

(AVERAGE, Channel 13, 802.11n (HT20))

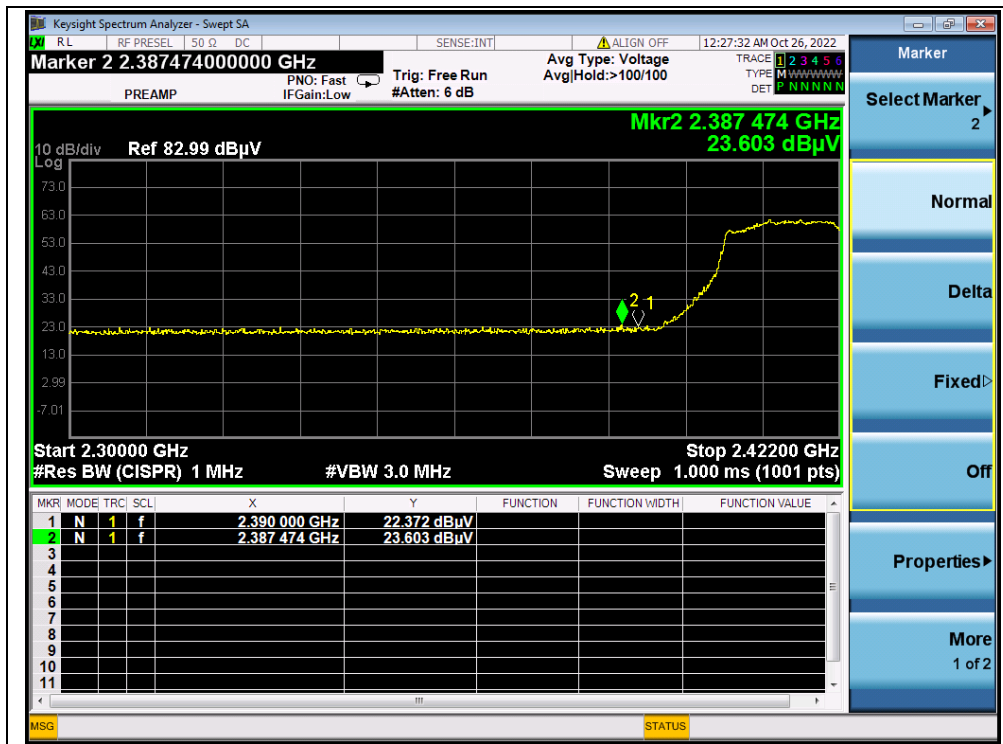


802.11n (HT40) Mode

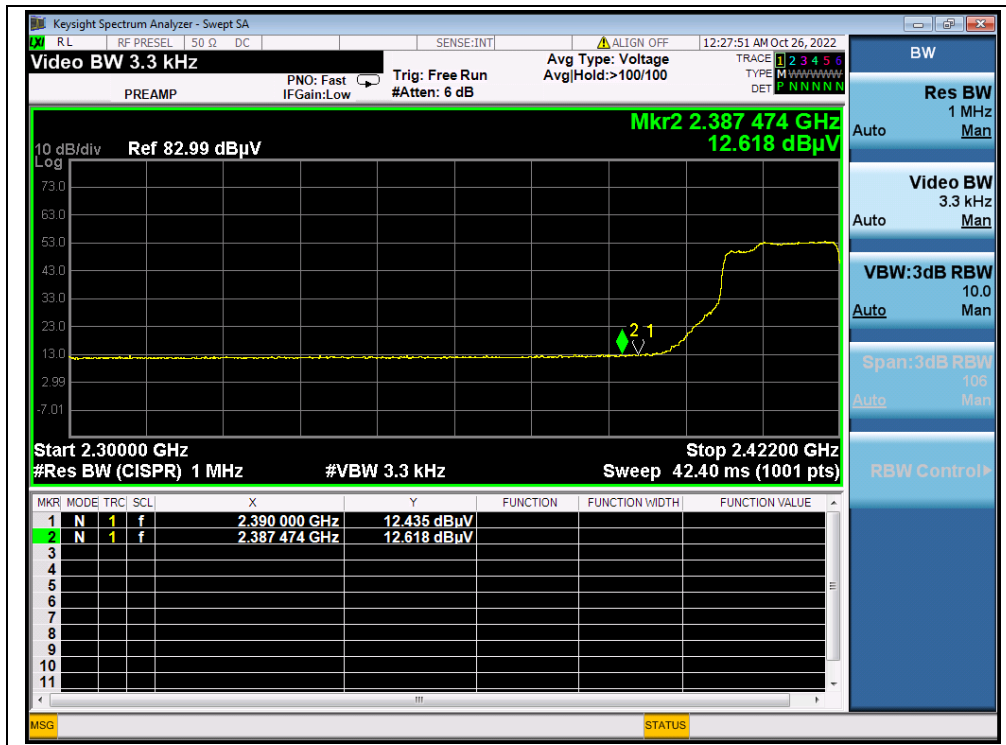
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading	A _T (dB)	A _{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV	U _R (dBμV)					
3	2387.47	PK	23.60	6.74	27.20	57.54	74	PASS
3	2387.47	AV	12.62	6.74	27.20	46.56	54	PASS
11	2483.50	PK	29.49	6.74	27.20	63.43	74	PASS
11	2483.50	AV	12.98	6.74	27.20	46.92	54	PASS

B. Test Plot:



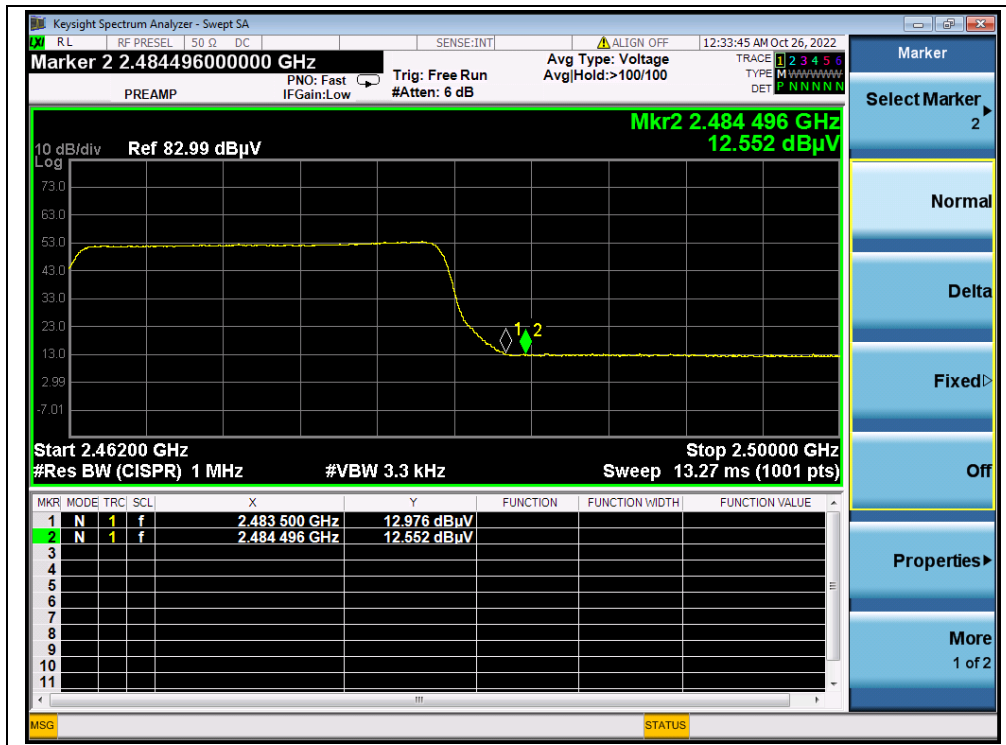
(PEAK, Channel 3, 802.11n (HT40))



(AVERAGE, Channel 3, 802.11n (HT40))



(PEAK, Channel 11, 802.11n (HT40))



(AVERAGE, Channel 11, 802.11n (HT40))

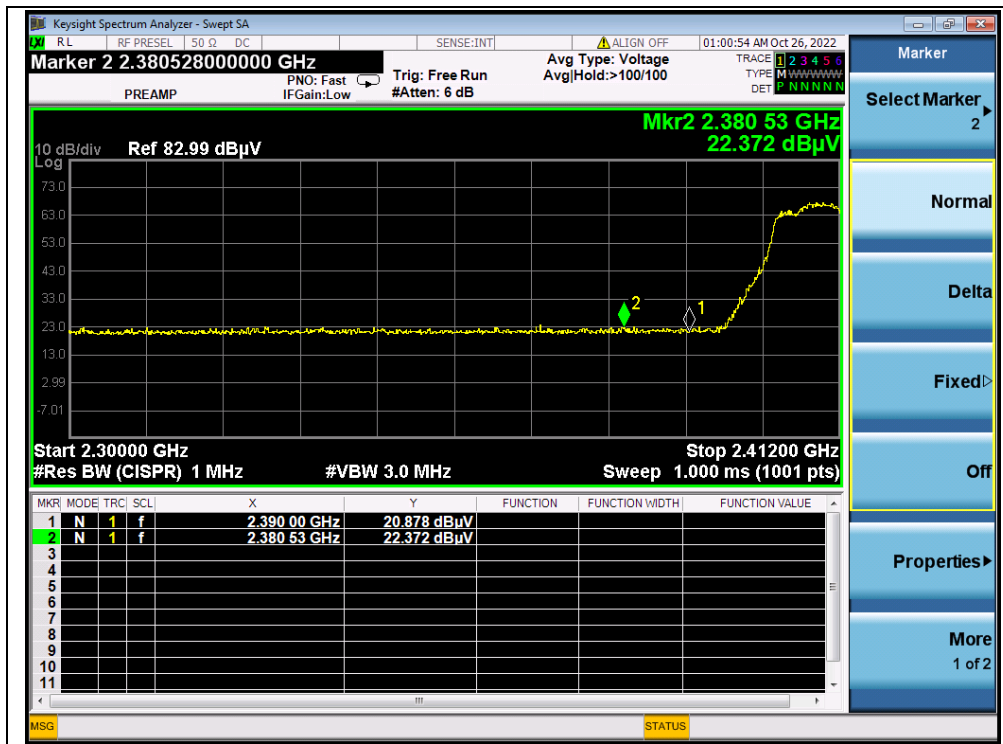


802.11ax (HEW20) Mode

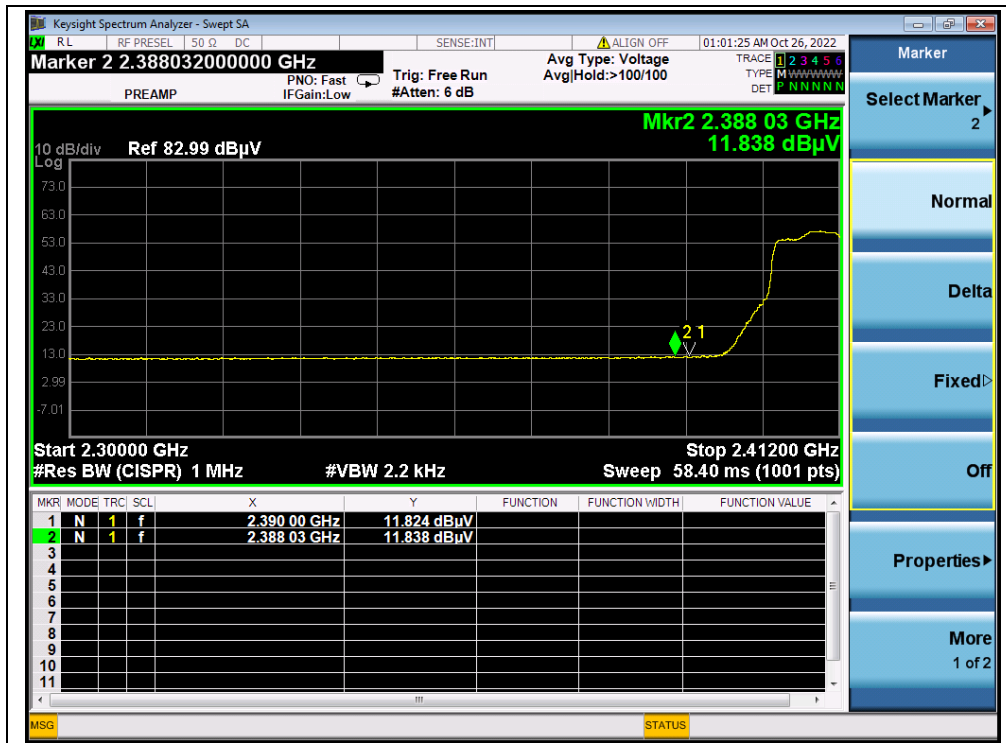
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading	A _T (dB)	A _{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV	U _R (dBμV)					
1	2380.53	PK	22.37	6.74	27.20	56.31	74	PASS
1	2388.03	AV	11.84	6.74	27.20	45.78	54	PASS
13	2483.50	PK	30.73	6.74	27.20	64.67	74	PASS
13	2483.50	AV	12.70	6.74	27.20	46.64	54	PASS

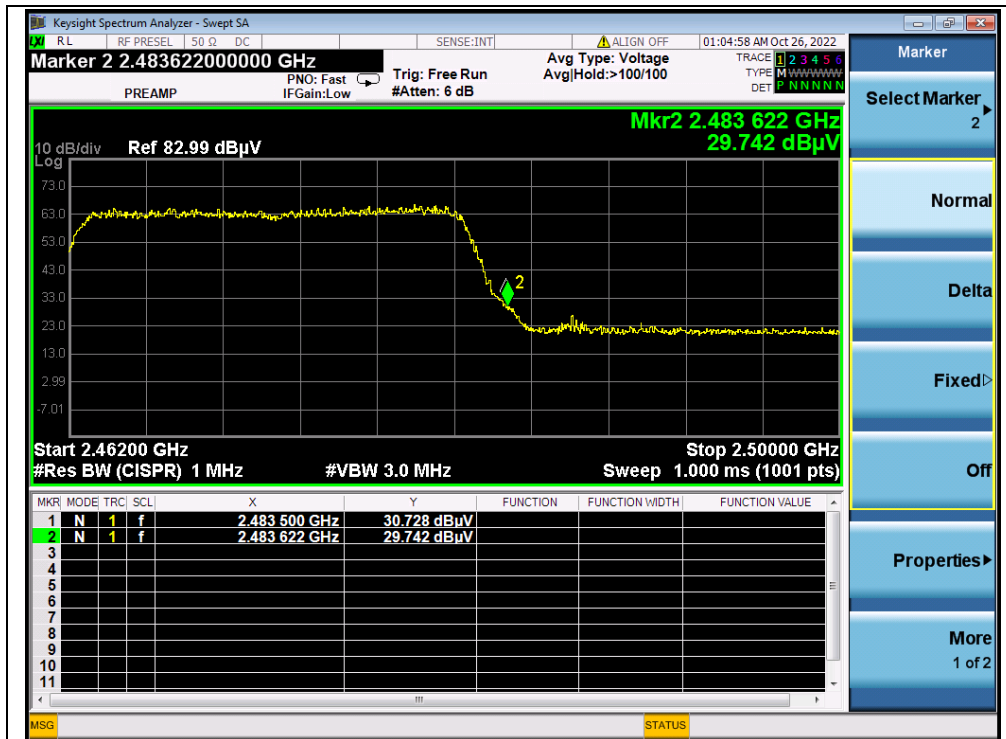
B. Test Plot:



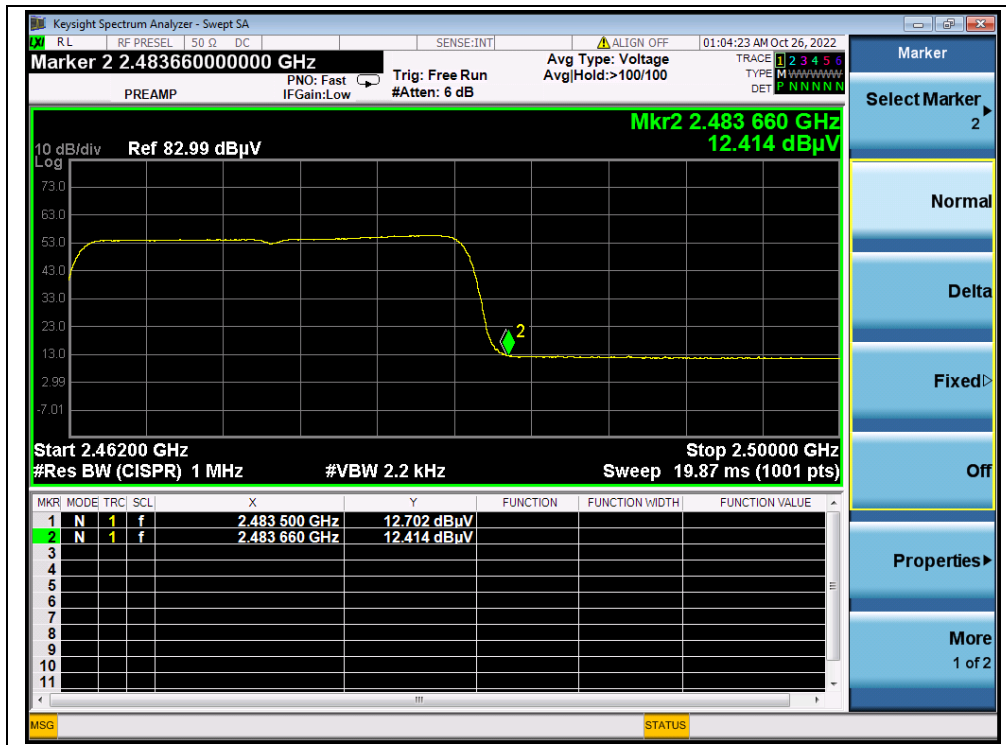
(PEAK, Channel 1, 802.11ax (HEW20))



(AVERAGE, Channel 1, 802.11ax (HEW20))



(PEAK, Channel 13, 802.11ax (HEW20))



(AVERAGE, Channel 13, 802.11ax (HEW20))

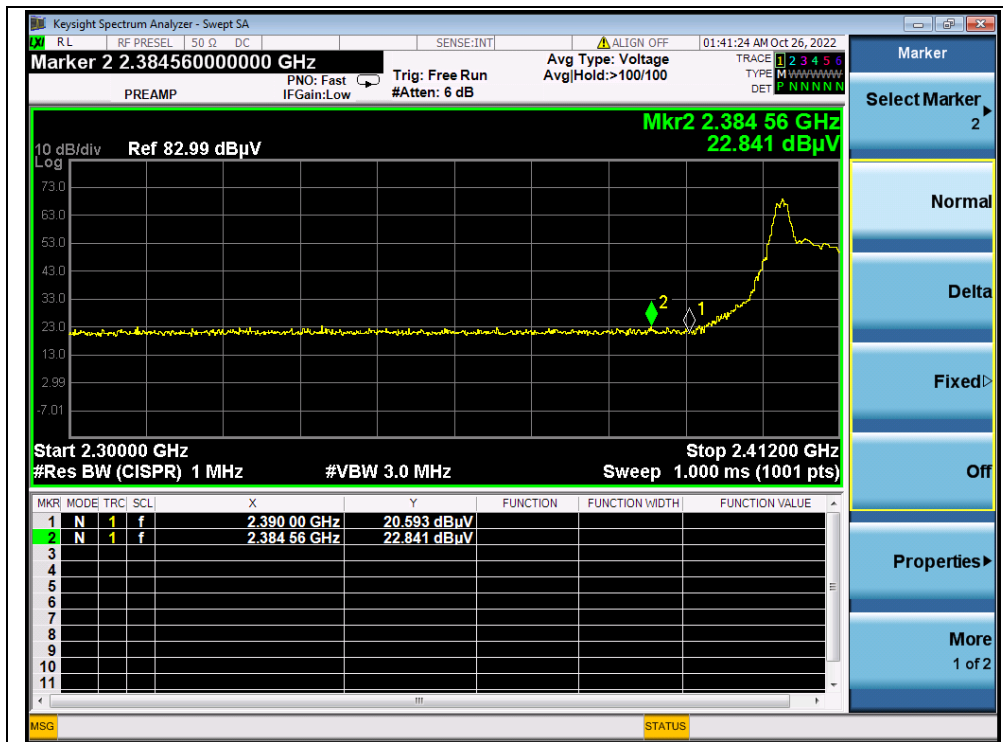


802.11ax (HEW20) RU26 Mode

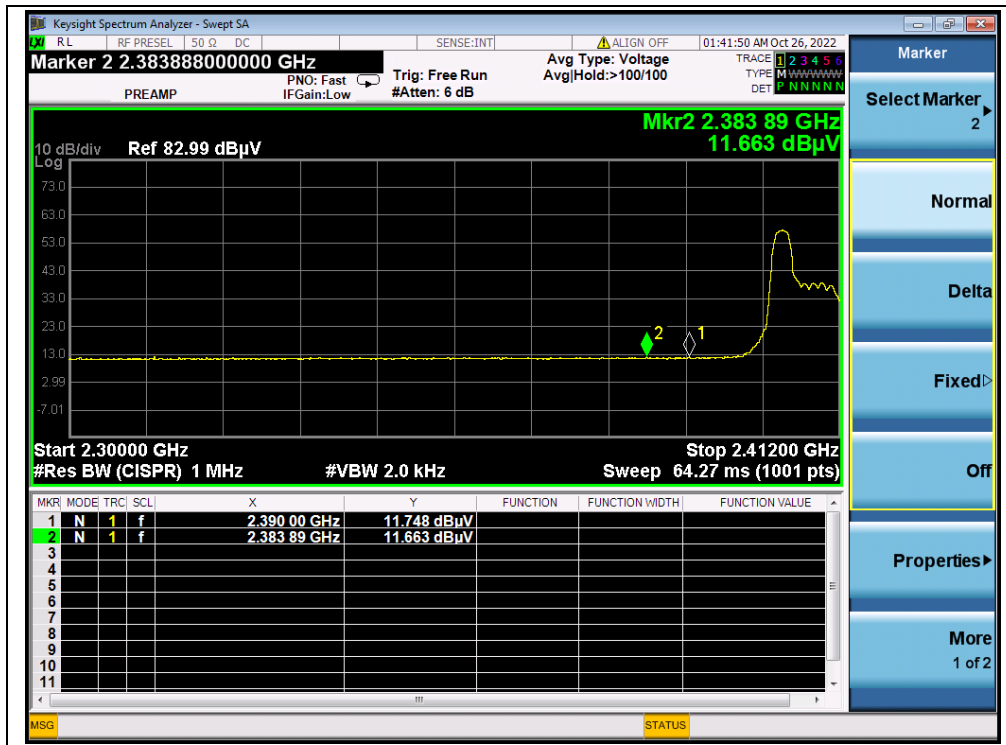
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading	A _T (dB)	A _{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV	U _R (dBμV)					
1	2384.56	PK	22.84	6.74	27.20	56.78	74	PASS
1	2390.00	AV	11.75	6.74	27.20	45.69	54	PASS
13	2383.81	PK	28.29	6.74	27.20	62.23	74	PASS
13	2483.50	AV	11.97	6.74	27.20	45.91	54	PASS

