

(Channel 159, 5795MHz, 802.11n (HT40))

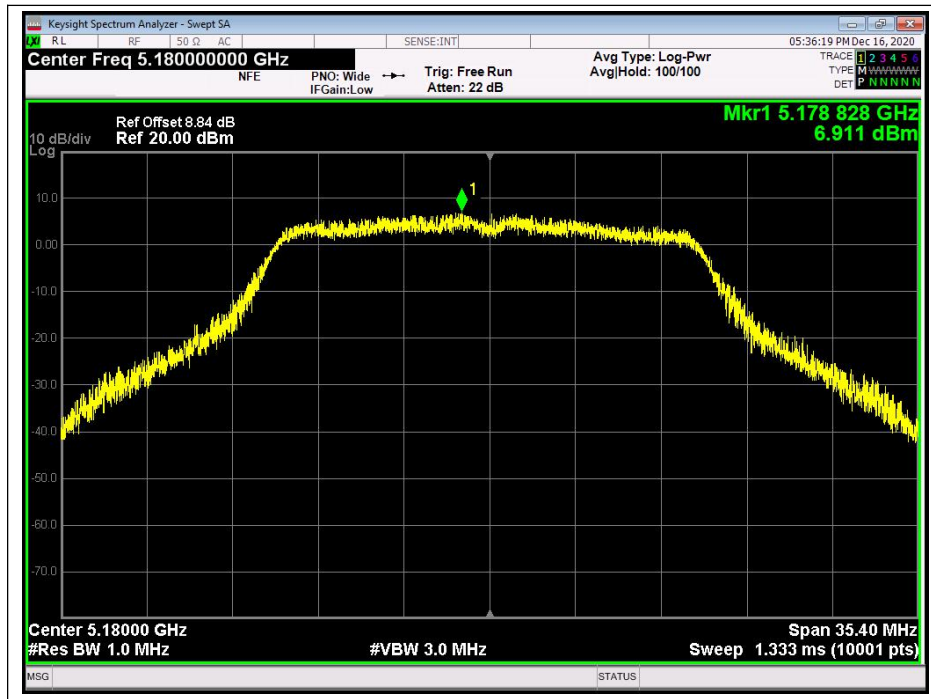
**802.11ac (HT20) Test mode**

**A. Test Verdict:**

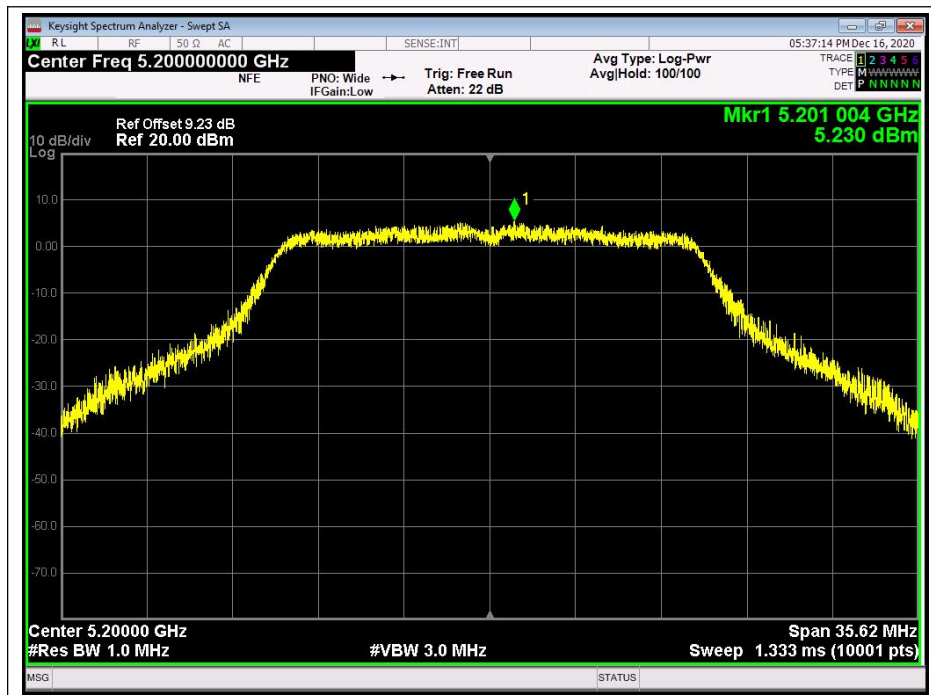
Channel	Frequency (MHz)	Measured PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
36	5180	6.911	11	PASS
40	5200	5.230		
48	5240	7.021		
Channel	Frequency (MHz)	Measured PSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
149	5745	11.678	30	PASS
157	5785	11.428		
165	5825	11.101		



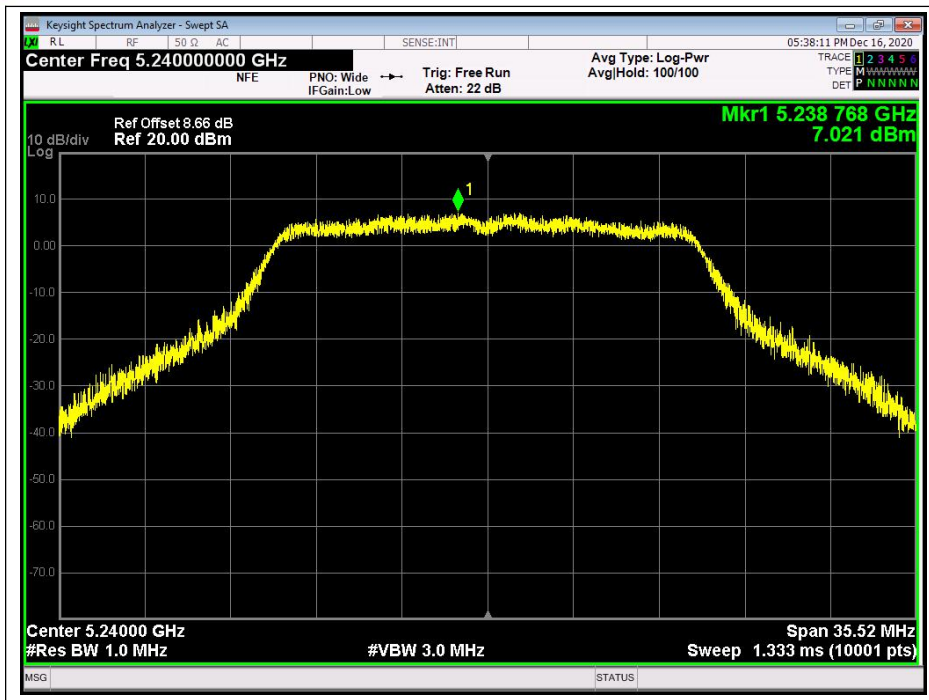
B. Test Plots



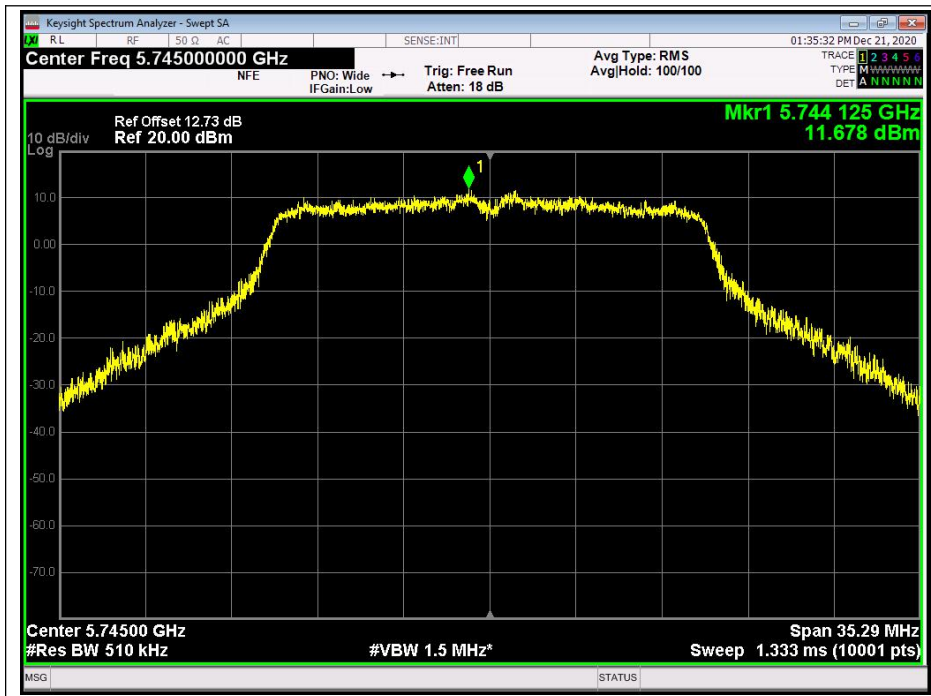
(Channel 36, 5180MHz, 802.11ac (HT20))



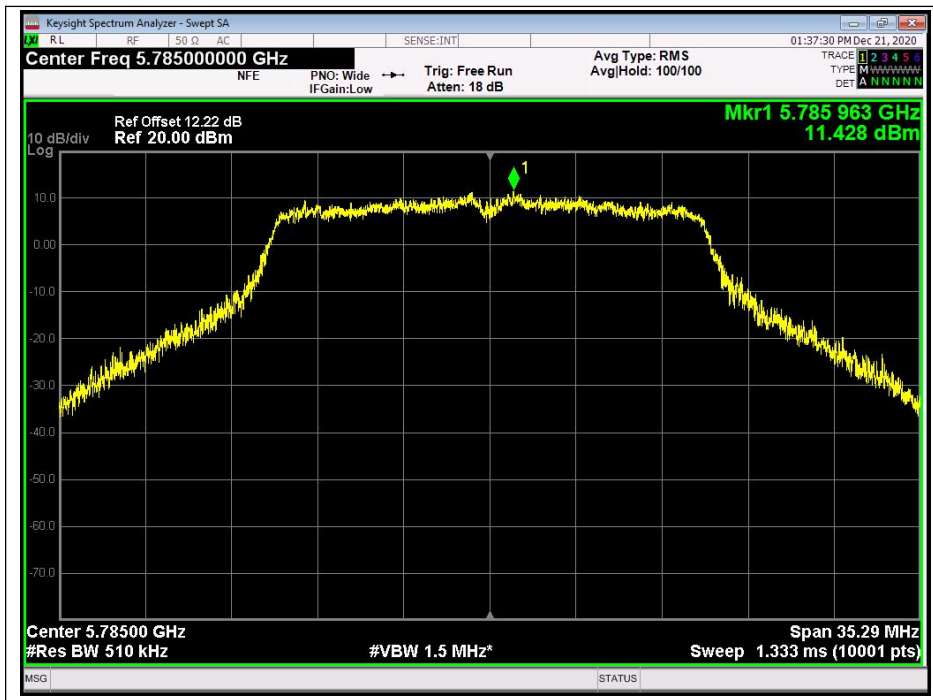
(Channel 40, 5200 MHz, 802.11ac (HT20))



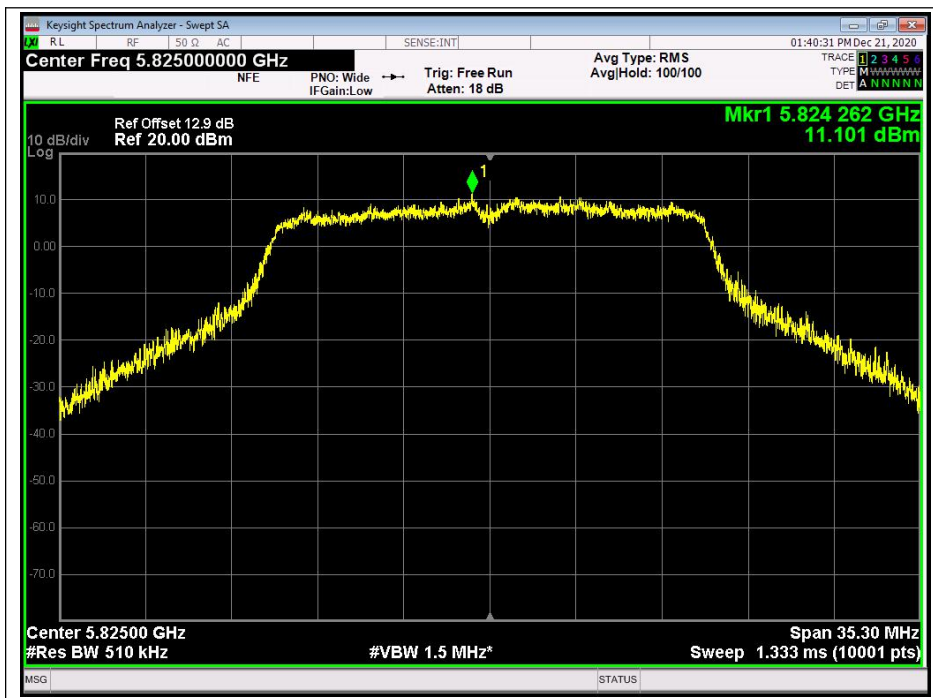
(Channel 48, 5240MHz, 802.11ac (HT20))



(Channel 149, 5745MHz, 802.11ac (HT20))



(Channel 157, 5785MHz, 802.11ac (HT20))



(Channel 165, 5825MHz, 802.11ac (HT20))

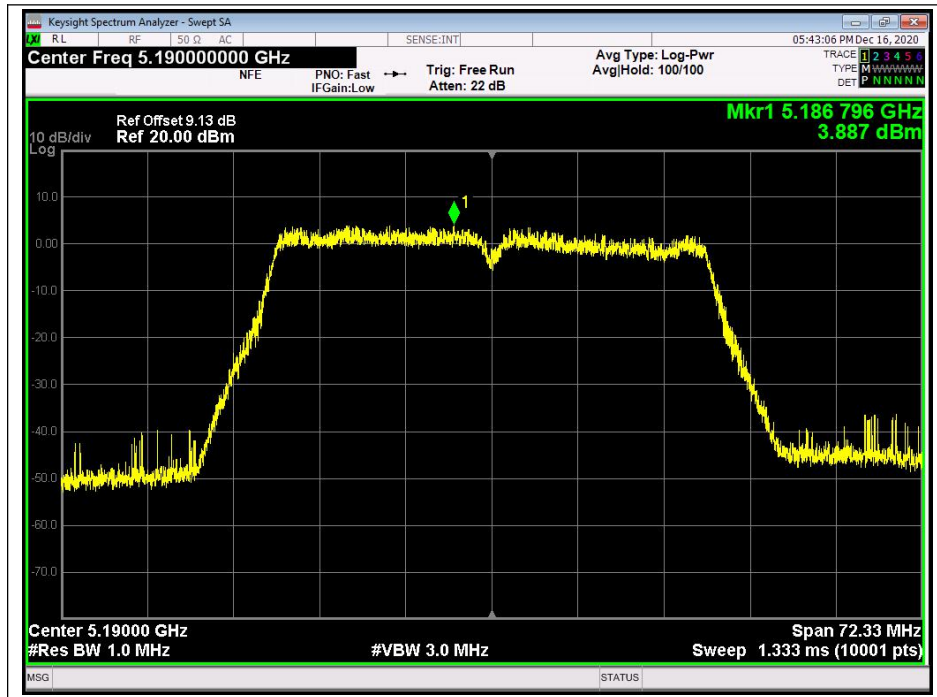


**802.11ac (HT40) Test mode**

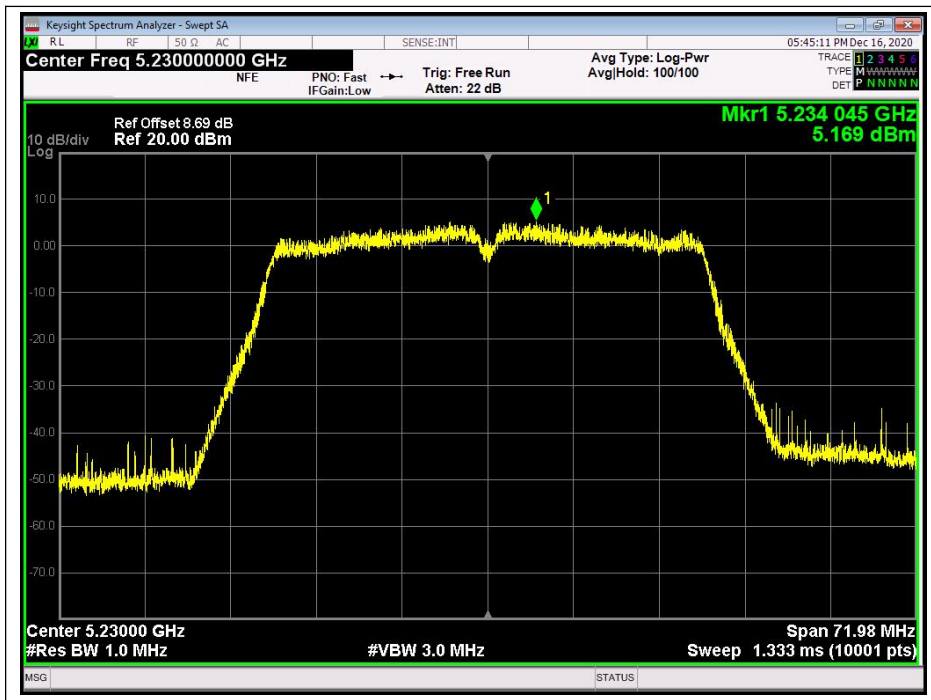
**A. Test Verdict:**

Channel	Frequency (MHz)	Measured PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
38	5190	3.887	11	PASS
46	5230	5.169		
Channel	Frequency (MHz)	Measured PSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
151	5755	7.818	30	PASS
159	5795	8.385		

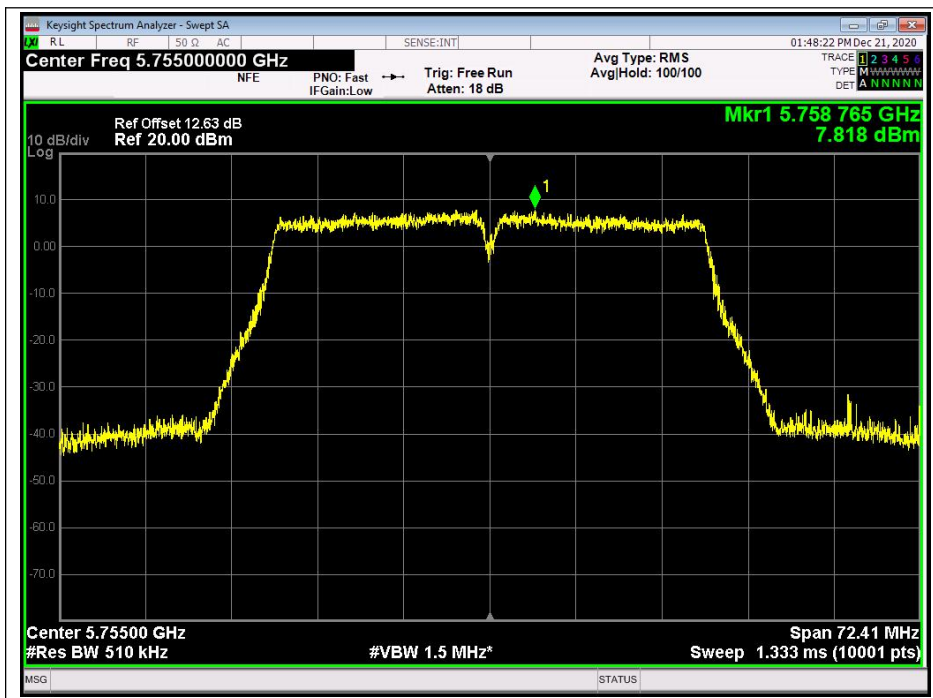
**B. Test Plots**



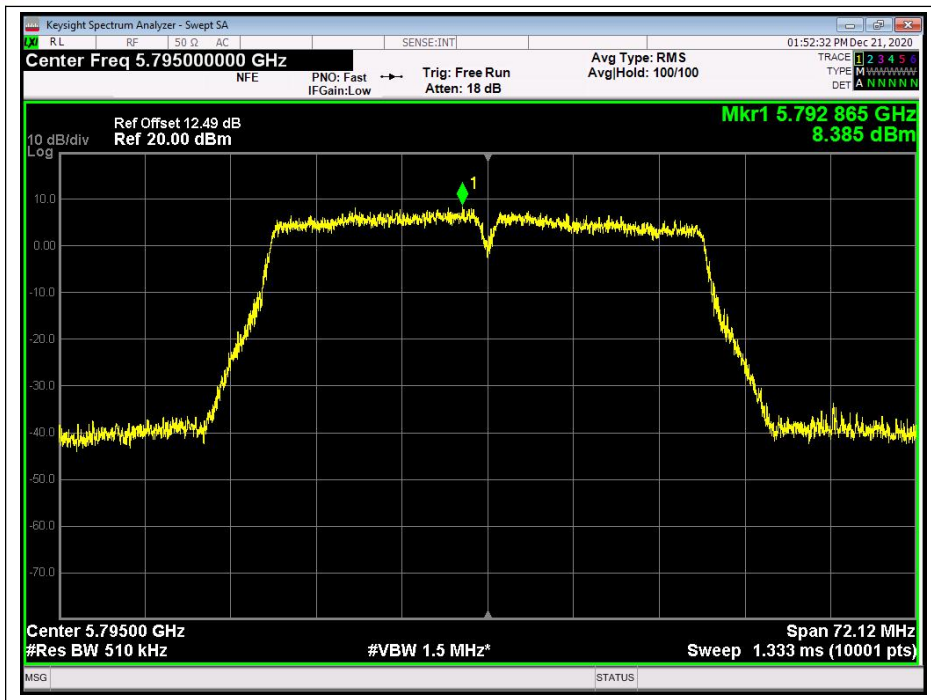
(Channel 38, 5190MHz, 802.11ac (HT40))



(Channel 46, 5230 MHz, 802.11ac (HT40))



(Channel 151, 5755 MHz, 802.11ac (HT40))



(Channel 159, 5795MHz, 802.11ac (HT40))

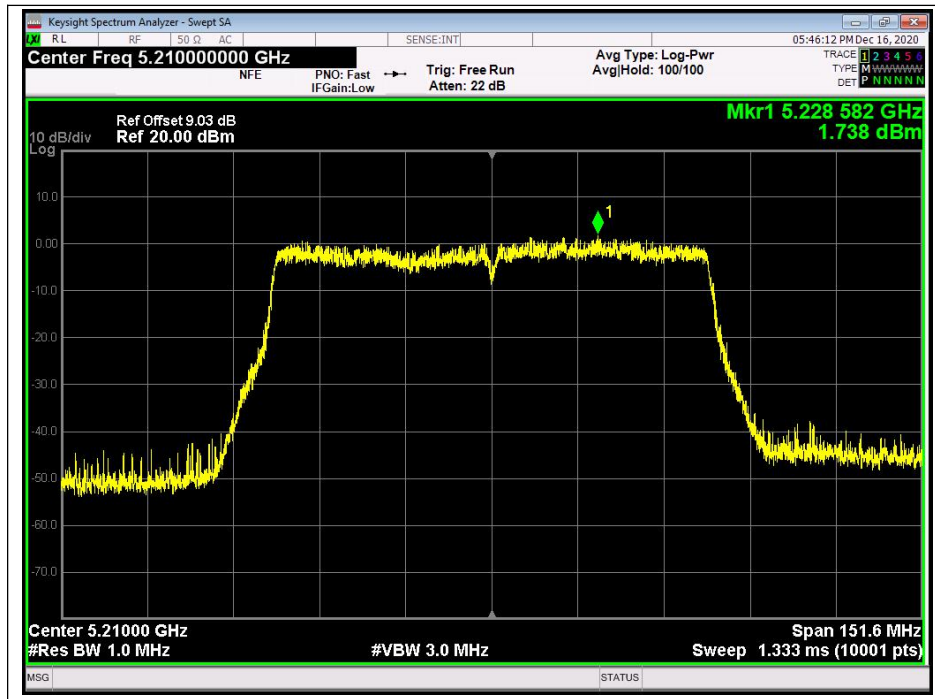
**802.11ac (HT40) Test mode**

**A. Test Verdict:**

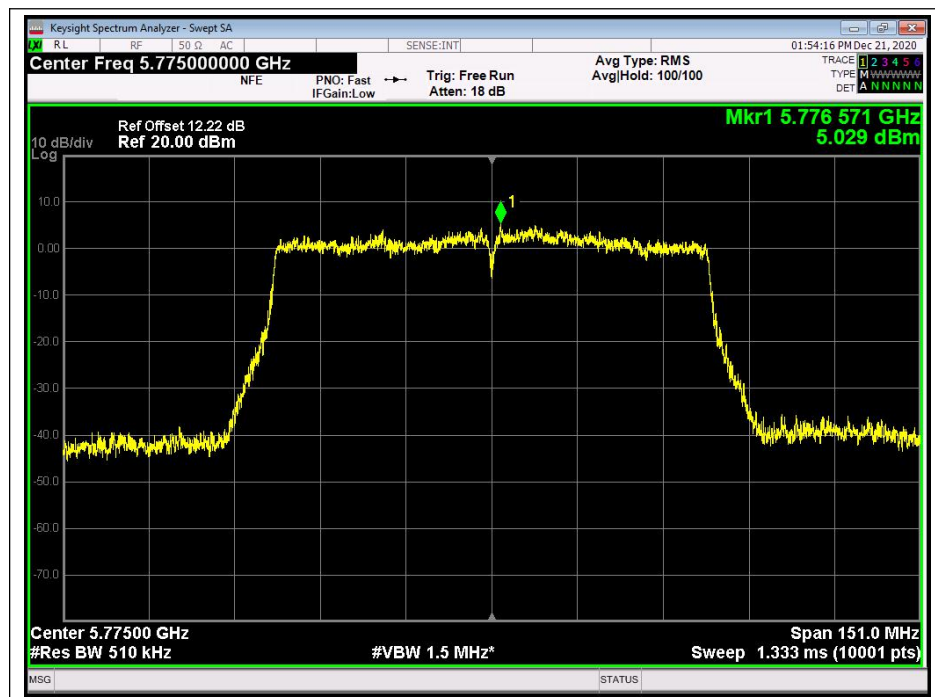
Channel	Frequency (MHz)	Measured PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
42	5210	1.738	11	PASS
Channel	Frequency (MHz)	Measured PSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
155	5775	5.029	30	PASS



B. Test Plots



(Channel 42, 5210MHz, 802.11ac (HT80))



(Channel 155, 5775 MHz, 802.11ac (HT80))



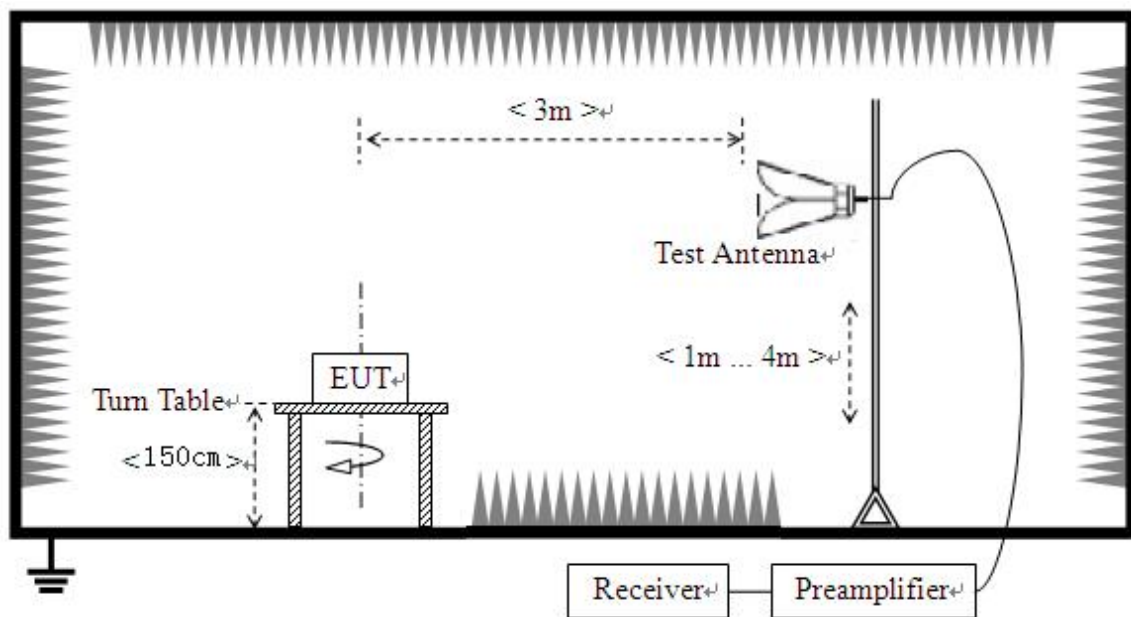
## 2.5. Restricted Frequency Bands

### 2.5.1. Requirement

According to FCC section 15.407(b)(7), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in 15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

### 2.5.2. Test Description

#### A. Test Setup



The Module is located in a 3m Semi-Anechoic Chamber; the antenna factors, cable loss and so on of the site as factors are calculated to correct the reading.

KDB 789033 Section H) 3)5)6(d)) was used in order to prove compliance

For the Test Antenna:

Test Antenna is 3m away from the EUT. Test Antenna height is varied from 1m to 4m above the ground to determine the maximum value of the field strength.

For Radiated emission above 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.



- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasipeak detection (QP) at frequency below 1GHz.
- 2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
- 3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is  $\geq 1/T$  (Duty cycle  $< 98\%$ ) or 10Hz (Duty cycle  $\geq 98\%$ ) for Average detection (AV) at frequency above 1GHz.
- 4. All modes of operation were investigated and the worst-case emissions are reported.



### 2.5.3. Test Result

The lowest and highest channels are tested to verify Restricted Frequency Bands.

The measurement results are obtained as below:

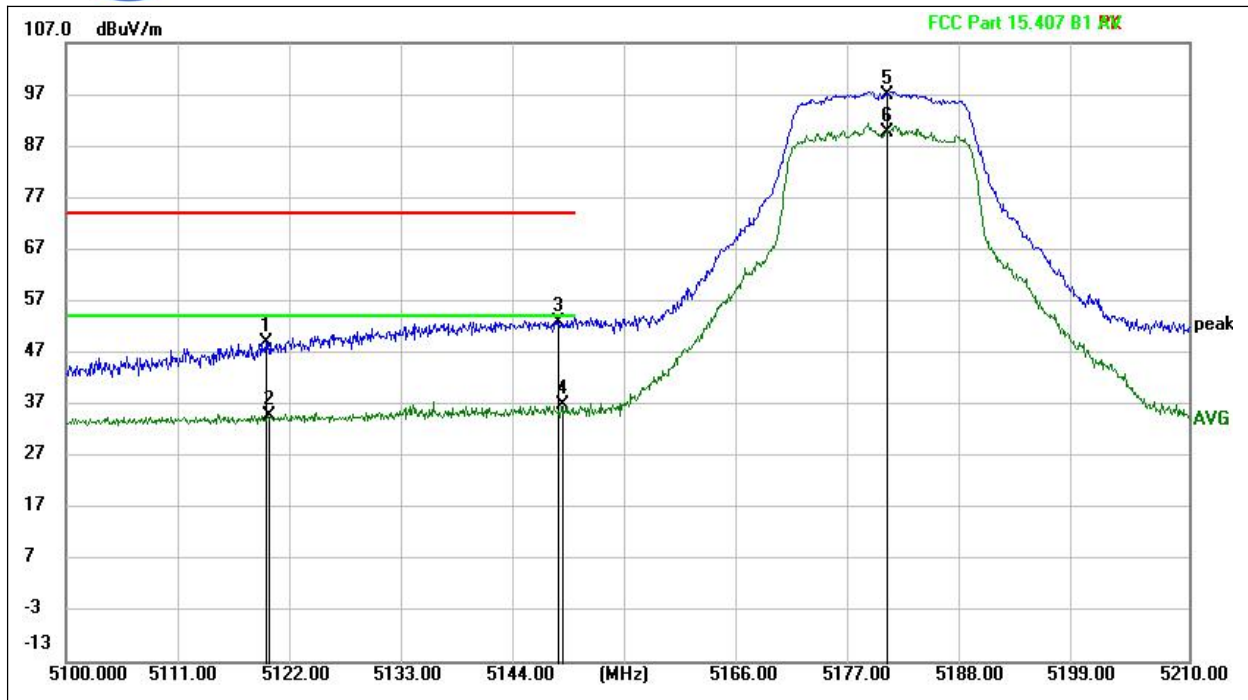
$$E \text{ [dB}\mu\text{V/m]} = U_R + A_{\text{Factor}} \text{ [dB]}; AT = L_{\text{Cable loss}} \text{ [dB]} - G_{\text{preamp}} \text{ [dB]}$$

$U_R$ : Receiver Reading

$G_{\text{preamp}}$ : Preamplifier Gain;  $A_{\text{Factor}}$ : Antenna Factor at 3m

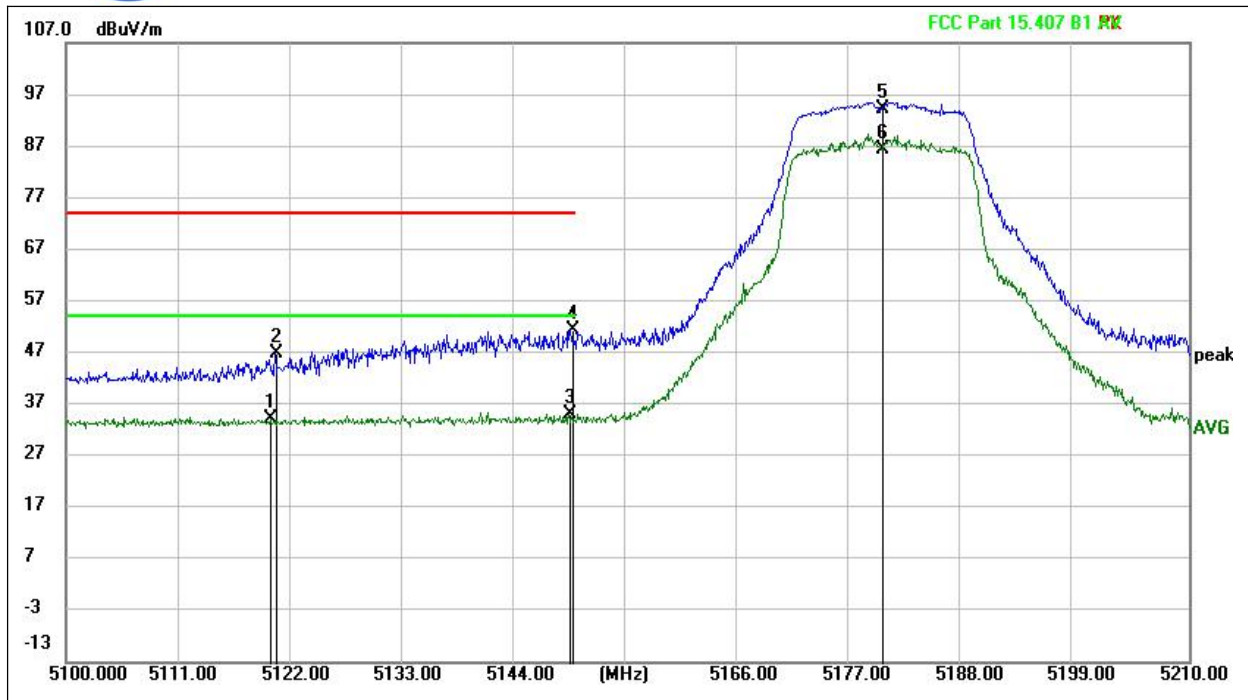
#### 802.11ac20 Test mode

Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dBuV)	$A_{\text{Factor}}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Pol	Verdict
		PK/AV						
36	5150.000	PK	56.23	-3.24	52.99	74.00	H	PASS
36	5150.000	AV	39.99	-3.24	36.75	54.00	H	PASS
36	5150.000	PK	54.47	-3.24	51.23	74.00	V	PASS
36	5150.000	AV	38.30	-3.24	35.06	54.00	V	PASS
48	5350.000	PK	46.62	-2.54	44.08	74.00	H	PASS
48	5350.000	AV	37.67	-2.54	35.13	54.00	H	PASS
48	5350.000	PK	46.14	-2.47	43.67	74.00	V	PASS
48	5350.000	AV	37.26	-2.42	34.84	54.00	V	PASS



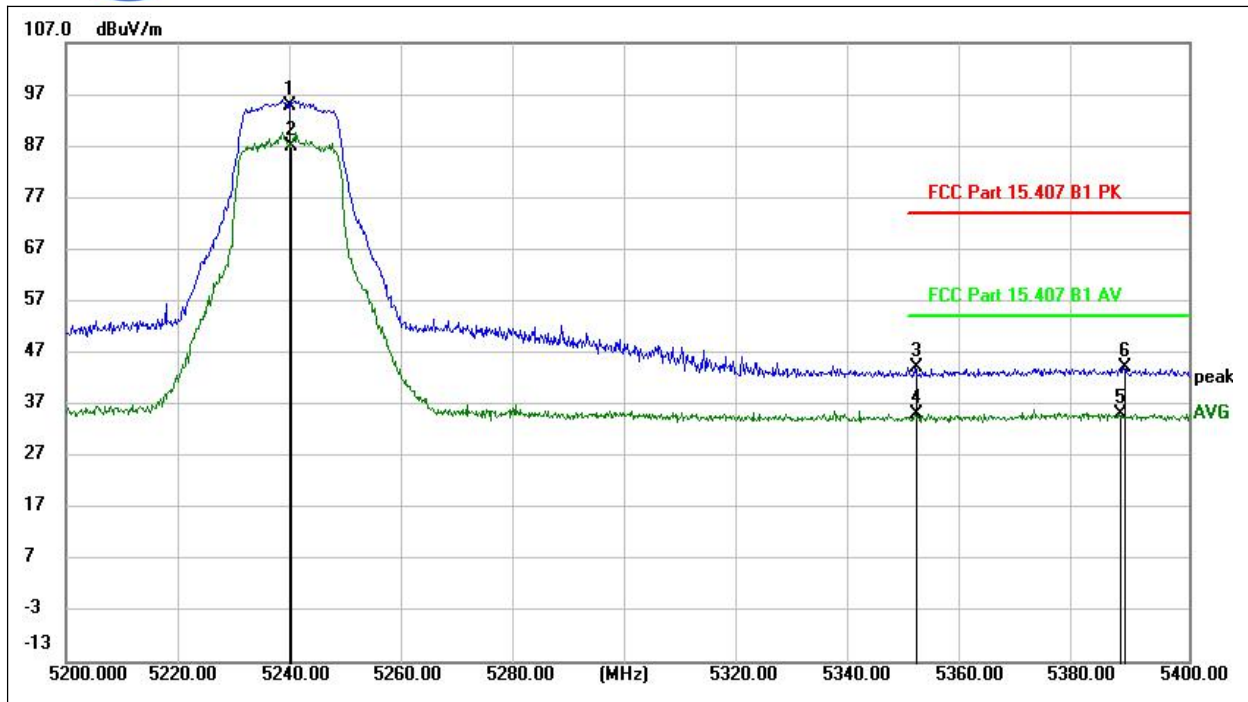
(802.11ac20\_5180MHz, Antenna Horizontal)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
5119.679	52.17	-3.09	49.08	74.00	-24.92	peak	PASS
5119.872	37.92	-3.09	34.83	54.00	-19.17	AVG	PASS
5148.202	56.23	-3.24	52.99	74.00	-21.01	peak	PASS
5148.554	39.99	-3.24	36.75	54.00	-17.25	AVG	PASS
5180.311	99.84	-3.04	96.80	N/A	N/A	peak	N/A
5180.311	92.57	-3.04	89.53	N/A	N/A	AVG	N/A



