



(PEAK,Channel165, 802.11a)



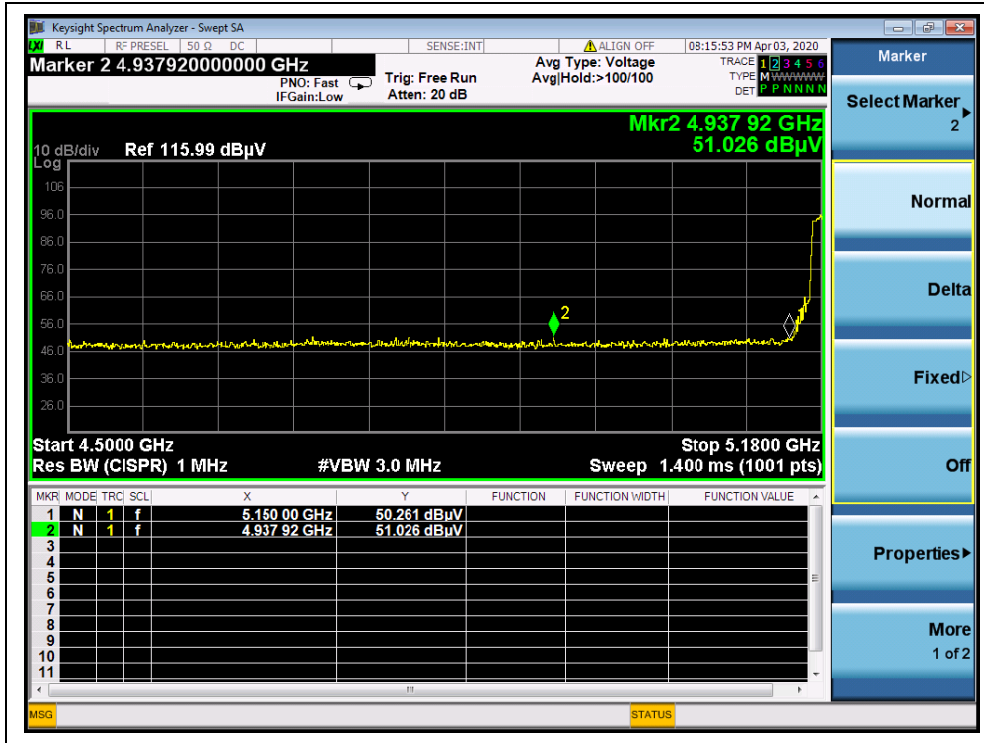
(AVG,Channel 165,802.11a)

**802.11n (HT20) Test mode****A. Test Verdict:**

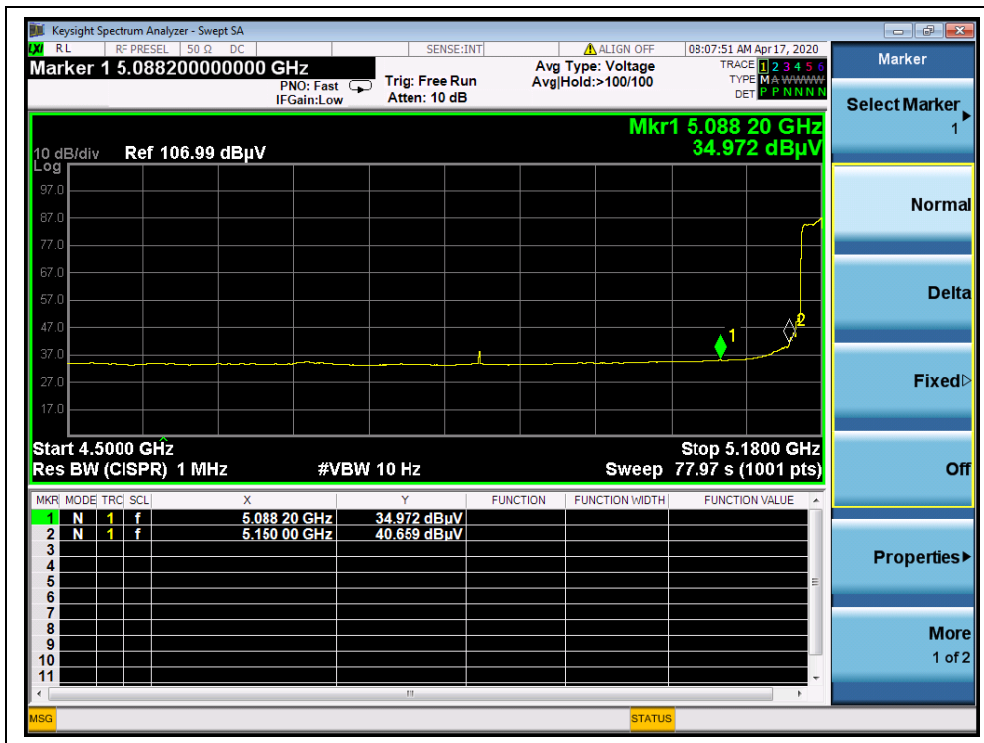
Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dBuV)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Verdict
		PK/ AV						
36	4937.92	PK	51.03	-26.92	32.20	56.31	74	PASS
36	5150.00	AV	40.66	-26.92	32.20	45.94	54	PASS
64	5358.92	PK	43.75	-26.80	32.20	49.15	74	PASS
64	5350.00	AV	33.80	-26.80	32.20	39.2	54	PASS
100	5432.99	PK	44.38	-26.64	32.20	49.94	74	PASS
100	5470.00	AV	34.29	-26.64	32.20	39.85	54	PASS
144	5738.70	PK	46.61	-26.64	32.20	52.17	68.23	PASS
144	5749.80	AV	34.62	-26.64	32.20	40.18	54	PASS
149	5725.00	PK	50.02	-26.23	32.20	55.99	122.23	PASS
149	5725.00	AV	37.33	-26.23	32.20	43.3	54	PASS
165	5850.00	PK	47.22	-26.23	32.20	53.19	122.23	PASS
165	5850.00	AV	35.34	-26.23	32.20	41.31	54	PASS



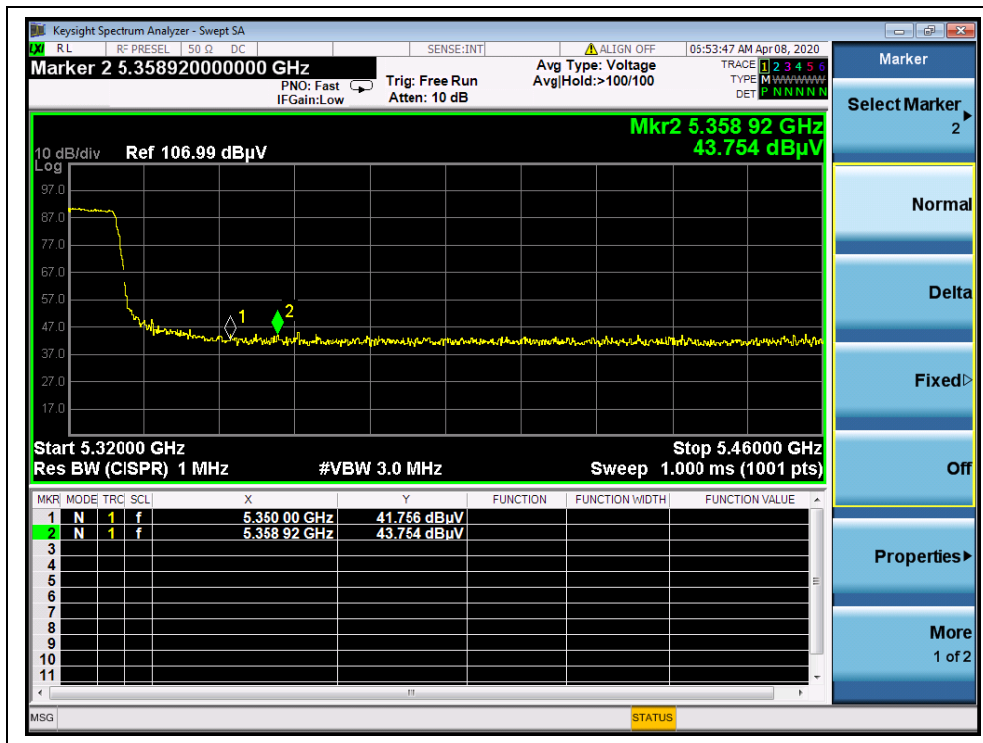
B. Test Plots:



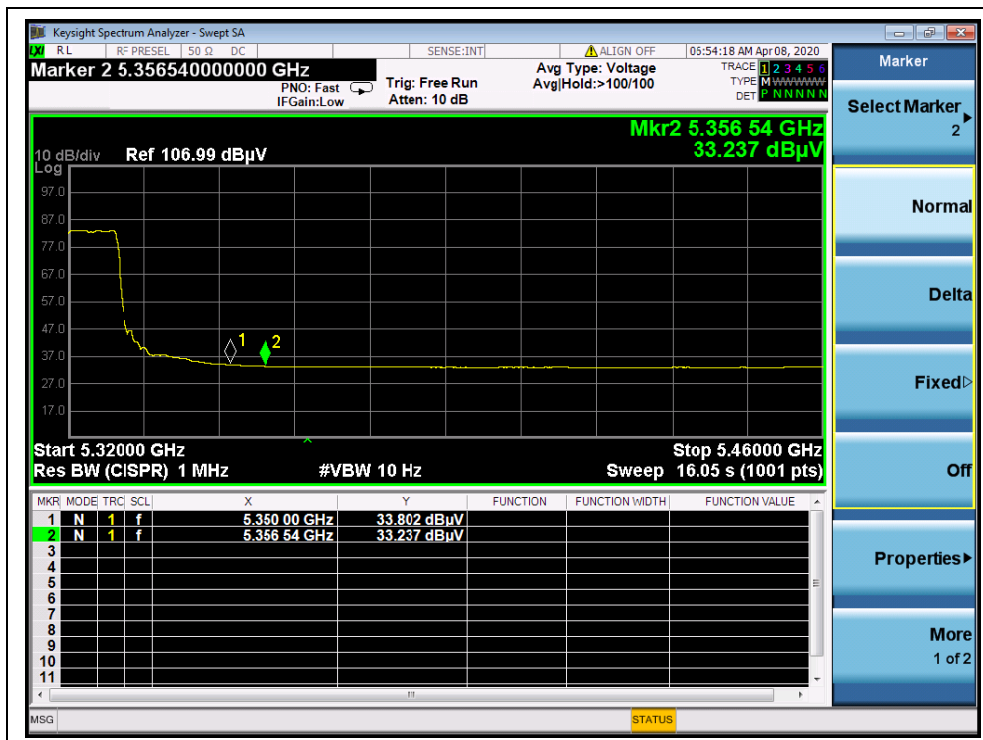
(PEAK,Channel 36,802.11n (HT20))



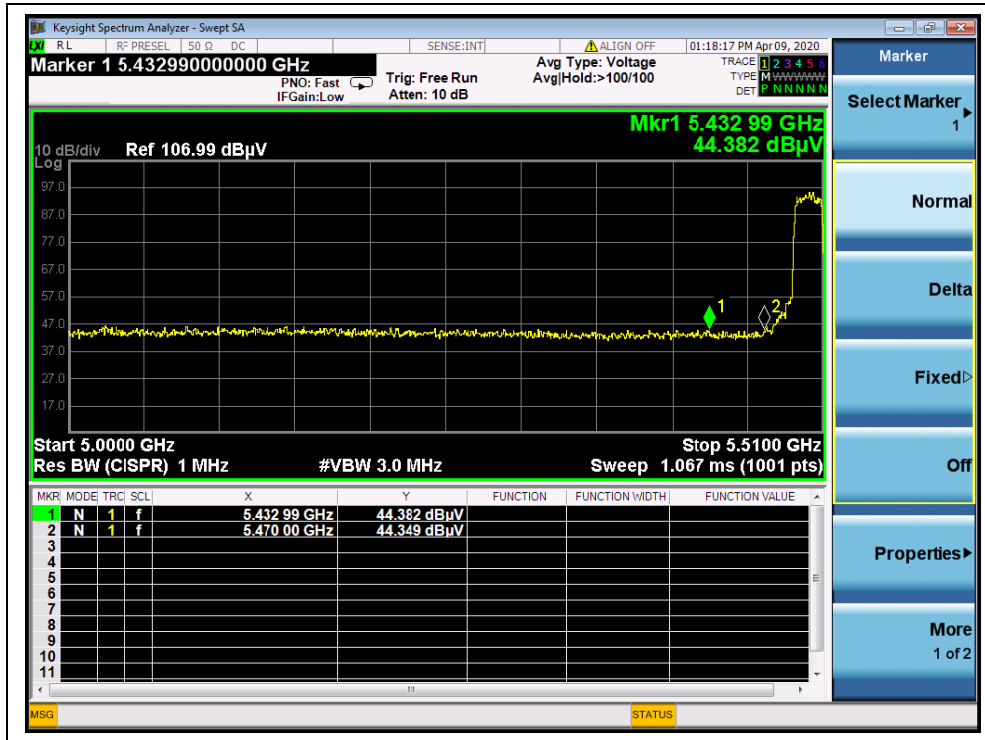
(AVG,Channel 36,802.11n (HT20))



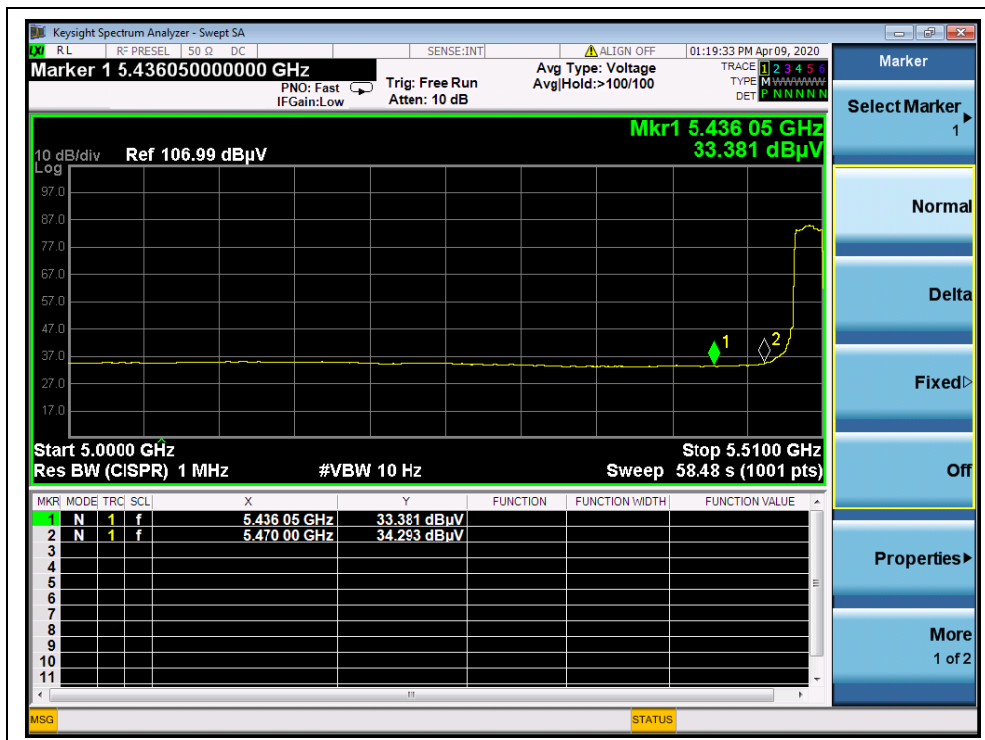
(PEAK,Channel 64, 802.11n (HT20))



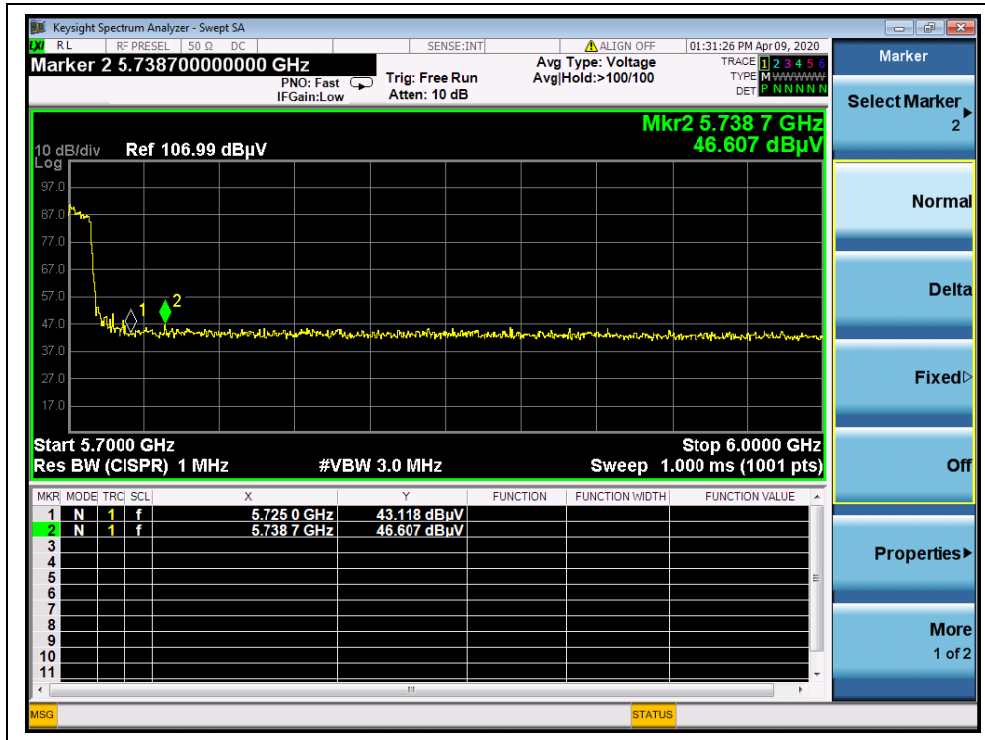
(AVG,Channel 64,802.11n (HT20))



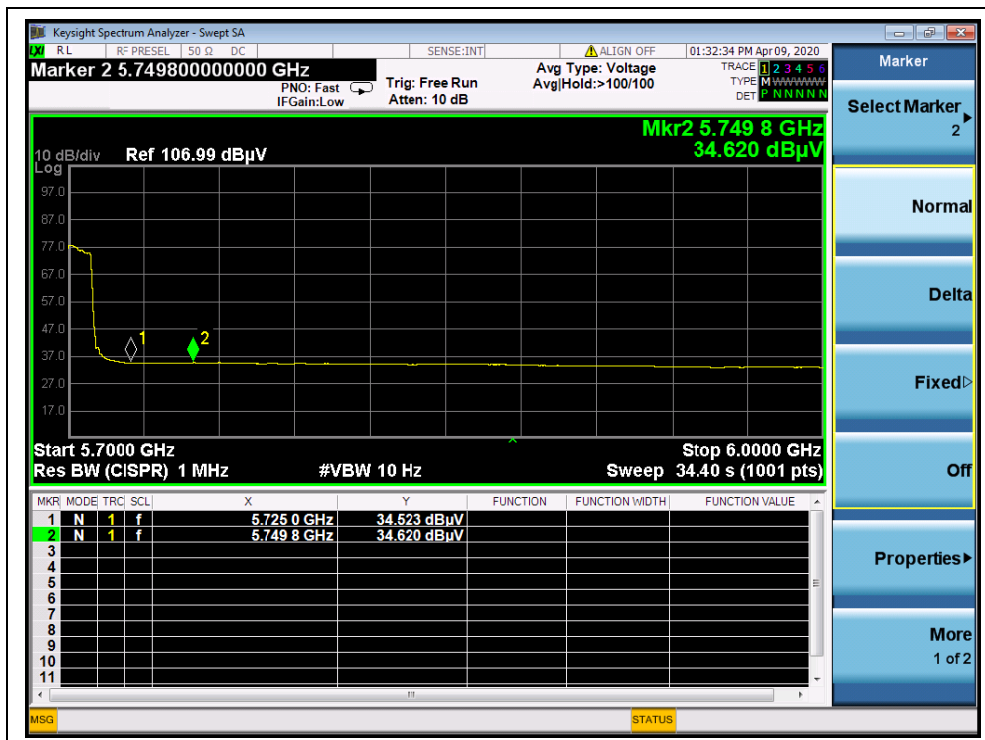
(PEAK,Channel 100, 802.11n (HT20))



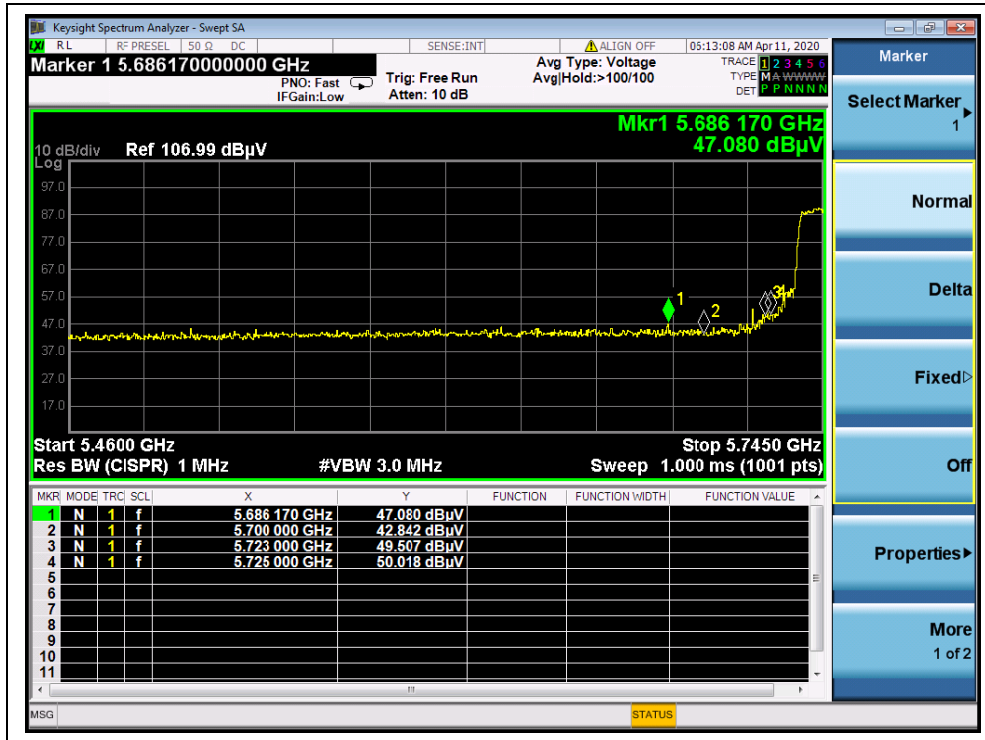
(AVG,Channel 100,802.11n (HT20))



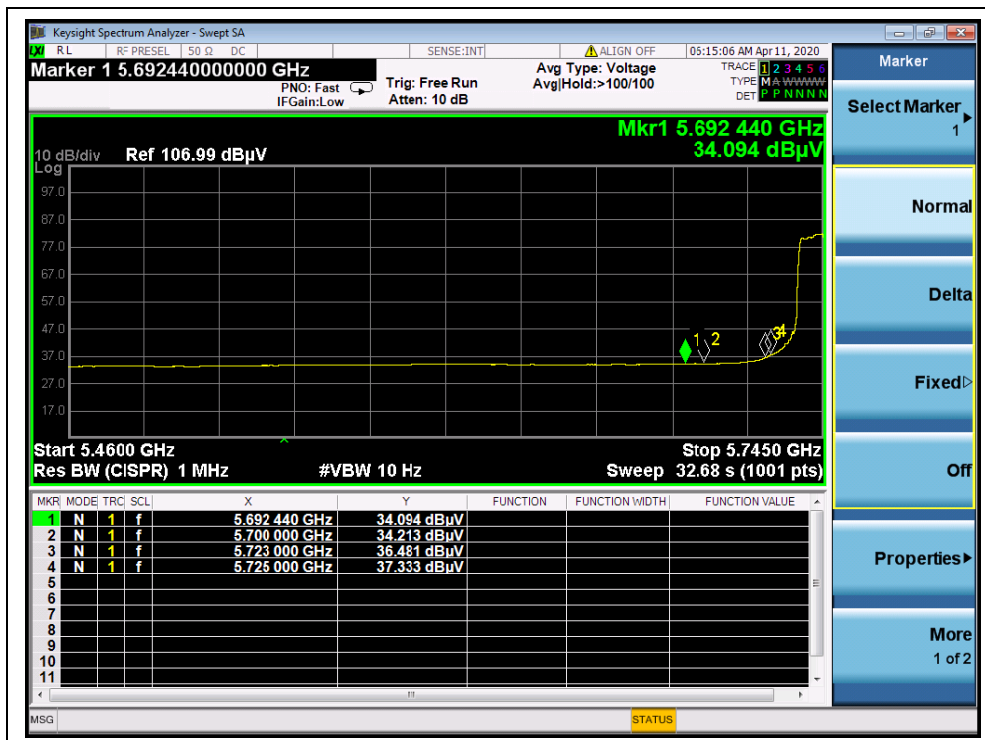
(PEAK,Channel 144, 802.11n (HT20))



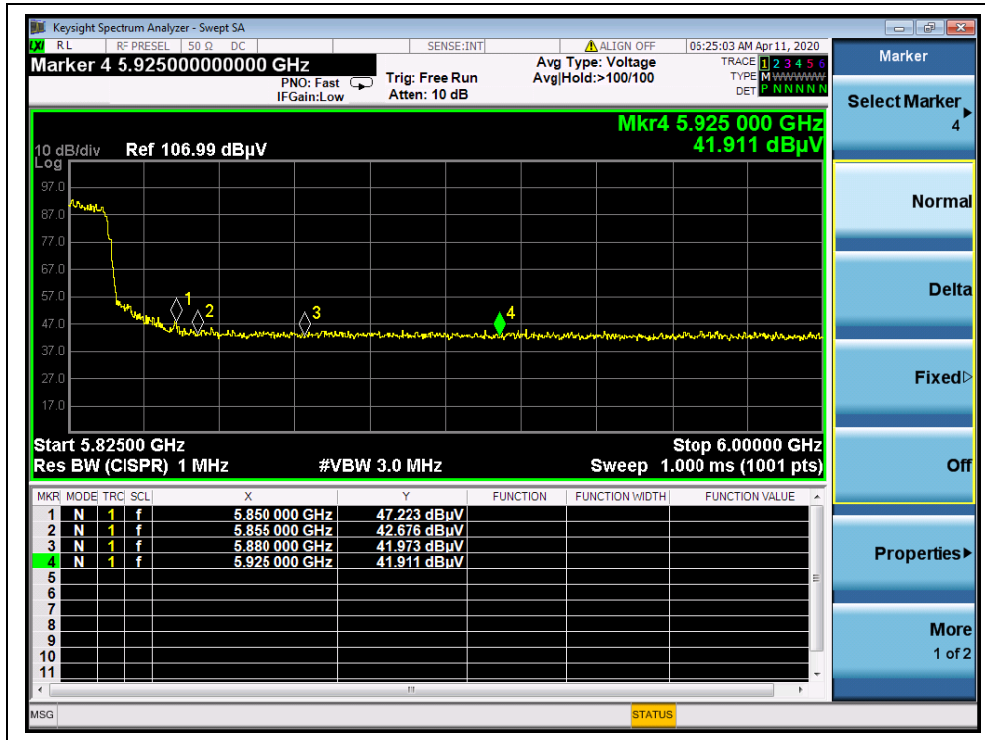
(AVG,Channel 144,802.11n (HT20))



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



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



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



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

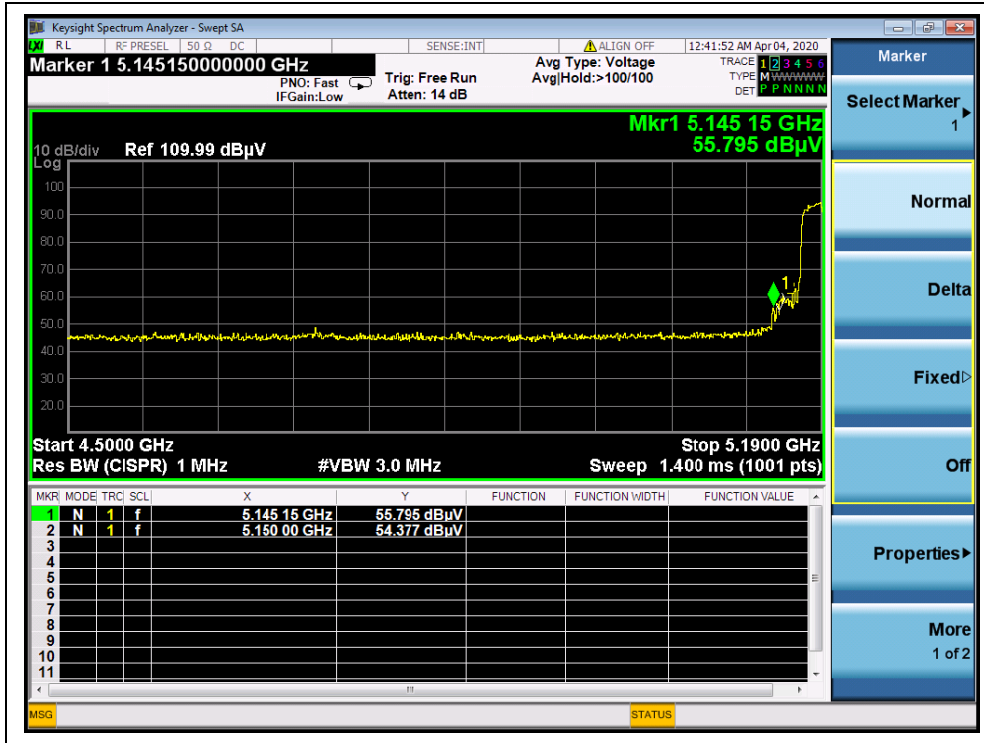


**802.11n (HT40) Test mode****A. Test Verdict:**

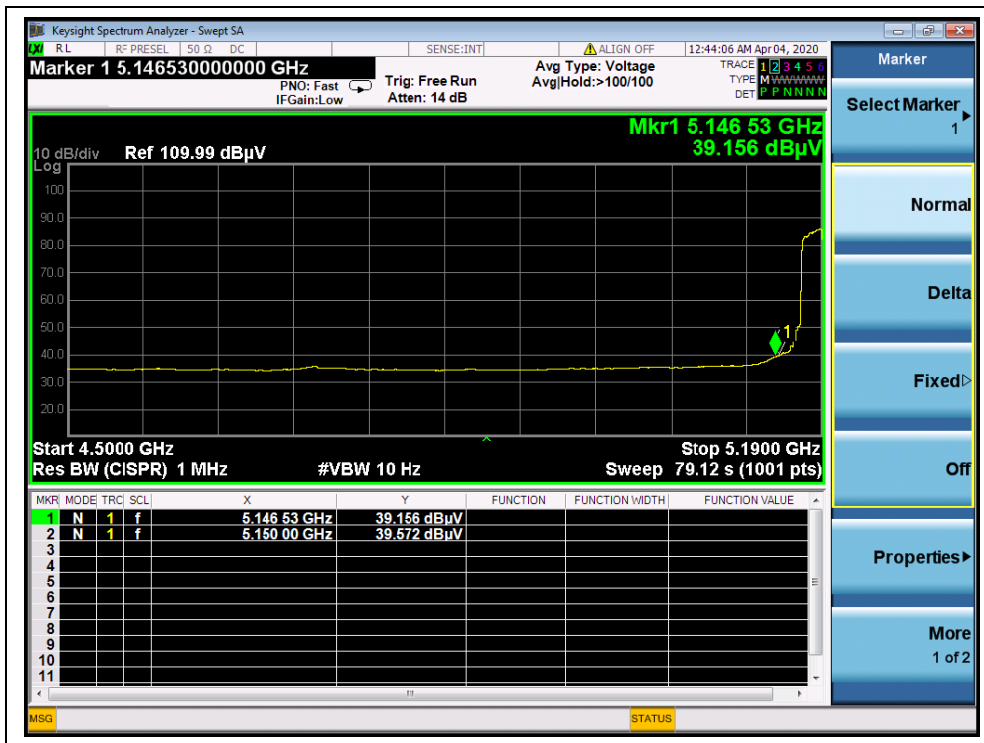
Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dBuV)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Verdict
		PK/ AV						
38	5145.15	PK	55.80	-26.92	32.20	61.08	74	PASS
38	5150.00	AV	39.57	-26.92	32.20	44.85	54	PASS
62	5361.28	PK	46.75	-26.80	32.20	52.15	74	PASS
62	5350.00	AV	36.24	-26.80	32.20	41.64	54	PASS
102	5470.00	PK	45.77	-26.64	32.20	51.33	68.23	PASS
102	5470.00	AV	35.94	-26.64	32.20	41.50	54	PASS
142	5770.32	PK	46.61	-26.64	32.20	52.17	68.23	PASS
142	5759.76	AV	34.96	-26.64	32.20	40.52	54	PASS
151	5725.32	PK	50.74	-26.23	32.20	56.71	68.23	PASS
151	5725.32	AV	39.53	-26.23	32.20	45.50	54	PASS
159	5925.00	PK	43.16	-26.23	32.20	49.13	68.23	PASS
159	5850.00	AV	34.25	-26.23	32.20	40.22	54	PASS



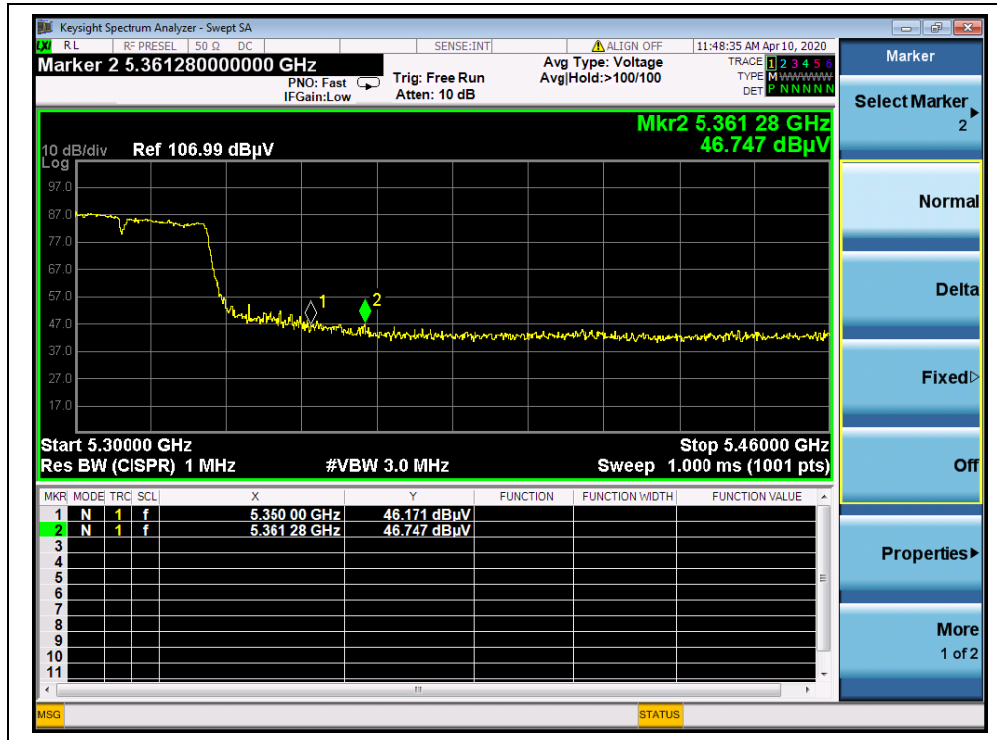
B. Test Plots:



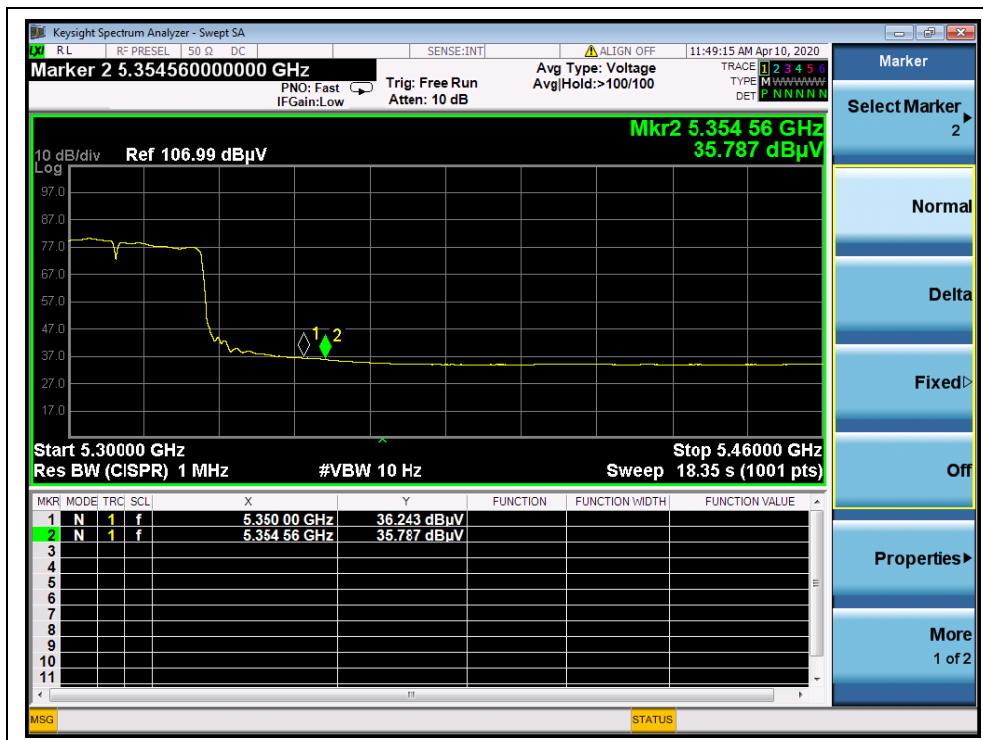
(PEAK,Channel 38, 802.11n (HT40))



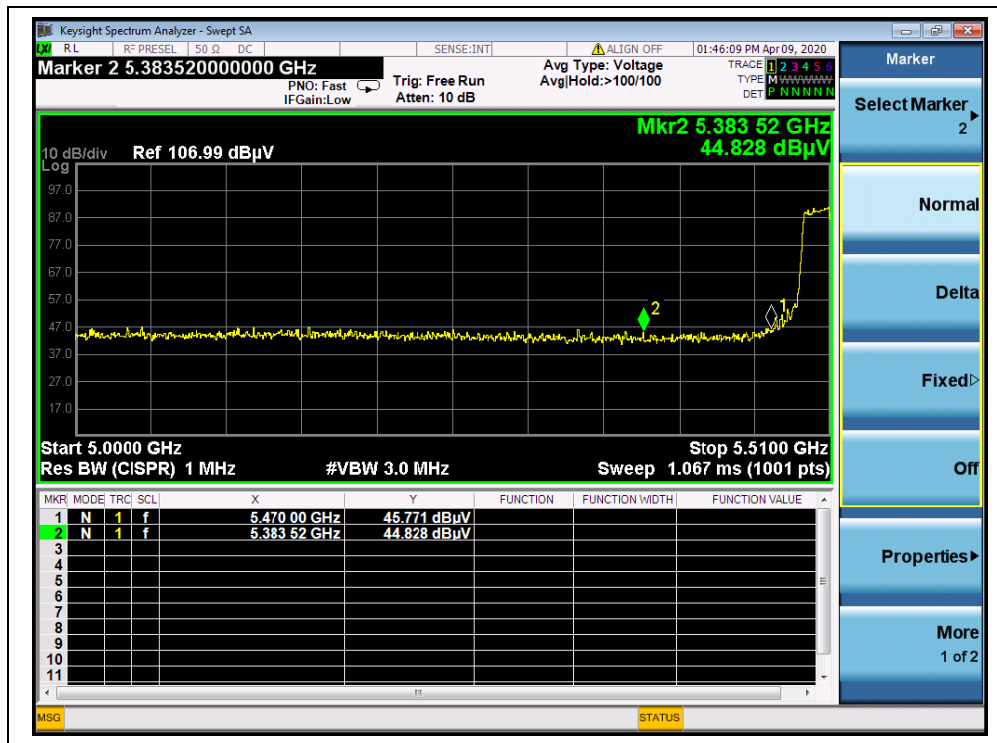
(AVG,Channel 38,802.11n (HT40))



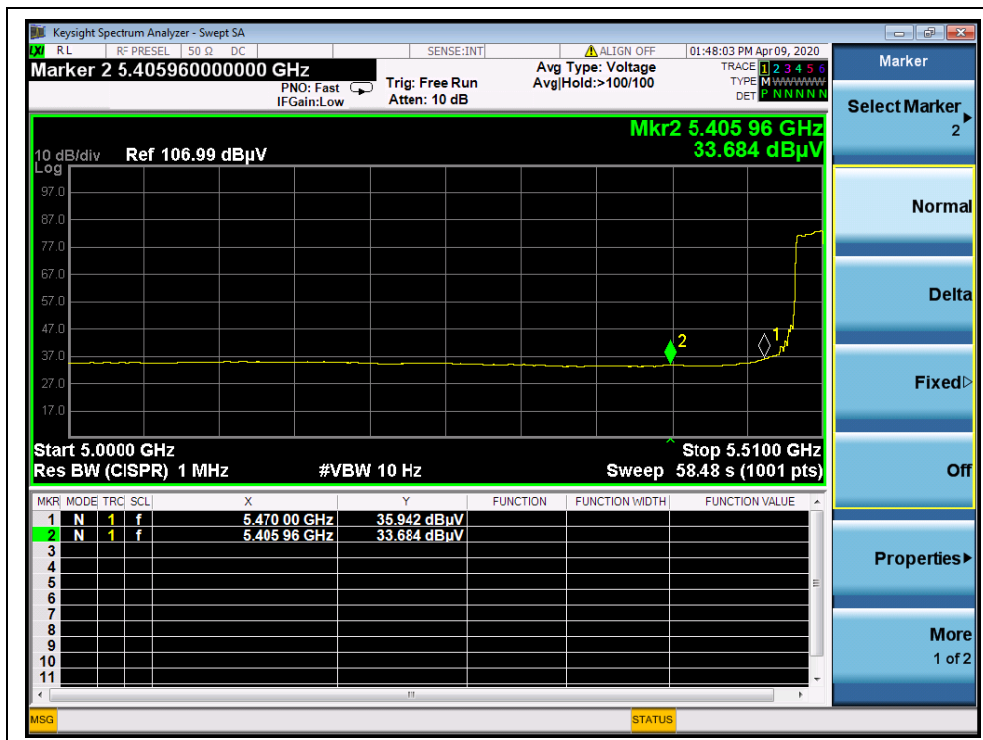
(PEAK,Channel 62, 802.11n (HT40))



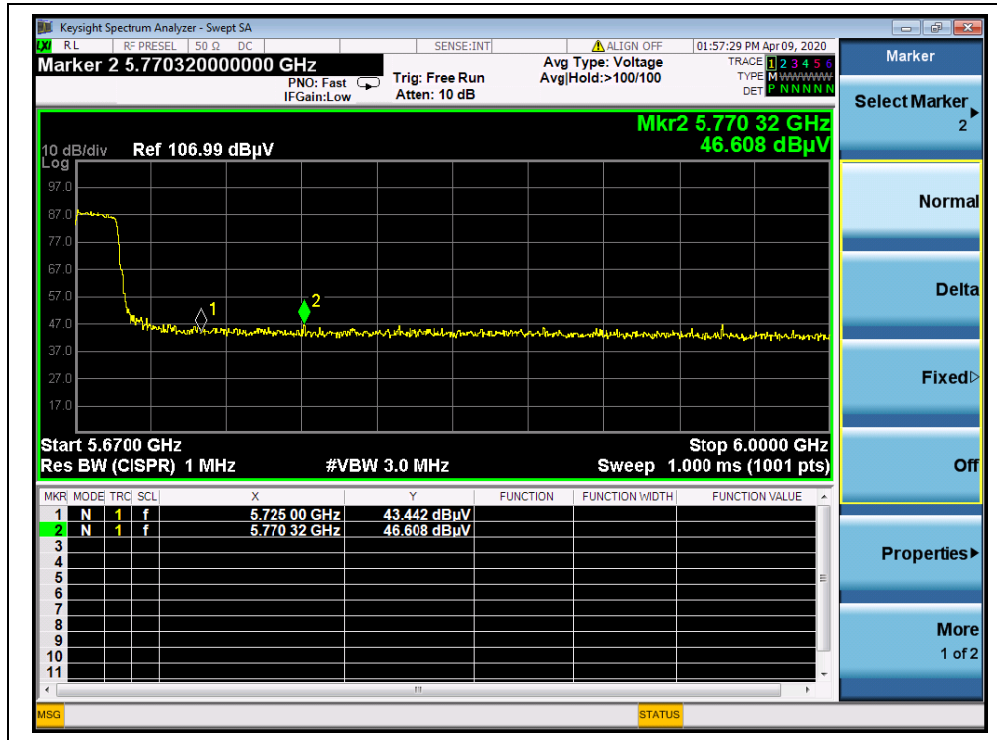
(AVG,Channel 62, 802.11n (HT40))



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



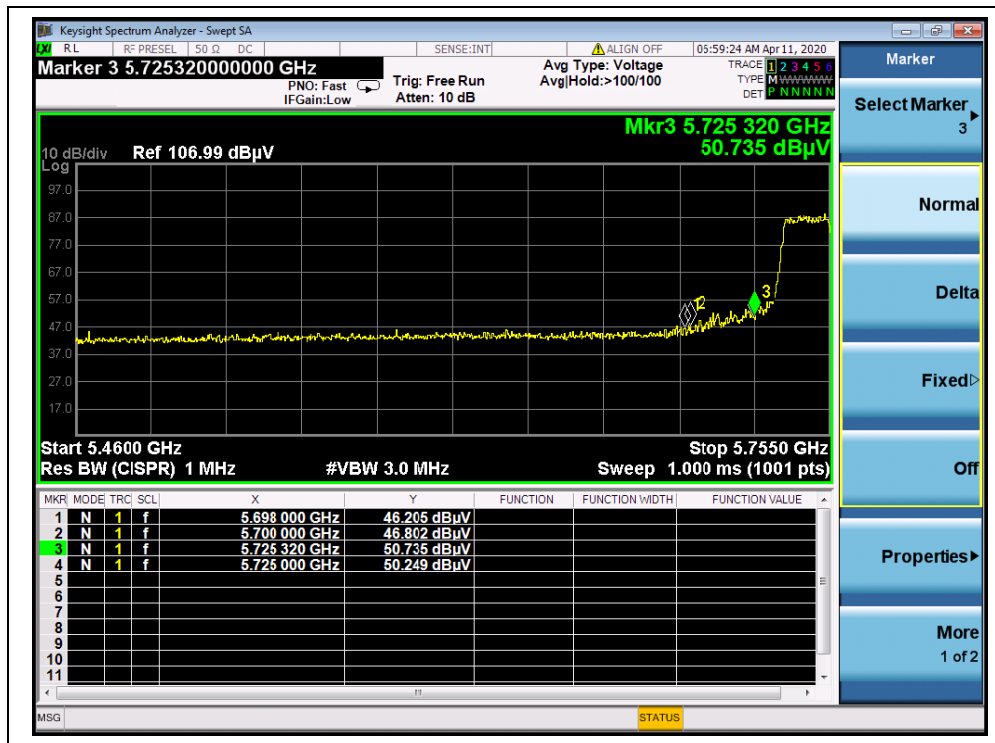
(AVG,Channel 102, 802.11n (HT40))



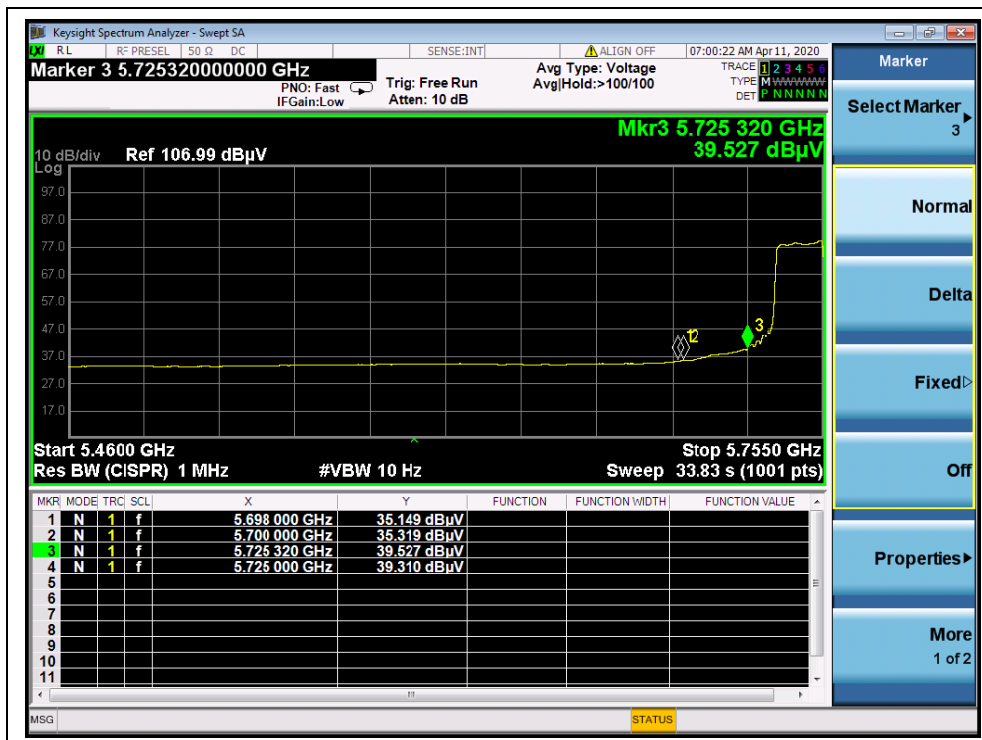
(PEAK,Channel 142, 802.11n (HT40))



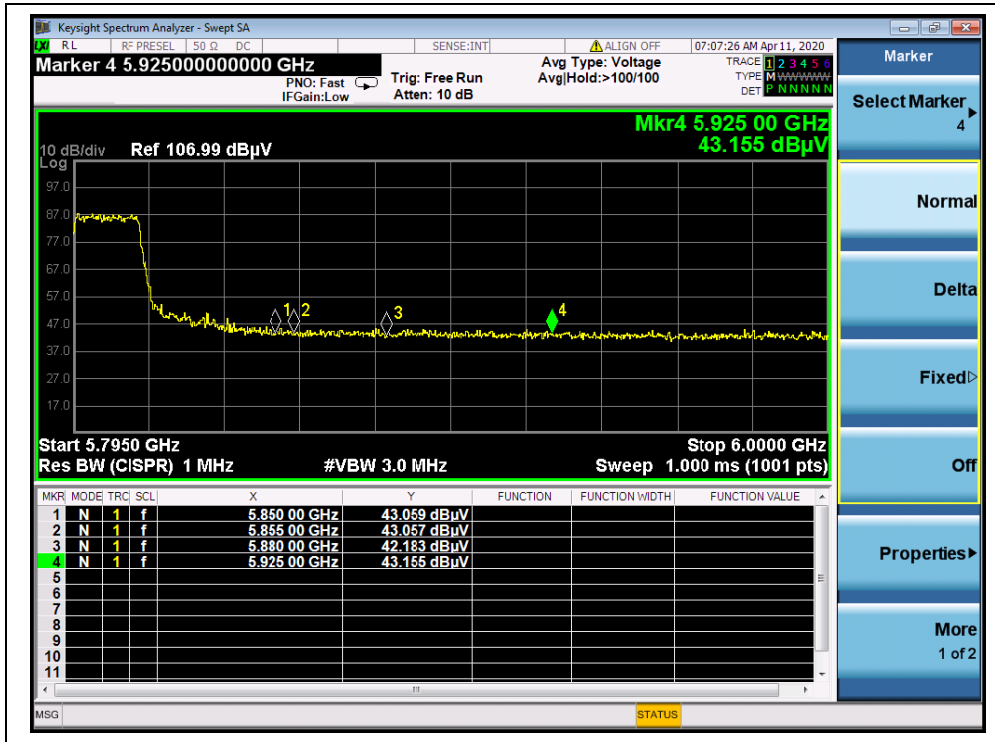
(AVG,Channel 142, 802.11n (HT40))



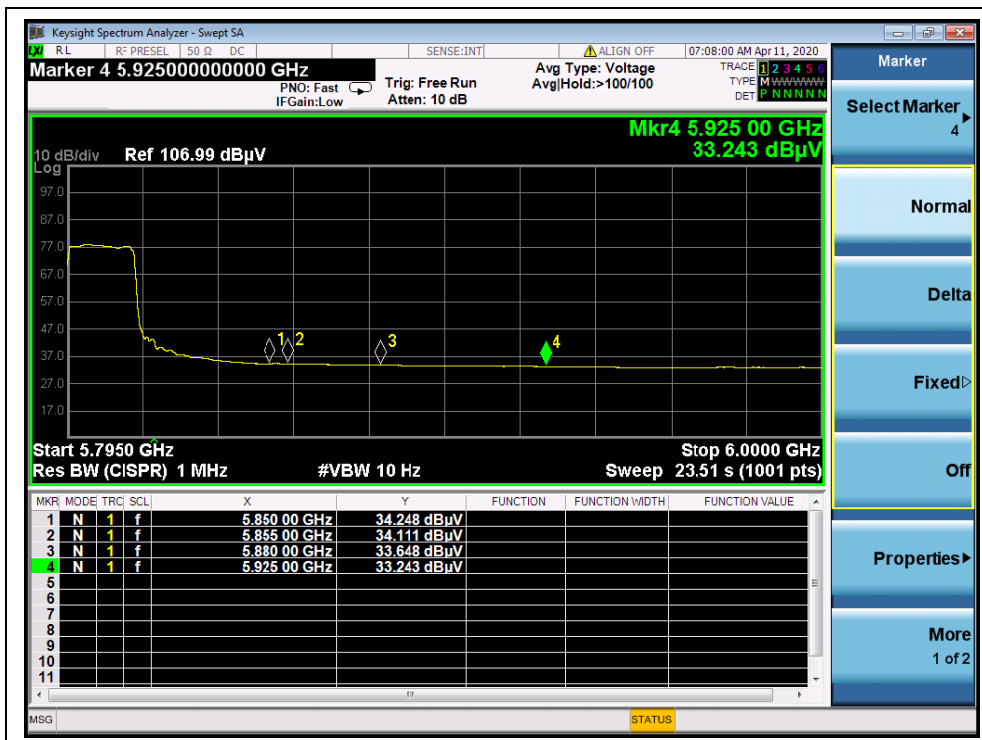
(PEAK,Channel 151, 802.11n (HT40))



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



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



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

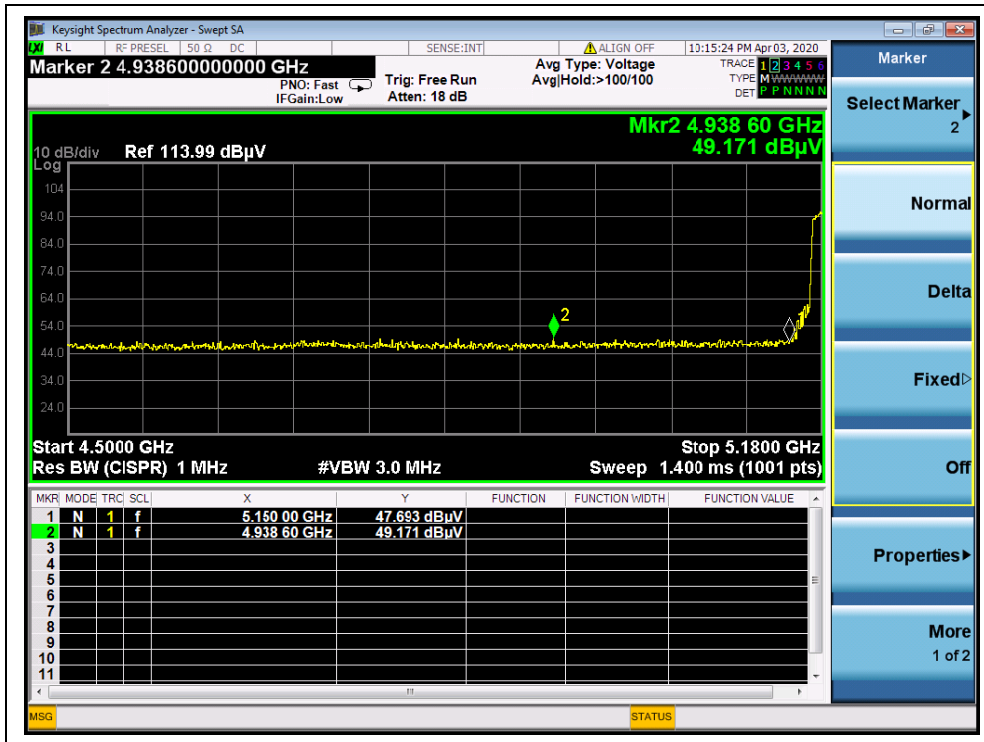
**802.11ac (VHT20) Test mode****A. Test Verdict:**

Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dBuV)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Verdict
		PK/ AV						
36	4938.60	PK	49.17	-26.92	32.20	54.45	74	PASS
36	5150.00	AV	37.88	-26.92	32.20	43.16	54	PASS
64	5368.72	PK	44.20	-26.80	32.20	49.60	74	PASS
64	5350.00	AV	34.21	-26.80	32.20	39.61	54	PASS
100	5445.74	PK	45.64	-26.64	32.20	51.20	74	PASS
100	5470.00	AV	34.50	-26.64	32.20	40.06	54	PASS
144	5725.00	PK	46.22	-26.64	32.20	51.78	74	PASS
144	5725.00	AV	34.63	-26.64	32.20	40.19	54	PASS
149	5725.00	PK	54.85	-26.23	32.20	60.82	122.23	PASS
149	5725.00	AV	39.99	-26.23	32.20	45.96	54	PASS
165	5855.00	PK	44.46	-26.23	32.20	50.43	110.83	PASS
165	5850.00	AV	35.61	-26.23	32.20	41.58	54	PASS

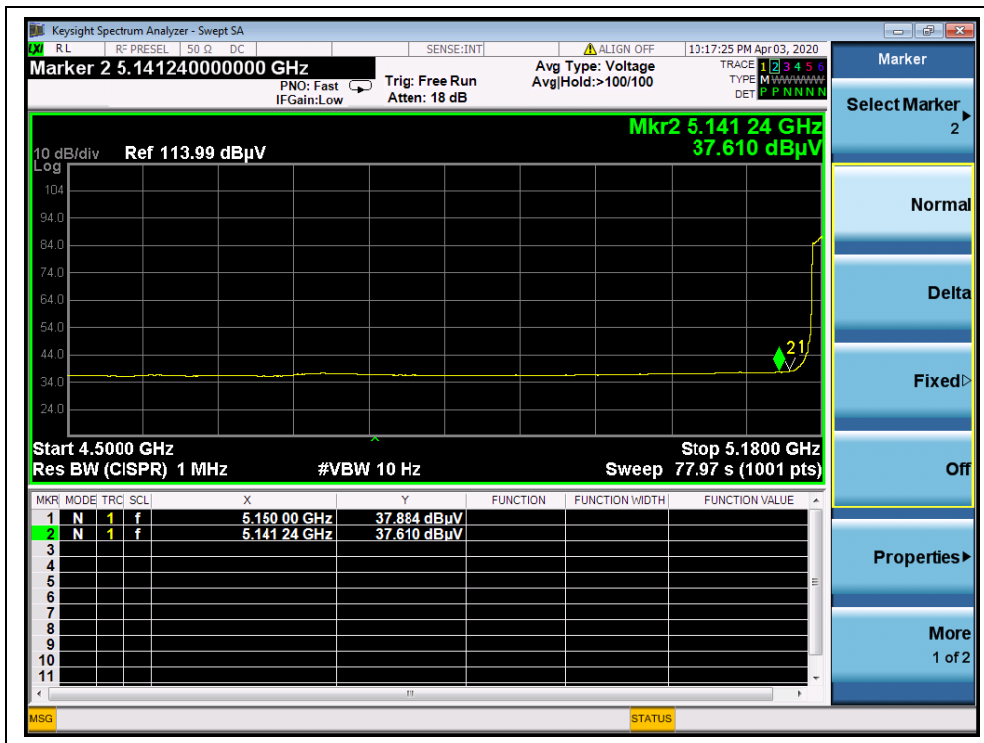




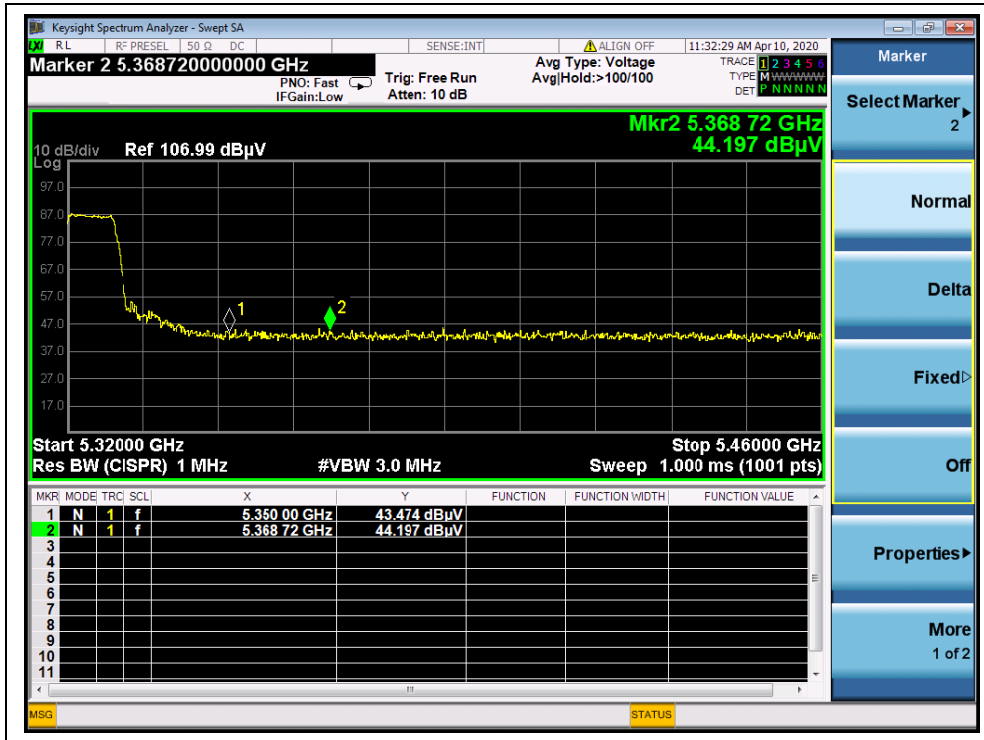
B. Test Plots:



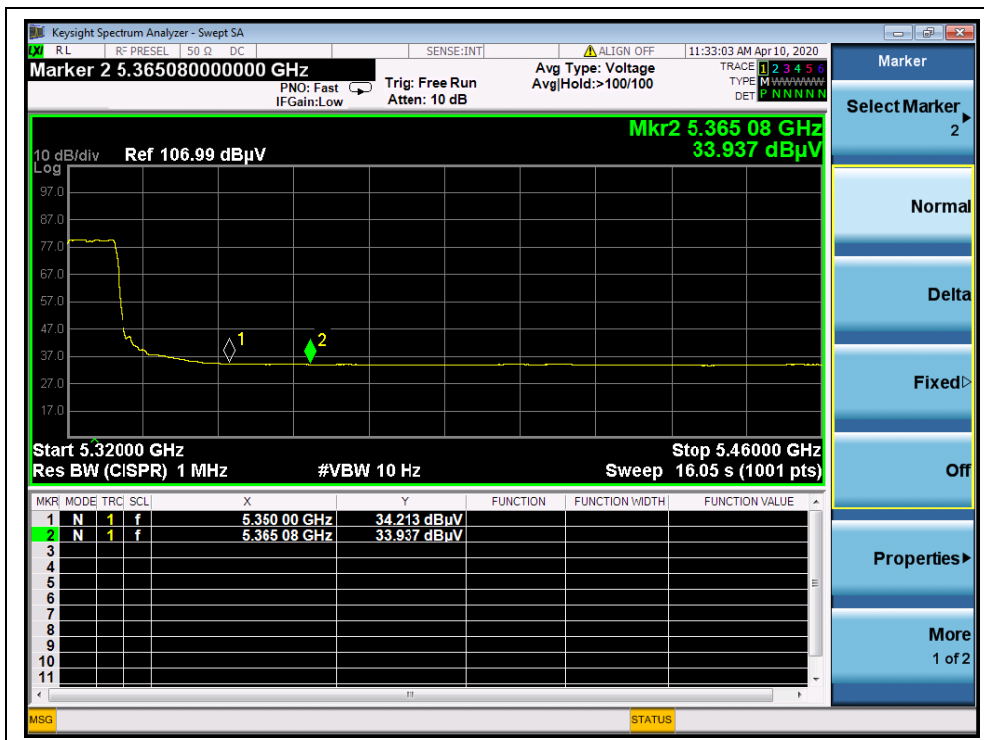
(PEAK,Channel 36,802.11ac (VHT20))



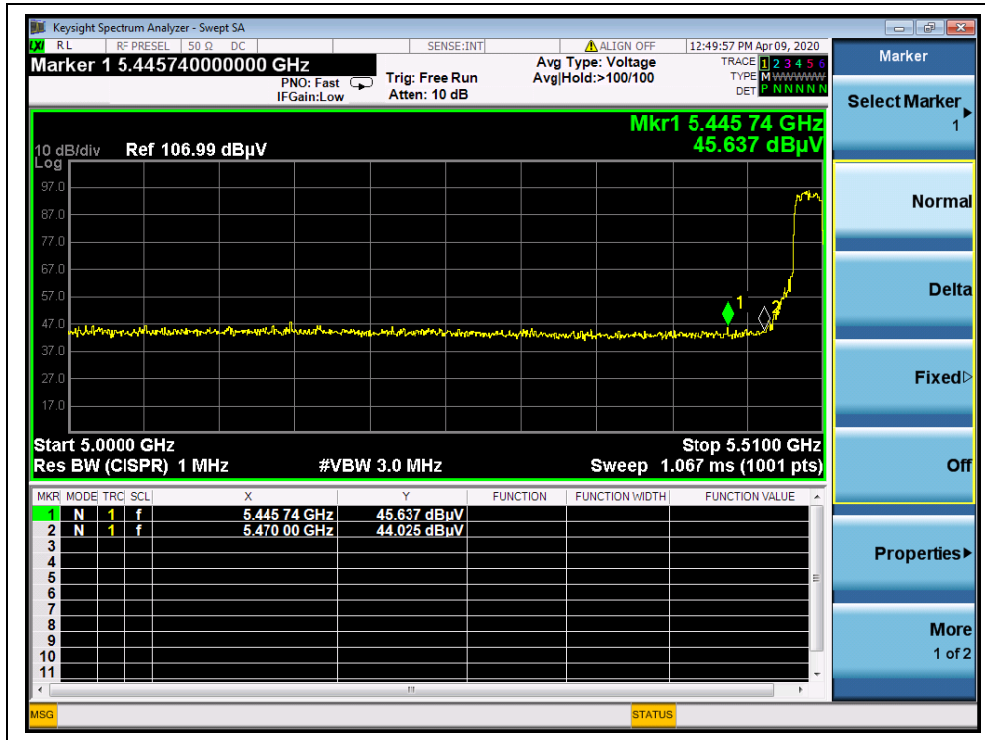
(AVG,Channel 36,802.11ac (VHT20))



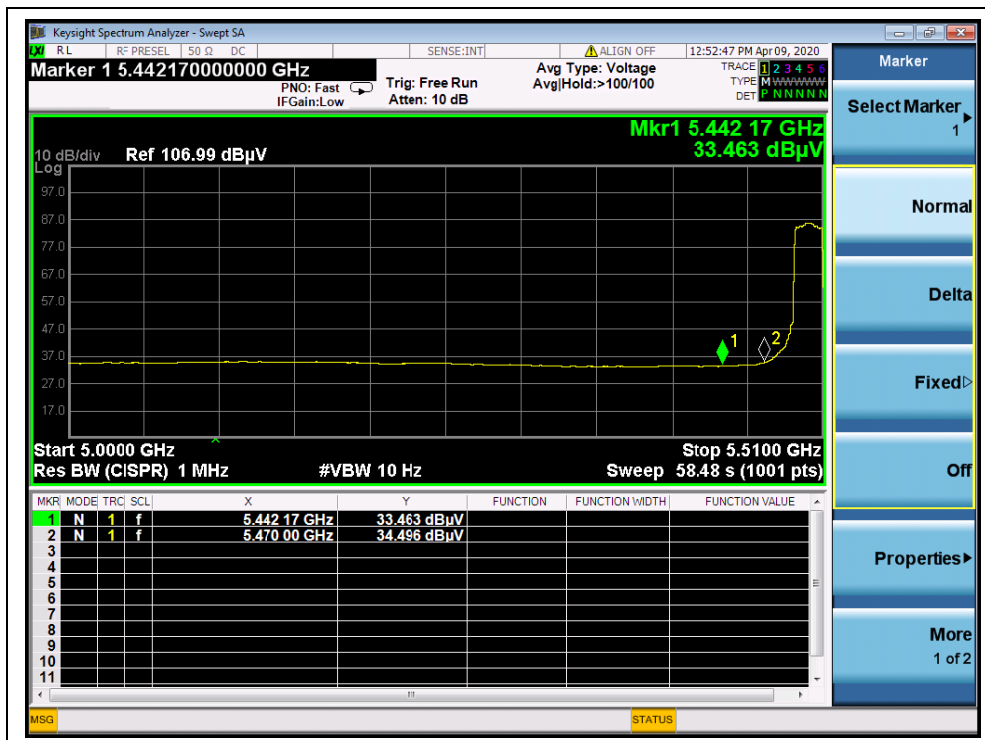
(PEAK,Channel 64, 802.11ac (VHT20))



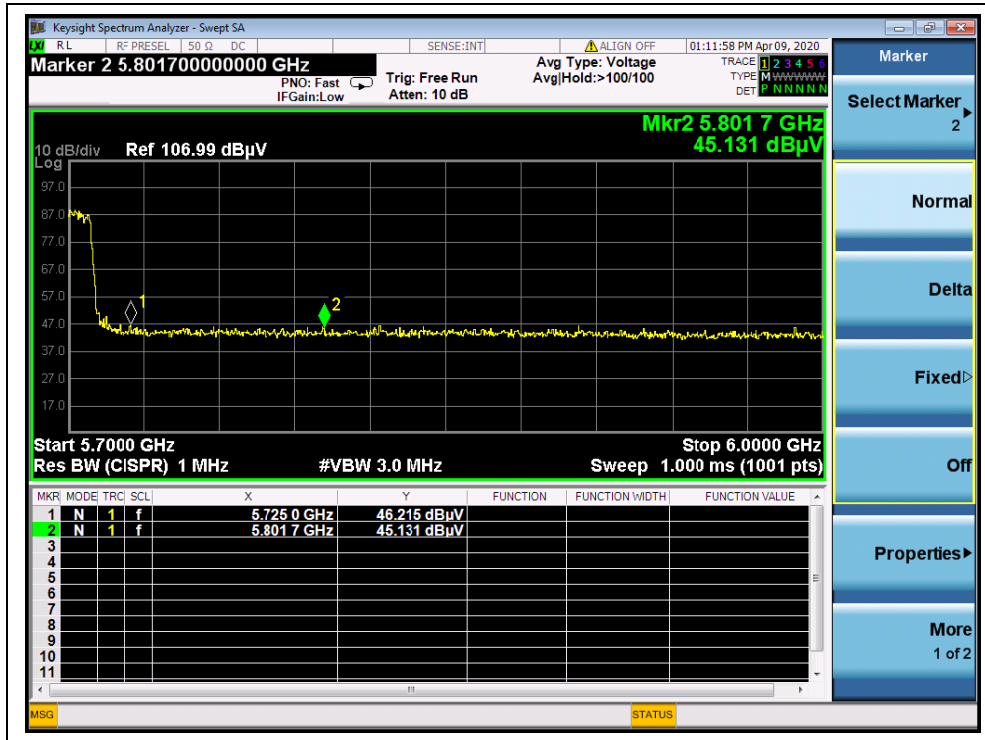
(AVG,Channel 64,802.11 ac (VHT20))



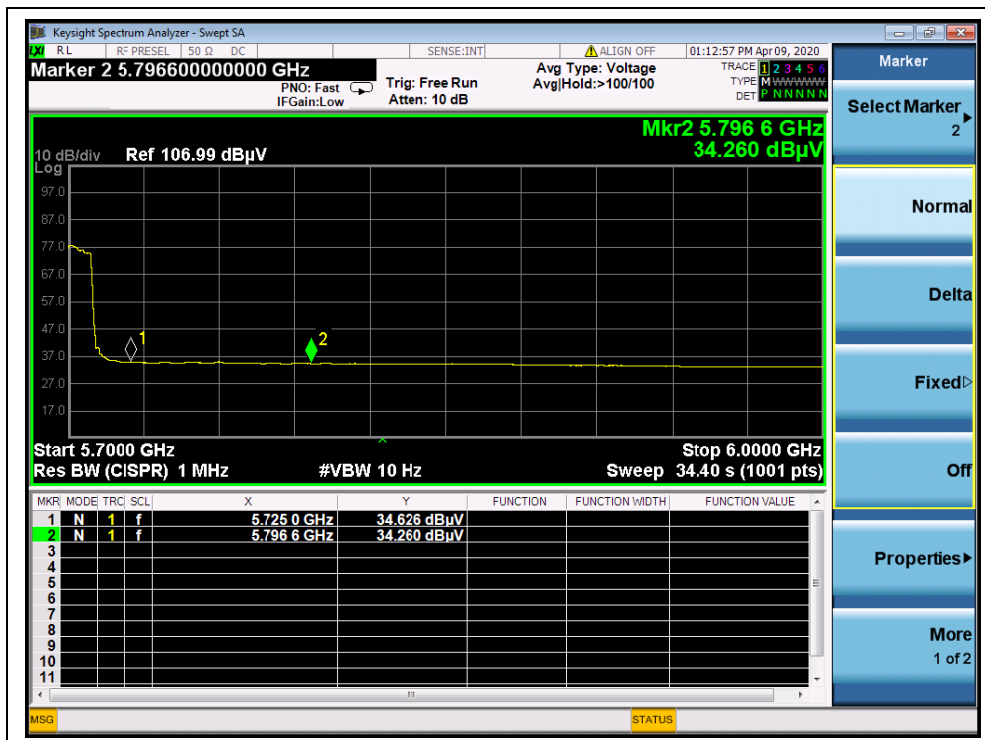
(PEAK,Channel 100, 802.11ac (VHT20))



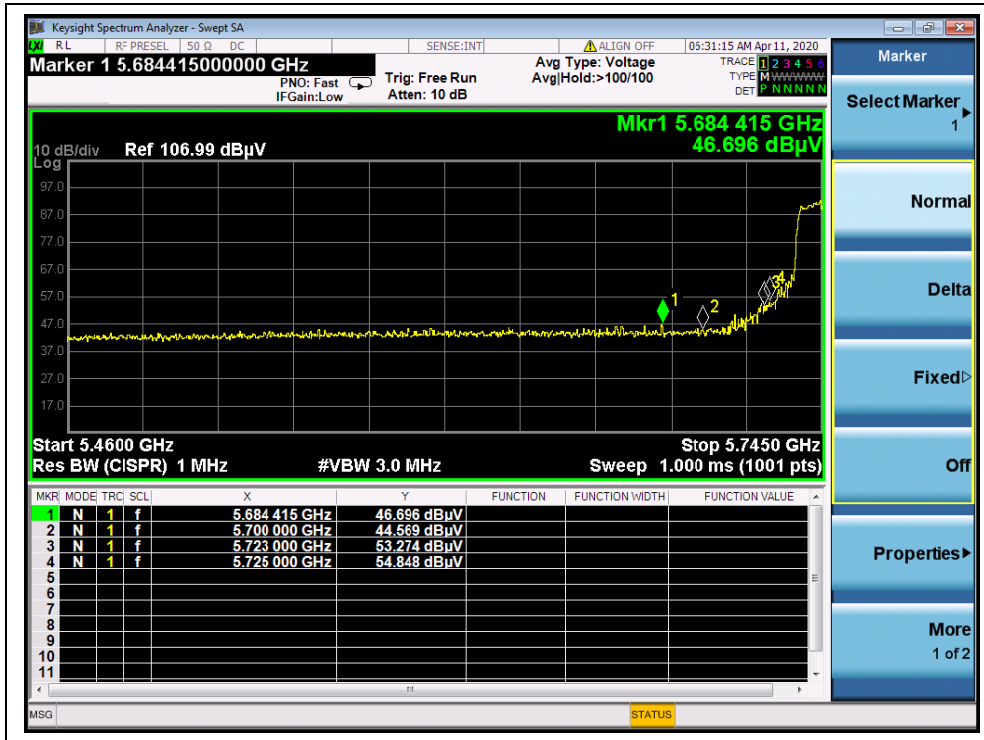
(AVG,Channel 100,802.11 ac (VHT20))



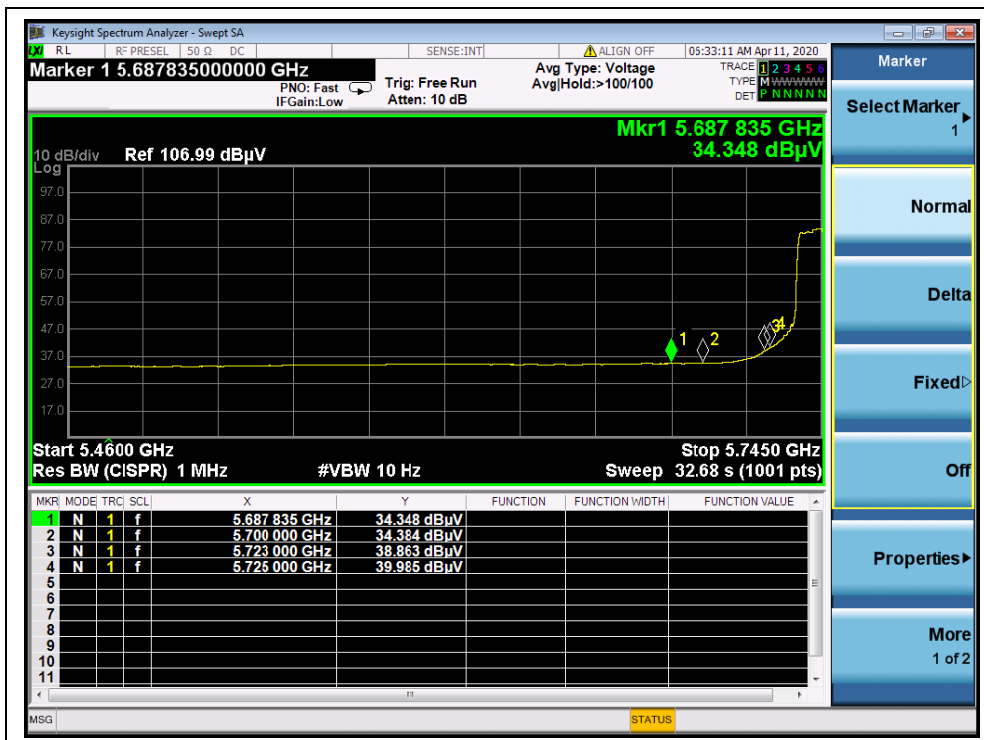
(PEAK,Channel 144, 802.11ac (VHT20))



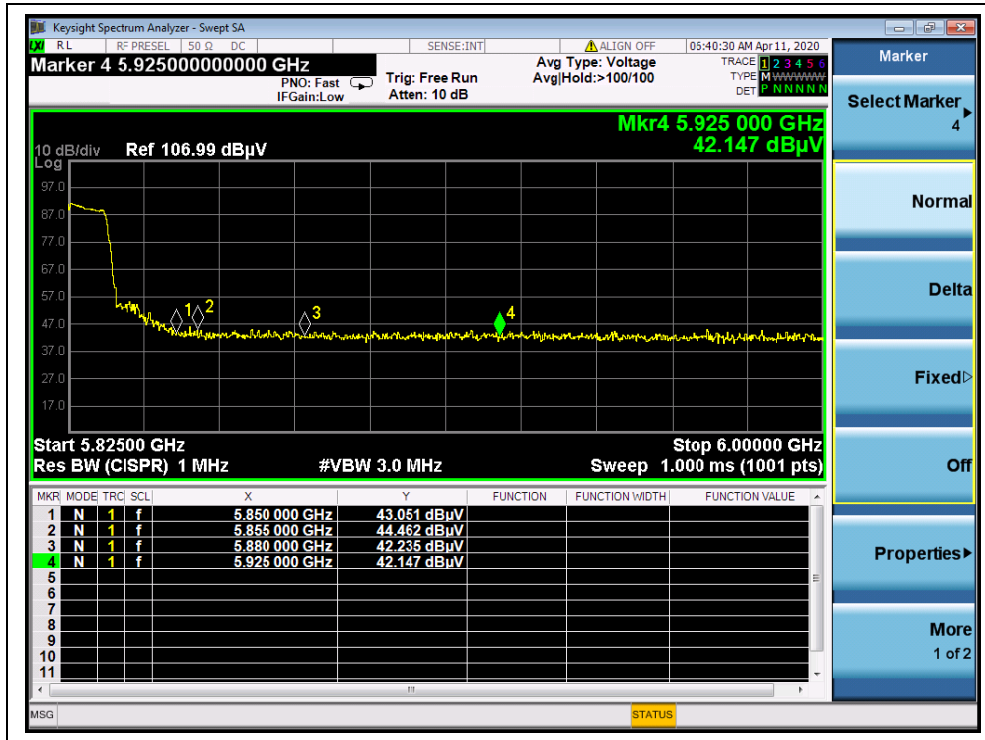
(AVG,Channel 144,802.11 ac (VHT20))



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



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



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

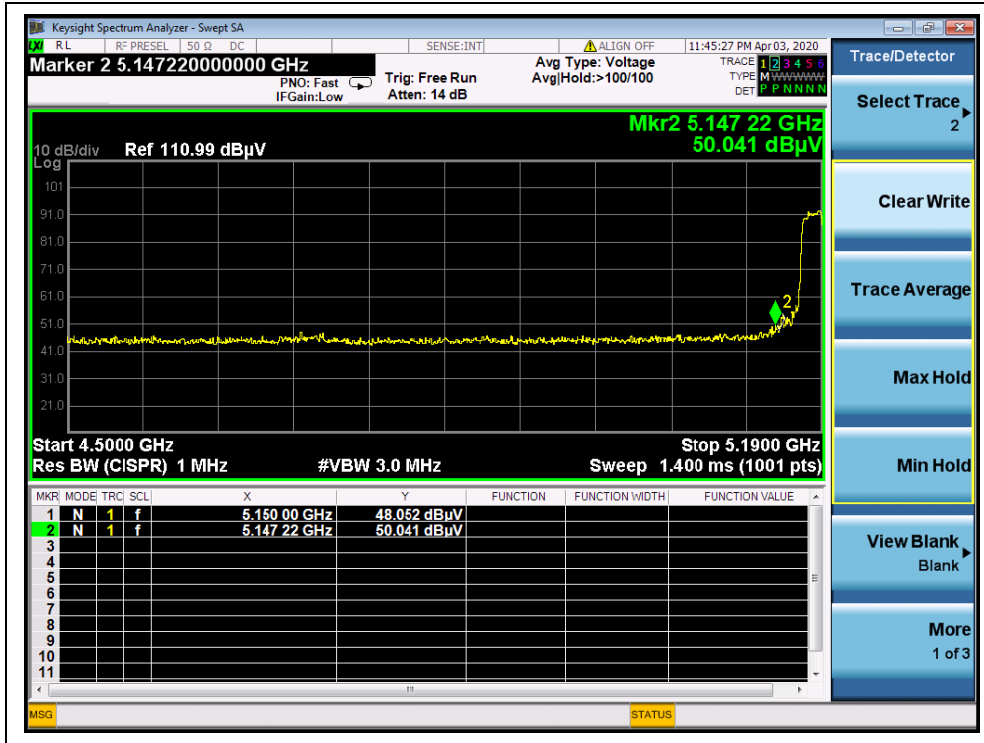


(AVG,Channel 165,802.11 ac (VHT20))

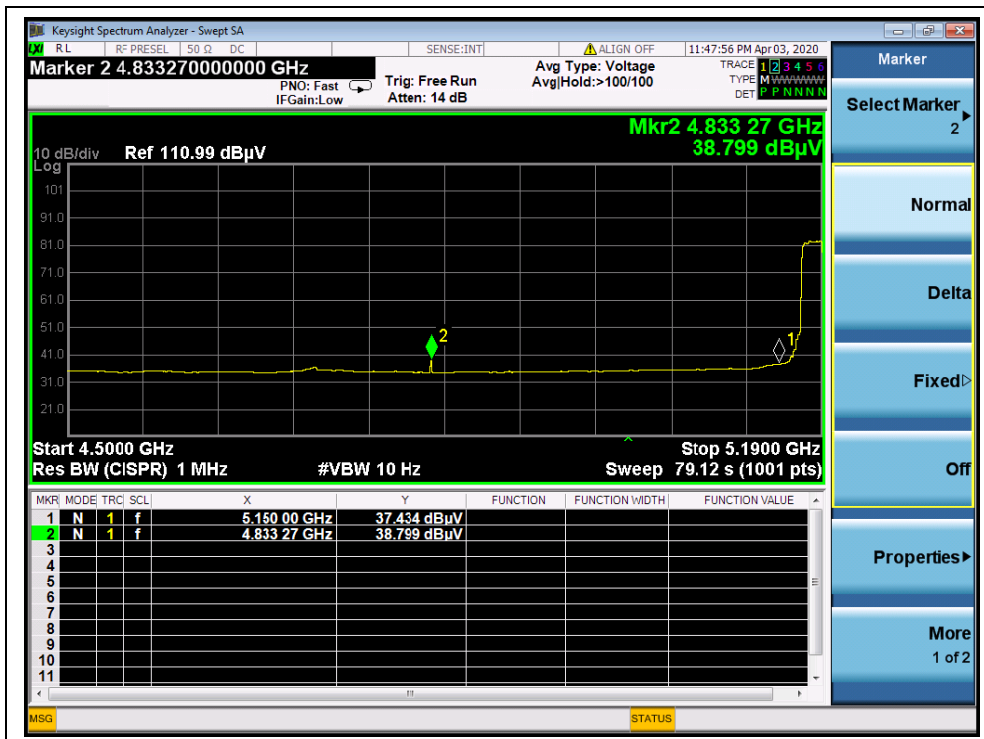
**802.11ac (VHT40) Test mode****A. Test Verdict:**

Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dBuV)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Verdict
		PK/ AV						
38	5147.22	PK	50.04	-26.92	32.20	55.32	74	PASS
38	4833.27	AV	38.80	-26.92	32.20	44.08	54	PASS
62	5352.75	PK	42.89	-26.80	32.20	48.29	74	PASS
62	5350.00	AV	34.36	-26.80	32.20	39.76	54	PASS
102	5470.00	PK	46.75	-26.64	32.20	52.31	68.23	PASS
102	5470.00	AV	34.47	-26.64	32.20	40.03	54	PASS
142	5759.10	PK	45.03	-26.64	32.20	50.59	68.23	PASS
142	5725.00	AV	34.16	-26.64	32.20	39.72	54	PASS
151	5700.00	PK	46.90	-26.23	32.20	52.87	105.23	PASS
151	5724.00	AV	35.60	-26.23	32.20	41.57	54	PASS
159	5850.00	PK	44.67	-26.23	32.20	50.64	122.23	PASS
159	5850.00	AV	34.05	-26.23	32.20	40.02	54	PASS

**B. Test Plots:**

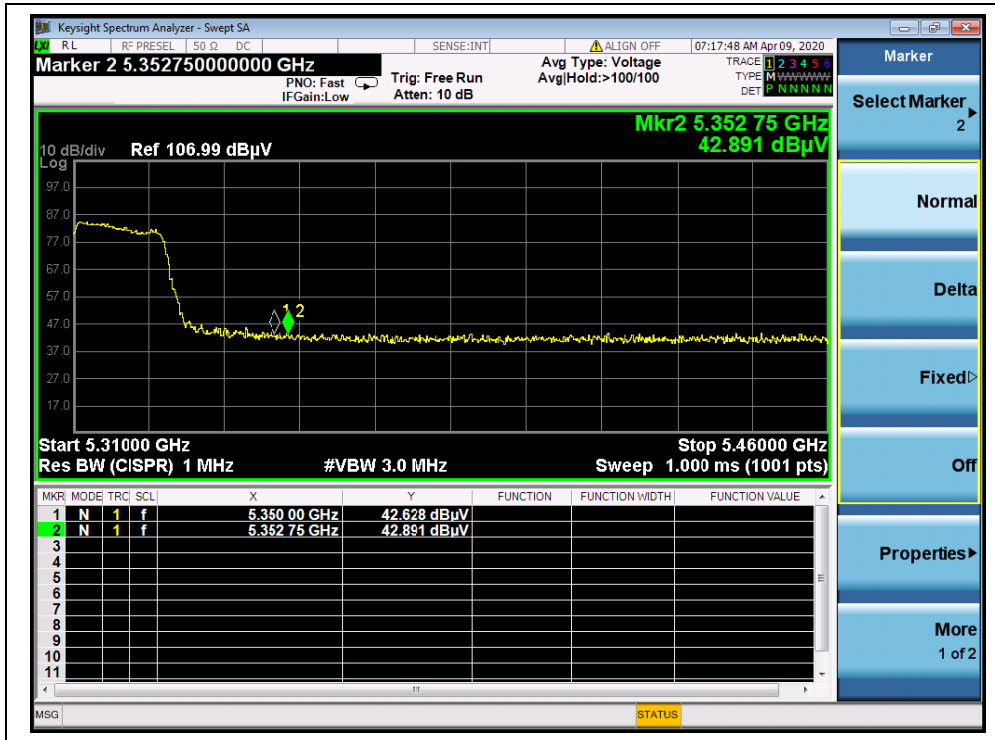


(PEAK,Channel 38, 802.11ac (VHT40))

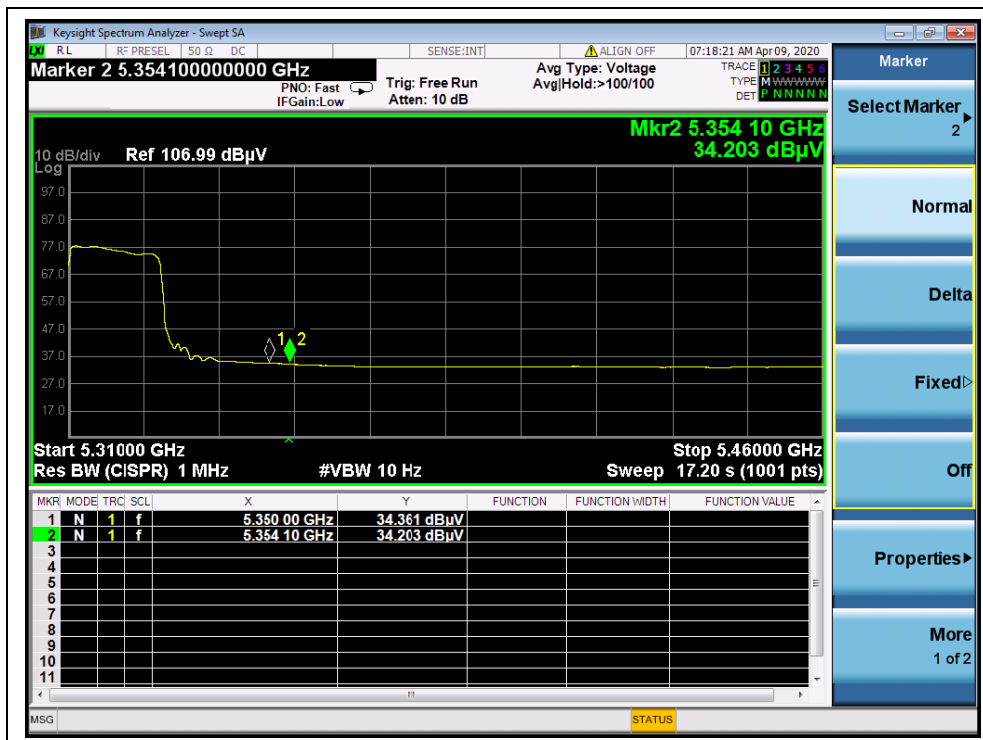


(AVG,Channel 38,802.11ac (VHT40))

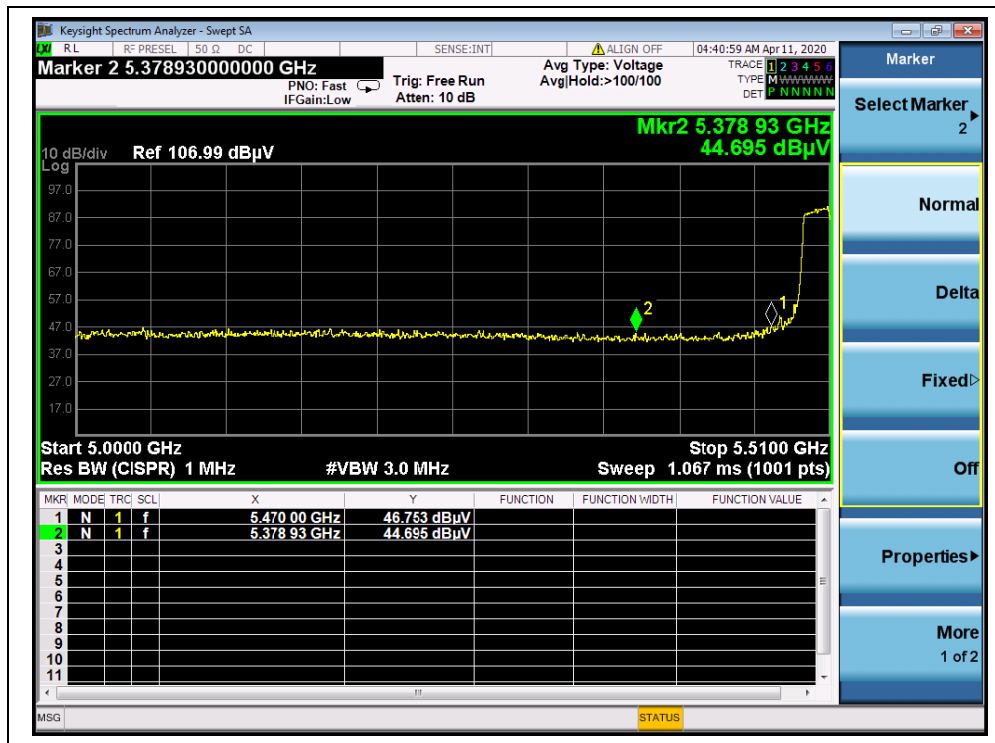




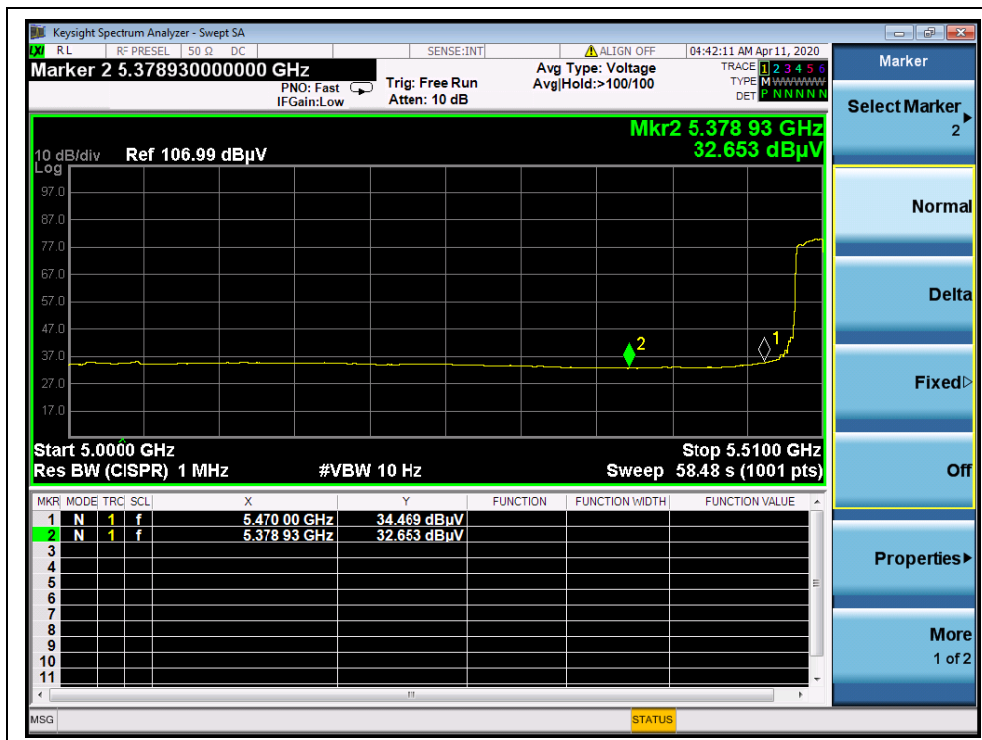
(PEAK,Channel 62, 802.11ac (VHT40))



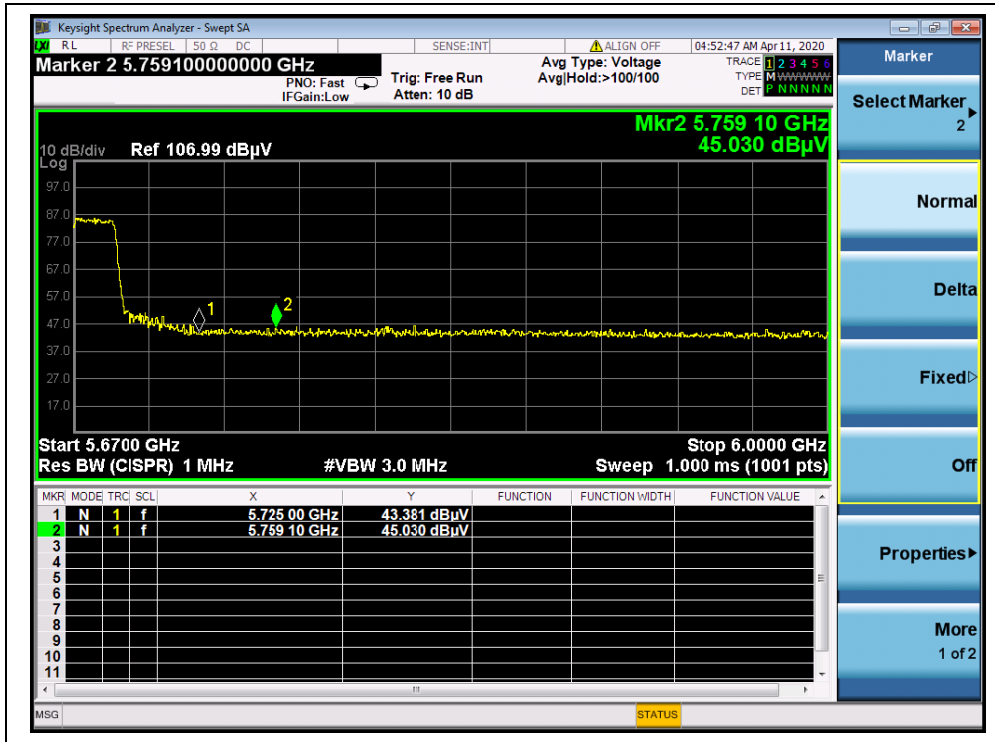
(AVG,Channel 62, 802.11ac (VHT40))



(PEAK,Channel 102, 802.11ac (VHT40))



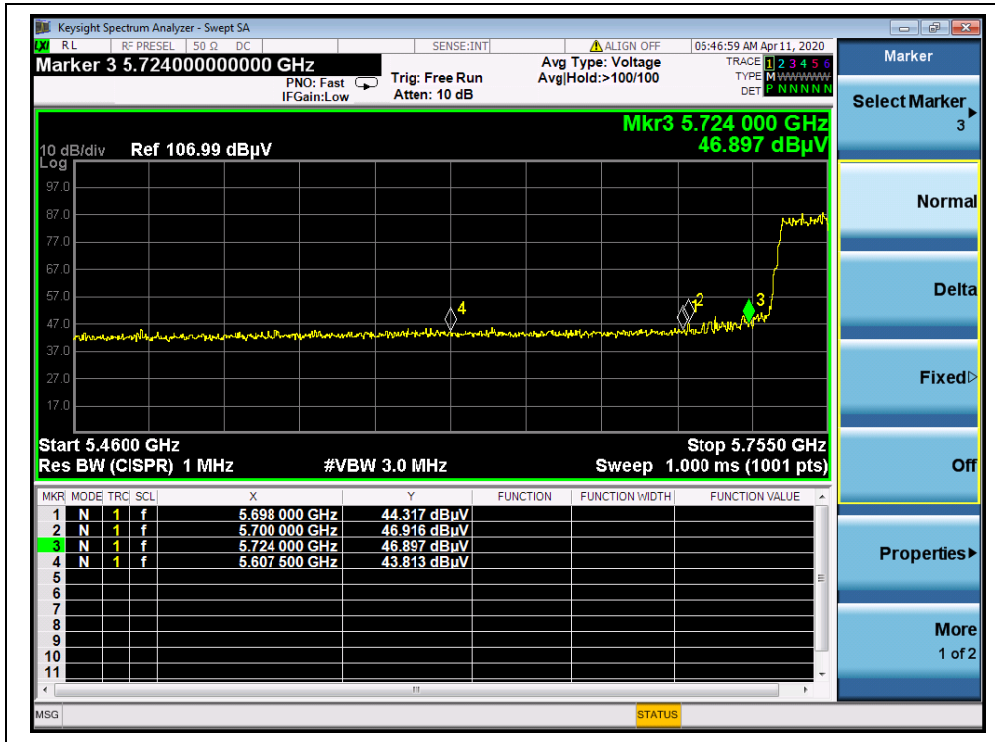
(AVG,Channel 102, 802.11ac (VHT40))



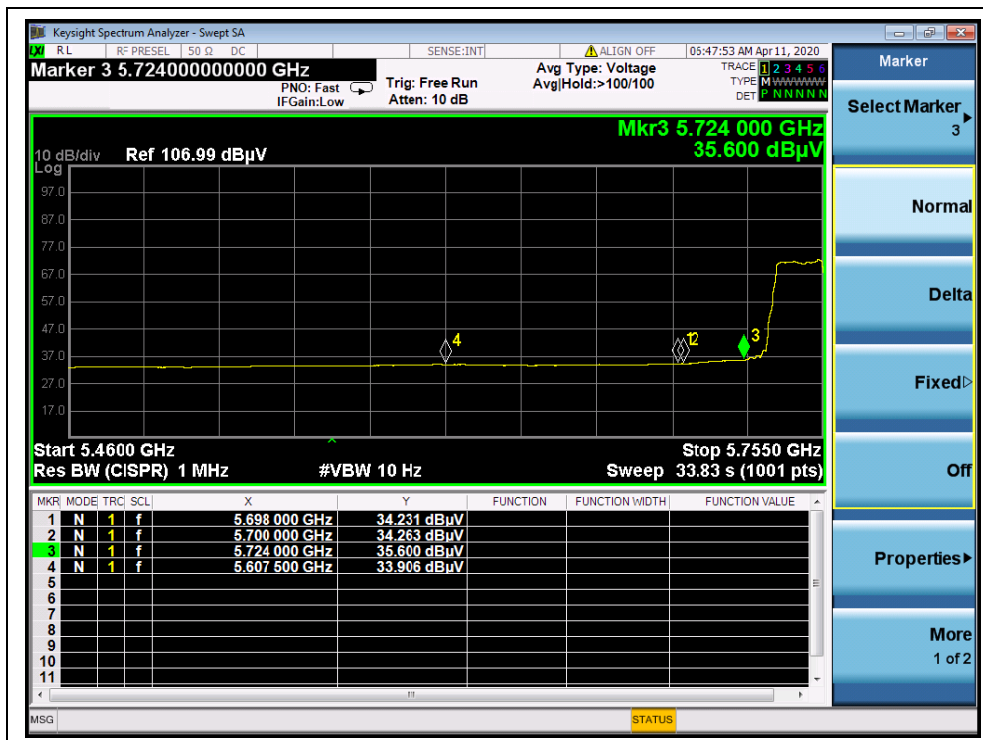
(PEAK,Channel 142, 802.11ac (VHT40))



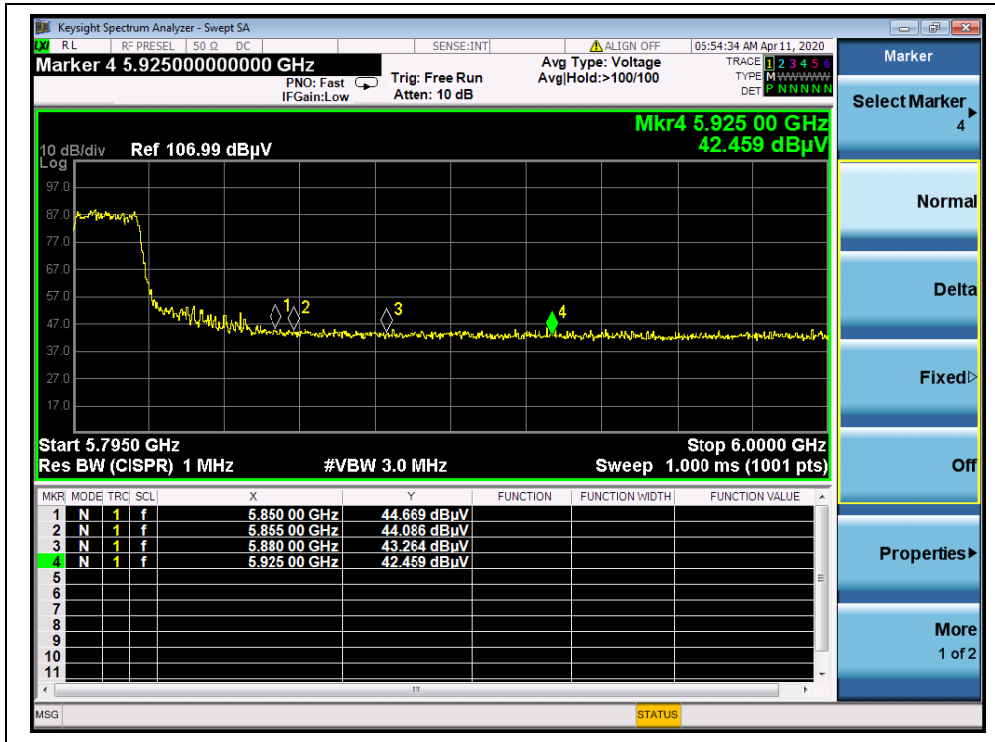
(AVG,Channel 142, 802.11ac (VHT40))



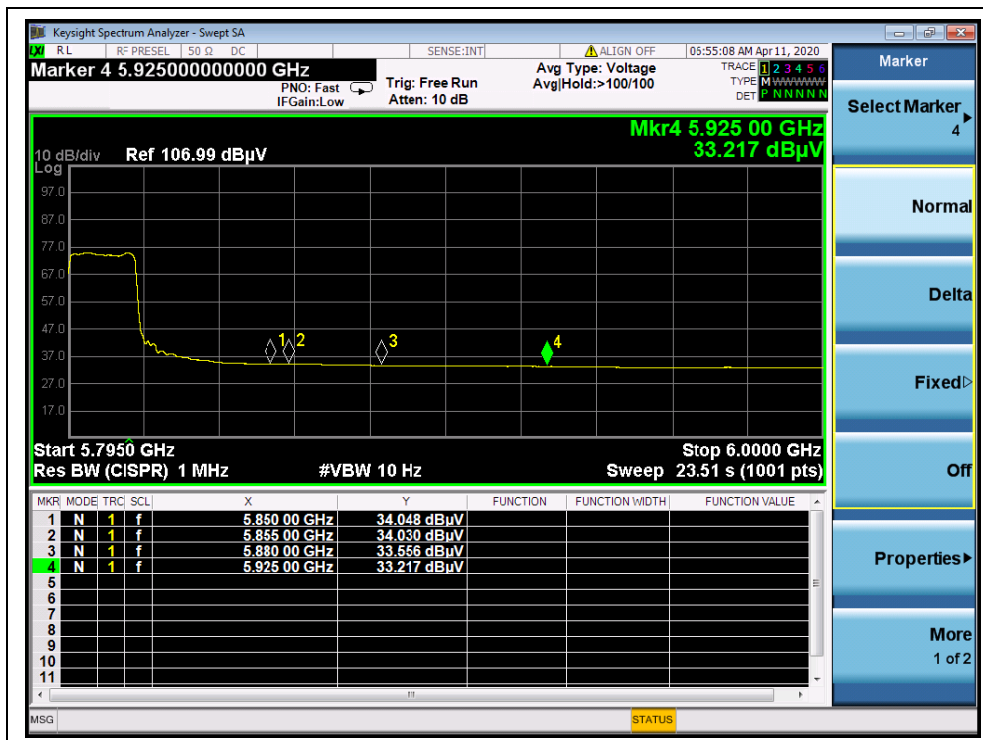
(PEAK,Channel 151, 802.11ac (VHT40))



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



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



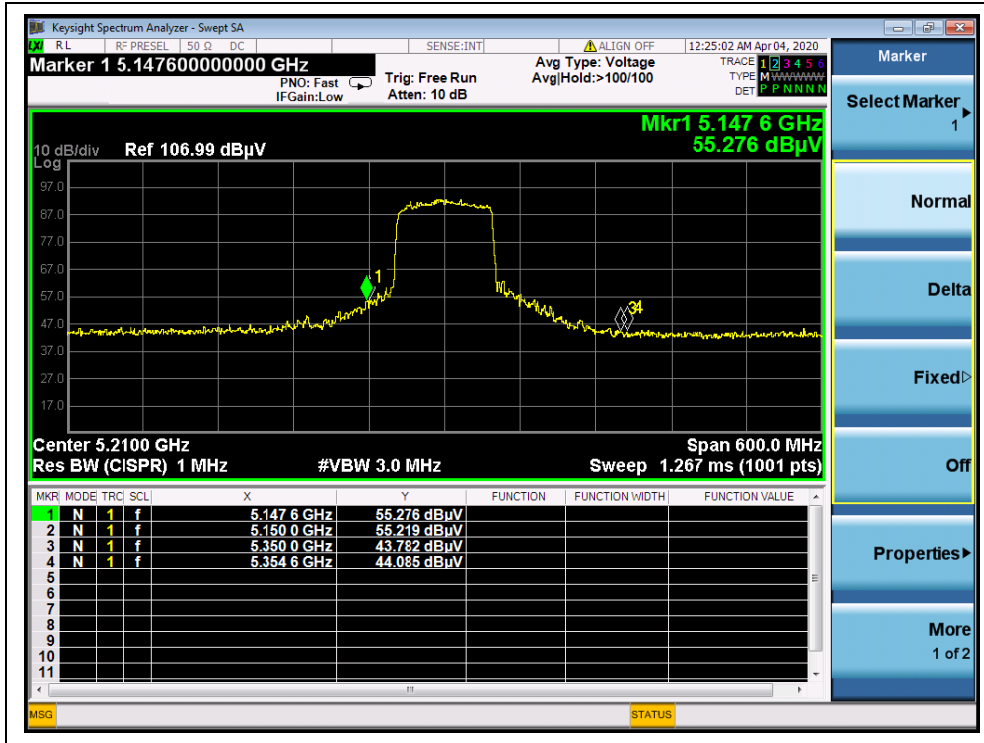
(AVG,Channel 159, 802.11ac (VHT40))

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

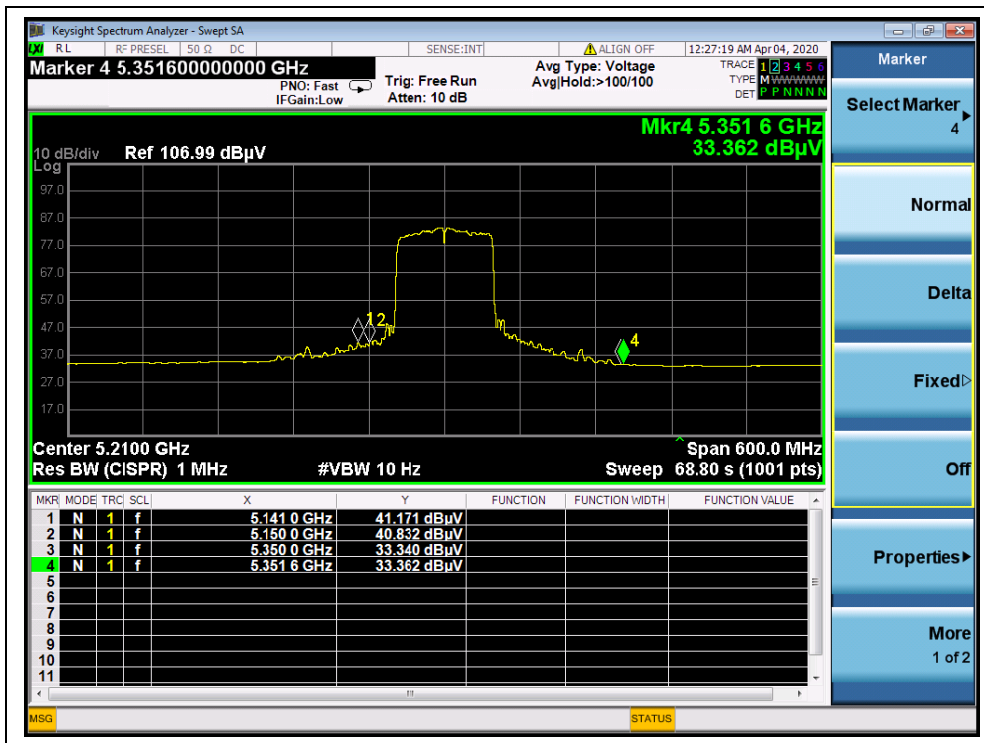
Channel	Frequency (MHz)	Detector	Receiver Reading $U_R$ (dBuV)	$A_T$ (dB)	$A_{Factor}$ (dB@3m)	Max. Emission E (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Verdict
		PK/ AV						
42	5147.60	PK	55.28	-26.92	32.20	60.56	74	PASS
42	5141.00	AV	41.17	-26.92	32.20	46.45	54	PASS
58	5146.00	PK	47.03	-26.80	32.20	52.43	74	PASS
58	5146.00	AV	37.68	-26.80	32.20	43.08	54	PASS
106	5470.00	PK	55.35	-26.64	32.20	60.91	68.23	PASS
106	5470.00	AV	43.66	-26.64	32.20	49.22	54	PASS
138	5778.09	PK	45.56	-26.64	32.20	51.12	68.23	PASS
138	5725.00	AV	35.70	-26.64	32.20	41.26	54	PASS
155	5720.00	PK	54.23	-26.23	32.20	60.20	110.83	PASS
155	5725.00	AV	42.01	-26.23	32.20	47.98	54	PASS
155	5858.70	PK	48.81	-26.23	32.20	54.78	100.47	PASS
155	5850.00	AV	36.02	-26.23	32.20	41.99	54	PASS



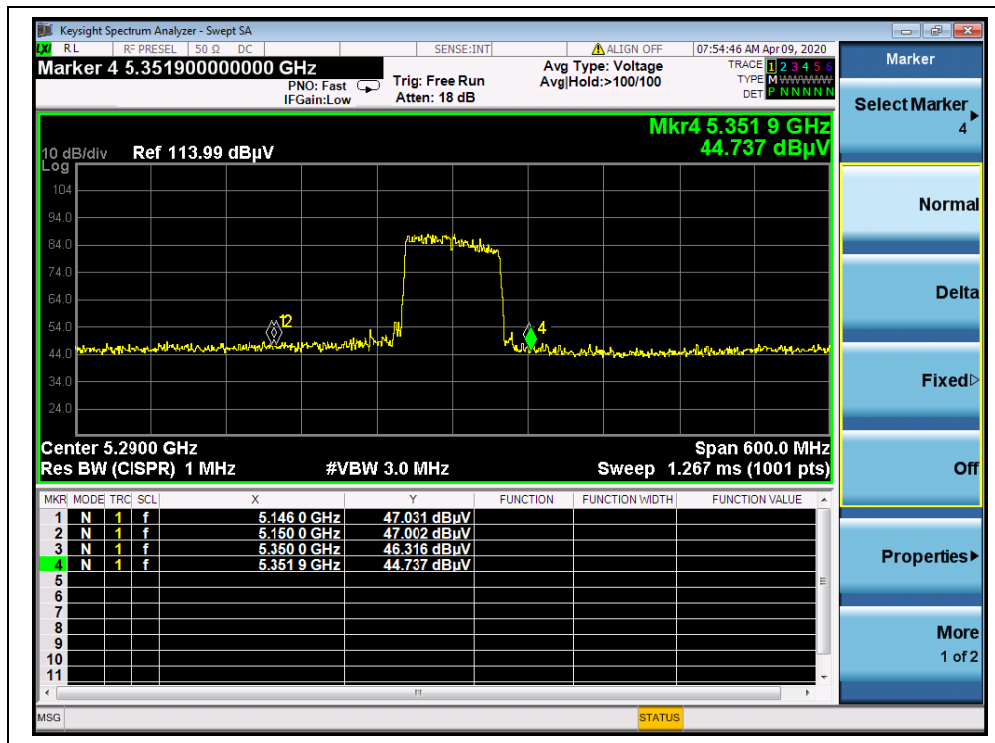
B. Test Plots:



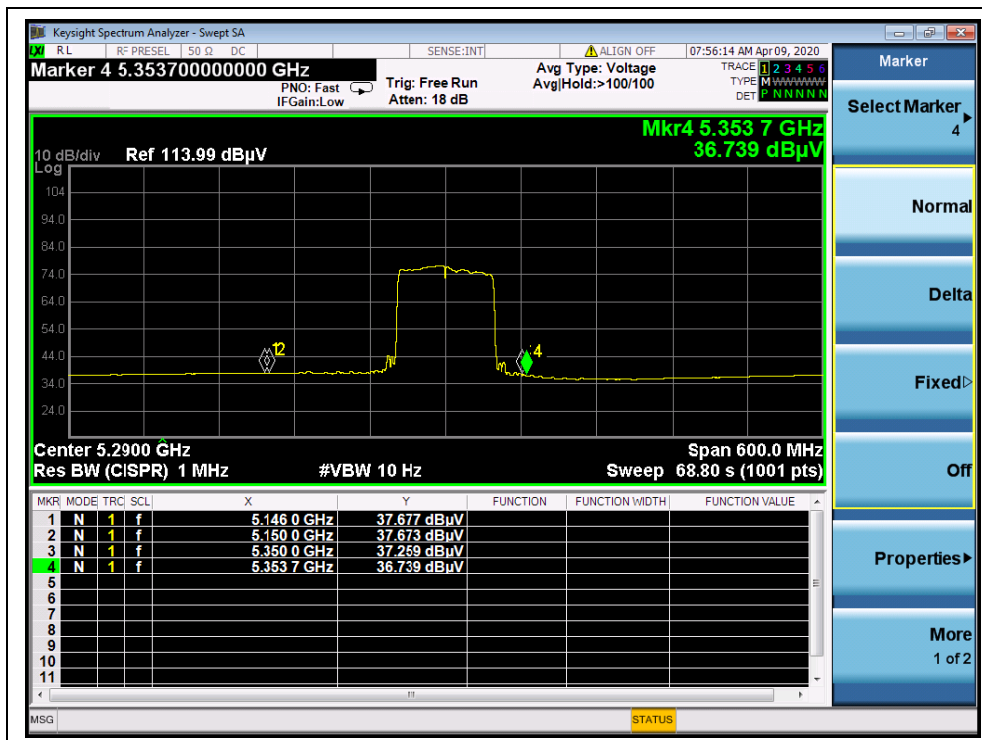
(PEAK,Channel 42,802.11ac (VHT80))



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

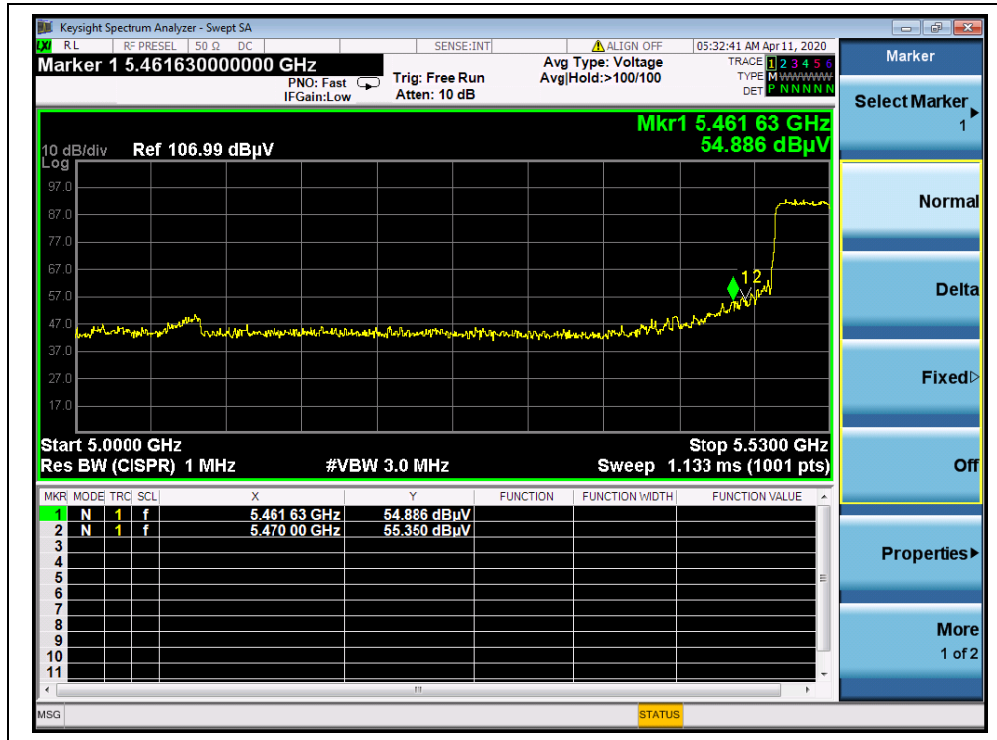


(PEAK,Channel 58, 802.11ac (VHT80))

