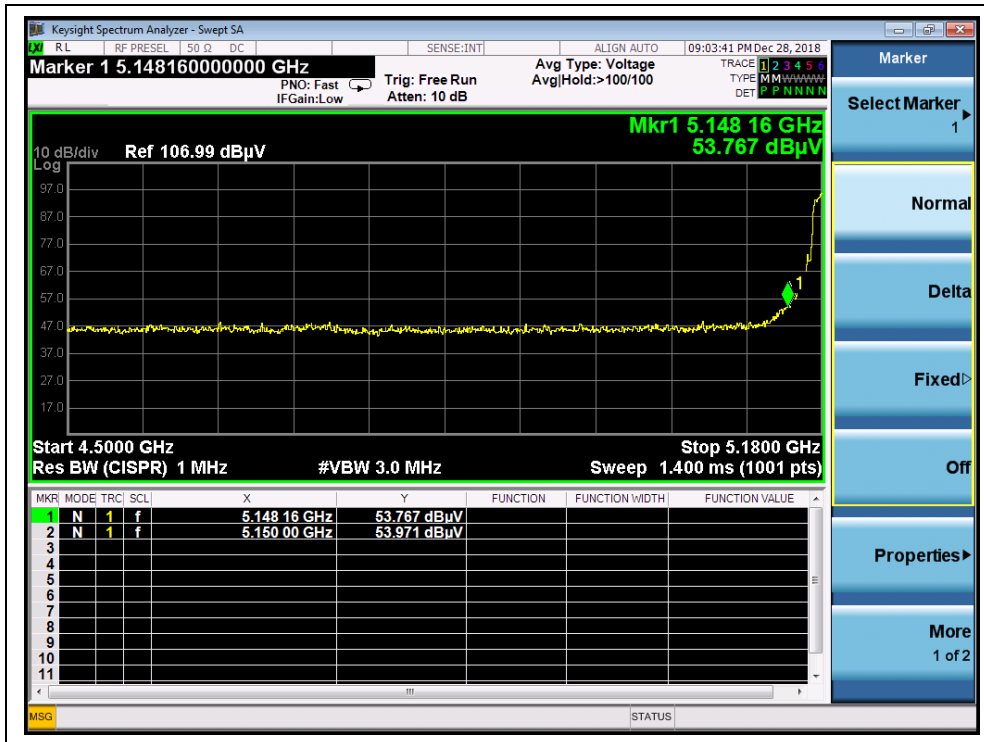
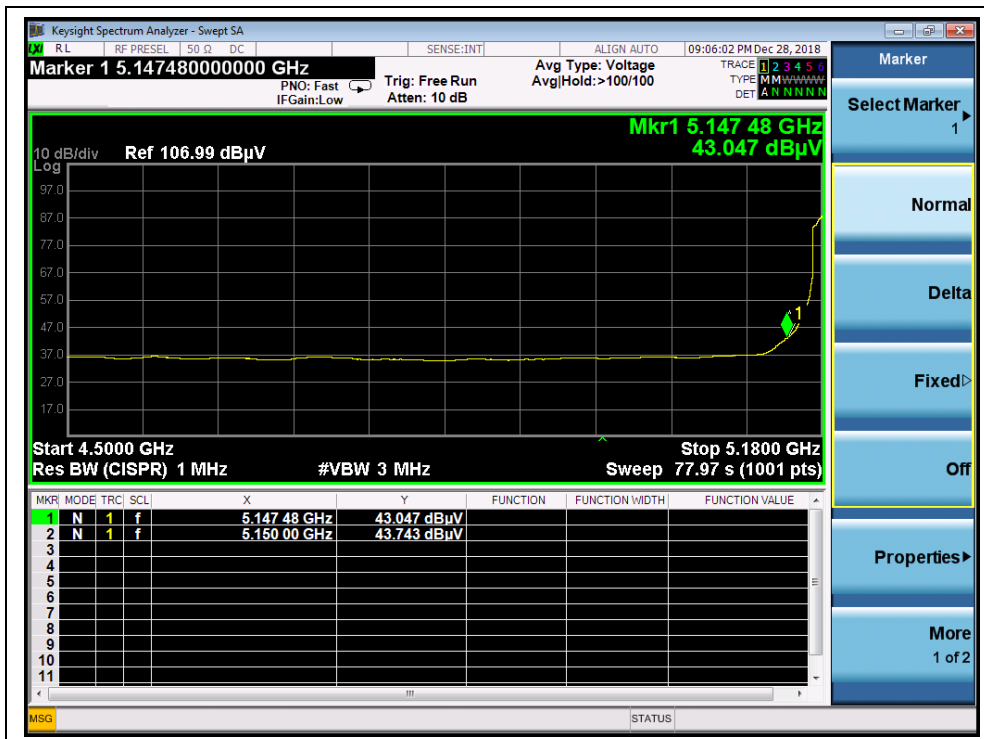




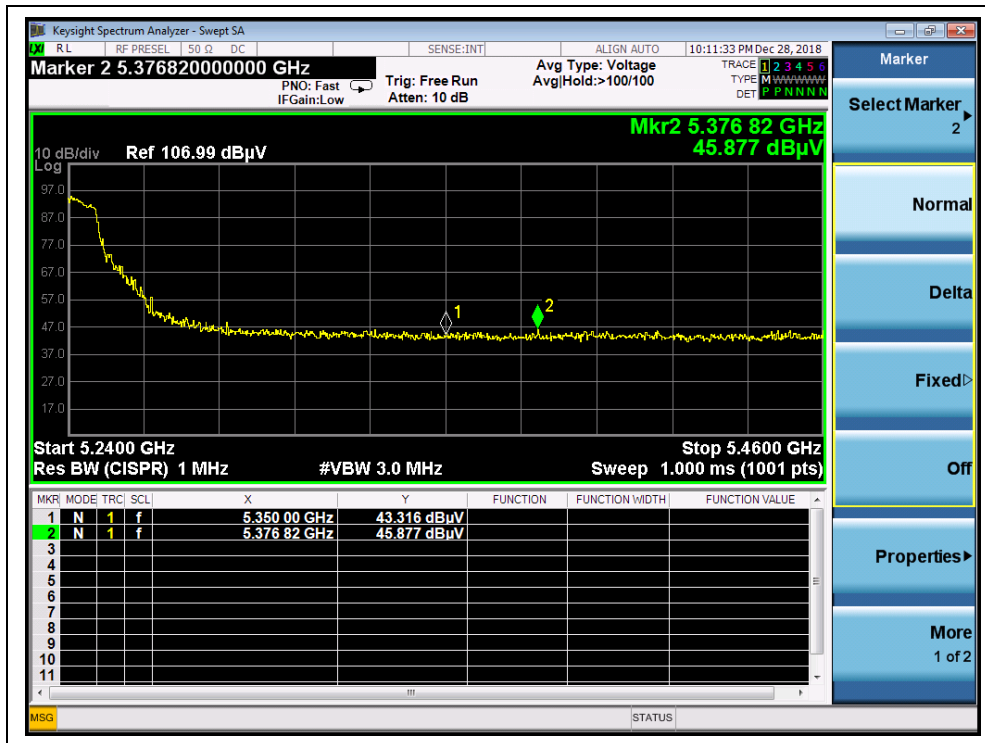
B. Test Plots:



(Channel 36, PEAK, 802.11a)



(Channel 36, AVG, 802.11a)



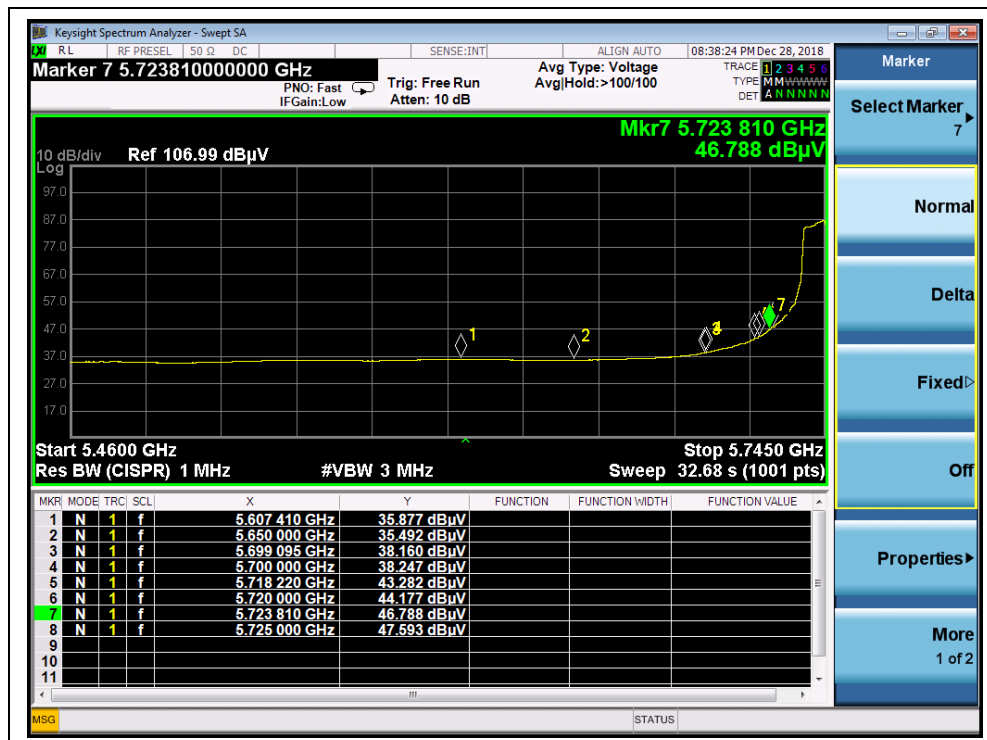
(Channel 48, PEAK, 802.11a)



(Channel 48, AVG, 802.11a)



(Channel 149, PEAK, 802.11a)



(Channel 149, AVG, 802.11a)



(Channel 165, PEAK, 802.11a)



(Channel 165, AVG, 802.11a)

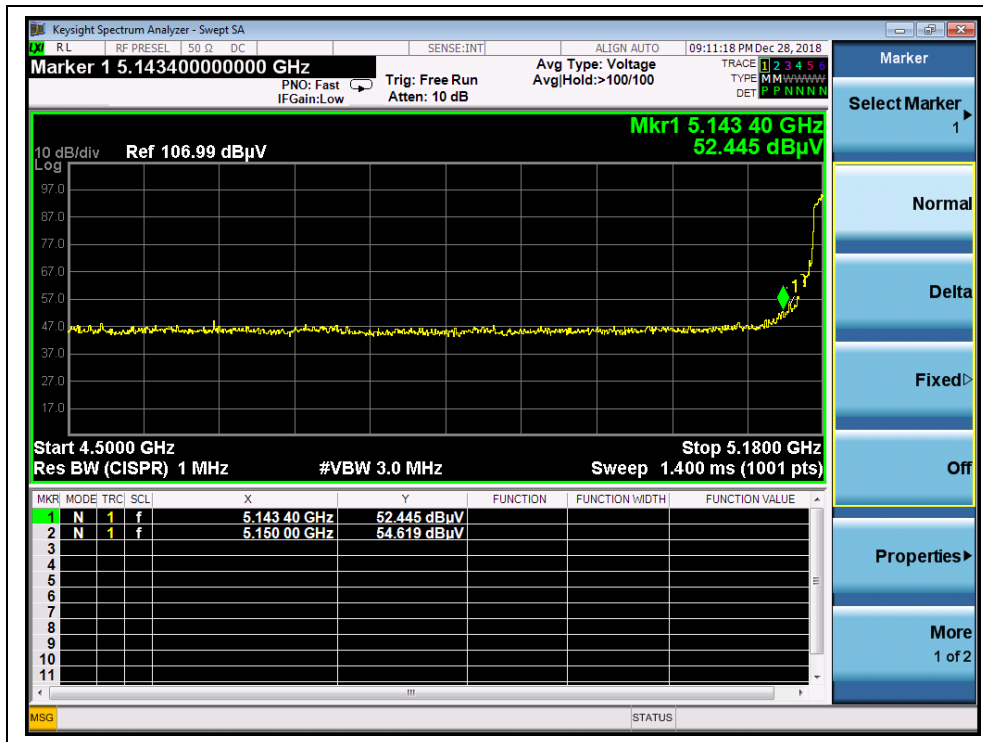


802.11n (HT20) Test mode

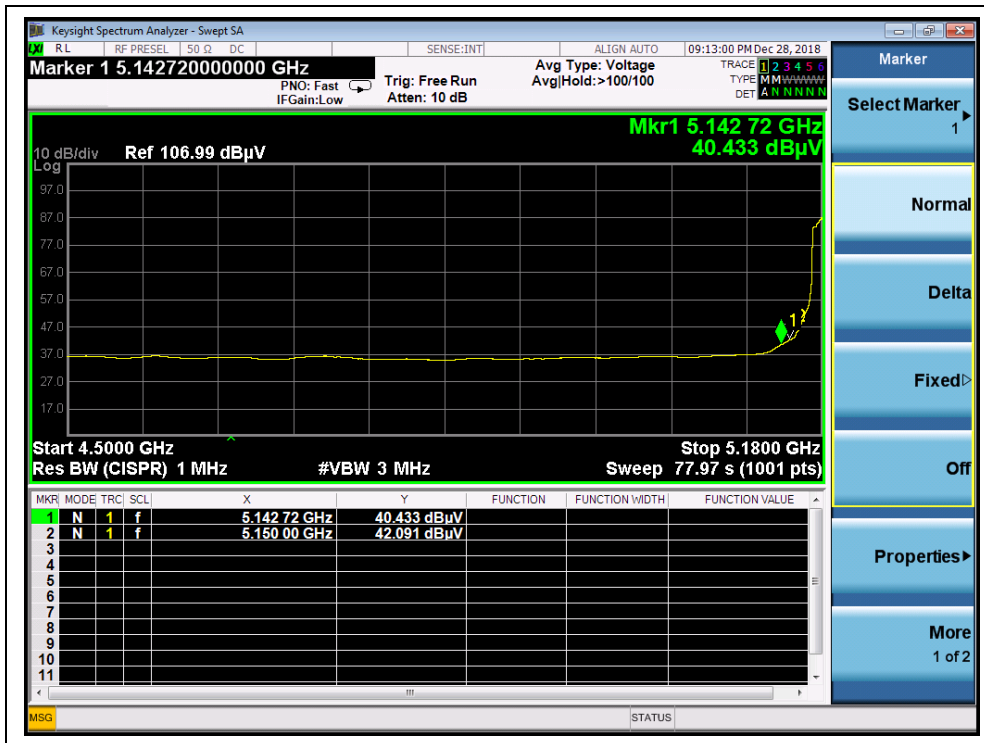
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading	$A_T$	$A_{Factor}$	Max. Emission E	Limit	Verdict
		PK/ AV	$U_R$ (dBuV)	(dB)	(dB@3m)	(dB $\mu$ V/m)	(dB $\mu$ V/m)	
36	5150.00	PK	42.09	-26.92	32.20	47.37	74	PASS
36	5150.00	AV	54.62	-26.92	32.20	59.9	54	PASS
48	5371.32	PK	44.78	-26.92	32.20	50.06	74	PASS
48	5350.00	AV	34.44	-26.92	32.20	39.72	54	PASS
149	5723.24	PK	60.83	-26.23	32.20	66.8	118.22	PASS
149	5725.00	AV	44.77	-26.23	32.20	50.74	54	PASS
165	5855.00	PK	46.67	-26.23	32.20	52.64	110.83	PASS
165	5850.00	AV	36.46	-26.23	32.20	42.43	54	PASS

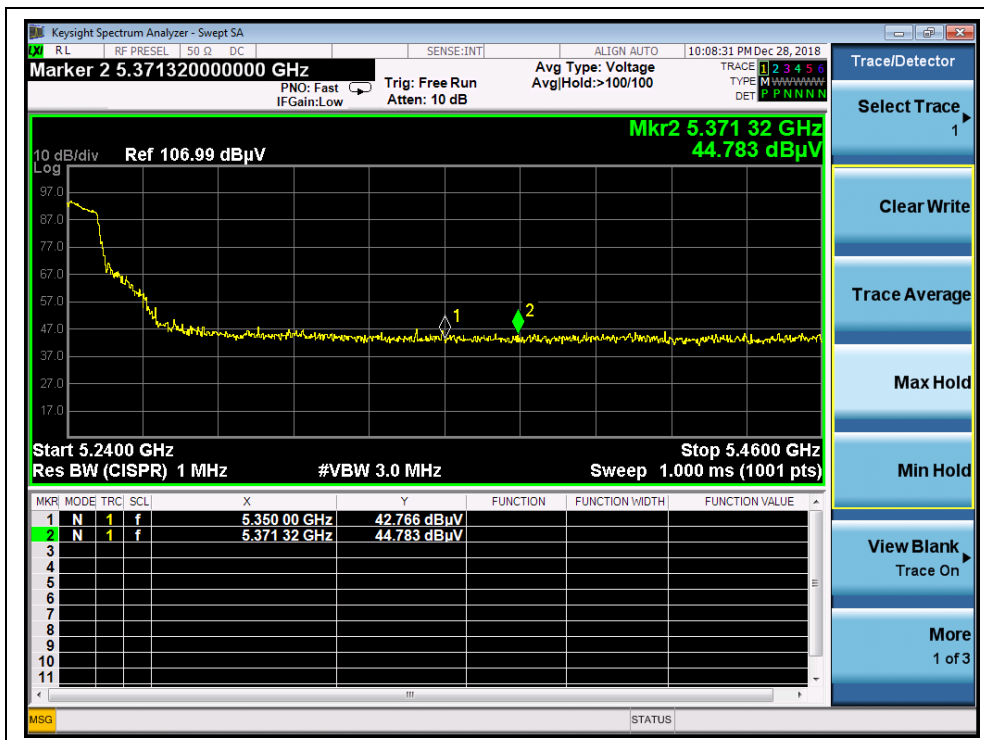
B. Test Plots:



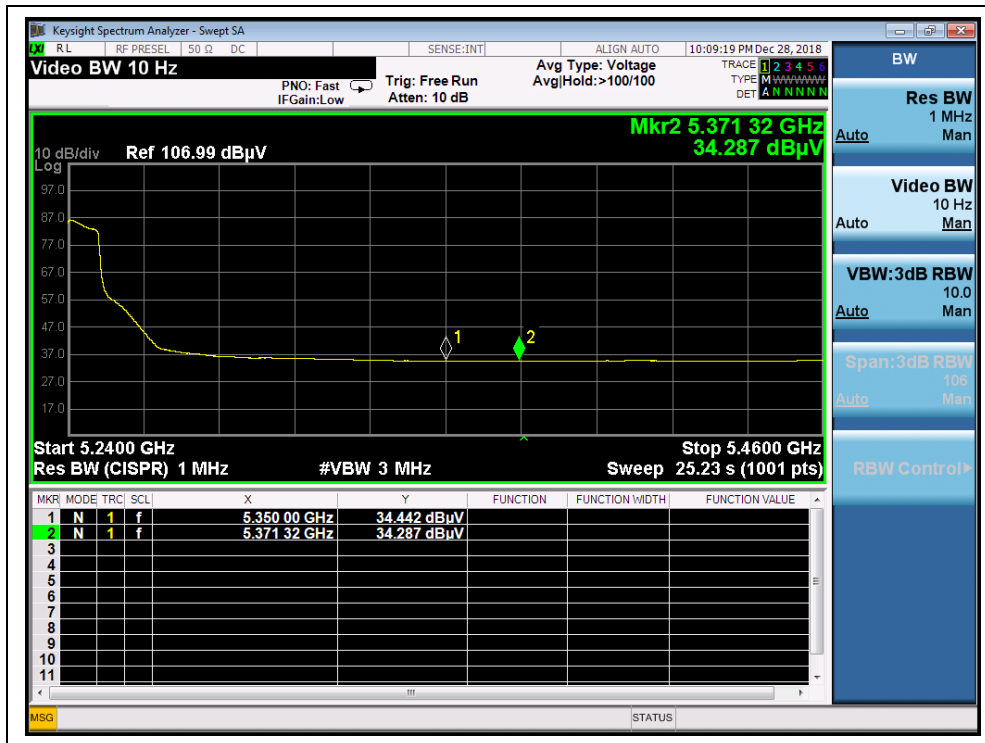
(Channel 36, PEAK, 802.11n (HT20))



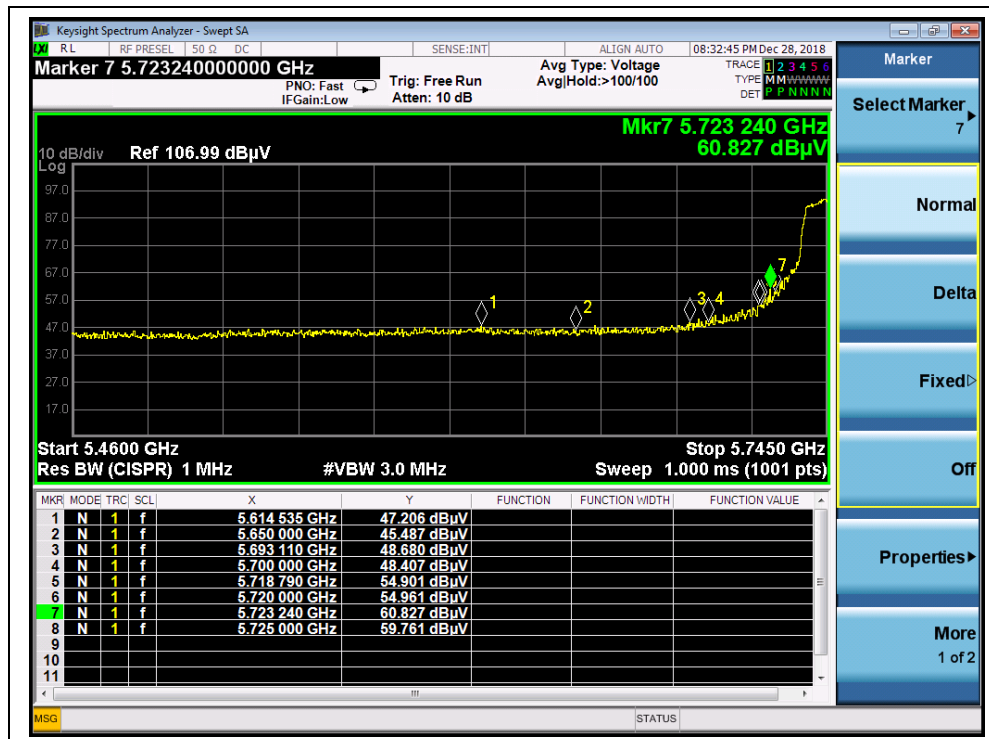
(Channel 36, AVG, 802.11 n (HT20))



(Channel 48, PEAK, 802.11 n (HT20))



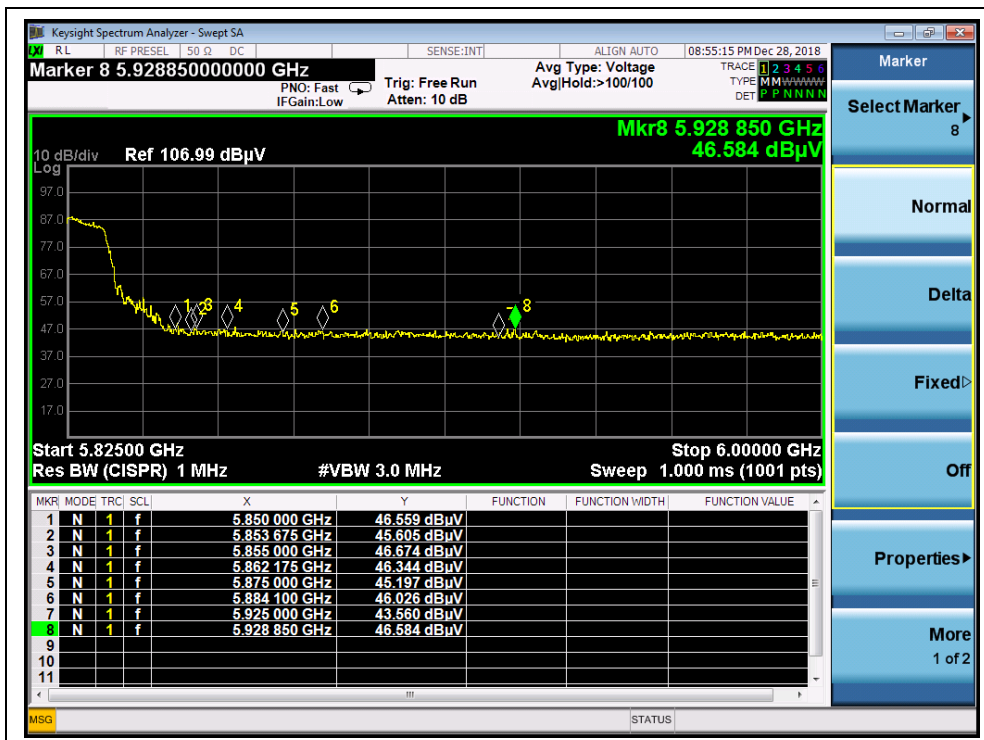
(Channel 48, AVG, 802.11n (HT20))



(Channel 149, PEAK, 802.11 n (HT20))



(Channel 149, AVG, 802.11n (HT20))



(Channel 165, PEAK, 802.11 n (HT20))





