



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



**802.11ac (VHT20) Mode**

**A. Test Verdict:**

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Duty Factor	Corrected PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
36	5180	-0.12	0.07	-0.05	11	PASS
44	5220	0.64		0.71		
48	5240	1.05		1.12		
52	5260	1.11		1.18		
60	5300	<b>1.34</b>		1.41		
64	5320	1.31		1.38		
100	5500	0.70		0.77		
120	5600	-0.02		0.05		
144	5720	0.13		0.20		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Duty Factor	Corrected (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
144	5720	-2.44	0.07	-2.37	30	PASS
149	5745	-4.84		-4.77		
157	5785	-4.88		-4.81		
165	5825	-4.87		-4.80		



B. Test Plot:



(Channel 36, 5180MHz, 802.11ac (VHT20))



(Channel 44, 5220MHz, 802.11ac (VHT20))



(Channel 48, 5240MHz, 802.11ac (VHT20))



(Channel 52, 5260MHz, 802.11ac (VHT20))





(Channel 60, 5300MHz, 802.11ac (VHT20))



(Channel 64, 5320MHz, 802.11ac (VHT20))



(Channel 100, 5500MHz, 802.11ac (VHT20))



(Channel 120, 5600MHz, 802.11ac (VHT20))



(Channel 144, 5720MHz, 802.11ac (VHT20))



(Channel 144, 5720MHz, 802.11ac(VHT20))





(Channel 149, 5745MHz, 802.11ac (VHT20))



(Channel 157, 5785MHz, 802.11ac (VHT20))





(Channel 165, 5825MHz, 802.11ac (VHT20))



802.11ac (VHT40) Mode

A. Test Verdict:

Channel	Frequency (MHz)	Measured PPSD (dBm/MHz)	Duty Factor	Corrected PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
38	5190	-2.67	0.07	-2.60	11	PASS
46	5230	-2.06		-1.99		
54	5270	-1.71		-1.64		
62	5310	<b>-1.68</b>		-1.61		
102	5510	-2.22		-2.15		
126	5630	-2.23		-2.16		
142	5710	-2.08		-2.01		
Channel	Frequency (MHz)	Measured PPSD (dBm/500KHz)	Duty Factor	Corrected (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
142	5710	-4.99	0.07	-4.92	30	PASS
151	5755	-8.17		-8.10		
155	5795	-7.46		-7.39		

B. Test Plot:



(Channel 38, 5190MHz, 802.11ac (VHT40))



(Channel 46, 5230MHz, 802.11ac (VHT40))



(Channel 54, 5270MHz, 802.11ac (VHT40))





(Channel 62, 5310MHz, 802.11ac (VHT40))



(Channel 102, 5510MHz, 802.11ac (VHT40))



(Channel 126, 5630MHz, 802.11ac (VHT40))



(Channel 142, 5710MHz, 802.11ac (VHT40))



(Channel 142, 5710MHz, 802.11ac (VHT40))



(Channel 151, 5755MHz, 802.11ac (VHT40))





(Channel 159, 5795MHz, 802.11ac (VHT40))



802.11ac (VHT80) Mode

A. Test Verdict:

Channel	Frequency (MHz)	Measured PSD (dBm/MHz)	Duty Factor	Corrected PSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
42	5210	-5.55	0.19	-5.36	11	PASS
58	5290	<b>-5.07</b>		-4.88		
106	5530	-5.93		-5.74		
122	5610	-6.22		-6.03		
138	5690	-5.70		-5.51		
Channel	Frequency (MHz)	Measured PSD (dBm/500KHz)	Duty Factor	Corrected (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
138	5690	-8.56	0.19	-8.37	30	PASS
155	5775	-11.56		-11.37		

B. Test Plot:



(Channel 42, 5210MHz, 802.11ac (VHT80))



(Channel 58, 5290MHz, 802.11ac (VHT80))



(Channel 106, 5530MHz, 802.11ac (VHT80))





(Channel 122, 5610MHz, 802.11ac (VHT80))



(Channel 138, 5690MHz, 802.11ac (VHT80))





## 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 5°C to 40°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

U-NII-1 (Ch. 36) 5180MHz				
VOLTAGE (%)	POWER (VDC)	TEMP (°C)	Fre. Dev. (kHz)	Deviation (ppm)
100%	5	+20(Ref)	25	4.826
100%		-30	32	6.178
100%		-20	27	5.212
100%		-10	24	4.633
100%		0	25	4.826
100%		+10	26	5.019
100%		+20	21	4.054
100%		+30	28	5.405
100%		+40	24	4.633
100%		+50	29	5.598
85%		4.25	+20	27
115%	5.75	+20	29	5.598





<b>U-NII-2A (Ch. 52)</b>				
<b>5260MHz</b>				
VOLTAGE (%)	POWER (VDC)	TEMP (°C)	Fre. Dev. (kHz)	Deviation (ppm)
100%	5	+20(Ref)	17	3.232
100%		-30	25	4.753
100%		-20	24	4.563
100%		-10	28	5.323
100%		0	17	3.232
100%		+10	16	3.042
100%		+20	23	4.373
100%		+30	24	4.563
100%		+40	29	5.513
100%		+50	28	5.323
85%	4.25	+20	20	3.802
115%	5.75	+20	24	4.563

<b>U-NII-2C (Ch. 100)</b>				
<b>5500MHz</b>				
VOLTAGE (%)	POWER (VDC)	TEMP (°C)	Fre. Dev. (kHz)	Deviation (ppm)
100%	5	+20(Ref)	19	3.455
100%		-30	21	3.818
100%		-20	27	4.909
100%		-10	28	5.091
100%		0	26	4.727
100%		+10	20	3.636
100%		+20	21	3.818
100%		+30	30	5.455
100%		+40	31	5.636
100%		+50	28	5.091
85%	4.25	+20	26	4.727
115%	5.75	+20	29	5.273



<b>U-NII-3 (Ch. 149)</b>				
<b>5745MHz</b>				
<b>VOLTAGE (%)</b>	<b>POWER (VDC)</b>	<b>TEMP (°C)</b>	<b>Fre. Dev. (kHz)</b>	<b>Deviation (ppm)</b>
100%	5	+20(Ref)	21	3.655
100%		-30	25	4.352
100%		-20	24	4.178
100%		-10	23	4.003
100%		0	29	5.048
100%		+10	27	4.700
100%		+20	25	4.352
100%		+30	23	4.003
100%		+40	26	4.526
100%		+50	27	4.700
85%		4.25	+20	30
115%	5.75	+20	28	4.874

## 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).

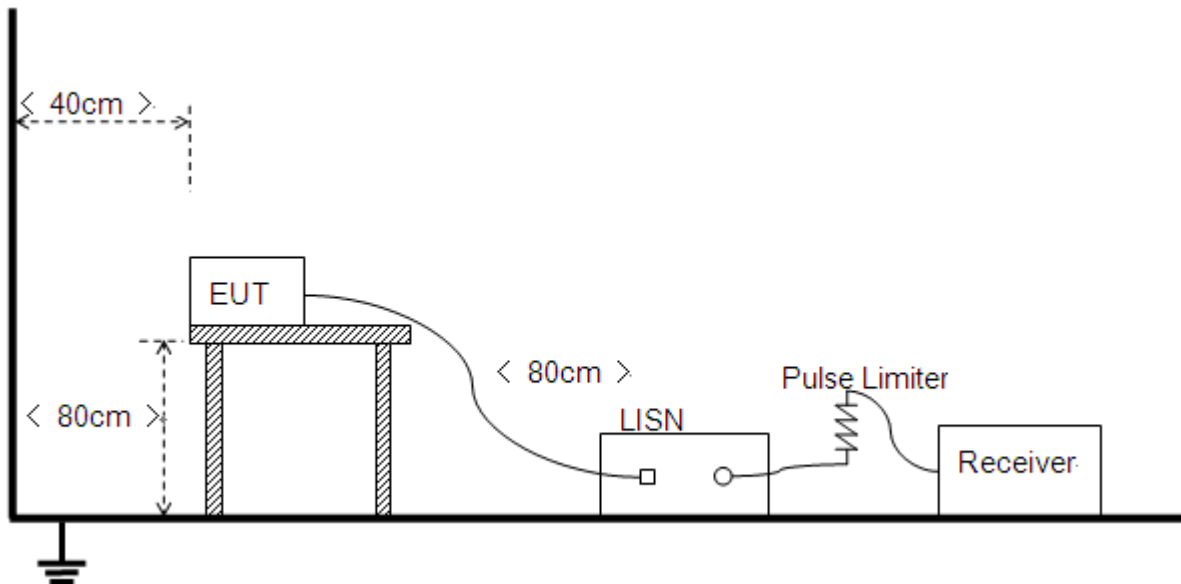
Frequency Range (MHz)	Conducted Limit (dB $\mu$ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

**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

**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. Set RBW=9kHz, VBW=30kHz. Refer to recorded points and Plot 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:

Test Mode: EUT+PC+PC ADAPTER+WIFI TX

Test Voltage: AC 120V/60Hz

The measurement results are obtained as below:

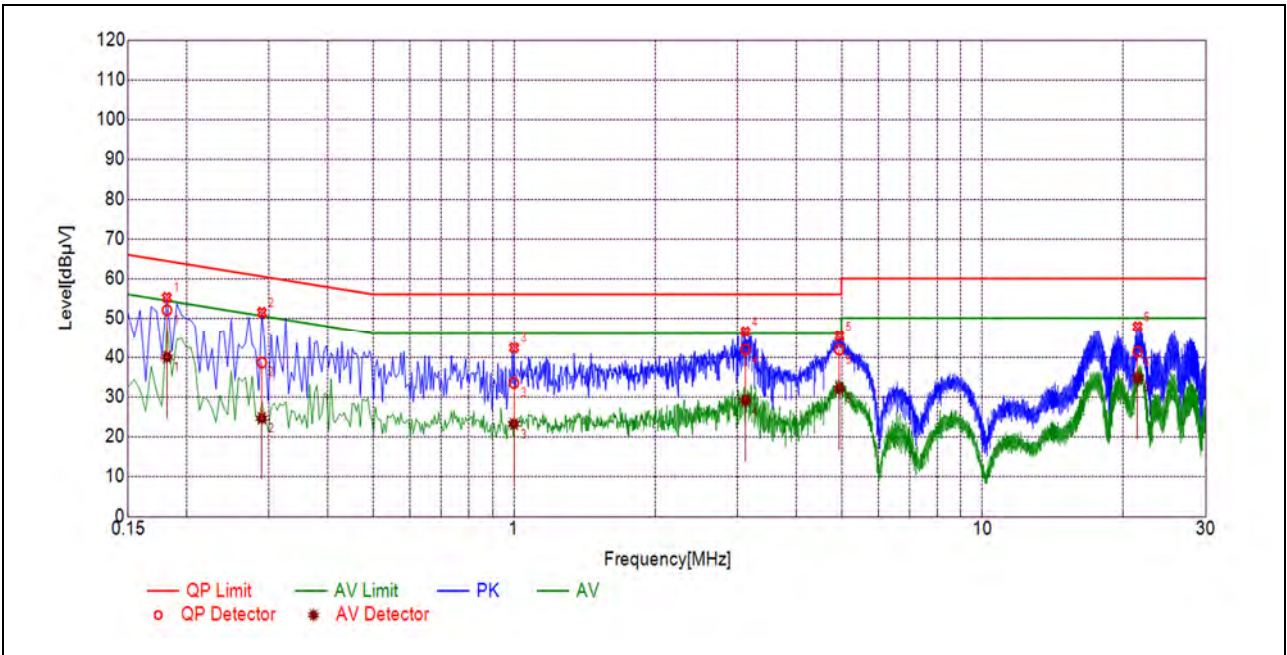
$$E \text{ [dB}\mu\text{V]} = U_R + L_{\text{Cable loss}} \text{ [dB]} + A_{\text{Factor}}$$

$U_R$ : Receiver Reading

$A_{\text{Factor}}$ : Voltage division factor of LISN

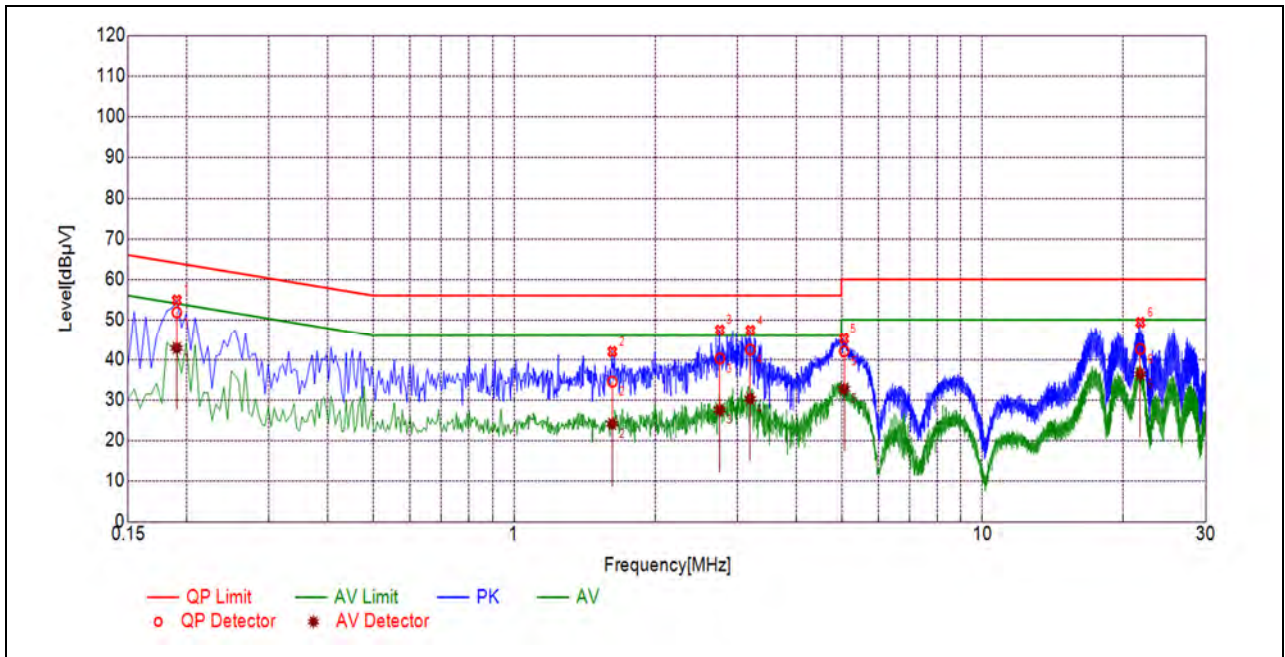


**B. Test Plot:**



(L Phase)

No.	Fre. (MHz)	Emission Level (dBµV)		Limit (dBµV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1815	52.03	39.99	64.42	54.42	Line	PASS
2	0.2894	38.60	24.62	60.54	50.54		PASS
3	0.9996	33.46	23.16	56.00	46.00		PASS
4	3.1200	41.87	29.06	56.00	46.00		PASS
5	4.9474	41.86	32.10	56.00	46.00		PASS
6	21.4563	41.33	34.72	60.00	50.00		PASS



(N Phase)

No.	Fre. (MHz)	Emission Level (dBµV)		Limit (dBµV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1905	51.85	42.86	64.01	54.01	Neutral	PASS
2	1.6209	34.50	24.09	56.00	46.00		PASS
3	2.7493	40.25	27.54	56.00	46.00		PASS
4	3.1936	42.47	30.27	56.00	46.00		PASS
5	5.0672	42.07	32.73	60.00	50.00		PASS
6	21.7435	42.60	36.35	60.00	50.00		PASS

## 2.8. Restricted Frequency Bands

### 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 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
  - (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

The following formula is used to convert the equipment isotropic radiated power(e.i.r.p.) 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

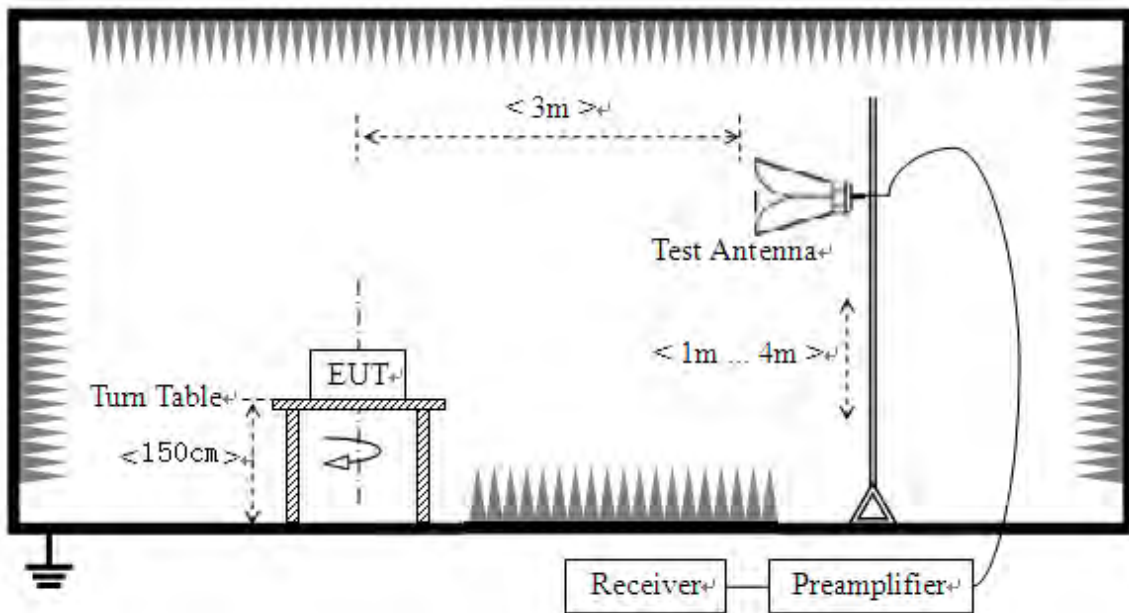
Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following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

Frequency (MHz)	Field Strength ( $\mu\text{V}/\text{m}$ )	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

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

#### Test Setup







The EUT 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.

### 2.8.3. Test Result

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

The measurement results are obtained as below:

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

$A_T$ : Total correction Factor except Antenna;  $U_R$ : Receiver Reading

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

**Note 1:** Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition (vertical) was recorded in this test report.

**Note 2** All test modes and bandwidth were considered and evaluated respectively by performing full test, only the worst data were recorded for each bandwidth.

