



(Channel 142, 5710MHz, 802.11ax (HEW40), ANT0)



(Channel 142, 5710MHz, 802.11ax (HEW40), ANT0)



(Channel 151, 5755MHz, 802.11ax (HEW40), ANT0)



(Channel 159, 5795MHz, 802.11ax (HEW40), ANT0)



802.11ax (HEW80) Mode

A.Test Verdict:

Frequency (MHz)	Measured PPSD (dBm/MHz)		Duty Factor	Total PPSD (dBm/MHz)	Limit (dBm/MHz)	Verdict
	ANT0	ANT1				
5210	-5.29	-6.83	0.05	-2.93	11	PASS
5290	-6.07	-6.32		-3.13		
5530	-5.96	-7.25		-3.50		
5610	-5.89	-6.43		-3.09		
5690	-5.59	-6.60		-3.01		
Frequency (MHz)	Measured PPSD (dBm/500KHz)		Duty Factor	Total PPSD (dBm/500KHz)	Limit (dBm/500KHz)	Verdict
	ANT0	ANT1				
5690	-8.55	-9.42	0.05	-5.90	30	PASS
5775	-8.39	-9.43		-5.82		

Note: Directional gain = 0.50dBi + 10log(2) = 3.51dBi < 6dBi, so the limit shall be 11dBm/MHz for 5.18-5.24GHz, 5.260-5.320GHz, 5.500-5.720GHz band and 30dBm/500KHz for 5.745-5.825GHz band.

B.Test Plot:



(Channel 42, 5210MHz, 802.11ax (HEW80), ANT0)



(Channel 58, 5290MHz, 802.11ax (HEW80), ANT0)



(Channel 106, 5530MHz, 802.11ax (HEW80), ANT0)



(Channel 122, 5610MHz, 802.11ax (HEW80), ANT0)



(Channel 138, 5690MHz, 802.11ax (HEW80), ANT0)



(Channel 138, 5690MHz, 802.11ax (HEW80), ANT0)



(Channel 155, 5775MHz, 802.11ax (HEW80), ANT0)



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%	5.00	+20(Ref)	22	4.247
100%		-30	28	5.405
100%		-20	26	5.019
100%		-10	27	5.212
100%		0	21	4.054
100%		+10	26	5.019
100%		+20	25	4.826
100%		+30	29	5.598
100%		+40	24	4.633
100%		+50	25	4.826
115%		5.75	+20	28
85%	4.25	+20	30	5.792



U-NII-2A (Ch. 52)				
5260MHz				
VOLTAGE (%)	POWER (VDC)	TEMP (°C)	Fre. Dev. (kHz)	Deviation (ppm)
100%	5.00	+20(Ref)	22	4.183
100%		-30	22	4.183
100%		-20	24	4.563
100%		-10	26	4.943
100%		0	24	4.563
100%		+10	26	4.943
100%		+20	21	3.992
100%		+30	26	4.943
100%		+40	30	5.703
100%		+50	25	4.753
115%	5.75	+20	19	3.612
85%	4.25	+20	21	3.992

U-NII-2C (Ch. 100)				
5500MHz				
VOLTAGE (%)	POWER (VDC)	TEMP (°C)	Fre. Dev. (kHz)	Deviation (ppm)
100%	5.00	+20(Ref)	21	3.818
100%		-30	25	4.545
100%		-20	30	5.455
100%		-10	29	5.273
100%		0	22	4.000
100%		+10	26	4.727
100%		+20	19	3.455
100%		+30	32	5.818
100%		+40	27	4.909
100%		+50	25	4.545
115%	5.75	+20	27	4.909
85%	4.25	+20	30	5.455



U-NII-3 (Ch. 149)				
5745MHz				
VOLTAGE (%)	POWER (VDC)	TEMP (°C)	Fre. Dev. (kHz)	Deviation (ppm)
100%	5.00	+20(Ref)	22	3.829
100%		-30	26	4.526
100%		-20	27	4.700
100%		-10	21	3.655
100%		0	30	5.222
100%		+10	25	4.352
100%		+20	26	4.526
100%		+30	26	4.526
100%		+40	28	4.874
100%		+50	28	4.874
115%		5.75	+20	31
85%	4.25	+20	29	5.048

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 50μH/50Ω line impedance stabilization network (LISN).

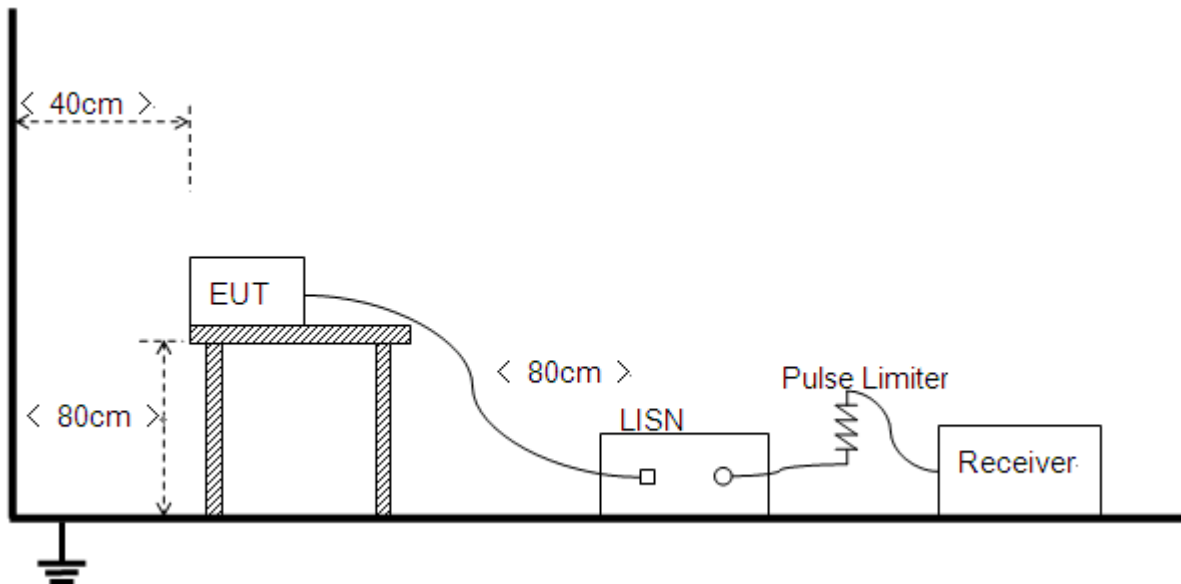
Frequency Range (MHz)	Conducted Limit (dBμV)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

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 +ADAPTER+Earphone+WIFI TX

Test Voltage: AC 120V/60Hz

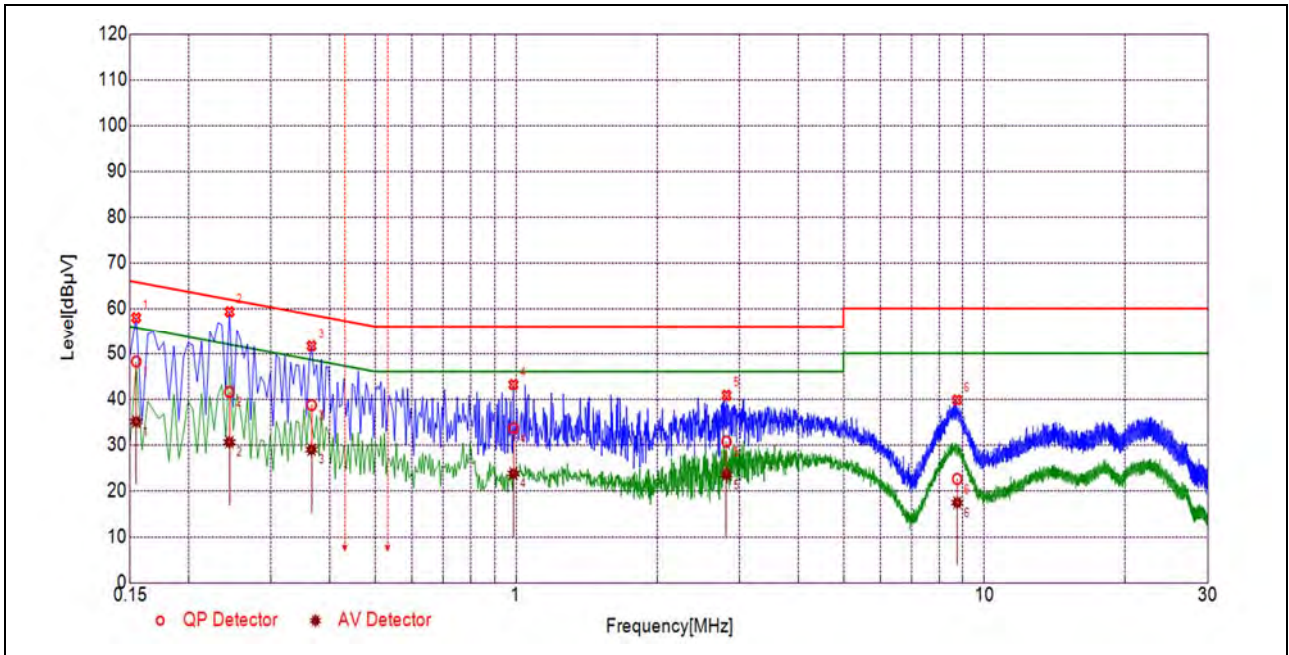
The measurement results are obtained as below:

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

U_R : Receiver Reading

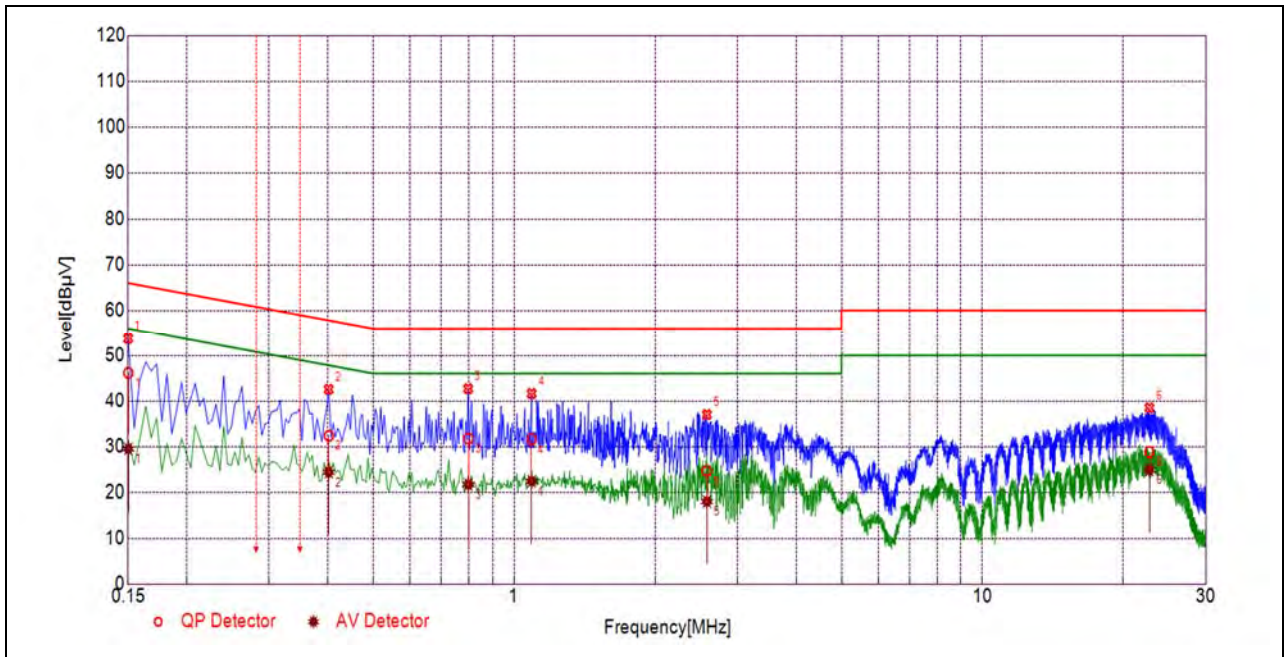
A_{Factor} : Voltage division factor of LISN

B.Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBµV)		Limit (dBµV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1545	48.19	35.06	65.75	55.75	Line	PASS
2	0.2443	41.53	30.59	61.95	51.95		PASS
3	0.3659	38.66	28.94	58.59	48.59		PASS
4	0.9876	33.61	23.71	56.00	46.00		PASS
5	2.8138	30.71	23.46	56.00	46.00		PASS
6	8.7476	22.52	17.49	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	0.1501	46.14	29.46	66.00	56.00	Neutral	PASS
2	0.4022	32.36	24.36	57.81	47.81		PASS
3	0.7988	31.75	21.67	56.00	46.00		PASS
4	1.0900	31.55	22.38	56.00	46.00		PASS
5	2.5800	24.60	18.05	56.00	46.00		PASS
6	22.7219	28.79	24.84	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

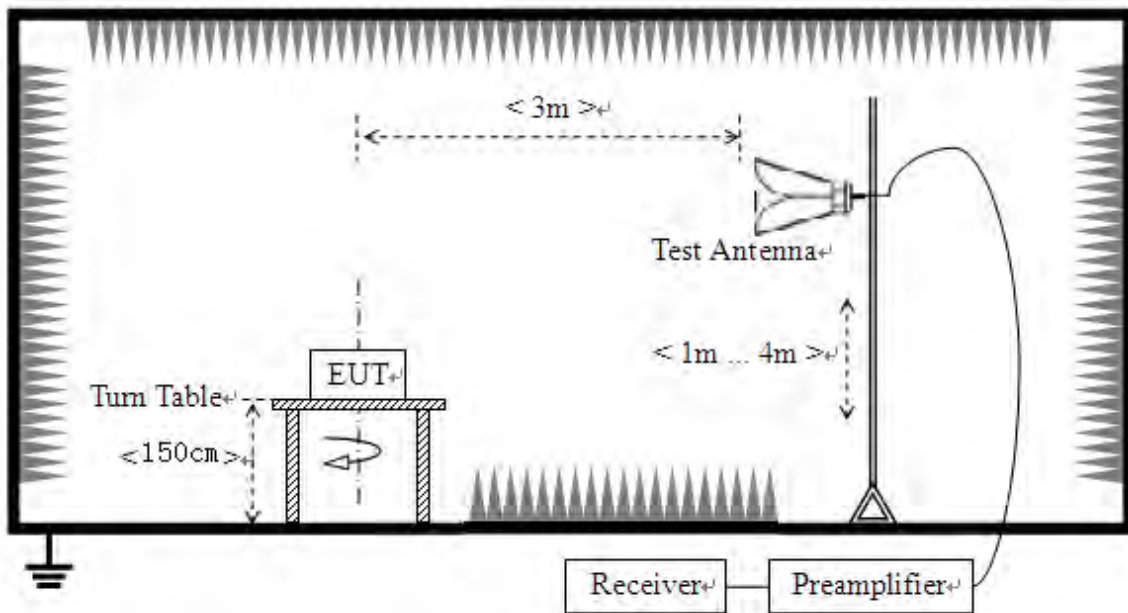
Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in § 15.209. According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following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

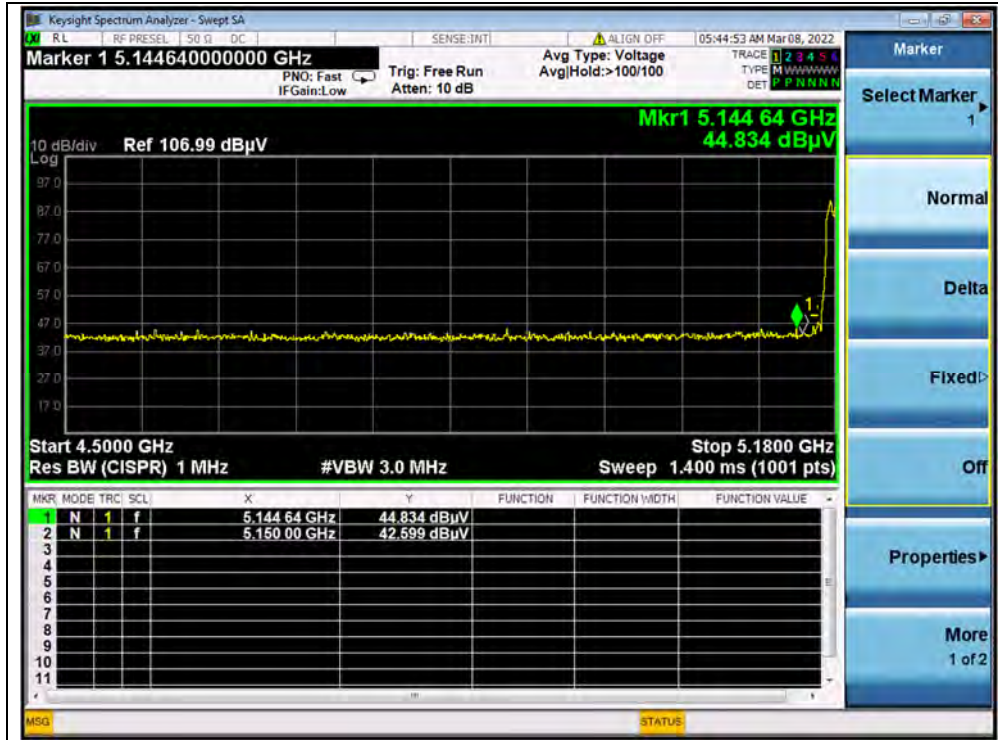
802.11a Mode

A.Test Verdict:

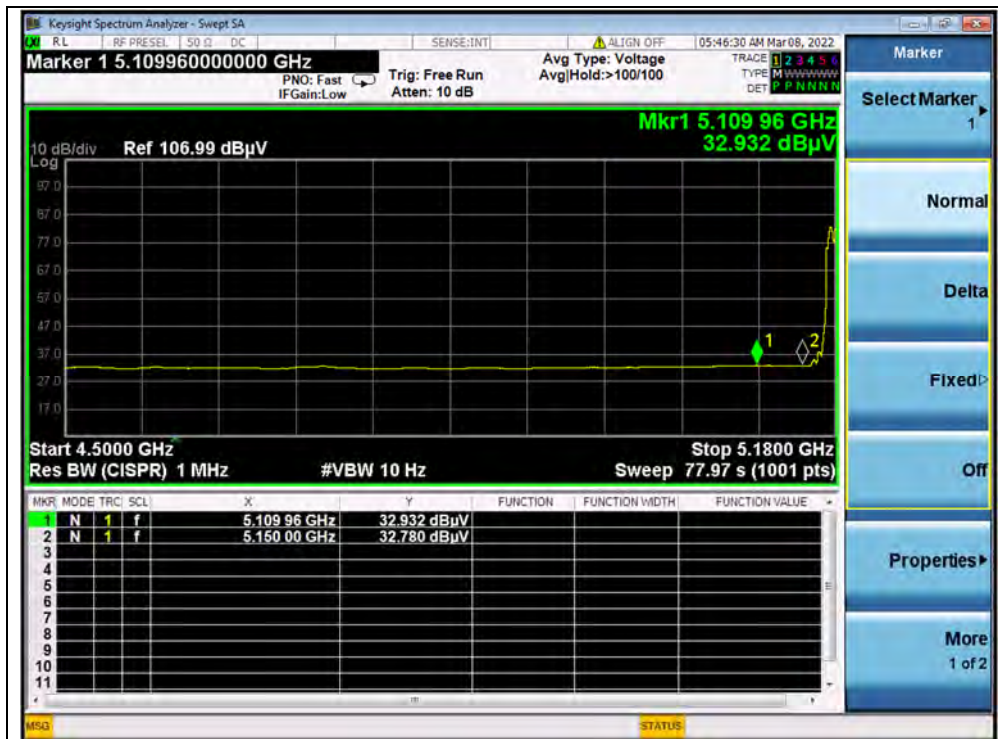
Channel	Frequency (MHz)	Detector	Receiver Reading	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV	U_R (dB μ V)					
36	5144.64	PK	44.83	-19.54	32.20	57.49	74	PASS
36	5109.96	AV	32.93	-19.54	32.20	45.59	54	PASS
64	5371.52	PK	42.48	-18.80	32.20	55.88	74	PASS
64	5350.00	AV	30.96	-18.80	32.20	44.36	54	PASS
100	5444.72	PK	44.17	-19.20	32.20	57.17	74	PASS
100	5470.00	AV	32.35	-19.20	32.20	45.35	54	PASS
144	5798.40	PK	45.25	-19.20	32.20	58.25	68.23	PASS
149	5650.00	PK	42.04	-19.01	32.20	55.23	68.23	PASS
165	5925.00	PK	41.68	-19.01	32.20	54.87	68.23	PASS



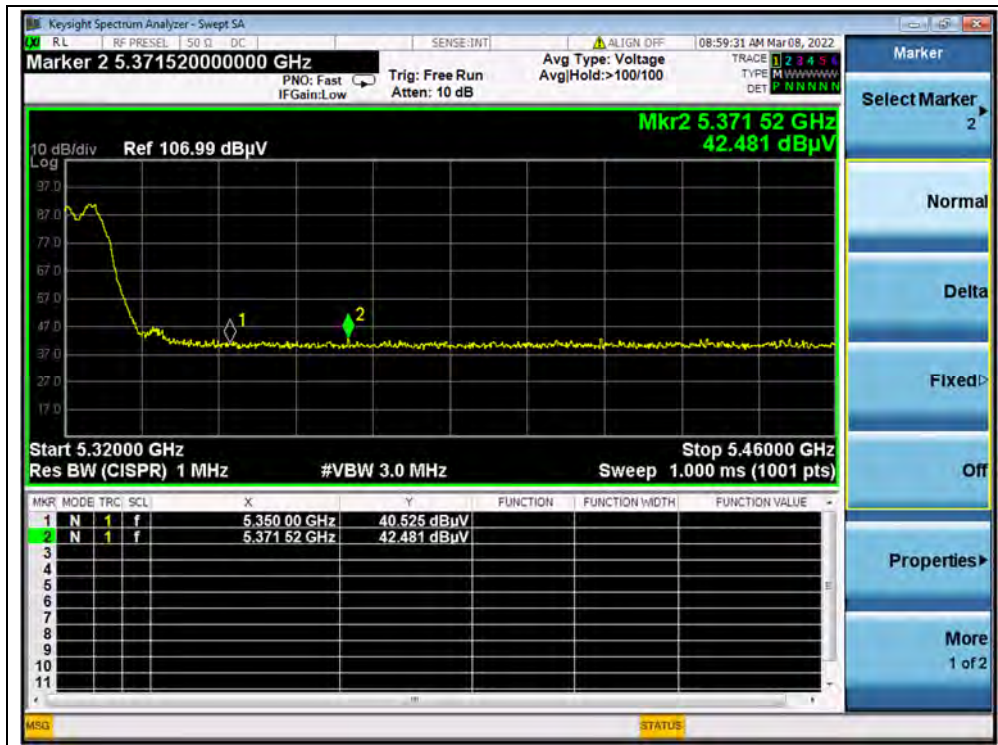
B.Test Plot:



(PEAK, Channel 36, 802.11a)



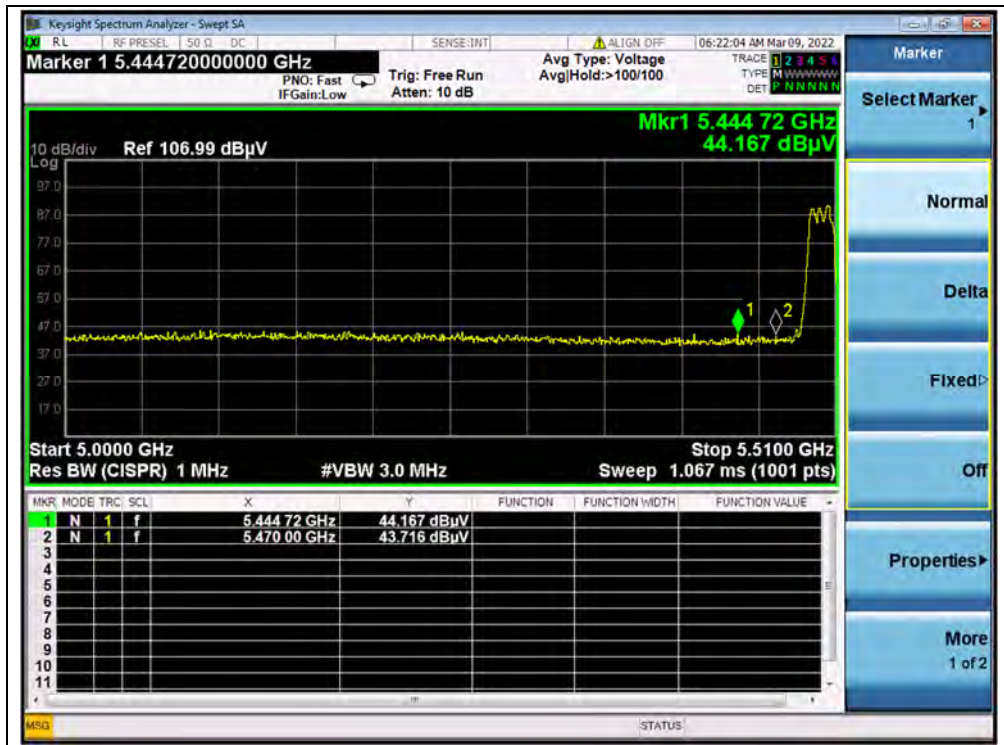
(AVERAGE, Channel 36, 802.11a)



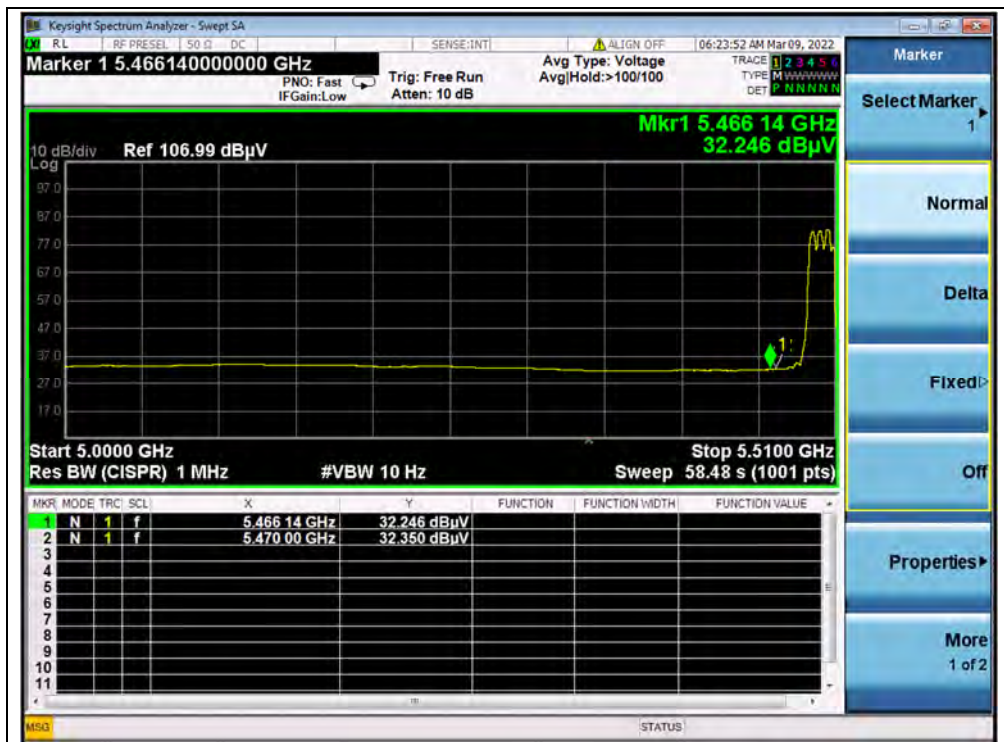
(PEAK, Channel 64, 802.11a)



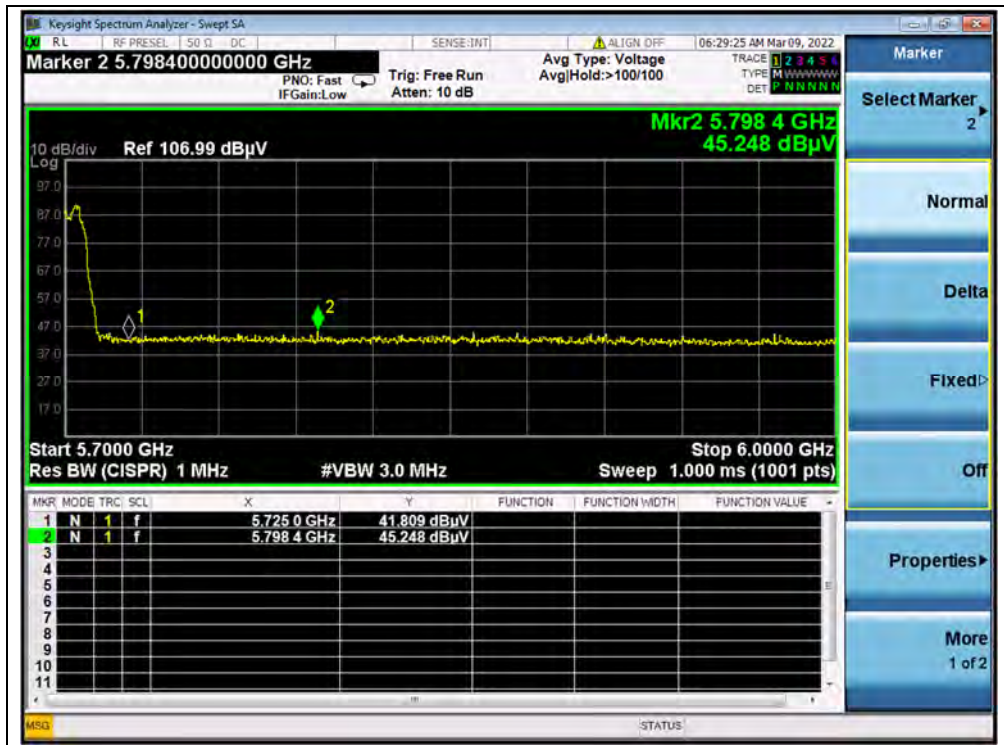
(AVERAGE, Channel 64, 802.11a)



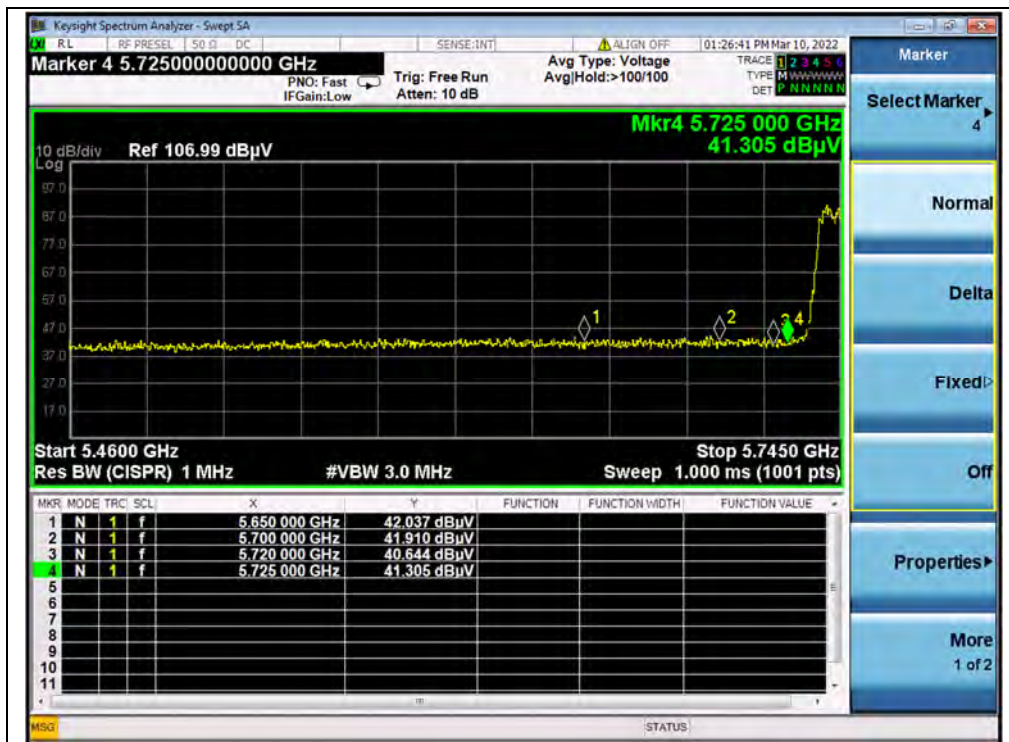
(PEAK, Channel100, 802.11a)



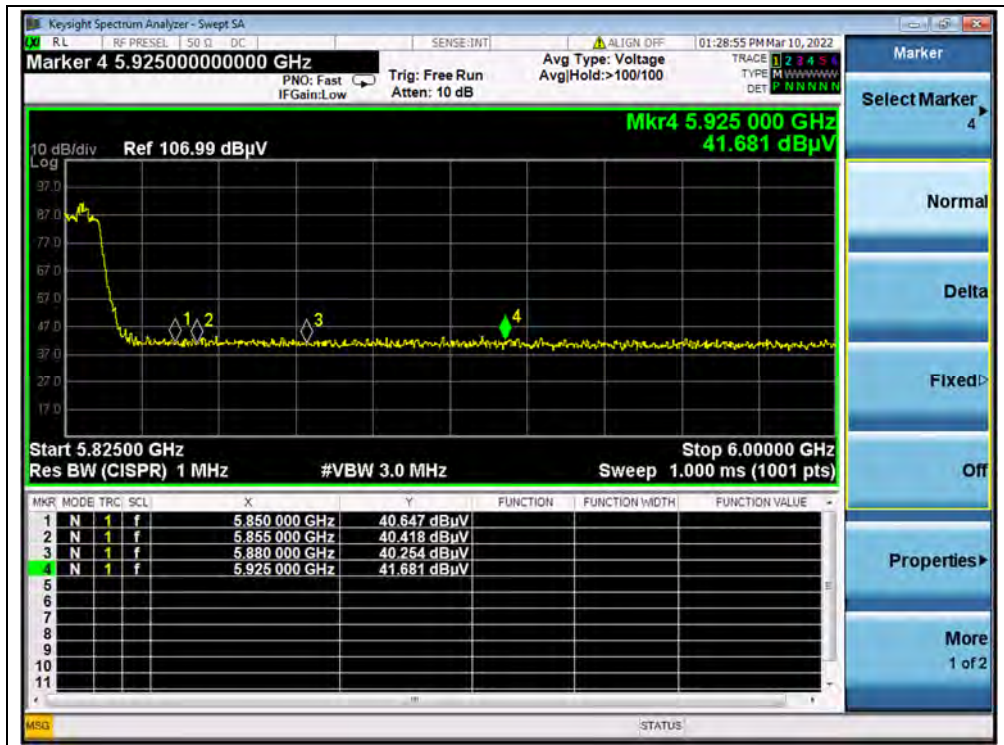
(AVERAGE, Channel 100, 802.11a)



