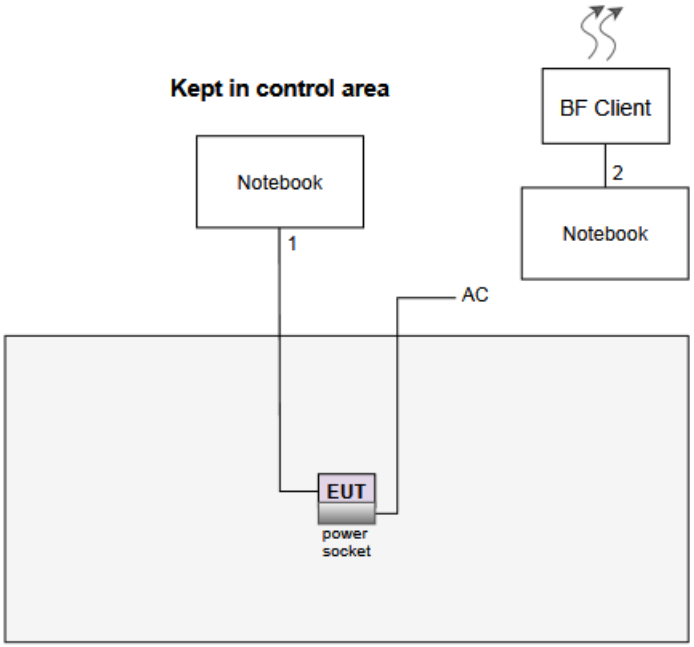
Non-beamforming mode

Test Setup Diagram



No.	Signal cable / Length (m)
1	RJ45, 10m non-shielded.

Beamforming mode

Test Setup Diagram


No.	Signal cable / Length (m)
1	RJ45, 10m non-shielded.
2	RJ45, 1m non-shielded.

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Oct. 21, 2019				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Receiver	R&S	ESR3	101657	Jan. 08, 2019	Jan. 07, 2020
LISN	R&S	ENV216	101579	Mar. 08, 2019	Mar. 07, 2020
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 23, 2018	Oct. 22, 2019
Measurement Software	AUDIX	e3	6.120210k	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber 3 / (03CH03-WS)				
Tested Date	Oct. 08, 2019				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101499	Jan. 07, 2019	Jan. 06, 2020
Receiver	R&S	ESR3	101658	Dec. 11, 2018	Dec. 10, 2019
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-685	Apr. 17, 2019	Apr. 16, 2020
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1206	Jan. 07, 2019	Jan. 06, 2020
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 15, 2018	Nov. 14, 2019
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 09, 2018	Nov. 08, 2019
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 07, 2019	Oct. 06, 2020
Preamplifier	EMC	EMC02325	980187	Aug. 14, 2019	Aug. 13, 2020
Preamplifier	Agilent	83017A	MY53270014	Aug. 07, 2019	Aug. 06, 2020
Preamplifier	EMC	EMC184045B	980192	Aug. 01, 2019	Jul. 31, 2020
RF cable-3M	HUBER+SUHNER	SUCOFLEX104	MY22620/**4**	Sep. 27, 2019	Sep. 26, 2020
RF cable-8M	EMC	EMC104-SM-SM-8000	181107	Sep. 27, 2019	Sep. 26, 2020
RF cable-1M	HUBER+SUHNER	SUCOFLEX104	MY22624/4	Sep. 27, 2019	Sep. 26, 2020
LF cable-0.8M	EMC	EMC8D-NM-NM-800	EMC8D-NM-NM-800-001	Sep. 27, 2019	Sep. 26, 2020
LF cable-3M	EMC	EMC8D-NM-NM-3000	131103	Sep. 27, 2019	Sep. 26, 2020
LF cable-13M	EMC	EMC8D-NM-NM-13000	131104	Sep. 27, 2019	Sep. 26, 2020
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	Radiated Emission				
Test Site	966 chamber 3 / (03CH03-WS)				
Tested Date	Nov. 21, 2019				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101499	Jan. 07, 2019	Jan. 06, 2020
Receiver	R&S	ESR3	101658	Dec. 11, 2018	Dec. 10, 2019
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-685	Apr. 17, 2019	Apr. 16, 2020
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1206	Jan. 07, 2019	Jan. 06, 2020
Horn Antenna 18G-40G	SCHWARZBECK	BBHA 9170	BBHA 9170517	Nov. 15, 2019	Nov. 14, 2020
Loop Antenna	R&S	HFH2-Z2	100330	Nov. 13, 2019	Nov. 12, 2020
Loop Antenna Cable	KOAX KABEL	101354-BW	101354-BW	Oct. 07, 2019	Oct. 06, 2020
Preamplifier	EMC	EMC02325	980187	Aug. 14, 2019	Aug. 13, 2020
Preamplifier	Agilent	83017A	MY53270014	Aug. 07, 2019	Aug. 06, 2020
Preamplifier	EMC	EMC184045B	980192	Aug. 01, 2019	Jul. 31, 2020
RF cable-3M	HUBER+SUHNER	SUCOFLEX104	MY22620/**4**	Sep. 27, 2019	Sep. 26, 2020
RF cable-8M	EMC	EMC104-SM-SM-8000	181107	Sep. 27, 2019	Sep. 26, 2020
RF cable-1M	HUBER+SUHNER	SUCOFLEX104	MY22624/4	Sep. 27, 2019	Sep. 26, 2020
LF cable-0.8M	EMC	EMC8D-NM-NM-800	EMC8D-NM-NM-800-001	Sep. 27, 2019	Sep. 26, 2020
LF cable-3M	EMC	EMC8D-NM-NM-3000	131103	Sep. 27, 2019	Sep. 26, 2020
LF cable-13M	EMC	EMC8D-NM-NM-13000	131104	Sep. 27, 2019	Sep. 26, 2020
Measurement Software	AUDIX	e3	6.120210g	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

Test Item	RF Conducted				
Test Site	(TH01-WS)				
Tested Date	Nov. 18, 2019				
Instrument	**Manufacturer**	**Model No.**	**Serial No.**	**Calibration Date**	**Calibration Until**
Spectrum Analyzer	R&S	FSV40	101063	Apr. 17, 2019	Apr. 16, 2020
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Dec. 05, 2018	Dec. 04, 2019
Power Meter	Anritsu	ML2495A	1241002	Oct. 23, 2019	Oct. 22, 2020
Power Sensor	Anritsu	MA2411B	1207366	Oct. 23, 2019	Oct. 22, 2020
AC POWER SOURCE	APC	AFC-500W	F312060012	Nov. 29, 2018	Nov. 28, 2019
Measurement Software	ICC	SENSE-15407_NII	V5.10	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 Deviation from Test Standard and Measurement Procedure

None

1.7 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	±34.130 Hz
Conducted power	±0.808 dB
Frequency error	$\pm 1 \times 10^{-9}$
Power density	±0.583 dB
Conducted emission	±2.715 dB
AC conducted emission	±2.92 dB
Radiated emission ≤ 1GHz	±3.96 dB
Radiated emission > 1GHz	±4.51 dB
Time	±0.1%
Temperature	±0.4 ^{o}C

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	24°C / 58%	Alex Tsai
Radiated Emissions	03CH03-WS	24°C / 65-67%	Roger Lu Akun Chung
RF Conducted	TH01-WS	21°C / 64%	Brad Wu

- FCC Designation No.: TW0009
- FCC site registration No.: 207696
- ISED#: 10807A
- CAB identifier: TW2732

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	VHT80	5690	MCS 0	---
Radiated Emissions ≤1GHz	VHT80	5690	MCS 0	---
RF Output Power 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	---	---

NOTE:

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

Beamforming mode

For Frequency band 5250-5350 MHz, 5470-5725 MHz				
Test item	**Modulation Mode**	**Test Frequency (MHz)**	**Data Rate**	**Test Configuration**
Conducted Emissions	VHT40	5270	MCS 0	---
Radiated Emissions ≤1GHz	VHT40	5270	MCS 0	---
RF Output Power	HT20	5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	---
	HT40	5270 / 5310 5510 / 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	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	

NOTE:

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

3 Transmitter Test Results

3.1 Conducted Emissions

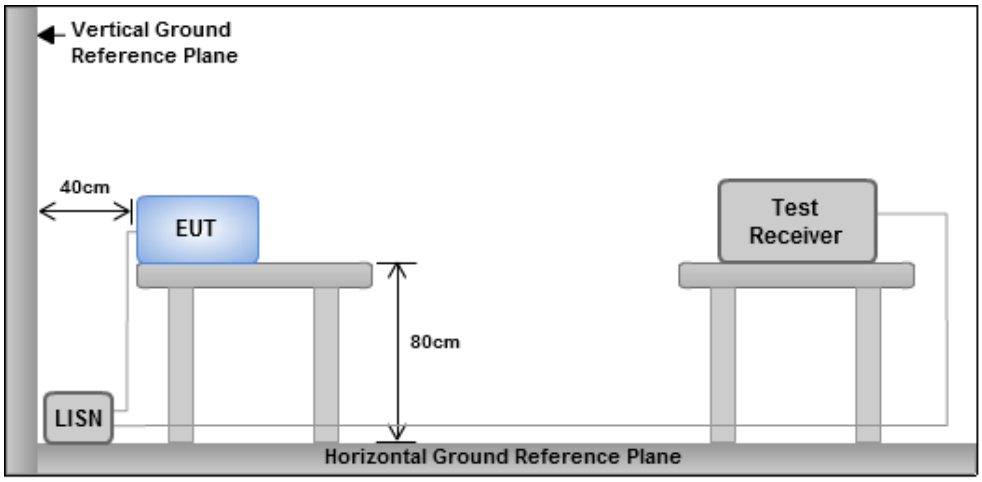
3.1.1 Limit of Conducted Emissions

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

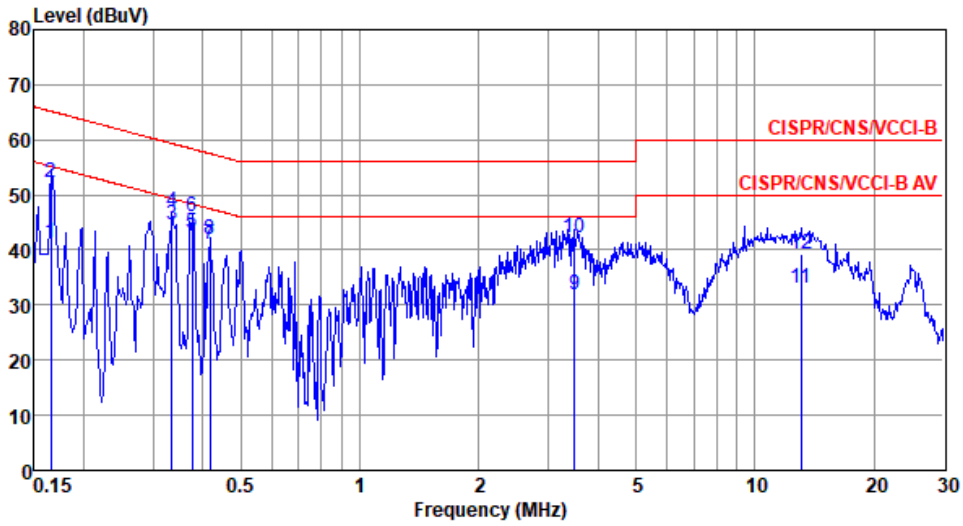


Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

Non- beamforming mode

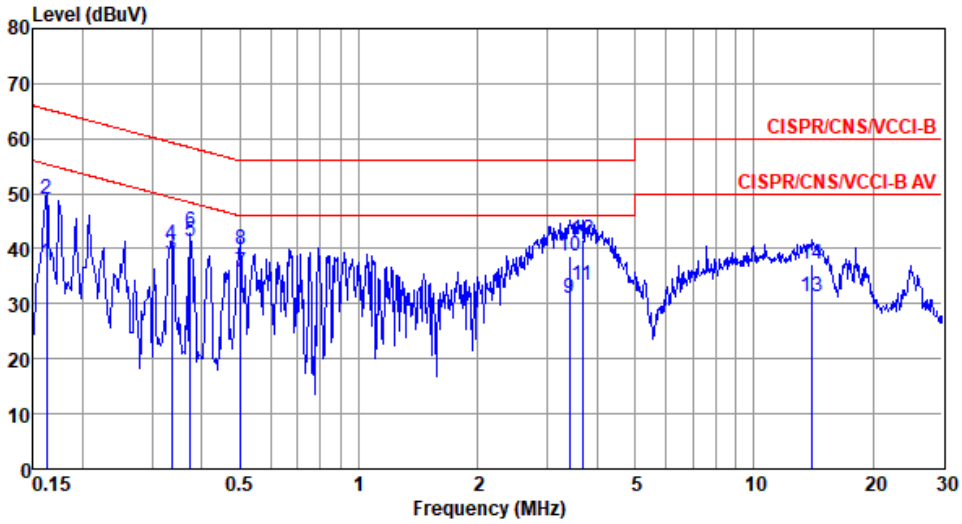
Modulation	VHT80	**Test Freq. (MHz)**	5690
Power Phase	Line		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.165	41.43	55.21	-13.78	31.70	9.53	0.06	Average
2	0.165	52.16	65.21	-13.05	42.43	9.53	0.06	QP
3*	0.334	44.46	49.35	-4.89	34.58	9.56	0.08	Average
4	0.334	46.81	59.35	-12.54	36.93	9.56	0.08	QP
5	0.377	43.20	48.34	-5.14	33.30	9.57	0.08	Average
6	0.377	46.01	58.34	-12.33	36.11	9.57	0.08	QP
7	0.417	40.98	47.51	-6.53	31.07	9.57	0.08	Average
8	0.417	42.06	57.51	-15.45	32.15	9.57	0.08	QP
9	3.491	31.94	46.00	-14.06	21.69	9.61	0.26	Average
10	3.491	42.09	56.00	-13.91	31.84	9.61	0.26	QP
11	13.057	32.96	50.00	-17.04	22.36	9.65	0.52	Average
12	13.057	39.23	60.00	-20.77	28.63	9.65	0.52	QP

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

Modulation	VHT80	Test Freq. (MHz)	5690
Power Phase	Neutral		

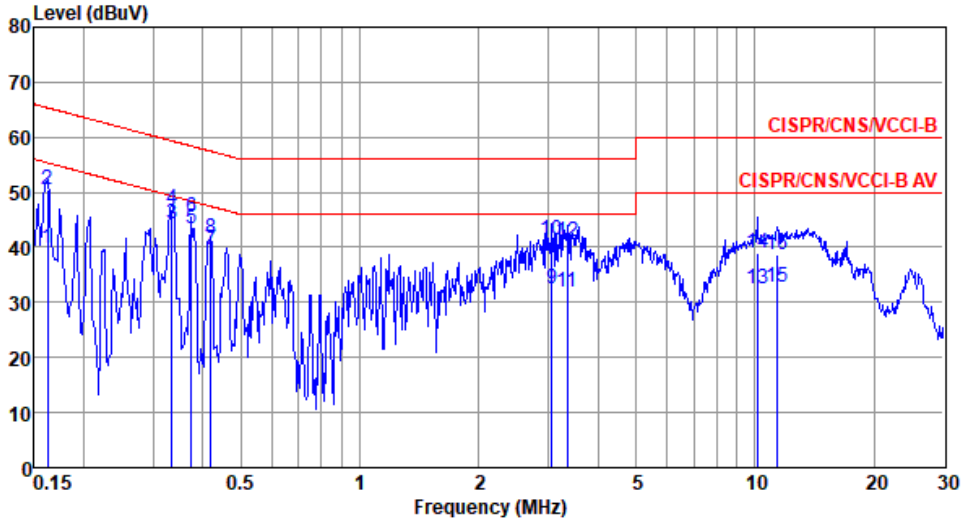


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.162	37.58	55.34	-17.76	27.83	9.57	0.06	Average
2	0.162	49.15	65.34	-16.19	39.40	9.57	0.06	QP
3	0.336	39.03	49.31	-10.28	29.22	9.60	0.08	Average
4	0.336	40.77	59.31	-18.54	30.96	9.60	0.08	QP
5*	0.375	41.30	48.39	-7.09	31.49	9.61	0.08	Average
6	0.375	43.08	58.39	-15.31	33.27	9.61	0.08	QP
7	0.502	35.59	46.00	-10.41	25.74	9.62	0.08	Average
8	0.502	39.77	56.00	-16.23	29.92	9.62	0.08	QP
9	3.417	30.99	46.00	-15.01	20.82	9.66	0.25	Average
10	3.417	38.76	56.00	-17.24	28.59	9.66	0.25	QP
11	3.681	33.43	46.00	-12.57	23.25	9.66	0.26	Average
12	3.681	41.62	56.00	-14.38	31.44	9.66	0.26	QP
13	14.063	31.40	50.00	-18.60	20.77	9.76	0.54	Average
14	14.063	37.13	60.00	-22.87	26.50	9.76	0.54	QP

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

Beamforming mode

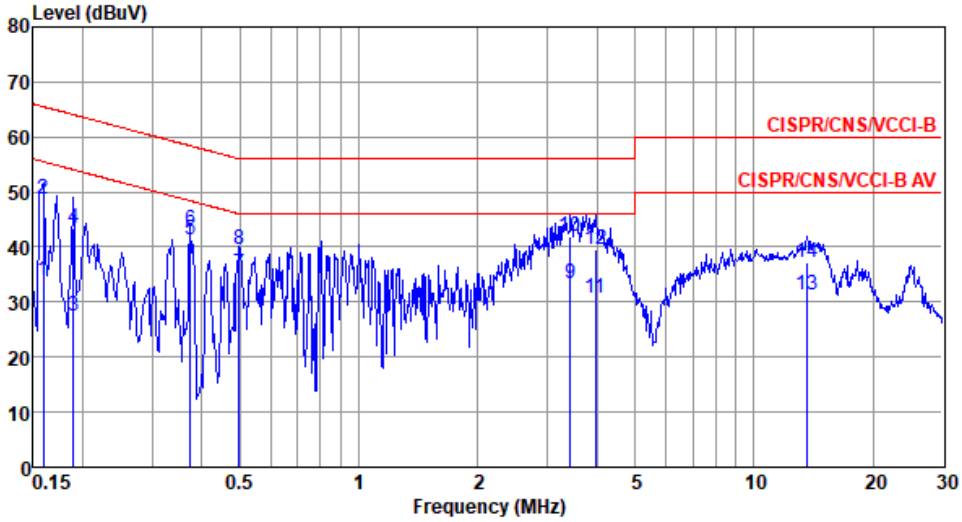
Modulation	VHT40	**Test Freq. (MHz)**	5270
Power Phase	Line		



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.162	39.79	55.34	-15.55	30.06	9.53	0.06	Average
2	0.162	50.40	65.34	-14.94	40.67	9.53	0.06	QP
3	0.334	44.37	49.35	-4.98	34.49	9.56	0.08	Average
4	0.334	46.80	59.35	-12.55	36.92	9.56	0.08	QP
5*	0.375	43.48	48.39	-4.91	33.58	9.57	0.08	Average
6	0.375	45.42	58.39	-12.97	35.52	9.57	0.08	QP
7	0.419	39.61	47.46	-7.85	29.70	9.57	0.08	Average
8	0.419	41.49	57.46	-15.97	31.58	9.57	0.08	QP
9	3.058	32.52	46.00	-13.48	22.31	9.61	0.23	Average
10	3.058	41.44	56.00	-14.56	31.23	9.61	0.23	QP
11	3.346	31.74	46.00	-14.26	21.51	9.61	0.25	Average
12	3.346	41.08	56.00	-14.92	30.85	9.61	0.25	QP
13	10.125	32.48	50.00	-17.52	21.99	9.65	0.44	Average
14	10.125	38.86	60.00	-21.14	28.37	9.65	0.44	QP
15	11.377	32.62	50.00	-17.38	22.07	9.65	0.48	Average
16	11.377	38.68	60.00	-21.32	28.13	9.65	0.48	QP

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

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



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.159	34.03	55.52	-21.49	24.29	9.57	0.05	Average
2	0.159	48.75	65.52	-16.77	39.01	9.57	0.05	QP
3	0.189	27.56	54.06	-26.50	17.78	9.58	0.07	Average
4	0.189	43.32	64.06	-20.74	33.54	9.58	0.07	QP
5*	0.375	41.28	48.39	-7.11	31.47	9.61	0.08	Average
6	0.375	43.11	58.39	-15.28	33.30	9.61	0.08	QP
7	0.497	34.99	46.05	-11.06	25.14	9.62	0.08	Average
8	0.497	39.46	56.05	-16.59	29.61	9.62	0.08	QP
9	3.436	33.31	46.00	-12.69	23.14	9.66	0.25	Average
10	3.436	41.86	56.00	-14.14	31.69	9.66	0.25	QP
11	3.964	30.80	46.00	-15.20	20.60	9.66	0.28	Average
12	3.964	39.41	56.00	-16.59	29.21	9.66	0.28	QP
13	13.623	31.23	50.00	-18.77	20.63	9.75	0.53	Average
14	13.623	37.08	60.00	-22.92	26.48	9.75	0.53	QP

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

3.2 Emission Bandwidth

3.2.1 Test Procedures

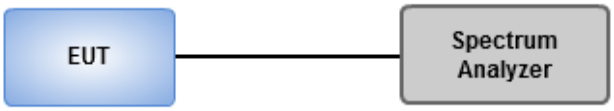
26dB Bandwidth

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

Occupied Bandwidth

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

3.2.2 Test Setup



3.2.3 Test Result of Emission Bandwidth

Non-beamforming mode

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	20M	16.498M	16M5D1D	19.348M	16.353M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.435M	17.583M	17M6D1D	19.638M	17.511M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.435M	36.179M	36M2D1D	39.565M	36.035M
802.11ac VHT80_Nss1,(MCS0)_4TX	80.87M	74.964M	75M0D1D	79.42M	74.674M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.928M	16.498M	16M5D1D	14.826M	13.242M
802.11ac VHT20_Nss1,(MCS0)_4TX	20.507M	17.583M	17M6D1D	14.957M	13.806M
802.11ac VHT40_Nss1,(MCS0)_4TX	40.435M	36.179M	36M2D1D	35M	32.721M
802.11ac VHT80_Nss1,(MCS0)_4TX	84.348M	75.253M	75M3D1D	74.565M	72.069M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	3.188M	3.821M	3M82D1D	3.072M	3.647M
802.11ac VHT20_Nss1,(MCS0)_4TX	3.71M	4.052M	4M05D1D	3.71M	3.994M
802.11ac VHT40_Nss1,(MCS0)_4TX	3.13M	20.376M	20M4D1D	3.072M	3.994M
802.11ac VHT80_Nss1,(MCS0)_4TX	3.13M	35.832M	35M8D1D	3.072M	30.796M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Min-OBW = Minimum 99% occupied bandwidth;

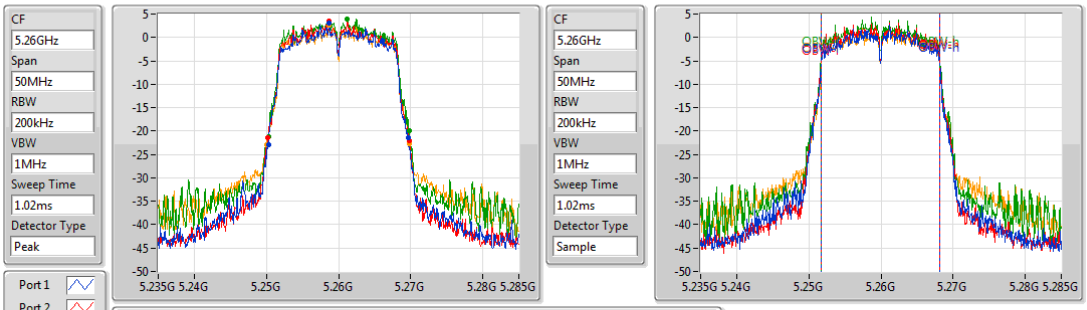
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	19.348M	16.498M	19.565M	16.498M	19.565M	16.498M	19.783M	16.498M
5300MHz	Pass	Inf	19.855M	16.353M	19.565M	16.498M	19.928M	16.425M	19.638M	16.425M
5320MHz	Pass	Inf	19.565M	16.498M	19.638M	16.498M	20M	16.498M	19.565M	16.425M
5500MHz	Pass	Inf	19.783M	16.425M	19.783M	16.498M	19.783M	16.425M	19.855M	16.425M
5580MHz	Pass	Inf	19.493M	16.425M	19.71M	16.498M	19.783M	16.498M	19.71M	16.498M
5700MHz	Pass	Inf	19.783M	16.425M	19.638M	16.498M	19.928M	16.498M	19.71M	16.498M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	14.913M	13.329M	14.826M	13.285M	15M	13.242M	15.043M	13.285M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.072M	3.647M	3.188M	3.705M	3.072M	3.705M	3.13M	3.821M
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	20.435M	17.511M	19.855M	17.511M	19.855M	17.511M	20M	17.511M
5300MHz	Pass	Inf	20.362M	17.511M	19.855M	17.511M	19.71M	17.511M	19.855M	17.511M
5320MHz	Pass	Inf	20M	17.511M	19.638M	17.511M	19.855M	17.511M	20M	17.583M
5500MHz	Pass	Inf	19.928M	17.511M	19.783M	17.511M	19.855M	17.511M	20.145M	17.583M
5580MHz	Pass	Inf	20.507M	17.583M	19.783M	17.511M	19.855M	17.511M	20.29M	17.583M
5700MHz	Pass	Inf	20.362M	17.583M	20M	17.511M	19.783M	17.511M	20.072M	17.583M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.043M	13.849M	14.957M	13.806M	14.957M	13.806M	15.13M	13.849M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.71M	4.052M	3.71M	3.994M	3.71M	3.994M	3.71M	4.052M
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	40.435M	36.035M	40.145M	36.035M	39.855M	36.035M	40.145M	36.035M
5310MHz	Pass	Inf	40.435M	36.035M	39.565M	36.035M	40M	36.035M	40.145M	36.179M
5510MHz	Pass	Inf	40.145M	36.035M	39.71M	36.035M	40M	36.035M	40.145M	36.179M
5590MHz	Pass	Inf	40.435M	36.035M	39.565M	36.035M	40.145M	36.179M	40.145M	36.179M
5670MHz	Pass	Inf	40.29M	36.035M	39.565M	36.035M	39.855M	36.035M	40M	36.035M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.406M	32.822M	35M	32.923M	35.203M	32.721M	35.101M	33.025M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.072M	3.994M	3.13M	4.168M	3.072M	7.525M	3.072M	20.376M
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	80.87M	74.964M	79.42M	74.964M	79.42M	74.674M	80M	74.964M
5530MHz	Pass	Inf	80.87M	75.253M	79.42M	74.964M	80M	74.964M	80M	74.964M
5610MHz	Pass	Inf	80.87M	74.964M	79.71M	74.964M	80.29M	74.964M	80M	74.964M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.435M	72.069M	74.565M	72.069M	79.348M	72.069M	84.348M	72.069M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.13M	30.796M	3.072M	32.88M	3.072M	34.674M	3.072M	35.832M

Port X-N dB = Port **X** 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port **X** 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_4TX **EBW**

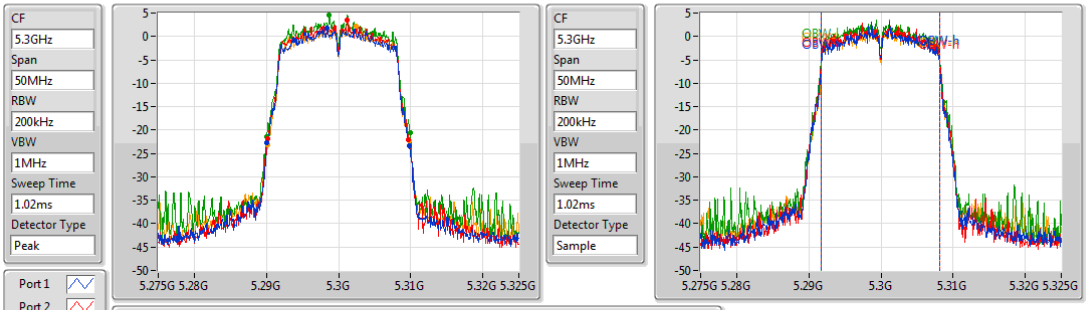
5260MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.348M	5.25029G	5.269638G	16.498M	5.251679G	5.268177G	Inf	1
19.565M	5.250217G	5.269783G	16.498M	5.251679G	5.268177G	Inf	2
19.565M	5.25029G	5.269855G	16.498M	5.251679G	5.268177G	Inf	3
19.783M	5.250072G	5.269855G	16.498M	5.251679G	5.268177G	Inf	4

802.11a_Nss1,(6Mbps)_4TX **EBW**

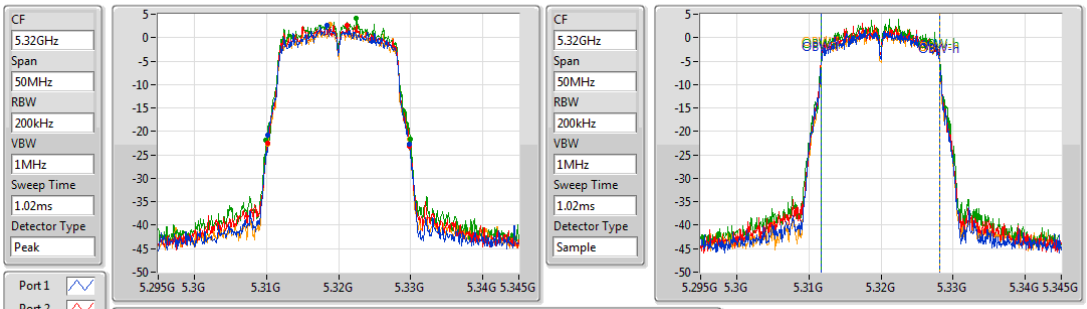
5300MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.855M	5.29G	5.309855G	16.353M	5.291751G	5.308104G	Inf	1
19.565M	5.290145G	5.30971G	16.498M	5.291679G	5.308177G	Inf	2
19.928M	5.29G	5.309928G	16.425M	5.291751G	5.308177G	Inf	3
19.638M	5.290145G	5.309783G	16.425M	5.291751G	5.308177G	Inf	4

802.11a_Nss1,(6Mbps)_4TX **EBW**

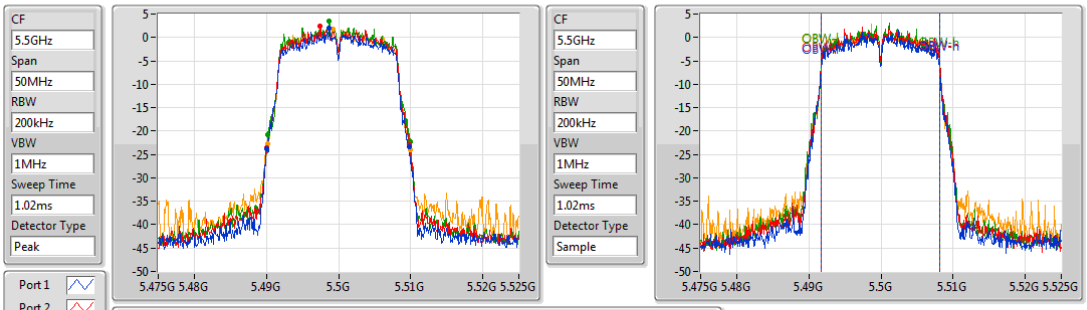
5320MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.565M	5.310217G	5.329783G	16.498M	5.311679G	5.328177G	Inf	1
19.638M	5.310145G	5.329783G	16.498M	5.311679G	5.328177G	Inf	2
20M	5.309928G	5.329928G	16.498M	5.311679G	5.328177G	Inf	3
19.565M	5.310217G	5.329783G	16.425M	5.311751G	5.328177G	Inf	4

802.11a_Nss1,(6Mbps)_4TX **EBW**

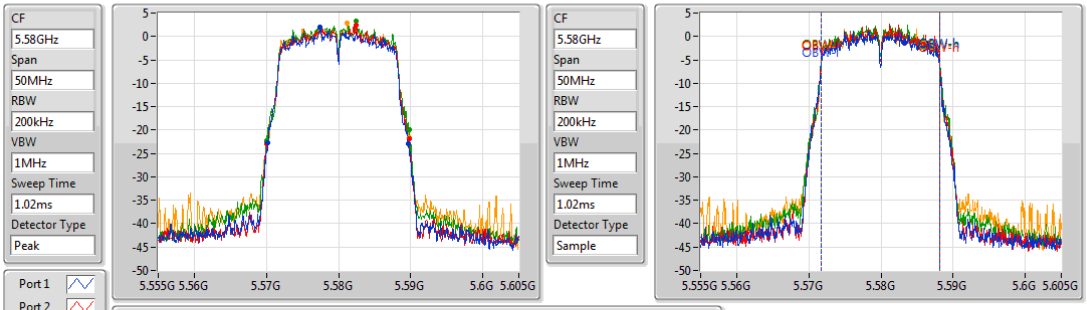
5500MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.783M	5.49G	5.509783G	16.425M	5.491679G	5.508104G	Inf	1
19.783M	5.490072G	5.509855G	16.498M	5.491679G	5.508177G	Inf	2
19.783M	5.490217G	5.51G	16.425M	5.491751G	5.508177G	Inf	3
19.855M	5.490145G	5.51G	16.425M	5.491751G	5.508177G	Inf	4

802.11a_Nss1,(6Mbps)_4TX **EBW**

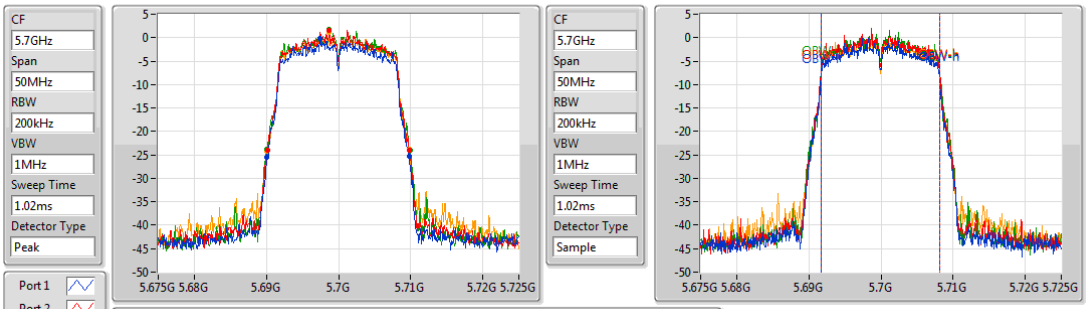
5580MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.493M	5.570217G	5.58971G	16.425M	5.571679G	5.588104G	Inf	1
19.71M	5.570072G	5.589783G	16.498M	5.571679G	5.588177G	Inf	2
19.783M	5.57G	5.589783G	16.498M	5.571679G	5.588177G	Inf	3
19.71M	5.570072G	5.589783G	16.498M	5.571679G	5.588177G	Inf	4

802.11a_Nss1,(6Mbps)_4TX **EBW**

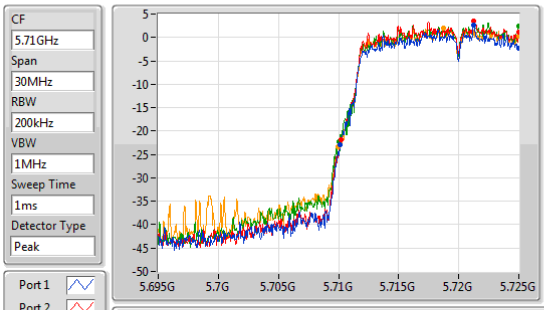
5700MHz

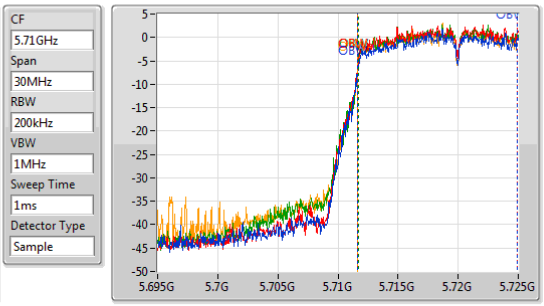


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.783M	5.69G	5.709783G	16.425M	5.691679G	5.708104G	Inf	1
19.638M	5.690145G	5.709783G	16.498M	5.691679G	5.708177G	Inf	2
19.928M	5.69G	5.709928G	16.498M	5.691679G	5.708177G	Inf	3
19.71M	5.690072G	5.709783G	16.498M	5.691679G	5.708177G	Inf	4

802.11a_Nss1,(6Mbps)_4TX **EBW**

5720MHz Straddle 5.47-5.725GHz

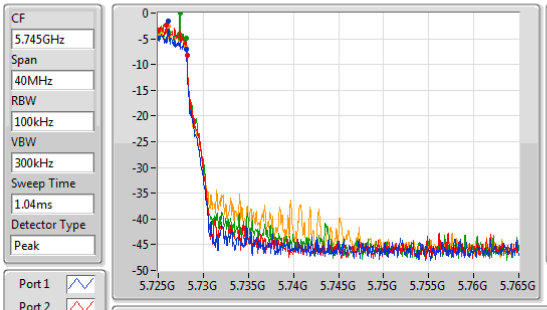


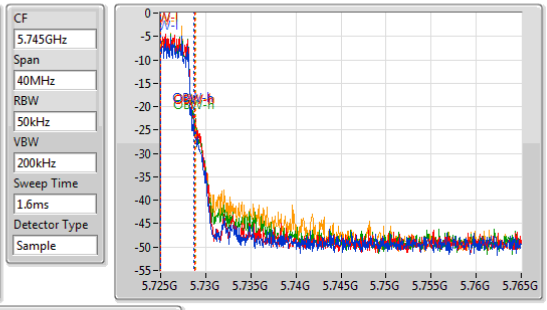


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
14.913M	5.710087G	5.725G	13.329M	5.711606G	5.724935G	Inf	1
14.826M	5.710174G	5.725G	13.285M	5.71165G	5.724935G	Inf	2
15M	5.71G	5.725G	13.242M	5.711693G	5.724935G	Inf	3
15.043M	5.709957G	5.725G	13.285M	5.71165G	5.724935G	Inf	4

802.11a_Nss1,(6Mbps)_4TX **EBW**

5720MHz Straddle 5.725-5.85GHz

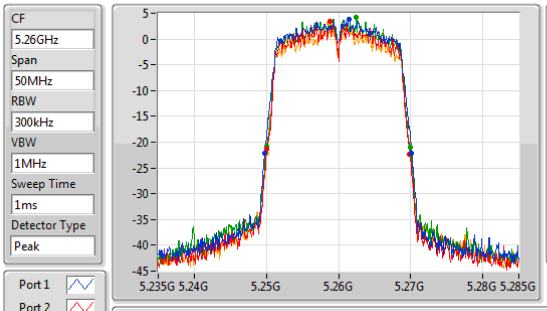


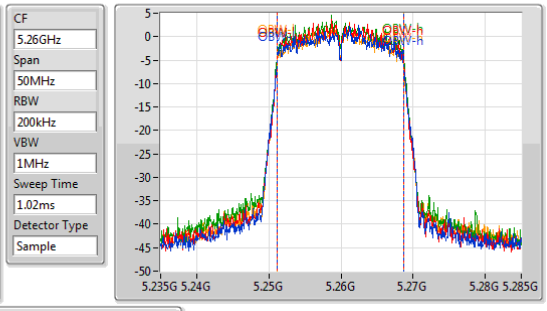


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.072M	5.725G	5.728072G	3.647M	5.725029G	5.728676G	500k	1
3.188M	5.725G	5.728188G	3.705M	5.725029G	5.728734G	500k	2
3.072M	5.725G	5.728072G	3.705M	5.725029G	5.728734G	500k	3
3.13M	5.725G	5.72813G	3.821M	5.725029G	5.728849G	500k	4

802.11ac VHT20_Nss1,(MCS0)_4TX **EBW**

5260MHz

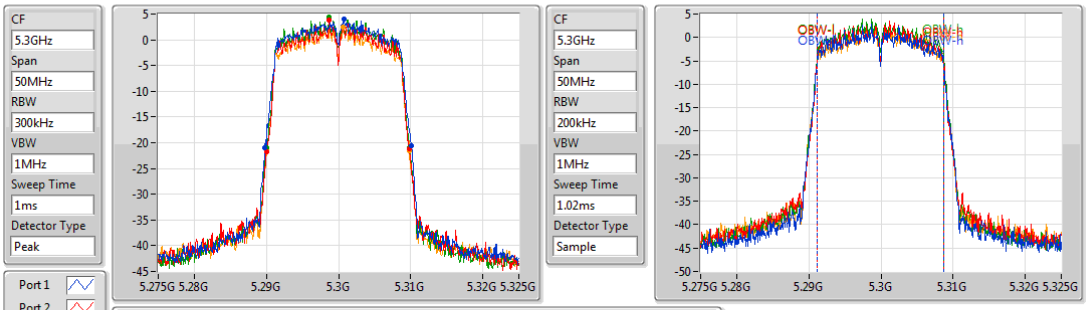




26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.435M	5.24971G	5.270145G	17.511M	5.251172G	5.268683G	Inf	1
19.855M	5.25G	5.269855G	17.511M	5.251172G	5.268683G	Inf	2
19.855M	5.250072G	5.269928G	17.511M	5.251172G	5.268683G	Inf	3
20M	5.25G	5.27G	17.511M	5.251172G	5.268683G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX EBW

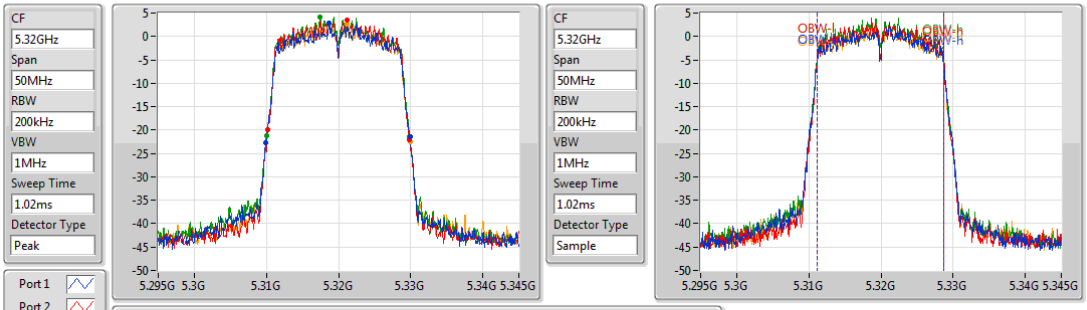
5300MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.362M	5.289783G	5.310145G	17.511M	5.291172G	5.308683G	Inf	1
19.855M	5.29G	5.309855G	17.511M	5.291172G	5.308683G	Inf	2
19.71M	5.290072G	5.309783G	17.511M	5.291172G	5.308683G	Inf	3
19.855M	5.29G	5.309855G	17.511M	5.291172G	5.308683G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX EBW

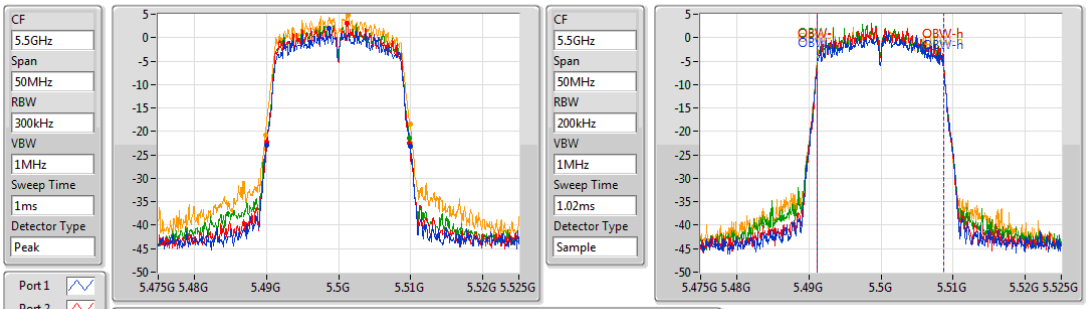
5320MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20M	5.309928G	5.329928G	17.511M	5.311172G	5.328683G	Inf	1
19.638M	5.310145G	5.329783G	17.511M	5.311172G	5.328683G	Inf	2
19.855M	5.31G	5.329855G	17.511M	5.311172G	5.328683G	Inf	3
20M	5.309928G	5.329928G	17.583M	5.3111G	5.328683G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX EBW

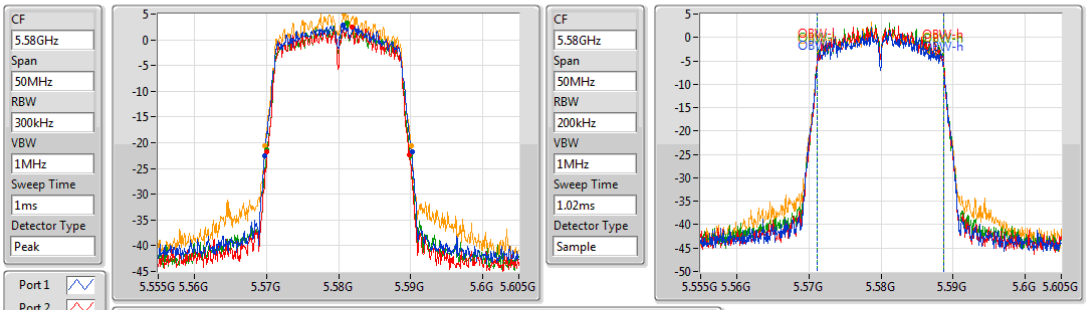
5500MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.928M	5.49G	5.509928G	17.511M	5.491172G	5.508683G	Inf	1
19.783M	5.490072G	5.508855G	17.511M	5.491172G	5.508683G	Inf	2
19.855M	5.49G	5.509855G	17.511M	5.491172G	5.508683G	Inf	3
20.145M	5.489855G	5.51G	17.583M	5.4911G	5.508683G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX **EBW**

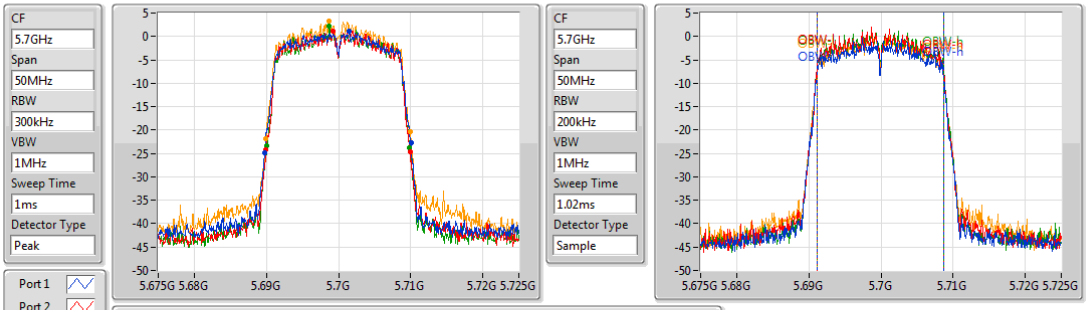
5580MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.507M	5.56971G	5.590217G	17.583M	5.5711G	5.588683G	Inf	1
19.783M	5.570072G	5.589855G	17.511M	5.571172G	5.588683G	Inf	2
19.855M	5.570072G	5.589928G	17.511M	5.571172G	5.588683G	Inf	3
20.29M	5.569783G	5.590072G	17.583M	5.5711G	5.588683G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX **EBW**

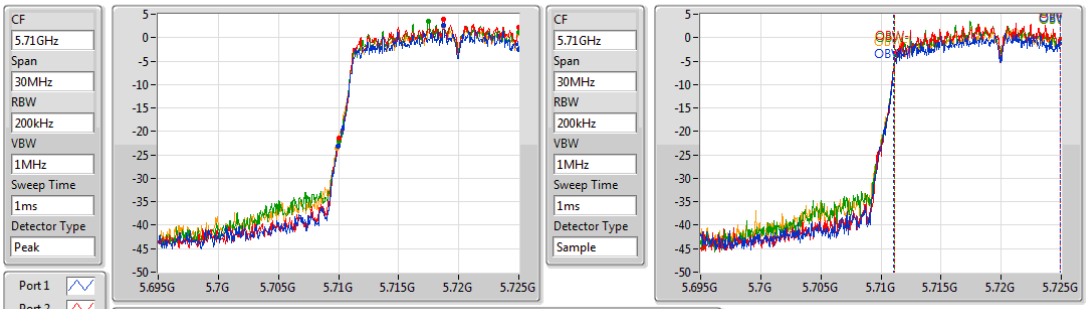
5700MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.362M	5.68971G	5.710072G	17.583M	5.6911G	5.708683G	Inf	1
20M	5.689928G	5.709928G	17.511M	5.691172G	5.708683G	Inf	2
19.783M	5.690072G	5.709855G	17.511M	5.691172G	5.708683G	Inf	3
20.072M	5.689928G	5.71G	17.583M	5.6911G	5.708683G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX **EBW**

