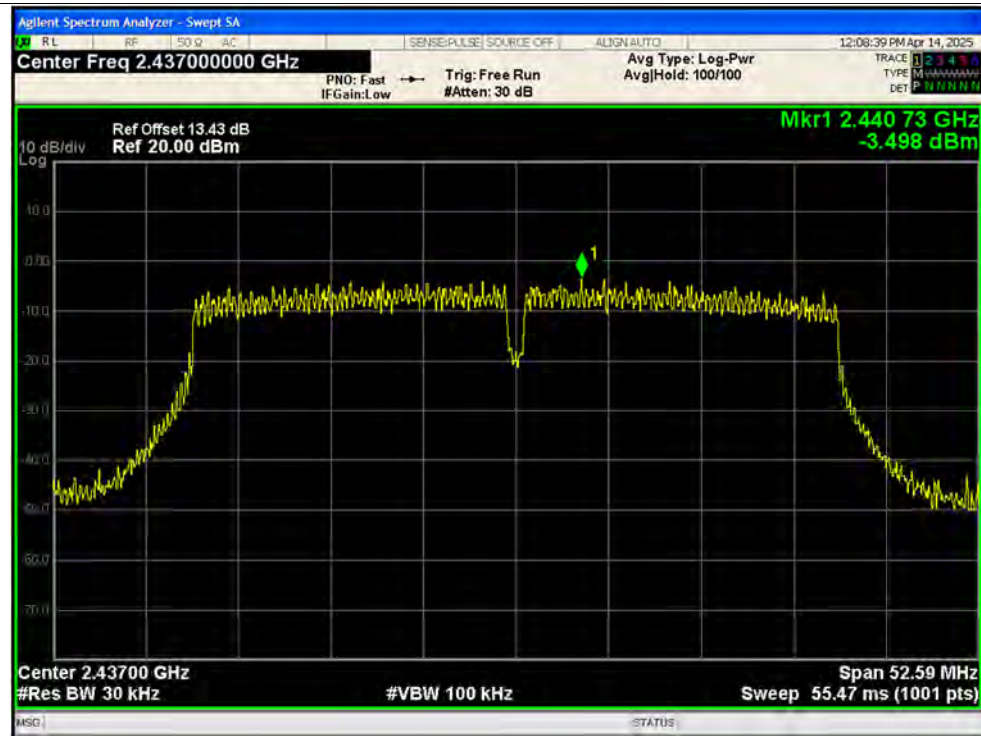


PSD NVNT n40 2437MHz Ant2 SISO



PSD NVNT n40 2452MHz Ant2 SISO



PSD NVNT n40 2422MHz Ant1 MIMO



PSD NVNT n40 2422MHz Ant2 MIMO



PSD NVNT n40 2437MHz Ant1 MIMO



PSD NVNT n40 2437MHz Ant2 MIMO



PSD NVNT n40 2452MHz Ant1 MIMO



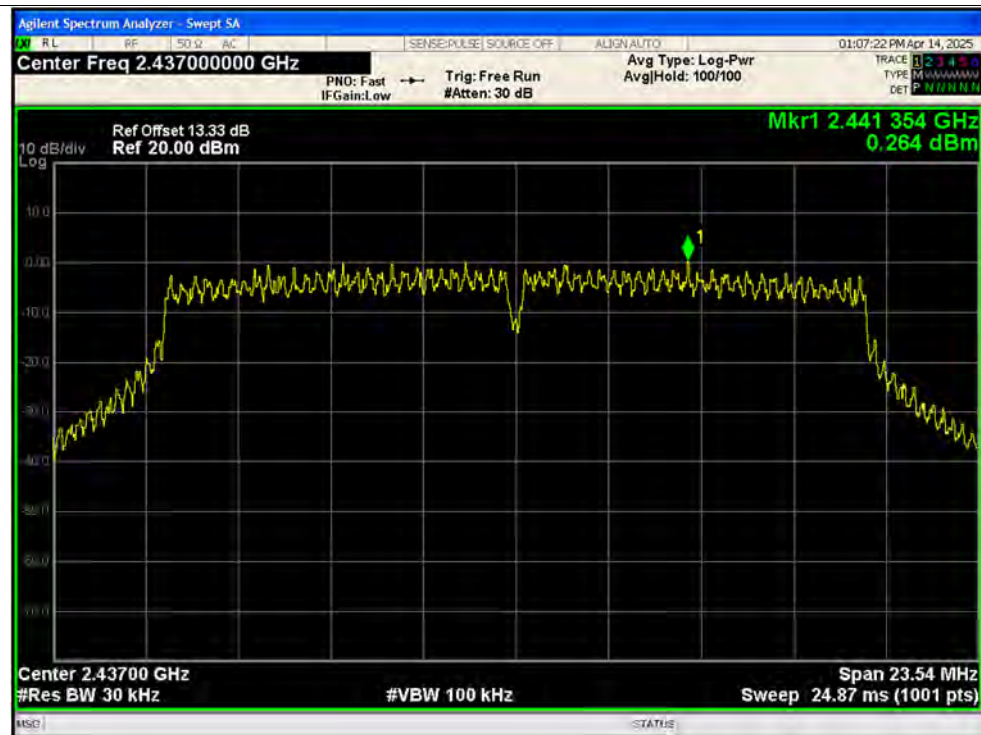
PSD NVNT n40 2452MHz Ant2 MIMO



PSD NVNT ac20 2412MHz Ant1 SISO



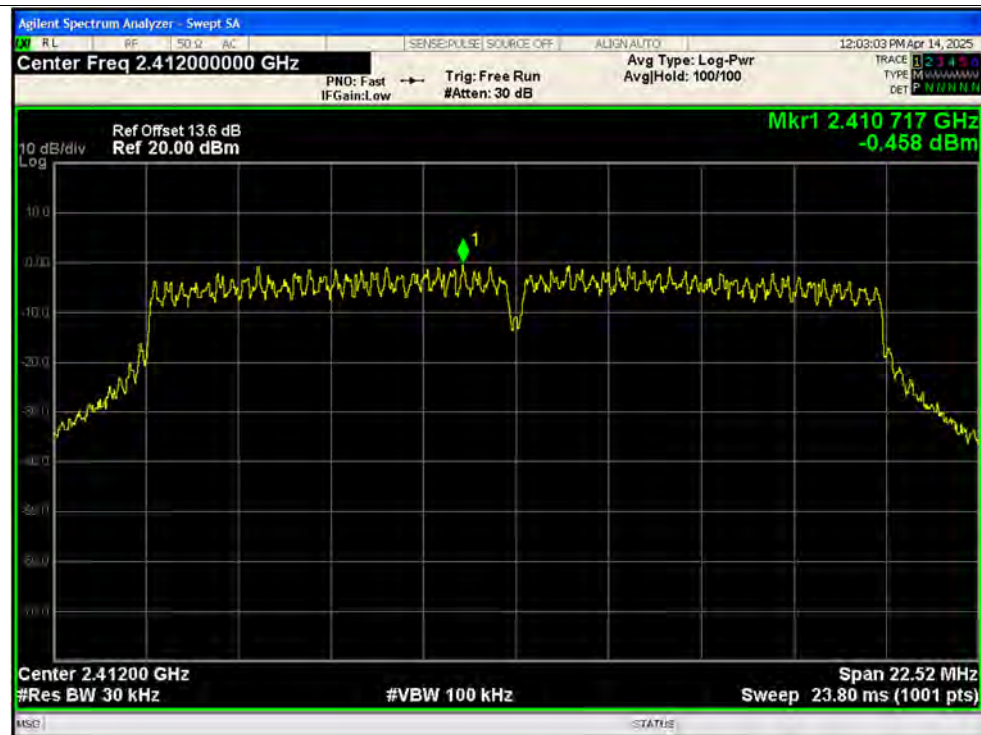
PSD NVNT ac20 2437MHz Ant1 SISO



PSD NVNT ac20 2462MHz Ant1 SISO



PSD NVNT ac20 2412MHz Ant2 SISO



PSD NVNT ac20 2437MHz Ant2 SISO



PSD NVNT ac20 2462MHz Ant2 SISO

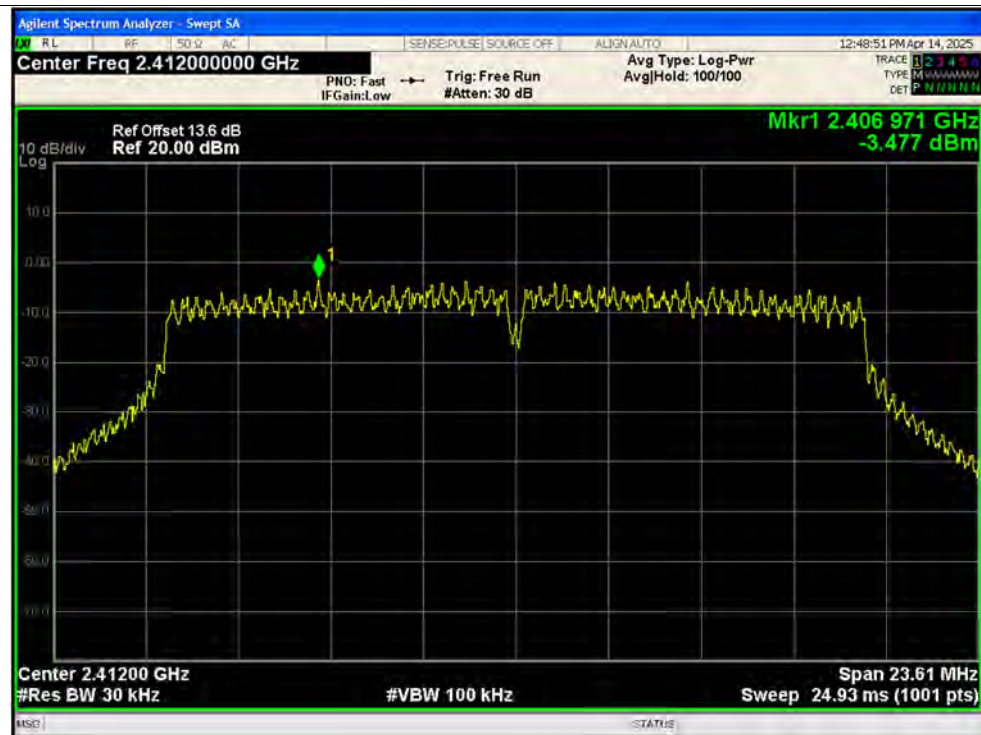




PSD NVNT ac20 2412MHz Ant1 MIMO



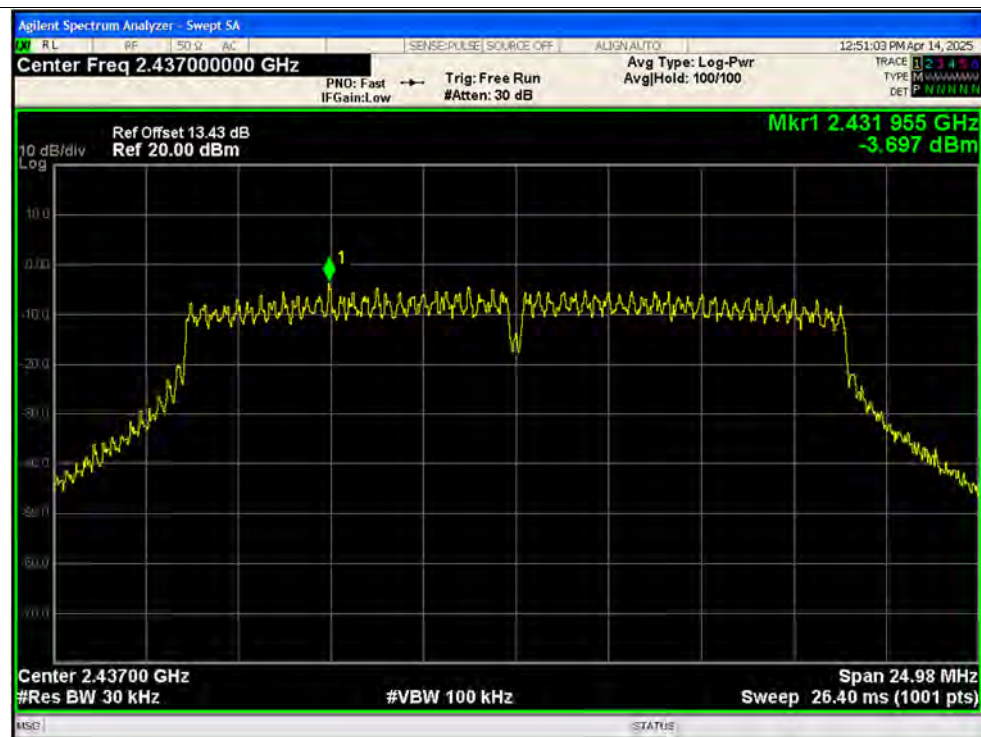
PSD NVNT ac20 2412MHz Ant2 MIMO



PSD NVNT ac20 2437MHz Ant1 MIMO



PSD NVNT ac20 2437MHz Ant2 MIMO



PSD NVNT ac20 2462MHz Ant1 MIMO



