

Fig.A.6.1.79 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 15 GHz-20 GHz)

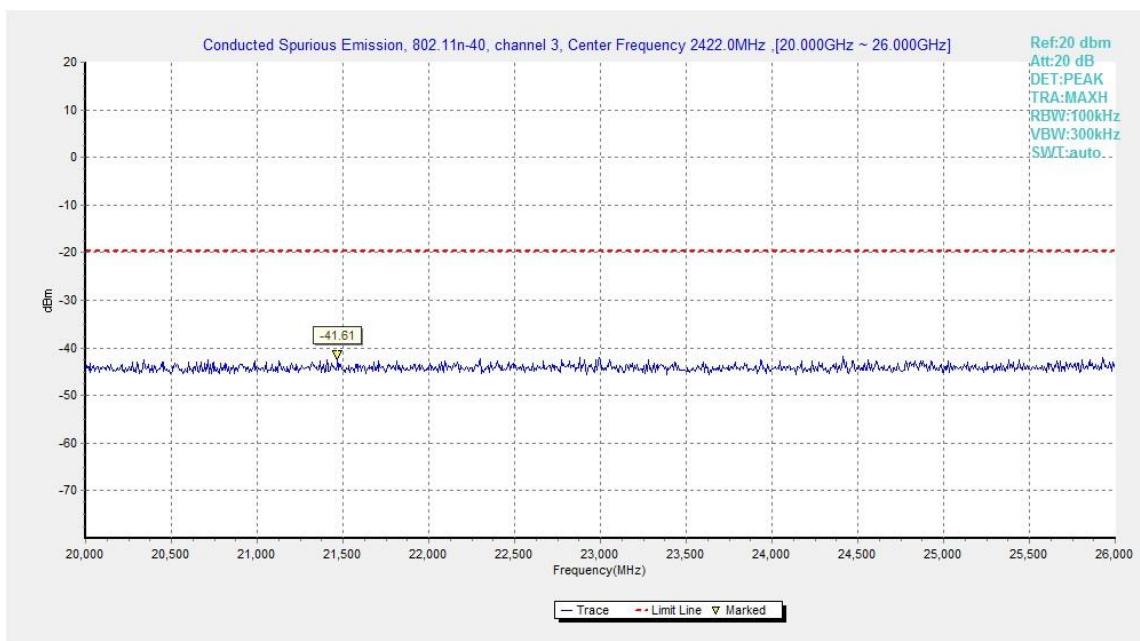


Fig.A.6.1.80 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 20 GHz-26 GHz)

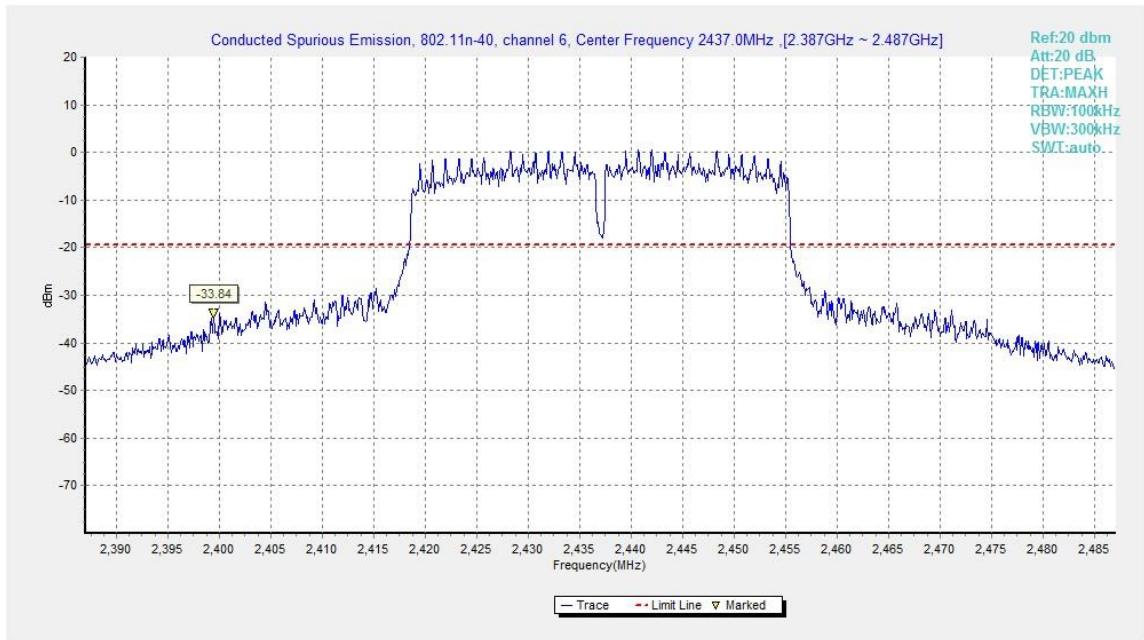


Fig.A.6.1.81 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, Center Frequency)

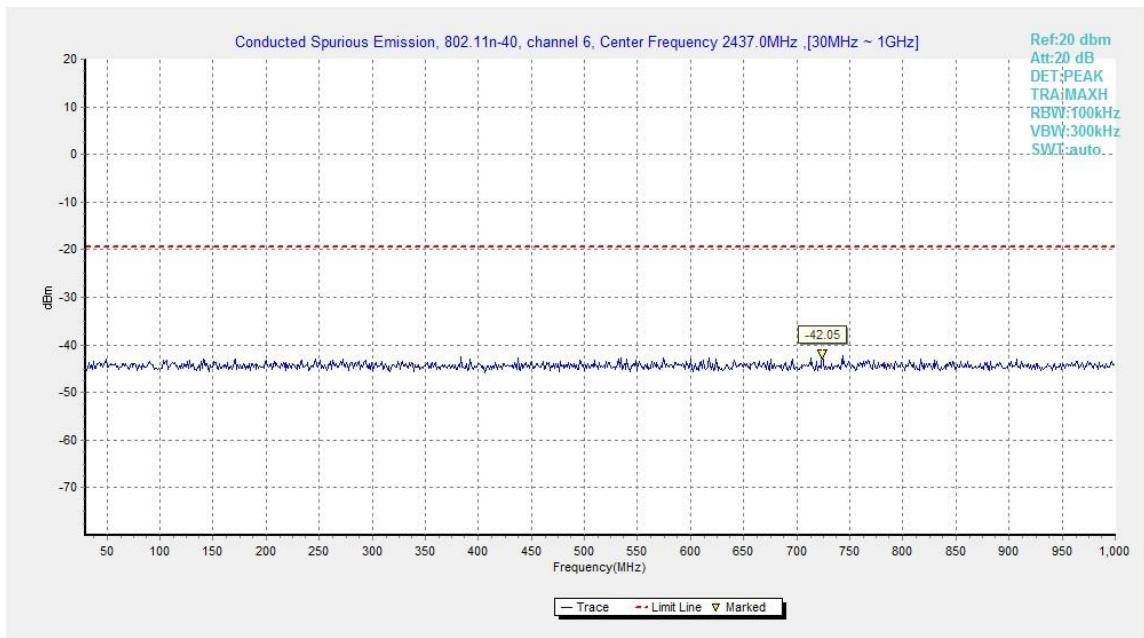


Fig.A.6.1.82 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 30 MHz-1 GHz)

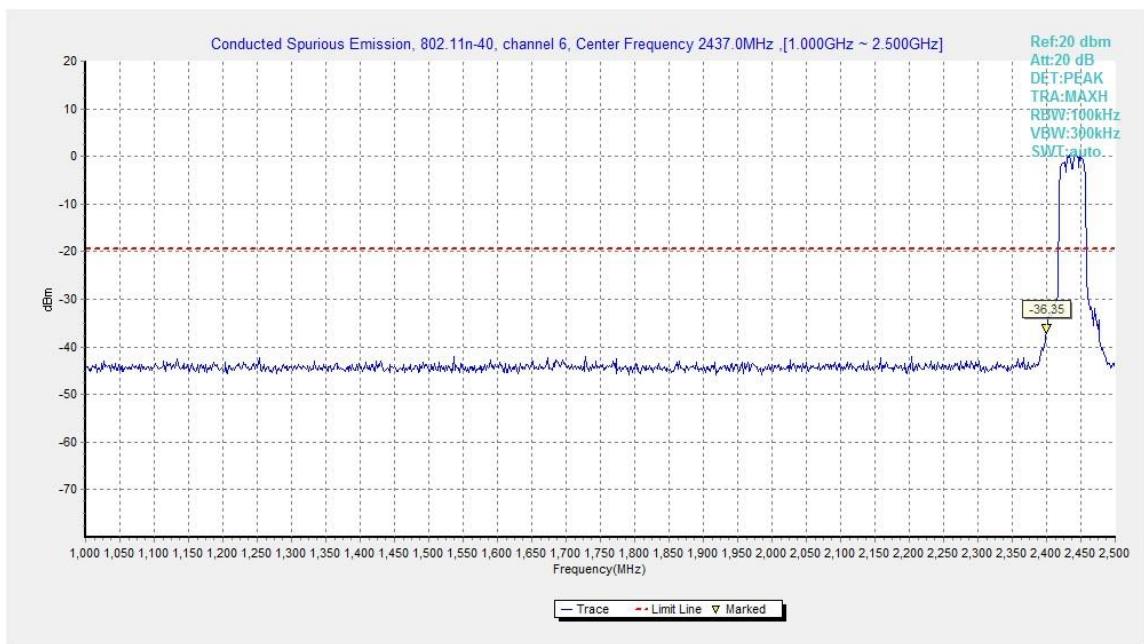


Fig.A.6.1.83 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)

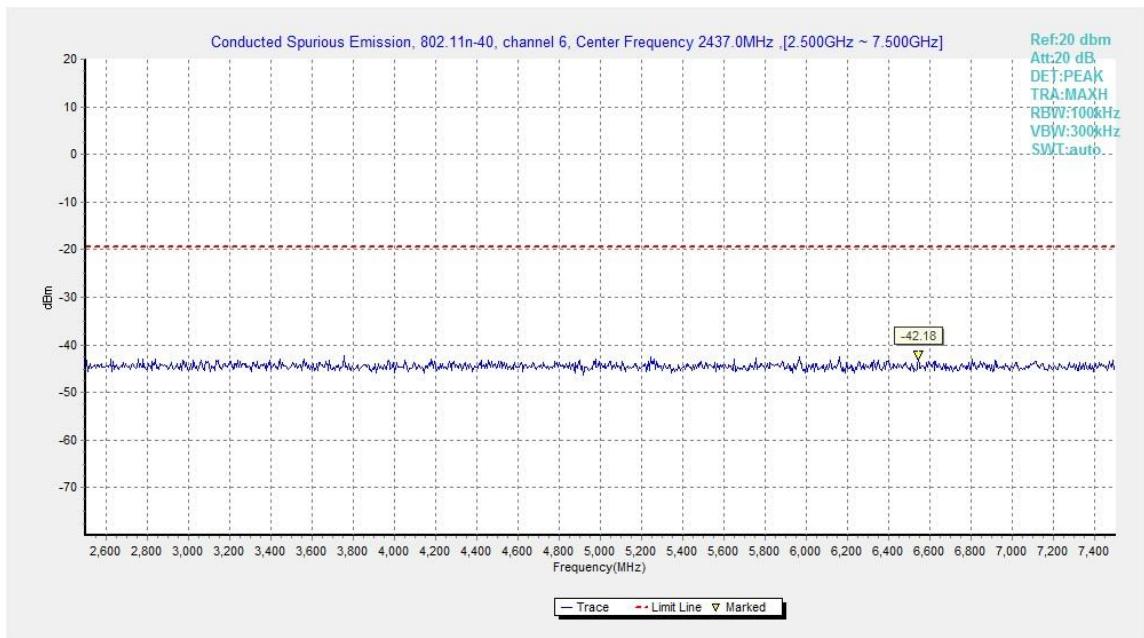


Fig.A.6.1.84 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)

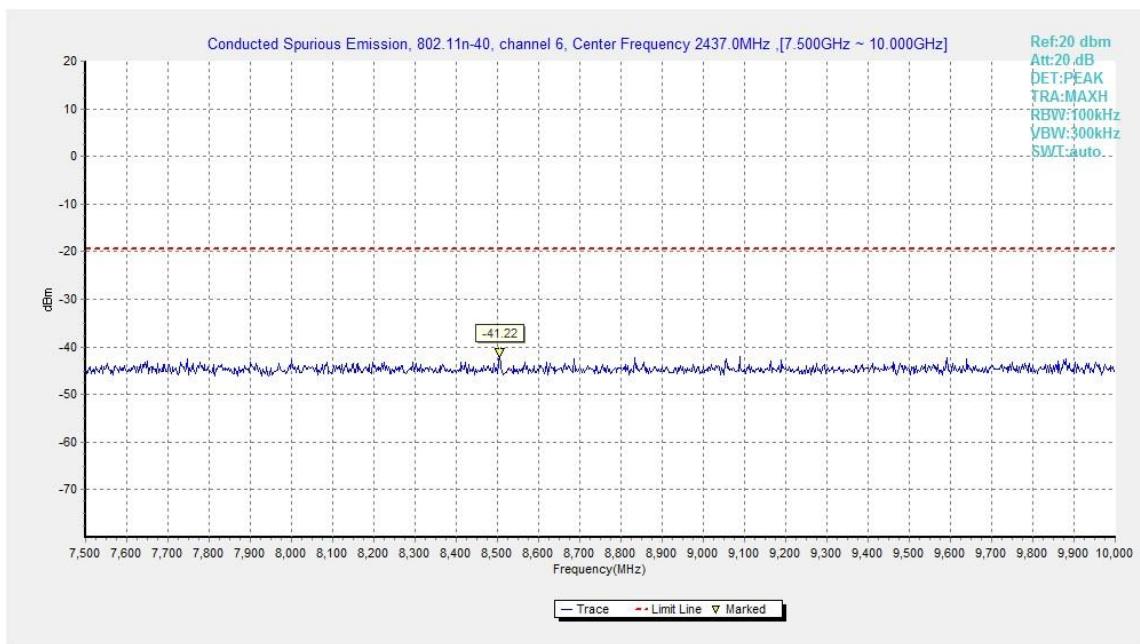


Fig.A.6.1.85 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)

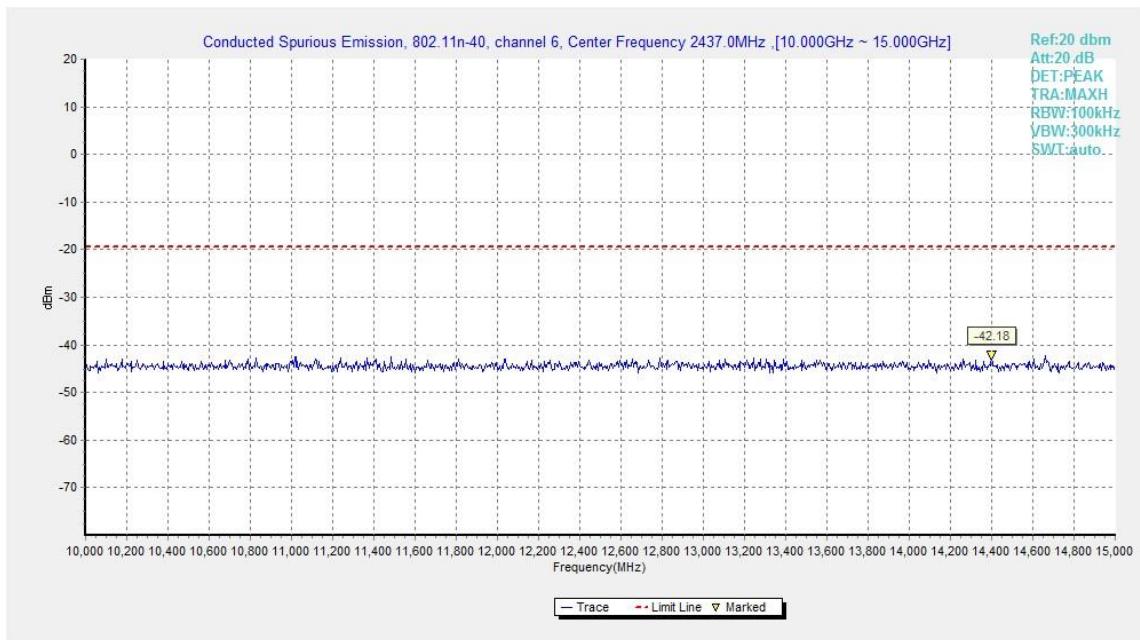


Fig.A.6.1.86 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 10 GHz-15 GHz)

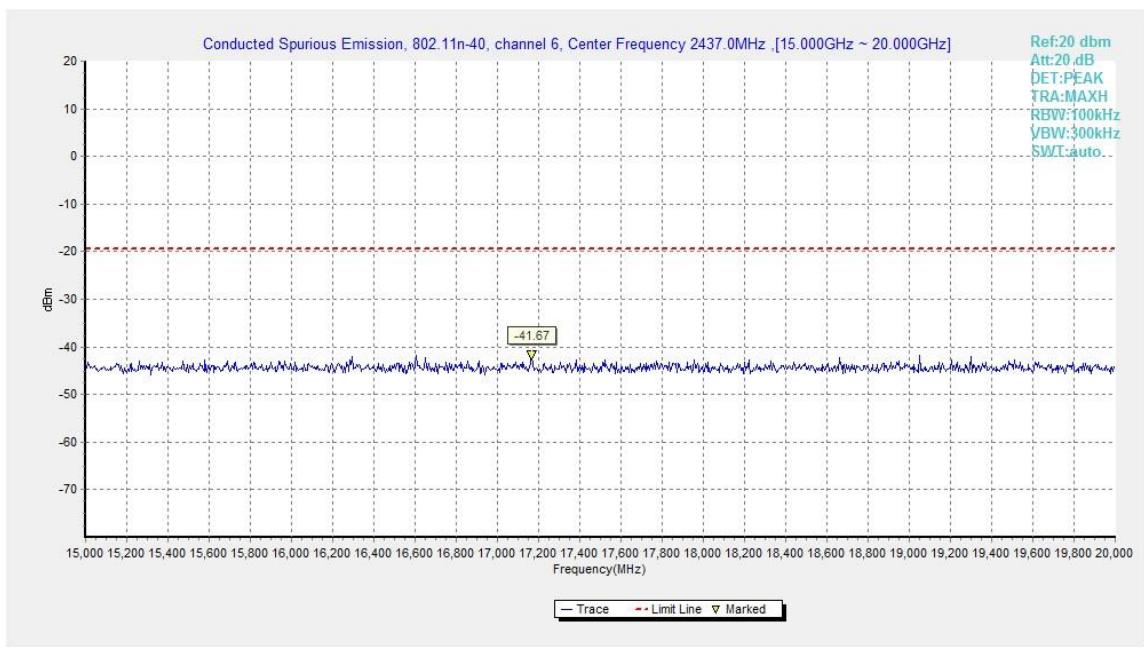


Fig.A.6.1.87 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 15 GHz-20 GHz)