(PEAK, Channel 144, 802.11a)



(PEAK, Channel 149, 802.11a)



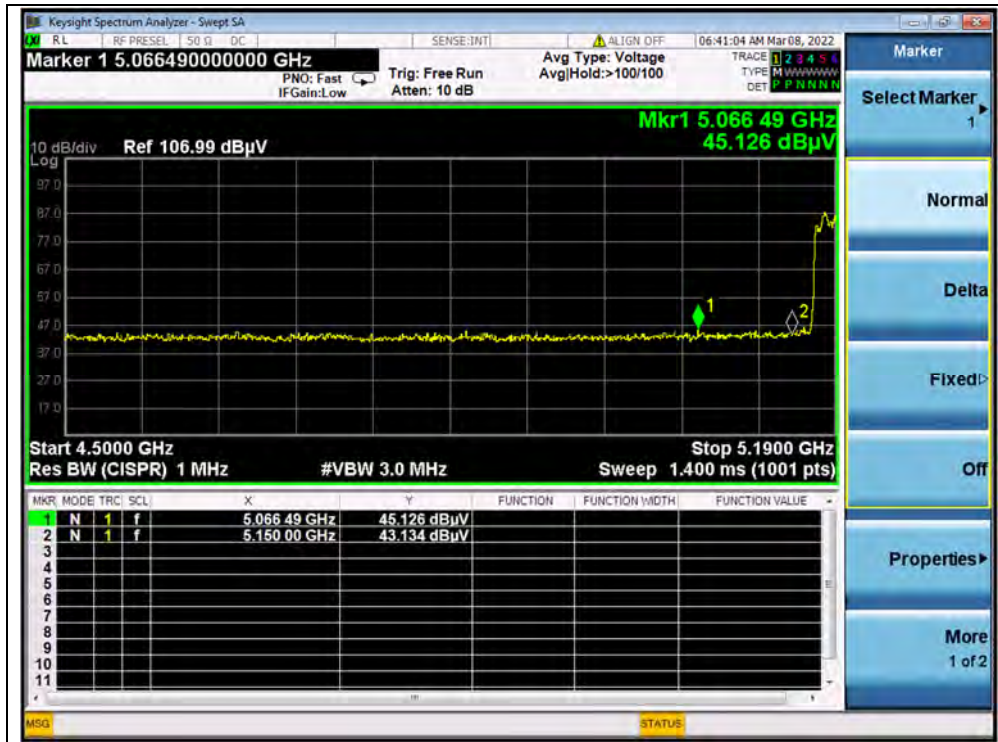
(PEAK, Channel 165, 802.11a)

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

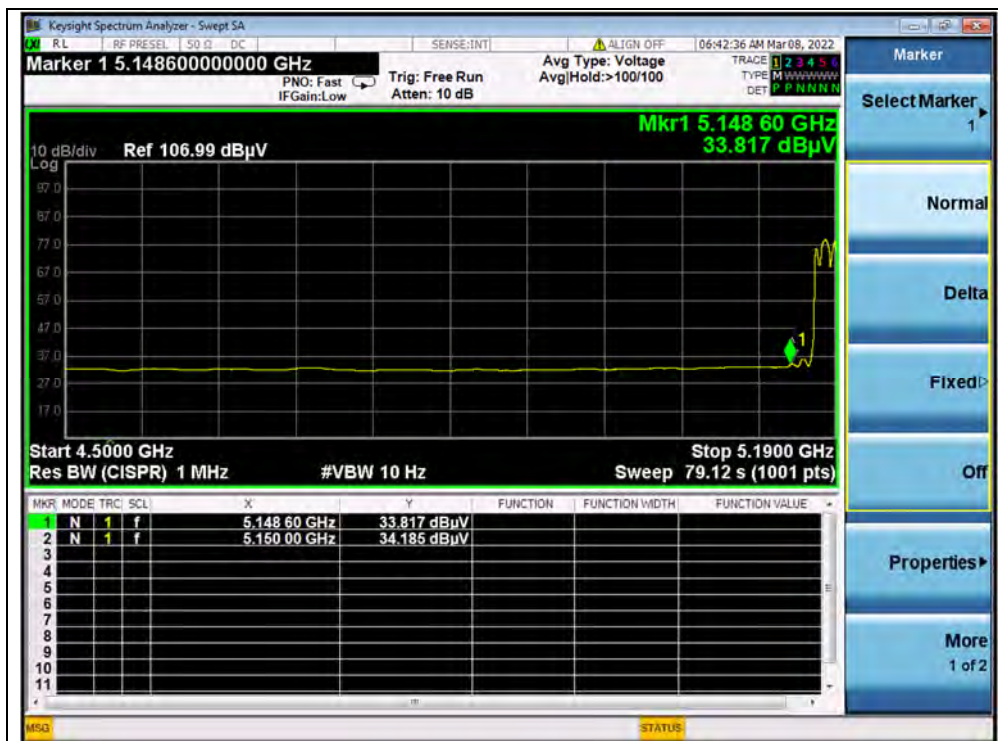
Channel	Frequency (MHz)	Detector	Receiver Reading	A _T (dB)	A _{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV	U _R (dBμV)					
38	5066.49	PK	45.13	-19.54	32.20	57.79	74	PASS
38	5150.00	AV	34.19	-19.54	32.20	46.85	54	PASS
62	5376.98	PK	41.82	-18.80	32.20	55.22	74	PASS
62	5350.00	AV	31.34	-18.80	32.20	44.74	54	PASS
102	5384.54	PK	43.89	-19.20	32.20	56.89	74	PASS
102	5470.00	AV	33.00	-19.20	32.20	46.00	54	PASS
142	5935.13	PK	44.74	-19.20	32.20	57.74	68.23	PASS
151	5725.00	PK	43.35	-19.01	32.20	56.54	122.23	PASS
159	5850.00	PK	42.39	-19.01	32.20	55.58	122.23	PASS



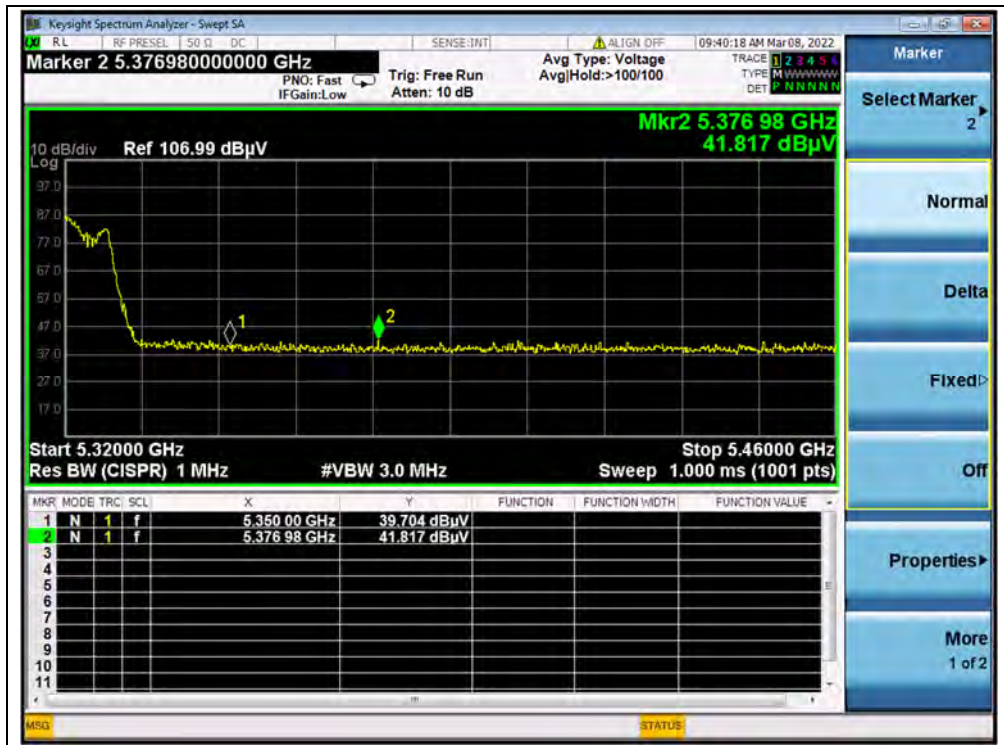
B.Test Plot:



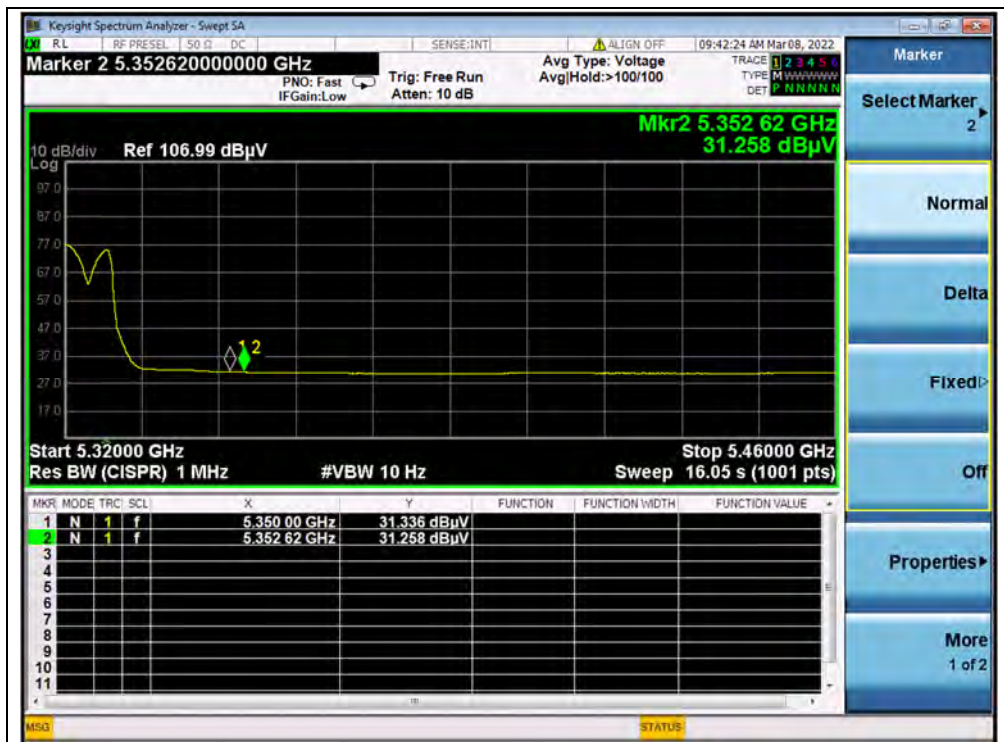
(PEAK, Channel 38, 802.11n (HT40))



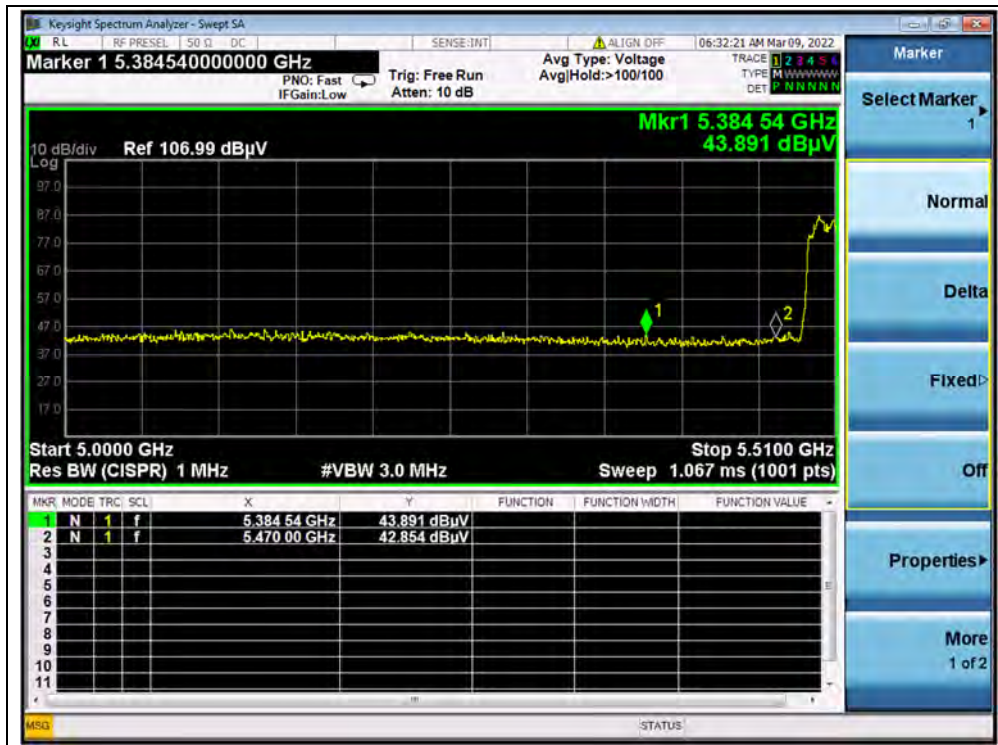
(AVERAGE, Channel 38, 802.11n (HT40))



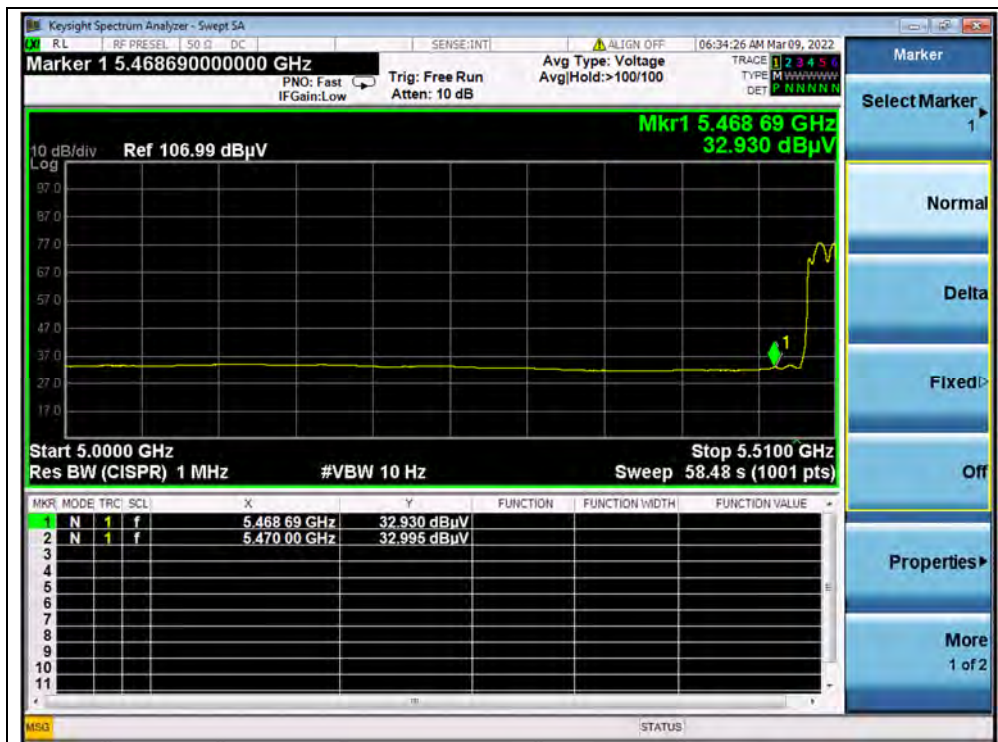
(PEAK, Channel 62, 802.11n (HT40))



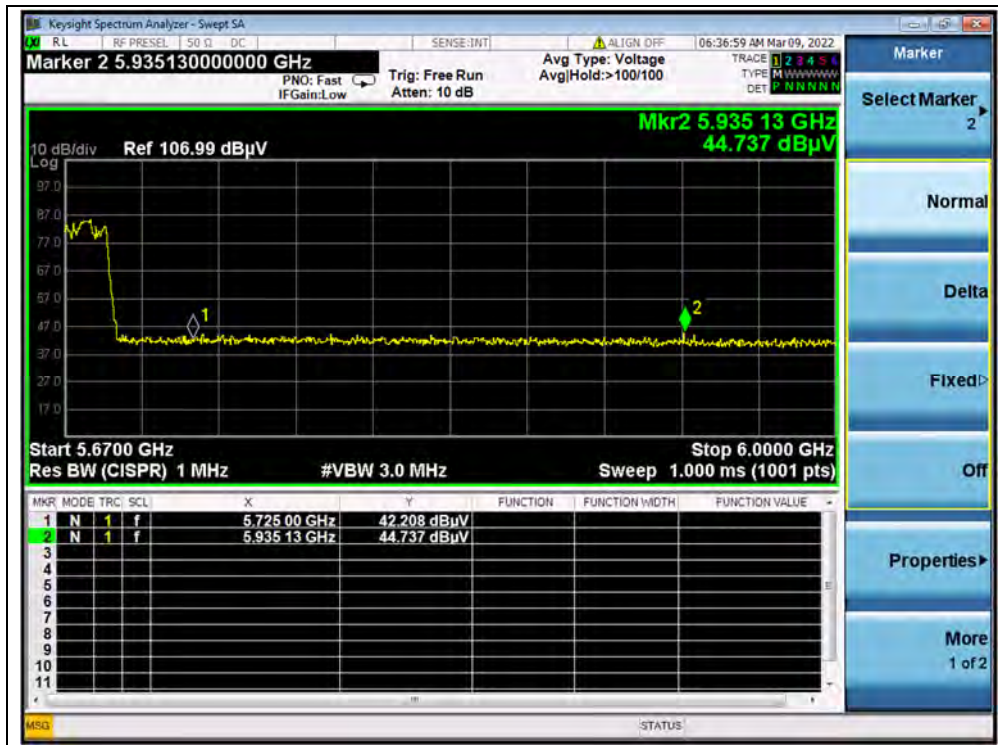
(AVERAGE, Channel 62, 802.11n (HT40))



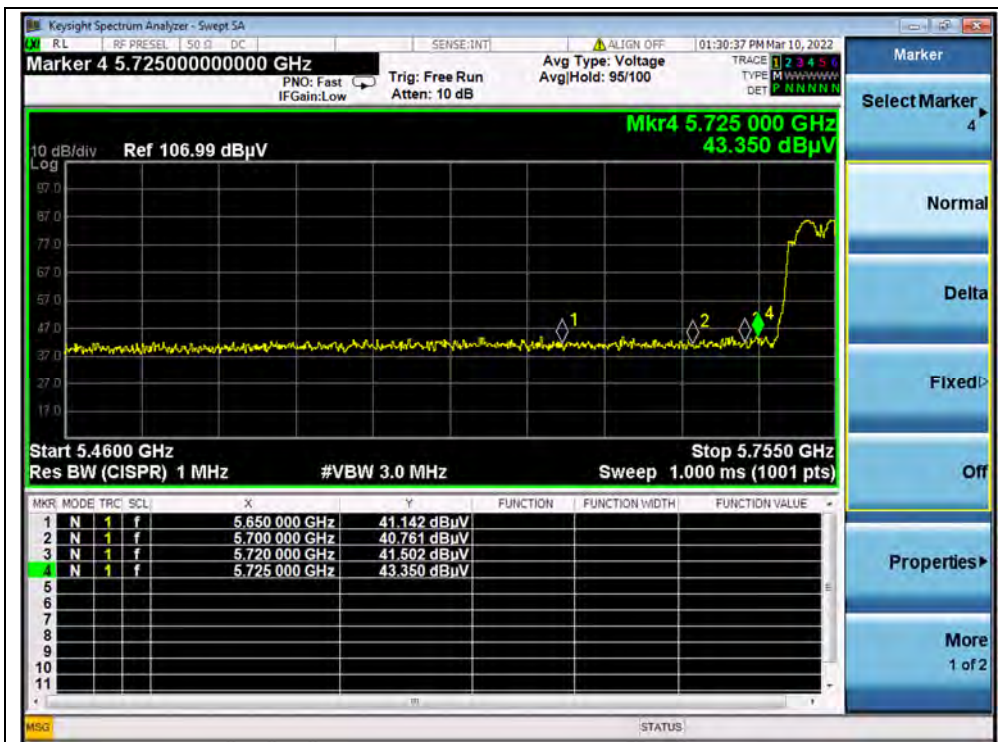
(PEAK, Channel 102, 802.11n (HT40))



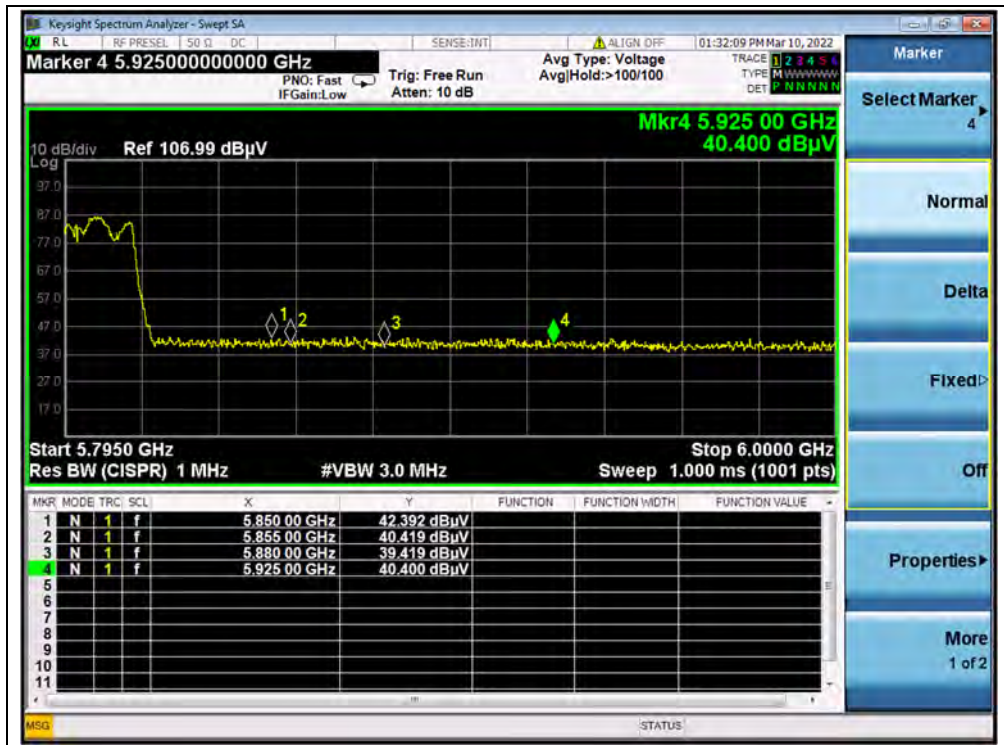
(AVERAGE, Channel 102, 802.11n (HT40))



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



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

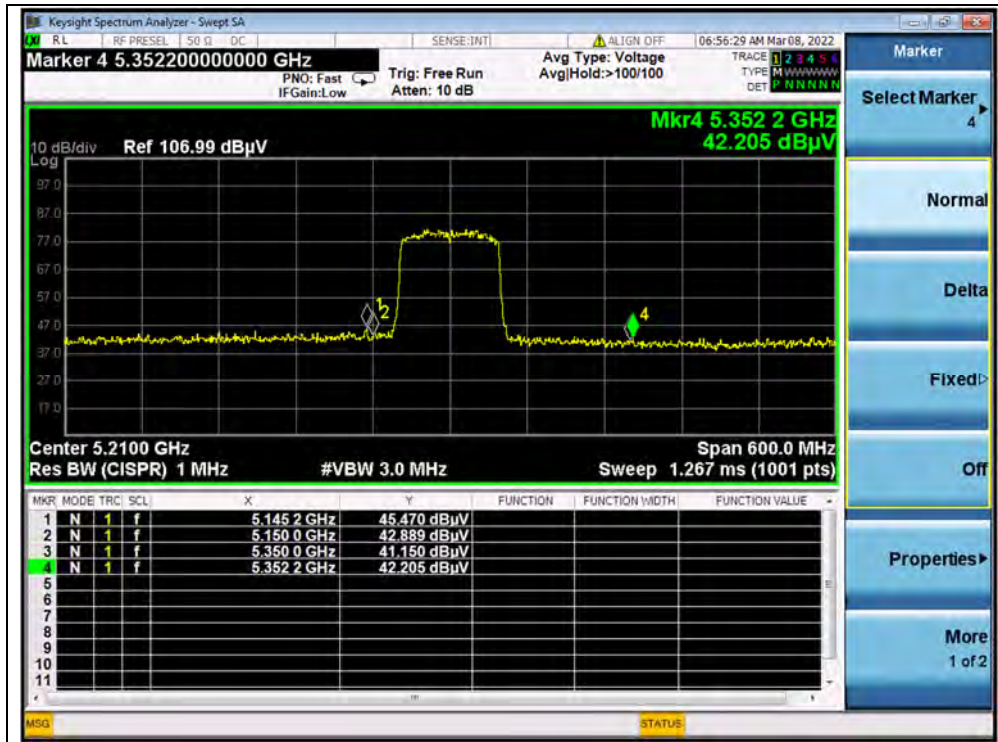


(PEAK, Channel 159, 802.11n (HT40))

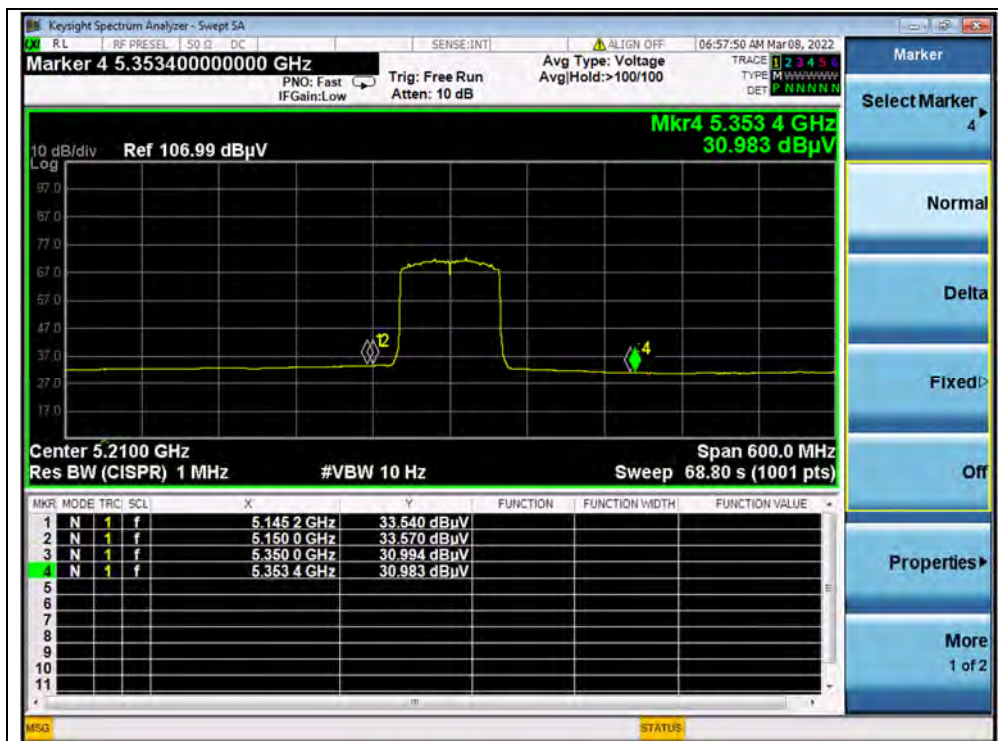
**802.11ac (VHT80) Mode****A.Test Verdict:**

Channel	Frequency (MHz)	Detector	Receiver Reading	A _T (dB)	A _{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV	U _R (dBμV)					
42	5145.20	PK	45.47	-19.54	32.20	58.13	74	PASS
42	5150.00	AV	33.57	-19.54	32.20	46.23	54	PASS
58	5126.80	PK	43.69	-18.80	32.20	57.09	74	PASS
58	5148.40	AV	32.78	-18.80	32.20	46.18	54	PASS
106	5384.54	PK	43.89	-19.20	32.20	56.89	74	PASS
106	5470.00	AV	33.00	-19.20	32.20	46.00	54	PASS
138	5935.13	PK	44.74	-19.20	32.20	57.74	68.23	PASS
155	5725.00	PK	43.89	-19.01	32.20	57.08	122.23	PASS
155	5855.00	PK	42.59	-19.01	32.20	55.78	110.83	PASS

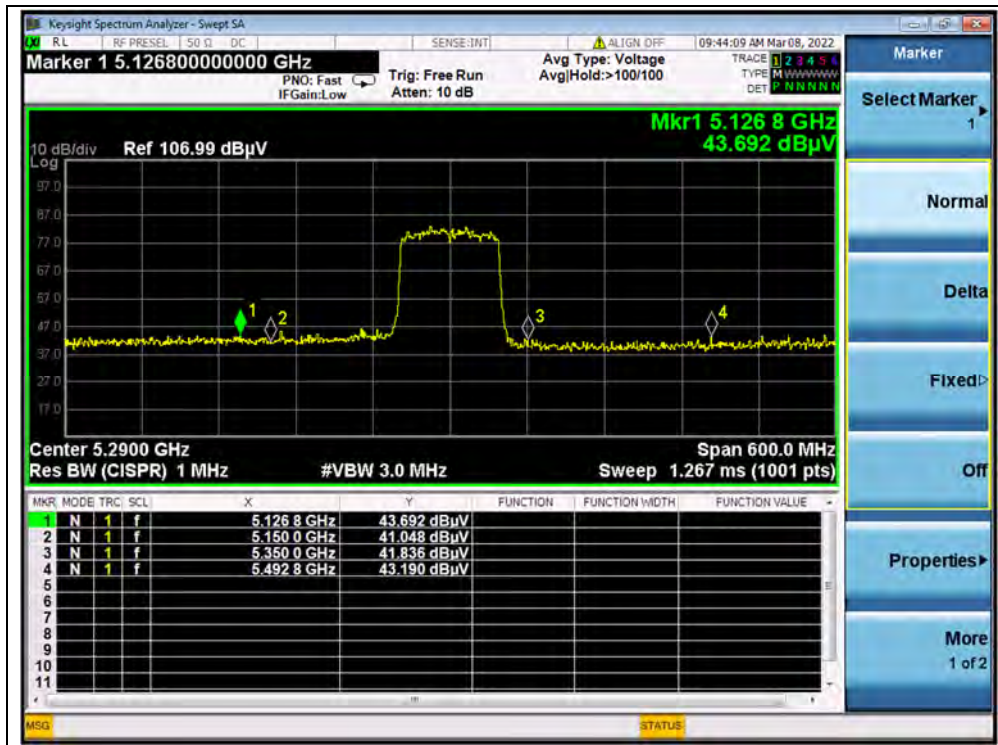
B.Test Plot:



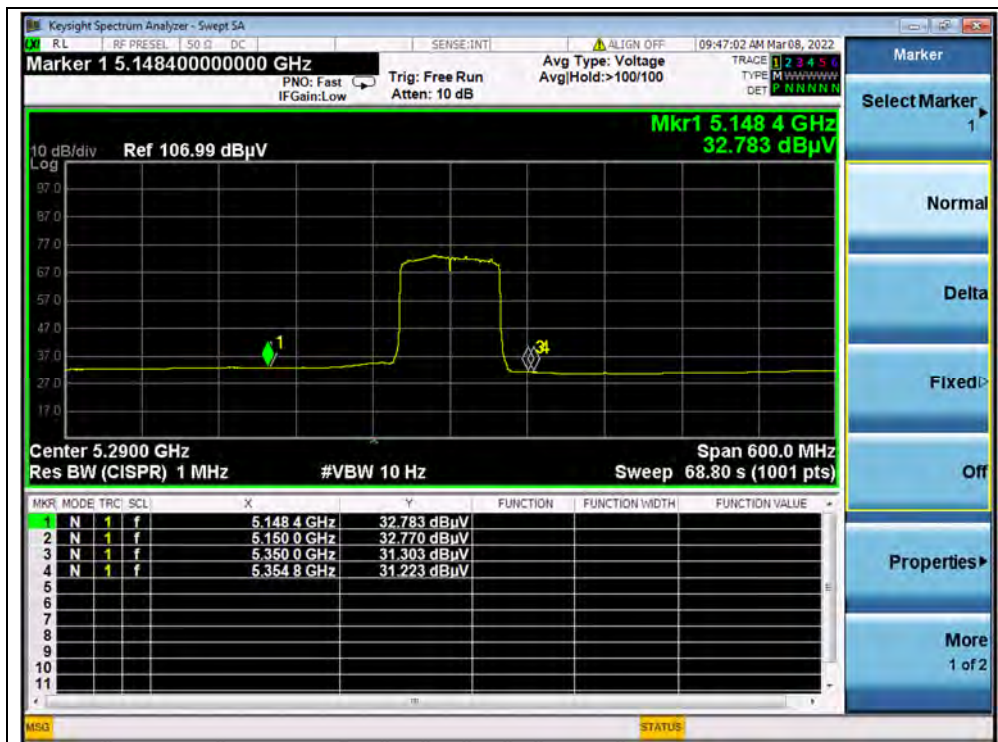
(PEAK, Channel 42, 802.11ac (VHT80))