PSD NVNT ac20 2462MHz Ant2 MIMO





PSD NVNT ac40 2422MHz Ant1 SISO



PSD NVNT ac40 2437MHz Ant1 SISO



PSD NVNT ac40 2452MHz Ant1 SISO



PSD NVNT ac40 2422MHz Ant2 SISO



PSD NVNT ac40 2437MHz Ant2 SISO



PSD NVNT ac40 2452MHz Ant2 SISO



PSD NVNT ac40 2422MHz Ant1 MIMO



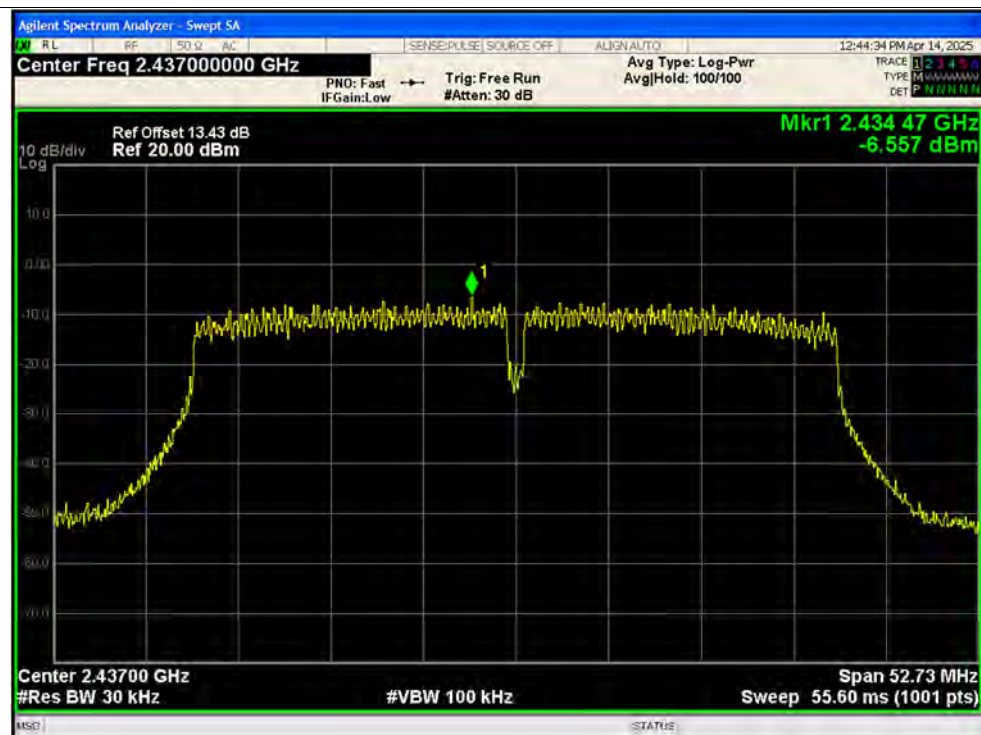
PSD NVNT ac40 2422MHz Ant2 MIMO



PSD NVNT ac40 2437MHz Ant1 MIMO



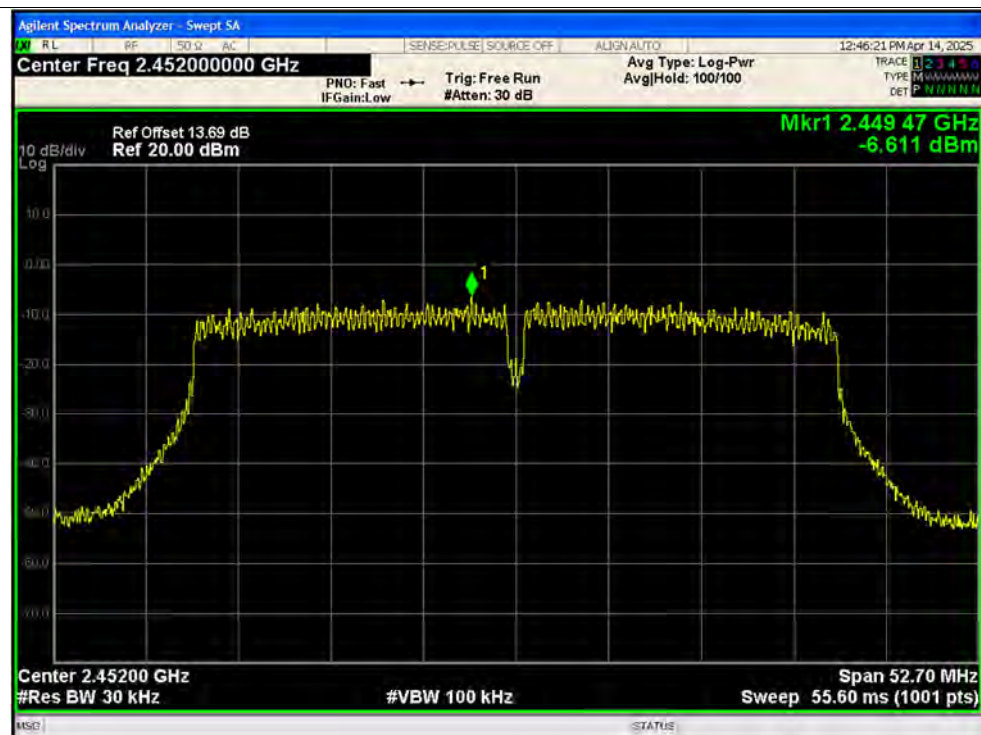
PSD NVNT ac40 2437MHz Ant2 MIMO



PSD NVNT ac40 2452MHz Ant1 MIMO



PSD NVNT ac40 2452MHz Ant2 MIMO





A.8. Conducted Emission

The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Set RBW=9kHz, VBW=30kHz. Refer to recorded points and plots below.

Note: Both of the test voltage AC 120V/60Hz and AC 230V/50Hz were considered and tested respectively, only the results of the worst case AC 120V/60Hz were recorded in this report.