(Channel 165, AVG, 802.11n (HT20))

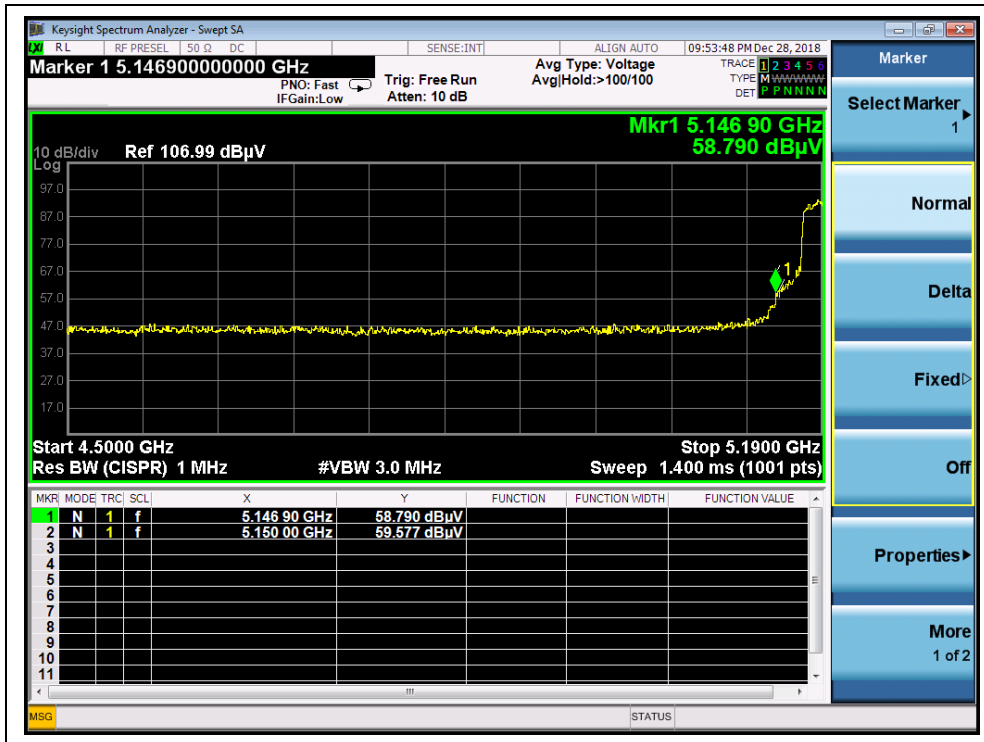
**802.11n (HT40) Test mode**

**A. Test Verdict:**

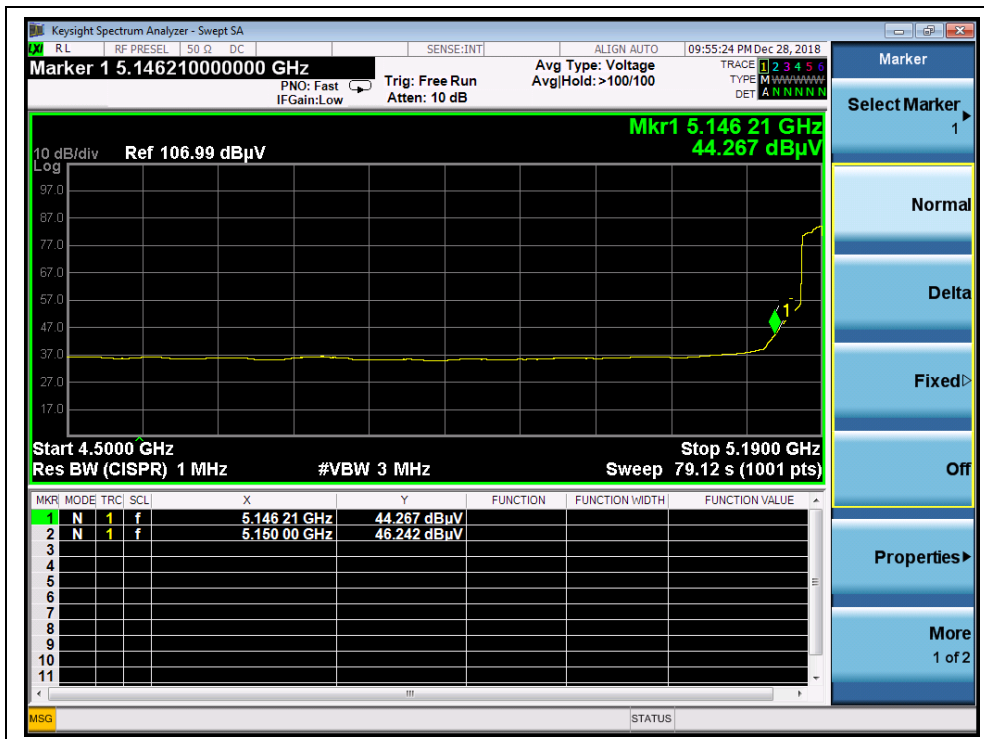
Channel	Frequency (MHz)	Detector	Receiver Reading	A <sub>T</sub> (dB)	A <sub>Factor</sub> (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV	U <sub>R</sub> (dBuV)					
38	5150.00	PK	59.58	-26.92	32.20	64.86	74	PASS
38	5150.00	AV	46.24	-26.92	32.20	51.52	54	PASS
46	5365.84	PK	45.79	-26.92	32.20	51.07	74	PASS
46	5350.00	AV	34.50	-26.92	32.20	39.78	54	PASS
151	5724.71	PK	61.74	-26.23	32.20	67.71	121.57	PASS
151	5725.00	AV	48.32	-26.23	32.20	54.29	54	PASS
159	5953.88	PK	46.78	-26.23	32.20	52.75	68.23	PASS
159	5850.00	AV	35.94	-26.23	32.20	41.91	54	PASS



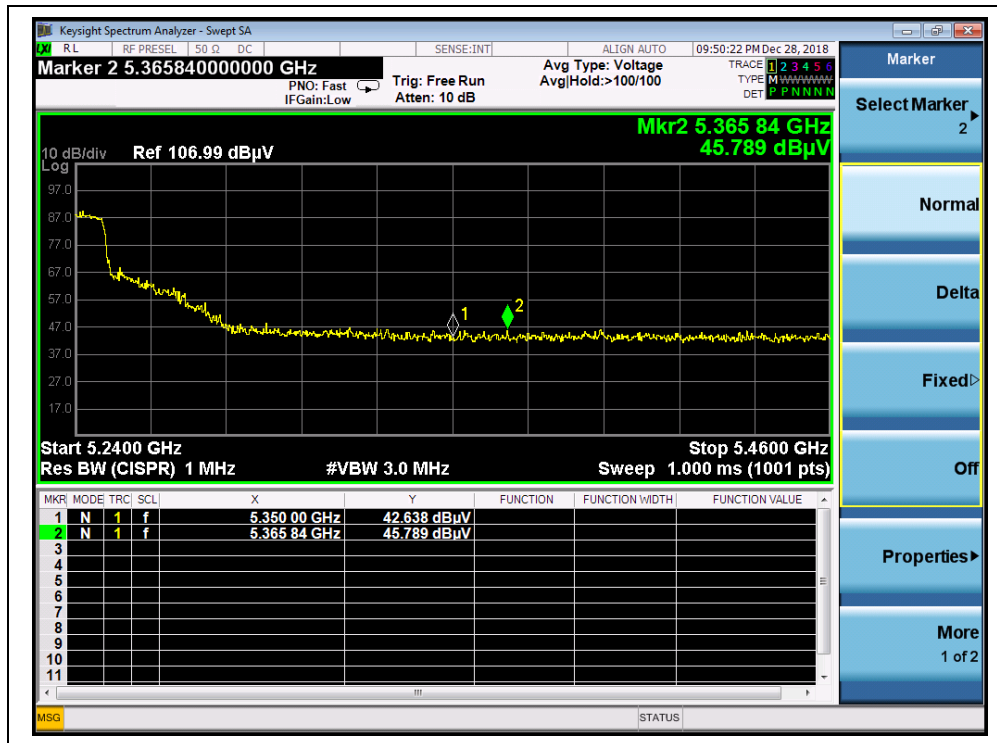
B. Test Plots:



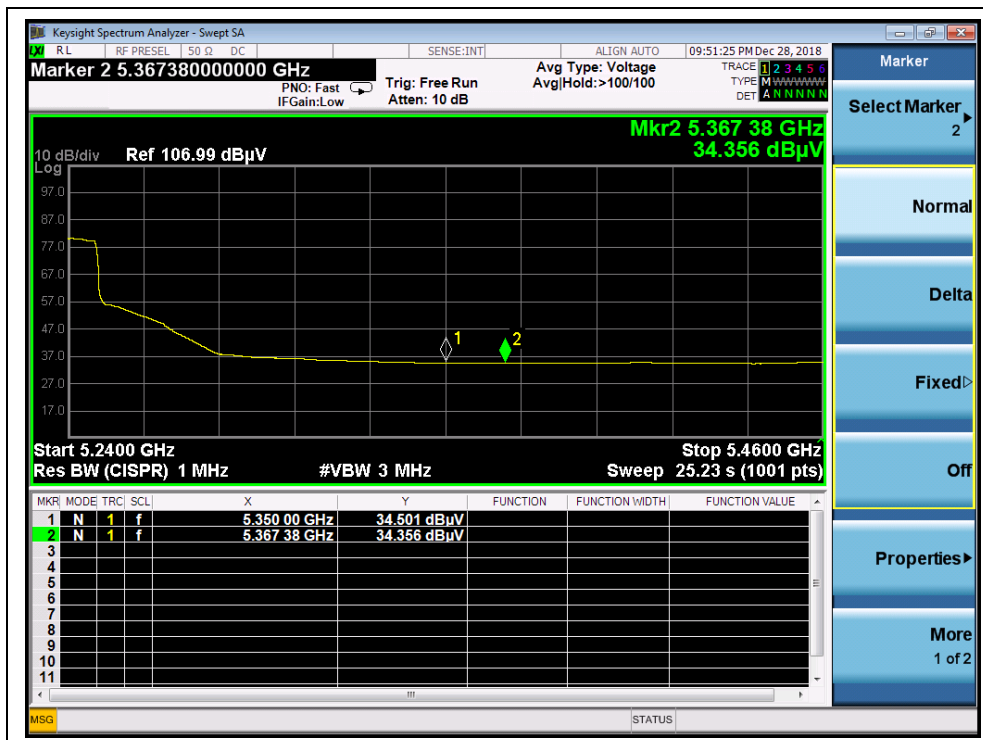
(Channel 38, PEAK, 802.11n (HT40))



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



(Channel 46, PEAK, 802.11n (HT40))



(Channel 46, AVG, 802.11n (HT40))



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



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



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



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

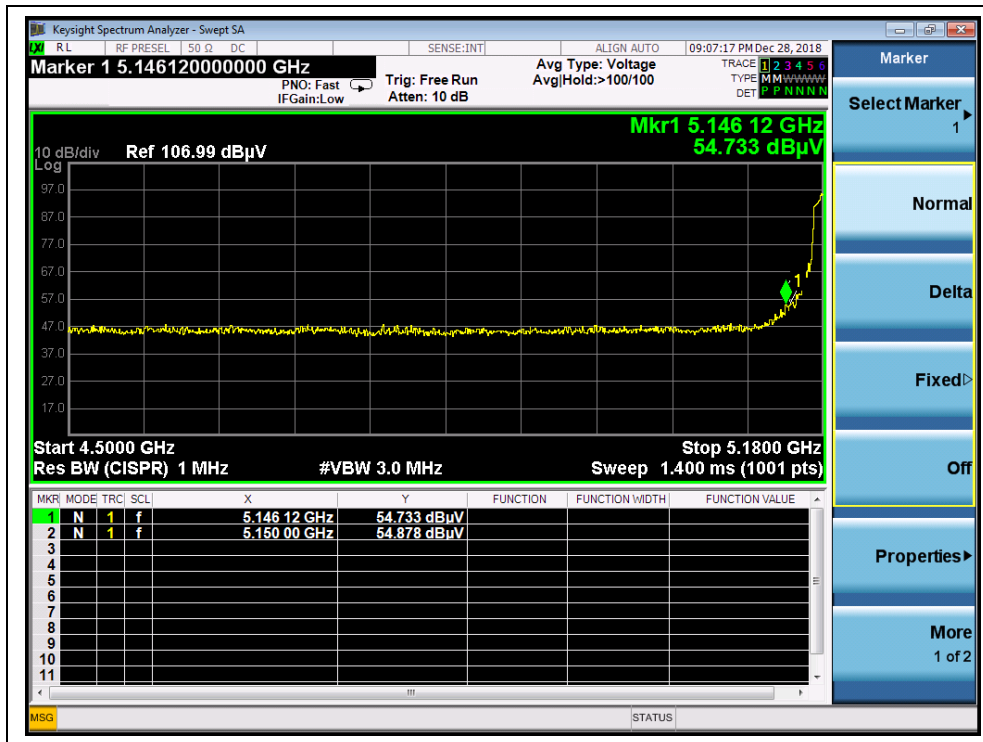


802.11ac (VHT20) Test mode

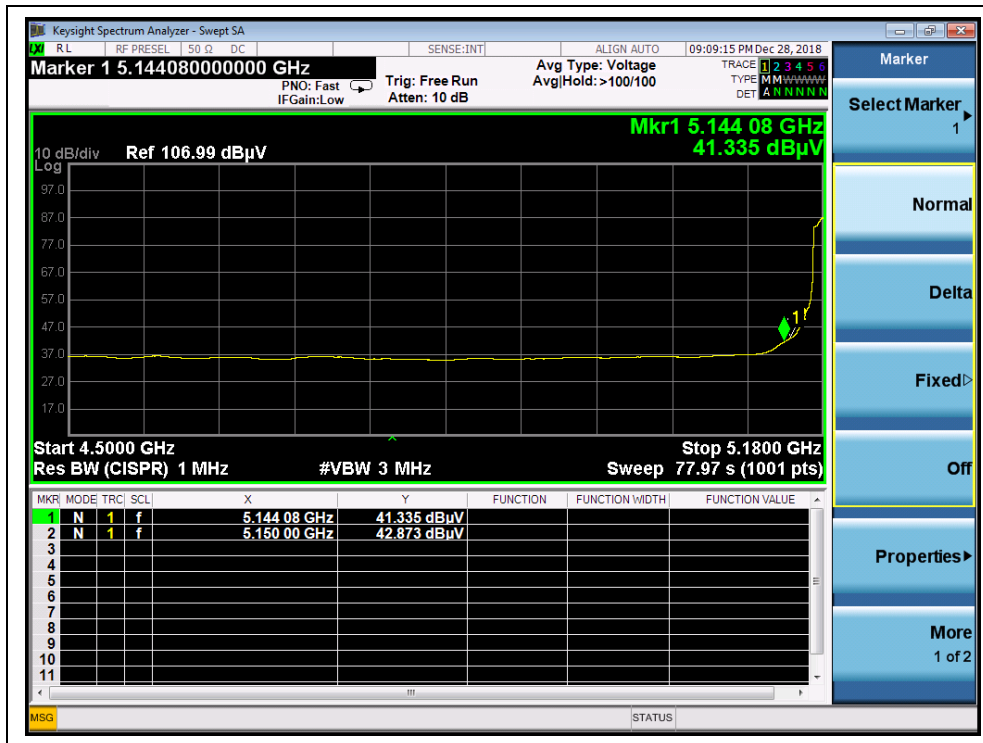
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading	$A_T$	$A_{Factor}$	Max. Emission	Limit	Verdict
		PK/ AV	$U_R$ (dBuV)	(dB)	(dB@3m)	E (dBμV/m)	(dBμV/m)	
36	5150.00	PK	54.88	-26.92	32.20	60.16	74	PASS
36	5150.00	AV	42.87	-26.92	32.20	48.15	54	PASS
48	5383.64	PK	45.46	-26.92	32.20	50.74	74	PASS
48	5350.00	AV	34.43	-26.92	32.20	39.71	54	PASS
149	5725.00	PK	57.76	-26.23	32.20	63.73	122.23	PASS
149	5725.00	AV	44.61	-26.23	32.20	50.58	54	PASS
165	5850.00	PK	47.03	-26.23	32.20	53.00	122.23	PASS
165	5850.00	AV	36.44	-26.23	32.20	42.41	54	PASS

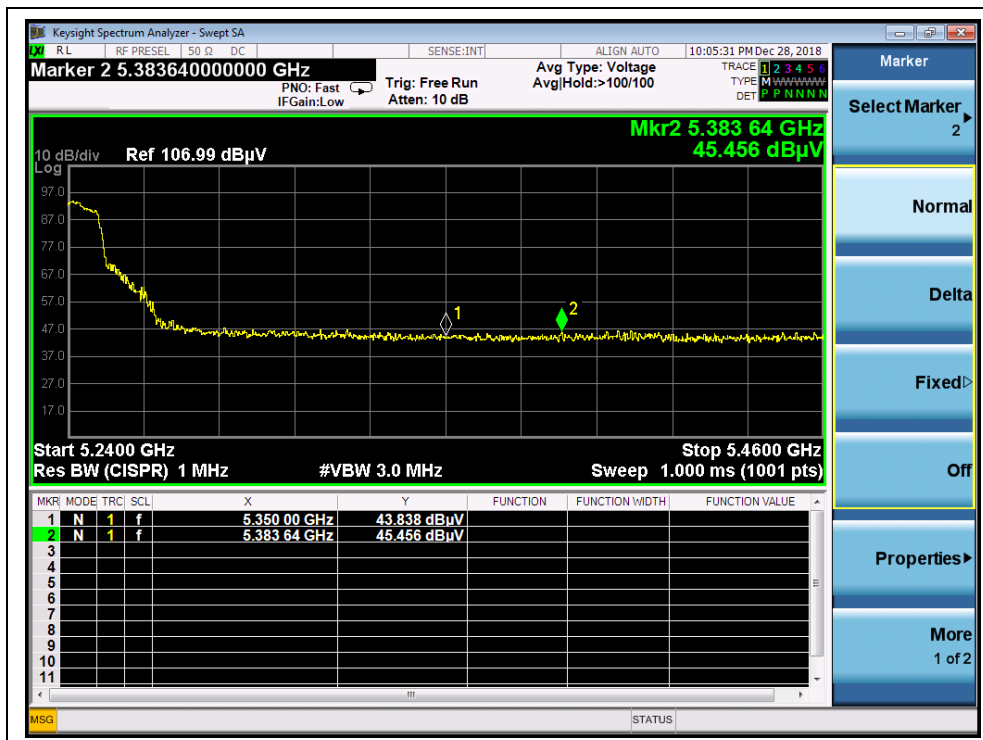
B. Test Plots:



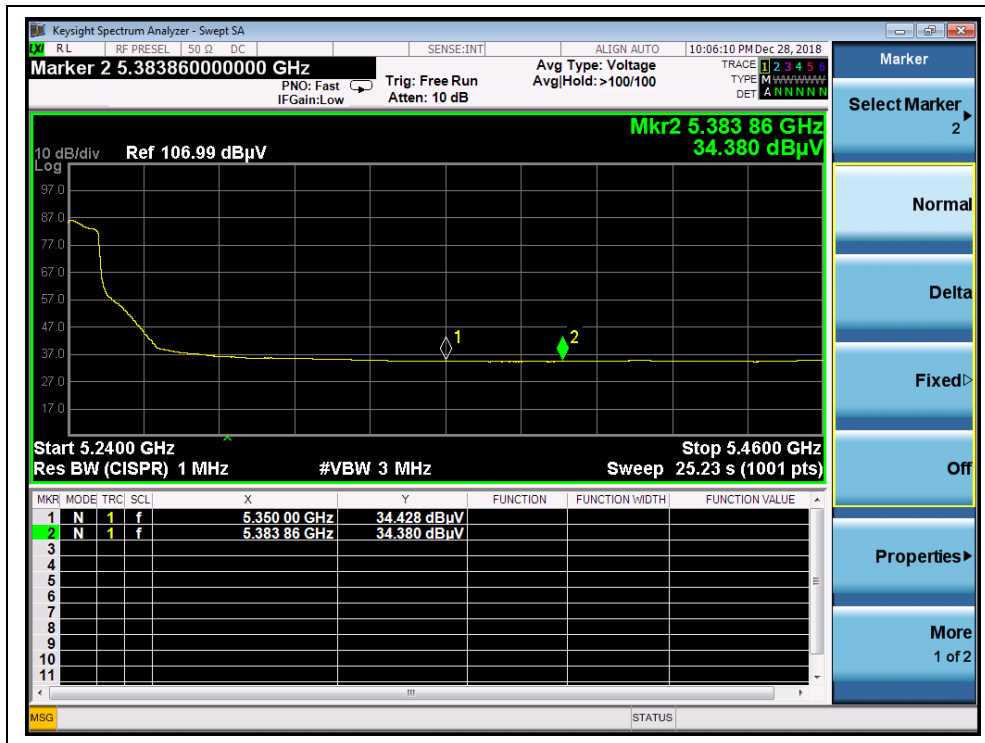
(Channel 36, PEAK, 802.11 ac (VHT20))



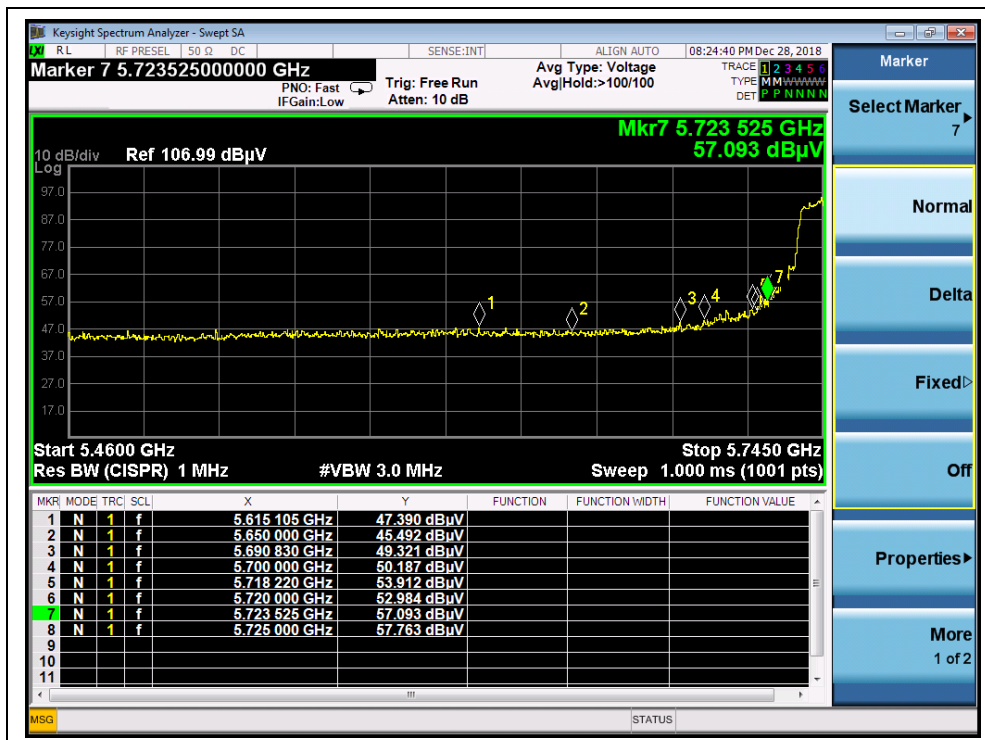
(Channel 36, AVG, 802.11 ac (VHT20))



(Channel 48, PEAK, 802.11 ac (VHT20))



(Channel 48, AVG, 802.11 ac (VHT20))

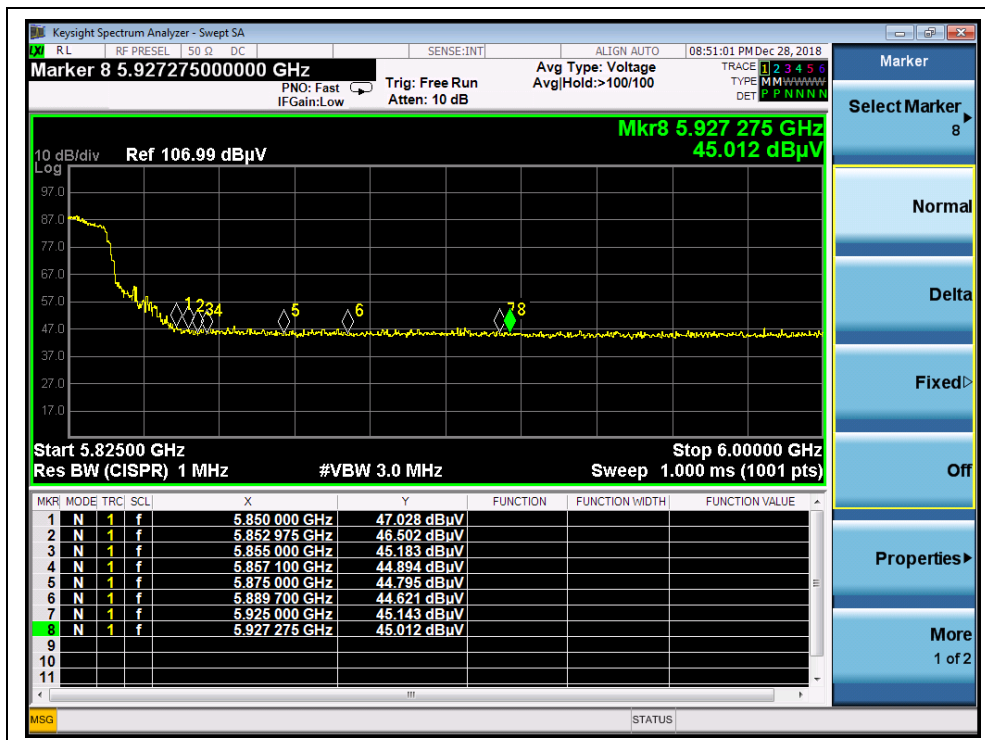


(Channel 149, PEAK, 802.11 ac (VHT20))