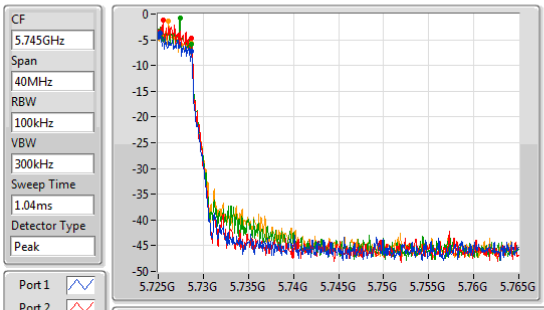
5720MHz Straddle 5.47-5.725GHz

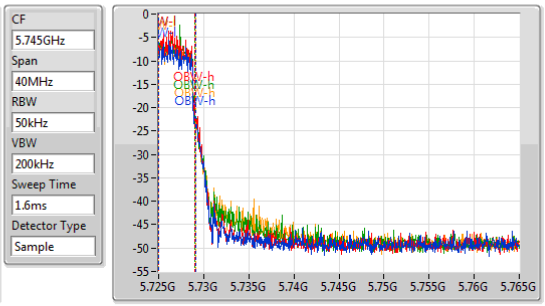


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.043M	5.709957G	5.725G	13.849M	5.711085G	5.724935G	Inf	1
14.957M	5.710043G	5.725G	13.806M	5.711129G	5.724935G	Inf	2
14.957M	5.710043G	5.725G	13.806M	5.711129G	5.724935G	Inf	3
15.13M	5.70987G	5.725G	13.849M	5.711085G	5.724935G	Inf	4

802.11ac VHT20_Nss1,(MCS0)_4TX — EBW

5720MHz Straddle 5.725-5.85GHz

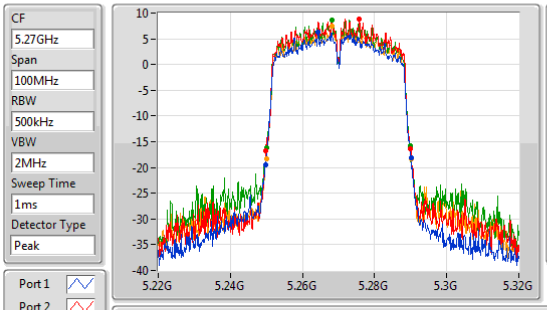


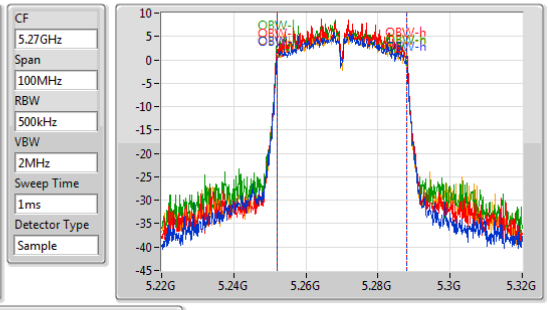


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.71M	5.725G	5.72871G	4.052M	5.725029G	5.729081G	500k	1
3.71M	5.725G	5.72871G	3.994M	5.725029G	5.729023G	500k	2
3.71M	5.725G	5.72871G	3.994M	5.725029G	5.729023G	500k	3
3.71M	5.725G	5.72871G	4.052M	5.725029G	5.729081G	500k	4

802.11ac VHT40_Nss1,(MCS0)_4TX — EBW

5270MHz

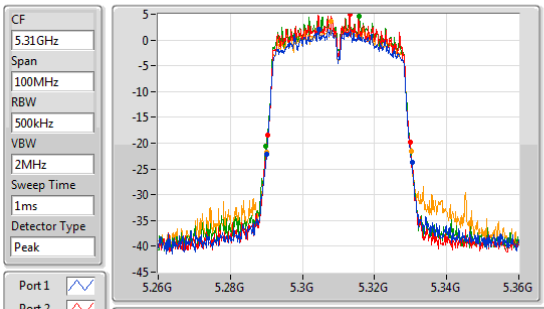


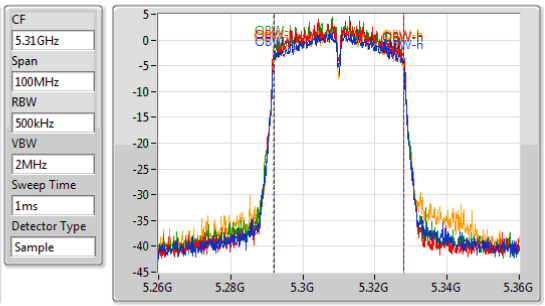


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.435M	5.24971G	5.290145G	36.035M	5.25191G	5.287945G	Inf	1
40.145M	5.249855G	5.29G	36.035M	5.25191G	5.287945G	Inf	2
39.855M	5.25G	5.289855G	36.035M	5.25191G	5.287945G	Inf	3
40.145M	5.25G	5.290145G	36.035M	5.25191G	5.287945G	Inf	4

802.11ac VHT40_Nss1,(MCS0)_4TX — EBW

5310MHz

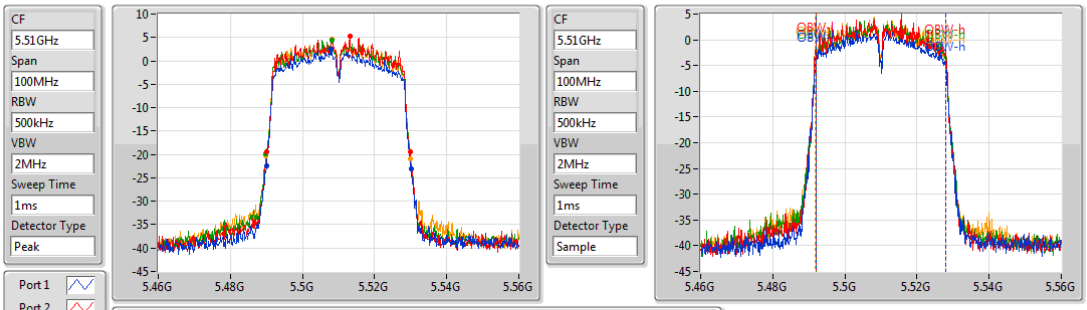




26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.435M	5.29G	5.330435G	36.035M	5.29191G	5.327945G	Inf	1
39.565M	5.29029G	5.329855G	36.035M	5.29191G	5.327945G	Inf	2
40M	5.289855G	5.329855G	36.035M	5.29191G	5.327945G	Inf	3
40.145M	5.29G	5.330145G	36.179M	5.291766G	5.327945G	Inf	4

802.11ac VHT40_Nss1,(MCS0)_4TX **EBW**

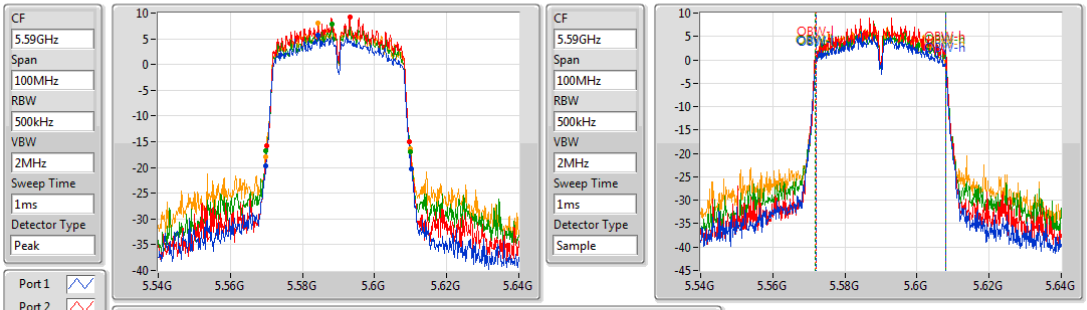
5510MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.145M	5.49G	5.530145G	36.035M	5.49191G	5.527945G	Inf	1
39.71M	5.490145G	5.529855G	36.035M	5.49191G	5.527945G	Inf	2
40M	5.489855G	5.529855G	36.035M	5.49191G	5.527945G	Inf	3
40.145M	5.489855G	5.53G	36.179M	5.491766G	5.527945G	Inf	4

802.11ac VHT40_Nss1,(MCS0)_4TX **EBW**

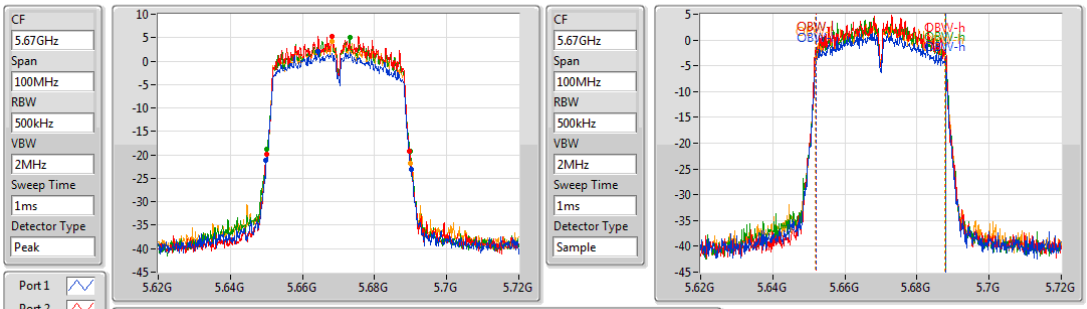
5590MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.435M	5.569855G	5.61029G	36.035M	5.57191G	5.607945G	Inf	1
39.565M	5.570145G	5.60971G	36.035M	5.57191G	5.607945G	Inf	2
40.145M	5.569855G	5.61G	36.179M	5.571766G	5.607945G	Inf	3
40.145M	5.569855G	5.61G	36.179M	5.571766G	5.607945G	Inf	4

802.11ac VHT40_Nss1,(MCS0)_4TX **EBW**

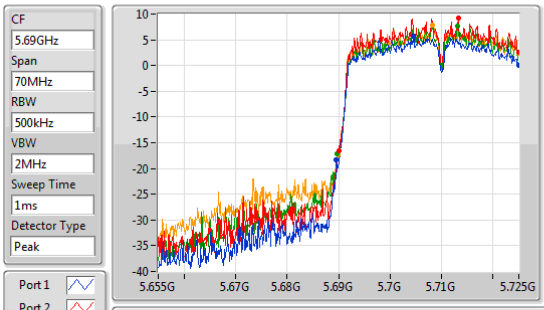
5670MHz

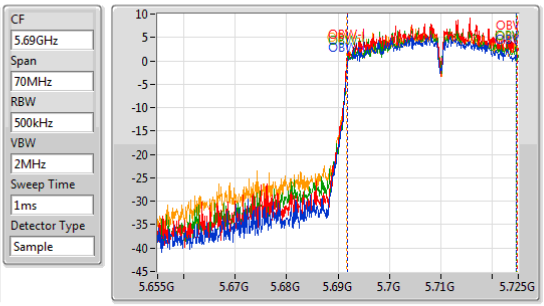


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.29M	5.649855G	5.690145G	36.035M	5.65191G	5.687945G	Inf	1
39.565M	5.650145G	5.68971G	36.035M	5.65191G	5.687945G	Inf	2
39.855M	5.650145G	5.69G	36.035M	5.65191G	5.687945G	Inf	3
40M	5.65G	5.69G	36.035M	5.651766G	5.6878G	Inf	4

802.11ac VHT40_Nss1,(MCS0)_4TX — EBW

5710MHz Straddle 5.47-5.725GHz

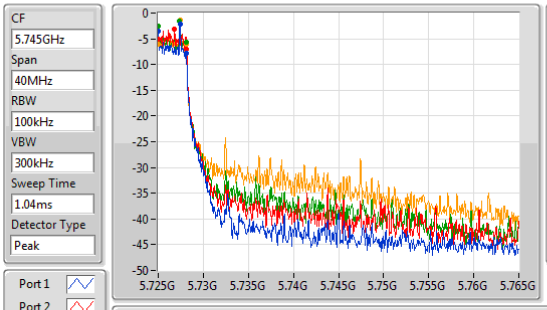


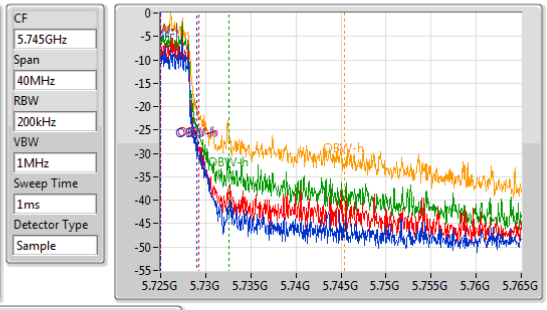


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.406M	5.689594G	5.725G	32.822M	5.691823G	5.724645G	Inf	1
35M	5.69G	5.725G	32.923M	5.691823G	5.724747G	Inf	2
35.203M	5.689797G	5.725G	32.721M	5.691925G	5.724645G	Inf	3
35.101M	5.689899G	5.725G	33.025M	5.691722G	5.724747G	Inf	4

802.11ac VHT40_Nss1,(MCS0)_4TX — EBW

5710MHz Straddle 5.725-5.85GHz

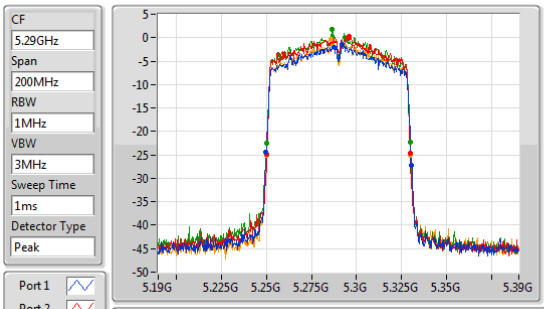


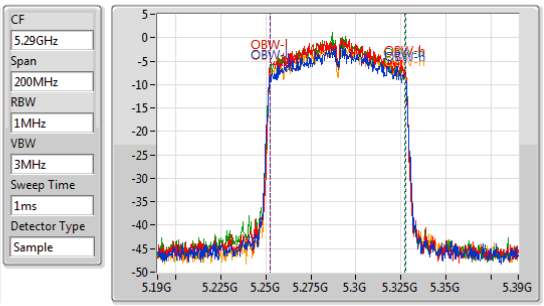


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.072M	5.725G	5.728072G	3.994M	5.725029G	5.729023G	500k	1
3.13M	5.725G	5.72813G	4.168M	5.725029G	5.729197G	500k	2
3.072M	5.725G	5.728072G	7.525M	5.725029G	5.732554G	500k	3
3.072M	5.725G	5.728072G	20.376M	5.725029G	5.745405G	500k	4

802.11ac VHT80_Nss1,(MCS0)_4TX — EBW

5290MHz

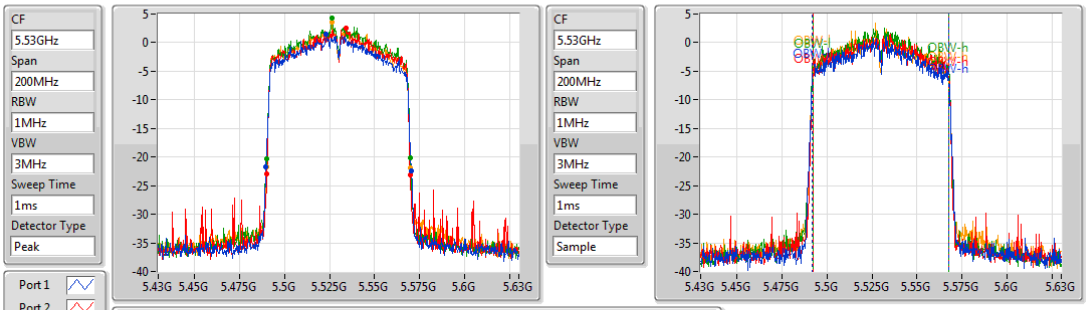




26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
80.87M	5.24971G	5.33058G	74.964M	5.252373G	5.327337G	Inf	1
79.42M	5.25029G	5.32971G	74.964M	5.252373G	5.327337G	Inf	2
79.42M	5.25029G	5.32971G	74.674M	5.252373G	5.327048G	Inf	3
80M	5.25G	5.33G	74.964M	5.252373G	5.327337G	Inf	4

802.11ac VHT80_Nss1,(MCS0)_4TX **EBW**

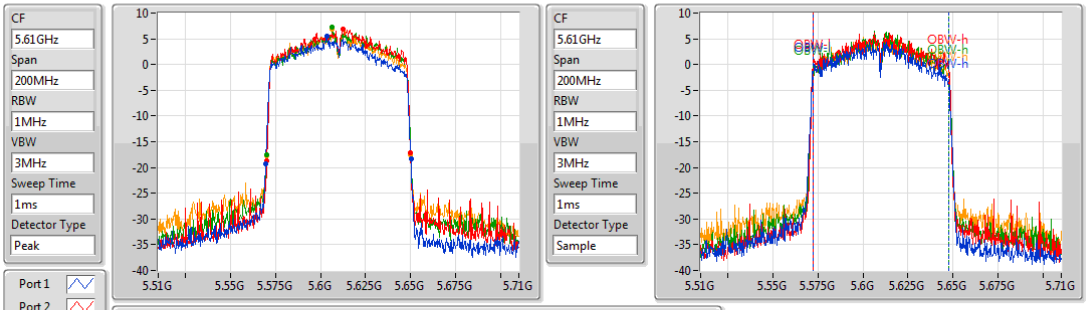
5530MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
80.87M	5.48971G	5.57058G	75.253M	5.492084G	5.567337G	Inf	1
79.42M	5.49029G	5.56971G	74.964M	5.492373G	5.567337G	Inf	2
80M	5.49G	5.57G	74.964M	5.492373G	5.567337G	Inf	3
80M	5.49G	5.57G	74.964M	5.492373G	5.567337G	Inf	4

802.11ac VHT80_Nss1,(MCS0)_4TX **EBW**

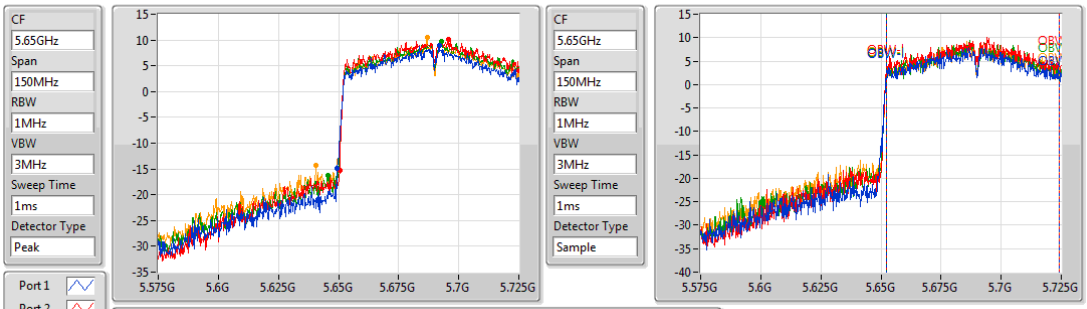
5610MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
80.87M	5.56942G	5.65029G	74.964M	5.572373G	5.647337G	Inf	1
79.71M	5.57029G	5.65G	74.964M	5.572373G	5.647337G	Inf	2
80.29M	5.57G	5.65029G	74.964M	5.572373G	5.647337G	Inf	3
80M	5.57G	5.65G	74.964M	5.572373G	5.647337G	Inf	4

802.11ac VHT80_Nss1,(MCS0)_4TX **EBW**

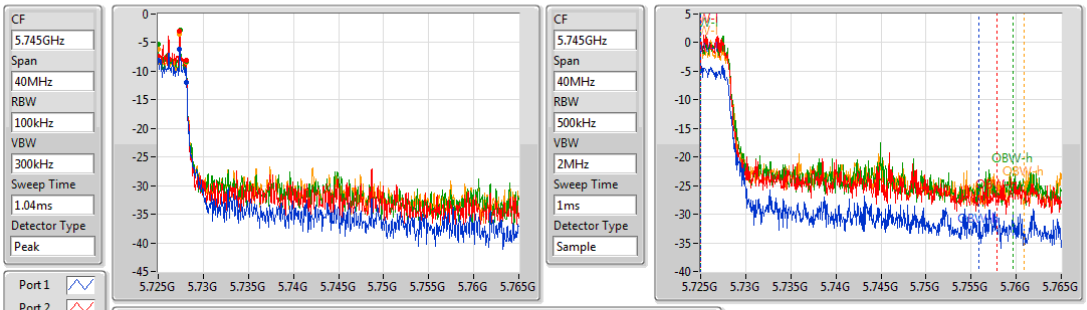
5690MHz Straddle 5.47-5.725GHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
75.435M	5.649565G	5.725G	72.069M	5.652171G	5.72424G	Inf	1
74.565M	5.650435G	5.725G	72.069M	5.652171G	5.72424G	Inf	2
79.348M	5.645652G	5.725G	72.069M	5.652171G	5.72424G	Inf	3
84.348M	5.640652G	5.725G	72.069M	5.652171G	5.72424G	Inf	4

802.11ac VHT80_Nss1,(MCS0)_4TX **EBW**

5690MHz Straddle 5.725-5.85GHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.13M	5.725G	5.72813G	30.796M	5.725029G	5.755825G	500k	1
3.072M	5.725G	5.728072G	32.88M	5.725029G	5.757909G	500k	2
3.072M	5.725G	5.728072G	34.674M	5.725029G	5.759703G	500k	3
3.072M	5.725G	5.728072G	35.832M	5.725029G	5.760861G	500k	4

Beamforming mode

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.25-5.35GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	20.58M	17.728M	17M7D1D	19.928M	17.656M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	41.014M	36.324M	36M3D1D	40.435M	36.324M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	81.449M	75.253M	75M3D1D	79.71M	74.964M
5.47-5.725GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	20.652M	17.8M	17M8D1D	15M	13.893M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	41.014M	36.324M	36M3D1D	34.899M	32.822M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	80.87M	75.253M	75M3D1D	75M	71.852M
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	3.826M	4.168M	4M17D1D	3.71M	3.994M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	3.13M	10.362M	10M4D1D	3.072M	3.878M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	3.13M	27.844M	27M8D1D	3.072M	16.903M

Max-N dB = Maximum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Max-OBW = Maximum 99% occupied bandwidth;
Min-N dB = Minimum 6dB down bandwidth for 5.725-5.85GHz band / Maximum 26dB down bandwidth for other band;
Min-OBW = Minimum 99% occupied bandwidth;

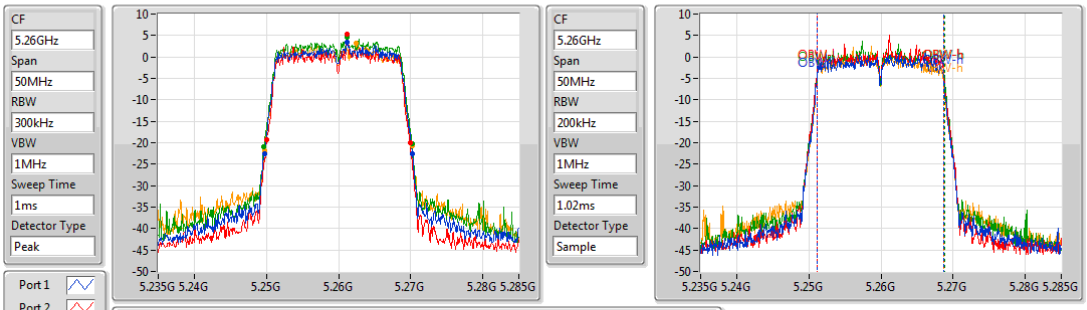
Result

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)	Port 3-N dB (Hz)	Port 3-OBW (Hz)	Port 4-N dB (Hz)	Port 4-OBW (Hz)
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	Inf	20.58M	17.656M	19.928M	17.656M	20.58M	17.728M	20.507M	17.656M
5300MHz	Pass	Inf	19.928M	17.728M	20M	17.728M	20.507M	17.728M	20.507M	17.656M
5320MHz	Pass	Inf	20.217M	17.656M	20.507M	17.656M	20.507M	17.656M	20.362M	17.728M
5500MHz	Pass	Inf	20.652M	17.728M	19.928M	17.728M	20.507M	17.656M	20.435M	17.728M
5580MHz	Pass	Inf	20.652M	17.728M	19.855M	17.656M	19.493M	17.583M	20.652M	17.8M
5700MHz	Pass	Inf	20.435M	17.728M	20.507M	17.728M	20.507M	17.728M	19.928M	17.728M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	15.174M	13.936M	15.217M	13.893M	15M	13.893M	15.13M	13.893M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.768M	3.994M	3.826M	4.052M	3.71M	4.052M	3.768M	4.168M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	Inf	41.014M	36.324M	40.58M	36.324M	41.014M	36.324M	40.435M	36.324M
5310MHz	Pass	Inf	40.87M	36.324M	40.725M	36.324M	41.014M	36.324M	40.725M	36.324M
5510MHz	Pass	Inf	40.725M	36.324M	40.435M	36.324M	40.58M	36.179M	41.014M	36.179M
5590MHz	Pass	Inf	40.58M	36.179M	39.565M	36.035M	40M	36.035M	40.435M	36.179M
5670MHz	Pass	Inf	40.58M	35.89M	39.855M	36.035M	40.29M	36.035M	40M	36.179M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	35.203M	32.822M	34.899M	32.822M	35.203M	32.822M	35M	33.025M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.072M	3.936M	3.072M	3.878M	3.13M	4.284M	3.13M	10.362M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	Inf	81.449M	74.964M	80.29M	74.964M	80M	75.253M	79.71M	74.964M
5530MHz	Pass	Inf	80.87M	75.253M	79.71M	74.964M	80.29M	74.964M	79.71M	74.964M
5610MHz	Pass	Inf	80.87M	75.253M	79.71M	74.964M	79.71M	74.964M	80M	75.253M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	75.435M	71.852M	75M	71.852M	75M	71.852M	75.217M	71.852M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.072M	16.903M	3.072M	21.245M	3.072M	20.434M	3.13M	27.844M

Port X-N dB = Port **X** 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band
Port X-OBW = Port **X** 99% occupied bandwidth;

802.11ac VHT20-BF_Nss1,(MCS0)_4TX **EBW**

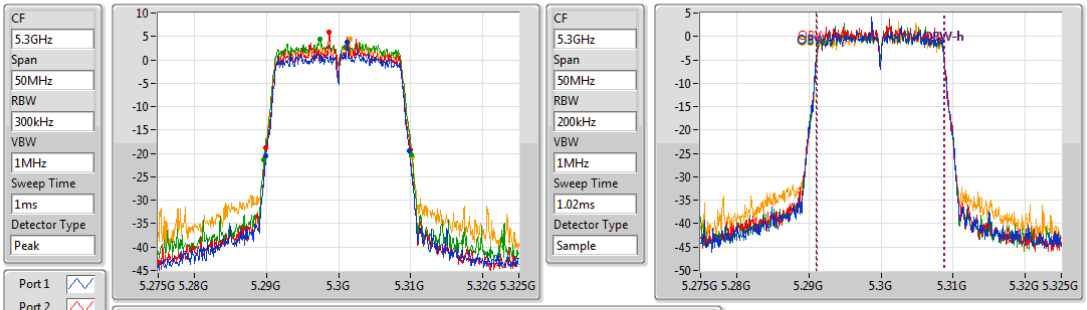
5260MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.58M	5.24971G	5.27029G	17.656M	5.2511G	5.268755G	Inf	1
19.928M	5.25G	5.269928G	17.656M	5.2511G	5.268755G	Inf	2
20.58M	5.249638G	5.270217G	17.728M	5.2511G	5.268828G	Inf	3
20.507M	5.24971G	5.270217G	17.656M	5.2511G	5.268755G	Inf	4

802.11ac VHT20-BF_Nss1,(MCS0)_4TX **EBW**

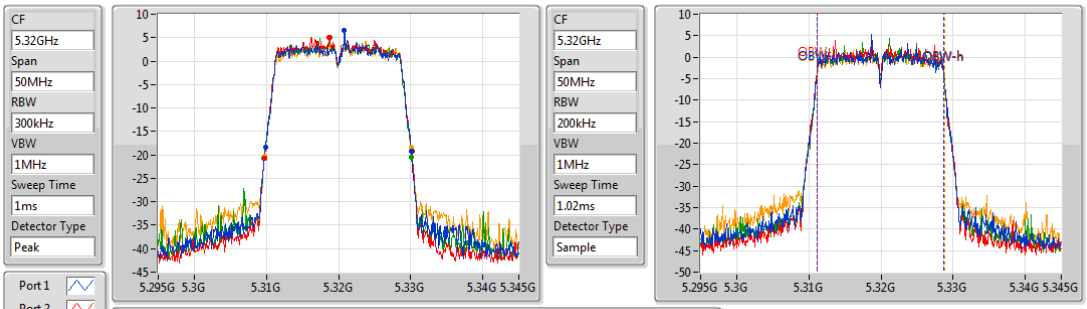
5300MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
19.928M	5.289928G	5.309855G	17.728M	5.291027G	5.308755G	Inf	1
20M	5.289928G	5.309928G	17.728M	5.2911G	5.308828G	Inf	2
20.507M	5.289638G	5.310145G	17.728M	5.291027G	5.308755G	Inf	3
20.507M	5.28971G	5.310217G	17.656M	5.2911G	5.308755G	Inf	4

802.11ac VHT20-BF_Nss1,(MCS0)_4TX **EBW**

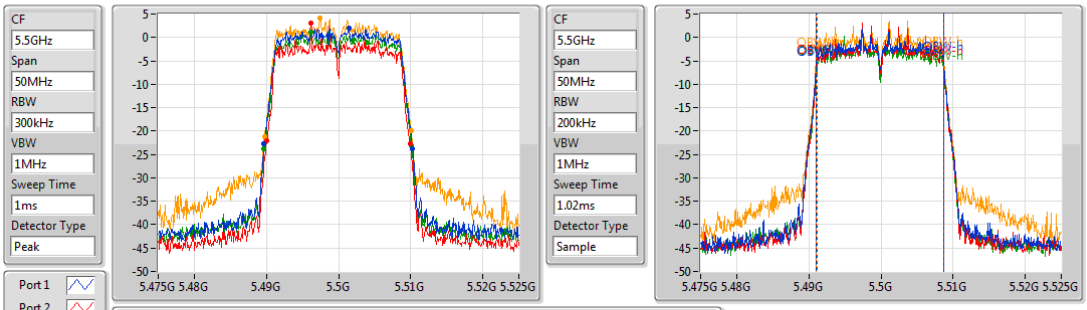
5320MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.217M	5.309855G	5.330072G	17.656M	5.3111G	5.328755G	Inf	1
20.507M	5.30971G	5.330217G	17.656M	5.3111G	5.328755G	Inf	2
20.507M	5.309638G	5.330145G	17.656M	5.3111G	5.328755G	Inf	3
20.362M	5.30971G	5.330072G	17.728M	5.3111G	5.328828G	Inf	4

802.11ac VHT20-BF_Nss1,(MCS0)_4TX **EBW**

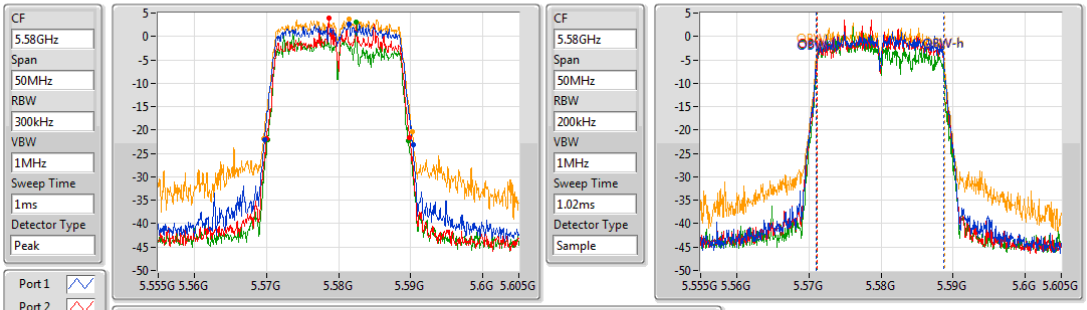
5500MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.652M	5.489638G	5.51029G	17.728M	5.491027G	5.508755G	Inf	1
19.928M	5.49G	5.509928G	17.728M	5.491027G	5.508755G	Inf	2
20.507M	5.489638G	5.510145G	17.656M	5.4911G	5.508755G	Inf	3
20.435M	5.48971G	5.510145G	17.728M	5.491027G	5.508755G	Inf	4

802.11ac VHT20-BF_Nss1,(MCS0)_4TX **EBW**

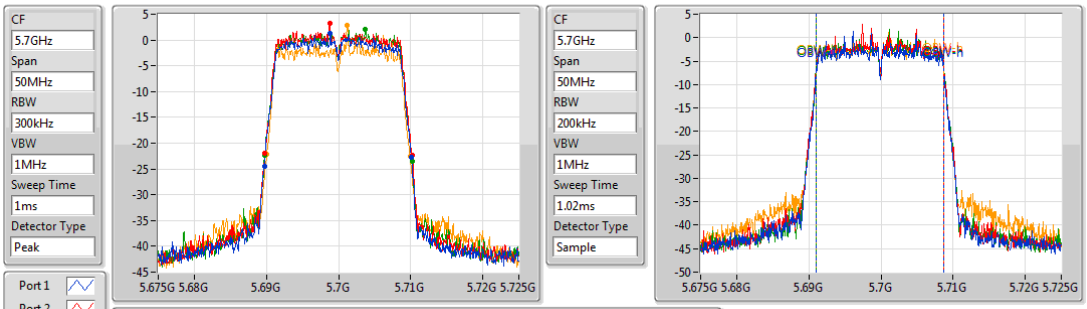
5580MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.652M	5.56971G	5.590362G	17.728M	5.571027G	5.588755G	Inf	1
19.855M	5.57G	5.589855G	17.656M	5.5711G	5.588755G	Inf	2
19.493M	5.570145G	5.589638G	17.583M	5.5711G	5.588683G	Inf	3
20.652M	5.569638G	5.59029G	17.8M	5.571027G	5.588828G	Inf	4

802.11ac VHT20-BF_Nss1,(MCS0)_4TX **EBW**

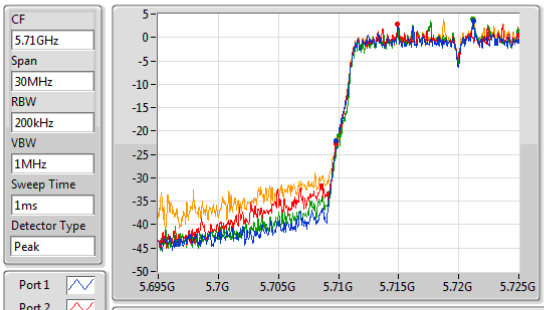
5700MHz

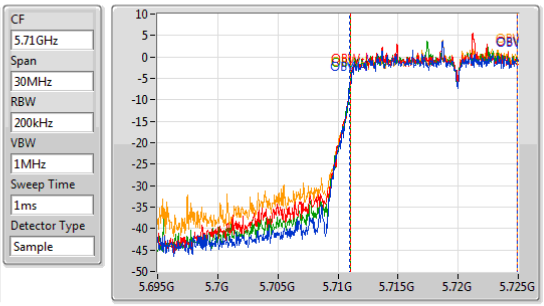


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
20.435M	5.68971G	5.710145G	17.728M	5.691027G	5.708755G	Inf	1
20.507M	5.689783G	5.71029G	17.728M	5.691027G	5.708755G	Inf	2
20.507M	5.68971G	5.710217G	17.728M	5.691027G	5.708755G	Inf	3
19.928M	5.69G	5.709928G	17.728M	5.691027G	5.708755G	Inf	4

802.11ac VHT20-BF_Nss1,(MCS0)_4TX **EBW**

5720MHz Straddle 5.47-5.725GHz

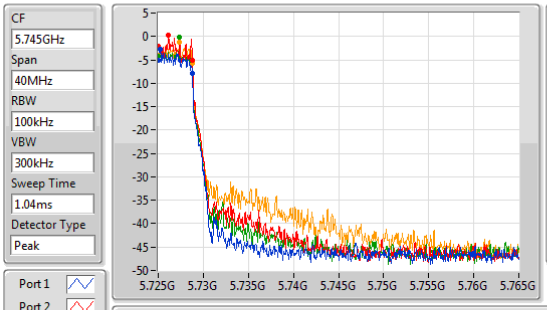


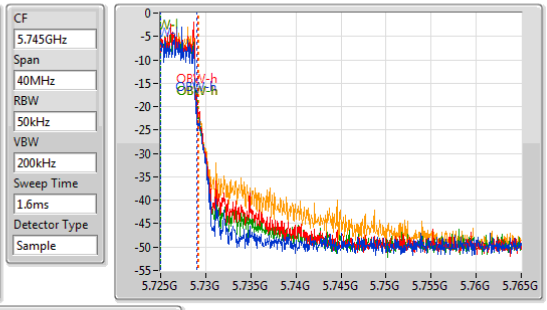


26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
15.174M	5.709826G	5.725G	13.936M	5.710999G	5.724935G	Inf	1
15.217M	5.709783G	5.725G	13.893M	5.711042G	5.724935G	Inf	2
15M	5.71G	5.725G	13.893M	5.711042G	5.724935G	Inf	3
15.13M	5.70987G	5.725G	13.893M	5.711042G	5.724935G	Inf	4

802.11ac VHT20-BF_Nss1,(MCS0)_4TX **EBW**

5720MHz Straddle 5.725-5.85GHz

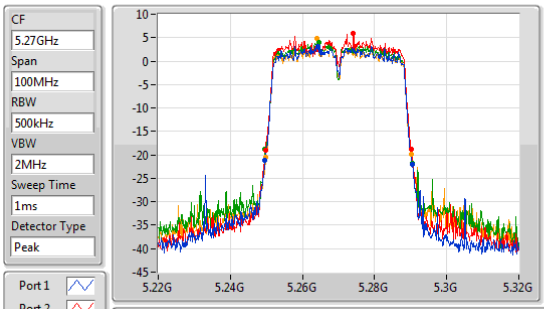


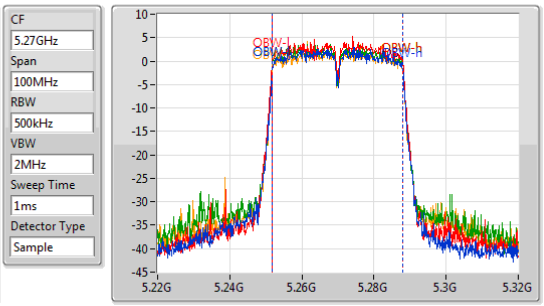


6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.768M	5.725G	5.728768G	3.994M	5.725029G	5.729023G	500k	1
3.826M	5.725G	5.728826G	4.052M	5.725029G	5.729081G	500k	2
3.71M	5.725G	5.72871G	4.052M	5.725029G	5.729081G	500k	3
3.768M	5.725G	5.728768G	4.168M	5.725029G	5.729197G	500k	4

802.11ac VHT40-BF_Nss1,(MCS0)_4TX **EBW**

5270MHz

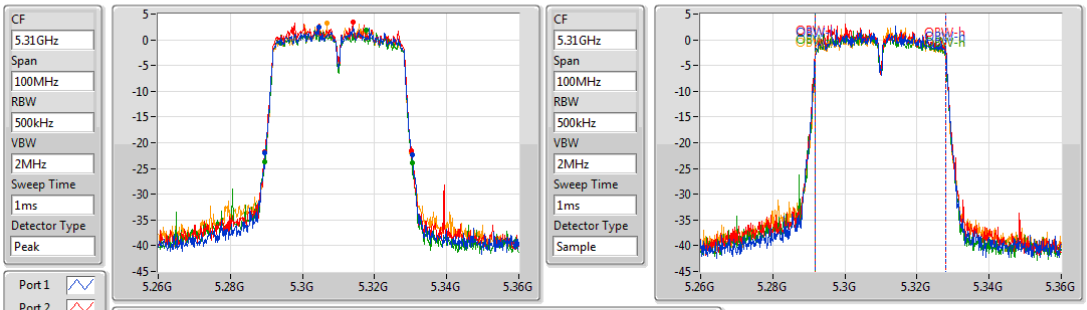




26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
41.014M	5.249565G	5.29058G	36.324M	5.251766G	5.28809G	Inf	1
40.58M	5.24971G	5.29029G	36.324M	5.251766G	5.28809G	Inf	2
41.014M	5.249565G	5.29058G	36.324M	5.251766G	5.28809G	Inf	3
40.435M	5.249855G	5.29029G	36.324M	5.251766G	5.28809G	Inf	4

802.11ac VHT40-BF_Nss1,(MCS0)_4TX **EBW**

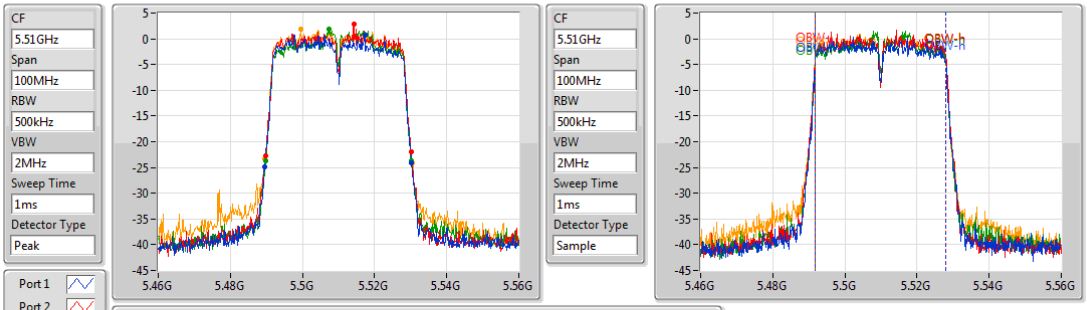
5310MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.87M	5.289565G	5.330435G	36.324M	5.291766G	5.32809G	Inf	1
40.725M	5.28942G	5.330145G	36.324M	5.291766G	5.32809G	Inf	2
41.014M	5.28942G	5.330435G	36.324M	5.291766G	5.32809G	Inf	3
40.725M	5.289565G	5.33029G	36.324M	5.291766G	5.32809G	Inf	4

802.11ac VHT40-BF_Nss1,(MCS0)_4TX **EBW**

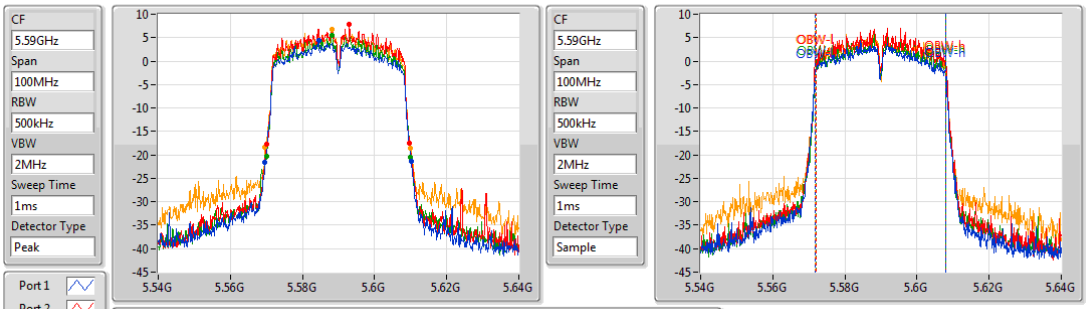
5510MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.725M	5.489565G	5.53029G	36.324M	5.491766G	5.52809G	Inf	1
40.435M	5.48971G	5.530145G	36.324M	5.491766G	5.52809G	Inf	2
40.58M	5.48971G	5.53029G	36.179M	5.491766G	5.527945G	Inf	3
41.014M	5.489565G	5.53058G	36.179M	5.491766G	5.527945G	Inf	4

802.11ac VHT40-BF_Nss1,(MCS0)_4TX **EBW**

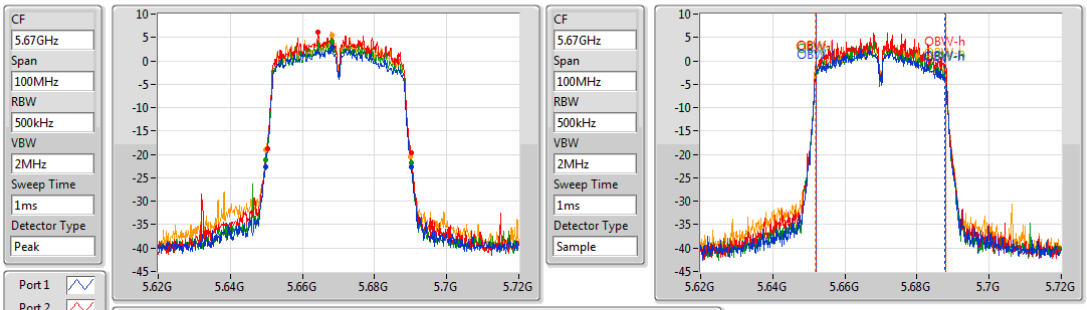
5590MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.58M	5.569565G	5.610145G	36.179M	5.571766G	5.607945G	Inf	1
39.565M	5.570145G	5.60971G	36.035M	5.57191G	5.607945G	Inf	2
40M	5.57G	5.61G	36.035M	5.57191G	5.607945G	Inf	3
40.435M	5.569565G	5.61G	36.179M	5.571766G	5.607945G	Inf	4

802.11ac VHT40-BF_Nss1,(MCS0)_4TX **EBW**

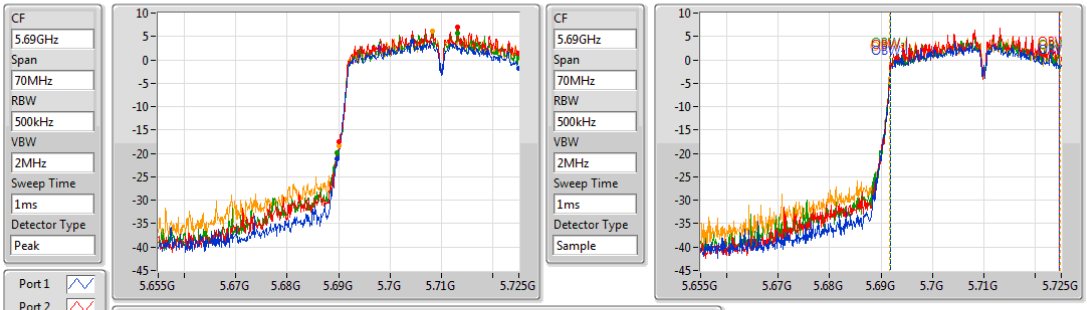
5670MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
40.58M	5.64971G	5.69029G	35.89M	5.65191G	5.6878G	Inf	1
39.855M	5.65029G	5.690145G	36.035M	5.65191G	5.687945G	Inf	2
40.29M	5.649855G	5.690145G	36.035M	5.65191G	5.687945G	Inf	3
40M	5.649855G	5.689855G	36.179M	5.651766G	5.687945G	Inf	4

802.11ac VHT40-BF_Nss1,(MCS0)_4TX **EBW**

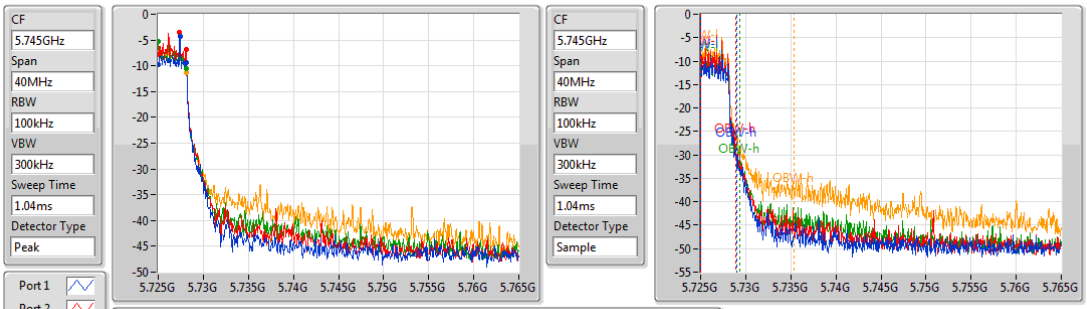
5710MHz Straddle 5.47-5.725GHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
35.203M	5.689797G	5.725G	32.822M	5.691823G	5.724645G	Inf	1
34.899M	5.690101G	5.725G	32.822M	5.691823G	5.724645G	Inf	2
35.203M	5.689797G	5.725G	32.822M	5.691823G	5.724645G	Inf	3
35M	5.69G	5.725G	33.025M	5.691722G	5.724747G	Inf	4

802.11ac VHT40-BF_Nss1,(MCS0)_4TX **EBW**

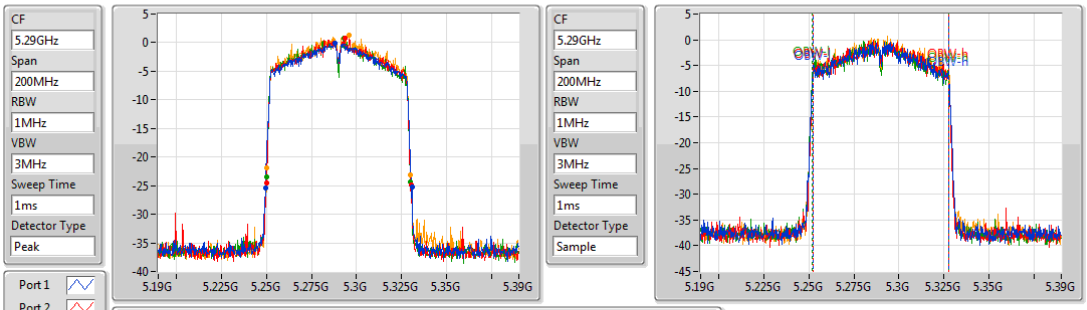
5710MHz Straddle 5.725-5.85GHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.072M	5.725G	5.728072G	3.936M	5.725029G	5.728965G	500k	1
3.072M	5.725G	5.728072G	3.878M	5.725029G	5.728907G	500k	2
3.13M	5.725G	5.72813G	4.284M	5.725029G	5.729313G	500k	3
3.13M	5.725G	5.72813G	10.362M	5.725029G	5.735391G	500k	4

