

Fig.A.6.1.81 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, Center Frequency)

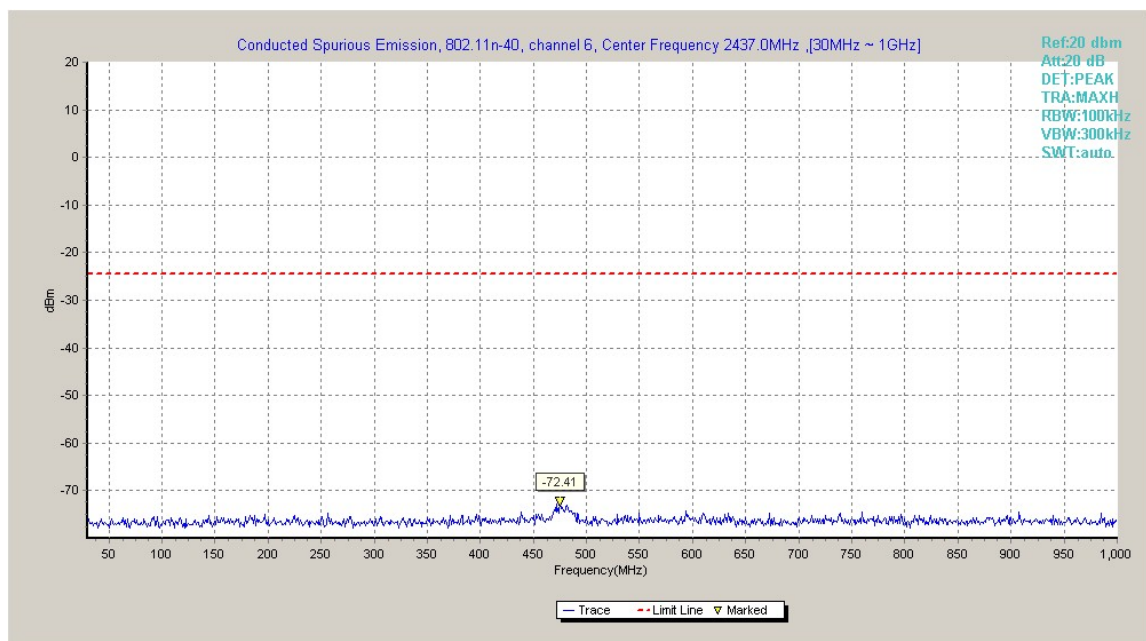


Fig.A.6.1.82 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 30 MHz-1 GHz)

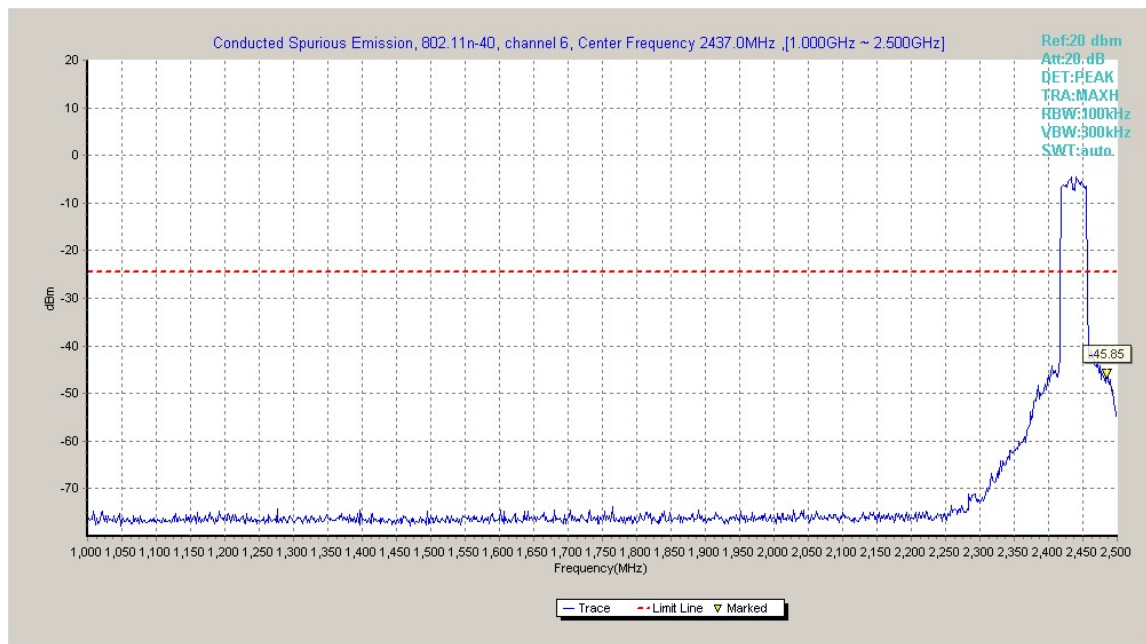


Fig.A.6.1.83 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)

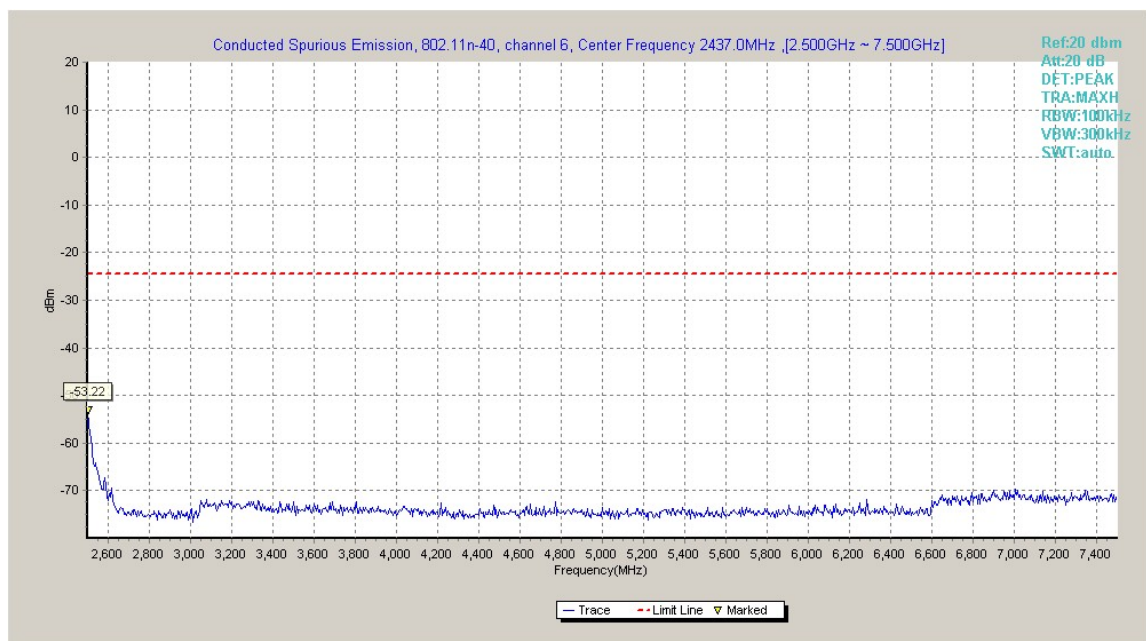


Fig.A.6.1.84 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)

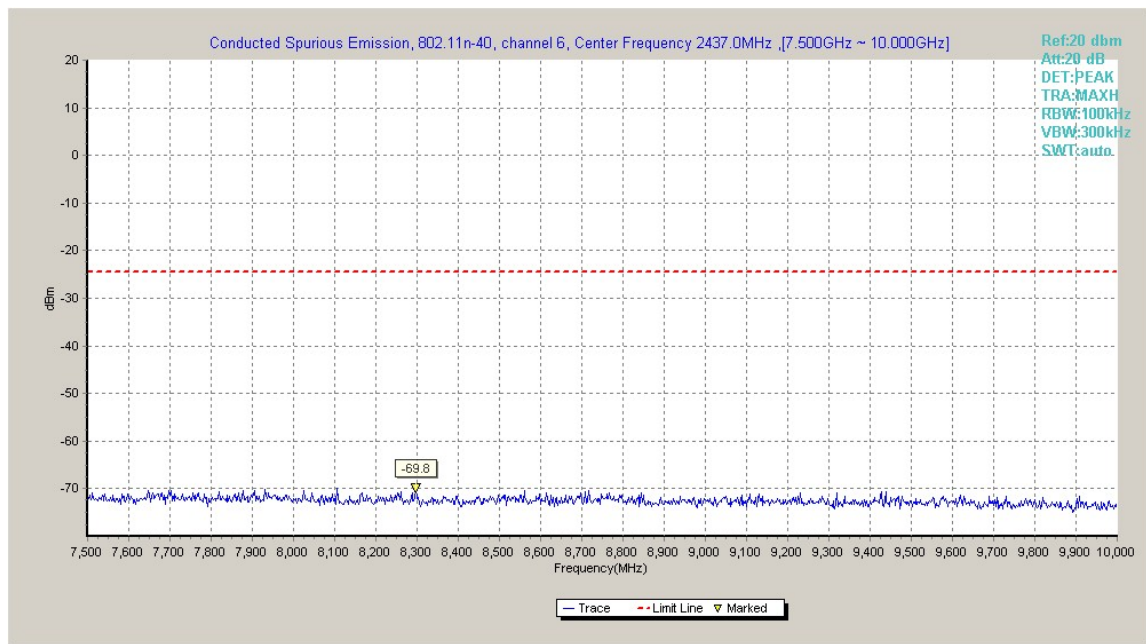


Fig.A.6.1.85 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)

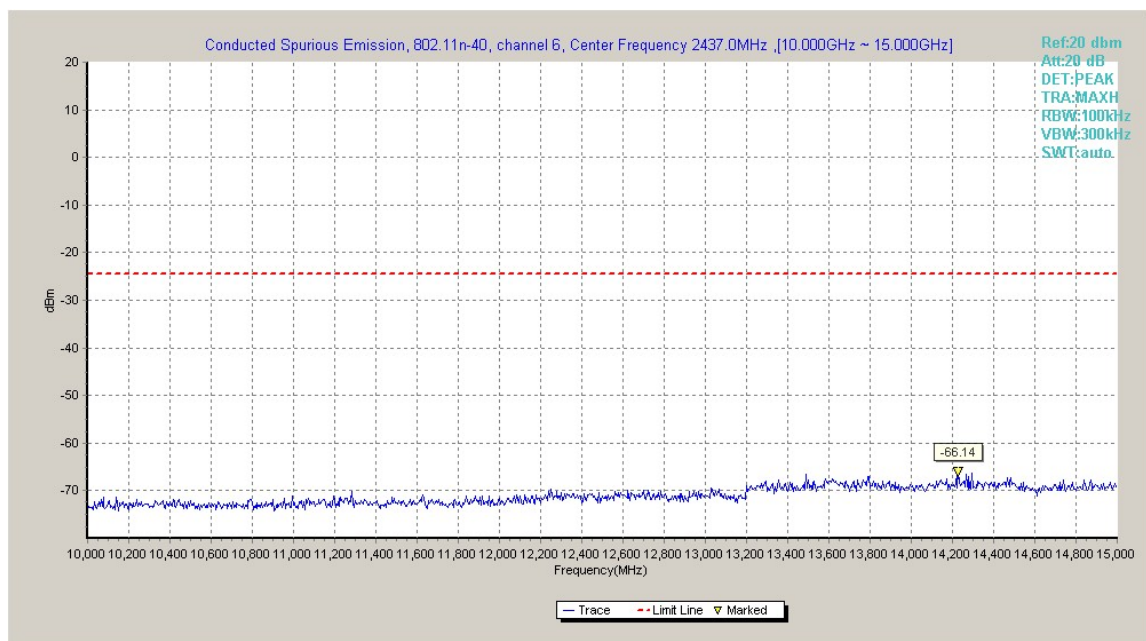


Fig.A.6.1.86 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 10 GHz-15 GHz)

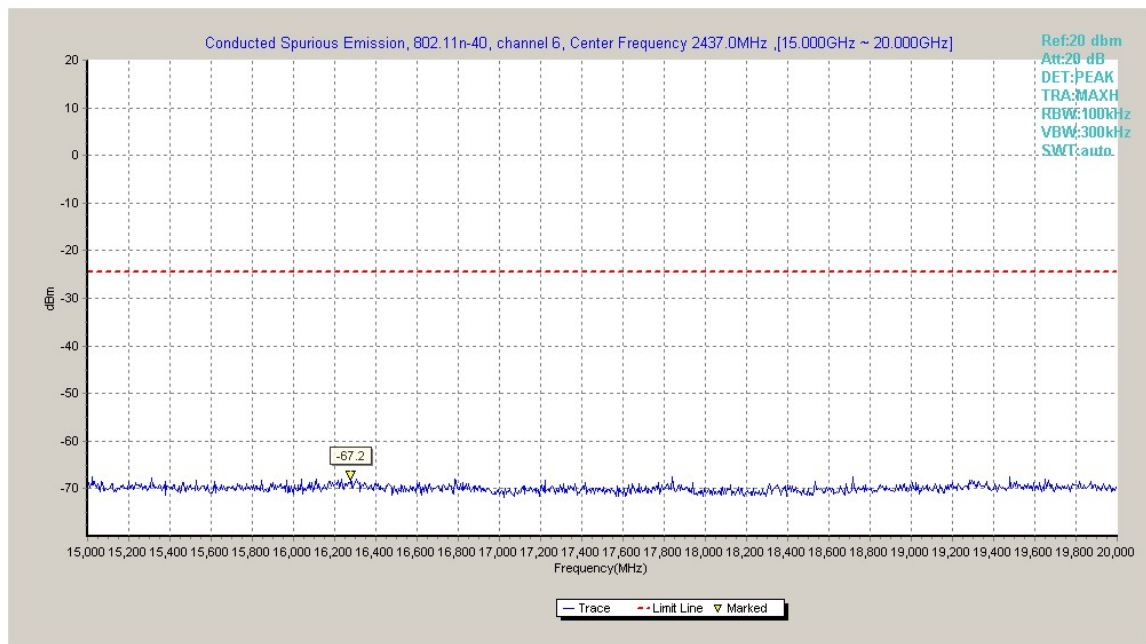


Fig.A.6.1.87 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 15 GHz-20 GHz)

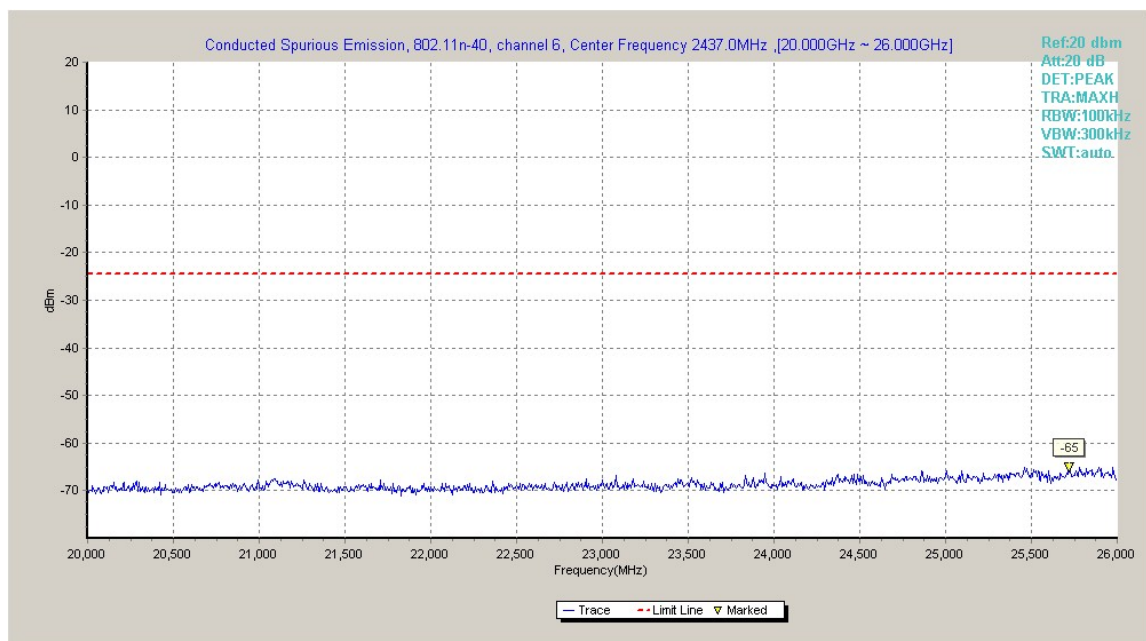


Fig.A.6.1.88 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 20 GHz-26 GHz)

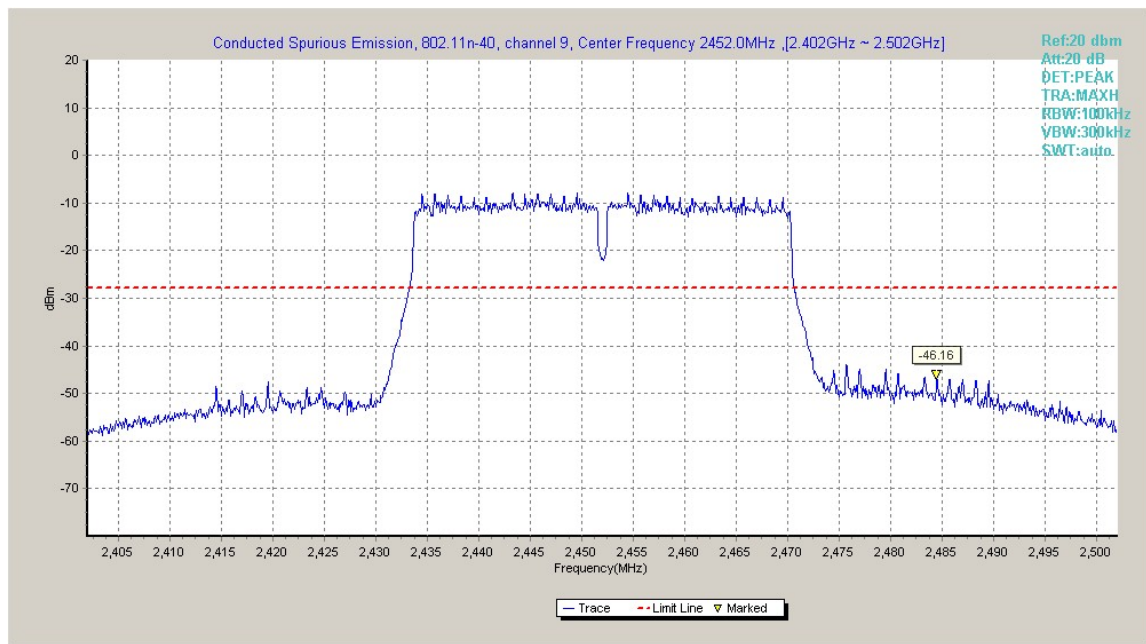


Fig.A.6.1.89 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, Center Frequency)