A. Test Setup:

Test Mode: EUT+Adapter+Data cable+Battery+Mobile phone +WIFI TX

Test voltage: AC 120V/60Hz

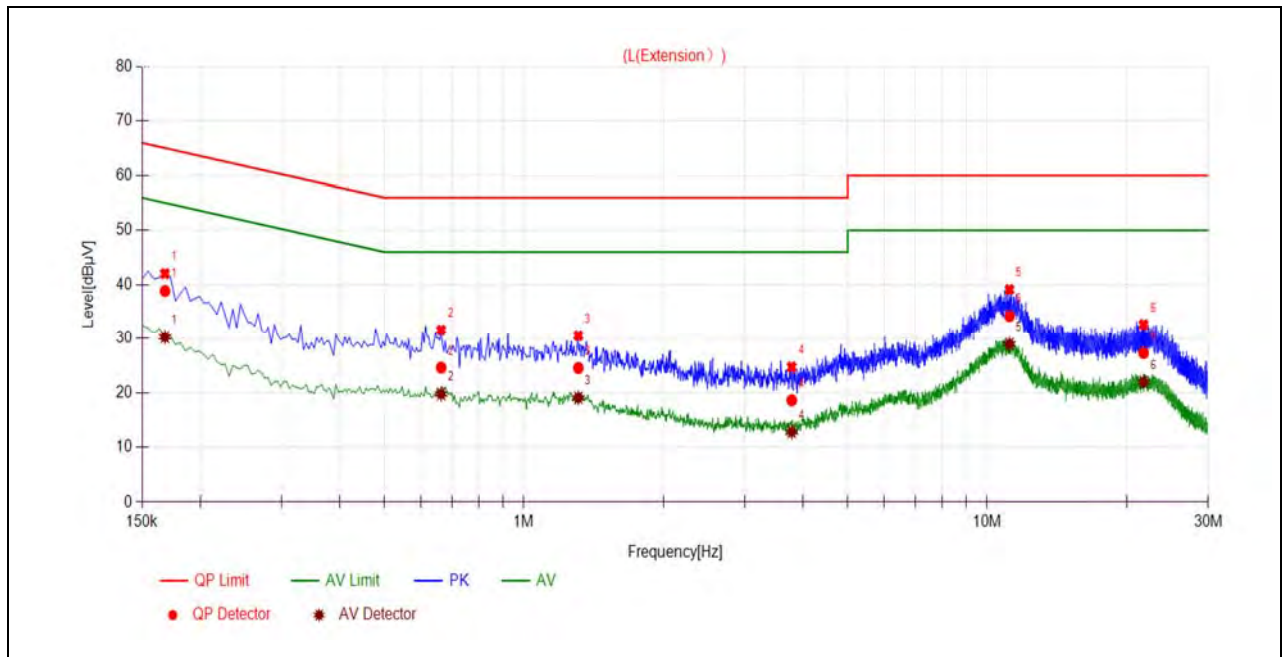
The measurement results are obtained as below:

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

U_R : Receiver Reading

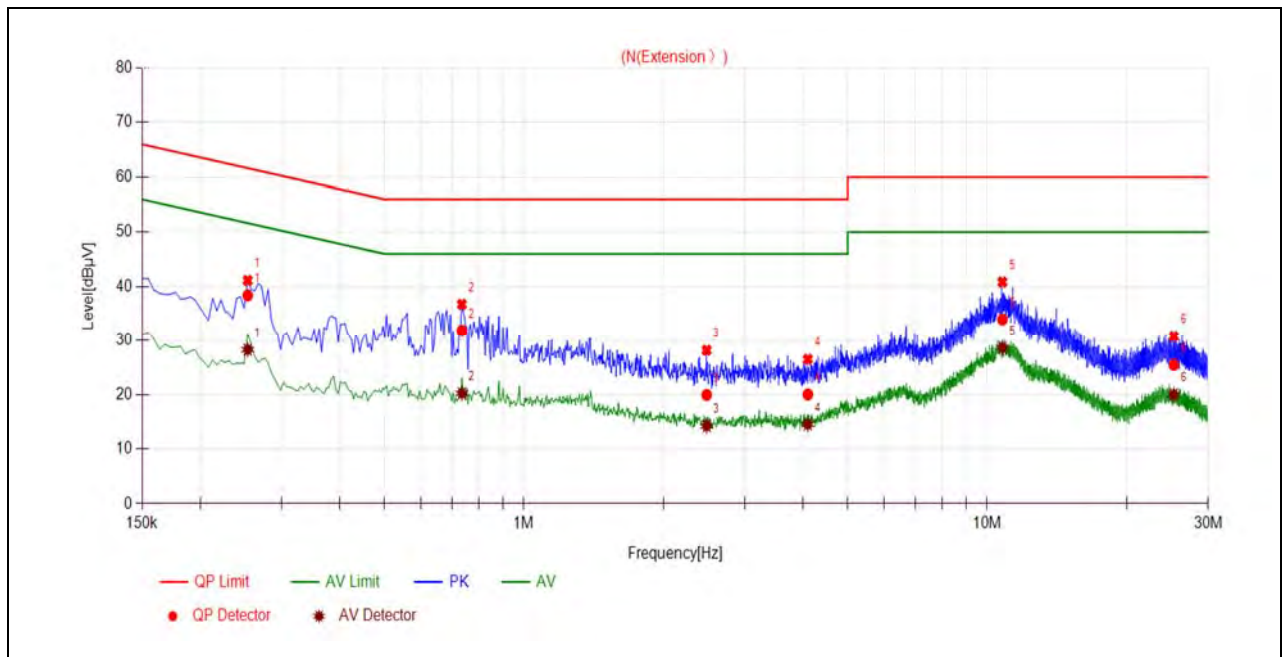
A_{Factor} : Voltage division factor of LISN

B. Test Plot:



(L Phase)

No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.1680	38.84	30.26	65.06	55.06	Line	PASS
2	0.6630	24.60	19.74	56.00	46.00		PASS
3	1.3110	24.53	19.04	56.00	46.00		PASS
4	3.7858	18.60	12.78	56.00	46.00		PASS
5	11.1715	34.20	28.94	60.00	50.00		PASS
6	21.7594	27.29	21.95	60.00	50.00		PASS



(N Phase)

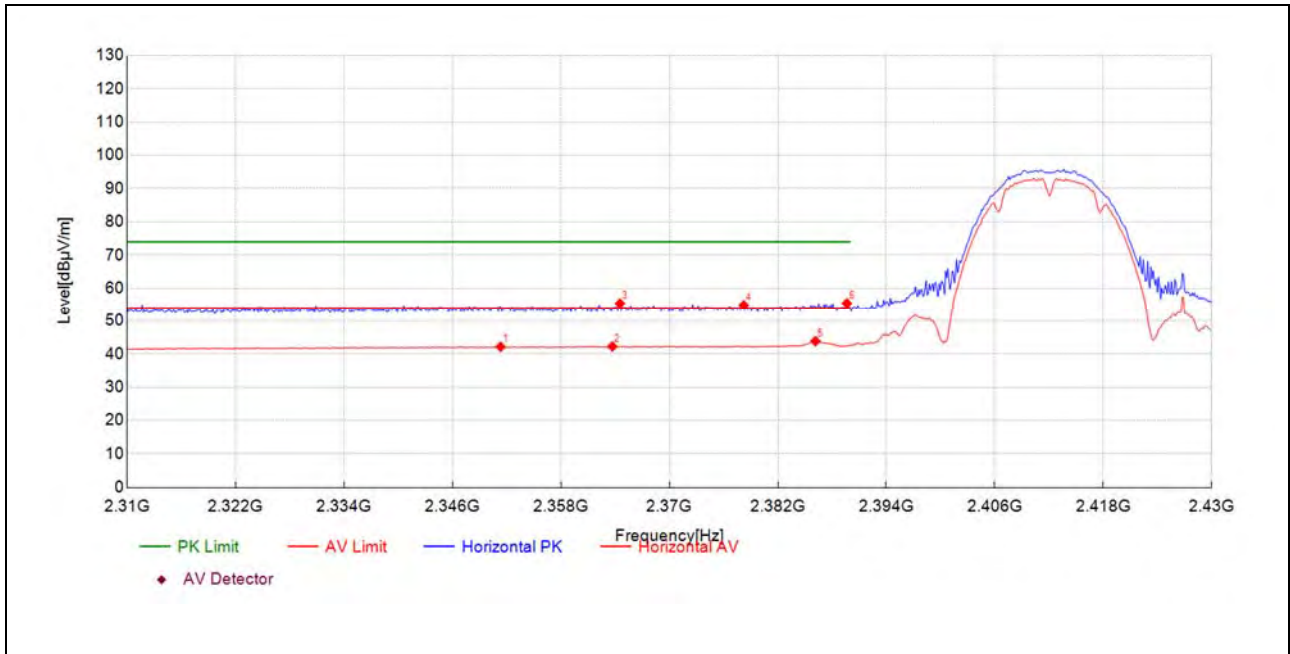
No.	Fre. (MHz)	Emission Level (dBμV)		Limit (dBμV)		Power-line	Verdict
		Quai-peak	Average	Quai-peak	Average		
1	0.2535	38.40	28.26	61.64	51.64	Neutral	PASS
2	0.7350	31.85	20.21	56.00	46.00		PASS
3	2.4810	19.92	14.18	56.00	46.00		PASS
4	4.1010	20.00	14.49	56.00	46.00		PASS
5	10.7872	33.95	28.63	60.00	50.00		PASS
6	25.2846	25.45	19.97	60.00	50.00		PASS

A.9. Restricted Frequency Bands

Note 1: Restricted Frequency Bands were performed when antenna was at vertical and horizontal polarity, and only the worse test condition (Horizontal) was recorded in this test report.

Note 2 All test modes and bandwidth were considered and evaluated respectively by performing full test, only the worst data were recorded for each bandwidth.