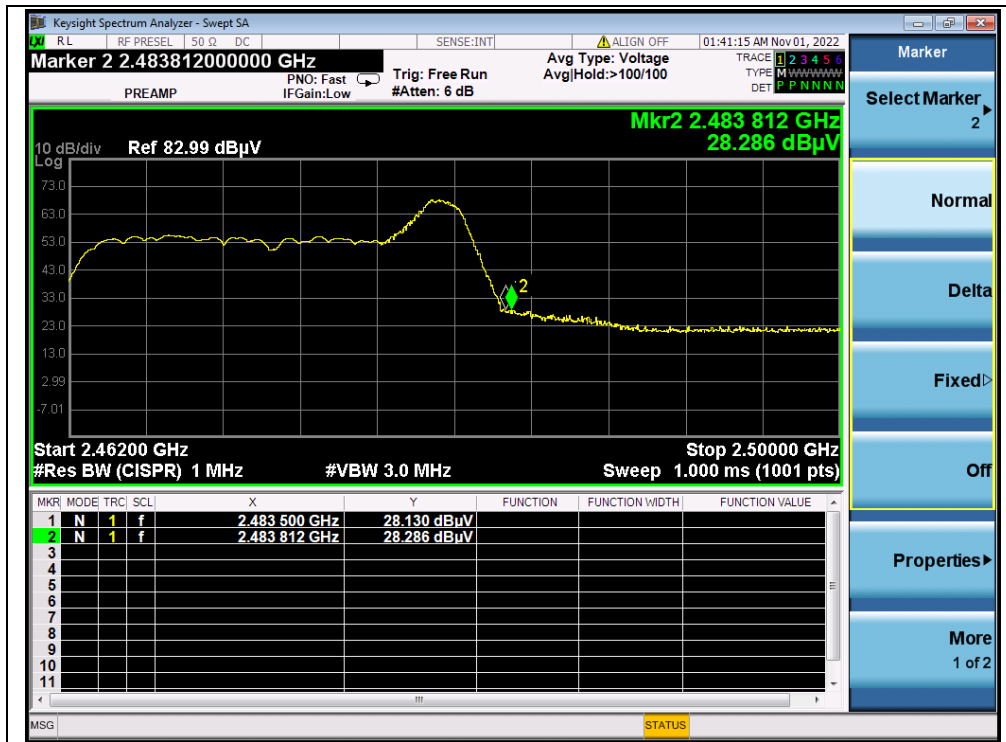
B. Test Plot:



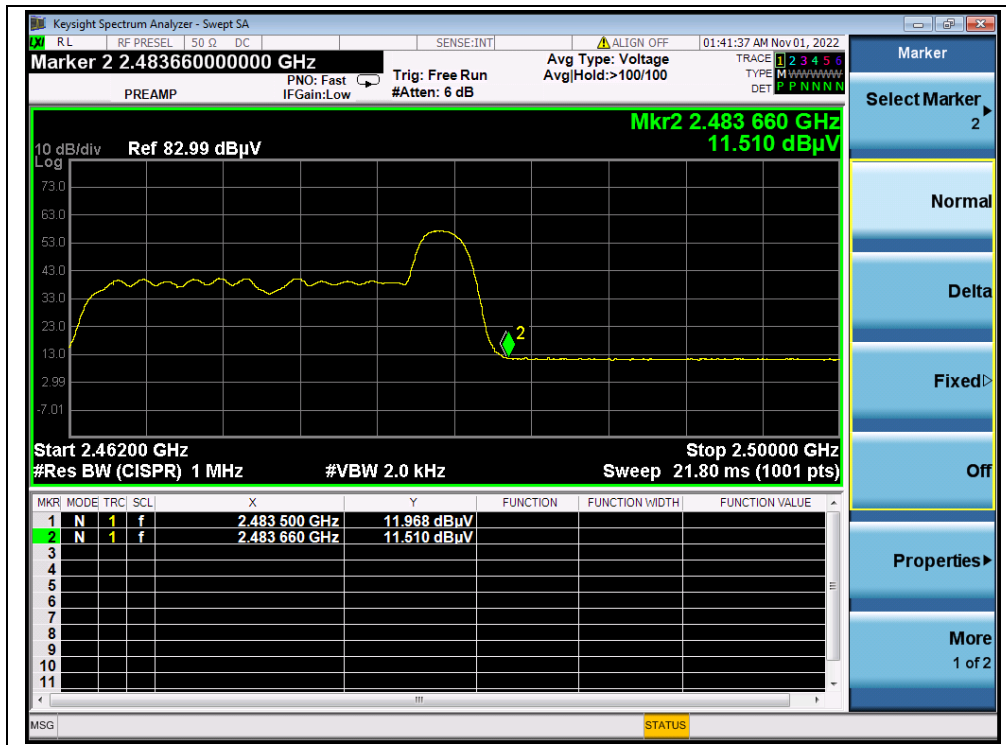
(PEAK, Channel 1, 802.11ax (HEW20) RU26)



(AVERAGE, Channel 1, 802.11ax (HEW20) RU26)



(PEAK, Channel 13, 802.11ax (HEW20) RU26)



(AVERAGE, Channel 13, 802.11ax (HEW20) RU26)

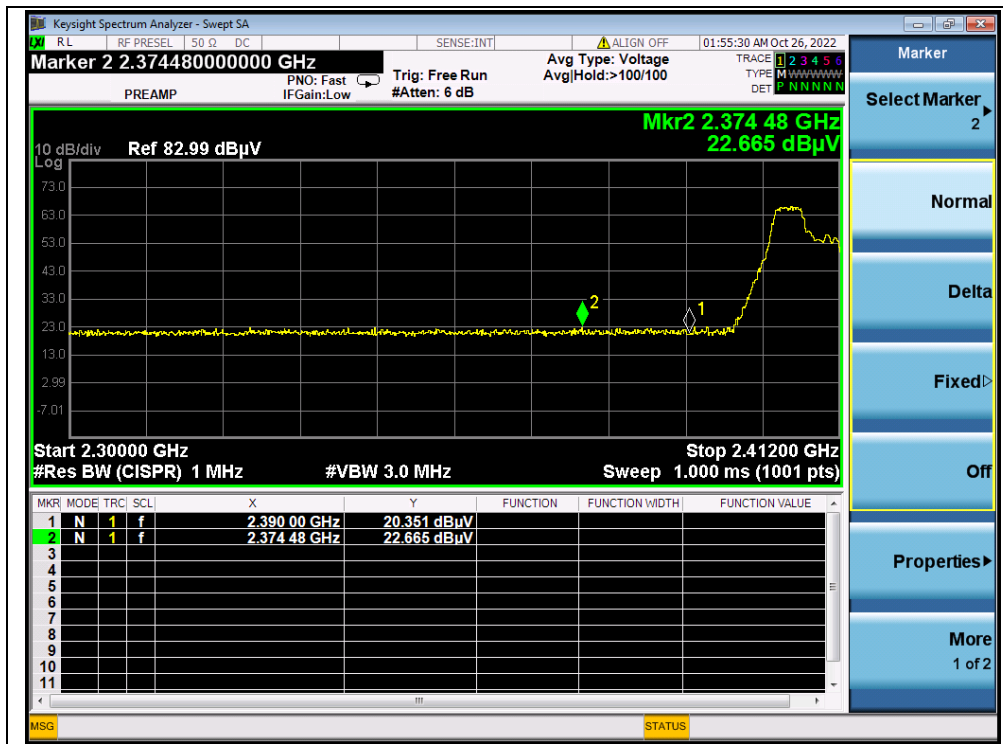


802.11ax (HEW20) RU52 Mode

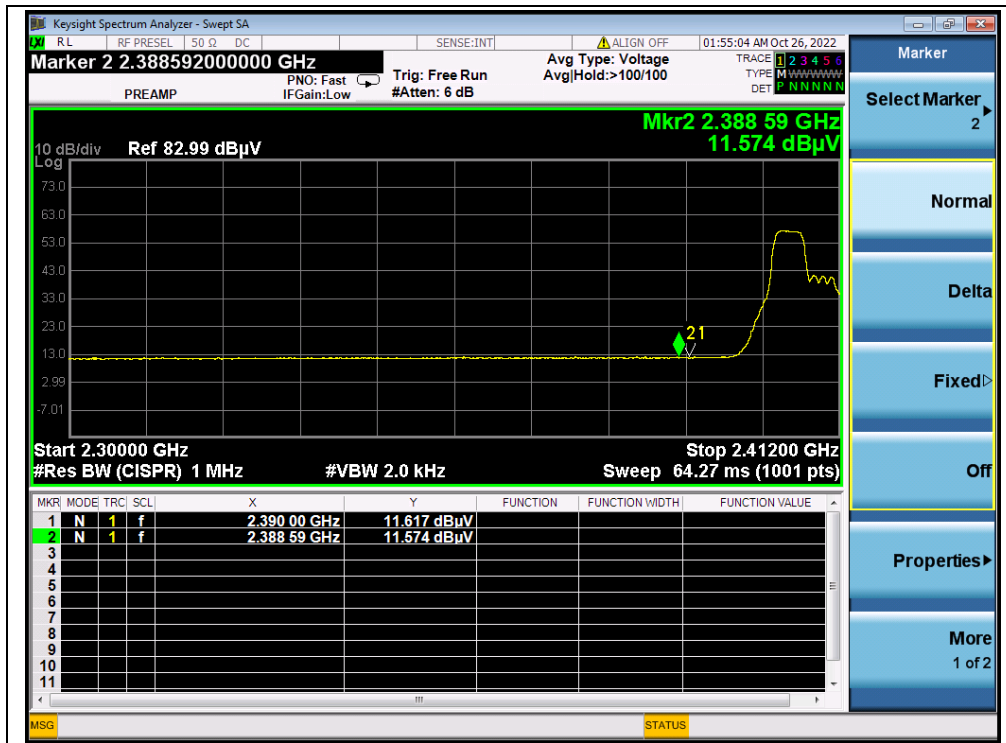
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading	A _T (dB)	A _{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV	U _R (dBμV)					
1	2374.48	PK	22.67	6.74	27.20	56.61	74	PASS
1	2390.00	AV	11.62	6.74	27.20	45.56	54	PASS
13.	2486.62	PK	26.80	6.74	27.20	60.74	74	PASS
13	2483.50	AV	12.90	6.74	27.20	46.84	54	PASS

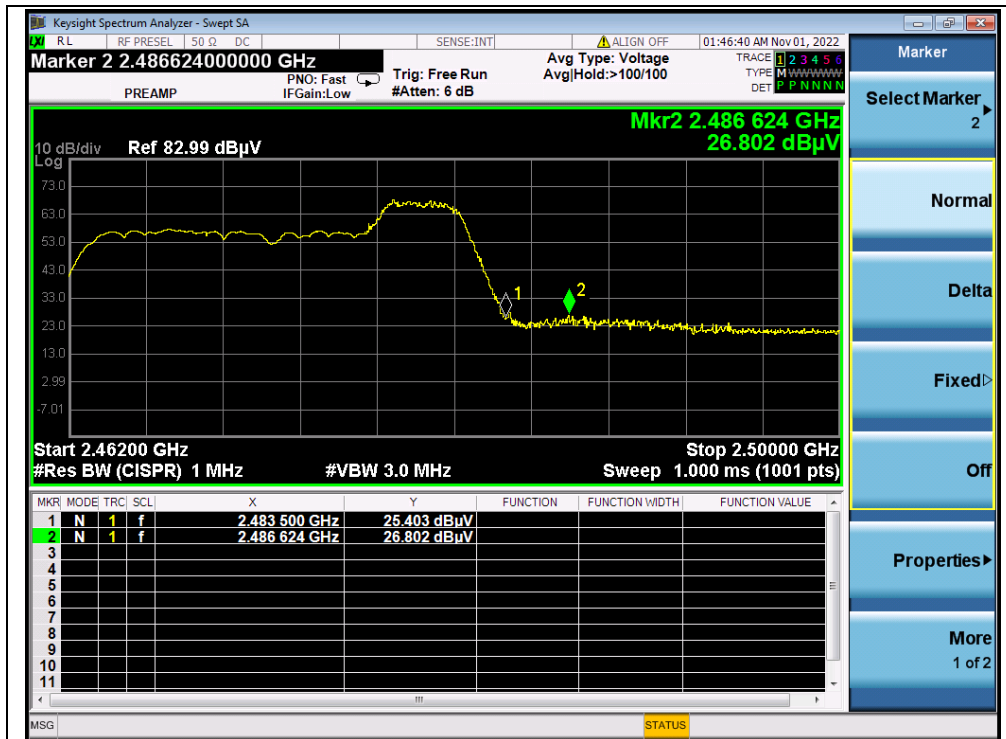
B. Test Plot:



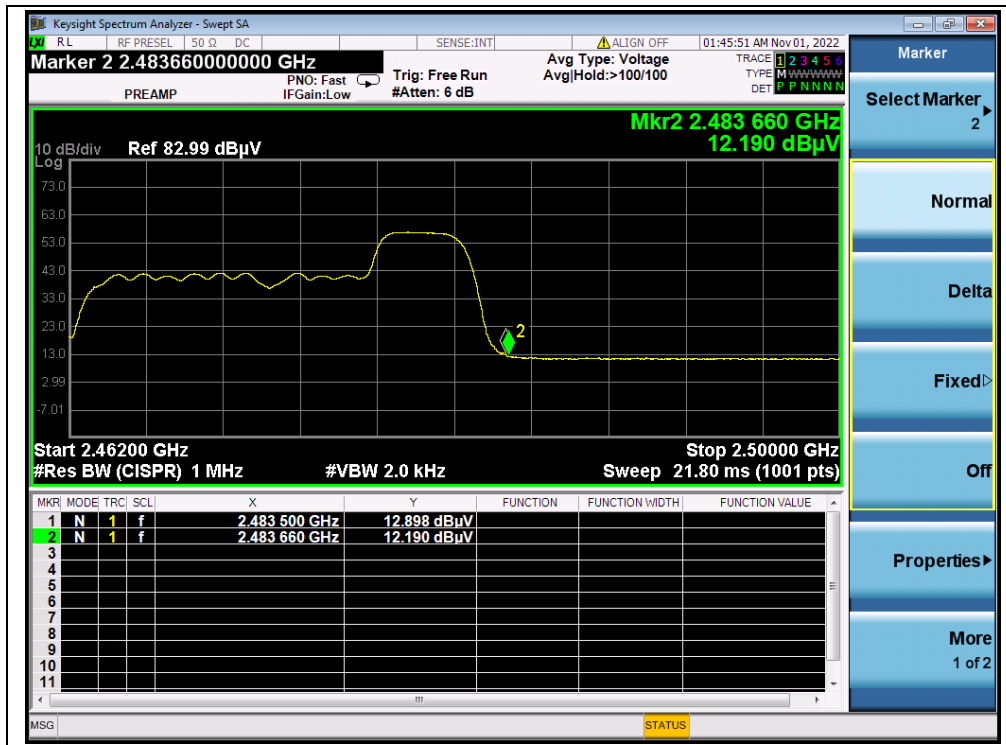
(PEAK, Channel 1, 802.11ax (HEW20) RU52)



(AVERAGE, Channel 1, 802.11ax (HEW20) RU52)



(PEAK, Channel 13, 802.11ax (HEW20) RU52)



(AVERAGE, Channel 13, 802.11ax (HEW20) RU52)

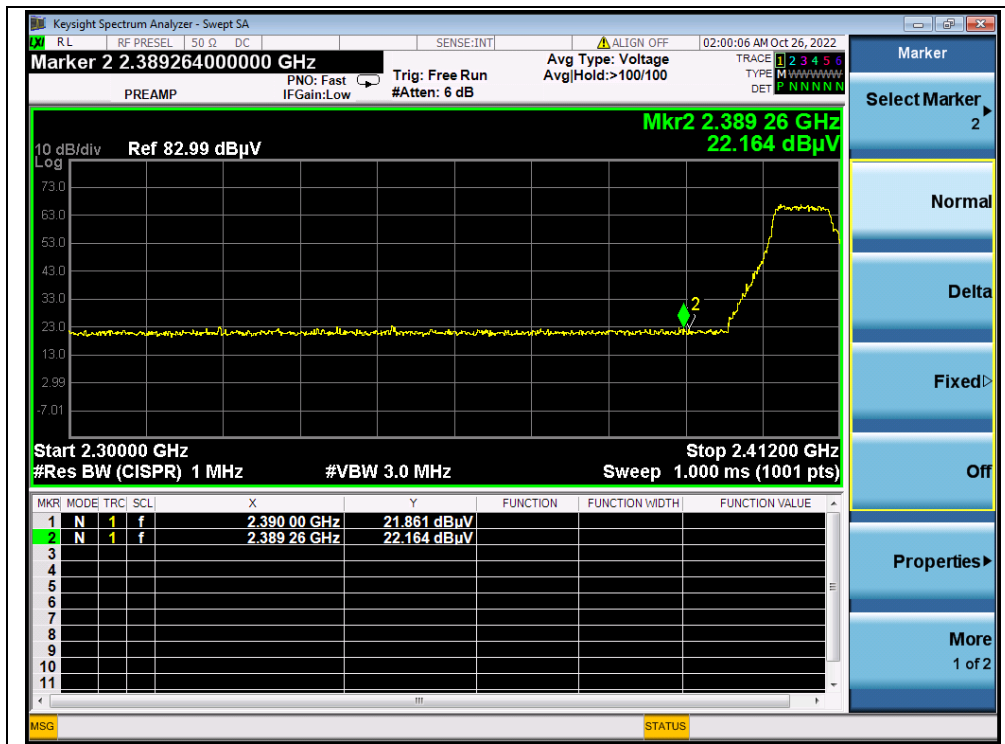


802.11ax (HEW20) RU106 Mode

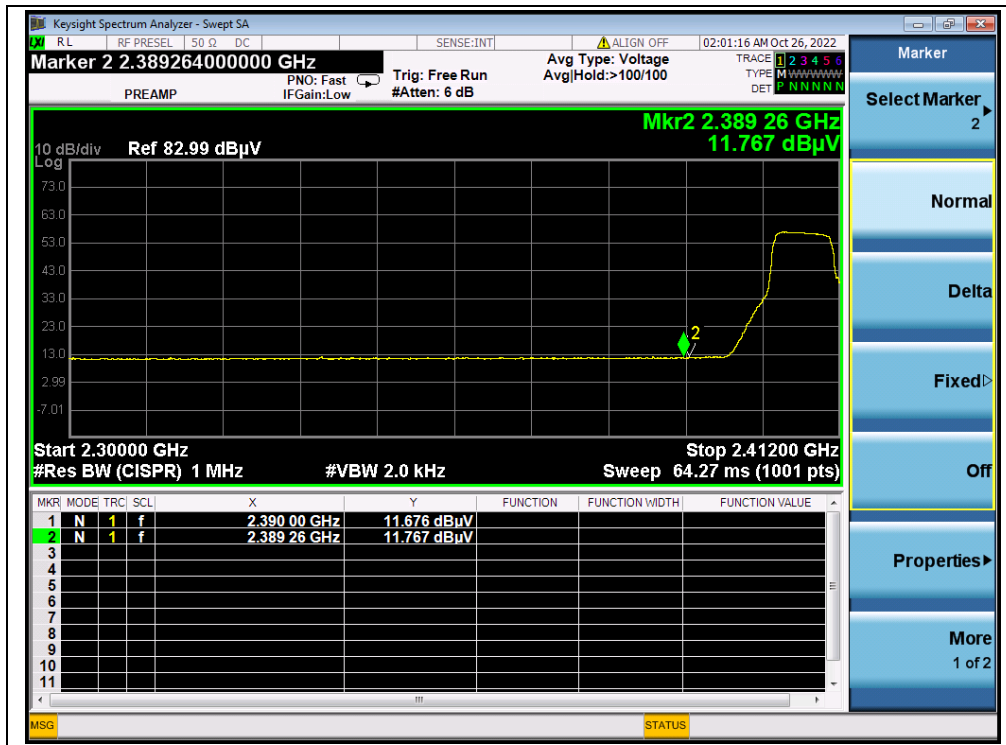
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading U_R (dB μ V)	A_T (dB)	A_{Factor} (dB@3m)	Max. Emission E (dB μ V/m)	Limit (dB μ V/m)	Verdict
		PK/ AV						
1	2389.26	PK	22.16	6.74	27.20	56.10	74	PASS
1	2389.26	AV	11.77	6.74	27.20	45.71	54	PASS
13	2484.57	PK	28.65	6.74	27.20	62.59	74	PASS
13	2483.50	AV	13.74	6.74	27.20	47.68	54	PASS

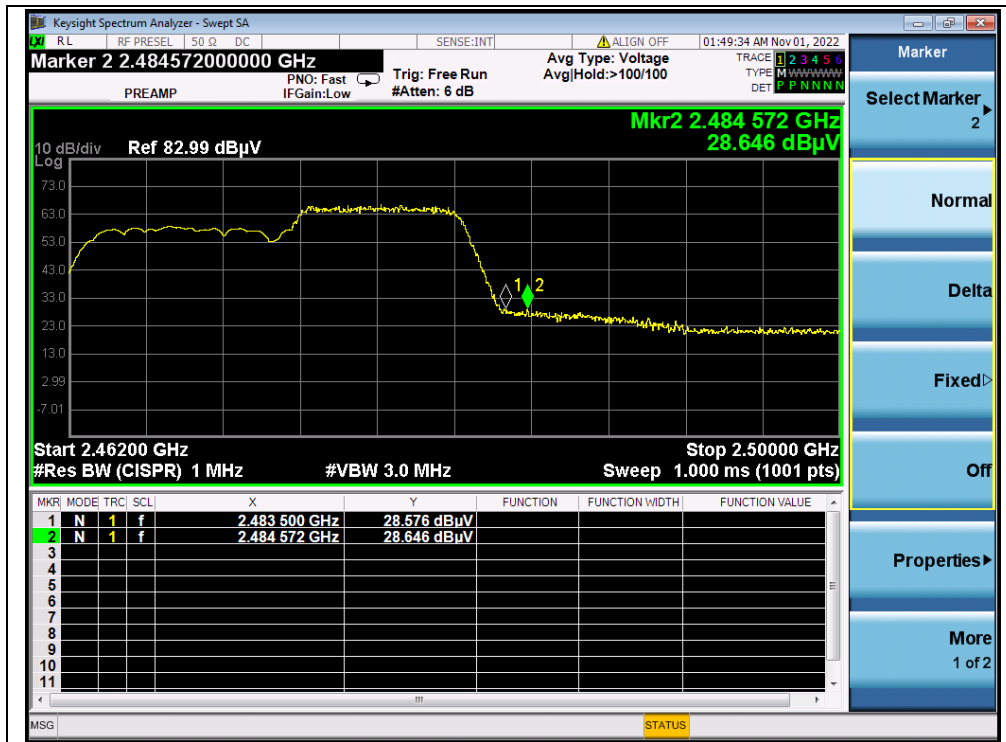
B. Test Plot:



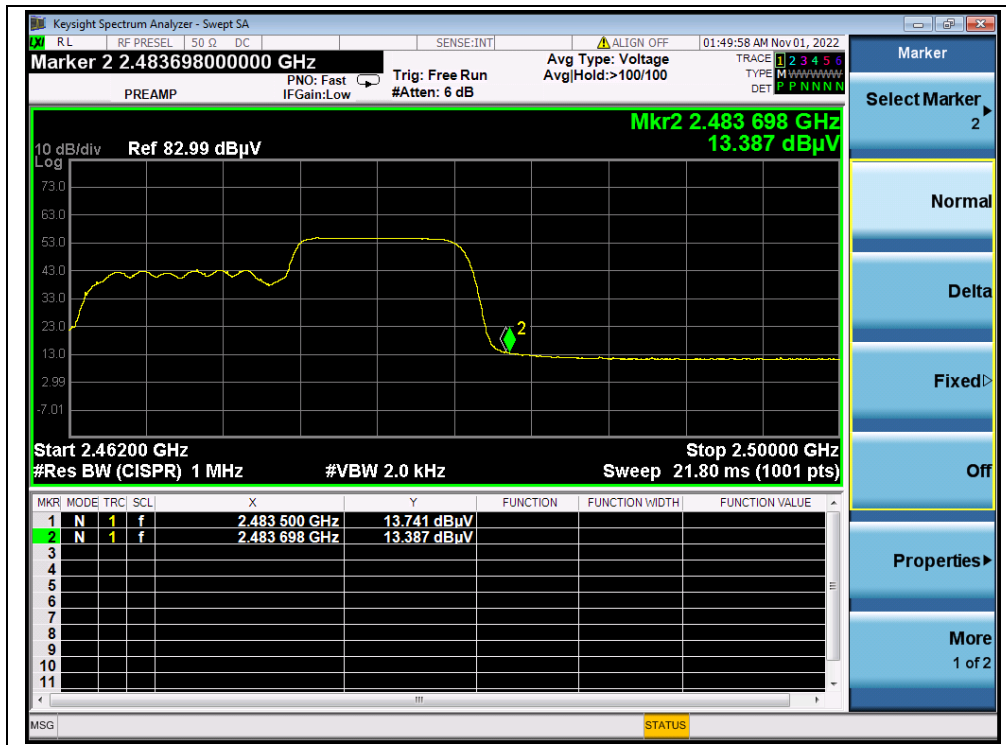
(PEAK, Channel 1, 802.11ax (HEW20) RU106)



(AVERAGE, Channel 1, 802.11ax (HEW20) RU106)



(PEAK, Channel 13, 802.11ax (HEW20) RU106)



(AVERAGE, Channel 13, 802.11ax (HEW20) RU106)

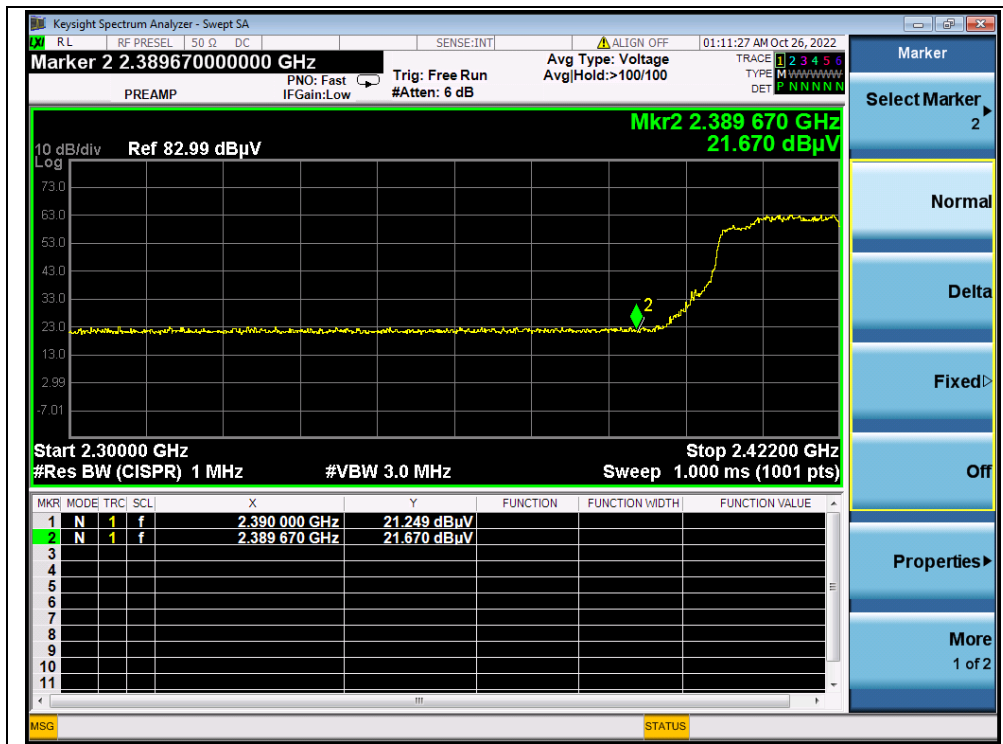


802.11ax (HEW40) Mode

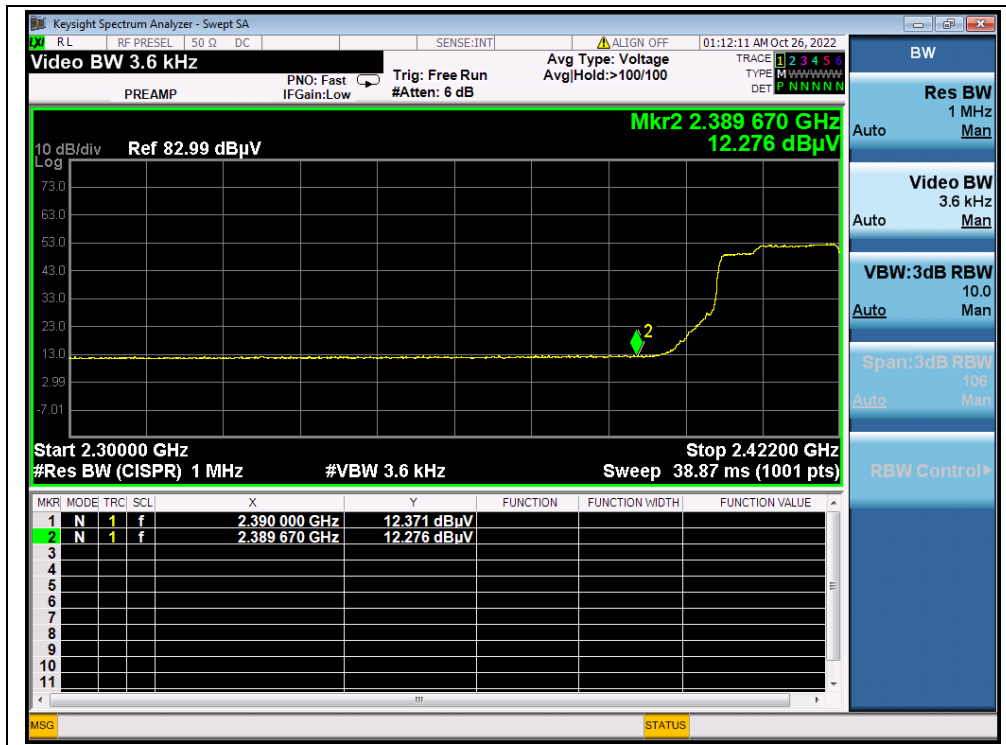
A. Test Verdict:

Channel	Frequency (MHz)	Detector	Receiver Reading	A _T (dB)	A _{Factor} (dB@3m)	Max. Emission E (dBμV/m)	Limit (dBμV/m)	Verdict
		PK/ AV	U _R (dBμV)					
3	2389.67	PK	21.67	6.74	27.20	55.61	74	PASS
3	2390.00	AV	12.37	6.74	27.20	46.31	54	PASS
11	2483.50	PK	29.72	6.74	27.20	63.66	74	PASS
11	2483.50	AV	13.00	6.74	27.20	46.94	54	PASS

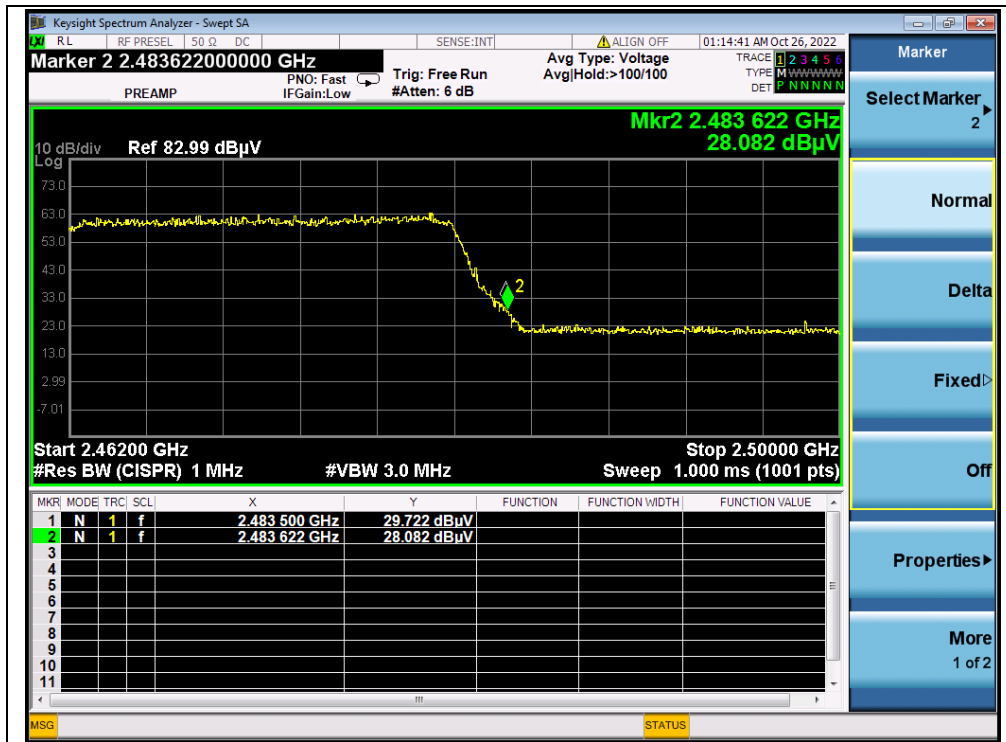
B. Test Plot:



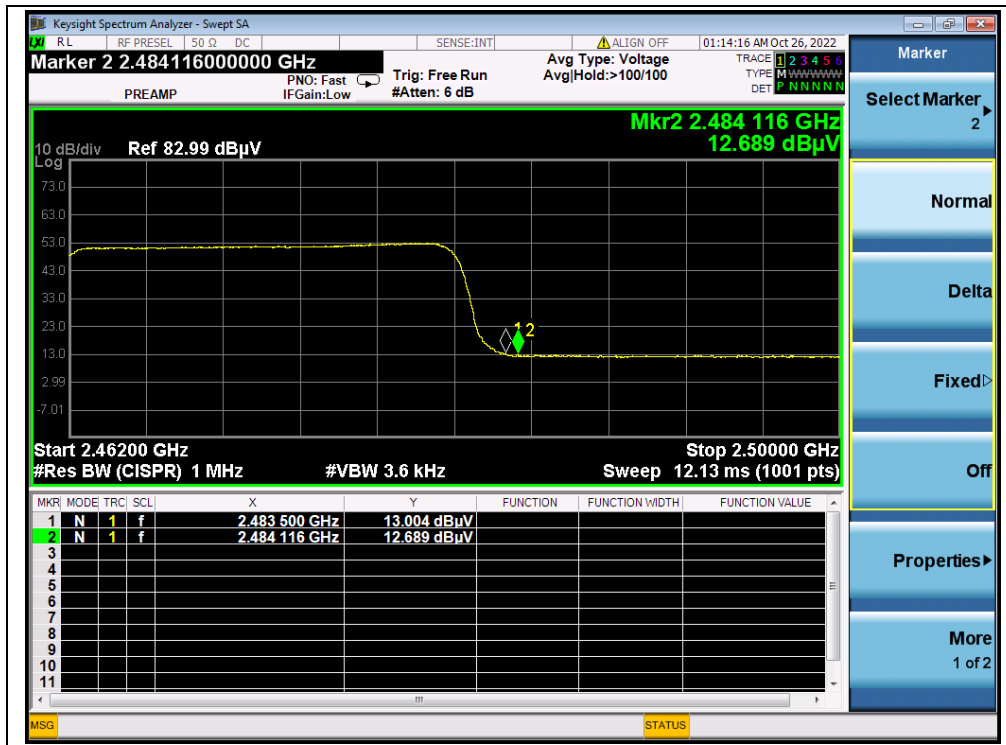
(PEAK, Channel 3, 802.11ax (HEW40))



(AVERAGE, Channel 3, 802.11ax (HEW40))



(PEAK, Channel 11, 802.11ax (HEW40))



(AVERAGE, Channel 11, 802.11ax (HEW40))



2.9. Radiated Emission

2.9.1. Requirement

According to FCC section 15.247(d), radiated emission outside the frequency band attenuation below the general limits specified in FCC section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in FCC section 15.205(a), must also comply with the radiated emission limits specified in FCC section 15.209(a).

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength ($\mu\text{V}/\text{m}$)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

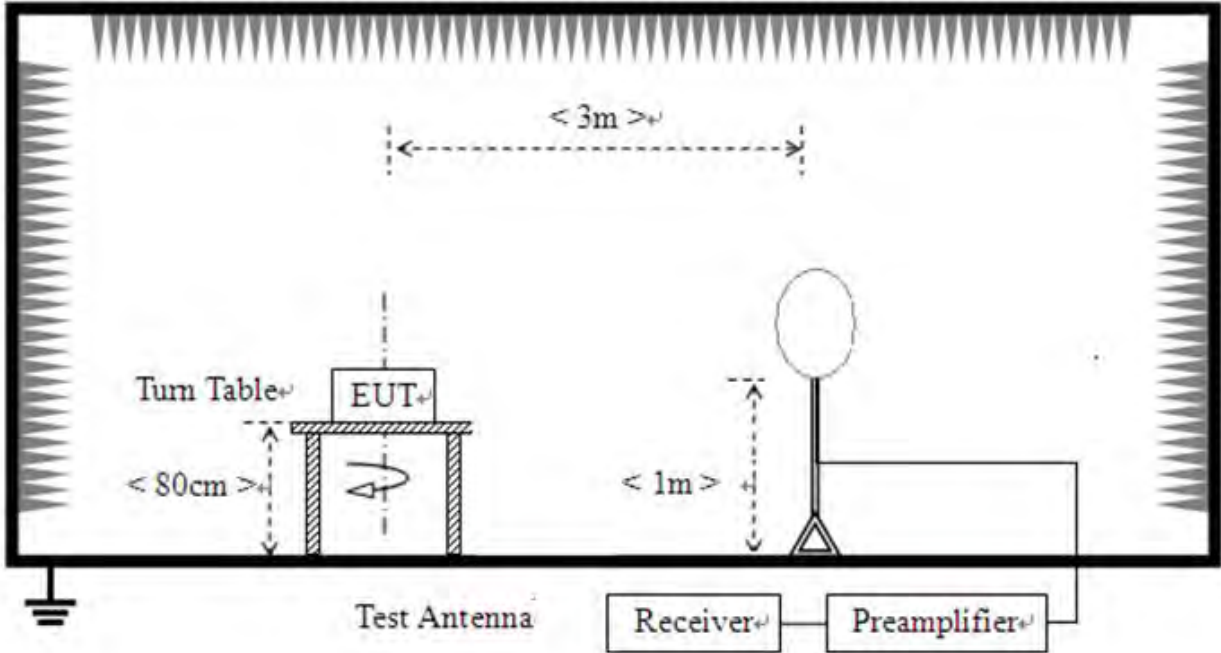
Note1: For above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit.

Note2: For above 1000MHz, limit field strength of harmonics: 54dBuV/m@3m (AV) and 74dBuV/m@3m (PK). In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table).

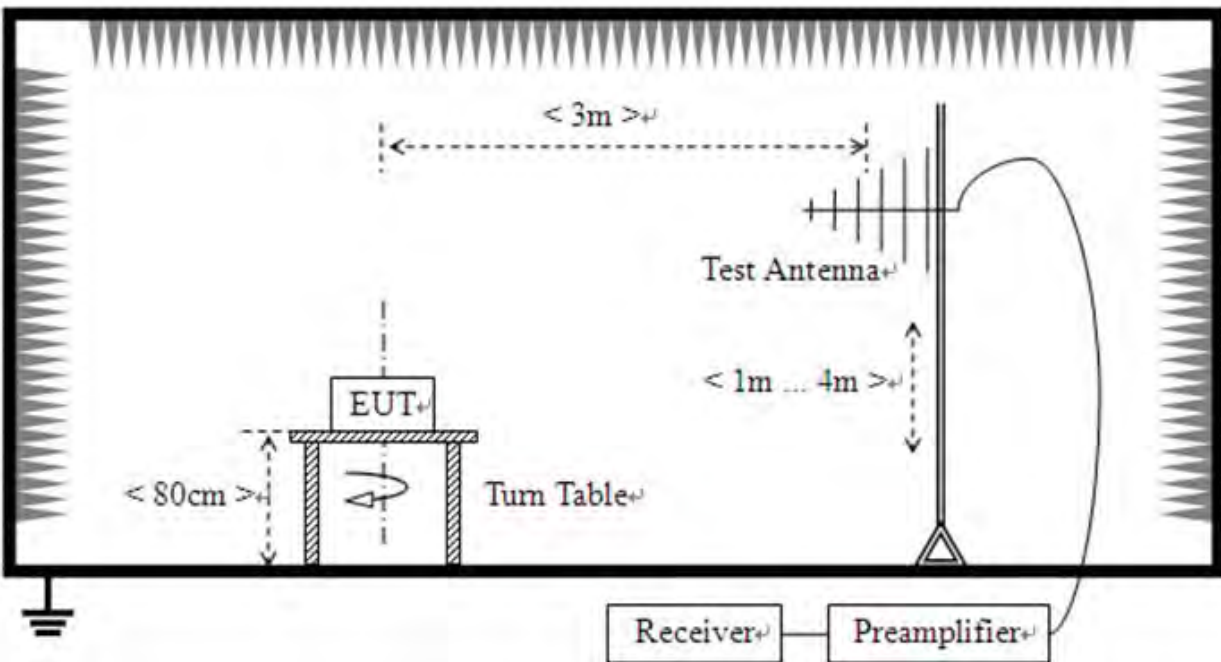
2.9.2. Test Description

Test Setup:

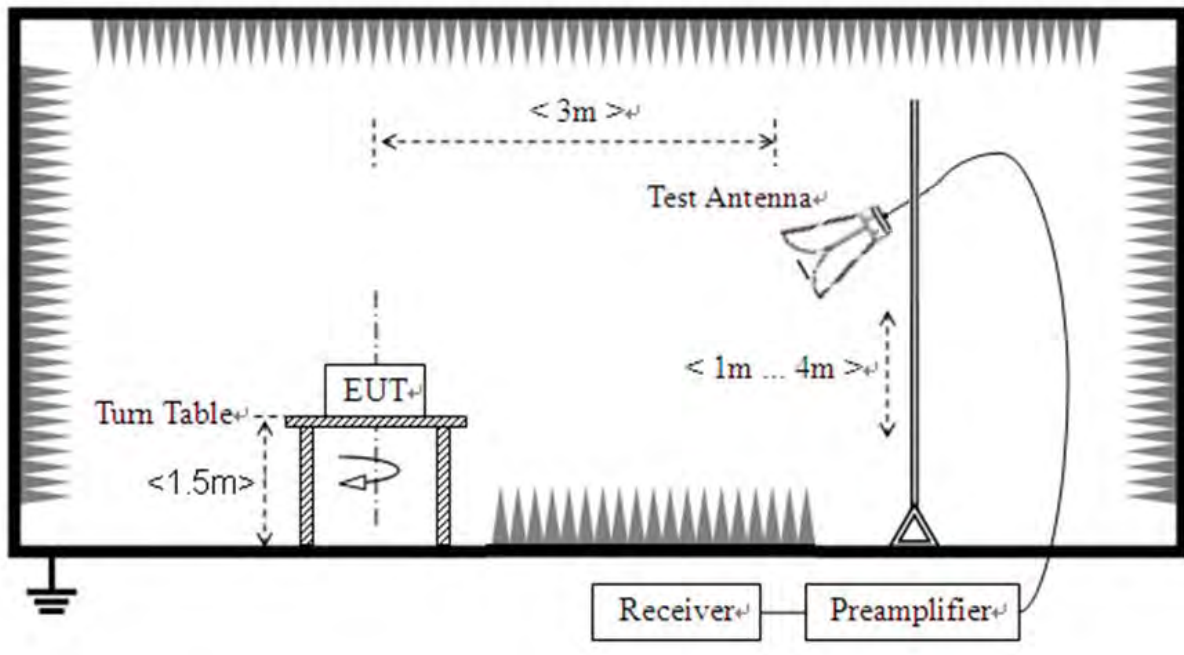
- 1) For radiated emissions from 9kHz to 30MHz



- 2) For radiated emissions from 30MHz to 1GHz



3) For radiated emissions above 1GHz



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

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

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

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

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



2.9.3. Test Result

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

The measurement results are obtained as below:

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

A_T : Total correction Factor except Antenna

U_R : Receiver Reading

G_{preamp} : Preamplifier Gain

A_{Factor} : Antenna Factor at 3m

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

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.