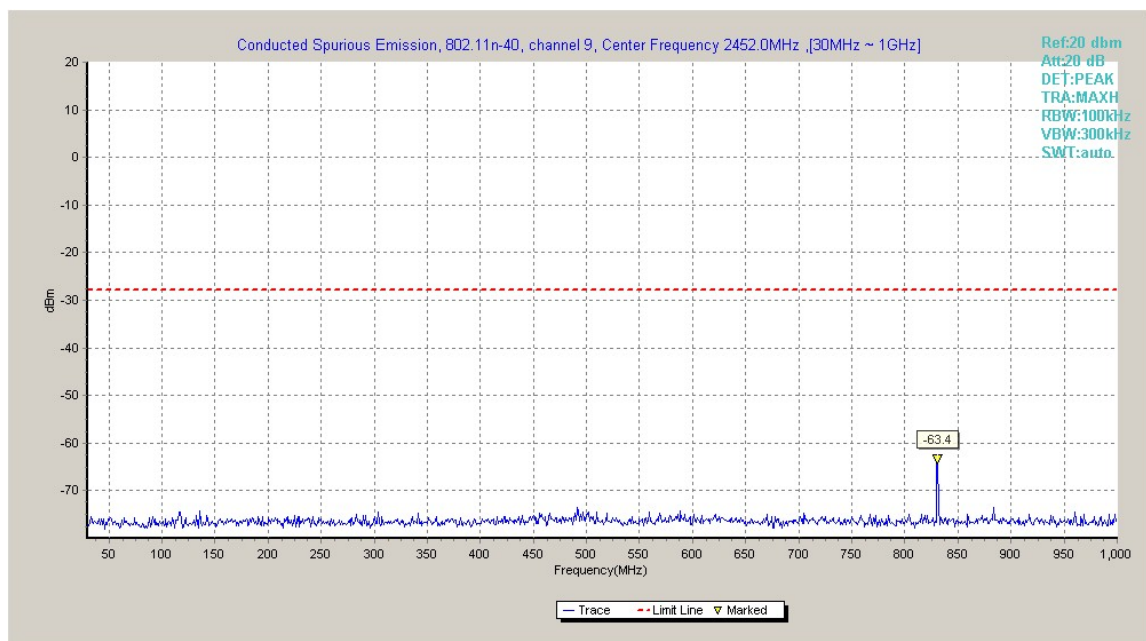


Fig.A.6.1.90 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 30 MHz-1 GHz)

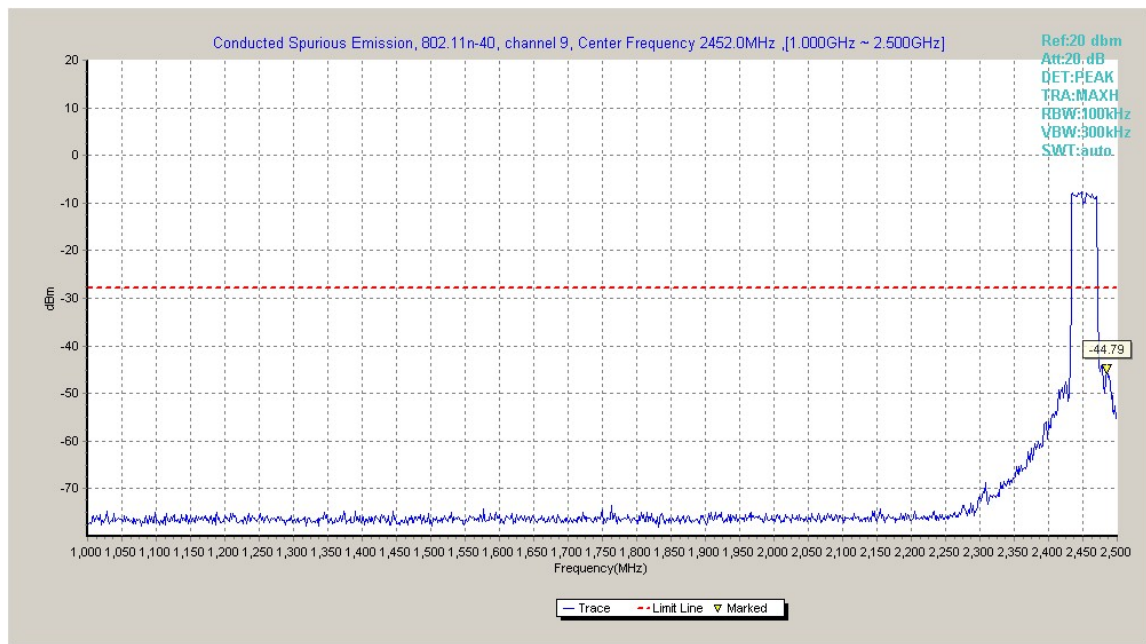


Fig.A.6.1.91 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

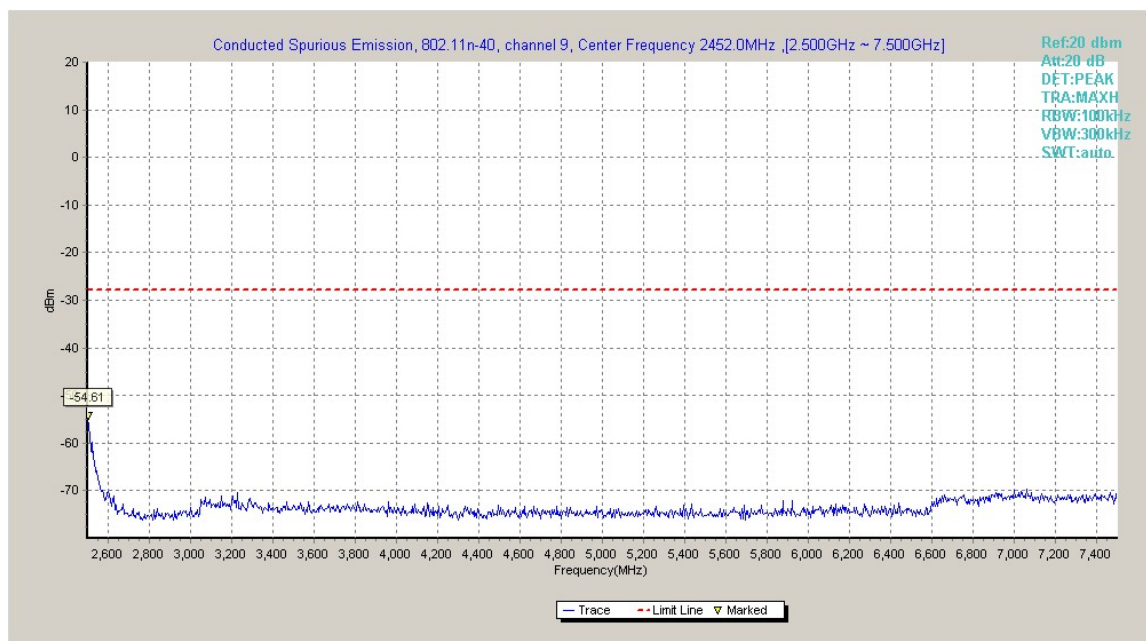


Fig.A.6.1.92 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)

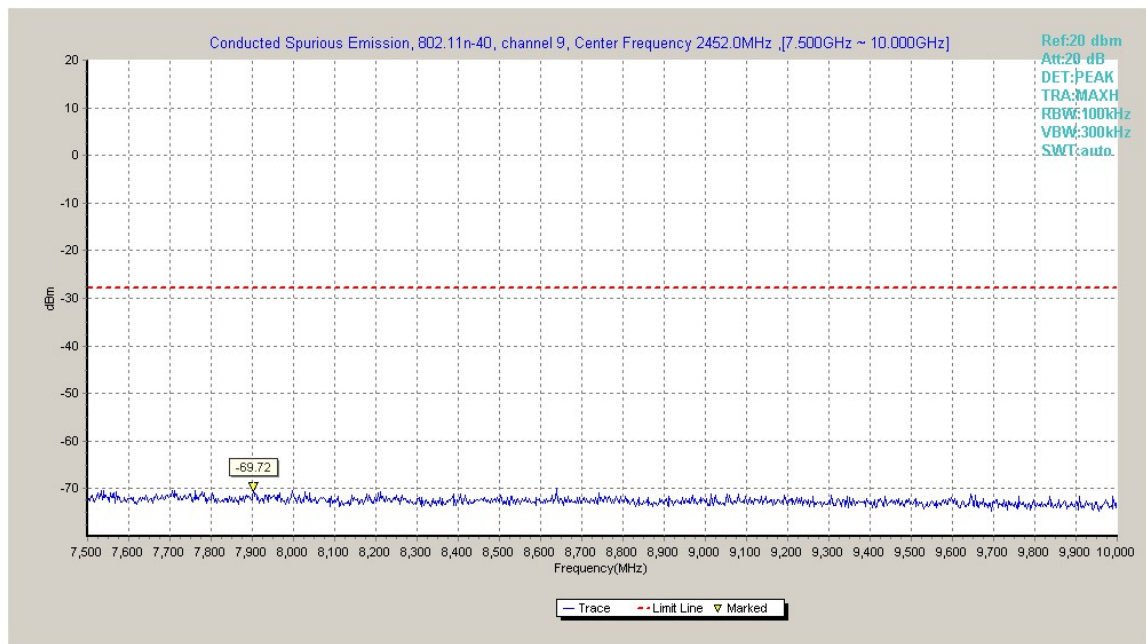


Fig.A.6.1.93 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

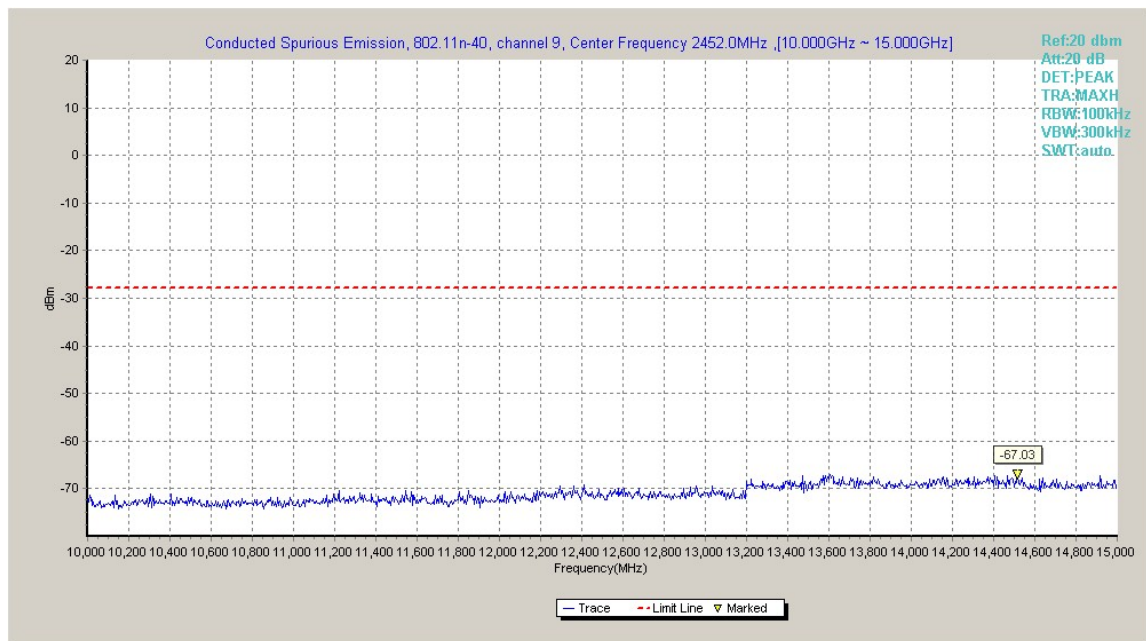


Fig.A.6.1.94 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 10 GHz-15 GHz)

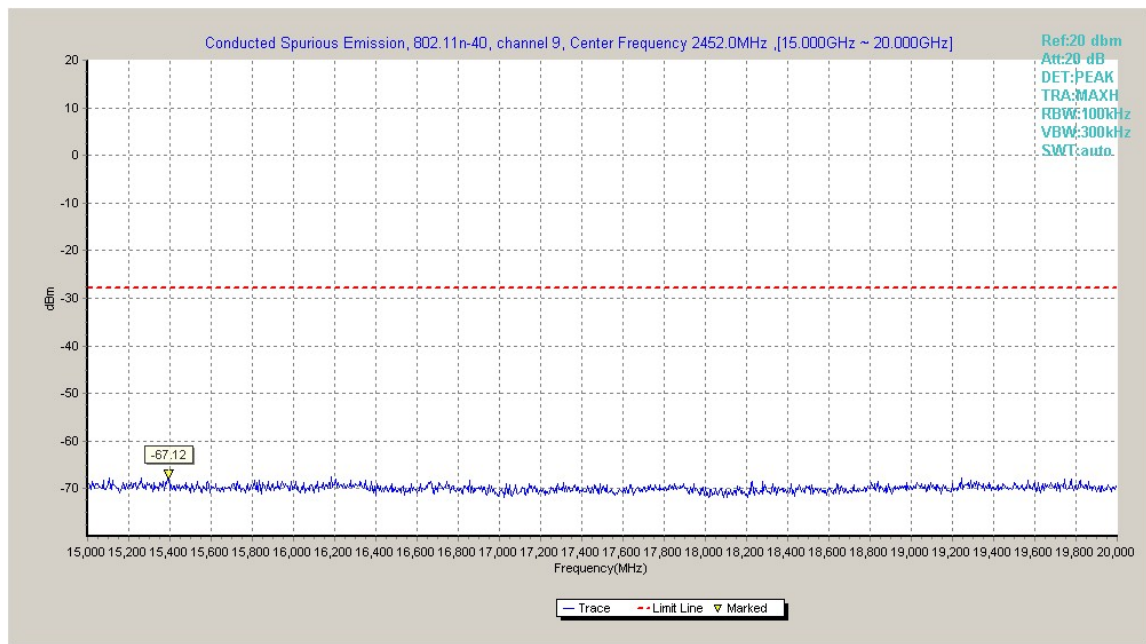


Fig.A.6.1.95 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 15 GHz-20 GHz)

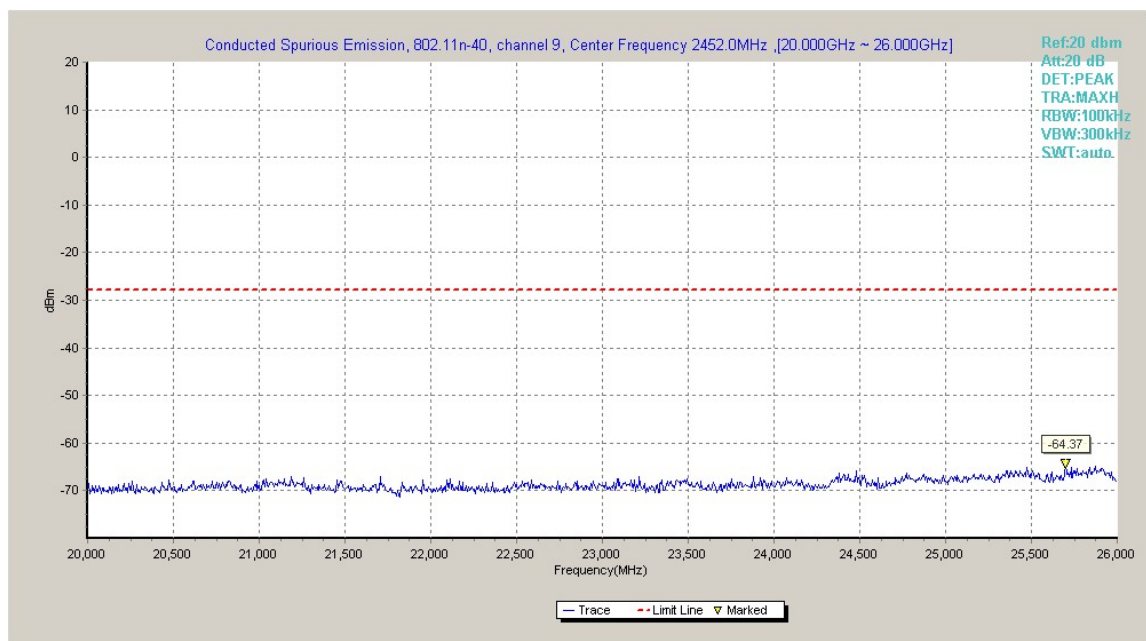


Fig.A.6.1.96 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 20 GHz-26 GHz)

A.6.2 Transmitter Spurious Emission - Radiated**Method of Measurement: See ANSI C63.10-2013-clause 6.4 & 6.5 & 6.6****Measurement Limit:**

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209	20dB below peak output power

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Limit in restricted band:

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

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

Test Condition

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3/10 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100KHz/300KHz	5
1000-4000	1MHz/1MHz	15
4000-18000	1MHz/1MHz	40
18000-26500	1MHz/1MHz	20

EUT ID: EUT4

Measurement Results for Set.10:
802.11b mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	Power	2.38GHz ~2.43GHz	Fig.A.6.2.1	P
	1	1 GHz ~ 3 GHz	Fig.A.6.2.2	P
		3 GHz ~ 18 GHz	Fig.A.6.2.3	P
	6	9 kHz ~30 MHz	Fig.A.6.2.4	P
		30 MHz ~1 GHz	Fig.A.6.2.5	P
		1 GHz ~ 3 GHz	Fig.A.6.2.6	P
		3 GHz ~ 18 GHz	Fig.A.6.2.7	P
		18 GHz~ 26.5 GHz	Fig.A.6.2.8	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.9	P
	11	1 GHz ~ 3 GHz	Fig.A.6.2.10	P
		3 GHz ~ 18 GHz	Fig.A.6.2.11	P

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	Power	2.38GHz ~2.43GHz	Fig.A.6.2.12	P
	1	1 GHz ~ 3 GHz	Fig.A.6.2.13	P
		3 GHz ~ 18 GHz	Fig.A.6.2.14	P
	6	30 MHz ~1 GHz	Fig.A.6.2.15	P
		1 GHz ~ 3 GHz	Fig.A.6.2.16	P
		3 GHz ~ 18 GHz	Fig.A.6.2.17	P
		18 GHz~ 26.5 GHz	Fig.A.6.2.18	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.19	P
	11	1 GHz ~ 3 GHz	Fig.A.6.2.20	P
		3 GHz ~ 18 GHz	Fig.A.6.2.21	P

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	Power	2.38GHz ~2.43GHz	Fig.A.6.2.22	P
	1	1 GHz ~ 3 GHz	Fig.A.6.2.23	P
		3 GHz ~ 18 GHz	Fig.A.6.2.24	P
	6	30 MHz ~1 GHz	Fig.A.6.2.25	P
		1 GHz ~ 3 GHz	Fig.A.6.2.26	P
		3 GHz ~ 18 GHz	Fig.A.6.2.27	P
		18 GHz~ 26.5 GHz	Fig.A.6.2.28	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.29	P
	11	1 GHz ~ 3 GHz	Fig.A.6.2.30	P
		3 GHz ~ 18 GHz	Fig.A.6.2.31	P

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT40)	Power	2.38GHz ~2.43GHz	Fig.A.6.2.32	P
	3	1 GHz ~ 3 GHz	Fig.A.6.2.33	P
		3 GHz ~ 18 GHz	Fig.A.6.2.34	P
	6	30 MHz ~1 GHz	Fig.A.6.2.35	P
		1 GHz ~ 3 GHz	Fig.A.6.2.36	P
		3 GHz ~ 18 GHz	Fig.A.6.2.37	P
		18 GHz~ 26.5 GHz	Fig.A.6.2.38	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.39	P
	9	1 GHz ~ 3 GHz	Fig.A.6.2.40	P
		3 GHz ~ 18 GHz	Fig.A.6.2.41	P

Conclusion: Pass

Note:

A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

P_{Mea} is the field strength recorded from the instrument.