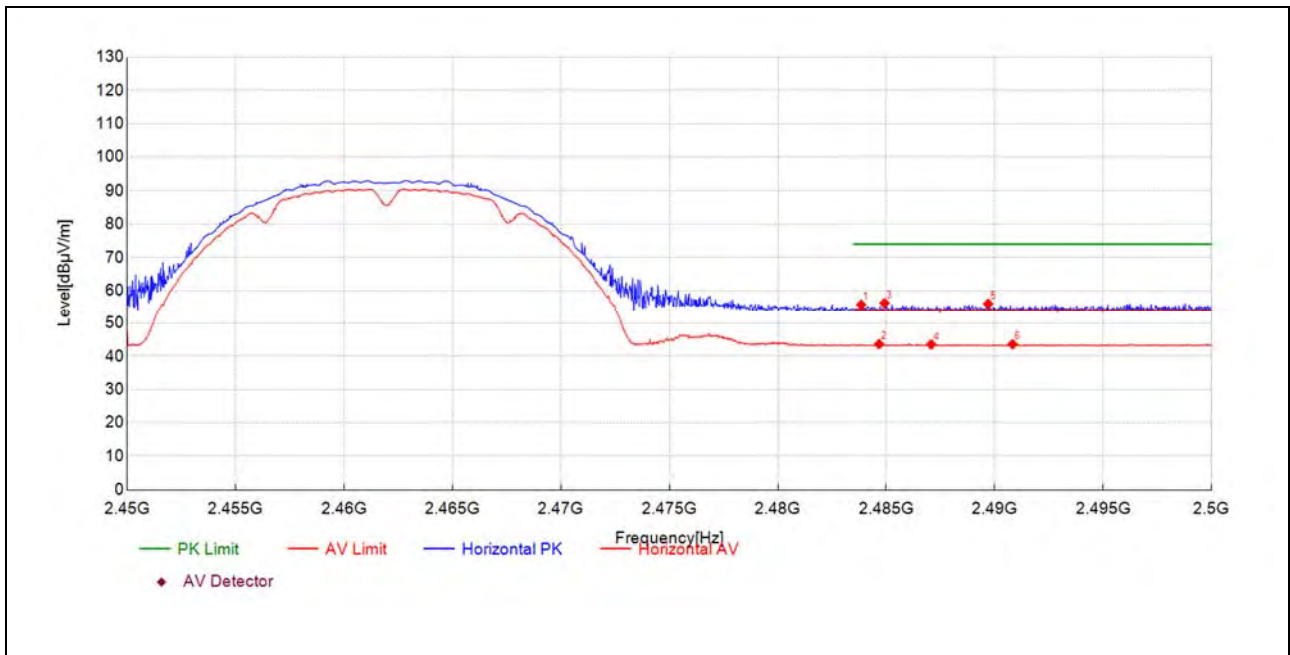
802.11b Mode



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
2351.32	9.8	42.16	32.400	54.00	11.84	150	343	AV	PASS
2363.69	9.8	42.23	32.450	54.00	11.77	150	285	AV	PASS
2364.53	23.0	55.41	32.450	74.00	18.59	150	270	PK	PASS
2378.23	22.4	54.91	32.510	74.00	19.09	150	175	PK	PASS
2386.16	11.3	43.83	32.530	54.00	10.17	150	154	AV	PASS
2389.64	22.9	55.45	32.540	74.00	18.55	150	125	PK	PASS



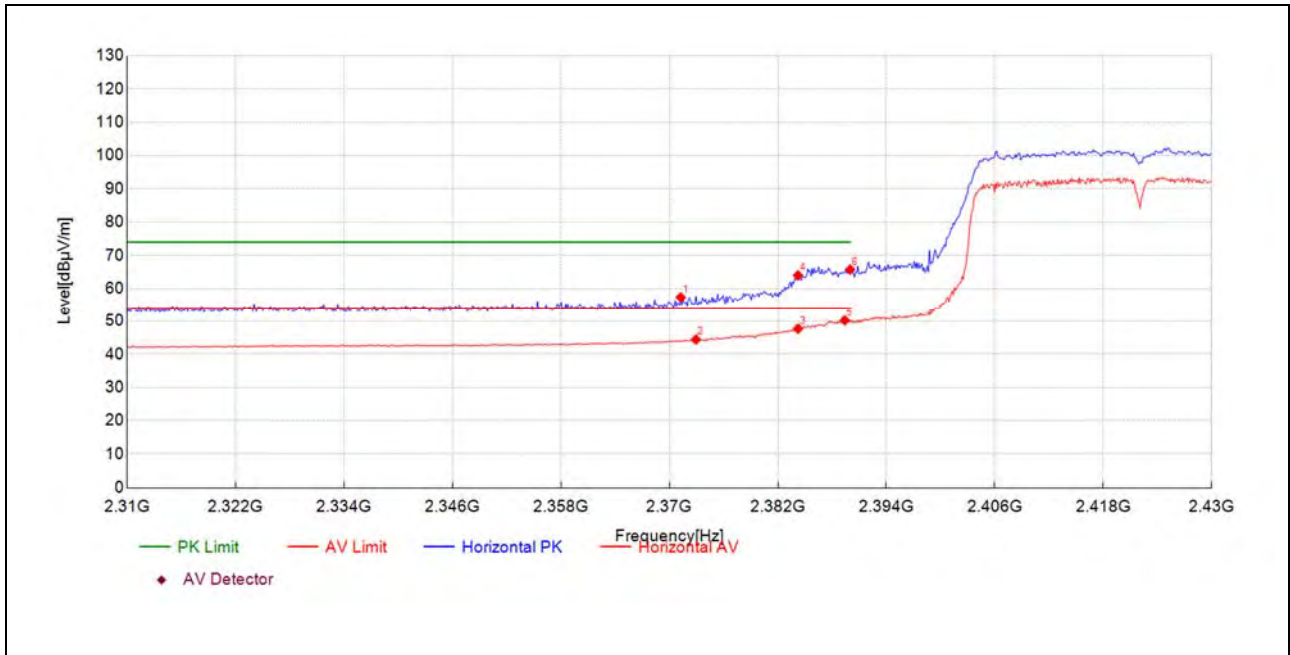
Plot for Channel 11



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
2483.84	22.7	55.74	33.030	74.00	18.26	150	231	PK	PASS
2484.67	10.6	43.66	33.030	54.00	10.34	150	64	AV	PASS
2484.92	23.2	56.22	33.030	74.00	17.78	150	79	PK	PASS
2487.07	10.5	43.56	33.030	54.00	10.44	150	155	AV	PASS
2489.69	23.0	56.01	33.020	74.00	17.99	150	186	PK	PASS
2490.82	10.6	43.60	33.020	54.00	10.40	150	178	AV	PASS

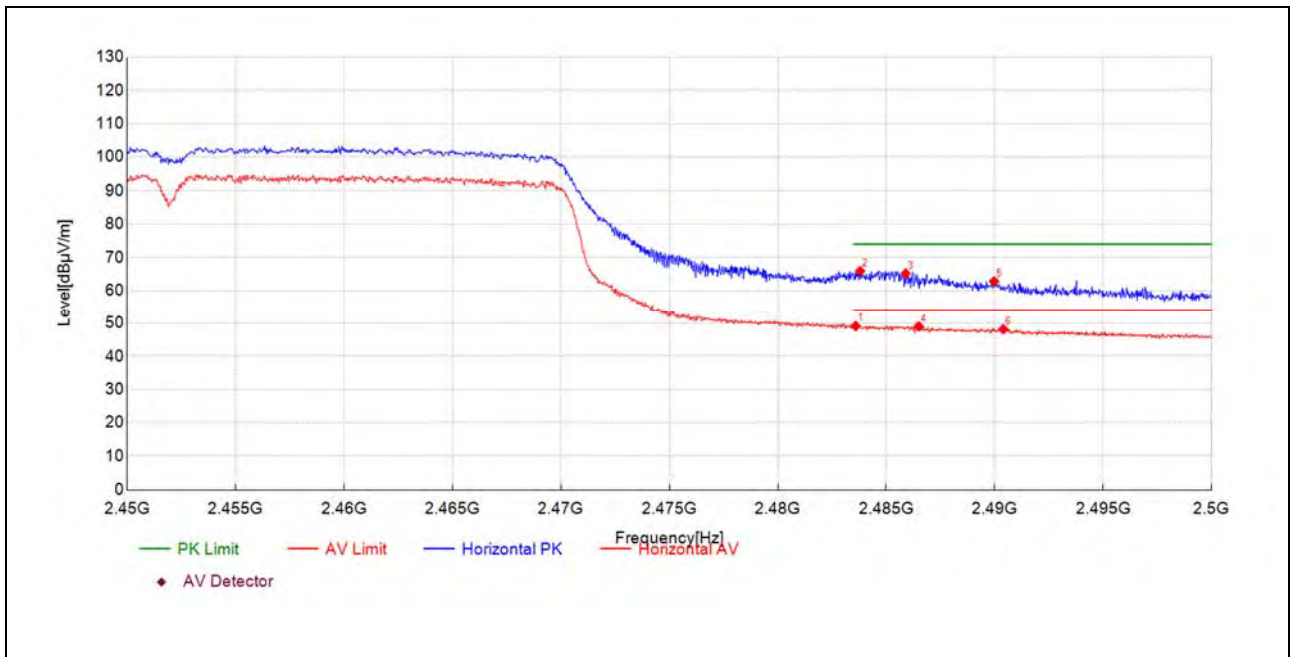
**802.11n (HT40) Mode**

Plot for Channel 3



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
2371.26	24.9	57.36	32.470	74.00	16.64	150	87	PK	PASS
2372.94	11.9	44.40	32.490	54.00	9.60	150	94	AV	PASS
2384.23	15.1	47.66	32.520	54.00	6.34	150	87	AV	PASS
2384.23	31.5	63.99	32.520	74.00	10.01	150	87	PK	PASS
2389.40	17.7	50.19	32.540	54.00	3.81	150	87	AV	PASS
2390.00	33.2	65.71	32.540	74.00	8.29	150	80	PK	PASS

Plot for Channel 9



Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
2483.59	16.1	49.10	33.030	54.00	4.90	150	86	AV	PASS
2483.79	32.9	65.91	33.030	74.00	8.09	150	86	PK	PASS
2485.89	32.1	65.17	33.030	74.00	8.83	150	86	PK	PASS
2486.49	16.0	49.00	33.030	54.00	5.00	150	86	AV	PASS
2489.97	29.8	62.80	33.020	74.00	11.20	150	86	PK	PASS
2490.40	15.1	48.15	33.020	54.00	5.85	150	86	AV	PASS



A.10. Radiated Emission

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.