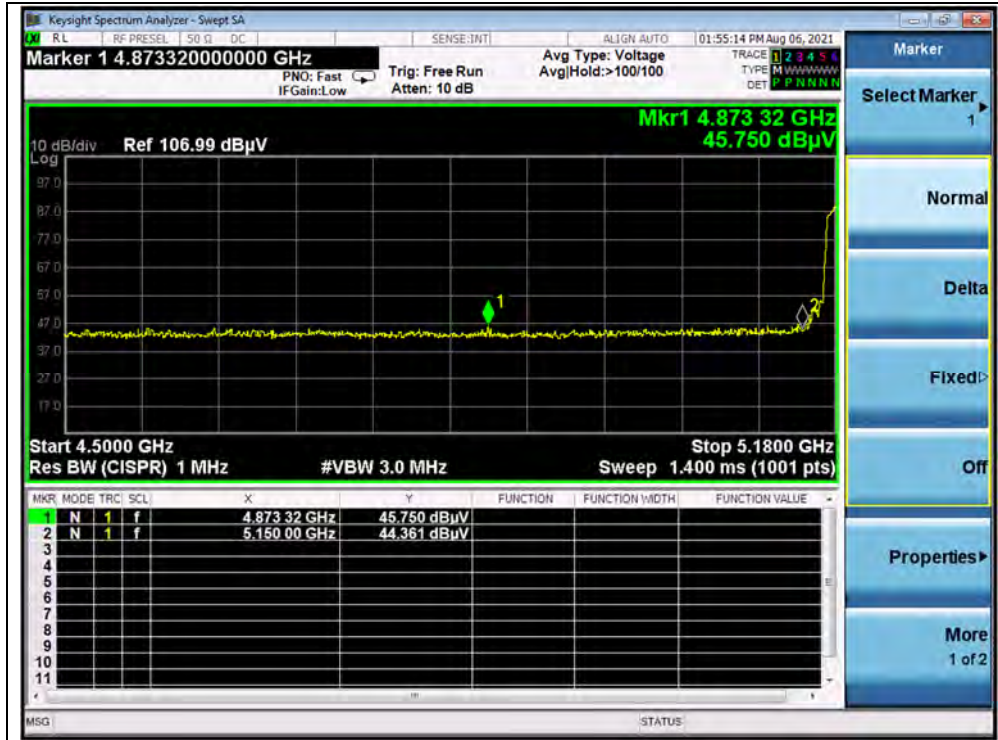
### 802.11a Mode

#### A. Test Verdict:

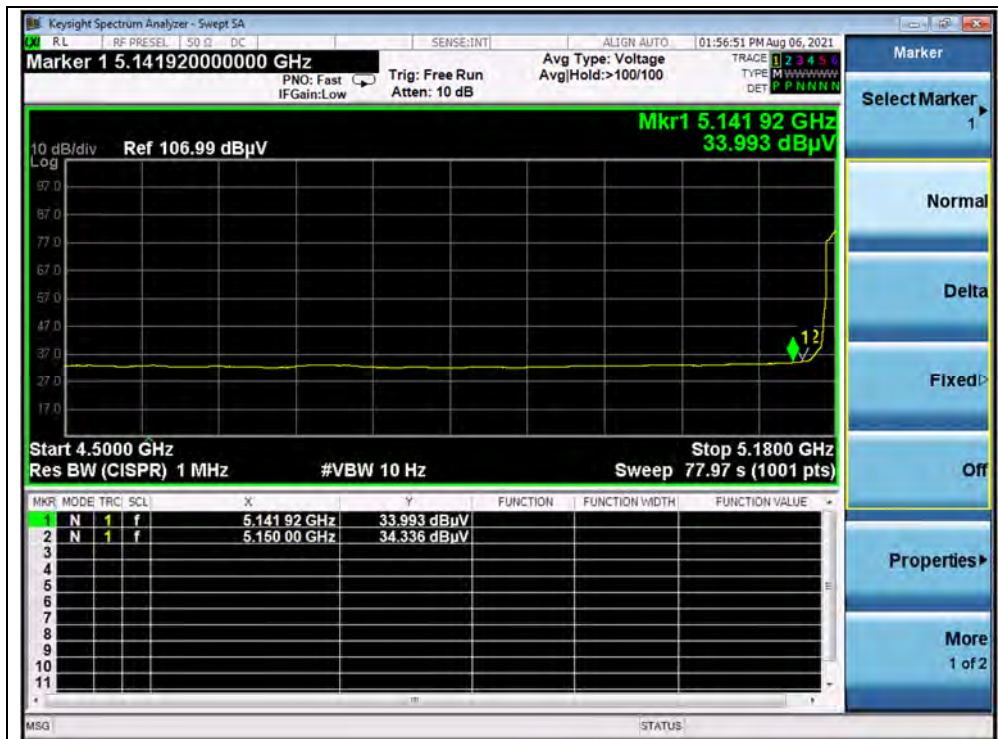
Channel	Frequency (MHz)	Detector	Receiver Reading	$A_T$ (dB)	$A_{\text{Factor}}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Verdict
		PK/ AV	$U_R$ (dB $\mu$ V)					
36	4873.32	PK	45.75	-19.54	32.20	58.41	74	PASS
36	5150.00	AV	34.34	-19.54	32.20	47.00	54	PASS
64	5350.00	PK	46.57	-18.80	32.20	59.97	74	PASS
64	5350.00	AV	33.85	-18.80	32.20	47.25	54	PASS
100	5470.00	PK	46.83	-19.20	32.20	59.83	68.23	PASS
100	5470.00	AV	34.77	-19.20	32.20	47.77	54	PASS
144	5726.90	PK	52.63	-19.20	32.20	65.63	68.23	PASS
144	5726.90	AV	37.48	-19.20	32.20	50.48	54	PASS
149	5725.00	PK	51.36	-19.01	32.20	64.55	122.23	PASS
165	5850.00	PK	45.43	-19.01	32.20	58.62	122.23	PASS



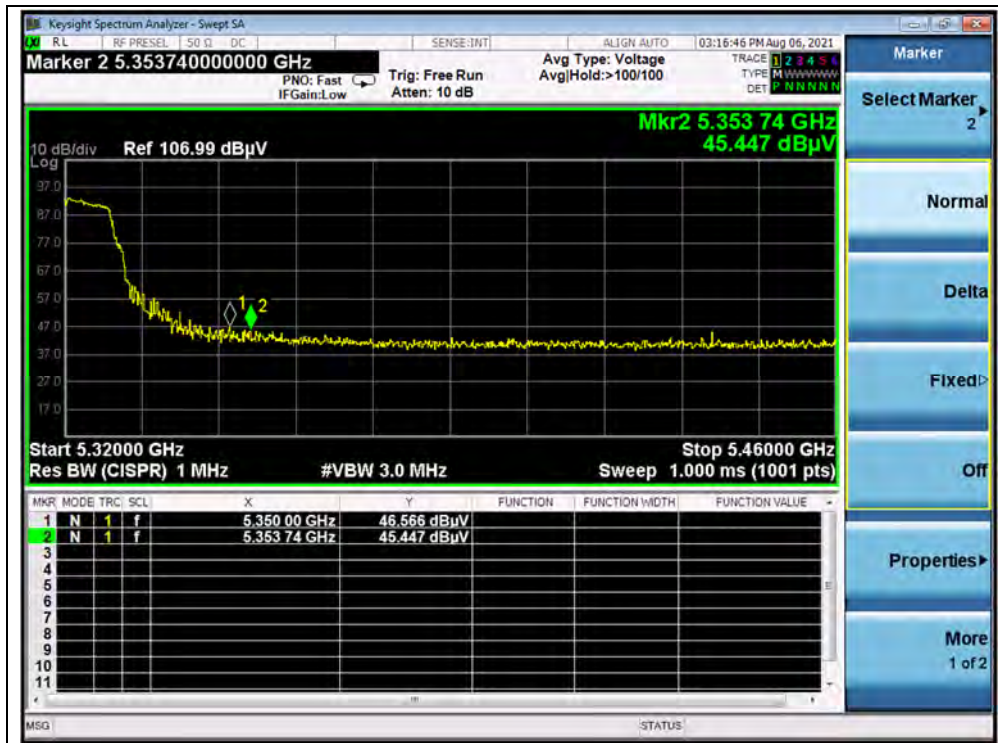
B.Test Plot:



(PEAK, Channel 36, 802.11a)



(AVERAGE, Channel 36, 802.11a)

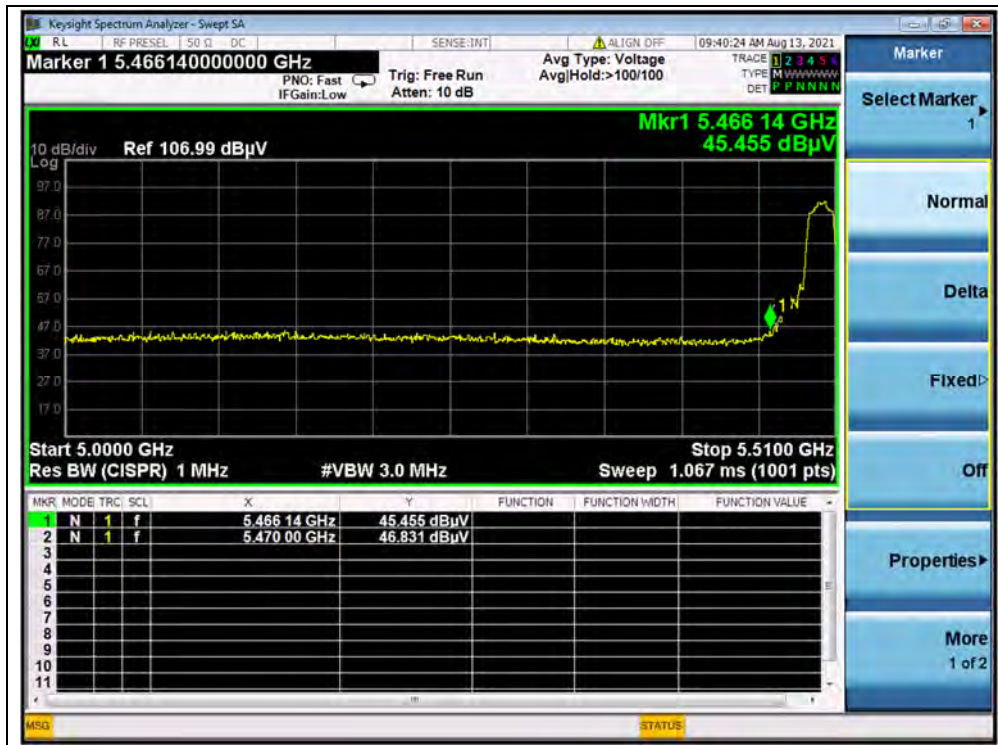


(PEAK, Channel 64, 802.11a)

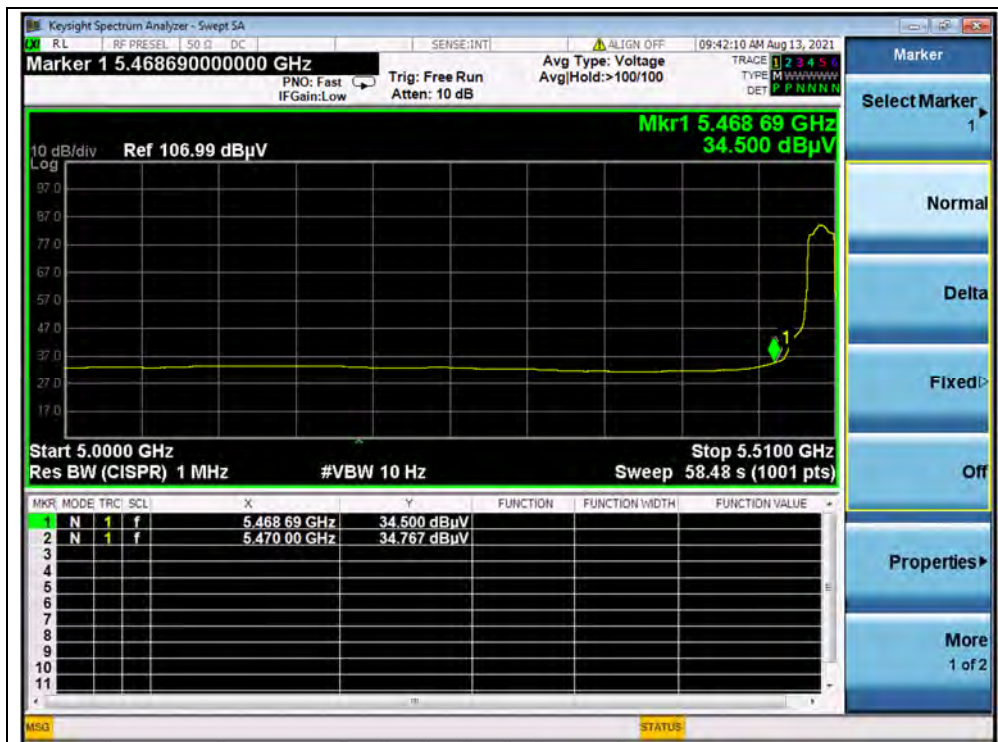


(AVERAGE, Channel 64, 802.11a)



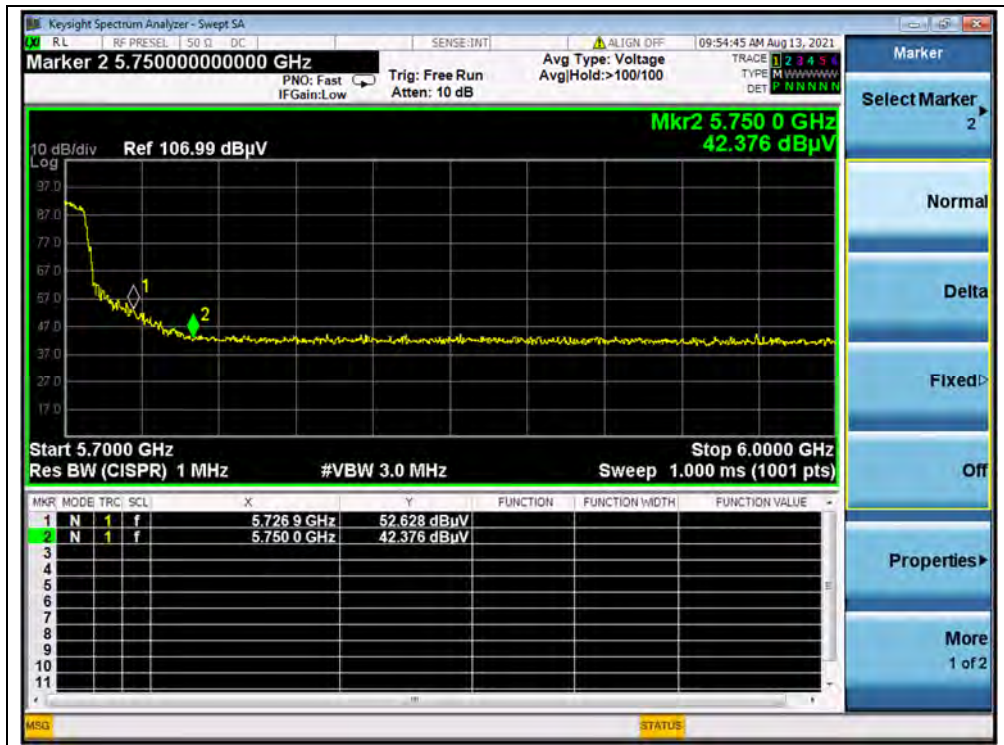


(PEAK, Channel 100, 802.11a)

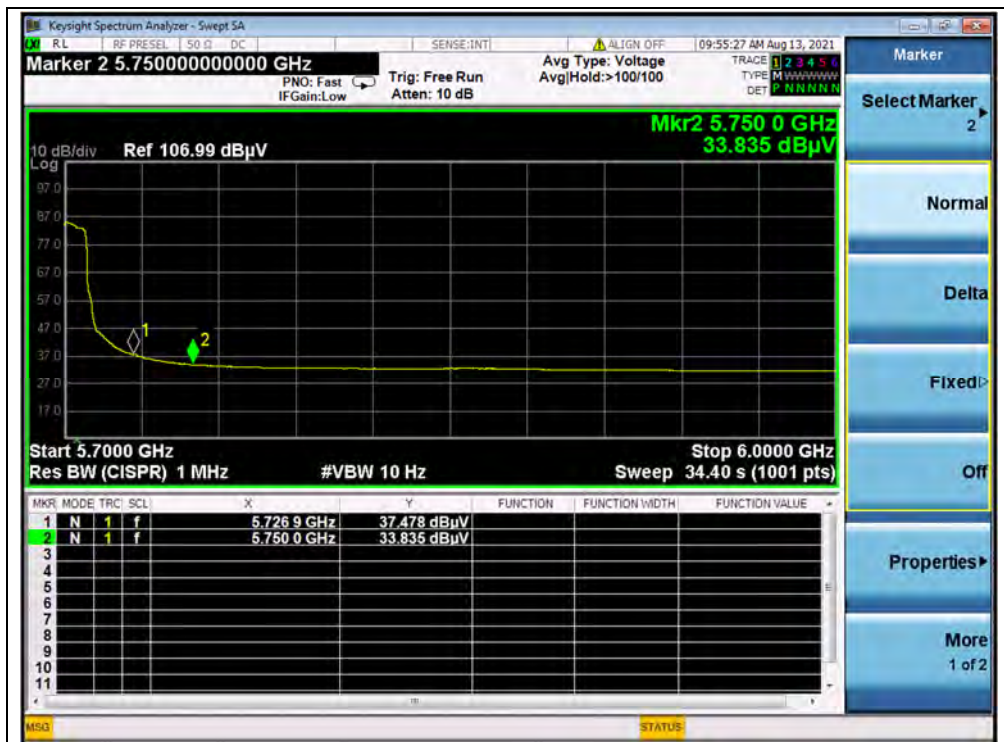


(AVERAGE, Channel 100, 802.11a)

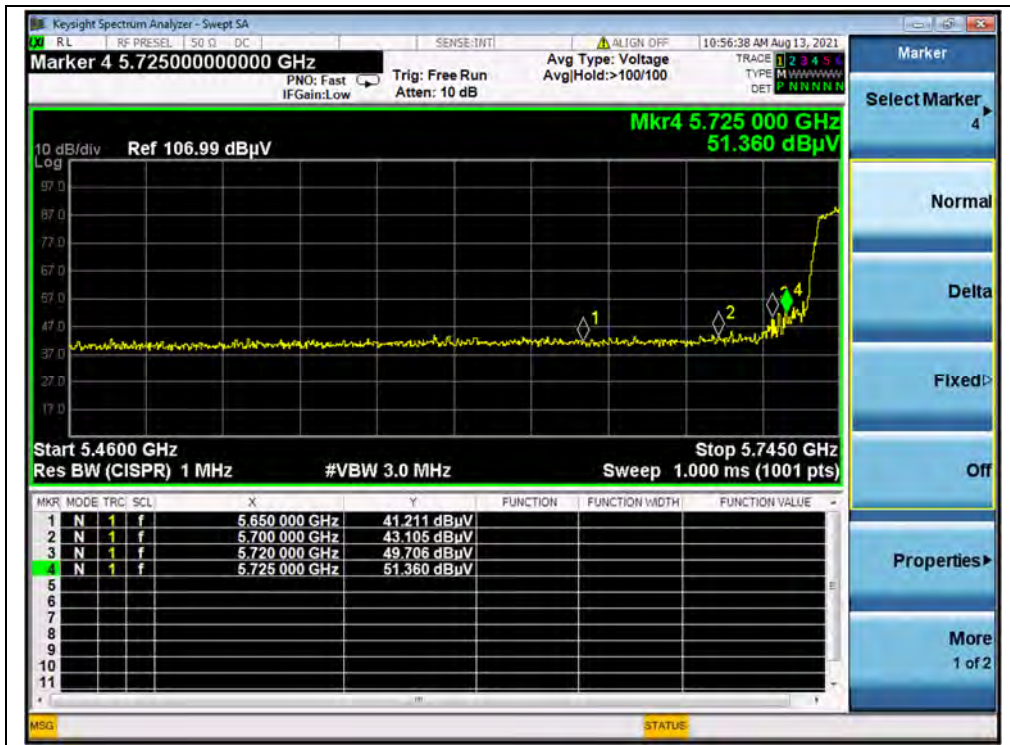




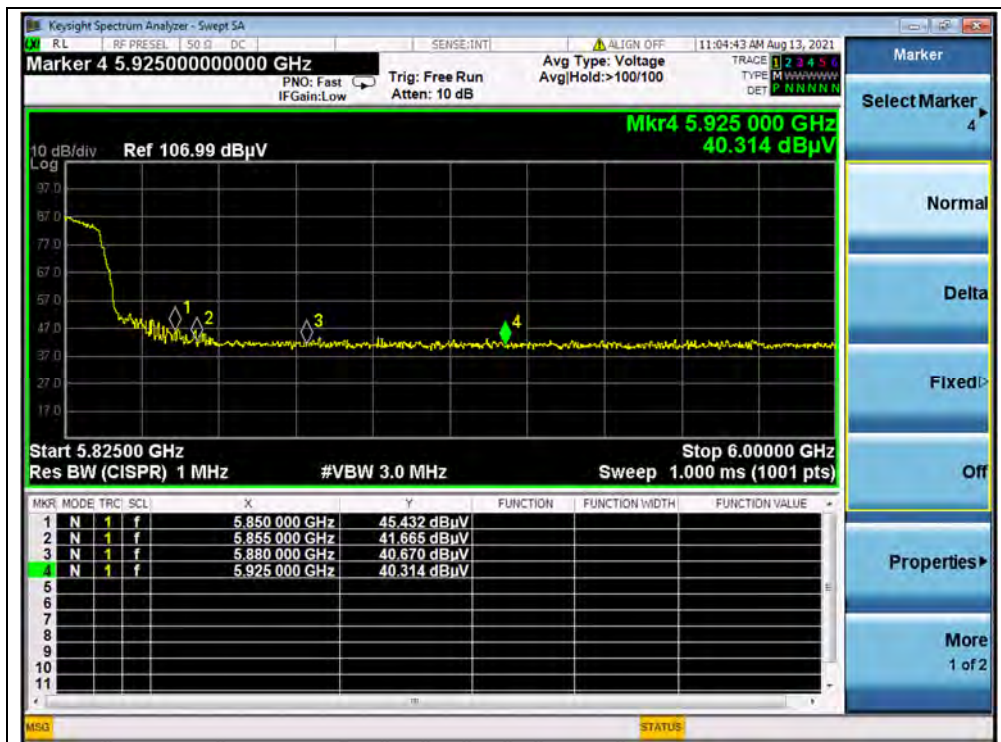
(PEAK, Channel 144, 802.11a)



(AVERAGE, Channel 144, 802.11a)



(PEAK, Channel 149, 802.11a)



(PEAK, Channel 165, 802.11a)

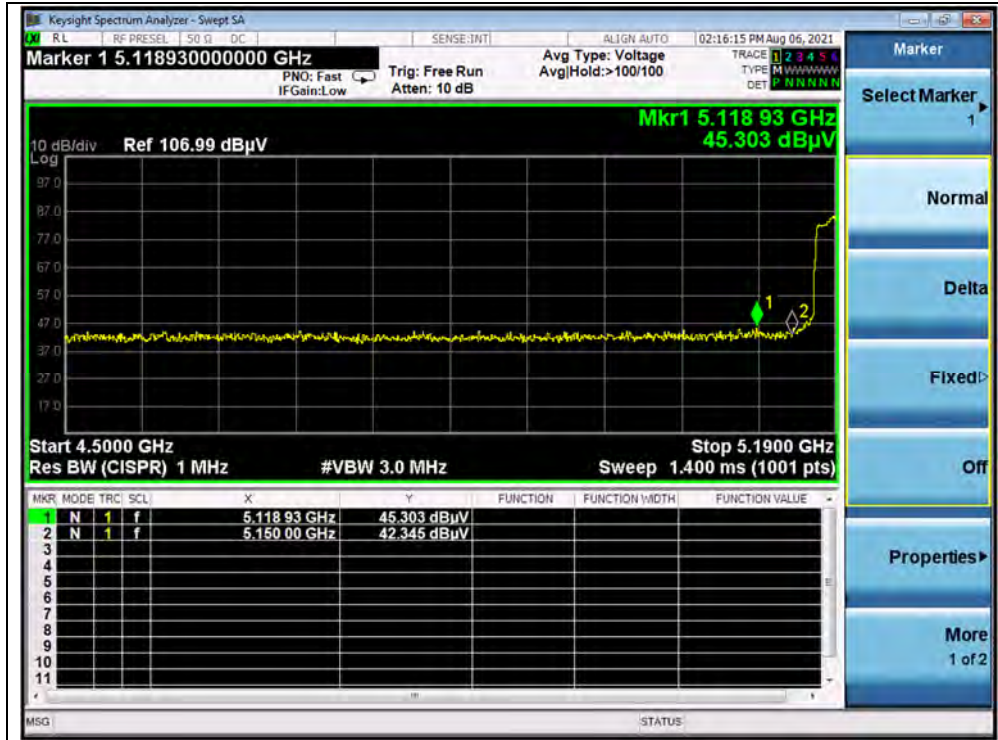
**802.11n (HT40) Mode****A.Test Verdict:**

Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dB $\mu$ V)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Verdict
		PK/ AV						
38	5118.93	PK	45.30	-19.54	32.20	57.96	74	PASS
38	5150.00	AV	35.13	-19.54	32.20	47.79	54	PASS
62	5350.00	PK	46.71	-18.80	32.20	60.11	74	PASS
62	5350.00	AV	36.14	-18.80	32.20	49.54	54	PASS
102	5470.00	PK	47.39	-19.20	32.20	60.39	68.23	PASS
102	5470.00	AV	36.62	-19.20	32.20	49.62	54	PASS
142	5747.22	PK	44.83	-19.20	32.20	57.83	68.23	PASS
142	5725.00	AV	35.28	-19.20	32.20	48.28	54	PASS
151	5725.00	PK	48.40	-19.01	32.20	61.59	122.23	PASS
159	5850.00	PK	43.08	-19.01	32.20	56.27	122.23	PASS

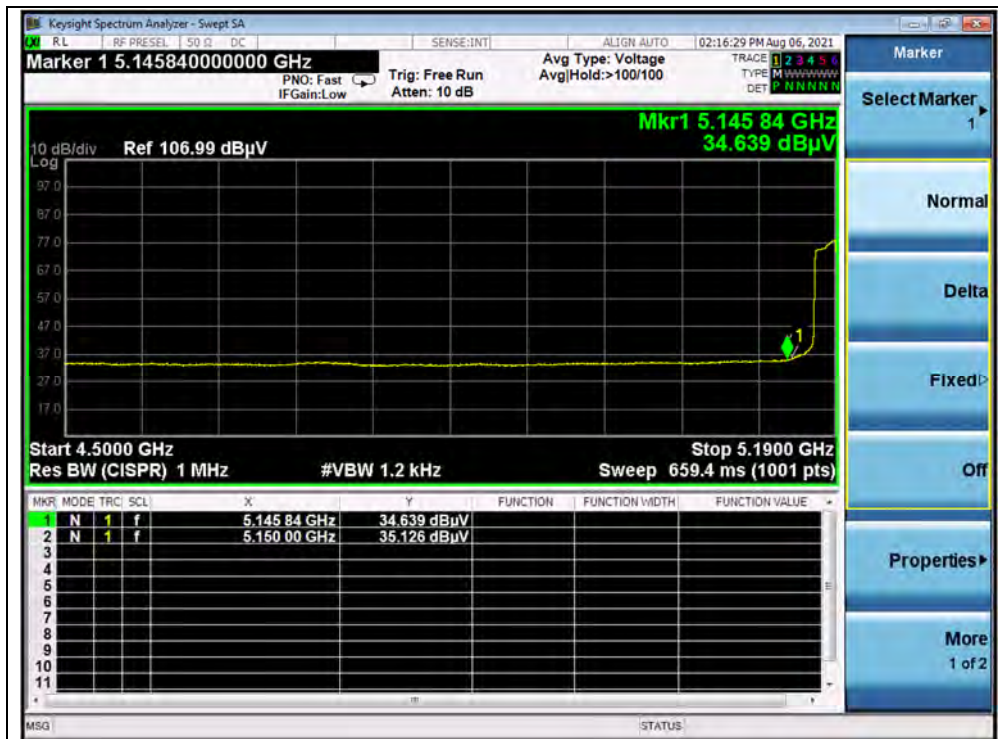




B.Test Plot:

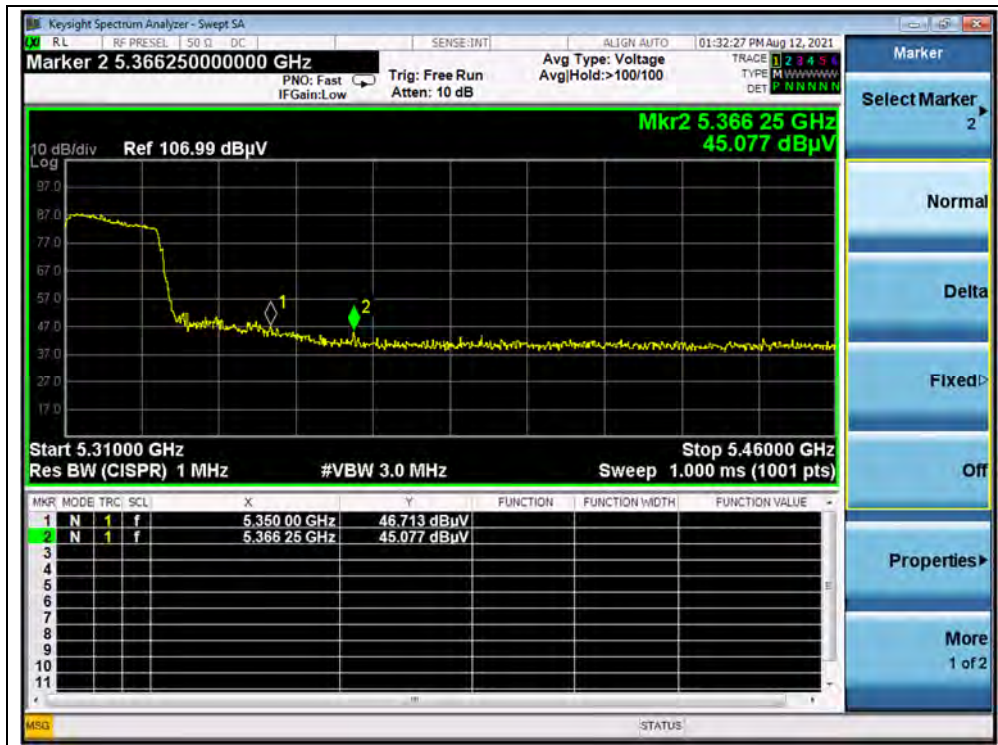


(PEAK, Channel 38, 802.11n (HT40))

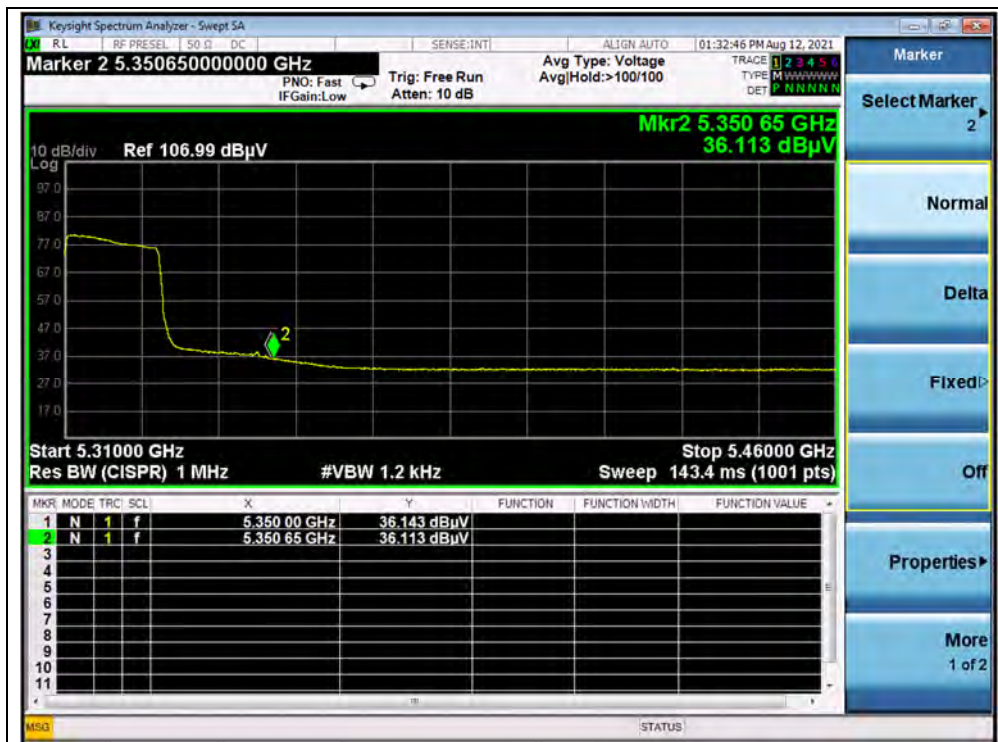


(AVERAGE, Channel 38, 802.11n (HT40))

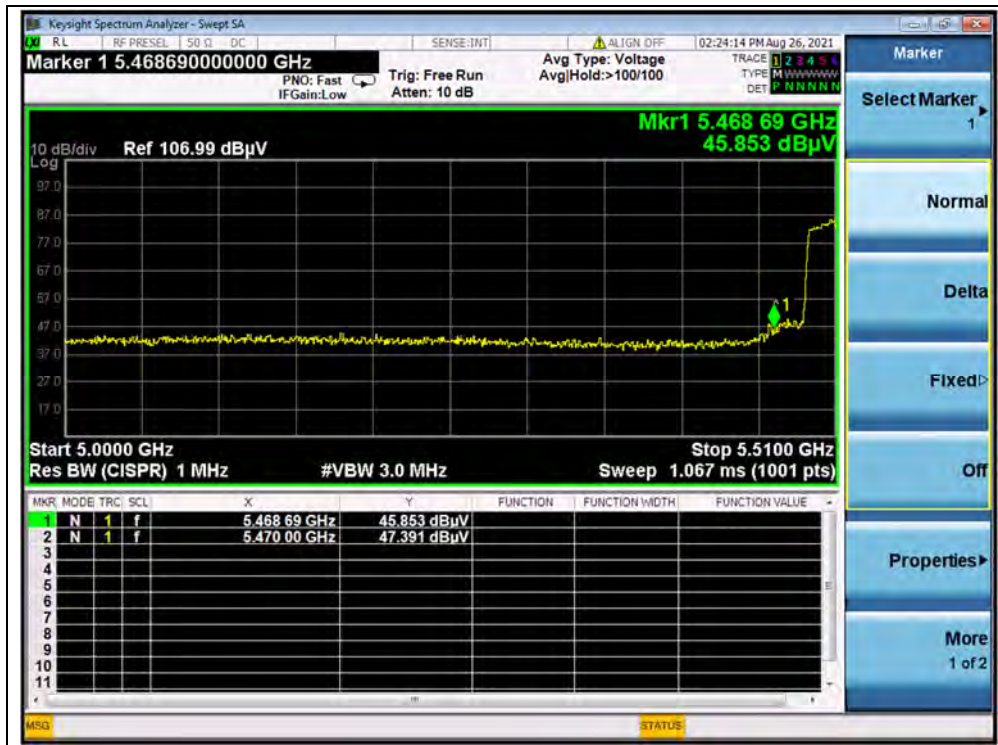




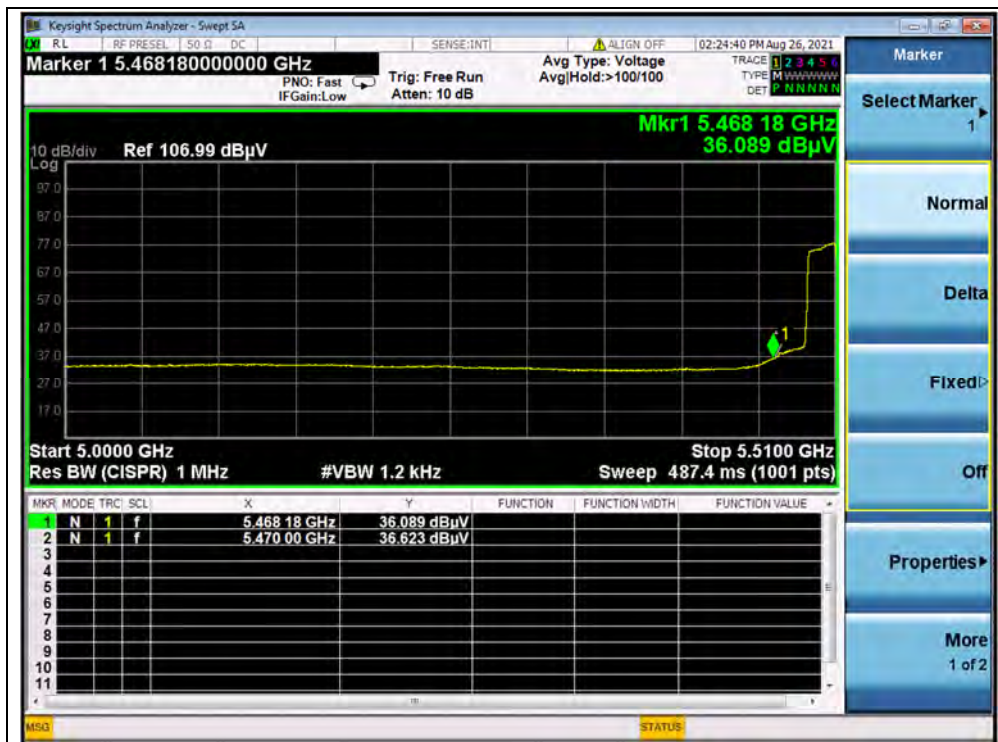
(PEAK, Channel 62, 802.11n (HT40))



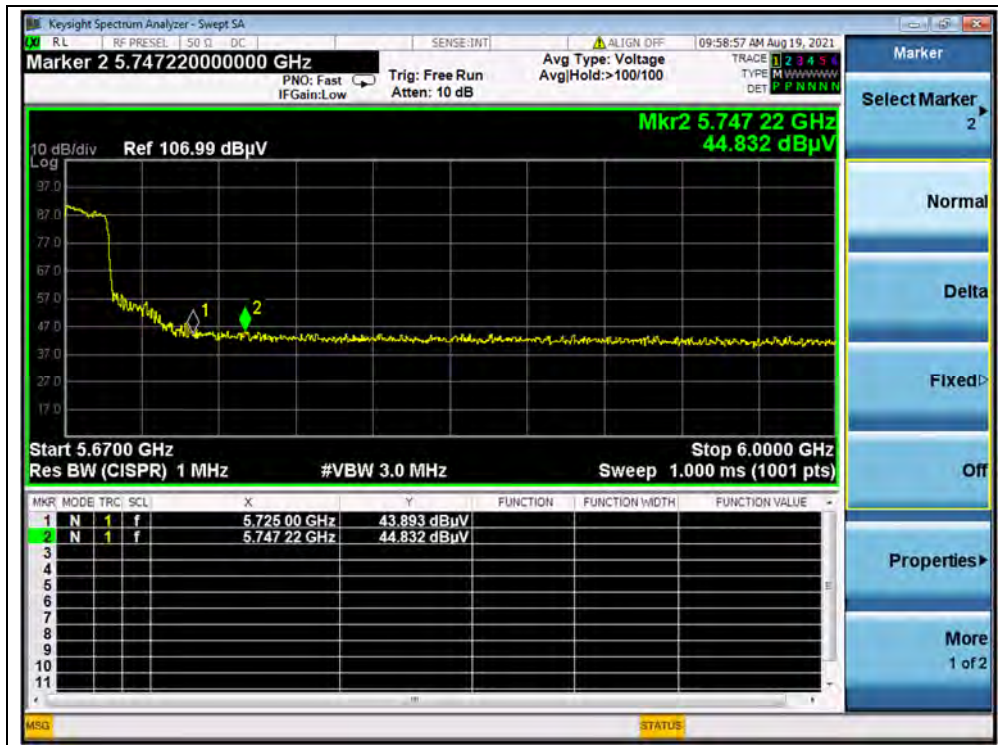
(AVERAGE, Channel 62, 802.11n (HT40))



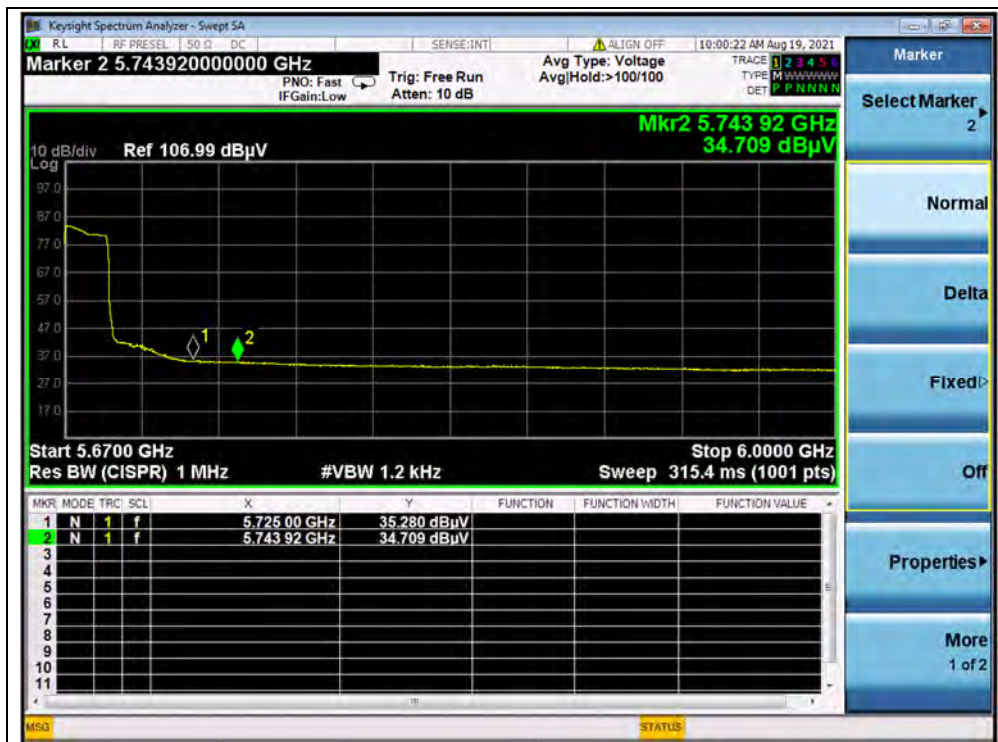
(PEAK, Channel 102, 802.11n (HT40))



(AVERAGE, Channel 102, 802.11n (HT40))

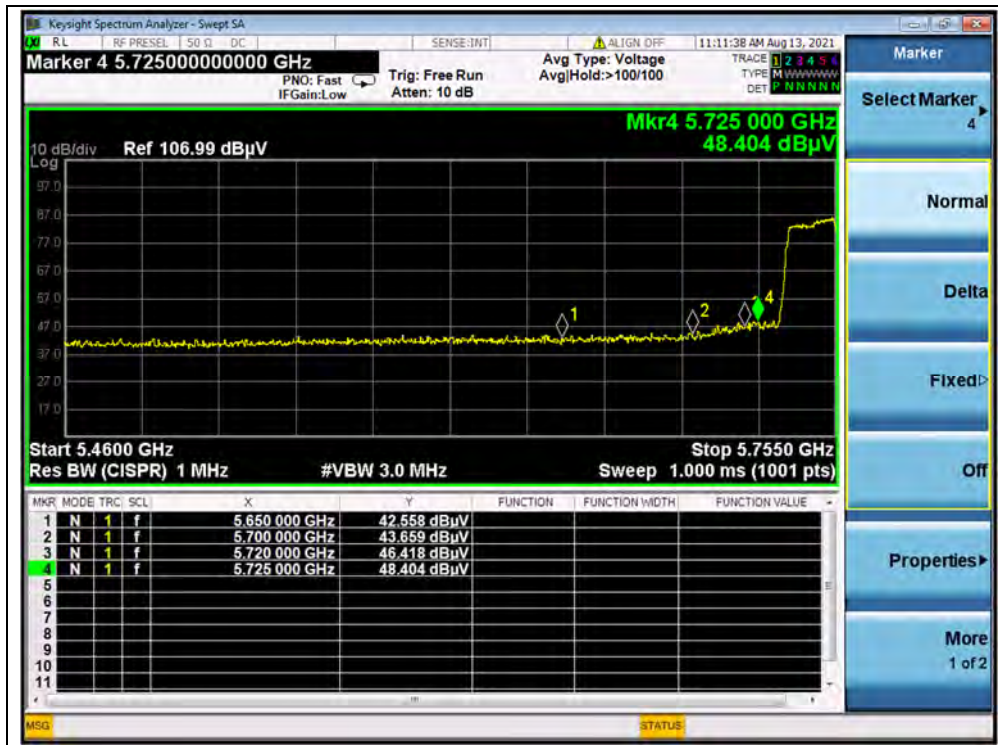


(PEAK, Channel 142, 802.11n (HT40))