The measurement results are obtained as described below:

Result= $P_{Mea}+A_{Rpl}= P_{Mea}+Cable Loss+Antenna Factor$

802.11b-Average

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2383.800	46.8	2.9	32.0	11.887	54.0	7.2	H
2387.938	46.8	2.9	32.0	11.952	54.0	7.2	H
4824.000	37.35	-17.3	34.5	20.172	54.0	16.6	H
7236.000	38.41	-17.6	36.1	19.882	54.0	15.6	H
9648.000	39.47	-17.4	37.0	19.831	54.0	14.5	H
12060.000	41.64	-17.2	39.3	19.580	54.0	12.4	H

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2384.800	46.8	2.9	32.0	11.949	54.0	7.2	H
2485.800	47.8	2.9	32.7	12.203	54.0	6.2	H
4873.500	36.54	-18.3	34.5	20.347	54.0	17.5	H
7311.000	37.13	-18.6	36.1	19.665	54.0	16.9	H
9748.500	39.68	-17.3	37.2	19.809	54.0	14.3	H
12184.500	40.76	-17.7	39.2	19.220	54.0	13.2	H

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2484.050	47.9	2.9	32.7	12.224	54.0	6.1	H
2491.200	47.7	2.9	32.5	12.244	54.0	6.3	H
4924.500	36.12	-19.0	34.5	20.571	54.0	17.9	H
7386.000	38.77	-17.3	36.0	19.985	54.0	15.2	H
9847.500	38.85	-18.1	37.3	19.655	54.0	15.1	H
12310.500	40.34	-17.9	39.2	19.038	54.0	13.7	H

802.11b-Peak

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2382.212	59.7	2.9	32.0	24.768	74.0	14.3	V
2387.602	59.8	2.9	32.0	24.916	74.0	14.2	H
17604.000	60.1	-13.3	41.1	32.293	74.0	13.9	V
17268.750	59.9	-14.0	41.2	32.717	74.0	14.1	V
17553.000	59.8	-13.9	41.2	32.541	74.0	14.2	H
17535.000	59.8	-14.1	41.2	32.659	74.0	14.2	H

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2375.200	50.5	-26.6	32.1	45.010	74.0	23.5	V
2527.400	51.9	-26.8	32.7	45.938	74.0	22.2	V
17673.000	60.2	-13.1	41.1	32.230	74.0	13.8	H
18000.000	59.4	-13.5	40.8	32.084	74.0	14.6	H
17971.500	59.3	-13.6	40.8	32.064	74.0	14.7	V
17597.250	59.3	-13.4	41.1	31.528	74.0	14.7	H

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2490.780	61.5	2.9	32.6	25.972	74.0	12.5	H
2494.240	61.5	2.9	32.5	26.101	74.0	12.5	V
17608.500	59.8	-13.3	41.1	31.992	74.0	14.2	V
17250.000	59.8	-14.2	41.2	32.733	74.0	14.2	H
17616.000	59.8	-13.2	41.1	31.836	74.0	14.2	V
17622.000	59.7	-13.1	41.1	31.697	74.0	14.3	H

802.11g - Average

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2382.600	46.8	2.9	32.0	11.901	54.0	7.2	H
2389.030	46.8	2.9	32.0	11.986	54.0	7.2	H
4824.000	37.47	-17.3	34.5	20.287	54.0	16.5	H
7236.000	38.37	-17.6	36.1	19.842	54.0	15.6	H
9648.000	39.55	-17.4	37.0	19.912	54.0	14.5	H
12060.000	41.64	-17.2	39.3	19.579	54.0	12.4	H

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2386.300	46.8	2.9	32.0	11.970	54.0	7.2	H
2484.000	48.0	2.9	32.7	12.352	54.0	6.0	H
4873.500	36.53	-18.3	34.5	20.342	54.0	17.5	H
7311.000	37.15	-18.6	36.1	19.685	54.0	16.9	H
9748.500	39.67	-17.3	37.2	19.798	54.0	14.3	H
12184.500	40.88	-17.7	39.2	19.336	54.0	13.1	H

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.710	48.2	2.9	32.8	12.531	54.0	5.8	H
2489.400	48.0	2.9	32.6	12.422	54.0	6.0	H
4924.500	36.03	-19.0	34.5	20.483	54.0	18.0	H
7386.000	38.78	-17.3	36.0	19.997	54.0	15.2	H
9847.500	38.92	-18.1	37.3	19.719	54.0	15.1	H
12310.500	40.35	-17.9	39.2	19.049	54.0	13.6	H

802.11g - Peak

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2383.822	60.0	2.9	32.0	25.087	74.0	14.0	H
2385.236	59.9	2.9	32.0	25.047	74.0	14.1	V
17641.500	59.6	-13.0	41.1	31.507	74.0	14.4	V
17658.750	59.6	-13.1	41.1	31.561	74.0	14.4	H
17719.500	59.5	-13.2	41.0	31.739	74.0	14.5	V
17760.750	59.4	-13.3	41.0	31.778	74.0	14.6	H

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2329.200	49.3	-27.7	31.3	45.706	74.0	24.7	V
2511.400	51.0	-26.5	32.5	45.068	74.0	23.0	V
17516.250	59.5	-14.3	41.2	32.609	74.0	14.5	V
17085.000	59.5	-15.3	41.3	33.464	74.0	14.5	H
17982.750	59.5	-13.6	40.8	32.302	74.0	14.5	V
2329.200	49.3	-27.7	31.3	45.706	74.0	24.7	V

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2484.490	63.4	2.9	32.7	27.744	74.0	10.6	H
2484.960	64.1	2.9	32.7	28.472	74.0	9.9	H
17976.000	60.0	-13.6	40.8	32.834	74.0	14.0	V
17351.250	59.9	-14.3	41.2	32.958	74.0	14.1	V
17673.000	59.8	-13.1	41.1	31.856	74.0	14.2	H
17565.000	59.4	-13.7	41.1	31.959	74.0	14.6	H

802.11n-HT20-Average

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2383.600	46.8	2.9	32.0	11.917	54.0	7.2	H
2388.820	46.8	2.9	32.0	11.973	54.0	7.2	H
4824.200	37.51	-17.3	34.5	20.334	54.0	16.5	H
7236.000	38.42	-17.6	36.1	19.887	54.0	15.6	H
9648.000	39.63	-17.4	37.0	19.993	54.0	14.4	H
12060.400	41.73	-17.2	39.3	19.667	54.0	12.3	H

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2389.800	46.8	2.9	32.0	11.987	54.0	7.2	H
2483.700	47.9	2.9	32.8	12.254	54.0	6.1	H
4874.000	36.62	-18.3	34.5	20.441	54.0	17.4	H
7311.000	37.24	-18.6	36.1	19.775	54.0	16.8	H
9748.500	39.74	-17.3	37.2	19.868	54.0	14.3	H
12185.000	40.94	-17.7	39.2	19.398	54.0	13.1	H

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.600	48.3	2.9	32.8	12.633	54.0	5.7	H
2492.700	47.9	2.9	32.5	12.426	54.0	6.1	H
4924.400	36.22	-19.0	34.5	20.671	54.0	17.8	H
7386.000	38.83	-17.3	36.0	20.039	54.0	15.2	H
9848.400	38.94	-18.1	37.3	19.728	54.0	15.1	H
12310.000	40.43	-17.9	39.2	19.126	54.0	13.6	H

802.11n-HT20-Peak

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2384.942	59.8	2.9	32.0	24.916	74.0	14.2	H
2389.310	59.6	2.9	32.0	24.798	74.0	14.4	H
17361.000	59.9	-14.4	41.2	33.101	74.0	14.1	H
17326.500	59.7	-14.2	41.2	32.625	74.0	14.3	V
17636.250	59.5	-13.0	41.1	31.459	74.0	14.5	V
17712.000	59.5	-13.2	41.0	31.669	74.0	14.5	H

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2341.000	48.8	-27.7	31.5	45.017	74.0	25.2	H
2603.800	52.8	-26.9	33.0	46.667	74.0	21.2	H
17862.000	59.7	-13.5	40.9	32.260	74.0	14.3	H
17988.000	59.4	-13.6	40.8	32.245	74.0	14.6	H
17731.500	59.4	-13.3	41.0	31.655	74.0	14.6	V
17622.000	59.4	-13.1	41.1	31.387	74.0	14.6	V

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2484.500	63.7	2.9	32.7	28.032	74.0	10.3	H
2485.940	63.4	2.9	32.7	27.806	74.0	10.6	V
17318.250	59.9	-14.1	41.2	32.799	74.0	14.1	V
17325.000	59.9	-14.2	41.2	32.822	74.0	14.1	H
17867.250	59.9	-13.5	40.9	32.467	74.0	14.1	V
17793.750	59.7	-13.4	41.0	32.179	74.0	14.3	H

802.11n-HT40-Average

Ch3

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2384.600	47.0	2.9	32.0	12.070	54.0	7.0	H
2389.548	47.0	2.9	32.0	12.141	54.0	7.0	H
4843.500	37.12	-17.5	34.5	20.144	54.0	16.9	H
7266.000	37.18	-18.8	36.1	19.841	54.0	16.8	H
9688.500	40.40	-16.5	37.1	19.797	54.0	13.6	H
12109.500	41.33	-17.3	39.3	19.372	54.0	12.7	H

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2386.500	46.9	2.9	32.0	12.061	54.0	7.1	H
2484.500	48.2	2.9	32.7	12.563	54.0	5.8	H
4873.500	36.32	-18.3	34.5	20.127	54.0	17.7	H
7311.000	37.01	-18.6	36.1	19.544	54.0	17.0	H
9748.500	39.60	-17.3	37.2	19.726	54.0	14.4	H
12184.500	40.70	-17.7	39.2	19.161	54.0	13.3	H

Ch9

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.500	48.6	2.9	32.8	12.866	54.0	5.4	H
2486.300	48.4	2.9	32.7	12.812	54.0	5.6	H
4903.500	35.89	-18.8	34.5	20.163	54.0	18.1	H
7356.000	37.93	-18.0	36.1	19.854	54.0	16.1	H
9808.500	38.00	-18.8	37.3	19.524	54.0	16.0	H
12259.500	40.50	-17.8	39.2	19.132	54.0	13.5	H

802.11n-HT40-Peak

Ch3

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2387.056	61.1	2.9	32.0	26.241	74.0	12.9	V
2388.526	61.1	2.9	32.0	26.281	74.0	12.9	V
17778.000	59.8	-13.4	41.0	32.214	74.0	14.2	H
17261.250	59.6	-14.1	41.2	32.495	74.0	14.4	V
17248.500	59.6	-14.2	41.2	32.548	74.0	14.4	H
17984.250	59.5	-13.6	40.8	32.351	74.0	14.5	H

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2375.600	50.7	-26.6	32.1	45.216	74.0	23.3	V
2502.400	51.8	-26.3	32.3	45.801	74.0	22.2	V
17283.000	60.2	-13.9	41.2	32.990	74.0	13.8	H
17444.250	60.1	-14.8	41.2	33.722	74.0	13.9	H
17280.000	59.3	-14.0	41.2	32.060	74.0	14.7	V
17304.000	59.3	-14.0	41.2	32.111	74.0	14.7	H

Ch9

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.890	62.9	2.9	32.8	27.234	74.0	11.1	H
2489.920	63.3	2.9	32.6	27.831	74.0	10.7	H
17707.500	60.2	-13.2	41.0	32.397	74.0	13.8	V
17618.250	59.8	-13.2	41.1	31.879	74.0	14.2	H
17633.250	59.6	-13.0	41.1	31.502	74.0	14.4	V
17706.750	59.5	-13.2	41.0	31.688	74.0	14.5	V

Test graphs as below:

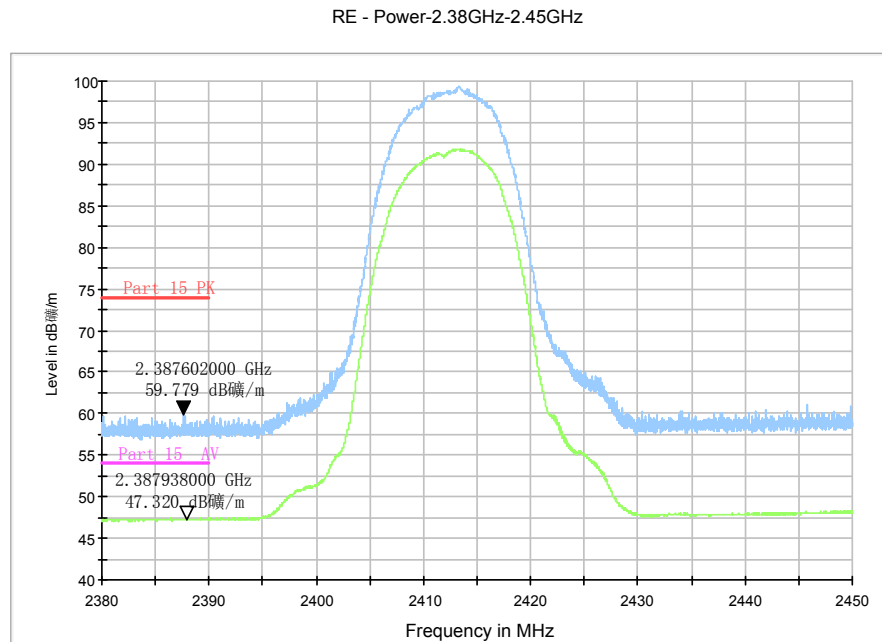
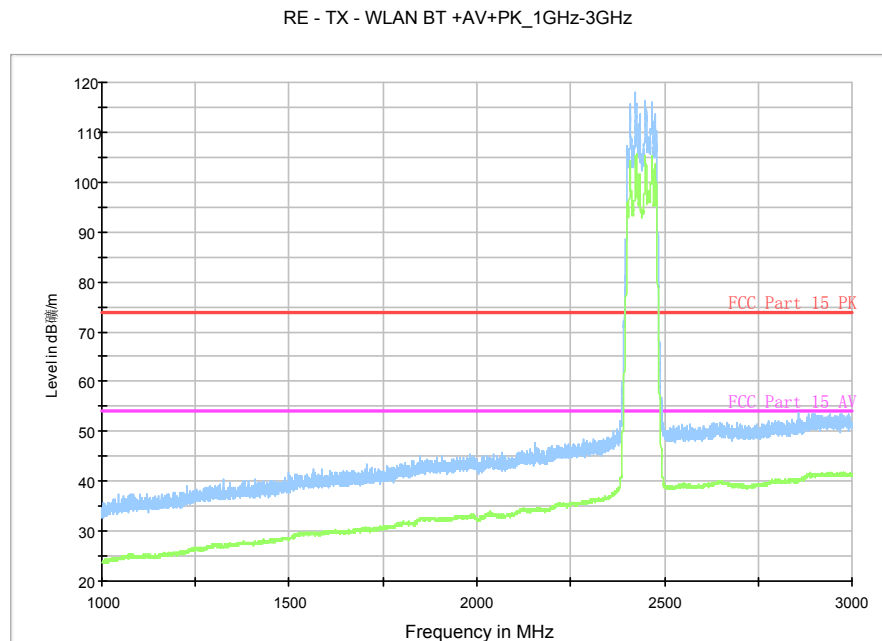


Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.38 GHz – 2.43GHz



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (802.11b, Ch1, 1 GHz-3 GHz)

RE - 3GHz-18GHz

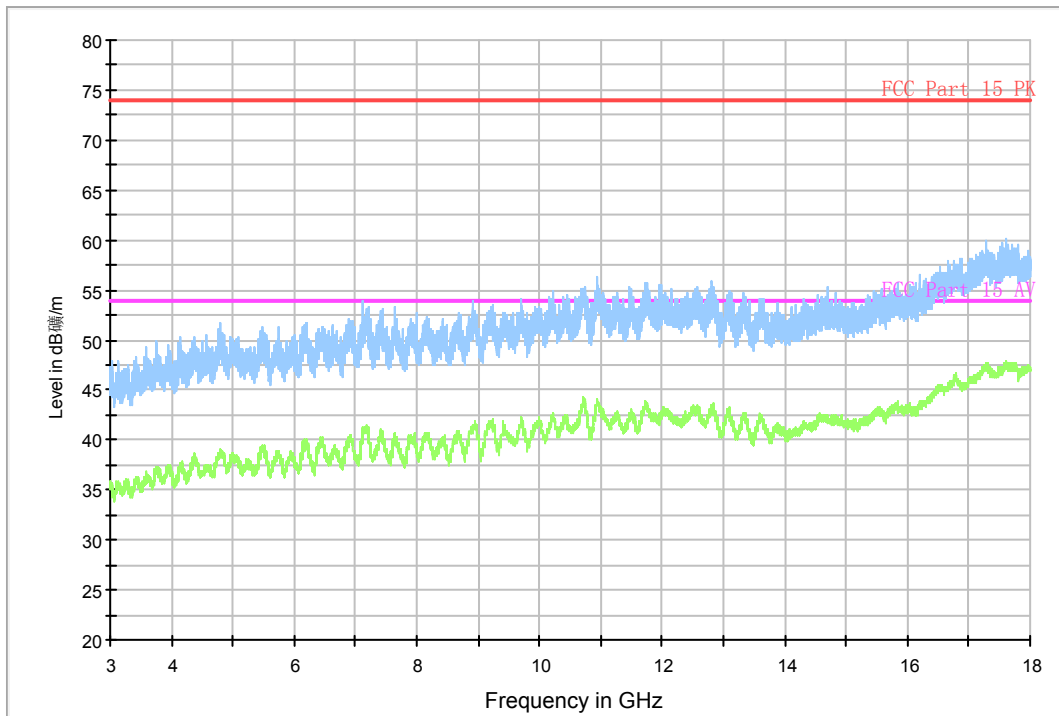


Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (802.11b, Ch1, 3 GHz-18 GHz)

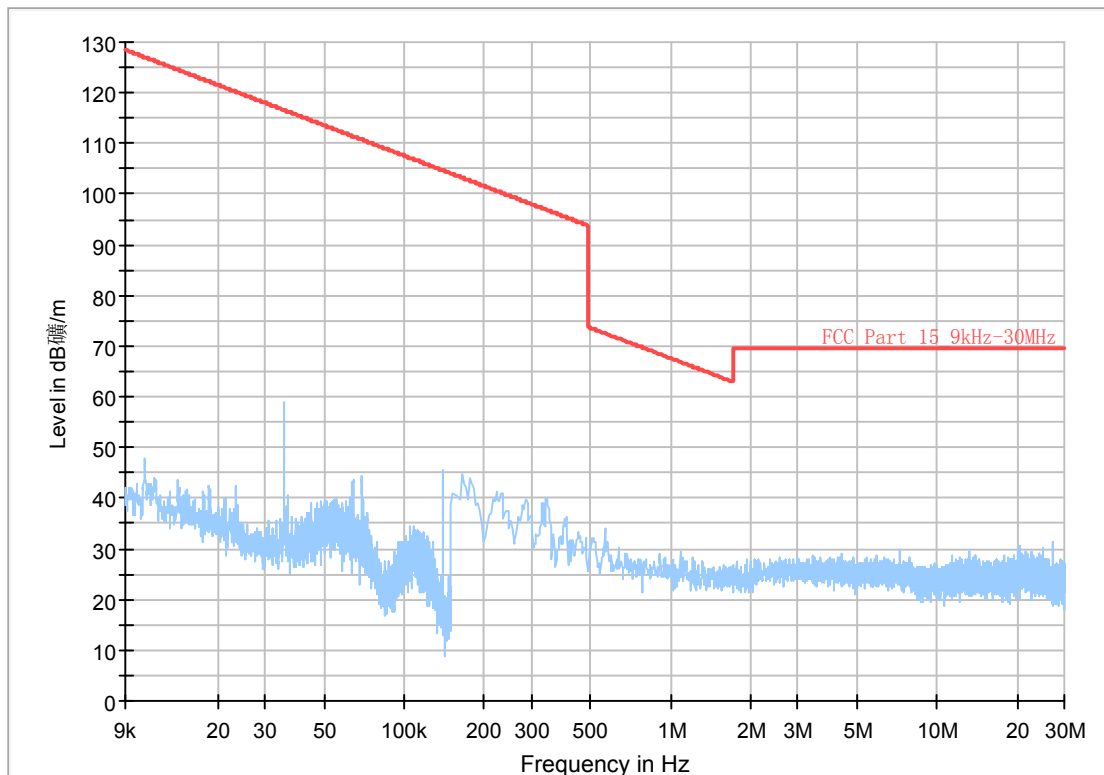


Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 9 kHz-30 MHz)

