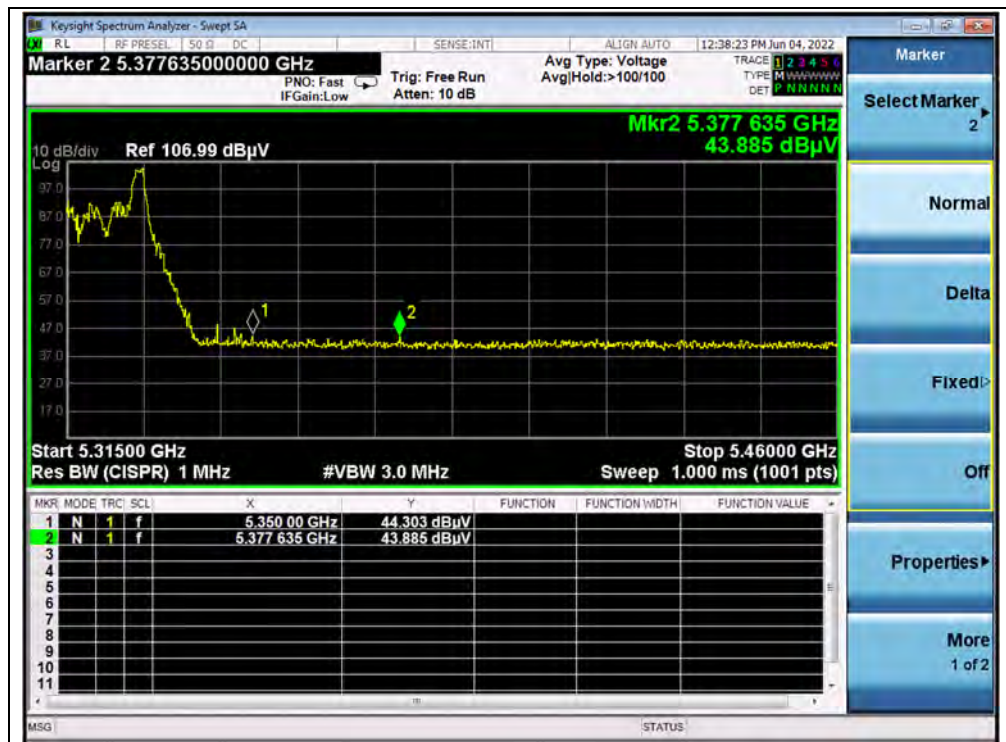
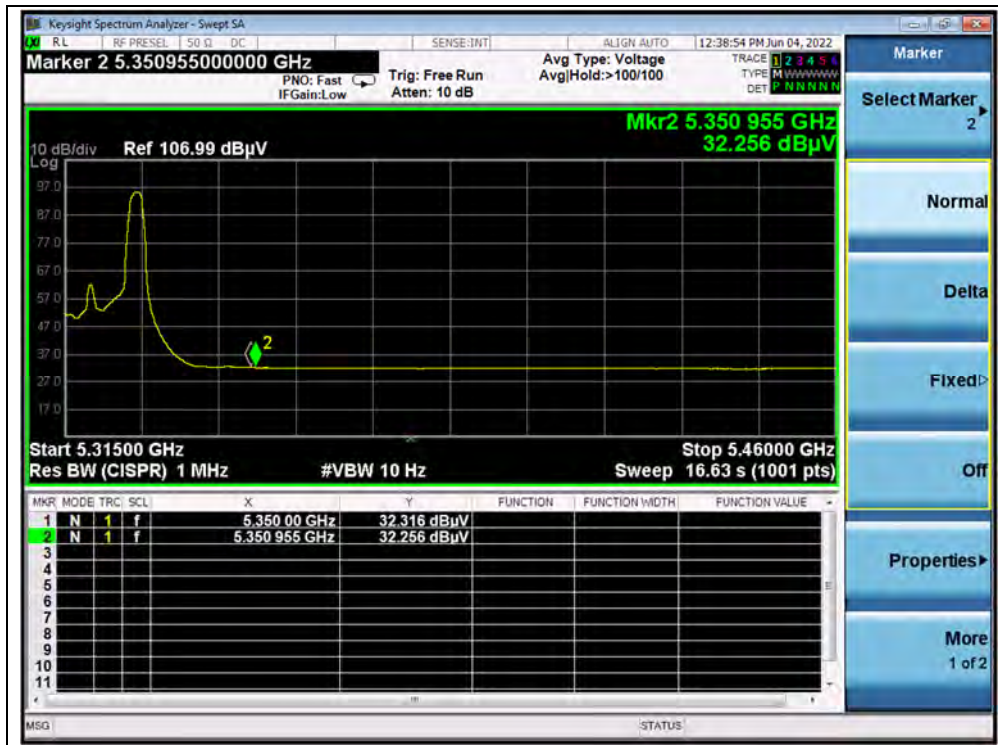


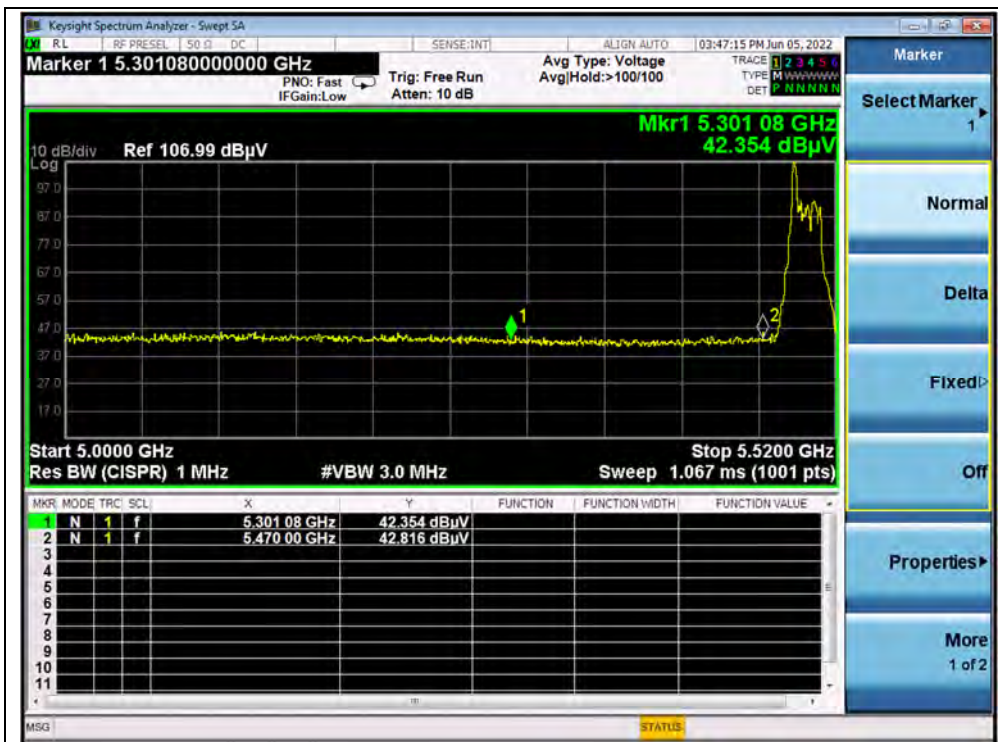
(AVERAGE, Channel 36, 802.11ax (HEW20) RU26)



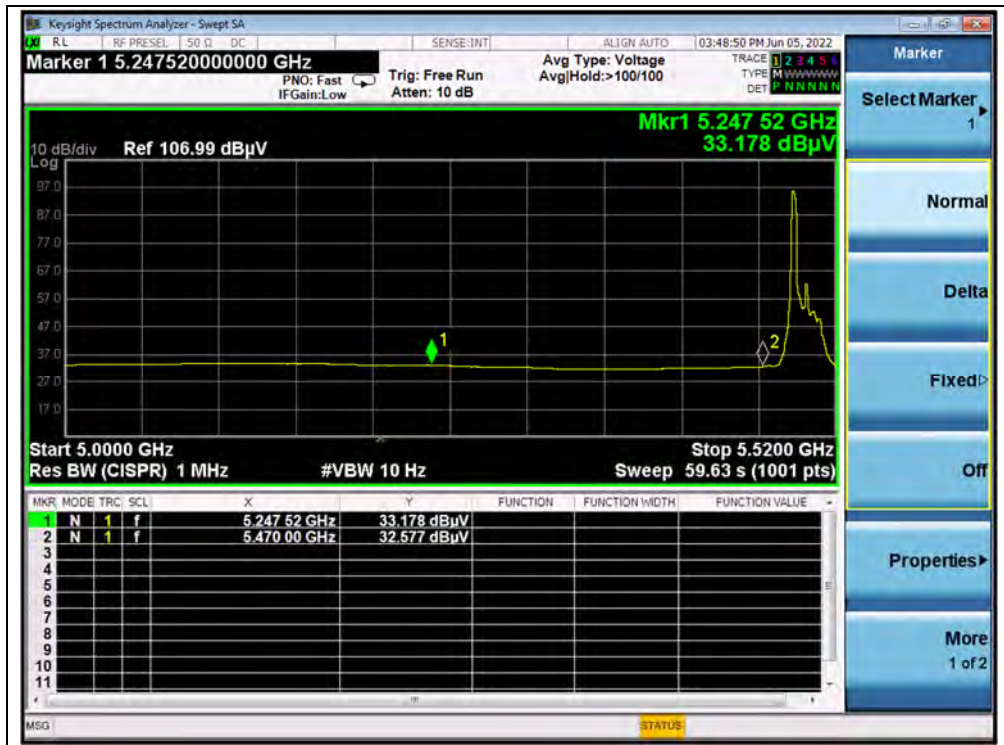
(PEAK, Channel 64, 802.11ax (HEW20) RU26)



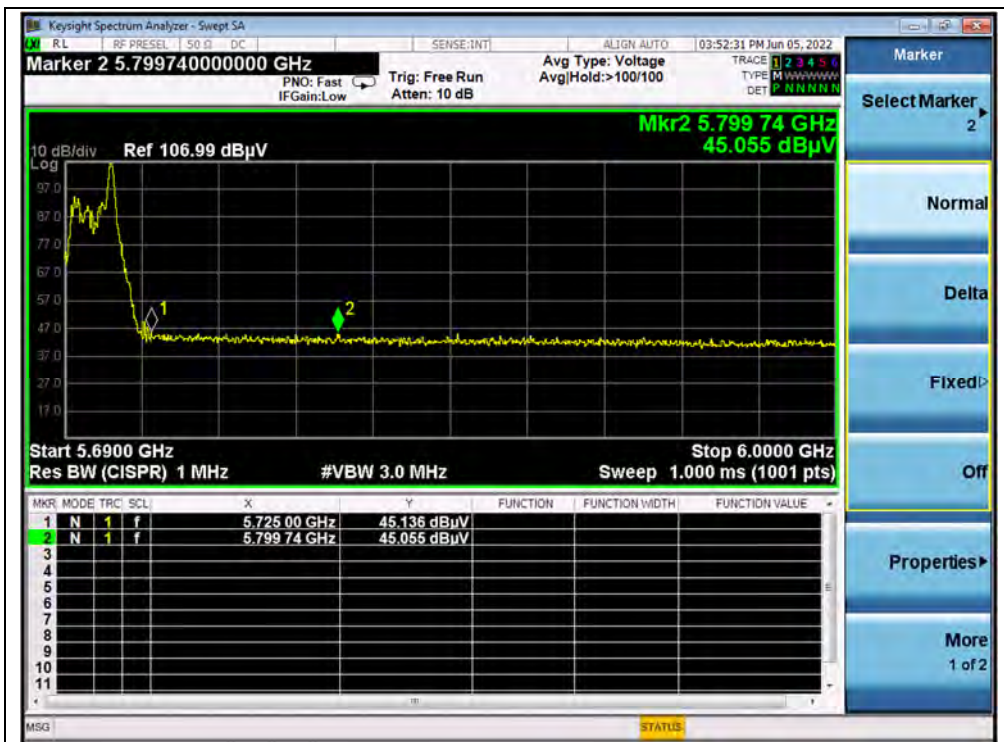
(AVERAGE, Channel 64, 802.11ax (HEW20) RU26)



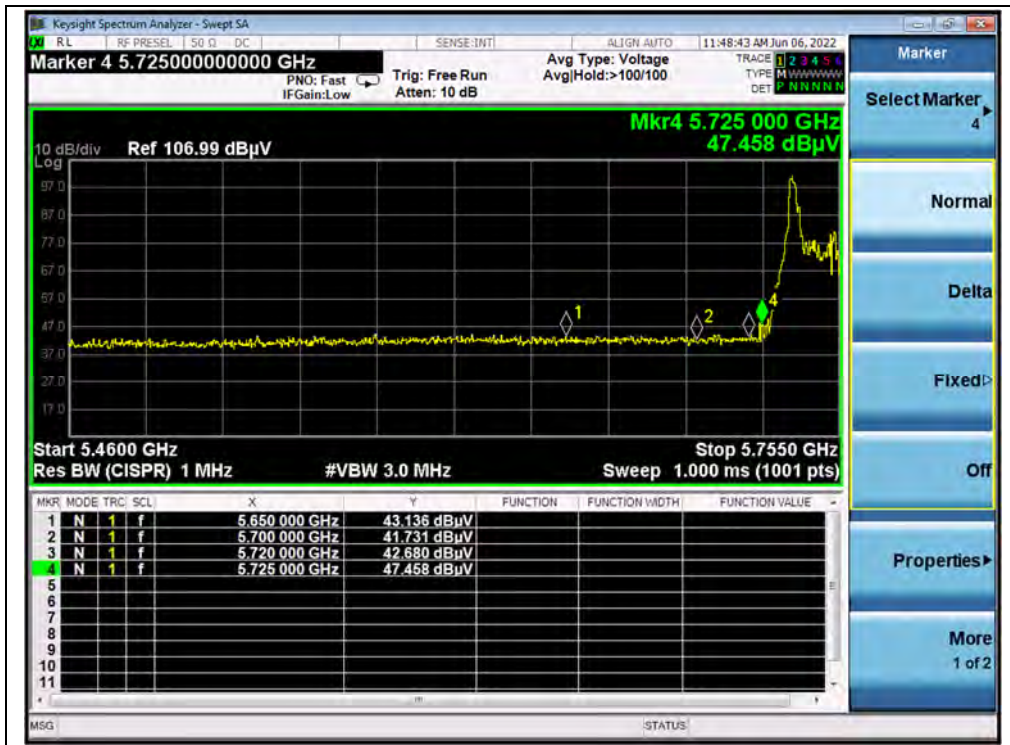
(PEAK, Channel100, 802.11ax (HEW20) RU26)



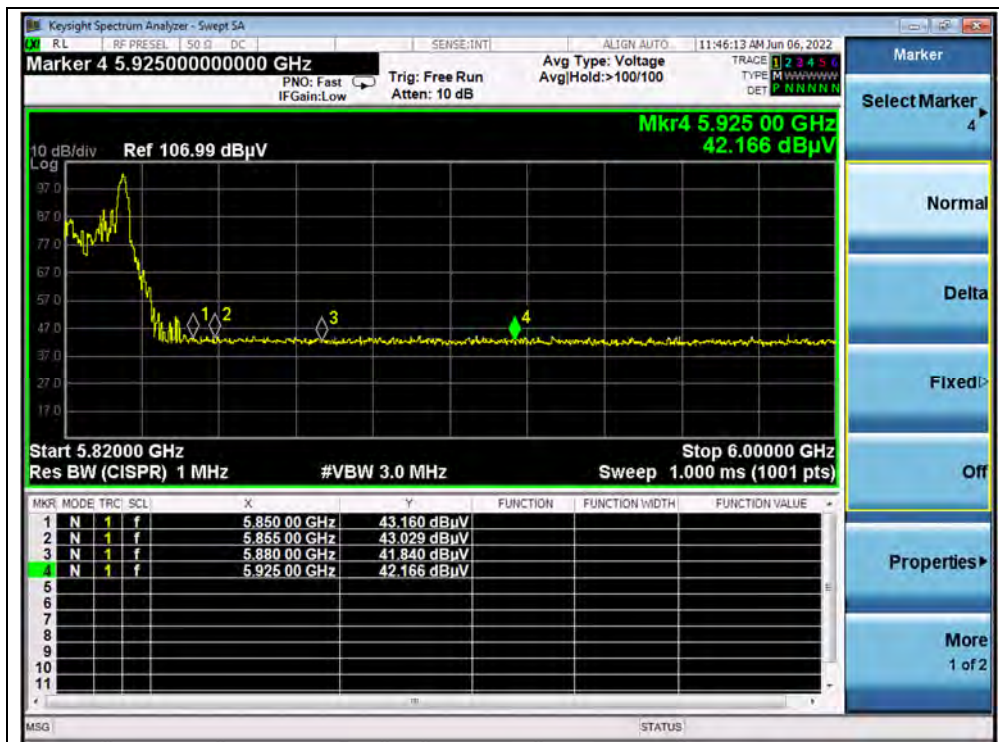
(AVERAGE, Channel 100, 802.11ax (HEW20) RU26)



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



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



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



## 2.9. Radiated Emission

### 2.9.1. Requirement

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

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

The following formula is used to convert the equipment isotropic radiated power(e.i.r.p.) to field strength (dBμV/m);

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

where P is the EIRP in Watts

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

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

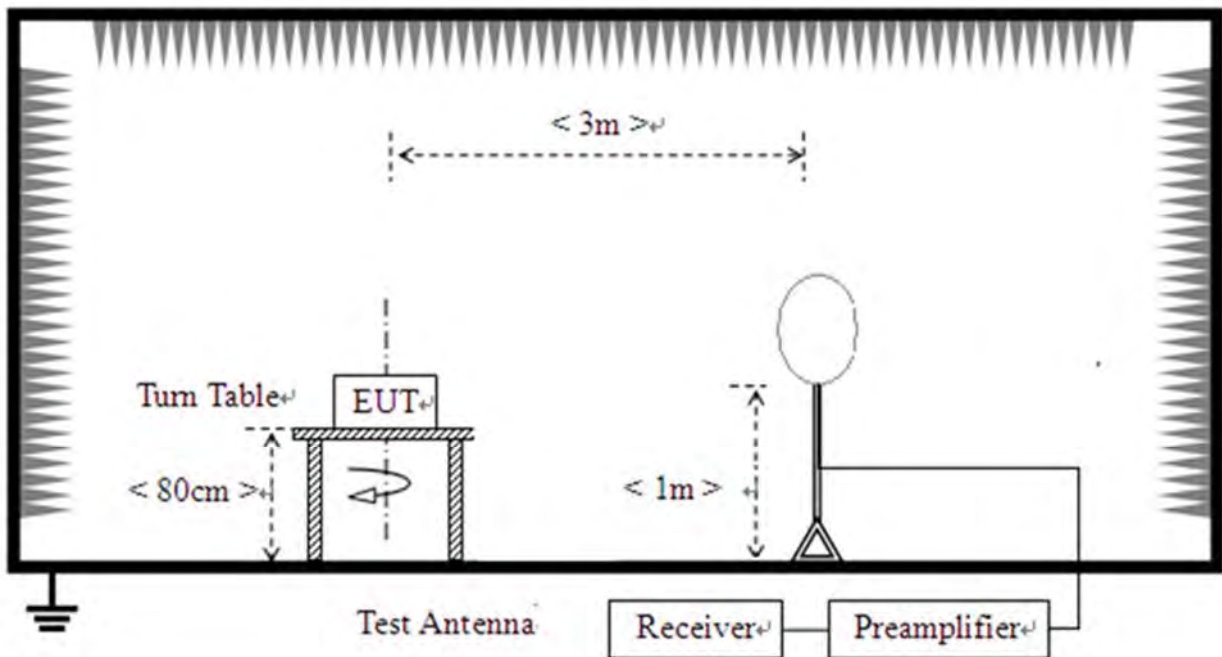
Frequency (MHz)	Field Strength (μV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

For Above 1000MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20dB above the maximum permitted average limit. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), also should comply with the radiated emission limits specified in Section 15.209(a)(above table).

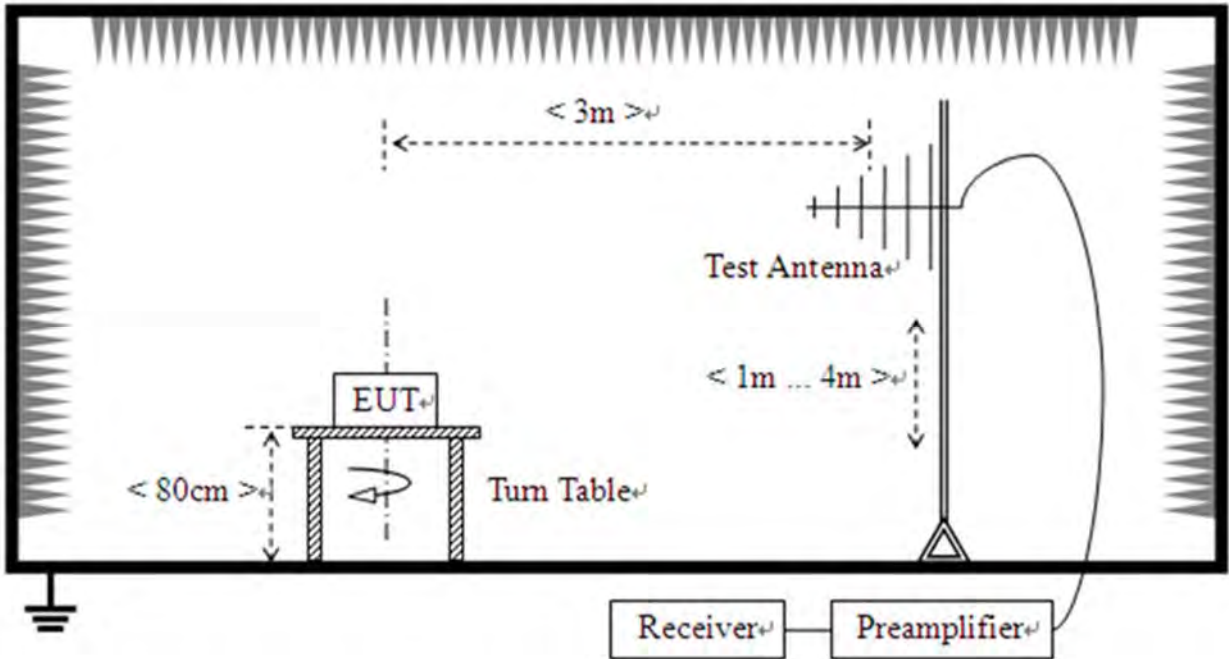
### 2.9.2. Test Description

#### Test Setup:

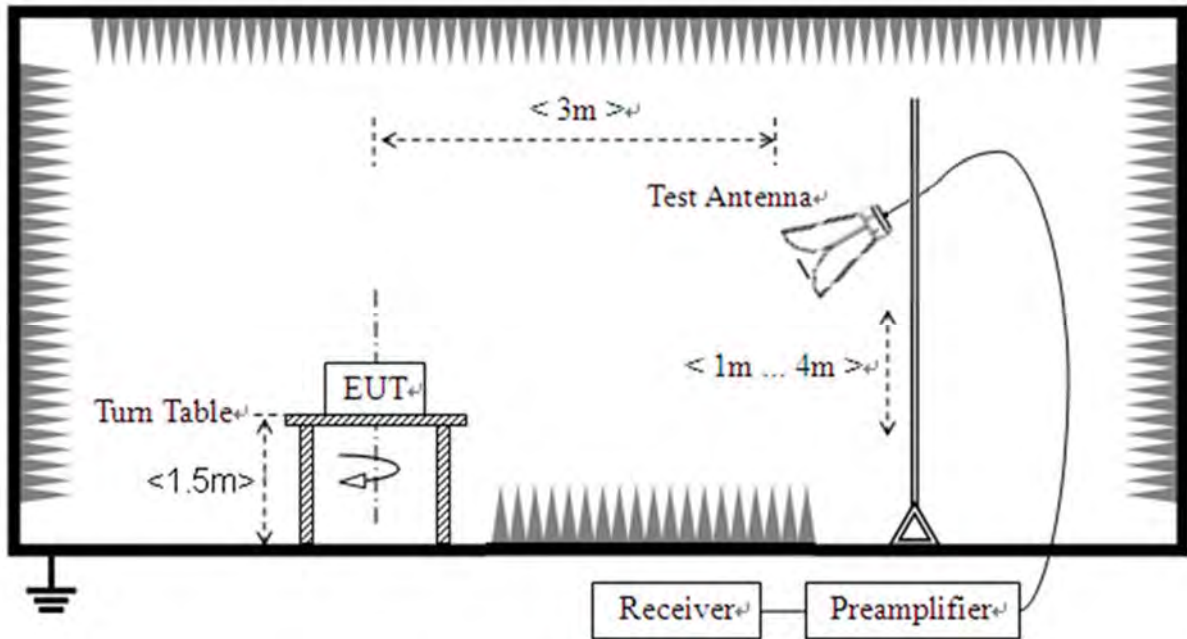
- 1) For radiated emissions from 9kHz to 30MHz



2) For radiated emissions from 30MHz to1GHz



3) For radiated emissions above 1GHz



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



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

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

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

The 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. For measurements above 1 GHz, keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response.

### 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:

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

$A_T$ : 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.

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

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

**Note 3:** For the frequency, which started from 18GHz to 10th harmonic of the highest frequency, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

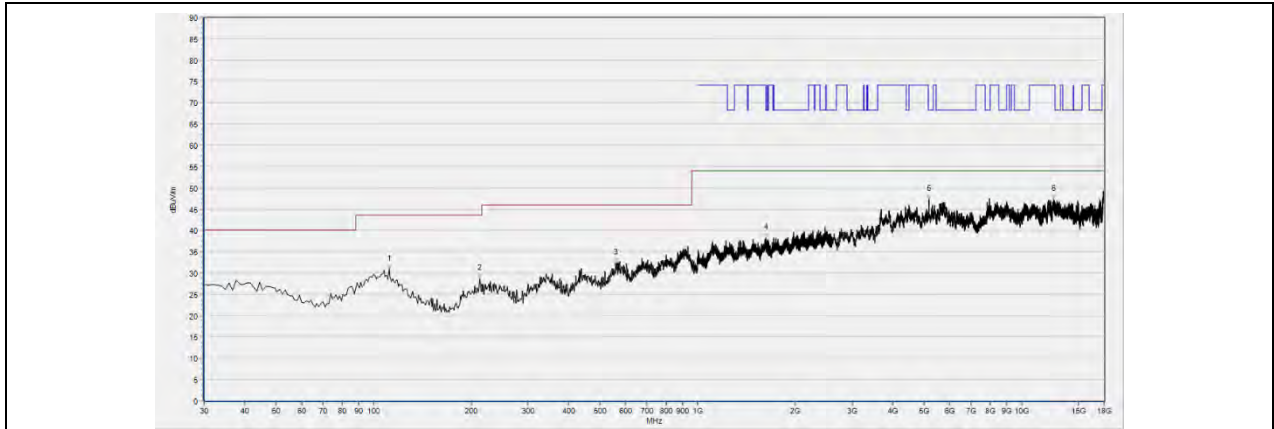
**Note 4:** All test modes and bandwidth were considered and evaluated respectively by performing full test, only the worst data were recorded for each bandwidth.





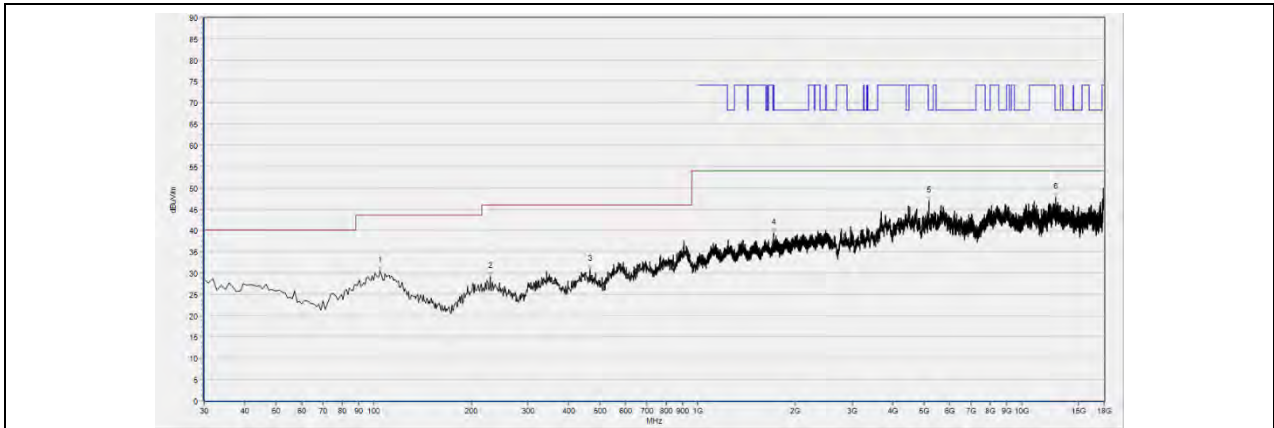
**802.11a Mode**

**Plot for Channel 36**



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
111.562	30.86	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
212.543	28.58	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
559.179	32.43	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1627.409	38.28	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5184.637	47.26	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12538.068	47.23	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

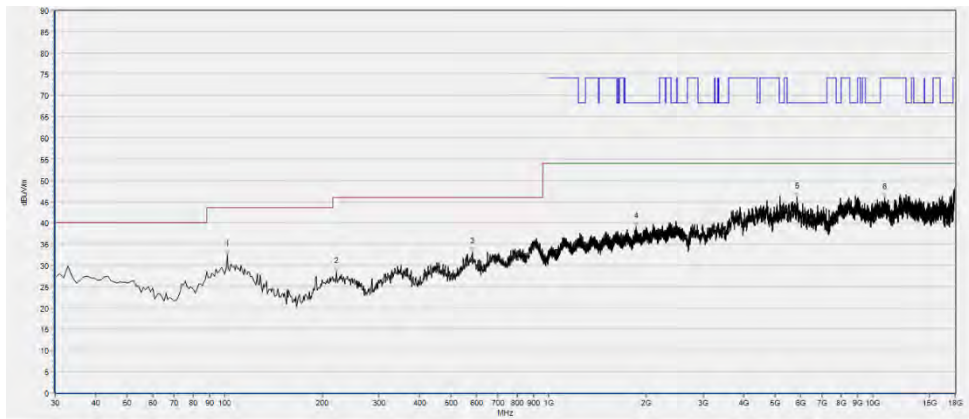
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
104.765	30.50	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
229.049	29.14	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
464.995	30.91	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1715.438	39.37	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5184.637	46.91	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12738.308	47.72	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

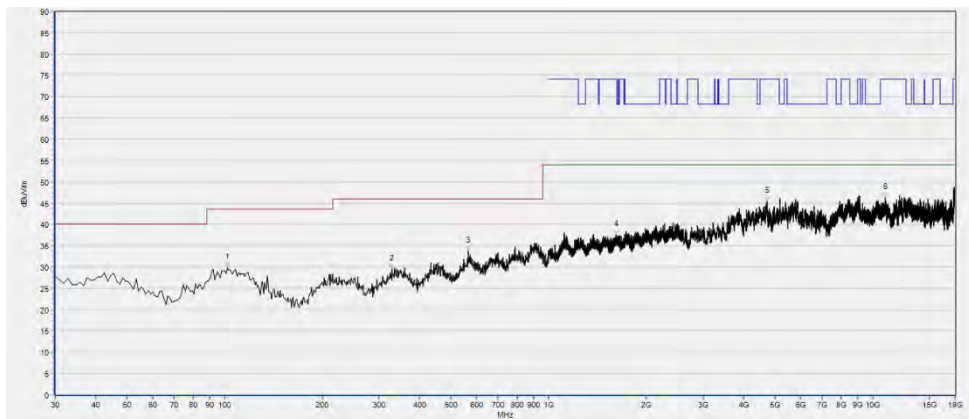
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 44



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
101.852	32.59	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
221.281	28.43	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
583.453	33.24	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1863.755	39.12	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5843.889	46.05	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
10899.180	45.91	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

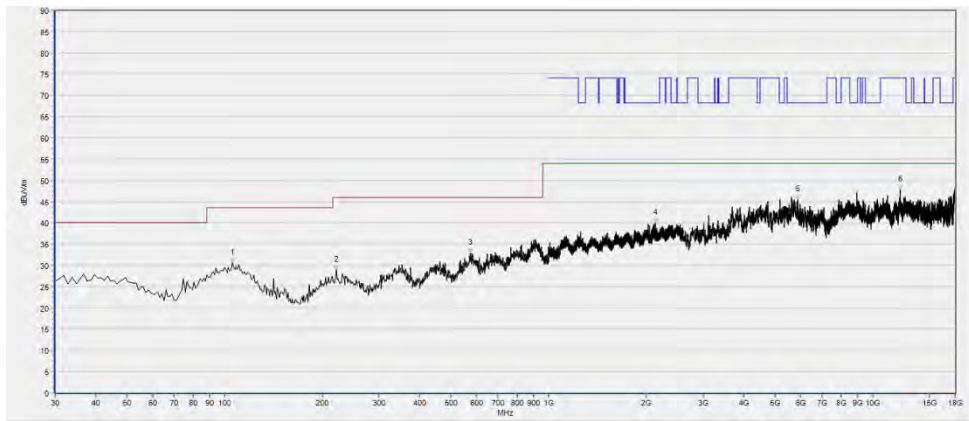
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
101.852	29.80	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
329.059	29.52	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
565.976	33.64	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1619.406	37.59	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4731.786	45.36	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
10939.228	46.29	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

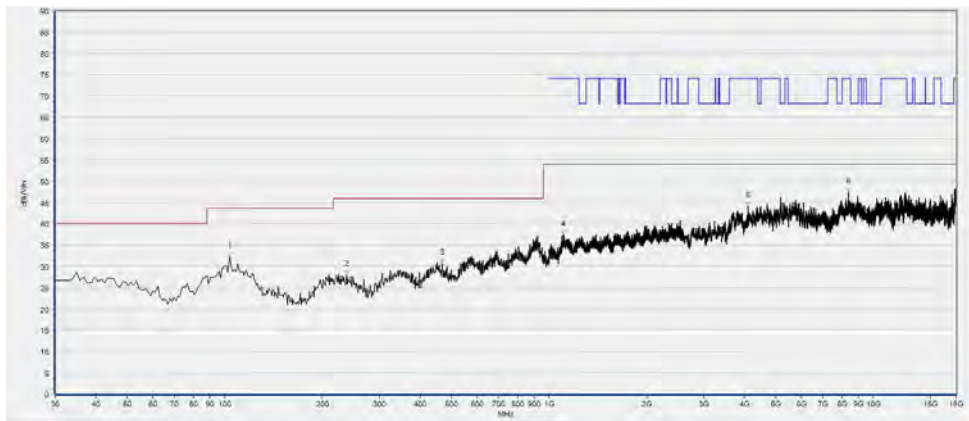
(Antenna Vertical, 30MHz to 18GHz)

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
105.736	30.45	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
221.281	28.90	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
573.744	32.90	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2138.513	39.85	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5871.614	45.41	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12177.636	47.82	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

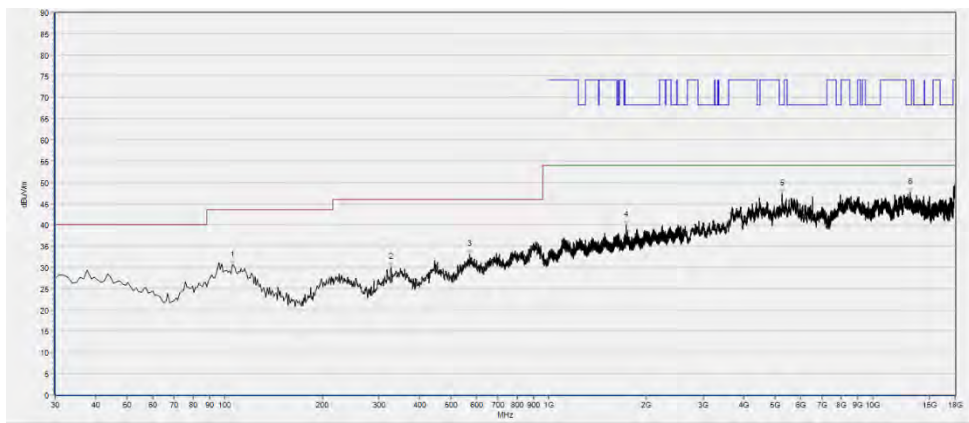
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
103.794	32.10	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
237.788	27.98	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
468.879	30.70	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
1109.370	37.31	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4115.663	44.01	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
8382.316	47.48	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