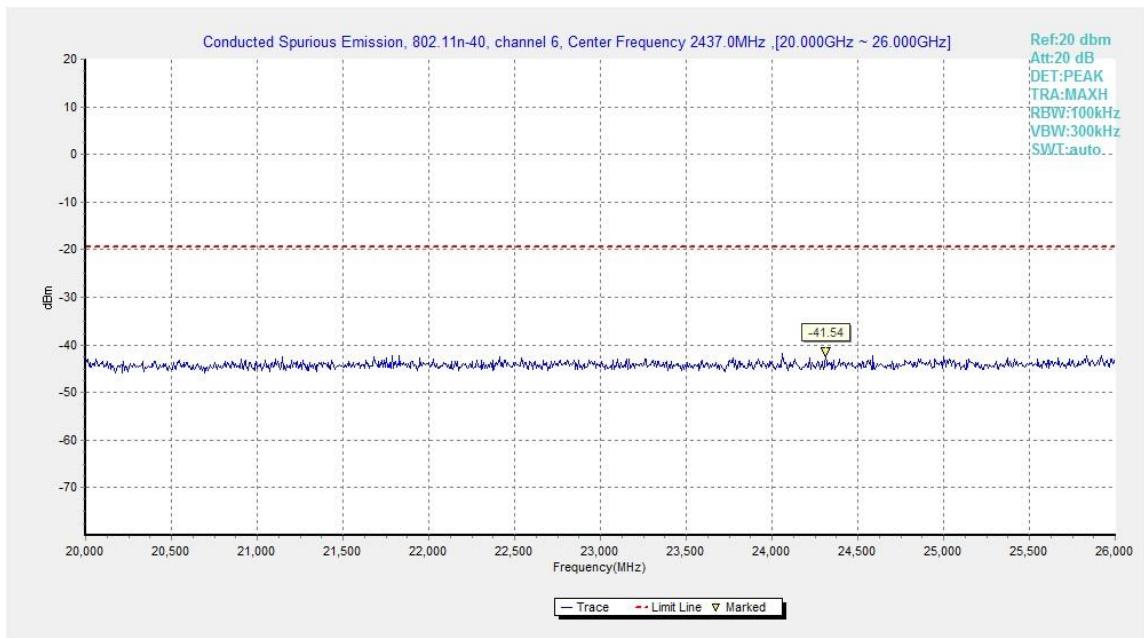


Fig.A.6.1.88 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 20 GHz-26 GHz)

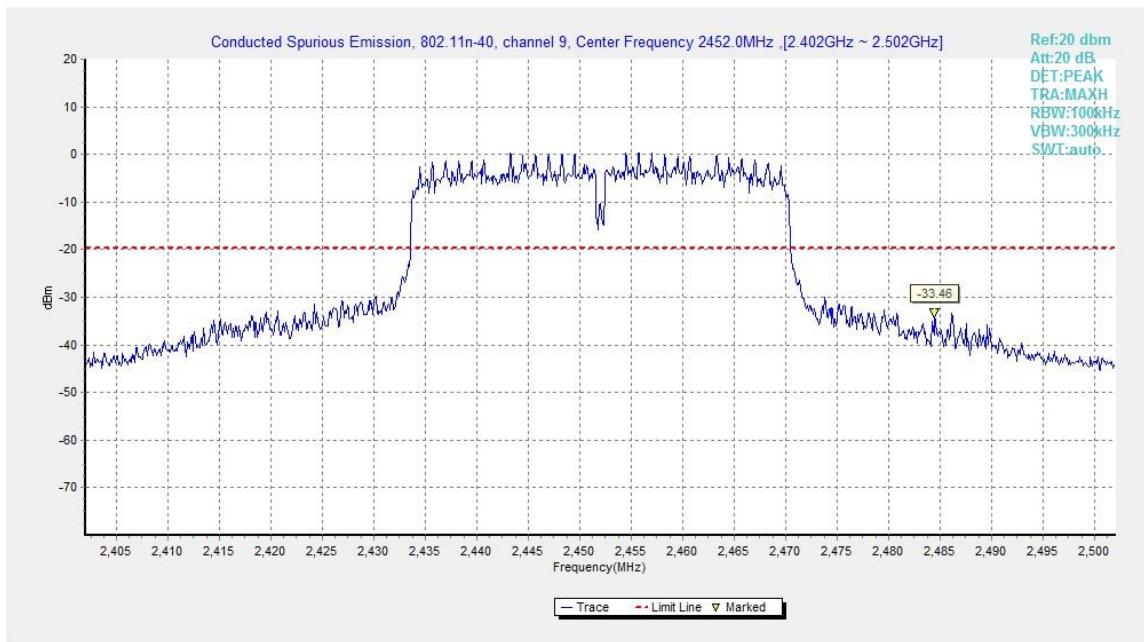


Fig.A.6.1.89 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, Center Frequency)



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

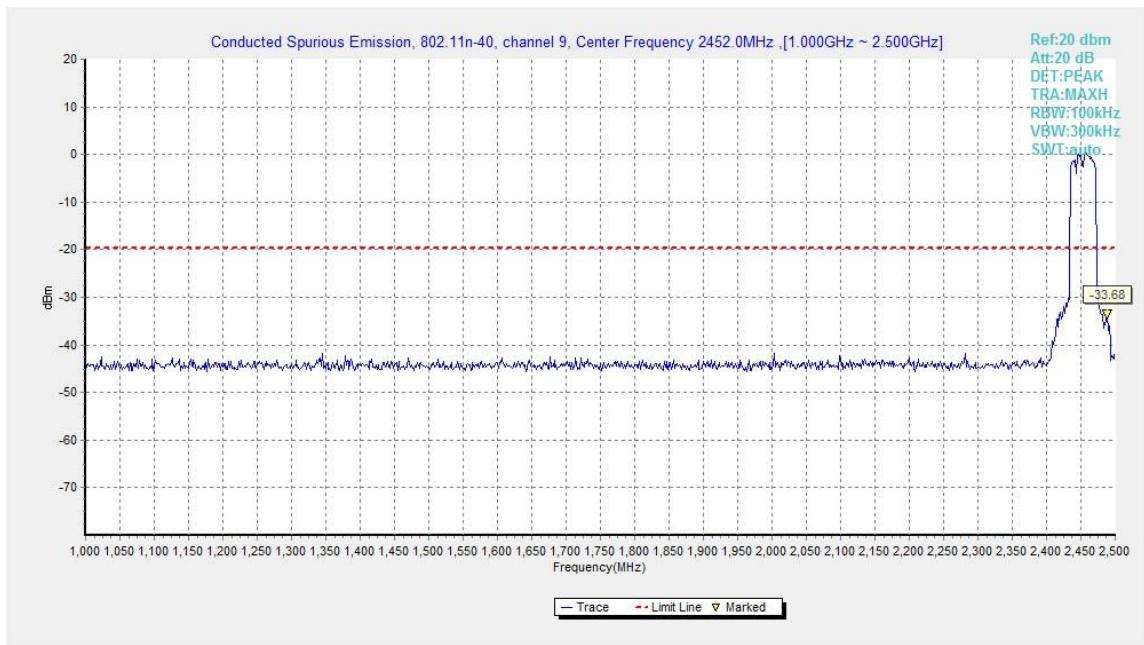


Fig.A.6.1.91 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

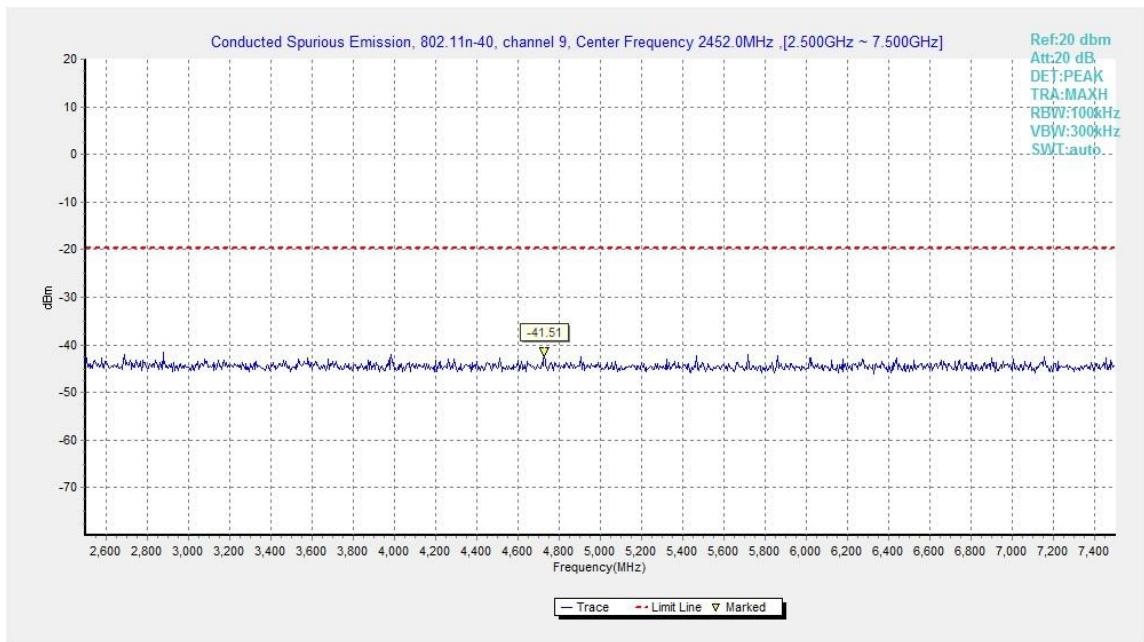


Fig.A.6.1.92 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)

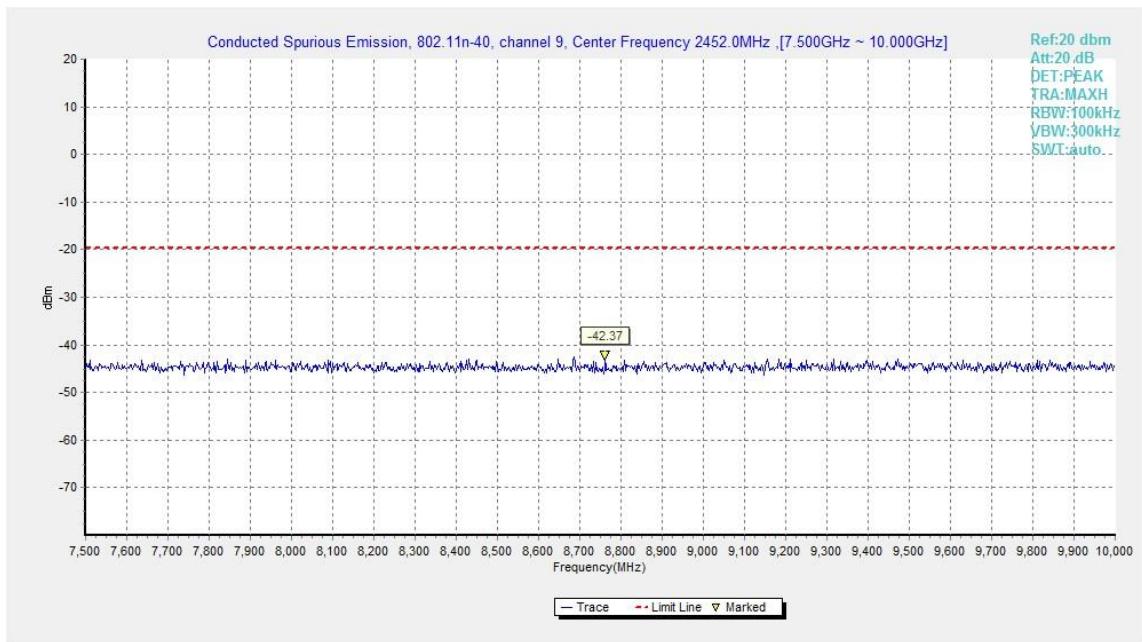


Fig.A.6.1.93 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

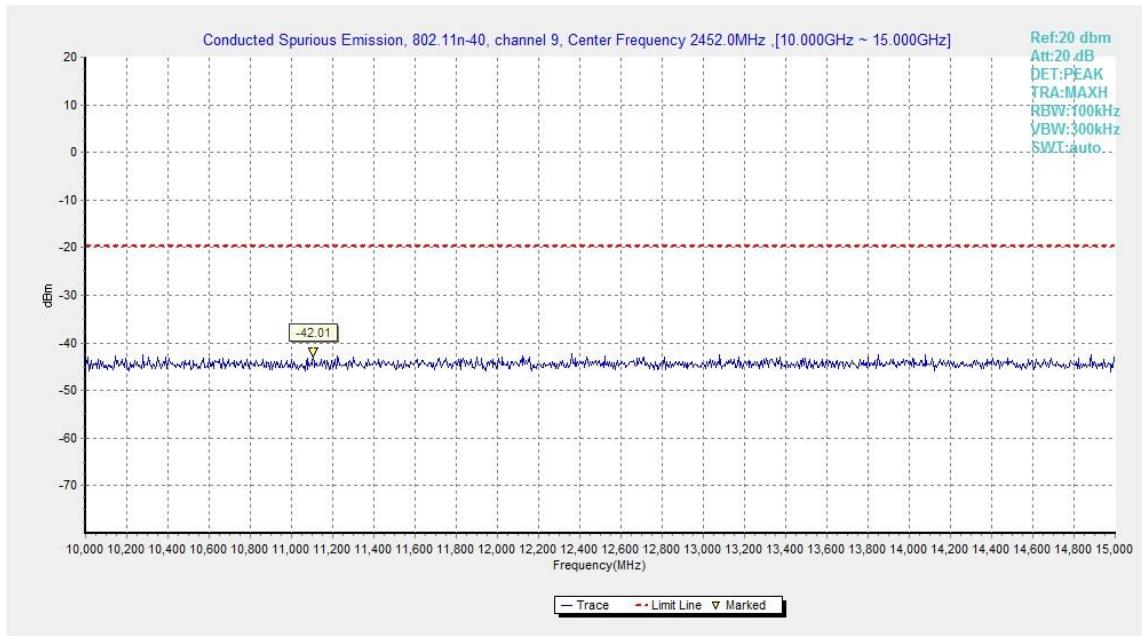


Fig.A.6.1.94 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 10 GHz-15 GHz)

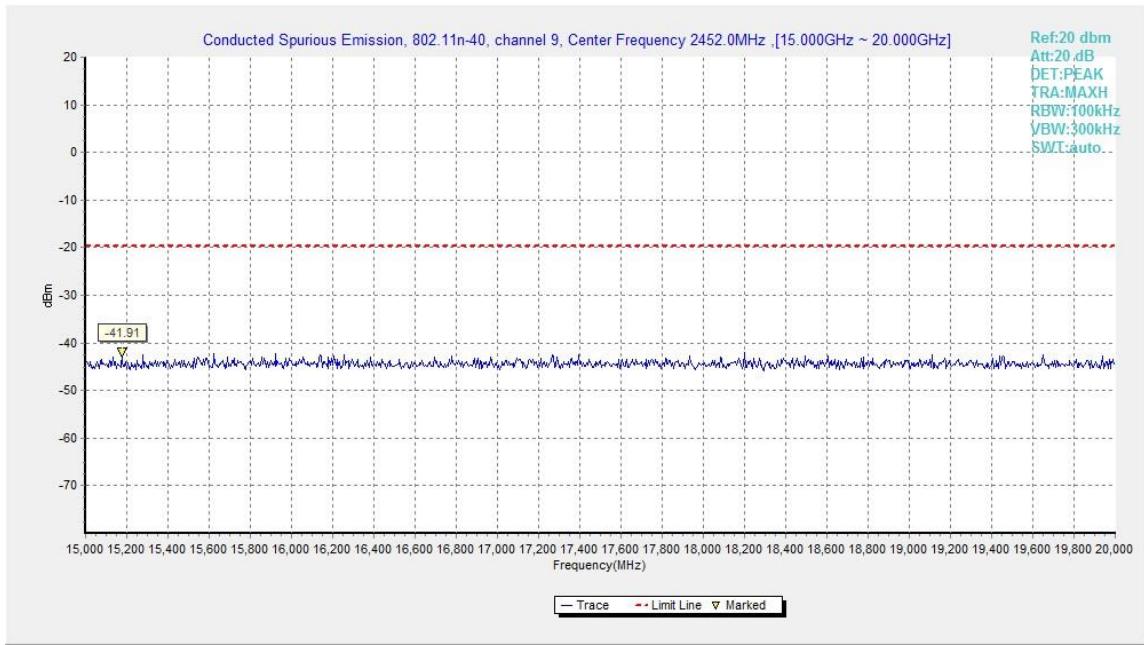


Fig.A.6.1.95 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 15 GHz-20 GHz)

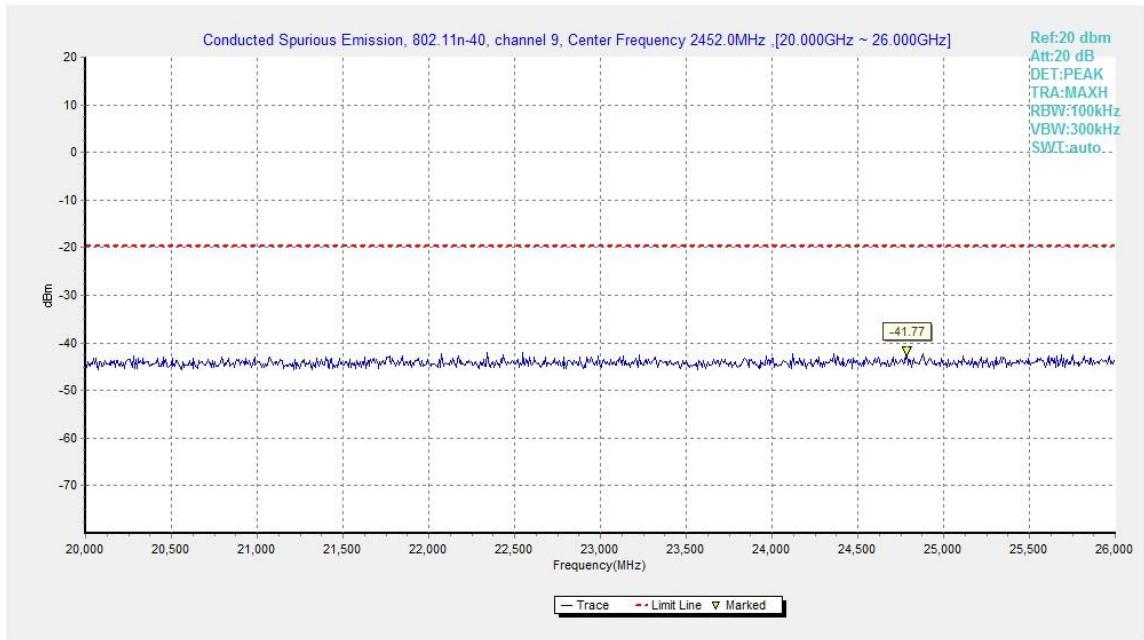


Fig.A.6.1.96 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 20 GHz-26 GHz)

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(μ V/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 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: EUT1

Measurement Results:
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:

$$\text{Result} = P_{Mea} + A_{RPL} = P_{Mea} + \text{Cable Loss} + \text{Antenna Factor}$$