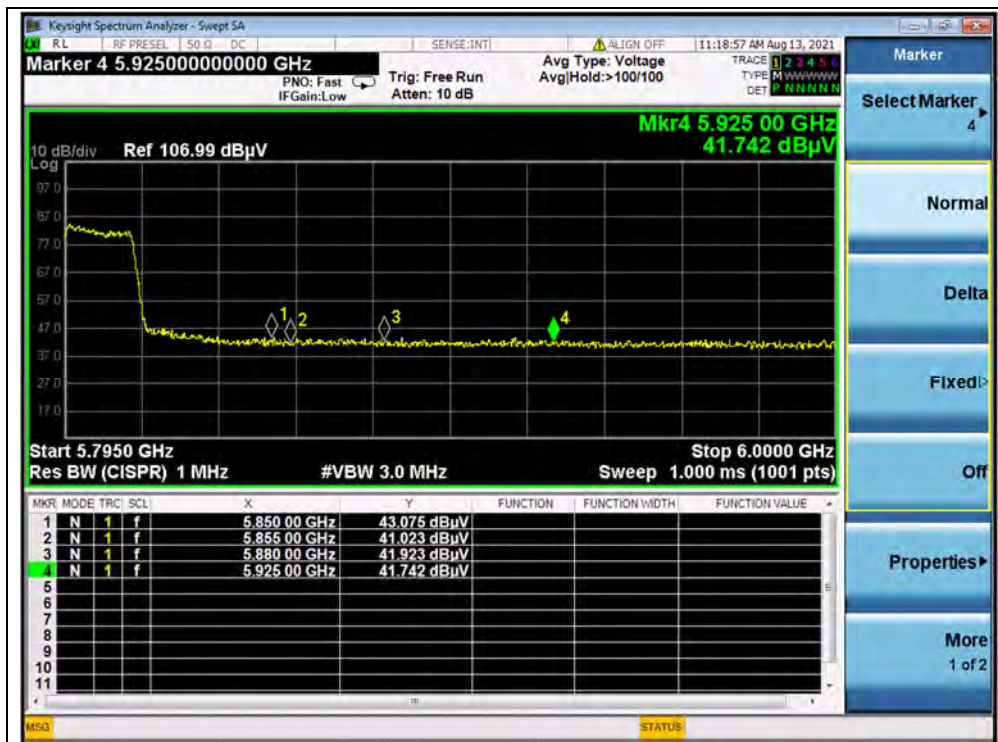


(AVERAGE, Channel 142, 802.11n (HT40))





(PEAK, Channel 151, 802.11n (HT40))



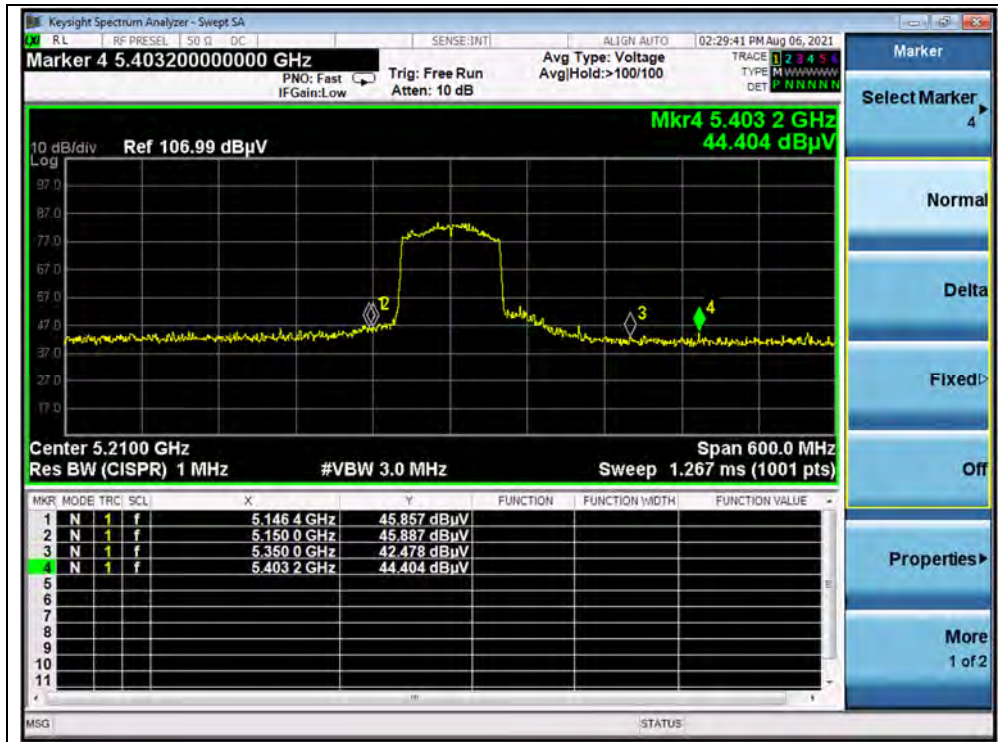
(PEAK, Channel 159, 802.11n (HT40))



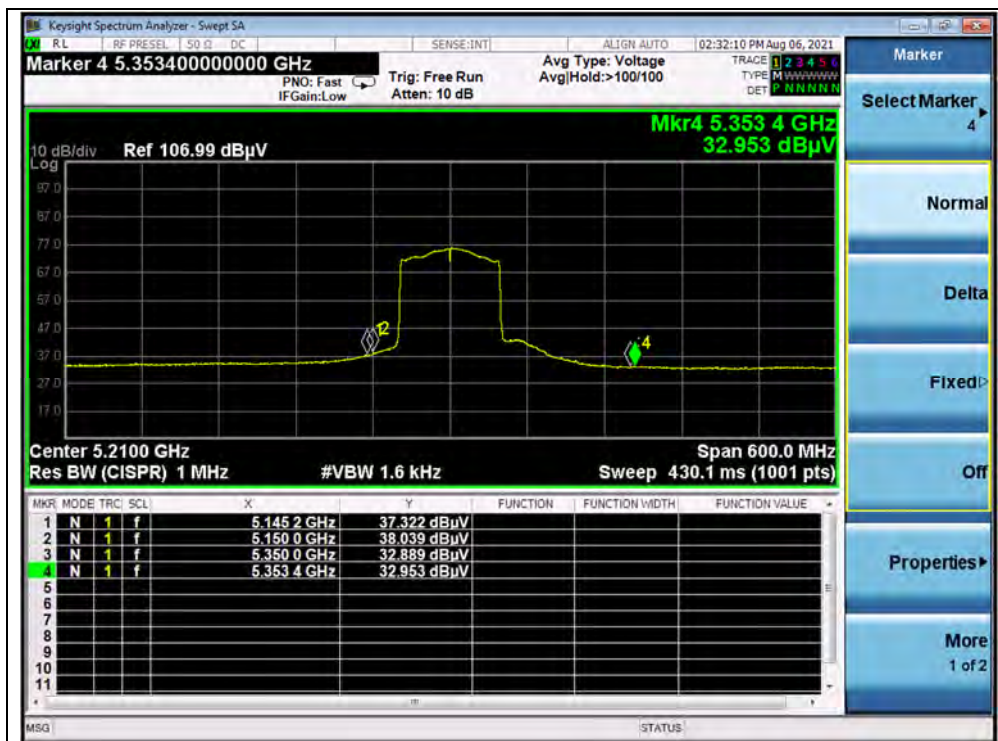
**802.11ac (VHT80) Mode****A.Test Verdict:**

Channel	Frequency (MHz)	Detector	Receiver Reading	A <sub>T</sub> (dB)	A <sub>Factor</sub> (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV	U <sub>R</sub> (dBμV)					
42	5150.00	PK	45.89	-19.54	32.20	58.55	74	PASS
42	5150.00	AV	38.04	-19.54	32.20	50.70	54	PASS
58	5350.00	PK	47.30	-18.80	32.20	60.70	74	PASS
58	5350.00	AV	37.60	-18.80	32.20	51.00	54	PASS
106	5470.00	PK	46.33	-19.20	32.20	59.33	68.23	PASS
106	5470.00	AV	37.22	-19.20	32.20	50.22	54	PASS
138	5741.43	PK	47.06	-19.20	32.20	60.06	68.23	PASS
138	5725.00	AV	35.04	-19.20	32.20	48.04	54	PASS
155	5720.00	PK	46.67	-19.01	32.20	59.86	110.83	PASS
155	5850.00	PK	43.33	-19.01	32.20	56.52	122.23	PASS

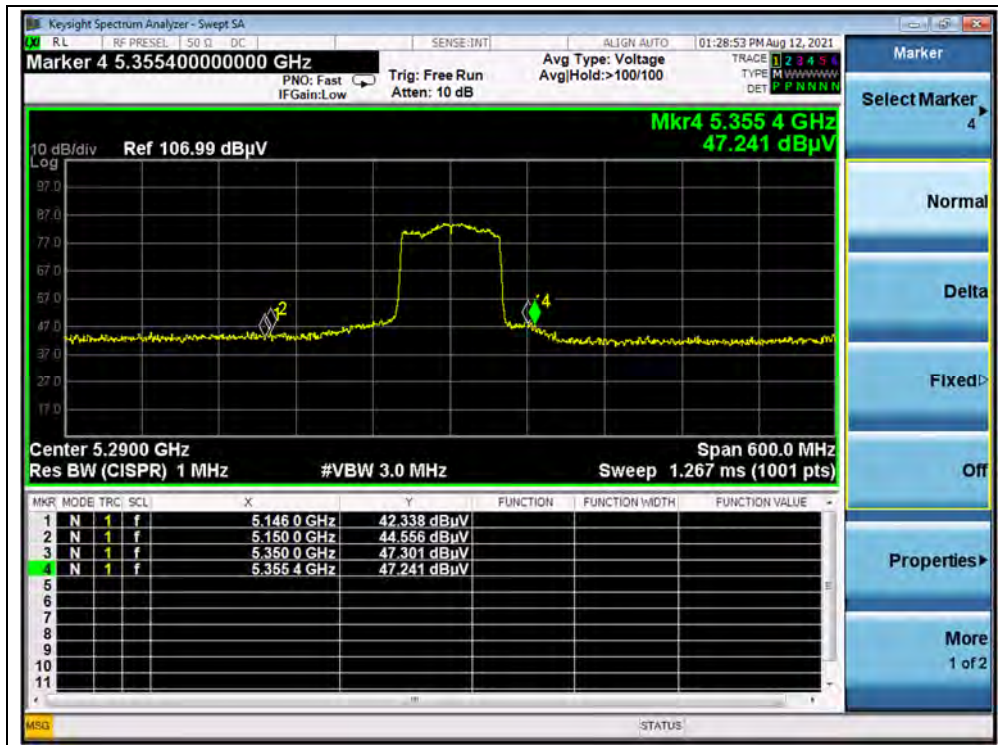
**B.Test Plot:**



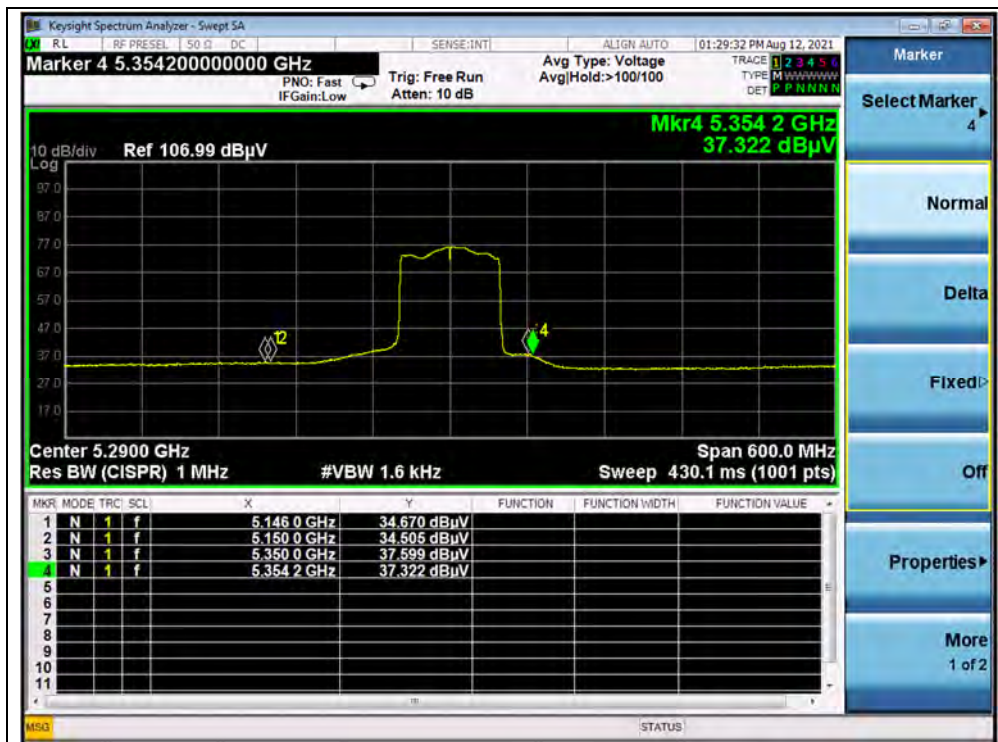
(PEAK, Channel 42, 802.11ac (VHT80))



(AVERAGE, Channel 42, 802.11ac (VHT80))

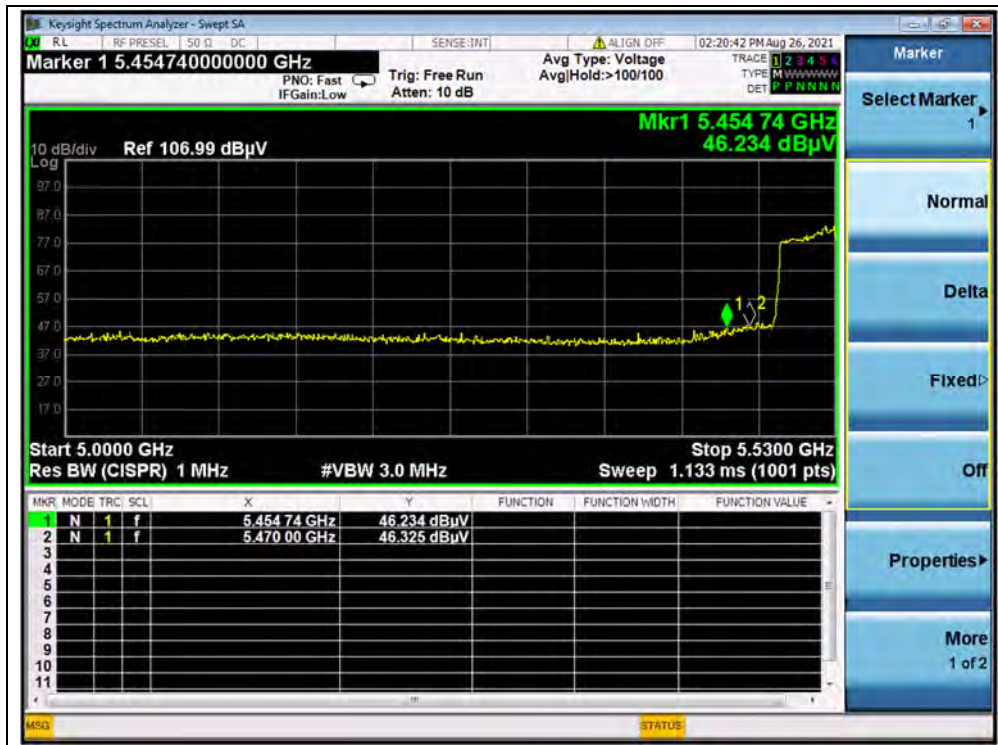


(PEAK, Channel 58, 802.11ac (VHT80))

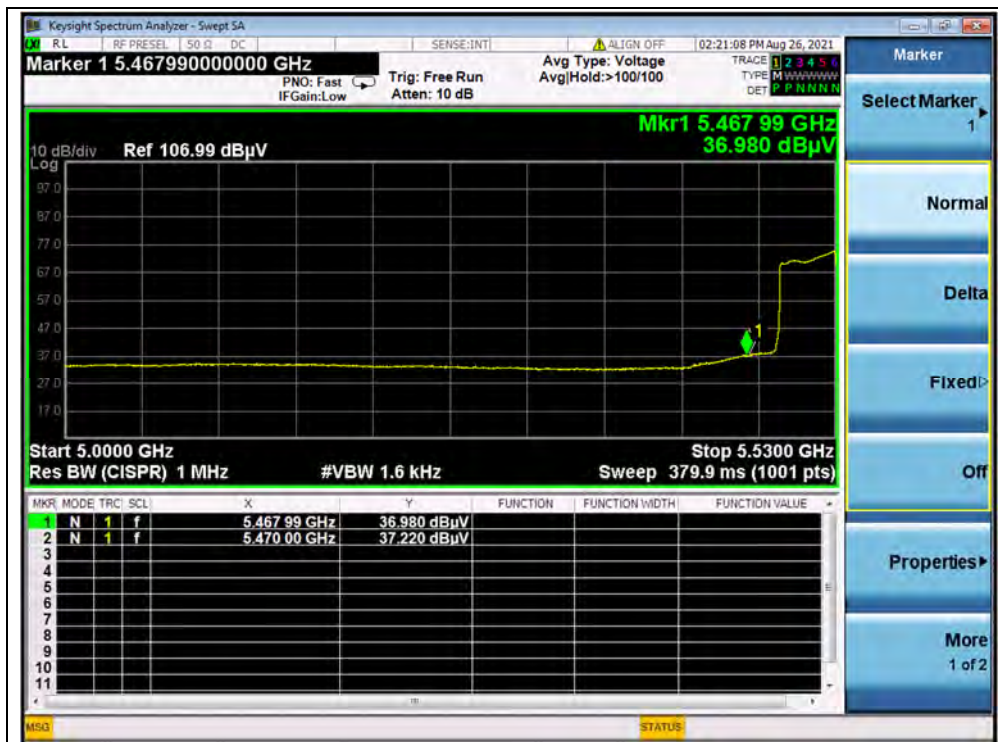


(AVERAGE, Channel 58, 802.11ac (VHT80))





(PEAK, Channel 106, 802.11ac (VHT80))

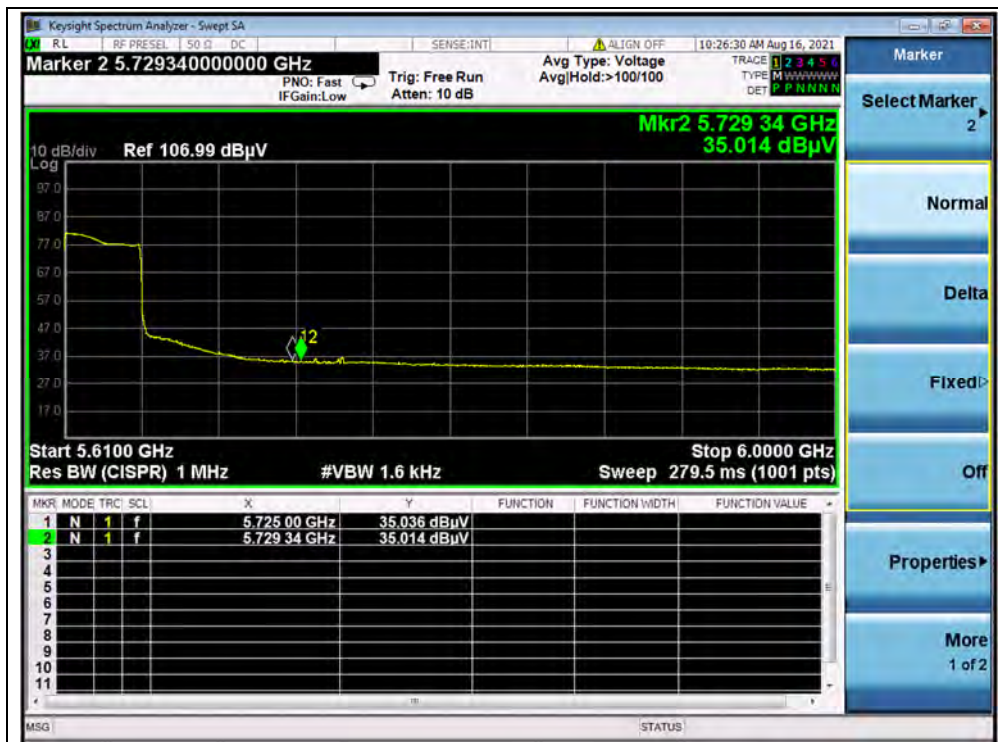


(AVERAGE, Channel 106, 802.11ac (VHT80))





(PEAK, Channel 138, 802.11ac (VHT80))



(AVERAGE, Channel 138, 802.11ac (VHT80))





## 2.9. Radiated Emission

### 2.9.1. 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 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (4) 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(e.i.r.p.) 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:

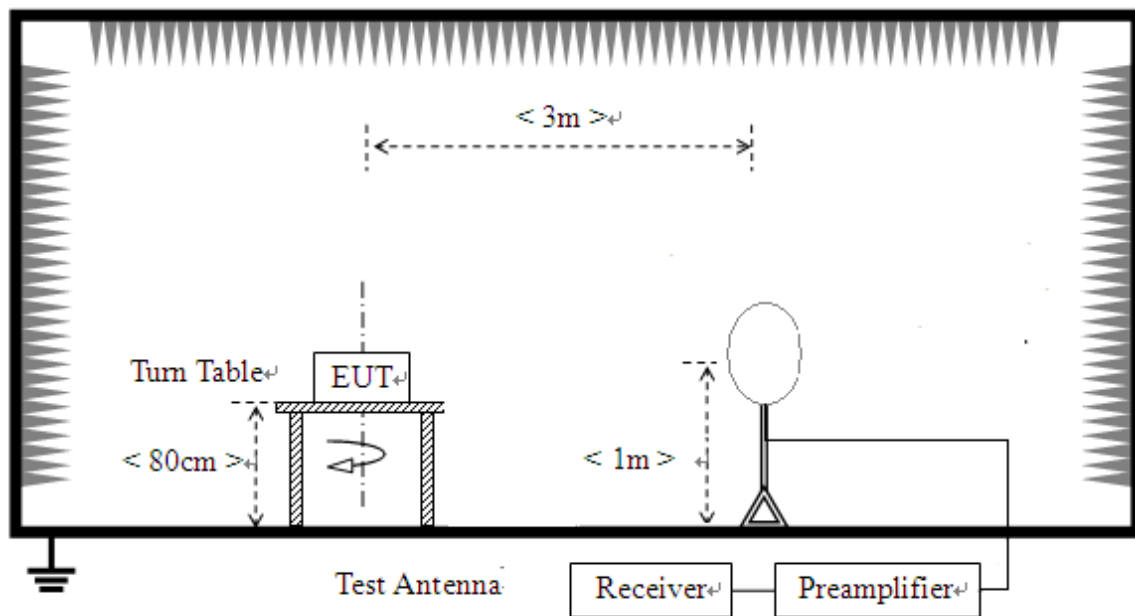
Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

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).