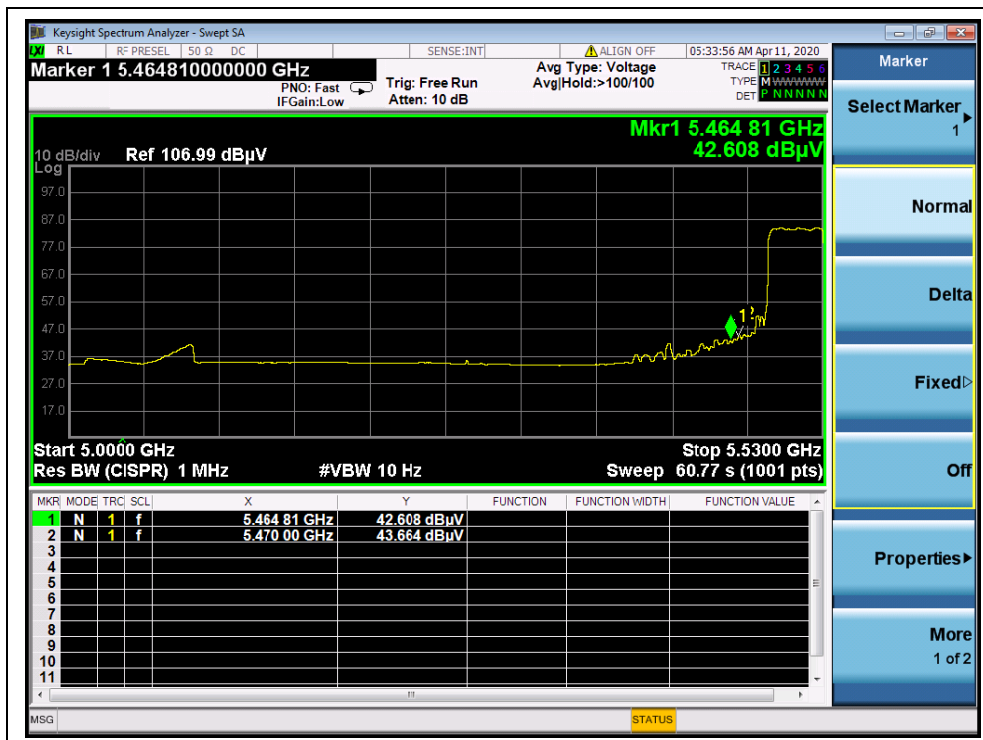


(AVG,Channel 58, 802.11ac (VHT80))

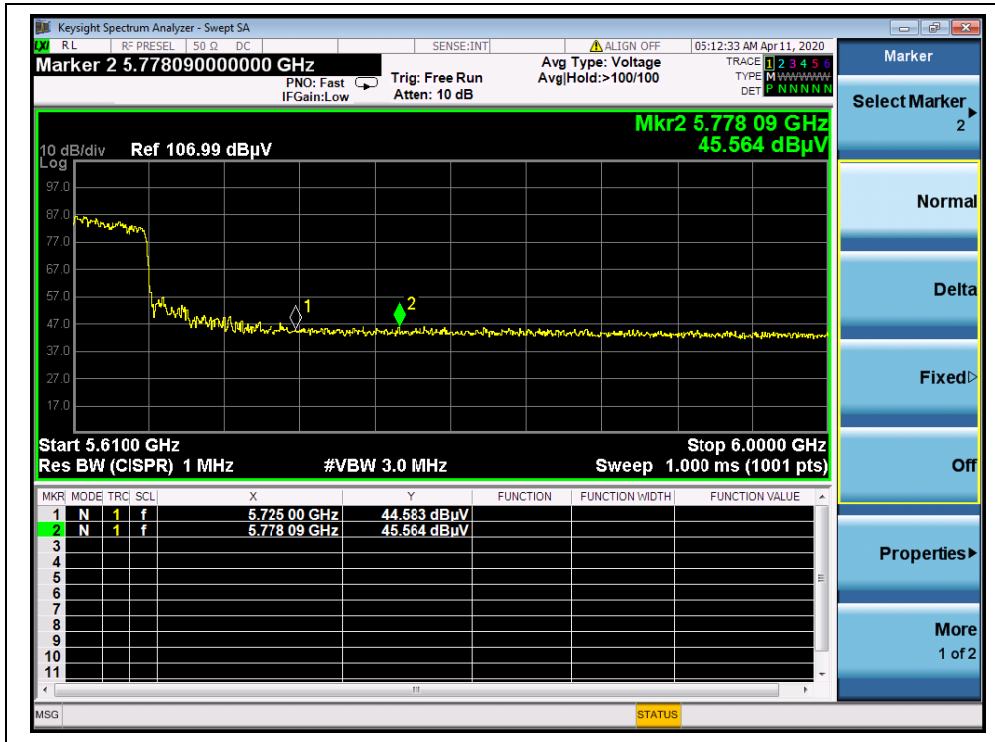




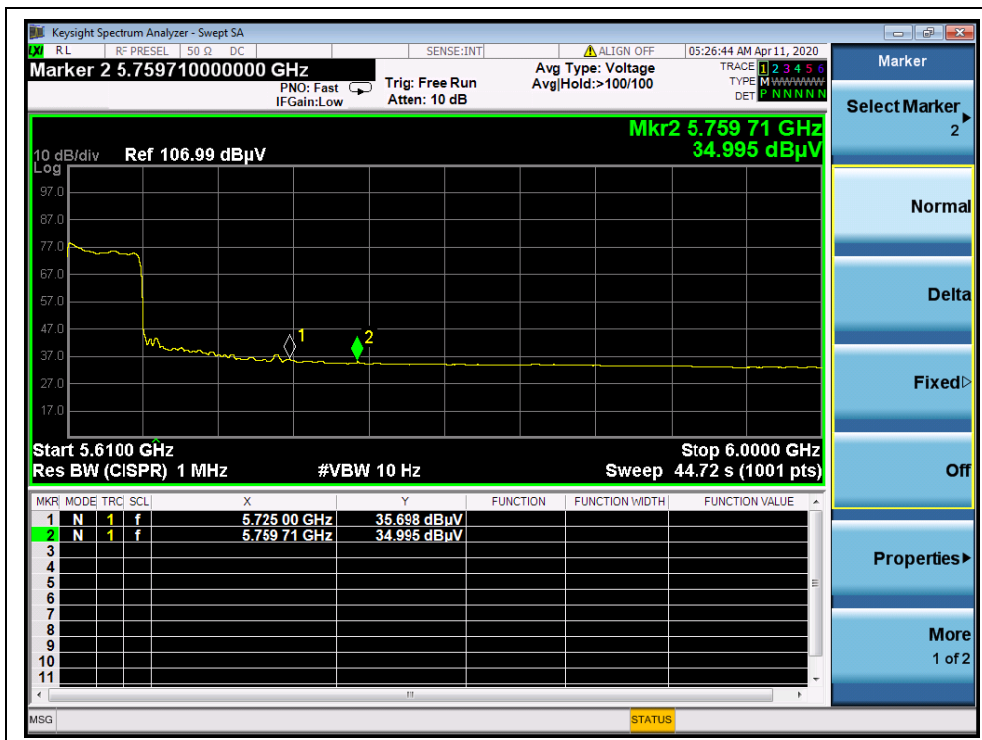
(PEAK,Channel 106, 802.11ac (VHT80))



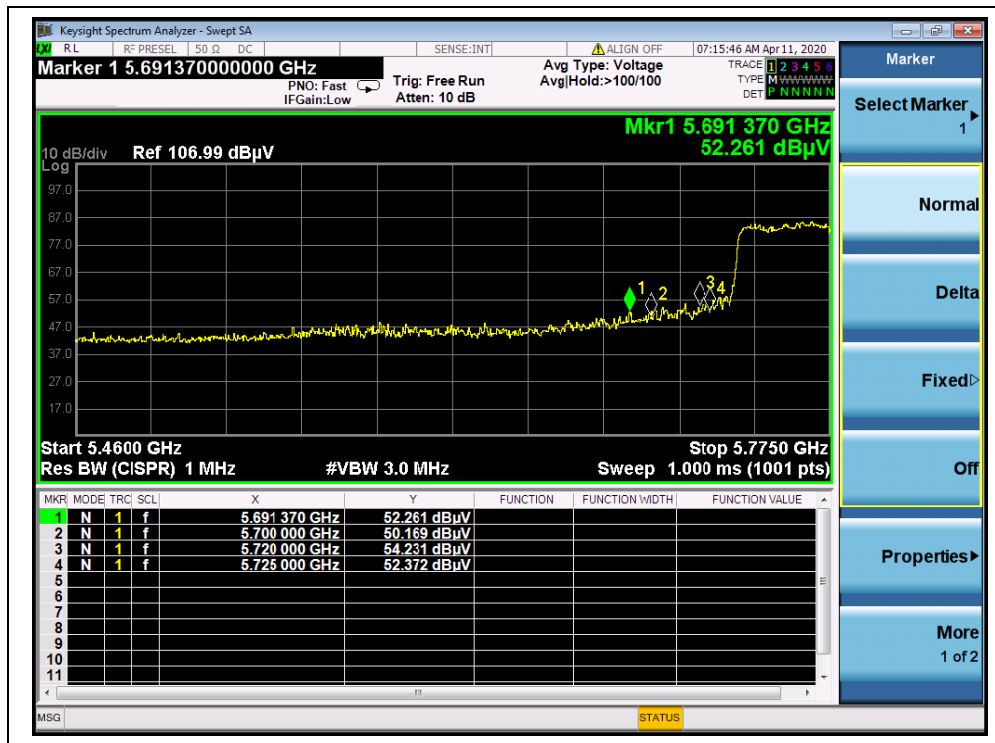
(AVG,Channel 106, 802.11ac (VHT80))



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



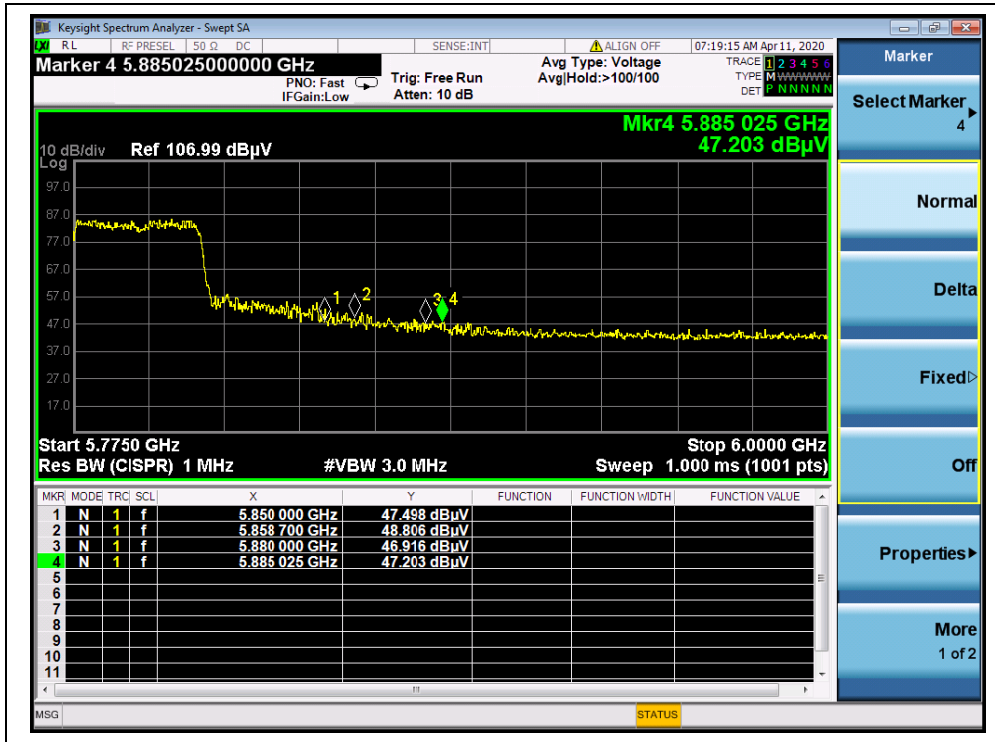
(AVG, Channel 138, 802.11ac (VHT80))



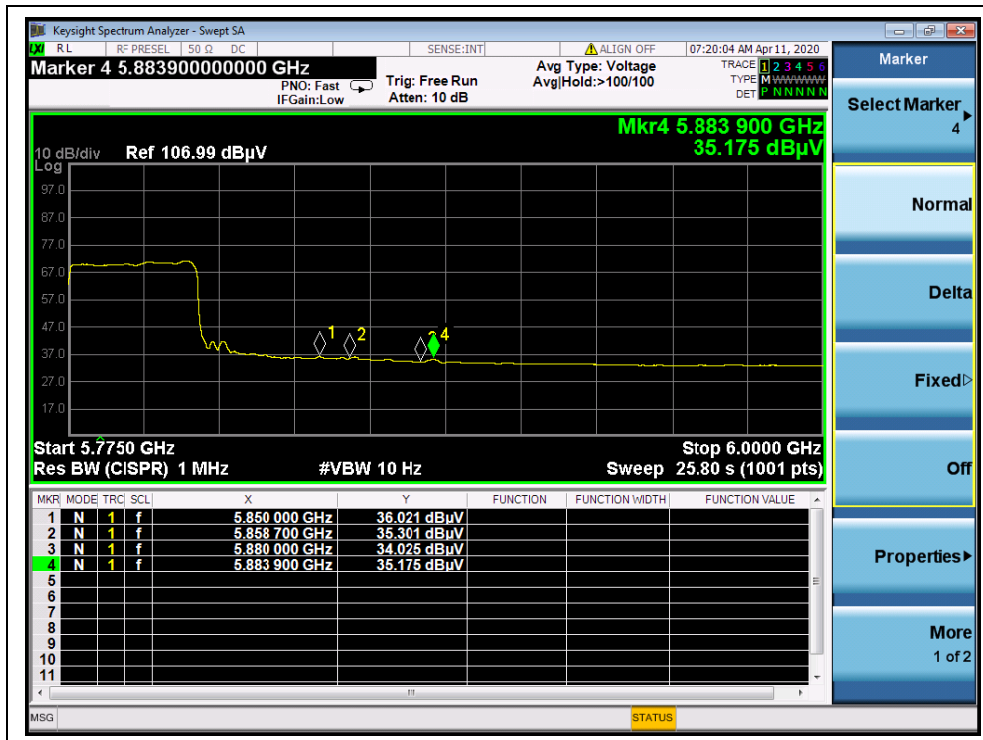
(PEAK,Channel 155, 802.11ac (VHT80))



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



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



(AVG,Channel 155, 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

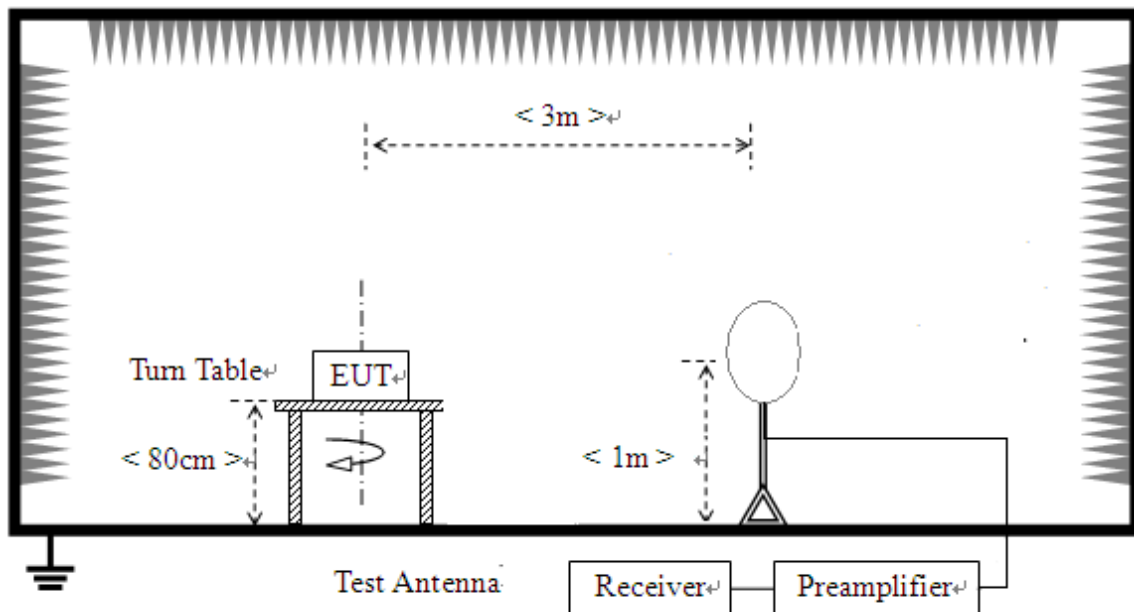
**Note:**

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.

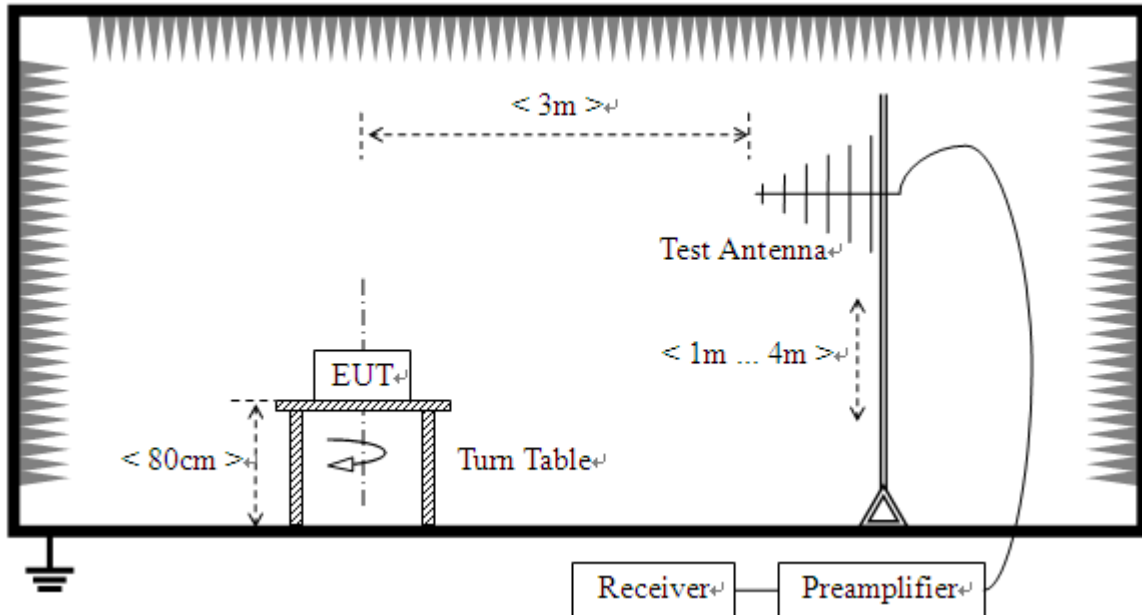
In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table)

**2.9.2. Test Description****TestSetup:**

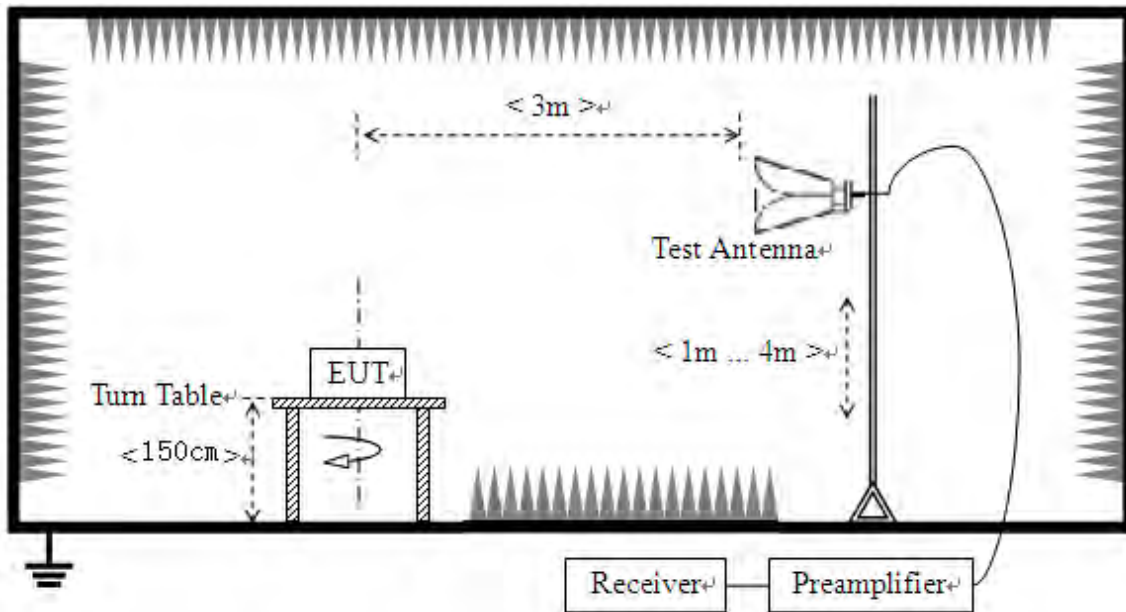
- 1) For radiated emissions from 9kHz to 30MHz



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.

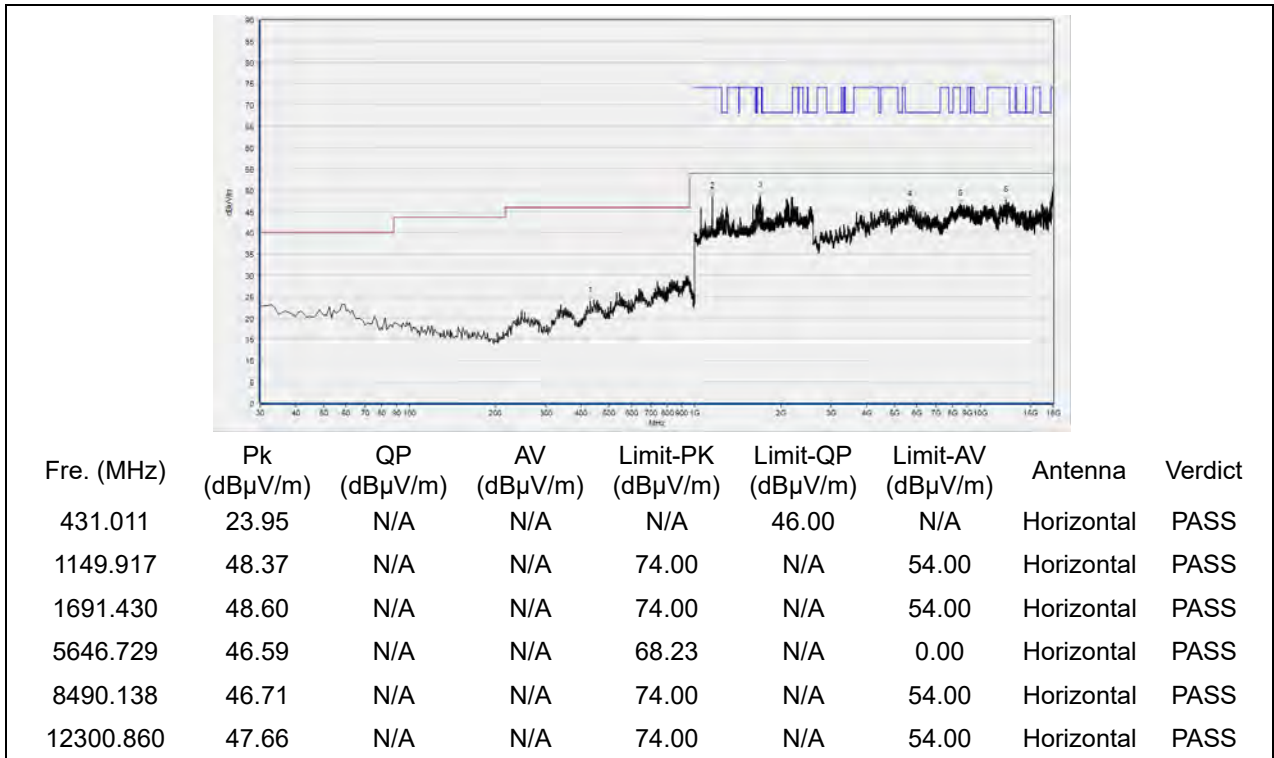
**Note2:** For the frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

**Note3:** For the frequency, which started from 18GHz to 40GHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

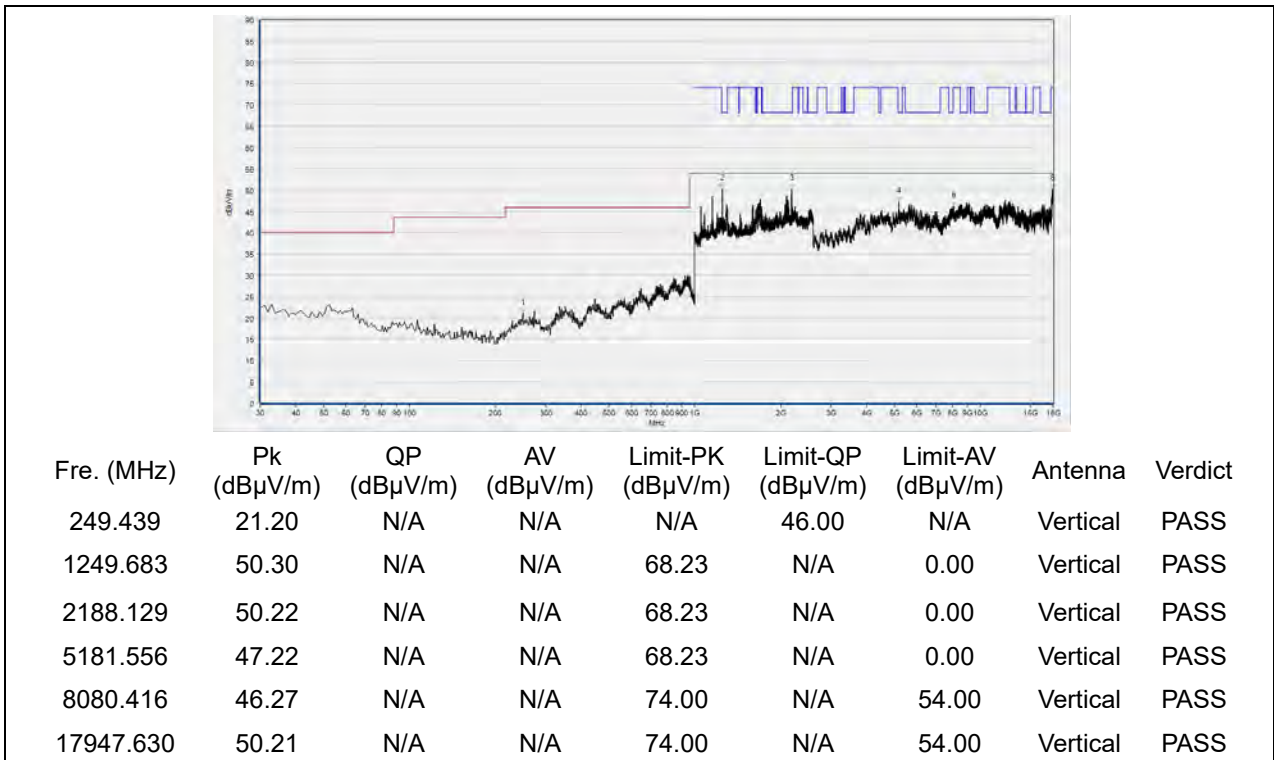


**802.11a Test mode**

Plots for Channel = 36

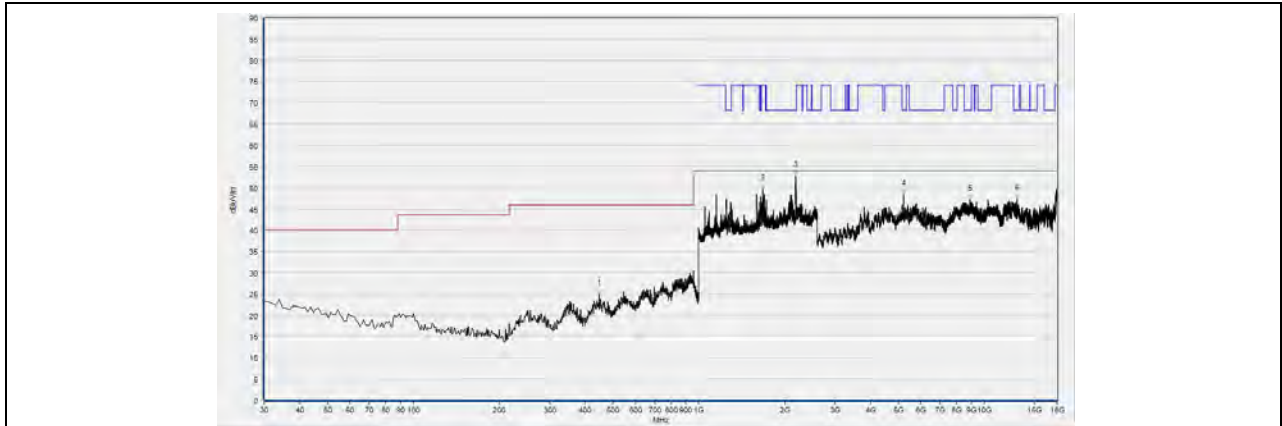


(Antenna Horizontal, 30MHz to 18GHz)



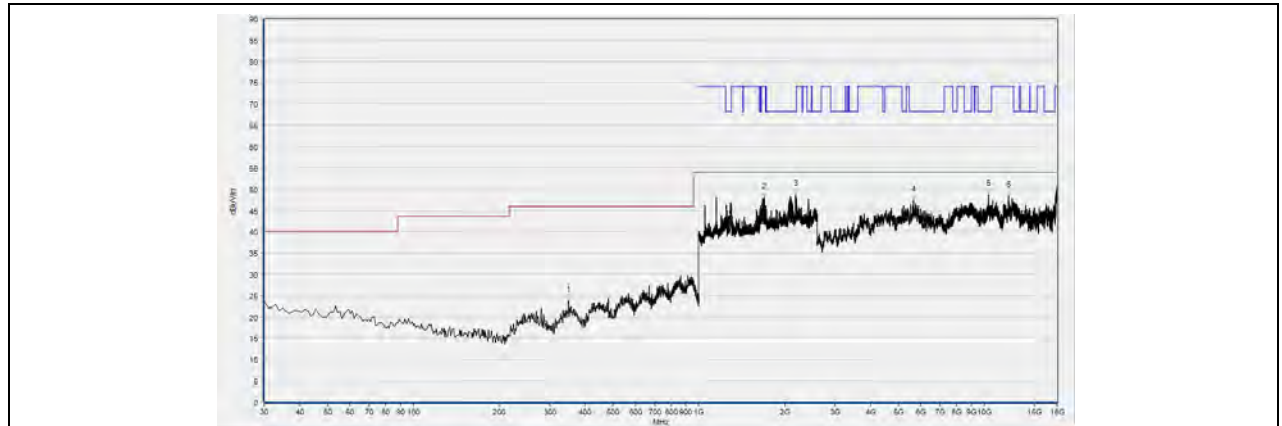
(Antenna Vertical, 30MHz to 18GHz)

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
448.488	25.00	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1678.093	49.77	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2189.300	52.74	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS
5215.443	48.46	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS
8906.021	47.24	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS
13040.208	47.46	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS

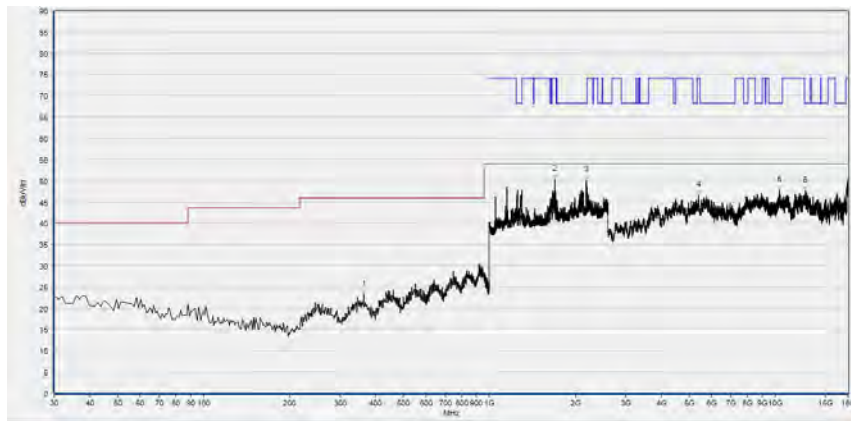
(Antenna Horizontal, 30MHz to 18GHz)



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
349.449	23.88	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
1691.964	48.13	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2189.730	48.81	N/A	N/A	68.23	N/A	0.00	Vertical	PASS
5652.891	47.50	N/A	N/A	68.23	N/A	0.00	Vertical	PASS
10332.346	48.72	N/A	N/A	68.23	N/A	0.00	Vertical	PASS
12162.232	48.36	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

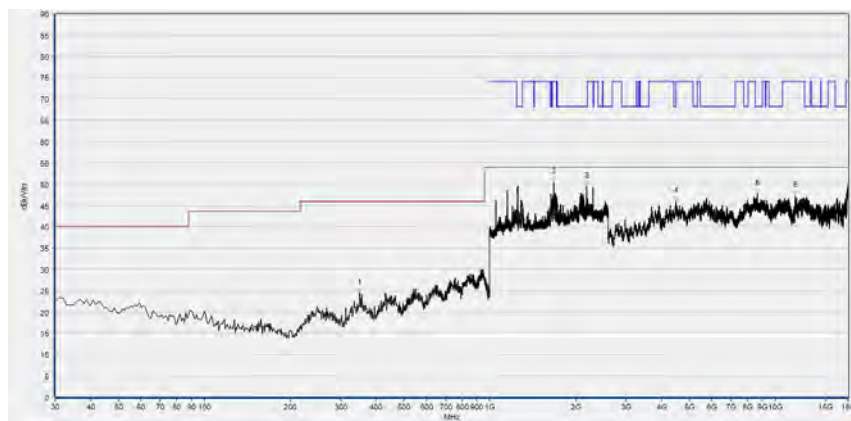
(Antenna Vertical, 30MHz to 18GHz)

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
363.043	23.21	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1693.565	50.25	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2185.462	50.16	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS
5403.361	46.61	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10360.072	47.72	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS
12722.905	47.53	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS

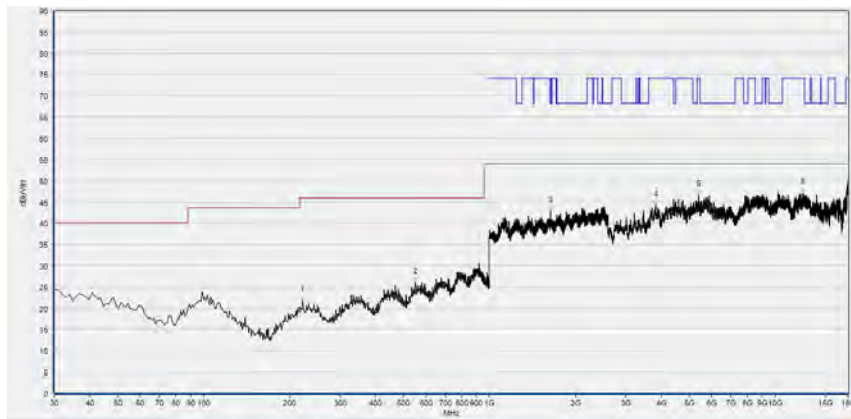
(Antenna Horizontal, 30MHz to 18GHz)



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
349.449	24.39	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1673.291	50.52	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2184.395	49.45	N/A	N/A	68.23	N/A	0.00	Vertical	PASS
4488.418	45.97	N/A	N/A	68.23	N/A	0.00	Vertical	PASS
8644.169	47.83	N/A	N/A	68.23	N/A	0.00	Vertical	PASS
11752.511	47.18	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

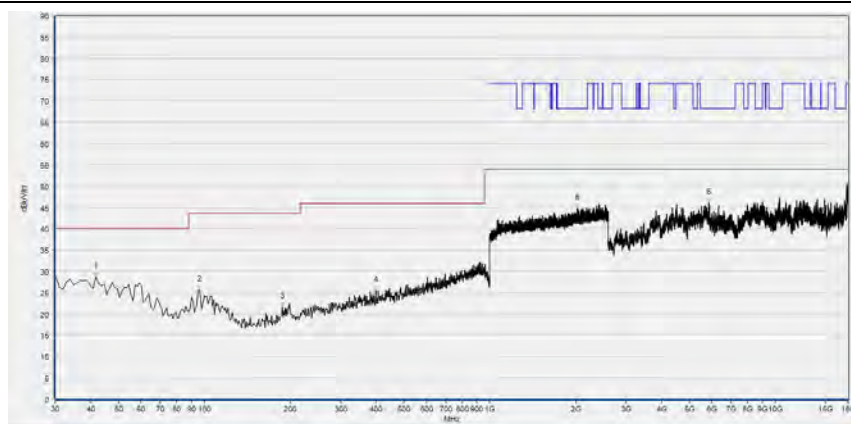
(Antenna Vertical, 30MHz to 18GHz)

Plots 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
222.252	21.82	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
551.411	26.17	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1636.479	42.95	N/A	N/A	68.23	N/A	54.00	Horizontal	PASS
3816.843	44.26	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5397.199	46.79	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12525.745	47.05	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

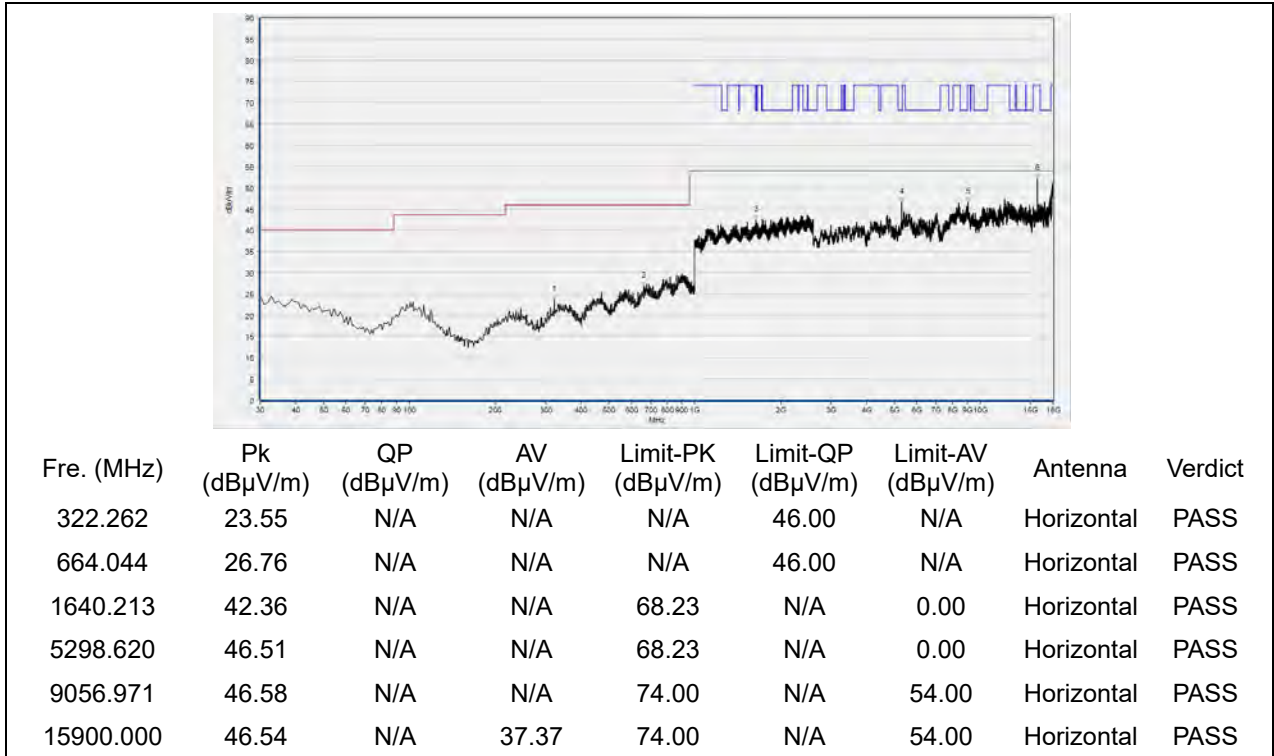
(Antenna Horizontal, 30MHz to 18GHz)



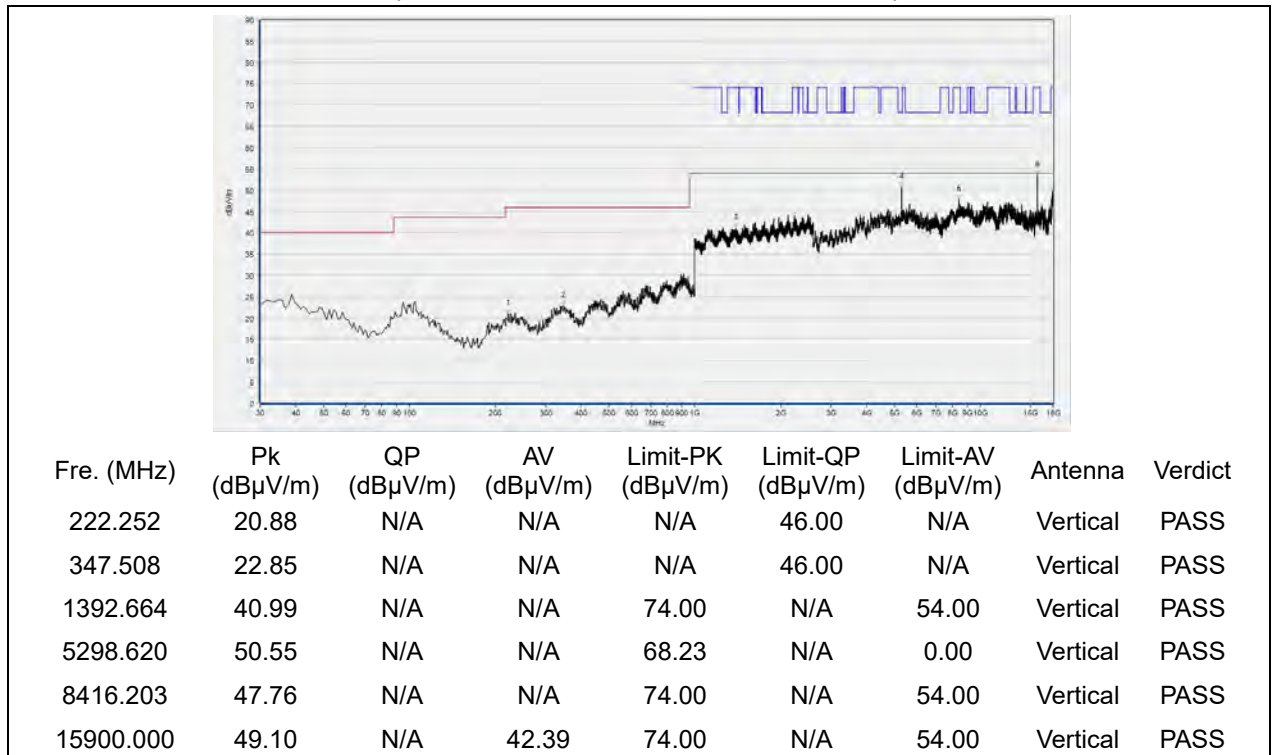
Fre. (MHz)	Pk (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
114.474	22.46	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
425.185	23.37	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1245.949	41.87	N/A	N/A	68.23	N/A	0.00	Vertical	PASS
2127.309	42.83	N/A	N/A	68.23	N/A	0.00	Vertical	PASS
5659.052	46.06	N/A	N/A	68.23	N/A	0.00	Vertical	PASS
12525.745	47.41	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 60

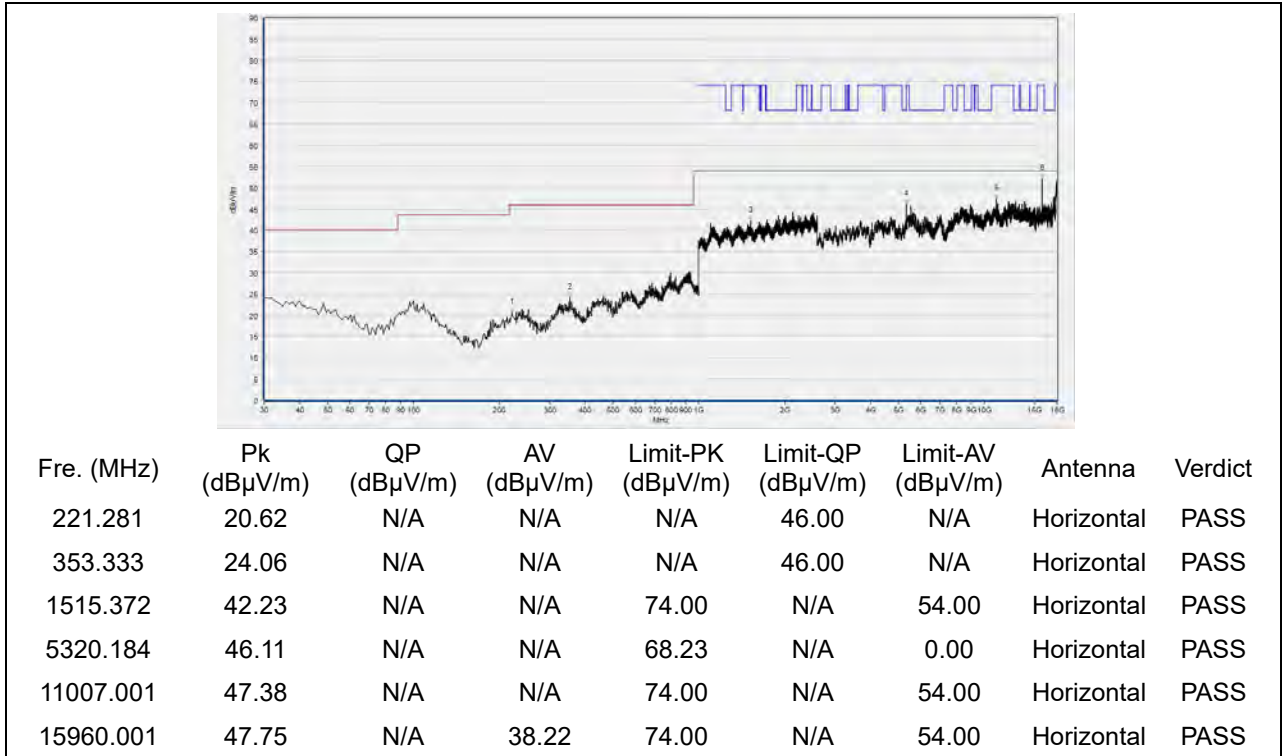


(Antenna Horizontal, 30MHz to 18GHz)

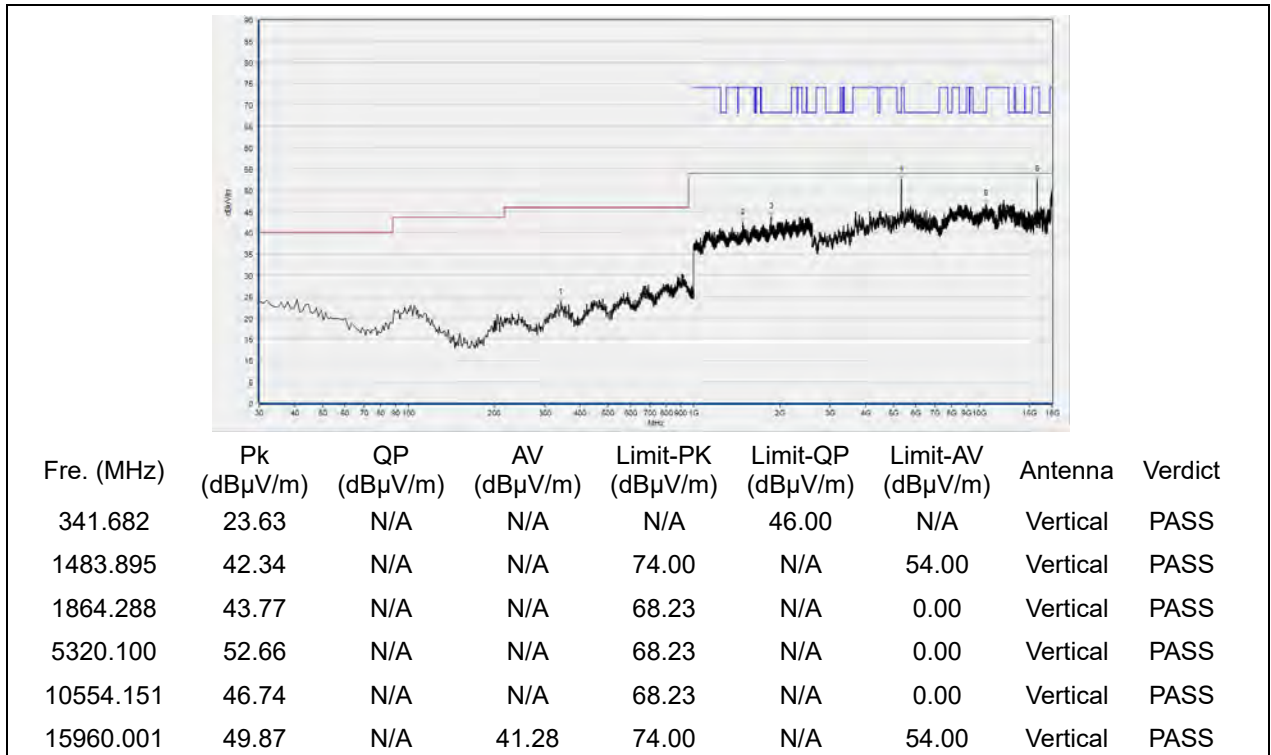


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 64

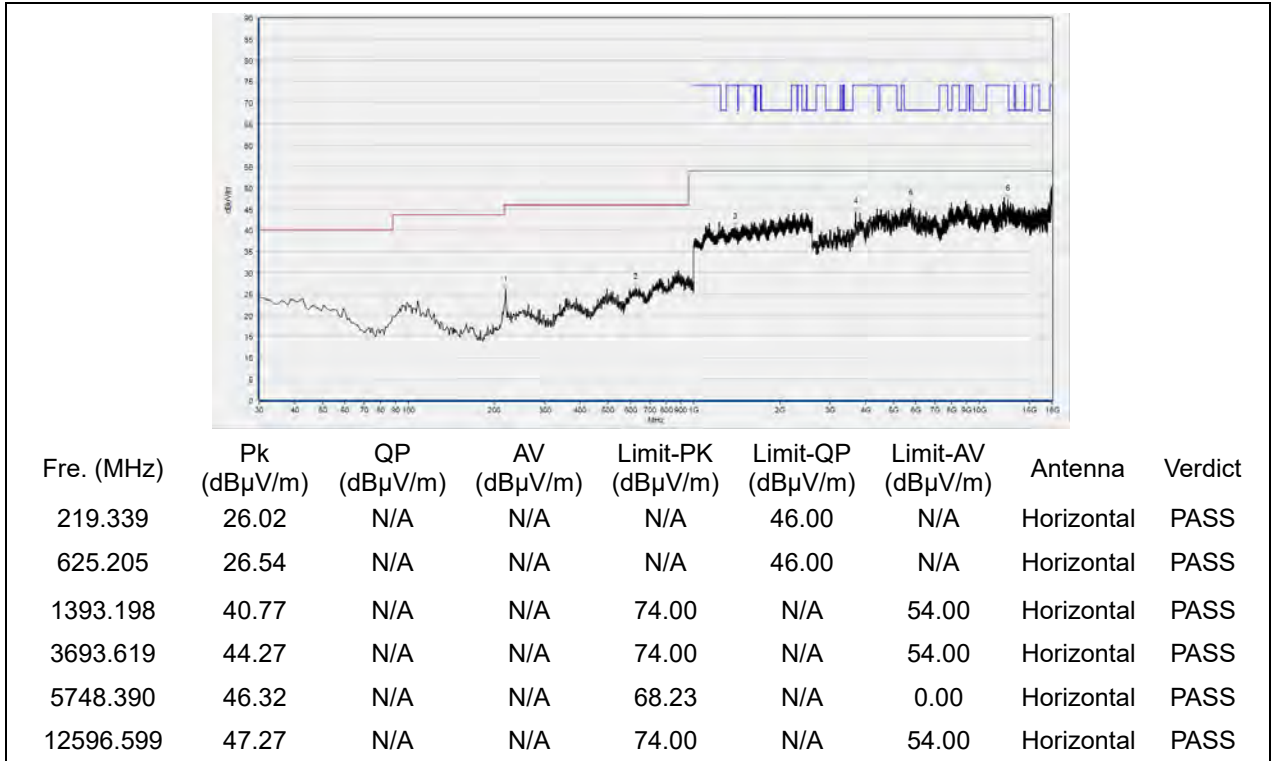


(Antenna Horizontal, 30MHz to 18GHz)

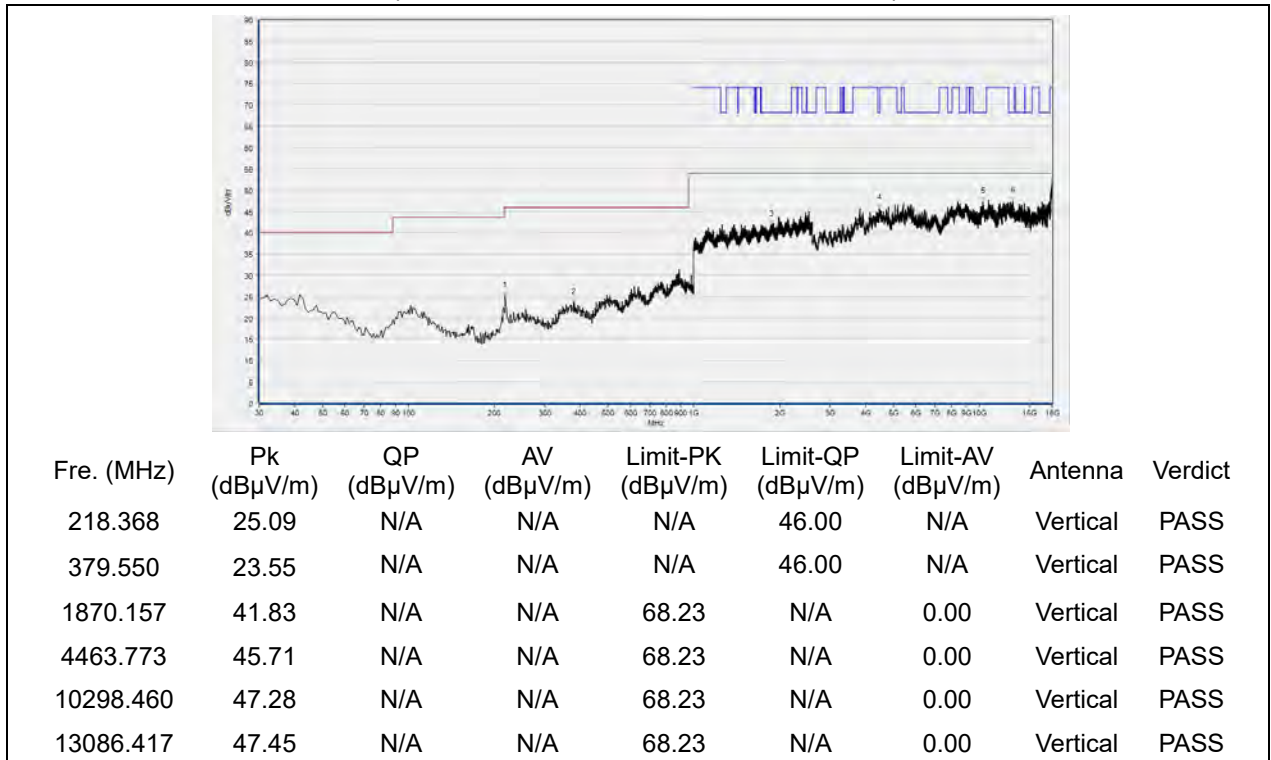


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 100



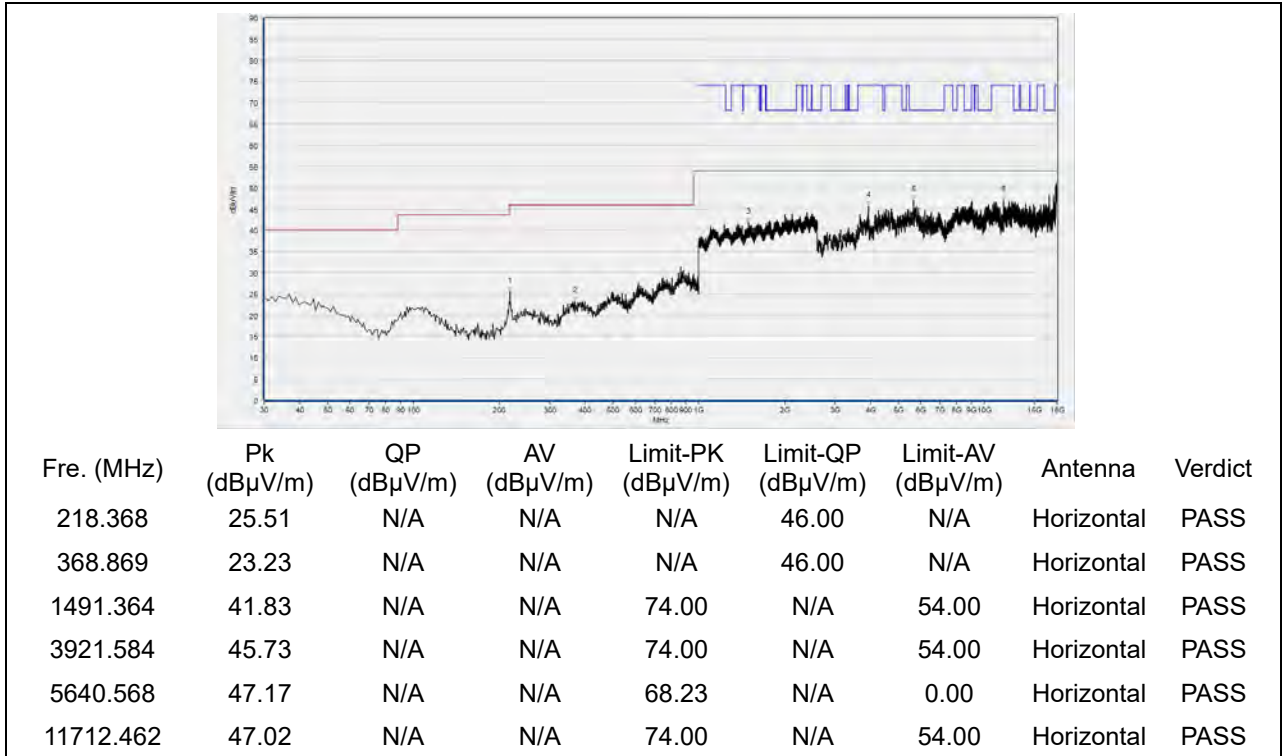
(Antenna Horizontal, 30MHz to 18GHz)



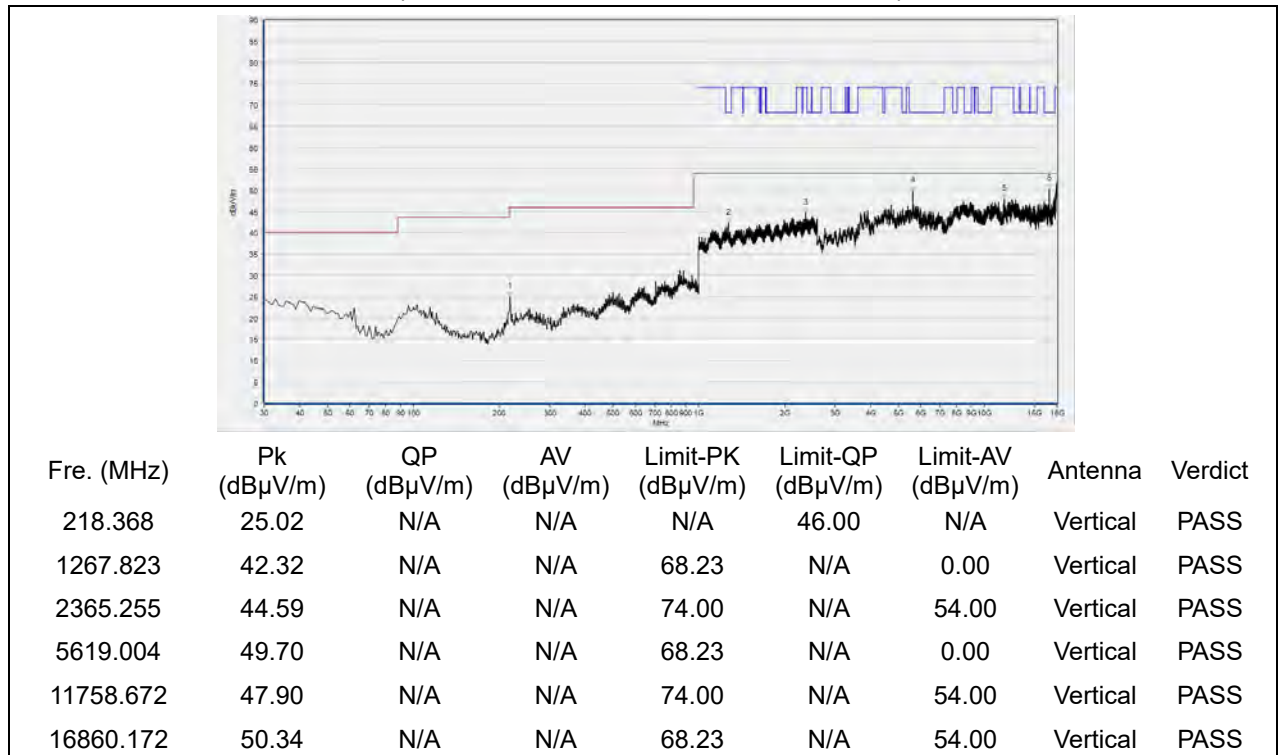
(Antenna Vertical, 30MHz to 18GHz)



