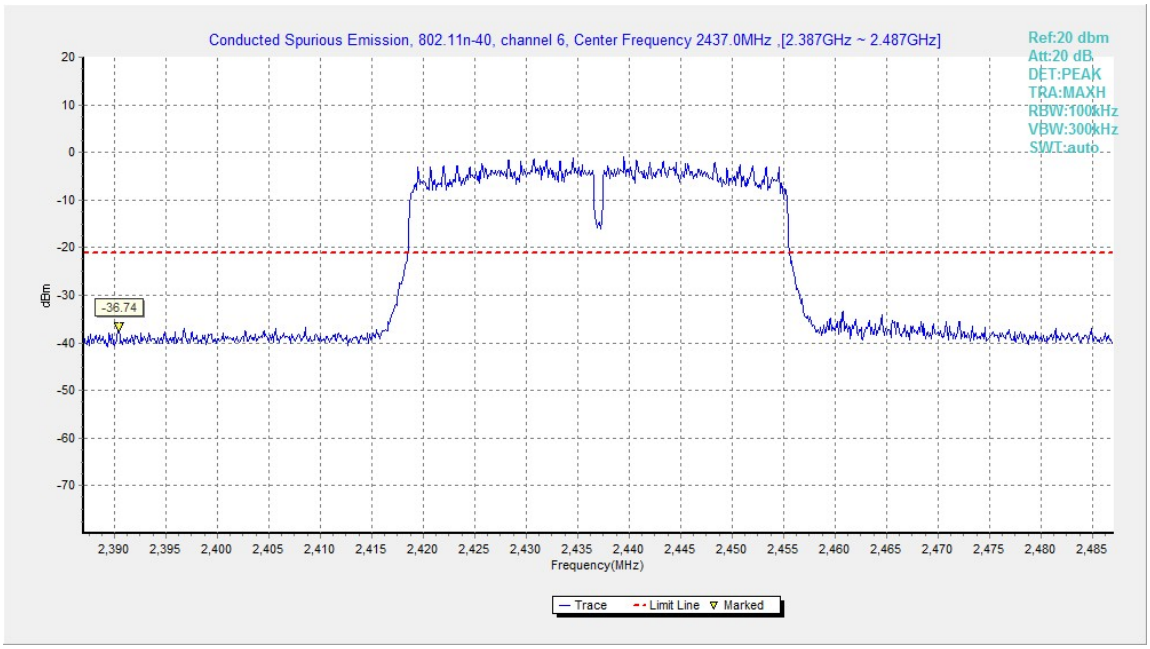

Fig.A.6.1.81 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, Center Frequency)