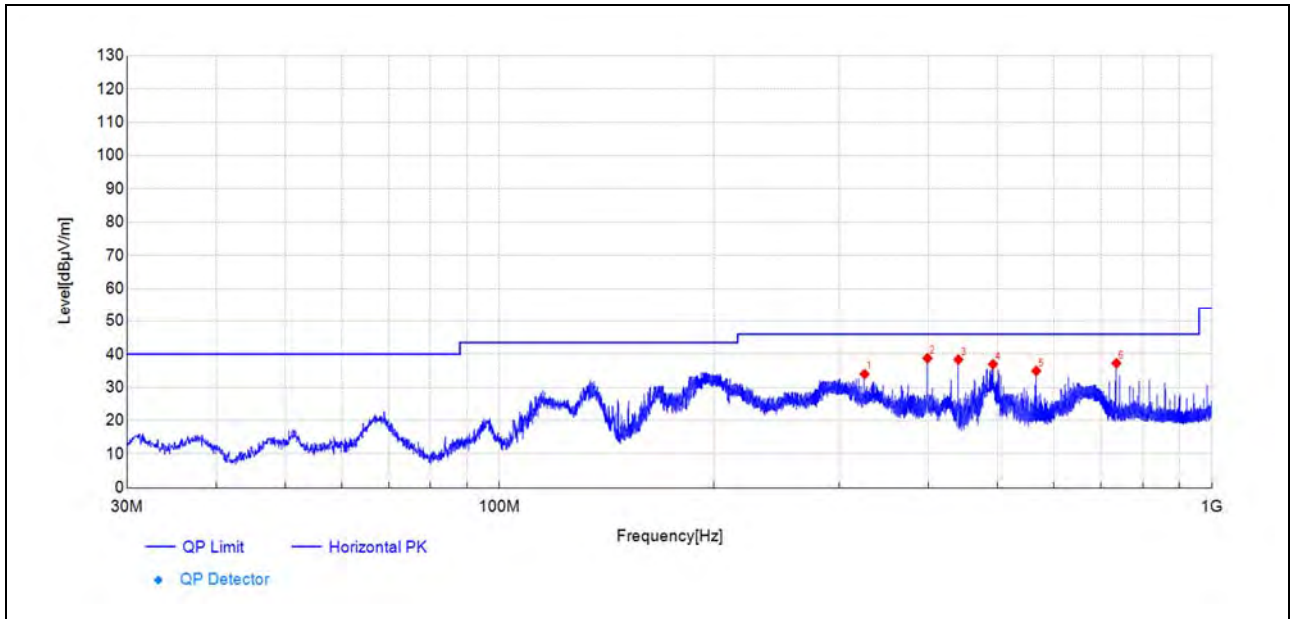
Note2: For the frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit was not recorded.

Note3: For the frequency, which started from 18GHz to 40GHz 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.

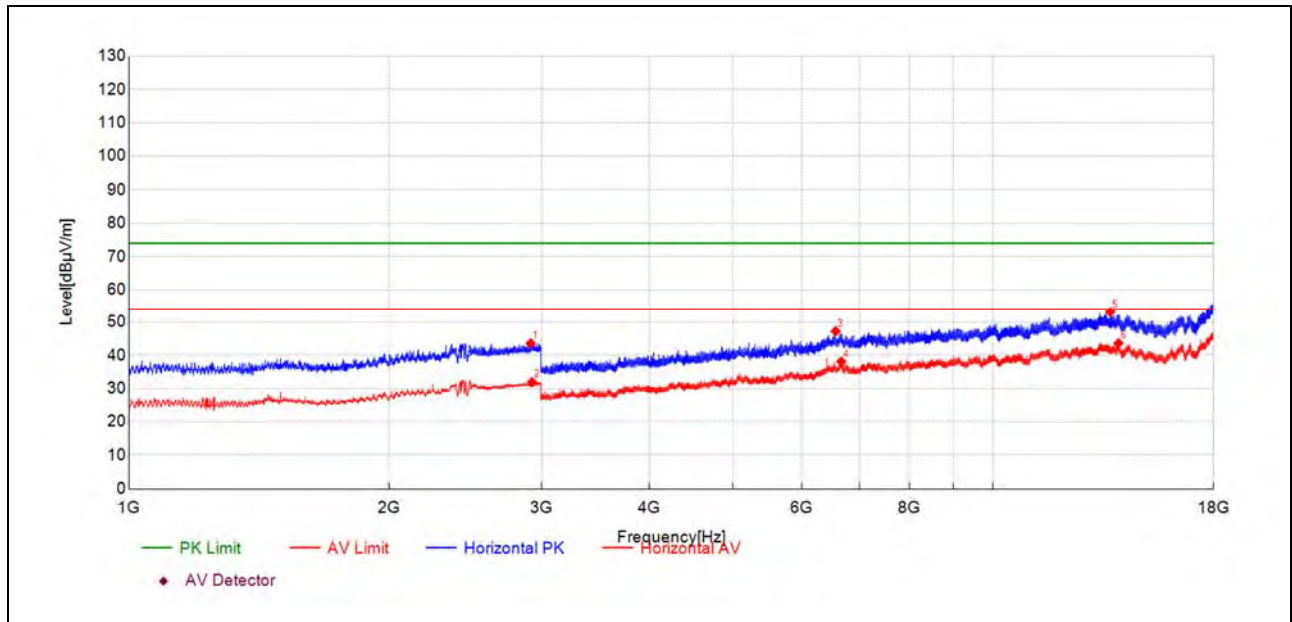
**802.11b Mode**

Plot for Channel 1



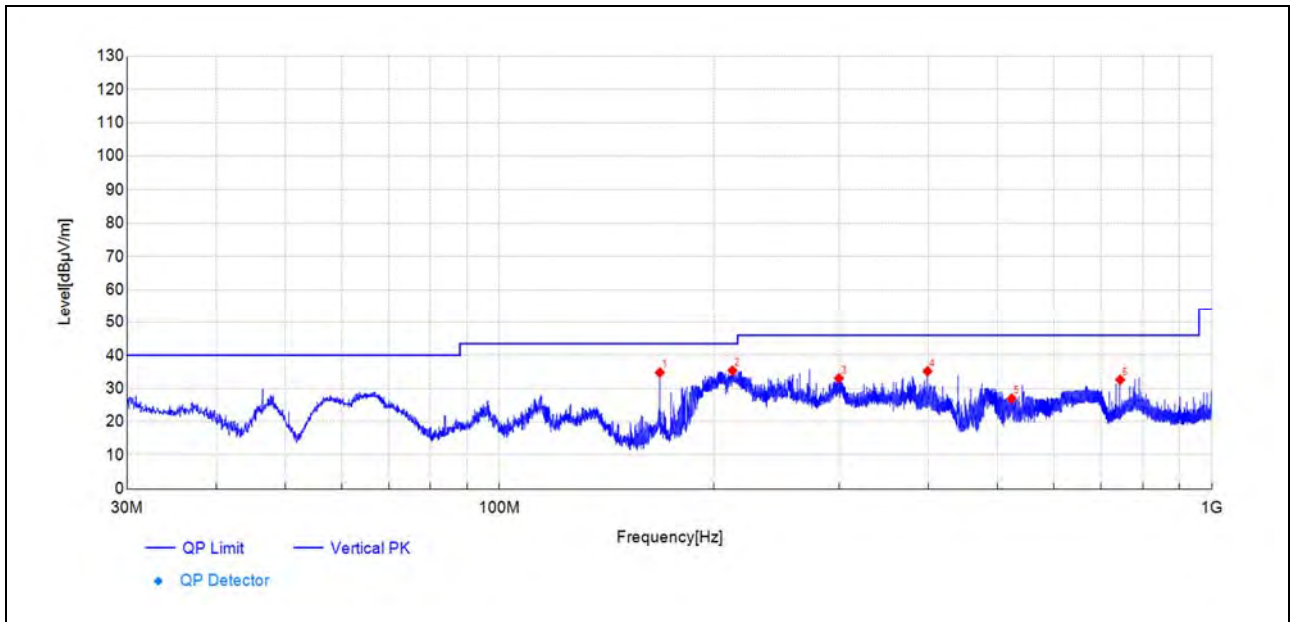
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
325.53	60.1	34.01	-26.110	46.00	11.99	150	309	PK	PASS
399.01	63.0	38.79	-24.170	46.00	7.21	150	69	PK	PASS
440.91	61.7	38.36	-23.300	46.00	7.64	150	58	PK	PASS
493.10	58.9	36.97	-21.960	46.00	9.03	150	87	PK	PASS
567.02	55.8	34.97	-20.800	46.00	11.03	150	278	PK	PASS
734.93	54.4	37.27	-17.130	46.00	8.73	150	27	PK	PASS