### 2.9.2. Test Description

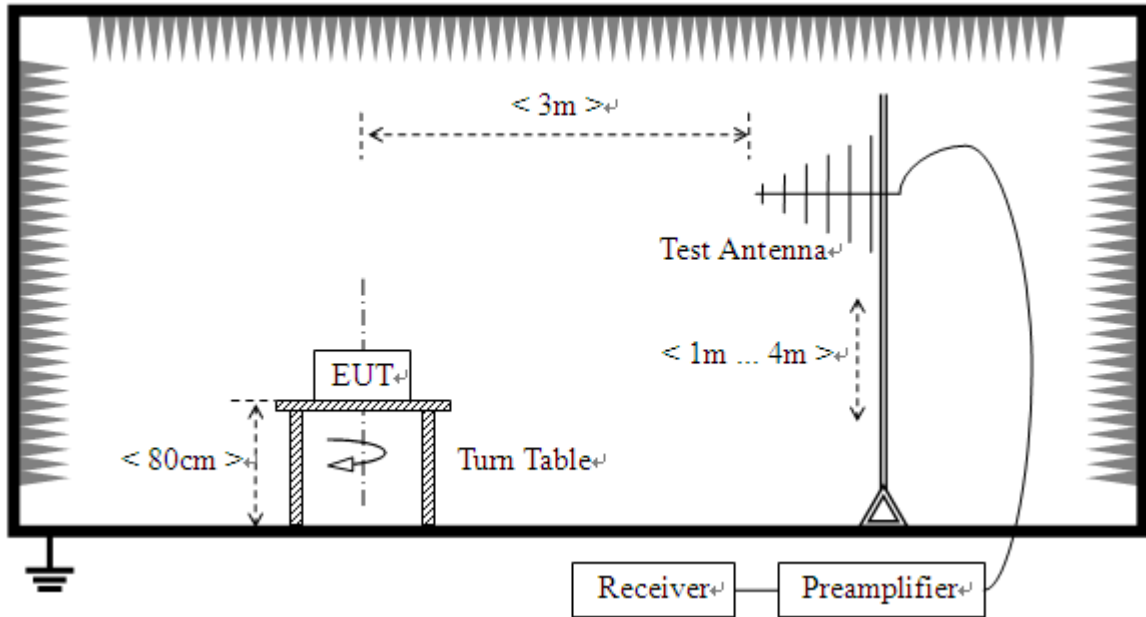
#### Test Setup:

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

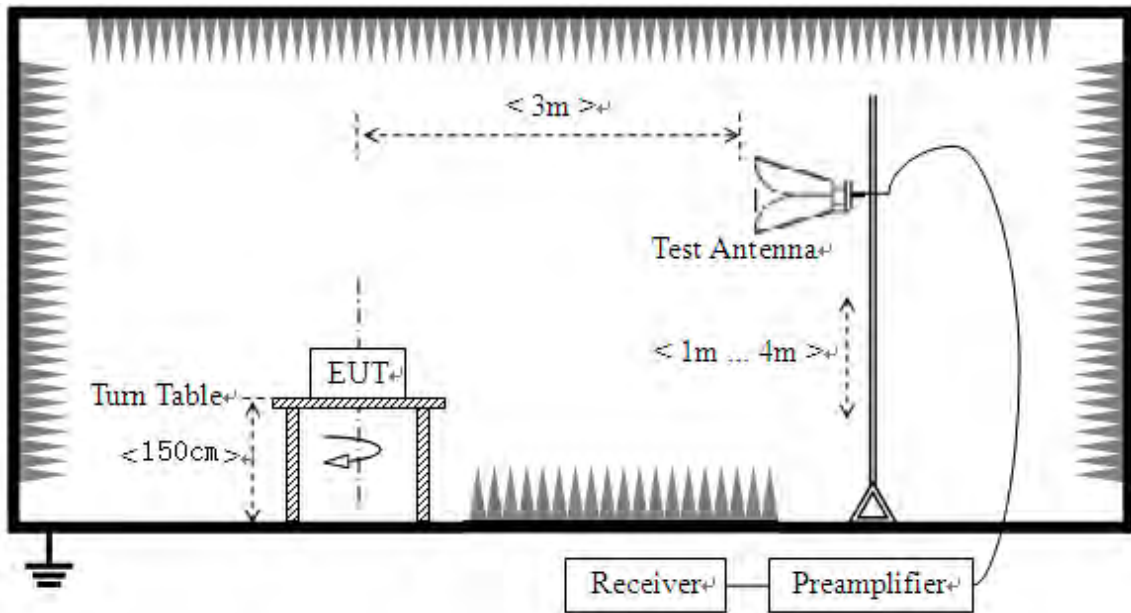




2) For radiated emissions from 30MHz to1GHz



3) For radiated emissions above 1GHz



The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.



For measurements below 30MHz, the emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9kHz-90 kHz, 110kHz-490 kHz. Radiated emission limits in these two bands are based on measurements employing an average detector.

For measurements below 1GHz the resolution bandwidth is set to 100kHz for peak detection measurements or 120kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1GHz the resolution bandwidth is set to 1MHz, the video band width is set to 3MHz for peak measurements and as applicable for average measurements.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

### 2.9.3. Test Result

According to ANSI C63.10, because of peak detection will yield amplitudes equal to or greater than amplitudes measured with the quasi-peak (or average) detector, the measurement data from a spectrum analyzer peak detector will represent the worst-case results, if the peak measured value complies with the quasi-peak (or average) limit, it is unnecessary to perform an quasi-peak measurement (or average).

The measurement results are obtained as below:

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

$A_T$ : Total correction Factor except Antenna

$U_R$ : Receiver Reading

$G_{\text{preamp}}$ : Preamplifier Gain

$A_{\text{Factor}}$ : Antenna Factor at 3m

During the test, the total correction Factor  $A_T$  and  $A_{\text{Factor}}$  were built in test software.

**Note 1:** All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

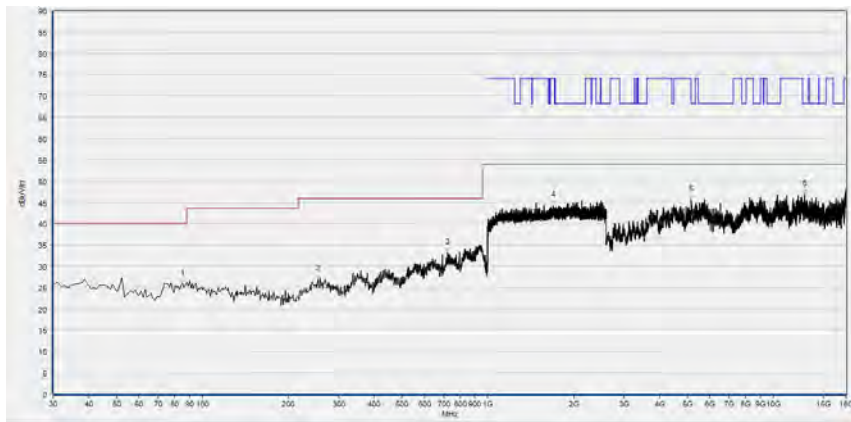
**Note 2:** For the frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

**Note 3:** 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.

**Note 4:** All test modes and bandwidth were considered and evaluated respectively by performing full test, only the worst data were recorded for each bandwidth.

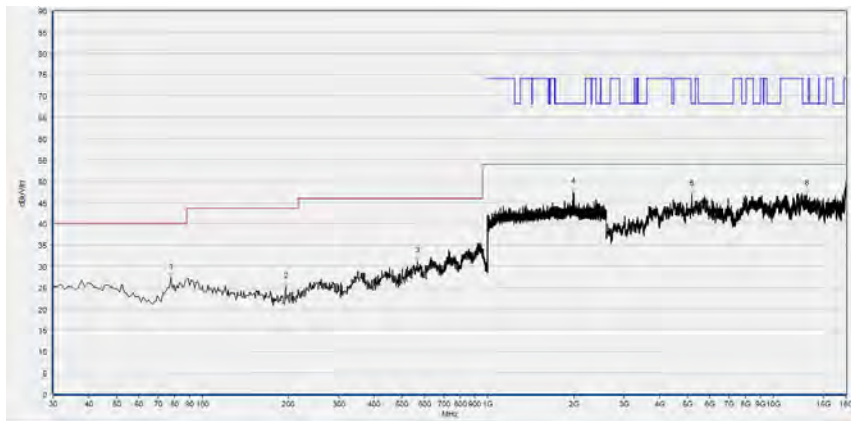
**802.11a Mode**

**Plot for Channel 36**



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
85.290	26.01	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
254.070	26.95	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
723.550	33.19	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1698.133	44.32	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5168.720	45.51	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12914.920	46.87	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

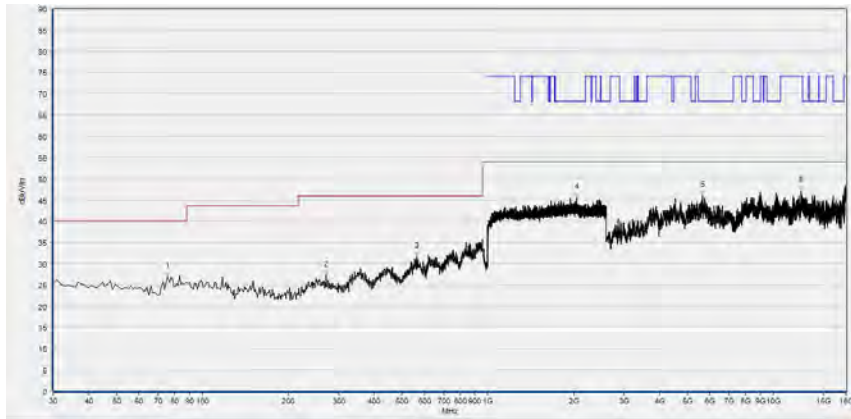
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
77.530	27.40	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
195.870	25.18	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
565.440	31.22	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1995.200	47.44	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5181.040	46.89	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
13078.160	46.86	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

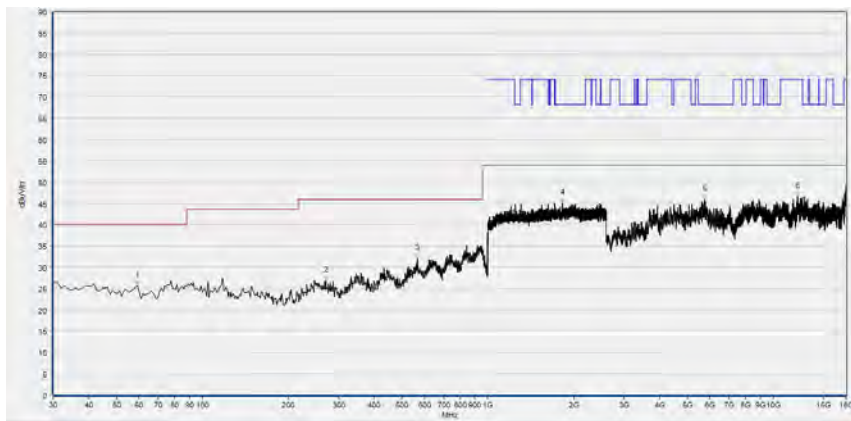
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 44



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
75.590	26.93	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
271.530	27.29	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
564.470	31.66	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2044.267	45.55	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5649.200	46.09	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12520.680	47.12	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

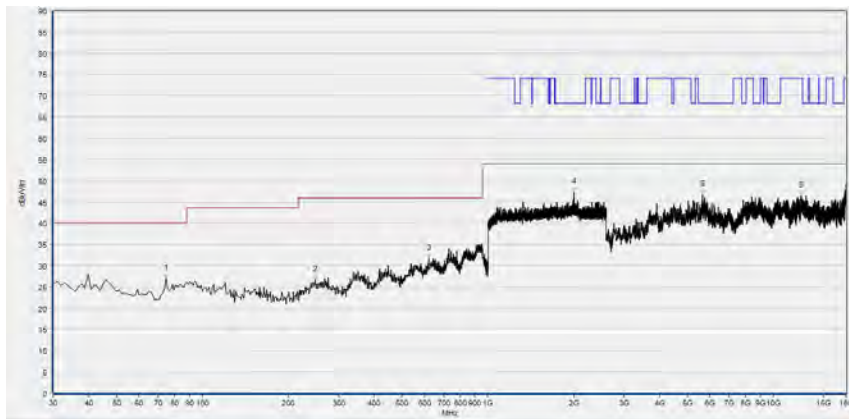


Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
59.100	25.65	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
270.560	26.81	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
565.440	31.94	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1826.133	45.01	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5735.440	45.84	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12154.160	46.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

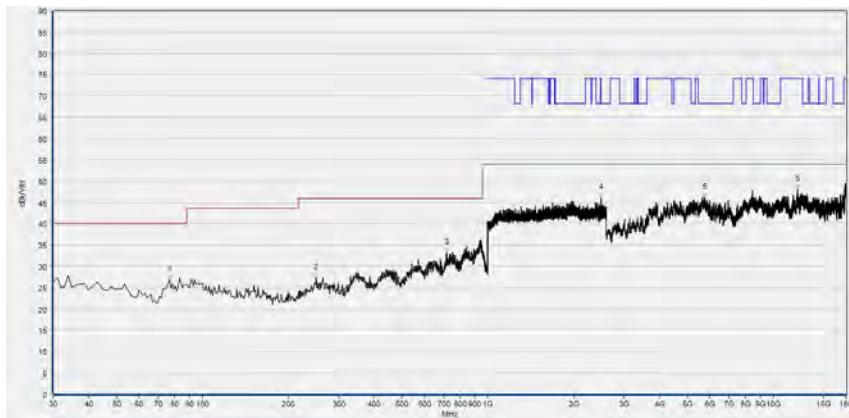


Plot for Channel 48



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
74.620	27.03	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
248.250	26.67	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
620.730	31.71	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2000.000	47.22	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5636.880	46.75	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12539.160	46.48	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

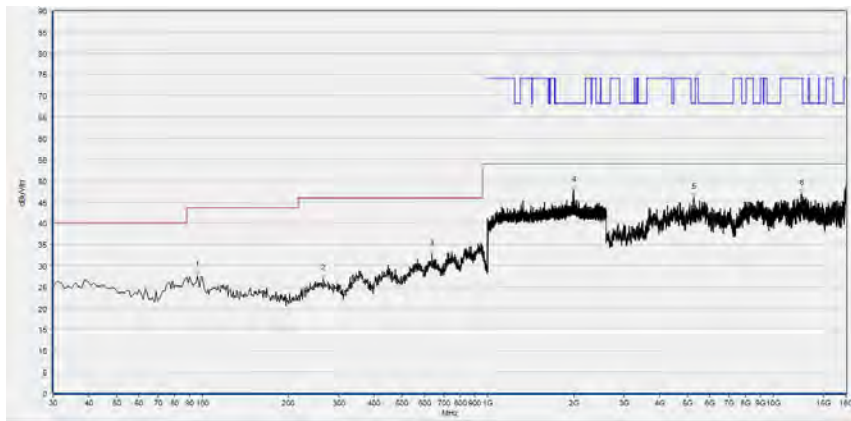
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
76.560	26.78	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
250.190	27.34	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
718.700	33.10	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2491.733	46.07	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5744.680	46.06	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12148.000	48.14	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

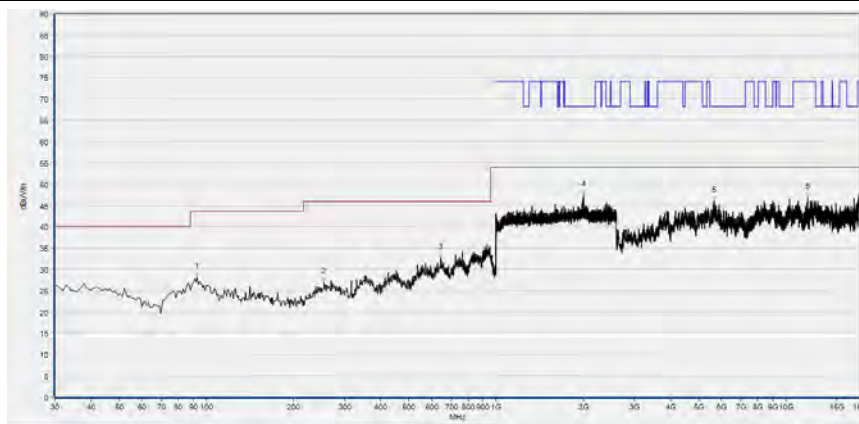
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 52



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
95.960	27.62	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
265.710	26.92	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
637.220	32.70	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1997.333	47.77	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5261.120	46.04	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12613.080	46.89	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

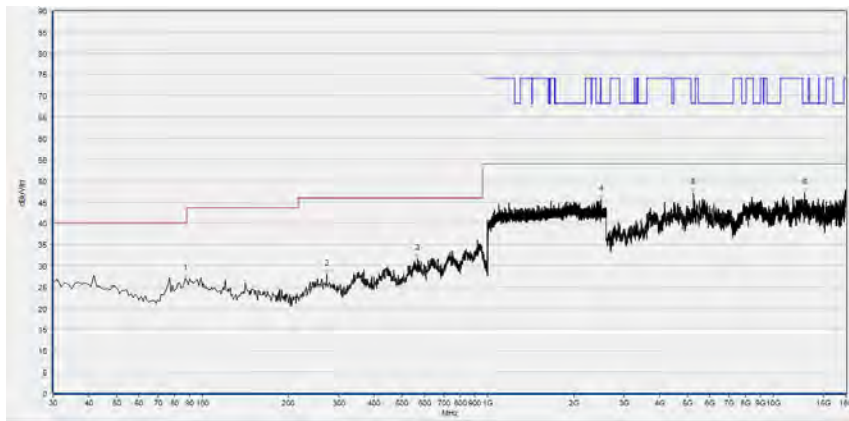
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
93.050	28.16	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
255.040	27.02	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
643.040	32.75	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1997.867	47.45	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5636.880	46.07	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
11886.200	46.92	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

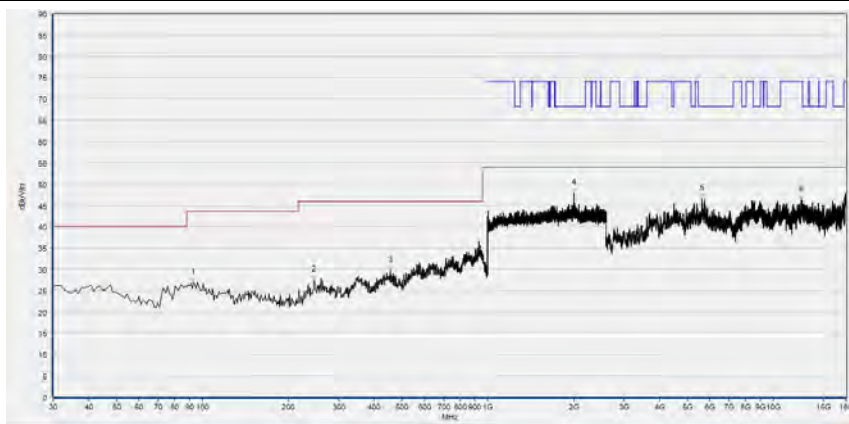
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 60



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
87.230	26.98	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
272.500	28.04	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
568.350	31.61	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2497.600	45.62	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5258.040	47.07	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12899.520	47.17	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