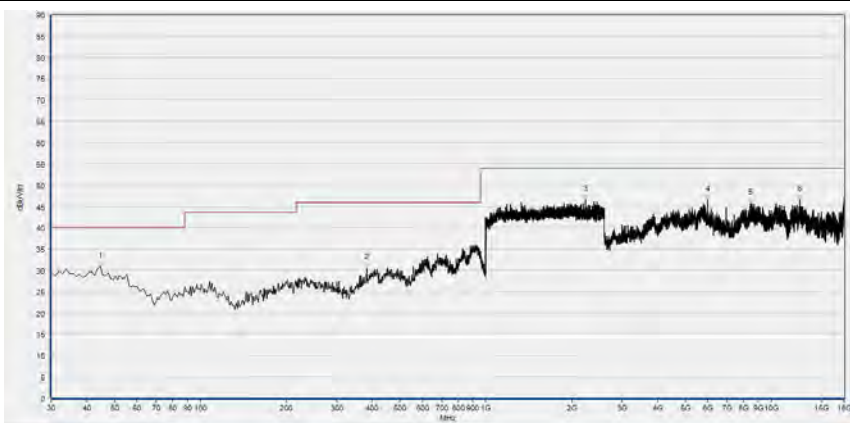
802.11b Mode

Plot for Channel 1



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
96.930	31.27	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
557.680	34.01	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1999.467	49.06	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5245.720	50.15	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8445.840	46.97	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12215.760	48.66	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

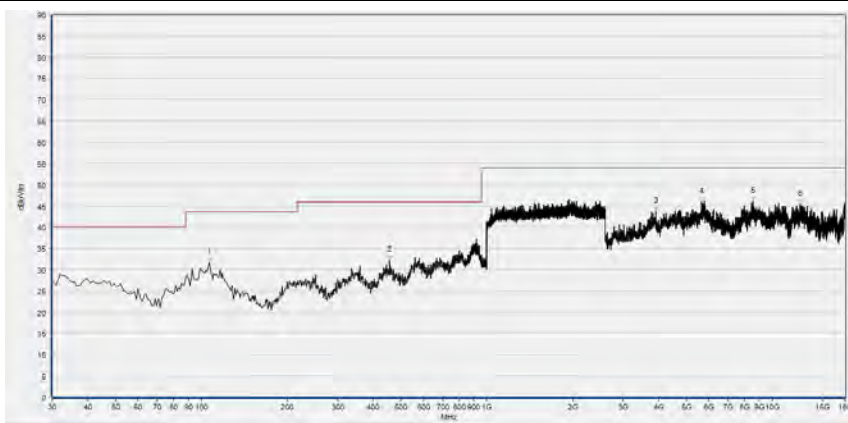
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
44.550	30.79	N/A	N/A	N/A	40.00	N/A	Vertical	PASS
383.080	30.44	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2239.467	46.63	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6000.320	46.61	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8445.840	45.82	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12573.040	46.52	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

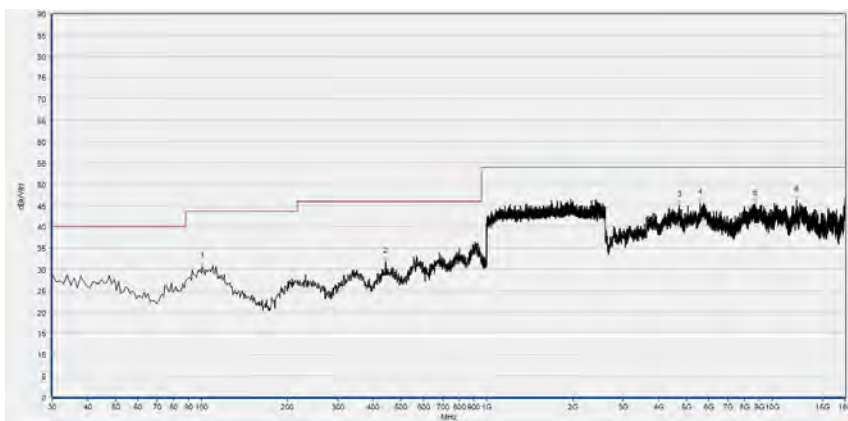
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
106.630	31.62	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
455.830	32.13	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
3909.000	43.67	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5661.520	45.85	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8575.200	46.04	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12517.600	45.40	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

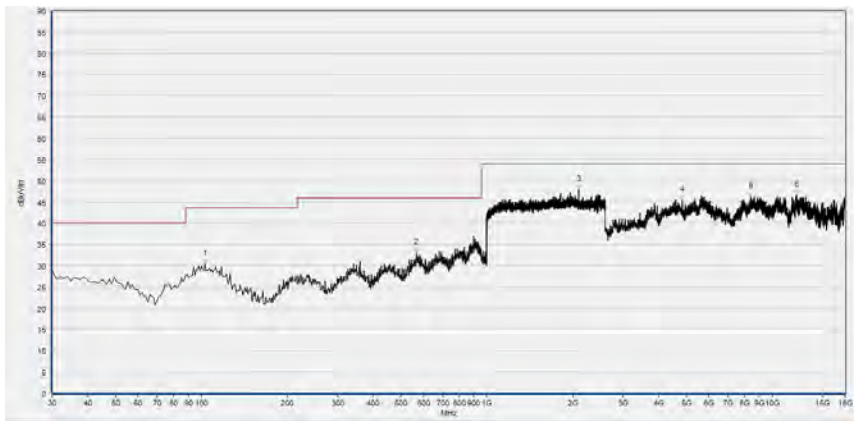
(Antenna Horizontal, 30MHz to 18GHz)



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
100.810	30.70	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
443.220	31.82	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
4725.200	45.12	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5590.680	45.62	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8713.800	45.41	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12184.960	46.22	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

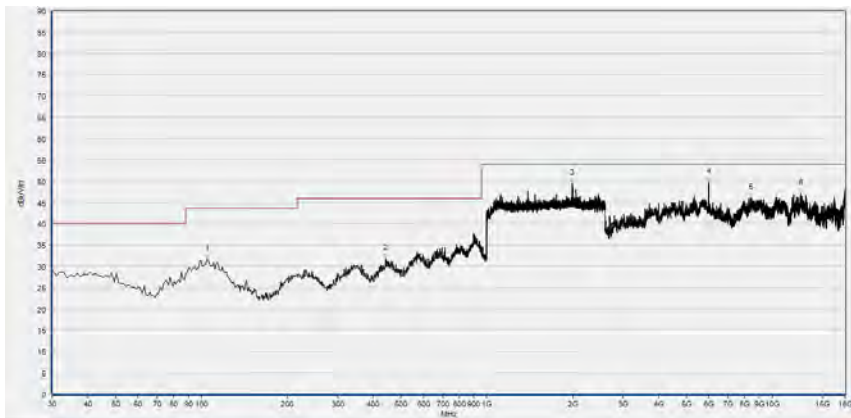
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 13



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
102.750	30.33	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
566.410	33.09	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2099.733	48.01	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4836.080	45.36	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8430.440	46.31	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12181.880	46.67	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



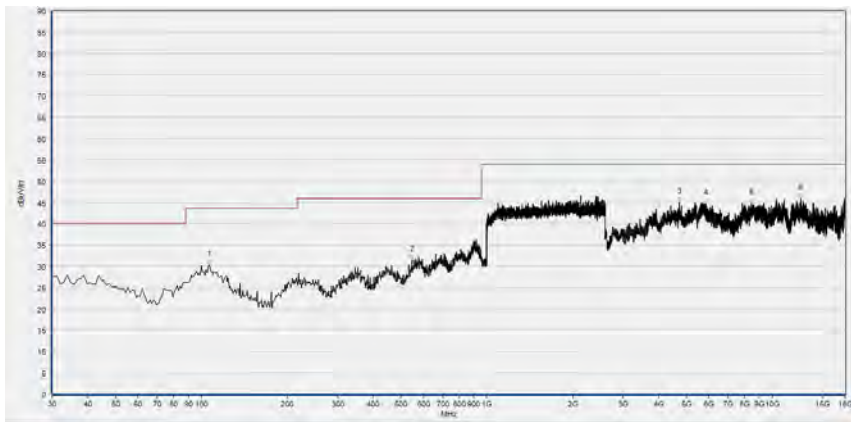
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
104.690	31.63	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
441.280	31.80	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1992.533	49.45	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6000.320	49.70	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8421.200	46.02	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12573.040	47.03	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)



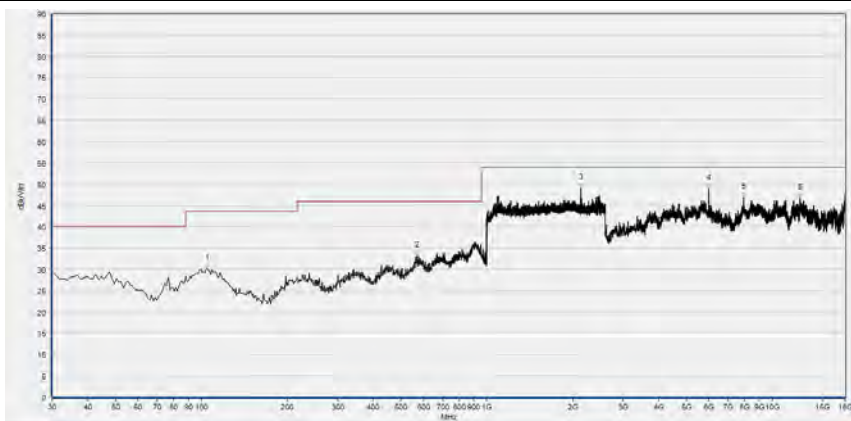
802.11g Mode

Plot for Channel 1



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
106.630	30.33	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
547.010	31.49	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
4715.960	45.13	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5840.160	44.82	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8479.720	44.83	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12579.200	45.85	N/A	N/A	74.00	N/A <td 54.00	Horizontal	PASS	

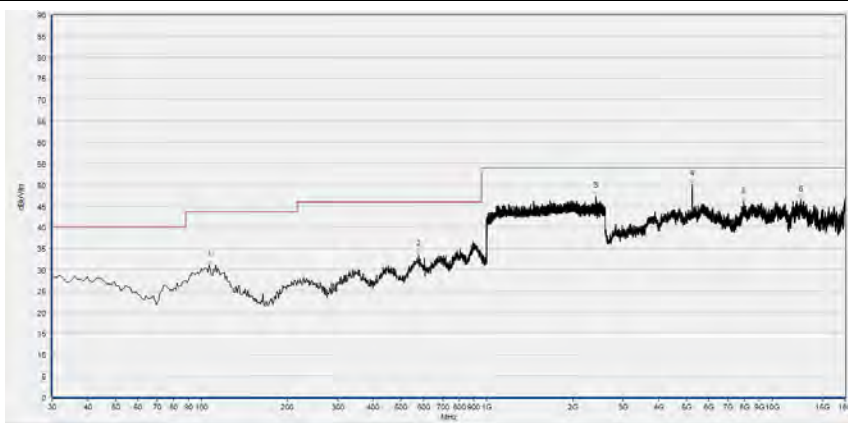
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
104.690	30.11	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
569.320	33.19	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2132.267	49.13	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6000.320	49.02	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7943.800	46.86	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12545.320	46.76	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

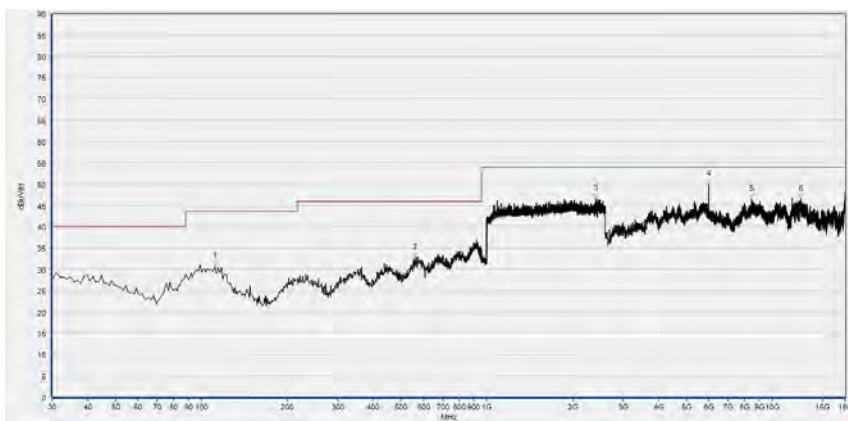
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
106.630	30.94	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
577.080	33.56	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2414.400	47.22	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5242.640	50.15	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
7962.280	45.90	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12591.520	46.38	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
111.480	30.64	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
561.560	32.60	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2411.733	46.57	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6000.320	49.89	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8476.640	46.50	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12563.800	46.37	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

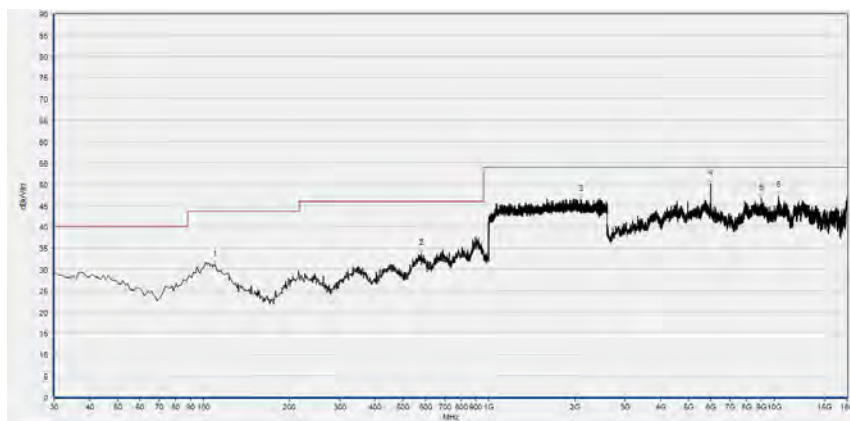
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 13



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
102.750	31.77	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
449.040	32.21	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1997.867	50.35	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5319.640	47.39	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6000.320	49.54	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8488.960	47.15	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

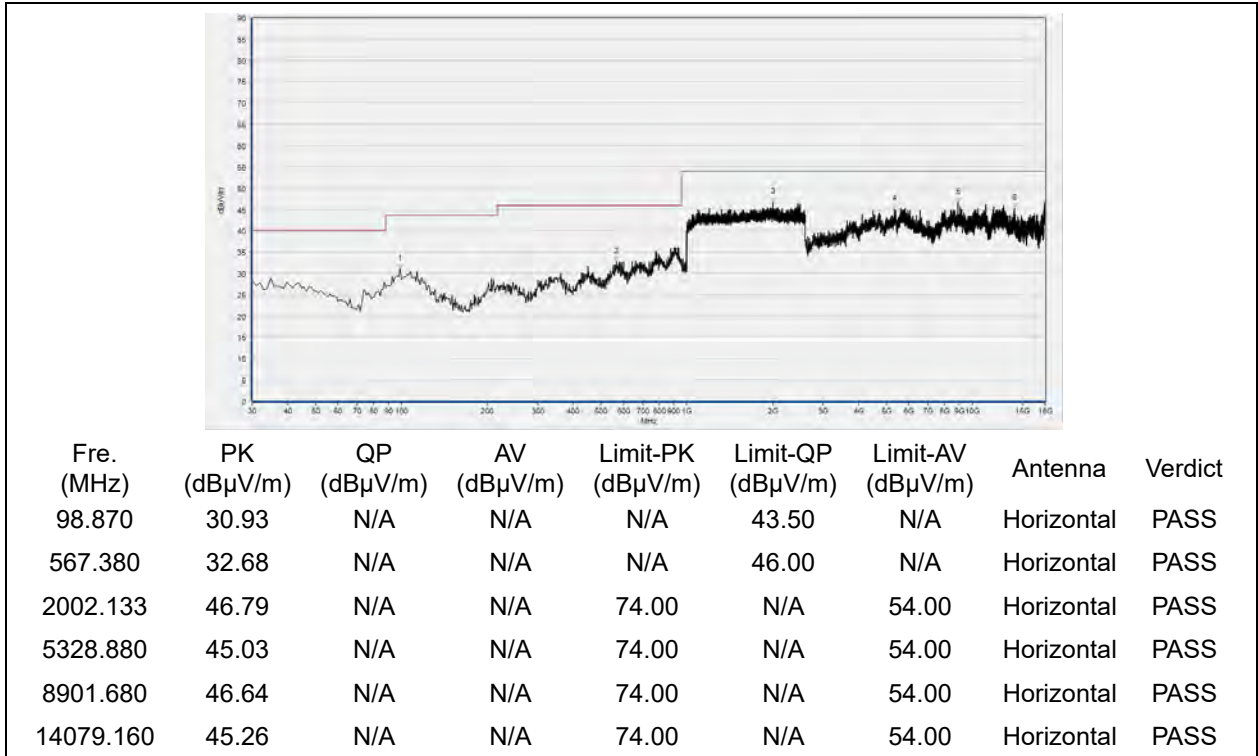


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
109.540	31.04	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
579.990	33.64	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2100.800	46.40	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6000.320	50.17	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9031.040	46.51	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10364.680	47.20	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

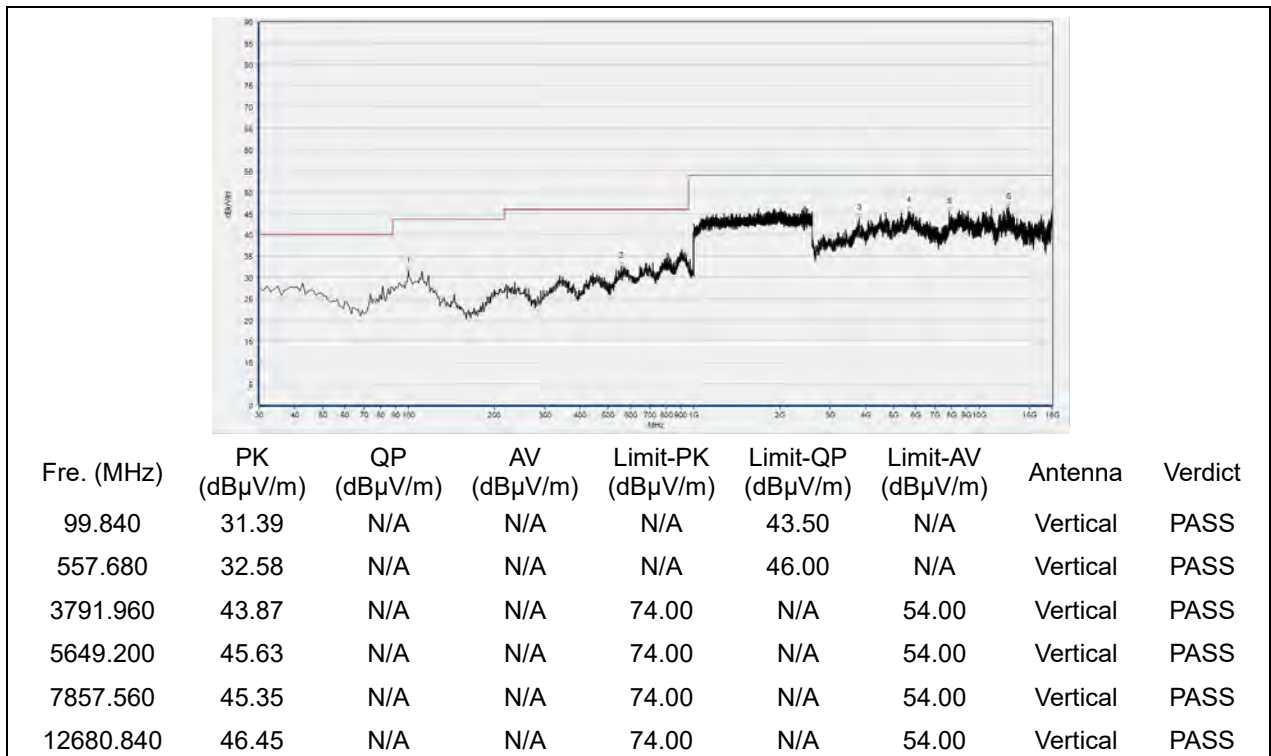
(Antenna Vertical, 30MHz to 18GHz)

802.11n (HT20) Mode

Plot for Channel 1

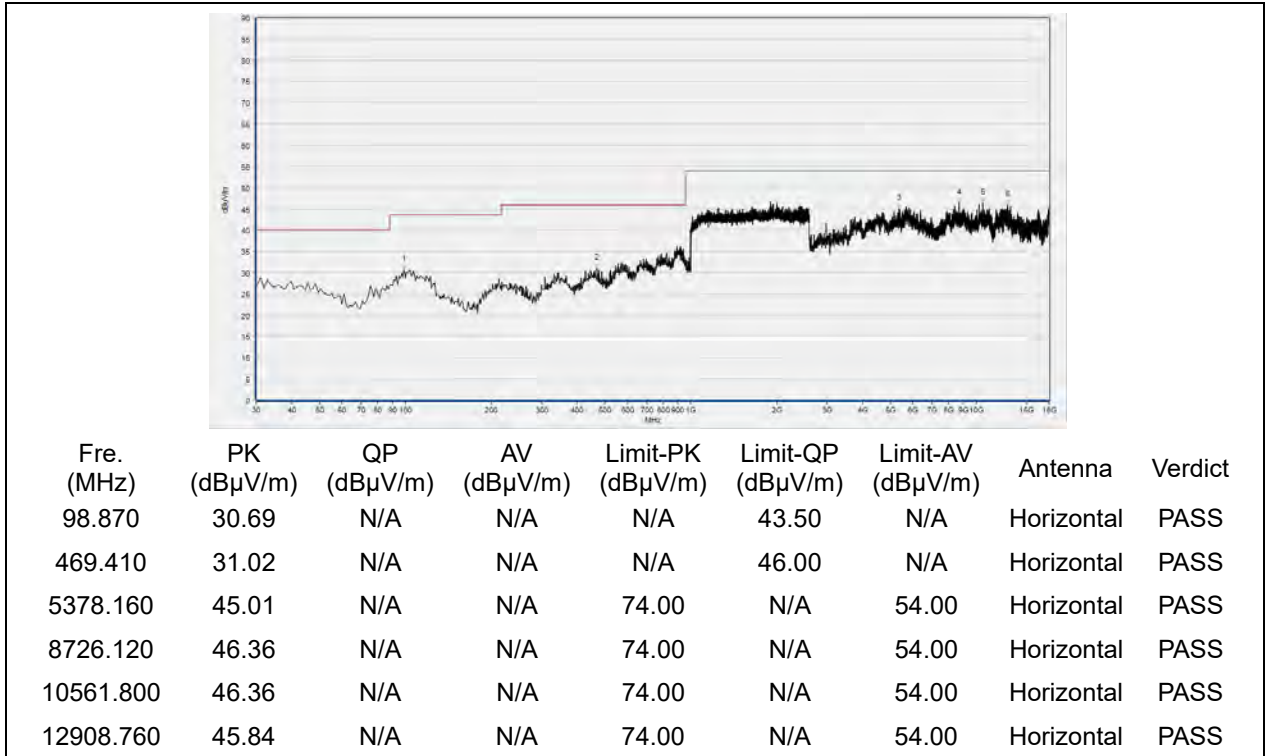


(Antenna Horizontal, 30MHz to 18GHz)