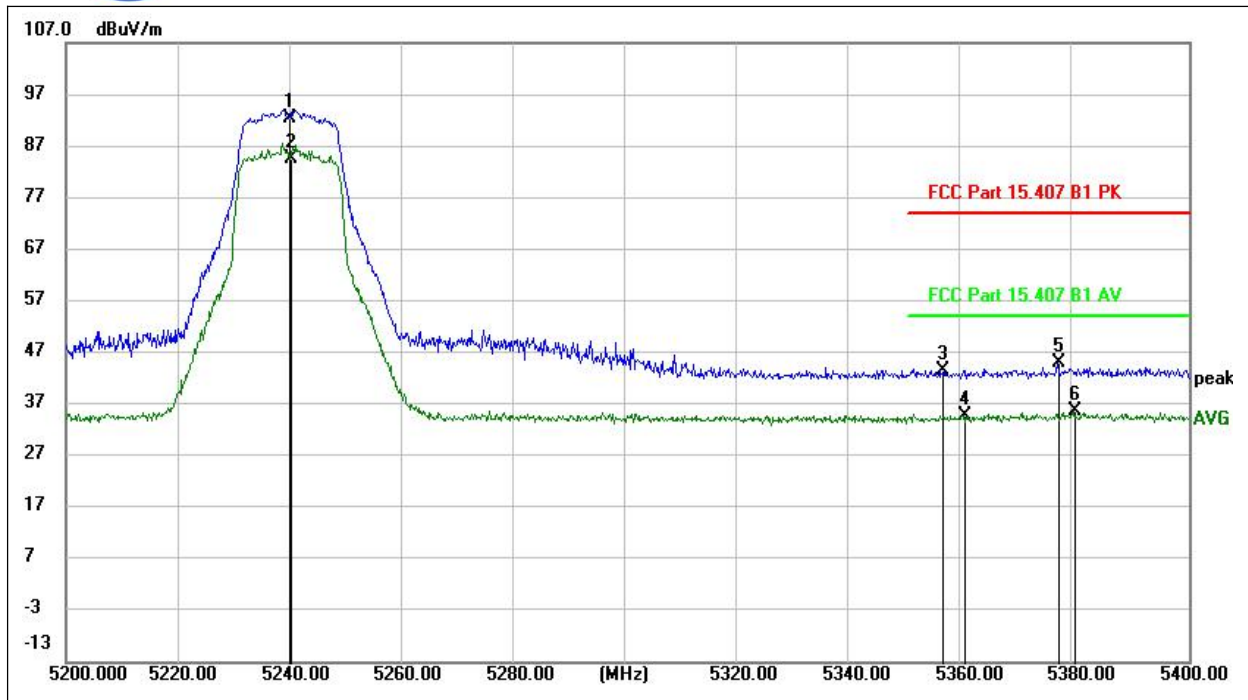
(802.11ac20\_5180MHz, Antenna Vertical)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
5120.097	37.18	-3.09	34.09	54.00	-19.91	AVG	PASS
5120.570	49.89	-3.10	46.79	74.00	-27.21	peak	PASS
5149.373	38.30	-3.24	35.06	54.00	-18.94	AVG	PASS
5149.560	54.47	-3.24	51.23	74.00	-22.77	peak	PASS
5180.069	97.20	-3.04	94.16	N/A	N/A	peak	N/A
5180.069	89.33	-3.04	86.29	N/A	N/A	AVG	N/A



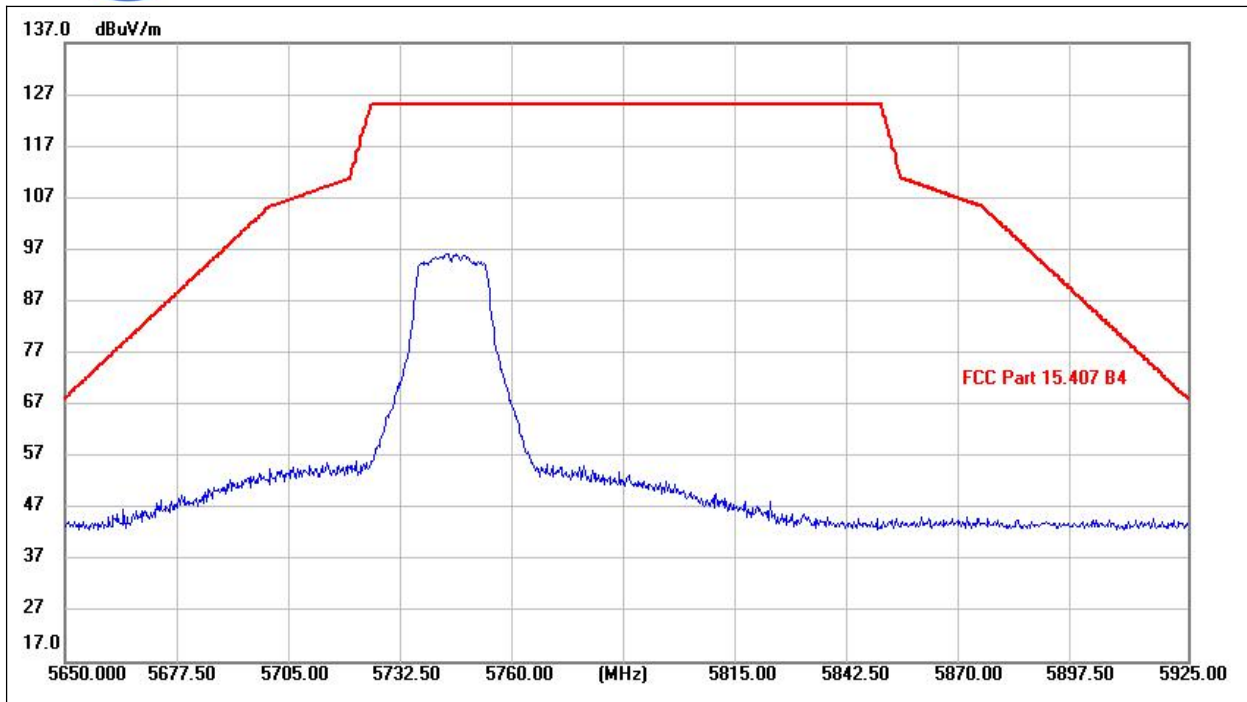
(802.11ac20\_5240MHz, Antenna Horizontal)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
5239.740	97.86	-3.05	94.81	N/A	N/A	peak	N/A
5240.010	89.87	-3.05	86.82	N/A	N/A	AVG	N/A
5351.550	46.62	-2.54	44.08	74.00	-29.92	peak	PASS
5351.550	37.67	-2.54	35.13	54.00	-18.87	AVG	PASS
5387.650	37.46	-2.37	35.09	54.00	-18.91	AVG	PASS
5388.590	46.48	-2.38	44.10	74.00	-29.90	peak	PASS

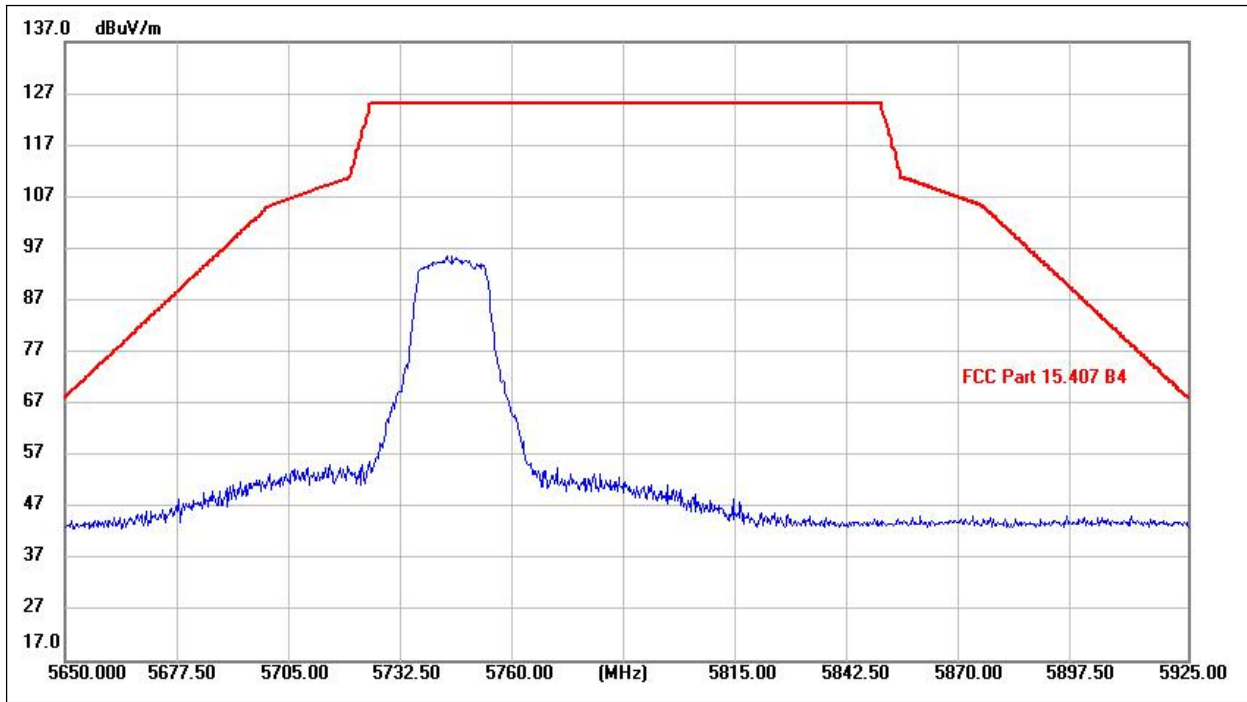


(802.11ac20\_5240MHz, Antenna Vertical)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
5239.710	95.38	-3.05	92.33	N/A	N/A	peak	N/A
5239.990	87.51	-3.05	84.46	N/A	N/A	AVG	N/A
5356.050	46.14	-2.47	43.67	74.00	-30.33	peak	PASS
5360.010	37.26	-2.42	34.84	54.00	-19.16	AVG	PASS
5376.800	47.43	-2.24	45.19	74.00	-28.81	peak	PASS
5379.740	38.05	-2.28	35.77	54.00	-18.23	AVG	PASS

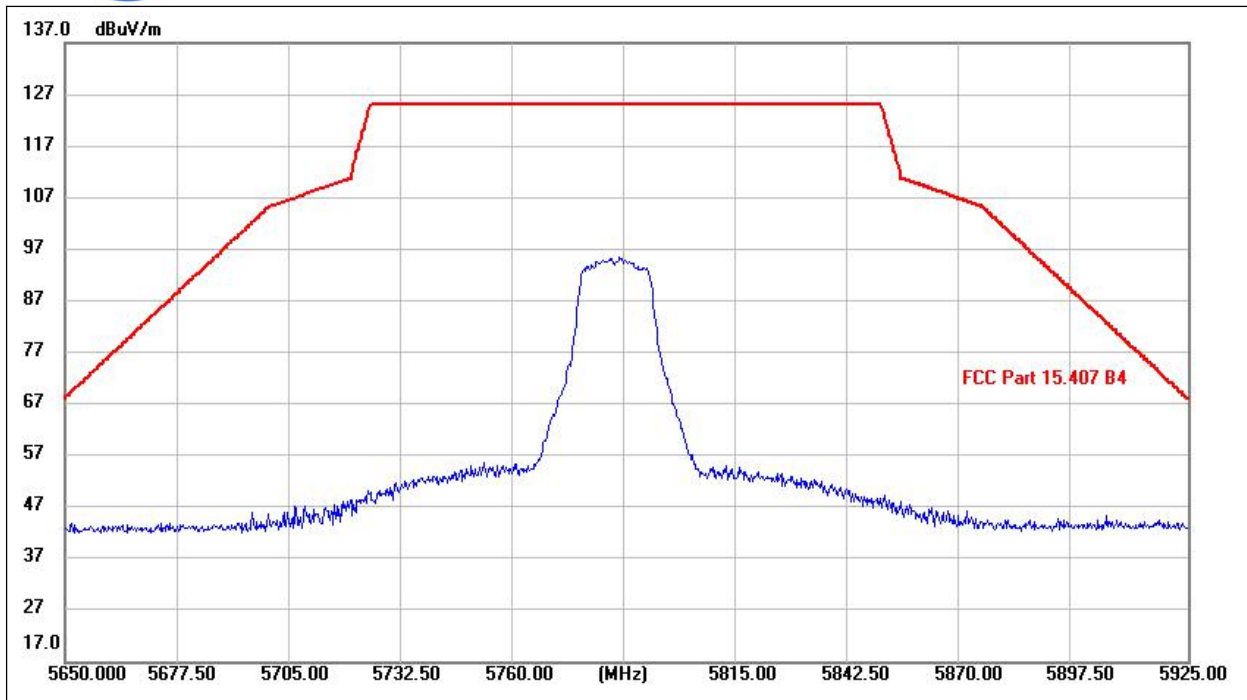


(802.11ac20\_5745MHz, Antenna Horizontal)

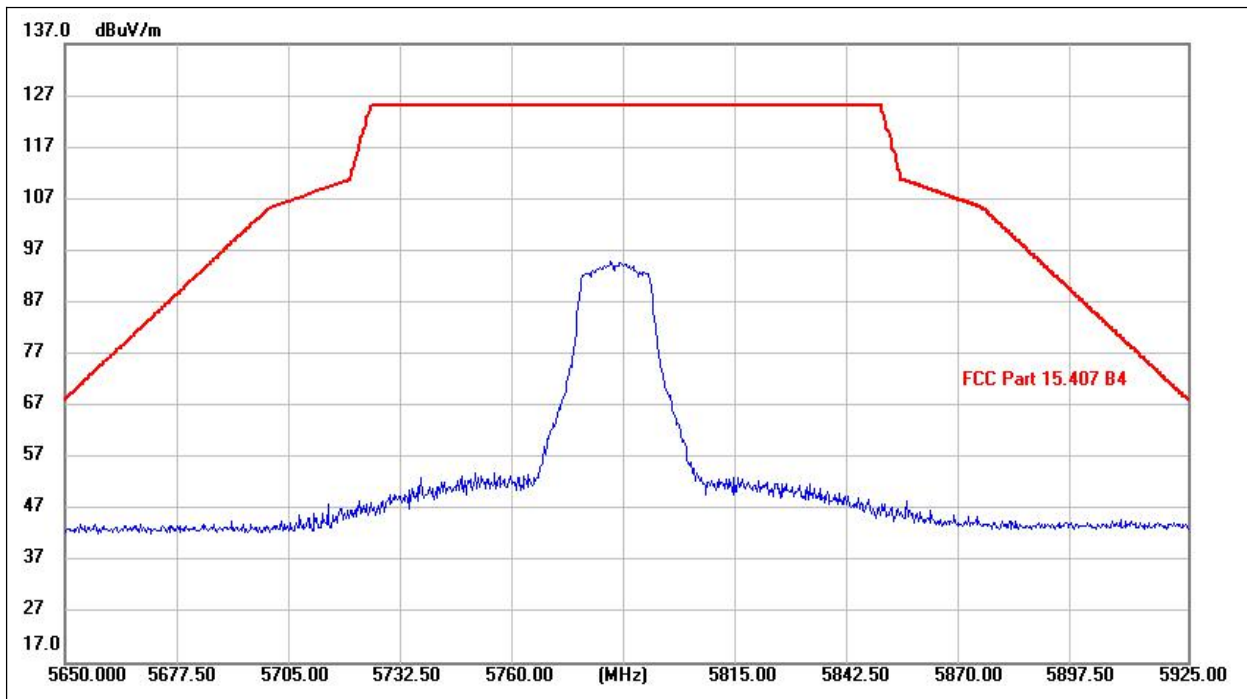


(802.11ac20\_5745MHz, Antenna Vertical)

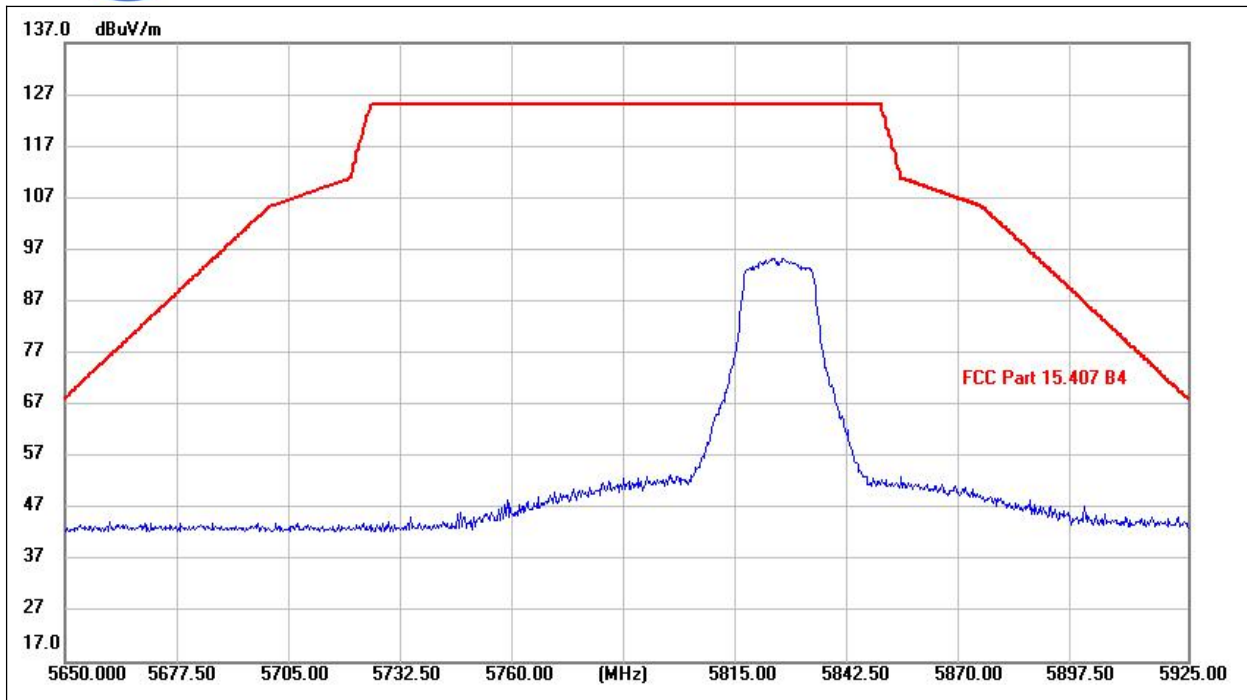




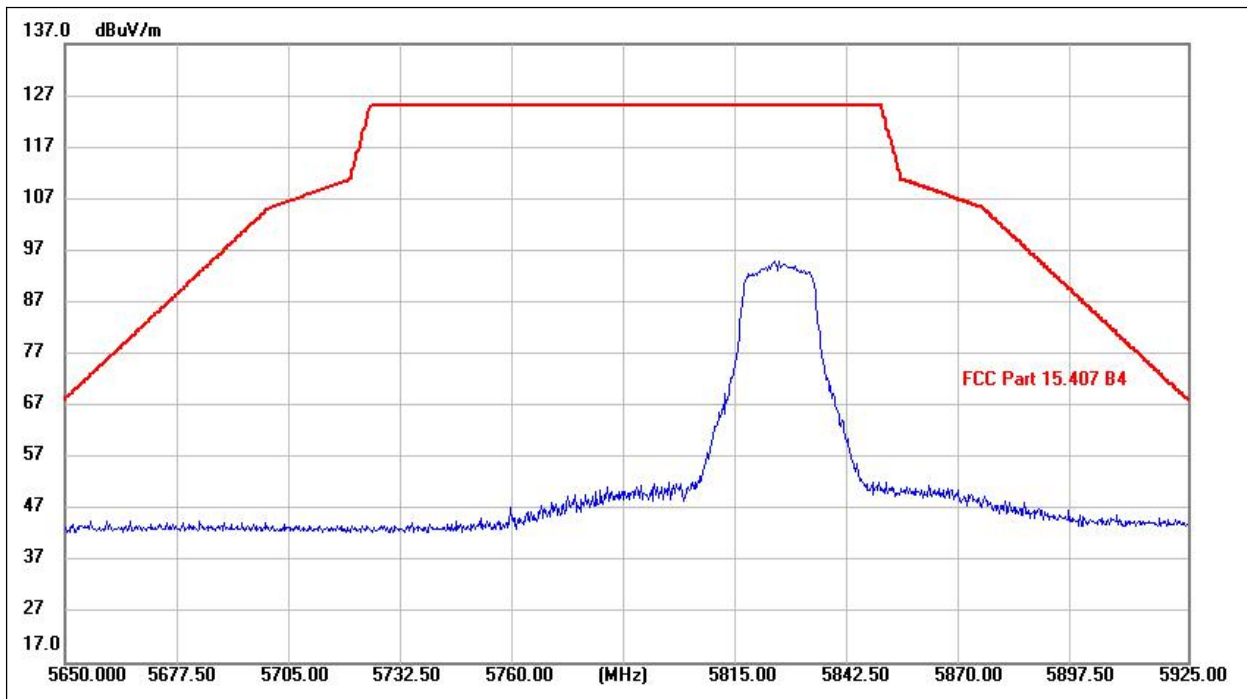
(802.11ac20\_5785MHz, Antenna Horizontal)



(802.11ac20\_5785MHz, Antenna Vertical)



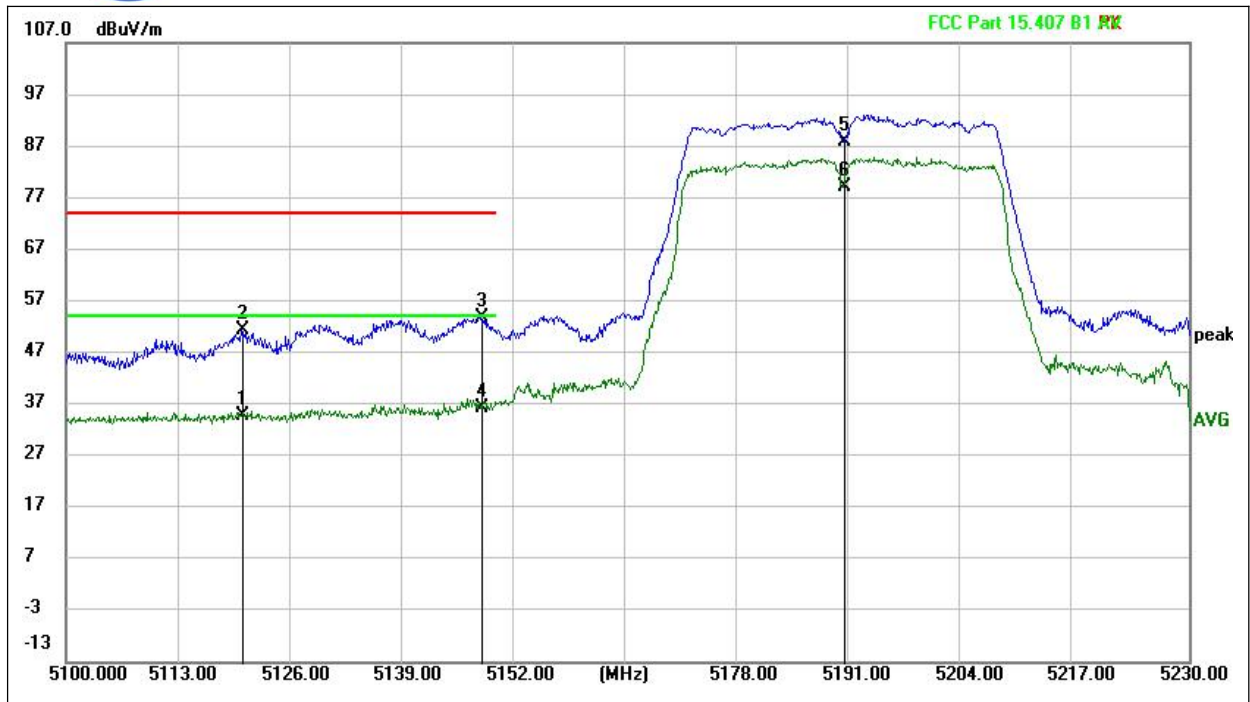
(802.11ac20\_5825MHz, Antenna Horizontal)



(802.11ac20\_5825MHz, Antenna Vertical)

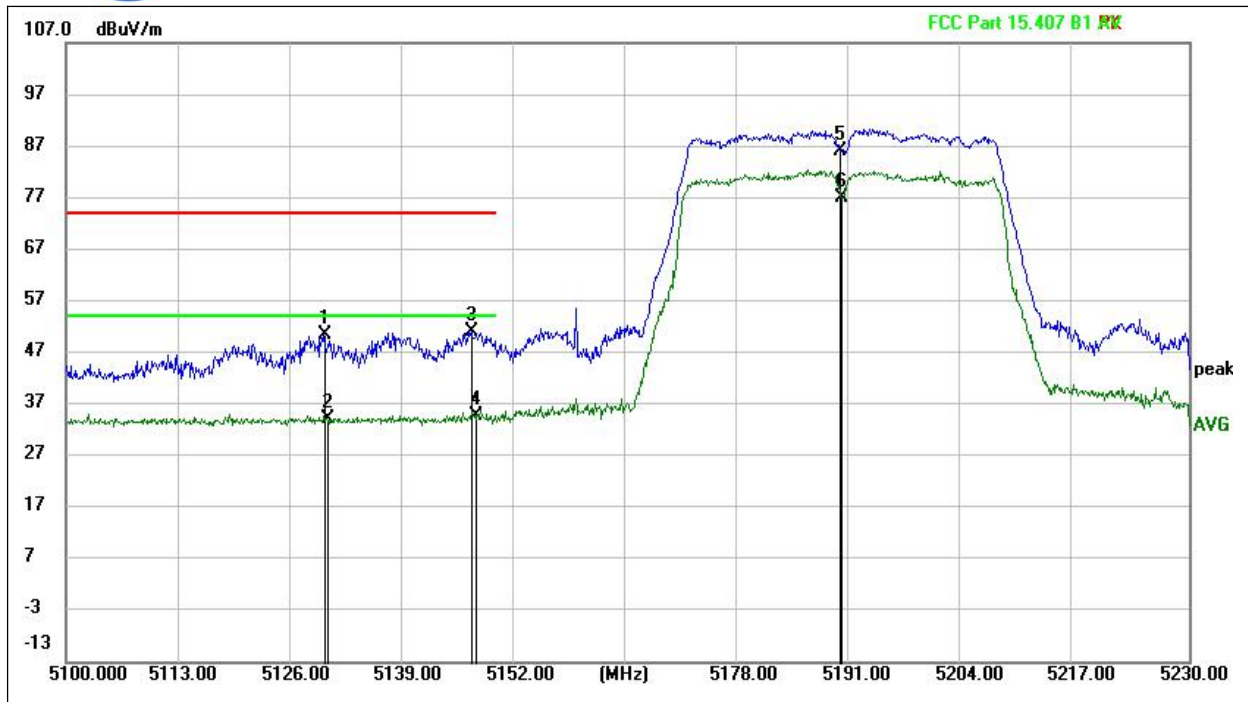
**802.11ac40 Test mode**

Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dBuV)	$A_{Factor}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Pol	Verdict
		PK/AV						
38	5150.000	PK	56.98	-3.23	53.75	74.00	H	PASS
38	5150.000	AV	39.62	-3.23	36.39	54.00	H	PASS
38	5150.000	PK	54.24	-3.22	51.02	74.00	V	PASS
38	5150.000	AV	38.05	-3.22	34.83	54.00	V	PASS
46	5350.000	PK	47.13	-2.46	44.67	74.00	H	PASS
46	5350.000	AV	37.24	-2.46	34.78	54.00	H	PASS
46	5350.000	PK	46.40	-2.37	44.03	74.00	V	PASS
46	5350.000	AV	37.16	-2.37	34.79	54.00	V	PASS



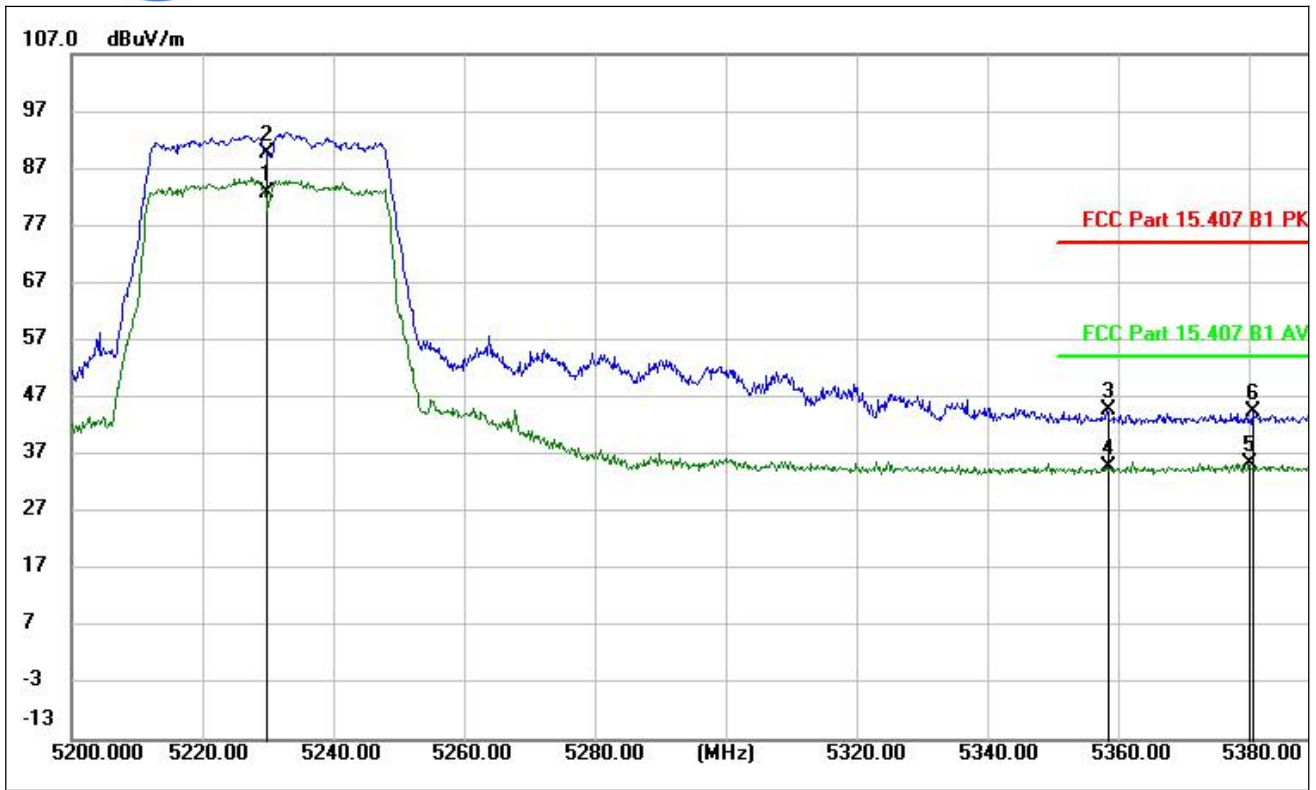
(802.11ac40\_5190MHz, Antenna Horizontal)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
5120.384	37.85	-3.09	34.76	54.00	-19.24	AVG	PASS
5120.404	54.39	-3.09	51.30	74.00	-22.70	peak	PASS
5148.119	56.98	-3.23	53.75	74.00	-20.25	peak	PASS
5148.119	39.62	-3.23	36.39	54.00	-17.61	AVG	PASS
5190.116	90.84	-3.02	87.82	N/A	N/A	peak	N/A
5190.116	82.16	-3.02	79.14	N/A	N/A	AVG	N/A



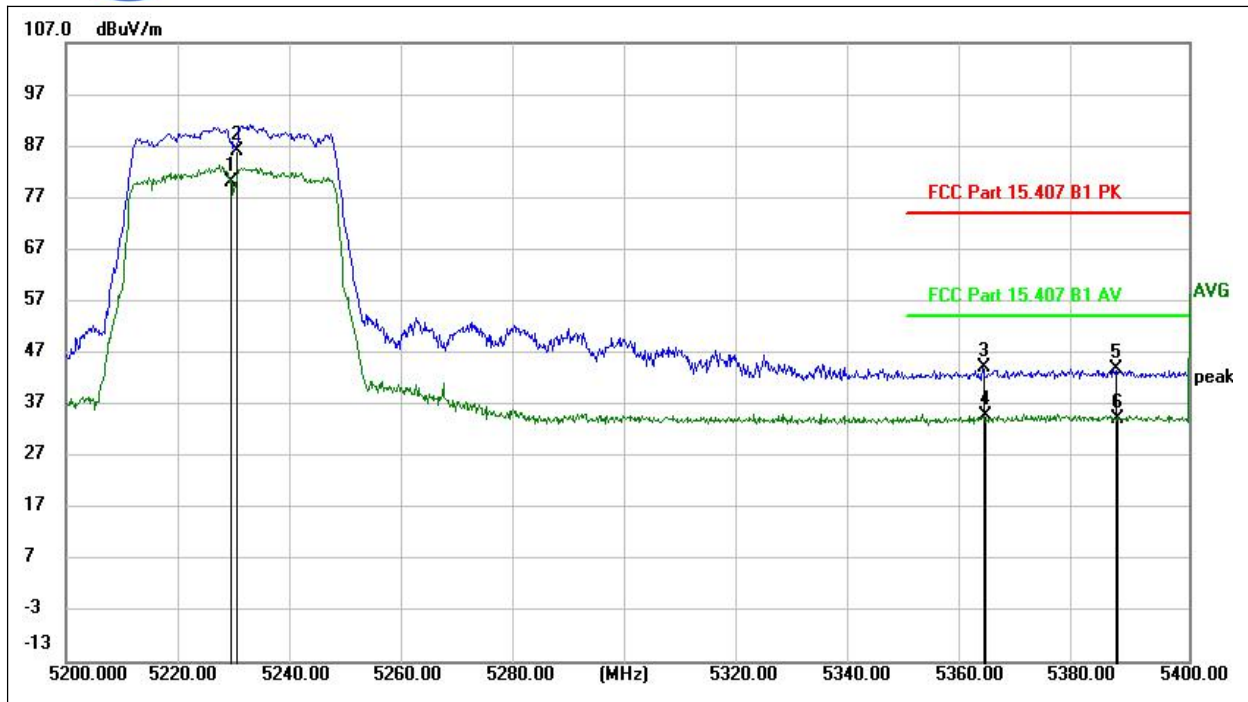
(802.11ac40\_5190MHz,, Antenna Vertical)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
5129.945	53.53	-3.15	50.38	74.00	-23.62	peak	PASS
5130.225	37.23	-3.15	34.08	54.00	-19.92	AVG	PASS
5147.028	54.24	-3.22	51.02	74.00	-22.98	peak	PASS
5147.534	38.05	-3.22	34.83	54.00	-19.17	AVG	PASS
5189.654	89.09	-3.02	86.07	N/A	N/A	peak	N/A
5189.830	79.92	-3.02	76.90	N/A	N/A	AVG	N/A



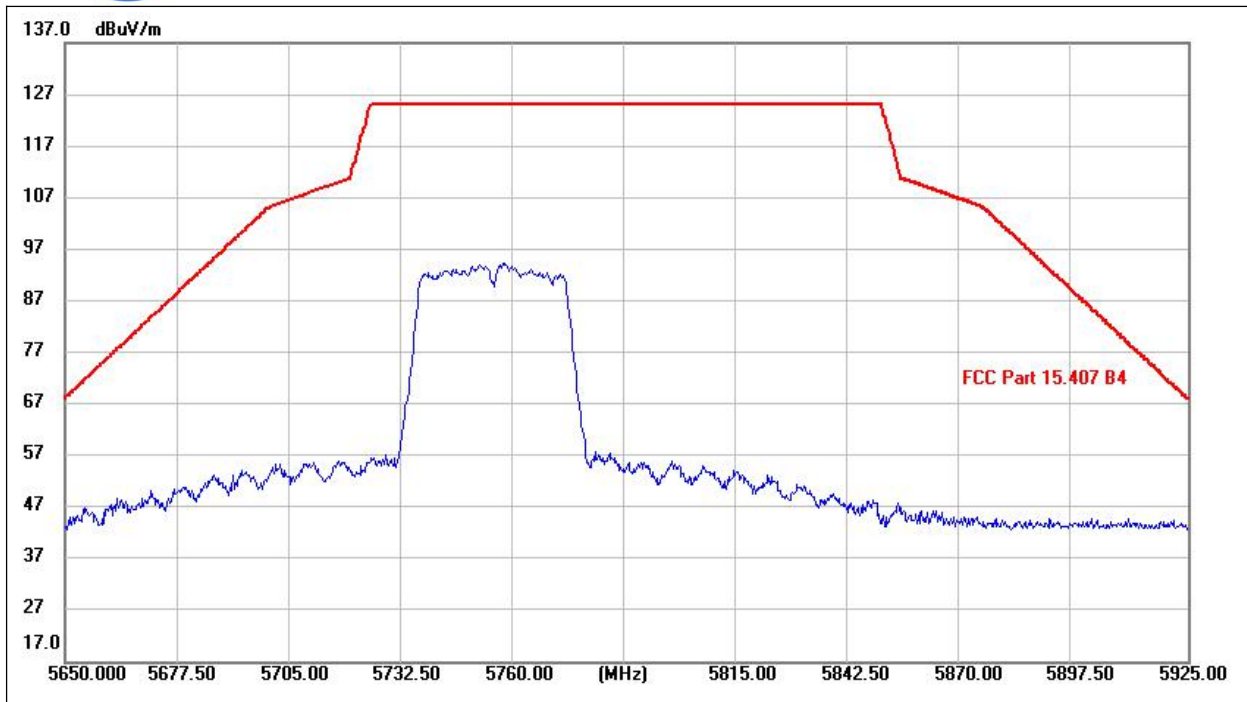
(802.11ac40\_5230MHz, Antenna Horizontal)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
5229.470	85.60	-3.00	82.60	N/A	N/A	AVG	N/A
5229.600	92.67	-3.00	89.67	N/A	N/A	peak	N/A
5357.420	47.13	-2.46	44.67	74.00	-29.33	peak	PASS
5357.420	37.24	-2.46	34.78	54.00	-19.22	AVG	PASS
5378.970	37.60	-2.27	35.33	54.00	-18.67	AVG	PASS
5379.570	46.57	-2.28	44.29	74.00	-29.71	peak	PASS