802.11b-Average

Ch1

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
2387.400	46.81	2.9	32.0	11.95	54.0	7.2	H
2385.900	46.77	2.9	32.0	11.89	54.0	7.2	H
4824.000	43.20	-32.8	34.5	41.45	54.0	10.8	H
7236.000	30.66	-31.7	36.1	26.30	54.0	23.3	H
9648.000	33.21	-30.4	37.0	26.53	54.0	20.8	H
12060.000	35.98	-29.6	39.3	26.31	54.0	18.0	H

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
2383.700	45.00	2.9	32.0	10.11	54.0	9.0	H
2487.600	44.95	2.9	32.6	9.37	54.0	9.1	H
4874.250	42.50	-32.7	34.5	40.71	54.0	11.5	H
7311.000	30.66	-31.9	36.1	26.49	54.0	23.3	H
9748.000	33.21	-30.7	37.2	26.69	54.0	20.8	H
12185.000	35.98	-29.4	39.2	26.19	54.0	18.0	H

Ch11

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
2485.300	47.91	2.9	32.7	12.26	54.0	6.1	H
2487.400	47.82	2.9	32.7	12.24	54.0	6.2	H
4923.750	44.19	-33.1	34.5	42.77	54.0	9.8	H
7386.000	30.83	-31.8	36.0	26.63	54.0	23.2	H
9848.000	33.46	-30.4	37.0	26.78	54.0	20.5	H
12310.500	35.89	-29.7	39.2	26.22	54.0	18.1	H

**802.11b-Peak**

Ch1

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
2387.600	59.9	2.9	32.0	25.08	74.0	14.1	H
2385.600	60.1	2.9	32.0	25.23	74.0	13.9	V
4824.000	54.3	-32.8	34.5	52.51	74.0	19.7	H
16829.250	51.7	-26.1	41.5	36.31	74.0	22.3	V
17781.000	52.6	-23.5	41.0	35.04	74.0	21.4	H
17426.250	52.0	-25.3	41.2	36.08	74.0	22.0	V

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
2365.600	49.8	-27.3	31.9	45.16	74.0	24.2	H
2654.200	52.6	-26.7	33.6	45.67	74.0	21.4	H
4874.500	53.7	-32.7	34.5	51.95	74.0	20.3	V
5986.500	46.7	-31.5	35.3	42.92	74.0	27.3	V
17466.700	52.8	-25.2	41.2	36.79	74.0	21.2	H
16931.250	52.8	-25.7	41.4	37.05	74.0	21.2	H

Ch11

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
2484.500	60.8	2.9	32.7	25.16	74.0	13.2	H
2488.480	60.8	2.9	32.6	25.22	74.0	13.2	V
4923.750	55.0	-33.1	34.5	53.58	74.0	19.0	H
16930.500	51.6	-25.7	41.4	35.91	74.0	22.4	H
17824.500	52.7	-23.2	40.9	35.01	74.0	21.3	H
17486.250	53.1	-25.3	41.2	37.18	74.0	20.9	H

802.11g - Average

Ch1

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
2385.100	46.64	2.9	32.0	11.76	54.0	7.4	H
2382.300	46.75	2.9	32.0	11.85	54.0	7.3	H
4824.000	38.90	-32.8	34.5	37.15	54.0	15.1	H
7236.000	30.99	-31.7	36.1	26.63	54.0	23.0	H
9648.000	33.88	-30.4	37.0	27.19	54.0	20.1	H
12060.000	36.23	-29.6	39.3	26.55	54.0	17.8	H

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
2388.600	45.91	2.9	32.0	11.06	54.0	8.1	H
2484.700	47.06	2.9	32.7	11.40	54.0	6.9	H
4873.750	35.79	-32.7	34.5	33.99	54.0	18.2	H
7311.000	31.33	-31.9	36.1	27.16	54.0	22.7	H
9748.000	33.85	-30.7	37.2	27.32	54.0	20.1	H
12185.000	36.12	-29.4	39.2	26.33	54.0	17.9	H

Ch11

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
2483.850	48.37	2.9	32.8	12.68	54.0	5.6	H
2486.090	48.28	2.9	32.7	12.66	54.0	5.7	H
4923.500	35.43	-33.1	34.5	34.01	54.0	18.6	H
7386.000	31.31	-31.8	36.0	27.11	54.0	22.7	H
9848.500	33.74	-30.4	37.0	27.06	54.0	20.3	H
12310.000	33.74	-29.7	39.2	24.04	54.0	20.3	H

802.11g - Peak

Ch1

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
2384.494	59.5	2.9	32.0	24.65	74.0	14.5	H
2387.000	59.5	2.9	32.0	24.66	74.0	14.5	H
4827.000	47.1	-32.7	34.5	45.36	74.0	26.9	H
16226.250	51.6	-25.5	40.6	36.51	74.0	22.4	H
17459.250	52.3	-25.2	41.2	36.27	74.0	21.7	H
17792.250	53.5	-23.3	41.0	35.83	74.0	20.5	V

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
2227.020	48.7	-28.4	31.0	46.15	74.0	25.3	H
2646.400	52.8	-26.7	33.6	45.87	74.0	21.2	H
4872.750	47.4	-32.7	34.5	45.62	74.0	26.6	V
16768.500	51.6	-26.2	41.5	36.33	74.0	22.4	H
17038.500	52.8	-25.5	41.4	36.93	74.0	21.3	H
17871.000	52.8	-23.8	40.9	35.67	74.0	21.2	H

Ch11

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
2490.800	60.9	2.9	32.6	25.43	74.0	13.1	H
2497.820	61.1	2.9	32.4	25.76	74.0	12.9	H
4923.750	46.5	-33.1	34.5	45.11	74.0	27.5	V
5979.750	46.7	-31.5	35.3	43.01	74.0	27.3	H
16693.500	52.4	-26.1	41.4	37.06	74.0	21.6	V
17780.250	52.8	-23.5	41.0	35.34	74.0	21.2	V

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)
2383.200	46.75	2.9	32.0	11.85	54.0	7.3	H
2387.200	46.83	2.9	32.0	11.96	54.0	7.2	H
4824.000	31.90	-32.8	34.5	31.90	-32.8	34.5	H
7236.000	30.89	-31.7	36.1	30.89	-31.7	36.1	H
9648.000	33.51	-30.4	37.0	33.51	-30.4	37.0	H
12060.000	35.91	-29.6	39.3	35.91	-29.6	39.3	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)
2388.000	45.91	2.9	32.0	11.05	54.0	8.1	H
2484.700	47.06	2.9	32.7	11.40	54.0	6.9	H
4873.500	32.54	-32.7	34.5	30.75	54.0	21.5	H
7311.000	30.56	-31.9	36.1	26.39	54.0	23.4	H
9748.500	32.95	-30.7	37.2	26.42	54.0	21.1	H
12184.500	35.55	-29.4	39.2	25.76	54.0	18.5	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)
2485.700	47.13	2.9	32.7	11.50	54.0	6.9	H
2486.110	47.04	2.9	32.7	11.42	54.0	7.0	H
4924.500	35.33	-33.1	34.5	33.92	54.0	18.7	H
7386.500	31.00	-31.8	36.0	26.79	54.0	23.0	H
9848.400	33.78	-30.4	37.0	27.10	54.0	20.2	H
12310.000	36.98	-29.7	39.2	27.30	54.0	17.0	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)
2389.772	59.5	2.9	32.0	24.67	74.0	14.5	H
2386.412	59.9	2.9	32.0	25.00	74.0	14.1	H
4029.700	46.4	-33.9	33.9	46.41	74.0	27.6	V
4824.575	46.6	-32.7	34.5	44.82	74.0	27.4	V
16798.500	51.9	-26.2	41.5	36.57	74.0	22.1	H
17823.000	52.9	-23.2	40.9	35.09	74.0	21.1	V

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)
2327.200	48.2	-27.7	31.2	44.66	74.0	25.8	H
2903.020	53.6	-25.4	34.0	44.99	74.0	20.4	H
3188.260	47.4	-33.6	33.4	47.59	74.0	26.6	V
4874.260	46.6	-32.7	34.5	44.79	74.0	27.4	H
17449.500	53.1	-25.2	41.2	37.13	74.0	20.9	H
17817.002	52.9	-23.1	40.9	35.07	74.0	21.1	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)
2484.100	60.4	2.9	32.7	24.69	74.0	13.6	H
2491.700	60.7	2.9	32.5	25.25	74.0	13.3	V
3140.250	45.1	-33.9	33.6	45.46	74.0	28.9	V
4923.500	44.0	-33.1	34.5	42.55	74.0	30.0	H
16950.000	52.1	-25.7	41.4	36.34	74.0	21.9	H
17832.750	52.9	-23.3	40.9	35.26	74.0	21.1	V

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)
2381.700	46.83	2.9	32.0	11.93	54.0	7.2	H
2386.900	46.85	2.9	32.0	11.98	54.0	7.2	H
4844.500	30.89	-32.7	34.5	29.10	54.0	23.1	H
7266.000	31.13	-31.9	36.1	26.96	54.0	22.9	H
9688.000	33.09	-30.7	37.1	26.56	54.0	20.9	H
12110.000	35.82	-29.5	39.3	26.03	54.0	18.2	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)
2381.700	46.83	2.9	32.0	11.93	54.0	7.2	H
2393.700	46.85	2.9	31.9	12.03	54.0	7.2	H
4874.500	32.75	-32.7	34.5	30.96	54.0	21.2	H
7311.000	31.24	-31.9	36.1	27.07	54.0	22.8	H
9748.000	33.53	-30.7	37.2	27.00	54.0	20.5	H
12185.000	36.35	-29.4	39.2	26.56	54.0	17.7	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)
2486.800	47.36	2.9	32.7	11.76	54.0	6.6	H
2486.120	47.33	2.9	32.7	11.70	54.0	6.7	H
4903.500	30.89	-32.9	34.5	29.28	54.0	23.1	H
7356.020	31.21	-31.9	36.1	27.06	54.0	22.8	H
9808.500	33.32	-30.3	37.3	26.40	54.0	20.7	H
12259.500	35.50	-29.6	39.2	25.87	54.0	18.5	H

802.11n-HT40-Peak

Ch3

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
2382.570	59.9	2.9	32.0	24.97	74.0	14.1	H
2385.250	59.7	2.9	32.0	24.79	74.0	14.3	H
4843.500	46.1	-32.7	34.5	44.30	74.0	27.9	H
14467.500	50.6	-27.2	39.6	38.28	74.0	23.4	V
16235.250	51.5	-25.5	40.6	36.36	74.0	22.5	V
17787.750	53.1	-23.3	41.0	35.43	74.0	20.9	V

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
2352.030	49.2	-27.8	31.7	45.26	74.0	24.8	H
2946.400	54.0	-25.4	33.9	45.49	74.0	20.0	V
3188.250	47.4	-33.6	33.4	47.59	74.0	26.6	V
4874.250	46.6	-32.7	34.5	44.79	74.0	27.4	V
17817.000	52.9	-23.1	40.9	35.07	74.0	21.1	V
17449.500	53.1	-25.2	41.2	37.13	74.0	20.9	V

Ch9

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)
2483.730	61.1	2.9	32.8	25.45	74.0	12.9	H
2486.830	60.5	2.9	32.7	24.89	74.0	13.5	V
4903.500	44.8	-32.9	34.5	43.21	74.0	29.2	H
5973.750	45.7	-31.5	35.3	41.93	74.0	28.3	H
17507.250	52.3	-25.4	41.2	36.51	74.0	21.7	H
17796.020	53.9	-23.2	41.0	36.18	74.0	20.1	V

Test graphs as below:

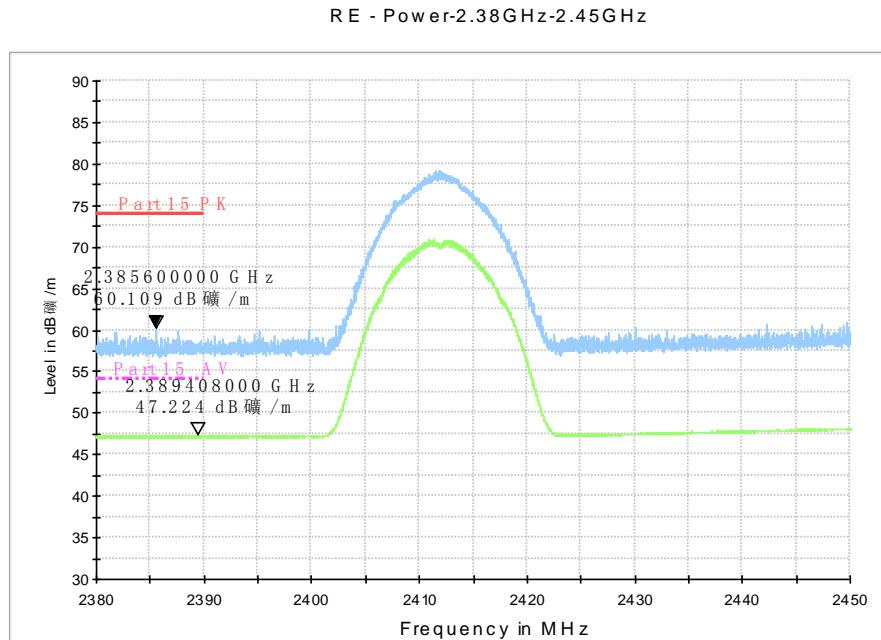
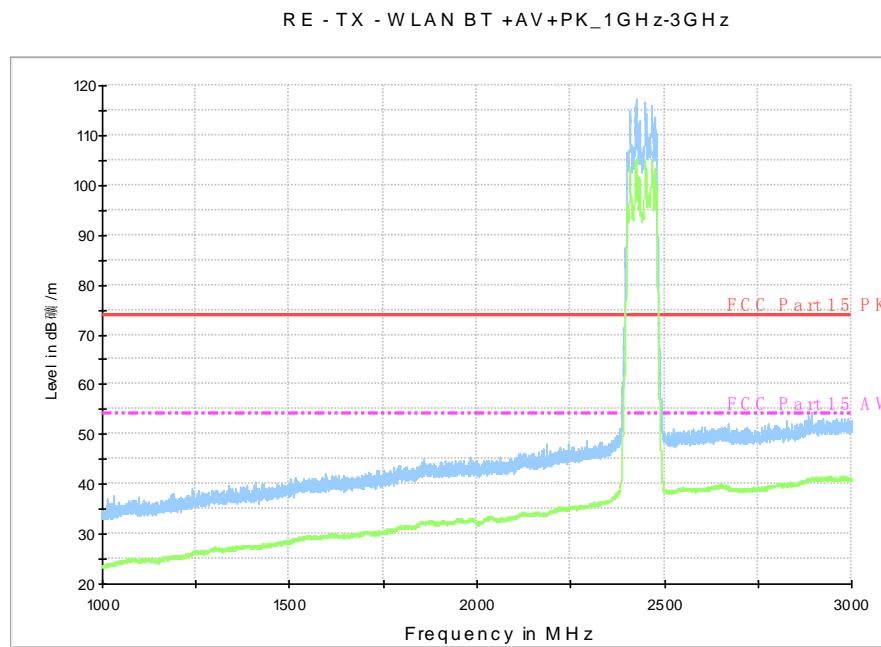


Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.38 GHz – 2.43GHz



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)

R E - 3 GHz-18 GHz

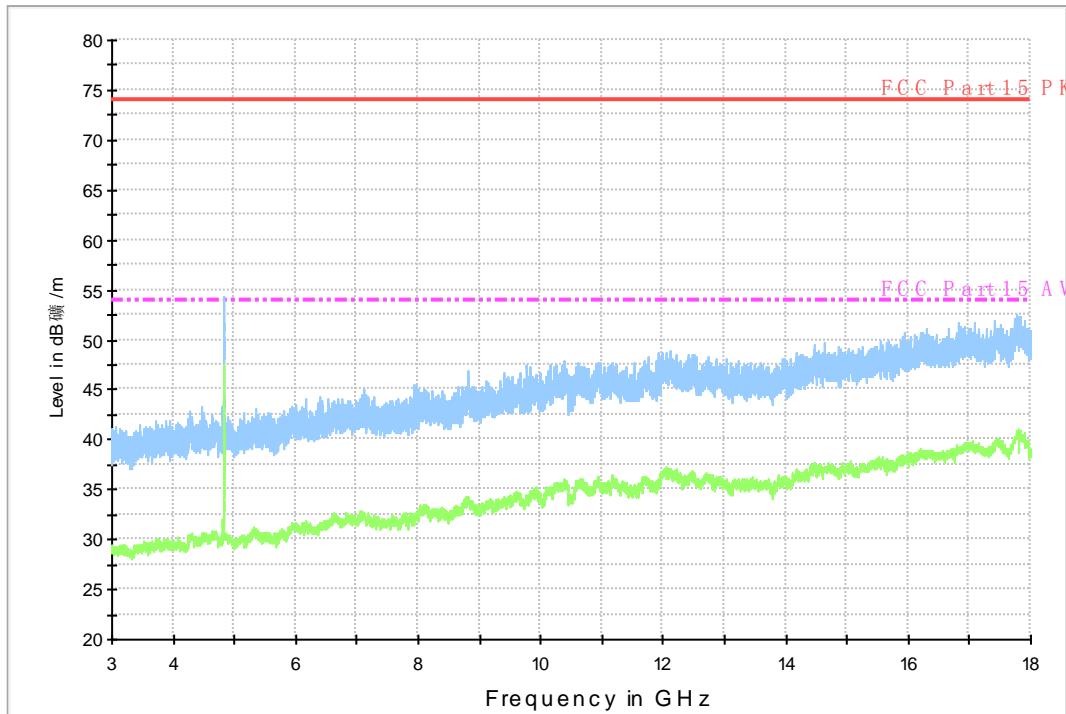


Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (802.11b, Ch1, 3 GHz-18 GHz)

R E 9 kHz-30 MHz

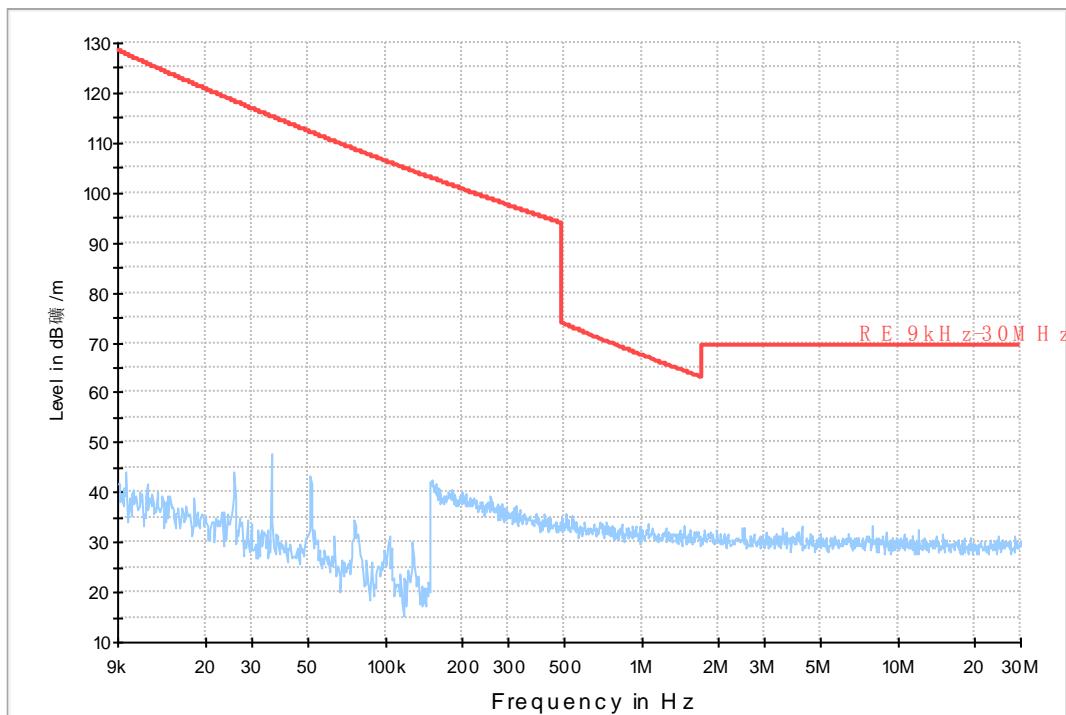


Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 9 kHz-30 MHz)