Plots for Channel = 120

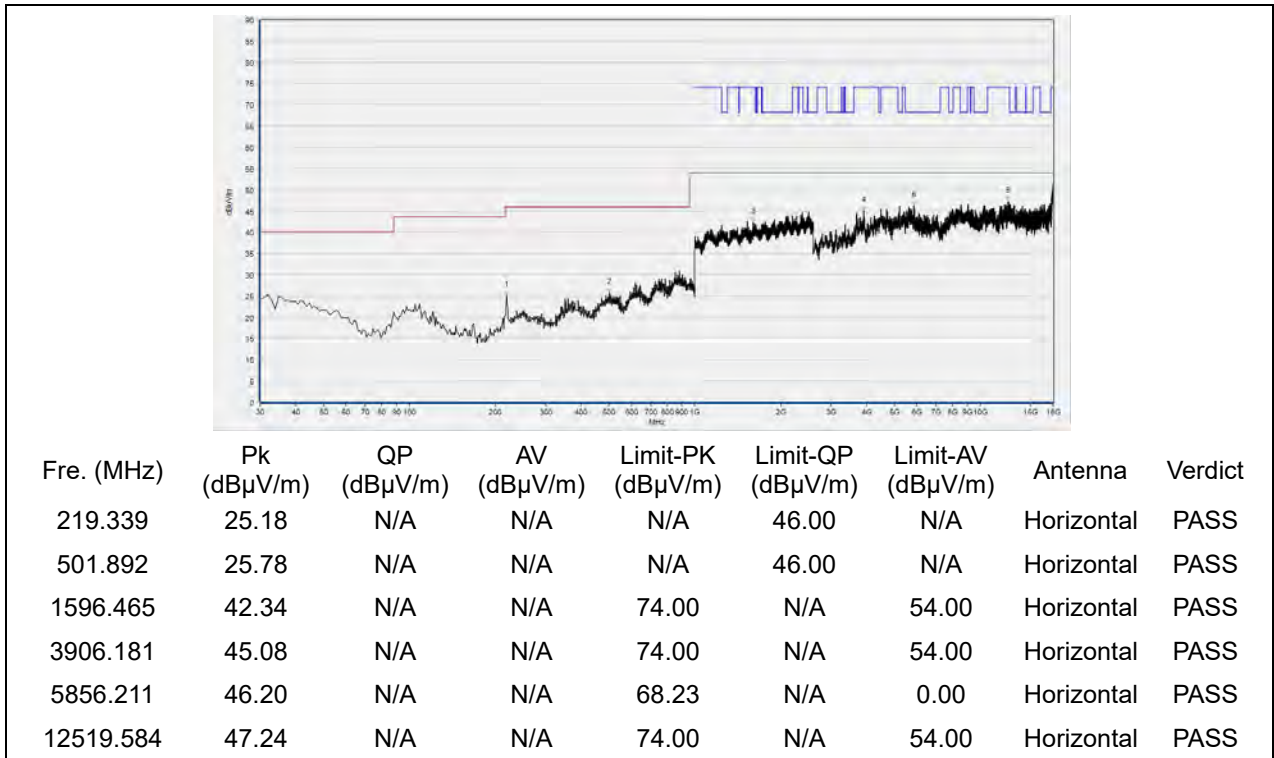


(Antenna Horizontal, 30MHz to 18GHz)

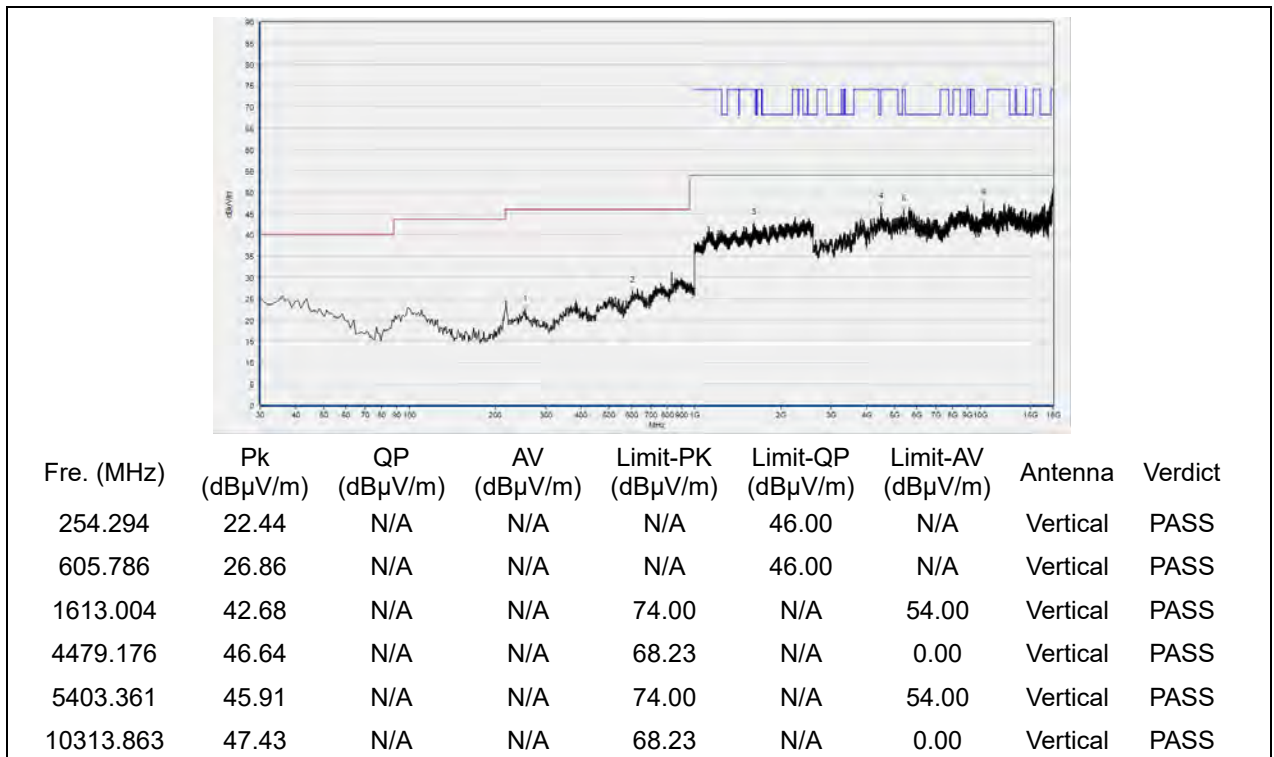


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 144

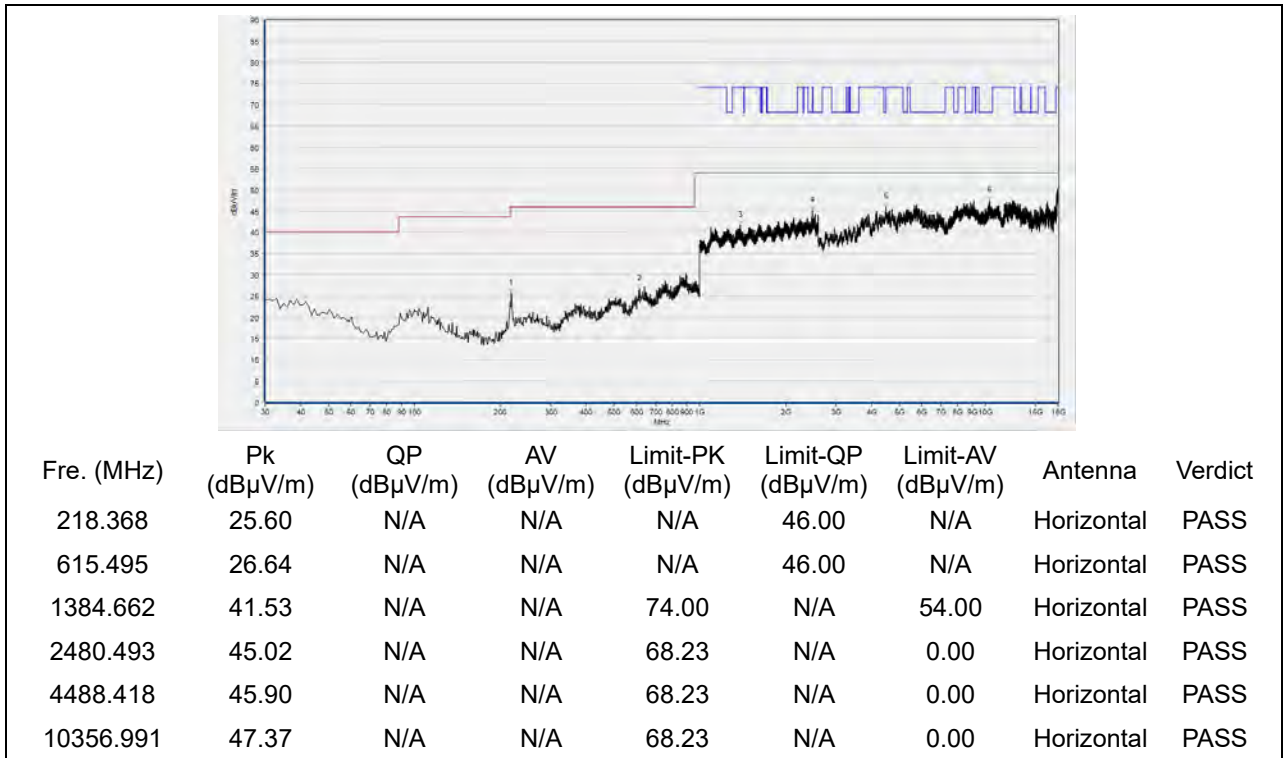


(Antenna Horizontal, 30MHz to 18GHz)

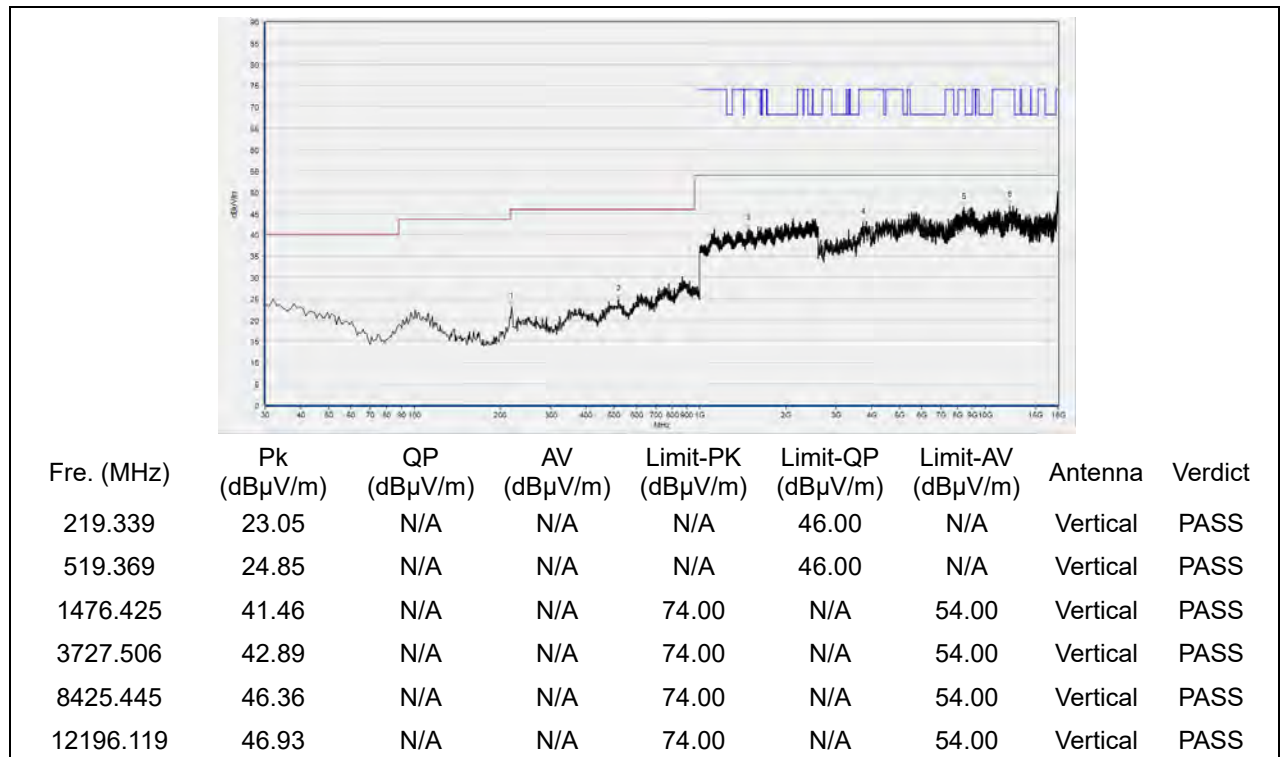


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 149

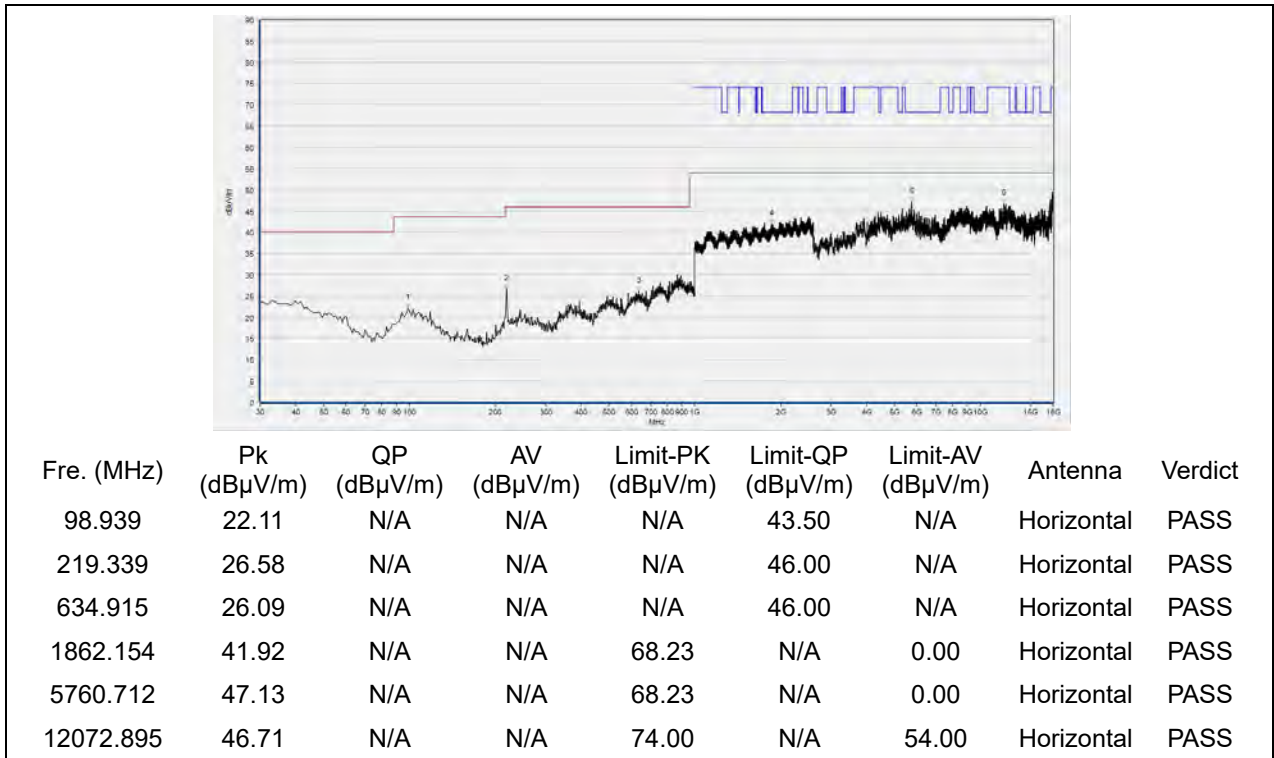


(Antenna Horizontal, 30MHz to 18GHz)

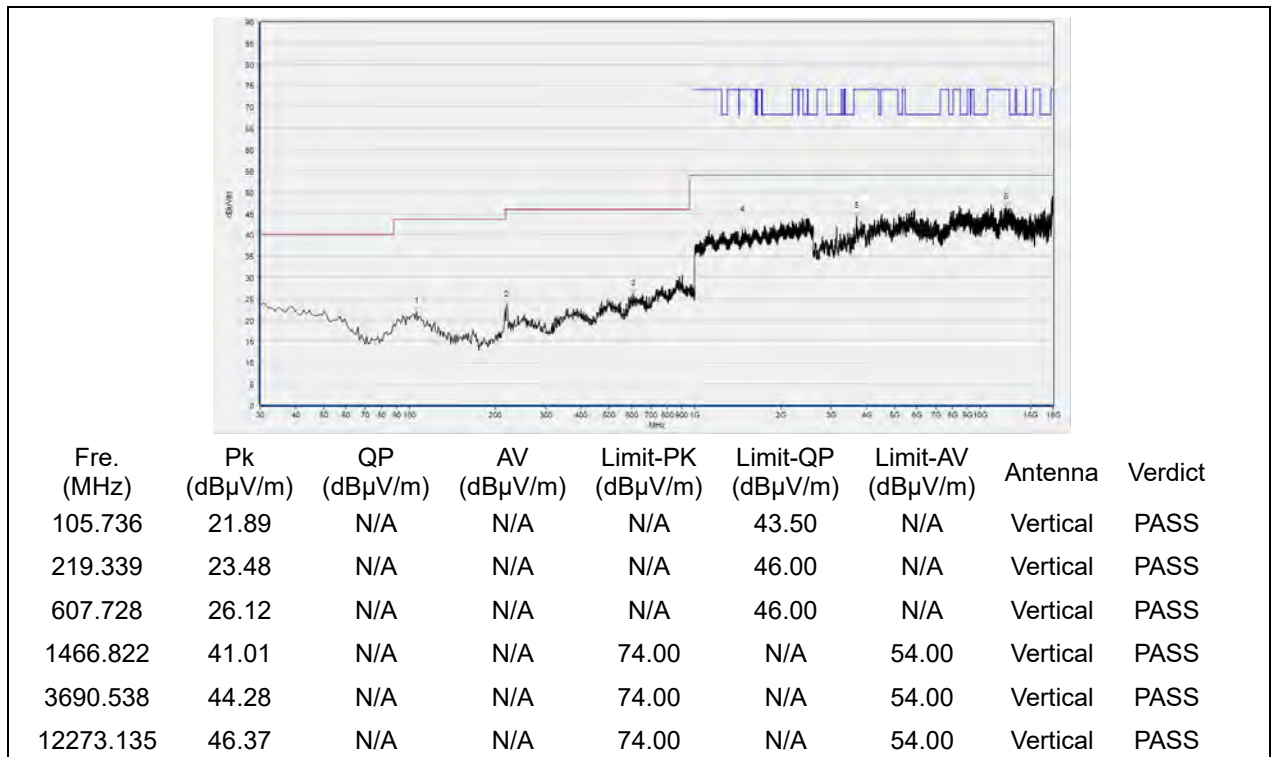


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 157

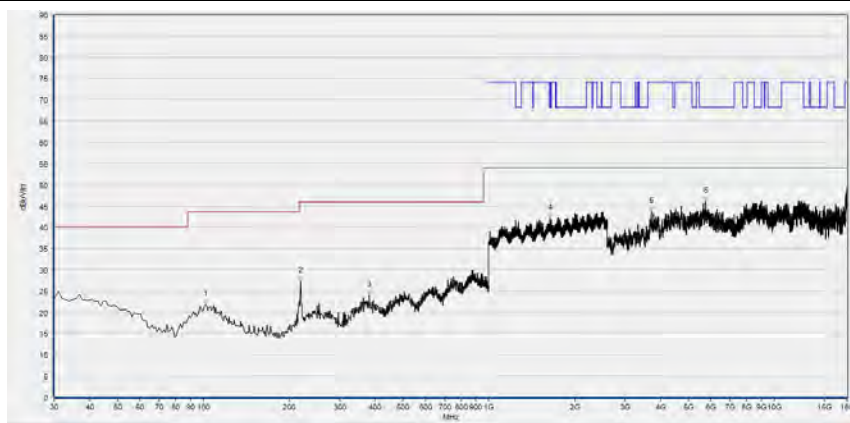


(Antenna Horizontal, 30MHz to 18GHz)



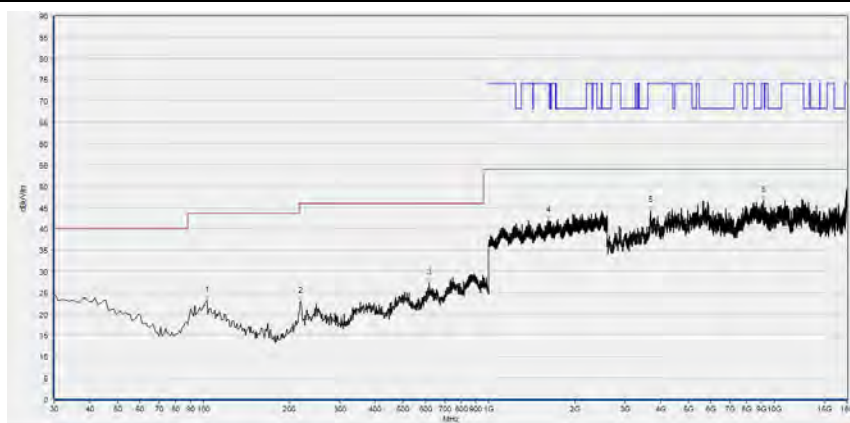
(Antenna Vertical, 30MHz to 18GHz)

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
101.852	21.80	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
219.339	27.34	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
381.491	23.93	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1638.613	42.03	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS
3712.102	43.66	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5763.793	46.04	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



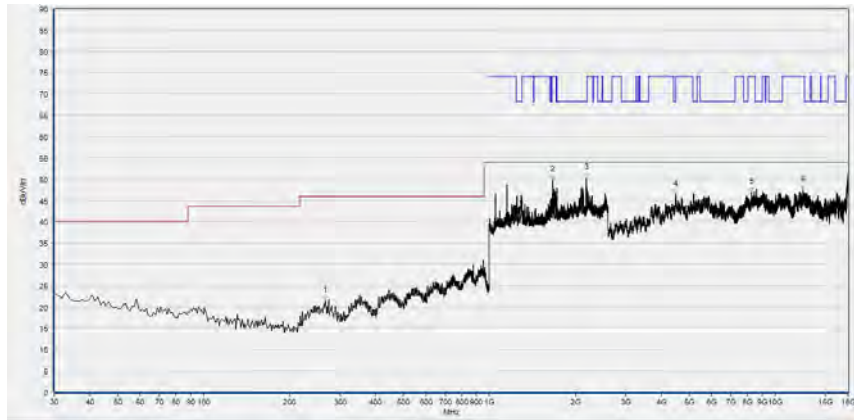
Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
102.823	23.07	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
219.339	22.99	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
619.379	27.25	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1618.339	41.82	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3690.538	44.24	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9161.712	46.59	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)



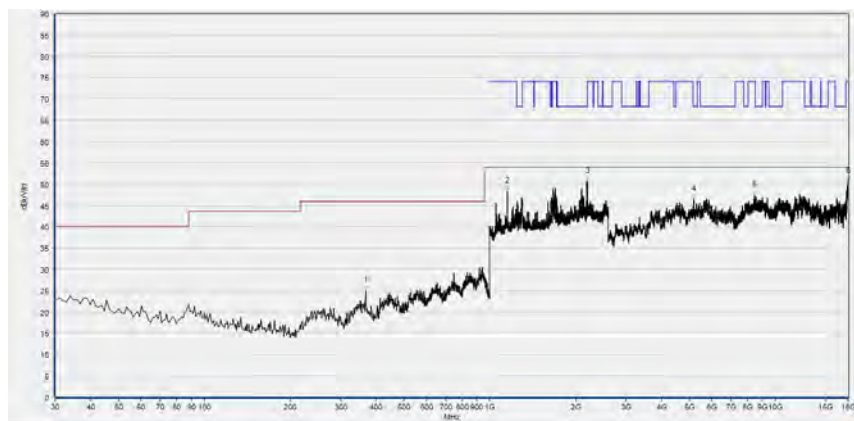
**802.11n (HT20) Test mode**

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
266.917	21.41	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1669.023	49.80	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2183.861	50.25	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS
4500.740	46.37	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8289.898	46.87	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12534.987	47.40	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

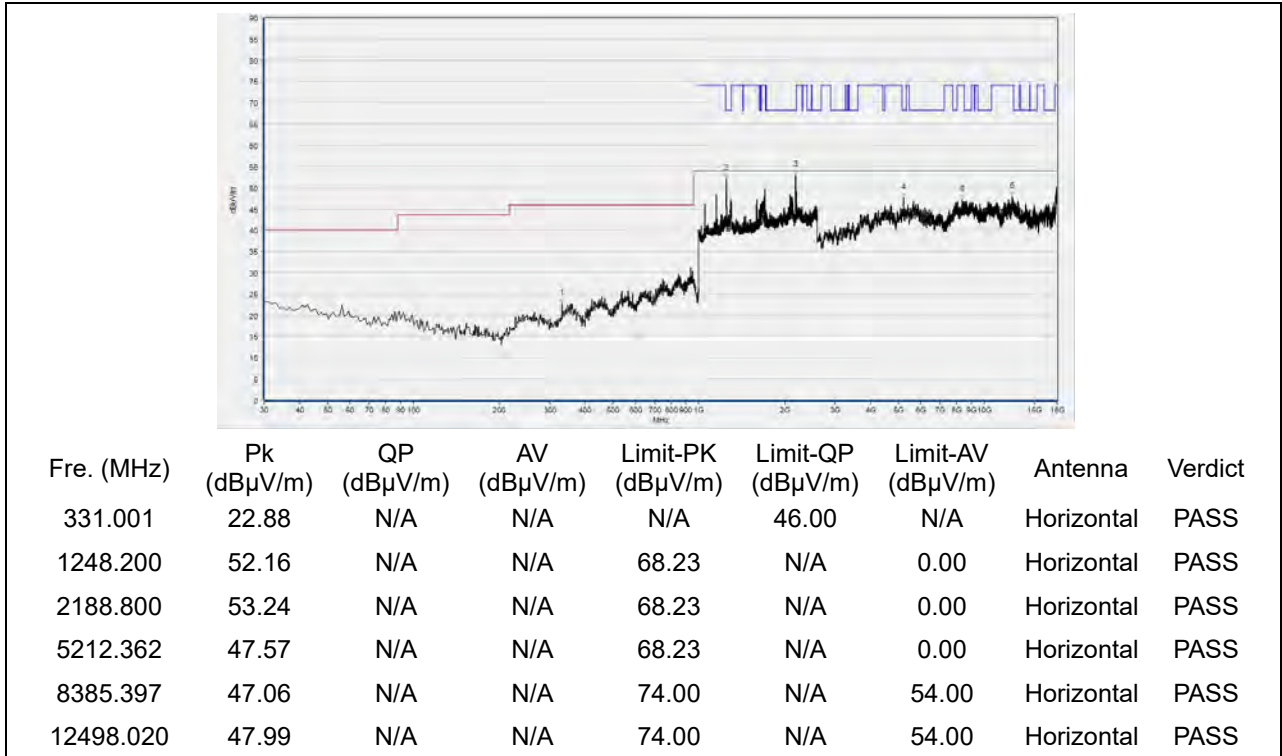
(Antenna Horizontal, 30MHz to 18GHz)



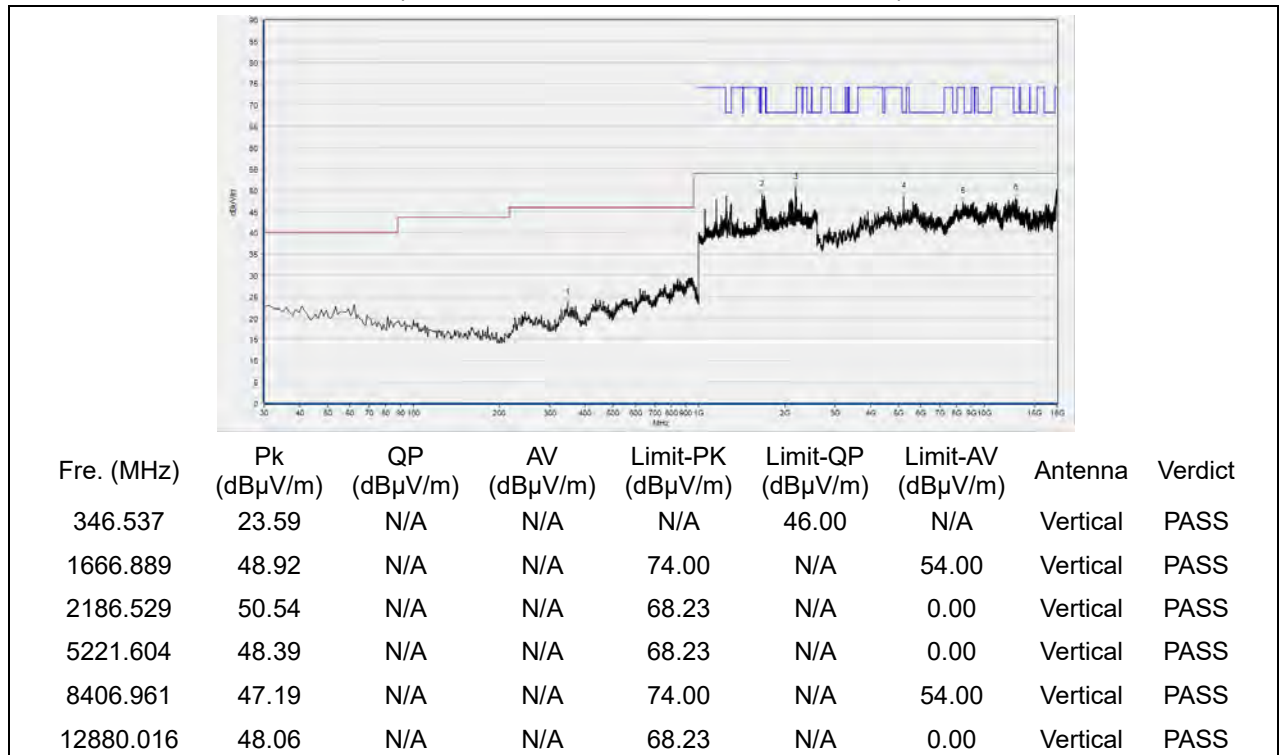
Fre. (MHz)	Pk (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
367.898	24.91	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1149.917	48.20	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2191.864	50.67	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5181.556	46.36	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
8459.332	47.42	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
17966.113	50.56	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 44

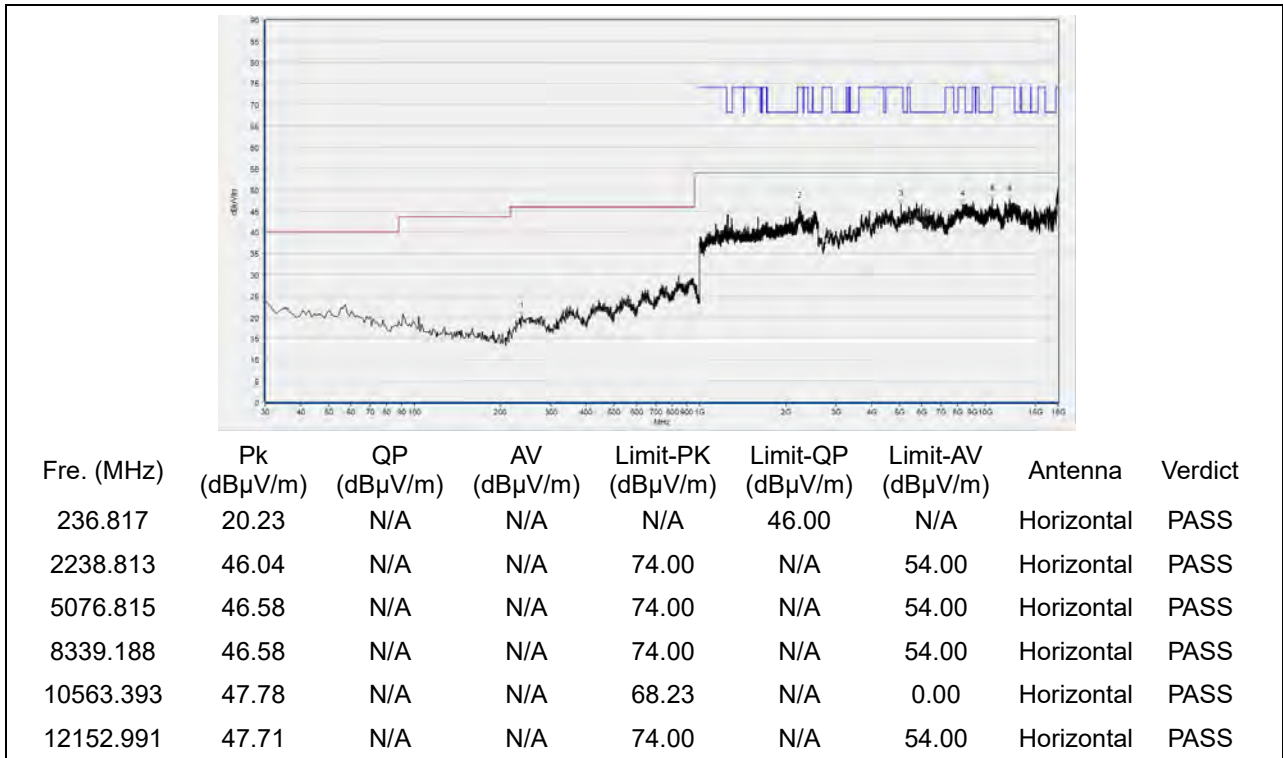


(Antenna Horizontal, 30MHz to 18GHz)

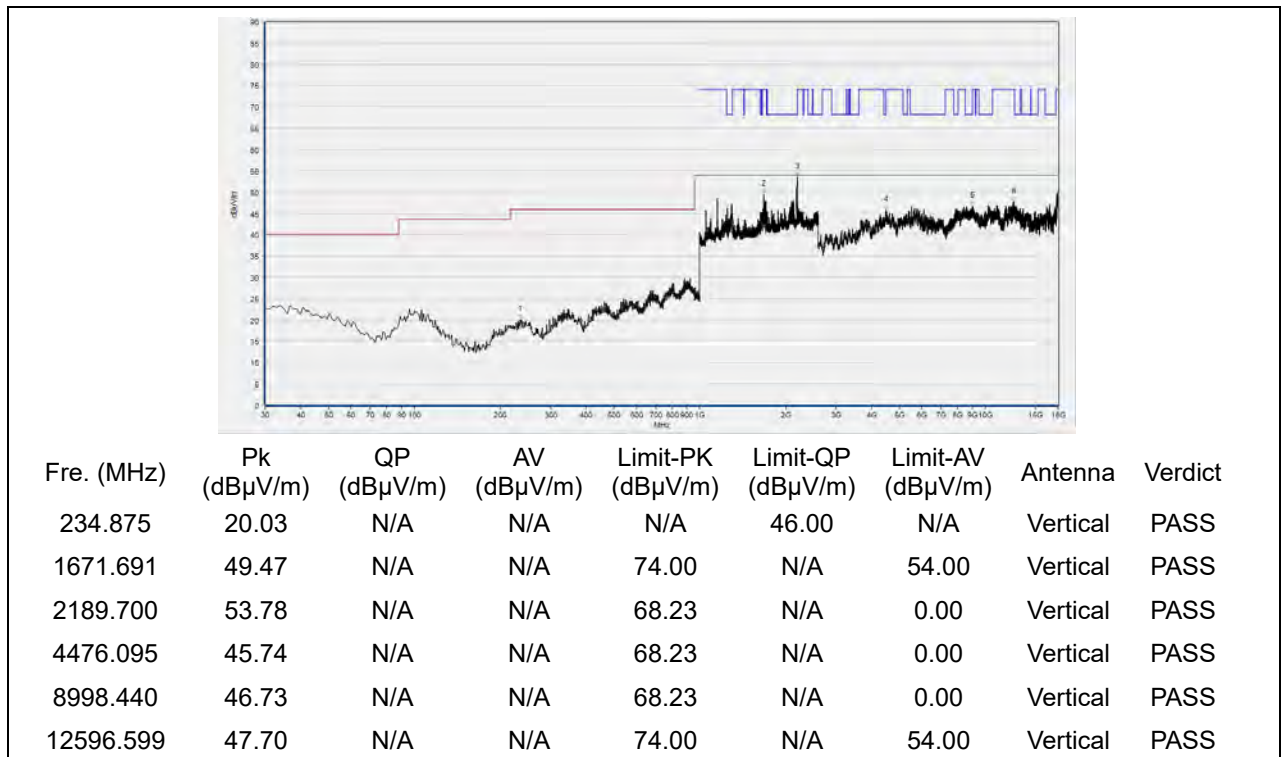


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 48



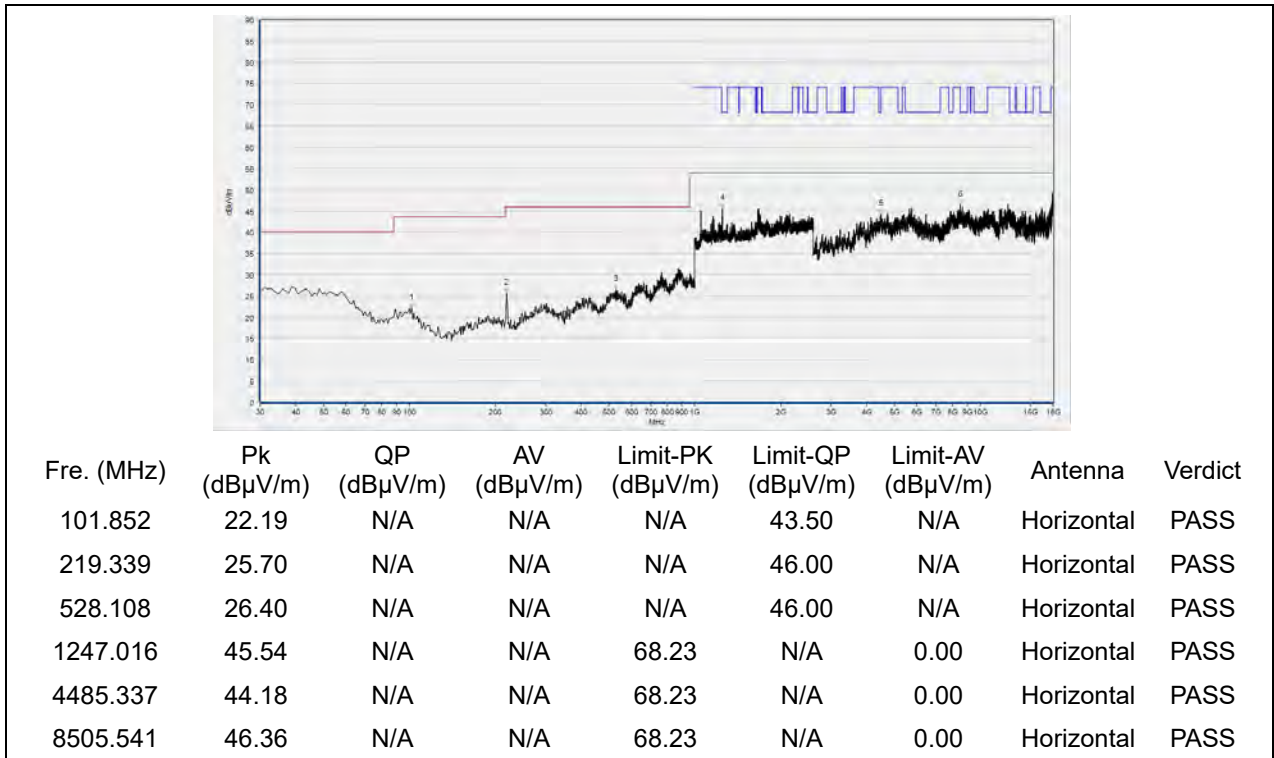
(Antenna Horizontal, 30MHz to 18GHz)



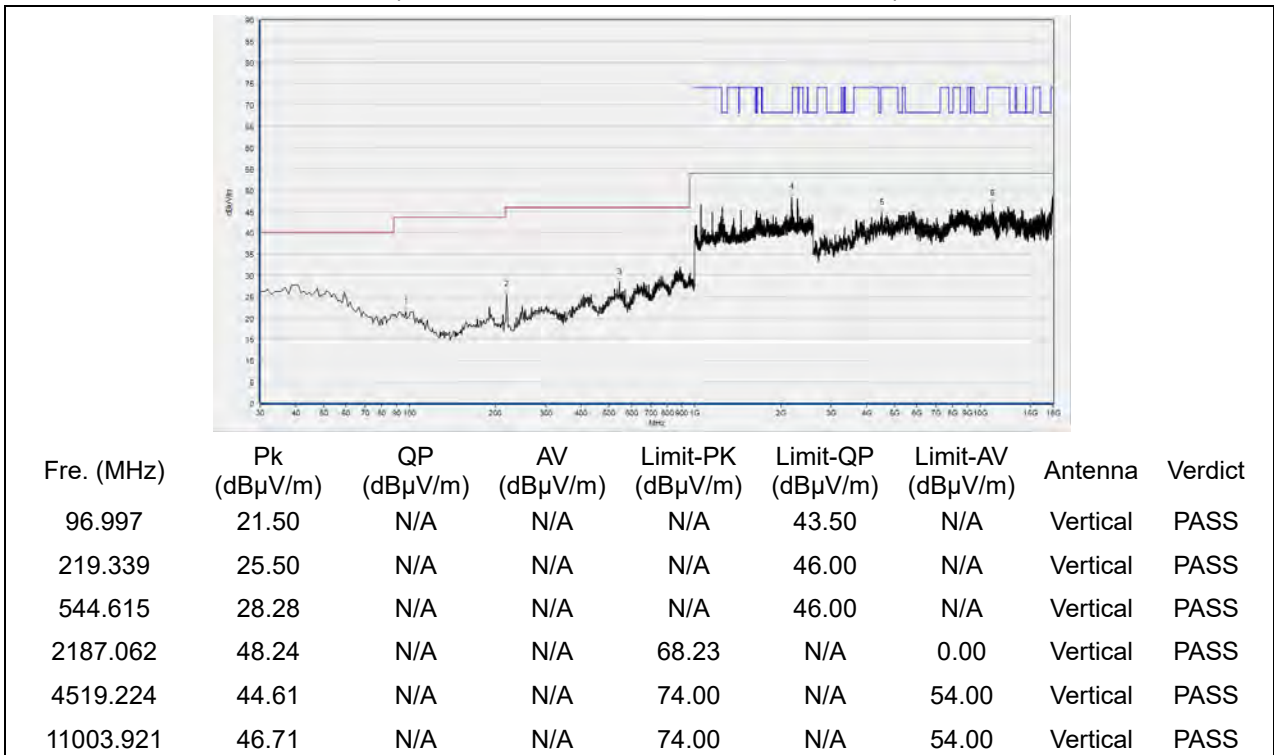
(Antenna Vertical, 30MHz to 18GHz)



Plots for Channel = 52

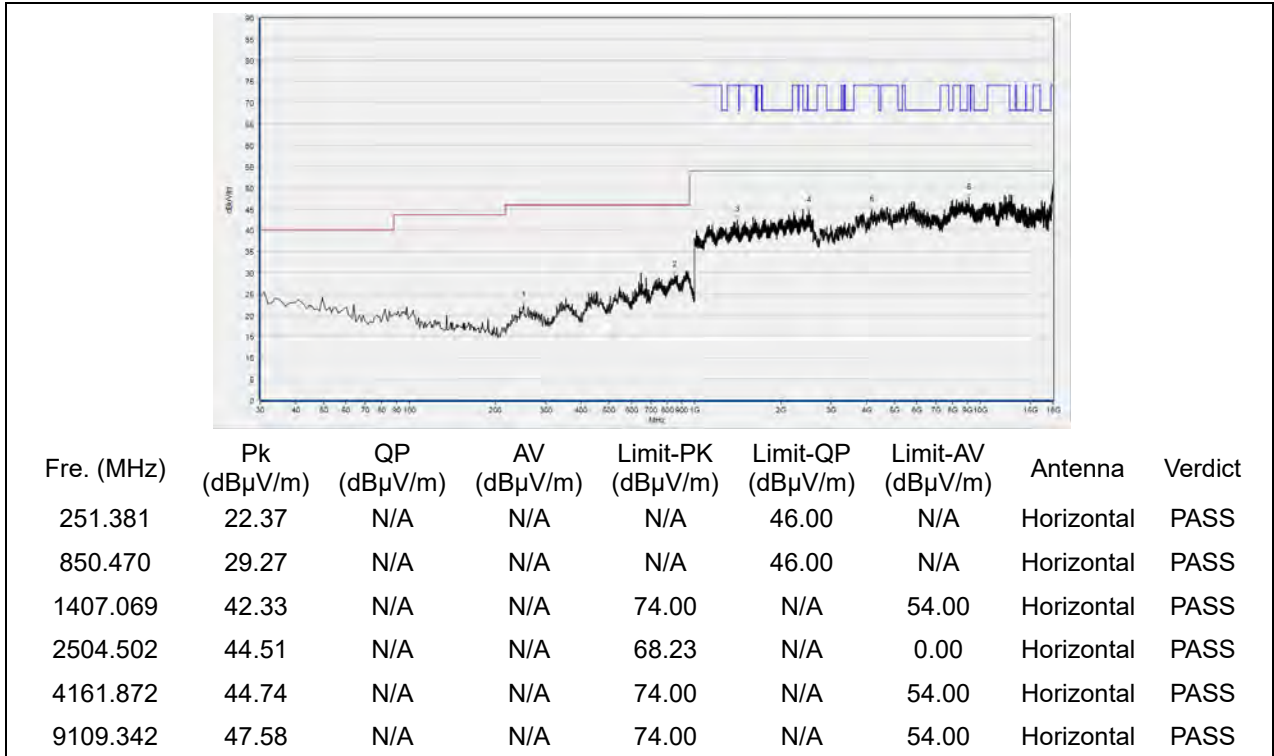


(Antenna Horizontal, 30MHz to 18GHz)

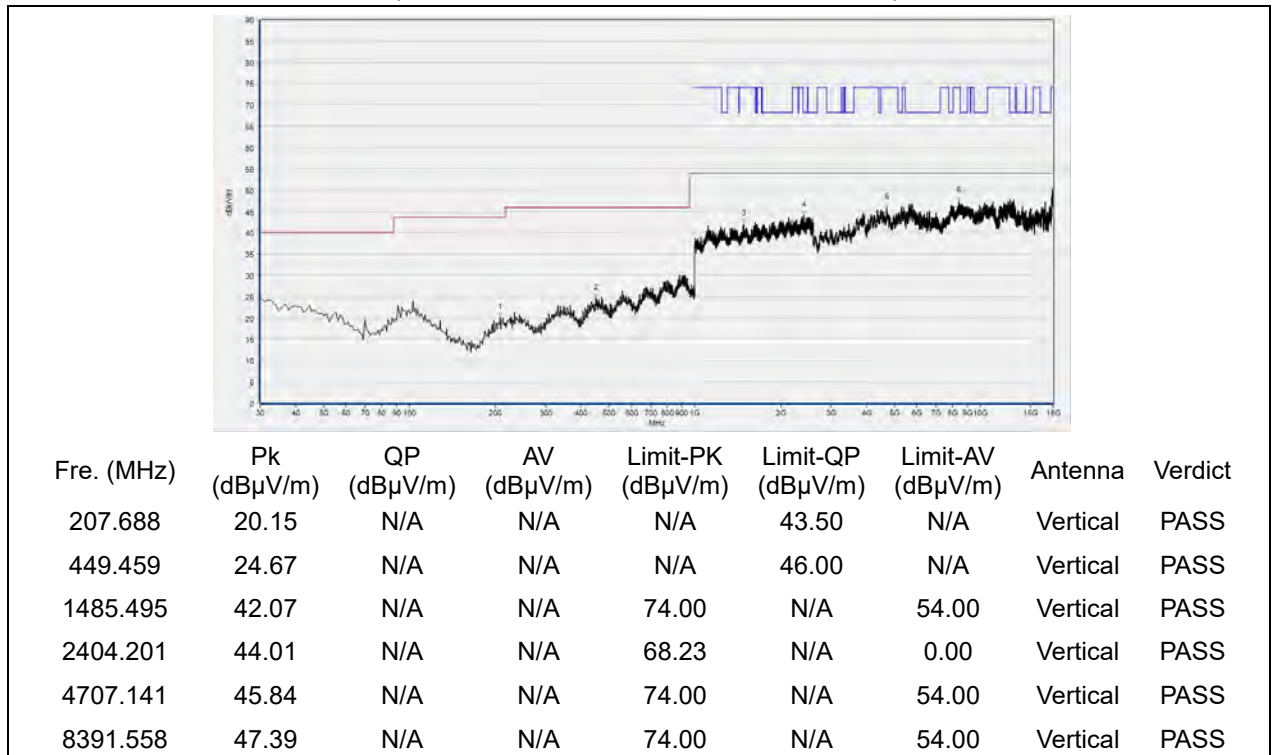


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 60



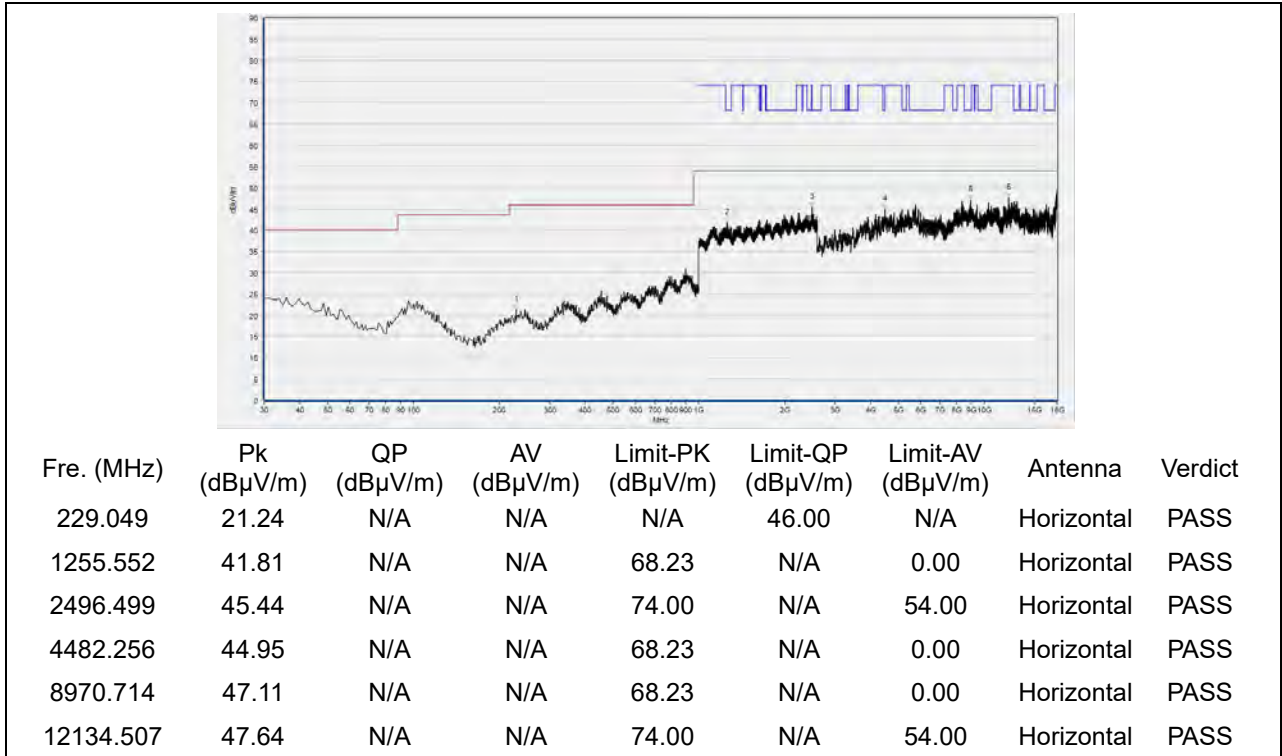
(Antenna Horizontal, 30MHz to 18GHz)



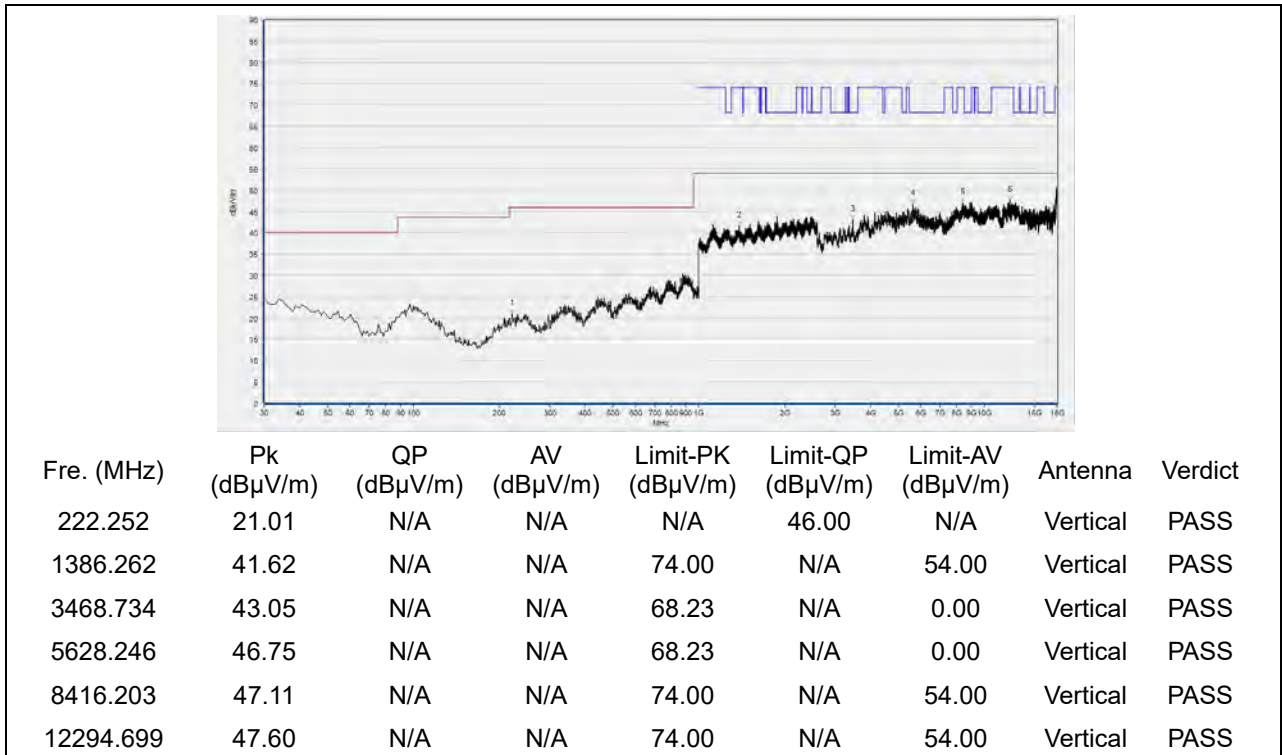
(Antenna Vertical, 30MHz to 18GHz)



Plot for Channel = 64

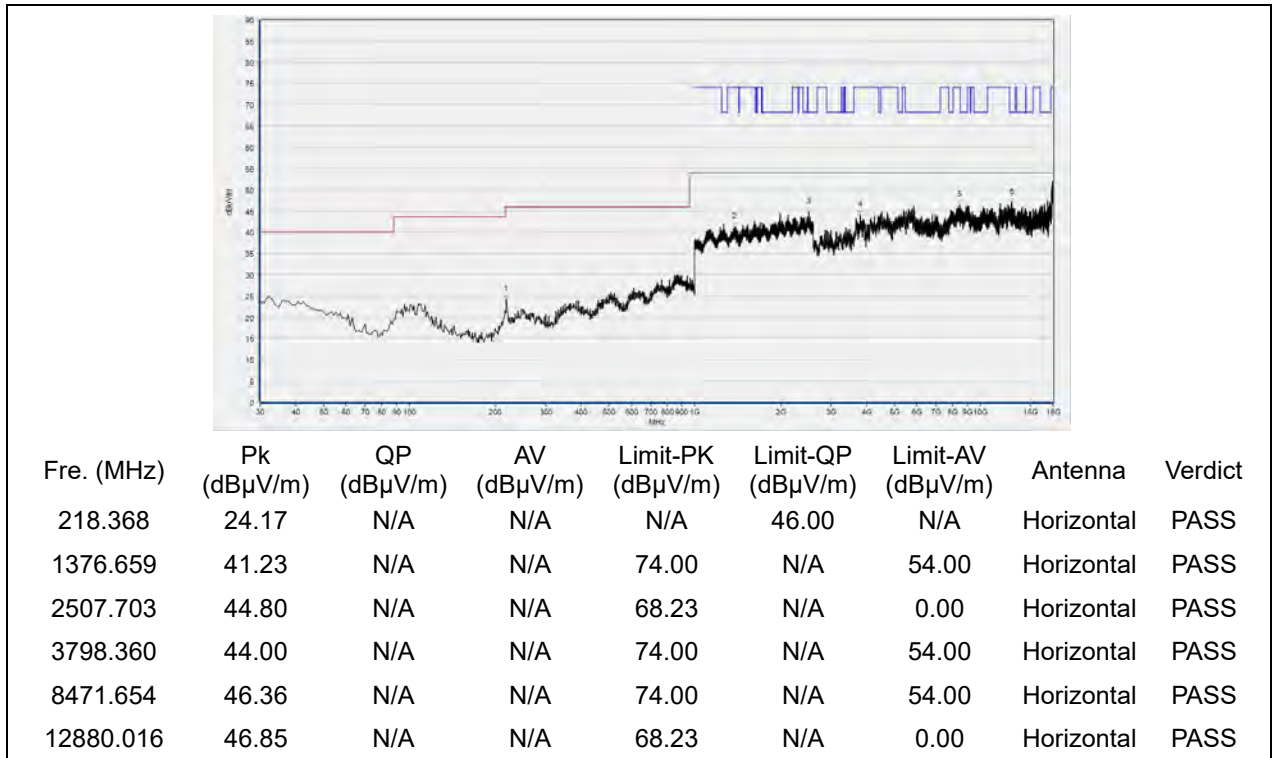


(Antenna Horizontal, 30MHz to 18GHz)