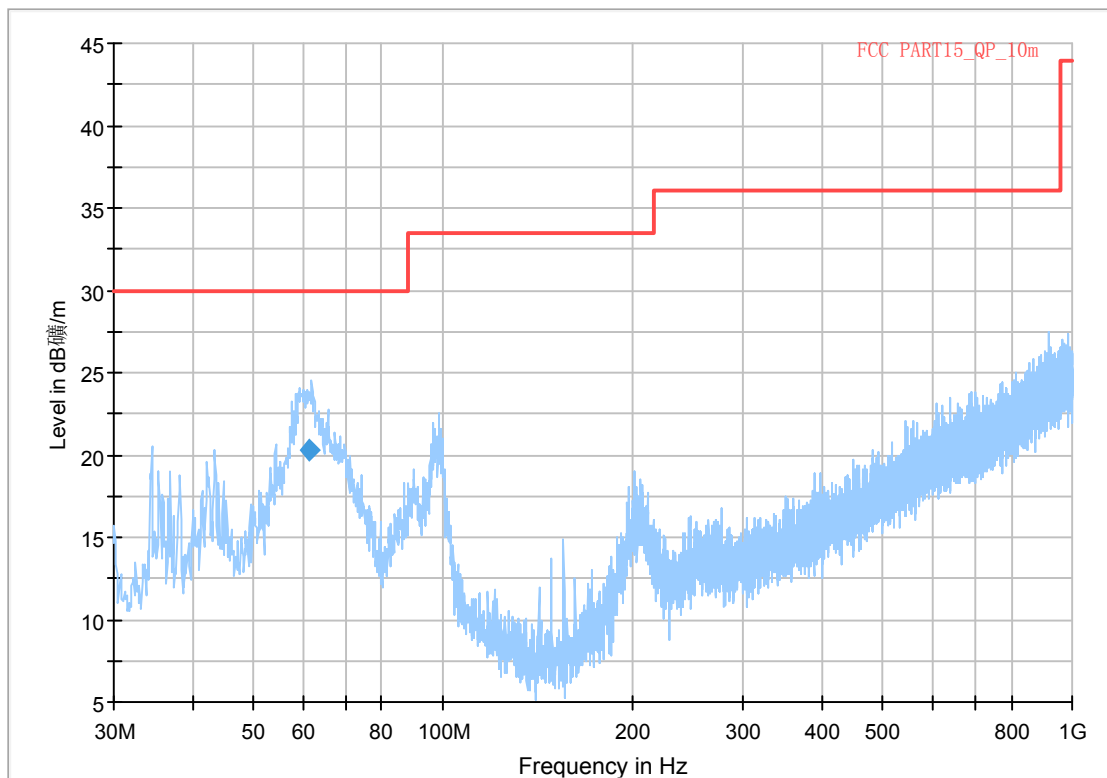
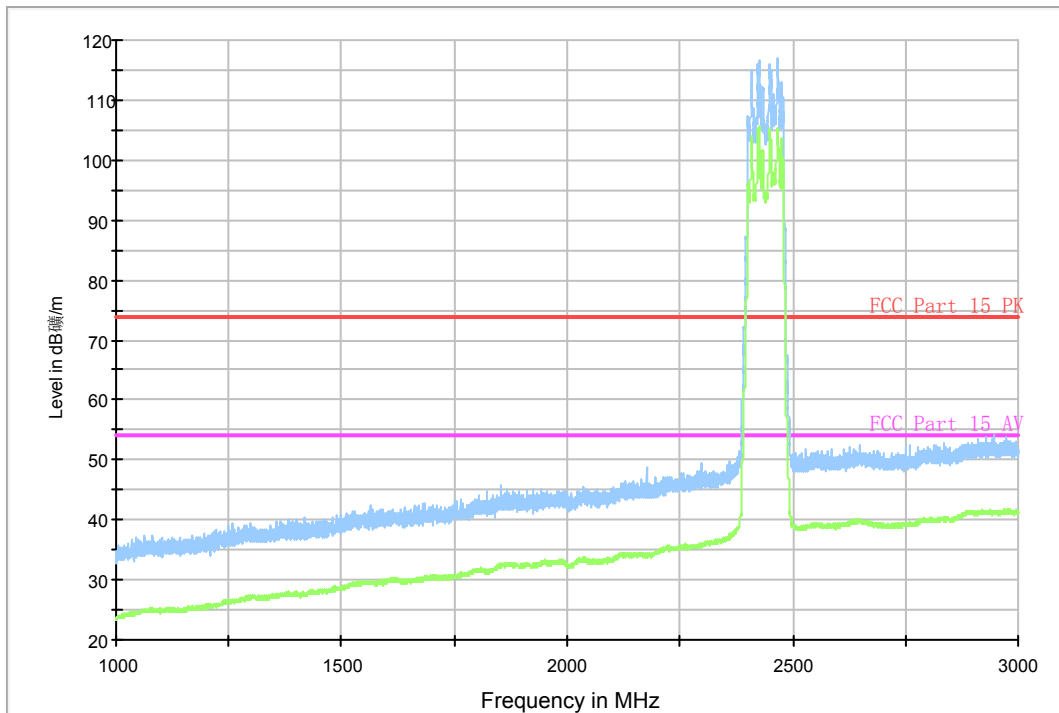


Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 30 MHz-1 GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
61.410000	20.27	30.00	9.73	1000.0	120.000	115.0	V	300.0	-12.6

RE - TX - WLAN BT +AV+PK_1GHz-3GHz



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.6 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 1 GHz-3 GHz)

RE - 3GHz-18GHz

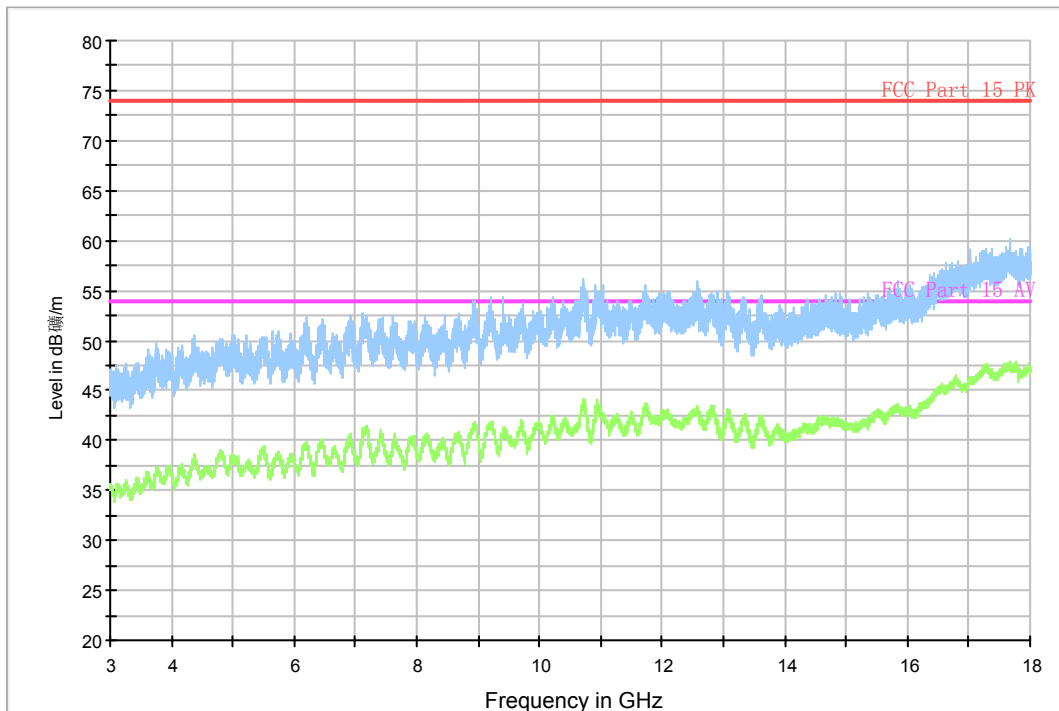


Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 3 GHz-18 GHz)

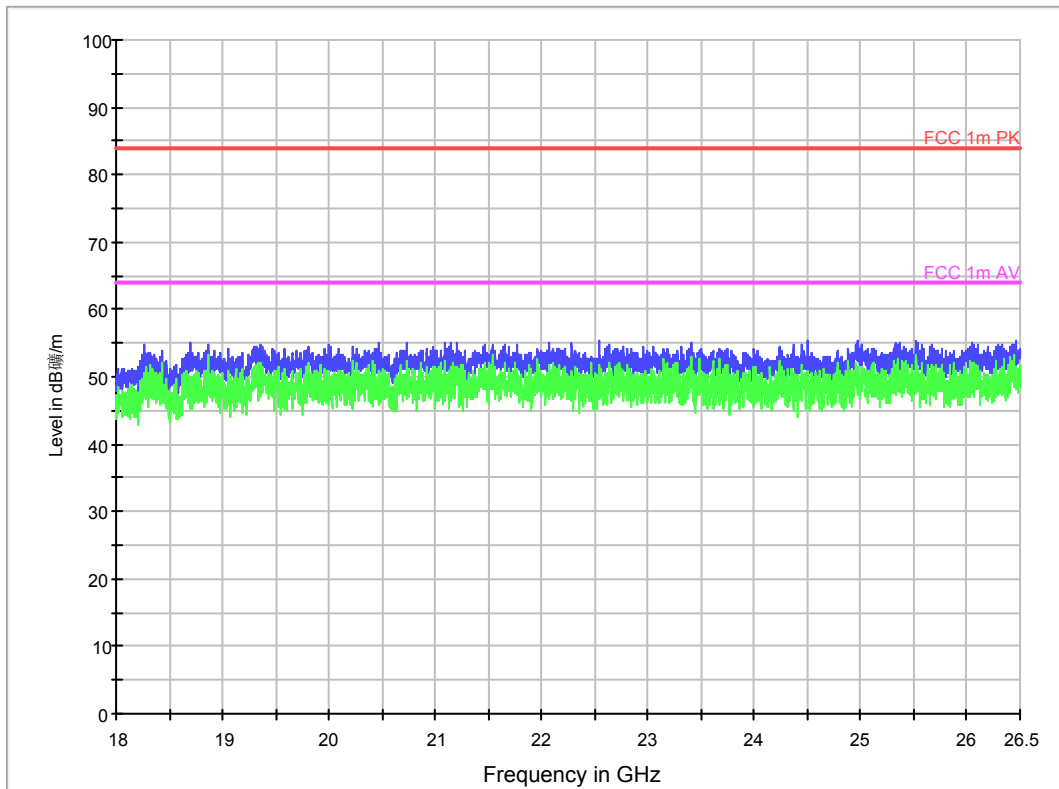


Fig.A.6.2.8 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 18GHz – 26.5GHz)

RE - Power-2.45GHz-2.5GHz

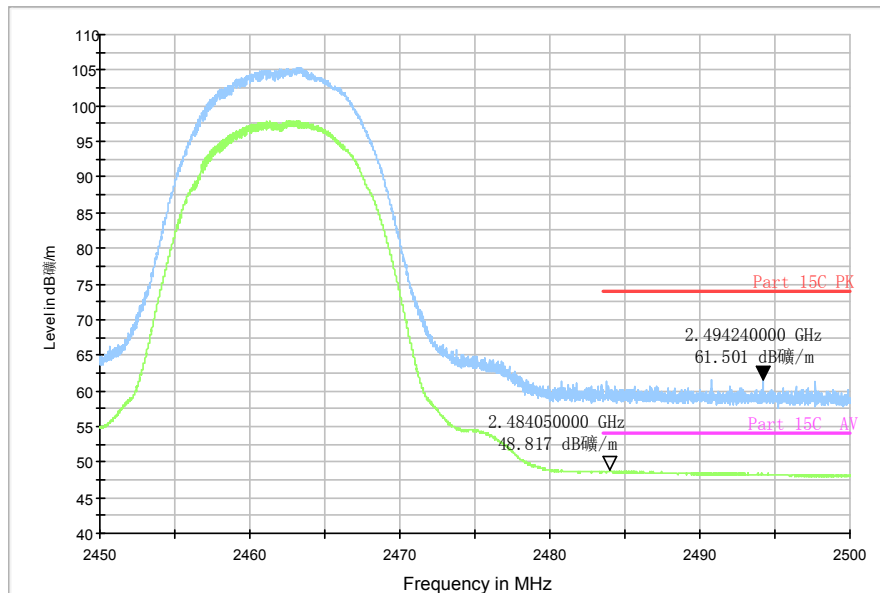
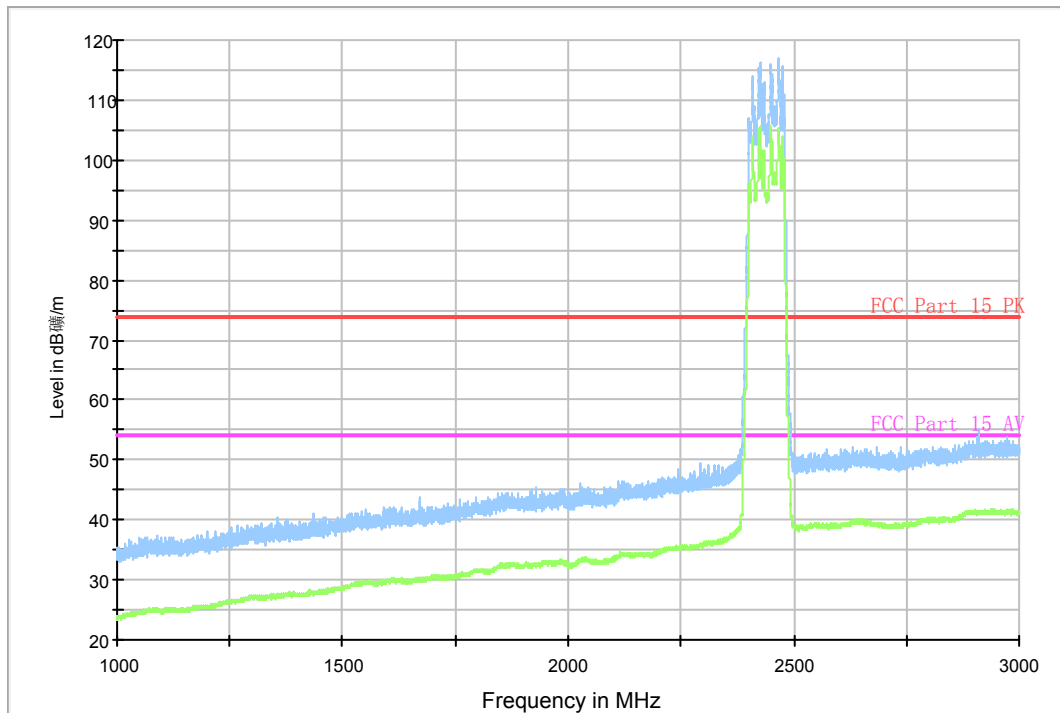


Fig.A.6.2.9 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

RE - TX - WLAN BT +AV+PK_1GHz-3GHz



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.10 Transmitter Spurious Emission - Radiated (802.11b, Ch11, 1 GHz-3 GHz)

RE - 3GHz-18GHz

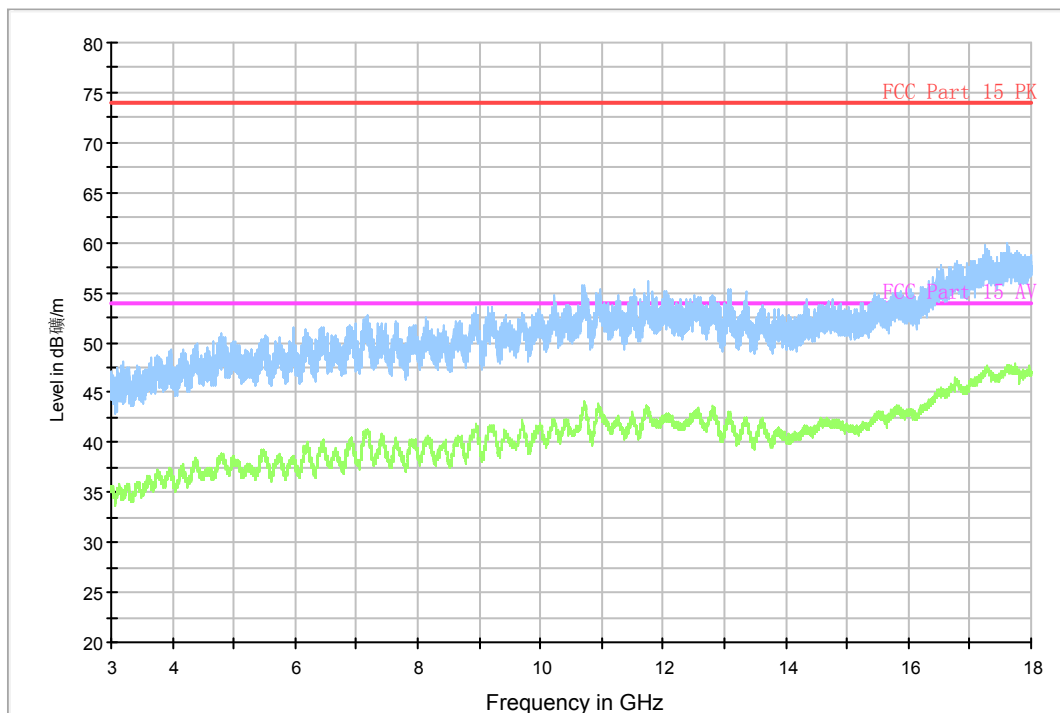


Fig.A.6.2.11 Transmitter Spurious Emission - Radiated (802.11b, Ch11, 3 GHz-18 GHz)