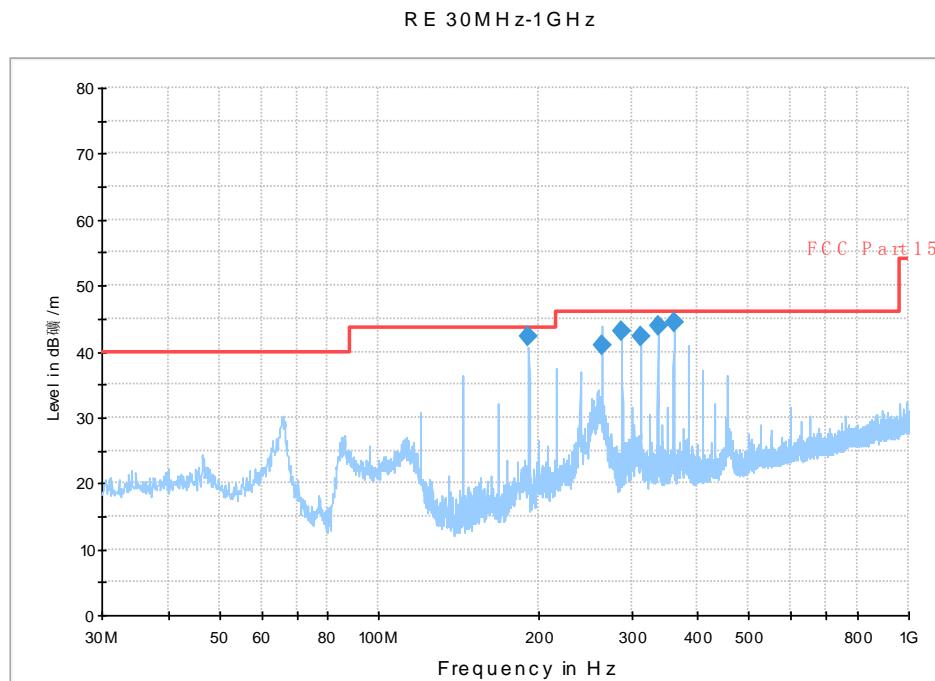
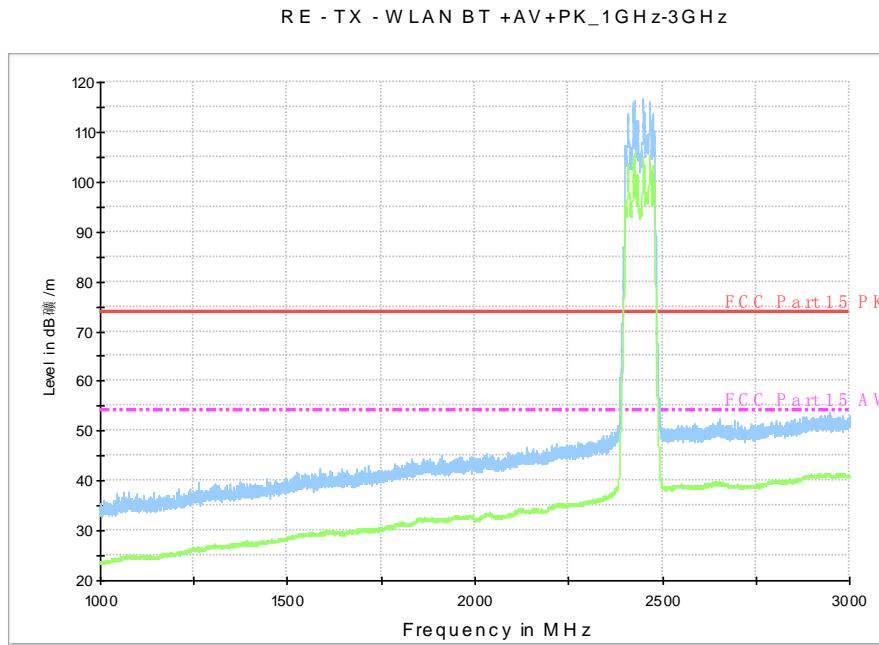


Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 30 MHz-1 GHz)

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
191.990000	42.1	125.0	H	135.0	-18.8	1.4	43.5
263.964000	40.8	100.0	H	173.0	-17.1	5.2	46.0
288.020000	43.1	100.0	H	73.0	-16.2	2.9	46.0
311.979000	42.4	100.0	H	114.0	-15.6	3.6	46.0
336.035000	44.0	100.0	H	291.0	-14.5	2.0	46.0
359.994000	44.5	100.0	H	288.0	-14.0	1.5	46.0



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)

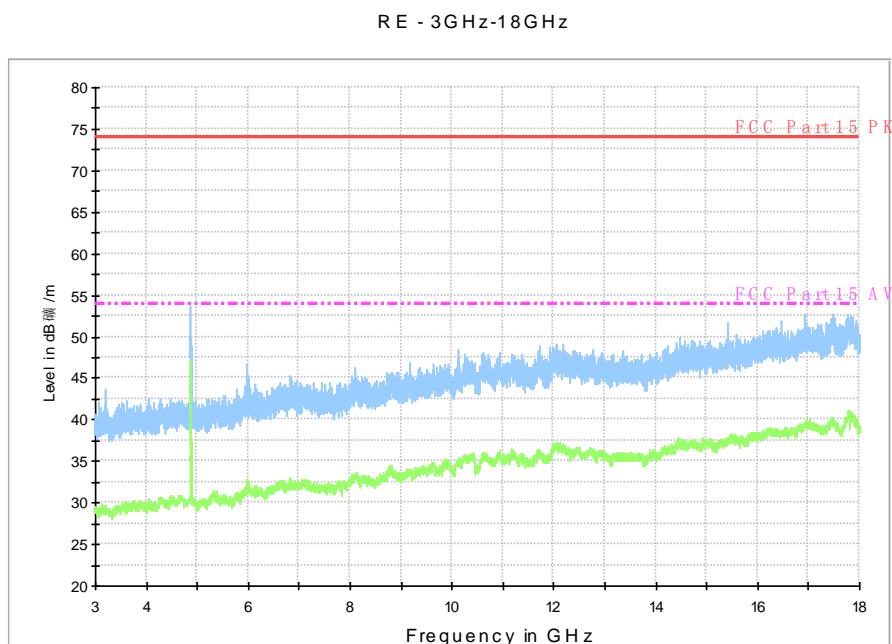


Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 3 GHz-18 GHz)

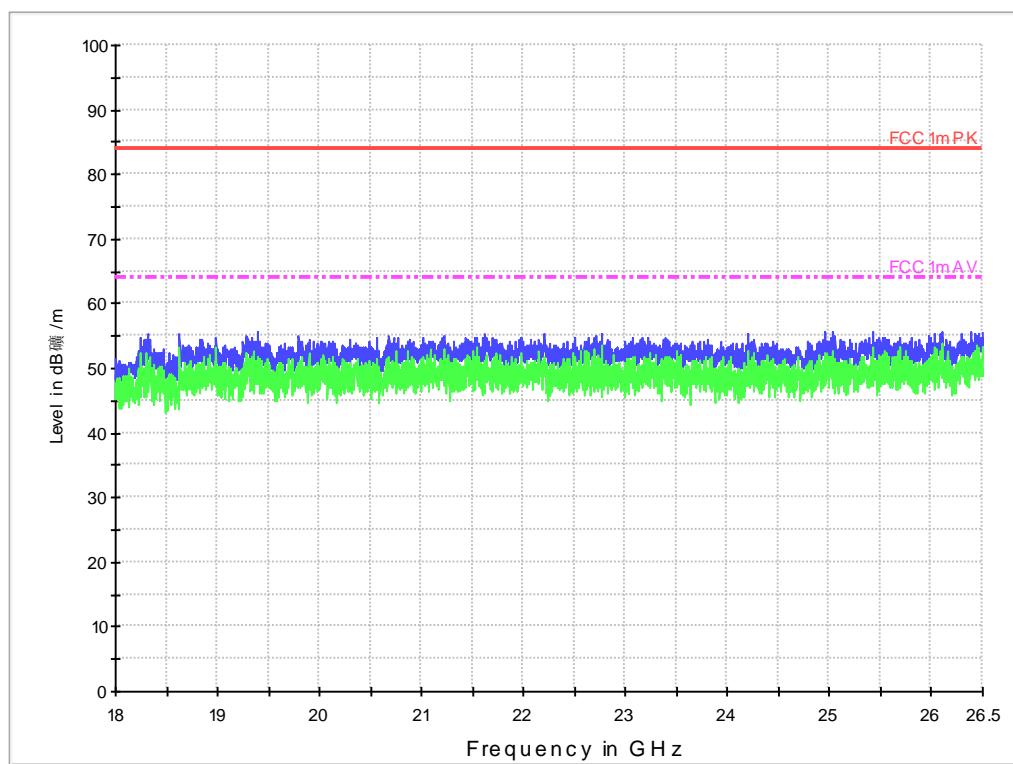


Fig.A.6.2.8 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 18GHz – 26.5GHz)

R E - Power-2.45GHz-2.5GHz

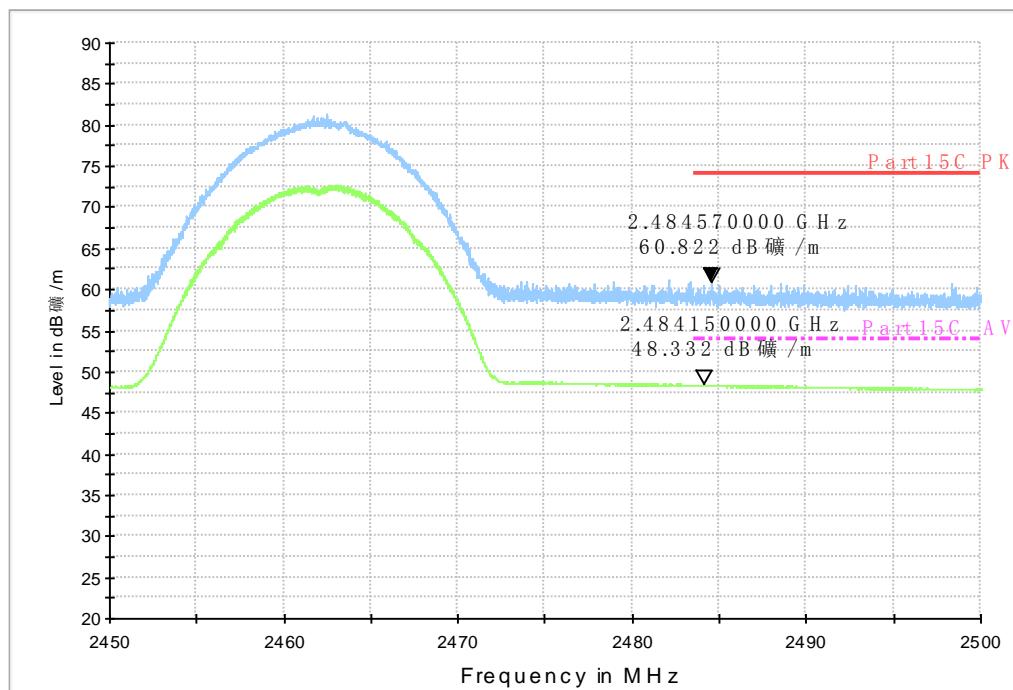
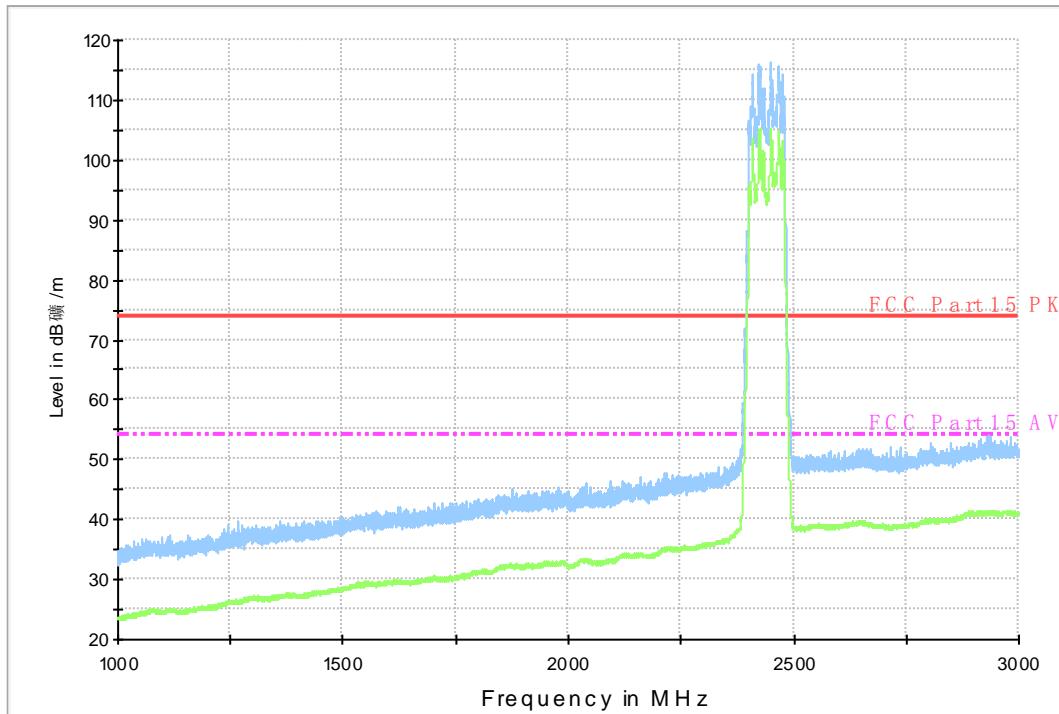


Fig.A.6.2.9 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45GHz - 2.50GHz

R E - 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)

R E - 3GHz-18GHz

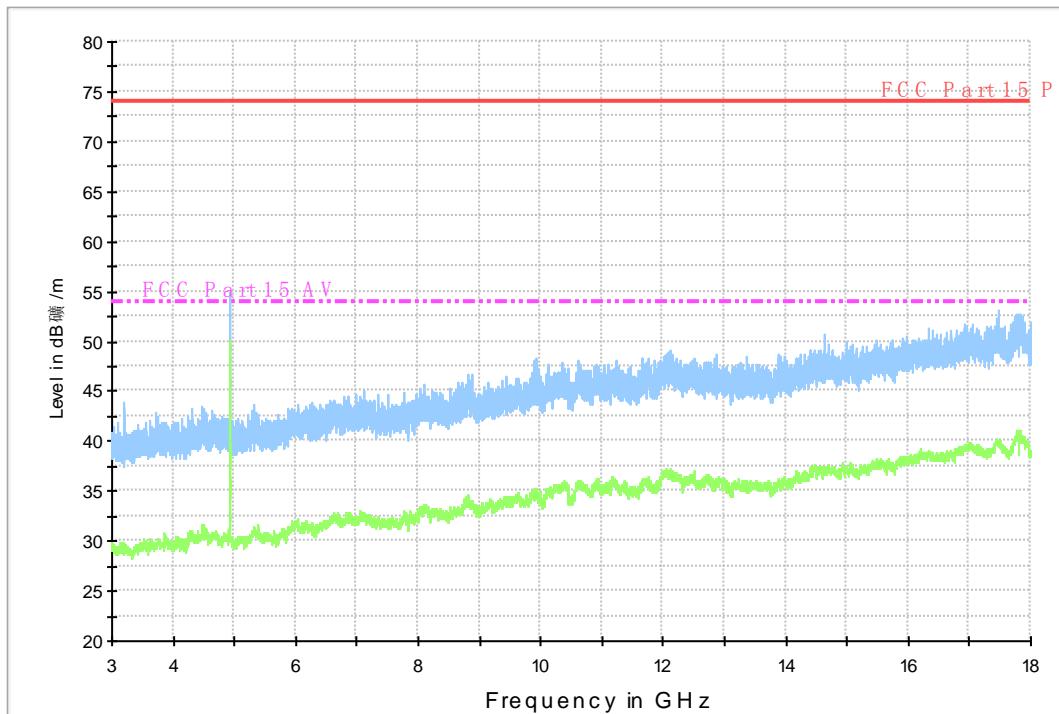


Fig.A.6.2.11 Transmitter Spurious Emission - Radiated (802.11b, Ch11, 3 GHz-18 GHz)