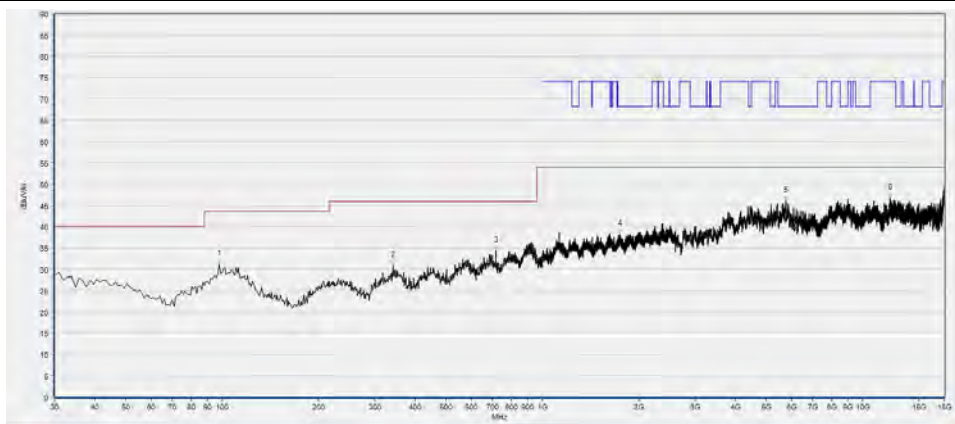
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 52



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
105.736	30.47	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
327.117	29.96	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
571.802	33.03	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1737.312	39.85	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5261.652	47.29	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
13074.095	47.53	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

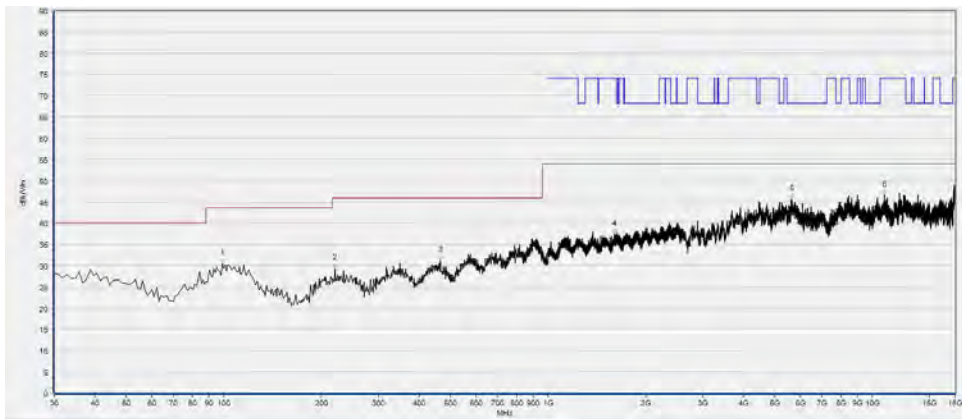
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
97.968	31.14	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
341.682	30.79	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
716.476	34.28	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1742.114	38.15	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5754.551	46.08	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12211.522	46.74	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

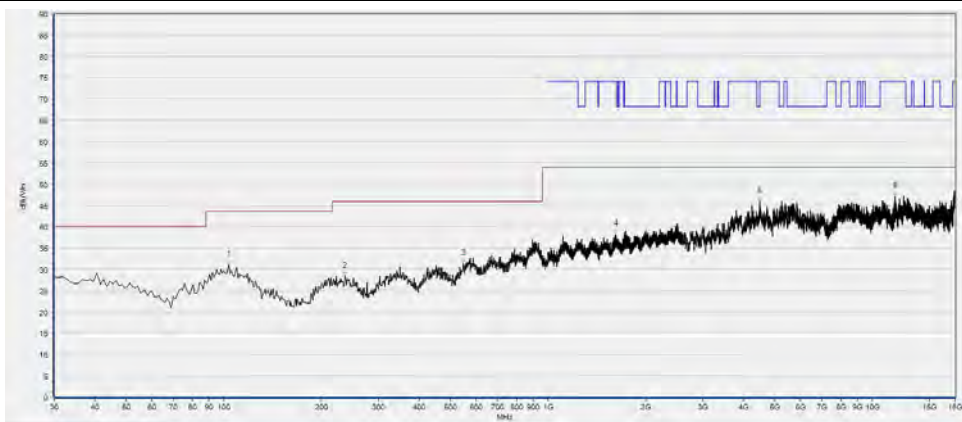
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 60



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
98.939	30.54	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
220.310	29.26	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
465.966	31.14	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1601.801	37.45	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5649.810	45.63	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
10905.341	46.56	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

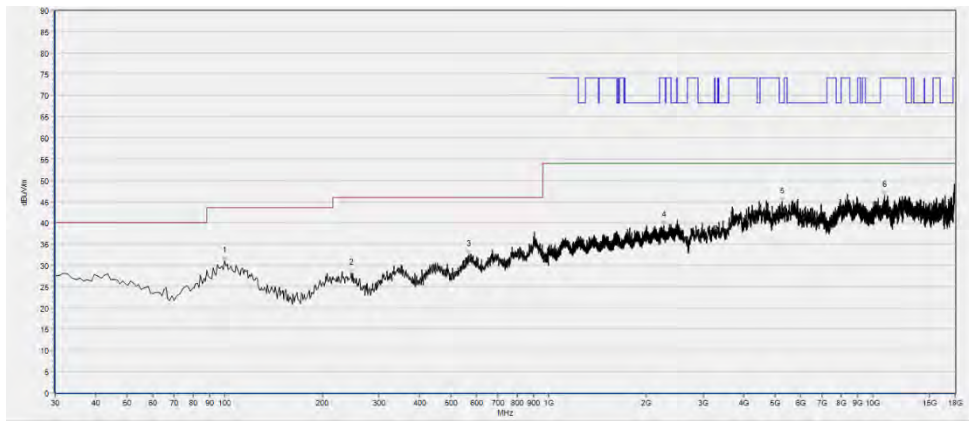
(Antenna Horizontal, 30MHz to 18GHz)



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
103.794	30.93	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
236.817	28.37	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
547.528	31.42	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1615.138	38.26	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4500.740	45.94	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11758.672	47.07	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

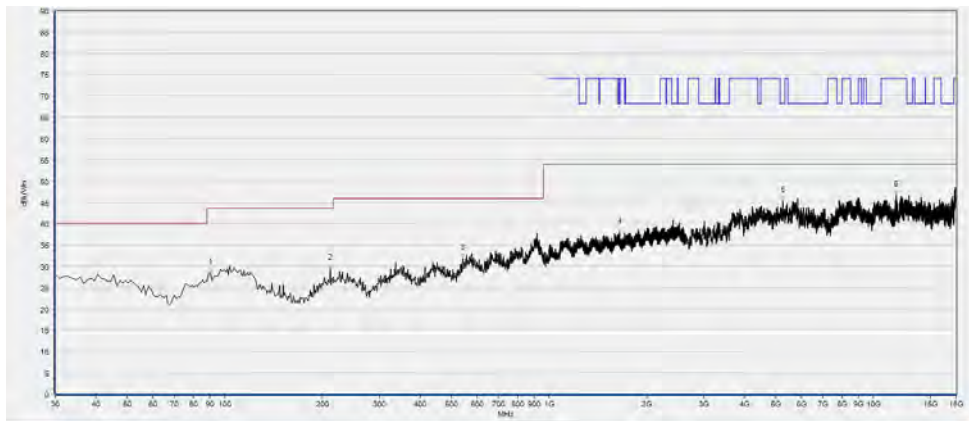
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 64



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
99.910	30.95	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
246.527	28.17	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
568.889	32.53	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2273.491	39.37	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5267.814	44.97	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
10893.019	46.47	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

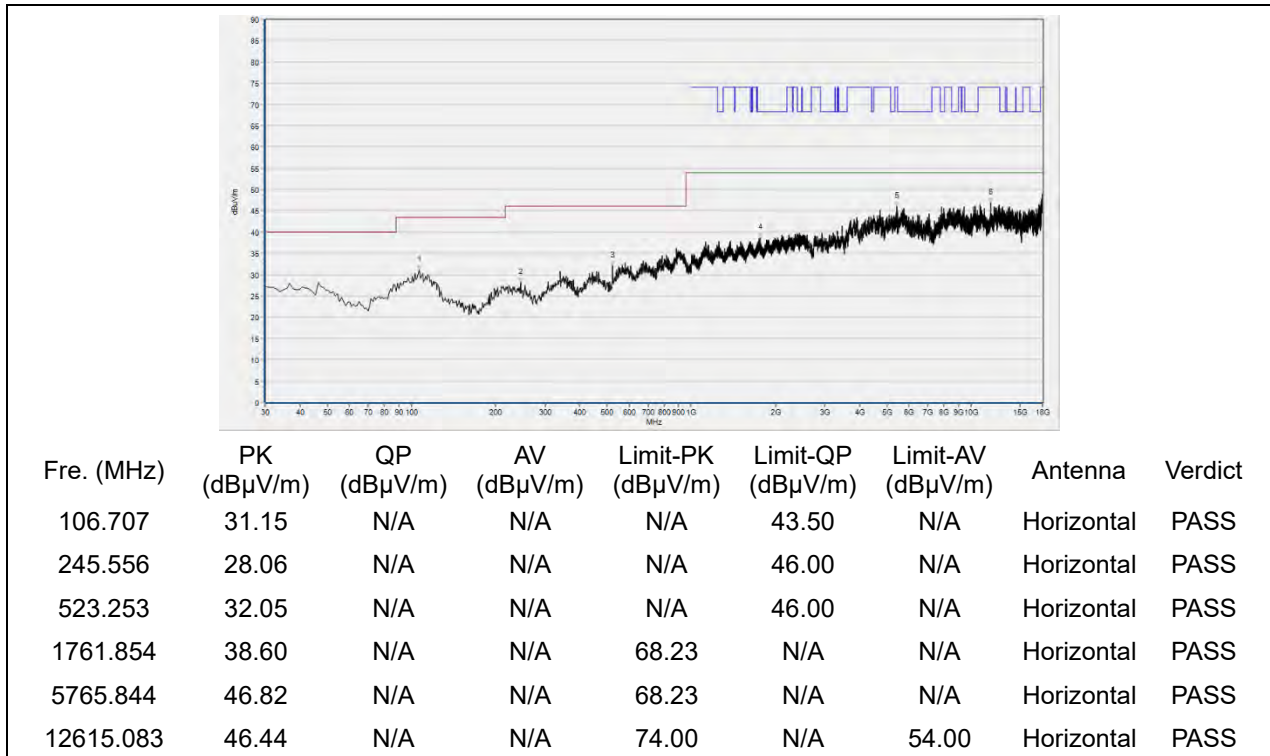
(Antenna Horizontal, 30MHz to 18GHz)



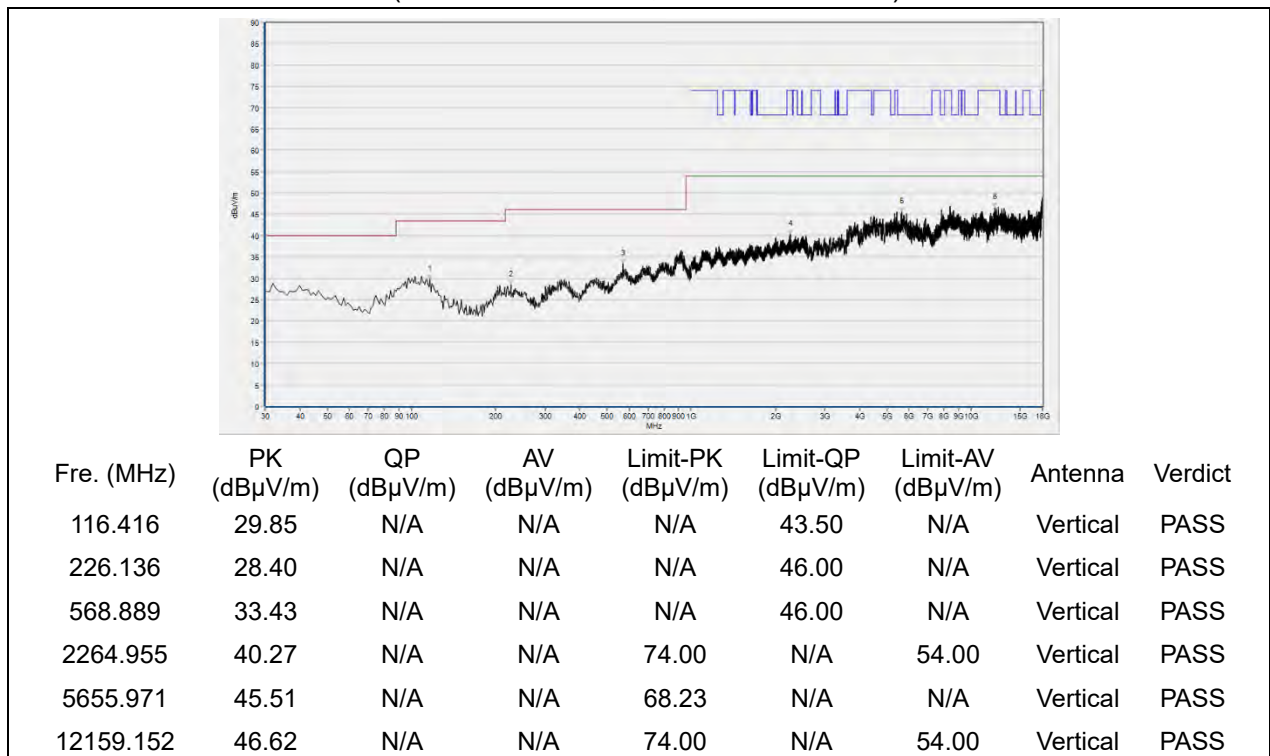
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
90.200	28.57	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
211.572	29.49	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
543.644	31.88	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1654.085	38.02	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5267.814	45.38	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
11746.349	46.73	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 100

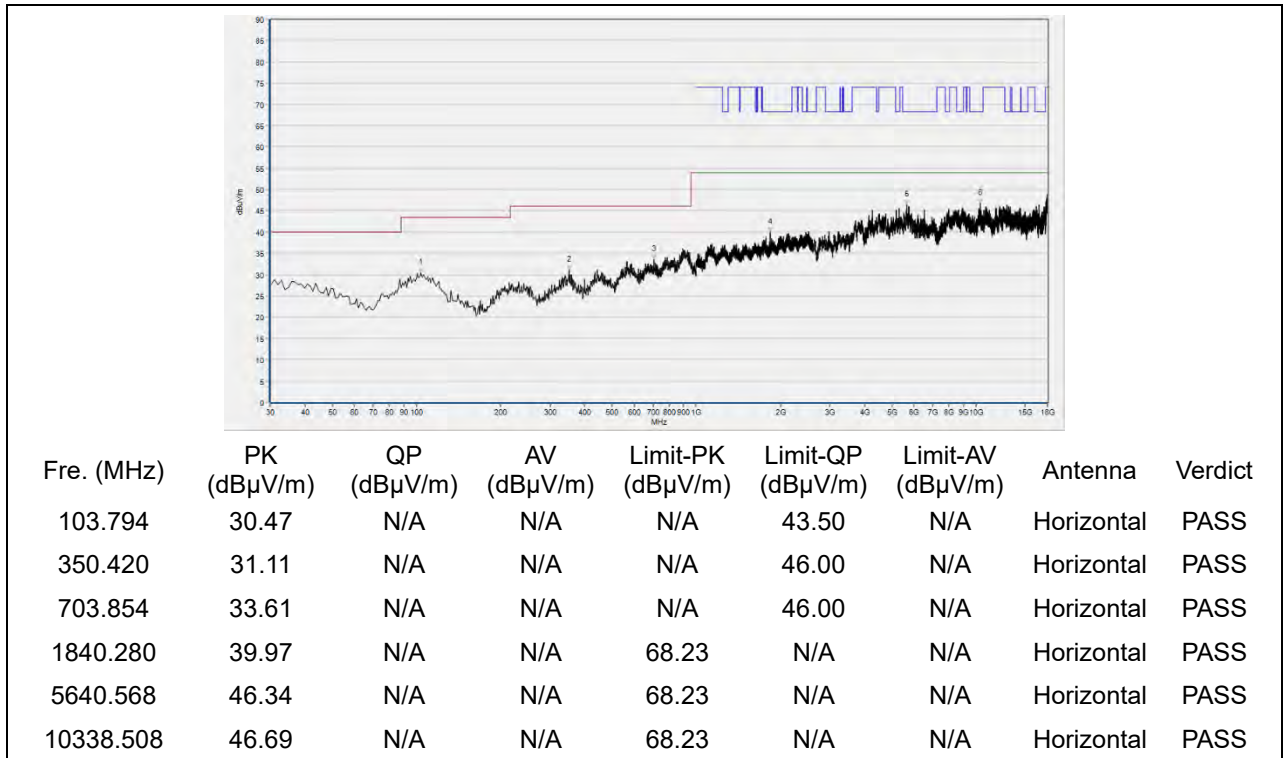


(Antenna Horizontal, 30MHz to 18GHz)

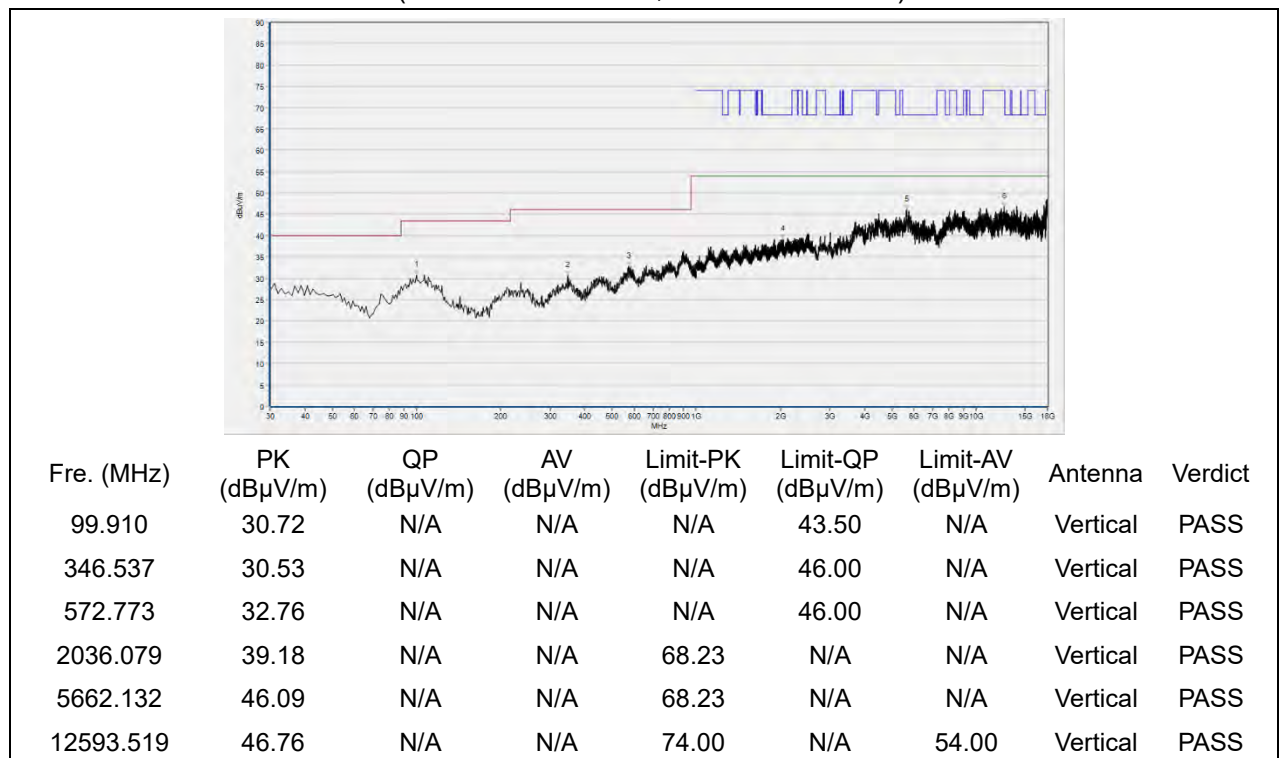


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 120



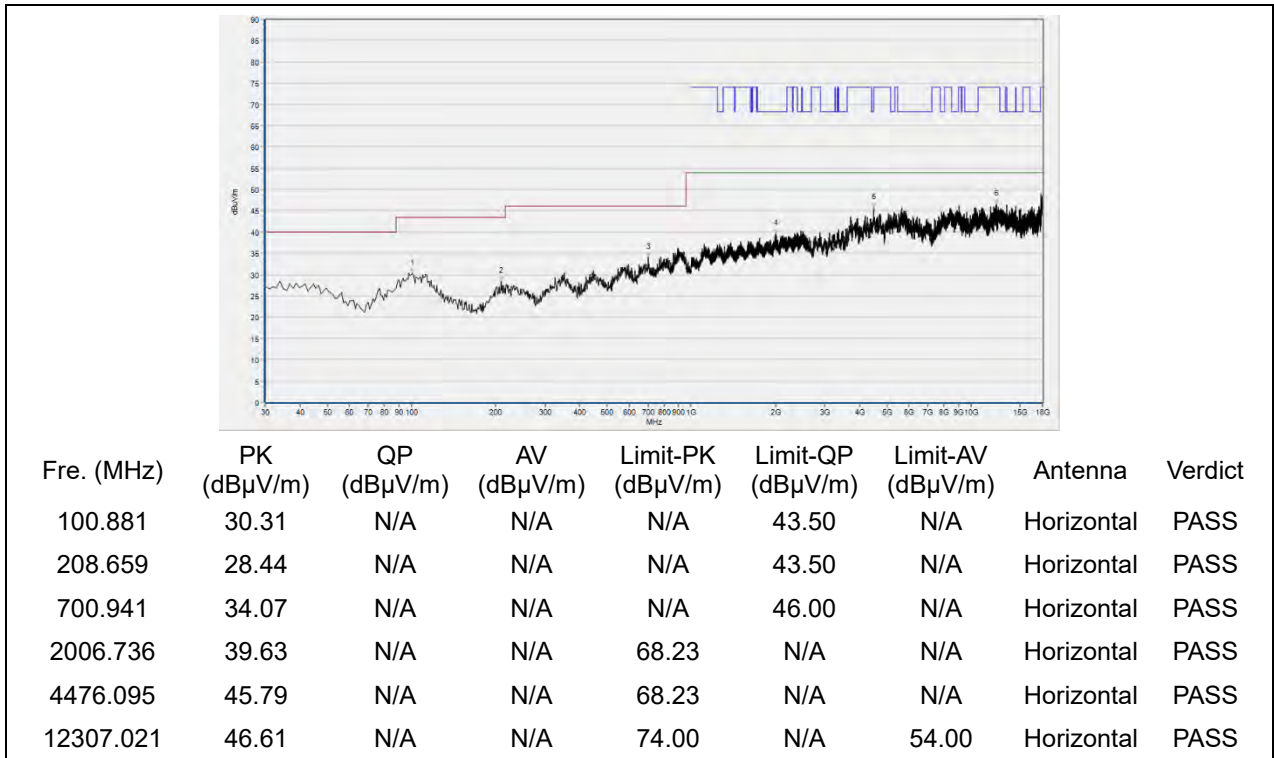
(Antenna Horizontal, 30MHz to 18GHz)



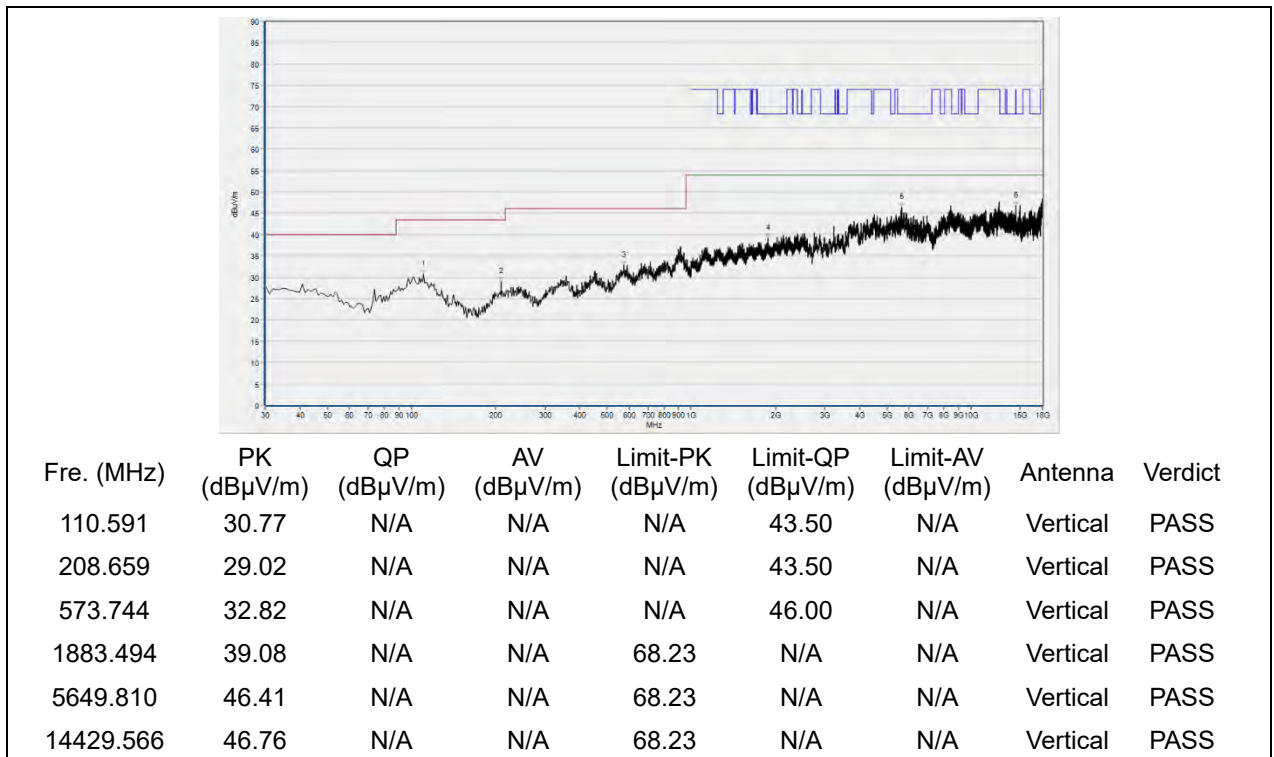
(Antenna Vertical, 30MHz to 18GHz)



Plot for Channel 144

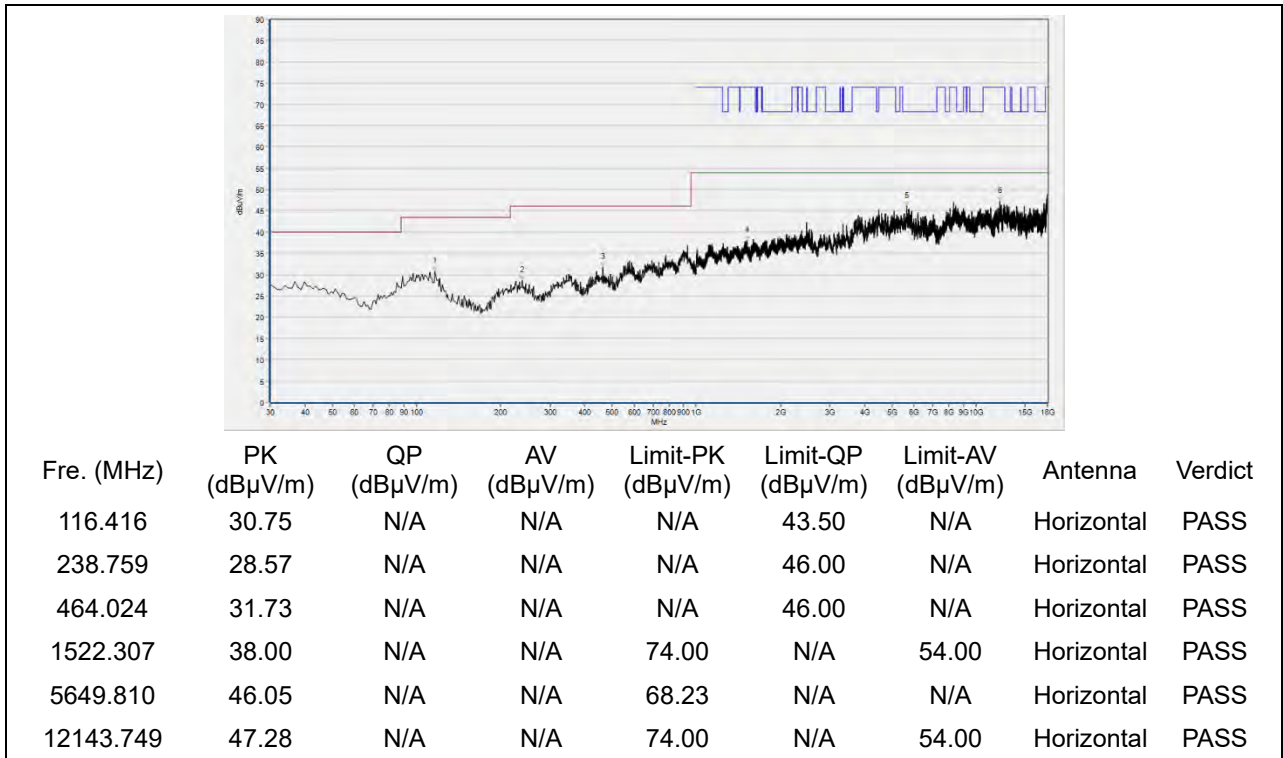


(Antenna Horizontal, 30MHz to 18GHz)

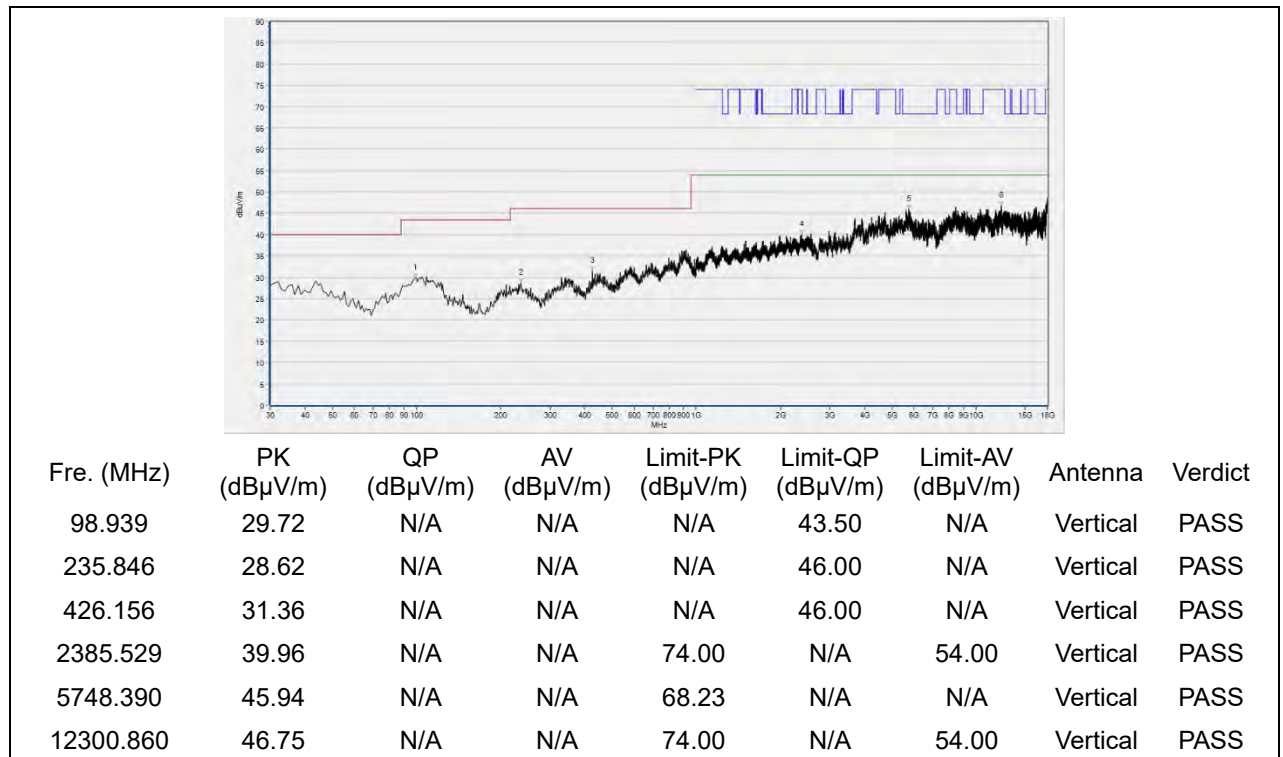


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 149

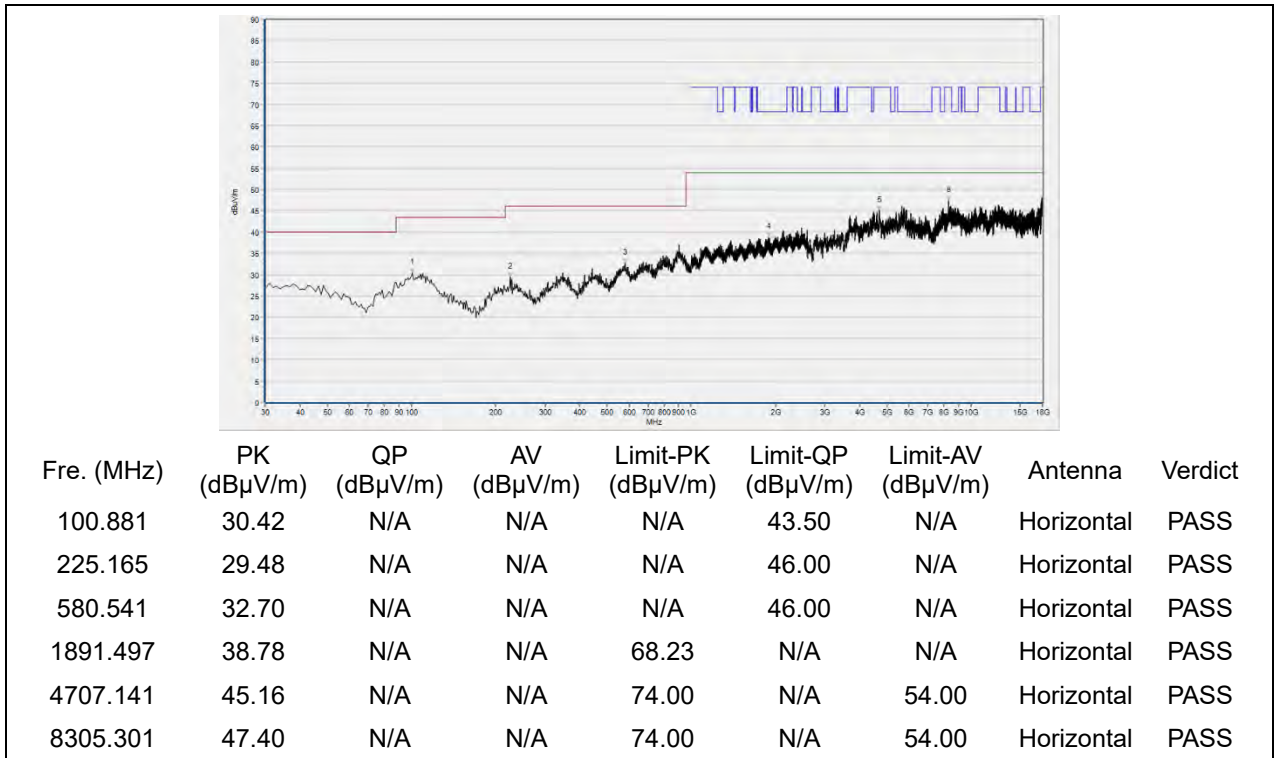


(Antenna Horizontal, 30MHz to 18GHz)

