

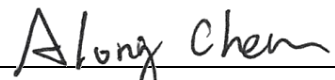
FCC Test Report

FCC ID : P27CAP1800AX
Equipment : CAP1800-AX
Model No. : CAP1800-AX
Brand Name : Centurylink
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 : Apr. 15, 2020
Tested Date : Apr. 25 ~ Jun. 04, 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.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

Reviewed by:


Along Chen / Assistant Manager

Approved by:


Gary Chang / Manager



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Release Record

Report No.	Version	Description	Issued Date
FR041501AN	Rev. 01	Initial issue	Jul. 02, 2020

Summary of Test Results

FCC Rules	Test Items	Measured	Result
15.207	Conducted Emissions	[dBuV]: 0.150MHz 55.61 (Margin -10.39dB) - QP	Pass
15.407(b) 15.209	Radiated Emissions	[dBuV/m at 3m]: 5150.00MHz 53.00 (Margin -1.00dB) - 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]: Non-beamforming mode 5150~5250MHz: 25.03 5250~5350MHz: 23.60 5470~5725MHz: 23.60 5725~5850MHz: 26.19 Beamforming mode 5150~5250MHz: 21.53 5250~5350MHz: 20.45 5470~5725MHz: 20.59 5725~5850MHz: 23.18	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 Specification of the Equipment under Test (EUT)

RF General Information					
Frequency Range (MHz)	IEEE Std. 802.11	Ch. Freq. (MHz)	Channel Number	Transmit Chains (N _{TX})	Data Rate / MCS
5150-5250 5250-5350 5470-5725 5725-5850	a	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	2	6-54 Mbps
5150-5250 5250-5350 5470-5725 5725-5850	n (HT20)	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	2	MCS 0-15
5150-5250 5250-5350 5470-5725 5725-5850	n (HT40)	5190-5230 5270-5310 5510-5710 5755-5795	38-46 [2] 54-62 [2] 102-142 [6] 151-159 [2]	2	MCS 0-15
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT20)	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	2	MCS 0-9
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT40)	5190-5230 5270-5310 5510-5710 5755-5795	38-46 [2] 54-62 [2] 102-142 [6] 151-159 [2]	2	MCS 0-9
5150-5250 5250-5350 5470-5725 5725-5850	ac (VHT80)	5210 5290 5530~5690 5775	42 [1] 58 [1] 106-138 [3] 155 [1]	2	MCS 0-9
5150-5250 5250-5350 5470-5725 5725-5850	ax (HE20)	5180-5240 5260-5320 5500-5720 5745-5825	36-48 [4] 52-64 [4] 100-144 [12] 149-165 [5]	2	MCS 0-11
5150-5250 5250-5350 5470-5725 5725-5850	ax (HE40)	5190-5230 5270-5310 5510-5710 5755-5795	38-46 [2] 54-62 [2] 102-142 [6] 151-159 [2]	2	MCS 0-11
5150-5250 5250-5350 5470-5725 5725-5850	ax (HE80)	5210 5290 5530~5690 5775	42 [1] 58 [1] 106-138 [3] 155 [1]	2	MCS 0-11
Note 1: RF output power specifies that Maximum Conducted Output Power. Note 2: Modulation: OFDM/OFDMA- BPSK, QPSK, 16QAM, 64QAM, 256QAM and 1024QAM Note 3: 802.11ax supports beamforming function. Note 4: 802.11ax supports full RU tones only.					

1.1.2 Antenna Details

Ant. No.	Model	Type	Connector	Operating Frequencies (MHz) / Antenna Gain (dBi)				
				2400~2483.5	5150~5250	5250~5350	5470~5725	5725~5850
1	ANT 1	Dipole	I-PEX	3.1	--	--	--	--
2	ANT 2	Dipole	I-PEX	4	--	--	--	--
3	ANT 3	Dipole	I-PEX	--	2.4	2.4	2.6	2.3
4	ANT 4	Dipole	I-PEX	--	3.3	3.3	2.9	2.7

1.1.3 Power Supply Type of Equipment under Test (EUT)

Power Supply Type	12Vdc from adapter
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1.1.4 Accessories

Accessories		
No.	Equipment	Description
1	AC adapter	Brand: LEI Model: MU24B1120200-A1 I/P: 100-240Vac, 50/60Hz, 0.7A O/P: 12Vdc, 2A Power Line: 1.5m non-shielded without core
2	AC adapter	Brand: Sercomm Model: PU24W120ULB15-DFD-00 I/P: 100-240Vac, 50/60Hz, 0.8A O/P: 12Vdc, 2A Power Line: 1.5m non-shielded without core
3	AC adapter	Brand: Actiontec Model: CDS024T-W120U I/P: 120Vac, 50/60Hz, 0.58A O/P: 12Vdc, 2A Power Line: 1.8m non-shielded without core
4	RJ45 cable	Brand: Ekson Model: 4550159REK 1.83m non-shielded without core
5	RJ45 cable	Brand: EJE Model: ZY-875 1.75m non-shielded without core

1.1.5 Channel List

802.11a / n HT20 / ac VHT20 / 11ax HE20		802.11n HT40 / ac VHT40 / 11ax HE40	
Channel	Frequency(MHz)	Channel	Frequency(MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	54	5270
48	5240	62	5310
52	5260	102	5510
56	5280	110	5550
60	5300	118	5590
64	5320	126	5630
100	5500	134	5670
104	5520	142	5710
108	5540	151	5755
112	5560	159	5795
116	5580	802.11ac VHT80 / 11ax HE80	
120	5600	42	5210
124	5620	58	5290
128	5640	106	5530
132	5660	122	5610
136	5680	138	5690
140	5700	155	5775
144	5720	---	---
149	5745	---	---
153	5765	---	---
157	5785	---	---
161	5805	---	---
165	5825	---	---

1.1.6 Test Tool and Duty Cycle

Test Tool	QATool, V.0.0.2.15		
Duty Cycle and Duty Factor	Mode	Duty Cycle (%)	Duty Factor (dB)
	11a	98.37%	0.07
	11ax HE20	98.21%	0.08
	11ax HE40	96.13%	0.17
	11ax HE80	92.51%	0.34

1.1.7 Power Index of Test Tool

Modulation Mode	Test Frequency (MHz)	Power Index
11a	5180	16.5
11a	5200	19
11a	5240	20
11a	5260	18
11a	5300	18
11a	5320	16
11a	5500	15
11a	5580	18.5
11a	5700	15
11a	5745	21
11a	5785	21
11a	5825	21
11ax HE20	5180	16
11ax HE20	5200	18.5
11ax HE20	5240	19.5
11ax HE20	5260	18
11ax HE20	5300	17.5
11ax HE20	5320	15.5
11ax HE20	5500	15
11ax HE20	5580	18.5
11ax HE20	5700	14.5
11ax HE20	5745	21
11ax HE20	5785	21
11ax HE20	5825	21

11ax HE40	5190	16
11ax HE40	5230	19.5
11ax HE40	5270	19.5
11ax HE40	5310	15.5
11ax HE40	5510	15
11ax HE40	5590	20
11ax HE40	5670	17
11ax HE40	5755	20
11ax HE40	5795	21.5
11ax HE80	5210	11.5
11ax HE80	5290	10.5
11ax HE80	5530	11.5
11ax HE80	5610	17.5
11ax HE80	5775	15.5

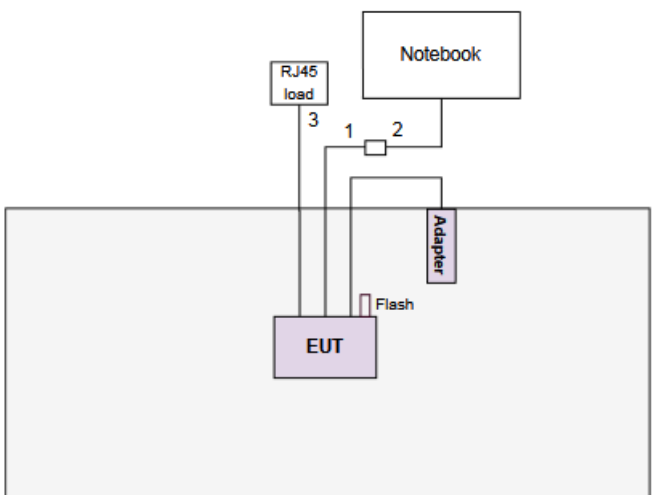
Channel that extends across the 5.725 GHz boundary

Modulation Mode	Test Frequency (MHz)	Power Index
11a	5720	18.5
11ax HE20	5720	18.5
11ax HE40	5710	20
11ax HE80	5690	18.5

1.2 Local Support Equipment List

Support Equipment List					
No.	Equipment	Brand	Model	FCC ID	Remarks
1	Notebook	DELL	Latitude E6430	DoC	---
2	USB 3.0 Flash	Transcend	JetFlash 700	---	---
3	RJ45 load	ICC	---	---	---

1.3 Test Setup Chart

Test Setup Diagram	
Kept in control area 	
No.	Signal cable / Length (m)
1	RJ45, 1.83m non-shielded.
2	RJ45, 10m non-shielded.
3	RJ45, 1.3m non-shielded with load.

1.4 The Equipment List

Test Item	Conducted Emission				
Test Site	Conduction room 1 / (CO01-WS)				
Tested Date	Jun. 04, 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 chamber1 / (03CH01-WS)				
Tested Date	Apr. 25 ~ May 08, 2020				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101498	Dec. 17, 2019	Dec. 16, 2020
Receiver	R&S	ESR3	101657	Feb. 14, 2020	Feb. 13, 2021
Bilog Antenna	SCHWARZBECK	VULB9168	VULB9168-522	Jul. 12, 2019	Jul. 11, 2020
Horn Antenna 1G-18G	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D 1096	Dec. 12, 2019	Dec. 11, 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	980225	Jul. 09, 2019	Jul. 08, 2020
Preamplifier	Agilent	83017A	MY39501308	Oct. 08, 2019	Oct. 07, 2020
Preamplifier	EMC	EMC184045B	980192	Aug. 01, 2019	Jul. 31, 2020
RF Cable	EMC	EMC104-SM-SM-8000	181106	Oct. 07, 2019	Oct. 06, 2020
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16019/4	Oct. 07, 2019	Oct. 06, 2020
RF Cable	HUBER+SUHNER	SUCOFLEX104	MY16014/4	Oct. 07, 2019	Oct. 06, 2020
LF cable 1M	EMC	EMCCFD400-NM-NM-1000	160502	Oct. 07, 2019	Oct. 06, 2020
LF cable 3M	Woken	CFD400NL-LW	CFD400NL-001	Oct. 07, 2019	Oct. 06, 2020
LF cable 10M	Woken	CFD400NL-LW	CFD400NL-002	Oct. 07, 2019	Oct. 06, 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	Jun. 02, 2020				
Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Until
Spectrum Analyzer	R&S	FSV40	101063	Apr. 30, 2020	Apr. 29, 2021
TEMP&HUMIDITY CHAMBER	GIANT FORCE	GCT-225-40-SP-SD	MAF1212-002	Dec. 12, 2019	Dec. 11, 2020
Power Meter	Anritsu	ML2495A	1241002	Oct. 23, 2019	Oct. 22, 2020
Power Sensor	Anritsu	MA2411B	1207366	Oct. 23, 2019	Oct. 22, 2020
AC POWER SOURCE	APC	AFC-500W	F312060012	Dec. 02, 2019	Dec. 01, 2020
Measurement Software	-	SENSE-15407_NII	V5.10	NA	NA
Note: Calibration Interval of instruments listed above is one year.					

1.5 Test Standards

47 CFR FCC Part 15.407

ANSI C63.10-2013

FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01

1.6 Reference Guidance

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

FCC KDB 412172 D01 Determining ERP and EIRP v01r01

1.7 Deviation from Test Standard and Measurement Procedure

None

1.8 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	± 3.41 dB
Radiated emission > 1 GHz	± 4.59 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 / 59%	Alex Tsai
Radiated Emissions	03CH01-WS	22-25°C / 65-66%	Roger Lu Akun Chung
RF Conducted	TH01-WS	24°C / 67%	Aska Huang

- FCC Designation No.: TW2732
- FCC site registration No.: 181692
- ISED#: 10807A
- CAB identifier: TW2732

2.2 Testing Facility

Test Laboratory	International Certification Corp.
Test Site	CO01-WS, 03CH01-WS, TH01-WS
Address of Test Site	No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.

2.3 The Worst Test Modes and Channel Details

Frequency band 5150~5250 MHz / 5250~5350 MHz / 5470~5725 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	11a	5240	6 Mbps	Non-beamforming
Radiated Emissions ≤1GHz	11a	5240	6 Mbps	Non-beamforming
RF Output Power	11a	5180 / 5200 / 5240 5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	6 Mbps	Non-beamforming
	11ax HE20	5180 / 5200 / 5240 5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	11ax HE40	5190 / 5230 / 5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	11ax HE80	5210 / 5290 5530 / 5610 / 5690	MCS 0	
RF Output Power	11ax HE20	5180 / 5200 / 5240 5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	Beamforming
	11ax HE40	5190 / 5230 / 5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	11ax HE80	5210 / 5290 5530 / 5610 / 5690	MCS 0	
Radiated Emissions >1GHz Emission Bandwidth Peak Power Spectral Density	11a	5180 / 5200 / 5240 5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	6 Mbps	Non-beamforming
	11ax HE20	5180 / 5200 / 5240 5260 / 5300 / 5320 5500 / 5580 / 5700 / 5720	MCS 0	
	11ax HE40	5190 / 5230 / 5270 / 5310 5510 / 5590 / 5670 / 5710	MCS 0	
	11ax HE80	5210 / 5290 5530 / 5610 / 5690	MCS 0	
Frequency Stability	Un-modulation	5260	---	Non-beamforming
NOTE: 1. Two RJ45 cables (Ekson & EJE) had been covered during the pretest and found that Ekson RJ45 cable was the worst case and was selected for final testing. 2. Three adapters (LEI, Sercomm & Actiontec) had been covered during the pretest and found that LEI adapter was the worst case for radiated emission test and Actiontec adapter was the worst case for conducted emission test				

Frequency band 5725-5850 MHz				
Test item	Modulation Mode	Test Frequency (MHz)	Data Rate (Mbps) / MCS	Test Configuration
Conducted Emissions	11ax HE20	5745	MCS 0	Non-beamforming
Radiated Emissions ≤ 1 GHz	11ax HE20	5745	MCS 0	Non-beamforming
RF Output Power	11a	5745 / 5785 / 5825	6 Mbps	Non-beamforming
	11ax HE20	5745 / 5785 / 5825	MCS 0	
	11ax HE40	5755 / 5795	MCS 0	
	11ax HE80	5775	MCS 0	
RF Output Power	11ax HE20	5745 / 5785 / 5825	MCS 0	Beamforming
	11ax HE40	5755 / 5795	MCS 0	
	11ax HE80	5775	MCS 0	
Radiated Emissions > 1 GHz Emission Bandwidth 6dB bandwidth Peak Power Spectral Density	11a	5745 / 5785 / 5825	6 Mbps	Non-beamforming
	11ax HE20	5745 / 5785 / 5825	MCS 0	
	11ax HE40	5755 / 5795	MCS 0	
	11ax HE80	5775	MCS 0	
Frequency Stability	Un-modulation	5785	---	Non-beamforming
NOTE: 1. Two RJ45 cables (Ekson & EJE) had been covered during the pretest and found that Ekson RJ45 cable was the worst case and was selected for final testing. 2. Three adapters (LEI, Sercomm & Actiontec) had been covered during the pretest and found that LEI adapter was the worst case for radiated emission test and Actiontec adapter was the worst case for conducted emission test				

3 Transmitter Test Results

3.1 Conducted Emissions

3.1.1 Limit of Conducted Emissions

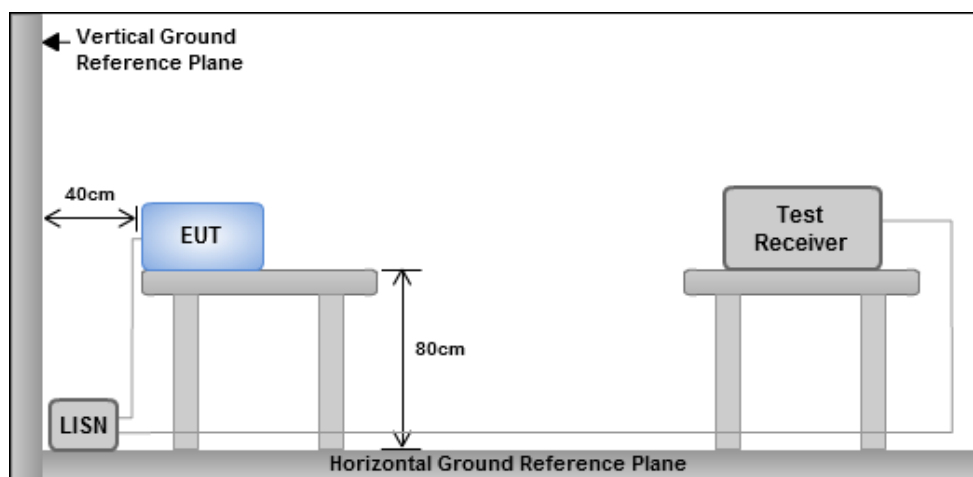
Conducted Emissions Limit		
Frequency Emission (MHz)	Quasi-Peak	Average
0.15-0.5	66 - 56 *	56 - 46 *
0.5-5	56	46
5-30	60	50

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

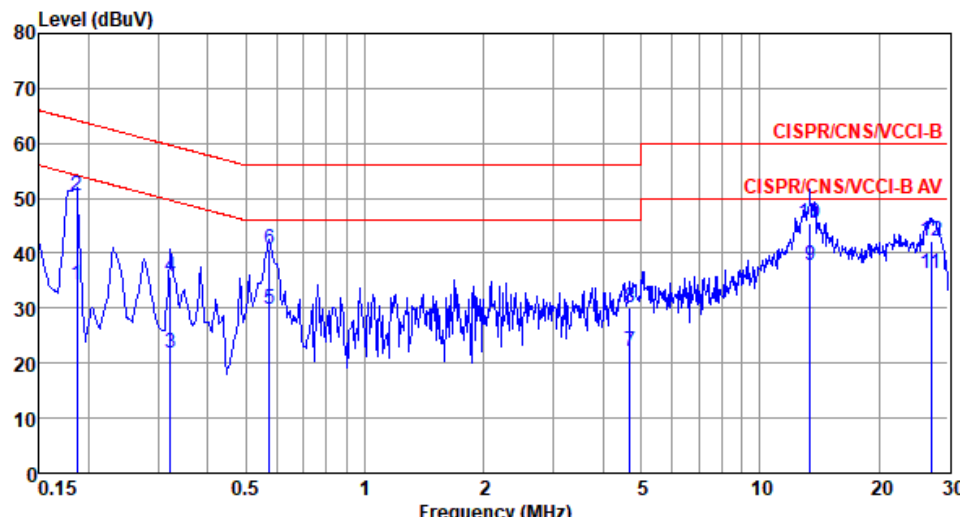
3.1.3 Test Setup



- 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

Modulation	11a	Test Freq. (MHz)	5240
Power Phase	Line		

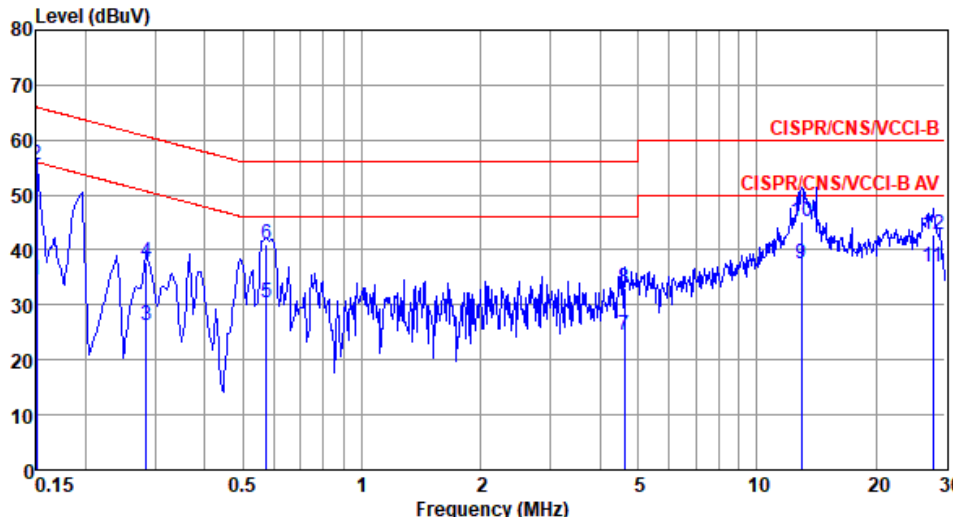


	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.186	34.16	54.20	-20.04	24.29	9.63	0.06	Average
2	0.186	50.35	64.20	-13.85	40.48	9.63	0.06	QP
3	0.322	21.94	49.66	-27.72	12.01	9.63	0.07	Average
4	0.322	35.59	59.66	-24.07	25.66	9.63	0.07	QP
5	0.573	29.91	46.00	-16.09	19.90	9.63	0.10	Average
6	0.573	40.62	56.00	-15.38	30.61	9.63	0.10	QP
7	4.696	22.18	46.00	-23.82	11.83	9.66	0.31	Average
8	4.696	30.25	56.00	-25.75	19.90	9.66	0.31	QP
9*	13.408	37.75	50.00	-12.25	27.05	9.70	0.54	Average
10	13.408	45.60	60.00	-14.40	34.90	9.70	0.54	QP
11	27.127	36.31	50.00	-13.69	25.15	9.64	0.74	Average
12	27.127	42.08	60.00	-17.92	30.92	9.64	0.74	QP

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

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

Modulation	11a	Test Freq. (MHz)	5240
Power Phase	Neutral		

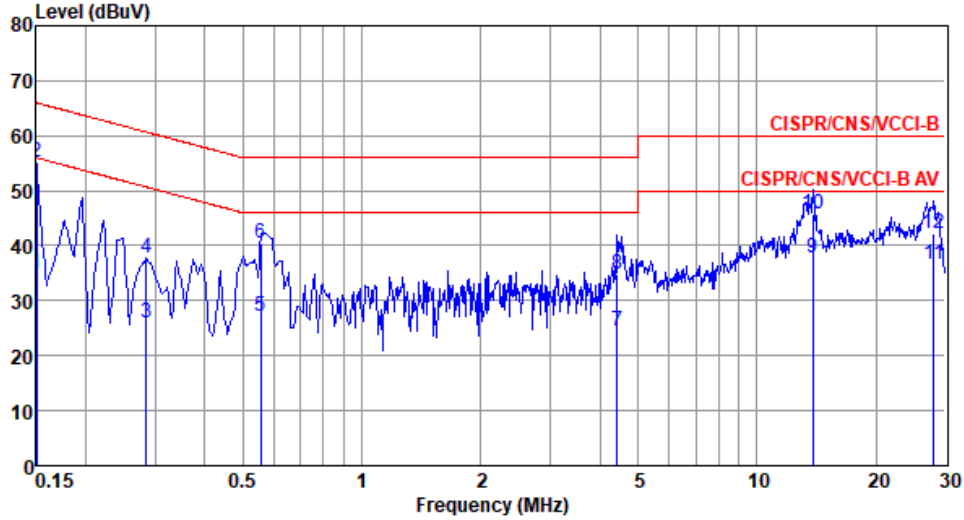


The graph displays the measured level in dBuV against frequency in MHz. The y-axis ranges from 0 to 80 dBuV, and the x-axis ranges from 0.15 to 30 MHz. Two red lines represent the limits: CISPR/CNS/VCCI-B (upper) and CISPR/CNS/VCCI-B AV (lower). A blue line shows the measured spectrum with several peaks labeled with numbers 1 through 12.

	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.150	34.65	56.00	-21.35	24.82	9.66	0.05	Average
2*	0.150	55.61	66.00	-10.39	45.78	9.66	0.05	QP
3	0.285	26.31	50.68	-24.37	16.43	9.65	0.07	Average
4	0.285	37.77	60.68	-22.91	27.89	9.65	0.07	QP
5	0.573	30.55	46.00	-15.45	20.62	9.65	0.10	Average
6	0.573	41.15	56.00	-14.85	31.22	9.65	0.10	QP
7	4.622	24.36	46.00	-21.64	14.10	9.68	0.31	Average
8	4.622	32.96	56.00	-23.04	22.70	9.68	0.31	QP
9	12.988	37.41	50.00	-12.59	26.76	9.77	0.52	Average
10	12.988	45.21	60.00	-14.79	34.56	9.77	0.52	QP
11	27.855	36.99	50.00	-13.01	25.74	9.78	0.75	Average
12	27.855	42.90	60.00	-17.10	31.65	9.78	0.75	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	11ax HE20	Test Freq. (MHz)	5745
Power Phase	Line		

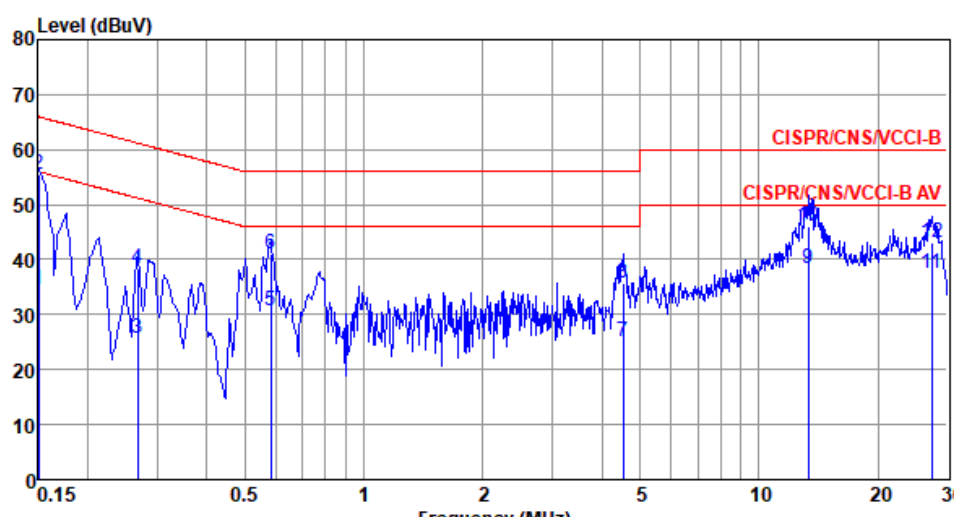


The graph displays the measured level in dBuV against frequency in MHz. Two red limit lines are shown: CISPR/CNS/VCCI-B (upper) and CISPR/CNS/VCCI-B AV (lower). The measured signal is a blue line with several peaks labeled 1 through 12. The x-axis ranges from 0.15 to 30 MHz, and the y-axis ranges from 0 to 80 dBuV.

	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.150	34.89	56.00	-21.11	25.04	9.64	0.05	Average
2*	0.150	55.31	66.00	-10.69	45.46	9.64	0.05	QP
3	0.285	26.06	50.68	-24.62	16.14	9.63	0.07	Average
4	0.285	37.71	60.68	-22.97	27.79	9.63	0.07	QP
5	0.555	27.18	46.00	-18.82	17.18	9.63	0.09	Average
6	0.555	40.55	56.00	-15.45	30.55	9.63	0.09	QP
7	4.430	24.44	46.00	-21.56	14.12	9.65	0.30	Average
8	4.430	34.74	56.00	-21.26	24.42	9.65	0.30	QP
9	13.841	37.87	50.00	-12.13	27.15	9.70	0.56	Average
10	13.841	45.63	60.00	-14.37	34.91	9.70	0.56	QP
11	28.003	36.49	50.00	-13.51	25.29	9.64	0.75	Average
12	28.003	42.26	60.00	-17.74	31.06	9.64	0.75	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	11ax HE20	Test Freq. (MHz)	5745
Power Phase	Neutral		



The graph displays the radio frequency interference (RFI) level in dBuV across a frequency range from 0.15 MHz to 30 MHz. The y-axis represents the level in dBuV, ranging from 0 to 80. The x-axis represents the frequency in MHz, with major ticks at 0.15, 0.5, 1, 2, 5, 10, 20, and 30. Two red lines indicate the CISPR/CNS/VCCI-B limits: a solid line for the general limit and a dashed line for the average limit (AV). The blue line represents the measured RFI level, which shows significant peaks at 0.15 MHz, 0.267 MHz, 0.582 MHz, 4.525 MHz, 13.337 MHz, and 27.416 MHz. The measured level is generally below the limits, with some peaks exceeding the average limit.

	Freq MHz	Level dBuV	Limit Line dBuV	Over Limit dB	Read Level dBuV	LISN factor dB	cable loss dB	Remark
1	0.150	34.50	56.00	-21.50	24.67	9.66	0.05	Average
2*	0.150	55.39	66.00	-10.61	45.56	9.66	0.05	QP
3	0.267	25.64	51.20	-25.56	15.76	9.65	0.07	Average
4	0.267	38.50	61.20	-22.70	28.62	9.65	0.07	QP
5	0.582	30.65	46.00	-15.35	20.72	9.65	0.10	Average
6	0.582	40.99	56.00	-15.01	31.06	9.65	0.10	QP
7	4.525	25.11	46.00	-20.89	14.86	9.68	0.30	Average
8	4.525	35.83	56.00	-20.17	25.58	9.68	0.30	QP
9	13.337	38.42	50.00	-11.58	27.74	9.78	0.54	Average
10	13.337	46.16	60.00	-13.84	35.48	9.78	0.54	QP
11	27.416	37.48	50.00	-12.52	26.22	9.79	0.75	Average
12	27.416	43.14	60.00	-16.86	31.88	9.79	0.75	QP

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

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

3.2 Emission Bandwidth

3.2.1 Limit of Emission Bandwidth

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

3.2.2 Test Procedures

26dB Bandwidth

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

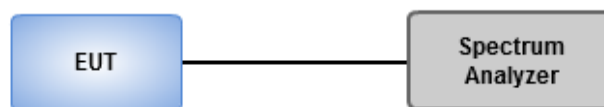
Occupied Bandwidth

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

6dB Bandwidth

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

3.2.3 Test Setup



3.2.4 Test Result of Emission Bandwidth

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)_2TX	39.348M	18.379M	18M4D1D	19.71M	16.498M
802.11ax HEW20_Nss1,(MCS0)_2TX	40.145M	19.537M	19M5D1D	23.406M	19.03M
802.11ax HEW40_Nss1,(MCS0)_2TX	70.29M	37.771M	37M8D1D	39.565M	37.482M
802.11ax HEW80_Nss1,(MCS0)_2TX	80.29M	76.7M	76M7D1D	80.29M	76.7M
5.25-5.35GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	28.478M	16.715M	16M7D1D	19.855M	16.425M
802.11ax HEW20_Nss1,(MCS0)_2TX	36.304M	19.103M	19M1D1D	21.812M	19.03M
802.11ax HEW40_Nss1,(MCS0)_2TX	46.377M	37.771M	37M8D1D	39.42M	37.482M
802.11ax HEW80_Nss1,(MCS0)_2TX	80.29M	76.7M	76M7D1D	80.29M	76.7M
5.47-5.725GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	24.348M	16.57M	16M6D1D	15.13M	13.285M
802.11ax HEW20_Nss1,(MCS0)_2TX	36.014M	19.103M	19M1D1D	18.174M	14.544M
802.11ax HEW40_Nss1,(MCS0)_2TX	41.594M	37.771M	37M8D1D	34.797M	33.632M
802.11ax HEW80_Nss1,(MCS0)_2TX	91.957M	76.7M	76M7D1D	75M	72.504M
5.725-5.85GHz	-	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	16.304M	27.713M	27M7D1D	3.13M	3.936M
802.11ax HEW20_Nss1,(MCS0)_2TX	18.913M	29.957M	30M0D1D	4.348M	4.978M
802.11ax HEW40_Nss1,(MCS0)_2TX	35.652M	52.533M	52M5D1D	3.942M	4.168M
802.11ax HEW80_Nss1,(MCS0)_2TX	75.362M	76.7M	76M7D1D	3.826M	25.991M

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)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	19.71M	16.57M	20M	16.498M
5200MHz	Pass	Inf	32.101M	16.86M	27.174M	16.932M
5240MHz	Pass	Inf	39.348M	18.379M	38.188M	17.511M
5260MHz	Pass	Inf	28.478M	16.715M	21.087M	16.57M
5300MHz	Pass	Inf	25.435M	16.715M	20.507M	16.498M
5320MHz	Pass	Inf	20M	16.57M	19.855M	16.425M
5500MHz	Pass	Inf	20M	16.425M	19.928M	16.425M
5580MHz	Pass	Inf	24.348M	16.57M	19.783M	16.498M
5700MHz	Pass	Inf	19.855M	16.498M	19.783M	16.425M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	17.522M	13.372M	15.13M	13.285M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	3.13M	7.12M	3.13M	3.936M
5745MHz	Pass	500k	16.304M	24.53M	15.725M	19.175M
5785MHz	Pass	500k	14.783M	27.713M	15.725M	19.537M
5825MHz	Pass	500k	15M	25.253M	15.652M	17.511M
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5180MHz	Pass	Inf	23.406M	19.03M	25.072M	19.03M
5200MHz	Pass	Inf	36.957M	19.103M	36.449M	19.103M
5240MHz	Pass	Inf	40.145M	19.537M	37.464M	19.32M
5260MHz	Pass	Inf	33.333M	19.103M	32.826M	19.103M
5300MHz	Pass	Inf	36.304M	19.03M	36.014M	19.03M
5320MHz	Pass	Inf	23.841M	19.03M	21.812M	19.03M
5500MHz	Pass	Inf	24.348M	18.958M	25.29M	19.03M
5580MHz	Pass	Inf	32.536M	19.103M	36.014M	19.03M
5700MHz	Pass	Inf	27.536M	19.03M	22.319M	19.03M
5720MHz Straddle 5.47-5.725GHz	Pass	Inf	23.435M	14.631M	18.174M	14.544M
5720MHz Straddle 5.725-5.85GHz	Pass	500k	4.348M	8.741M	4.464M	4.978M
5745MHz	Pass	500k	18.913M	27.062M	18.406M	21.201M
5785MHz	Pass	500k	17.971M	29.957M	18.551M	20.622M
5825MHz	Pass	500k	18.333M	27.062M	18.768M	19.392M
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5190MHz	Pass	Inf	39.565M	37.482M	39.565M	37.482M
5230MHz	Pass	Inf	70.29M	37.771M	65.797M	37.482M
5270MHz	Pass	Inf	46.377M	37.627M	45.797M	37.771M
5310MHz	Pass	Inf	39.42M	37.482M	39.565M	37.482M
5510MHz	Pass	Inf	39.565M	37.482M	39.42M	37.482M
5590MHz	Pass	Inf	41.594M	37.771M	39.565M	37.482M

Mode	Result	Limit (Hz)	Port 1-N dB (Hz)	Port 1-OBW (Hz)	Port 2-N dB (Hz)	Port 2-OBW (Hz)
5670MHz	Pass	Inf	39.565M	37.482M	39.42M	37.482M
5710MHz Straddle 5.47-5.725GHz	Pass	Inf	34.899M	33.632M	34.797M	33.632M
5710MHz Straddle 5.725-5.85GHz	Pass	500k	3.942M	11.925M	4.058M	4.168M
5755MHz	Pass	500k	33.913M	38.061M	34.638M	37.482M
5795MHz	Pass	500k	35.652M	52.533M	33.768M	37.916M
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-
5210MHz	Pass	Inf	80.29M	76.7M	80.29M	76.7M
5290MHz	Pass	Inf	80.29M	76.7M	80.29M	76.7M
5530MHz	Pass	Inf	80M	76.411M	80.29M	76.7M
5610MHz	Pass	Inf	80.29M	76.7M	80.58M	76.411M
5690MHz Straddle 5.47-5.725GHz	Pass	Inf	91.957M	72.938M	75M	72.504M
5690MHz Straddle 5.725-5.85GHz	Pass	500k	3.826M	32.706M	3.826M	25.991M
5775MHz	Pass	500k	73.913M	76.7M	75.362M	76.411M

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;

3.3 RF Output Power

3.3.1 Limit of RF Output Power

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

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

3.3.2 Test Procedures

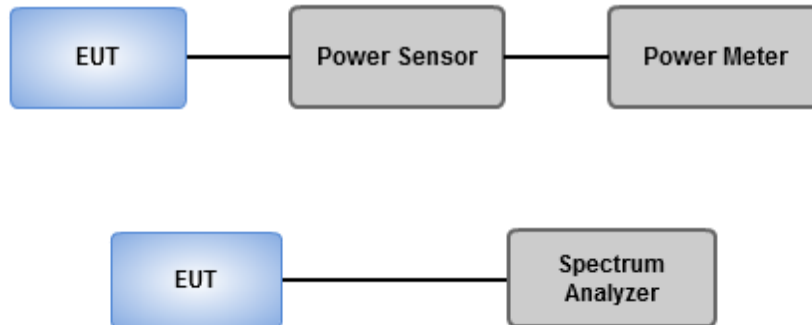
Method PM-G (Measurement using a gated RF average power meter)

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

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

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

3.3.3 Test Setup



3.3.4 Test Result of Maximum Conducted Output Power

Non-beamforming mode

Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	25.03	0.31842	28.33	0.68077
802.11ax HEW20_Nss1,(MCS0)_2TX	24.54	0.28445	27.84	0.60814
802.11ax HEW40_Nss1,(MCS0)_2TX	23.28	0.21281	26.58	0.45499
802.11ax HEW80_Nss1,(MCS0)_2TX	16.92	0.04920	20.22	0.10520
5.25-5.35GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	23.60	0.22909	26.90	0.48978
802.11ax HEW20_Nss1,(MCS0)_2TX	23.46	0.22182	26.76	0.47424
802.11ax HEW40_Nss1,(MCS0)_2TX	23.14	0.20606	26.44	0.44055
802.11ax HEW80_Nss1,(MCS0)_2TX	16.14	0.04111	19.44	0.08790
5.47-5.725GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	23.46	0.22182	26.36	0.43251
802.11ax HEW20_Nss1,(MCS0)_2TX	23.51	0.22439	26.41	0.43752
802.11ax HEW40_Nss1,(MCS0)_2TX	23.60	0.22909	26.50	0.44668
802.11ax HEW80_Nss1,(MCS0)_2TX	22.92	0.19588	25.82	0.38194
5.725-5.85GHz	-	-	-	-
802.11a_Nss1,(6Mbps)_2TX	26.17	0.41400	28.87	0.77090
802.11ax HEW20_Nss1,(MCS0)_2TX	26.19	0.41591	28.89	0.77446
802.11ax HEW40_Nss1,(MCS0)_2TX	25.70	0.37154	28.40	0.69183
802.11ax HEW80_Nss1,(MCS0)_2TX	21.49	0.14093	24.19	0.26242