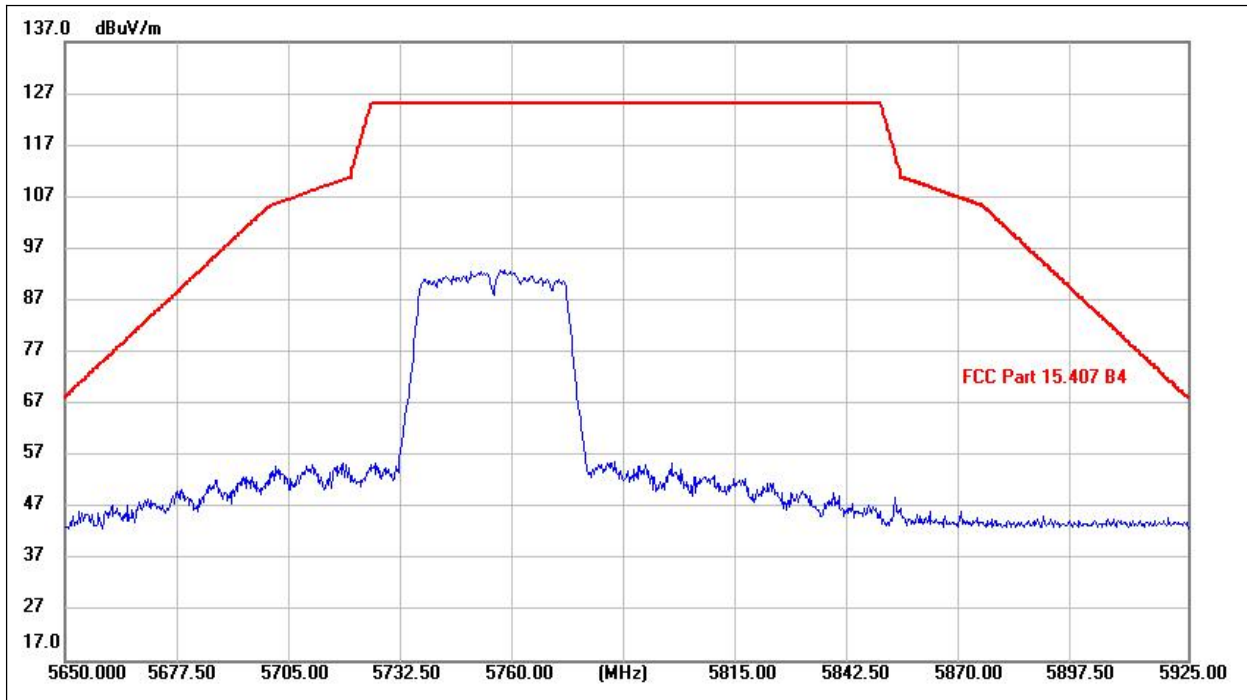


(802.11ac40\_5230MHz, Antenna Vertical)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
5229.390	83.13	-3.00	80.13	N/A	N/A	AVG	N/A
5230.230	89.06	-3.00	86.06	N/A	N/A	peak	N/A
5363.520	46.40	-2.37	44.03	74.00	-29.97	peak	PASS
5363.640	37.16	-2.37	34.79	54.00	-19.21	AVG	PASS
5386.900	46.30	-2.36	43.94	74.00	-30.06	peak	PASS
5387.030	36.44	-2.36	34.08	54.00	-19.92	AVG	PASS

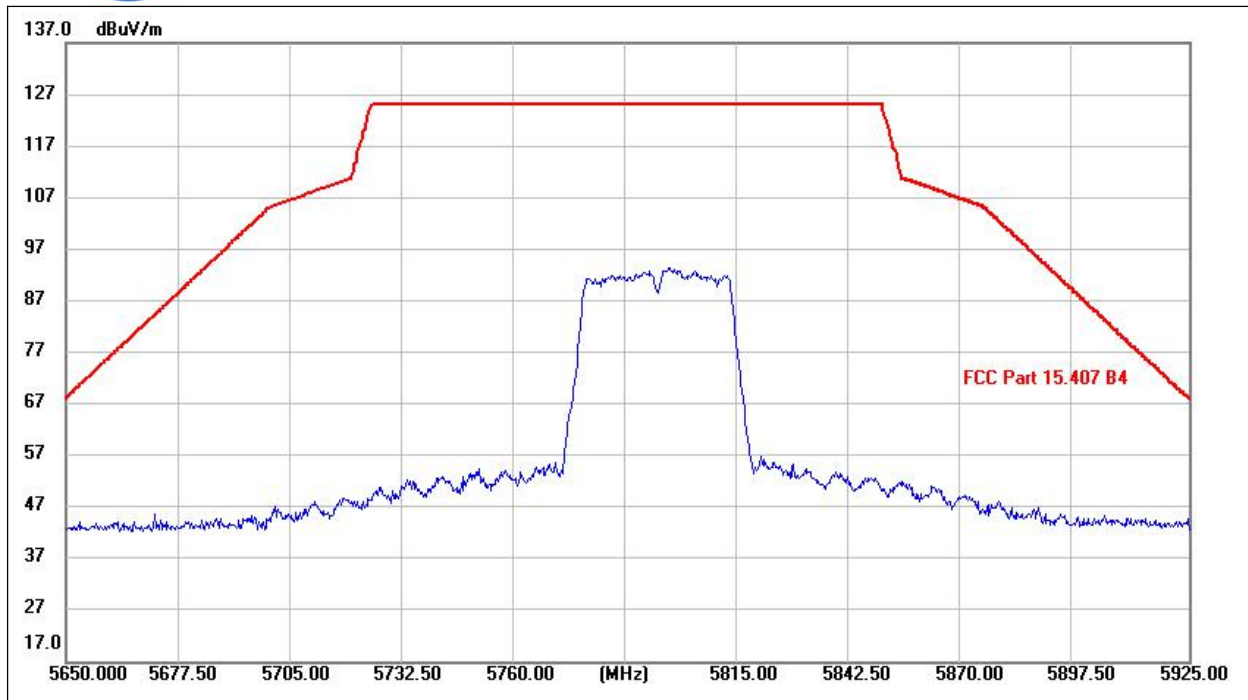


(802.11ac40\_5755MHz, Antenna Horizontal)

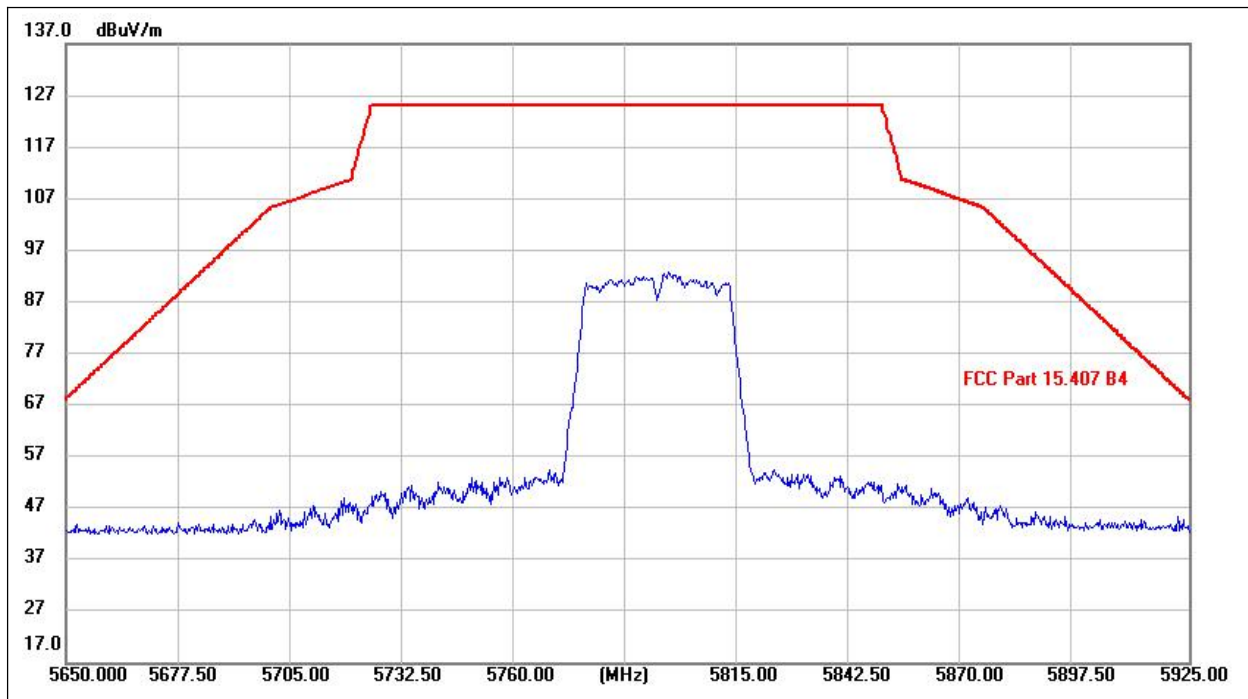


(802.11ac40\_5755MHz, Antenna Vertical)





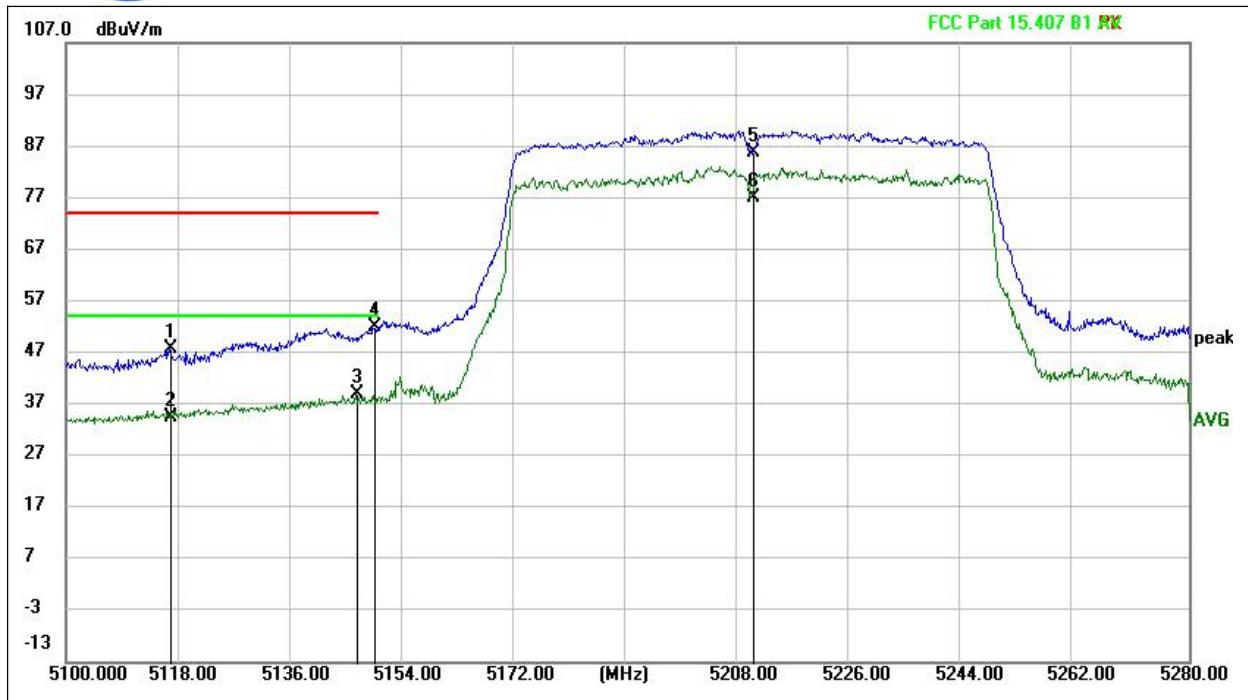
(802.11ac40\_5795MHz, Antenna Horizontal)



(802.11ac40\_5795MHz, Antenna Vertical)

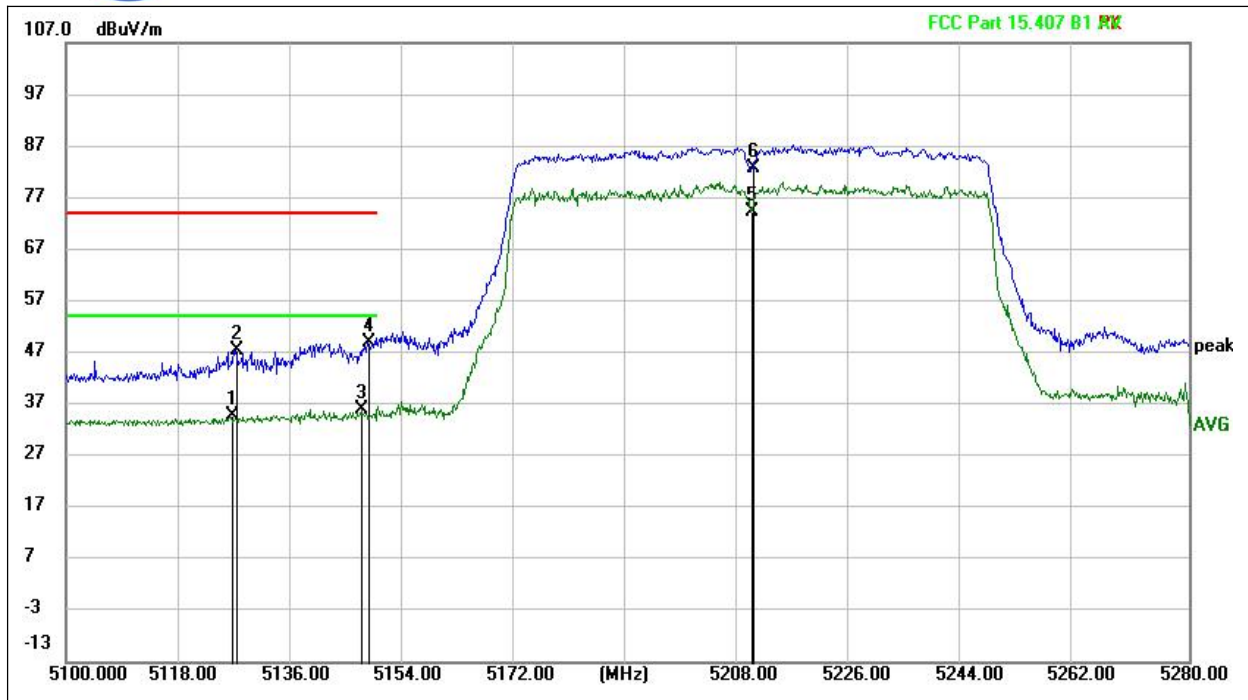
**802.11ac80 Test mode**

Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dBuV)	$A_{Factor}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Pol	Verdict
		PK/AV						
42	5150.000	PK	55.13	-3.24	51.89	74.00	H	PASS
42	5150.000	AV	42.21	-3.22	38.99	54.00	H	PASS
42	5150.000	PK	52.13	-3.24	48.89	74.00	V	PASS
42	5150.000	AV	39.17	-3.22	35.95	54.00	V	PASS



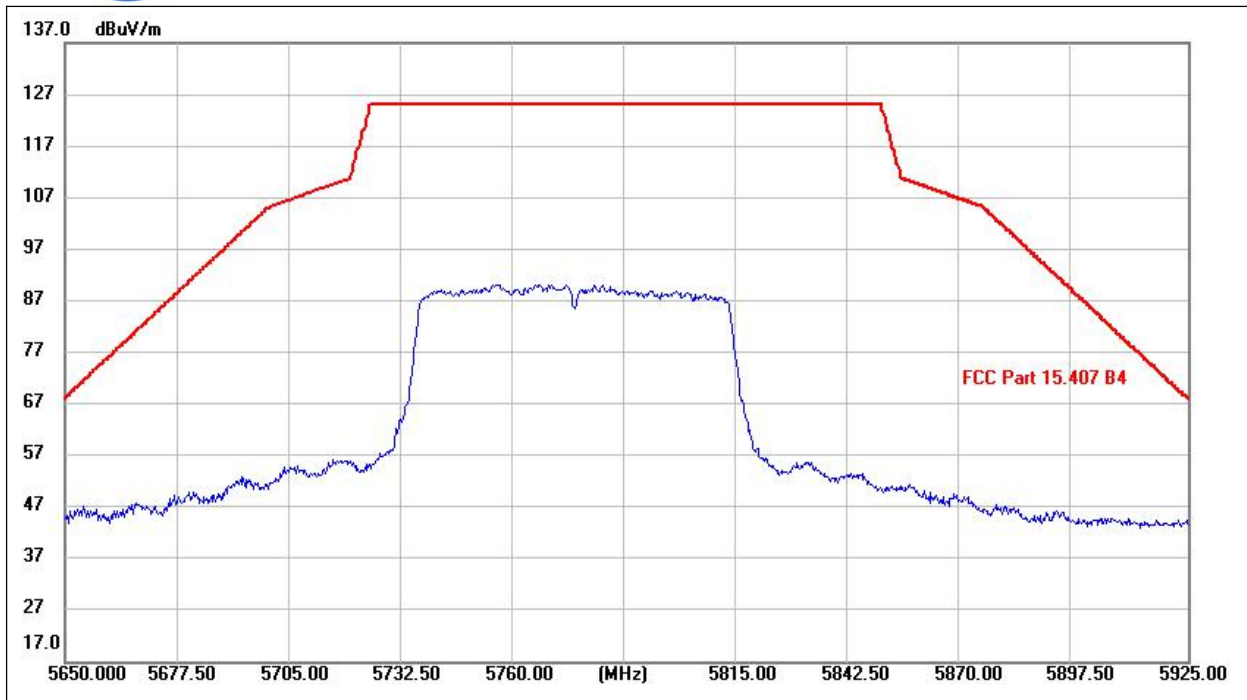
(802.11ac80\_5210MHz, Antenna Horizontal)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
5116.740	50.78	-3.08	47.70	74.00	-26.30	peak	PASS
5116.740	37.59	-3.08	34.51	54.00	-19.49	AVG	PASS
5146.566	42.21	-3.22	38.99	54.00	-15.01	AVG	PASS
5149.374	55.13	-3.24	51.89	74.00	-22.11	peak	PASS
5210.079	88.59	-2.95	85.64	N/A	N/A	peak	N/A
5210.079	80.04	-2.95	77.09	N/A	N/A	AVG	N/A

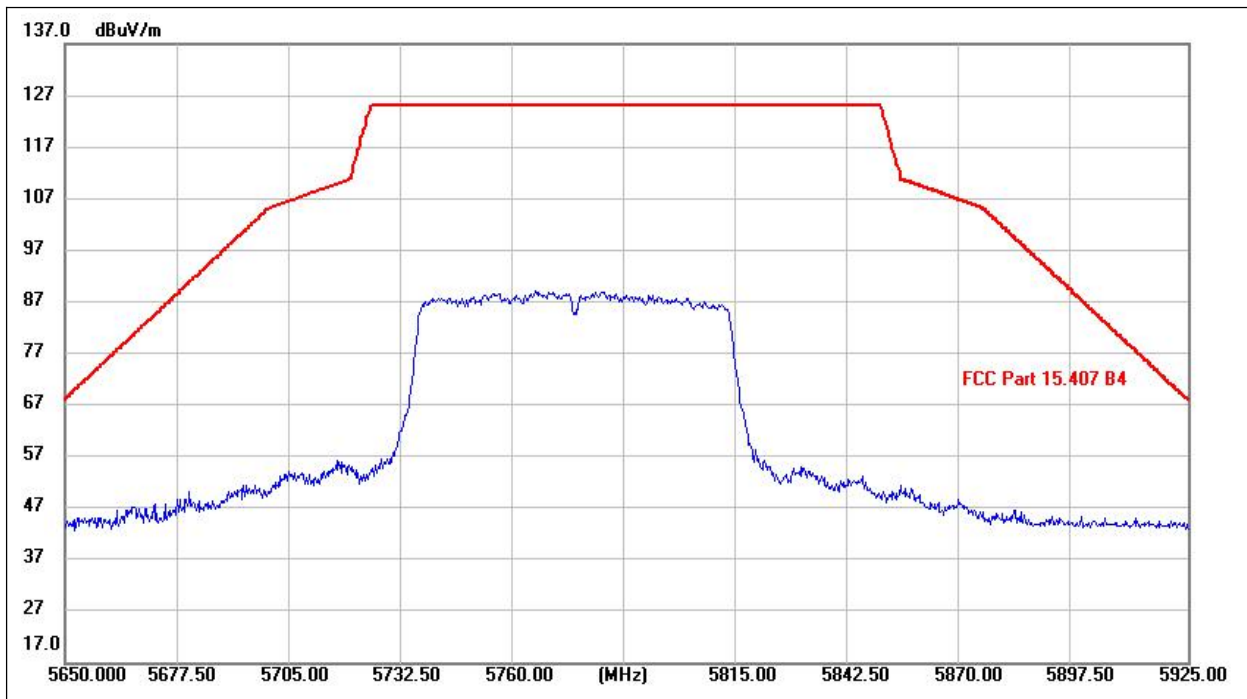


(802.11ac80\_5210MHz, Antenna Vertical)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
5126.487	37.77	-3.13	34.64	54.00	-19.36	AVG	PASS
5127.198	50.53	-3.13	47.40	74.00	-26.60	peak	PASS
5147.439	39.17	-3.22	35.95	54.00	-18.05	AVG	PASS
5148.483	52.13	-3.24	48.89	74.00	-25.11	peak	PASS
5209.809	77.20	-2.95	74.25	N/A	N/A	AVG	N/A
5210.223	85.78	-2.95	82.83	N/A	N/A	peak	N/A



(802.11ac80\_5775MHz, Antenna Horizontal)



(802.11ac80\_5775MHz, Antenna Vertical)



## 2.6. Frequency Stability

### 2.6.1. Requirement

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.

### 2.6.2. Test Procedure

The EUT was placed inside of an environmental chamber as the temperature in the chamber was varied between -30°C to 50°C. The temperature was incremented by 10° intervals and the unit was allowed to stabilize at each temperature before each measurement. The center frequency of the transmitting channel was evaluated at each temperature and the frequency deviation from the channel's center frequency was recorded. Data for the worst case channel is shown below.

### 2.6.3. Test Result

#### Frequency Stability Measurements for UNII Band 1 (Ch. 36)

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq Dev. (Hz)	Deviation (%)
100%	3.8	-30	5179.980	-20000	-3.86
100%		-20	5179.986	-14000	-2.70
100%		-10	5179.970	-30000	-5.79
100%		0	5179.978	-22000	-4.24
100%		+10	5179.980	-20000	-3.86
100%		+20	5179.964	-36000	-6.94
100%		+30	5179.971	-29000	-5.59
100%		+40	5179.984	-16000	-3.08
100%		+50	5179.970	-30000	-5.79
85%		3.23	+20	5179.977	-23000
115%	4.35	+20	5179.986	-14000	-2.70



**Frequency Stability Measurements for UNII Band 2A (Ch. 52)**

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq Dev. (Hz)	Deviation (%)
100%	3.8	-30	5260.025	25000	4.75
100%		-20	5260.033	33000	6.27
100%		-10	5260.040	40000	7.60
100%		0	5260.034	34000	6.46
100%		+10	5260.012	12000	2.28
100%		+20	5260.013	13000	2.47
100%		+30	5260.020	20000	3.80
100%		+40	5260.031	31000	5.89
100%		+50	5260.030	30000	5.70
85%		3.23	+20	5260.034	34000
115%	4.35	+20	5260.021	21000	3.99

**Frequency Stability Measurements for UNII Band 3 (Ch. 149)**

VOLTAGE (%)	POWER (VDC)	TEMP (°C)	FREQUENCY (Hz)	Freq Dev. (Hz)	Deviation (%)
100%	3.8	-30	5745.040	40000	6.96
100%		-20	5745.044	44000	7.65
100%		-10	5745.034	34000	5.91
100%		0	5745.039	39000	6.78
100%		+10	5745.044	44000	7.65
100%		+20	5745.038	38000	6.61
100%		+30	5745.065	65000	5.40
100%		+40	5745.044	44000	7.66
100%		+50	5745.038	38000	6.61
85%		3.23	+20	5745.042	45000
115%	4.35	+20	5745.032	32000	5.57

**Note:** Based on the results of the frequency stability test shown above the frequency deviation results measured are very small. As such it is determined that the channels at the band edge would remain in-band when the maximum measured frequency deviation noted during the frequency stability tests is applied. Therefore the device is determined to remain operating in band over the temperature and voltage range as tested.

## 2.7. Conducted Emission

### 2.7.1. Requirement

According to FCC section 15.207, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150kHz to 30MHz shall not exceed the limits in the following table, as measured using a 50 $\mu$ H/50 $\Omega$  line impedance stabilization network (LISN).

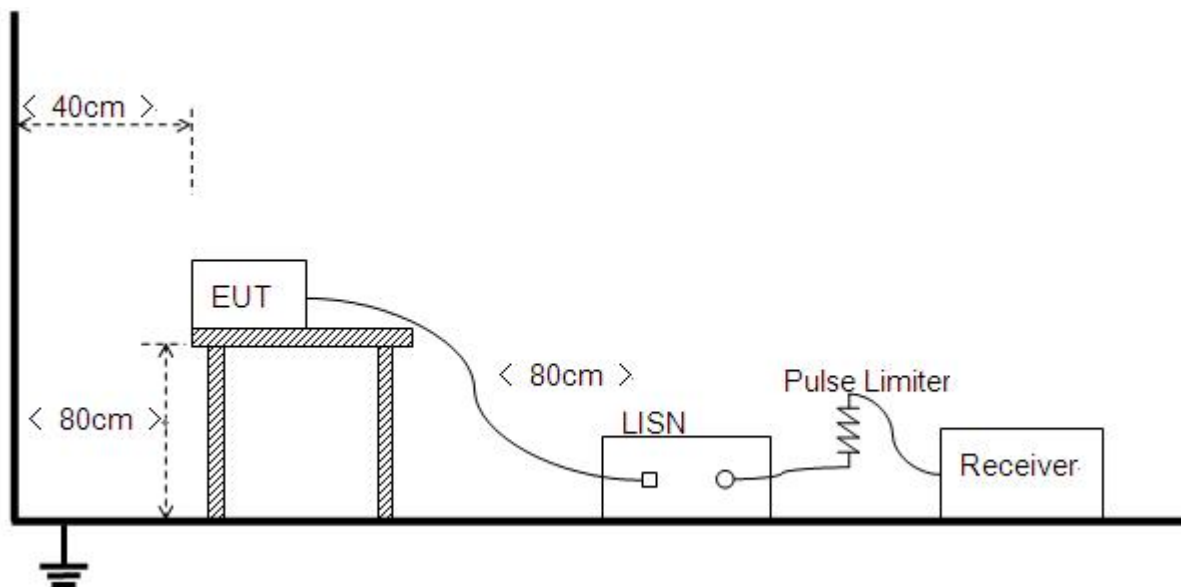
Frequency range (MHz)	Conducted Limit (dB $\mu$ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

**NOTE:**

- (a) The lower limit shall apply at the band edges.
- (b) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

### 2.7.2. Test Description

#### A. Test Setup:



The Table-top EUT was placed upon a non-metallic table 0.8m above the horizontal metal reference ground plane. EUT was connected to LISN and LISN was connected to reference Ground Plane. EUT was 80cm from LISN. The set-up and test methods were according to ANSI C63.10: 2013.





### 2.7.3. Test Result

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

**Note:** Both of the test voltage AC 120V/60Hz and AC 230V/50Hz were considered and tested respectively, only the results of the worst case AC 120V/60Hz were recorded in this report.

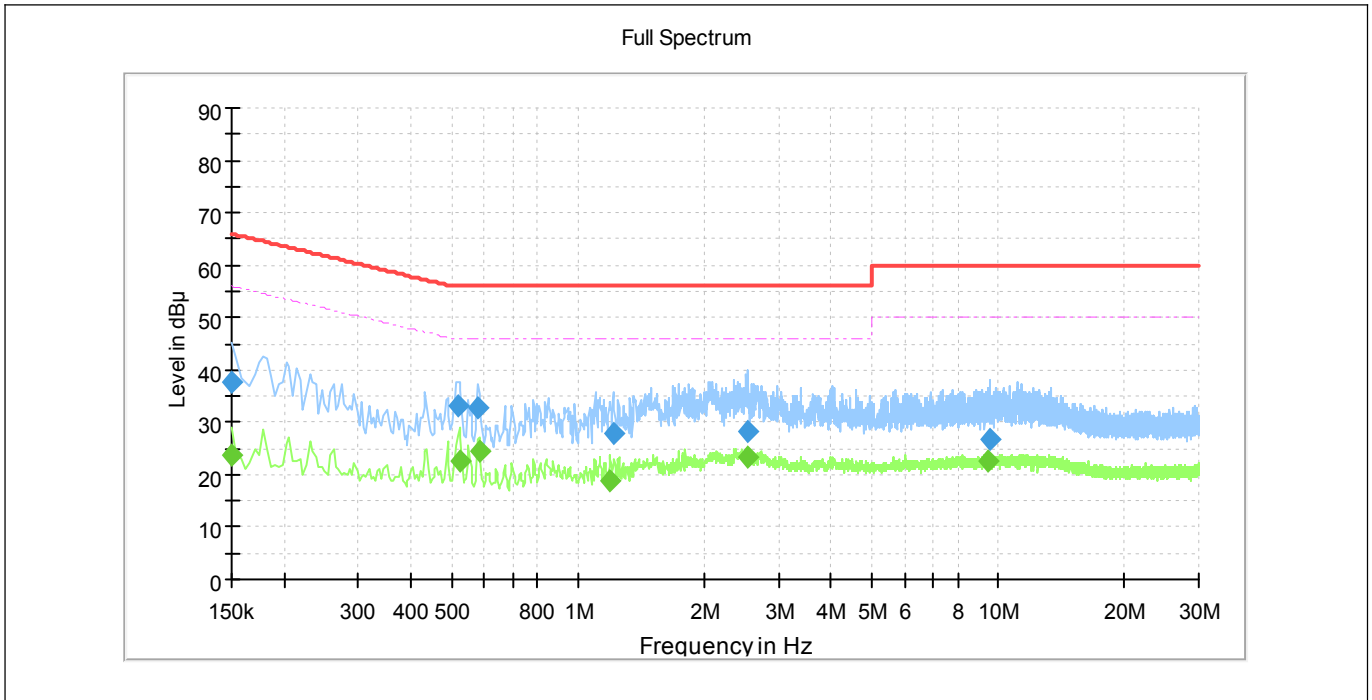
#### A. Test setup:

The EUT configuration of the emission tests is Charging + Wlan 5G Link.

**Note:** The test voltage is AC 120V/60Hz.

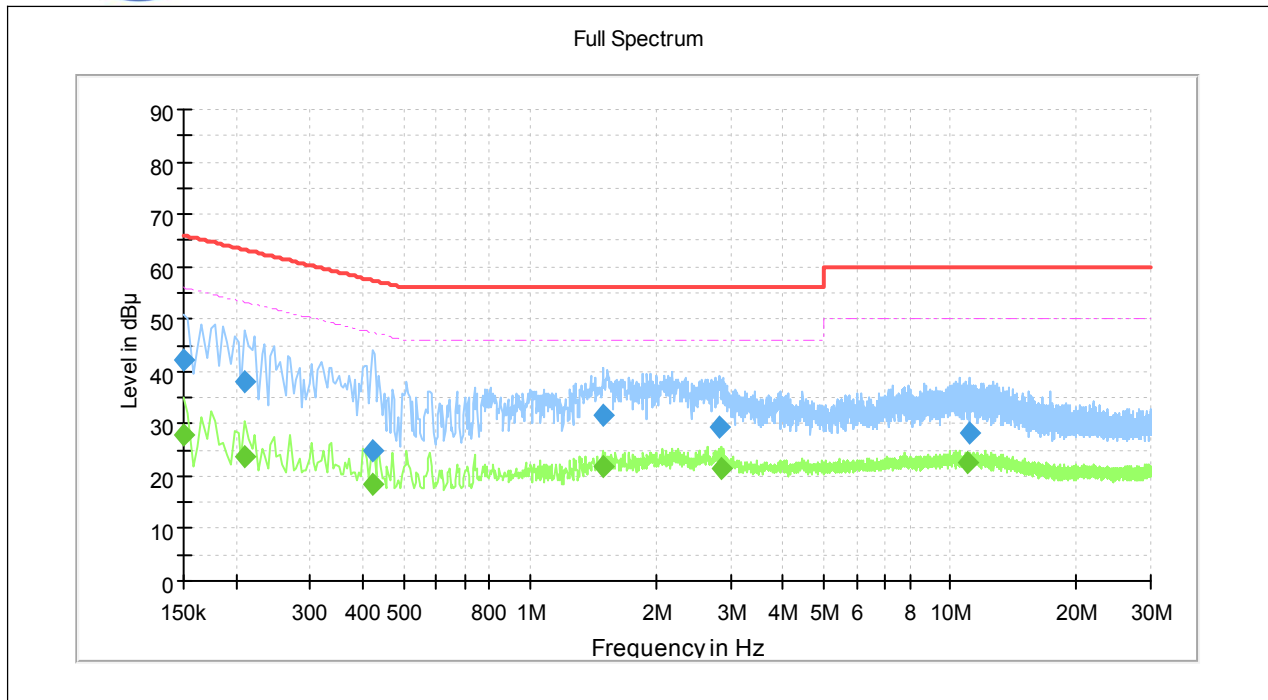


**A. Test Plots:**



(Plot A: L Phase)

Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.150000	---	23.63	56.00	32.37	L1	10.2
0.150000	37.68	---	66.00	28.32	L1	10.2
0.518000	33.29	---	56.00	22.71	L1	10.2
0.522000	---	22.45	46.00	23.55	L1	10.2
0.578000	32.73	---	56.00	23.27	L1	10.2
0.582000	---	24.51	46.00	21.49	L1	10.2
1.190000	---	18.88	46.00	27.12	L1	10.3
1.214000	27.76	---	56.00	28.24	L1	10.3
2.538000	28.29	---	56.00	27.71	L1	10.3
2.542000	---	23.39	46.00	22.61	L1	10.3
9.494000	---	22.41	50.00	27.59	L1	10.6
9.558000	26.75	---	60.00	33.25	L1	10.6



(Plot B: N Phase)

Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.150000	---	28.00	56.00	28.00	N	10.2
0.150000	42.02	---	66.00	23.98	N	10.2
0.210000	---	23.83	53.21	29.37	N	10.2
0.210000	38.07	---	63.21	25.14	N	10.2
0.422000	---	18.47	47.41	28.94	N	10.2
0.422000	24.99	---	57.41	32.41	N	10.2
1.486000	---	21.97	46.00	24.03	N	10.3
1.490000	31.73	---	56.00	24.27	N	10.3
2.814000	29.39	---	56.00	26.61	N	10.3
2.850000	---	21.37	46.00	24.63	N	10.3
10.946000	---	22.77	50.00	27.23	N	10.6
11.066000	28.36	---	60.00	31.64	N	10.6



## 2.8. Radiated Emission

### 2.8.1. Requirement

The peak emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

- (1) For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (2) For transmitters operating in the 5.25–5.35 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (3) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

The following formula is used to convert the equipment isotropic radiated power(eirp) to field strength (dBµV/m);

$$E = 1000000 \times \sqrt{30P} / 3 \mu\text{V/m}$$

where P is the EIRP in Watts

Therefore: -27 dBm/MHz = 68.23 dBuV/m

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (µV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

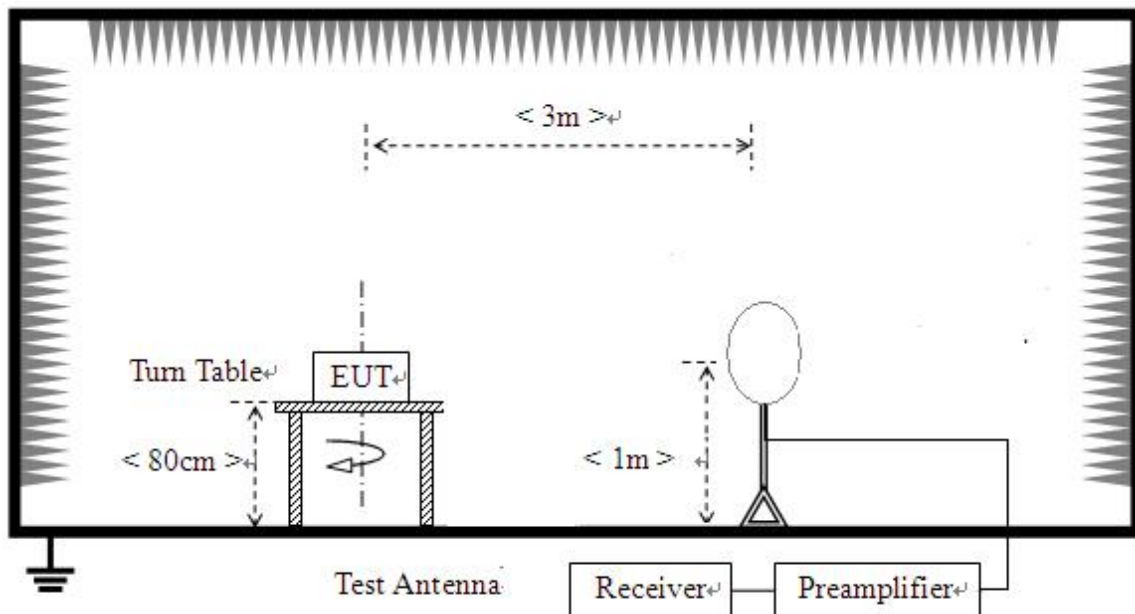
**Note:**

For Above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.