RE - Power-2.38GHz-2.45GHz

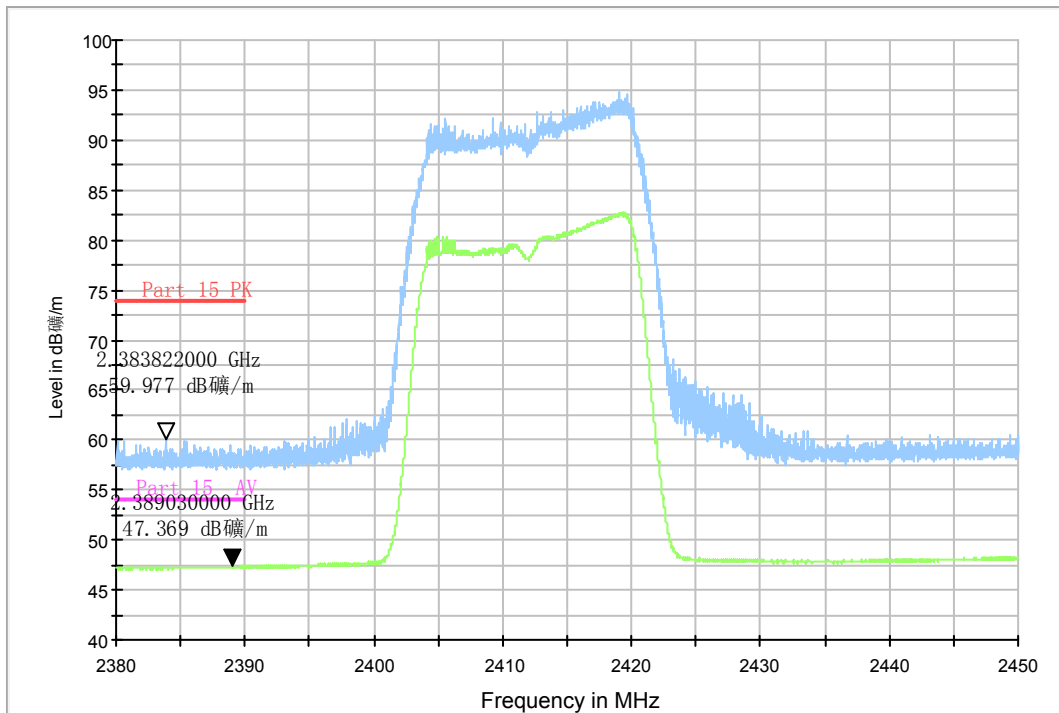
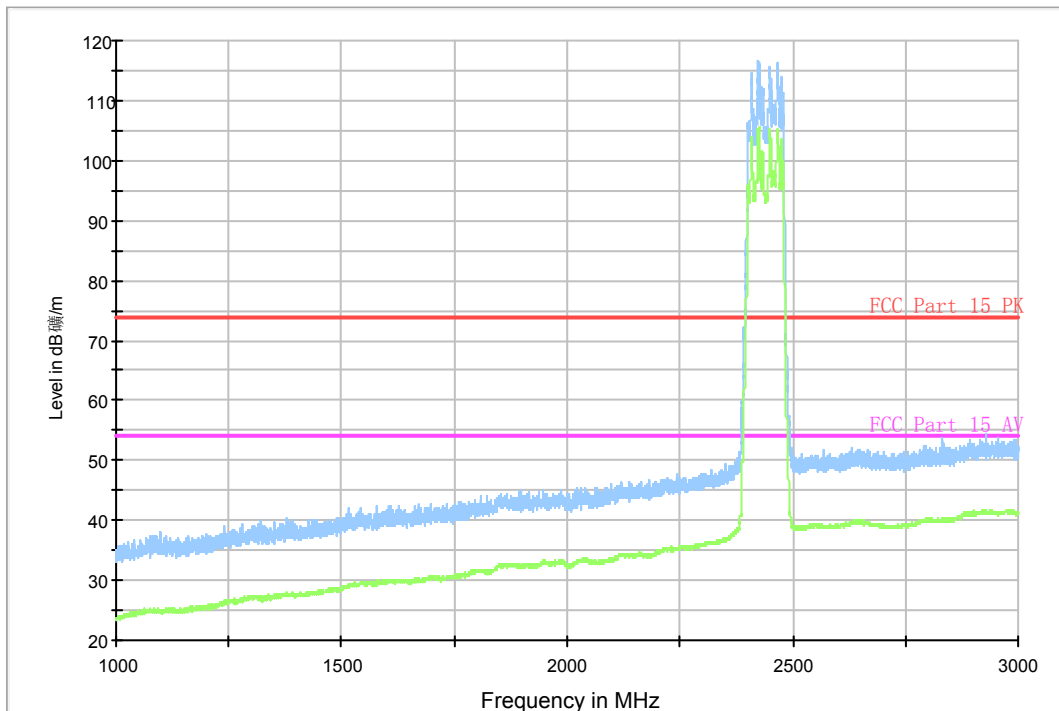


Fig.A.6.2.12 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.38 GHz - 2.43GHz

RE - TX - WLAN BT +AV+PK_1GHz-3GHz



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.13 Transmitter Spurious Emission - Radiated (802.11g, Ch1, 1 GHz-3 GHz)

RE - 3GHz-18GHz

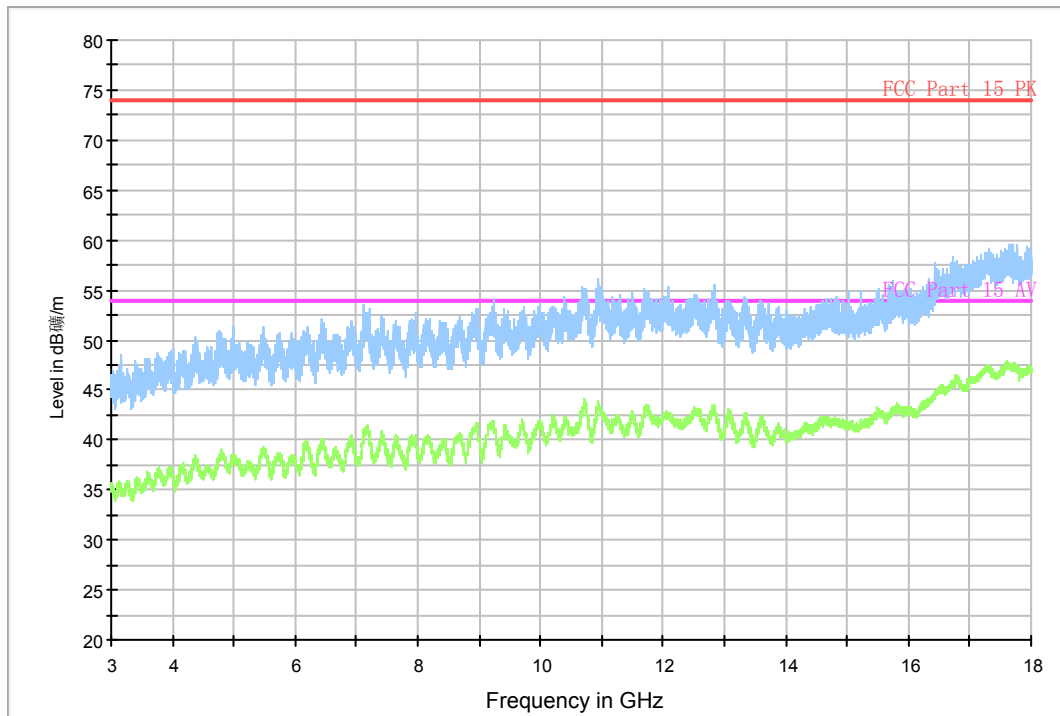


Fig.A.6.2.14 Transmitter Spurious Emission - Radiated (802.11g, Ch1, 3 GHz-18 GHz)

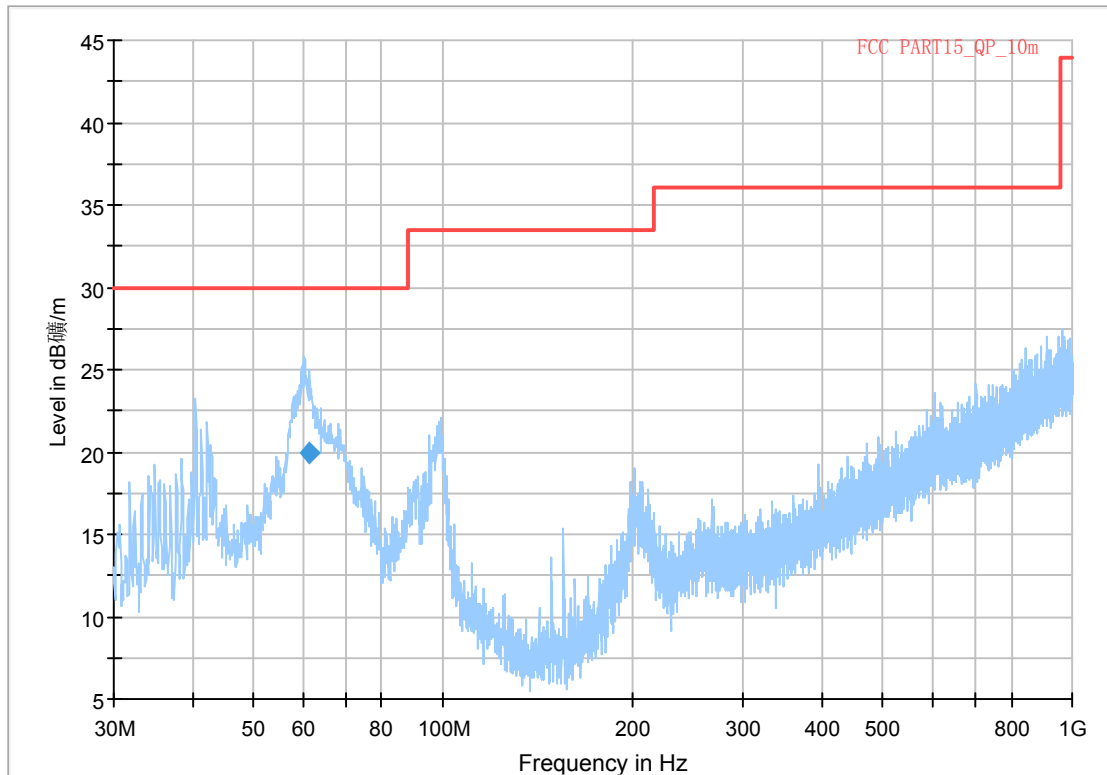
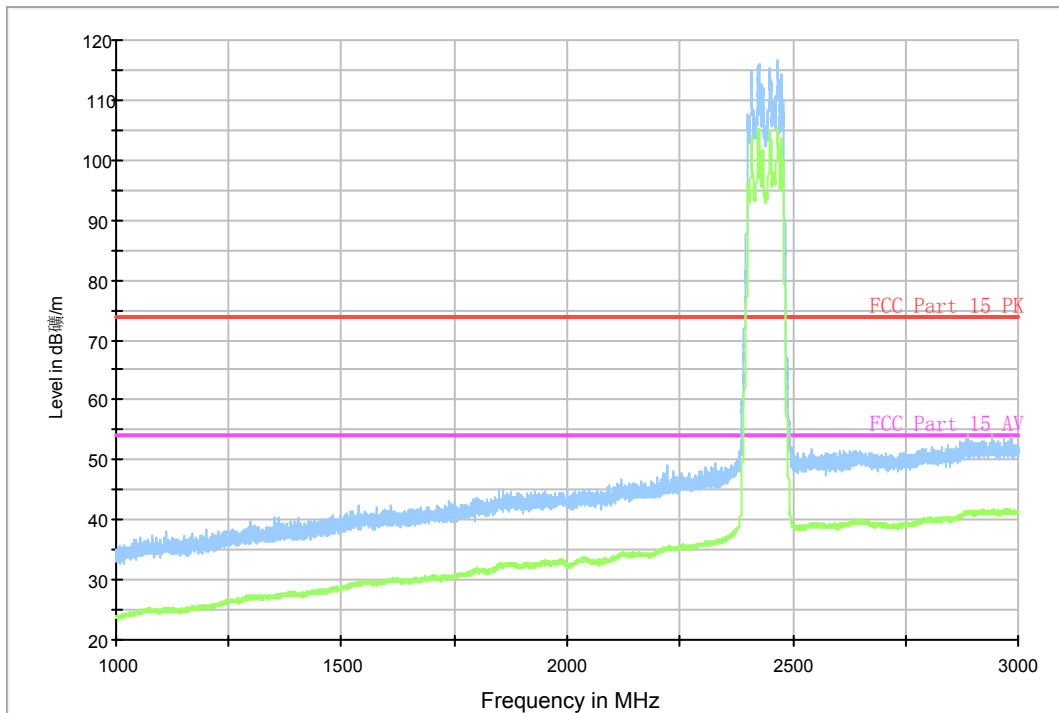


Fig.A.6.2.15 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 30 MHz-1 GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
61.488000	19.98	30.00	10.02	1000.0	120.000	116.0	V	300.0	-12.6

RE - TX - WLAN BT +AV+PK_1GHz-3GHz



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.16 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 1 GHz-3 GHz)

RE - 3GHz-18GHz

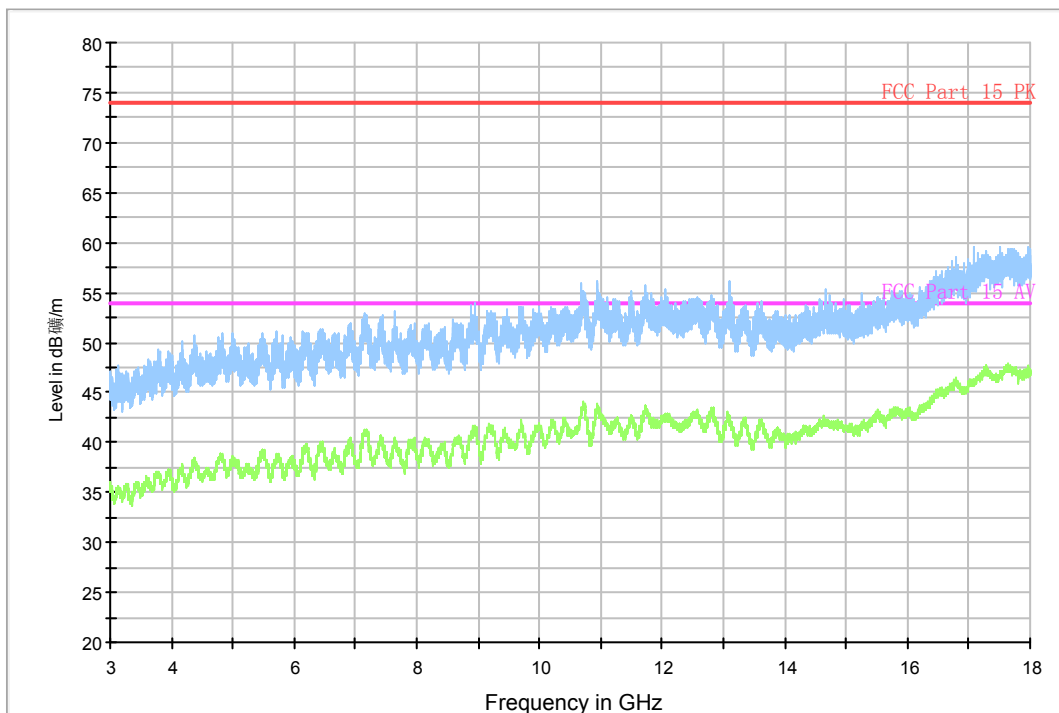


Fig.A.6.2.17 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 3 GHz-18 GHz)

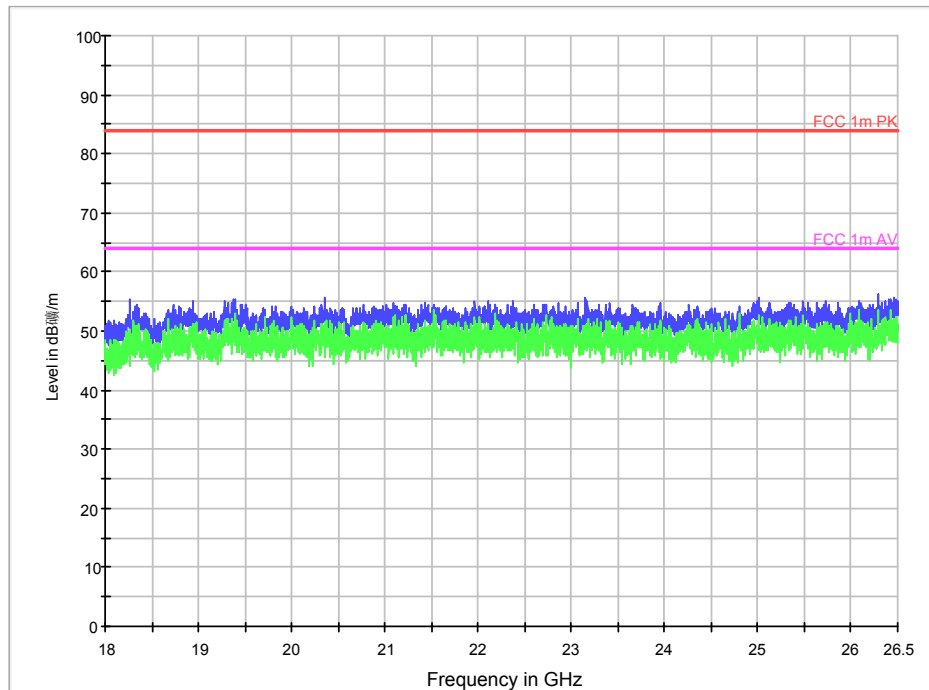


Fig.A.6.2.18 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 18GHz – 26.5GHz)

RE - Power-2.45GHz-2.5GHz

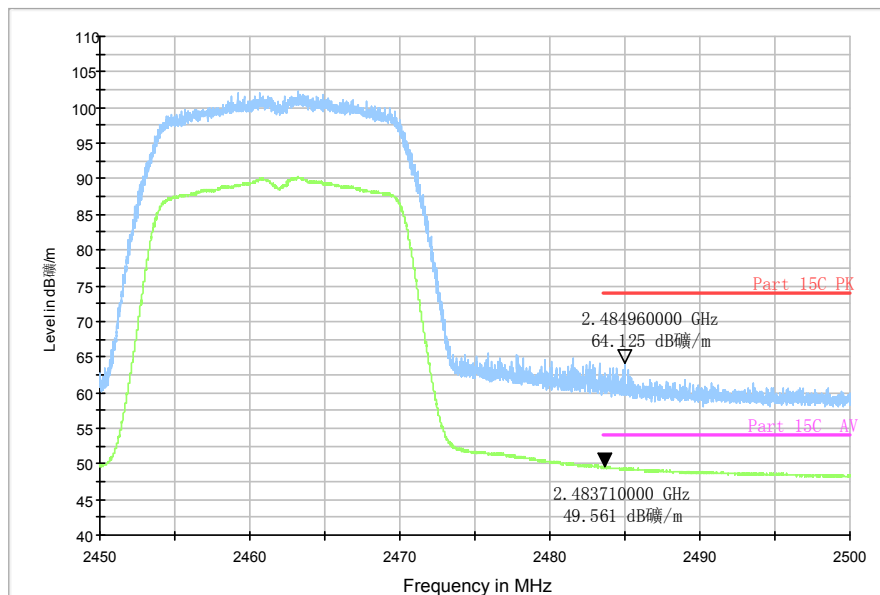
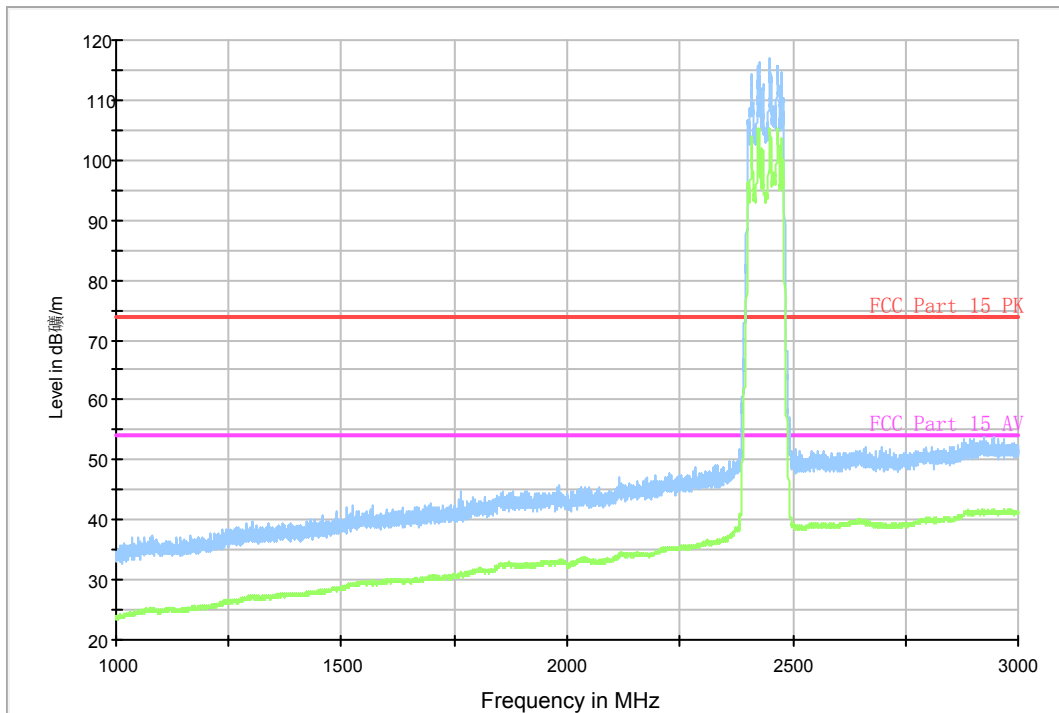