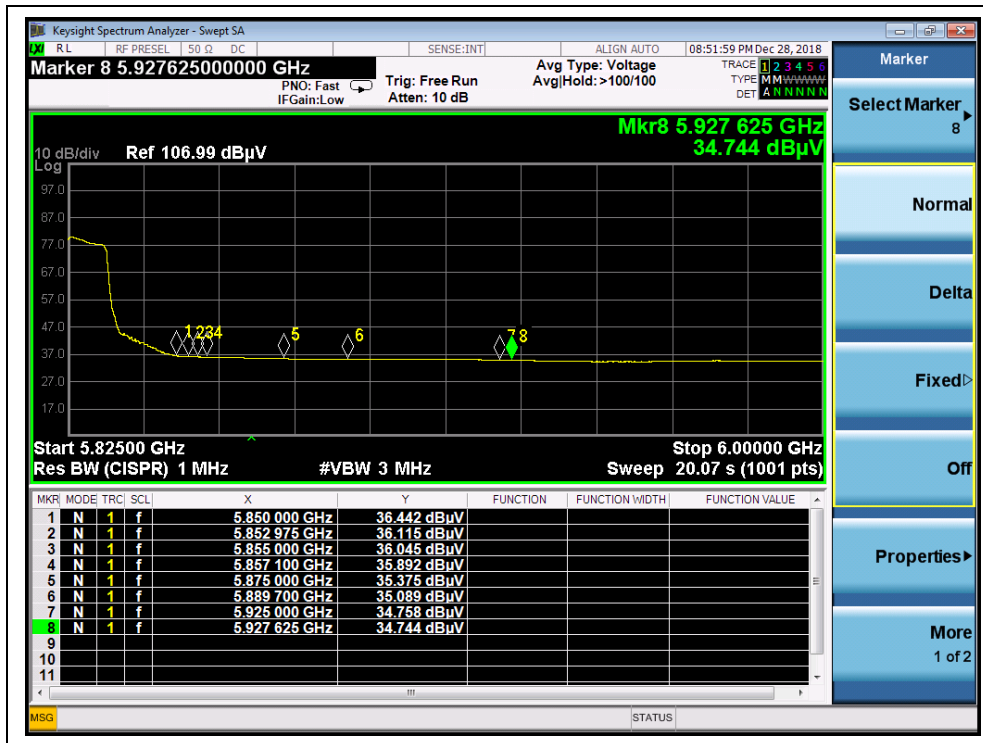




(Channel 149, AVG, 802.11 ac (VHT20))



(Channel 165, PEAK, 802.11 ac (VHT20))



(Channel 165, AVG, 802.11 ac (VHT20))

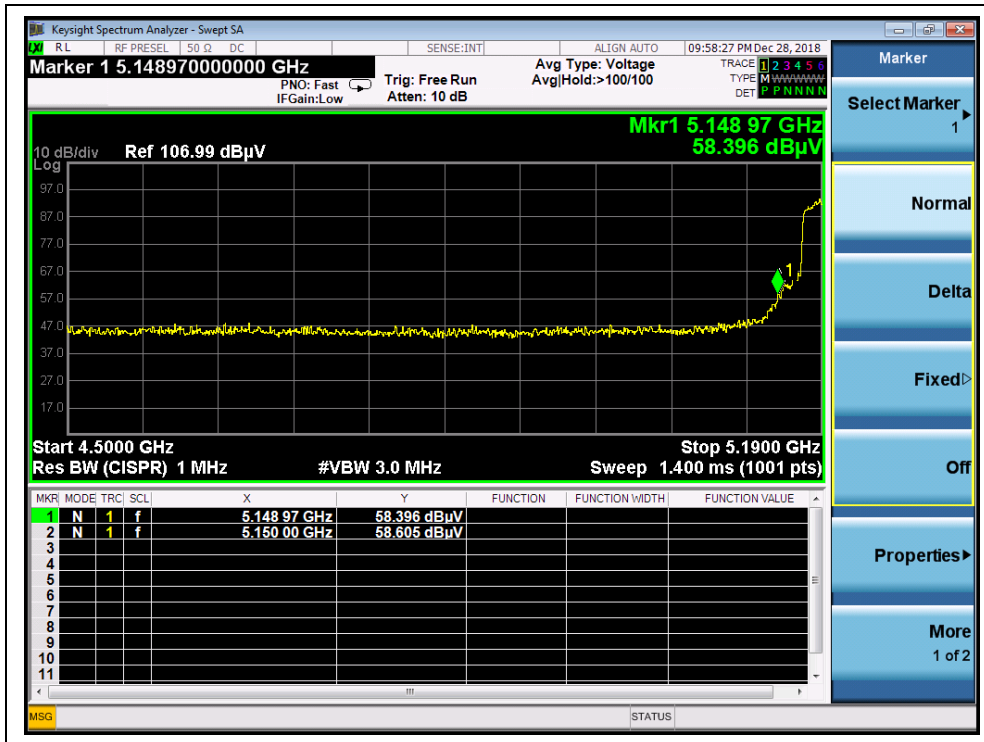
802.11ac (VHT40) Test mode

A. Test Verdict:

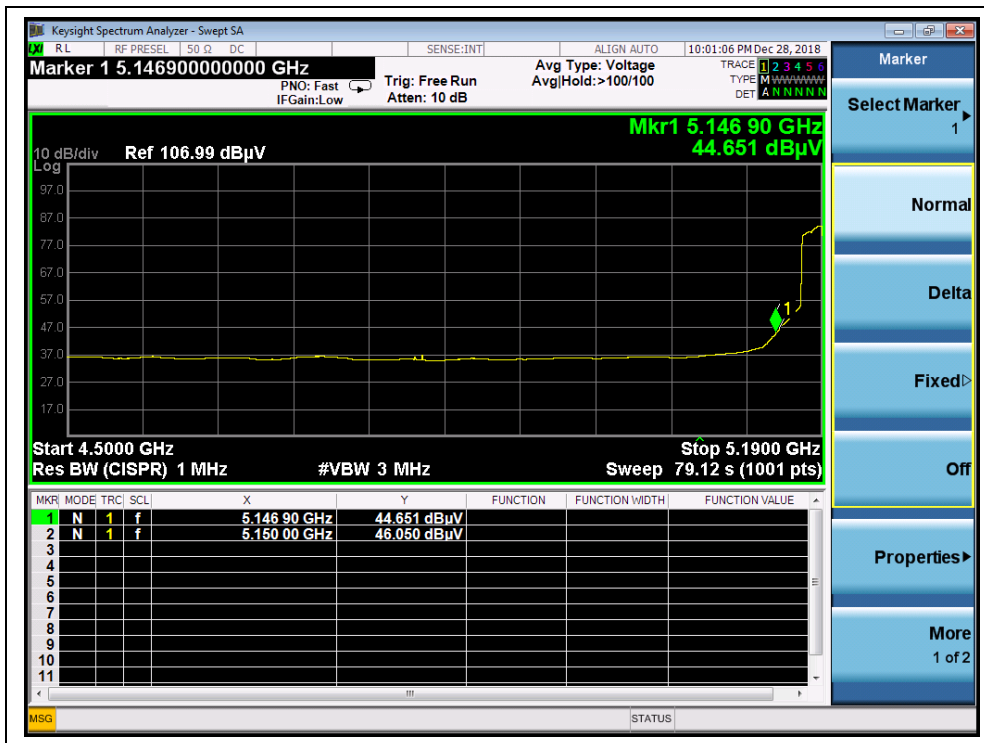
Channel	Frequency (MHz)	Detector	Receiver Reading	A <sub>T</sub> (dB)	A <sub>Factor</sub> (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV	U <sub>R</sub> (dBuV)					
38	5150.00	PK	58.61	-26.92	32.20	63.89	74	PASS
38	5150.00	AV	46.05	-26.92	32.20	51.33	54	PASS
46	5365.84	PK	45.03	-26.92	32.20	50.31	74	PASS
46	5350.00	AV	34.55	-26.92	32.20	39.83	54	PASS
151	5723.82	PK	61.46	-26.23	32.20	67.43	119.54	PASS
151	5725.00	AV	48.46	-26.23	32.20	54.43	54	PASS
159	5853.84	PK	47.95	-26.23	32.20	53.92	113.47	PASS
159	5850.00	AV	36.46	-26.23	32.20	42.43	54	PASS



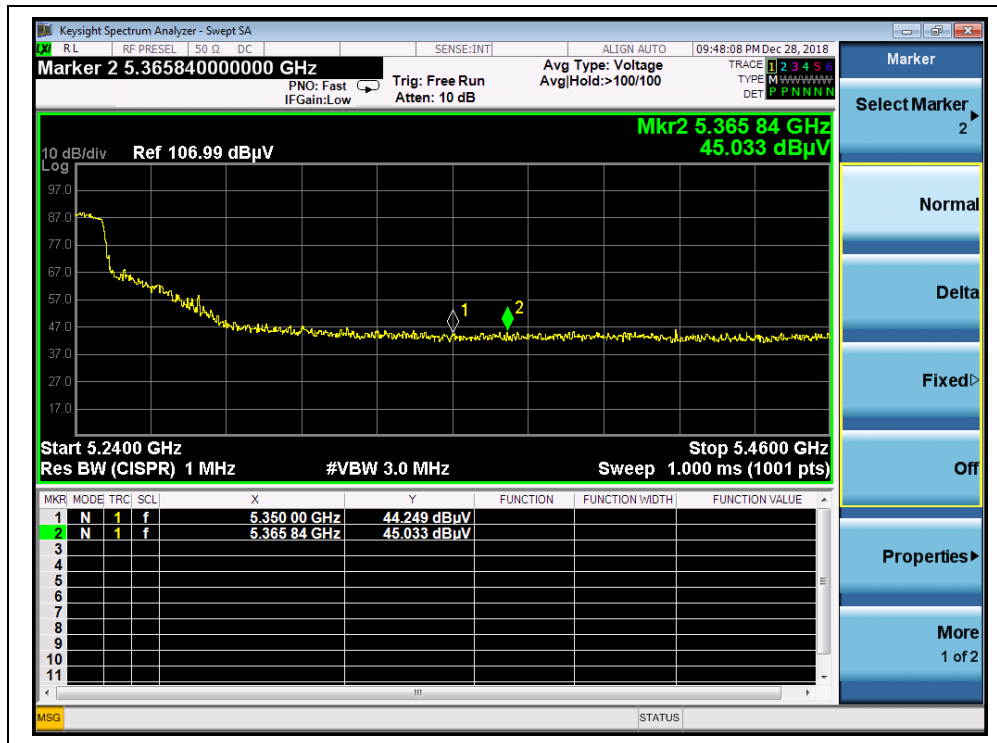
B. Test Plots:



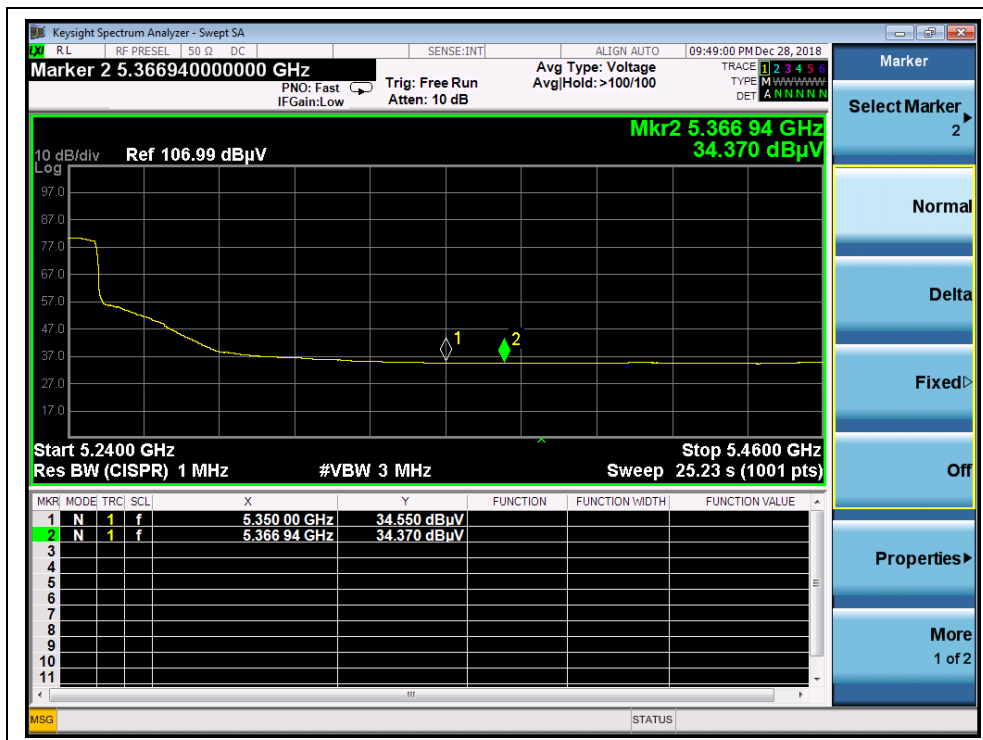
(Channel 38, PEAK, 802.11ac (VHT40))



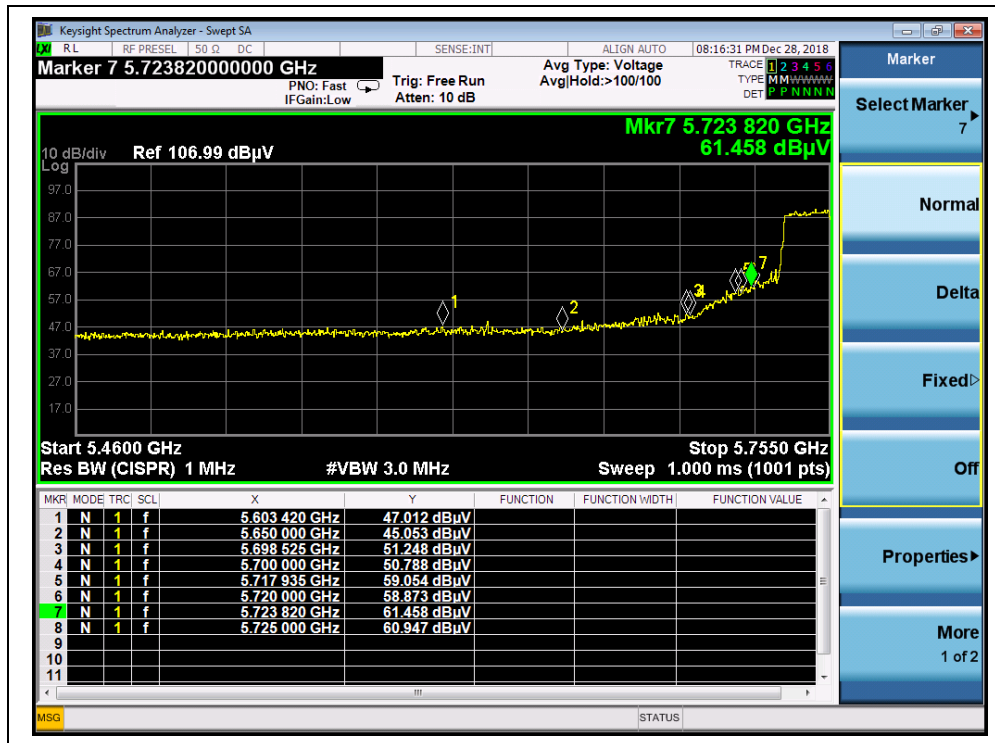
(Channel 38, AVG, 802.11ac (VHT40))



(Channel 46, PEAK, 802.11ac (VHT40))



(Channel 46, AVG, 802.11ac (VHT40))



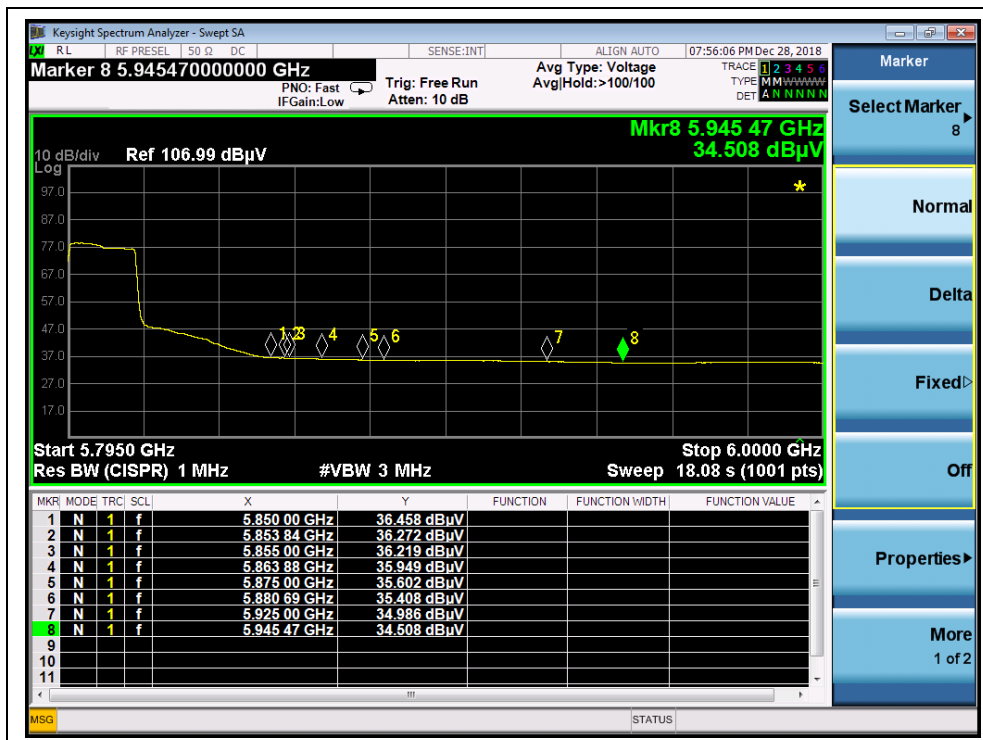
(Channel 151, PEAK, 802.11ac (VHT40))



(Channel 151, AVG, 802.11ac (VHT40))



(Channel 159, PEAK, 802.11ac (VHT40))



(Channel 159, AVG, 802.11ac (VHT40))

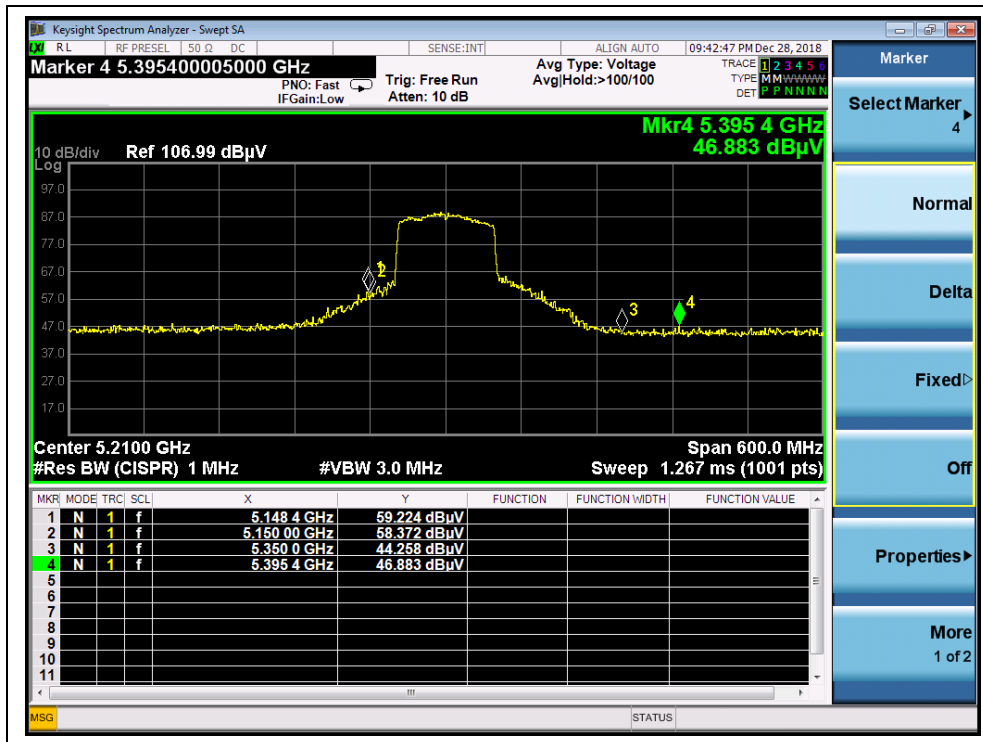


802.11ac (VHT80) Test mode

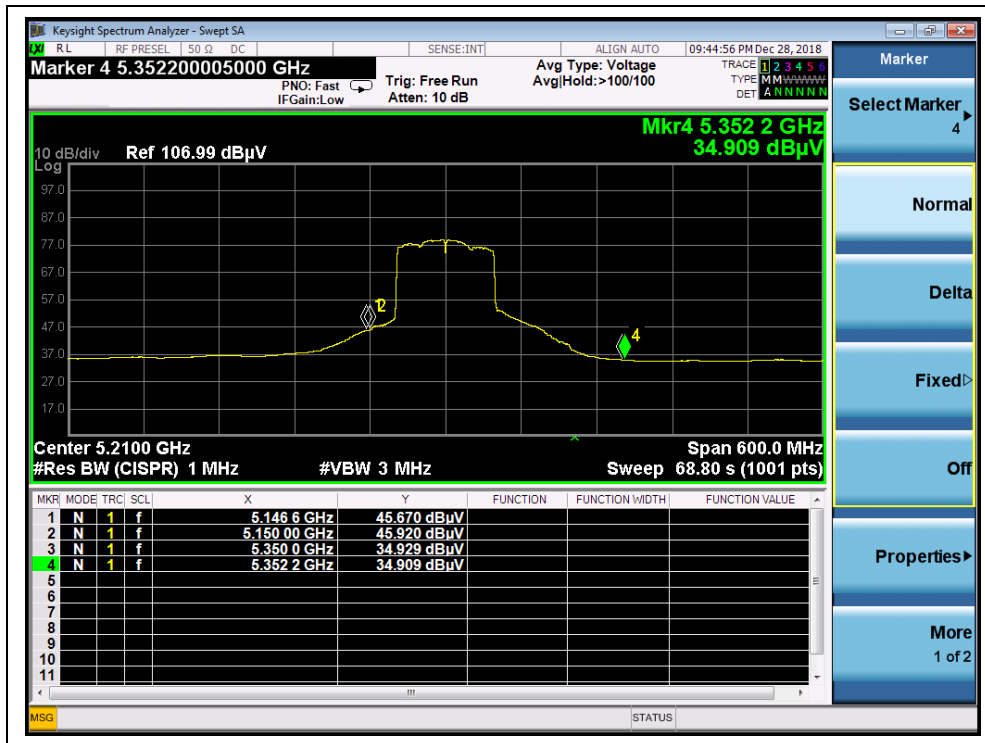
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading	A <sub>T</sub> (dB)	A <sub>Factor</sub> (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV	U <sub>R</sub> (dBuV)					
42	5148.40	PK	59.22	-26.92	32.20	64.50	68.23	PASS
42	5150.00	AV	45.92	-26.92	32.20	51.20	54	PASS
42	5395.40	PK	46.88	-26.92	32.20	52.16	74	PASS
42	5350.00	AV	34.93	-26.92	32.20	40.21	54	PASS
155	5725.00	PK	60.87	-26.23	32.20	66.84	122.23	PASS
155	5725.00	AV	47.85	-26.23	32.20	53.82	54	PASS
155	5853.00	PK	53.84	-26.23	32.20	59.81	115.39	PASS
155	5850.00	AV	41.40	-26.23	32.20	47.37	54	PASS