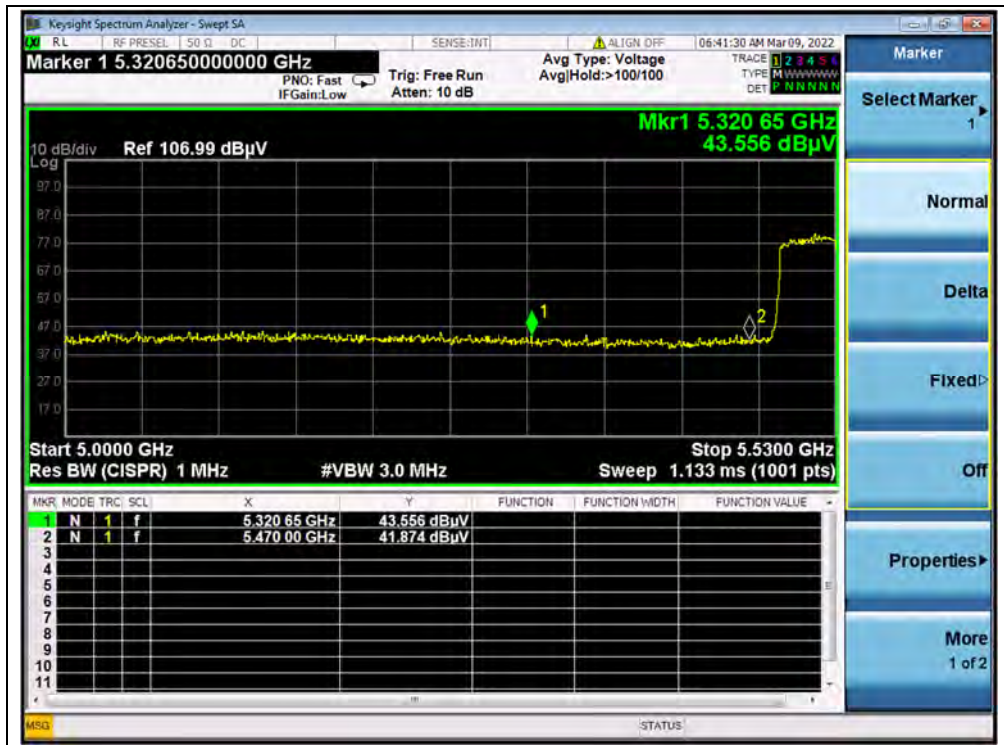
(AVERAGE, Channel 42, 802.11ac (VHT80))



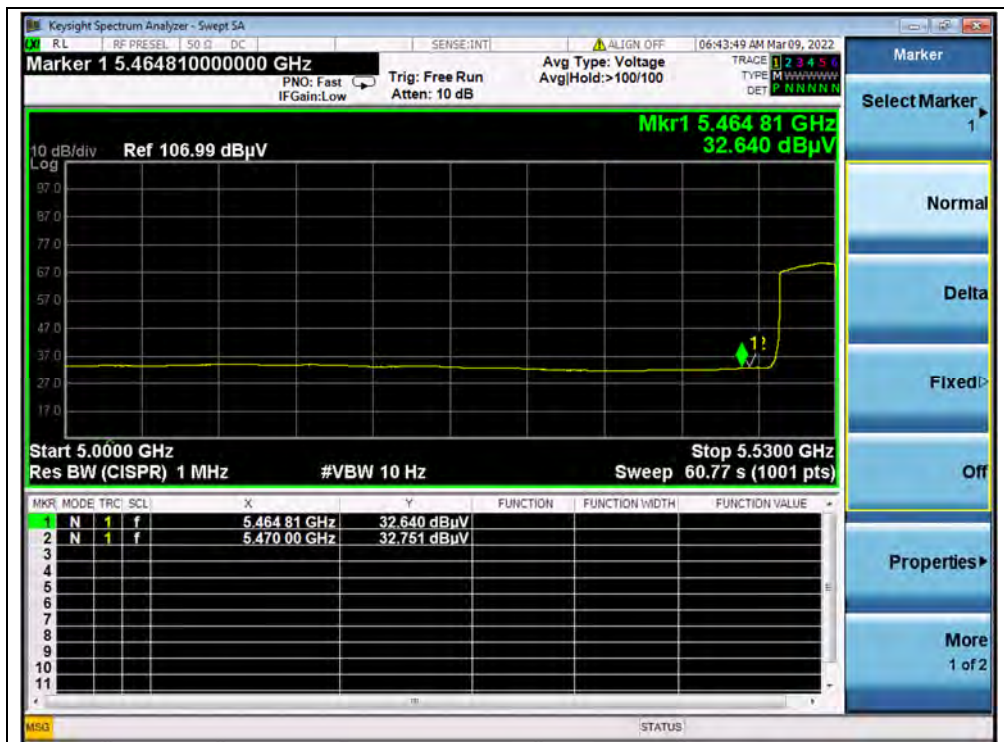
(PEAK, Channel 58, 802.11ac (VHT80))



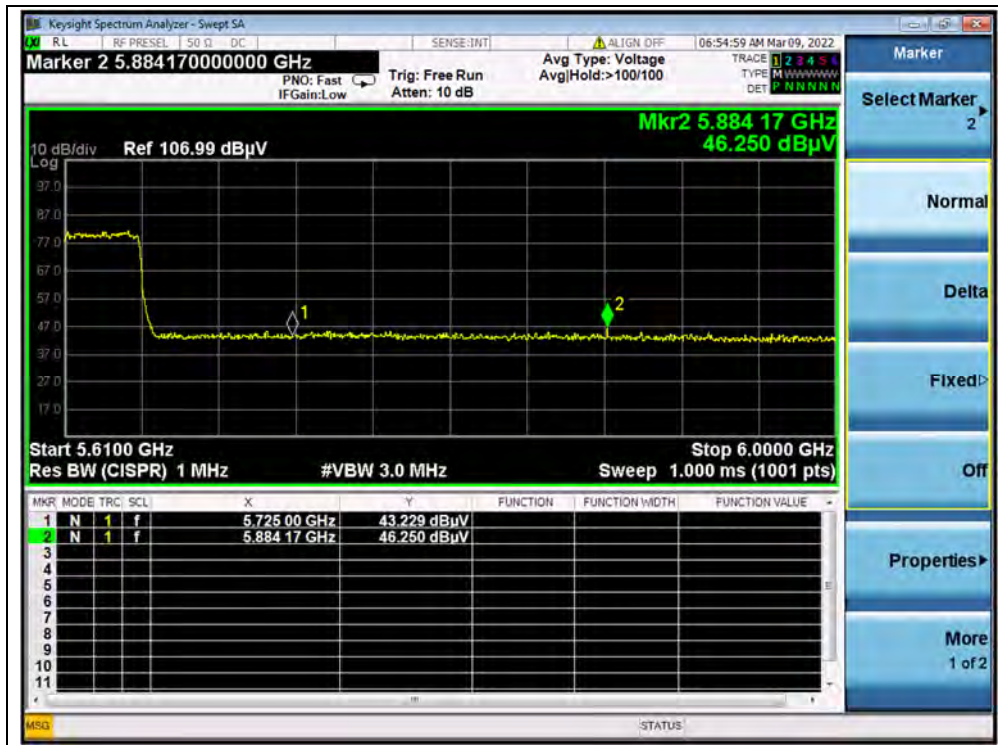
(AVERAGE, Channel 58, 802.11ac (VHT80))



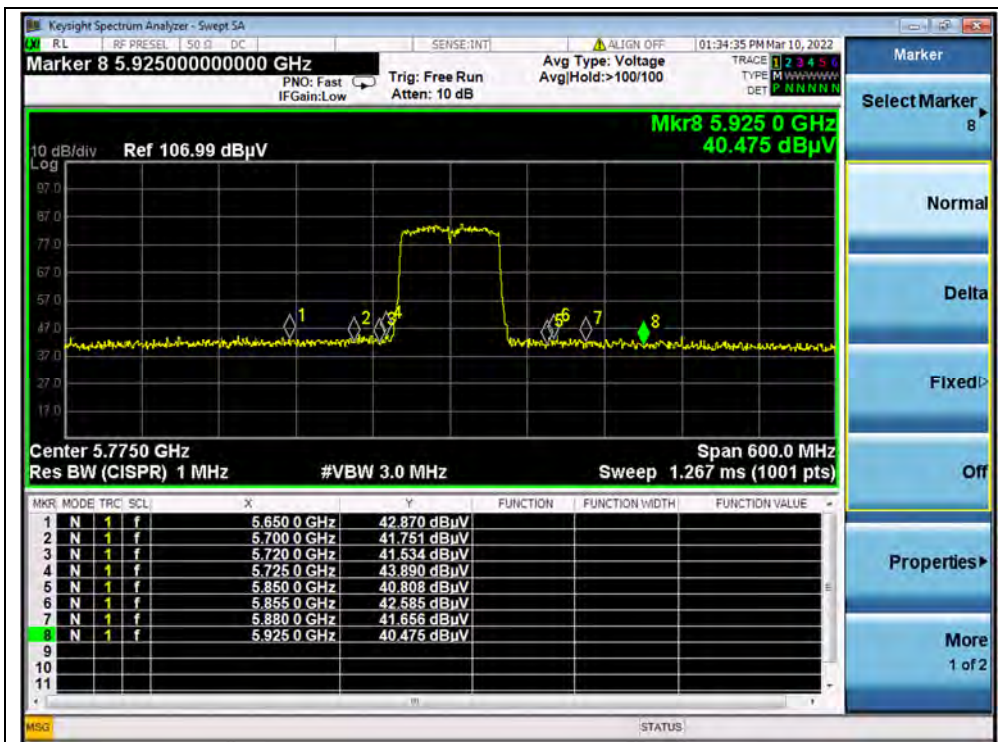
(PEAK, Channel 106, 802.11ac (VHT80))



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



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



(PEAK, Channel 155, 802.11ac (VHT80))

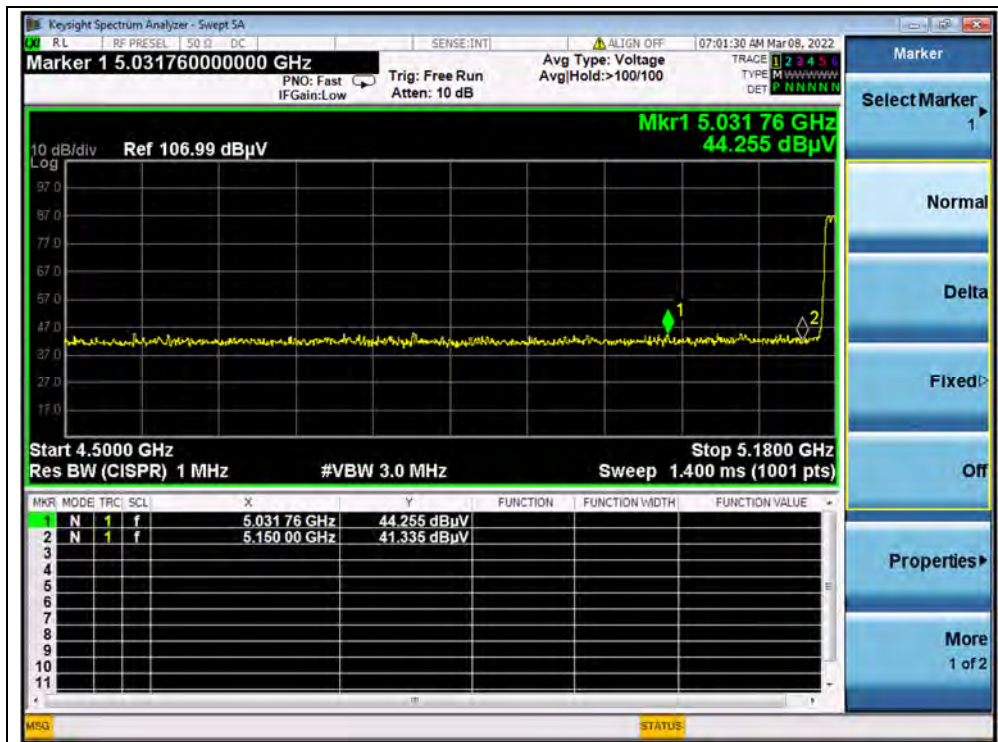


802.11ax (HEW20) Mode

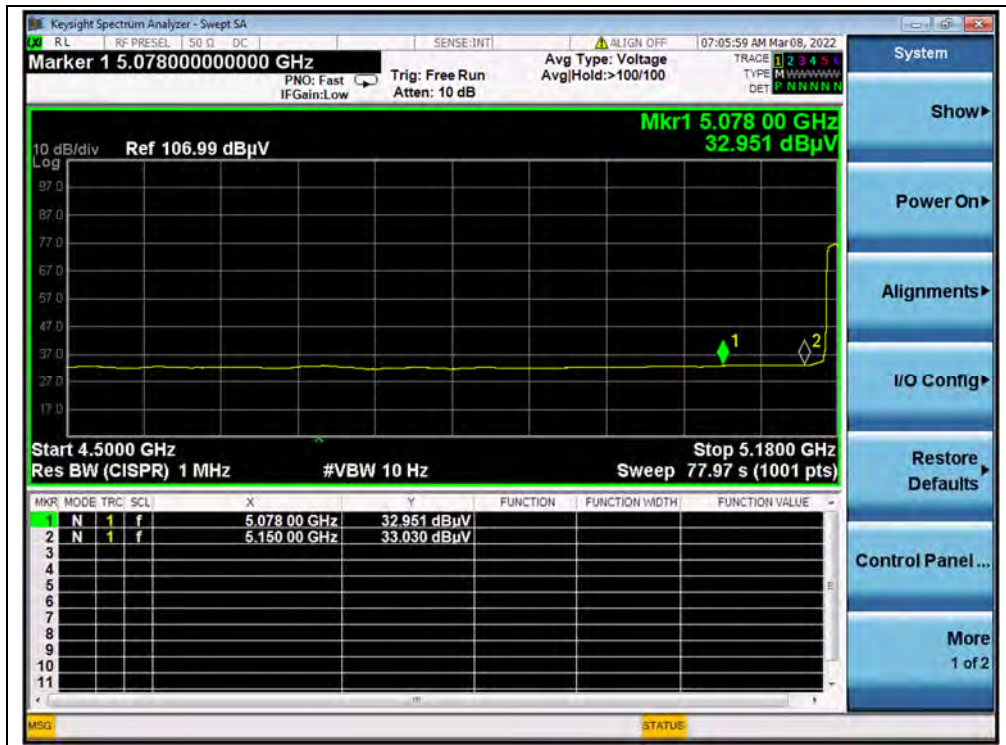
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading	A_T	A_{Factor}	Max. Emission	Limit (dB μ V/m)	Verdict
		PK/ AV	U_R (dB μ V)	(dB)	(dB@3m)	E (dB μ V/m)		
36	5031.76	PK	44.26	-19.54	32.20	56.92	74	PASS
36	5150.00	AV	33.03	-19.54	32.20	45.69	54	PASS
64	5397.98	PK	43.72	-18.80	32.20	57.12	74	PASS
64	5350.00	AV	30.85	-18.80	32.20	44.25	54	PASS
100	5413.10	PK	43.92	-19.20	32.20	56.92	74	PASS
100	5470.00	AV	32.32	-19.20	32.20	45.32	54	PASS
144	5763.00	PK	45.38	-19.20	32.20	58.38	68.23	PASS
149	5725.00	PK	43.89	-19.01	32.20	57.08	122.23	PASS
165	5850.00	PK	41.42	-19.01	32.20	54.61	122.23	PASS

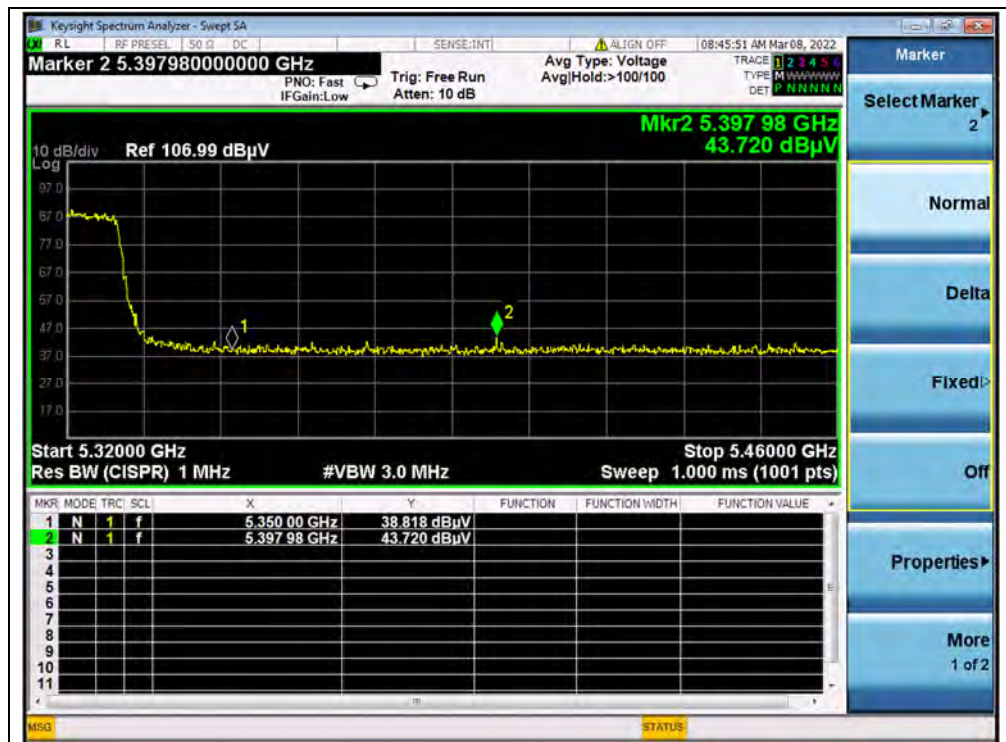
B. Test Plot:



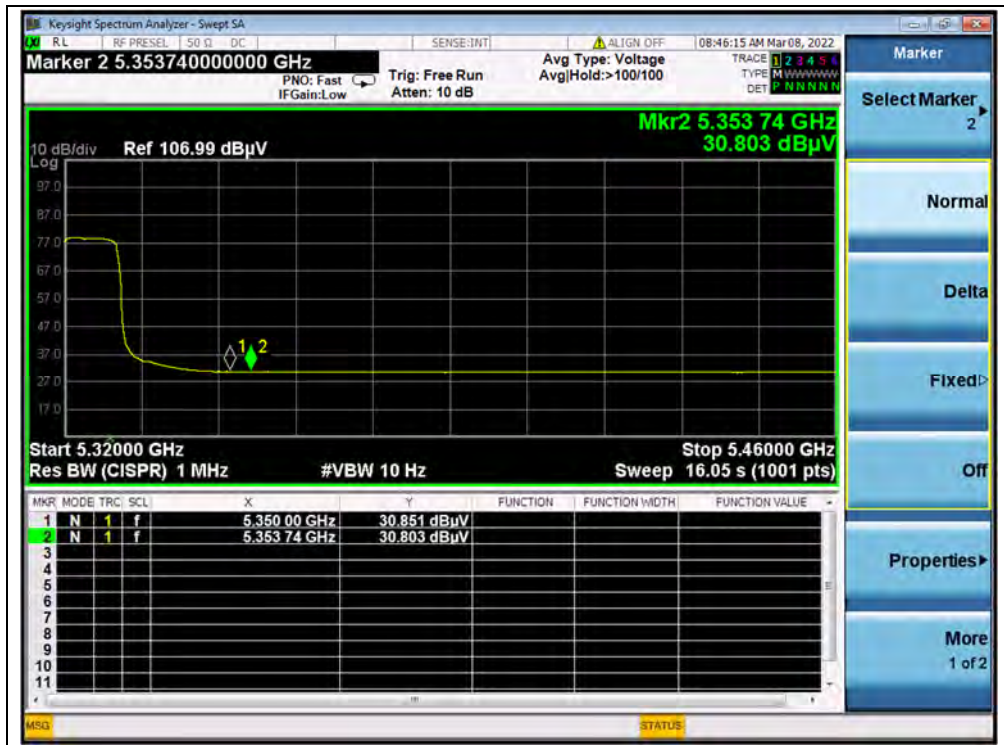
(PEAK, Channel 36, 802.11ax (HEW20))



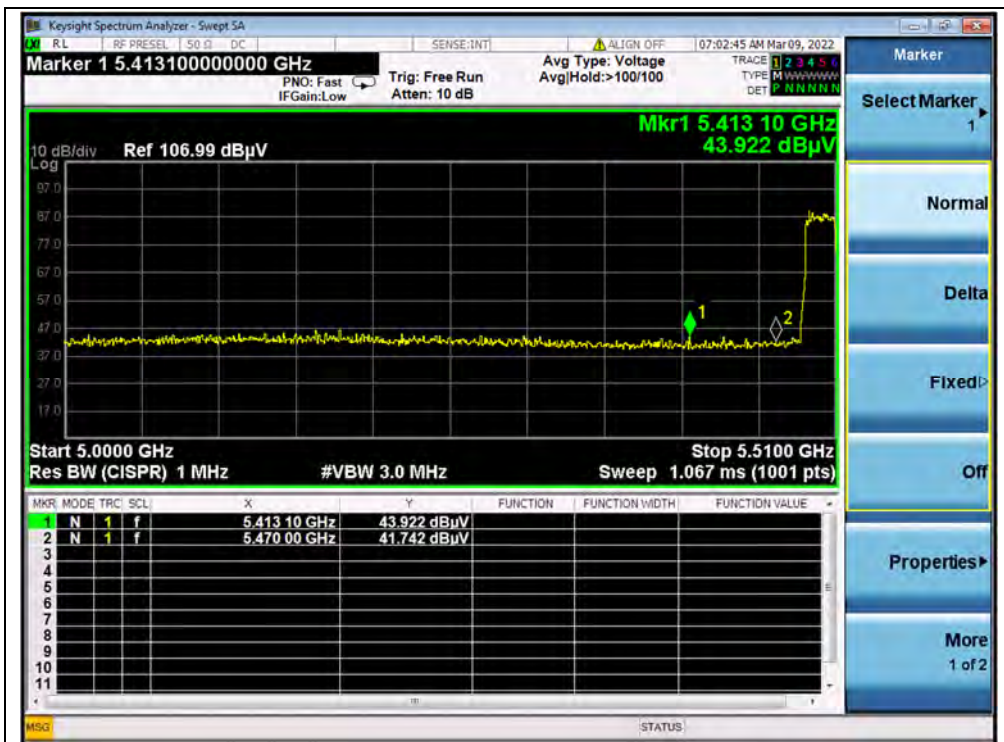
(AVERAGE, Channel 36, 802.11ax (HEW20))



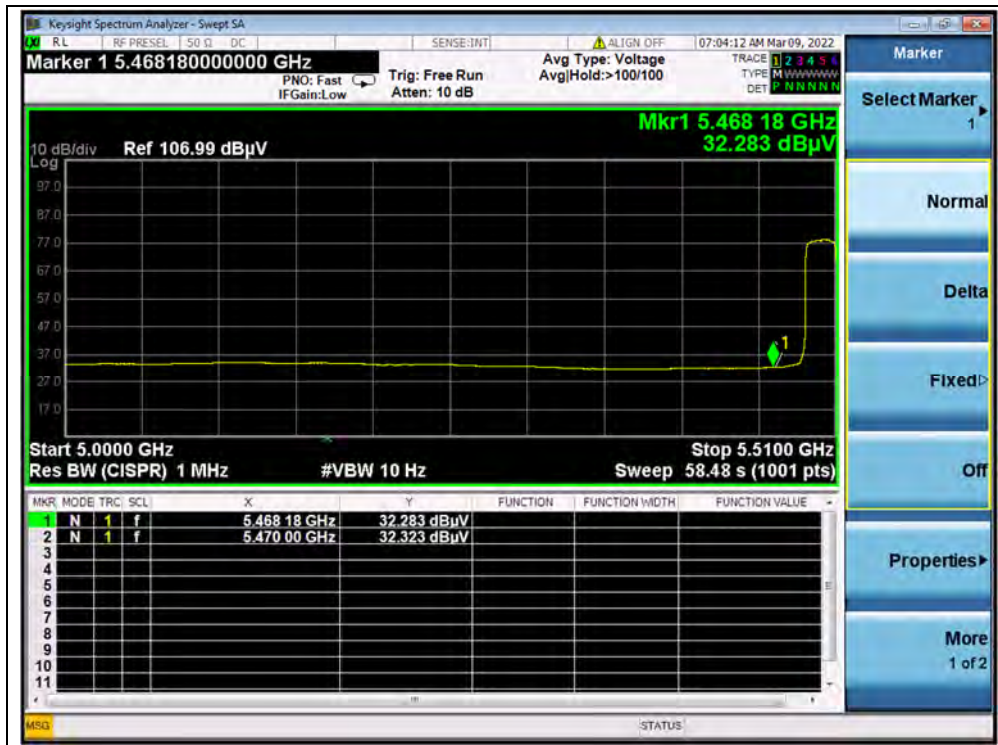
(PEAK, Channel 64, 802.11ax (HEW20))



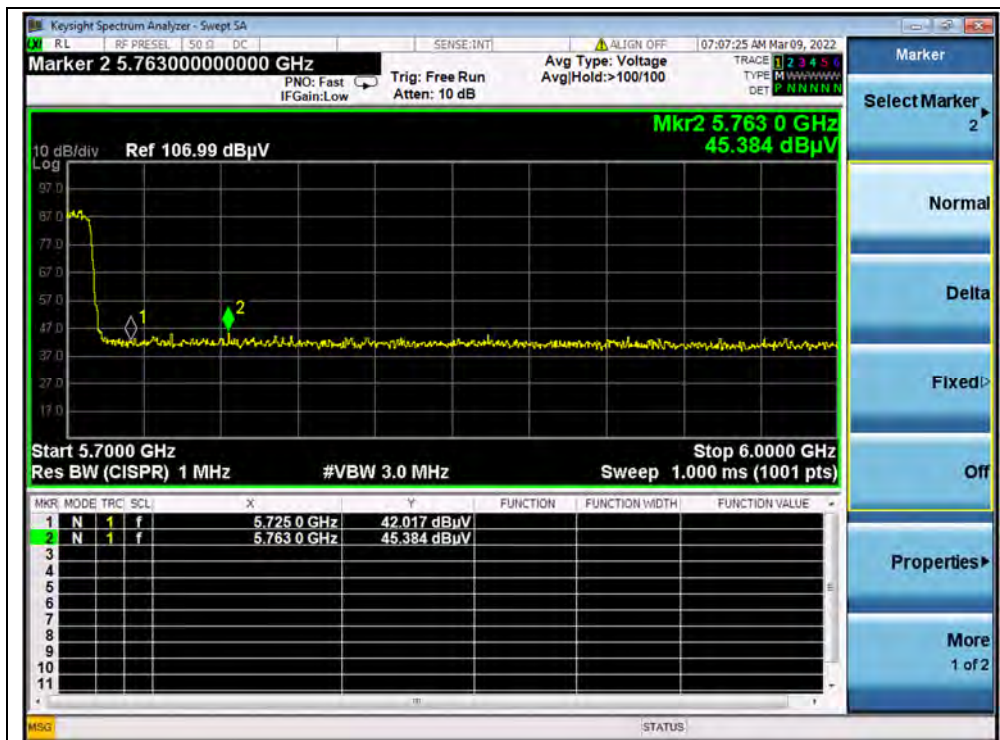
(AVERAGE, Channel 64, 802.11ax (HEW20))



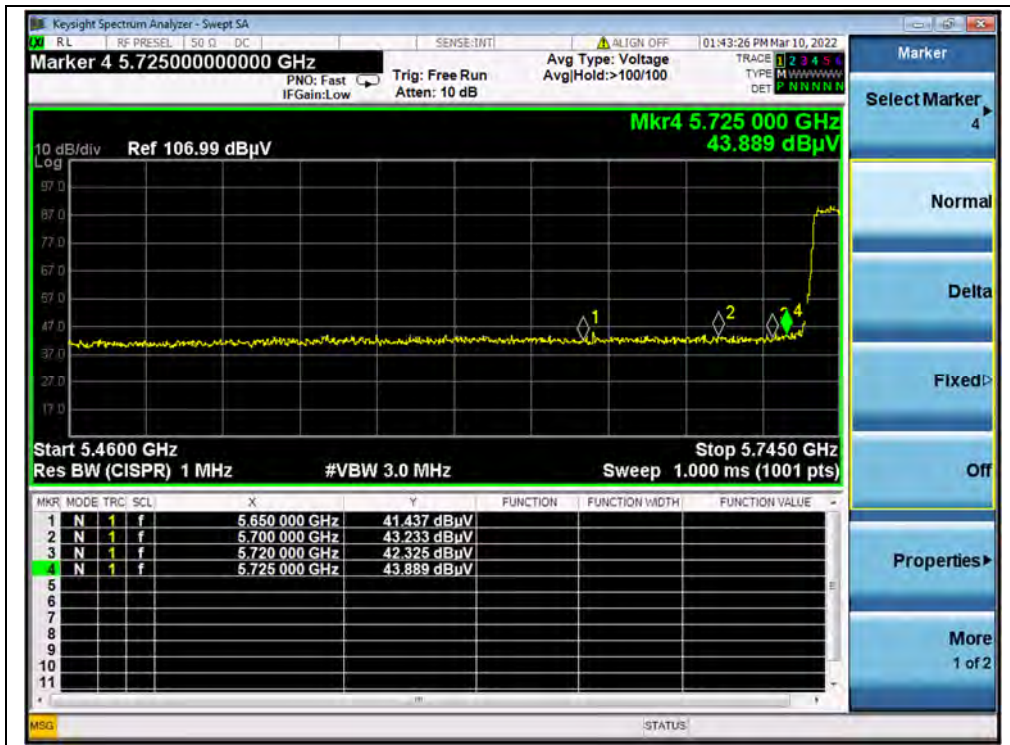
(PEAK, Channel100, 802.11ax (HEW20))



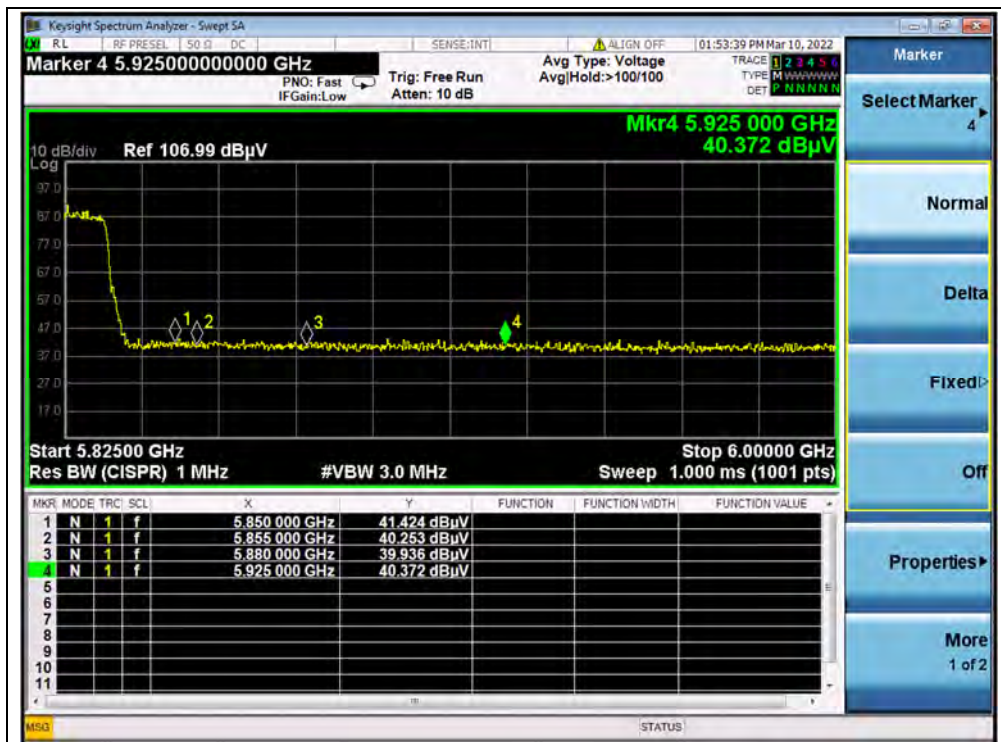
(AVERAGE, Channel 100, 802.11ax (HEW20))



(PEAK, Channel 144, 802.11ax (HEW20))



(PEAK, Channel 149, 802.11ax (HEW20))



(PEAK, Channel 165, 802.11ax (HEW20))

