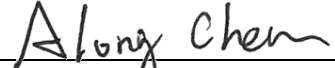


FCC Test Report

FCC ID : P27RP362M
Equipment : AC2100 Wi-Fi Mesh Extender ;
AC2100 Wi-Fi Mesh Router
Model No. : RP362M ; IP3421M
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 : Feb. 12, 2020
Tested Date : Mar. 04 ~ Apr. 08, 2020

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

Reviewed by:


Along Chen / Assistant Manager

Approved by:


Gary Chang / Manager



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Release Record

Report No.	Version	Description	Issued Date
FR021202AN	Rev. 01	Initial issue	Apr. 22, 2020

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.796MHz 28.76 (Margin -17.24dB) - AV	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 11490.00MHz 52.99 (Margin -1.01dB) - AV	Pass
15.407(a)	Emission Bandwidth	Meet the requirement of limit	Pass
15.407(e)	6dB bandwidth	Meet the requirement of limit	Pass
15.407(a)	RF Output Power	Max Power [dBm]: <i>Non-beamforming mode</i> 5150-5250MHz: 26.21 5725-5850MHz: 27.20 <i>Beamforming mode</i> 5150-5250MHz: 25.96 5725-5850MHz: 27.18	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

1.1.1 Product Details

The following models are provided to this EUT.

Brand Name	Model Name	Product Name	Description
Sercomm	RP362MXXXXXXXXXX	AC2100 Wi-Fi Mesh Extender	FW: v1.00.01 supports 2 LANs. Indoor AP / Client
Sercomm	IP3421MXXXXXXXXXX	AC2100 Wi-Fi Mesh Router	FW: v1.00.00.001 supports 1 WAN & 1 LAN Indoor AP
✦ the 1st X should be "blank" or "-"; the rest X could be 0 to 9, A to Z, "blank", "- " or "/" , for marketing purpose. ✦ The above models used the same hardware but with the different firmware. ✦ The above models, model RP362M and IP3421M were selected as a representative one for the final test			

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
5150-5250 5725-5850	a	5180-5240 5745-5825	36-48 [4] 149-165 [5]	4	6-54 Mbps
5150-5250 5725-5850	n (HT20)	5180-5240 5745-5825	36-48 [4] 149-165 [5]	4	MCS 0-31
5150-5250 5725-5850	n (HT40)	5190-5230 5755-5795	38-46 [2] 151-159 [2]	4	MCS 0-31
5150-5250 5725-5850	ac (VHT20)	5180-5240 5745-5825	36-48 [4] 149-165 [5]	4	MCS 0-9
5150-5250 5725-5850	ac (VHT40)	5190-5230 5755-5795	38-46 [2] 151-159 [2]	4	MCS 0-9
5150-5250 5725-5850	ac (VHT80)	5210 5775	42 [1] 155 [1]	4	MCS 0-9
Note 1: RF output power specifies that Maximum Conducted Output Power. Note 2: 802.11a/n/ac uses a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation. Note 3: 802.11ac supports beamforming function.					

1.1.3 Antenna Details

Ant. No.	Model	Type	Connector	Operating Frequency (MHz) / Gain (dBi)	
				5150~5250	5725~5850
1	Dual Ant 1	Dipole	i-pex	2.03	2.45
2	Dual ANT 2	Dipole	i-pex	2.24	2.59
3	Wi Fi 5G Ant 1	PIFA	N/A	2.35	2.5
4	Wi Fi 5G Ant 2	PIFA	N/A	2.29	2.66

1.1.4 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	12Vdc from AC adapter
-------------------	-----------------------

1.1.5 Accessories

Accessories		
No.	Equipment	Description
1	AC adapter	Brand: MOSO Model: MSS-H1000WR120-012B0-US I/P: 100-240Vac, 50/60Hz, 0.5A max O/P: 12.0Vdc, 1A Power Line: 1.5m non-shielded without core Note: The adapter has 2 configurations.

Note: There are two designs for the adapter, with or without Y-capacitor.

1.1.6 Channel List

For Frequency band 5150-5250 MHz			
802.11 a / HT20 / VHT20		HT40 / VHT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	VHT80	
48	5240	42	5210

For Frequency band 5725~5850 MHz			
802.11 a / HT20 / VHT20		HT40 / VHT40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
149	5745	151	5755
153	5765	159	5795
157	5785	VHT80	
161	5805	155	5775
165	5825	---	---

1.1.7 Test Tool and Duty Cycle

Non-beamforming

Test Tool	MT7615 QA, V0.0.2.0		
Duty Cycle and Duty Factor	Mode	Duty Cycle (%)	Duty Factor (dB)
	11a	97.02%	0.13
	VHT20	96.85%	0.14
	VHT40	93.13%	0.31
	VHT80	92.14%	0.36

Beamforming

Test Tool	Putty, V0.60.0.0		
Duty Cycle and Duty Factor	Mode	Duty Cycle (%)	Duty Factor (dB)
	VHT20	98.31%	0.07
	VHT40	94.41%	0.25
	VHT80	98.10%	0.08

1.1.8 Power Index of Test Tool

For indoor AP

Modulation Mode	Test Frequency (MHz)	Power Index	
		Non-Beamforming	Beamforming
11a	5180	15	---
11a	5200	1C	---
11a	5240	20	---
11a	5745	20	---
11a	5785	20	---
11a	5825	20	---
VHT20	5180	16	24
VHT20	5200	1E	31
VHT20	5240	24	37
VHT20	5745	24	37
VHT20	5785	24	37
VHT20	5825	24	37
VHT40	5190	12	17
VHT40	5230	1A	28
VHT40	5755	1D	30
VHT40	5795	24	37
VHT80	5210	0E	13
VHT80	5775	17	22

For Client

Modulation Mode	Test Frequency (MHz)	Power Index	
		Non-Beamforming	Beamforming
11a	5180	13	---
11a	5200	12	---
11a	5240	11	---
VHT20	5180	16	24
VHT20	5200	16	24
VHT20	5240	15	23
VHT40	5190	12	17
VHT40	5230	1A	26
VHT80	5210	0E	13

1.2 Local Support Equipment List

Non-beamforming mode

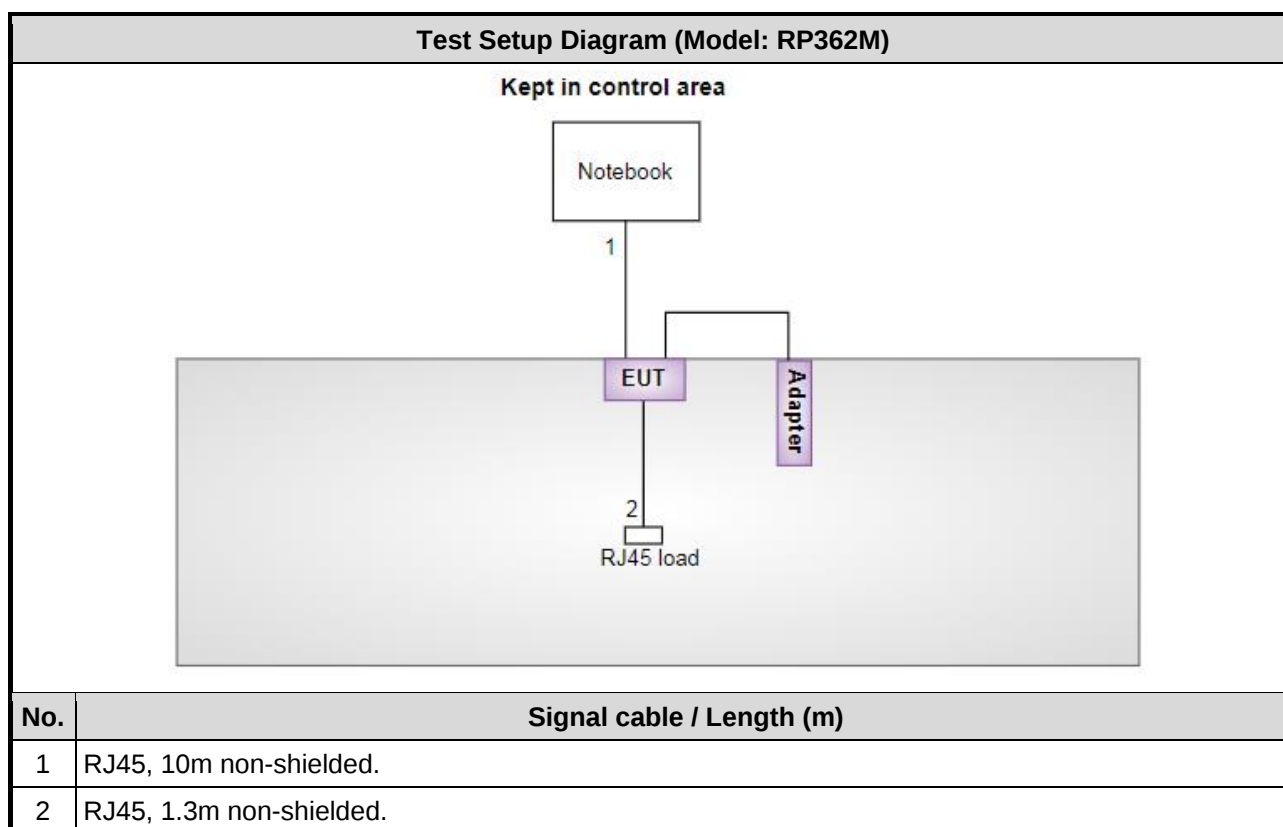
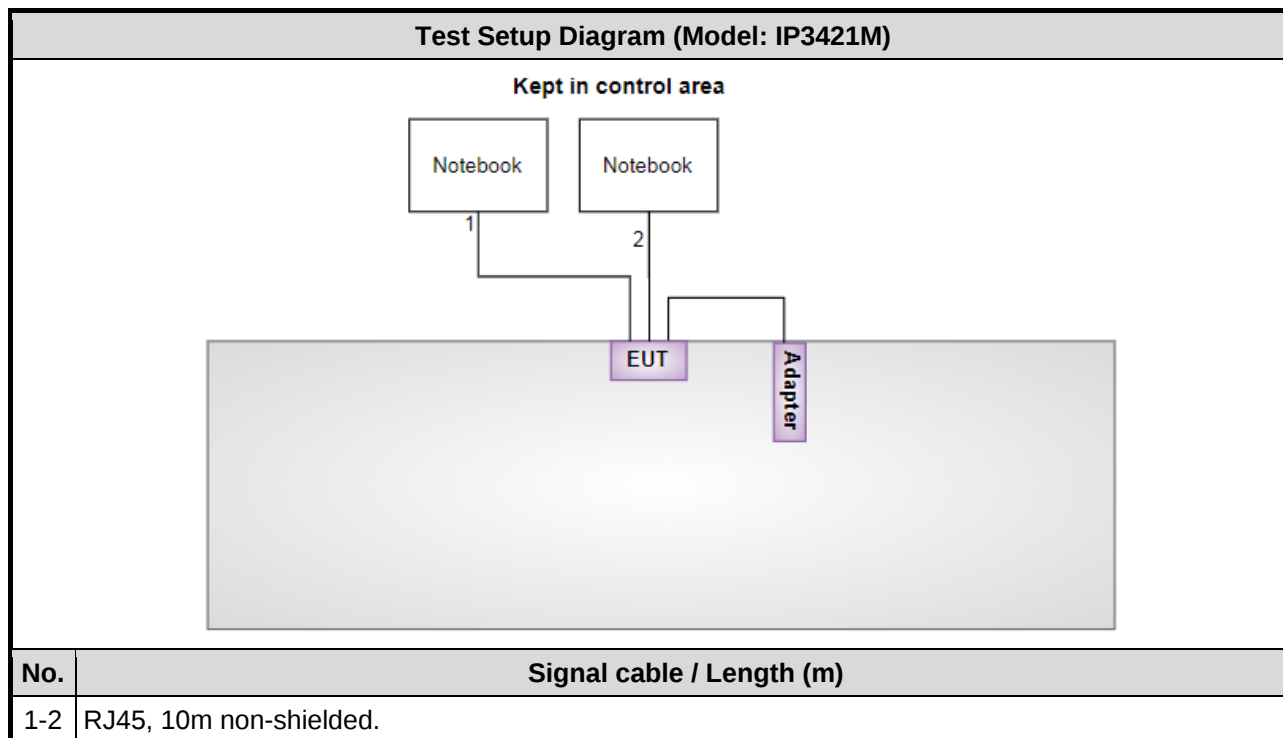
Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	Notebook	DELL	Latitude E5470	DoC	---
2	Notebook	DELL	Latitude E6440	DoC	---
3	RJ45 Load	ICC	---	---	---

Beamforming mode

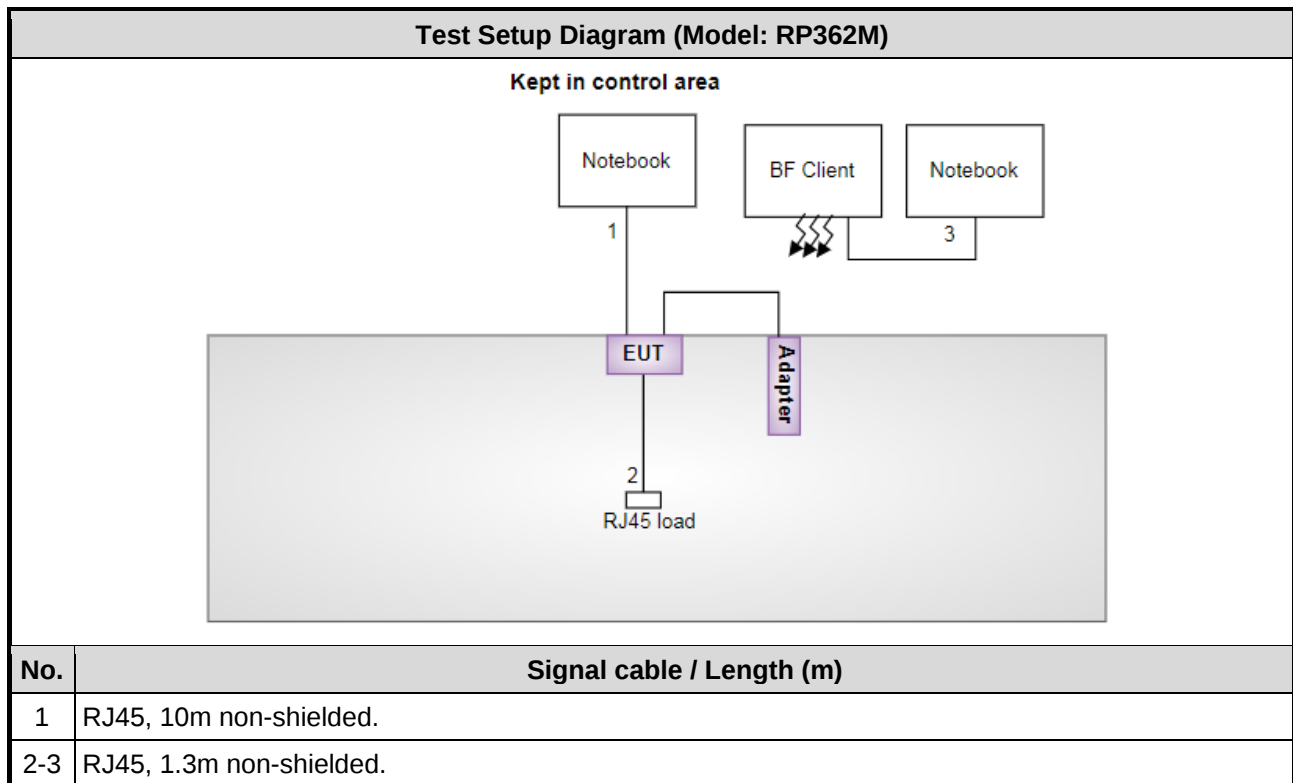
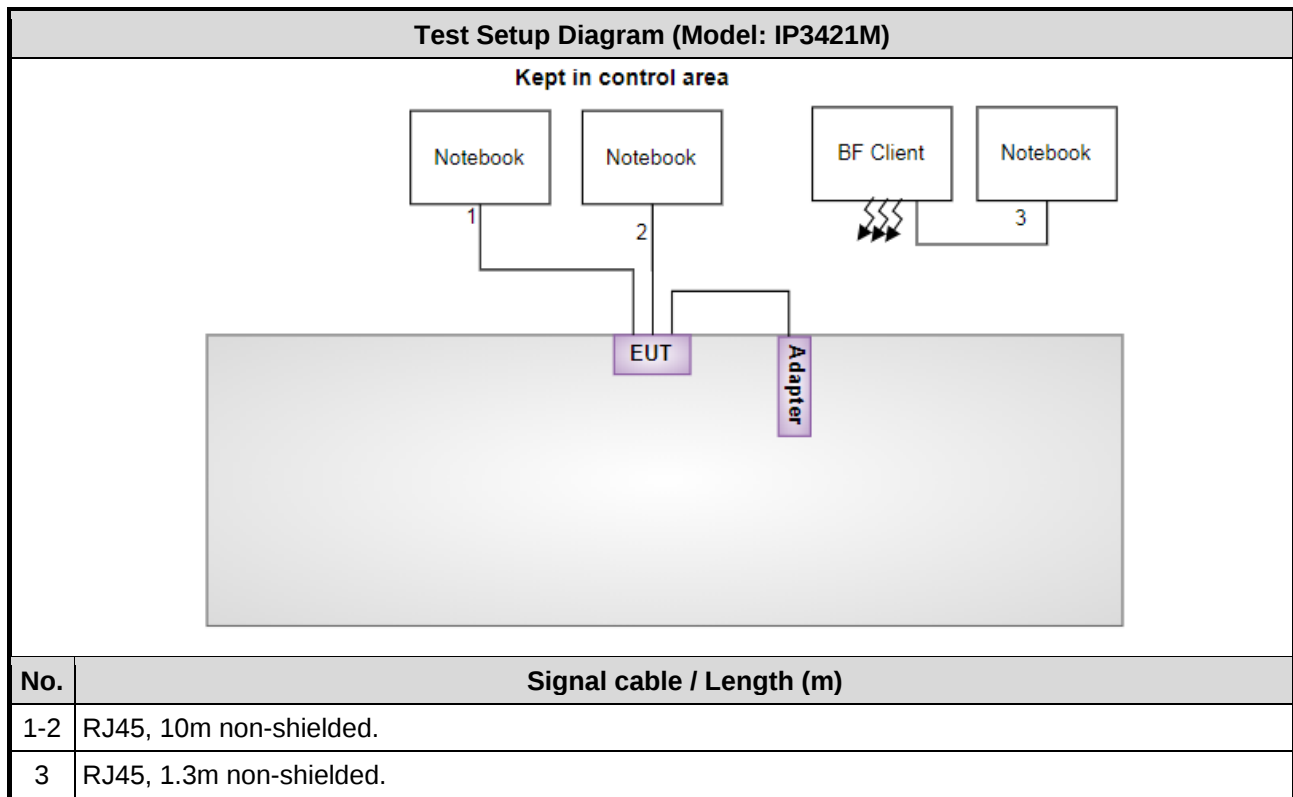
Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	Notebook	DELL	Latitude E5470	DoC	---
2	Notebook	DELL	Latitude E6440	DoC	---
3	Notebook	DELL	Latitude E6430	DoC	---
4	RJ45 Load	ICC	---	---	---
5	BF Client (AC2100 Wi-Fi Mesh Extender)	Sercomm	IP3421M	---	Provided by applicant.
6	BF Client (AC2100 Wi-Fi Mesh Extender)	Sercomm	RP362M	---	Provided by applicant.

1.3 Test Setup Chart

Non-beamforming mode



Beamforming mode



1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Apr. 02, 2020				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Receiver	R&S	ESR3	101658	Dec. 12, 2019	Dec. 11, 2020
LISN	R&S	ENV216	101579	Mar. 12, 2020	Mar. 11, 2021
RF Cable-CON	Woken	CFD200-NL	CFD200-NL-001	Oct. 22, 2019	Oct. 21, 2020
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	Mar. 04 ~ Mar. 26, 2020				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101499	Jan. 09, 2020	Jan. 08, 2021
Receiver	R&S	ESR3	101657	Feb. 14, 2020	Feb. 13, 2021
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-685	Apr. 17, 2019	Apr. 16, 2020
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1206	Dec. 27, 2019	Dec. 26, 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	Apr. 01 ~ Apr. 08, 2020				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101063	Apr. 17, 2019	Apr. 16, 2020
Power Meter	Anritsu	ML2495A	1241002	Oct. 23, 2019	Oct. 22, 2020
Power Sensor	Anritsu	MA2411B	1207366	Oct. 23, 2019	Oct. 22, 2020
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Dec. 12, 2019	Dec. 11, 2020
AC POWER SOURCE	APC	AFC-500W	F312060012	Dec. 02, 2019	Dec. 01, 2020
Measurement Software	Sporton	Sporton_1	1.3.30	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Testing Applied Standards

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

47 CFR FCC Part 15.407

ANSI C63.10-2013

FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

FCC KDB 412172 D01 Determining ERP and EIRP v01r01

1.6 Deviation from Test Standard and Measurement Procedure

None

1.7 Measurement Uncertainty

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 ≤ 1 GHz	± 3.96 dB
Radiated emission > 1 GHz	± 4.51 dB
Time	$\pm 0.1\%$
Temperature	± 0.4 °C

2 Test Configuration

2.1 Testing Condition

Test Item	Test Site	Ambient Condition	Tested By
AC Conduction	CO01-WS	24°C / 68%	Alex Tsai
Radiated Emissions	03CH03-WS	20-22°C / 63-67%	Brad Wu Roger Lu
RF Conducted	TH01-WS	21°C / 64%	Aska Huang

- 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 5150-5250 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	VHT20	5240	MCS 0	1, 2
Radiated Emissions ≤1GHz	VHT20	5240	MCS 0	1, 2
RF Output Power Peak Power Spectral Density	11a VHT20 VHT40 VHT80	5180 / 5200 / 5240 5180 / 5200 / 5240 5190 / 5230 5210	6 Mbps MCS 0 MCS 0 MCS 0	1, 2
Emission Bandwidth Radiated Emissions >1GHz	11a VHT20 VHT40 VHT80	5180 / 5200 / 5240 5180 / 5200 / 5240 5190 / 5230 5210	6 Mbps MCS 0 MCS 0 MCS 0	1
Frequency Stability	Un-modulation	5200	---	1
NOTE: 1. The adapter have two configurations (with Y capacitor / without Y capacitor) had been covered during the pretest, and found that without Y was the worst case and was selected for final test. 2. The EUT had been tested by following test configurations. Configuration 1 , Model name: IP3421M for indoor AP Configuration 2 , Model name: RP362M for Client				

For Frequency band 5725-5850 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	VHT40	5795	MCS 0	1, 2
Radiated Emissions ≤1GHz	VHT40	5795	MCS 0	1, 2
RF Output Power Peak Power Spectral Density	11a VHT20 VHT40 VHT80	5745 / 5785 / 5825 5745 / 5785 / 5825 5755 / 5795 5775	6 Mbps MCS 0 MCS 0 MCS 0	1, 2
Emission Bandwidth 6dB bandwidth Radiated Emissions >1GHz	11a VHT20 VHT40 VHT80	5745 / 5785 / 5825 5745 / 5785 / 5825 5755 / 5795 5775	6 Mbps MCS 0 MCS 0 MCS 0	1
Frequency Stability	Un-modulation	5785	---	1
NOTE: 1. The adapter have two configurations (with Y capacitor / without Y capacitor) had been covered during the pretest, and found that without Y was the worst case and was selected for final test. 2. The EUT had been tested by following test configurations. Configuration 1 , Model name: IP3421M for indoor AP Configuration 2 , Model name: RP362M for Client				

Beamforming mode

For Frequency band 5150-5250 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	VHT20	5240	MCS 0	1, 2
Radiated Emissions ≤ 1 GHz	VHT20	5240	MCS 0	1, 2
RF Output Power Peak Power Spectral Density	VHT20 VHT40 VHT80	5180 / 5200 / 5240 5190 / 5230 5210	MCS 0 MCS 0 MCS 0	1, 2
Emission Bandwidth Radiated Emissions > 1 GHz	VHT20 VHT40 VHT80	5180 / 5200 / 5240 5190 / 5230 5210	MCS 0 MCS 0 MCS 0	1
NOTE: 1. The adapter have two configurations (with Y capacitor / without Y capacitor) had been covered during the pretest, and found that without Y was the worst case and was selected for final test. 2. The EUT had been tested by following test configurations. Configuration 1 , Model name: IP3421M for indoor AP Configuration 2 , Model name: RP362M for Client				

For Frequency band 5725-5850 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	VHT40	5795	MCS 0	1, 2
Radiated Emissions ≤ 1 GHz	VHT40	5795	MCS 0	1, 2
RF Output Power Peak Power Spectral Density	VHT20 VHT40 VHT80	5745 / 5785 / 5825 5755 / 5795 5775	MCS 0 MCS 0 MCS 0	1
Emission Bandwidth 6dB bandwidth Radiated Emissions > 1 GHz	VHT20 VHT40 VHT80	5745 / 5785 / 5825 5755 / 5795 5775	MCS 0 MCS 0 MCS 0	1
NOTE: 1. The adapter have two configurations (with Y capacitor / without Y capacitor) had been covered during the pretest, and found that without Y was the worst case and was selected for final test. 2. The EUT had been tested by following test configurations. Configuration 1 , Model name: IP3421M for indoor AP Configuration 2 , Model name: RP362M for Client				

3 Transmitter Test Results

3.1 Conducted Emissions

3.1.1 Limit of Conducted Emissions

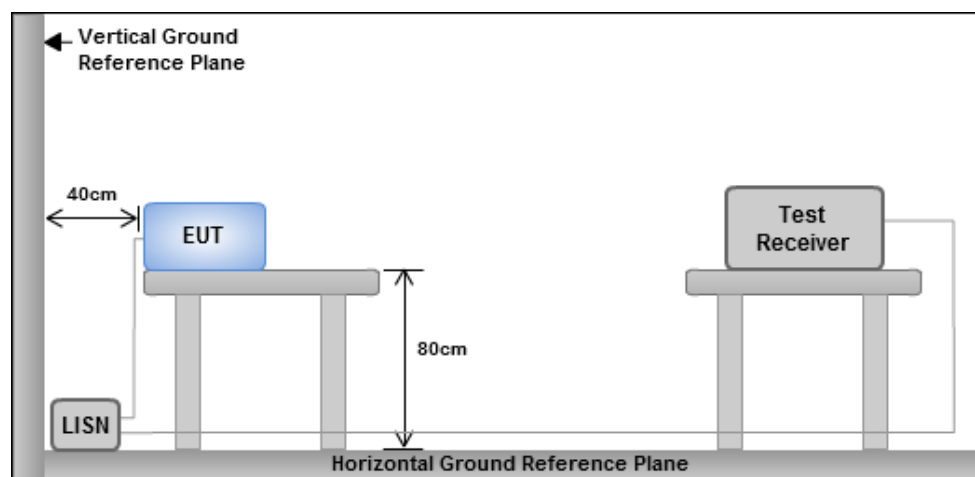
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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

3.1.2 Test Procedures

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

3.1.3 Test Setup

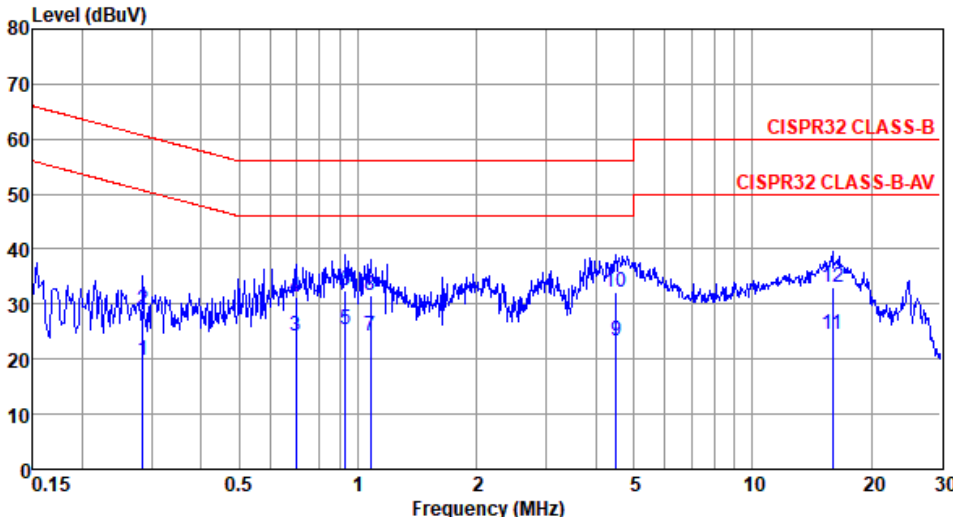


- Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

3.1.4 Test Result of Conducted Emissions

Non-beamforming mode

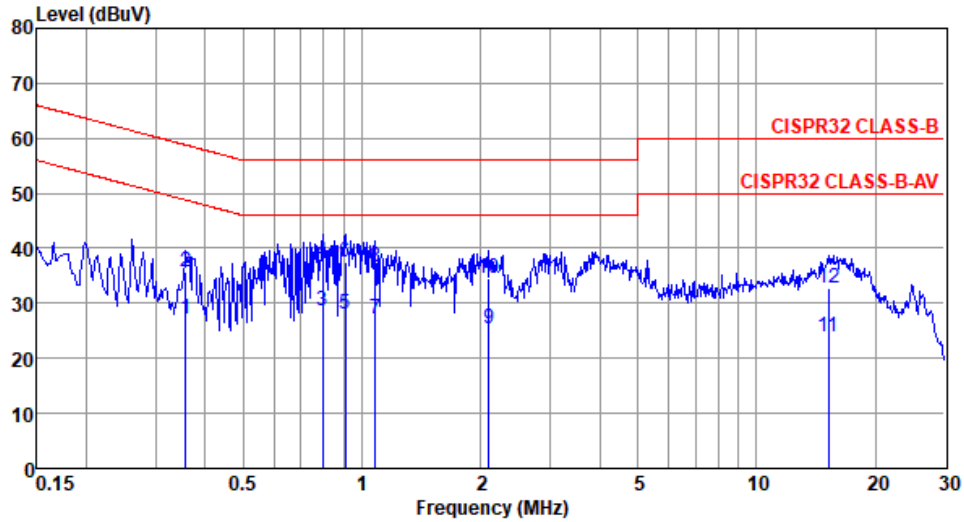
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Line	Test Configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.285	19.68	50.68	-31.00	9.76	9.63	0.07	Average
2	0.285	28.94	60.68	-31.74	19.02	9.63	0.07	QP
3	0.697	24.28	46.00	-21.72	14.26	9.63	0.10	Average
4	0.697	31.36	56.00	-24.64	21.34	9.63	0.10	QP
5*	0.928	25.45	46.00	-20.55	15.39	9.63	0.12	Average
6	0.928	32.54	56.00	-23.46	22.48	9.63	0.12	QP
7	1.077	24.33	46.00	-21.67	14.25	9.63	0.13	Average
8	1.077	31.73	56.00	-24.27	21.65	9.63	0.13	QP
9	4.501	23.33	46.00	-22.67	13.00	9.66	0.30	Average
10	4.501	32.21	56.00	-23.79	21.88	9.66	0.30	QP
11	15.970	24.44	50.00	-25.56	13.61	9.71	0.61	Average
12	15.970	32.96	60.00	-27.04	22.13	9.71	0.61	QP

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

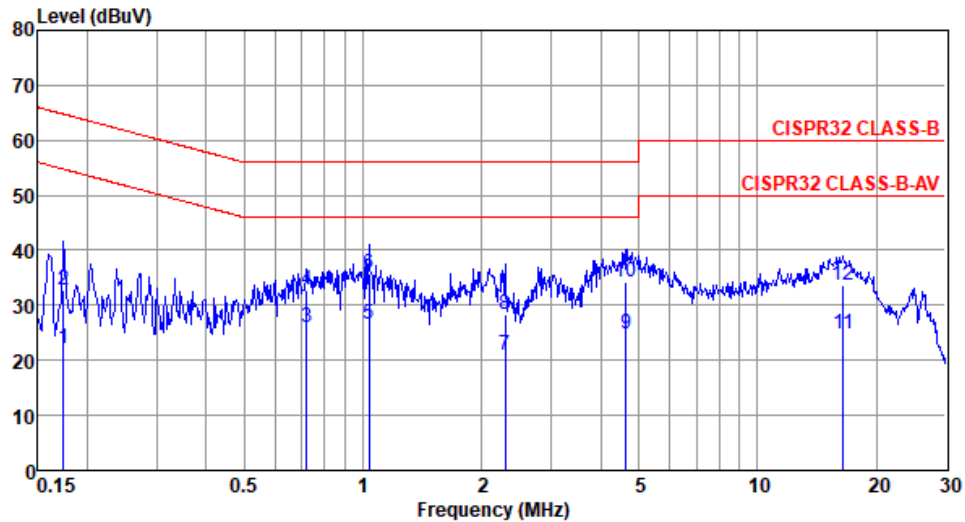
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Neutral	Test Configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.358	27.24	48.78	-21.54	17.34	9.65	0.08	Average
2	0.358	35.62	58.78	-23.16	25.72	9.65	0.08	QP
3*	0.796	28.76	46.00	-17.24	18.81	9.65	0.11	Average
4	0.796	37.58	56.00	-18.42	27.63	9.65	0.11	QP
5	0.909	28.00	46.00	-18.00	18.03	9.65	0.12	Average
6	0.909	37.34	56.00	-18.66	27.37	9.65	0.12	QP
7	1.082	27.11	46.00	-18.89	17.12	9.65	0.13	Average
8	1.082	36.54	56.00	-19.46	26.55	9.65	0.13	QP
9	2.099	25.31	46.00	-20.69	15.20	9.66	0.19	Average
10	2.099	34.40	56.00	-21.60	24.29	9.66	0.19	QP
11	15.226	23.78	50.00	-26.22	13.00	9.80	0.60	Average
12	15.226	32.82	60.00	-27.18	22.04	9.80	0.60	QP

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

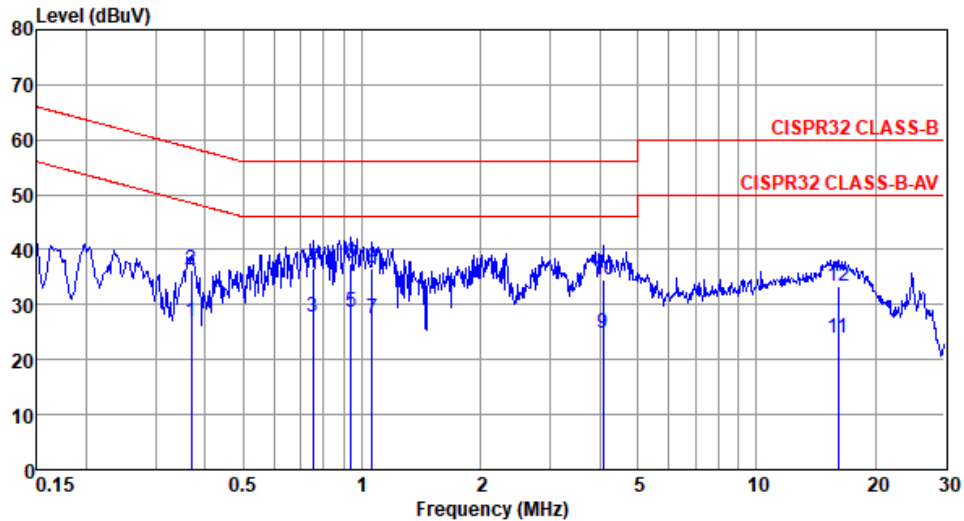
Modulation	VHT40	Test Freq. (MHz)	5795
Power Phase	Line	Test Configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.174	22.01	54.77	-32.76	12.14	9.63	0.06	Average
2	0.174	32.86	64.77	-31.91	22.99	9.63	0.06	QP
3	0.720	25.90	46.00	-20.10	15.87	9.63	0.11	Average
4	0.720	32.90	56.00	-23.10	22.87	9.63	0.11	QP
5*	1.037	26.52	46.00	-19.48	16.45	9.63	0.12	Average
6	1.037	35.85	56.00	-20.15	25.78	9.63	0.12	QP
7	2.297	21.09	46.00	-24.91	10.90	9.64	0.20	Average
8	2.297	28.29	56.00	-27.71	18.10	9.64	0.20	QP
9	4.647	24.79	46.00	-21.21	14.45	9.66	0.31	Average
10	4.647	34.18	56.00	-21.82	23.84	9.66	0.31	QP
11	16.486	24.77	50.00	-25.23	13.92	9.71	0.62	Average
12	16.486	33.55	60.00	-26.45	22.70	9.71	0.62	QP

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

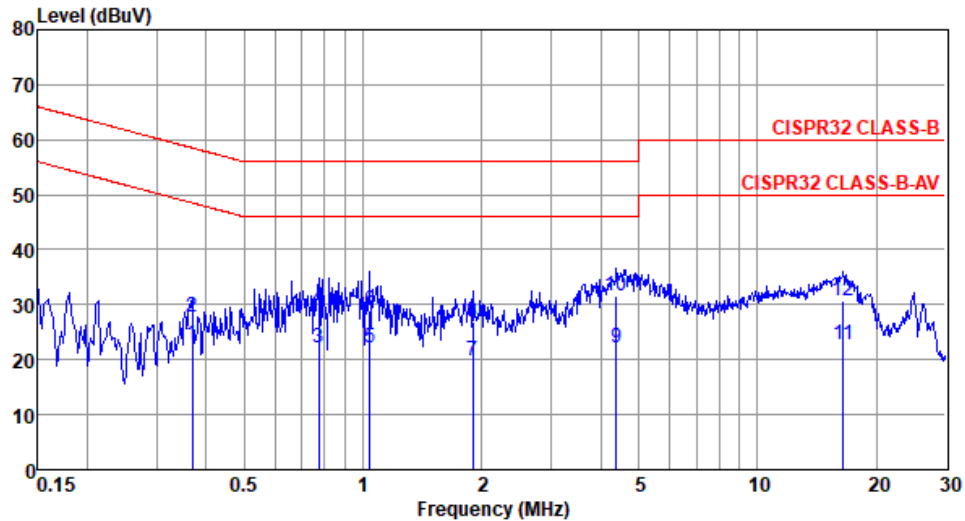
Modulation	VHT40	Test Freq. (MHz)	5795
Power Phase	Neutral	Test Configuration	1



	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line dBuV	Limit dB	Level dBuV	factor dB	loss dB	
1	0.369	26.82	48.52	-21.70	16.92	9.65	0.08	Average
2	0.369	36.22	58.52	-22.30	26.32	9.65	0.08	QP
3	0.751	27.69	46.00	-18.31	17.74	9.65	0.11	Average
4	0.751	36.54	56.00	-19.46	26.59	9.65	0.11	QP
5*	0.938	28.61	46.00	-17.39	18.64	9.65	0.12	Average
6	0.938	37.54	56.00	-18.46	27.57	9.65	0.12	QP
7	1.060	27.47	46.00	-18.53	17.50	9.65	0.12	Average
8	1.060	36.64	56.00	-19.36	26.67	9.65	0.12	QP
9	4.092	24.94	46.00	-21.06	14.72	9.67	0.29	Average
10	4.092	34.40	56.00	-21.60	24.18	9.67	0.29	QP
11	16.140	23.95	50.00	-26.05	13.11	9.81	0.62	Average
12	16.140	33.23	60.00	-26.77	22.39	9.81	0.62	QP

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

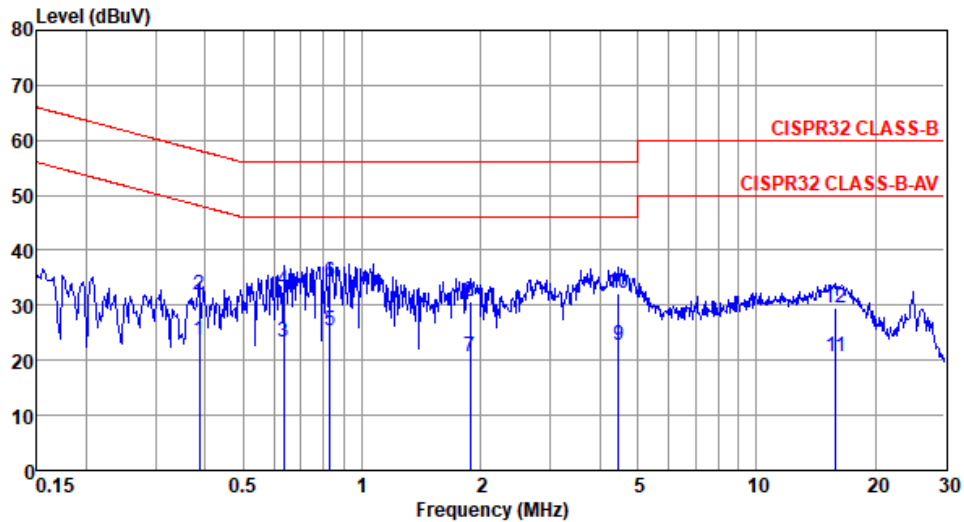
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Line	Test Configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	Line dBuV	Limit dB	Level dBuV	factor dB	loss dB	
1	0.369	22.70	48.52	-25.82	12.75	9.63	0.08	Average
2	0.369	27.61	58.52	-30.91	17.66	9.63	0.08	QP
3	0.771	22.15	46.00	-23.85	12.11	9.63	0.11	Average
4	0.771	29.17	56.00	-26.83	19.13	9.63	0.11	QP
5	1.043	22.12	46.00	-23.88	12.05	9.63	0.12	Average
6	1.043	28.97	56.00	-27.03	18.90	9.63	0.12	QP
7	1.898	19.80	46.00	-26.20	9.64	9.64	0.18	Average
8	1.898	26.89	56.00	-29.11	16.73	9.64	0.18	QP
9*	4.384	22.19	46.00	-23.81	11.87	9.65	0.30	Average
10	4.384	31.53	56.00	-24.47	21.21	9.65	0.30	QP
11	16.486	22.64	50.00	-27.36	11.79	9.71	0.62	Average
12	16.486	30.61	60.00	-29.39	19.76	9.71	0.62	QP

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

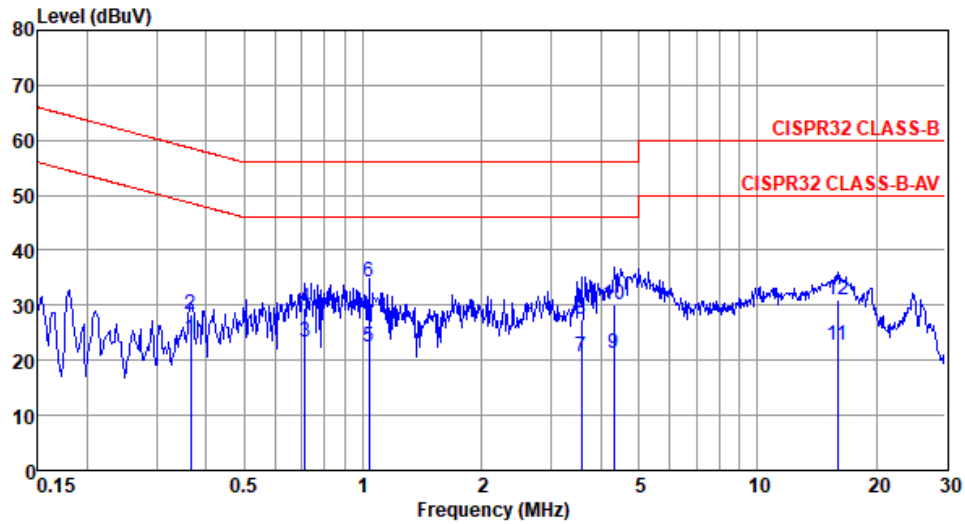
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Neutral	Test Configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1	0.387	23.73	48.12	-24.39	13.83	9.65	0.08	Average
2	0.387	31.95	58.12	-26.17	22.05	9.65	0.08	QP
3	0.634	23.19	46.00	-22.81	13.25	9.65	0.10	Average
4	0.634	32.67	56.00	-23.33	22.73	9.65	0.10	QP
5*	0.830	25.45	46.00	-20.55	15.50	9.65	0.11	Average
6	0.830	34.25	56.00	-21.75	24.30	9.65	0.11	QP
7	1.878	20.75	46.00	-25.25	10.67	9.66	0.17	Average
8	1.878	30.69	56.00	-25.31	20.61	9.66	0.17	QP
9	4.478	22.66	46.00	-23.34	12.41	9.68	0.30	Average
10	4.478	32.11	56.00	-23.89	21.86	9.68	0.30	QP
11	15.885	20.58	50.00	-29.42	9.77	9.80	0.61	Average
12	15.885	29.37	60.00	-30.63	18.56	9.80	0.61	QP

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

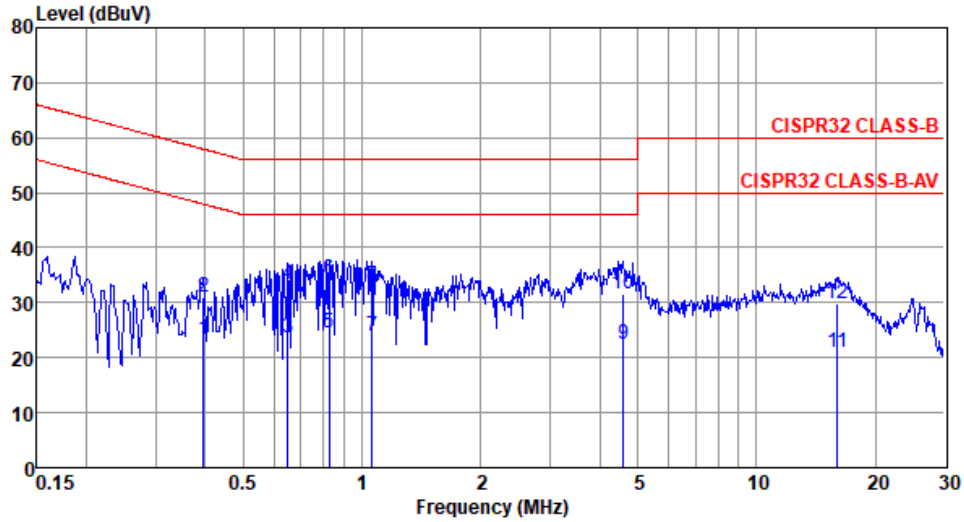
Modulation	VHT40	Test Freq. (MHz)	5795
Power Phase	Line	Test Configuration	2



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.365	23.80	48.61	-24.81	13.85	9.63	0.08	Average
2	0.365	28.20	58.61	-30.41	18.25	9.63	0.08	QP
3	0.712	23.27	46.00	-22.73	13.24	9.63	0.11	Average
4	0.712	29.48	56.00	-26.52	19.45	9.63	0.11	QP
5	1.037	22.38	46.00	-23.62	12.31	9.63	0.12	Average
6*	1.037	34.11	56.00	-21.89	24.04	9.63	0.12	QP
7	3.584	20.63	46.00	-25.37	10.34	9.65	0.27	Average
8	3.584	27.55	56.00	-28.45	17.26	9.65	0.27	QP
9	4.315	21.34	46.00	-24.66	11.02	9.65	0.30	Average
10	4.315	30.07	56.00	-25.93	19.75	9.65	0.30	QP
11	15.970	22.75	50.00	-27.25	11.92	9.71	0.61	Average
12	15.970	30.92	60.00	-29.08	20.09	9.71	0.61	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)	5795
Power Phase	Neutral	Test Configuration	2