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	3.30	17.96	18.54	21.27	30.00	24.57	36.00
5200MHz	Pass	3.30	20.62	21.18	23.92	30.00	27.22	36.00
5240MHz	Pass	3.30	21.82	22.21	25.03	30.00	28.33	36.00
5260MHz	Pass	3.30	19.75	20.68	23.25	24.00	26.55	30.00
5300MHz	Pass	3.30	20.81	20.36	23.60	24.00	26.90	30.00
5320MHz	Pass	3.30	19.14	18.55	21.87	23.98	25.17	29.98
5500MHz	Pass	2.90	17.93	17.14	20.56	23.99	23.46	29.99
5580MHz	Pass	2.90	20.42	20.47	23.46	23.96	26.36	29.96
5700MHz	Pass	2.90	17.02	16.65	19.85	23.96	22.75	29.96
5720MHz Straddle 5.47-5.725GHz	Pass	2.90	19.40	19.12	22.27	24.00	25.17	30.00
5720MHz Straddle 5.725-5.85GHz	Pass	2.70	12.32	12.13	15.24	30.00	17.94	36.00
5745MHz	Pass	2.70	23.36	22.94	26.17	30.00	28.87	36.00
5785MHz	Pass	2.70	23.16	22.67	25.93	30.00	28.63	36.00
5825MHz	Pass	2.70	22.83	22.42	25.64	30.00	28.34	36.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	3.30	17.73	18.22	20.99	30.00	24.29	36.00
5200MHz	Pass	3.30	20.28	20.83	23.57	30.00	26.87	36.00
5240MHz	Pass	3.30	21.28	21.76	24.54	30.00	27.84	36.00
5260MHz	Pass	3.30	20.03	20.83	23.46	24.00	26.76	30.00
5300MHz	Pass	3.30	20.43	20.25	23.35	24.00	26.65	30.00
5320MHz	Pass	3.30	18.81	18.18	21.52	24.00	24.82	30.00
5500MHz	Pass	2.90	18.18	17.41	20.82	24.00	23.72	30.00
5580MHz	Pass	2.90	20.36	20.63	23.51	24.00	26.41	30.00
5700MHz	Pass	2.90	16.76	16.39	19.59	24.00	22.49	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	2.90	19.40	19.09	22.26	24.00	25.16	30.00
5720MHz Straddle 5.725-5.85GHz	Pass	2.70	13.66	13.37	16.53	30.00	19.23	36.00
5745MHz	Pass	2.70	23.31	23.05	26.19	30.00	28.89	36.00
5785MHz	Pass	2.70	23.02	22.81	25.93	30.00	28.63	36.00
5825MHz	Pass	2.70	22.83	22.61	25.73	30.00	28.43	36.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	3.30	16.25	16.90	19.60	30.00	22.90	36.00
5230MHz	Pass	3.30	20.15	20.39	23.28	30.00	26.58	36.00
5270MHz	Pass	3.30	19.93	20.33	23.14	24.00	26.44	30.00
5310MHz	Pass	3.30	17.05	16.78	19.93	24.00	23.23	30.00
5510MHz	Pass	2.90	15.76	15.83	18.81	24.00	21.71	30.00

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
5590MHz	Pass	2.90	20.48	20.69	23.60	24.00	26.50	30.00
5670MHz	Pass	2.90	17.62	17.18	20.42	24.00	23.32	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	2.90	20.29	19.72	23.02	24.00	25.92	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	2.70	8.99	8.17	11.61	30.00	14.31	36.00
5755MHz	Pass	2.70	21.65	20.91	24.31	30.00	27.01	36.00
5795MHz	Pass	2.70	23.13	22.19	25.70	30.00	28.40	36.00
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	3.30	13.43	14.35	16.92	30.00	20.22	36.00
5290MHz	Pass	3.30	12.81	13.42	16.14	24.00	19.44	30.00
5530MHz	Pass	2.90	13.79	13.92	16.87	24.00	19.77	30.00
5610MHz	Pass	2.90	19.73	20.02	22.89	24.00	25.79	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	2.90	20.15	19.66	22.92	24.00	25.82	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	2.70	5.04	4.46	7.77	30.00	10.47	36.00
5775MHz	Pass	2.70	18.81	18.13	21.49	30.00	24.19	36.00

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

Beamforming mode Summary

Mode	Total Power (dBm)	Total Power (W)	EIRP (dBm)	EIRP (W)
5.15-5.25GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	21.53	0.14223	27.40	0.54954
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	20.27	0.10641	26.14	0.41115
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	13.91	0.02460	19.78	0.09506
5.25-5.35GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	20.45	0.11092	26.32	0.42855
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	20.13	0.10304	26.00	0.39811
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	13.13	0.02056	19.00	0.07943
5.47-5.725GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	20.50	0.11220	26.26	0.42267
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	20.59	0.11455	26.35	0.43152
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	19.91	0.09795	25.67	0.36898
5.725-5.85GHz	-	-	-	-
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	23.18	0.20797	28.69	0.73961
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	22.69	0.18578	28.20	0.66069
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	18.48	0.07047	23.99	0.25061

Note:

Directional Gain

For 5.15 ~ 5.25GHz

Directional Gain= $10 * \log((10^{2.4/20} + 10^{3.3/20})^2 / 2) = 5.87 \text{ dBi}$

For 5.25 ~ 5.35GHz

Directional Gain= $10 * \log((10^{2.4/20} + 10^{3.3/20})^2 / 2) = 5.87 \text{ dBi}$

For 5.47 ~ 5.725GHz

Directional Gain= $10 * \log((10^{2.6/20} + 10^{2.9/20})^2 / 2) = 5.76 \text{ dBi}$

For 5.725 ~ 5.85GHz

Directional Gain= $10 * \log((10^{2.3/20} + 10^{2.7/20})^2 / 2) = 5.51 \text{ dBi}$

Result

Mode	Result	DG (dBi)	Port 1 (dBm)	Port 2 (dBm)	Total Power (dBm)	Power Limit (dBm)	EIRP (dBm)	EIRP Limit (dBm)
802.11ax HEW20-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.87	14.72	15.21	17.98	30.00	23.85	36.00
5200MHz	Pass	5.87	17.27	17.82	20.56	30.00	26.43	36.00
5240MHz	Pass	5.87	18.27	18.75	21.53	30.00	27.40	36.00
5260MHz	Pass	5.87	17.02	17.82	20.45	24.00	26.32	30.00
5300MHz	Pass	5.87	17.42	17.24	20.34	24.00	26.21	30.00
5320MHz	Pass	5.87	15.8	15.17	18.51	24.00	24.38	30.00
5500MHz	Pass	5.76	15.17	14.4	17.81	24.00	23.57	30.00
5580MHz	Pass	5.76	17.35	17.62	20.50	24.00	26.26	30.00
5700MHz	Pass	5.76	13.75	13.38	16.58	24.00	22.34	30.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.76	16.39	16.08	19.25	24.00	25.01	30.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.51	10.65	10.36	13.52	30.00	19.03	36.00
5745MHz	Pass	5.51	20.3	20.04	23.18	30.00	28.69	36.00
5785MHz	Pass	5.51	20.01	19.8	22.92	30.00	28.43	36.00
5825MHz	Pass	5.51	19.82	19.6	22.72	30.00	28.23	36.00
802.11ax HEW40-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	5.87	13.24	13.89	16.59	30.00	22.46	36.00
5230MHz	Pass	5.87	17.14	17.38	20.27	30.00	26.14	36.00
5270MHz	Pass	5.87	16.92	17.32	20.13	24.00	26.00	30.00
5310MHz	Pass	5.87	14.04	13.77	16.92	24.00	22.79	30.00
5510MHz	Pass	5.76	12.75	12.82	15.80	24.00	21.56	30.00
5590MHz	Pass	5.76	17.47	17.68	20.59	24.00	26.35	30.00
5670MHz	Pass	5.76	14.61	14.17	17.41	24.00	23.17	30.00
5710MHz Straddle 5.47-5.725GHz	Pass	5.76	17.28	16.71	20.01	24.00	25.77	30.00
5710MHz Straddle 5.725-5.85GHz	Pass	5.51	5.98	5.16	8.60	30.00	14.11	36.00
5755MHz	Pass	5.51	18.64	17.9	21.30	30.00	26.81	36.00
5795MHz	Pass	5.51	20.12	19.18	22.69	30.00	28.20	36.00
802.11ax HEW80-BF_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	5.87	10.42	11.34	13.91	30.00	19.78	36.00
5290MHz	Pass	5.87	9.8	10.41	13.13	24.00	19.00	30.00
5530MHz	Pass	5.76	10.78	10.91	13.86	24.00	19.62	30.00
5610MHz	Pass	5.76	16.72	17.01	19.88	24.00	25.64	30.00
5690MHz Straddle 5.47-5.725GHz	Pass	5.76	17.14	16.65	19.91	24.00	25.67	30.00
5690MHz Straddle 5.725-5.85GHz	Pass	5.51	2.03	1.45	4.76	30.00	10.27	36.00
5775MHz	Pass	5.51	15.8	15.12	18.48	30.00	23.99	36.00

Port X = Port X output power, DG= Directional Gain, refers to p31

3.4 Peak Power Spectral Density

3.4.1 Limit of Peak Power Spectral Density

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

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

3.4.2 Test Procedures

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

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

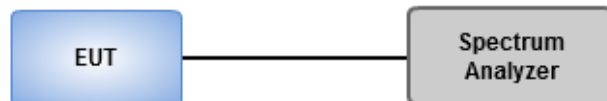
Duty cycle $\geq 98\%$

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

Summary

Mode	PD (dBm/RBW)	EIRP PD (dBm/RBW)
5.15-5.25GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	12.43	18.30
802.11ax HEW20_Nss1,(MCS0)_2TX	11.40	17.27
802.11ax HEW40_Nss1,(MCS0)_2TX	7.63	13.50
802.11ax HEW80_Nss1,(MCS0)_2TX	-1.44	4.43
5.25-5.35GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	10.84	16.71
802.11ax HEW20_Nss1,(MCS0)_2TX	10.36	16.23
802.11ax HEW40_Nss1,(MCS0)_2TX	7.58	13.45
802.11ax HEW80_Nss1,(MCS0)_2TX	-2.52	3.35
5.47-5.725GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	10.84	16.60
802.11ax HEW20_Nss1,(MCS0)_2TX	10.56	16.32
802.11ax HEW40_Nss1,(MCS0)_2TX	8.02	13.78
802.11ax HEW80_Nss1,(MCS0)_2TX	4.87	10.63
5.725-5.85GHz	-	-
802.11a_Nss1,(6Mbps)_2TX	11.69	17.20
802.11ax HEW20_Nss1,(MCS0)_2TX	11.18	16.69
802.11ax HEW40_Nss1,(MCS0)_2TX	8.45	13.96
802.11ax HEW80_Nss1,(MCS0)_2TX	1.41	6.92

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)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
802.11a_Nss1,(6Mbps)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.87	6.06	5.95	8.75	17.00	14.62	23.00
5200MHz	Pass	5.87	8.35	8.47	11.24	17.00	17.11	23.00
5240MHz	Pass	5.87	9.56	9.73	12.43	17.00	18.30	23.00
5260MHz	Pass	5.87	7.13	8.33	10.66	11.00	16.53	17.00
5300MHz	Pass	5.87	8.43	7.60	10.84	11.00	16.71	17.00
5320MHz	Pass	5.87	6.26	6.31	9.16	11.00	15.03	17.00
5500MHz	Pass	5.76	5.65	4.80	7.90	11.00	13.66	17.00
5580MHz	Pass	5.76	7.94	8.34	10.84	11.00	16.60	17.00
5700MHz	Pass	5.76	4.37	4.00	6.92	11.00	12.68	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.76	8.06	7.67	10.64	11.00	16.40	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.51	5.51	4.61	8.08	30.00	13.59	36.00
5745MHz	Pass	5.51	8.74	8.83	11.69	30.00	17.20	36.00
5785MHz	Pass	5.51	8.83	8.60	11.46	30.00	16.97	36.00
5825MHz	Pass	5.51	8.51	8.22	11.11	30.00	16.62	36.00
802.11ax HEW20_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5180MHz	Pass	5.87	4.61	5.16	7.80	17.00	13.67	23.00
5200MHz	Pass	5.87	7.07	7.89	10.36	17.00	16.23	23.00
5240MHz	Pass	5.87	8.29	8.91	11.40	17.00	17.27	23.00
5260MHz	Pass	5.87	7.00	8.07	10.36	11.00	16.23	17.00
5300MHz	Pass	5.87	7.45	7.14	10.13	11.00	16.00	17.00
5320MHz	Pass	5.87	5.68	5.60	8.50	11.00	14.37	17.00
5500MHz	Pass	5.76	5.44	4.41	7.79	11.00	13.55	17.00
5580MHz	Pass	5.76	7.43	7.94	10.56	11.00	16.32	17.00
5700MHz	Pass	5.76	3.83	3.52	6.50	11.00	12.26	17.00
5720MHz Straddle 5.47-5.725GHz	Pass	5.76	7.48	7.28	10.28	11.00	16.04	17.00
5720MHz Straddle 5.725-5.85GHz	Pass	5.51	5.16	4.61	7.80	30.00	13.31	36.00
5745MHz	Pass	5.51	8.23	8.10	11.18	30.00	16.69	36.00
5785MHz	Pass	5.51	8.20	8.08	10.85	30.00	16.36	36.00
5825MHz	Pass	5.51	7.74	7.60	10.63	30.00	16.14	36.00
802.11ax HEW40_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5190MHz	Pass	5.87	0.66	1.22	3.92	17.00	9.79	23.00
5230MHz	Pass	5.87	4.55	5.04	7.63	17.00	13.50	23.00
5270MHz	Pass	5.87	4.13	5.06	7.58	11.00	13.45	17.00
5310MHz	Pass	5.87	1.30	1.00	4.06	11.00	9.93	17.00
5510MHz	Pass	5.76	0.96	0.13	3.50	11.00	9.26	17.00
5590MHz	Pass	5.76	5.07	5.26	7.97	11.00	13.73	17.00

Mode	Result	DG (dBi)	Port 1 (dBm/RBW)	Port 2 (dBm/RBW)	PD (dBm/RBW)	PD Limit (dBm/RBW)	EIRP PD (dBm/RBW)	EIRP PD Limit (dBm/RBW)
5670MHz	Pass	5.76	1.92	1.41	4.63	11.00	10.39	17.00
5710MHz Straddle 5.47-5.725GHz	Pass	5.76	5.36	4.76	8.02	11.00	13.78	17.00
5710MHz Straddle 5.725-5.85GHz	Pass	5.51	0.37	-0.33	2.93	30.00	8.44	36.00
5755MHz	Pass	5.51	4.38	3.86	7.01	30.00	12.52	36.00
5795MHz	Pass	5.51	5.96	5.01	8.45	30.00	13.96	36.00
802.11ax HEW80_Nss1,(MCS0)_2TX	-	-	-	-	-	-	-	-
5210MHz	Pass	5.87	-5.04	-3.82	-1.44	17.00	4.43	23.00
5290MHz	Pass	5.87	-5.77	-5.20	-2.52	11.00	3.35	17.00
5530MHz	Pass	5.76	-4.37	-4.69	-1.60	11.00	4.16	17.00
5610MHz	Pass	5.76	1.60	1.39	4.43	11.00	10.19	17.00
5690MHz Straddle 5.47-5.725GHz	Pass	5.76	2.17	1.75	4.87	11.00	10.63	17.00
5690MHz Straddle 5.725-5.85GHz	Pass	5.51	-3.61	-4.12	-0.94	30.00	4.57	36.00
5775MHz	Pass	5.51	-1.24	-1.98	1.41	30.00	6.92	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;

DG = Directional Gain

For 5.15 ~ 5.25GHz

Directional Gain= $10 * \log((10^{2.4/20} + 10^{3.3/20})^2 / 2) = 5.87$ dBi

For 5.25 ~ 5.35GHz

Directional Gain= $10 * \log((10^{2.4/20} + 10^{3.3/20})^2 / 2) = 5.87$ dBi

For 5.47 ~ 5.725GHz

Directional Gain= $10 * \log((10^{2.6/20} + 10^{2.9/20})^2 / 2) = 5.76$ dBi

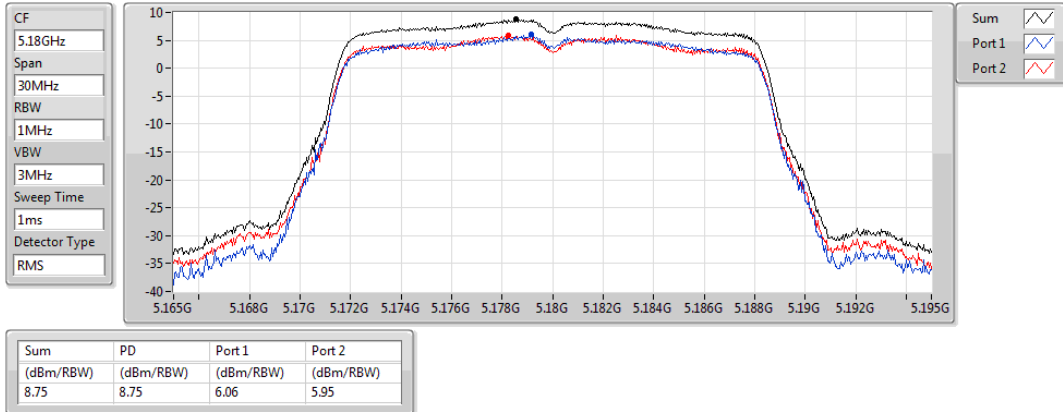
For 5.725 ~ 5.85GHz

Directional Gain= $10 * \log((10^{2.3/20} + 10^{2.7/20})^2 / 2) = 5.51$ dBi

802.11a_Nss1,(6Mbps)_2TX

PSD

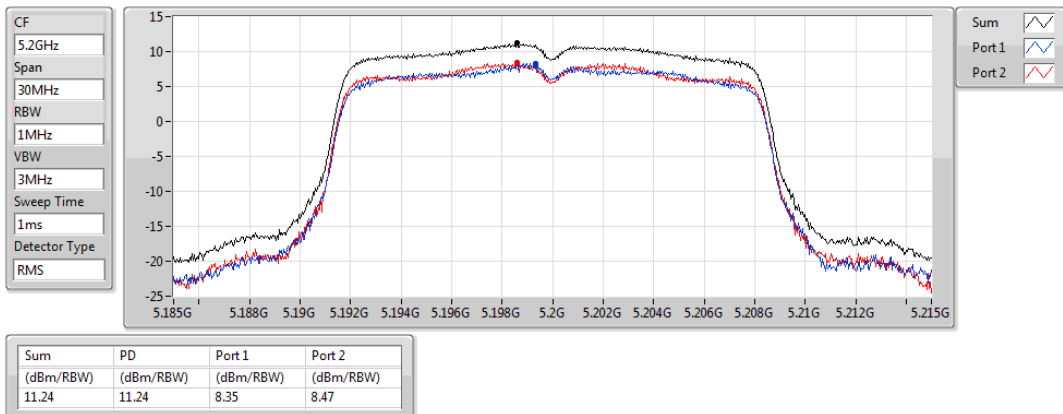
5180MHz



802.11a_Nss1,(6Mbps)_2TX

PSD

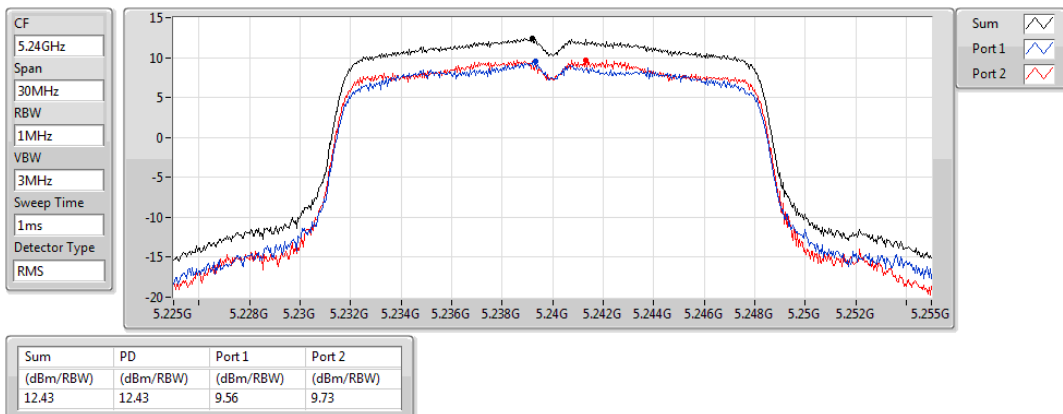
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802.11a_Nss1,(6Mbps)_2TX