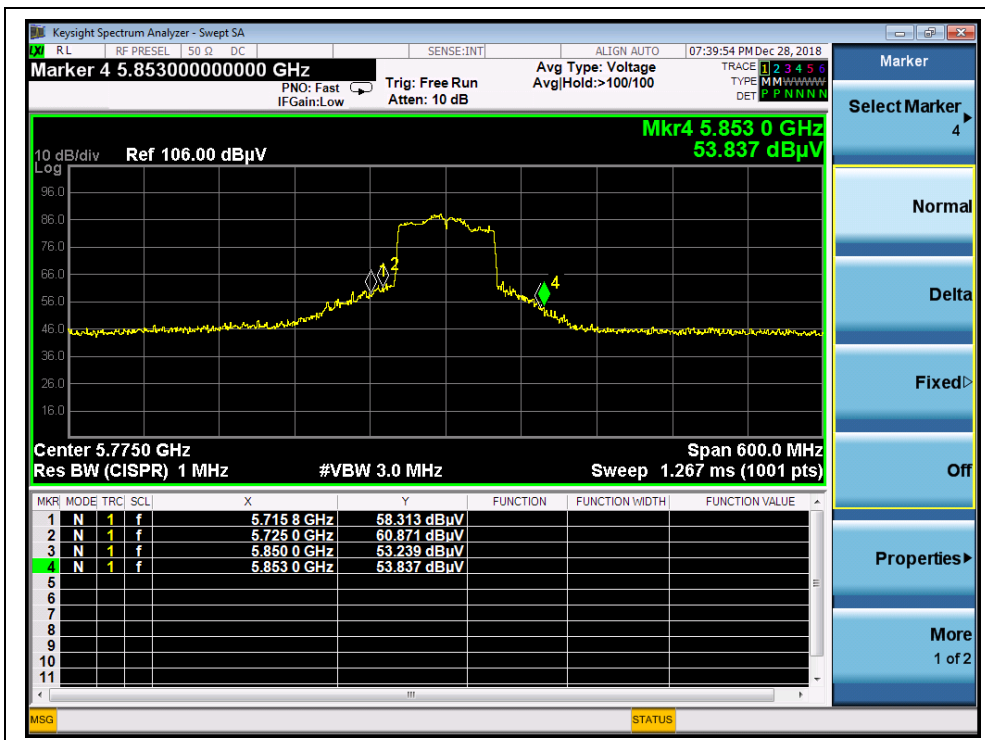
B. Test Plots:



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

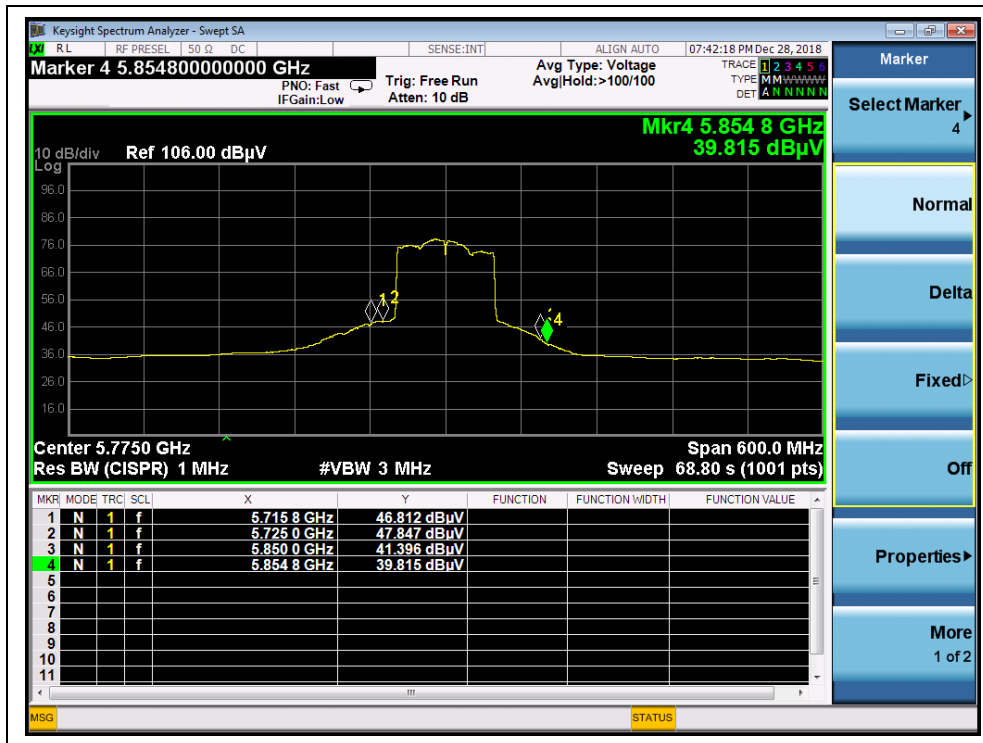


(Channel 42, AVG, 802.11ac (VHT80))



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





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



## 2.9. Radiated Emission

### 2.9.1. Requirement

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

- (1) For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (2) For transmitters operating in the 5.25–5.35 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (3) For transmitters operating in the 5.47–5.725 GHz band: all emissions outside of the 5.47–5.725 GHz band shall not exceed an EIRP of -27dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

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

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

where P is the EIRP in Watts

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

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

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

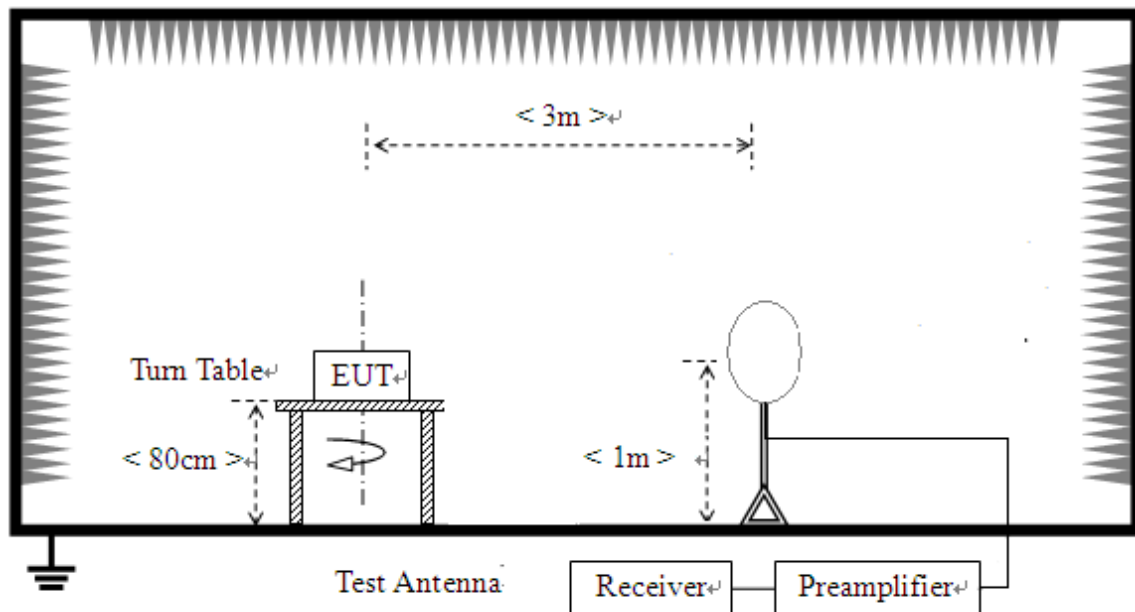
**Note:**

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

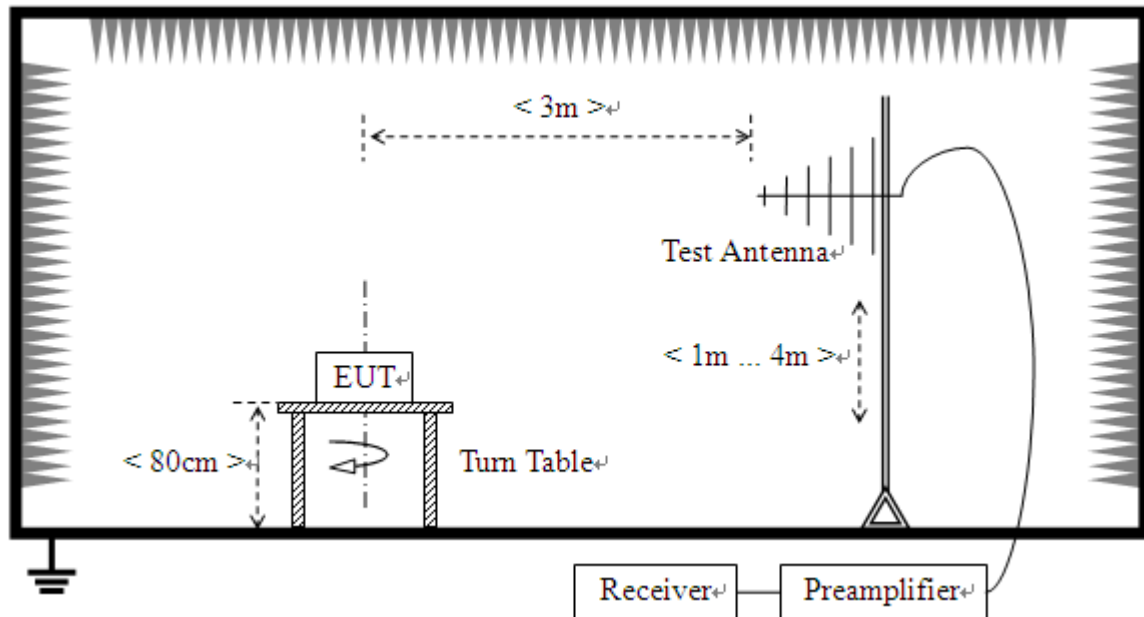
In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table)

**2.9.2. Test Description****A. Test Setup:**

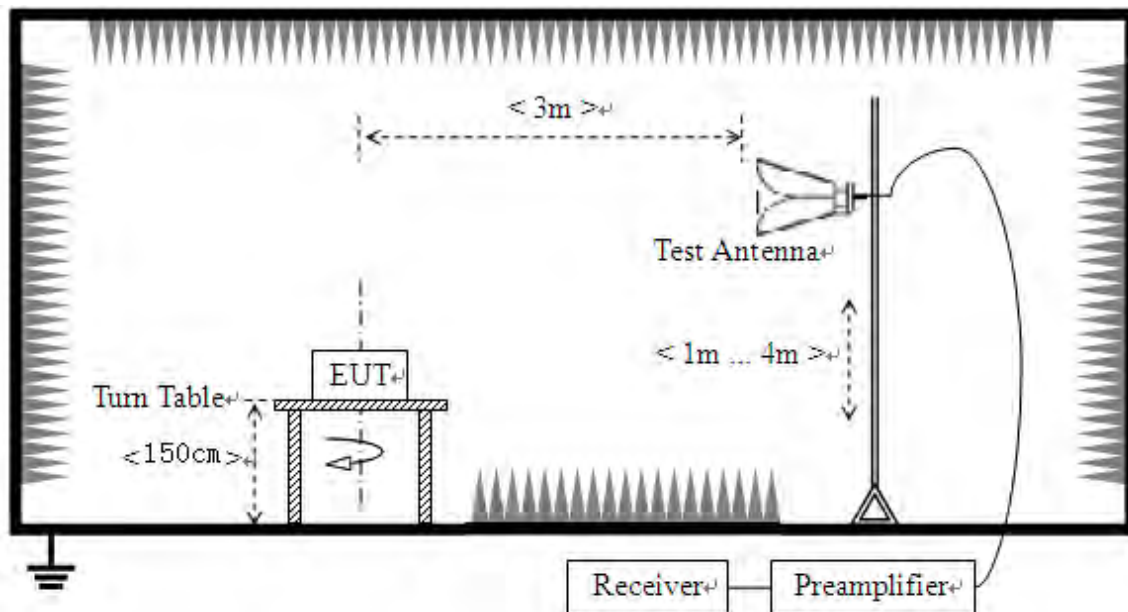
- 1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to1GHz



3) For radiated emissions above 1GHz



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

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



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

For the radiated emission test above 1GHz:

Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

The 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

For the Test Antenna:

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

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



### 2.9.3. Test Result

According to ANSI C63.4 selection 4.2.2, 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 limit, it is unnecessary to perform an quasi-peak measurement.

The measurement results are obtained as below:

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

$A_T$ : Total correction Factor except Antenna

$U_R$ : Receiver Reading

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

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

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

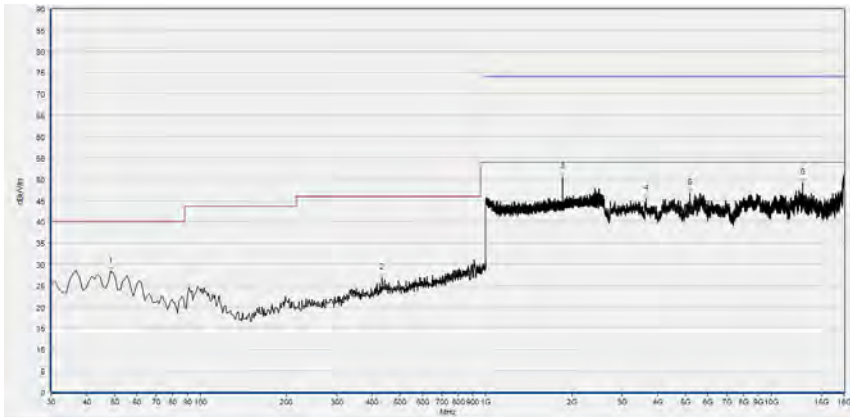
**Note1:** All radiated emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

**Note2:** For the frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

**Note3:** For the frequency, which started from 25GHz to 40GHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

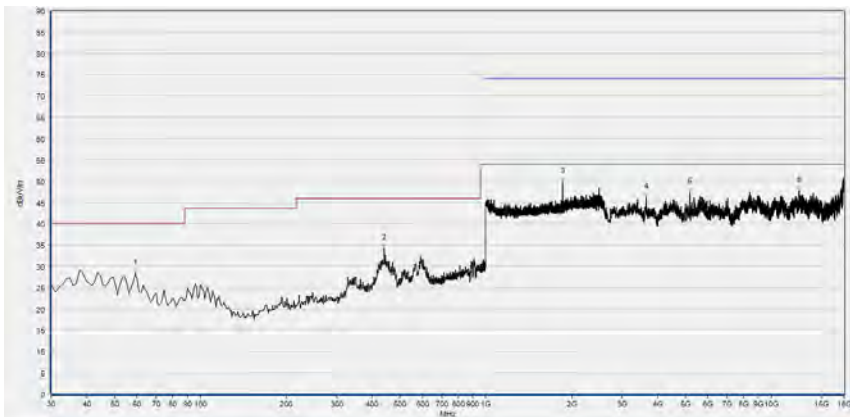
**802.11a Test mode**

**Plots 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
48.448	28.40	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
432.953	26.75	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1856.285	50.42	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
3647.409	45.37	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5184.637	46.70	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
12873.855	49.18	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS

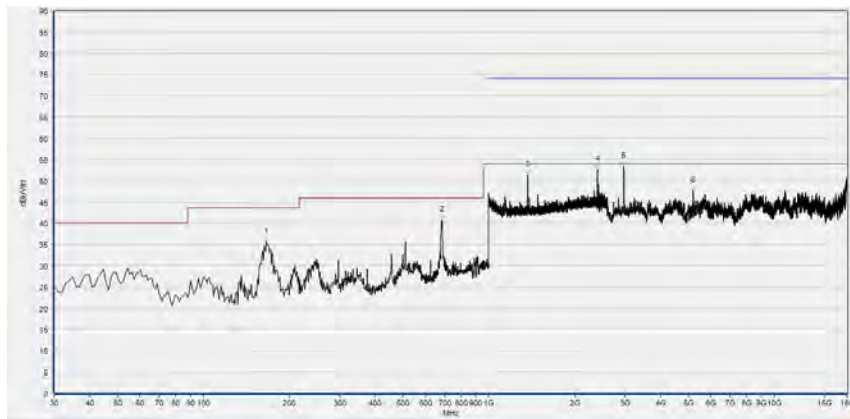
(Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
59.129	28.33	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
440.721	34.12	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1856.819	49.76	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
3647.409	46.18	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5181.556	47.35	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
12522.665	47.73	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

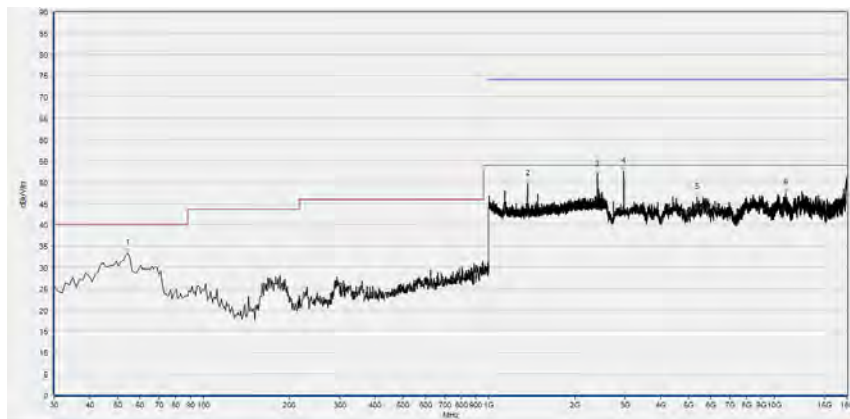
(Antenna Vertical, 30MHz to 25GHz)

Plots 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
165.936	35.59	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
686.376	40.67	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1368.123	51.24	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
2402.067	52.68	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2969.000	53.74	N/A	35.51	68.23	N/A	54.00	Horizontal	PASS
5196.959	47.55	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 25GHz)

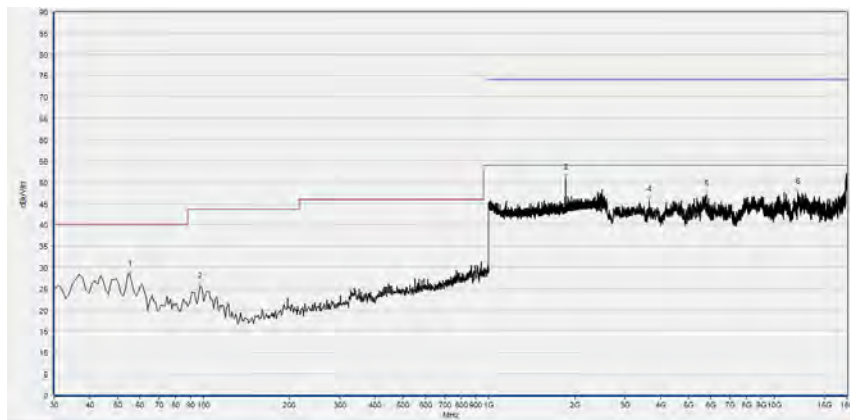


Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
54.274	33.40	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
1367.589	49.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2401.534	51.67	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2969.000	53.70	N/A	40.56	74.00	N/A	54.00	Vertical	PASS
5375.635	46.46	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
10982.356	47.42	N/A	N/A	68.23	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)

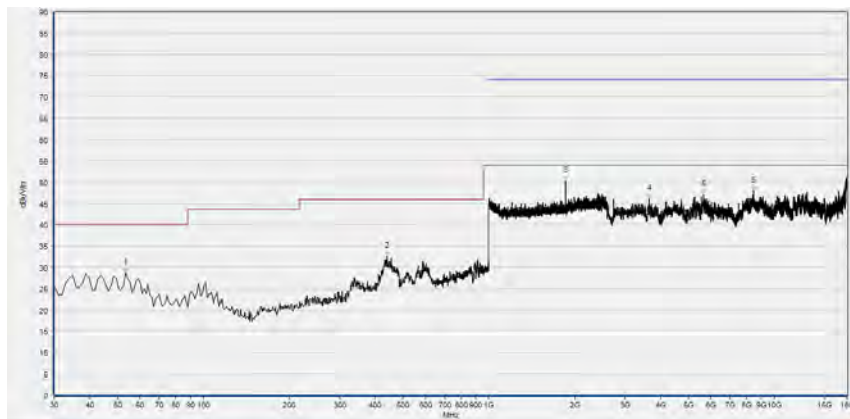


Plot for Channel = 48



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
55.245	28.30	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
96.997	25.51	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1856.819	50.93	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
3647.409	45.74	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5785.357	47.08	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
12072.895	47.58	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

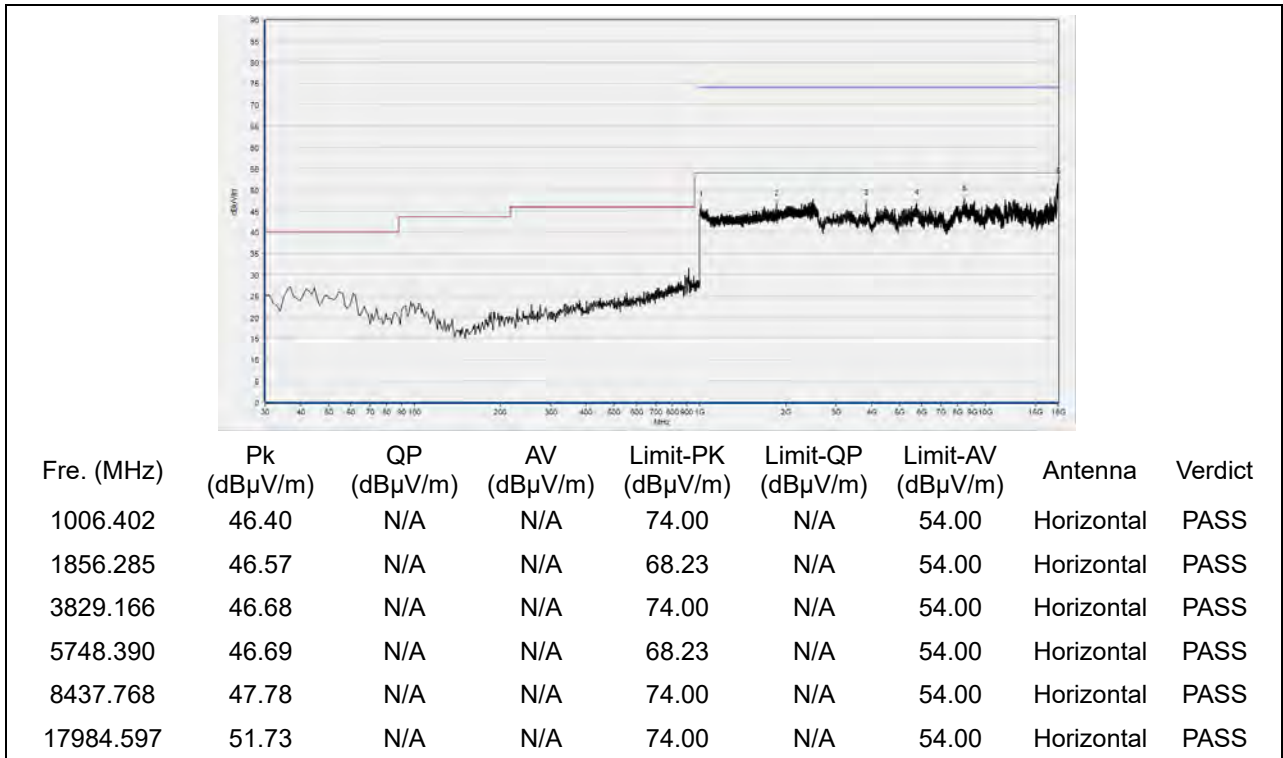
(Antenna Horizontal, 30MHz to 25GHz)



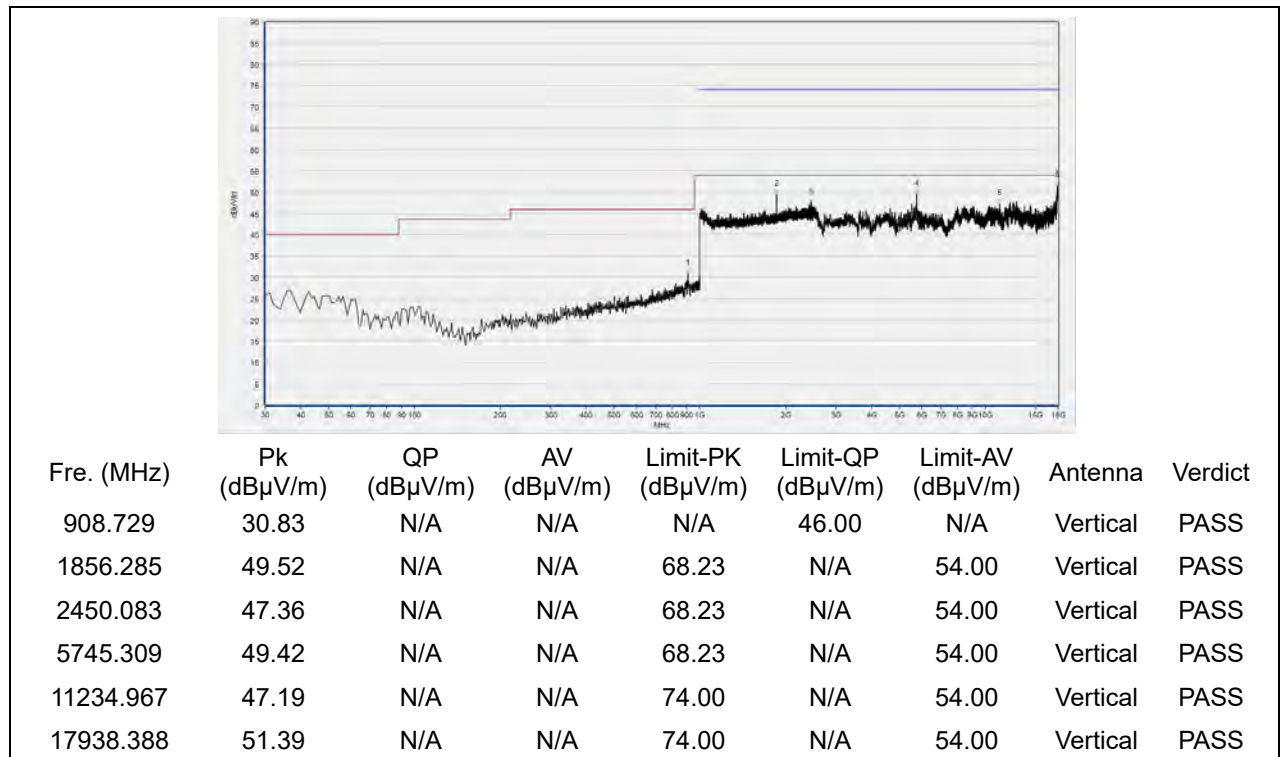
Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
53.303	28.73	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
440.721	32.53	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1856.819	50.25	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
3647.409	46.02	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5643.649	47.04	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8456.251	47.87	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)