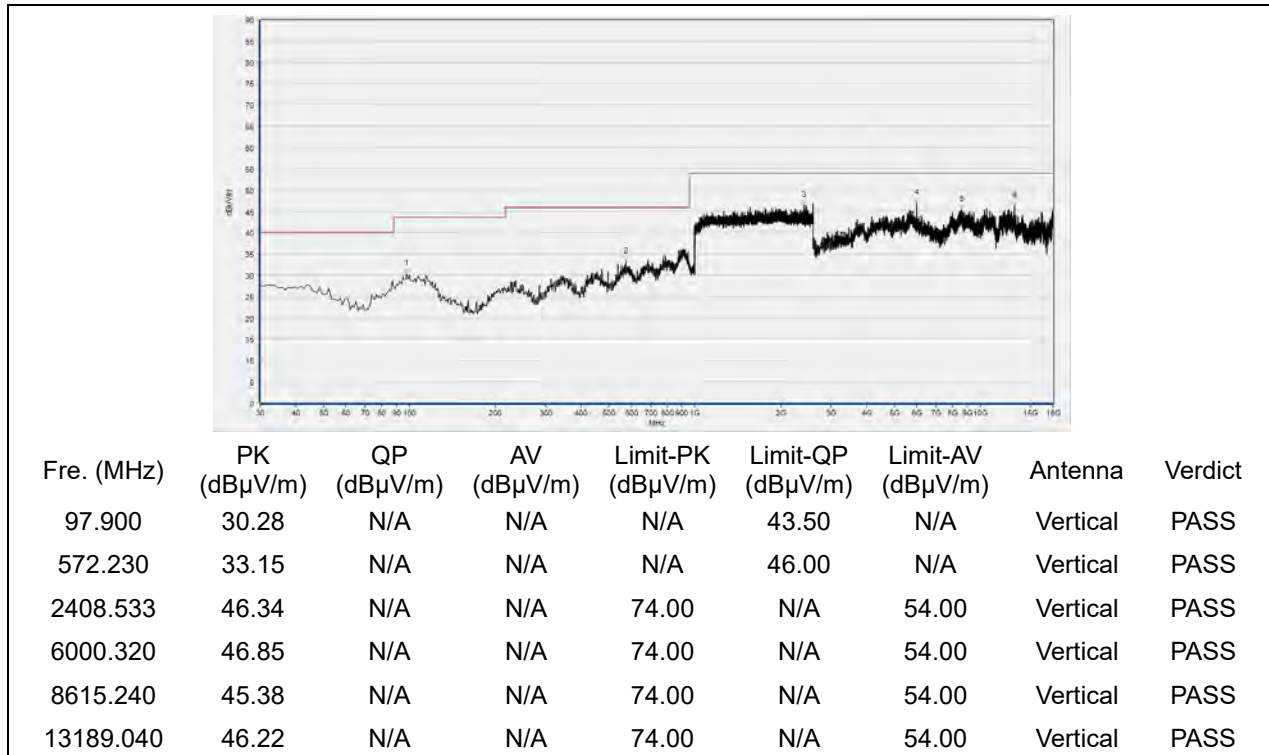


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7

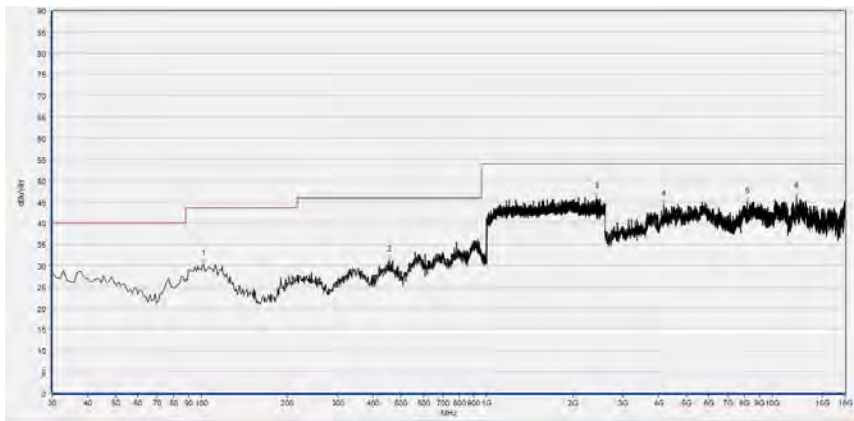


(Antenna Horizontal, 30MHz to 18GHz)



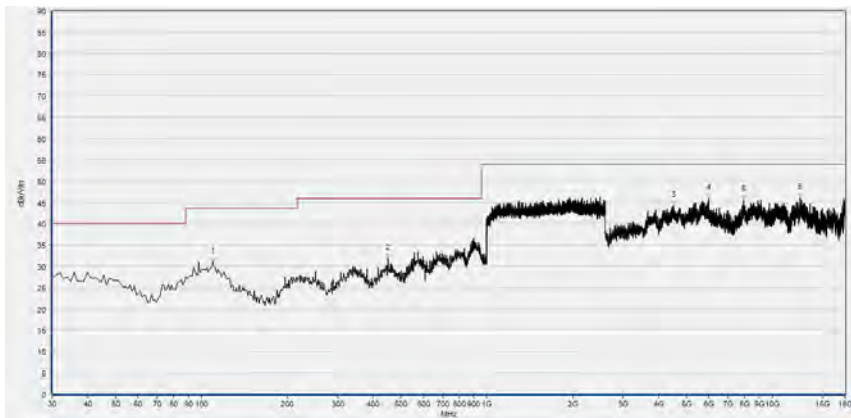
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 13



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
101.780	30.35	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
455.830	31.32	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2418.133	46.30	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4167.720	44.36	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8156.320	45.03	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12191.120	46.27	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

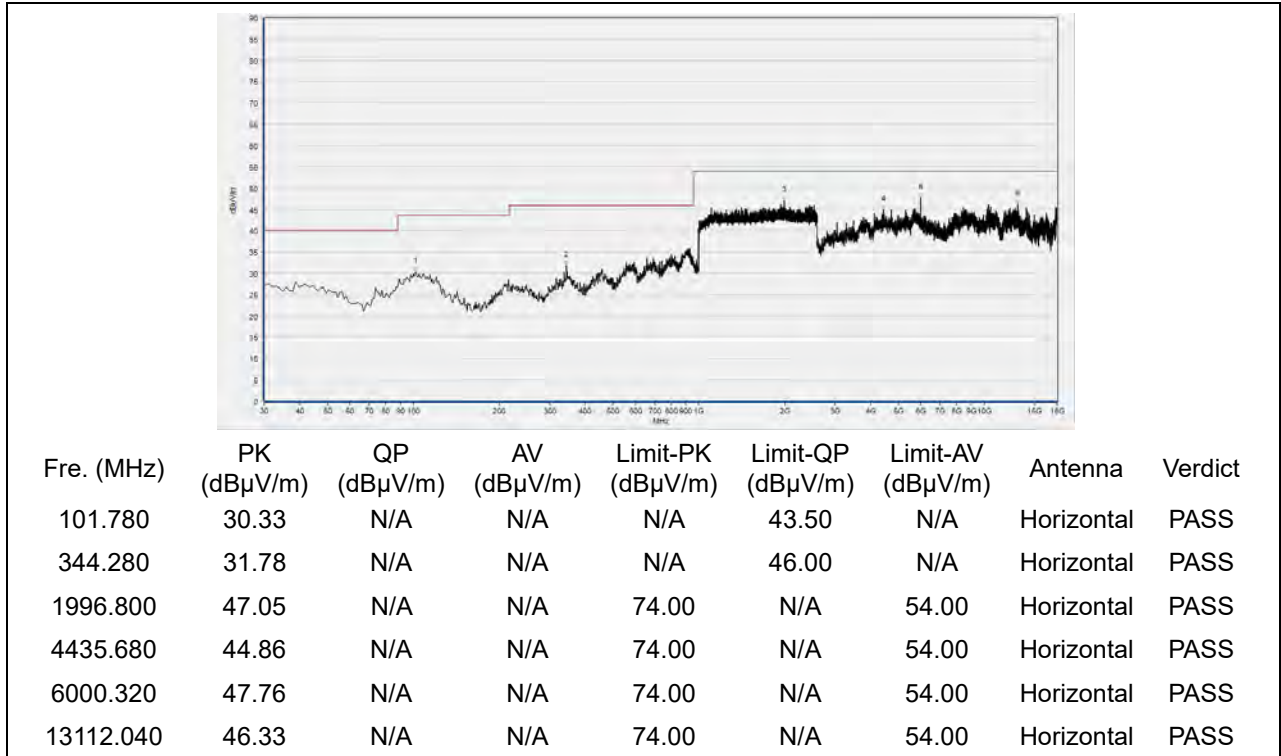


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
109.540	31.02	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
450.980	31.88	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
4518.840	44.27	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6000.320	45.85	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
7956.120	45.59	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12508.360	46.13	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

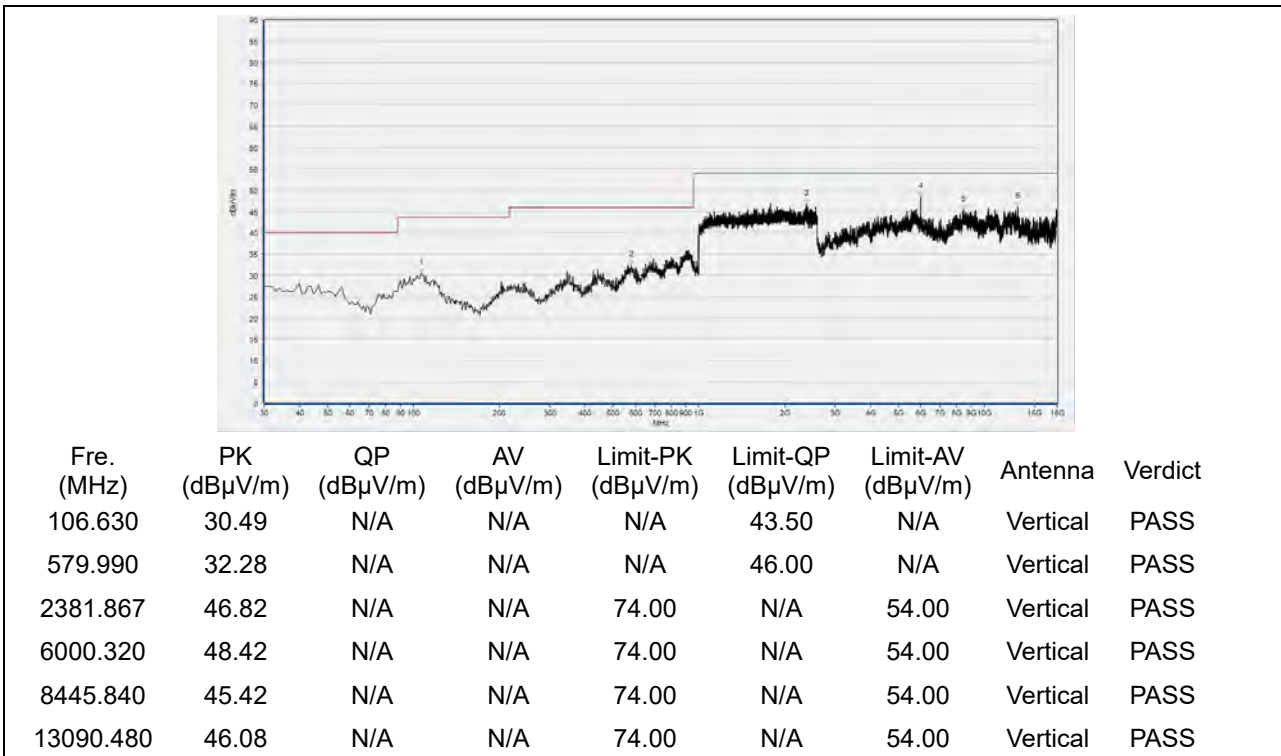
(Antenna Vertical, 30MHz to 18GHz)

802.11n (HT40) Mode

Plot for Channel 3

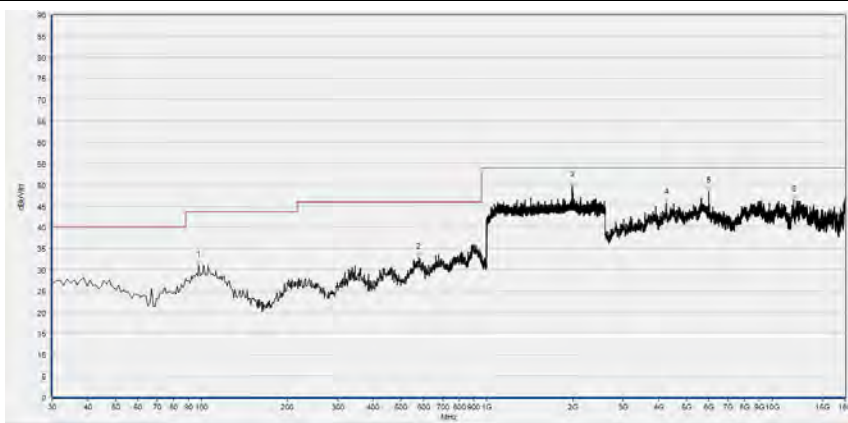


(Antenna Horizontal, 30MHz to 18GHz)



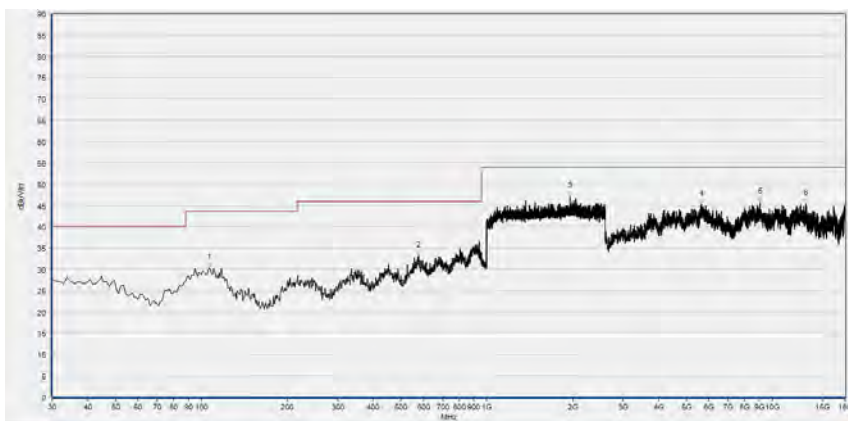
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7



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
97.900	30.95	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
578.050	32.78	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1994.133	49.77	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4250.880	45.70	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6000.320	48.50	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
11867.720	46.37	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

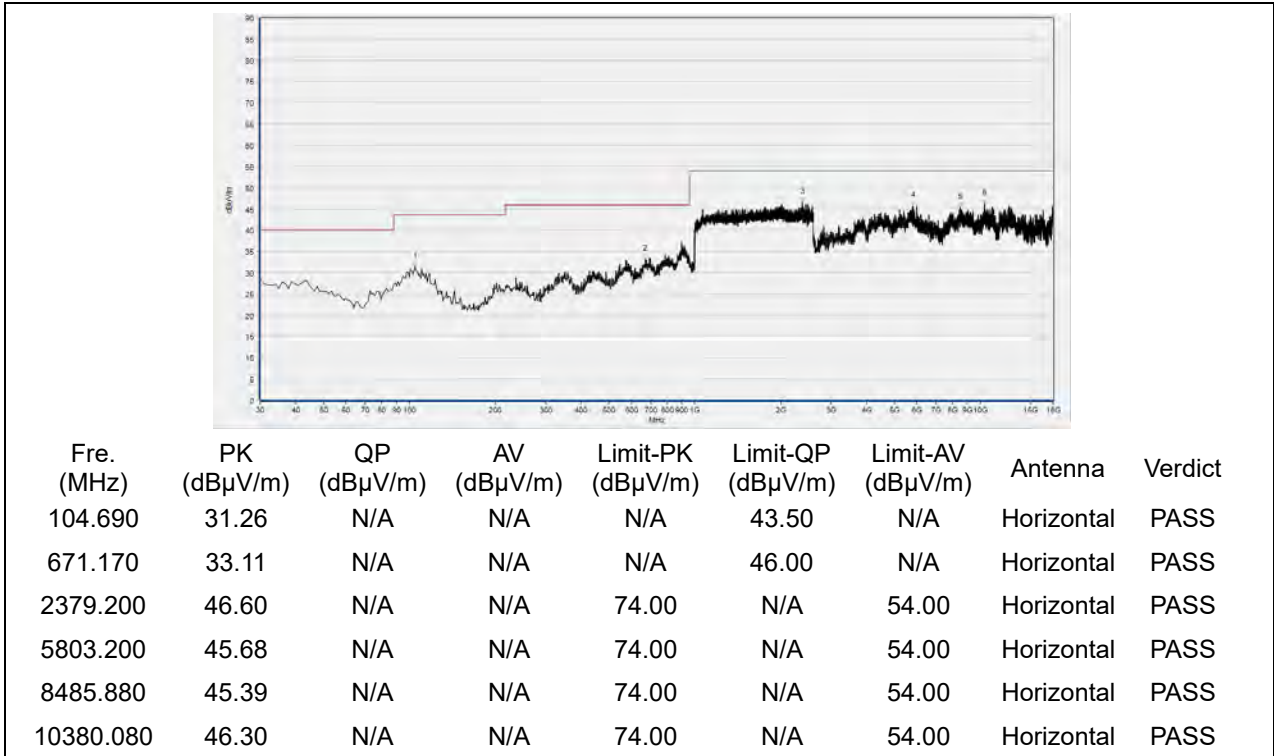
(Antenna Horizontal, 30MHz to 18GHz)



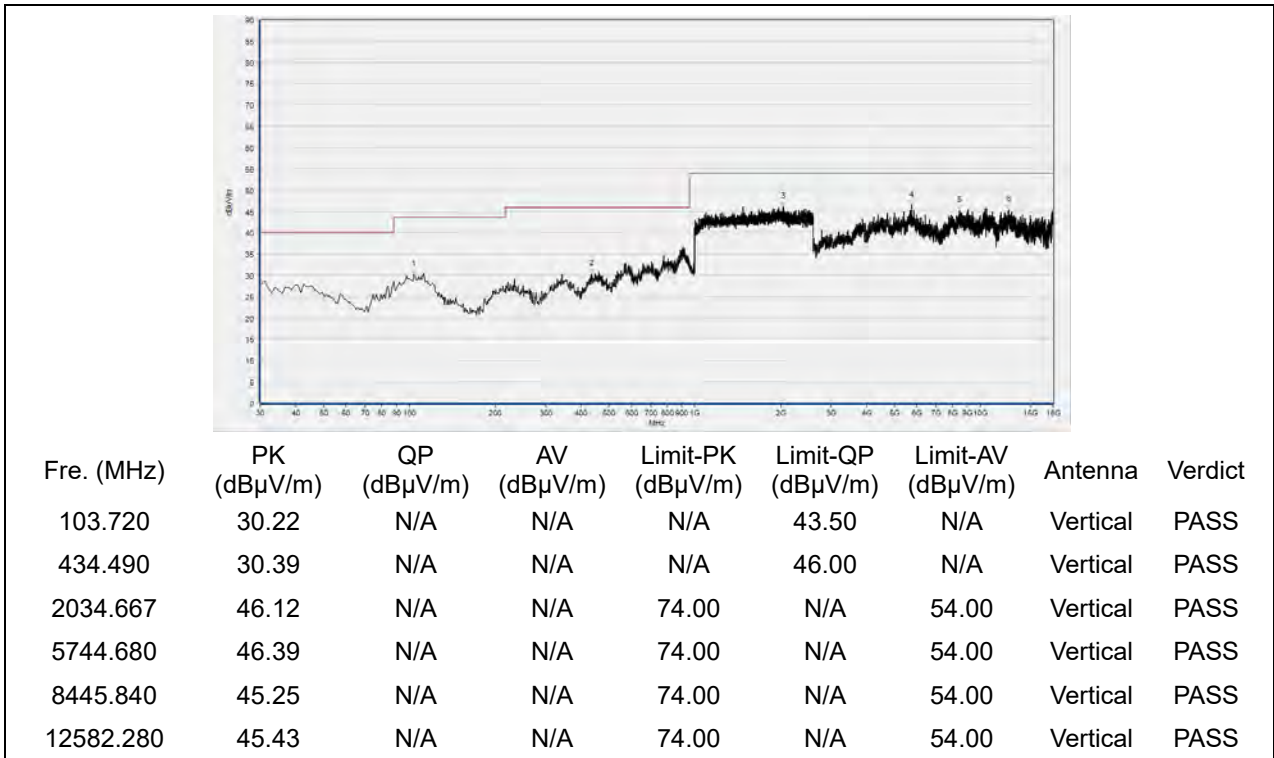
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
106.630	30.28	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
578.050	33.22	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1955.200	47.17	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5664.600	45.27	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
9043.360	45.69	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
13105.880	45.37	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 11



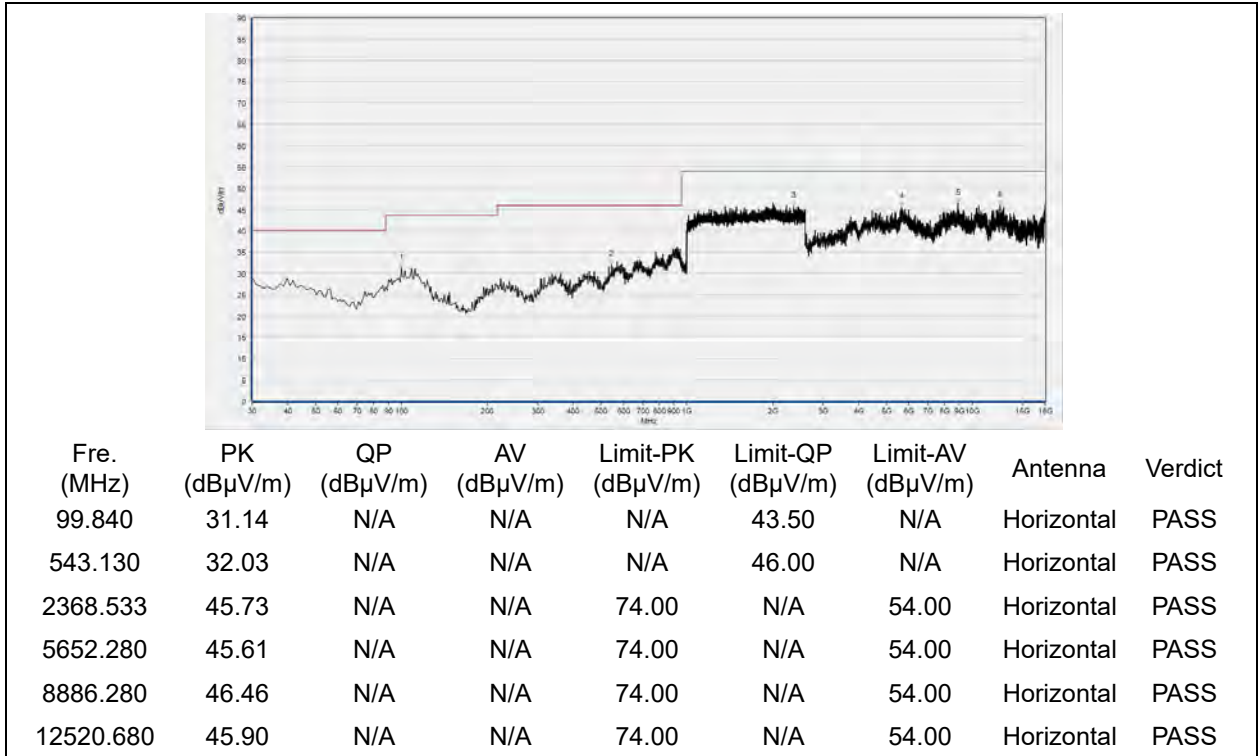
(Antenna Horizontal, 30MHz to 18GHz)