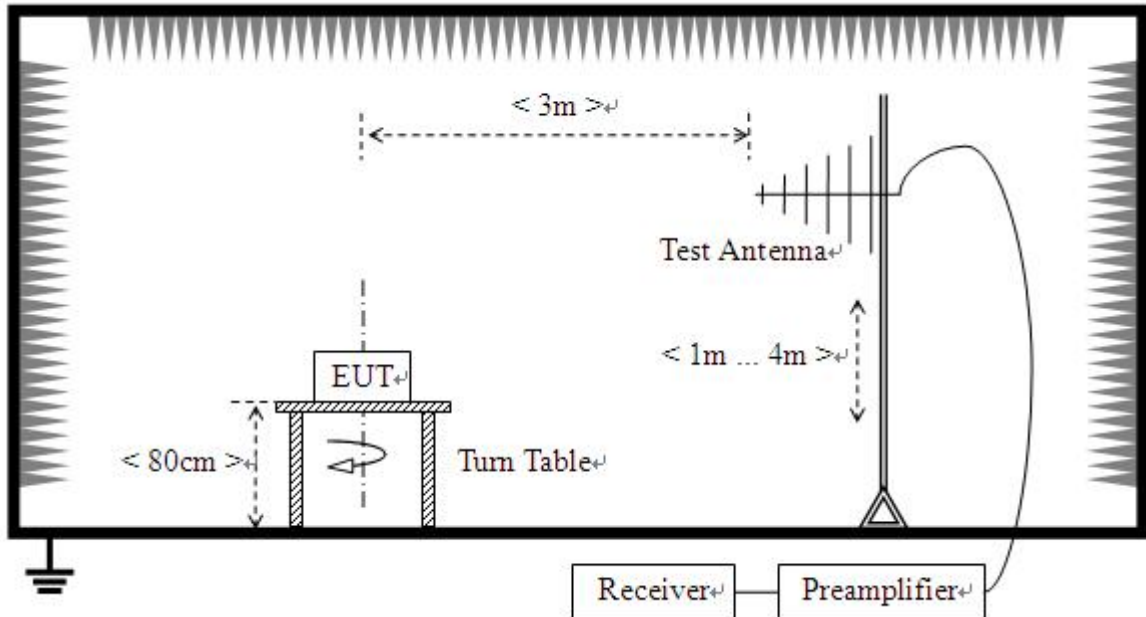
In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table)

**2.8.2. Test Description****A. Test Setup:**

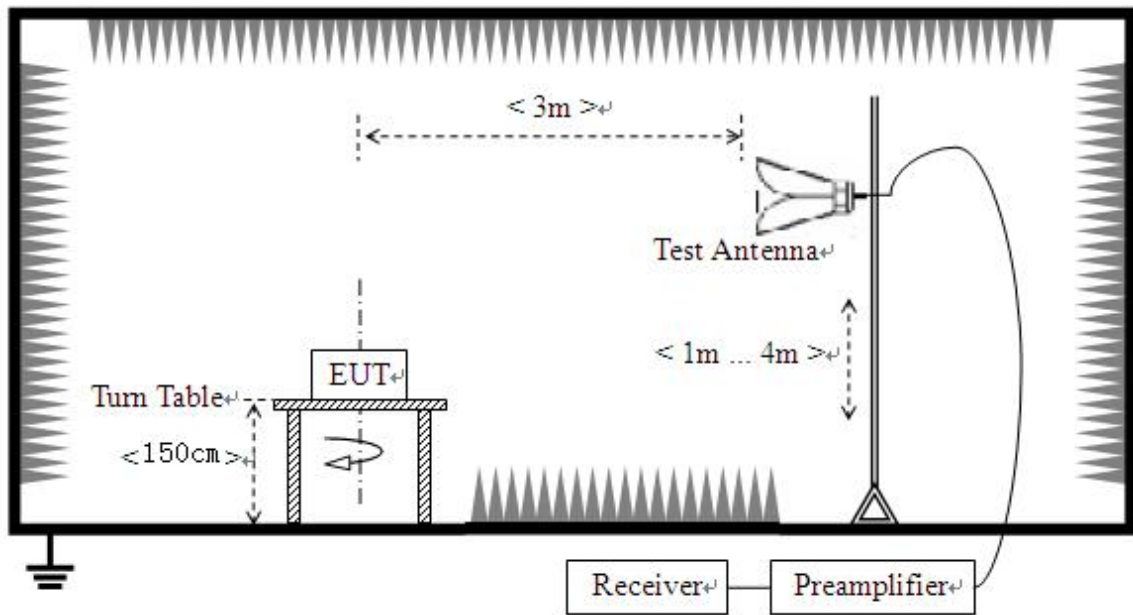
- 1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to1GHz



3) For radiated emissions above 1GHz



The RF absorbing material used on the reference ground plane and on the turntable have a maximum height (thickness) of 30 cm (12 in) and have a minimum-rated attenuation of 20 dB at all frequencies from 1 GHz to 18 GHz.

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4dB according to the standards: ANSI C63.10 (2013). For radiated emissions below or equal to 1GHz, The EUT was set-up on insulator 80cm above the Ground Plane, For radiated emissions above 1GHz, The EUT



was set-up on insulator 150cm above the Ground Plane. The set-up and test methods were according to ANSI C63.10

For the Test Antenna:

(a) In the frequency range of 9kHz to 30MHz, magnetic field is measured with Loop Test Antenna. The Test Antenna is positioned with its plane vertical at 1m distance from the EUT. The center of the Loop Test Antenna is 1m above the ground. During the measurement the Loop Test Antenna rotates about its vertical axis for maximum response at each azimuth about the EUT.

(b) In the frequency range above 30MHz, Bi-Log Test Antenna (30MHz to 1GHz) and Horn Test Antenna (above 1GHz) are used. Place the test antenna at 3m away from area of the EUT, while keeping the test antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The test antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final test antenna elevation shall be that which maximizes the emissions. The test antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane. The emission levels at both horizontal and vertical polarizations should be tested.

For Radiated emission below 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.



- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasipeak detection (QP) at frequency below 1GHz.
- 2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
- 3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is  $\geq 1/T$  (Duty cycle < 98%) or 10Hz (Duty cycle  $\geq 98\%$ ) for Average detection (AV) at frequency above 1GHz.
- 4. All modes of operation were investigated and the worst-case emissions are reported.

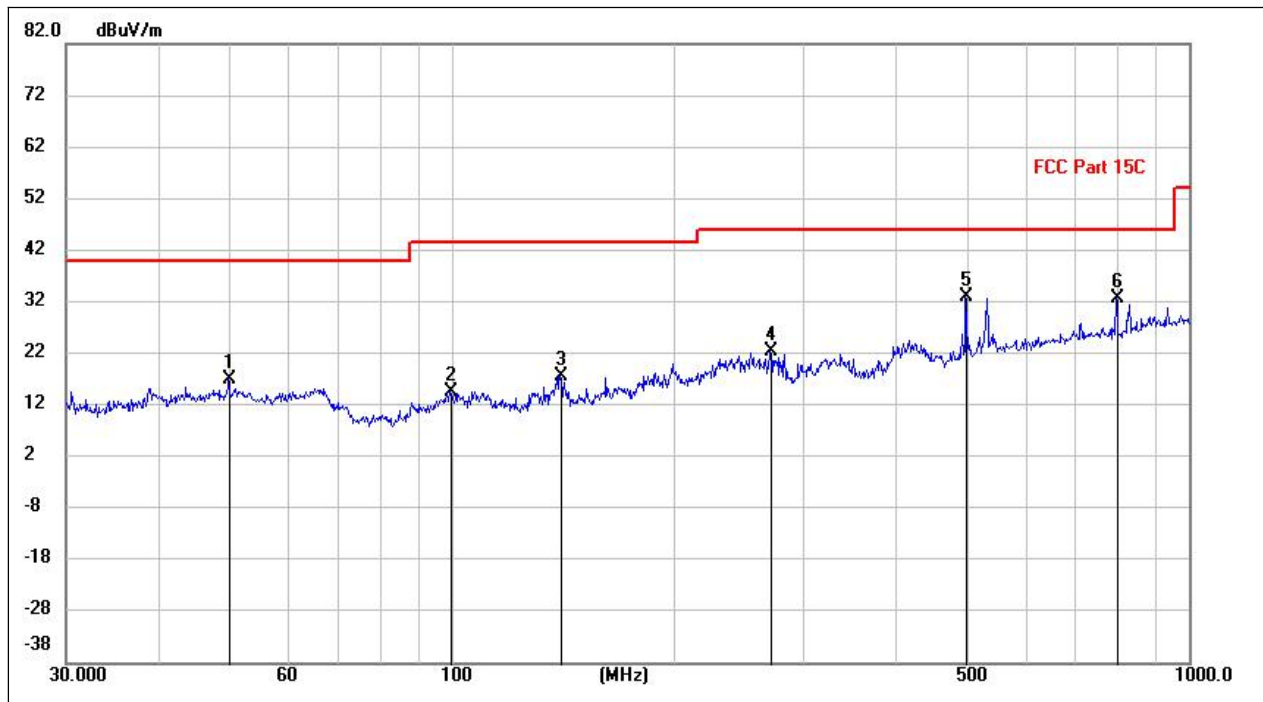


**2.8.3. Test Result**

**Note1:** For the frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

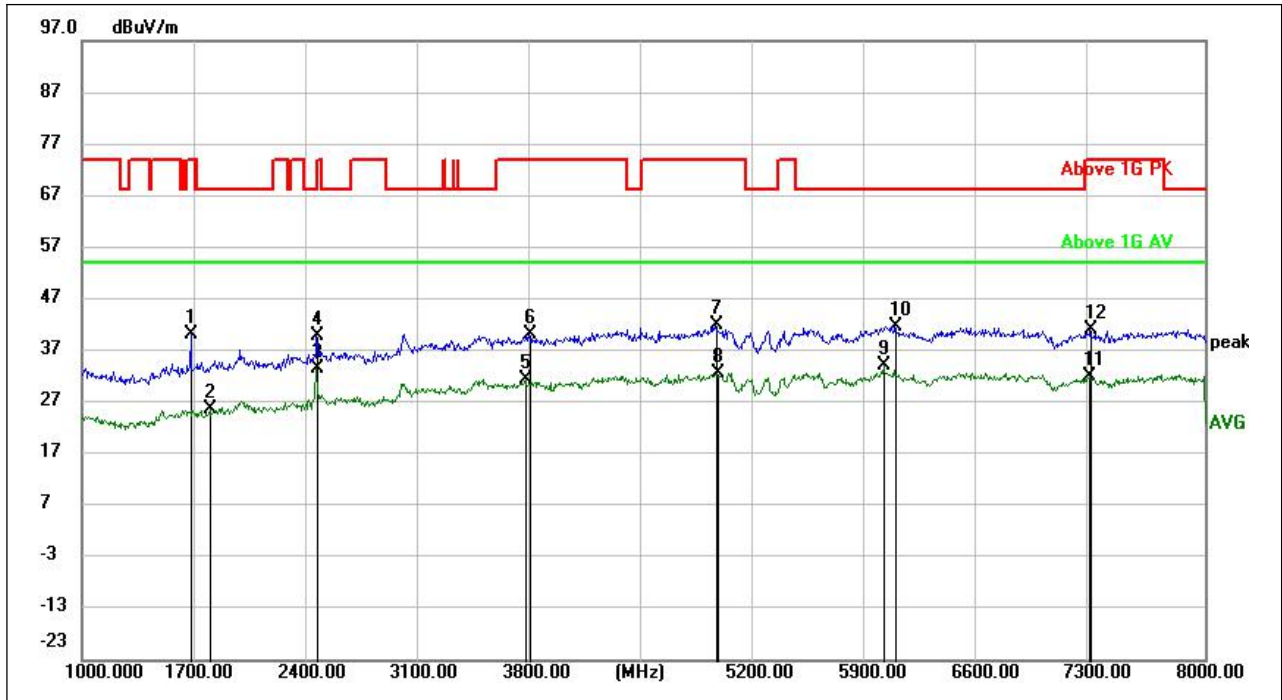
**Note2:** For the frequency, which started from 18GHz to 40GHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

**802.11ac20 Test mode**



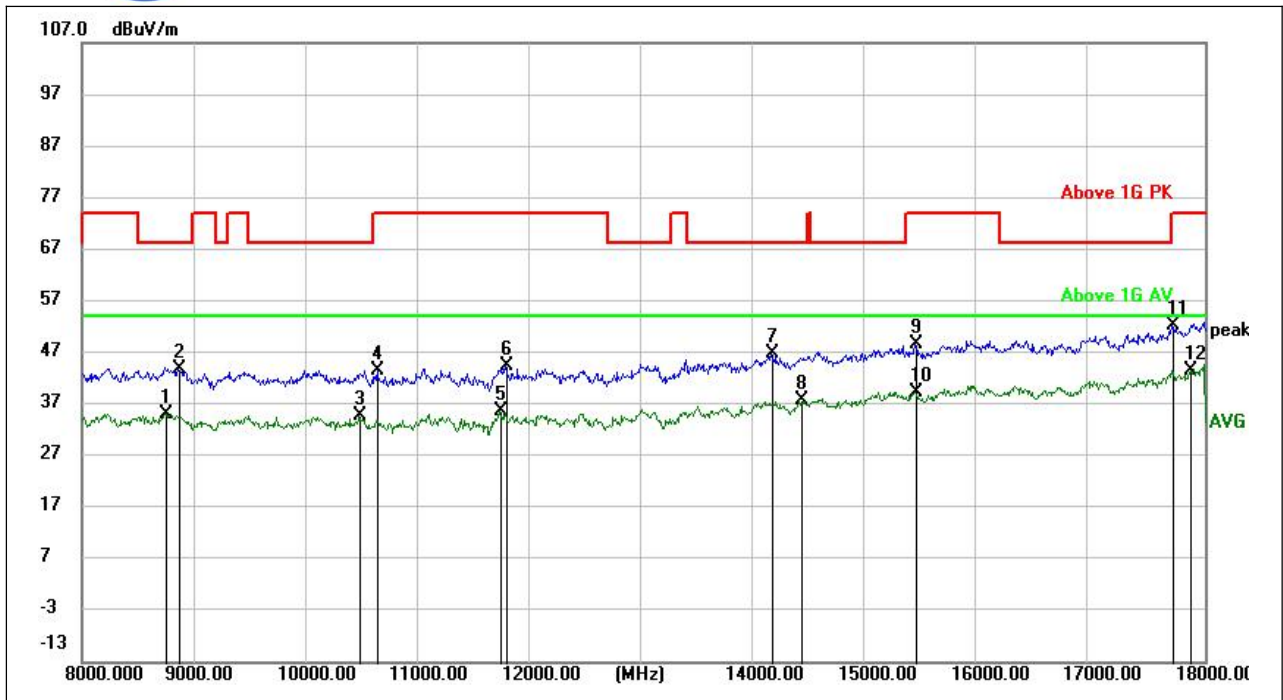
(802.11ac20\_5180MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
50.0040	0.69	16.20	16.89	40.00	-23.11	peak	PASS
99.6853	-0.45	14.94	14.49	43.50	-29.01	peak	PASS
140.3667	5.78	11.94	17.72	43.50	-25.78	peak	PASS
271.2770	7.21	15.35	22.56	46.00	-23.44	peak	PASS
498.4624	11.25	21.70	32.95	46.00	-13.05	peak	PASS
798.5596	6.46	26.15	32.61	46.00	-13.39	peak	PASS



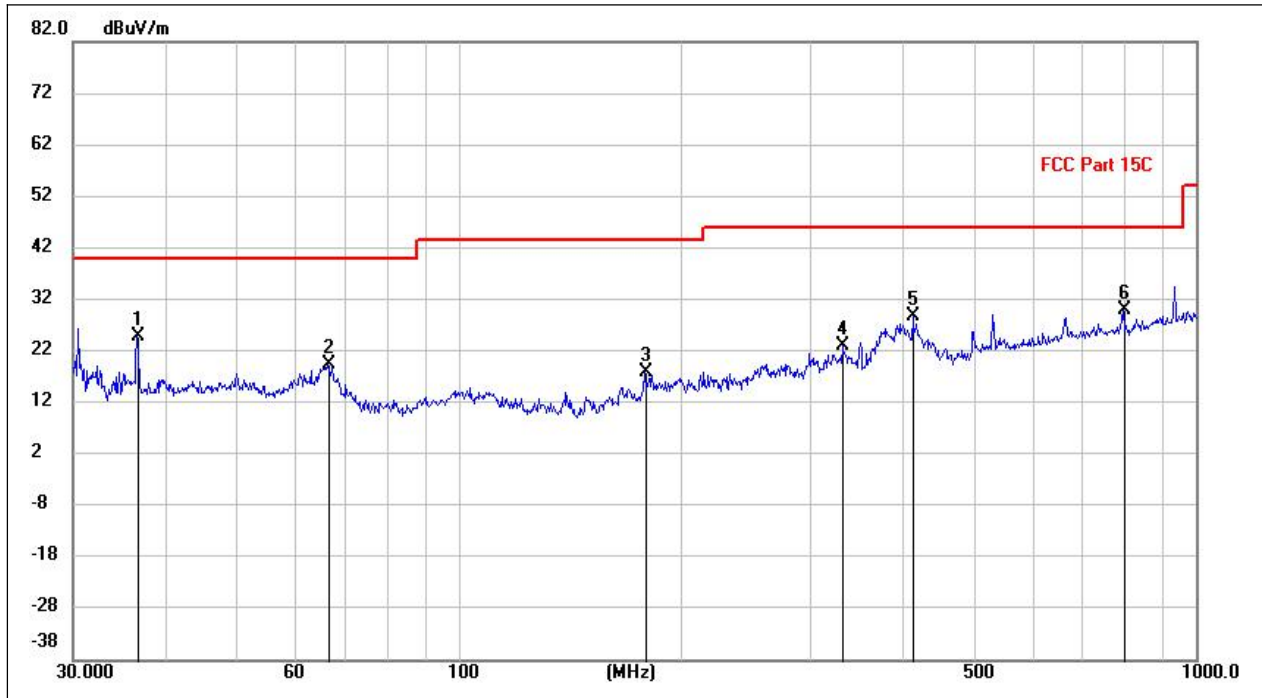
(802.11ac20\_5180MHz, Antenna Horizontal, 1GHz to 8GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
1679.700	54.82	-14.74	40.08	74.00	-33.92	peak	PASS
1802.900	40.26	-14.66	25.60	54.00	-28.40	AVG	PASS
2466.850	45.06	-11.45	33.61	54.00	-20.39	AVG	PASS
2467.200	51.20	-11.44	39.76	68.20	-28.44	peak	PASS
3772.000	37.67	-6.18	31.49	54.00	-22.51	AVG	PASS
3790.550	46.55	-6.27	40.28	74.00	-33.72	peak	PASS
4954.650	45.45	-3.43	42.02	74.00	-31.98	peak	PASS
4968.650	36.50	-3.80	32.70	54.00	-21.30	AVG	PASS
6004.650	37.89	-3.77	34.12	54.00	-19.88	AVG	PASS
6074.300	45.16	-3.38	41.78	68.20	-26.42	peak	PASS
7280.050	33.24	-1.33	31.91	54.00	-22.09	AVG	PASS
7291.600	42.24	-1.29	40.95	74.00	-33.05	peak	PASS



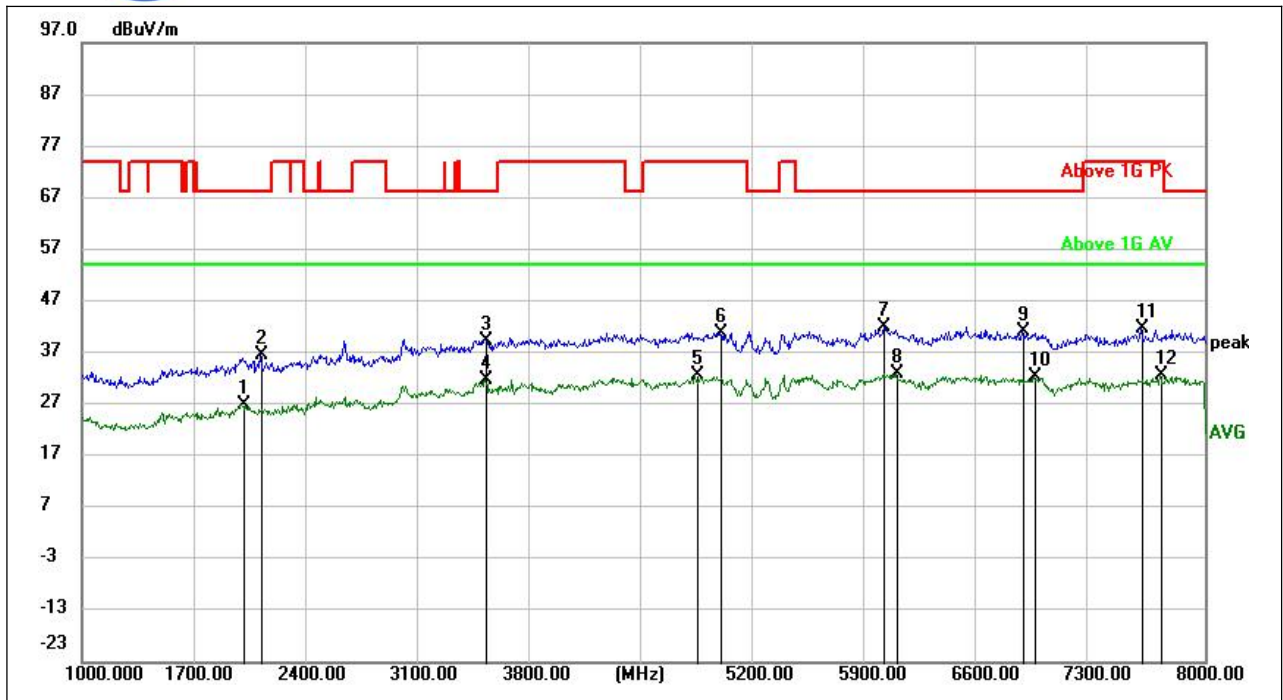
(802.11ac20\_5180MHz, Antenna Horizontal, 8GHz to 18GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
8748.500	33.56	1.67	35.23	54.00	-18.77	AVG	PASS
8862.000	41.78	1.99	43.77	68.20	-24.43	peak	PASS
10477.500	31.59	3.06	34.65	54.00	-19.35	AVG	PASS
10637.500	40.92	2.65	43.57	74.00	-30.43	peak	PASS
11724.500	31.52	4.07	35.59	54.00	-18.41	AVG	PASS
11773.000	40.36	3.98	44.34	74.00	-29.66	peak	PASS
14148.000	38.53	8.25	46.78	68.20	-21.42	peak	PASS
14406.000	28.88	8.90	37.78	54.00	-16.22	AVG	PASS
15428.500	38.29	10.36	48.65	74.00	-25.35	peak	PASS
15428.500	28.89	10.36	39.25	54.00	-14.75	AVG	PASS
17719.500	37.59	14.56	52.15	74.00	-21.85	peak	PASS
17874.000	27.91	15.59	43.50	54.00	-10.50	AVG	PASS



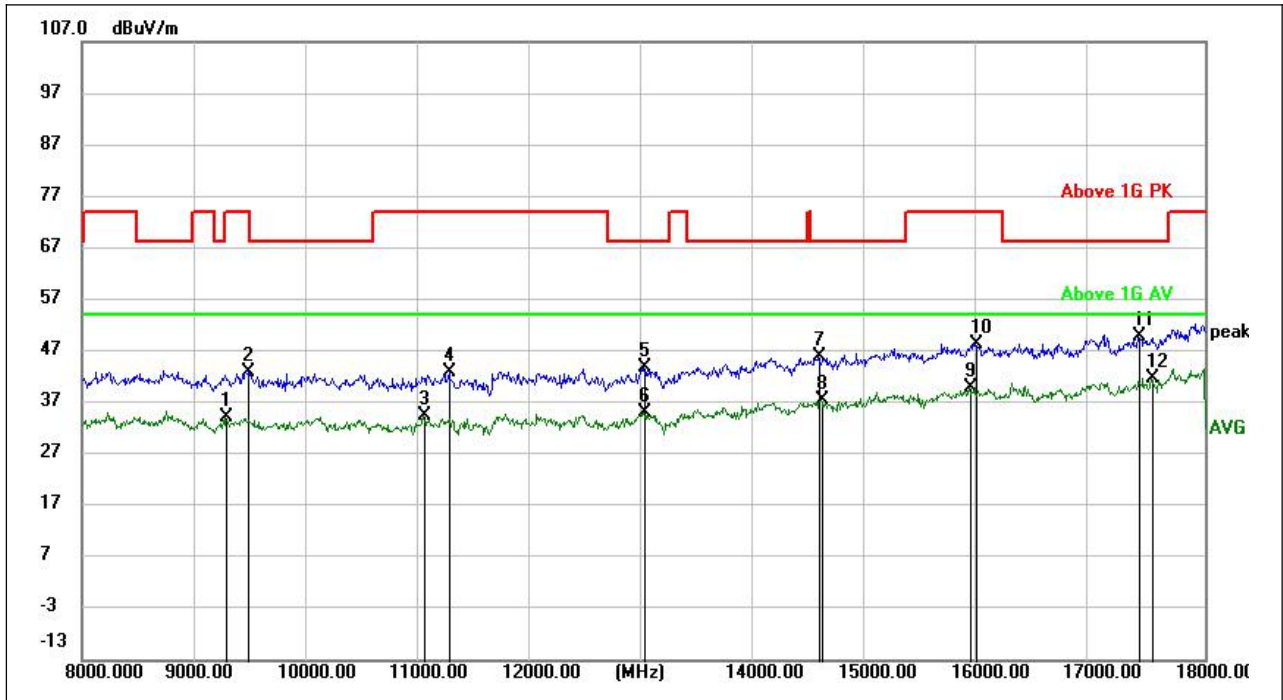
(802.11ac20 \_5180MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
36.7468	11.38	13.46	24.84	40.00	-15.16	peak	PASS
66.7091	6.59	12.80	19.39	40.00	-20.61	peak	PASS
179.2920	5.19	12.60	17.79	43.50	-25.71	peak	PASS
332.1691	5.81	17.14	22.95	46.00	-23.05	peak	PASS
413.7782	9.38	19.30	28.68	46.00	-17.32	peak	PASS
797.8598	3.78	26.16	29.94	46.00	-16.06	peak	PASS



(802.11ac20\_5180MHz, Antenna Vertical , 1GHz to 8GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
2004.500	38.98	-11.99	26.99	54.00	-27.01	AVG	PASS
2116.150	49.59	-13.06	36.53	68.20	-31.67	peak	PASS
3513.350	45.65	-6.24	39.41	68.20	-28.79	peak	PASS
3513.350	37.85	-6.24	31.61	54.00	-22.39	AVG	PASS
4829.350	36.44	-3.93	32.51	54.00	-21.49	AVG	PASS
4983.000	44.50	-3.68	40.82	74.00	-33.18	peak	PASS
6003.600	44.19	-2.30	41.89	68.20	-26.31	peak	PASS
6075.700	35.35	-2.45	32.90	54.00	-21.10	AVG	PASS
6867.050	43.10	-2.16	40.94	68.20	-27.26	peak	PASS
6942.300	34.21	-1.95	32.26	54.00	-21.74	AVG	PASS
7608.700	42.38	-0.78	41.60	74.00	-32.40	peak	PASS
7723.850	33.48	-0.92	32.56	54.00	-21.44	AVG	PASS

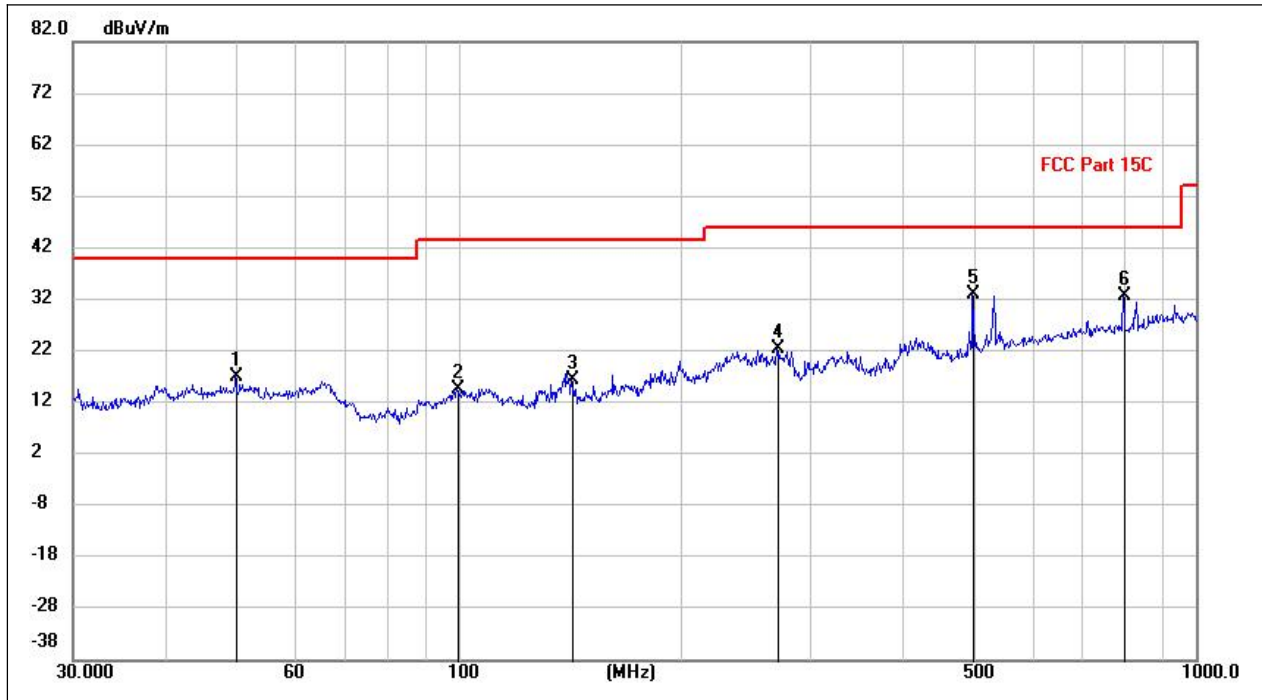


(802.11a\_5180MHz, Antenna Vertical, 8GHz to 18GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
9285.000	31.90	2.15	34.05	54.00	-19.95	AVG	PASS
9487.500	40.63	2.27	42.90	74.00	-31.10	peak	PASS
11048.500	30.97	3.43	34.40	54.00	-19.60	AVG	PASS
11271.500	39.16	3.67	42.83	74.00	-31.17	peak	PASS
13007.000	38.05	5.84	43.89	68.20	-24.31	peak	PASS
13007.000	29.31	5.84	35.15	54.00	-18.85	AVG	PASS
14566.000	36.99	8.95	45.94	68.20	-22.26	peak	PASS
14582.000	28.50	8.94	37.44	54.00	-16.56	AVG	PASS
15909.500	28.87	11.12	39.99	54.00	-14.01	AVG	PASS
15969.000	36.91	11.54	48.45	74.00	-25.55	peak	PASS
17411.500	36.62	13.25	49.87	68.20	-18.33	peak	PASS
17522.500	27.26	14.57	41.83	54.00	-12.17	AVG	PASS

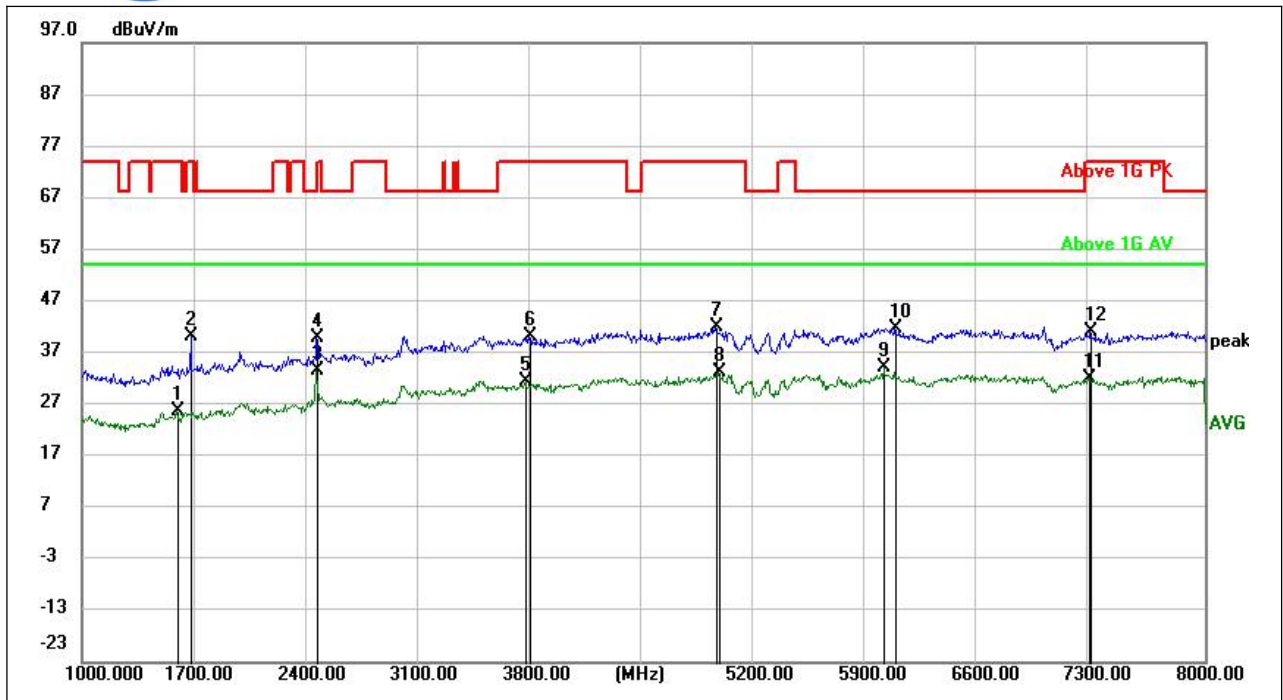


Plots for Channel = 44



(802.11ac20\_5220MHz, Antenna Horizontal, 30MHz to 1GHz)

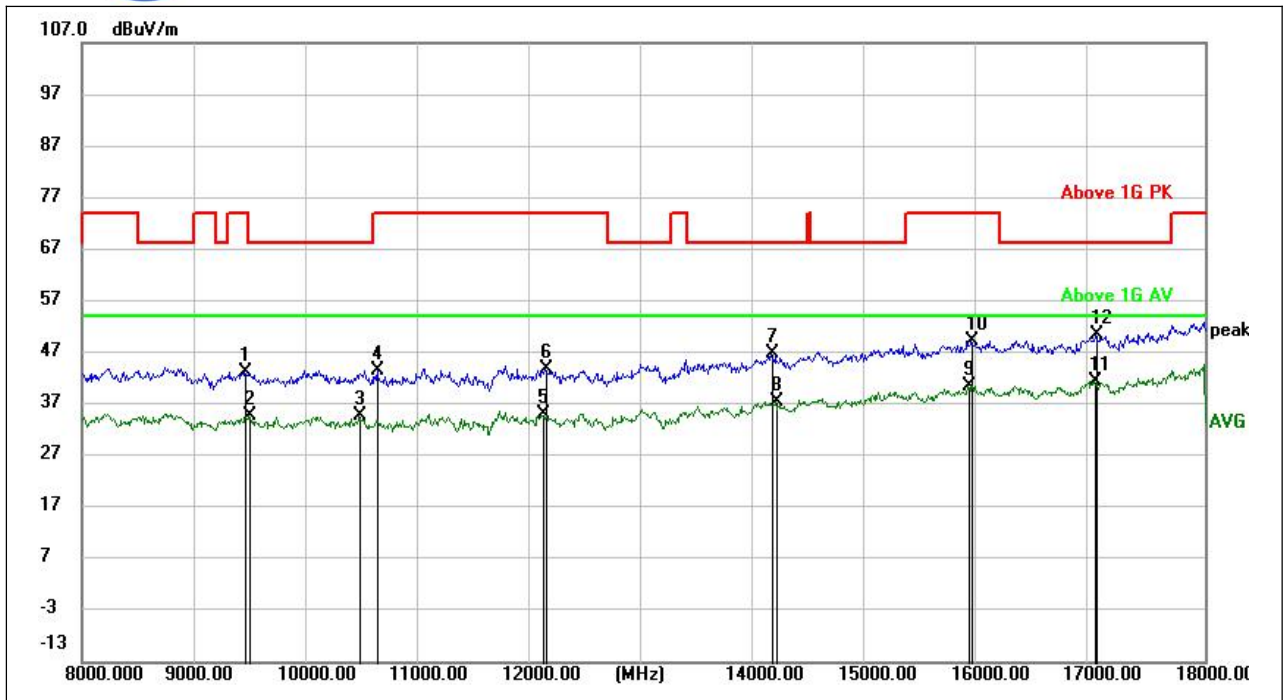
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
50.0040	0.69	16.20	16.89	40.00	-23.11	peak	PASS
99.6853	-0.45	14.94	14.49	43.50	-29.01	peak	PASS
142.7493	5.34	11.12	16.46	43.50	-27.04	peak	PASS
271.2770	7.21	15.35	22.56	46.00	-23.44	peak	PASS
498.4624	11.25	21.70	32.95	46.00	-13.05	peak	PASS
798.5596	6.46	26.15	32.61	46.00	-13.39	peak	PASS



(802.11ac20\_5220MHz, Antenna Horizontal, 1GHz to 8GHz)