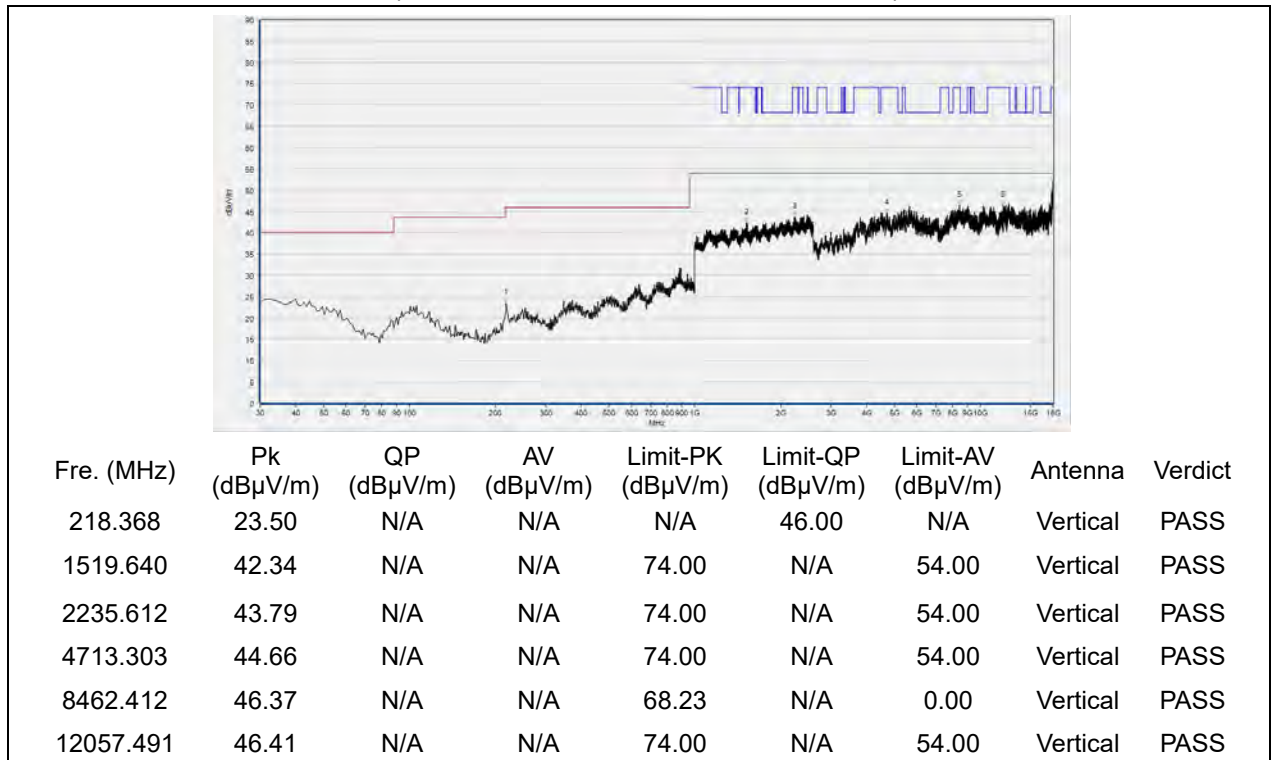


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 100

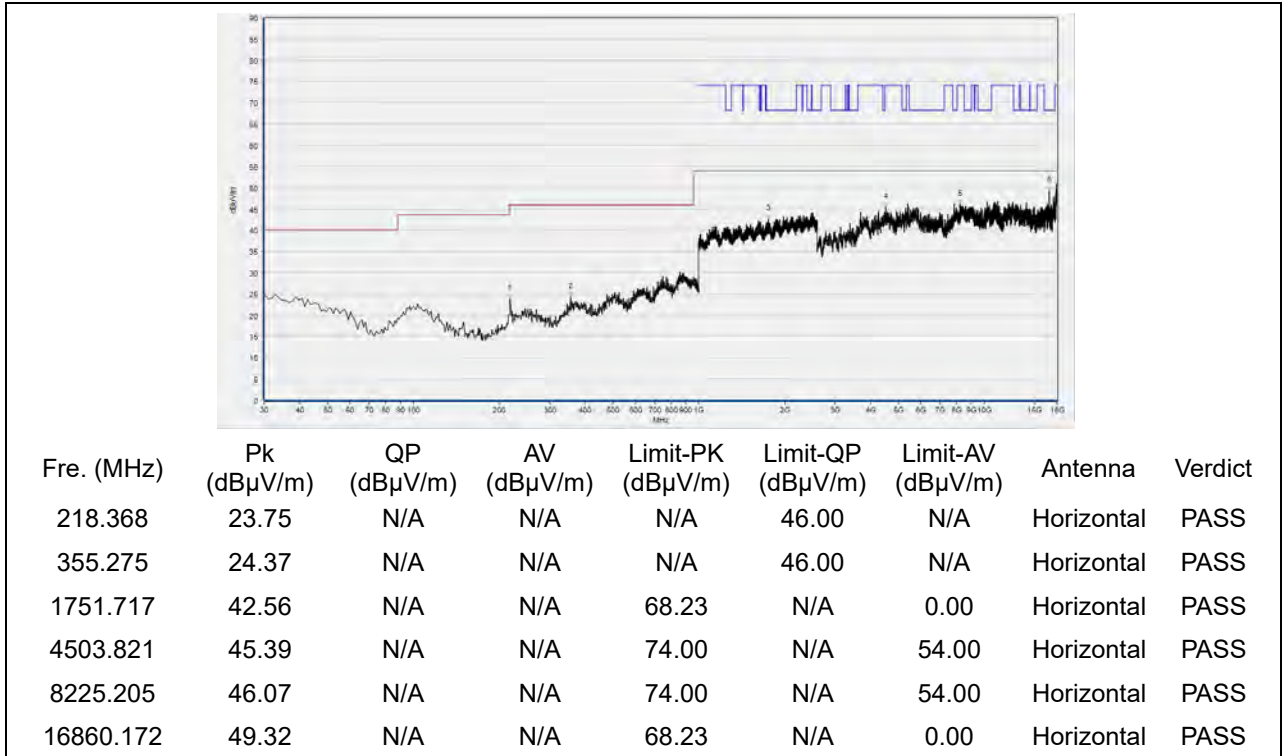


(Antenna Horizontal, 30MHz to 18GHz)

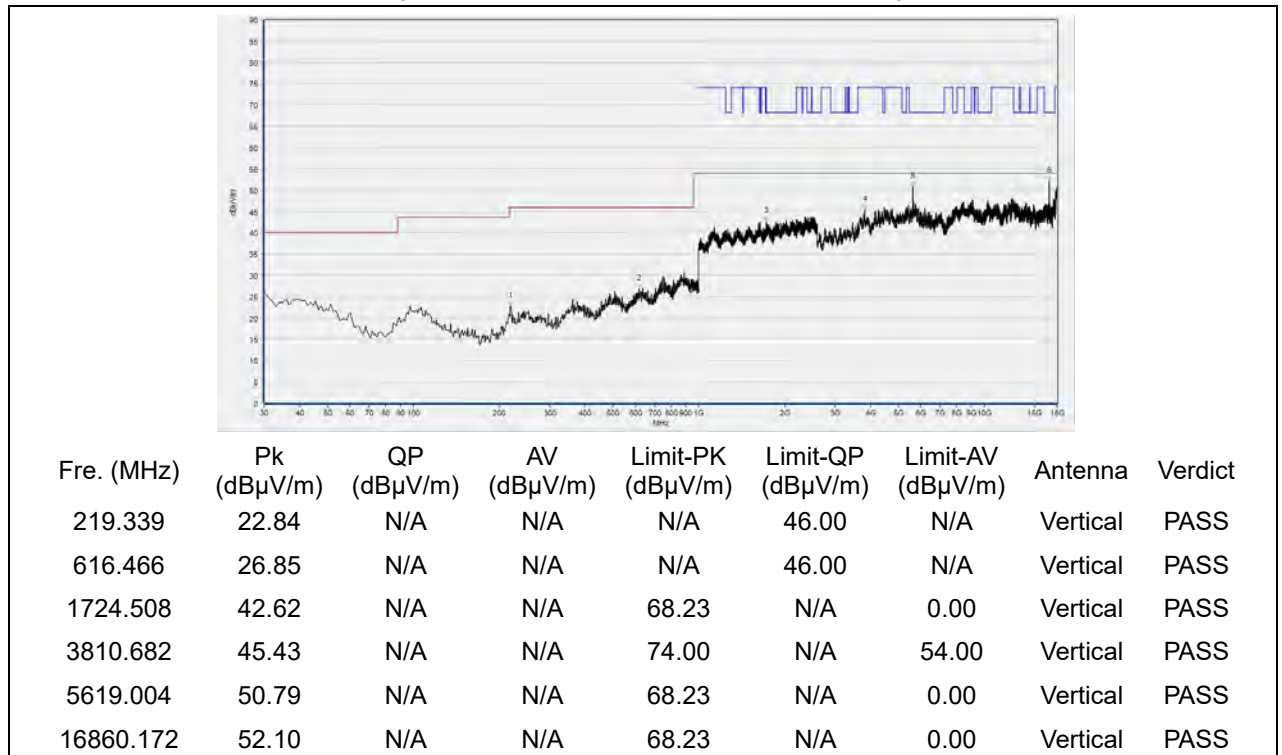


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 120

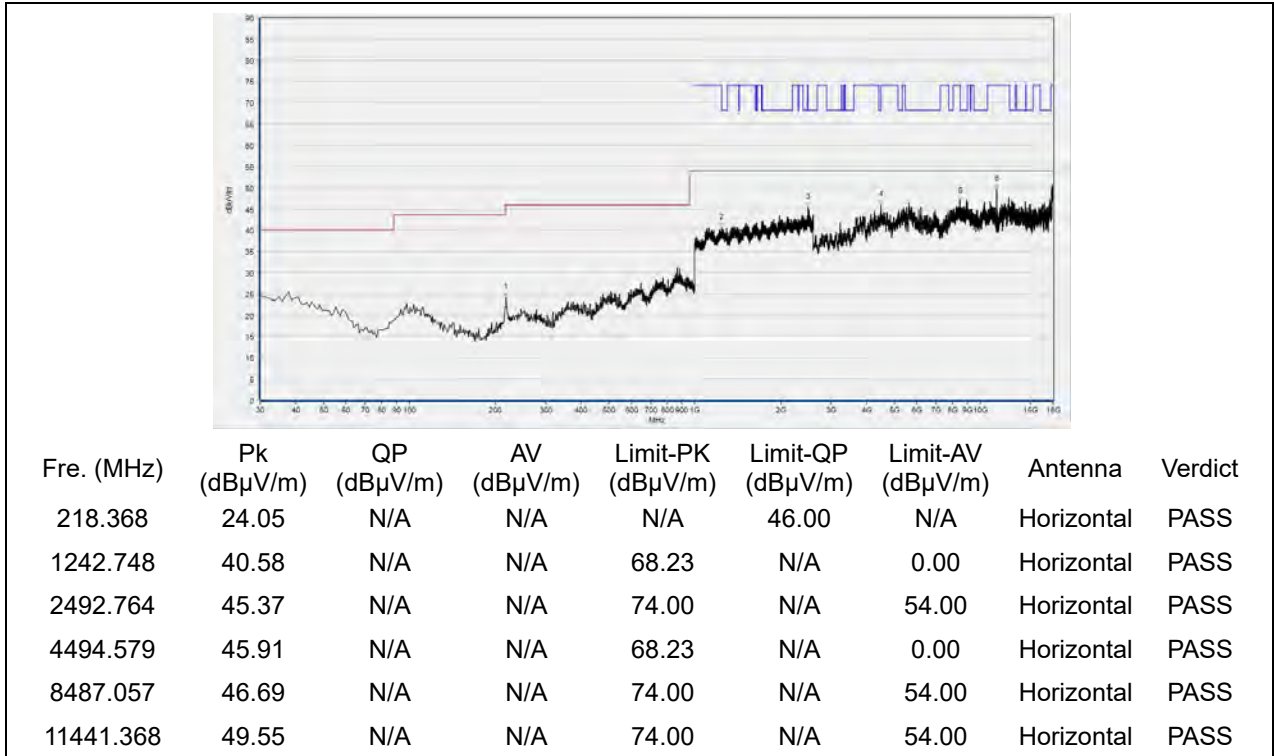


(Antenna Horizontal, 30MHz to 18GHz)

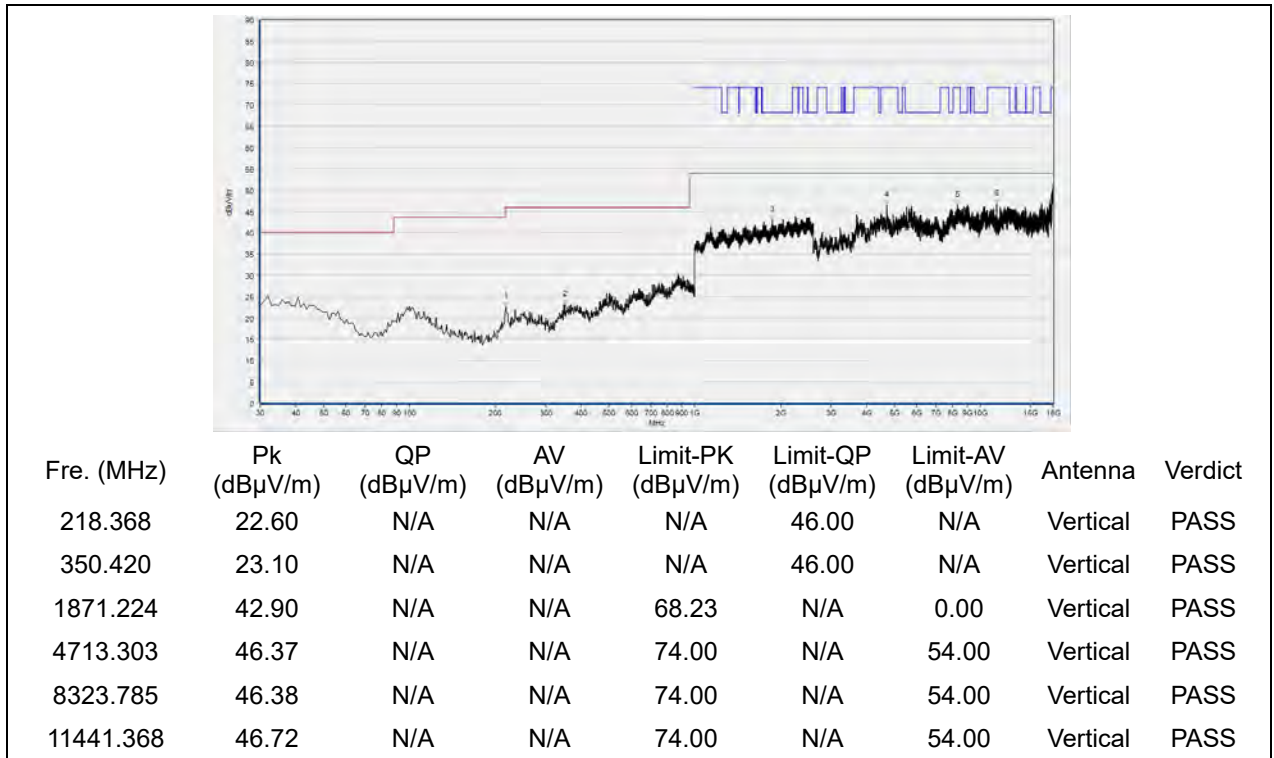


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 144

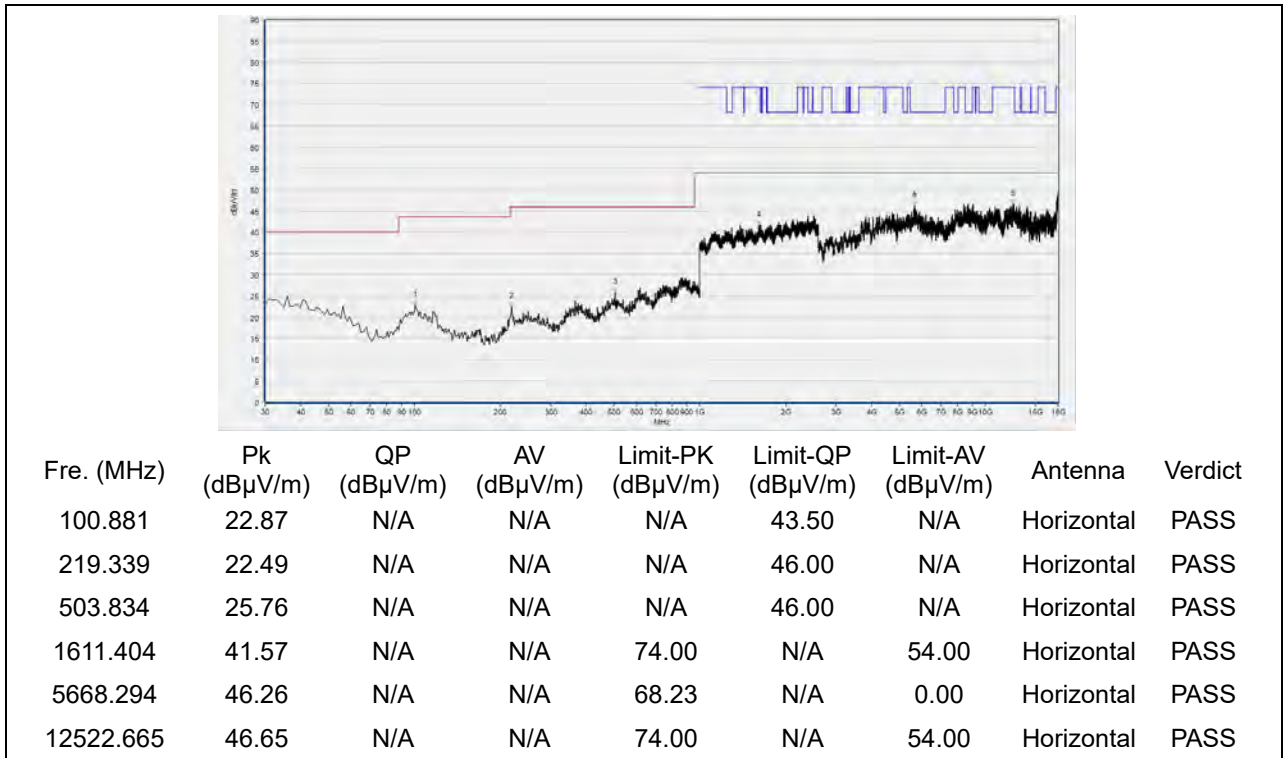


(Antenna Horizontal, 30MHz to 18GHz)

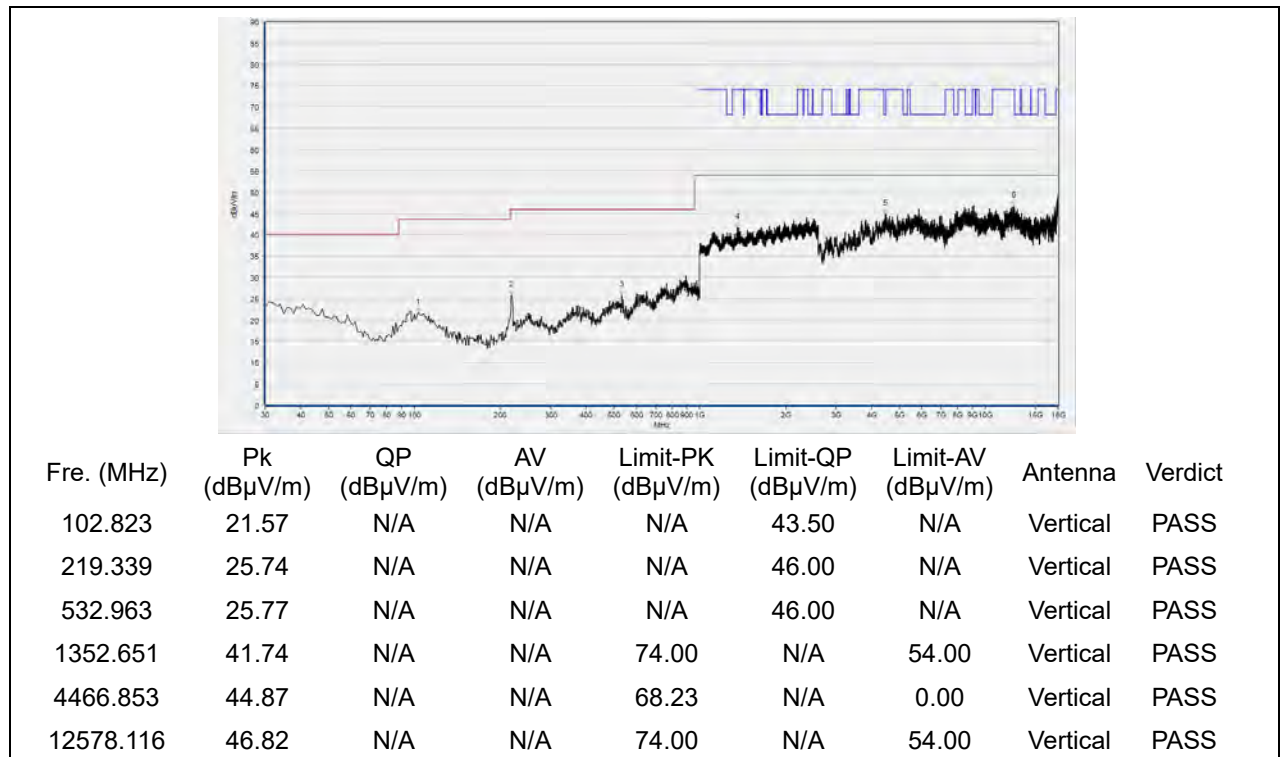


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 149

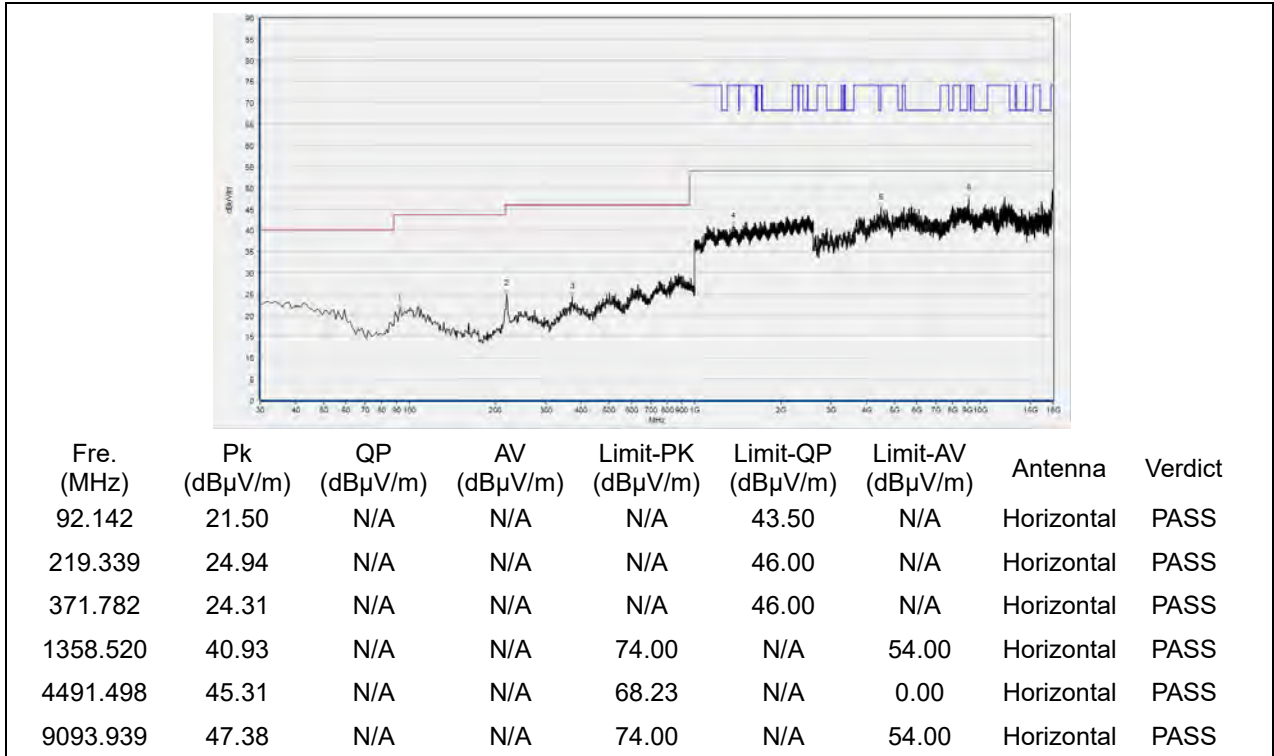


(Antenna Horizontal, 30MHz to 18GHz)

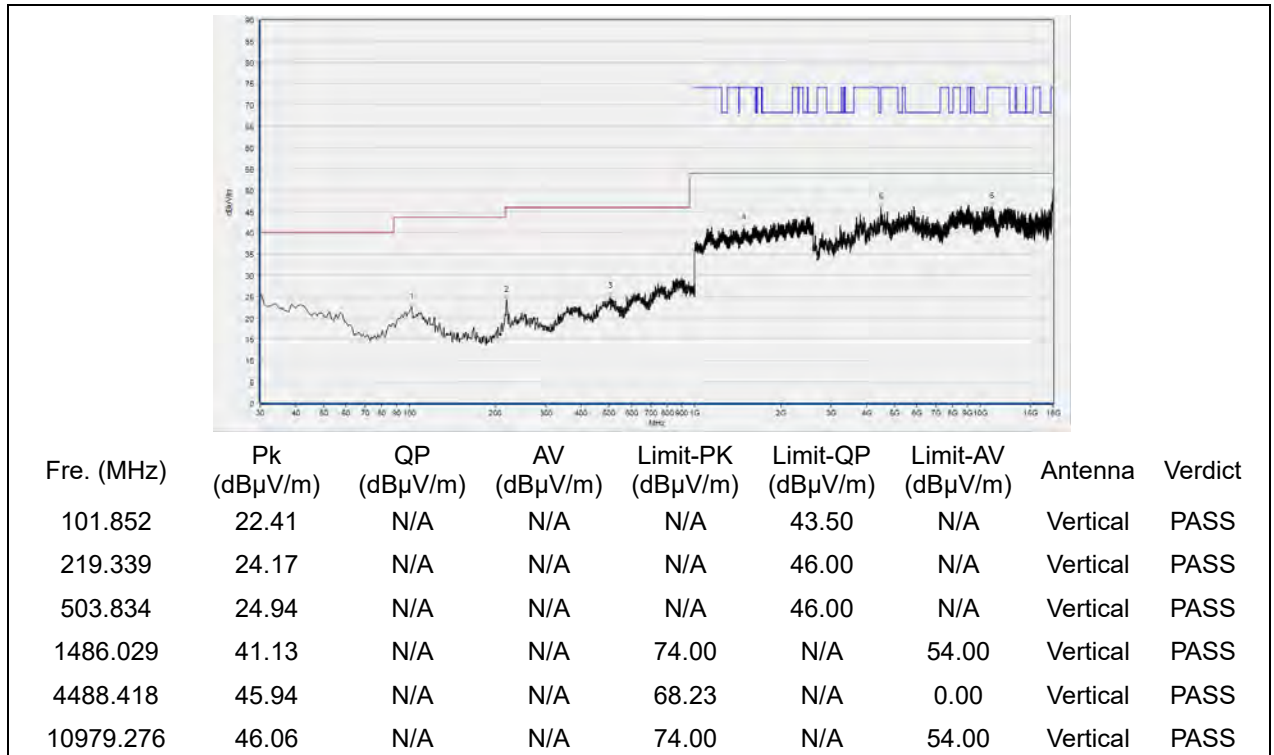


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 157



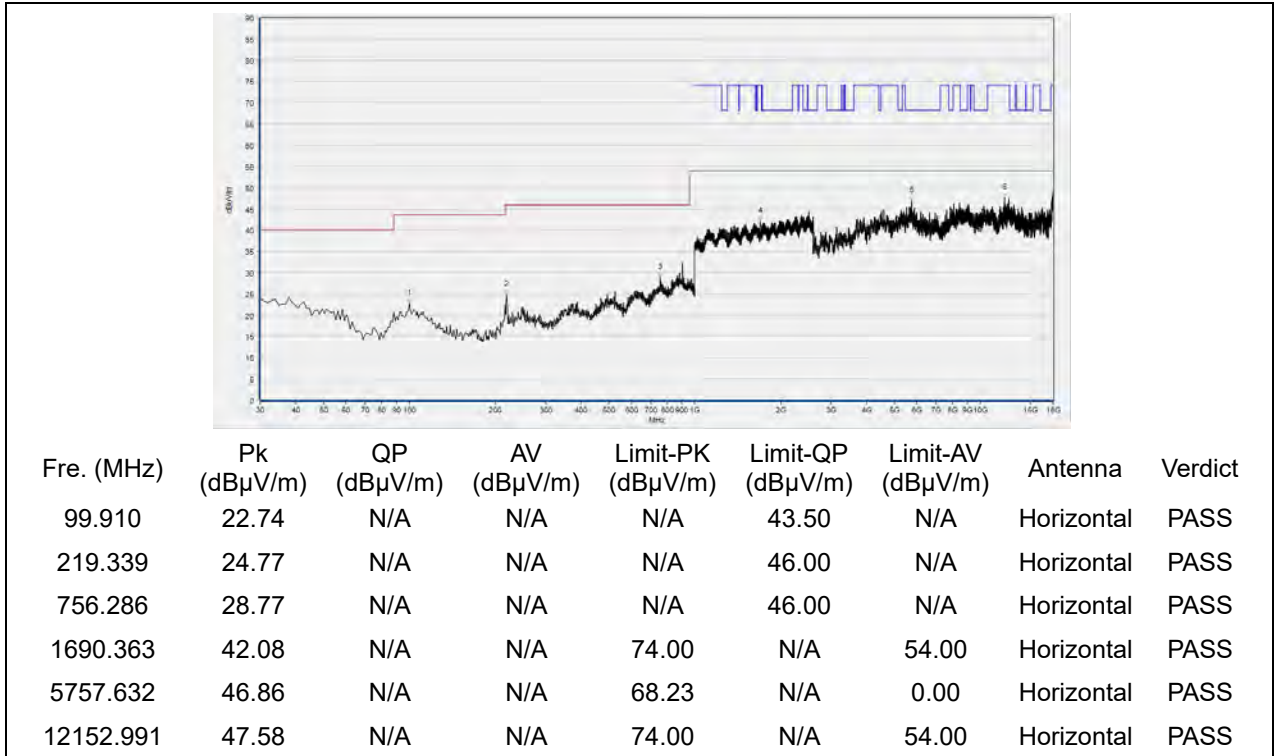
(Antenna Horizontal, 30MHz to 18GHz)



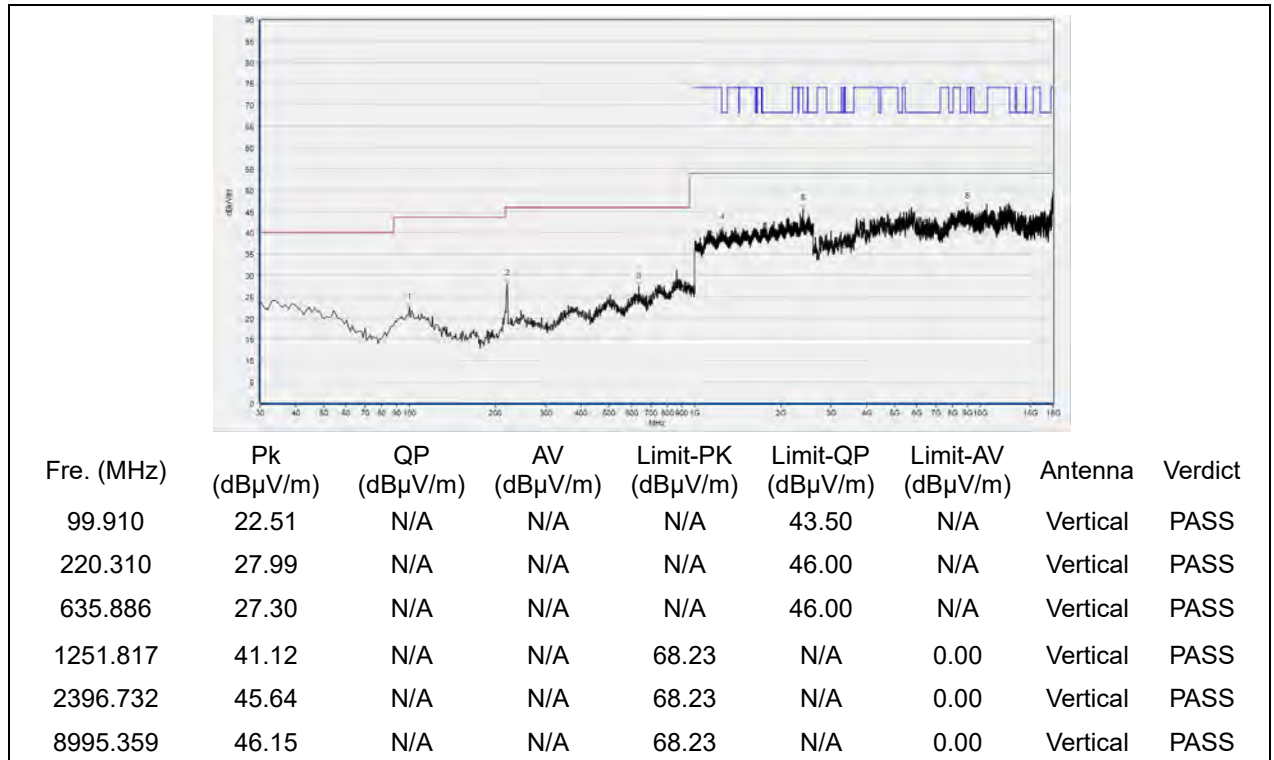
(Antenna Vertical, 30MHz to 18GHz)



Plot for Channel = 165



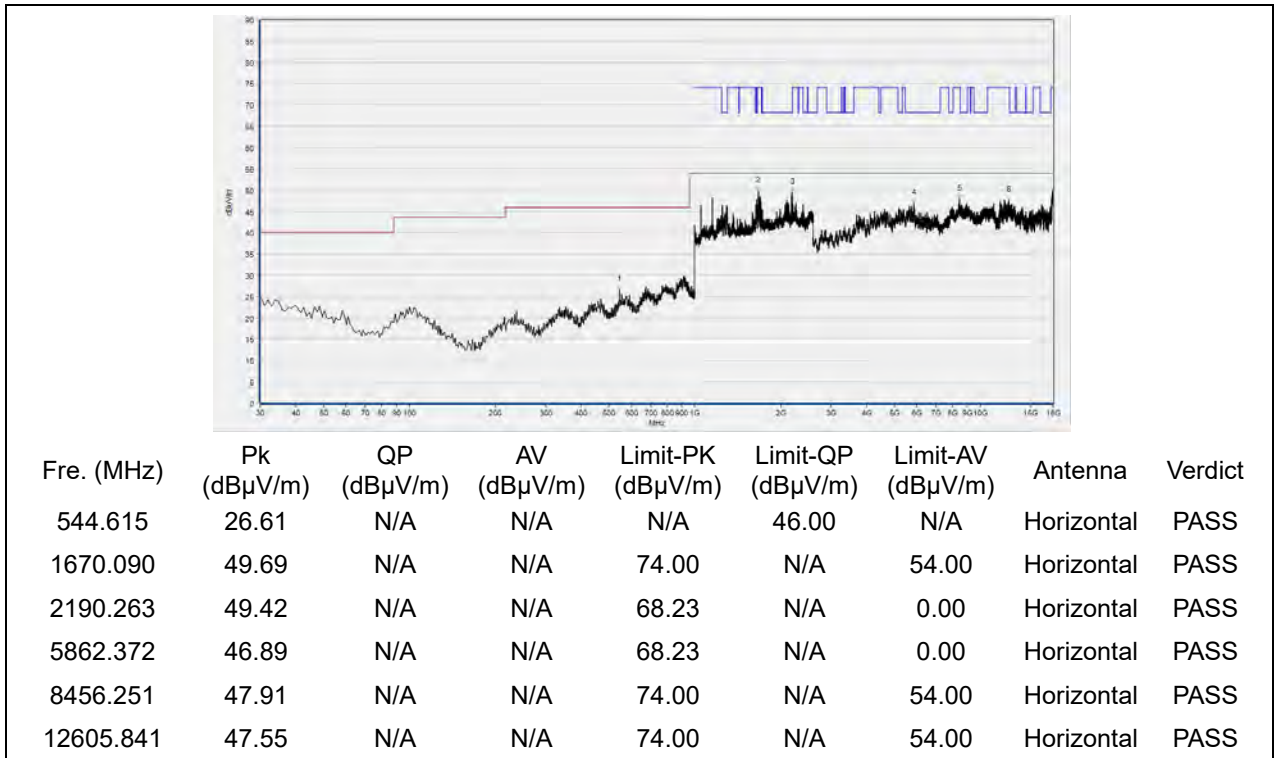
(Antenna Horizontal, 30MHz to 18GHz)



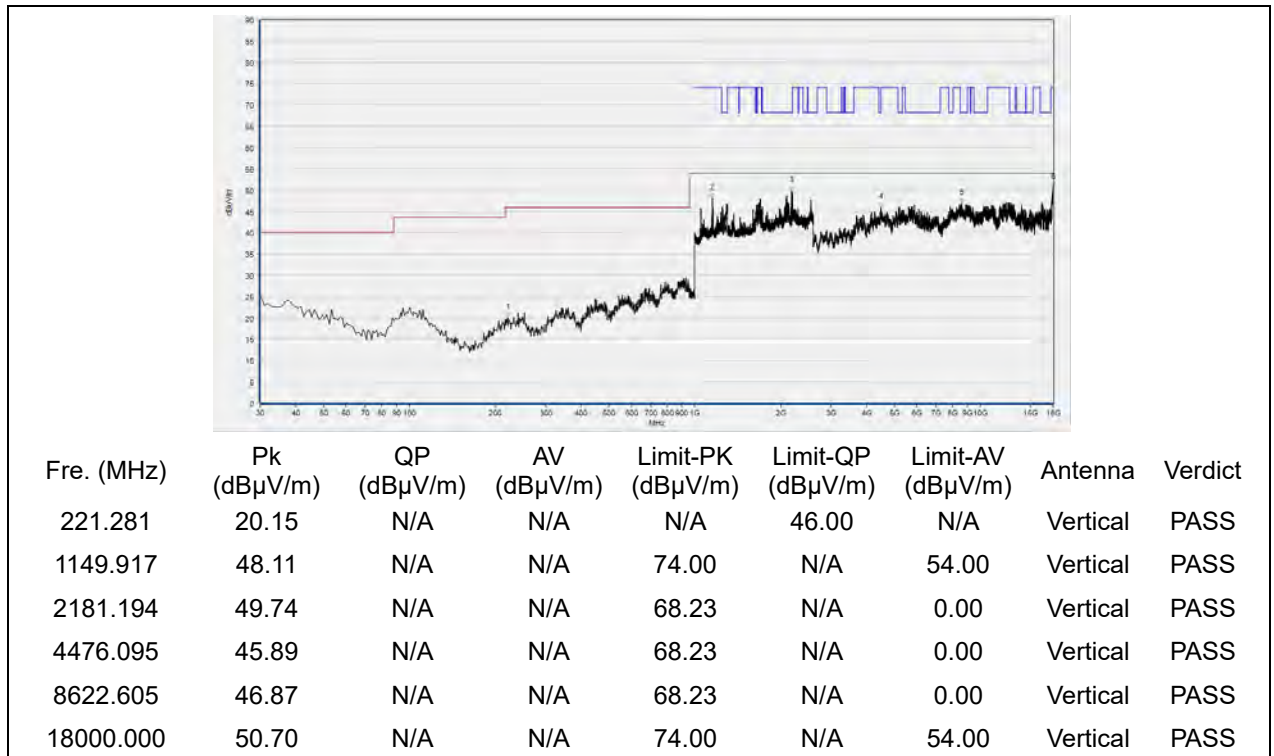
(Antenna Vertical, 30MHz to 18GHz)

**802.11n (HT40) Test mode**

Plots for Channel = 38

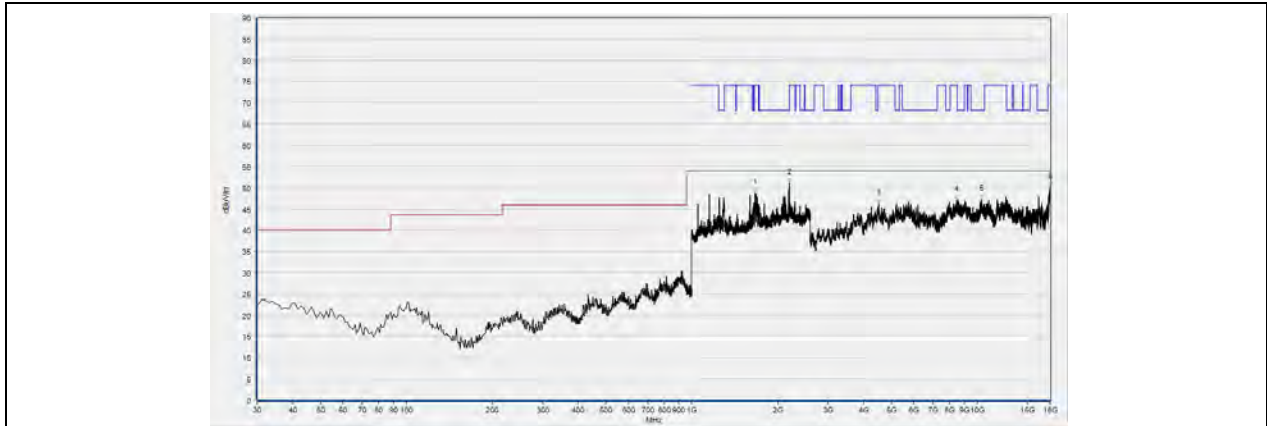


(Antenna Horizontal, 30MHz to 18GHz)



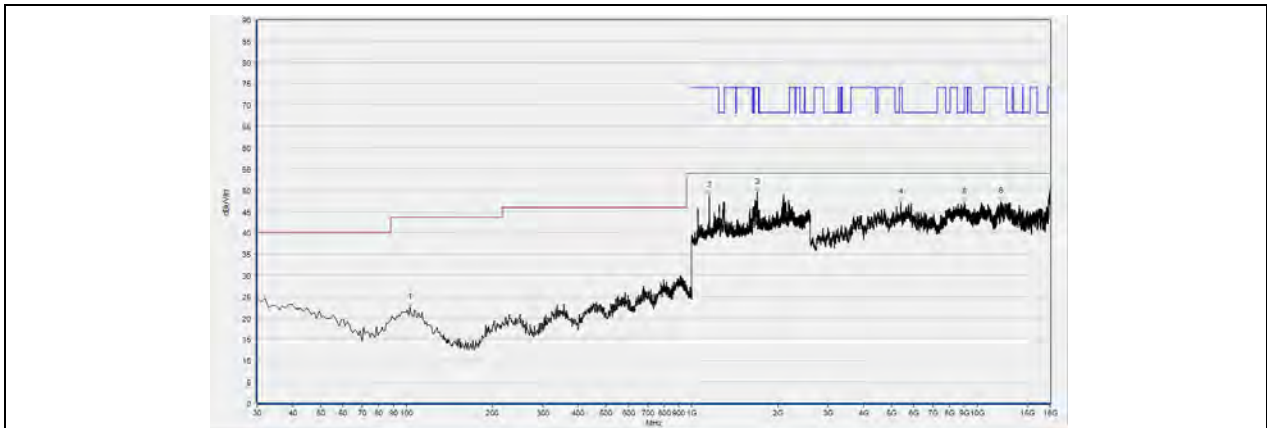
(Antenna Vertical, 30MHz to 18GHz)

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
1663.688	48.75	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2190.797	51.00	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS
4509.982	46.31	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8462.412	47.12	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10360.072	47.24	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS
17978.436	50.11	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

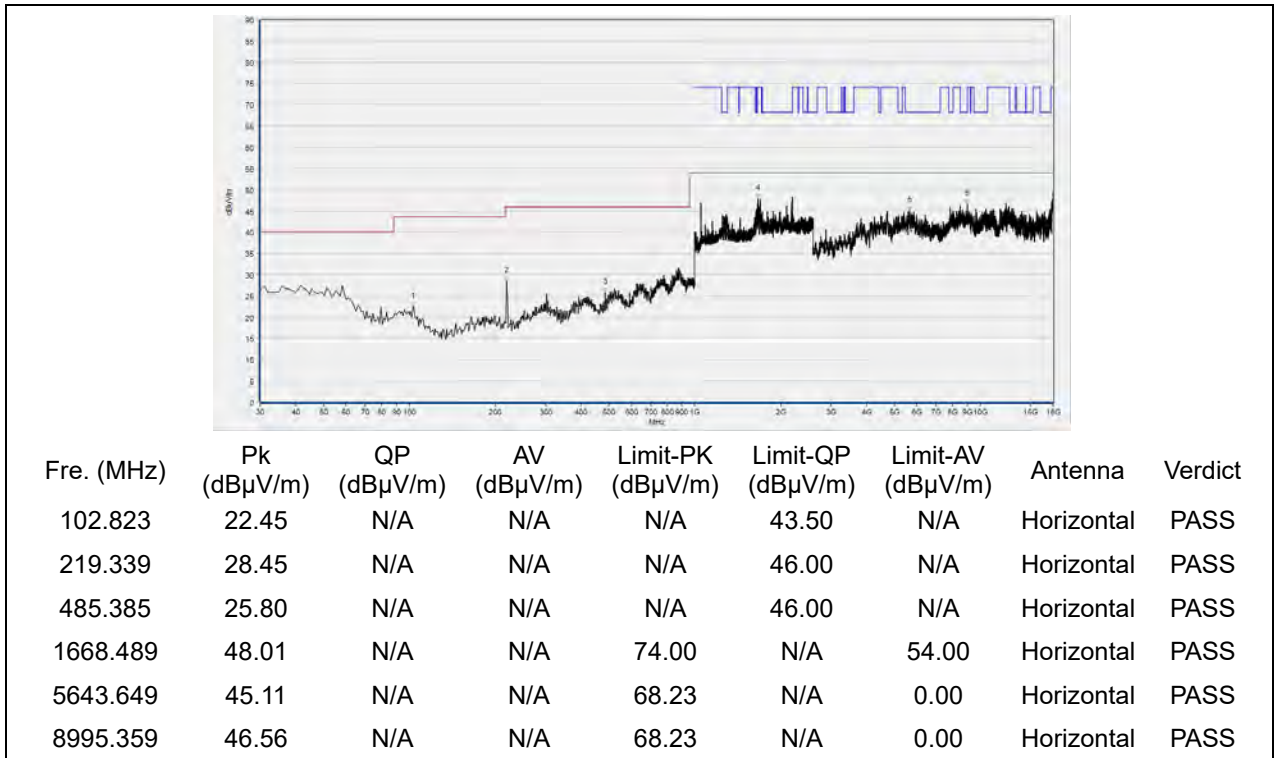
(Antenna Horizontal, 30MHz to 18GHz)



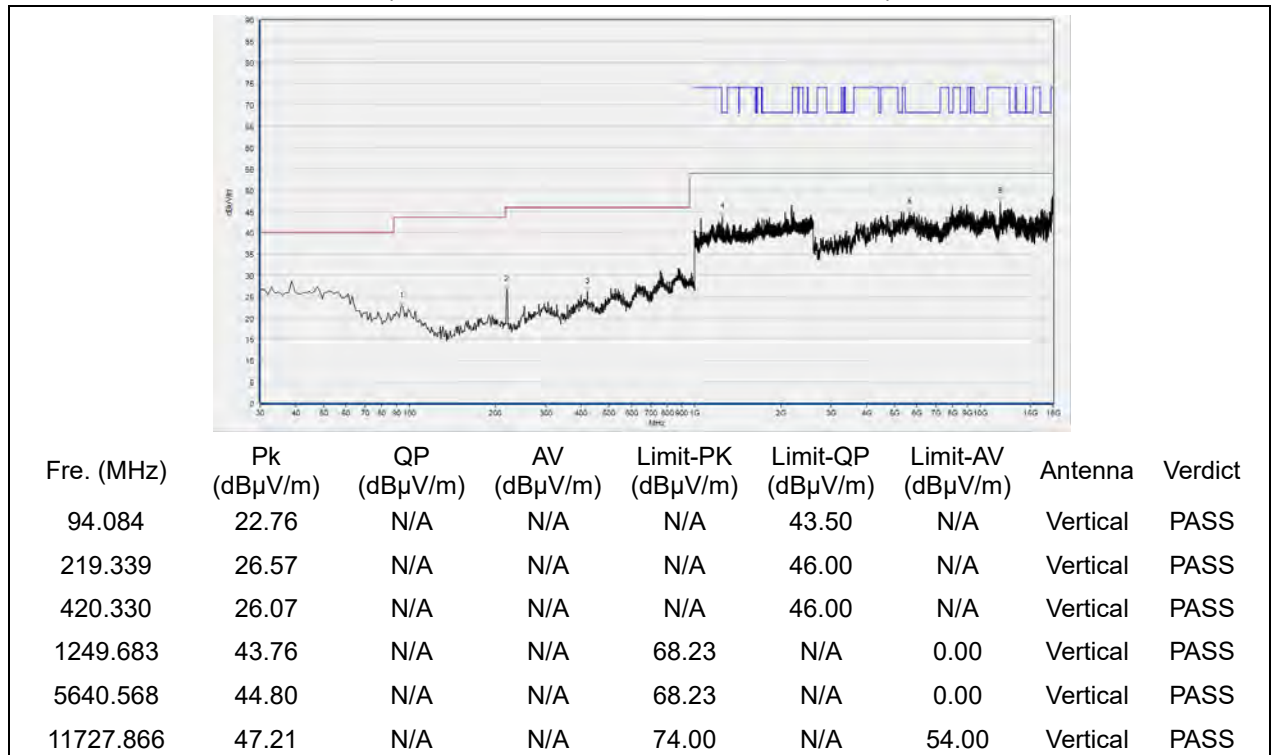
Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
102.823	22.43	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1149.917	48.58	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
1698.900	49.39	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5403.361	47.07	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9013.843	47.12	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12060.572	47.18	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 54

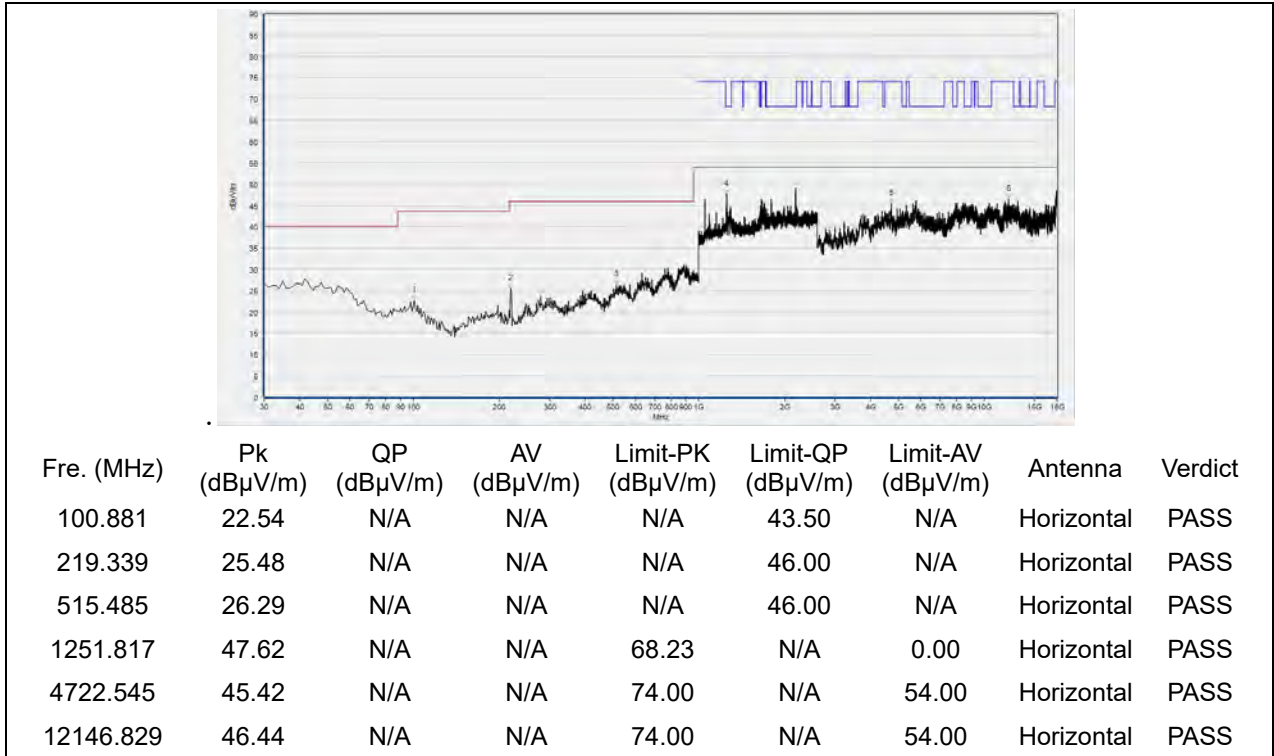


(Antenna Horizontal, 30MHz to 18GHz)

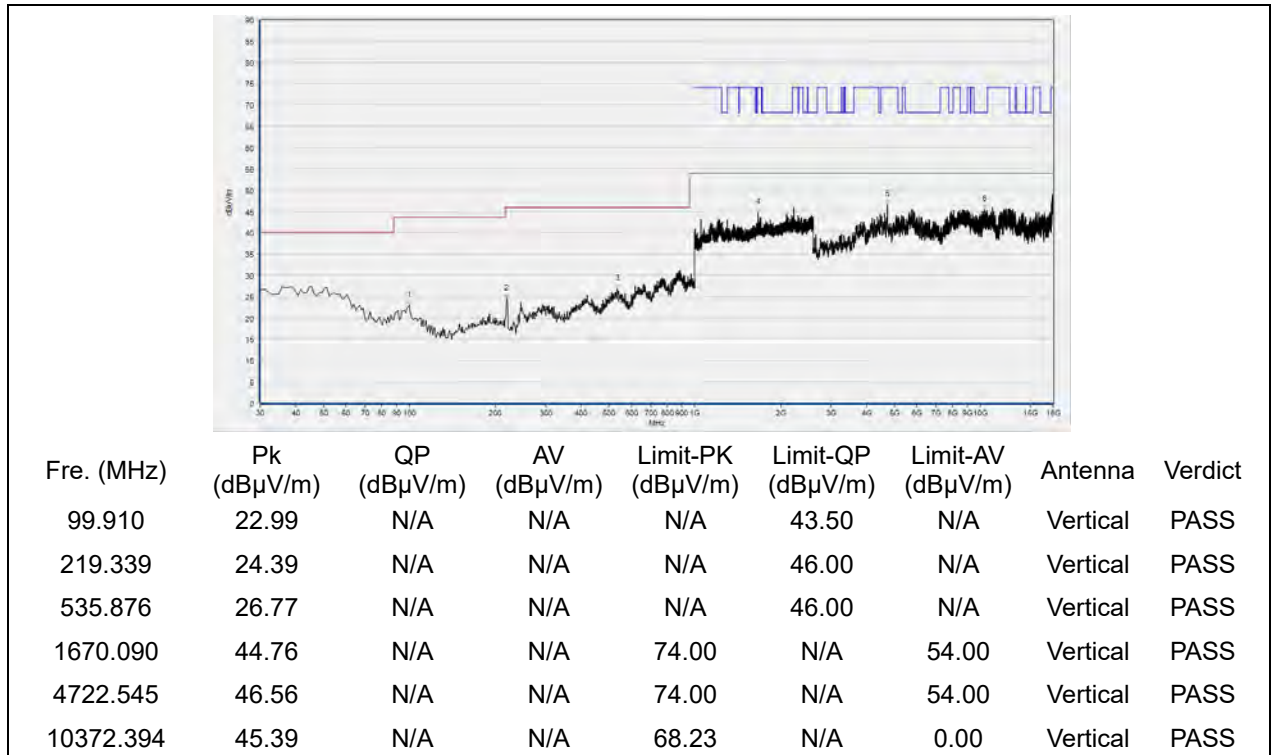


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 62

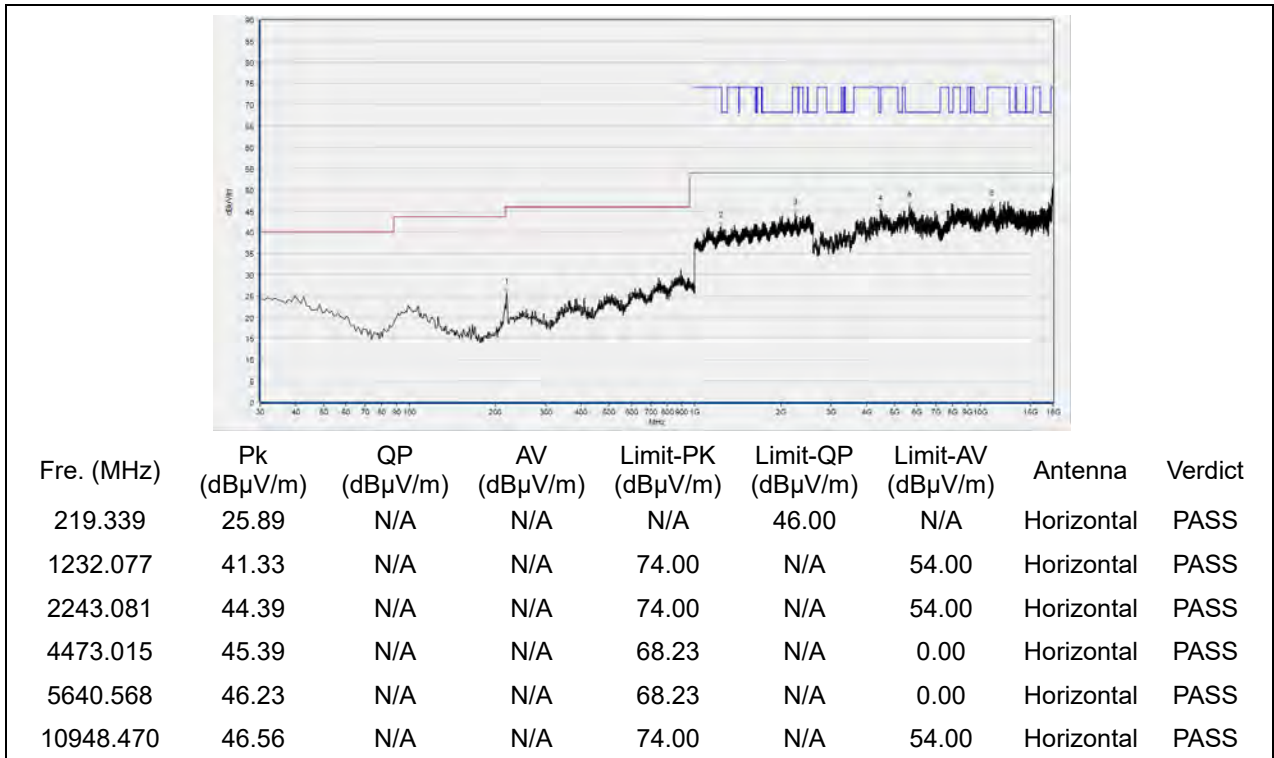


(Antenna Horizontal, 30MHz to 18GHz)