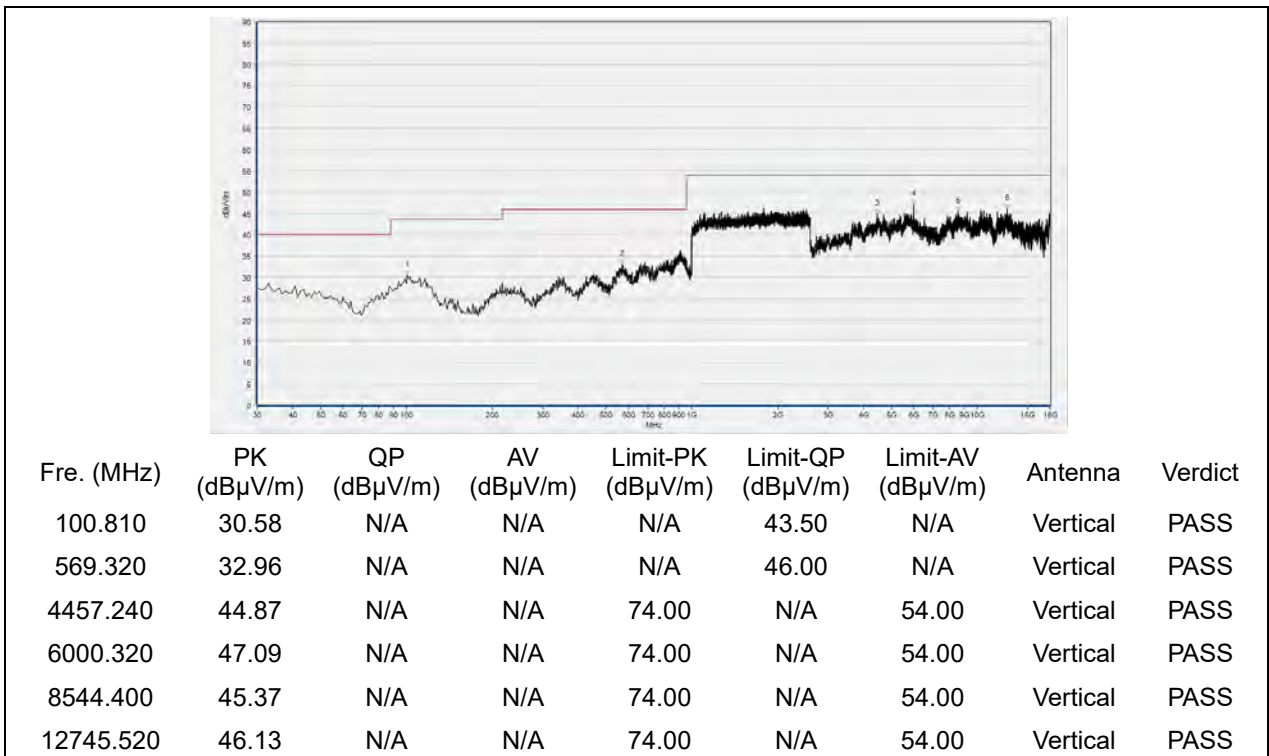
(Antenna Vertical, 30MHz to 18GHz)

802.11ax (HEW20) Mode

Plot for Channel 1

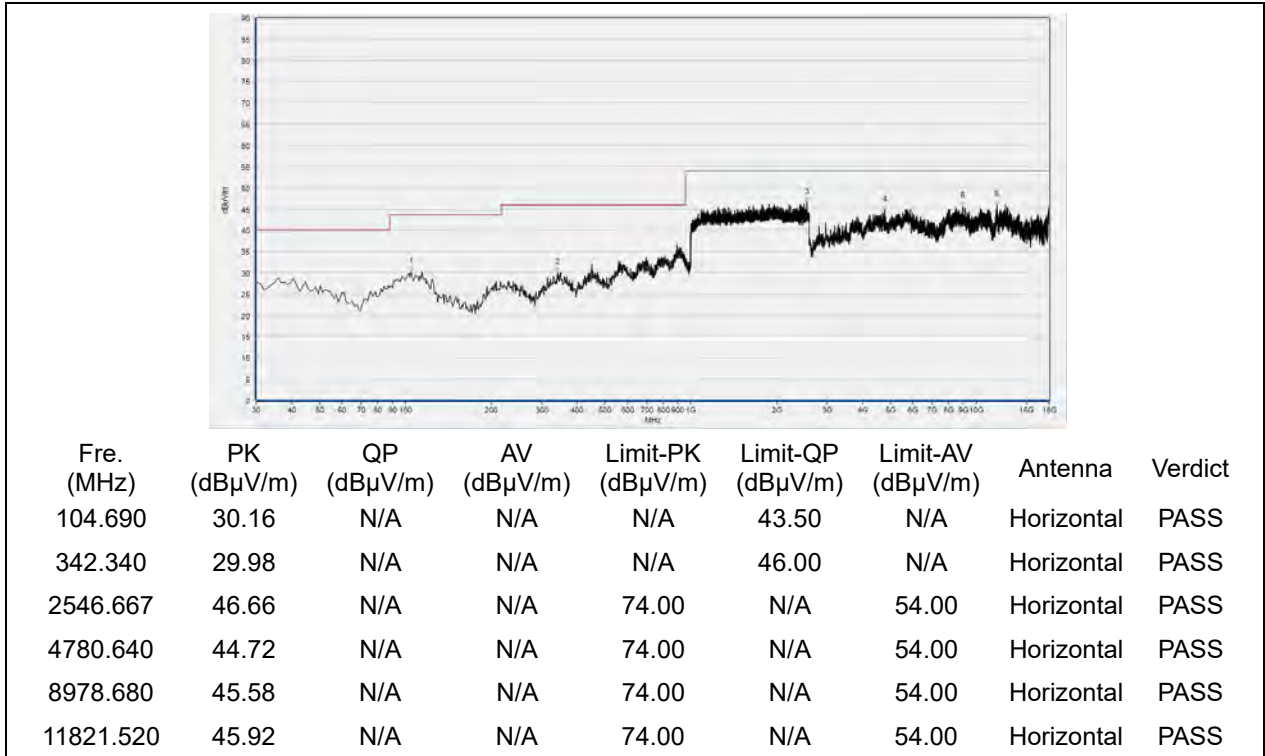


(Antenna Horizontal, 30MHz to 18GHz)

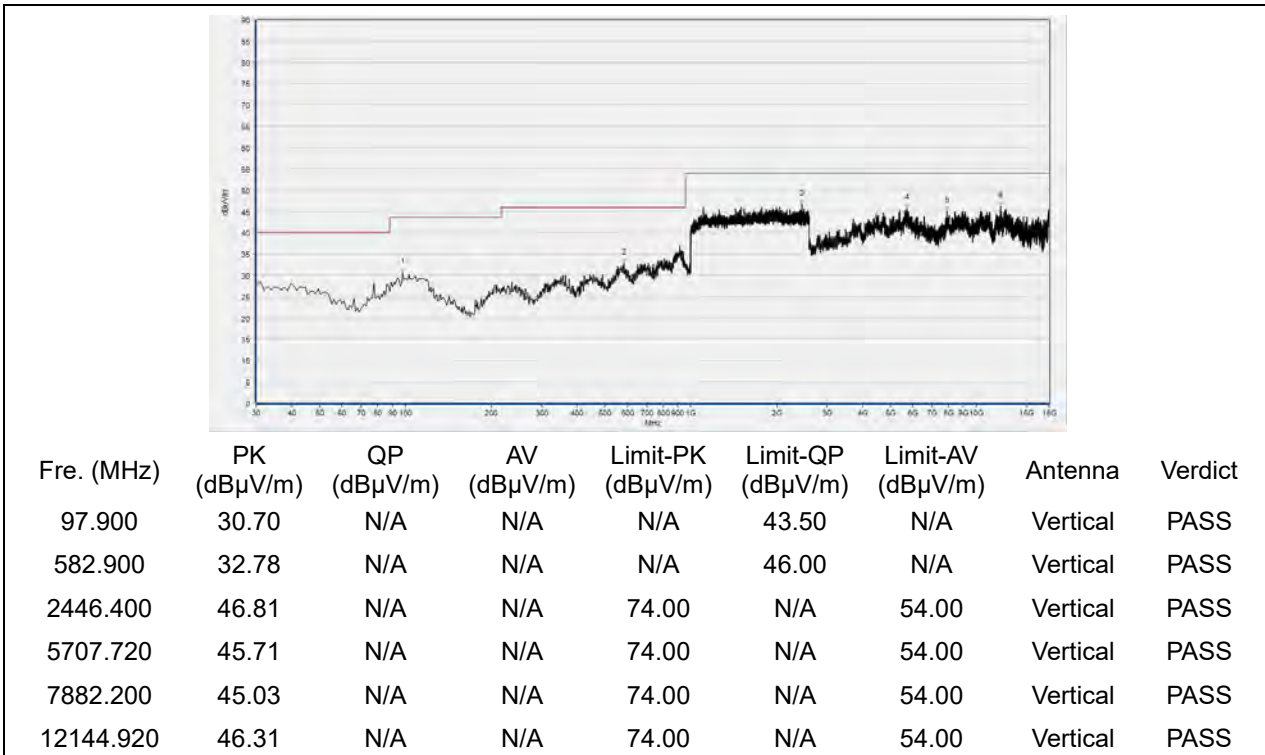


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7

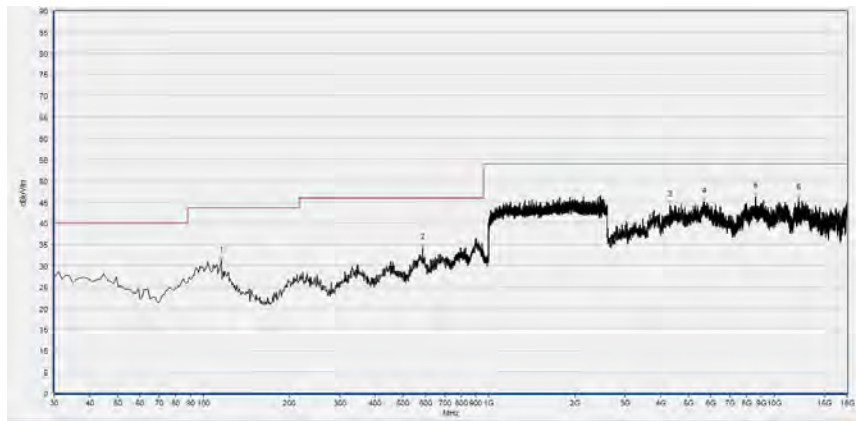


(Antenna Horizontal, 30MHz to 18GHz)



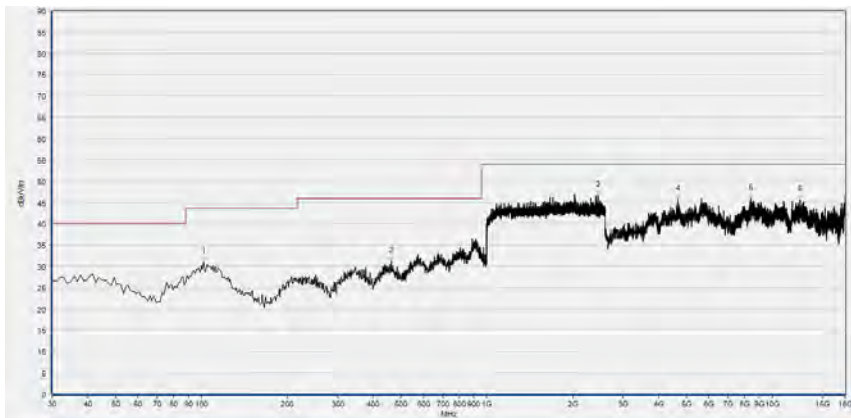
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 13



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
115.360	31.10	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
585.810	34.17	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
4300.160	44.29	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5673.840	45.02	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8606.000	46.29	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12148.000	45.96	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



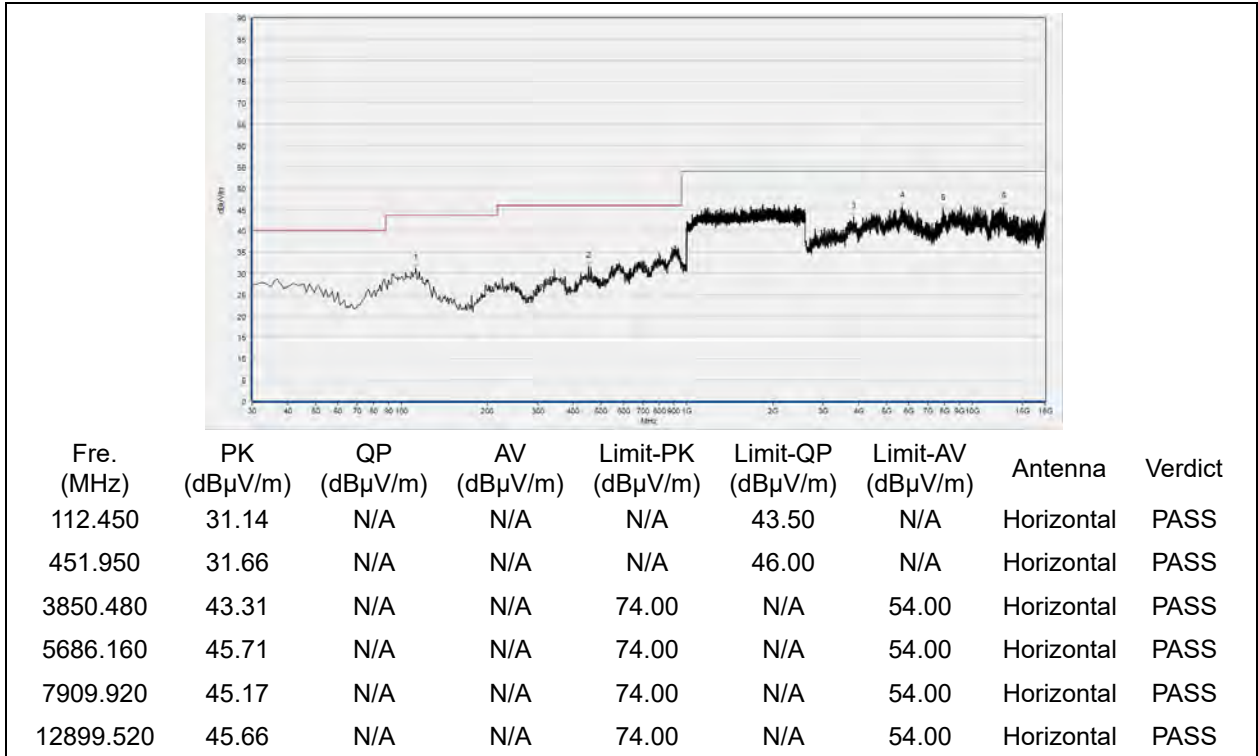
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
101.780	30.93	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
462.620	31.10	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2456.533	46.81	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4679.000	45.73	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8418.120	45.94	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12508.360	45.54	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

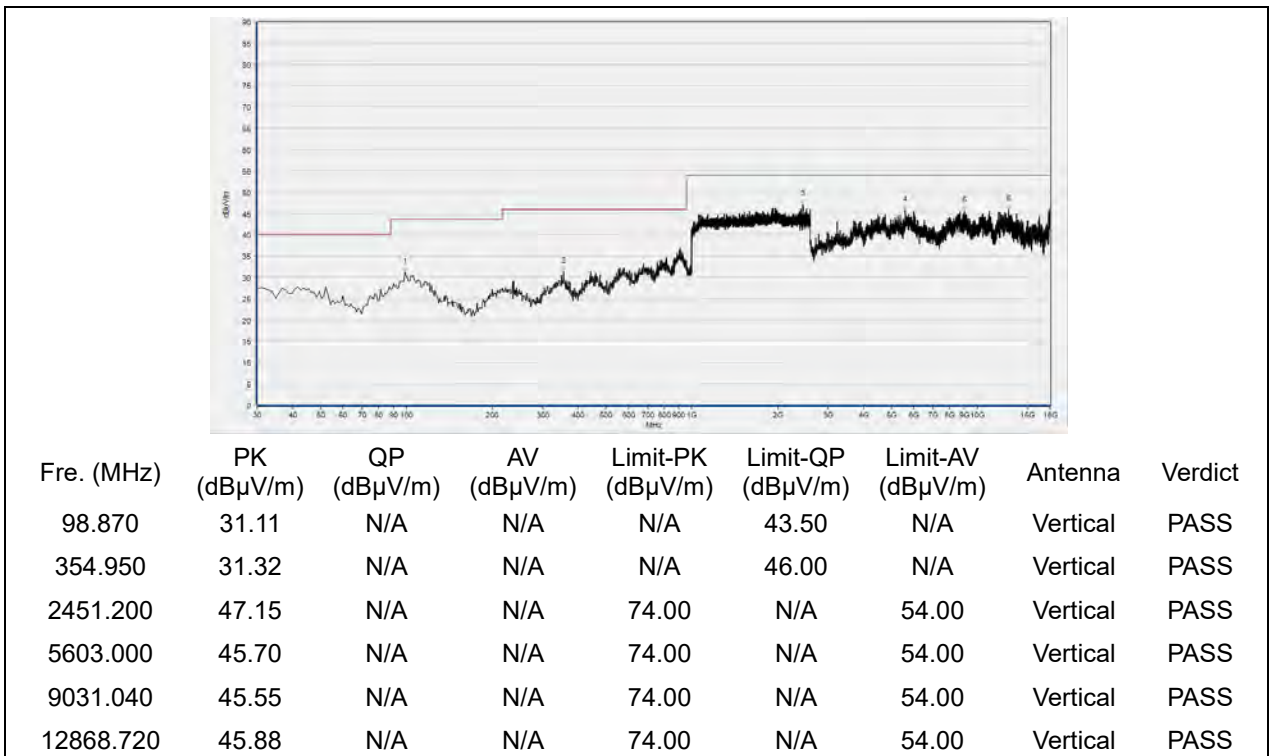


802.11ax (HEW20) RU26 Mode

Plot for Channel 1

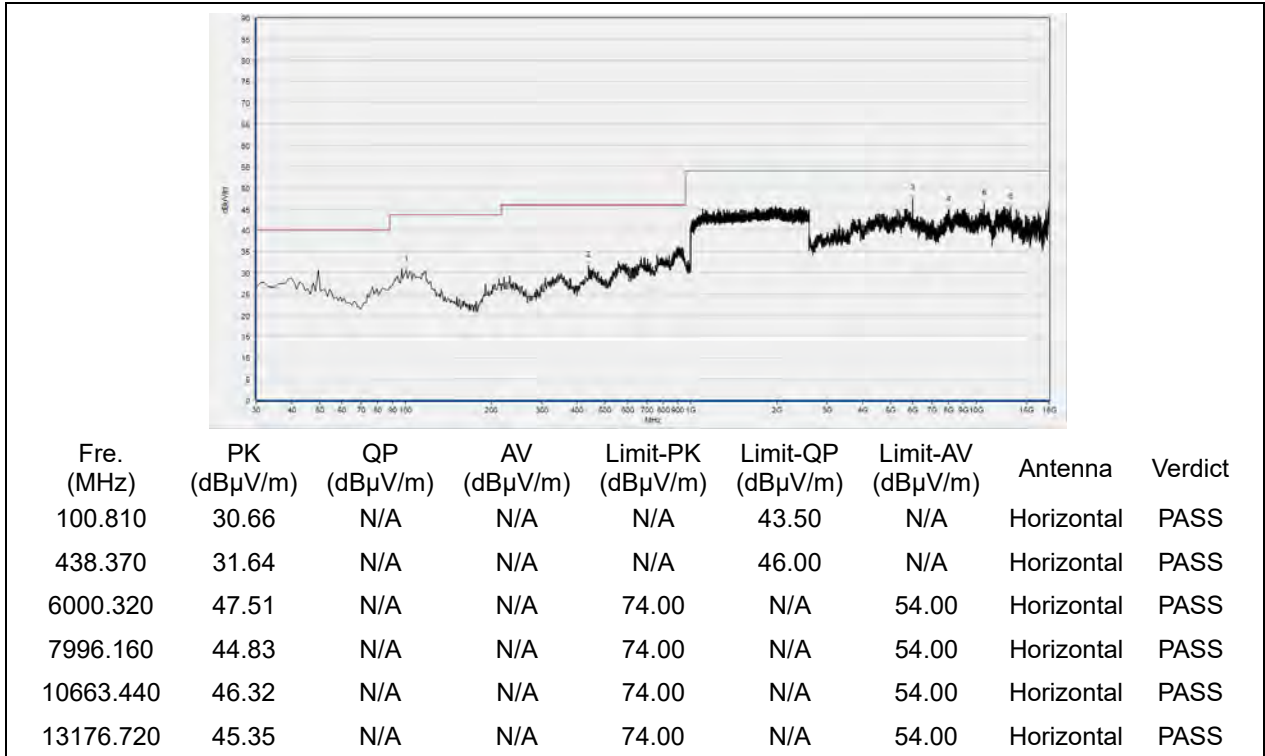


(Antenna Horizontal, 30MHz to 18GHz)