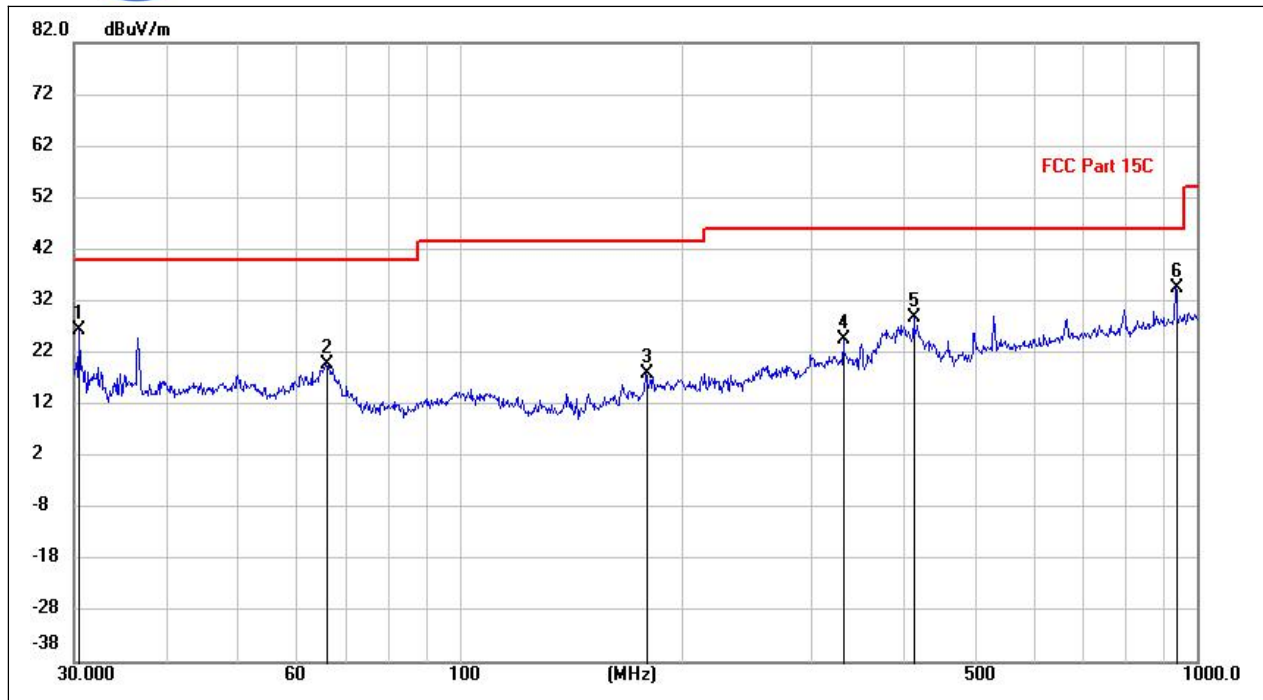
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
1591.850	40.54	-14.89	25.65	54.00	-28.35	AVG	PASS
1679.700	54.82	-14.74	40.08	74.00	-33.92	peak	PASS
2466.850	45.06	-11.45	33.61	54.00	-20.39	AVG	PASS
2469.300	51.16	-11.40	39.76	68.20	-28.44	peak	PASS
3772.000	37.67	-6.18	31.49	54.00	-22.51	AVG	PASS
3790.550	46.55	-6.27	40.28	74.00	-33.72	peak	PASS
4954.650	45.45	-3.43	42.02	74.00	-31.98	peak	PASS
4974.600	37.26	-4.00	33.26	54.00	-20.74	AVG	PASS
6004.650	37.89	-3.77	34.12	54.00	-19.88	AVG	PASS
6074.300	45.16	-3.38	41.78	68.20	-26.42	peak	PASS
7280.050	33.24	-1.33	31.91	54.00	-22.09	AVG	PASS
7291.600	42.24	-1.29	40.95	74.00	-33.05	peak	PASS





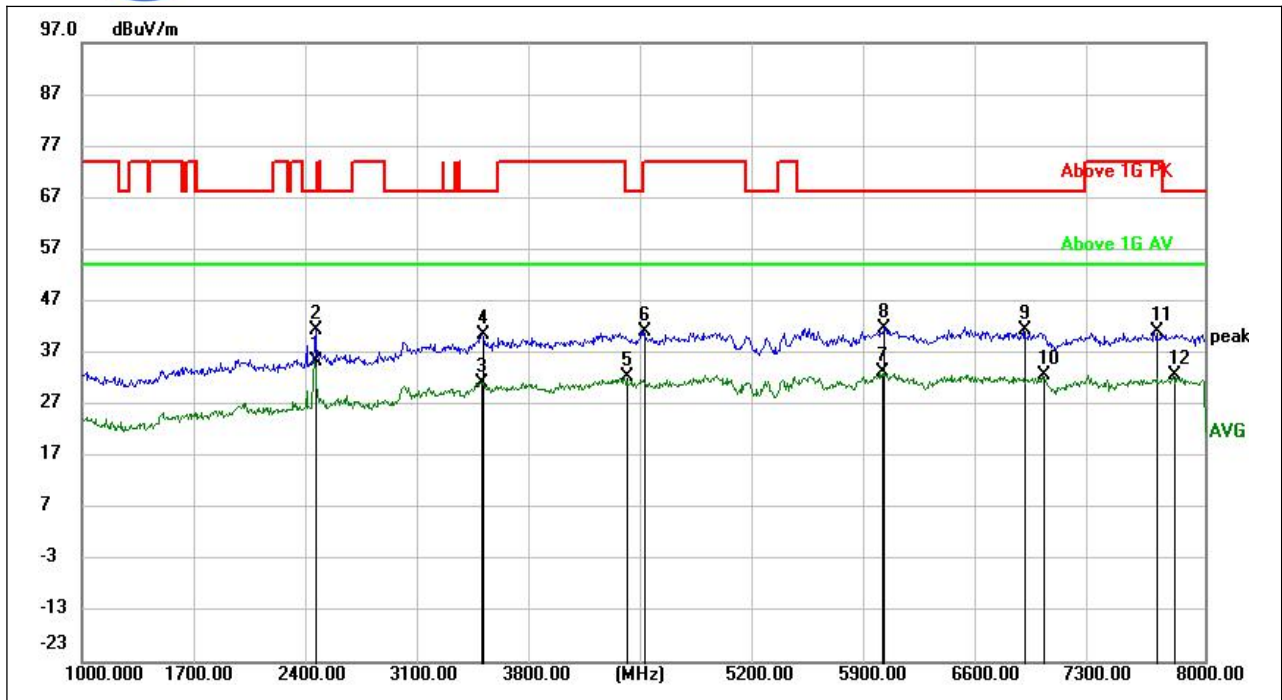
(802.11ac20\_5220MHz, Antenna Horizontal, 8GHz to 18GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
9455.500	41.41	1.96	43.37	74.00	-30.63	peak	PASS
9496.500	32.77	1.91	34.68	54.00	-19.32	AVG	PASS
10477.500	31.59	3.06	34.65	54.00	-19.35	AVG	PASS
10637.500	40.92	2.65	43.57	74.00	-30.43	peak	PASS
12108.500	30.95	3.99	34.94	54.00	-19.06	AVG	PASS
12135.500	39.61	4.18	43.79	74.00	-30.21	peak	PASS
14148.000	38.53	8.25	46.78	68.20	-21.42	peak	PASS
14184.000	29.01	8.38	37.39	54.00	-16.61	AVG	PASS
15899.000	29.31	11.13	40.44	54.00	-13.56	AVG	PASS
15928.000	38.10	11.31	49.41	74.00	-24.59	peak	PASS
17017.500	30.26	11.12	41.38	54.00	-12.62	AVG	PASS
17038.500	39.32	11.07	50.39	68.20	-17.81	peak	PASS



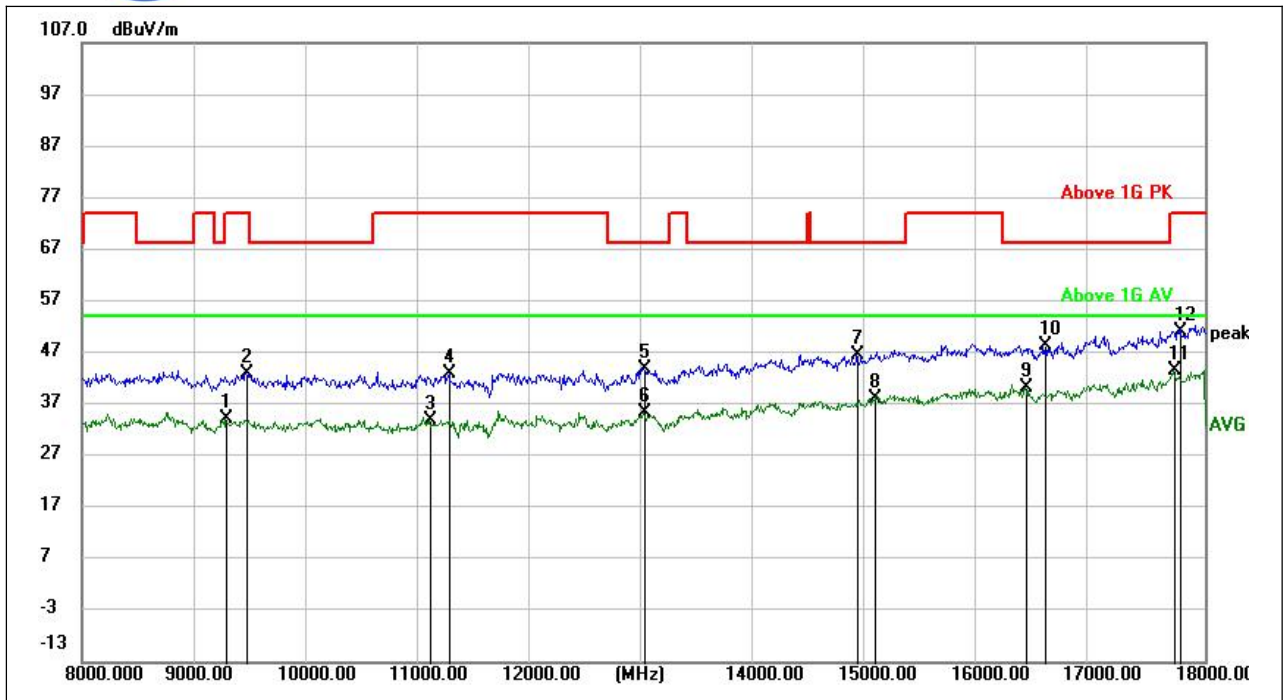
(802.11ac20\_5220MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
30.5306	13.50	12.95	26.45	40.00	-13.55	peak	PASS
65.8261	6.65	13.15	19.80	40.00	-20.20	peak	PASS
179.2920	5.19	12.60	17.79	43.50	-25.71	peak	PASS
332.4604	7.26	17.16	24.42	46.00	-21.58	peak	PASS
413.7782	9.38	19.30	28.68	46.00	-17.32	peak	PASS
937.6811	6.15	28.30	34.45	46.00	-11.55	peak	PASS



(802.11ac20\_5220MHz, Antenna Vertical , 1GHz to 8GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
2456.000	47.00	-11.66	35.34	54.00	-18.66	AVG	PASS
2460.900	52.83	-11.59	41.24	68.20	-26.96	peak	PASS
3492.000	37.08	-5.82	31.26	54.00	-22.74	AVG	PASS
3502.150	46.17	-5.77	40.40	68.20	-27.80	peak	PASS
4392.900	36.96	-4.75	32.21	54.00	-21.79	AVG	PASS
4500.350	45.25	-4.08	41.17	74.00	-32.83	peak	PASS
5987.500	35.83	-2.59	33.24	54.00	-20.76	AVG	PASS
6004.650	43.88	-2.30	41.58	68.20	-26.62	peak	PASS
6874.750	43.43	-2.16	41.27	68.20	-26.93	peak	PASS
6995.500	34.37	-1.82	32.55	54.00	-21.45	AVG	PASS
7692.700	41.79	-0.85	40.94	74.00	-33.06	peak	PASS
7810.300	33.29	-0.81	32.48	54.00	-21.52	AVG	PASS

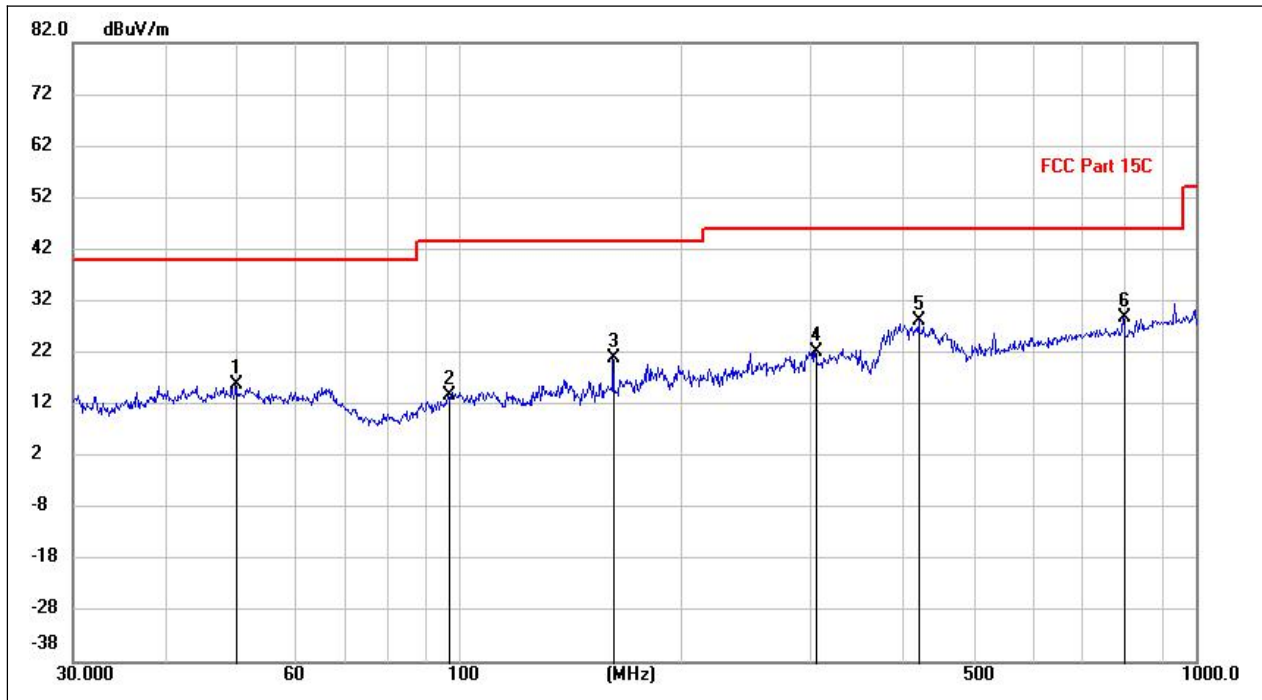


(802.11ac20\_5220MHz, Antenna Vertical, 8GHz to 18GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
9285.000	31.90	2.15	34.05	54.00	-19.95	AVG	PASS
9466.000	40.70	2.21	42.91	74.00	-31.09	peak	PASS
11096.000	30.17	3.71	33.88	54.00	-20.12	AVG	PASS
11271.500	39.16	3.67	42.83	74.00	-31.17	peak	PASS
13009.500	38.03	5.86	43.89	68.20	-24.31	peak	PASS
13009.500	29.58	5.86	35.44	54.00	-18.56	AVG	PASS
14902.500	37.02	9.42	46.44	68.20	-21.76	peak	PASS
15067.000	27.61	10.40	38.01	54.00	-15.99	AVG	PASS
16410.000	28.95	11.14	40.09	54.00	-13.91	AVG	PASS
16577.000	36.63	11.67	48.30	68.20	-19.90	peak	PASS
17725.000	28.82	14.61	43.43	54.00	-10.57	AVG	PASS
17771.500	36.52	14.65	51.17	74.00	-22.83	peak	PASS

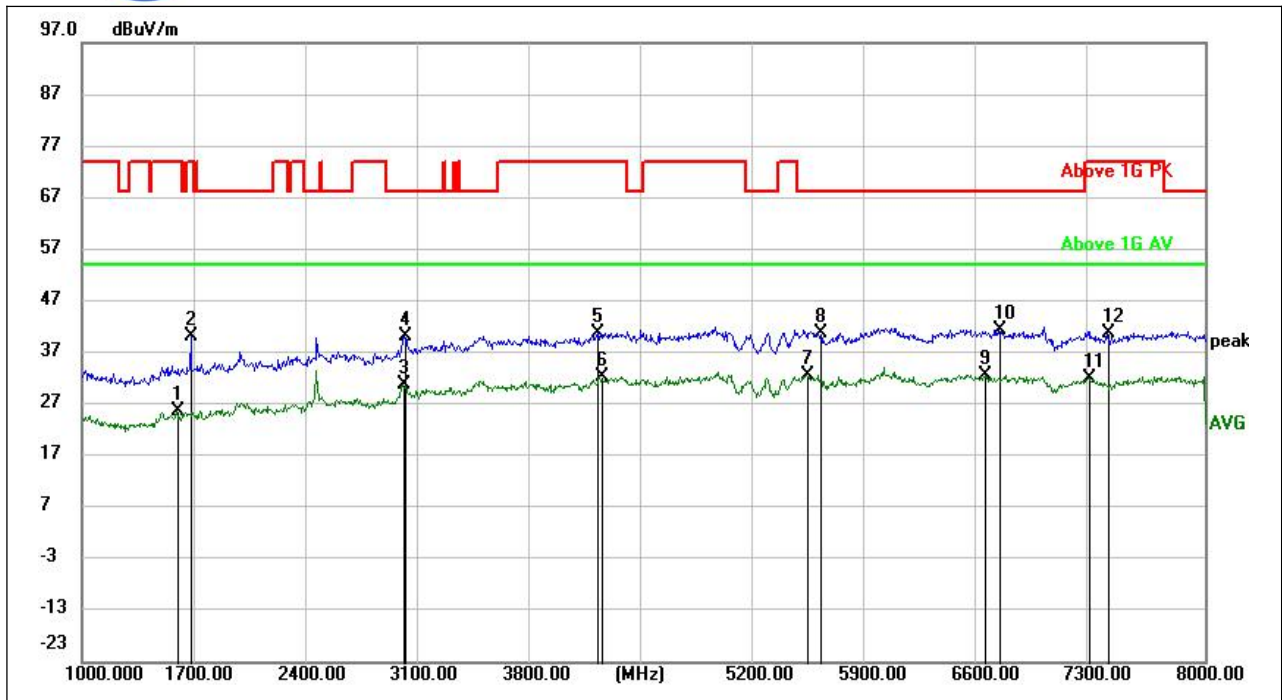


Plot for Channel = 48



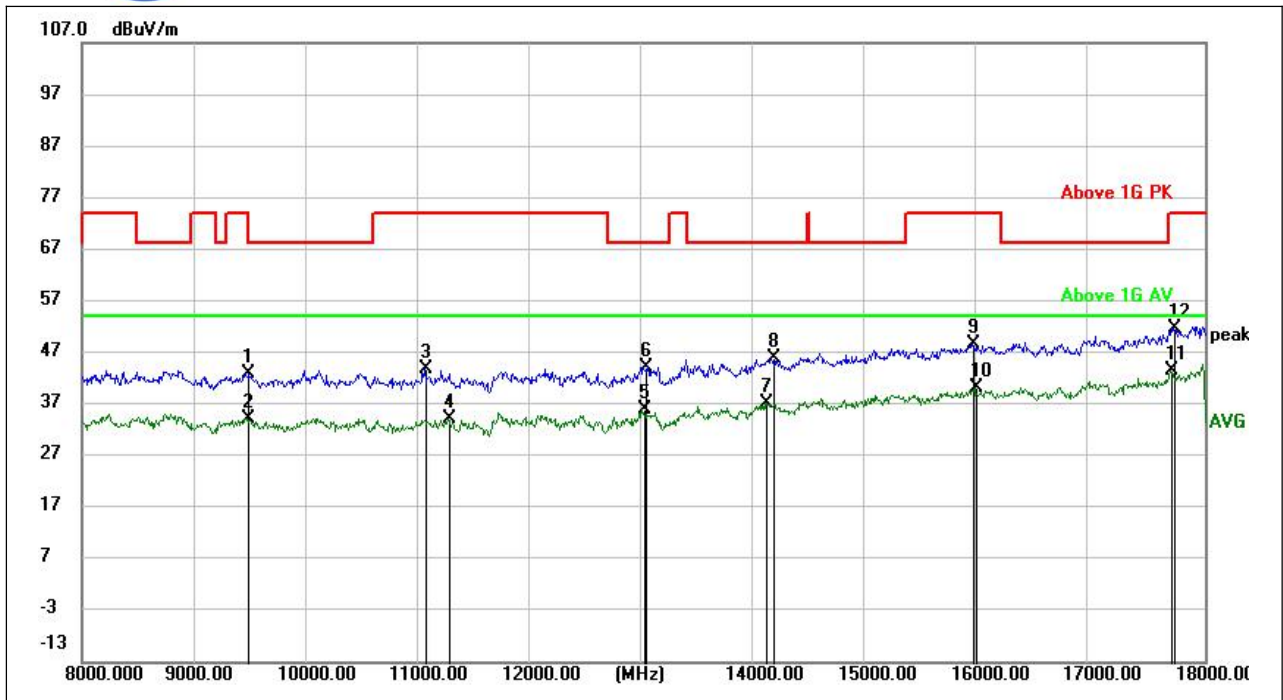
(802.11ac20\_5240MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
49.9952	-0.25	16.20	15.95	40.00	-24.05	peak	PASS
97.0298	0.28	13.39	13.67	43.50	-29.83	peak	PASS
162.2119	9.14	11.75	20.89	43.50	-22.61	peak	PASS
305.2515	5.54	16.72	22.26	46.00	-23.74	peak	PASS
421.6879	8.02	20.08	28.10	46.00	-17.90	peak	PASS
797.7200	2.52	26.16	28.68	46.00	-17.32	peak	PASS



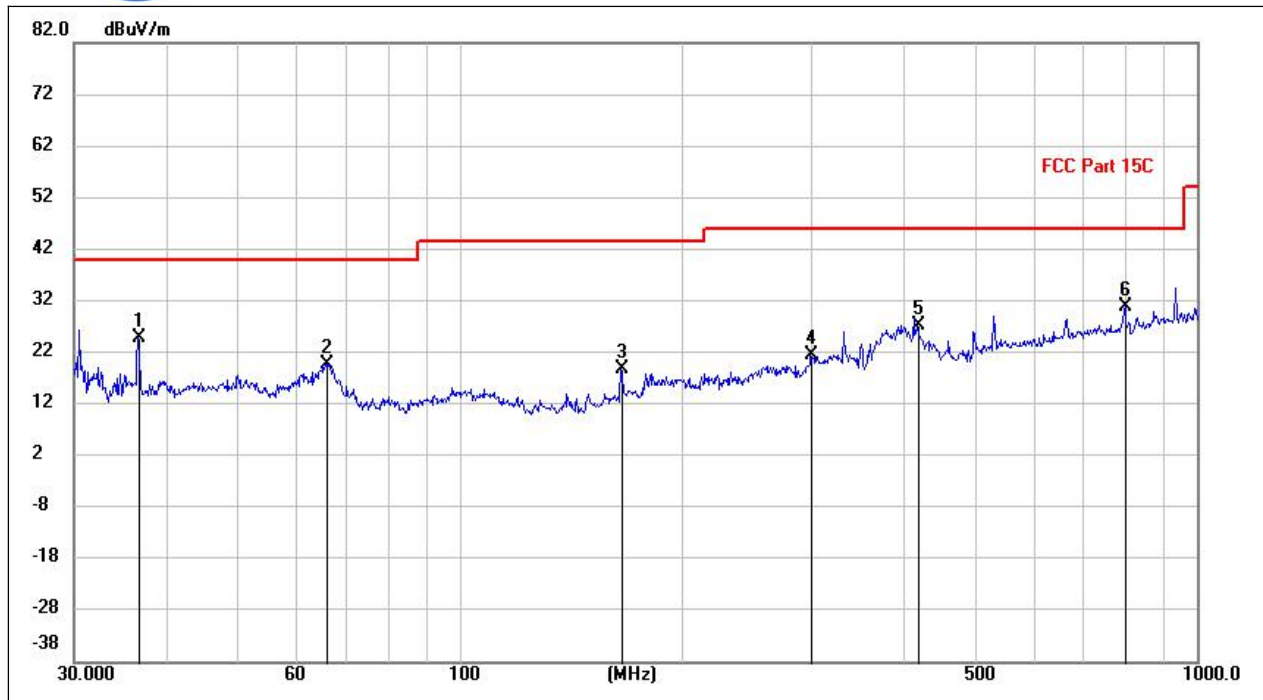
(802.11ac20\_5240MHz, Antenna Horizontal, 1GHz to 8GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
1591.850	40.54	-14.89	25.65	54.00	-28.35	AVG	PASS
1679.700	54.82	-14.74	40.08	74.00	-33.92	peak	PASS
3003.400	39.99	-9.25	30.74	54.00	-23.26	AVG	PASS
3013.200	49.12	-9.08	40.04	68.20	-28.16	peak	PASS
4215.800	45.89	-5.04	40.85	74.00	-33.15	peak	PASS
4237.850	37.15	-4.97	32.18	54.00	-21.82	AVG	PASS
5522.000	36.55	-3.90	32.65	54.00	-21.35	AVG	PASS
5602.500	44.45	-3.58	40.87	68.20	-27.33	peak	PASS
6634.650	34.45	-1.93	32.52	54.00	-21.48	AVG	PASS
6712.350	43.64	-2.26	41.38	68.20	-26.82	peak	PASS
7280.050	33.24	-1.33	31.91	54.00	-22.09	AVG	PASS
7394.500	42.35	-1.62	40.73	74.00	-33.27	peak	PASS



(802.11ac20\_5240MHz, Antenna Horizontal, 8GHz to 18GHz)

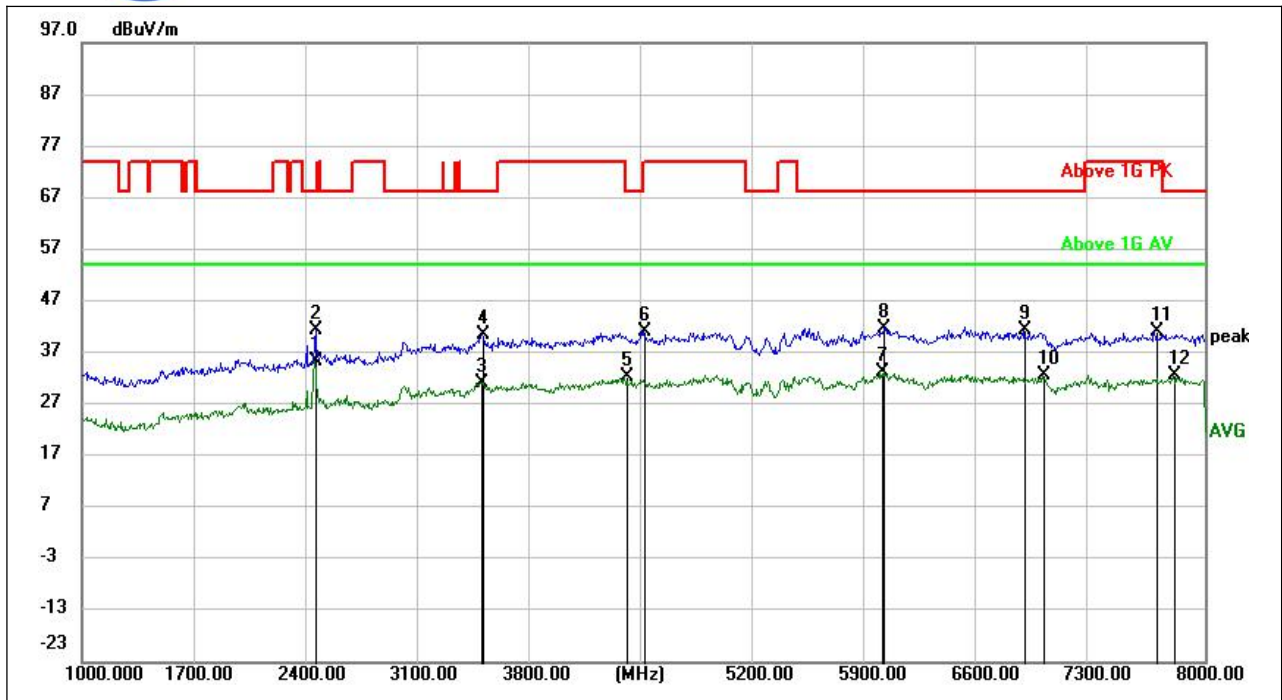
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
9471.500	41.03	1.93	42.96	74.00	-31.04	peak	PASS
9471.500	32.36	1.93	34.29	54.00	-19.71	AVG	PASS
11060.000	40.06	3.63	43.69	74.00	-30.31	peak	PASS
11271.500	30.47	3.67	34.14	54.00	-19.86	AVG	PASS
13001.000	30.10	6.00	36.10	54.00	-17.90	AVG	PASS
13011.000	38.01	6.07	44.08	68.20	-24.12	peak	PASS
14097.000	29.09	8.20	37.29	54.00	-16.71	AVG	PASS
14150.500	37.58	8.26	45.84	68.20	-22.36	peak	PASS
15935.500	37.14	11.37	48.51	74.00	-25.49	peak	PASS
15966.000	28.59	11.59	40.18	54.00	-13.82	AVG	PASS
17701.500	29.08	14.39	43.47	54.00	-10.53	AVG	PASS
17723.000	36.99	14.59	51.58	74.00	-22.42	peak	PASS



(802.11ac20 \_5240MHz, Antenna Vertical, 30MHz to 1GHz)

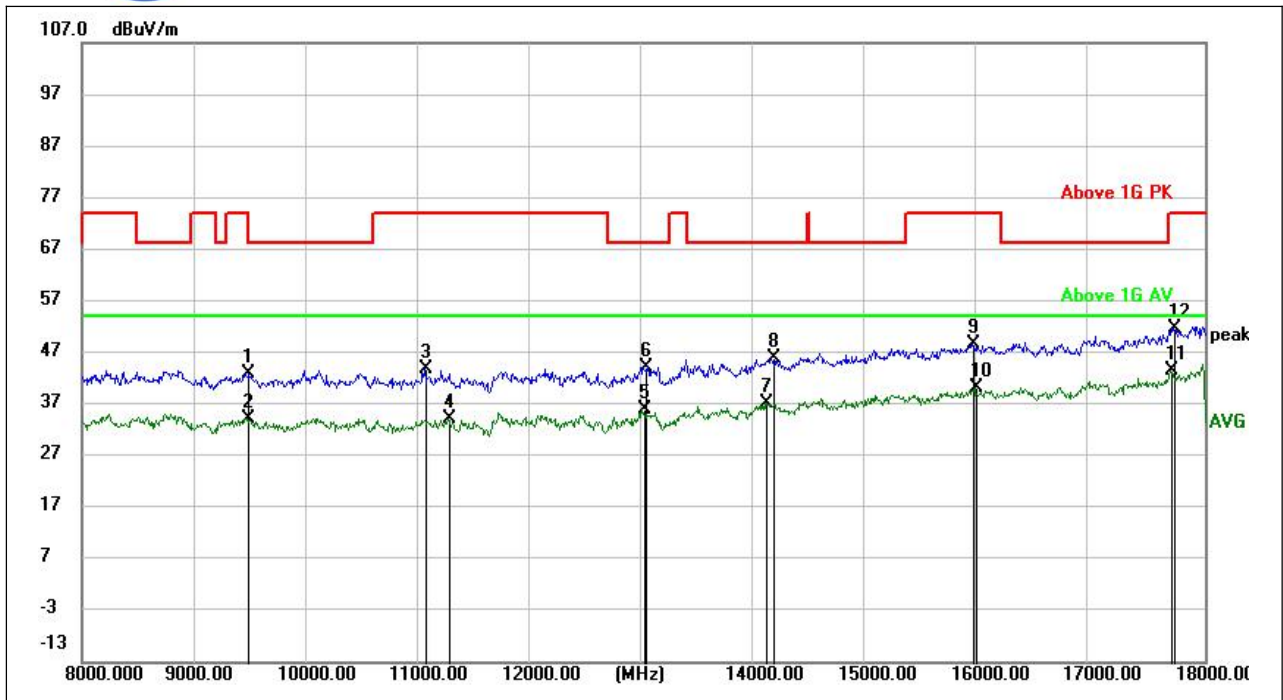
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
36.7468	11.38	13.46	24.84	40.00	-15.16	peak	PASS
65.8261	6.65	13.15	19.80	40.00	-20.20	peak	PASS
165.9516	7.54	11.33	18.87	43.50	-24.63	peak	PASS
299.9988	3.94	17.50	21.44	46.00	-24.56	peak	PASS
418.7409	7.29	20.10	27.39	46.00	-18.61	peak	PASS
799.6805	4.89	26.13	31.02	46.00	-14.98	peak	PASS





(802.11ac20\_5240MHz, Antenna Vertical, 1GHz to 8GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
2456.000	47.00	-11.66	35.34	54.00	-18.66	AVG	PASS
2460.900	52.83	-11.59	41.24	68.20	-26.96	peak	PASS
3492.000	37.08	-5.82	31.26	54.00	-22.74	AVG	PASS
3502.150	46.17	-5.77	40.40	68.20	-27.80	peak	PASS
4392.900	36.96	-4.75	32.21	54.00	-21.79	AVG	PASS
4500.350	45.25	-4.08	41.17	74.00	-32.83	peak	PASS
5987.500	35.83	-2.59	33.24	54.00	-20.76	AVG	PASS
6004.650	43.88	-2.30	41.58	68.20	-26.62	peak	PASS
6874.750	43.43	-2.16	41.27	68.20	-26.93	peak	PASS
6995.500	34.37	-1.82	32.55	54.00	-21.45	AVG	PASS
7692.700	41.79	-0.85	40.94	74.00	-33.06	peak	PASS
7810.300	33.29	-0.81	32.48	54.00	-21.52	AVG	PASS

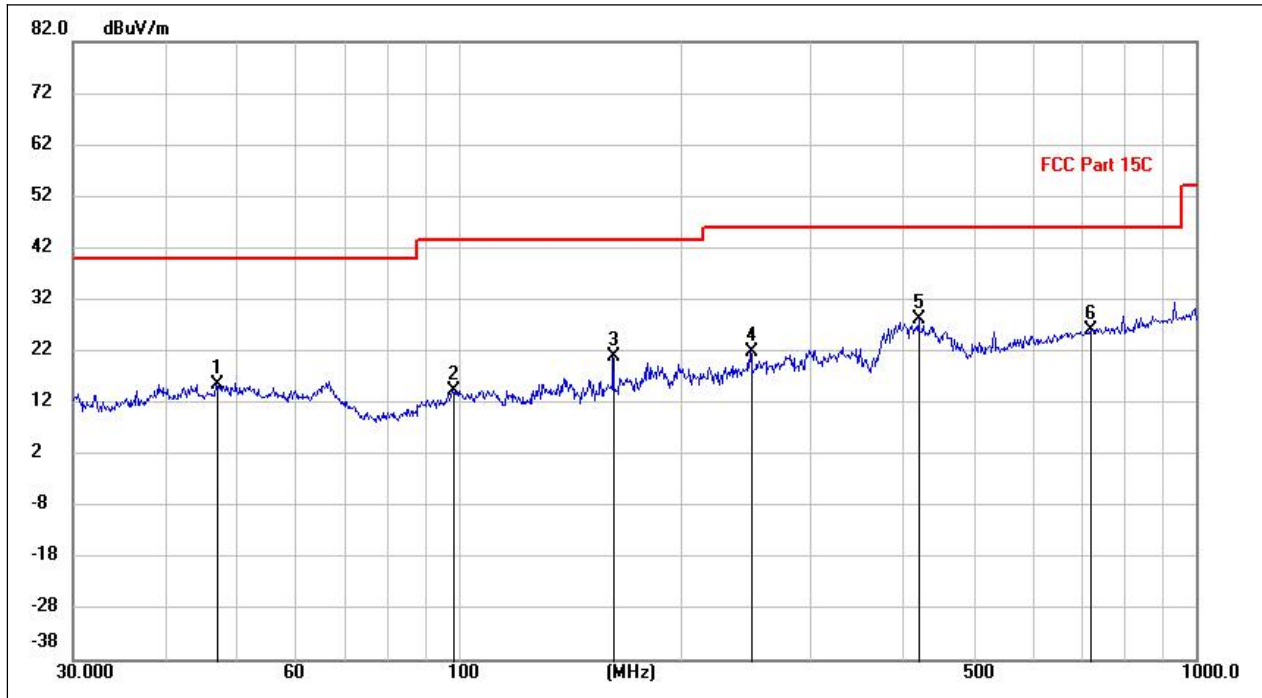


(802.11ac20 \_5240MHz, Antenna Vertical, 8GHz to 18GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
9471.500	41.03	1.93	42.96	74.00	-31.04	peak	PASS
9471.500	32.36	1.93	34.29	54.00	-19.71	AVG	PASS
11060.000	40.06	3.63	43.69	74.00	-30.31	peak	PASS
11271.500	30.47	3.67	34.14	54.00	-19.86	AVG	PASS
13001.000	30.10	6.00	36.10	54.00	-17.90	AVG	PASS
13011.000	38.01	6.07	44.08	68.20	-24.12	peak	PASS
14097.000	29.09	8.20	37.29	54.00	-16.71	AVG	PASS
14150.500	37.58	8.26	45.84	68.20	-22.36	peak	PASS
15935.500	37.14	11.37	48.51	74.00	-25.49	peak	PASS
15966.000	28.59	11.59	40.18	54.00	-13.82	AVG	PASS
17701.500	29.08	14.39	43.47	54.00	-10.53	AVG	PASS
17723.000	36.99	14.59	51.58	74.00	-22.42	peak	PASS