802.11ac VHT80-BF_Nss1,(MCS0)_4TX **EBW**

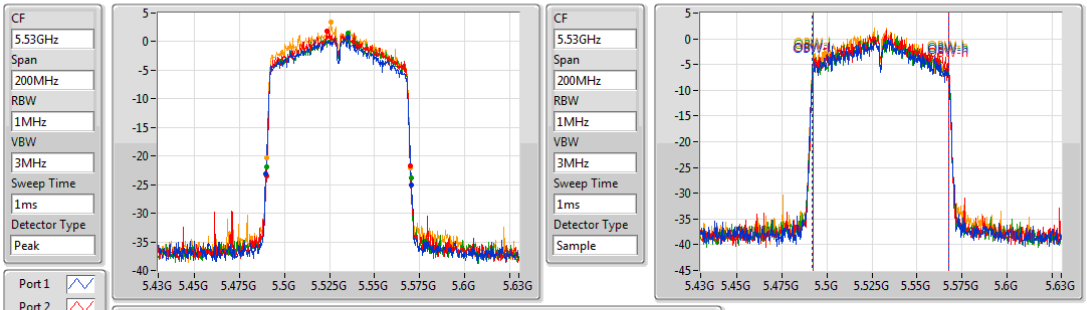
5290MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
81.449M	5.24942G	5.33087G	74.964M	5.252373G	5.327337G	Inf	1
80.29M	5.25G	5.33029G	74.964M	5.252373G	5.327337G	Inf	2
80M	5.25G	5.33G	75.253M	5.252084G	5.327337G	Inf	3
79.71M	5.25029G	5.33G	74.964M	5.252373G	5.327337G	Inf	4

802.11ac VHT80-BF_Nss1,(MCS0)_4TX **EBW**

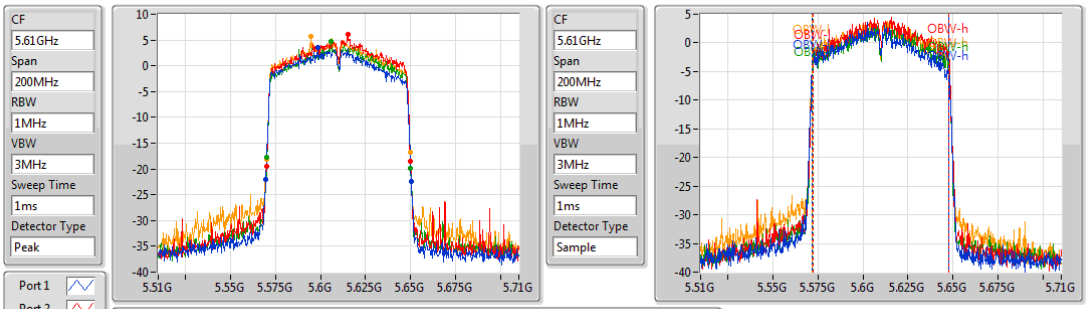
5530MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
80.87M	5.48971G	5.57058G	75.253M	5.492084G	5.567337G	Inf	1
79.71M	5.49G	5.56971G	74.964M	5.492373G	5.567337G	Inf	2
80.29M	5.49G	5.57029G	74.964M	5.492373G	5.567337G	Inf	3
79.71M	5.49029G	5.57G	74.964M	5.492373G	5.567337G	Inf	4

802.11ac VHT80-BF_Nss1,(MCS0)_4TX **EBW**

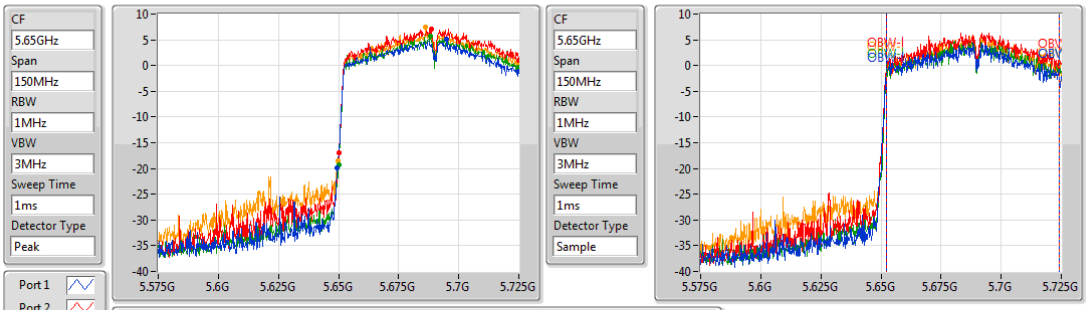
5610MHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
80.87M	5.56942G	5.65029G	75.253M	5.572084G	5.647337G	Inf	1
79.71M	5.57G	5.64971G	74.964M	5.572373G	5.647337G	Inf	2
79.71M	5.57029G	5.65G	74.964M	5.572373G	5.647337G	Inf	3
80M	5.57G	5.65G	75.253M	5.572084G	5.647337G	Inf	4

802.11ac VHT80-BF_Nss1,(MCS0)_4TX **EBW**

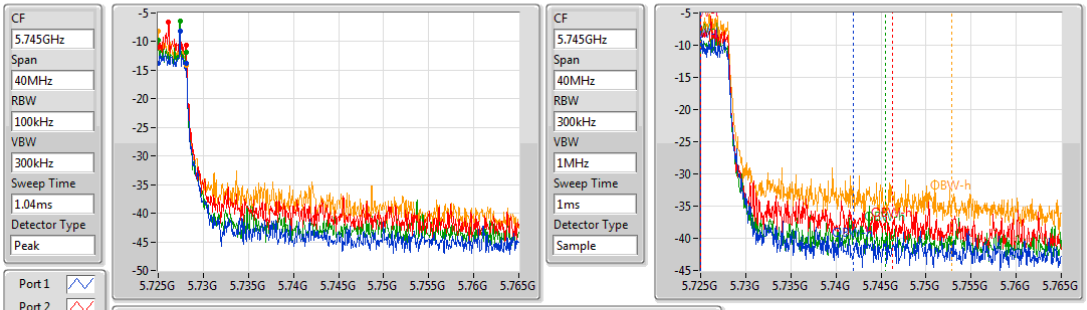
5690MHz Straddle 5.47-5.725GHz



26dB(Hz)	Fl-26dB(Hz)	Fh-26dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
75.435M	5.649565G	5.725G	71.852M	5.652171G	5.724023G	Inf	1
75M	5.65G	5.725G	71.852M	5.652388G	5.72424G	Inf	2
75M	5.65G	5.725G	71.852M	5.652388G	5.72424G	Inf	3
75.217M	5.649783G	5.725G	71.852M	5.652388G	5.72424G	Inf	4

802.11ac VHT80-BF_Nss1,(MCS0)_4TX **EBW**

5690MHz Straddle 5.725-5.85GHz



6dB(Hz)	Fl-6dB(Hz)	Fh-6dB(Hz)	OBW(Hz)	Fl-OBW(Hz)	Fh-OBW(Hz)	Limit(Hz)	Port
3.072M	5.725G	5.728072G	16.903M	5.725029G	5.741932G	500k	1
3.072M	5.725G	5.728072G	21.245M	5.725029G	5.746274G	500k	2
3.072M	5.725G	5.728072G	20.434M	5.725029G	5.745463G	500k	3
3.13M	5.725G	5.72813G	27.844M	5.725029G	5.752873G	500k	4

3.3 RF Output Power

3.3.1 Limit of RF Output Power

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

3.3.2 Test Procedures

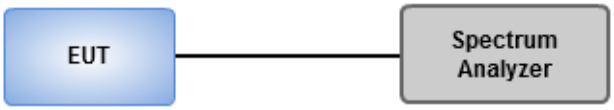
Method PM-G (Measurement using a gated RF average power meter)

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

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

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

3.3.3 Test Setup



3.3.4 Test Result of Maximum Conducted Output Power

Non-beamforming mode

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.25-5.35GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	20.08	0.10186	23.57	0.22751
802.11ac VHT20_Nss1,(MCS0)_4TX	20.04	0.10093	23.53	0.22542
802.11ac VHT40_Nss1,(MCS0)_4TX	22.59	0.18155	26.08	0.40551
802.11ac VHT80_Nss1,(MCS0)_4TX	14.48	0.02805	17.97	0.06266
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	19.58	0.09078	23.11	0.20464
802.11ac VHT20_Nss1,(MCS0)_4TX	19.50	0.08913	23.03	0.20091
802.11ac VHT40_Nss1,(MCS0)_4TX	22.56	0.18030	26.09	0.40644
802.11ac VHT80_Nss1,(MCS0)_4TX	23.05	0.20184	26.58	0.45499
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	10.64	0.01159	13.84	0.02421
802.11ac VHT20_Nss1,(MCS0)_4TX	10.84	0.01213	14.04	0.02535
802.11ac VHT40_Nss1,(MCS0)_4TX	8.86	0.00769	12.06	0.01607
802.11ac VHT80_Nss1,(MCS0)_4TX	6.16	0.00413	9.36	0.00863

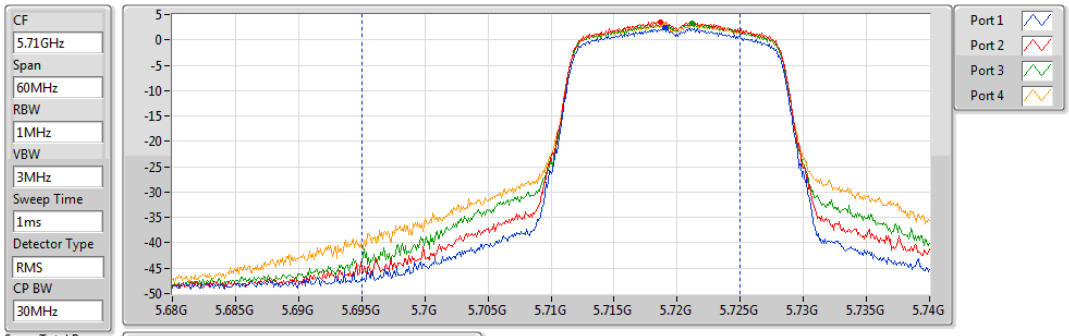
Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	3.49	13.25	14.11	14.54	13.19	19.83	23.87	23.32	29.87
5300MHz	Pass	3.49	13.42	14.19	14.58	13.68	20.01	23.91	23.50	29.91
5320MHz	Pass	3.49	13.51	14.26	14.65	13.71	20.08	23.91	23.57	29.91
5500MHz	Pass	3.53	12.62	13.66	13.91	13.44	19.45	23.96	22.98	29.96
5580MHz	Pass	3.53	12.71	13.81	13.77	13.85	19.58	23.90	23.11	29.90
5700MHz	Pass	3.53	10.85	12.02	11.82	11.45	17.58	23.93	21.11	29.93
5720MHz Straddle 5.47-5.725GHz	Pass	3.53	11.98	13.28	12.94	12.8	18.80	22.71	22.33	28.71
5720MHz Straddle 5.725-5.85GHz	Pass	3.20	3.54	5.19	4.93	4.64	10.64	30.00	13.84	36.00
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	3.49	12.81	14.16	14.46	13.01	19.69	23.98	23.18	29.98
5300MHz	Pass	3.49	13.34	14.22	14.71	13.58	20.02	23.95	23.51	29.95
5320MHz	Pass	3.49	13.52	14.08	14.74	13.61	20.04	23.93	23.53	29.93
5500MHz	Pass	3.53	12.45	13.84	13.96	13.29	19.45	23.96	22.98	29.96
5580MHz	Pass	3.53	12.65	13.74	13.83	13.6	19.50	23.96	23.03	29.96
5700MHz	Pass	3.53	10.68	12.01	11.91	11.43	17.56	23.96	21.09	29.96
5720MHz Straddle 5.47-5.725GHz	Pass	3.53	11.82	13.38	12.93	12.62	18.74	22.75	22.27	28.75
5720MHz Straddle 5.725-5.85GHz	Pass	3.20	3.8	5.43	5.22	4.67	10.84	30.00	14.04	36.00
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	3.49	16.25	16.91	16.98	16.06	22.59	24.00	26.08	30.00
5310MHz	Pass	3.49	12.33	12.84	13.53	12.38	18.82	24.00	22.31	30.00
5510MHz	Pass	3.53	12.48	13.39	13.68	13.25	19.24	24.00	22.77	30.00
5590MHz	Pass	3.53	15.91	17.22	16.33	16.59	22.56	24.00	26.09	30.00
5670MHz	Pass	3.53	12.23	13.51	13.34	12.96	19.06	24.00	22.59	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	3.53	15.5	16.51	15.79	15.84	21.95	24.00	25.48	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	3.20	2.07	3.47	2.88	2.84	8.86	30.00	12.06	36.00
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	3.49	8.22	8.41	9.04	8.11	14.48	24.00	17.97	30.00
5530MHz	Pass	3.53	9.58	10.26	11.02	10.54	16.40	24.00	19.93	30.00
5610MHz	Pass	3.53	13.68	15.09	14.81	14.66	20.61	24.00	24.14	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	3.53	16.41	17.8	17.01	16.78	23.05	24.00	26.58	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	3.20	-0.87	0.78	0.56	-0.1	6.16	30.00	9.36	36.00

DG = Directional Gain;**Port X** = Port X output power

802.11a_Nss1,(6Mbps)_4TX **AV Power**

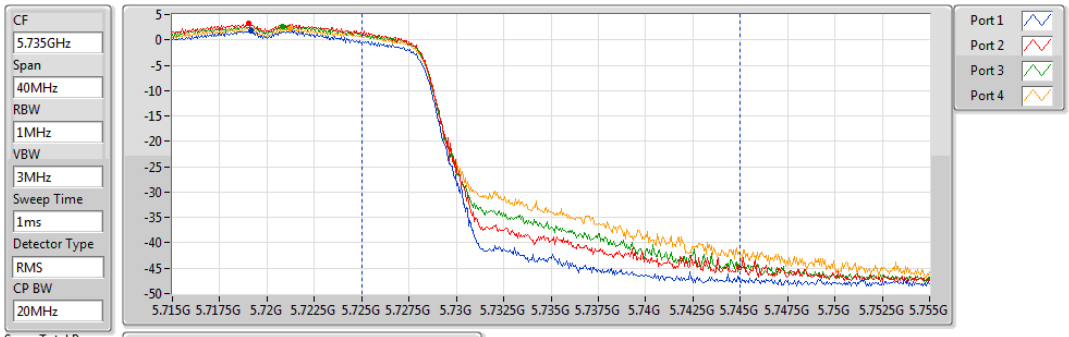
5720MHz Straddle 5.47-5.725GHz



Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
18.80	11.98	13.28	12.94	12.80

802.11a_Nss1,(6Mbps)_4TX **AV Power**

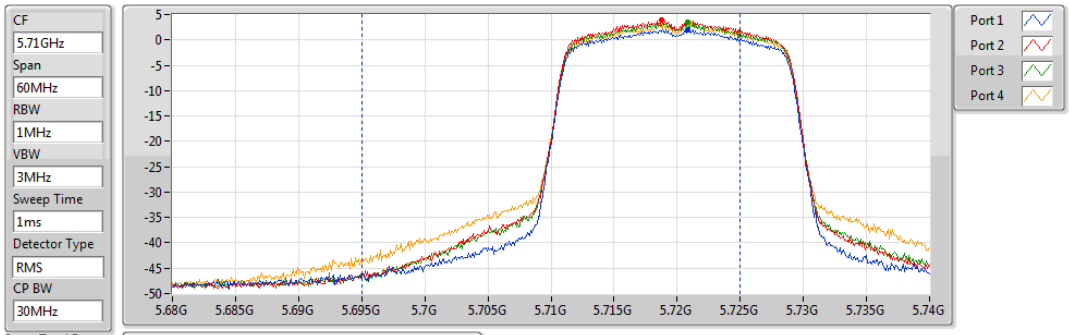
5720MHz Straddle 5.725-5.85GHz



Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
10.64	3.54	5.19	4.93	4.64

802.11ac VHT20_Nss1,(MCS0)_4TX **AV Power**

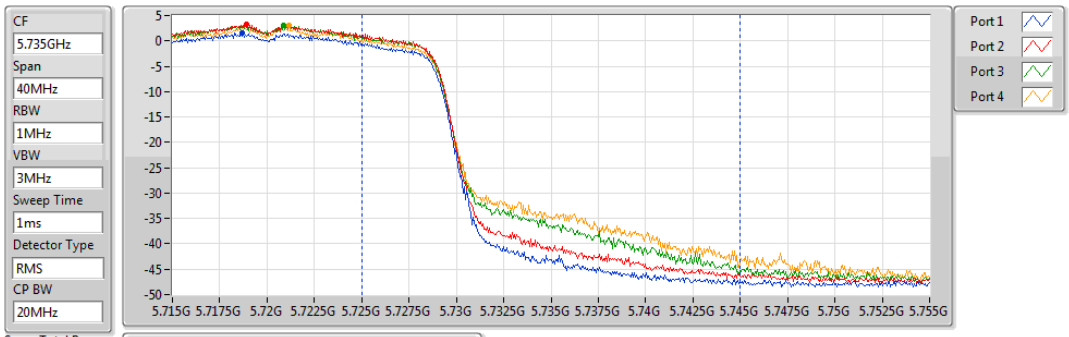
5720MHz Straddle 5.47-5.725GHz



Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
18.74	11.82	13.38	12.93	12.62

802.11ac VHT20_Nss1,(MCS0)_4TX **AV Power**

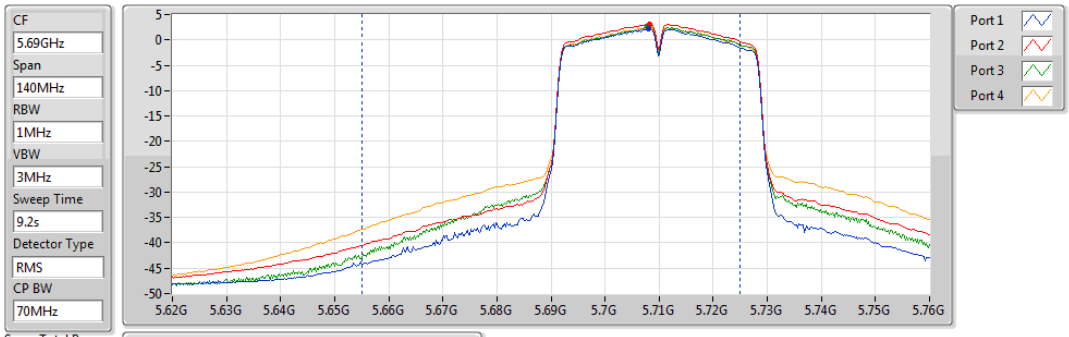
5720MHz Straddle 5.725-5.85GHz



Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
10.84	3.80	5.43	5.22	4.67

802.11ac VHT40_Nss1,(MCS0)_4TX **AV Power**

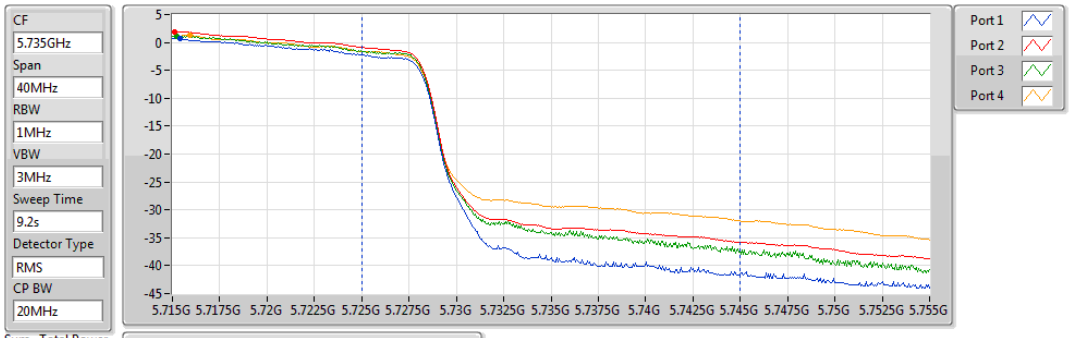
5710MHz Straddle 5.47-5.725GHz



Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
21.95	15.50	16.51	15.79	15.84

802.11ac VHT40_Nss1,(MCS0)_4TX **AV Power**

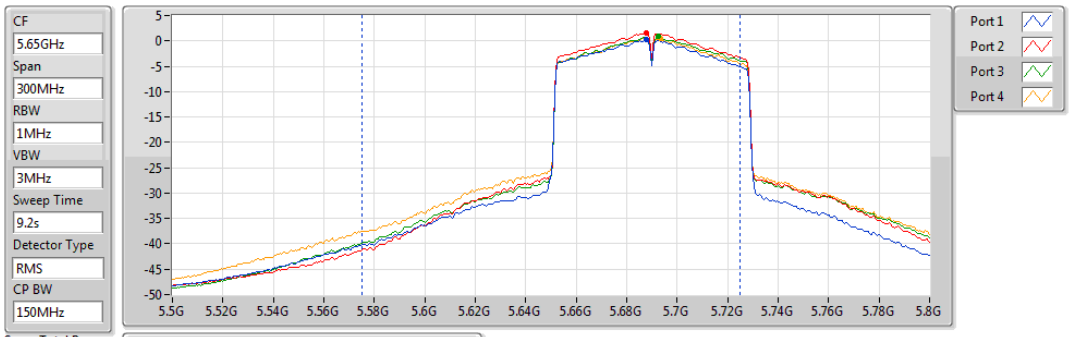
5710MHz Straddle 5.725-5.85GHz



Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
8.86	2.07	3.47	2.88	2.84

802.11ac VHT80_Nss1,(MCS0)_4TX **AV Power**

5690MHz Straddle 5.47-5.725GHz

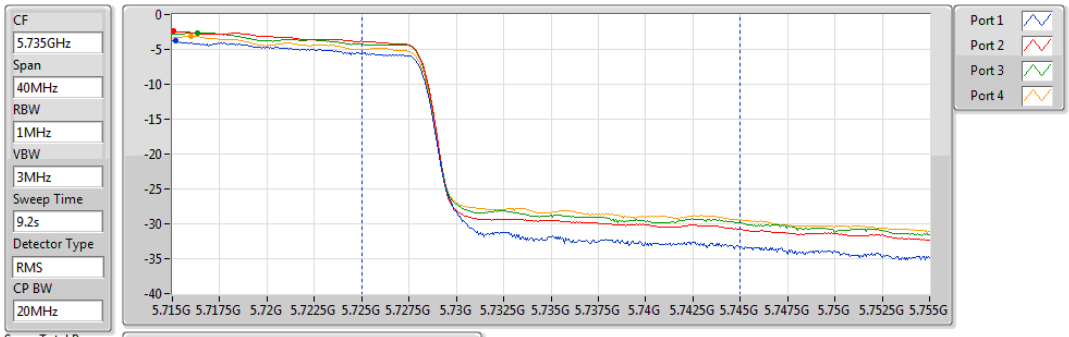


Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
23.05	16.41	17.80	17.01	16.78

802.11ac VHT80_Nss1,(MCS0)_4TX **AV Power**

5690MHz Straddle 5.725-5.85GHz



Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
6.16	-0.87	0.78	0.56	-0.10

Beamforming mode

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.25-5.35GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	19.68	0.09290	28.97	0.78886
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	20.57	0.11402	29.86	0.96828
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	14.26	0.02667	23.55	0.22646
5.47-5.725GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	19.30	0.08511	28.51	0.70958
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	20.46	0.11117	29.67	0.92683
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	20.20	0.10471	29.41	0.87297
5.725-5.85GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	12.18	0.01652	21.15	0.13032
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	8.33	0.00681	17.30	0.05370
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	6.00	0.00398	14.97	0.03141

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Port 3 (dBm)	Port 4 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	9.29	13.06	14.06	14.15	12.62	19.54	20.70	28.83	29.99
5300MHz	Pass	9.29	13.15	14.14	14.12	12.86	19.63	20.70	28.92	29.99
5320MHz	Pass	9.29	13.14	13.98	14.22	13.18	19.68	20.71	28.97	30.00
5500MHz	Pass	9.21	11.41	12.26	11.85	12.38	18.01	20.78	27.22	29.99
5580MHz	Pass	9.21	12.69	13.34	13.22	13.81	19.30	20.69	28.51	29.90
5700MHz	Pass	9.21	10.84	11.52	12.01	11.26	17.45	20.78	26.66	29.99
5720MHz Straddle 5.47-5.725GHz	Pass	9.21	11.36	11.52	12.89	12.29	18.08	19.55	27.29	28.76
5720MHz Straddle 5.725-5.85GHz	Pass	8.97	5.23	6.5	6.63	6.15	12.18	27.03	21.15	36.00
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	9.29	14.28	15.05	14.94	13.82	20.57	20.71	29.86	30.00
5310MHz	Pass	9.29	12.36	12.98	13.35	11.96	18.72	20.71	28.01	30.00
5510MHz	Pass	9.21	11.01	11.86	11.34	11.76	17.53	20.79	26.74	30.00
5590MHz	Pass	9.21	13.82	14.91	14.38	14.59	20.46	20.79	29.67	30.00
5670MHz	Pass	9.21	12.48	13.56	12.86	13.02	19.02	20.79	28.23	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	9.21	13.06	13.49	13.57	13.43	19.41	20.79	28.62	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	8.97	1.66	2.33	2.49	2.68	8.33	27.03	17.30	36.00
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	9.29	7.84	8.12	8.85	8.06	14.26	20.71	23.55	30.00
5530MHz	Pass	9.21	9.31	9.85	9.91	10.36	15.89	20.79	25.10	30.00
5610MHz	Pass	9.21	12.16	13.35	12.64	13.08	18.85	20.79	28.06	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	9.21	13.33	14.9	14.03	14.31	20.20	20.79	29.41	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	8.97	-1.39	0.73	0.02	0.3	6.00	27.03	14.97	36.00

DG = Directional Gain;**Port X** = Port X output power

For 5.25 ~ 5.35 GHz

Directional gain = $10 * \log((10^{3.49/20}+10^{3.32/20}+10^{3.08/20}+10^{3.17/20})^2/4)$ = 9.29 dBi > 6 dBi

Limit shall be reduced to 24 dBm – (9.29 dBi – 6 dBi) = 20.71 dBm

For 5.47 ~ 5.725 GHz

Directional gain = $10 * \log((10^{2.79/20}+10^{3.53/20}+10^{3.15/20}+10^{3.28/20})^2/4)$ = 9.21 dBi > 6 dBi

Limit shall be reduced to 24 dBm – (9.21 dBi – 6 dBi) = 20.79 dBm

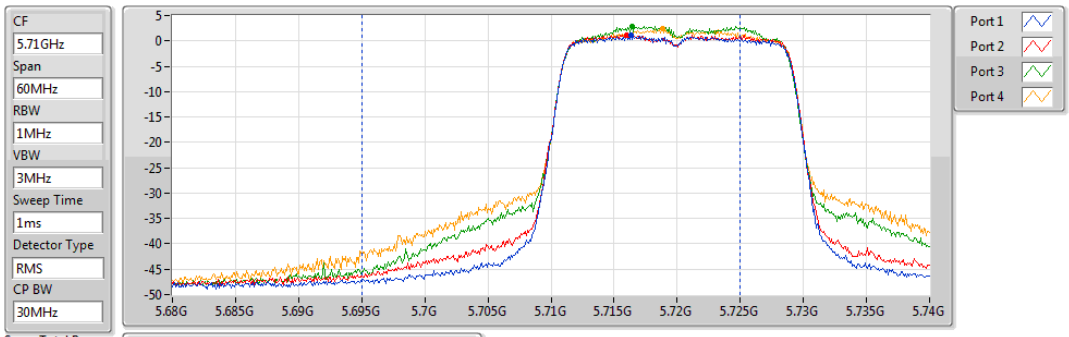
For 5.725 ~ 5.85 GHz

Directional gain = $10 * \log((10^{2.3/20}+10^{3.14/20}+10^{3.13/20}+10^{3.2/20})^2/4)$ =8.97 dBi > 6 dBi

Limit shall be reduced to 30 dBm – (8.97 dBi – 6 dBi) = 27.03 dBm

802.11ac VHT20-BF_Nss1,(MCS0)_4TX **AV Power**

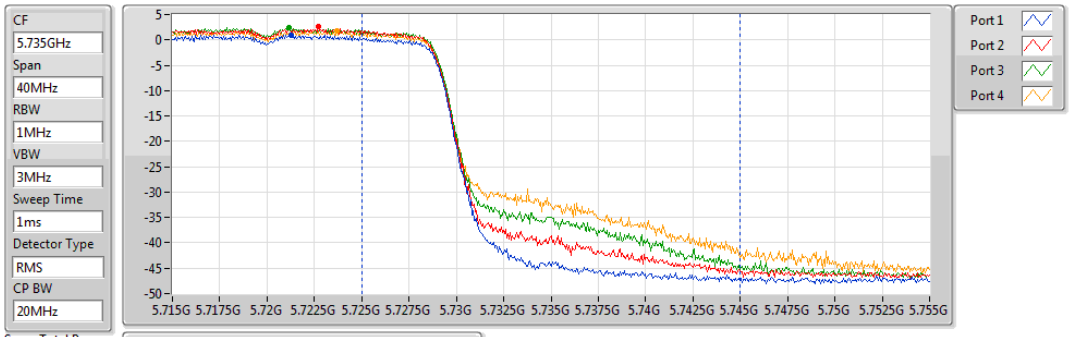
5720MHz Straddle 5.47-5.725GHz



Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
18.08	11.36	11.52	12.89	12.29

802.11ac VHT20-BF_Nss1,(MCS0)_4TX **AV Power**

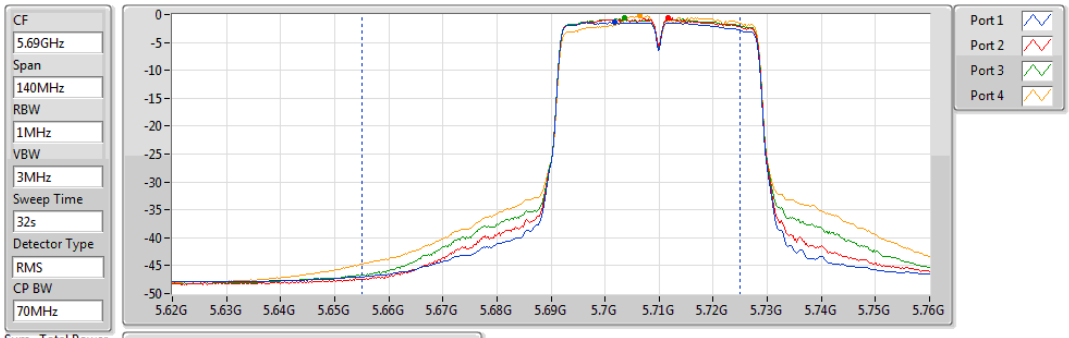
5720MHz Straddle 5.725-5.85GHz



Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
12.18	5.23	6.50	6.63	6.15

802.11ac VHT40-BF_Nss1,(MCS0)_4TX **AV Power**

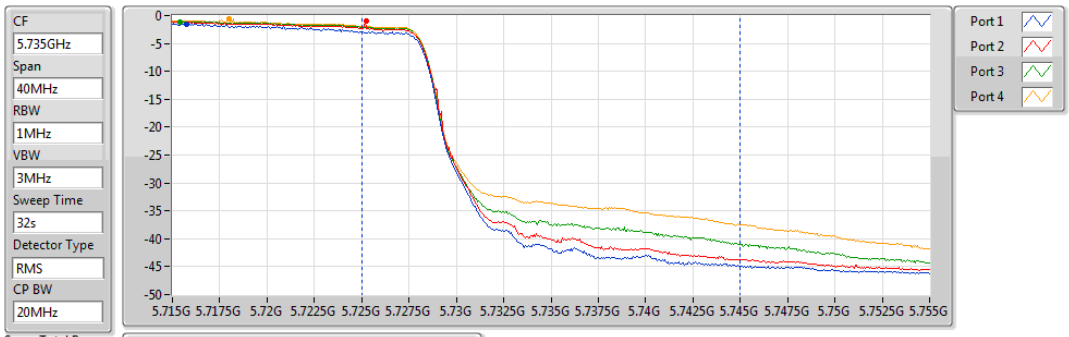
5710MHz Straddle 5.47-5.725GHz



Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
19.41	13.06	13.49	13.57	13.43

802.11ac VHT40-BF_Nss1,(MCS0)_4TX **AV Power**

5710MHz Straddle 5.725-5.85GHz

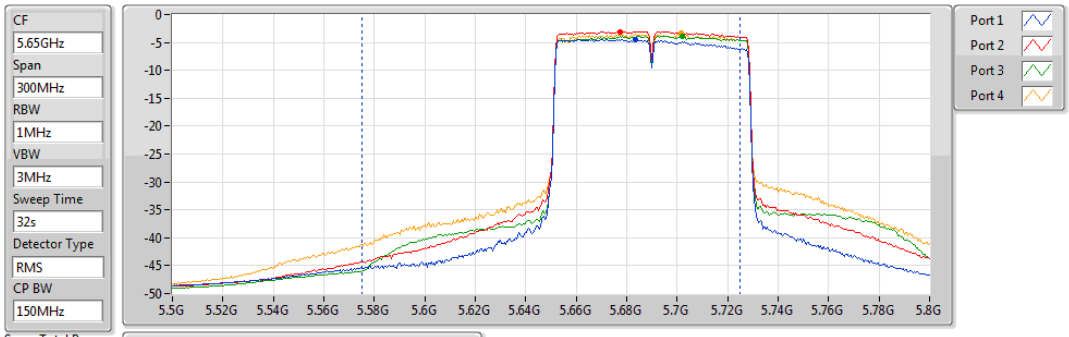


Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
8.33	1.66	2.33	2.49	2.68

802.11ac VHT80-BF_Nss1,(MCS0)_4TX **AV Power**

5690MHz Straddle 5.47-5.725GHz

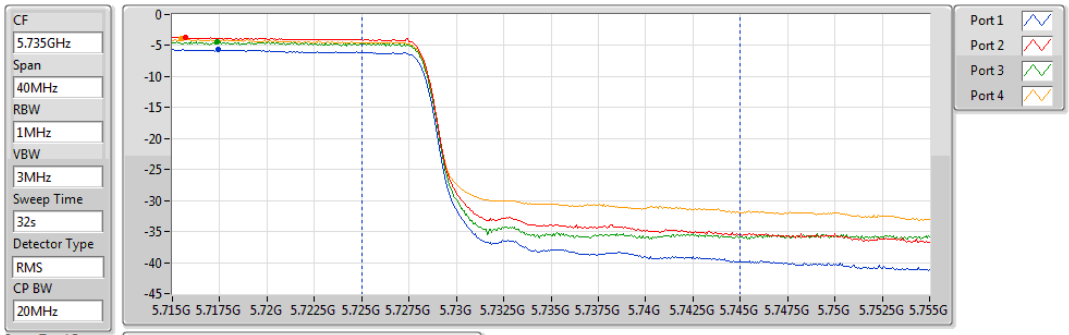


Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
20.20	13.33	14.90	14.03	14.31

802.11ac VHT80-BF_Nss1,(MCS0)_4TX **AV Power**

5690MHz Straddle 5.725-5.85GHz



Sum=Total Power
PX=Port X

Sum(dBm)	P1(dBm)	P2(dBm)	P3(dBm)	P4(dBm)
6.00	-1.39	0.73	0.02	0.30

3.4 Peak Power Spectral Density

3.4.1 Limit of Peak Power Spectral Density

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

3.4.2 Test Procedures

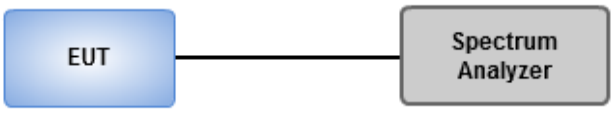
Duty cycle ≥ 98 %

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.

Duty cycle < 98 %

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

3.4.3 Test Setup



3.4.4 Test Result of Peak Power Spectral Density

Non-beamforming mode

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	7.56	16.85
802.11ac VHT20_Nss1,(MCS0)_4TX	7.64	16.93
802.11ac VHT40_Nss1,(MCS0)_4TX	7.19	16.48
802.11ac VHT80_Nss1,(MCS0)_4TX	-4.33	4.96
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	7.61	16.82
802.11ac VHT20_Nss1,(MCS0)_4TX	7.55	16.76
802.11ac VHT40_Nss1,(MCS0)_4TX	7.50	16.71
802.11ac VHT80_Nss1,(MCS0)_4TX	5.20	14.41
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	3.71	12.68
802.11ac VHT20_Nss1,(MCS0)_4TX	3.22	12.19
802.11ac VHT40_Nss1,(MCS0)_4TX	1.40	10.37
802.11ac VHT80_Nss1,(MCS0)_4TX	-1.35	7.62

RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

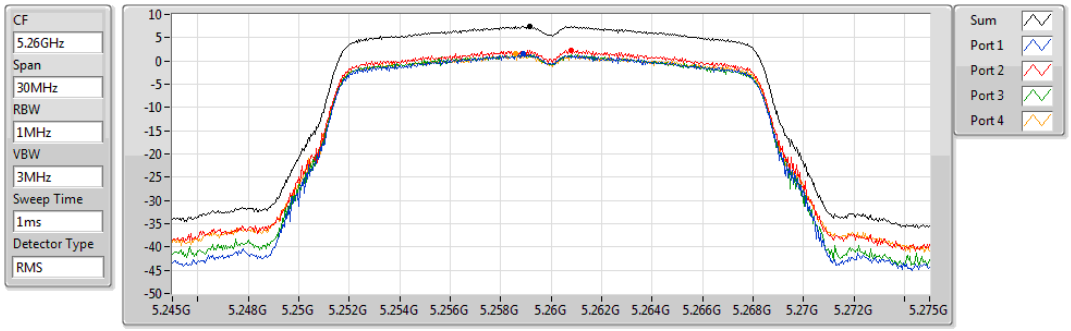
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	9.29	1.49	2.35	1.46	1.53	7.45	7.71	16.74	17.00
5300MHz	Pass	9.29	1.82	2.33	1.40	1.58	7.56	7.71	16.85	17.00
5320MHz	Pass	9.29	1.43	1.83	1.06	1.35	7.29	7.71	16.58	17.00
5500MHz	Pass	9.21	0.07	0.78	1.10	0.64	6.43	7.79	15.64	17.00
5580MHz	Pass	9.21	0.84	1.95	2.00	1.91	7.47	7.79	16.68	17.00
5700MHz	Pass	9.21	-1.71	-0.56	-0.20	-1.02	5.09	7.79	14.30	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	9.21	1.16	2.30	1.63	1.60	7.61	7.79	16.82	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	8.97	-2.93	-1.80	-1.79	-2.28	3.71	27.03	12.68	36.00
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	9.29	1.19	2.27	1.37	1.60	7.44	7.71	16.73	17.00
5300MHz	Pass	9.29	1.68	2.82	1.47	1.68	7.64	7.71	16.93	17.00
5320MHz	Pass	9.29	1.48	2.44	1.60	2.05	7.57	7.71	16.86	17.00
5500MHz	Pass	9.21	-0.07	1.14	1.17	1.02	6.49	7.79	15.70	17.00
5580MHz	Pass	9.21	0.83	1.89	1.84	2.12	7.36	7.79	16.57	17.00
5700MHz	Pass	9.21	-2.02	-0.15	-0.36	-0.83	5.06	7.79	14.27	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	9.21	0.77	2.51	1.78	2.06	7.55	7.79	16.76	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	8.97	-3.64	-2.07	-2.22	-2.94	3.22	27.03	12.19	36.00
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	9.29	1.08	1.92	0.72	1.17	7.19	7.71	16.48	17.00
5310MHz	Pass	9.29	-3.40	-2.93	-2.08	-3.49	2.98	7.71	12.27	17.00
5510MHz	Pass	9.21	-3.49	-2.61	-2.33	-2.49	3.25	7.79	12.46	17.00
5590MHz	Pass	9.21	0.68	2.00	1.49	1.81	7.50	7.79	16.71	17.00
5670MHz	Pass	9.21	-3.64	-2.22	-2.17	-2.89	3.30	7.79	12.51	17.00
5710MHz Straddle 5.47-5.725GHz	Pass	9.21	0.78	1.77	0.92	1.50	7.25	7.79	16.46	17.00
5710MHz Straddle 5.725-5.85GHz	Pass	8.97	-5.19	-4.08	-4.47	-4.69	1.40	27.03	10.37	36.00
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	9.29	-11.08	-9.92	-9.42	-10.93	-4.33	7.71	4.96	17.00
5530MHz	Pass	9.21	-8.30	-8.05	-6.93	-7.41	-1.73	7.79	7.48	17.00
5610MHz	Pass	9.21	-4.51	-3.62	-3.57	-3.74	2.07	7.79	11.28	17.00
5690MHz Straddle 5.47-5.725GHz	Pass	9.21	-1.39	-0.16	-0.90	-0.78	5.20	7.79	14.41	17.00
5690MHz Straddle 5.725-5.85GHz	Pass	8.97	-8.41	-6.53	-6.94	-7.46	-1.35	27.03	7.62	36.00

DG = Directional Gain; **RBW** = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;
For 5.25 ~ 5.35 GHz
Directional gain = $10 * \log((10^{3.49/20}+10^{3.32/20}+10^{3.08/20}+10^{3.17/20})^2/4)$ = 9.29 dBi > 6 dBi
Limit shall be reduced to 11 dBm – (9.29 dBi – 6 dBi) = 7.71 dBm
For 5.47 ~ 5.725 GHz
Directional gain = $10 * \log((10^{2.79/20}+10^{3.53/20}+10^{3.15/20}+10^{3.28/20})^2/4)$ = 9.21 dBi > 6 dBi
Limit shall be reduced to 11 dBm – (9.21 dBi – 6 dBi) = 7.79 dBm
For 5.725 ~ 5.85 GHz
Directional gain = $10 * \log((10^{2.3/20}+10^{3.14/20}+10^{3.13/20}+10^{3.2/20})^2/4)$ =8.97 dBi > 6 dBi
Limit shall be reduced to 30 dBm – (8.97 dBi – 6 dBi) = 27.03 dBm

802.11a_Nss1,(6Mbps)_4TX **PSD**

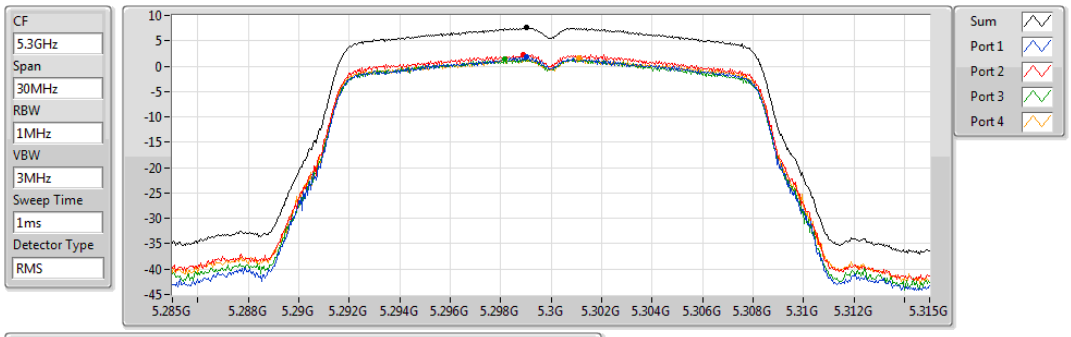
5260MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.45	7.45	1.49	2.35	1.46	1.53

802.11a_Nss1,(6Mbps)_4TX **PSD**

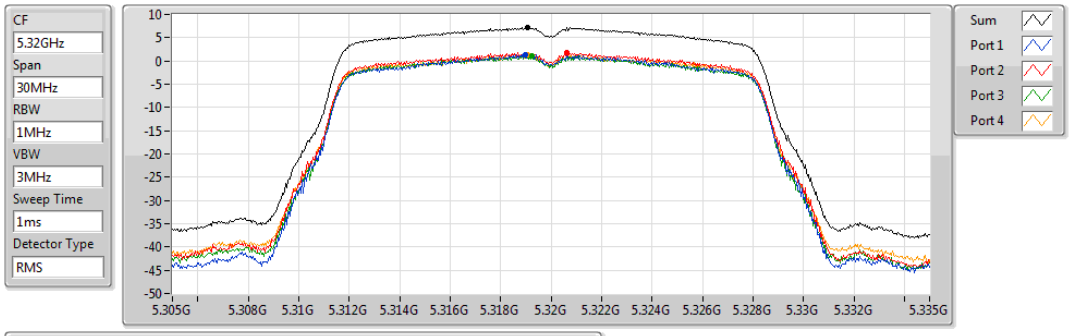
5300MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.56	7.56	1.82	2.33	1.40	1.58

802.11a_Nss1,(6Mbps)_4TX **PSD**

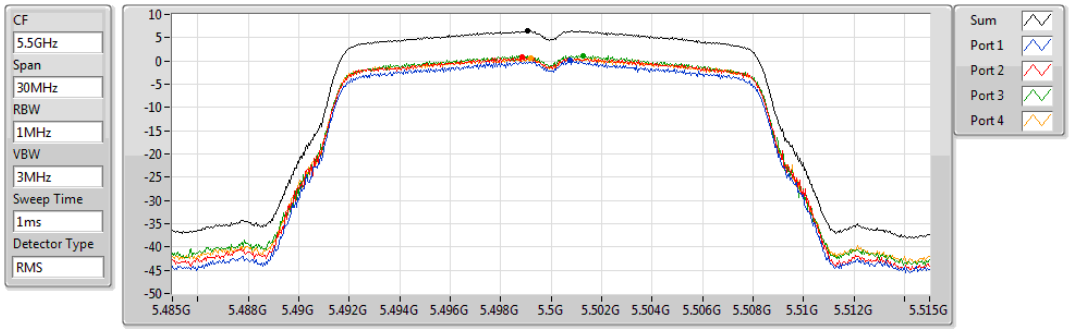
5320MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.29	7.29	1.43	1.83	1.06	1.35

802.11a_Nss1,(6Mbps)_4TX PSD

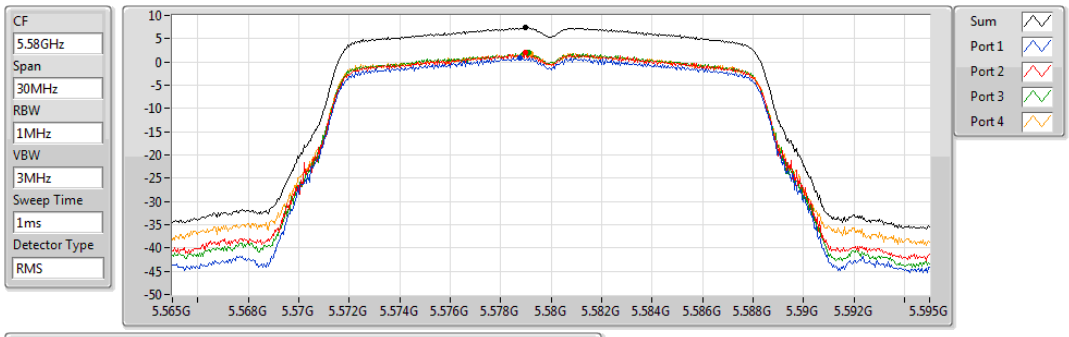
5500MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.43	6.43	0.07	0.78	1.10	0.64

802.11a_Nss1,(6Mbps)_4TX PSD

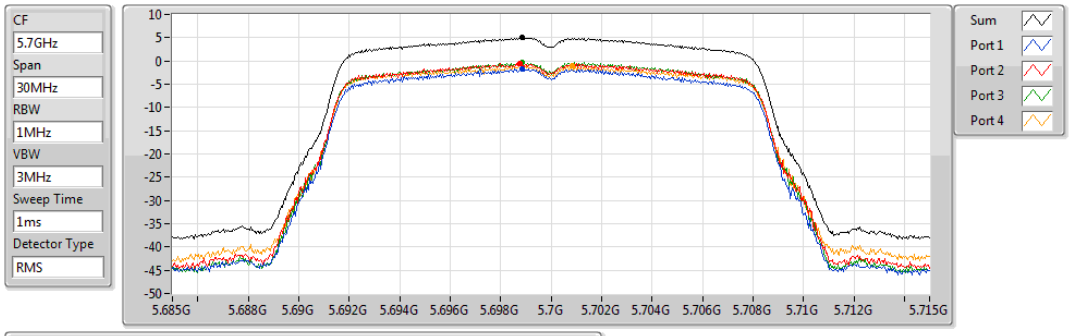
5580MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.47	7.47	0.84	1.95	2.00	1.91

802.11a_Nss1,(6Mbps)_4TX PSD

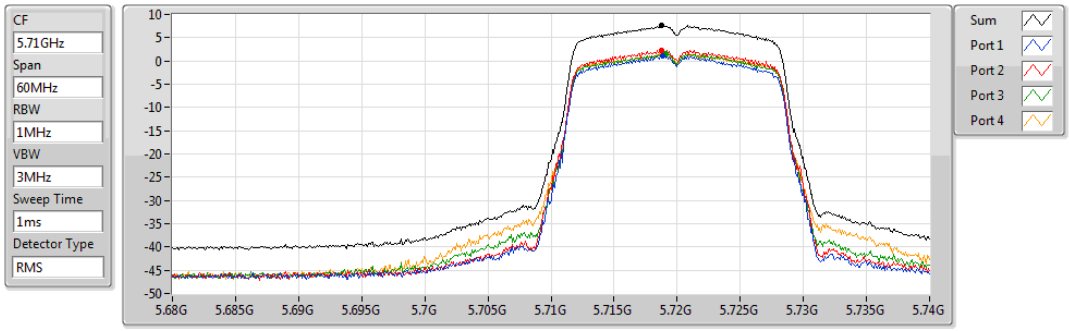
5700MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.09	5.09	-1.71	-0.56	-0.20	-1.02