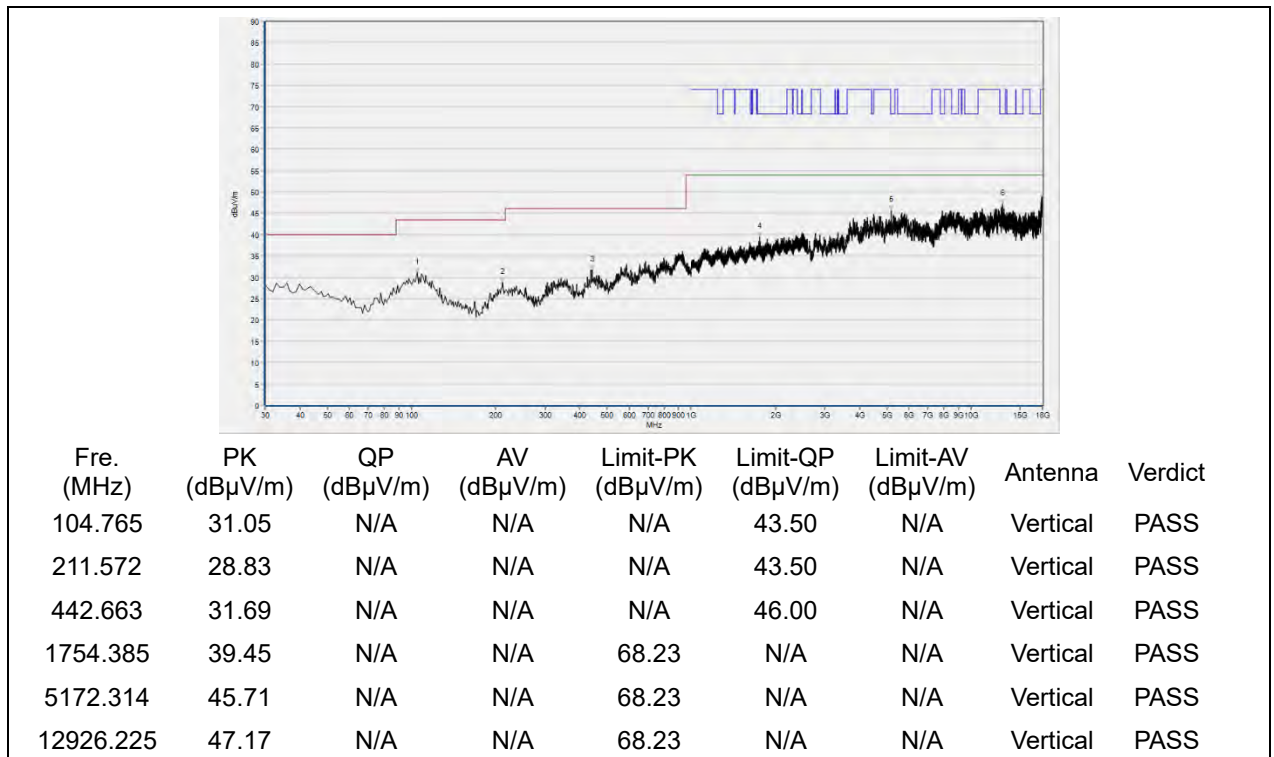


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 157

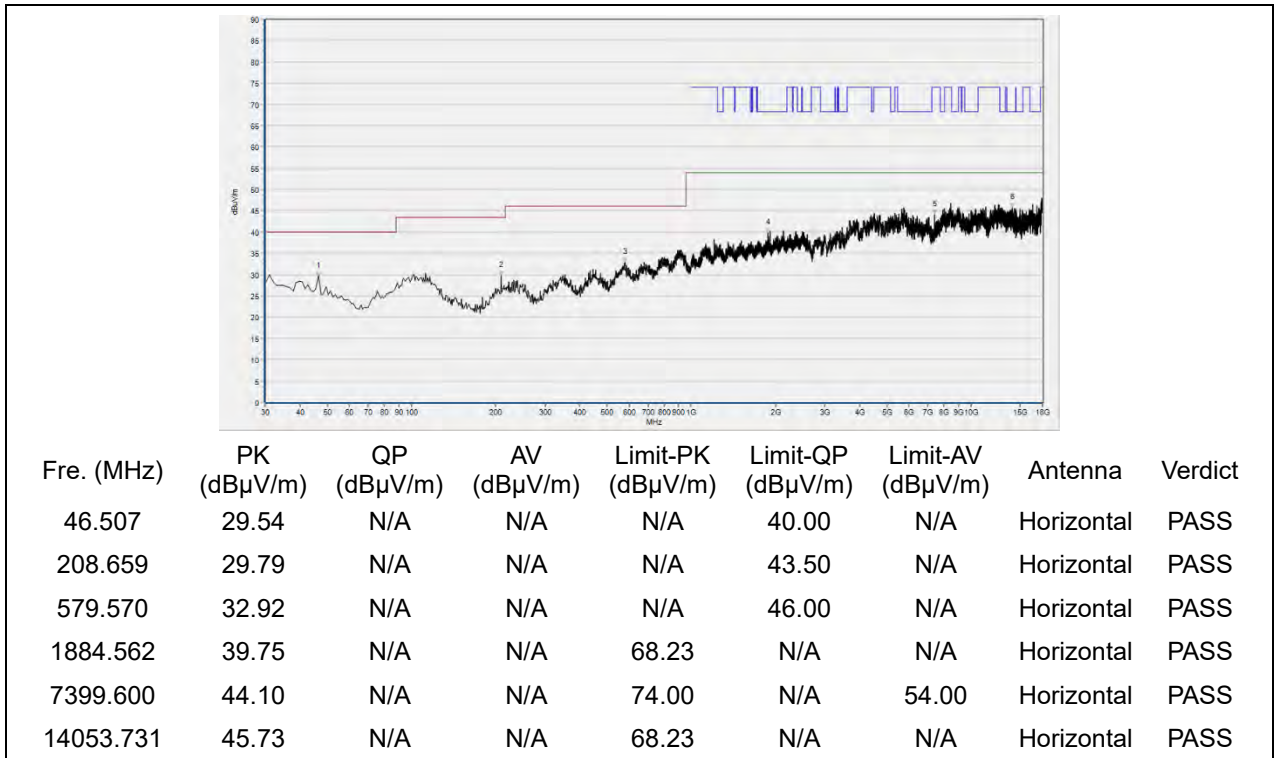


(Antenna Horizontal, 30MHz to 18GHz)

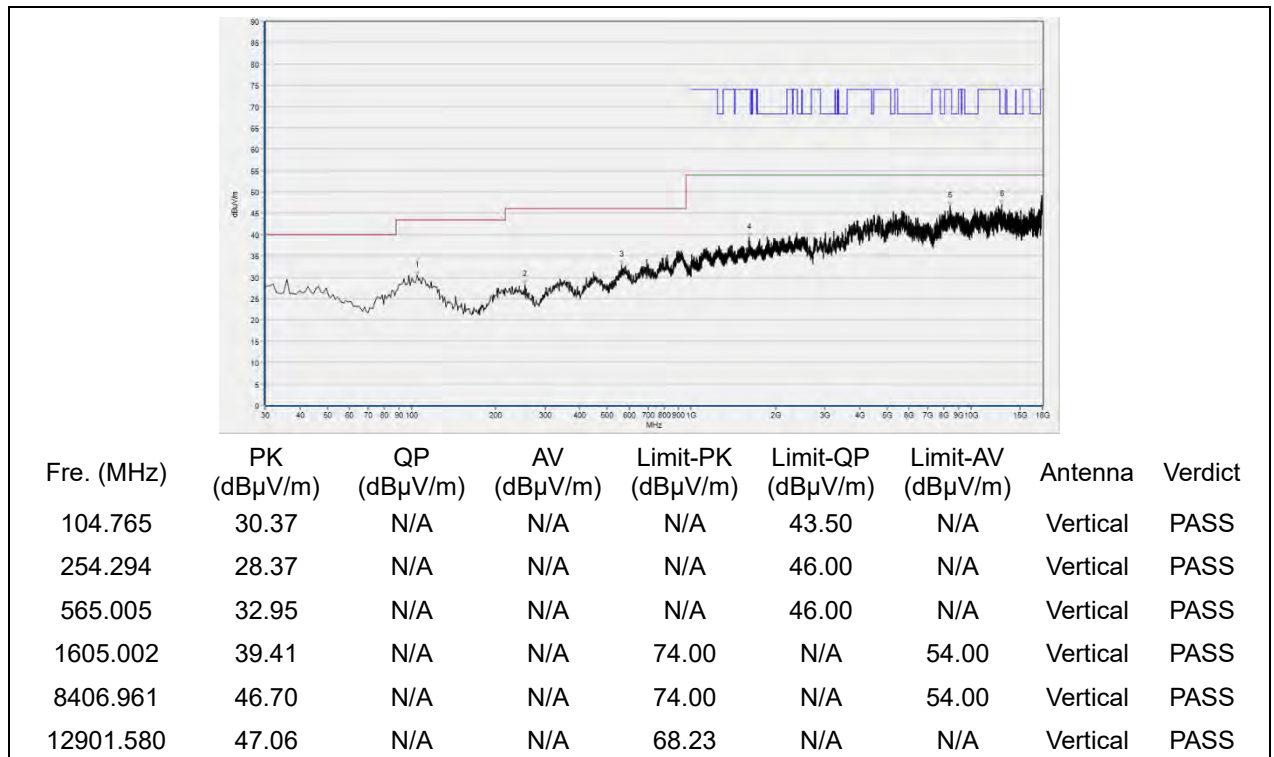


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 165



(Antenna Horizontal, 30MHz to 18GHz)

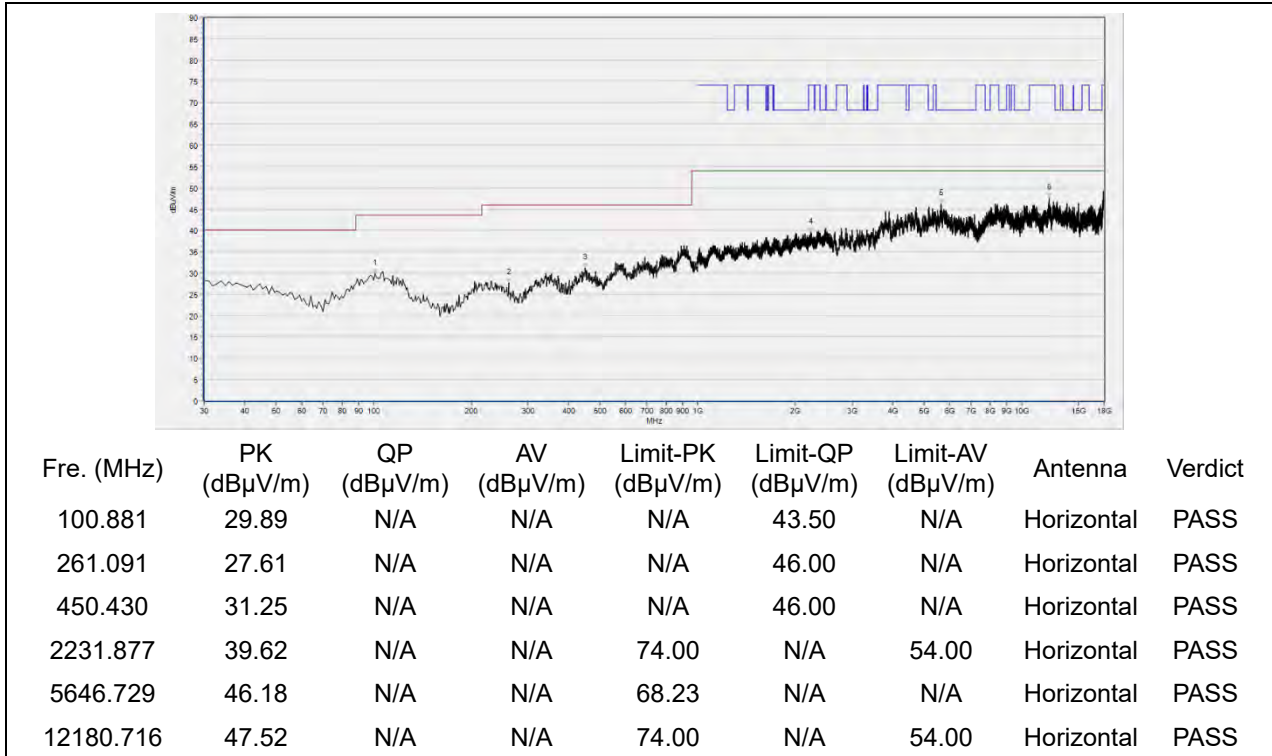


(Antenna Vertical, 30MHz to 18GHz)

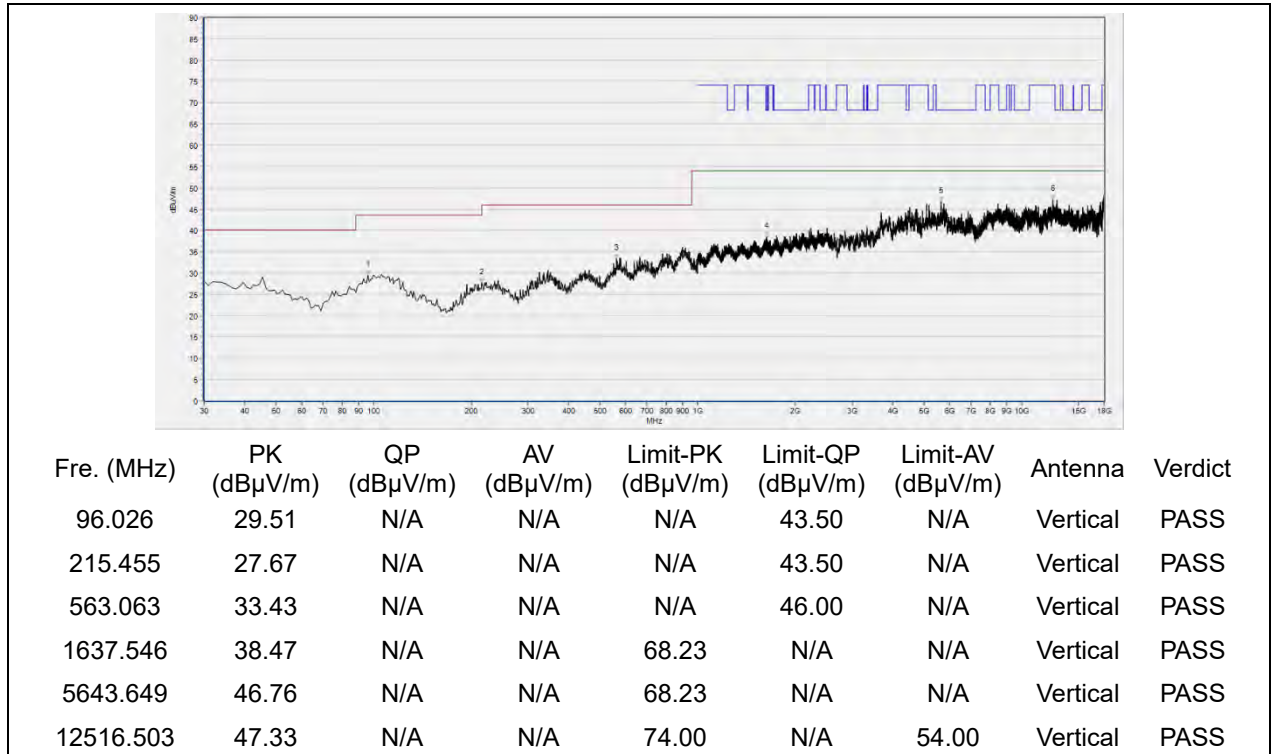


**802.11n (HT40) mode**

**Plot for Channel 38**

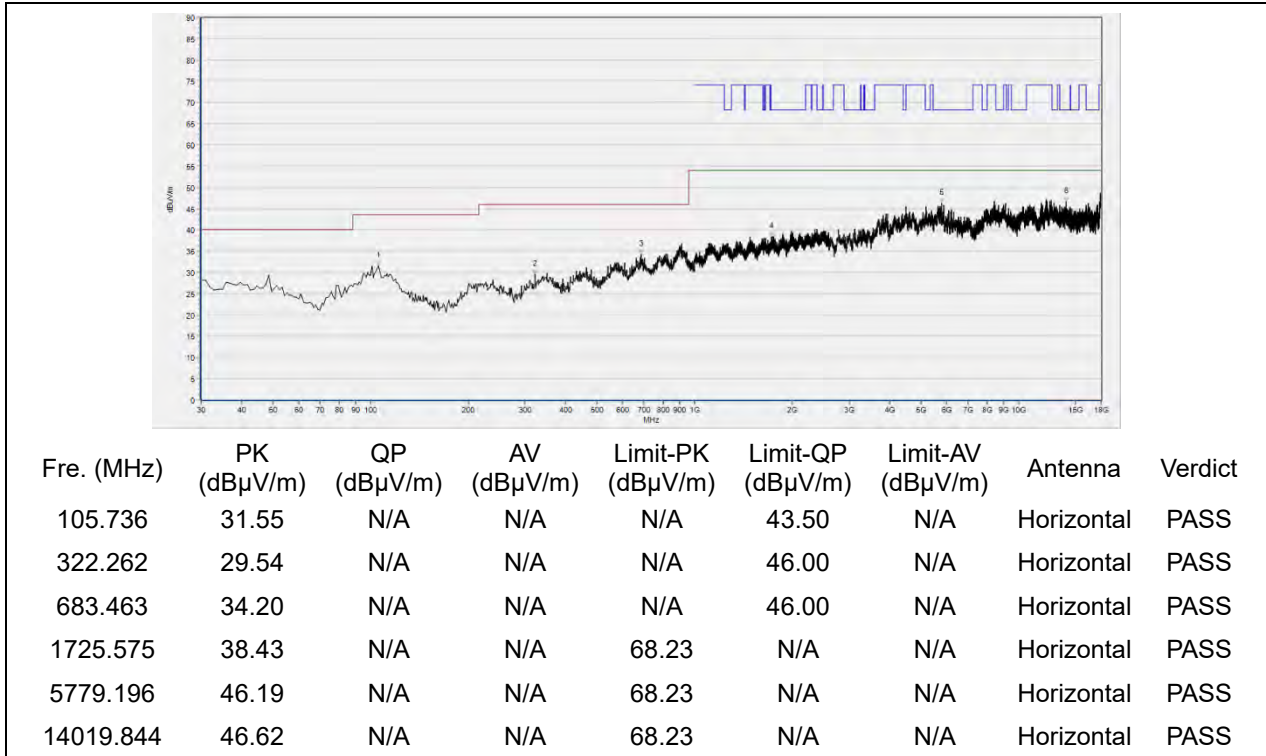


(Antenna Horizontal, 30MHz to 18GHz)

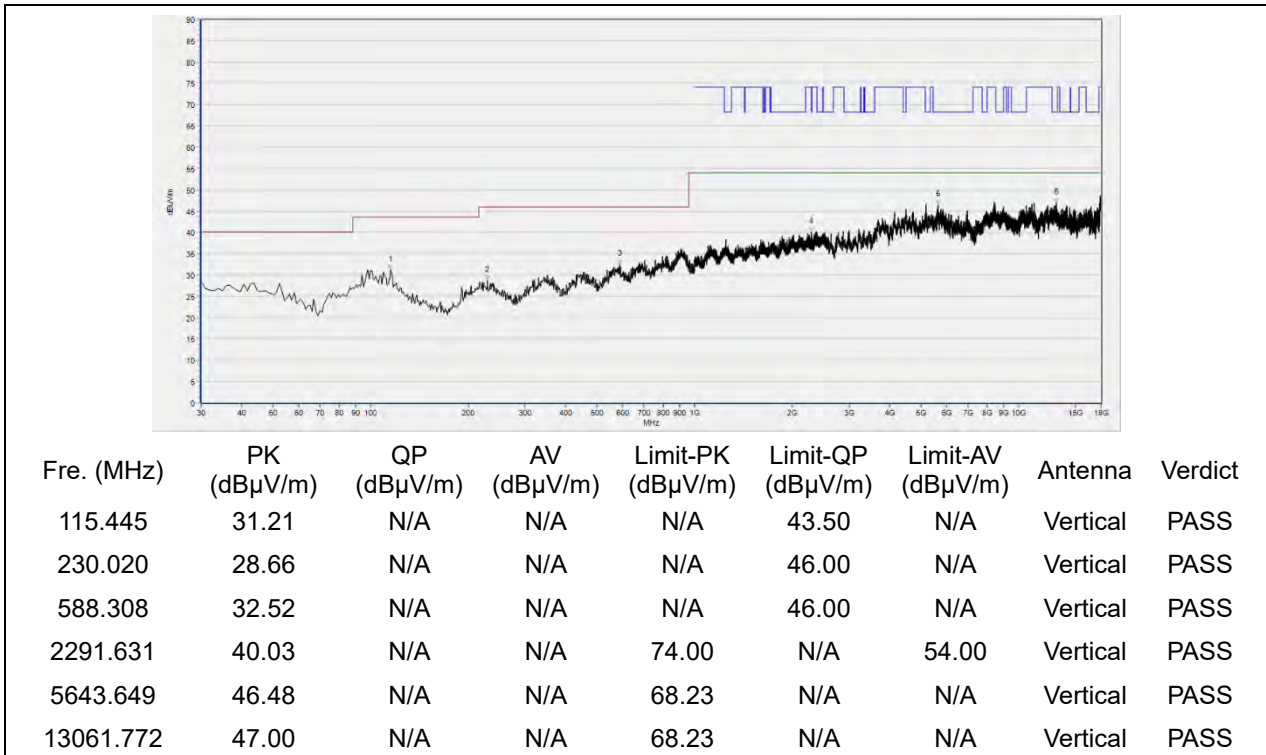


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 46

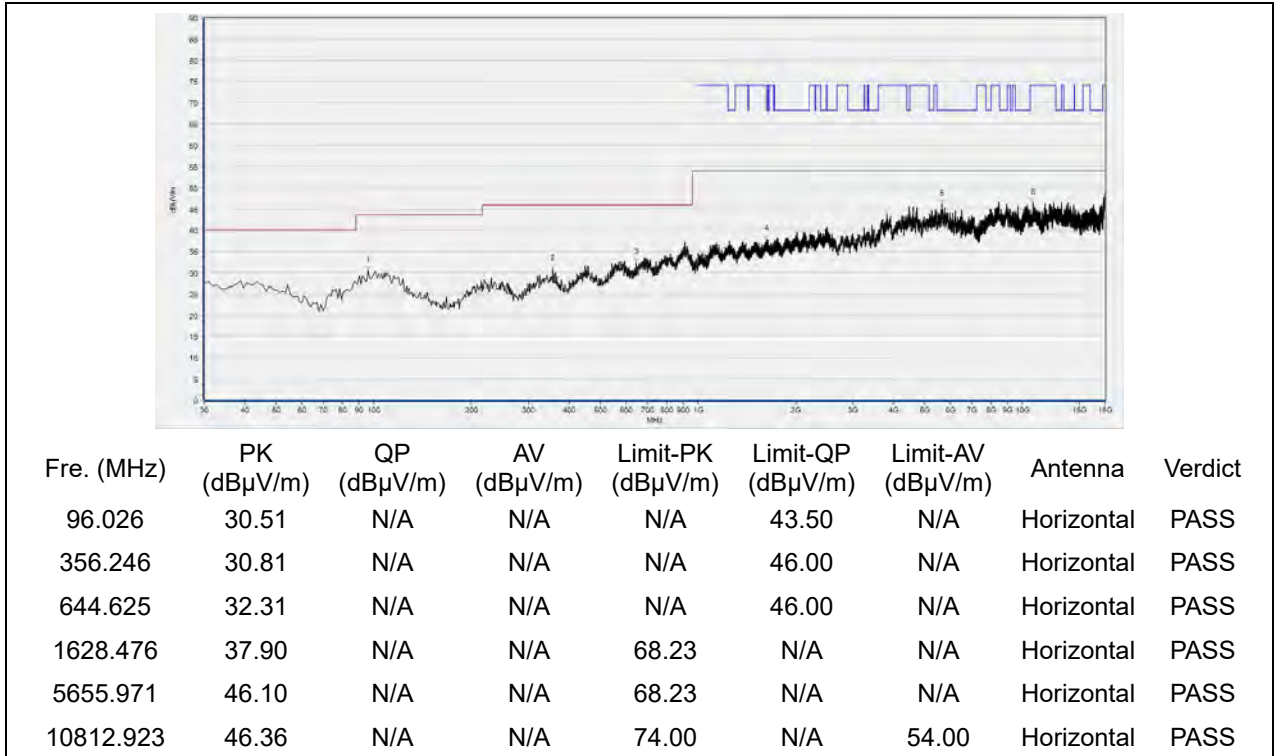


(Antenna Horizontal, 30MHz to 18GHz)

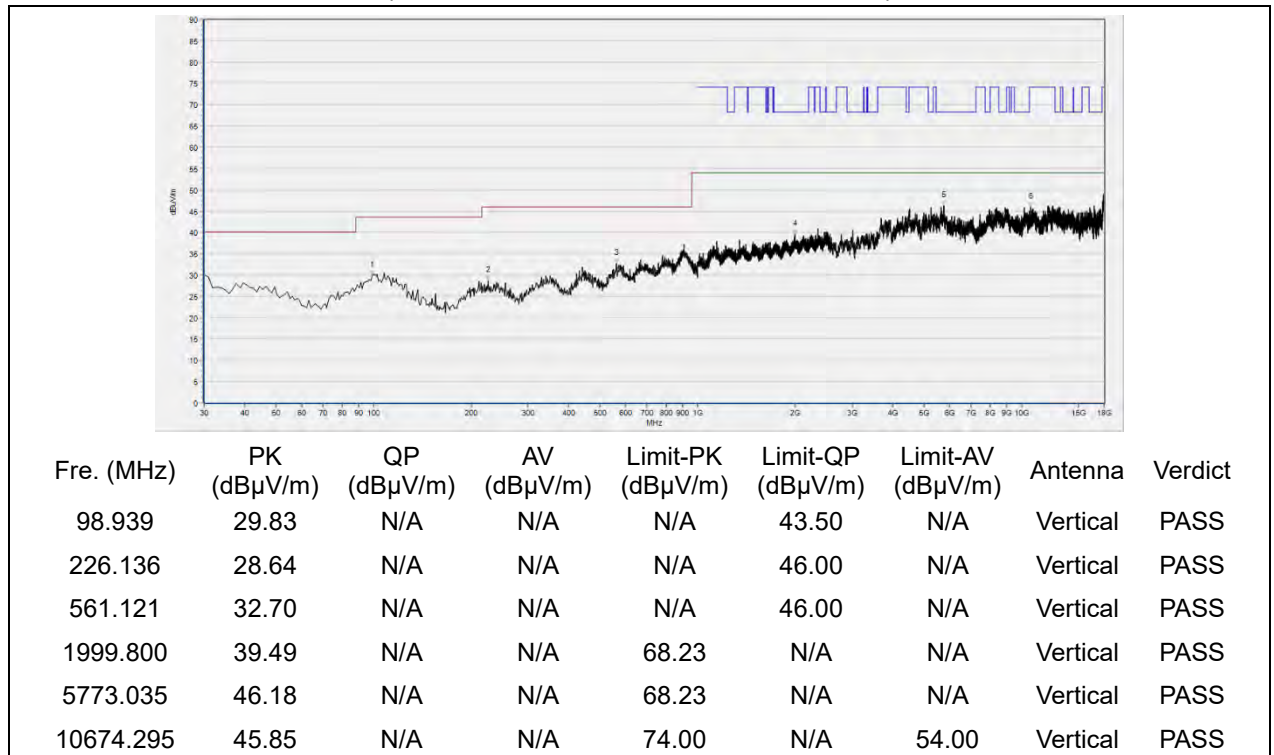


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 54

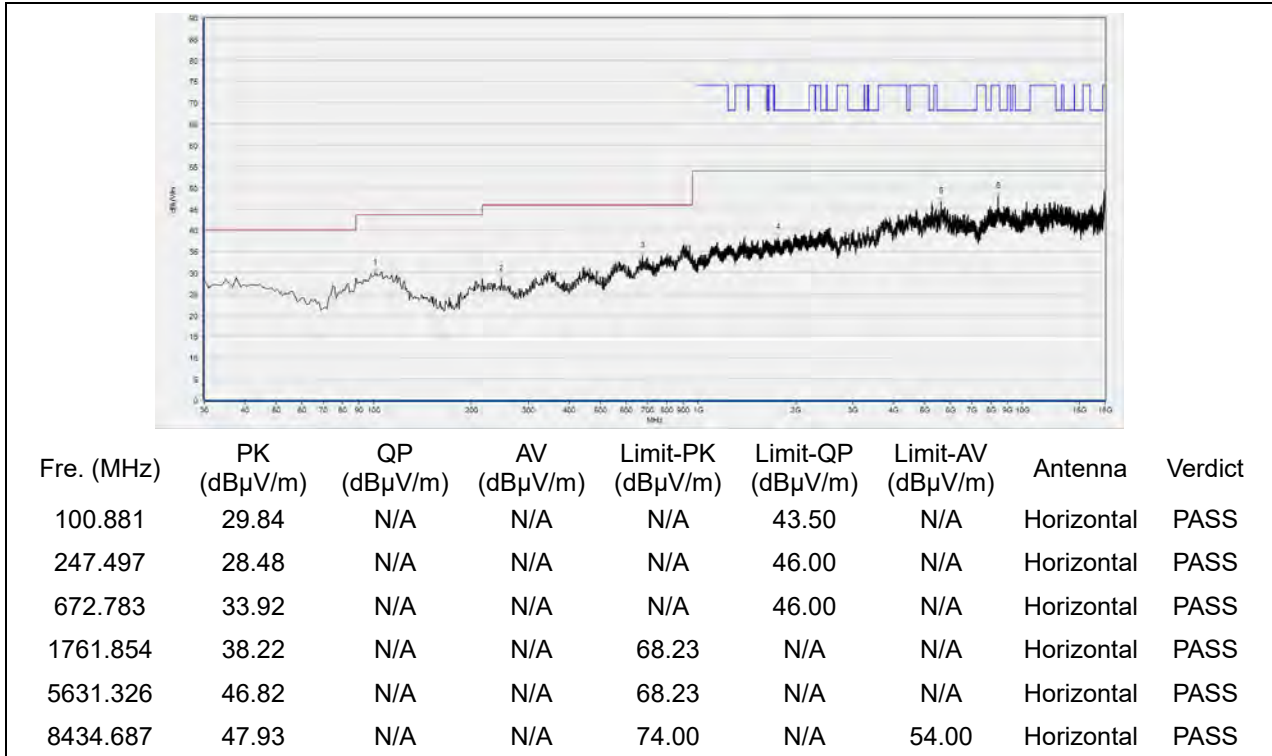


(Antenna Horizontal, 30MHz to 18GHz)

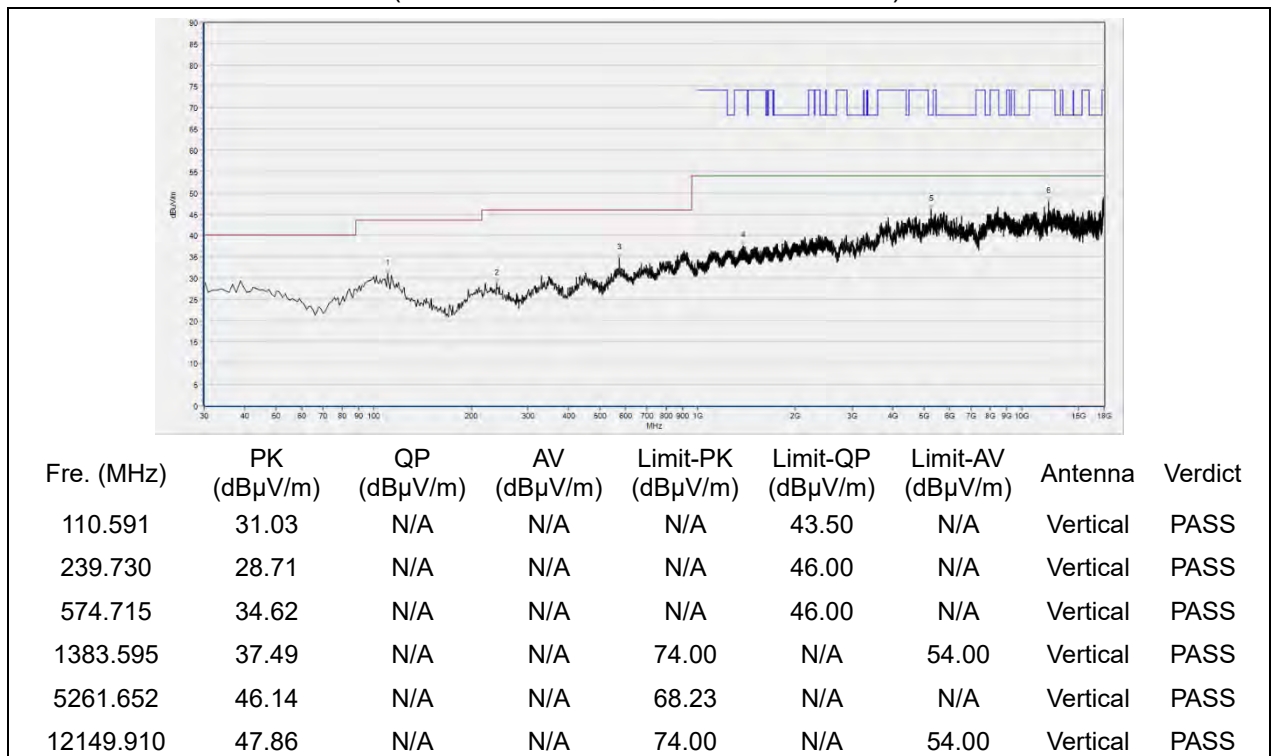


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 62



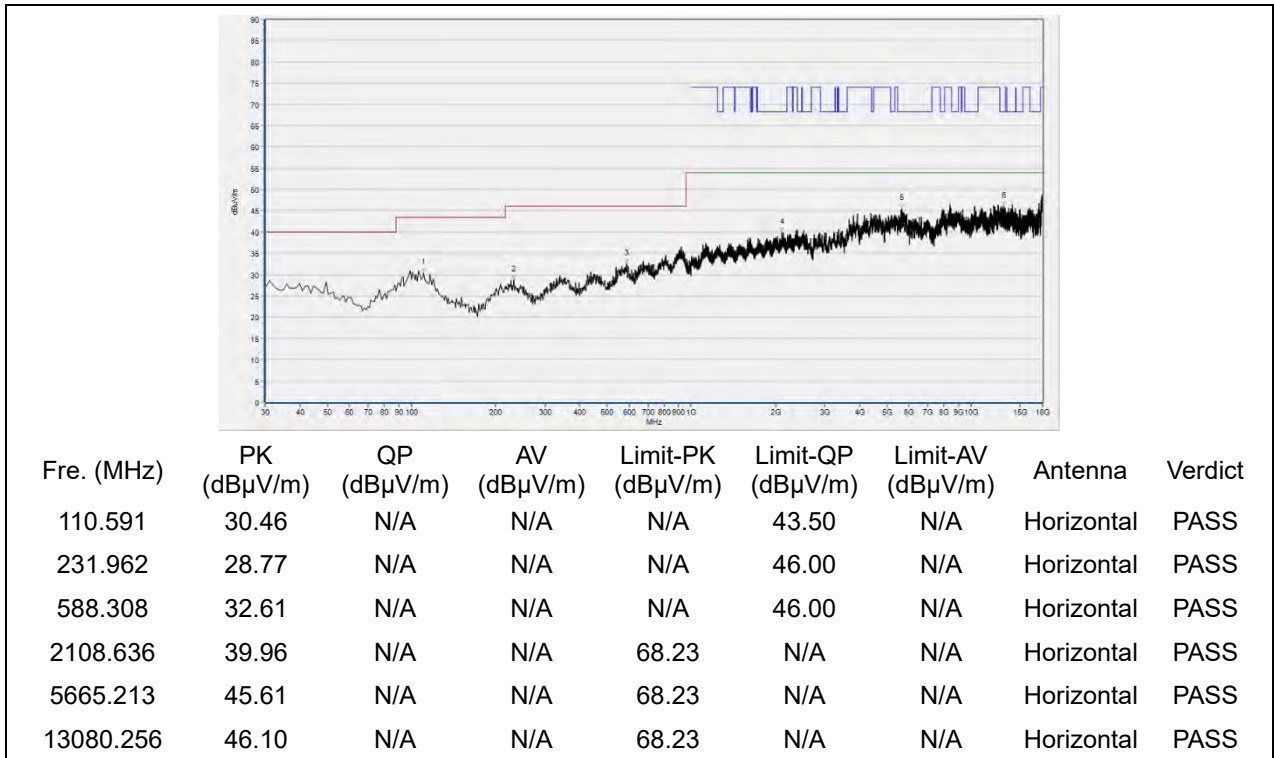
(Antenna Horizontal, 30MHz to 18GHz)