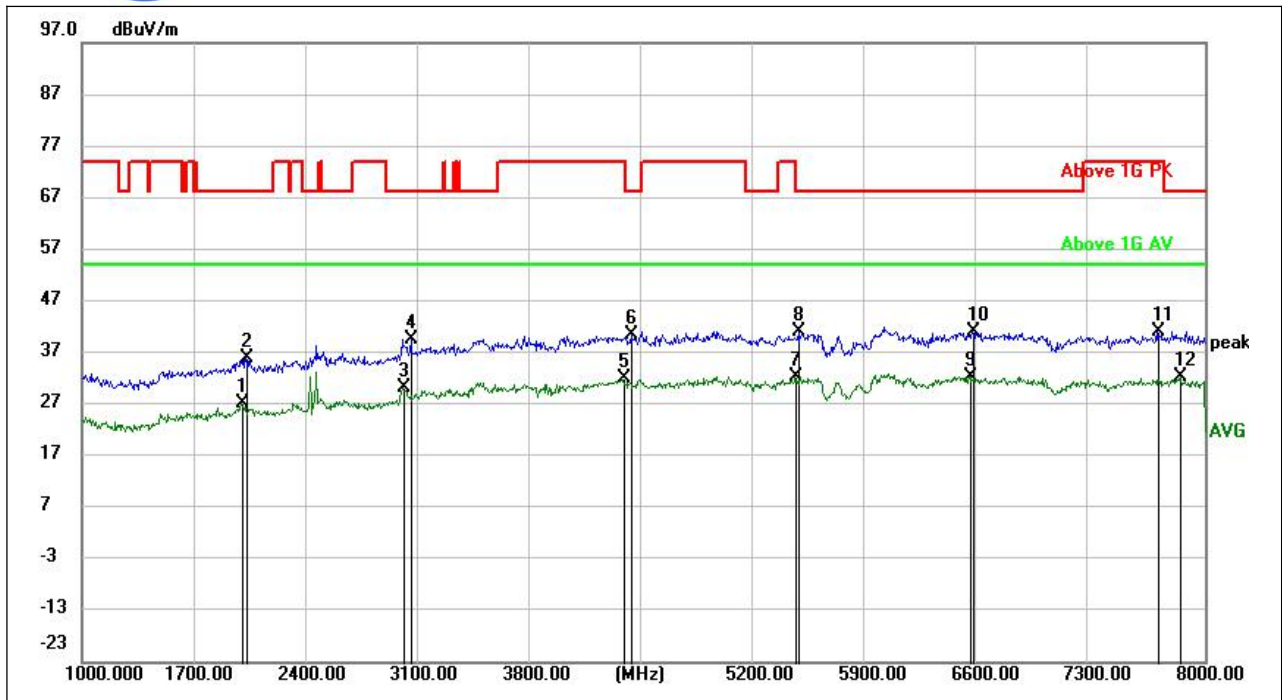


Plots for Channel = 149



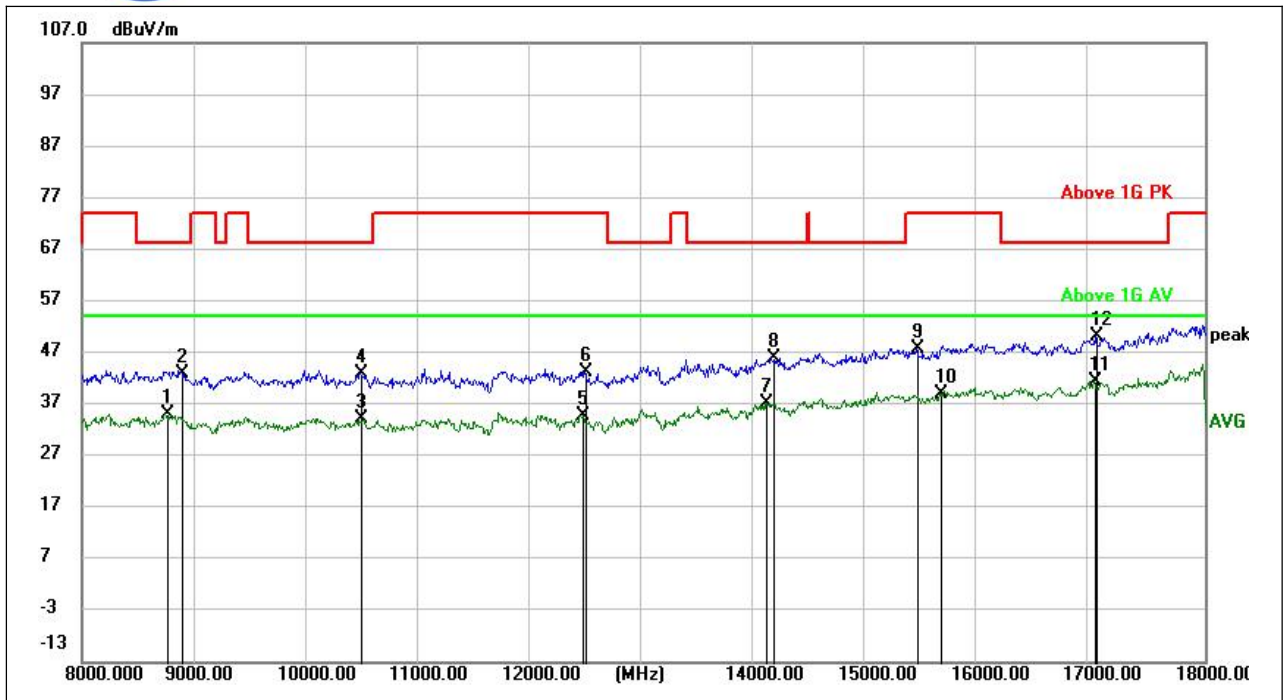
(802.11ac20 \_5745MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
47.0278	0.10	15.48	15.58	40.00	-24.42	peak	PASS
98.1935	0.48	13.71	14.19	43.50	-29.31	peak	PASS
162.2119	9.14	11.75	20.89	43.50	-22.61	peak	PASS
248.6391	6.94	14.87	21.81	46.00	-24.19	peak	PASS
421.6879	8.02	20.08	28.10	46.00	-17.90	peak	PASS
721.0935	1.13	25.03	26.16	46.00	-19.84	peak	PASS



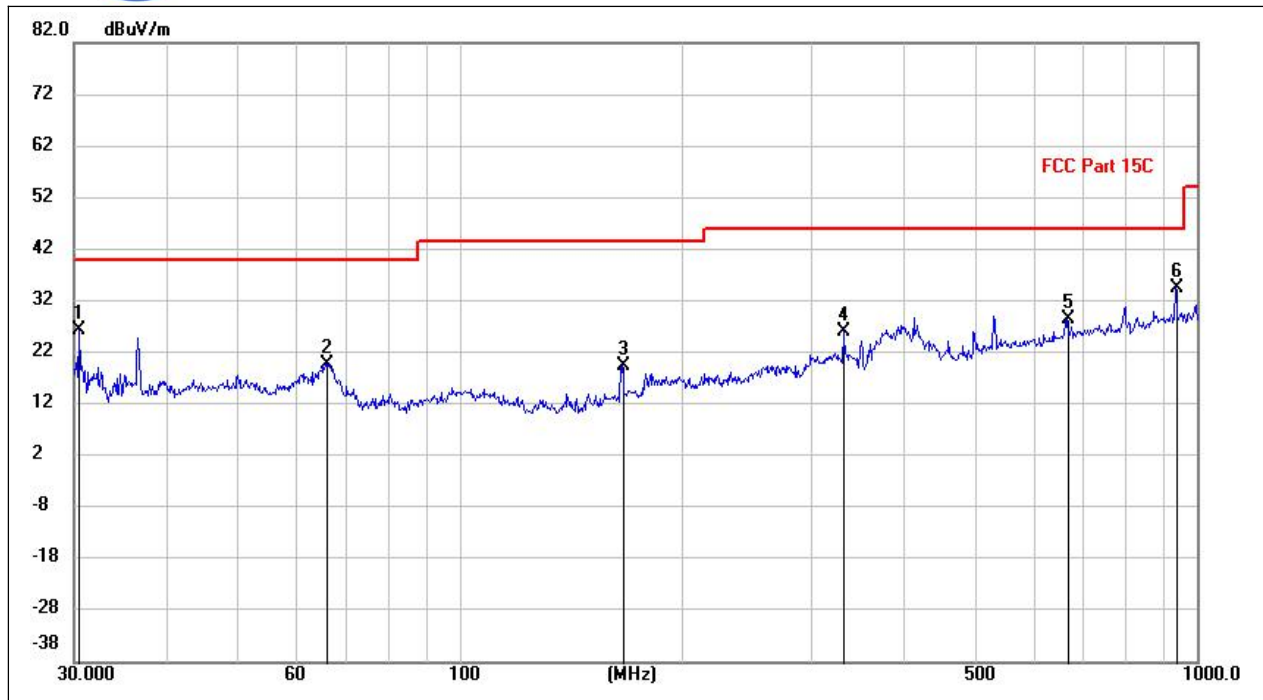
(802.11ac20\_5745MHz, Antenna Horizontal, 1GHz to 8GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
1998.200	41.09	-13.76	27.33	54.00	-26.67	AVG	PASS
2027.250	48.70	-12.61	36.09	68.20	-32.11	peak	PASS
3004.800	39.53	-9.23	30.30	54.00	-23.70	AVG	PASS
3055.550	48.28	-8.66	39.62	68.20	-28.58	peak	PASS
4376.100	36.59	-4.47	32.12	54.00	-21.88	AVG	PASS
4424.050	45.39	-4.97	40.42	68.20	-27.78	peak	PASS
5447.800	36.14	-3.72	32.42	54.00	-21.58	AVG	PASS
5466.700	45.15	-4.10	41.05	68.20	-27.15	peak	PASS
6531.750	35.14	-2.85	32.29	54.00	-21.71	AVG	PASS
6557.650	43.64	-2.51	41.13	68.20	-27.07	peak	PASS
7708.100	42.09	-0.90	41.19	74.00	-32.81	peak	PASS
7851.950	33.10	-0.76	32.34	54.00	-21.66	AVG	PASS



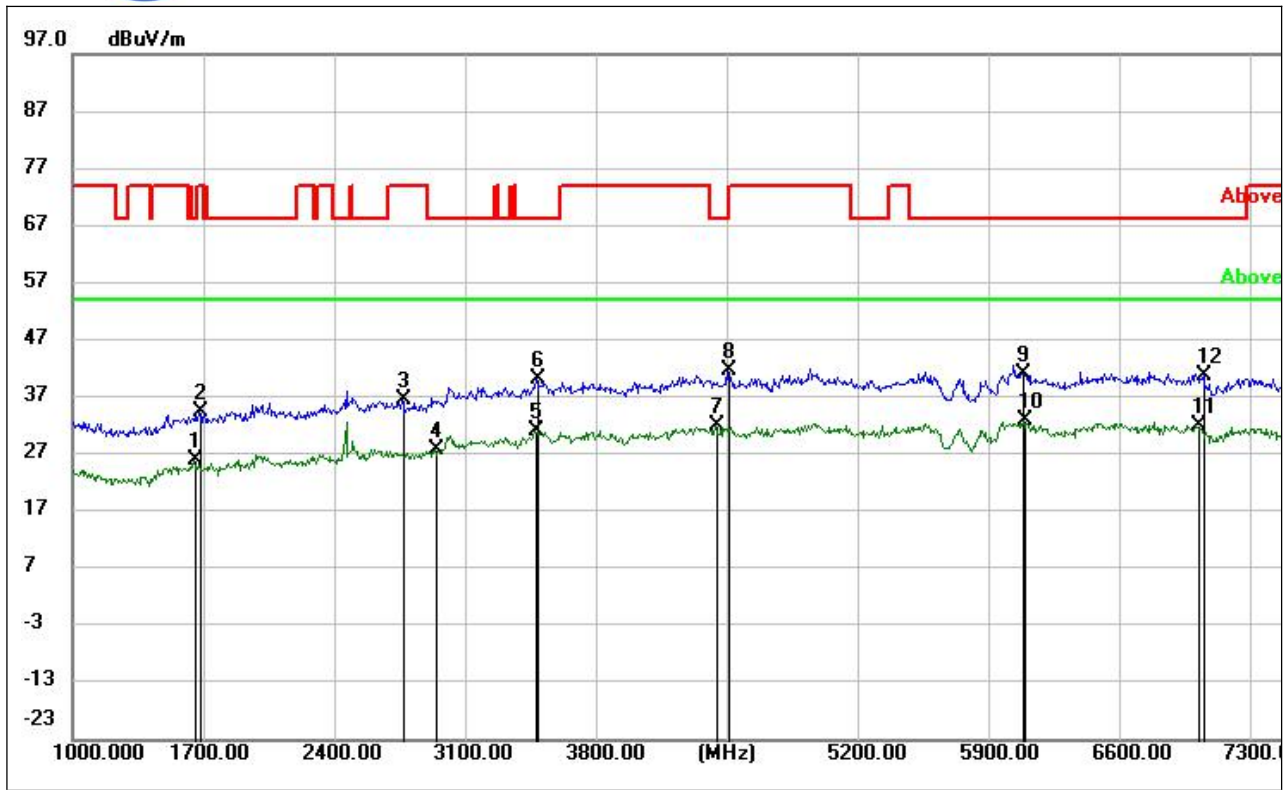
(802.11ac20\_5745MHz, Antenna Horizontal, 8GHz to 18GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
8751.000	33.38	1.66	35.04	54.00	-18.96	AVG	PASS
8900.000	41.23	1.61	42.84	68.20	-25.36	peak	PASS
10481.000	31.09	3.08	34.17	54.00	-19.83	AVG	PASS
10483.000	39.84	3.09	42.93	68.20	-25.27	peak	PASS
12452.000	29.90	4.86	34.76	54.00	-19.24	AVG	PASS
12489.500	38.20	5.17	43.37	74.00	-30.63	peak	PASS
14097.000	29.09	8.20	37.29	54.00	-16.71	AVG	PASS
14150.500	37.58	8.26	45.84	68.20	-22.36	peak	PASS
15436.000	37.30	10.44	47.74	74.00	-26.26	peak	PASS
15647.000	28.14	10.88	39.02	54.00	-14.98	AVG	PASS
17017.500	30.26	11.12	41.38	54.00	-12.62	AVG	PASS
17031.000	39.21	11.09	50.30	68.20	-17.90	peak	PASS



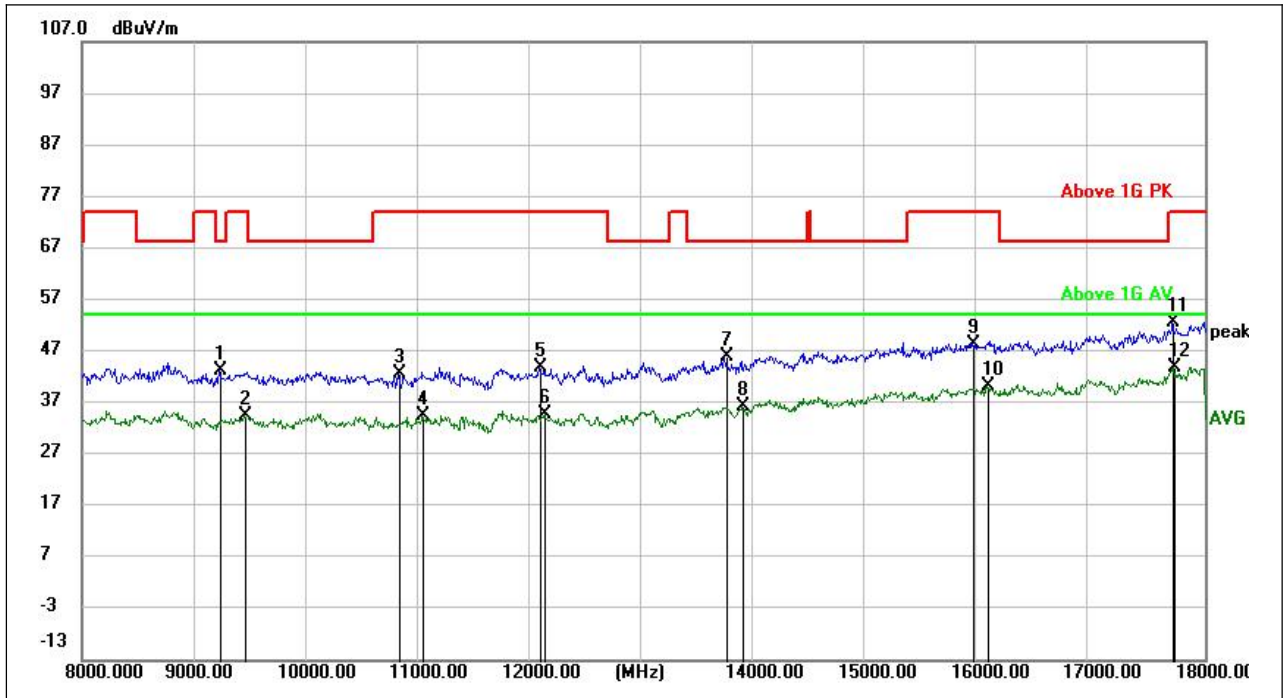
(802.11ac20\_5745MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
30.5306	13.50	12.95	26.45	40.00	-13.55	peak	PASS
65.8261	6.65	13.15	19.80	40.00	-20.20	peak	PASS
166.6514	7.81	11.49	19.30	43.50	-24.20	peak	PASS
332.2856	9.00	17.15	26.15	46.00	-19.85	peak	PASS
666.6211	4.00	24.38	28.38	46.00	-17.62	peak	PASS
937.6811	6.15	28.30	34.45	46.00	-11.55	peak	PASS



(802.11ac20 \_5745MHz, Antenna Vertical, 1GHz to 8GHz)

Frequency (MHz)	Reading (dBUV)	Factor (dB/m)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Det.	Verdict
1653.100	40.84	-14.99	25.85	54.00	-28.15	AVG	PASS
1681.450	49.29	-14.77	34.52	74.00	-39.48	peak	PASS
2757.000	47.61	-10.96	36.65	74.00	-37.35	peak	PASS
2931.300	37.86	-10.20	27.66	54.00	-26.34	AVG	PASS
3463.300	37.64	-6.58	31.06	54.00	-22.94	AVG	PASS
3468.550	46.46	-6.34	40.12	68.20	-28.08	peak	PASS
4427.200	36.96	-4.98	31.98	54.00	-22.02	AVG	PASS
4488.100	45.94	-4.18	41.76	68.20	-26.44	peak	PASS
6052.250	43.50	-2.31	41.19	68.20	-27.01	peak	PASS
6060.650	35.11	-2.31	32.80	54.00	-21.20	AVG	PASS
6979.750	33.82	-1.85	31.97	54.00	-22.03	AVG	PASS
7017.200	42.71	-1.81	40.90	68.20	-27.30	peak	PASS



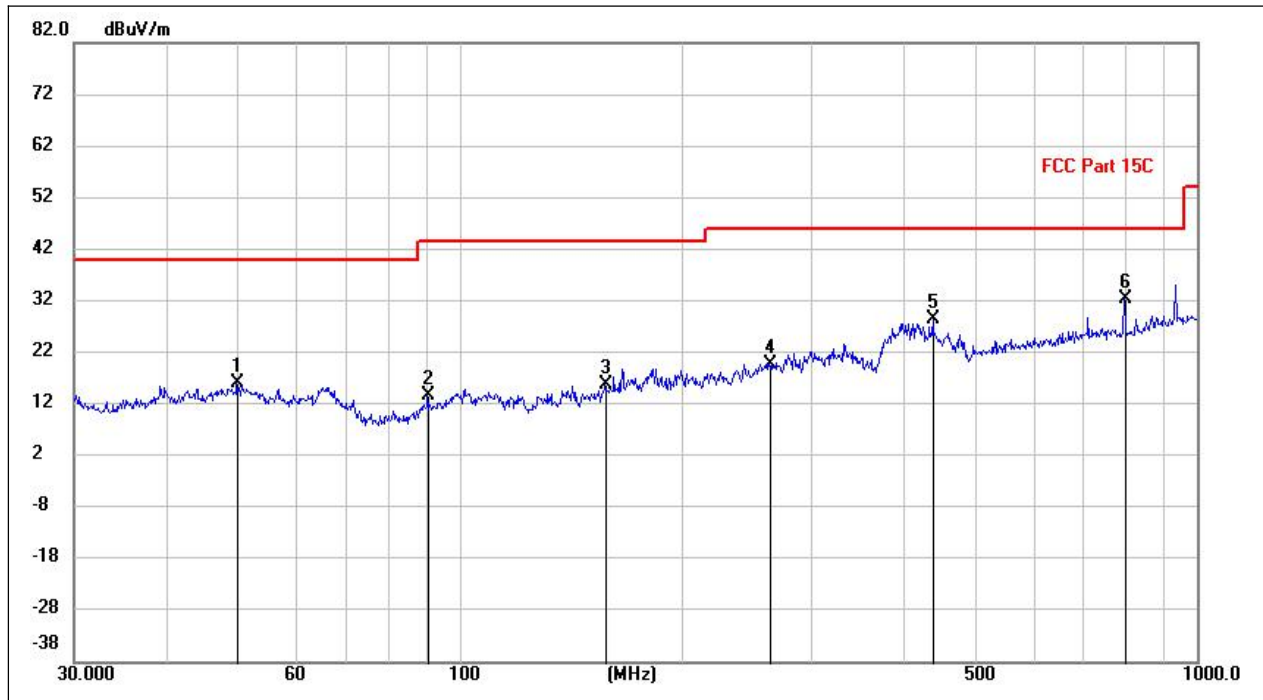
(802.11ac20\_5745MHz, Antenna Vertical, 8GHz to 18GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
9232.000	41.13	1.97	43.10	68.20	-25.10	peak	PASS
9455.000	32.31	2.18	34.49	54.00	-19.51	AVG	PASS
10822.000	39.51	3.08	42.59	74.00	-31.41	peak	PASS
11039.500	30.98	3.40	34.38	54.00	-19.62	AVG	PASS
12076.000	39.03	4.77	43.80	74.00	-30.20	peak	PASS
12129.000	30.53	4.38	34.91	54.00	-19.09	AVG	PASS
13730.500	38.82	7.19	46.01	68.20	-22.19	peak	PASS
13885.500	28.68	7.70	36.38	54.00	-17.62	AVG	PASS
15937.500	37.18	11.32	48.50	74.00	-25.50	peak	PASS
16067.000	28.81	11.30	40.11	54.00	-13.89	AVG	PASS
17715.000	38.20	14.52	52.72	74.00	-21.28	peak	PASS
17721.000	29.36	14.58	43.94	54.00	-10.06	AVG	PASS



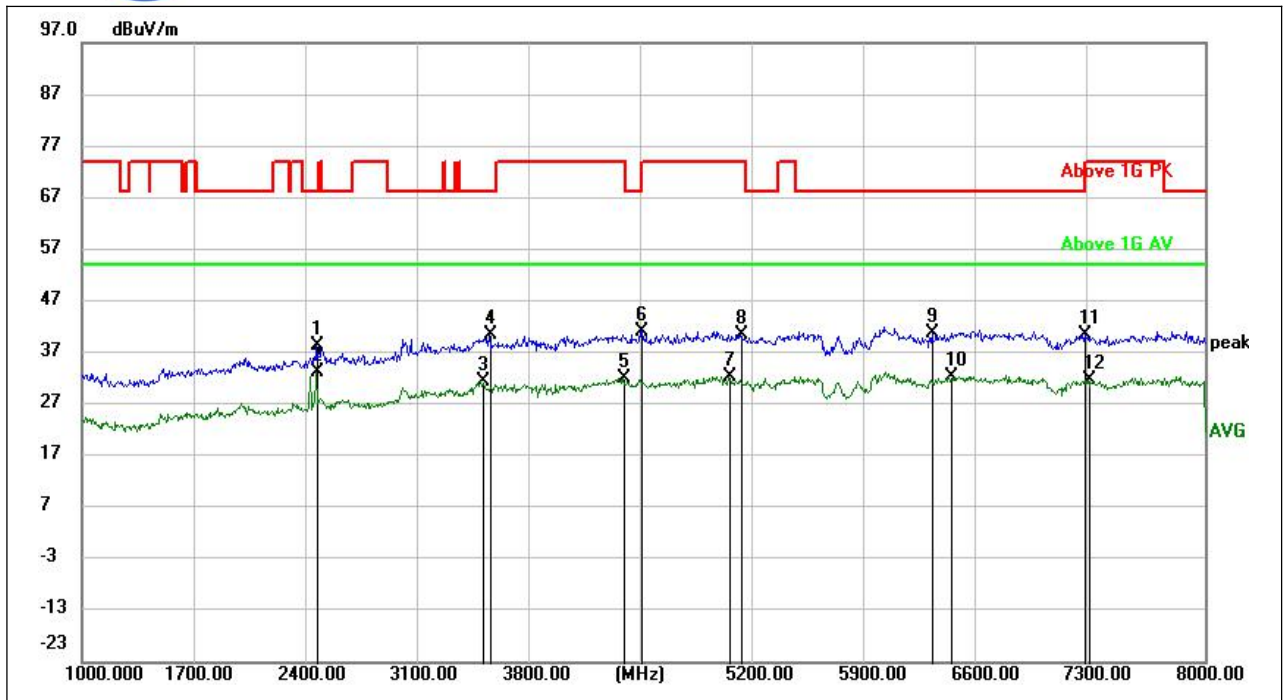


Plot for Channel = 157



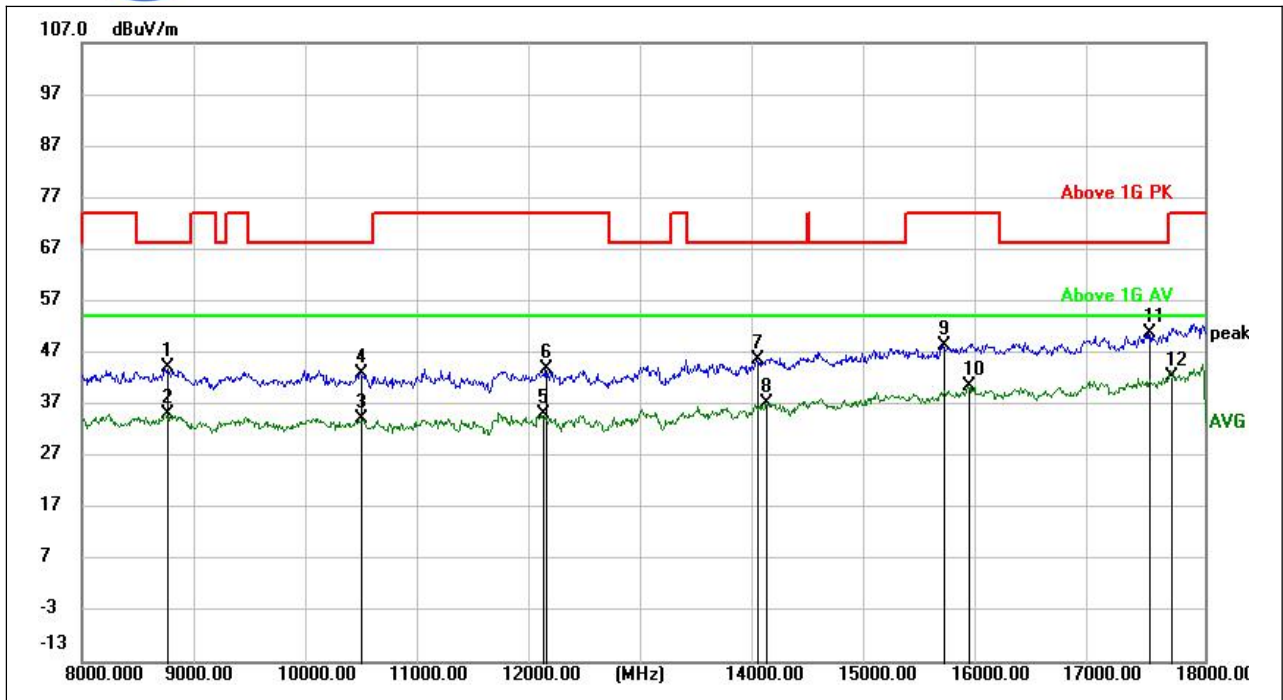
(802.11ac20\_5785MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
43.5057	3.03	15.26	18.29	40.00	-21.71	peak	PASS
74.1351	9.43	9.99	19.42	40.00	-20.58	peak	PASS
162.2119	4.43	11.75	16.18	43.50	-27.32	peak	PASS
320.4984	7.90	17.94	25.84	46.00	-20.16	peak	PASS
482.9771	2.81	21.15	23.96	46.00	-22.04	peak	PASS
790.0645	1.30	26.09	27.39	46.00	-18.61	peak	PASS



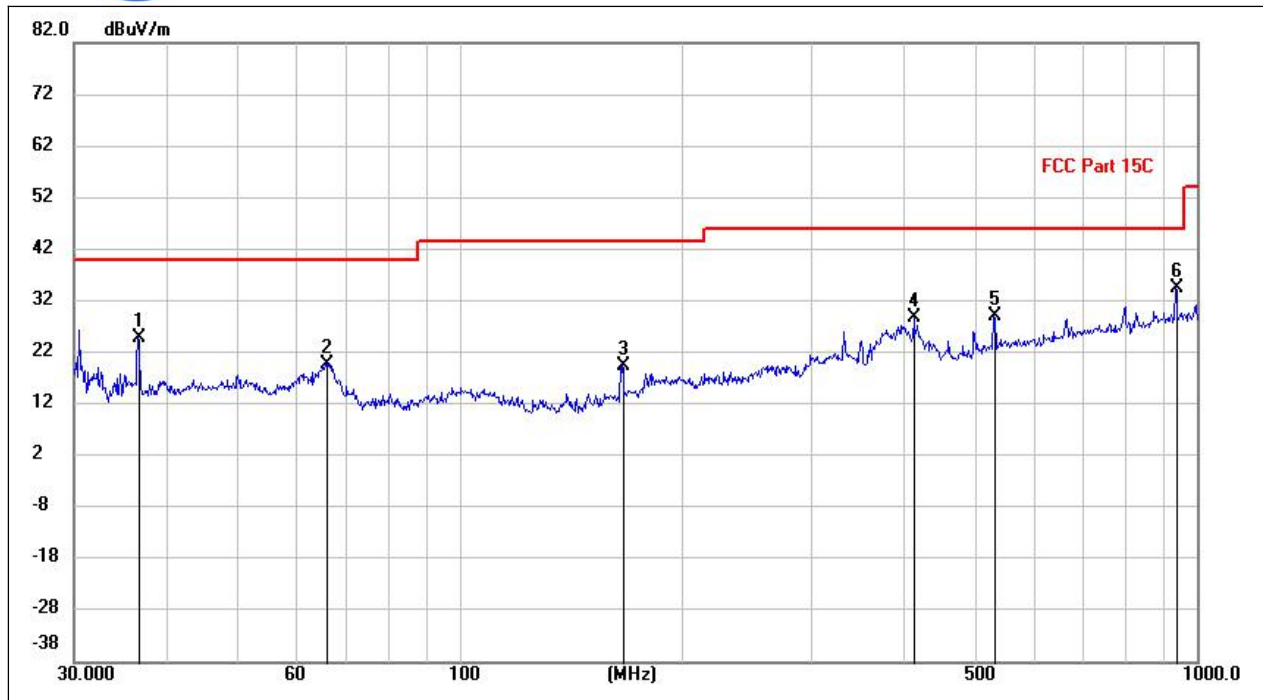
(802.11ac20\_5785MHz, Antenna Horizontal, 1GHz to 8GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
2466.500	49.69	-11.46	38.23	68.20	-29.97	peak	PASS
2466.500	44.69	-11.46	33.23	54.00	-20.77	AVG	PASS
3493.750	39.78	-8.31	31.47	54.00	-22.53	AVG	PASS
3546.600	48.21	-7.66	40.55	68.20	-27.65	peak	PASS
4376.100	36.59	-4.47	32.12	54.00	-21.88	AVG	PASS
4486.350	46.90	-5.82	41.08	68.20	-27.12	peak	PASS
5036.900	36.75	-4.35	32.40	54.00	-21.60	AVG	PASS
5109.700	44.49	-4.06	40.43	74.00	-33.57	peak	PASS
6304.950	43.63	-2.80	40.83	68.20	-27.37	peak	PASS
6413.100	35.24	-2.84	32.40	54.00	-21.60	AVG	PASS
7253.100	41.95	-1.40	40.55	74.00	-33.45	peak	PASS
7278.650	33.03	-1.34	31.69	54.00	-22.31	AVG	PASS



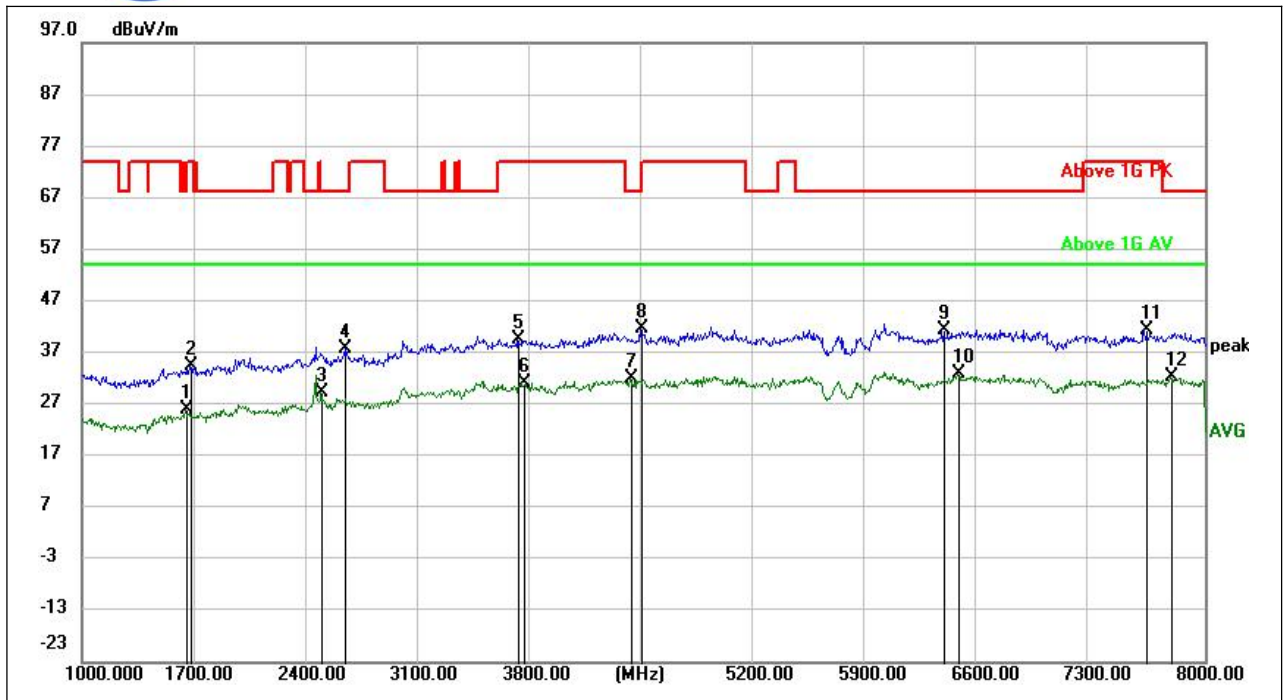
(802.11ac20\_5785MHz, Antenna Horizontal, 8GHz to 18GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
8751.000	42.60	1.66	44.26	68.20	-23.94	peak	PASS
8751.000	33.38	1.66	35.04	54.00	-18.96	AVG	PASS
10481.000	31.09	3.08	34.17	54.00	-19.83	AVG	PASS
10483.000	39.84	3.09	42.93	68.20	-25.27	peak	PASS
12108.500	30.95	3.99	34.94	54.00	-19.06	AVG	PASS
12135.500	39.61	4.18	43.79	74.00	-30.21	peak	PASS
14016.000	37.04	8.47	45.51	68.20	-22.69	peak	PASS
14097.000	29.09	8.20	37.29	54.00	-16.71	AVG	PASS
15678.500	37.14	11.27	48.41	74.00	-25.59	peak	PASS
15899.000	29.31	11.13	40.44	54.00	-13.56	AVG	PASS
17501.000	36.87	13.76	50.63	68.20	-17.57	peak	PASS
17699.000	28.09	14.36	42.45	54.00	-11.55	AVG	PASS



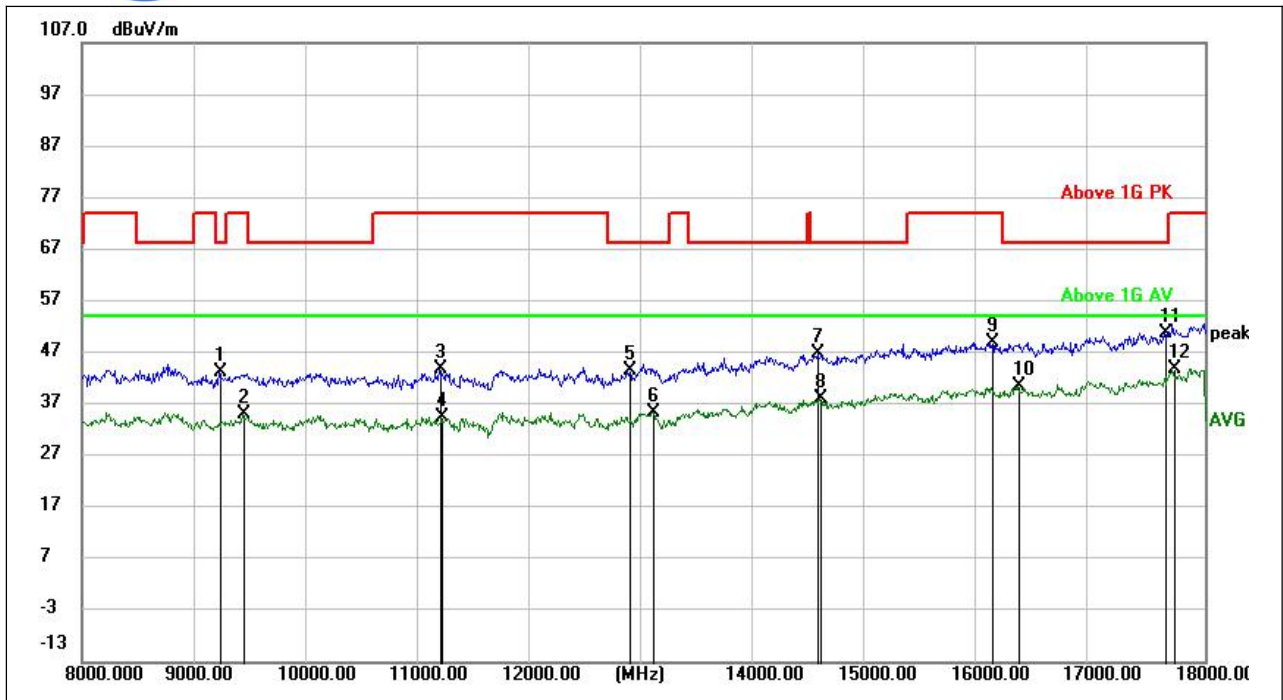
(802.11ac20\_5785MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
36.7468	11.38	13.46	24.84	40.00	-15.16	peak	PASS
65.8261	6.65	13.15	19.80	40.00	-20.20	peak	PASS
166.6514	7.81	11.49	19.30	43.50	-24.20	peak	PASS
413.7782	9.38	19.30	28.68	46.00	-17.32	peak	PASS
531.6838	6.80	22.22	29.02	46.00	-16.98	peak	PASS
937.6811	6.15	28.30	34.45	46.00	-11.55	peak	PASS