802.11a_Nss1,(6Mbps)_4TX **PSD**

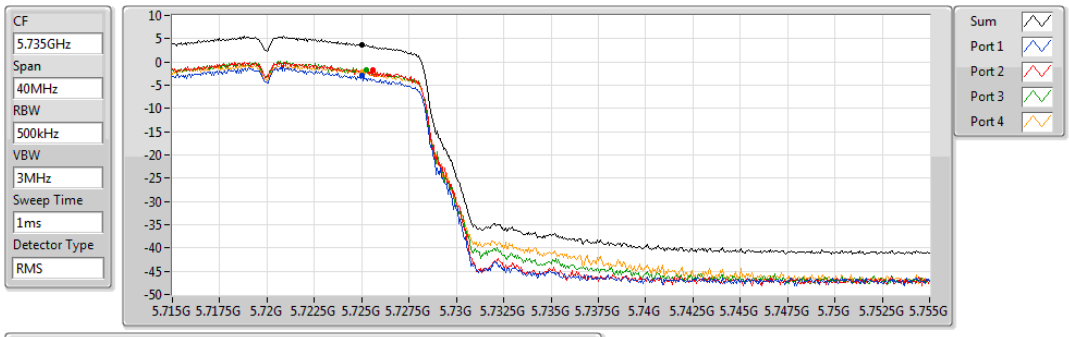
5720MHz Straddle 5.47-5.725GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.61	7.61	1.16	2.30	1.63	1.60

802.11a_Nss1,(6Mbps)_4TX **PSD**

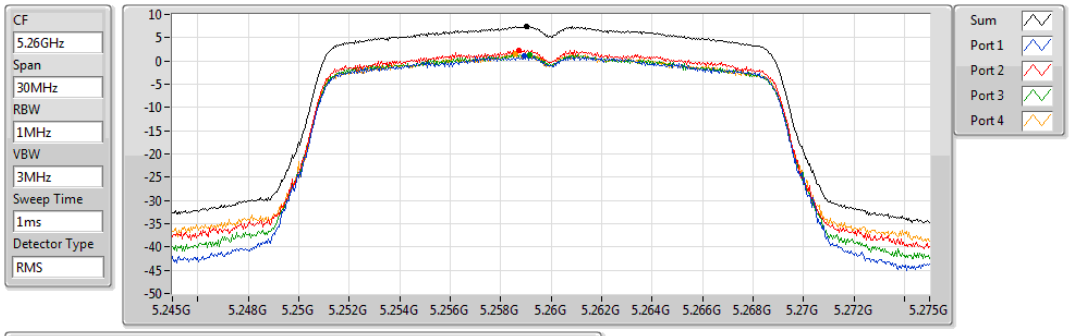
5720MHz Straddle 5.725-5.85GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.71	3.71	-2.93	-1.80	-1.79	-2.28

802.11ac VHT20_Nss1,(MCS0)_4TX **PSD**

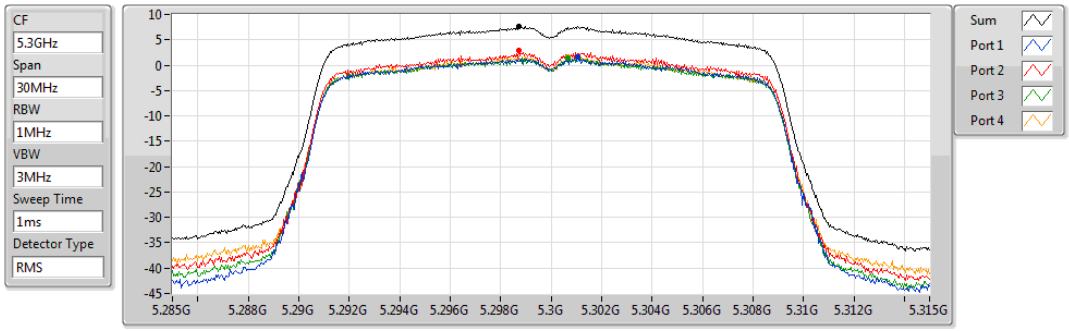
5260MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.44	7.44	1.19	2.27	1.37	1.60

802.11ac VHT20_Nss1,(MCS0)_4TX PSD

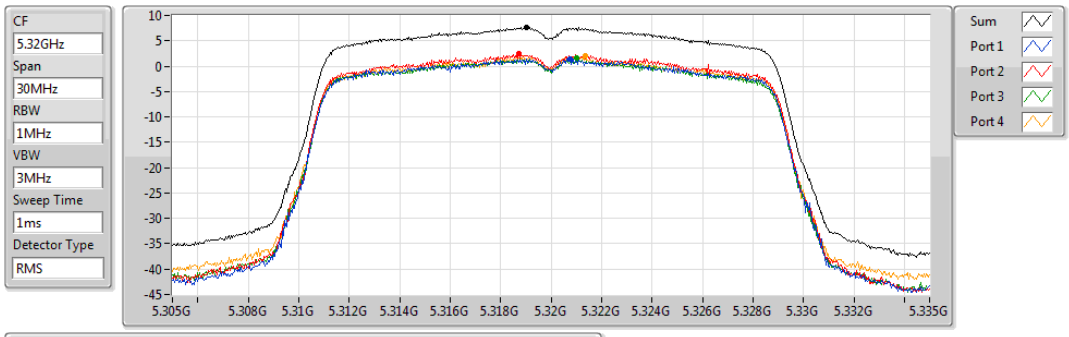
5300MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.64	7.64	1.68	2.82	1.47	1.68

802.11ac VHT20_Nss1,(MCS0)_4TX PSD

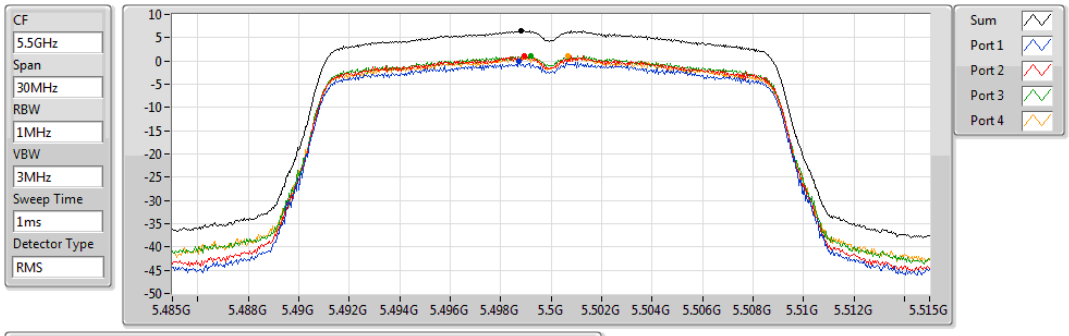
5320MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.57	7.57	1.48	2.44	1.60	2.05

802.11ac VHT20_Nss1,(MCS0)_4TX PSD

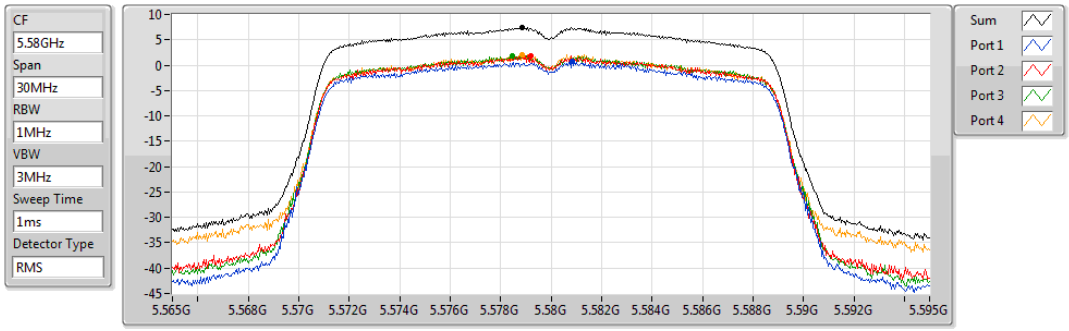
5500MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.49	6.49	-0.07	1.14	1.17	1.02

802.11ac VHT20_Nss1,(MCS0)_4TX PSD

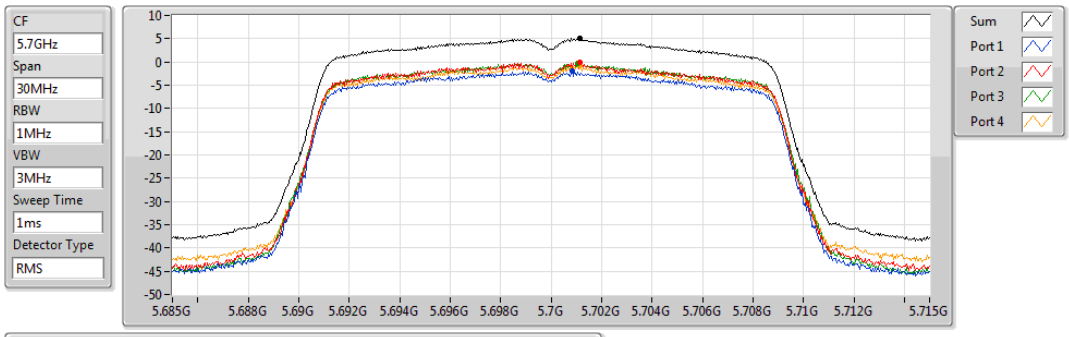
5580MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.36	7.36	0.83	1.89	1.84	2.12

802.11ac VHT20_Nss1,(MCS0)_4TX PSD

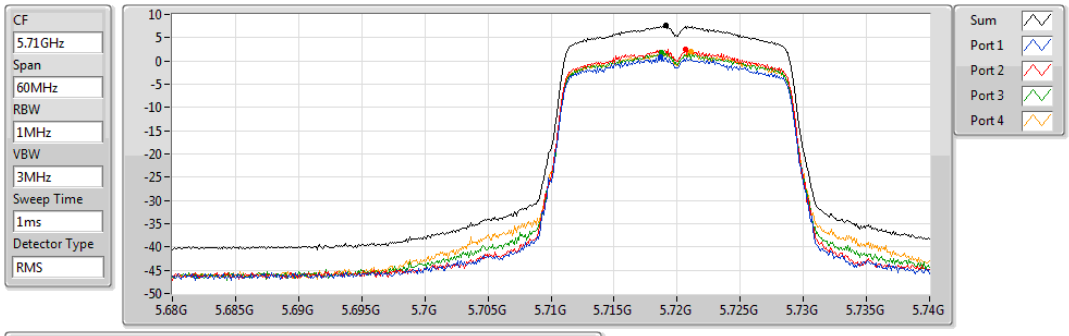
5700MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.06	5.06	-2.02	-0.15	-0.36	-0.83

802.11ac VHT20_Nss1,(MCS0)_4TX PSD

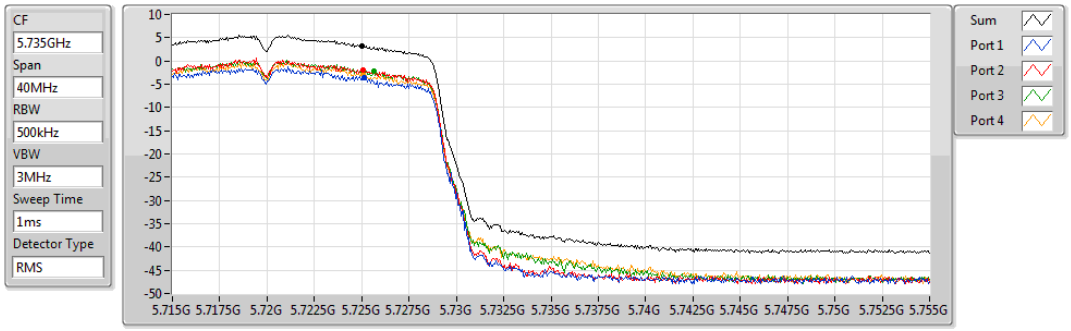
5720MHz Straddle 5.47-5.725GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.55	7.55	0.77	2.51	1.78	2.06

802.11ac VHT20_Nss1,(MCS0)_4TX PSD

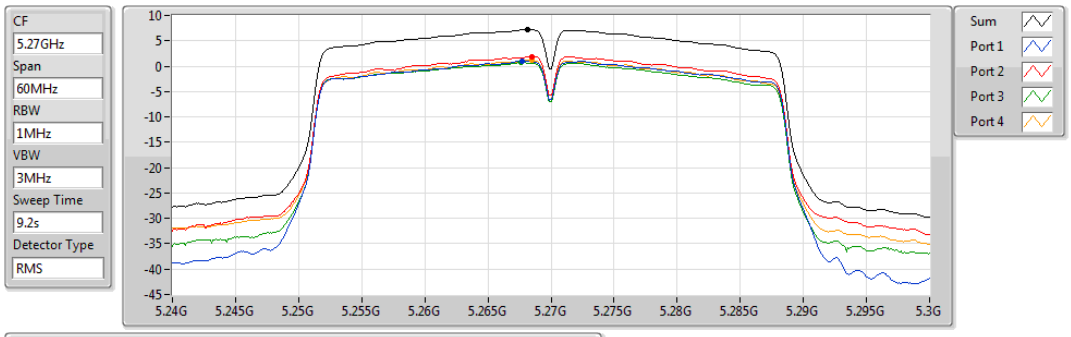
5720MHz Straddle 5.725-5.85GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.22	3.22	-3.64	-2.07	-2.22	-2.94

802.11ac VHT40_Nss1,(MCS0)_4TX PSD

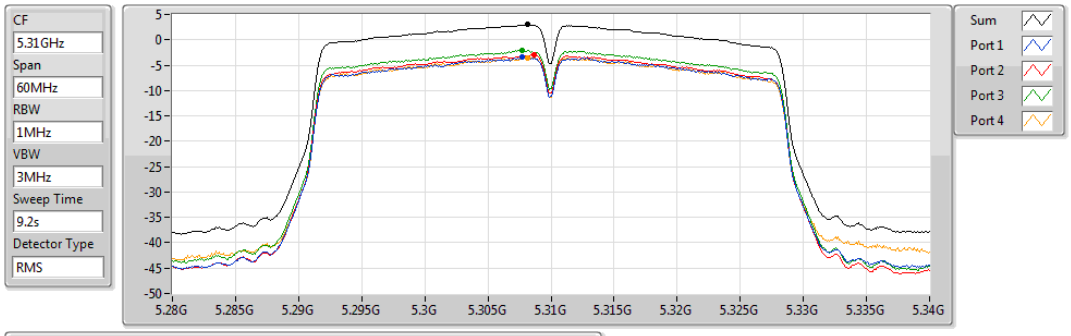
5270MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.19	7.19	1.08	1.92	0.72	1.17

802.11ac VHT40_Nss1,(MCS0)_4TX PSD

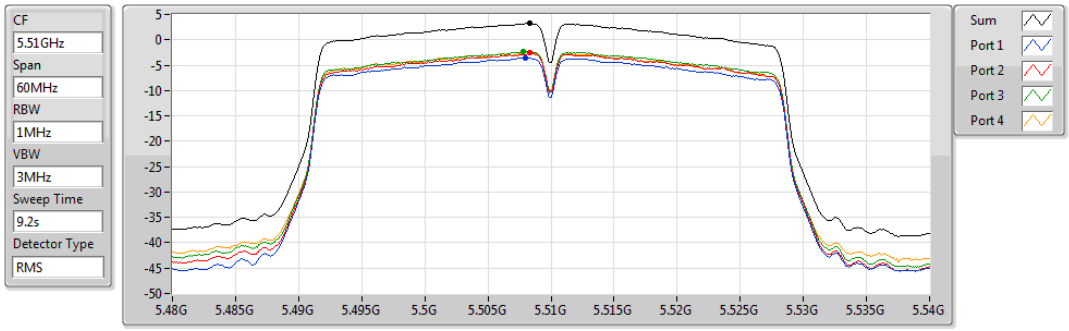
5310MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.98	2.98	-3.40	-2.93	-2.08	-3.49

802.11ac VHT40_Nss1,(MCS0)_4TX PSD

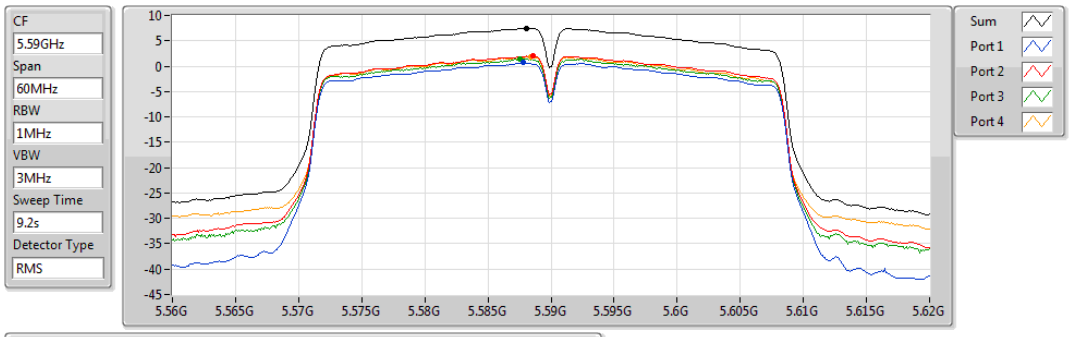
5510MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.25	3.25	-3.49	-2.61	-2.33	-2.49

802.11ac VHT40_Nss1,(MCS0)_4TX PSD

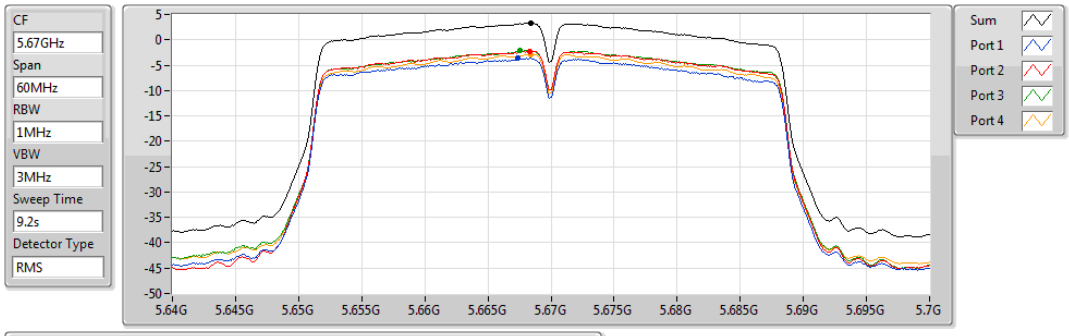
5590MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.50	7.50	0.68	2.00	1.49	1.81

802.11ac VHT40_Nss1,(MCS0)_4TX PSD

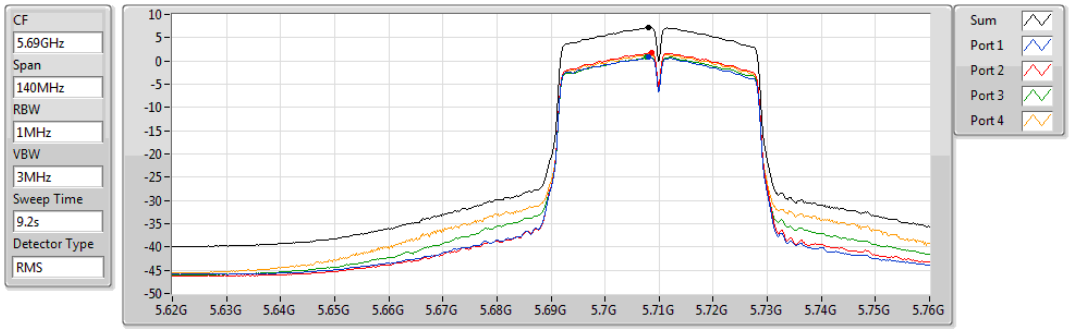
5670MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.30	3.30	-3.64	-2.22	-2.17	-2.89

802.11ac VHT40_Nss1,(MCS0)_4TX **PSD**

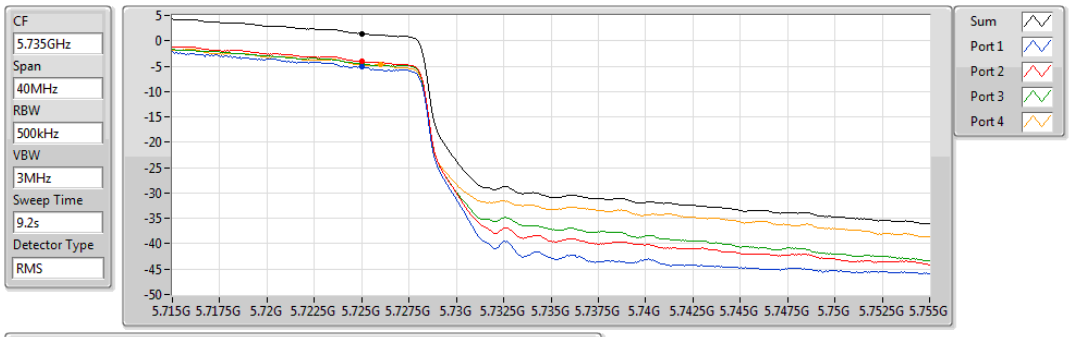
5710MHz Straddle 5.47-5.725GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
7.25	7.25	0.78	1.77	0.92	1.50

802.11ac VHT40_Nss1,(MCS0)_4TX **PSD**

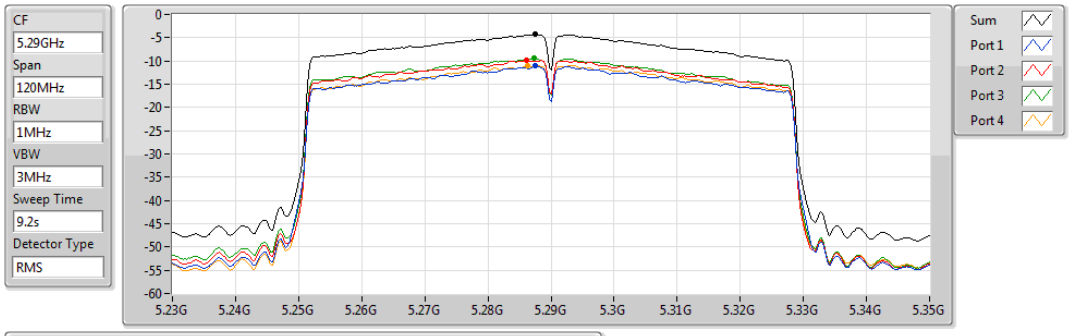
5710MHz Straddle 5.725-5.85GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.40	1.40	-5.19	-4.08	-4.47	-4.69

802.11ac VHT80_Nss1,(MCS0)_4TX **PSD**

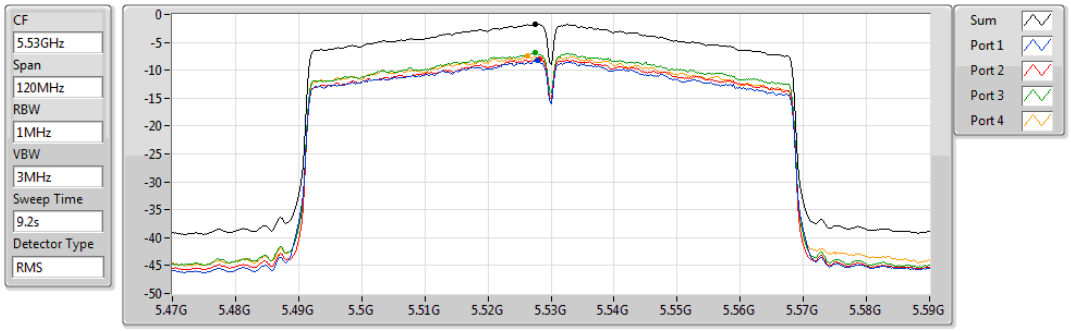
5290MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.33	-4.33	-11.08	-9.92	-9.42	-10.93

802.11ac VHT80_Nss1,(MCS0)_4TX PSD

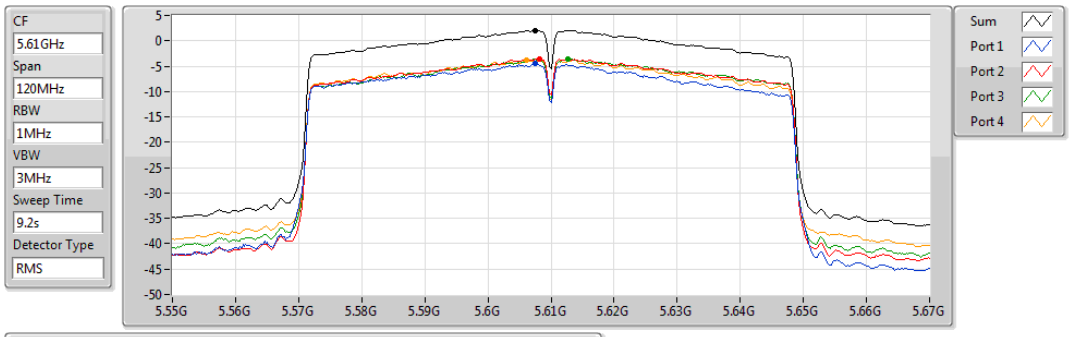
5530MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.73	-1.73	-8.30	-8.05	-6.93	-7.41

802.11ac VHT80_Nss1,(MCS0)_4TX PSD

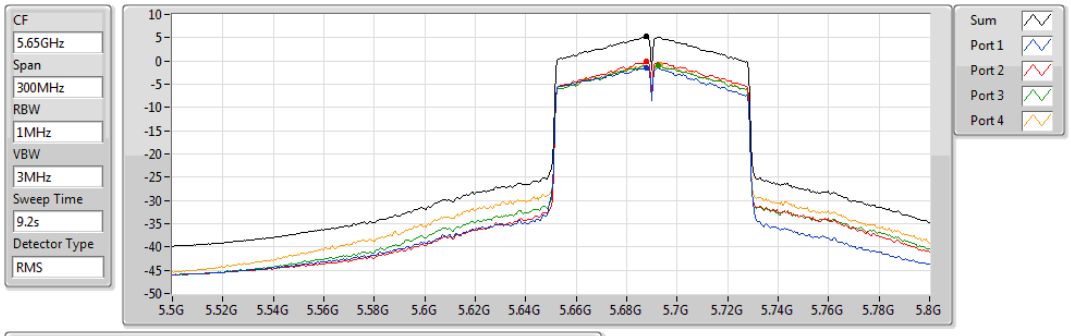
5610MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
2.07	2.07	-4.51	-3.62	-3.57	-3.74

802.11ac VHT80_Nss1,(MCS0)_4TX PSD

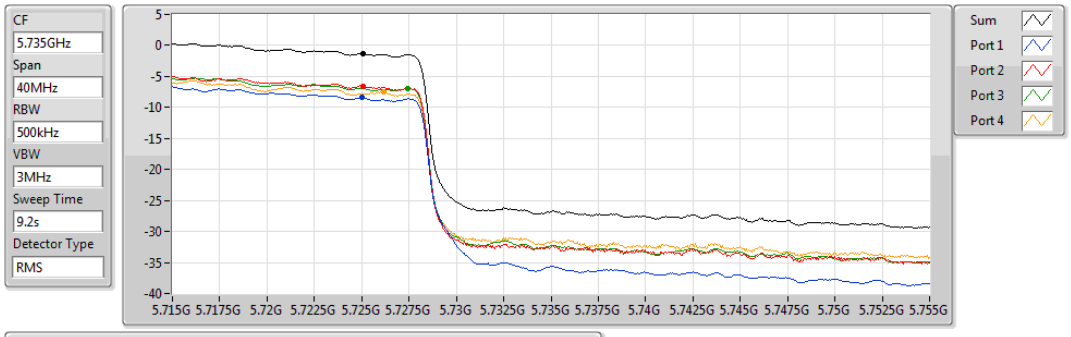
5690MHz Straddle 5.47-5.725GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.20	5.20	-1.39	-0.16	-0.90	-0.78

802.11ac VHT80_Nss1,(MCS0)_4TX **PSD**

5690MHz Straddle 5.725-5.85GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-1.35	-1.35	-8.41	-6.53	-6.94	-7.46

Beamforming mode

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.25-5.35GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	6.98	16.27
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	4.20	13.49
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-3.53	5.76
5.47-5.725GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	5.57	14.78
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	5.16	14.37
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	1.98	11.19
5.725-5.85GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	3.97	12.94
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-0.87	8.10
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-4.80	4.17

RBW = 500kHz for 5.725-5.85GHz band / 1MHz for other band;

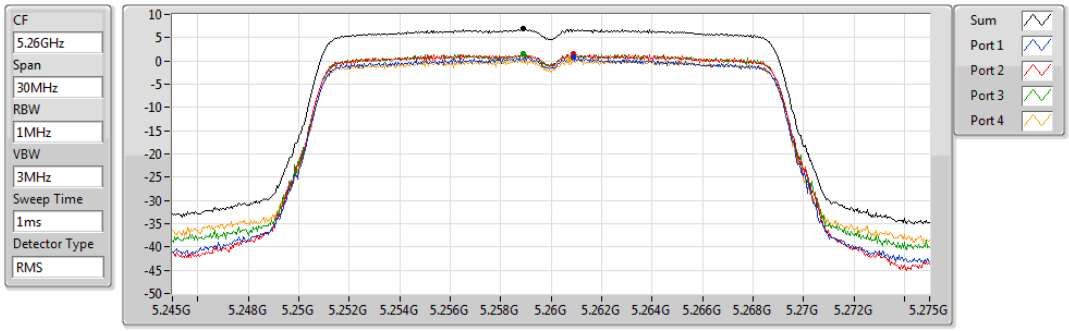
Result

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	Port 3 (dBm/RBW)	Port 4 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5260MHz	Pass	9.29	0.76	1.51	1.50	0.62	6.98	7.71	16.27	17.00
5300MHz	Pass	9.29	0.90	1.45	0.85	0.52	6.90	7.71	16.19	17.00
5320MHz	Pass	9.29	0.65	1.58	1.67	0.74	6.91	7.71	16.20	17.00
5500MHz	Pass	9.21	-1.79	-0.62	-0.34	-0.52	4.71	7.79	13.92	17.00
5580MHz	Pass	9.21	-0.27	-0.85	-0.82	0.75	5.48	7.79	14.69	17.00
5700MHz	Pass	9.21	-2.70	-1.92	-1.66	-1.27	3.76	7.79	12.97	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	9.21	-0.71	0.35	-0.08	0.27	5.57	7.79	14.78	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	8.97	-2.72	-0.75	-1.96	-1.89	3.97	27.03	12.94	36.00
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5270MHz	Pass	9.29	-1.99	-1.02	-1.32	-1.13	4.20	7.71	13.49	17.00
5310MHz	Pass	9.29	-3.88	-3.19	-3.64	-3.88	1.88	7.71	11.17	17.00
5510MHz	Pass	9.21	-4.79	-4.13	-4.77	-3.64	1.66	7.79	10.87	17.00
5590MHz	Pass	9.21	-1.60	-0.22	-1.27	-0.38	5.16	7.79	14.37	17.00
5670MHz	Pass	9.21	-2.71	-1.43	-2.37	-1.88	3.93	7.79	13.14	17.00
5710MHz Straddle 5.47-5.725GHz	Pass	9.21	-1.82	-1.06	-1.33	-1.50	4.57	7.79	13.78	17.00
5710MHz Straddle 5.725-5.85GHz	Pass	8.97	-7.38	-6.30	-6.93	-6.84	-0.87	27.03	8.10	36.00
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5290MHz	Pass	9.29	-9.46	-9.48	-9.66	-9.09	-3.53	7.71	5.76	17.00
5530MHz	Pass	9.21	-9.04	-8.57	-8.85	-7.72	-2.59	7.79	6.62	17.00
5610MHz	Pass	9.21	-6.26	-5.03	-6.14	-5.12	0.31	7.79	9.52	17.00
5690MHz Straddle 5.47-5.725GHz	Pass	9.21	-4.92	-2.98	-4.52	-3.67	1.98	7.79	11.19	17.00
5690MHz Straddle 5.725-5.85GHz	Pass	8.97	-12.01	-9.60	-11.26	-10.44	-4.80	27.03	4.17	36.00

DG = Directional Gain; **RBW** = 500kHz for 5.725-5.85GHz band / 1MHz for other band;
PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;
For 5.25 ~ 5.35 GHz
Directional gain = $10 * \log((10^{3.49/20}+10^{3.32/20}+10^{3.08/20}+10^{3.17/20})^2/4)$ = 9.29 dBi > 6 dBi
Limit shall be reduced to 11 dBm – (9.29 dBi – 6 dBi) = 7.71 dBm
For 5.47 ~ 5.725 GHz
Directional gain = $10 * \log((10^{2.79/20}+10^{3.53/20}+10^{3.15/20}+10^{3.28/20})^2/4)$ = 9.21 dBi > 6 dBi
Limit shall be reduced to 11 dBm – (9.21 dBi – 6 dBi) = 7.79 dBm
For 5.725 ~ 5.85 GHz
Directional gain = $10 * \log((10^{2.3/20}+10^{3.14/20}+10^{3.13/20}+10^{3.2/20})^2/4)$ =8.97 dBi > 6 dBi
Limit shall be reduced to 30 dBm – (8.97 dBi – 6 dBi) = 27.03 dBm

802.11ac VHT20-BF_Nss1,(MCS0)_4TX PSD

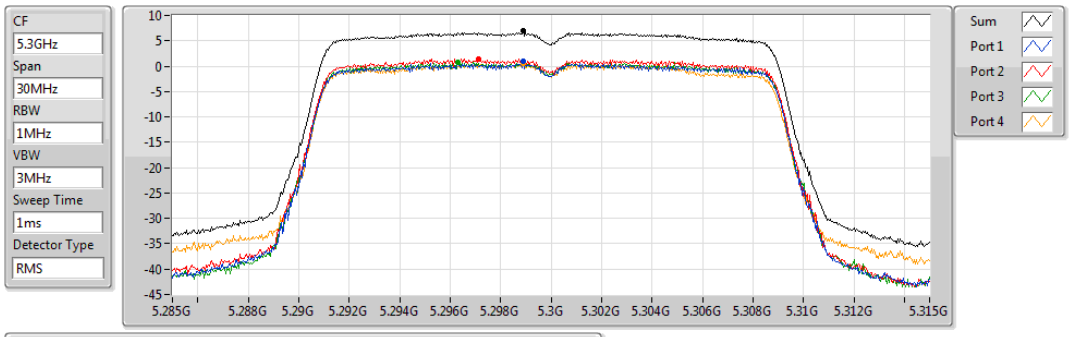
5260MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.98	6.98	0.76	1.51	1.50	0.62

802.11ac VHT20-BF_Nss1,(MCS0)_4TX PSD

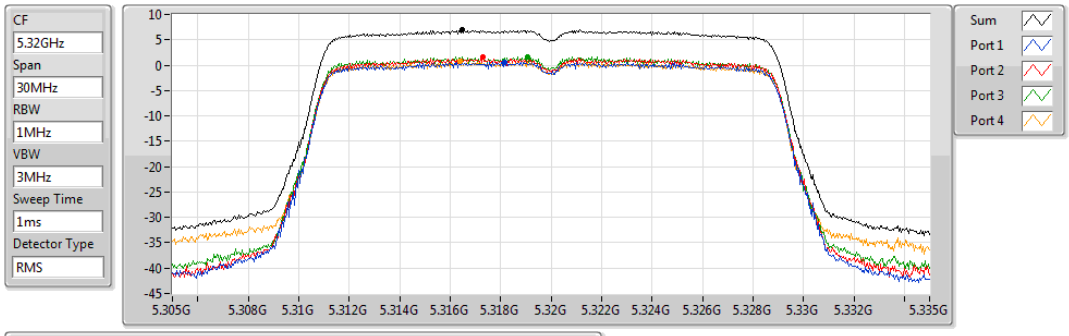
5300MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.90	6.90	0.90	1.45	0.85	0.52

802.11ac VHT20-BF_Nss1,(MCS0)_4TX PSD

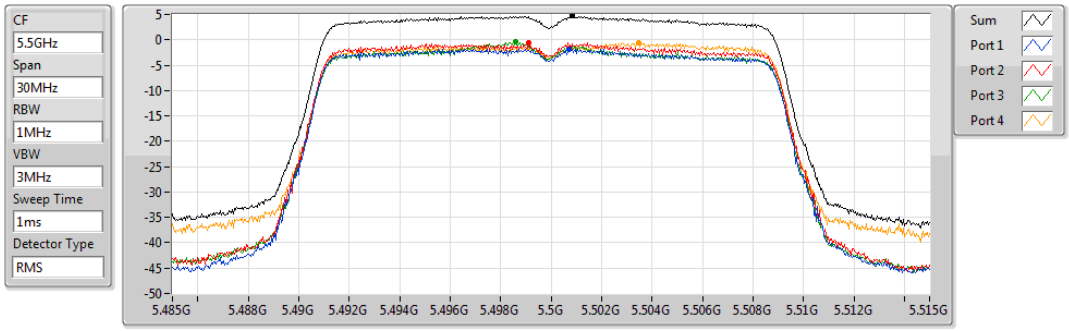
5320MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
6.91	6.91	0.65	1.58	1.67	0.74

802.11ac VHT20-BF_Nss1,(MCS0)_4TX PSD

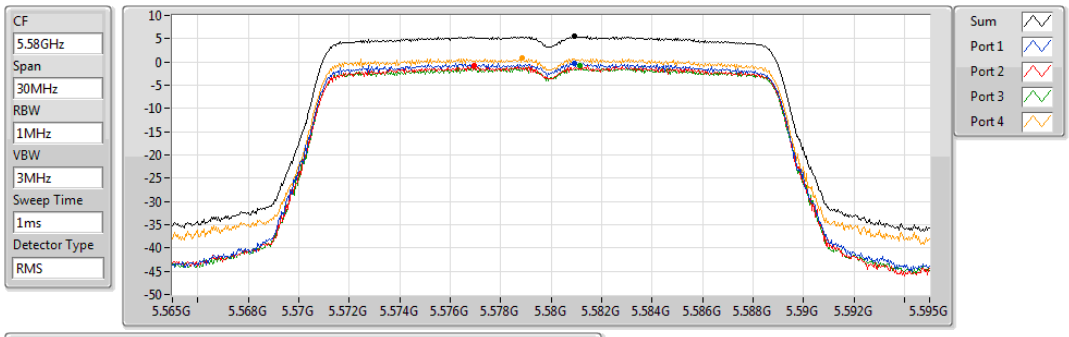
5500MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.71	4.71	-1.79	-0.62	-0.34	-0.52

802.11ac VHT20-BF_Nss1,(MCS0)_4TX PSD

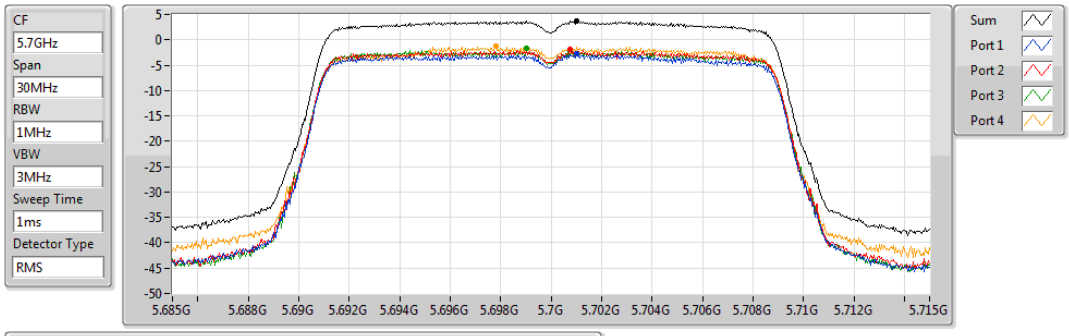
5580MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.48	5.48	-0.27	-0.85	-0.82	0.75

802.11ac VHT20-BF_Nss1,(MCS0)_4TX PSD

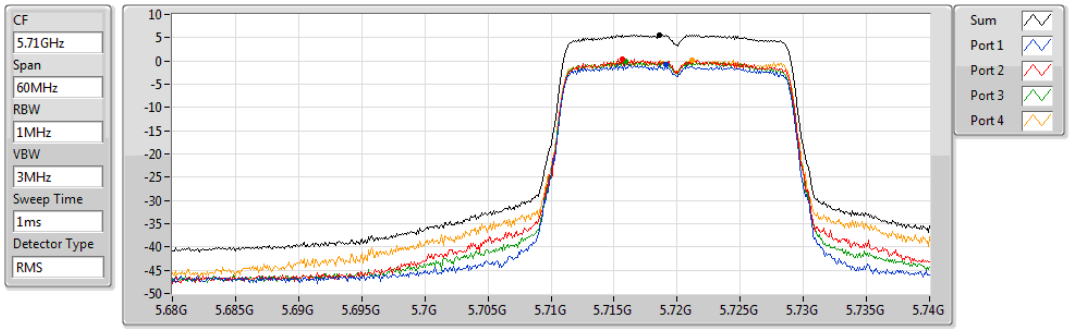
5700MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.76	3.76	-2.70	-1.92	-1.66	-1.27

802.11ac VHT20-BF_Nss1,(MCS0)_4TX PSD

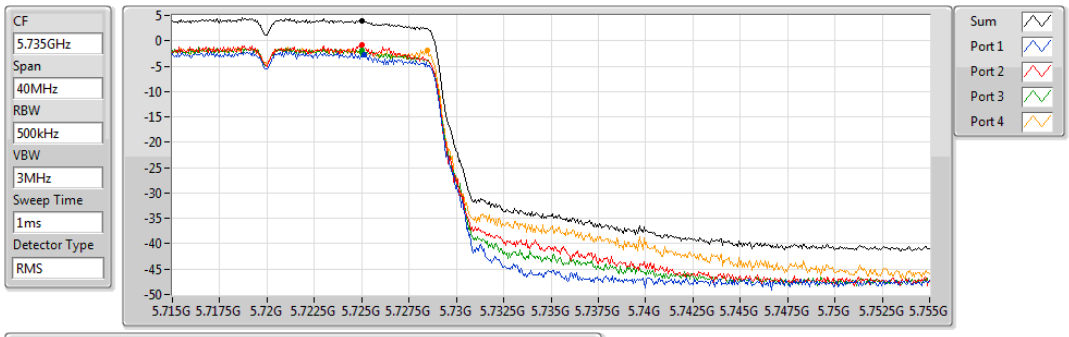
5720MHz Straddle 5.47-5.725GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.57	5.57	-0.71	0.35	-0.08	0.27

802.11ac VHT20-BF_Nss1,(MCS0)_4TX PSD

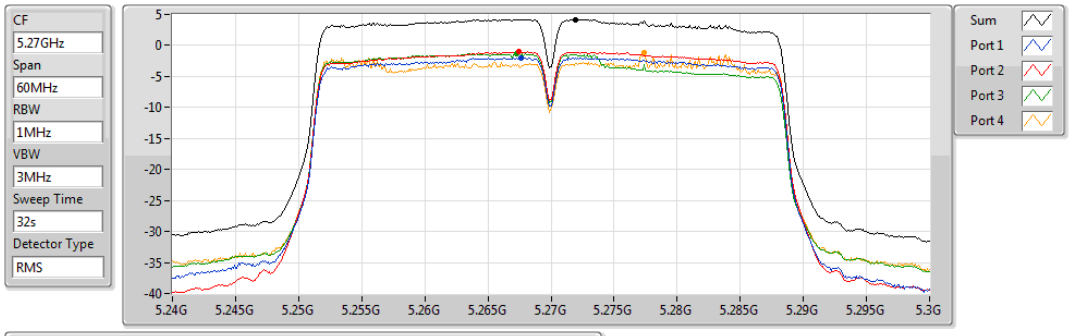
5720MHz Straddle 5.725-5.85GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.97	3.97	-2.72	-0.75	-1.96	-1.89

802.11ac VHT40-BF_Nss1,(MCS0)_4TX PSD

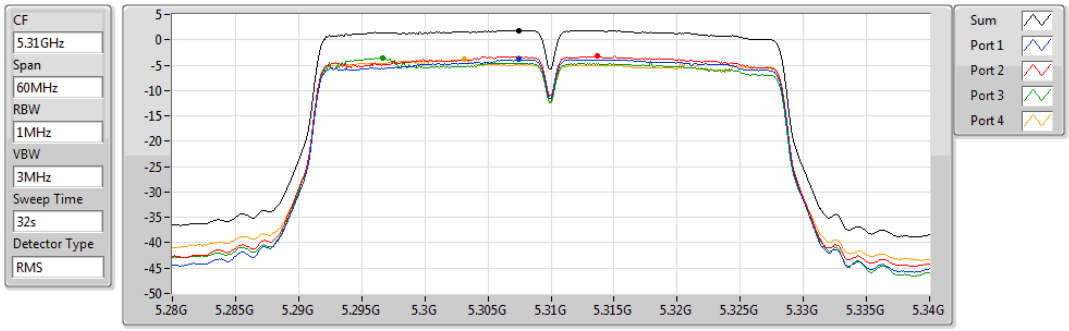
5270MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.20	4.20	-1.99	-1.02	-1.32	-1.13

802.11ac VHT40-BF_Nss1,(MCS0)_4TX PSD

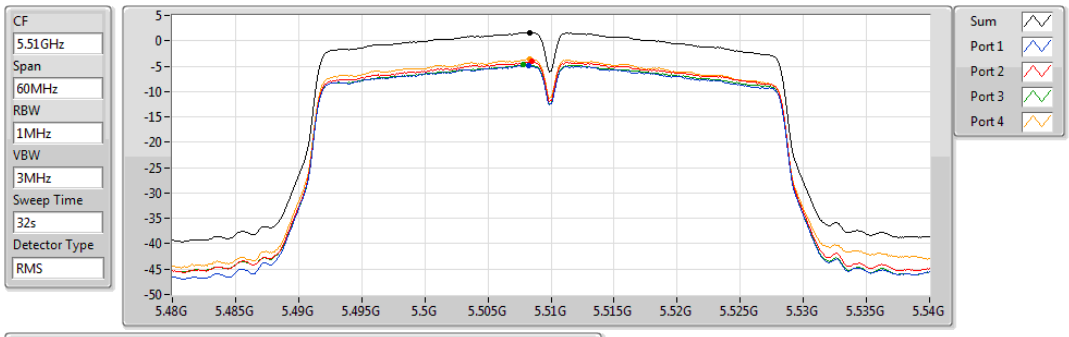
5310MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.88	1.88	-3.88	-3.19	-3.64	-3.88

802.11ac VHT40-BF_Nss1,(MCS0)_4TX PSD

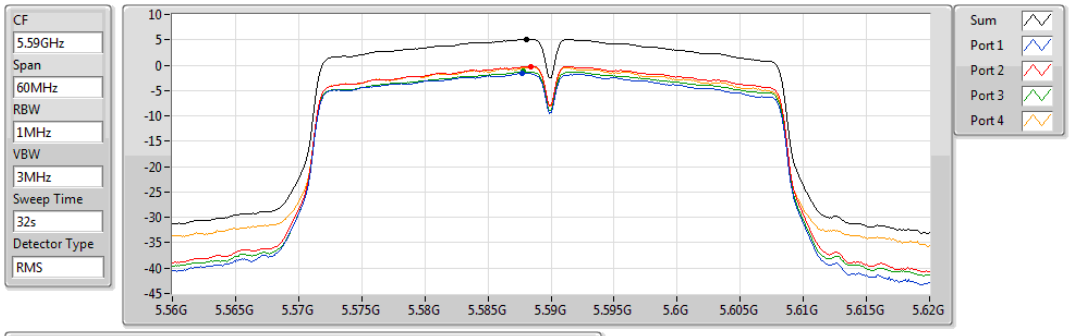
5510MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.66	1.66	-4.79	-4.13	-4.77	-3.64

802.11ac VHT40-BF_Nss1,(MCS0)_4TX PSD

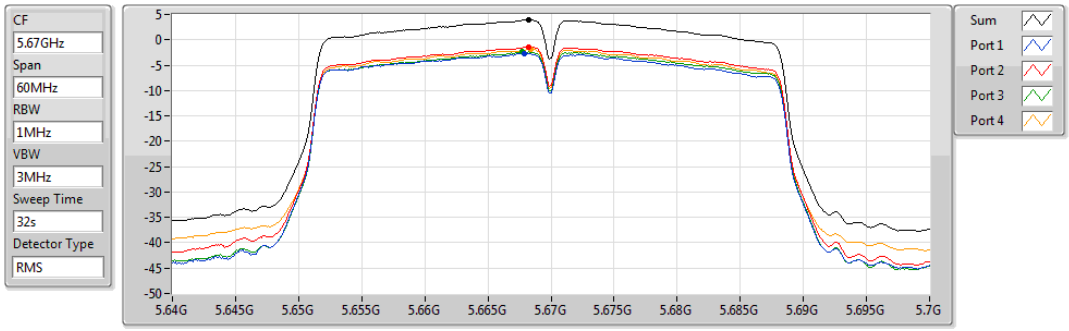
5590MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
5.16	5.16	-1.60	-0.22	-1.27	-0.38