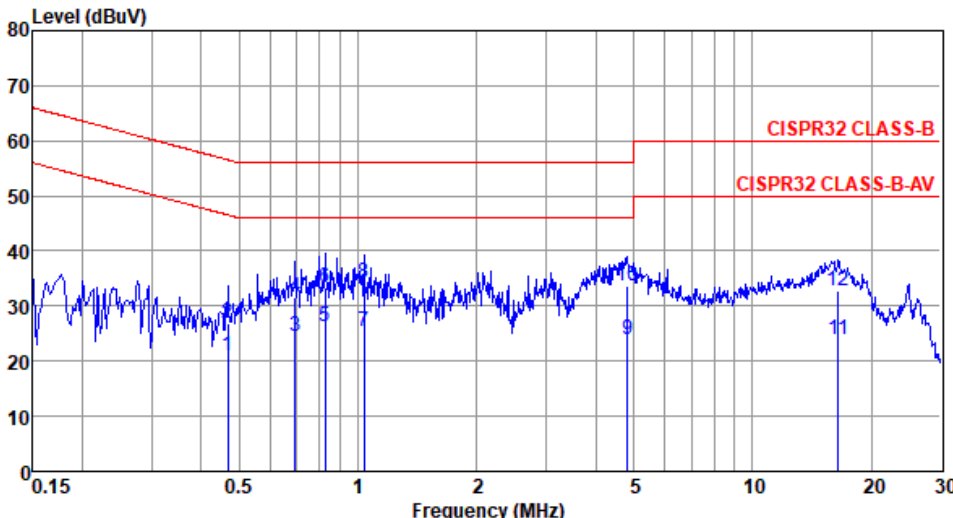


	Freq	Level	Limit	Over	Read	LISN	cable	Remark
	MHz	dBuV	dBuV	dB	dBuV	dB	dB	
1	0.396	23.37	47.95	-24.58	13.47	9.65	0.08	Average
2	0.396	30.88	57.95	-27.07	20.98	9.65	0.08	QP
3	0.647	23.68	46.00	-22.32	13.74	9.65	0.10	Average
4	0.647	33.26	56.00	-22.74	23.32	9.65	0.10	QP
5*	0.826	24.62	46.00	-21.38	14.67	9.65	0.11	Average
6	0.826	34.22	56.00	-21.78	24.27	9.65	0.11	QP
7	1.060	23.95	46.00	-22.05	13.98	9.65	0.12	Average
8	1.060	32.95	56.00	-23.05	22.98	9.65	0.12	QP
9	4.598	22.51	46.00	-23.49	12.25	9.68	0.31	Average
10	4.598	31.65	56.00	-24.35	21.39	9.68	0.31	QP
11	16.055	20.84	50.00	-29.16	10.01	9.81	0.61	Average
12	16.055	29.83	60.00	-30.17	19.00	9.81	0.61	QP

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

Beamforming mode

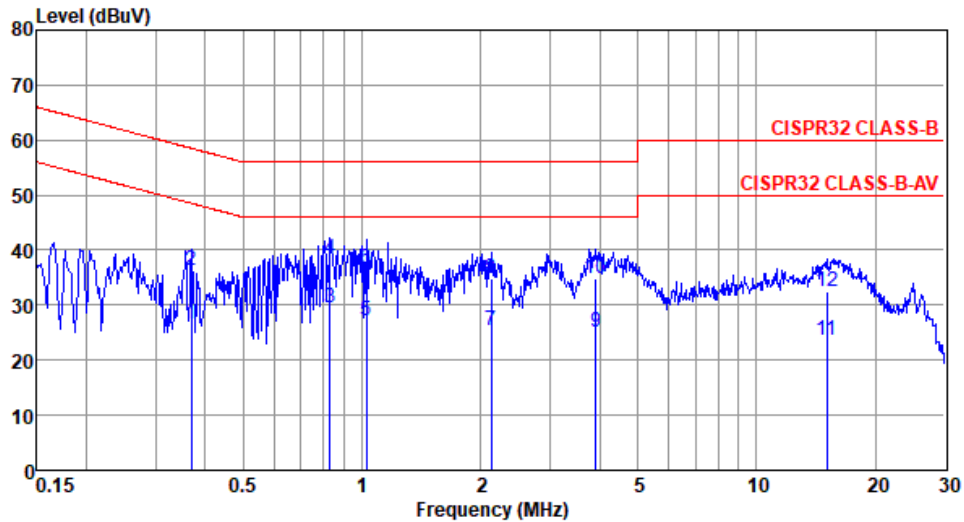
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Line	Test Configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.469	20.94	46.54	-25.60	10.96	9.63	0.09	Average
2	0.469	26.87	56.54	-29.67	16.89	9.63	0.09	QP
3	0.694	24.64	46.00	-21.36	14.62	9.63	0.10	Average
4	0.694	31.71	56.00	-24.29	21.69	9.63	0.10	QP
5*	0.826	26.13	46.00	-19.87	16.08	9.63	0.11	Average
6	0.826	33.33	56.00	-22.67	23.28	9.63	0.11	QP
7	1.037	25.53	46.00	-20.47	15.46	9.63	0.12	Average
8	1.037	34.20	56.00	-21.80	24.13	9.63	0.12	QP
9	4.822	24.00	46.00	-22.00	13.65	9.66	0.31	Average
10	4.822	33.60	56.00	-22.40	23.25	9.66	0.31	QP
11	16.486	23.90	50.00	-26.10	13.05	9.71	0.62	Average
12	16.486	32.63	60.00	-27.37	21.78	9.71	0.62	QP

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

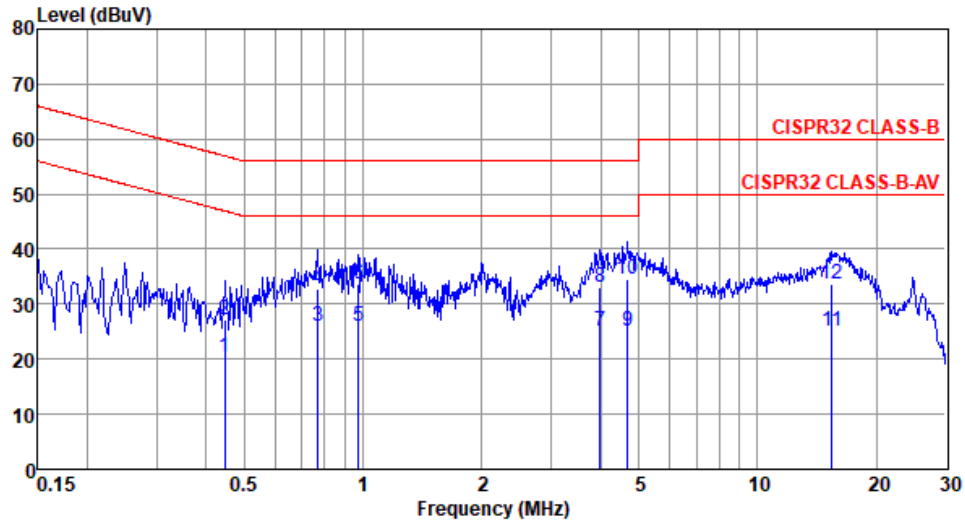
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Neutral	Test Configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.369	26.65	48.52	-21.87	16.75	9.65	0.08	Average
2	0.369	36.17	58.52	-22.35	26.27	9.65	0.08	QP
3*	0.830	29.60	46.00	-16.40	19.65	9.65	0.11	Average
4	0.830	38.28	56.00	-17.72	28.33	9.65	0.11	QP
5	1.027	27.09	46.00	-18.91	17.12	9.65	0.12	Average
6	1.027	36.57	56.00	-19.43	26.60	9.65	0.12	QP
7	2.121	25.43	46.00	-20.57	15.32	9.66	0.19	Average
8	2.121	34.73	56.00	-21.27	24.62	9.66	0.19	QP
9	3.922	25.21	46.00	-20.79	14.99	9.67	0.29	Average
10	3.922	34.74	56.00	-21.26	24.52	9.67	0.29	QP
11	15.066	23.69	50.00	-26.31	12.92	9.80	0.60	Average
12	15.066	32.56	60.00	-27.44	21.79	9.80	0.60	QP

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

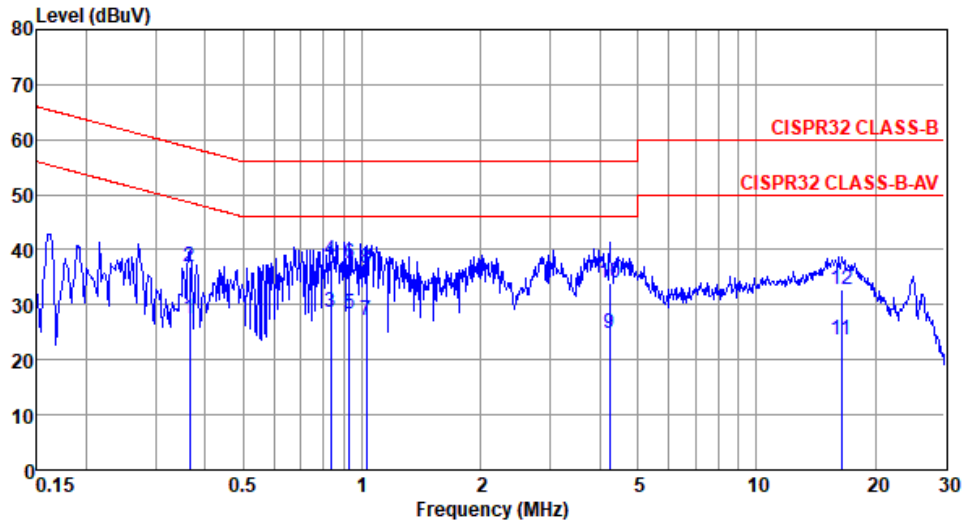
Modulation	VHT40	Test Freq. (MHz)	5795
Power Phase	Line	Test Configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.447	20.28	46.93	-26.65	10.31	9.63	0.08	Average
2	0.447	27.17	56.93	-29.76	17.20	9.63	0.08	QP
3	0.767	26.10	46.00	-19.90	16.06	9.63	0.11	Average
4	0.767	32.82	56.00	-23.18	22.78	9.63	0.11	QP
5*	0.974	26.12	46.00	-19.88	16.05	9.63	0.12	Average
6	0.974	33.67	56.00	-22.33	23.60	9.63	0.12	QP
7	3.985	25.08	46.00	-20.92	14.77	9.65	0.29	Average
8	3.985	32.94	56.00	-23.06	22.63	9.65	0.29	QP
9	4.696	25.06	46.00	-20.94	14.71	9.66	0.31	Average
10	4.696	34.59	56.00	-21.41	24.24	9.66	0.31	QP
11	15.470	25.15	50.00	-24.85	14.33	9.71	0.61	Average
12	15.470	33.56	60.00	-26.44	22.74	9.71	0.61	QP

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

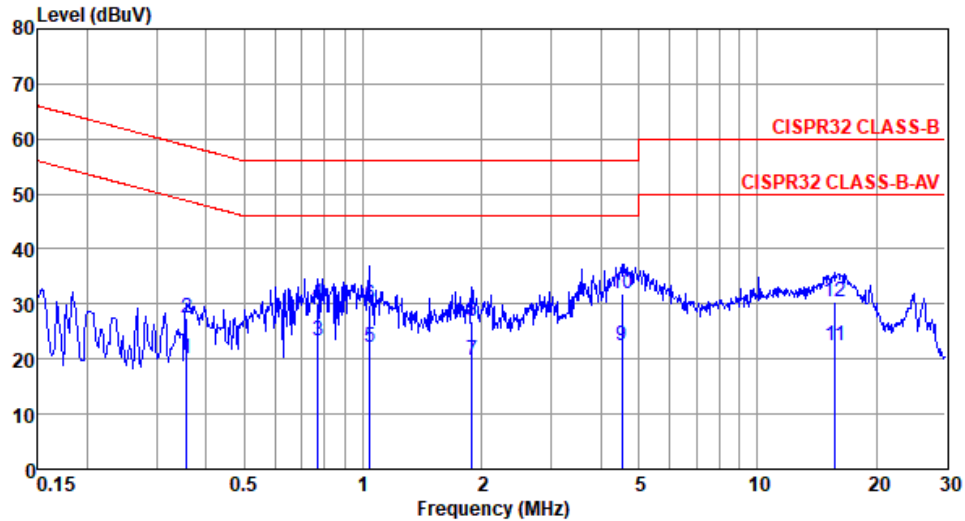
Modulation	VHT40	Test Freq. (MHz)	5795
Power Phase	Neutral	Test Configuration	1



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.365	27.54	48.61	-21.07	17.64	9.65	0.08	Average
2	0.365	36.99	58.61	-21.62	27.09	9.65	0.08	QP
3*	0.835	28.71	46.00	-17.29	18.76	9.65	0.11	Average
4	0.835	37.96	56.00	-18.04	28.01	9.65	0.11	QP
5	0.928	28.39	46.00	-17.61	18.42	9.65	0.12	Average
6	0.928	37.43	56.00	-18.57	27.46	9.65	0.12	QP
7	1.027	27.26	46.00	-18.74	17.29	9.65	0.12	Average
8	1.027	36.54	56.00	-19.46	26.57	9.65	0.12	QP
9	4.247	24.78	46.00	-21.22	14.55	9.67	0.30	Average
10	4.247	33.82	56.00	-22.18	23.59	9.67	0.30	QP
11	16.398	23.63	50.00	-26.37	12.78	9.81	0.62	Average
12	16.398	32.89	60.00	-27.11	22.04	9.81	0.62	QP

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

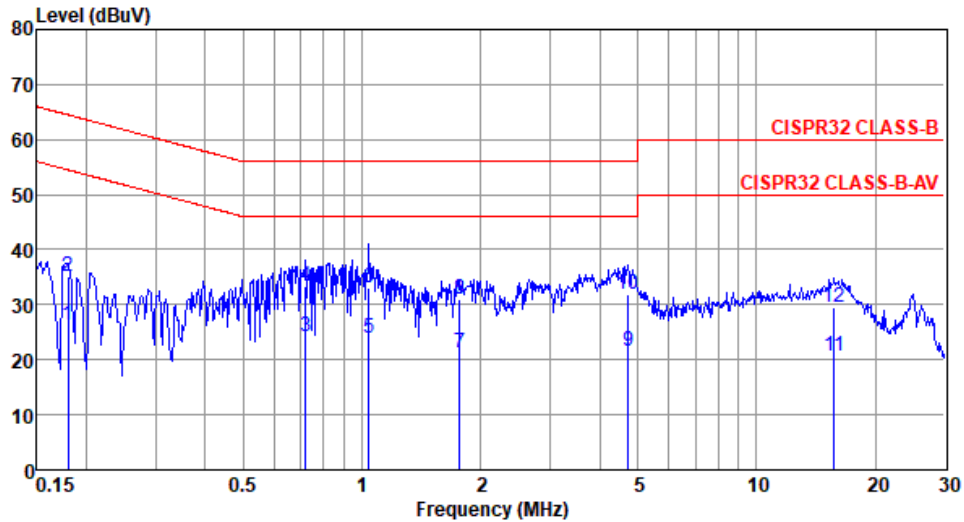
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Line	Test Configuration	2



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.358	20.18	48.78	-28.60	10.23	9.63	0.08	Average
2	0.358	27.31	58.78	-31.47	17.36	9.63	0.08	QP
3*	0.767	23.26	46.00	-22.74	13.22	9.63	0.11	Average
4	0.767	30.05	56.00	-25.95	20.01	9.63	0.11	QP
5	1.043	22.20	46.00	-23.80	12.13	9.63	0.12	Average
6	1.043	29.82	56.00	-26.18	19.75	9.63	0.12	QP
7	1.888	19.87	46.00	-26.13	9.71	9.64	0.18	Average
8	1.888	26.88	56.00	-29.12	16.72	9.64	0.18	QP
9	4.525	22.50	46.00	-23.50	12.17	9.66	0.30	Average
10	4.525	31.96	56.00	-24.04	21.63	9.66	0.30	QP
11	15.718	22.32	50.00	-27.68	11.50	9.71	0.61	Average
12	15.718	30.52	60.00	-29.48	19.70	9.71	0.61	QP

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

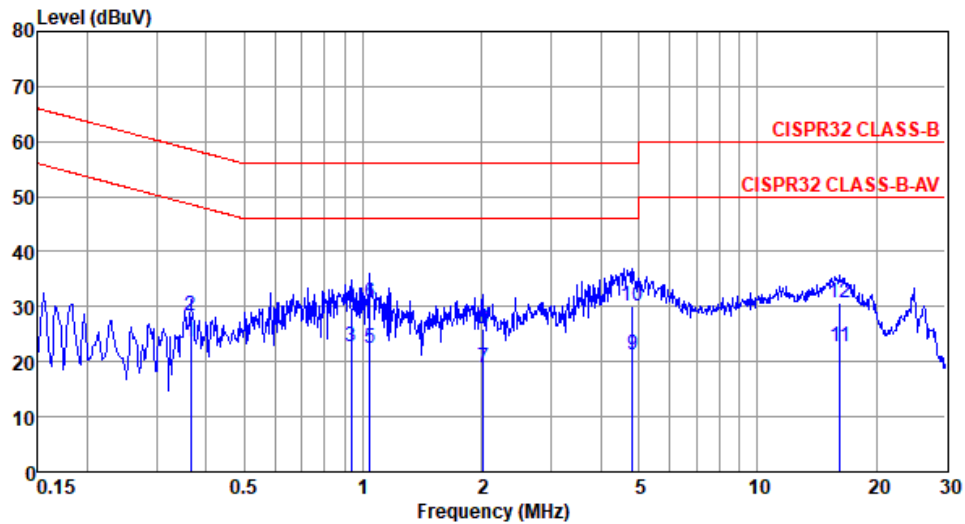
Modulation	VHT20	Test Freq. (MHz)	5240
Power Phase	Neutral	Test Configuration	2



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.180	26.38	54.50	-28.12	16.53	9.65	0.06	Average
2	0.180	35.04	64.50	-29.46	25.19	9.65	0.06	QP
3*	0.720	24.26	46.00	-21.74	14.31	9.65	0.11	Average
4	0.720	33.36	56.00	-22.64	23.41	9.65	0.11	QP
5	1.043	23.95	46.00	-22.05	13.98	9.65	0.12	Average
6	1.043	33.06	56.00	-22.94	23.09	9.65	0.12	QP
7	1.772	21.33	46.00	-24.67	11.25	9.66	0.17	Average
8	1.772	30.87	56.00	-25.13	20.79	9.66	0.17	QP
9	4.721	21.66	46.00	-24.34	11.40	9.68	0.31	Average
10	4.721	31.79	56.00	-24.21	21.53	9.68	0.31	QP
11	15.718	20.69	50.00	-29.31	9.88	9.80	0.61	Average
12	15.718	29.49	60.00	-30.51	18.68	9.80	0.61	QP

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

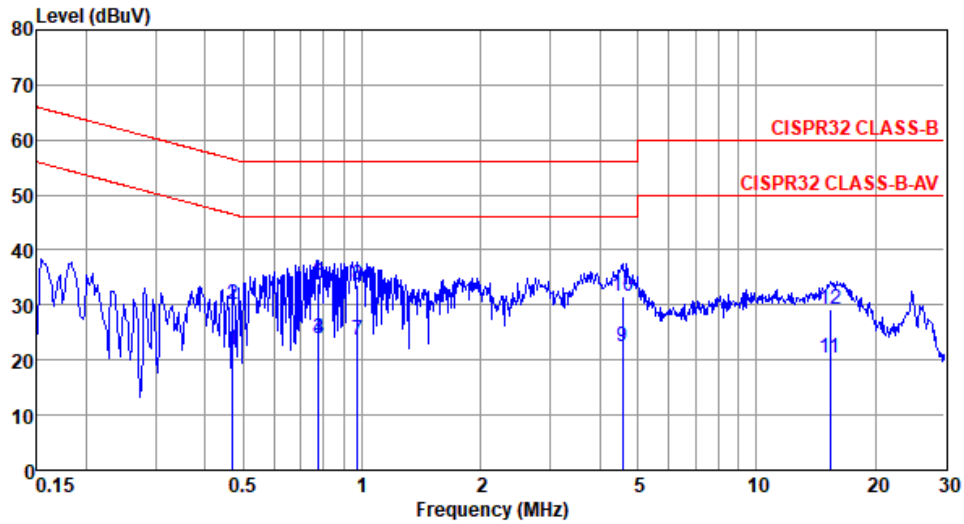
Modulation	VHT40	Test Freq. (MHz)	5795
Power Phase	Line	Test Configuration	2



	Freq	Level	Limit	Over	Read	LISN	cable	
	MHz	dBuV	Line	Limit	Level	factor	loss	Remark
			dBuV	dB	dBuV	dB	dB	
1	0.365	23.74	48.61	-24.87	13.79	9.63	0.08	Average
2	0.365	28.47	58.61	-30.14	18.52	9.63	0.08	QP
3*	0.933	22.87	46.00	-23.13	12.81	9.63	0.12	Average
4	0.933	29.80	56.00	-26.20	19.74	9.63	0.12	QP
5	1.043	22.37	46.00	-23.63	12.30	9.63	0.12	Average
6	1.043	30.63	56.00	-25.37	20.56	9.63	0.12	QP
7	2.023	19.04	46.00	-26.96	8.88	9.64	0.18	Average
8	2.023	25.85	56.00	-30.15	15.69	9.64	0.18	QP
9	4.822	21.23	46.00	-24.77	10.88	9.66	0.31	Average
10	4.822	30.15	56.00	-25.85	19.80	9.66	0.31	QP
11	16.226	22.72	50.00	-27.28	11.87	9.71	0.62	Average
12	16.226	30.71	60.00	-29.29	19.86	9.71	0.62	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)	5795
Power Phase	Neutral	Test Configuration	2



	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.471	21.85	46.49	-24.64	11.93	9.65	0.09	Average
2	0.471	30.16	56.49	-26.33	20.24	9.65	0.09	QP
3	0.775	23.91	46.00	-22.09	13.96	9.65	0.11	Average
4	0.775	23.88	46.00	-22.12	13.93	9.65	0.11	Average
5	0.775	33.87	56.00	-22.13	23.92	9.65	0.11	QP
6*	0.775	33.99	56.00	-22.01	24.04	9.65	0.11	QP
7	0.974	23.69	46.00	-22.31	13.72	9.65	0.12	Average
8	0.974	33.57	56.00	-22.43	23.60	9.65	0.12	QP
9	4.574	22.51	46.00	-23.49	12.26	9.68	0.30	Average
10	4.574	31.62	56.00	-24.38	21.37	9.68	0.30	QP
11	15.388	20.25	50.00	-29.75	9.46	9.80	0.61	Average
12	15.388	29.33	60.00	-30.67	18.54	9.80	0.61	QP

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

3.2 Emission Bandwidth

3.2.1 Limit of Emission bandwidth

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

3.2.2 Test Procedures

26dB Bandwidth

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

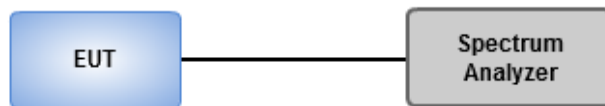
Occupied Bandwidth

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

6dB Bandwidth

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

3.2.3 Test Setup



3.2.4 Test Result of Emission Bandwidth

Non-beamforming mode

Configuration 1: IP3421M model for indoor AP

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	36.304M	18.886M	18M9D1D	19.638M	16.425M
802.11ac VHT20_Nss1,(MCS0)_4TX	40.725M	19.971M	20M0D1D	19.71M	17.511M
802.11ac VHT40_Nss1,(MCS0)_4TX	41.014M	36.179M	36M2D1D	39.565M	36.035M
802.11ac VHT80_Nss1,(MCS0)_4TX	81.159M	75.253M	75M3D1D	79.42M	74.964M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	15.87M	27.931M	27M9D1D	3.13M	3.647M
802.11ac VHT20_Nss1,(MCS0)_4TX	15.942M	25.47M	25M5D1D	3.13M	3.994M
802.11ac VHT40_Nss1,(MCS0)_4TX	35.072M	57.742M	57M7D1D	3.13M	10.246M
802.11ac VHT80_Nss1,(MCS0)_4TX	75.362M	75.253M	75M3D1D	3.13M	18.35M

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	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	19.783M	16.57M	19.783M	16.498M	19.855M	16.498M	19.638M	16.425M
5200MHz	Pass	Inf	28.768M	16.643M	29.493M	16.787M	28.841M	16.715M	30.362M	16.57M
5240MHz	Pass	Inf	34.928M	17.366M	29.348M	16.86M	28.768M	16.787M	36.304M	18.886M
5745MHz	Pass	500k	15.145M	18.162M	15.145M	18.09M	15.145M	17.438M	15.145M	22.359M
5785MHz	Pass	500k	14.42M	17.873M	13.841M	18.813M	14.493M	17.873M	15.87M	25.253M
5825MHz	Pass	500k	11.957M	19.609M	13.478M	20.55M	15.145M	19.103M	15.87M	27.931M
802.11ac VHT20_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	20.435M	17.511M	19.71M	17.511M	19.928M	17.583M	20.145M	17.511M
5200MHz	Pass	Inf	29.855M	17.728M	33.768M	17.873M	32.754M	17.873M	27.826M	17.656M
5240MHz	Pass	Inf	40.725M	18.379M	33.551M	17.873M	31.812M	17.873M	39.203M	19.971M
5745MHz	Pass	500k	15.145M	18.162M	15.652M	18.524M	15.652M	18.234M	13.841M	21.056M
5785MHz	Pass	500k	15.072M	18.162M	15.725M	19.682M	15.145M	18.524M	14.42M	25.47M
5825MHz	Pass	500k	14.058M	17.945M	15.942M	18.09M	15.29M	17.873M	15.072M	20.405M
802.11ac VHT40_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.58M	36.035M	39.855M	36.035M	40.145M	36.035M	40M	36.035M
5230MHz	Pass	Inf	41.014M	36.035M	39.565M	36.035M	40.145M	36.035M	40.145M	36.179M
5755MHz	Pass	500k	33.913M	36.324M	35.072M	36.179M	32.609M	36.035M	35.072M	36.469M
5795MHz	Pass	500k	35.072M	41.1M	31.304M	45.152M	35.072M	40.666M	31.884M	57.742M
802.11ac VHT80_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.159M	75.253M	79.42M	74.964M	80M	74.964M	80M	74.964M
5775MHz	Pass	500k	75.362M	75.253M	73.913M	74.964M	71.304M	74.964M	70.145M	74.964M

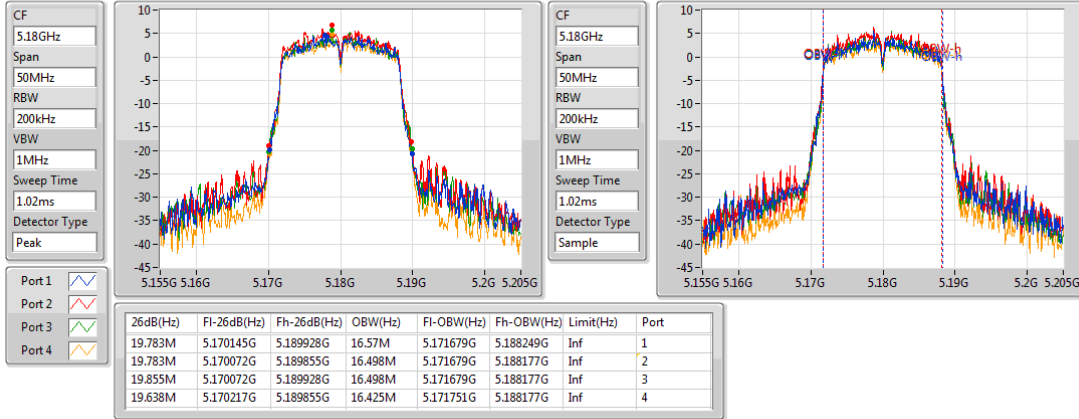
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

Port X-OBW = Port X 99% occupied bandwidth;

802.11a_Nss1,(6Mbps)_4TX

EBW

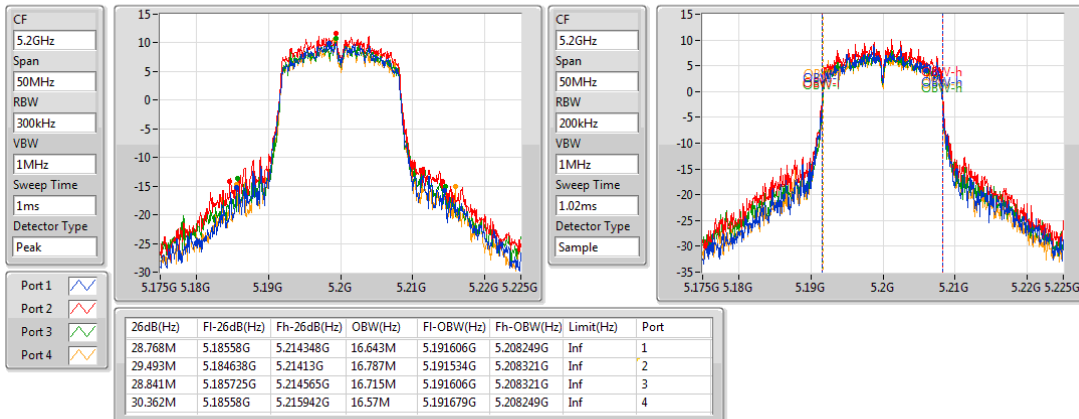
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802.11a_Nss1,(6Mbps)_4TX

EBW

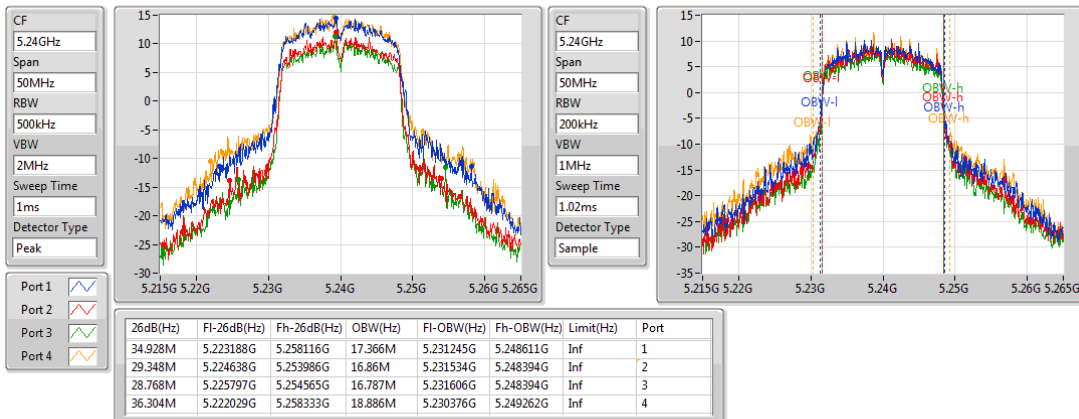
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802.11a_Nss1,(6Mbps)_4TX

EBW

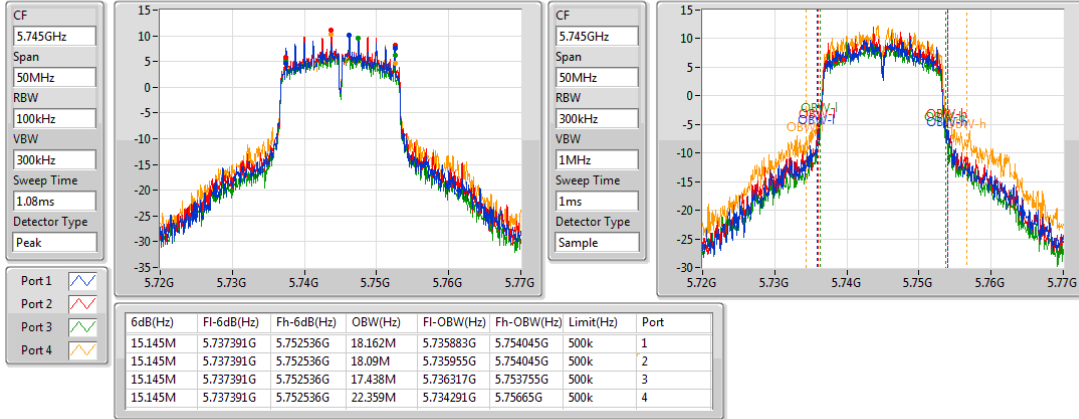
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802.11a_Nss1,(6Mbps)_4TX

EBW

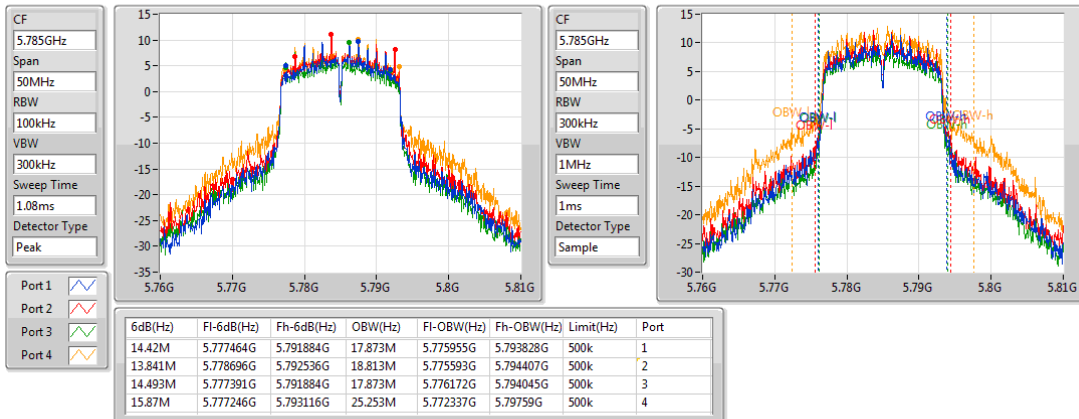
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802.11a_Nss1,(6Mbps)_4TX

EBW

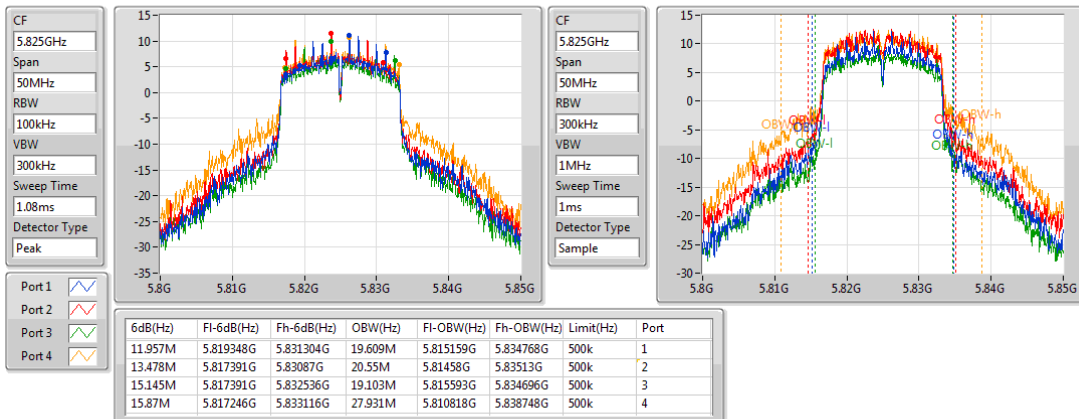
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802.11a_Nss1,(6Mbps)_4TX

EBW

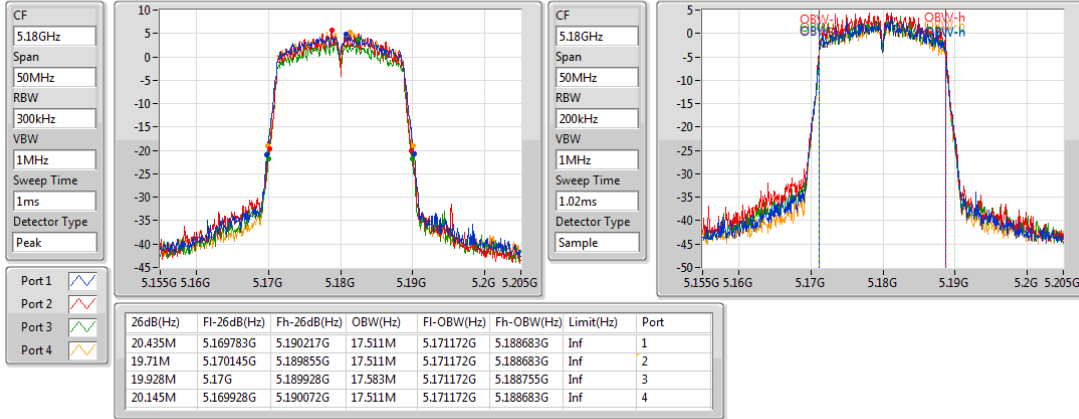
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802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

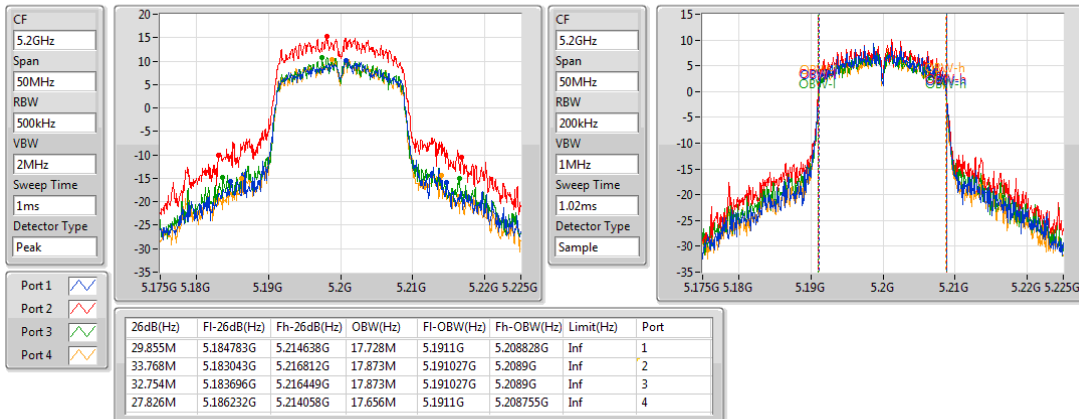
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802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

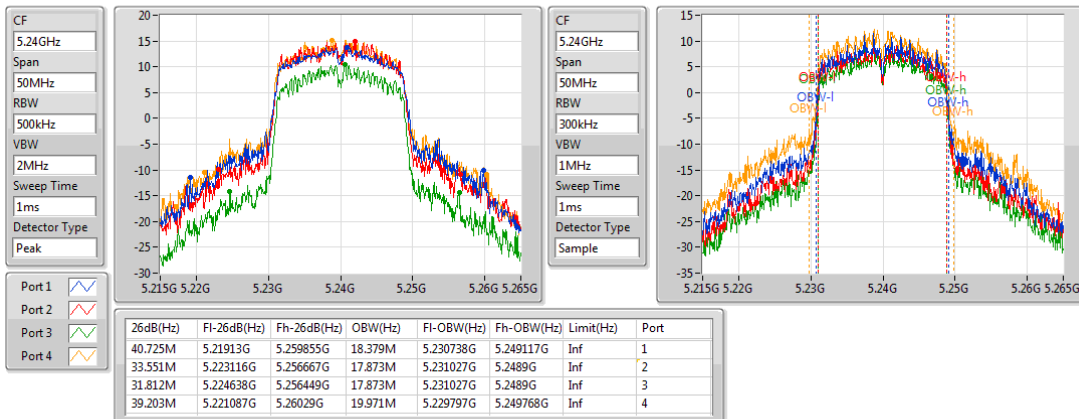
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802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

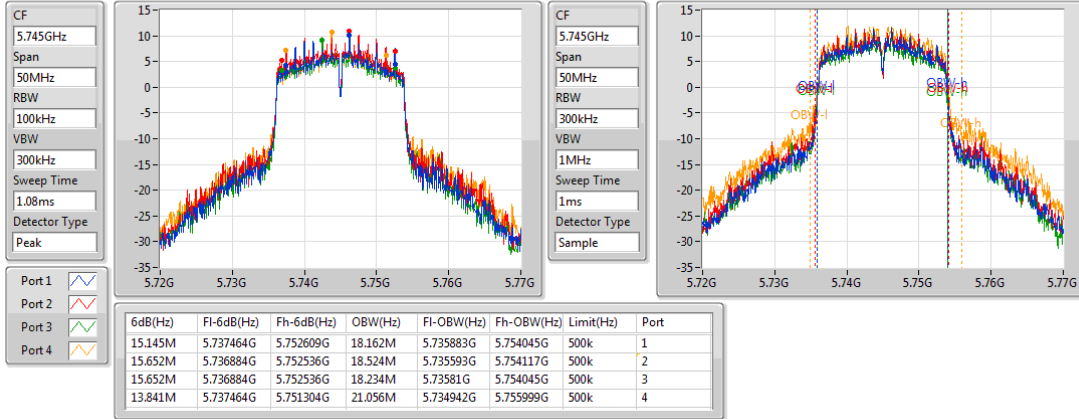
5240MHz



802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

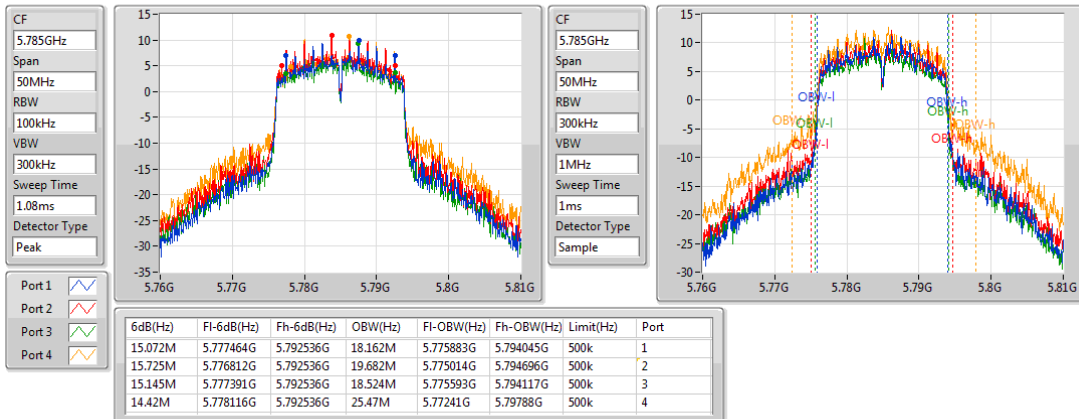
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802.11ac VHT20_Nss1,(MCS0)_4TX

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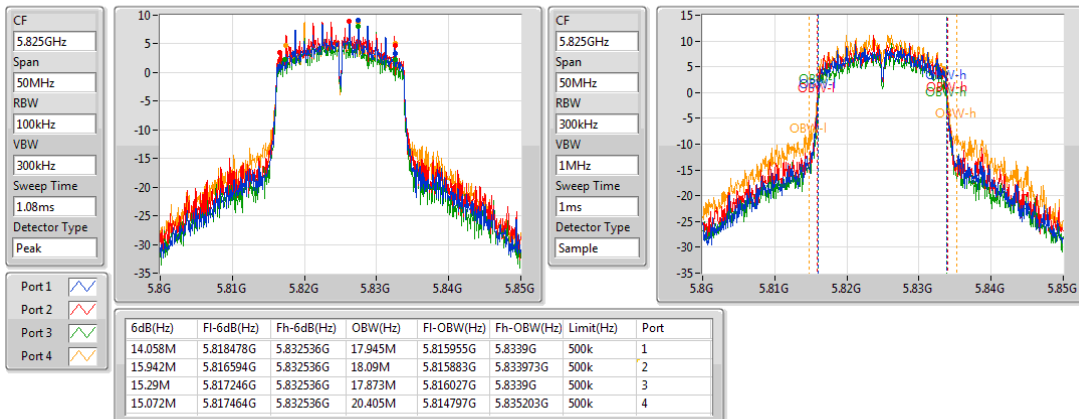
5785MHz



802.11ac VHT20_Nss1,(MCS0)_4TX

EBW

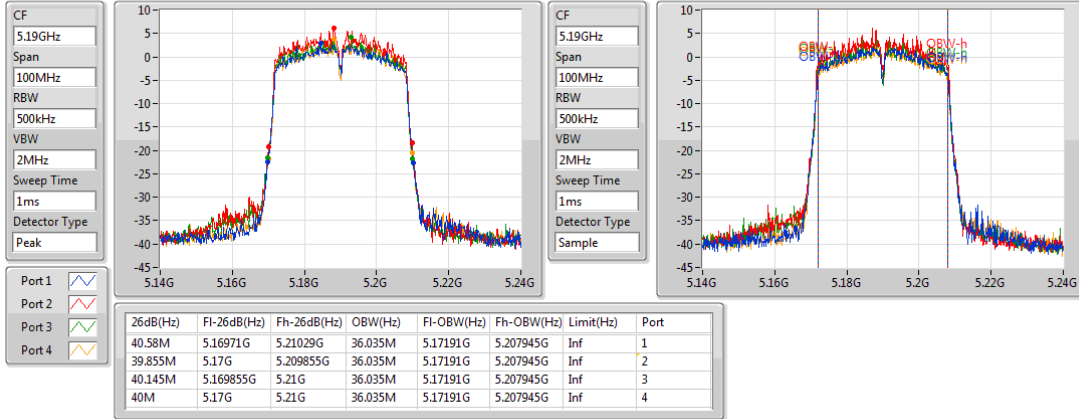
5825MHz



802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

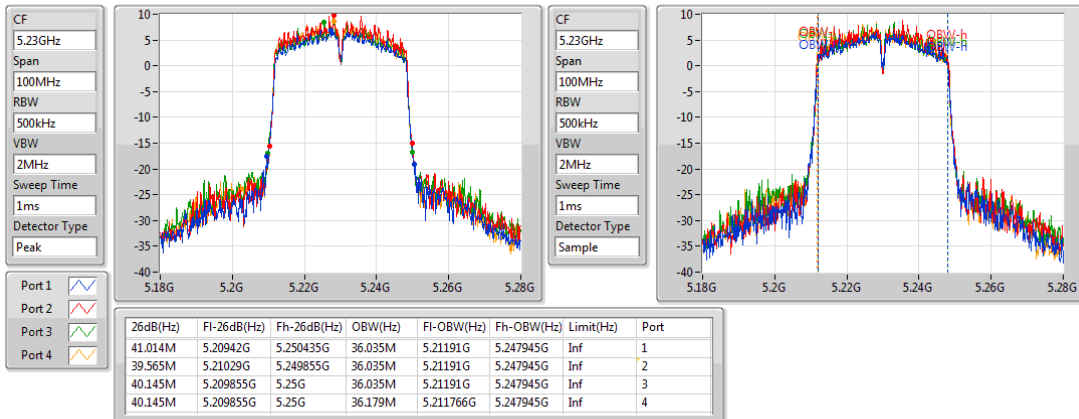
5190MHz



802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

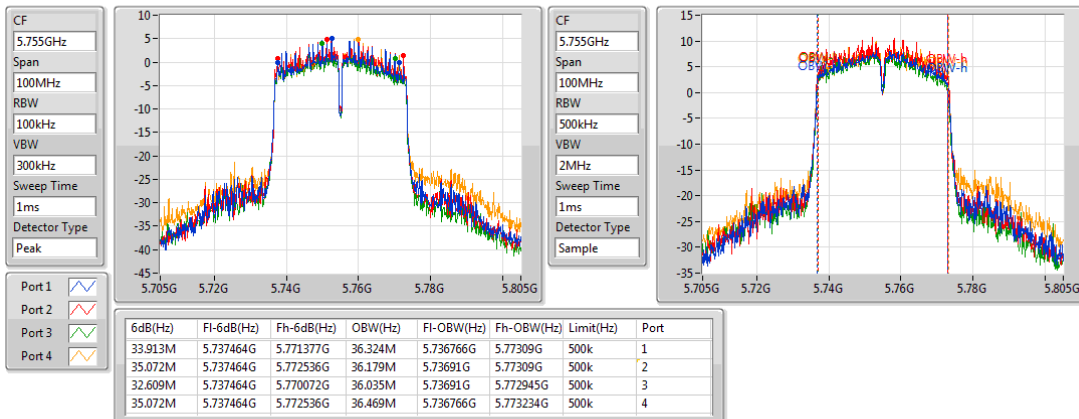
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802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