Fig.A.6.2.19 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

RE - TX - WLAN BT +AV+PK_1GHz-3GHz



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.20 Transmitter Spurious Emission - Radiated (802.11g, Ch11, 1 GHz-3 GHz)

RE - 3GHz-18GHz

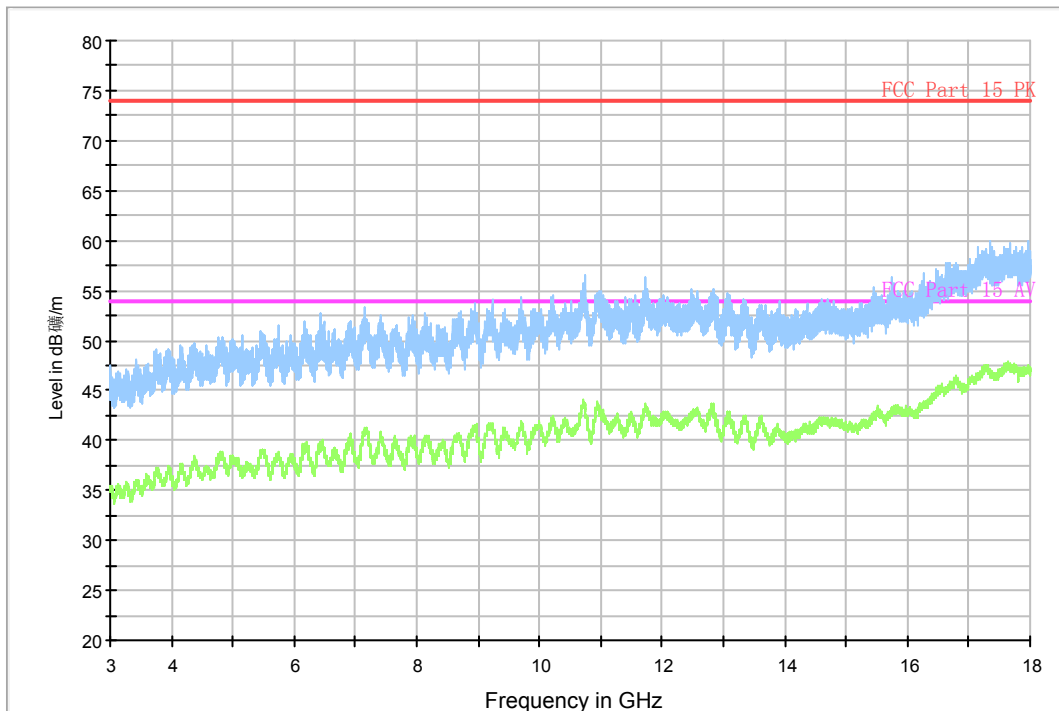


Fig.A.6.2.21 Transmitter Spurious Emission - Radiated (802.11g, Ch11, 3 GHz-18 GHz)

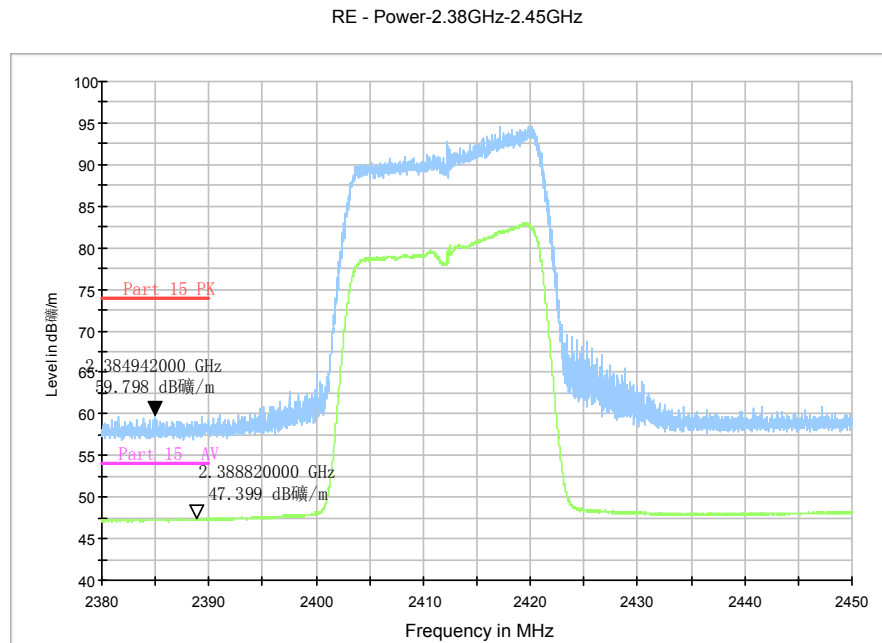
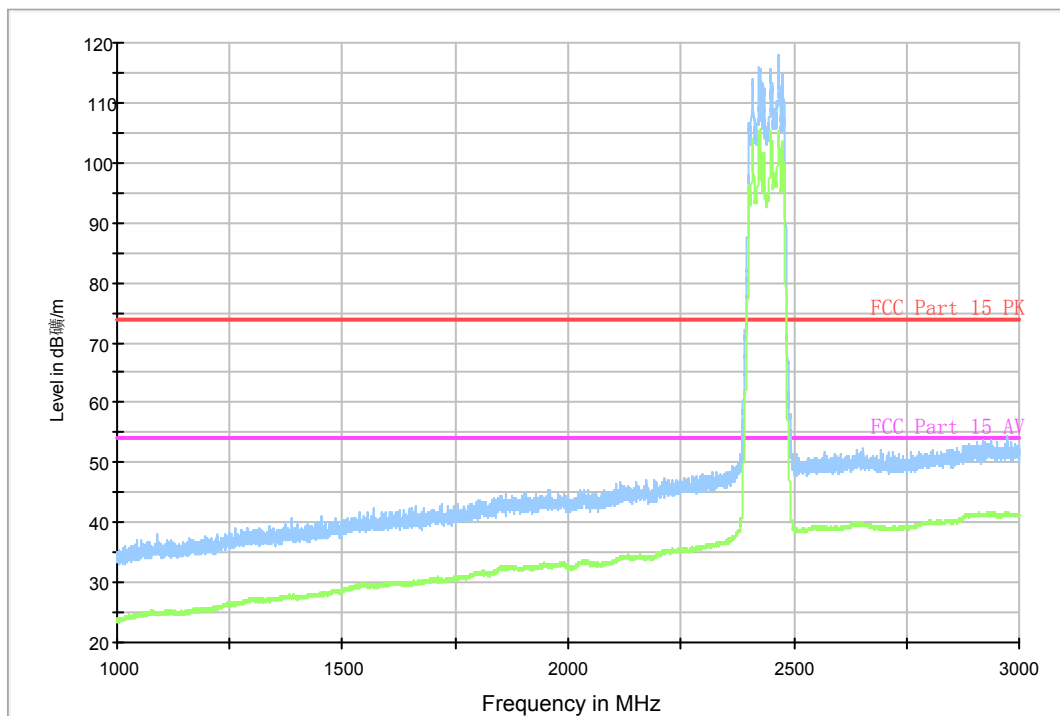


Fig.A.6.2.22 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.38 GHz - 2.45GHz

RE - TX - WLAN BT +AV+PK_1GHz-3GHz



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.23 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch1, 1 GHz-3 GHz)

RE - 3GHz-18GHz

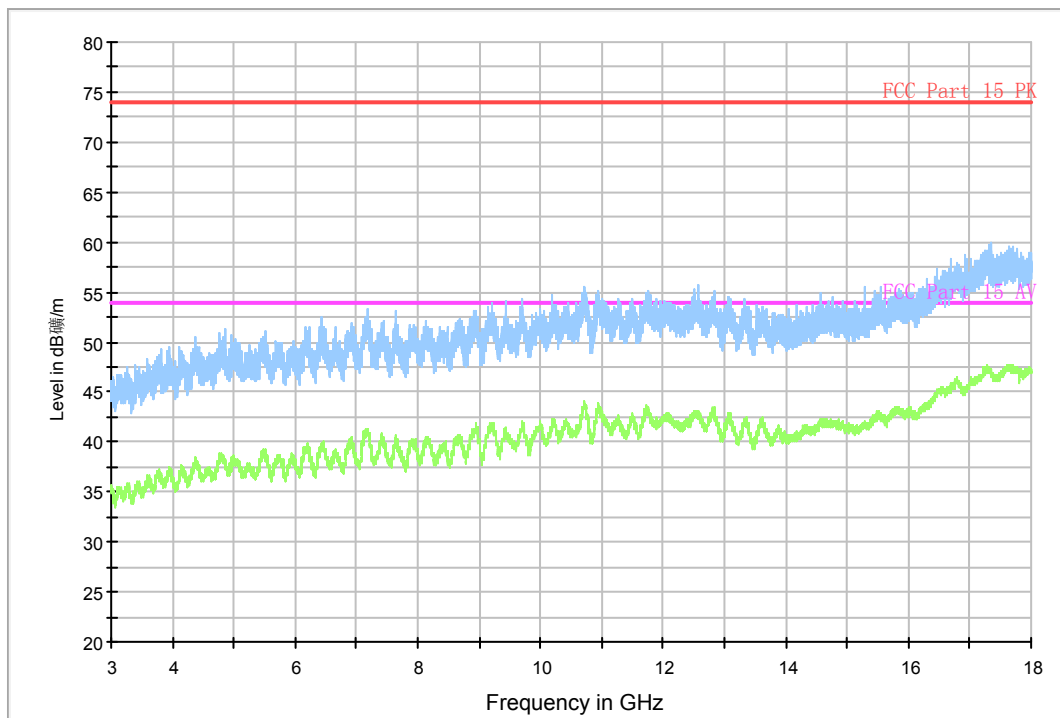


Fig.A.6.2.24 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch1, 3 GHz-18 GHz)

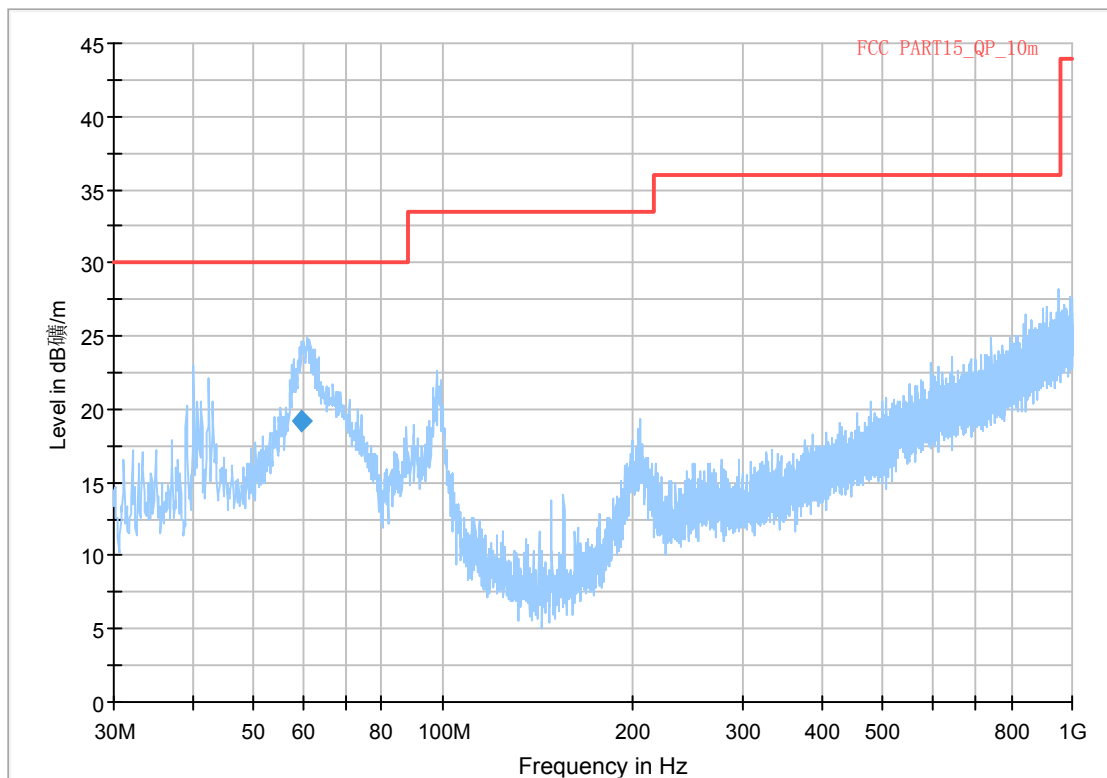
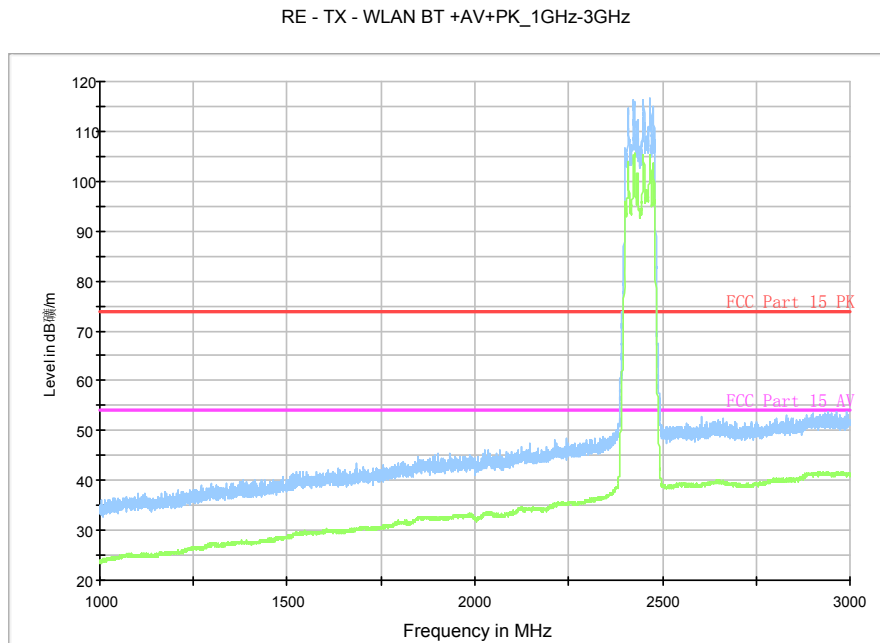


Fig.A.6.2.25 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 30 MHz-1 GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
59.516000	19.20	30.00	10.80	1000.0	120.000	315.0	V	-29.0	-12.1



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.26 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 1 GHz-3 GHz)

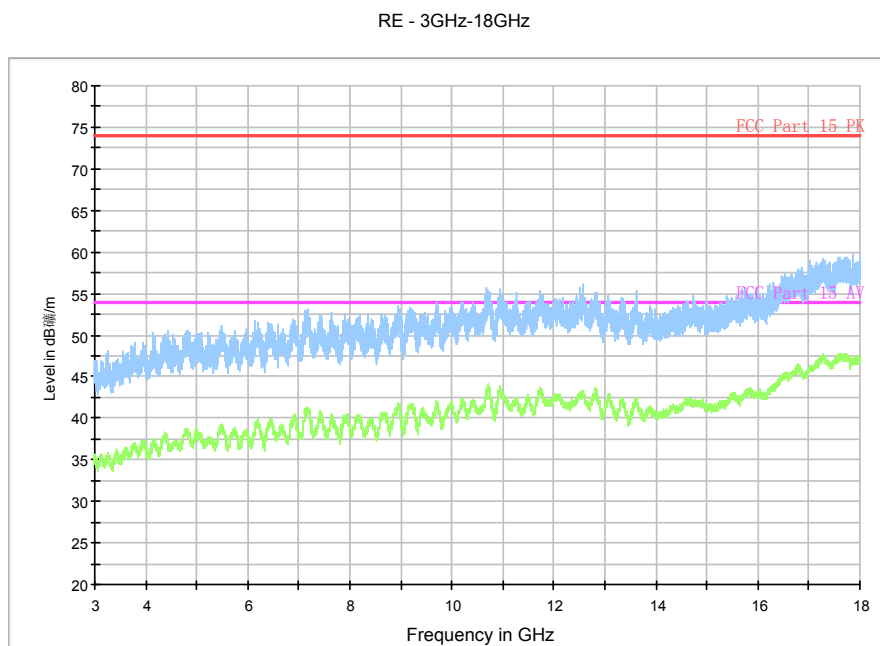


Fig.A.6.2.27 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 3 GHz-18 GHz)

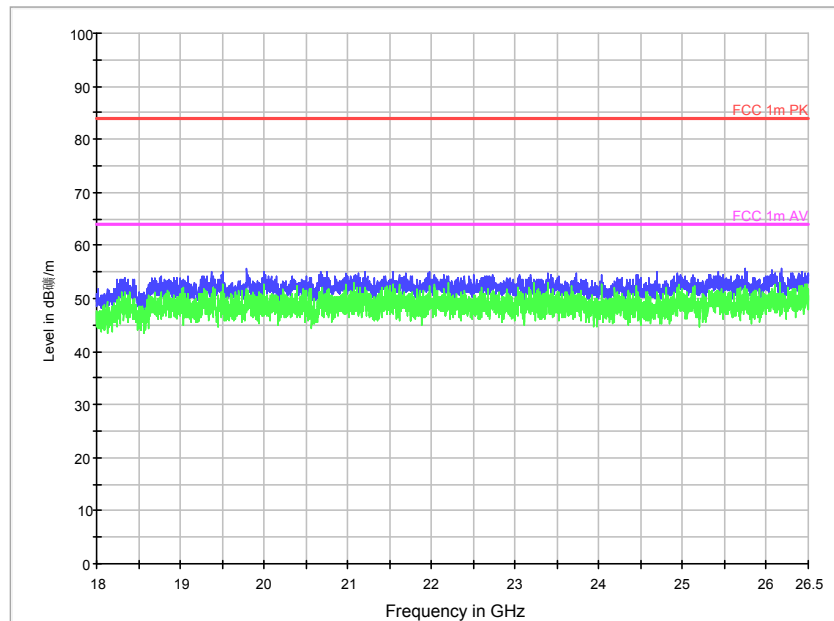


Fig.A.6.2.28 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 18GHz – 26.5GHz)