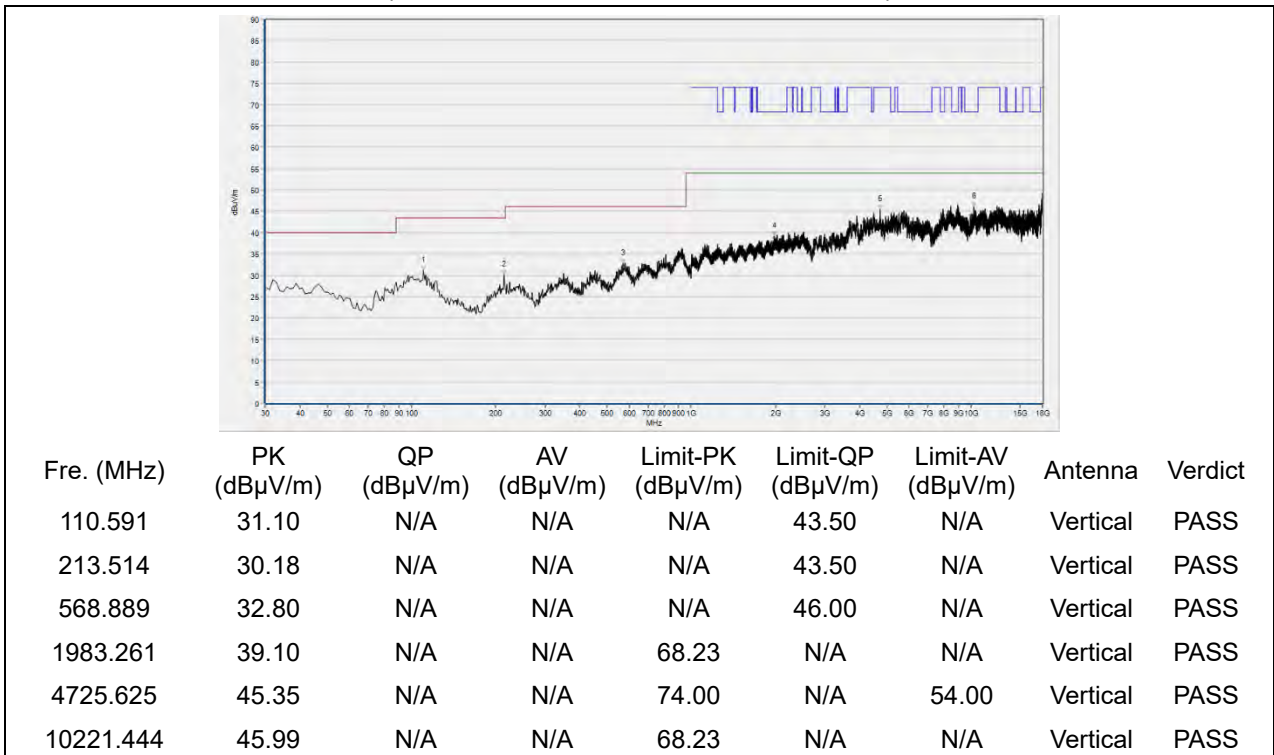
(Antenna Vertical, 30MHz to 18GHz)



Plot for Channel 102

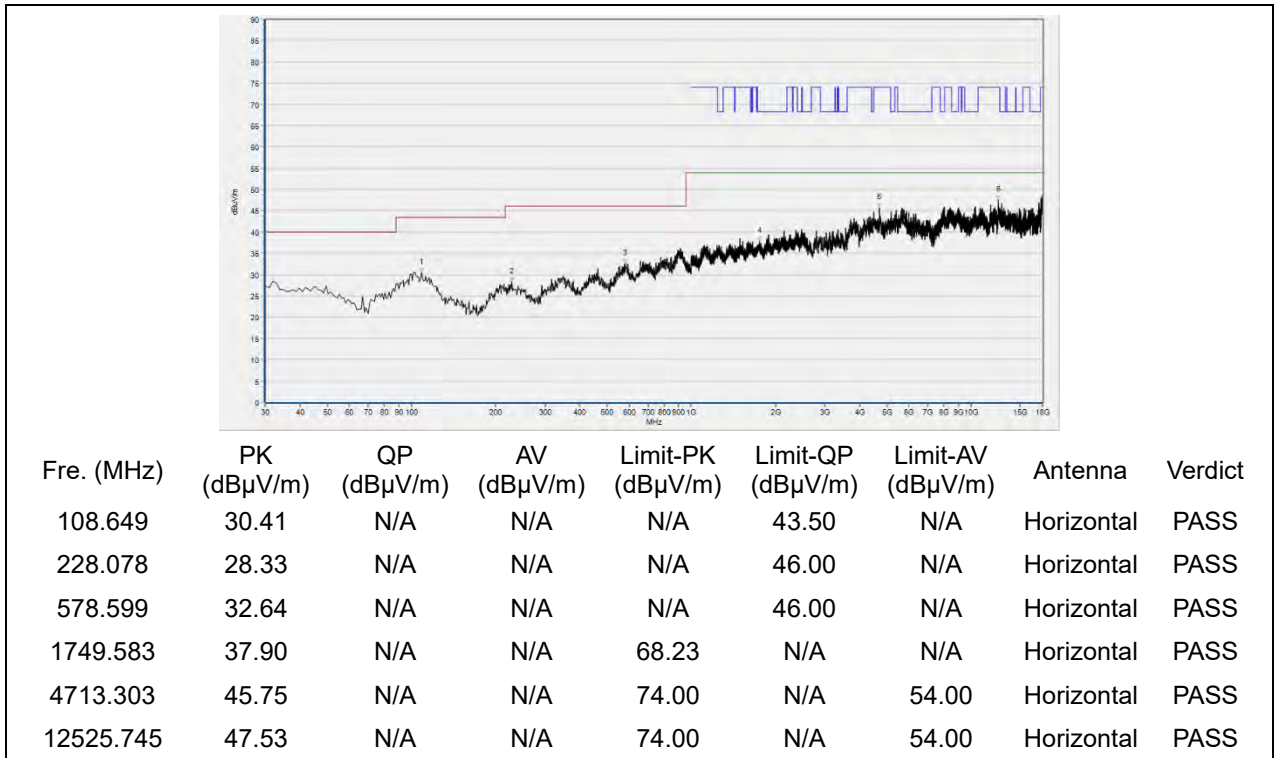


(Antenna Horizontal, 30MHz to 18GHz)

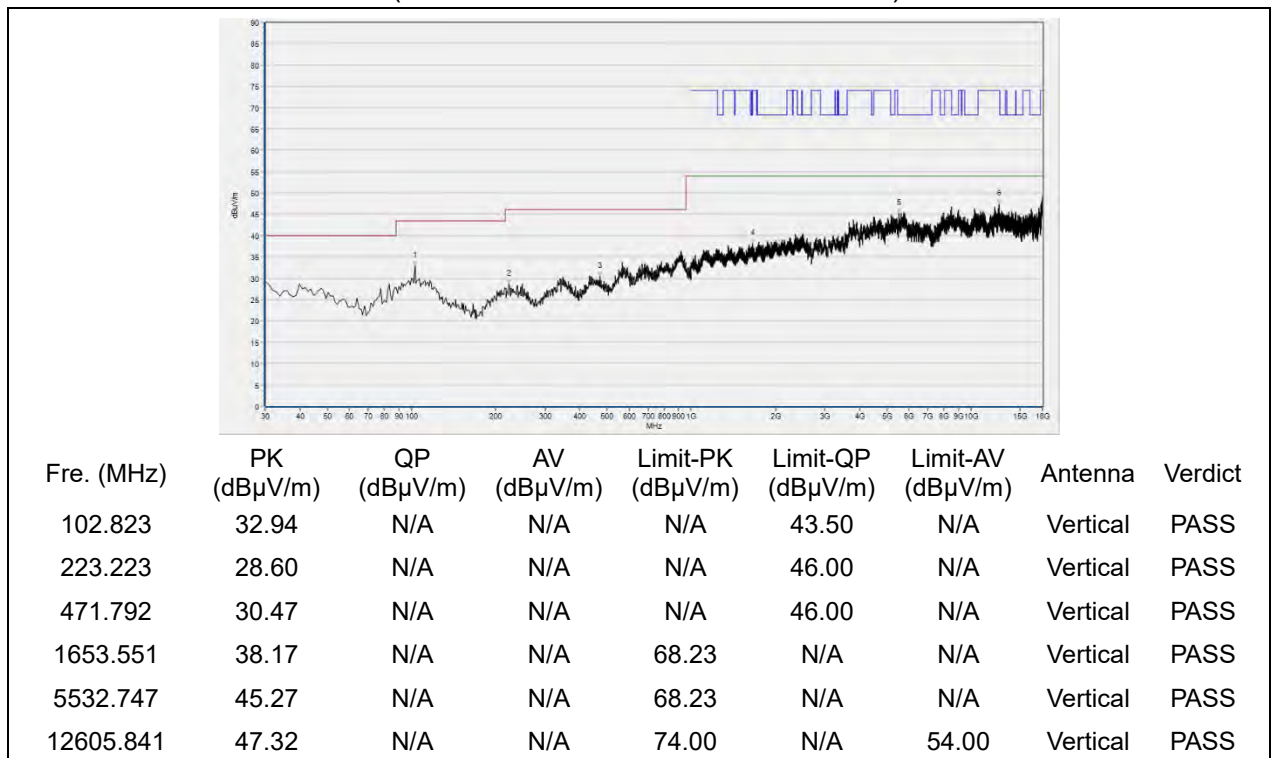


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 126

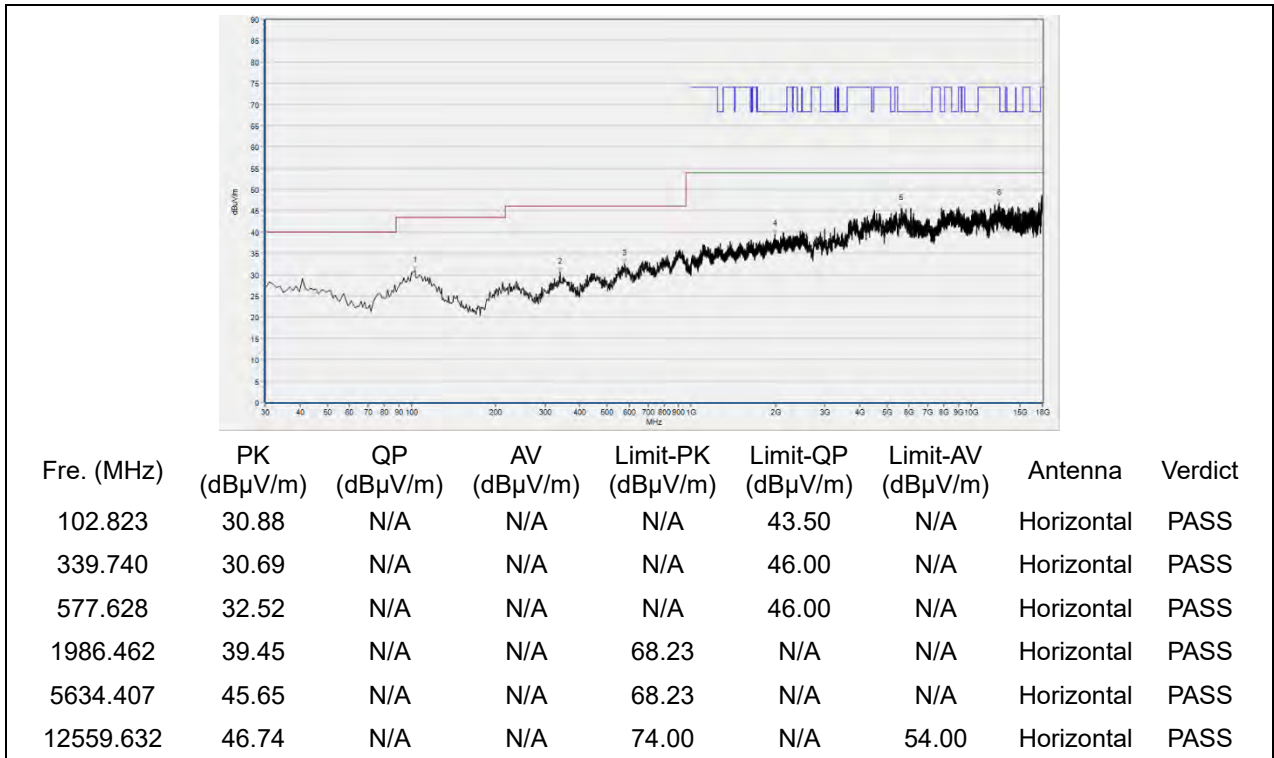


(Antenna Horizontal, 30MHz to 18GHz)

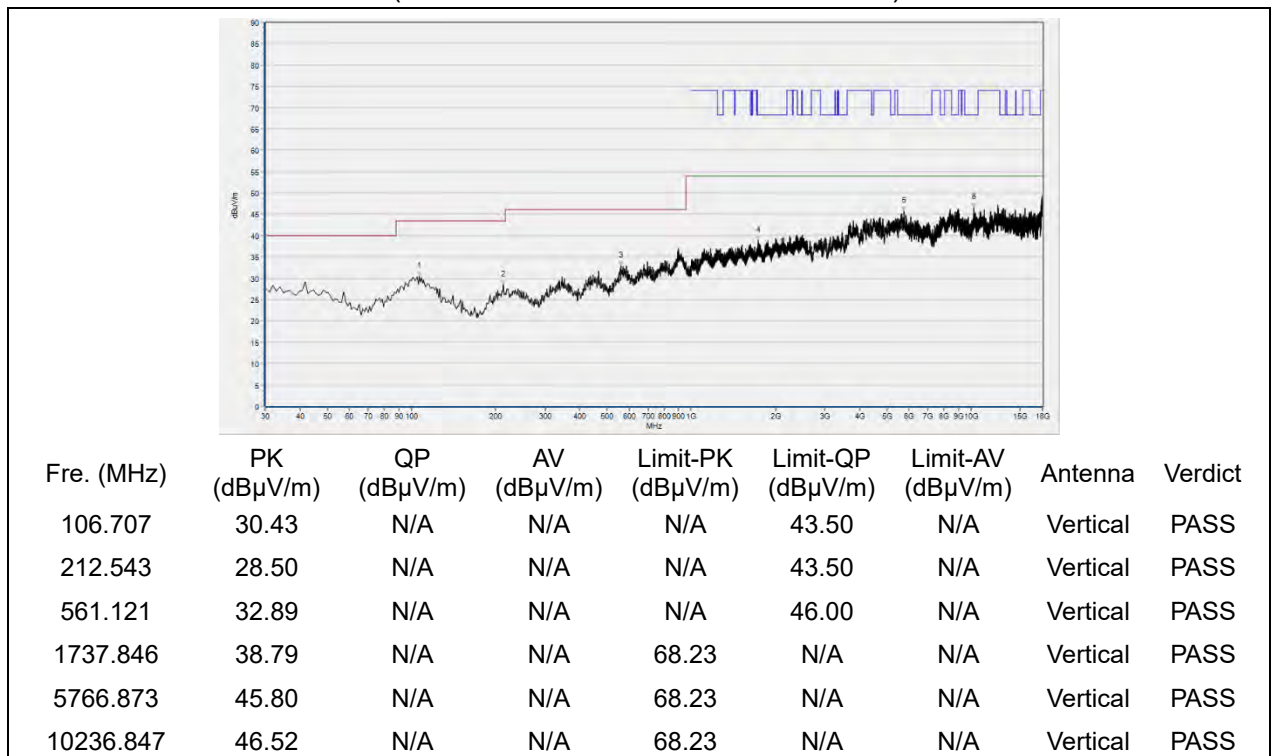


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 142

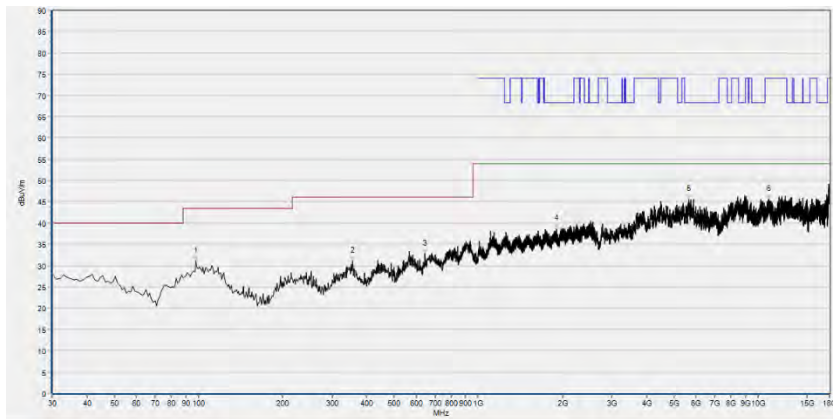


(Antenna Horizontal, 30MHz to 18GHz)



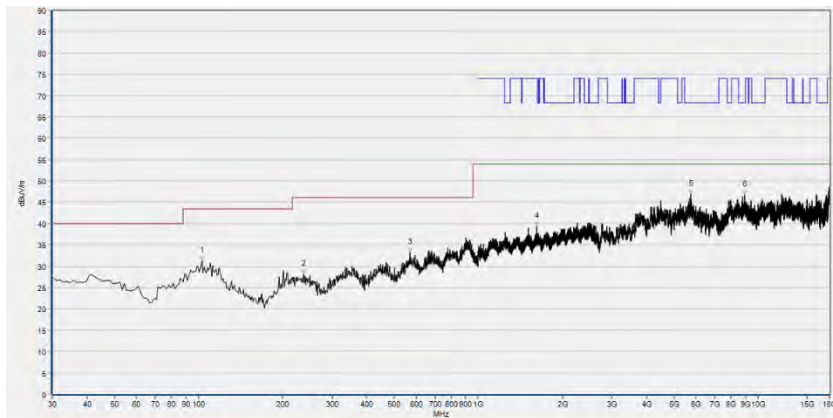
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 151



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
97.968	31.08	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
356.246	31.08	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
644.625	32.72	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1906.969	38.60	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5646.729	45.52	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
10920.744	45.57	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

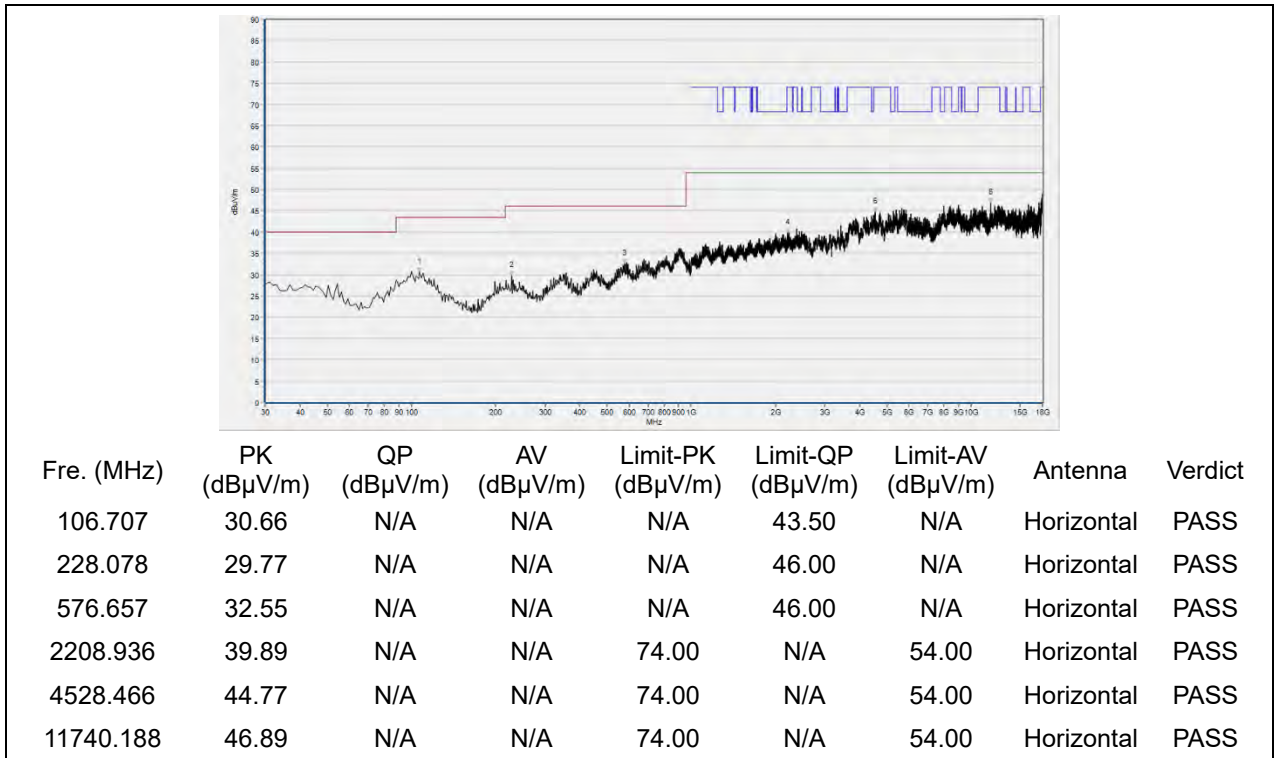
(Antenna Horizontal, 30MHz to 18GHz)



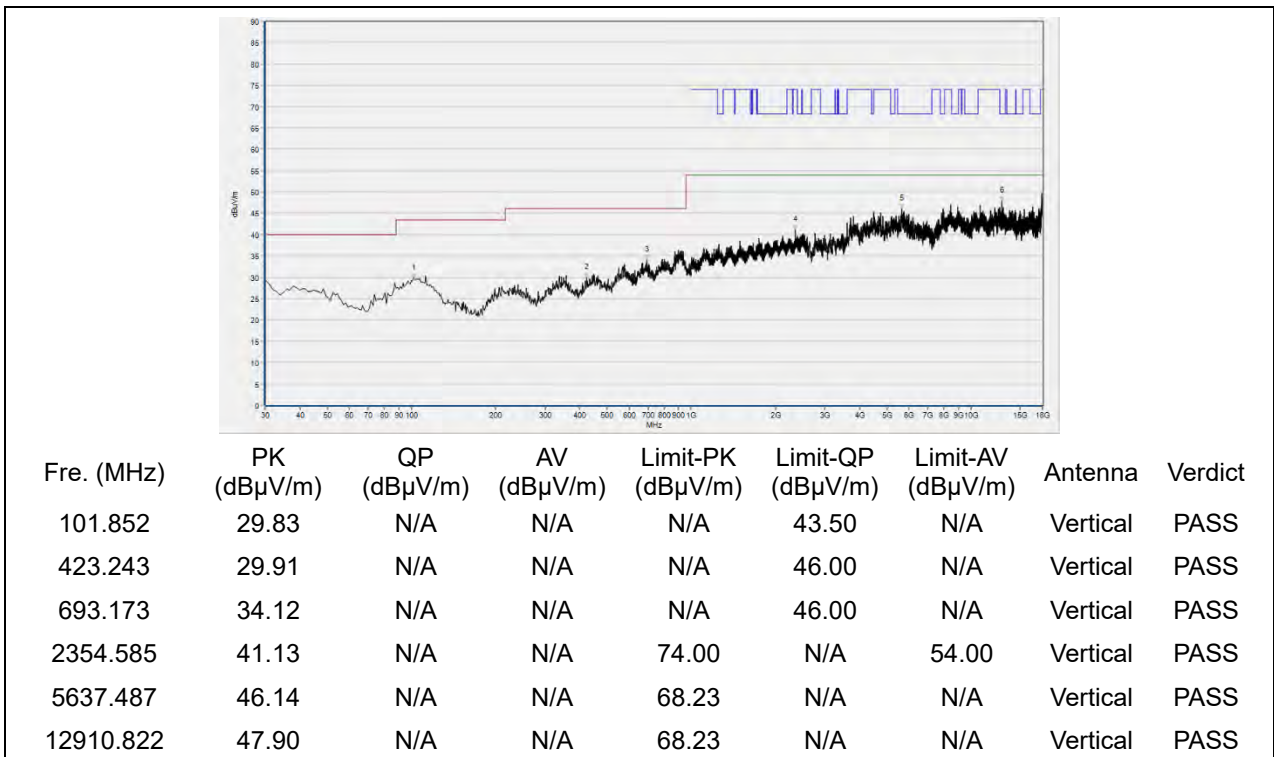
Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
102.823	31.29	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
237.788	28.06	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
568.889	33.20	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1621.541	39.33	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5736.067	46.87	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
8942.989	46.66	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 159



(Antenna Horizontal, 30MHz to 18GHz)

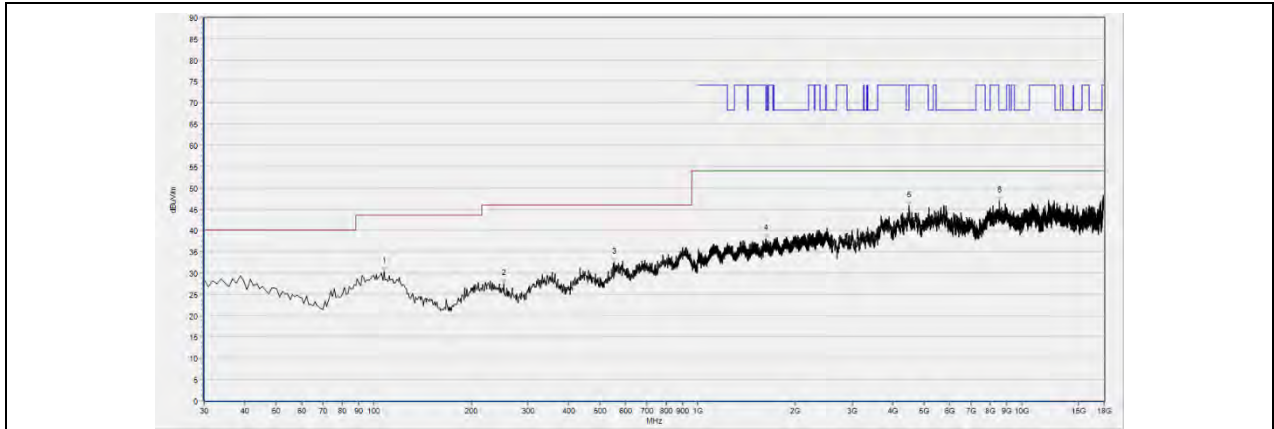


(Antenna Vertical, 30MHz to 18GHz)



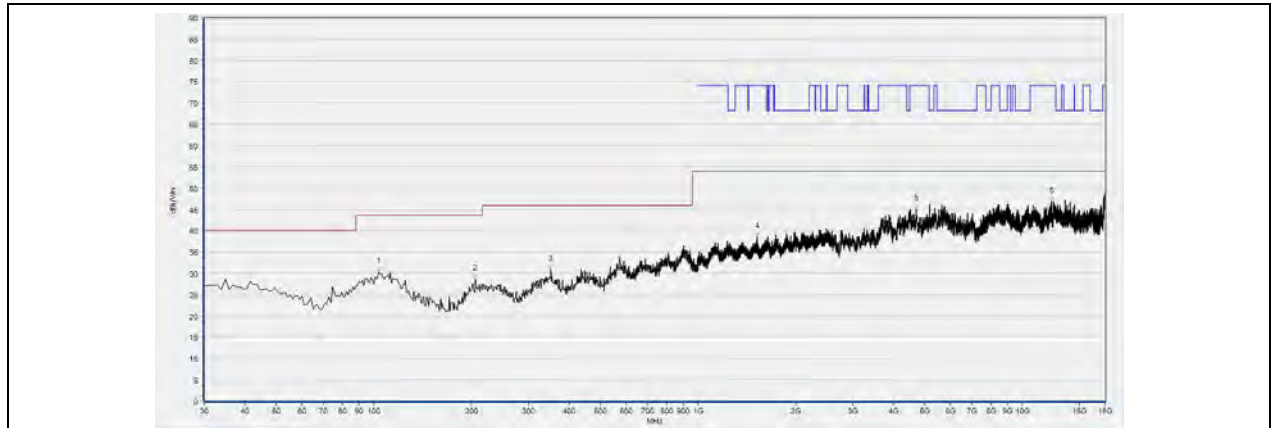
**802.11ac (VHT80) Mode**

**Plot for Channel 42**



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
107.678	30.28	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
252.352	27.49	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
552.382	32.44	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1623.675	38.02	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4500.740	45.78	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
8551.750	46.99	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

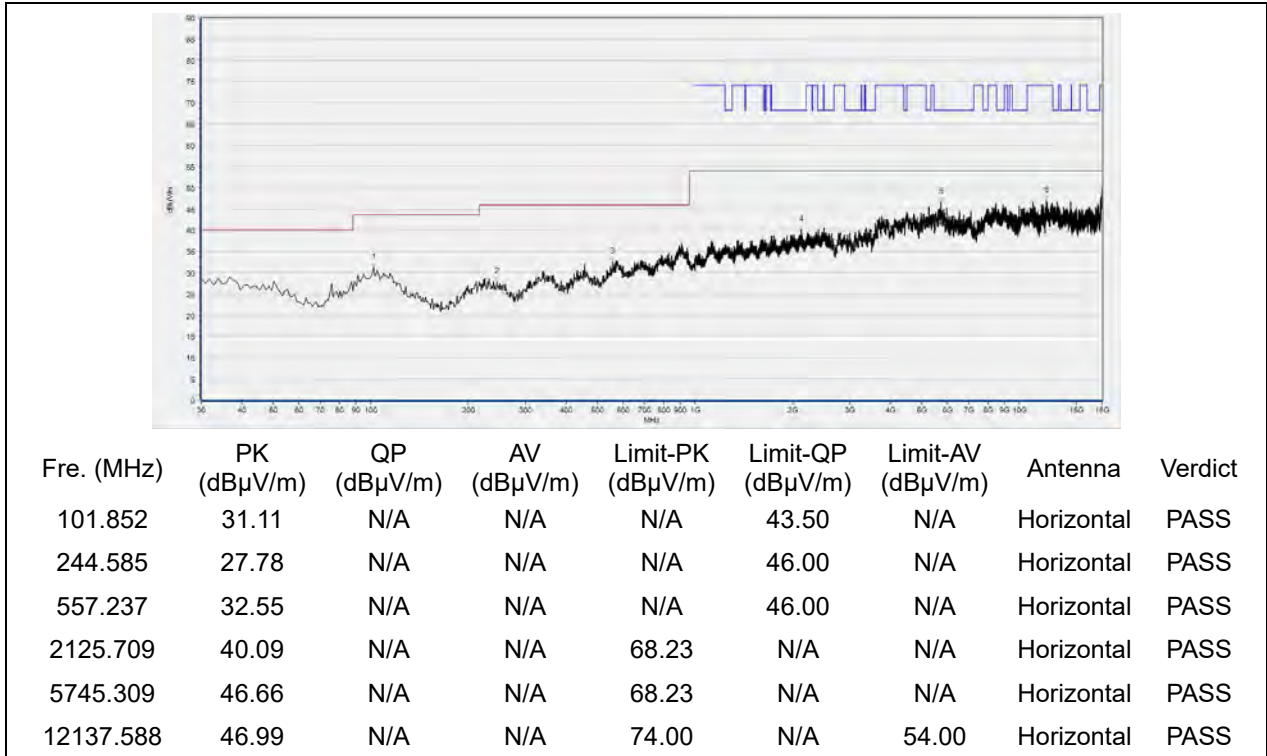
(Antenna Horizontal, 30MHz to 18GHz)



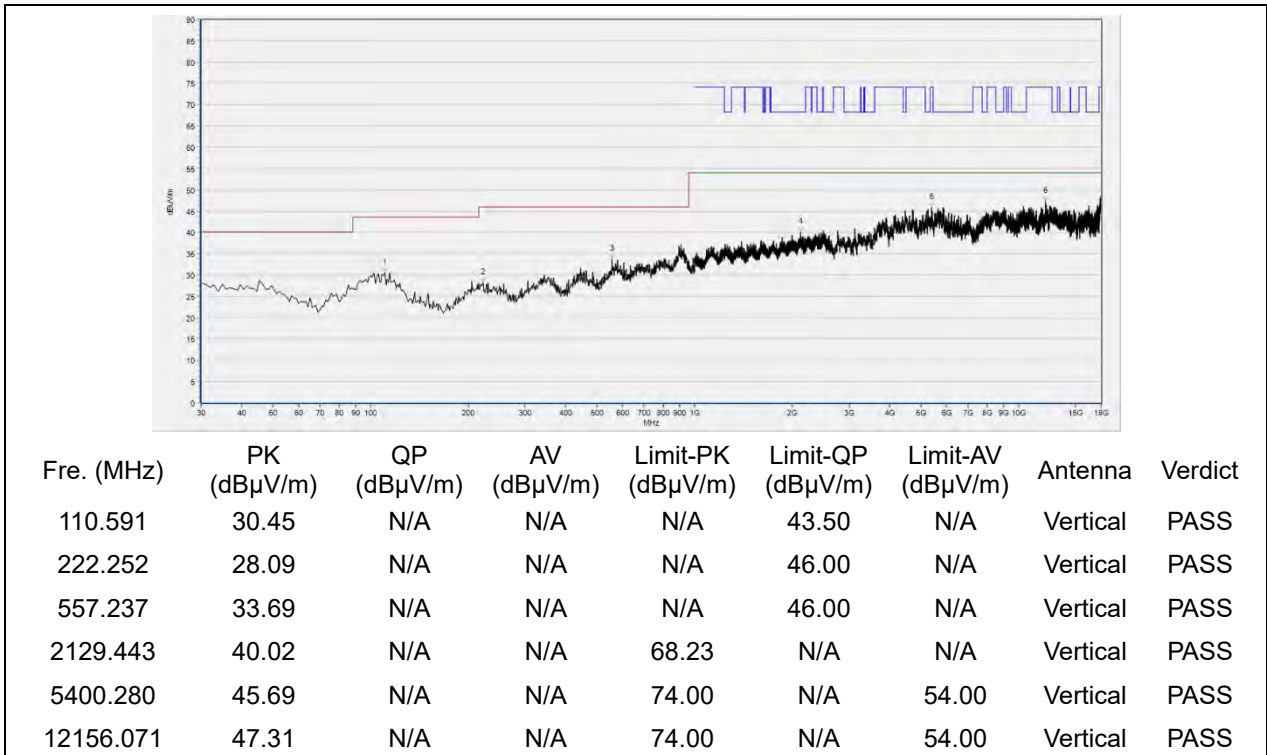
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
103.794	30.26	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
205.746	28.72	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
351.391	30.78	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1524.975	38.48	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4713.303	45.15	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
12340.908	46.88	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 58

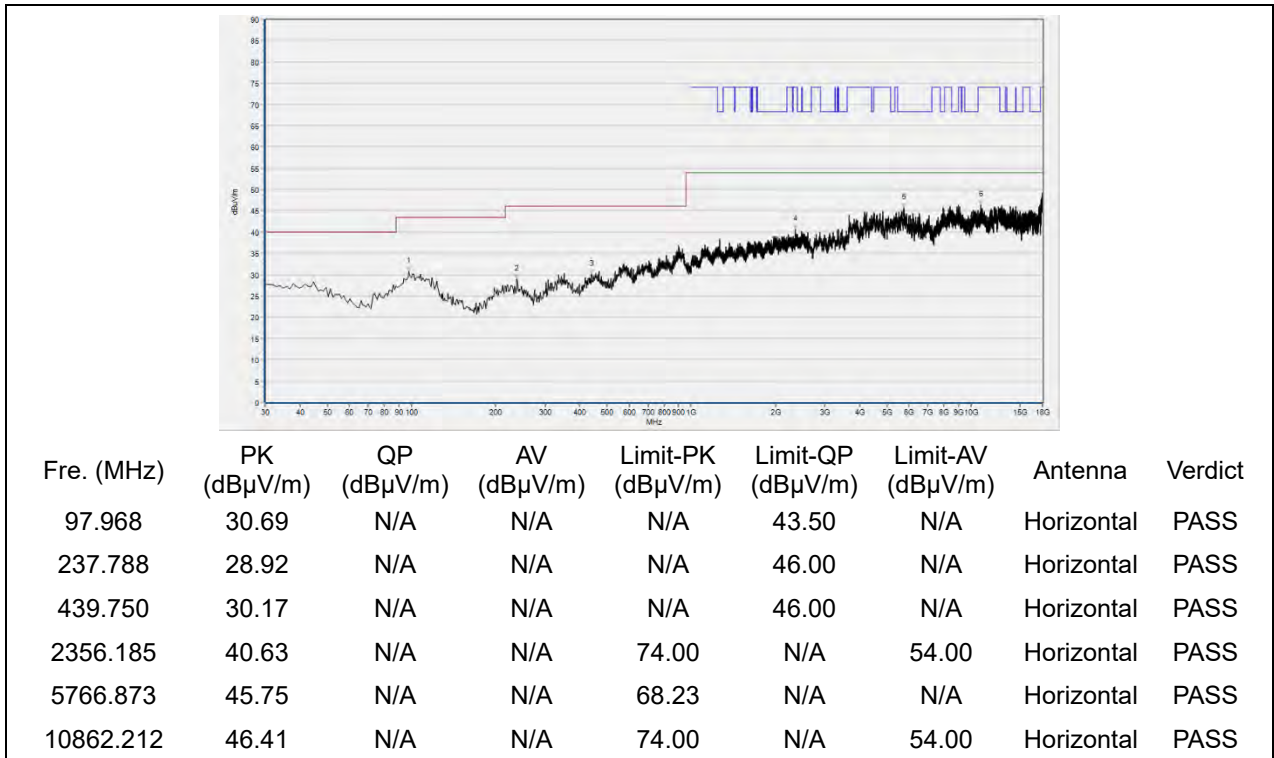


(Antenna Horizontal, 30MHz to 18GHz)