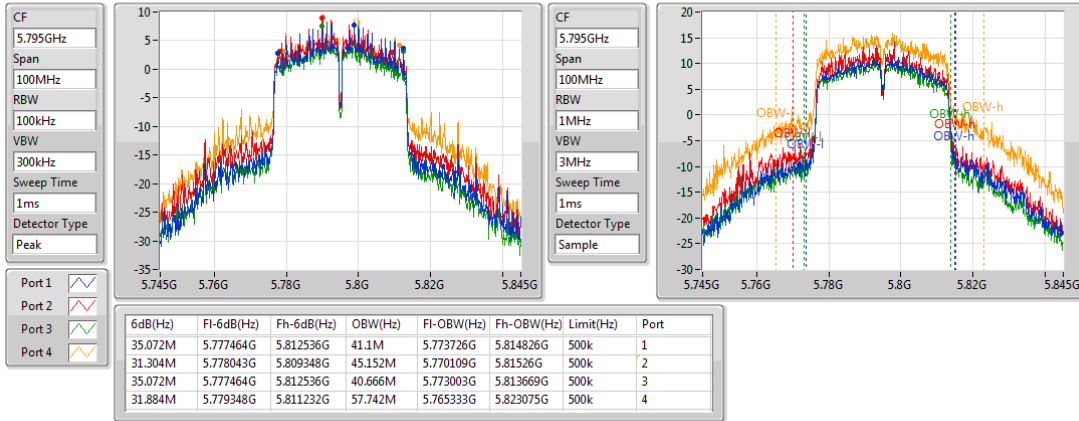
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802.11ac VHT40_Nss1,(MCS0)_4TX

EBW

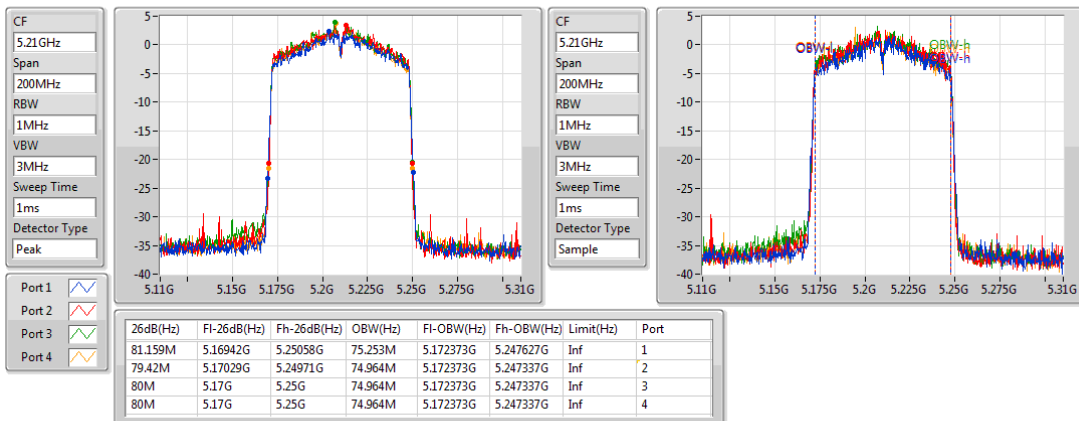
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802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

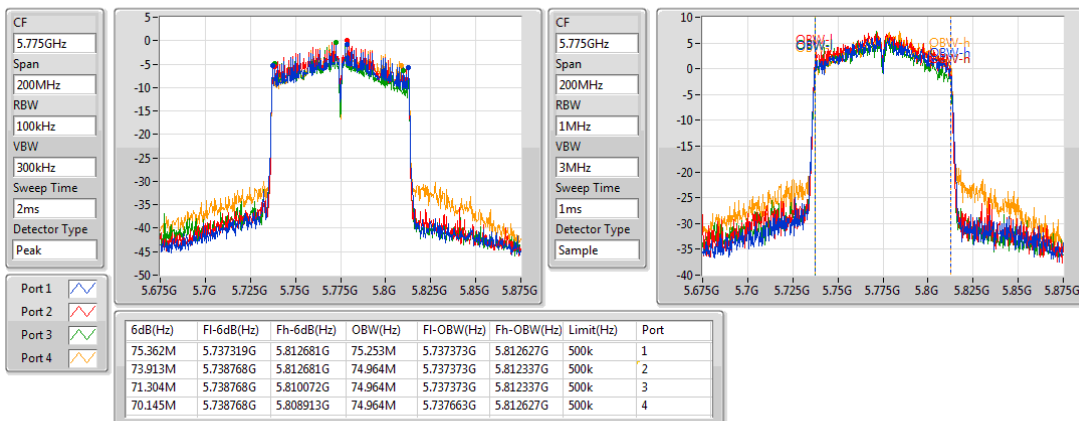
5210MHz



802.11ac VHT80_Nss1,(MCS0)_4TX

EBW

5775MHz



Beamforming mode:

Configuration 1: IP3421M model for indoor AP

Summary

Mode	Max-N dB (Hz)	Max-OBW (Hz)	ITU-Code	Min-N dB (Hz)	Min-OBW (Hz)
5.15-5.25GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	45.942M	22.576M	22M6D1D	19.928M	17.728M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	67.826M	36.469M	36M5D1D	40.58M	36.179M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	81.739M	75.832M	75M8D1D	81.159M	75.543M
5.725-5.85GHz	-	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	17.681M	30.101M	30M1D1D	3.768M	4.052M
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	36.087M	60.637M	60M6D1D	3.13M	3.936M
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	75.942M	75.832M	75M8D1D	3.246M	6.831M

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	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	Inf	20.58M	17.728M	20.507M	17.728M	19.928M	17.728M	20.58M	17.8M
5200MHz	Pass	Inf	27.319M	17.728M	27.899M	17.945M	29.275M	17.873M	26.014M	17.873M
5240MHz	Pass	Inf	42.681M	19.03M	34.71M	17.945M	32.174M	17.873M	45.942M	22.576M
5745MHz	Pass	500k	17.319M	18.958M	11.377M	18.669M	12.029M	18.813M	15.145M	25.326M
5785MHz	Pass	500k	16.667M	18.958M	17.246M	21.635M	17.246M	18.813M	15.942M	28.871M
5825MHz	Pass	500k	14.058M	24.24M	16.884M	25.543M	15.072M	22.069M	17.681M	30.101M
802.11ac VHT40-BF_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	Inf	40.58M	36.324M	40.725M	36.324M	41.159M	36.324M	41.014M	36.324M
5230MHz	Pass	Inf	40.87M	36.179M	42.754M	36.324M	62.319M	36.469M	67.826M	36.469M
5755MHz	Pass	500k	35.072M	36.324M	35.072M	36.324M	35.072M	36.324M	31.304M	36.614M
5795MHz	Pass	500k	35.072M	43.271M	32.899M	45.441M	36.087M	38.784M	34.203M	60.637M
802.11ac VHT80-BF_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	Inf	81.739M	75.832M	81.449M	75.832M	81.159M	75.832M	81.449M	75.543M
5775MHz	Pass	500k	75.942M	75.832M	62.029M	75.543M	72.174M	75.543M	66.377M	75.832M

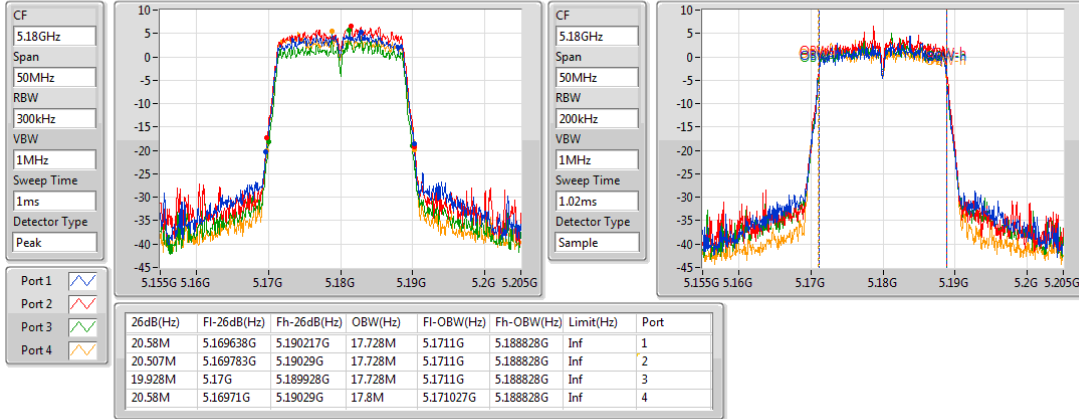
Port X-N dB = Port X 6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band

Port X-OBW = Port X 99% occupied bandwidth;

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

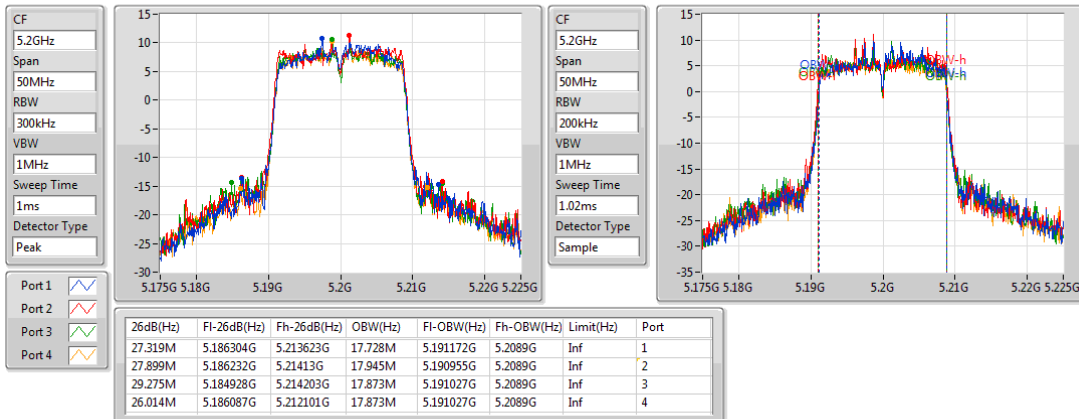
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802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

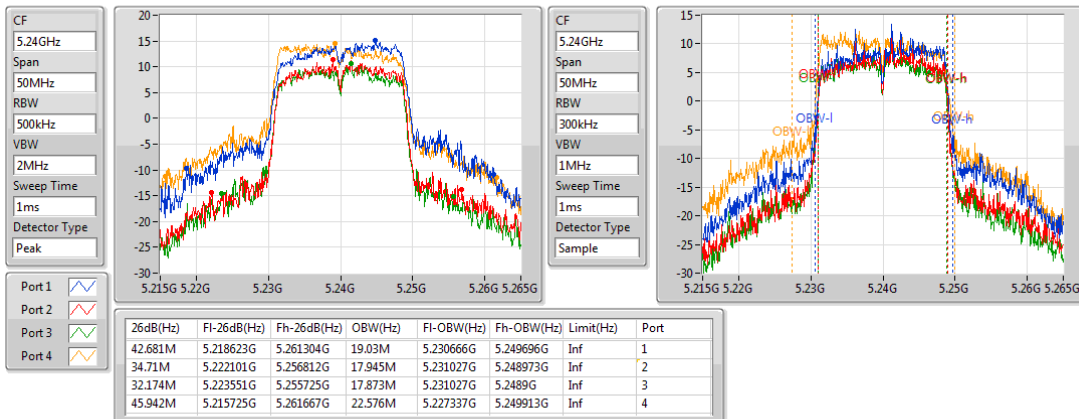
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802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

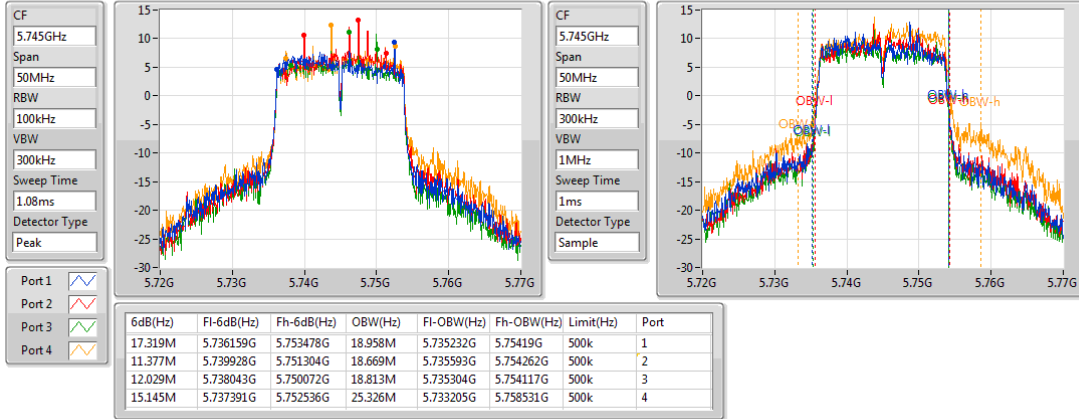
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802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

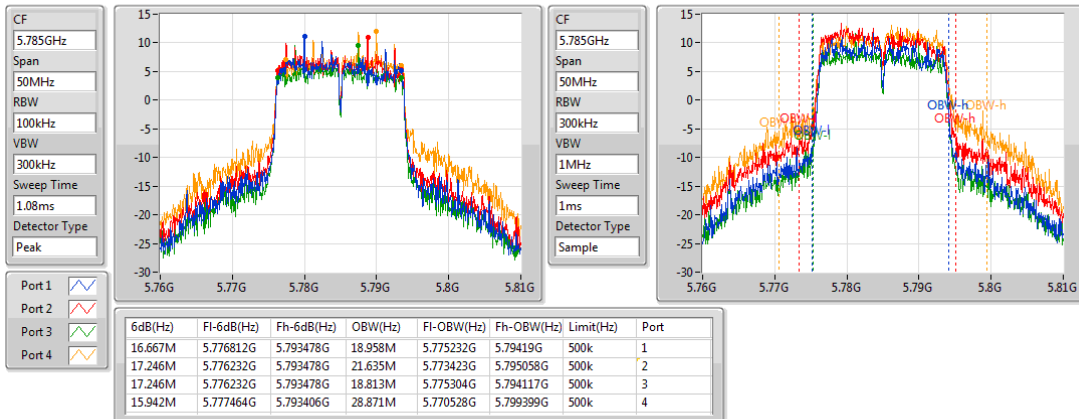
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802.11ac VHT20-BF_Nss1,(MCS0)_4TX

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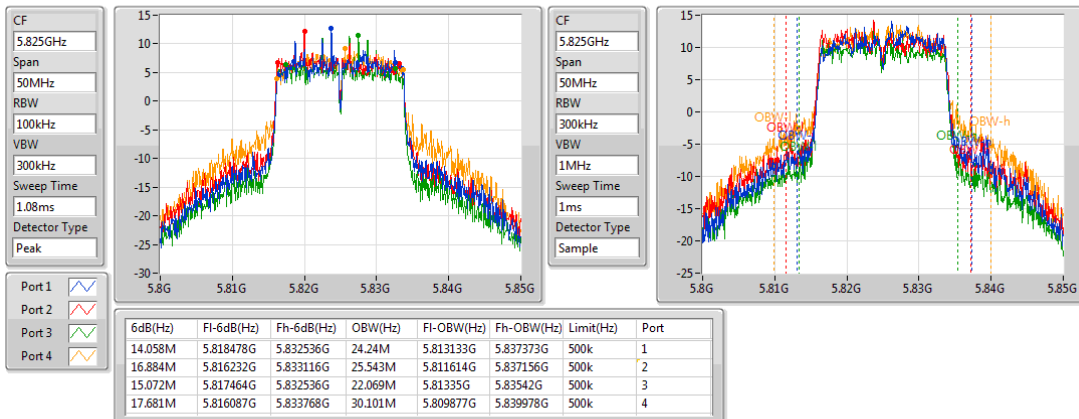
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802.11ac VHT20-BF_Nss1,(MCS0)_4TX

EBW

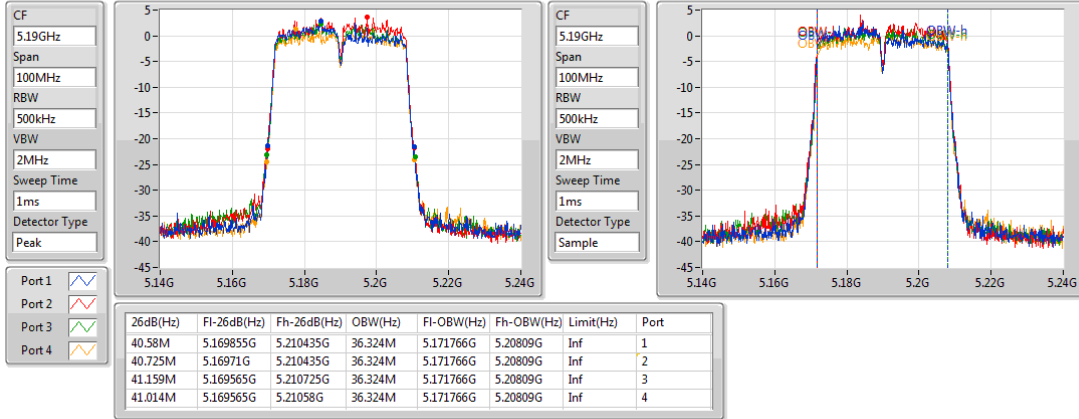
5825MHz



802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

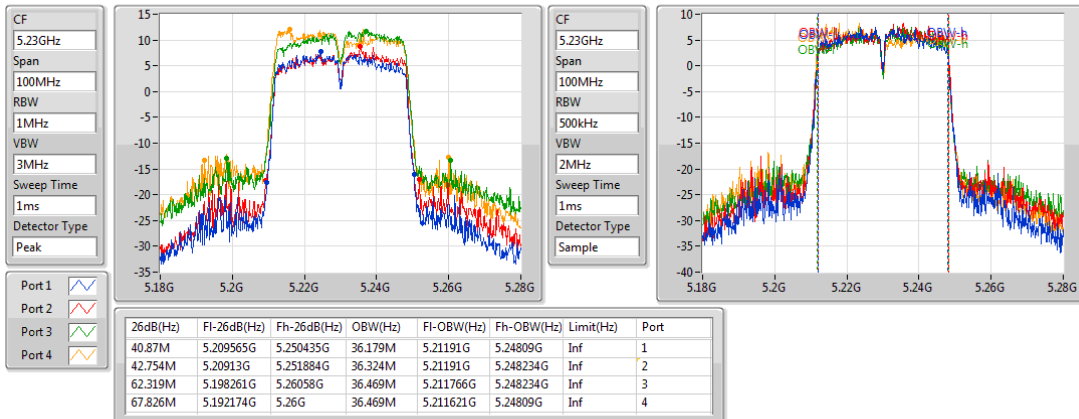
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802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

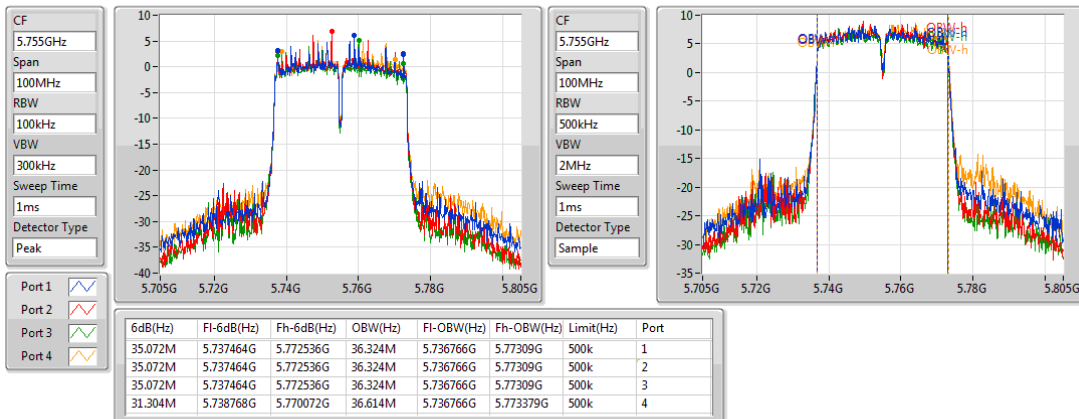
5230MHz



802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

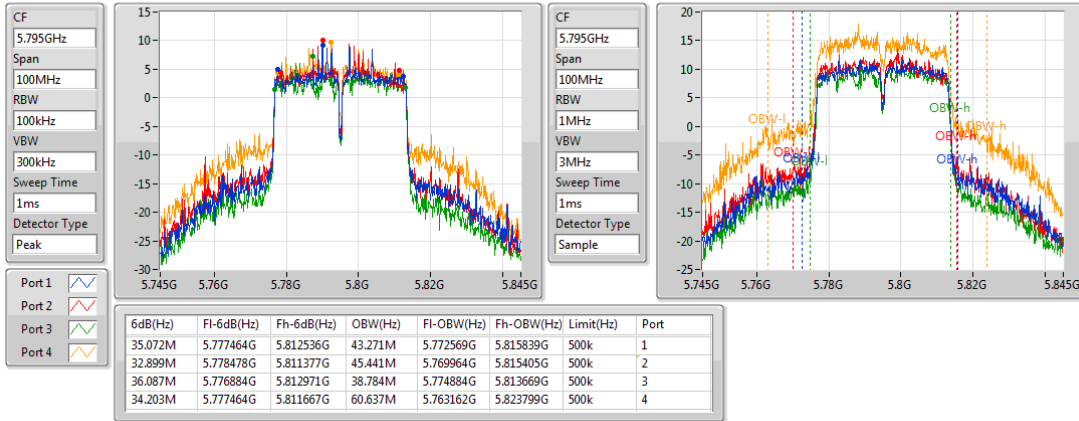
5755MHz



802.11ac VHT40-BF_Nss1,(MCS0)_4TX

EBW

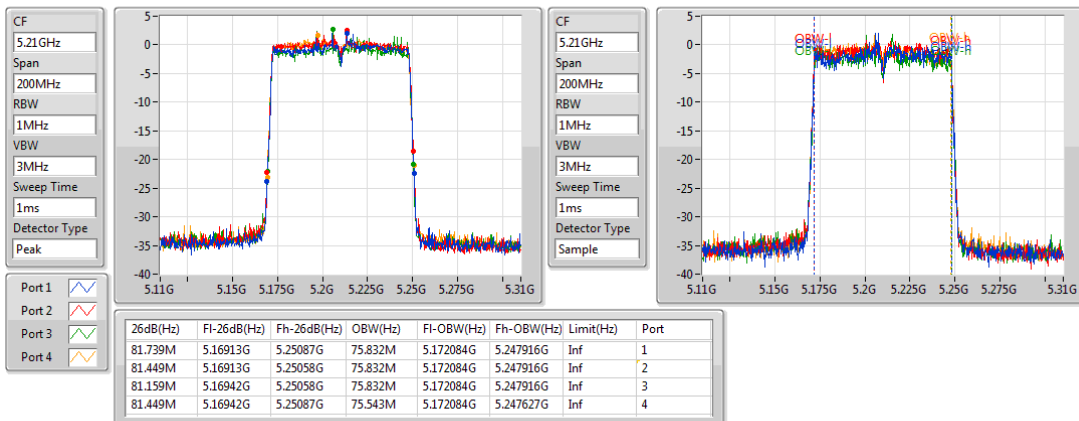
5795MHz



802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

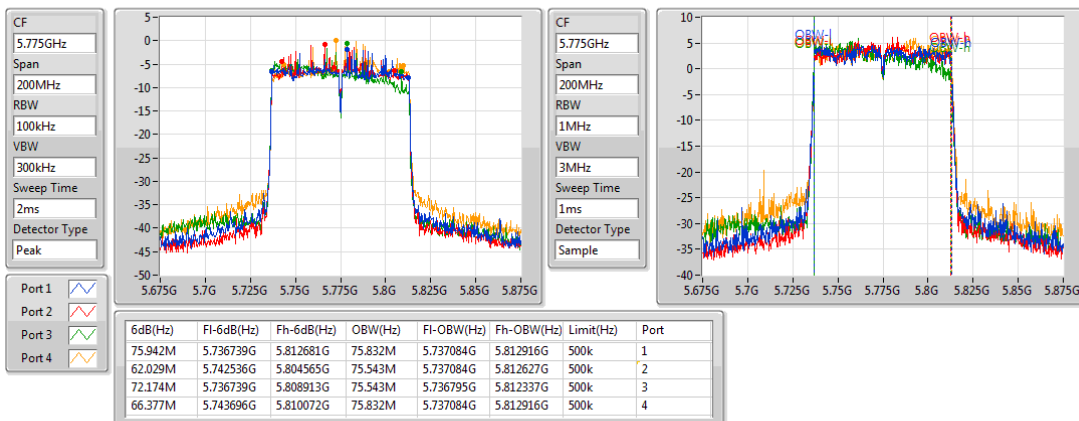
5210MHz



802.11ac VHT80-BF_Nss1,(MCS0)_4TX

EBW

5775MHz



3.3 RF Output Power

3.3.1 Limit of RF Output Power

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

Frequency Band (MHz)	Limit
☒ 5725 ~ 5850	Conducted Power: 1 W

3.3.2 Test Procedures

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

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

3.3.3 Test Setup



3.3.4 Test Result of Maximum Conducted Output Power

Non-beamforming mode: Configuration 1: IP3421M model for indoor AP

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	26.17	0.41400	28.52	0.71121
802.11ac VHT20_Nss1,(MCS0)_4TX	26.21	0.41783	28.56	0.71779
802.11ac VHT40_Nss1,(MCS0)_4TX	22.67	0.18493	25.02	0.31769
802.11ac VHT80_Nss1,(MCS0)_4TX	16.66	0.04634	19.01	0.07962
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	26.98	0.49888	29.64	0.92045
802.11ac VHT20_Nss1,(MCS0)_4TX	26.93	0.49317	29.59	0.90991
802.11ac VHT40_Nss1,(MCS0)_4TX	27.20	0.52481	29.86	0.96828
802.11ac VHT80_Nss1,(MCS0)_4TX	20.94	0.12417	23.60	0.22909

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	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	2.35	15.15	16.32	15.28	14.61	21.41	30.00	23.76	36.00
5200MHz	Pass	2.35	19.11	19.80	19.16	18.42	25.17	30.00	27.52	36.00
5240MHz	Pass	2.35	20.61	19.94	19.23	20.65	26.17	30.00	28.52	36.00
5745MHz	Pass	2.66	20.63	21.04	20.04	20.71	26.64	30.00	29.30	36.00
5785MHz	Pass	2.66	20.56	21.16	19.82	20.98	26.68	30.00	29.34	36.00
5825MHz	Pass	2.66	20.92	21.22	20.12	21.47	26.98	30.00	29.64	36.00
802.11ac VHT20_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	2.35	13.46	14.88	13.96	12.54	19.81	30.00	22.16	36.00
5200MHz	Pass	2.35	17.76	18.95	17.53	17.05	23.90	30.00	26.25	36.00
5240MHz	Pass	2.35	20.51	20.22	19.33	20.57	26.21	30.00	28.56	36.00
5745MHz	Pass	2.66	20.38	21.09	19.93	20.64	26.55	30.00	29.21	36.00
5785MHz	Pass	2.66	20.52	21.12	19.79	20.95	26.65	30.00	29.31	36.00
5825MHz	Pass	2.66	20.75	21.32	19.93	21.47	26.93	30.00	29.59	36.00
802.11ac VHT40_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	2.35	12.24	13.16	12.16	11.38	18.30	30.00	20.65	36.00
5230MHz	Pass	2.35	16.52	16.86	16.63	16.56	22.67	30.00	25.02	36.00
5755MHz	Pass	2.66	17.65	18.43	17.21	17.56	23.76	30.00	26.42	36.00
5795MHz	Pass	2.66	20.82	21.71	20.23	21.77	27.20	30.00	29.86	36.00
802.11ac VHT80_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	2.35	10.25	10.96	10.89	10.40	16.66	30.00	19.01	36.00
5775MHz	Pass	2.66	14.72	15.35	14.43	15.12	20.94	30.00	23.60	36.00

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

Non-beamforming mode: Configuration 2: RP362M model for Client

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_4TX	20.47	0.11143	22.82	0.19143
802.11ac VHT20_Nss1,(MCS0)_4TX	20.28	0.10666	22.63	0.18323
802.11ac VHT40_Nss1,(MCS0)_4TX	22.67	0.18493	25.02	0.31769
802.11ac VHT80_Nss1,(MCS0)_4TX	16.66	0.04634	19.01	0.07962

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	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	2.35	14.32	15.31	14.24	13.76	20.47	24.00	22.82	30.00
5200MHz	Pass	2.35	14.12	15.22	14.15	13.46	20.30	24.00	22.65	30.00
5240MHz	Pass	2.35	14.06	14.31	14.36	13.89	20.18	24.00	22.53	30.00
802.11ac VHT20_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	2.35	13.46	14.88	13.96	12.54	19.81	24.00	22.16	30.00
5200MHz	Pass	2.35	14.06	14.96	14.09	13.82	20.28	24.00	22.63	30.00
5240MHz	Pass	2.35	13.89	14.41	14.32	13.83	20.14	24.00	22.49	30.00
802.11ac VHT40_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	2.35	12.24	13.16	12.16	11.38	18.30	24.00	20.65	30.00
5230MHz	Pass	2.35	16.52	16.86	16.63	16.56	22.67	24.00	25.02	30.00
802.11ac VHT80_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	2.35	10.25	10.96	10.89	10.4	16.66	24.00	19.01	30.00

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

Beamforming mode: Configuration 1: IP3421M model for indoor AP

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	25.96	0.39446	34.21	2.63633
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	22.64	0.18365	30.89	1.22744
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	15.32	0.03404	23.57	0.22751
5.725-5.85GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	26.83	0.48195	35.40	3.46737
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	27.18	0.52240	35.75	3.75837
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	20.07	0.10162	28.64	0.73114

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	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	8.25	13.54	14.72	13.76	12.81	19.78	27.75	28.03	36.00
5200MHz	Pass	8.25	17.46	18.62	17.29	17.01	23.66	27.75	31.91	36.00
5240MHz	Pass	8.25	20.47	19.85	19.02	20.28	25.96	27.75	34.21	36.00
5745MHz	Pass	8.57	20.06	20.76	19.74	19.77	26.12	27.43	34.69	36.00
5785MHz	Pass	8.57	20.28	20.94	19.64	20.52	26.39	27.43	34.96	36.00
5825MHz	Pass	8.57	21.02	21.09	20.06	20.98	26.83	27.43	35.40	36.00
802.11ac VHT40-BF_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	8.25	11.25	12.12	11.02	10.32	17.25	27.75	25.50	36.00
5230MHz	Pass	8.25	16.78	16.88	16.49	16.29	22.64	27.75	30.89	36.00
5755MHz	Pass	8.57	17.53	17.91	17.12	17.48	23.54	27.43	32.11	36.00
5795MHz	Pass	8.57	21.11	21.56	20.22	21.62	27.18	27.43	35.75	36.00
802.11ac VHT80-BF_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	8.25	9.02	9.31	9.62	9.21	15.32	27.75	23.57	36.00
5775MHz	Pass	8.57	14.02	14.22	13.69	14.25	20.07	27.43	28.64	36.00

Port X = Port X output power

For 5.15 ~ 5.25 GHz

DG = Directional Gain = $10 * \log((10^{2.03/20} + 10^{2.24/20} + 10^{2.35/20} + 10^{2.29/20})^2 / 3) = 8.25 \text{ dBi} > 6 \text{ dBi}$

Limit shall be reduced to 30 dBm - (8.25 dBi - 6 dBi) = 27.75 dBm

For 5.725 ~ 5.85 GHz

DG = Directional Gain = $10 * \log((10^{2.45/20} + 10^{2.59/20} + 10^{2.5/20} + 10^{2.66/20})^2 / 3) = 8.57 \text{ dBi} > 6 \text{ dBi}$

Limit shall be reduced to 30 dBm - (8.57 dBi - 6 dBi) = 27.43 dBm

Beamforming mode: Configuration 2: RP362M model for Client

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	20.25	0.10593	28.50	0.70795
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	21.60	0.14454	29.85	0.96605
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	15.32	0.03404	23.57	0.22751

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	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	8.25	13.54	14.72	13.76	12.81	19.78	21.75	28.03	30.00
5200MHz	Pass	8.25	14.11	14.96	13.94	13.81	20.25	21.75	28.50	30.00
5240MHz	Pass	8.25	13.86	14.15	14.14	14.01	20.06	21.75	28.31	30.00
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	8.25	11.25	12.12	11.02	10.32	17.25	21.75	25.50	30.00
5230MHz	Pass	8.25	15.69	15.84	15.52	15.25	21.60	21.75	29.85	30.00
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	8.25	9.02	9.31	9.62	9.21	15.32	21.75	23.57	30.00

Port X = Port X output power

DG = Directional Gain = $10 * \log((10^{2.03/20} + 10^{2.24/20} + 10^{2.35/20} + 10^{2.29/20})^2 / 3) = 8.25 \text{ dBi} > 6 \text{ dBi}$

Limit shall be reduced to 24 dBm - (8.25 dBi - 6 dBi) = 21.75 dBm

3.4 Peak Power Spectral Density

3.4.1 Limit of Peak Power Spectral Density

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

Frequency Band (MHz)		Limit
☒	5725 ~ 5850	30 dBm /500 kHz

3.4.2 Test Procedures

For 5150 ~ 5250 MHz

Duty cycle $\geq 98\%$

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

For 5725 ~ 5850 MHz

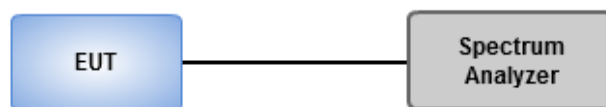
Duty cycle $\geq 98\%$

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

3.4.3 Test Setup



3.4.4 Test Result of Peak Power Spectral Density

Non-beamforming mode: Configuration 1: IP3421M model for indoor AP

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	13.87	22.12
802.11ac VHT20_Nss1,(MCS0)_4TX	13.54	21.79
802.11ac VHT40_Nss1,(MCS0)_4TX	7.45	15.70
802.11ac VHT80_Nss1,(MCS0)_4TX	-1.20	7.05
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	13.34	21.91
802.11ac VHT20_Nss1,(MCS0)_4TX	12.90	21.47
802.11ac VHT40_Nss1,(MCS0)_4TX	10.45	19.02
802.11ac VHT80_Nss1,(MCS0)_4TX	1.82	10.39

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	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	8.25	3.30	4.16	3.24	2.39	9.31	14.75	17.56	23.00
5200MHz	Pass	8.25	6.84	7.61	6.50	6.06	12.81	14.75	21.06	23.00
5240MHz	Pass	8.25	8.42	7.70	6.91	8.26	13.87	14.75	22.12	23.00
5745MHz	Pass	8.57	6.93	7.45	6.24	6.83	12.90	27.43	21.47	36.00
5785MHz	Pass	8.57	6.92	7.51	6.09	7.31	13.00	27.43	21.57	36.00
5825MHz	Pass	8.57	7.55	7.66	6.32	7.65	13.34	27.43	21.91	36.00
802.11ac VHT20_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	8.25	2.02	3.41	2.23	1.49	8.29	14.75	16.54	23.00
5200MHz	Pass	8.25	5.48	6.86	5.70	5.29	11.89	14.75	20.14	23.00
5240MHz	Pass	8.25	8.00	7.46	6.30	8.17	13.54	14.75	21.79	23.00
5745MHz	Pass	8.57	6.73	7.59	6.47	6.81	12.90	27.43	21.47	36.00
5785MHz	Pass	8.57	6.65	7.55	6.12	7.09	12.86	27.43	21.43	36.00
5825MHz	Pass	8.57	5.72	6.42	5.07	5.72	11.75	27.43	20.32	36.00
802.11ac VHT40_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	8.25	-2.90	-2.02	-2.87	-3.50	3.18	14.75	11.43	23.00
5230MHz	Pass	8.25	1.25	1.63	1.35	1.59	7.45	14.75	15.70	23.00
5755MHz	Pass	8.57	1.31	1.80	0.75	1.44	7.31	27.43	15.88	36.00
5795MHz	Pass	8.57	4.31	4.94	3.60	4.80	10.45	27.43	19.02	36.00
802.11ac VHT80_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	8.25	-7.53	-7.04	-6.84	-7.03	-1.20	14.75	7.05	23.00
5775MHz	Pass	8.57	-4.29	-3.70	-4.88	-3.51	1.82	27.43	10.39	36.00

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 X power density;

For 5.15 ~ 5.25 GHz

DG = Directional Gain = $10 * \log((10^{2.03/20} + 10^{2.24/20} + 10^{2.35/20} + 10^{2.29/20})^2 / 3) = 8.25 \text{ dBi} > 6 \text{ dBi}$

Limit shall be reduced to 17 dBm - (8.25 dBi - 6 dBi) = 14.75 dBm

For 5.725 ~ 5.85 GHz

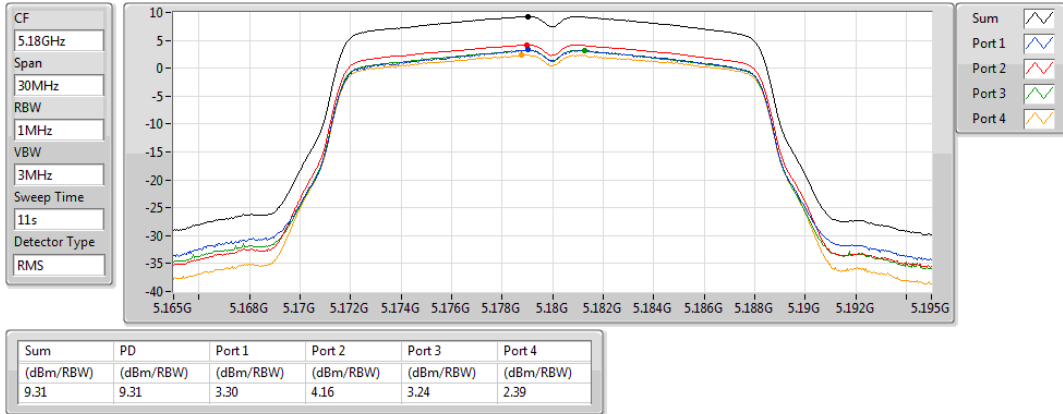
DG = Directional Gain = $10 * \log((10^{2.45/20} + 10^{2.59/20} + 10^{2.5/20} + 10^{2.66/20})^2 / 3) = 8.57 \text{ dBi} > 6 \text{ dBi}$

Limit shall be reduced to 30 dBm - (8.57 dBi - 6 dBi) = 27.43 dBm

802.11a_Nss1,(6Mbps)_4TX

PSD

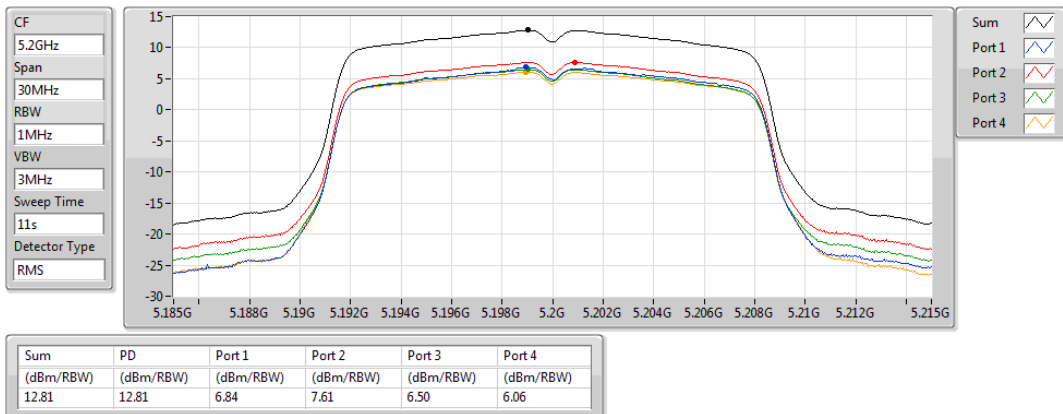
5180MHz



802.11a_Nss1,(6Mbps)_4TX

PSD

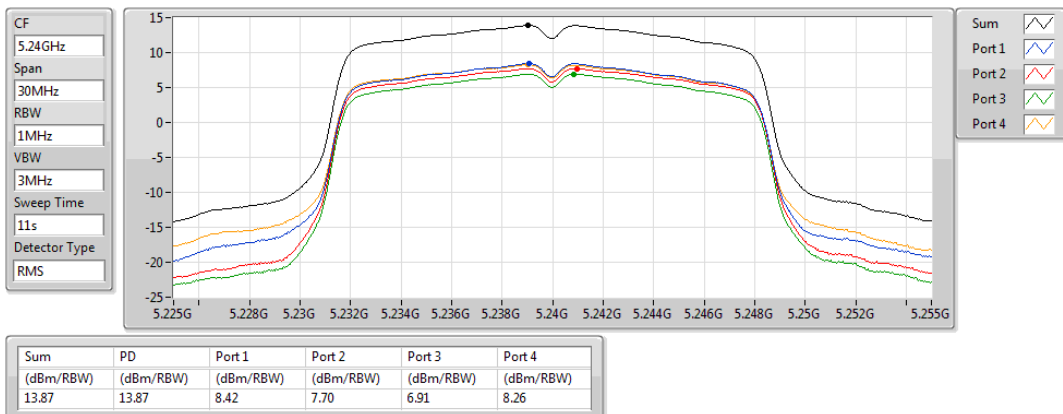
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802.11a_Nss1,(6Mbps)_4TX

PSD

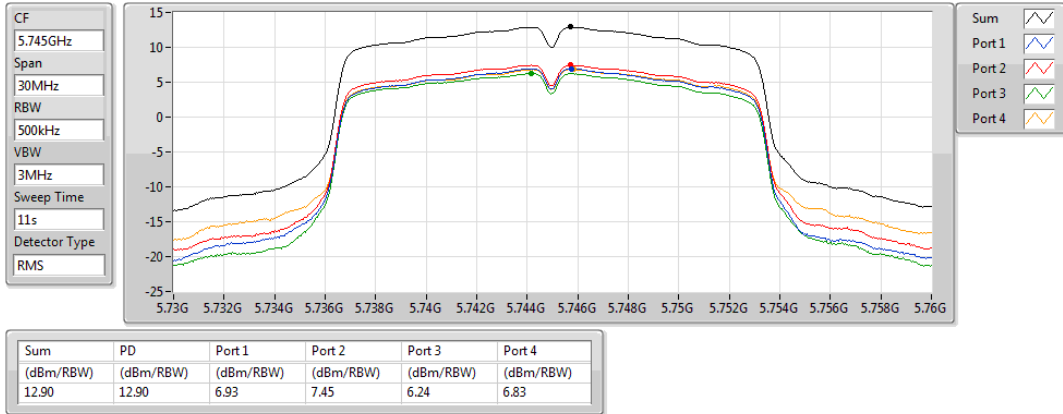
5240MHz



802.11a_Nss1,(6Mbps)_4TX

PSD

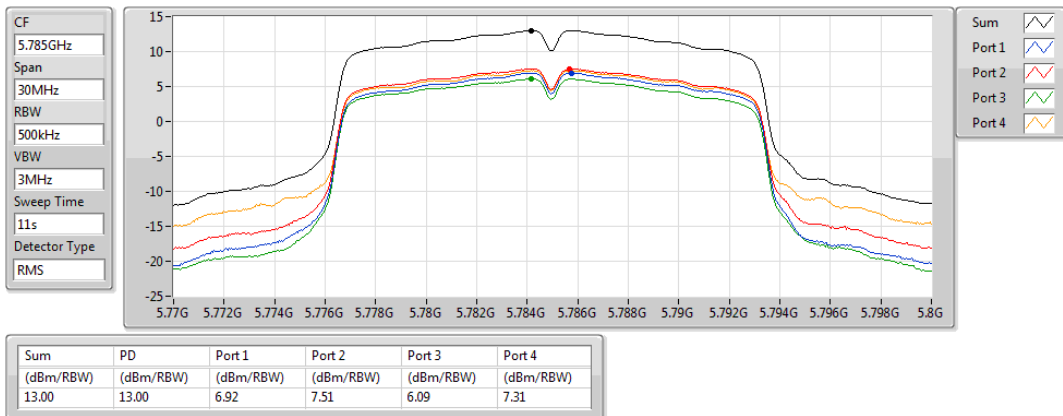
5745MHz



802.11a_Nss1,(6Mbps)_4TX

PSD

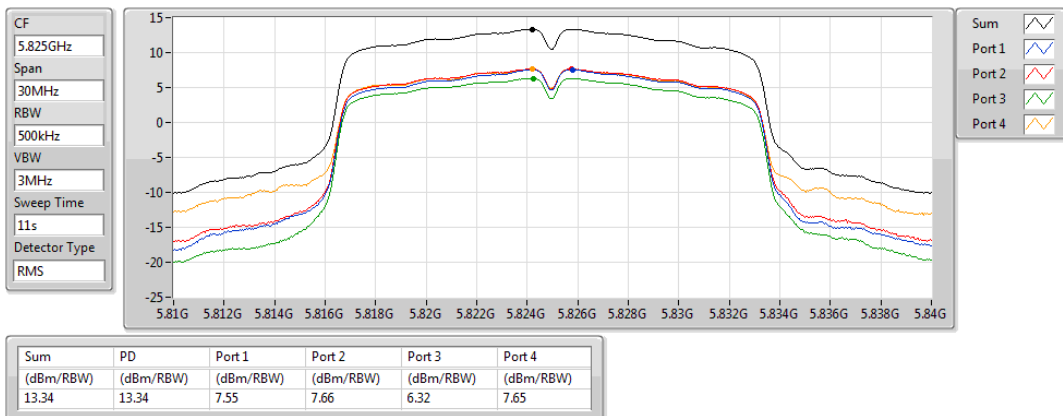
5785MHz



802.11a_Nss1,(6Mbps)_4TX

PSD

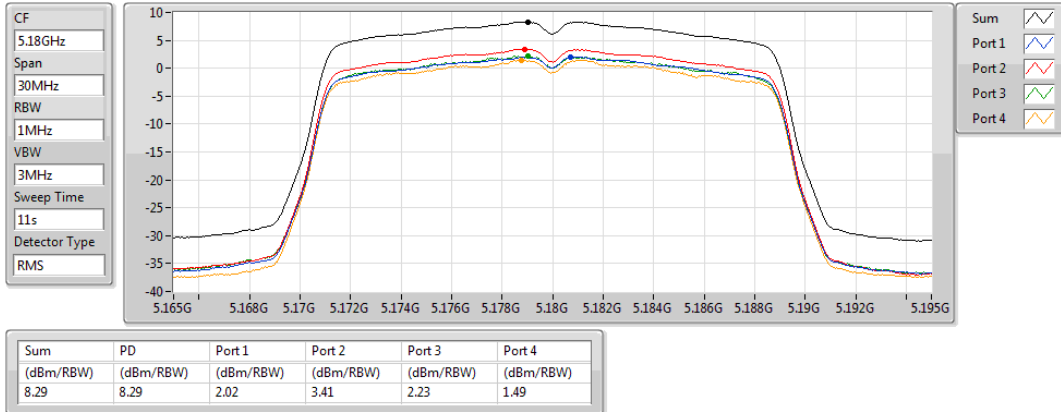
5825MHz



802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

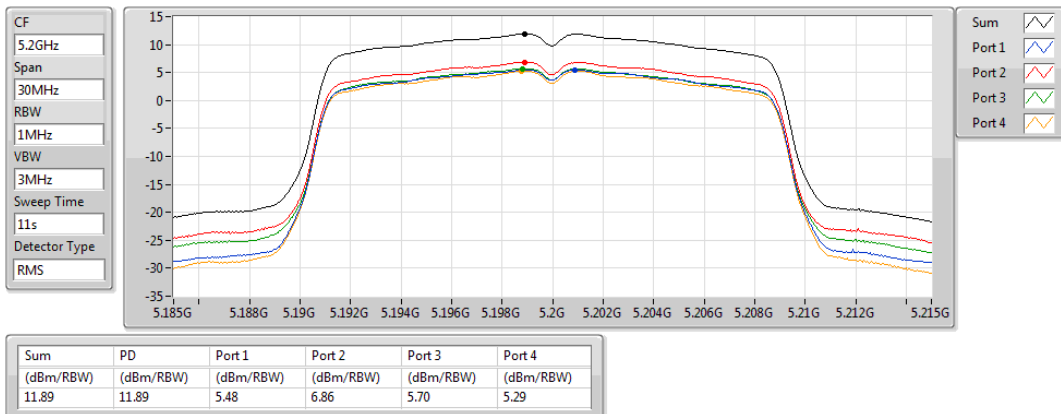
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802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