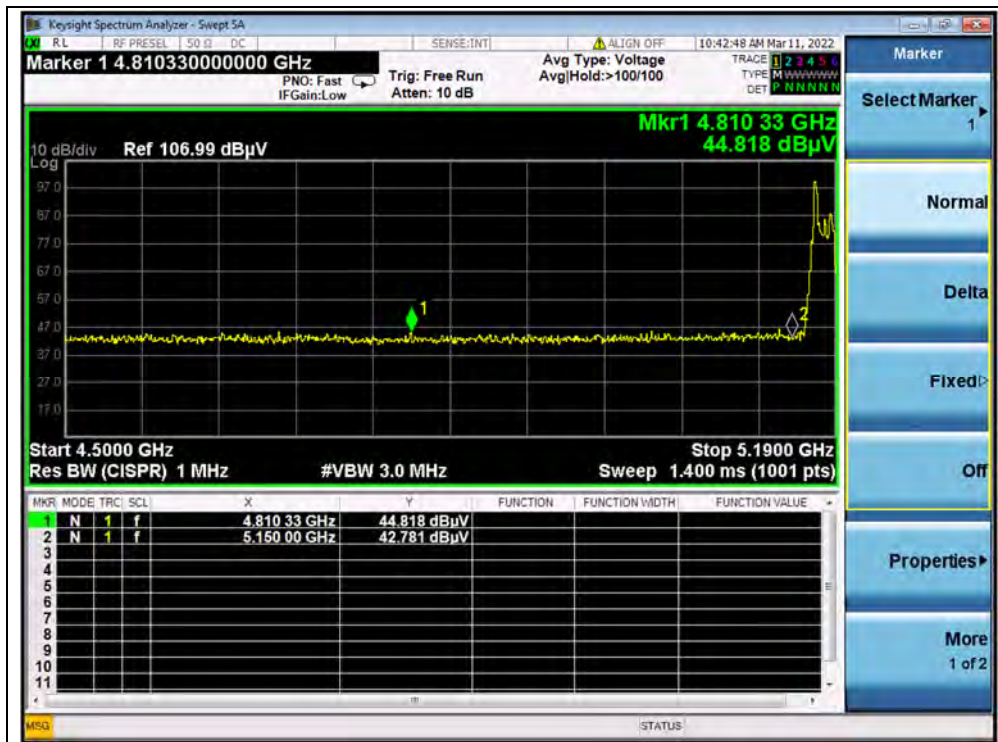


802.11ax (HEW20)(RU26) Mode

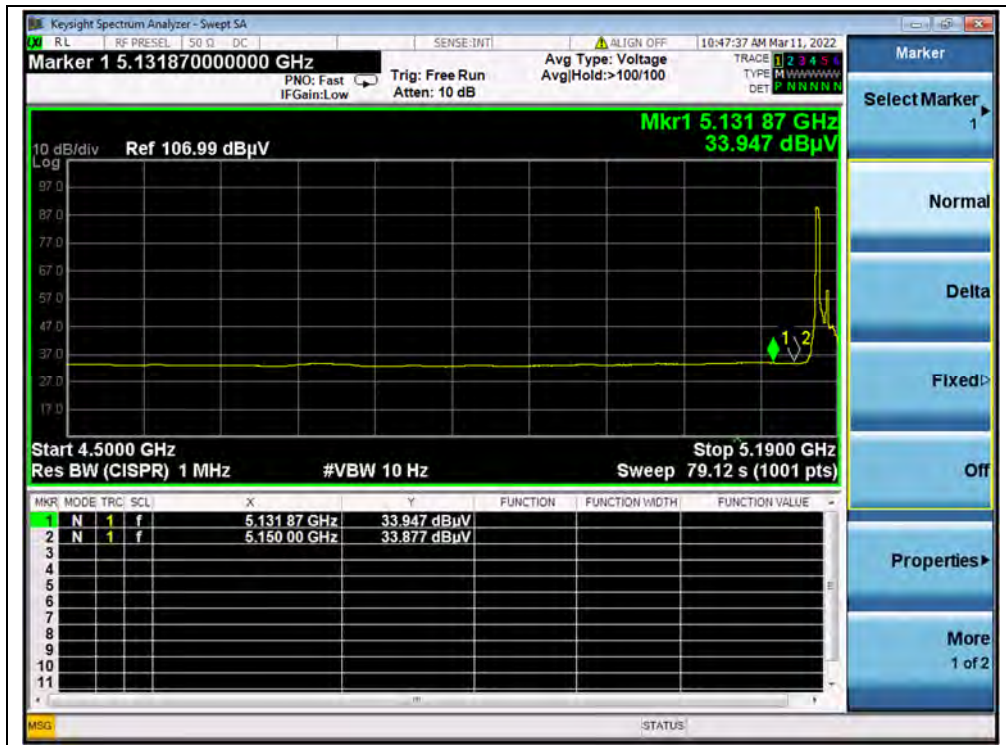
A.Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading	A_T	A_{Factor}	Max. Emission	Limit	Verdict
		PK/ AV	U_R (dB μ V)	(dB)	(dB@3m)	E (dB μ V/m)	(dB μ V/m)	
36	4810.33	PK	44.82	-19.54	32.20	57.48	74	PASS
36	5131.87	AV	33.95	-19.54	32.20	46.61	54	PASS
64	5423.10	PK	43.21	-18.80	32.20	56.61	74	PASS
64	5350.00	AV	31.94	-18.80	32.20	45.34	54	PASS
100	5428.48	PK	43.72	-19.20	32.20	56.72	74	PASS
100	5470.00	AV	31.82	-19.20	32.20	44.82	54	PASS
144	5768.72	PK	43.88	-19.20	32.20	56.88	68.23	PASS
149	5720.00	PK	43.71	-19.01	32.20	56.90	110.83	PASS
165	5880.00	PK	42.67	-19.01	32.20	55.86	110.53	PASS

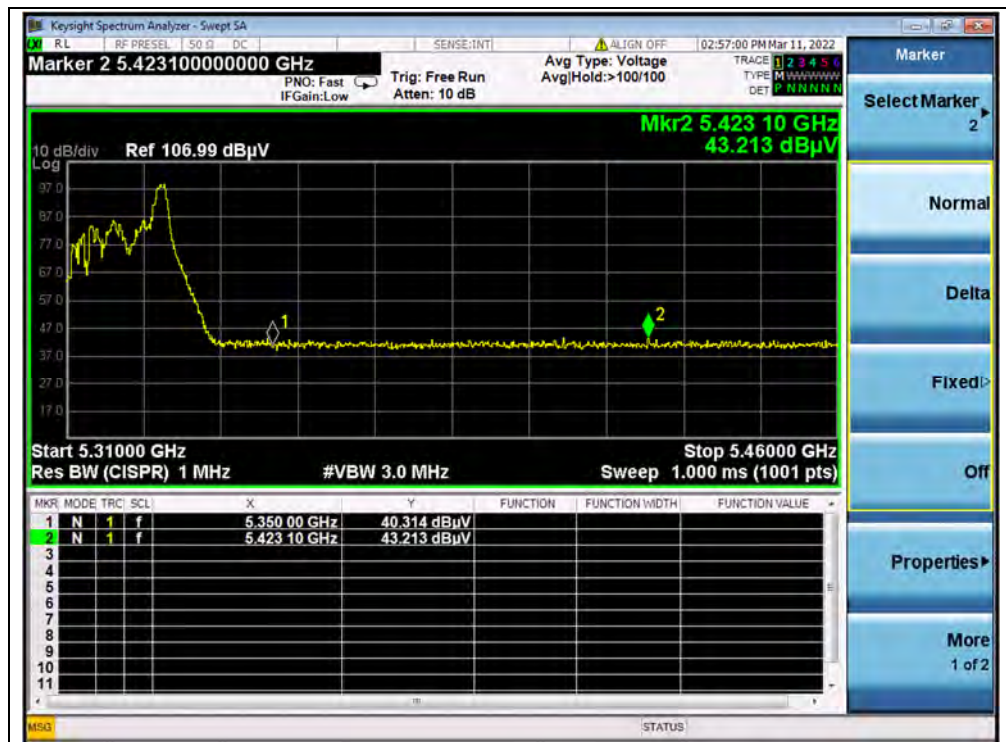
B.Test Plot:



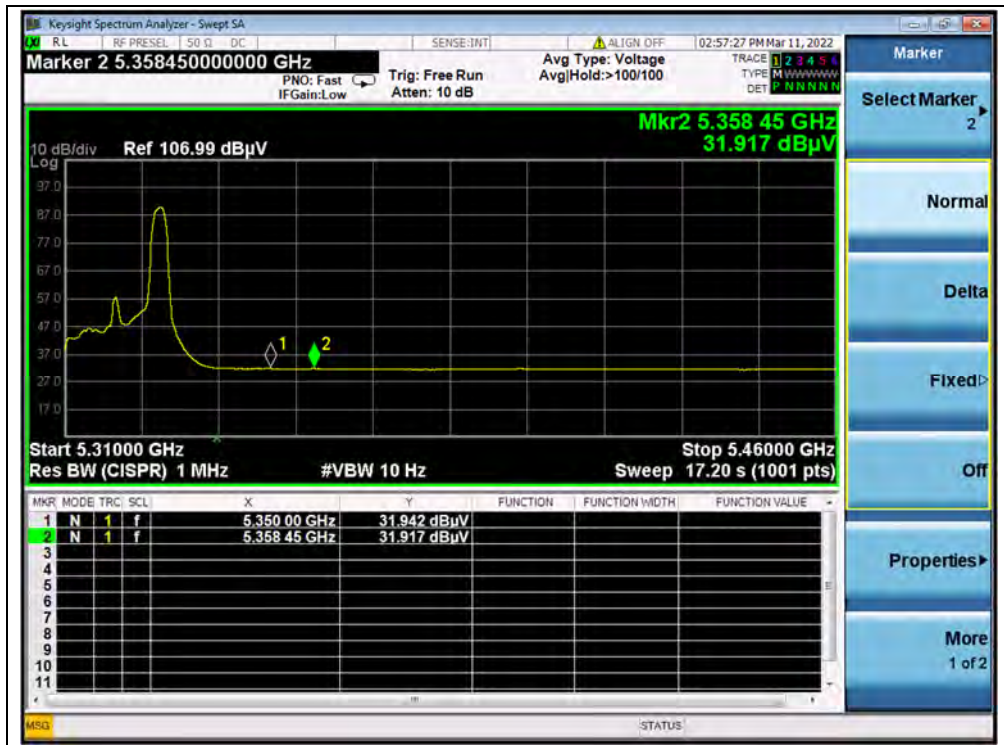
(PEAK, Channel 36, 802.11ax (HEW20)(RU26))



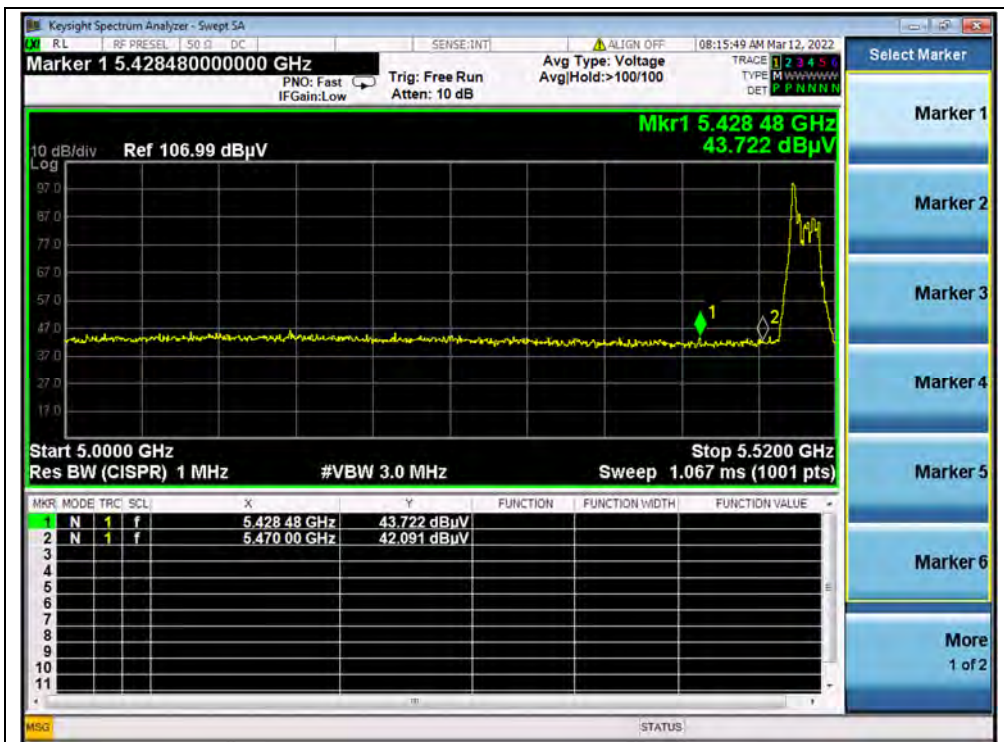
(AVERAGE, Channel 36, 802.11ax (HEW20)(RU26))



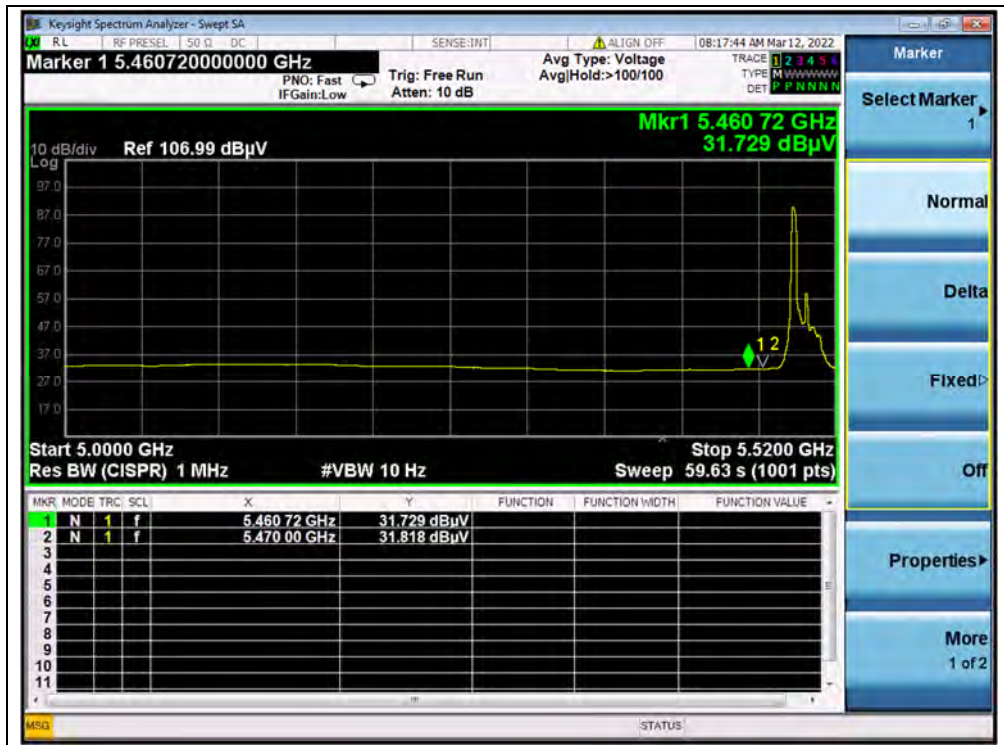
(PEAK, Channel 64, 802.11ax (HEW20)(RU26))



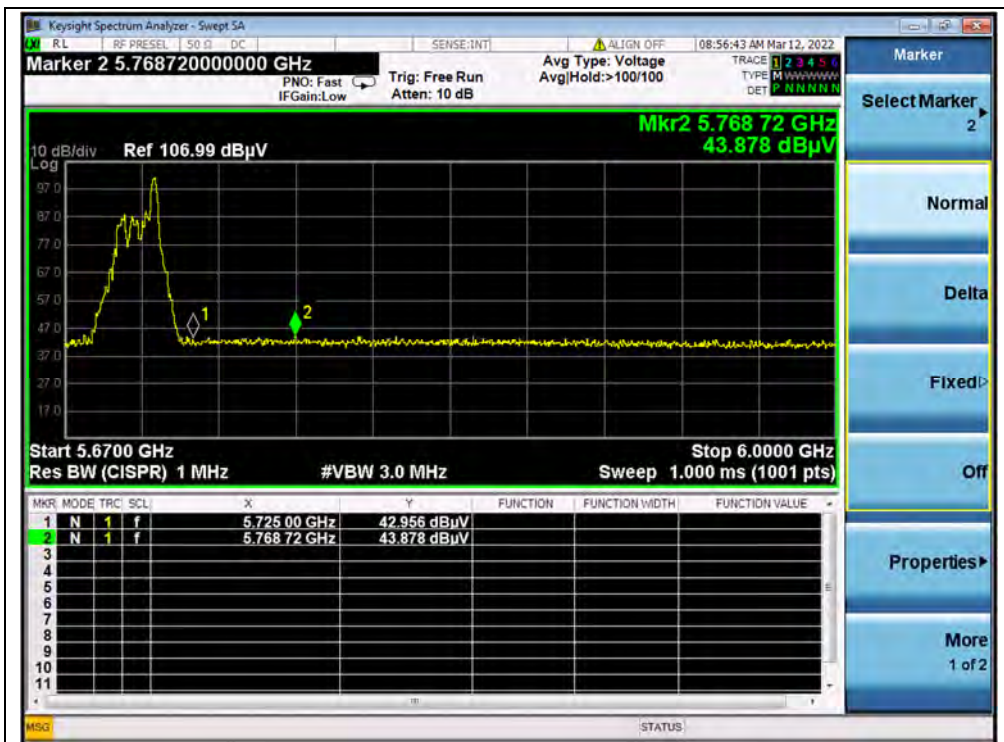
(AVERAGE, Channel 64, 802.11ax (HEW20)(RU26))



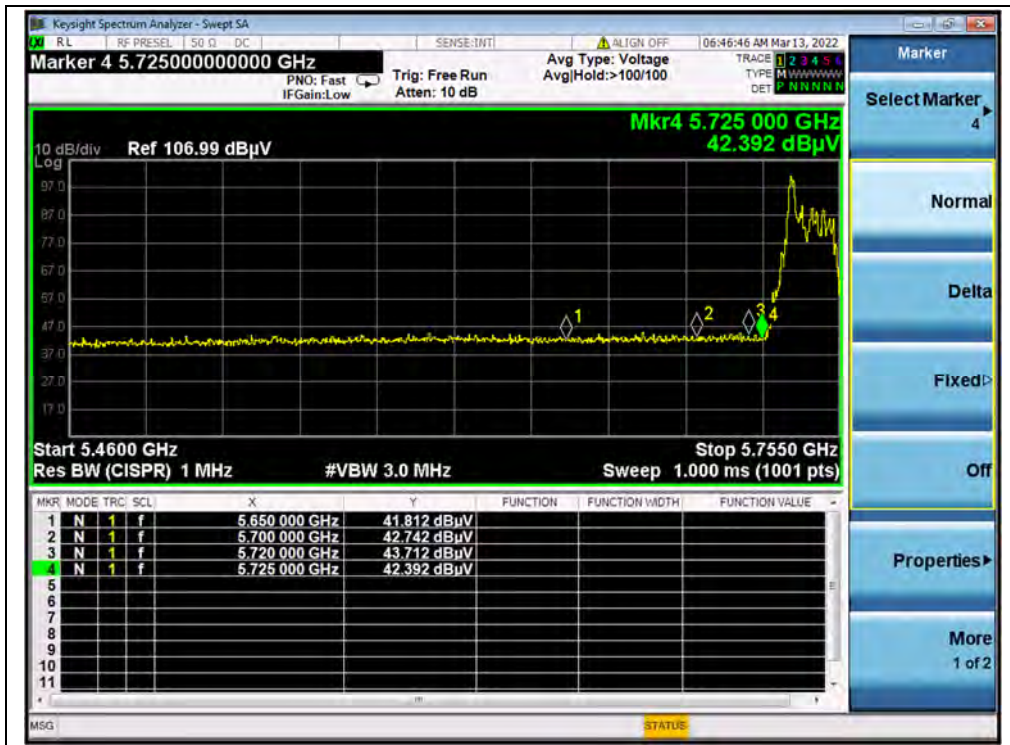
(PEAK, Channel100, 802.11ax (HEW20)(RU26))



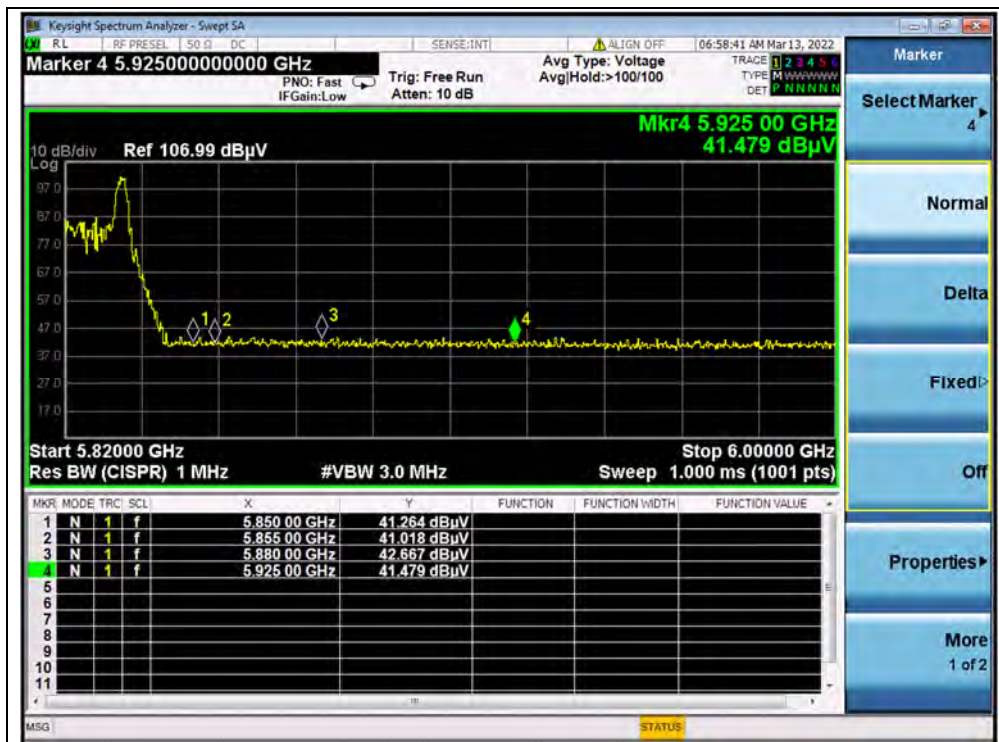
(AVERAGE, Channel 100, 802.11ax (HEW20)(RU26))



(PEAK, Channel 144, 802.11ax (HEW20)(RU26))



(PEAK, Channel 149, 802.11ax (HEW20)(RU26))



(PEAK, Channel 165, 802.11ax (HEW20)(RU26))



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:

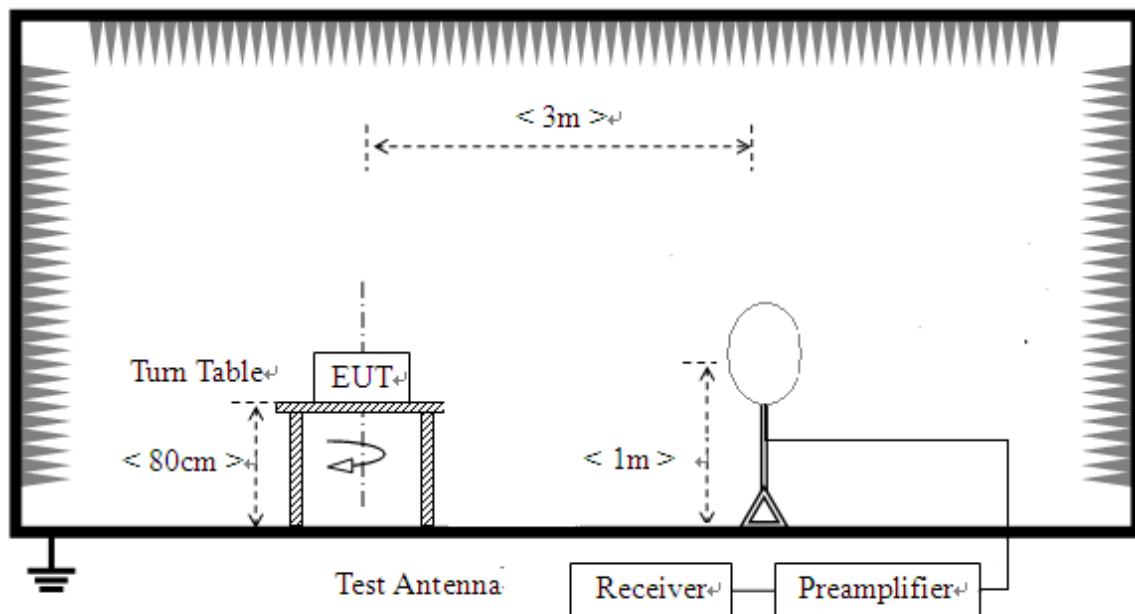
Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

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).

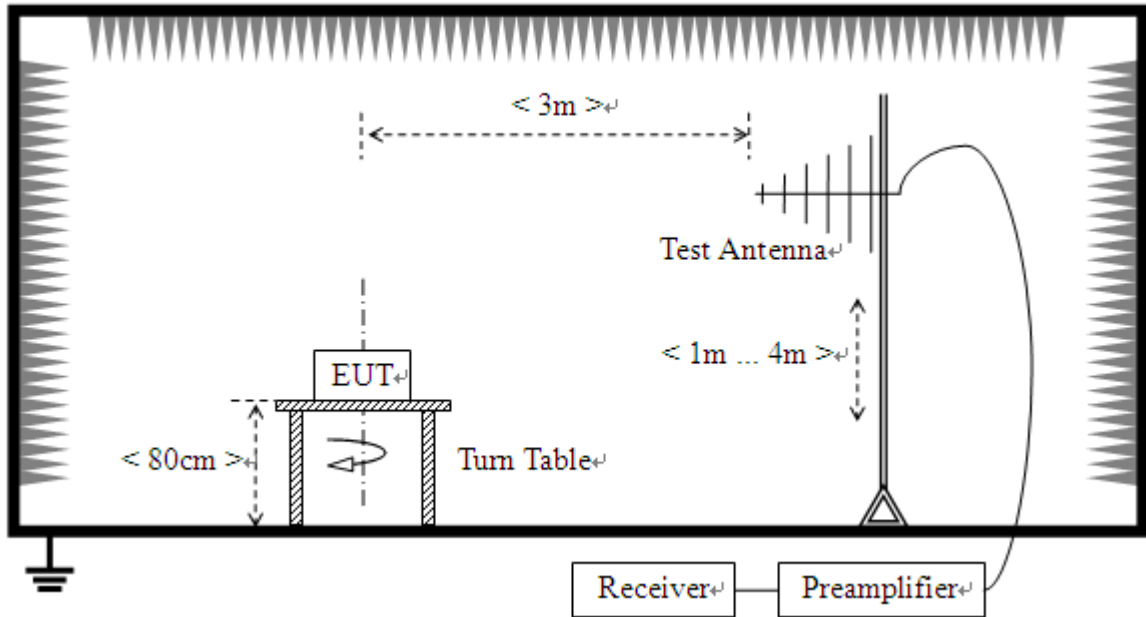
2.9.2. Test Description

Test Setup:

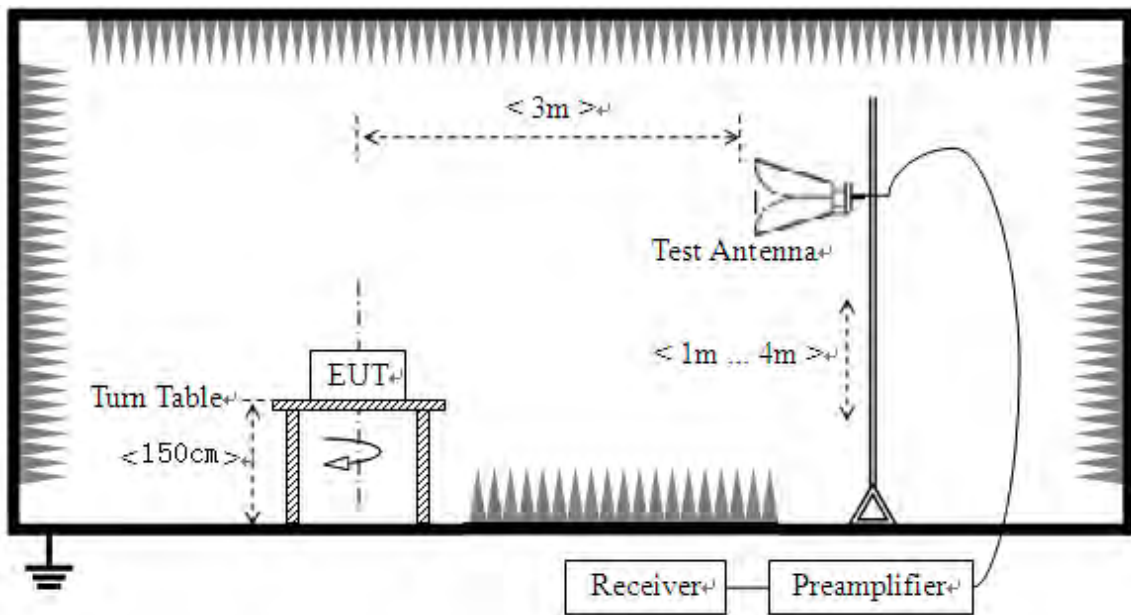
- 1) For radiated emissions from 9kHz to 30MHz



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 a 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_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

During the test, the total correction Factor A_T and A_{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.

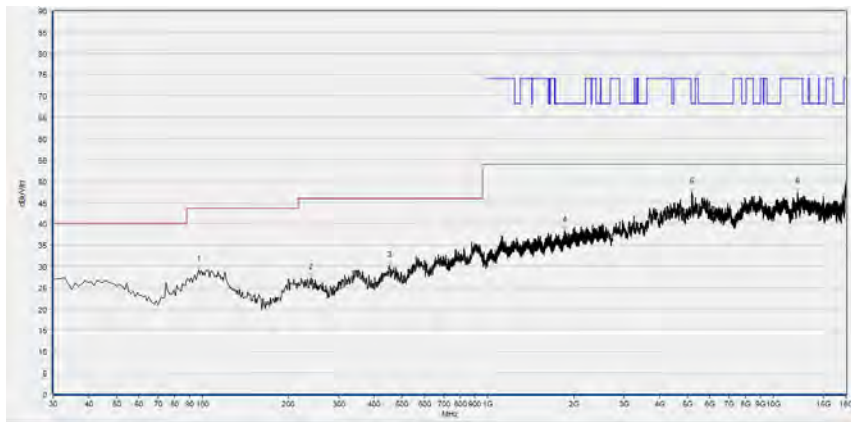
Note 3: For the frequency, which started from 18GHz to 40GHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

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.