Plots for Channel = 149

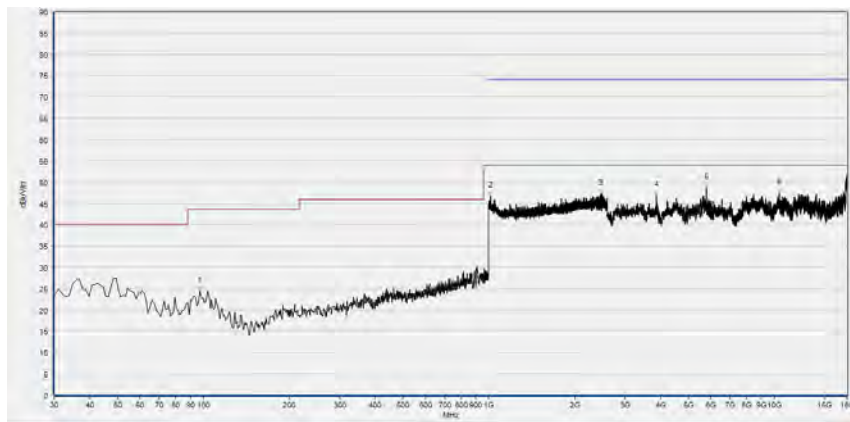


(Antenna Horizontal, 30MHz to 25GHz)



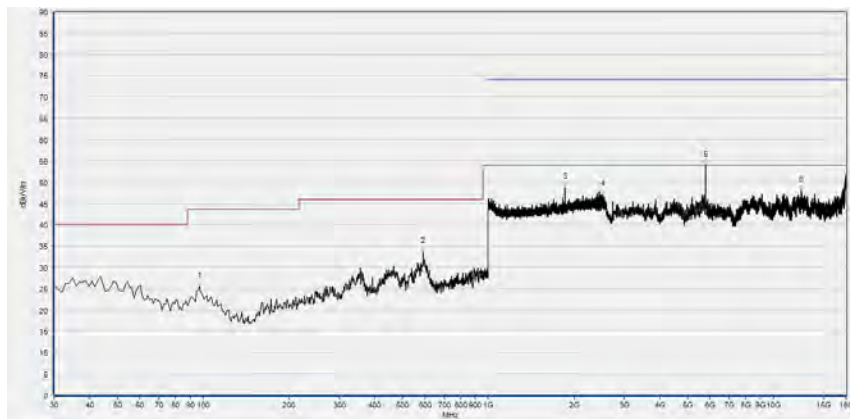
(Antenna Vertical, 30MHz to 25GHz)

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
96.997	24.41	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1012.804	46.76	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2460.220	47.20	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
3856.891	46.87	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5788.438	48.67	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
10412.442	47.35	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS

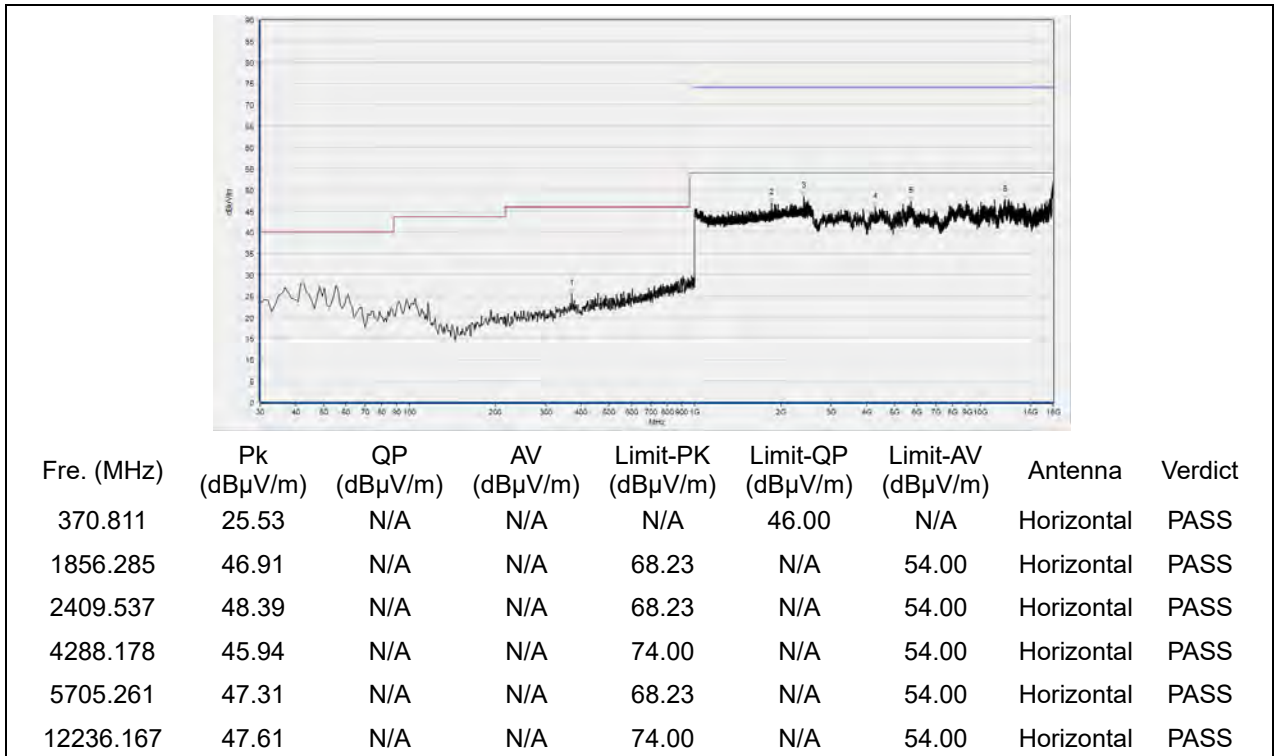
(Antenna Horizontal, 30MHz to 25GHz)



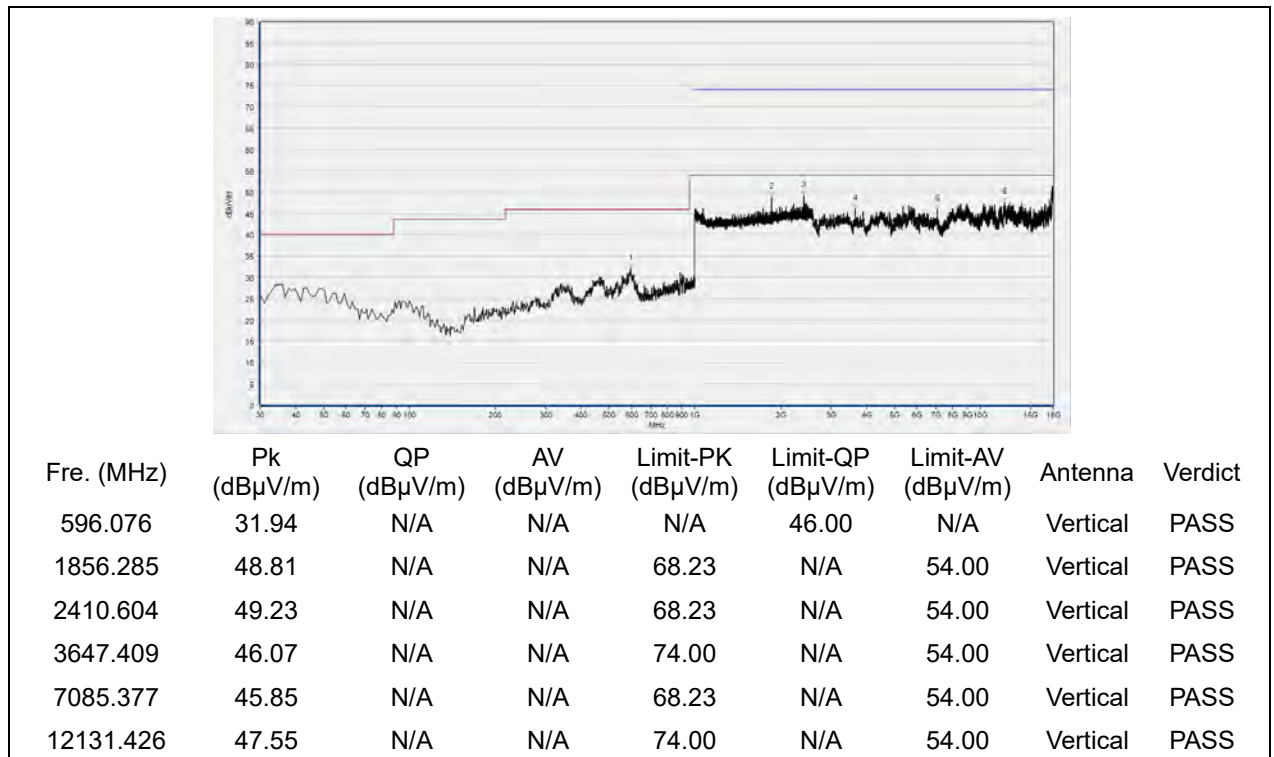
Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
96.997	25.46	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
591.221	33.63	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1856.285	48.71	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
2517.306	47.18	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
5782.600	53.75	N/A	42.47	68.23	N/A	54.00	Vertical	PASS
12522.665	48.03	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 165



(Antenna Horizontal, 30MHz to 25GHz)

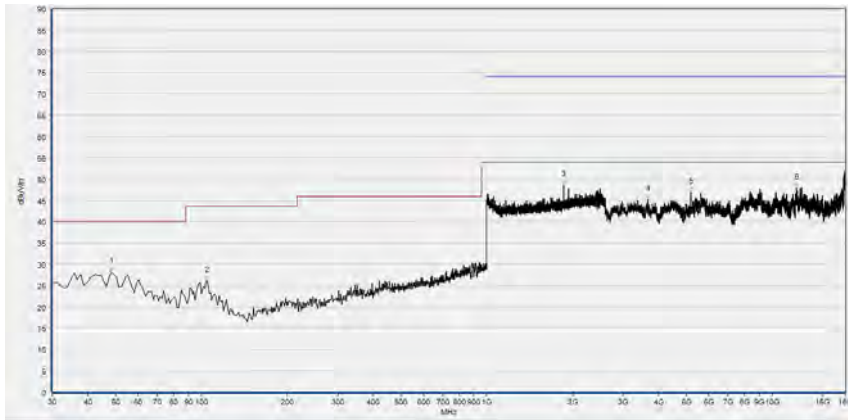


(Antenna Vertical, 30MHz to 25GHz)



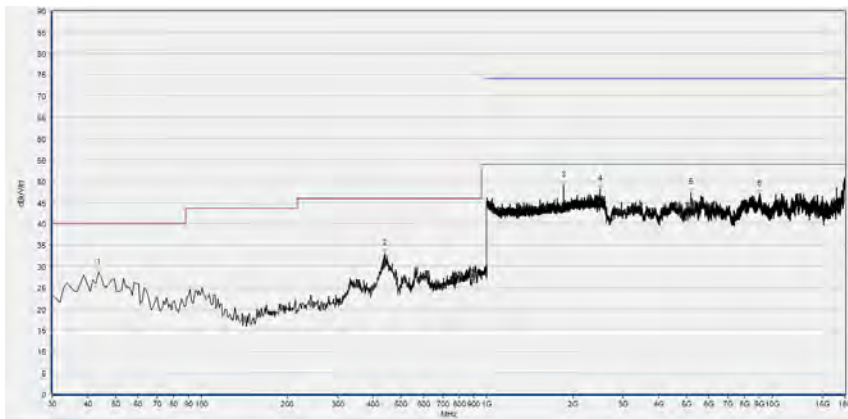
**802.11n (HT20) Test mode**

Plots 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
48.448	28.12	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
104.765	26.22	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1856.819	48.60	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
3659.732	45.21	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5178.476	46.96	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
12162.232	47.89	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

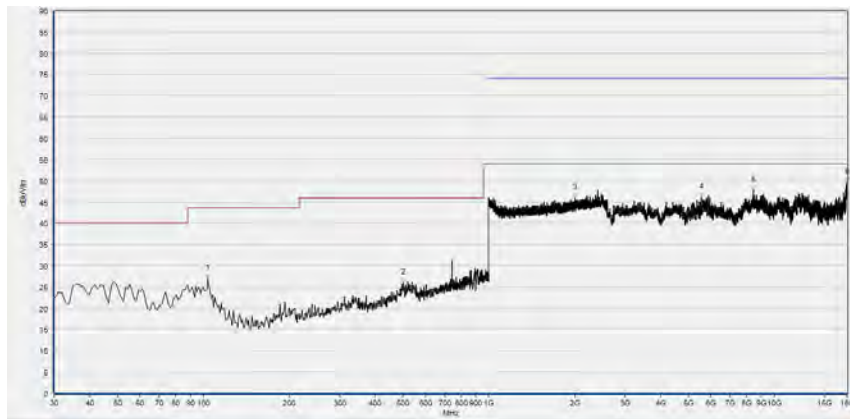
(Antenna Horizontal, 30MHz to 25GHz)



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
43.594	28.49	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
440.721	33.04	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1856.819	49.01	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
2490.097	48.14	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
5178.476	47.31	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
9004.601	46.98	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

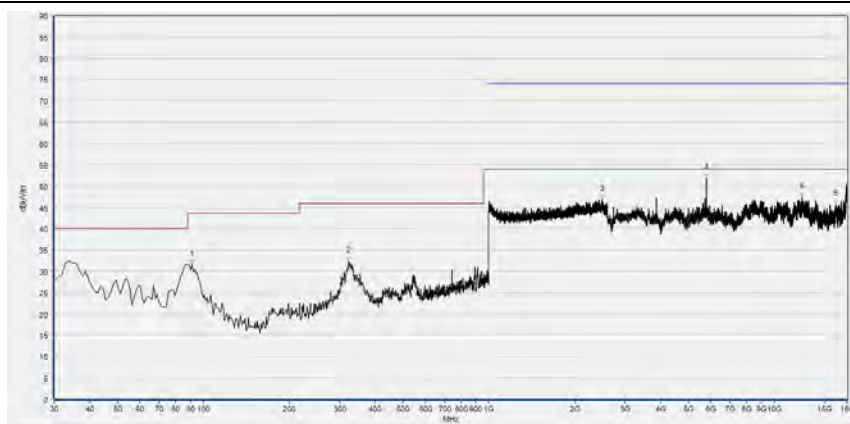
(Antenna Vertical, 30MHz to 25GHz)

Plots 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
103.794	26.91	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
500.921	26.00	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2007.269	45.93	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
5541.988	46.15	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
8437.768	47.81	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
17969.194	49.60	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

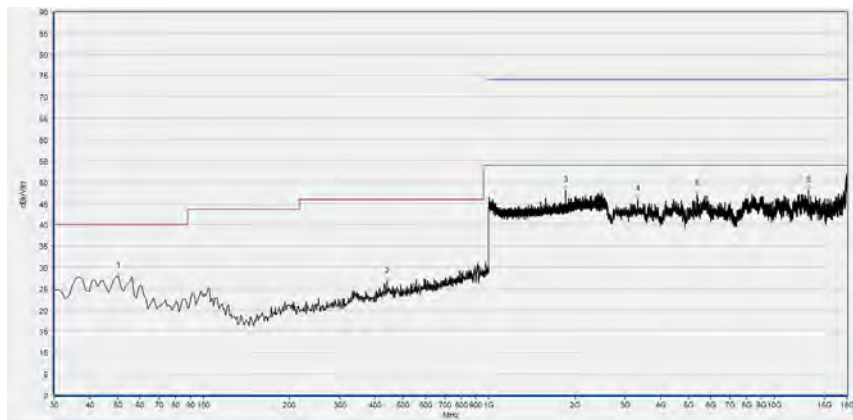
(Antenna Horizontal, 30MHz to 25GHz)



Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
91.171	31.43	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
323.233	32.39	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2490.630	46.85	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5782.276	51.73	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
12541.148	47.48	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
16419.644	45.74	N/A	N/A	68.23	N/A	54.00	Vertical	PASS

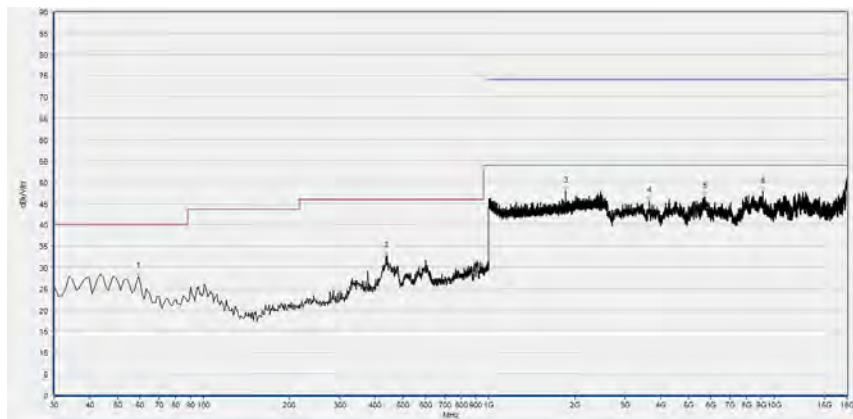
(Antenna Vertical, 30MHz to 25GHz)

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
50.390	27.78	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
438.779	26.57	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1856.819	48.08	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
3317.784	46.00	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
5372.555	47.14	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
13184.997	48.10	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS

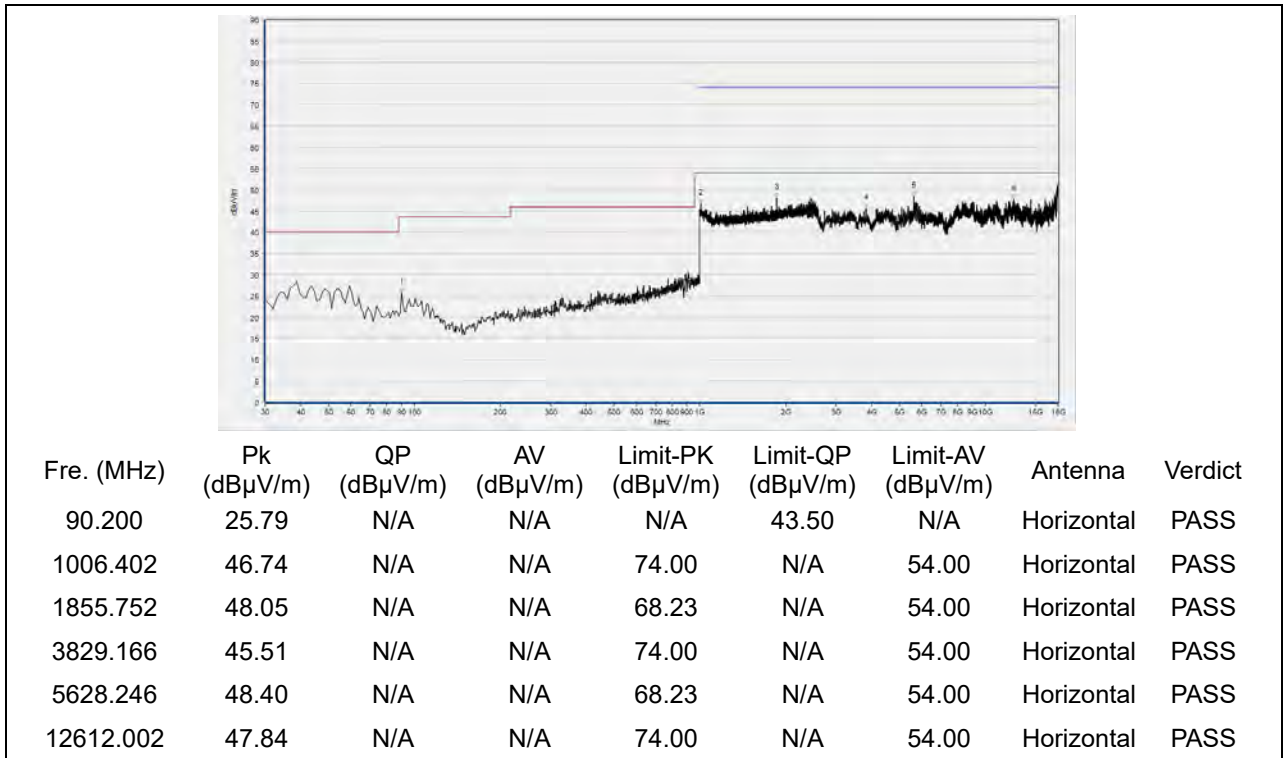
(Antenna Horizontal, 30MHz to 25GHz)



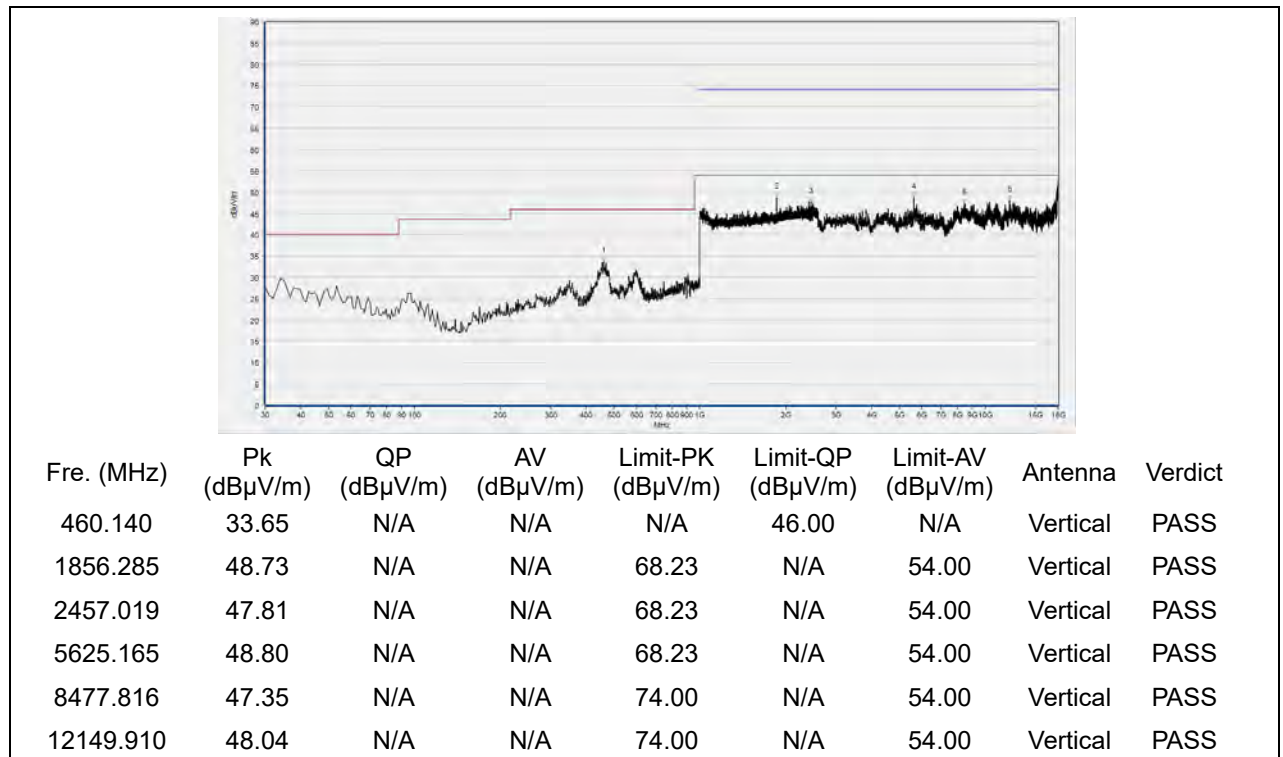
Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
59.129	27.90	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
436.837	32.75	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1856.819	47.99	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
3647.409	45.67	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5711.422	46.56	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
9127.826	47.69	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)

Plots for Channel = 149



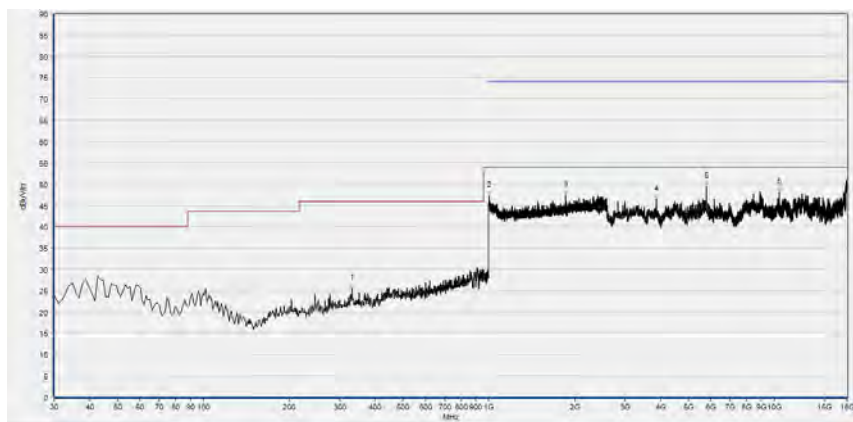
(Antenna Horizontal, 30MHz to 25GHz)