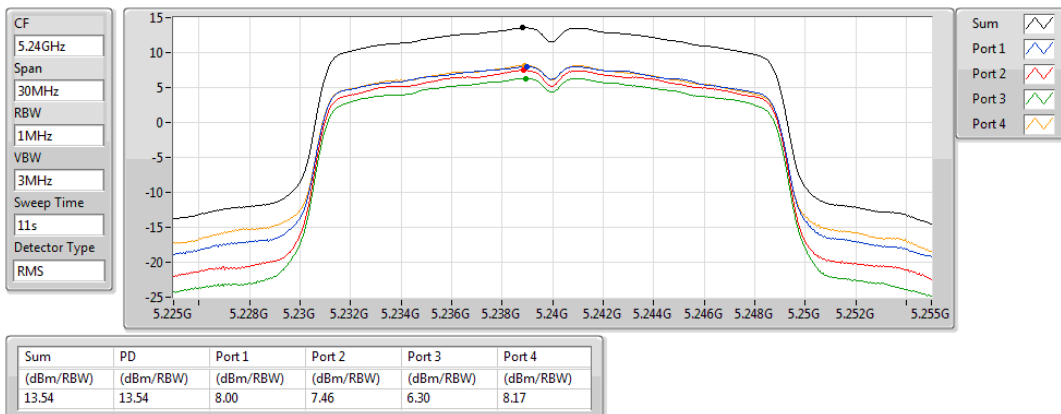
5200MHz



802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

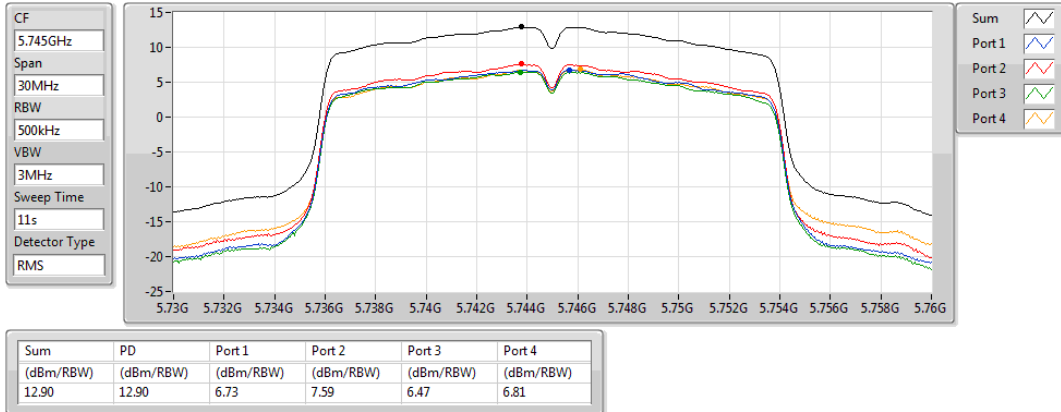
5240MHz



802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

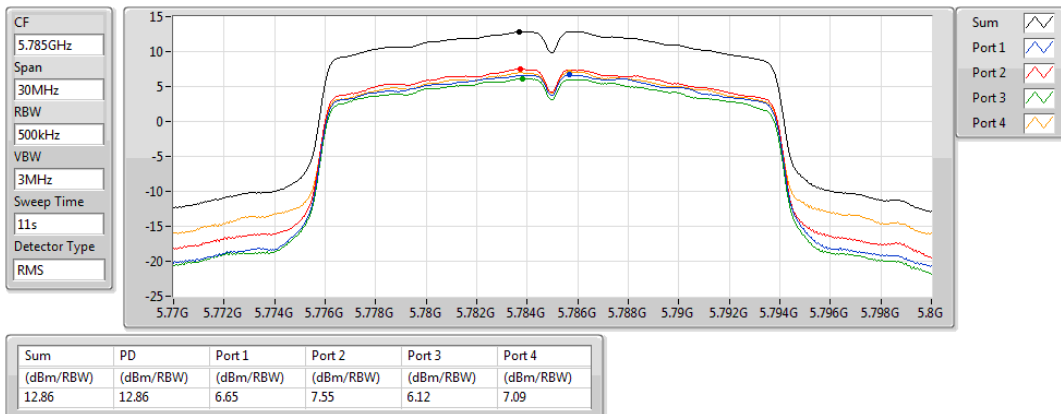
5745MHz



802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

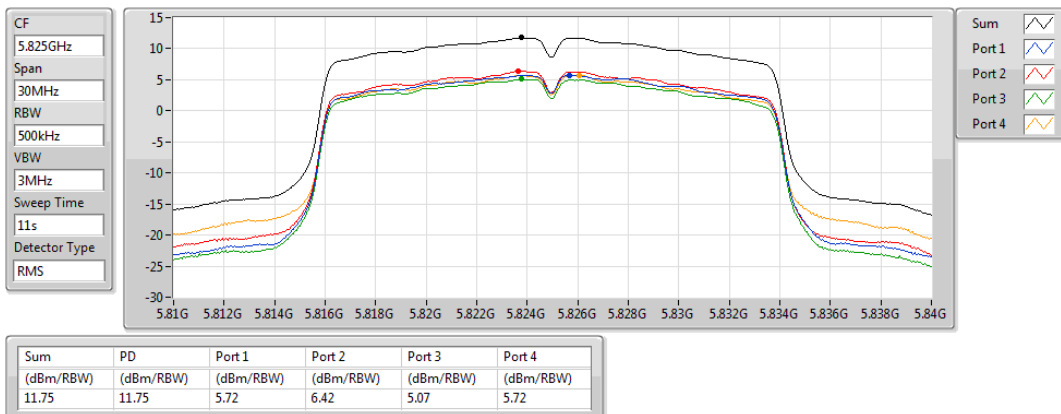
5785MHz



802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

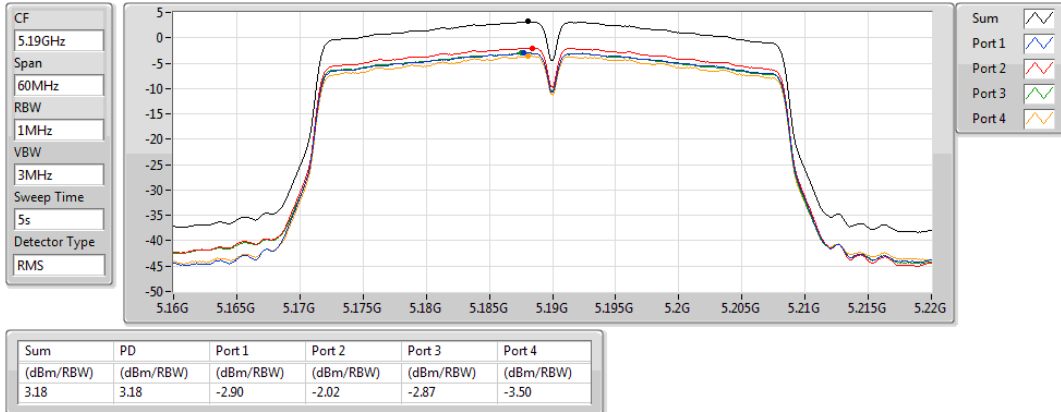
5825MHz



802.11ac VHT40_Nss1,(MCS0)_4TX

PSD

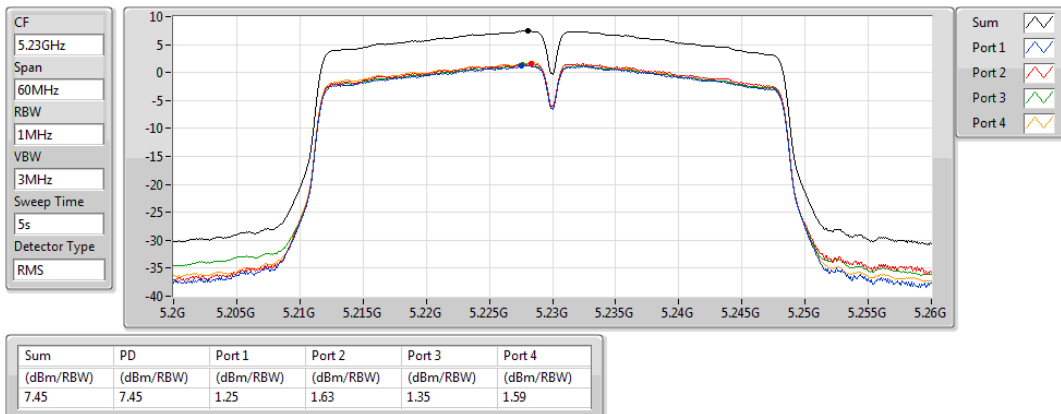
5190MHz



802.11ac VHT40_Nss1,(MCS0)_4TX

PSD

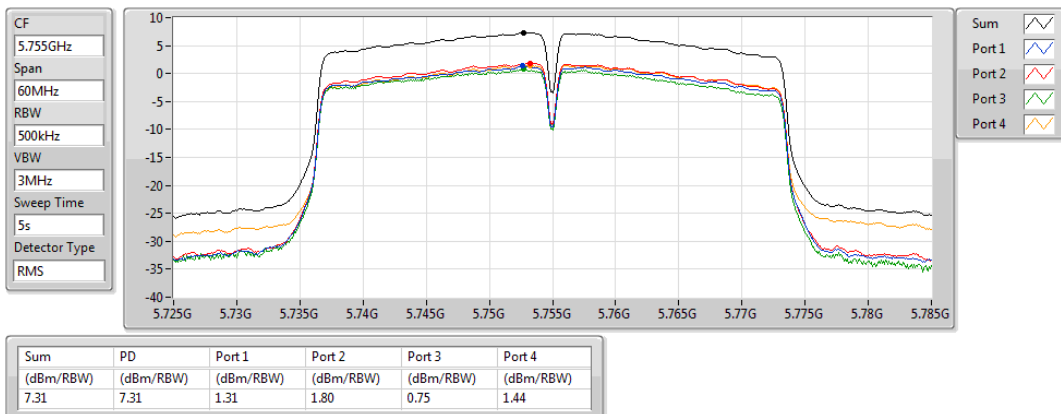
5230MHz



802.11ac VHT40_Nss1,(MCS0)_4TX

PSD

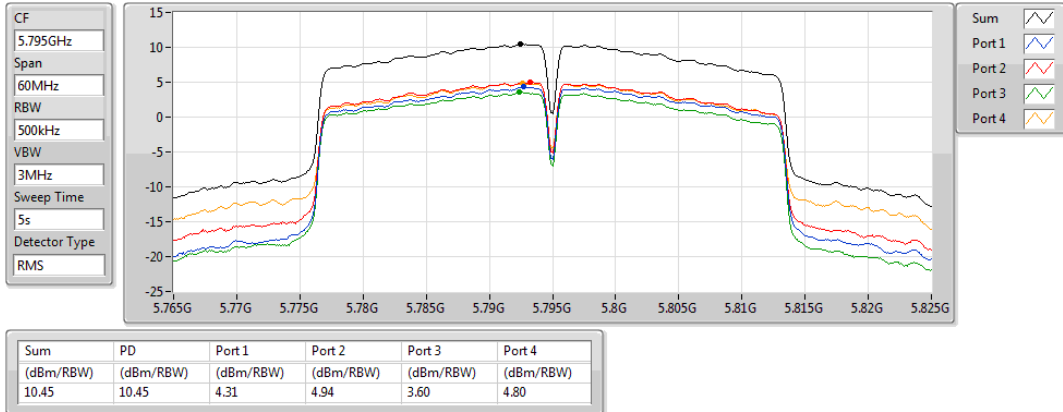
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802.11ac VHT40_Nss1,(MCS0)_4TX

PSD

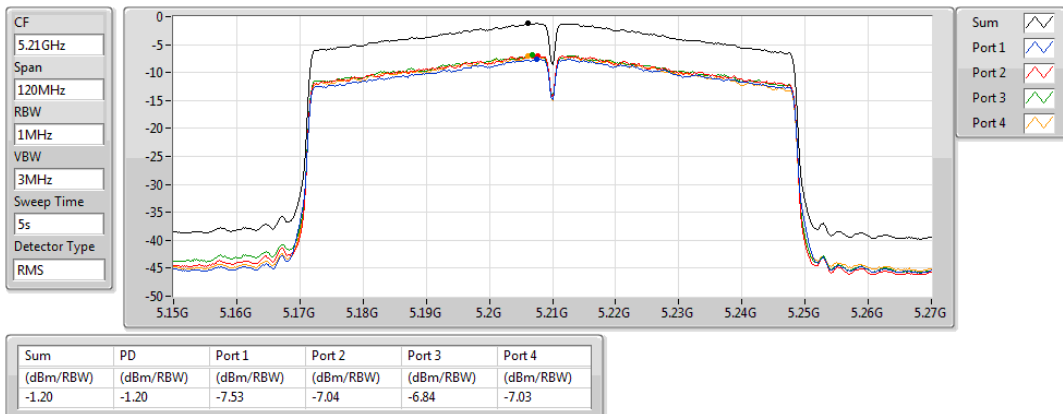
5795MHz



802.11ac VHT80_Nss1,(MCS0)_4TX

PSD

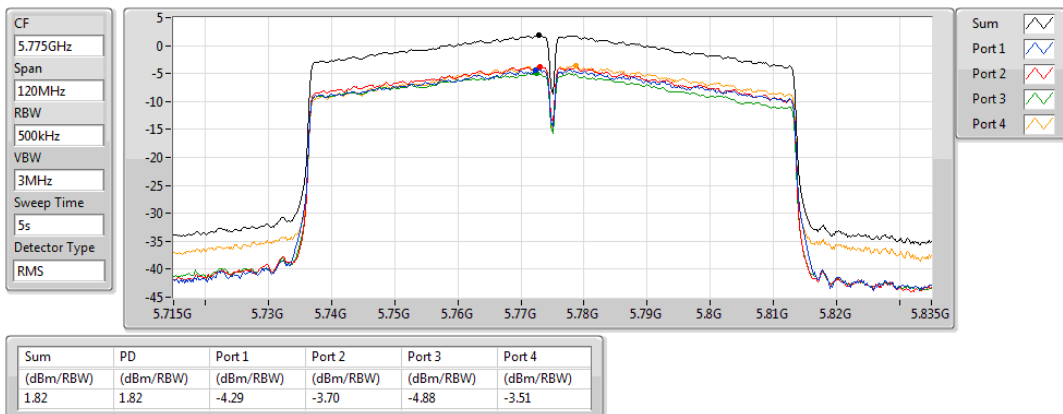
5210MHz



802.11ac VHT80_Nss1,(MCS0)_4TX

PSD

5775MHz



Non-beamforming mode: Configuration 2: RP362M model for Client**Summary**

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_4TX	8.64	16.89
802.11ac VHT20_Nss1,(MCS0)_4TX	8.64	16.89
802.11ac VHT40_Nss1,(MCS0)_4TX	7.45	15.70
802.11ac VHT80_Nss1,(MCS0)_4TX	-1.2	7.05

RBW =1MHz

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	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	8.25	2.78	3.65	2.43	1.49	8.64	8.75	16.89	17.00
5200MHz	Pass	8.25	2.52	3.41	2.37	1.28	8.45	8.75	16.70	17.00
5240MHz	Pass	8.25	2.24	2.57	2.6	2	8.34	8.75	16.59	17.00
802.11ac VHT20_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	8.25	2.02	3.41	2.23	1.49	8.29	8.75	16.54	17.00
5200MHz	Pass	8.25	2.42	3.56	2.52	1.75	8.60	8.75	16.85	17.00
5240MHz	Pass	8.25	2.39	2.94	2.82	2.52	8.64	8.75	16.89	17.00
802.11ac VHT40_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	8.25	-2.9	-2.02	-2.87	-3.5	3.18	8.75	11.43	17.00
5230MHz	Pass	8.25	1.25	1.63	1.35	1.59	7.45	8.75	15.70	17.00
802.11ac VHT80_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	8.25	-7.53	-7.04	-6.84	-7.03	-1.20	8.75	7.05	17.00

RBW = 1MHz

PD = trace bin-by-bin of each transmits port summing can be performed maximum power density; **Port X** = Port Xpower density;

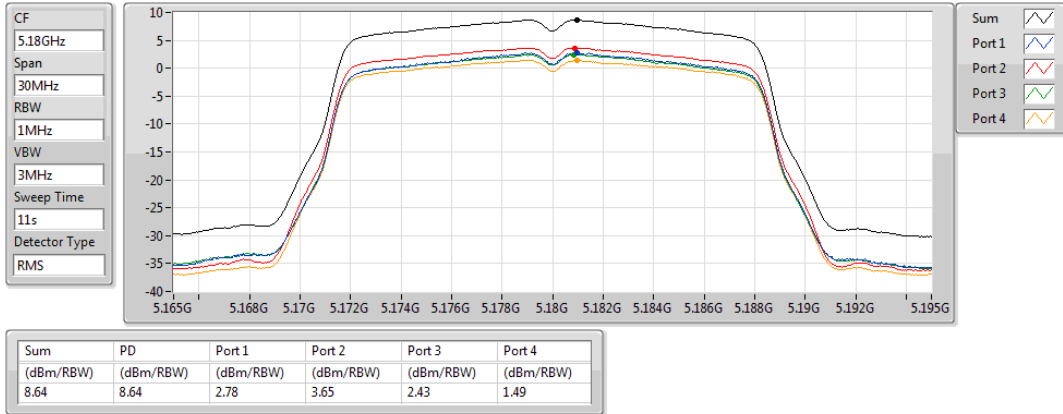
DG = Directional Gain= $10 * \log((10^{2.03/20} + 10^{2.24/20} + 10^{2.35/20} + 10^{2.29/20})^2/3) = 8.25 \text{ dBi} > 6 \text{ dBi}$

Limit shall be reduced to 11 dBm – (8.25 dBi – 6 dBi) =8.75 dBm

802.11a_Nss1,(6Mbps)_4TX

PSD

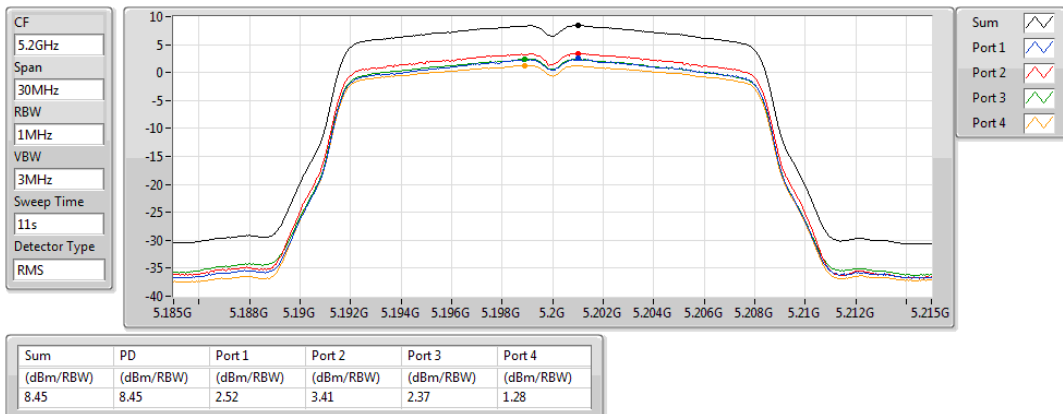
5180MHz



802.11a_Nss1,(6Mbps)_4TX

PSD

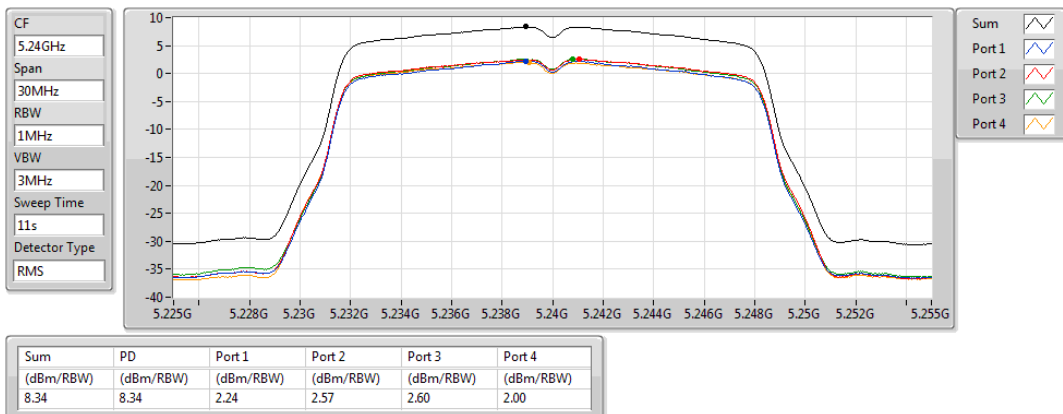
5200MHz



802.11a_Nss1,(6Mbps)_4TX

PSD

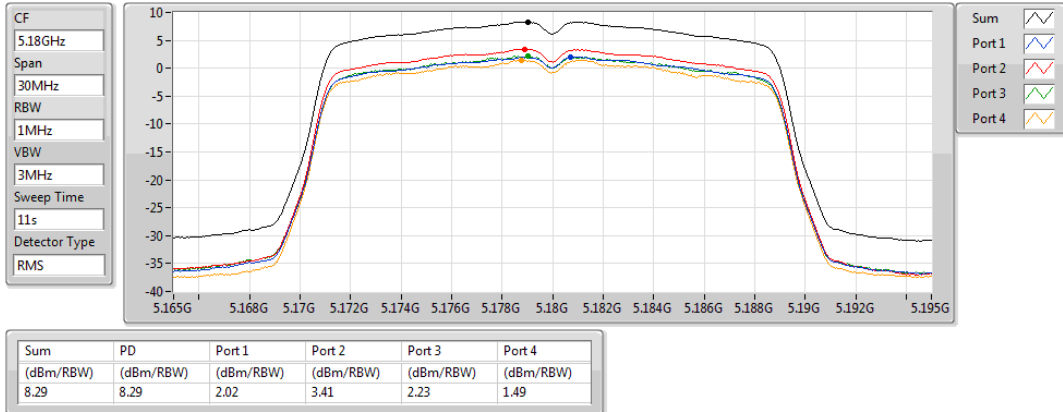
5240MHz



802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

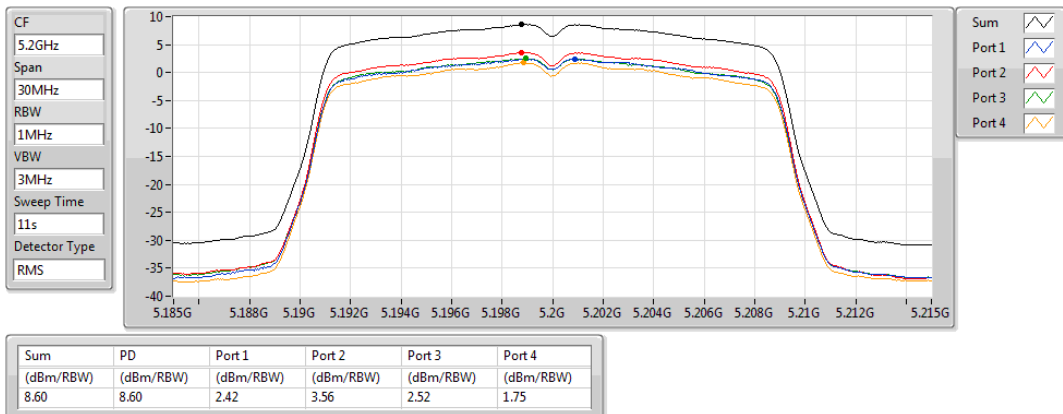
5180MHz



802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

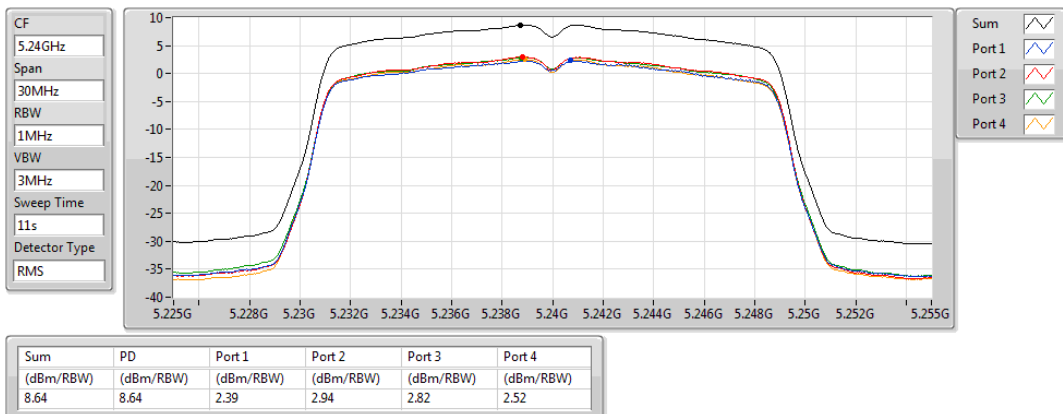
5200MHz



802.11ac VHT20_Nss1,(MCS0)_4TX

PSD

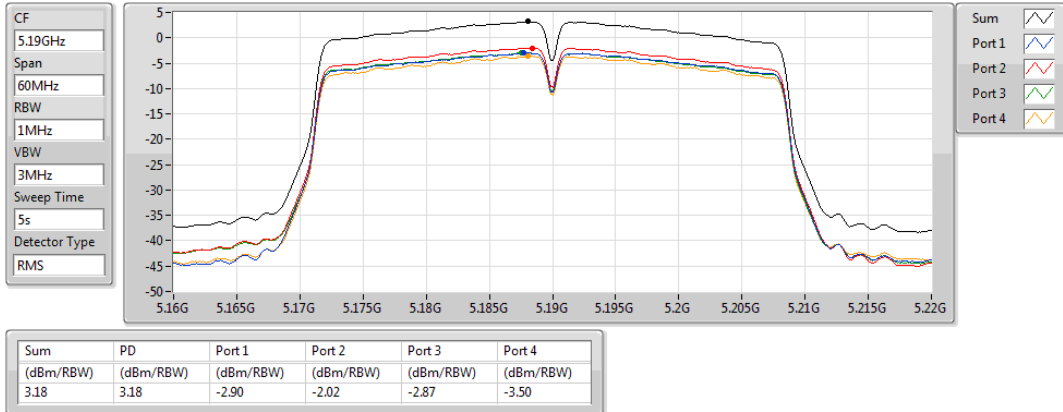
5240MHz



802.11ac VHT40_Nss1,(MCS0)_4TX

PSD

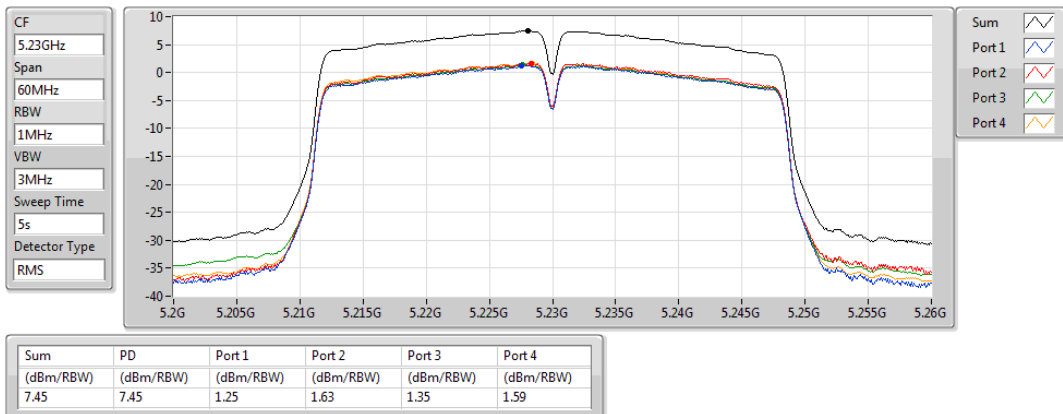
5190MHz



802.11ac VHT40_Nss1,(MCS0)_4TX

PSD

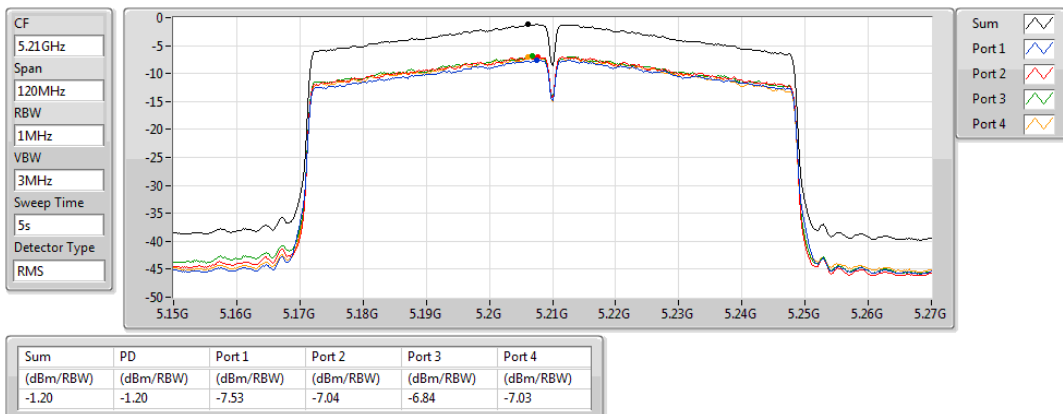
5230MHz



802.11ac VHT80_Nss1,(MCS0)_4TX

PSD

5210MHz



Beamforming mode: Configuration 1: IP3421M model for indoor AP

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	13.66	21.91
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	7.75	16.00
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-3.32	4.93
5.725-5.85GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	13.47	22.04
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	10.47	19.04
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-0.02	8.55

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	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	8.25	1.98	3.31	2.07	1.30	7.81	14.75	16.06	23.00
5200MHz	Pass	8.25	6.81	6.62	6.16	5.42	11.56	14.75	19.81	23.00
5240MHz	Pass	8.25	9.12	7.32	6.69	8.93	13.66	14.75	21.91	23.00
5745MHz	Pass	8.57	7.63	8.45	6.53	8.53	12.97	27.43	21.54	36.00
5785MHz	Pass	8.57	8.16	8.33	7.24	8.26	13.38	27.43	21.95	36.00
5825MHz	Pass	8.57	8.74	8.40	6.79	8.60	13.47	27.43	22.04	36.00
802.11ac VHT40-BF_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	8.25	-3.40	-2.56	-3.60	-4.74	2.27	14.75	10.52	23.00
5230MHz	Pass	8.25	1.89	2.48	2.04	2.51	7.75	14.75	16.00	23.00
5755MHz	Pass	8.57	0.89	1.46	0.64	1.68	7.08	27.43	15.65	36.00
5795MHz	Pass	8.57	4.52	5.23	3.73	6.13	10.47	27.43	19.04	36.00
802.11ac VHT80-BF_ Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	8.25	-8.94	-8.67	-9.73	-8.80	-3.32	14.75	4.93	23.00
5775MHz	Pass	8.57	-5.40	-4.98	-5.18	-4.97	-0.02	27.43	8.55	36.00

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 5.15 ~ 5.25 GHz

DG = Directional Gain= $10 * \log((10^{2.03/20} + 10^{2.24/20} + 10^{2.35/20} + 10^{2.29/20})^2/3)$ = 8.25 dBi > 6 dBi

Limit shall be reduced to 17 dBm – (8.25 dBi – 6 dBi) = 14.75 dBm

For 5.725 ~ 5.85 GHz

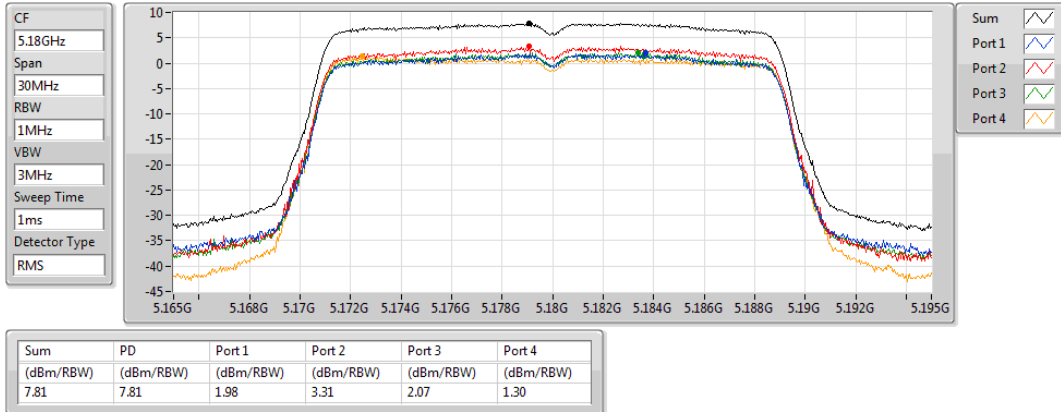
DG = Directional Gain= $10 * \log((10^{2.45/20} + 10^{2.59/20} + 10^{2.5/20} + 10^{2.66/20})^2/3)$ = 8.57 dBi > 6 dBi

Limit shall be reduced to 30 dBm – (8.57 dBi – 6 dBi) = 27.43 dBm

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

PSD

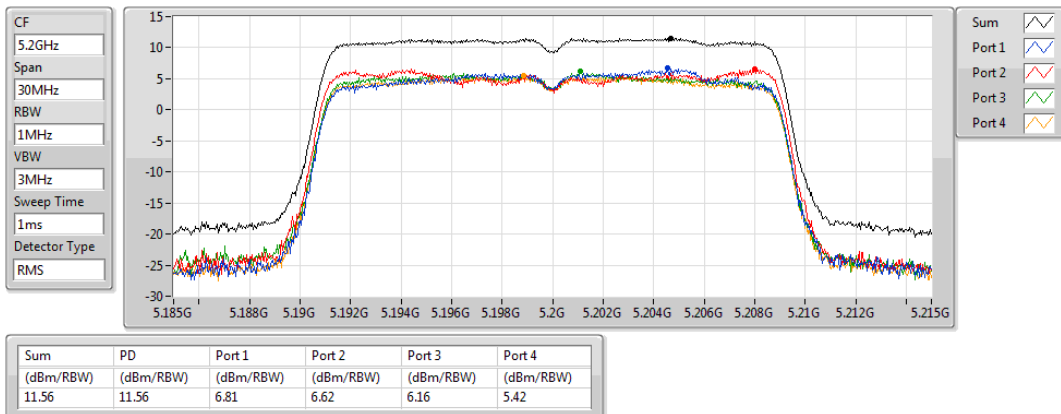
5180MHz



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

PSD

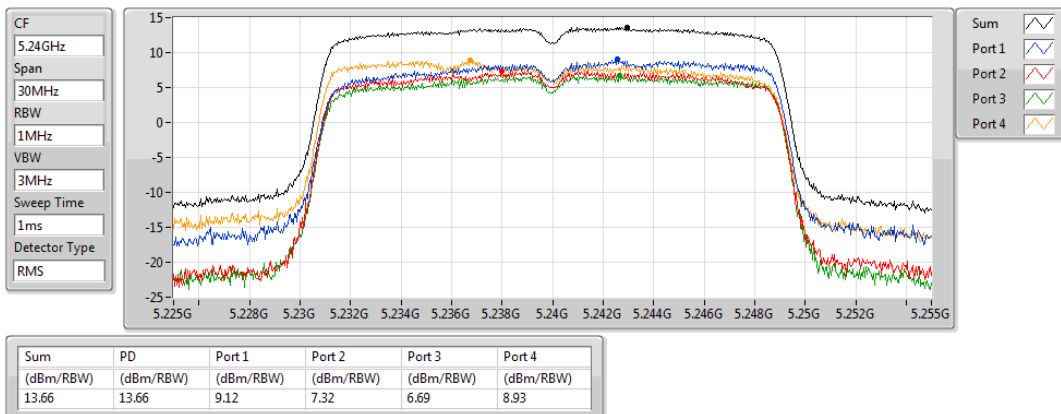
5200MHz



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

PSD

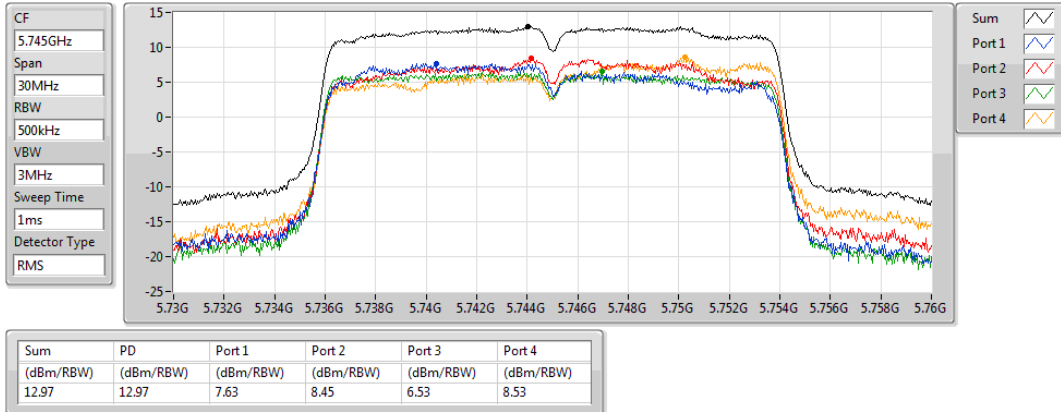
5240MHz



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

PSD

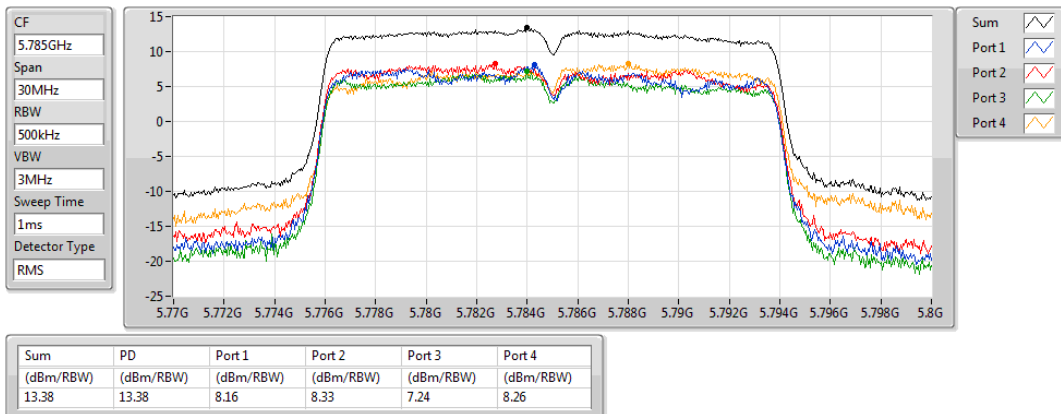
5745MHz



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

PSD

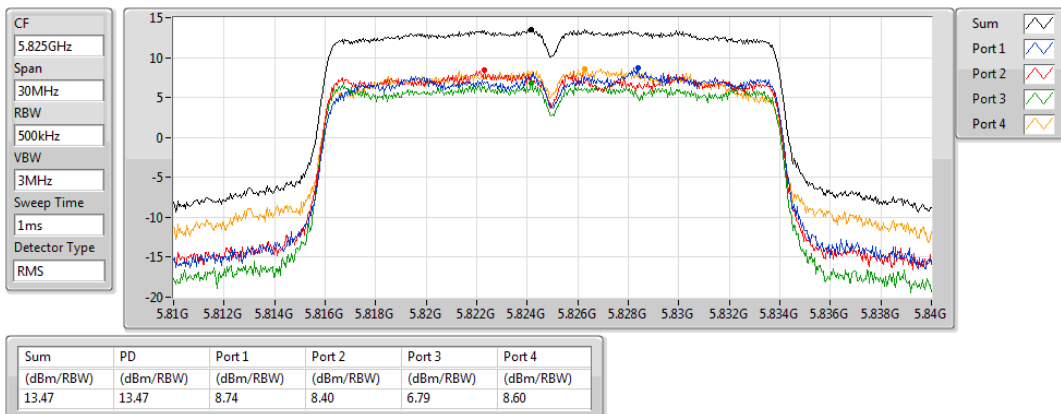
5785MHz



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

PSD

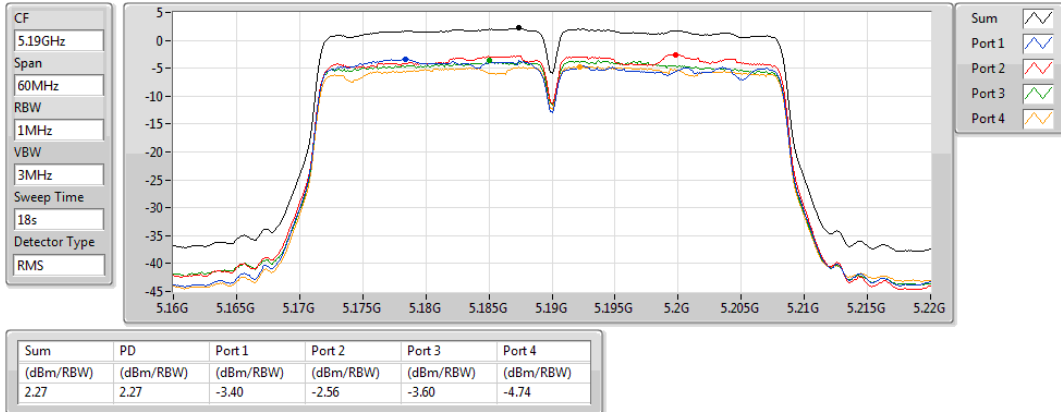
5825MHz



802.11ac VHT40-BF_Nss1,(MCS0)_4TX

PSD

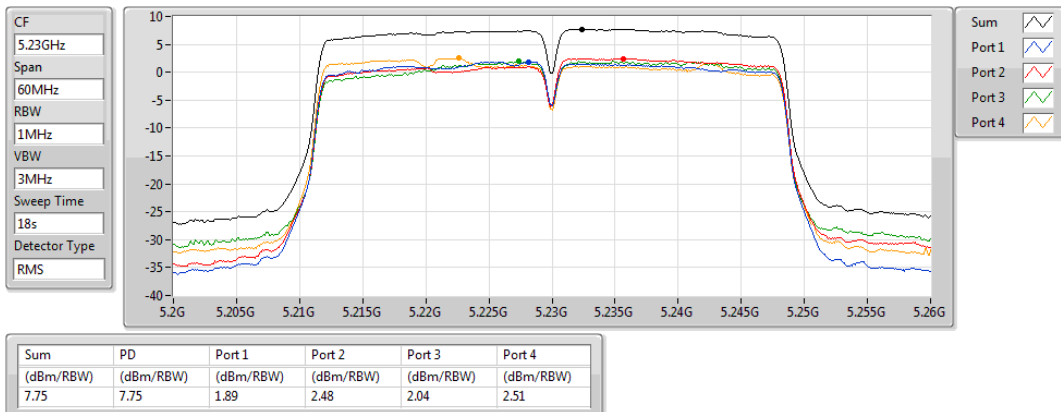
5190MHz



802.11ac VHT40-BF_Nss1,(MCS0)_4TX

PSD

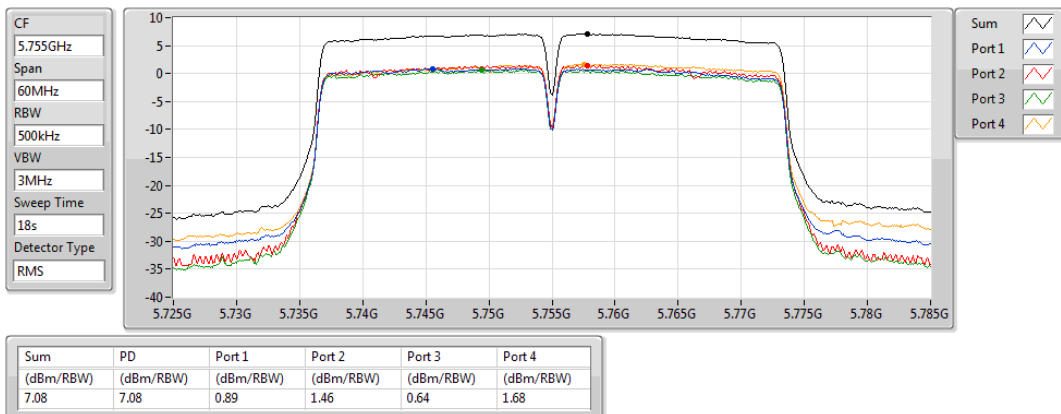
5230MHz



802.11ac VHT40-BF_Nss1,(MCS0)_4TX

PSD

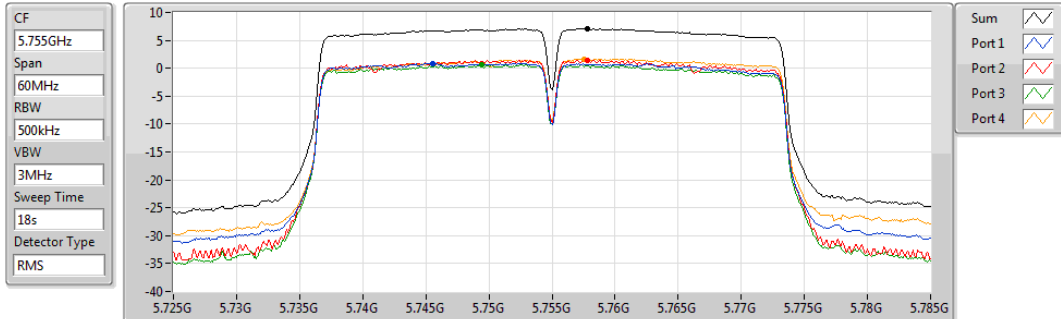
5755MHz



802.11ac VHT40-BF_Nss1,(MCS0)_4TX

PSD

5755MHz

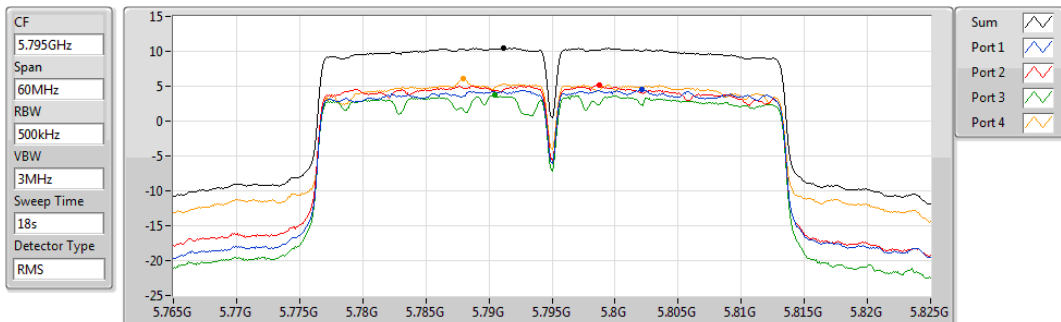


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
7.08	7.08	0.89	1.46	0.64	1.68