PSD

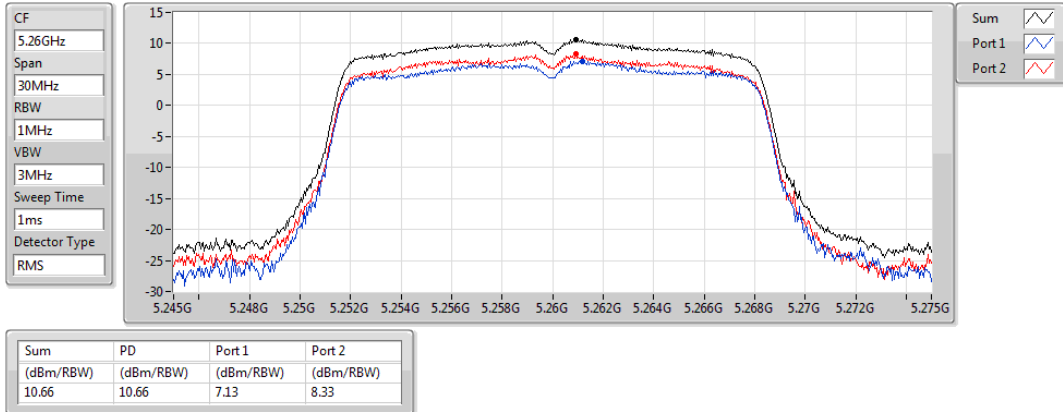
5240MHz



802.11a_Nss1,(6Mbps)_2TX

PSD

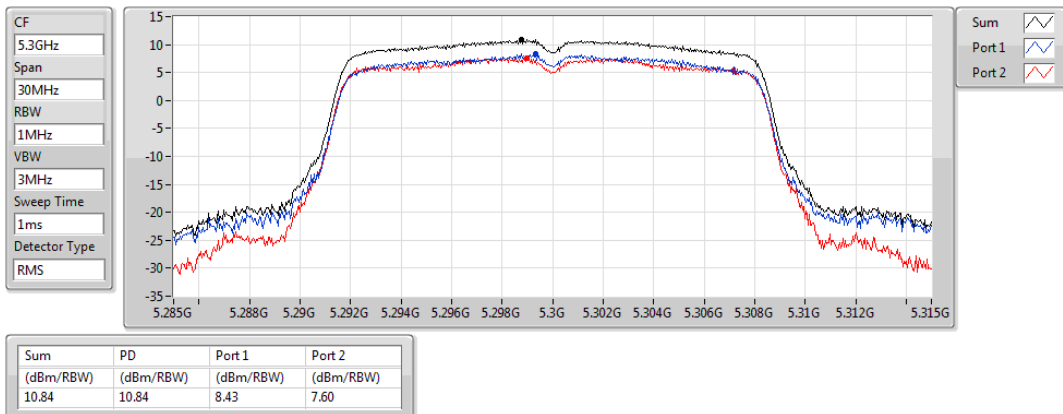
5260MHz



802.11a_Nss1,(6Mbps)_2TX

PSD

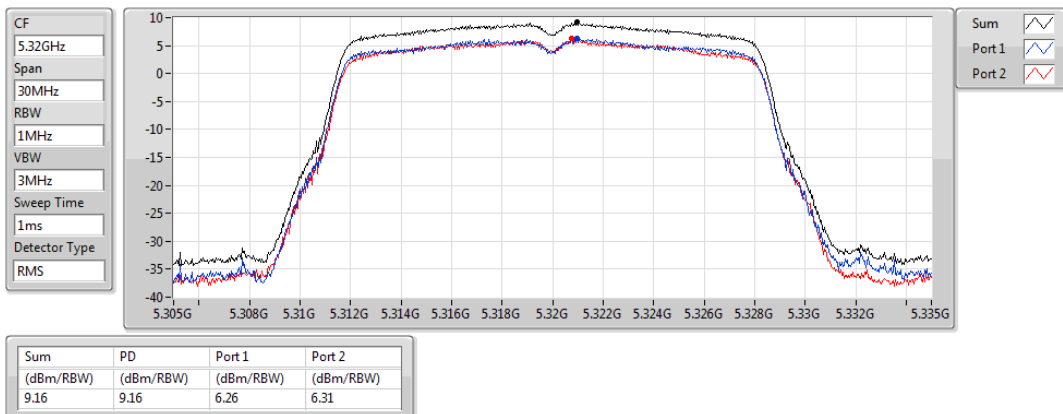
5300MHz



802.11a_Nss1,(6Mbps)_2TX

PSD

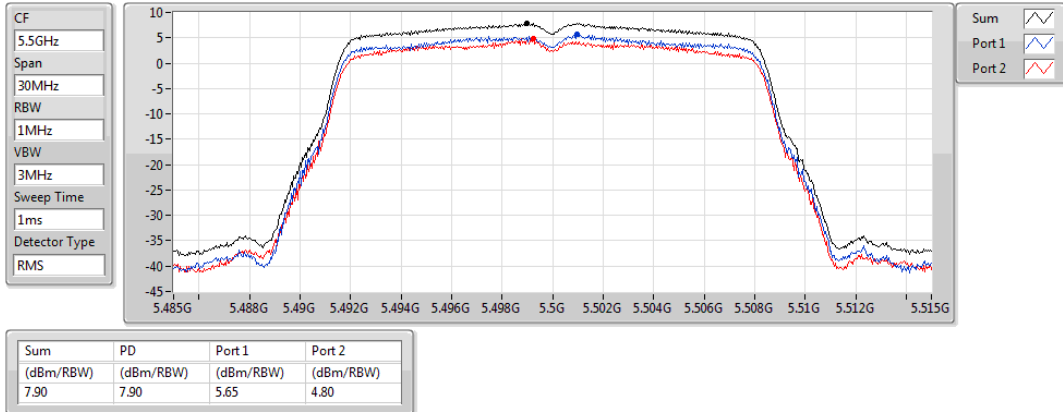
5320MHz



802.11a_Nss1,(6Mbps)_2TX

PSD

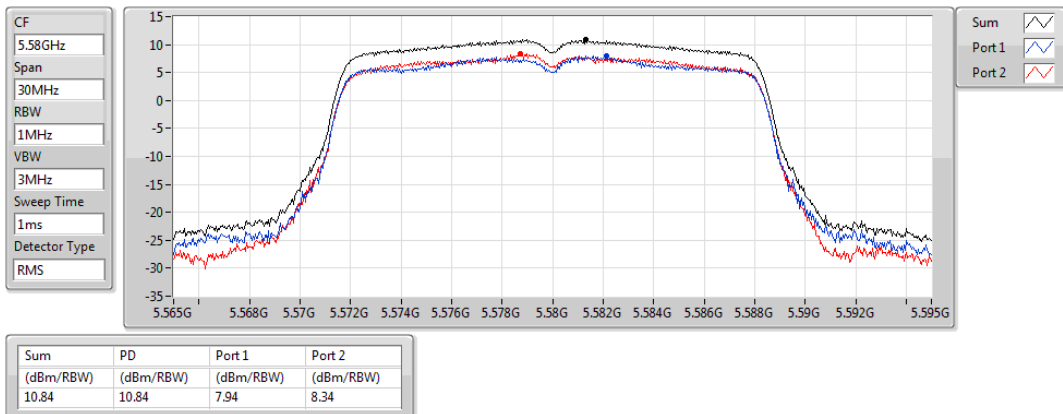
5500MHz



802.11a_Nss1,(6Mbps)_2TX

PSD

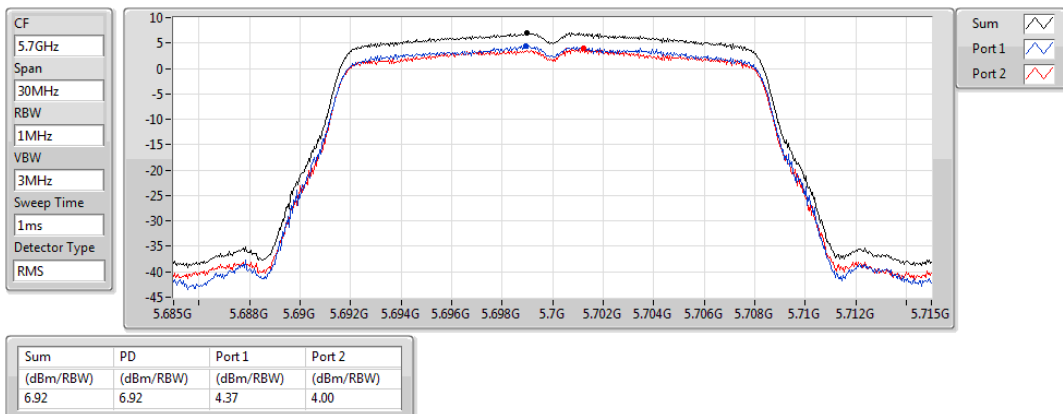
5580MHz



802.11a_Nss1,(6Mbps)_2TX

PSD

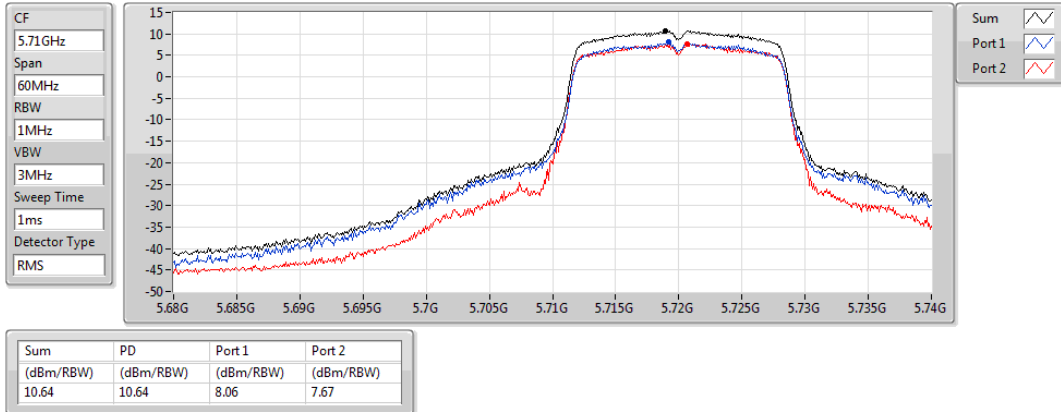
5700MHz



802.11a_Nss1,(6Mbps)_2TX

PSD

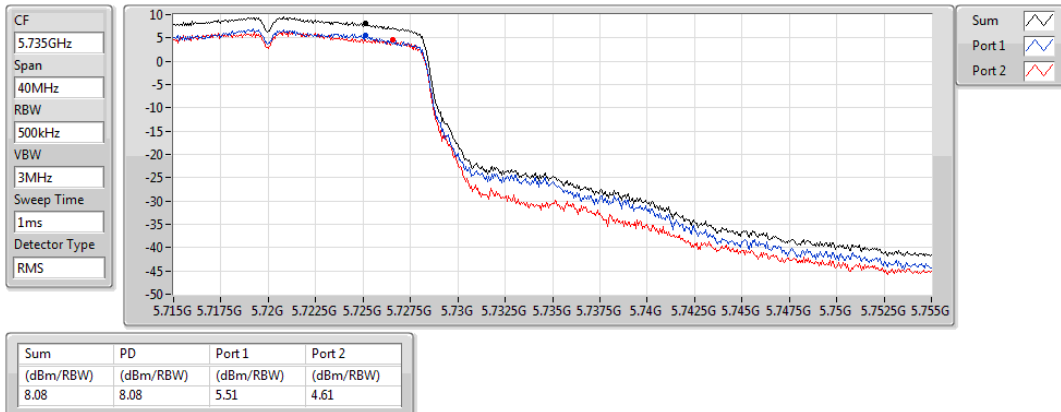
5720MHz Straddle 5.47-5.725GHz



802.11a_Nss1,(6Mbps)_2TX

PSD

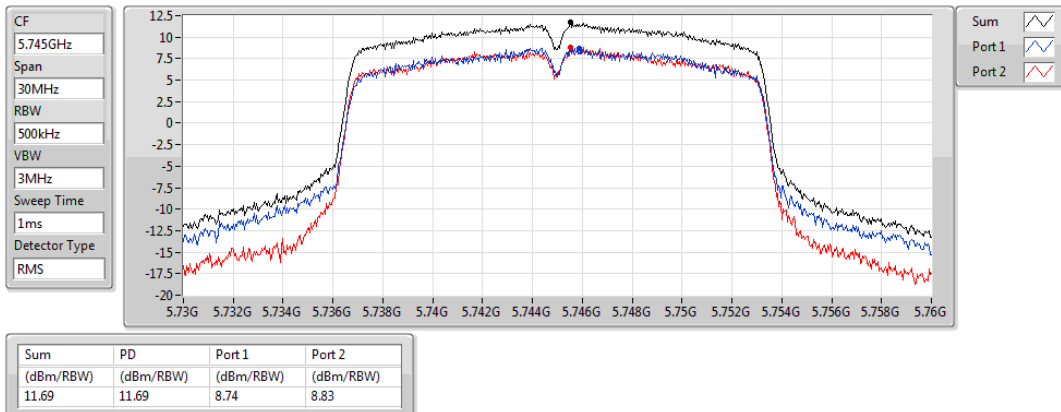
5720MHz Straddle 5.725-5.85GHz



802.11a_Nss1,(6Mbps)_2TX

PSD

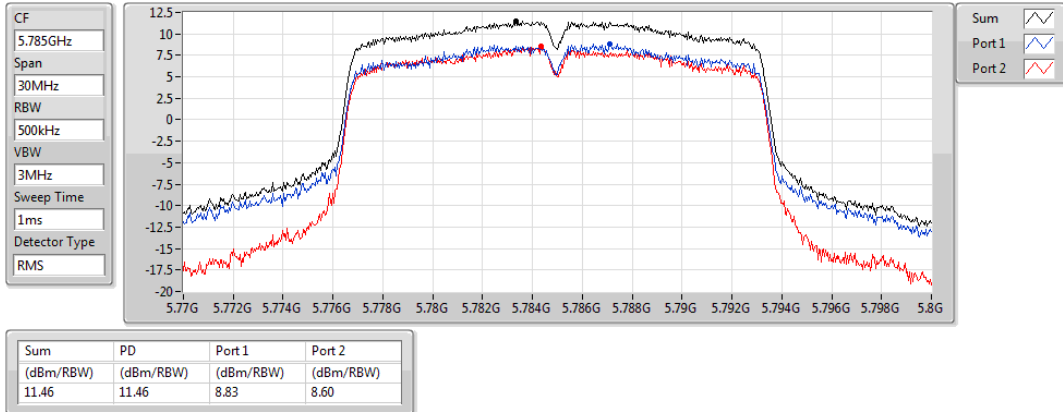
5745MHz



802.11a_Nss1,(6Mbps)_2TX

PSD

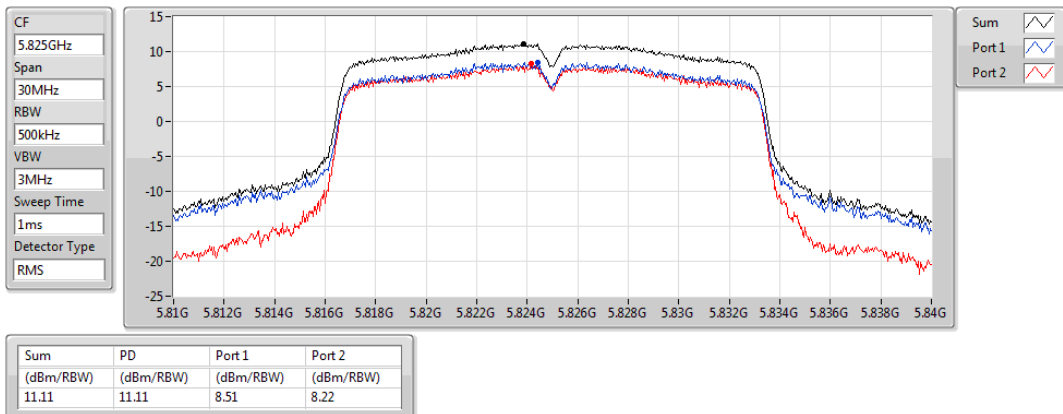
5785MHz



802.11a_Nss1,(6Mbps)_2TX

PSD

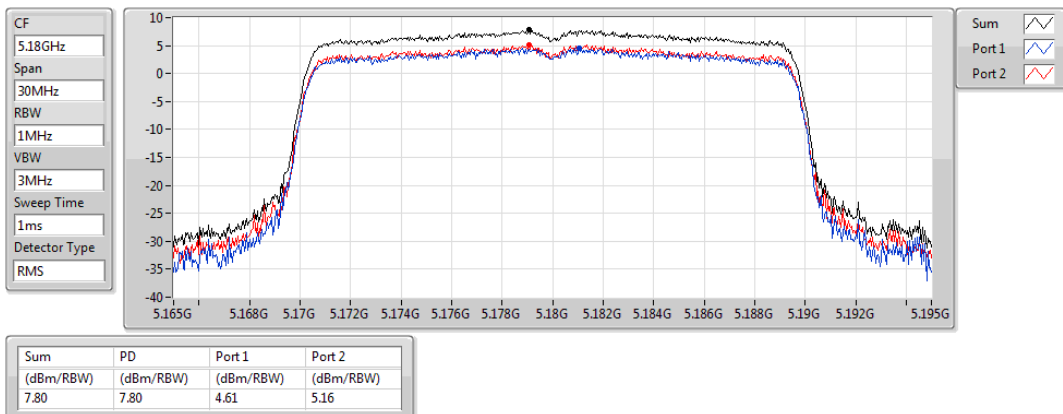
5825MHz



802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

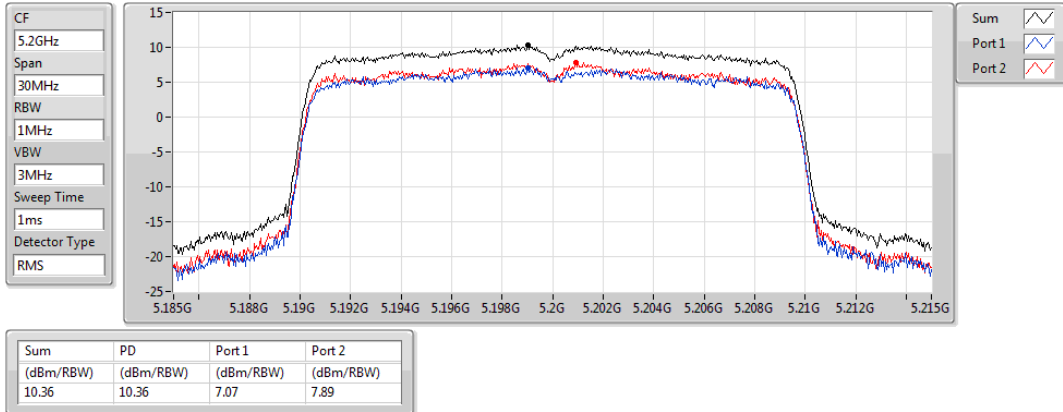
5180MHz



802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

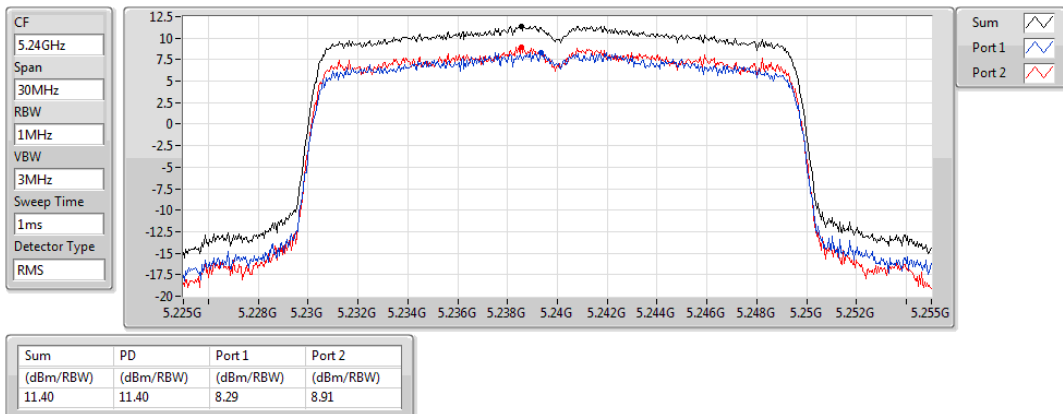
5200MHz



802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

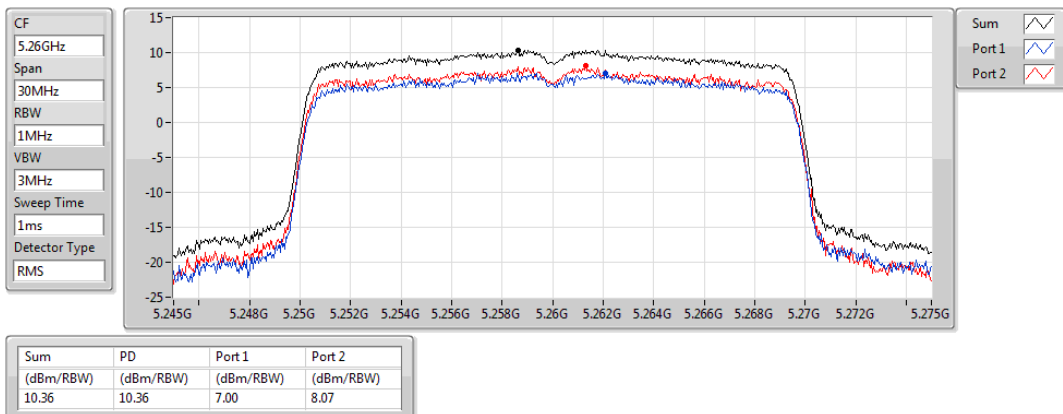
5240MHz



802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

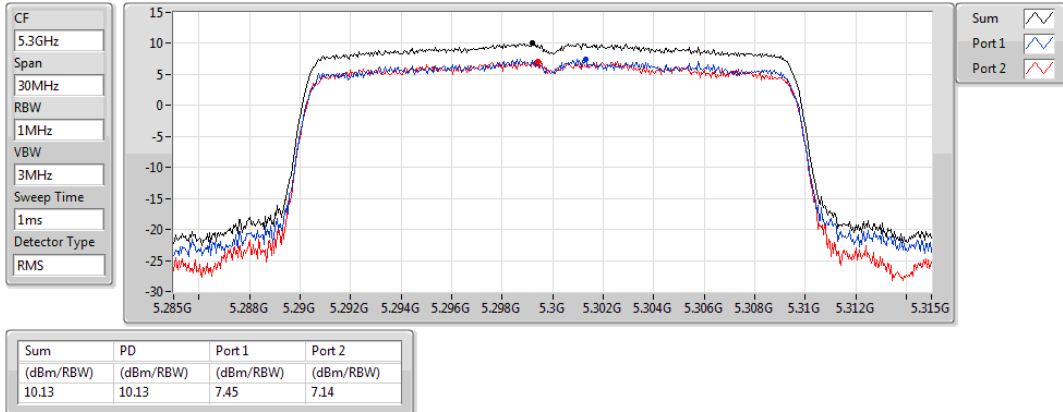
5260MHz



802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

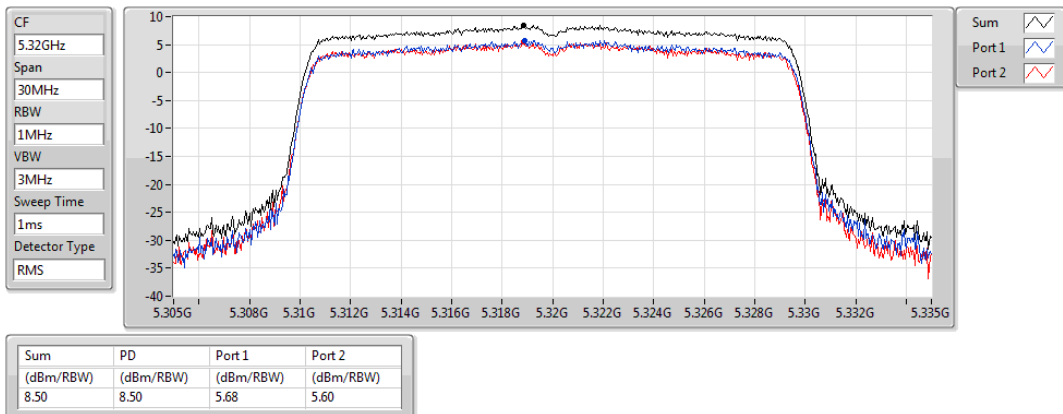
5300MHz



802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

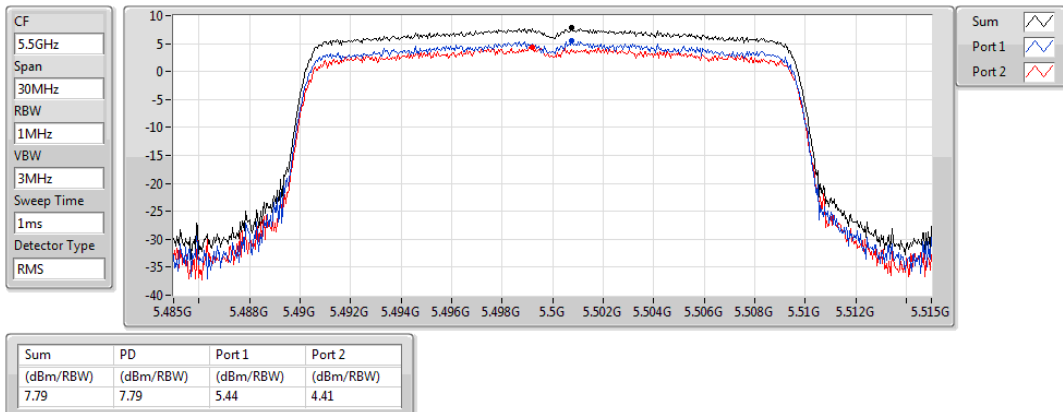
5320MHz



802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

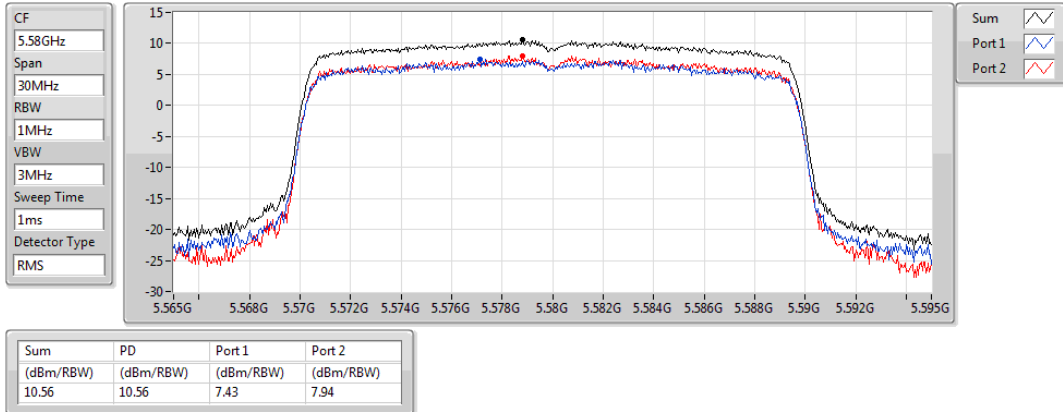
5500MHz



802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

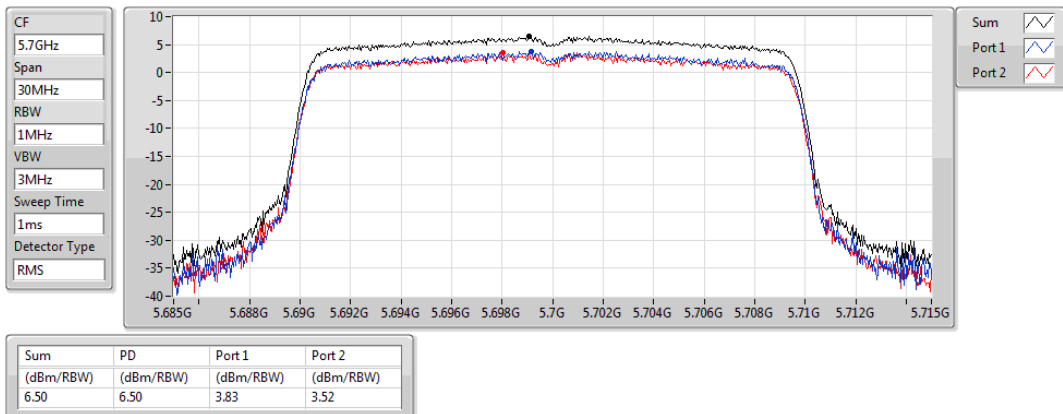
5580MHz



802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

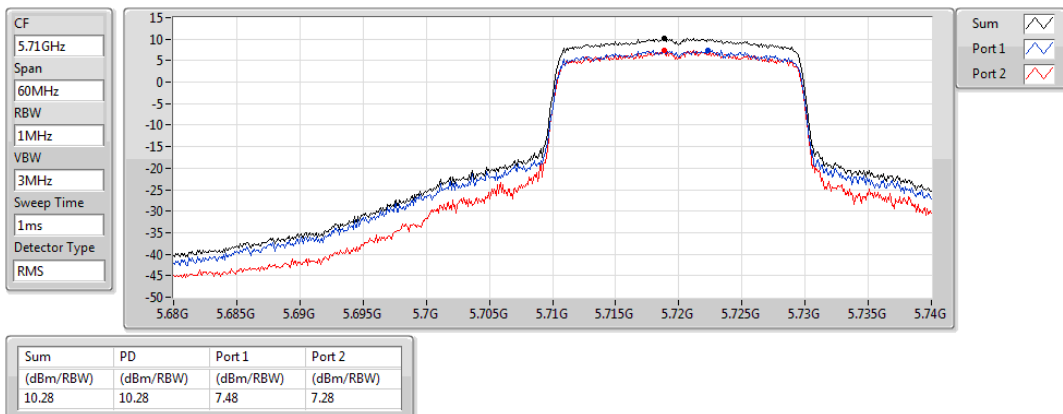
5700MHz



802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

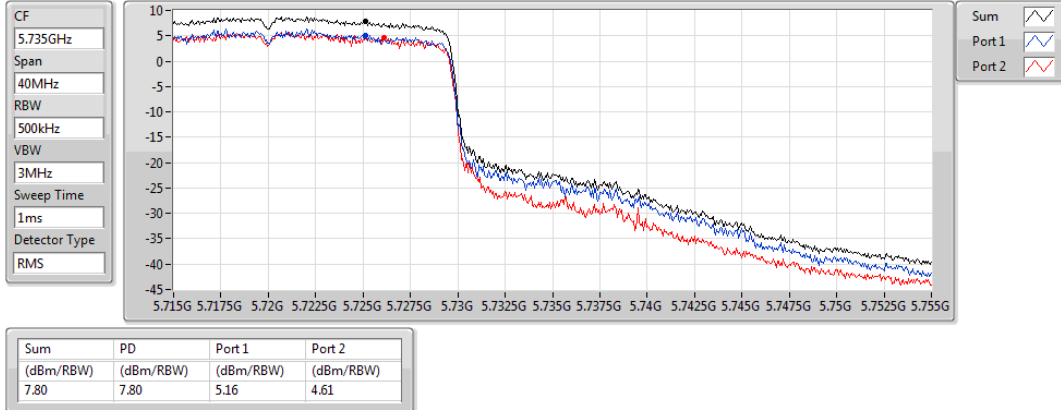
5720MHz Straddle 5.47-5.725GHz



802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

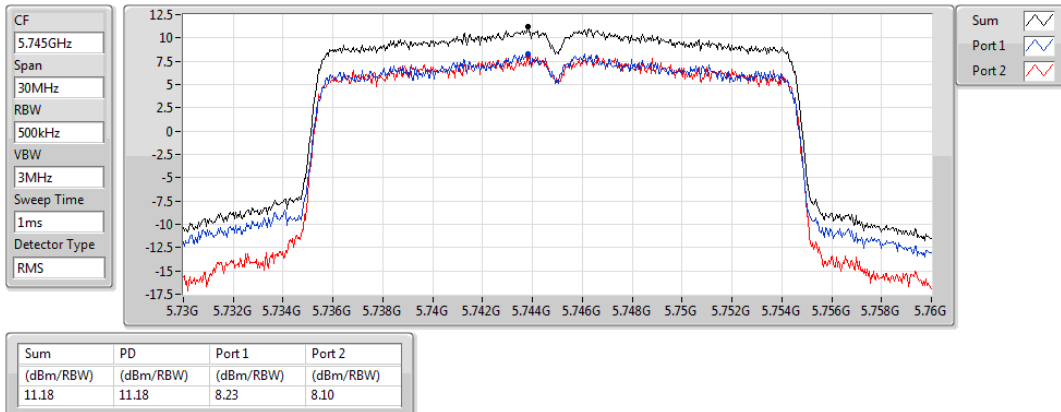
5720MHz Straddle 5.725-5.85GHz



802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

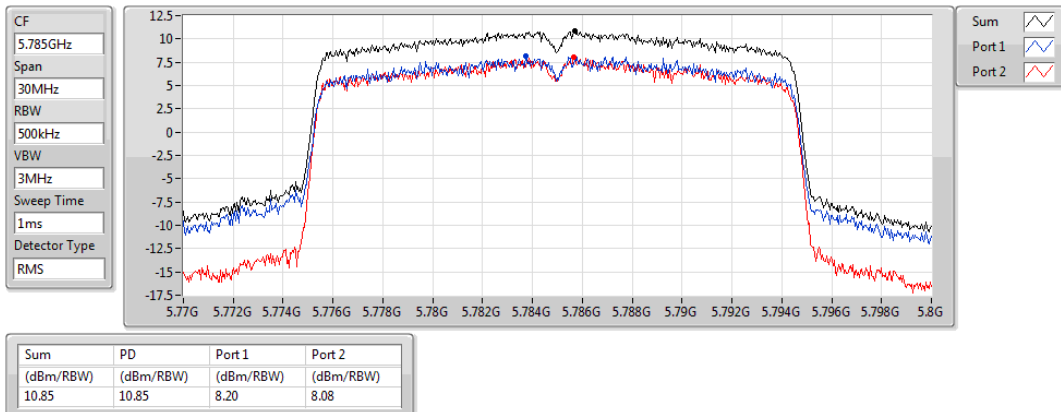
5745MHz



802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

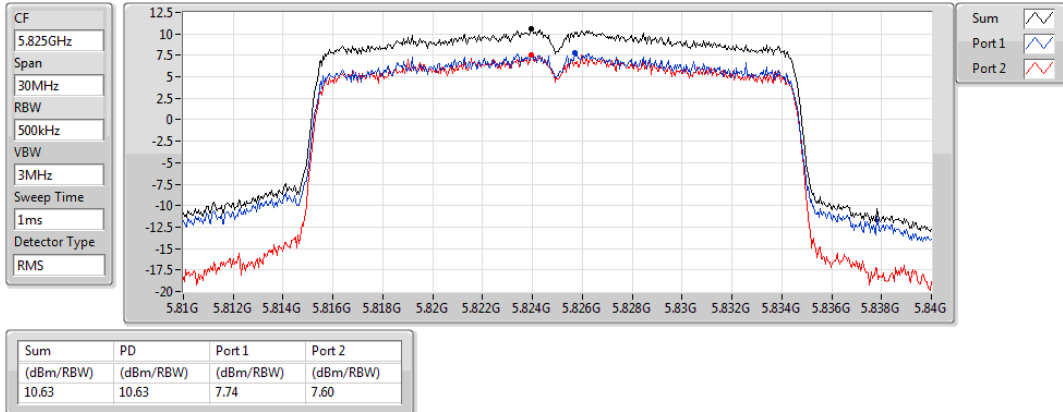
5785MHz



802.11ax HEW20_Nss1,(MCS0)_2TX

PSD

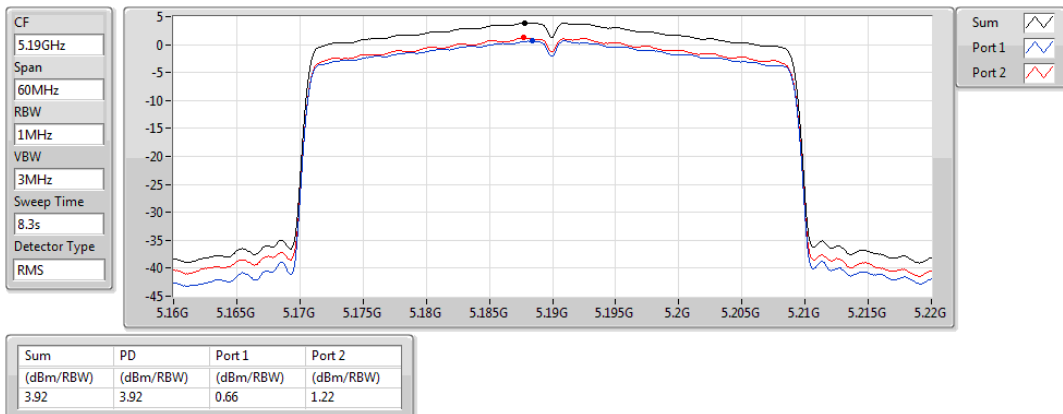
5825MHz



802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

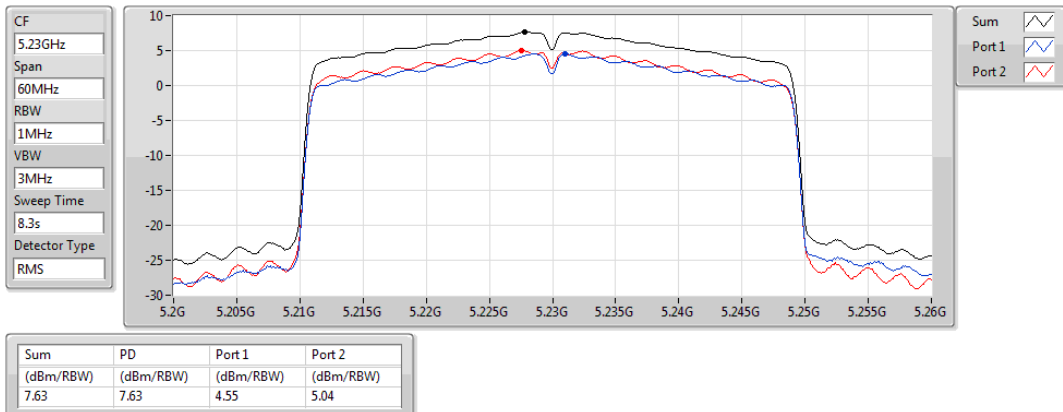
5190MHz



802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

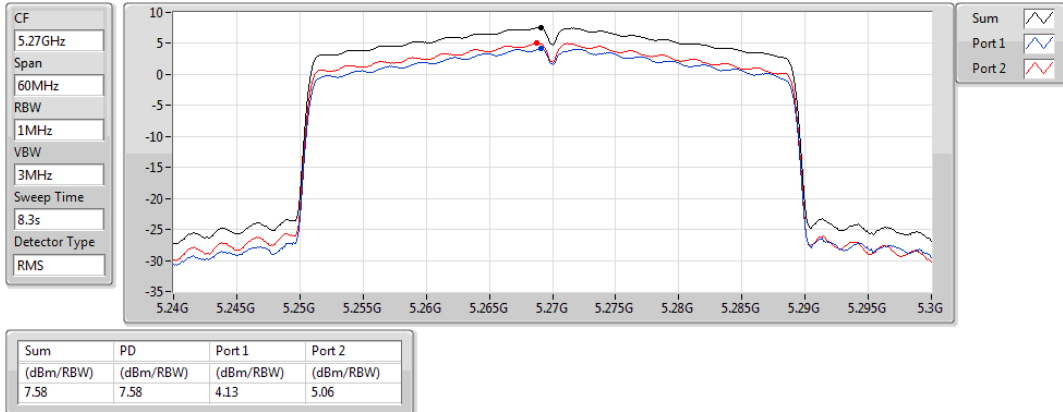
5230MHz



802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

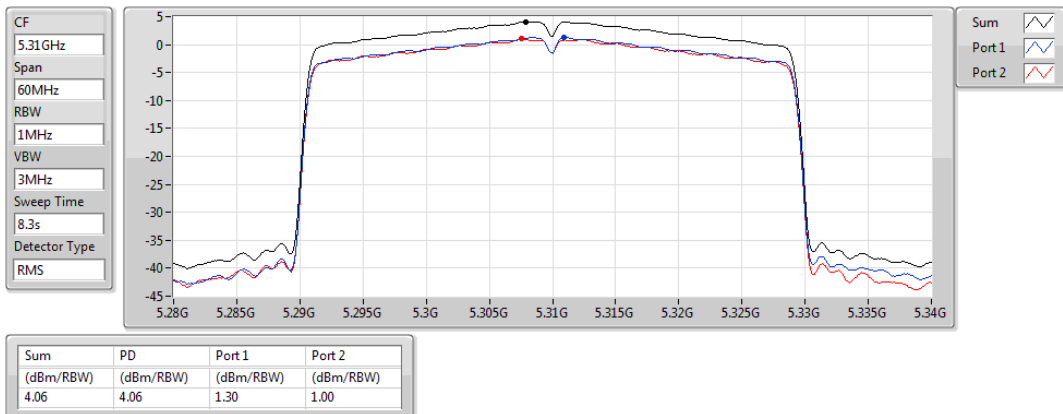
5270MHz



802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

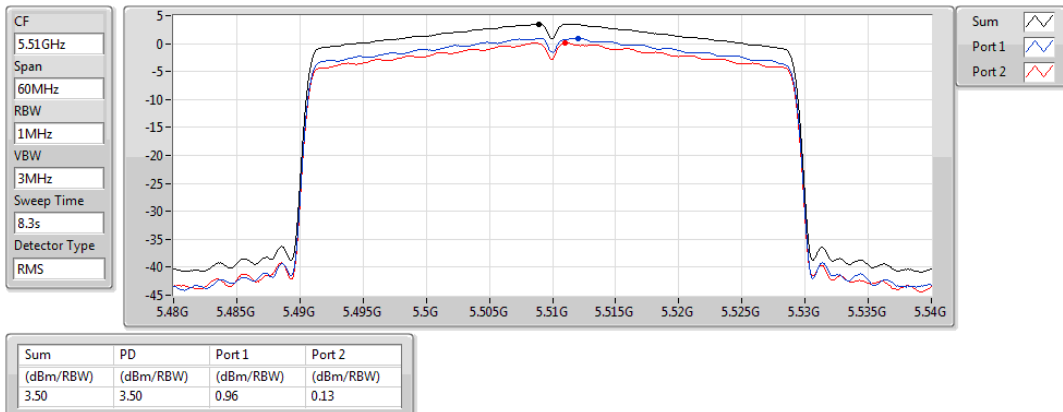
5310MHz



802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

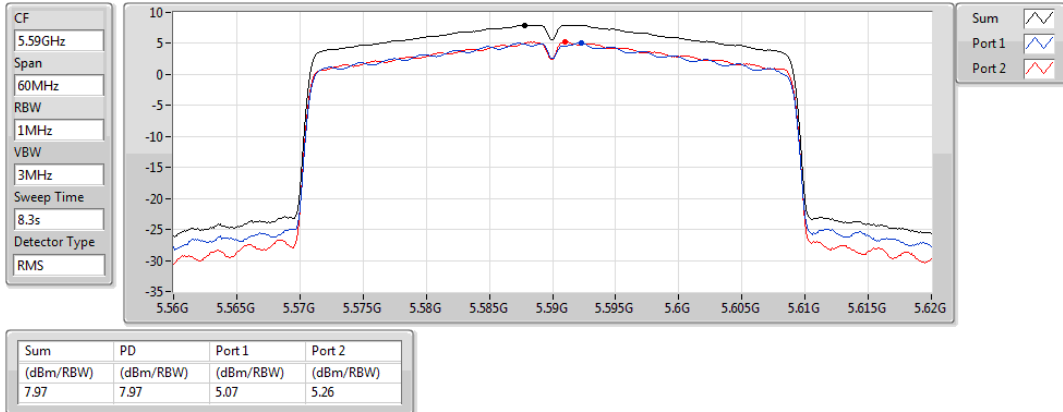
5510MHz



802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

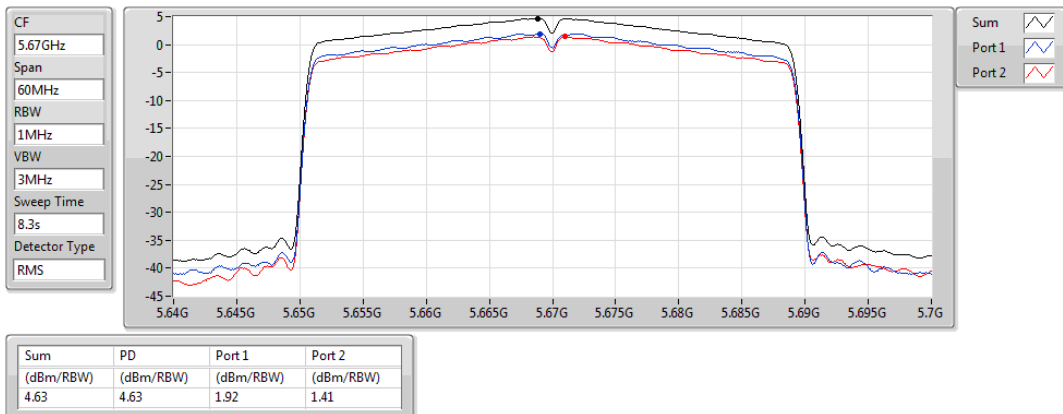
5590MHz



802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

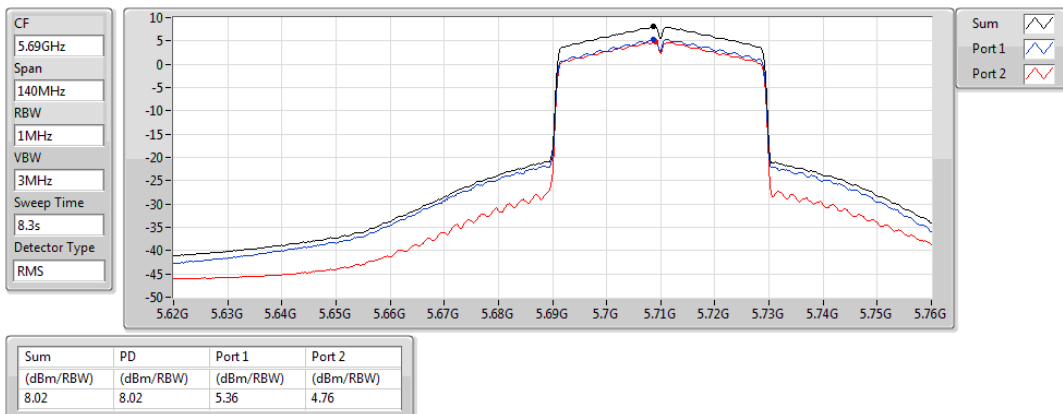
5670MHz



802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

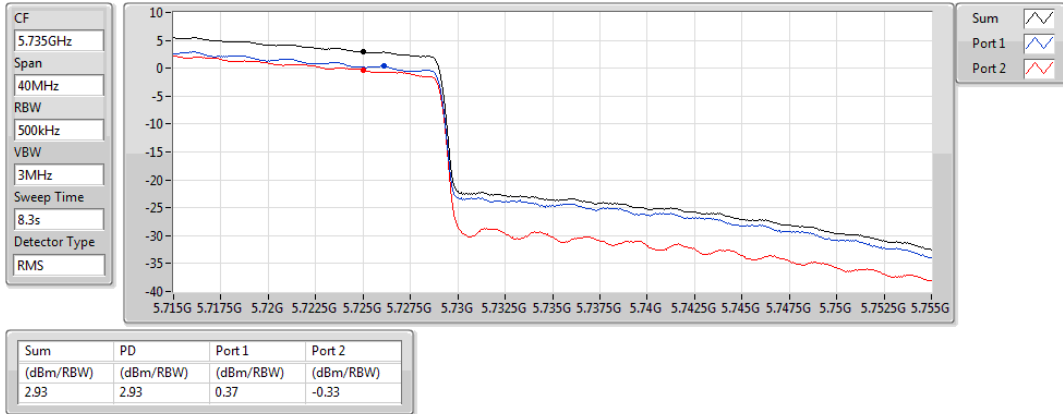
5710MHz Straddle 5.47-5.725GHz



802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

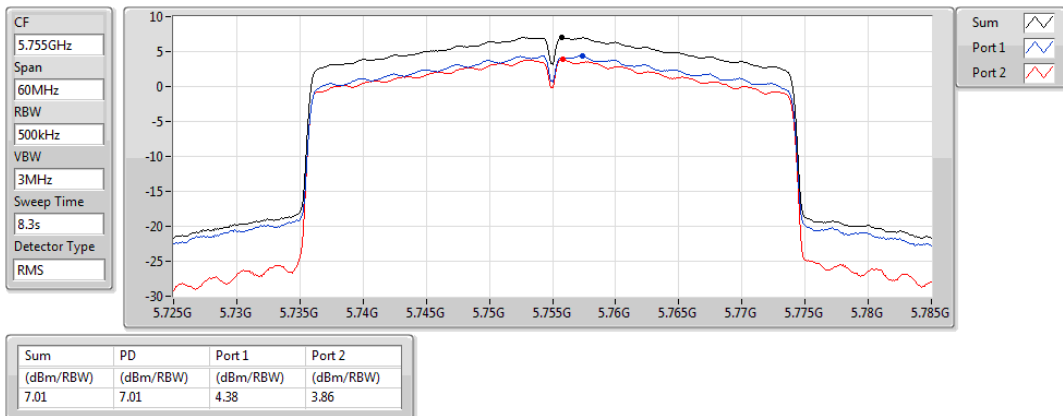
5710MHz Straddle 5.725-5.85GHz



802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

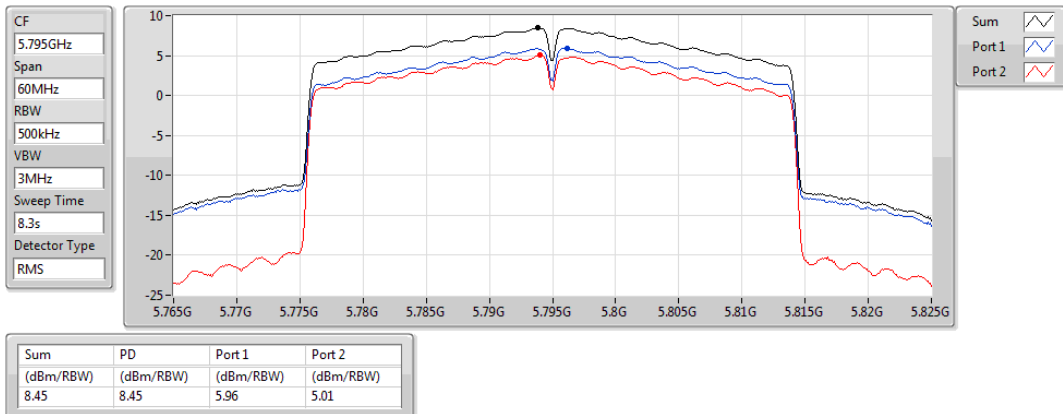
5755MHz



802.11ax HEW40_Nss1,(MCS0)_2TX

PSD

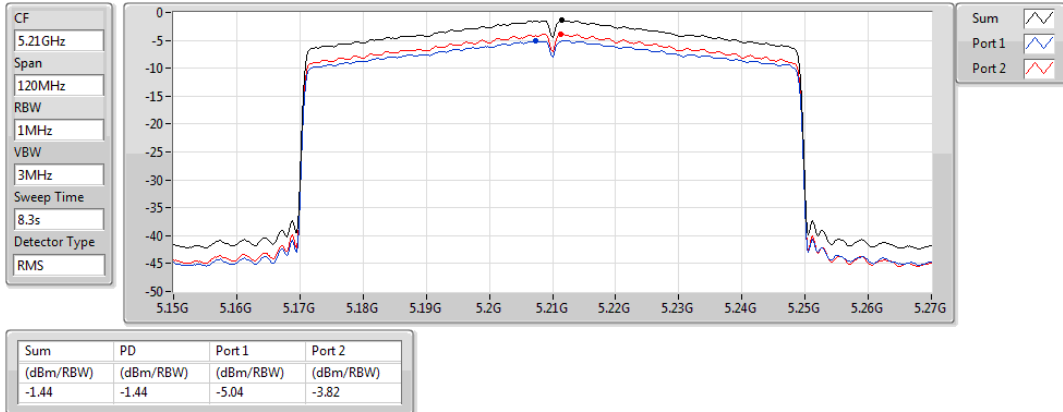
5795MHz



802.11ax HEW80_Nss1,(MCS0)_2TX

PSD

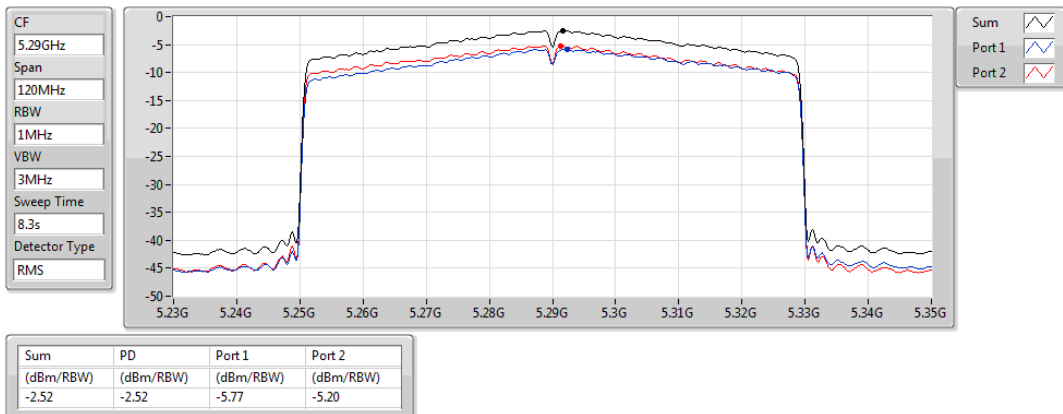
5210MHz



802.11ax HEW80_Nss1,(MCS0)_2TX

PSD

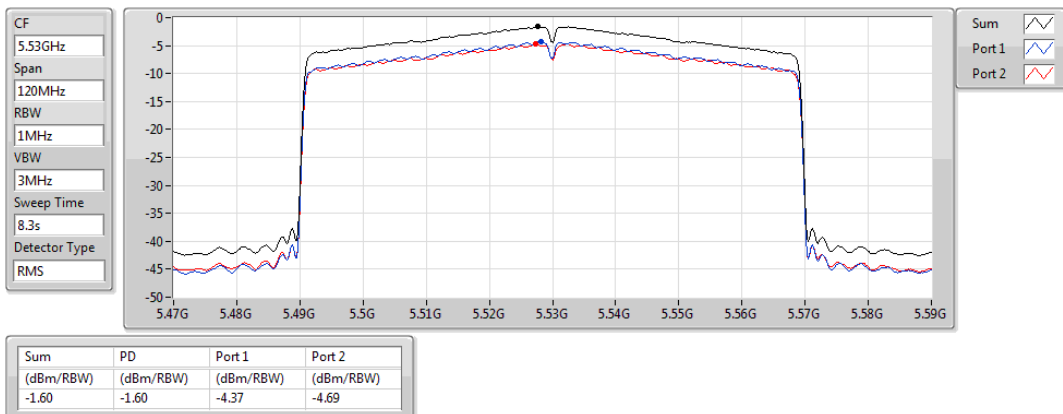
5290MHz



802.11ax HEW80_Nss1,(MCS0)_2TX

PSD

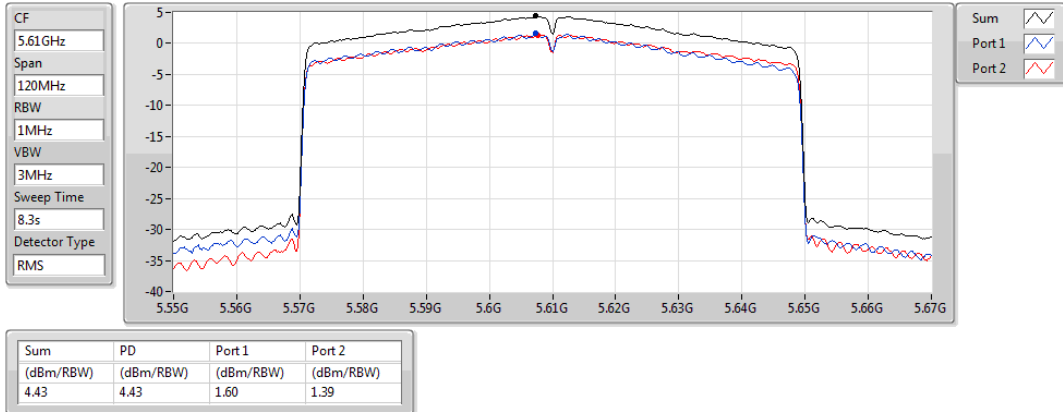
5530MHz



802.11ax HEW80_Nss1,(MCS0)_2TX

PSD

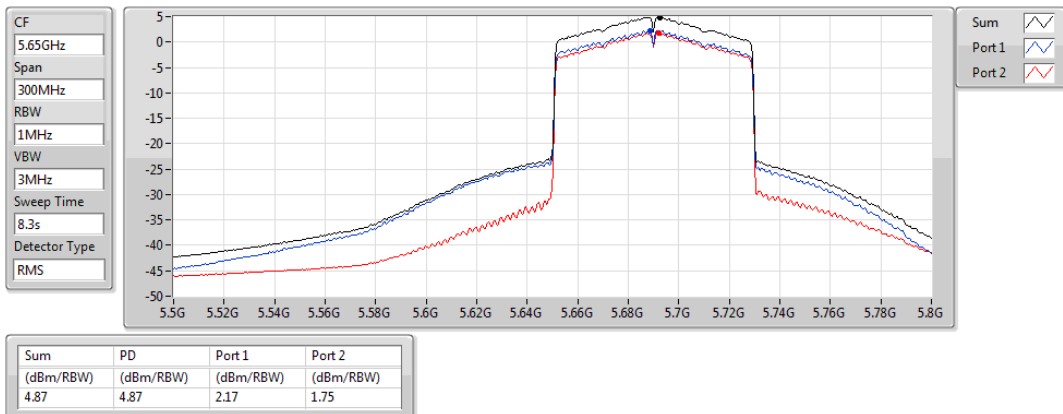
5610MHz



802.11ax HEW80_Nss1,(MCS0)_2TX

PSD

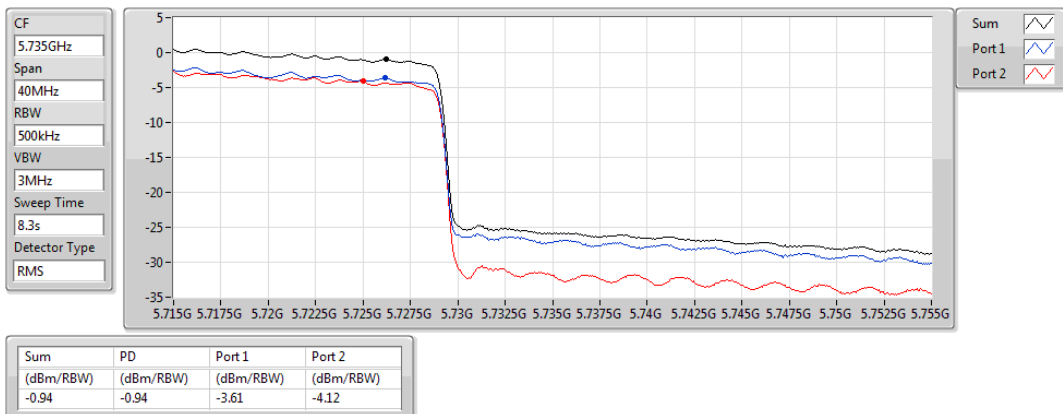
5690MHz Straddle 5.47-5.725GHz



802.11ax HEW80_Nss1,(MCS0)_2TX

PSD

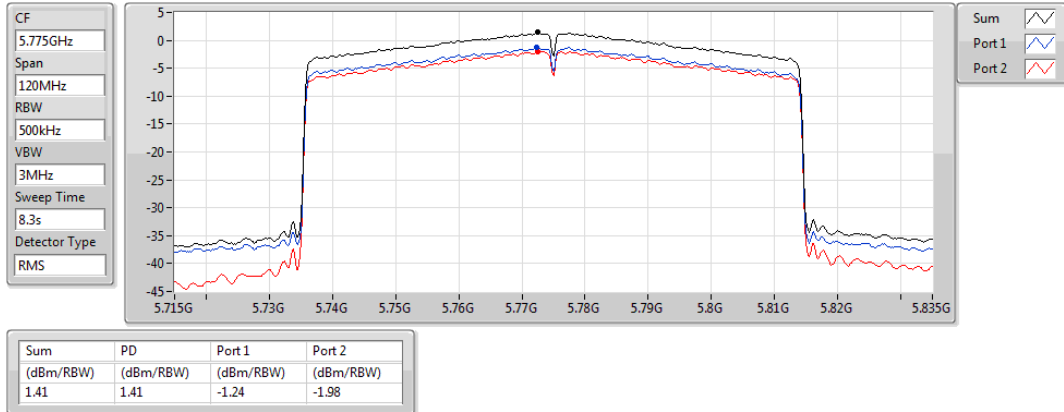
5690MHz Straddle 5.725-5.85GHz



802.11ax HEW80_Nss1,(MCS0)_2TX

PSD

5775MHz



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]
5.25 - 5.35 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
5.47 - 5.725 GHz	e.i.r.p. -27 dBm [68.2 dBuV/m@3m]
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