RE - Power-2.45GHz-2.5GHz

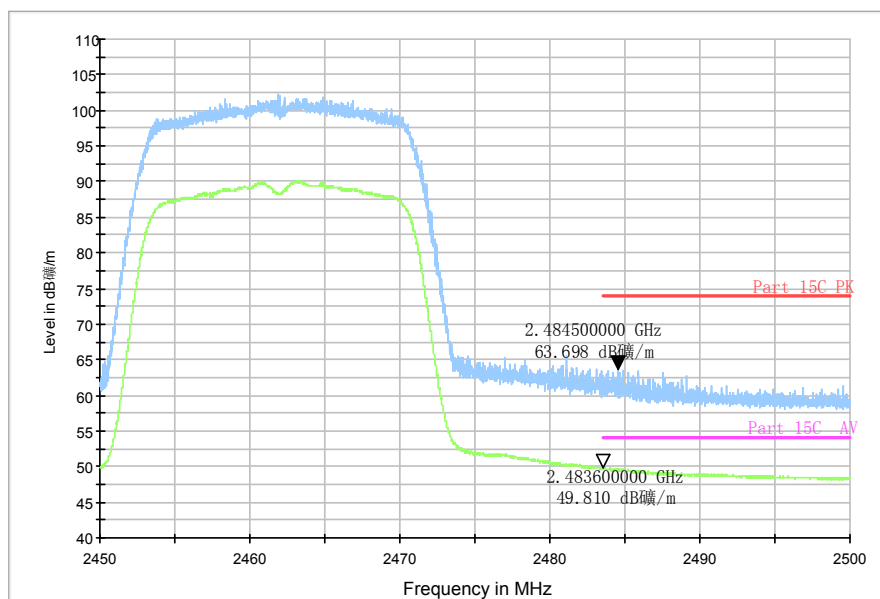
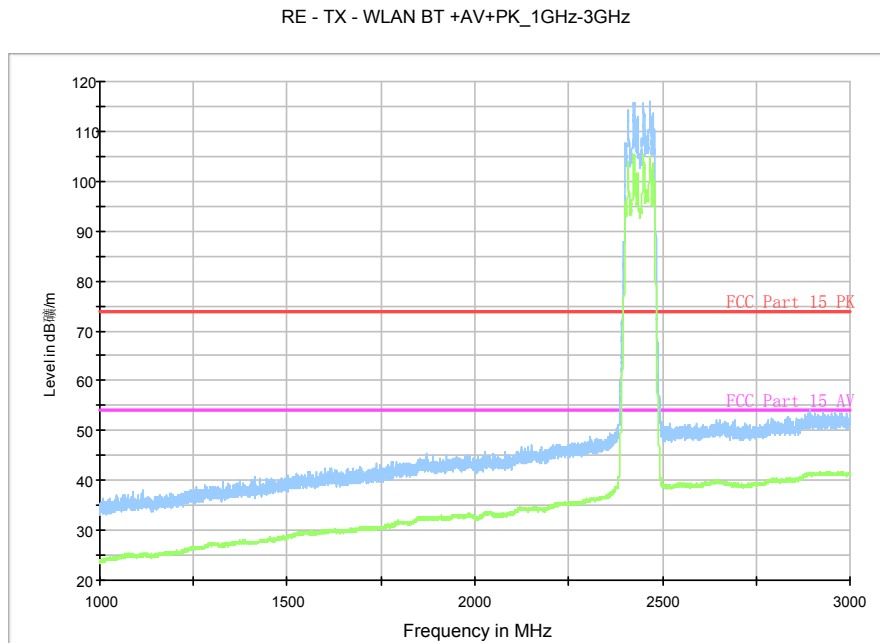


Fig.A.6.2.29 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.30 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch11, 1 GHz-3 GHz)

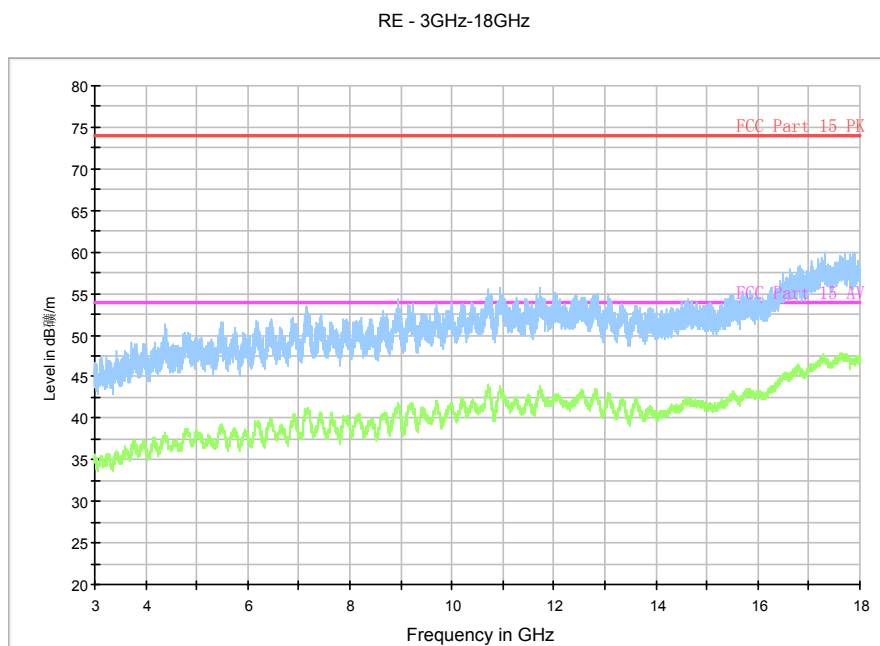
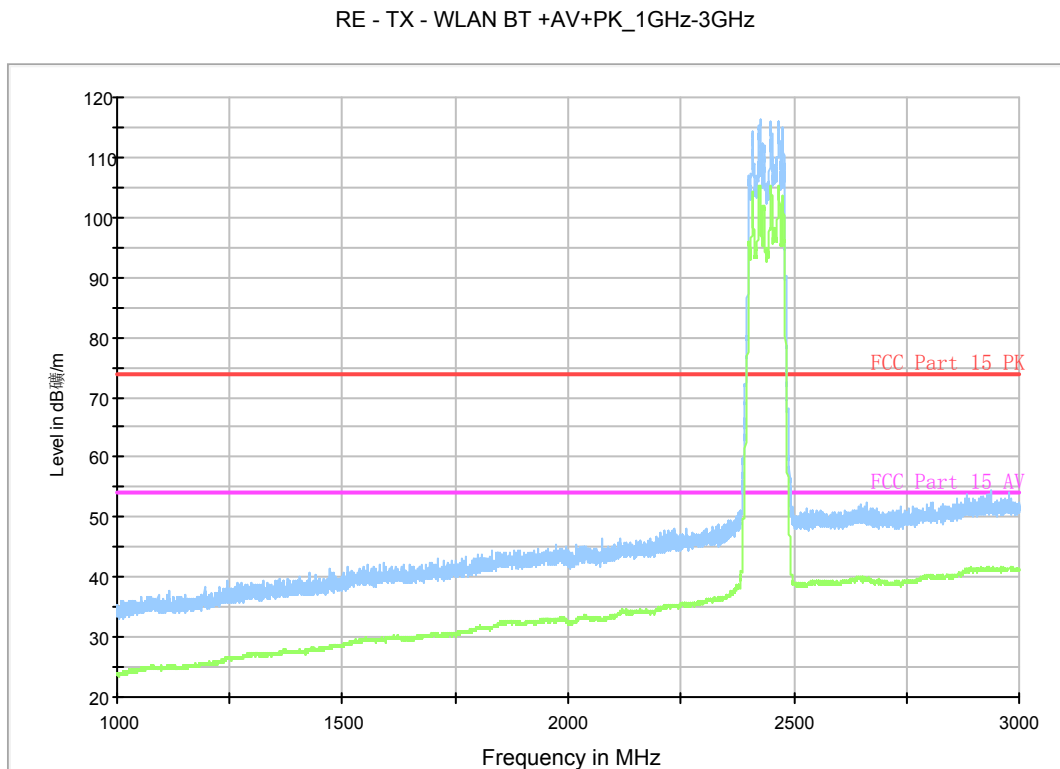


Fig.A.6.2.31 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch11, 3 GHz-18 GHz)



Fig.A.6.2.32 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.38 GHz - 2.43GHz



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.33 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch3, 1 GHz-3 GHz)

RE - 3GHz-18GHz

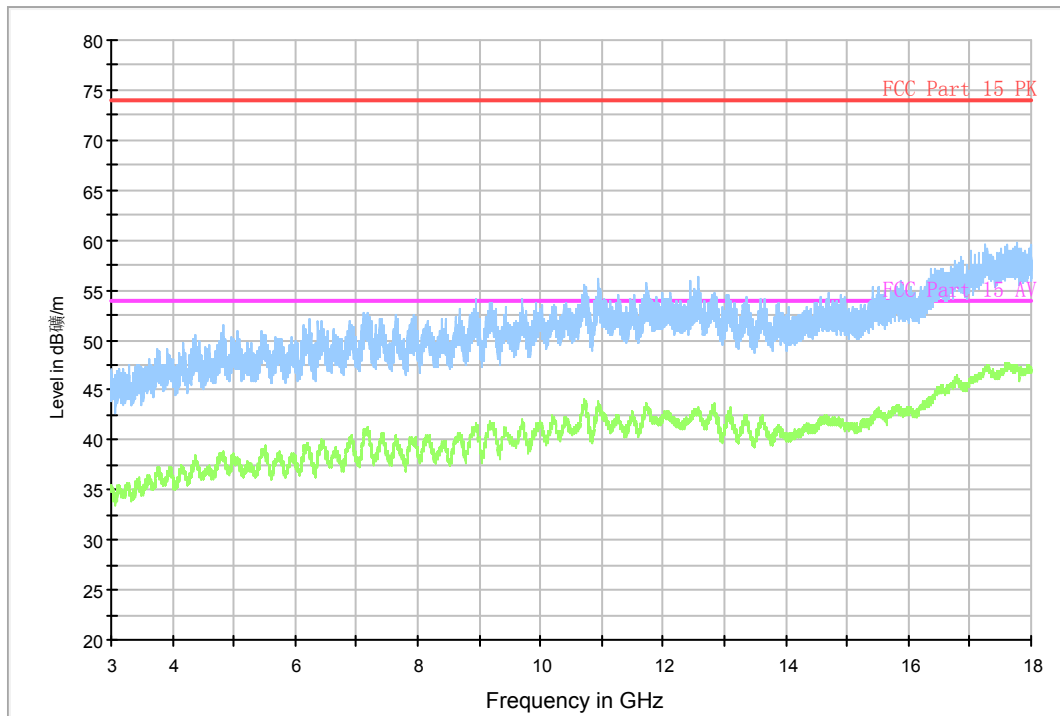


Fig.A.6.2.34 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch3, 3 GHz-18 GHz)

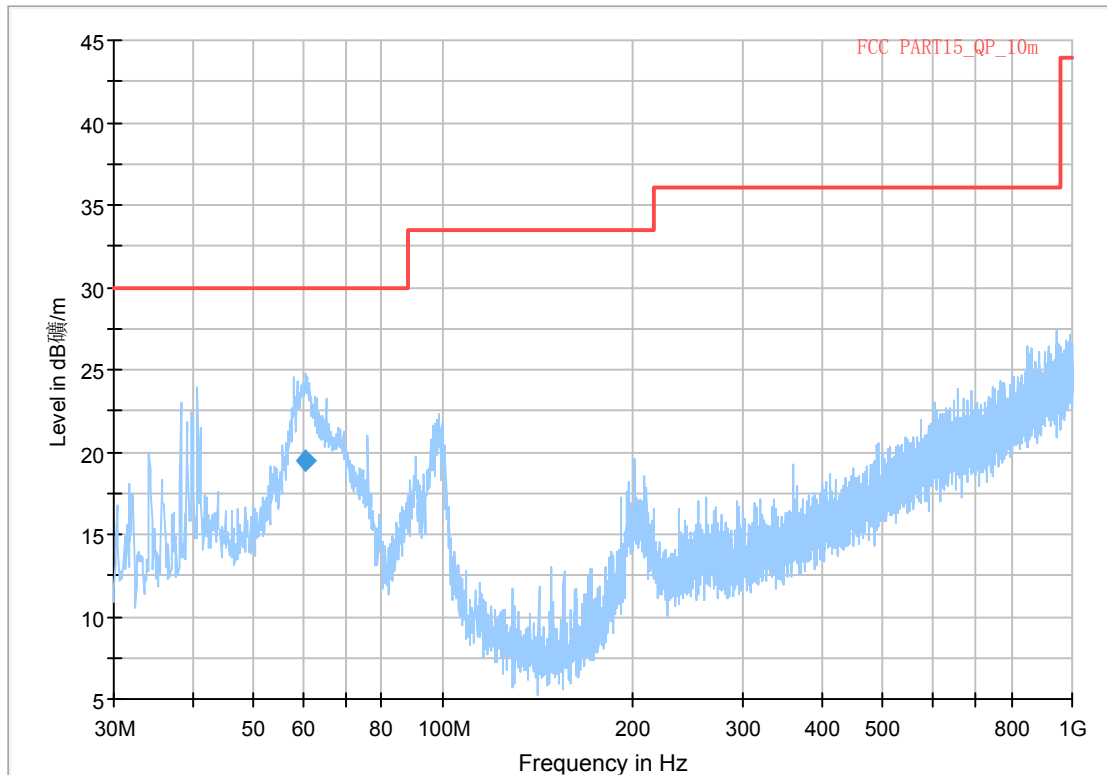
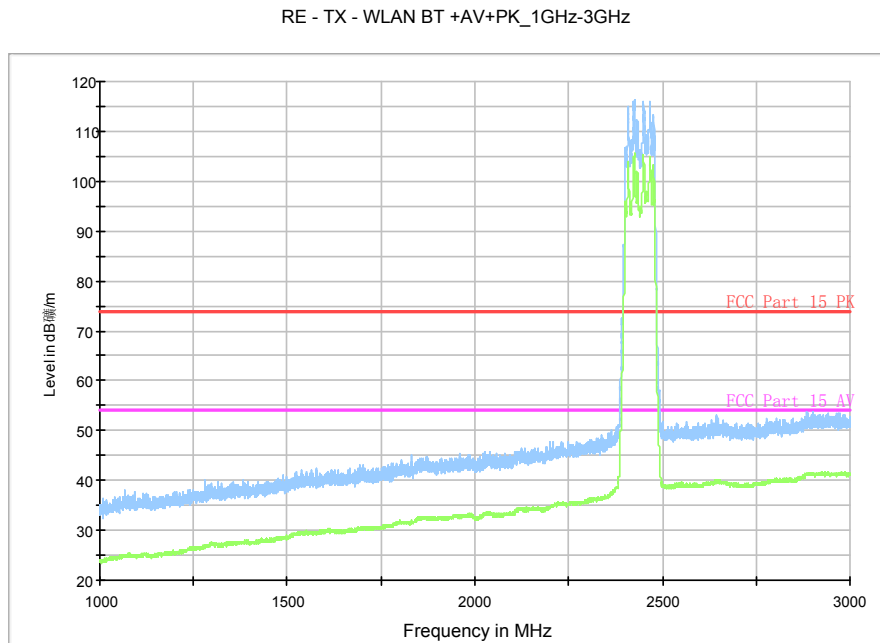


Fig.A.6.2.35 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 30 MHz-1 GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
60.652000	19.49	30.00	10.51	1000.0	120.000	119.0	V	111.0	-12.3



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.36 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 1 GHz-3 GHz)

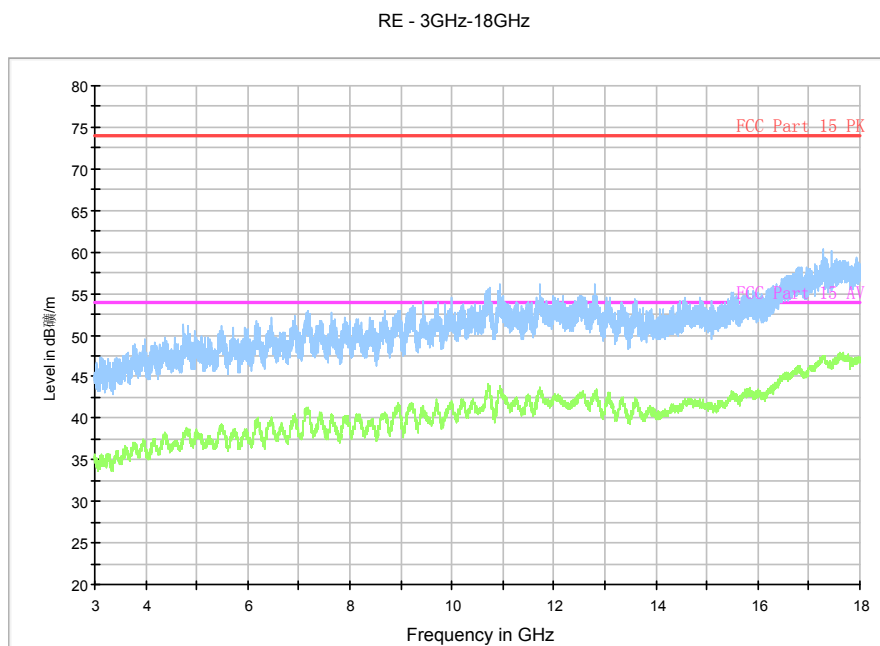


Fig.A.6.2.37 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 3 GHz-18 GHz)

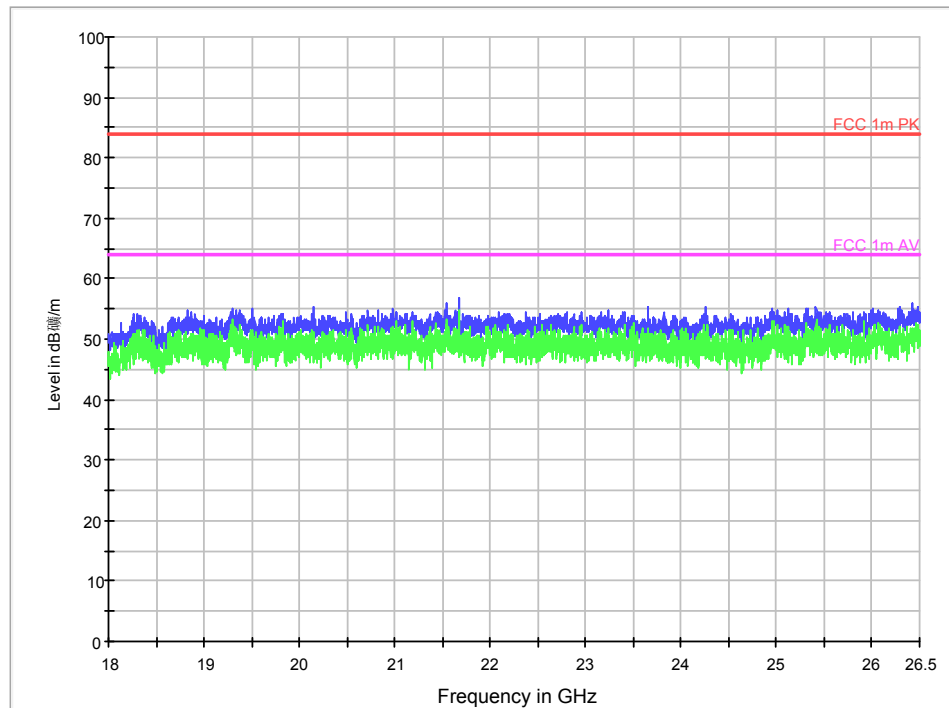


Fig.A.6.2.38 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 18GHz – 26.5GHz)