802.11ac VHT40-BF_Nss1,(MCS0)_4TX

PSD

5795MHz

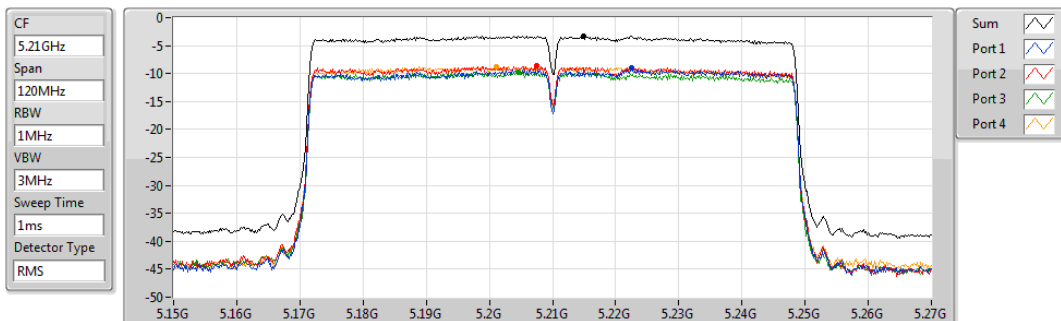


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
10.47	10.47	4.52	5.23	3.73	6.13

802.11ac VHT80-BF_Nss1,(MCS0)_4TX

PSD

5210MHz

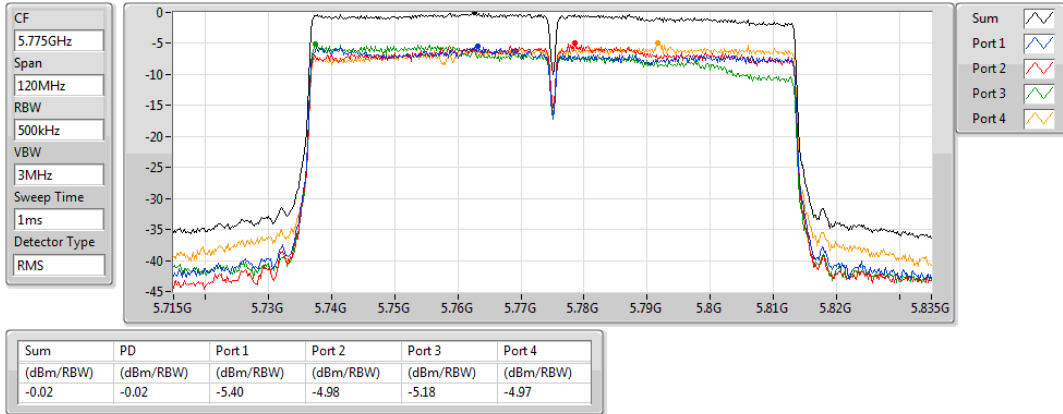


Sum	PD	Port 1	Port 2	Port 3	Port 4
(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)	(dBm/Hz)
-3.32	-3.32	-8.94	-8.67	-9.73	-8.80

802.11ac VHT80-BF_Nss1,(MCS0)_4TX

PSD

5775MHz



Beamforming mode: Configuration 2: RP362M model for Client

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11ac VHT20-BF_Nss1,(MCS0)_4TX	8.54	16.79
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	6.64	14.89
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-3.32	4.93

RBW = 1MHz

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	-	-	-	-	-	-	-	-	-	-
5180MHz	Pass	8.25	1.98	3.31	2.07	1.3	7.81	8.75	16.06	17.00
5200MHz	Pass	8.25	2.49	3.59	2.42	2.45	8.54	8.75	16.79	17.00
5240MHz	Pass	8.25	2.08	2.56	2.5	2.99	8.31	8.75	16.56	17.00
802.11ac VHT40-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5190MHz	Pass	8.25	-3.4	-2.56	-3.6	-4.74	2.27	8.75	10.52	17.00
5230MHz	Pass	8.25	0.51	1.04	0.62	0.94	6.64	8.75	14.89	17.00
802.11ac VHT80-BF_Nss1,(MCS0)_4TX	-	-	-	-	-	-	-	-	-	-
5210MHz	Pass	8.25	-8.94	-8.67	-9.73	-8.8	-3.32	8.75	4.93	17.00

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;

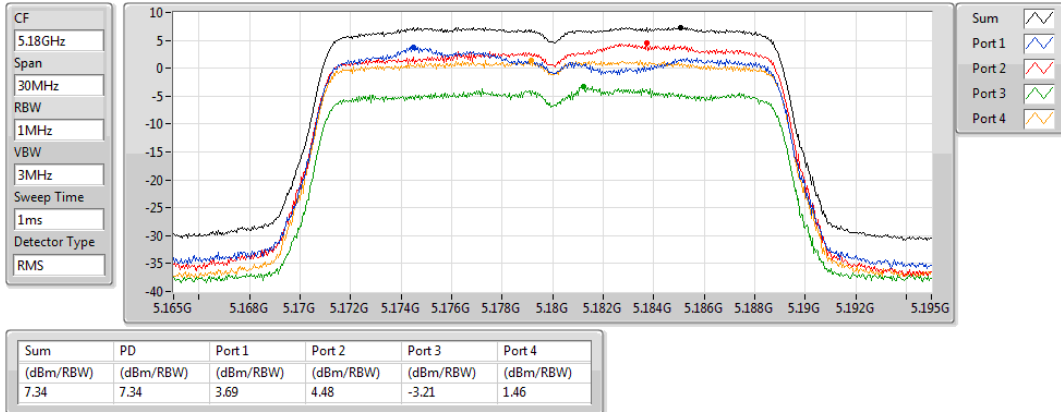
DG = Directional Gain= $10 * \log((10^{2.03/20} + 10^{2.24/20} + 10^{2.35/20} + 10^{2.29/20})^2/3) = 8.25 \text{ dBi} > 6 \text{ dBi}$

Limit shall be reduced to 11 dBm – (8.25 dBi – 6 dBi) = 8.75 dBm

802.11ac VHT20-BF_Nss1,(MCS0)_4TX

PSD

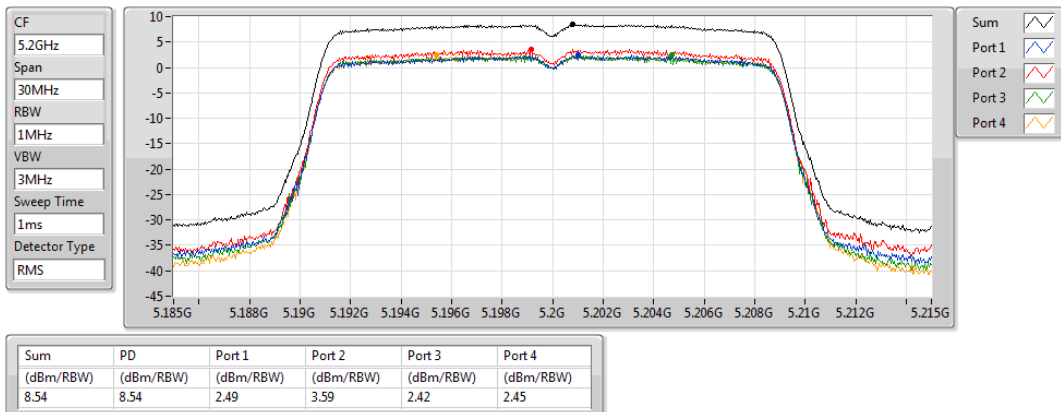
5180MHz



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

PSD

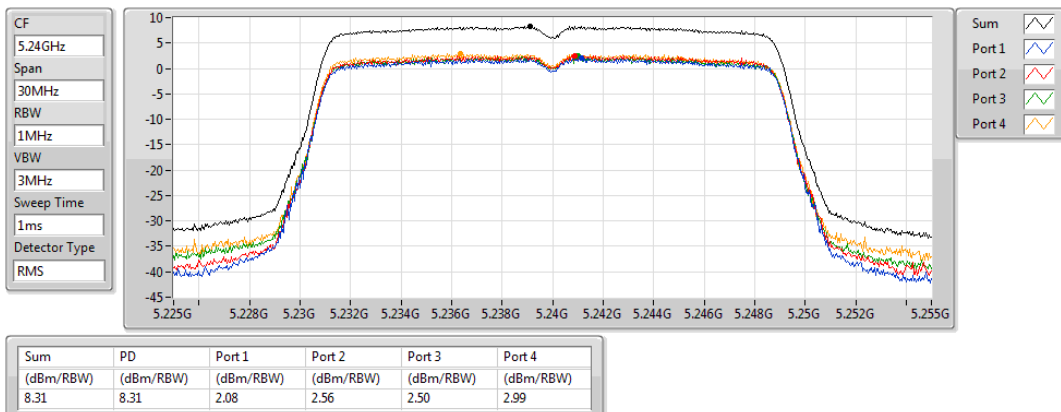
5200MHz



802.11ac VHT20-BF_Nss1,(MCS0)_4TX

PSD

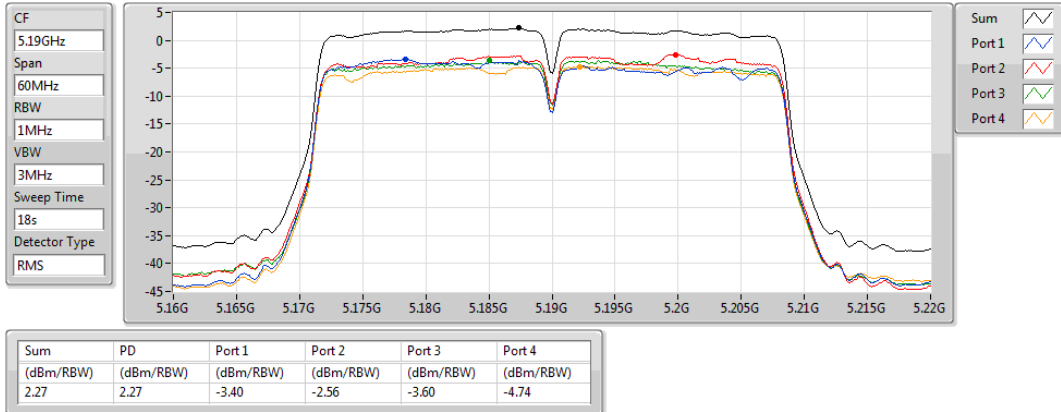
5240MHz



802.11ac VHT40-BF_Nss1,(MCS0)_4TX

PSD

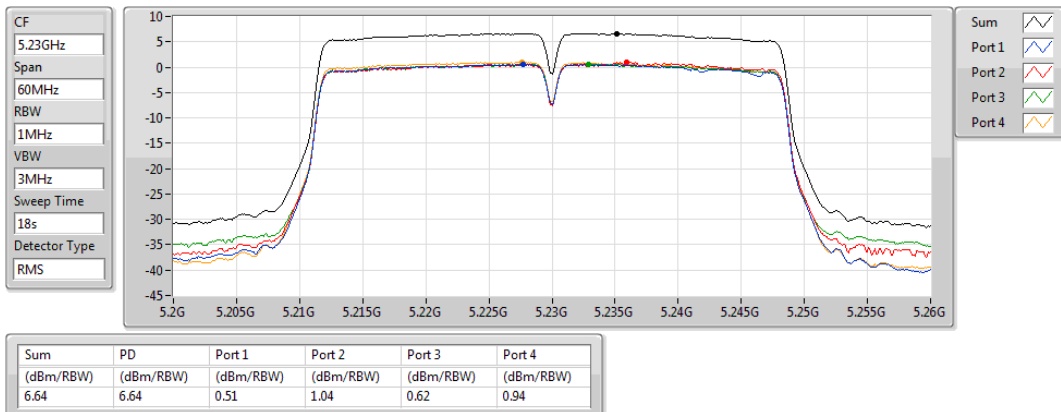
5190MHz



802.11ac VHT40-BF_Nss1,(MCS0)_4TX

PSD

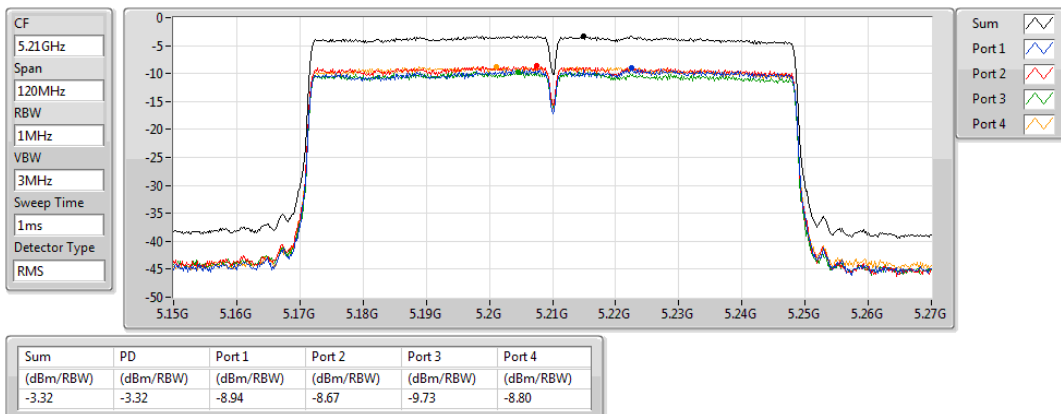
5230MHz



802.11ac VHT80-BF_Nss1,(MCS0)_4TX

PSD

5210MHz



3.5 Transmitter Radiated and Band Edge Emissions

3.5.1 Limit of Transmitter Radiated and Band Edge Emissions

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

Note 1:
Qusai-Peak value is measured for frequency below 1GHz except for 9~90 kHz, 110~490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit

Note 2:
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

Un-restricted band emissions above 1GHz Limit	
Operating Band	Limit
5.15 - 5.25 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.725 - 5.850 GHz	All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

3.5.2 Test Procedures

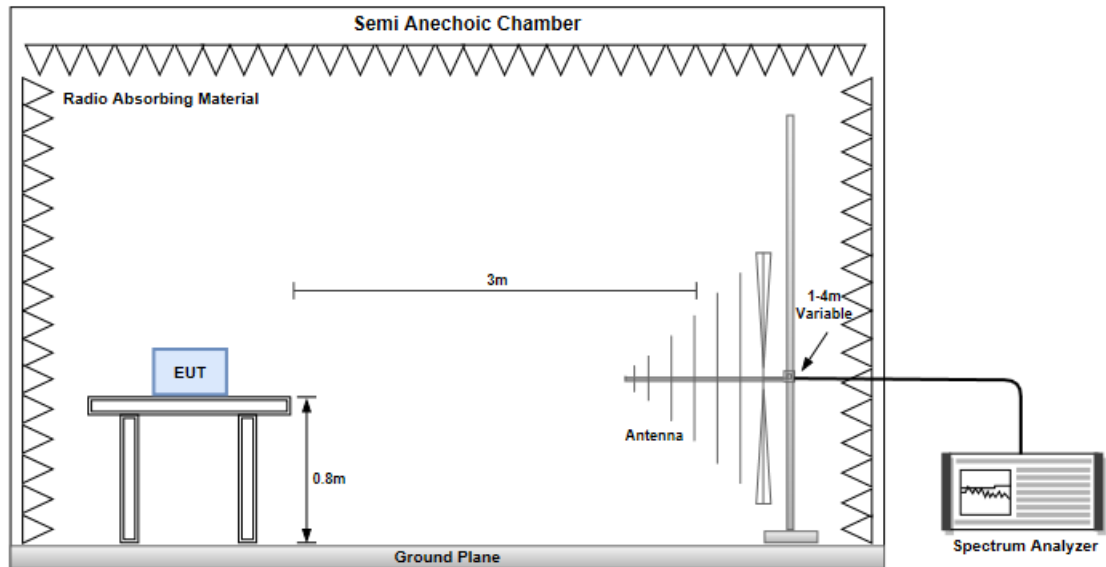
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

Note:

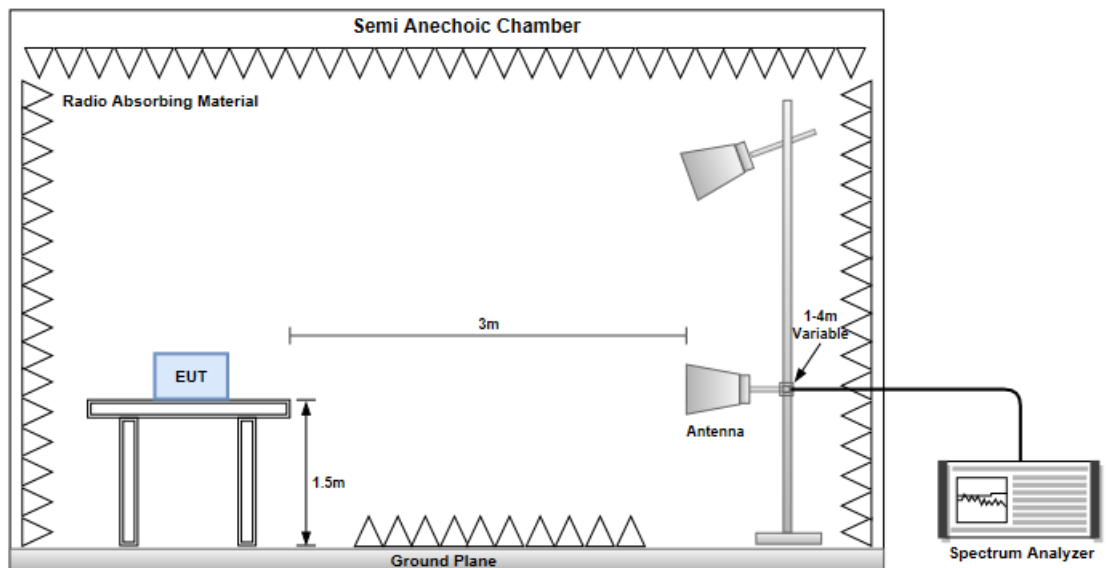
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz



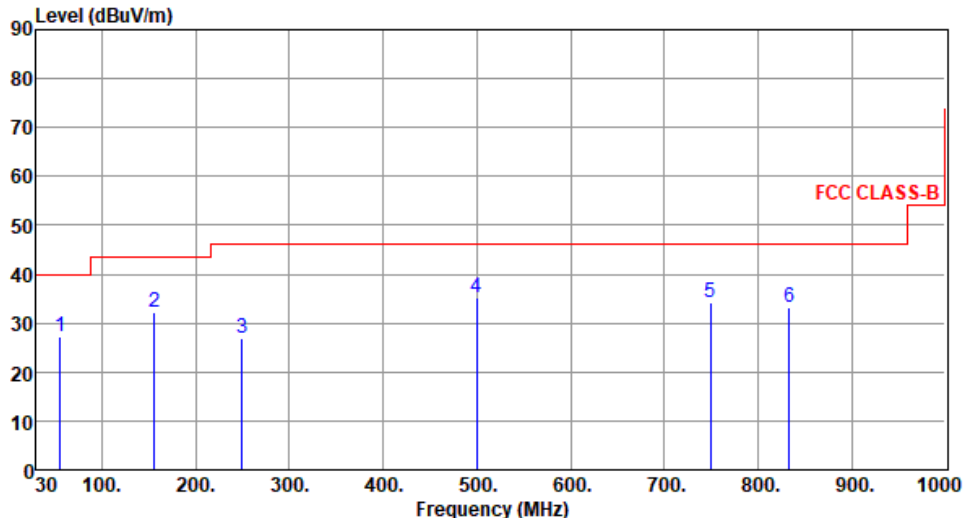
Radiated Emissions above 1 GHz



Non- beamforming mode

3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal	Test Configuration	1

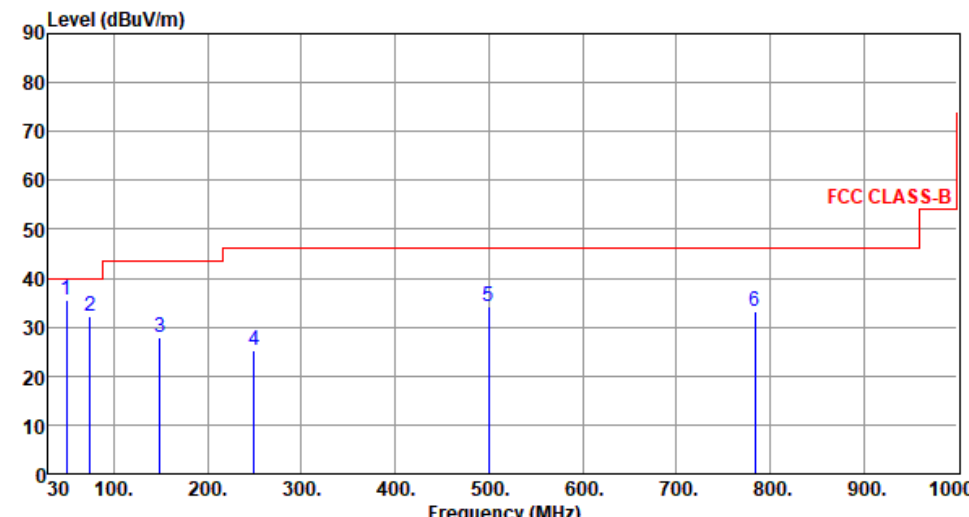


The graph displays the emission level in dBuV/m on the y-axis (0 to 90) against frequency in MHz on the x-axis (30 to 1000). A red line represents the FCC CLASS-B limit, which is 40 dBuV/m from 30 to 100 MHz, 45 dBuV/m from 100 to 200 MHz, and 55 dBuV/m from 200 to 1000 MHz. Six blue vertical lines indicate measured peaks at 55.22, 156.10, 249.22, 499.48, 749.74, and 833.16 MHz, labeled 1 through 6 respectively.

	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	55.22	27.23	40.00	-12.77	36.14	-8.91	Peak	---	---
2	156.10	32.19	43.50	-11.31	40.73	-8.54	Peak	---	---
3	249.22	26.92	46.00	-19.08	36.89	-9.97	Peak	---	---
4	499.48	35.34	46.00	-10.66	38.39	-3.05	Peak	---	---
5	749.74	34.22	46.00	-11.78	31.76	2.46	Peak	---	---
6	833.16	33.11	46.00	-12.89	29.80	3.31	Peak	---	---

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

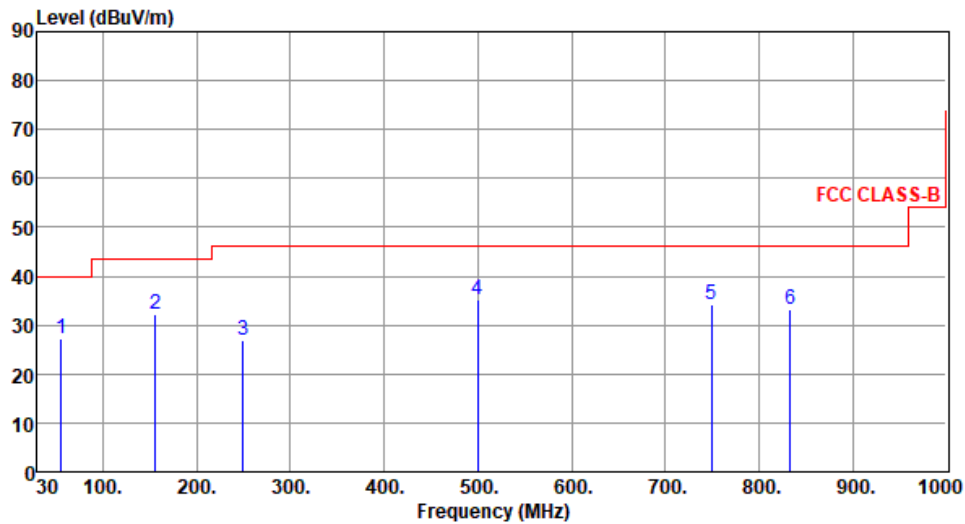
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical	Test Configuration	1



	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	35.66	40.00	-4.34	44.24	-8.58	Peak	---	---
2	74.62	32.30	40.00	-7.70	44.18	-11.88	Peak	---	---
3	149.31	27.96	43.50	-15.54	36.71	-8.75	Peak	---	---
4	249.22	25.24	46.00	-20.76	35.21	-9.97	Peak	---	---
5	499.48	34.25	46.00	-11.75	37.30	-3.05	Peak	---	---
6	783.69	33.32	46.00	-12.68	30.59	2.73	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)	5795
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	55.33	27.19	40.00	-12.81	36.09	-8.90	Peak	---	---
2	156.26	32.28	43.50	-11.22	40.84	-8.56	Peak	---	---
3	249.31	26.84	46.00	-19.16	36.80	-9.96	Peak	---	---
4	499.51	35.28	46.00	-10.72	38.33	-3.05	Peak	---	---
5	749.69	34.17	46.00	-11.83	31.71	2.46	Peak	---	---
6	833.16	33.28	46.00	-12.72	29.97	3.31	Peak	---	---

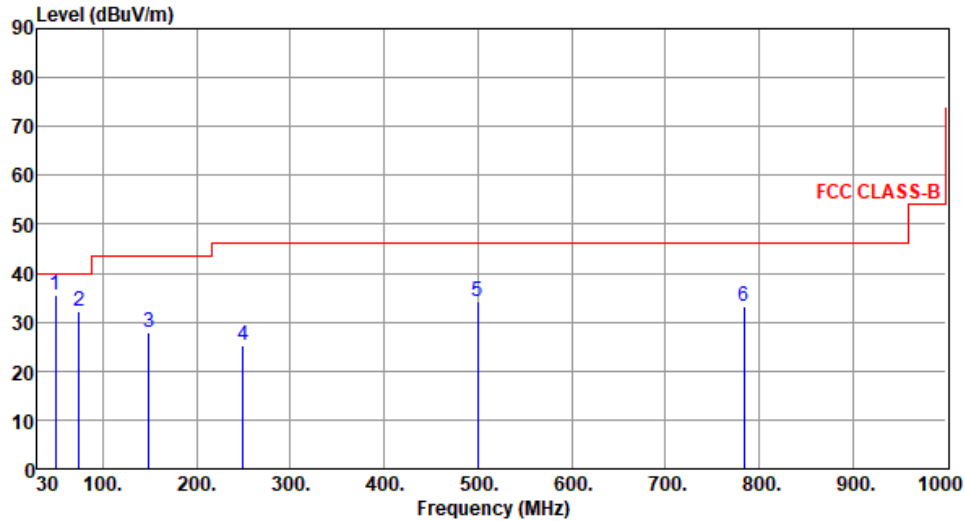
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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)	5795
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	49.35	35.57	40.00	-4.43	44.14	-8.57	Peak	---	---
2	74.59	32.25	40.00	-7.75	44.13	-11.88	Peak	---	---
3	149.29	27.76	43.50	-15.74	36.51	-8.75	Peak	---	---
4	249.22	25.34	46.00	-20.66	35.31	-9.97	Peak	---	---
5	499.58	34.36	46.00	-11.64	37.41	-3.05	Peak	---	---
6	783.69	33.25	46.00	-12.75	30.52	2.73	Peak	---	---

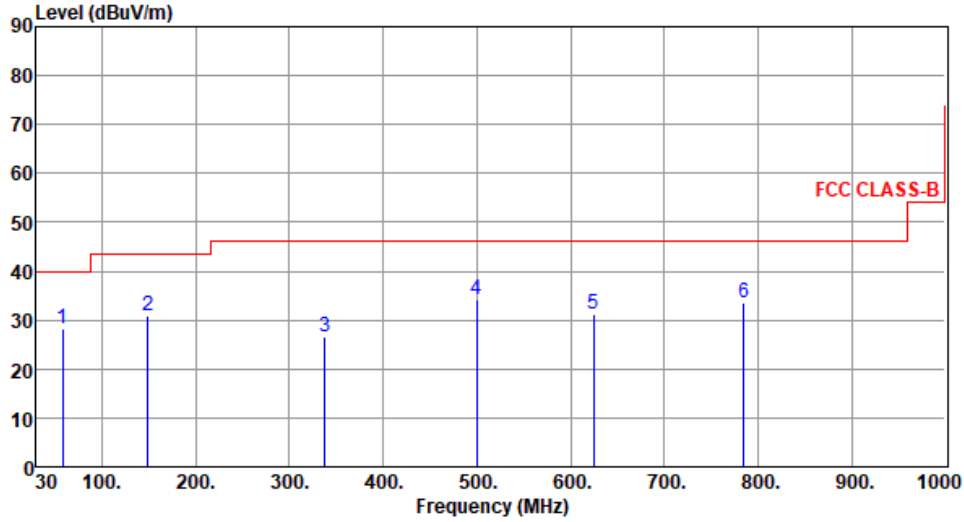
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

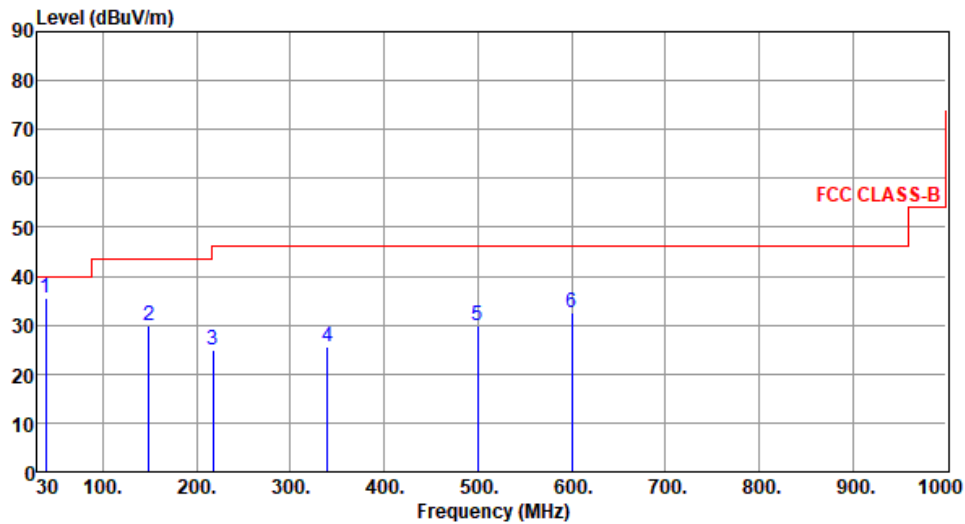
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	58.13	28.30	40.00	-11.70	37.43	-9.13	Peak	---	---
2	149.31	30.82	43.50	-12.68	39.57	-8.75	Peak	---	---
3	337.49	26.59	46.00	-19.41	33.71	-7.12	Peak	---	---
4	499.48	34.32	46.00	-11.68	37.37	-3.05	Peak	---	---
5	624.61	31.31	46.00	-14.69	31.45	-0.14	Peak	---	---
6	784.66	33.64	46.00	-12.36	30.93	2.71	Peak	---	---

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

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	38.73	35.57	40.00	-4.43	44.90	-9.33	Peak	---	---
2	149.31	30.03	43.50	-13.47	38.78	-8.75	Peak	---	---
3	217.21	25.01	46.00	-20.99	37.15	-12.14	Peak	---	---
4	339.43	25.51	46.00	-20.49	32.61	-7.10	Peak	---	---
5	499.48	30.00	46.00	-16.00	33.05	-3.05	Peak	---	---
6	600.36	32.41	46.00	-13.59	33.00	-0.59	Peak	---	---

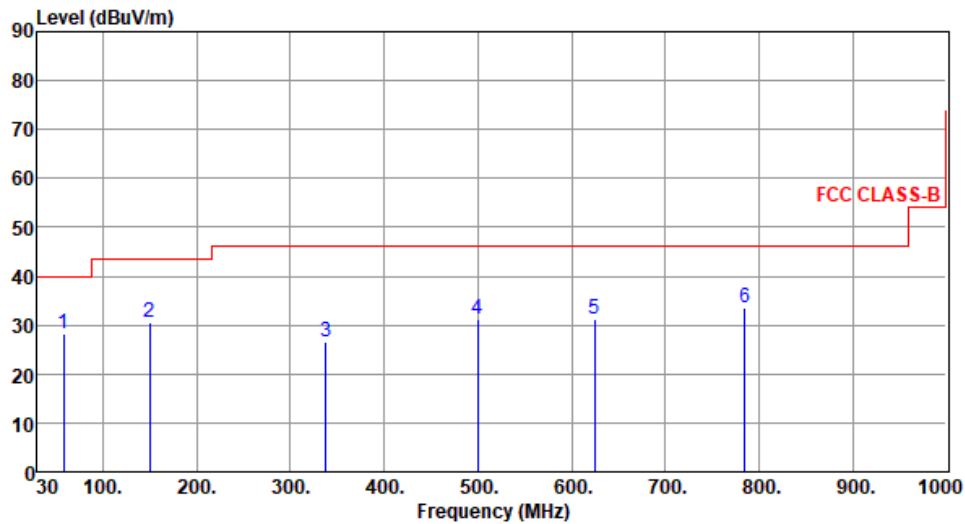
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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)	5795
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	58.22	28.31	40.00	-11.69	37.45	-9.14	Peak	---	---
2	149.46	30.65	43.50	-12.85	39.40	-8.75	Peak	---	---
3	337.51	26.47	46.00	-19.53	33.59	-7.12	Peak	---	---
4	499.48	31.28	46.00	-14.72	34.33	-3.05	Peak	---	---
5	624.59	31.24	46.00	-14.76	31.38	-0.14	Peak	---	---
6	784.58	33.54	46.00	-12.46	30.83	2.71	Peak	---	---

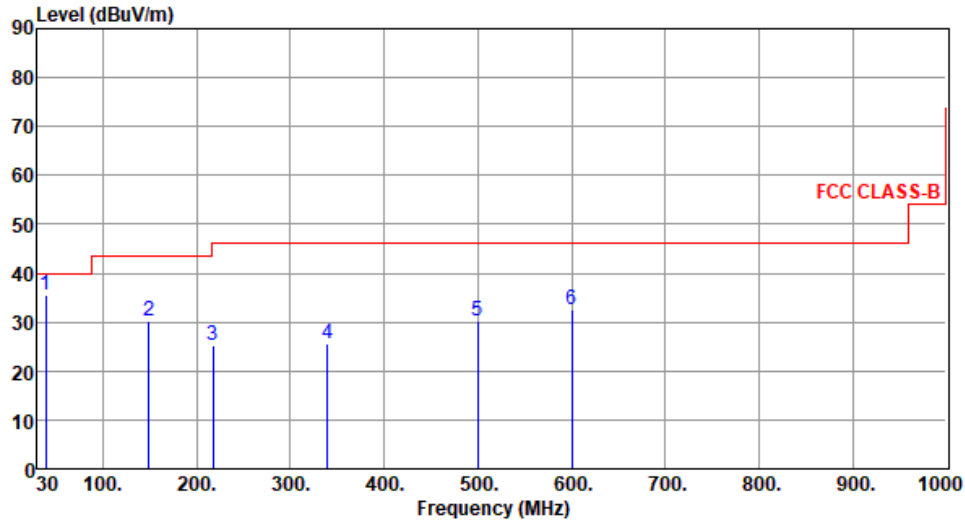
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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)	5795
Polarization	Vertical	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	38.66	35.48	40.00	-4.52	44.81	-9.33	Peak	---	---
2	149.25	30.16	43.50	-13.34	38.91	-8.75	Peak	---	---
3	217.21	25.28	46.00	-20.72	37.42	-12.14	Peak	---	---
4	339.55	25.47	46.00	-20.53	32.57	-7.10	Peak	---	---
5	499.51	30.13	46.00	-15.87	33.18	-3.05	Peak	---	---
6	600.36	32.54	46.00	-13.46	33.13	-0.59	Peak	---	---

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

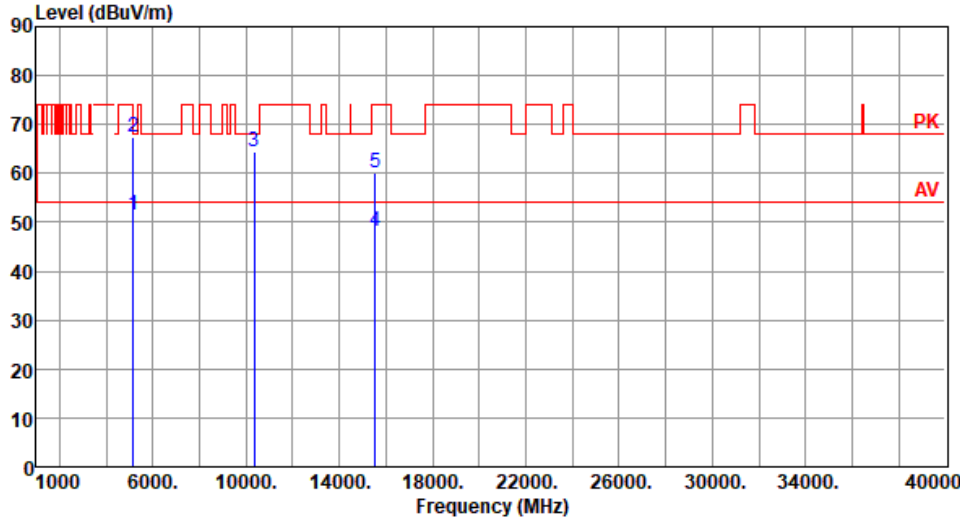
*Factor includes antenna factor , cable loss and amplifier gain

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.

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

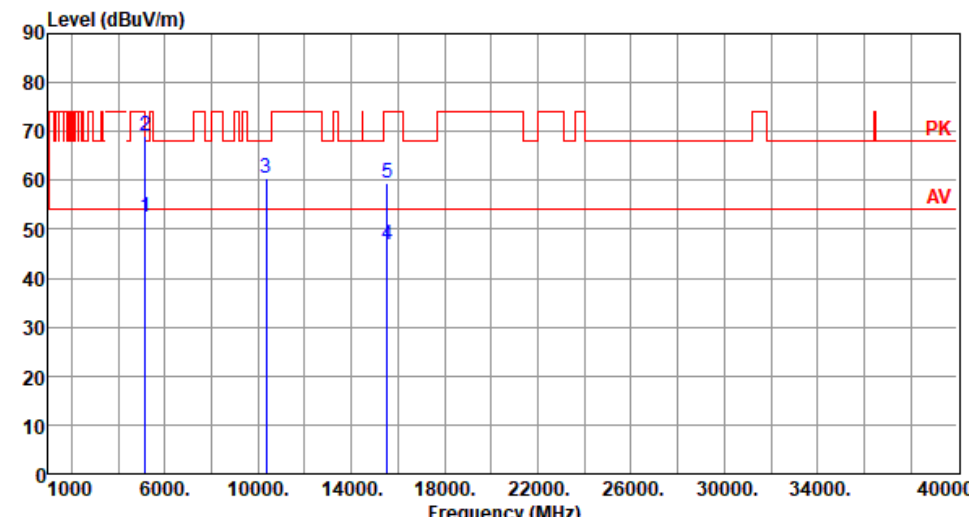
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.42	54.00	-2.58	44.10	7.32	Average	202	61
2	5150.00	67.57	74.00	-6.43	60.25	7.32	Peak	202	61
3	10360.00	64.35	68.20	-3.85	48.26	16.09	Peak	177	135
4	15540.00	48.25	54.00	-5.75	30.88	17.37	Average	100	45
5	15540.00	60.07	74.00	-13.93	42.70	17.37	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).

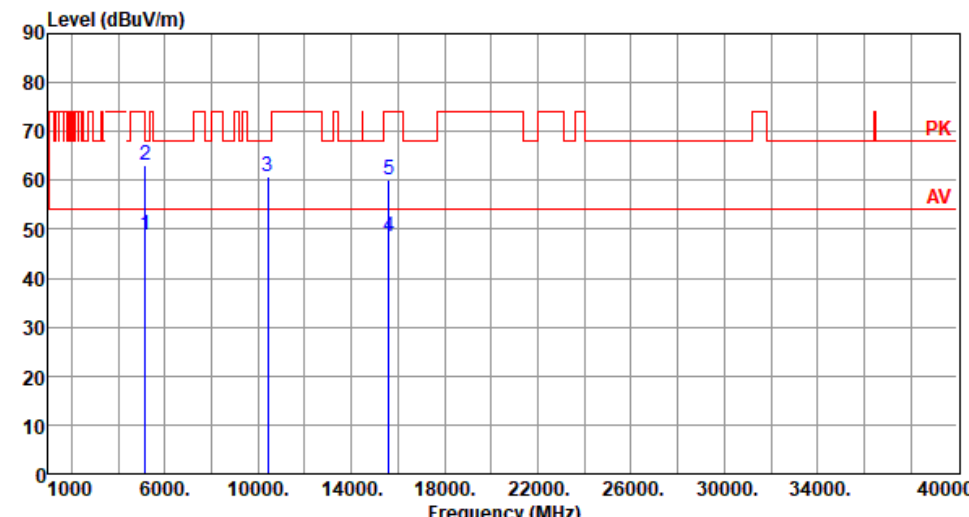
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.47	54.00	-1.53	45.15	7.32	Average	191	99
2	5150.00	69.10	74.00	-4.90	61.78	7.32	Peak	191	99
3	10360.00	60.34	68.20	-7.86	44.25	16.09	Peak	100	147
4	15540.00	46.70	54.00	-7.30	29.33	17.37	Average	100	147
5	15540.00	59.51	74.00	-14.49	42.14	17.37	Peak	100	147

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

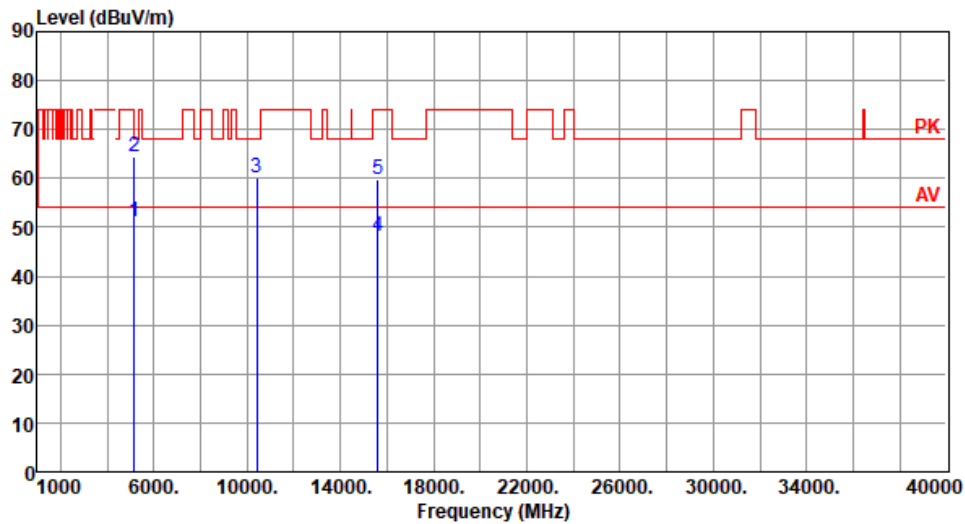
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Horizontal	Test Configuration	1



	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	48.86	54.00	-5.14	41.54	7.32	Average	200	69
2	5150.00	62.94	74.00	-11.06	55.62	7.32	Peak	200	69
3	10400.00	60.92	68.20	-7.28	44.64	16.28	Peak	178	135
4	15600.00	48.48	54.00	-5.52	31.21	17.27	Average	100	56
5	15600.00	60.03	74.00	-13.97	42.76	17.27	Peak	100	56

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

Modulation	11a	Test Freq. (MHz)	5200
Polarization	Vertical	Test Configuration	1



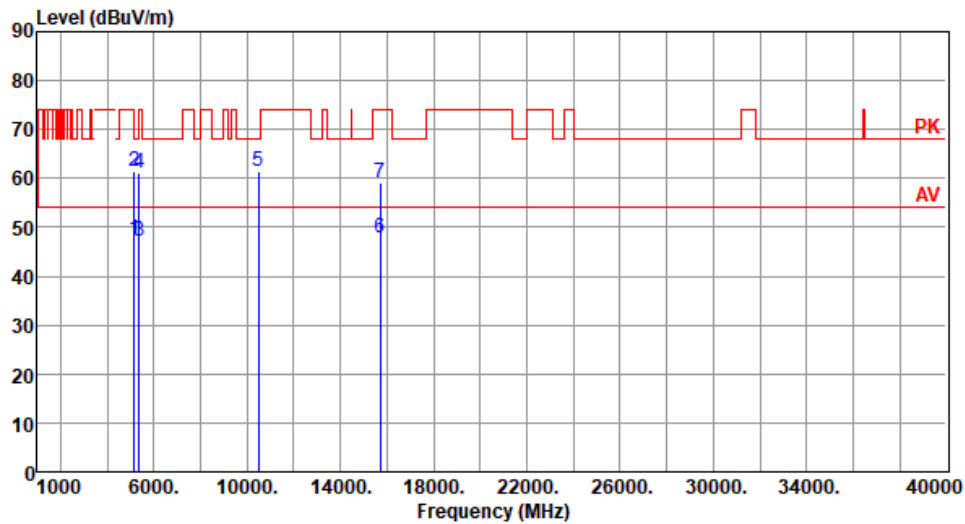
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.04	54.00	-2.96	43.72	7.32	Average	195	94
2	5150.00	64.39	74.00	-9.61	57.07	7.32	Peak	195	94
3	10400.00	60.16	68.20	-8.04	43.88	16.28	Peak	100	145
4	15600.00	48.29	54.00	-5.71	31.02	17.27	Average	100	56
5	15600.00	59.85	74.00	-14.15	42.58	17.27	Peak	100	56

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal	Test Configuration	1



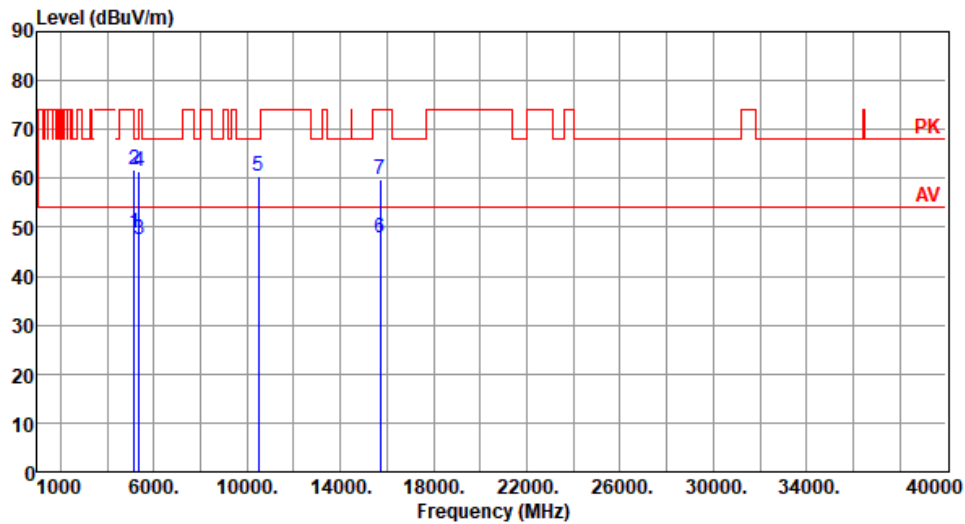
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.56	54.00	-6.44	40.24	7.32	Average	209	64
2	5150.00	61.50	74.00	-12.50	54.18	7.32	Peak	209	64
3	5350.00	47.10	54.00	-6.90	40.25	6.85	Average	209	64
4	5350.00	61.17	74.00	-12.83	54.32	6.85	Peak	209	64
5	10480.00	61.29	68.20	-6.91	44.88	16.41	Peak	175	133
6	15720.00	47.72	54.00	-6.28	31.12	16.60	Average	100	40
7	15720.00	59.13	74.00	-14.87	42.53	16.60	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)	5240
Polarization	Vertical	Test Configuration	1



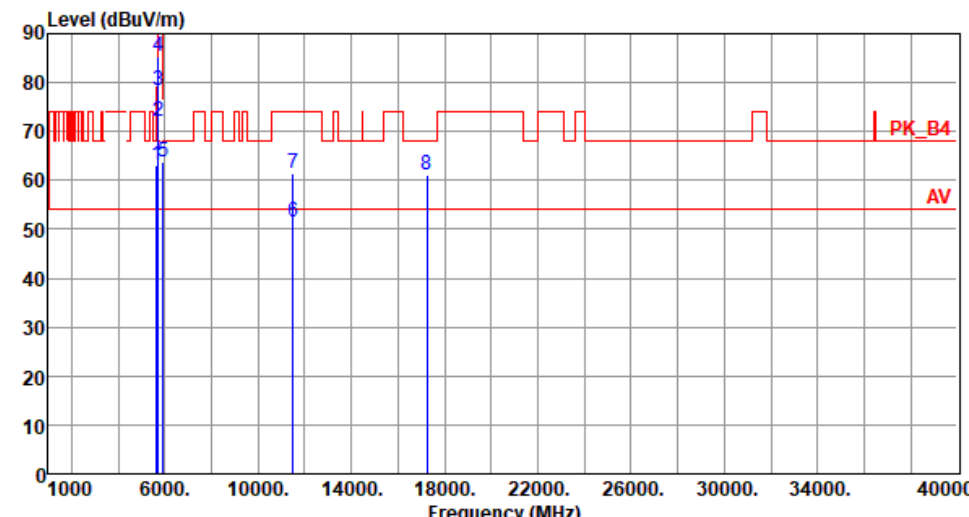
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.83	54.00	-5.17	41.51	7.32	Average	207	95
2	5150.00	61.76	74.00	-12.24	54.44	7.32	Peak	207	95
3	5350.00	47.51	54.00	-6.49	40.66	6.85	Average	207	95
4	5350.00	61.59	74.00	-12.41	54.74	6.85	Peak	207	95
5	10480.00	60.49	68.20	-7.71	44.08	16.41	Peak	100	148
6	15720.00	47.66	54.00	-6.34	31.06	16.60	Average	100	50
7	15720.00	59.75	74.00	-14.25	43.15	16.60	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).