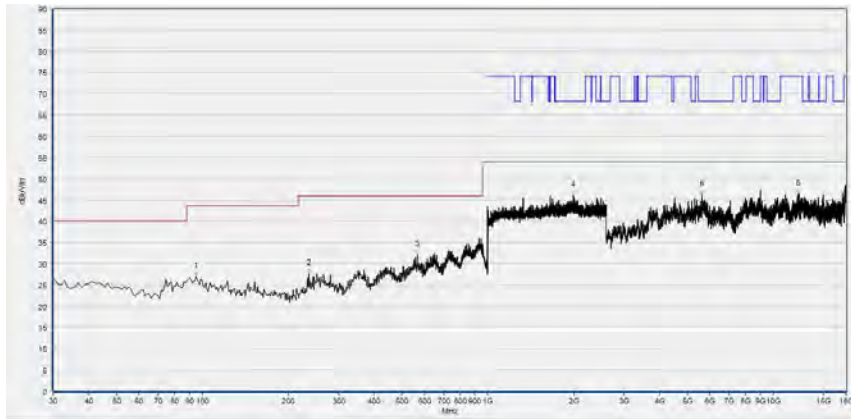
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
93.050	26.90	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
246.310	27.45	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
454.860	29.66	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2000.000	48.00	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5633.800	46.57	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12554.560	46.25	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

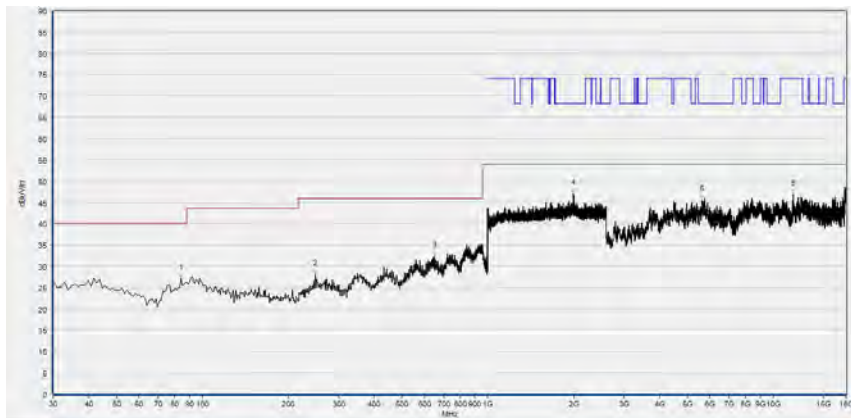
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 64



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
94.990	26.98	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
235.640	27.58	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
565.440	31.97	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1996.800	46.11	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5633.800	46.18	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12209.600	46.41	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

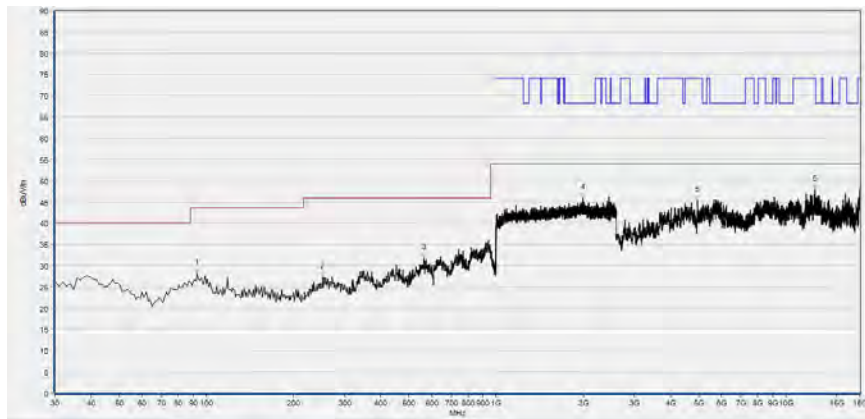


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
84.320	27.10	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
249.220	28.10	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
650.800	32.32	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1996.800	47.17	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5630.720	45.52	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
11769.160	46.97	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

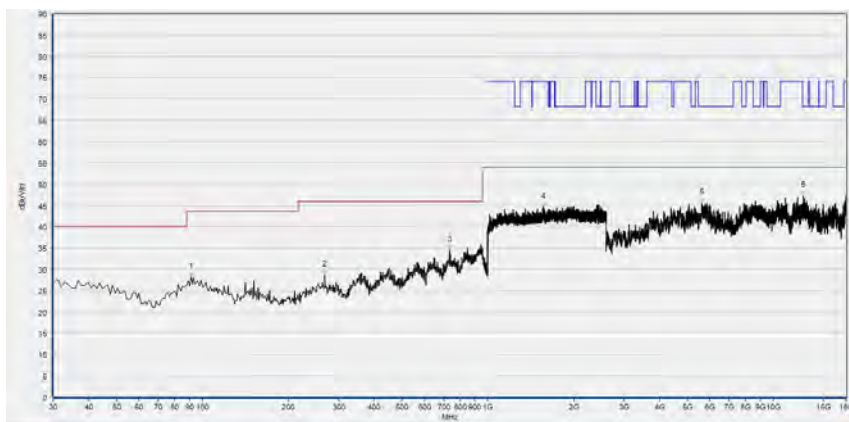


Plot for Channel 100



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
93.050	28.11	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
252.130	27.27	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
562.530	31.79	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1995.733	45.85	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
4959.280	45.43	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12610.000	47.99	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

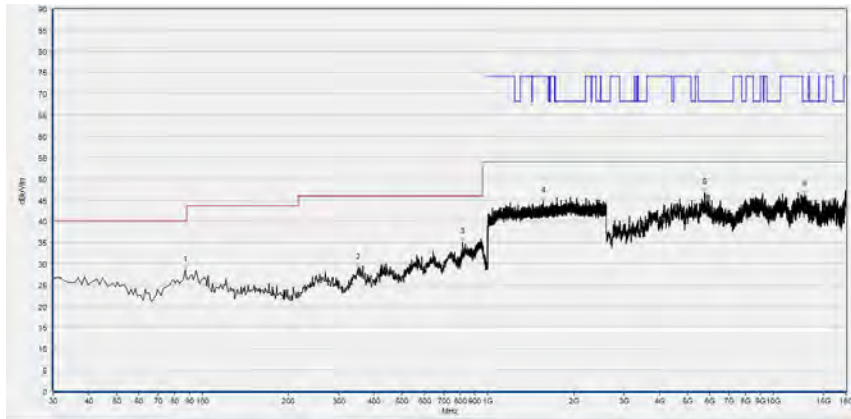
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
91.110	28.16	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
268.620	28.69	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
733.250	34.51	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1565.333	44.53	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5630.720	45.61	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12739.360	47.31	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

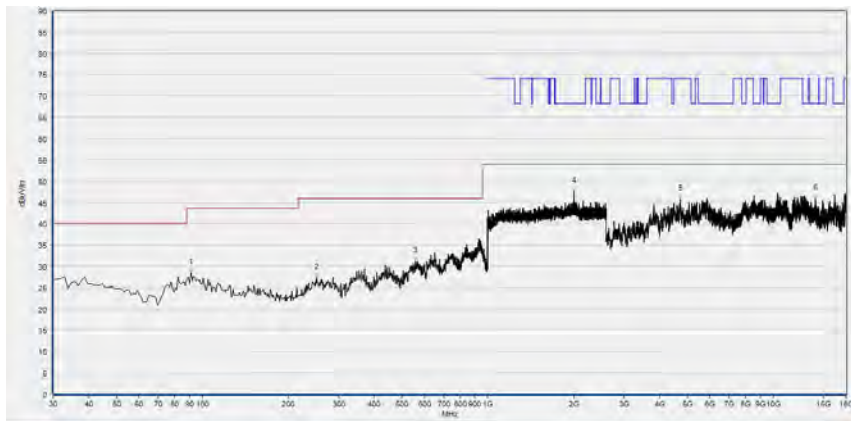
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 120



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
87.230	28.50	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
352.040	28.94	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
816.670	35.01	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1567.467	44.75	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5741.600	46.79	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12868.720	46.30	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

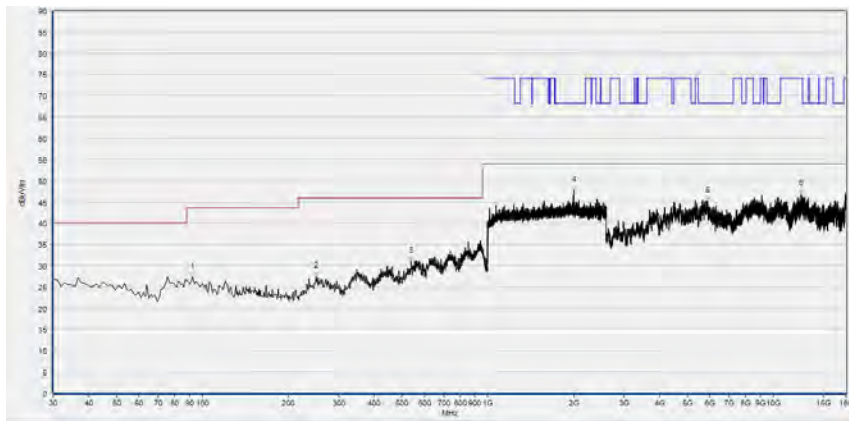
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
91.110	28.47	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
252.130	27.33	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
557.680	31.19	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1998.933	47.64	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
4719.040	45.83	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14029.880	45.84	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

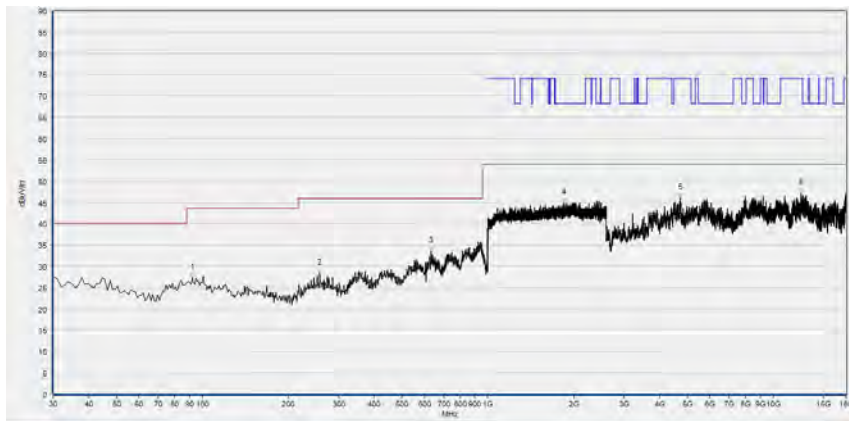
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 144



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
92.080	27.34	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
250.190	27.50	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
539.250	31.00	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1997.333	47.75	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5898.680	45.22	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12517.600	46.88	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

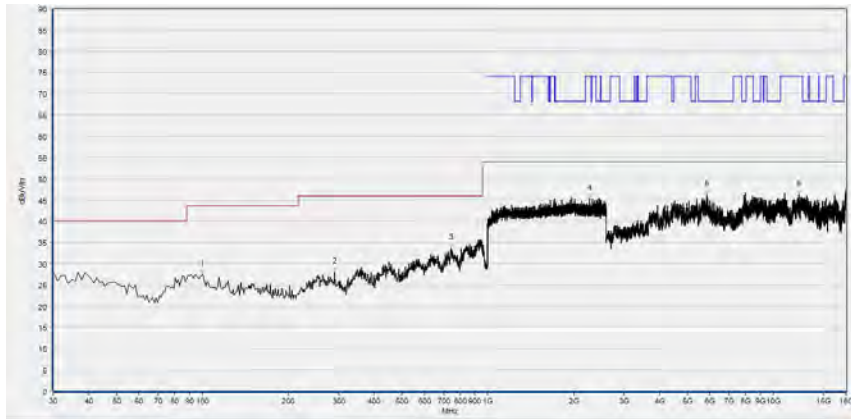
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
92.080	27.31	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
257.950	28.38	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
632.370	33.60	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1844.800	44.86	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
4719.040	46.09	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12492.960	47.17	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

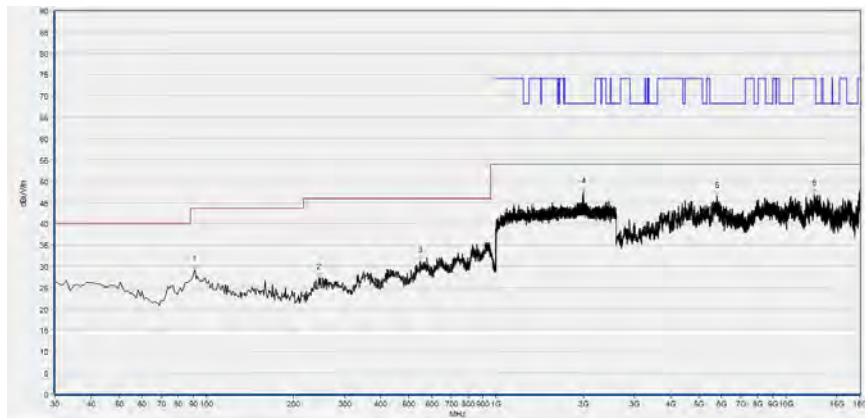
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 149



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
99.840	27.44	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
289.960	27.94	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
741.980	33.76	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2267.733	45.28	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5861.720	46.25	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12298.920	46.30	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

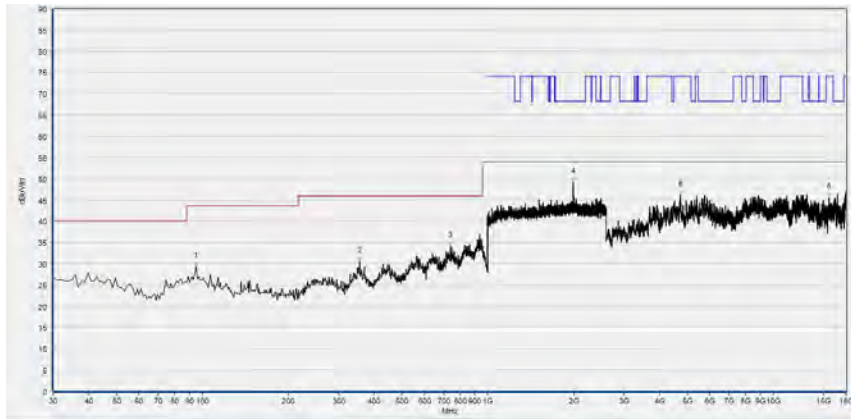


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
91.110	29.18	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
244.370	27.29	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
548.950	31.24	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1997.333	47.37	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5775.480	46.49	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12517.600	46.91	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

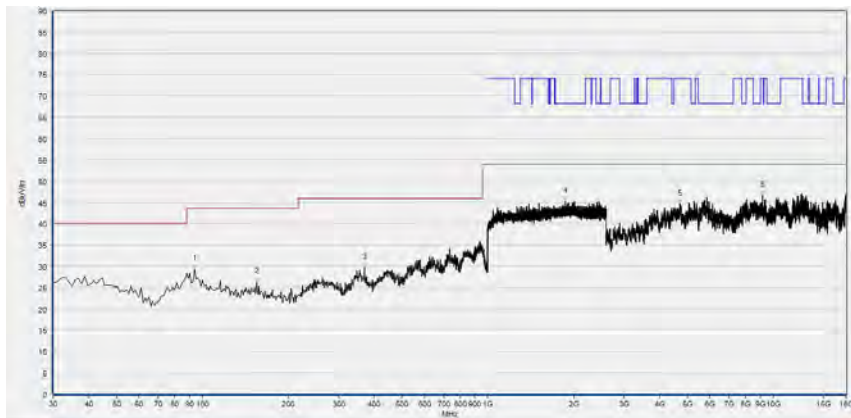


Plot for Channel 157



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
94.990	29.30	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
355.920	30.51	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
738.100	34.24	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1994.133	49.28	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
4731.360	46.24	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
15677.680	45.52	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

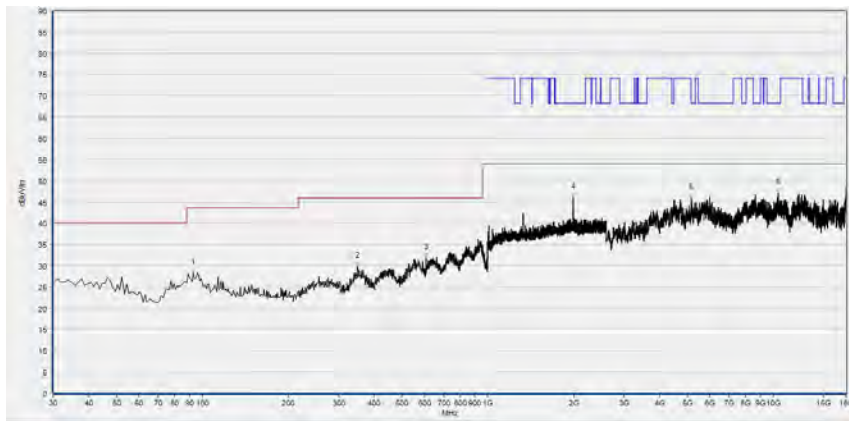
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
94.020	29.39	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
155.130	26.26	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
369.500	29.63	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1874.133	45.29	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
4712.880	44.65	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9160.400	46.66	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

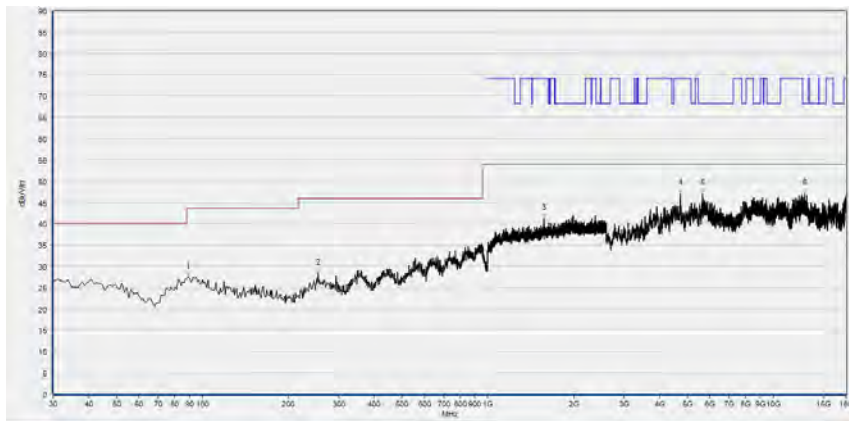
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 165



Fre. (MHz)	PK (dB $\mu$ V/m)	QP (dB $\mu$ V/m)	AV (dB $\mu$ V/m)	Limit-PK (dB $\mu$ V/m)	Limit-QP (dB $\mu$ V/m)	Limit-AV (dB $\mu$ V/m)	Antenna	Verdict
93.050	28.36	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
350.100	29.81	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
608.120	31.80	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1991.467	46.15	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5168.720	45.99	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
10392.400	47.02	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

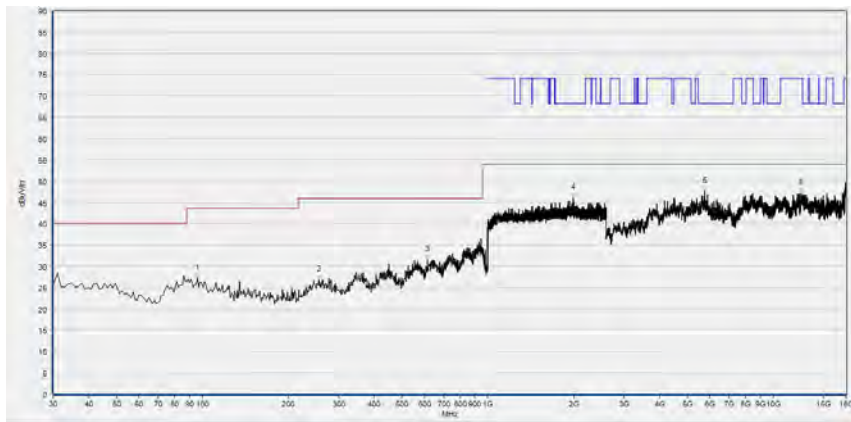


Fre. (MHz)	PK (dB $\mu$ V/m)	QP (dB $\mu$ V/m)	AV (dB $\mu$ V/m)	Limit-PK (dB $\mu$ V/m)	Limit-QP (dB $\mu$ V/m)	Limit-AV (dB $\mu$ V/m)	Antenna	Verdict
89.170	27.54	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
254.070	28.32	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1570.667	41.19	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4722.120	47.05	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5636.880	47.12	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12865.640	47.18	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

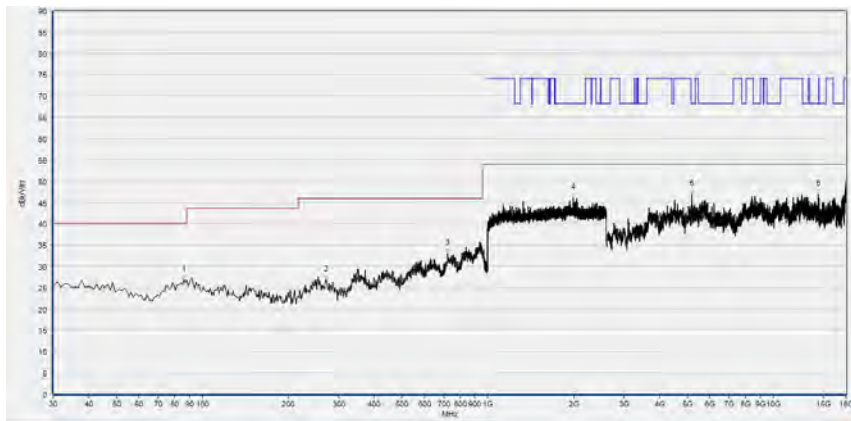
**802.11n (HT40) mode**

**Plot for Channel 38**



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
95.960	27.11	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
256.010	26.87	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
613.940	31.52	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1996.267	46.04	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5757.000	47.53	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12517.600	47.06	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