R E - Power-2.38GHz-2.45GHz

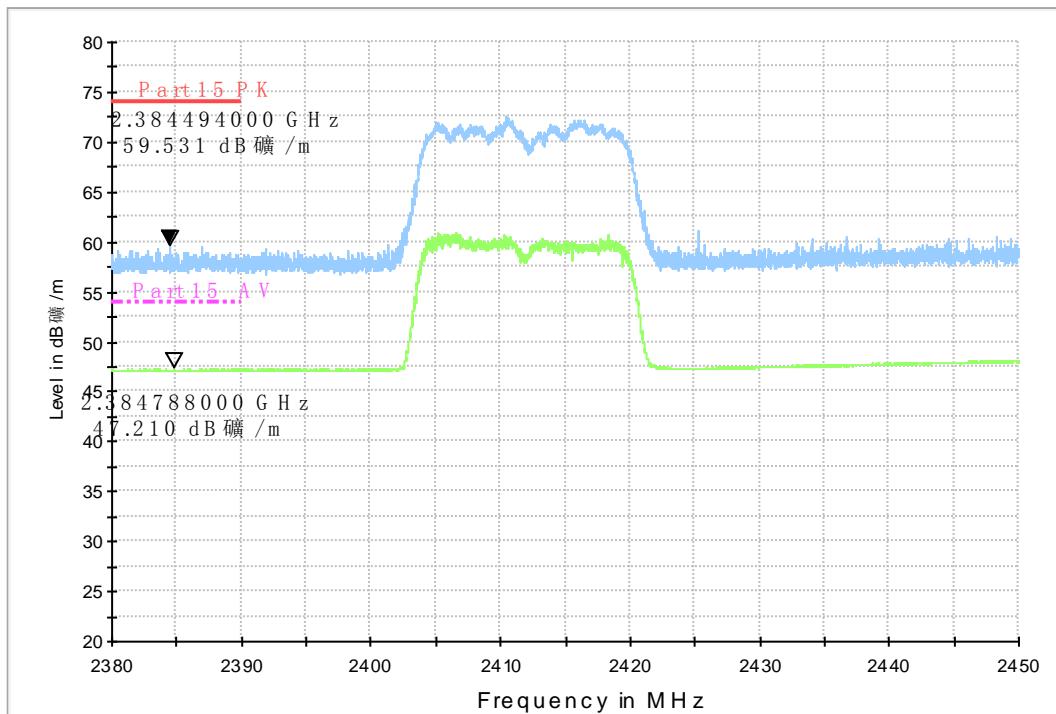
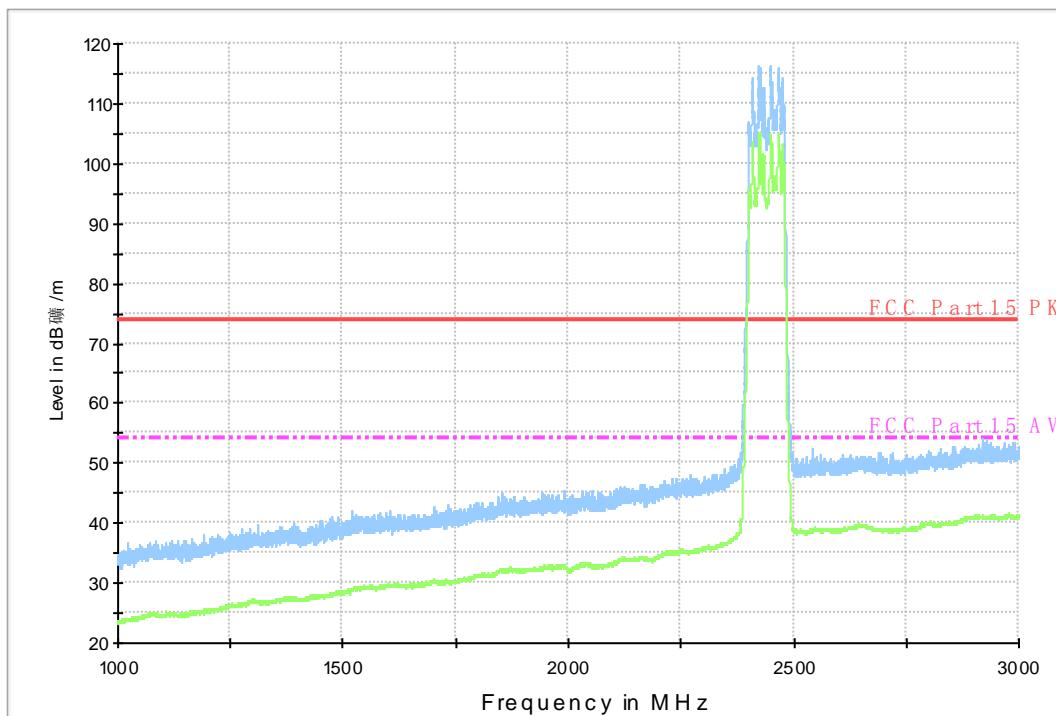


Fig.A.6.2.12 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.38 GHz - 2.43GHz

R E - 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)

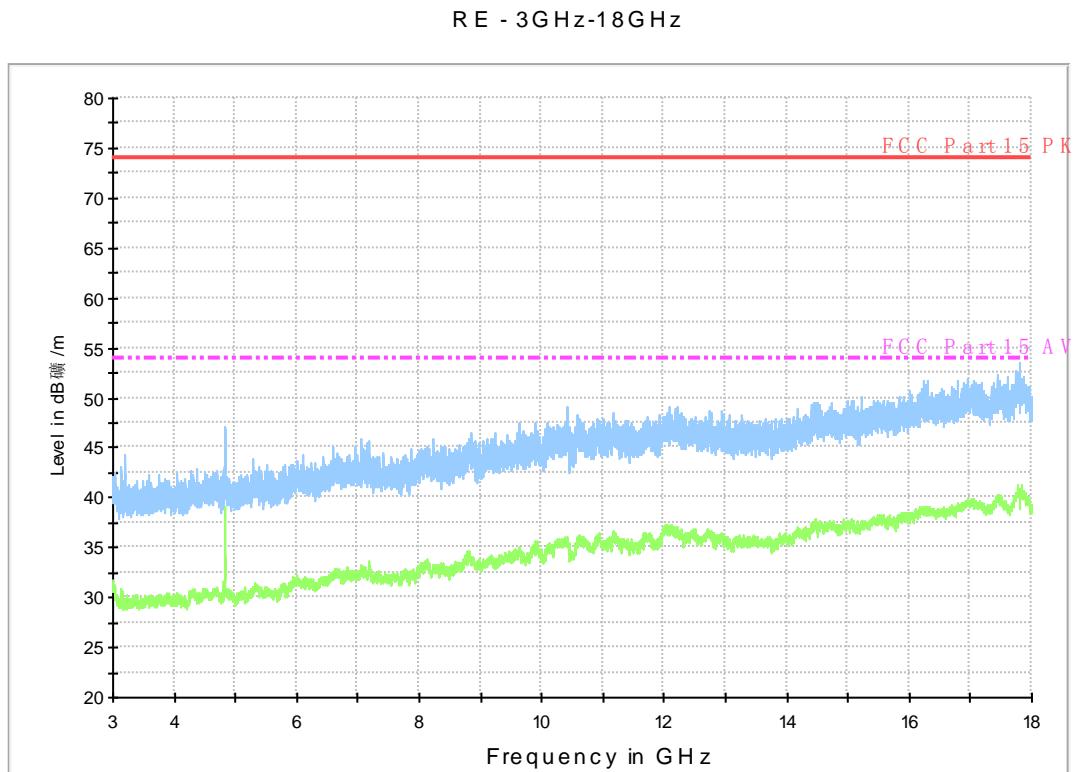
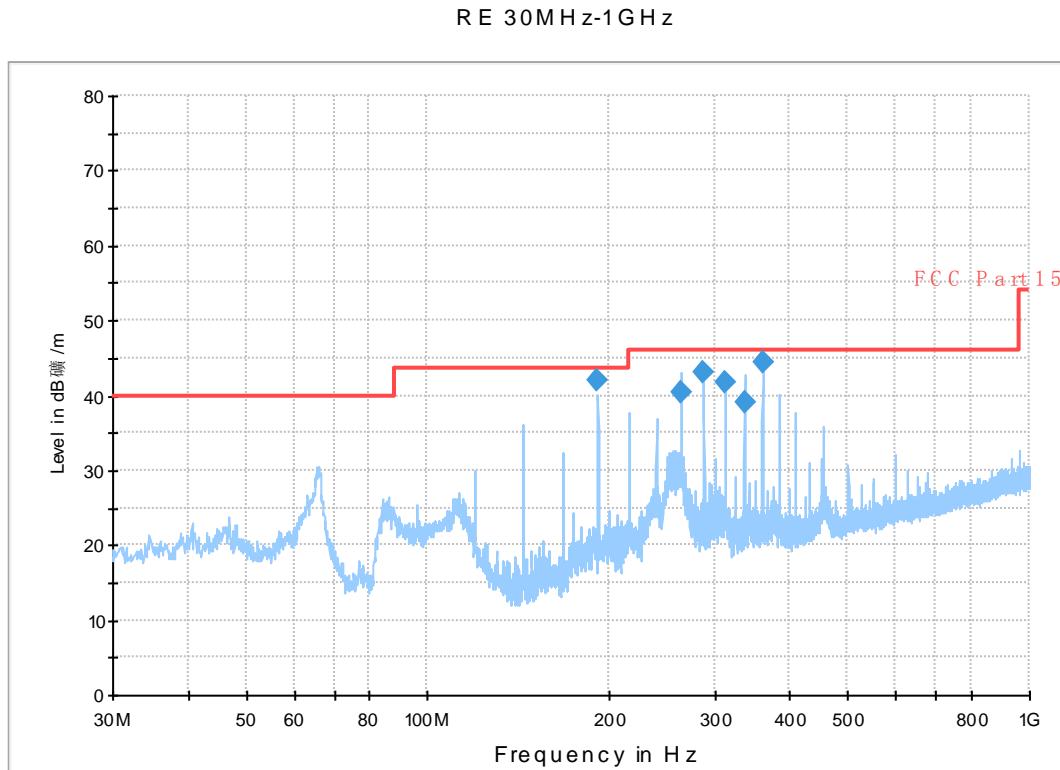


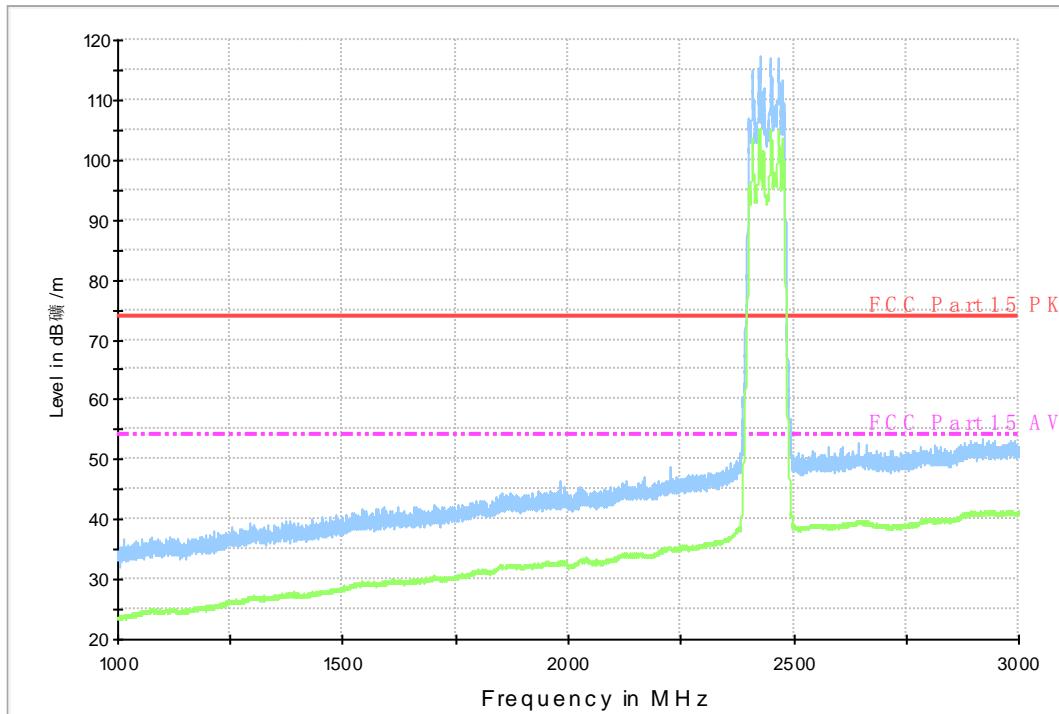
Fig.A.6.2.14 Transmitter Spurious Emission - Radiated (802.11g, Ch1, 3 GHz-18 GHz)


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

Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)
191.990000	42.0	100.0	H	135.0	-18.8	1.5	43.5
263.964000	40.5	125.0	H	176.0	-17.1	5.5	46.0
288.020000	43.2	108.0	H	69.0	-16.2	2.8	46.0
311.979000	41.7	108.0	H	113.0	-15.6	4.3	46.0
335.938000	39.1	100.0	H	290.0	-14.5	6.9	46.0

R E - 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)

R E - 3GHz-18GHz

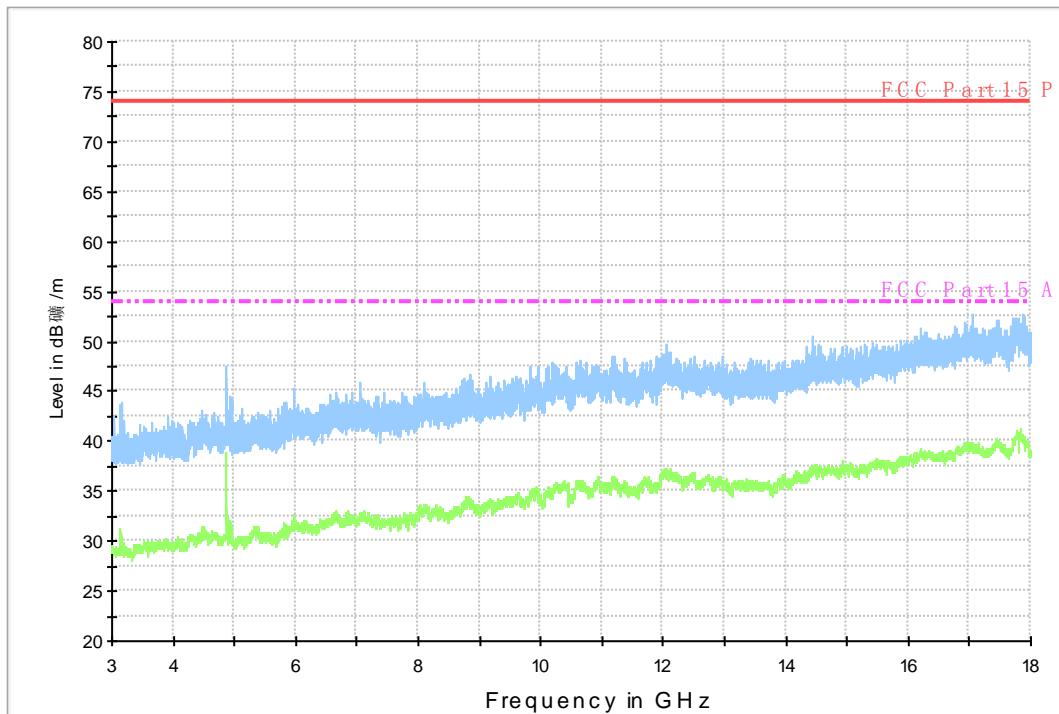


Fig.A.6.2.17 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 3 GHz-18 GHz)

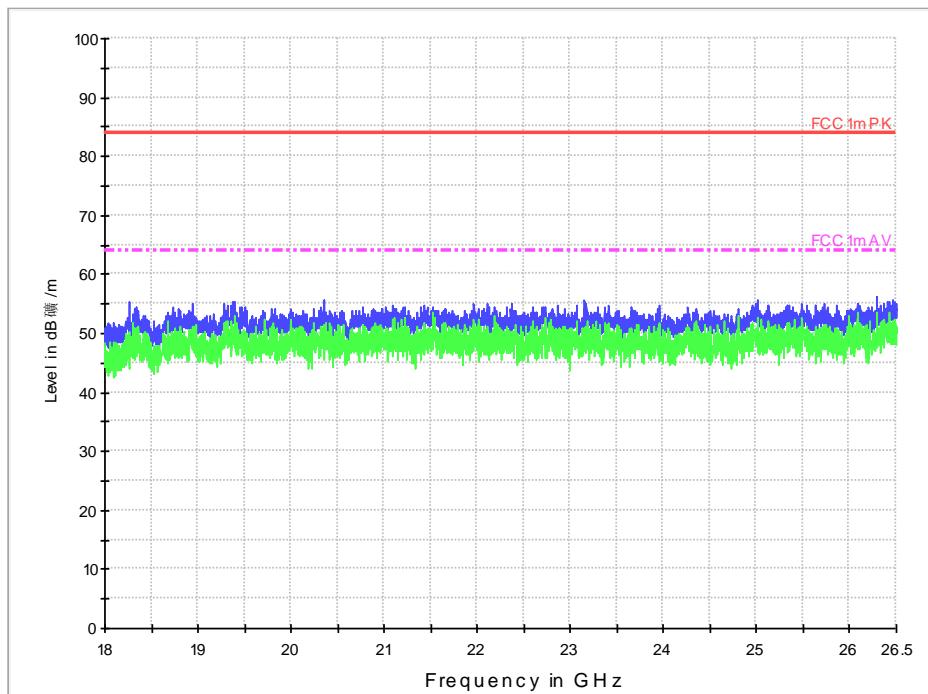


Fig.A.6.2.18 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 18GHz – 26.5GHz)

R E - Power-2.45GHz-2.5GHz

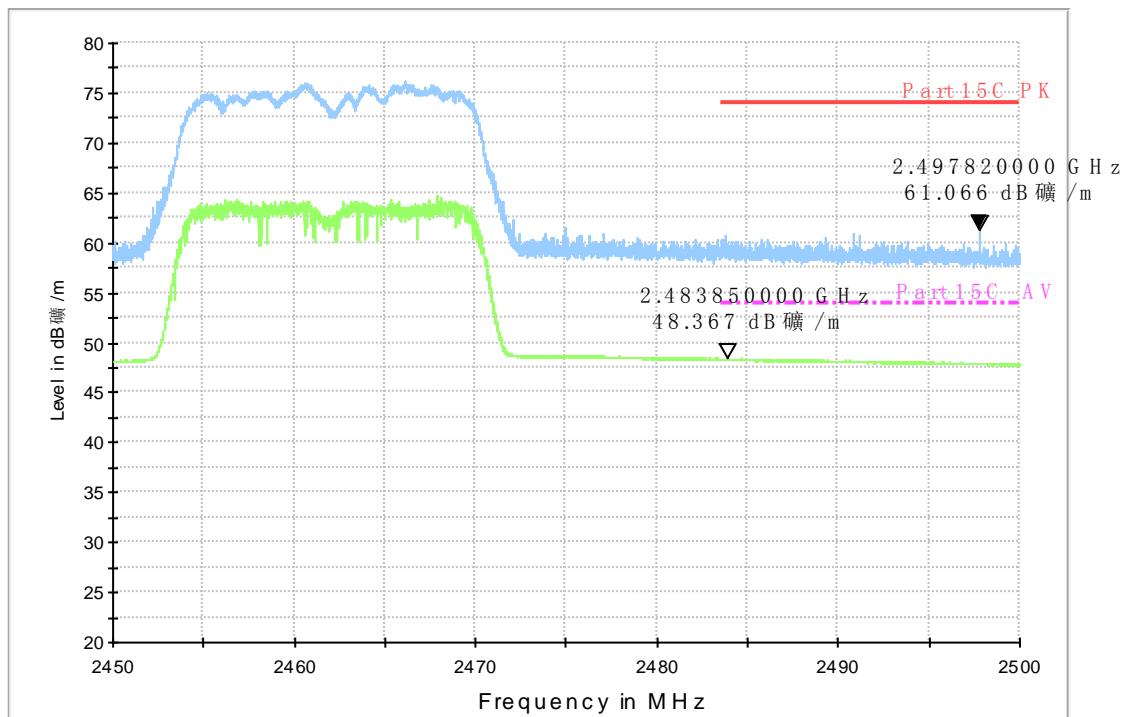
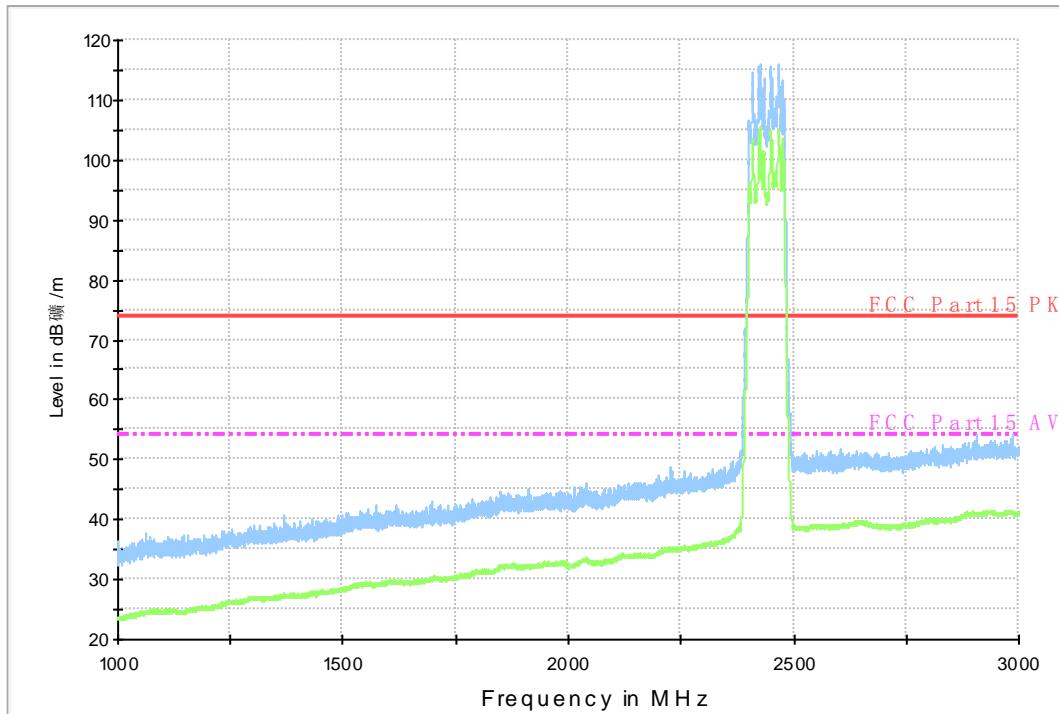