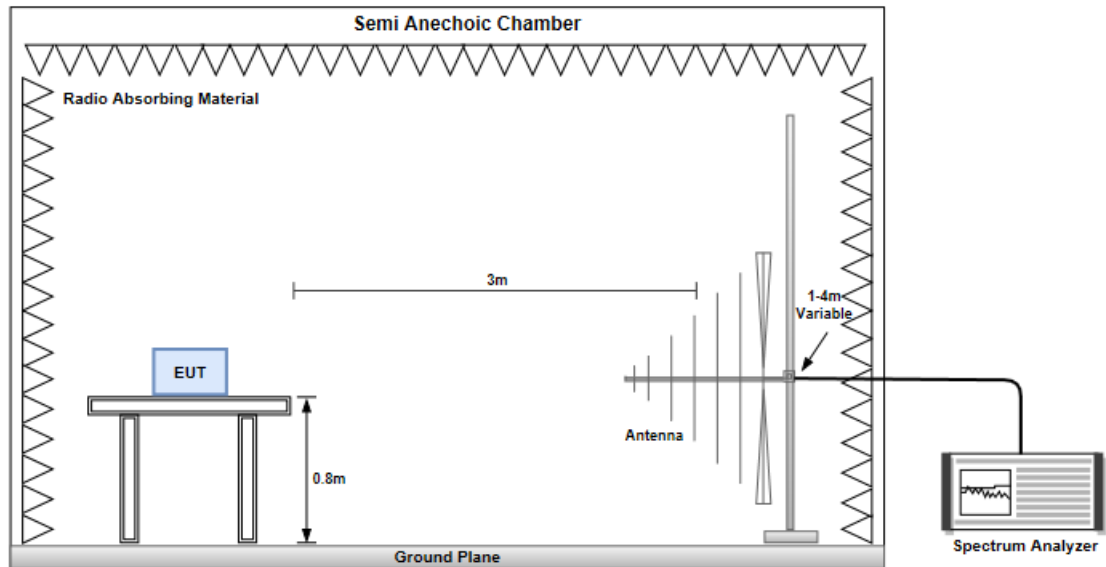
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission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

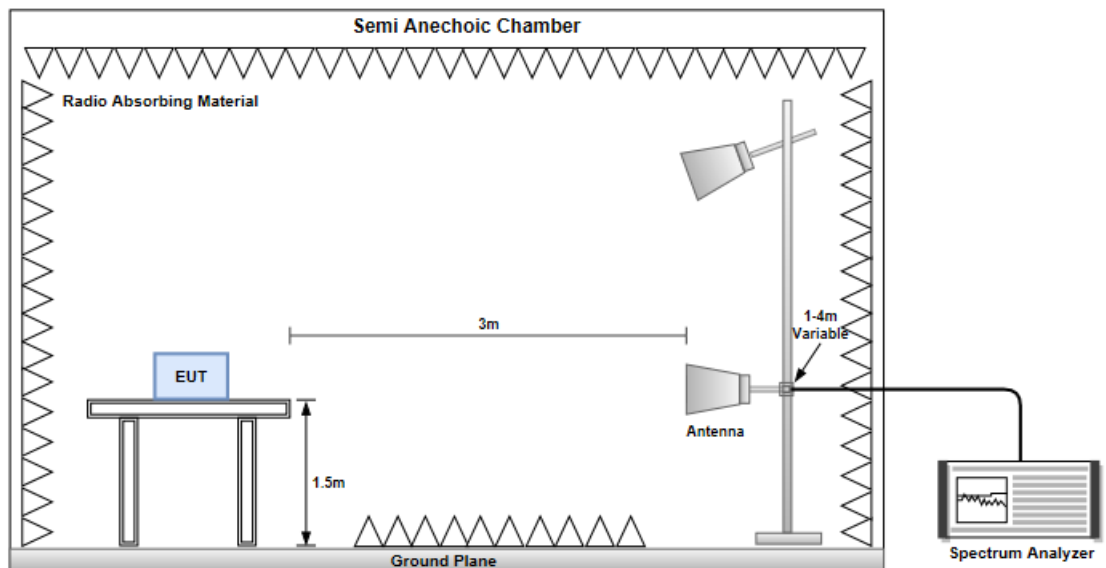
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above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

3.5.3 Test Setup

Radiated Emissions below 1 GHz

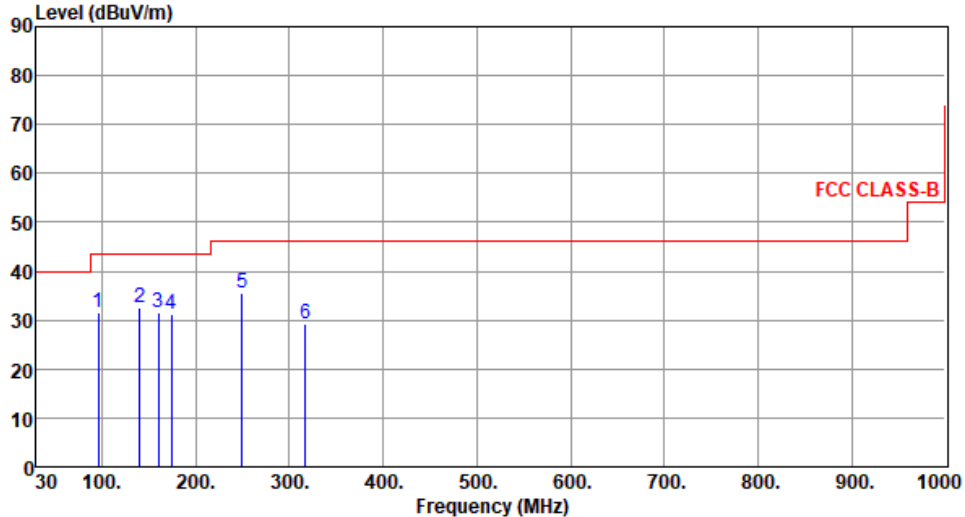


Radiated Emissions above 1 GHz



3.5.4 Transmitter Radiated Unwanted Emissions (Below 1GHz)

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

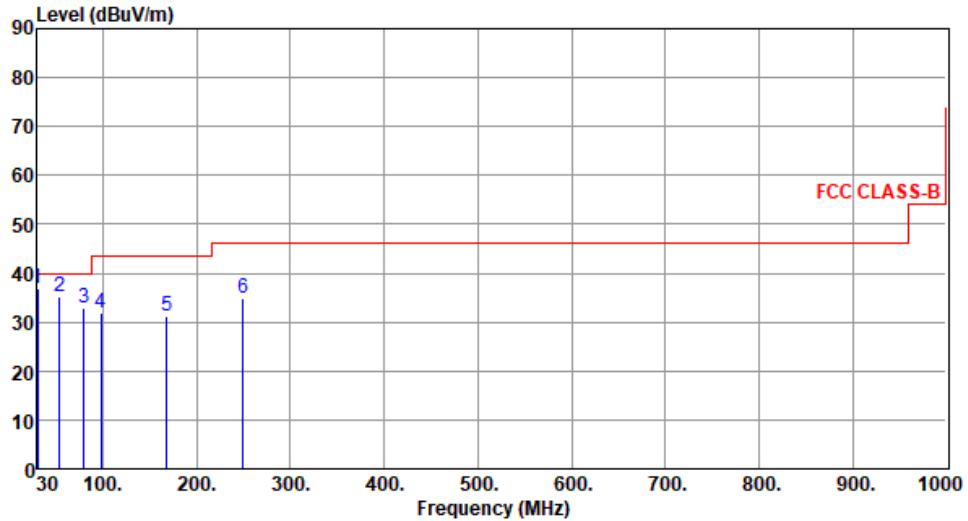


The graph displays the Level (dBUV/m) on the y-axis (0 to 90) against Frequency (MHz) on the x-axis (30 to 1000). A red line represents the FCC CLASS-B limit, which is 40 dBUV/m from 30 to 100 MHz, 45 dBUV/m from 100 to 300 MHz, and 55 dBUV/m from 300 to 1000 MHz. Six blue vertical lines indicate measured peaks at 96.57, 140.69, 160.25, 174.37, 249.63, and 317.25 MHz. The peak at 317.25 MHz is the highest, reaching approximately 29 dBUV/m.

	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	96.57	31.64	43.50	-11.86	45.10	-13.46	Peak	---	---
2	140.69	32.57	43.50	-10.93	41.43	-8.86	Peak	---	---
3	160.25	31.63	43.50	-11.87	40.05	-8.42	Peak	---	---
4	174.37	31.28	43.50	-12.22	40.56	-9.28	Peak	---	---
5	249.63	35.46	46.00	-10.54	45.42	-9.96	Peak	---	---
6	317.25	29.11	46.00	-16.89	36.57	-7.46	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	11a	Test Freq. (MHz)	5240
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	30.05	36.89	40.00	-3.11	46.60	-9.71	QP	100	185
2	54.15	35.05	40.00	-4.95	43.57	-8.52	QP	115	175
3	79.36	32.89	40.00	-7.11	45.82	-12.93	Peak	---	---
4	97.93	31.85	43.50	-11.65	45.16	-13.31	Peak	---	---
5	168.25	31.20	43.50	-12.30	39.93	-8.73	Peak	---	---
6	249.25	35.00	46.00	-11.00	44.96	-9.96	Peak	---	---

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

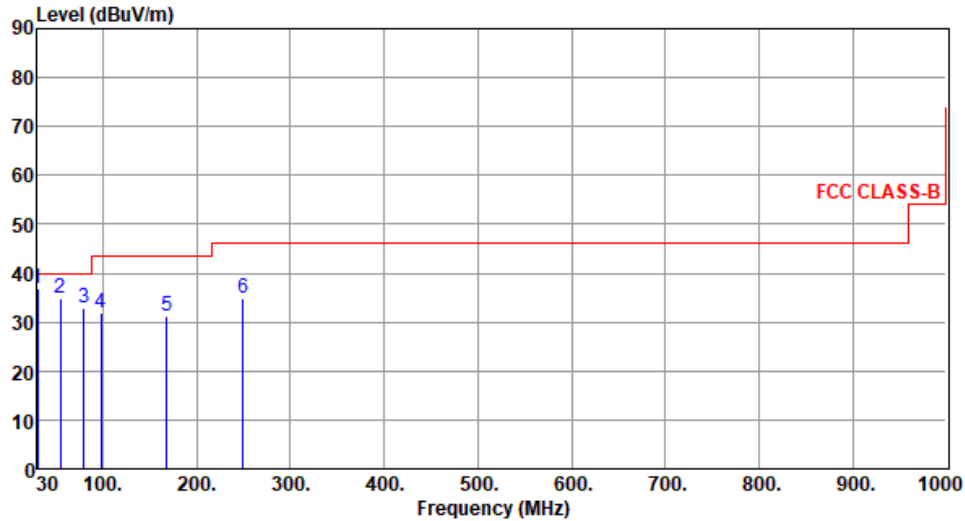
*Factor includes antenna factor , cable loss and amplifier gain

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	11ax HE20	Test Freq. (MHz)	5745
Polarization	Horizontal		
Level (dBuV/m)			

Modulation	11ax HE20	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	30.22	36.88	40.00	-3.12	46.57	-9.69	QP	102	183
2	54.33	34.99	40.00	-5.01	43.55	-8.56	QP	112	174
3	79.55	32.93	40.00	-7.07	45.90	-12.97	Peak	---	---
4	97.80	31.88	43.50	-11.62	45.19	-13.31	Peak	---	---
5	168.25	31.15	43.50	-12.35	39.88	-8.73	Peak	---	---
6	249.15	34.92	46.00	-11.08	44.88	-9.96	Peak	---	---

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

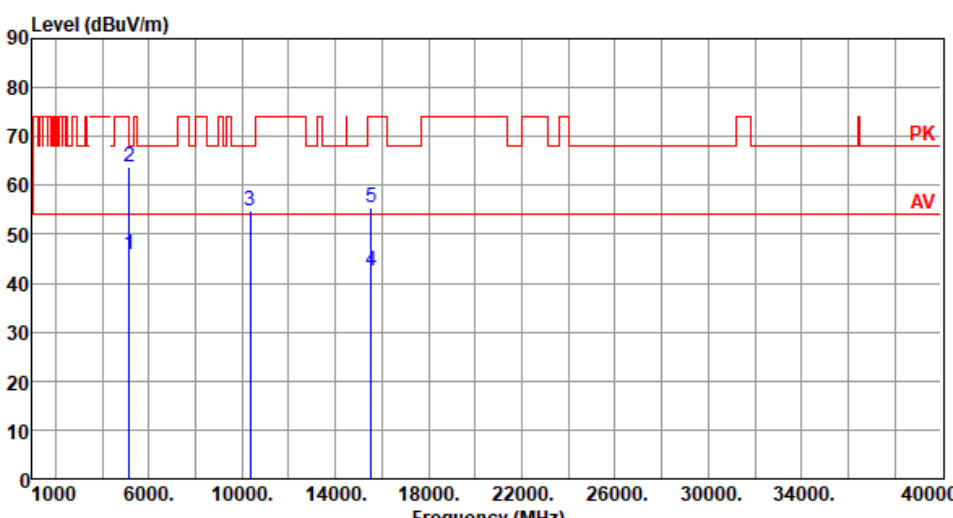
*Factor includes antenna factor , cable loss and amplifier gain

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

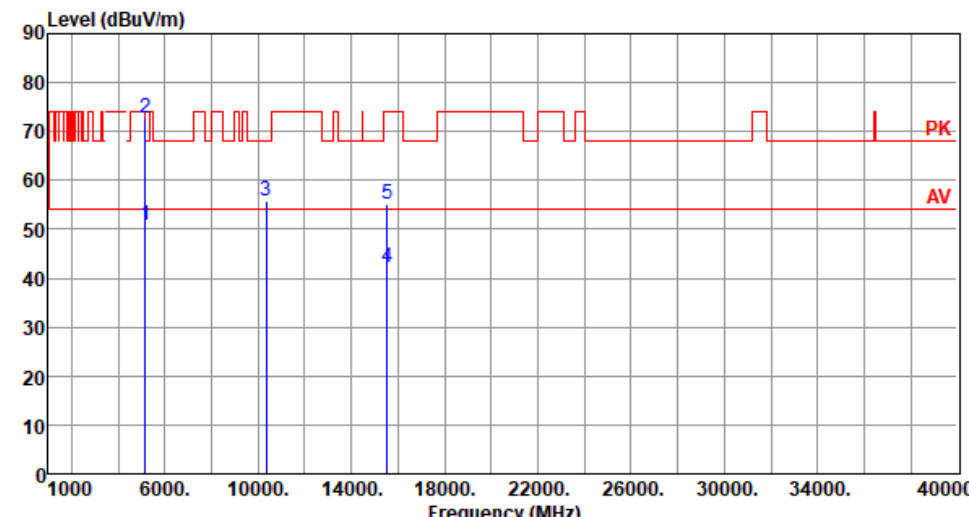
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.80	54.00	-8.20	41.16	4.64	Average	116	159
2	5150.00	63.75	74.00	-10.25	59.11	4.64	Peak	116	159
3	10360.00	54.80	68.20	-13.40	40.61	14.19	Peak	100	163
4	15540.00	42.47	54.00	-11.53	27.56	14.91	Average	100	143
5	15540.00	55.43	74.00	-18.57	40.52	14.91	Peak	100	143

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

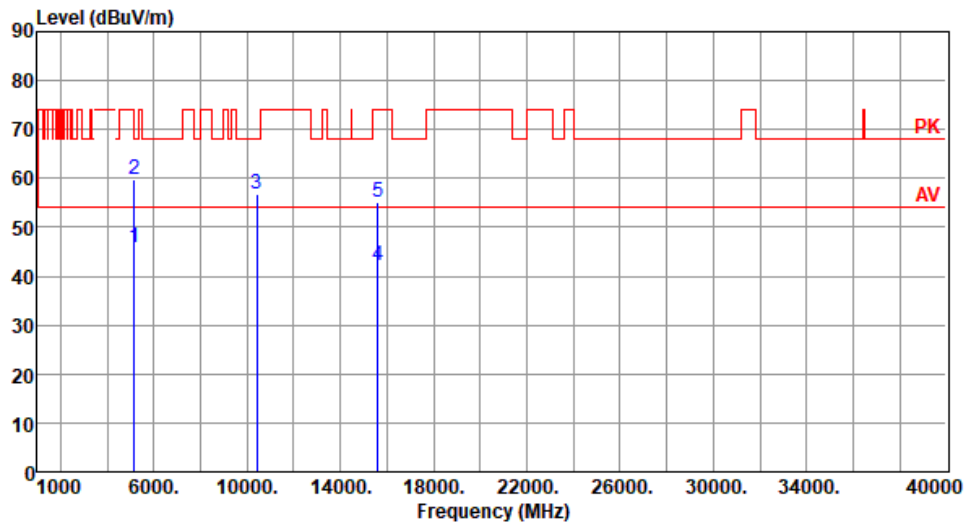
Modulation	11a	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	50.86	54.00	-3.14	46.22	4.64	Average	172	218
2	5150.00	72.76	74.00	-1.24	68.12	4.64	Peak	172	218
3	10360.00	55.75	68.20	-12.45	41.56	14.19	Peak	100	193
4	15540.00	42.34	54.00	-11.66	27.43	14.91	Average	100	56
5	15540.00	55.12	74.00	-18.88	40.21	14.91	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	Horizontal		



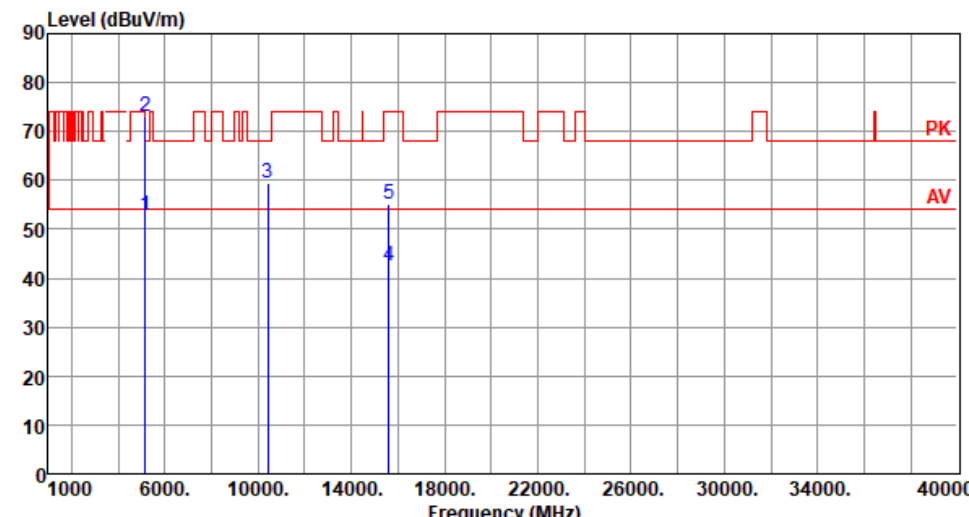
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.95	54.00	-8.05	41.31	4.64	Average	121	166
2	5150.00	59.88	74.00	-14.12	55.24	4.64	Peak	121	166
3	10400.00	56.86	68.20	-11.34	42.56	14.30	Peak	100	139
4	15600.00	42.32	54.00	-11.68	27.68	14.64	Average	100	50
5	15600.00	55.11	74.00	-18.89	40.47	14.64	Peak	100	50

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

*Factor includes antenna factor , cable loss and amplifier gain

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

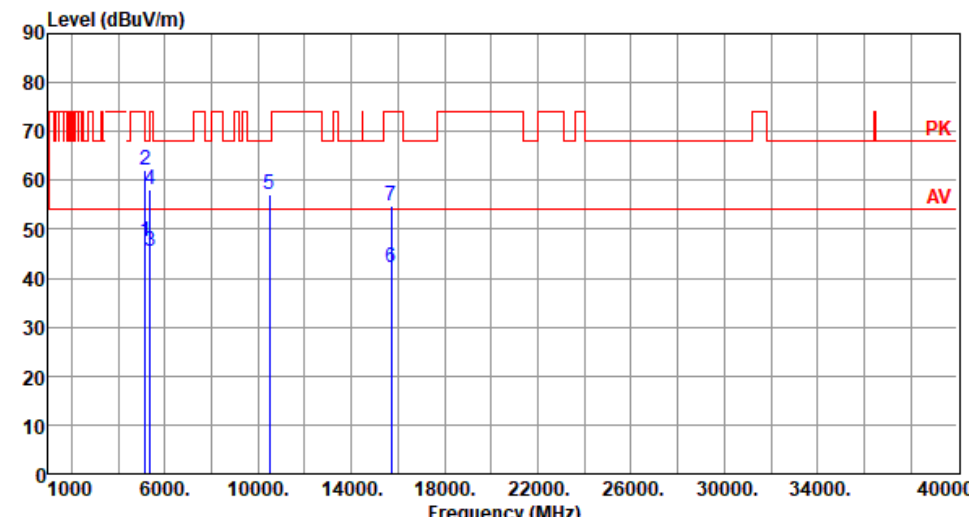
Modulation	11a	Test Freq. (MHz)	5200
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.87	54.00	-1.13	48.23	4.64	Average	230	231
2	5150.00	72.98	74.00	-1.02	68.34	4.64	Peak	230	231
3	10400.00	59.49	68.20	-8.71	45.19	14.30	Peak	111	357
4	15600.00	42.67	54.00	-11.33	28.03	14.64	Average	100	175
5	15600.00	55.27	74.00	-18.73	40.63	14.64	Peak	100	175

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

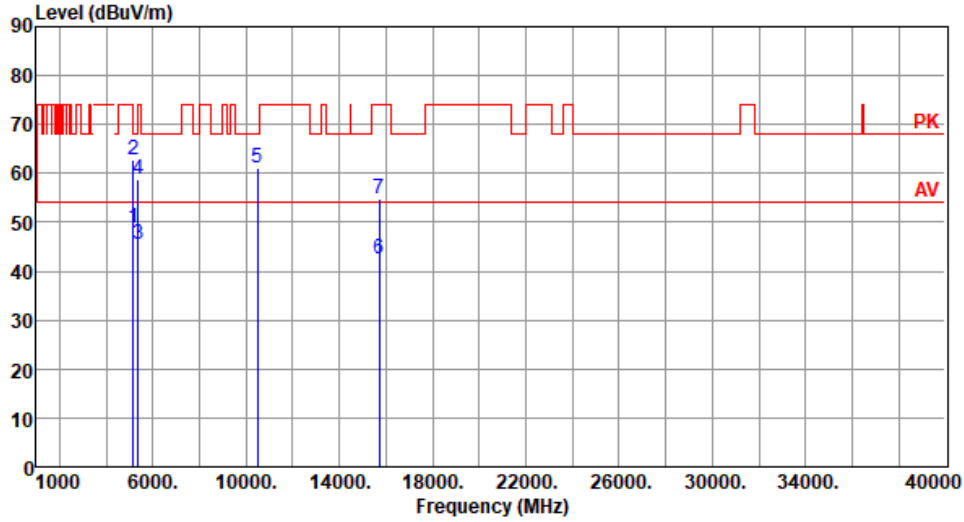
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	47.61	54.00	-6.39	42.97	4.64	Average	122	165
2	5150.00	62.19	74.00	-11.81	57.55	4.64	Peak	122	165
3	5350.00	45.49	54.00	-8.51	41.55	3.94	Average	122	165
4	5350.00	58.19	74.00	-15.81	54.25	3.94	Peak	122	165
5	10480.00	57.04	68.20	-11.16	42.58	14.46	Peak	100	140
6	15720.00	42.32	54.00	-11.68	28.11	14.21	Average	100	145
7	15720.00	54.73	74.00	-19.27	40.52	14.21	Peak	100	145

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

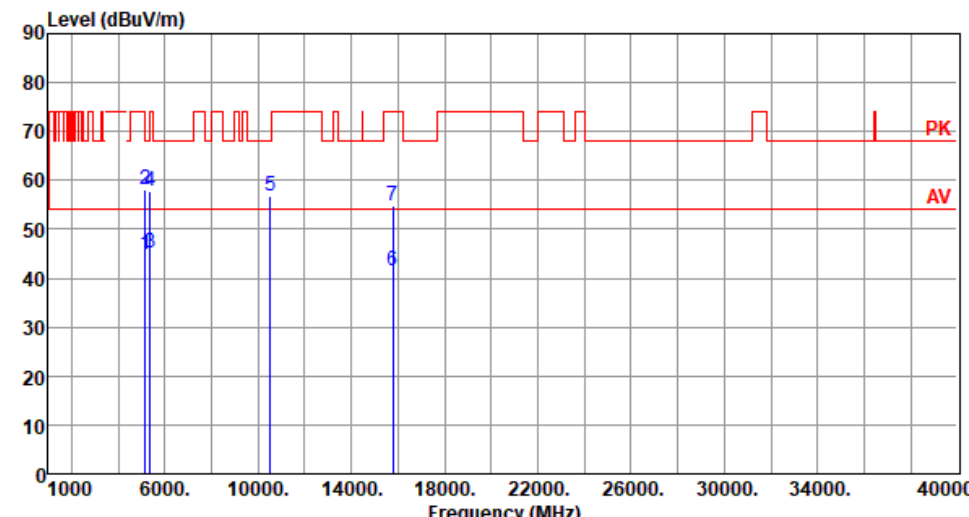
Modulation	11a	Test Freq. (MHz)	5240
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.87	54.00	-5.13	44.23	4.64	Average	165	220
2	5150.00	62.75	74.00	-11.25	58.11	4.64	Peak	165	220
3	5350.00	45.66	54.00	-8.34	41.72	3.94	Average	165	220
4	5350.00	58.71	74.00	-15.29	54.77	3.94	Peak	165	220
5	10480.00	61.11	68.20	-7.09	46.65	14.46	Peak	112	356
6	15720.00	42.42	54.00	-11.58	28.21	14.21	Average	100	176
7	15720.00	54.89	74.00	-19.11	40.68	14.21	Peak	100	176

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

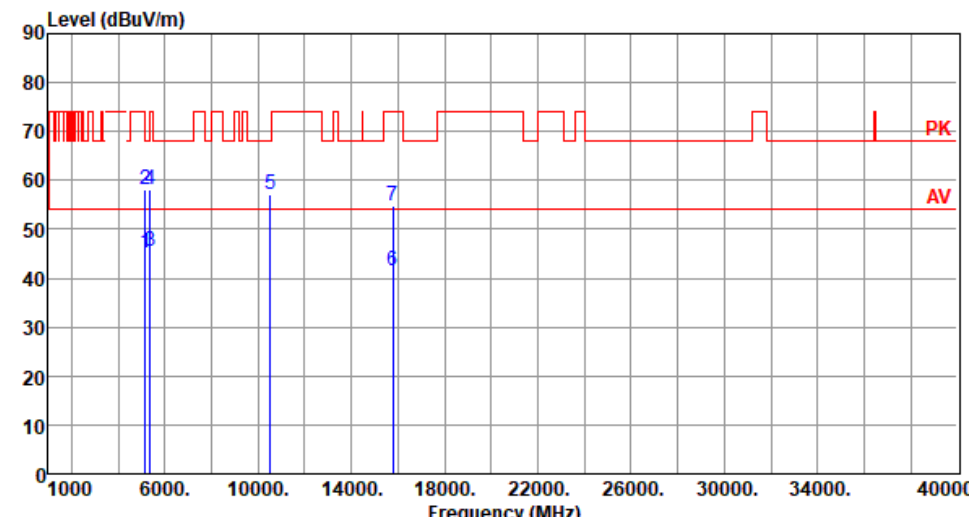
Modulation	11a	Test Freq. (MHz)	5260
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	44.95	54.00	-9.05	40.31	4.64	Average	105	161
2	5150.00	58.16	74.00	-15.84	53.52	4.64	Peak	105	161
3	5350.00	45.15	54.00	-8.85	41.21	3.94	Average	105	161
4	5350.00	57.83	74.00	-16.17	53.89	3.94	Peak	105	161
5	10520.00	56.90	68.20	-11.30	42.44	14.46	Peak	142	137
6	15780.00	41.56	54.00	-12.44	27.38	14.18	Average	100	55
7	15780.00	54.71	74.00	-19.29	40.53	14.18	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).