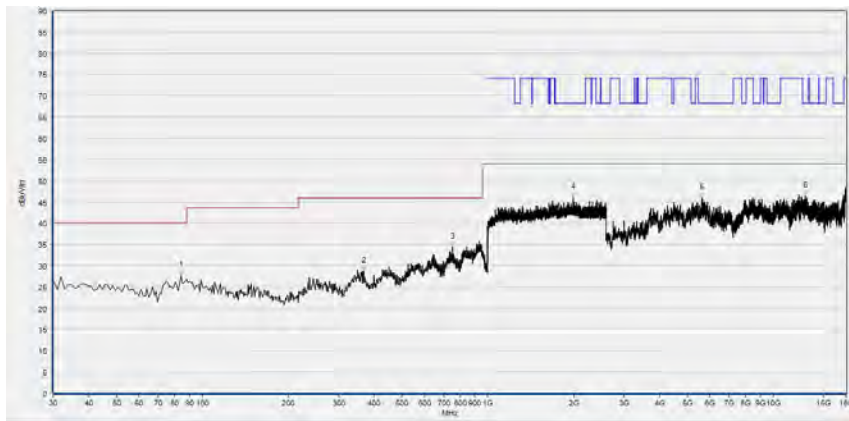
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
86.260	26.82	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
270.560	26.90	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
723.550	33.03	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1993.067	46.02	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5193.360	47.01	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
14408.720	46.91	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

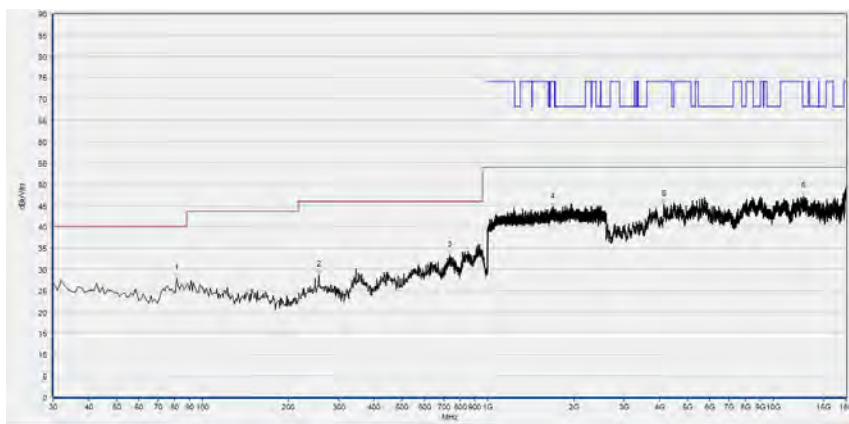
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 46



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
84.320	27.64	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
367.560	28.64	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
753.620	34.39	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1991.467	46.13	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5633.800	46.00	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12939.560	46.44	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

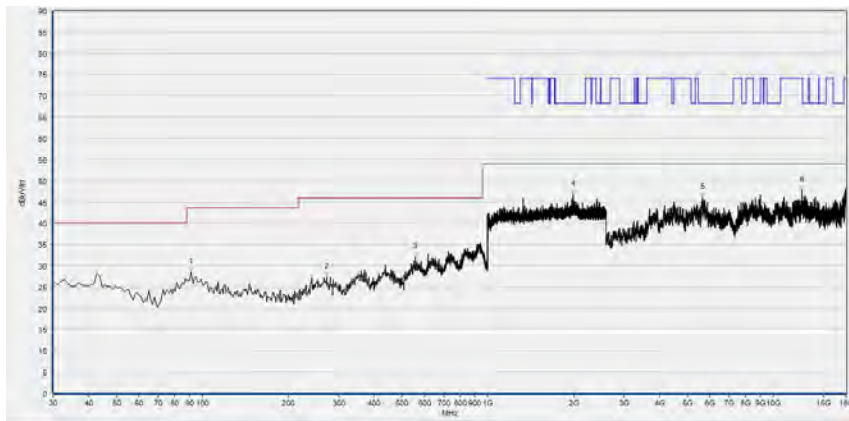


Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
81.410	27.75	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
256.010	28.58	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
736.160	33.32	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1681.600	44.54	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4130.760	45.17	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12720.880	47.16	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

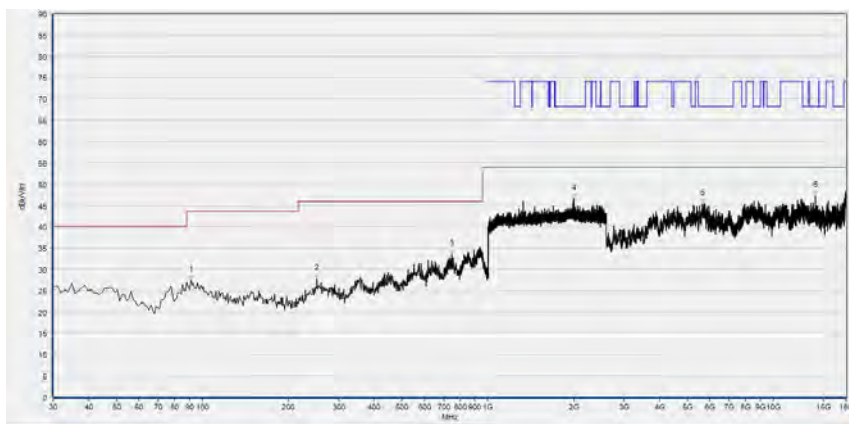


Plot for Channel 54



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
91.110	28.55	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
272.500	27.30	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
556.710	31.94	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1993.600	46.73	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5649.200	46.05	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12603.840	47.79	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

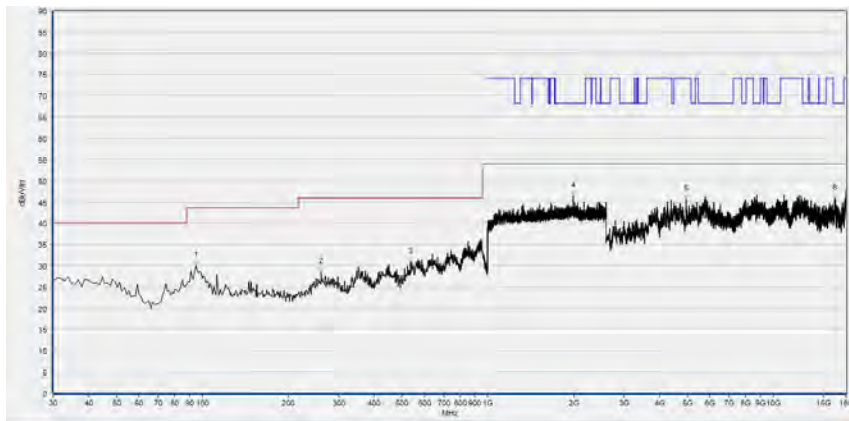
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
91.110	27.55	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
252.130	27.80	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
749.740	33.47	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1999.467	46.67	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5667.680	45.38	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
14069.920	47.24	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

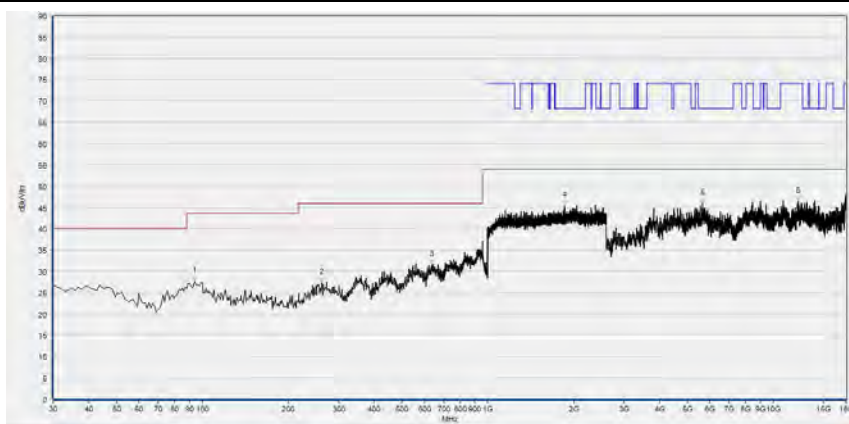
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 62



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
94.990	29.96	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
260.860	28.50	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
535.370	30.83	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1993.600	46.40	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
4953.120	45.63	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
16456.920	45.76	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

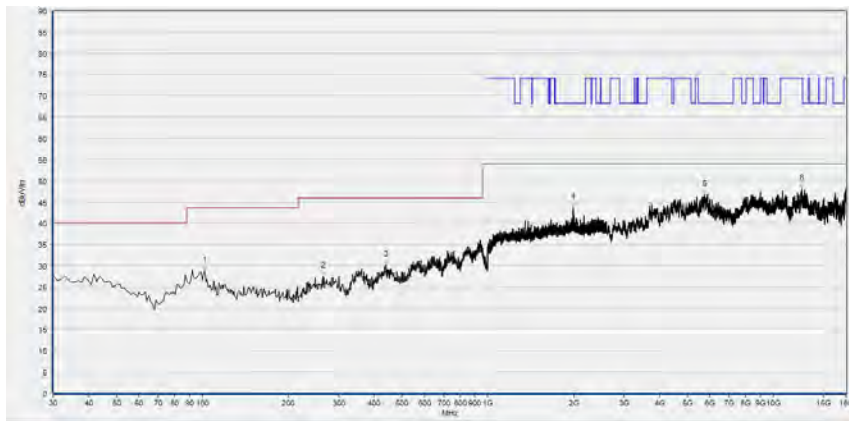
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
94.020	27.70	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
261.830	27.32	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
637.220	31.53	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1861.333	45.36	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5639.960	45.88	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12218.840	46.40	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

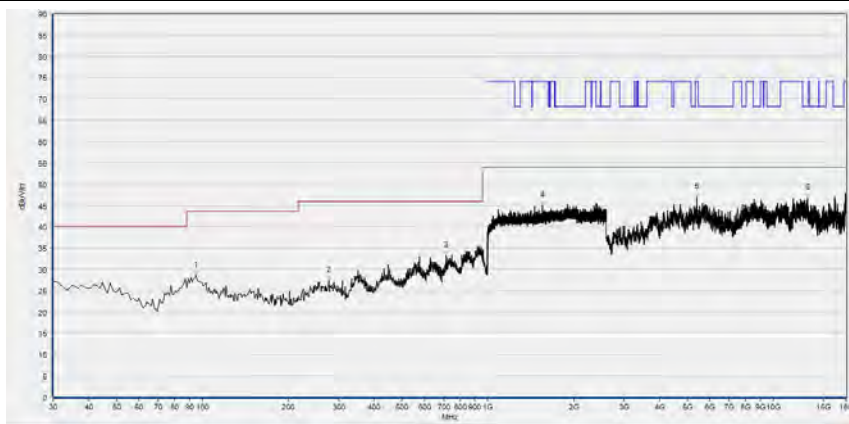
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 102



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
101.780	28.75	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
264.740	27.46	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
440.310	30.23	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1995.733	43.70	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5763.160	46.82	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12591.520	48.11	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

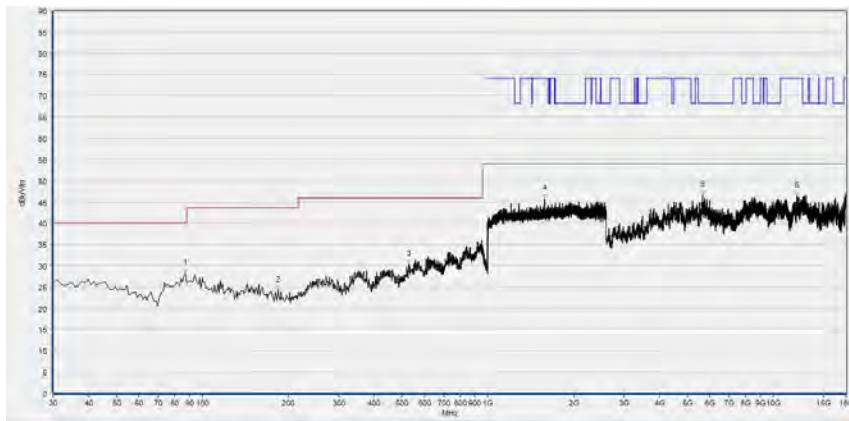
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
94.990	28.47	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
277.350	27.39	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
715.790	33.27	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1550.400	44.90	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5405.880	46.95	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
13164.400	46.81	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

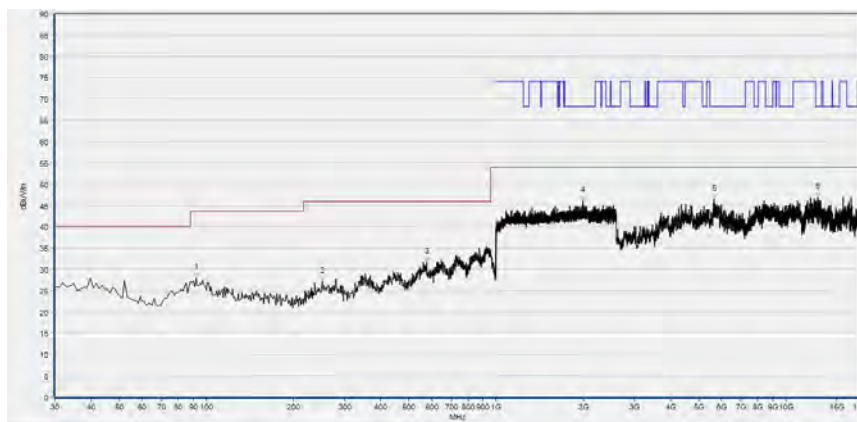
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 126



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
87.230	28.15	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
184.230	24.14	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
527.610	30.33	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1578.667	45.83	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5652.280	46.62	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12083.320	46.41	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

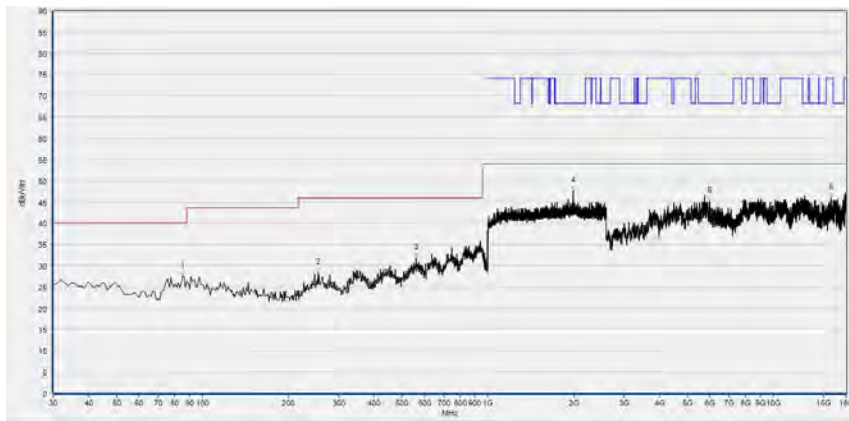


Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
92.080	27.93	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
251.160	27.14	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
576.110	31.62	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1990.933	46.13	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5658.440	46.46	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12881.040	46.87	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

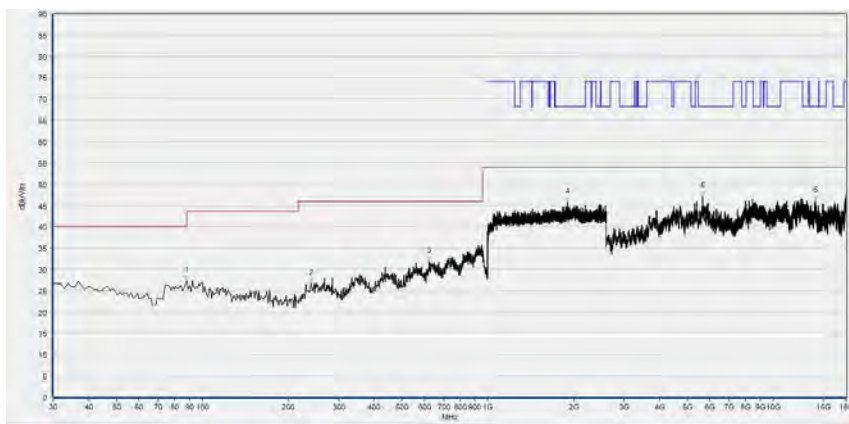


Plot for Channel 142



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
85.290	27.45	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
254.070	28.28	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
560.590	31.81	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1993.067	47.66	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5975.680	45.21	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
15951.800	45.89	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

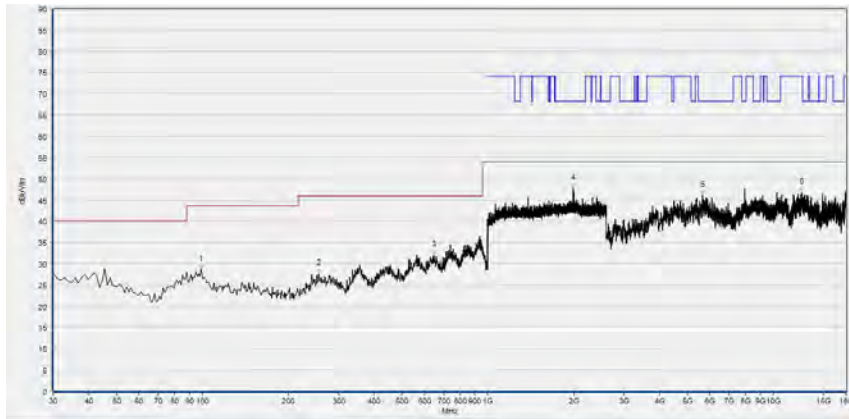
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
88.200	27.38	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
240.490	26.69	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
622.670	31.81	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1900.800	45.77	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5667.680	47.08	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
14023.720	46.10	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

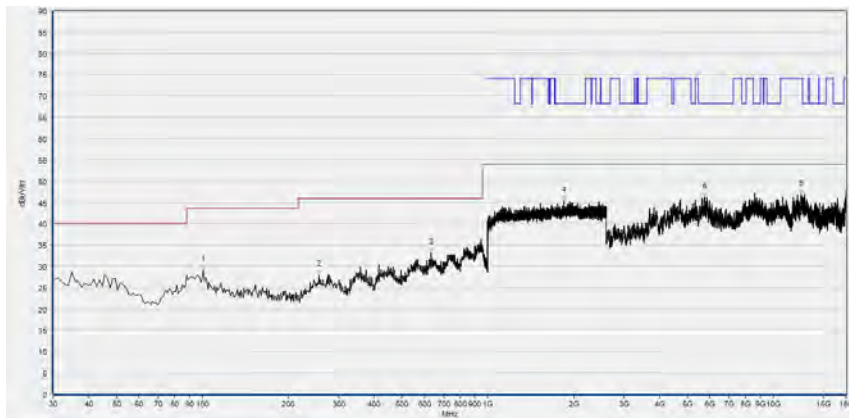
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 151



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
98.870	28.61	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
256.010	27.61	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
648.860	32.01	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1996.267	47.78	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5661.520	46.11	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12557.640	46.73	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

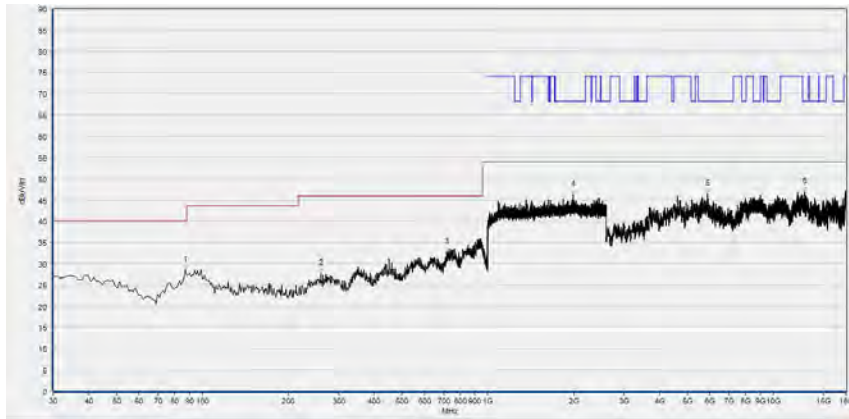
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
100.810	29.24	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
256.010	28.04	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
633.340	33.15	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1846.933	45.48	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5757.000	46.28	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12514.520	46.98	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

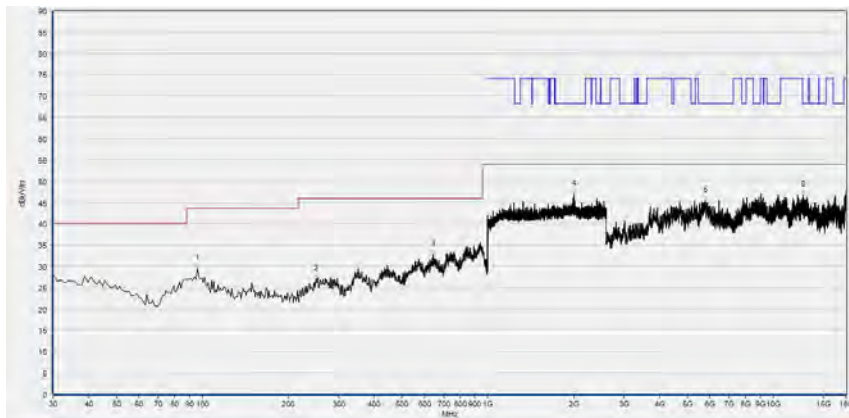
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 159