RE - Power-2.45GHz-2.5GHz

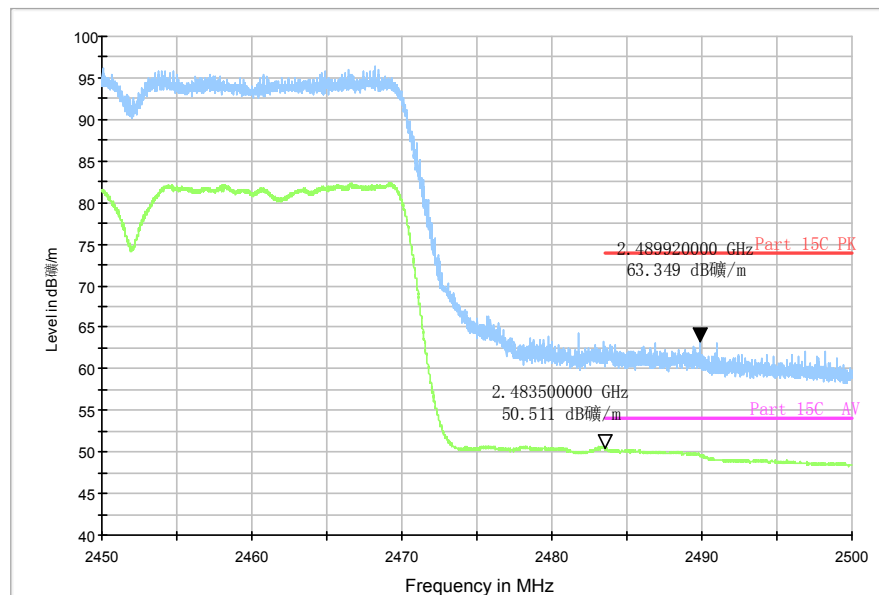
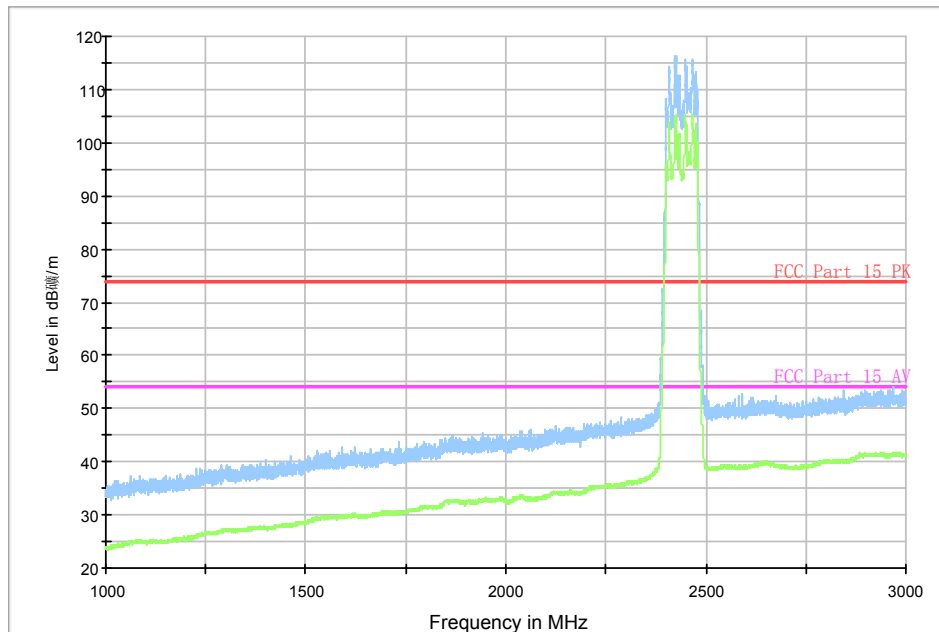


Fig.A.6.2.39 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

RE - TX - WLAN BT +AV+PK_1GHz-3GHz



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.40 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch9, 1 GHz-3 GHz)

RE - 3GHz-18GHz

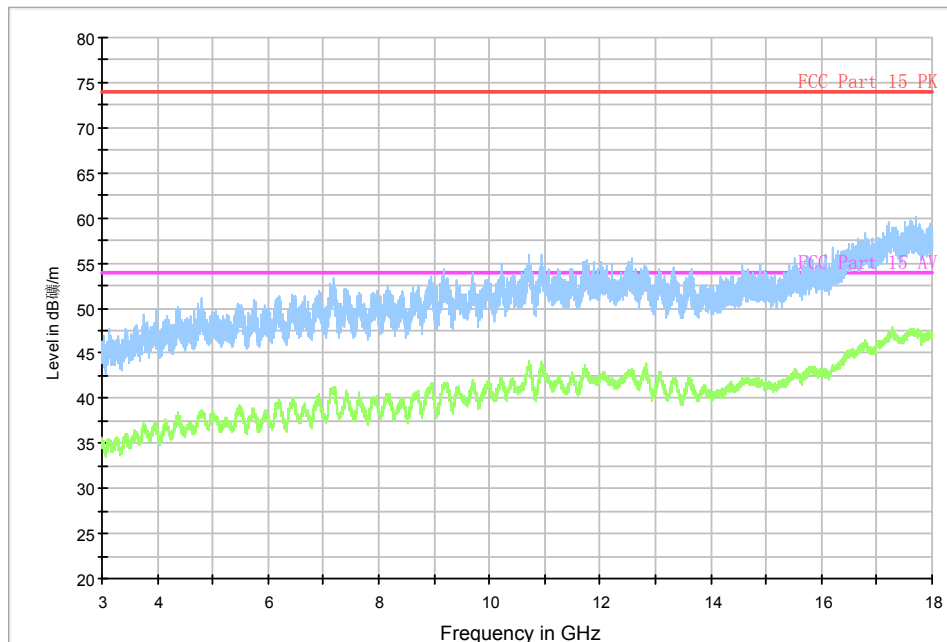


Fig.A.6.2.41 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch9, 3 GHz-18 GHz)

A.7. AC Power-line Conducted Emission

Method of Measurement: See ANSI C63.10-2013-clause 6.2

- 1 The one EUT cable configuration and arrangement and mode of operation that produced the emission with the highest amplitude relative to the limit is selected for the final measurement, while applying the appropriate modulating signal to the EUT.
- 2 If the EUT is relocated from an exploratory test site to a final test site, the highest emissions shall be remaximized at the final test location before final ac power-line conducted emission measurements are performed.
- 3 The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment in the system) is then performed for the full frequency range for which the EUT is being tested for compliance without further variation of the EUT arrangement, cable positions, or EUT mode of operation.
- 4 If the EUT is comprised of equipment units that have their own separate ac power connections, e.g., floor-standing equipment with independent power cords for each shelf that are able to connect directly to the ac power network, each current-carrying conductor of one unit is measured while the other units are connected to a second (or more) LISN(s). All units shall be separately measured. If a power strip is provided by the manufacturer, to supply all of the units making up the EUT, only the conductors in the power cord of the power strip shall be measured.
- 5 If the EUT uses a detachable antenna, these measurements shall be made with a suitable dummy load connected to the antenna output terminals; otherwise, the tests shall be made with the antenna connected and, if adjustable, fully extended. When measuring the ac conducted emissions from a device that operates between 150 kHz and 30 MHz a non-detachable antenna may be replaced with a dummy load for the measurements within the fundamental emission band of the transmitter, but only for those measurements.³⁶ Record the six highest EUT emissions relative to the limit of each of the current-carrying conductors of the power cords of the equipment that comprises the EUT over the frequency range specified by the procuring or regulatory agency. Diagram or photograph the test setup that was used. See Clause 8 for full reporting requirements.

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	66 to 56	Fig.A.7.1 Fig.A.7.2 Fig.A.7.3 Fig.A.7.4 Fig.A.7.5	Fig.A.7.5	P
0.5 to 5	56			
5 to 30	60			
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	56 to 46	Fig.A.7.1	Fig.A.7.5	P
0.5 to 5	46	Fig.A.7.2		
5 to 30	50	Fig.A.7.3		
		Fig.A.7.4 Fig.A.7.5		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

Conclusion: Pass

Test graphs as below:

Traffic: Set.10

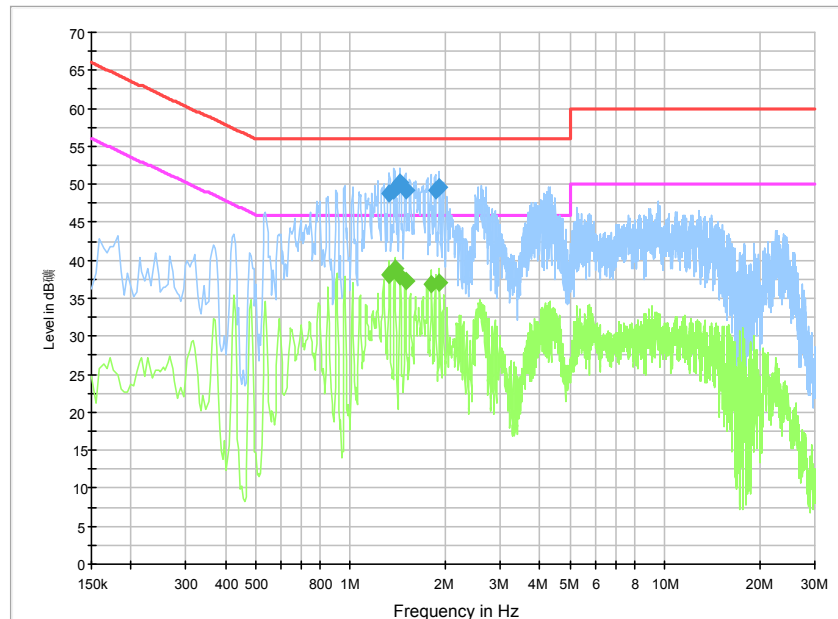


Fig.A.7.1 AC Powerline Conducted Emission-802.11b

Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
1.324500	48.7	GND	L1	10.3	7.3	56.0
1.378500	49.2	GND	N	10.4	6.8	56.0
1.437000	50.2	GND	N	10.4	5.8	56.0
1.495500	49.2	GND	N	10.4	6.8	56.0
1.864500	49.2	GND	L1	10.4	6.8	56.0
1.918500	49.6	GND	N	10.4	6.4	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
1.329000	38.1	GND	N	10.4	7.9	46.0
1.383000	38.9	GND	L1	10.3	7.1	46.0
1.437000	37.8	GND	N	10.4	8.2	46.0
1.495500	37.2	GND	N	10.4	8.8	46.0
1.806000	36.8	GND	N	10.4	9.2	46.0
1.918500	37.0	GND	N	10.4	9.0	46.0

Traffic: Set.11

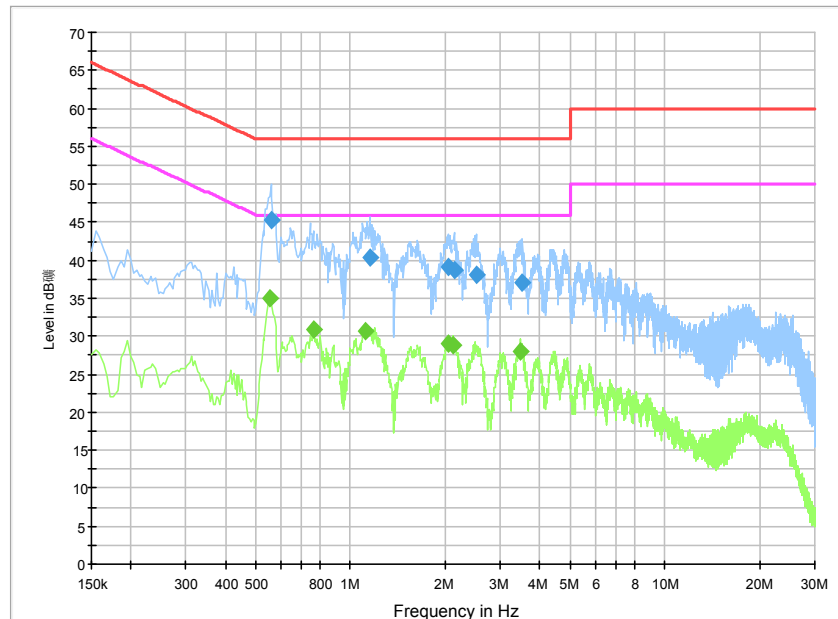


Fig.A.7.2 AC Powerline Conducted Emission-802.11b

Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.559500	45.3	GND	N	10.4	10.7	56.0
1.149000	40.4	GND	L1	10.3	15.6	56.0
2.058000	39.2	GND	L1	10.4	16.8	56.0
2.134500	38.7	GND	L1	10.4	17.3	56.0
2.508000	38.1	GND	N	10.5	17.9	56.0
3.529500	37.0	GND	L1	10.4	19.0	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.555000	35.0	GND	L1	10.3	11.0	46.0
0.762000	30.9	GND	N	10.4	15.1	46.0
1.117500	30.6	GND	L1	10.3	15.4	46.0
2.058000	29.1	GND	L1	10.4	16.9	46.0
2.125500	28.9	GND	L1	10.4	17.1	46.0
3.471000	28.1	GND	L1	10.4	17.9	46.0

Traffic: Set.12

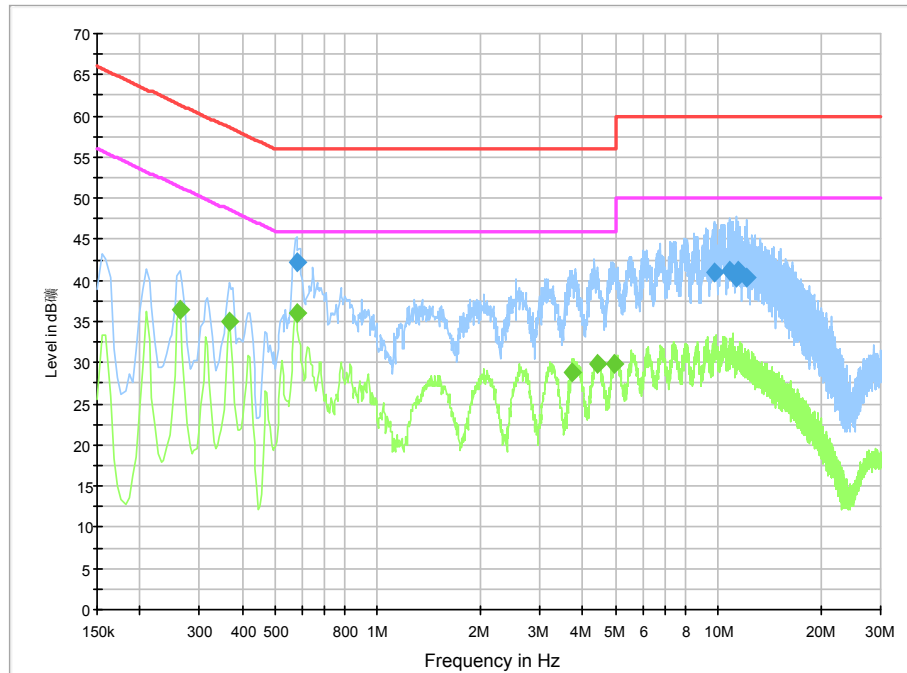


Fig.A.7.3 AC Powerline Conducted Emission-802.11b

Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.577500	42.3	GND	N	10.4	13.7	56.0
9.766500	40.9	GND	L1	10.7	19.1	60.0
10.833000	41.1	GND	N	10.7	18.9	60.0
11.377500	40.3	GND	N	10.7	19.7	60.0
11.467500	41.1	GND	L1	10.8	18.9	60.0
12.111000	40.3	GND	L1	10.8	19.7	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.262500	36.5	GND	N	10.3	14.8	51.4
0.366000	35.0	GND	N	10.4	13.6	48.6
0.577500	36.0	GND	N	10.4	10.0	46.0
3.741000	28.7	GND	N	10.5	17.3	46.0
4.425000	29.9	GND	N	10.5	16.1	46.0
4.978500	29.9	GND	N	10.6	16.1	46.0

Idle: Set.10

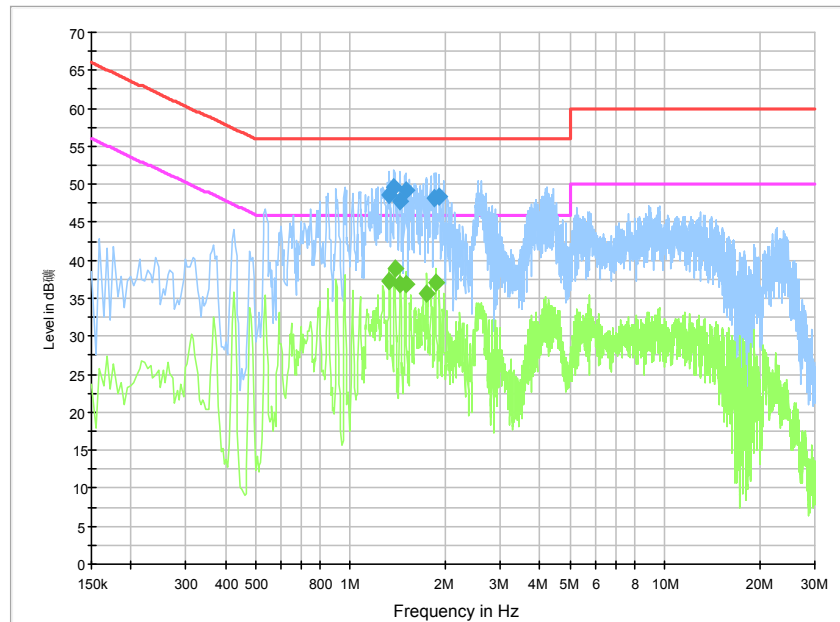


Fig.A.7.4 AC Powerline Conducted Emission-Idle

Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
1.324500	48.6	GND	N	10.4	7.4	56.0
1.378500	49.6	GND	N	10.4	6.4	56.0
1.441500	47.9	GND	L1	10.3	8.1	56.0
1.495500	49.2	GND	N	10.4	6.8	56.0
1.855500	48.1	GND	L1	10.4	7.9	56.0
1.914000	48.4	GND	N	10.4	7.6	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
1.324500	37.2	GND	N	10.4	8.8	46.0
1.383000	38.9	GND	L1	10.3	7.1	46.0
1.441500	36.9	GND	L1	10.3	9.1	46.0
1.495500	36.9	GND	N	10.4	9.1	46.0
1.752000	35.7	GND	N	10.4	10.3	46.0
1.864500	37.0	GND	N	10.4	9.0	46.0

END OF REPORT