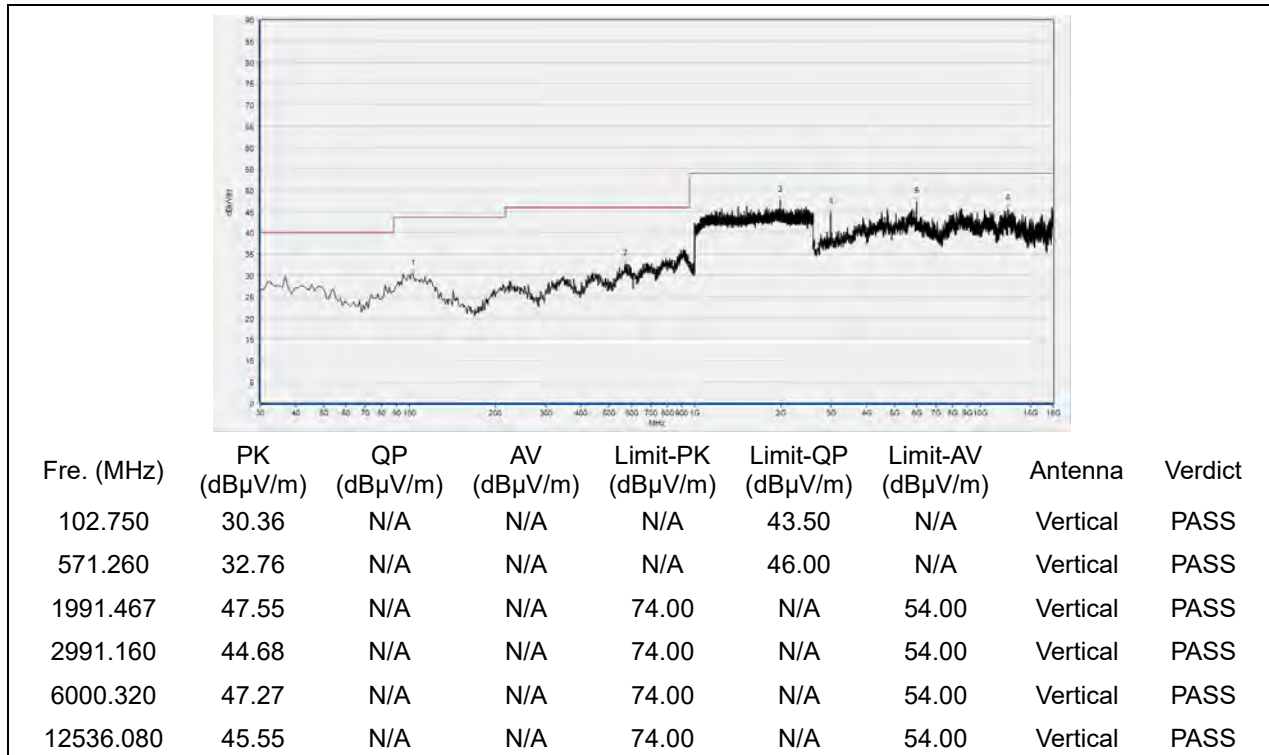


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7

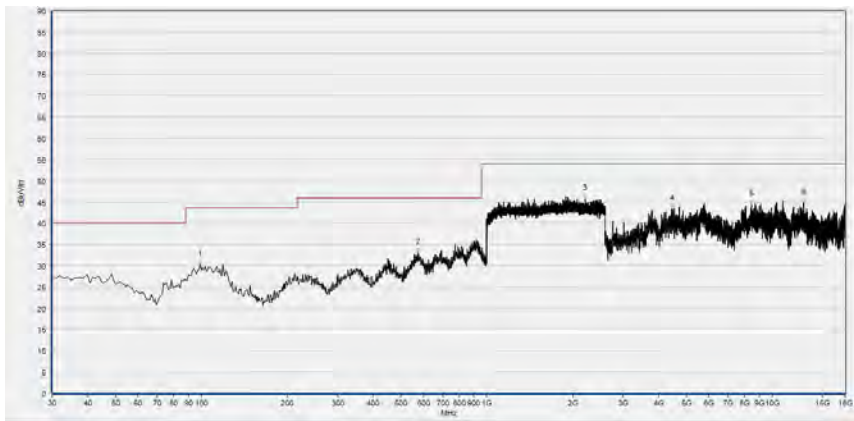


(Antenna Horizontal, 30MHz to 18GHz)



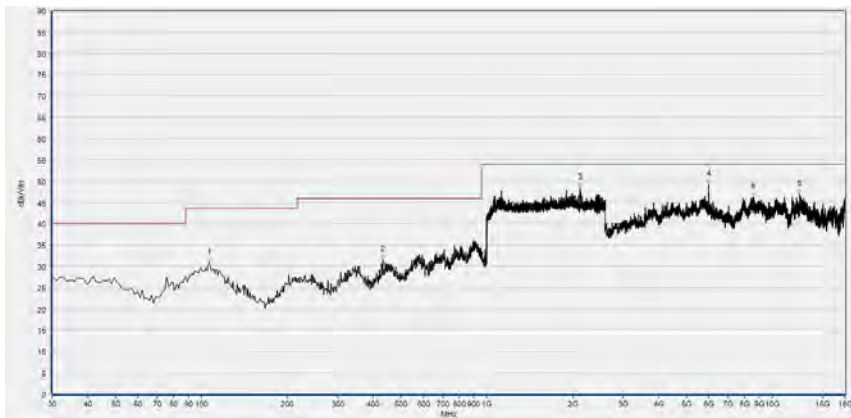
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 13



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
98.870	30.16	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
573.200	33.05	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2215.467	45.82	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4454.160	43.38	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8455.080	44.40	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12908.760	44.73	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



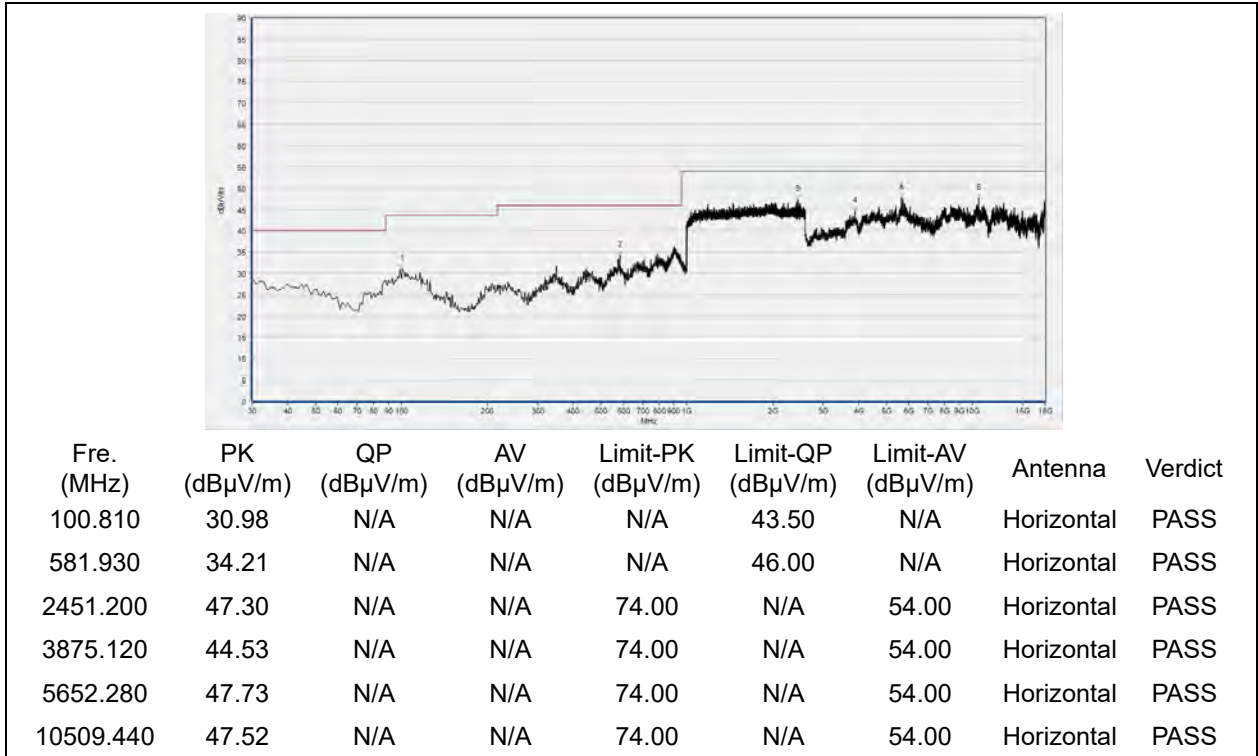
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
106.630	30.89	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
431.580	31.58	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2125.333	48.39	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6000.320	49.23	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8565.960	46.31	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12480.640	47.01	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

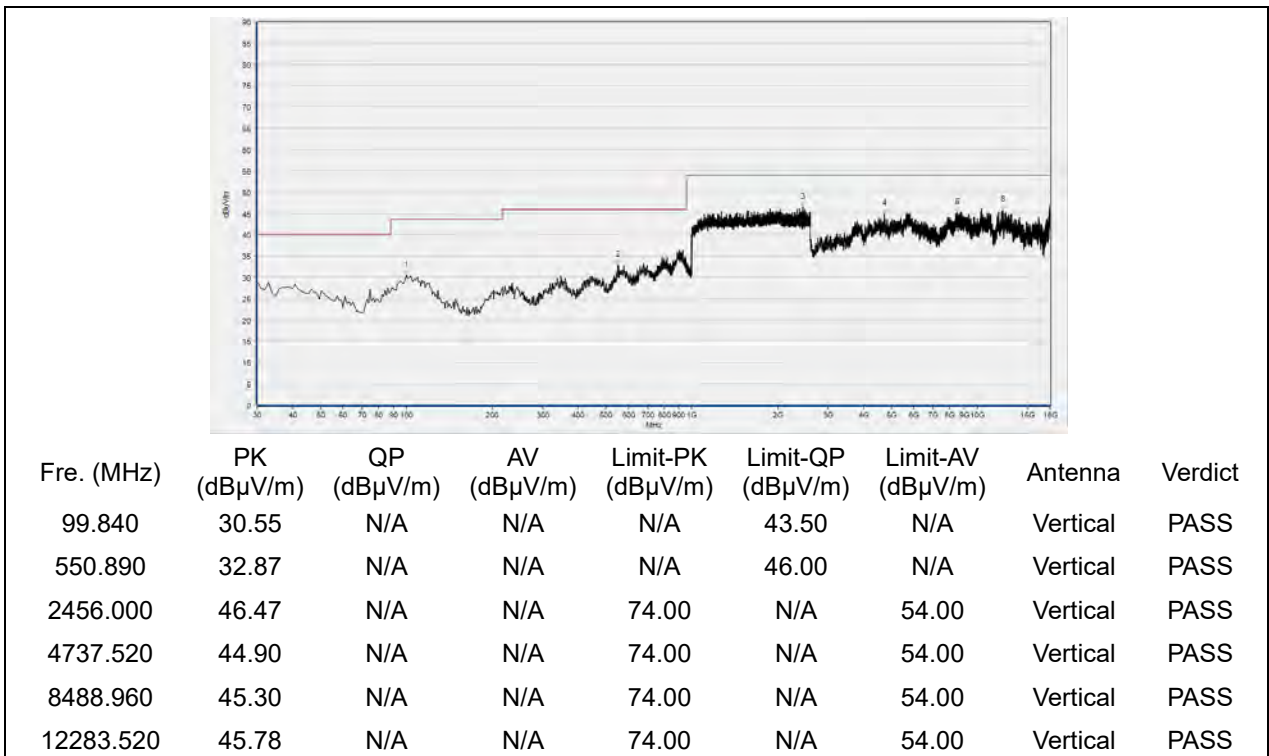


802.11ax (HEW20) RU52 Mode

Plot for Channel 1

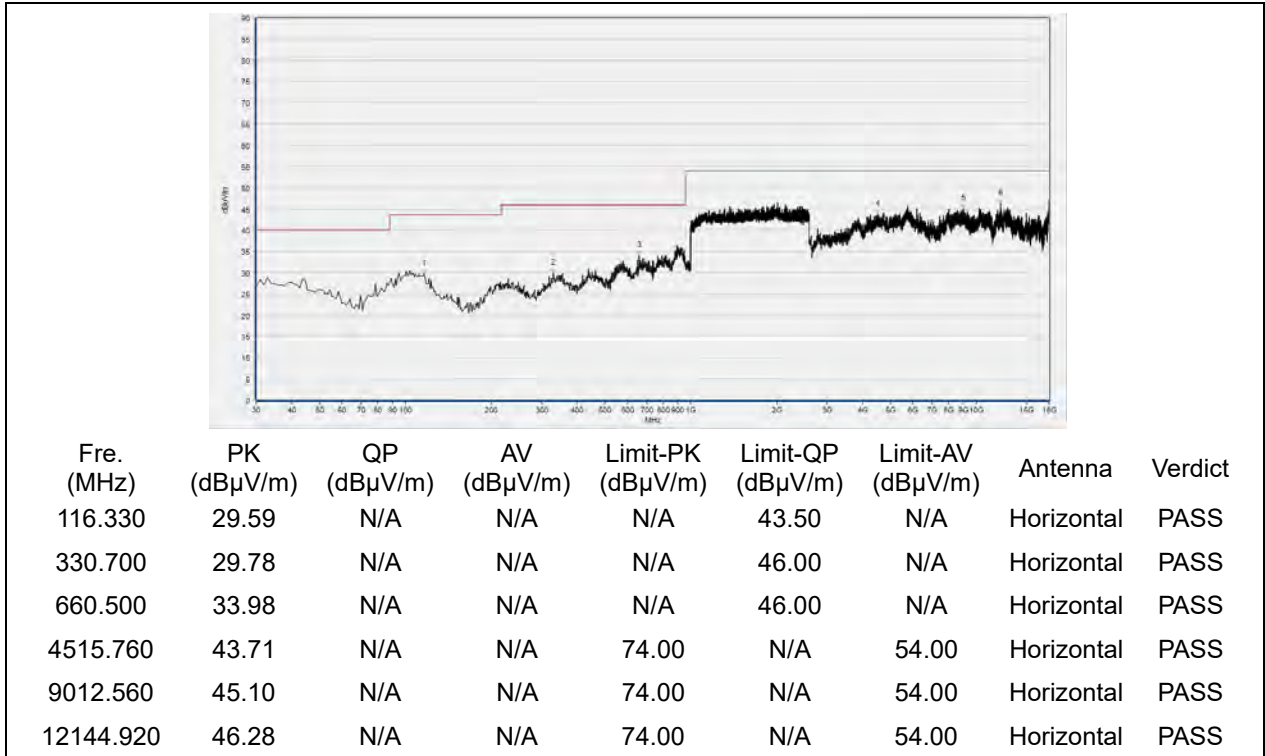


(Antenna Horizontal, 30MHz to 18GHz)

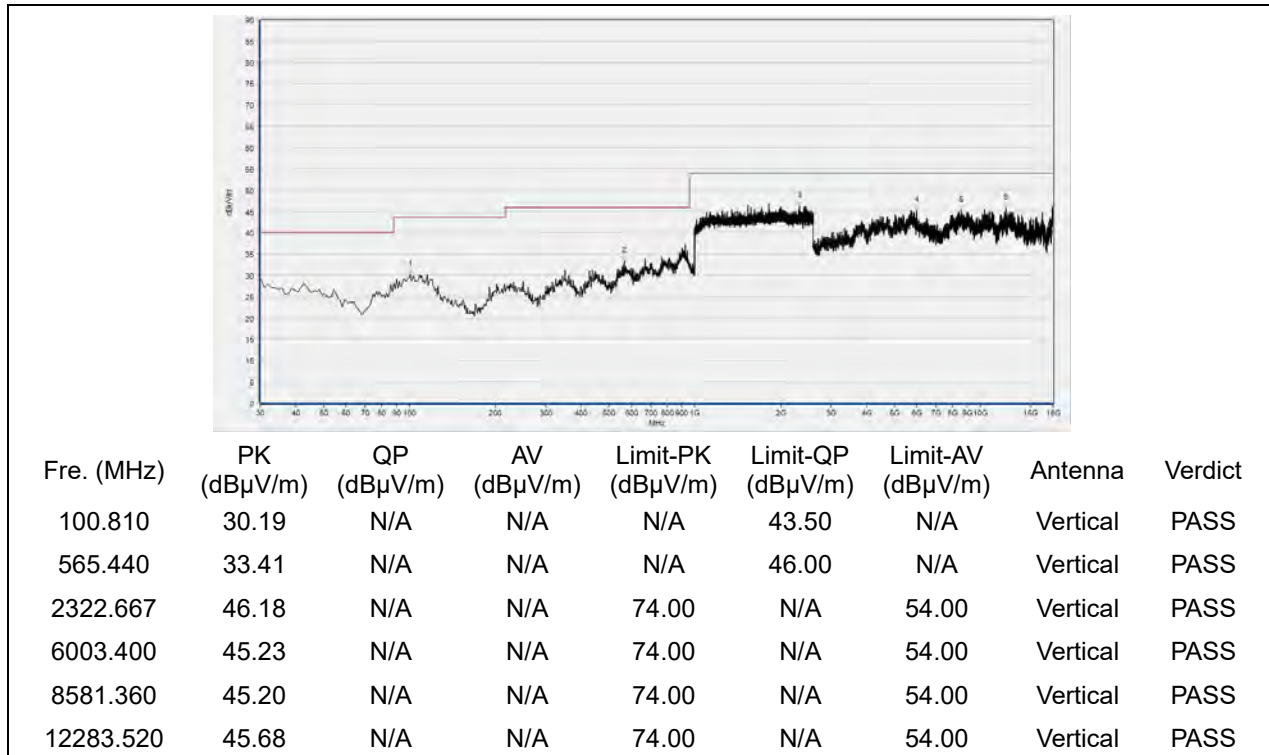


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7

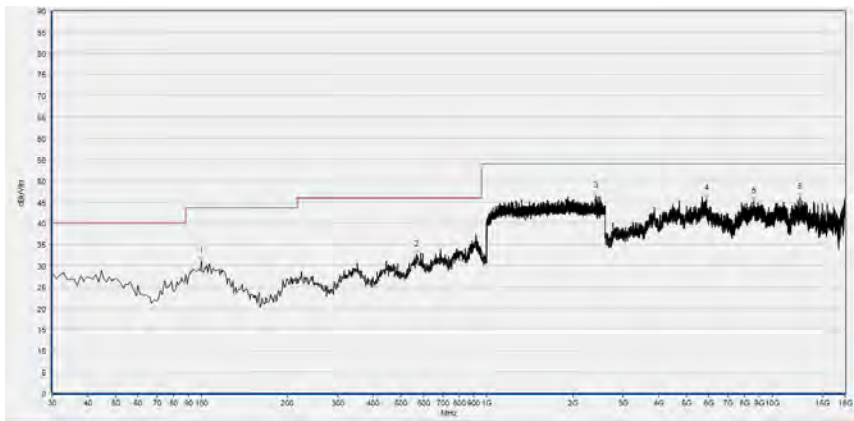


(Antenna Horizontal, 30MHz to 18GHz)



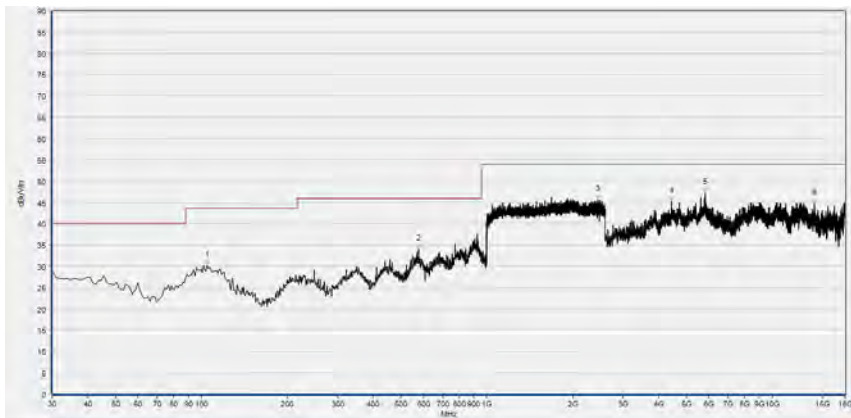
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 13



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
99.840	30.95	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
565.440	32.47	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2409.600	46.36	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5883.280	45.82	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8621.400	45.08	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12529.920	46.07	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



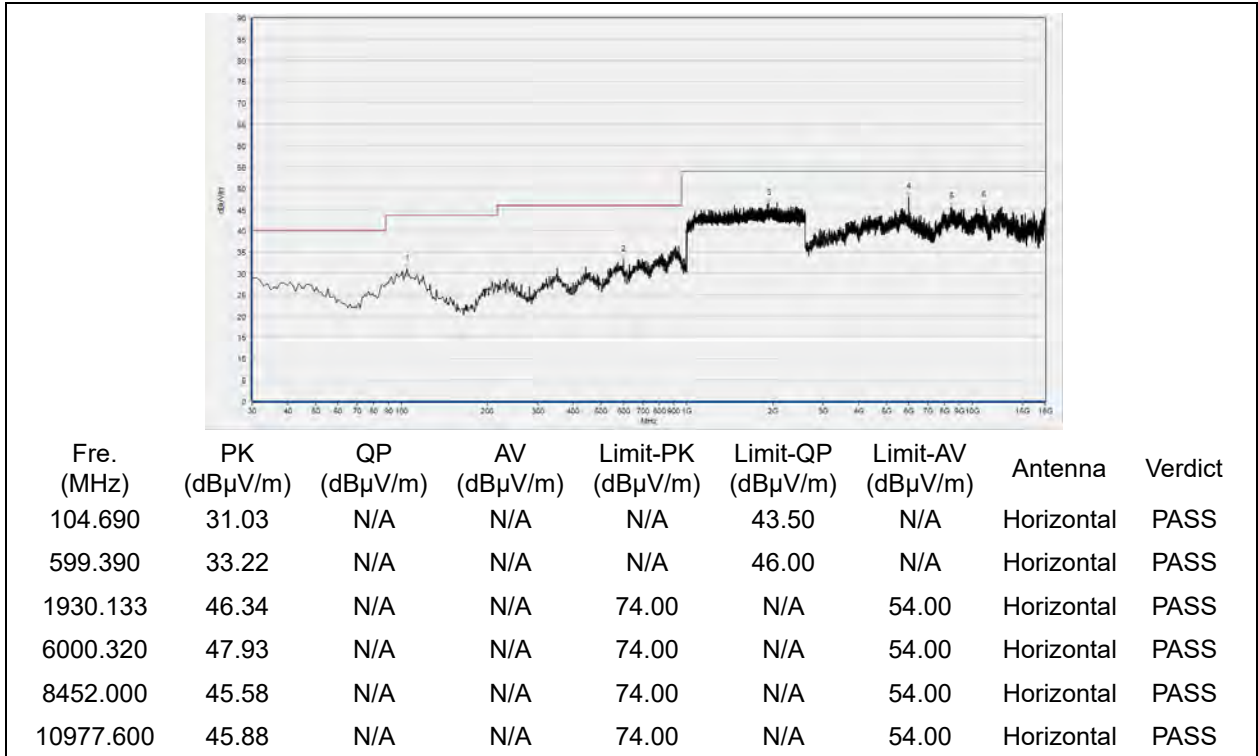
Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
104.690	30.15	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
577.080	34.04	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2453.867	45.59	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4426.440	45.21	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5834.000	47.26	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
14045.280	44.67	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