(Antenna Vertical, 30MHz to 25GHz)

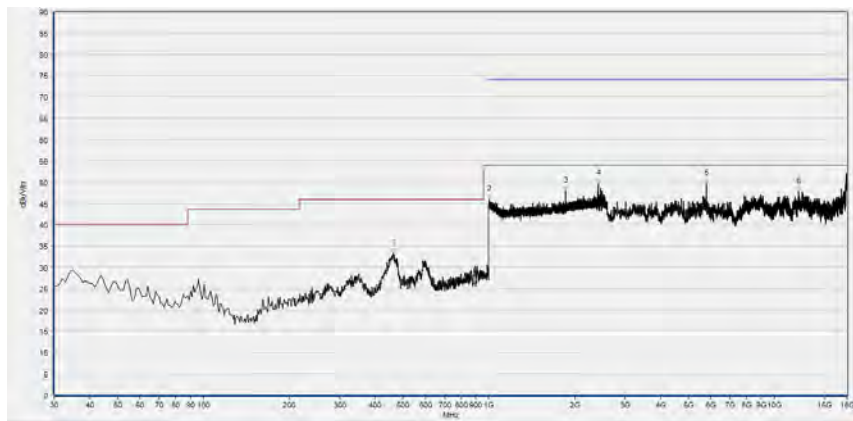


Plot for Channel = 157



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
331.972	25.42	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1004.802	47.28	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1855.752	47.42	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
3856.891	46.41	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5779.196	49.38	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
10409.362	48.07	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS

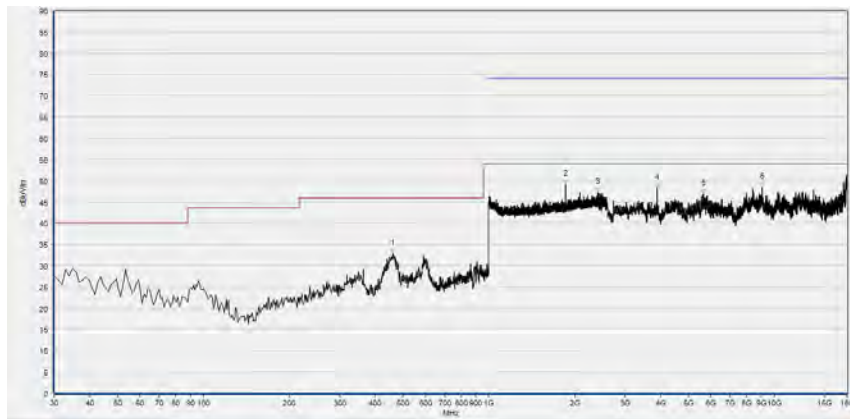
(Antenna Horizontal, 30MHz to 25GHz)



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
462.082	33.33	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1004.802	45.85	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1856.819	47.86	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
2415.939	49.64	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
5785.357	49.67	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
12156.071	47.83	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

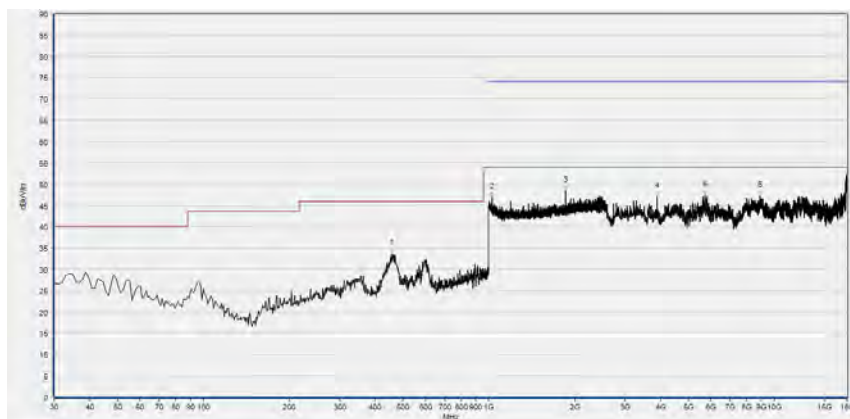
(Antenna Vertical, 30MHz to 25GHz)

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
461.111	32.80	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1856.819	49.16	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
2407.936	47.29	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
3884.617	48.27	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5637.487	46.99	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
9053.891	48.47	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 25GHz)

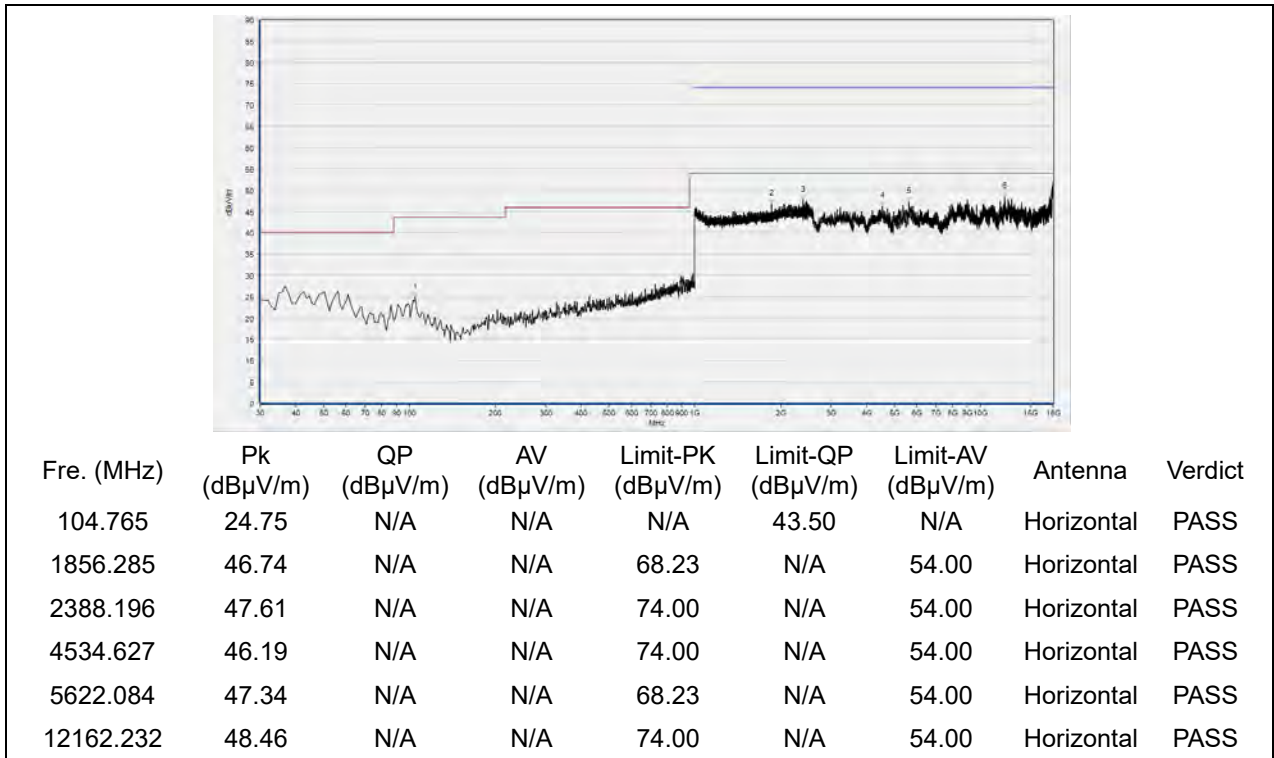


Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
458.198	33.66	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1026.142	46.97	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1856.285	48.41	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
3884.617	47.03	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5723.745	47.38	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
8915.263	47.29	N/A	N/A	68.23	N/A	54.00	Vertical	PASS

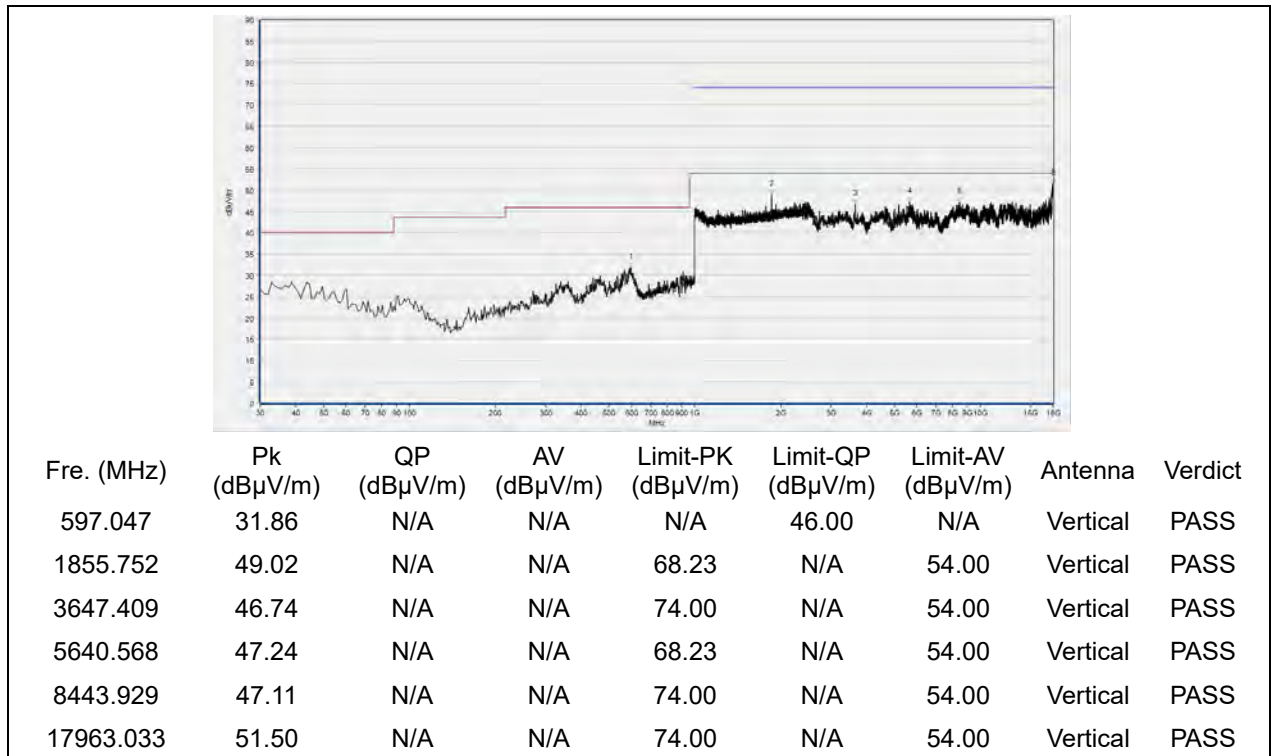
(Antenna Vertical, 30MHz to 25GHz)

**802.11n (HT40) Test mode**

Plots for Channel = 38

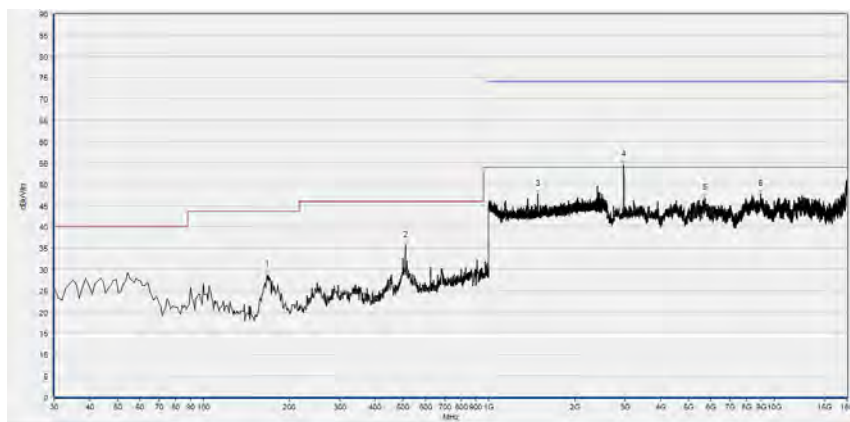


(Antenna Horizontal, 30MHz to 25GHz)



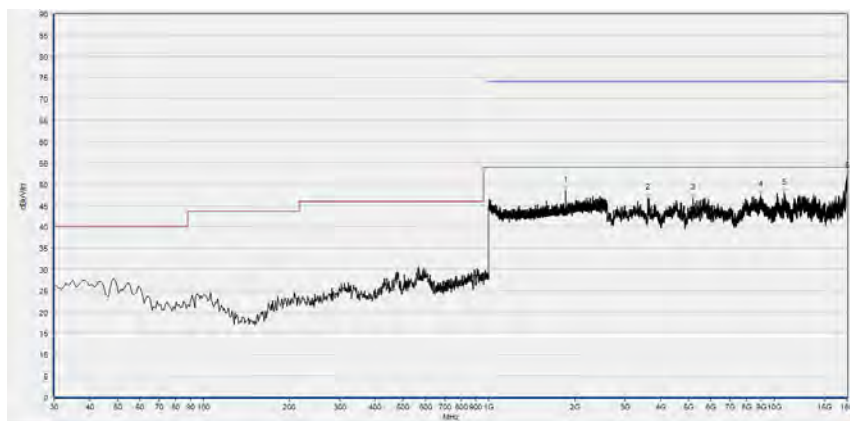
(Antenna Vertical, 30MHz to 25GHz)

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
1003.201	46.88	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1856.285	47.48	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
2409.537	47.57	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
4725.625	46.30	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
9097.019	47.94	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
17981.516	51.07	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

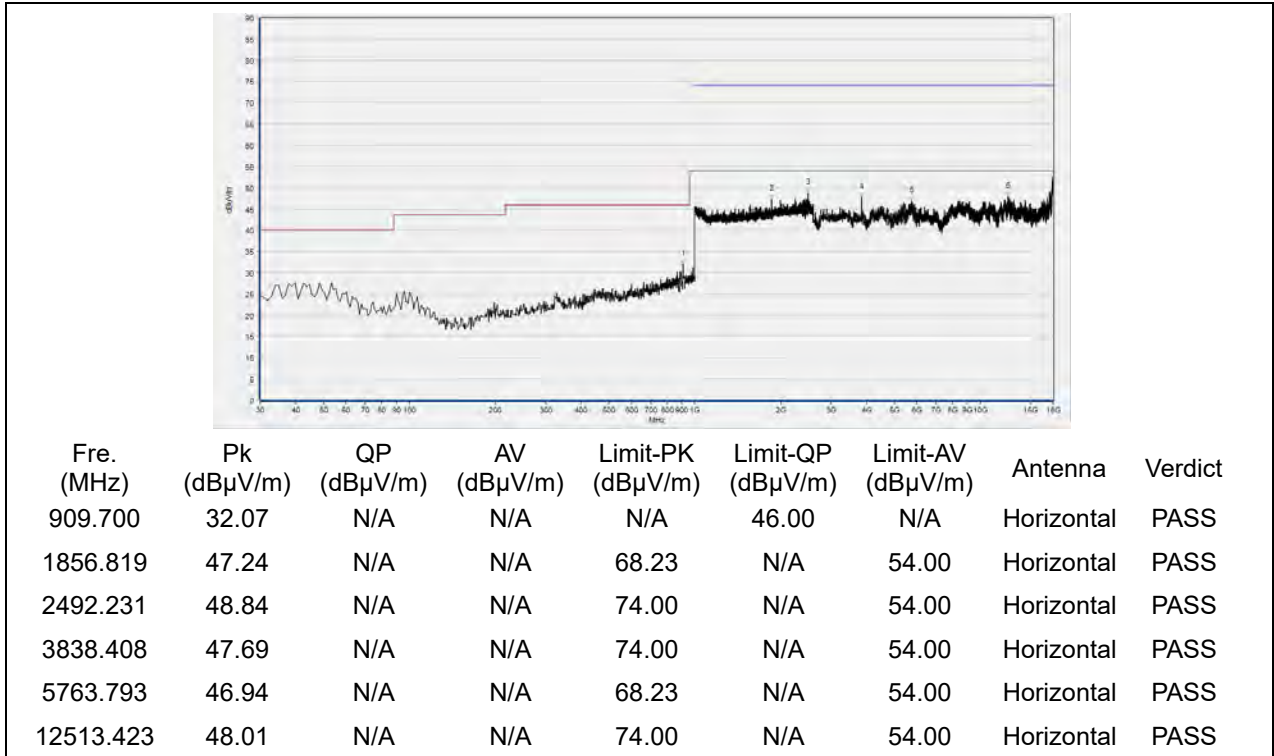
(Antenna Horizontal, 30MHz to 25GHz)



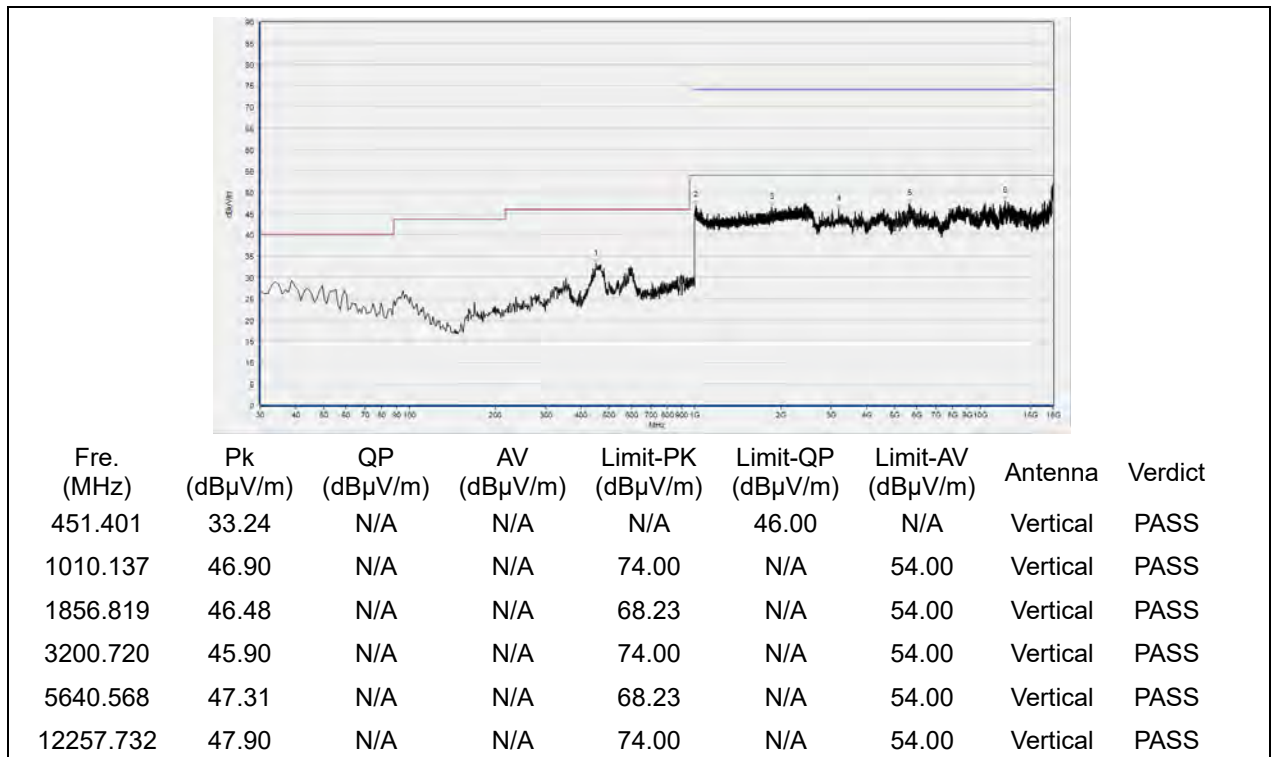
Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
1855.752	48.46	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
3601.200	46.73	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5181.556	46.83	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
8986.117	47.42	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
10816.003	47.87	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
17987.678	51.86	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)

Plot for Channel = 151

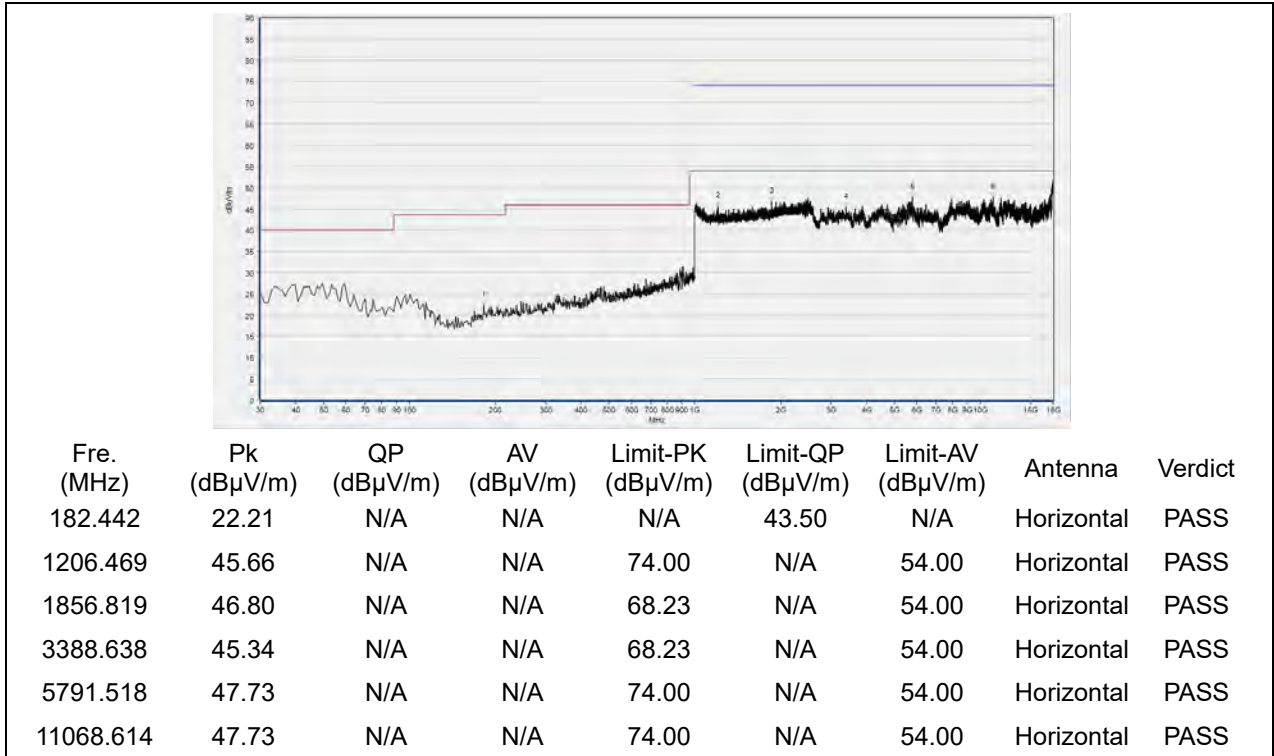


(Antenna Horizontal, 30MHz to 25GHz)

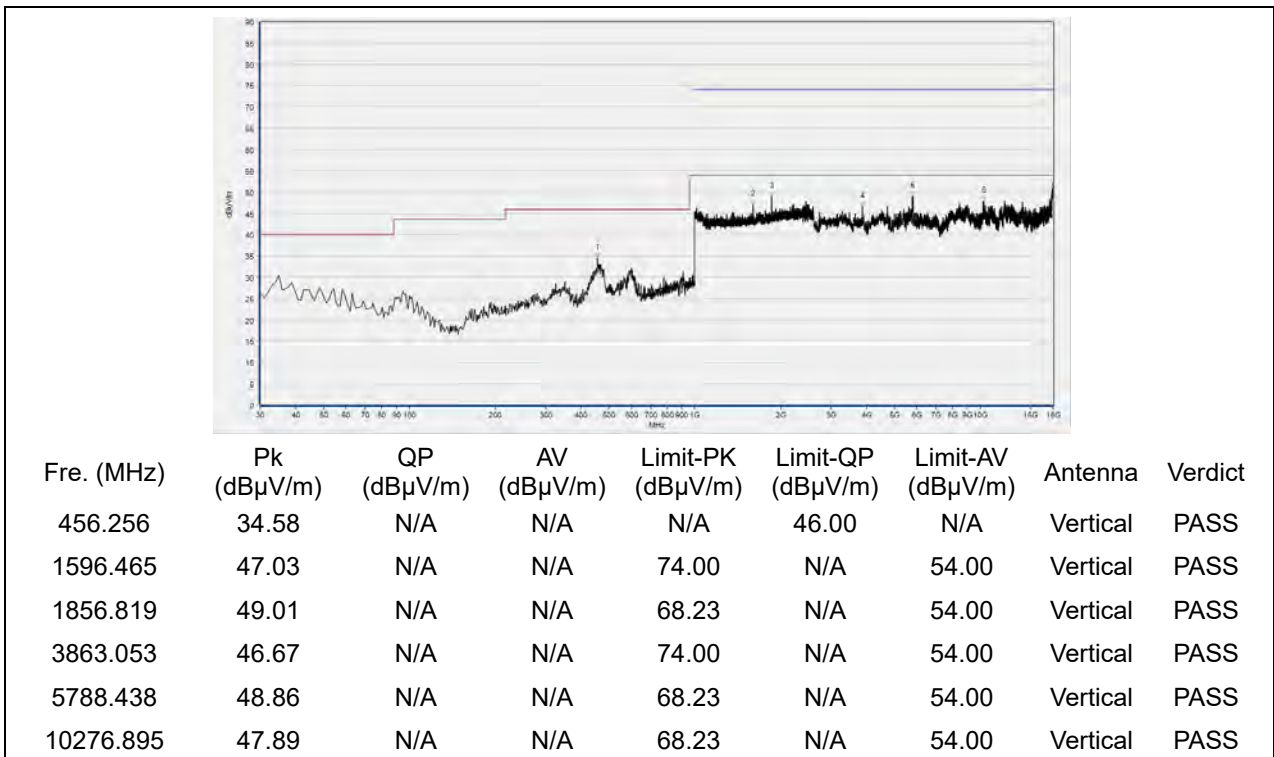


(Antenna Vertical, 30MHz to 25GHz)