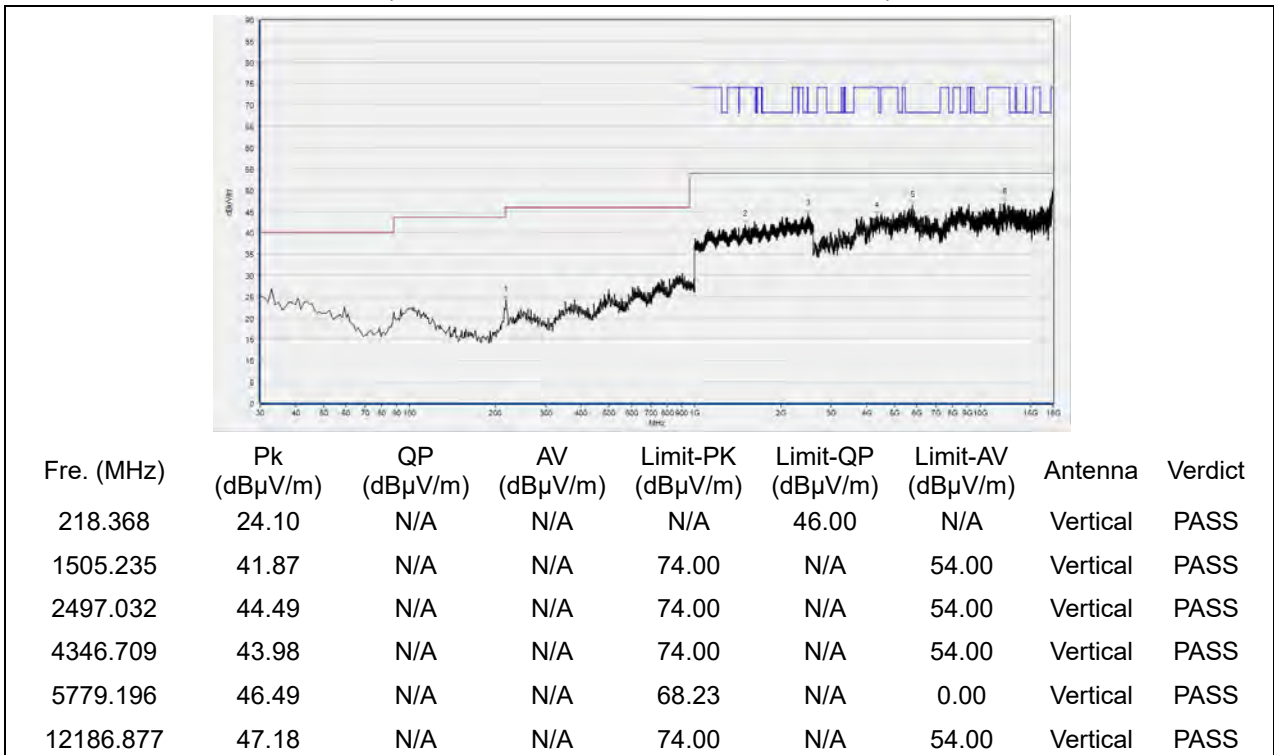


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 102

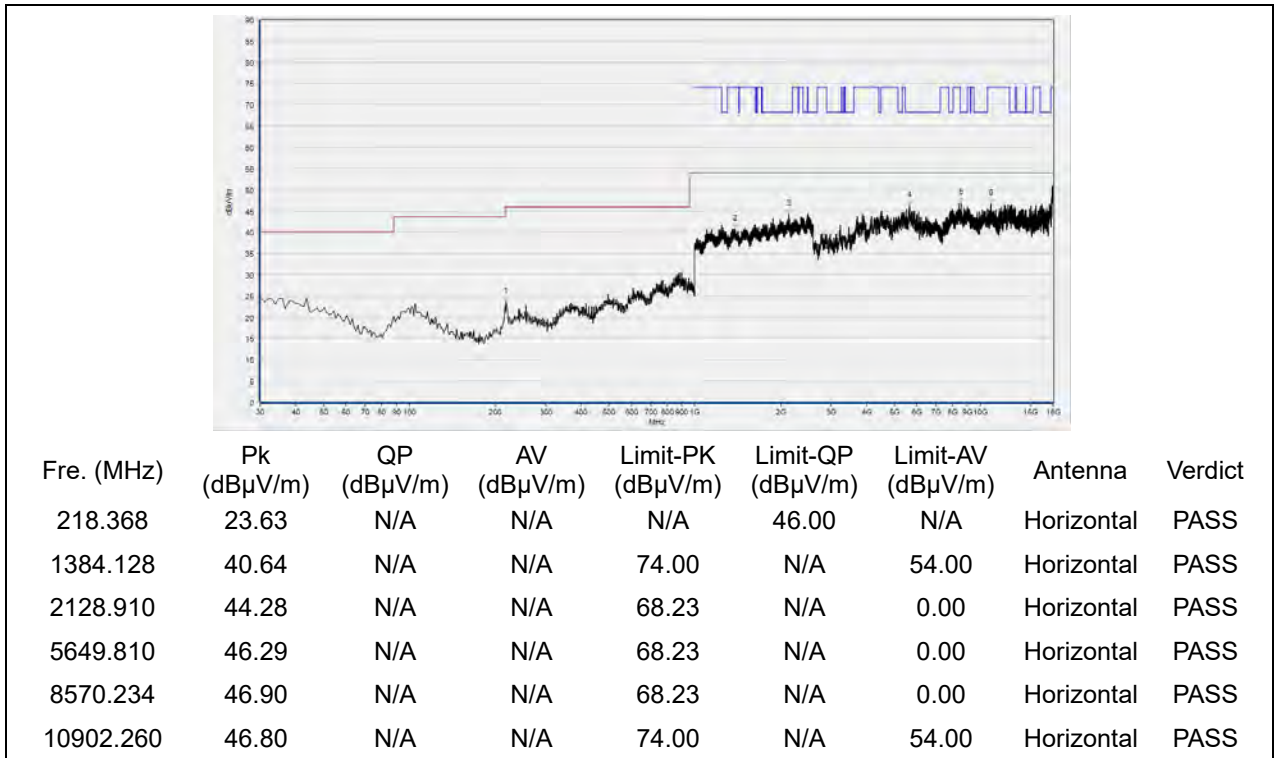


(Antenna Horizontal, 30MHz to 18GHz)

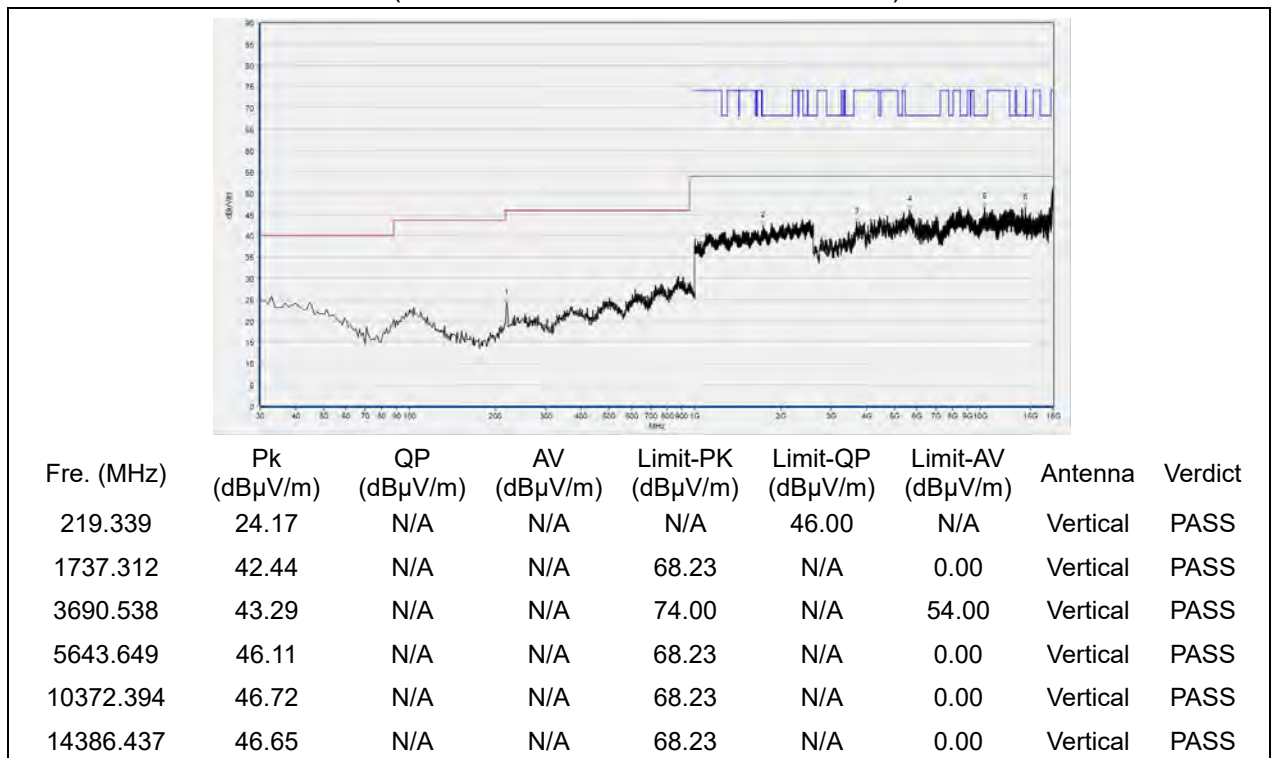


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 126

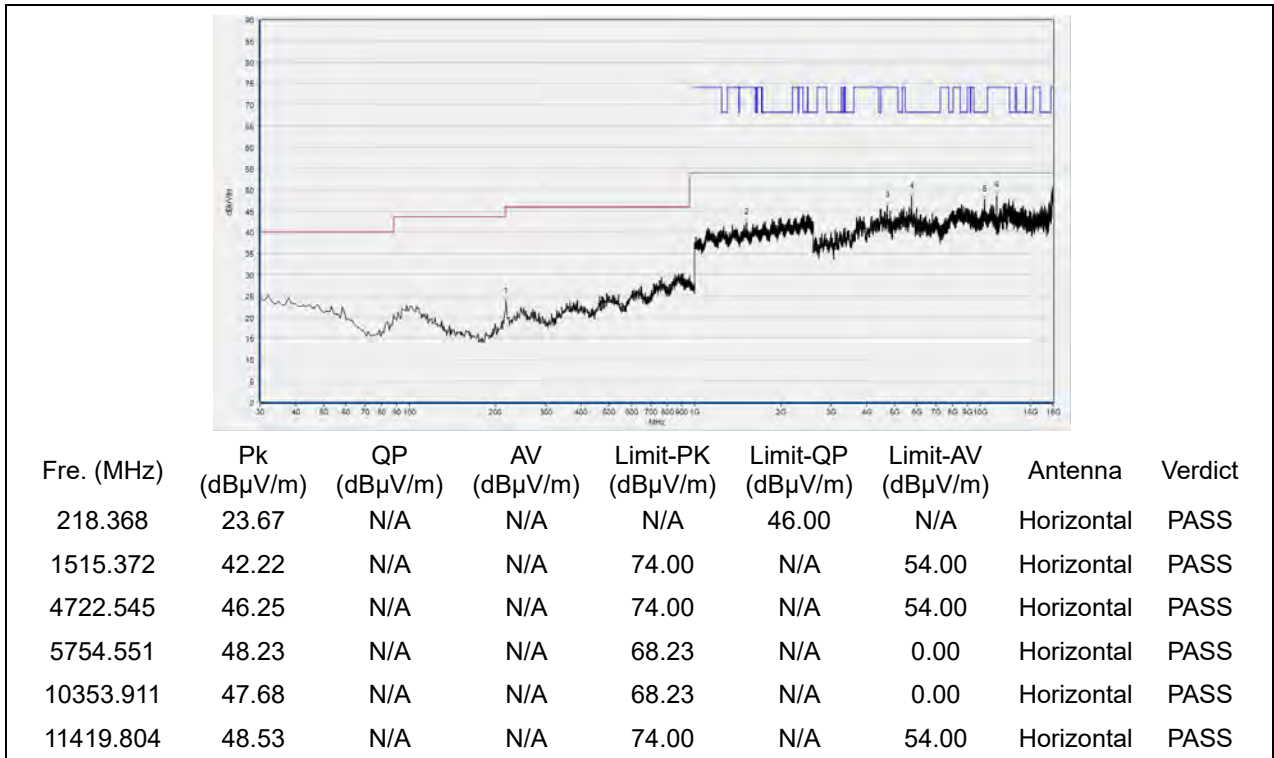


(Antenna Horizontal, 30MHz to 18GHz)

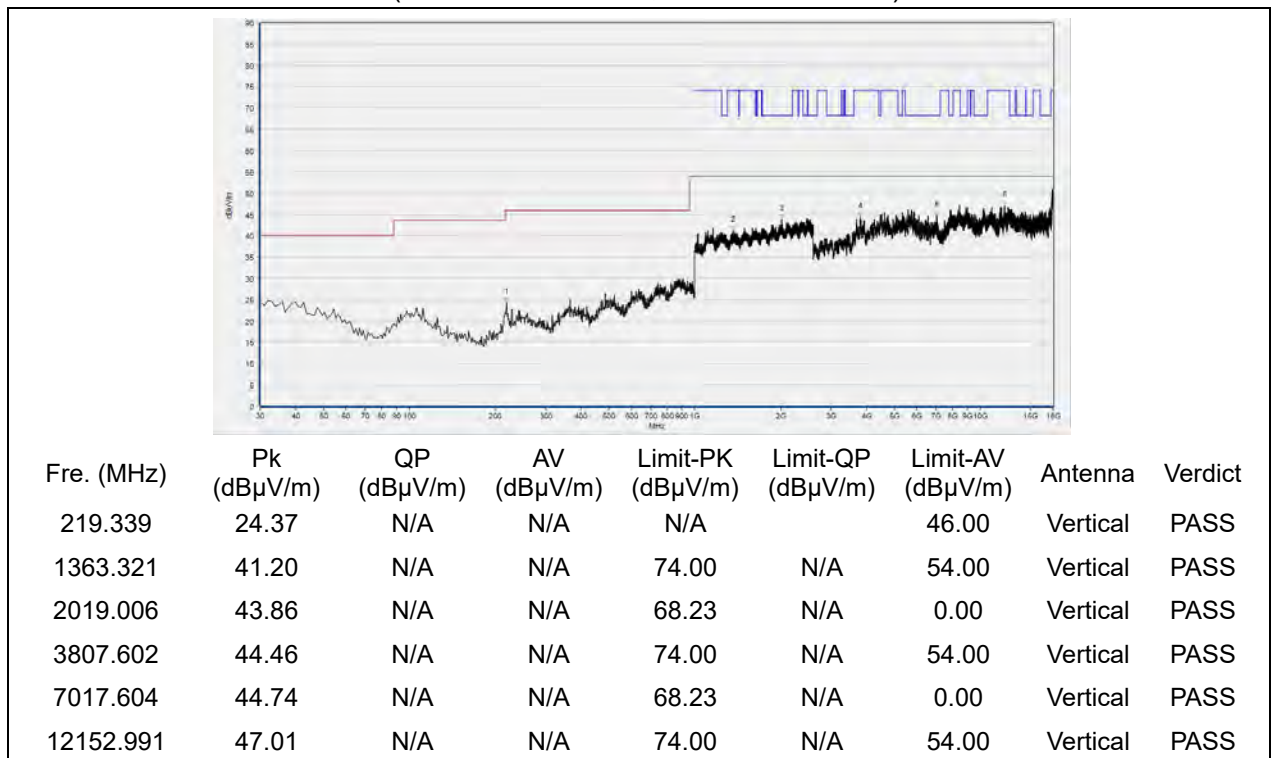


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 142



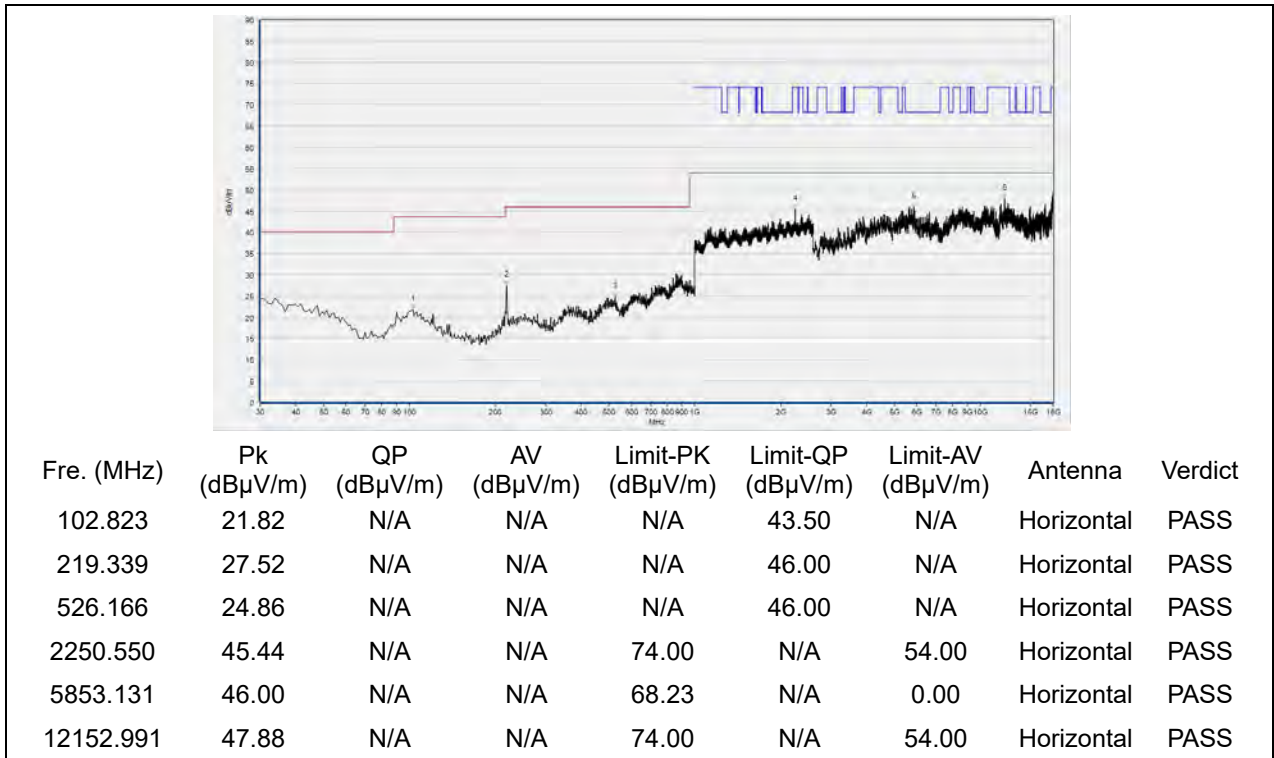
(Antenna Horizontal, 30MHz to 18GHz)



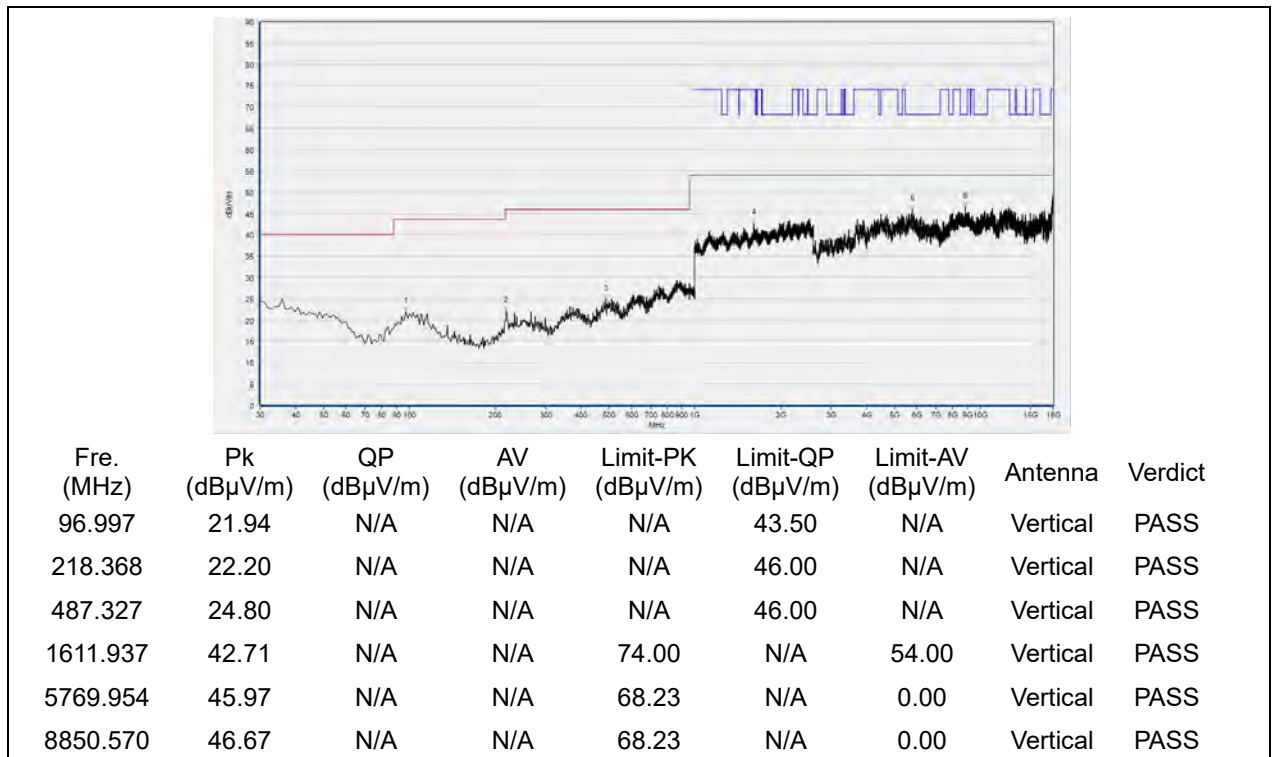
(Antenna Vertical, 30MHz to 18GHz)



Plot for Channel = 151

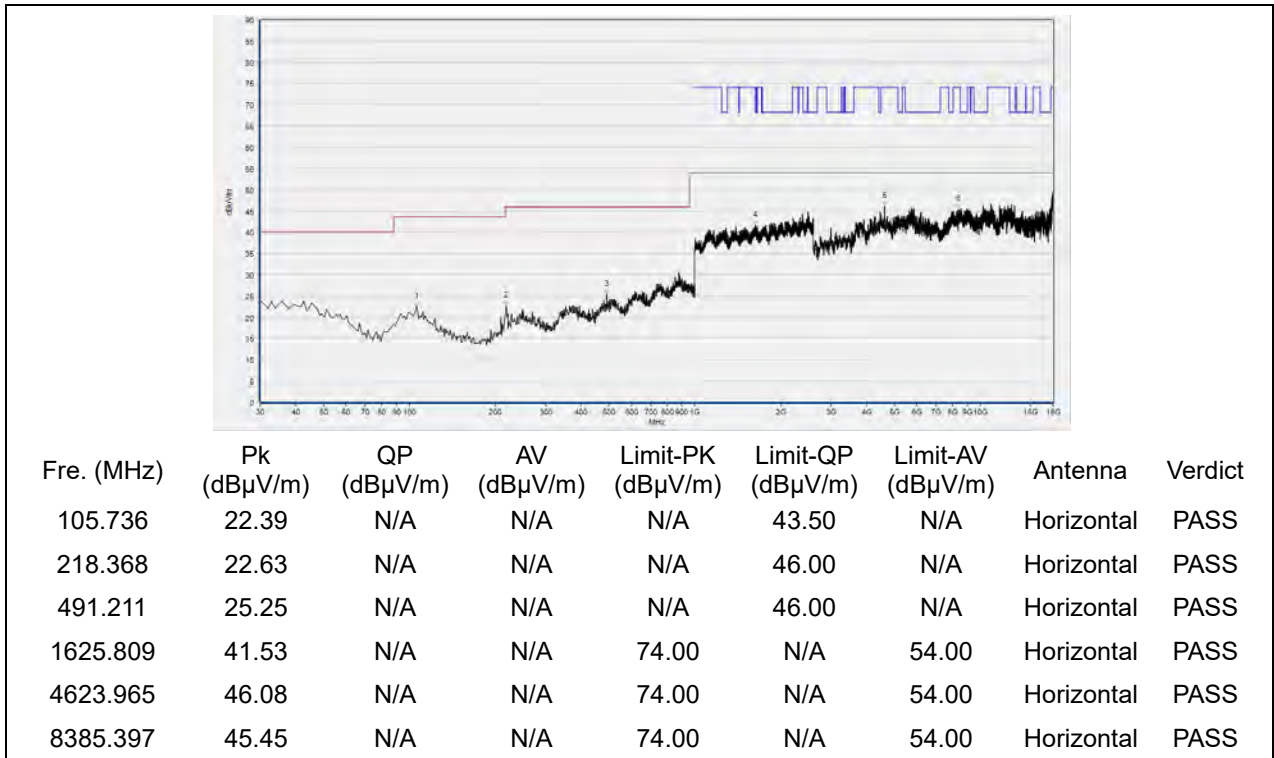


(Antenna Horizontal, 30MHz to 18GHz)

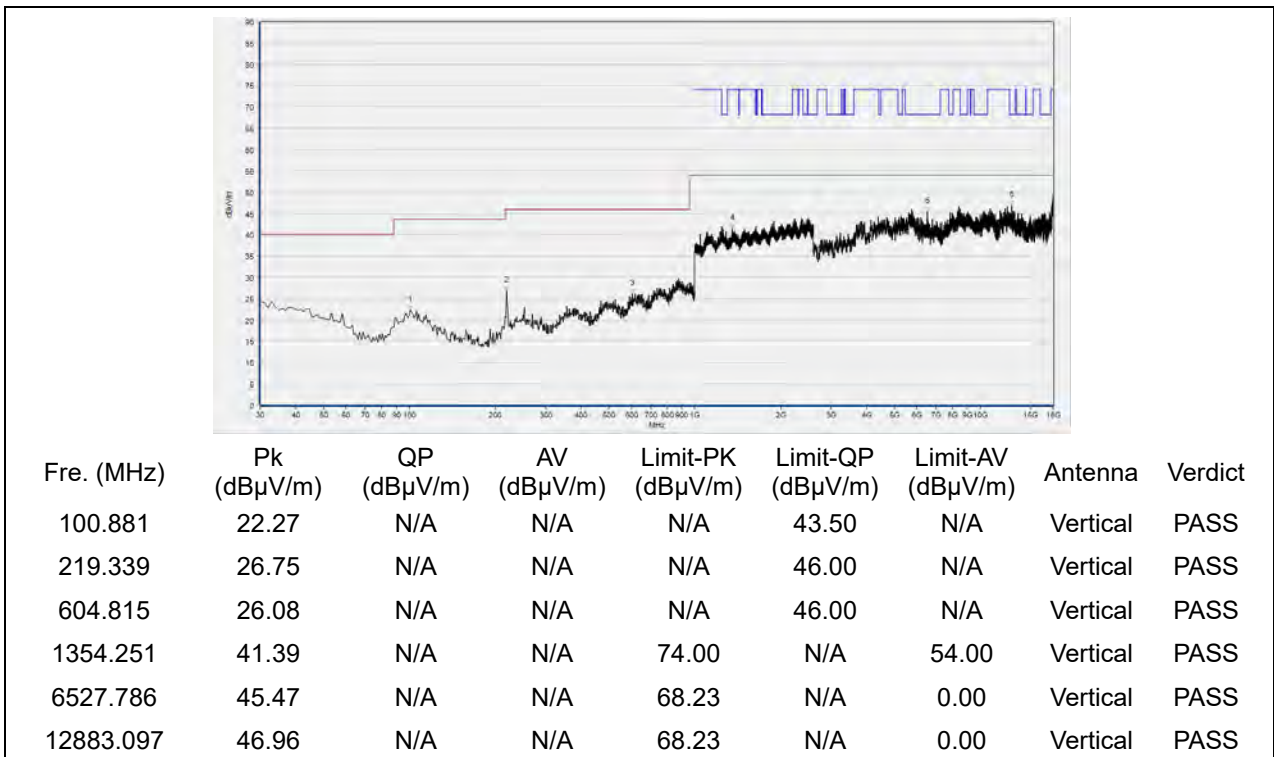


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 159



(Antenna Horizontal, 30MHz to 18GHz)

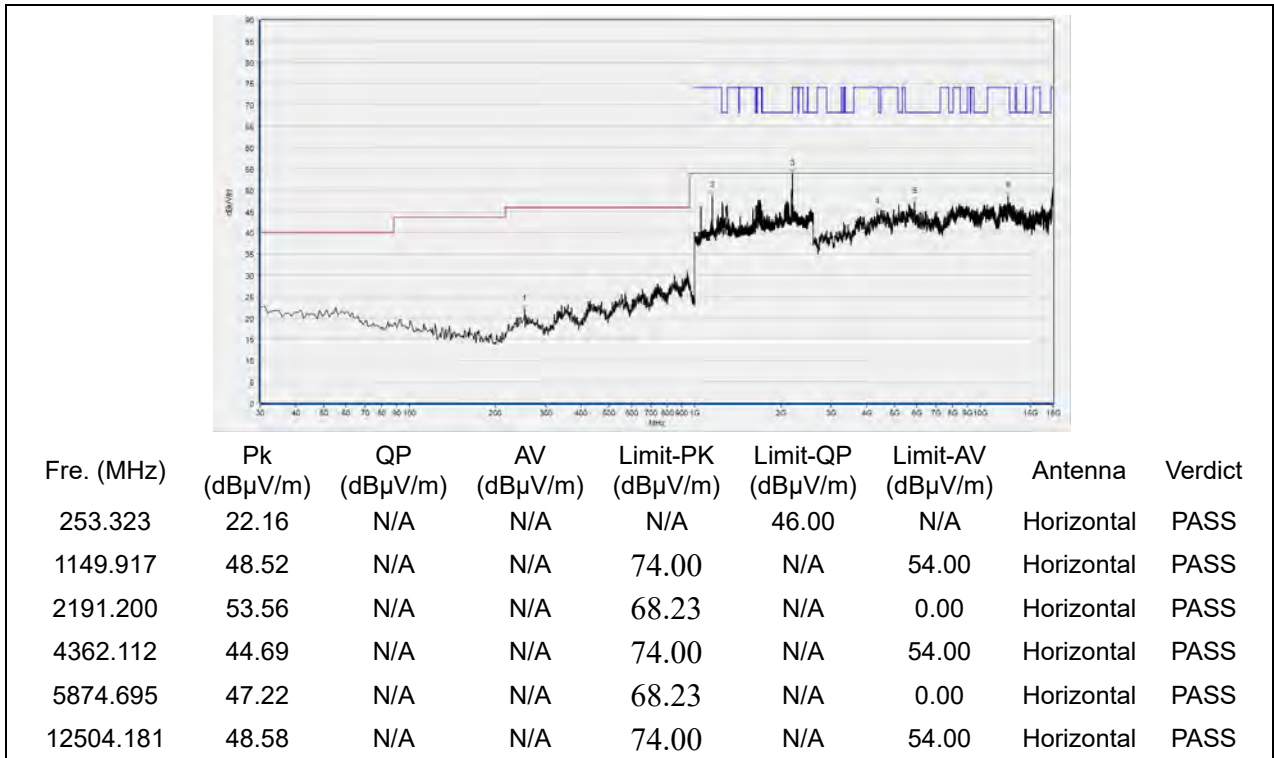


(Antenna Vertical, 30MHz to 18GHz)

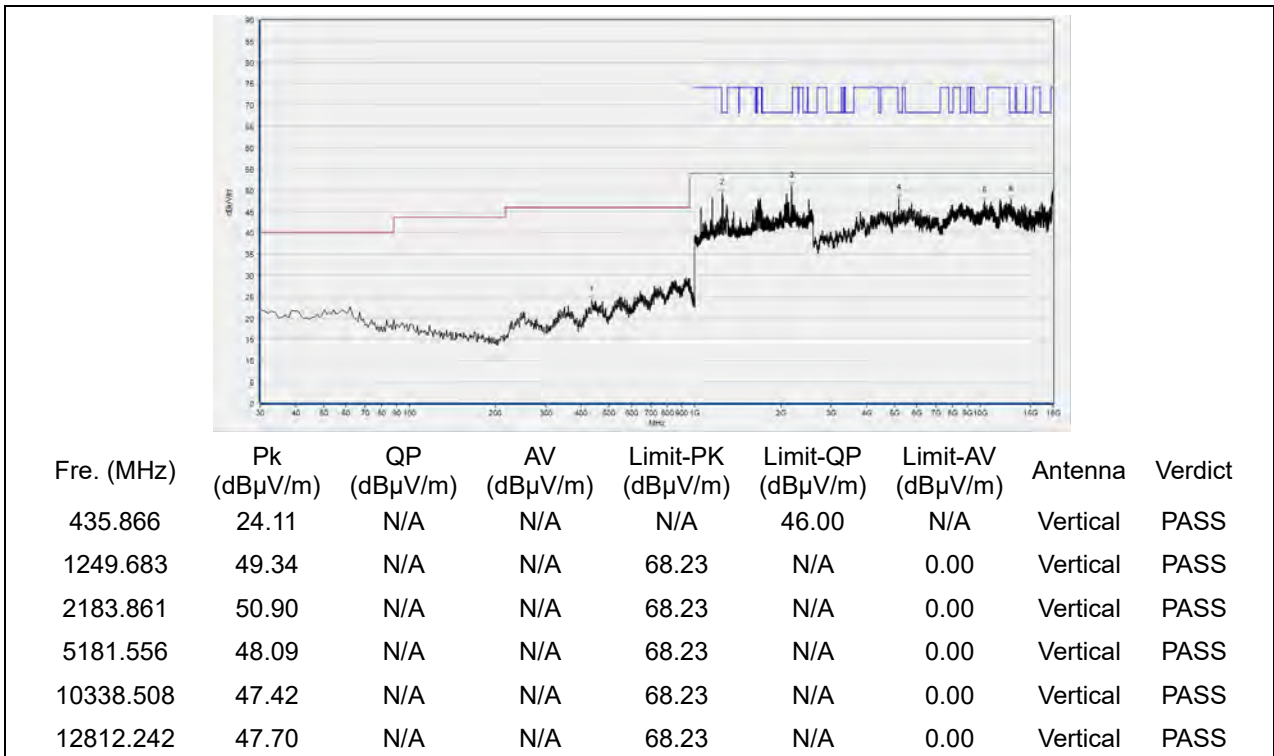


**802.11ac (VHT20) Test mode**

Plots for Channel = 36

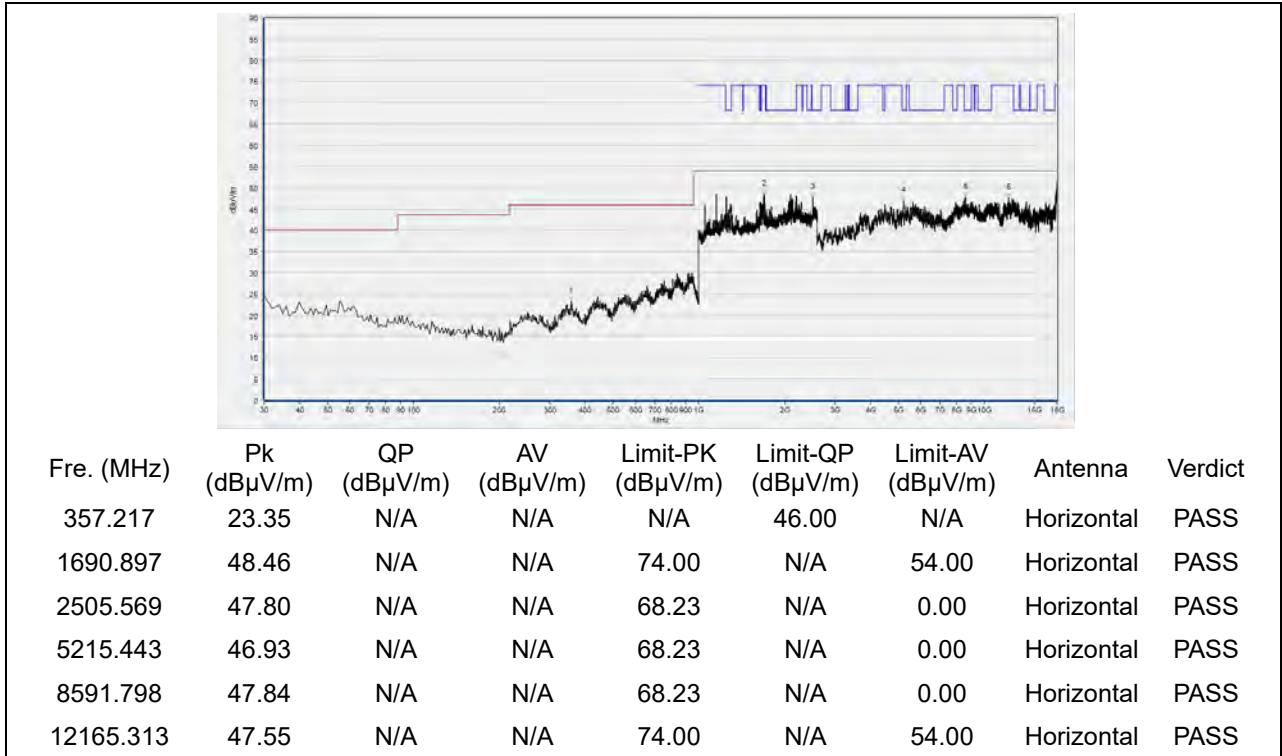


(Antenna Horizontal, 30MHz to 18GHz)

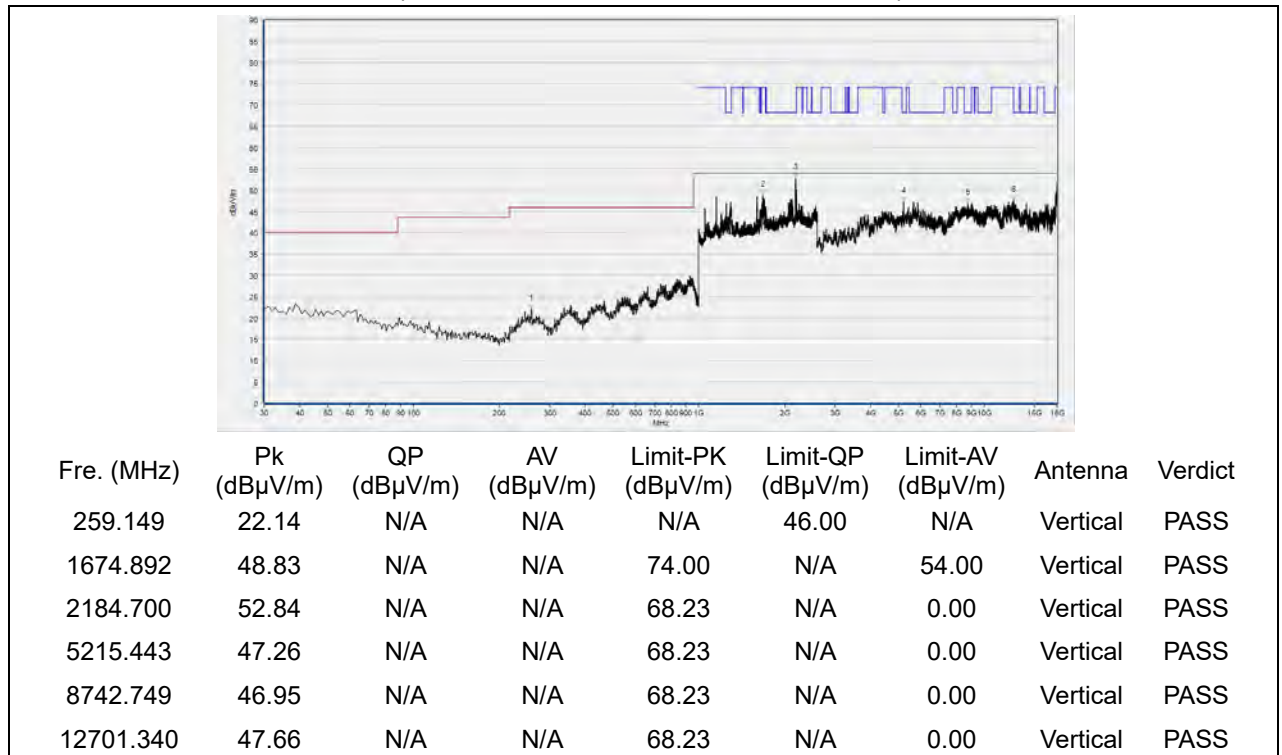


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 44

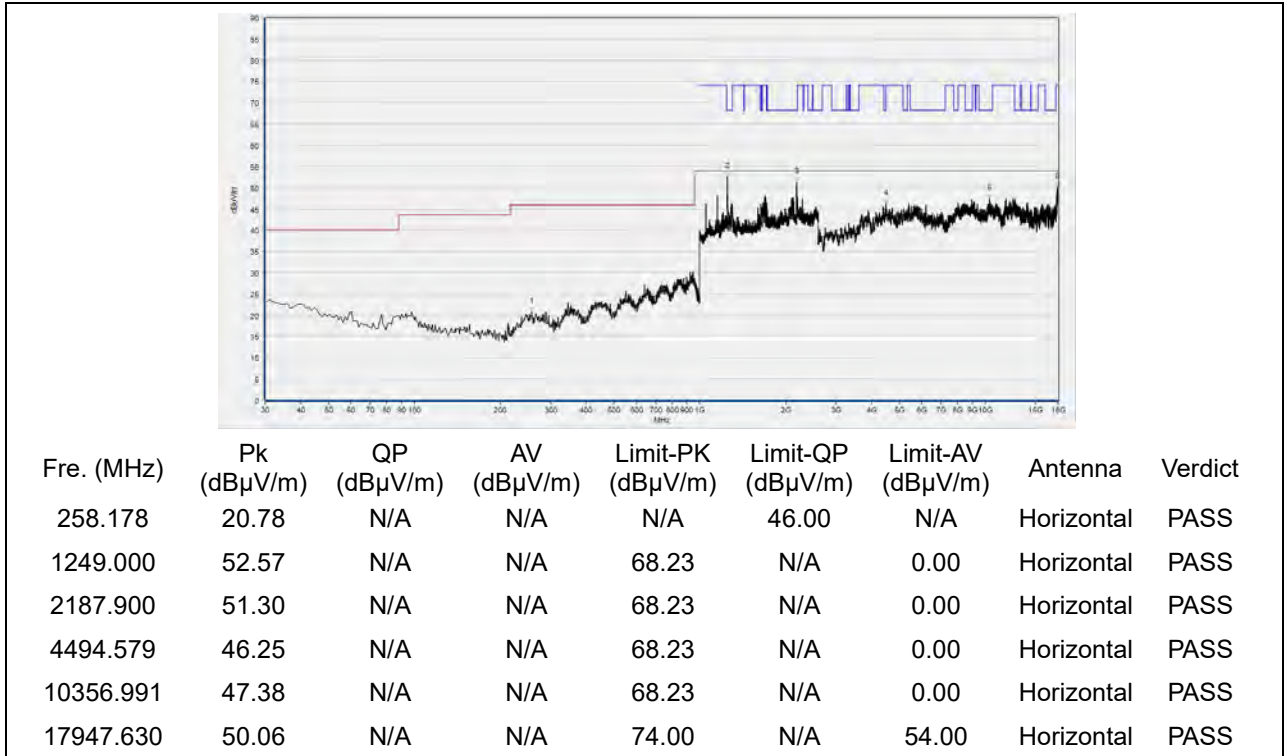


(Antenna Horizontal, 30MHz to 18GHz)

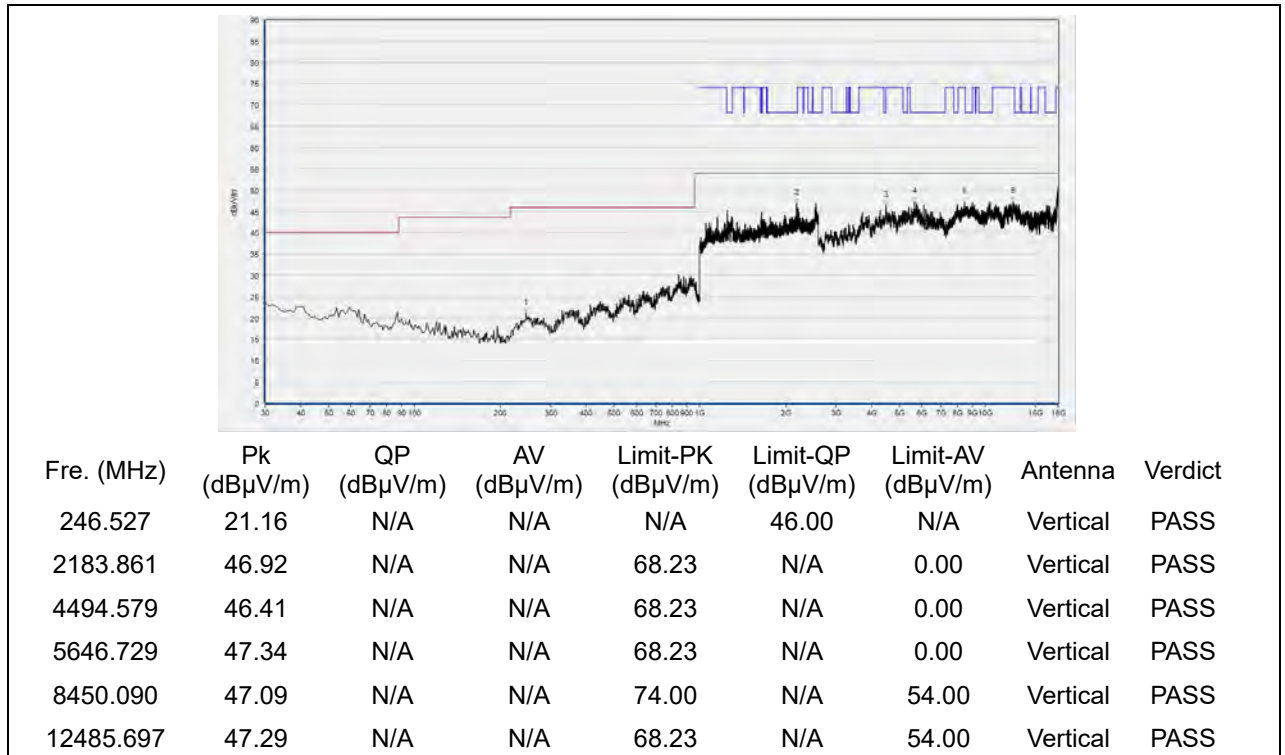


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 48

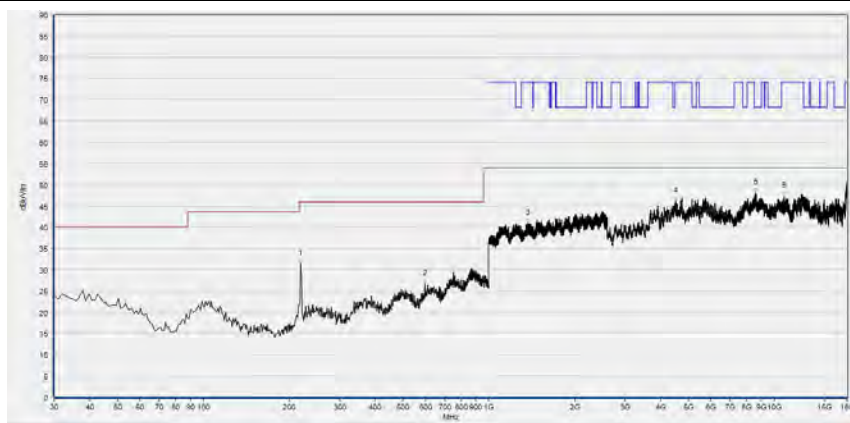


(Antenna Horizontal, 30MHz to 18GHz)



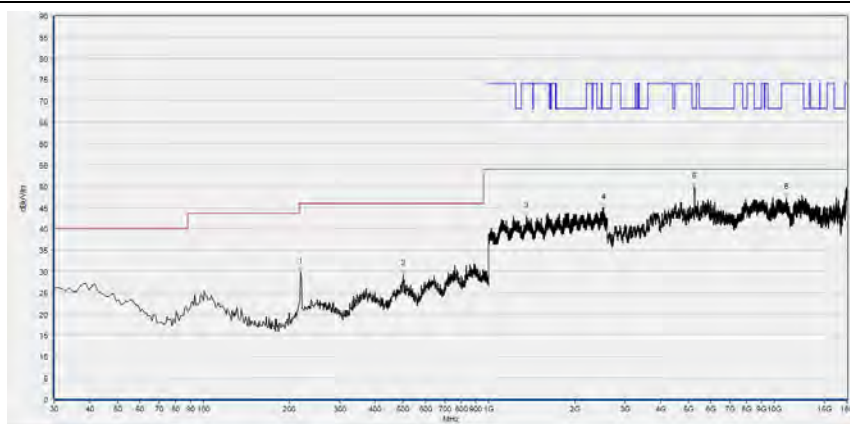
(Antenna Vertical, 30MHz to 18GHz)

Plots 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
219.339	31.26	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
596.076	26.71	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1370.257	40.84	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4506.901	46.12	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8585.637	48.08	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS
10840.648	47.21	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

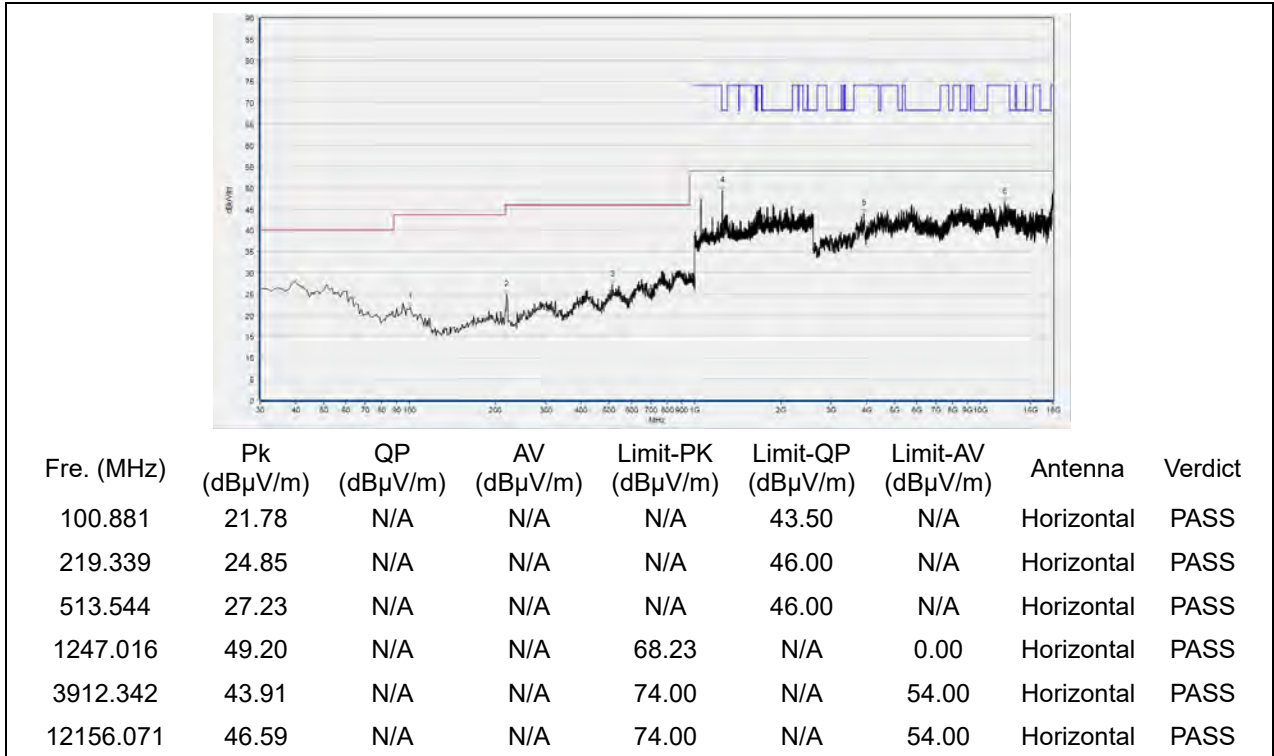
(Antenna Horizontal, 30MHz to 18GHz)



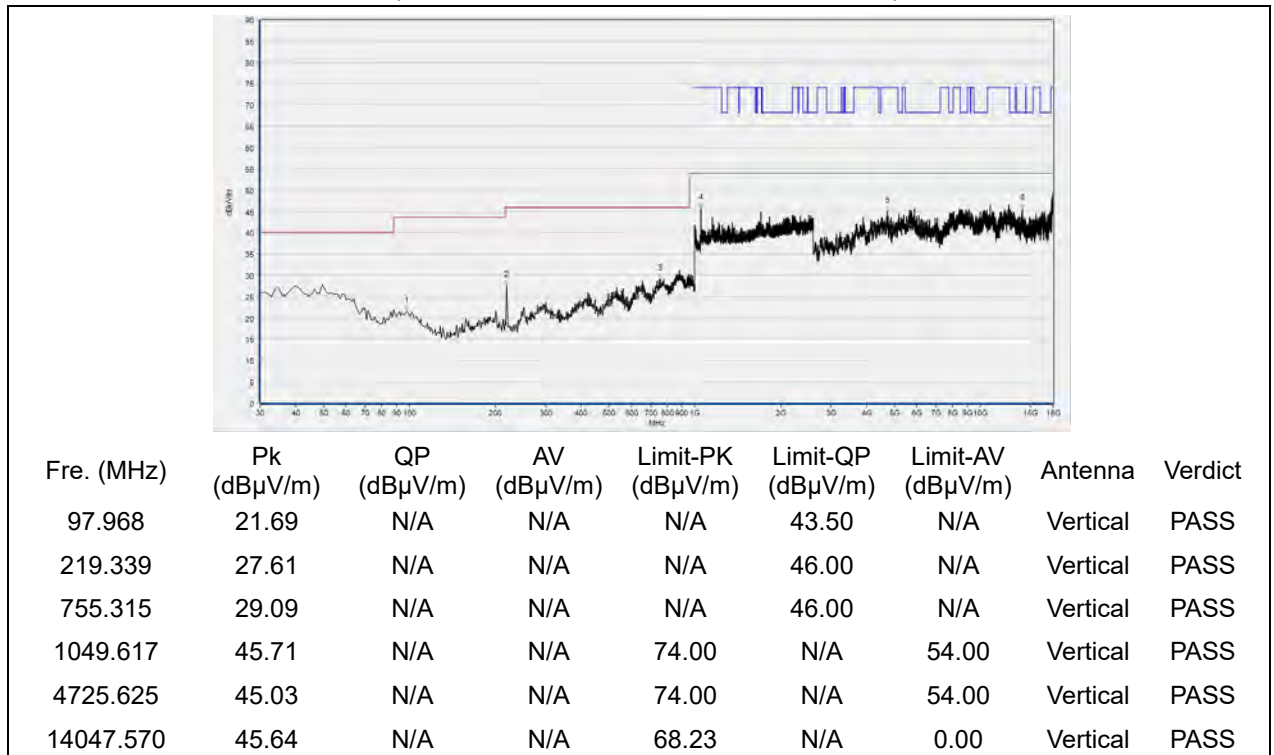
Fre. (MHz)	Pk (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
219.339	29.85	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
500.921	29.38	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1357.452	42.84	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2516.772	44.89	N/A	N/A	68.23	N/A	54.00	Vertical	PASS
5255.491	49.73	N/A	N/A	68.23	N/A	0.00	Vertical	PASS
11040.888	47.32	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 60

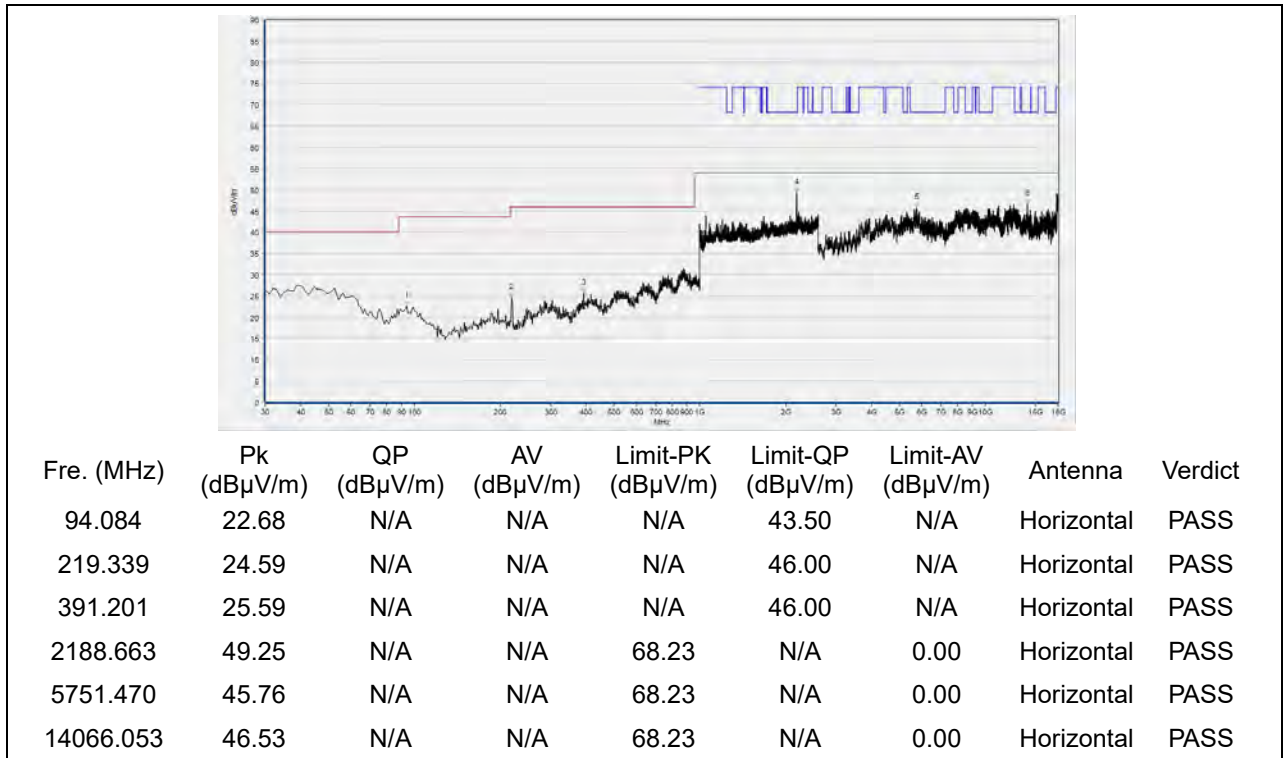


(Antenna Horizontal, 30MHz to 18GHz)

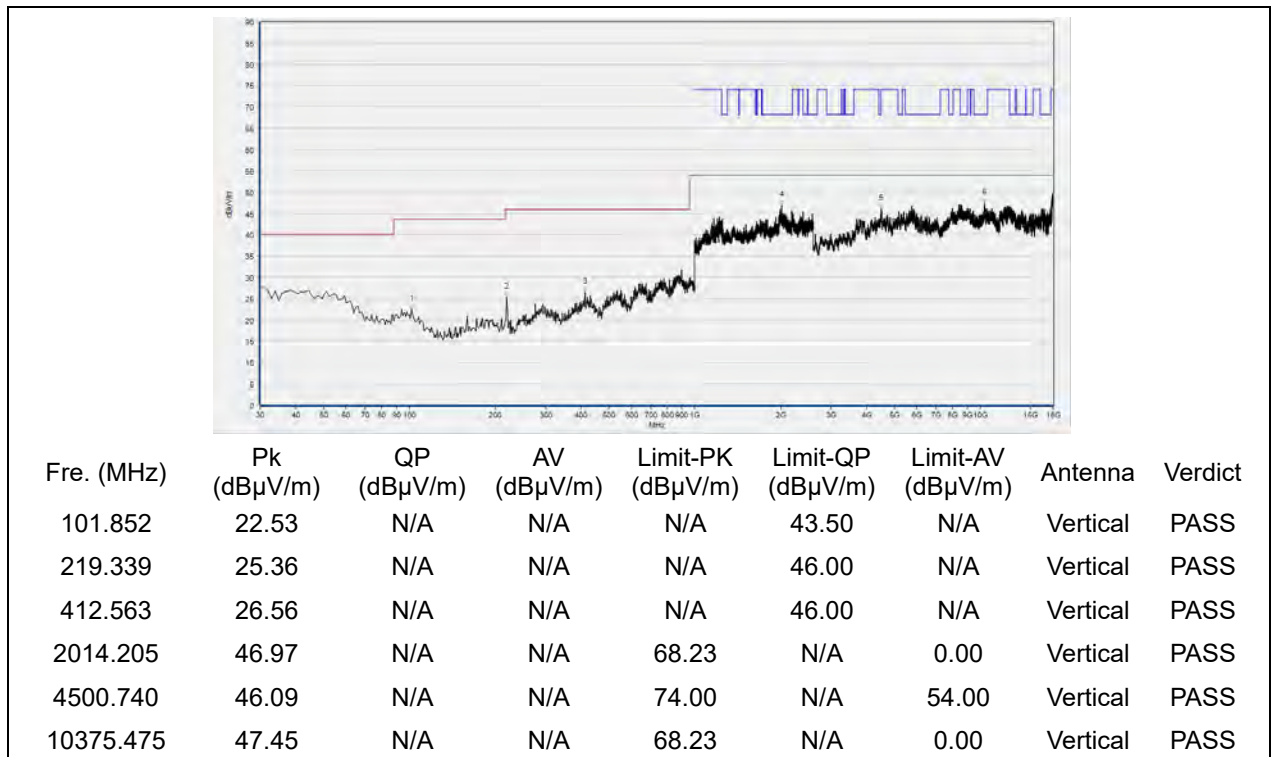


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 64



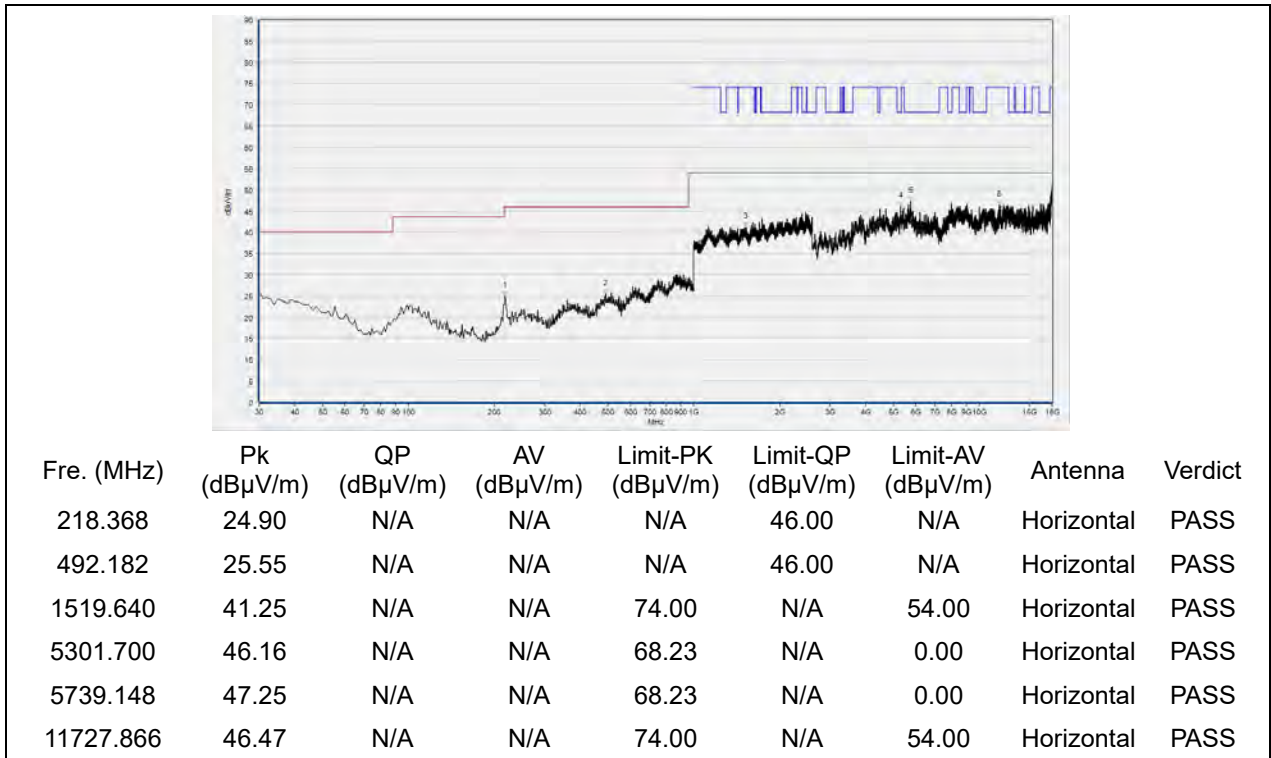
(Antenna Horizontal, 30MHz to 18GHz)