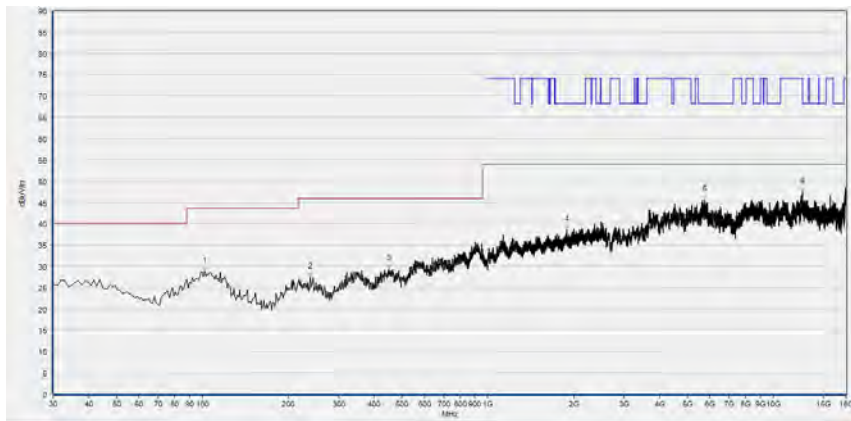
802.11a Mode

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
96.997	29.15	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
239.730	27.25	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
452.372	30.08	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1856.819	38.41	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5184.637	47.51	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12146.829	47.45	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

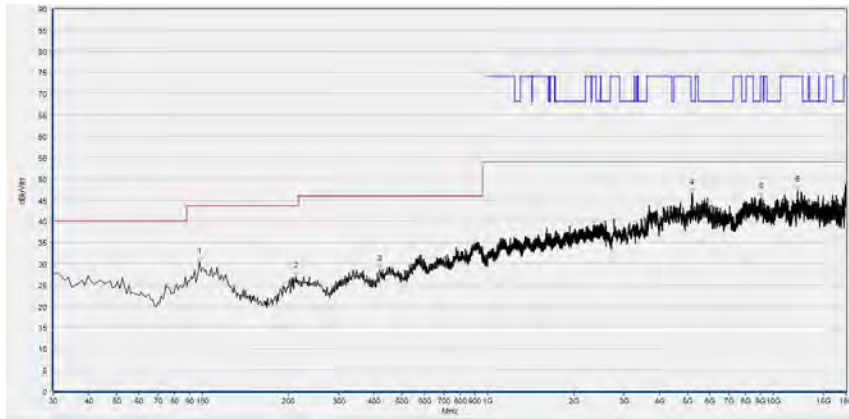
(Antenna Horizontal, 30MHz to 18GHz)



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
101.852	28.84	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
238.759	27.46	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
450.430	29.25	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1889.363	38.47	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5754.551	45.60	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12679.776	47.41	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

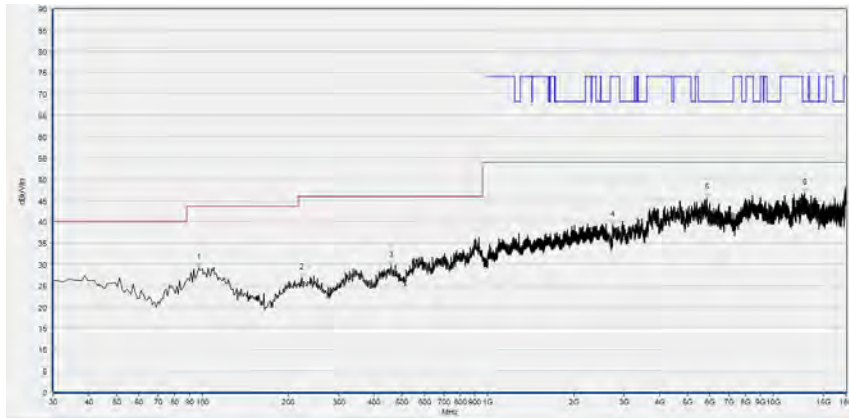
(Antenna Vertical, 30MHz to 18GHz)

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
97.968	30.31	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
212.543	27.05	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
418.388	28.64	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
5221.501	46.64	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
9066.213	45.67	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12183.797	47.25	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

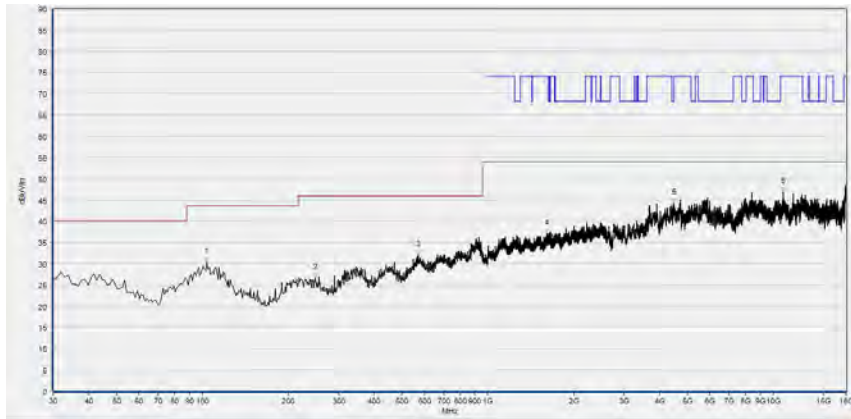
(Antenna Horizontal, 30MHz to 18GHz)



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
96.997	29.22	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
223.223	26.74	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
457.227	29.71	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2741.708	39.23	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5859.292	45.50	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12898.500	46.70	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

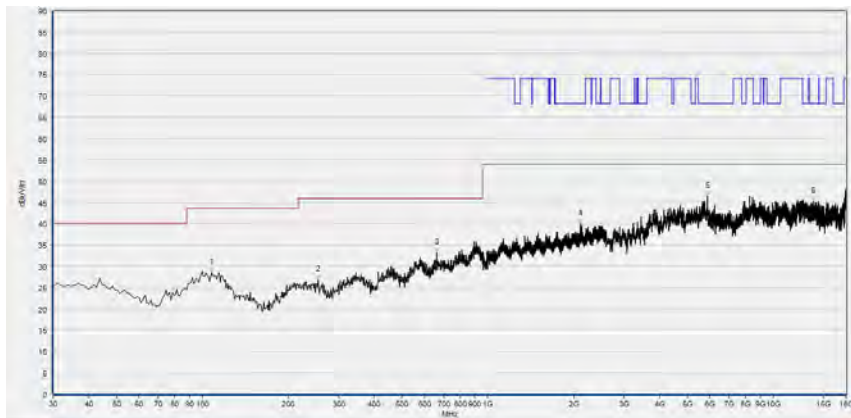
(Antenna Vertical, 30MHz to 18GHz)

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
103.794	30.27	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
248.468	26.66	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
571.802	32.07	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1608.736	37.06	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4491.498	44.23	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
10865.293	46.92	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

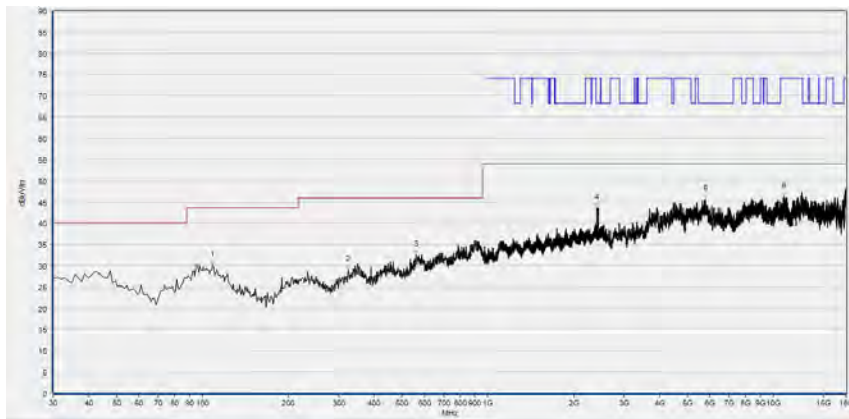
(Antenna Horizontal, 30MHz to 18GHz)



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
107.678	28.49	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
254.294	26.80	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
661.131	33.21	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2106.502	39.91	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5871.614	46.34	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
13835.007	45.18	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

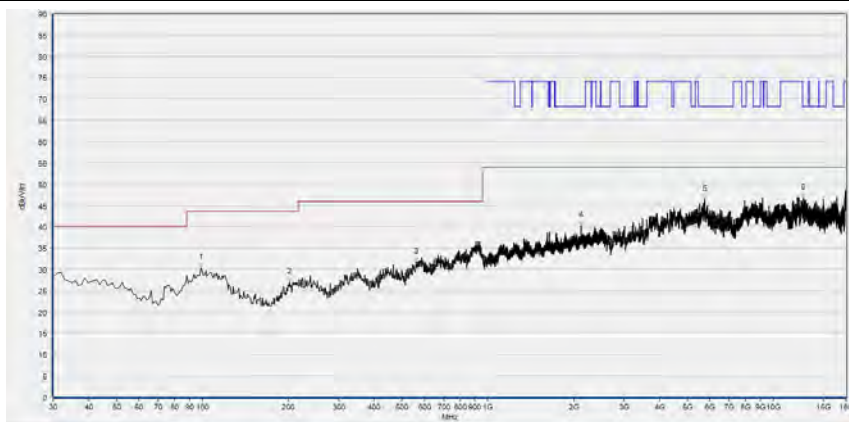
(Antenna Vertical, 30MHz to 18GHz)

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
108.649	30.23	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
324.204	29.01	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
561.121	32.48	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2412.204	43.56	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5776.115	45.64	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
10883.777	46.24	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

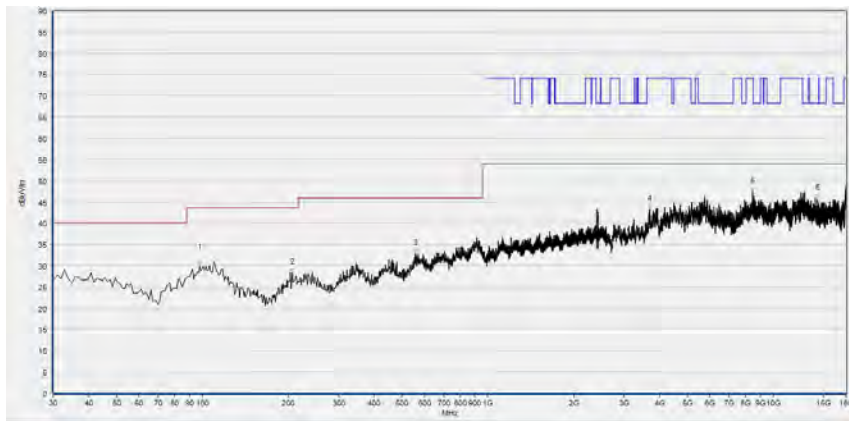
(Antenna Horizontal, 30MHz to 18GHz)



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
98.939	30.34	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
201.862	26.97	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
562.092	31.64	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2119.840	40.21	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5751.470	46.45	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12741.388	46.72	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

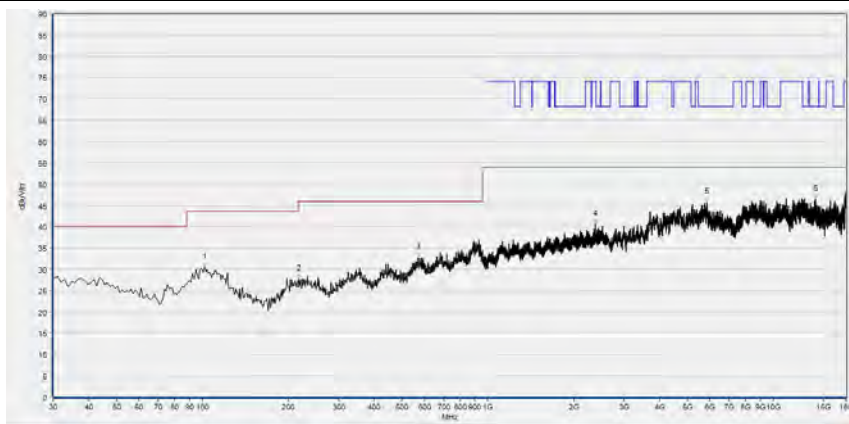
(Antenna Vertical, 30MHz to 18GHz)

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
97.968	29.83	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
206.717	28.33	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
558.208	32.83	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
3681.296	43.18	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8465.493	47.37	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14266.293	45.73	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

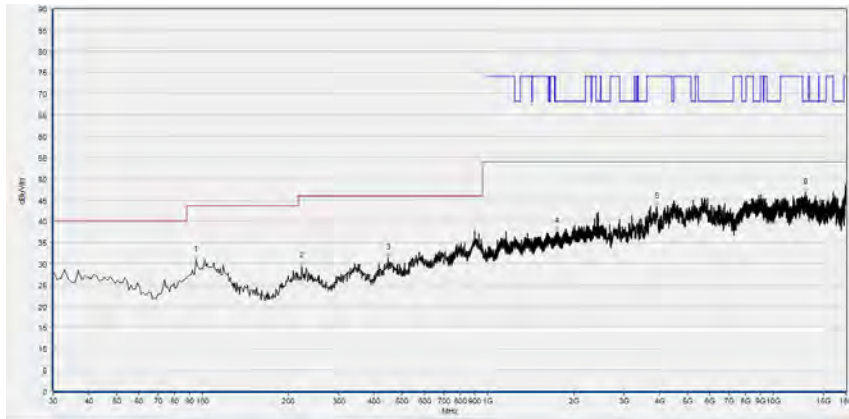
(Antenna Horizontal, 30MHz to 18GHz)



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
101.852	30.46	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
218.368	27.60	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
569.860	32.63	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2378.593	40.55	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5865.453	45.74	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
14026.005	46.44	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

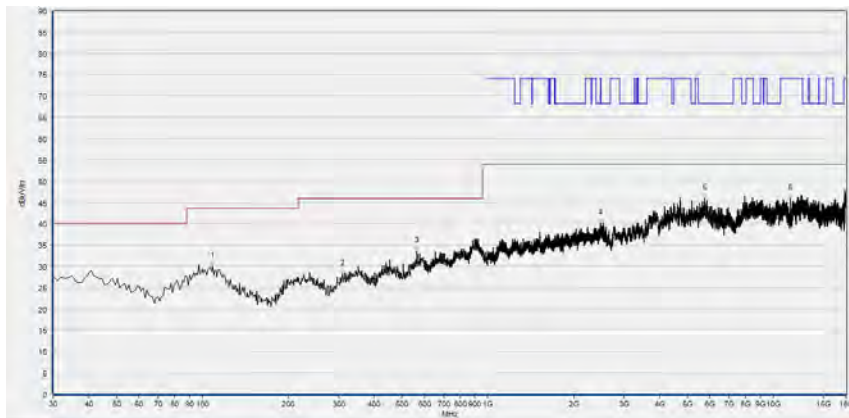
(Antenna Vertical, 30MHz to 18GHz)

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
95.055	30.85	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
223.223	29.29	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
447.518	31.27	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1748.516	37.61	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
3912.342	43.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12923.145	46.68	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

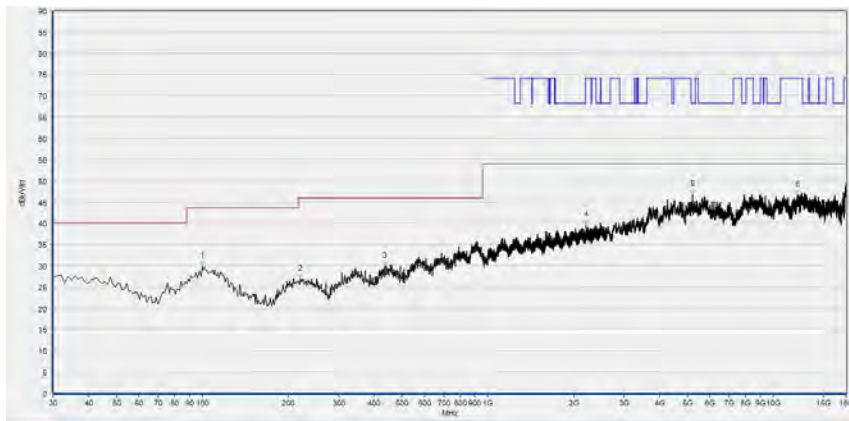
(Antenna Horizontal, 30MHz to 18GHz)



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
108.649	29.99	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
309.640	28.08	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
565.005	33.59	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2478.893	40.13	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5754.551	45.87	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
11466.013	45.85	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

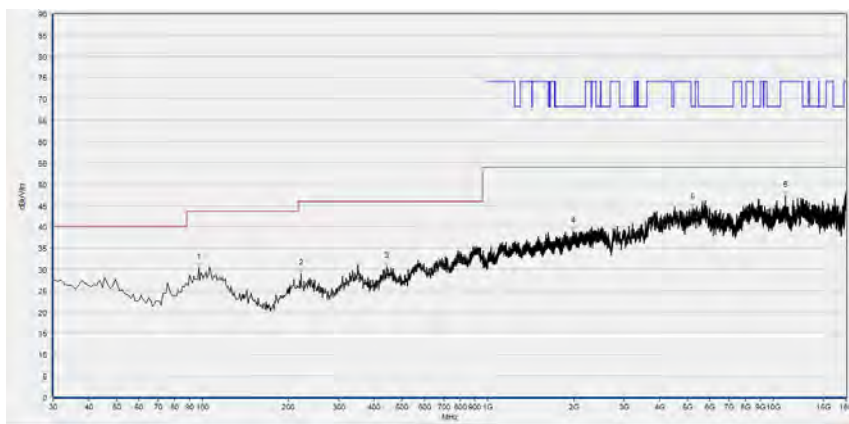
(Antenna Vertical, 30MHz to 18GHz)

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
99.910	29.78	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
220.310	26.81	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
434.895	29.80	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2213.738	39.62	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5221.604	46.74	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12186.877	46.57	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

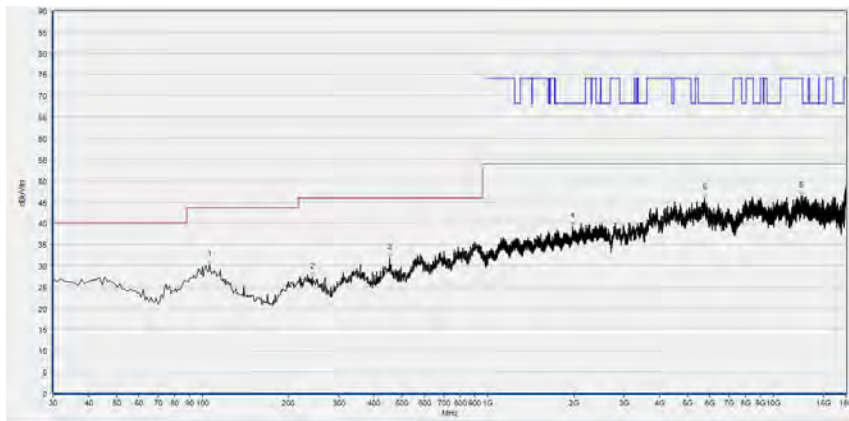
(Antenna Horizontal, 30MHz to 18GHz)



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
96.997	30.35	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
222.252	29.07	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
441.692	30.61	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1991.264	38.84	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5215.443	44.44	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
11059.372	47.18	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

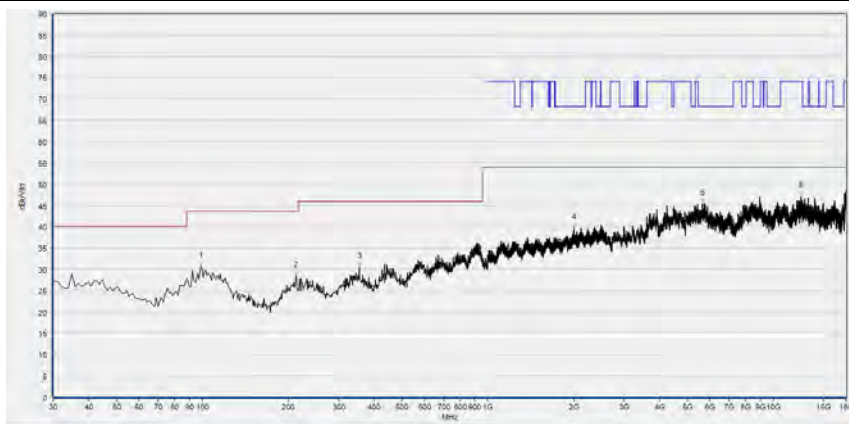
(Antenna Vertical, 30MHz to 18GHz)

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
105.736	30.20	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
242.643	27.36	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
452.372	31.77	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1982.194	39.16	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5745.309	45.86	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12519.584	46.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

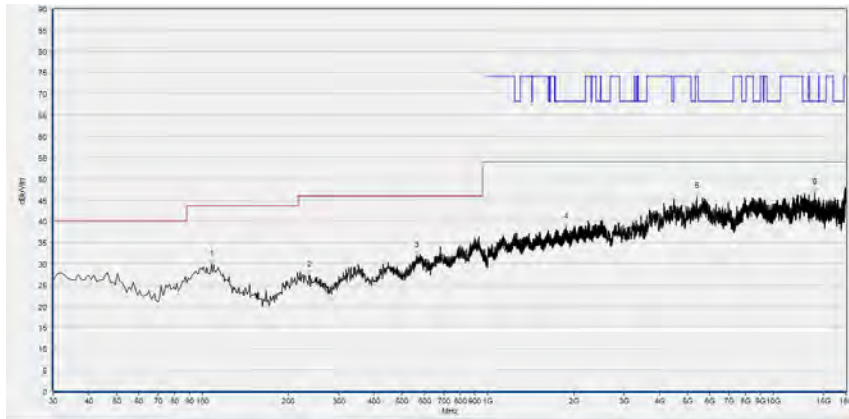
(Antenna Horizontal, 30MHz to 18GHz)



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
98.939	30.68	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
212.543	28.56	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
355.275	30.43	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2006.736	39.71	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5665.213	45.36	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12531.906	47.03	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

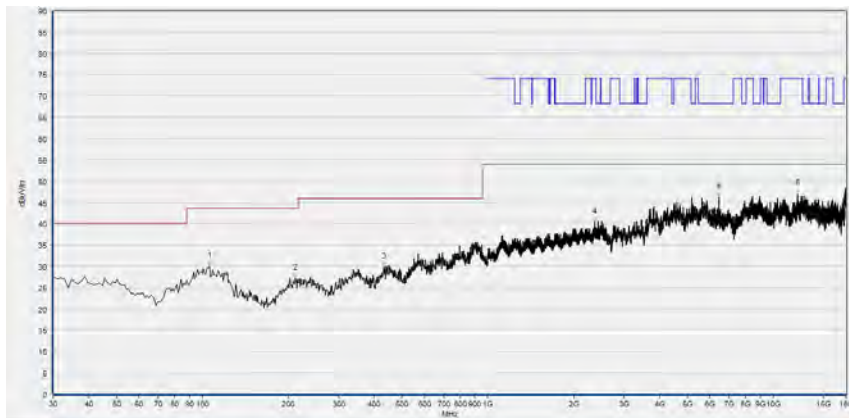
(Antenna Vertical, 30MHz to 18GHz)

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
107.678	29.81	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
237.788	27.32	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
564.034	31.89	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1876.025	38.52	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5403.361	45.71	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
13945.909	46.77	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

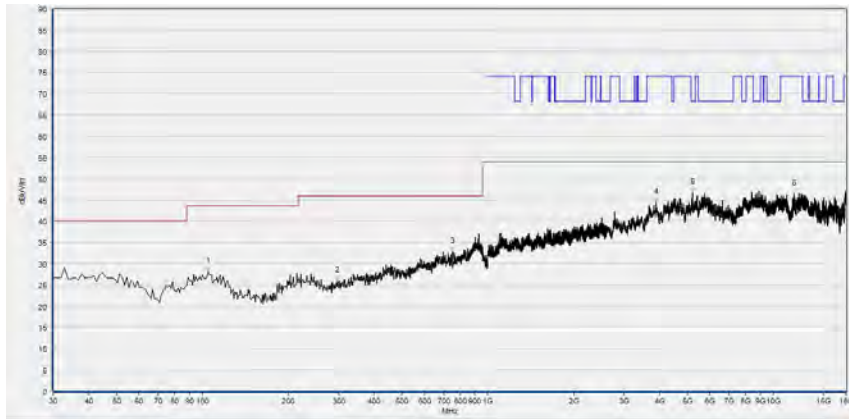
(Antenna Horizontal, 30MHz to 18GHz)



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
105.736	30.04	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
211.572	27.17	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
431.982	29.80	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2362.588	40.31	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6447.690	46.19	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12137.588	47.10	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

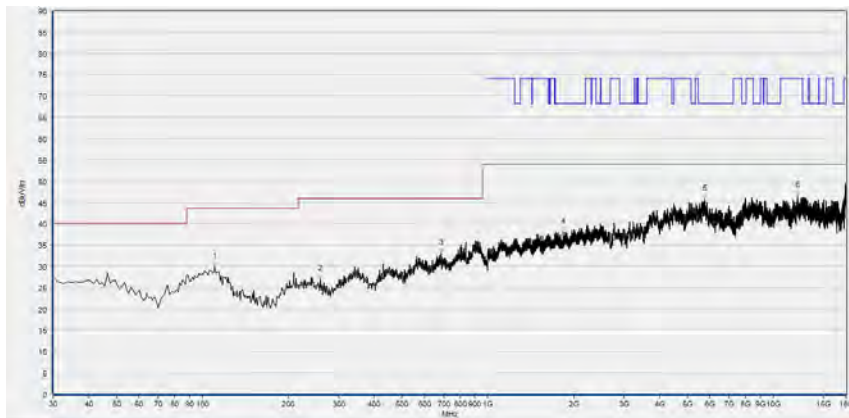
(Antenna Vertical, 30MHz to 18GHz)

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
104.765	28.12	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
297.988	25.90	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
750.460	32.80	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
3893.859	44.34	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5203.121	46.69	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
11838.768	46.46	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

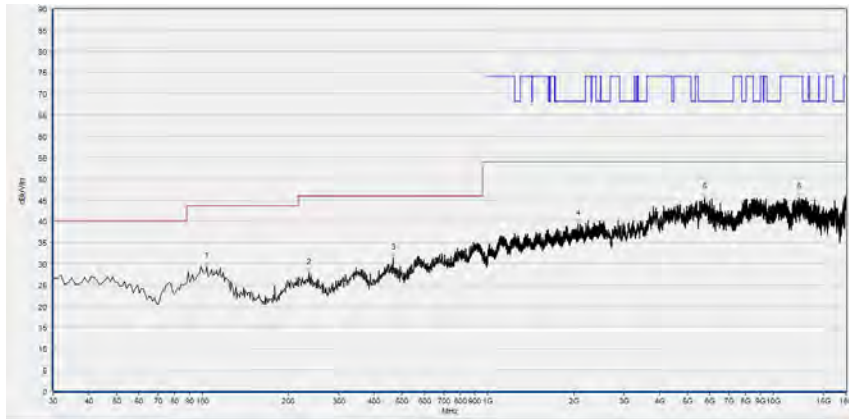
(Antenna Horizontal, 30MHz to 18GHz)



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
110.591	29.77	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
259.149	26.91	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
687.347	33.09	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1834.411	38.08	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5748.390	45.70	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12159.152	46.64	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

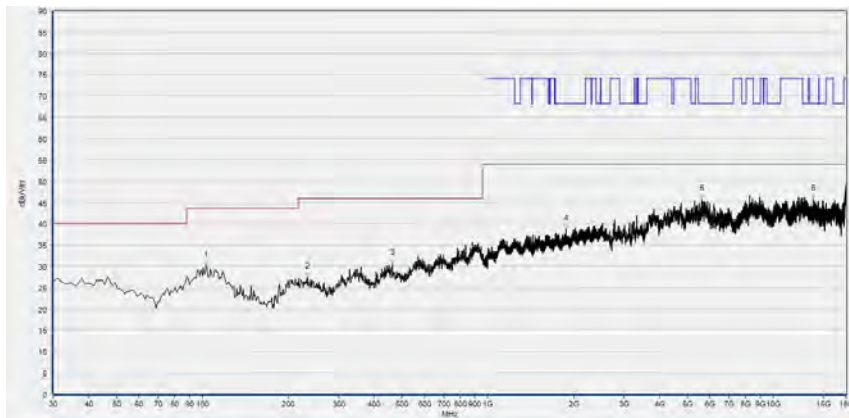
(Antenna Vertical, 30MHz to 18GHz)

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
103.794	29.29	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
235.846	27.81	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
465.966	31.26	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2071.824	39.43	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5742.228	45.51	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12294.699	45.61	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

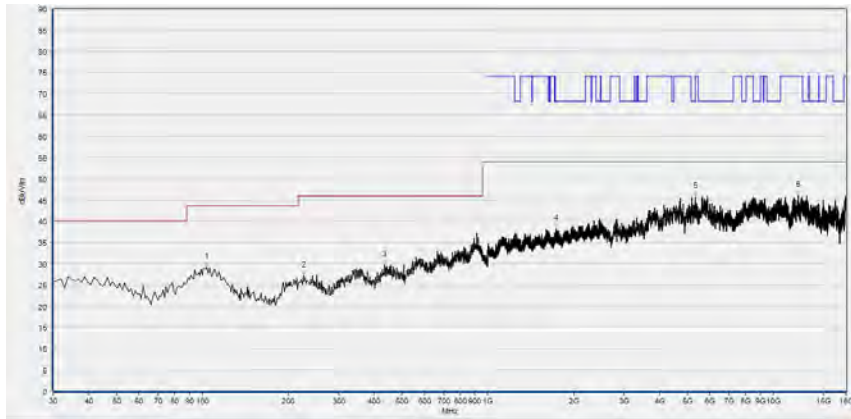
(Antenna Horizontal, 30MHz to 18GHz)



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
102.823	30.10	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
233.904	27.51	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
463.053	30.73	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1876.559	38.70	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5634.407	45.75	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
13844.249	45.78	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

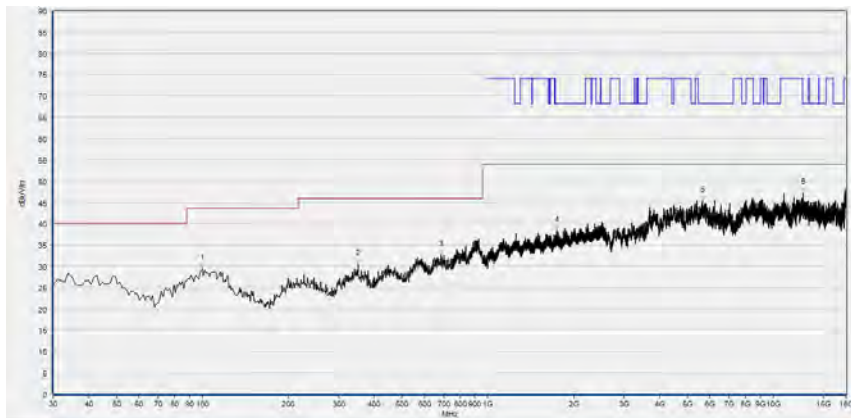
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 165



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
103.794	29.13	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
226.136	27.08	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
434.895	29.65	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1734.111	38.23	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5320.184	45.70	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12211.522	46.13	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

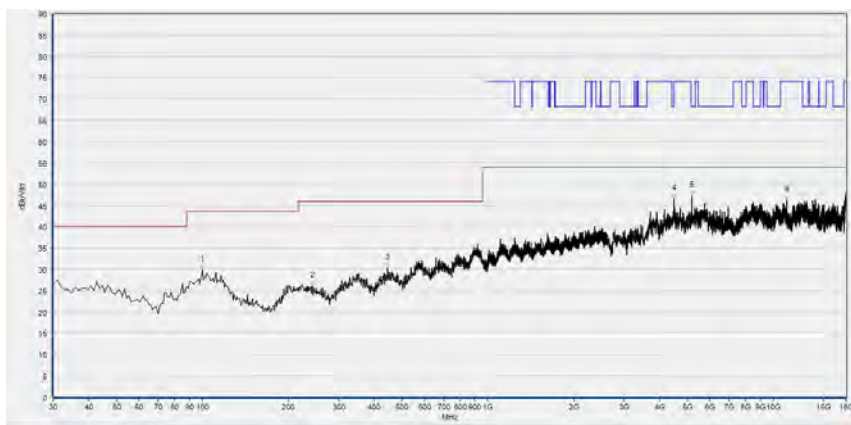


Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
99.910	29.49	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
351.391	30.48	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
684.434	32.74	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1744.248	38.36	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5659.052	45.39	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12738.308	47.24	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

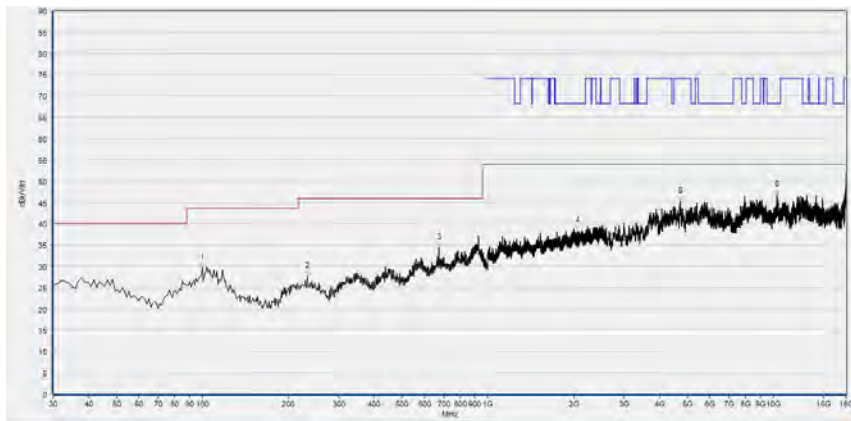
802.11n (HT40) mode

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
99.910	29.91	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
242.643	26.21	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
445.576	30.30	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
4494.579	46.62	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5187.718	47.25	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
11139.468	46.17	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

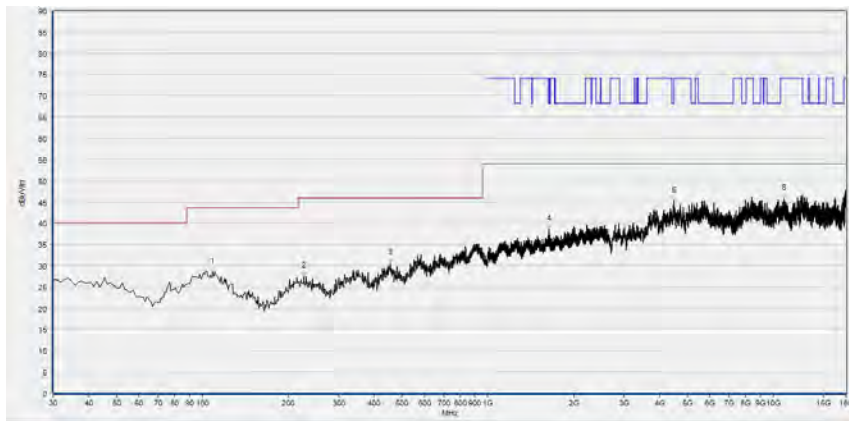
(Antenna Horizontal, 30MHz to 18GHz)



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
99.910	29.62	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
232.933	27.66	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
673.754	34.30	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2057.953	38.27	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
4725.625	45.19	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10313.863	46.71	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

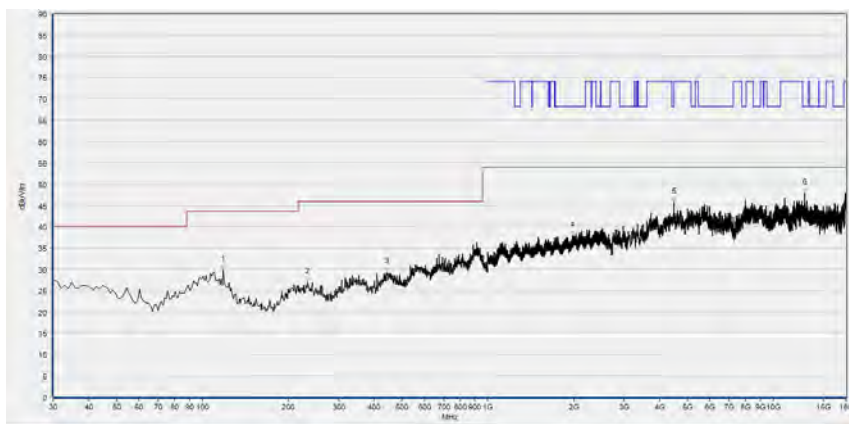
(Antenna Vertical, 30MHz to 18GHz)

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
108.649	28.53	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
226.136	27.45	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
455.285	30.51	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1639.146	38.52	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
4482.256	45.17	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
10920.744	45.77	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

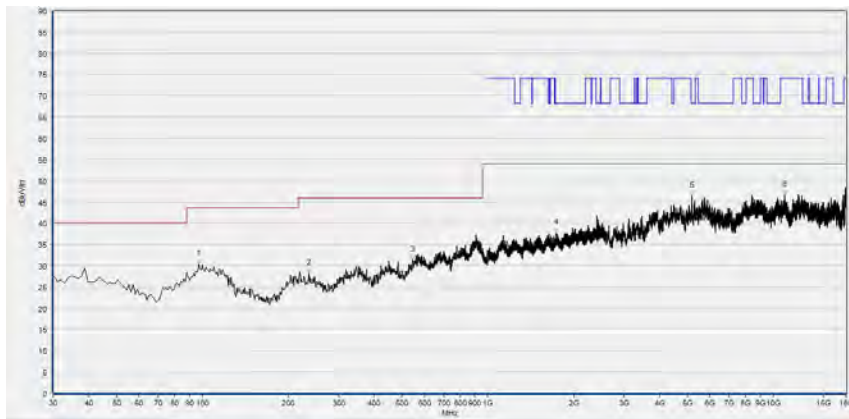
(Antenna Horizontal, 30MHz to 18GHz)



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
118.358	29.90	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
233.904	26.95	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
441.692	29.28	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1979.527	37.87	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
4491.498	45.70	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12901.580	48.02	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