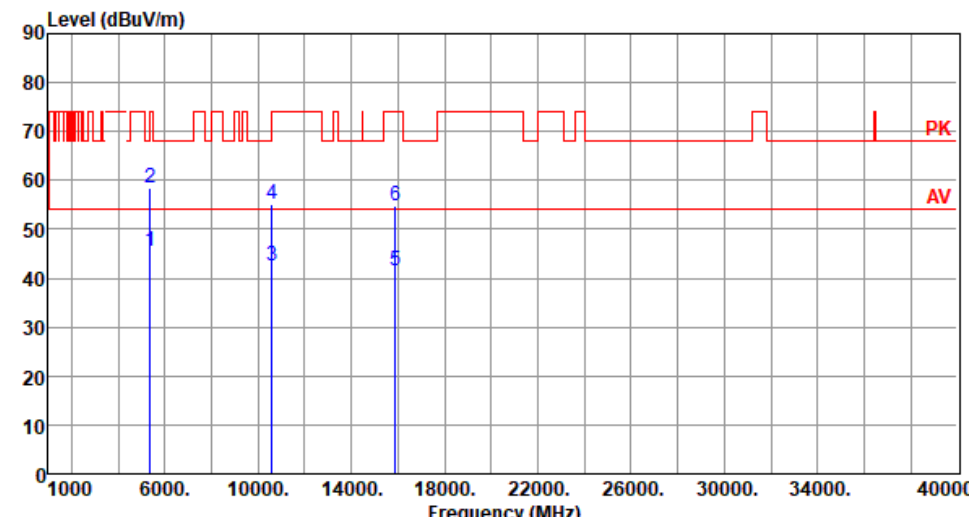
Modulation	11a	Test Freq. (MHz)	5260
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.20	54.00	-8.80	40.56	4.64	Average	174	221
2	5150.00	58.09	74.00	-15.91	53.45	4.64	Peak	174	221
3	5350.00	45.66	54.00	-8.34	41.72	3.94	Average	174	221
4	5350.00	58.06	74.00	-15.94	54.12	3.94	Peak	174	221
5	10520.00	57.15	68.20	-11.05	42.69	14.46	Peak	120	5
6	15780.00	41.52	54.00	-12.48	27.34	14.18	Average	100	60
7	15780.00	54.66	74.00	-19.34	40.48	14.18	Peak	100	60

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

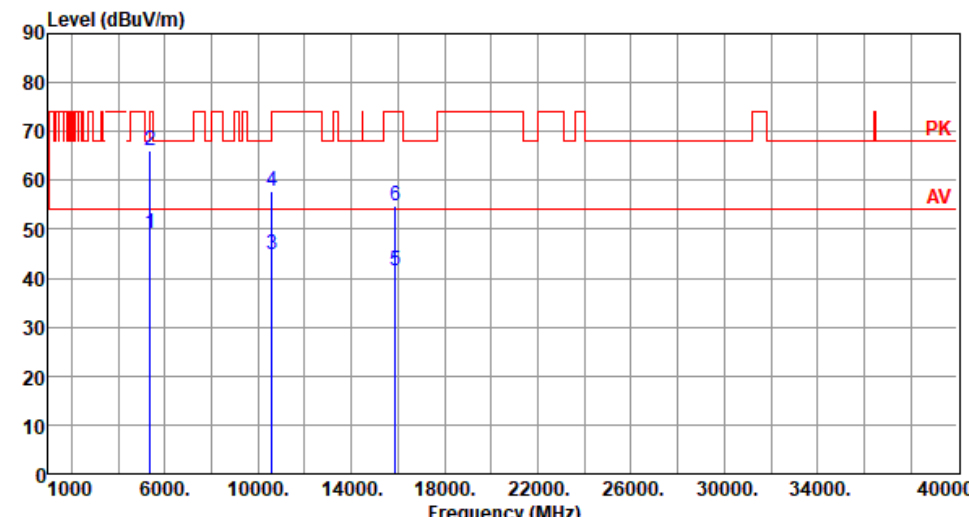
Modulation	11a	Test Freq. (MHz)	5300
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	45.40	54.00	-8.60	41.46	3.94	Average	100	165
2	5350.00	58.49	74.00	-15.51	54.55	3.94	Peak	100	165
3	10600.00	42.60	54.00	-11.40	28.32	14.28	Average	142	137
4	10600.00	55.14	74.00	-18.86	40.86	14.28	Peak	142	137
5	15900.00	41.50	54.00	-12.50	27.25	14.25	Average	100	50
6	15900.00	54.69	74.00	-19.31	40.44	14.25	Peak	100	50

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

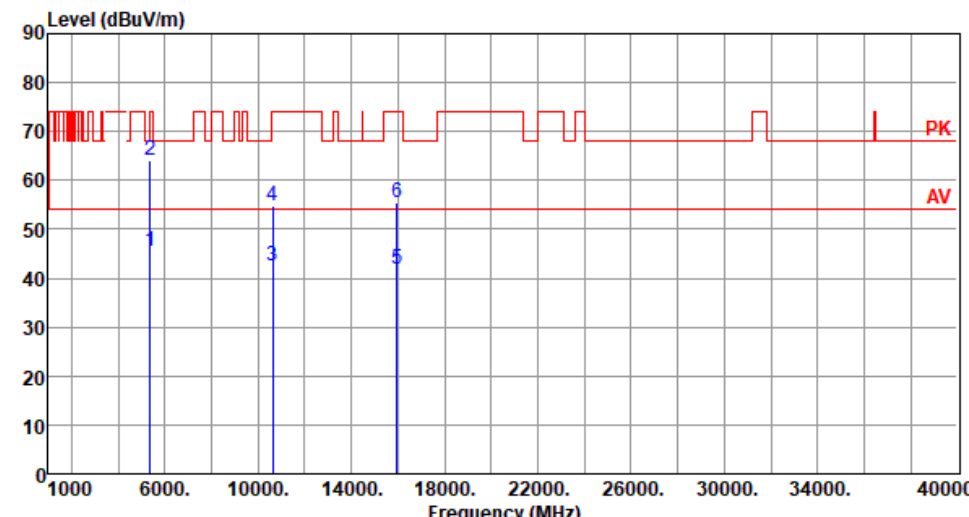
Modulation	11a	Test Freq. (MHz)	5300
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	49.15	54.00	-4.85	45.21	3.94	Average	160	218
2	5350.00	66.12	74.00	-7.88	62.18	3.94	Peak	160	218
3	10600.00	44.97	54.00	-9.03	30.69	14.28	Average	123	1
4	10600.00	57.94	74.00	-16.06	43.66	14.28	Peak	123	1
5	15900.00	41.51	54.00	-12.49	27.26	14.25	Average	100	50
6	15900.00	54.77	74.00	-19.23	40.52	14.25	Peak	100	50

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

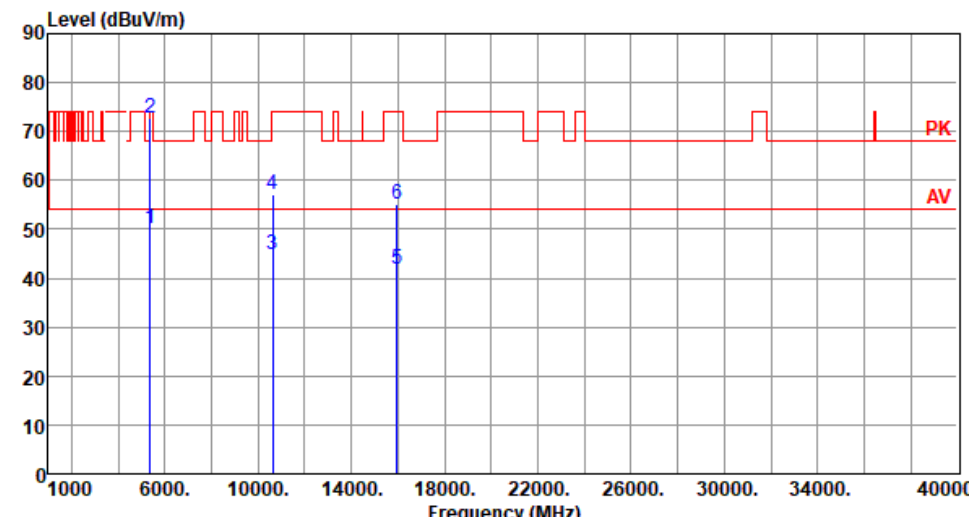
Modulation	11a	Test Freq. (MHz)	5320
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	45.50	54.00	-8.50	41.56	3.94	Average	105	161
2	5350.00	64.06	74.00	-9.94	60.12	3.94	Peak	105	161
3	10640.00	42.63	54.00	-11.37	28.25	14.38	Average	100	156
4	10640.00	54.64	74.00	-19.36	40.26	14.38	Peak	100	156
5	15960.00	41.74	54.00	-12.26	27.52	14.22	Average	100	61
6	15960.00	55.60	74.00	-18.40	41.38	14.22	Peak	100	61

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

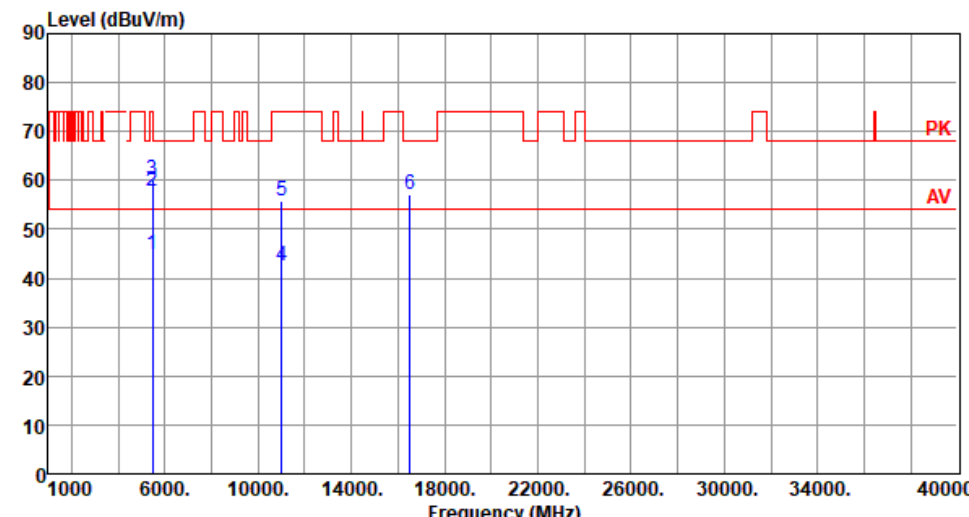
Modulation	11a	Test Freq. (MHz)	5320
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	50.24	54.00	-3.76	46.30	3.94	Average	165	222
2	5350.00	72.84	74.00	-1.16	68.90	3.94	Peak	165	222
3	10640.00	44.72	54.00	-9.28	30.34	14.38	Average	100	175
4	10640.00	57.02	74.00	-16.98	42.64	14.38	Peak	100	175
5	15960.00	41.76	54.00	-12.24	27.54	14.22	Average	100	132
6	15960.00	55.07	74.00	-18.93	40.85	14.22	Peak	100	132

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

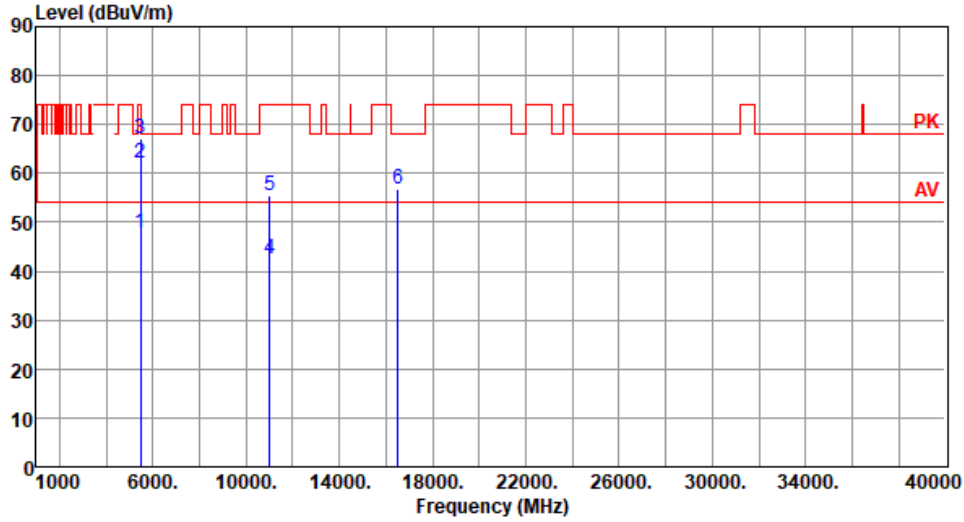
Modulation	11a	Test Freq. (MHz)	5500
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.71	54.00	-9.29	40.26	4.45	Average	131	161
2	5460.00	57.91	74.00	-16.09	53.46	4.45	Peak	131	161
3	5470.00	60.19	68.20	-8.01	55.69	4.50	Peak	131	161
4	11000.00	42.56	54.00	-11.44	27.68	14.88	Average	100	202
5	11000.00	55.63	74.00	-18.37	40.75	14.88	Peak	100	202
6	16500.00	56.96	68.20	-11.24	40.77	16.19	Peak	100	236

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

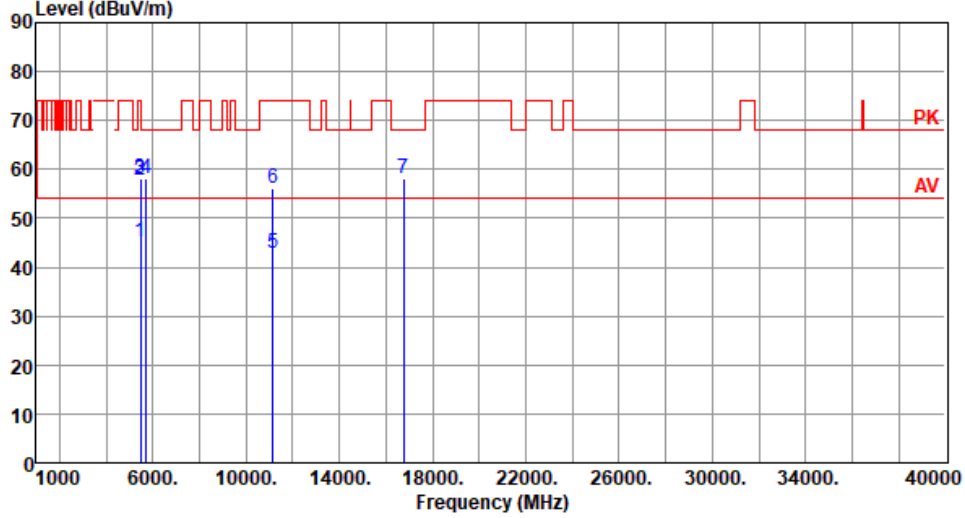
Modulation	11a	Test Freq. (MHz)	5500
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.98	54.00	-6.02	43.53	4.45	Average	235	219
2	5460.00	62.00	74.00	-12.00	57.55	4.45	Peak	235	219
3	5470.00	66.98	68.20	-1.22	62.48	4.50	Peak	235	219
4	11000.00	42.44	54.00	-11.56	27.56	14.88	Average	100	163
5	11000.00	55.56	74.00	-18.44	40.68	14.88	Peak	100	163
6	16500.00	56.86	68.20	-11.34	40.67	16.19	Peak	100	137

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

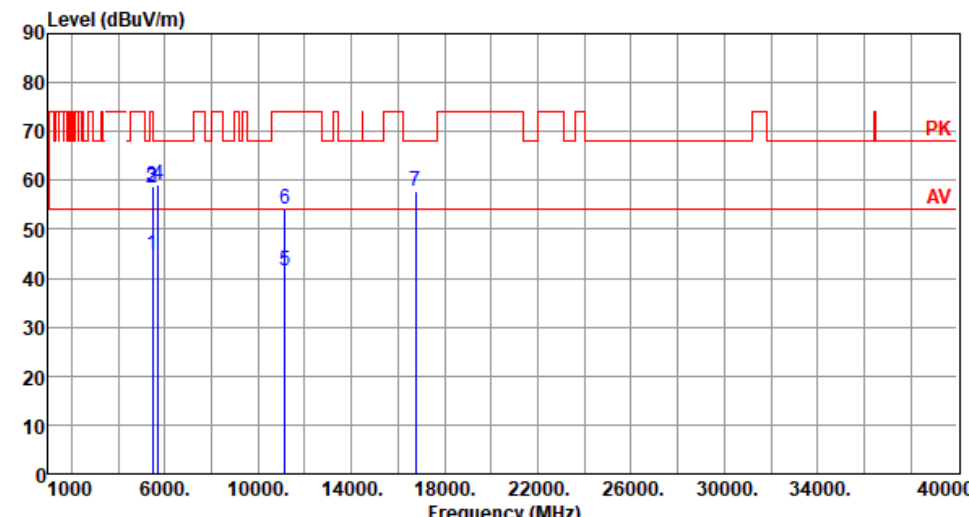
Modulation	11a	Test Freq. (MHz)	5580
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.16	54.00	-8.84	40.71	4.45	Average	102	160
2	5460.00	57.82	74.00	-16.18	53.37	4.45	Peak	102	160
3	5470.00	58.27	68.20	-9.93	53.77	4.50	Peak	102	160
4	5725.00	58.06	68.20	-10.14	53.21	4.85	Peak	102	160
5	11160.00	42.95	54.00	-11.05	28.57	14.38	Average	100	120
6	11160.00	56.01	74.00	-17.99	41.63	14.38	Peak	100	120
7	16740.00	57.98	68.20	-10.22	40.51	17.47	Peak	100	60

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

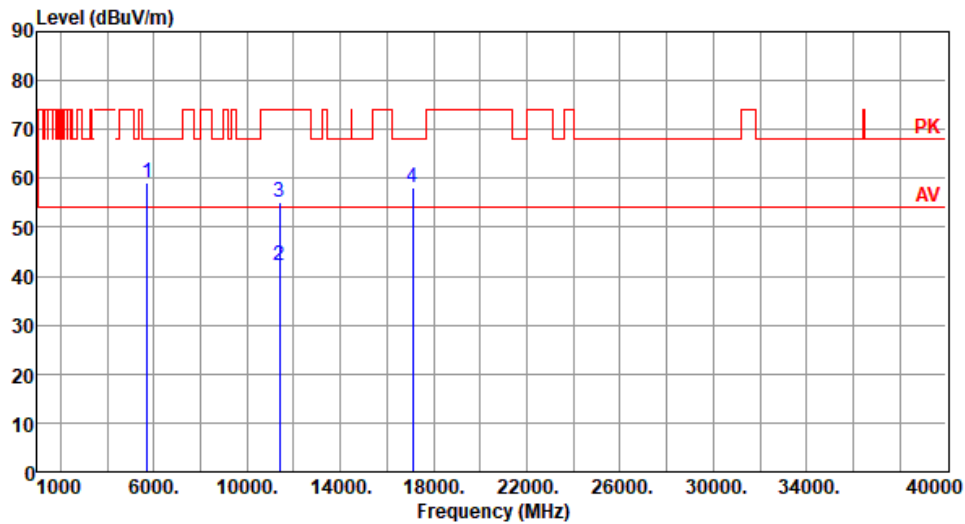
Modulation	11a	Test Freq. (MHz)	5580
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.77	54.00	-9.23	40.32	4.45	Average	165	220
2	5460.00	58.32	74.00	-15.68	53.87	4.45	Peak	165	220
3	5470.00	58.76	68.20	-9.44	54.26	4.50	Peak	165	220
4	5725.00	58.97	68.20	-9.23	54.12	4.85	Peak	165	220
5	11160.00	41.63	54.00	-12.37	27.25	14.38	Average	100	313
6	11160.00	54.09	74.00	-19.91	39.71	14.38	Peak	100	313
7	16740.00	57.73	68.20	-10.47	40.26	17.47	Peak	100	80

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

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



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	59.16	68.20	-9.04	54.31	4.85	Peak	100	162
2	11400.00	42.20	54.00	-11.80	27.52	14.68	Average	100	131
3	11400.00	55.00	74.00	-19.00	40.32	14.68	Peak	100	131
4	17100.00	58.19	68.20	-10.01	40.51	17.68	Peak	100	163

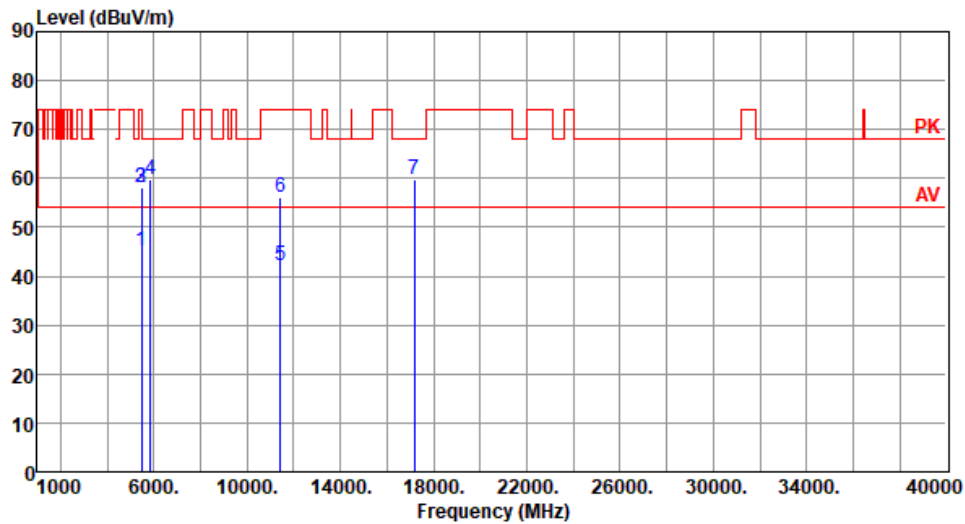
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	11a	Test Freq. (MHz)	5700
Polarization	Vertical		
Level (dBuV/m)			

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



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.02	54.00	-8.98	40.57	4.45	Average	100	163
2	5460.00	58.00	74.00	-16.00	53.55	4.45	Peak	100	163
3	5470.00	58.21	68.20	-9.99	53.71	4.50	Peak	100	163
4	5850.00	59.66	68.20	-8.54	54.21	5.45	Peak	100	163
5	11440.00	42.22	54.00	-11.78	27.56	14.66	Average	100	185
6	11440.00	56.11	74.00	-17.89	41.45	14.66	Peak	100	185
7	17160.00	59.79	68.20	-8.41	42.14	17.65	Peak	100	91

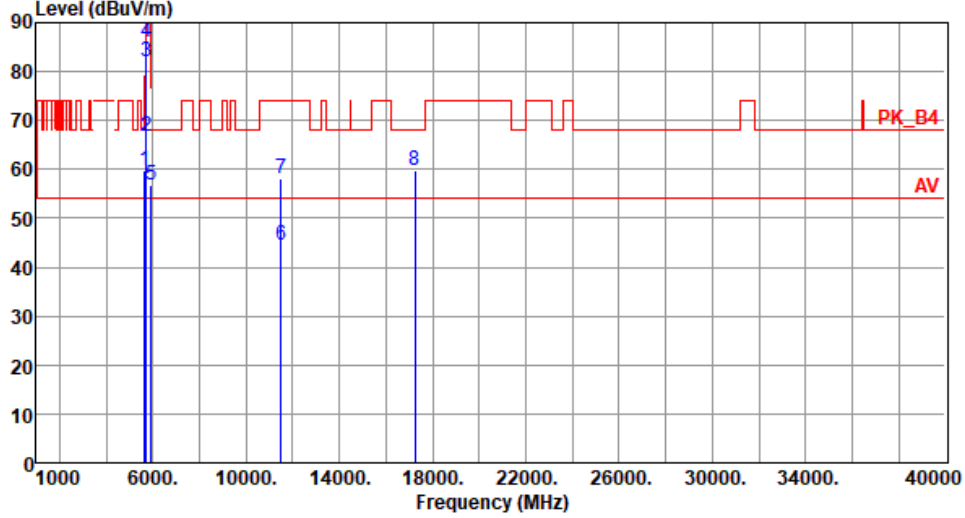
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

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

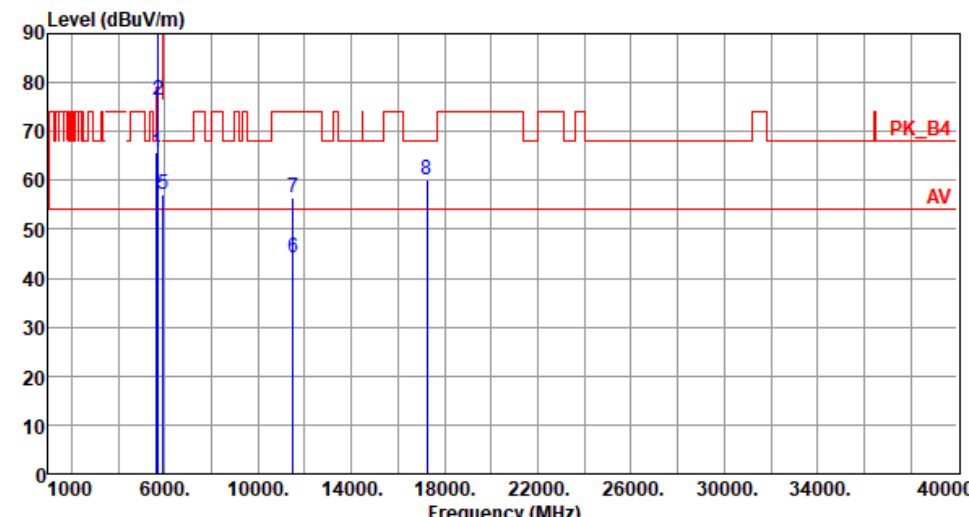
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	59.76	68.20	-8.44	55.22	4.54	Peak	100	167
2	5700.00	66.80	105.20	-38.40	62.12	4.68	Peak	100	167
3	5720.00	82.09	110.80	-28.71	77.28	4.81	Peak	100	167
4	5725.00	86.16	122.20	-36.04	81.31	4.85	Peak	100	167
5	5925.00	56.79	68.20	-11.41	51.36	5.43	Peak	100	167
6	11490.00	44.50	54.00	-9.50	29.87	14.63	Average	100	115
7	11490.00	58.08	74.00	-15.92	43.45	14.63	Peak	100	115
8	17235.00	59.89	68.20	-8.31	42.13	17.76	Peak	288	321

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

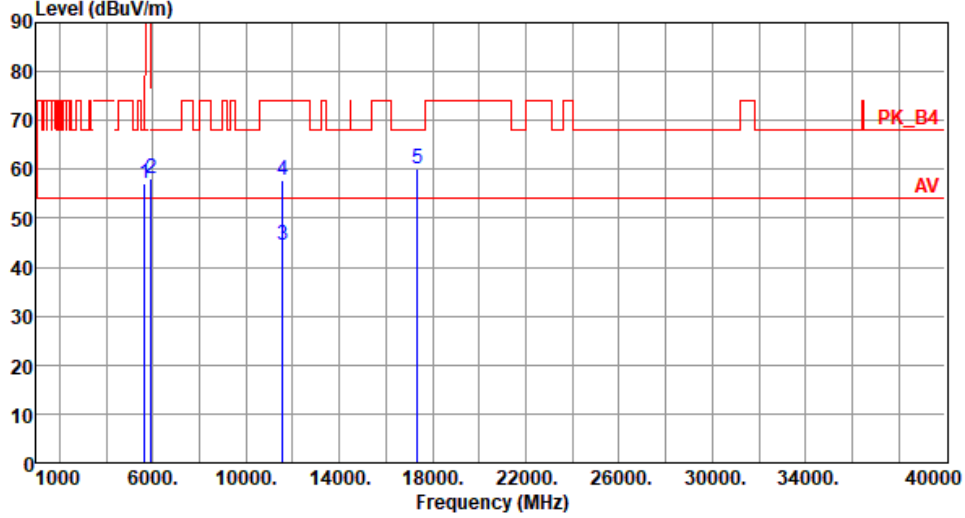
Modulation	11a	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	65.67	68.20	-2.53	61.13	4.54	Peak	173	221
2	5700.00	76.50	105.20	-28.70	71.82	4.68	Peak	173	221
3	5720.00	89.94	110.80	-20.86	85.13	4.81	Peak	173	221
4	5725.00	100.15	122.20	-22.05	95.30	4.85	Peak	173	221
5	5925.00	57.02	68.20	-11.18	51.59	5.43	Peak	173	221
6	11490.00	44.16	54.00	-9.84	29.53	14.63	Average	100	163
7	11490.00	56.49	74.00	-17.51	41.86	14.63	Peak	100	163
8	17235.00	60.02	68.20	-8.18	42.26	17.76	Peak	100	28

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

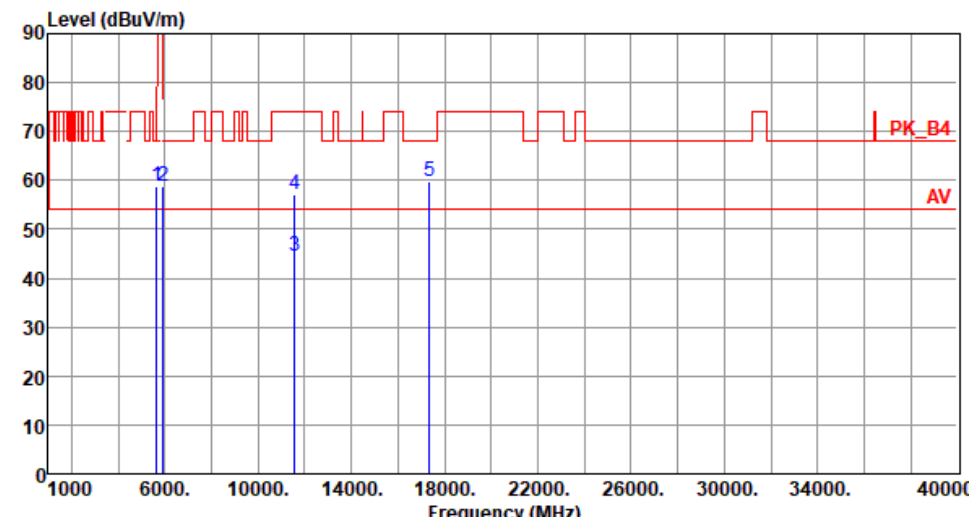
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	56.99	68.20	-11.21	52.45	4.54	Peak	147	165
2	5925.00	58.05	68.20	-10.15	52.62	5.43	Peak	147	165
3	11570.00	44.44	54.00	-9.56	29.94	14.50	Average	100	113
4	11570.00	57.81	74.00	-16.19	43.31	14.50	Peak	100	113
5	17355.00	60.24	68.20	-7.96	41.88	18.36	Peak	294	327

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

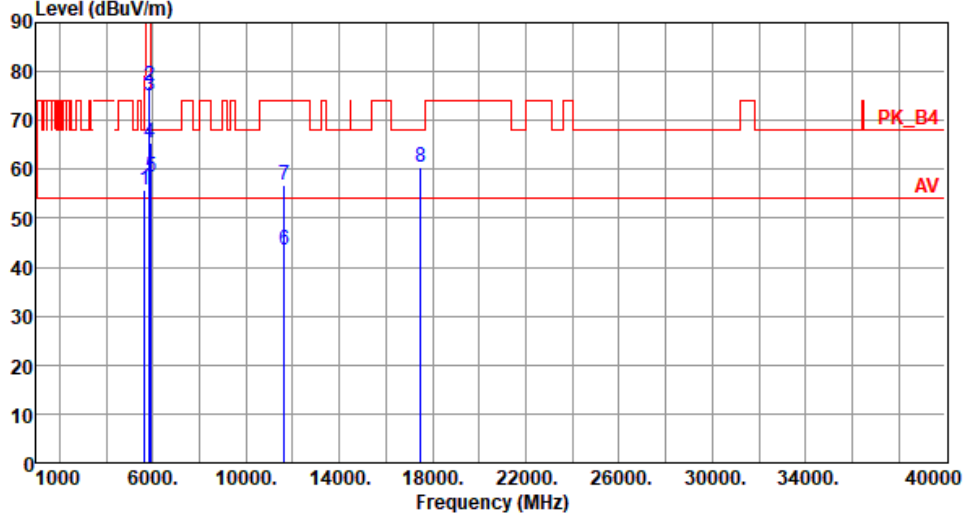
Modulation	11a	Test Freq. (MHz)	5785
Polarization	Vertical		



	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	58.76	68.20	-9.44	54.22	4.54	Peak	176	220
2	5925.00	58.69	68.20	-9.51	53.26	5.43	Peak	176	220
3	11570.00	44.37	54.00	-9.63	29.87	14.50	Average	117	72
4	11570.00	57.19	74.00	-16.81	42.69	14.50	Peak	117	72
5	17355.00	59.68	68.20	-8.52	41.32	18.36	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).

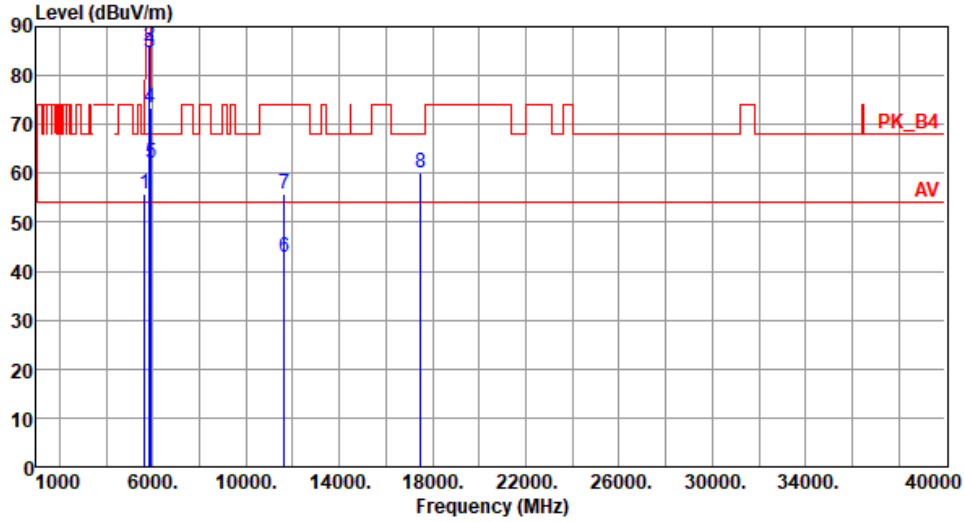
Modulation	11a	Test Freq. (MHz)	5825
Polarization	Horizontal		



	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	55.69	68.20	-12.51	51.15	4.54	Peak	100	163
2	5850.00	77.07	122.20	-45.13	71.62	5.45	Peak	100	163
3	5855.00	75.00	110.80	-35.80	69.56	5.44	Peak	100	163
4	5875.00	65.46	105.20	-39.74	60.02	5.44	Peak	100	163
5	5925.00	58.59	68.20	-9.61	53.16	5.43	Peak	100	163
6	11650.00	43.65	54.00	-10.35	29.44	14.21	Average	100	109
7	11650.00	56.85	74.00	-17.15	42.64	14.21	Peak	100	109
8	17475.00	60.41	68.20	-7.79	41.55	18.86	Peak	286	326

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

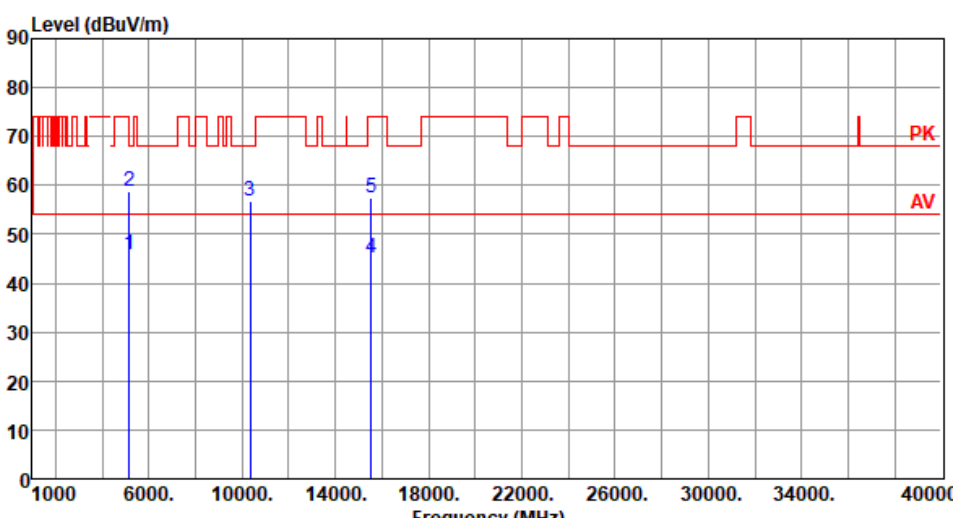


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	55.85	68.20	-12.35	51.31	4.54	Peak	158	220
2	5850.00	86.12	122.20	-36.08	80.67	5.45	Peak	158	220
3	5855.00	84.56	110.80	-26.24	79.12	5.44	Peak	158	220
4	5875.00	73.55	105.20	-31.65	68.11	5.44	Peak	158	220
5	5925.00	62.07	68.20	-6.13	56.64	5.43	Peak	158	220
6	11650.00	42.74	54.00	-11.26	28.53	14.21	Average	100	175
7	11650.00	55.83	74.00	-18.17	41.62	14.21	Peak	100	175
8	17475.00	60.13	68.20	-8.07	41.27	18.86	Peak	100	176

Note 1: Emission Level (dBuV/m) = SA Reading (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 11ax HE20

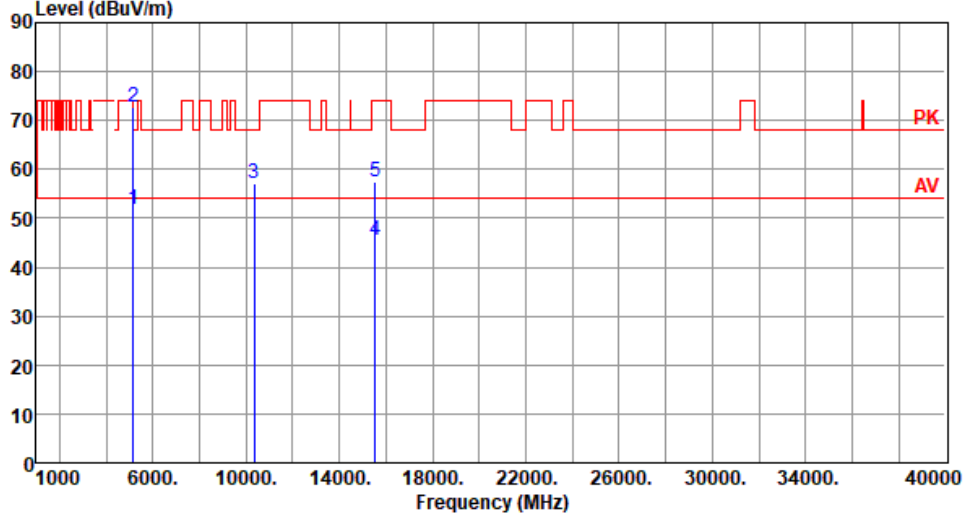
Modulation	11ax HE20	Test Freq. (MHz)	5180
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.77	54.00	-8.23	41.13	4.64	Average	117	161
2	5150.00	58.70	74.00	-15.30	54.06	4.64	Peak	117	161
3	10360.00	56.65	68.20	-11.55	42.46	14.19	Peak	100	20
4	15540.00	45.16	54.00	-8.84	30.25	14.91	Average	100	30
5	15540.00	57.37	74.00	-16.63	42.46	14.91	Peak	100	30

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

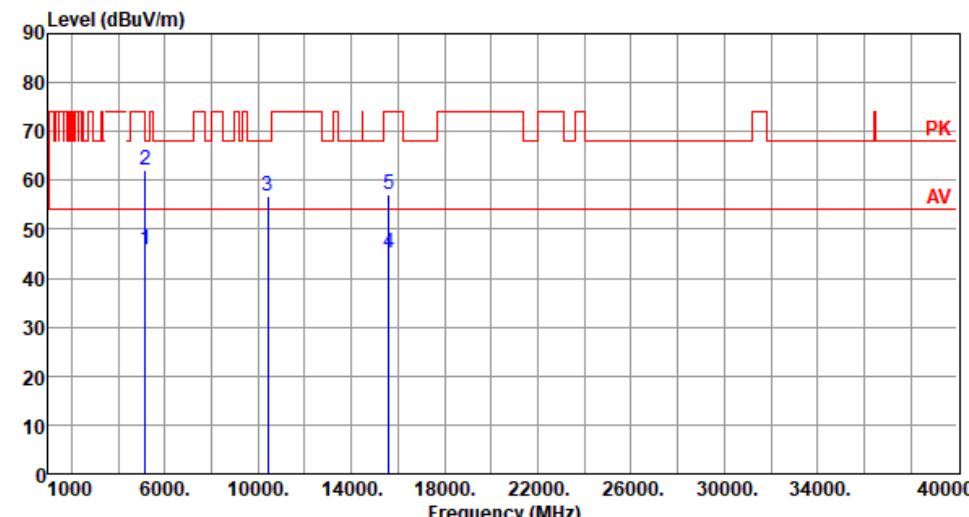
Modulation	11ax HE20	Test Freq. (MHz)	5180
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.86	54.00	-2.14	47.22	4.64	Average	214	214
2	5150.00	72.89	74.00	-1.11	68.25	4.64	Peak	214	214
3	10360.00	57.03	68.20	-11.17	42.84	14.19	Peak	100	5
4	15540.00	45.57	54.00	-8.43	30.66	14.91	Average	100	4
5	15540.00	57.54	74.00	-16.46	42.63	14.91	Peak	100	4

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

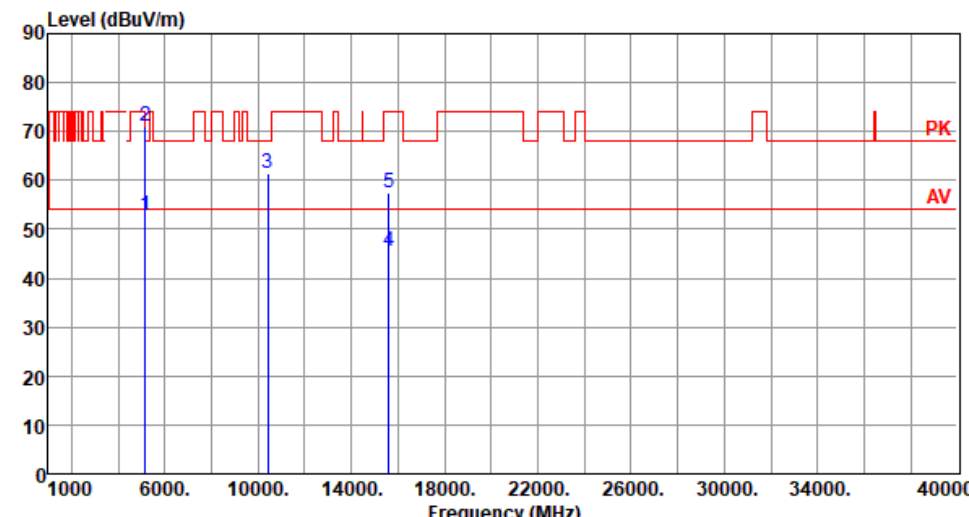
Modulation	11ax HE20	Test Freq. (MHz)	5200
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.90	54.00	-8.10	41.26	4.64	Average	119	162
2	5150.00	62.10	74.00	-11.90	57.46	4.64	Peak	119	162
3	10400.00	56.87	68.20	-11.33	42.57	14.30	Peak	100	30
4	15600.00	45.10	54.00	-8.90	30.46	14.64	Average	100	20
5	15600.00	57.11	74.00	-16.89	42.47	14.64	Peak	100	20