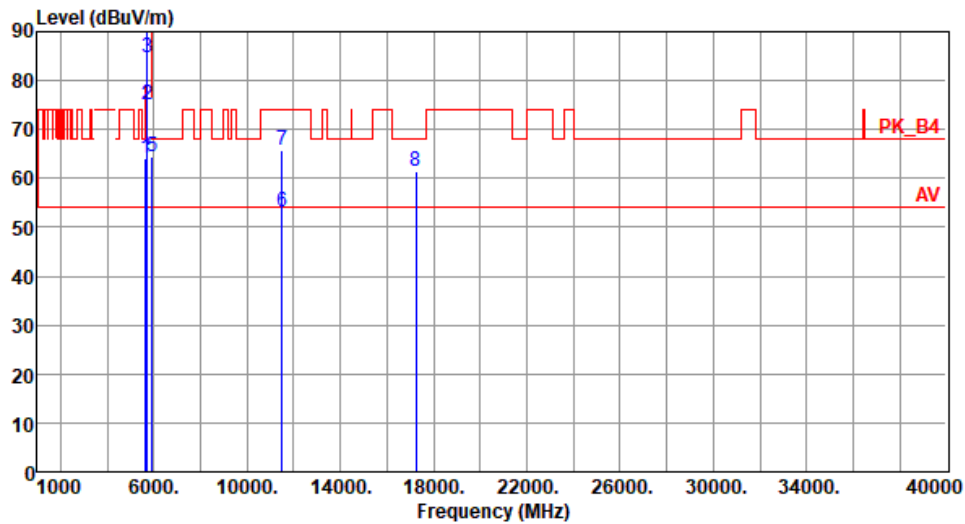
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	63.01	68.20	-5.19	55.62	7.39	Peak	185	42
2	5700.00	72.08	105.20	-33.12	64.58	7.50	Peak	185	42
3	5720.00	78.28	110.80	-32.52	70.66	7.62	Peak	185	42
4	5725.00	85.45	122.20	-36.75	77.79	7.66	Peak	185	42
5	5925.00	63.71	68.20	-4.49	55.64	8.07	Peak	185	42
6	11490.00	51.32	54.00	-2.68	34.56	16.76	Average	100	32
7	11490.00	61.35	74.00	-12.65	44.59	16.76	Peak	100	32
8	17235.00	60.97	68.20	-7.23	42.33	18.64	Peak	100	25

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

Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical	Test Configuration	1



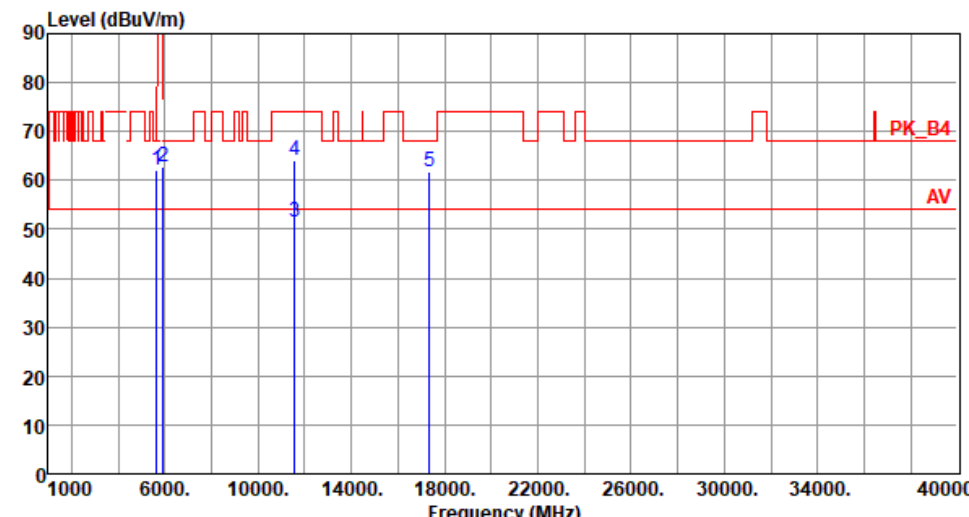
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	64.01	68.20	-4.19	56.62	7.39	Peak	198	120
2	5700.00	75.21	105.20	-29.99	67.71	7.50	Peak	198	120
3	5720.00	84.81	110.80	-25.99	77.19	7.62	Peak	198	120
4	5725.00	95.17	122.20	-27.03	87.51	7.66	Peak	198	120
5	5925.00	64.27	68.20	-3.93	56.20	8.07	Peak	198	120
6	11490.00	52.99	54.00	-1.01	36.23	16.76	Average	150	266
7	11490.00	65.62	74.00	-8.38	48.86	16.76	Peak	150	266
8	17235.00	61.53	68.20	-6.67	42.89	18.64	Peak	100	255

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

*Factor includes antenna factor , cable loss and amplifier gain

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

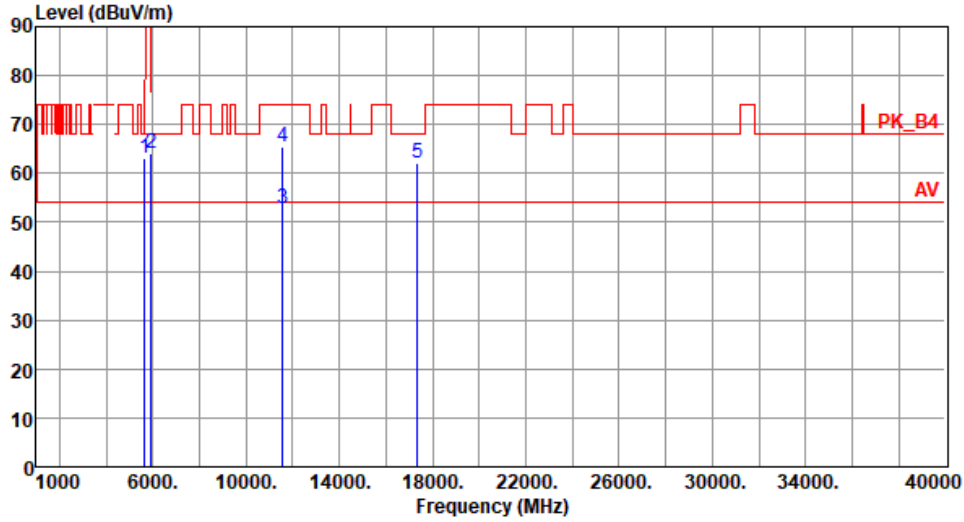
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	61.97	68.20	-6.23	54.58	7.39	Peak	187	44
2	5925.00	62.71	68.20	-5.49	54.64	8.07	Peak	187	44
3	11570.00	51.39	54.00	-2.61	34.78	16.61	Average	102	30
4	11570.00	64.10	74.00	-9.90	47.49	16.61	Peak	102	30
5	17355.00	61.78	68.20	-6.42	42.55	19.23	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).

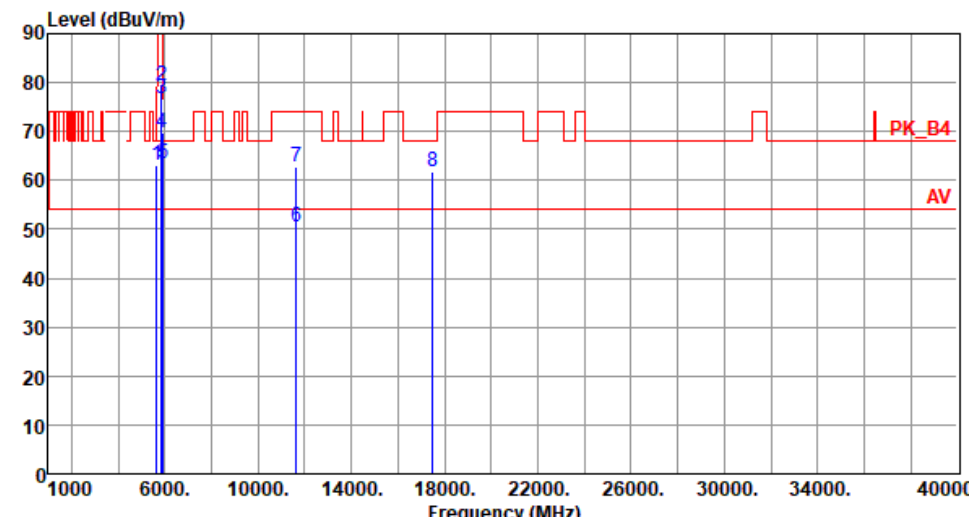
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	63.08	68.20	-5.12	55.69	7.39	Peak	188	123
2	5925.00	63.96	68.20	-4.24	55.89	8.07	Peak	188	123
3	11570.00	52.76	54.00	-1.24	36.15	16.61	Average	155	264
4	11570.00	65.31	74.00	-8.69	48.70	16.61	Peak	155	264
5	17355.00	62.07	68.20	-6.13	42.84	19.23	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).

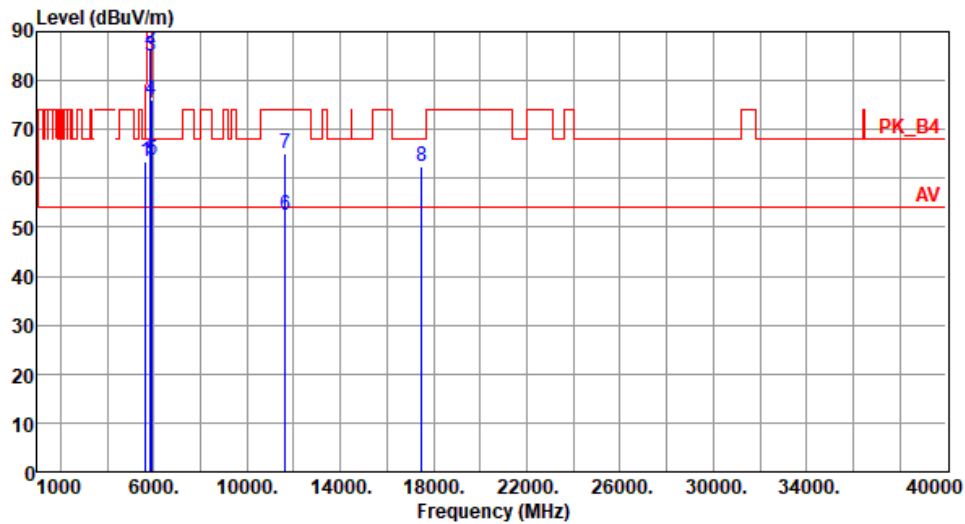
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	63.26	68.20	-4.94	55.87	7.39	Peak	183	46
2	5850.00	79.24	122.20	-42.96	71.22	8.02	Peak	183	46
3	5855.00	76.60	110.80	-34.20	68.58	8.02	Peak	183	46
4	5875.00	69.60	105.20	-35.60	61.57	8.03	Peak	183	46
5	5925.00	63.52	68.20	-4.68	55.45	8.07	Peak	183	46
6	11650.00	50.63	54.00	-3.37	34.25	16.38	Average	100	29
7	11650.00	62.64	74.00	-11.36	46.26	16.38	Peak	100	29
8	17475.00	61.90	68.20	-6.30	42.16	19.74	Peak	100	39

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

Modulation	11a	Test Freq. (MHz)	5825
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	63.58	68.20	-4.62	56.19	7.39	Peak	182	117
2	5850.00	86.54	122.20	-35.66	78.52	8.02	Peak	182	117
3	5855.00	84.91	110.80	-25.89	76.89	8.02	Peak	182	117
4	5875.00	76.18	105.20	-29.02	68.15	8.03	Peak	182	117
5	5925.00	63.72	68.20	-4.48	55.65	8.07	Peak	182	117
6	11650.00	52.60	54.00	-1.40	36.22	16.38	Average	154	266
7	11650.00	65.23	74.00	-8.77	48.85	16.38	Peak	154	266
8	17475.00	62.36	68.20	-5.84	42.62	19.74	Peak	100	249

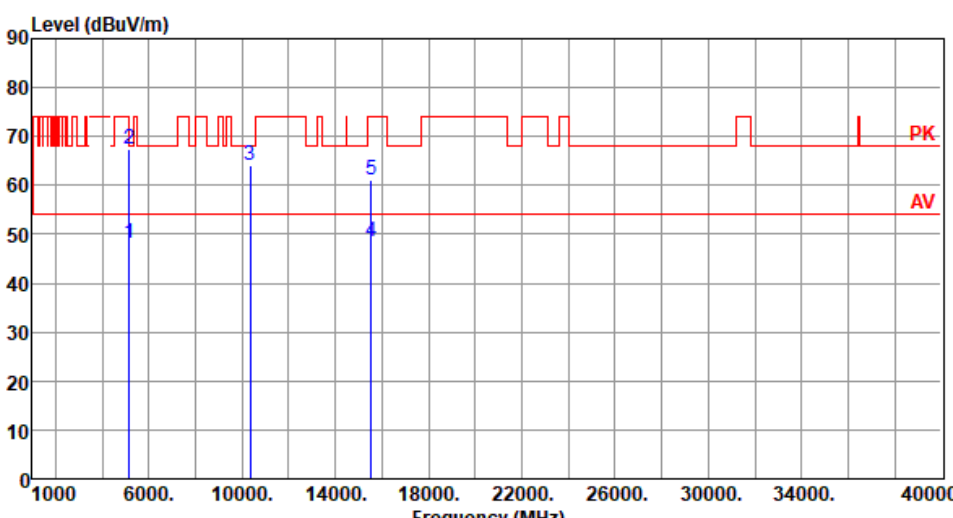
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

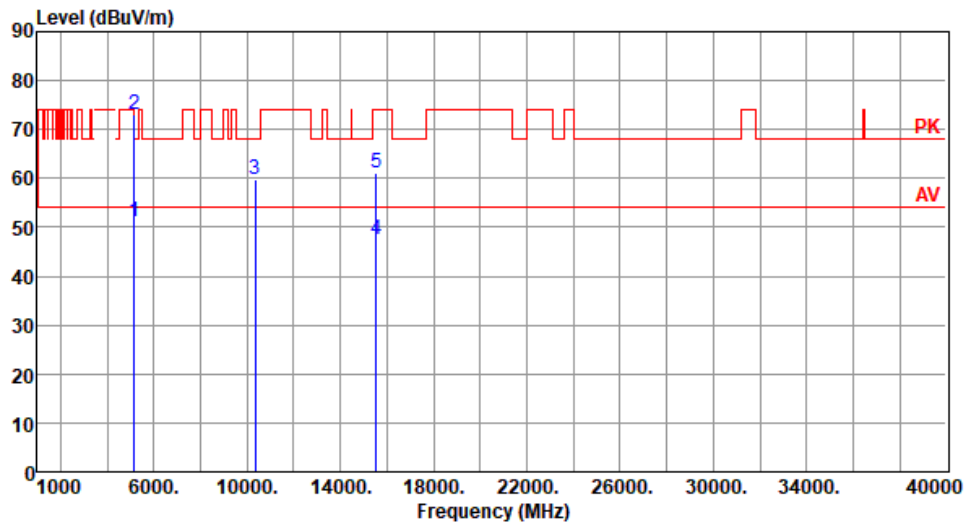
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal	Test Configuration	1



	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	48.19	54.00	-5.81	40.87	7.32	Average	199	68
2	5150.00	67.57	74.00	-6.43	60.25	7.32	Peak	199	68
3	10360.00	63.94	68.20	-4.26	47.85	16.09	Peak	174	132
4	15540.00	48.39	54.00	-5.61	31.02	17.37	Average	100	136
5	15540.00	61.22	74.00	-12.78	43.85	17.37	Peak	100	136

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

Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Vertical	Test Configuration	1



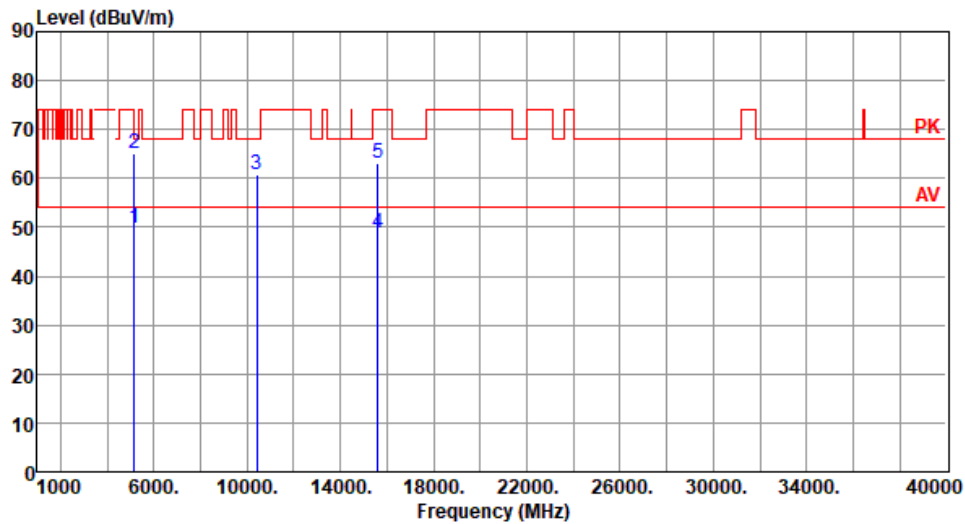
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.10	54.00	-2.90	43.78	7.32	Average	195	126
2	5150.00	72.92	74.00	-1.08	65.60	7.32	Peak	195	126
3	10360.00	59.67	68.20	-8.53	43.58	16.09	Peak	100	143
4	15540.00	47.48	54.00	-6.52	30.11	17.37	Average	100	147
5	15540.00	61.00	74.00	-13.00	43.63	17.37	Peak	100	147

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal	Test Configuration	1



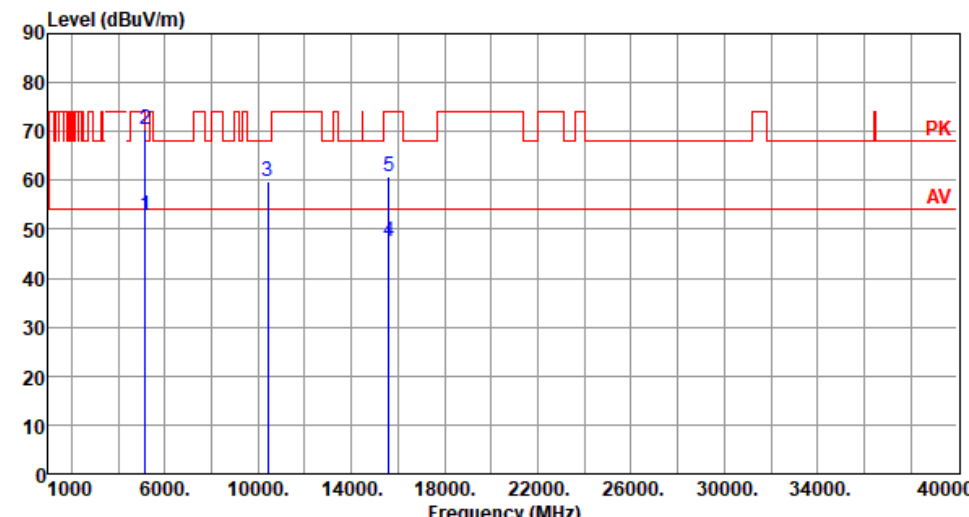
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.83	54.00	-4.17	42.51	7.32	Average	208	64
2	5150.00	65.00	74.00	-9.00	57.68	7.32	Peak	208	64
3	10400.00	60.81	68.20	-7.39	44.53	16.28	Peak	176	145
4	15600.00	48.72	54.00	-5.28	31.45	17.27	Average	110	62
5	15600.00	63.25	74.00	-10.75	45.98	17.27	Peak	110	62

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

*Factor includes antenna factor , cable loss and amplifier gain

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

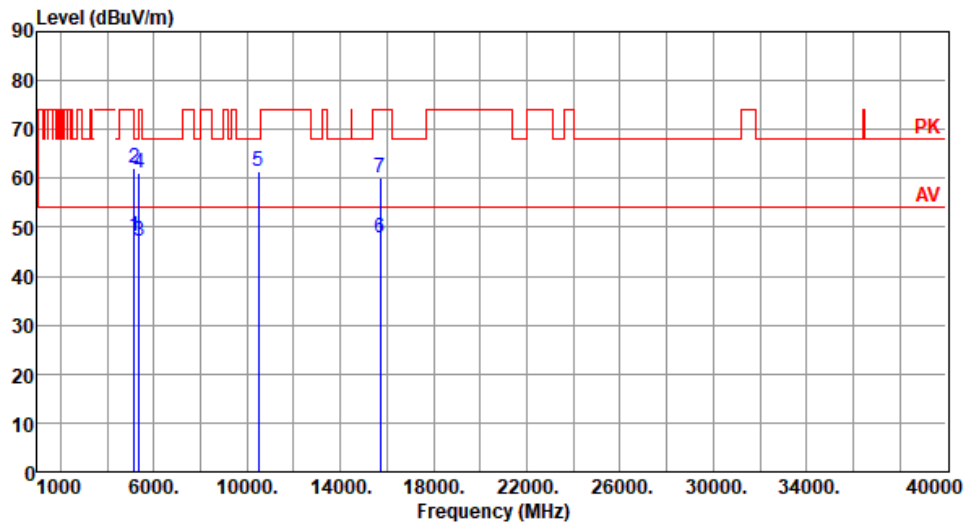
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.84	54.00	-1.16	45.52	7.32	Average	198	129
2	5150.00	70.56	74.00	-3.44	63.24	7.32	Peak	198	129
3	10400.00	59.86	68.20	-8.34	43.58	16.28	Peak	100	142
4	15600.00	47.52	54.00	-6.48	30.25	17.27	Average	100	148
5	15600.00	60.90	74.00	-13.10	43.63	17.27	Peak	100	148

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

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal	Test Configuration	1



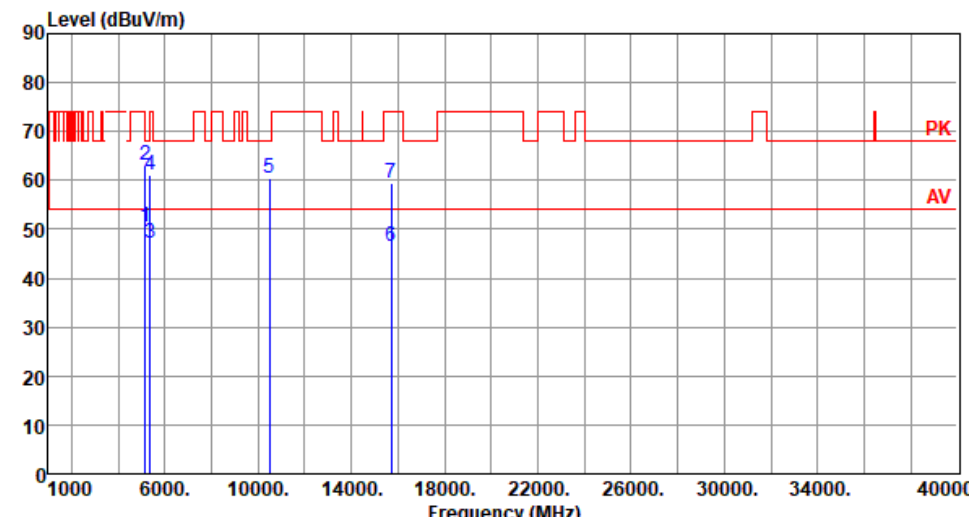
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.00	54.00	-6.00	40.68	7.32	Average	195	62
2	5150.00	61.94	74.00	-12.06	54.62	7.32	Peak	195	62
3	5350.00	47.13	54.00	-6.87	40.28	6.85	Average	195	62
4	5350.00	61.02	74.00	-12.98	54.17	6.85	Peak	195	62
5	10480.00	61.50	68.20	-6.70	45.09	16.41	Peak	201	125
6	15720.00	47.83	54.00	-6.17	31.23	16.60	Average	100	40
7	15720.00	60.16	74.00	-13.84	43.56	16.60	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).

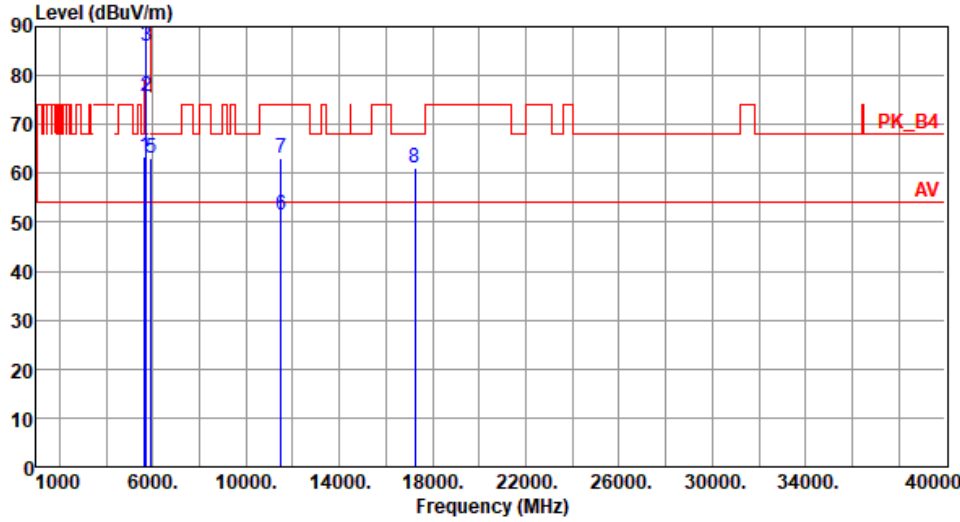
Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	50.41	54.00	-3.59	43.09	7.32	Average	213	123
2	5150.00	62.99	74.00	-11.01	55.67	7.32	Peak	213	123
3	5350.00	47.10	54.00	-6.90	40.25	6.85	Average	213	123
4	5350.00	61.07	74.00	-12.93	54.22	6.85	Peak	213	123
5	10480.00	60.29	68.20	-7.91	43.88	16.41	Peak	100	145
6	15720.00	46.62	54.00	-7.38	30.02	16.60	Average	100	141
7	15720.00	59.47	74.00	-14.53	42.87	16.60	Peak	100	141

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

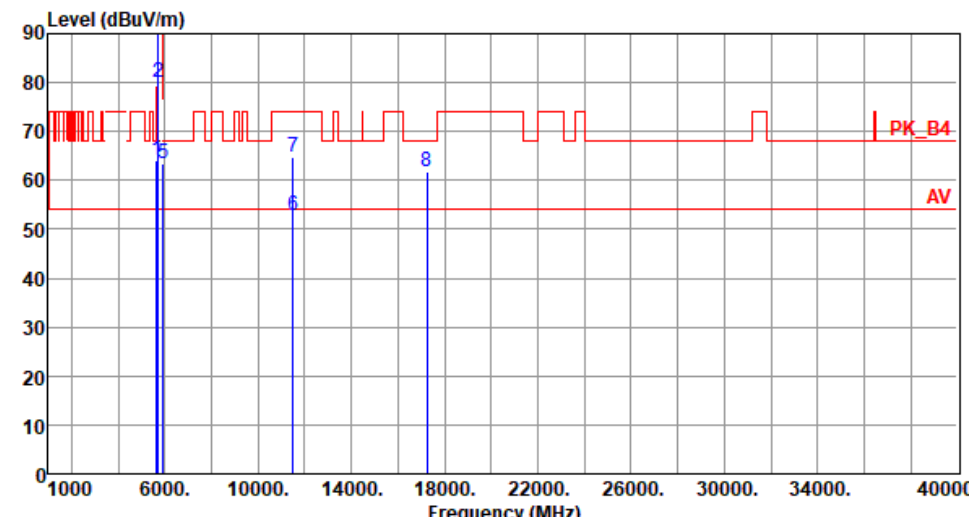
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	63.50	68.20	-4.70	56.11	7.39	Peak	187	49
2	5700.00	75.75	105.20	-29.45	68.25	7.50	Peak	187	49
3	5720.00	85.87	110.80	-24.93	78.25	7.62	Peak	187	49
4	5725.00	90.23	122.20	-31.97	82.57	7.66	Peak	187	49
5	5925.00	63.19	68.20	-5.01	55.12	8.07	Peak	187	49
6	11490.00	51.35	54.00	-2.65	34.59	16.76	Average	100	25
7	11490.00	63.27	74.00	-10.73	46.51	16.76	Peak	100	25
8	17235.00	61.04	68.20	-7.16	42.40	18.64	Peak	100	31

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

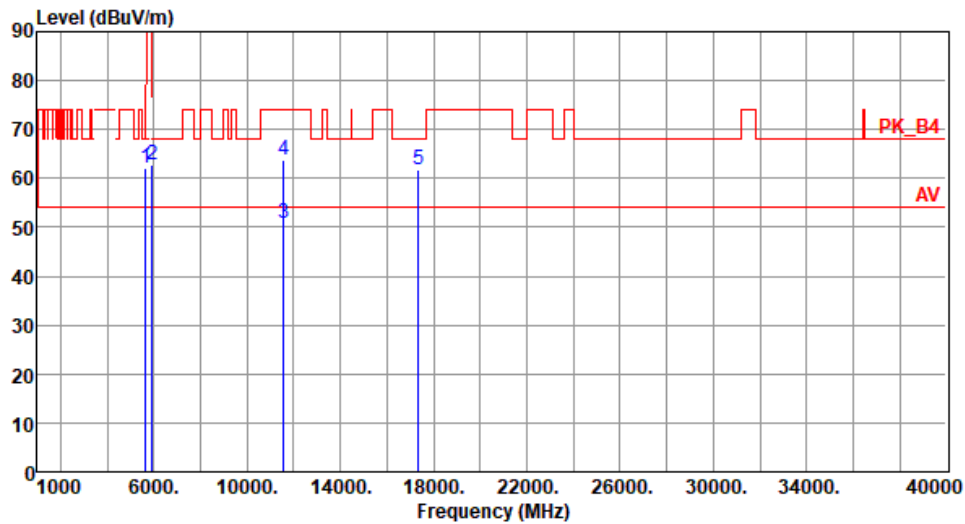
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	64.06	68.20	-4.14	56.67	7.39	Peak	190	96
2	5700.00	79.98	105.20	-25.22	72.48	7.50	Peak	190	96
3	5720.00	89.11	110.80	-21.69	81.49	7.62	Peak	190	96
4	5725.00	93.89	122.20	-28.31	86.23	7.66	Peak	190	96
5	5925.00	63.34	68.20	-4.86	55.27	8.07	Peak	190	96
6	11490.00	52.65	54.00	-1.35	35.89	16.76	Average	159	248
7	11490.00	64.62	74.00	-9.38	47.86	16.76	Peak	159	248
8	17235.00	61.61	68.20	-6.59	42.97	18.64	Peak	100	253

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

Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Horizontal	Test Configuration	1



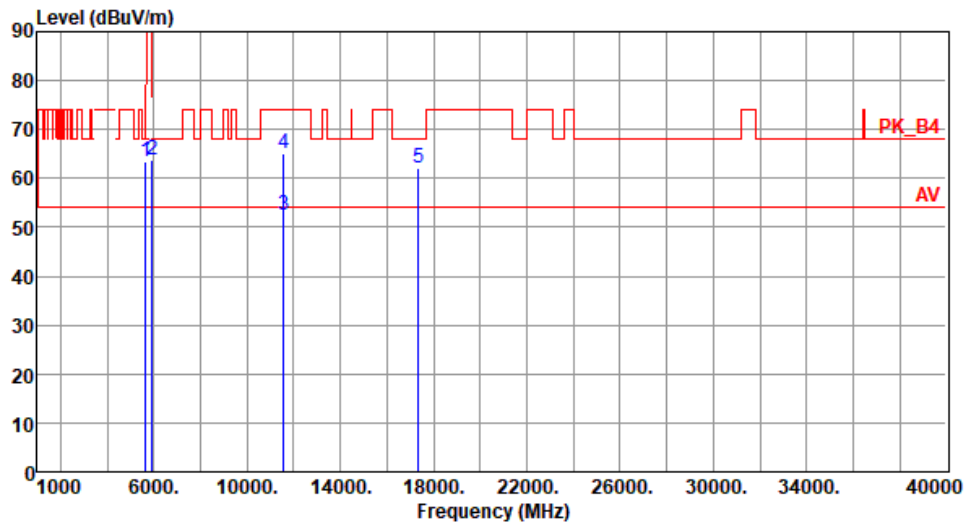
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	62.08	68.20	-6.12	54.69	7.39	Peak	184	47
2	5925.00	62.74	68.20	-5.46	54.67	8.07	Peak	184	47
3	11570.00	50.75	54.00	-3.25	34.14	16.61	Average	100	26
4	11570.00	63.86	74.00	-10.14	47.25	16.61	Peak	102	26
5	17355.00	61.63	68.20	-6.57	42.40	19.23	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)	5785
Polarization	Vertical	Test Configuration	1



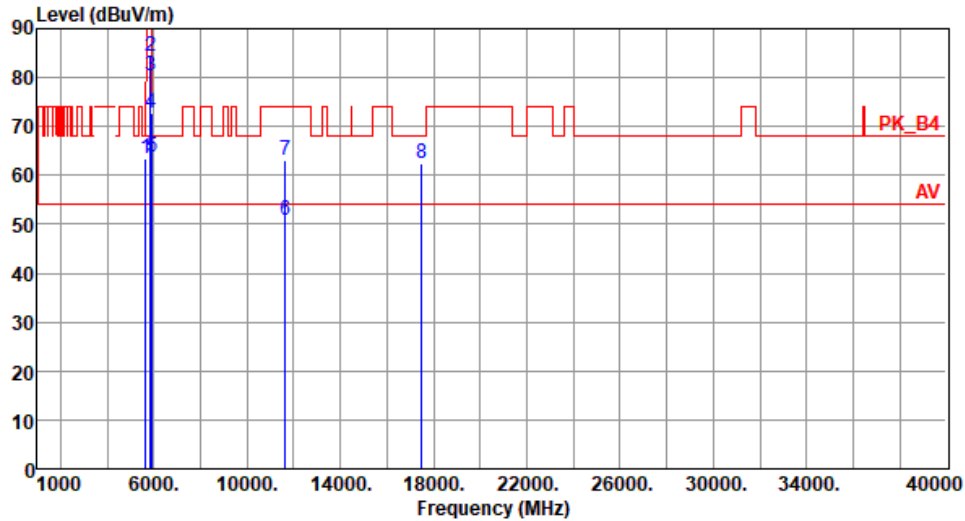
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	63.38	68.20	-4.82	55.99	7.39	Peak	189	122
2	5925.00	63.82	68.20	-4.38	55.75	8.07	Peak	189	122
3	11570.00	52.63	54.00	-1.37	36.02	16.61	Average	154	261
4	11570.00	65.13	74.00	-8.87	48.52	16.61	Peak	154	261
5	17355.00	62.07	68.20	-6.13	42.84	19.23	Peak	100	250

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal	Test Configuration	1



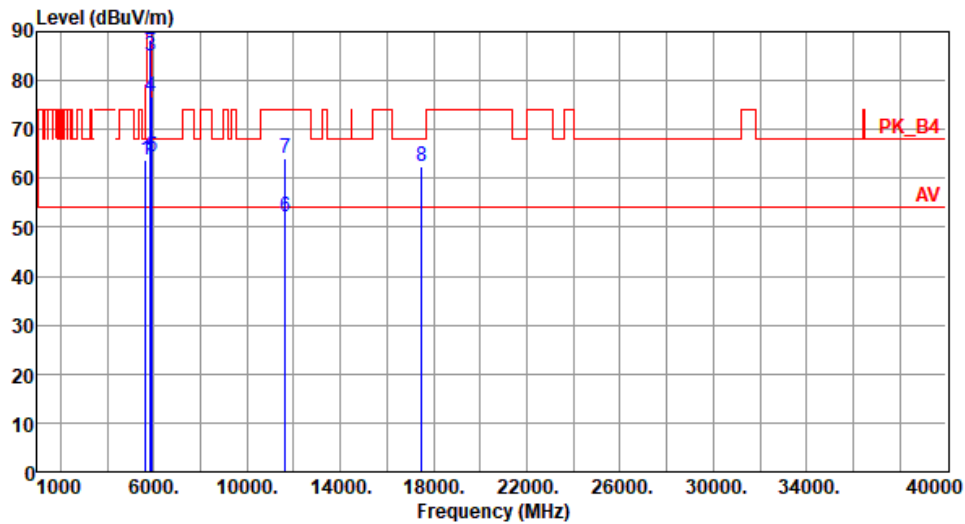
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	63.53	68.20	-4.67	56.14	7.39	Peak	178	45
2	5850.00	84.27	122.20	-37.93	76.25	8.02	Peak	178	45
3	5855.00	80.27	110.80	-30.53	72.25	8.02	Peak	178	45
4	5875.00	72.60	105.20	-32.60	64.57	8.03	Peak	178	45
5	5925.00	63.64	68.20	-4.56	55.57	8.07	Peak	178	45
6	11650.00	50.96	54.00	-3.04	34.58	16.38	Average	100	26
7	11650.00	62.96	74.00	-11.04	46.58	16.38	Peak	100	26
8	17475.00	62.31	68.20	-5.89	42.57	19.74	Peak	100	29

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	63.73	68.20	-4.47	56.34	7.39	Peak	166	101
2	5850.00	88.28	122.20	-33.92	80.26	8.02	Peak	166	101
3	5855.00	85.18	110.80	-25.62	77.16	8.02	Peak	166	101
4	5875.00	76.59	105.20	-28.61	68.56	8.03	Peak	166	101
5	5925.00	64.56	68.20	-3.64	56.49	8.07	Peak	166	101
6	11650.00	52.23	54.00	-1.77	35.85	16.38	Average	157	264
7	11650.00	64.23	74.00	-9.77	47.85	16.38	Peak	157	264
8	17475.00	62.58	68.20	-5.62	42.84	19.74	Peak	100	259

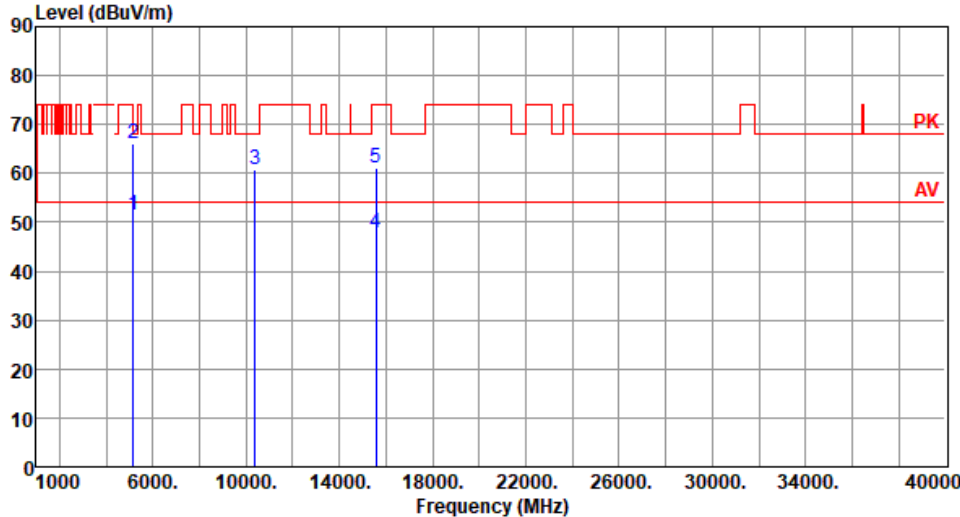
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

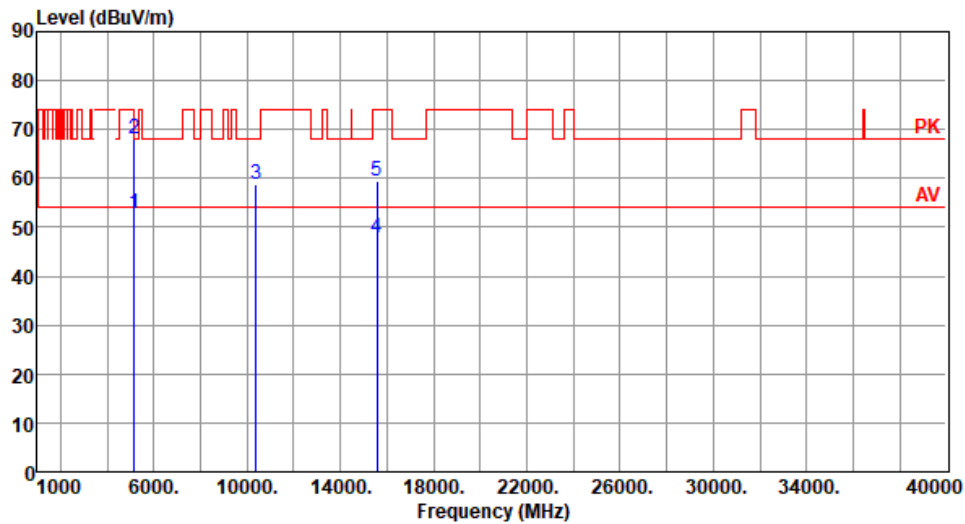
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.52	54.00	-2.48	44.20	7.32	Average	194	2
2	5150.00	66.11	74.00	-7.89	58.79	7.32	Peak	194	2
3	10380.00	60.77	68.20	-7.43	44.59	16.18	Peak	174	138
4	15570.00	47.83	54.00	-6.17	30.51	17.32	Average	100	141
5	15570.00	60.98	74.00	-13.02	43.66	17.32	Peak	100	141

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

Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Vertical	Test Configuration	1



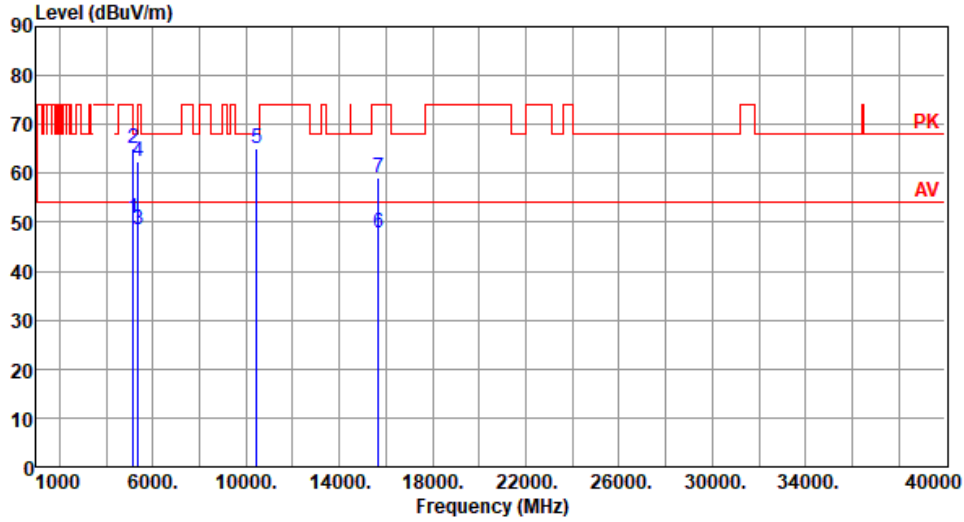
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.75	54.00	-1.25	45.43	7.32	Average	225	104
2	5150.00	67.94	74.00	-6.06	60.62	7.32	Peak	225	104
3	10380.00	58.73	68.20	-9.47	42.55	16.18	Peak	100	147
4	15570.00	47.95	54.00	-6.05	30.63	17.32	Average	100	148
5	15570.00	59.47	74.00	-14.53	42.15	17.32	Peak	100	148