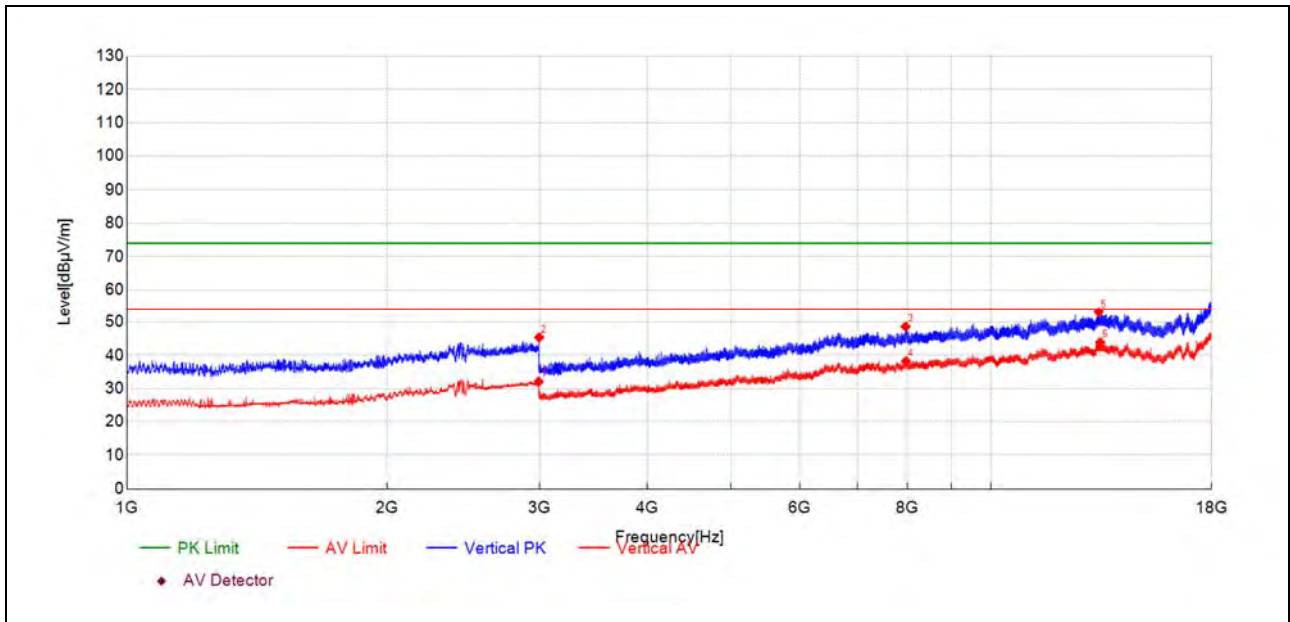
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
2916.43	41.6	43.58	1.980	74.00	30.42	150	1	PK	PASS
2927.09	29.8	31.88	2.040	54.00	22.12	150	1	AV	PASS
6572.62	51.8	47.21	-4.560	74.00	26.79	150	27	PK	PASS
6672.62	41.9	38.10	-3.790	54.00	15.90	150	113	AV	PASS
13664.86	48.5	53.12	4.620	74.00	20.88	150	79	PK	PASS
13966.87	38.4	43.61	5.190	54.00	10.39	150	131	AV	PASS



(Antenna Vertical, 30MHz to 1GHz)

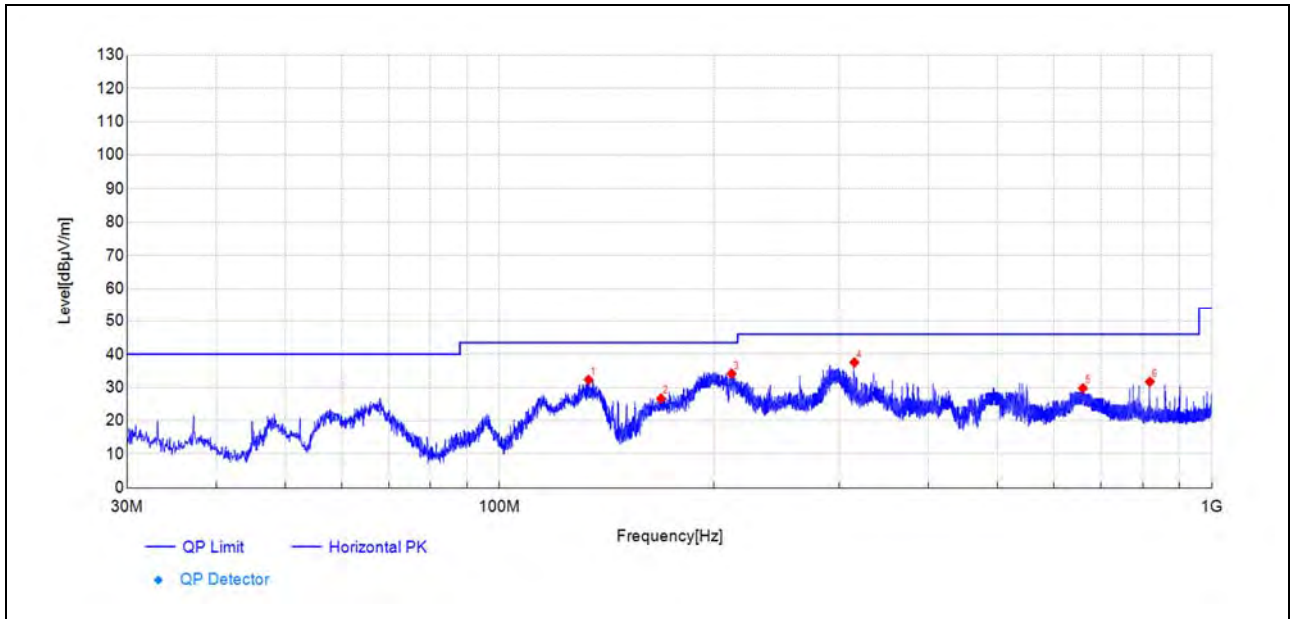
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
167.99	67.1	34.80	-32.330	43.50	8.70	150	191	PK	PASS
212.37	65.1	35.38	-29.710	43.50	8.12	150	171	PK	PASS
299.62	60.0	33.06	-26.980	46.00	12.94	150	341	PK	PASS
399.10	59.4	35.19	-24.170	46.00	10.81	150	360	PK	PASS
523.85	48.5	26.99	-21.460	46.00	19.01	150	181	PK	PASS
744.00	49.7	32.62	-17.090	46.00	13.38	150	191	PK	PASS



(Antenna Vertical, 1GHz to 18GHz)

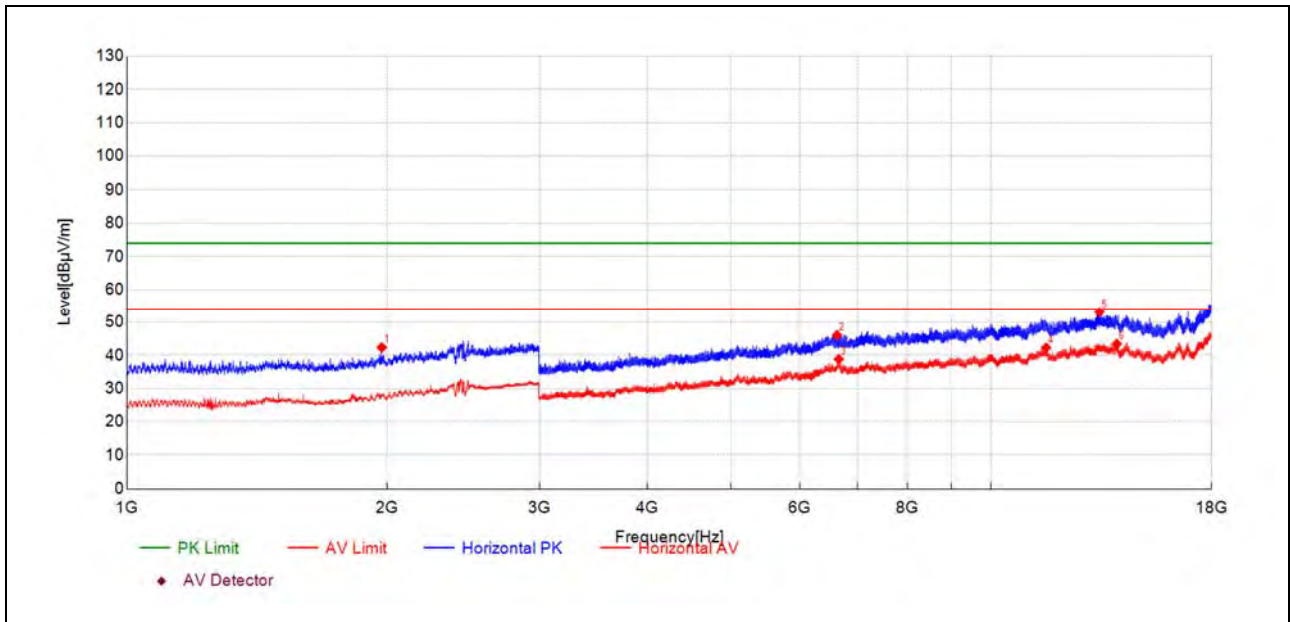
Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
2994.22	30.0	32.06	2.060	54.00	21.94	150	117	AV	PASS
2999.11	43.3	45.37	2.090	74.00	28.63	150	186	PK	PASS
7963.67	52.0	48.62	-3.420	74.00	25.38	150	272	PK	PASS
7971.17	41.6	38.20	-3.400	54.00	15.80	150	272	AV	PASS
13321.34	47.7	53.06	5.320	74.00	20.94	150	360	PK	PASS
13372.85	38.9	43.88	4.950	54.00	10.12	150	27	AV	PASS