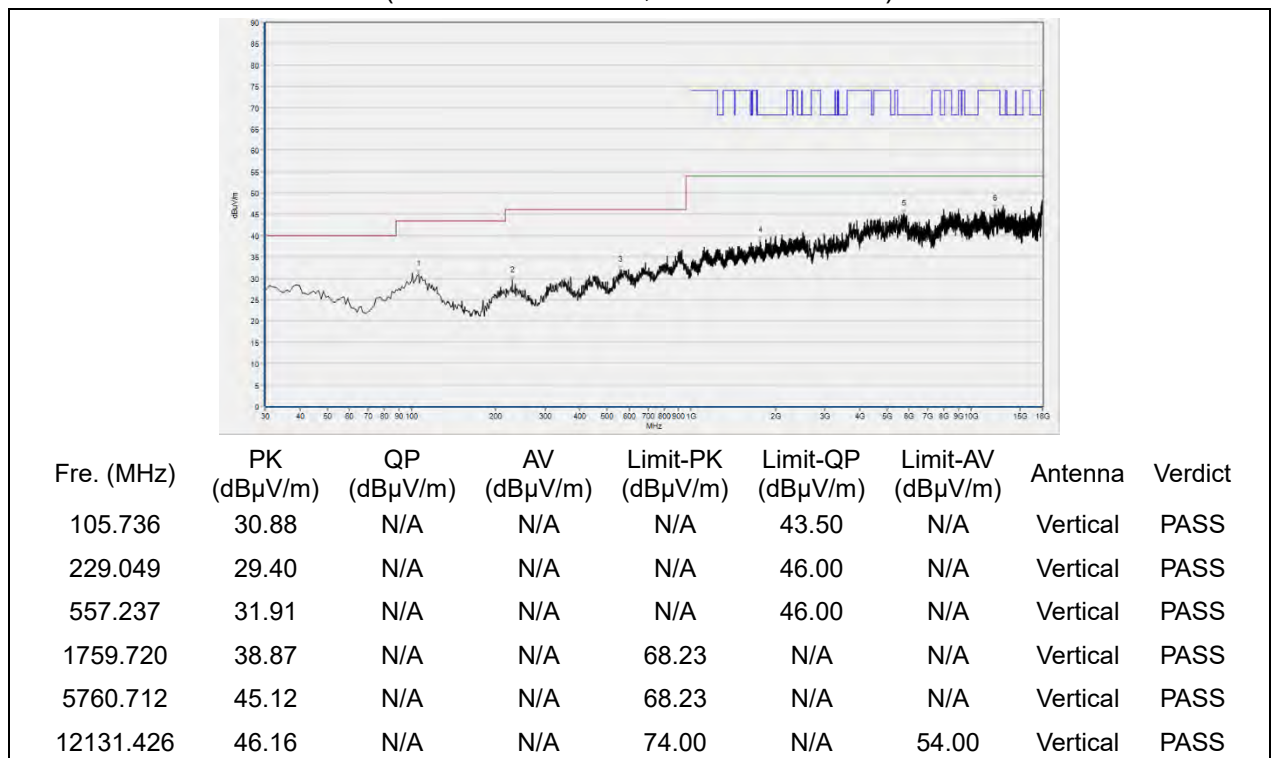


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 106



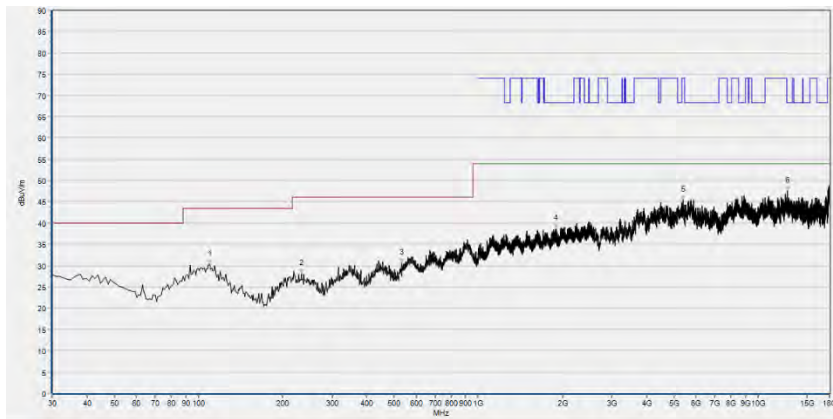
(Antenna Horizontal, 30MHz to 18GHz)



(Antenna Vertical, 30MHz to 18GHz)

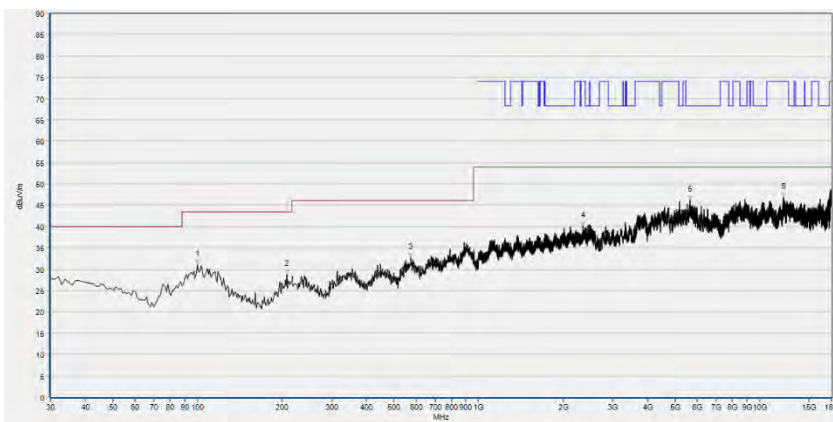


Plot for Channel 122



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
109.620	30.35	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
232.933	28.12	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
532.963	30.57	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1885.629	38.72	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5409.522	45.47	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12738.308	47.62	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

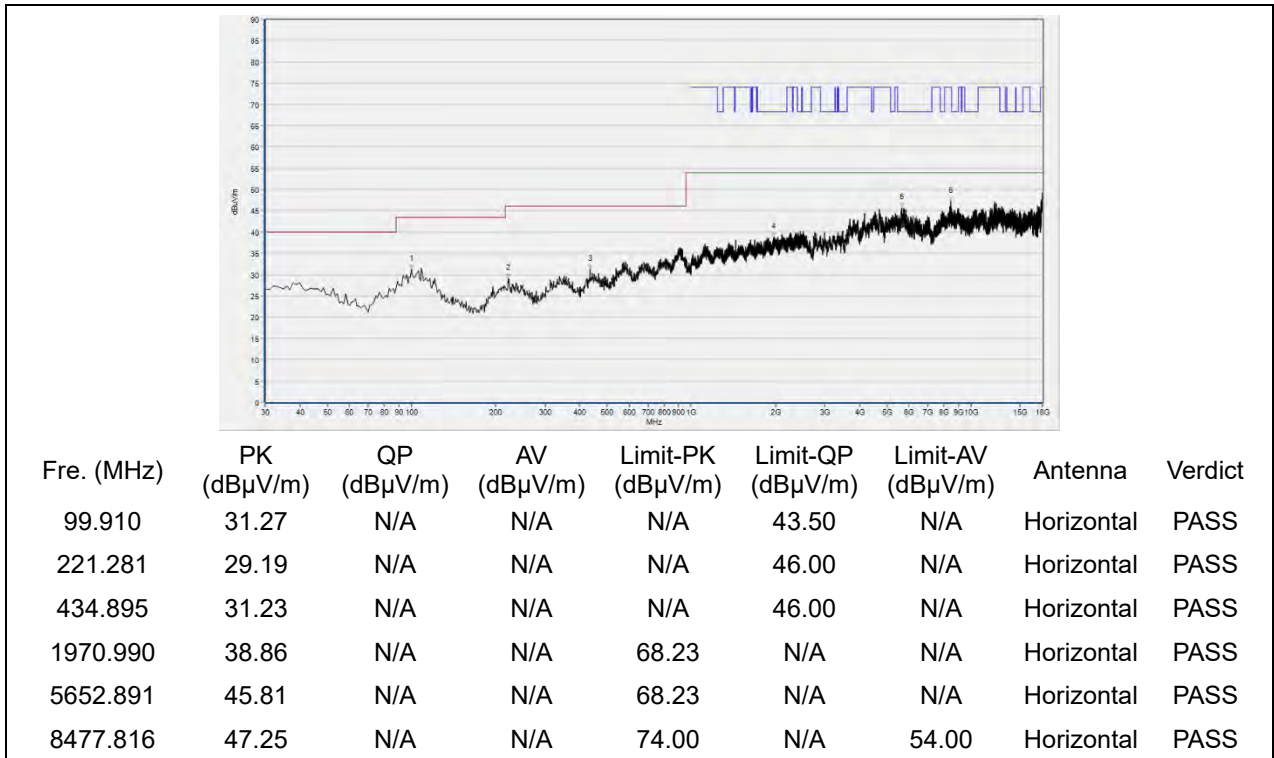
(Antenna Horizontal, 30MHz to 18GHz)



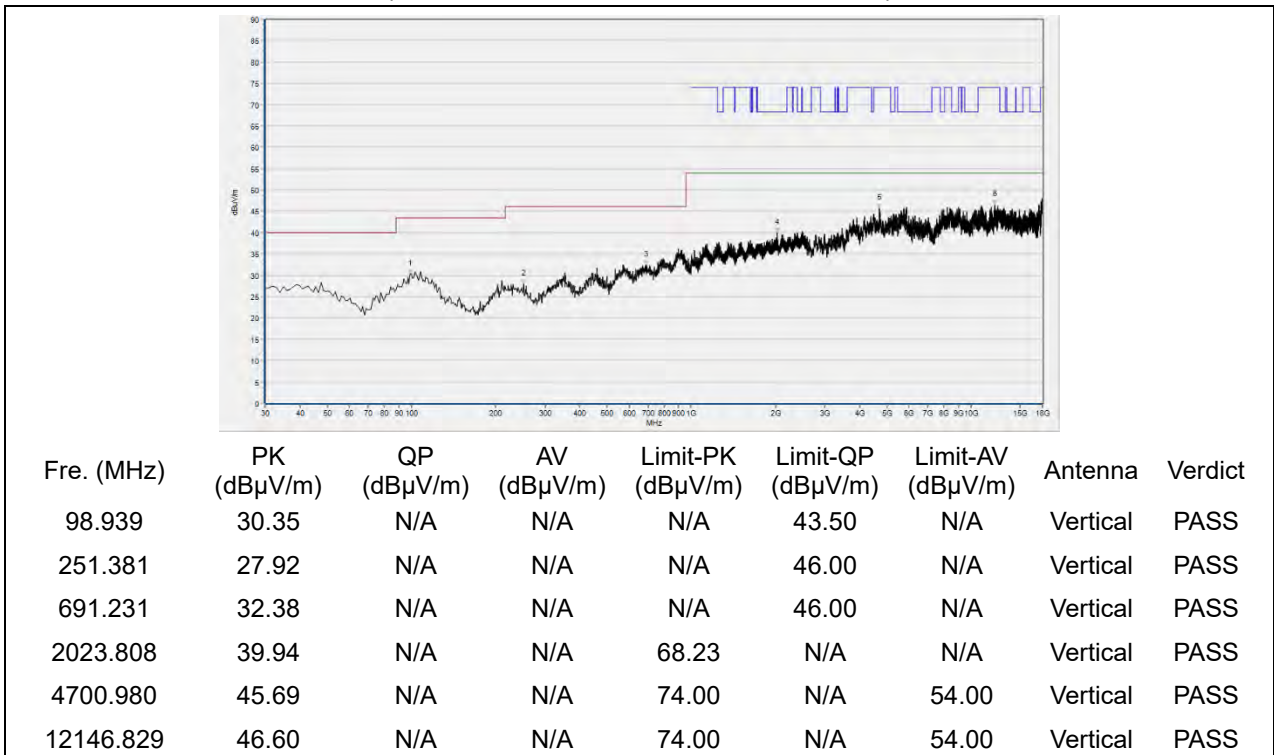
Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
99.910	31.08	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
207.688	28.74	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
574.715	32.72	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
2358.853	40.20	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
5652.891	46.30	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12156.071	46.91	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 138

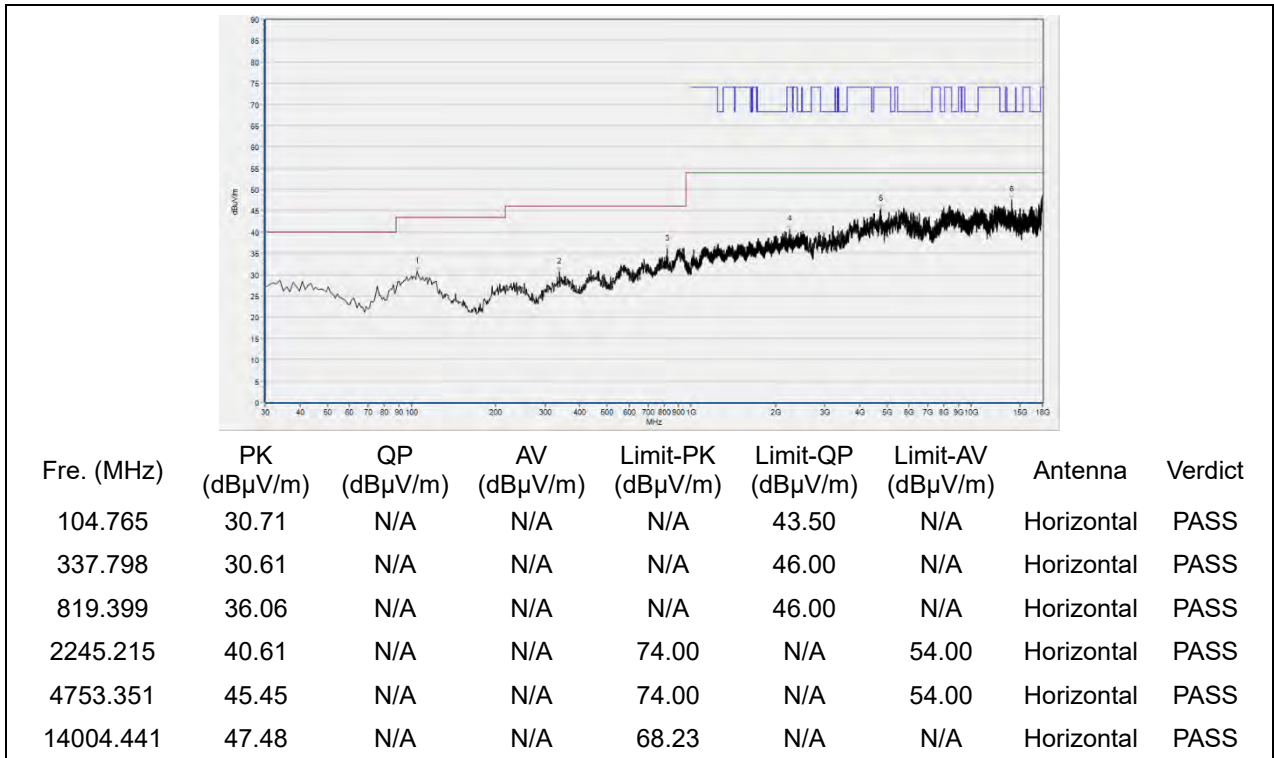


(Antenna Horizontal, 30MHz to 18GHz)

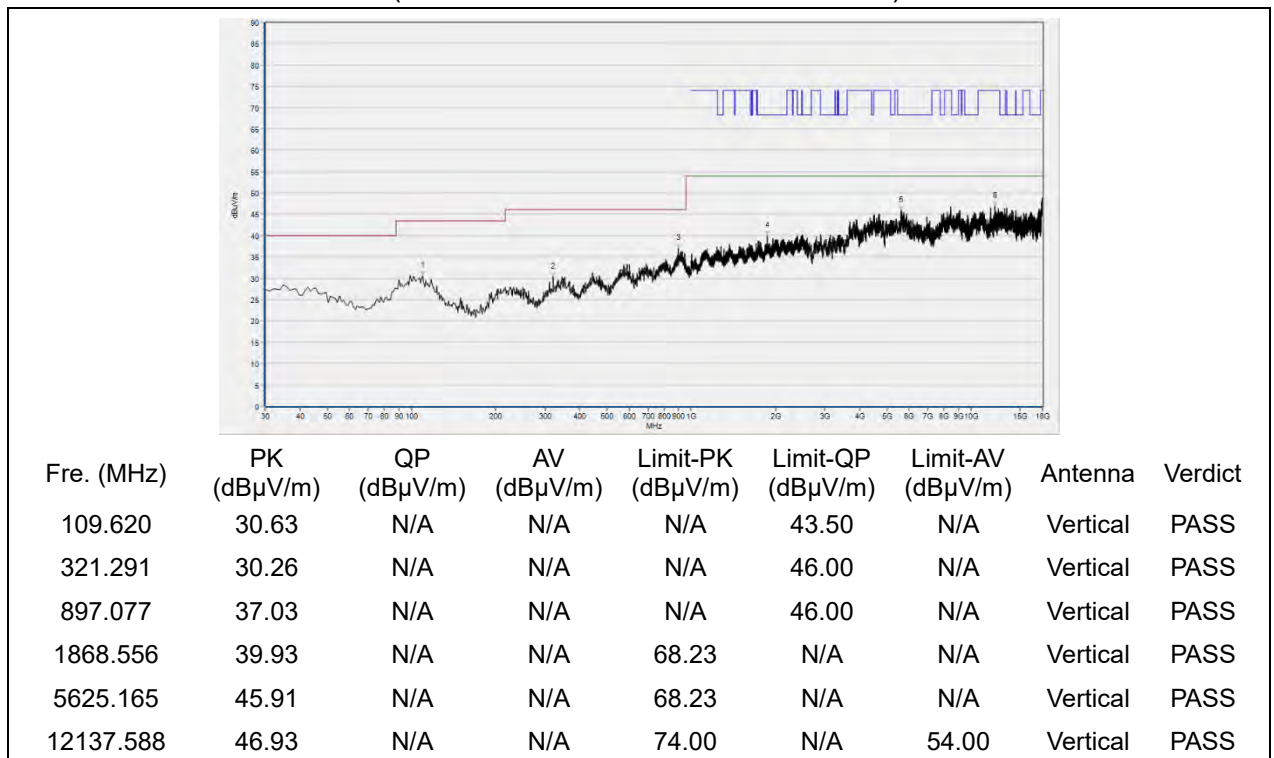


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 155



(Antenna Horizontal, 30MHz to 18GHz)

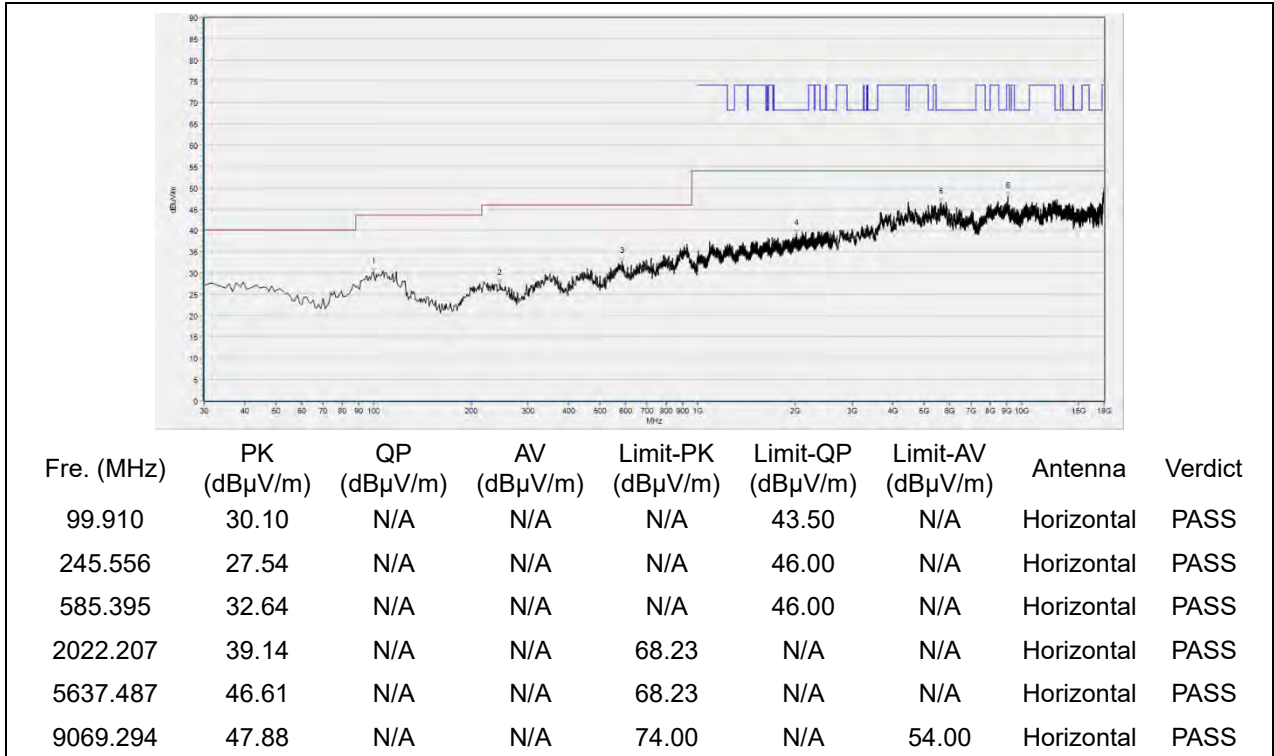


(Antenna Vertical, 30MHz to 18GHz)

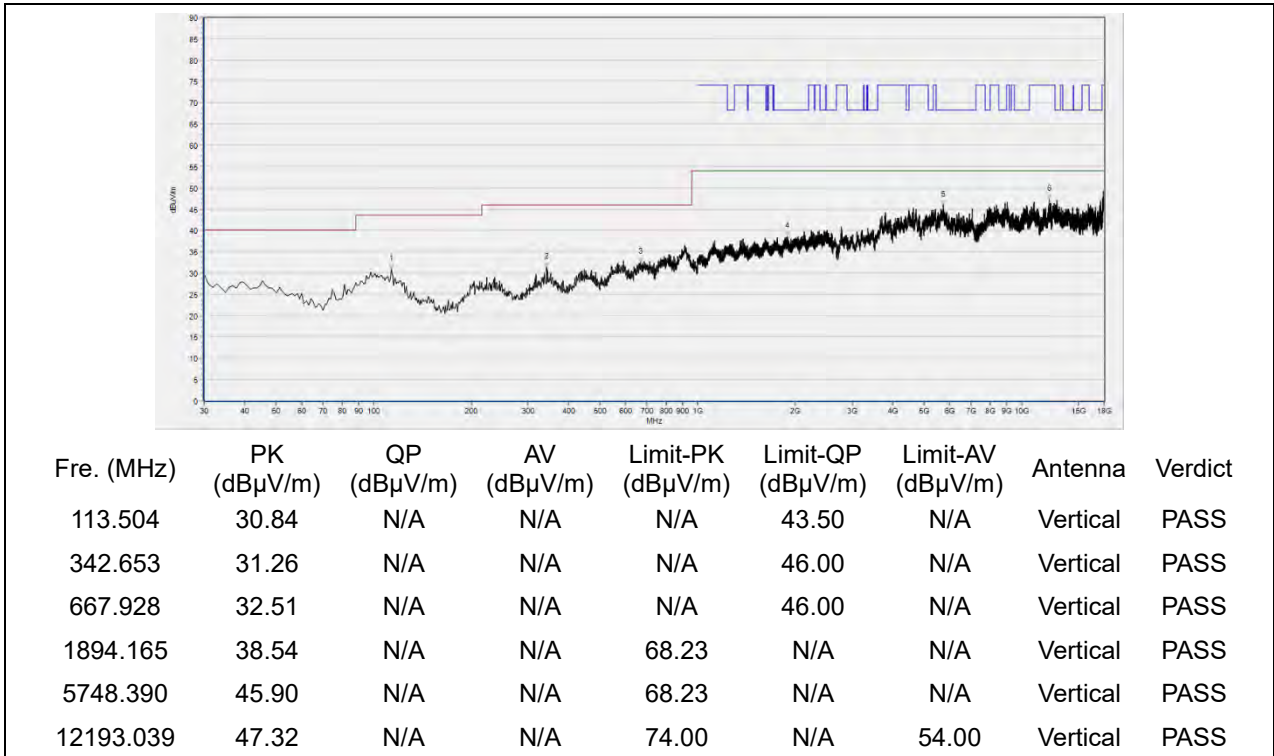


**802.11ax (HEW20) Mode**

**Plot for Channel 36**

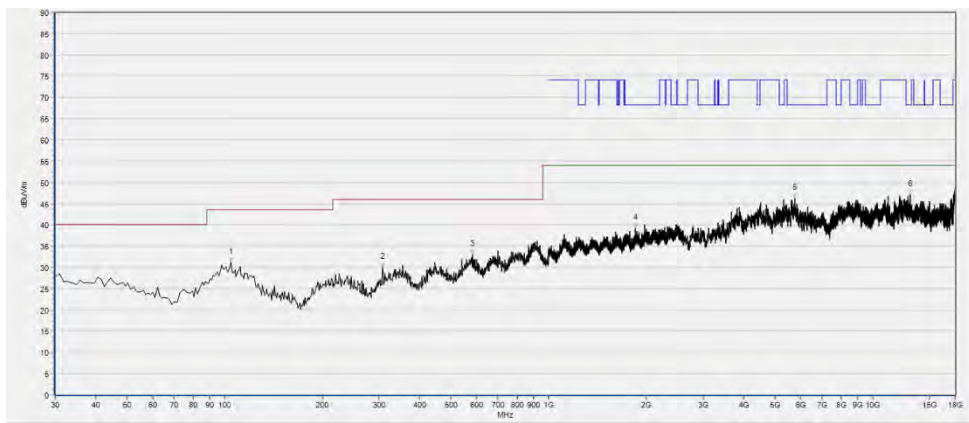


(Antenna Horizontal, 30MHz to 18GHz)



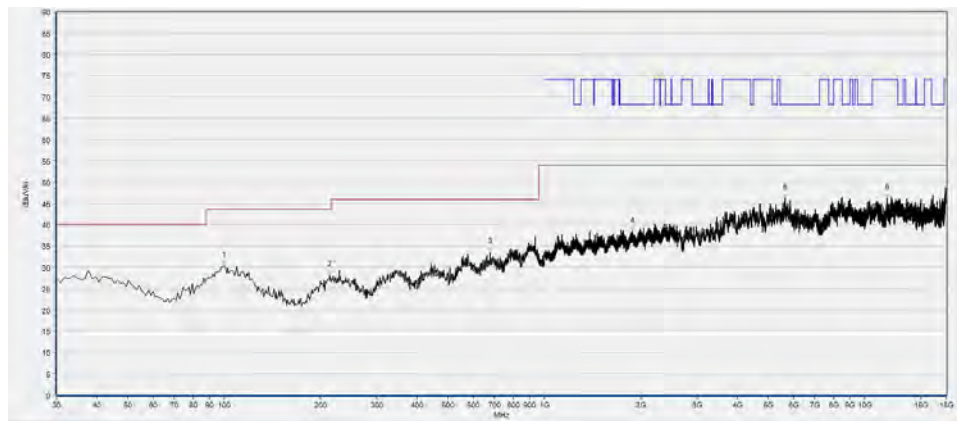
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 44



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
104.765	31.16	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
307.698	29.98	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
583.453	33.06	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1852.017	39.15	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5757.632	46.18	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
13083.337	47.16	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

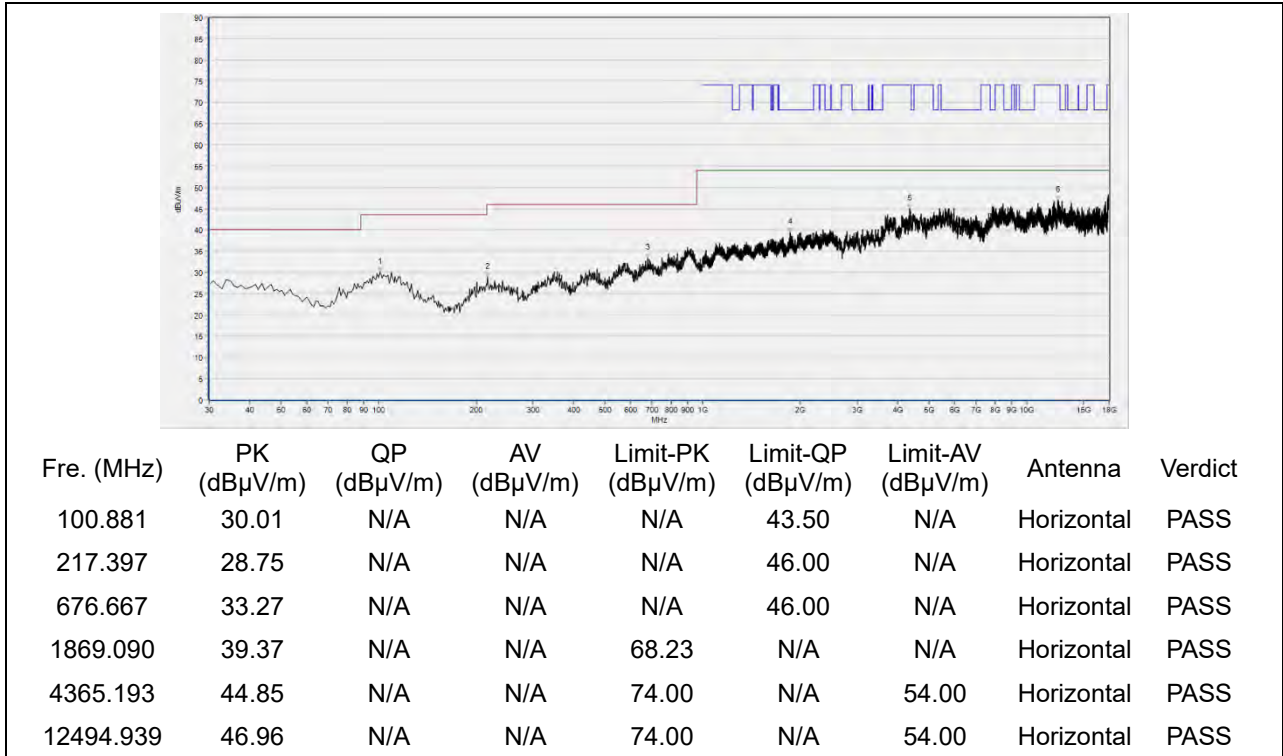
(Antenna Horizontal, 30MHz to 18GHz)



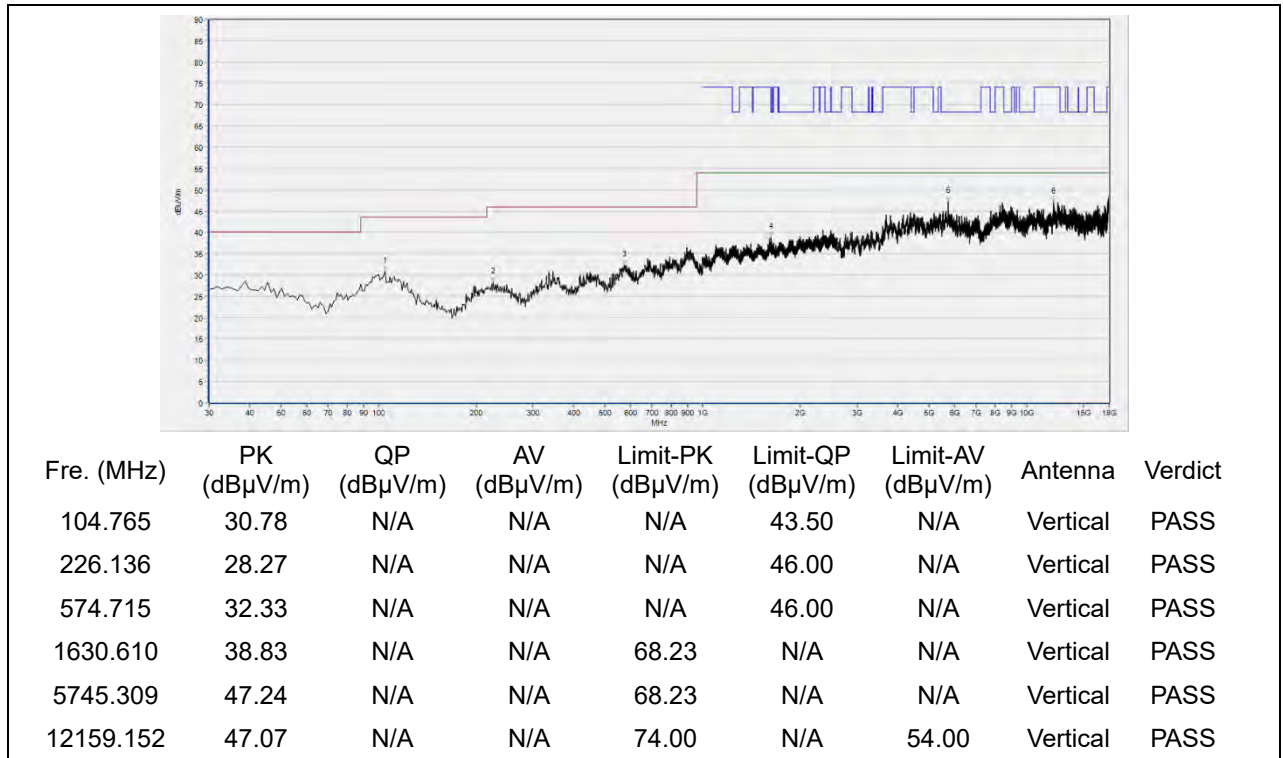
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
99.910	30.40	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
213.514	28.23	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
677.638	33.58	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1882.961	38.37	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5646.729	46.31	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
11740.188	46.25	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 48

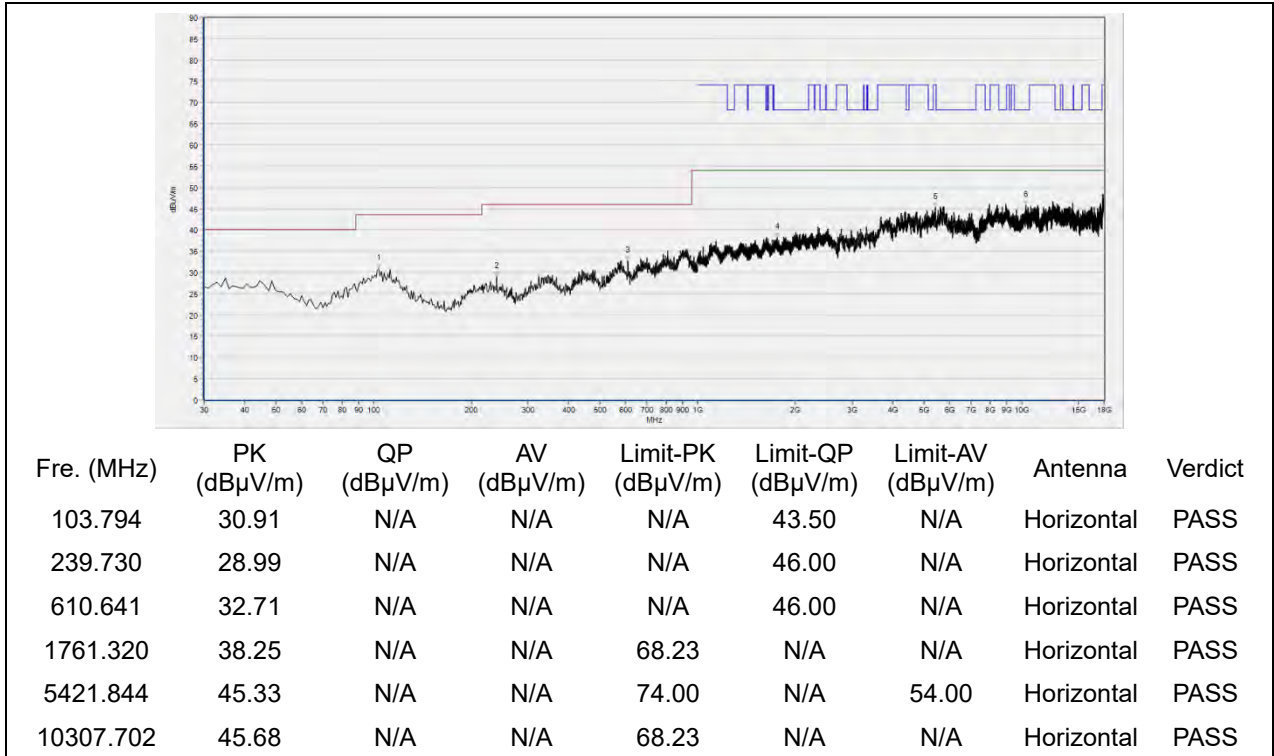


(Antenna Horizontal, 30MHz to 18GHz)