Plots for Channel = 159



(Antenna Horizontal, 30MHz to 25GHz)

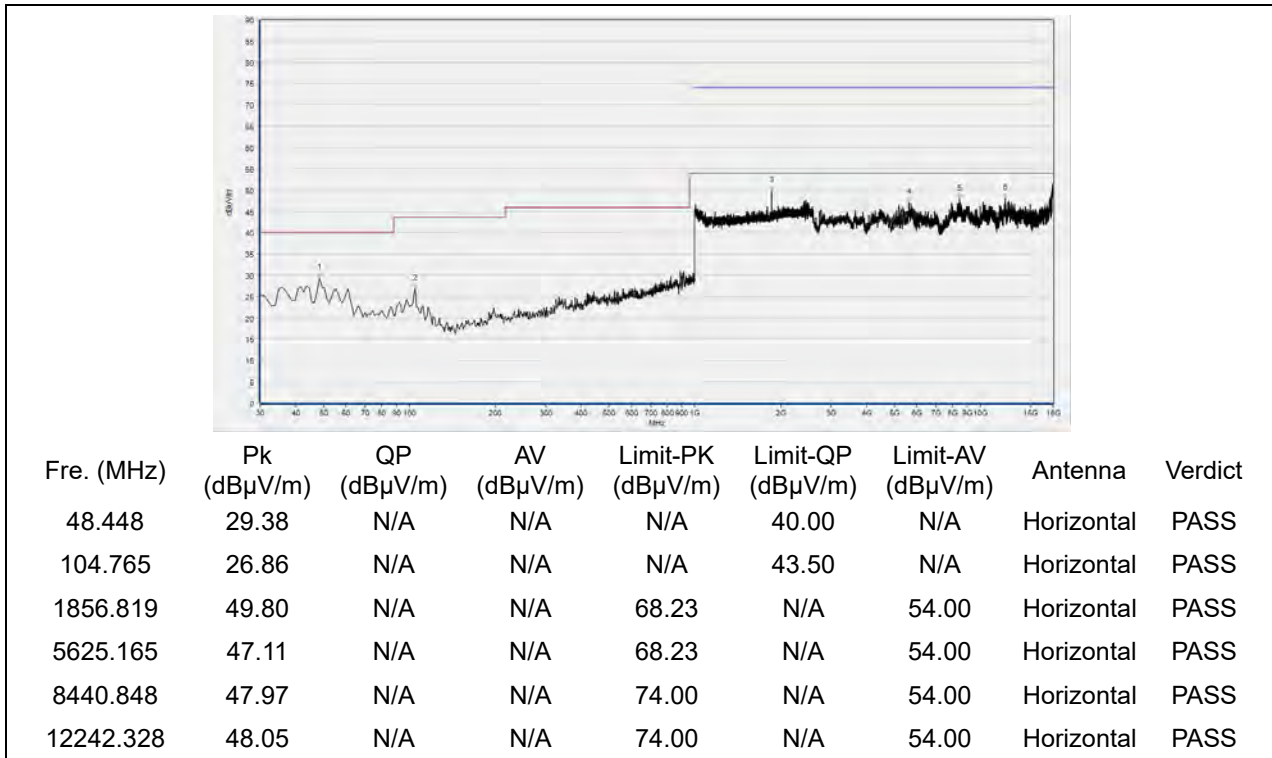


(Antenna Vertical, 30MHz to 25GHz)

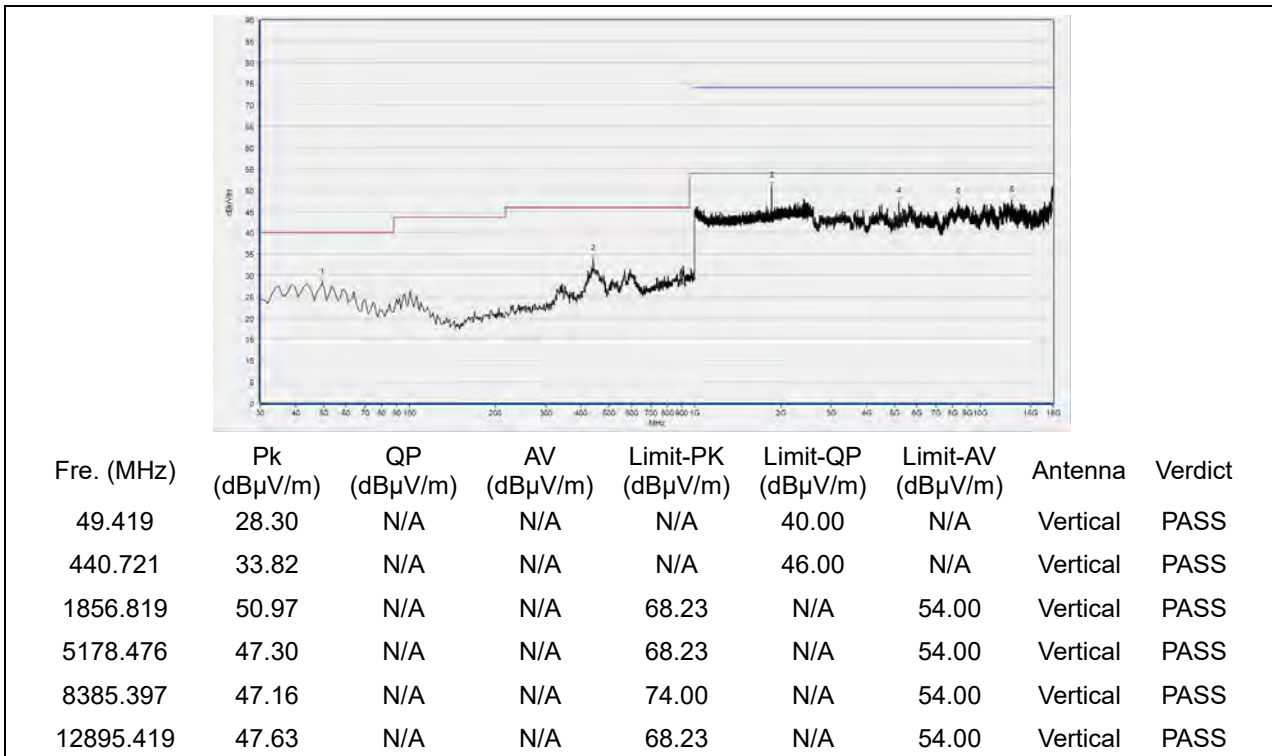


**802.11ac (VHT20) Test mode**

Plots for Channel = 36

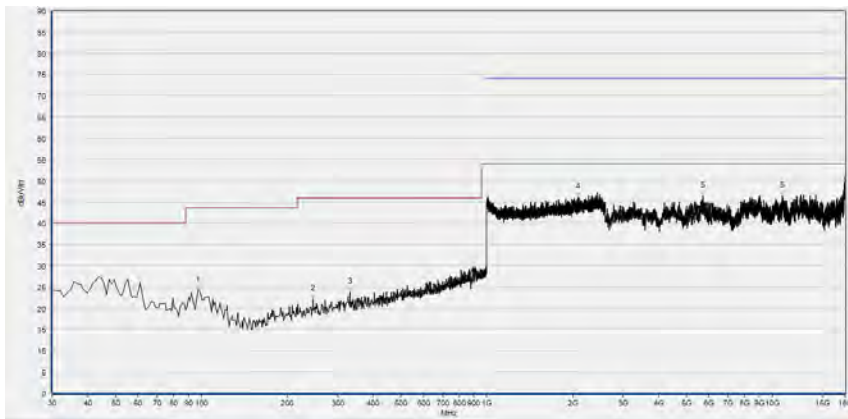


(Antenna Horizontal, 30MHz to 25GHz)



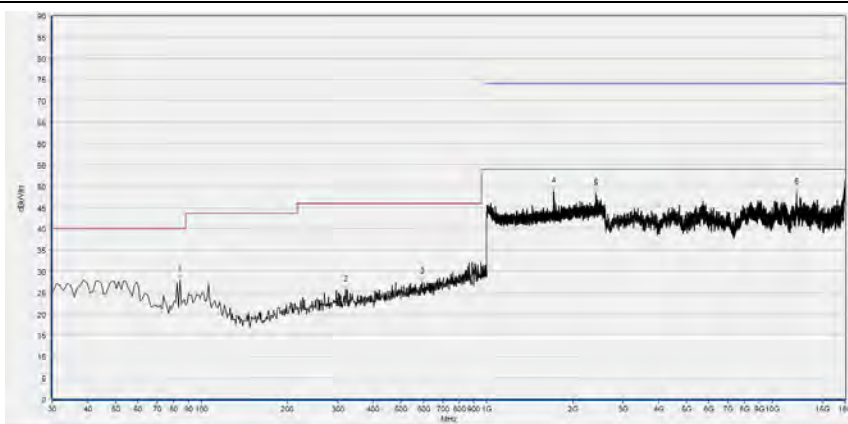
(Antenna Vertical, 30MHz to 25GHz)

Plots 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
96.997	24.20	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
246.527	22.07	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
331.001	23.86	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2085.162	46.04	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
5720.664	46.48	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
10862.212	46.39	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 25GHz)

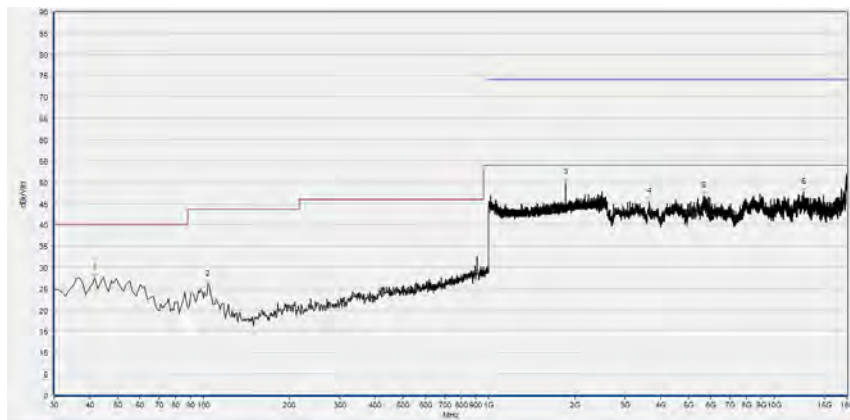


Fre. (MHz)	Pk (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
84.374	27.98	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
320.320	25.63	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
594.134	27.52	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1711.170	48.71	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
2414.872	48.29	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
12143.749	48.40	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)

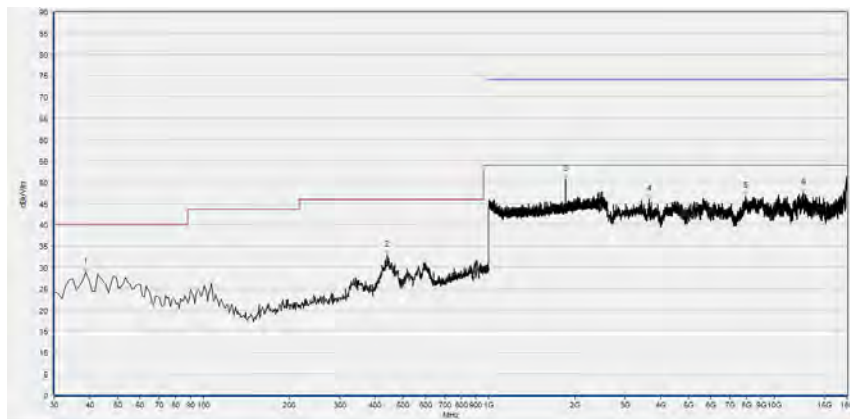


Plot for Channel = 48



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
41.652	27.43	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
103.794	25.90	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1856.819	49.70	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
3647.409	45.48	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5643.649	46.72	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
12630.486	47.63	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

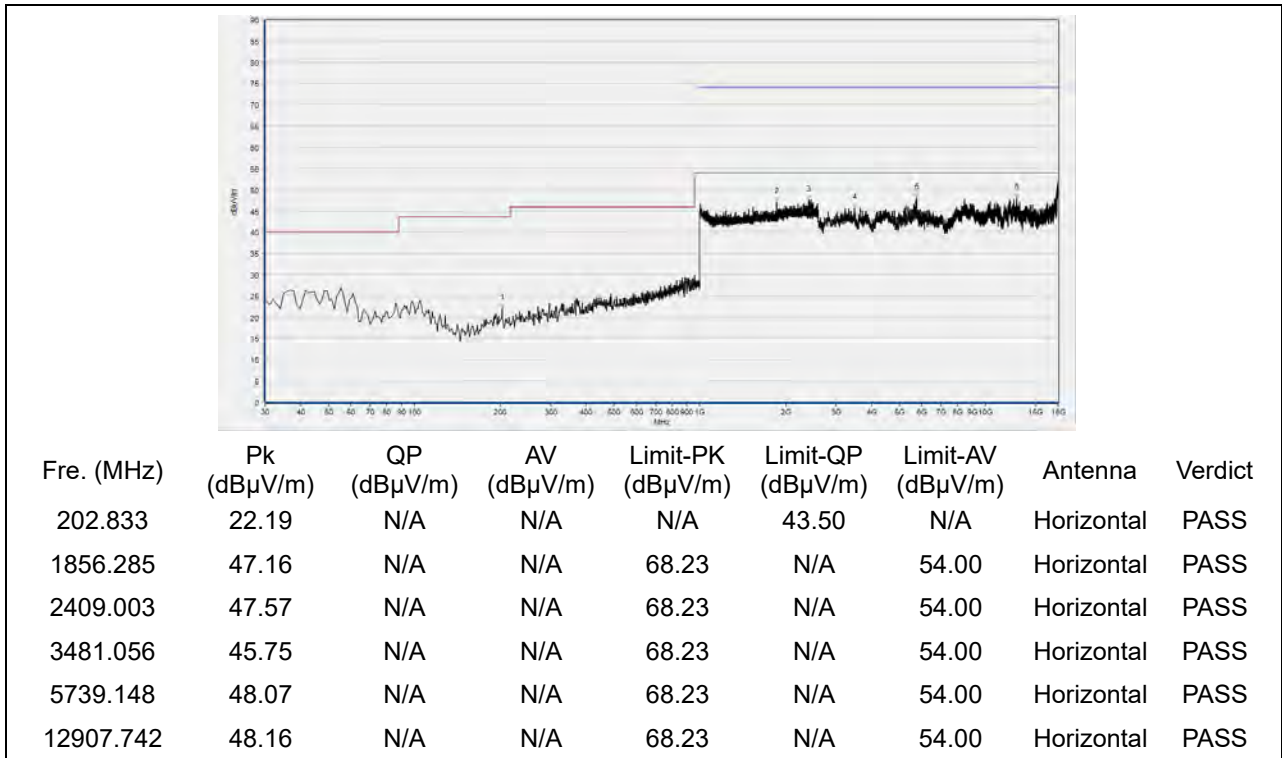
(Antenna Horizontal, 30MHz to 25GHz)



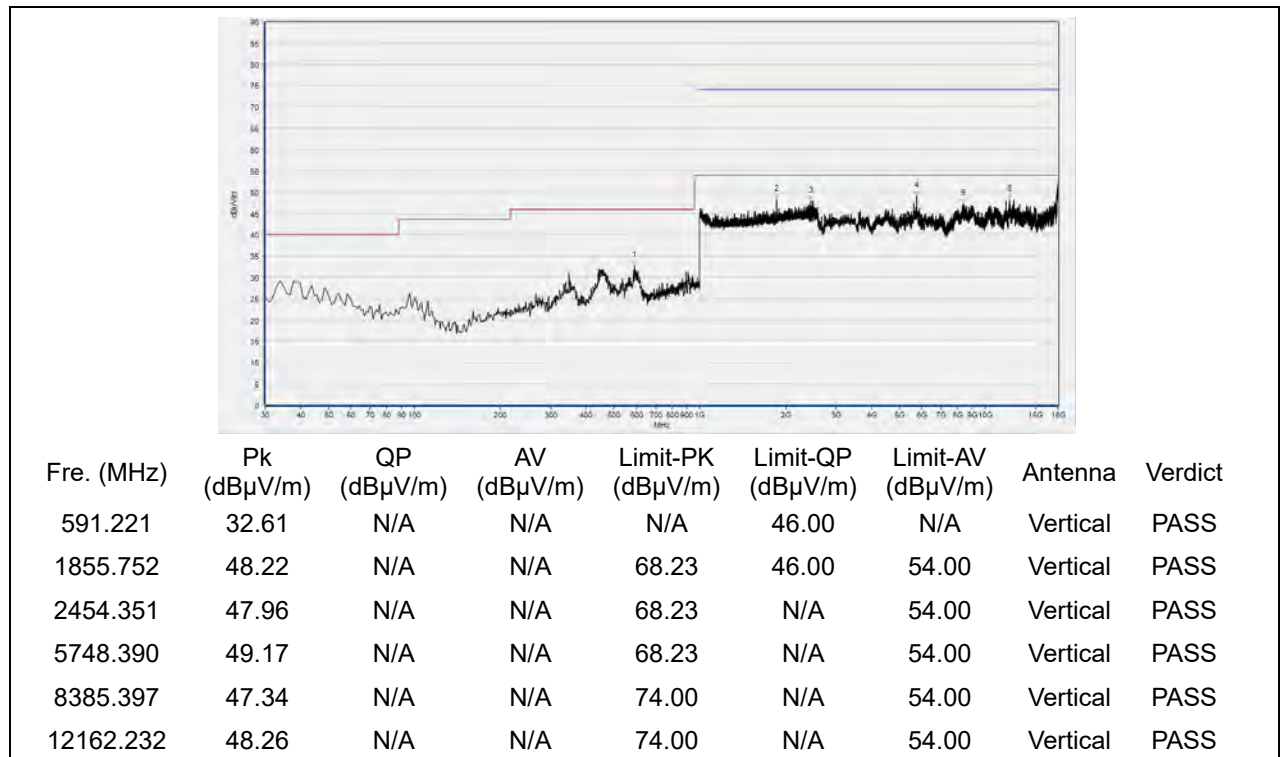
Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
38.739	28.90	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
440.721	32.89	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1856.819	50.68	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
3647.409	45.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7926.385	46.83	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
12630.486	47.35	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)

Plots for Channel = 149

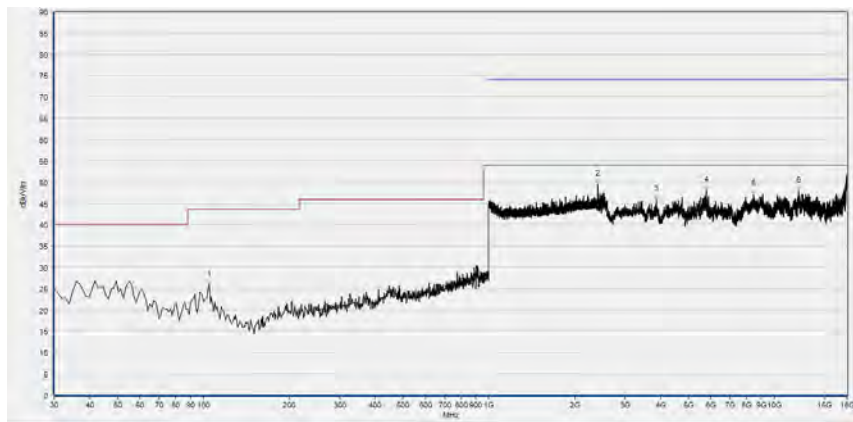


(Antenna Horizontal, 30MHz to 25GHz)



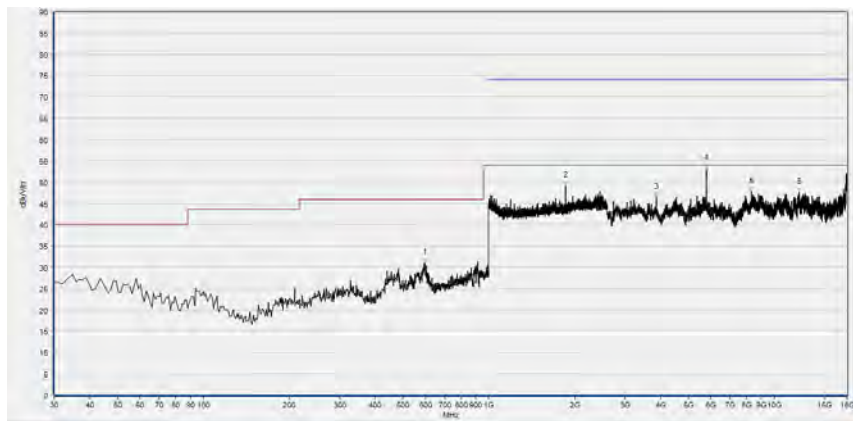
(Antenna Vertical, 30MHz to 25GHz)

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
104.765	25.90	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2410.070	49.46	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
3856.891	45.95	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5782.276	48.14	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
8440.848	47.01	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12156.071	47.94	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

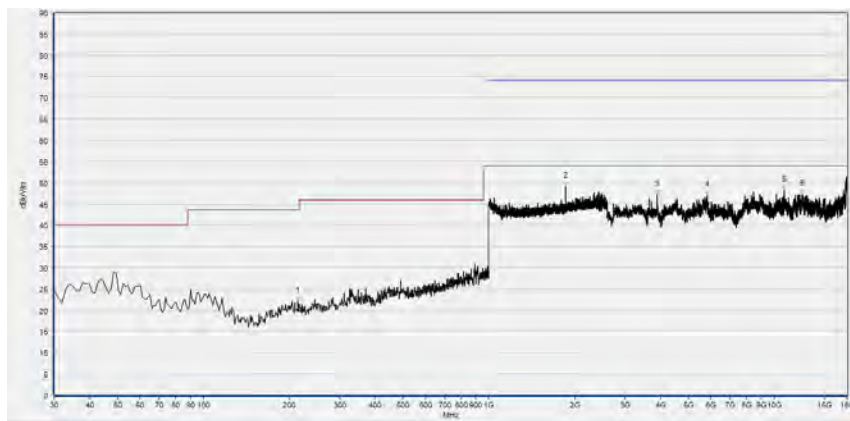
(Antenna Horizontal, 30MHz to 25GHz)



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
597.047	30.94	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1856.285	49.07	N/A	N/A	68.23	43.50	54.00	Vertical	PASS
3856.891	46.51	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5780.400	51.76	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
8320.704	47.68	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12239.248	47.63	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

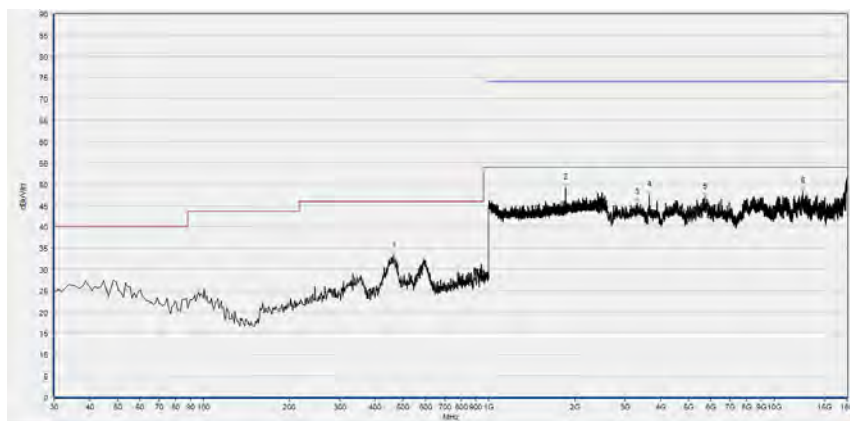
(Antenna Vertical, 30MHz to 25GHz)

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
214.484	22.05	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
1856.285	49.08	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
3884.617	47.07	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5822.324	47.15	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
10809.842	48.30	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12519.584	47.27	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 25GHz)



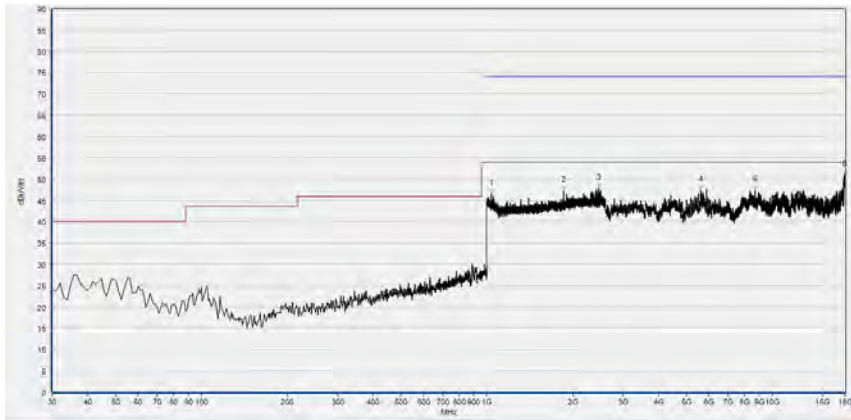
Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
463.053	33.14	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1856.285	49.05	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
3308.542	45.56	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
3647.409	47.51	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5714.503	46.89	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
12624.325	48.29	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)