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

*Factor includes antenna factor , cable loss and amplifier gain

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

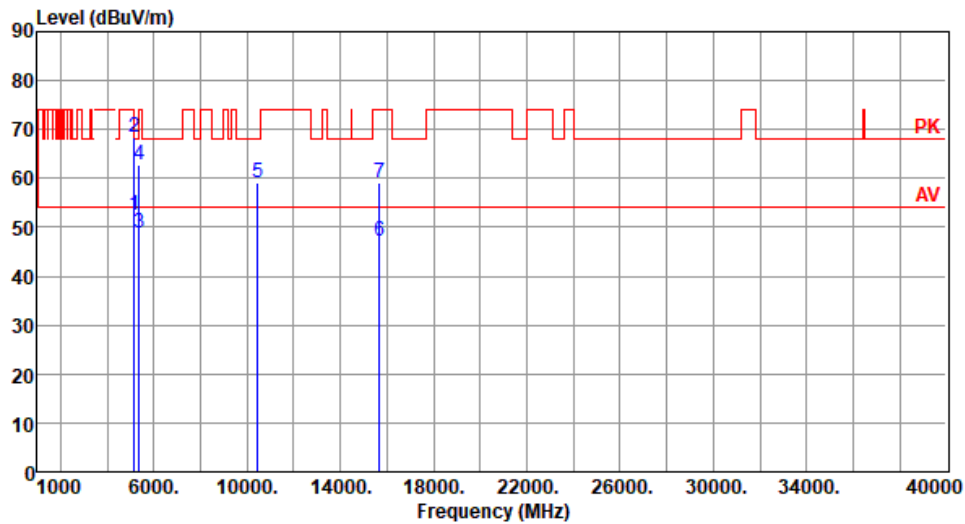
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	50.76	54.00	-3.24	43.44	7.32	Average	200	65
2	5150.00	65.17	74.00	-8.83	57.85	7.32	Peak	200	65
3	5350.00	48.43	54.00	-5.57	41.58	6.85	Average	200	65
4	5350.00	62.54	74.00	-11.46	55.69	6.85	Peak	200	65
5	10460.00	64.96	68.20	-3.24	48.59	16.37	Peak	177	132
6	15690.00	47.88	54.00	-6.12	31.20	16.68	Average	100	139
7	15690.00	59.26	74.00	-14.74	42.58	16.68	Peak	100	139

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

Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Vertical	Test Configuration	1



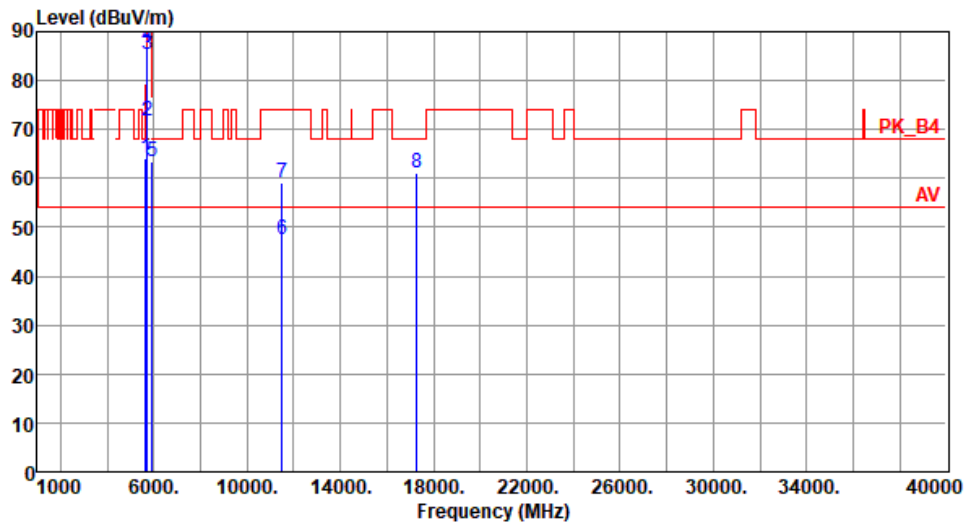
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.58	54.00	-1.42	45.26	7.32	Average	248	106
2	5150.00	68.53	74.00	-5.47	61.21	7.32	Peak	248	106
3	5350.00	48.84	54.00	-5.16	41.99	6.85	Average	248	106
4	5350.00	62.73	74.00	-11.27	55.88	6.85	Peak	248	106
5	10460.00	58.98	68.20	-9.22	42.61	16.37	Peak	100	147
6	15690.00	47.31	54.00	-6.69	30.63	16.68	Average	100	142
7	15690.00	59.22	74.00	-14.78	42.54	16.68	Peak	100	142

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal	Test Configuration	1



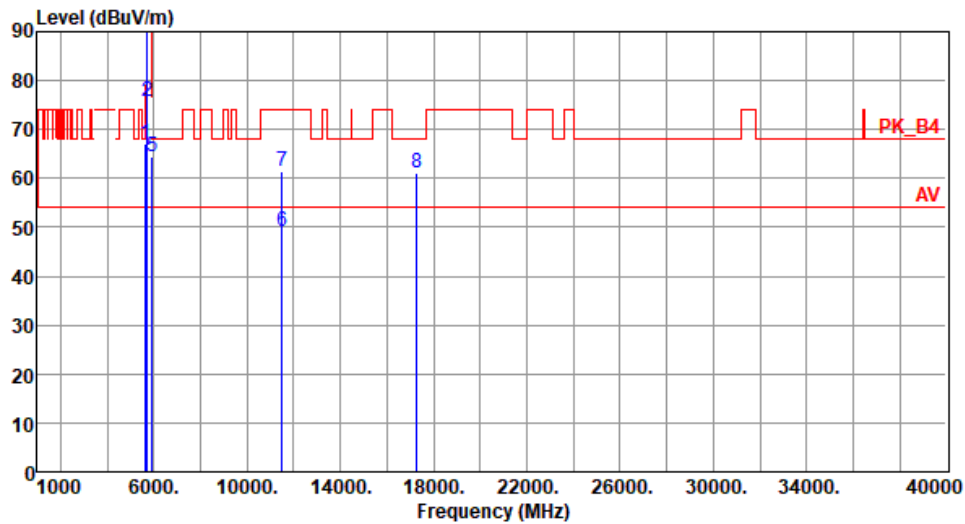
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	64.24	68.20	-3.96	56.85	7.39	Peak	177	48
2	5700.00	71.72	105.20	-33.48	64.22	7.50	Peak	177	48
3	5720.00	85.20	110.80	-25.60	77.58	7.62	Peak	177	48
4	5725.00	86.86	122.20	-35.34	79.20	7.66	Peak	177	48
5	5925.00	63.29	68.20	-4.91	55.22	8.07	Peak	178	45
6	11510.00	47.33	54.00	-6.67	30.58	16.75	Average	100	25
7	11510.00	59.05	74.00	-14.95	42.30	16.75	Peak	100	25
8	17265.00	61.19	68.20	-7.01	42.38	18.81	Peak	100	31

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical	Test Configuration	1



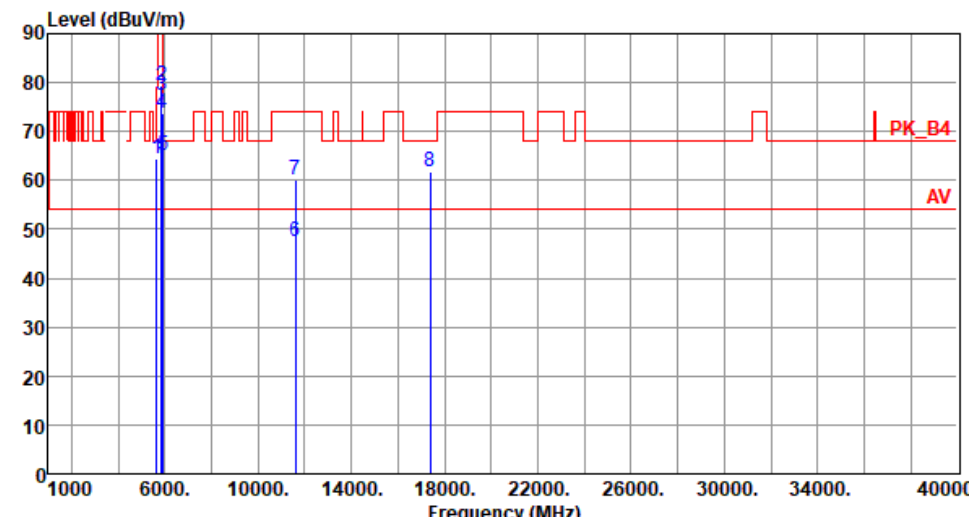
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	66.99	68.20	-1.21	59.60	7.39	Peak	182	265
2	5700.00	75.68	105.20	-29.52	68.18	7.50	Peak	185	98
3	5720.00	89.58	110.80	-21.22	81.96	7.62	Peak	185	98
4	5725.00	90.67	122.20	-31.53	83.01	7.66	Peak	185	98
5	5925.00	64.32	68.20	-3.88	56.25	8.07	Peak	185	98
6	11510.00	49.00	54.00	-5.00	32.25	16.75	Average	154	266
7	11510.00	61.60	74.00	-12.40	44.85	16.75	Peak	154	266
8	17265.00	61.03	68.20	-7.17	42.22	18.81	Peak	100	256

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

*Factor includes antenna factor , cable loss and amplifier gain

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

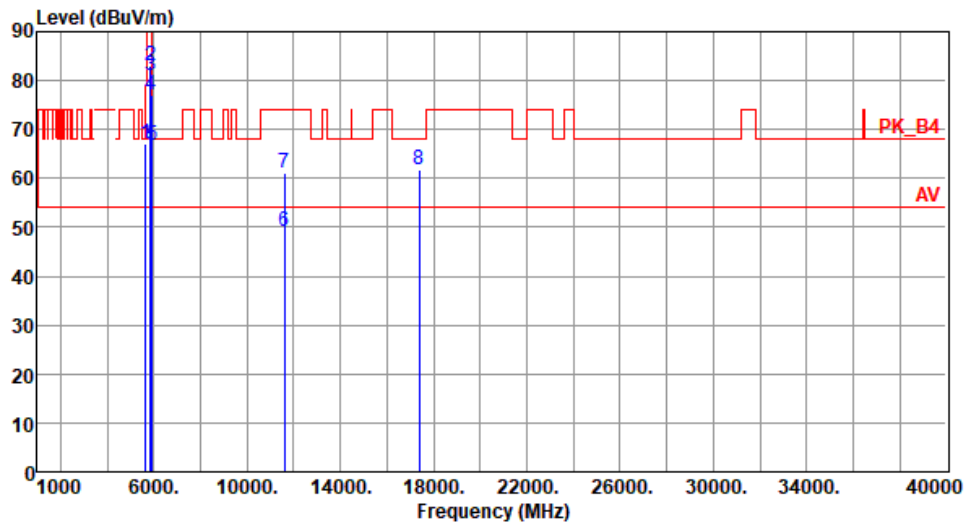
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	64.32	68.20	-3.88	56.93	7.39	Peak	172	49
2	5850.00	79.22	122.20	-42.98	71.20	8.02	Peak	172	49
3	5855.00	77.27	110.80	-33.53	69.25	8.02	Peak	172	49
4	5875.00	73.65	105.20	-31.55	65.62	8.03	Peak	172	49
5	5925.00	64.97	68.20	-3.23	56.90	8.07	Peak	172	49
6	11590.00	47.40	54.00	-6.60	30.83	16.57	Average	100	28
7	11590.00	60.14	74.00	-13.86	43.57	16.57	Peak	100	28
8	17385.00	61.82	68.20	-6.38	42.47	19.35	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)	5795
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	67.11	68.20	-1.09	59.72	7.39	Peak	185	313
2	5850.00	83.11	122.20	-39.09	75.09	8.02	Peak	179	99
3	5855.00	81.15	110.80	-29.65	73.13	8.02	Peak	179	99
4	5875.00	77.17	105.20	-28.03	69.14	8.03	Peak	179	99
5	5925.00	66.90	68.20	-1.30	58.83	8.07	Peak	185	131
6	11590.00	49.08	54.00	-4.92	32.51	16.57	Average	157	269
7	11590.00	61.14	74.00	-12.86	44.57	16.57	Peak	157	269
8	17385.00	61.87	68.20	-6.33	42.52	19.35	Peak	100	266

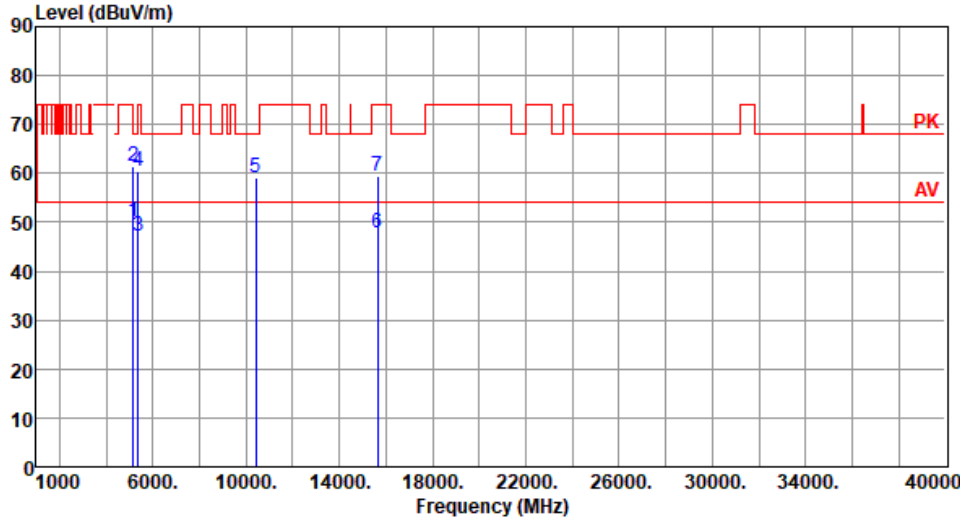
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

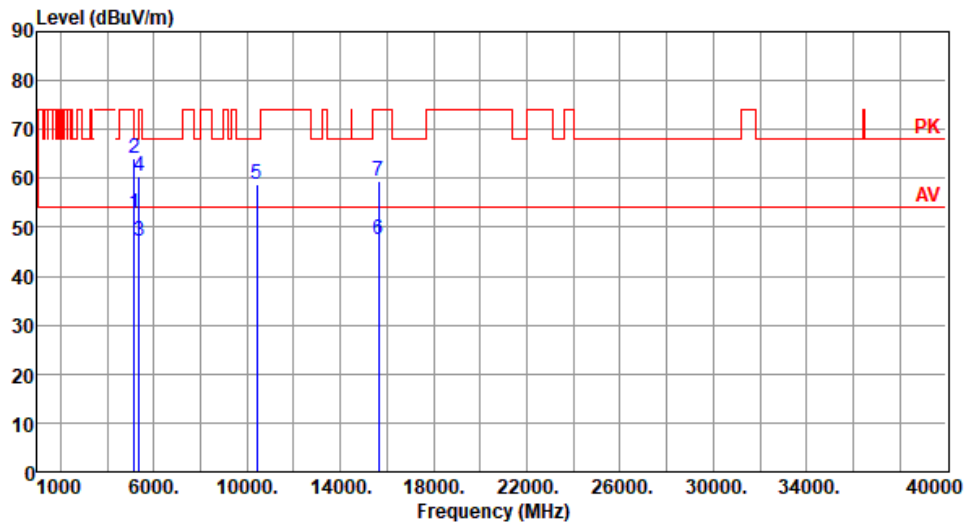
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.99	54.00	-4.01	42.67	7.32	Average	204	62
2	5150.00	61.58	74.00	-12.42	54.26	7.32	Peak	204	62
3	5350.00	47.00	54.00	-7.00	40.15	6.85	Average	204	62
4	5350.00	60.32	74.00	-13.68	53.47	6.85	Peak	204	62
5	10420.00	59.16	68.20	-9.04	42.85	16.31	Peak	100	136
6	15630.00	47.73	54.00	-6.27	30.65	17.08	Average	100	133
7	15630.00	59.31	74.00	-14.69	42.23	17.08	Peak	100	133

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

Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical	Test Configuration	1



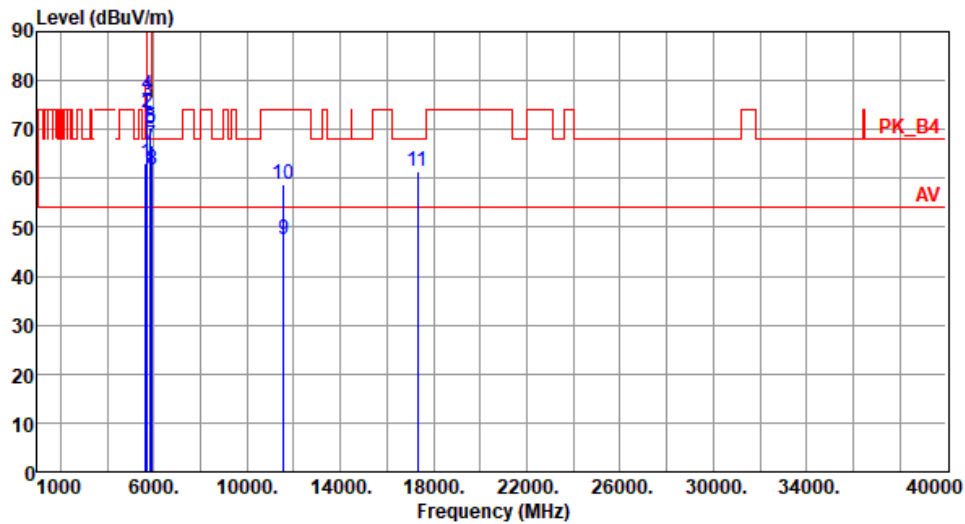
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.78	54.00	-1.22	45.46	7.32	Average	224	105
2	5150.00	64.18	74.00	-9.82	56.86	7.32	Peak	224	105
3	5350.00	47.11	54.00	-6.89	40.26	6.85	Average	224	105
4	5350.00	60.40	74.00	-13.60	53.55	6.85	Peak	224	105
5	10420.00	58.63	68.20	-9.57	42.32	16.31	Peak	100	149
6	15630.00	47.48	54.00	-6.52	30.40	17.08	Average	100	142
7	15630.00	59.32	74.00	-14.68	42.24	17.08	Peak	100	142

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal	Test Configuration	1



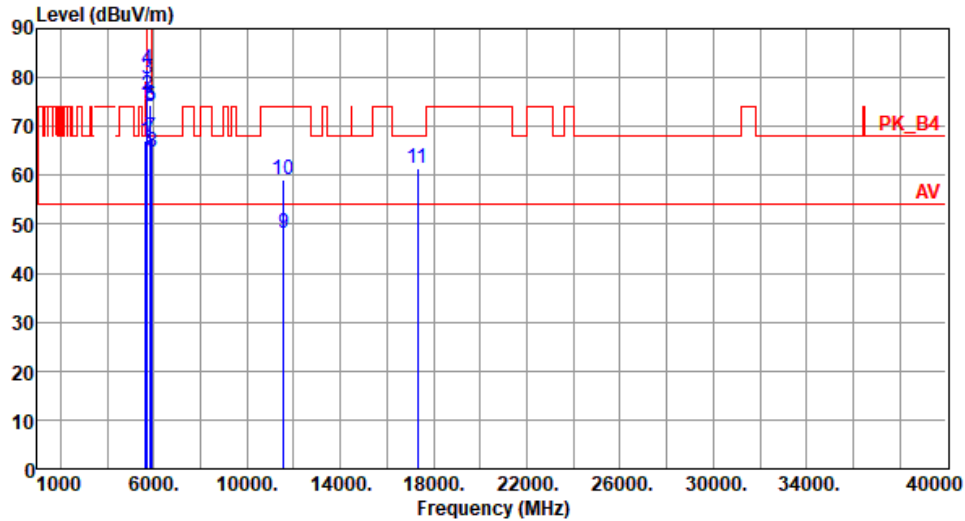
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	63.25	68.20	-4.95	55.86	7.39	Peak	185	43
2	5700.00	73.29	105.20	-31.91	65.79	7.50	Peak	185	43
3	5720.00	75.80	110.80	-35.00	68.18	7.62	Peak	185	43
4	5725.00	77.13	122.20	-45.07	69.47	7.66	Peak	185	43
5	5850.00	70.33	122.20	-51.87	62.31	8.02	Peak	185	43
6	5855.00	70.07	110.80	-40.73	62.05	8.02	Peak	185	43
7	5875.00	66.67	105.20	-38.53	58.64	8.03	Peak	185	43
8	5925.00	61.74	68.20	-6.46	53.67	8.07	Peak	185	43
9	11550.00	47.50	54.00	-6.50	30.84	16.66	Average	100	29
10	11550.00	58.91	74.00	-15.09	42.25	16.66	Peak	100	29
11	17325.00	61.44	68.20	-6.76	42.35	19.09	Peak	100	32

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	66.97	68.20	-1.23	59.58	7.39	Peak	198	98
2	5700.00	76.48	105.20	-28.72	68.98	7.50	Peak	198	98
3	5720.00	79.67	110.80	-31.13	72.05	7.62	Peak	198	98
4	5725.00	81.63	122.20	-40.57	73.97	7.66	Peak	198	98
5	5850.00	74.07	122.20	-48.13	66.05	8.02	Peak	198	98
6	5855.00	74.41	110.80	-36.39	66.39	8.02	Peak	198	98
7	5875.00	67.63	105.20	-37.57	59.60	8.03	Peak	198	98
8	5925.00	64.80	68.20	-3.40	56.73	8.07	Peak	198	98
9	11550.00	48.21	54.00	-5.79	31.55	16.66	Average	100	255
10	11550.00	59.02	74.00	-14.98	42.36	16.66	Peak	100	255
11	17325.00	61.53	68.20	-6.67	42.44	19.09	Peak	100	251

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

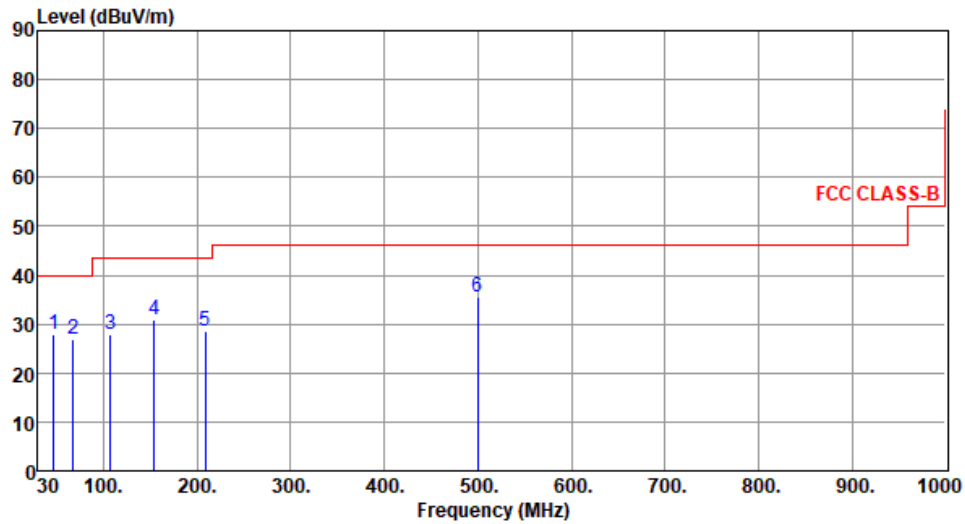
*Factor includes antenna factor , cable loss and amplifier gain

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

Beamforming mode

3.5.9 Transmitter Radiated Unwanted Emissions (Below 1GHz)

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	46.49	27.92	40.00	-12.08	36.52	-8.60	Peak	---	---
2	67.83	26.85	40.00	-13.15	37.14	-10.29	Peak	---	---
3	107.60	28.06	43.50	-15.44	40.44	-12.38	Peak	---	---
4	154.16	31.02	43.50	-12.48	39.63	-8.61	Peak	---	---
5	208.48	28.48	43.50	-15.02	40.53	-12.05	Peak	---	---
6	499.48	35.67	46.00	-10.33	38.72	-3.05	Peak	---	---

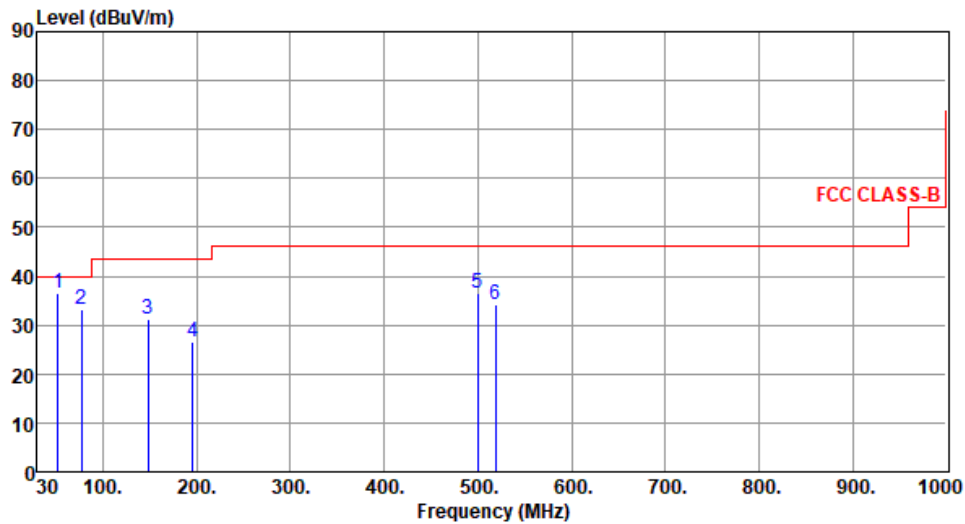
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	52.31	36.46	40.00	-3.54	45.16	-8.70	Peak	---	---
2	77.53	33.35	40.00	-6.65	46.21	-12.86	Peak	---	---
3	148.34	31.33	43.50	-12.17	40.08	-8.75	Peak	---	---
4	195.87	26.62	43.50	-16.88	38.41	-11.79	Peak	---	---
5	499.48	36.69	46.00	-9.31	39.74	-3.05	Peak	---	---
6	518.88	34.08	46.00	-11.92	36.67	-2.59	Peak	---	---

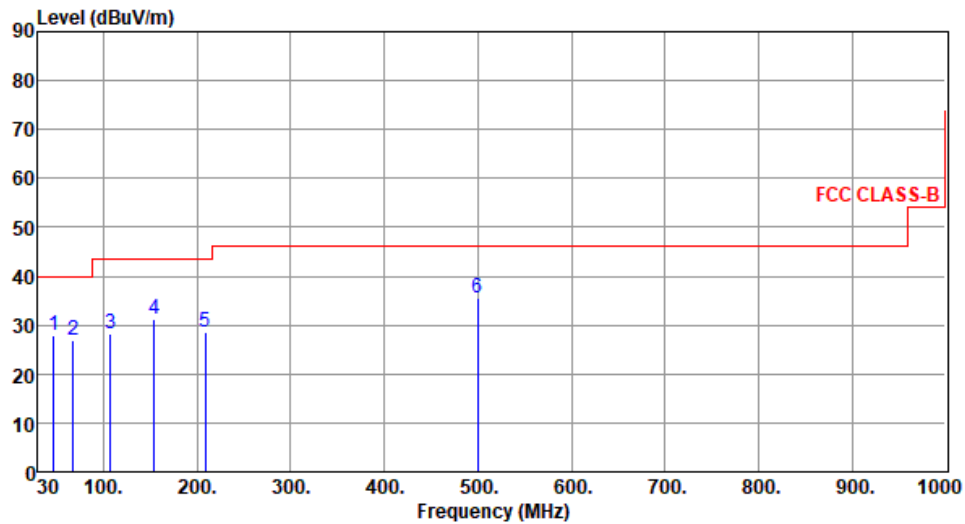
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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)	5795
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	46.53	27.88	40.00	-12.12	36.48	-8.60	Peak	---	---
2	67.74	26.79	40.00	-13.21	37.08	-10.29	Peak	---	---
3	107.55	28.21	43.50	-15.29	40.60	-12.39	Peak	---	---
4	154.21	31.23	43.50	-12.27	39.84	-8.61	Peak	---	---
5	208.55	28.54	43.50	-14.96	40.59	-12.05	Peak	---	---
6	499.59	35.53	46.00	-10.47	38.58	-3.05	Peak	---	---

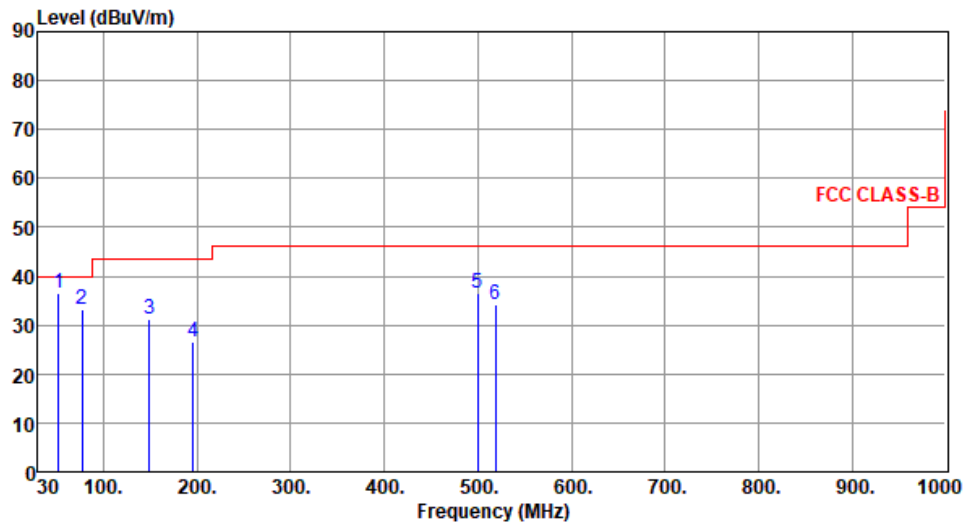
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*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)	5795
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	52.25	36.52	40.00	-3.48	45.23	-8.71	Peak	---	---
2	77.49	33.21	40.00	-6.79	46.07	-12.86	Peak	---	---
3	148.58	31.24	43.50	-12.26	39.99	-8.75	Peak	---	---
4	195.69	26.53	43.50	-16.97	38.32	-11.79	Peak	---	---
5	499.51	36.54	46.00	-9.46	39.59	-3.05	Peak	---	---
6	518.79	34.25	46.00	-11.75	36.84	-2.59	Peak	---	---

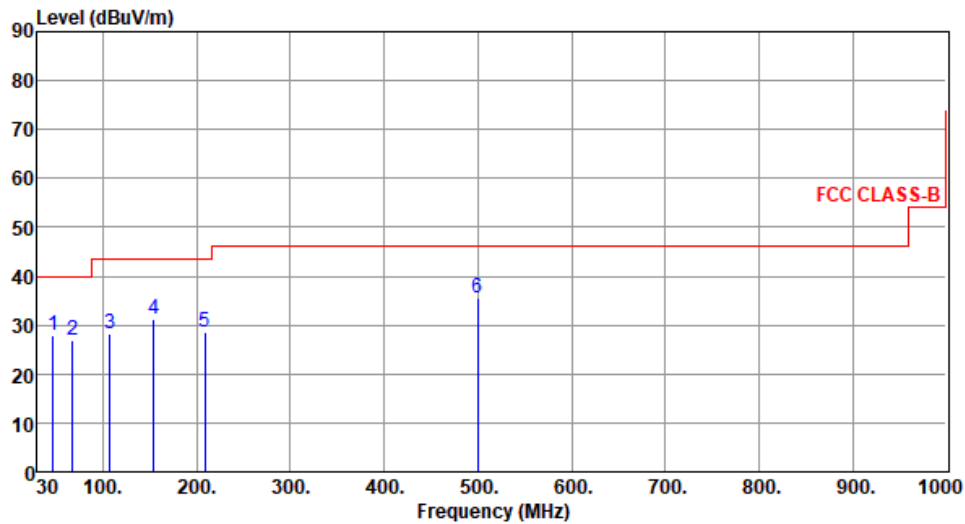
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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	VHT20	Test Freq. (MHz)	5240
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	46.53	27.86	40.00	-12.14	36.46	-8.60	Peak	---	---
2	67.79	26.75	40.00	-13.25	37.04	-10.29	Peak	---	---
3	107.53	28.14	43.50	-15.36	40.53	-12.39	Peak	---	---
4	154.26	31.29	43.50	-12.21	39.89	-8.60	Peak	---	---
5	208.55	28.58	43.50	-14.92	40.63	-12.05	Peak	---	---
6	499.48	35.49	46.00	-10.51	38.54	-3.05	Peak	---	---

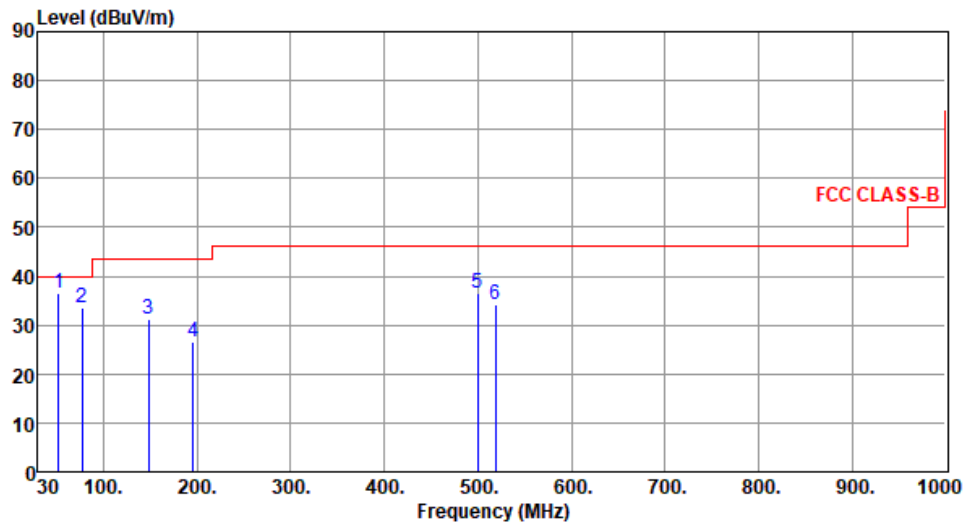
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

Modulation	VHT20	Test Freq. (MHz)	5240
Polarization	Vertical	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	52.22	36.37	40.00	-3.63	45.08	-8.71	Peak	---	---
2	77.49	33.48	40.00	-6.52	46.34	-12.86	Peak	---	---
3	148.42	31.21	43.50	-12.29	39.96	-8.75	Peak	---	---
4	195.69	26.58	43.50	-16.92	38.37	-11.79	Peak	---	---
5	499.51	36.67	46.00	-9.33	39.72	-3.05	Peak	---	---
6	518.79	34.28	46.00	-11.72	36.87	-2.59	Peak	---	---

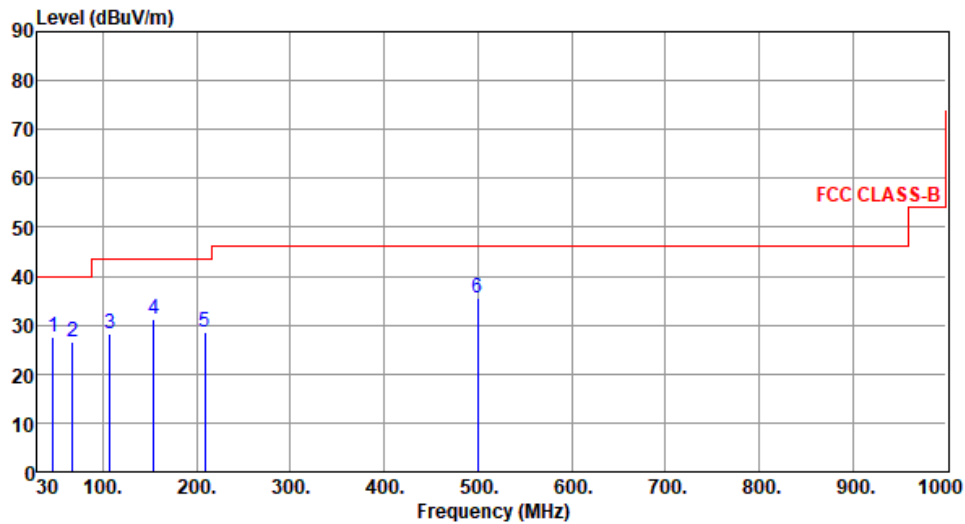
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*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)	5795
Polarization	Horizontal	Test Configuration	2



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	46.48	27.71	40.00	-12.29	36.31	-8.60	Peak	---	---
2	67.69	26.63	40.00	-13.37	36.92	-10.29	Peak	---	---
3	107.48	28.25	43.50	-15.25	40.64	-12.39	Peak	---	---
4	154.31	31.16	43.50	-12.34	39.76	-8.60	Peak	---	---
5	208.49	28.42	43.50	-15.08	40.47	-12.05	Peak	---	---
6	499.51	35.54	46.00	-10.46	38.59	-3.05	Peak	---	---

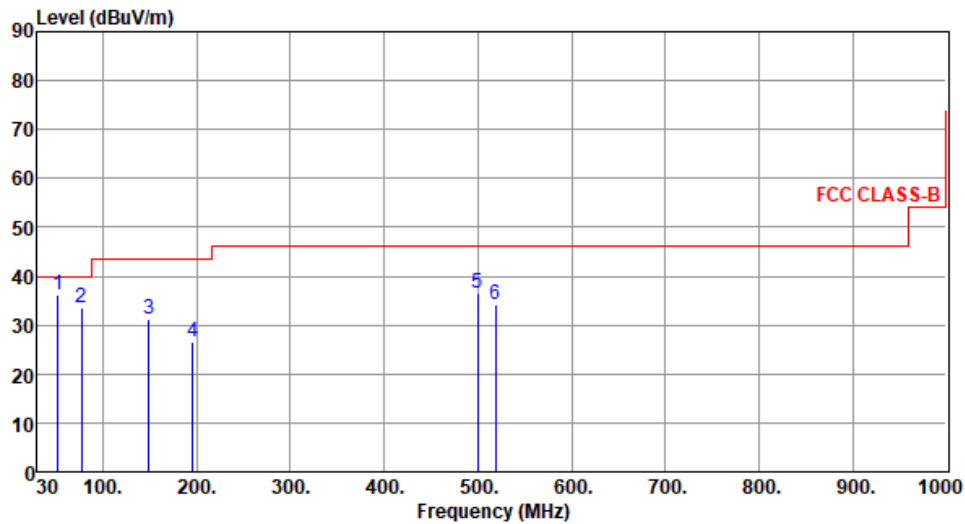
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*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)	5795
Polarization	Vertical	Test Configuration	2



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	52.31	36.34	40.00	-3.66	45.04	-8.70	Peak	---	---
2	77.51	33.52	40.00	-6.48	46.37	-12.85	Peak	---	---
3	148.58	31.17	43.50	-12.33	39.92	-8.75	Peak	---	---
4	195.86	26.53	43.50	-16.97	38.32	-11.79	Peak	---	---
5	499.51	36.54	46.00	-9.46	39.59	-3.05	Peak	---	---
6	518.69	34.31	46.00	-11.69	36.91	-2.60	Peak	---	---

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

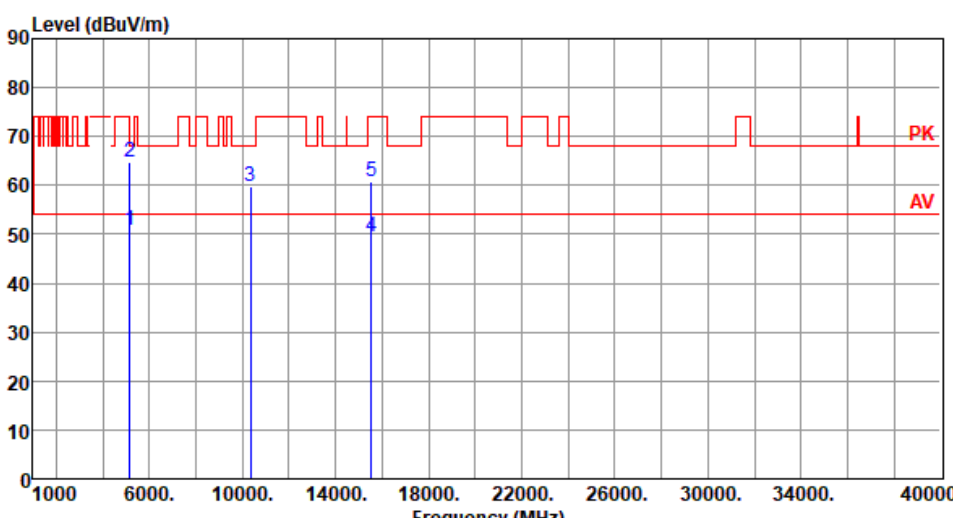
*Factor includes antenna factor , cable loss and amplifier gain

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

Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

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

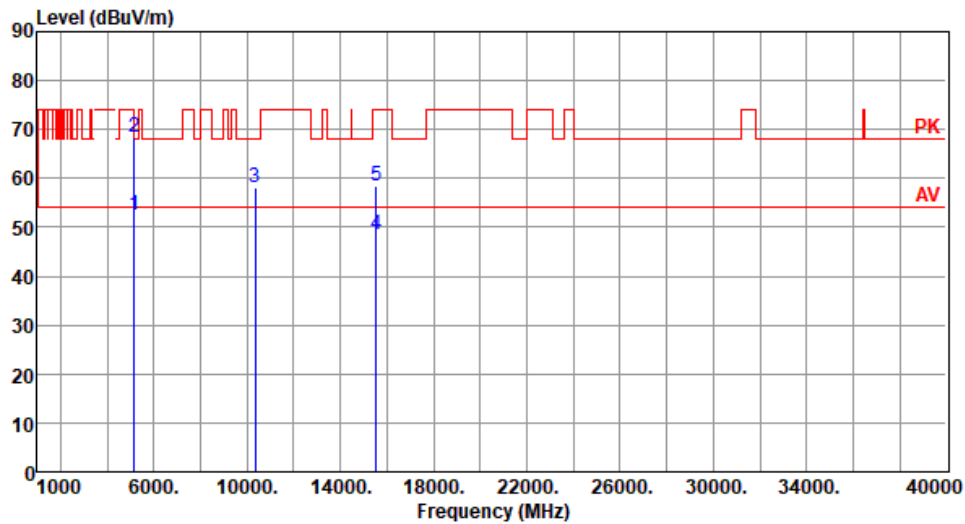
Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	50.84	54.00	-3.16	43.52	7.32	Average	200	26
2	5150.00	64.86	74.00	-9.14	57.54	7.32	Peak	200	26
3	10360.00	59.67	68.20	-8.53	43.58	16.09	Peak	100	105
4	15540.00	49.62	54.00	-4.38	32.25	17.37	Average	100	107
5	15540.00	60.62	74.00	-13.38	43.25	17.37	Peak	100	107

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

Modulation	VHT20	Test Freq. (MHz)	5180
Polarization	Vertical	Test Configuration	1



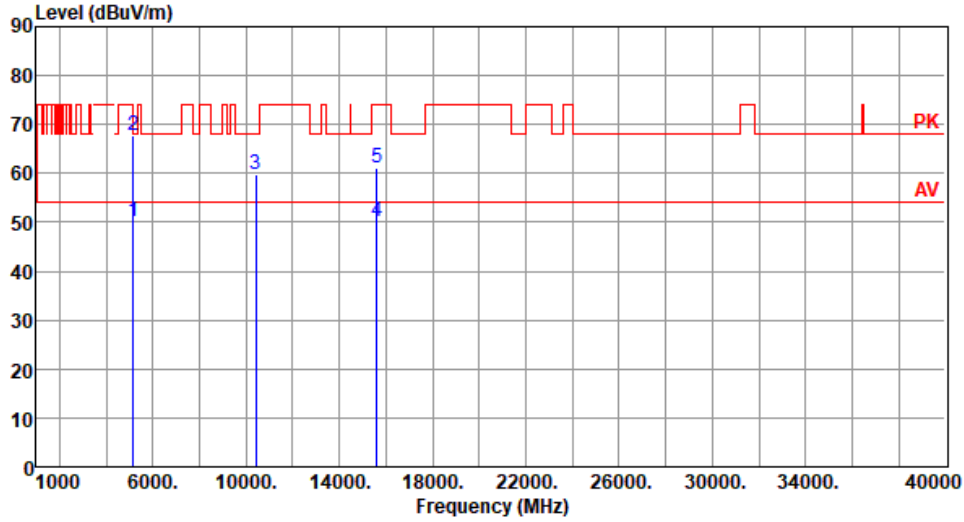
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.47	54.00	-1.53	45.15	7.32	Average	196	111
2	5150.00	68.26	74.00	-5.74	60.94	7.32	Peak	196	111
3	10360.00	57.97	68.20	-10.23	41.88	16.09	Peak	100	50
4	15540.00	48.62	54.00	-5.38	31.25	17.37	Average	100	55
5	15540.00	58.60	74.00	-15.40	41.23	17.37	Peak	100	55

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

*Factor includes antenna factor , cable loss and amplifier gain

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

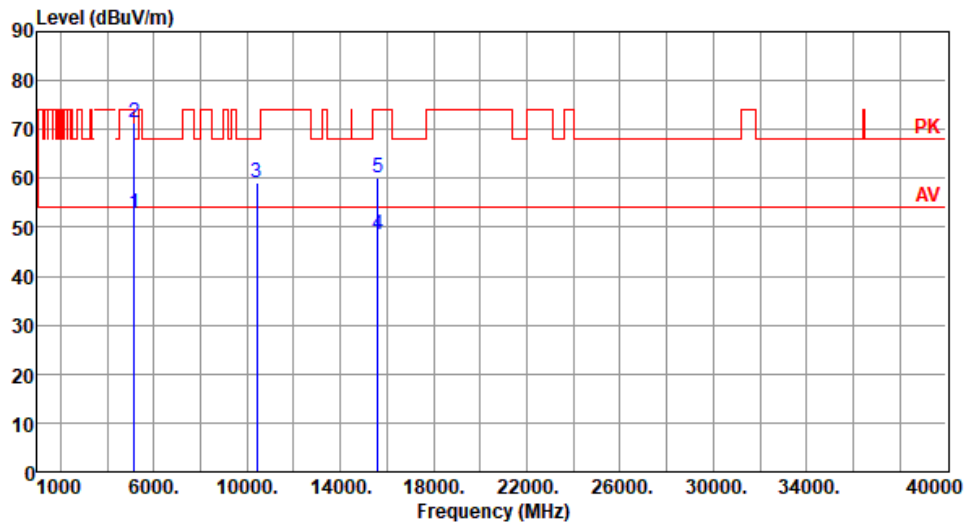
Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	50.00	54.00	-4.00	42.68	7.32	Average	203	24
2	5150.00	67.89	74.00	-6.11	60.57	7.32	Peak	203	24
3	10400.00	59.86	68.20	-8.34	43.58	16.28	Peak	100	107
4	15600.00	50.15	54.00	-3.85	32.88	17.27	Average	100	104
5	15600.00	61.23	74.00	-12.77	43.96	17.27	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).