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
87.230	28.49	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
259.890	27.65	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
717.730	32.63	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1986.133	46.20	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5877.120	46.35	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12921.080	46.95	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



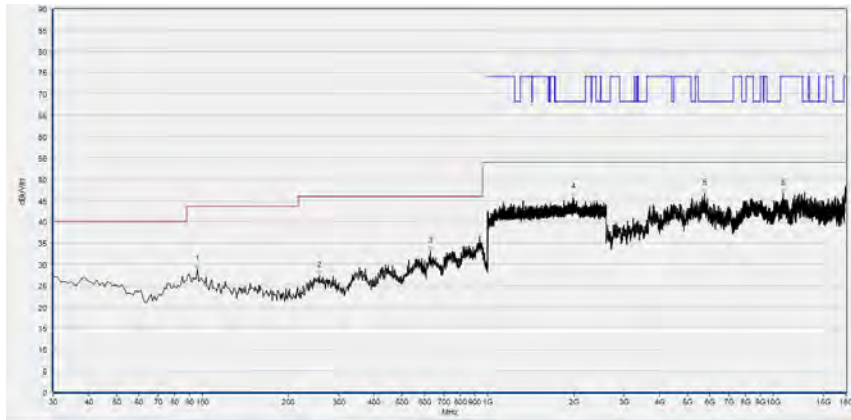
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
95.960	29.47	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
250.190	27.00	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
643.040	32.69	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1998.400	46.98	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5781.640	45.47	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12727.040	46.69	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)



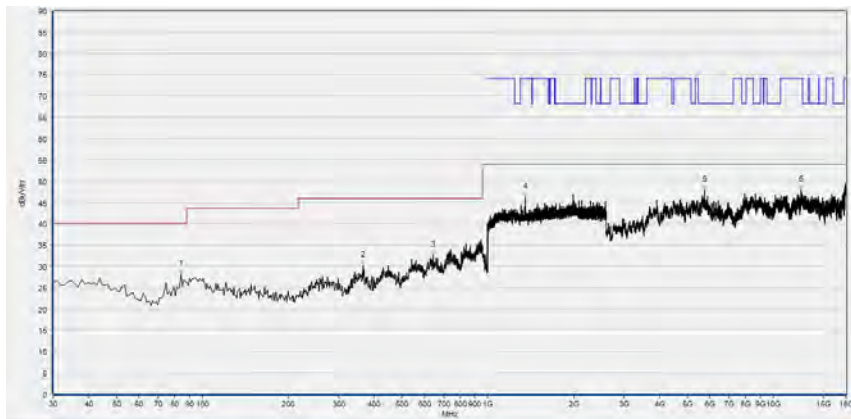
**802.11ac (VHT80) Mode**

Plot for Channel 42



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
95.960	28.90	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
256.980	27.28	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
630.430	32.99	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1996.267	45.80	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5753.920	46.64	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
10811.280	46.60	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

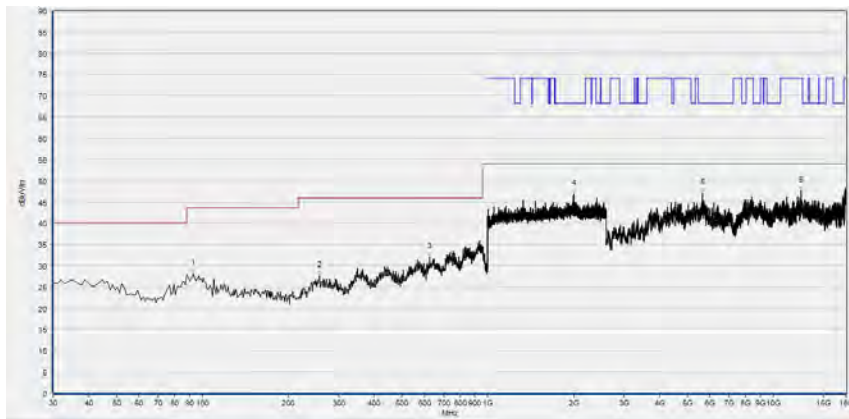


Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
84.320	28.07	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
365.620	30.13	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
644.010	32.45	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1350.400	46.23	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5741.600	47.86	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12533.000	47.99	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

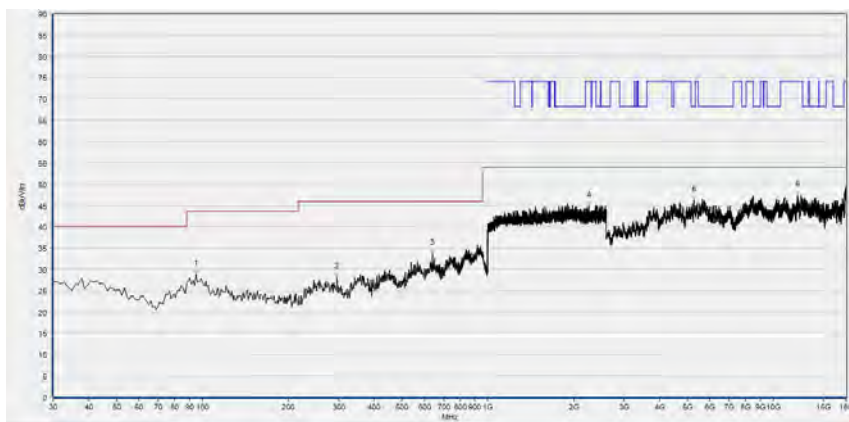


Plot for Channel 58



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
93.050	28.23	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
256.980	27.69	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
625.580	31.99	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1999.467	46.87	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5636.880	47.04	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12526.840	47.66	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

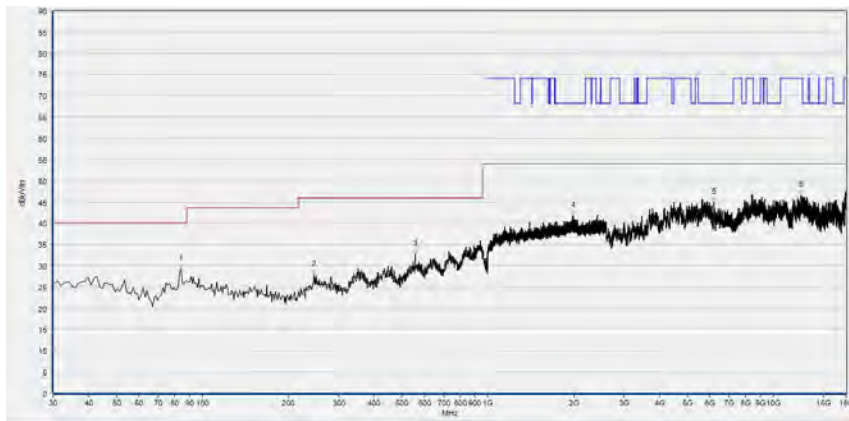
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
94.990	28.80	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
295.780	28.17	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
640.130	33.77	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2255.467	44.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5282.680	46.21	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12163.400	47.40	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

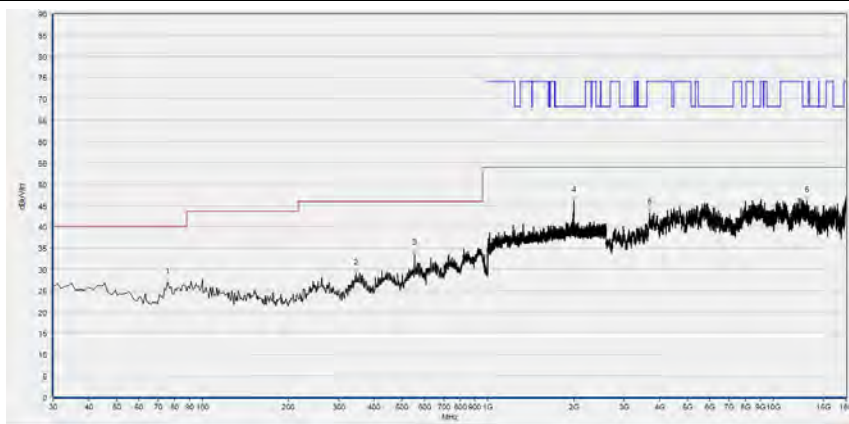
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 106



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
84.320	29.22	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
246.310	27.80	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
557.680	32.64	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1990.933	41.74	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
6209.760	44.95	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12502.200	46.51	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

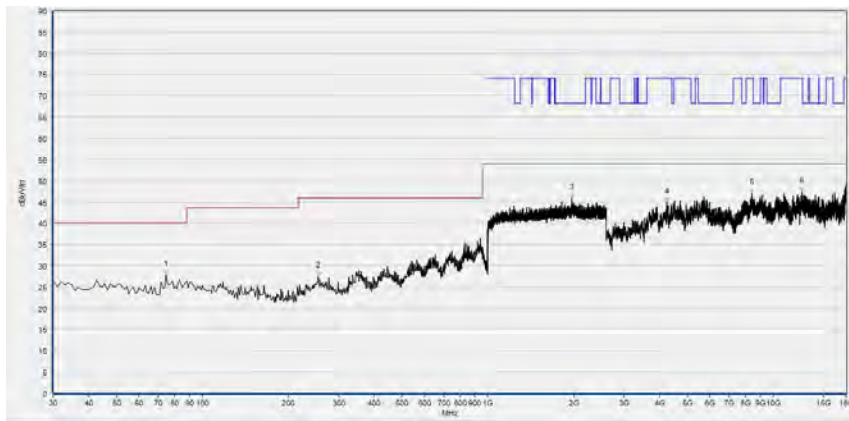
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
75.590	26.92	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
345.250	29.08	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
552.830	33.73	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1999.467	46.06	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
3684.160	43.17	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
13084.320	46.13	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

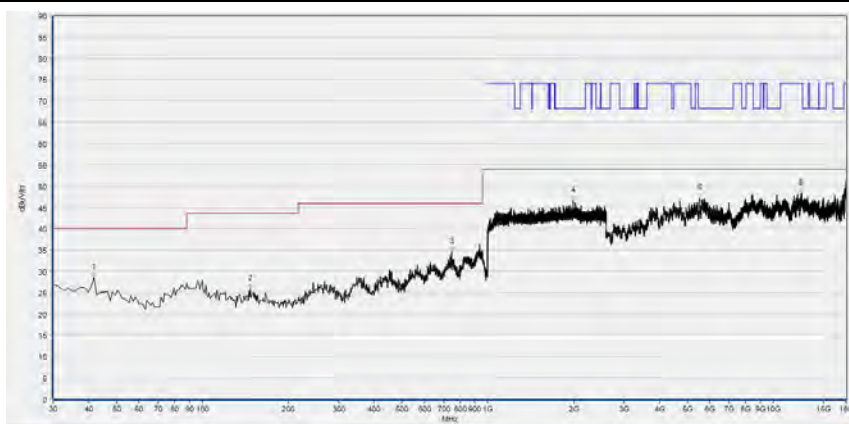
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 122



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
74.620	27.79	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
254.070	27.49	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1970.133	45.88	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
4238.560	44.90	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8408.880	47.07	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12619.240	47.38	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

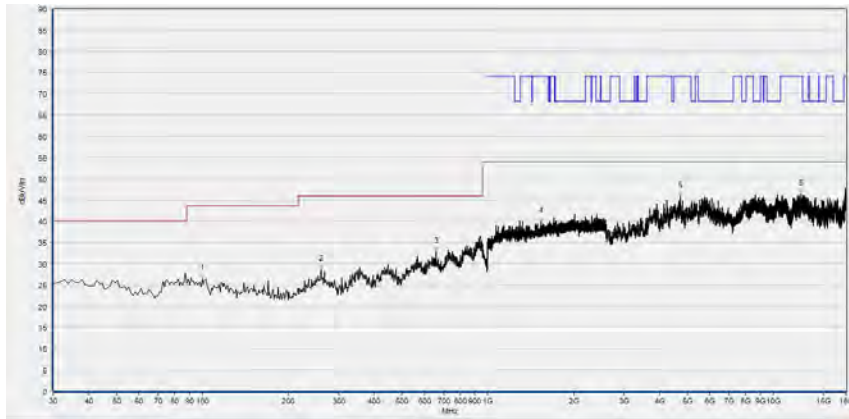
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
41.640	28.43	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
147.370	25.75	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
745.860	34.51	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1988.267	46.60	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5526.000	47.03	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12514.520	48.24	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

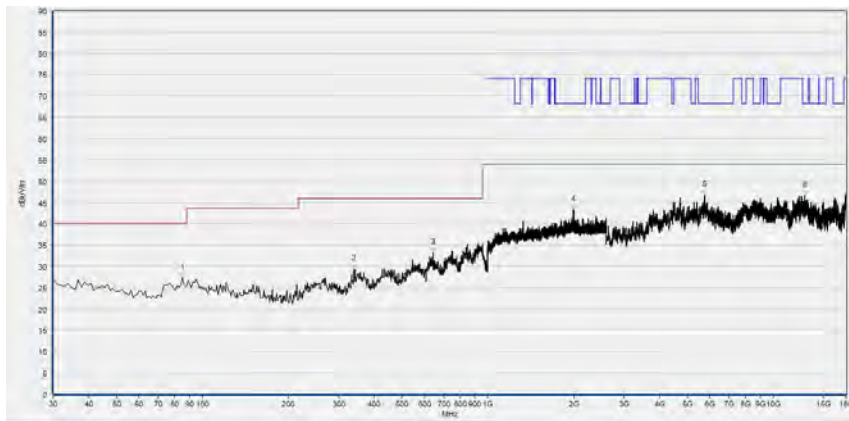
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 138



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
99.840	26.49	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
259.890	28.71	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
658.560	32.81	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1532.267	39.91	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4719.040	45.84	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12542.240	46.41	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

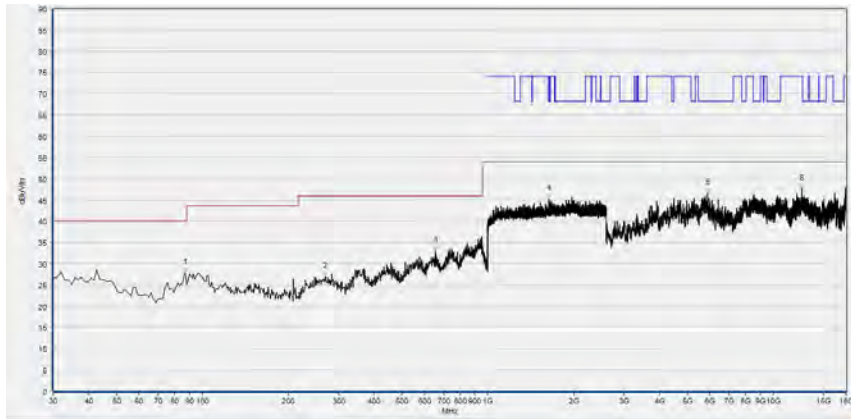


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
85.290	27.28	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
339.430	29.32	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
642.070	33.23	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1993.600	43.32	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5760.080	46.83	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12868.720	46.64	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

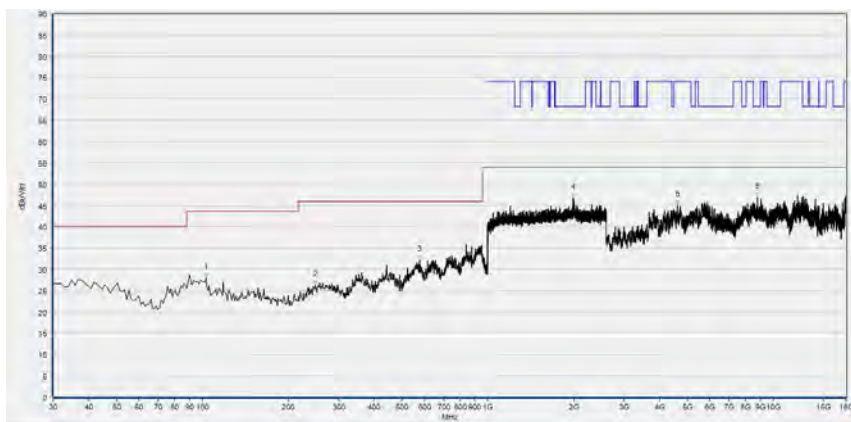


Plot for Channel 155



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
87.230	27.81	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
269.590	27.01	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
655.650	32.99	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1634.133	45.22	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5877.120	46.57	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12594.600	47.63	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
102.750	28.02	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
248.250	26.29	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
577.080	32.10	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1994.667	46.78	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
4608.160	45.01	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8790.800	46.99	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)



## Annex A Test Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for test performed on the EUT as specified in CISPR 16-1-2:

Test Items	Uncertainty
Peak Output Power	±2.22dB
Power Spectral Density	±2.22dB
Bandwidth	±5%
Restricted Frequency Bands	±5%
Radiated Emission	±2.95dB
Conducted Emission	±2.44dB

This uncertainty represent an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



## Annex B Testing Laboratory Information

### 1. Identification of the Responsible Testing Laboratory

<b>Laboratory Name:</b>	Shenzhen Morlab Communications Technology Co., Ltd.
<b>Laboratory Address:</b>	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China
<b>Telephone:</b>	+86 755 36698555
<b>Facsimile:</b>	+86 755 36698525

### 2. Identification of the Responsible Testing Location

<b>Name:</b>	Shenzhen Morlab Communications Technology Co., Ltd.
<b>Address:</b>	FL.3, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China

### 3. Facilities and Accreditations

All measurement facilities used to collect the measurement data are located at FL.3, Building A, FeiYang Science Park, Block 67, BaoAn District, Shenzhen, 518101 P. R. China. The test site is constructed in conformance with the requirements of ANSI C63.10-2013 and CISPR Publication 22; the FCC designation number is CN1192, the test firm registration number is 226174.



#### 4. Test Equipments Utilized

##### 4.1 Conducted Test Equipments

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Attenuator 1	N/A	10dB	Resnet	N/A	N/A
EXA Signal Analyzer	MY53470836	N9010A	Agilent	2021.03.25	2022.03.24
USB Wideband Power Sensor	MY54210011	U2021XA	Agilent	2021.03.25	2022.03.24
RF Cable (30MHz-26GHz)	CB01	RF01	Morlab	N/A	N/A
Coaxial Cable	CB02	RF02	Morlab	N/A	N/A
SMA Connector	CN01	RF03	HUBER-SUHNER	N/A	N/A
Temperature Chamber	12108015	DTL-003S101	YOMA	2020.10.26	2021.10.25

##### 4.2 Conducted Emission Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY56400093	N9038A	KEYSIGHT	2021.03.09	2022.03.08
LISN	812744	NSLK 8127	Schwarzbeck	2021.03.09	2022.03.08
Pulse Limiter (10dB)	VTSD 9561 F-B #206	VTSD 9561-F	Schwarzbeck	2021.07.21	2022.07.20
Coaxial Cable(BNC) (30MHz-26GHz)	CB01	EMC01	Morlab	N/A	N/A

##### 4.3 List of Software Used

Description	Manufacturer	Software Version
Test System	Tonscend	V2.6
Power Panel	Agilent	V3.8
MORLAB EMCR V1.2	MORLAB	V1.0
TS+ -[JS32-CE]	Tonscend	V2.5.0.0



**4.4 Radiated Test Equipments**

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY54130016	N9038A	Agilent	2021.07.16	2022.07.15
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2019.05.24	2022.05.23
Test Antenna - Horn	BBHA9170 #774	BBHA 9170	Schwarzbeck	2019.07.26	2022.07.25
Test Antenna - Loop	1519-022	FMZB1519	Schwarzbeck	2019.02.14	2022.02.13
Test Antenna - Horn	01774	BBHA 9120D	Schwarzbeck	2019.07.26	2022.07.25
Coaxial Cable (N male) (9KHz-30MHz)	CB04	EMC04	Morlab	N/A	N/A
Coaxial Cable (N male) (30MHz-26GHz)	CB02	EMC02	Morlab	N/A	N/A
Coaxial Cable (N male) (30MHz-26GHz)	CB03	EMC03	Morlab	N/A	N/A
Coaxial Cable (N male) (30MHz-40GHz)	CB05	EMC05	Morlab	N/A	N/A
1-18GHz pre-Amplifier	61171/61172	S020180L32 03	Tonscend	2021.07.15	2022.07.14
18-26.5GHz pre-Amplifier	46732	S10M100L38 02	Tonscend	2021.07.15	2022.07.14
26-40GHz pre-Amplifier	56774	S40M400L40 02	Tonscend	2021.07.15	2022.07.14
Notch Filter	N/A	WRCG-5150-5350	Wainwright	2021.07.15	2022.07.14
Notch Filter	N/A	WRCG-5470-5725	Wainwright	2021.07.15	2022.07.14
Notch Filter	N/A	WRCG-5725-5850	Wainwright	2021.07.15	2022.07.14



Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Anechoic Chamber	N/A	9m*6m*6m	CRT	2020.01.06	2023.01.05

————— END OF REPORT —————