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

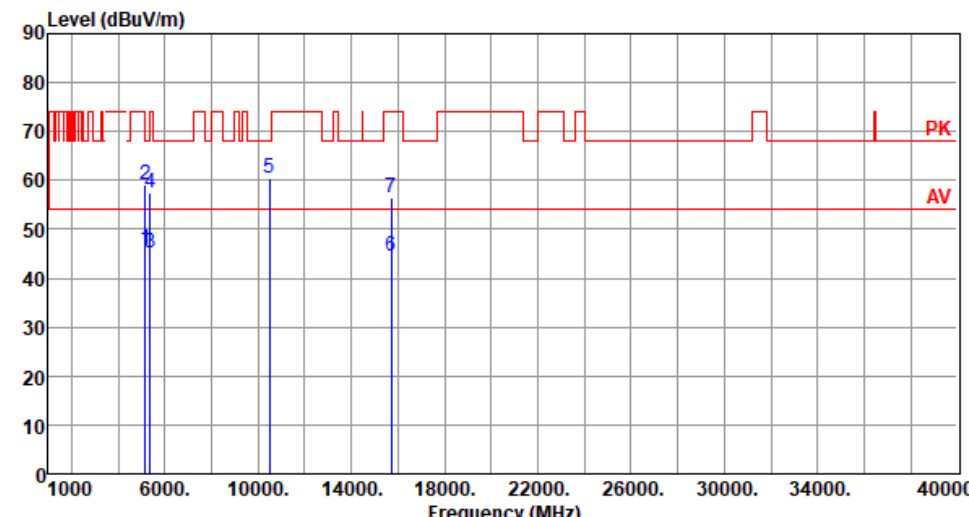
Modulation	11ax HE20	Test Freq. (MHz)	5200
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.66	54.00	-1.34	48.02	4.64	Average	233	225
2	5150.00	71.14	74.00	-2.86	66.50	4.64	Peak	233	225
3	10400.00	61.45	68.20	-6.75	47.15	14.30	Peak	106	4
4	15600.00	45.63	54.00	-8.37	30.99	14.64	Average	100	9
5	15600.00	57.52	74.00	-16.48	42.88	14.64	Peak	100	9

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

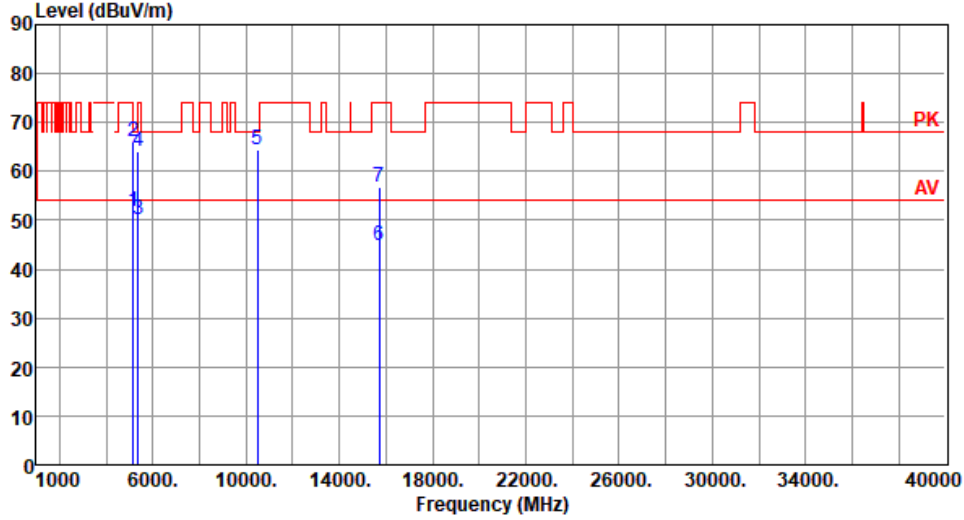
Modulation	11ax HE20	Test Freq. (MHz)	5240
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.90	54.00	-8.10	41.26	4.64	Average	113	160
2	5150.00	59.20	74.00	-14.80	54.56	4.64	Peak	113	160
3	5350.00	45.15	54.00	-8.85	41.21	3.94	Average	113	160
4	5350.00	57.48	74.00	-16.52	53.54	3.94	Peak	113	160
5	10480.00	60.41	68.20	-7.79	45.95	14.46	Peak	100	140
6	15720.00	44.42	54.00	-9.58	30.21	14.21	Average	100	145
7	15720.00	56.46	74.00	-17.54	42.25	14.21	Peak	100	145

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

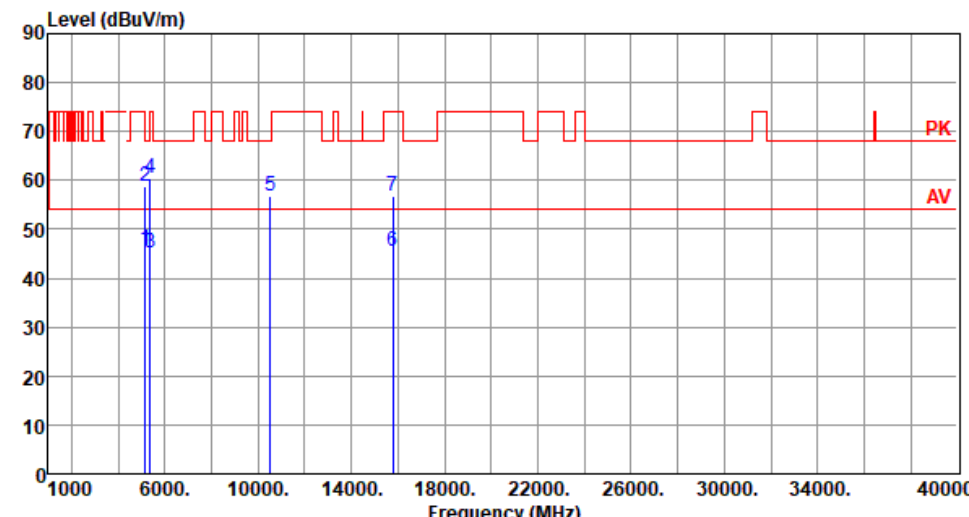
Modulation	11ax HE20	Test Freq. (MHz)	5240
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	51.65	54.00	-2.35	47.01	4.64	Average	237	212
2	5150.00	65.94	74.00	-8.06	61.30	4.64	Peak	237	212
3	5350.00	50.25	54.00	-3.75	46.31	3.94	Average	237	212
4	5350.00	64.17	74.00	-9.83	60.23	3.94	Peak	237	212
5	10480.00	64.51	68.20	-3.69	50.05	14.46	Peak	104	1
6	15720.00	44.87	54.00	-9.13	30.66	14.21	Average	100	2
7	15720.00	56.79	74.00	-17.21	42.58	14.21	Peak	100	2

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

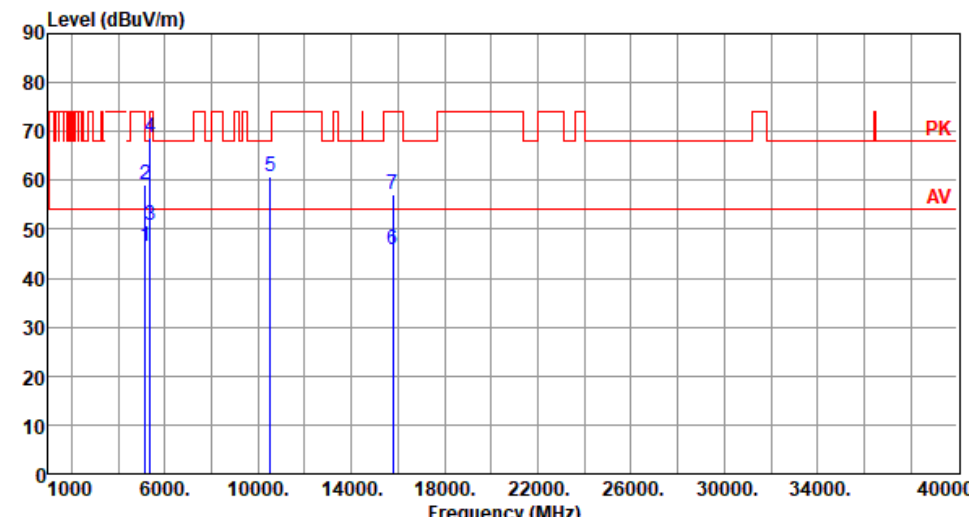
Modulation	11ax HE20	Test Freq. (MHz)	5260
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.87	54.00	-8.13	41.23	4.64	Average	113	157
2	5150.00	58.76	74.00	-15.24	54.12	4.64	Peak	113	157
3	5350.00	45.19	54.00	-8.81	41.25	3.94	Average	113	157
4	5350.00	60.48	74.00	-13.52	56.54	3.94	Peak	113	157
5	10520.00	56.92	68.20	-11.28	42.46	14.46	Peak	100	30
6	15780.00	45.43	54.00	-8.57	31.25	14.18	Average	100	20
7	15780.00	56.73	74.00	-17.27	42.55	14.18	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).

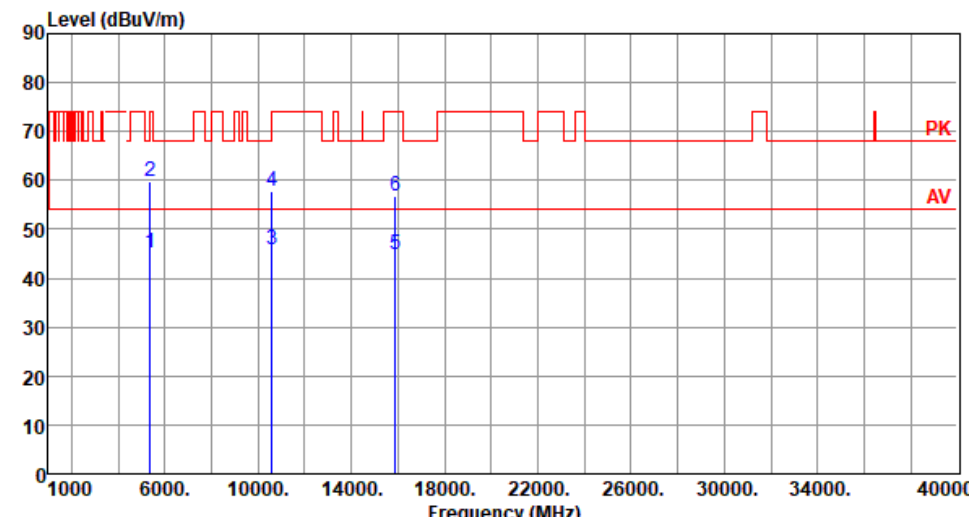
Modulation	11ax HE20	Test Freq. (MHz)	5260
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.62	54.00	-7.38	41.98	4.64	Average	189	223
2	5150.00	59.27	74.00	-14.73	54.63	4.64	Peak	189	223
3	5350.00	50.81	54.00	-3.19	46.87	3.94	Average	189	223
4	5350.00	68.82	74.00	-5.18	64.88	3.94	Peak	189	223
5	10520.00	60.78	68.20	-7.42	46.32	14.46	Peak	100	19
6	15780.00	45.81	54.00	-8.19	31.63	14.18	Average	100	15
7	15780.00	57.06	74.00	-16.94	42.88	14.18	Peak	100	15

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

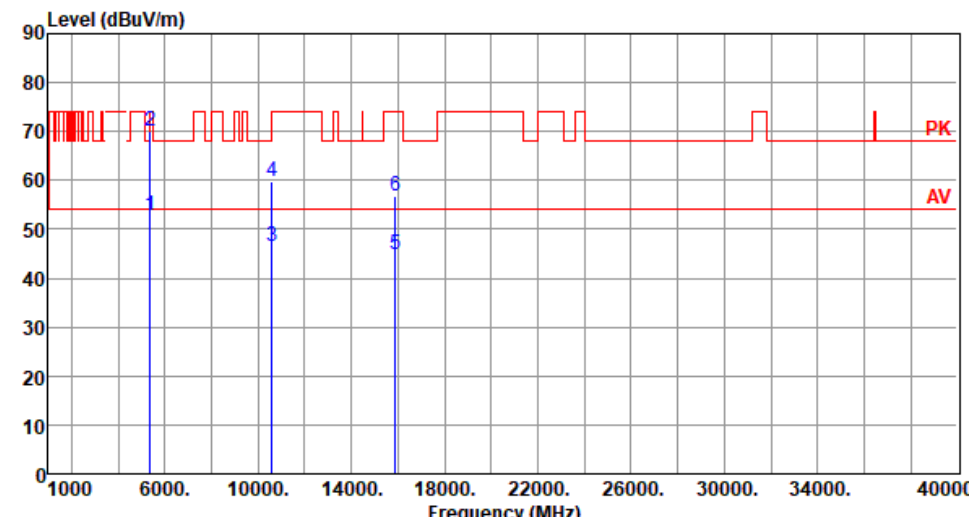
Modulation	11ax HE20	Test Freq. (MHz)	5300
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	45.20	54.00	-8.80	41.26	3.94	Average	118	163
2	5350.00	59.63	74.00	-14.37	55.69	3.94	Peak	118	163
3	10600.00	45.84	54.00	-8.16	31.56	14.28	Average	100	50
4	10600.00	57.84	74.00	-16.16	43.56	14.28	Peak	100	50
5	15900.00	44.69	54.00	-9.31	30.44	14.25	Average	100	20
6	15900.00	56.69	74.00	-17.31	42.44	14.25	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).

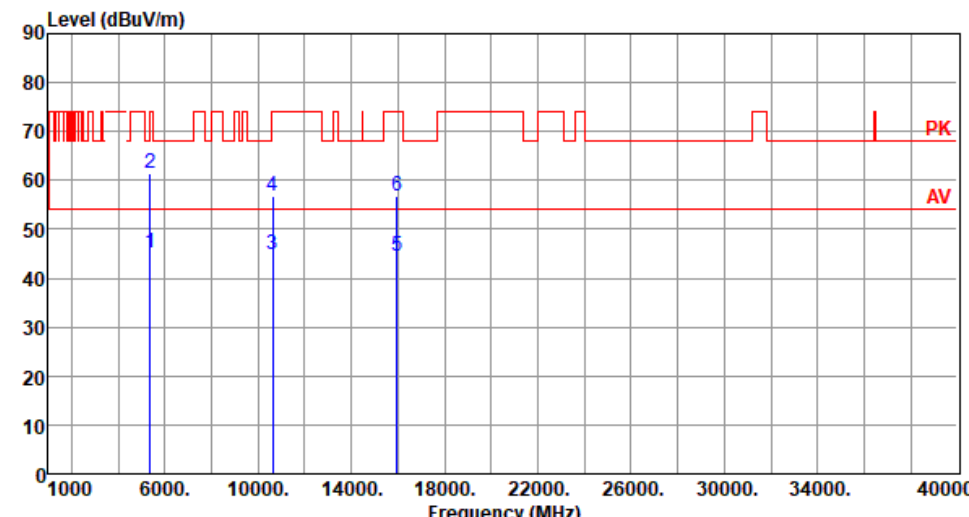
Modulation	11ax HE20	Test Freq. (MHz)	5300
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.92	54.00	-1.08	48.98	3.94	Average	185	218
2	5350.00	70.13	74.00	-3.87	66.19	3.94	Peak	185	218
3	10600.00	46.37	54.00	-7.63	32.09	14.28	Average	100	2
4	10600.00	59.78	74.00	-14.22	45.50	14.28	Peak	100	2
5	15900.00	44.93	54.00	-9.07	30.68	14.25	Average	100	5
6	15900.00	56.87	74.00	-17.13	42.62	14.25	Peak	100	5

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

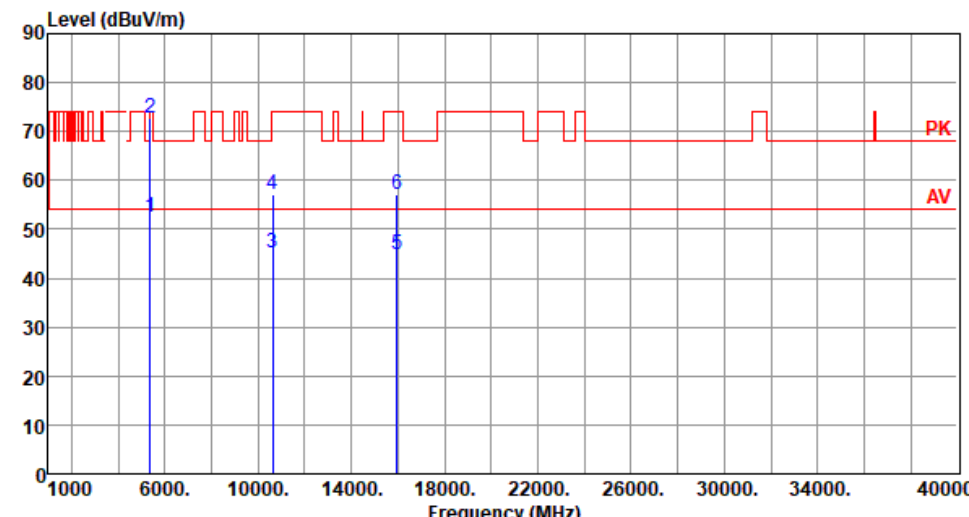
Modulation	11ax HE20	Test Freq. (MHz)	5320
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	45.19	54.00	-8.81	41.25	3.94	Average	117	166
2	5350.00	61.53	74.00	-12.47	57.59	3.94	Peak	117	166
3	10640.00	44.84	54.00	-9.16	30.46	14.38	Average	100	10
4	10640.00	56.94	74.00	-17.06	42.56	14.38	Peak	100	10
5	15960.00	44.57	54.00	-9.43	30.35	14.22	Average	100	70
6	15960.00	56.86	74.00	-17.14	42.64	14.22	Peak	100	70

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

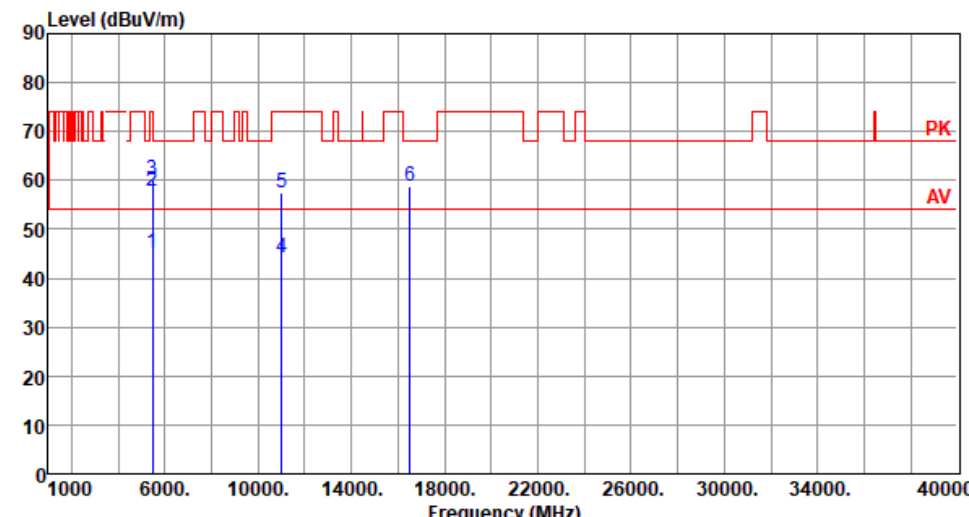
Modulation	11ax HE20	Test Freq. (MHz)	5320
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.59	54.00	-1.41	48.65	3.94	Average	180	222
2	5350.00	72.82	74.00	-1.18	68.88	3.94	Peak	180	222
3	10640.00	45.08	54.00	-8.92	30.70	14.38	Average	100	5
4	10640.00	57.19	74.00	-16.81	42.81	14.38	Peak	100	5
5	15960.00	44.80	54.00	-9.20	30.58	14.22	Average	100	4
6	15960.00	57.06	74.00	-16.94	42.84	14.22	Peak	100	4

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

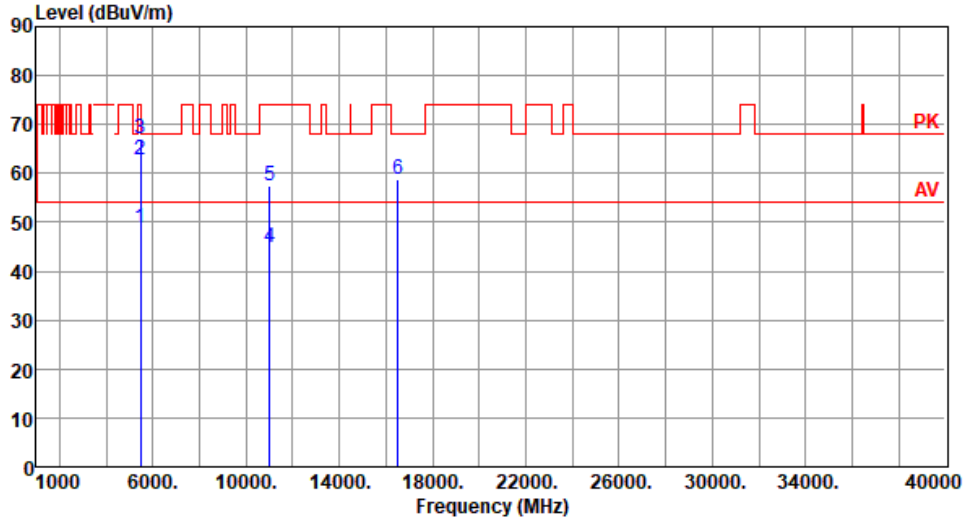
Modulation	11ax HE20	Test Freq. (MHz)	5500
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.02	54.00	-8.98	40.57	4.45	Average	114	165
2	5460.00	57.91	74.00	-16.09	53.46	4.45	Peak	114	165
3	5470.00	60.19	68.20	-8.01	55.69	4.50	Peak	114	165
4	11000.00	44.13	54.00	-9.87	29.25	14.88	Average	100	40
5	11000.00	57.34	74.00	-16.66	42.46	14.88	Peak	100	40
6	16500.00	58.75	68.20	-9.45	42.56	16.19	Peak	100	30

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

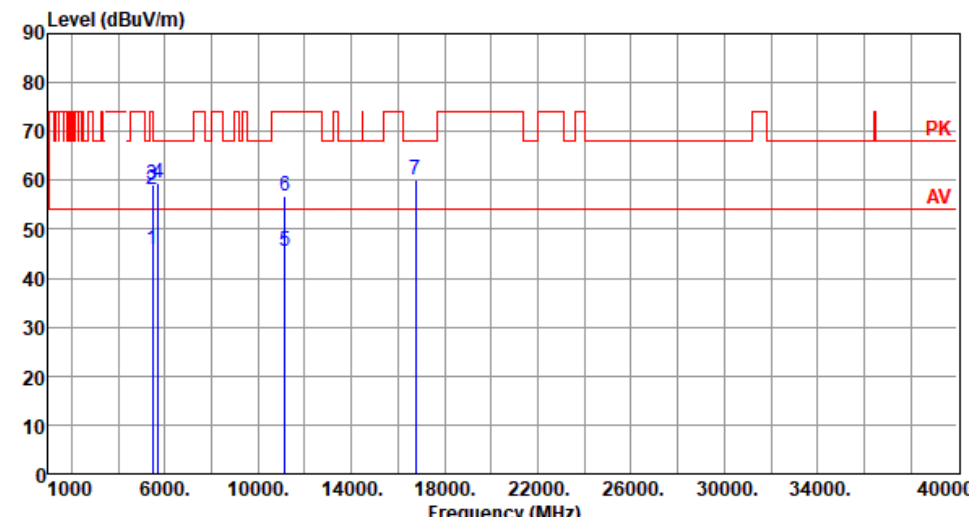
Modulation	11ax HE20	Test Freq. (MHz)	5500
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	48.71	54.00	-5.29	44.26	4.45	Average	197	215
2	5460.00	62.90	74.00	-11.10	58.45	4.45	Peak	197	215
3	5470.00	67.15	68.20	-1.05	62.65	4.50	Peak	197	215
4	11000.00	44.75	54.00	-9.25	29.87	14.88	Average	100	52
5	11000.00	57.46	74.00	-16.54	42.58	14.88	Peak	100	52
6	16500.00	58.82	68.20	-9.38	42.63	16.19	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).

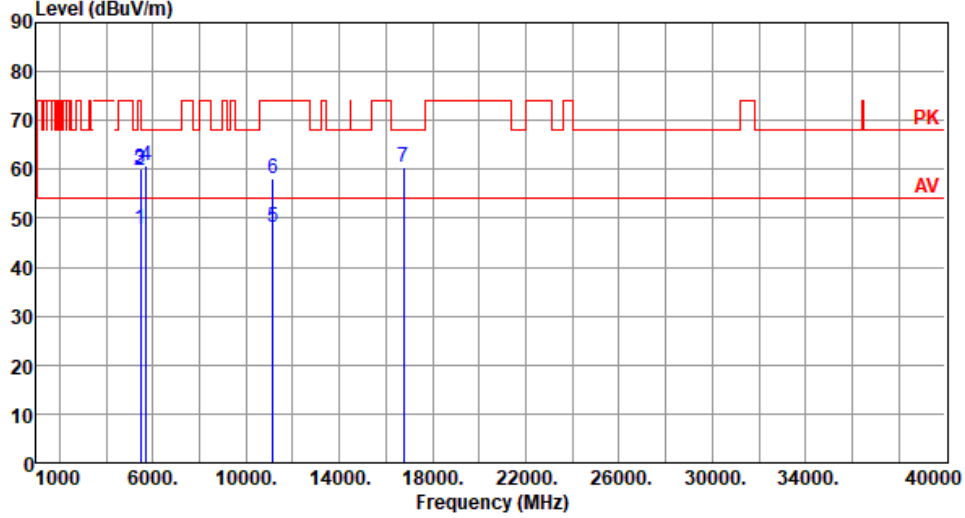
Modulation	11ax HE20	Test Freq. (MHz)	5580
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.72	54.00	-8.28	41.27	4.45	Average	120	157
2	5460.00	58.05	74.00	-15.95	53.60	4.45	Peak	120	157
3	5470.00	59.12	68.20	-9.08	54.62	4.50	Peak	120	157
4	5725.00	59.54	68.20	-8.66	54.69	4.85	Peak	120	157
5	11160.00	45.64	54.00	-8.36	31.26	14.38	Average	100	60
6	11160.00	56.83	74.00	-17.17	42.45	14.38	Peak	100	60
7	16740.00	60.02	68.20	-8.18	42.55	17.47	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).

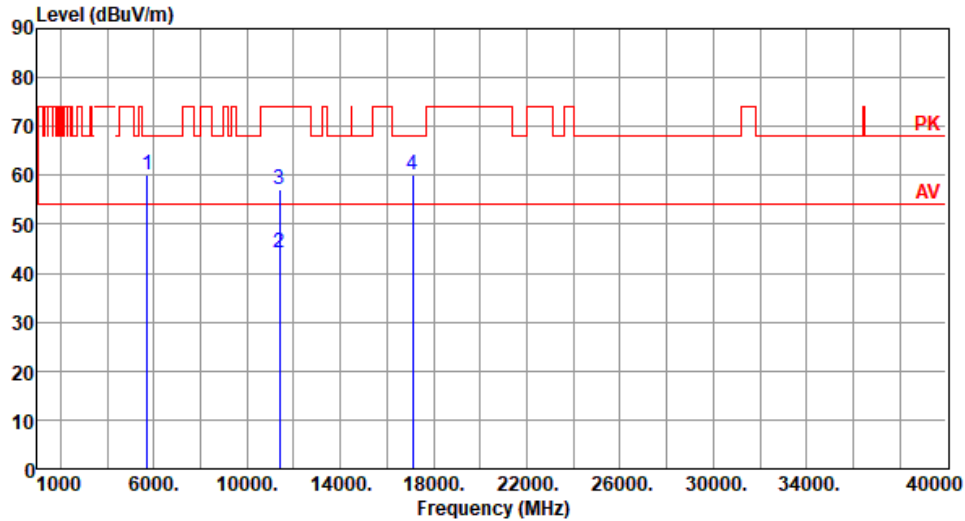
Modulation	11ax HE20	Test Freq. (MHz)	5580
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.71	54.00	-6.29	43.26	4.45	Average	186	179
2	5460.00	59.68	74.00	-14.32	55.23	4.45	Peak	186	179
3	5470.00	60.20	68.20	-8.00	55.70	4.50	Peak	186	179
4	5725.00	60.94	68.20	-7.26	56.09	4.85	Peak	186	179
5	11160.00	48.07	54.00	-5.93	33.69	14.38	Average	100	59
6	11160.00	58.26	74.00	-15.74	43.88	14.38	Peak	100	59
7	16740.00	60.29	68.20	-7.91	42.82	17.47	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	11ax HE20	Test Freq. (MHz)	5700
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	60.16	68.20	-8.04	55.31	4.85	Peak	114	161
2	11400.00	44.13	54.00	-9.87	29.45	14.68	Average	100	40
3	11400.00	57.13	74.00	-16.87	42.45	14.68	Peak	100	40
4	17100.00	60.24	68.20	-7.96	42.56	17.68	Peak	100	50

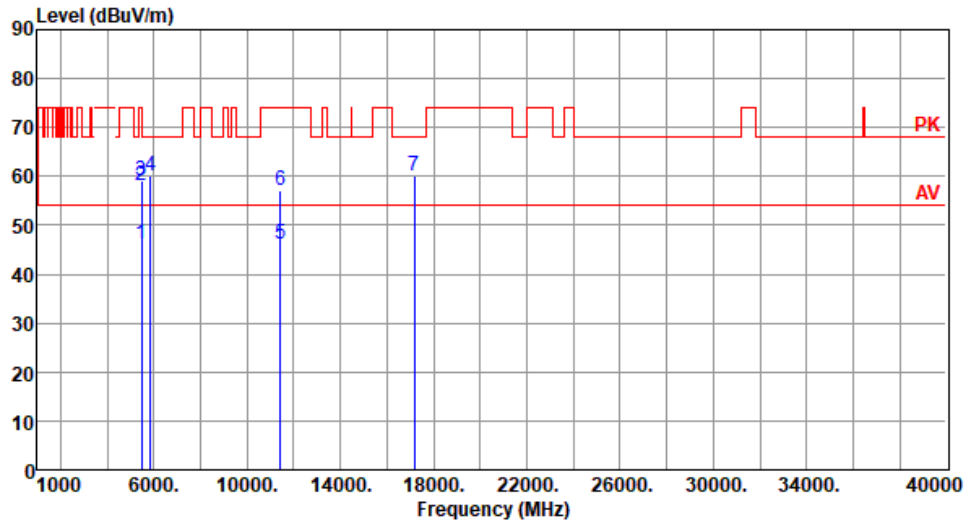
Note 1: Emission Level (dBUV/m) = SA Reading (dBUV/m) + Factor* (dB)

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	11ax HE20	Test Freq. (MHz)	5700
Polarization	Vertical		
Level (dBuV/m) <			

Modulation	11ax HE20	Test Freq. (MHz)	5720
Polarization	Horizontal		



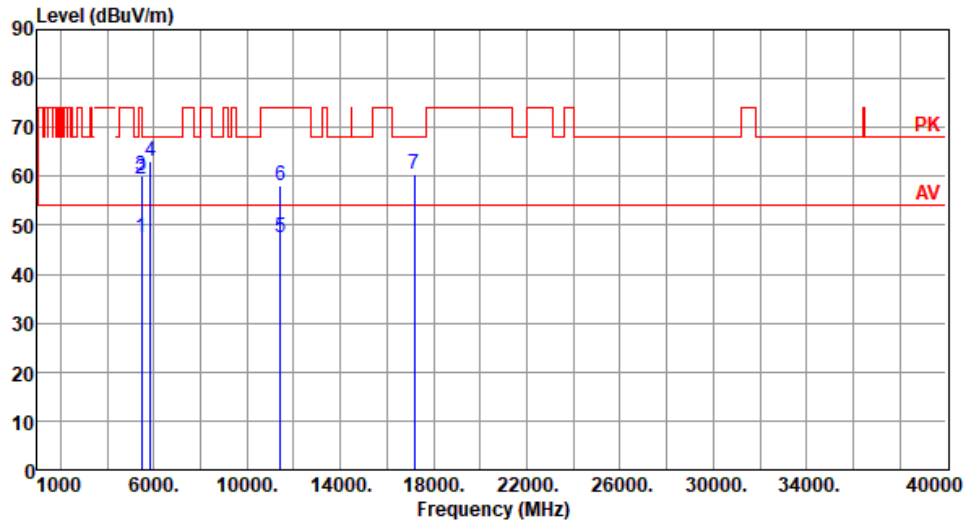
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.02	54.00	-7.98	41.57	4.45	Average	110	156
2	5460.00	58.05	74.00	-15.95	53.60	4.45	Peak	110	156
3	5470.00	59.05	68.20	-9.15	54.55	4.50	Peak	110	156
4	5850.00	60.00	68.20	-8.20	54.55	5.45	Peak	110	156
5	11440.00	46.22	54.00	-7.78	31.56	14.66	Average	100	50
6	11440.00	57.21	74.00	-16.79	42.55	14.66	Peak	100	50
7	17160.00	60.22	68.20	-7.98	42.57	17.65	Peak	100	50

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

*Factor includes antenna factor , cable loss and amplifier gain

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

Modulation	11ax HE20	Test Freq. (MHz)	5720
Polarization	Vertical		



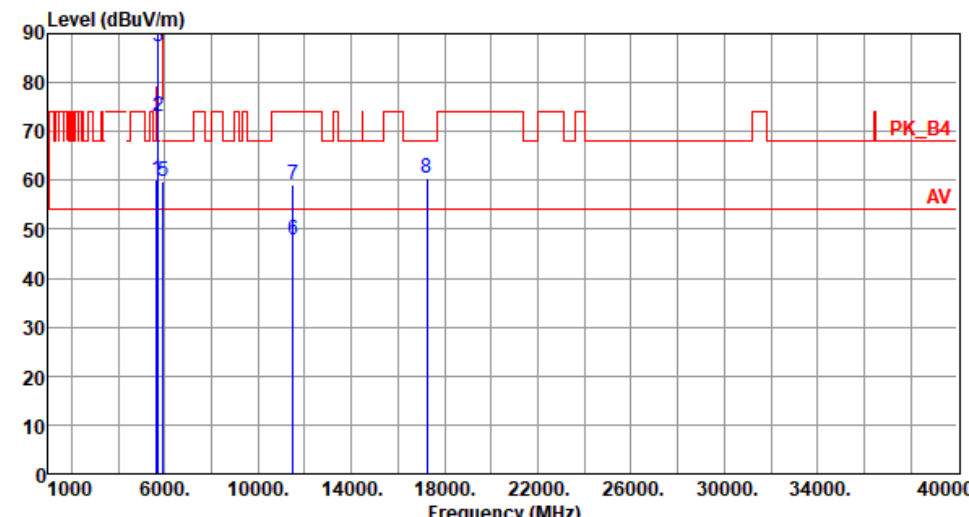
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.34	54.00	-6.66	42.89	4.45	Average	225	253
2	5460.00	59.30	74.00	-14.70	54.85	4.45	Peak	225	253
3	5470.00	59.97	68.20	-8.23	55.47	4.50	Peak	225	253
4	5850.00	63.02	68.20	-5.18	57.57	5.45	Peak	225	253
5	11440.00	47.53	54.00	-6.47	32.87	14.66	Average	100	61
6	11440.00	58.24	74.00	-15.76	43.58	14.66	Peak	100	61
7	17160.00	60.43	68.20	-7.77	42.78	17.65	Peak	100	63

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

*Factor includes antenna factor , cable loss and amplifier gain

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

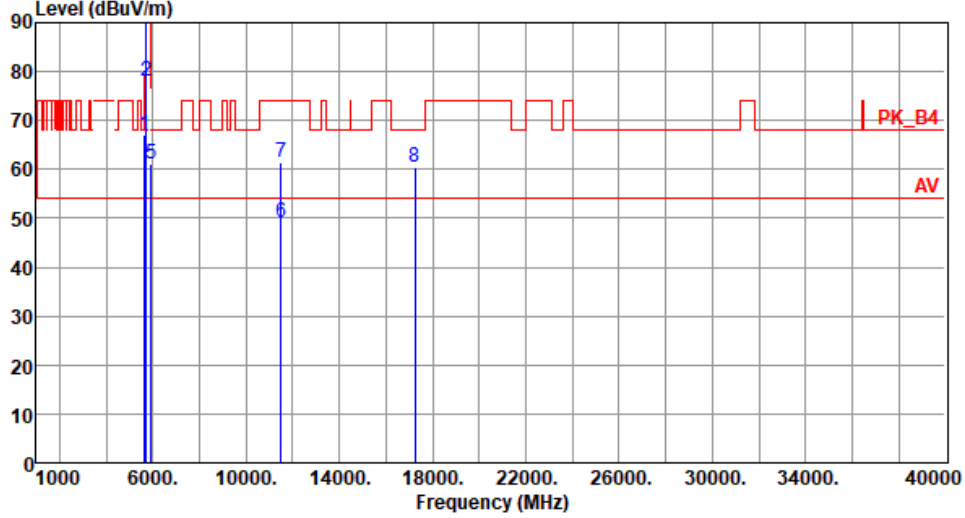
Modulation	11ax HE20	Test Freq. (MHz)	5745
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	60.10	68.20	-8.10	55.56	4.54	Peak	112	158
2	5700.00	73.10	105.20	-32.10	68.42	4.68	Peak	112	158
3	5720.00	87.37	110.80	-23.43	82.56	4.81	Peak	112	158
4	5725.00	93.31	122.20	-28.89	88.46	4.85	Peak	112	158
5	5925.00	59.65	68.20	-8.55	54.22	5.43	Peak	112	158
6	11490.00	47.90	54.00	-6.10	33.27	14.63	Average	100	115
7	11490.00	59.22	74.00	-14.78	44.59	14.63	Peak	100	115
8	17235.00	60.31	68.20	-7.89	42.55	17.76	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).