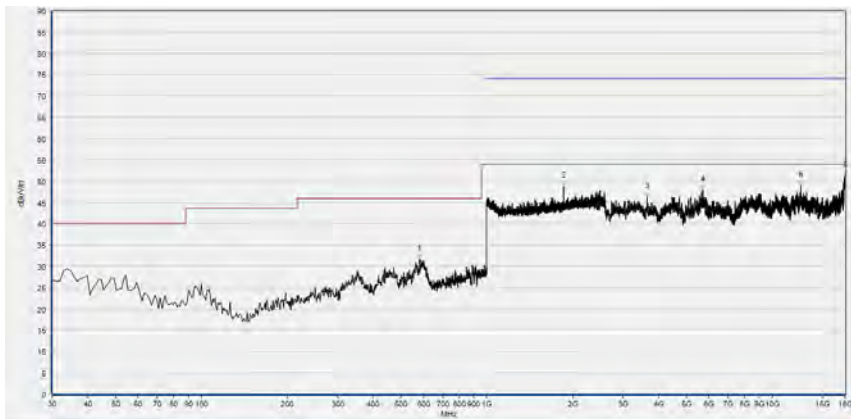
**802.11ac (VHT40) Test mode**

Plots 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
1036.279	46.61	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
1855.752	47.30	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
2460.754	47.93	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
5619.004	47.40	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
8724.265	47.47	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
17941.468	51.05	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

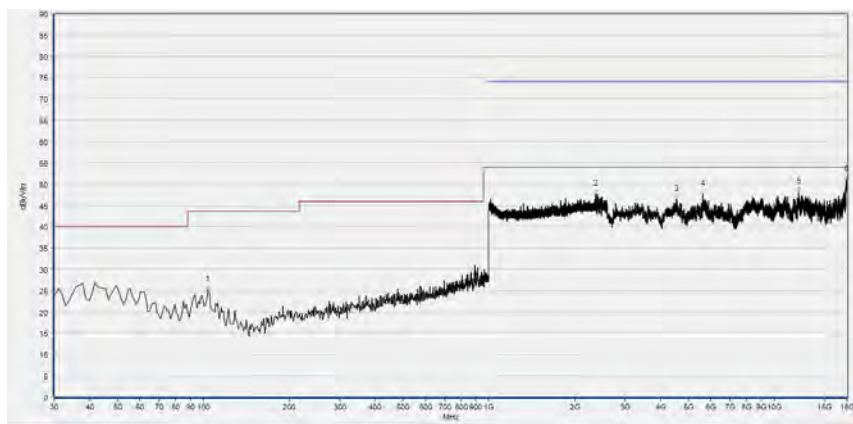
(Antenna Horizontal, 30MHz to 25GHz)



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
579.570	31.67	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1856.285	48.79	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
3647.409	46.33	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5723.745	47.95	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
12621.244	48.90	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
17959.952	51.23	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

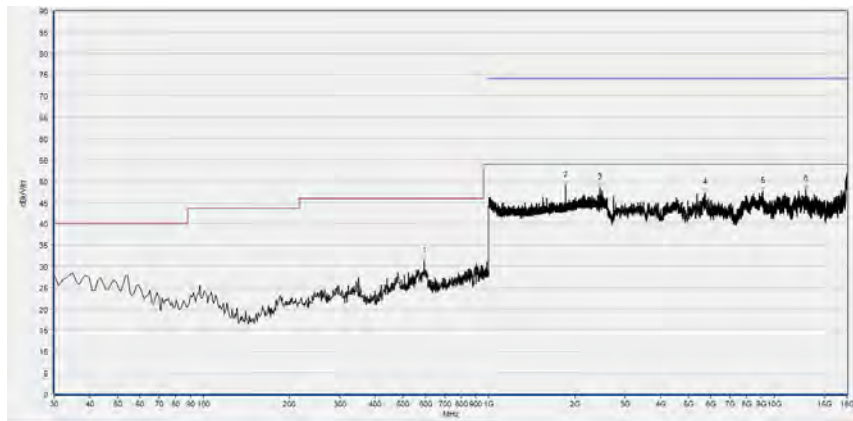
(Antenna Vertical, 30MHz to 25GHz)

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
103.794	25.12	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
2364.722	47.65	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4550.030	46.45	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5625.165	47.61	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
12146.829	48.15	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
17922.985	51.14	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

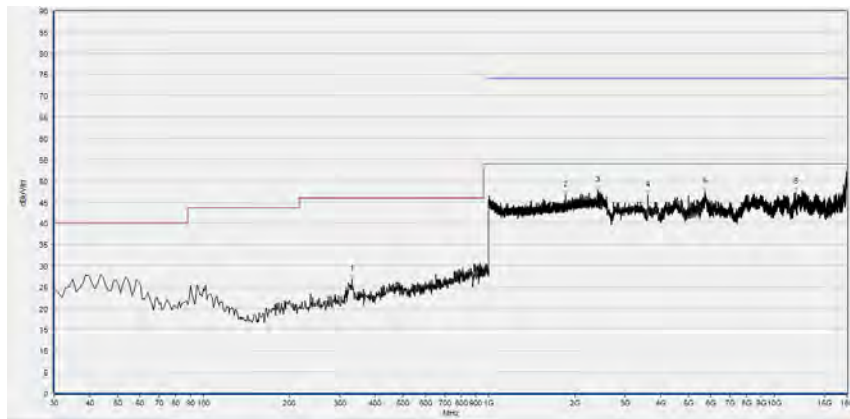
(Antenna Horizontal, 30MHz to 25GHz)



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
593.163	31.15	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1856.285	48.95	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
2455.952	48.48	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
5723.745	47.21	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
9103.181	47.65	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12920.064	48.08	N/A	N/A	68.23	N/A	54.00	Vertical	PASS

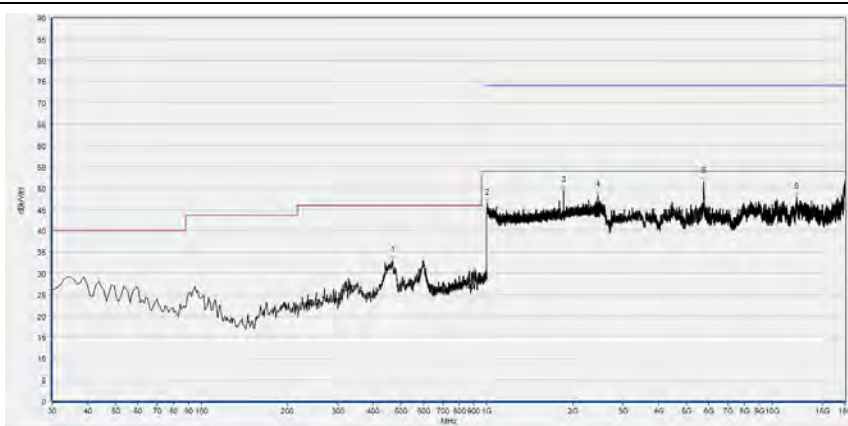
(Antenna Vertical, 30MHz to 25GHz)

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
331.001	26.84	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1856.285	46.59	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
2414.872	47.79	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
3610.442	46.59	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5717.584	47.41	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
11872.655	47.24	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

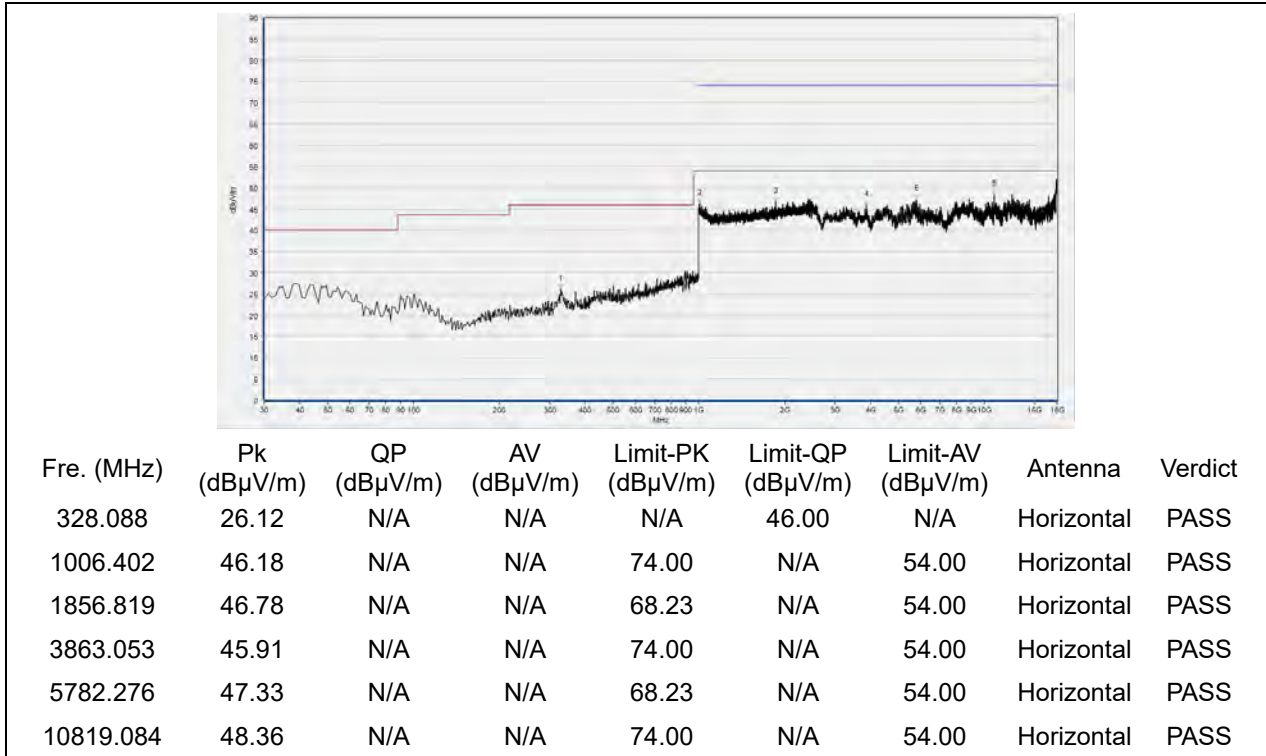
(Antenna Horizontal, 30MHz to 25GHz)



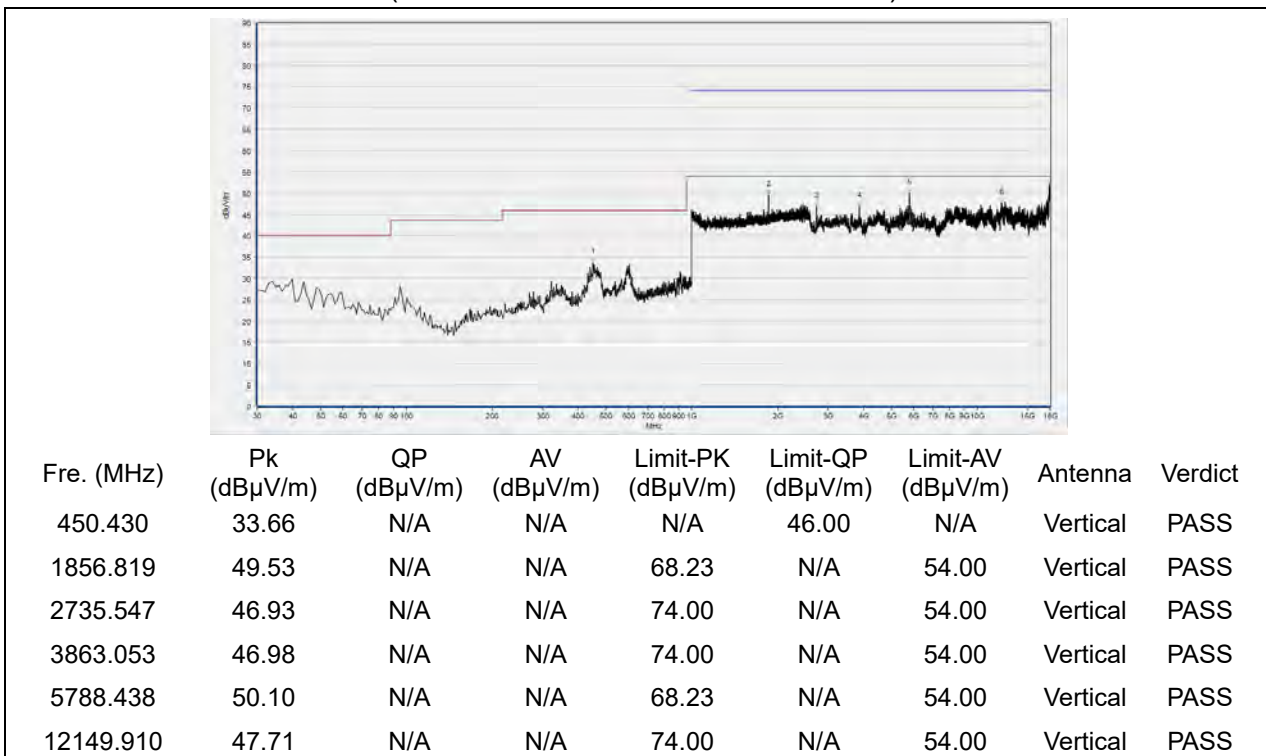
Fre. (MHz)	Pk (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
468.879	32.96	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1004.268	46.36	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1856.819	49.37	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
2455.418	48.23	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
5757.632	51.44	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
12162.232	48.00	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)

Plots for Channel = 159



(Antenna Horizontal, 30MHz to 25GHz)



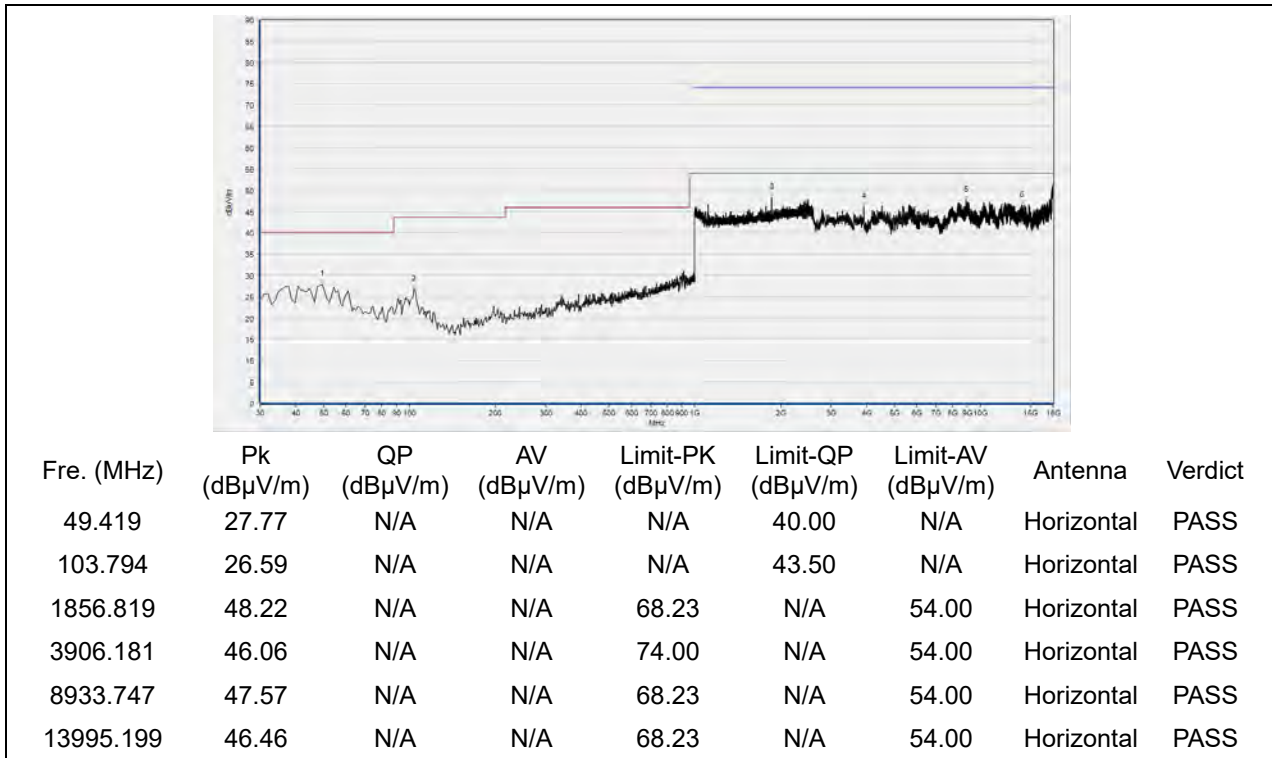
(Antenna Vertical, 30MHz to 25GHz)



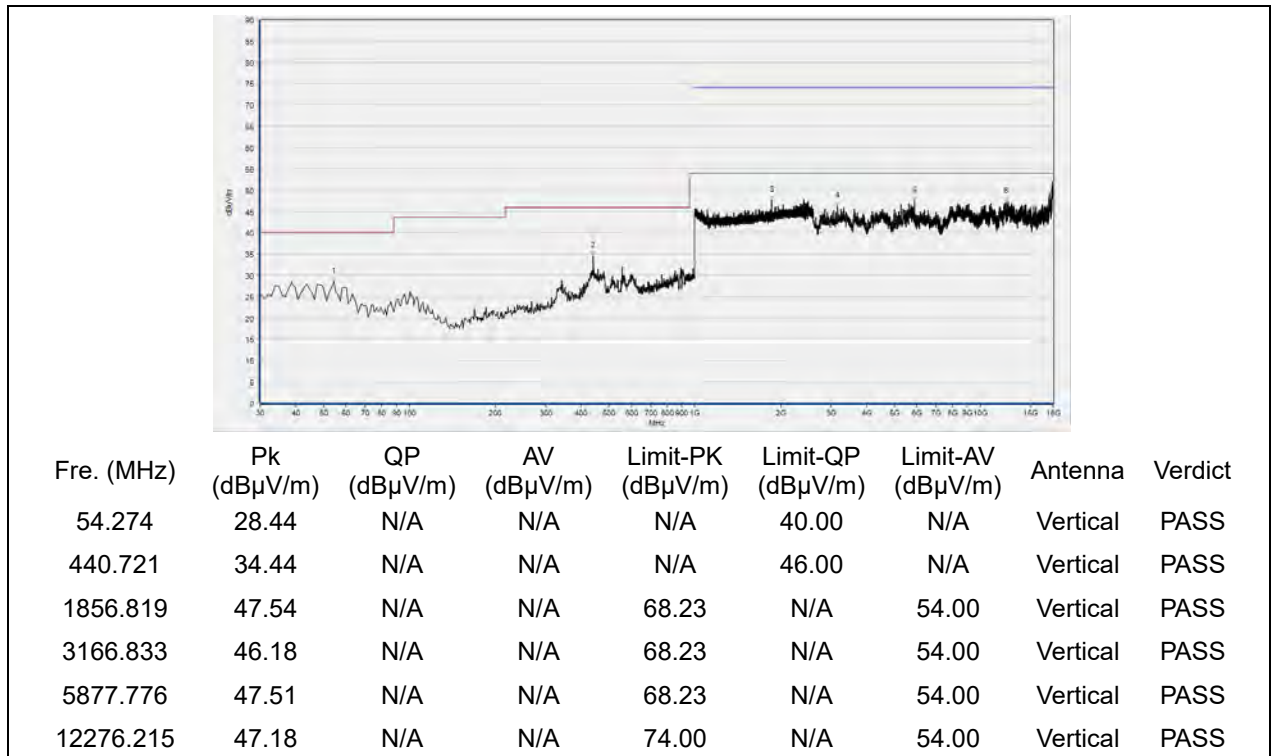


**802.11ac (VHT80) Test mode**

Plots for Channel = 42

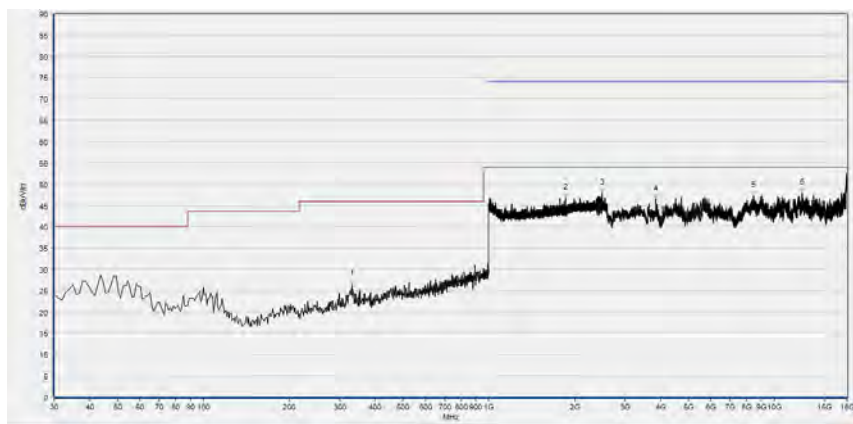


(Antenna Horizontal, 30MHz to 25GHz)



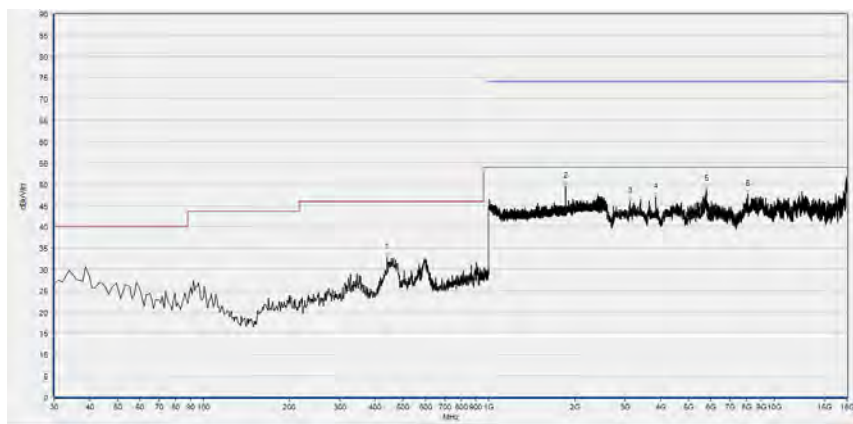
(Antenna Vertical, 30MHz to 25GHz)

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
331.001	26.49	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1856.819	46.71	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
2496.499	47.90	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
3850.730	46.42	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8474.735	47.27	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12528.826	47.90	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 25GHz)



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
440.721	32.72	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1856.819	49.41	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
3117.544	45.95	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
3850.730	46.92	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5779.196	48.70	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
8065.013	47.68	N/A	N/A	68.23	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 25GHz)



## 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 (PSD)	$\pm 2.22\text{dB}$
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

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

### 2. Identification of the Responsible Testing Location

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

### 3. Facilities and Accreditations

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



#### 4. Test Equipments Utilized

##### 4.1 Conducted Test Equipments

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Cal. Due
Attenuator 1	(N/A)	10dB	Resnet	2018.04.17	2019.04.16
EXA Signal Analyzer	MY53470836	N9010A	Agilent	2018.11.06	2019.11.05
USB Wideband Power Sensor	MY54210011	U2021XA	Agilent	2018.04.17	2019.04.16
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	(N/A)	HUT705P	CHONGQING HANBA EXPERIMENTAL EQUIPMENT CO.,LTD	2018.04.17	2019.04.16
Computer	T430i	Think Pad	Lenovo	N/A	N/A

##### 4.2 Conducted Emission Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Cal. Due
Receiver	MY56400093	N9038A	KEYSIGHT	2018.05.08	2019.05.07
LISN	812744	NSLK 8127	Schwarzbeck	2018.05.08	2019.05.07
Pulse Limiter (20dB)	9391	VTSD 9561-D	Schwarzbeck	2018.05.08	2019.05.07
Coaxial cable(BNC)	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	V 1.0

**4.4 Radiated Test Equipments**

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Cal. Due
Receiver	MY54130016	N9038A	Agilent	2018.08.04	2019.08.03
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2018.05.18	2019.05.17
Test Antenna - Horn	9170C-531	BBHA9170	Schwarzbeck	2018.03.03	2019.03.02
Test Antenna - Loop	1519-022	FMZB1519	Schwarzbeck	2018.08.06	2019.08.05
Test Antenna - Horn	01774	BBHA 9120D	Schwarzbeck	2018.08.02	2019.08.01
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	MA02	TS-PR18	Rohde& Schwarz	2018.05.08	2019.05.07
18-26.5GHz pre-Amplifier	MA03	TS-PR18	Rohde& Schwarz	2018.05.08	2019.05.07
26GHz -40GHz pre-Amplifier	MA05	BBV9721	Rohde& Schwarz	2018.05.08	2019.05.07
Notch Filter	N/A	WRCG-5150-5350	Wainwright	2018.12.01	2019.11.30
Notch Filter	N/A	WRCG-5725-5850	Wainwright	2018.12.01	2019.11.30
Anechoic Chamber	N/A	9m*6m*6m	CRT	2017.11.19	2020.11.18

END OF REPORT