802.11ac VHT40-BF_Nss1,(MCS0)_4TX PSD

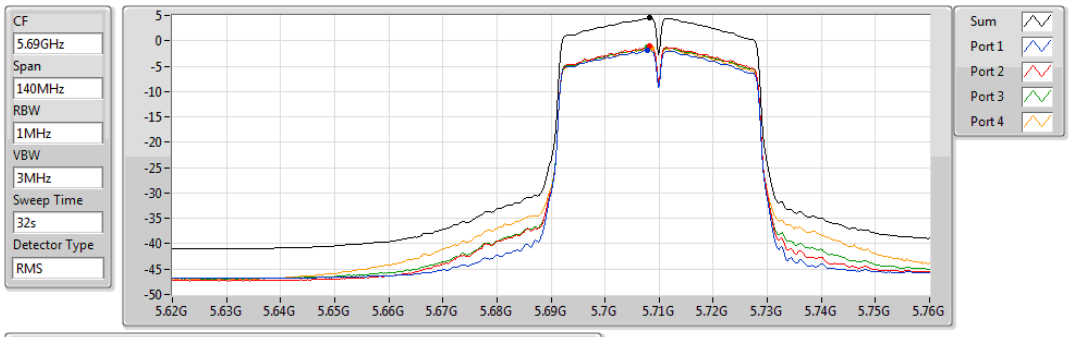
5670MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
3.93	3.93	-2.71	-1.43	-2.37	-1.88

802.11ac VHT40-BF_Nss1,(MCS0)_4TX PSD

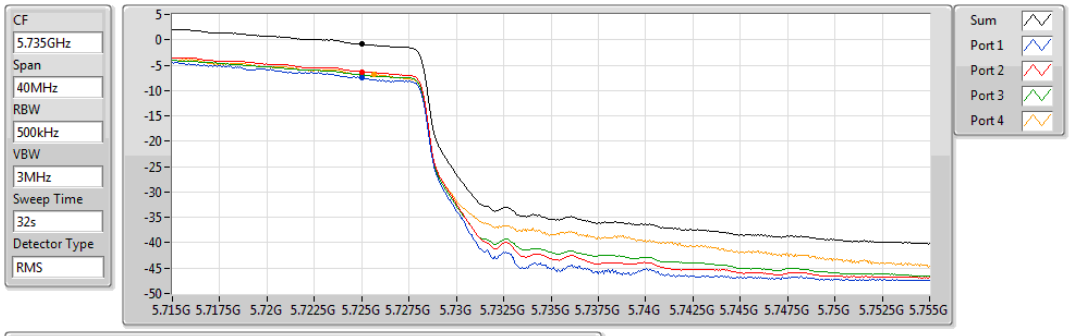
5710MHz Straddle 5.47-5.725GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
4.57	4.57	-1.82	-1.06	-1.33	-1.50

802.11ac VHT40-BF_Nss1,(MCS0)_4TX PSD

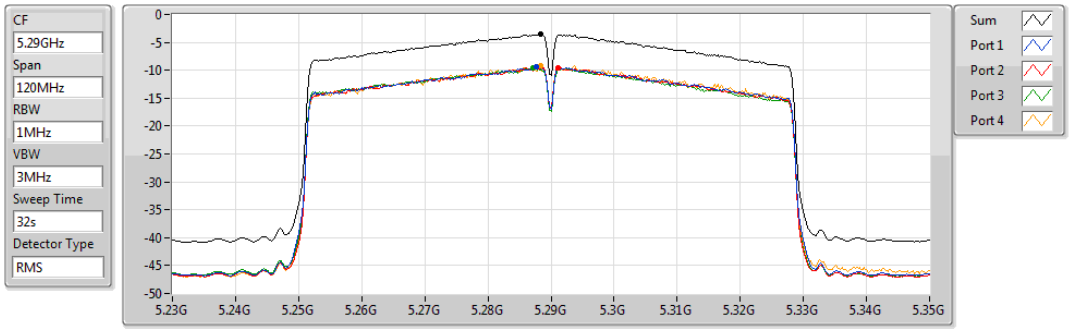
5710MHz Straddle 5.725-5.85GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-0.87	-0.87	-7.38	-6.30	-6.93	-6.84

802.11ac VHT80-BF_Nss1,(MCS0)_4TX PSD

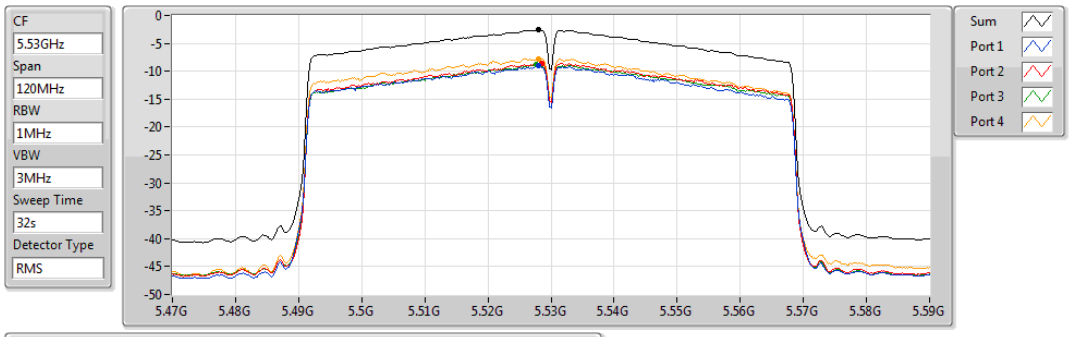
5290MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-3.53	-3.53	-9.46	-9.48	-9.66	-9.09

802.11ac VHT80-BF_Nss1,(MCS0)_4TX PSD

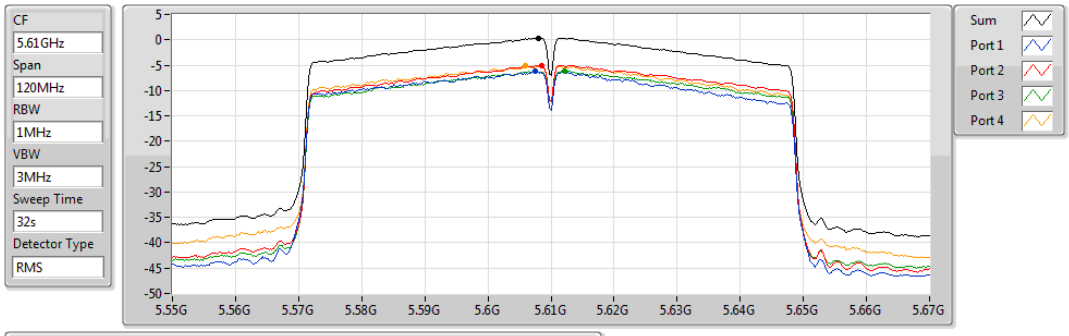
5530MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-2.59	-2.59	-9.04	-8.57	-8.85	-7.72

802.11ac VHT80-BF_Nss1,(MCS0)_4TX PSD

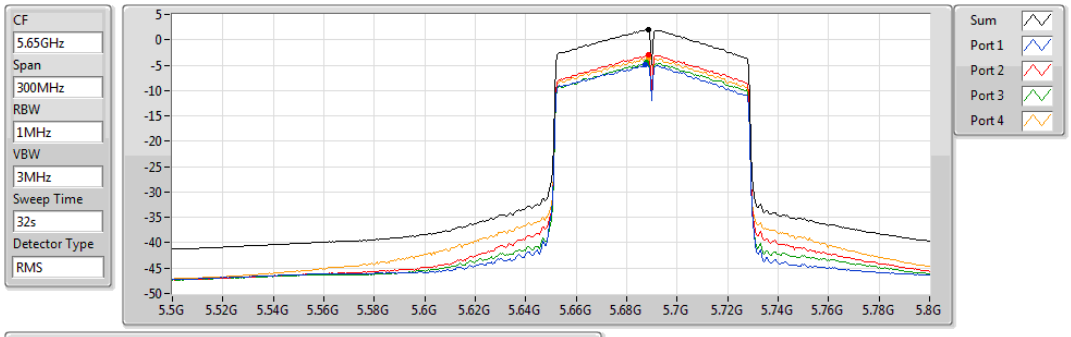
5610MHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
0.31	0.31	-6.26	-5.03	-6.14	-5.12

802.11ac VHT80-BF_Nss1,(MCS0)_4TX **PSD**

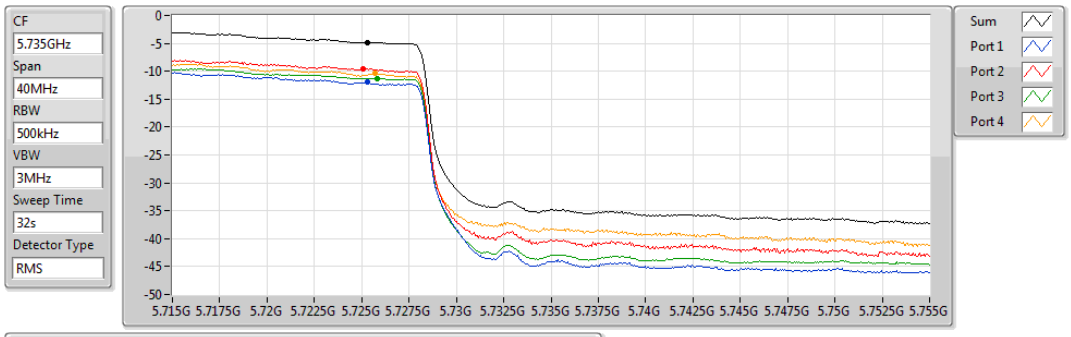
5690MHz Straddle 5.47-5.725GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
1.98	1.98	-4.92	-2.98	-4.52	-3.67

802.11ac VHT80-BF_Nss1,(MCS0)_4TX **PSD**

5690MHz Straddle 5.725-5.85GHz



Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)	(dBm/RBW)
-4.80	-4.80	-12.01	-9.60	-11.26	-10.44

3.5 Transmitter Radiated and Band Edge Emissions

3.5.1 Limit of Transmitter Radiated and Band Edge Emissions

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

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

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

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

3.5.2 Test Procedures

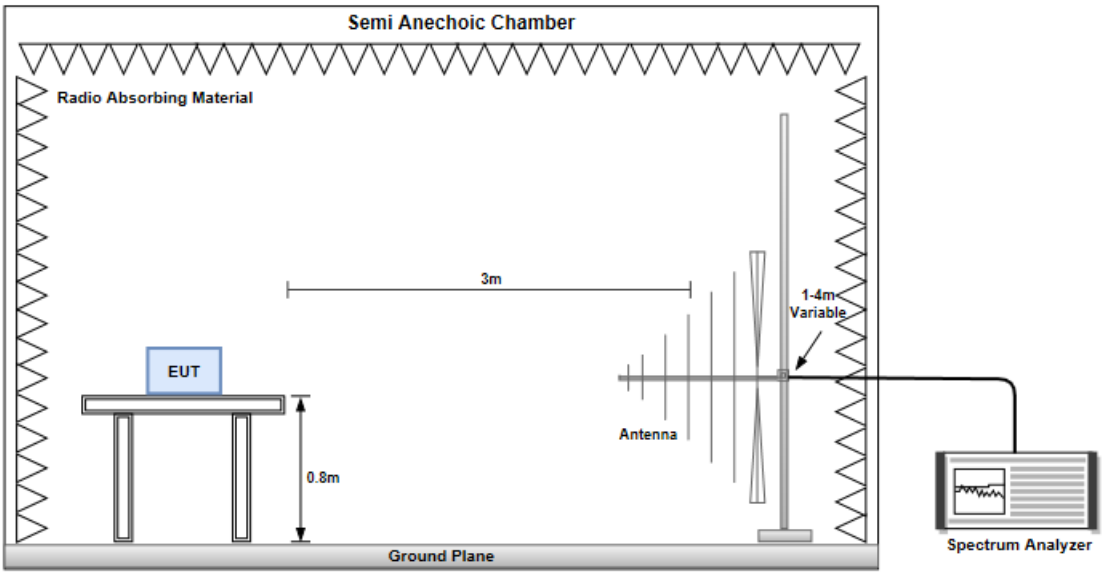
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

Note:

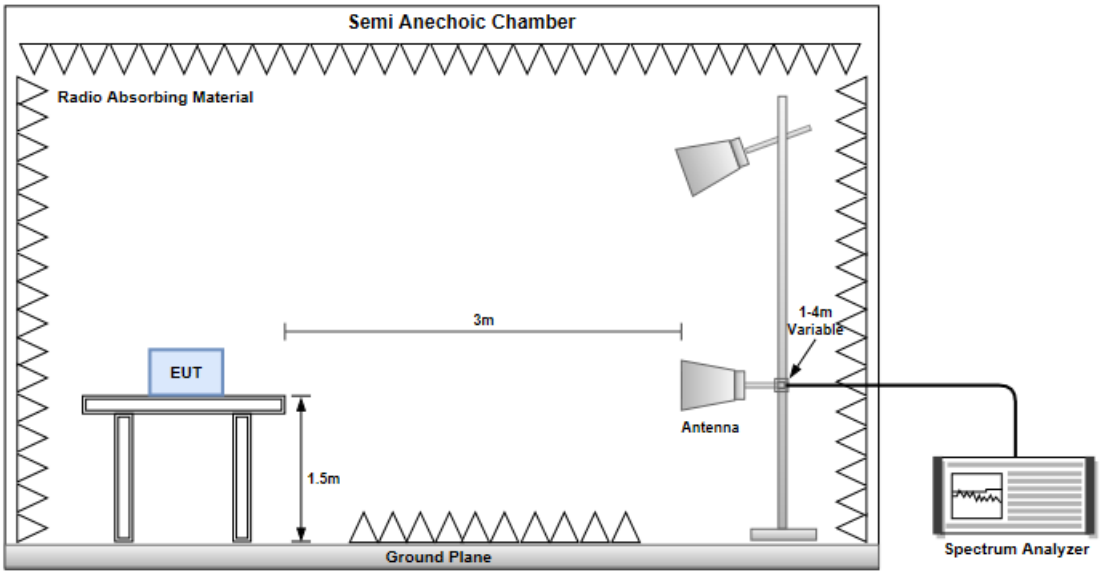
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz



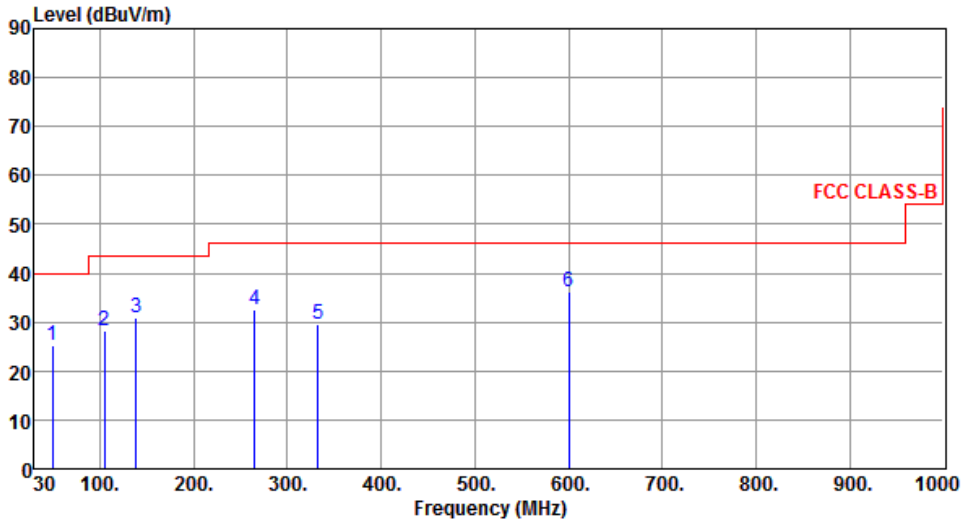
Radiated Emissions above 1 GHz



Non- beamforming mode

3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

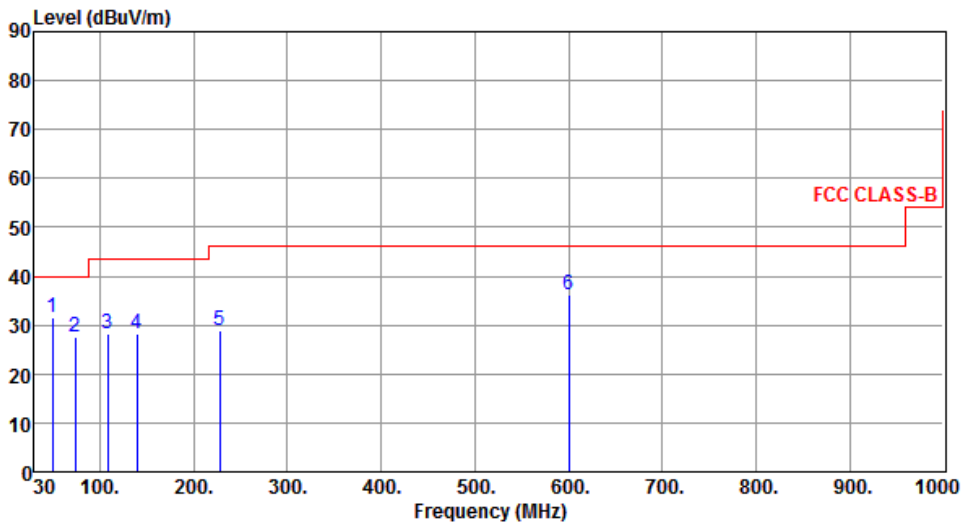
Modulation	VHT80	**Test Freq. (MHz)**	5690
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	49.40	25.26	40.00	-14.74	33.84	-8.58	Peak	---	---
2	104.55	28.29	43.50	-15.21	41.07	-12.78	Peak	---	---
3	138.51	30.85	43.50	-12.65	40.17	-9.32	Peak	---	---
4	264.66	32.48	46.00	-13.52	42.07	-9.59	Peak	---	---
5	332.55	29.68	46.00	-16.32	36.88	-7.20	Peak	---	---
6	600.42	36.24	46.00	-9.76	36.82	-0.58	Peak	---	---

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

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Vertical		

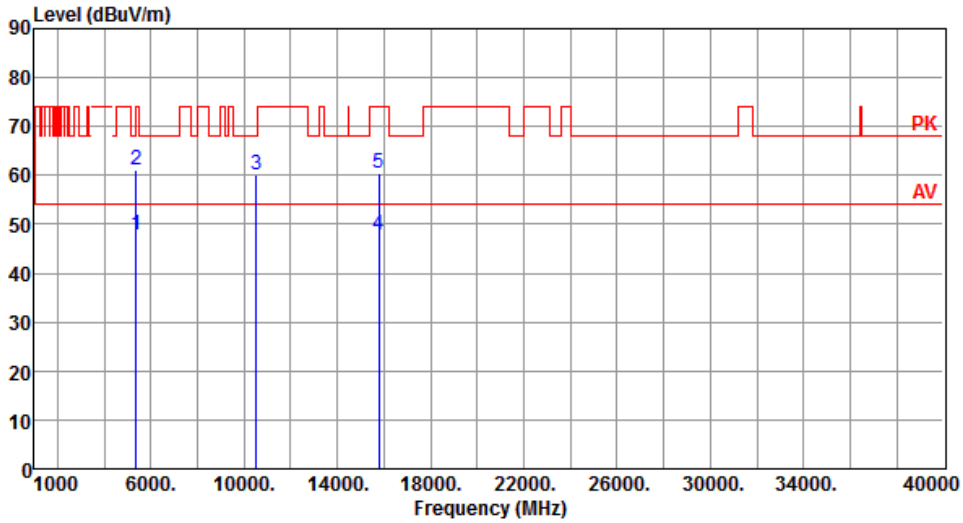


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	49.56	31.68	40.00	-8.32	40.28	-8.60	Peak	---	---
2	73.58	27.48	40.00	-12.52	39.19	-11.71	Peak	---	---
3	108.61	28.29	43.50	-15.21	40.51	-12.22	Peak	---	---
4	139.59	28.34	43.50	-15.16	37.61	-9.27	Peak	---	---
5	227.74	28.74	46.00	-17.26	40.61	-11.87	Peak	---	---
6	600.42	36.05	46.00	-9.95	36.63	-0.58	Peak	---	---

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

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

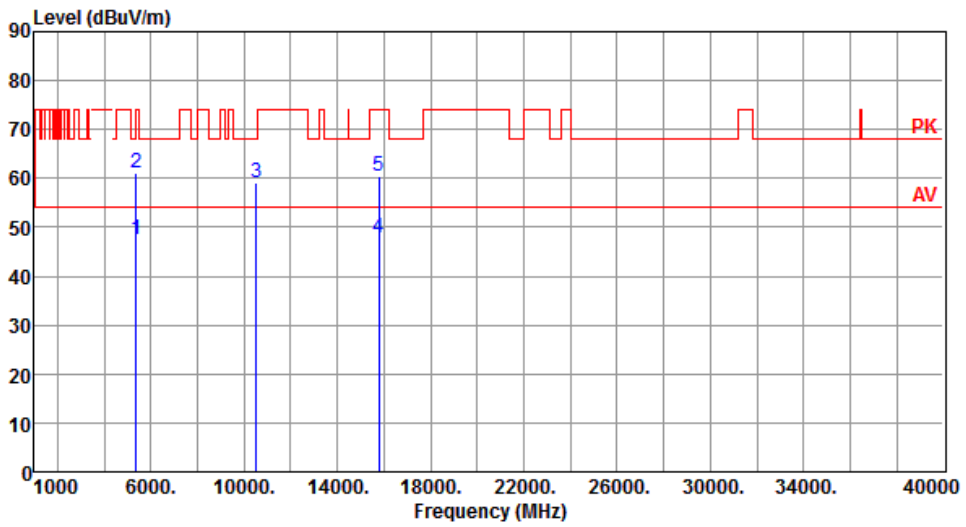
Modulation	11a	Test Freq. (MHz)	5260
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	47.66	54.00	-6.34	40.81	6.85	Average	211	122
2	5350.00	61.19	74.00	-12.81	54.34	6.85	Peak	211	122
3	10520.00	60.12	68.20	-8.08	43.56	16.56	Peak	100	249
4	15780.00	47.96	54.00	-6.04	31.22	16.74	Average	100	40
5	15780.00	60.29	74.00	-13.71	43.55	16.74	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).

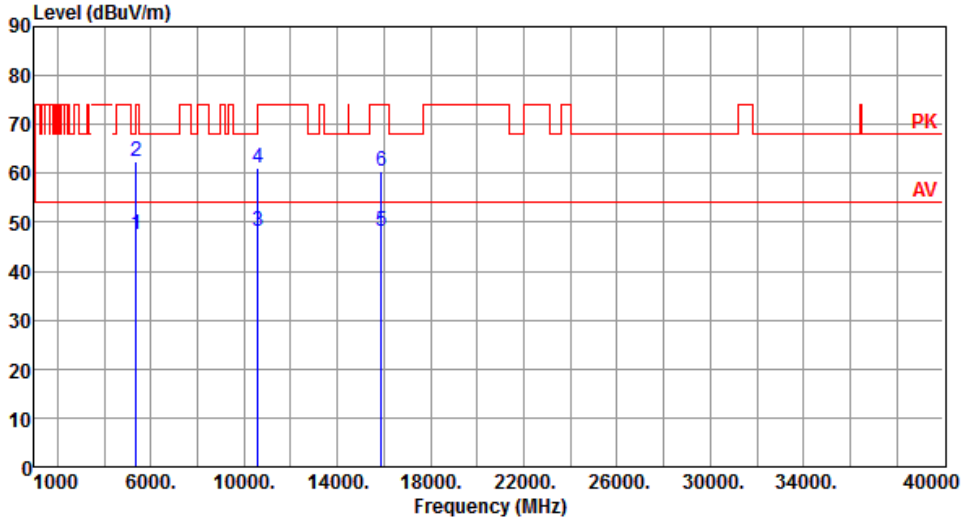
Modulation	11a	Test Freq. (MHz)	5260
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	47.64	54.00	-6.36	40.79	6.85	Average	100	72
2	5350.00	61.06	74.00	-12.94	54.21	6.85	Peak	100	72
3	10520.00	59.01	68.20	-9.19	42.45	16.56	Peak	100	20
4	15780.00	47.76	54.00	-6.24	31.02	16.74	Average	100	50
5	15780.00	60.35	74.00	-13.65	43.61	16.74	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).

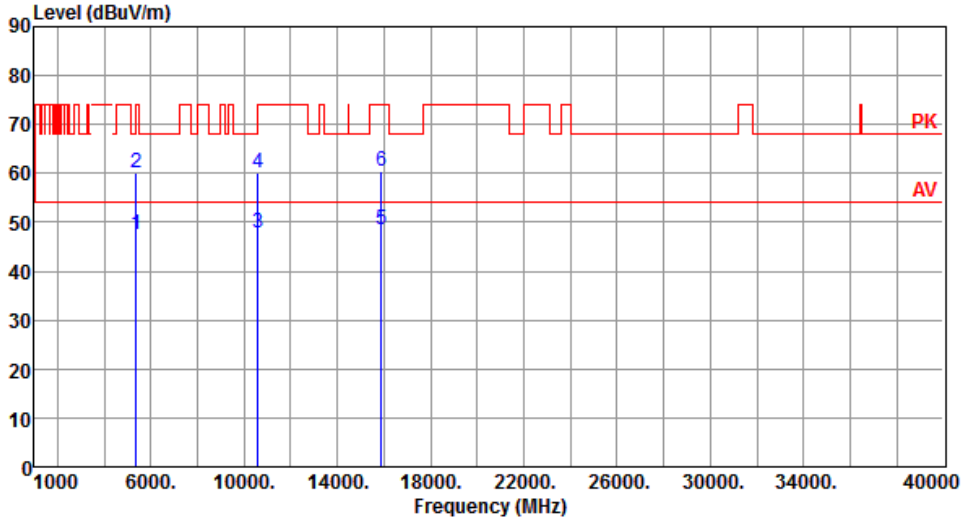
Modulation	11a	Test Freq. (MHz)	5300
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	47.54	54.00	-6.46	40.69	6.85	Average	211	123
2	5350.00	62.31	74.00	-11.69	55.46	6.85	Peak	211	123
3	10600.00	48.16	54.00	-5.84	31.50	16.66	Average	100	249
4	10600.00	61.09	74.00	-12.91	44.43	16.66	Peak	100	249
5	15900.00	48.24	54.00	-5.76	31.55	16.69	Average	100	60
6	15900.00	60.38	74.00	-13.62	43.69	16.69	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).

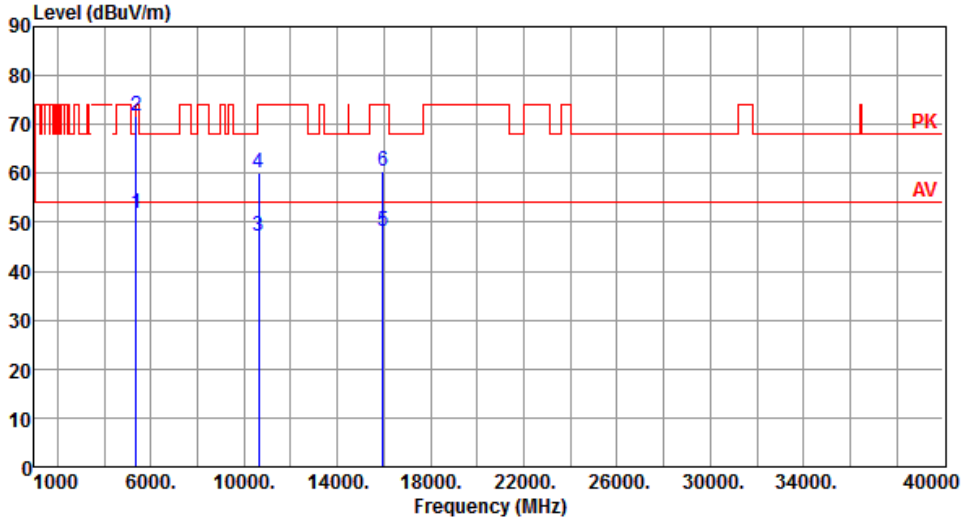
Modulation	11a	Test Freq. (MHz)	5300
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	47.47	54.00	-6.53	40.62	6.85	Average	100	75
2	5350.00	60.10	74.00	-13.90	53.25	6.85	Peak	100	75
3	10600.00	47.77	54.00	-6.23	31.11	16.66	Average	100	20
4	10600.00	60.22	74.00	-13.78	43.56	16.66	Peak	100	20
5	15900.00	48.34	54.00	-5.66	31.65	16.69	Average	100	50
6	15900.00	60.28	74.00	-13.72	43.59	16.69	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).

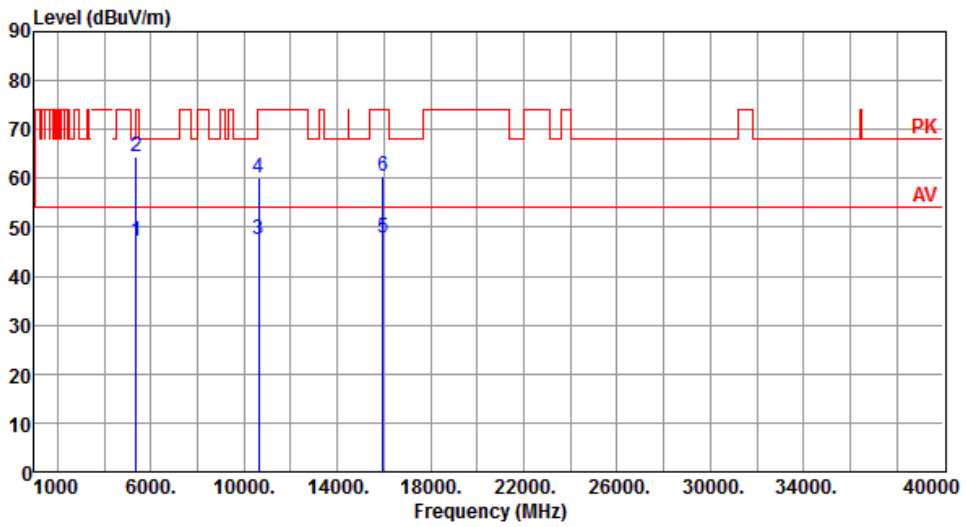
Modulation	11a	Test Freq. (MHz)	5320
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	51.93	54.00	-2.07	45.08	6.85	Average	215	127
2	5350.00	71.58	74.00	-2.42	64.73	6.85	Peak	215	127
3	10640.00	47.09	54.00	-6.91	30.46	16.63	Average	100	251
4	10640.00	60.09	74.00	-13.91	43.46	16.63	Peak	100	251
5	15960.00	48.06	54.00	-5.94	31.35	16.71	Average	100	50
6	15960.00	60.28	74.00	-13.72	43.57	16.71	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).

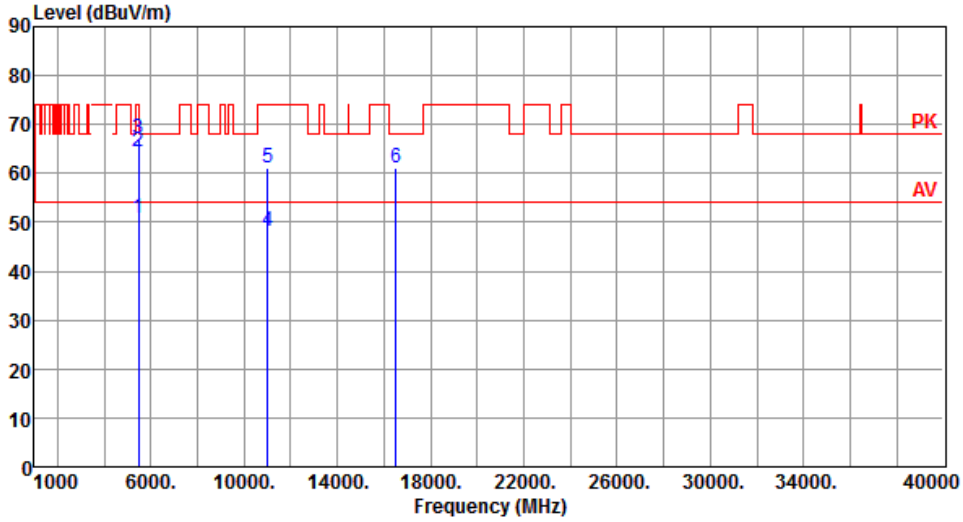
Modulation	11a	Test Freq. (MHz)	5320
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	47.06	54.00	-6.94	40.21	6.85	Average	100	72
2	5350.00	64.50	74.00	-9.50	57.65	6.85	Peak	100	72
3	10640.00	47.39	54.00	-6.61	30.76	16.63	Average	100	30
4	10640.00	60.14	74.00	-13.86	43.51	16.63	Peak	100	30
5	15960.00	47.93	54.00	-6.07	31.22	16.71	Average	100	40
6	15960.00	60.32	74.00	-13.68	43.61	16.71	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).

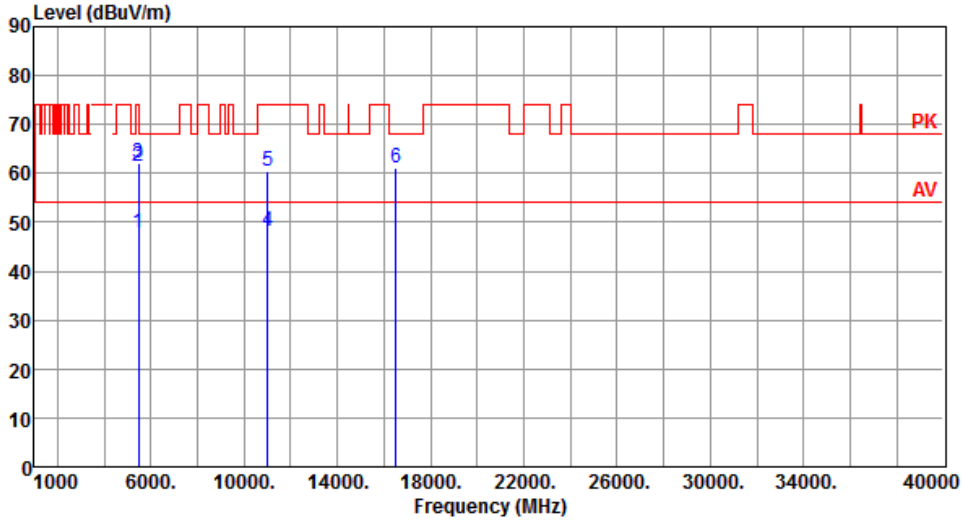
Modulation	11a	Test Freq. (MHz)	5500
Polarization	Horizontal		



	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	50.81	54.00	-3.19	43.44	7.37	Average	215	125
2	5460.00	64.49	74.00	-9.51	57.12	7.37	Peak	215	125
3	5470.00	67.13	68.20	-1.07	59.71	7.42	Peak	215	125
4	11000.00	48.09	54.00	-5.91	31.15	16.94	Average	100	80
5	11000.00	61.20	74.00	-12.80	44.26	16.94	Peak	100	80
6	16500.00	61.11	68.20	-7.09	43.47	17.64	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).

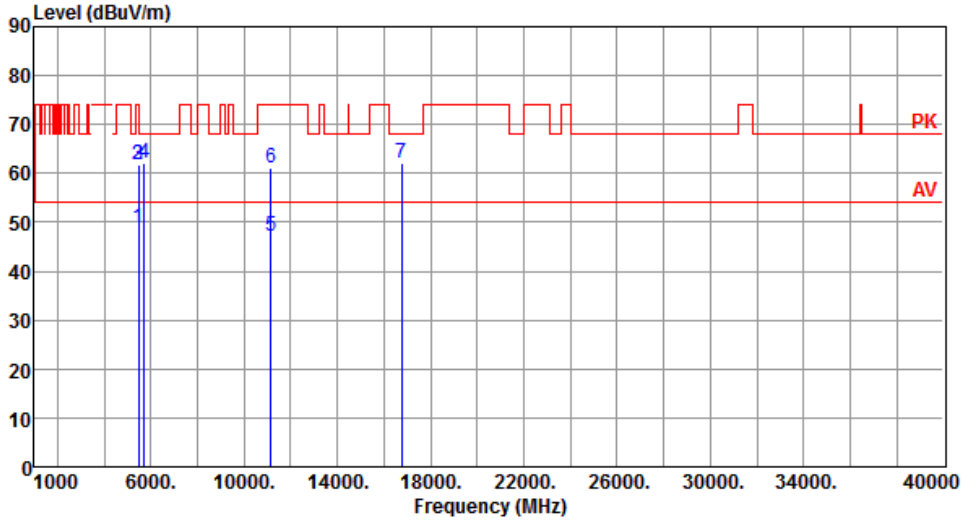
Modulation	11a	Test Freq. (MHz)	5500
Polarization	Vertical		



	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	47.93	54.00	-6.07	40.56	7.37	Average	100	182
2	5460.00	61.49	74.00	-12.51	54.12	7.37	Peak	100	182
3	5470.00	62.11	68.20	-6.09	54.69	7.42	Peak	100	182
4	11000.00	48.06	54.00	-5.94	31.12	16.94	Average	100	20
5	11000.00	60.50	74.00	-13.50	43.56	16.94	Peak	100	20
6	16500.00	61.09	68.20	-7.11	43.45	17.64	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).

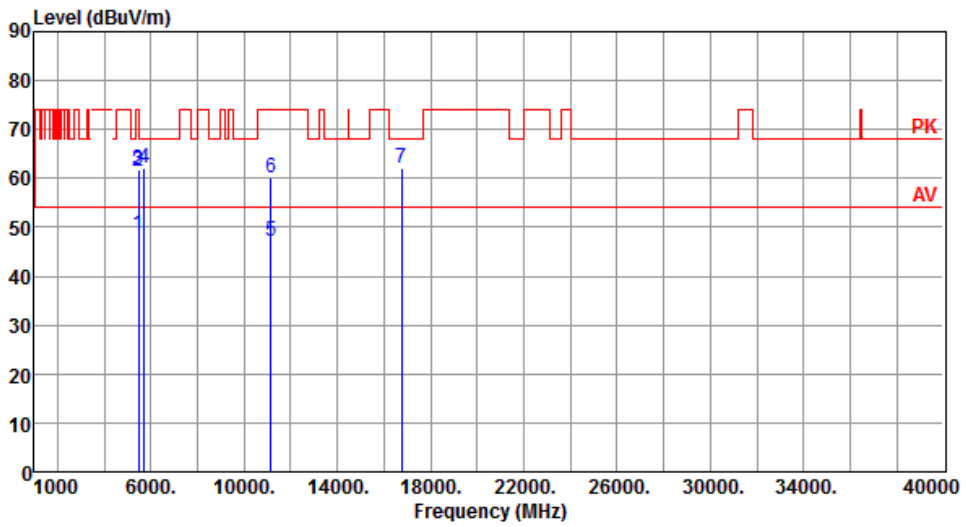
Modulation	11a	Test Freq. (MHz)	5580
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.70	54.00	-5.30	41.33	7.37	Average	210	120
2	5460.00	61.61	74.00	-12.39	54.24	7.37	Peak	210	120
3	5470.00	61.81	68.20	-6.39	54.39	7.42	Peak	210	120
4	5725.00	62.13	68.20	-6.07	54.37	7.76	Peak	210	120
5	11160.00	47.30	54.00	-6.70	30.67	16.63	Average	205	87
6	11160.00	60.97	74.00	-13.03	44.34	16.63	Peak	205	87
7	16740.00	62.14	68.20	-6.06	43.55	18.59	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).

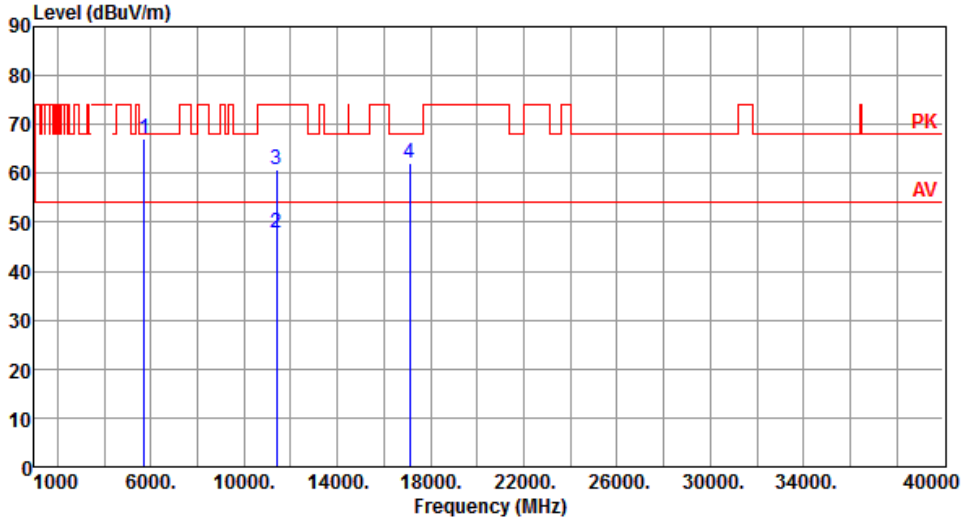
Modulation	11a	Test Freq. (MHz)	5580
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.58	54.00	-5.42	41.21	7.37	Average	100	184
2	5460.00	61.48	74.00	-12.52	54.11	7.37	Peak	100	184
3	5470.00	61.63	68.20	-6.57	54.21	7.42	Peak	100	184
4	5725.00	62.00	68.20	-6.20	54.24	7.76	Peak	100	184
5	11160.00	47.14	54.00	-6.86	30.51	16.63	Average	100	216
6	11160.00	60.10	74.00	-13.90	43.47	16.63	Peak	100	216
7	16740.00	62.13	68.20	-6.07	43.54	18.59	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).

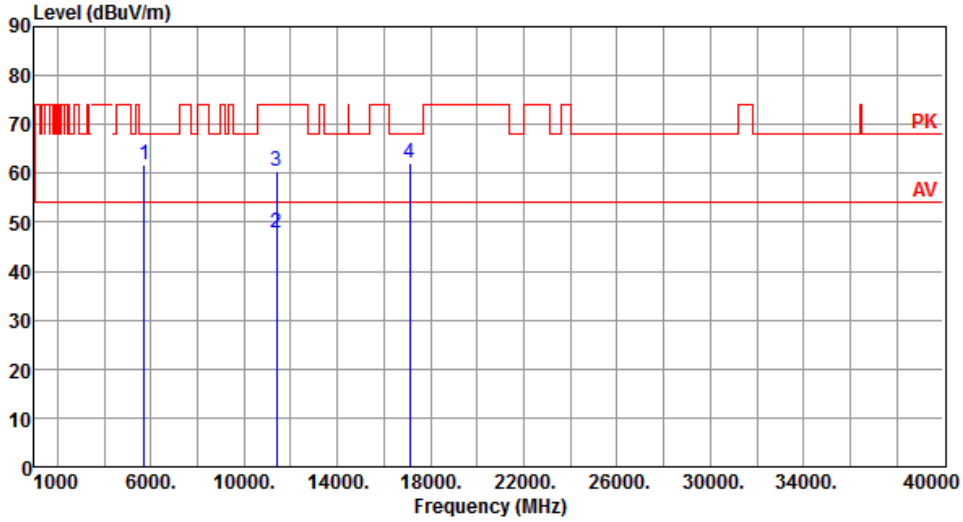
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	67.11	68.20	-1.09	59.35	7.76	Peak	215	124
2	11400.00	47.84	54.00	-6.16	31.11	16.73	Average	100	40
3	11400.00	60.88	74.00	-13.12	44.15	16.73	Peak	100	40
4	17100.00	62.05	68.20	-6.15	43.51	18.54	Peak	100	90

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

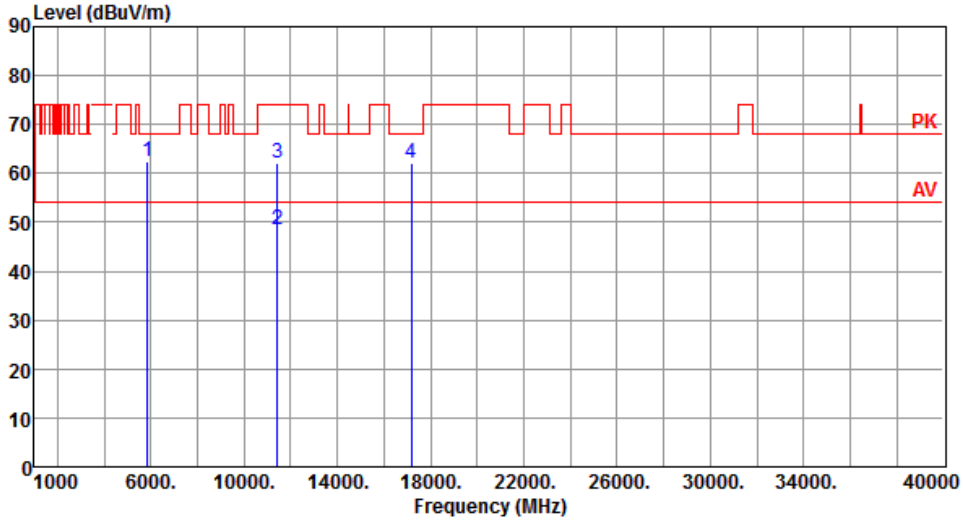
Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	61.87	68.20	-6.33	54.11	7.76	Peak	100	184
2	11400.00	47.84	54.00	-6.16	31.11	16.73	Average	100	20
3	11400.00	60.31	74.00	-13.69	43.58	16.73	Peak	100	20
4	17100.00	62.15	68.20	-6.05	43.61	18.54	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).

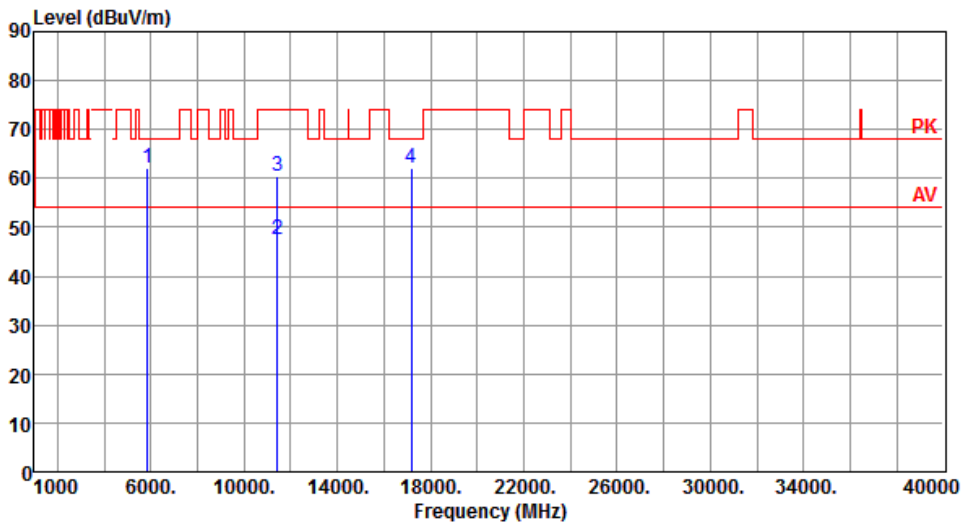
Modulation	11a	Test Freq. (MHz)	5720
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	62.38	68.20	-5.82	54.26	8.12	Peak	212	125
2	11440.00	48.37	54.00	-5.63	31.59	16.78	Average	203	86
3	11440.00	61.99	74.00	-12.01	45.21	16.78	Peak	203	86
4	17160.00	62.10	68.20	-6.10	43.60	18.50	Peak	100	20

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

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

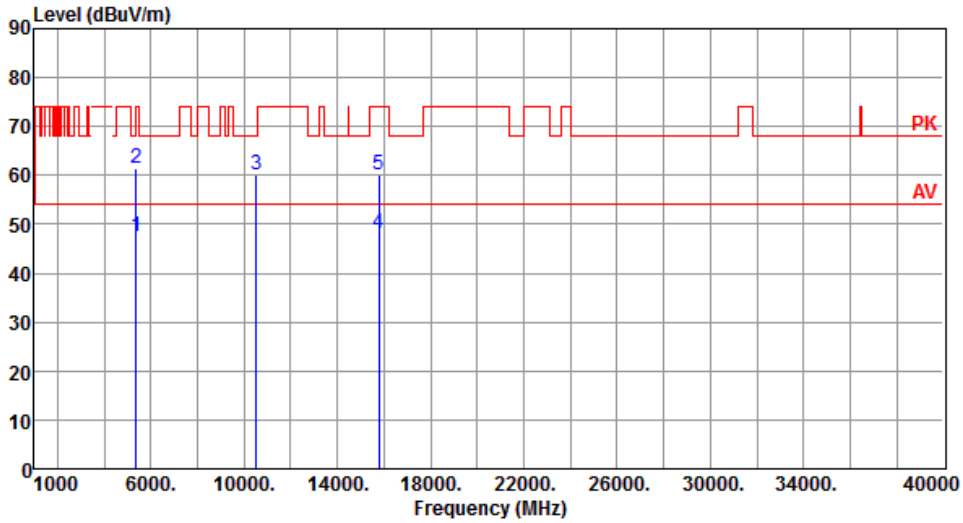


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	62.24	68.20	-5.96	54.12	8.12	Peak	100	182
2	11440.00	47.34	54.00	-6.66	30.56	16.78	Average	100	40
3	11440.00	60.31	74.00	-13.69	43.53	16.78	Peak	100	40
4	17160.00	62.03	68.20	-6.17	43.53	18.50	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).