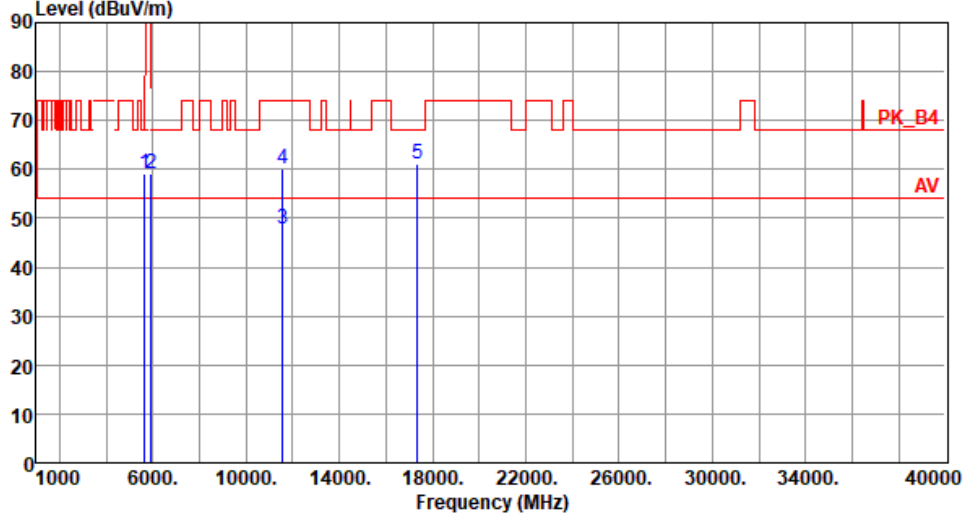
Modulation	11ax HE20	Test Freq. (MHz)	5745
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	67.08	68.20	-1.12	62.54	4.54	Peak	166	214
2	5700.00	78.04	105.20	-27.16	73.36	4.68	Peak	166	214
3	5720.00	95.54	110.80	-15.26	90.73	4.81	Peak	166	214
4	5725.00	99.93	122.20	-22.27	95.08	4.85	Peak	166	214
5	5925.00	61.25	68.20	-6.95	55.82	5.43	Peak	166	214
6	11490.00	49.22	54.00	-4.78	34.59	14.63	Average	100	56
7	11490.00	61.53	74.00	-12.47	46.90	14.63	Peak	100	56
8	17235.00	60.40	68.20	-7.80	42.64	17.76	Peak	100	59

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

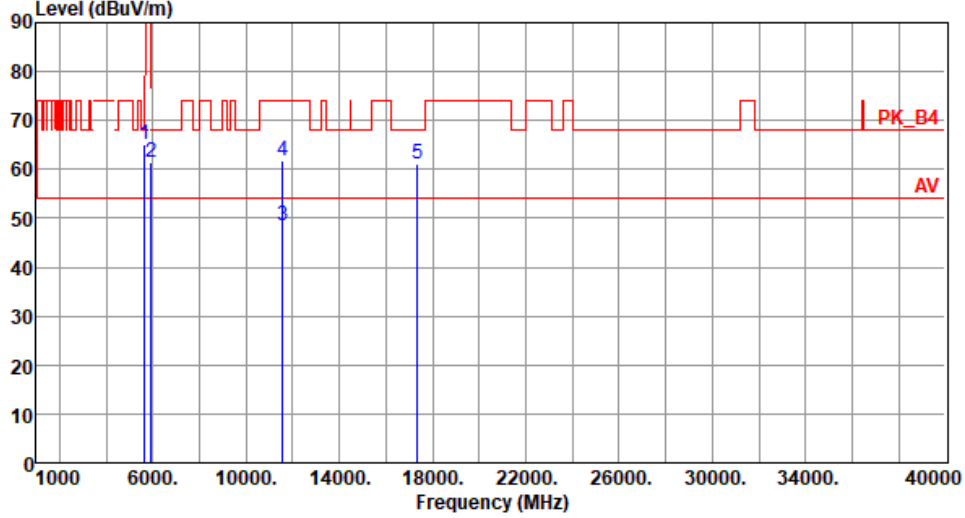
Modulation	11ax HE20	Test Freq. (MHz)	5785
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	59.10	68.20	-9.10	54.56	4.54	Peak	111	155
2	5925.00	58.99	68.20	-9.21	53.56	5.43	Peak	111	155
3	11570.00	47.93	54.00	-6.07	33.43	14.50	Average	100	116
4	11570.00	60.15	74.00	-13.85	45.65	14.50	Peak	100	116
5	17355.00	60.94	68.20	-7.26	42.58	18.36	Peak	100	120

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

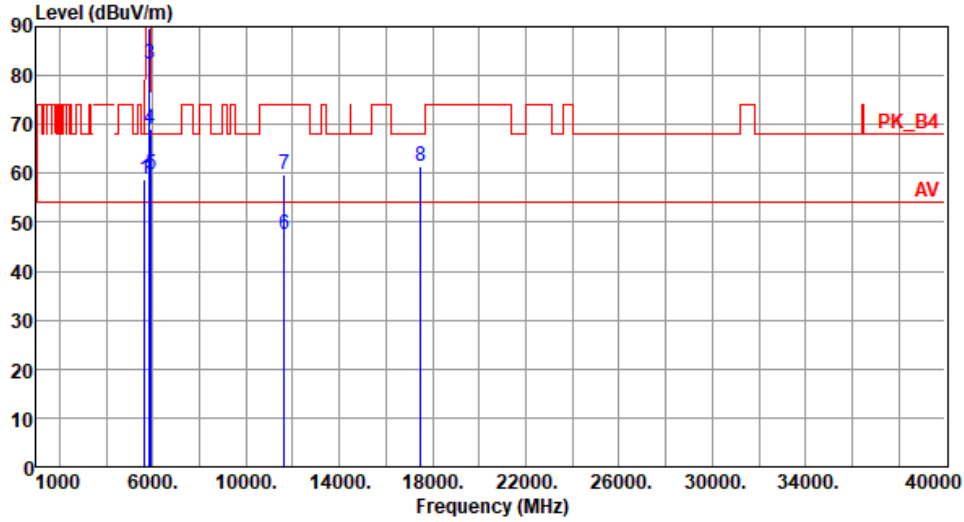
Modulation	11ax HE20	Test Freq. (MHz)	5785
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	65.03	68.20	-3.17	60.49	4.54	Peak	192	215
2	5925.00	61.31	68.20	-6.89	55.88	5.43	Peak	192	215
3	11570.00	48.52	54.00	-5.48	34.02	14.50	Average	100	51
4	11570.00	61.73	74.00	-12.27	47.23	14.50	Peak	100	51
5	17355.00	61.05	68.20	-7.15	42.69	18.36	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	11ax HE20	Test Freq. (MHz)	5825
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.81	68.20	-9.39	54.27	4.54	Peak	115	161
2	5850.00	89.70	122.20	-32.50	84.25	5.45	Peak	115	161
3	5855.00	82.30	110.80	-28.50	76.86	5.44	Peak	115	161
4	5875.00	68.92	105.20	-36.28	63.48	5.44	Peak	115	161
5	5925.00	59.94	68.20	-8.26	54.51	5.43	Peak	115	161
6	11650.00	47.45	54.00	-6.55	33.24	14.21	Average	100	117
7	11650.00	59.65	74.00	-14.35	45.44	14.21	Peak	100	117
8	17475.00	61.31	68.20	-6.89	42.45	18.86	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	11ax HE20	Test Freq. (MHz)	5825
Polarization	Vertical		

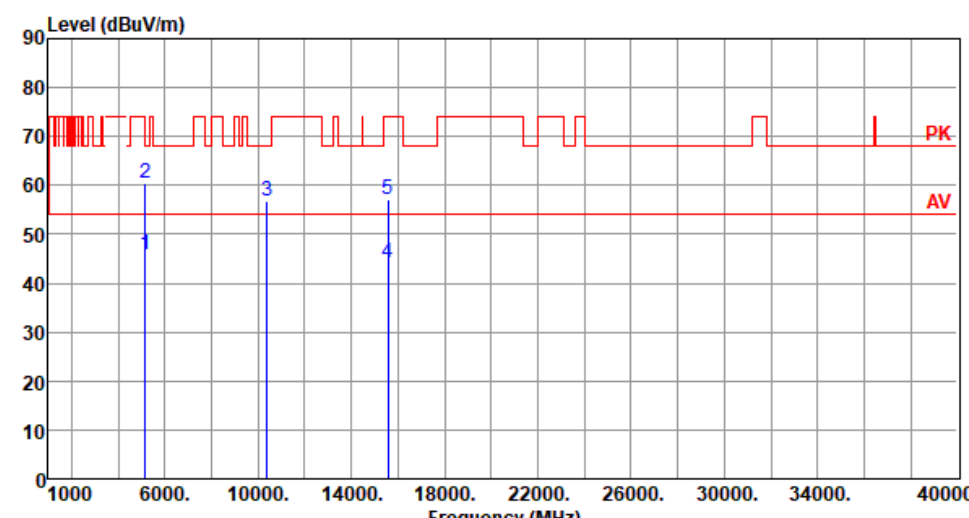


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	61.56	68.20	-6.64	57.02	4.54	Peak	176	218
2	5850.00	96.64	122.20	-25.56	91.19	5.45	Peak	176	218
3	5855.00	90.34	110.80	-20.46	84.90	5.44	Peak	176	218
4	5875.00	76.64	105.20	-28.56	71.20	5.44	Peak	176	218
5	5925.00	64.98	68.20	-3.22	59.55	5.43	Peak	176	218
6	11650.00	48.45	54.00	-5.55	34.24	14.21	Average	100	53
7	11650.00	61.70	74.00	-12.30	47.49	14.21	Peak	100	53
8	17475.00	61.43	68.20	-6.77	42.57	18.86	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).

3.5.7 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11ax HE40

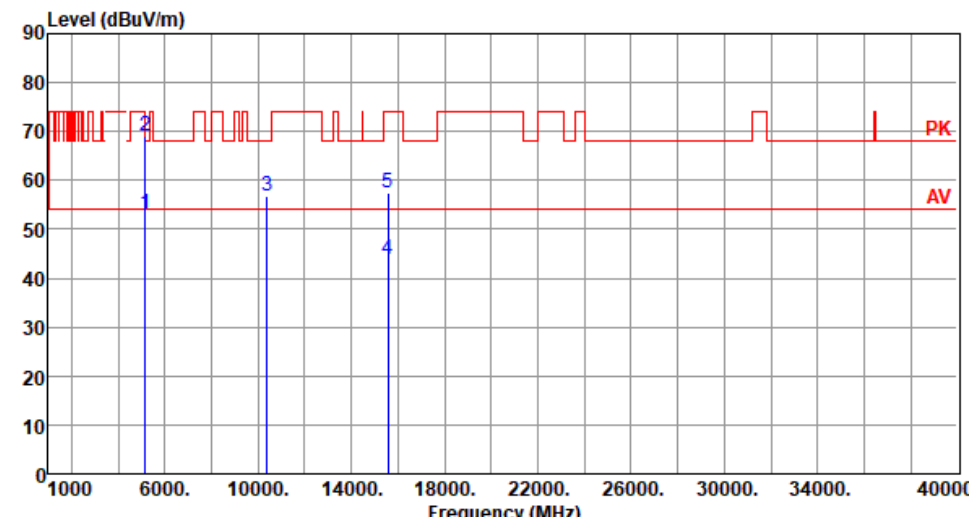
Modulation	11ax HE40	Test Freq. (MHz)	5190
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	45.89	54.00	-8.11	41.25	4.64	Average	114	160
2	5150.00	60.28	74.00	-13.72	55.64	4.64	Peak	114	160
3	10380.00	56.70	68.20	-11.50	42.46	14.24	Peak	100	30
4	15570.00	44.02	54.00	-9.98	29.24	14.78	Average	100	40
5	15570.00	57.24	74.00	-16.76	42.46	14.78	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).

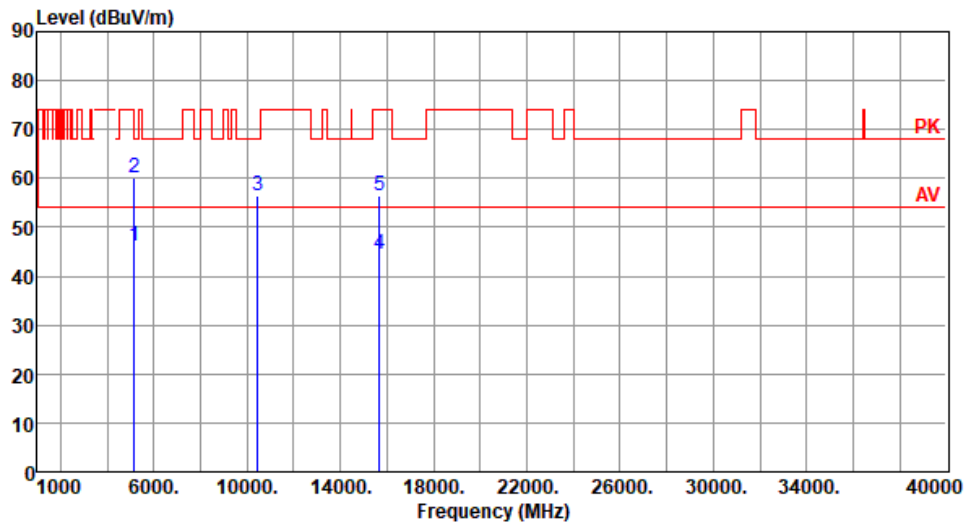
Modulation	11ax HE40	Test Freq. (MHz)	5190
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	53.00	54.00	-1.00	48.36	4.64	Average	163	232
2	5150.00	69.06	74.00	-4.94	64.42	4.64	Peak	163	232
3	10380.00	56.71	68.20	-11.49	42.47	14.24	Peak	100	20
4	15570.00	43.90	54.00	-10.10	29.12	14.78	Average	100	30
5	15570.00	57.36	74.00	-16.64	42.58	14.78	Peak	100	30

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

Modulation	11ax HE40	Test Freq. (MHz)	5230
Polarization	Horizontal		



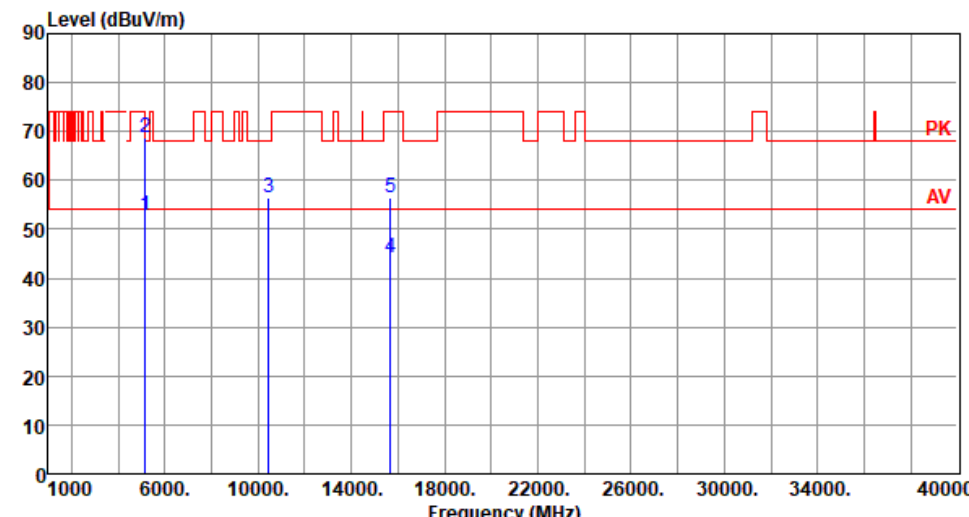
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	46.22	54.00	-7.78	41.58	4.64	Average	111	167
2	5150.00	60.10	74.00	-13.90	55.46	4.64	Peak	111	167
3	10460.00	56.53	68.20	-11.67	42.11	14.42	Peak	100	50
4	15690.00	44.51	54.00	-9.49	30.25	14.26	Average	100	40
5	15690.00	56.47	74.00	-17.53	42.21	14.26	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).

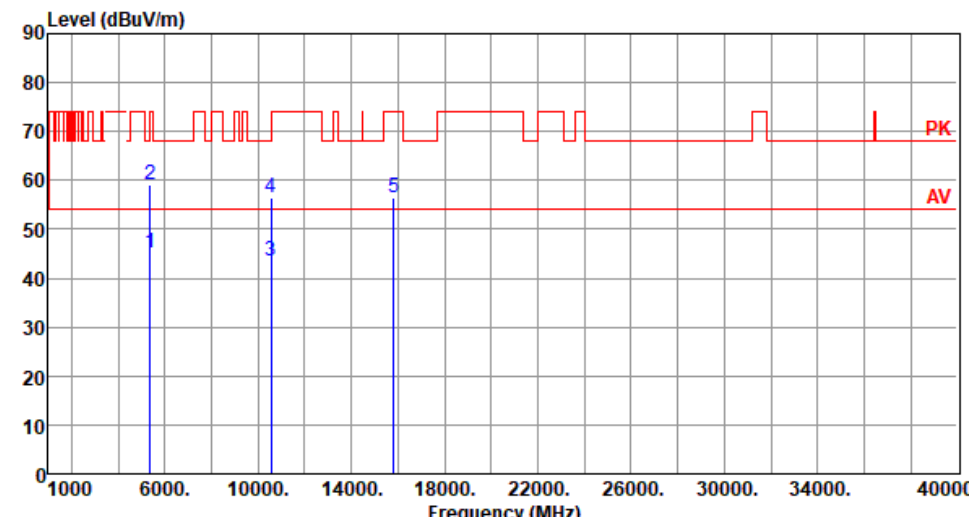
Modulation	11ax HE40	Test Freq. (MHz)	5230
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.85	54.00	-1.15	48.21	4.64	Average	150	231
2	5150.00	68.60	74.00	-5.40	63.96	4.64	Peak	150	231
3	10460.00	56.61	68.20	-11.59	42.19	14.42	Peak	114	358
4	15690.00	44.28	54.00	-9.72	30.02	14.26	Average	100	30
5	15690.00	56.61	74.00	-17.39	42.35	14.26	Peak	100	30

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

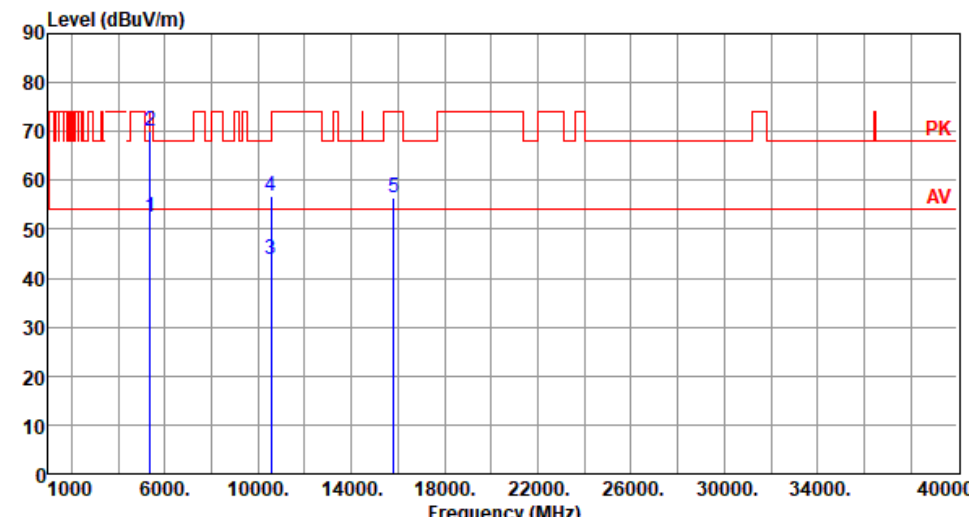
Modulation	11ax HE40	Test Freq. (MHz)	5270
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	45.22	54.00	-8.78	41.28	3.94	Average	112	154
2	5350.00	59.28	74.00	-14.72	55.34	3.94	Peak	112	154
3	10540.00	43.62	54.00	-10.38	29.20	14.42	Average	100	30
4	10540.00	56.54	68.20	-11.66	42.12	14.42	Peak	100	30
5	15810.00	56.47	74.00	-17.53	42.29	14.18	Peak	100	70

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

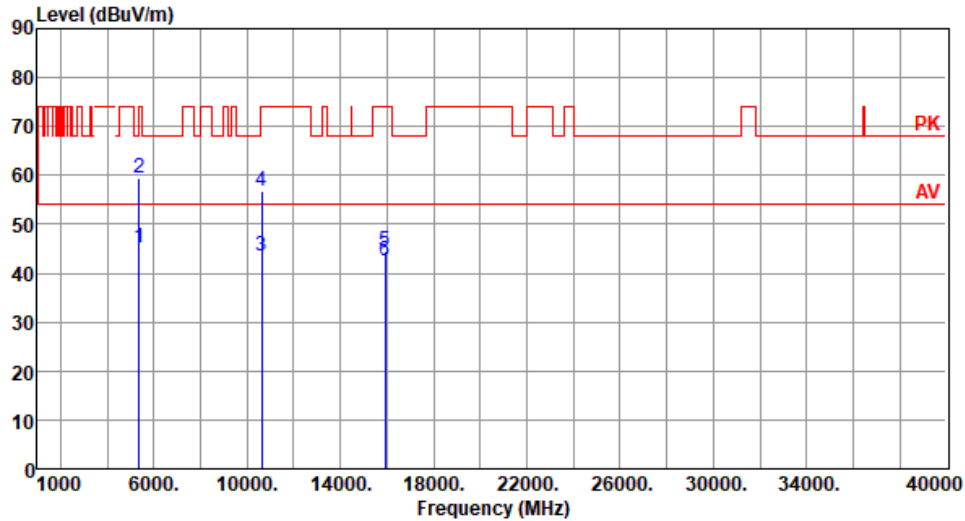
Modulation	11ax HE40	Test Freq. (MHz)	5270
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.62	54.00	-1.38	48.68	3.94	Average	177	218
2	5350.00	70.13	74.00	-3.87	66.19	3.94	Peak	177	218
3	10540.00	43.86	54.00	-10.14	29.44	14.42	Average	100	5
4	10540.00	56.67	68.20	-11.53	42.25	14.42	Peak	100	5
5	15810.00	56.55	74.00	-17.45	42.37	14.18	Peak	100	60

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

Modulation	11ax HE40	Test Freq. (MHz)	5310
Polarization	Horizontal		



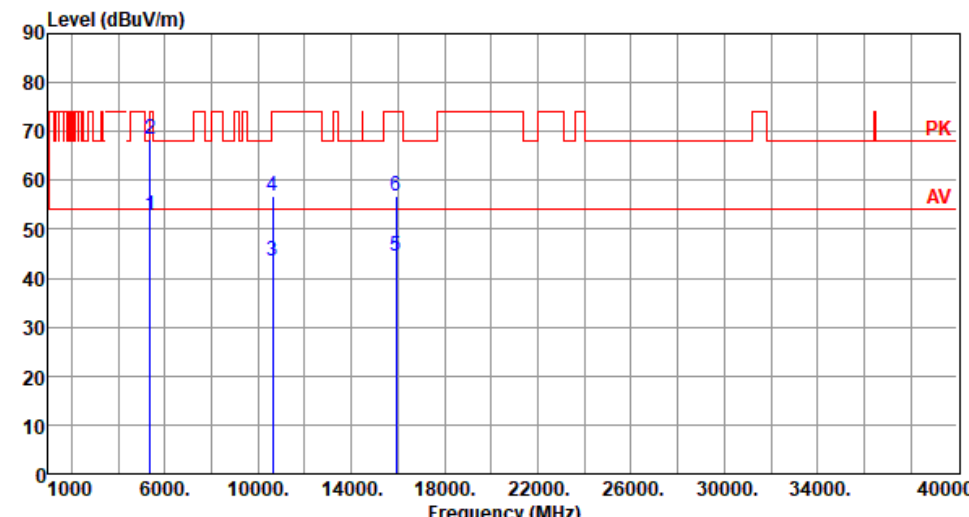
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	45.21	54.00	-8.79	41.27	3.94	Average	122	161
2	5350.00	59.40	74.00	-14.60	55.46	3.94	Peak	122	161
3	10620.00	43.48	54.00	-10.52	29.14	14.34	Average	100	15
4	10620.00	56.74	74.00	-17.26	42.40	14.34	Peak	100	15
5	15930.00	44.41	54.00	-9.59	30.18	14.23	Average	100	60
6	15930.00	42.45	74.00	-31.55	28.22	14.23	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).

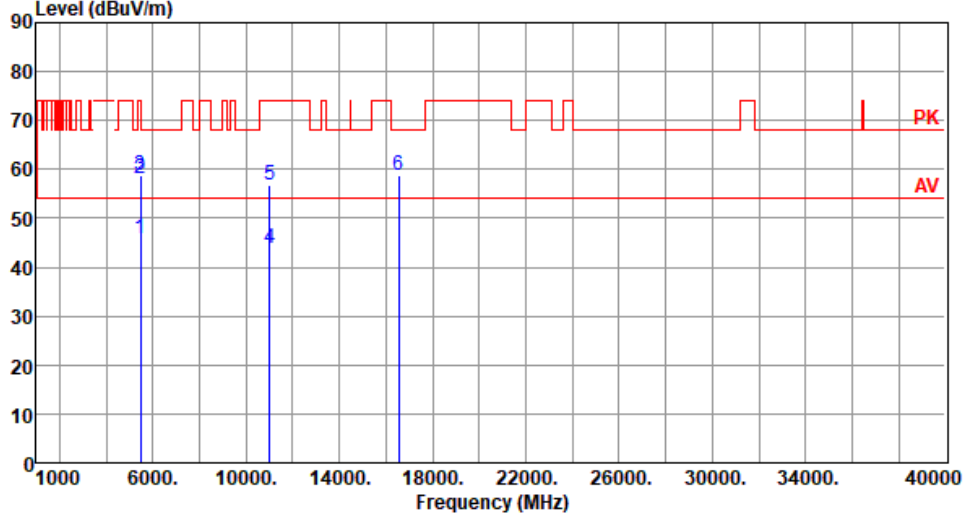
Modulation	11ax HE40	Test Freq. (MHz)	5310
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.89	54.00	-1.11	48.95	3.94	Average	175	231
2	5350.00	68.31	74.00	-5.69	64.37	3.94	Peak	175	231
3	10620.00	43.58	54.00	-10.42	29.24	14.34	Average	100	40
4	10620.00	56.79	74.00	-17.21	42.45	14.34	Peak	100	40
5	15930.00	44.48	54.00	-9.52	30.25	14.23	Average	100	50
6	15930.00	56.92	74.00	-17.08	42.69	14.23	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).

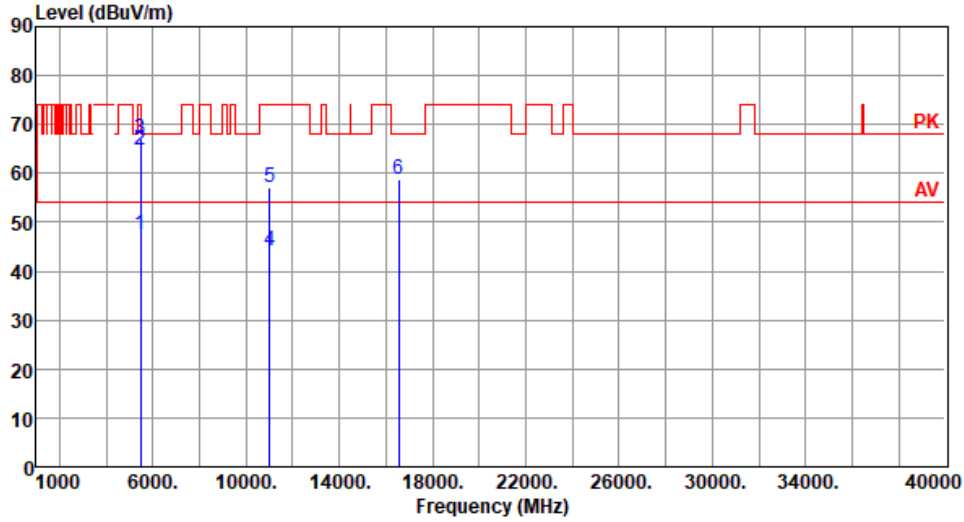
Modulation	11ax HE40	Test Freq. (MHz)	5510
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.71	54.00	-8.29	41.26	4.45	Average	115	159
2	5460.00	58.05	74.00	-15.95	53.60	4.45	Peak	115	159
3	5470.00	58.76	68.20	-9.44	54.26	4.50	Peak	115	159
4	11020.00	43.96	54.00	-10.04	29.15	14.81	Average	100	50
5	11020.00	56.94	74.00	-17.06	42.13	14.81	Peak	100	50
6	16530.00	58.66	68.20	-9.54	42.33	16.33	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).

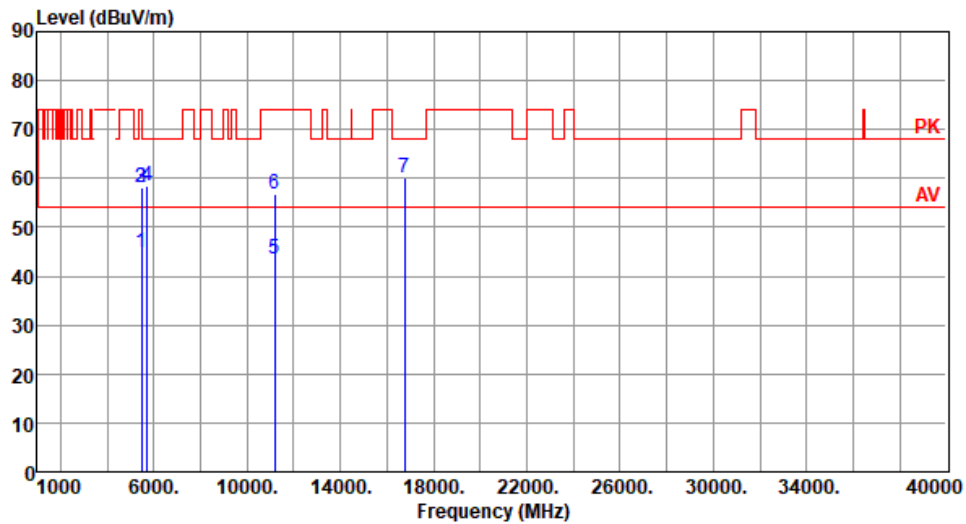
Modulation	11ax HE40	Test Freq. (MHz)	5510
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.41	54.00	-6.59	42.96	4.45	Average	178	221
2	5460.00	64.67	74.00	-9.33	60.22	4.45	Peak	178	221
3	5470.00	67.15	68.20	-1.05	62.65	4.50	Peak	178	221
4	11020.00	44.06	54.00	-9.94	29.25	14.81	Average	100	40
5	11020.00	57.05	74.00	-16.95	42.24	14.81	Peak	100	40
6	16530.00	58.78	68.20	-9.42	42.45	16.33	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	11ax HE40	Test Freq. (MHz)	5590
Polarization	Horizontal		



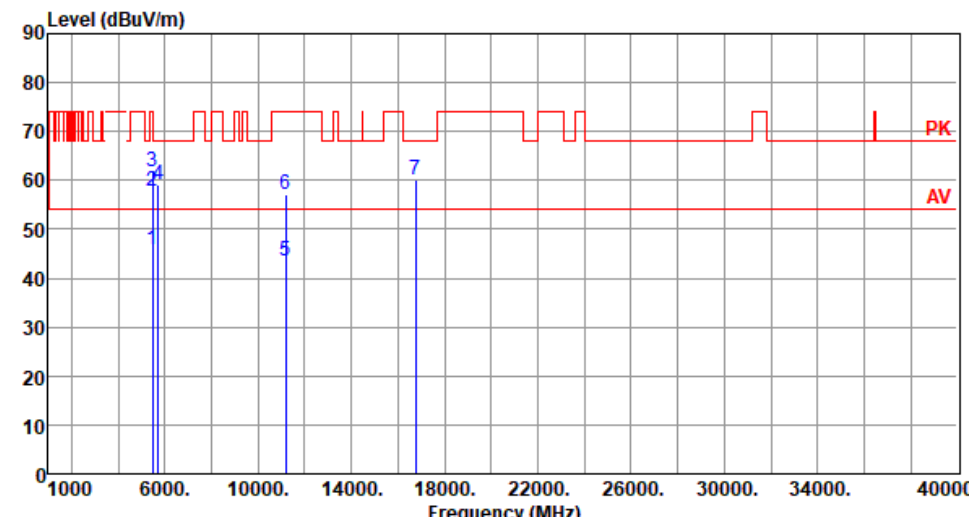
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	44.91	54.00	-9.09	40.46	4.45	Average	113	162
2	5460.00	58.04	74.00	-15.96	53.59	4.45	Peak	113	162
3	5470.00	58.15	68.20	-10.05	53.65	4.50	Peak	113	162
4	5725.00	58.50	68.20	-9.70	53.65	4.85	Peak	113	162
5	11180.00	43.48	54.00	-10.52	29.15	14.33	Average	100	40
6	11180.00	56.87	74.00	-17.13	42.54	14.33	Peak	100	40
7	16770.00	60.01	68.20	-8.19	42.43	17.58	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).

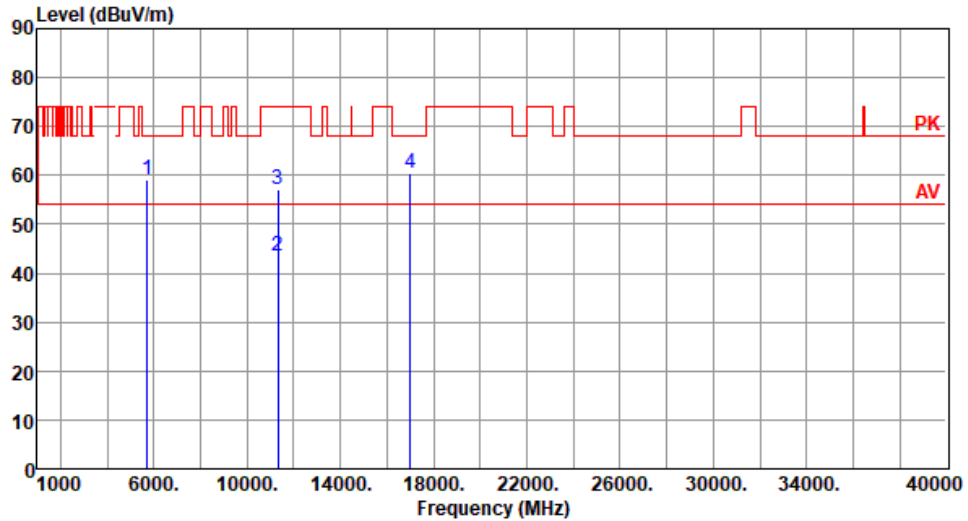
Modulation	11ax HE40	Test Freq. (MHz)	5590
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	45.99	54.00	-8.01	41.54	4.45	Average	176	220
2	5460.00	57.91	74.00	-16.09	53.46	4.45	Peak	176	220
3	5470.00	61.90	68.20	-6.30	57.40	4.50	Peak	176	220
4	5725.00	59.10	68.20	-9.10	54.25	4.85	Peak	176	220
5	11180.00	43.58	54.00	-10.42	29.25	14.33	Average	100	10
6	11180.00	57.19	74.00	-16.81	42.86	14.33	Peak	100	10
7	16770.00	60.16	68.20	-8.04	42.58	17.58	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	11ax HE40	Test Freq. (MHz)	5670
Polarization	Horizontal		



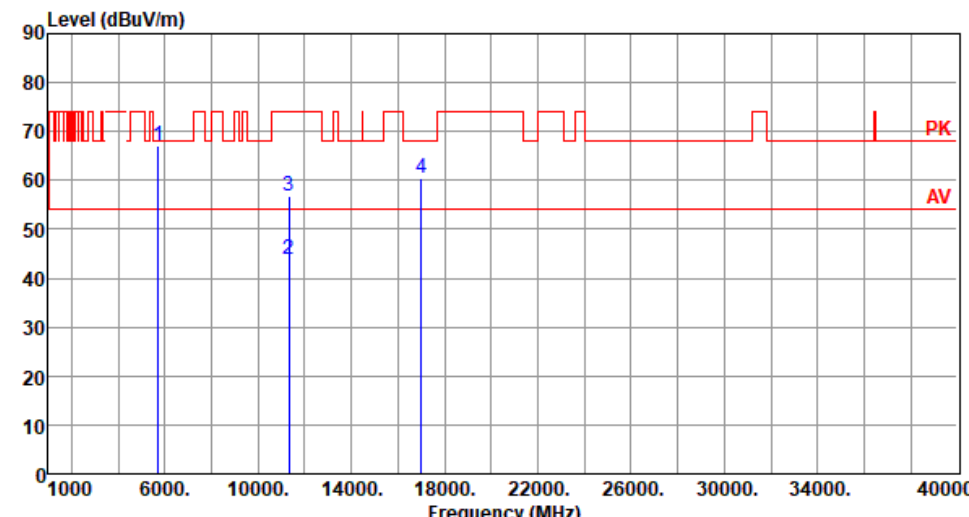
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	59.11	68.20	-9.09	54.26	4.85	Peak	118	161
2	11340.00	43.65	54.00	-10.35	29.18	14.47	Average	100	20
3	11340.00	57.01	74.00	-16.99	42.54	14.47	Peak	100	20
4	17010.00	60.36	68.20	-7.84	42.47	17.89	Peak	100	90

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

*Factor includes antenna factor , cable loss and amplifier gain

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

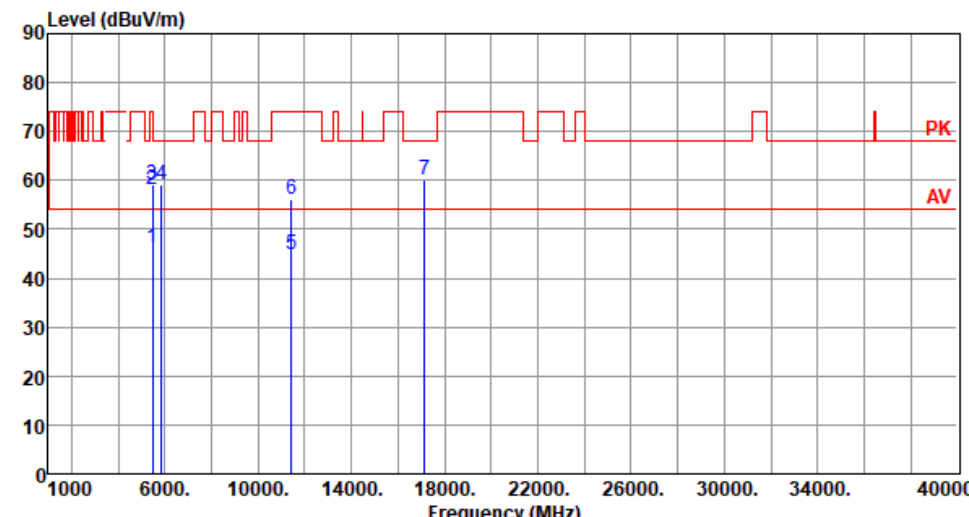
Modulation	11ax HE40	Test Freq. (MHz)	5670
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	67.18	68.20	-1.02	62.33	4.85	Peak	160	217
2	11340.00	43.73	54.00	-10.27	29.26	14.47	Average	100	40
3	11340.00	56.81	74.00	-17.19	42.34	14.47	Peak	100	40
4	17010.00	60.44	68.20	-7.76	42.55	17.89	Peak	100	70