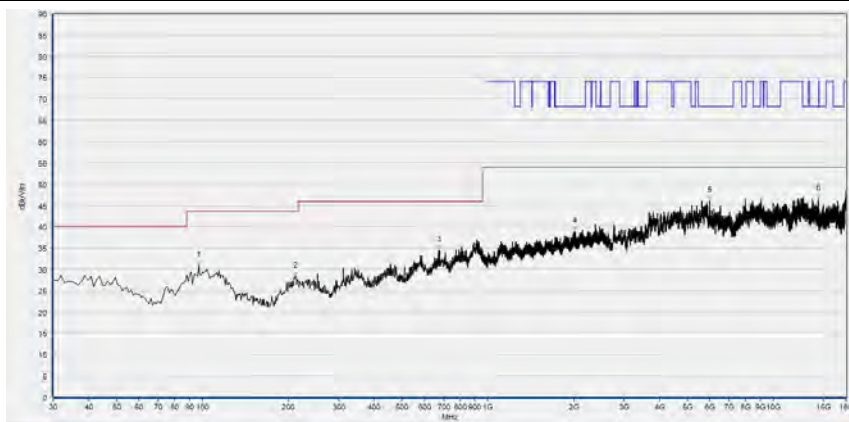
(Antenna Vertical, 30MHz to 18GHz)

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
96.997	30.32	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
235.846	28.09	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
544.615	31.30	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1737.846	37.71	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5175.395	46.39	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
10973.115	46.67	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

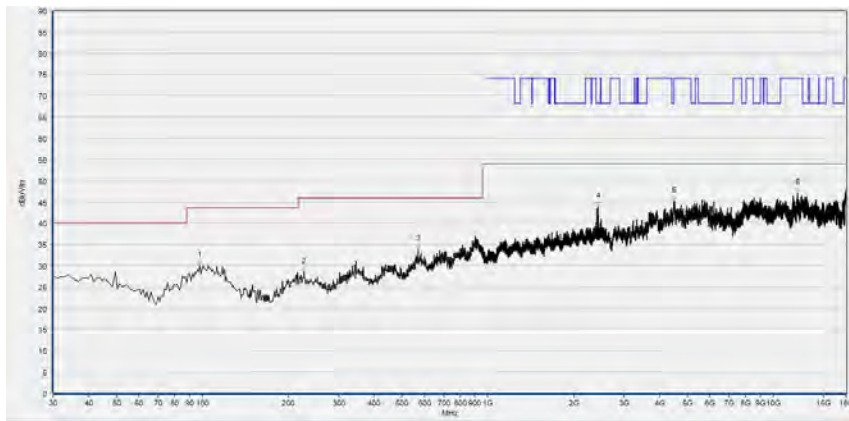
(Antenna Horizontal, 30MHz to 18GHz)



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
96.997	30.83	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
211.572	28.27	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
674.725	34.45	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2015.805	38.81	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
6001.000	46.10	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
14401.840	46.65	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

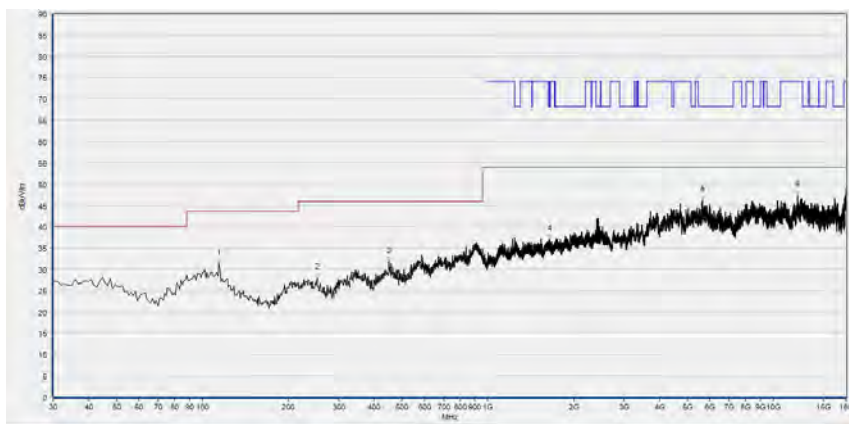
(Antenna Vertical, 30MHz to 18GHz)

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
97.968	30.07	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
227.107	28.45	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
569.860	33.78	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2435.679	43.88	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
4497.660	45.26	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12137.588	47.08	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

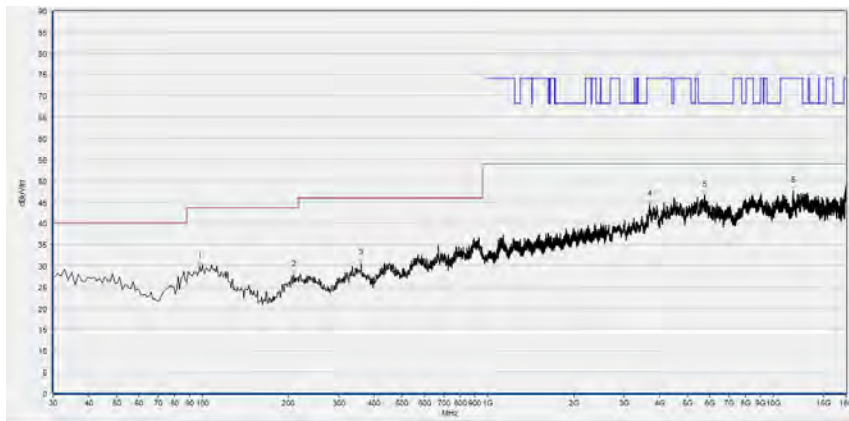
(Antenna Horizontal, 30MHz to 18GHz)



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
114.474	31.31	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
252.352	27.91	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
450.430	31.79	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1649.817	36.97	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5655.971	46.24	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12183.797	47.48	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

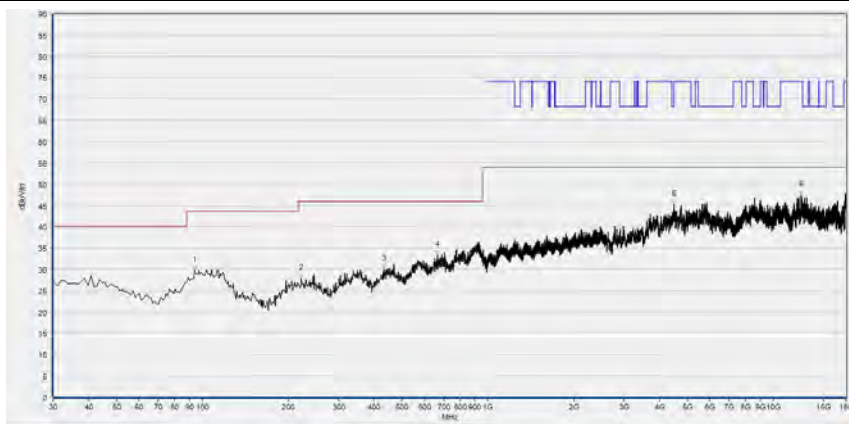
(Antenna Vertical, 30MHz to 18GHz)

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
97.968	29.89	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
208.659	27.74	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
360.130	30.58	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
3690.538	44.37	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5763.793	46.60	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
11730.946	47.52	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

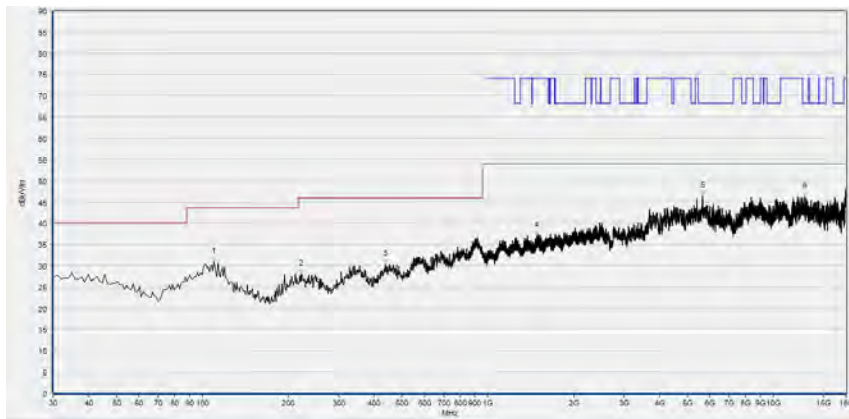
(Antenna Horizontal, 30MHz to 18GHz)



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
94.084	29.63	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
222.252	27.76	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
432.953	30.03	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
667.928	33.32	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
4497.660	45.20	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12510.342	47.39	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

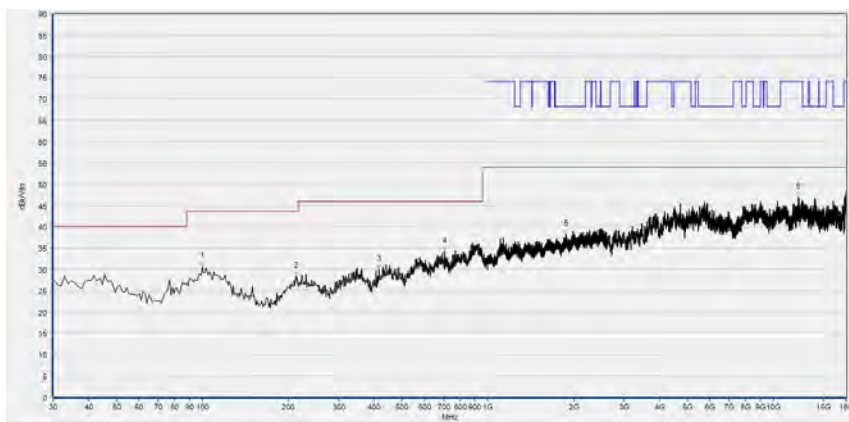
(Antenna Vertical, 30MHz to 18GHz)

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
109.620	30.87	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
221.281	28.04	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
436.837	30.30	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1482.828	37.00	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5640.568	46.41	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12883.097	46.25	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

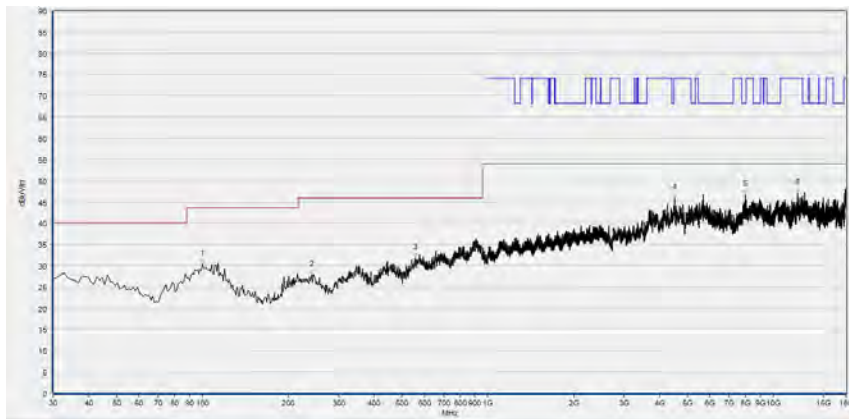
(Antenna Horizontal, 30MHz to 18GHz)



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
99.910	30.65	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
212.543	28.26	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
416.446	30.05	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
706.767	34.16	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1878.159	38.19	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12205.361	46.87	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

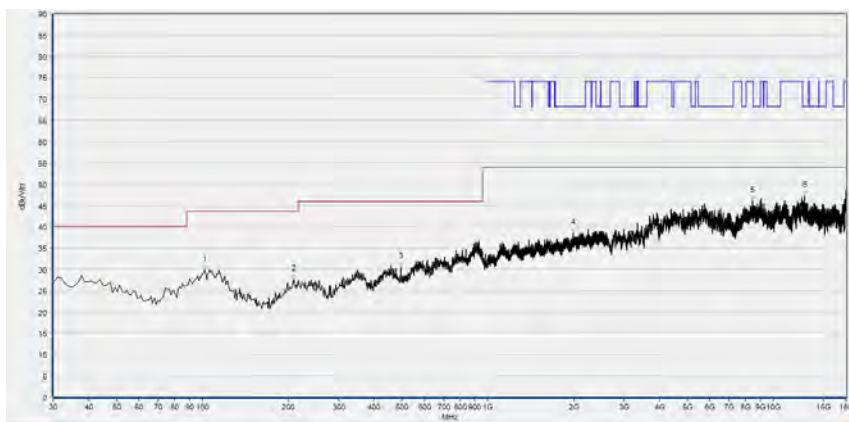
(Antenna Vertical, 30MHz to 18GHz)

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
99.910	30.33	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
241.672	27.75	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
556.266	31.90	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
4513.063	45.92	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7994.159	46.82	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12149.910	47.16	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

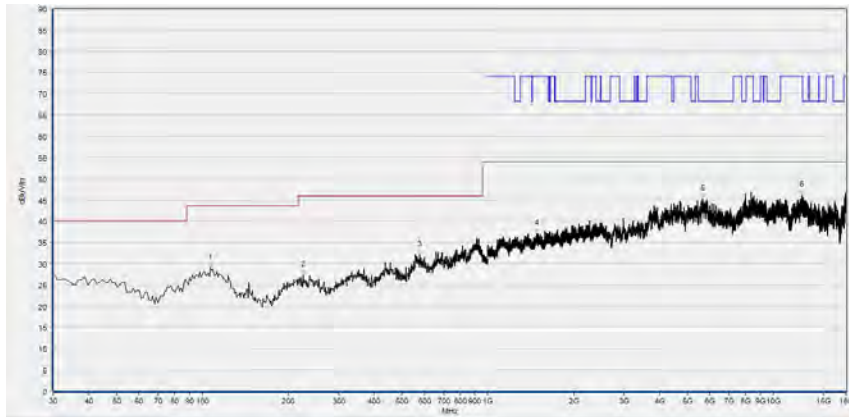
(Antenna Horizontal, 30MHz to 18GHz)



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
101.852	29.89	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
209.630	27.66	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
496.066	30.44	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1986.996	38.60	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
8453.171	46.13	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12913.903	47.20	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

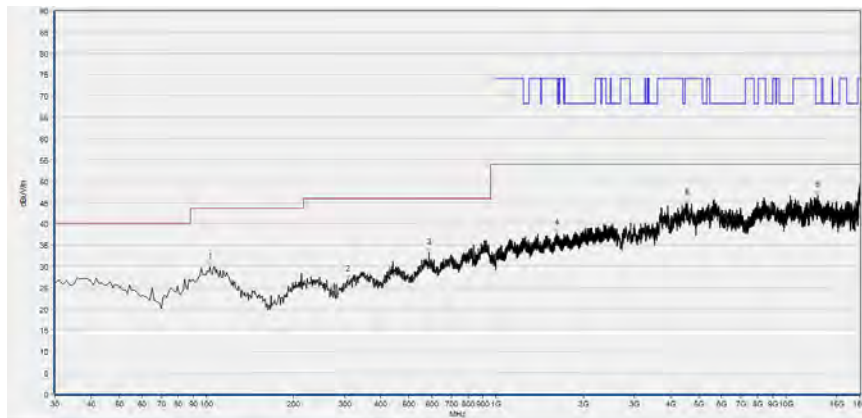
(Antenna Vertical, 30MHz to 18GHz)

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
106.707	28.93	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
225.165	27.36	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
577.628	32.05	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1483.361	37.06	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5643.649	45.31	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12605.841	46.16	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

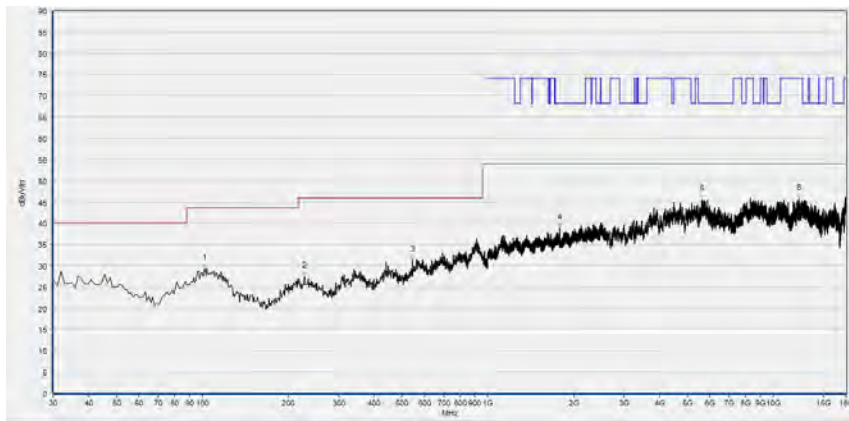
(Antenna Horizontal, 30MHz to 18GHz)



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
102.823	29.82	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
307.698	26.85	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
585.395	33.26	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1621.541	37.67	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4577.756	44.78	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12907.742	46.52	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

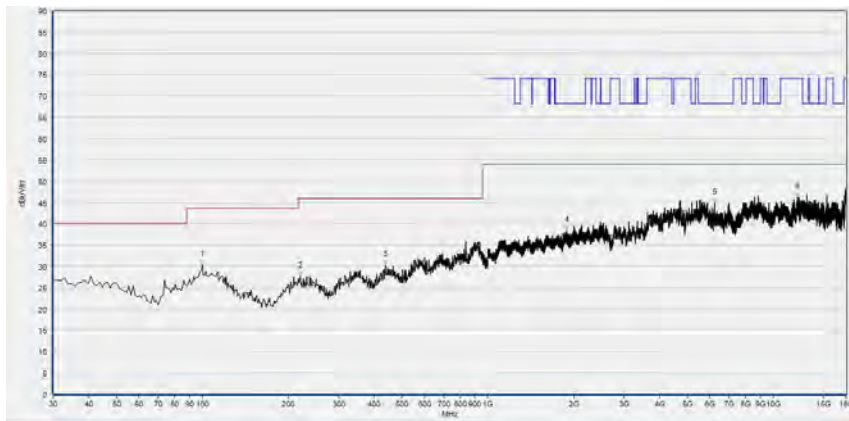
(Antenna Vertical, 30MHz to 18GHz)

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
101.852	29.37	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
228.078	27.49	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
543.644	31.26	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1783.728	38.83	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5625.165	45.56	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12303.941	45.71	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



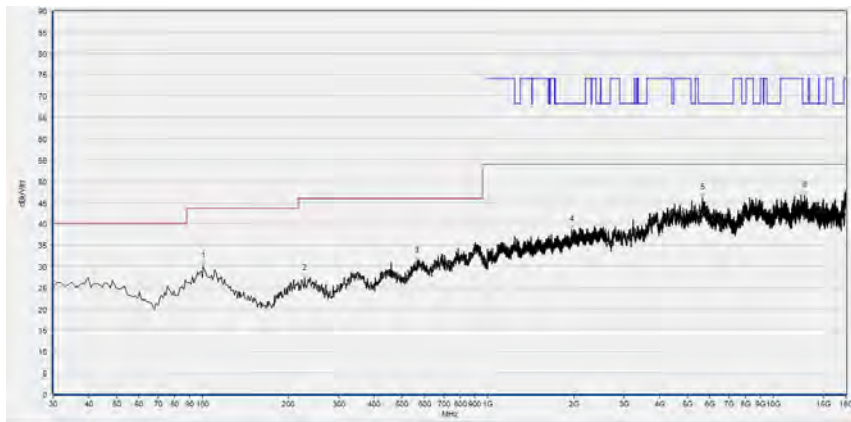
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
99.910	30.39	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
220.310	27.68	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
437.808	30.38	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1893.631	38.41	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
6216.643	44.93	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12193.039	46.19	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)



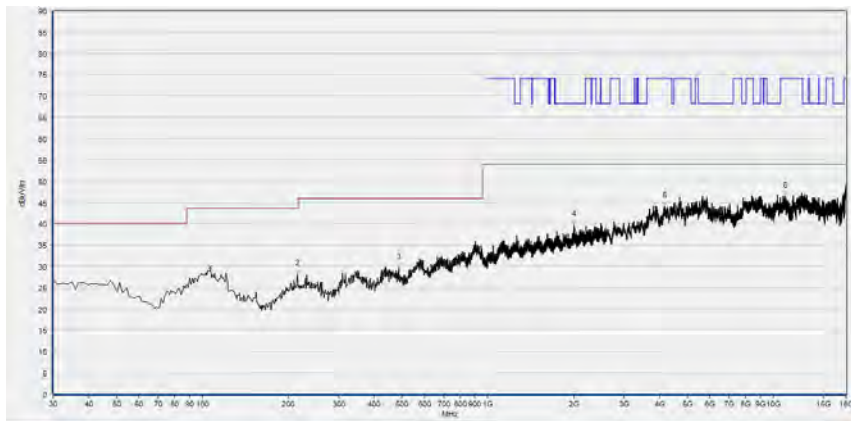
802.11ac (VHT80) Mode

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
100.881	29.96	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
228.078	27.08	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
565.005	31.13	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1973.124	38.61	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5652.891	46.12	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12876.935	46.55	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

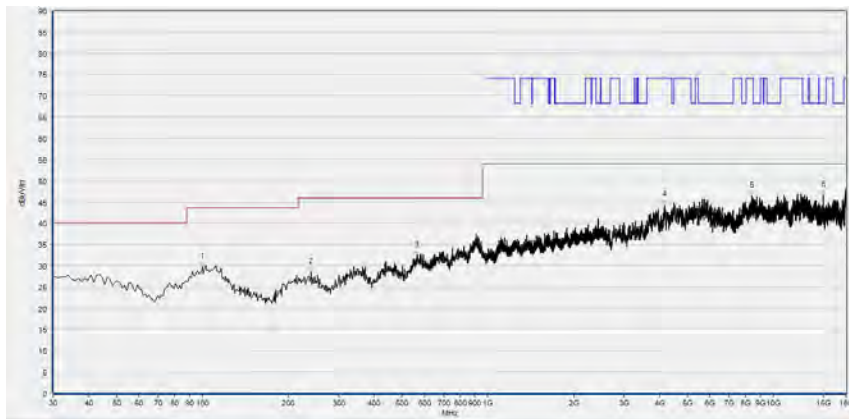
(Antenna Horizontal, 30MHz to 18GHz)



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
106.707	29.16	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
215.455	28.18	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
487.327	29.72	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2000.867	39.79	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
4155.711	44.15	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11043.969	46.48	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

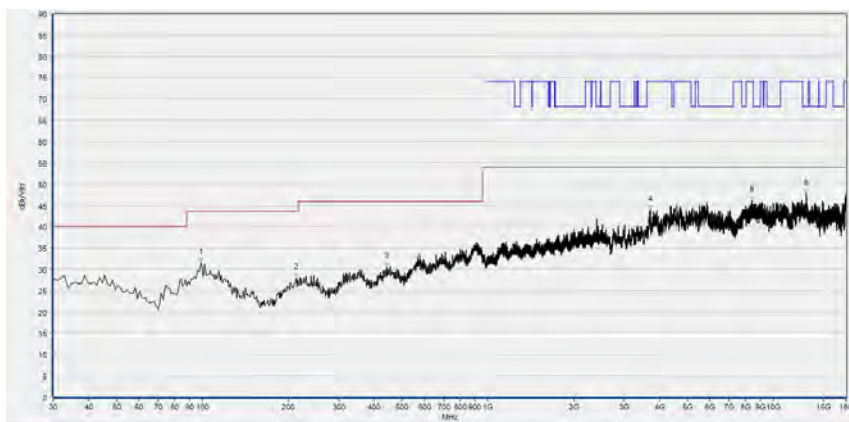
(Antenna Vertical, 30MHz to 18GHz)

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
99.910	29.74	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
240.701	28.44	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
565.005	32.36	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
4161.872	44.18	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8425.445	46.39	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
15005.641	46.55	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

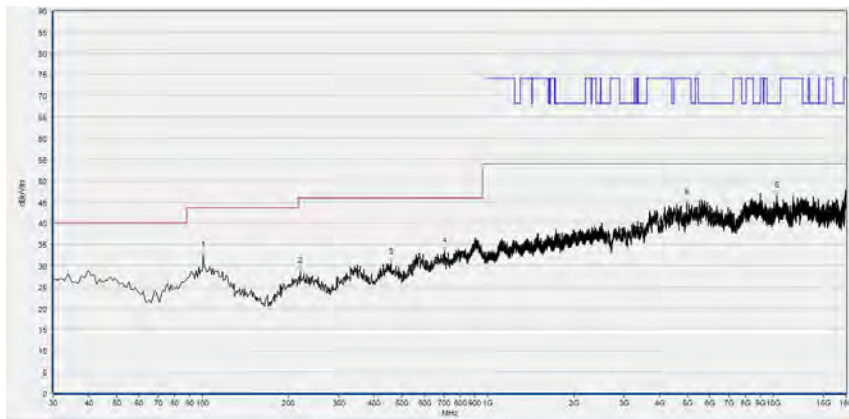
(Antenna Horizontal, 30MHz to 18GHz)



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
98.939	31.46	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
212.543	27.97	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
441.692	30.48	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
3705.941	43.98	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8428.526	46.30	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
13071.014	47.72	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

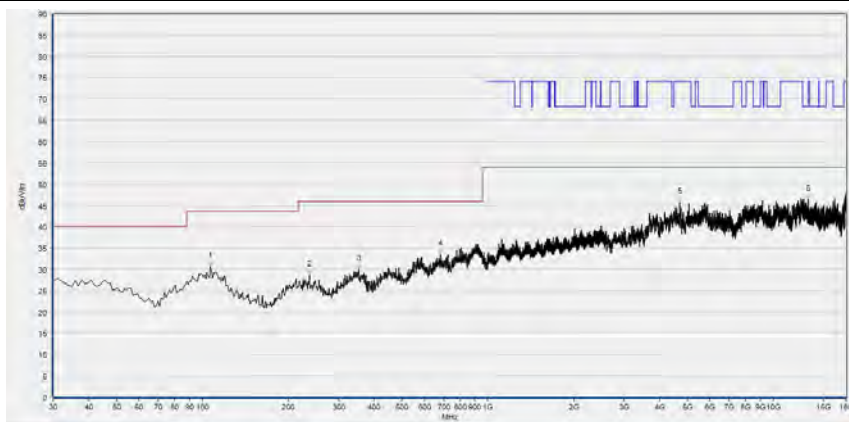
(Antenna Vertical, 30MHz to 18GHz)

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
100.881	32.28	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
220.310	28.65	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
458.198	30.72	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
703.854	33.36	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
4978.236	44.68	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10316.943	46.36	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

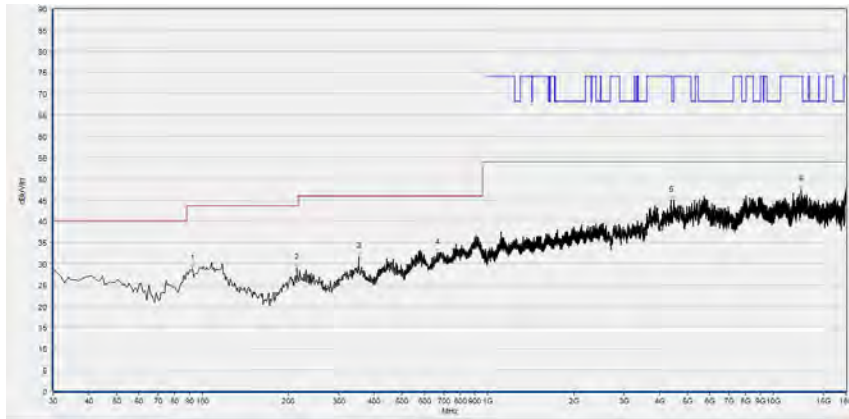
(Antenna Horizontal, 30MHz to 18GHz)



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
106.707	30.66	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
236.817	28.64	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
353.333	30.02	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
683.463	33.44	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
4700.980	45.68	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
13228.126	46.43	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

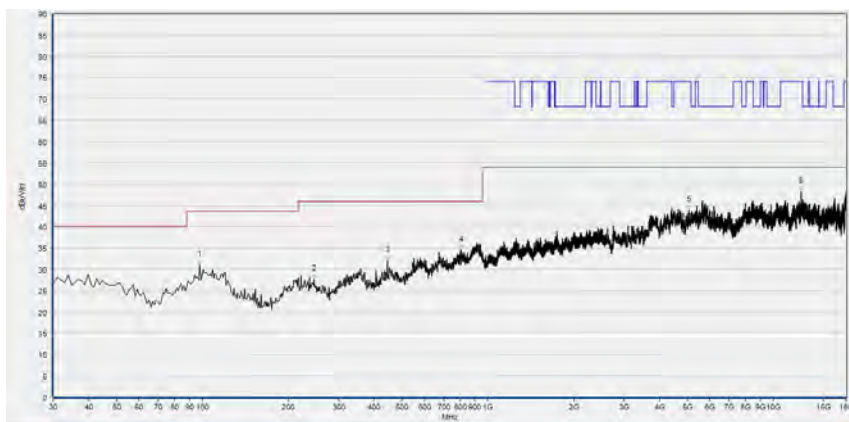
(Antenna Vertical, 30MHz to 18GHz)

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
92.142	28.80	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
214.484	29.08	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
353.333	31.64	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
666.957	32.57	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
4377.516	44.90	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12507.261	47.46	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

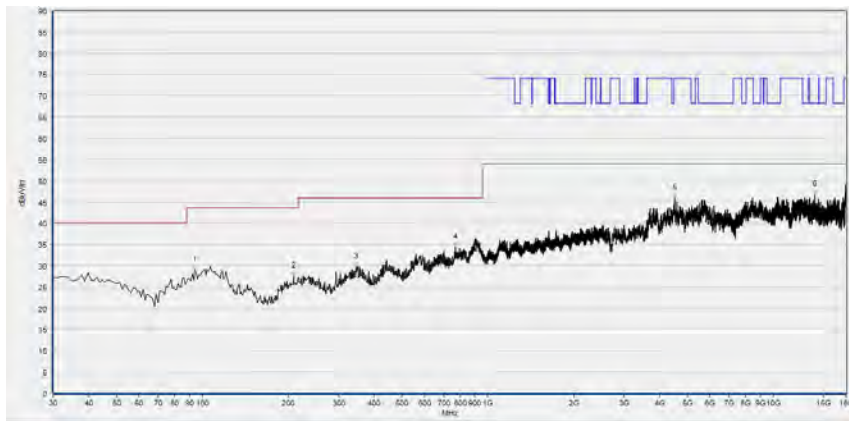
(Antenna Horizontal, 30MHz to 18GHz)



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
97.968	31.03	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
246.527	27.63	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
444.605	32.04	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
803.864	34.57	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
5055.251	43.85	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12528.826	48.30	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

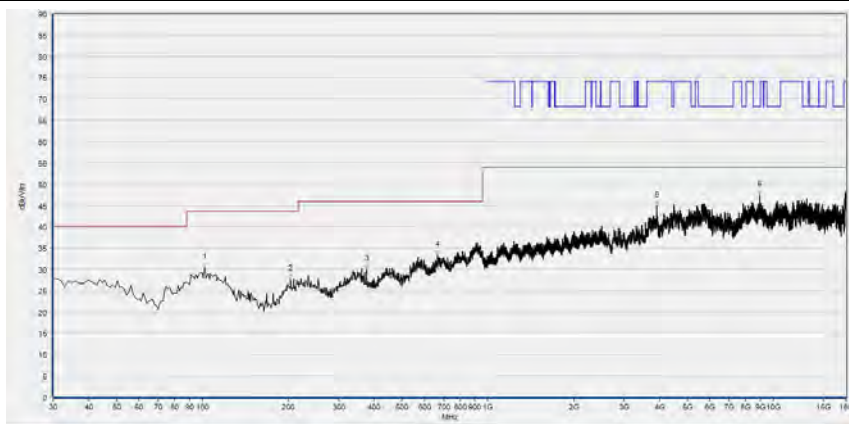
(Antenna Vertical, 30MHz to 18GHz)

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
94.084	29.01	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
208.659	27.47	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
345.566	29.69	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
769.880	34.44	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
4513.063	45.95	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
13998.280	46.80	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

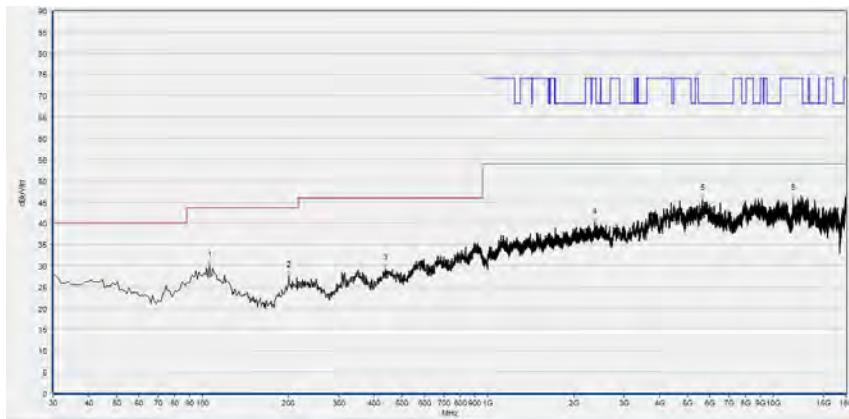
(Antenna Horizontal, 30MHz to 18GHz)



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
101.852	30.47	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
203.804	27.57	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
375.666	29.92	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
666.957	33.41	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
3906.181	44.84	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8986.117	47.40	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

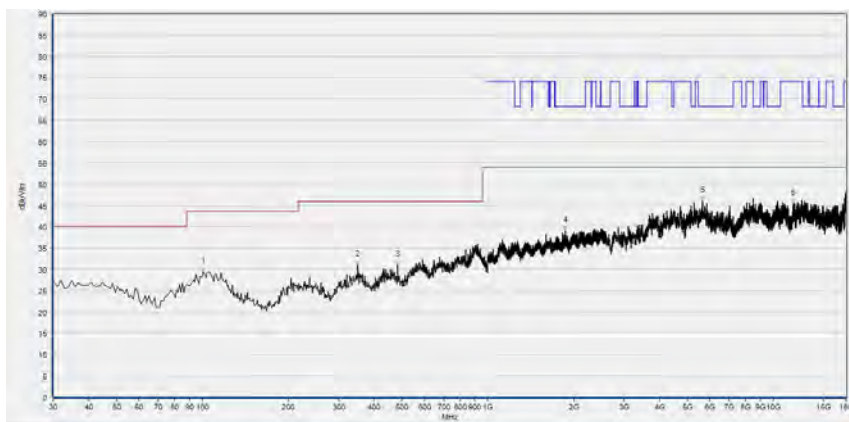
(Antenna Vertical, 30MHz to 18GHz)