Fig.A.6.2.19 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45GHz - 2.50GHz

R E - 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)

R E - 3GHz-18GHz

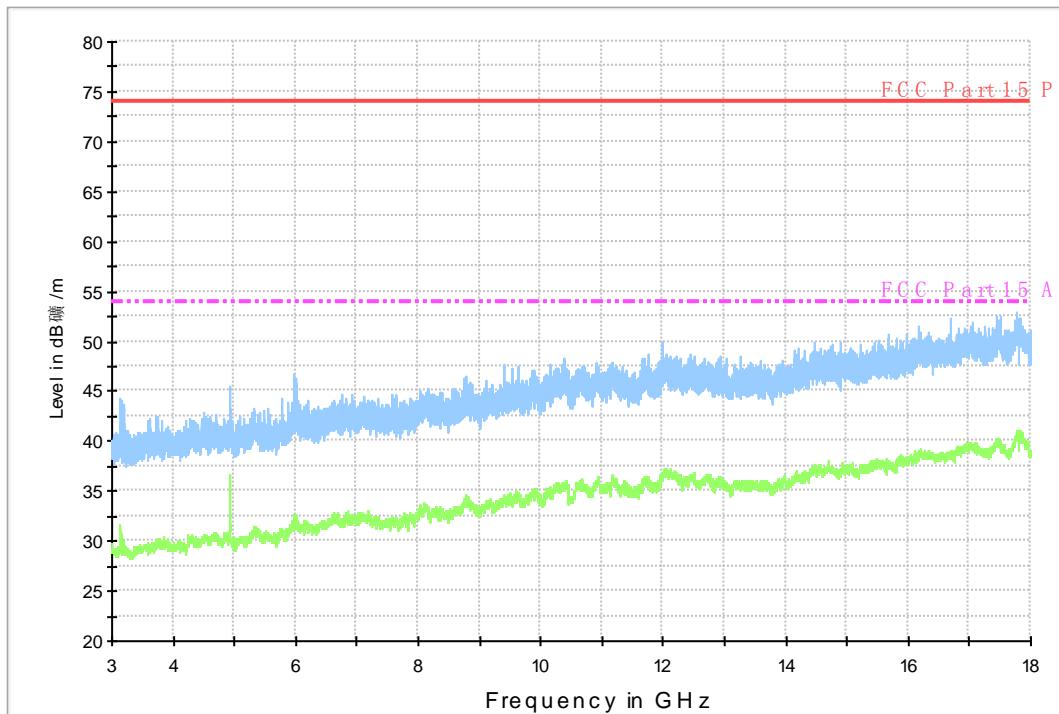


Fig.A.6.2.21 Transmitter Spurious Emission - Radiated (802.11g, Ch11, 3 GHz-18 GHz)

R E - Power-2.38GHz-2.45GHz

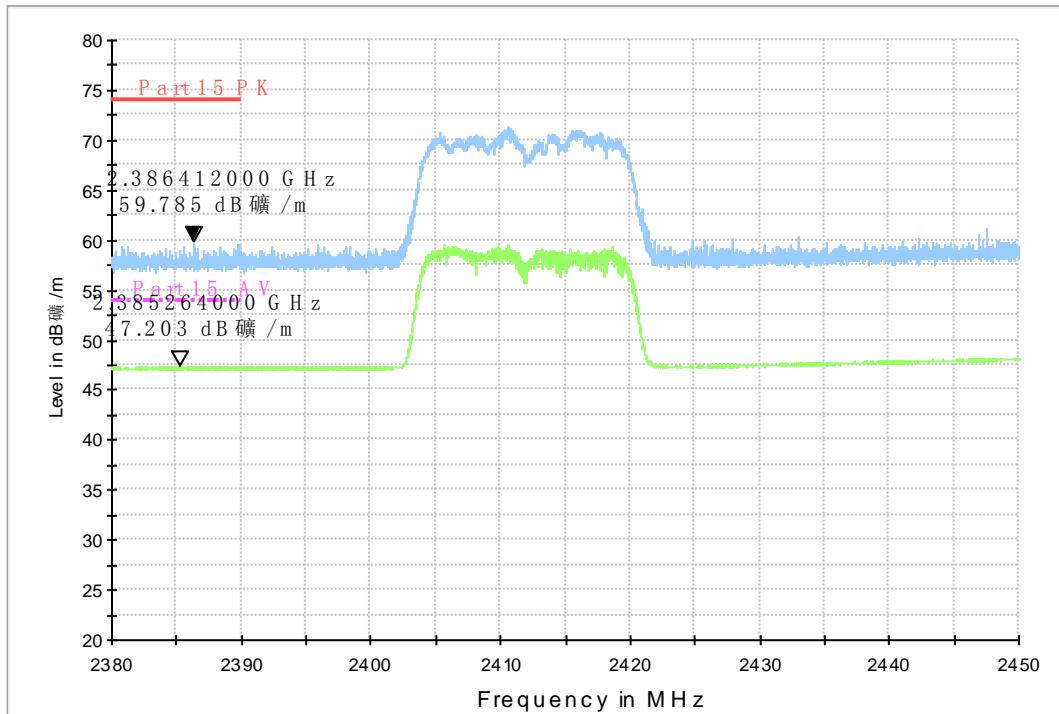
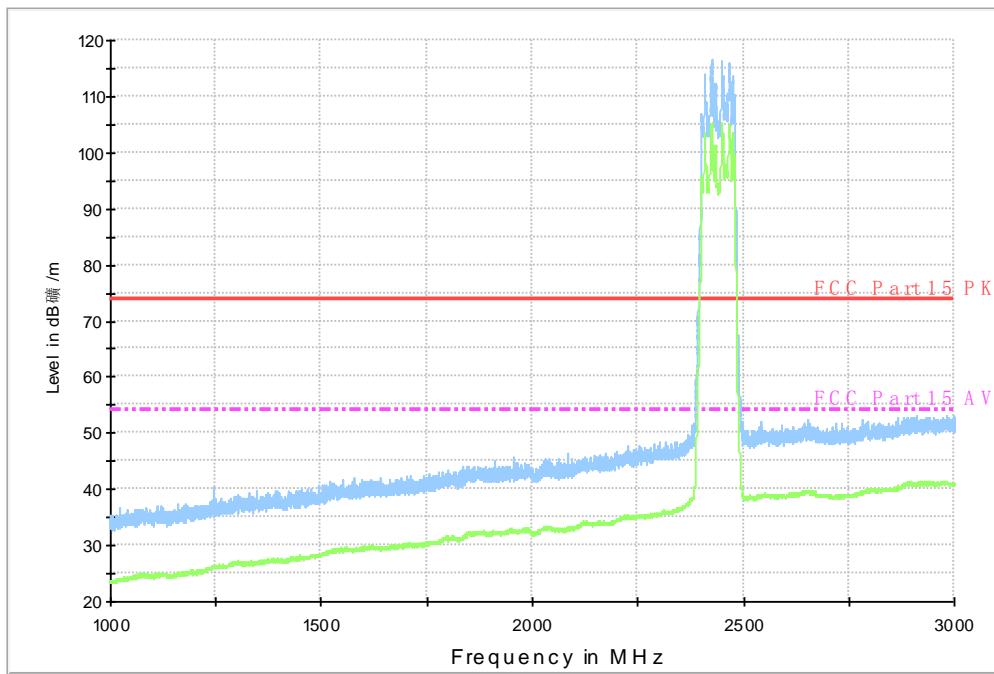


Fig.A.6.2.22 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.38 GHz - 2.45GHz

R E - 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)

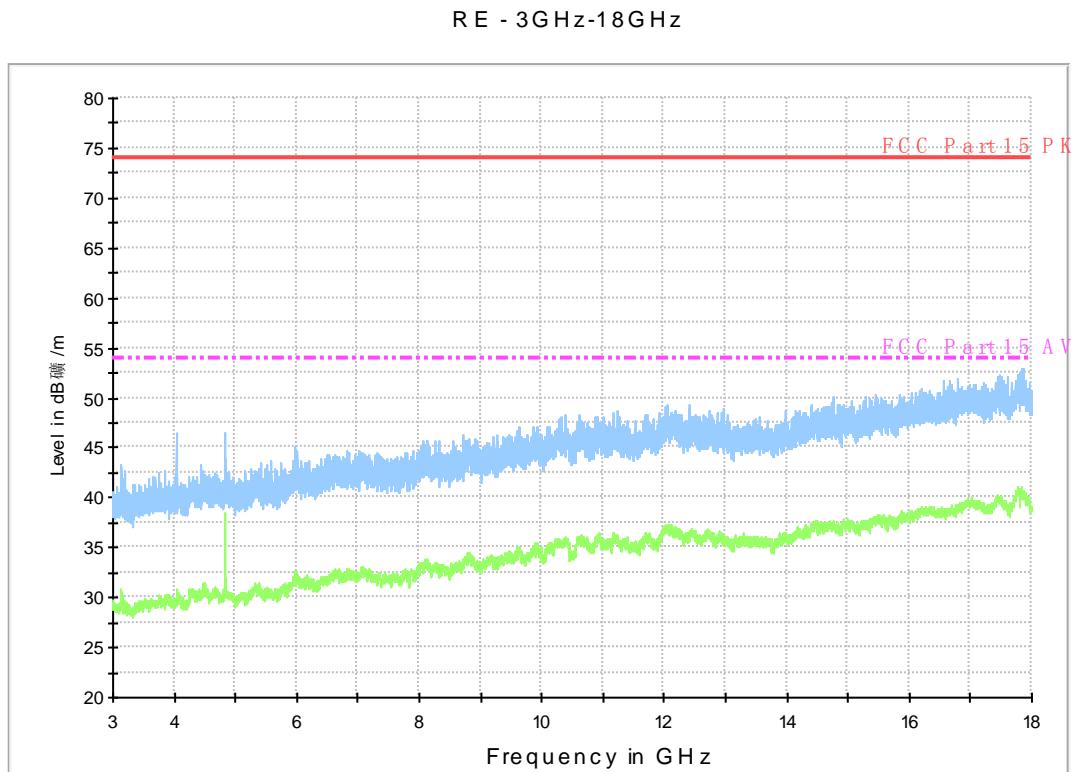


Fig.A.6.2.24 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch1, 3 GHz-18 GHz)

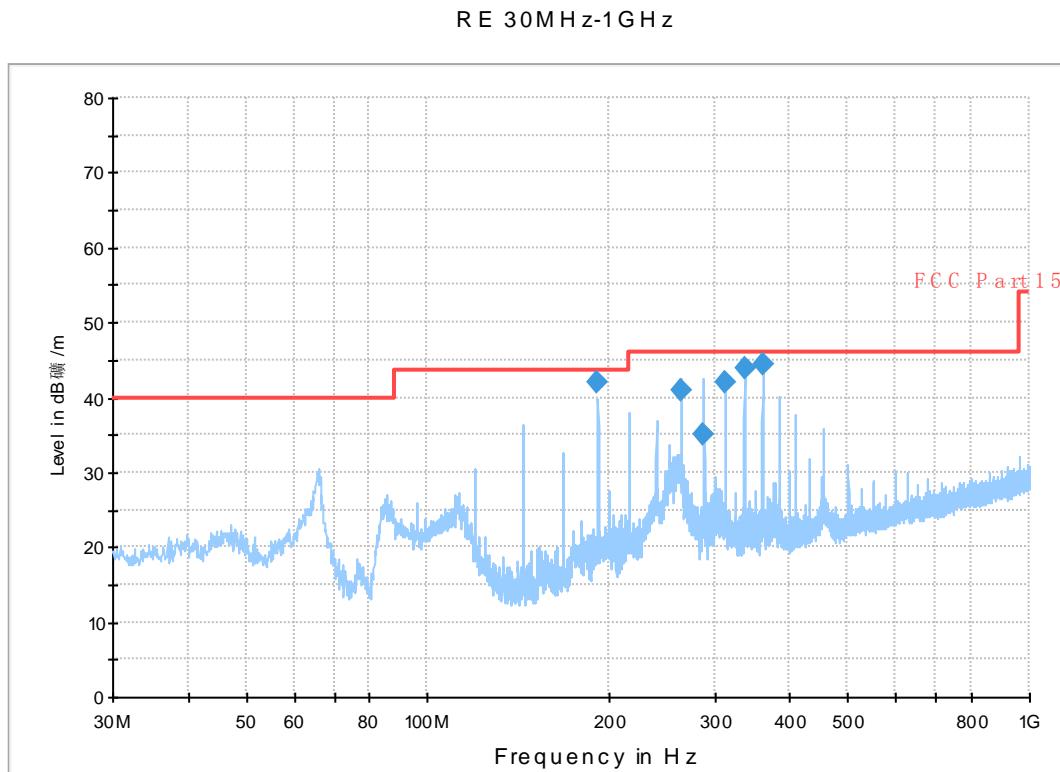
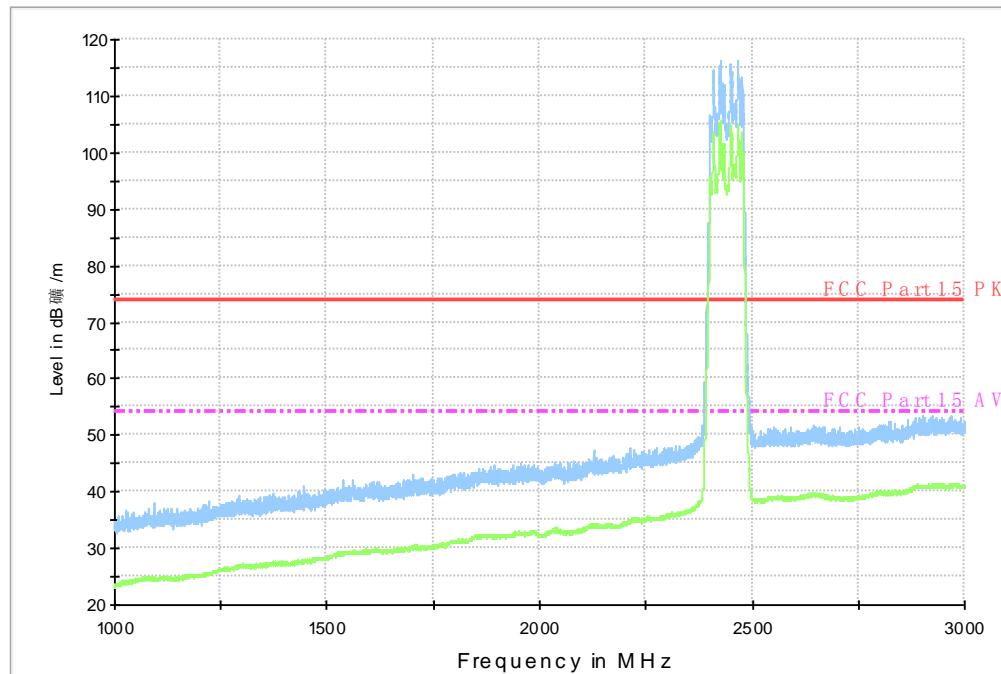


Fig.A.6.2.25 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 30 MHz-1 GHz)

Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dB μ V/m)
191.99000	42.0	125.0	H	135.0	-18.8	1.5	43.5
263.96400	40.8	125.0	H	166.0	-17.1	5.2	46.0
287.92300	35.1	100.0	H	66.0	-16.2	10.9	46.0
311.97900	42.1	100.0	H	112.0	-15.6	3.9	46.0
336.03500	43.9	100.0	H	287.0	-14.5	2.1	46.0
359.99400	44.4	100.0	H	291.0	-14.0	1.6	46.0

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

R E - 3GHz-18GHz

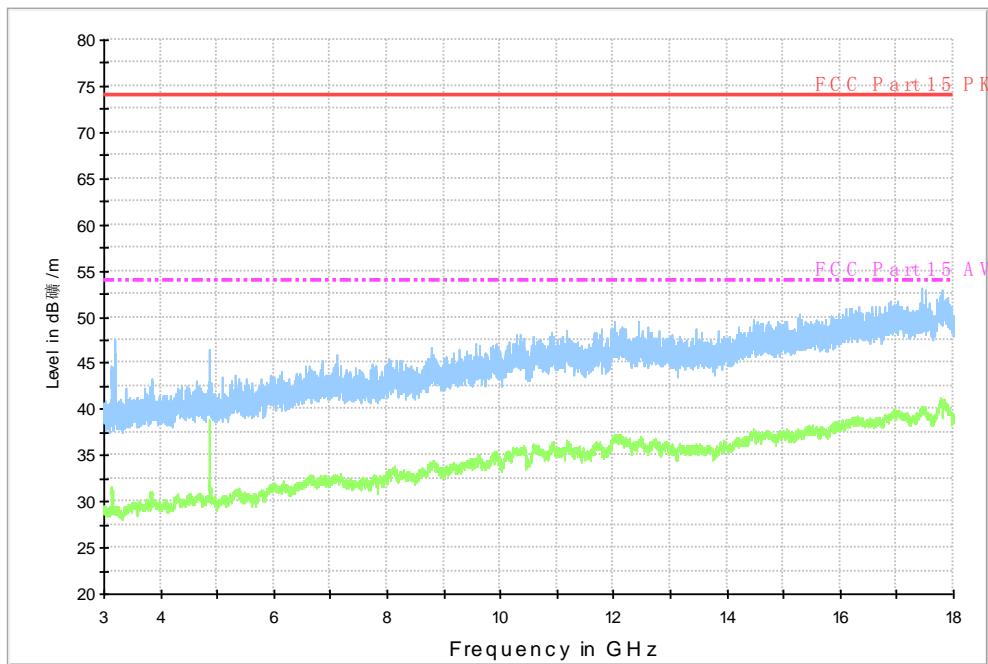


Fig.A.6.2.27 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 3 GHz-18 GHz)