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

Modulation	11ax HE40	Test Freq. (MHz)	5710
Polarization	Horizontal		

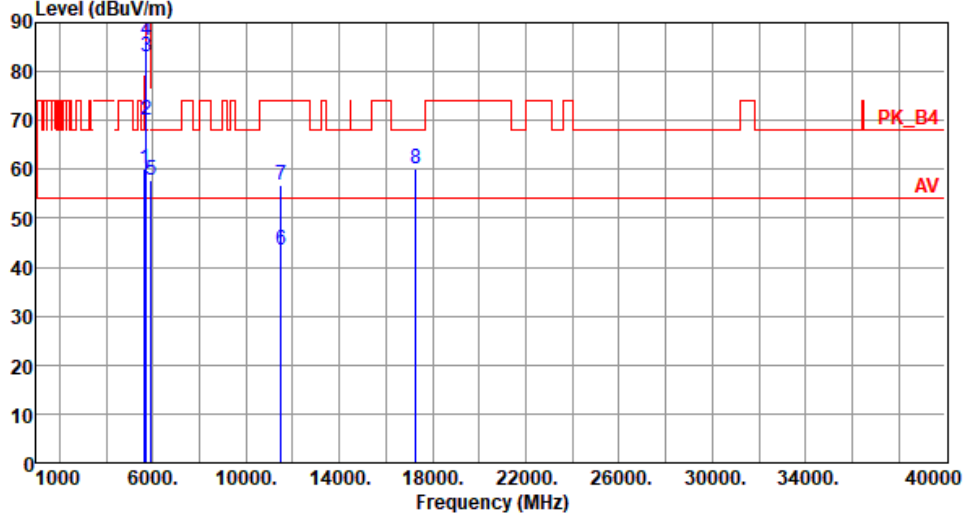


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.02	54.00	-7.98	41.57	4.45	Average	114	156
2	5460.00	58.11	74.00	-15.89	53.66	4.45	Peak	114	156
3	5470.00	59.09	68.20	-9.11	54.59	4.50	Peak	114	156
4	5850.00	59.03	68.20	-9.17	53.58	5.45	Peak	114	156
5	11420.00	44.82	54.00	-9.18	30.15	14.67	Average	100	20
6	11420.00	56.13	74.00	-17.87	41.46	14.67	Peak	100	20
7	17130.00	59.98	68.20	-8.22	42.31	17.67	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	11ax HE40	Test Freq. (MHz)	5710
Polarization	Vertical		
Level (dBUV/m) <			

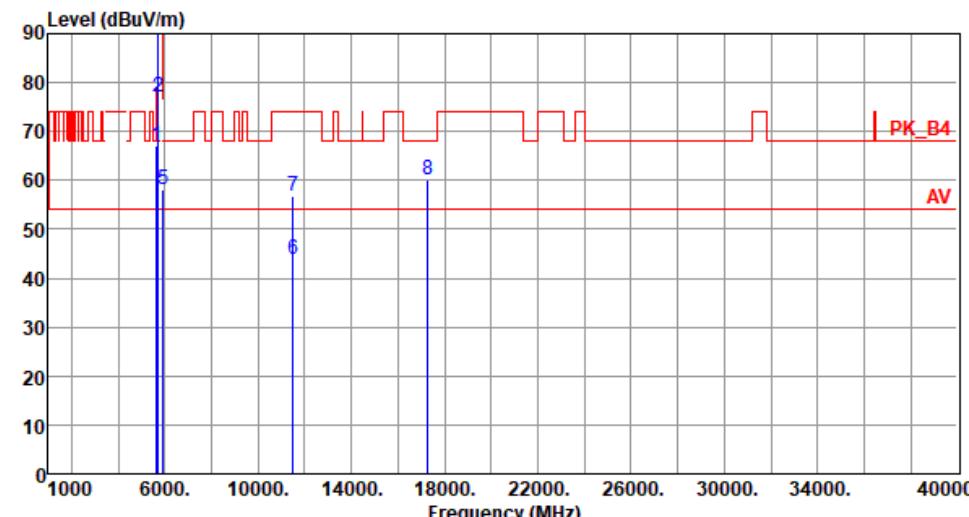
Modulation	11ax HE40	Test Freq. (MHz)	5755
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	59.99	68.20	-8.21	55.45	4.54	Peak	118	163
2	5700.00	69.93	105.20	-35.27	65.25	4.68	Peak	118	163
3	5720.00	83.07	110.80	-27.73	78.26	4.81	Peak	118	163
4	5725.00	86.41	122.20	-35.79	81.56	4.85	Peak	118	163
5	5925.00	57.88	68.20	-10.32	52.45	5.43	Peak	118	163
6	11510.00	43.67	54.00	-10.33	29.06	14.61	Average	100	40
7	11510.00	56.76	74.00	-17.24	42.15	14.61	Peak	100	40
8	17265.00	60.08	68.20	-8.12	42.21	17.87	Peak	100	30

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

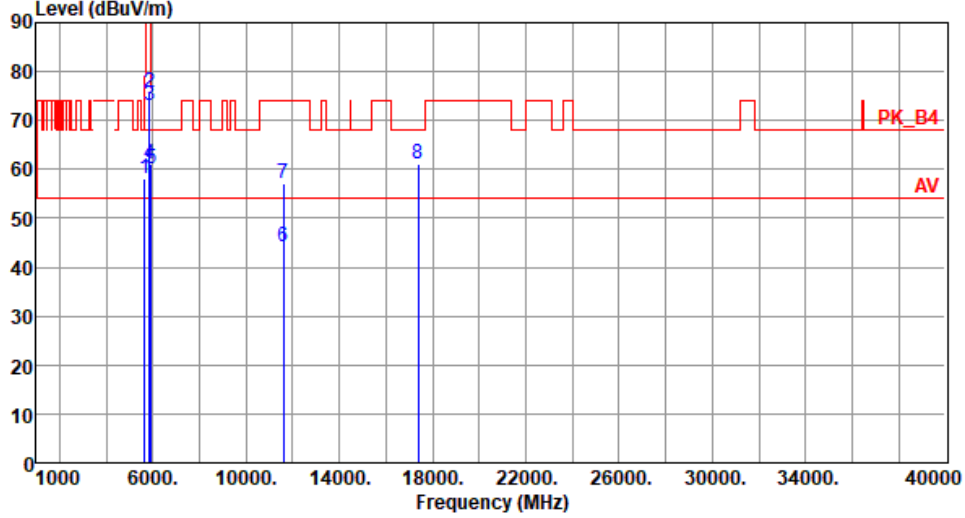
Modulation	11ax HE40	Test Freq. (MHz)	5755
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	67.00	68.20	-1.20	62.46	4.54	Peak	178	222
2	5700.00	77.05	105.20	-28.15	72.37	4.68	Peak	178	222
3	5720.00	89.95	110.80	-20.85	85.14	4.81	Peak	178	222
4	5725.00	94.75	122.20	-27.45	89.90	4.85	Peak	178	222
5	5925.00	58.07	68.20	-10.13	52.64	5.43	Peak	178	222
6	11510.00	43.76	54.00	-10.24	29.15	14.61	Average	100	30
7	11510.00	56.81	74.00	-17.19	42.20	14.61	Peak	100	30
8	17265.00	60.20	68.20	-8.00	42.33	17.87	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).

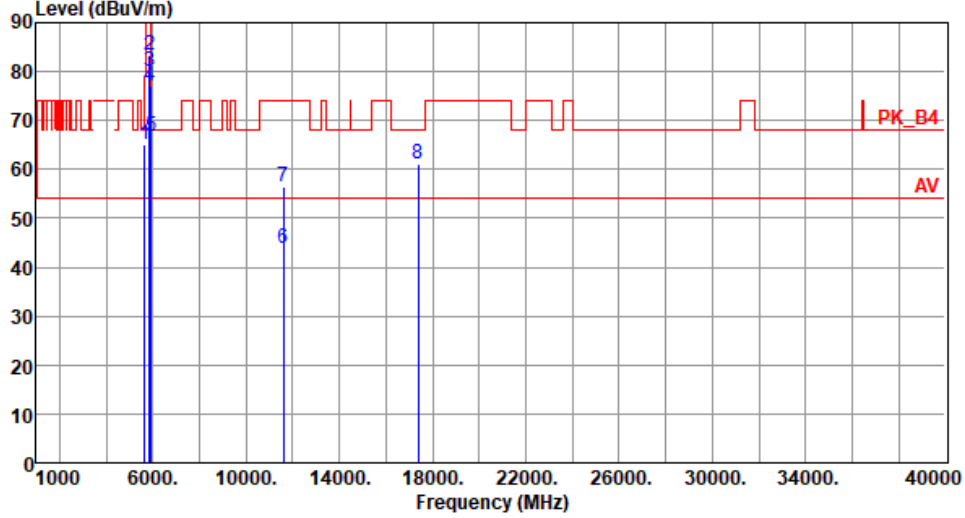
Modulation	11ax HE40	Test Freq. (MHz)	5795
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	58.10	68.20	-10.10	53.56	4.54	Peak	119	154
2	5850.00	75.69	122.20	-46.51	70.24	5.45	Peak	119	154
3	5855.00	73.13	110.80	-37.67	67.69	5.44	Peak	119	154
4	5875.00	61.00	105.20	-44.20	55.56	5.44	Peak	119	154
5	5925.00	60.01	68.20	-8.19	54.58	5.43	Peak	119	154
6	11590.00	44.14	54.00	-9.86	29.68	14.46	Average	100	115
7	11590.00	57.04	74.00	-16.96	42.58	14.46	Peak	100	115
8	17385.00	61.12	68.20	-7.08	42.56	18.56	Peak	100	330

Note 1: Emission Level (dBuV/m) = SA Reading (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	11ax HE40	Test Freq. (MHz)	5795
Polarization	Vertical		

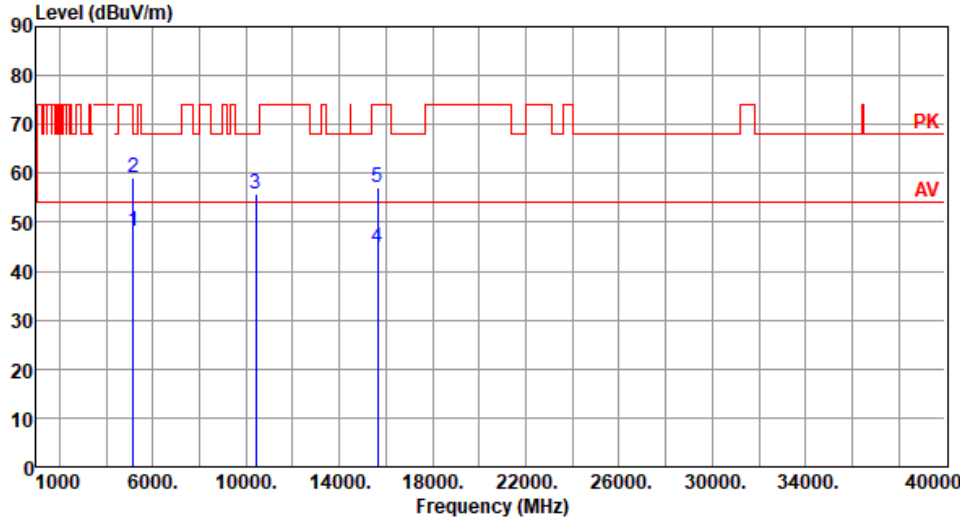


	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5650.00	65.14	68.20	-3.06	60.60	4.54	Peak	167	222
2	5850.00	83.41	122.20	-38.79	77.96	5.45	Peak	167	222
3	5855.00	79.98	110.80	-30.82	74.54	5.44	Peak	167	222
4	5875.00	76.90	105.20	-28.30	71.46	5.44	Peak	167	222
5	5925.00	66.91	68.20	-1.29	61.48	5.43	Peak	167	222
6	11590.00	43.71	54.00	-10.29	29.25	14.46	Average	100	40
7	11590.00	56.59	74.00	-17.41	42.13	14.46	Peak	100	40
8	17385.00	60.98	68.20	-7.22	42.42	18.56	Peak	100	30

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

3.5.8 Transmitter Radiated Unwanted Emissions (Above 1GHz) for 11ax HE80

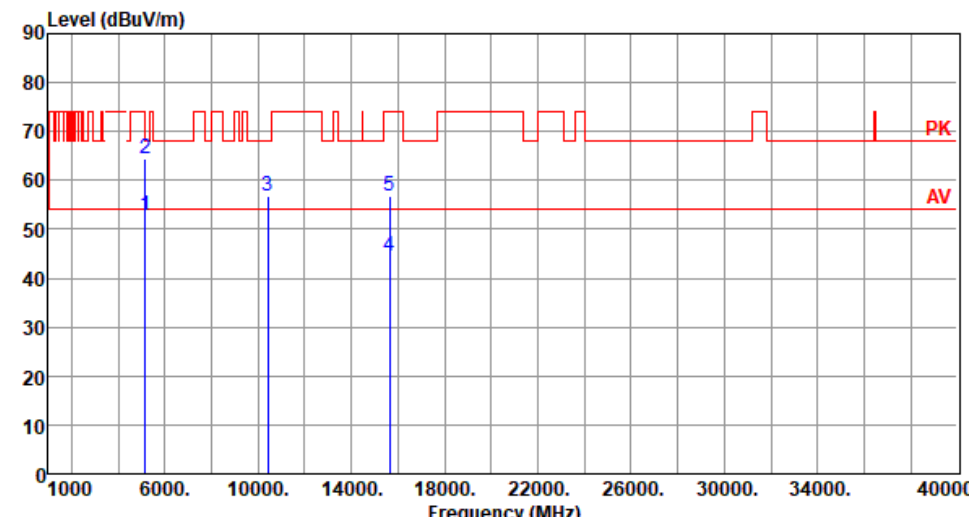
Modulation	11ax HE80	Test Freq. (MHz)	5210
Polarization	Horizontal		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	48.08	54.00	-5.92	43.44	4.64	Average	100	159
2	5150.00	59.00	74.00	-15.00	54.36	4.64	Peak	100	159
3	10420.00	55.90	68.20	-12.30	41.56	14.34	Peak	100	30
4	15630.00	44.70	54.00	-9.30	30.19	14.51	Average	100	40
5	15630.00	57.00	74.00	-17.00	42.49	14.51	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).

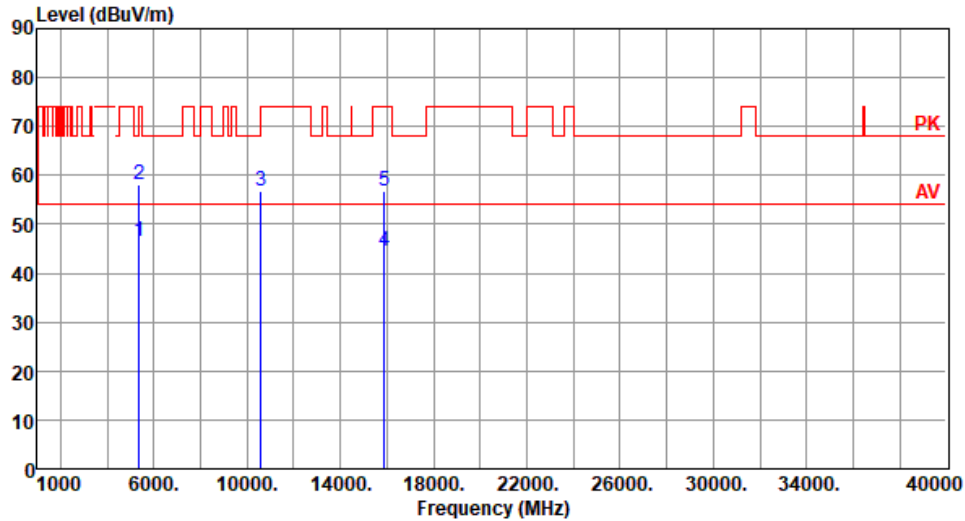
Modulation	11ax HE80	Test Freq. (MHz)	5210
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5150.00	52.90	54.00	-1.10	48.26	4.64	Average	153	235
2	5150.00	64.44	74.00	-9.56	59.80	4.64	Peak	153	235
3	10420.00	56.90	68.20	-11.30	42.56	14.34	Peak	100	70
4	15630.00	44.67	54.00	-9.33	30.16	14.51	Average	100	30
5	15630.00	56.92	74.00	-17.08	42.41	14.51	Peak	100	30

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

Modulation	11ax HE80	Test Freq. (MHz)	5290
Polarization	Horizontal		



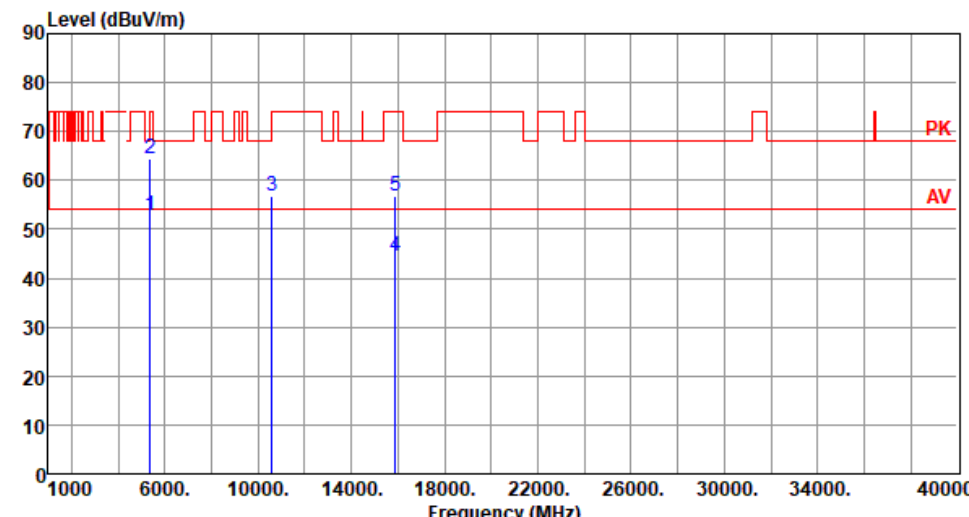
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	46.50	54.00	-7.50	42.56	3.94	Average	102	155
2	5350.00	58.27	74.00	-15.73	54.33	3.94	Peak	102	155
3	10580.00	56.66	68.20	-11.54	42.34	14.32	Peak	100	70
4	15870.00	44.34	54.00	-9.66	30.11	14.23	Average	100	40
5	15870.00	56.79	74.00	-17.21	42.56	14.23	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).

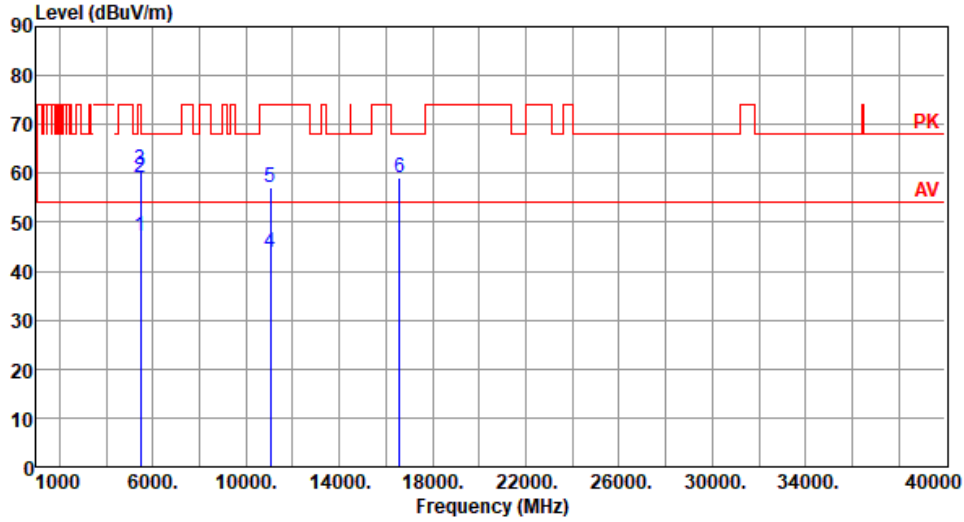
Modulation	11ax HE80	Test Freq. (MHz)	5290
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5350.00	52.93	54.00	-1.07	48.99	3.94	Average	229	217
2	5350.00	64.27	74.00	-9.73	60.33	3.94	Peak	229	217
3	10580.00	56.78	68.20	-11.42	42.46	14.32	Peak	100	80
4	15870.00	44.58	54.00	-9.42	30.35	14.23	Average	100	50
5	15870.00	56.63	74.00	-17.37	42.40	14.23	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	11ax HE80	Test Freq. (MHz)	5530
Polarization	Horizontal		

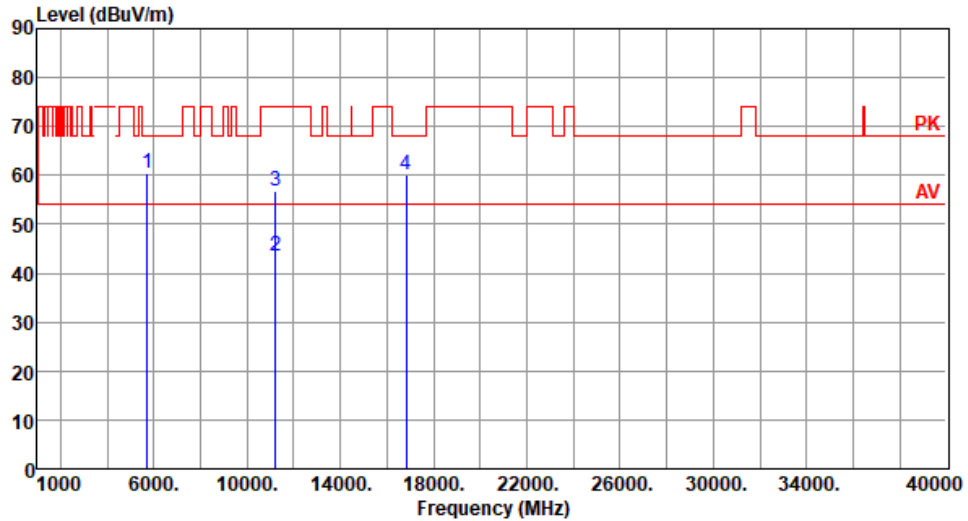


	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	47.10	54.00	-6.90	42.65	4.45	Average	134	163
2	5460.00	59.09	74.00	-14.91	54.64	4.45	Peak	134	163
3	5470.00	60.93	68.20	-7.27	56.43	4.50	Peak	134	163
4	11060.00	43.92	54.00	-10.08	29.25	14.67	Average	100	40
5	11060.00	57.10	74.00	-16.90	42.43	14.67	Peak	100	40
6	16590.00	59.26	68.20	-8.94	42.65	16.61	Peak	100	90

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

Modulation	11ax HE80	Test Freq. (MHz)	5530
Polarization	Vertical		
Level (dBUV/m) <			

Modulation	11ax HE80	Test Freq. (MHz)	5610
Polarization	Horizontal		



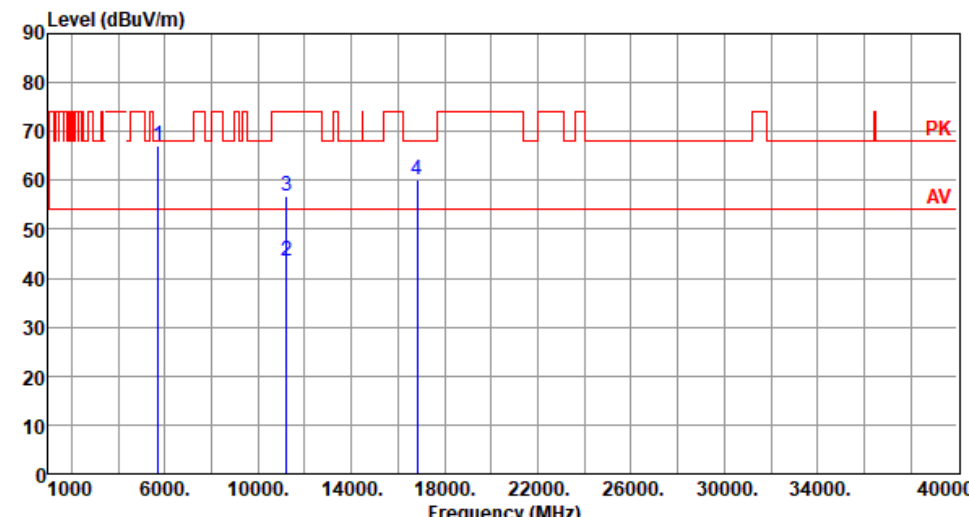
	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	60.31	68.20	-7.89	55.46	4.85	Peak	114	165
2	11220.00	43.50	54.00	-10.50	29.21	14.29	Average	100	50
3	11220.00	56.63	74.00	-17.37	42.34	14.29	Peak	100	50
4	16830.00	59.96	68.20	-8.24	42.31	17.65	Peak	100	40

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

*Factor includes antenna factor , cable loss and amplifier gain

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

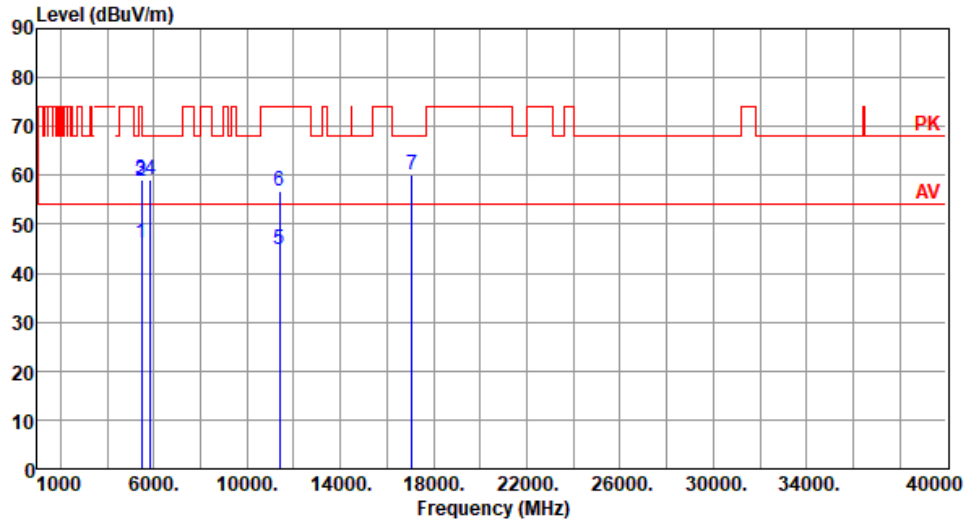
Modulation	11ax HE80	Test Freq. (MHz)	5610
Polarization	Vertical		



	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5725.00	67.17	68.20	-1.03	62.32	4.85	Peak	173	221
2	11220.00	43.62	54.00	-10.38	29.33	14.29	Average	100	40
3	11220.00	56.70	74.00	-17.30	42.41	14.29	Peak	100	40
4	16830.00	60.14	68.20	-8.06	42.49	17.65	Peak	100	70

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

Modulation	11ax HE80	Test Freq. (MHz)	5690
Polarization	Horizontal		



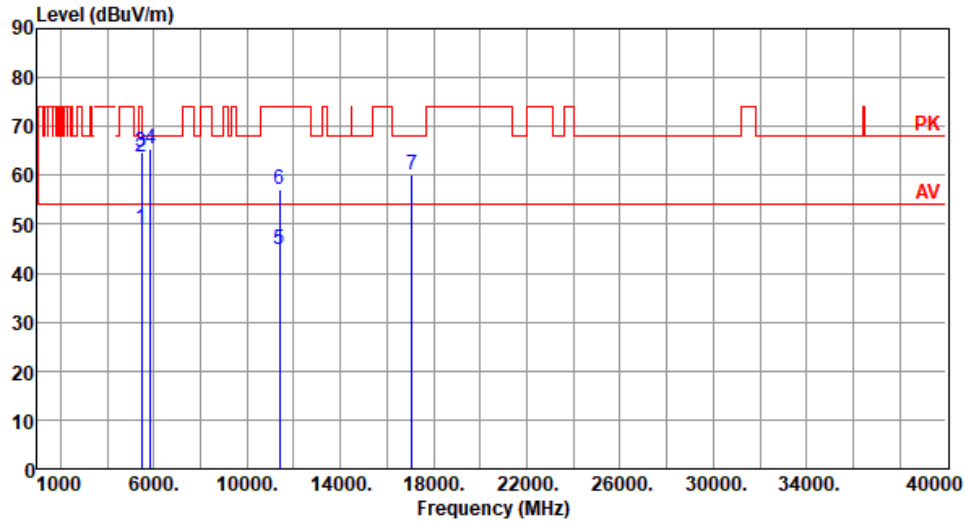
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	46.02	54.00	-7.98	41.57	4.45	Average	110	162
2	5460.00	58.72	74.00	-15.28	54.27	4.45	Peak	110	162
3	5470.00	59.19	68.20	-9.01	54.69	4.50	Peak	110	162
4	5850.00	59.03	68.20	-9.17	53.58	5.45	Peak	110	162
5	11380.00	44.74	54.00	-9.26	30.13	14.61	Average	100	50
6	11380.00	56.95	74.00	-17.05	42.34	14.61	Peak	100	50
7	17070.00	60.27	68.20	-7.93	42.52	17.75	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	11ax HE80	Test Freq. (MHz)	5690
Polarization	Vertical		



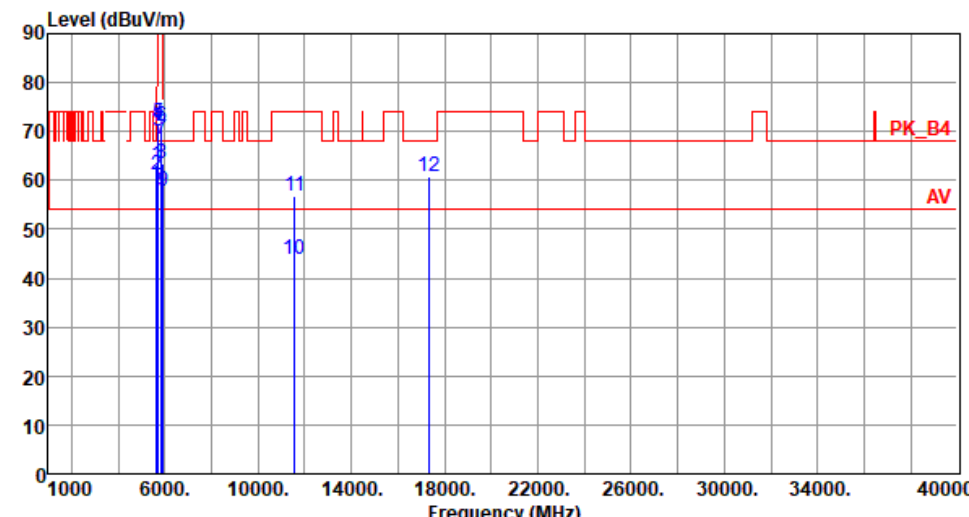
	Freq. MHz	Emission level dBUV/m	Limit dBUV/m	Margin dB	SA reading dBUV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5460.00	49.30	54.00	-4.70	44.85	4.45	Average	213	216
2	5460.00	63.60	74.00	-10.40	59.15	4.45	Peak	213	216
3	5470.00	64.72	68.20	-3.48	60.22	4.50	Peak	213	216
4	5850.00	65.29	68.20	-2.91	59.84	5.45	Peak	213	216
5	11380.00	44.86	54.00	-9.14	30.25	14.61	Average	100	40
6	11380.00	57.02	74.00	-16.98	42.41	14.61	Peak	100	40
7	17070.00	60.23	68.20	-7.97	42.48	17.75	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).

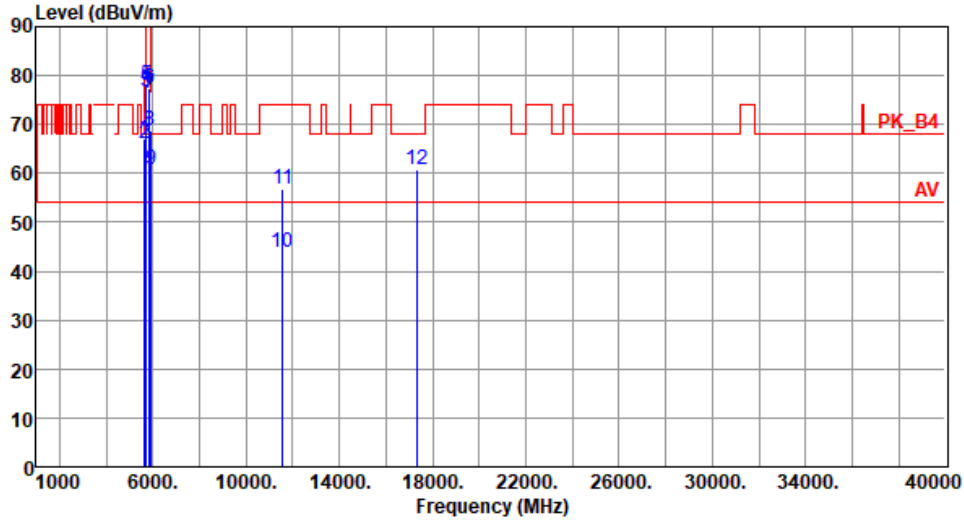
Modulation	11ax HE80	Test Freq. (MHz)	5775
Polarization	Horizontal		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5630.00	63.18	68.20	-5.02	58.65	4.53	Peak	100	158
2	5650.00	60.96	68.20	-7.24	56.42	4.54	Peak	100	158
3	5700.00	70.10	105.20	-35.10	65.42	4.68	Peak	100	158
4	5720.00	71.41	110.80	-39.39	66.60	4.81	Peak	100	158
5	5725.00	71.85	122.20	-50.35	67.00	4.85	Peak	100	158
6	5850.00	71.18	122.20	-51.02	65.73	5.45	Peak	100	158
7	5855.00	68.44	110.80	-42.36	63.00	5.44	Peak	100	158
8	5875.00	63.34	105.20	-41.86	57.90	5.44	Peak	100	158
9	5925.00	57.79	68.20	-10.41	52.36	5.43	Peak	100	158
10	11550.00	43.79	54.00	-10.21	29.26	14.53	Average	100	30
11	11550.00	56.86	74.00	-17.14	42.33	14.53	Peak	100	30
12	17325.00	60.62	68.20	-7.58	42.45	18.17	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	11ax HE80	Test Freq. (MHz)	5775
Polarization	Vertical		



	Freq. MHz	Emission level dBuV/m	Limit dBuV/m	Margin dB	SA reading dBuV	Factor dB	Remark	ANT High cm	Turn Table deg
1	5630.00	67.06	68.20	-1.14	62.53	4.53	Peak	160	223
2	5650.00	66.25	68.20	-1.95	61.71	4.54	Peak	160	223
3	5700.00	76.75	105.20	-28.45	72.07	4.68	Peak	160	223
4	5720.00	77.73	110.80	-33.07	72.92	4.81	Peak	160	223
5	5725.00	78.11	122.20	-44.09	73.26	4.85	Peak	160	223
6	5850.00	77.54	122.20	-44.66	72.09	5.45	Peak	160	223
7	5855.00	76.46	110.80	-34.34	71.02	5.44	Peak	160	223
8	5875.00	68.80	105.20	-36.40	63.36	5.44	Peak	160	223
9	5925.00	60.71	68.20	-7.49	55.28	5.43	Peak	160	223
10	11550.00	43.70	54.00	-10.30	29.17	14.53	Average	100	70
11	11550.00	56.80	74.00	-17.20	42.27	14.53	Peak	100	70
12	17325.00	60.61	68.20	-7.59	42.44	18.17	Peak	100	20

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

3.6 Frequency Stability

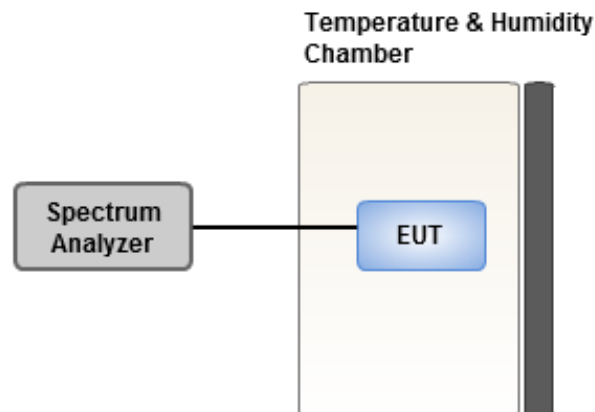
3.6.1 Limit of Frequency Stability

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: 5260 MHz	Frequency Drift (ppm)			
Temperature (°C)	0 minute	2 minutes	5 minutes	10 minutes
T20°C Vmax	-8.14	-7.35	-8.20	-7.61
T20°C Vmin	-8.06	-8.35	-7.57	-7.83
T50°C Vnom	-12.04	-12.01	-11.23	-12.41
T40°C Vnom	-9.88	-10.10	-9.70	-8.99
T30°C Vnom	-9.34	-8.95	-9.13	-9.17
T20°C Vnom	-7.80	-7.48	-7.12	-7.43
T10°C Vnom	-6.11	-6.11	-5.58	-5.44
T0°C Vnom	-4.61	-3.97	-4.50	-4.19
T-10°C Vnom	6.63	6.26	6.83	6.38
T-20°C Vnom	8.35	8.79	8.77	8.61
T-30°C Vnom	12.05	12.04	12.73	12.03
Vnom [V]: 120		Vmax [V]: 138		Vmin [V]: 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	-7.07	-6.77	-7.39	-6.65
T20°C Vmin	-7.34	-7.24	-6.62	-7.31
T50°C Vnom	-10.48	-9.93	-9.95	-10.36
T40°C Vnom	-8.77	-8.46	-8.93	-9.09
T30°C Vnom	-8.61	-8.53	-8.42	-8.25
T20°C Vnom	-7.17	-7.10	-6.85	-6.52
T10°C Vnom	-5.89	-6.06	-6.11	-5.47
T0°C Vnom	-3.77	-3.43	-3.17	-3.45
T-10°C Vnom	6.25	6.47	6.54	6.00
T-20°C Vnom	8.09	8.02	8.11	7.96
T-30°C Vnom	11.39	11.71	11.34	11.18
Vnom [V]: 120		Vmax [V]: 138		Vmin [V]: 102
Tnom [°C]: 20		Tmax [°C]: 50		Tmin [°C]: -30

4 Test laboratory information

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

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

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

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