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

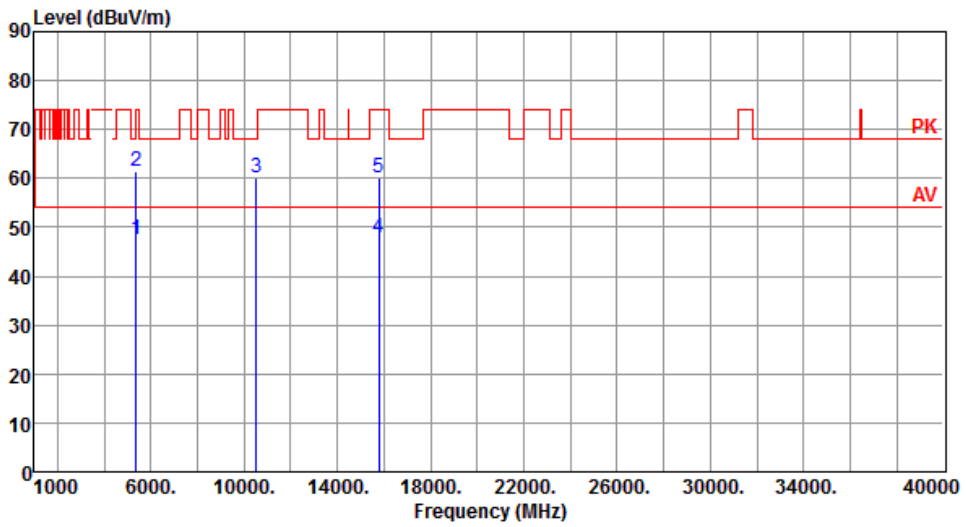
Modulation	VHT20	**Test Freq. (MHz)**	5260
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	47.54	54.00	-6.46	40.69	6.85	Average	202	126
2	5350.00	61.41	74.00	-12.59	54.56	6.85	Peak	202	126
3	10520.00	60.17	68.20	-8.03	43.61	16.56	Peak	100	245
4	15780.00	48.13	54.00	-5.87	31.39	16.74	Average	100	30
5	15780.00	60.20	74.00	-13.80	43.46	16.74	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).

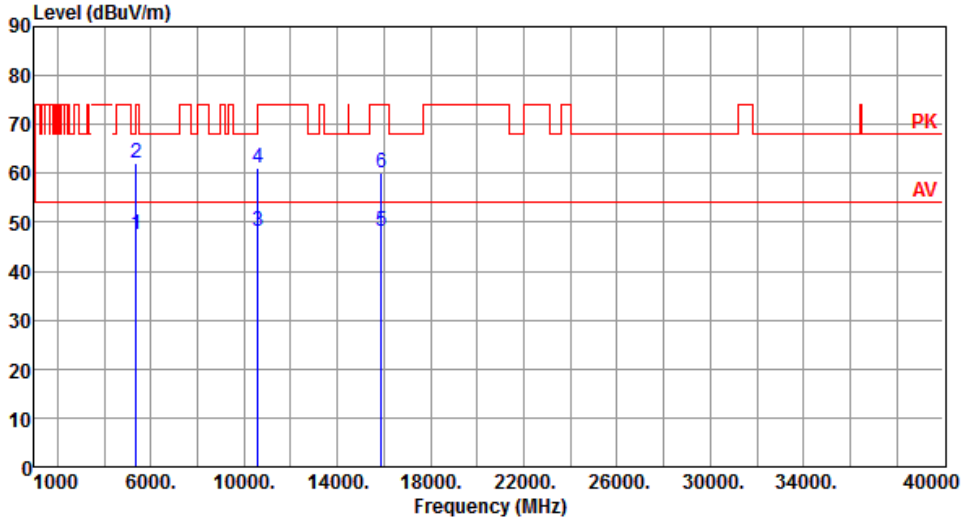
Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	47.38	54.00	-6.62	40.53	6.85	Average	100	67
2	5350.00	61.38	74.00	-12.62	54.53	6.85	Peak	100	67
3	10520.00	60.12	68.20	-8.08	43.56	16.56	Peak	100	15
4	15780.00	47.96	54.00	-6.04	31.22	16.74	Average	100	25
5	15780.00	60.05	74.00	-13.95	43.31	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).

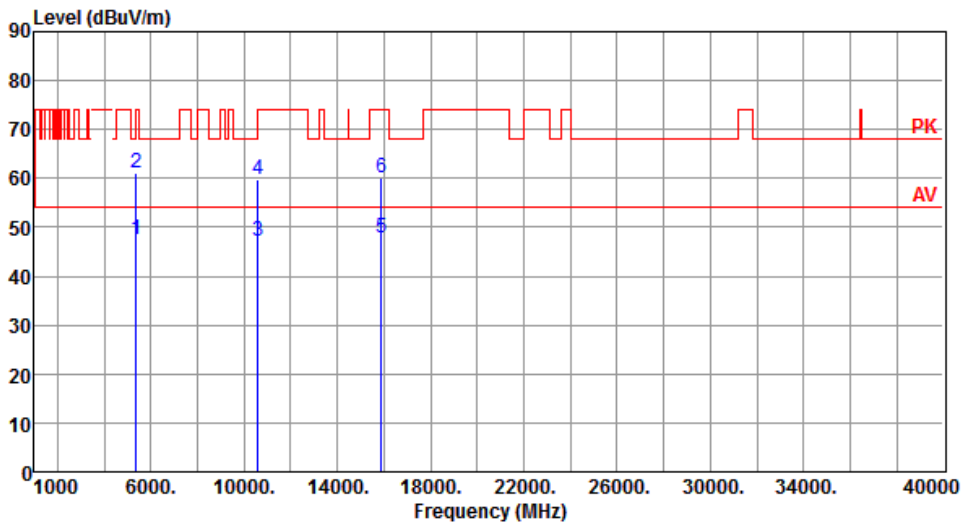
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	47.41	54.00	-6.59	40.56	6.85	Average	200	122
2	5350.00	62.17	74.00	-11.83	55.32	6.85	Peak	200	122
3	10600.00	48.12	54.00	-5.88	31.46	16.66	Average	100	250
4	10600.00	61.22	74.00	-12.78	44.56	16.66	Peak	100	250
5	15900.00	48.12	54.00	-5.88	31.43	16.69	Average	100	30
6	15900.00	60.20	74.00	-13.80	43.51	16.69	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).

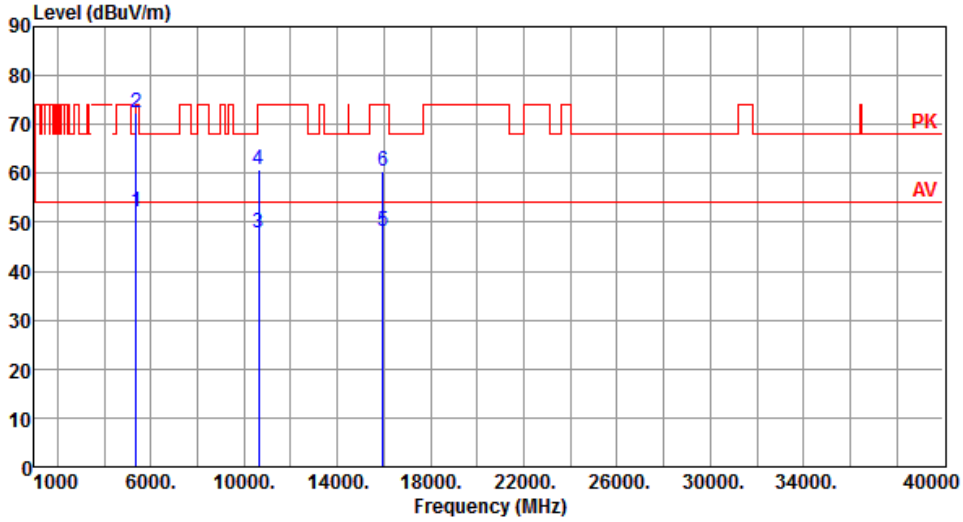
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	47.34	54.00	-6.66	40.49	6.85	Average	100	71
2	5350.00	60.97	74.00	-13.03	54.12	6.85	Peak	100	71
3	10600.00	47.31	54.00	-6.69	30.65	16.66	Average	100	18
4	10600.00	59.68	74.00	-14.32	43.02	16.66	Peak	100	18
5	15900.00	47.90	54.00	-6.10	31.21	16.69	Average	100	20
6	15900.00	60.10	74.00	-13.90	43.41	16.69	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).

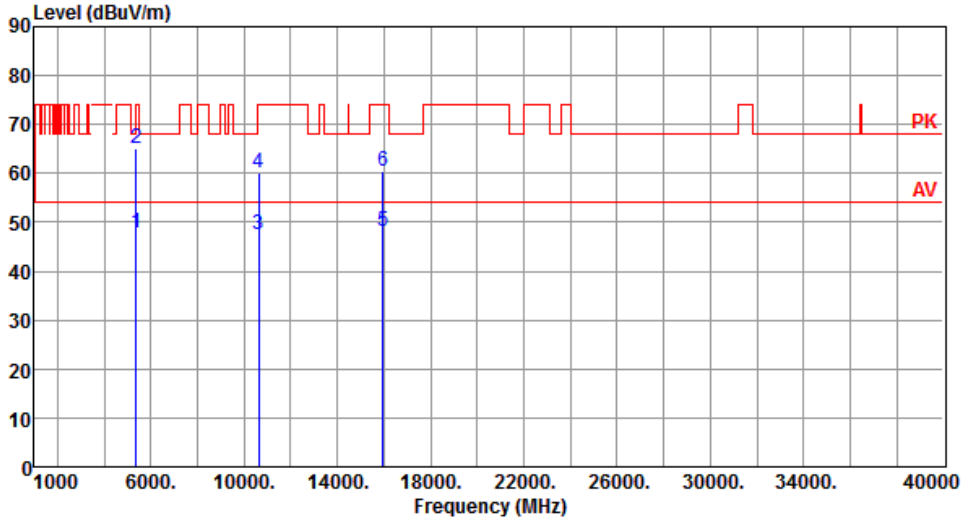
Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Horizontal		



	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	52.21	54.00	-1.79	45.36	6.85	Average	197	122
2	5350.00	72.50	74.00	-1.50	65.65	6.85	Peak	197	122
3	10640.00	47.86	54.00	-6.14	31.23	16.63	Average	100	50
4	10640.00	60.89	74.00	-13.11	44.26	16.63	Peak	100	50
5	15960.00	48.13	54.00	-5.87	31.42	16.71	Average	100	30
6	15960.00	60.28	74.00	-13.72	43.57	16.71	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).

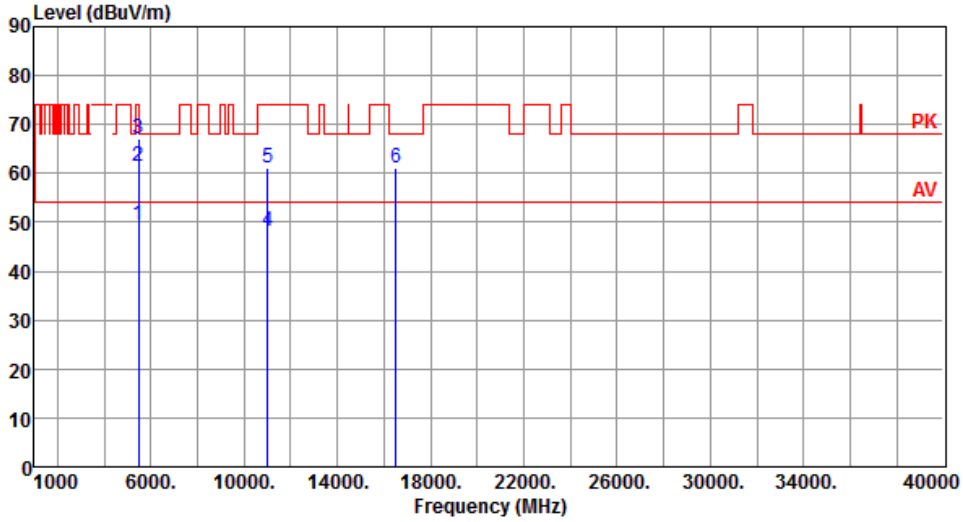
Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Vertical		



	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	47.97	54.00	-6.03	41.12	6.85	Average	100	75
2	5350.00	65.12	74.00	-8.88	58.27	6.85	Peak	100	75
3	10640.00	47.65	54.00	-6.35	31.02	16.63	Average	100	20
4	10640.00	60.20	74.00	-13.80	43.57	16.63	Peak	100	20
5	15960.00	48.26	54.00	-5.74	31.55	16.71	Average	100	40
6	15960.00	60.39	74.00	-13.61	43.68	16.71	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).

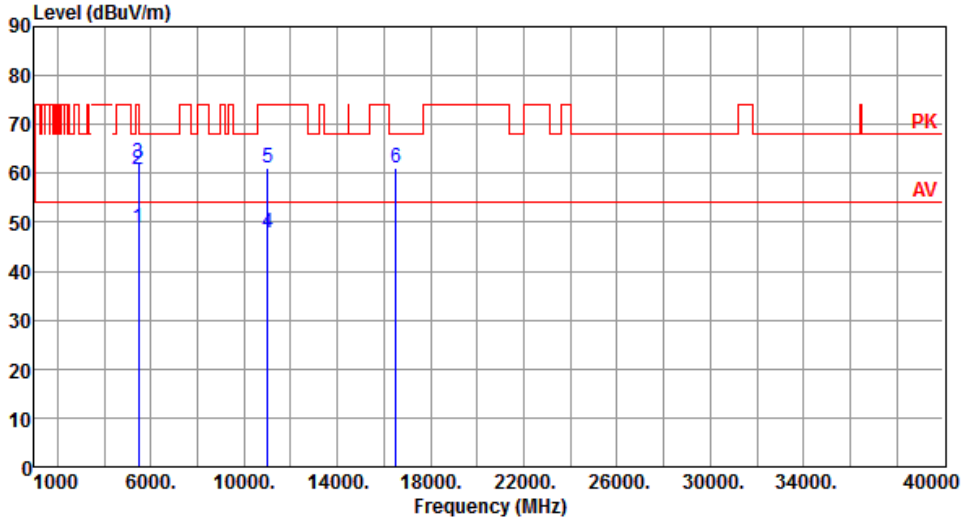
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Horizontal		



	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	49.46	54.00	-4.54	42.09	7.37	Average	208	123
2	5460.00	61.28	74.00	-12.72	53.91	7.37	Peak	208	123
3	5470.00	67.16	68.20	-1.04	59.74	7.42	Peak	208	123
4	11000.00	48.06	54.00	-5.94	31.12	16.94	Average	100	90
5	11000.00	61.15	74.00	-12.85	44.21	16.94	Peak	100	90
6	16500.00	61.06	68.20	-7.14	43.42	17.64	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).

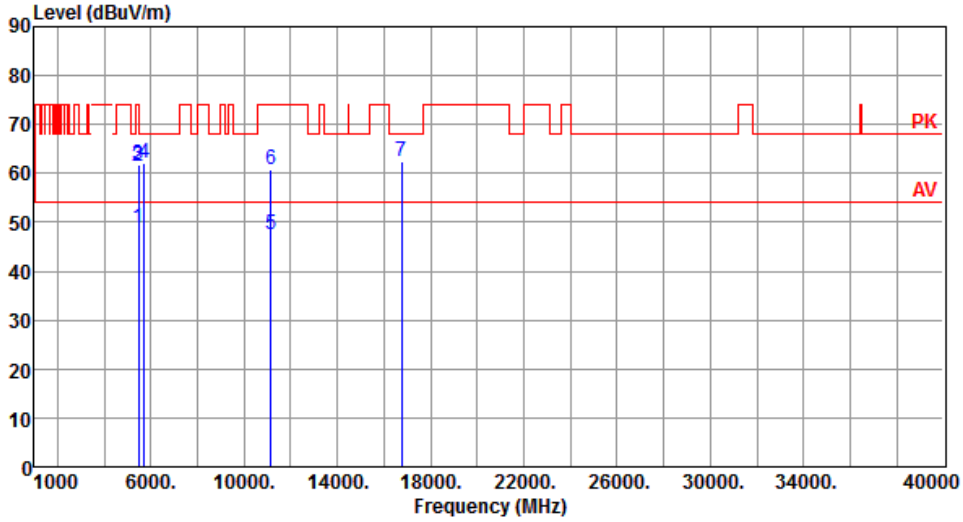
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical		



	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	48.93	54.00	-5.07	41.56	7.37	Average	100	183
2	5460.00	60.93	74.00	-13.07	53.56	7.37	Peak	100	183
3	5470.00	62.11	68.20	-6.09	54.69	7.42	Peak	100	183
4	11000.00	47.96	54.00	-6.04	31.02	16.94	Average	100	40
5	11000.00	61.03	74.00	-12.97	44.09	16.94	Peak	100	40
6	16500.00	61.20	68.20	-7.00	43.56	17.64	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).

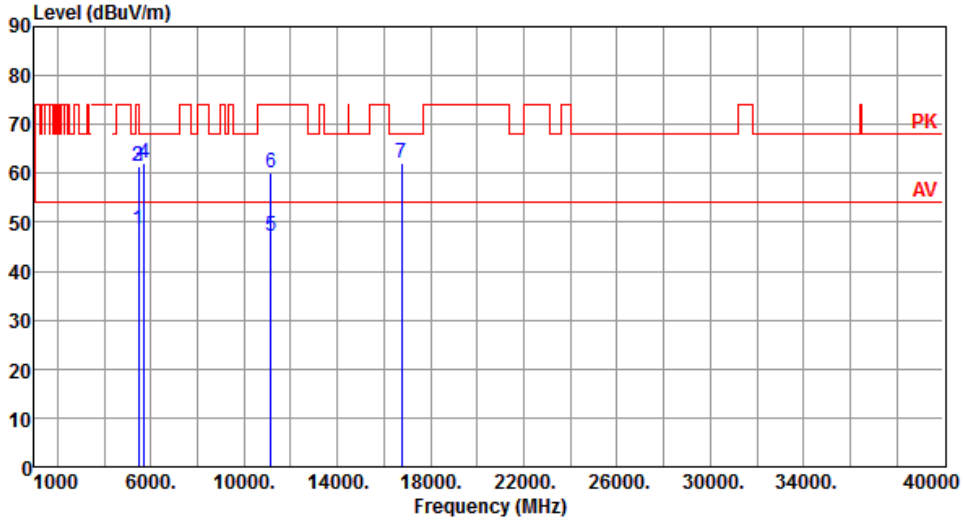
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Horizontal		



	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	48.66	54.00	-5.34	41.29	7.37	Average	217	123
2	5460.00	61.49	74.00	-12.51	54.12	7.37	Peak	217	123
3	5470.00	61.65	68.20	-6.55	54.23	7.42	Peak	217	123
4	5725.00	62.11	68.20	-6.09	54.35	7.76	Peak	217	123
5	11160.00	47.48	54.00	-6.52	30.85	16.63	Average	202	88
6	11160.00	60.84	74.00	-13.16	44.21	16.63	Peak	202	88
7	16740.00	62.27	68.20	-5.93	43.68	18.59	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).

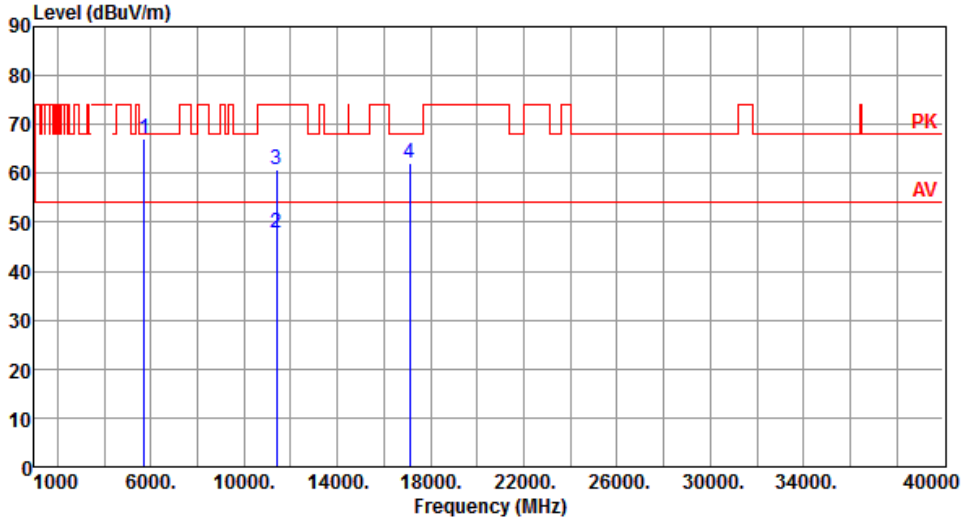
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Vertical		



	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	48.49	54.00	-5.51	41.12	7.37	Average	100	185
2	5460.00	61.39	74.00	-12.61	54.02	7.37	Peak	100	185
3	5470.00	61.51	68.20	-6.69	54.09	7.42	Peak	100	185
4	5725.00	62.02	68.20	-6.18	54.26	7.76	Peak	100	185
5	11160.00	47.19	54.00	-6.81	30.56	16.63	Average	100	50
6	11160.00	60.19	74.00	-13.81	43.56	16.63	Peak	100	50
7	16740.00	62.09	68.20	-6.11	43.50	18.59	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).

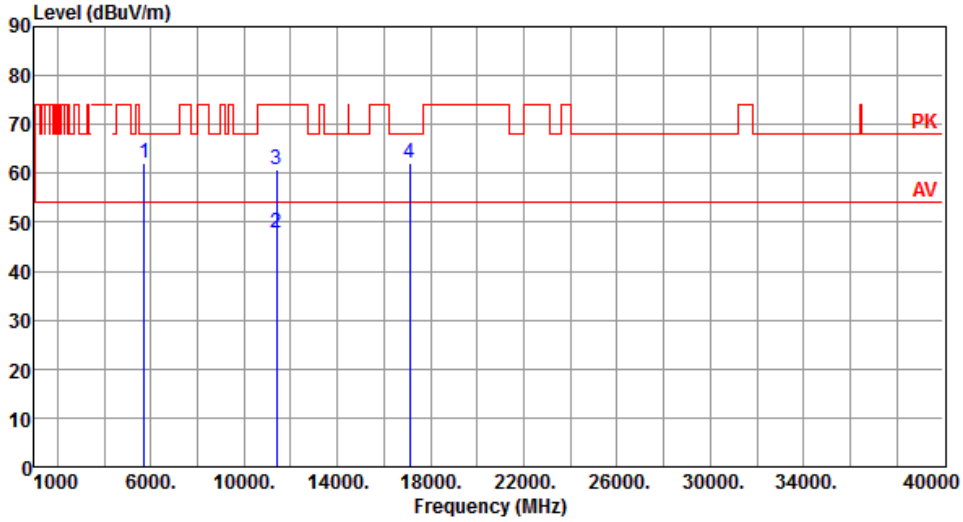
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



	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	67.06	68.20	-1.14	59.30	7.76	Peak	217	123
2	11400.00	47.75	54.00	-6.25	31.02	16.73	Average	100	60
3	11400.00	60.93	74.00	-13.07	44.20	16.73	Peak	100	60
4	17100.00	62.03	68.20	-6.17	43.49	18.54	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).

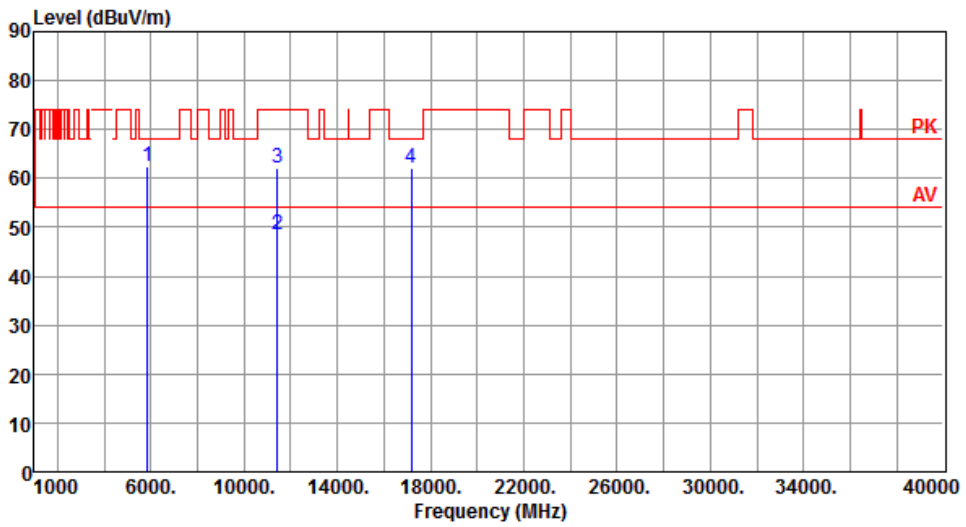
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical		



	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	62.04	68.20	-6.16	54.28	7.76	Peak	100	184
2	11400.00	47.78	54.00	-6.22	31.05	16.73	Average	100	20
3	11400.00	60.87	74.00	-13.13	44.14	16.73	Peak	100	20
4	17100.00	62.12	68.20	-6.08	43.58	18.54	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).

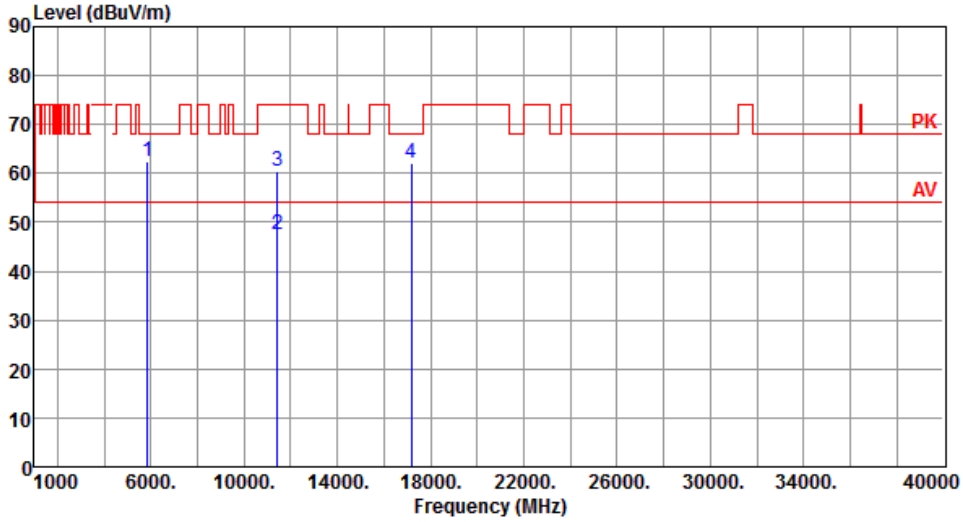
Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Horizontal		



	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	62.41	68.20	-5.79	54.29	8.12	Peak	215	124
2	11440.00	48.32	54.00	-5.68	31.54	16.78	Average	203	89
3	11440.00	61.96	74.00	-12.04	45.18	16.78	Peak	203	89
4	17160.00	62.04	68.20	-6.16	43.54	18.50	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	VHT20	Test Freq. (MHz)	5720
Polarization	Vertical		

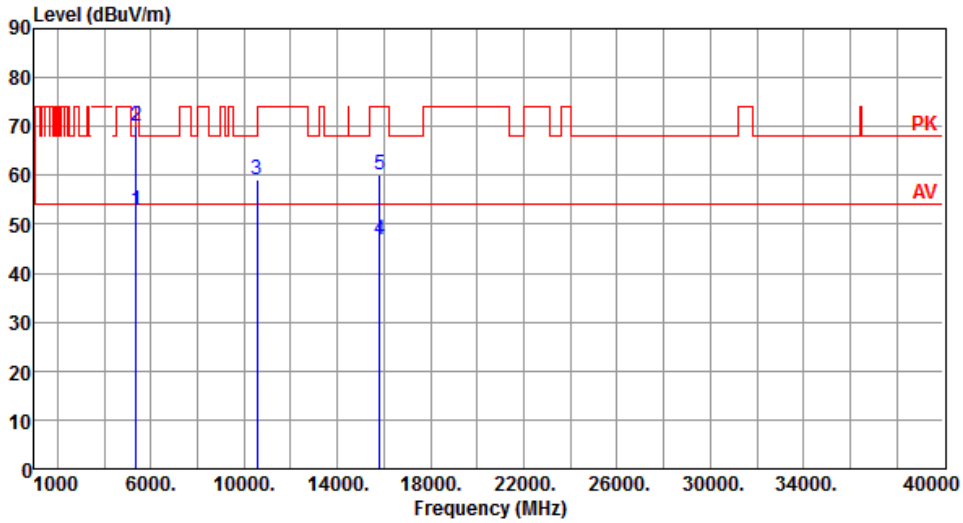


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	62.43	68.20	-5.77	54.31	8.12	Peak	100	184
2	11440.00	47.42	54.00	-6.58	30.64	16.78	Average	100	40
3	11440.00	60.35	74.00	-13.65	43.57	16.78	Peak	100	40
4	17160.00	62.10	68.20	-6.10	43.60	18.50	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).

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

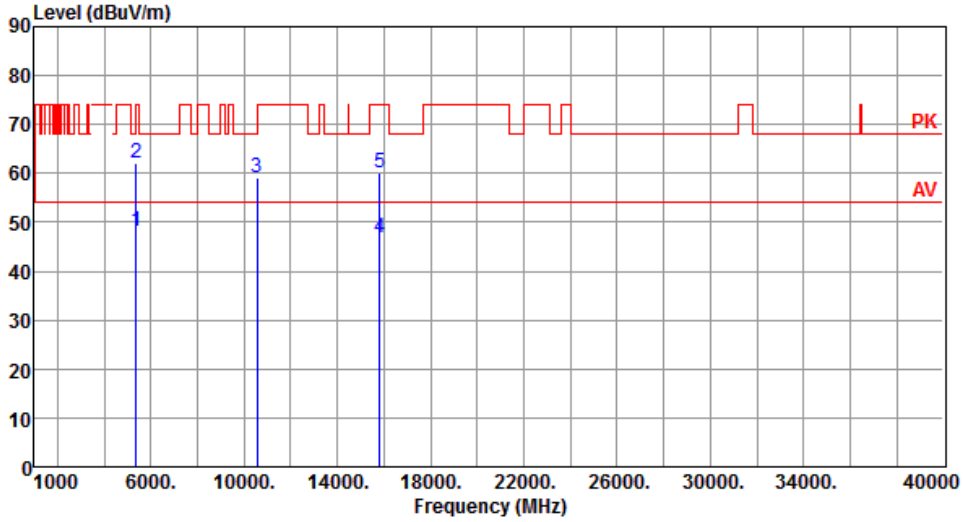
Modulation	VHT40	**Test Freq. (MHz)**	5270
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.96	54.00	-1.04	46.11	6.85	Average	225	124
2	5350.00	70.04	74.00	-3.96	63.19	6.85	Peak	225	124
3	10540.00	59.15	68.20	-9.05	42.56	16.59	Peak	100	30
4	15810.00	46.91	54.00	-7.09	30.26	16.65	Average	100	50
5	15810.00	60.22	74.00	-13.78	43.57	16.65	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).

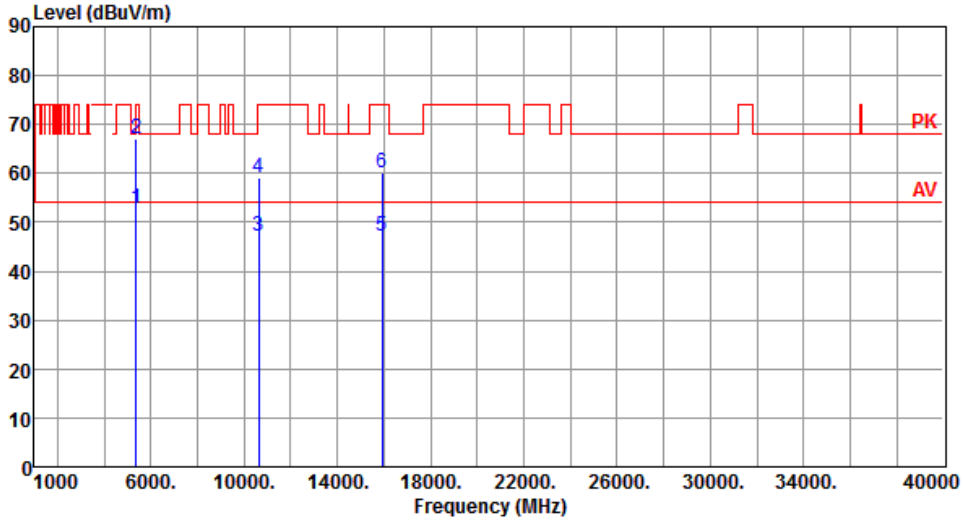
Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	48.10	54.00	-5.90	41.25	6.85	Average	100	74
2	5350.00	62.11	74.00	-11.89	55.26	6.85	Peak	100	74
3	10540.00	59.05	68.20	-9.15	42.46	16.59	Peak	100	20
4	15810.00	46.96	54.00	-7.04	30.31	16.65	Average	100	40
5	15810.00	60.26	74.00	-13.74	43.61	16.65	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).

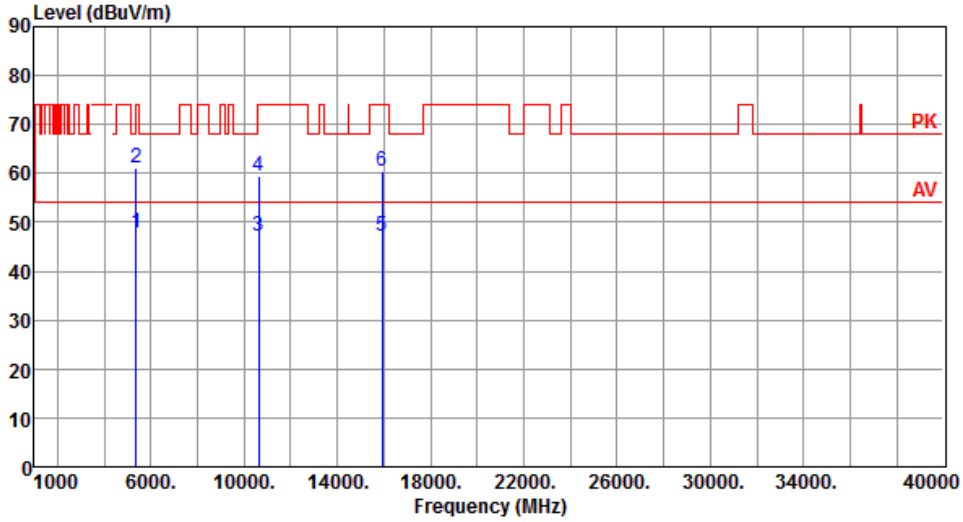
Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Horizontal		



	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	52.87	54.00	-1.13	46.02	6.85	Average	221	121
2	5350.00	67.15	74.00	-6.85	60.30	6.85	Peak	221	121
3	10620.00	47.20	54.00	-6.80	30.55	16.65	Average	100	30
4	10620.00	59.14	74.00	-14.86	42.49	16.65	Peak	100	30
5	15930.00	47.27	54.00	-6.73	30.57	16.70	Average	100	45
6	15930.00	60.23	74.00	-13.77	43.53	16.70	Peak	100	45

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

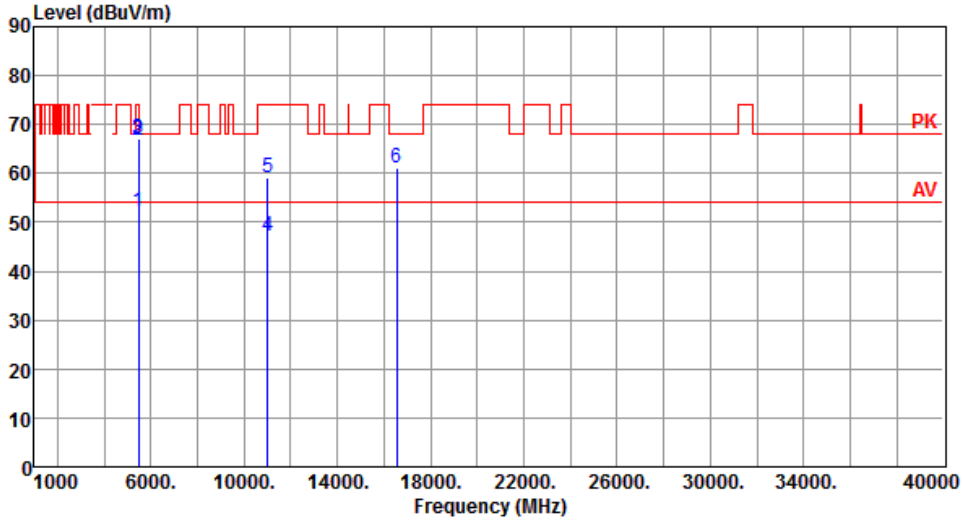
Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Vertical		



	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	47.97	54.00	-6.03	41.12	6.85	Average	100	72
2	5350.00	61.04	74.00	-12.96	54.19	6.85	Peak	100	72
3	10620.00	47.25	54.00	-6.75	30.60	16.65	Average	100	80
4	10620.00	59.29	74.00	-14.71	42.64	16.65	Peak	100	80
5	15930.00	47.18	54.00	-6.82	30.48	16.70	Average	100	60
6	15930.00	60.31	74.00	-13.69	43.61	16.70	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).

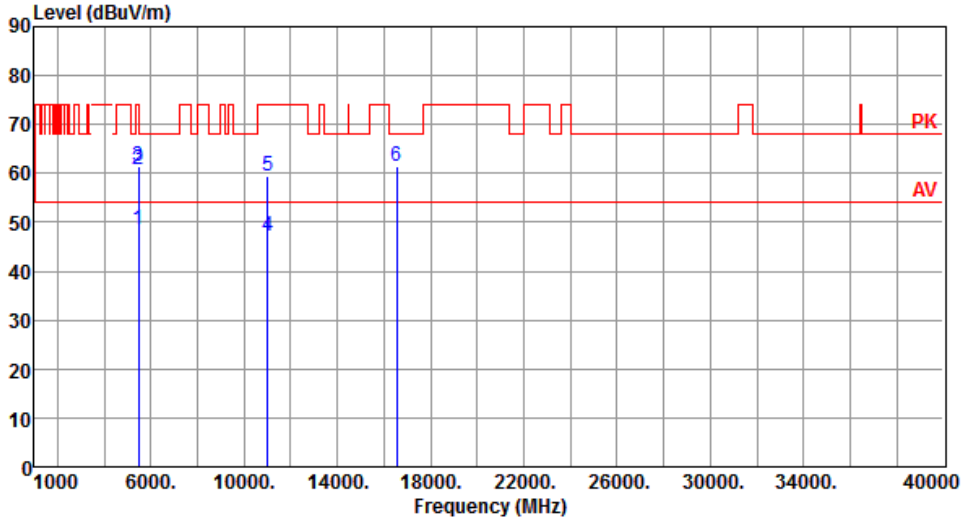
Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	51.98	54.00	-2.02	44.61	7.37	Average	194	122
2	5460.00	66.83	74.00	-7.17	59.46	7.37	Peak	194	122
3	5470.00	67.02	68.20	-1.18	59.60	7.42	Peak	194	122
4	11020.00	47.16	54.00	-6.84	30.25	16.91	Average	100	100
5	11020.00	59.16	74.00	-14.84	42.25	16.91	Peak	100	100
6	16530.00	61.26	68.20	-6.94	43.55	17.71	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).

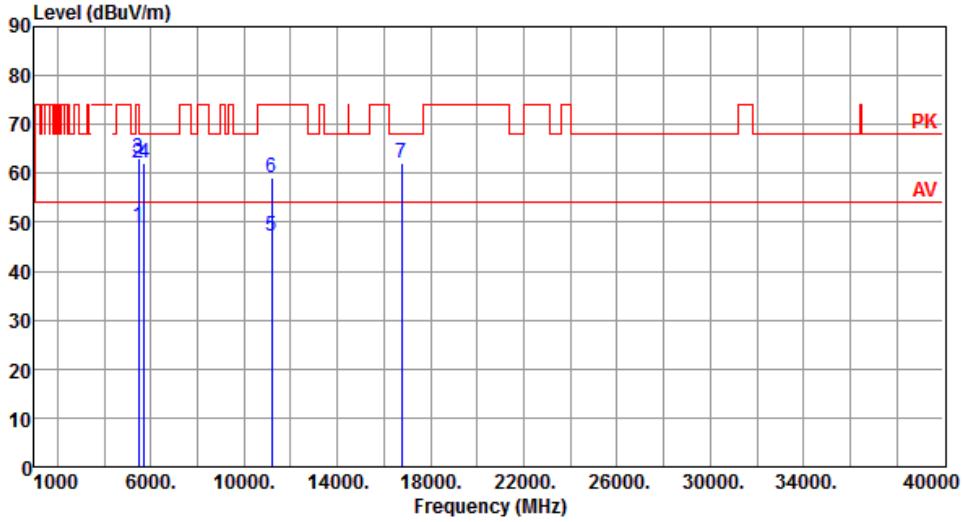
Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.65	54.00	-5.35	41.28	7.37	Average	100	181
2	5460.00	60.93	74.00	-13.07	53.56	7.37	Peak	100	181
3	5470.00	61.54	68.20	-6.66	54.12	7.42	Peak	100	181
4	11020.00	47.22	54.00	-6.78	30.31	16.91	Average	100	40
5	11020.00	59.30	74.00	-14.70	42.39	16.91	Peak	100	40
6	16530.00	61.38	68.20	-6.82	43.67	17.71	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).

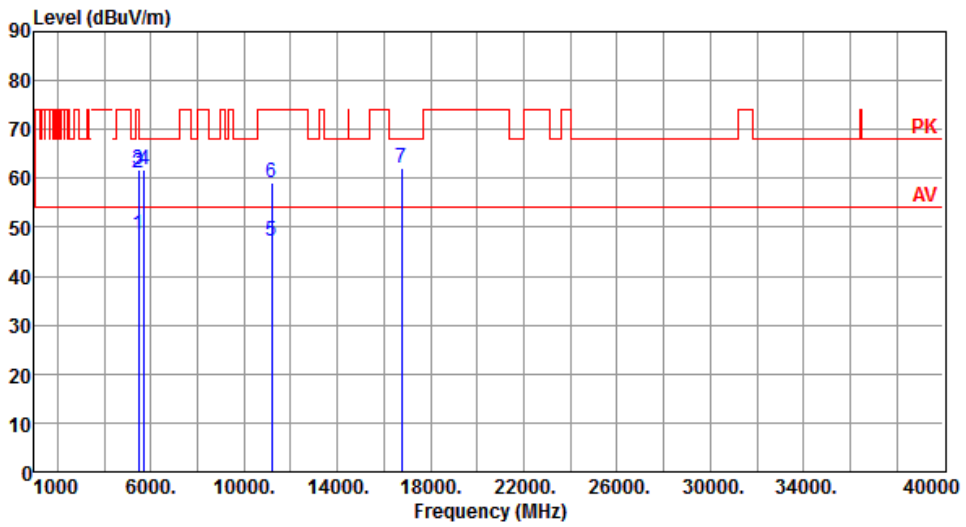
Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Horizontal		



	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	49.22	54.00	-4.78	41.85	7.37	Average	225	125
2	5460.00	62.02	74.00	-11.98	54.65	7.37	Peak	225	125
3	5470.00	62.98	68.20	-5.22	55.56	7.42	Peak	225	125
4	5725.00	62.17	68.20	-6.03	54.41	7.76	Peak	225	125
5	11180.00	47.17	54.00	-6.83	30.59	16.58	Average	100	40
6	11180.00	59.12	74.00	-14.88	42.54	16.58	Peak	100	40
7	16770.00	62.02	68.20	-6.18	43.46	18.56	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).

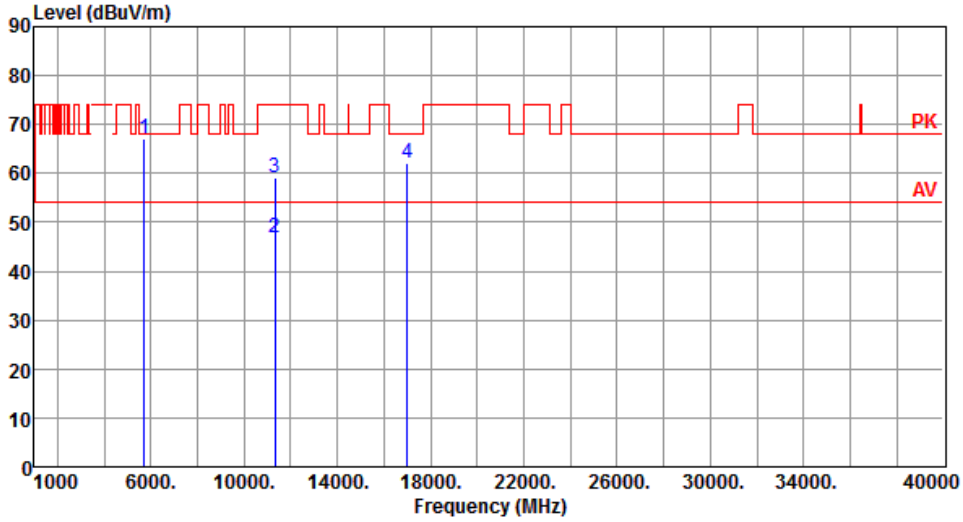
Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Vertical		



	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	48.58	54.00	-5.42	41.21	7.37	Average	100	185
2	5460.00	61.05	74.00	-12.95	53.68	7.37	Peak	100	185
3	5470.00	61.71	68.20	-6.49	54.29	7.42	Peak	100	185
4	5725.00	61.81	68.20	-6.39	54.05	7.76	Peak	100	185
5	11180.00	47.04	54.00	-6.96	30.46	16.58	Average	100	30
6	11180.00	59.19	74.00	-14.81	42.61	16.58	Peak	100	30
7	16770.00	62.14	68.20	-6.06	43.58	18.56	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).

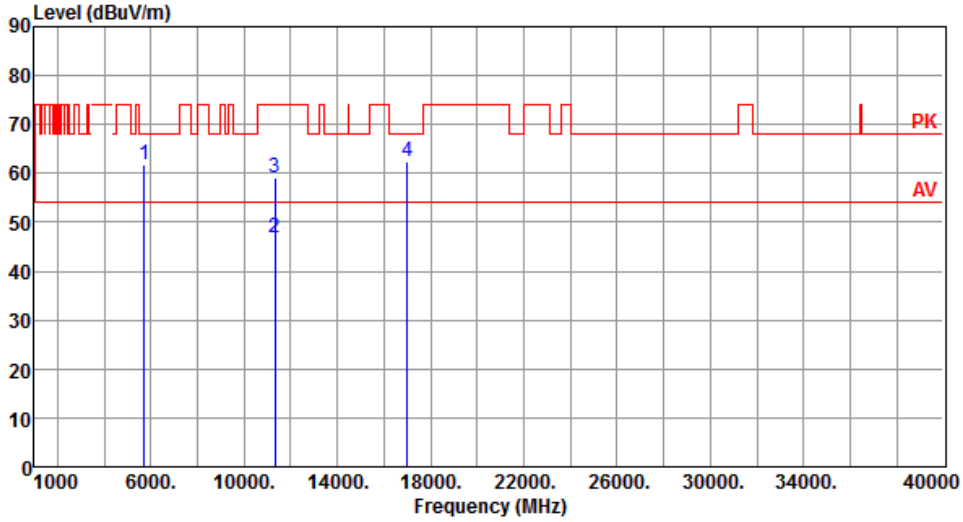
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	67.13	68.20	-1.07	59.37	7.76	Peak	231	130
2	11340.00	46.82	54.00	-7.18	30.12	16.70	Average	100	20
3	11340.00	59.26	74.00	-14.74	42.56	16.70	Peak	100	20
4	17010.00	62.22	68.20	-5.98	43.44	18.78	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).