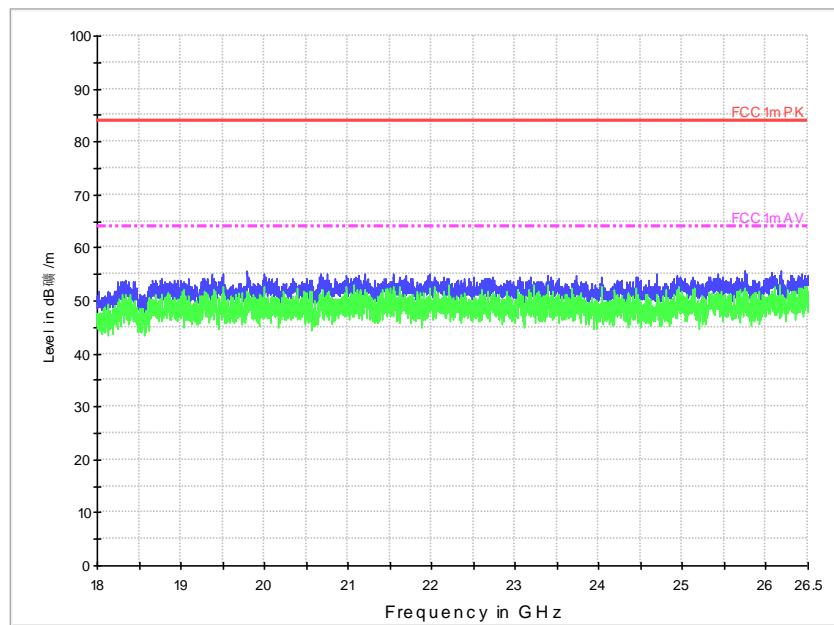


Fig.A.6.2.28 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 18GHz – 26.5GHz)

RE - Power-2.45GHz-2.5GHz

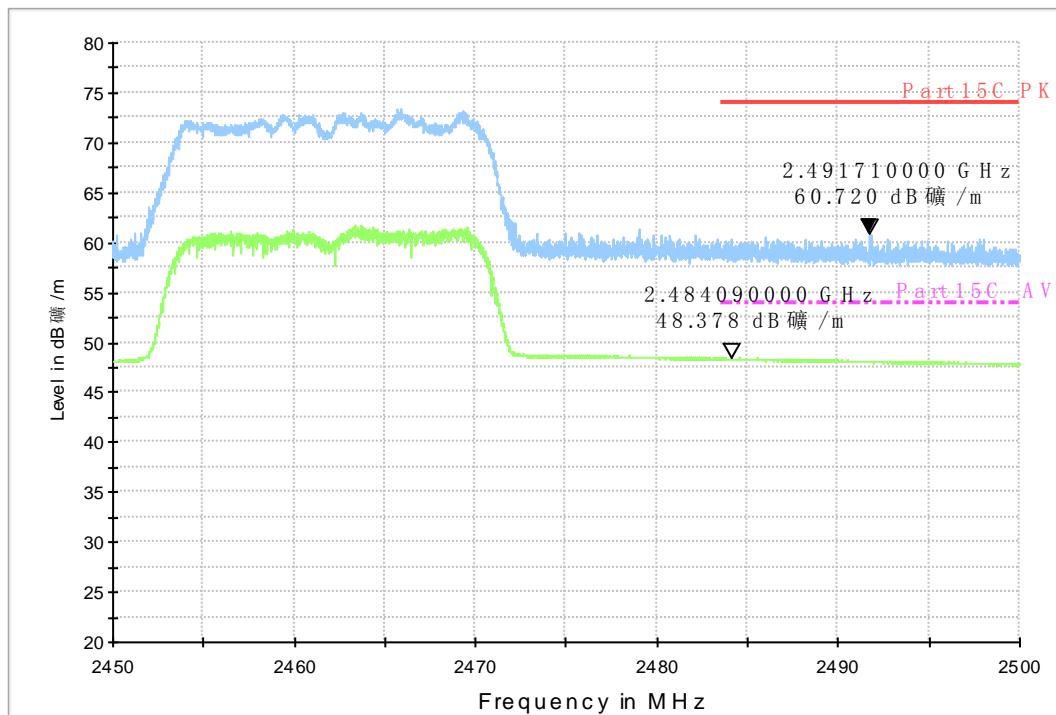
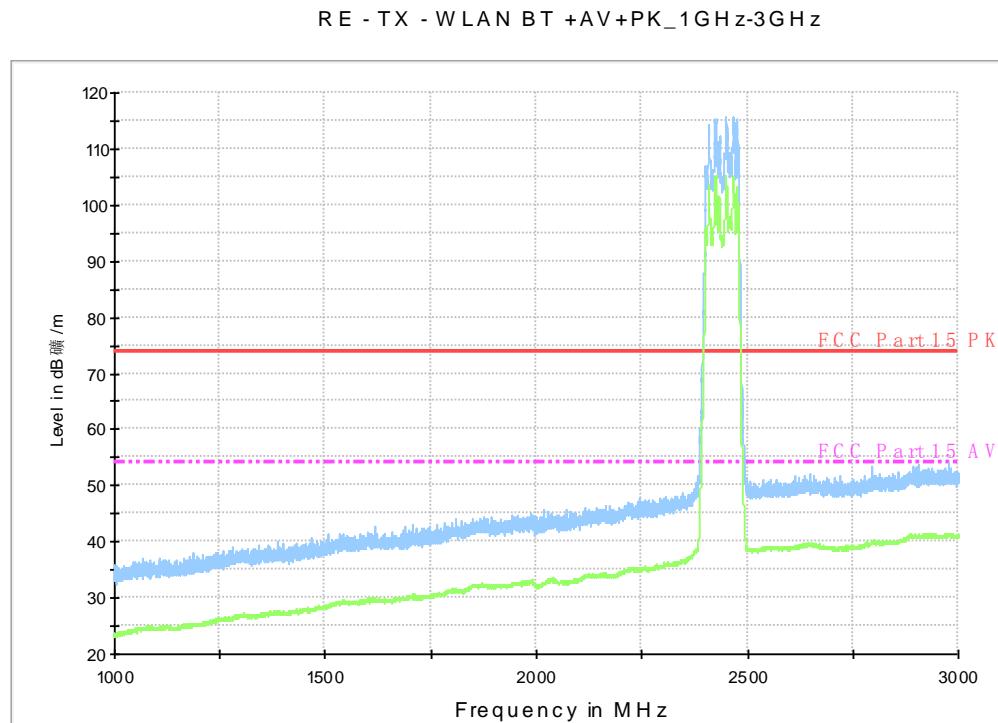


Fig.A.6.2.29 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz



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)

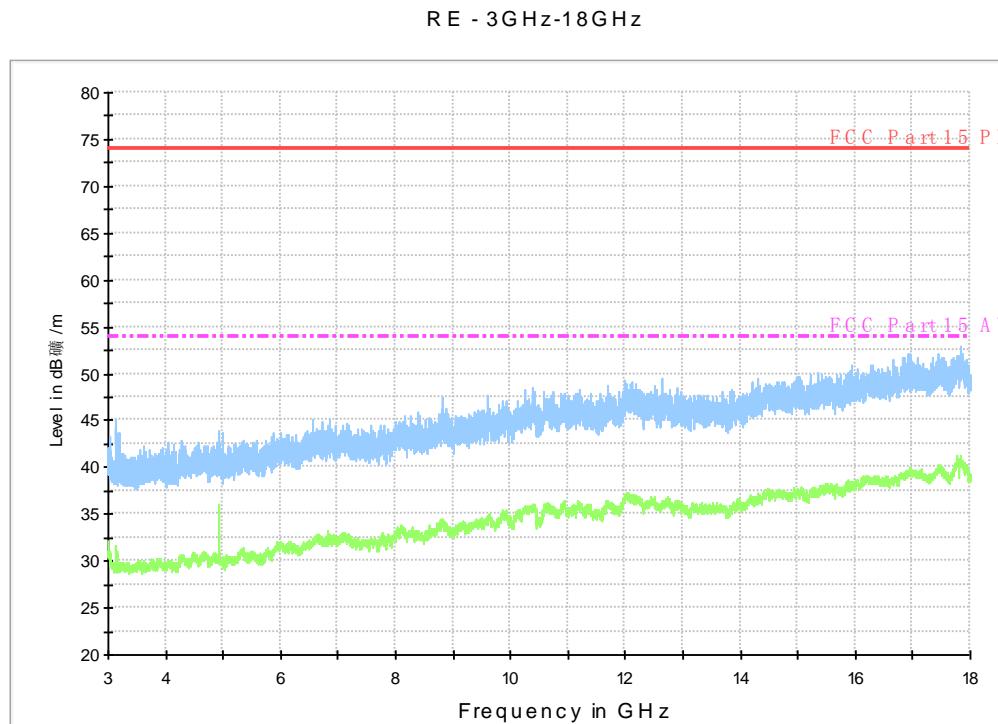


Fig.A.6.2.31 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch11, 3 GHz-18 GHz)

RE - Power-2.38GHz-2.45GHz

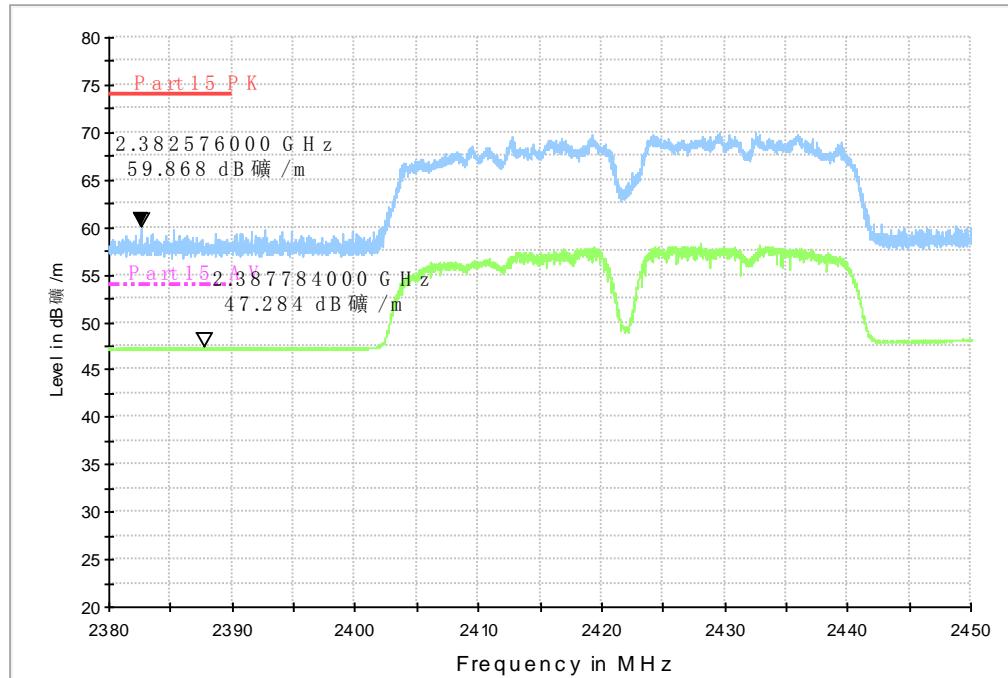
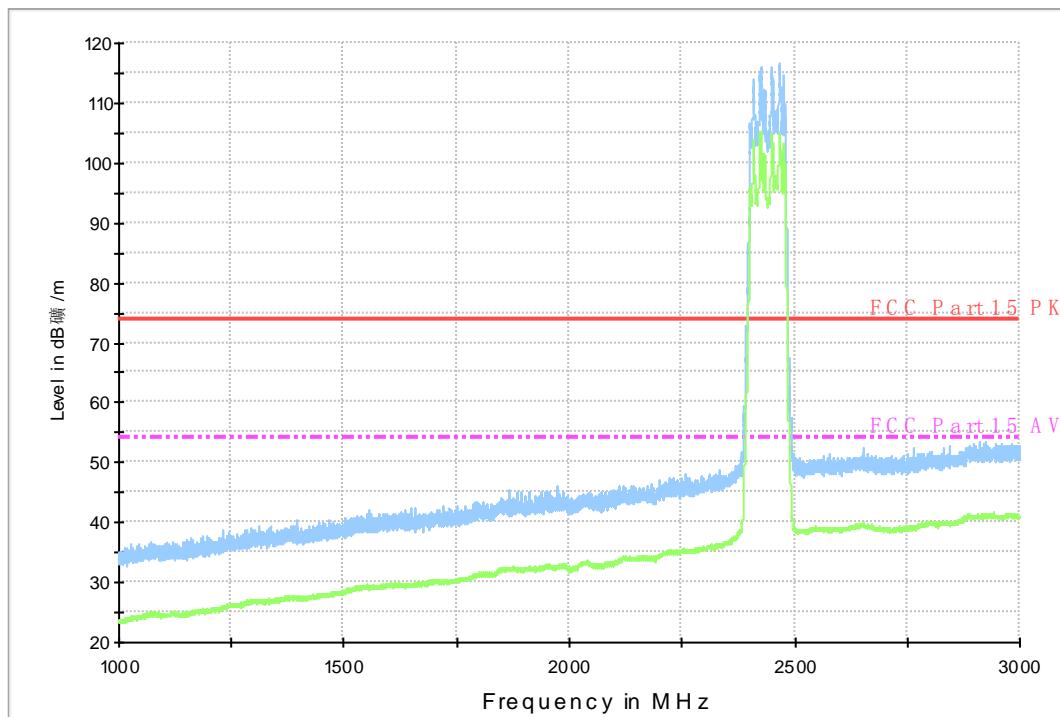


Fig.A.6.2.32 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.38 GHz - 2.43GHz

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

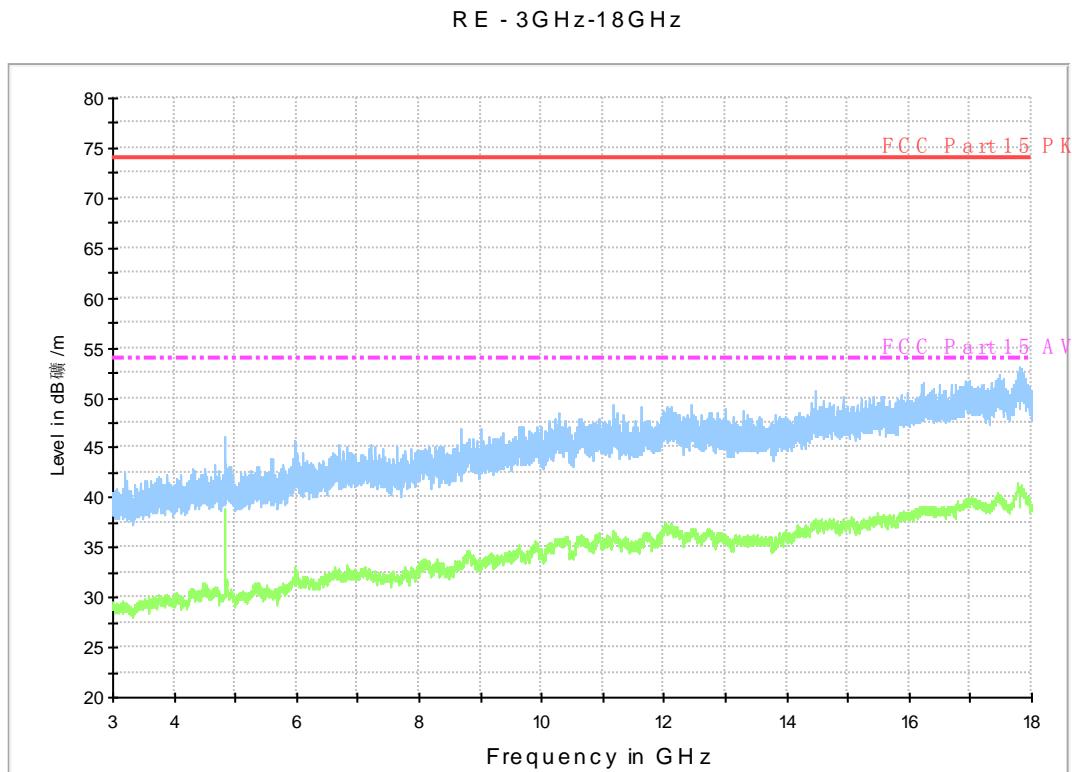


Fig.A.6.2.34 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch3, 3 GHz-18 GHz)

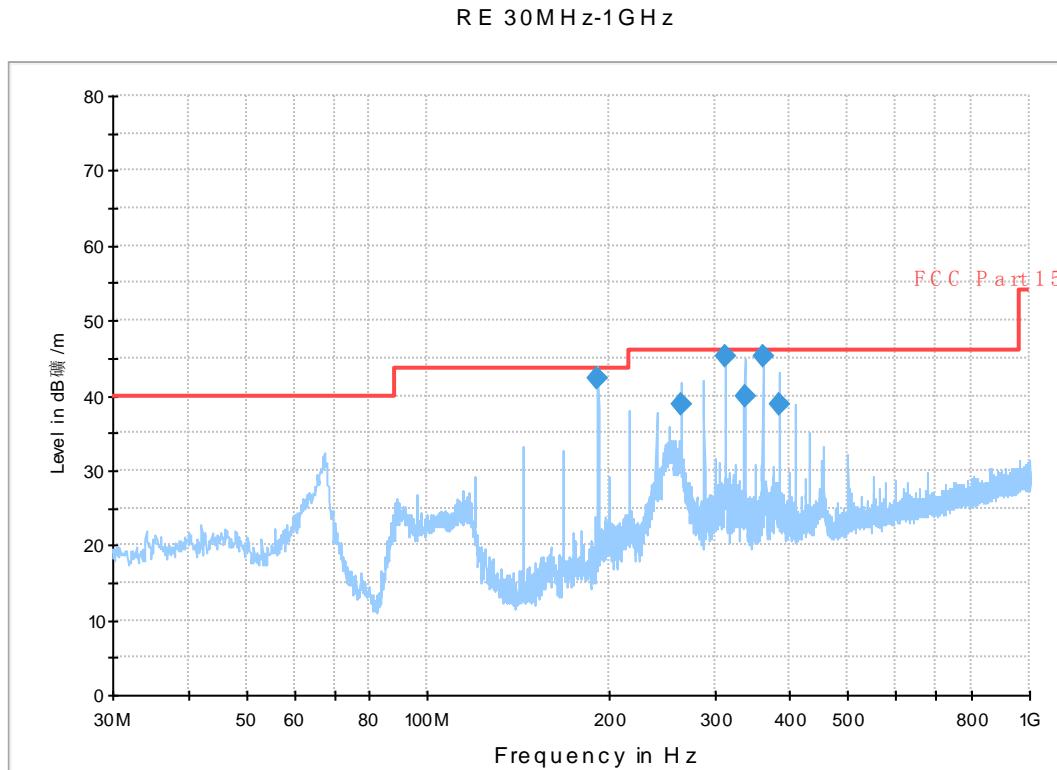
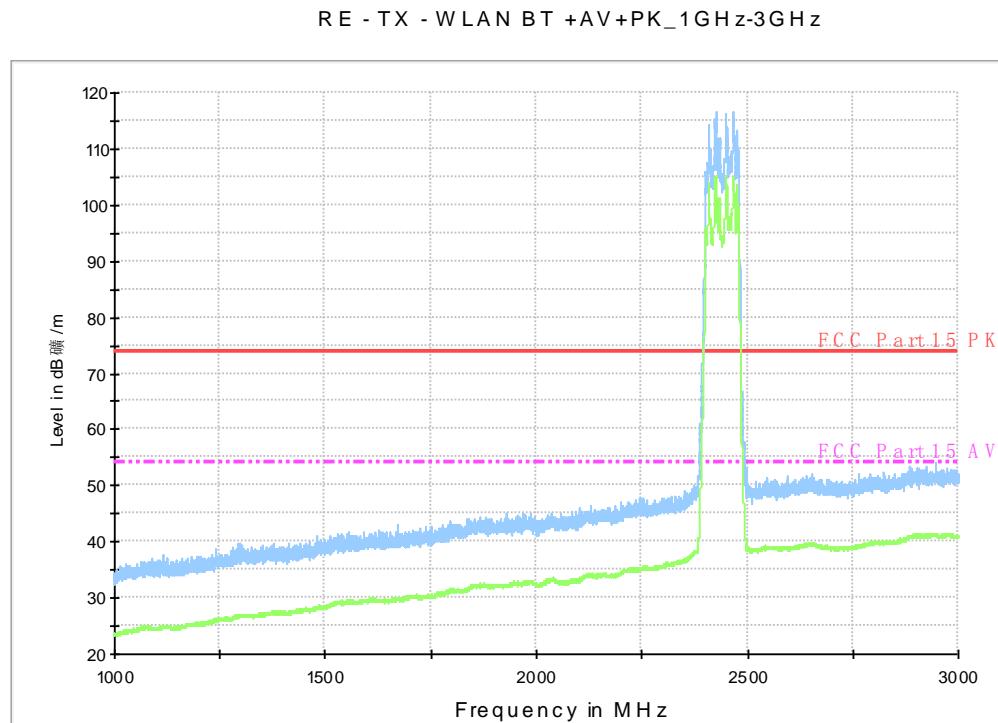