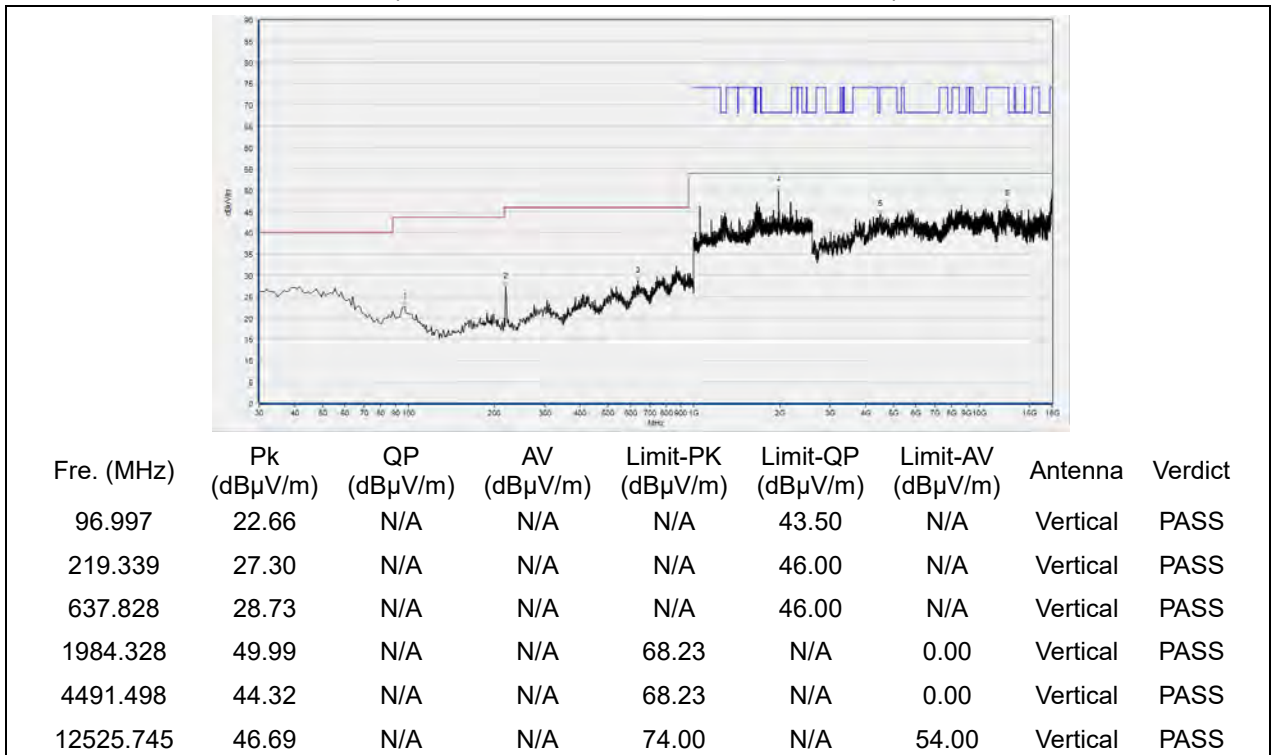
(Antenna Vertical, 30MHz to 18GHz)



Plots for Channel = 100

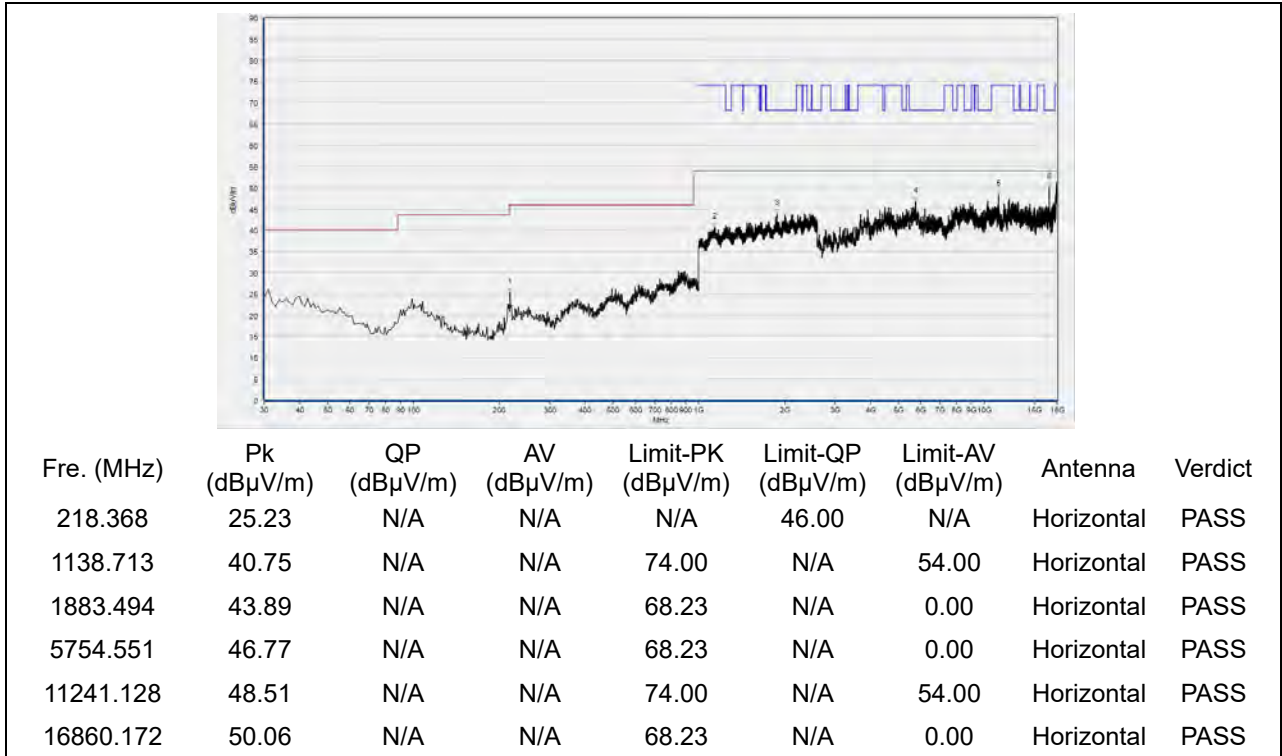


(Antenna Horizontal, 30MHz to 18GHz)

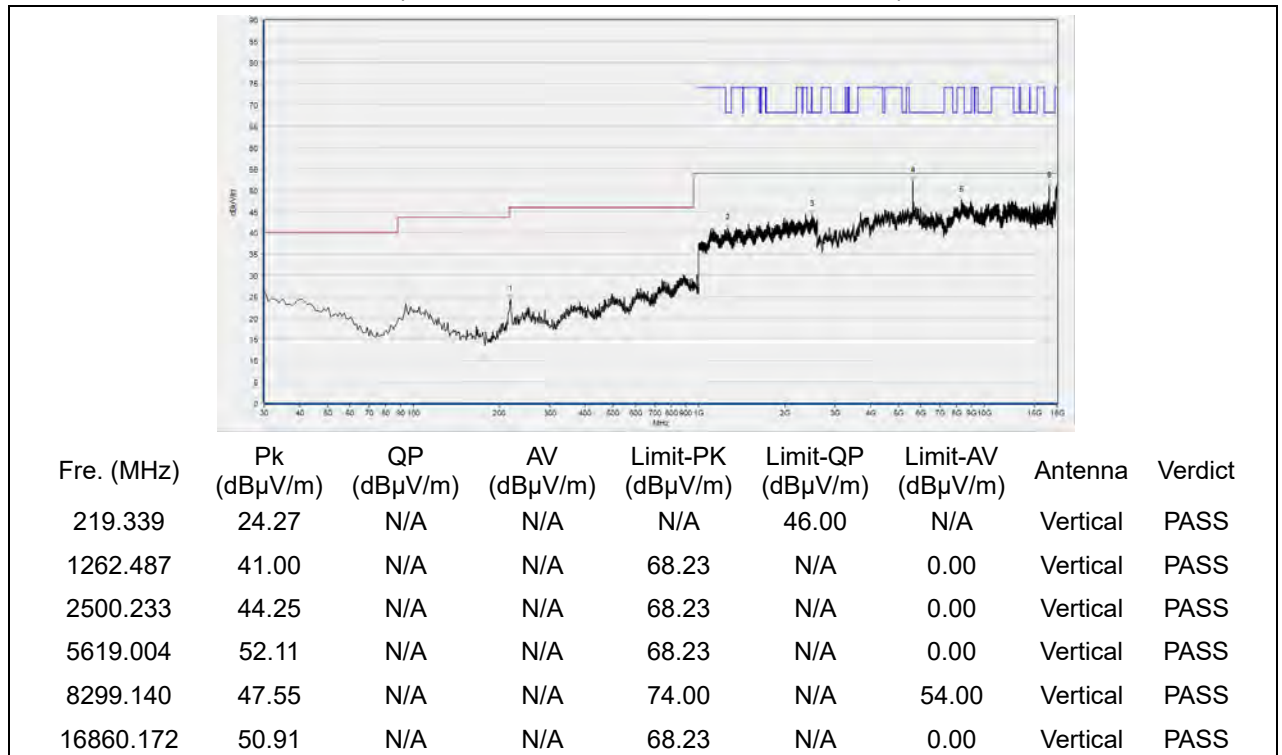


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 120

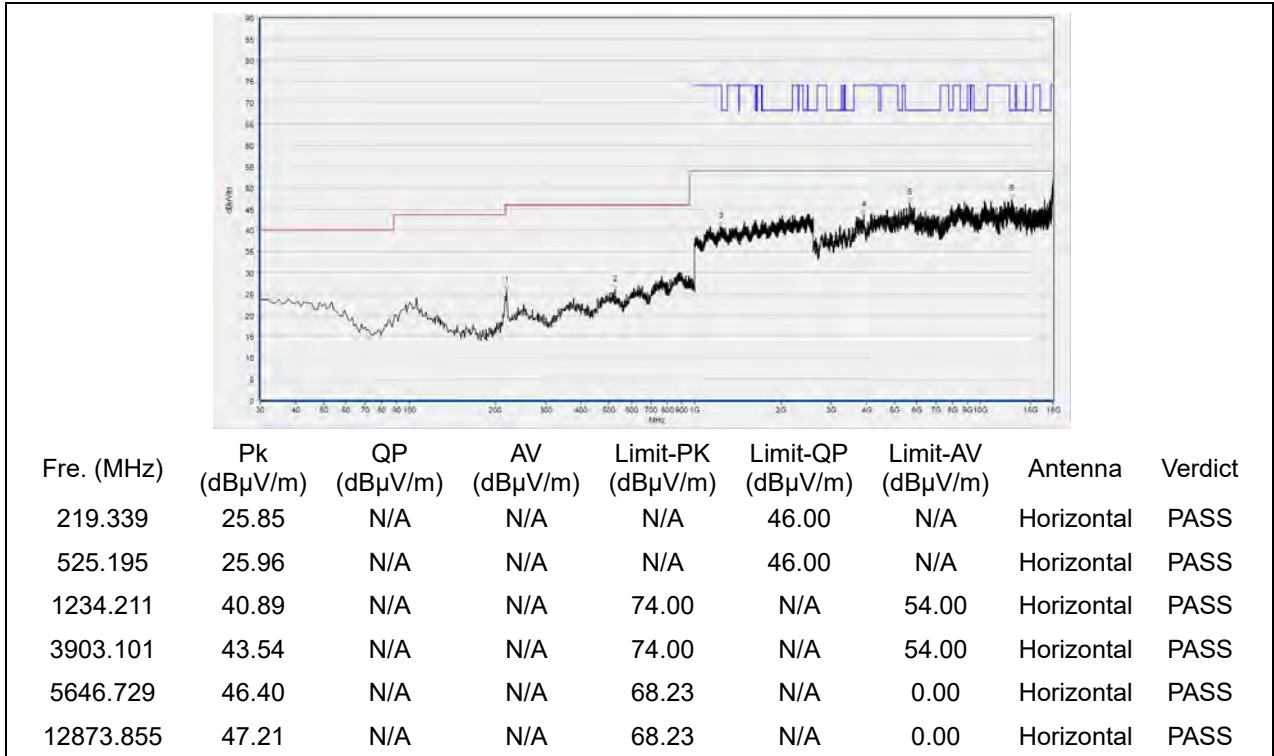


(Antenna Horizontal, 30MHz to 18GHz)

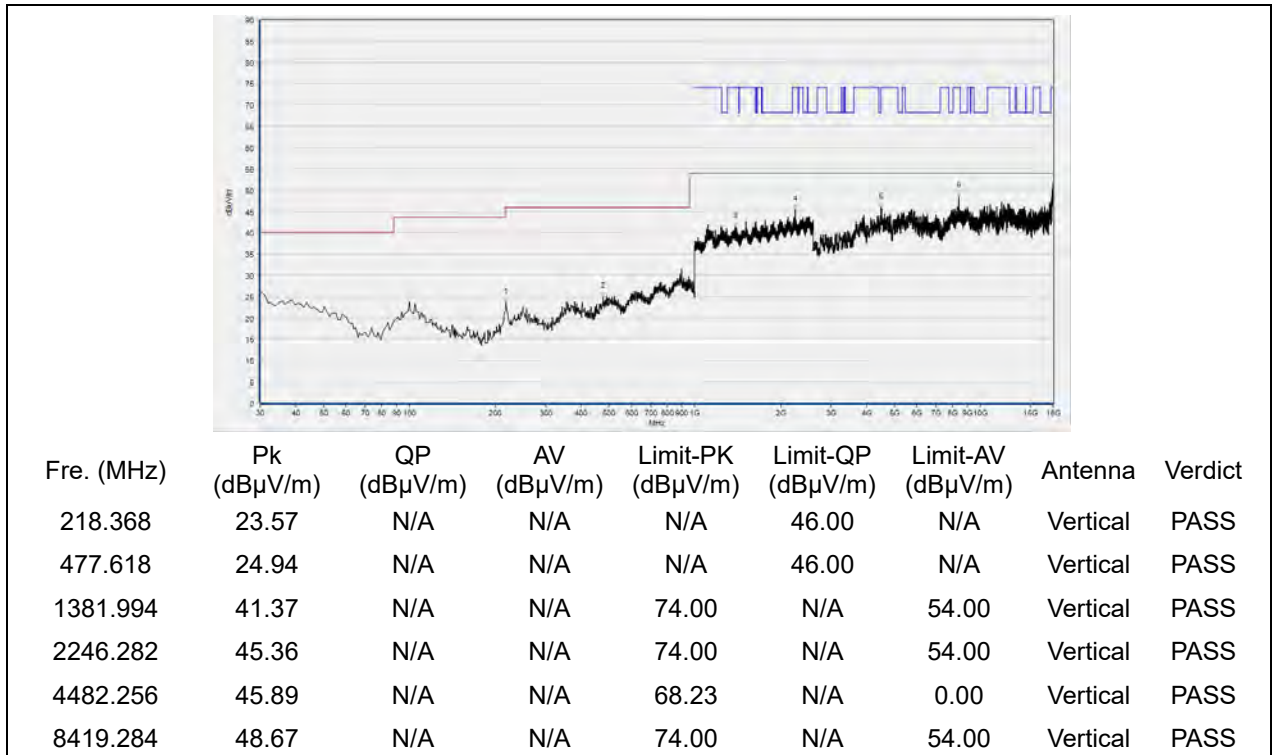


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 144

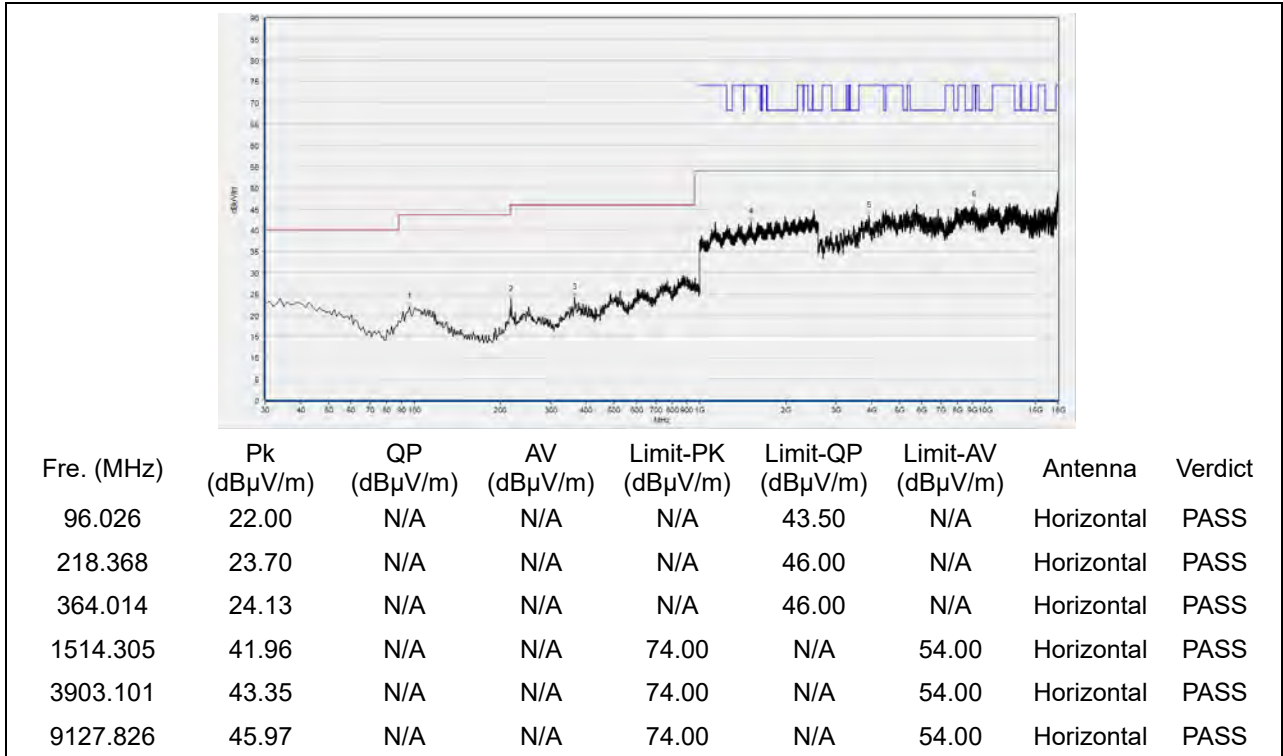


(Antenna Horizontal, 30MHz to 18GHz)

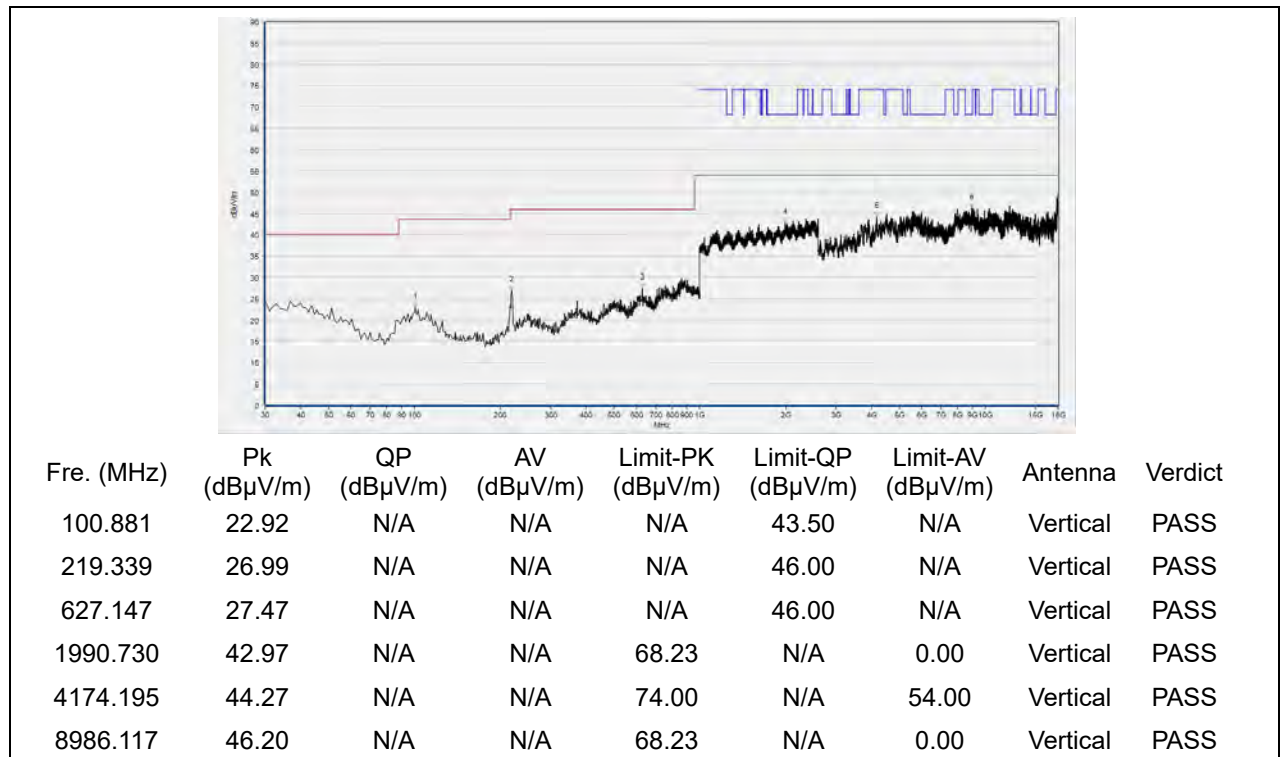


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 149

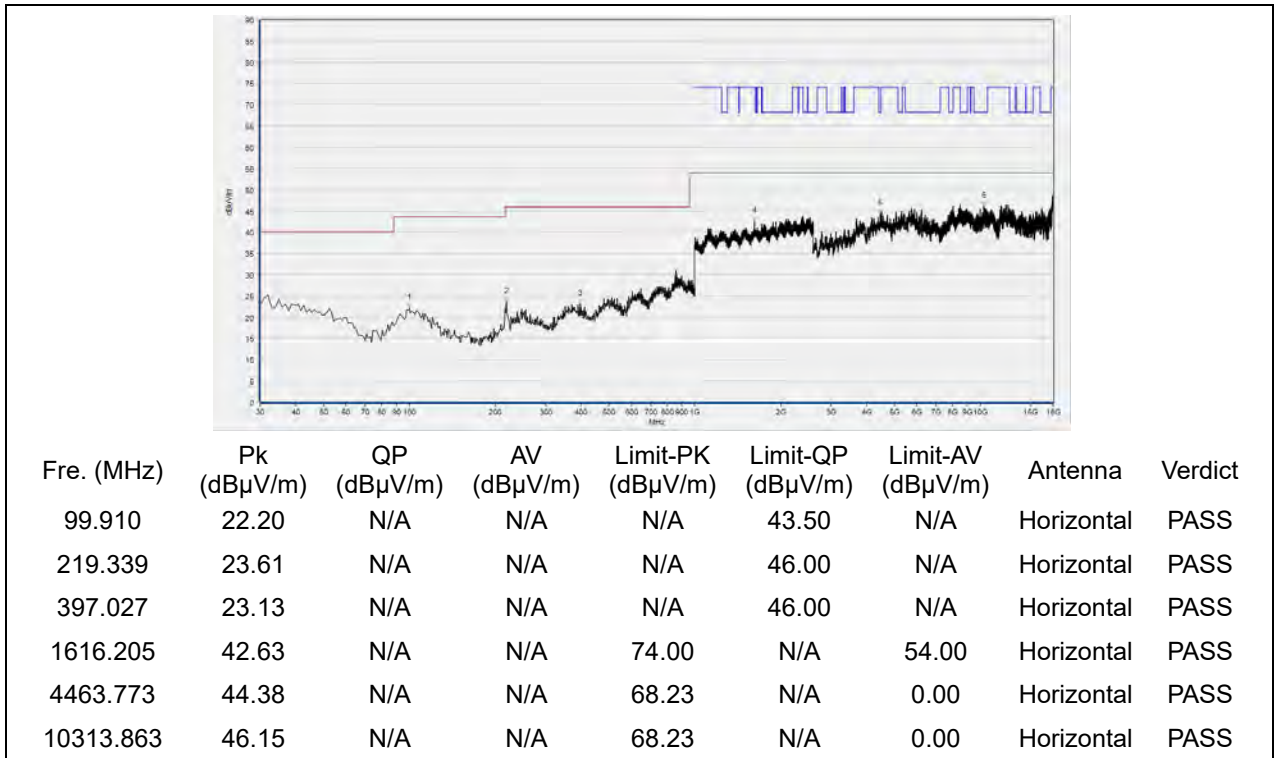


(Antenna Horizontal, 30MHz to 18GHz)

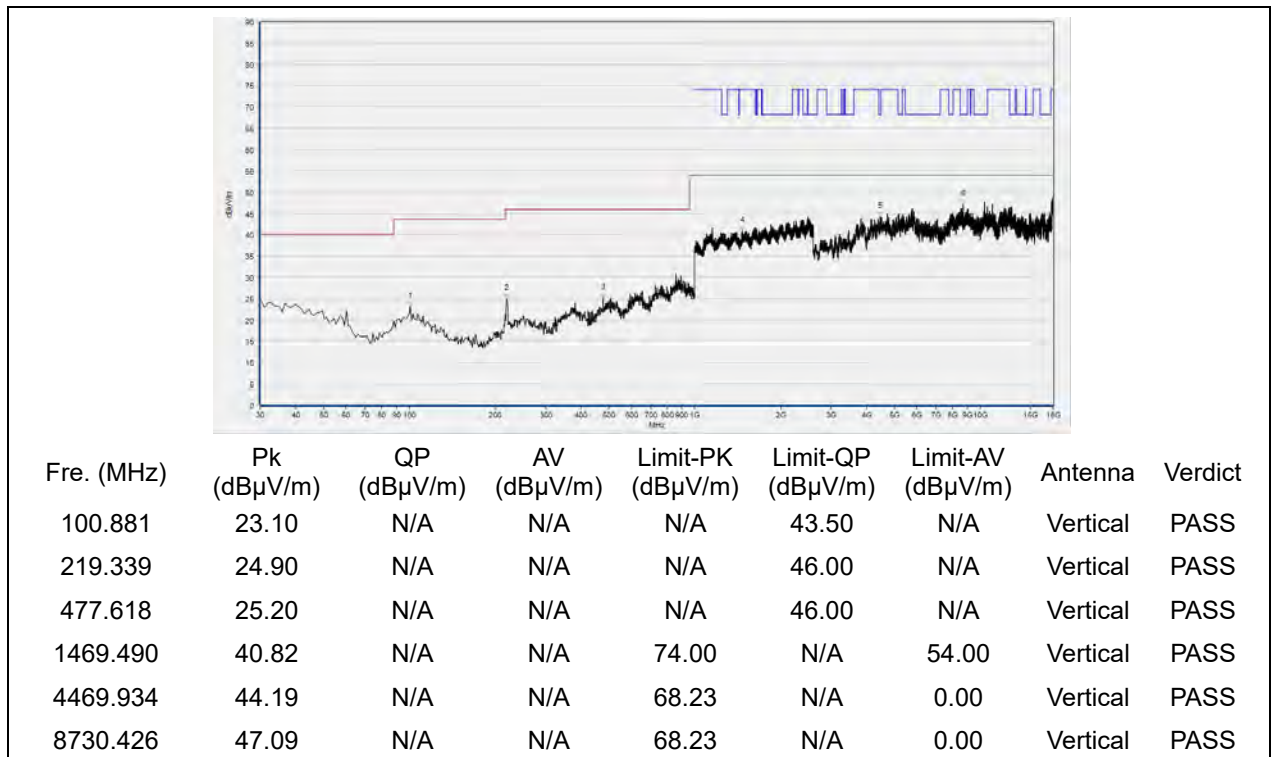


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 157

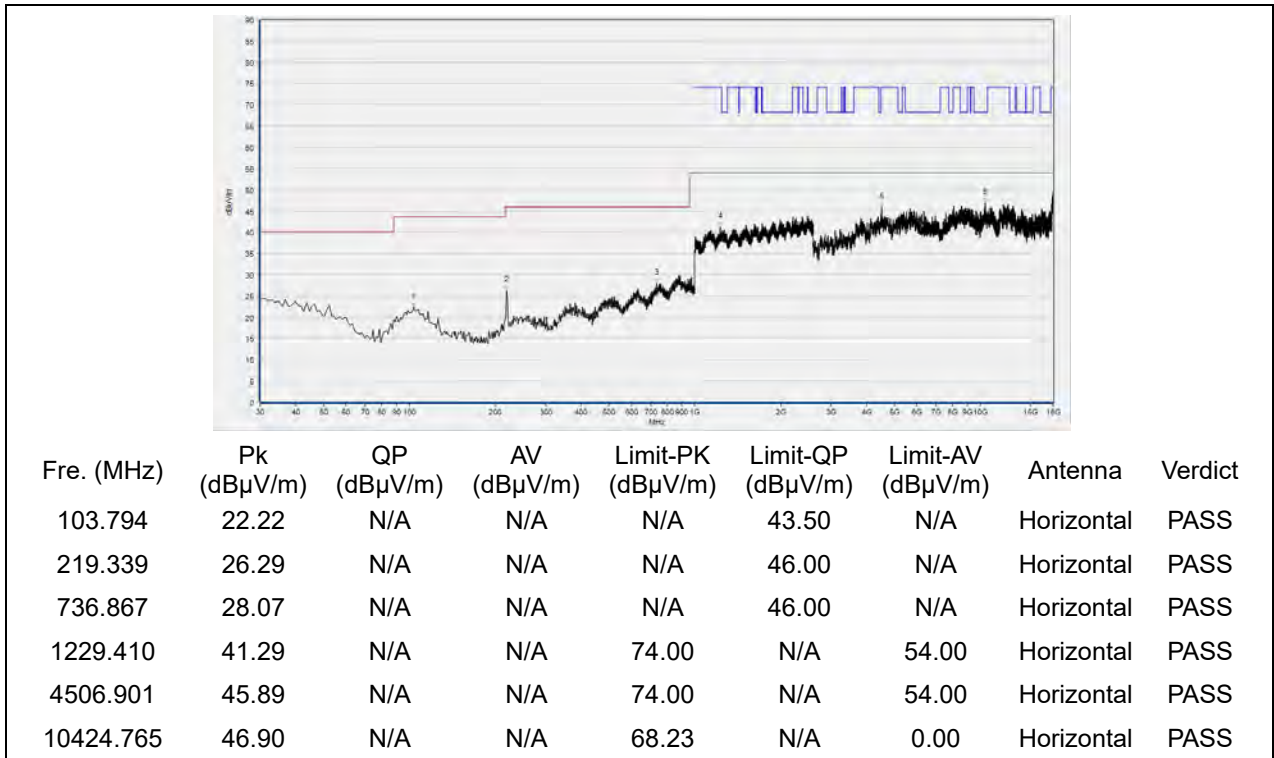


(Antenna Horizontal, 30MHz to 18GHz)

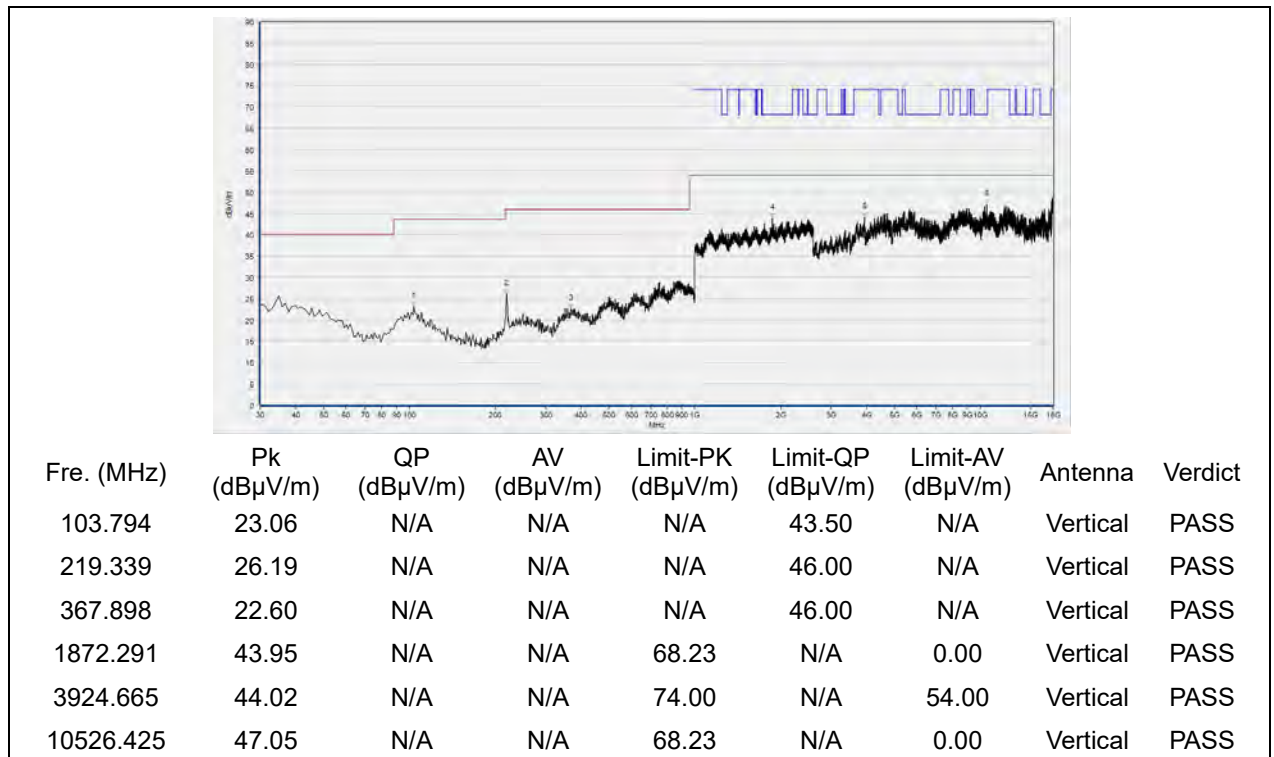


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 165



(Antenna Horizontal, 30MHz to 18GHz)

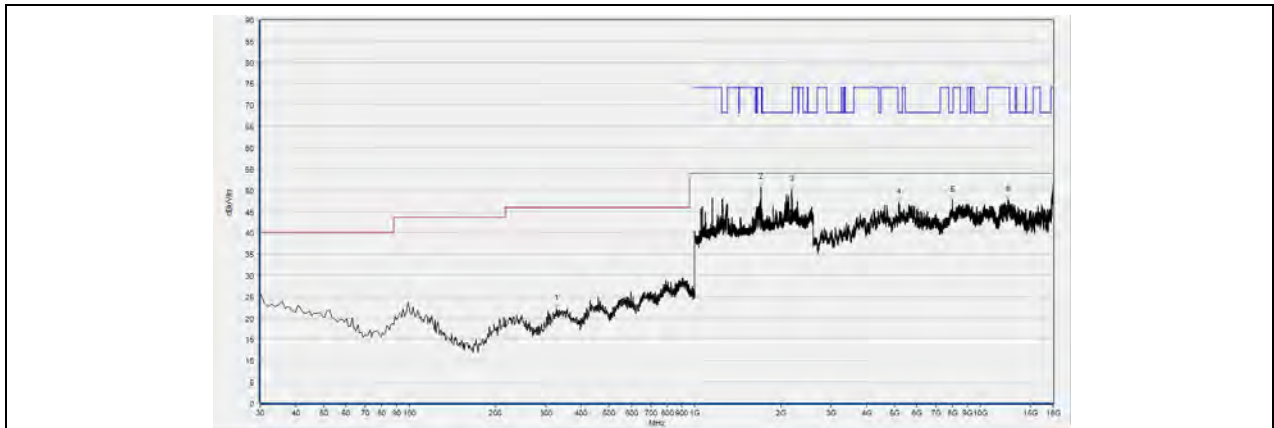


(Antenna Vertical, 30MHz to 18GHz)



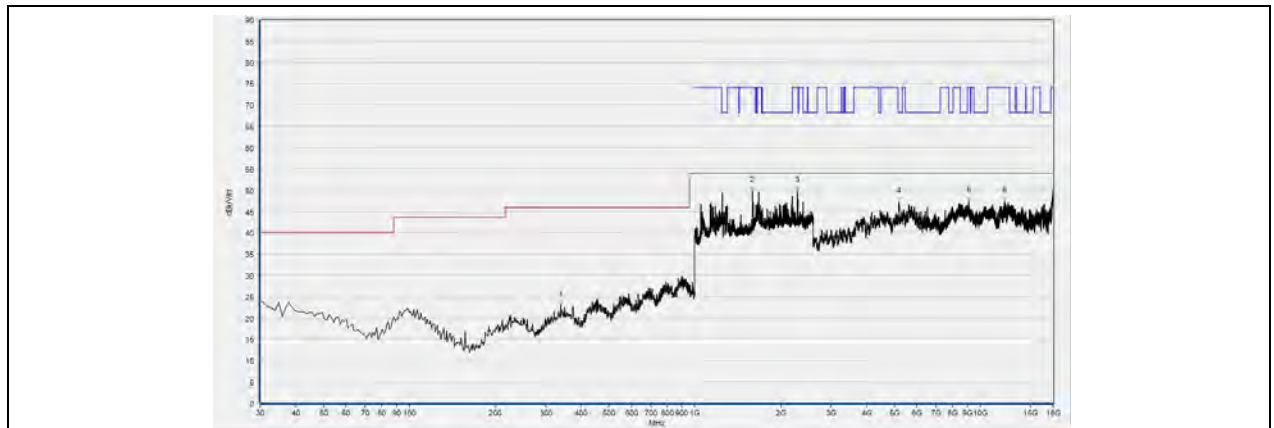
**802.11ac (VHT40) Test mode**

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
328.088	22.06	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1702.634	50.66	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2187.596	50.05	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS
5178.476	47.06	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS
7975.675	47.66	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS
12528.826	47.74	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

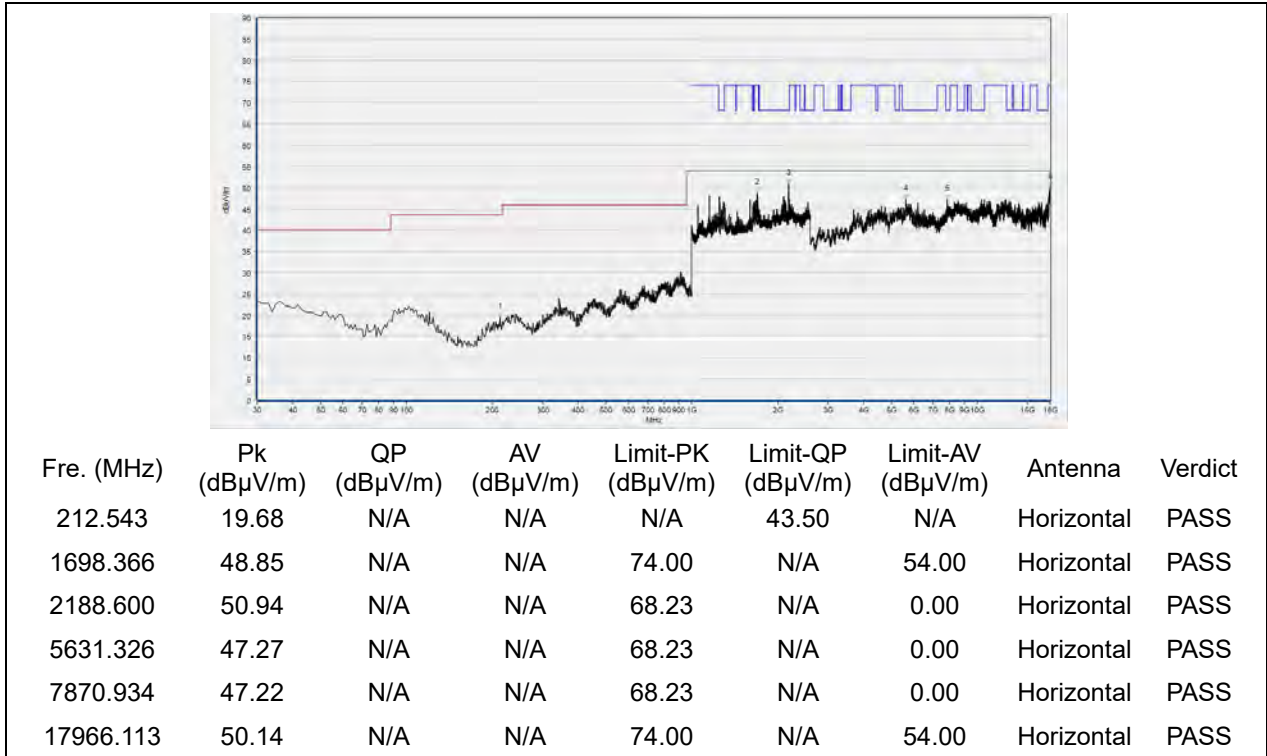
(Antenna Horizontal, 30MHz to 18GHz)



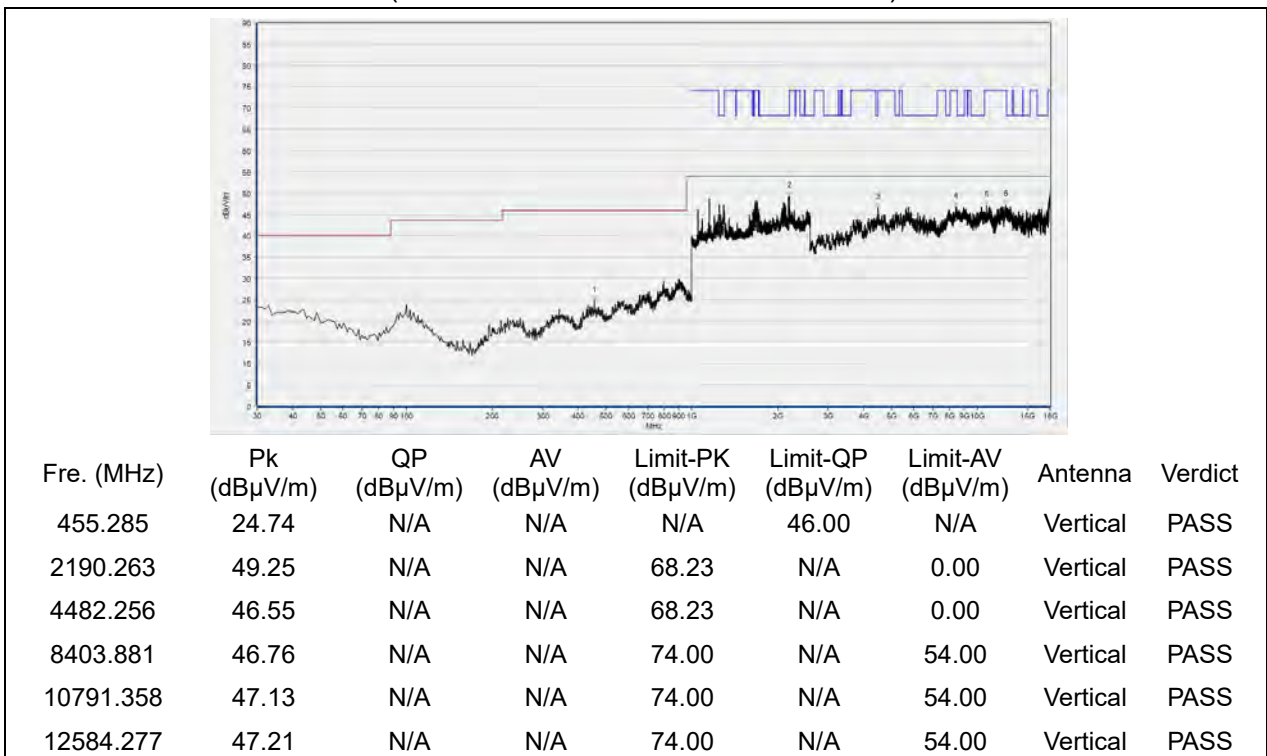
Fre. (MHz)	Pk (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
338.769	23.04	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1594.331	49.70	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2286.829	49.78	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5193.879	47.26	N/A	N/A	68.23	N/A	0.00	Vertical	PASS
9100.100	47.48	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12162.232	47.46	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 46



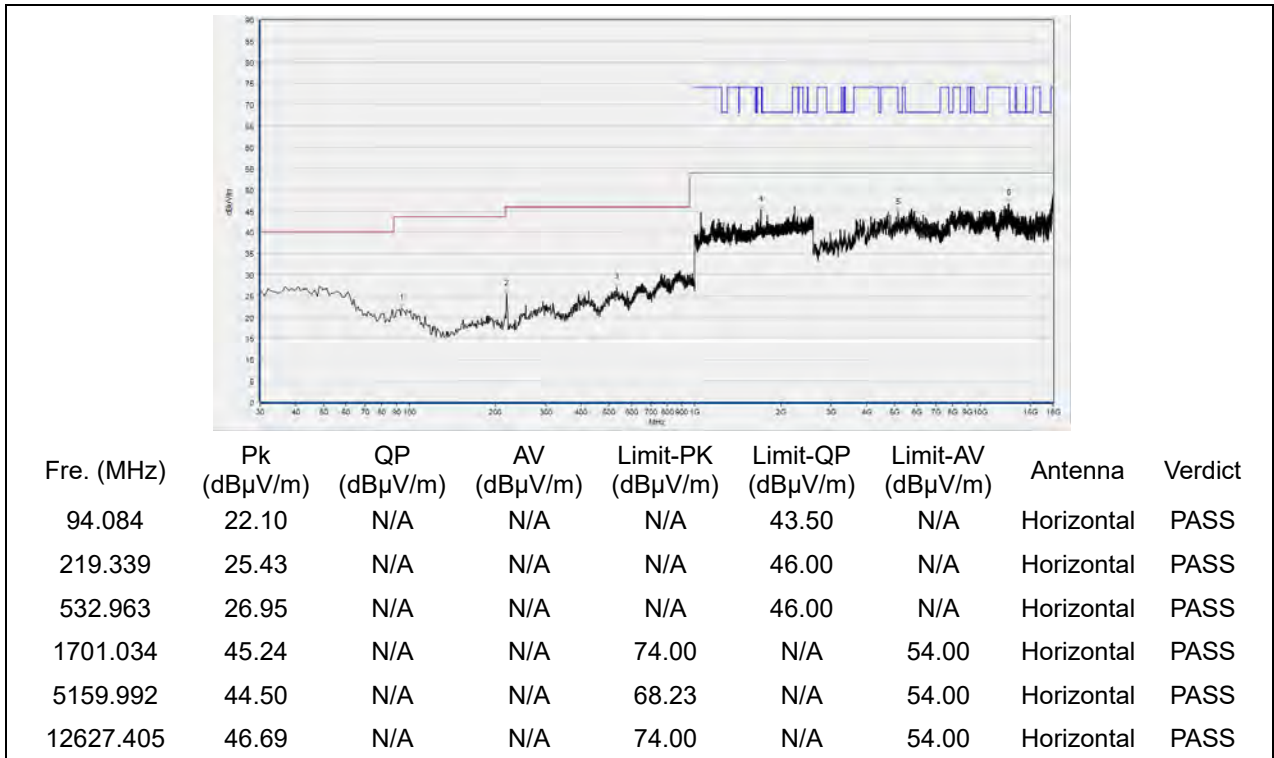
(Antenna Horizontal, 30MHz to 18GHz)



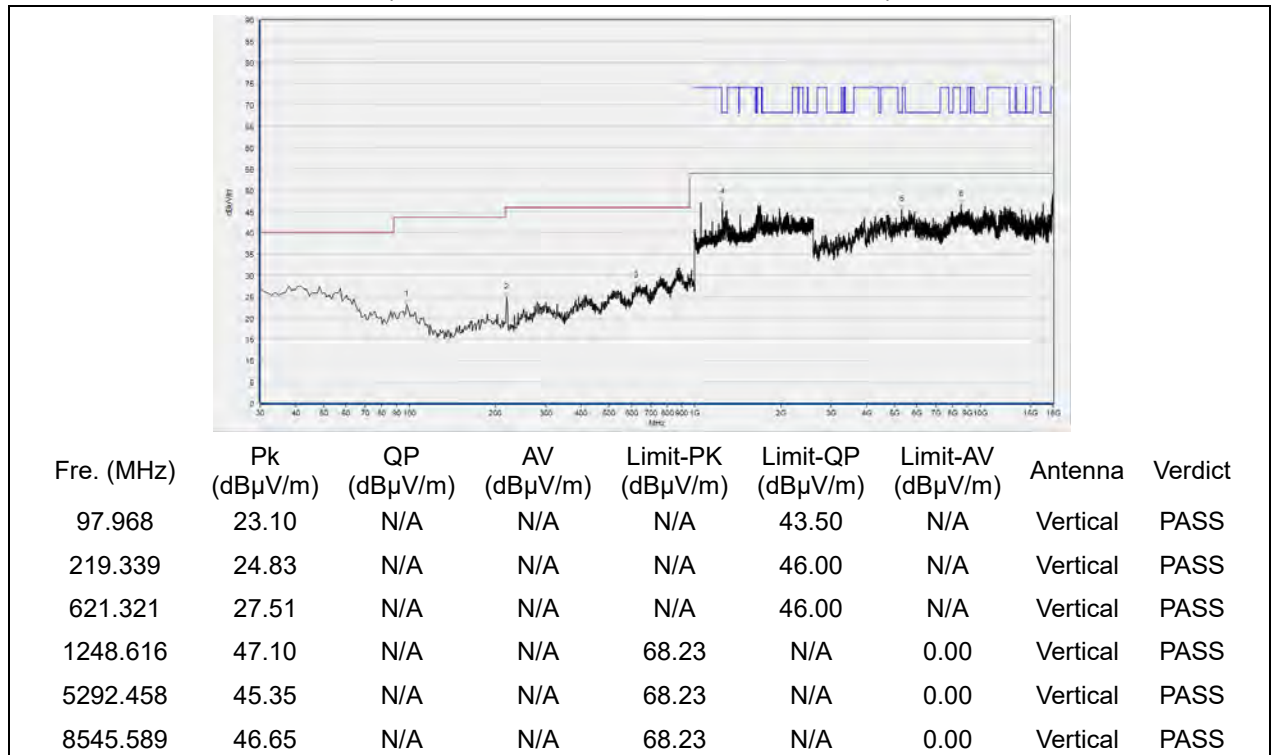
(Antenna Vertical, 30MHz to 18GHz)



Plots for Channel = 54

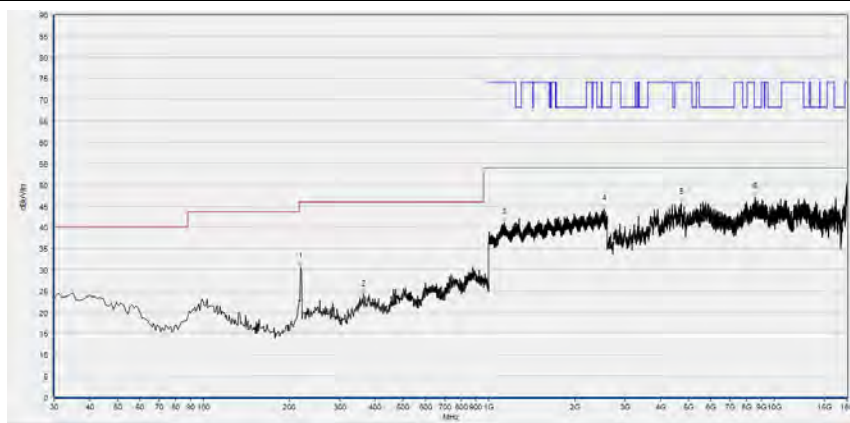


(Antenna Horizontal, 30MHz to 18GHz)



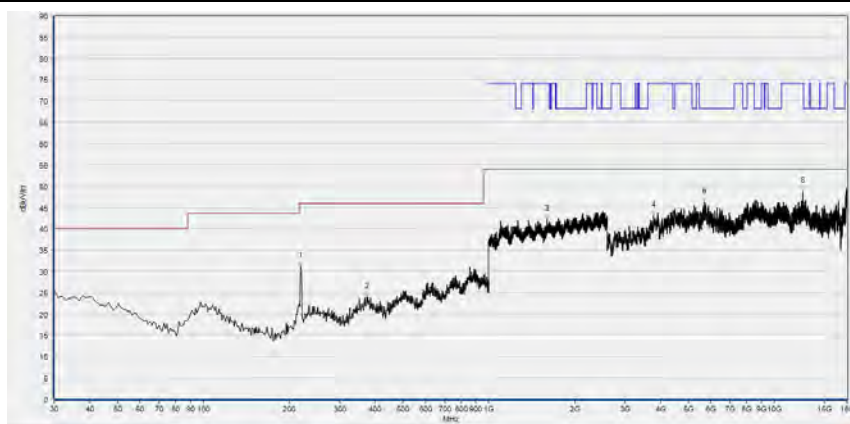
(Antenna Vertical, 30MHz to 18GHz)

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
219.339	30.62	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
363.043	24.09	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1129.643	41.02	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
2530.644	44.24	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS
4731.786	45.79	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8573.315	47.07	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS

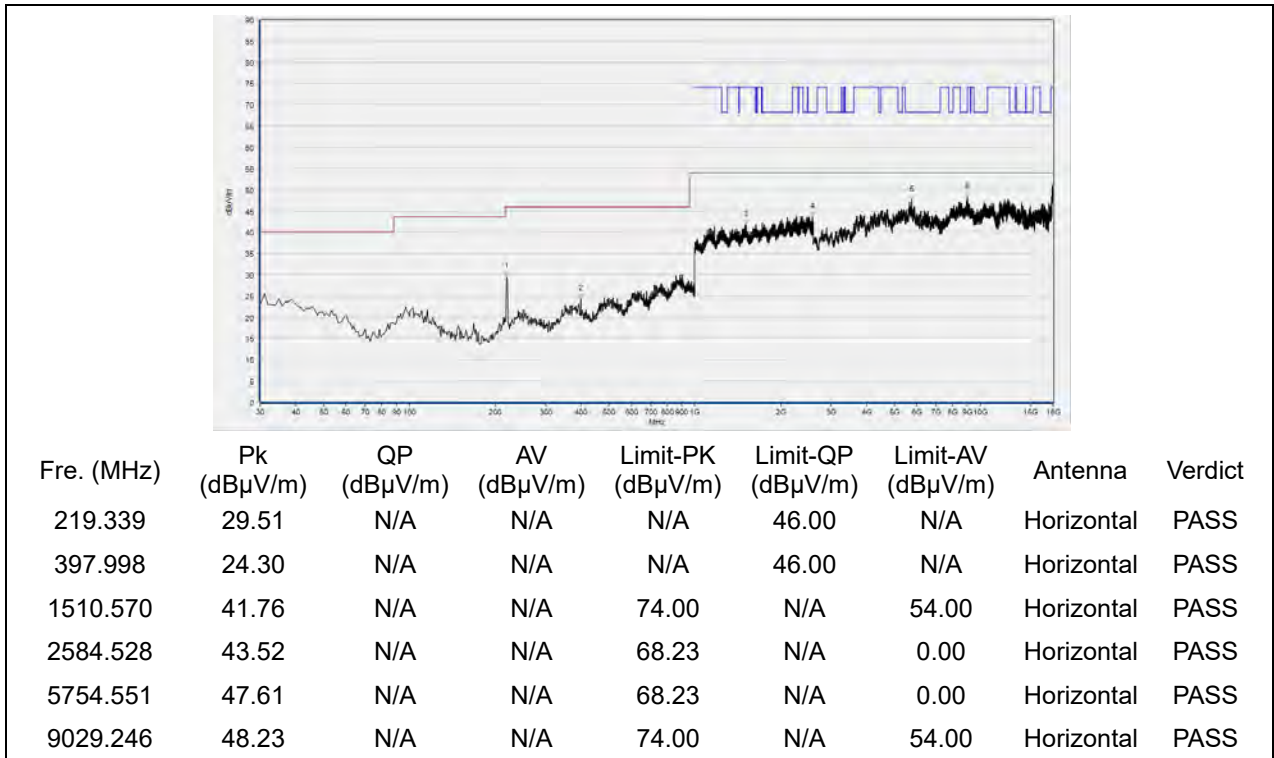
(Antenna Horizontal, 30MHz to 18GHz)



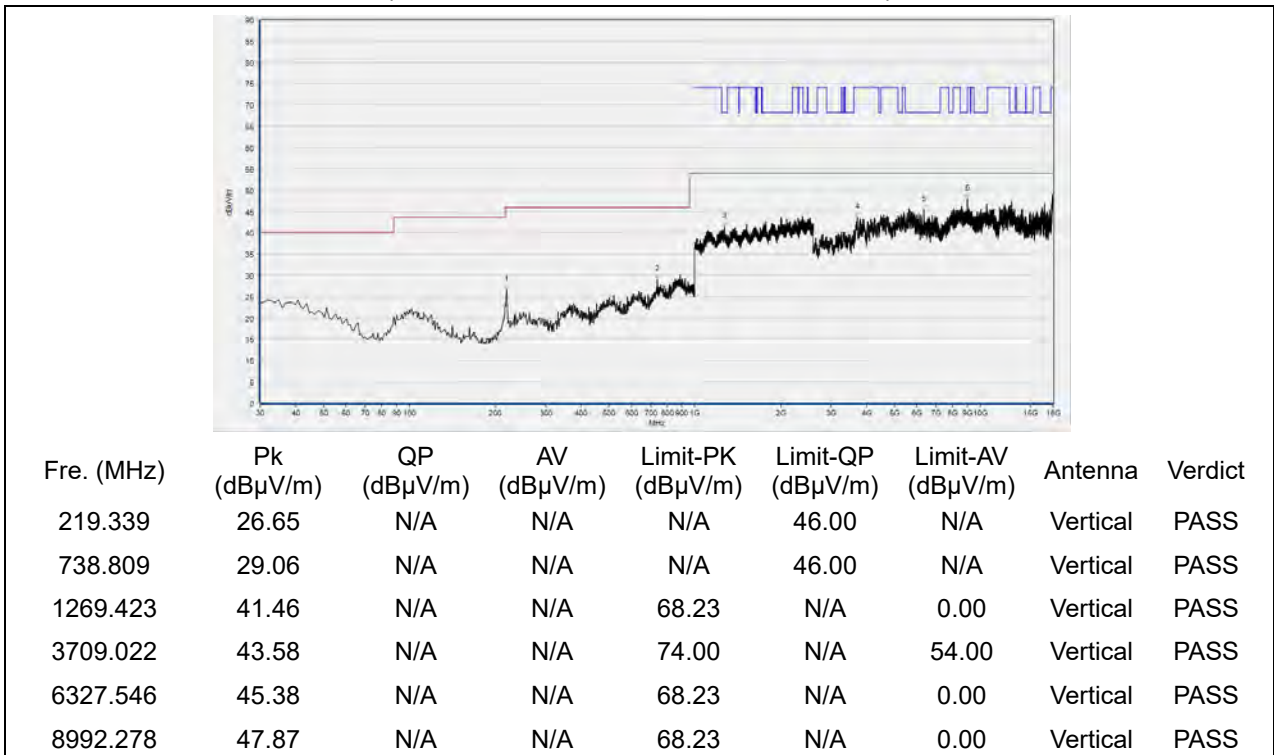
Fre. (MHz)	Pk (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
219.339	31.17	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
373.724	24.02	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1597.533	42.23	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3779.876	43.14	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5674.455	46.24	N/A	N/A	68.23	N/A	0.00	Vertical	PASS
12608.922	48.79	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 102