Plot for Channel 6



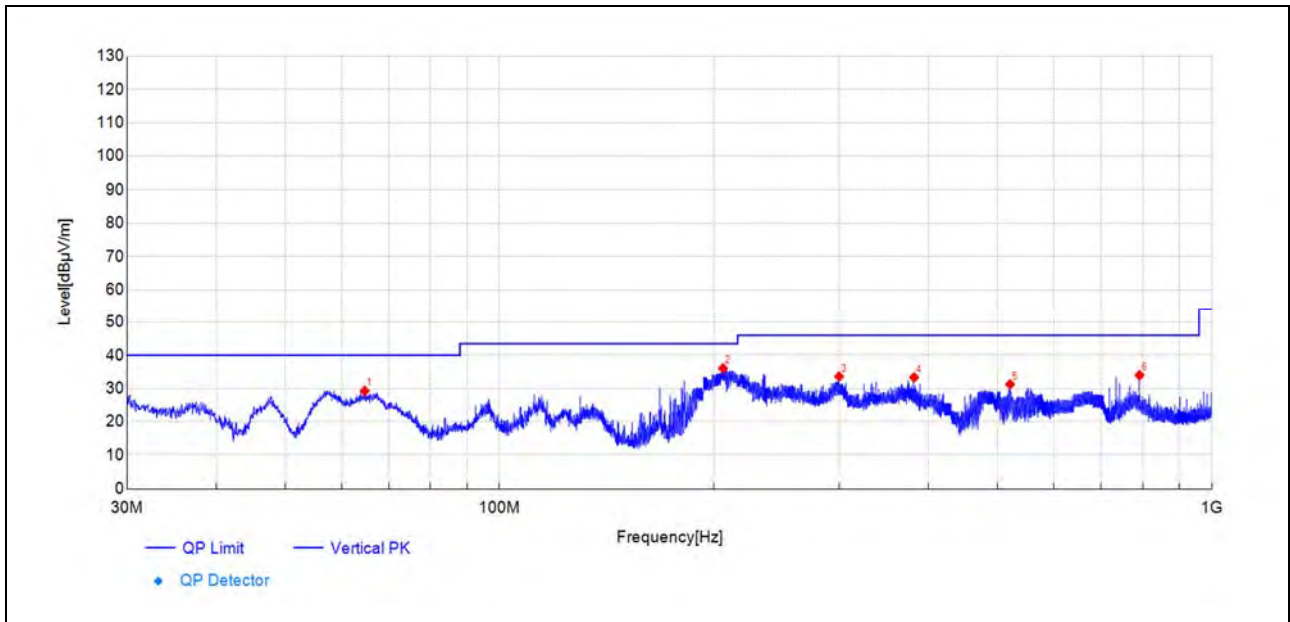
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
133.41	65.8	32.32	-33.450	43.50	11.18	150	271	PK	PASS
168.62	59.0	26.68	-32.320	43.50	16.82	150	151	PK	PASS
211.79	63.9	34.13	-29.730	43.50	9.37	150	21	PK	PASS
315.00	64.1	37.55	-26.590	46.00	8.45	150	321	PK	PASS
659.56	48.4	29.79	-18.640	46.00	16.21	150	241	PK	PASS
818.84	47.9	31.69	-16.250	46.00	14.31	150	282	PK	PASS



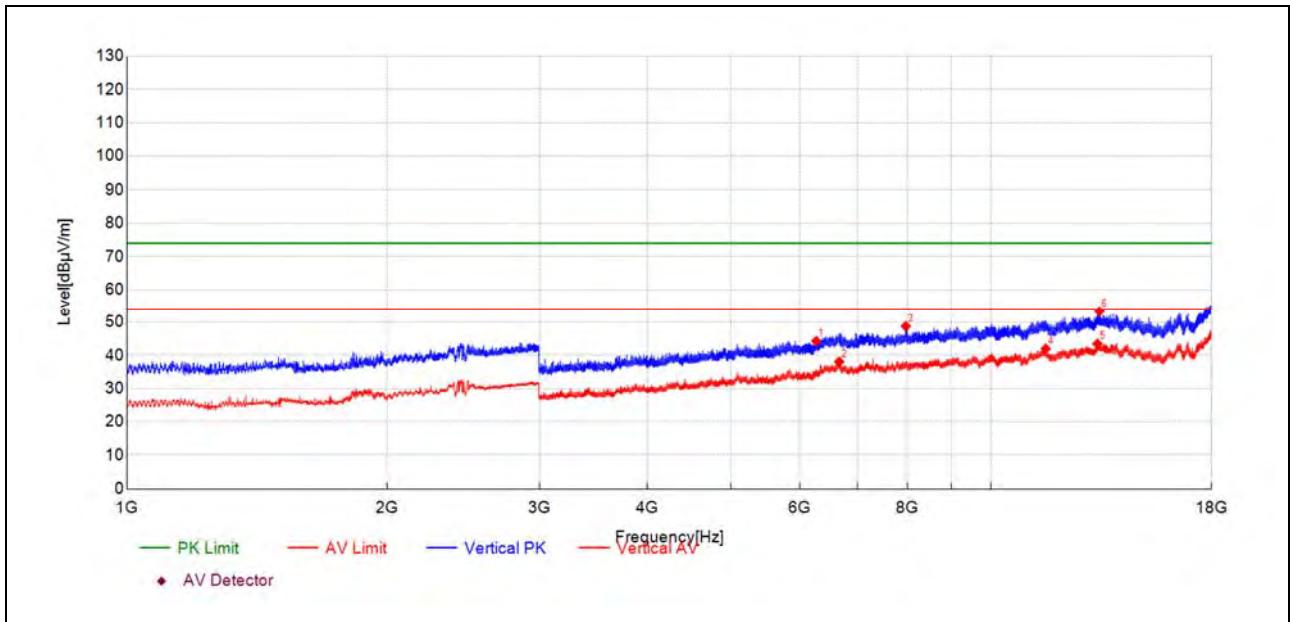
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
1971.33	44.8	42.37	-2.410	74.00	31.63	150	56	PK	PASS
6633.12	50.2	46.08	-4.090	74.00	27.92	150	114	PK	PASS
6663.62	42.6	38.83	-3.770	54.00	15.17	150	273	AV	PASS
11579.29	39.5	42.29	2.820	54.00	11.71	150	323	AV	PASS
13345.84	48.0	53.11	5.140	74.00	20.89	150	360	PK	PASS
13977.37	38.1	43.41	5.290	54.00	10.59	150	360	AV	PASS



(Antenna Vertical, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
64.68	61.9	29.28	-32.570	40.00	10.72	150	189	PK	PASS
205.97	66.2	36.08	-30.110	43.50	7.42	150	128	PK	PASS
299.82	60.6	33.63	-26.970	46.00	12.37	150	298	PK	PASS
382.03	57.9	33.32	-24.570	46.00	12.68	150	109	PK	PASS
521.09	52.7	31.26	-21.480	46.00	14.74	150	1	PK	PASS
792.02	50.7	34.01	-16.700	46.00	11.99	150	49	PK	PASS

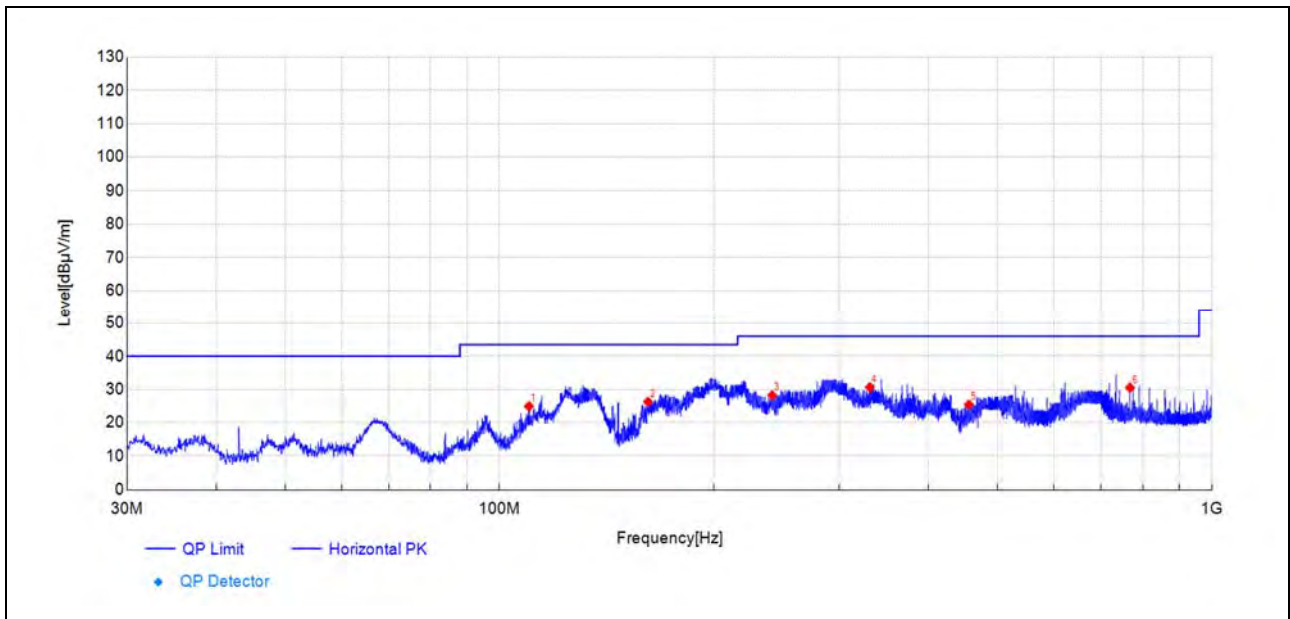


(Antenna Vertical, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
6276.11	50.5	44.26	-6.230	74.00	29.74	150	239	PK	PASS
6670.12	41.8	38.04	-3.790	54.00	15.96	150	150	AV	PASS
7966.67	52.2	48.75	-3.410	74.00	25.25	150	273	PK	PASS
11567.29	39.2	41.97	2.800	54.00	12.03	150	30	AV	PASS
13278.34	38.2	43.45	5.260	54.00	10.55	150	255	AV	PASS
13342.84	48.2	53.33	5.170	74.00	20.67	150	273	PK	PASS