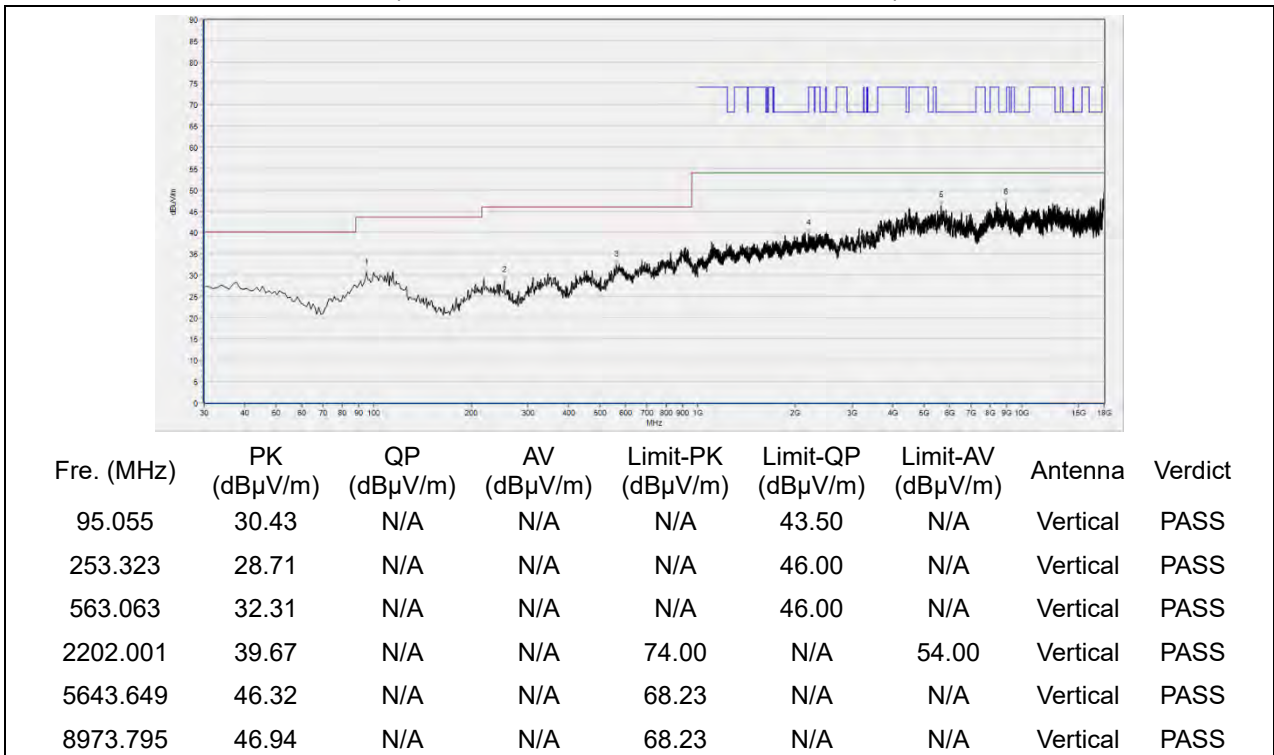


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 52

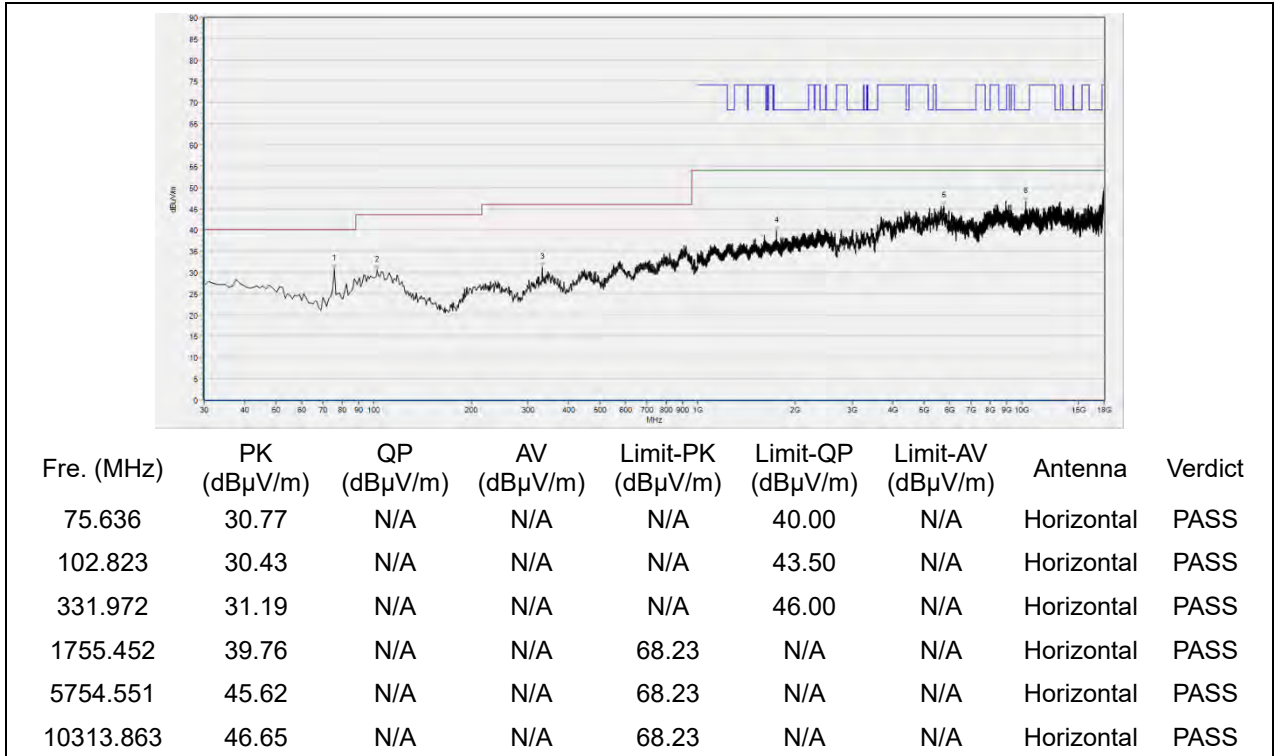


(Antenna Horizontal, 30MHz to 18GHz)

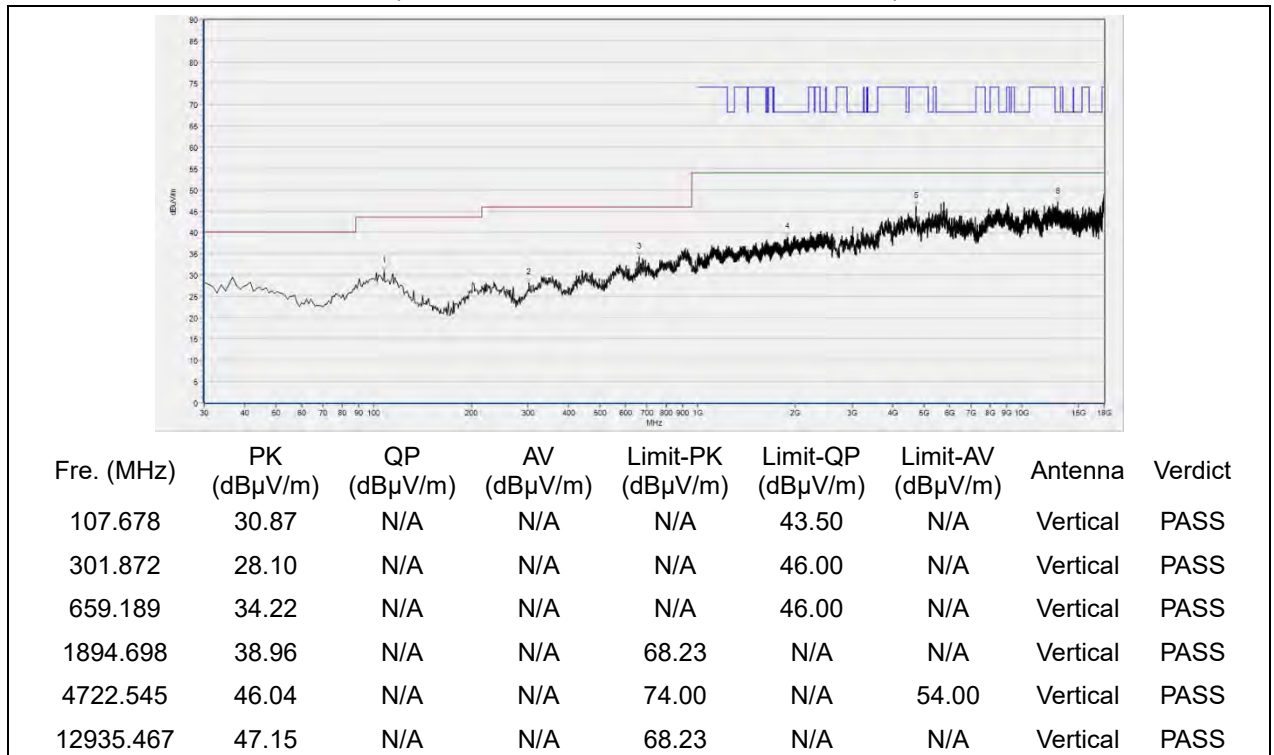


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 60



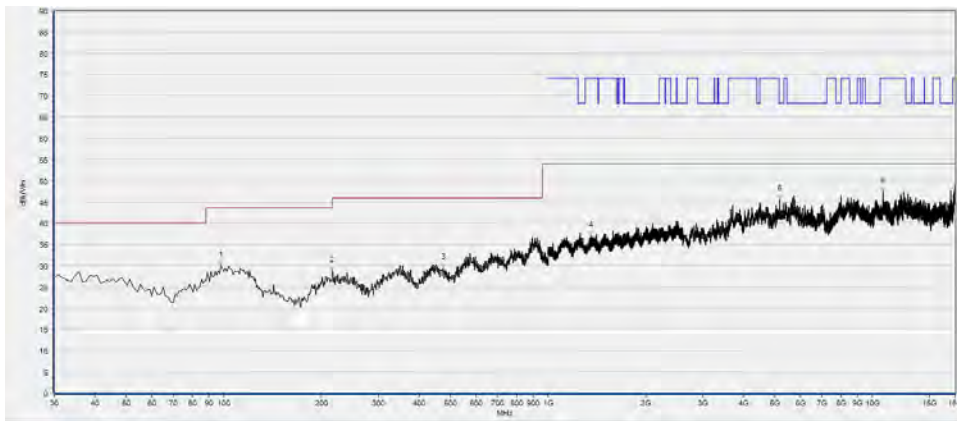
(Antenna Horizontal, 30MHz to 18GHz)



(Antenna Vertical, 30MHz to 18GHz)

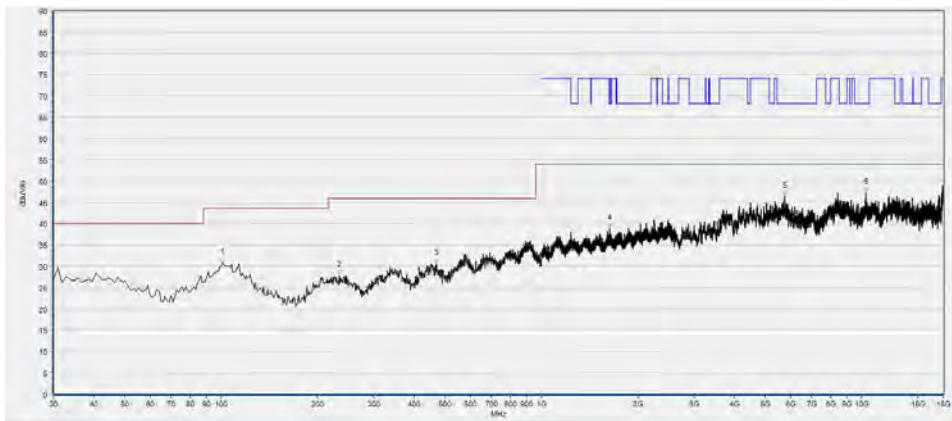


Plot for Channel 64



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
97.968	29.96	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
216.426	28.79	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
474.705	29.53	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1356.385	37.06	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5178.476	45.61	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
10819.084	47.47	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

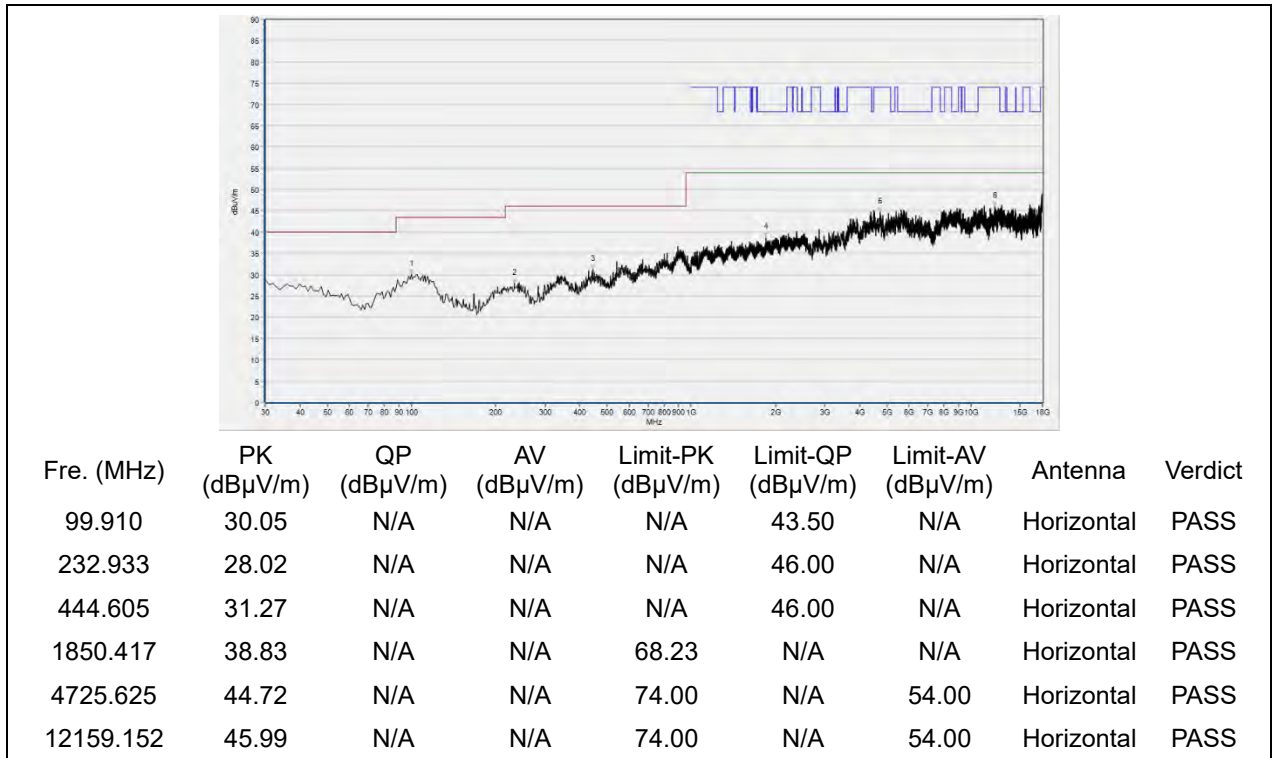
(Antenna Horizontal, 30MHz to 18GHz)



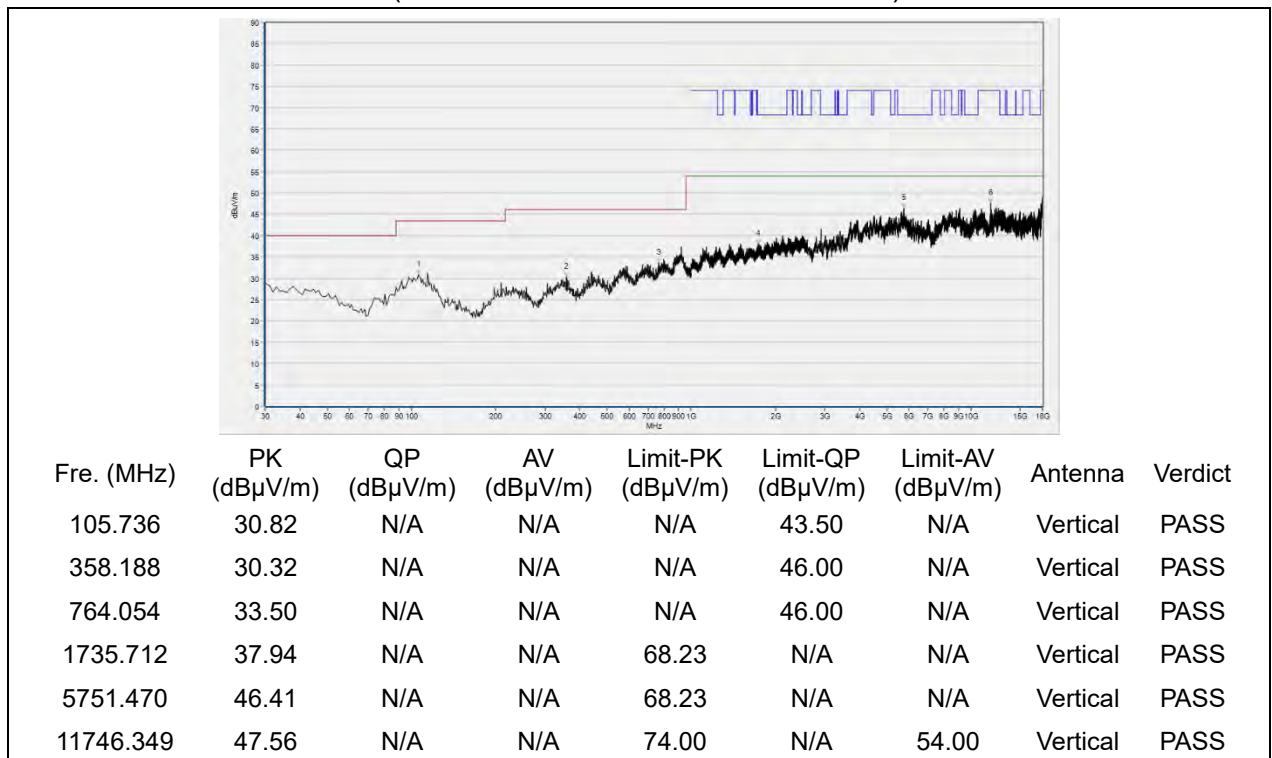
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
100.881	30.80	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
233.904	27.81	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
471.792	30.43	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1632.211	38.89	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5751.470	46.44	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
10313.863	47.25	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 100

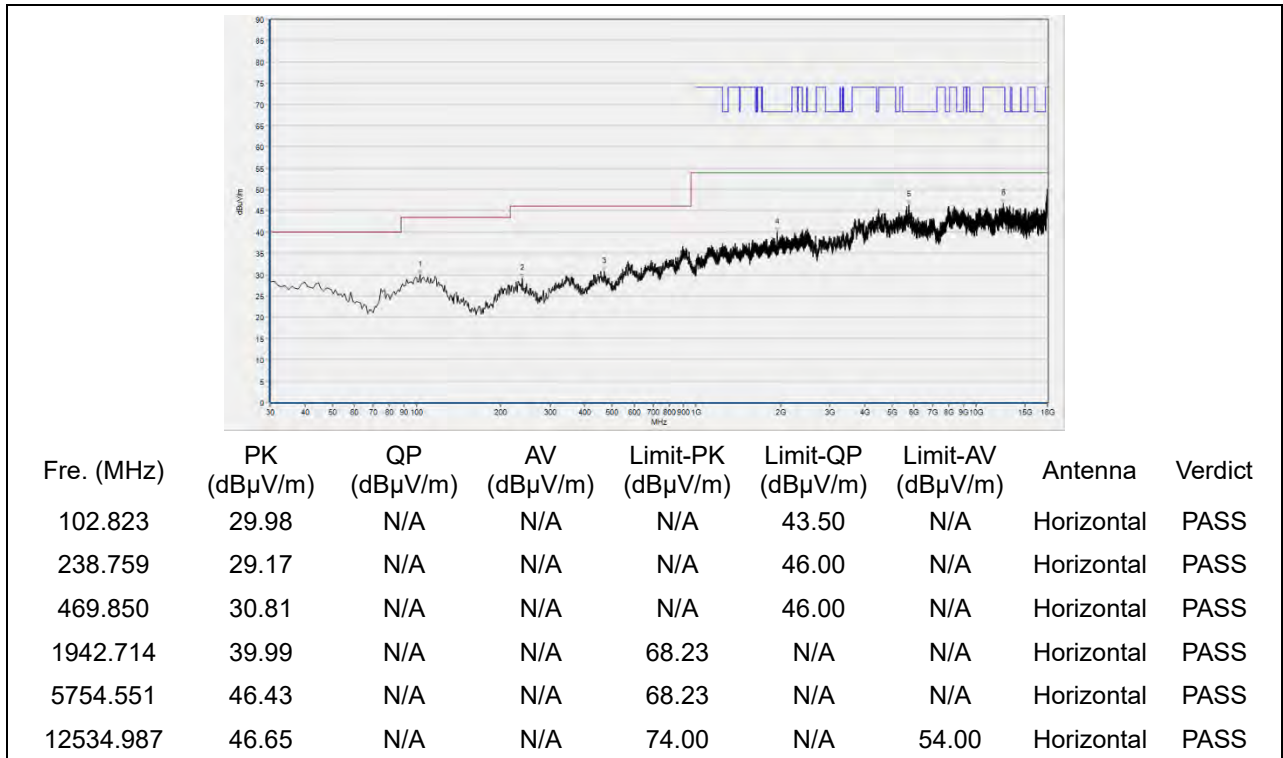


(Antenna Horizontal, 30MHz to 18GHz)

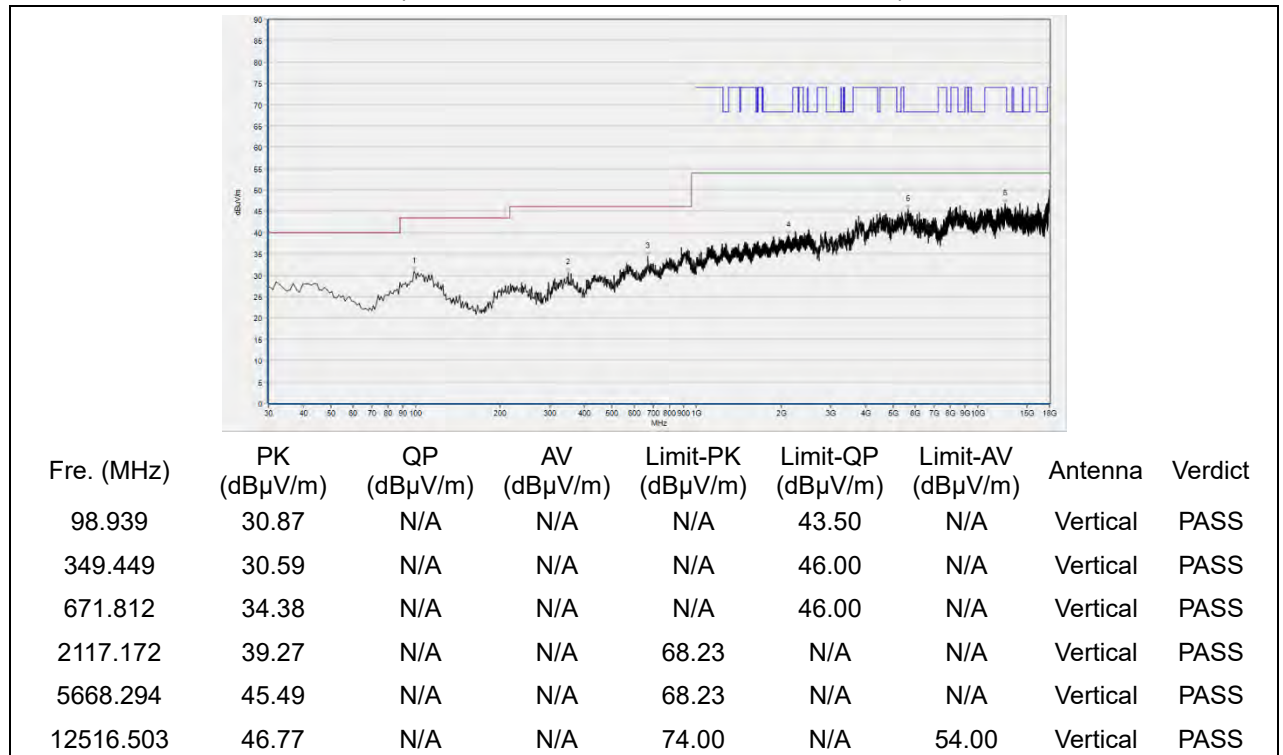


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 120

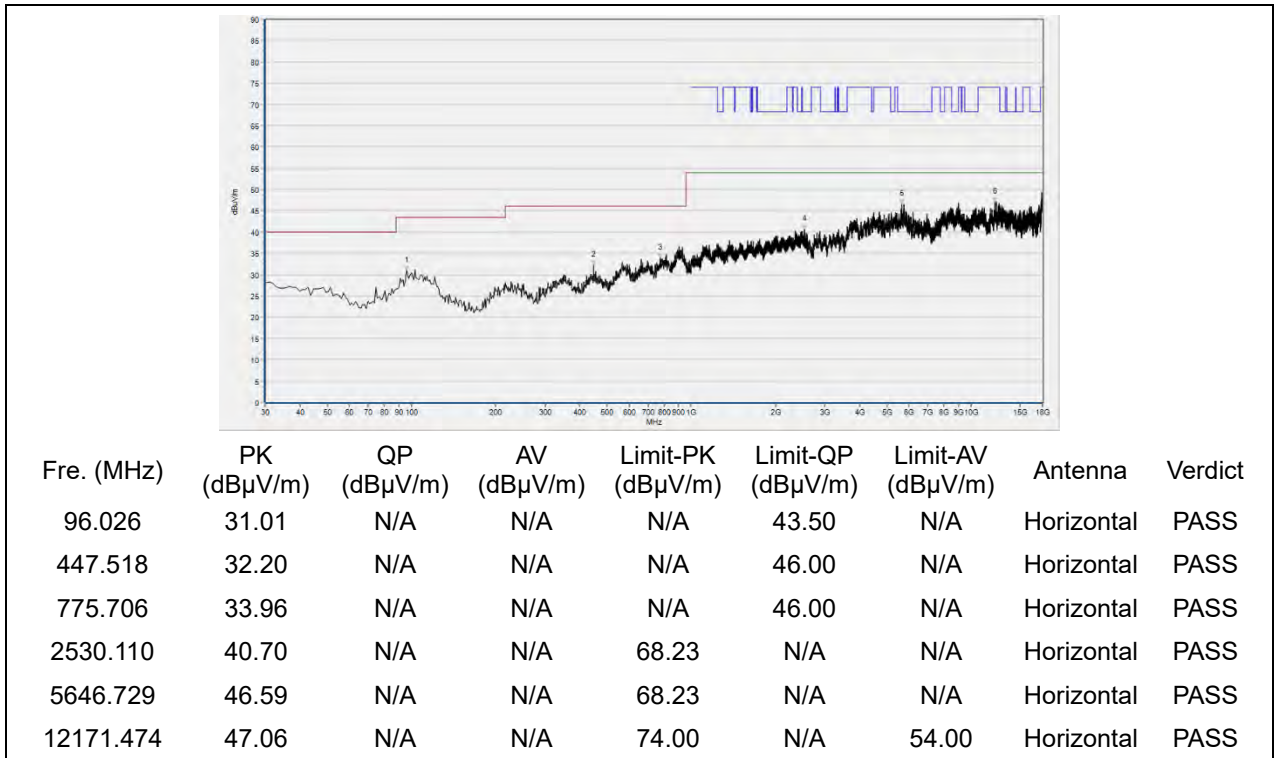


(Antenna Horizontal, 30MHz to 18GHz)

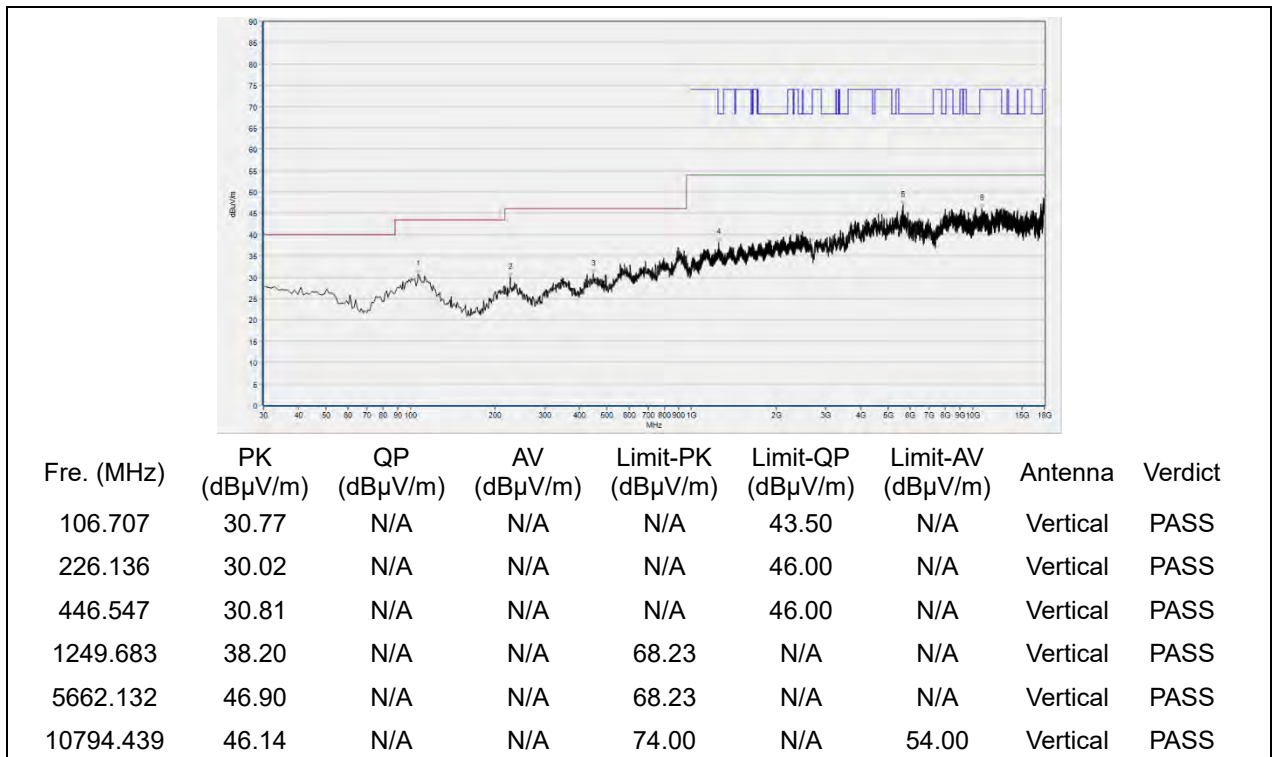


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 144

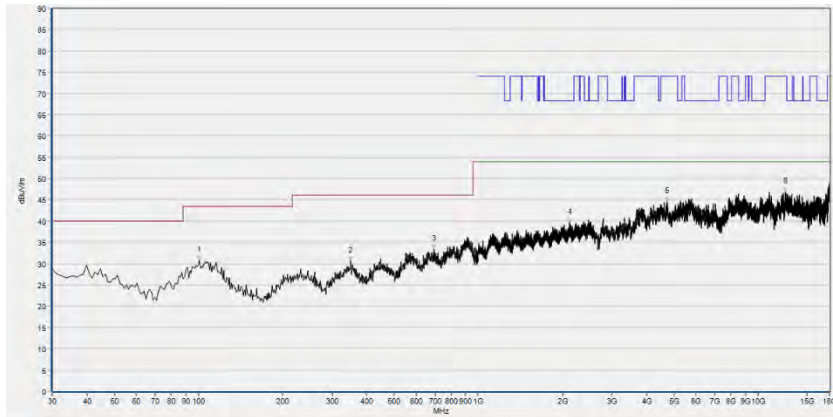


(Antenna Horizontal, 30MHz to 18GHz)



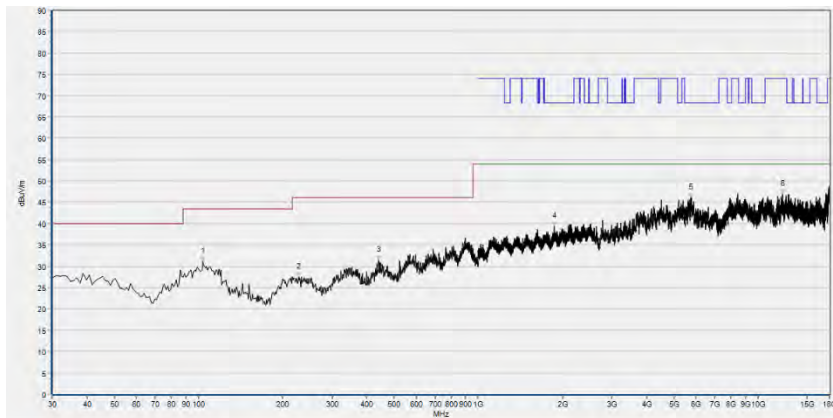
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 149



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
100.881	30.69	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
349.449	30.59	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
692.202	33.33	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2119.306	39.68	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
4728.706	44.53	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12498.020	46.93	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

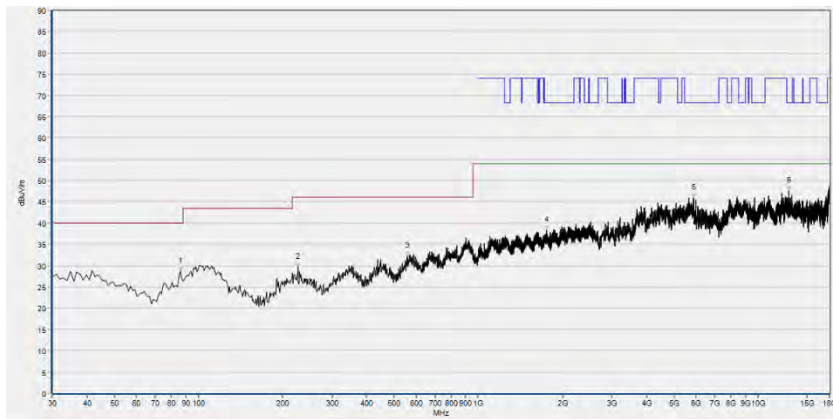
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBµV/m)	QP (dBµV/m)	AV (dBµV/m)	Limit-PK (dBµV/m)	Limit-QP (dBµV/m)	Limit-AV (dBµV/m)	Antenna	Verdict
103.794	31.05	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
228.078	27.48	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
440.721	31.44	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1865.355	39.34	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5760.712	46.04	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12217.684	46.96	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

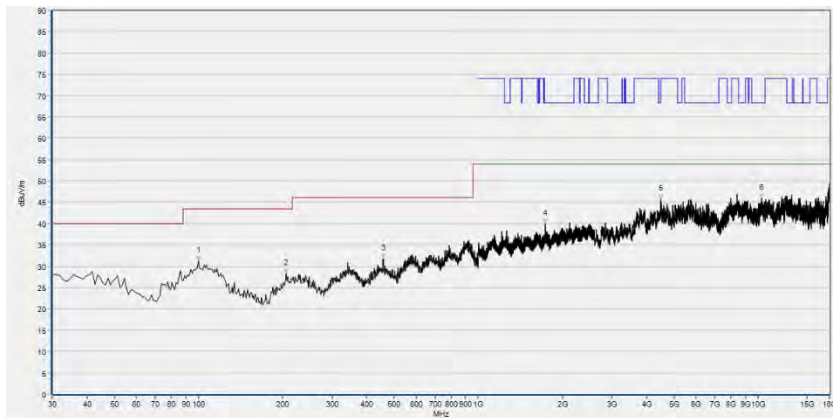
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 157



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
86.316	28.69	N/A	N/A	N/A	40.00	N/A	Horizontal	PASS
226.136	29.55	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
556.266	32.24	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1754.385	38.38	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5877.776	45.98	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
12873.855	47.54	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS

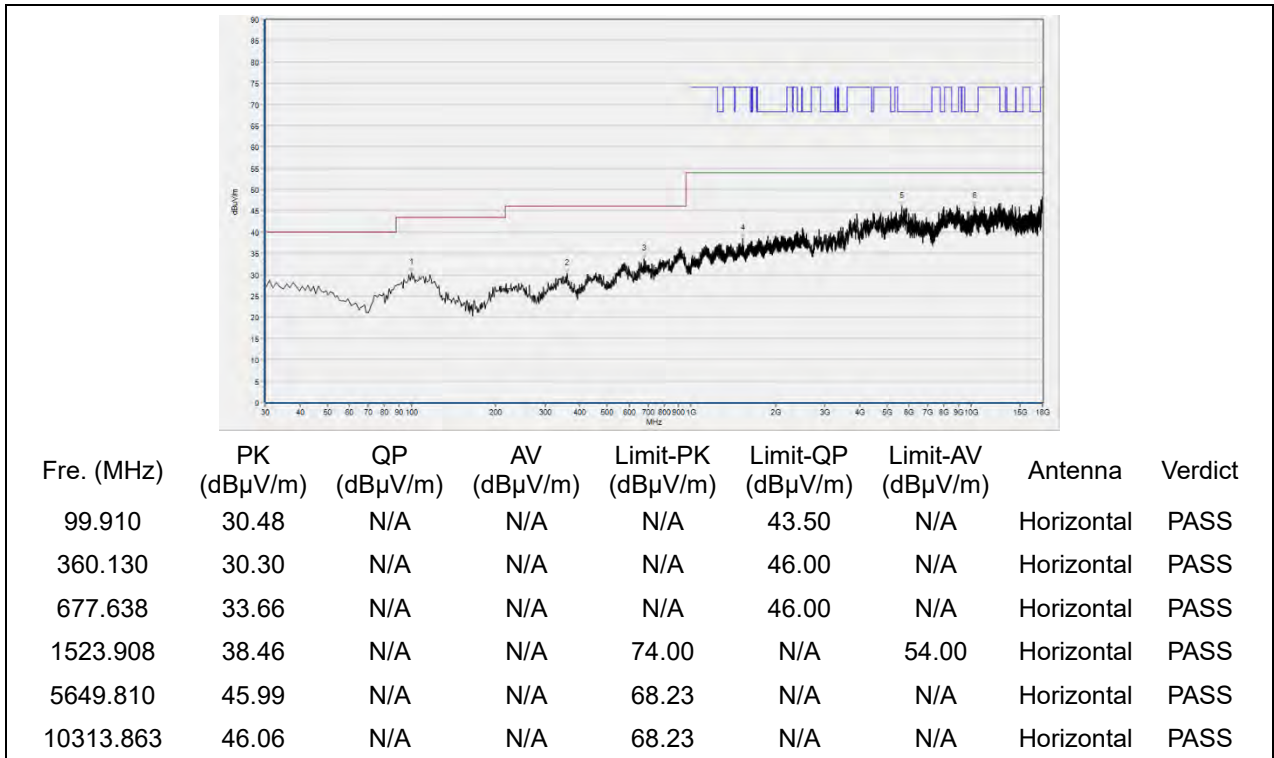
(Antenna Horizontal, 30MHz to 18GHz)



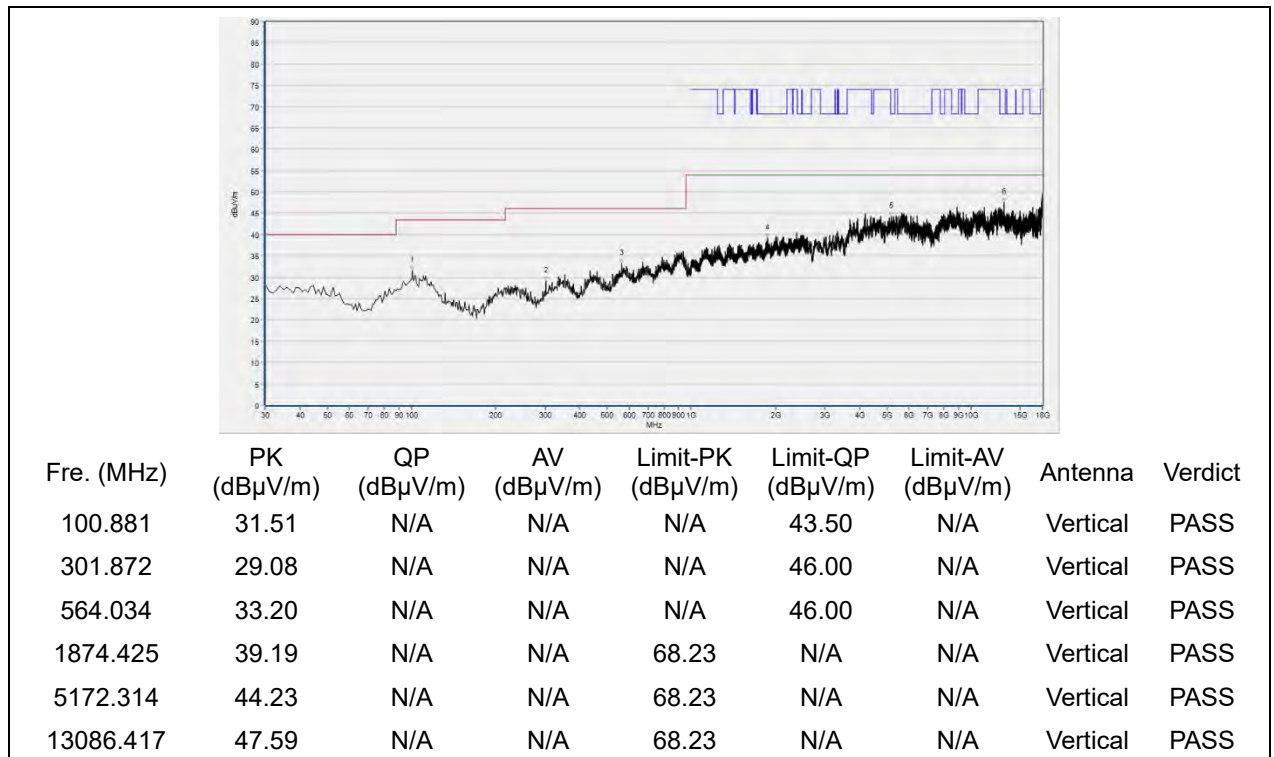
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
99.910	31.25	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
205.746	28.33	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
458.198	31.72	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1738.379	39.96	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
4494.579	45.79	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
10320.024	45.91	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 165



(Antenna Horizontal, 30MHz to 18GHz)

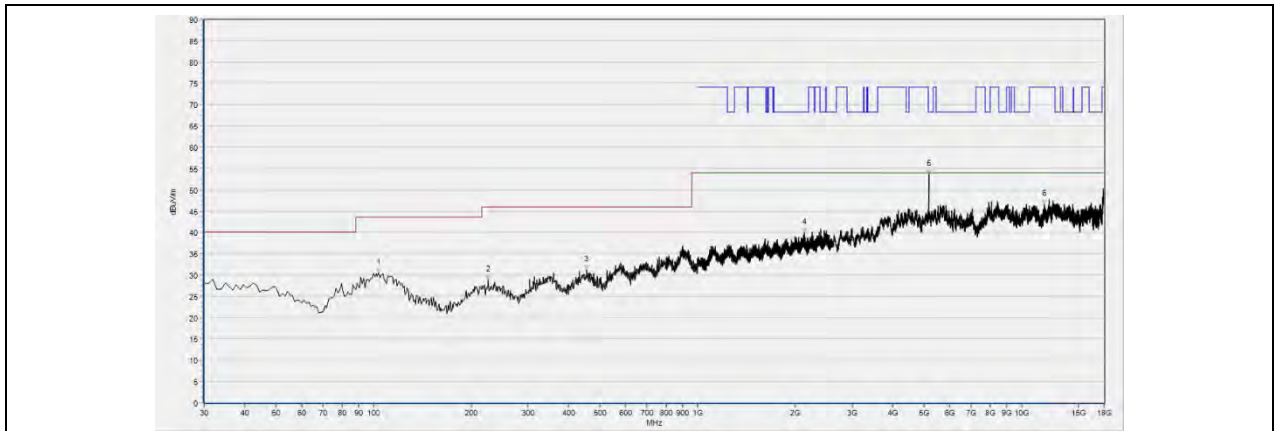


(Antenna Vertical, 30MHz to 18GHz)



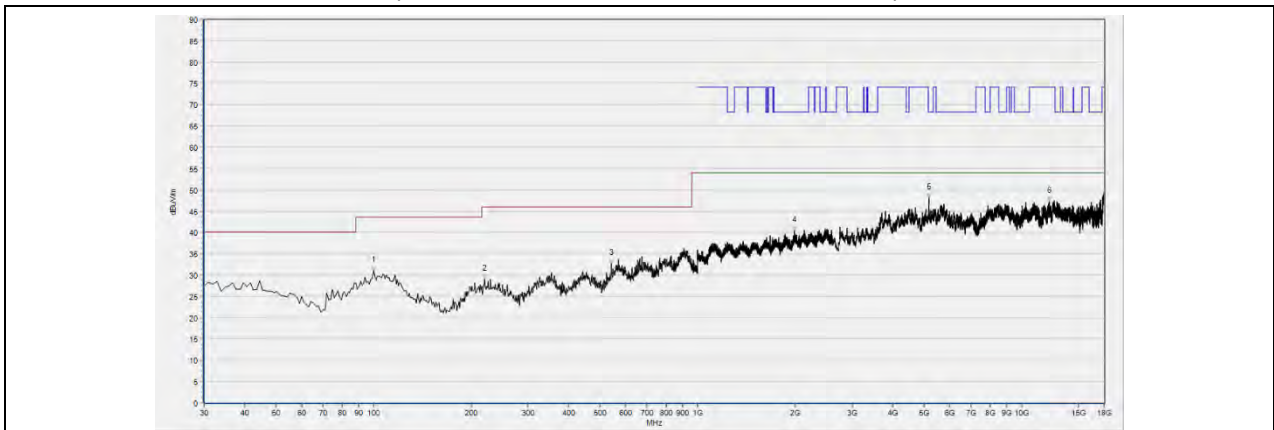
**802.11ax (HEW20) RU26 Mode**

Plot for Channel 36



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
103.794	30.45	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
226.136	28.74	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
455.285	31.20	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
2133.711	39.81	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5172.314	53.62	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
11752.511	46.54	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

(Antenna Horizontal, 30MHz to 18GHz)

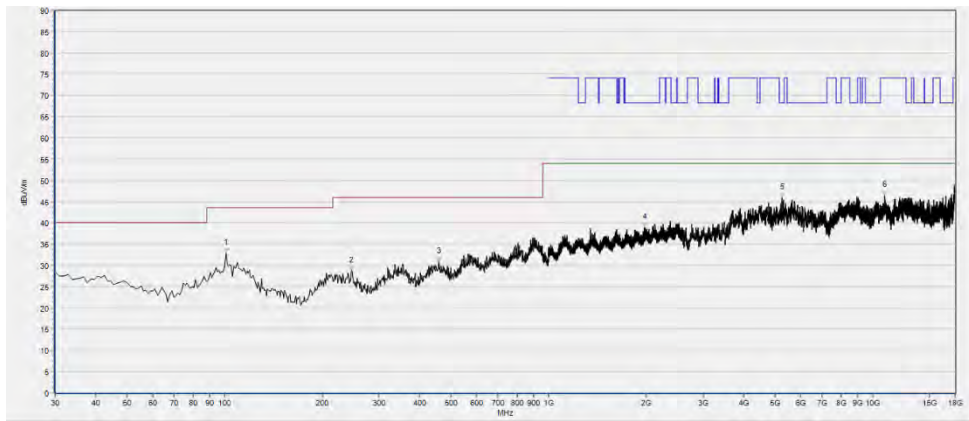


Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
99.910	30.96	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
220.310	29.00	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
542.673	32.76	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1988.063	40.33	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5172.314	48.09	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12205.361	47.20	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

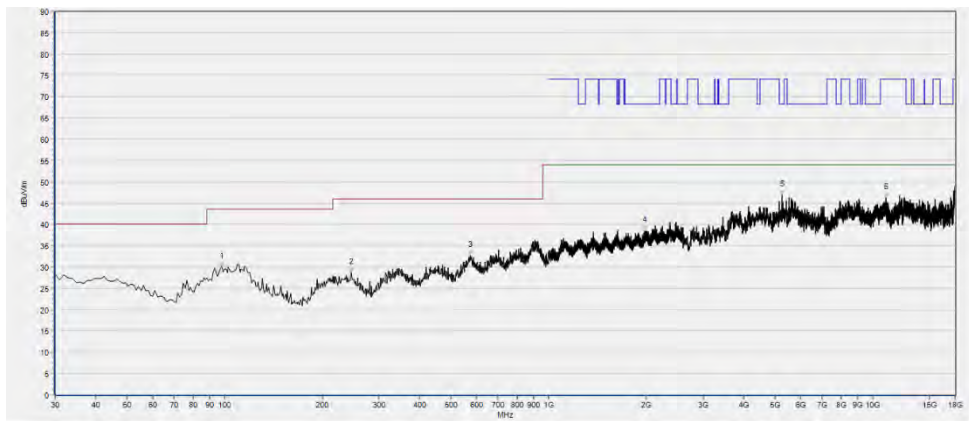


Plot for Channel 44



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
100.881	32.92	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
246.527	28.66	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
458.198	30.90	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1983.795	38.85	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
5249.330	45.92	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
10923.825	46.50	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

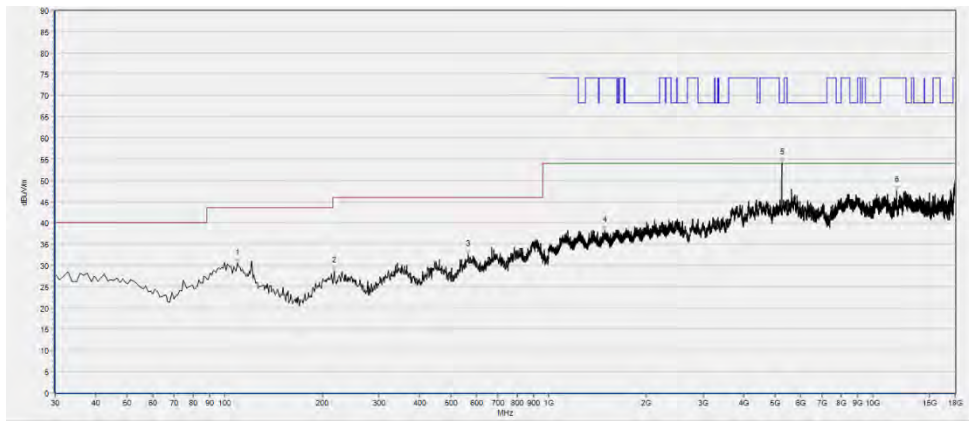
(Antenna Horizontal, 30MHz to 18GHz)



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
97.968	30.04	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
246.527	28.63	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
574.715	32.72	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1986.462	38.60	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5219.330	46.88	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
11013.163	46.24	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

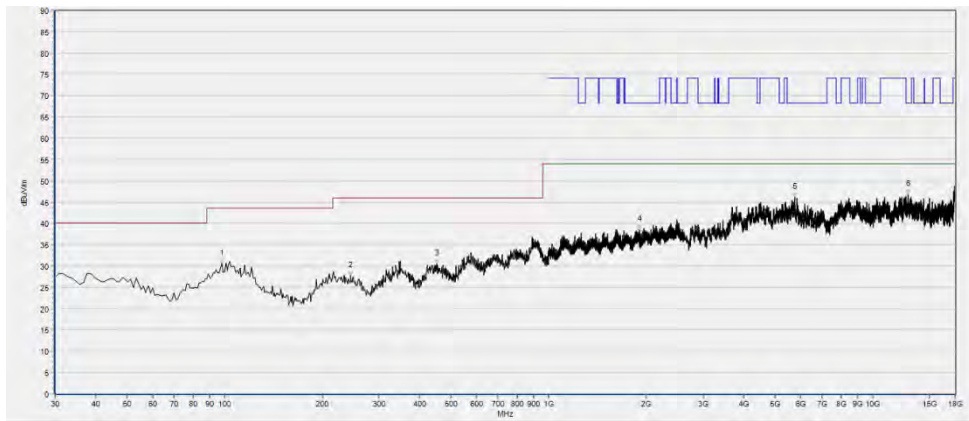
(Antenna Vertical, 30MHz to 18GHz)

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
109.620	30.56	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
218.368	28.67	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
565.976	32.45	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1494.031	38.24	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
5249.330	54.20	N/A	N/A	68.23	N/A	N/A	Horizontal	PASS
11881.896	47.66	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

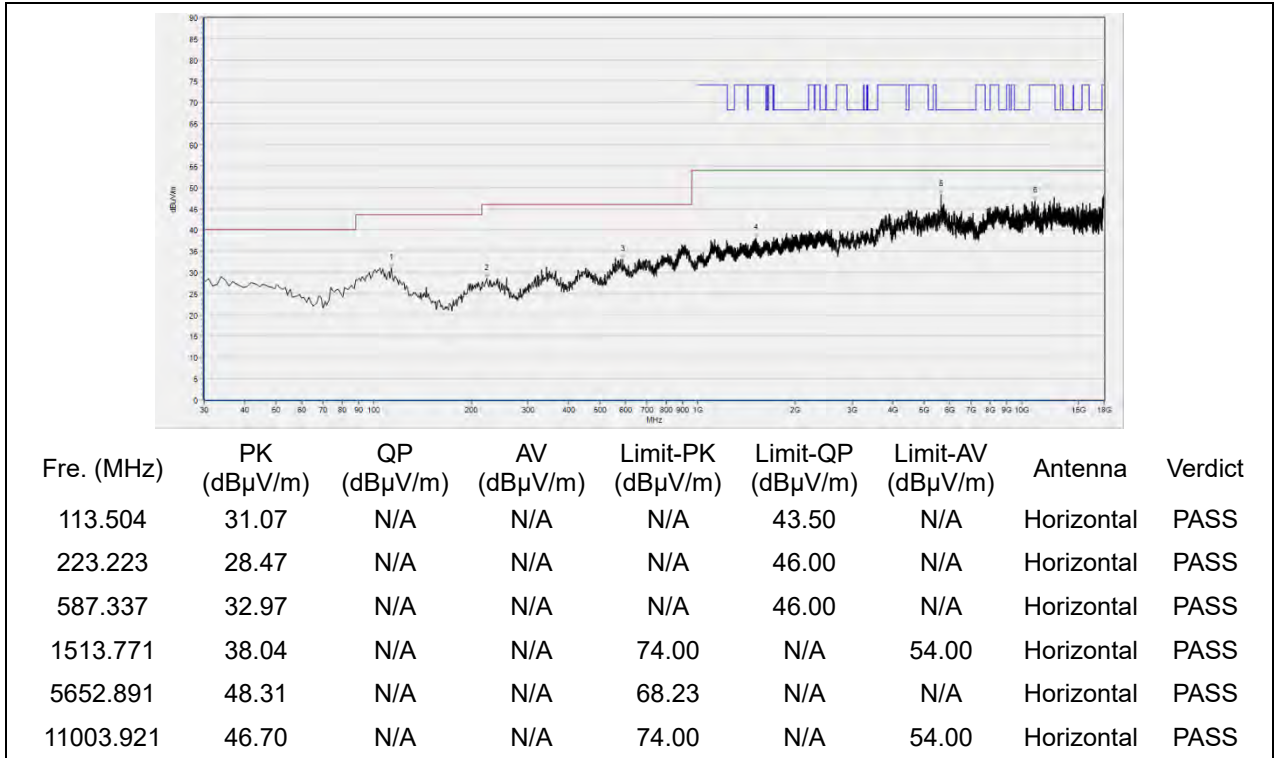
(Antenna Horizontal, 30MHz to 18GHz)



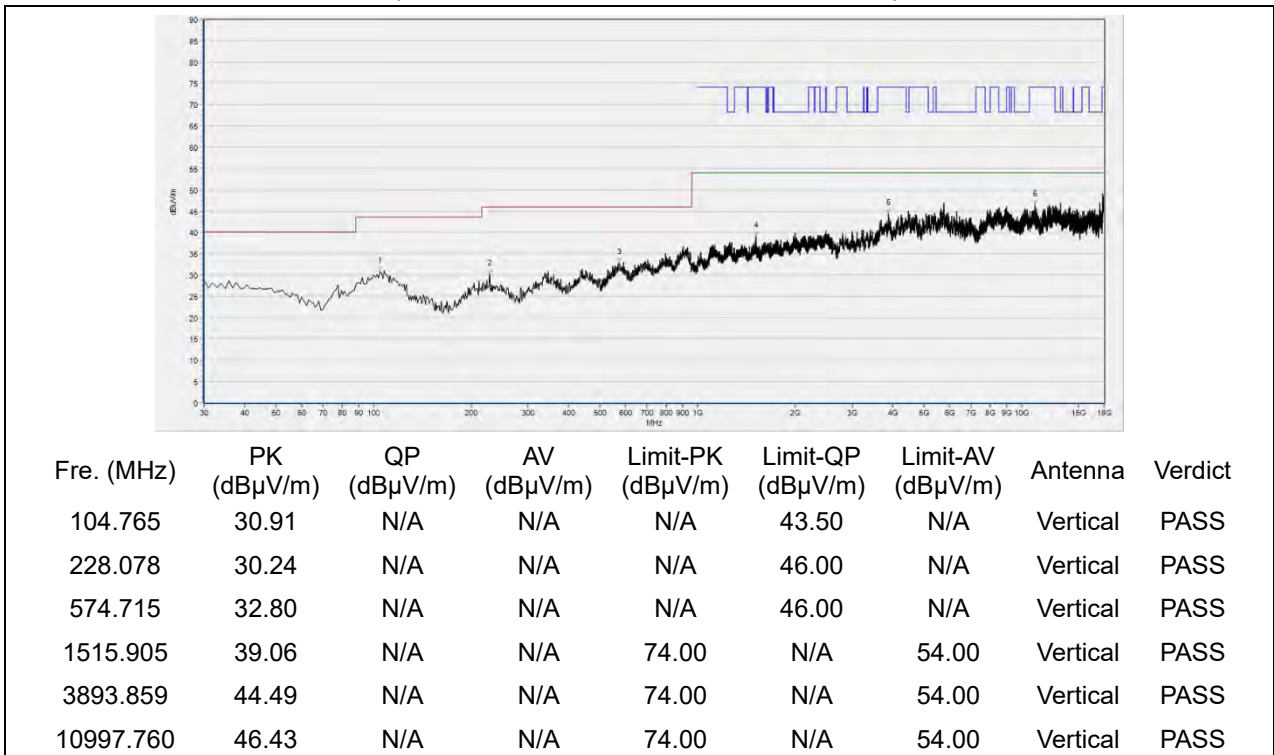
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
97.968	30.56	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
245.556	27.69	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
452.372	30.56	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1911.771	38.49	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
5751.470	46.03	N/A	N/A	68.23	N/A	N/A	Vertical	PASS
12920.064	46.75	N/A	N/A	68.23	N/A	N/A	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 52

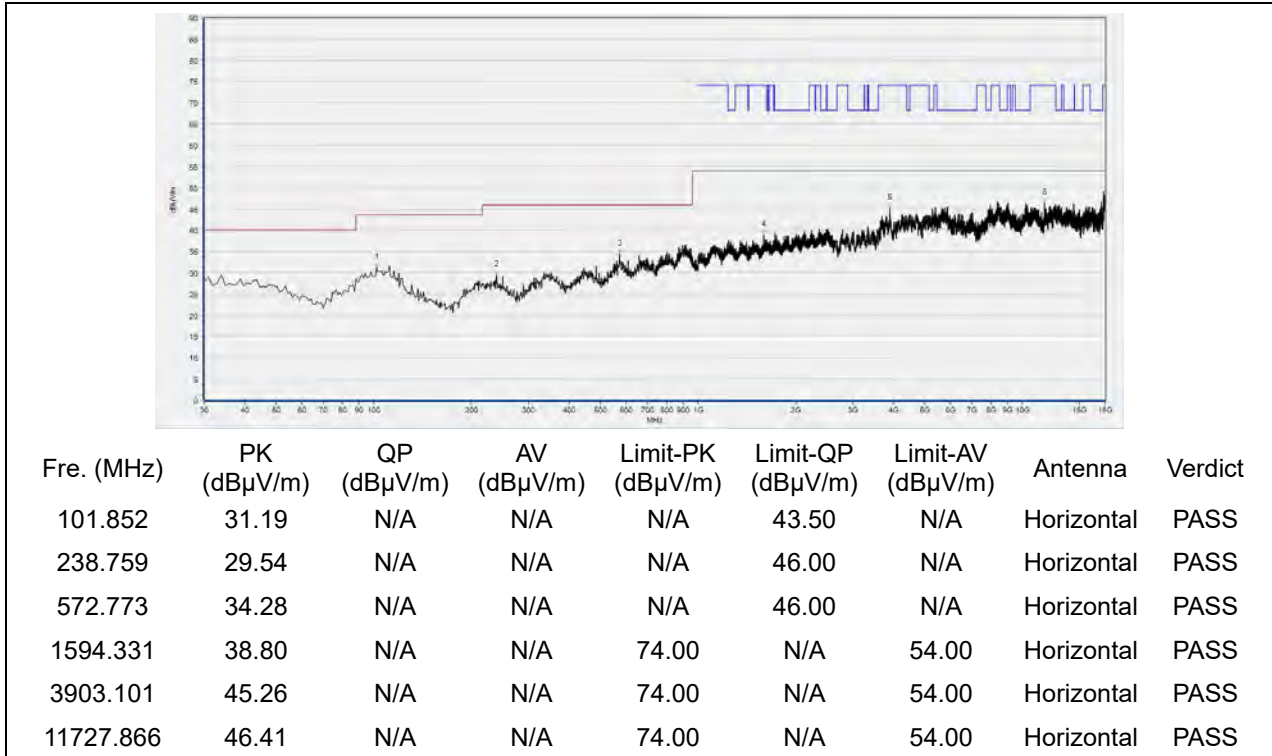


(Antenna Horizontal, 30MHz to 18GHz)

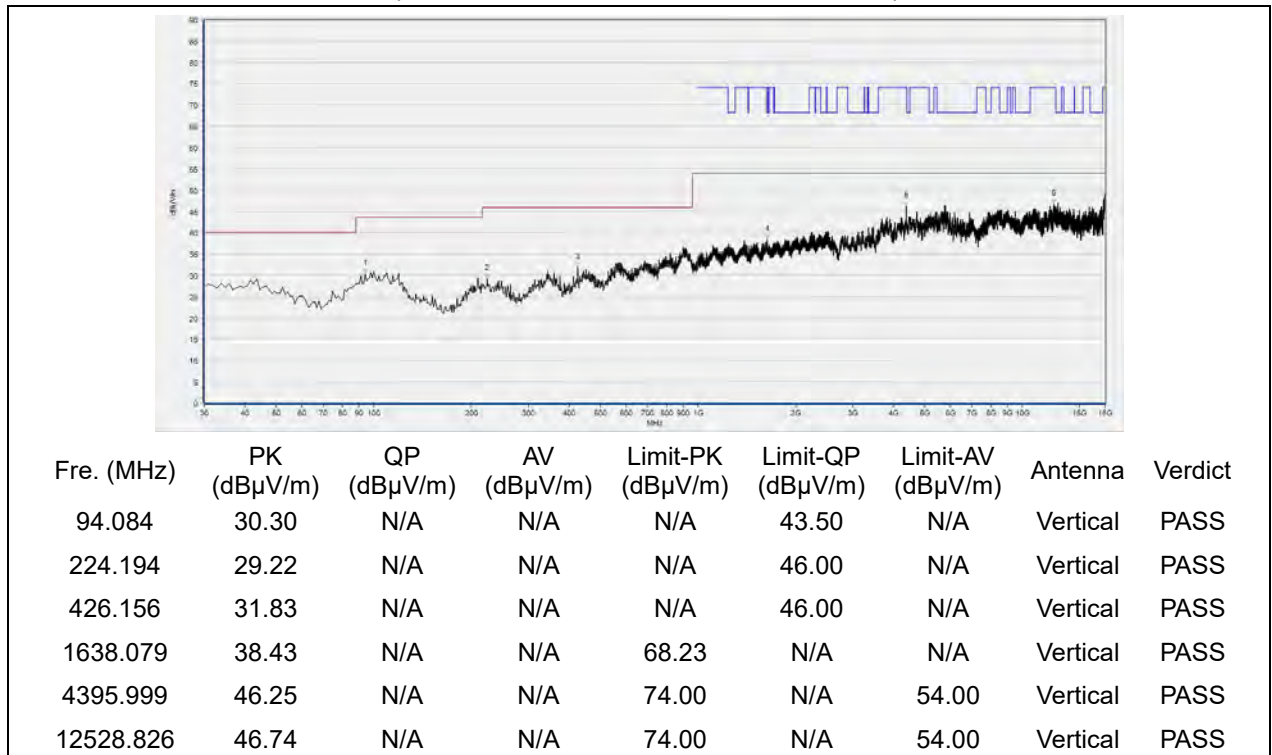


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 60

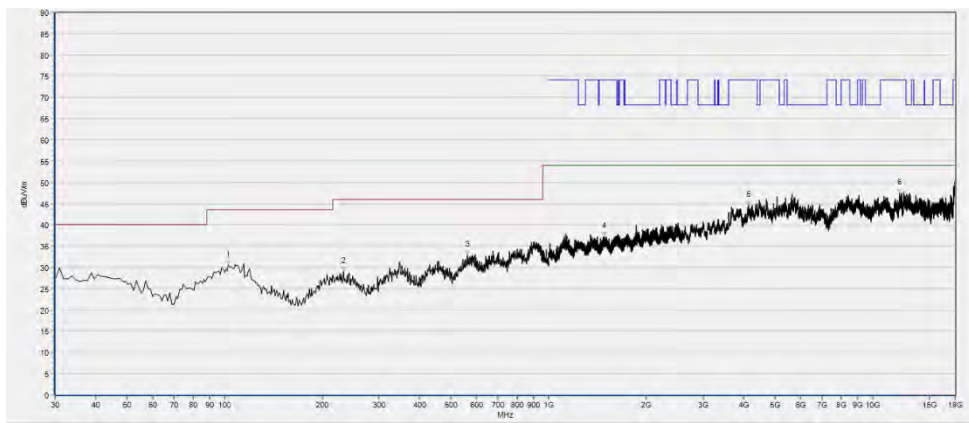


(Antenna Horizontal, 30MHz to 18GHz)



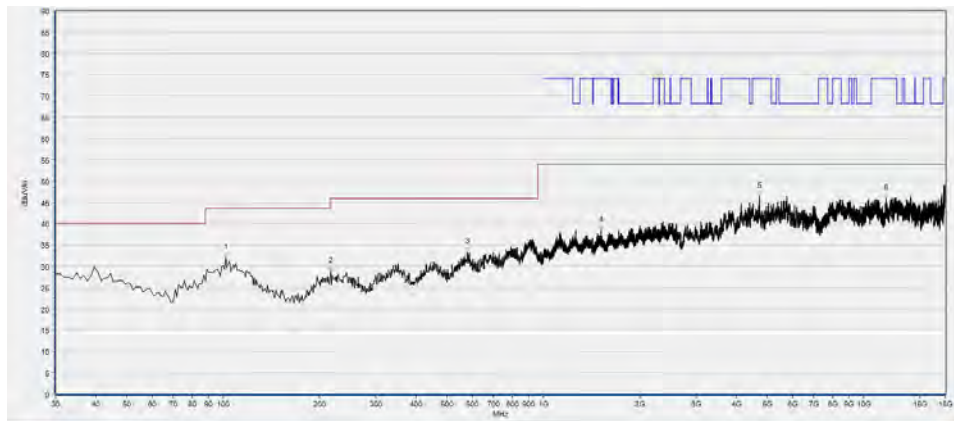
(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 64



Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
102.823	30.49	N/A	N/A	N/A	43.50	N/A	Horizontal	PASS
232.933	28.92	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
562.092	32.92	N/A	N/A	N/A	46.00	N/A	Horizontal	PASS
1485.495	37.26	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
4149.550	44.51	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS
12146.829	47.46	N/A	N/A	74.00	N/A	54.00	Horizontal	PASS

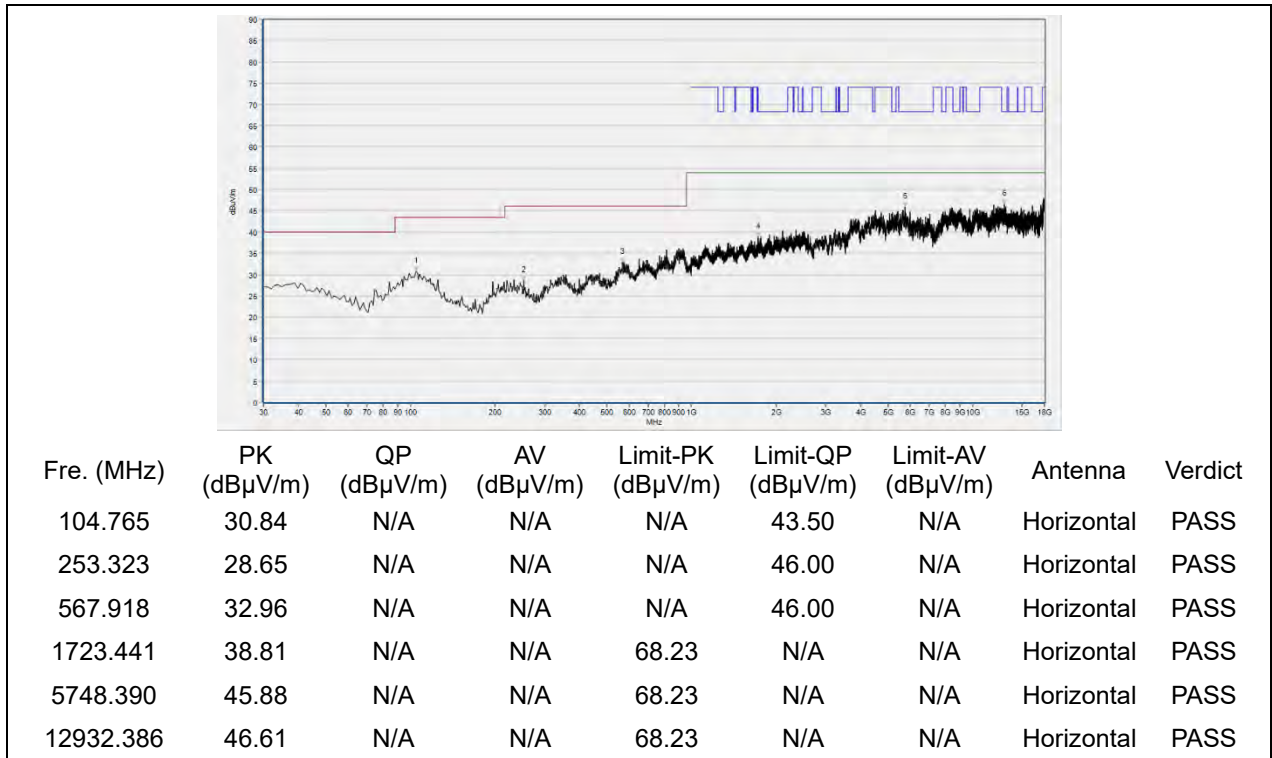
(Antenna Horizontal, 30MHz to 18GHz)



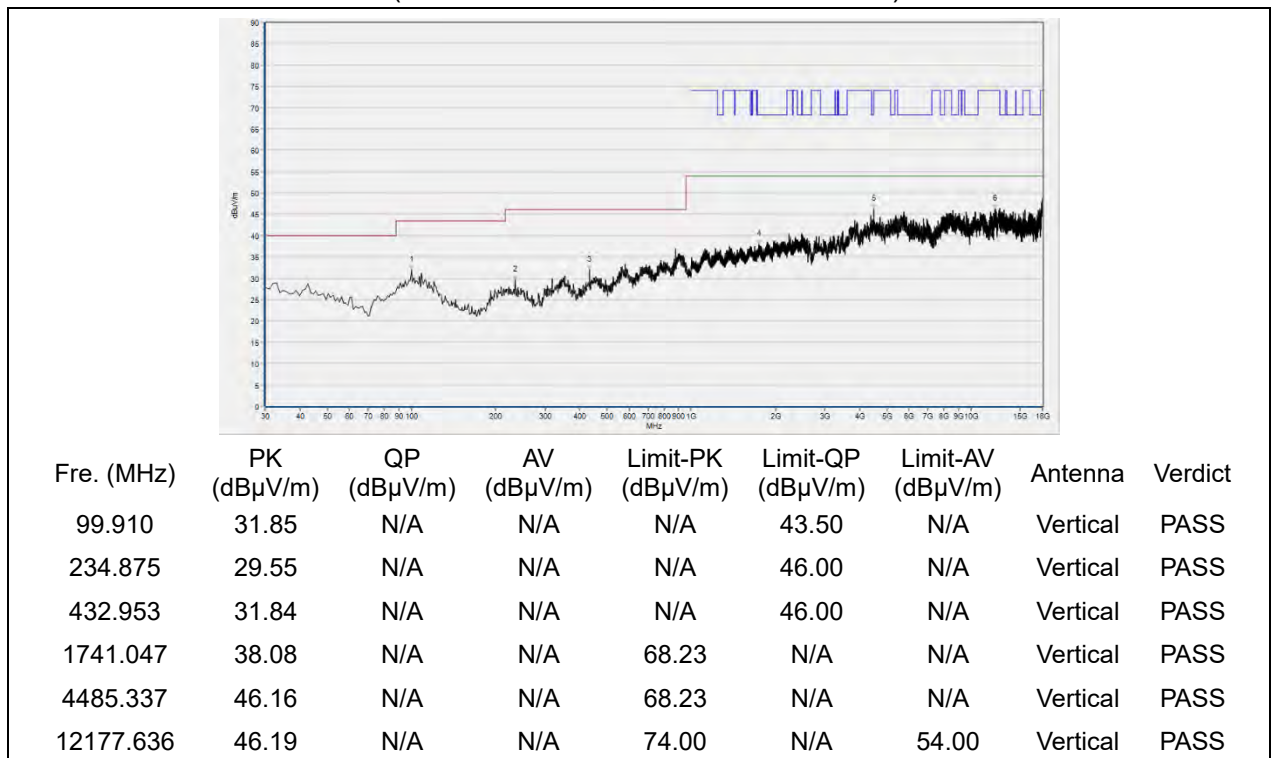
Fre. (MHz)	PK (dBμV/m)	QP (dBμV/m)	AV (dBμV/m)	Limit-PK (dBμV/m)	Limit-QP (dBμV/m)	Limit-AV (dBμV/m)	Antenna	Verdict
101.852	31.95	N/A	N/A	N/A	43.50	N/A	Vertical	PASS
217.397	28.85	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
579.570	33.27	N/A	N/A	N/A	46.00	N/A	Vertical	PASS
1513.238	38.41	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
4725.625	46.50	N/A	N/A	74.00	N/A	54.00	Vertical	PASS
11749.430	45.86	N/A	N/A	74.00	N/A	54.00	Vertical	PASS