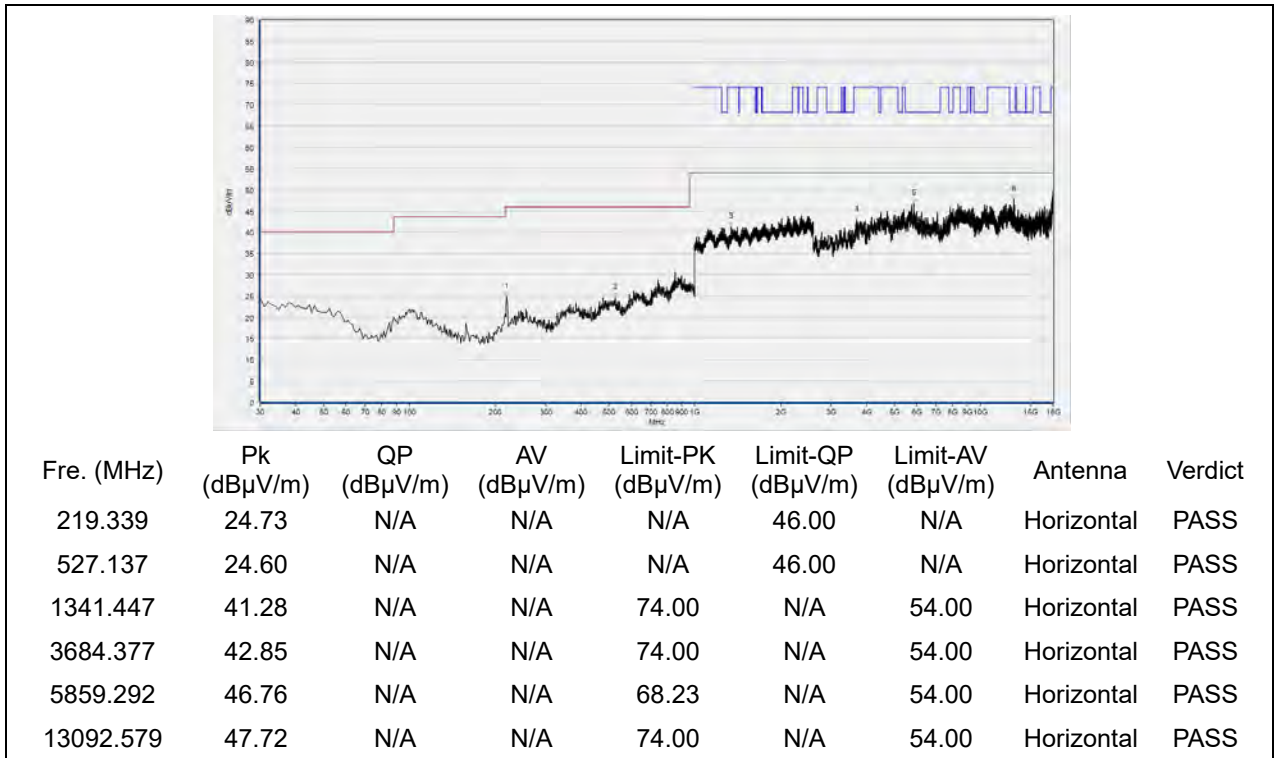


(Antenna Horizontal, 30MHz to 18GHz)

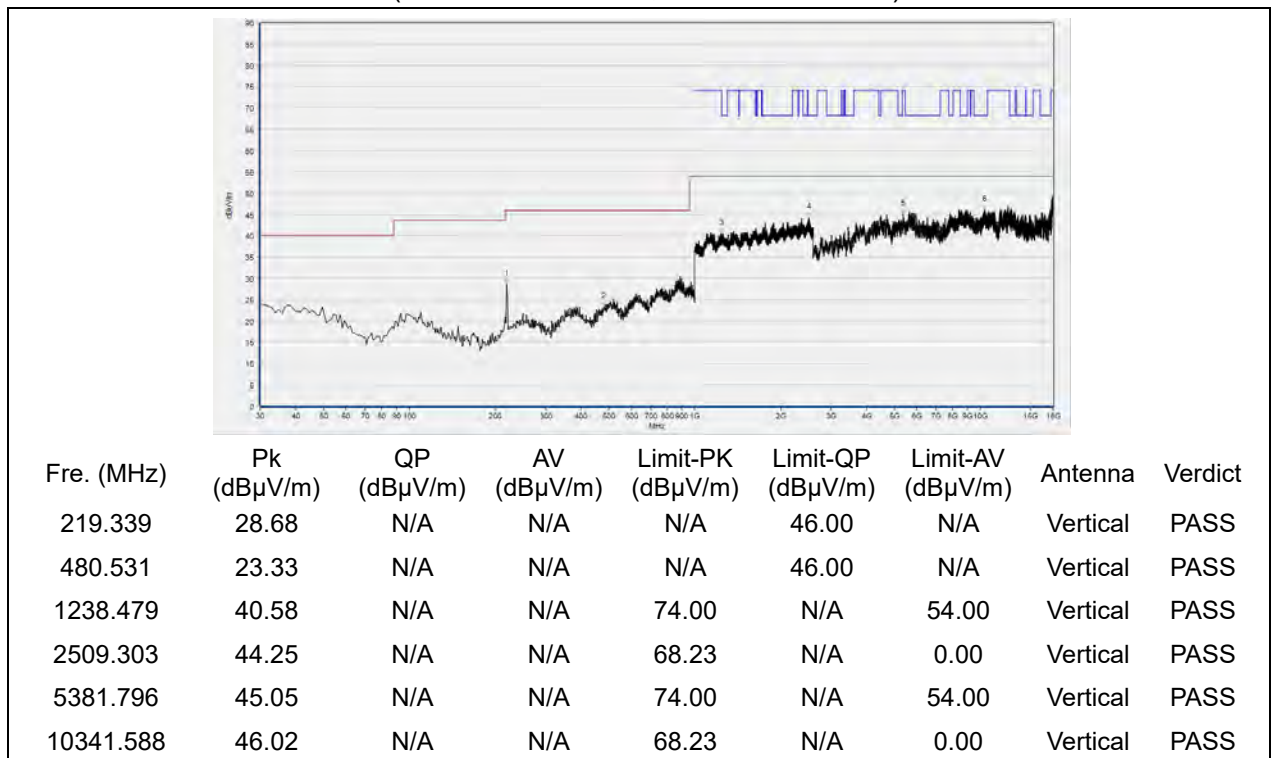


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 126

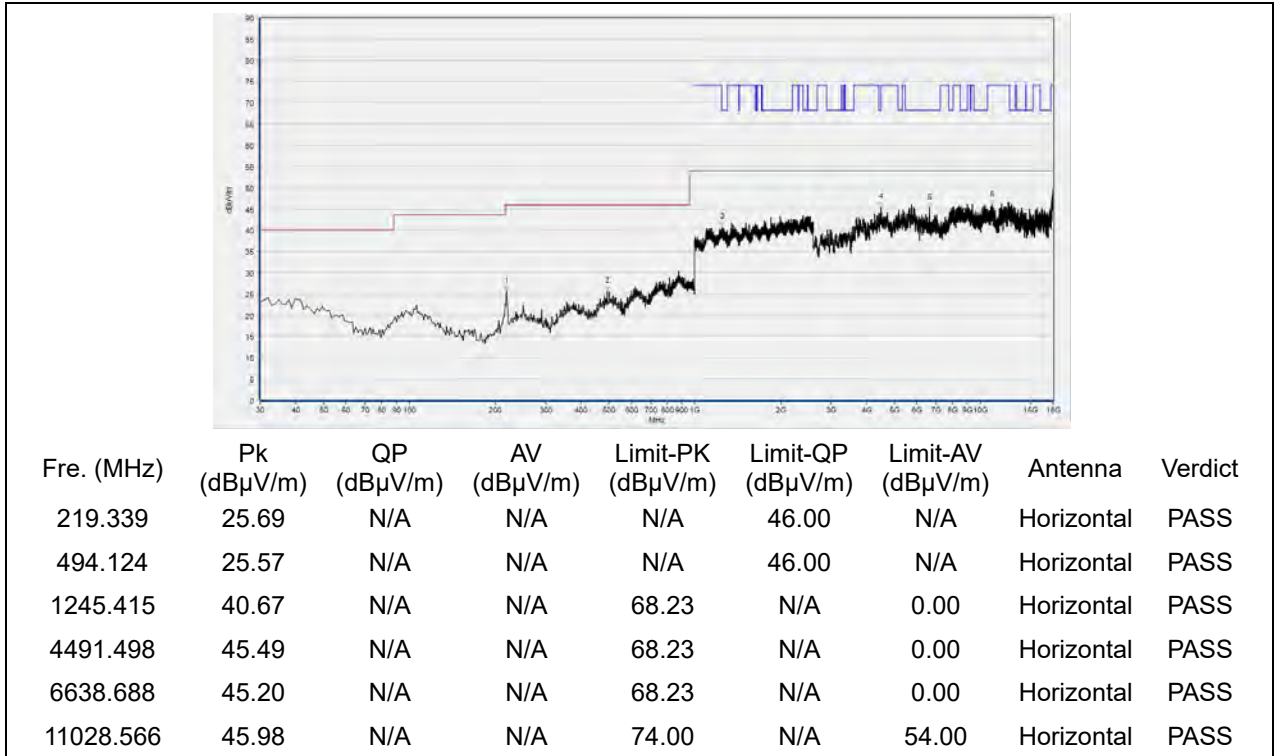


(Antenna Horizontal, 30MHz to 18GHz)

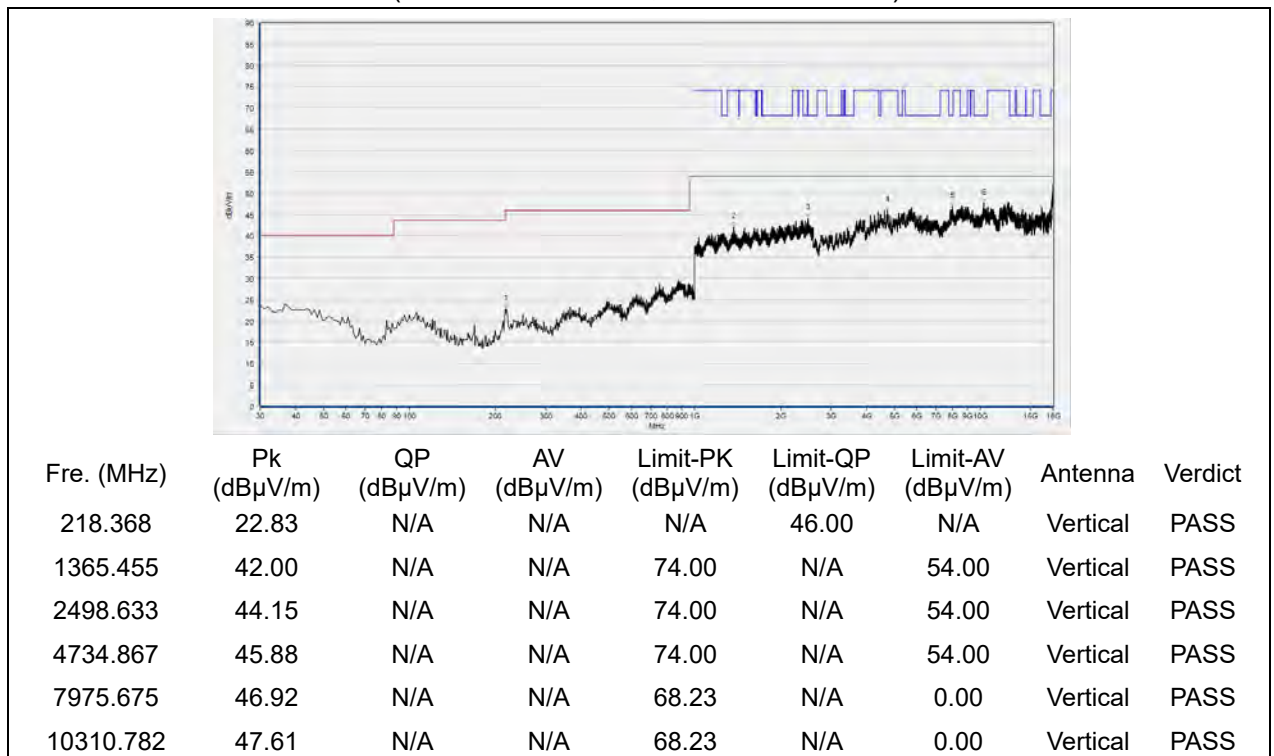


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 142

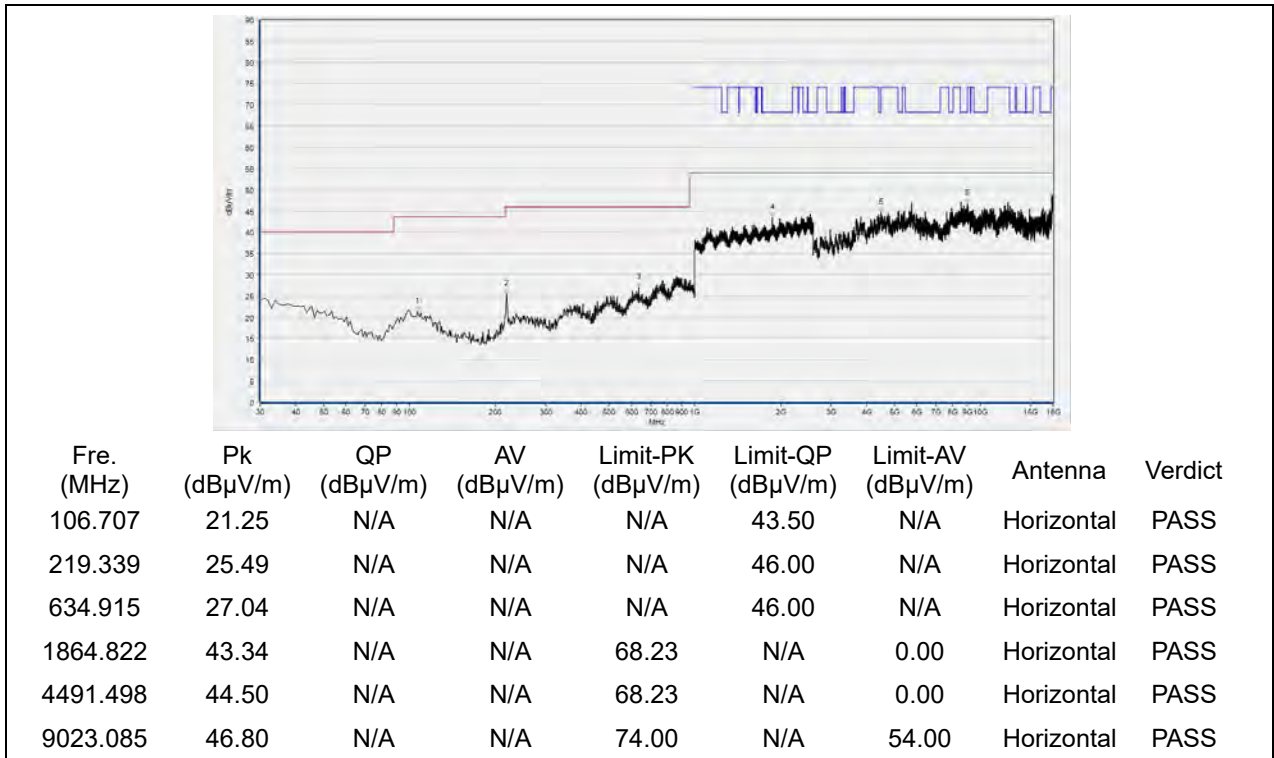


(Antenna Horizontal, 30MHz to 18GHz)

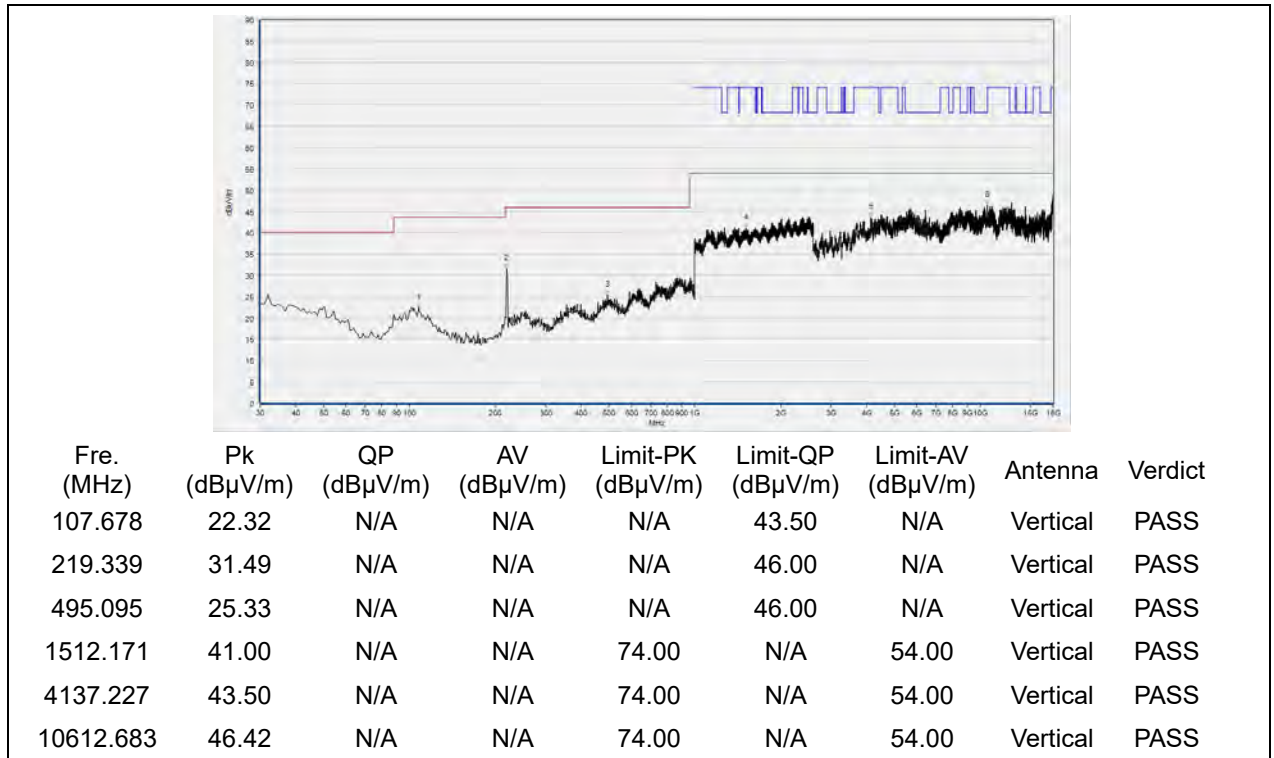


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 151

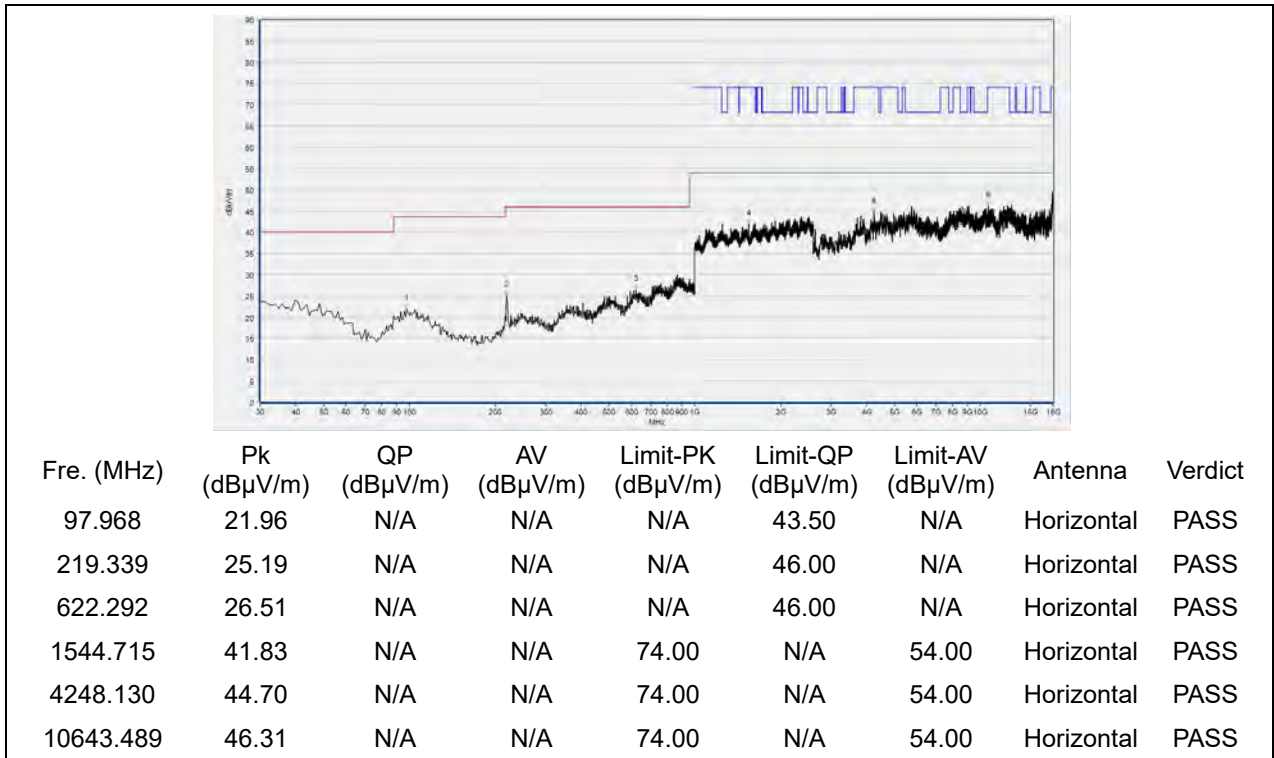


(Antenna Horizontal, 30MHz to 18GHz)

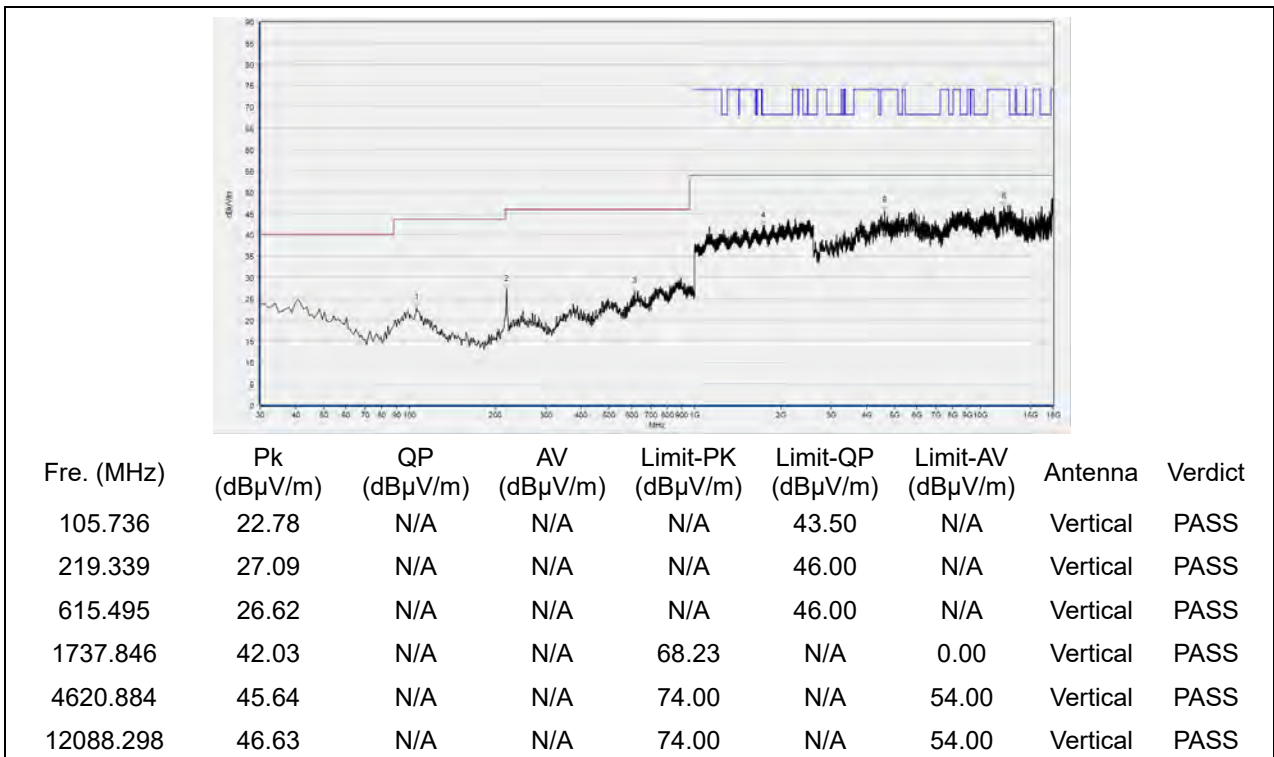


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 159



(Antenna Horizontal, 30MHz to 18GHz)

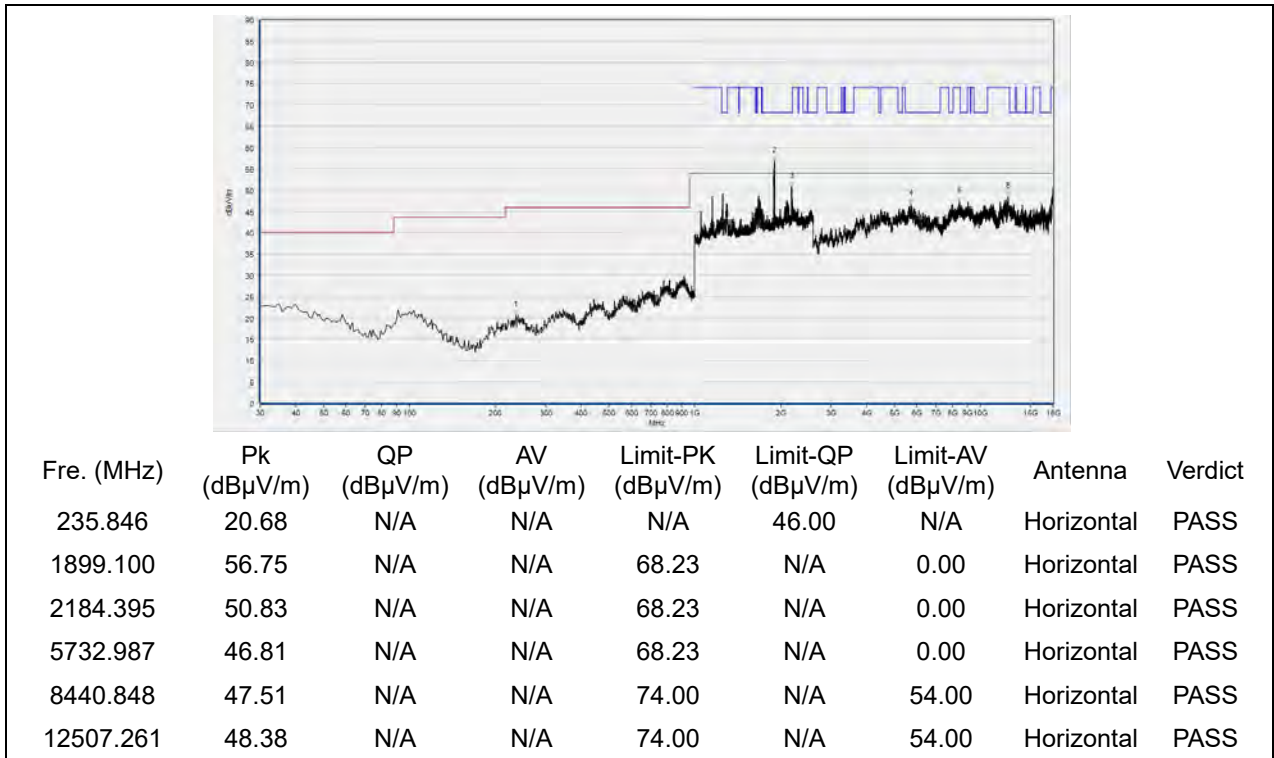


(Antenna Vertical, 30MHz to 18GHz)

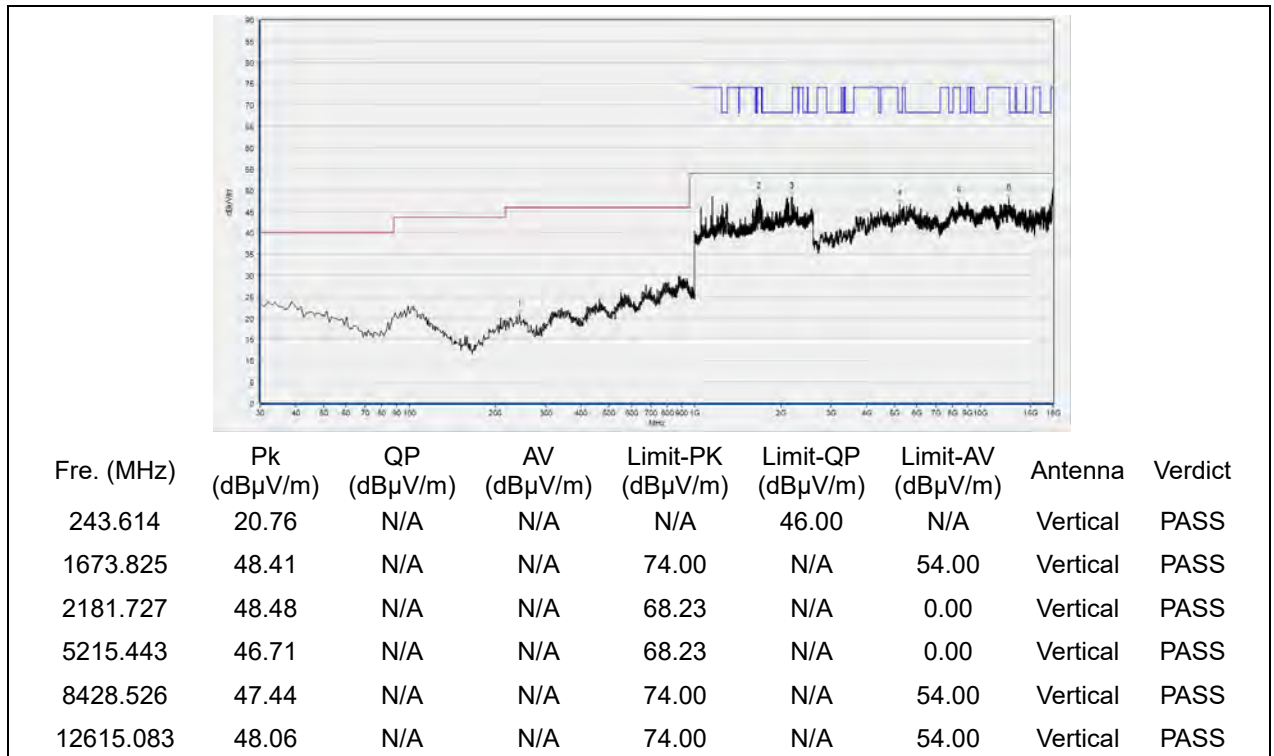


**802.11ac (VHT80) Test mode**

Plots for Channel = 42



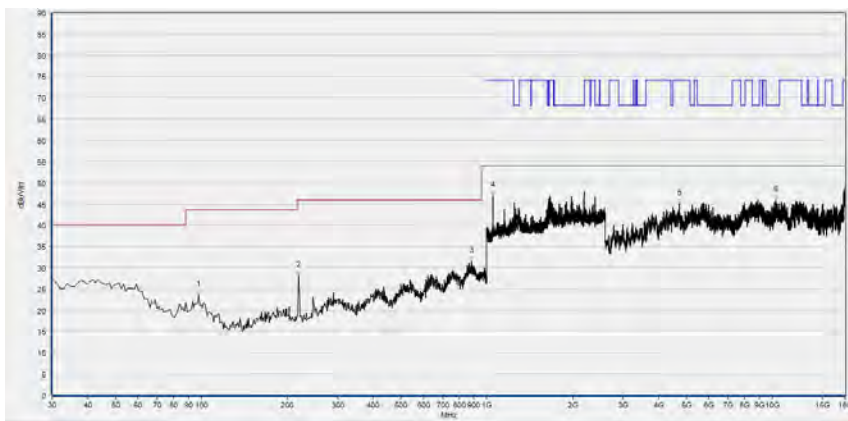
(Antenna Horizontal, 30MHz to 18GHz)



(Antenna Vertical, 30MHz to 18GHz)

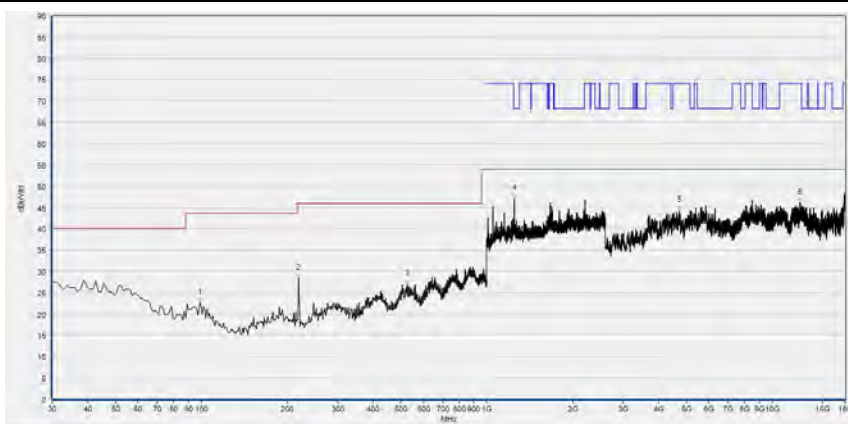


Plot for Channel = 58



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
97.968	23.71	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
219.339	28.23	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
885.425	31.56	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1049.617	46.97	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4731.786	45.13	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
10286.137	45.94	N/A	N/A	68.23	N/A	0.00	Horizontal	PASS

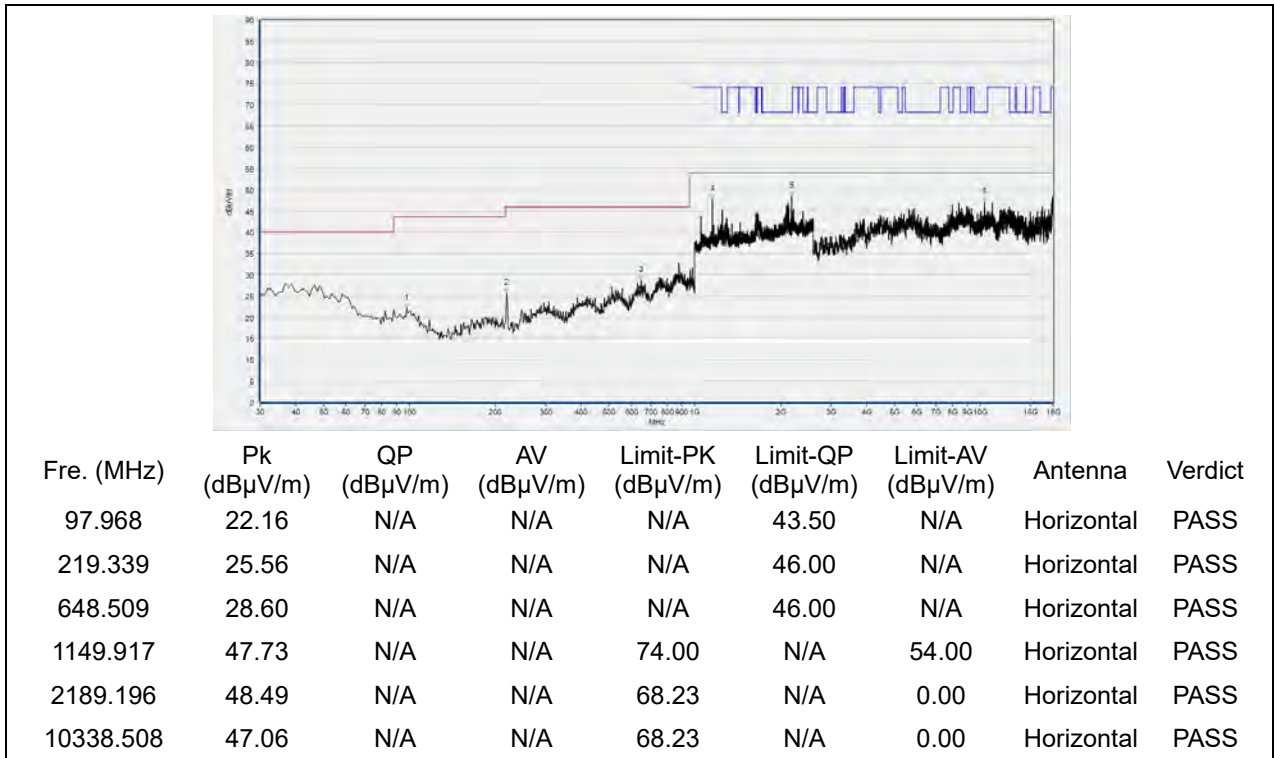
(Antenna Horizontal, 30MHz to 18GHz)



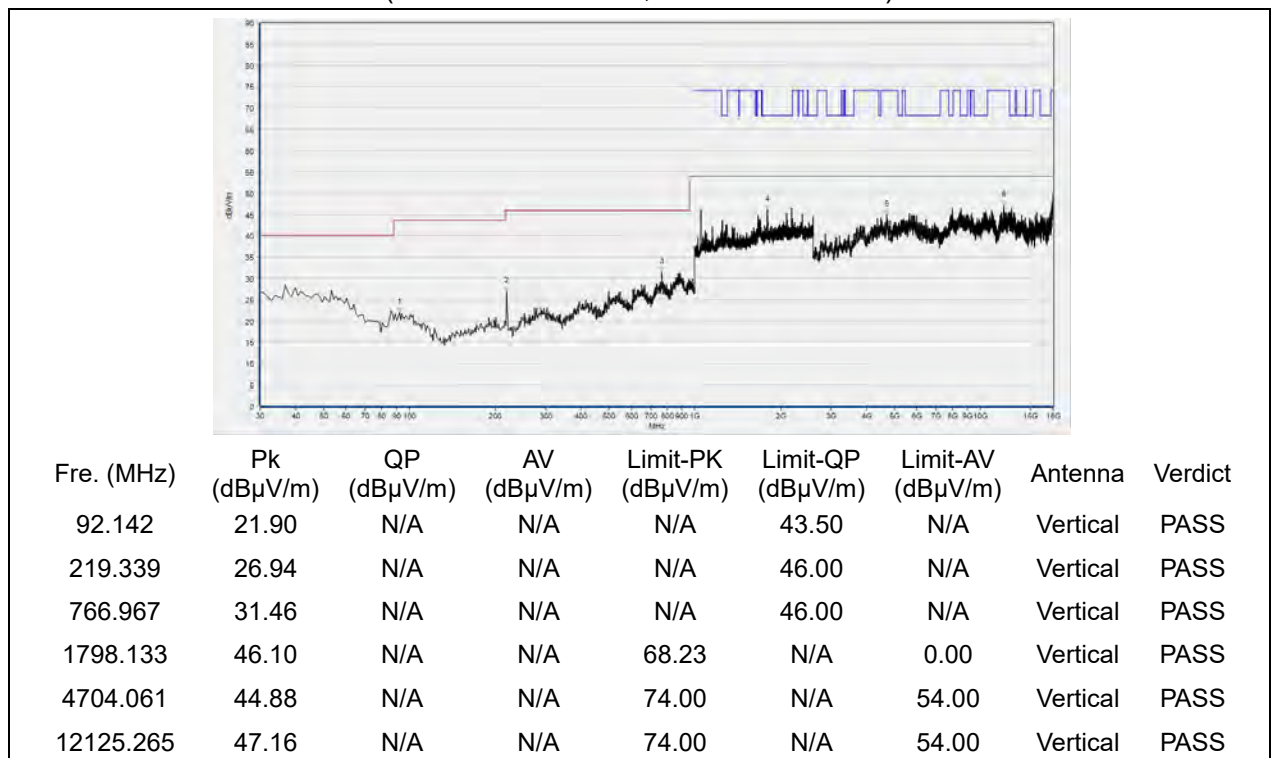
Fre. (MHz)	Pk (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
98.939	22.55	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
219.339	28.35	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
525.195	26.91	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1250.217	47.15	N/A	N/A	68.23	N/A	0.00	Vertical	PASS
4719.464	44.31	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12485.697	46.14	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 106

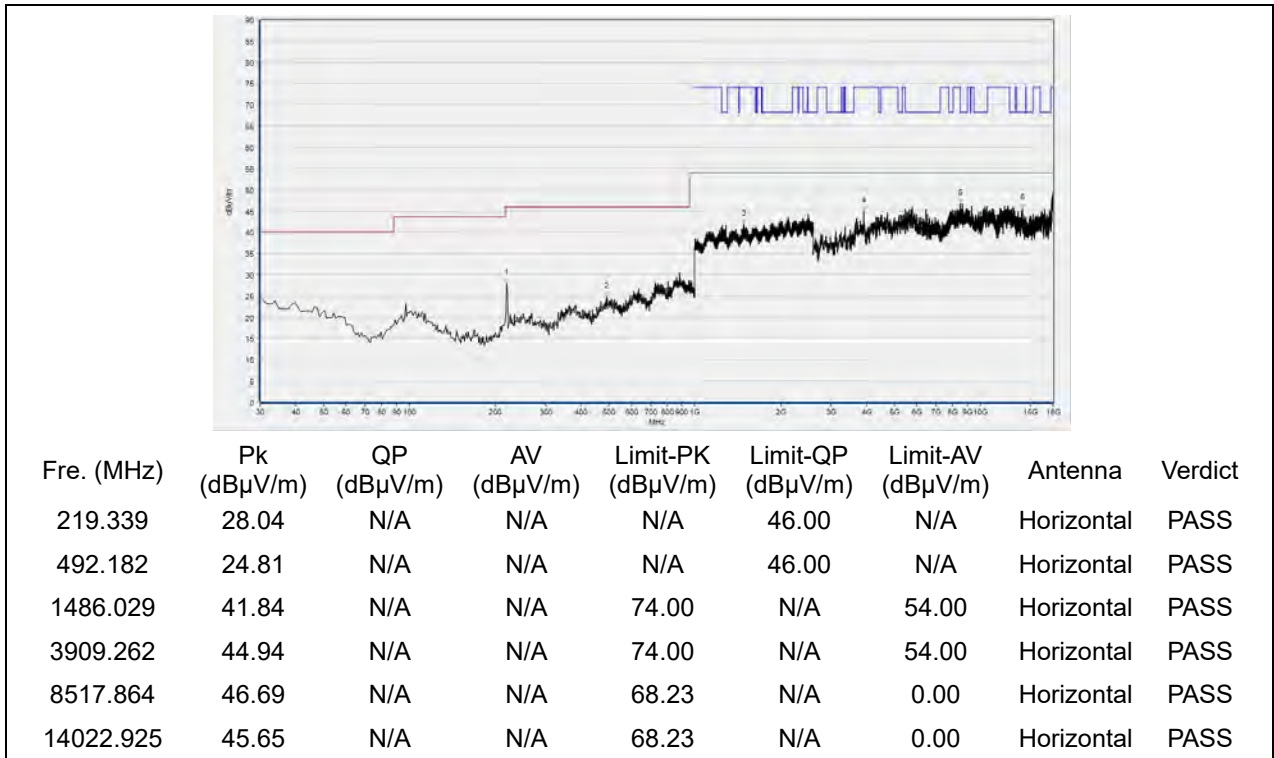


(Antenna Horizontal, 30MHz to 18GHz)

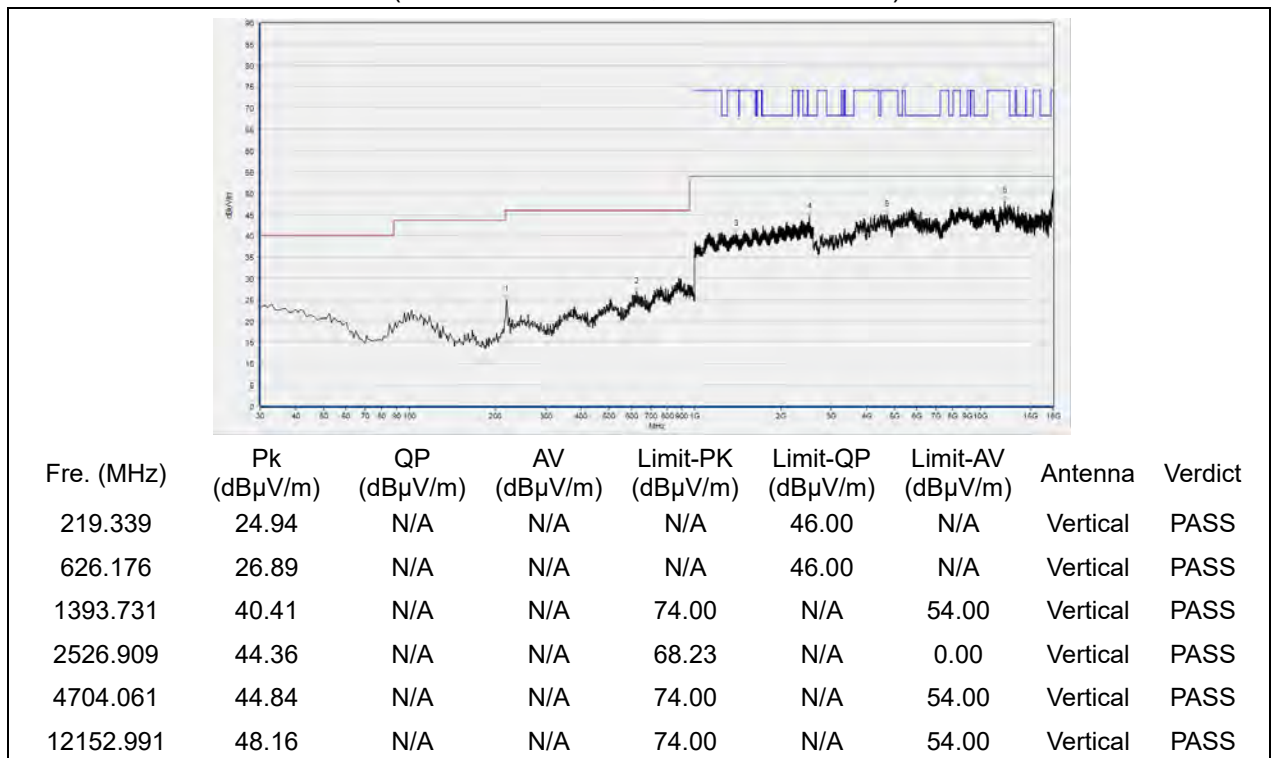


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 122

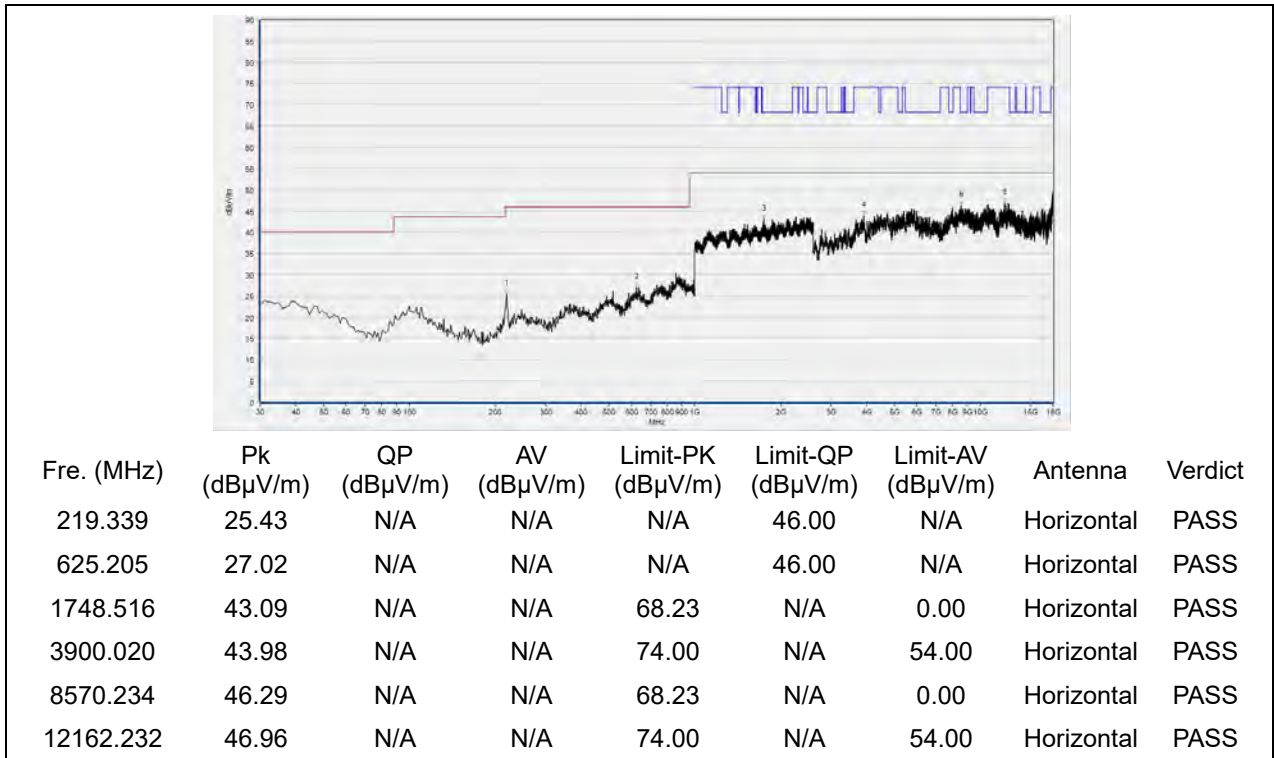


(Antenna Horizontal, 30MHz to 18GHz)

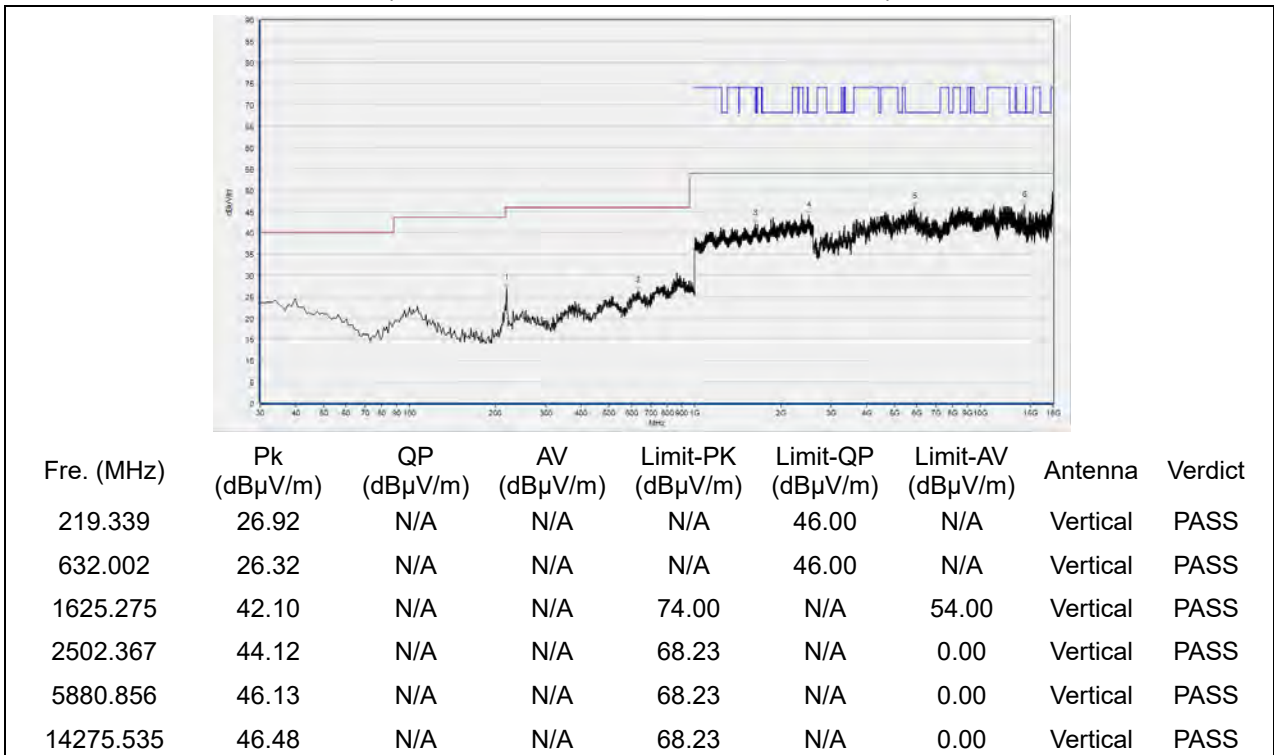


(Antenna Vertical, 30MHz to 18GHz)

Plots for Channel = 138

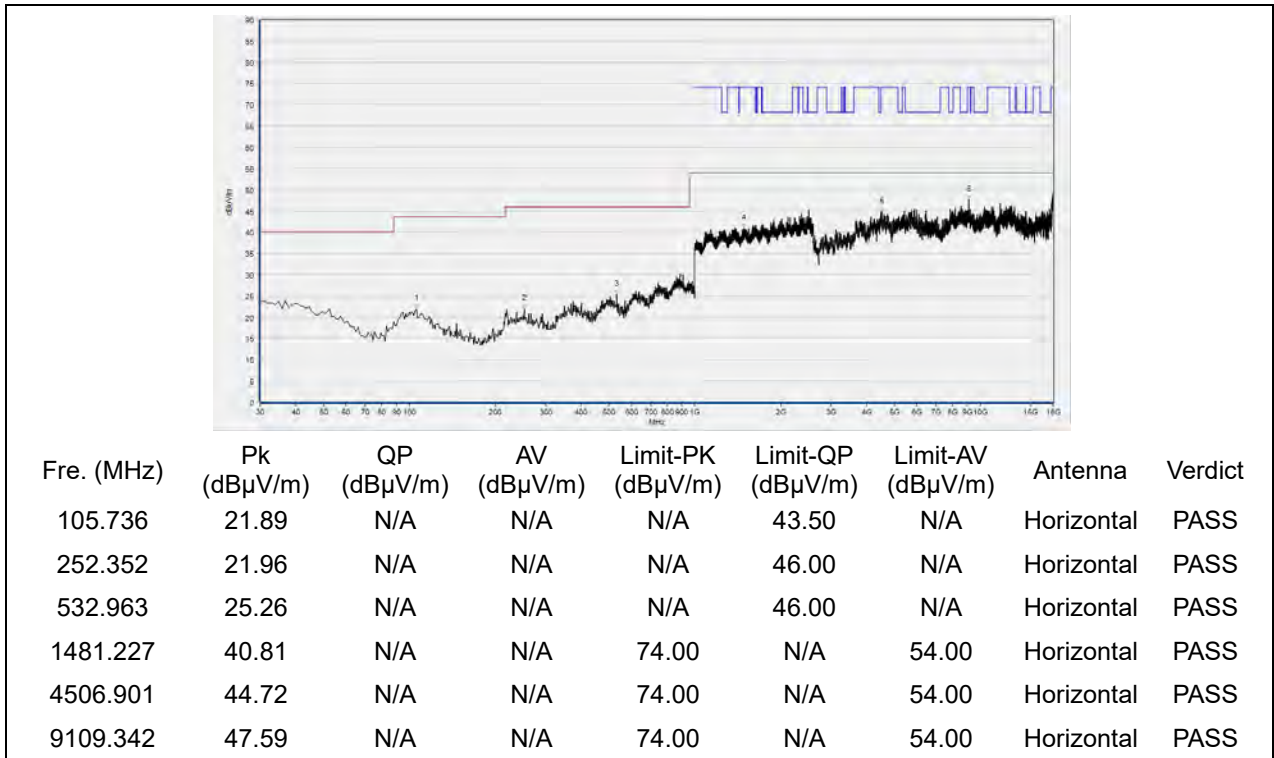


(Antenna Horizontal, 30MHz to 18GHz)

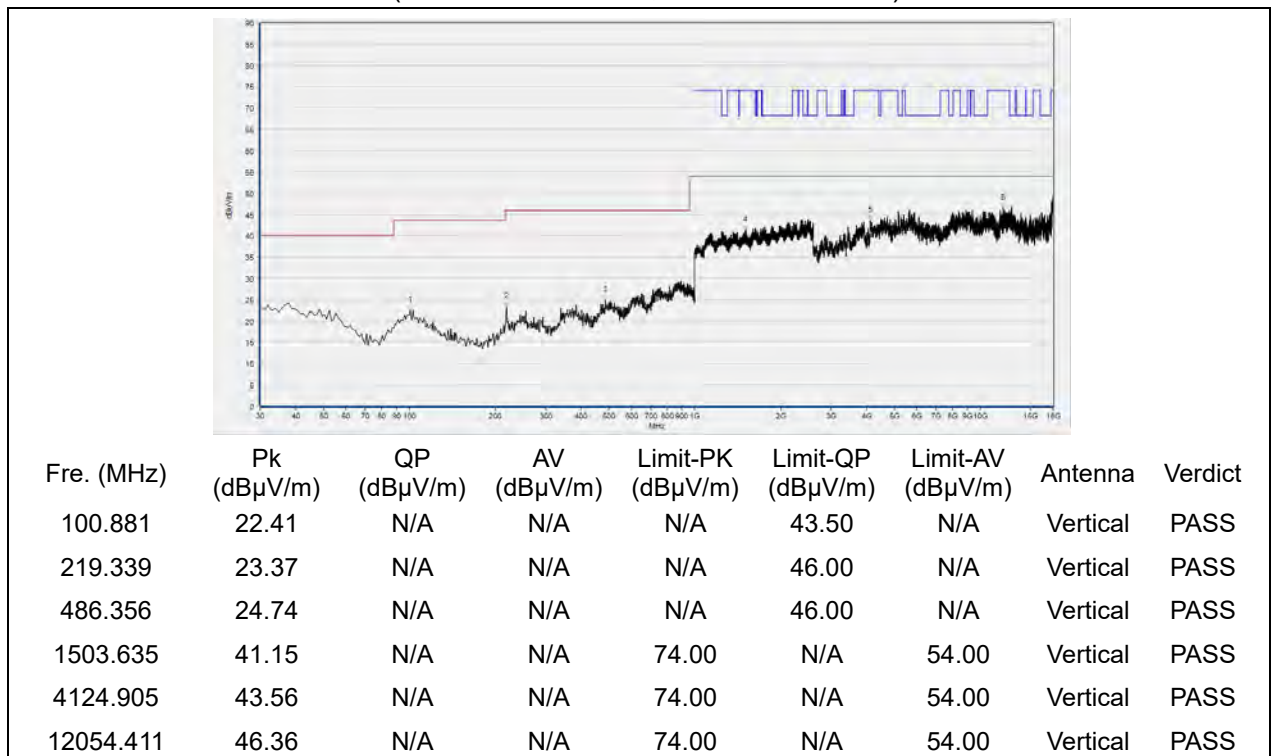


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel = 155



(Antenna Horizontal, 30MHz to 18GHz)



(Antenna Vertical, 30MHz to 18GHz)



## Annex A Test Uncertainty

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

Test items	Uncertainty
Peak Output Power	±2.22dB
Power spectral density (PSD)	±2.22dB
Bandwidth	±5%
Restricted Frequency Bands	±5%
Radiated Emission	±2.95dB
Conducted Emission	±2.44dB

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



## Annex B Testing Laboratory Information

### 1. Identification of the Responsible Testing Laboratory

<b>Laboratory Name:</b>	Shenzhen Morlab Communications Technology Co., Ltd. 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	N/A	N/A
EXA Signal Analyzer	MY53470836	N9010A	Agilent	2020.04.01	2021.03.31
USB Wideband Power Sensor	MY54210011	U2021XA	Agilent	2020.04.01	2021.03.31
RF cable (30MHz-26GHz)	CB01	RF01	Morlab	N/A	N/A
Coaxial cable	CB02	RF02	Morlab	N/A	N/A
SMA connector	CN01	RF03	HUBER-SUHNER	N/A	N/A
Temperature Chamber	12108015	DTL-003S101	YOMA	2020.01.08	2021.01.07
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	2019.05.08	2020.05.09
LISN	812744	NSLK 8127	Schwarzbeck	2019.05.08	2020.05.09
Pulse Limiter (10dB)	9391	VTSD 9561-D	Schwarzbeck	2019.08.13	2020.08.12
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	V1.0





**4.4 Radiated Test Equipments**

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Cal. Due
Receiver	MY54130016	N9038A	Agilent	2019.07.29	2020.07.28
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2019.05.24	2022.05.23
Test Antenna - Horn	9170C-531	BBHA9170	Schwarzbeck	2019.07.26	2022.07.25
Test Antenna - Loop	1519-022	FMZB1519	Schwarzbeck	2019.02.14	2022.02.13
Test Antenna - Horn	01774	BBHA 9120D	Schwarzbeck	2019.07.26	2022.07.25
Coaxial cable (N male) (9KHz-30MHz)	CB04	EMC04	Morlab	N/A	N/A
Coaxial cable (N male) (30MHz-26GHz)	CB02	EMC02	Morlab	N/A	N/A
Coaxial cable(N male) (30MHz-26GHz)	CB03	EMC03	Morlab	N/A	N/A
Coaxial cable(N male) (30MHz-40GHz)	CB05	EMC05	Morlab	N/A	N/A
1-18GHz pre-Amplifier	61171/61172	S020180L3203	Tonscend	2019.07.29	2020.07.28
18-26.5GHz pre-Amplifier	46732	S10M100L3802	Tonscend	2019.07.29	2020.07.28
26GHz -40GHz pre-Amplifier	MA05	BBV9721	Rohde& Schwarz	2019.07.29	2020.07.28
Notch Filter	N/A	WRCG-5150-5350	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCG-5470-5725	Wainwright	2019.12.01	2020.11.30
Notch Filter	N/A	WRCG-5725-5850	Wainwright	2019.12.01	2020.11.30



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

————— END OF REPORT —————