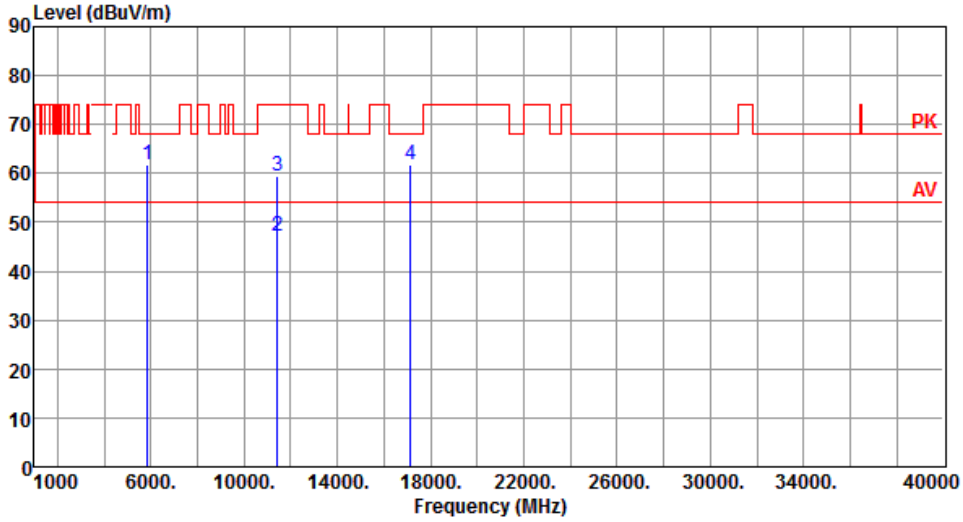
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	61.91	68.20	-6.29	54.15	7.76	Peak	100	182
2	11340.00	46.99	54.00	-7.01	30.29	16.70	Average	100	20
3	11340.00	59.16	74.00	-14.84	42.46	16.70	Peak	100	20
4	17010.00	62.36	68.20	-5.84	43.58	18.78	Peak	100	90

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

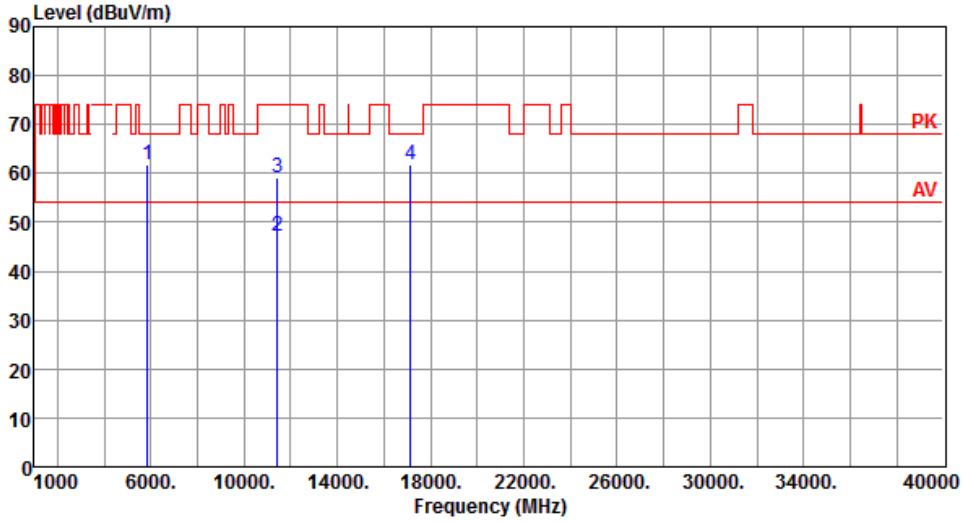
Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	61.84	68.20	-6.36	53.72	8.12	Peak	226	127
2	11420.00	47.00	54.00	-7.00	30.25	16.75	Average	100	100
3	11420.00	59.34	74.00	-14.66	42.59	16.75	Peak	100	100
4	17130.00	61.87	68.20	-6.33	43.36	18.51	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)	5710
Polarization	Vertical		

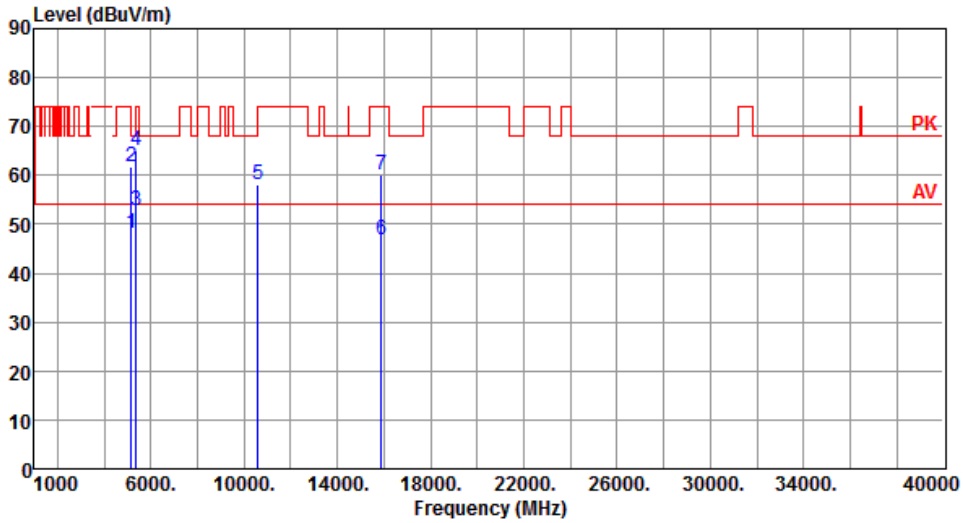


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5850.00	61.73	68.20	-6.47	53.61	8.12	Peak	100	186
2	11420.00	47.06	54.00	-6.94	30.31	16.75	Average	100	40
3	11420.00	59.22	74.00	-14.78	42.47	16.75	Peak	100	40
4	17130.00	61.79	68.20	-6.41	43.28	18.51	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).

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

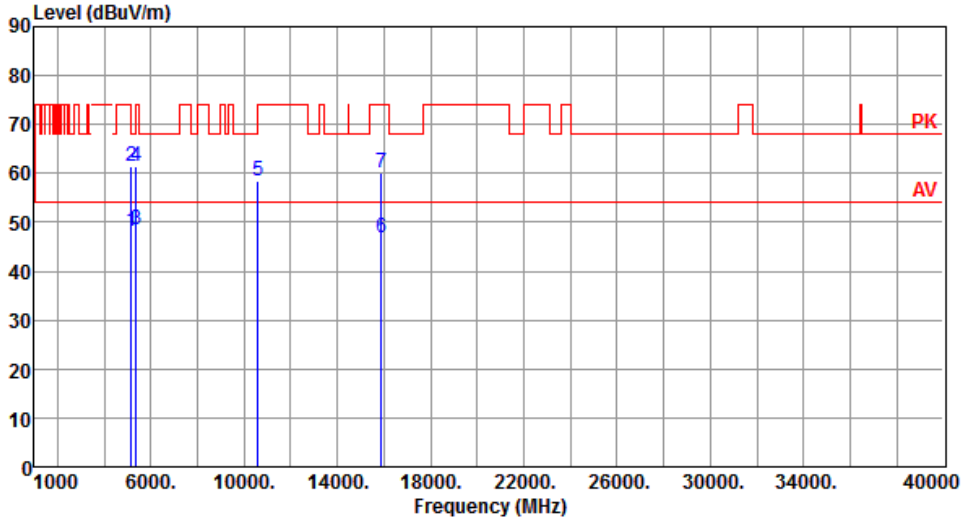
Modulation	VHT80	**Test Freq. (MHz)**	5290
Polarization	Horizontal		



	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	48.15	54.00	-5.85	40.73	7.42	Average	212	120
2	5150.00	61.63	74.00	-12.37	54.21	7.42	Peak	212	120
3	5350.00	52.97	54.00	-1.03	46.12	6.85	Average	212	120
4	5350.00	64.95	74.00	-9.05	58.10	6.85	Peak	212	120
5	10580.00	58.20	68.20	-10.00	41.57	16.63	Peak	100	20
6	15870.00	46.85	54.00	-7.15	30.18	16.67	Average	100	40
7	15870.00	60.23	74.00	-13.77	43.56	16.67	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).

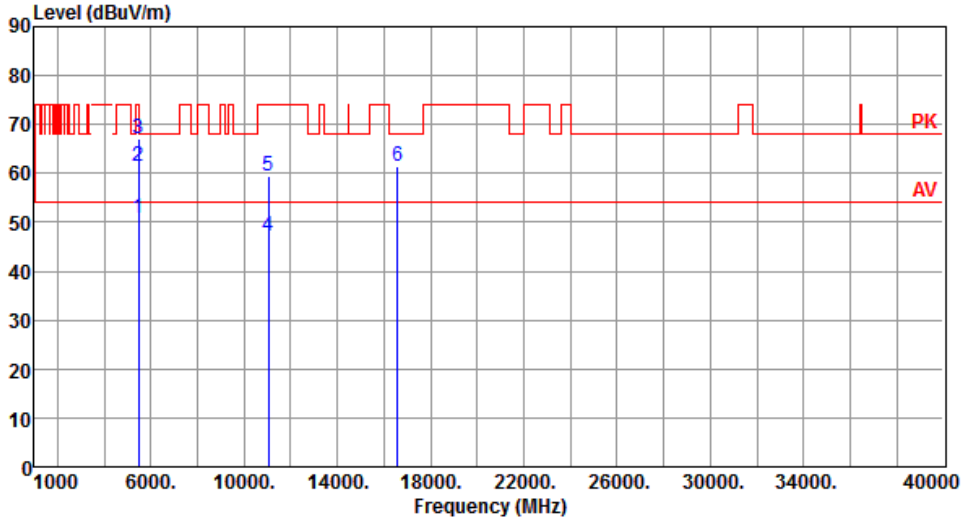
Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.06	54.00	-5.94	40.64	7.42	Average	100	69
2	5150.00	61.42	74.00	-12.58	54.00	7.42	Peak	100	69
3	5350.00	48.41	54.00	-5.59	41.56	6.85	Average	100	69
4	5350.00	61.41	74.00	-12.59	54.56	6.85	Peak	100	69
5	10580.00	58.32	68.20	-9.88	41.69	16.63	Peak	100	30
6	15870.00	46.91	54.00	-7.09	30.24	16.67	Average	100	25
7	15870.00	60.03	74.00	-13.97	43.36	16.67	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).

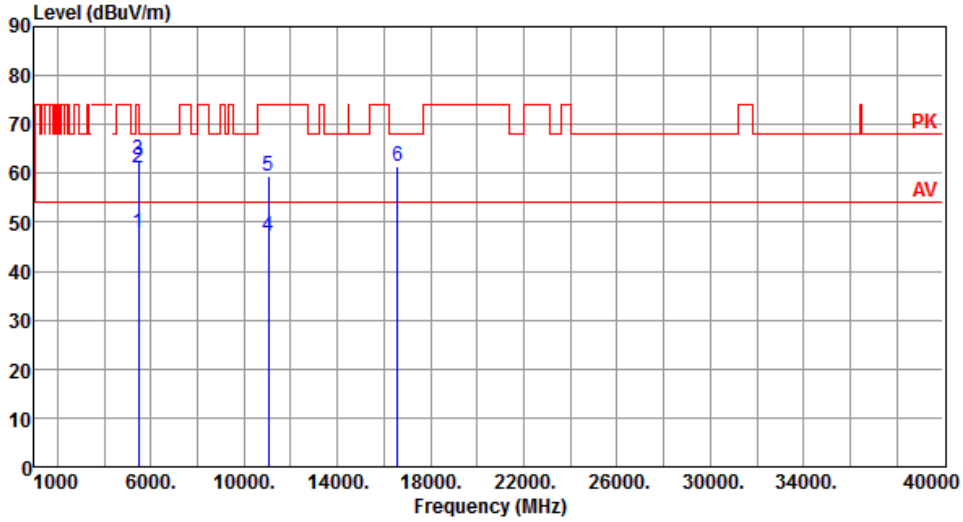
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Horizontal		



	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	50.74	54.00	-3.26	43.37	7.37	Average	221	120
2	5460.00	61.49	74.00	-12.51	54.12	7.37	Peak	221	120
3	5470.00	67.05	68.20	-1.15	59.63	7.42	Peak	221	120
4	11060.00	47.07	54.00	-6.93	30.22	16.85	Average	100	30
5	11060.00	59.38	74.00	-14.62	42.53	16.85	Peak	100	30
6	16590.00	61.32	68.20	-6.88	43.47	17.85	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).

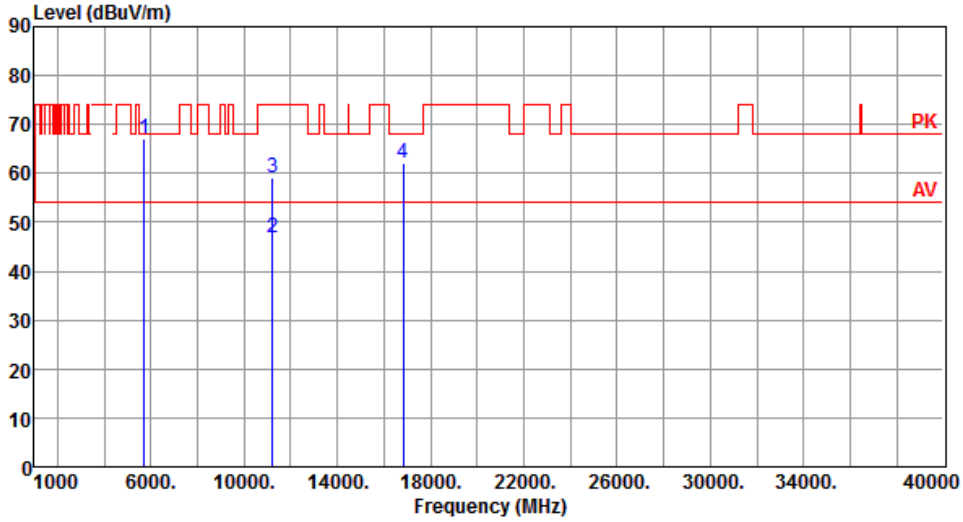
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical		



	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	47.73	54.00	-6.27	40.36	7.37	Average	100	181
2	5460.00	60.96	74.00	-13.04	53.59	7.37	Peak	100	181
3	5470.00	62.68	68.20	-5.52	55.26	7.42	Peak	100	181
4	11060.00	47.13	54.00	-6.87	30.28	16.85	Average	100	40
5	11060.00	59.34	74.00	-14.66	42.49	16.85	Peak	100	40
6	16590.00	61.36	68.20	-6.84	43.51	17.85	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).

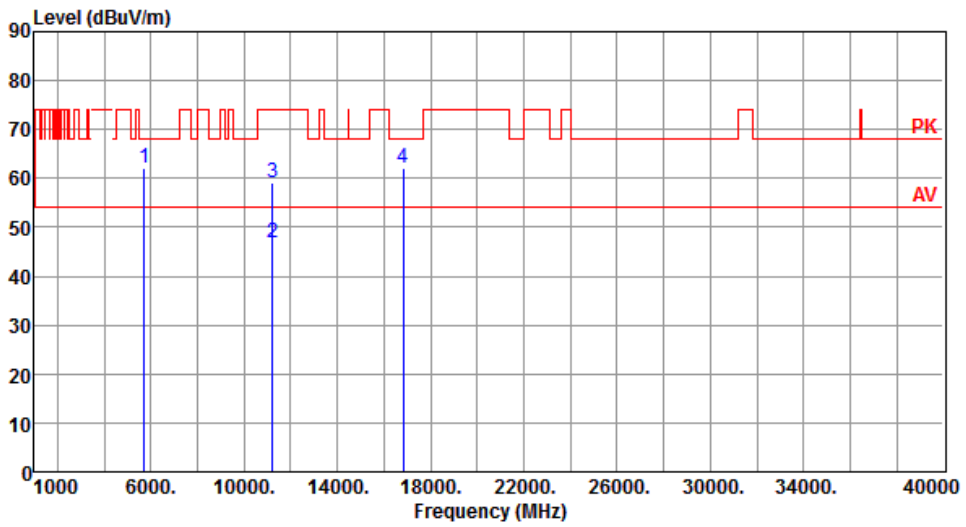
Modulation	VHT80	Test Freq. (MHz)	5610
Polarization	Horizontal		



	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	67.16	68.20	-1.04	59.40	7.76	Peak	202	122
2	11220.00	46.72	54.00	-7.28	30.16	16.56	Average	100	80
3	11220.00	59.01	74.00	-14.99	42.45	16.56	Peak	100	80
4	16830.00	61.94	68.20	-6.26	43.45	18.49	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).

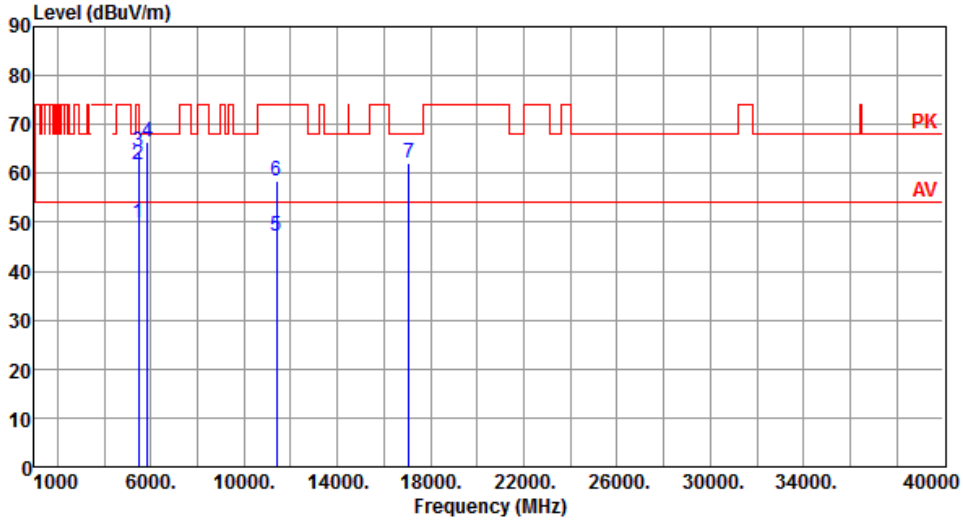
Modulation	VHT80	Test Freq. (MHz)	5610
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	62.00	68.20	-6.20	54.24	7.76	Peak	100	185
2	11220.00	46.74	54.00	-7.26	30.18	16.56	Average	100	40
3	11220.00	59.17	74.00	-14.83	42.61	16.56	Peak	100	40
4	16830.00	62.01	68.20	-6.19	43.52	18.49	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).

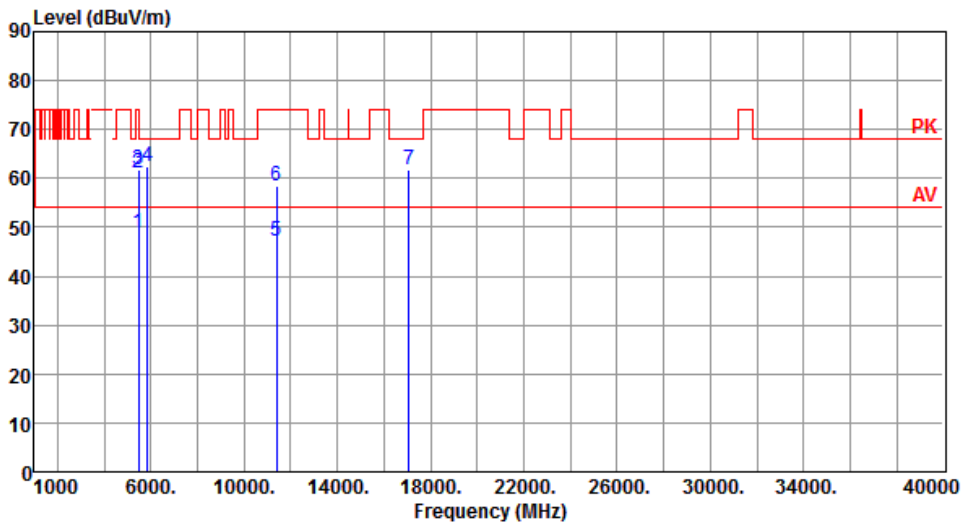
Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Horizontal		



	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	49.93	54.00	-4.07	42.56	7.37	Average	210	123
2	5460.00	61.63	74.00	-12.37	54.26	7.37	Peak	210	123
3	5470.00	64.29	68.20	-3.91	56.87	7.42	Peak	210	123
4	5850.00	66.34	68.20	-1.86	58.22	8.12	Peak	210	123
5	11380.00	46.99	54.00	-7.01	30.27	16.72	Average	100	30
6	11380.00	58.28	74.00	-15.72	41.56	16.72	Peak	100	30
7	17070.00	62.07	68.20	-6.13	43.45	18.62	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		



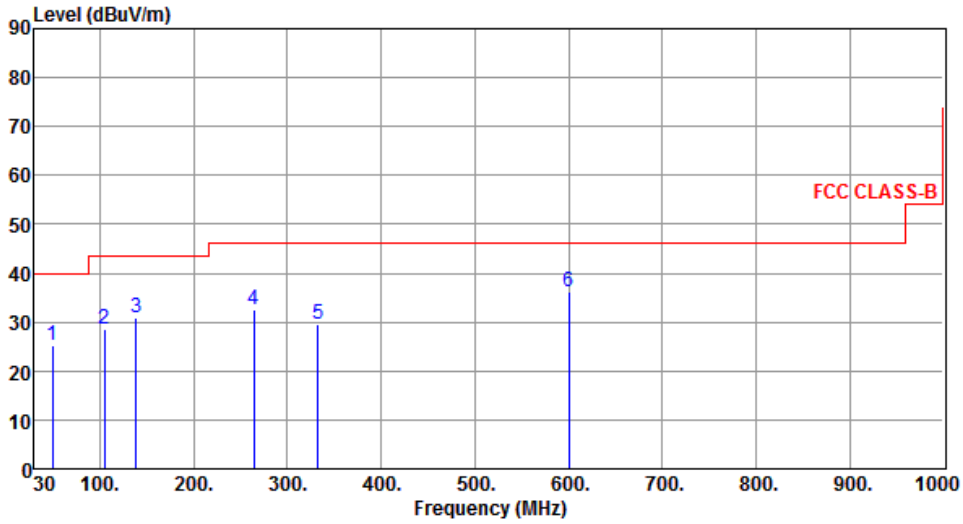
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.93	54.00	-5.07	41.56	7.37	Average	100	184
2	5460.00	60.96	74.00	-13.04	53.59	7.37	Peak	100	184
3	5470.00	61.61	68.20	-6.59	54.19	7.42	Peak	100	184
4	5850.00	62.38	68.20	-5.82	54.26	8.12	Peak	100	184
5	11380.00	47.02	54.00	-6.98	30.30	16.72	Average	100	40
6	11380.00	58.30	74.00	-15.70	41.58	16.72	Peak	100	40
7	17070.00	61.85	68.20	-6.35	43.23	18.62	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).

Beamforming mode

3.5.9 Transmitter Radiated Unwanted Emissions (Below 1GHz)

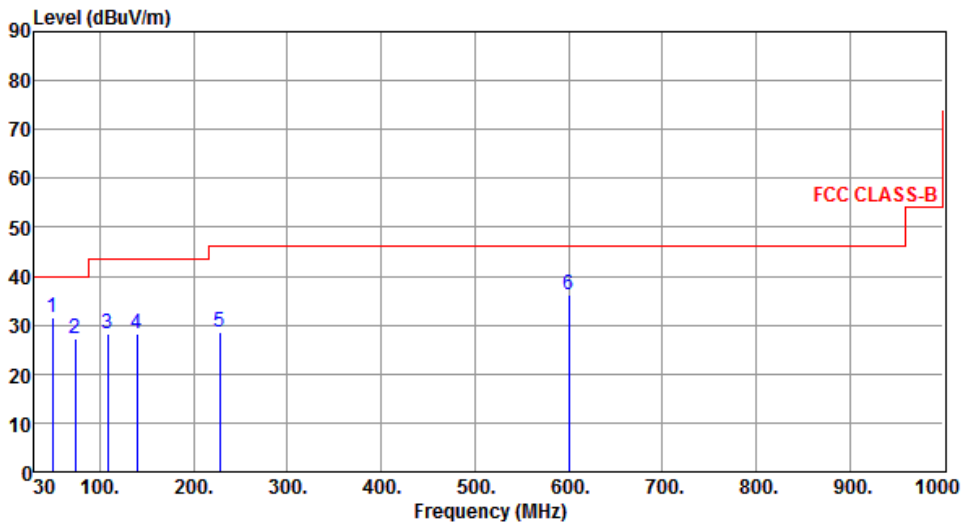
Modulation	VHT40	**Test Freq. (MHz)**	5270
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	49.36	25.31	40.00	-14.69	33.89	-8.58	Peak	---	---
2	104.55	28.50	43.50	-15.00	41.28	-12.78	Peak	---	---
3	138.49	30.75	43.50	-12.75	40.07	-9.32	Peak	---	---
4	264.47	32.55	46.00	-13.45	42.15	-9.60	Peak	---	---
5	332.55	29.57	46.00	-16.43	36.77	-7.20	Peak	---	---
6	600.36	36.31	46.00	-9.69	36.90	-0.59	Peak	---	---

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

Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical		

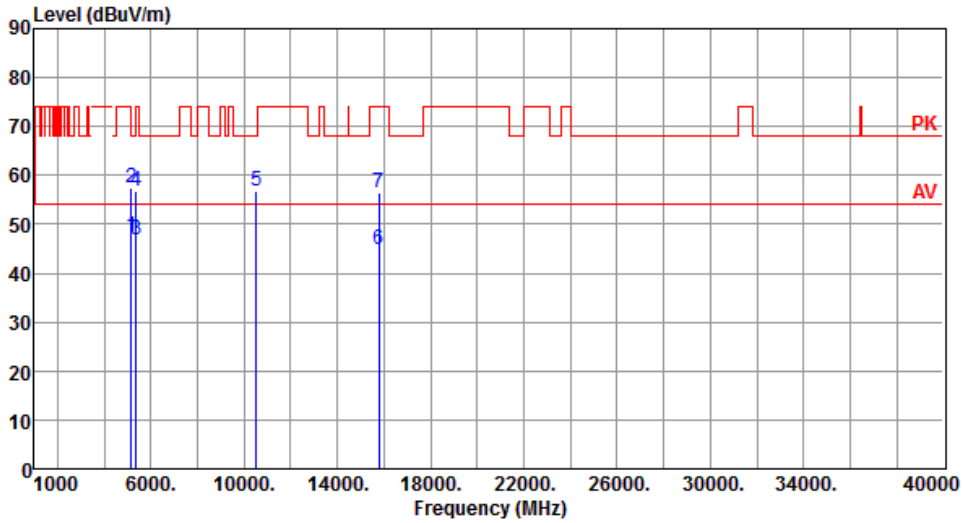


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	49.48	31.54	40.00	-8.46	40.13	-8.59	Peak	---	---
2	73.62	27.36	40.00	-12.64	39.09	-11.73	Peak	---	---
3	108.58	28.34	43.50	-15.16	40.56	-12.22	Peak	---	---
4	139.66	28.24	43.50	-15.26	37.51	-9.27	Peak	---	---
5	227.61	28.67	46.00	-17.33	40.56	-11.89	Peak	---	---
6	600.39	36.25	46.00	-9.75	36.83	-0.58	Peak	---	---

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

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

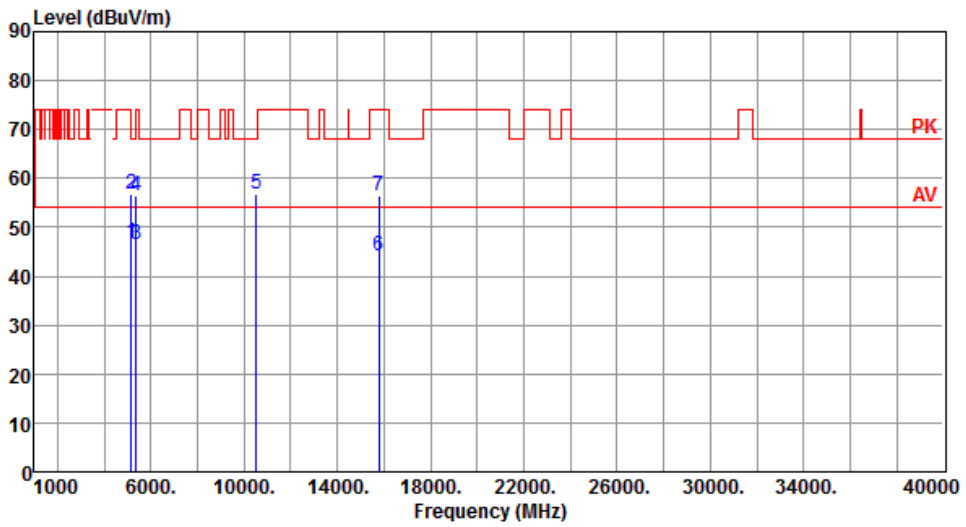
Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.37	54.00	-6.63	39.95	7.42	Average	215	112
2	5150.00	57.32	74.00	-16.68	49.90	7.42	Peak	215	112
3	5350.00	46.72	54.00	-7.28	39.87	6.85	Average	215	112
4	5350.00	56.75	74.00	-17.25	49.90	6.85	Peak	215	112
5	10520.00	56.81	68.20	-11.39	40.25	16.56	Peak	100	102
6	15780.00	44.71	54.00	-9.29	27.97	16.74	Average	100	101
7	15780.00	56.41	74.00	-17.59	39.67	16.74	Peak	100	101

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

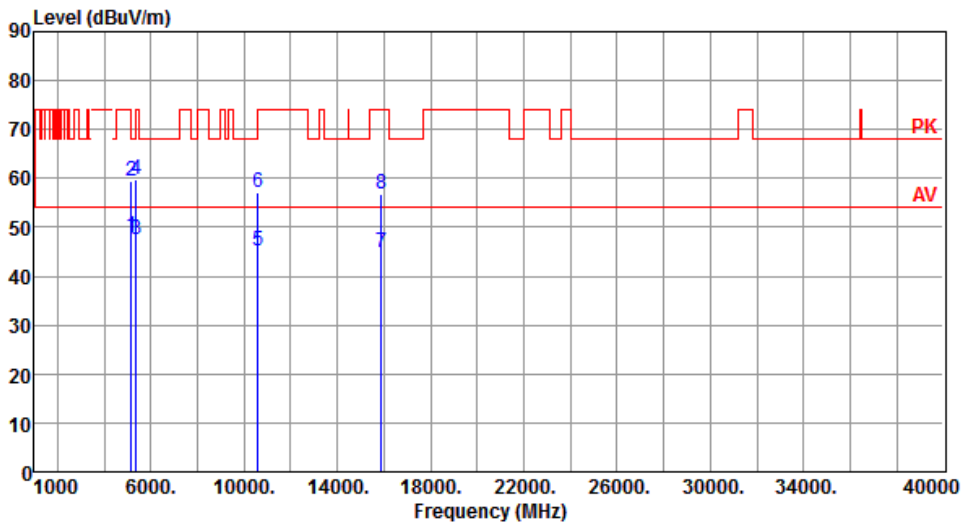
Modulation	VHT20	Test Freq. (MHz)	5260
Polarization	Vertical		



	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	46.85	54.00	-7.15	39.43	7.42	Average	100	62
2	5150.00	56.77	74.00	-17.23	49.35	7.42	Peak	100	62
3	5350.00	46.43	54.00	-7.57	39.58	6.85	Average	100	62
4	5350.00	56.36	74.00	-17.64	49.51	6.85	Peak	100	62
5	10520.00	56.95	68.20	-11.25	40.39	16.56	Peak	100	55
6	15780.00	44.22	54.00	-9.78	27.48	16.74	Average	100	51
7	15780.00	56.33	74.00	-17.67	39.59	16.74	Peak	100	51

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

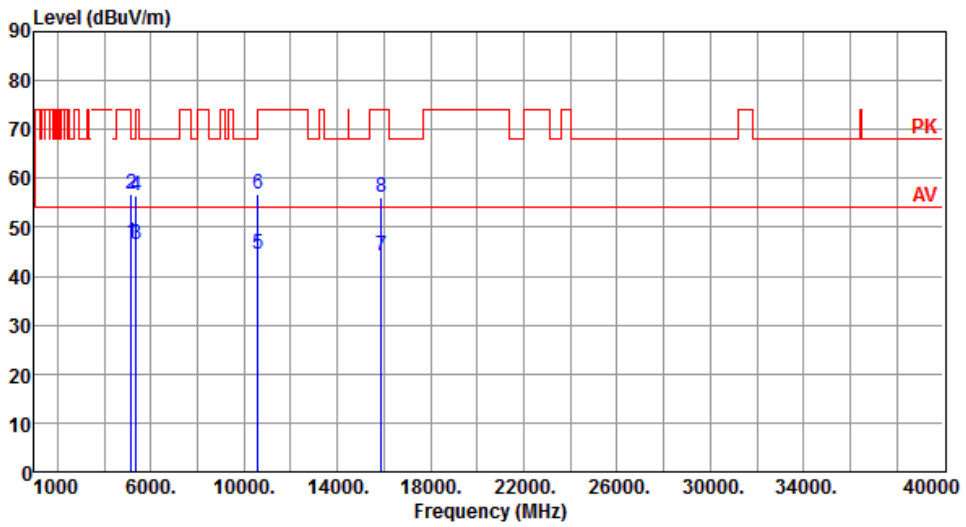
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Horizontal		



	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	48.02	54.00	-5.98	40.60	7.42	Average	215	120
2	5150.00	59.28	74.00	-14.72	51.86	7.42	Peak	215	120
3	5350.00	47.46	54.00	-6.54	40.61	6.85	Average	215	120
4	5350.00	59.78	74.00	-14.22	52.93	6.85	Peak	215	120
5	10600.00	45.08	54.00	-8.92	28.42	16.66	Average	100	107
6	10600.00	57.19	74.00	-16.81	40.53	16.66	Peak	100	107
7	15900.00	44.69	54.00	-9.31	28.00	16.69	Average	100	105
8	15900.00	56.69	74.00	-17.31	40.00	16.69	Peak	100	105

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

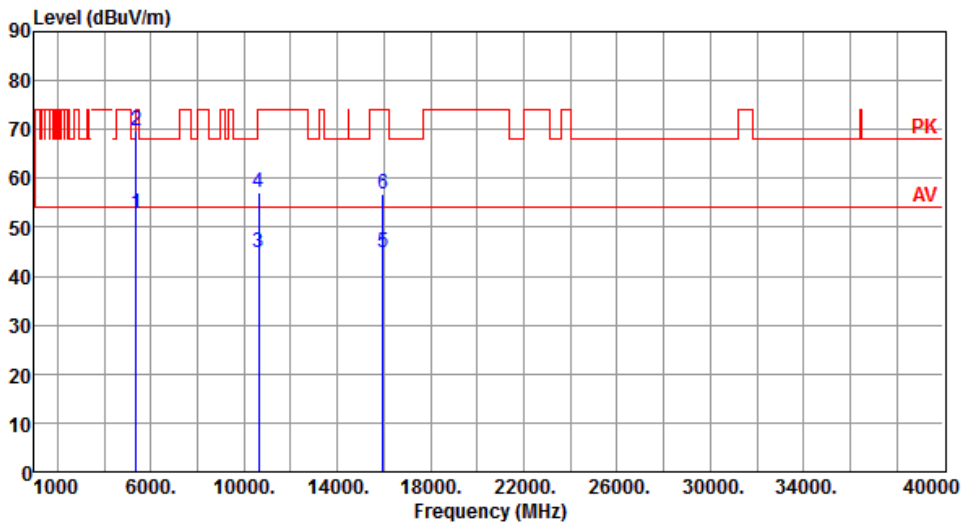
Modulation	VHT20	Test Freq. (MHz)	5300
Polarization	Vertical		



	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	46.88	54.00	-7.12	39.46	7.42	Average	100	66
2	5150.00	56.83	74.00	-17.17	49.41	7.42	Peak	100	66
3	5350.00	46.37	54.00	-7.63	39.52	6.85	Average	100	66
4	5350.00	56.42	74.00	-17.58	49.57	6.85	Peak	100	66
5	10600.00	44.63	54.00	-9.37	27.97	16.66	Average	100	51
6	10600.00	56.80	74.00	-17.20	40.14	16.66	Peak	100	51
7	15900.00	44.09	54.00	-9.91	27.40	16.69	Average	100	49
8	15900.00	56.19	74.00	-17.81	39.50	16.69	Peak	100	49

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

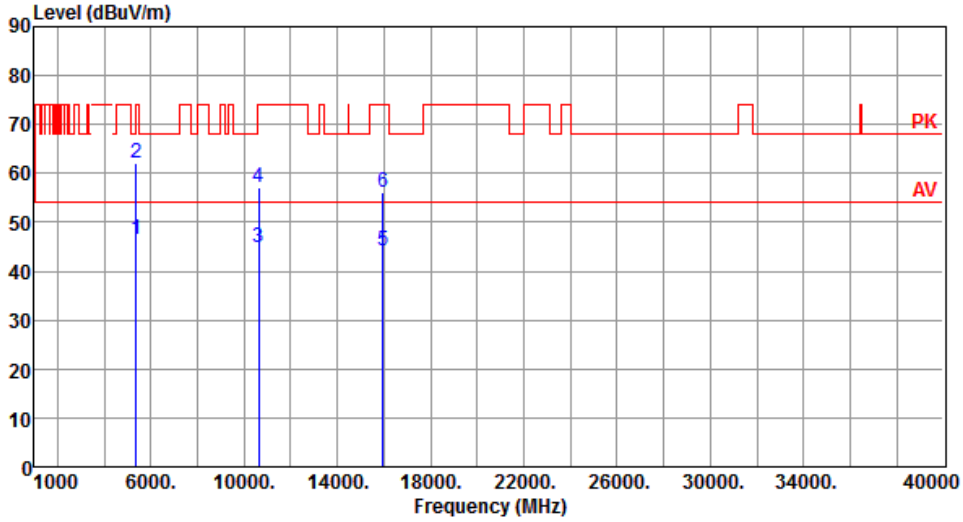
Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Horizontal		



	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	52.90	54.00	-1.10	46.05	6.85	Average	210	115
2	5350.00	69.77	74.00	-4.23	62.92	6.85	Peak	210	115
3	10640.00	44.94	54.00	-9.06	28.31	16.63	Average	100	108
4	10640.00	57.21	74.00	-16.79	40.58	16.63	Peak	100	108
5	15960.00	44.70	54.00	-9.30	27.99	16.71	Average	100	103
6	15960.00	56.69	74.00	-17.31	39.98	16.71	Peak	100	103

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

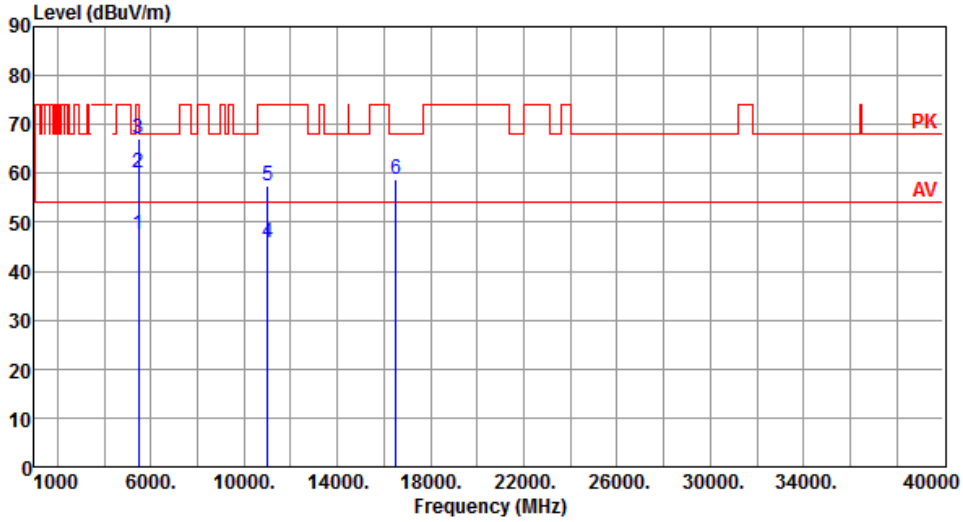
Modulation	VHT20	Test Freq. (MHz)	5320
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	46.42	54.00	-7.58	39.57	6.85	Average	100	64
2	5350.00	62.12	74.00	-11.88	55.27	6.85	Peak	100	64
3	10640.00	44.70	54.00	-9.30	28.07	16.63	Average	100	52
4	10640.00	57.08	74.00	-16.92	40.45	16.63	Peak	100	52
5	15960.00	44.19	54.00	-9.81	27.48	16.71	Average	100	52
6	15960.00	56.27	74.00	-17.73	39.56	16.71	Peak	100	52

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

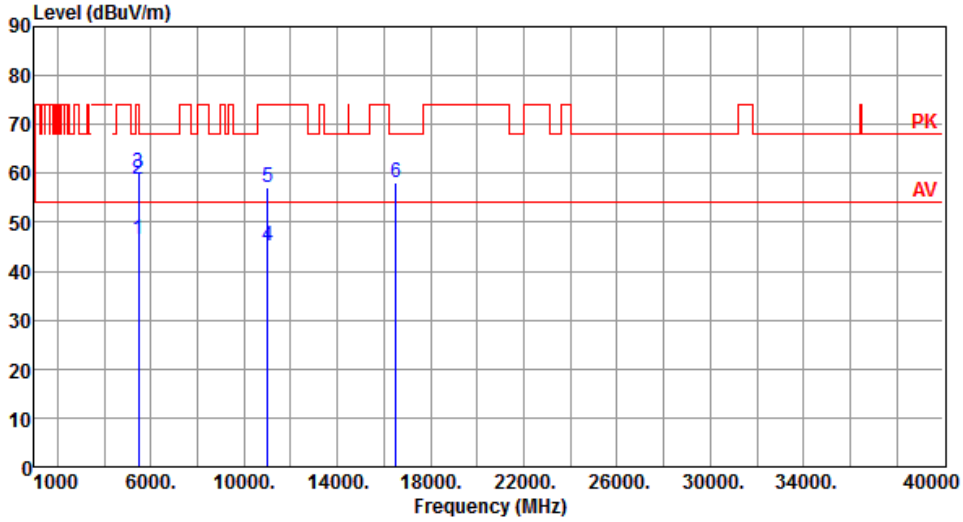
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Horizontal		



	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	47.62	54.00	-6.38	40.25	7.37	Average	255	108
2	5460.00	60.10	74.00	-13.90	52.73	7.37	Peak	255	108
3	5470.00	67.11	68.20	-1.09	59.69	7.42	Peak	255	108
4	11000.00	45.67	54.00	-8.33	28.73	16.94	Average	100	275
5	11000.00	57.52	74.00	-16.48	40.58	16.94	Peak	100	275
6	16500.00	58.77	68.20	-9.43	41.13	17.64	Peak	100	271

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

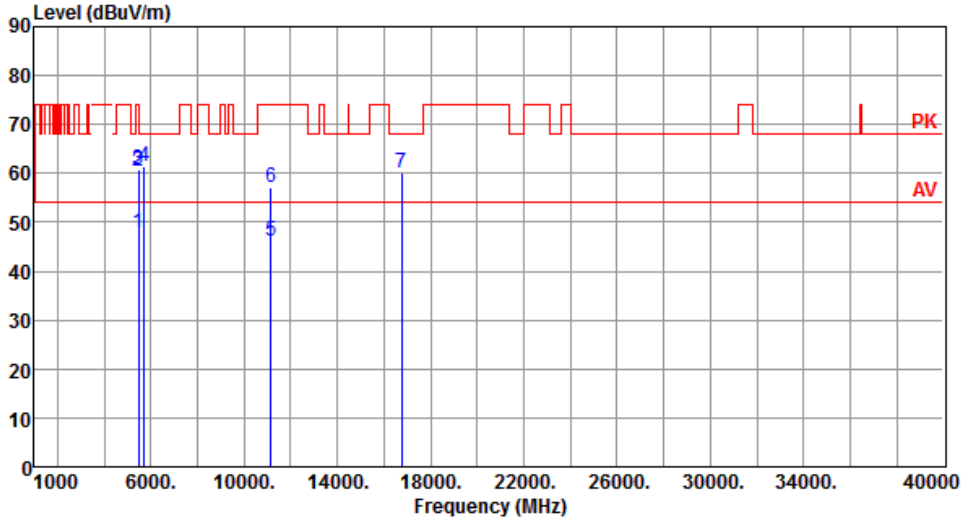
Modulation	VHT20	Test Freq. (MHz)	5500
Polarization	Vertical		



	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	46.56	54.00	-7.44	39.19	7.37	Average	102	54
2	5460.00	58.63	74.00	-15.37	51.26	7.37	Peak	102	54
3	5470.00	60.26	68.20	-7.94	52.84	7.42	Peak	102	54
4	11000.00	45.19	54.00	-8.81	28.25	16.94	Average	100	103
5	11000.00	57.25	74.00	-16.75	40.31	16.94	Peak	100	103
6	16500.00	58.23	68.20	-9.97	40.59	17.64	Peak	100	105

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

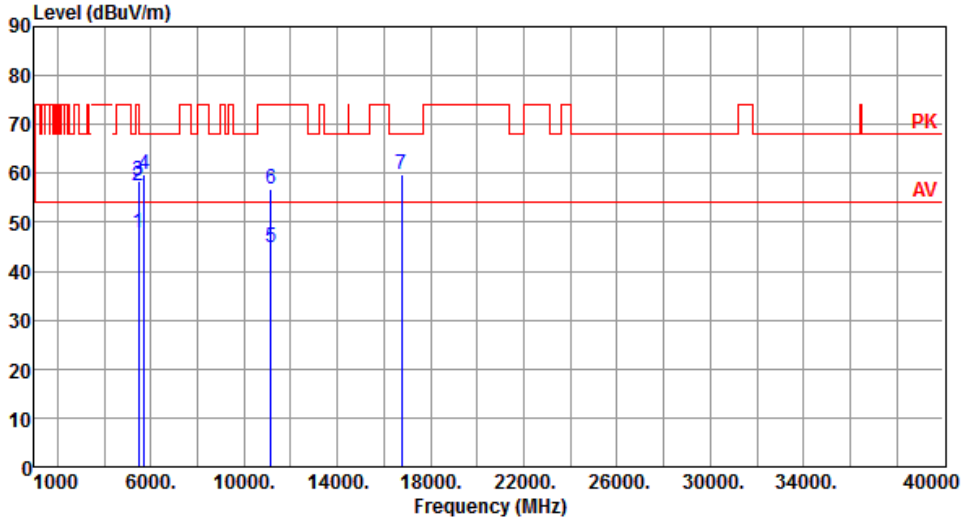
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Horizontal		



	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	47.67	54.00	-6.33	40.30	7.37	Average	276	122
2	5460.00	60.29	74.00	-13.71	52.92	7.37	Peak	276	122
3	5470.00	60.67	68.20	-7.53	53.25	7.42	Peak	276	122
4	5725.00	61.59	68.20	-6.61	53.83	7.76	Peak	276	122
5	11160.00	46.28	54.00	-7.72	29.65	16.63	Average	103	271
6	11160.00	57.28	74.00	-16.72	40.65	16.63	Peak	103	271
7	16740.00	60.11	68.20	-8.09	41.52	18.59	Peak	100	275

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

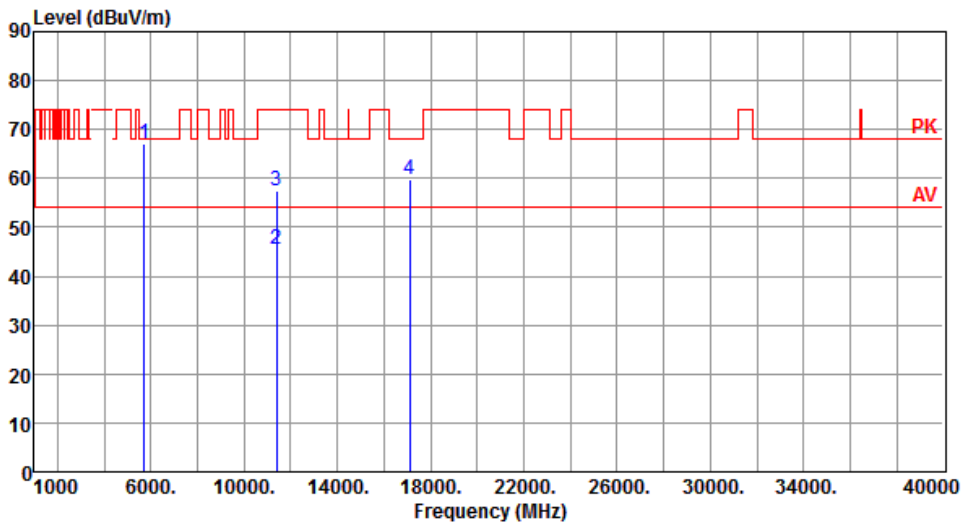
Modulation	VHT20	Test Freq. (MHz)	5580
Polarization	Vertical		



	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	47.93	54.00	-6.07	40.56	7.37	Average	100	59
2	5460.00	57.30	74.00	-16.70	49.93	7.37	Peak	100	59
3	5470.00	58.37	68.20	-9.83	50.95	7.42	Peak	100	59
4	5725.00	59.63	68.20	-8.57	51.87	7.76	Peak	100	59
5	11160.00	44.96	54.00	-9.04	28.33	16.63	Average	107	110
6	11160.00	56.85	74.00	-17.15	40.22	16.63	Peak	107	110
7	16740.00	59.68	68.20	-8.52	41.09	18.59	Peak	100	105

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

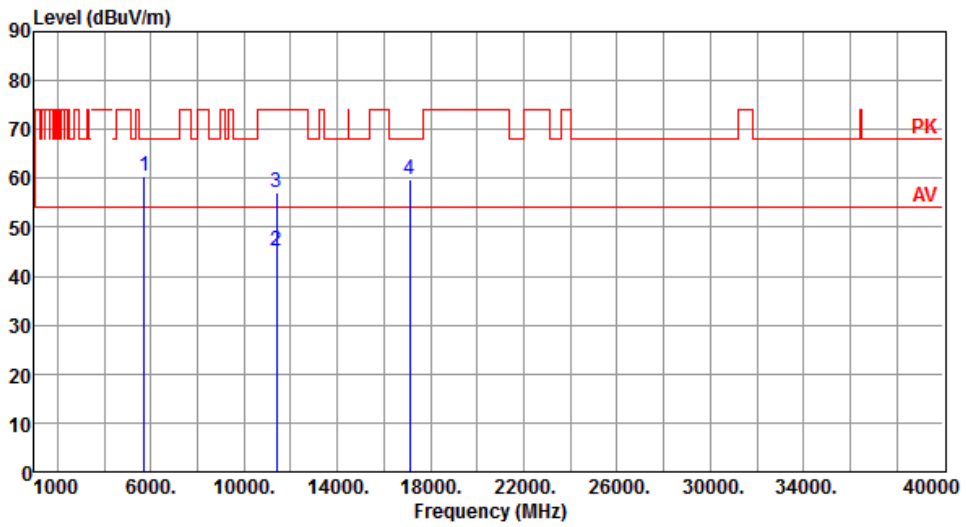
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Horizontal		



	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	67.19	68.20	-1.01	59.43	7.76	Peak	269	115
2	11400.00	45.35	54.00	-8.65	28.62	16.73	Average	100	270
3	11400.00	57.37	74.00	-16.63	40.64	16.73	Peak	100	270
4	17100.00	59.84	68.20	-8.36	41.30	18.54	Peak	100	273