(802.11ac20 \_5785MHz, Antenna Vertical, 1GHz to 8GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
1653.100	40.84	-14.99	25.85	54.00	-28.15	AVG	PASS
1681.450	49.29	-14.77	34.52	74.00	-39.48	peak	PASS
2493.450	40.10	-10.83	29.27	54.00	-24.73	AVG	PASS
2639.050	48.43	-10.60	37.83	68.20	-30.37	peak	PASS
3720.200	46.24	-6.75	39.49	74.00	-34.51	peak	PASS
3752.750	37.37	-6.17	31.20	54.00	-22.80	AVG	PASS
4427.200	36.96	-4.98	31.98	54.00	-22.02	AVG	PASS
4488.100	45.94	-4.18	41.76	68.20	-26.44	peak	PASS
6373.550	43.89	-2.51	41.38	68.20	-26.82	peak	PASS
6466.650	35.26	-2.29	32.97	54.00	-21.03	AVG	PASS
7630.050	42.06	-0.76	41.30	74.00	-32.70	peak	PASS
7792.450	33.04	-0.85	32.19	54.00	-21.81	AVG	PASS

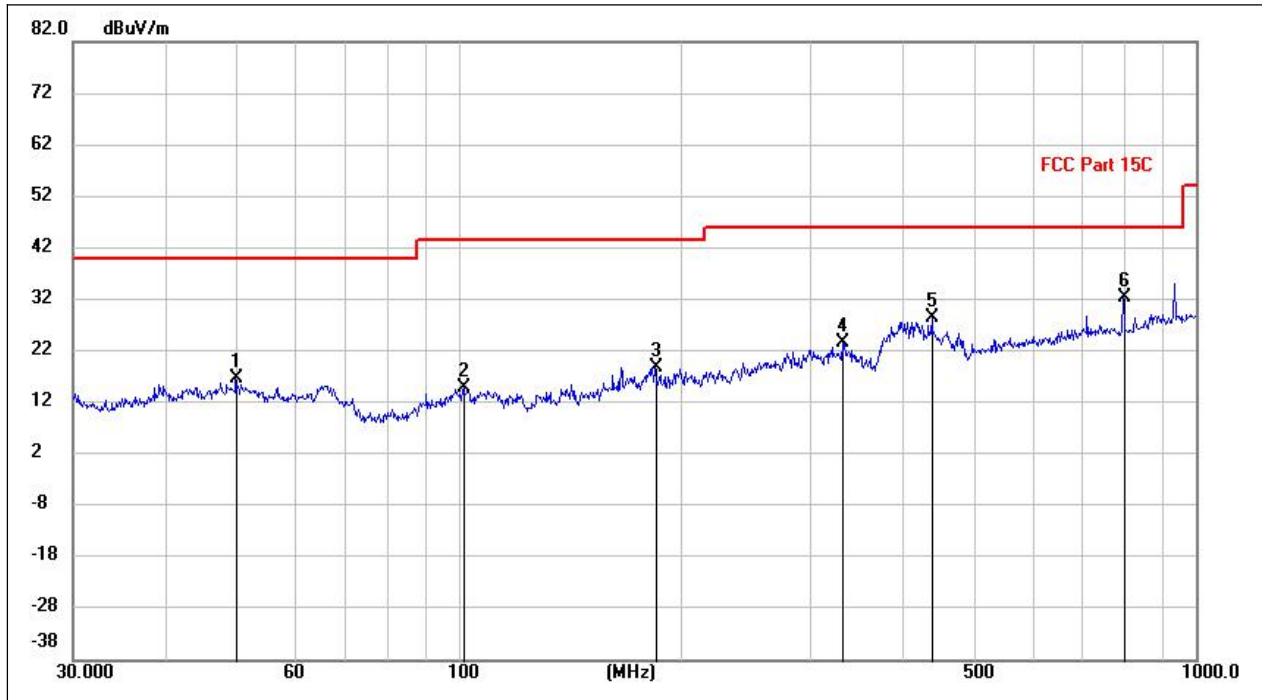


(802.11ac20 \_5785MHz, Antenna Vertical, 8GHz to 18GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
9232.000	41.13	1.97	43.10	68.20	-25.10	peak	PASS
9438.000	33.02	2.13	35.15	54.00	-18.85	AVG	PASS
11184.000	40.68	3.11	43.79	74.00	-30.21	peak	PASS
11203.000	31.41	3.07	34.48	54.00	-19.52	AVG	PASS
12871.500	38.36	5.11	43.47	68.20	-24.73	peak	PASS
13089.500	29.41	5.91	35.32	54.00	-18.68	AVG	PASS
14558.000	37.77	8.97	46.74	68.20	-21.46	peak	PASS
14576.000	29.03	8.95	37.98	54.00	-16.02	AVG	PASS
16105.500	37.69	11.23	48.92	74.00	-25.08	peak	PASS
16336.500	29.13	11.35	40.48	54.00	-13.52	AVG	PASS
17641.000	37.14	13.73	50.87	68.20	-17.33	peak	PASS
17721.000	29.36	14.58	43.94	54.00	-10.06	AVG	PASS

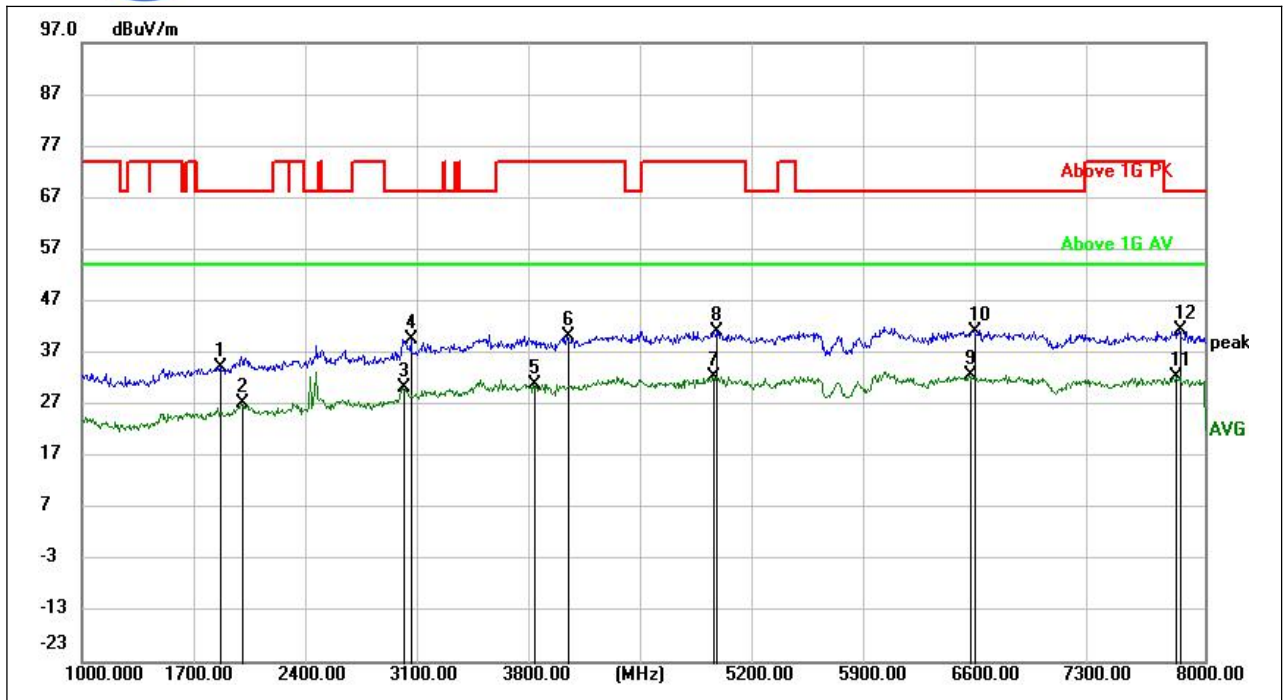


Plot for Channel = 165



(802.11ac20\_5825MHz, Antenna Horizontal, 30MHz to 1GHz)

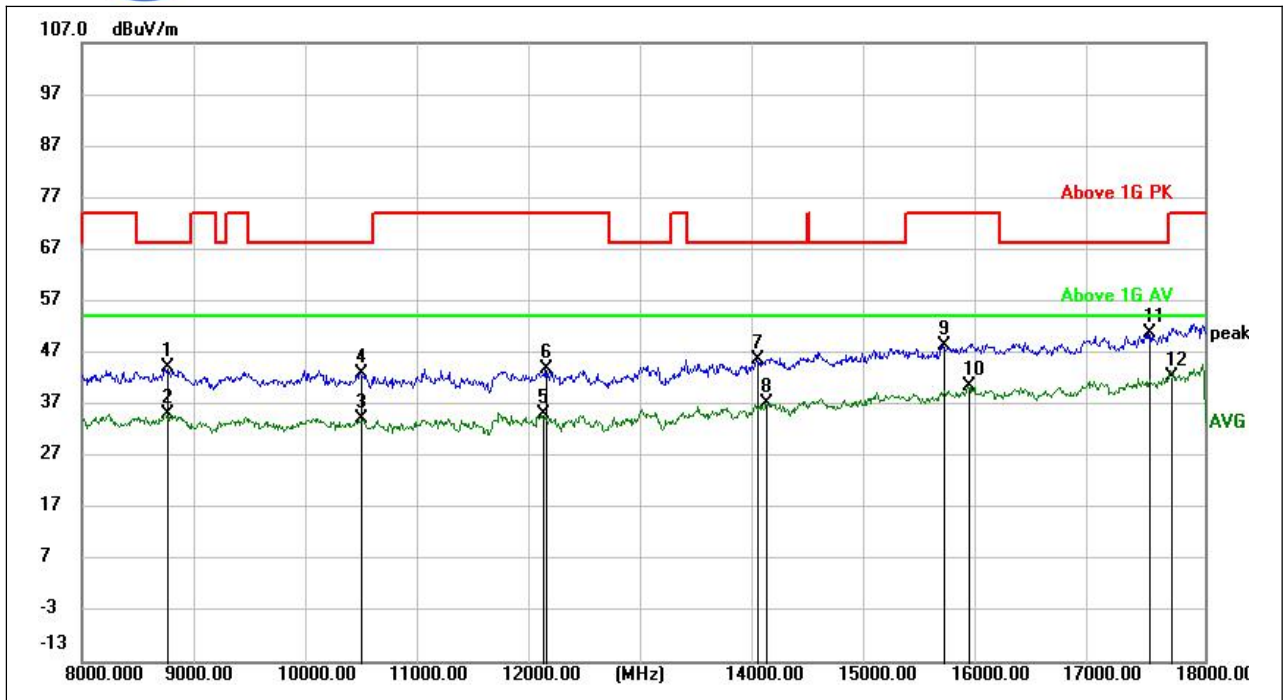
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
50.0215	0.42	16.19	16.61	40.00	-23.39	peak	PASS
101.9835	0.31	14.70	15.01	43.50	-28.49	peak	PASS
184.5222	6.63	12.21	18.84	43.50	-24.66	peak	PASS
331.8198	6.60	17.12	23.72	46.00	-22.28	peak	PASS
438.8862	8.04	20.43	28.47	46.00	-17.53	peak	PASS
797.5801	6.27	26.16	32.43	46.00	-13.57	peak	PASS



(802.11ac20\_5825MHz, Antenna Horizontal, 1GHz to 8GHz)

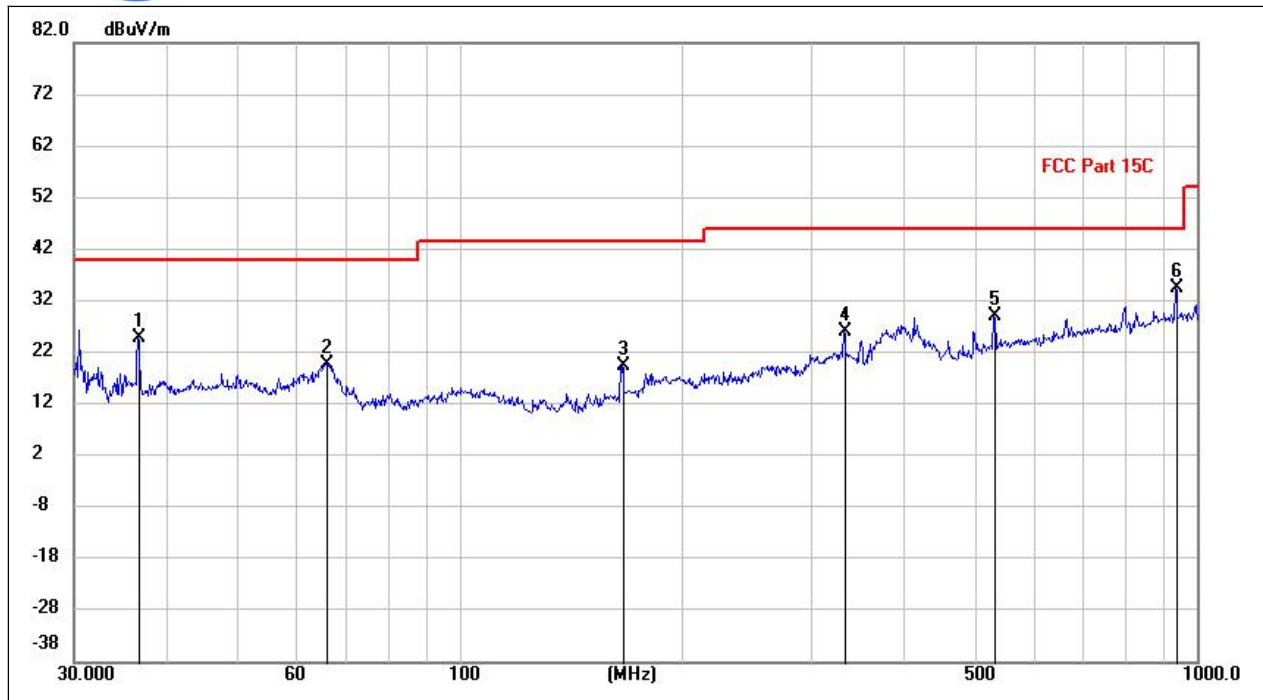
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
1855.750	48.28	-14.23	34.05	68.20	-34.15	peak	PASS
1998.200	41.09	-13.76	27.33	54.00	-26.67	AVG	PASS
3003.050	39.61	-9.25	30.36	54.00	-23.64	AVG	PASS
3055.550	48.28	-8.66	39.62	68.20	-28.58	peak	PASS
3819.600	37.34	-6.43	30.91	54.00	-23.09	AVG	PASS
4027.150	46.57	-6.32	40.25	74.00	-33.75	peak	PASS
4939.950	35.92	-3.46	32.46	54.00	-21.54	AVG	PASS
4955.700	44.65	-3.45	41.20	74.00	-32.80	peak	PASS
6531.050	35.50	-2.86	32.64	54.00	-21.36	AVG	PASS
6560.450	43.61	-2.48	41.13	68.20	-27.07	peak	PASS
7812.400	33.24	-0.82	32.42	54.00	-21.58	AVG	PASS
7843.200	42.08	-0.76	41.32	68.20	-26.88	peak	PASS





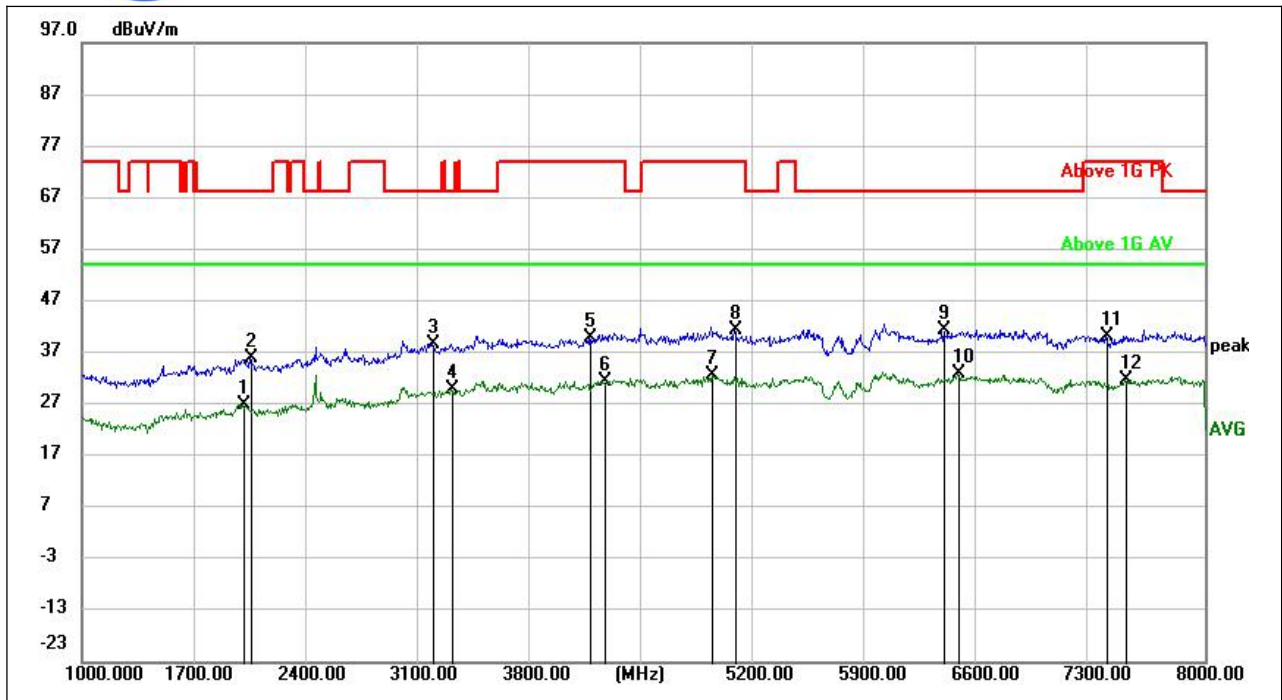
(802.11ac20\_5825MHz, Antenna Horizontal, 8GHz to 18GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
8751.000	42.60	1.66	44.26	68.20	-23.94	peak	PASS
8751.000	33.38	1.66	35.04	54.00	-18.96	AVG	PASS
10481.000	31.09	3.08	34.17	54.00	-19.83	AVG	PASS
10483.000	39.84	3.09	42.93	68.20	-25.27	peak	PASS
12108.500	30.95	3.99	34.94	54.00	-19.06	AVG	PASS
12135.500	39.61	4.18	43.79	74.00	-30.21	peak	PASS
14016.000	37.04	8.47	45.51	68.20	-22.69	peak	PASS
14097.000	29.09	8.20	37.29	54.00	-16.71	AVG	PASS
15678.500	37.14	11.27	48.41	74.00	-25.59	peak	PASS
15899.000	29.31	11.13	40.44	54.00	-13.56	AVG	PASS
17501.000	36.87	13.76	50.63	68.20	-17.57	peak	PASS
17699.000	28.09	14.36	42.45	54.00	-11.55	AVG	PASS



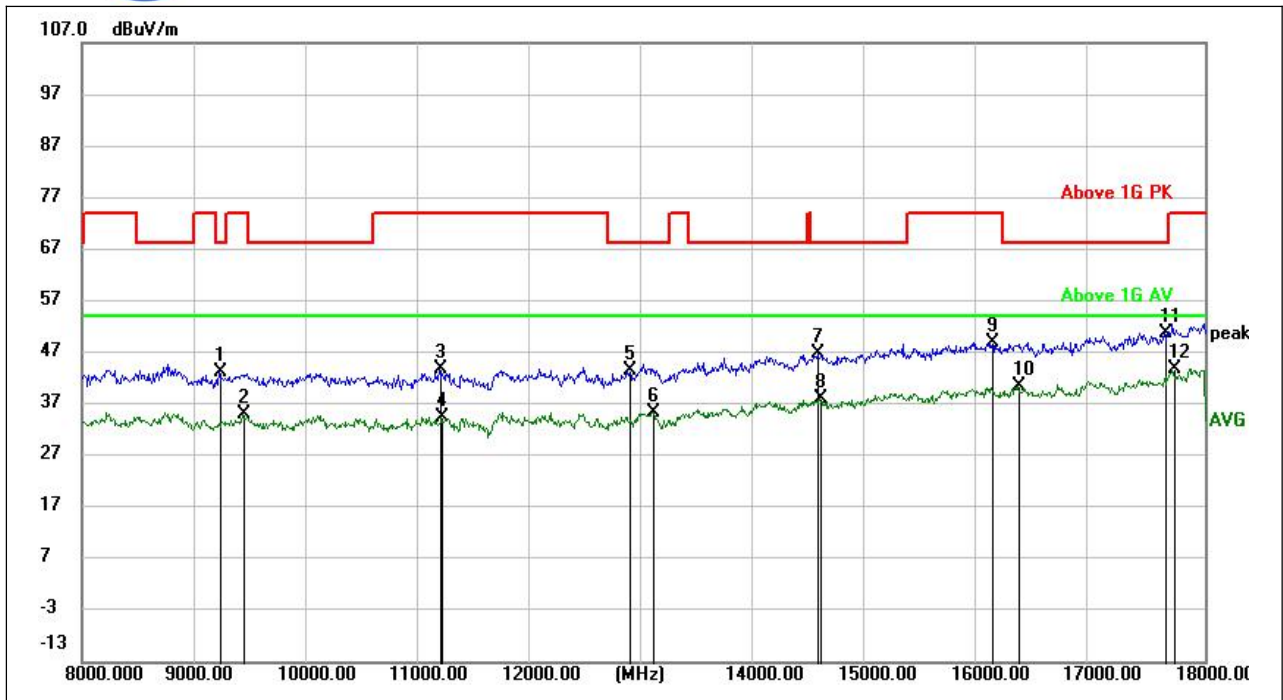
(802.11ac20\_5825MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
36.7468	11.38	13.46	24.84	40.00	-15.16	peak	PASS
65.8261	6.65	13.15	19.80	40.00	-20.20	peak	PASS
166.6514	7.81	11.49	19.30	43.50	-24.20	peak	PASS
332.8687	9.00	17.18	26.18	46.00	-19.82	peak	PASS
531.6838	6.80	22.22	29.02	46.00	-16.98	peak	PASS
937.6811	6.15	28.30	34.45	46.00	-11.55	peak	PASS



(802.11ac20\_5825MHz, Antenna Vertical , 1GHz to 8GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
2006.600	39.10	-12.21	26.89	54.00	-27.11	AVG	PASS
2055.950	48.68	-12.85	35.83	68.20	-32.37	peak	PASS
3189.250	46.72	-8.09	38.63	68.20	-29.57	peak	PASS
3310.000	37.63	-7.70	29.93	54.00	-24.07	AVG	PASS
4170.300	45.24	-5.39	39.85	74.00	-34.15	peak	PASS
4257.800	36.60	-5.07	31.53	54.00	-22.47	AVG	PASS
4932.950	36.09	-3.55	32.54	54.00	-21.46	AVG	PASS
5072.250	45.39	-4.13	41.26	74.00	-32.74	peak	PASS
6373.900	43.89	-2.51	41.38	68.20	-26.82	peak	PASS
6466.650	35.26	-2.29	32.97	54.00	-21.03	AVG	PASS
7389.250	41.90	-1.60	40.30	74.00	-33.70	peak	PASS
7505.100	32.72	-1.05	31.67	54.00	-22.33	AVG	PASS



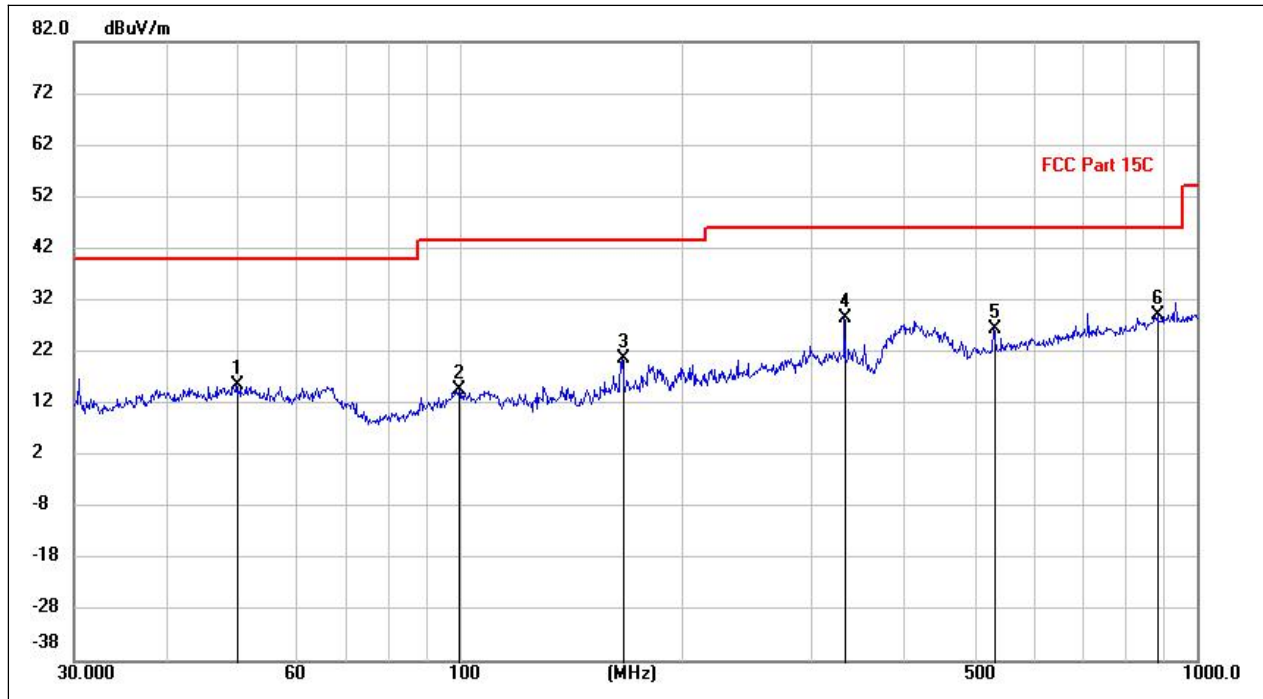
(802.11ac20\_58MHz, Antenna Vertical, 8GHz to 18GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
9232.000	41.13	1.97	43.10	68.20	-25.10	peak	PASS
9438.000	33.02	2.13	35.15	54.00	-18.85	AVG	PASS
11184.000	40.68	3.11	43.79	74.00	-30.21	peak	PASS
11203.000	31.41	3.07	34.48	54.00	-19.52	AVG	PASS
12871.500	38.36	5.11	43.47	68.20	-24.73	peak	PASS
13089.500	29.41	5.91	35.32	54.00	-18.68	AVG	PASS
14558.000	37.77	8.97	46.74	68.20	-21.46	peak	PASS
14576.000	29.03	8.95	37.98	54.00	-16.02	AVG	PASS
16105.500	37.69	11.23	48.92	74.00	-25.08	peak	PASS
16336.500	29.13	11.35	40.48	54.00	-13.52	AVG	PASS
17641.000	37.14	13.73	50.87	68.20	-17.33	peak	PASS
17721.000	29.36	14.58	43.94	54.00	-10.06	AVG	PASS



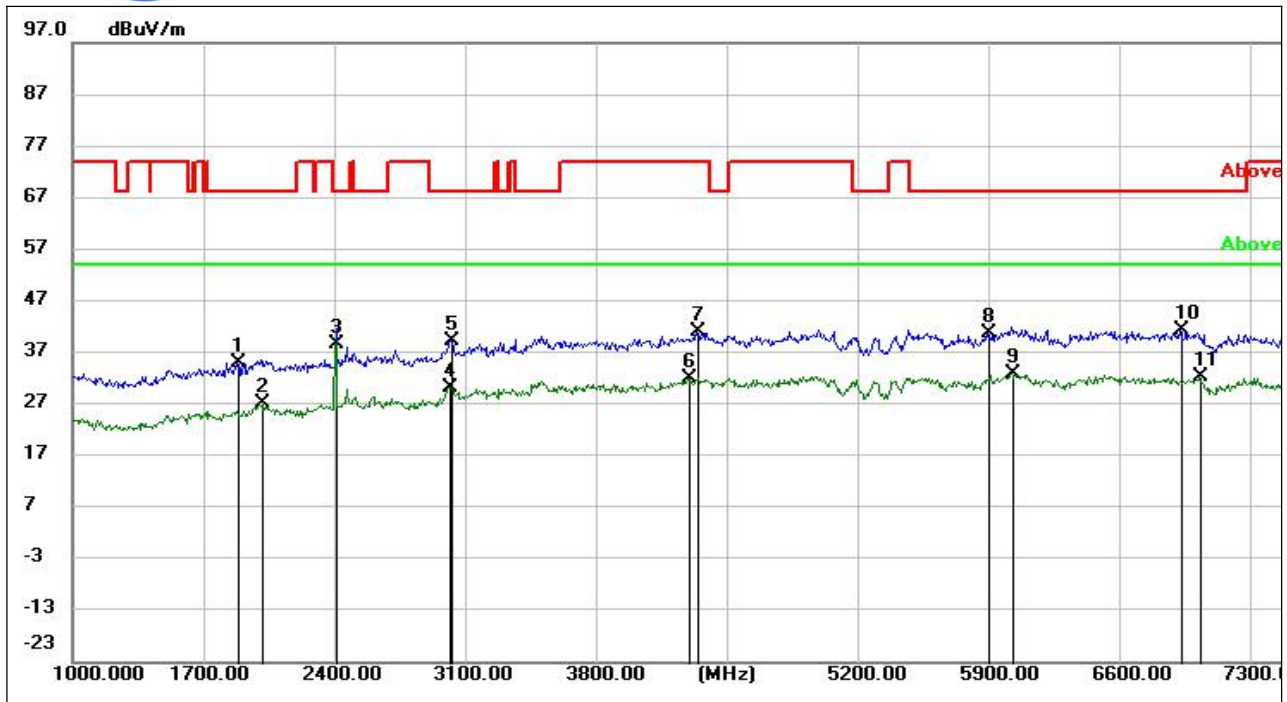
**802.11ac40 Test mode**

Plots for Channel = 38



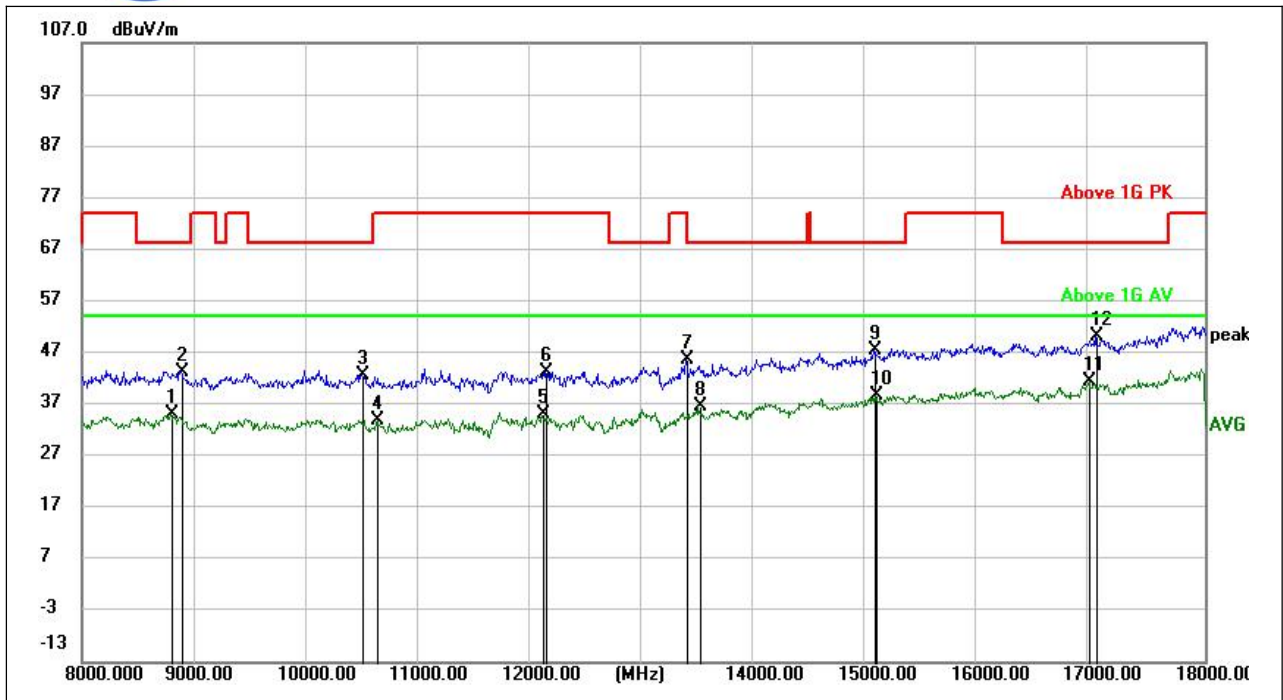
(802.11ac40 \_5190MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
50.0391	-0.80	16.18	15.38	40.00	-24.62	peak	PASS
99.8777	-0.39	15.09	14.70	43.50	-28.80	peak	PASS
166.4178	9.29	11.43	20.72	43.50	-22.78	peak	PASS
333.2190	11.28	17.21	28.49	46.00	-17.51	peak	PASS
531.0316	4.20	22.21	26.41	46.00	-19.59	peak	PASS
886.2104	1.43	27.76	29.19	46.00	-16.81	peak	PASS



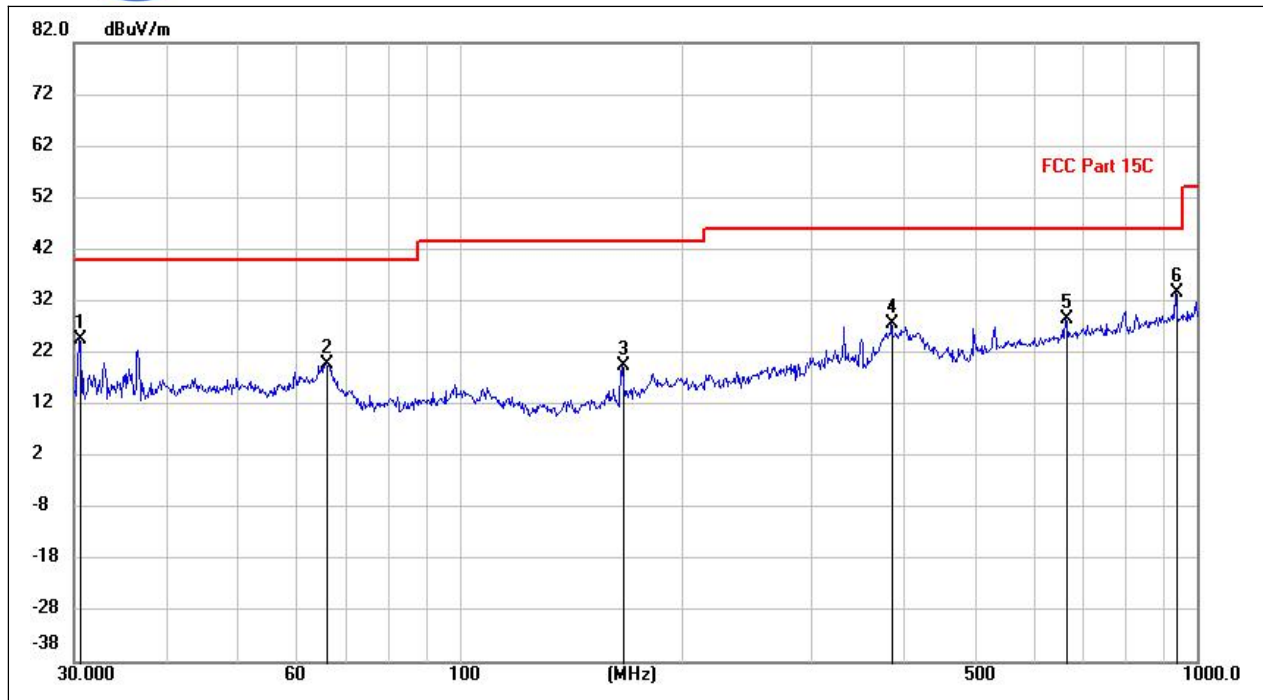
(802.11ac40\_5190MHz, Antenna Horizontal, 1GHz to 8GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
1881.650	48.89	-13.93	34.96	68.20	-33.24	peak	PASS
2001.350	40.92	-13.84	27.08	54.00	-26.92	AVG	PASS
2402.100	50.98	-12.20	38.78	54.00	-15.22	AVG	PASS
3005.850	39.42	-9.20	30.22	54.00	-23.78	AVG	PASS
3013.550	48.45	-9.08	39.37	68.20	-28.83	peak	PASS
4277.750	37.09	-5.12	31.97	54.00	-22.03	AVG	PASS
4323.950	45.28	-4.23	41.05	74.00	-32.95	peak	PASS
5865.350	44.10	-3.41	40.69	68.20	-27.51	peak	PASS
6003.600	36.68	-3.77	32.91	54.00	-21.09	AVG	PASS
6893.650	43.54	-2.20	41.34	68.20	-26.86	peak	PASS
6999.000	34.15	-1.91	32.24	54.00	-21.76	AVG	PASS
7587.700	41.82	-0.80	41.02	74.00	-32.98	peak	PASS



(802.11ac40\_5190MHz, Antenna Horizontal, 8GHz to 18GHz)