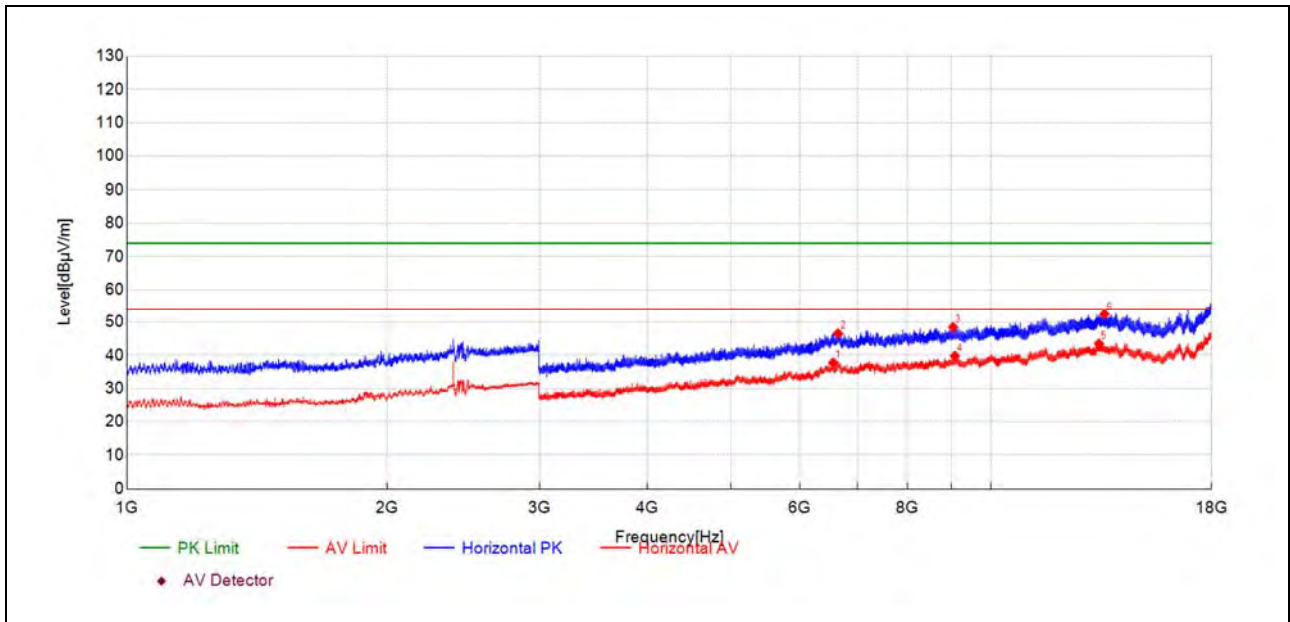


Plot for Channel 11



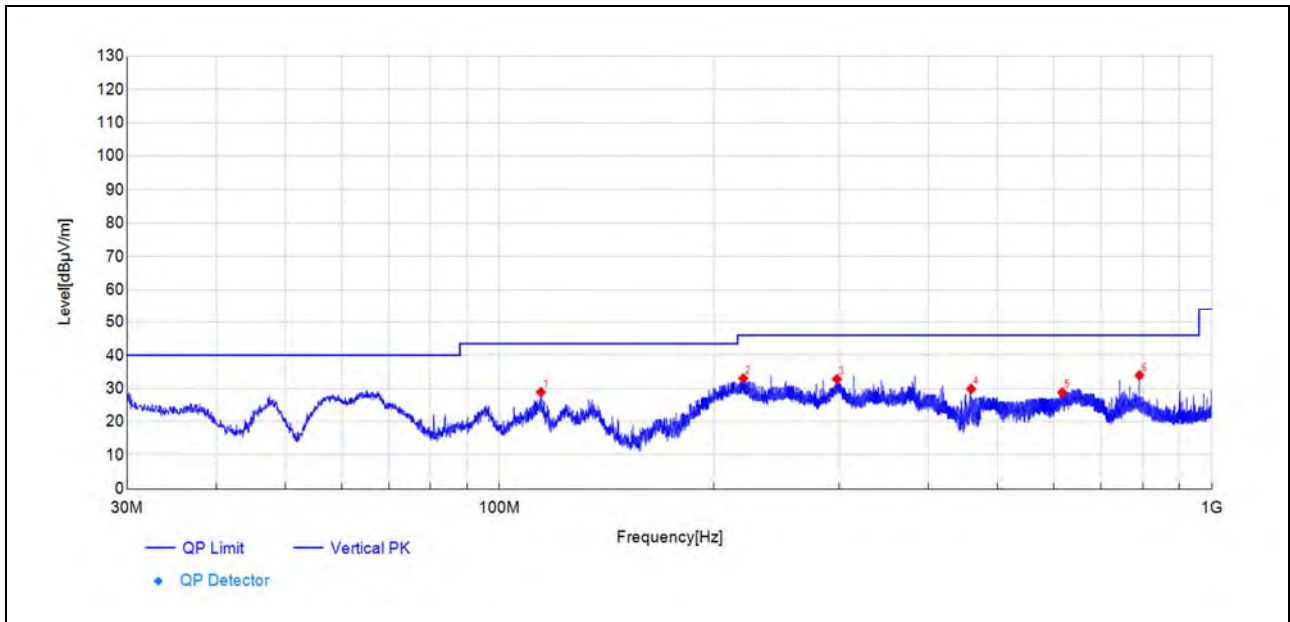
(Antenna Horizontal, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
110.03	55.8	24.95	-30.800	43.50	18.55	150	268	PK	PASS
161.73	58.9	26.25	-32.620	43.50	17.25	150	168	PK	PASS
241.57	56.6	28.26	-28.370	46.00	17.74	150	58	PK	PASS
331.20	56.4	30.67	-25.690	46.00	15.33	150	27	PK	PASS
456.34	48.4	25.43	-22.970	46.00	20.57	150	128	PK	PASS
768.01	47.5	30.55	-16.980	46.00	15.45	150	310	PK	PASS



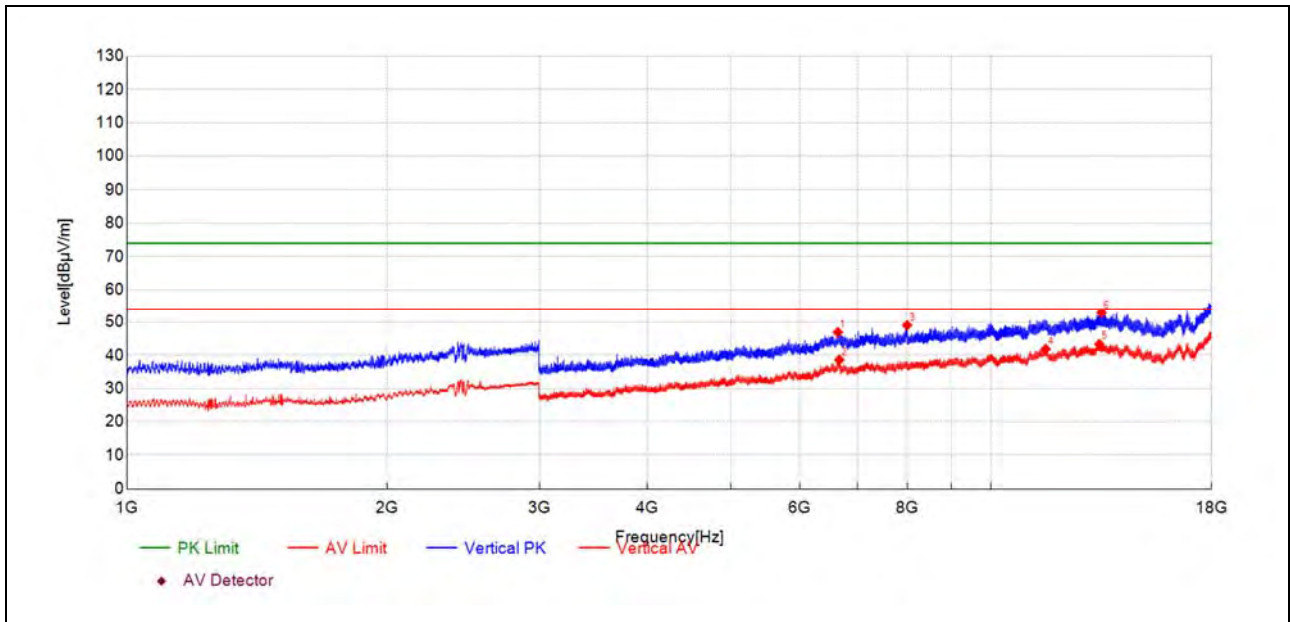
(Antenna Horizontal, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
6565.12	42.3	37.77	-4.500	54.00	16.23	150	133	AV	PASS
6651.62	50.3	46.56	-3.740	74.00	27.44	150	326	PK	PASS
9036.70	50.7	48.42	-2.250	74.00	25.58	150	185	PK	PASS
9079.20	42.1	39.80	-2.310	54.00	14.20	150	133	AV	PASS
13328.84	38.2	43.51	5.270	54.00	10.49	150	342	AV	PASS
13524.85	47.6	52.38	4.740	74.00	21.62	150	185	PK	PASS



(Antenna Vertical, 30MHz to 1GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
114.35	60.3	28.93	-31.410	43.50	14.57	150	261	PK	PASS
219.98	62.2	33.02	-29.210	46.00	12.98	150	222	PK	PASS
297.83	59.8	32.81	-27.010	46.00	13.19	150	355	PK	PASS
459.39	52.7	29.90	-22.830	46.00	16.10	150	142	PK	PASS
617.02	48.3	28.83	-19.480	46.00	17.17	150	222	PK	PASS
792.02	50.7	33.95	-16.700	46.00	12.05	150	61	PK	PASS



(Antenna Vertical, 1GHz to 18GHz)

Fre. (MHz)	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Detector	Verdict
6648.12	50.7	46.93	-3.770	74.00	27.07	150	29	PK	PASS
6672.62	42.4	38.61	-3.790	54.00	15.39	150	11	AV	PASS
7994.17	52.4	49.06	-3.320	74.00	24.94	150	274	PK	PASS
11565.29	39.1	41.87	2.790	54.00	12.13	150	239	AV	PASS
13342.84	38.2	43.34	5.170	54.00	10.66	150	309	AV	PASS
13421.85	48.1	52.82	4.740	74.00	21.18	150	342	PK	PASS

END OF REPORT