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

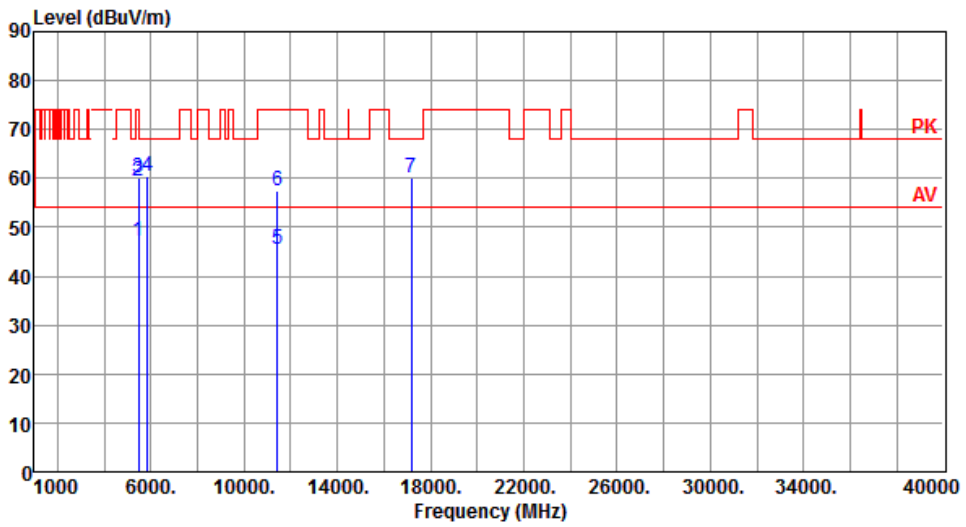
Modulation	VHT20	Test Freq. (MHz)	5700
Polarization	Vertical		



	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	60.61	68.20	-7.59	52.85	7.76	Peak	106	53
2	11400.00	45.03	54.00	-8.97	28.30	16.73	Average	100	108
3	11400.00	56.97	74.00	-17.03	40.24	16.73	Peak	100	108
4	17100.00	59.62	68.20	-8.58	41.08	18.54	Peak	100	105

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

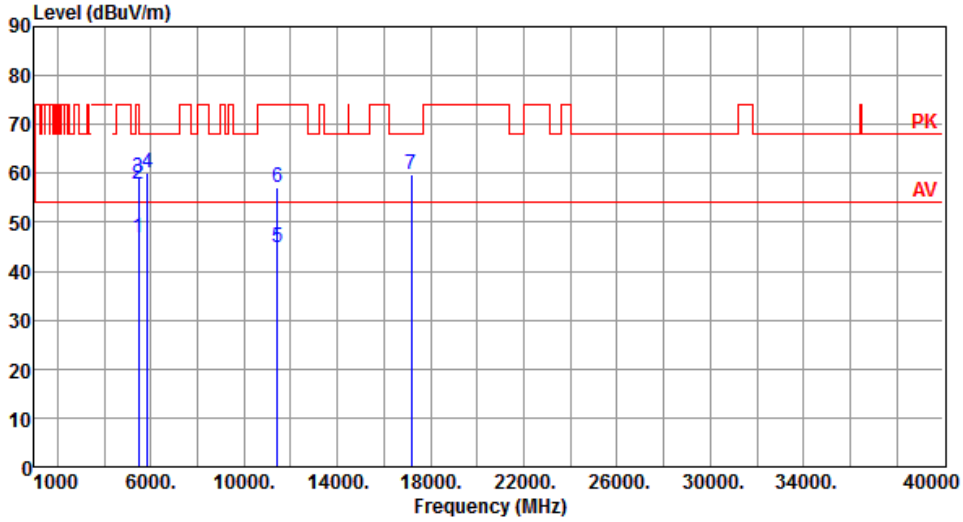
Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.28	54.00	-6.72	39.91	7.37	Average	265	121
2	5460.00	59.31	74.00	-14.69	51.94	7.37	Peak	265	121
3	5470.00	60.13	68.20	-8.07	52.71	7.42	Peak	265	121
4	5850.00	60.47	68.20	-7.73	52.35	8.12	Peak	265	121
5	11440.00	45.46	54.00	-8.54	28.68	16.78	Average	100	278
6	11440.00	57.35	74.00	-16.65	40.57	16.78	Peak	100	278
7	17160.00	60.23	68.20	-7.97	41.73	18.50	Peak	100	274

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

Modulation	VHT20	Test Freq. (MHz)	5720
Polarization	Vertical		

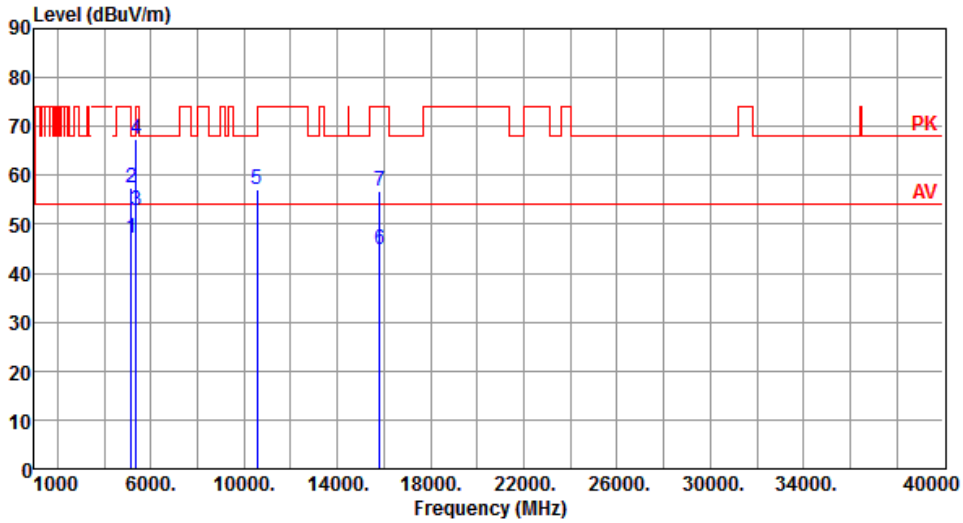


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.83	54.00	-7.17	39.46	7.37	Average	108	55
2	5460.00	57.83	74.00	-16.17	50.46	7.37	Peak	108	55
3	5470.00	59.26	68.20	-8.94	51.84	7.42	Peak	108	55
4	5850.00	60.10	68.20	-8.10	51.98	8.12	Peak	108	55
5	11440.00	44.92	54.00	-9.08	28.14	16.78	Average	100	107
6	11440.00	57.06	74.00	-16.94	40.28	16.78	Peak	100	107
7	17160.00	59.84	68.20	-8.36	41.34	18.50	Peak	100	104

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

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

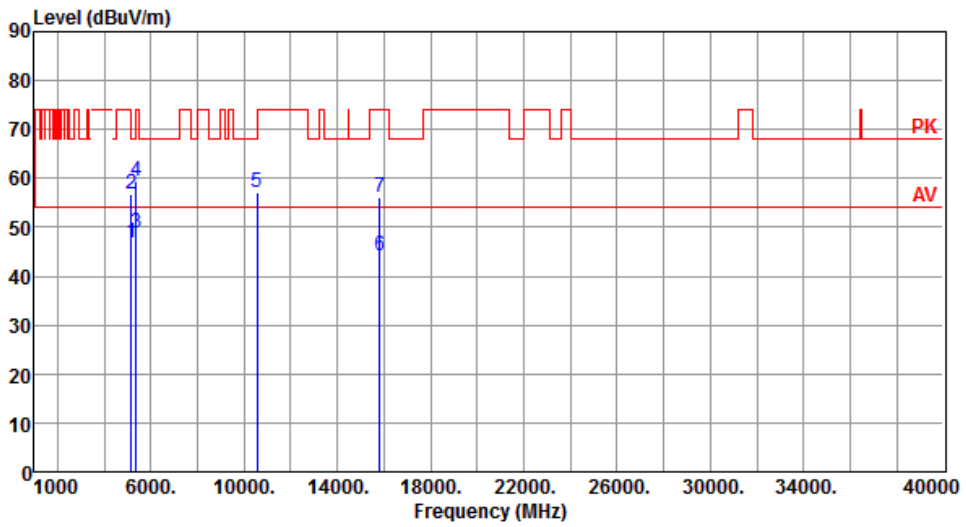
Modulation	VHT40	**Test Freq. (MHz)**	5270
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.25	54.00	-6.75	39.83	7.42	Average	215	142
2	5150.00	57.37	74.00	-16.63	49.95	7.42	Peak	215	142
3	5350.00	52.82	54.00	-1.18	45.97	6.85	Average	286	118
4	5350.00	67.49	74.00	-6.51	60.64	6.85	Peak	286	118
5	10540.00	57.25	68.20	-10.95	40.66	16.59	Peak	100	107
6	15810.00	44.84	54.00	-9.16	28.19	16.65	Average	100	103
7	15810.00	56.85	74.00	-17.15	40.20	16.65	Peak	100	103

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

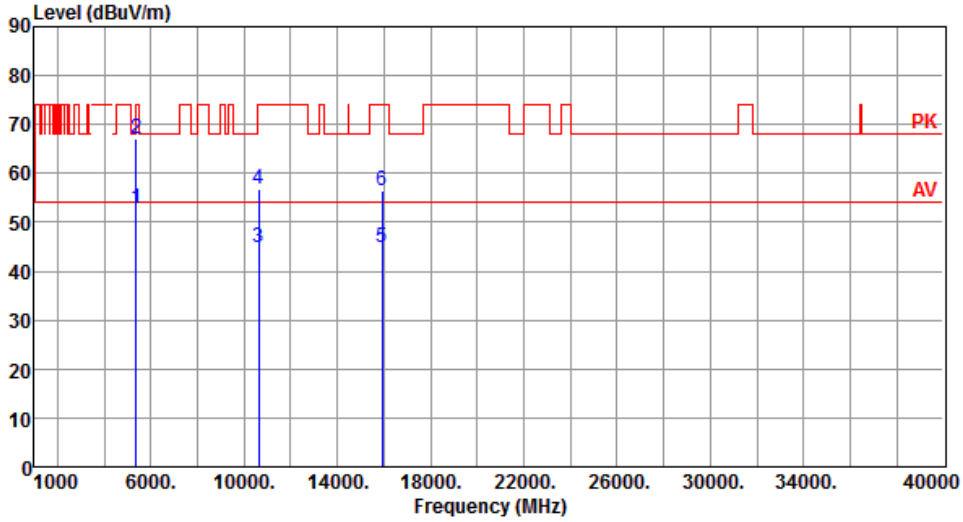
Modulation	VHT40	Test Freq. (MHz)	5270
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.69	54.00	-7.31	39.27	7.42	Average	100	75
2	5150.00	56.83	74.00	-17.17	49.41	7.42	Peak	100	75
3	5350.00	48.69	54.00	-5.31	41.84	6.85	Average	100	75
4	5350.00	59.36	74.00	-14.64	52.51	6.85	Peak	100	75
5	10540.00	57.02	68.20	-11.18	40.43	16.59	Peak	100	52
6	15810.00	44.17	54.00	-9.83	27.52	16.65	Average	100	53
7	15810.00	56.22	74.00	-17.78	39.57	16.65	Peak	100	53

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

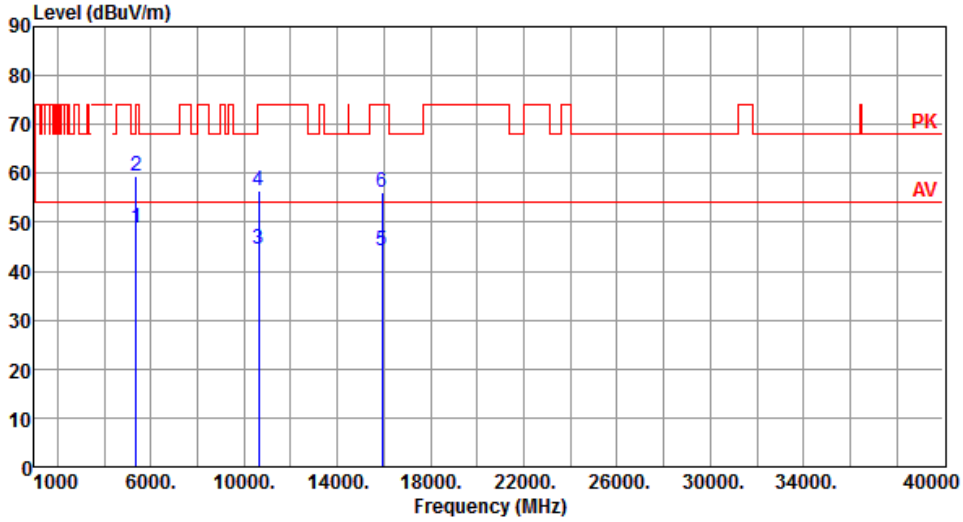
Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Horizontal		



	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	52.94	54.00	-1.06	46.09	6.85	Average	285	107
2	5350.00	67.19	74.00	-6.81	60.34	6.85	Peak	285	107
3	10620.00	44.76	54.00	-9.24	28.11	16.65	Average	100	107
4	10620.00	56.93	74.00	-17.07	40.28	16.65	Peak	100	107
5	15930.00	44.70	54.00	-9.30	28.00	16.70	Average	100	101
6	15930.00	56.48	74.00	-17.52	39.78	16.70	Peak	100	101

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

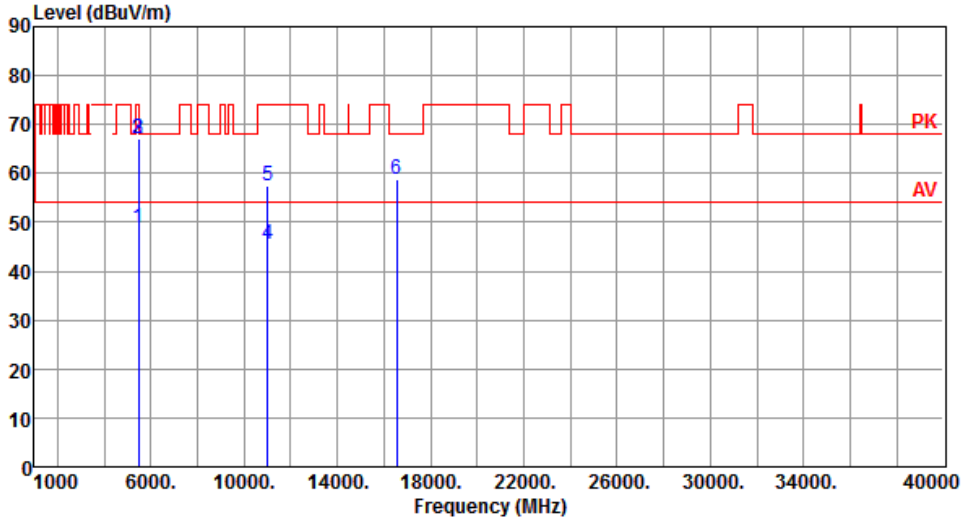
Modulation	VHT40	Test Freq. (MHz)	5310
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	48.80	54.00	-5.20	41.95	6.85	Average	100	78
2	5350.00	59.52	74.00	-14.48	52.67	6.85	Peak	100	78
3	10620.00	44.66	54.00	-9.34	28.01	16.65	Average	100	52
4	10620.00	56.57	74.00	-17.43	39.92	16.65	Peak	100	52
5	15930.00	44.01	54.00	-9.99	27.31	16.70	Average	100	55
6	15930.00	56.20	74.00	-17.80	39.50	16.70	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).

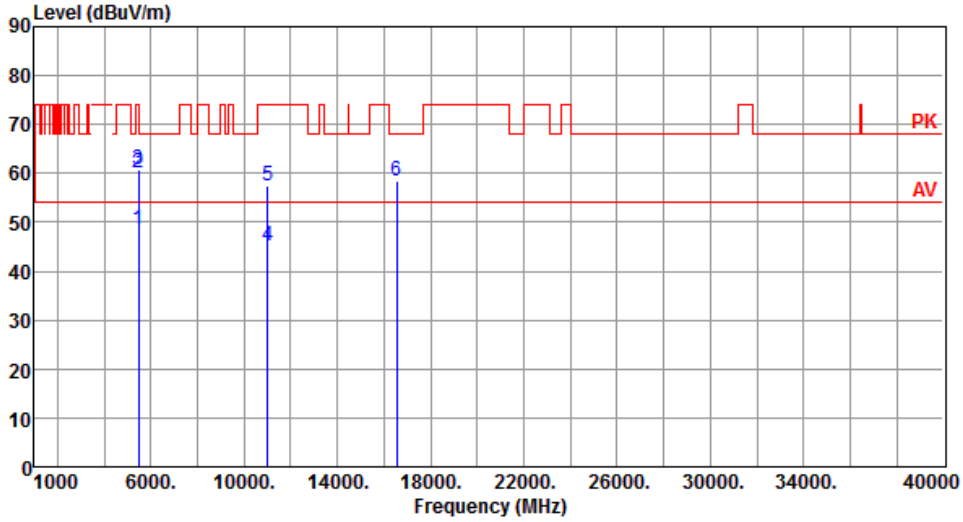
Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.94	54.00	-5.06	41.57	7.37	Average	284	122
2	5460.00	67.13	74.00	-6.87	59.76	7.37	Peak	284	122
3	5470.00	67.16	68.20	-1.04	59.74	7.42	Peak	284	122
4	11020.00	45.55	54.00	-8.45	28.64	16.91	Average	100	279
5	11020.00	57.55	74.00	-16.45	40.64	16.91	Peak	100	279
6	16530.00	58.85	68.20	-9.35	41.14	17.71	Peak	100	274

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

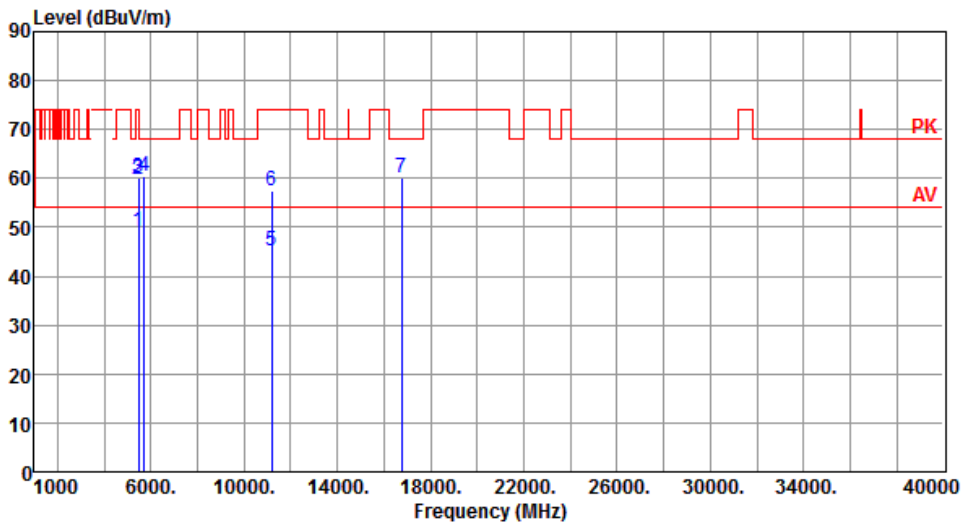
Modulation	VHT40	Test Freq. (MHz)	5510
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.53	54.00	-5.47	41.16	7.37	Average	102	52
2	5460.00	60.00	74.00	-14.00	52.63	7.37	Peak	102	52
3	5470.00	60.67	68.20	-7.53	53.25	7.42	Peak	102	52
4	11020.00	45.15	54.00	-8.85	28.24	16.91	Average	100	103
5	11020.00	57.55	74.00	-16.45	40.64	16.91	Peak	100	103
6	16530.00	58.41	68.20	-9.79	40.70	17.71	Peak	100	101

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

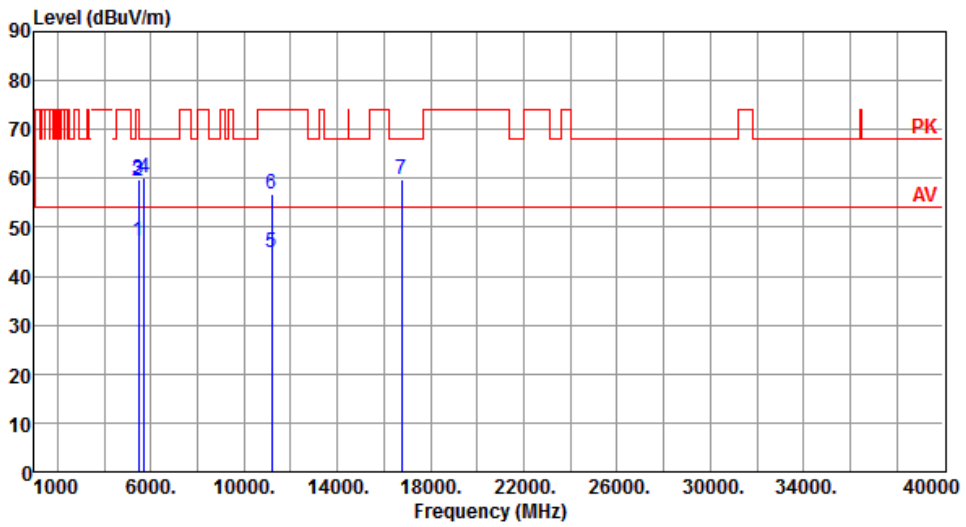
Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Horizontal		



	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	49.27	54.00	-4.73	41.90	7.37	Average	275	115
2	5460.00	59.63	74.00	-14.37	52.26	7.37	Peak	275	115
3	5470.00	60.26	68.20	-7.94	52.84	7.42	Peak	275	115
4	5725.00	60.44	68.20	-7.76	52.68	7.76	Peak	275	115
5	11180.00	45.20	54.00	-8.80	28.62	16.58	Average	100	271
6	11180.00	57.36	74.00	-16.64	40.78	16.58	Peak	100	271
7	16770.00	60.19	68.20	-8.01	41.63	18.56	Peak	100	275

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

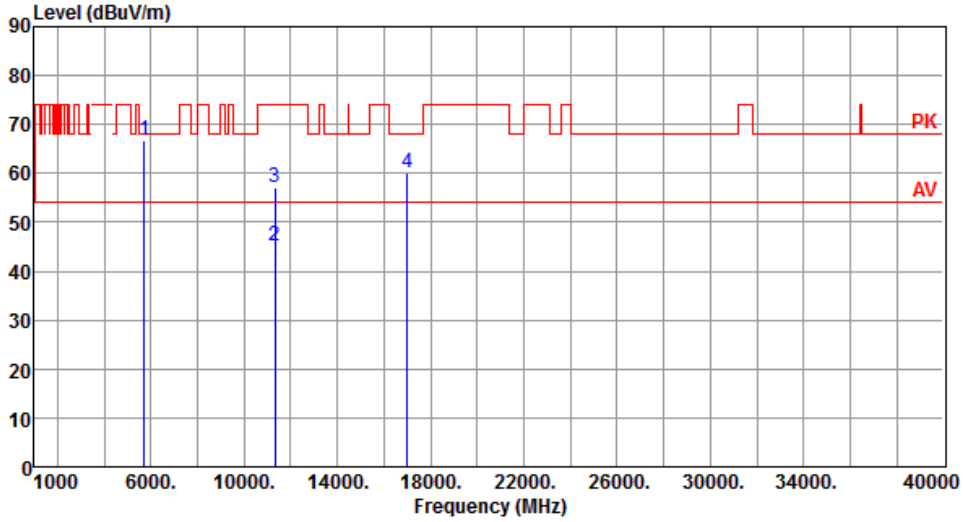
Modulation	VHT40	Test Freq. (MHz)	5590
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.26	54.00	-6.74	39.89	7.37	Average	101	57
2	5460.00	59.43	74.00	-14.57	52.06	7.37	Peak	101	57
3	5470.00	59.84	68.20	-8.36	52.42	7.42	Peak	101	57
4	5725.00	60.00	68.20	-8.20	52.24	7.76	Peak	101	57
5	11180.00	44.83	54.00	-9.17	28.25	16.58	Average	100	109
6	11180.00	56.66	74.00	-17.34	40.08	16.58	Peak	100	109
7	16770.00	59.90	68.20	-8.30	41.34	18.56	Peak	100	105

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

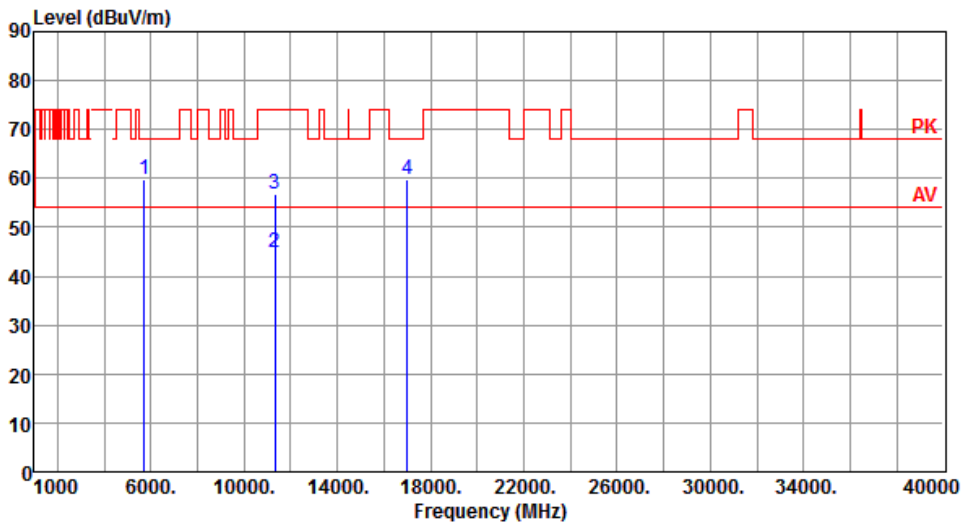
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	66.64	68.20	-1.56	58.88	7.76	Peak	271	113
2	11340.00	45.15	54.00	-8.85	28.45	16.70	Average	100	273
3	11340.00	57.17	74.00	-16.83	40.47	16.70	Peak	100	273
4	17010.00	60.08	68.20	-8.12	41.30	18.78	Peak	100	276

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

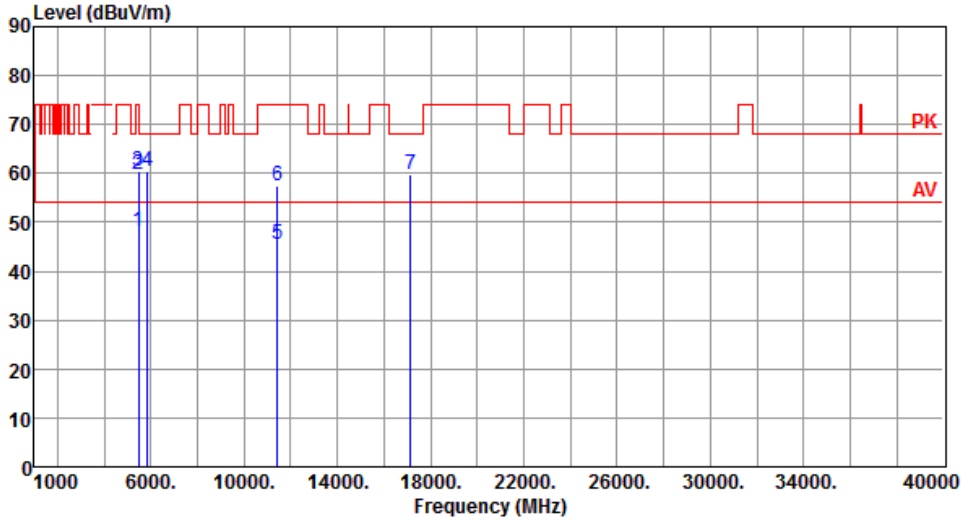
Modulation	VHT40	Test Freq. (MHz)	5670
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	59.89	68.20	-8.31	52.13	7.76	Peak	103	55
2	11340.00	44.94	54.00	-9.06	28.24	16.70	Average	100	102
3	11340.00	56.74	74.00	-17.26	40.04	16.70	Peak	100	102
4	17010.00	59.79	68.20	-8.41	41.01	18.78	Peak	100	106

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

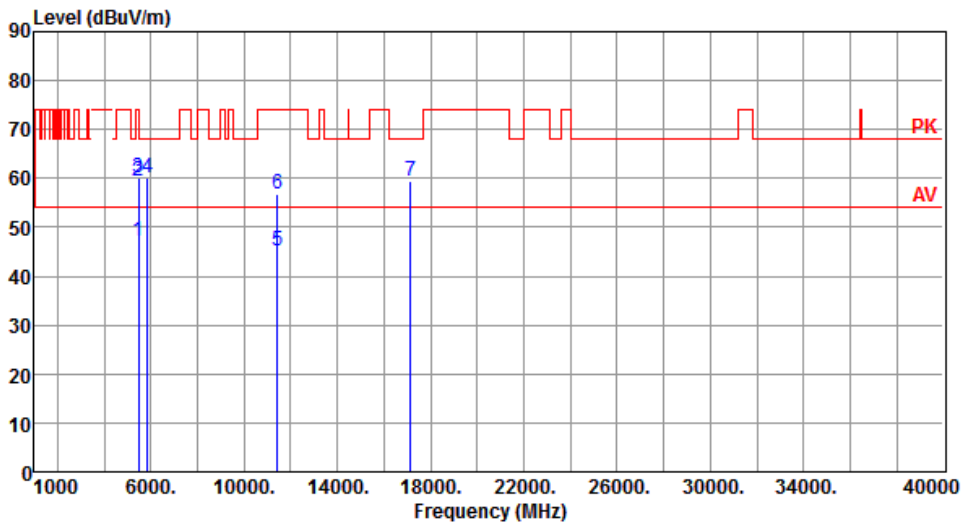
Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.26	54.00	-5.74	40.89	7.37	Average	273	123
2	5460.00	59.81	74.00	-14.19	52.44	7.37	Peak	273	123
3	5470.00	60.31	68.20	-7.89	52.89	7.42	Peak	273	123
4	5850.00	60.31	68.20	-7.89	52.19	8.12	Peak	273	123
5	11420.00	45.36	54.00	-8.64	28.61	16.75	Average	100	273
6	11420.00	57.44	74.00	-16.56	40.69	16.75	Peak	100	273
7	17130.00	59.89	68.20	-8.31	41.38	18.51	Peak	100	276

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

Modulation	VHT40	Test Freq. (MHz)	5710
Polarization	Vertical		

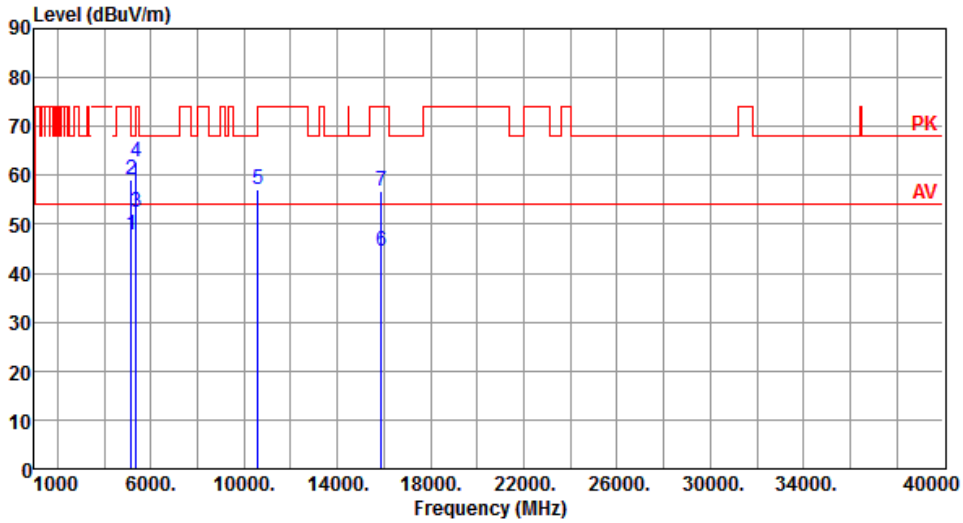


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.28	54.00	-6.72	39.91	7.37	Average	104	56
2	5460.00	59.57	74.00	-14.43	52.20	7.37	Peak	104	56
3	5470.00	60.02	68.20	-8.18	52.60	7.42	Peak	104	56
4	5850.00	60.12	68.20	-8.08	52.00	8.12	Peak	104	56
5	11420.00	45.01	54.00	-8.99	28.26	16.75	Average	100	101
6	11420.00	56.93	74.00	-17.07	40.18	16.75	Peak	100	101
7	17130.00	59.46	68.20	-8.74	40.95	18.51	Peak	100	102

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

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

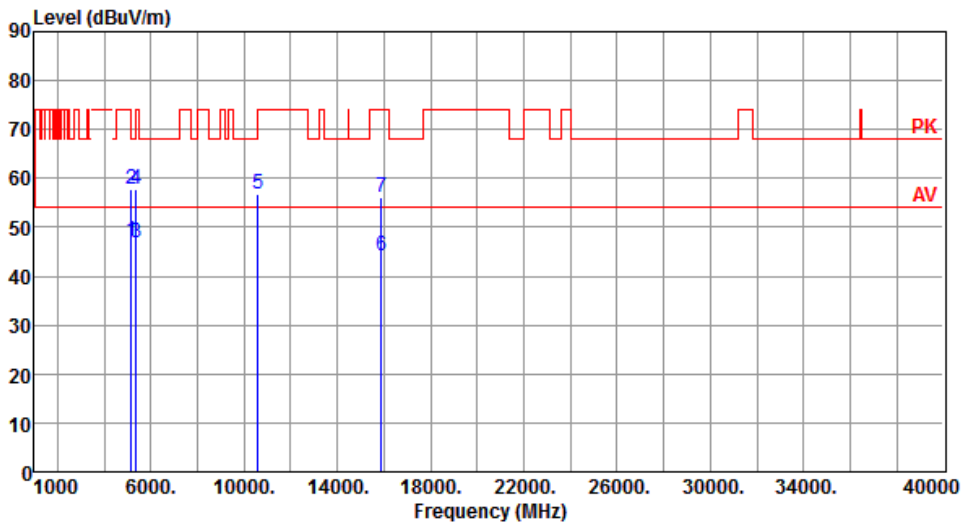
Modulation	VHT80	**Test Freq. (MHz)**	5290
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.98	54.00	-6.02	40.56	7.42	Average	228	147
2	5150.00	59.26	74.00	-14.74	51.84	7.42	Peak	228	147
3	5350.00	52.51	54.00	-1.49	45.66	6.85	Average	228	147
4	5350.00	62.73	74.00	-11.27	55.88	6.85	Peak	228	147
5	10580.00	57.01	68.20	-11.19	40.38	16.63	Peak	100	103
6	15870.00	44.58	54.00	-9.42	27.91	16.67	Average	100	102
7	15870.00	56.63	74.00	-17.37	39.96	16.67	Peak	100	102

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

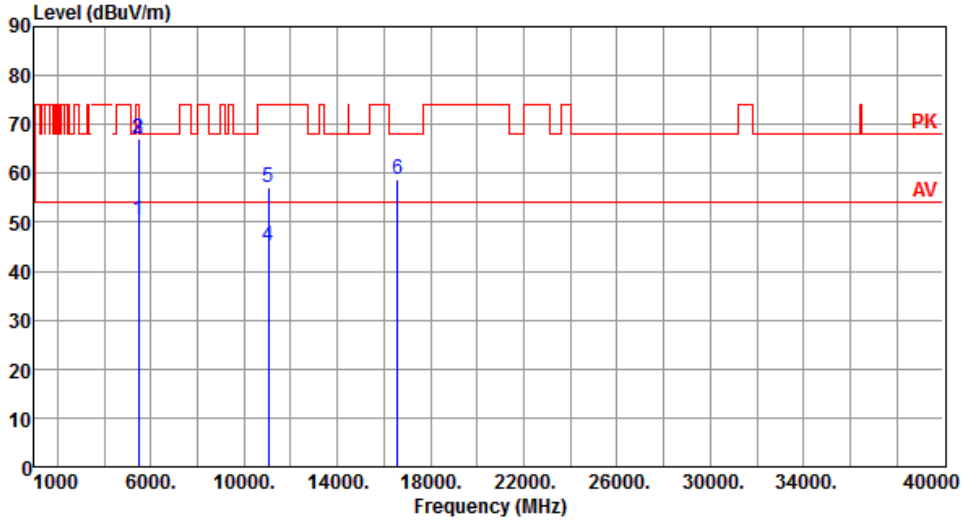
Modulation	VHT80	Test Freq. (MHz)	5290
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.19	54.00	-6.81	39.77	7.42	Average	103	69
2	5150.00	57.88	74.00	-16.12	50.46	7.42	Peak	103	69
3	5350.00	46.82	54.00	-7.18	39.97	6.85	Average	103	69
4	5350.00	57.79	74.00	-16.21	50.94	6.85	Peak	103	69
5	10580.00	56.63	68.20	-11.57	40.00	16.63	Peak	100	52
6	15870.00	44.16	54.00	-9.84	27.49	16.67	Average	100	55
7	15870.00	56.20	74.00	-17.80	39.53	16.67	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).

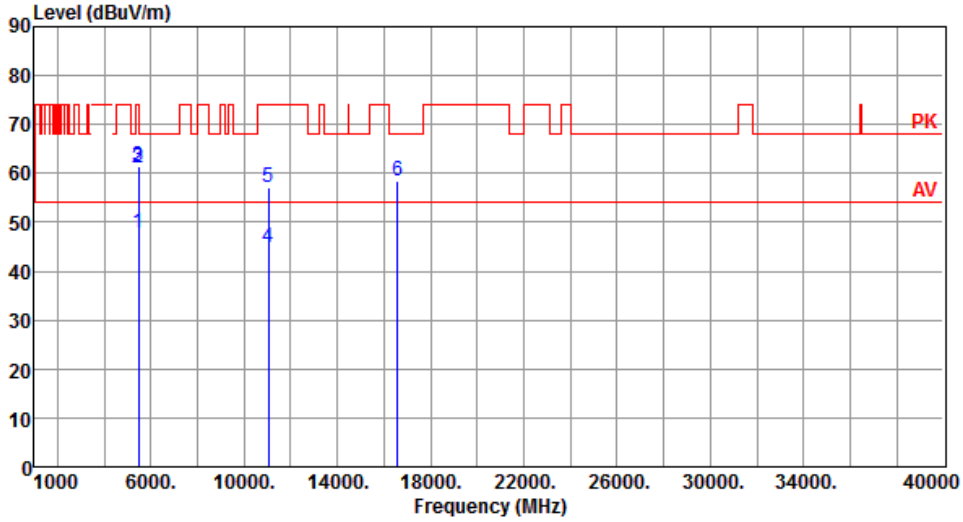
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Horizontal		



	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	50.38	54.00	-3.62	43.01	7.37	Average	276	113
2	5460.00	67.09	74.00	-6.91	59.72	7.37	Peak	276	113
3	5470.00	67.15	68.20	-1.05	59.73	7.42	Peak	276	113
4	11060.00	45.17	54.00	-8.83	28.32	16.85	Average	100	270
5	11060.00	57.13	74.00	-16.87	40.28	16.85	Peak	100	270
6	16590.00	58.73	68.20	-9.47	40.88	17.85	Peak	100	272

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

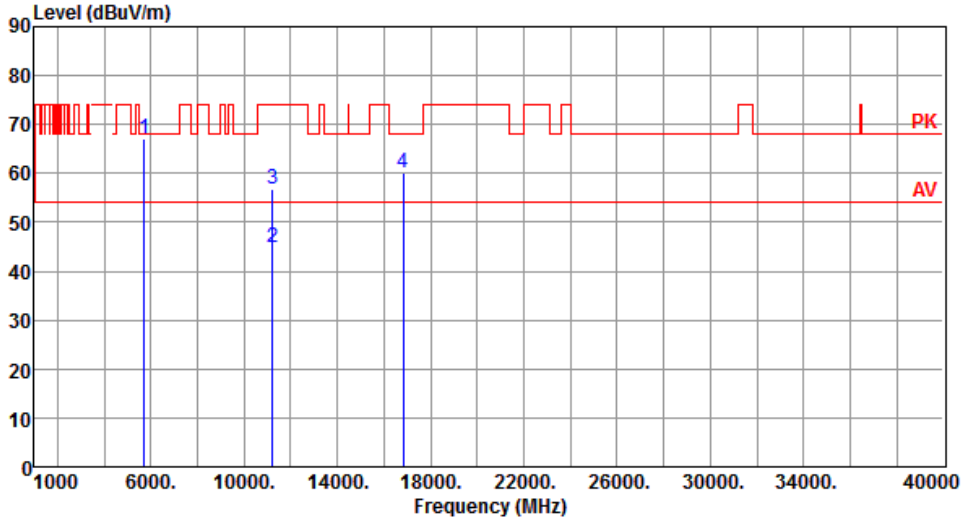
Modulation	VHT80	Test Freq. (MHz)	5530
Polarization	Vertical		



	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	47.94	54.00	-6.06	40.57	7.37	Average	102	52
2	5460.00	61.24	74.00	-12.76	53.87	7.37	Peak	102	52
3	5470.00	61.30	68.20	-6.90	53.88	7.42	Peak	102	52
4	11060.00	44.78	54.00	-9.22	27.93	16.85	Average	100	103
5	11060.00	57.03	74.00	-16.97	40.18	16.85	Peak	100	103
6	16590.00	58.45	68.20	-9.75	40.60	17.85	Peak	100	102

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

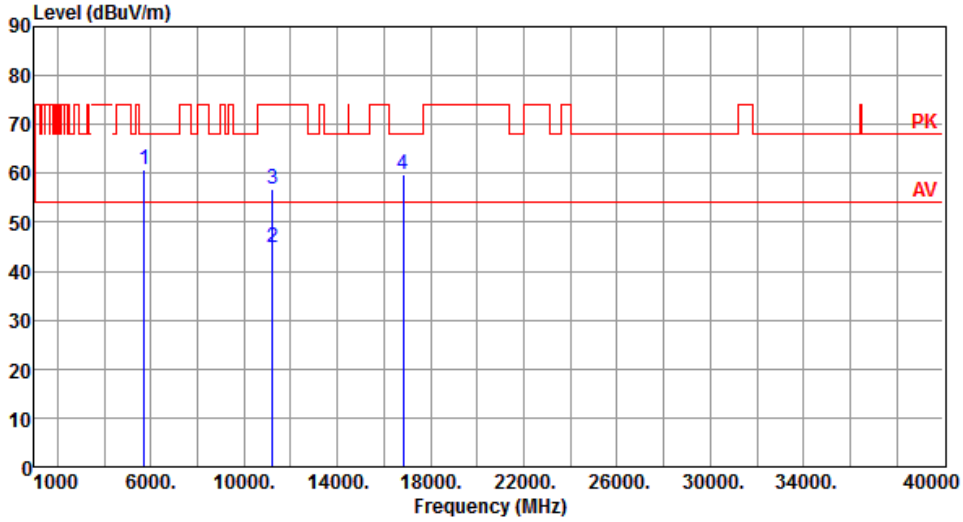
Modulation	VHT80	Test Freq. (MHz)	5610
Polarization	Horizontal		



	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	67.19	68.20	-1.01	59.43	7.76	Peak	224	122
2	11220.00	44.92	54.00	-9.08	28.36	16.56	Average	100	276
3	11220.00	56.91	74.00	-17.09	40.35	16.56	Peak	100	276
4	16830.00	60.01	68.20	-8.19	41.52	18.49	Peak	100	272

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

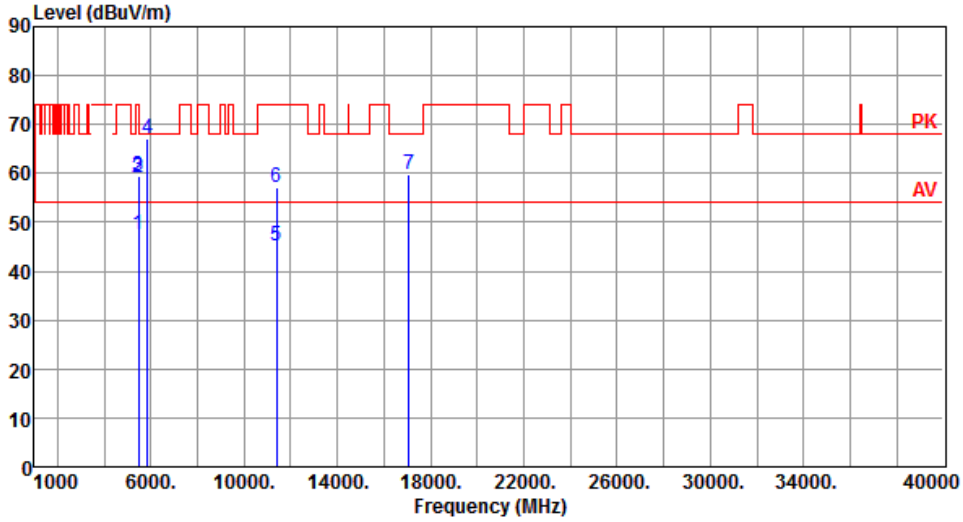
Modulation	VHT80	Test Freq. (MHz)	5610
Polarization	Vertical		



	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	60.63	68.20	-7.57	52.87	7.76	Peak	100	56
2	11220.00	44.91	54.00	-9.09	28.35	16.56	Average	100	101
3	11220.00	56.71	74.00	-17.29	40.15	16.56	Peak	100	101
4	16830.00	59.63	68.20	-8.57	41.14	18.49	Peak	100	105

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

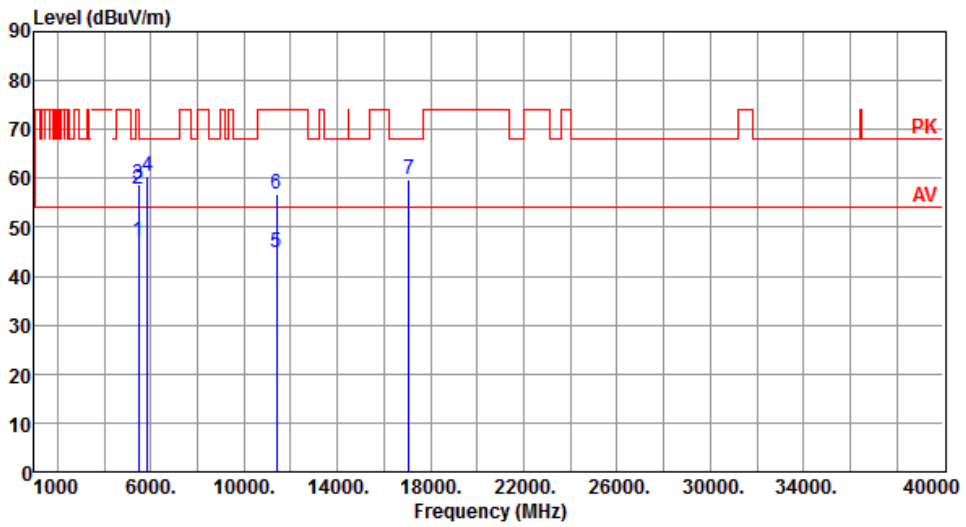
Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Horizontal		



	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	47.59	54.00	-6.41	40.22	7.37	Average	268	140
2	5460.00	58.95	74.00	-15.05	51.58	7.37	Peak	268	140
3	5470.00	59.44	68.20	-8.76	52.02	7.42	Peak	268	140
4	5850.00	67.18	68.20	-1.02	59.06	8.12	Peak	268	140
5	11380.00	45.13	54.00	-8.87	28.41	16.72	Average	100	273
6	11380.00	57.07	74.00	-16.93	40.35	16.72	Peak	100	273
7	17070.00	59.80	68.20	-8.40	41.18	18.62	Peak	100	276

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

Modulation	VHT80	Test Freq. (MHz)	5690
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.25	54.00	-6.75	39.88	7.37	Average	100	52
2	5460.00	57.89	74.00	-16.11	50.52	7.37	Peak	100	52
3	5470.00	58.67	68.20	-9.53	51.25	7.42	Peak	100	52
4	5850.00	60.55	68.20	-7.65	52.43	8.12	Peak	100	52
5	11380.00	44.96	54.00	-9.04	28.24	16.72	Average	100	102
6	11380.00	56.85	74.00	-17.15	40.13	16.72	Peak	100	102
7	17070.00	59.68	68.20	-8.52	41.06	18.62	Peak	100	103

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

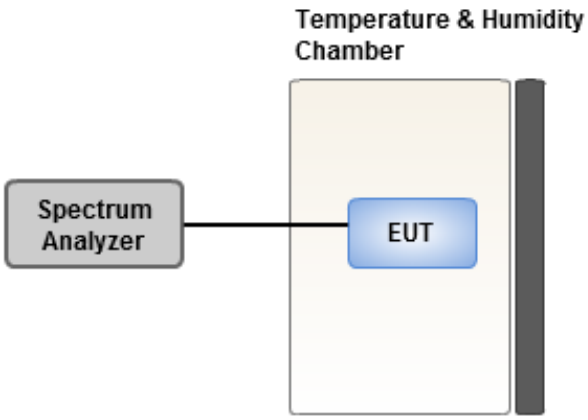
3.6.1 Limit of Frequency Stability

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 20 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 normal and extreme condition for temperature and voltage.

3.6.3 Test Setup



3.6.4 Test Result of Frequency Stability

Frequency: 5320 MHz	Frequency Drift (ppm)			
Temperature (°C)	**0 minute**	**2 minutes**	**5 minutes**	**10 minutes**
T20°CVmax	-0.03	0.11	0.49	0.16
T20°CVmin	-0.43	0.03	-0.53	0.30
T50°CVnom	-0.96	-0.46	-1.11	-1.12
T40°CVnom	0.46	1.02	0.51	1.07
T30°CVnom	0.52	0.55	0.43	0.58
T20°CVnom	-0.66	-0.94	-0.05	-0.28
T10°CVnom	-2.23	-1.33	-2.24	-1.76
T0°CVnom	-3.35	-2.90	-3.09	-2.70
T-10°CVnom	-2.54	-1.99	-2.23	-2.09
T-20°CVnom	-5.88	-5.63	-6.28	-5.93
T-30°CVnom	-5.65	-4.97	-5.64	-5.28
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

4 Test laboratory information

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

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

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

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

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

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

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