(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 100

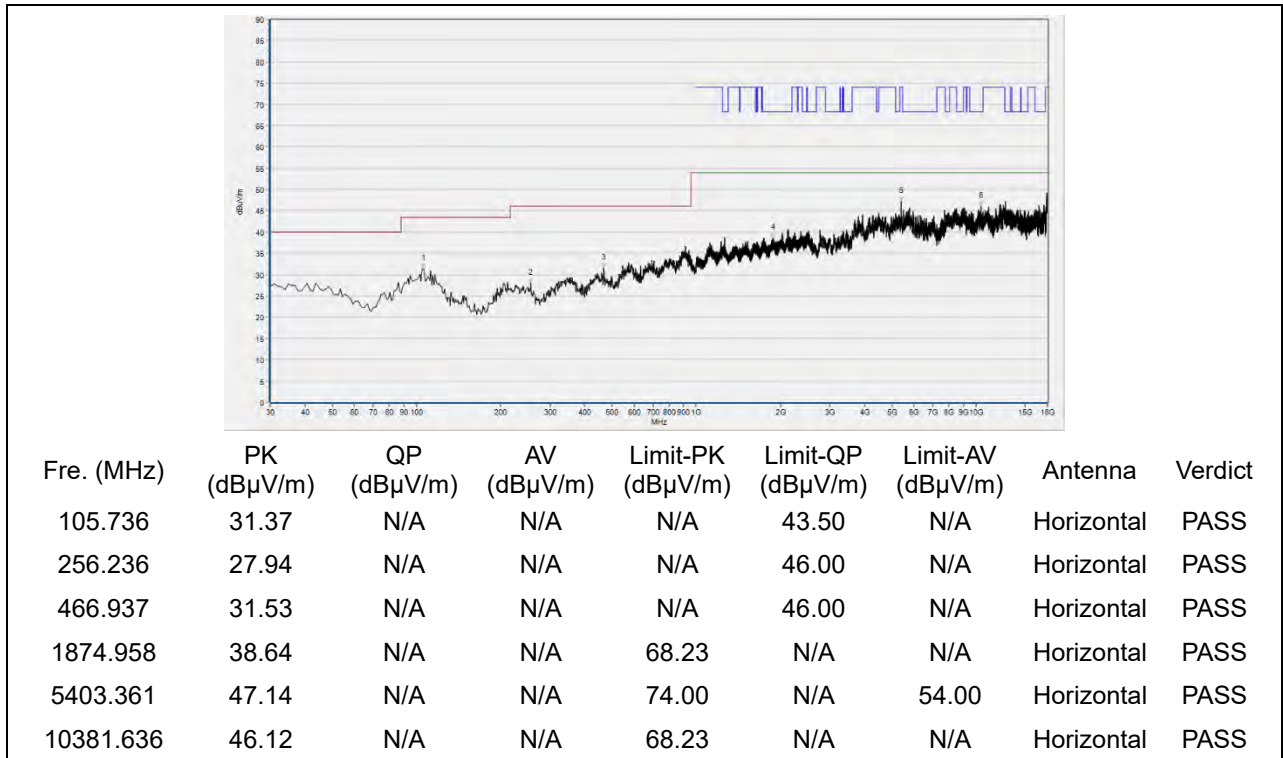


(Antenna Horizontal, 30MHz to 18GHz)

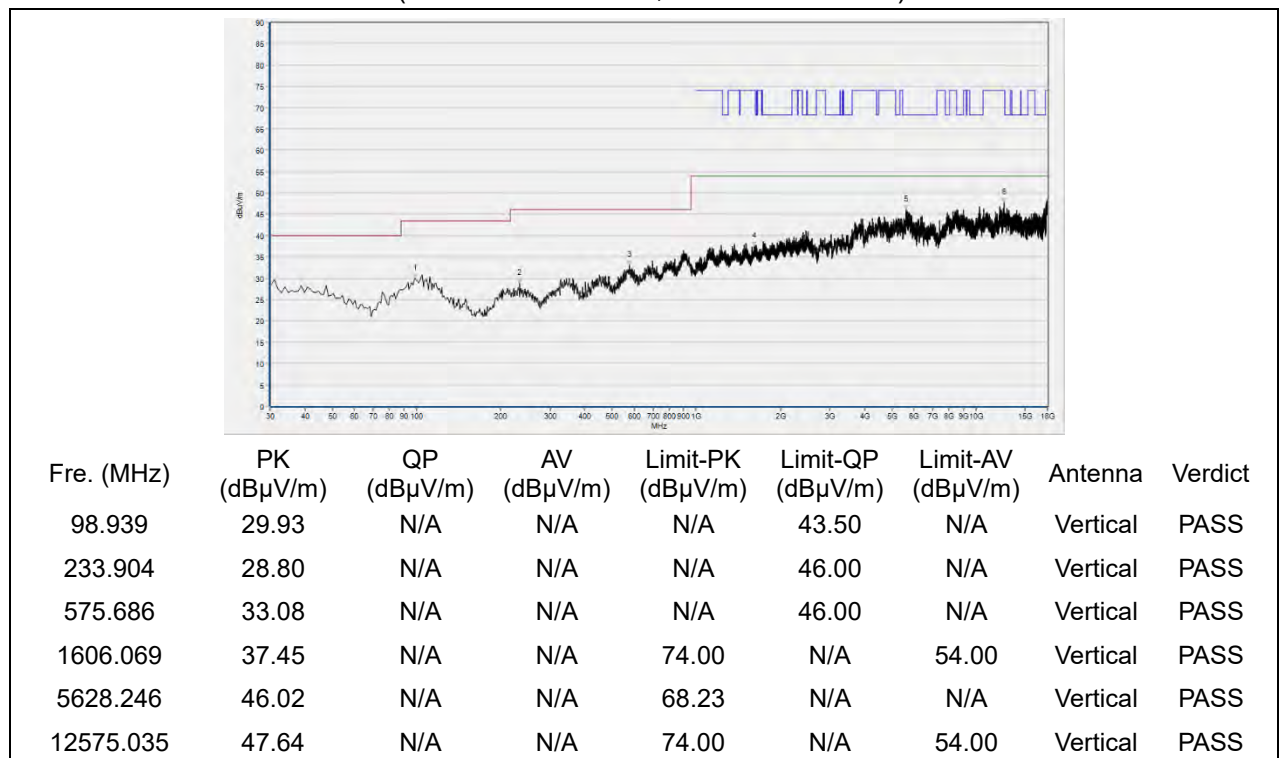


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 120

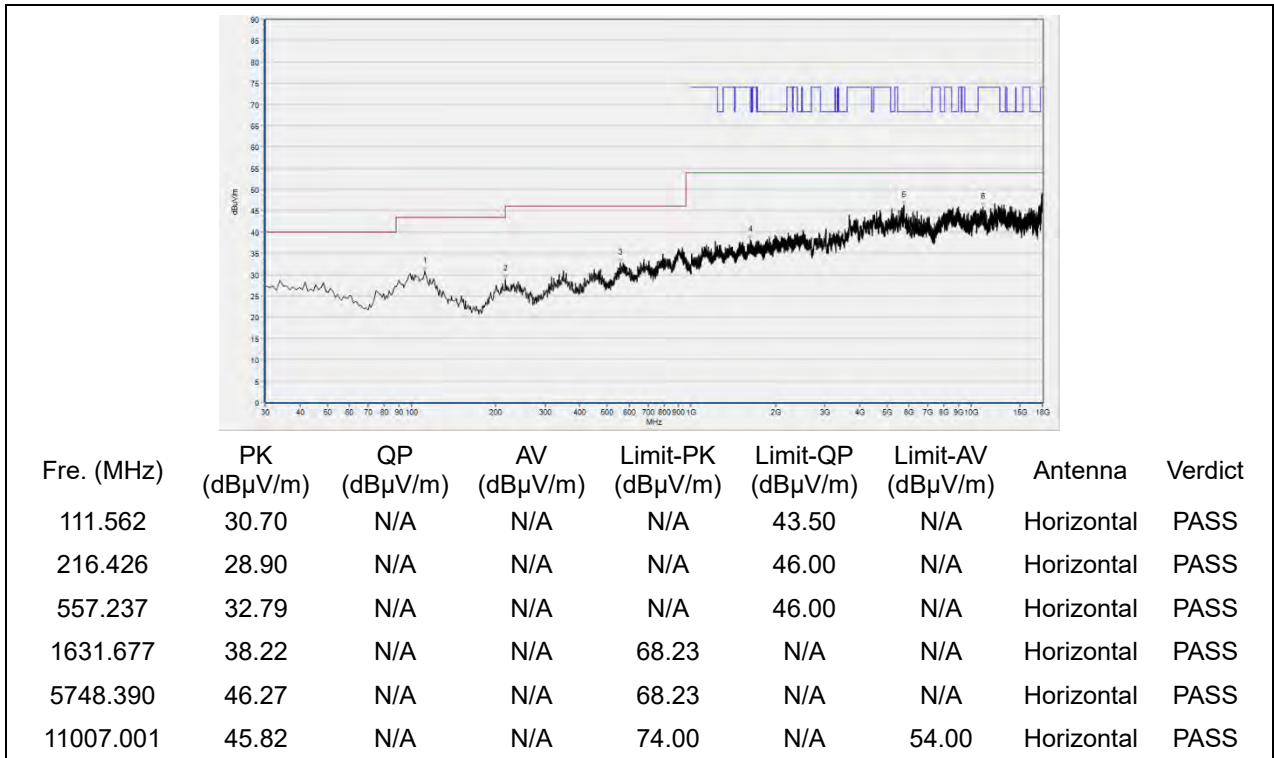


(Antenna Horizontal, 30MHz to 18GHz)

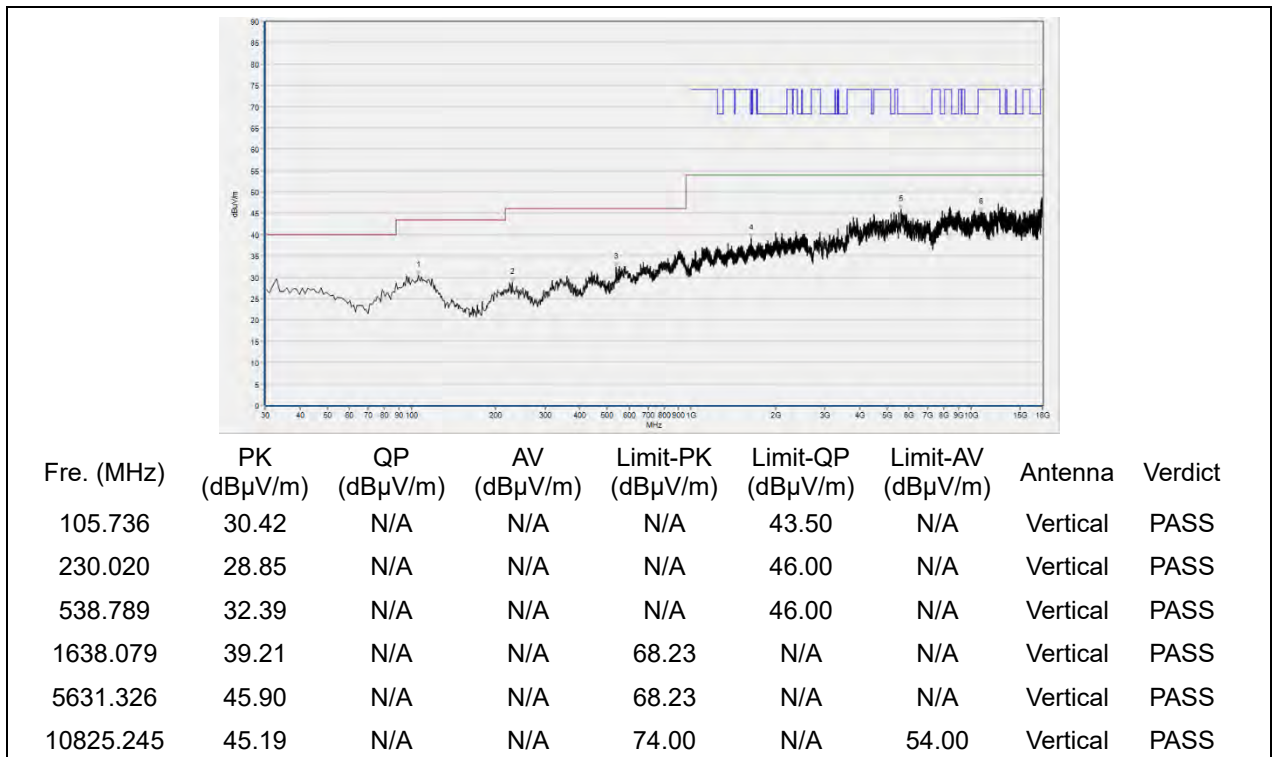


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 144



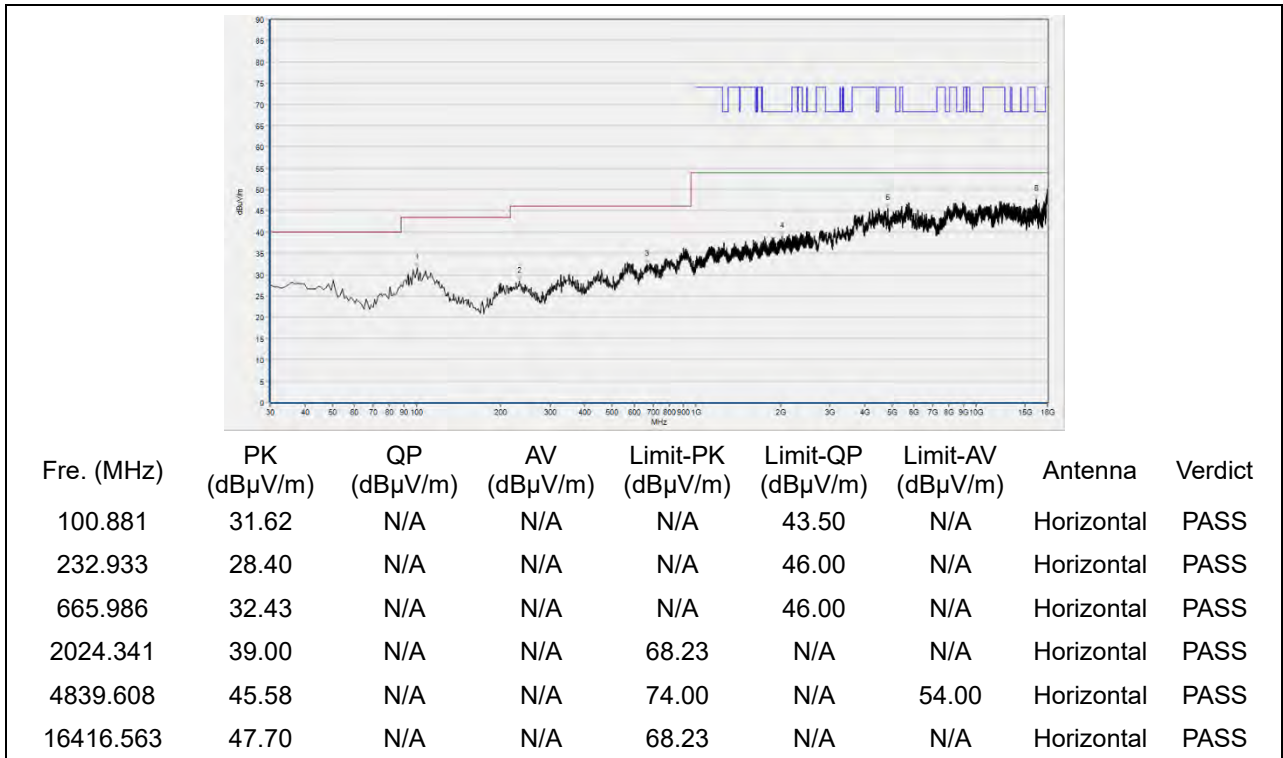
(Antenna Horizontal, 30MHz to 18GHz)



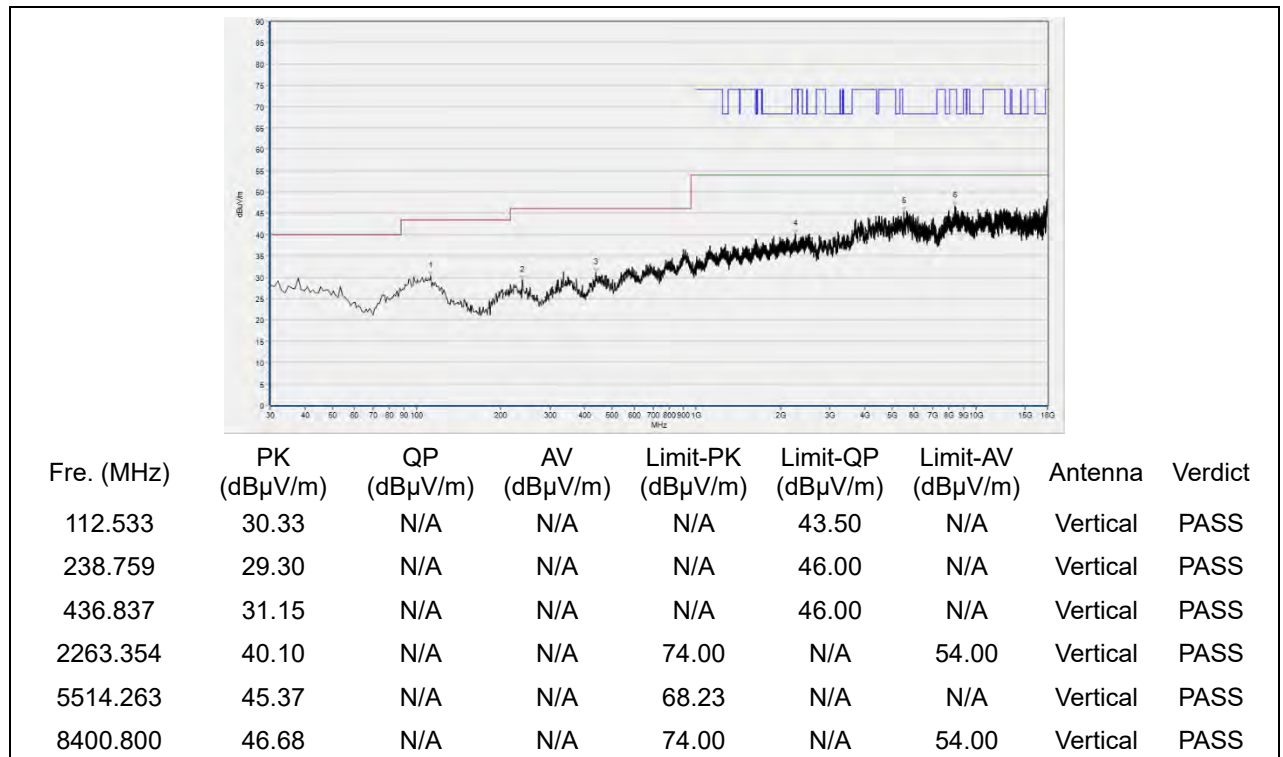
(Antenna Vertical, 30MHz to 18GHz)



Plot for Channel 149

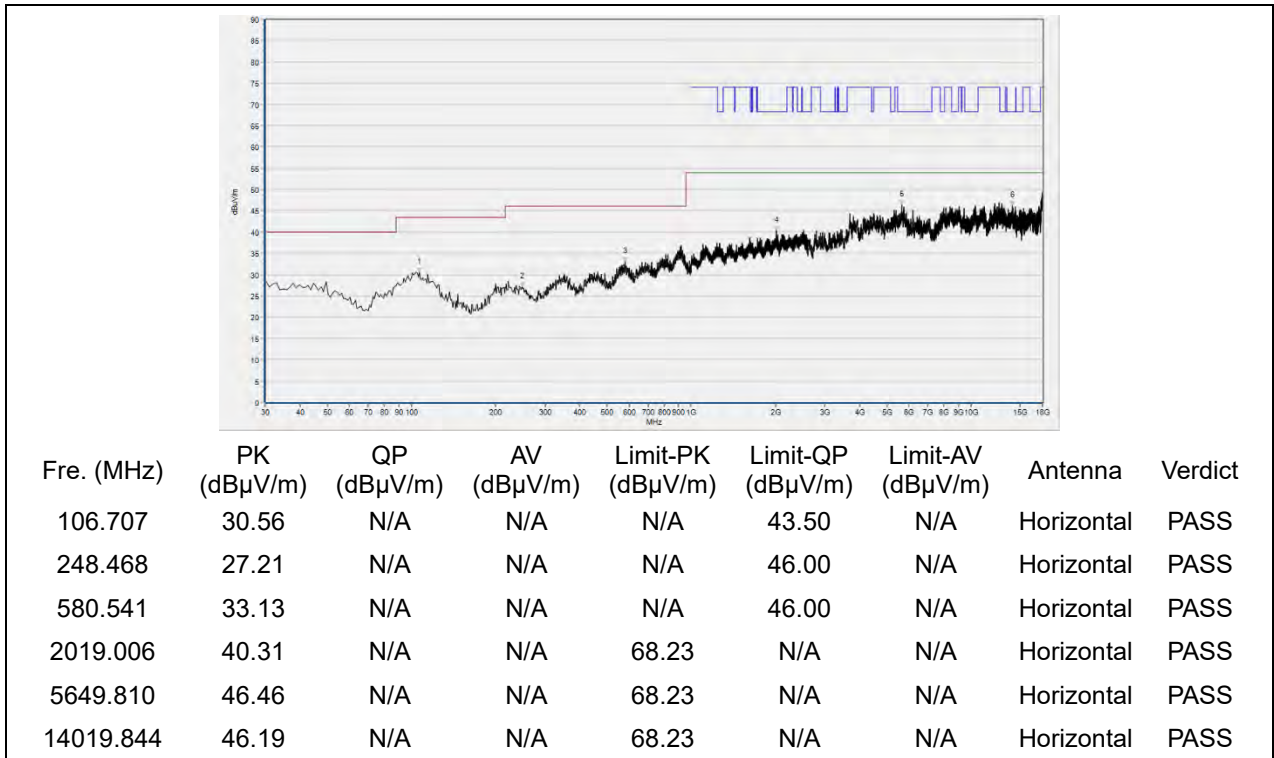


(Antenna Horizontal, 30MHz to 18GHz)

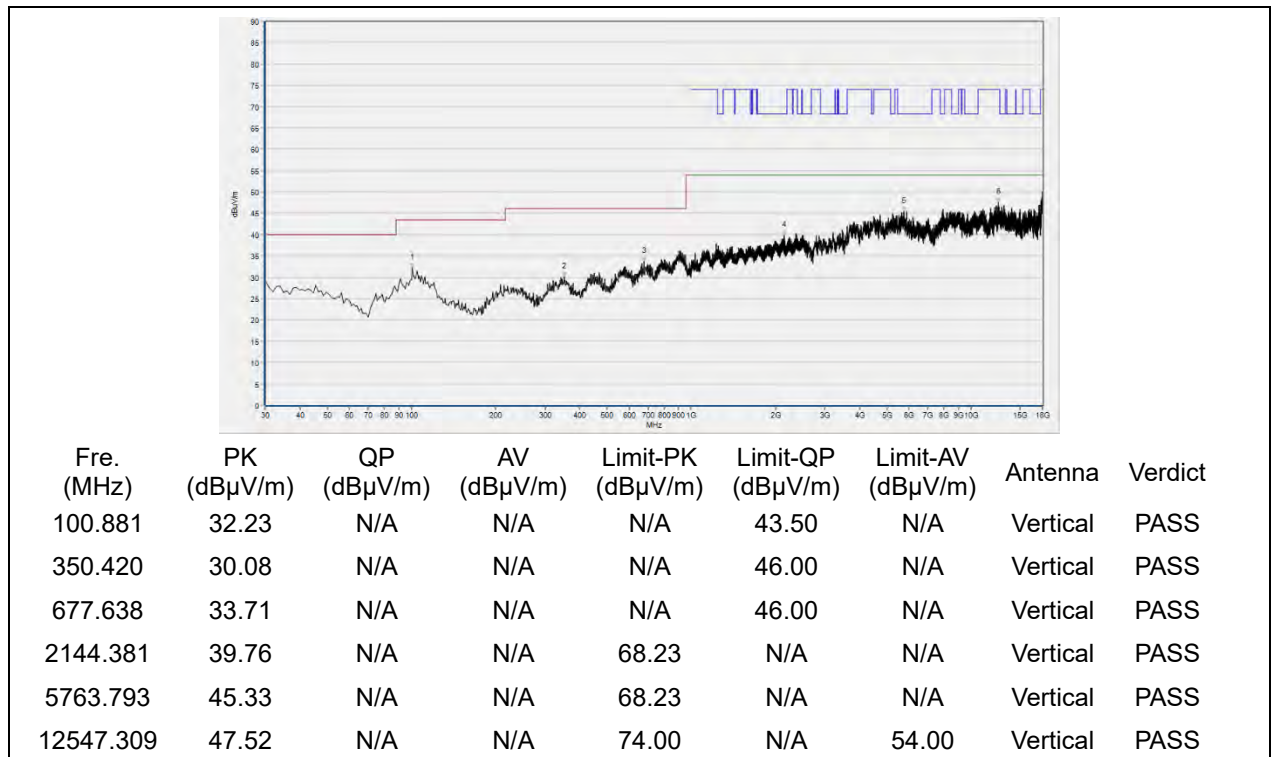


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 157

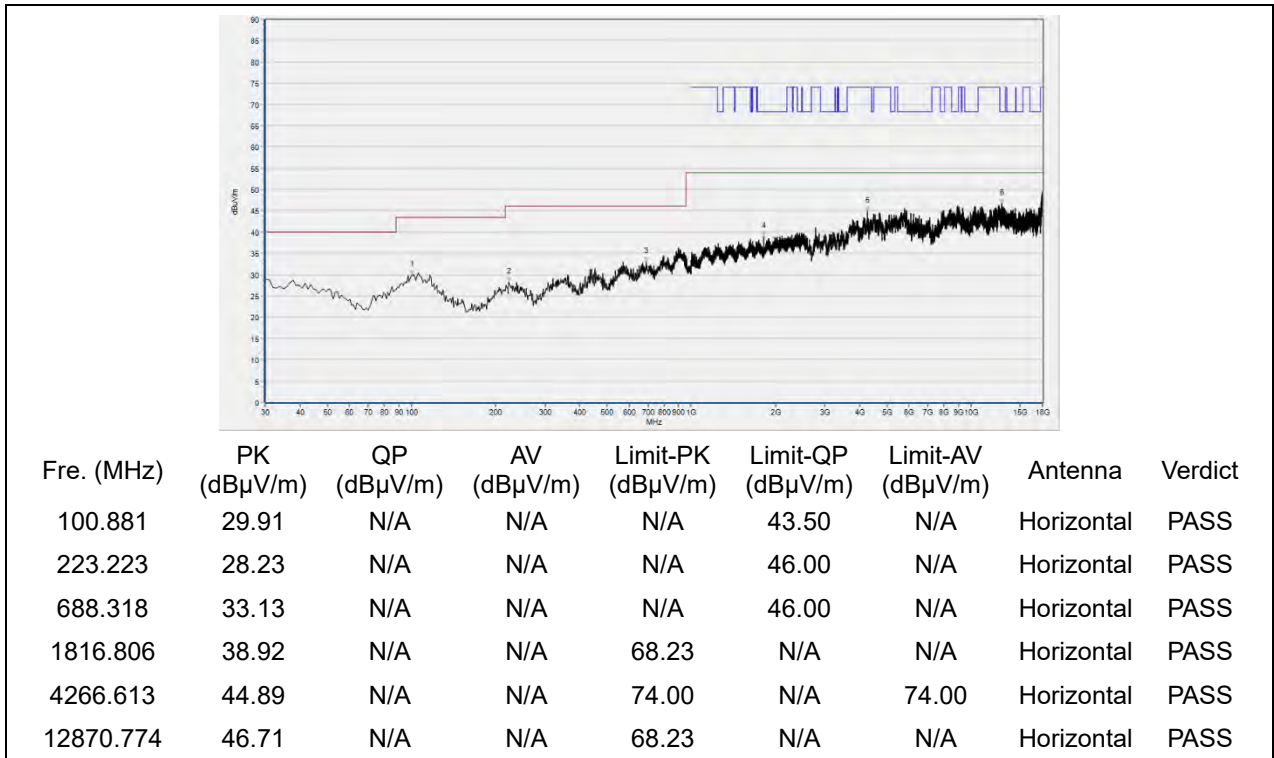


(Antenna Horizontal, 30MHz to 18GHz)

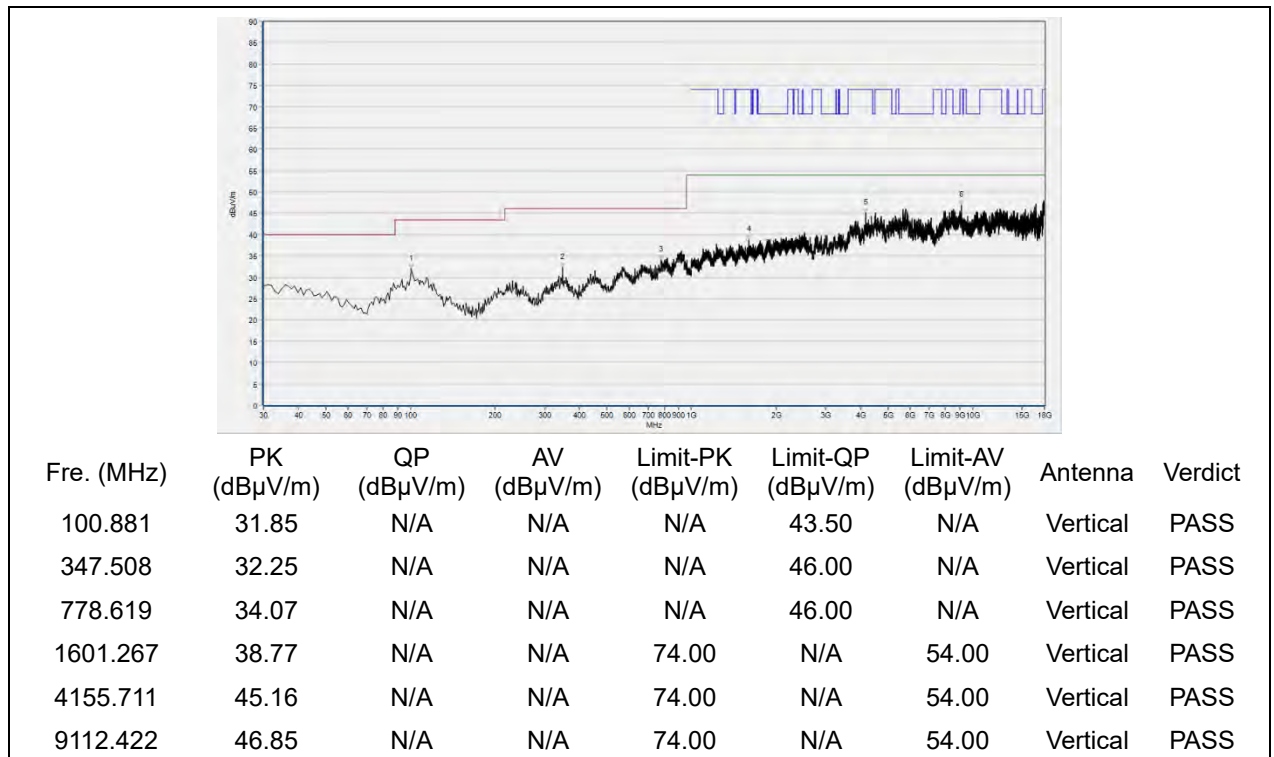


(Antenna Vertical, 30MHz to 18GHz)

Plot for Channel 165



(Antenna Horizontal, 30MHz to 18GHz)



(Antenna Vertical, 30MHz to 18GHz)

## Annex A Test Uncertainty

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

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

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



## Annex B Testing Laboratory Information

### 1. Identification of the Responsible Testing Laboratory

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

### 2. Identification of the Responsible Testing Location

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

### 3. Facilities and Accreditations

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



#### 4. Test Equipments Utilized

##### 4.1 Conducted Test Equipments

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Attenuator 1	N/A	10dB	Resnet	N/A	N/A
EXA Signal Analyzer	MY53470836	N9010A	Agilent	2022.03.01	2023.02.28
USB Wideband Power Sensor	MY54180008	U2021XA	Agilent	2021.10.21	2022.10.20
RF Cable (30MHz-26GHz)	CB01	RF01	Morlab	N/A	N/A
Coaxial Cable	CB02	RF02	Morlab	N/A	N/A
SMA Connector	CN01	RF03	HUBER-SUHNER	N/A	N/A
Temperature Chamber	12108015	DTL-003S101	YOMA	2021.10.20	2022.10.19

##### 4.2 Conducted Emission Test Equipments

Equipment Name	Serial No.	Type	Manufacturer	Cal. Date	Due Date
Receiver	MY56400093	N9038A	KEYSIGHT	2022.03.03	2023.03.02
LISN	8127449	NSLK 8127	Schwarzbeck	2022.03.03	2023.03.02
Pulse Limiter (10dB)	VTSD 9561 F-B #206	VTSD 9561-F	Schwarzbeck	2021.07.21	2022.07.20
Coaxial Cable(BNC) (30MHz-26GHz)	CB01	EMC01	Morlab	N/A	N/A
NOTEBOOK	DF2DR A01 DPC	VOSTRO 5370	DELL	NA	NA
ADAPTER	OKXTTW	LA45NM140	DELL	NA	NA

##### 4.3 List of Software Used

Description	Manufacturer	Software Version
Test System	Tonscend	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	2021.07.16	2022.07.15
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2022.05.25	2025.05.24
Test Antenna - Horn	BBHA9170 #774	BBHA 9170	Schwarzbeck	2022.02.11	2025.02.10
Test Antenna - Loop	1519-022	FMZB1519	Schwarzbeck	2019.07.26	2022.07.25
Test Antenna - Horn	01774	BBHA 9120D	Schwarzbeck	2019.07.26	2022.07.25
Coaxial Cable (N male) (9KHz-30MHz)	CB04	EMC04	Morlab	N/A	N/A
Coaxial Cable (N male) (30MHz-26GHz)	CB02	EMC02	Morlab	N/A	N/A
Coaxial Cable (N male) (30MHz-26GHz)	CB03	EMC03	Morlab	N/A	N/A
Coaxial Cable (N male) (30MHz-40GHz)	CB05	EMC05	Morlab	N/A	N/A
1-18GHz pre-Amplifier	61171/61172	S020180L32 03	Tonscend	2021.07.16	2022.07.15
18-26.5GHz pre-Amplifier	46732	S10M100L38 02	Tonscend	2021.07.16	2022.07.15
26-40GHz pre-Amplifier	56774	S40M400L40 02	Tonscend	2021.07.16	2022.07.15
Notch Filter	N/A	WRCG-5150-5350	Wainwright	2021.07.16	2022.07.15
Notch Filter	N/A	WRCG-5470-5725	Wainwright	2021.07.16	2022.07.15
Notch Filter	N/A	WRCG-5725-5850	Wainwright	2021.07.16	2022.07.15



REPORT No. : SZ22050264W04

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

————— END OF REPORT —————