Modulation	VHT20	Test Freq. (MHz)	5200
Polarization	Vertical	Test Configuration	1



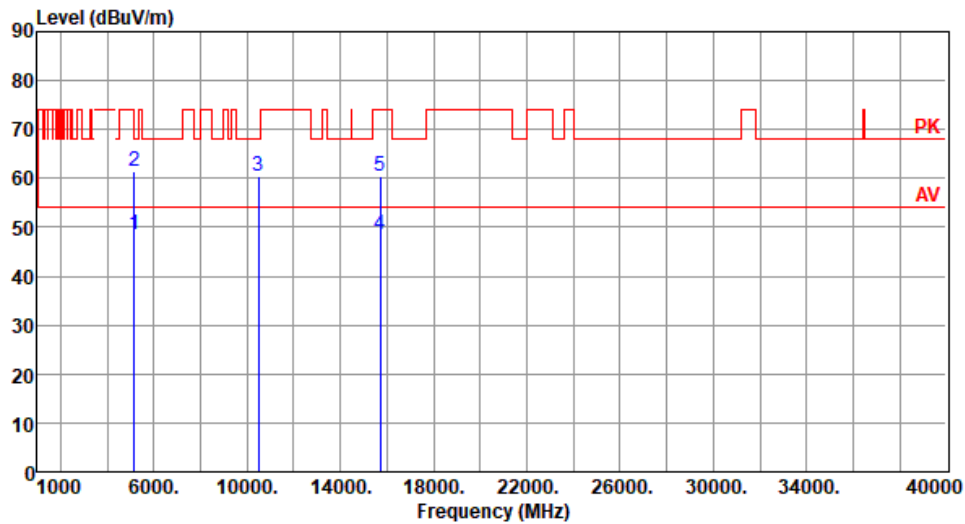
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.84	54.00	-1.16	45.52	7.32	Average	161	86
2	5150.00	71.47	74.00	-2.53	64.15	7.32	Peak	161	86
3	10400.00	59.13	68.20	-9.07	42.85	16.28	Peak	100	53
4	15600.00	48.56	54.00	-5.44	31.29	17.27	Average	100	51
5	15600.00	60.04	74.00	-13.96	42.77	17.27	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)	5240
Polarization	Horizontal	Test Configuration	1



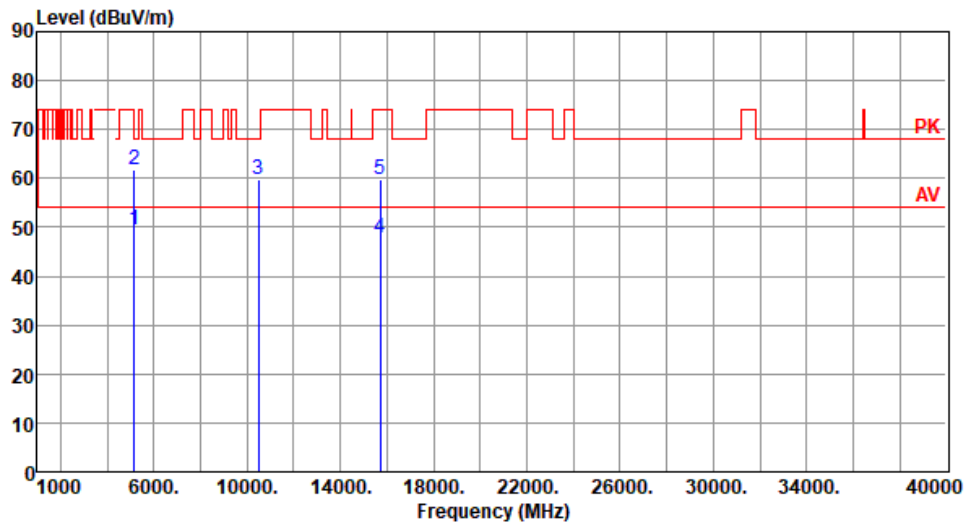
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.56	54.00	-5.44	41.24	7.32	Average	201	25
2	5150.00	61.42	74.00	-12.58	54.10	7.32	Peak	201	25
3	10480.00	60.40	68.20	-7.80	43.99	16.41	Peak	100	102
4	15720.00	48.60	54.00	-5.40	32.00	16.60	Average	100	101
5	15720.00	60.30	74.00	-13.70	43.70	16.60	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)	5240
Polarization	Vertical	Test Configuration	1



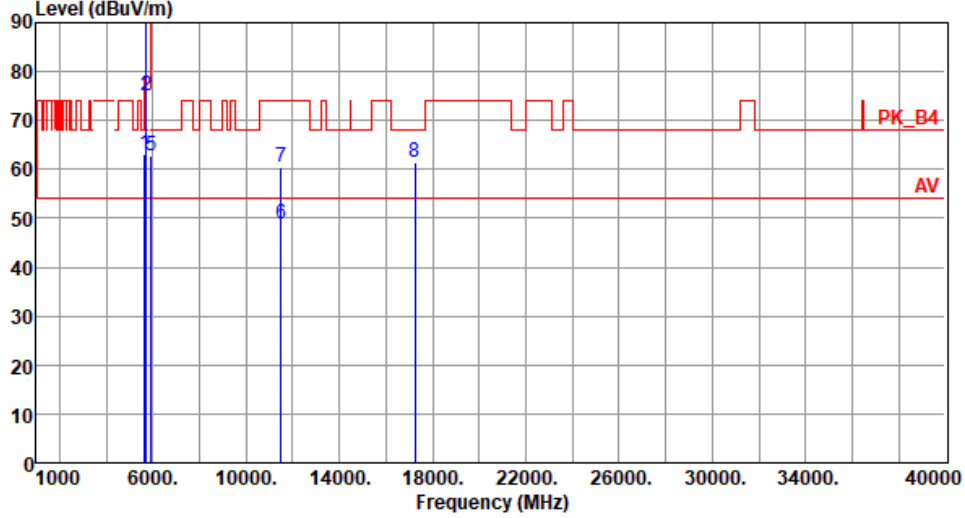
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	49.36	54.00	-4.64	42.04	7.32	Average	206	112
2	5150.00	61.67	74.00	-12.33	54.35	7.32	Peak	206	112
3	10480.00	59.67	68.20	-8.53	43.26	16.41	Peak	100	30
4	15720.00	47.75	54.00	-6.25	31.15	16.60	Average	100	60
5	15720.00	59.62	74.00	-14.38	43.02	16.60	Peak	100	60

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

*Factor includes antenna factor , cable loss and amplifier gain

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

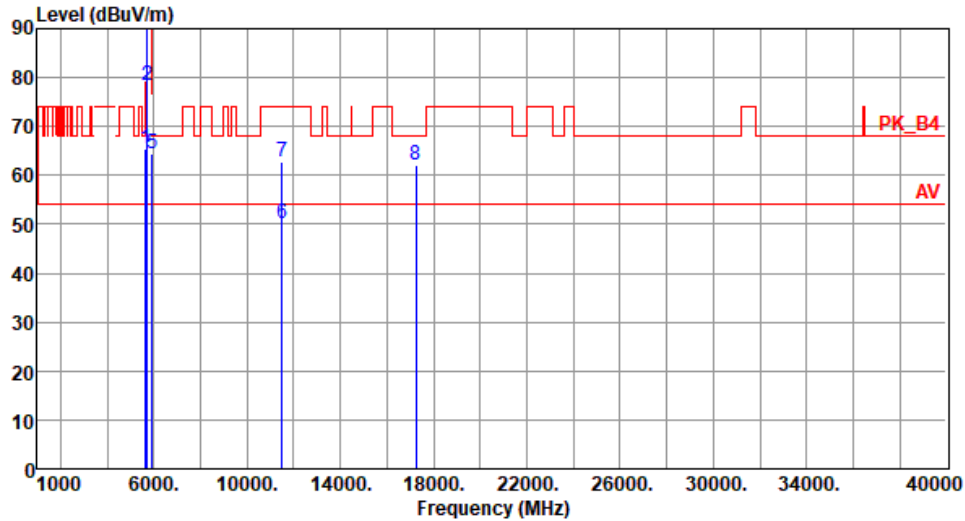
Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	63.24	68.20	-4.96	55.85	7.39	Peak	214	26
2	5700.00	75.08	105.20	-30.12	67.58	7.50	Peak	214	26
3	5720.00	88.87	110.80	-21.93	81.25	7.62	Peak	214	26
4	5725.00	95.90	122.20	-26.30	88.24	7.66	Peak	214	26
5	5925.00	62.66	68.20	-5.54	54.59	8.07	Peak	214	26
6	11490.00	48.94	54.00	-5.06	32.18	16.76	Average	100	108
7	11490.00	60.43	74.00	-13.57	43.67	16.76	Peak	100	108
8	17235.00	61.41	68.20	-6.79	42.77	18.64	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).

Modulation	VHT20	Test Freq. (MHz)	5745
Polarization	Vertical	Test Configuration	1



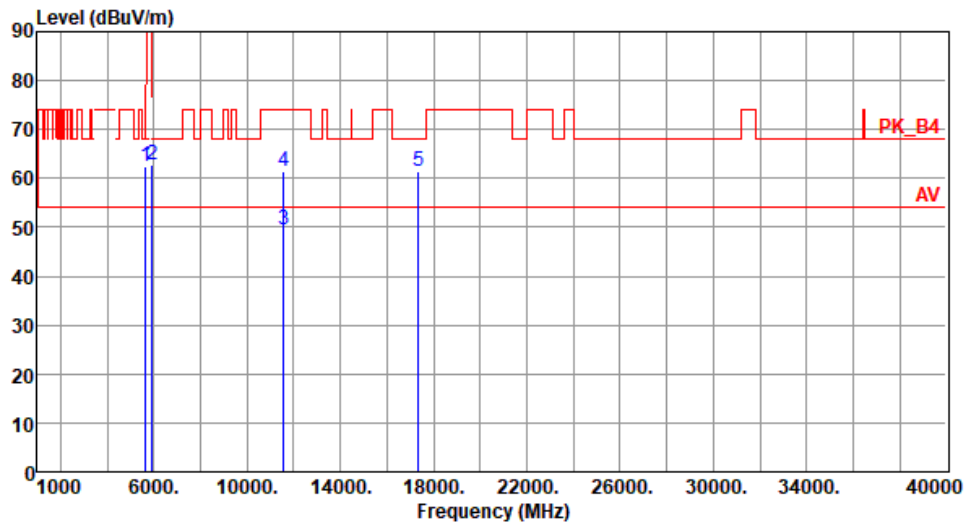
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	65.50	68.20	-2.70	58.11	7.39	Peak	192	94
2	5700.00	78.37	105.20	-26.83	70.87	7.50	Peak	192	94
3	5720.00	92.10	110.80	-18.70	84.48	7.62	Peak	192	94
4	5725.00	99.15	122.20	-23.05	91.49	7.66	Peak	192	94
5	5925.00	64.37	68.20	-3.83	56.30	8.07	Peak	192	94
6	11490.00	50.28	54.00	-3.72	33.52	16.76	Average	170	260
7	11490.00	62.65	74.00	-11.35	45.89	16.76	Peak	170	260
8	17235.00	62.23	68.20	-5.97	43.59	18.64	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)	5785
Polarization	Horizontal	Test Configuration	1



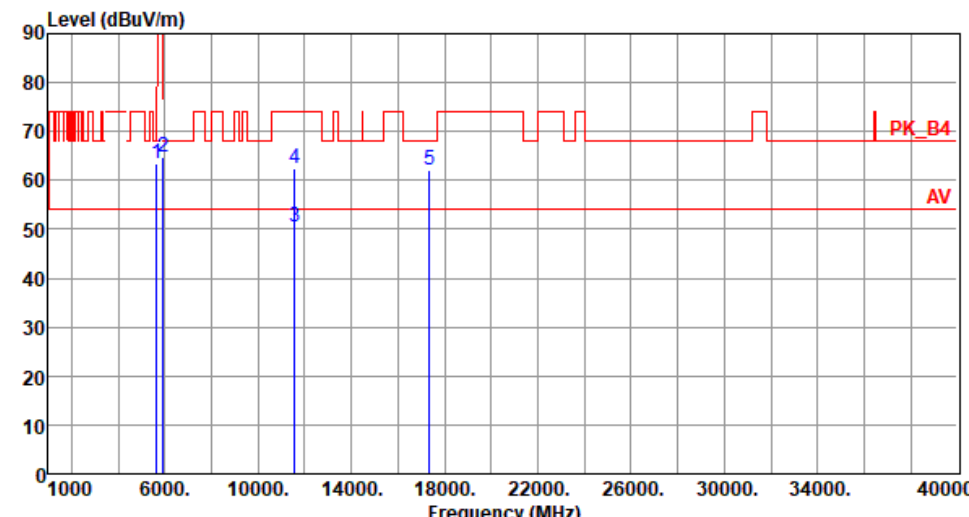
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	62.27	68.20	-5.93	54.88	7.39	Peak	209	26
2	5925.00	62.71	68.20	-5.49	54.64	8.07	Peak	209	26
3	11570.00	49.49	54.00	-4.51	32.88	16.61	Average	100	108
4	11570.00	61.48	74.00	-12.52	44.87	16.61	Peak	100	108
5	17355.00	61.50	68.20	-6.70	42.27	19.23	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).

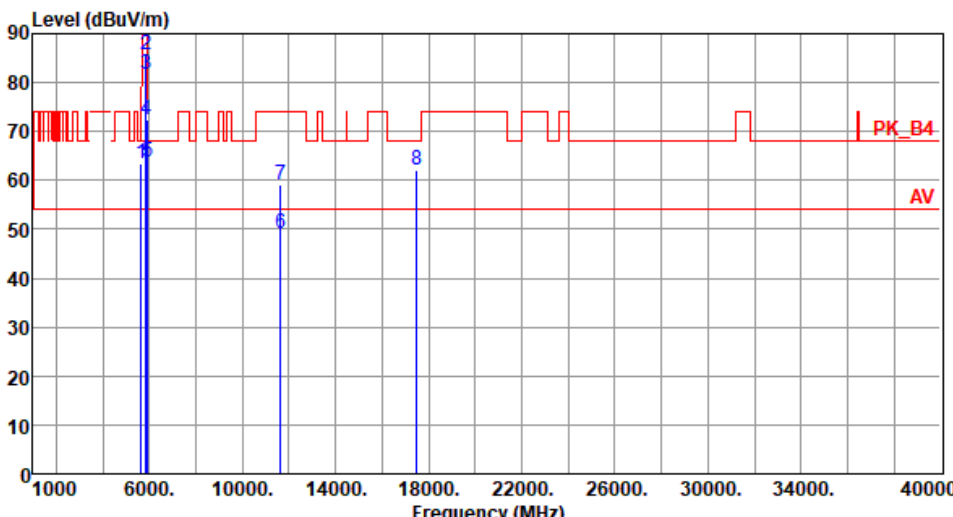
Modulation	VHT20	Test Freq. (MHz)	5785
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	63.27	68.20	-4.93	55.88	7.39	Peak	20	105
2	5925.00	64.71	68.20	-3.49	56.64	8.07	Peak	20	105
3	11570.00	50.37	54.00	-3.63	33.76	16.61	Average	172	261
4	11570.00	62.30	74.00	-11.70	45.69	16.61	Peak	172	261
5	17355.00	62.17	68.20	-6.03	42.94	19.23	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).

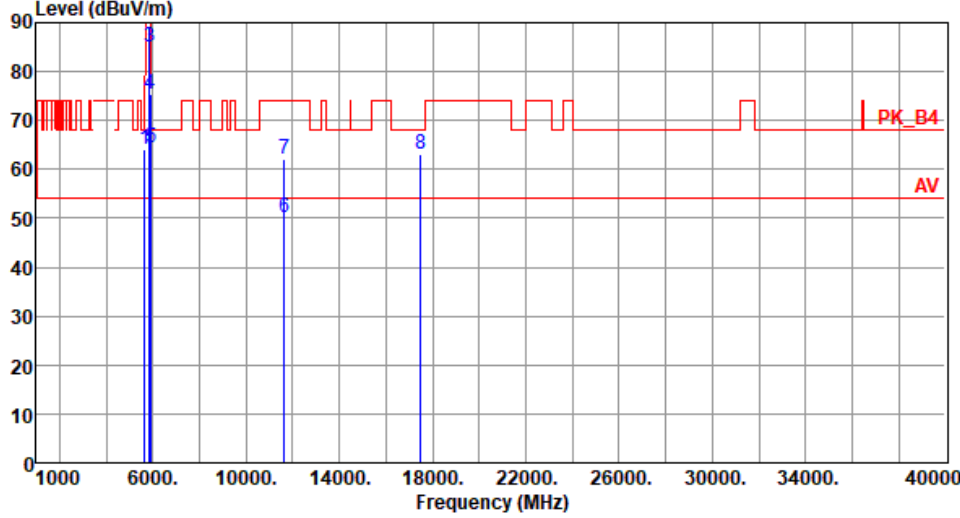
Modulation	VHT20	Test Freq. (MHz)	5825
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	63.27	68.20	-4.93	55.88	7.39	Peak	202	27
2	5850.00	85.54	122.20	-36.66	77.52	8.02	Peak	202	27
3	5855.00	81.54	110.80	-29.26	73.52	8.02	Peak	202	27
4	5875.00	72.27	105.20	-32.93	64.24	8.03	Peak	202	27
5	5925.00	63.60	68.20	-4.60	55.53	8.07	Peak	202	27
6	11650.00	49.09	54.00	-4.91	32.71	16.38	Average	100	107
7	11650.00	59.25	74.00	-14.75	42.87	16.38	Peak	100	107
8	17475.00	62.21	68.20	-5.99	42.47	19.74	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)	5825
Polarization	Vertical	Test Configuration	1

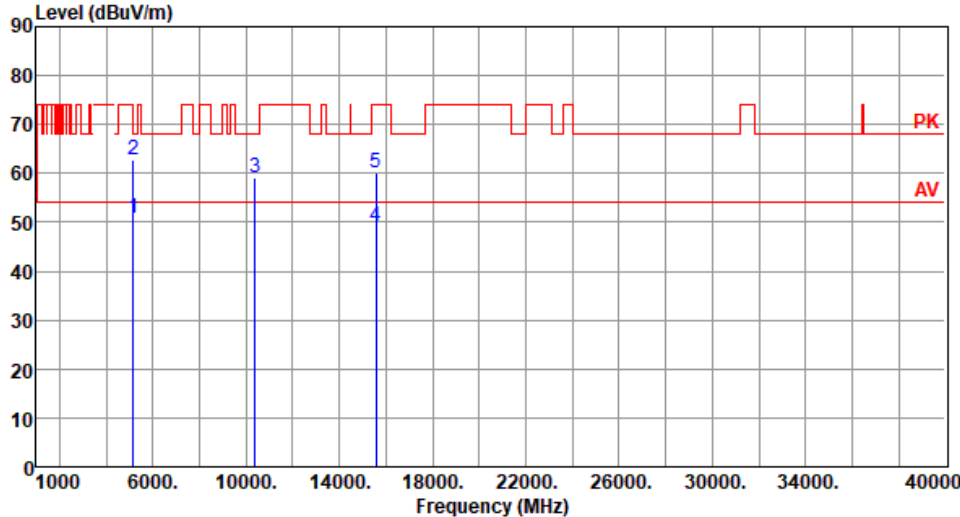


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	64.15	68.20	-4.05	56.76	7.39	Peak	211	104
2	5850.00	88.87	122.20	-33.33	80.85	8.02	Peak	211	104
3	5855.00	84.97	110.80	-25.83	76.95	8.02	Peak	211	104
4	5875.00	75.44	105.20	-29.76	67.41	8.03	Peak	211	104
5	5925.00	64.49	68.20	-3.71	56.42	8.07	Peak	211	104
6	11650.00	50.26	54.00	-3.74	33.88	16.38	Average	177	266
7	11650.00	62.26	74.00	-11.74	45.88	16.38	Peak	177	266
8	17475.00	62.99	68.20	-5.21	43.25	19.74	Peak	100	58

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

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

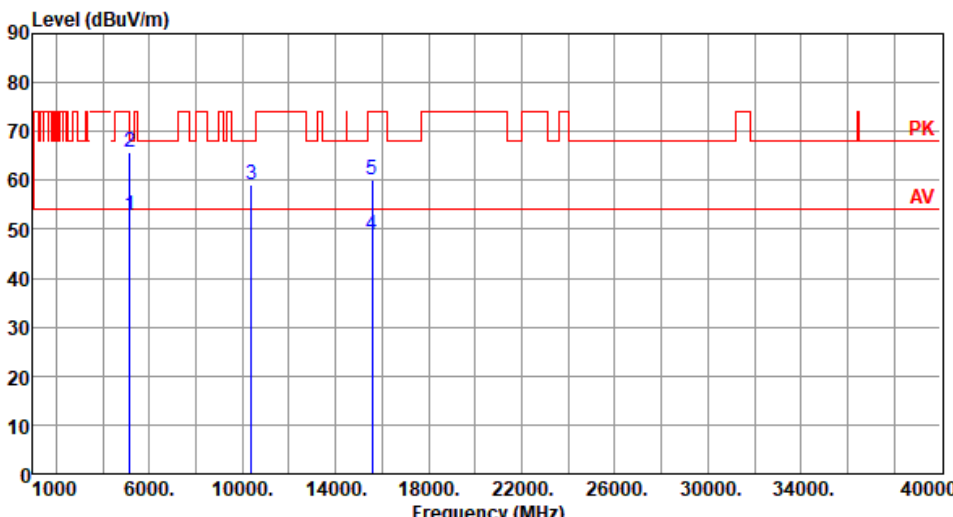
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	50.90	54.00	-3.10	43.58	7.32	Average	206	26
2	5150.00	62.86	74.00	-11.14	55.54	7.32	Peak	206	26
3	10380.00	58.97	68.20	-9.23	42.79	16.18	Peak	100	104
4	15570.00	49.05	54.00	-4.95	31.73	17.32	Average	100	101
5	15570.00	60.08	74.00	-13.92	42.76	17.32	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).

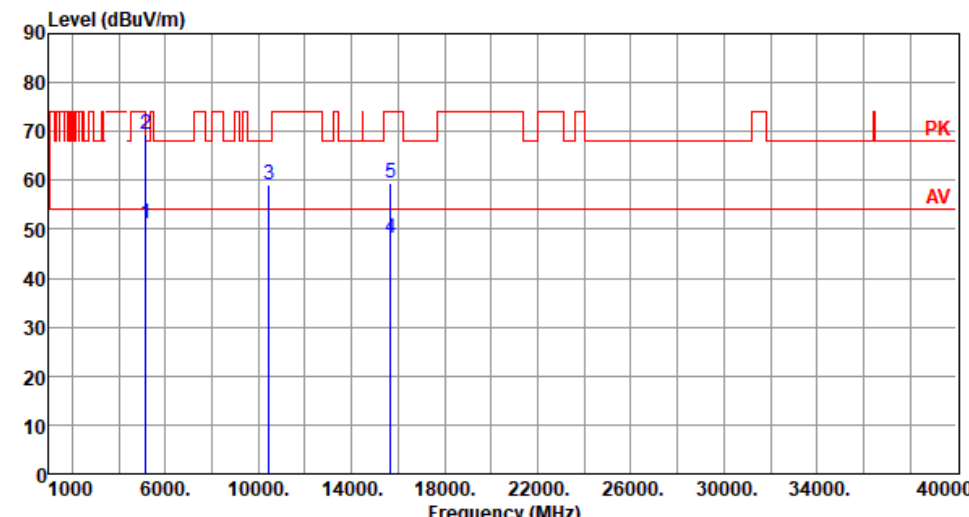
Modulation	VHT40	Test Freq. (MHz)	5190
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.83	54.00	-1.17	45.51	7.32	Average	184	101
2	5150.00	65.74	74.00	-8.26	58.42	7.32	Peak	184	101
3	10380.00	59.07	68.20	-9.13	42.89	16.18	Peak	100	58
4	15570.00	48.76	54.00	-5.24	31.44	17.32	Average	100	56
5	15570.00	60.09	74.00	-13.91	42.77	17.32	Peak	100	56

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

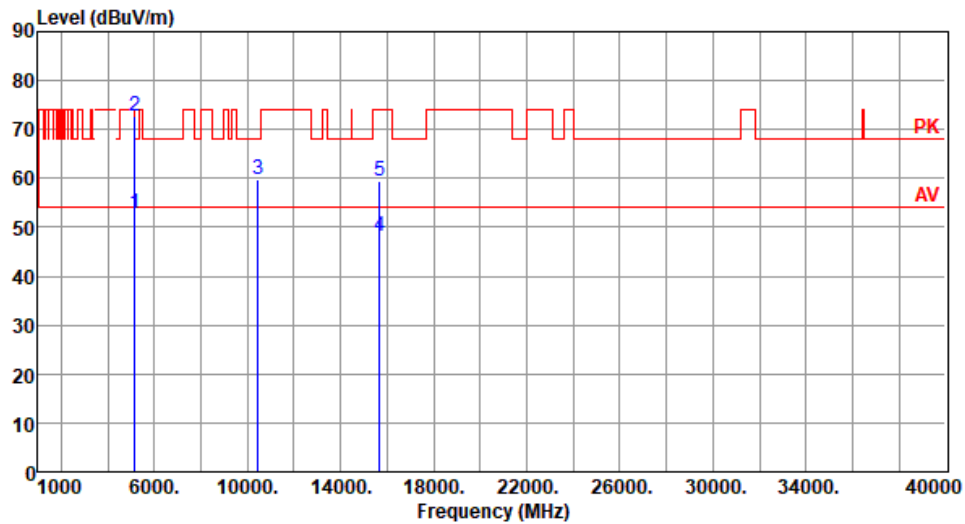
Modulation	VHT40	Test Freq. (MHz)	5230
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.27	54.00	-2.73	43.95	7.32	Average	201	27
2	5150.00	69.57	74.00	-4.43	62.25	7.32	Peak	201	27
3	10460.00	59.27	68.20	-8.93	42.90	16.37	Peak	100	101
4	15690.00	48.27	54.00	-5.73	31.59	16.68	Average	100	103
5	15690.00	59.45	74.00	-14.55	42.77	16.68	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)	5230
Polarization	Vertical	Test Configuration	1



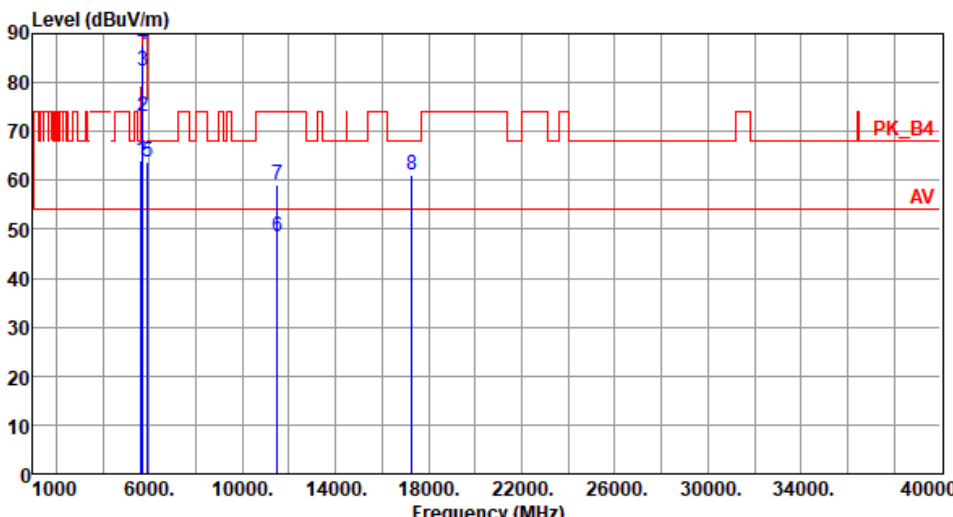
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.81	54.00	-1.19	45.49	7.32	Average	202	119
2	5150.00	72.68	74.00	-1.32	65.36	7.32	Peak	202	119
3	10460.00	59.90	68.20	-8.30	43.53	16.37	Peak	100	57
4	15690.00	48.15	54.00	-5.85	31.47	16.68	Average	100	55
5	15690.00	59.55	74.00	-14.45	42.87	16.68	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).

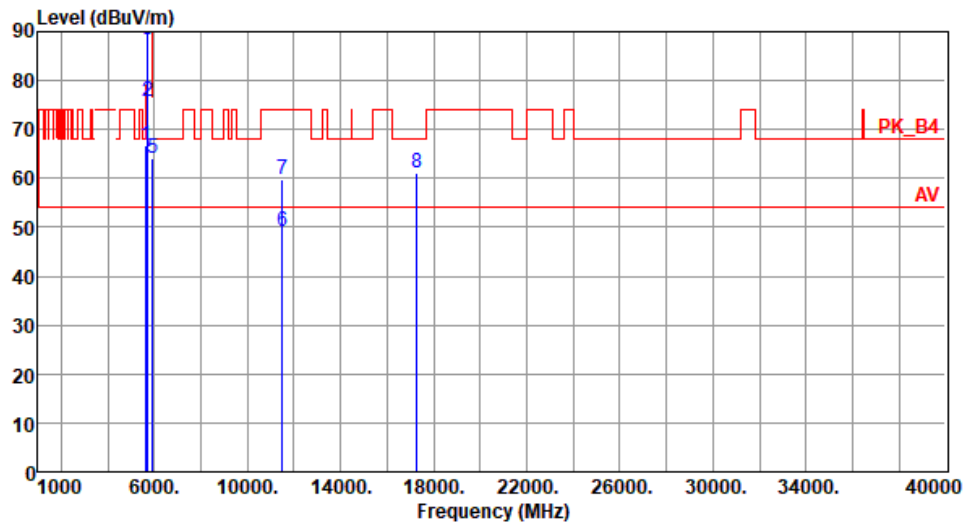
Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	63.97	68.20	-4.23	56.58	7.39	Peak	244	27
2	5700.00	73.02	105.20	-32.18	65.52	7.50	Peak	244	27
3	5720.00	82.20	110.80	-28.60	74.58	7.62	Peak	244	27
4	5725.00	87.65	122.20	-34.55	79.99	7.66	Peak	244	27
5	5925.00	63.60	68.20	-4.60	55.53	8.07	Peak	244	27
6	11510.00	48.62	54.00	-5.38	31.87	16.75	Average	100	109
7	11510.00	59.00	74.00	-15.00	42.25	16.75	Peak	100	109
8	17265.00	61.19	68.20	-7.01	42.38	18.81	Peak	100	111

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

Modulation	VHT40	Test Freq. (MHz)	5755
Polarization	Vertical	Test Configuration	1



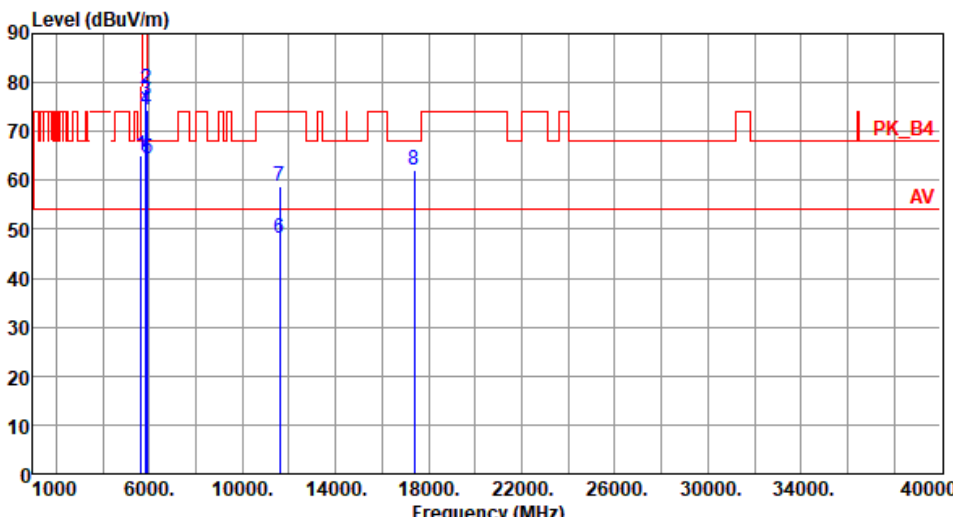
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	66.80	68.20	-1.40	59.41	7.39	Peak	175	269
2	5700.00	75.76	105.20	-29.44	68.26	7.50	Peak	175	105
3	5720.00	88.47	110.80	-22.33	80.85	7.62	Peak	175	105
4	5725.00	89.88	122.20	-32.32	82.22	7.66	Peak	175	105
5	5925.00	64.10	68.20	-4.10	56.03	8.07	Peak	175	105
6	11510.00	49.27	54.00	-4.73	32.52	16.75	Average	100	250
7	11510.00	59.63	74.00	-14.37	42.88	16.75	Peak	100	250
8	17265.00	61.24	68.20	-6.96	42.43	18.81	Peak	100	253

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

*Factor includes antenna factor , cable loss and amplifier gain

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

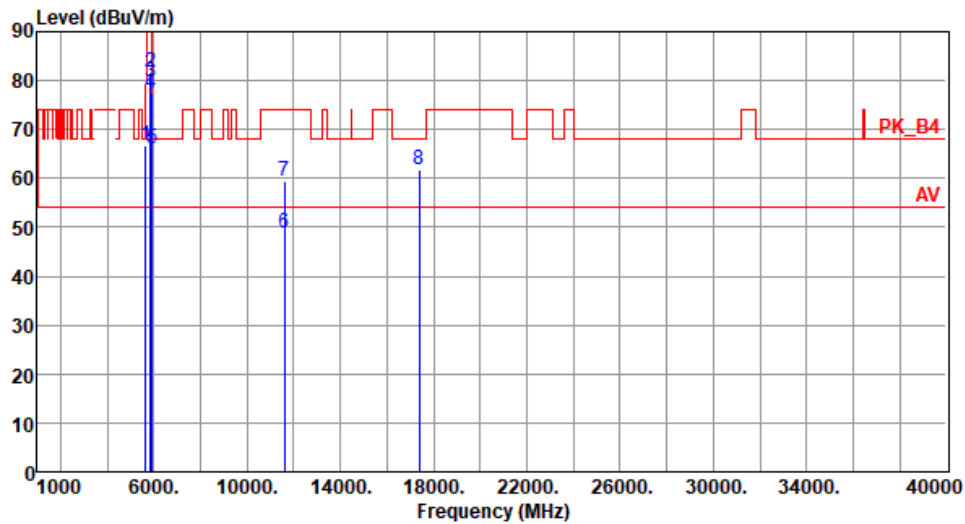
Modulation	VHT40	Test Freq. (MHz)	5795
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	64.94	68.20	-3.26	57.55	7.39	Peak	206	23
2	5850.00	78.58	122.20	-43.62	70.56	8.02	Peak	206	23
3	5855.00	76.24	110.80	-34.56	68.22	8.02	Peak	206	23
4	5875.00	74.54	105.20	-30.66	66.51	8.03	Peak	206	23
5	5925.00	64.33	68.20	-3.87	56.26	8.07	Peak	206	23
6	11590.00	48.08	54.00	-5.92	31.51	16.57	Average	100	104
7	11590.00	58.89	74.00	-15.11	42.32	16.57	Peak	100	104
8	17385.00	62.19	68.20	-6.01	42.84	19.35	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)	5795
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	66.73	68.20	-1.47	59.34	7.39	Peak	174	312
2	5850.00	81.58	122.20	-40.62	73.56	8.02	Peak	174	102
3	5855.00	79.58	110.80	-31.22	71.56	8.02	Peak	174	102
4	5875.00	77.28	105.20	-27.92	69.25	8.03	Peak	174	102
5	5925.00	66.10	68.20	-2.10	58.03	8.07	Peak	174	129
6	11590.00	48.66	54.00	-5.34	32.09	16.57	Average	170	255
7	11590.00	59.55	74.00	-14.45	42.98	16.57	Peak	170	255
8	17385.00	61.63	68.20	-6.57	42.28	19.35	Peak	100	245

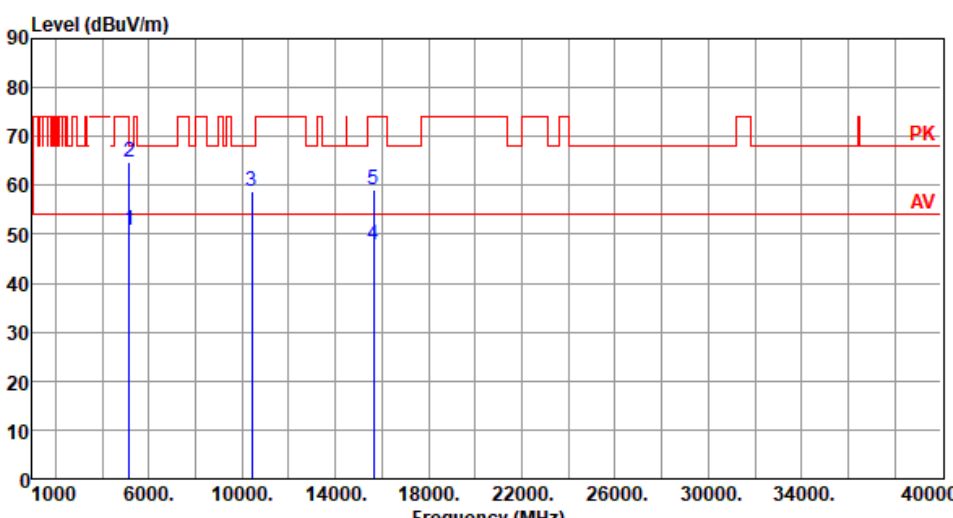
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

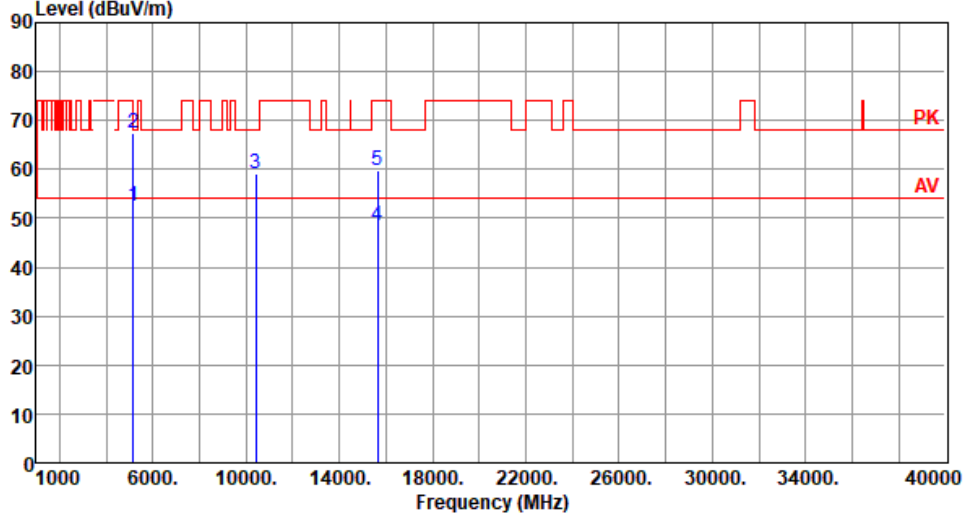
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Horizontal	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	50.97	54.00	-3.03	43.65	7.32	Average	208	24
2	5150.00	64.84	74.00	-9.16	57.52	7.32	Peak	208	24
3	10420.00	58.68	68.20	-9.52	42.37	16.31	Peak	100	107
4	15630.00	47.96	54.00	-6.04	30.88	17.08	Average	100	105
5	15630.00	58.95	74.00	-15.05	41.87	17.08	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).

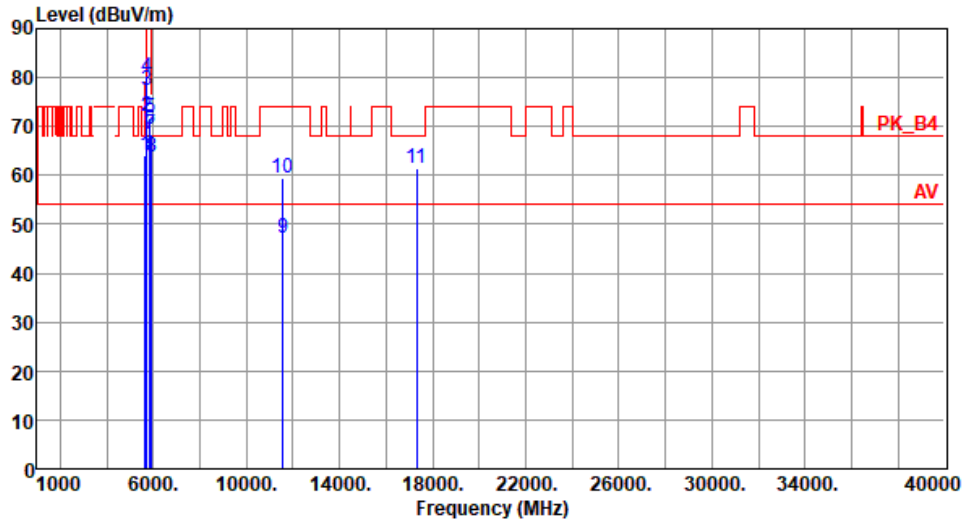
Modulation	VHT80	Test Freq. (MHz)	5210
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.59	54.00	-1.41	45.27	7.32	Average	191	103
2	5150.00	67.39	74.00	-6.61	60.07	7.32	Peak	191	103
3	10420.00	59.19	68.20	-9.01	42.88	16.31	Peak	100	54
4	15630.00	48.32	54.00	-5.68	31.24	17.08	Average	100	58
5	15630.00	59.84	74.00	-14.16	42.76	17.08	Peak	100	58

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

Modulation	VHT80	Test Freq. (MHz)	5775
Polarization	Horizontal	Test Configuration	1



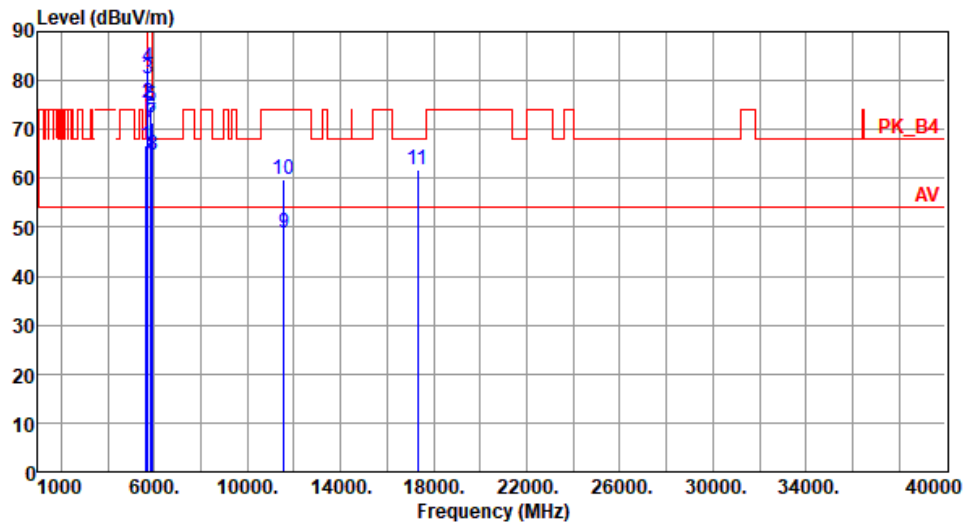
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	64.05	68.20	-4.15	56.66	7.39	Peak	208	28
2	5700.00	72.05	105.20	-33.15	64.55	7.50	Peak	208	28
3	5720.00	77.47	110.80	-33.33	69.85	7.62	Peak	208	28
4	5725.00	80.20	122.20	-42.00	72.54	7.66	Peak	208	28
5	5850.00	71.62	122.20	-50.58	63.60	8.02	Peak	208	28
6	5855.00	69.54	110.80	-41.26	61.52	8.02	Peak	208	28
7	5875.00	68.38	105.20	-36.82	60.35	8.03	Peak	208	28
8	5925.00	63.62	68.20	-4.58	55.55	8.07	Peak	208	28
9	11550.00	47.24	54.00	-6.76	30.58	16.66	Average	100	107
10	11550.00	59.52	74.00	-14.48	42.86	16.66	Peak	100	107
11	17325.00	61.45	68.20	-6.75	42.36	19.09	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)	5775
Polarization	Vertical	Test Configuration	1



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	66.88	68.20	-1.32	59.49	7.39	Peak	197	109
2	5700.00	75.37	105.20	-29.83	67.87	7.50	Peak	197	109
3	5720.00	80.28	110.80	-30.52	72.66	7.62	Peak	197	109
4	5725.00	82.84	122.20	-39.36	75.18	7.66	Peak	197	109
5	5850.00	74.76	122.20	-47.44	66.74	8.02	Peak	197	109
6	5855.00	72.41	110.80	-38.39	64.39	8.02	Peak	197	109
7	5875.00	71.34	105.20	-33.86	63.31	8.03	Peak	197	109
8	5925.00	64.65	68.20	-3.55	56.58	8.07	Peak	197	109
9	11550.00	48.66	54.00	-5.34	32.00	16.66	Average	177	252
10	11550.00	59.88	74.00	-14.12	43.22	16.66	Peak	177	252
11	17325.00	61.67	68.20	-6.53	42.58	19.09	Peak	100	256

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

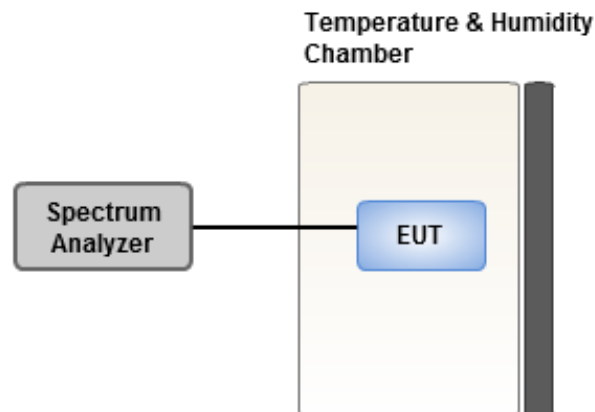
3.6.1 Limit of Frequency Stability

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: 5200 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°C Vmax	-2.10	-2.30	-1.67	-1.64
T20°C Vmin	-1.77	-1.42	-1.10	-1.99
T50°C Vnom	-17.19	-17.32	-17.30	-16.84
T40°C Vnom	-12.58	-12.28	-12.08	-12.79
T30°C Vnom	-7.40	-7.29	-7.37	-7.44
T20°C Vnom	-2.27	-2.10	-2.22	-2.28
T10°C Vnom	1.25	1.84	2.16	1.11
T0°C Vnom	2.42	3.12	3.00	2.89
T-10°C Vnom	3.60	3.51	4.11	3.67
T-20°C Vnom	4.62	4.92	4.34	4.83
T-30°C Vnom	5.98	6.44	5.82	5.95
Vnom [Vac]: 120		Vmax [Vac]: 138		Vmin [Vac]: 102
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

Frequency: 5785 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°C Vmax	-1.51	-1.68	-1.54	-1.85
T20°C Vmin	-1.33	-1.57	-1.40	-1.94
T50°C Vnom	-15.13	-14.67	-14.91	-14.54
T40°C Vnom	-11.06	-10.94	-11.18	-11.17
T30°C Vnom	-6.40	-6.04	-6.18	-5.87
T20°C Vnom	-1.14	-1.40	-1.23	-1.09
T10°C Vnom	1.51	0.61	0.70	1.83
T0°C Vnom	2.38	2.68	2.22	2.16
T-10°C Vnom	3.40	3.44	3.59	3.96
T-20°C Vnom	4.85	4.37	4.97	5.30
T-30°C Vnom	5.41	5.41	4.96	5.20
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

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Kou District, New Taipei City,
Taiwan, R.O.C.

Kwei Shan

Tel: 886-3-271-8666

No. 3-1, Lane 6, Wen San 3rd St.,
Kwei Shan District, Tao Yuan City
333, Taiwan, R.O.C.

Kwei Shan Site II

Tel: 886-3-271-8640

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

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Email: ICC_Service@icertifi.com.tw

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