Fig.A.6.2.35 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 30 MHz-1 GHz)

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
191.990000	42.4	100.0	H	99.0	-18.8	1.1	43.5
263.964000	38.8	100.0	H	267.0	-17.1	7.2	46.0
311.979000	45.3	100.0	H	260.0	-15.6	0.7	46.0
335.938000	39.9	100.0	H	264.0	-14.5	6.1	46.0
359.994000	45.2	100.0	H	257.0	-14.0	0.8	46.0
383.953000	38.9	100.0	H	273.0	-13.4	7.1	46.0



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)

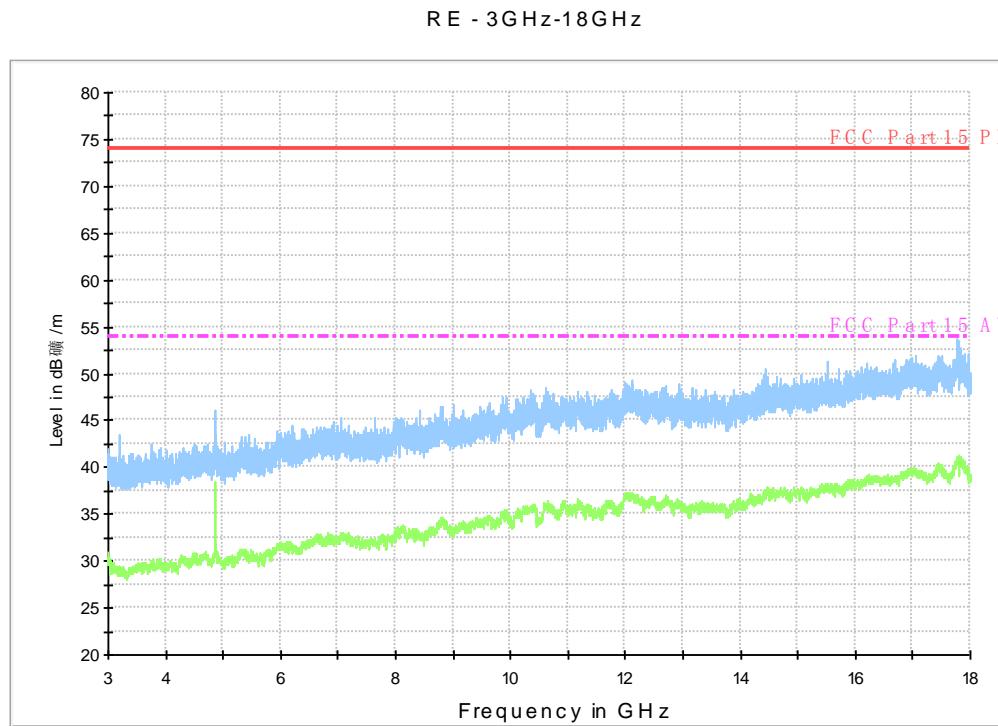


Fig.A.6.2.37 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 3 GHz-18 GHz)

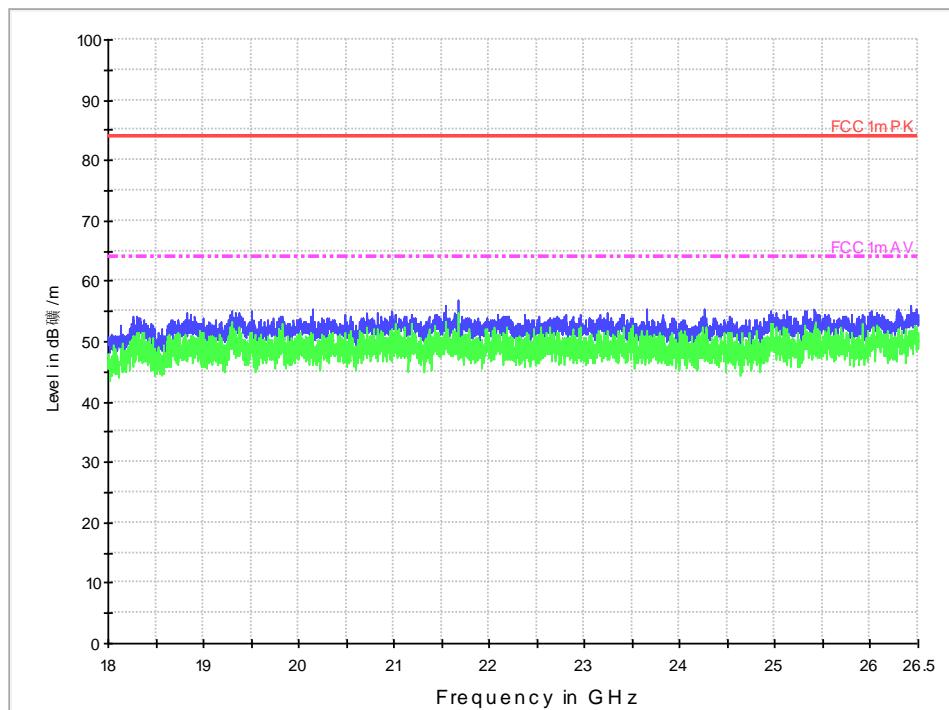


Fig.A.6.2.38 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 18GHz – 26.5GHz)

R E - Power-2.45GHz-2.5GHz

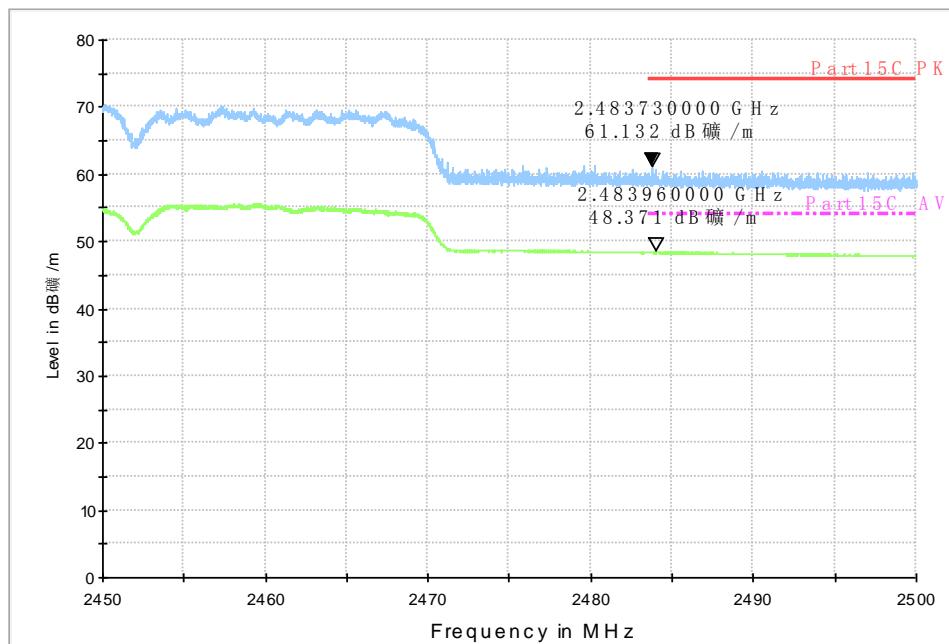
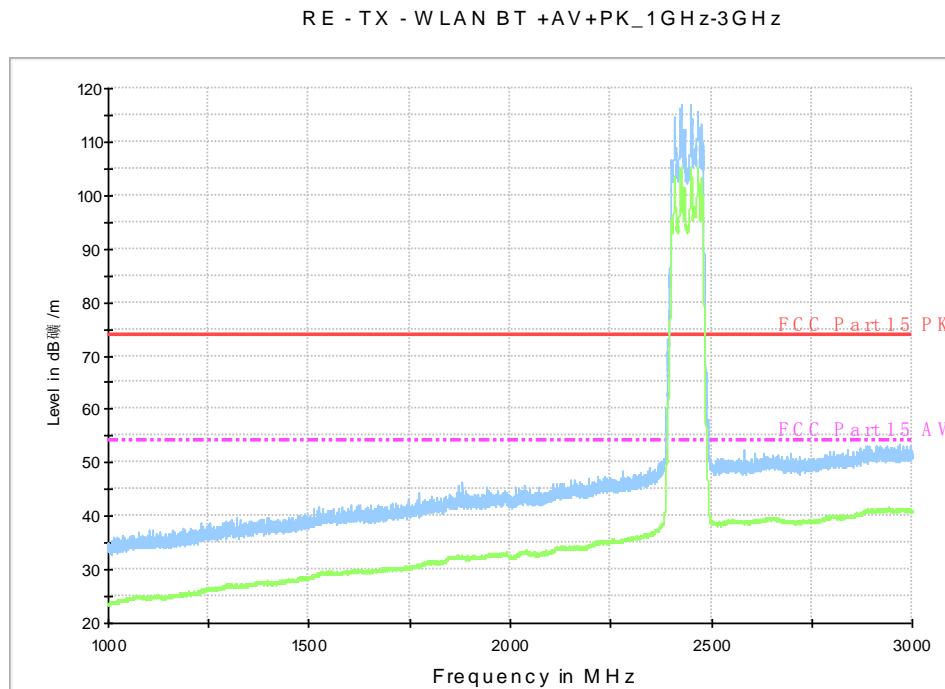


Fig.A.6.2.39 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz



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

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

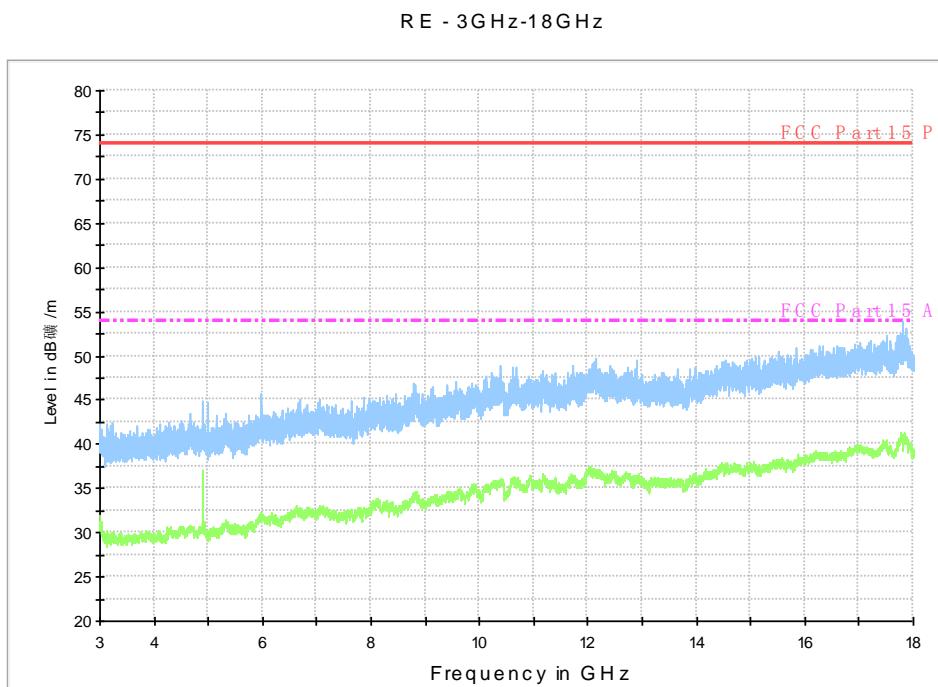


Fig.A.6.2.41 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch9, 3 GHz-18 GHz)

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.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 (dB μ V)	Result (dB μ V)		Conclusion	
		With charger			
		802.11b	Idle		
0.15 to 0.5	66 to 56	Fig.A.7.1	Fig.A.7.2	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.

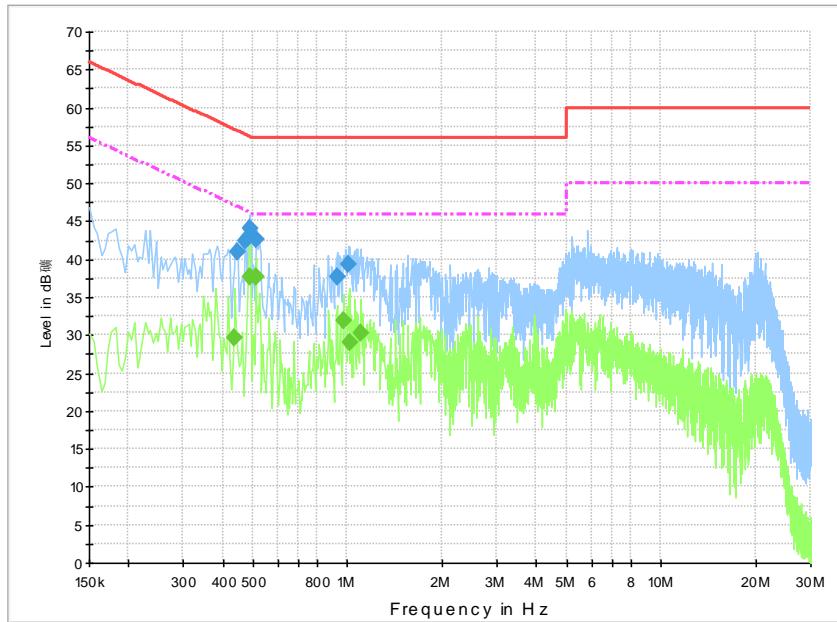
WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dB μ V)	Result (dB μ V)		Conclusion	
		With charger			
		802.11b	Idle		
0.15 to 0.5	56 to 46	Fig.A.7.1	Fig.A.7.2	P	
0.5 to 5	46				
5 to 30	50				

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.1

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 (dB μ V)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.447000	41.0	GND	L1	10.2	15.9	56.9
0.474000	42.3	GND	L1	10.2	14.1	56.4
0.487500	44.0	GND	L1	10.2	12.2	56.2
0.514500	42.6	GND	L1	10.2	13.4	56.0
0.924000	37.6	GND	L1	10.2	18.4	56.0
1.009500	39.3	GND	L1	10.2	16.7	56.0

Final Result 2

Frequency (MHz)	Average (dB μ V)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.438000	29.6	GND	L1	10.2	17.5	47.1
0.487500	37.6	GND	L1	10.2	8.6	46.2
0.510000	37.6	GND	L1	10.2	8.4	46.0
0.973500	31.9	GND	L1	10.2	14.1	46.0
1.014000	29.1	GND	L1	10.2	16.9	46.0
1.104000	30.2	GND	L1	10.2	15.8	46.0

Idle: Set.1

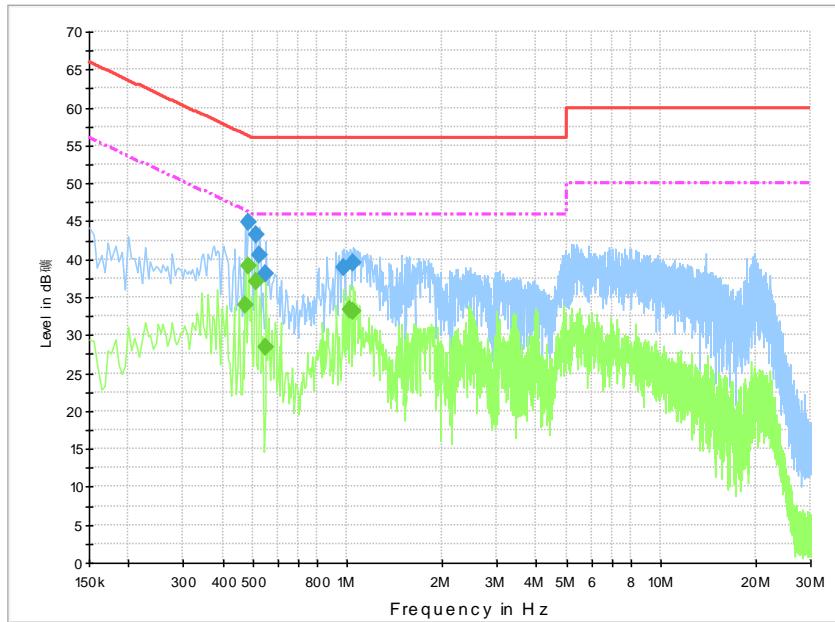


Fig.A.7.2 AC Powerline Conducted Emission-Idle

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

Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.483000	44.8	GND	L1	10.2	11.5	56.3
0.510000	43.3	GND	L1	10.2	12.7	56.0
0.523500	40.6	GND	L1	10.2	15.4	56.0
0.550500	38.1	GND	L1	10.2	17.9	56.0
0.973500	38.9	GND	L1	10.2	17.1	56.0
1.045500	39.6	GND	L1	10.2	16.4	56.0

Final Result 2

Frequency (MHz)	Average (dB μ V)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.474000	34.0	GND	L1	10.2	12.4	46.4
0.483000	39.2	GND	L1	10.2	7.1	46.3
0.510000	37.1	GND	L1	10.2	8.9	46.0
0.550500	28.3	GND	L1	10.2	17.7	46.0
1.018500	33.4	GND	L1	10.2	12.6	46.0
1.045500	33.1	GND	L1	10.2	12.9	46.0

*****END OF REPORT*****