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
105.736	30.04	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
200.891	27.73	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
437.808	29.37	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2370.057	40.21	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5665.213	45.83	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
11730.946	45.83	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

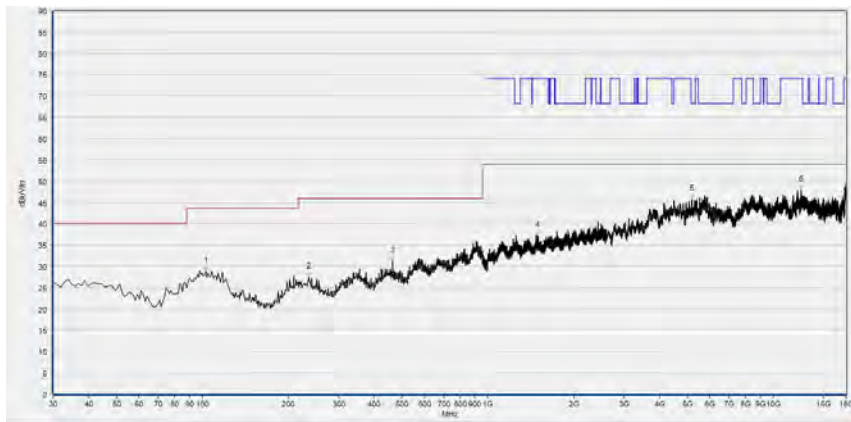


Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
100.881	29.49	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
349.449	30.99	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
483.443	30.98	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1864.288	39.04	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5637.487	46.05	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
11749.430	45.35	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

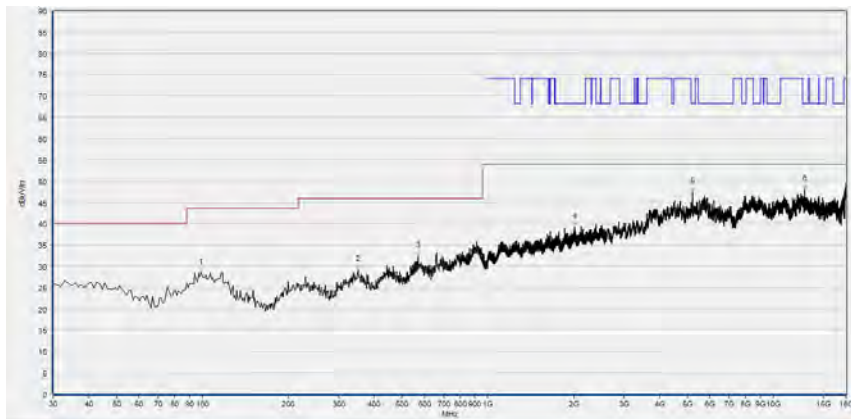
802.11ax (HEW20) Mode

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
102.823	28.84	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
235.846	27.48	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
464.024	31.09	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1492.964	37.20	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5178.476	45.83	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12491.858	47.93	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

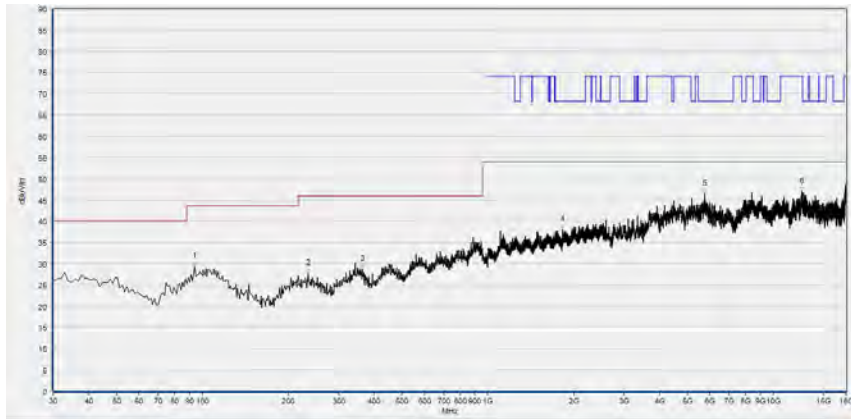
(Antenna Horizontal, 30MHz to 18GHz)



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
98.939	28.53	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
351.391	29.18	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
570.831	32.34	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2008.870	39.30	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5221.604	47.41	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12889.258	48.14	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

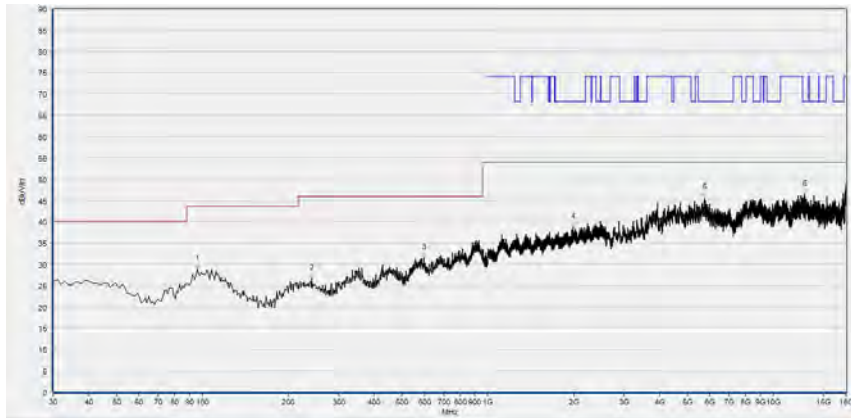
(Antenna Vertical, 30MHz to 18GHz)

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
94.084	29.33	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
234.875	27.58	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
363.043	28.71	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1830.143	38.03	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5766.873	46.48	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12590.438	46.97	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

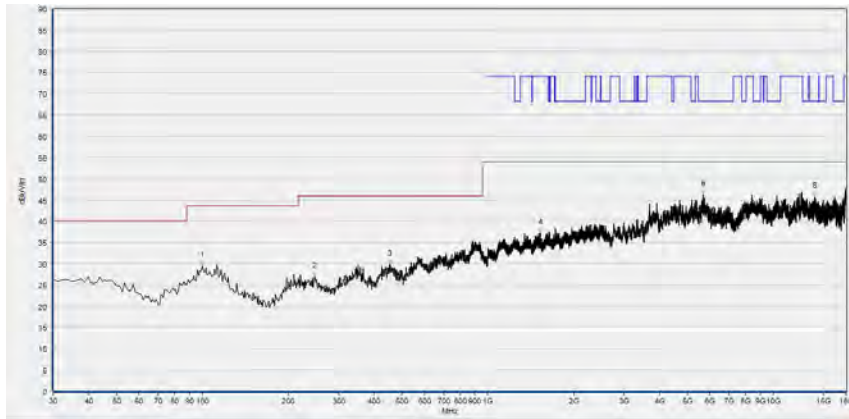
(Antenna Horizontal, 30MHz to 18GHz)



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
96.026	28.77	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
241.672	26.57	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
597.047	31.45	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1992.864	38.64	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5760.712	45.58	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12901.580	46.42	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

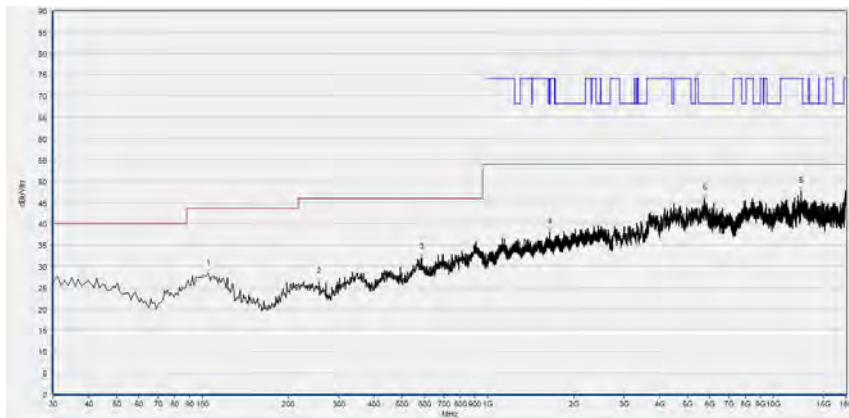
(Antenna Vertical, 30MHz to 18GHz)

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
99.910	29.53	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
247.497	27.01	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
452.372	29.80	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1523.908	37.16	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5689.858	46.29	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
13982.877	45.74	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

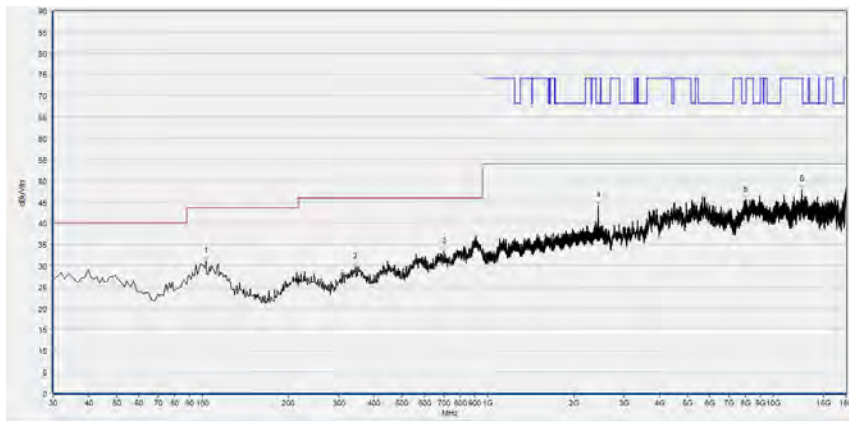
(Antenna Horizontal, 30MHz to 18GHz)



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
104.765	28.26	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
255.265	26.24	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
587.337	32.09	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1642.881	38.06	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5757.632	45.86	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12541.148	47.56	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

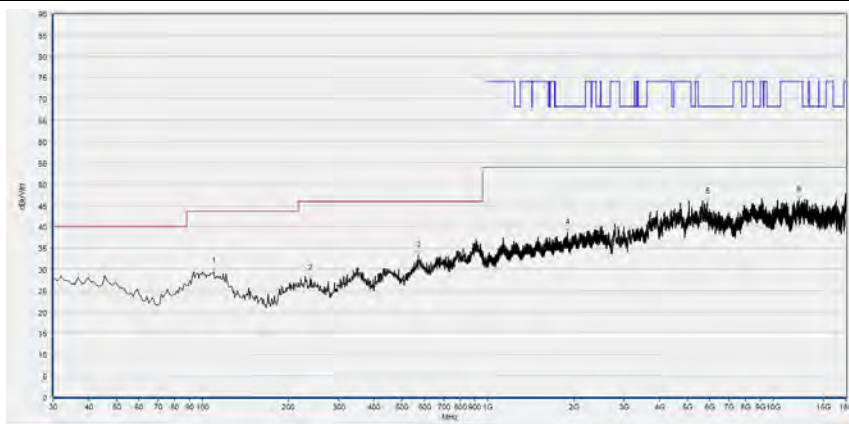
(Antenna Vertical, 30MHz to 18GHz)

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
102.823	30.96	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
343.624	29.70	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
701.912	33.35	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2434.612	44.10	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
7994.159	45.38	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12618.164	47.90	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

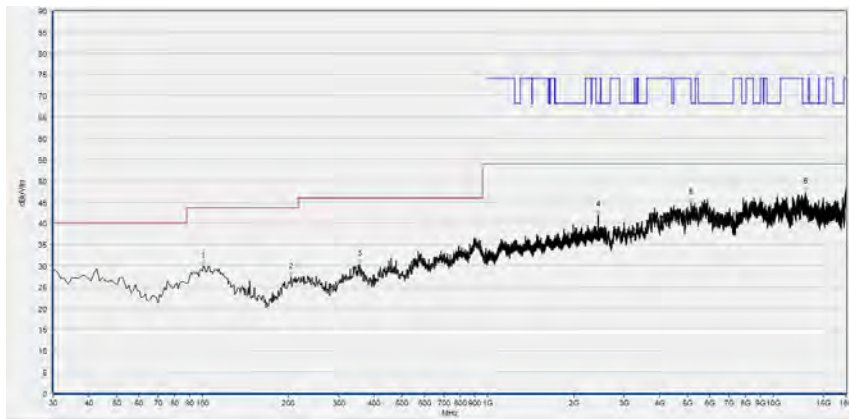
(Antenna Horizontal, 30MHz to 18GHz)



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
109.620	29.52	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
238.759	27.80	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
571.802	33.33	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1904.835	38.47	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5871.614	45.81	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12300.860	46.18	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

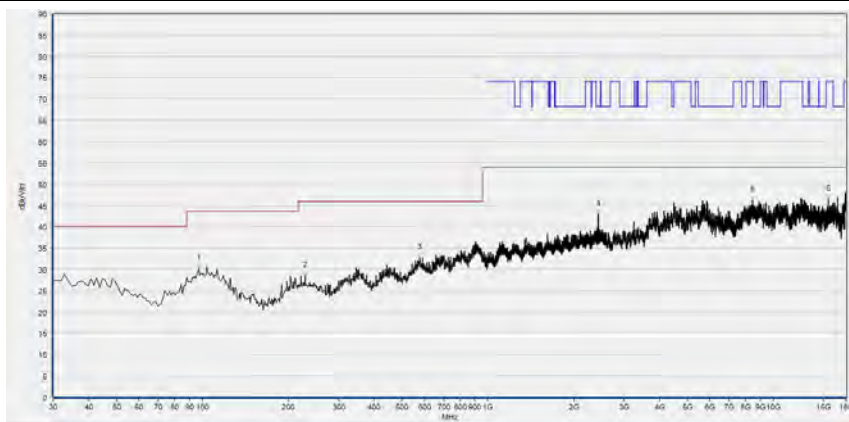
(Antenna Vertical, 30MHz to 18GHz)

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
100.881	29.81	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
204.775	27.34	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
356.246	30.28	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2435.145	41.82	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5163.073	44.76	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12929.306	47.20	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

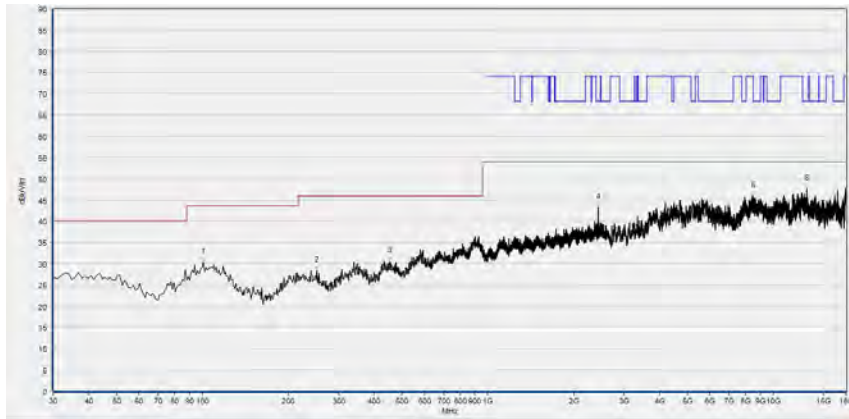
(Antenna Horizontal, 30MHz to 18GHz)



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
96.997	30.13	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
229.049	28.43	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
577.628	32.67	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2434.078	42.92	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
8468.574	46.30	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
15575.555	46.43	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

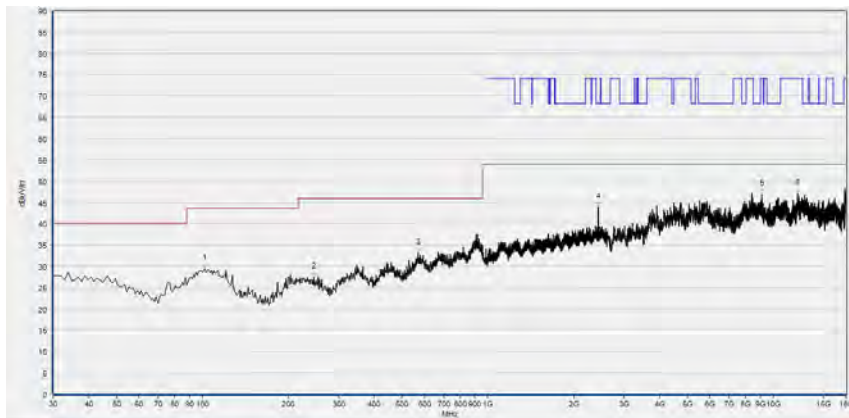
(Antenna Vertical, 30MHz to 18GHz)

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
100.881	30.36	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
251.381	28.39	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
453.343	30.55	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2439.947	43.26	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
8527.105	45.91	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
13083.337	47.65	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

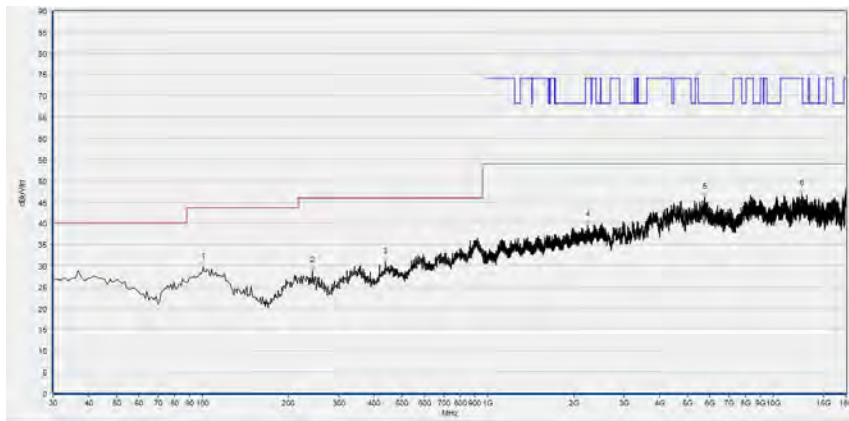
(Antenna Horizontal, 30MHz to 18GHz)



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
101.852	29.51	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
245.556	27.51	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
569.860	33.16	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2433.545	43.87	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
9112.422	46.91	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12183.797	47.07	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

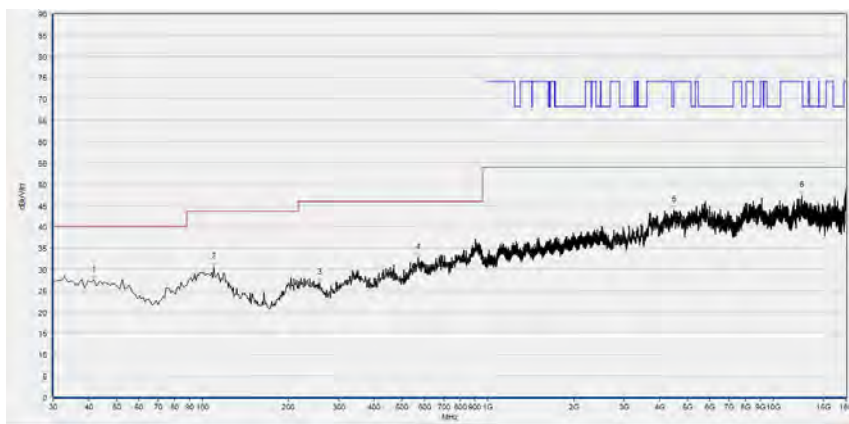
(Antenna Vertical, 30MHz to 18GHz)

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
100.881	29.61	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
242.643	28.80	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
437.808	30.92	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2235.078	39.61	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5742.228	46.05	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12612.002	47.00	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

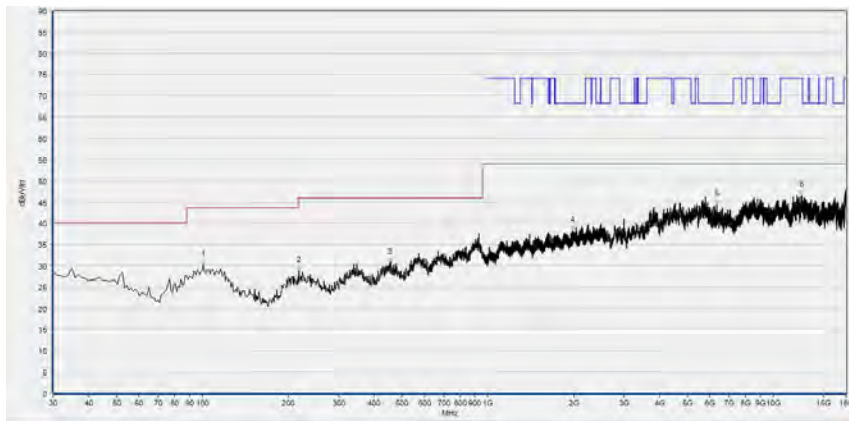
(Antenna Horizontal, 30MHz to 18GHz)



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
41.652	27.56	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
109.620	30.53	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
257.207	26.80	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
571.802	32.76	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
4500.740	43.93	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12581.196	47.23	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

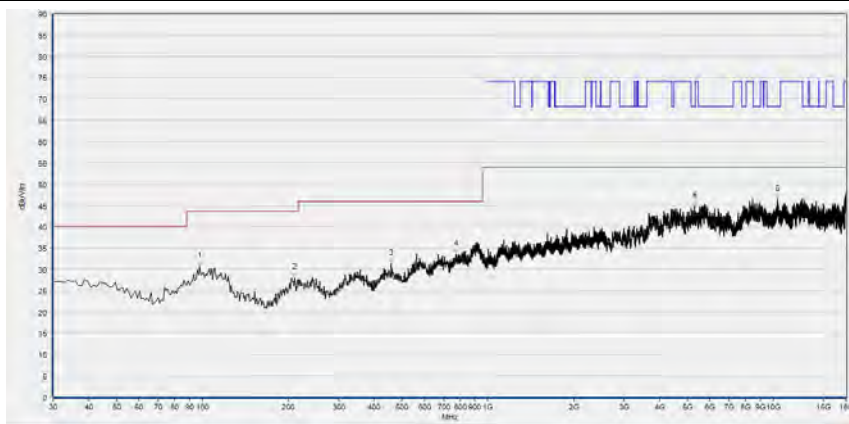
(Antenna Vertical, 30MHz to 18GHz)

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
100.881	30.10	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
218.368	28.78	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
452.372	30.66	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1983.795	38.17	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
6330.626	44.50	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12608.922	46.63	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

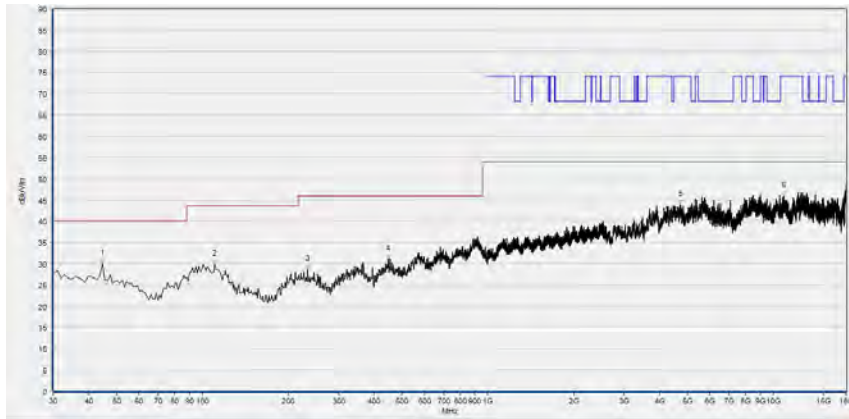
(Antenna Horizontal, 30MHz to 18GHz)



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
97.968	30.60	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
210.601	28.00	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
459.169	31.30	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
771.822	33.51	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
5314.023	44.75	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
10356.991	46.38	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

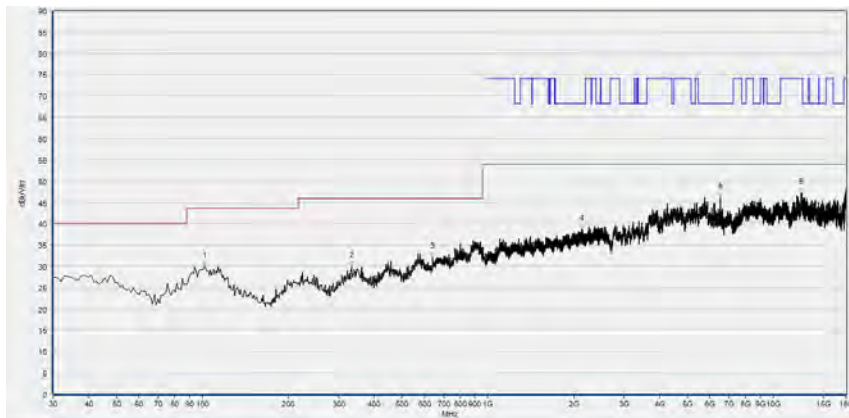
(Antenna Vertical, 30MHz to 18GHz)

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
44.565	29.95	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
110.591	29.83	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
233.904	28.61	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
448.488	30.94	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
4716.383	43.85	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10917.664	45.92	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

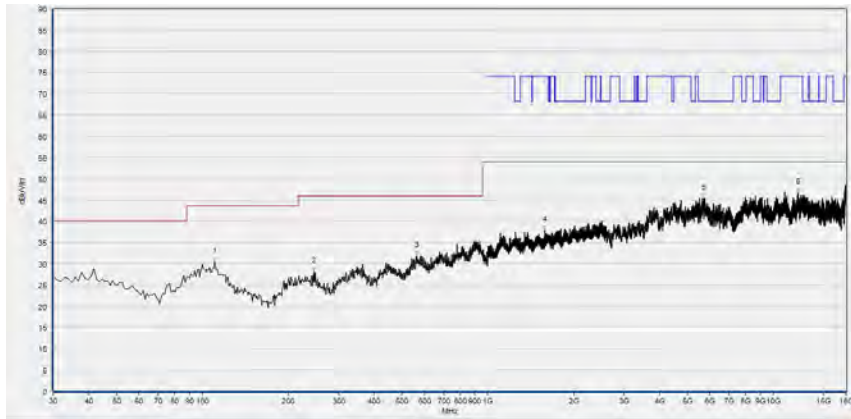
(Antenna Horizontal, 30MHz to 18GHz)



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
101.852	29.95	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
332.943	29.99	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
640.741	32.23	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2132.111	38.66	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
6530.866	46.24	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12513.423	47.28	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

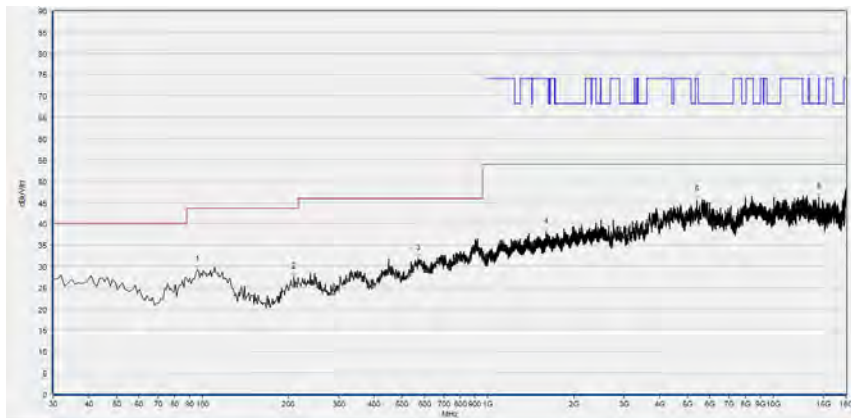
(Antenna Vertical, 30MHz to 18GHz)

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
110.591	30.57	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
246.527	28.14	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
564.034	31.82	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1585.795	37.81	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5711.422	45.36	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12211.522	46.70	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

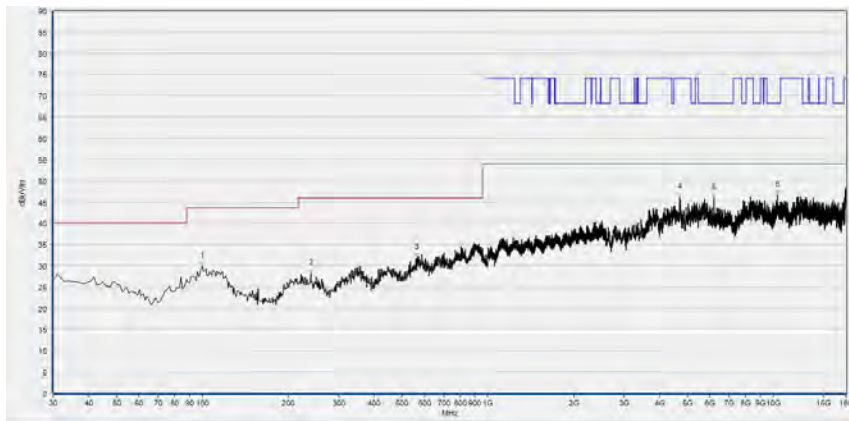
(Antenna Horizontal, 30MHz to 18GHz)



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
96.026	29.24	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
209.630	27.51	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
570.831	31.88	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1602.868	38.00	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5397.199	45.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14441.888	46.24	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

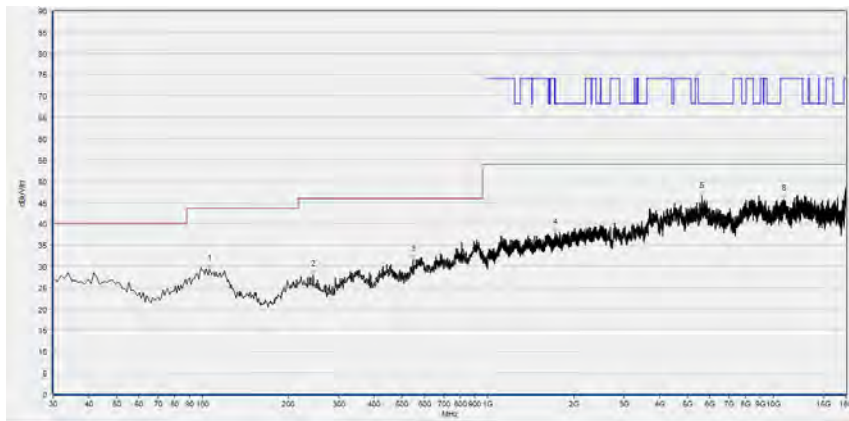
(Antenna Vertical, 30MHz to 18GHz)

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
99.910	29.88	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
239.730	28.19	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
565.005	31.79	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
4700.980	46.06	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6201.240	45.88	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
10341.588	46.58	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

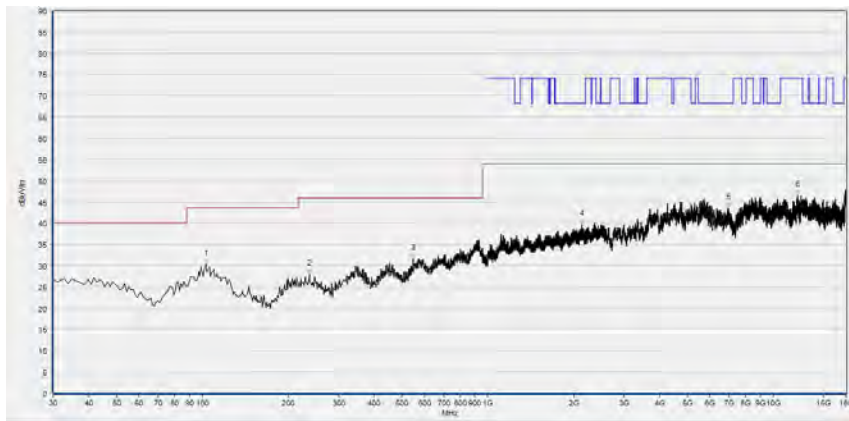
(Antenna Horizontal, 30MHz to 18GHz)



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
105.736	29.41	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
244.585	28.03	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
546.557	31.47	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1725.575	37.93	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5634.407	46.51	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
10896.099	45.74	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

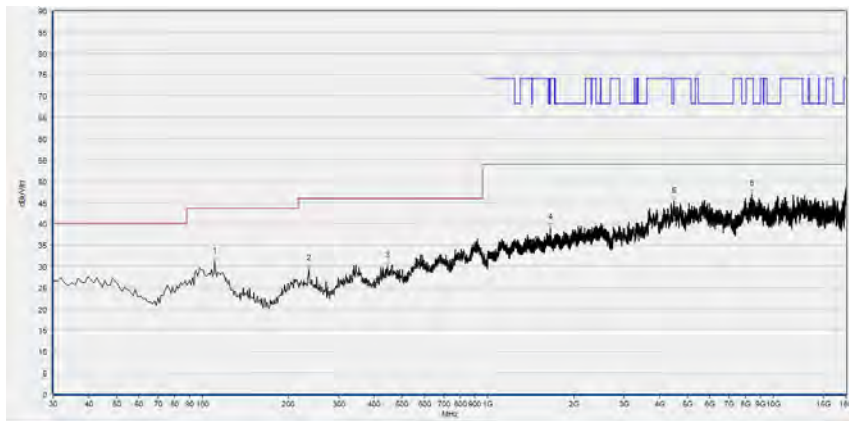
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 165



Fre. (MHz)	PK (dB μ V/m)	QP (dB μ V/m)	AV (dB μ V/m)	Limit-PK (dB μ V/m)	Limit-QP (dB μ V/m)	Limit-AV (dB μ V/m)	Antenna	Verdict
102.823	30.41	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
236.817	28.01	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
546.557	31.61	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2136.379	39.70	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
6952.911	43.61	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12186.877	46.56	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