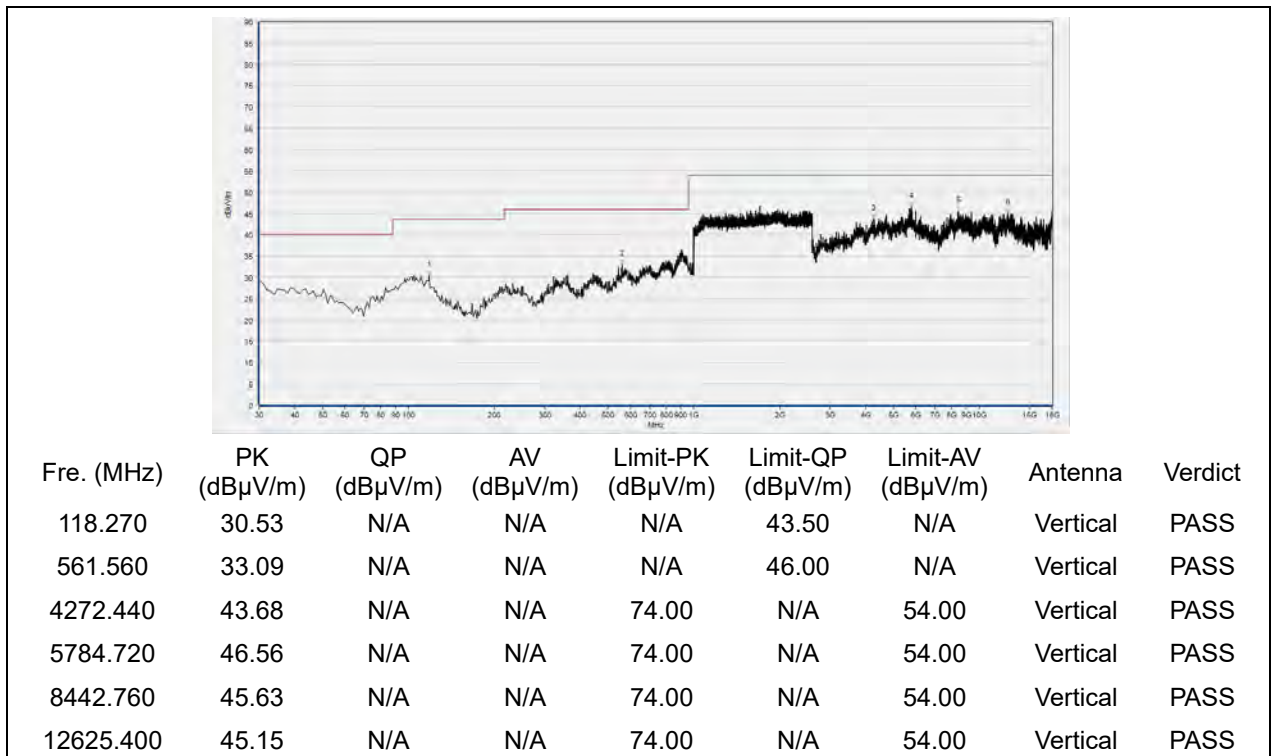


802.11ax (HEW20) RU106 Mode

Plot for Channel 1

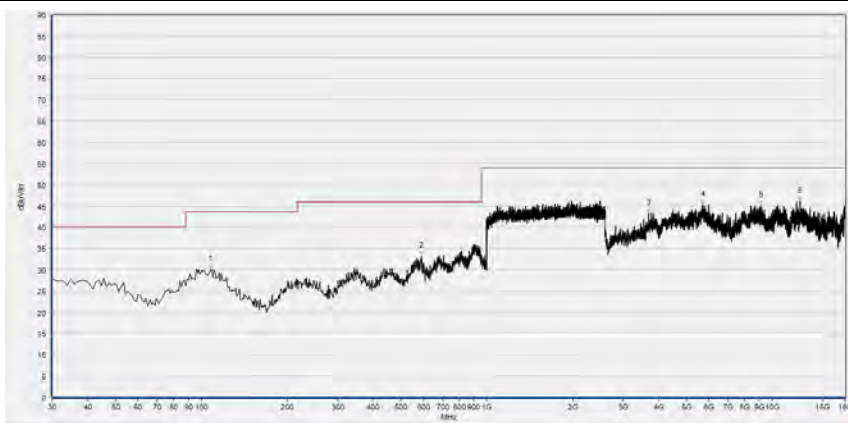


(Antenna Horizontal, 30MHz to 18GHz)



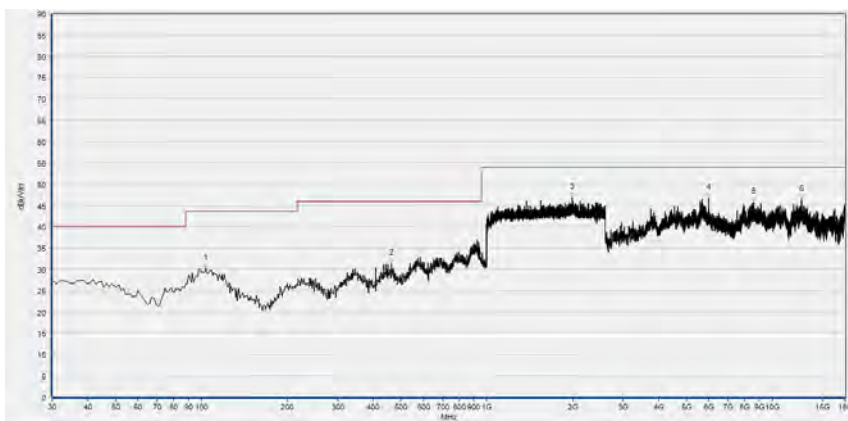
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
107.600	30.00	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
591.630	33.26	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
3690.320	43.21	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5713.880	45.33	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
9095.720	45.09	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12526.840	46.05	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

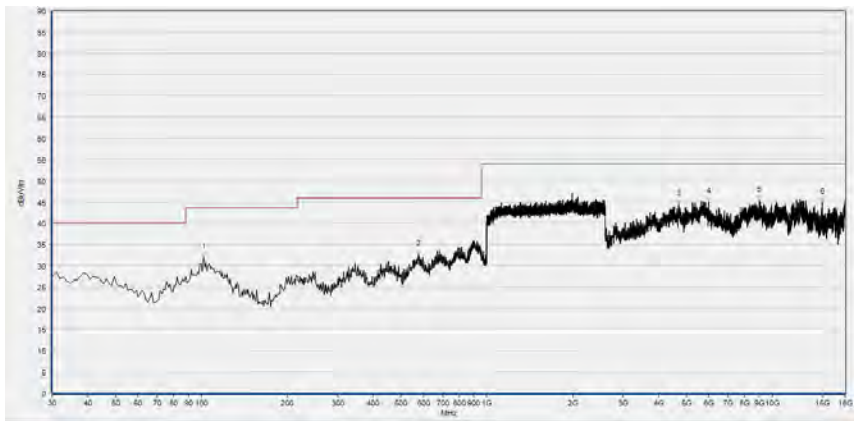
(Antenna Horizontal, 30MHz to 18GHz)



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
103.720	30.08	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
463.590	31.32	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1995.733	46.90	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6000.320	46.76	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8612.160	45.73	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12674.680	46.41	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

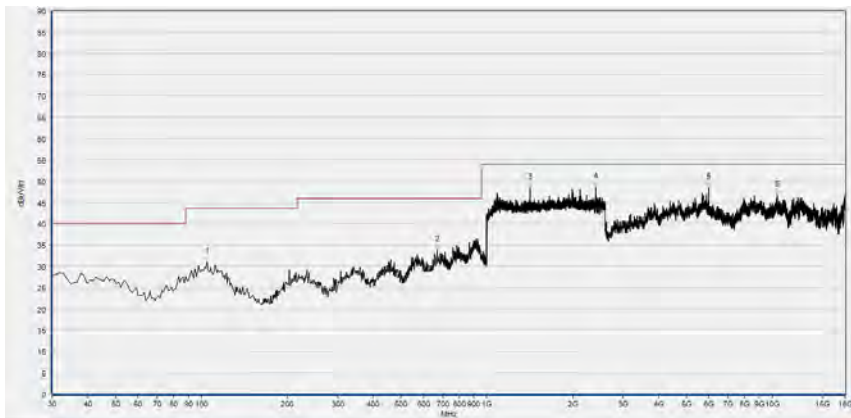
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 13



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
101.780	31.94	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
577.080	32.66	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
4712.880	44.36	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6000.320	45.04	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
9009.480	45.46	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
14984.680	44.87	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

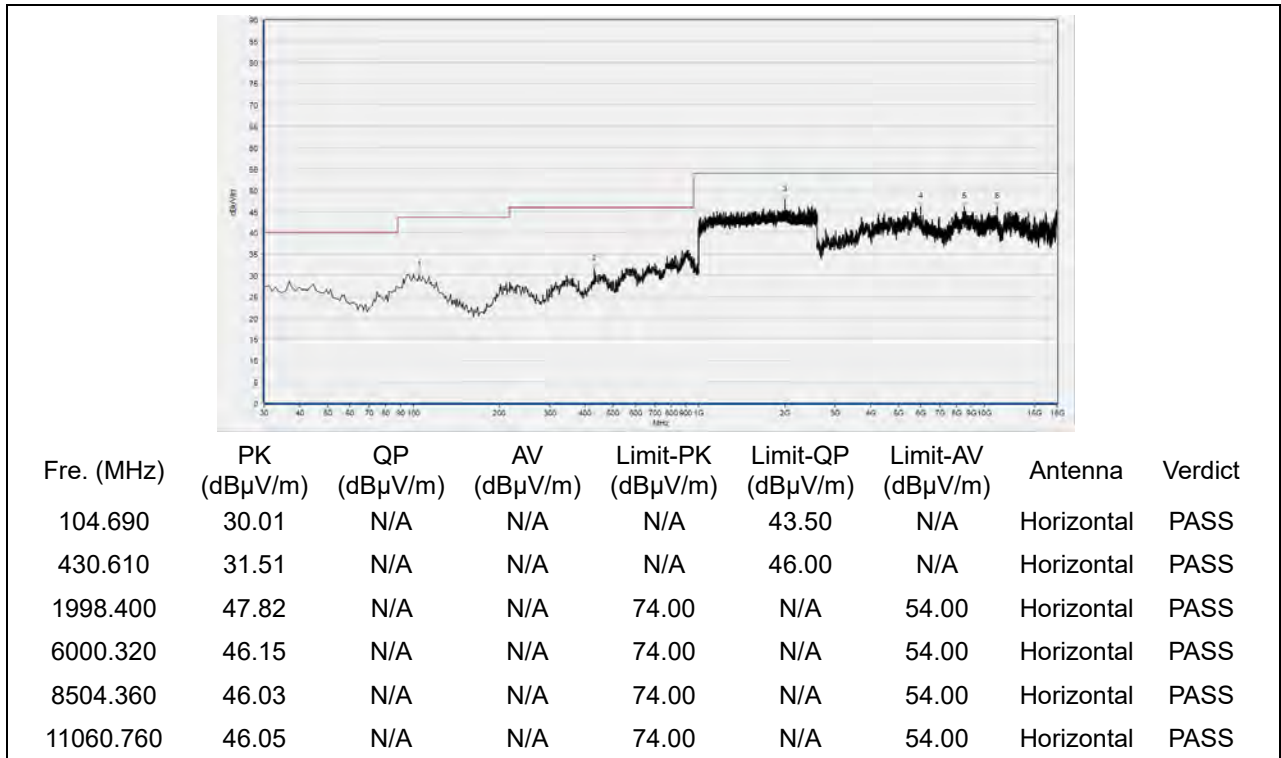


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
104.690	31.02	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
668.260	33.80	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1414.400	48.39	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
2411.733	48.63	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6000.320	48.42	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10423.200	46.78	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

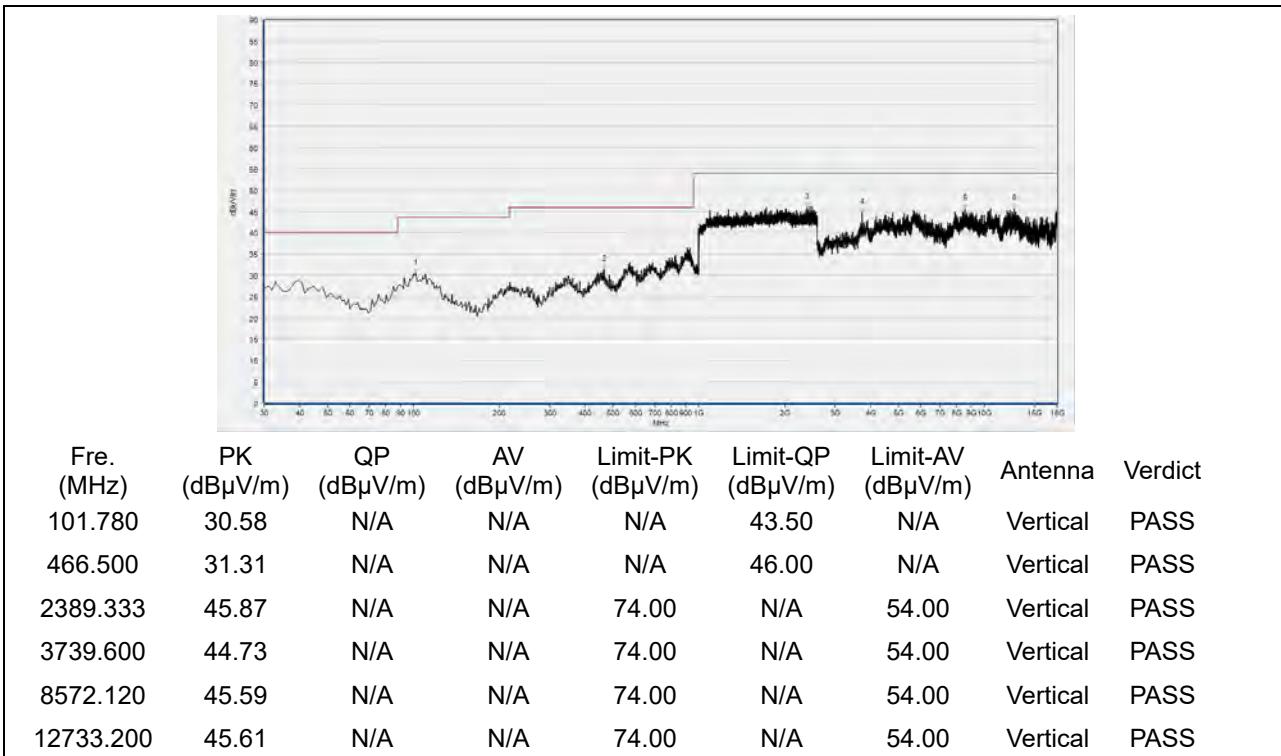
(Antenna Vertical, 30MHz to 18GHz)

802.11ax (HEW40) Mode

Plot for Channel 3

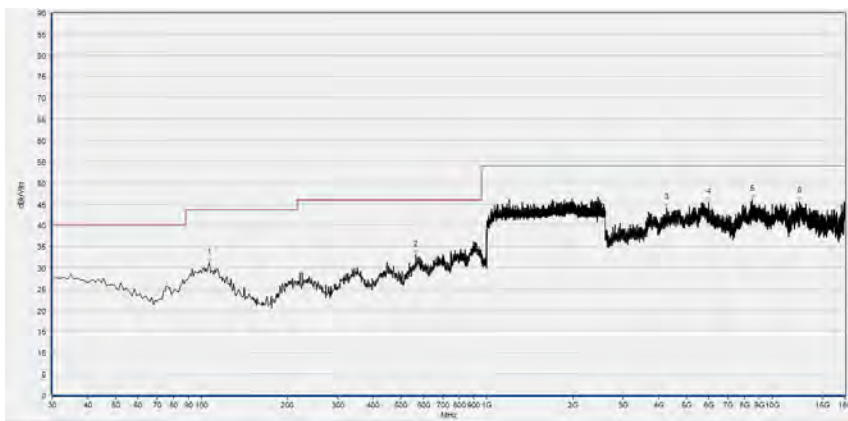


(Antenna Horizontal, 30MHz to 18GHz)



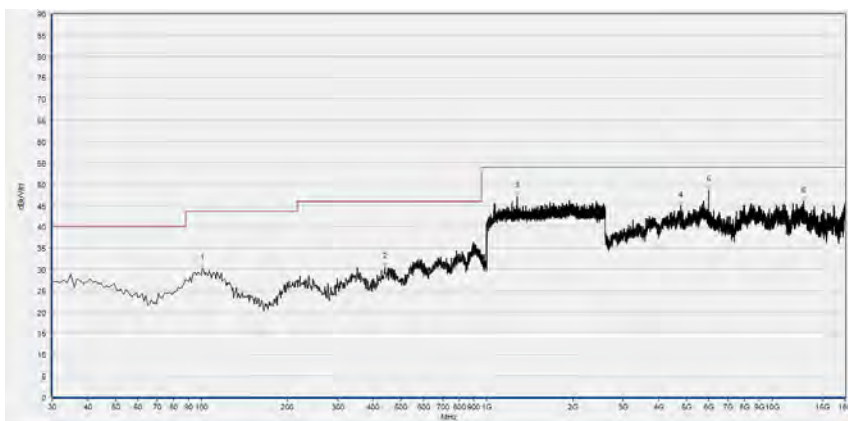
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 7



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
106.630	31.25	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
563.500	32.96	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
4250.880	44.06	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
6000.320	45.39	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8529.000	46.10	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12471.400	45.53	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

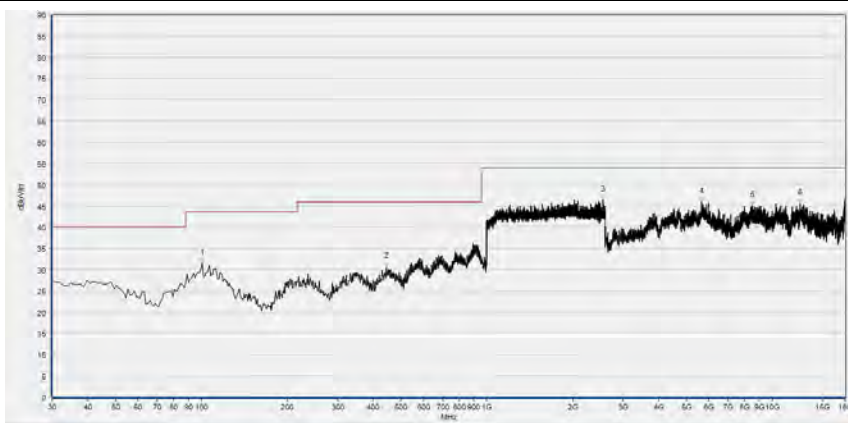
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
100.810	30.12	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
439.340	30.47	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1276.267	47.11	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4771.400	44.97	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6000.320	48.60	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12896.440	45.88	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

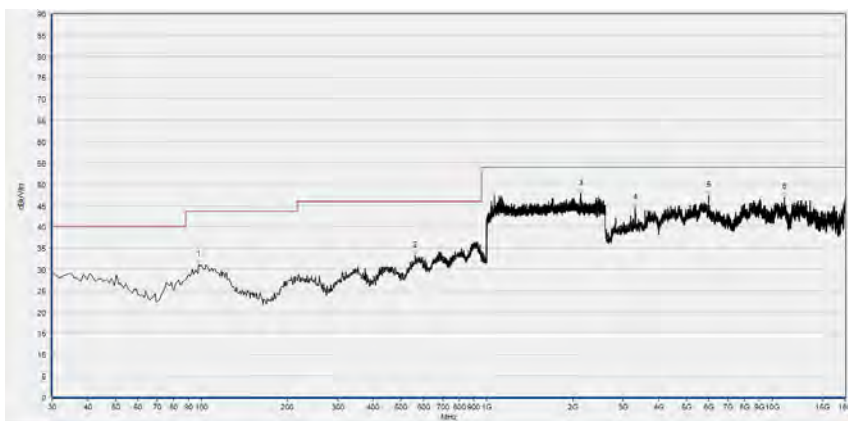
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 11



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
100.810	31.47	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
444.190	30.64	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2545.067	46.45	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5658.440	45.85	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8525.920	45.12	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12499.120	45.56	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
97.900	31.00	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
561.560	33.26	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2131.200	47.74	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
3311.480	44.47	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
6000.320	47.22	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11011.480	46.95	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)



Annex A Test Uncertainty

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

Test Items	Uncertainty
Peak Output Power	$\pm 2.22\text{dB}$
Power Spectral Density	$\pm 2.22\text{dB}$
Bandwidth	$\pm 5\%$
Conducted Spurious Emission	$\pm 2.77\text{dB}$
Restricted Frequency Bands	$\pm 5\%$
Radiated Emission	$\pm 2.95\text{dB}$
Conducted Emission	$\pm 2.44\text{dB}$

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



Annex B Testing Laboratory Information

1. Identification of the Responsible Testing Laboratory

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

2. Identification of the Responsible Testing Location

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

3. Facilities and Accreditations

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



4. Test Equipments Utilized

4.1 Conducted Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Attenuator 1	(N/A.)	10dB	Resent	N/A	N/A
EXA Signal Analyzer	MY53470836	N9010A	Agilent	2022.03.01	2023.02.28
USB Wideband Power Sensor	MY54180008	U2021XA	Agilent	2021.10.21	2022.10.20
				2022.10.11	2023.10.10
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
Computer	T430i	Think Pad	Lenovo	N/A	N/A

4.2 Conducted Emission Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY56400093	N9038A	KEYSIGHT	2022.03.03	2023.03.02
LISN	812744	NSLK 8127	Schwarzbeck	2022.03.03	2023.03.02
Pulse Limiter (10dB)	VTSD 9561 F-B #206	VTSD 9561-F	Schwarzbeck	2022.07.06	2023.07.05
Coaxial cable(BNC) (30MHz-26GHz)	CB01	EMC01	Morlab	N/A	N/A

4.3 List of Software Used

Description	Manufacturer	Software Version
Test System	Townsend	V2.5.77.0418
MORLAB EMCR V1.2	MORLAB	V1.0
TS+ -[JS32-CE]	Tonscend	V2.5.0.0

**4.4 Radiated Test Equipments**

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY54130016	N9038A	Agilent	2022.07.06	2023.07.05
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2022.05.25	2025.05.24
Test Antenna - Loop	1519-022	FMZB1519	Schwarzbeck	2022.02.11	2025.02.10
Test Antenna – Horn	01774	BBHA 9120D	Schwarzbeck	2022.07.13	2025.07.12
Test Antenna – Horn	BBHA9170#773	BBHA 9170	Schwarzbeck	2022.07.14	2025.07.13
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	2022.07.08	2023.07.07
18-26.5GHz pre-Amplifier	46732	S10M100L3802	Tonscend	2022.07.08	2023.07.07
26-40GHz pre-Amplifier	56774	S40M400L4002	Tonscend	2022.07.08	2023.07.07
Notch Filter	N/A	WRCG-2400-2483.5-60SS	Wainwright	2022.07.08	2023.07.07
Anechoic Chamber	N/A	9m*6m*6m	CRT	2020.01.06	2023.01.05

————— END OF REPORT —————