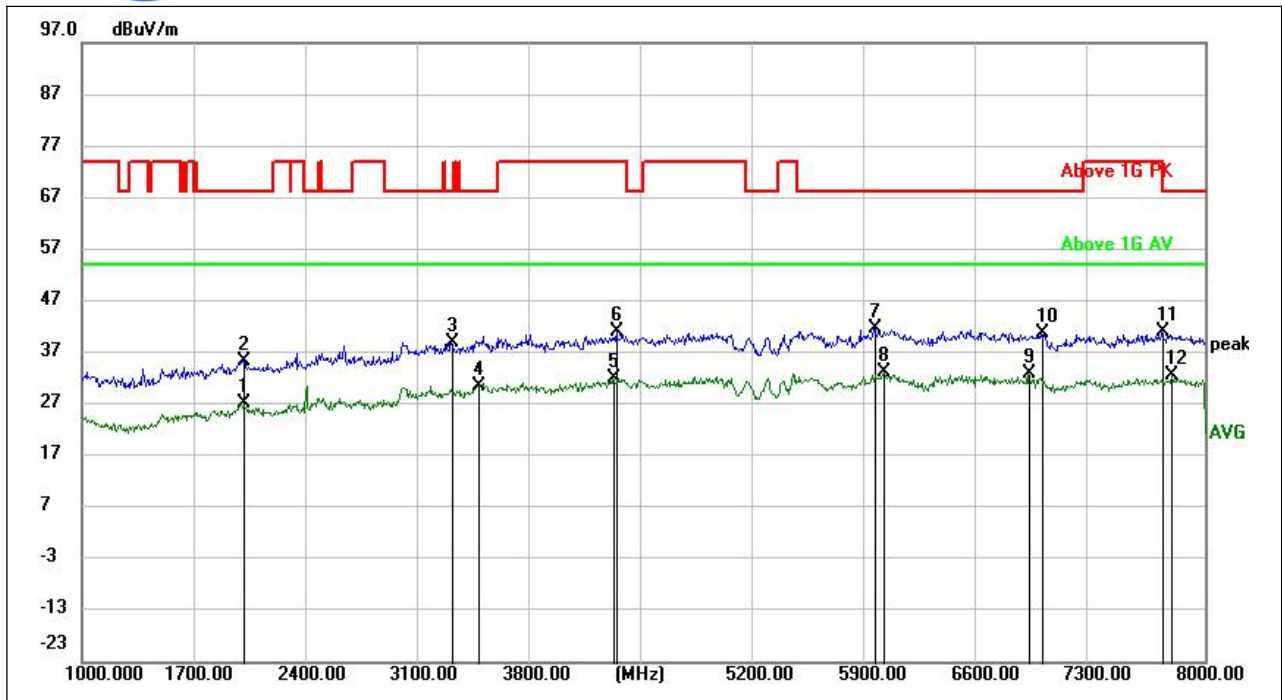
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
8805.000	33.13	1.82	34.95	54.00	-19.05	AVG	PASS
8885.500	41.49	1.75	43.24	68.20	-24.96	peak	PASS
10494.500	39.53	3.16	42.69	68.20	-25.51	peak	PASS
10637.500	31.33	2.65	33.98	54.00	-20.02	AVG	PASS
12108.500	30.95	3.99	34.94	54.00	-19.06	AVG	PASS
12139.500	39.07	4.22	43.29	74.00	-30.71	peak	PASS
13387.500	39.01	6.62	45.63	74.00	-28.37	peak	PASS
13500.500	29.73	6.73	36.46	54.00	-17.54	AVG	PASS
15056.000	36.93	10.42	47.35	68.20	-20.85	peak	PASS
15077.500	28.12	10.51	38.63	54.00	-15.37	AVG	PASS
16979.000	29.80	11.48	41.28	54.00	-12.72	AVG	PASS
17031.000	39.21	11.09	50.30	68.20	-17.90	peak	PASS



(802.11ac40\_5190MHz, Antenna Vertical, 30MHz to 1GHz)

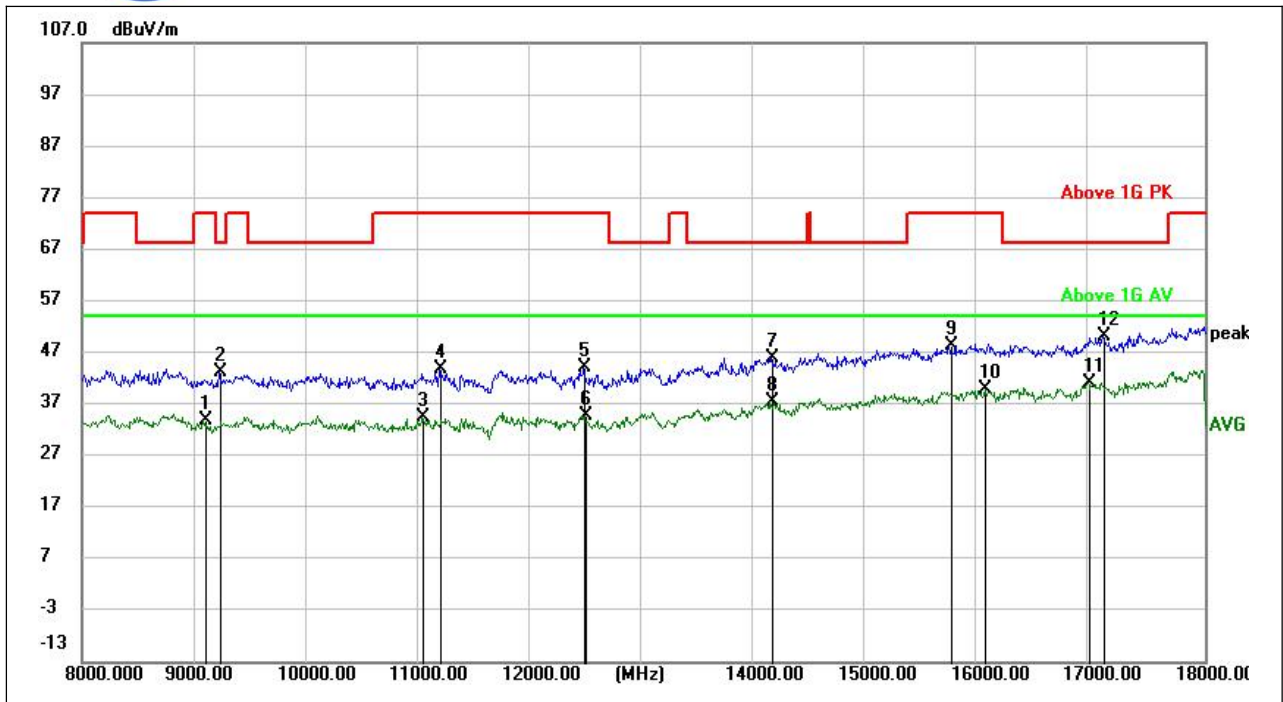
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
30.6110	11.61	12.81	24.42	40.00	-15.58	peak	PASS
66.0111	6.66	13.10	19.76	40.00	-20.24	peak	PASS
166.5930	8.06	11.47	19.53	43.50	-23.97	peak	PASS
385.9566	9.16	18.51	27.67	46.00	-18.33	peak	PASS
663.8220	4.24	24.27	28.51	46.00	-17.49	peak	PASS
937.5167	5.41	28.29	33.70	46.00	-12.30	peak	PASS





(802.11ac40 \_5190MHz, Antenna Vertical, 1GHz to 8GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
2002.750	39.04	-11.81	27.23	54.00	-26.77	AVG	PASS
2008.000	47.75	-12.38	35.37	68.20	-32.83	peak	PASS
3310.000	46.58	-7.70	38.88	68.20	-29.32	peak	PASS
3472.750	36.82	-6.24	30.58	54.00	-23.42	AVG	PASS
4311.350	36.37	-4.35	32.02	54.00	-21.98	AVG	PASS
4336.200	45.37	-4.21	41.16	74.00	-32.84	peak	PASS
5949.000	44.96	-3.17	41.79	68.20	-26.41	peak	PASS
6002.200	35.47	-2.31	33.16	54.00	-20.84	AVG	PASS
6906.600	35.06	-2.09	32.97	54.00	-21.03	AVG	PASS
6990.600	42.63	-1.83	40.80	68.20	-27.40	peak	PASS
7737.850	41.94	-0.91	41.03	74.00	-32.97	peak	PASS
7795.600	33.39	-0.85	32.54	54.00	-21.46	AVG	PASS

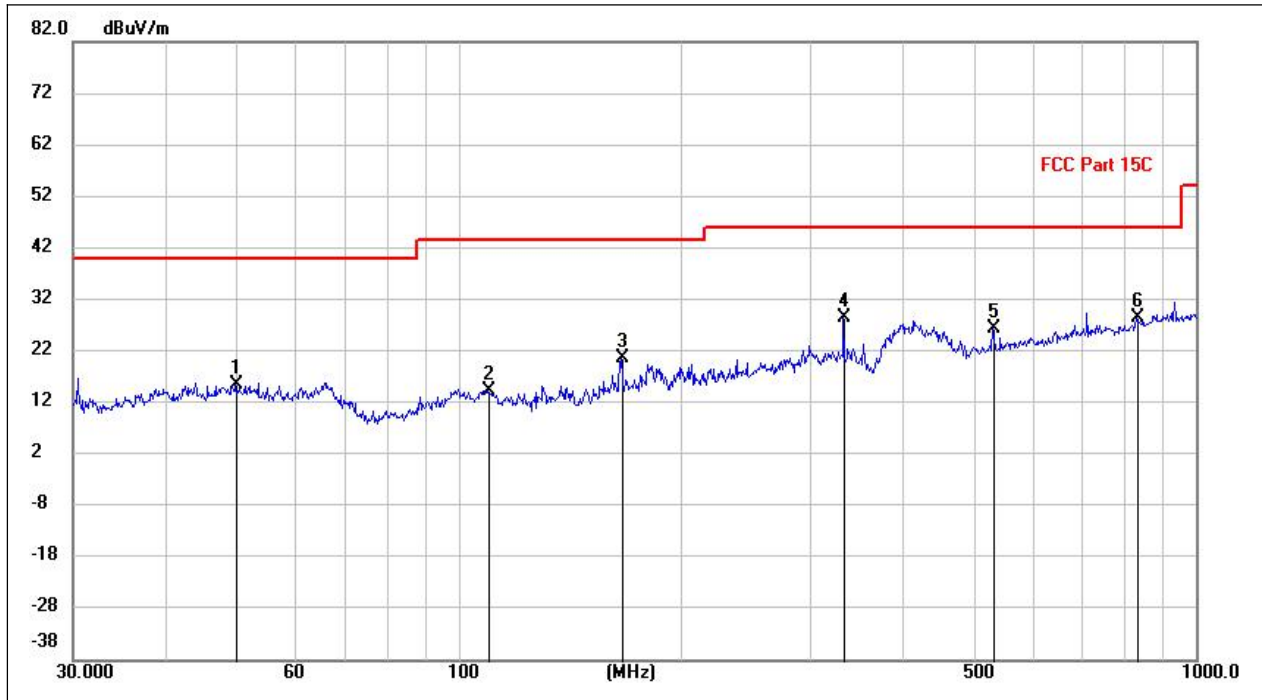


(802.11ac40\_5190MHz, Antenna Vertical, 8GHz to 18GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
9090.500	32.49	1.38	33.87	54.00	-20.13	AVG	PASS
9228.500	41.16	1.94	43.10	68.20	-25.10	peak	PASS
11039.500	30.98	3.40	34.38	54.00	-19.62	AVG	PASS
11188.000	40.69	3.10	43.79	74.00	-30.21	peak	PASS
12479.000	39.35	4.70	44.05	74.00	-29.95	peak	PASS
12483.000	30.20	4.71	34.91	54.00	-19.09	AVG	PASS
14142.000	37.75	8.20	45.95	68.20	-22.25	peak	PASS
14142.000	29.29	8.20	37.49	54.00	-16.51	AVG	PASS
15730.500	37.92	10.55	48.47	74.00	-25.53	peak	PASS
16048.500	28.50	11.33	39.83	54.00	-14.17	AVG	PASS
16974.000	28.03	13.04	41.07	54.00	-12.93	AVG	PASS
17099.000	37.69	12.43	50.12	68.20	-18.08	peak	PASS

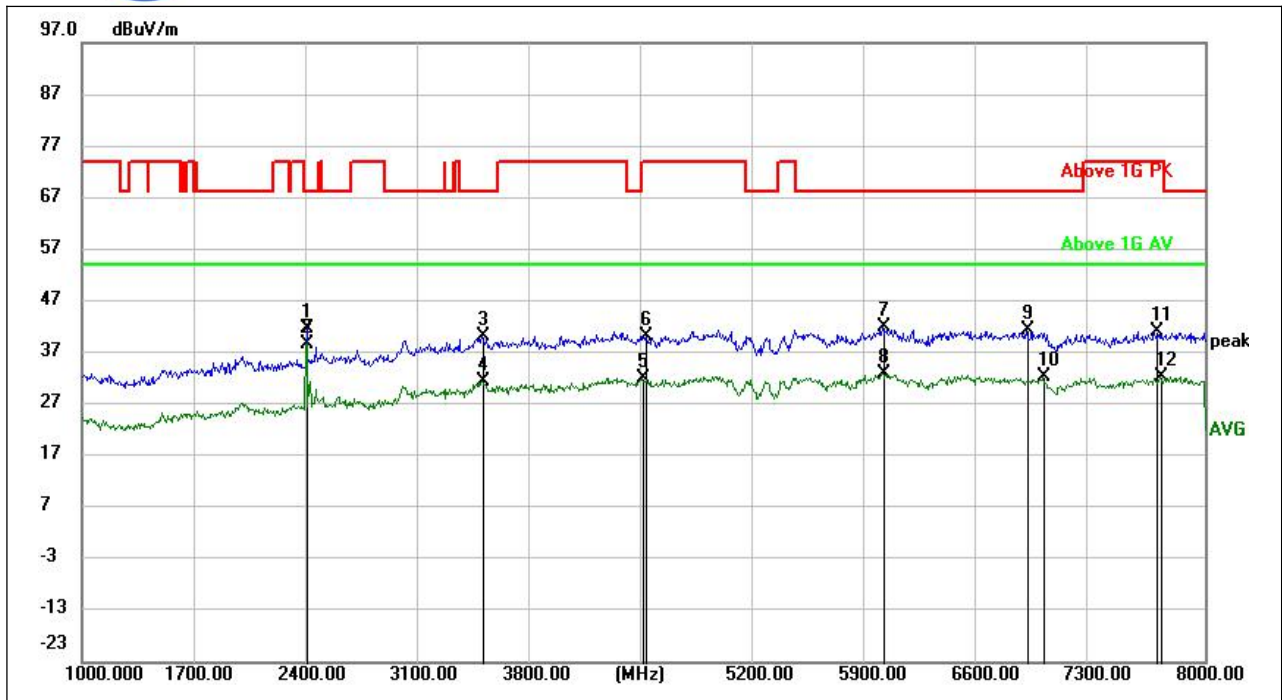


Plots for Channel = 46



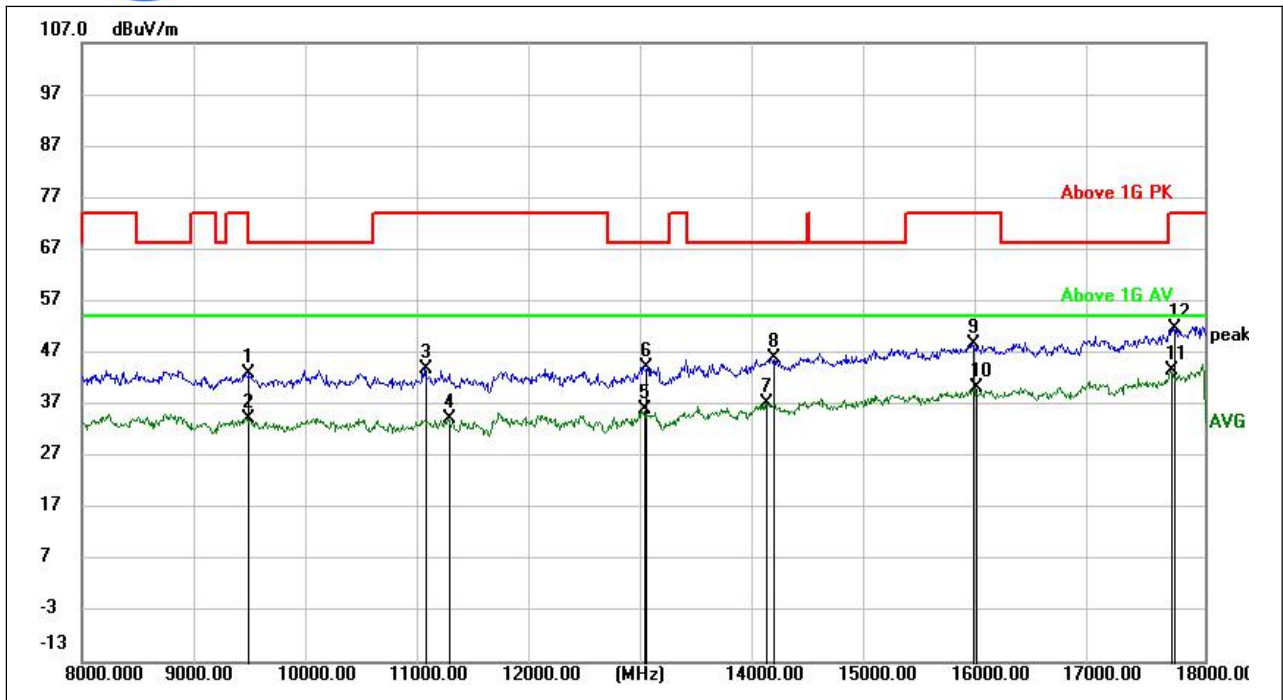
(802.11ac40 \_5230MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
49.9952	-0.69	16.20	15.51	40.00	-24.49	peak	PASS
109.6998	-0.53	14.95	14.42	43.50	-29.08	peak	PASS
166.4178	9.29	11.43	20.72	43.50	-22.78	peak	PASS
333.2190	11.28	17.21	28.49	46.00	-17.51	peak	PASS
531.0316	4.20	22.21	26.41	46.00	-19.59	peak	PASS
831.1284	1.92	26.52	28.44	46.00	-17.56	peak	PASS



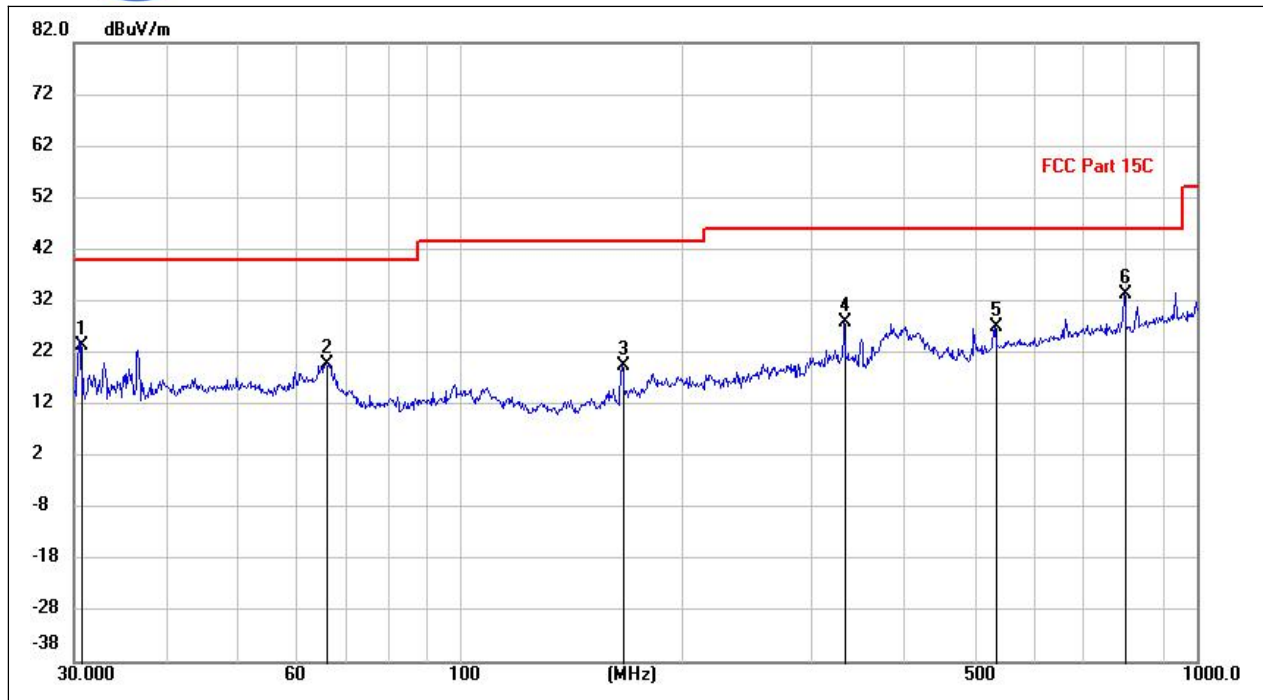
(802.11ac40\_5230MHz, Antenna Horizontal, 1GHz to 8GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
2402.100	53.85	-12.20	41.65	68.20	-26.55	peak	PASS
2402.100	50.98	-12.20	38.78	54.00	-15.22	AVG	PASS
3498.300	48.64	-8.48	40.16	68.20	-28.04	peak	PASS
3498.300	39.78	-8.48	31.30	54.00	-22.70	AVG	PASS
4499.300	38.24	-6.24	32.00	54.00	-22.00	AVG	PASS
4514.350	46.29	-5.99	40.30	74.00	-33.70	peak	PASS
6003.600	45.85	-3.77	42.08	68.20	-26.12	peak	PASS
6003.600	36.68	-3.77	32.91	54.00	-21.09	AVG	PASS
6893.650	43.54	-2.20	41.34	68.20	-26.86	peak	PASS
6999.000	34.15	-1.91	32.24	54.00	-21.76	AVG	PASS
7698.300	41.80	-0.87	40.93	74.00	-33.07	peak	PASS
7726.650	33.25	-0.92	32.33	54.00	-21.67	AVG	PASS



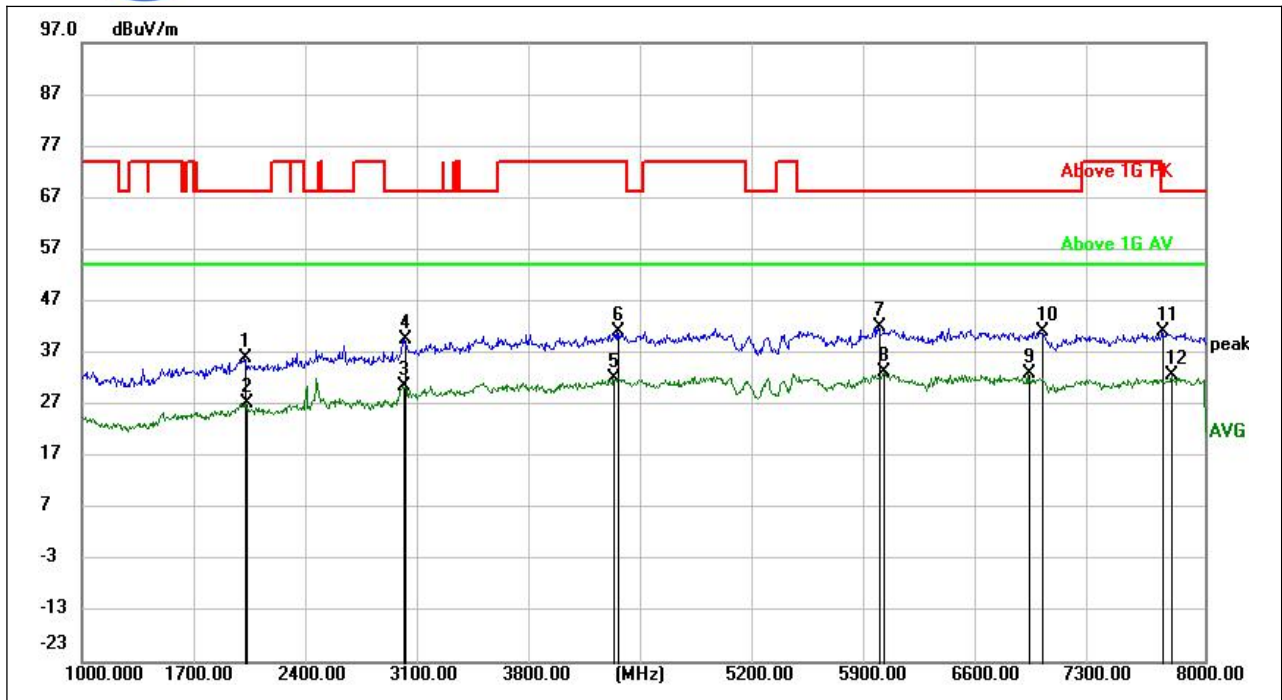
(802.11ac40 \_5230MHz, Antenna Horizontal, 8GHz to 18GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
9471.500	41.03	1.93	42.96	74.00	-31.04	peak	PASS
9471.500	32.36	1.93	34.29	54.00	-19.71	AVG	PASS
11060.000	40.06	3.63	43.69	74.00	-30.31	peak	PASS
11271.500	30.47	3.67	34.14	54.00	-19.86	AVG	PASS
13001.000	30.10	6.00	36.10	54.00	-17.90	AVG	PASS
13011.000	38.01	6.07	44.08	68.20	-24.12	peak	PASS
14097.000	29.09	8.20	37.29	54.00	-16.71	AVG	PASS
14150.500	37.58	8.26	45.84	68.20	-22.36	peak	PASS
15935.500	37.14	11.37	48.51	74.00	-25.49	peak	PASS
15966.000	28.59	11.59	40.18	54.00	-13.82	AVG	PASS
17701.500	29.08	14.39	43.47	54.00	-10.53	AVG	PASS
17723.000	36.99	14.59	51.58	74.00	-22.42	peak	PASS



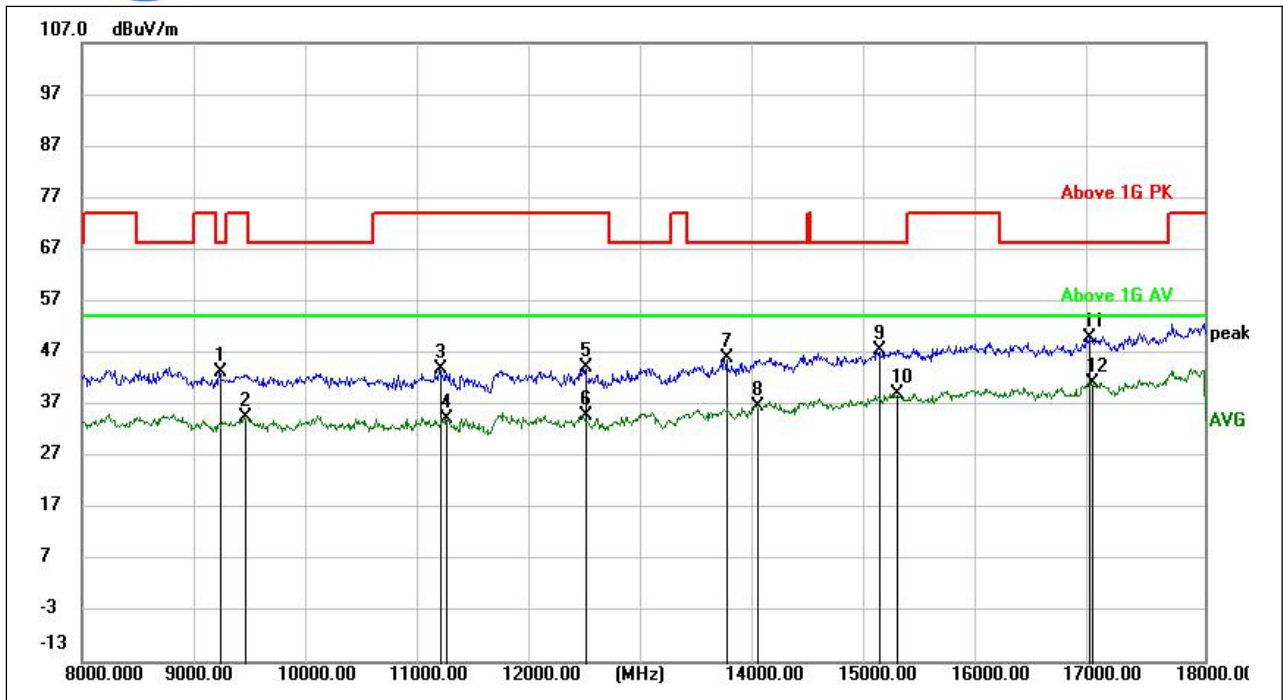
(802.11ac40 \_5230MHz, Antenna Vertical, 30MHz to 1GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
30.6970	10.57	12.65	23.22	40.00	-16.78	peak	PASS
66.0111	6.66	13.10	19.76	40.00	-20.24	peak	PASS
166.5930	8.06	11.47	19.53	43.50	-23.97	peak	PASS
333.2775	10.69	17.21	27.90	46.00	-18.10	peak	PASS
533.1774	4.70	22.23	26.93	46.00	-19.07	peak	PASS
796.4622	7.06	26.17	33.23	46.00	-12.77	peak	PASS



(802.11ac40 \_5230MHz, Antenna Vertical, 1GHz to 8GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
2021.300	48.67	-12.72	35.95	68.20	-32.25	peak	PASS
2029.000	39.87	-12.55	27.32	54.00	-26.68	AVG	PASS
3008.650	37.83	-7.26	30.57	54.00	-23.43	AVG	PASS
3015.650	47.04	-7.47	39.57	68.20	-28.63	peak	PASS
4311.350	36.37	-4.35	32.02	54.00	-21.98	AVG	PASS
4340.400	45.36	-4.20	41.16	74.00	-32.84	peak	PASS
5968.250	44.76	-2.89	41.87	68.20	-26.33	peak	PASS
6002.200	35.47	-2.31	33.16	54.00	-20.84	AVG	PASS
6906.600	35.06	-2.09	32.97	54.00	-21.03	AVG	PASS
6978.350	43.07	-1.85	41.22	68.20	-26.98	peak	PASS
7737.850	41.94	-0.91	41.03	74.00	-32.97	peak	PASS
7795.600	33.39	-0.85	32.54	54.00	-21.46	AVG	PASS



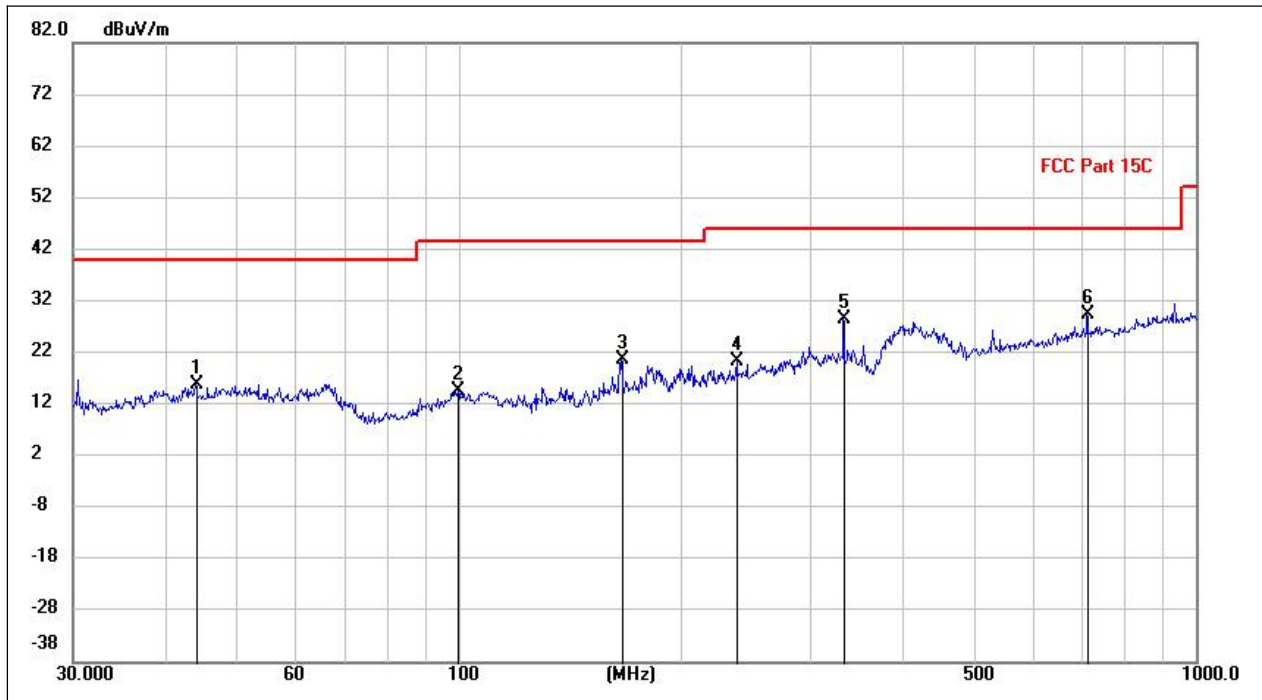
(802.11ac40\_5230MHz, Antenna Vertical, 8GHz to 18GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
9232.000	41.13	1.97	43.10	68.20	-25.10	peak	PASS
9455.000	32.31	2.18	34.49	54.00	-19.51	AVG	PASS
11188.000	40.69	3.10	43.79	74.00	-30.21	peak	PASS
11244.500	30.87	3.35	34.22	54.00	-19.78	AVG	PASS
12483.000	39.34	4.71	44.05	74.00	-29.95	peak	PASS
12483.000	30.20	4.71	34.91	54.00	-19.09	AVG	PASS
13730.500	38.82	7.19	46.01	68.20	-22.19	peak	PASS
14016.000	28.11	8.38	36.49	54.00	-17.51	AVG	PASS
15090.500	37.04	10.27	47.31	68.20	-20.89	peak	PASS
15255.000	29.00	10.02	39.02	54.00	-14.98	AVG	PASS
16977.000	36.84	13.08	49.92	68.20	-18.28	peak	PASS
16999.500	28.16	12.98	41.14	54.00	-12.86	AVG	PASS



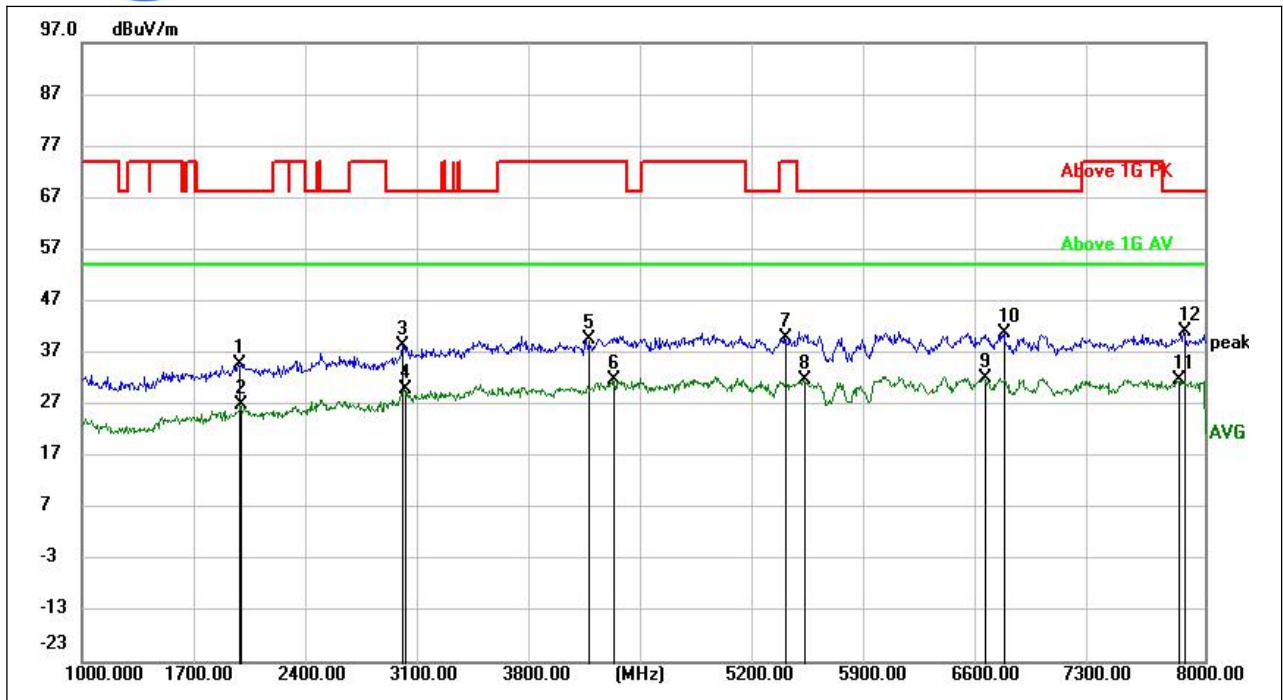


Plot for Channel = 151



(802.11ac40\_5755MHz, Antenna Horizontal, 30MHz to 1GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
43.9735	0.57	15.27	15.84	40.00	-24.16	peak	PASS
99.8777	-0.39	15.09	14.70	43.50	-28.80	peak	PASS
166.4178	9.29	11.43	20.72	43.50	-22.78	peak	PASS
238.4356	5.23	14.99	20.22	46.00	-25.78	peak	PASS
333.2190	11.28	17.21	28.49	46.00	-17.51	peak	PASS
711.9230	4.45	25.00	29.45	46.00	-16.55	peak	PASS



(802.11ac40\_5755MHz, Antenna Horizontal, 1GHz to 8GHz)

Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Verdict
1978.250	47.84	-13.02	34.82	68.20	-33.38	peak	PASS
1992.950	39.76	-12.96	26.80	54.00	-27.20	AVG	PASS
3001.300	47.50	-9.28	38.22	68.20	-29.98	peak	PASS
3011.800	38.98	-9.11	29.87	54.00	-24.13	AVG	PASS
4150.700	45.30	-5.62	39.68	74.00	-34.32	peak	PASS
4316.600	36.01	-4.25	31.76	54.00	-22.24	AVG	PASS
5384.450	43.77	-3.78	39.99	74.00	-34.01	peak	PASS
5505.200	36.05	-4.37	31.68	54.00	-22.32	AVG	PASS
6625.550	33.87	-1.95	31.92	54.00	-22.08	AVG	PASS
6749.800	42.93	-2.22	40.71	68.20	-27.49	peak	PASS
7833.050	32.50	-0.78	31.72	54.00	-22.28	AVG	PASS
7871.200	41.85	-0.75	41.10	68.20	-27.10	peak	PASS