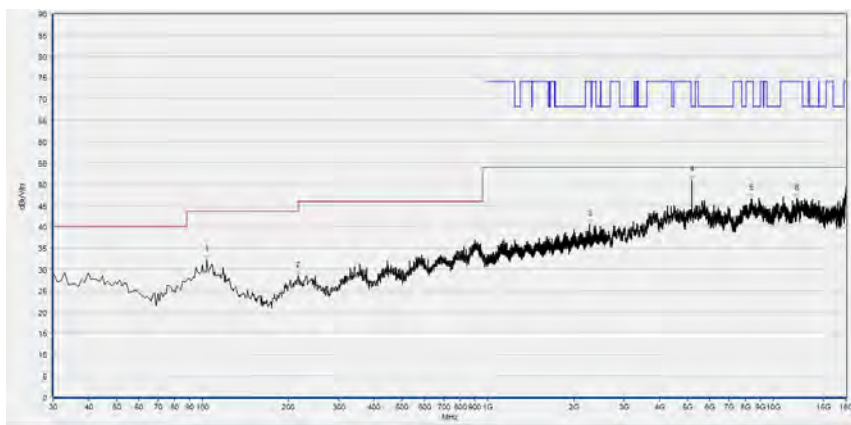
Fre. (MHz)	PK (dB μ V/m)	QP (dB μ V/m)	AV (dB μ V/m)	Limit-PK (dB μ V/m)	Limit-QP (dB μ V/m)	Limit-AV (dB μ V/m)	Antenna	Verdict
110.591	31.01	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
235.846	29.28	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
444.605	29.94	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1653.018	39.09	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
4491.498	45.20	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
8425.445	46.97	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)



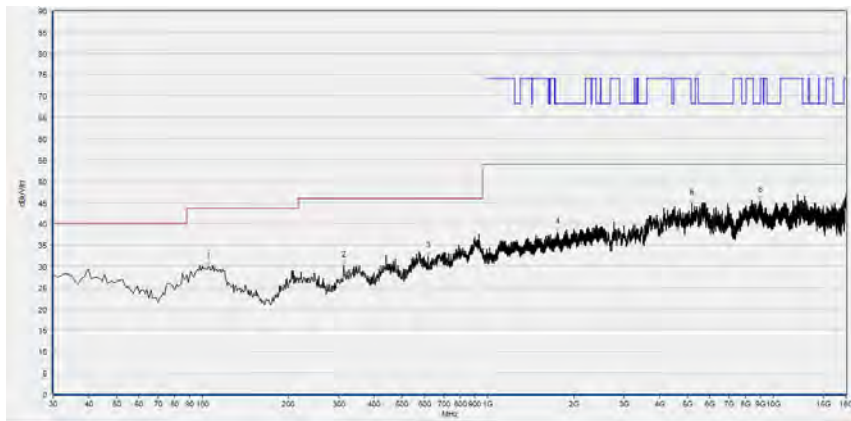
802.11ax (HEW20)(RU26) Mode

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
103.794	32.15	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
216.426	28.43	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2275.092	40.51	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5187.718	50.94	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
8369.994	46.60	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12128.346	46.62	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

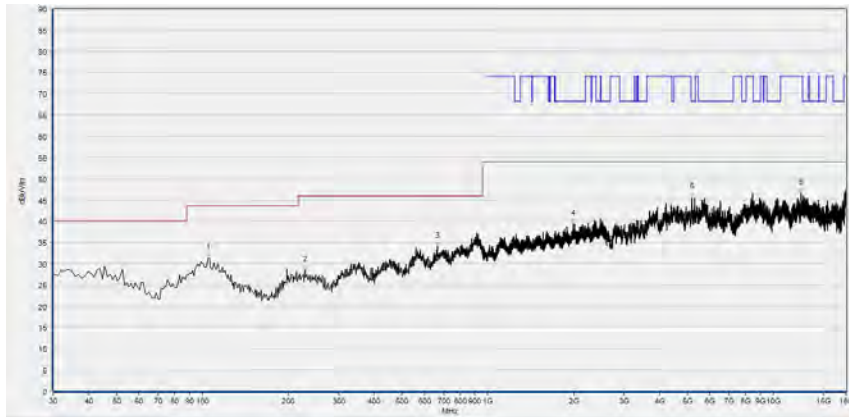
(Antenna Horizontal, 30MHz to 18GHz)



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
104.765	29.85	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
312.553	30.12	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
616.466	32.36	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1757.052	38.08	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5187.718	44.83	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
9001.520	45.41	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

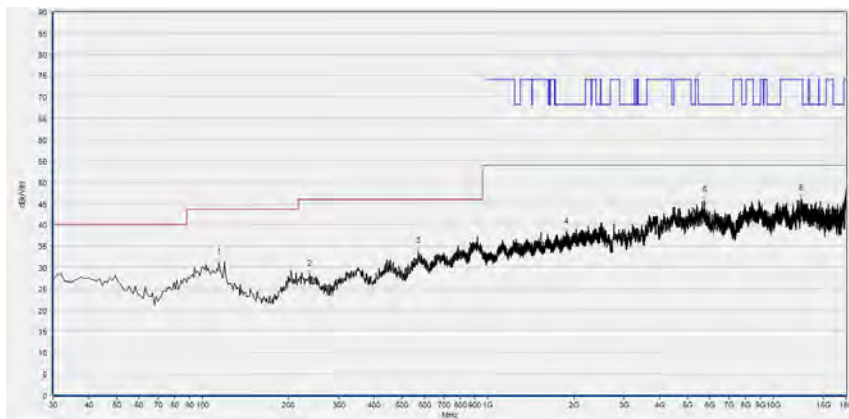
(Antenna Vertical, 30MHz to 18GHz)

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
104.765	31.36	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
229.049	28.52	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
665.986	34.07	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1990.197	39.41	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5187.718	45.66	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12525.745	46.53	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

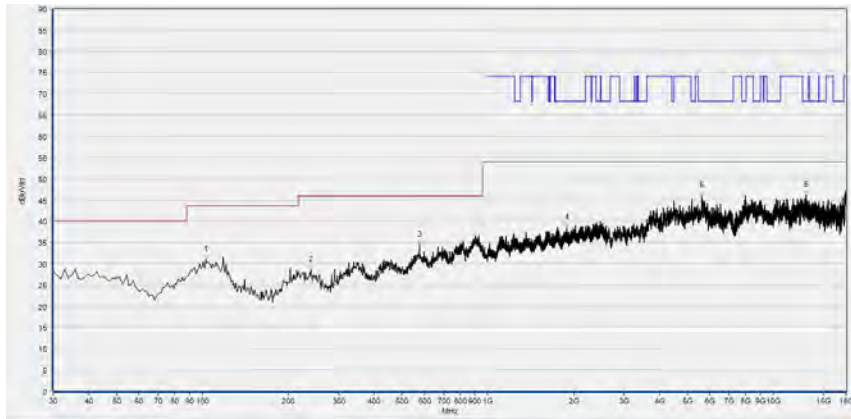
(Antenna Horizontal, 30MHz to 18GHz)



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
114.474	31.02	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
237.788	28.38	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
571.802	33.69	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1880.293	38.21	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5745.309	45.54	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12544.229	46.02	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

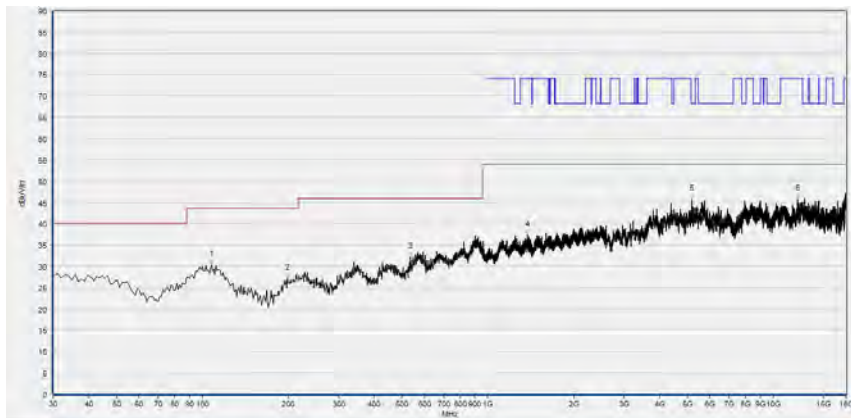
(Antenna Vertical, 30MHz to 18GHz)

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
102.823	30.78	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
239.730	28.41	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
575.686	34.29	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1890.430	38.39	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5622.084	46.00	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
13058.692	46.15	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

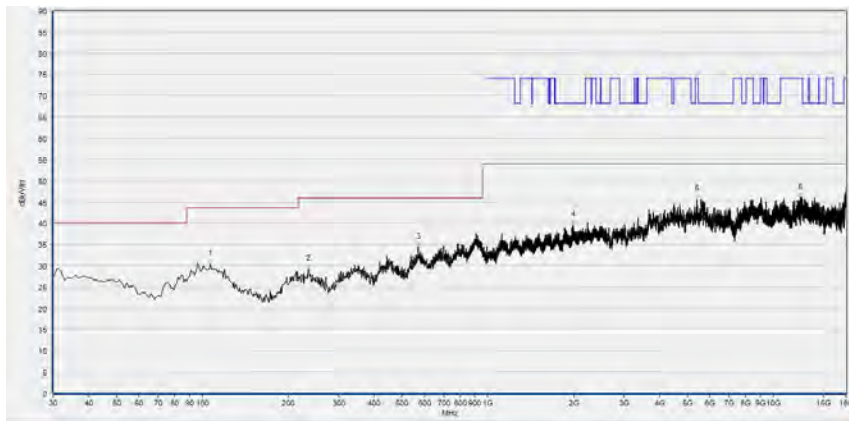
(Antenna Horizontal, 30MHz to 18GHz)



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
107.678	30.33	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
198.949	27.12	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
535.876	32.14	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1375.592	37.43	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5187.718	45.71	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12143.749	45.75	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

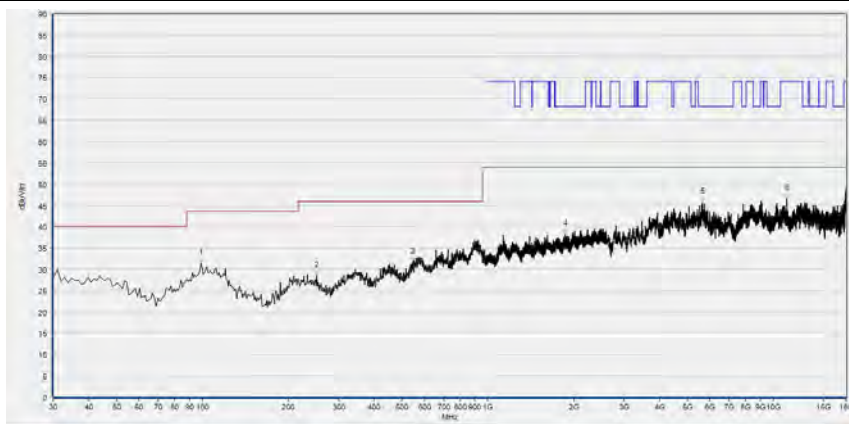
(Antenna Vertical, 30MHz to 18GHz)

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
106.707	30.25	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
234.875	29.16	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
570.831	34.28	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1997.132	39.54	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5409.522	45.66	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12470.294	45.92	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

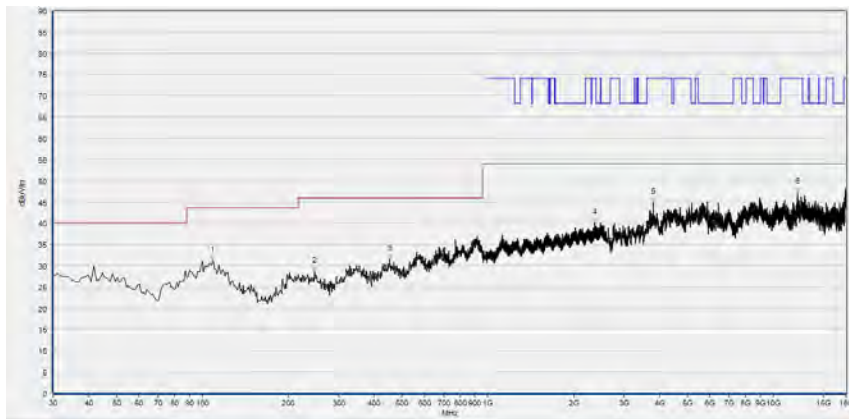
(Antenna Horizontal, 30MHz to 18GHz)



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
98.939	31.27	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
251.381	28.46	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
543.644	31.60	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1865.355	38.20	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5637.487	45.72	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
11139.468	46.53	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

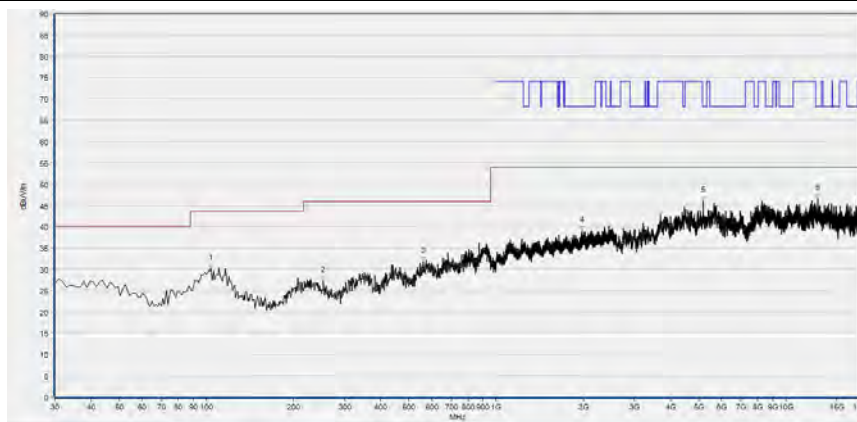
(Antenna Vertical, 30MHz to 18GHz)

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
108.649	31.16	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
247.497	28.72	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
453.343	31.46	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2371.124	40.03	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3807.602	44.98	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12156.071	47.31	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

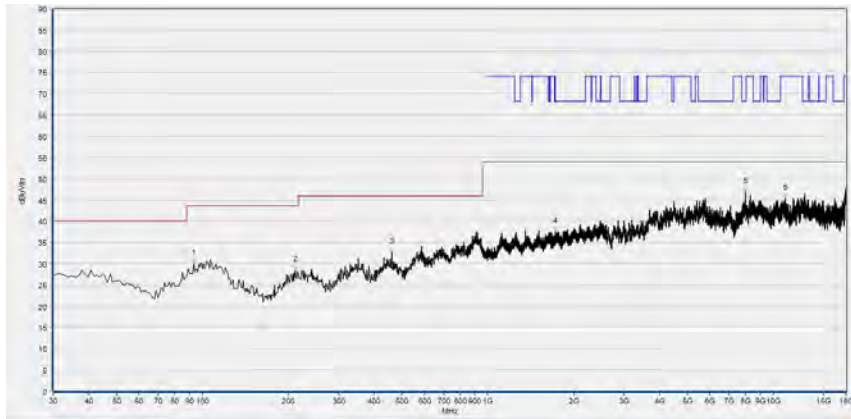
(Antenna Horizontal, 30MHz to 18GHz)



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
103.794	30.14	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
253.323	27.28	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
560.150	31.88	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1983.261	39.00	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5187.718	46.12	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12892.338	46.54	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

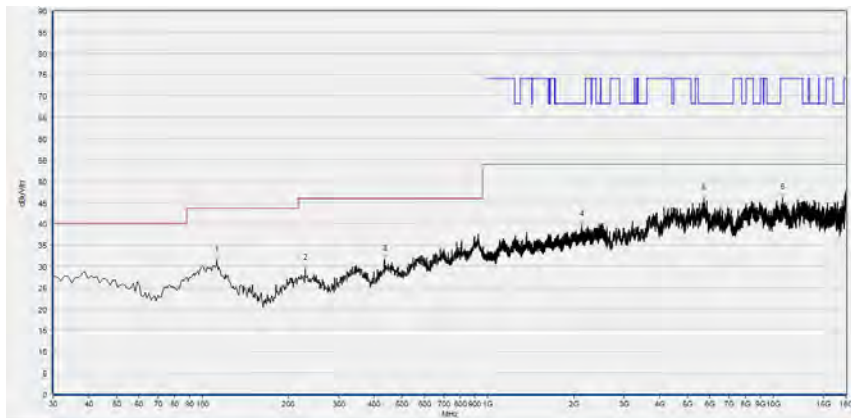
(Antenna Vertical, 30MHz to 18GHz)

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
93.113	29.98	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
211.572	28.44	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
461.111	32.65	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1721.841	37.49	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7969.514	46.98	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
10997.760	45.37	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

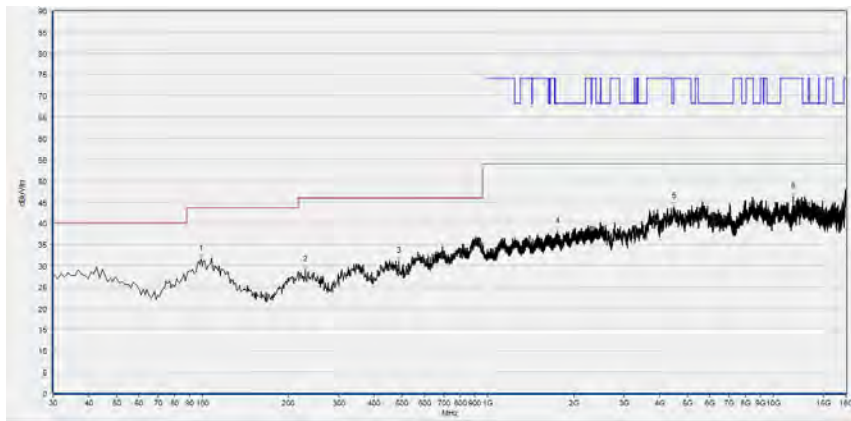
(Antenna Horizontal, 30MHz to 18GHz)



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
112.533	31.32	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
229.049	29.51	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
433.924	31.70	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2131.577	39.71	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5714.503	45.86	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
10782.116	46.06	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

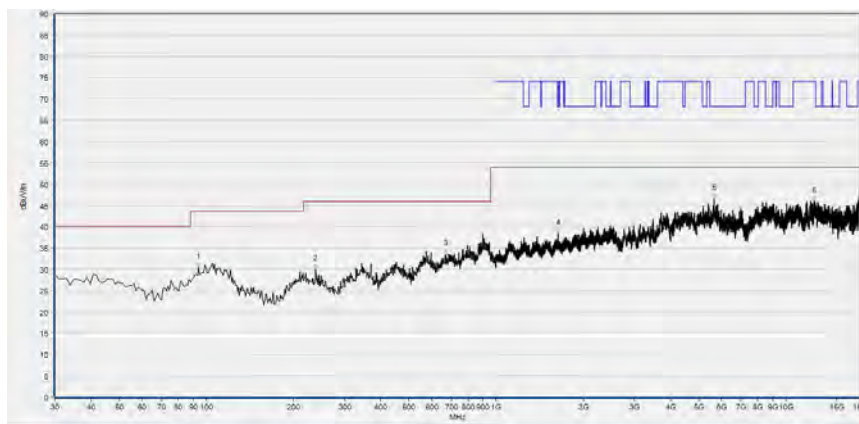
(Antenna Vertical, 30MHz to 18GHz)

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
98.939	31.48	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
230.020	29.02	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
488.298	31.04	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1758.653	38.04	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
4485.337	43.91	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
11734.027	46.31	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

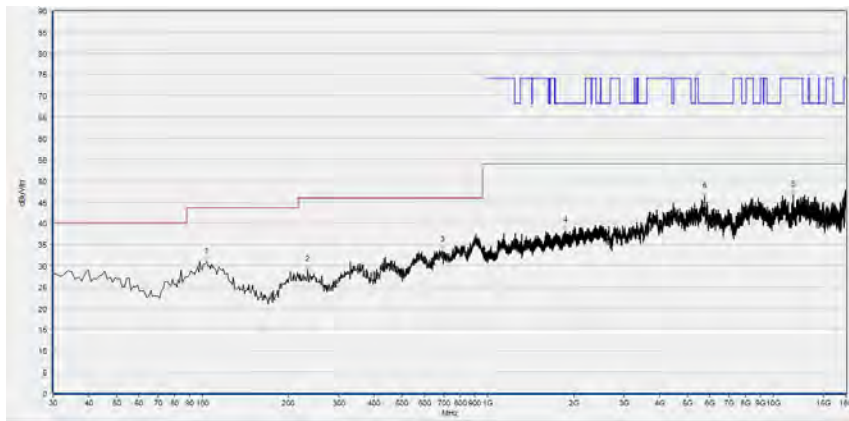
(Antenna Horizontal, 30MHz to 18GHz)



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
94.084	30.52	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
237.788	30.05	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
670.841	33.44	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1636.479	38.46	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5646.729	46.58	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12513.423	45.93	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

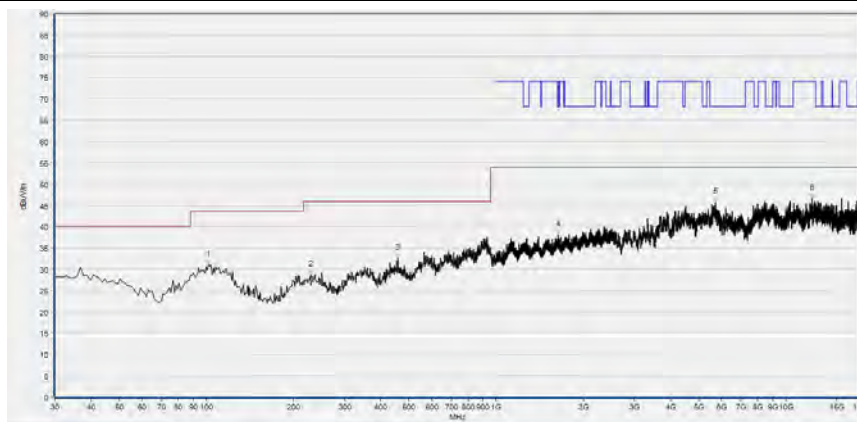
(Antenna Vertical, 30MHz to 18GHz)

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
103.794	30.82	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
233.904	29.07	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
694.144	33.53	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1870.690	38.13	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5754.551	46.29	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
11737.107	46.66	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

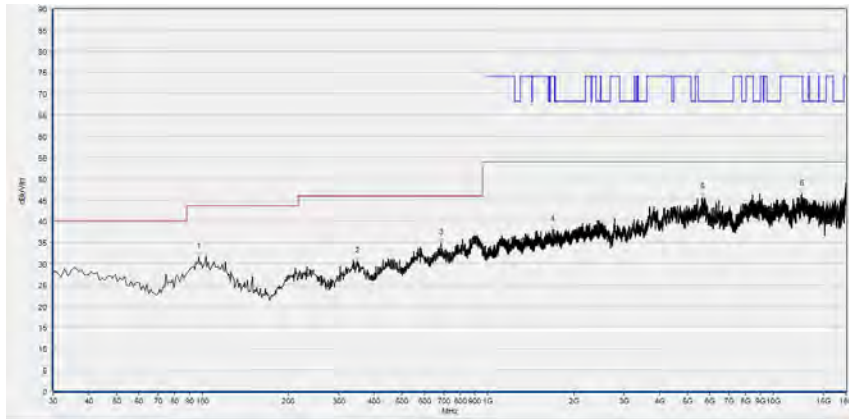
(Antenna Horizontal, 30MHz to 18GHz)



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
101.852	31.09	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
230.020	28.72	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
459.169	32.48	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1640.747	37.97	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5729.906	45.73	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12282.376	46.58	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

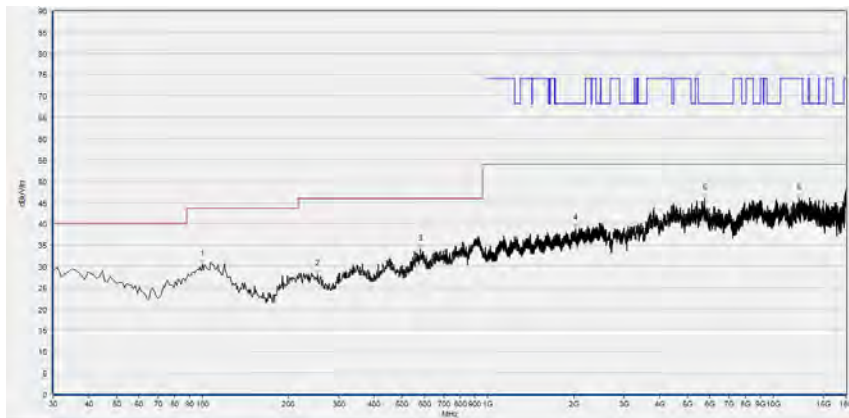
(Antenna Vertical, 30MHz to 18GHz)

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
96.997	31.53	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
349.449	30.46	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
687.347	34.91	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1687.162	38.05	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5643.649	45.52	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12587.357	46.45	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

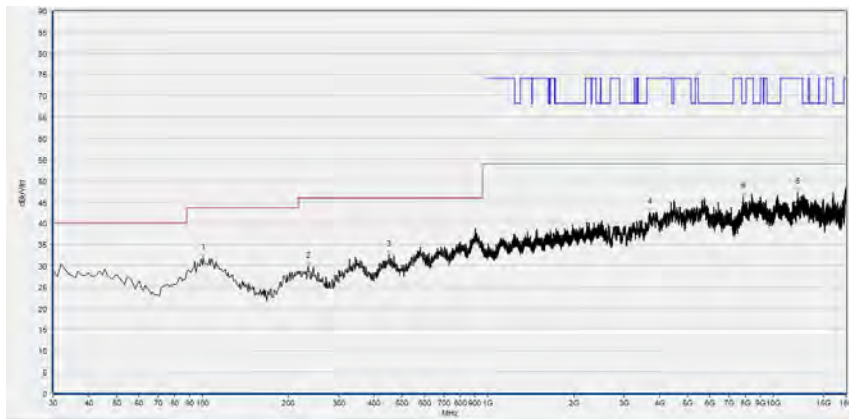
(Antenna Horizontal, 30MHz to 18GHz)



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
99.910	30.42	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
253.323	28.23	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
580.541	34.07	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2022.207	38.93	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5739.148	45.92	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12297.780	45.96	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

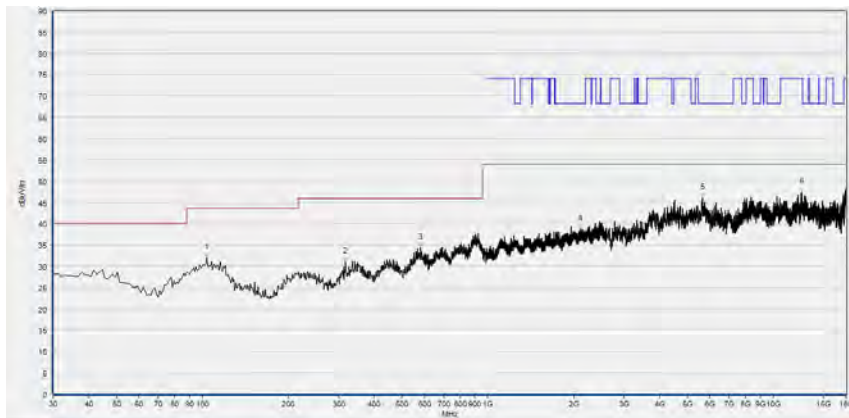
(Antenna Vertical, 30MHz to 18GHz)

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
100.881	31.90	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
234.875	29.86	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
450.430	32.44	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
3690.538	42.51	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7846.289	46.26	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12171.474	47.31	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

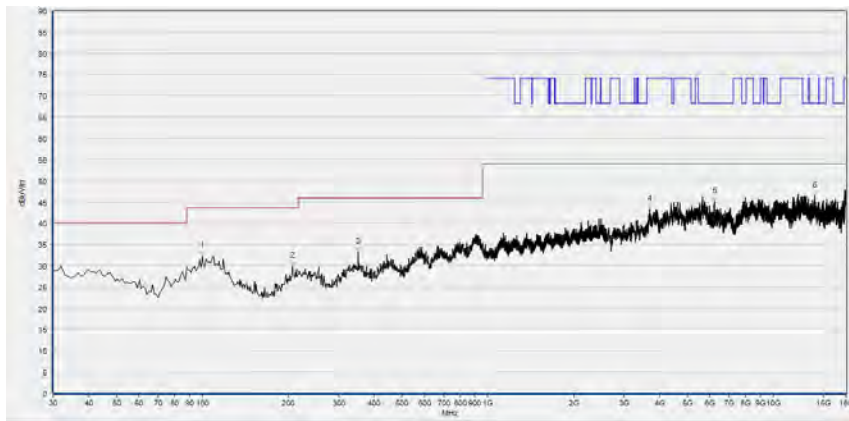
(Antenna Horizontal, 30MHz to 18GHz)



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
103.794	32.04	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
317.407	31.02	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
581.512	34.41	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2115.572	38.75	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5652.891	46.11	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12590.438	47.40	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

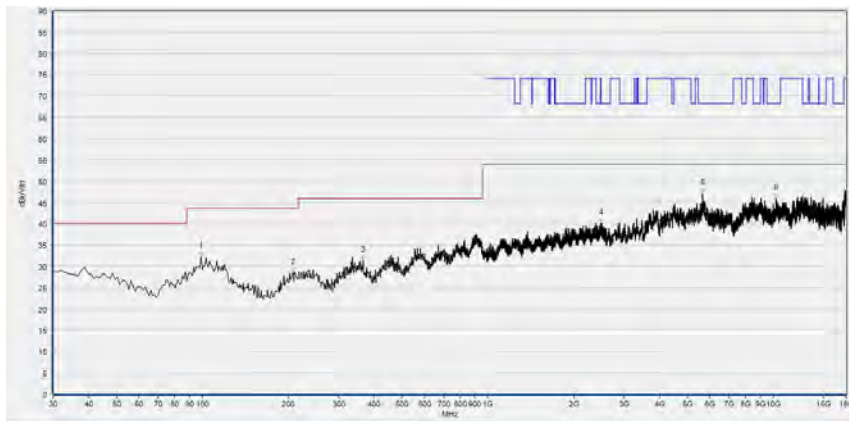
(Antenna Vertical, 30MHz to 18GHz)

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
99.910	32.19	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
206.717	29.88	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
351.391	33.21	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
3696.699	43.30	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6216.643	45.01	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
13982.877	46.36	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

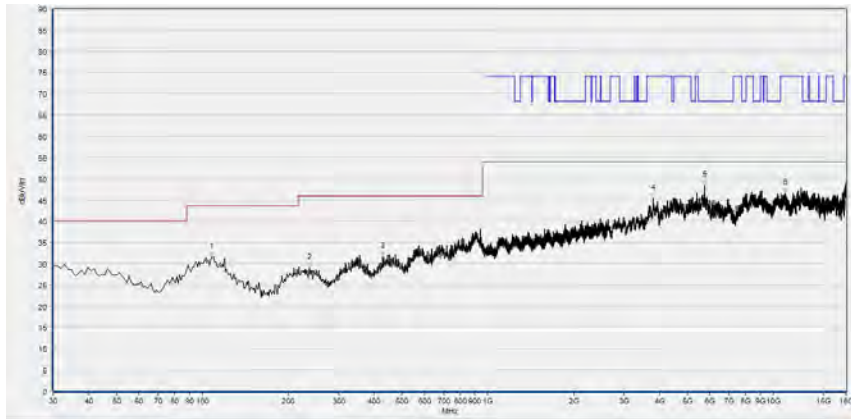
(Antenna Horizontal, 30MHz to 18GHz)



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
98.939	32.11	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
207.688	28.48	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
365.956	31.34	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2497.566	40.01	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5643.649	47.04	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
10224.525	45.86	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

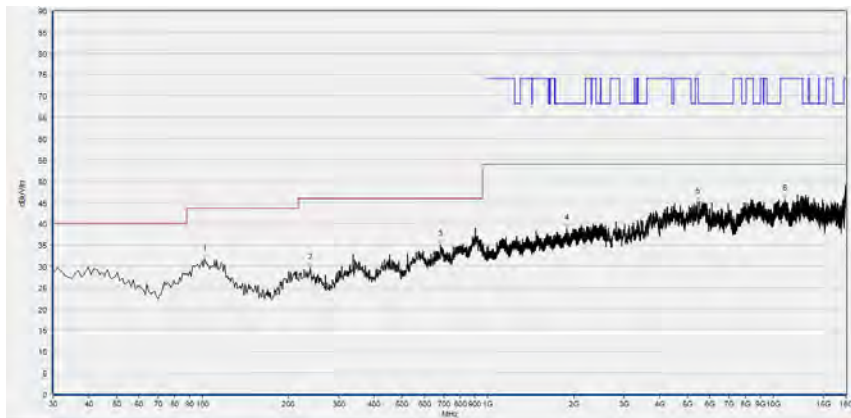
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 165



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
107.678	31.56	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
236.817	29.04	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
428.098	31.74	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
3801.440	45.42	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5763.793	48.39	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
11007.001	46.62	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
101.852	31.70	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
238.759	29.67	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
683.463	35.06	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1888.296	38.92	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5424.925	45.06	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10970.034	45.76	N/A	N/A	74.00	N/A	54.00	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	$\pm 2.22\text{dB}$
Power Spectral Density	$\pm 2.22\text{dB}$
Bandwidth	$\pm 5\%$
Restricted Frequency Bands	$\pm 5\%$
Radiated Emission	$\pm 2.95\text{dB}$
Conducted Emission	$\pm 2.44\text{dB}$

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

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

2. Identification of the Responsible Testing Location

Name:	Shenzhen Morlab Communications Technology Co., Ltd.
Address:	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
				2022.03.01	2023.02.28
USB Wideband Power Sensor	MY54210011	U2021XA	Agilent	2021.03.25	2022.03.24
				2022.03.01	2023.02.28
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	2021.10.20	2022.10.19

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
				2022.03.03	2023.03.02
LISN	8127449	NSLK 8127	Schwarzbeck	2021.03.09	2022.03.08
				2022.03.03	2023.03.02
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	2022.02.11	2025.02.10
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	2021.07.16	2022.07.15
18-26.5GHz pre-Amplifier	46732	S10M100L38 02	Tonscend	2021.07.16	2022.07.15
26-40GHz pre-Amplifier	56774	S40M400L40 02	Tonscend	2021.07.16	2022.07.15
Notch Filter	N/A	WRCG-5150-5350	Wainwright	2021.07.16	2022.07.15
Notch Filter	N/A	WRCG-5470-5725	Wainwright	2021.07.16	2022.07.15
Notch Filter	N/A	WRCG-5725-5850	Wainwright	2021.07.16	2022.07.15



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 —————