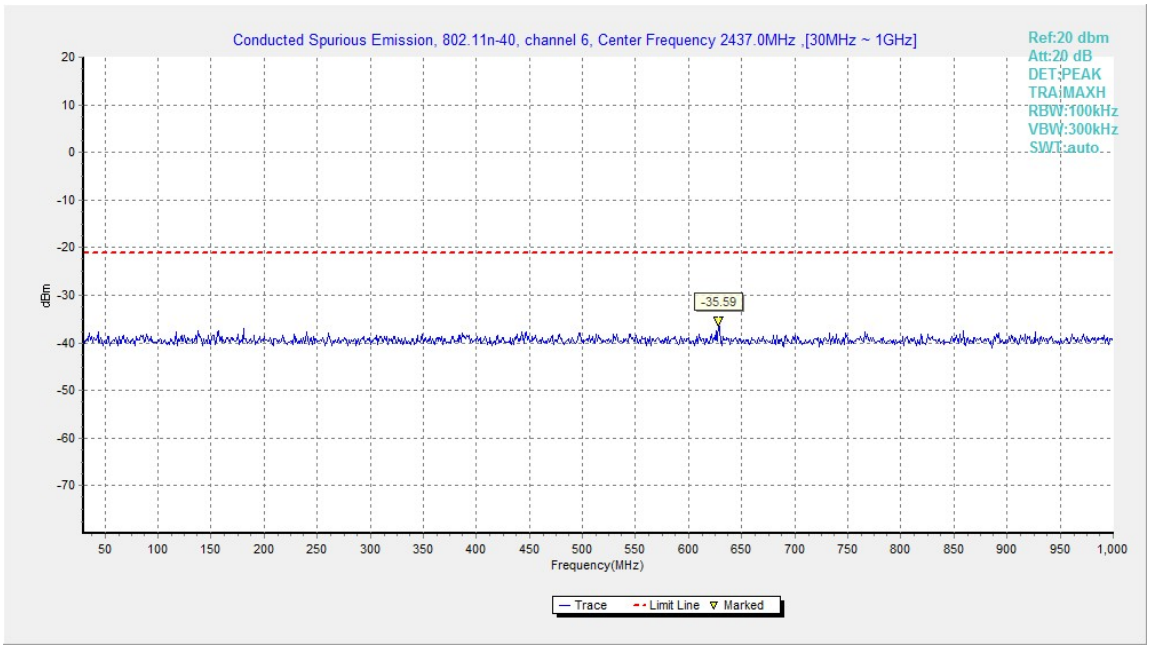

Fig.A.6.1.82 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 30 MHz-1 GHz)

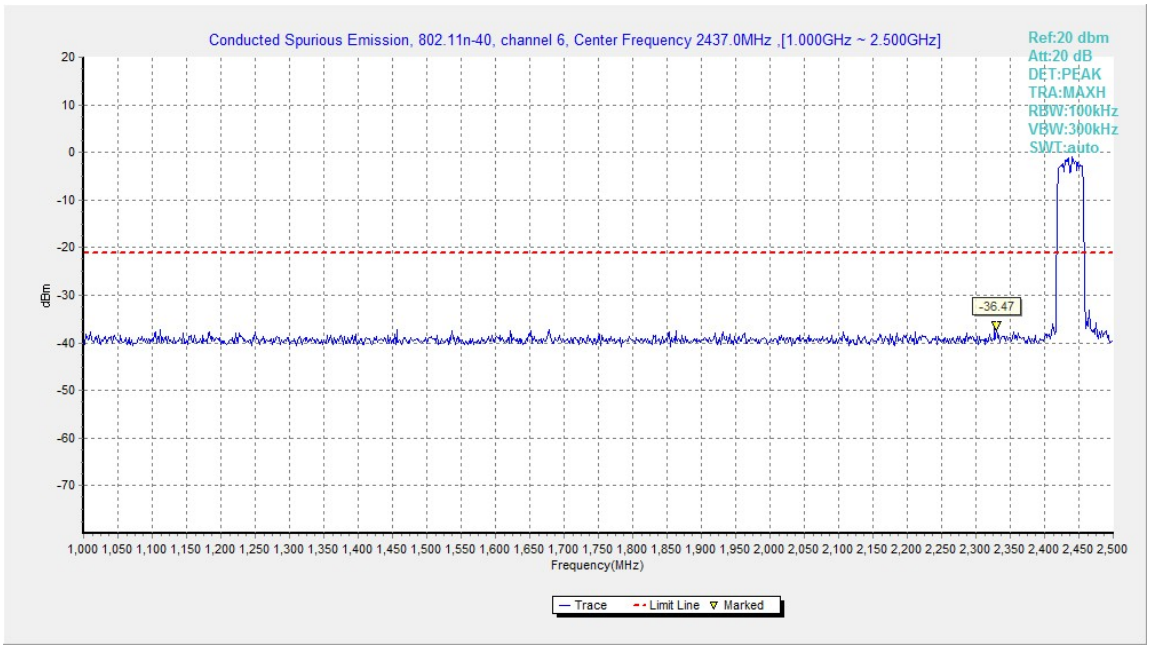

Fig.A.6.1.83 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)

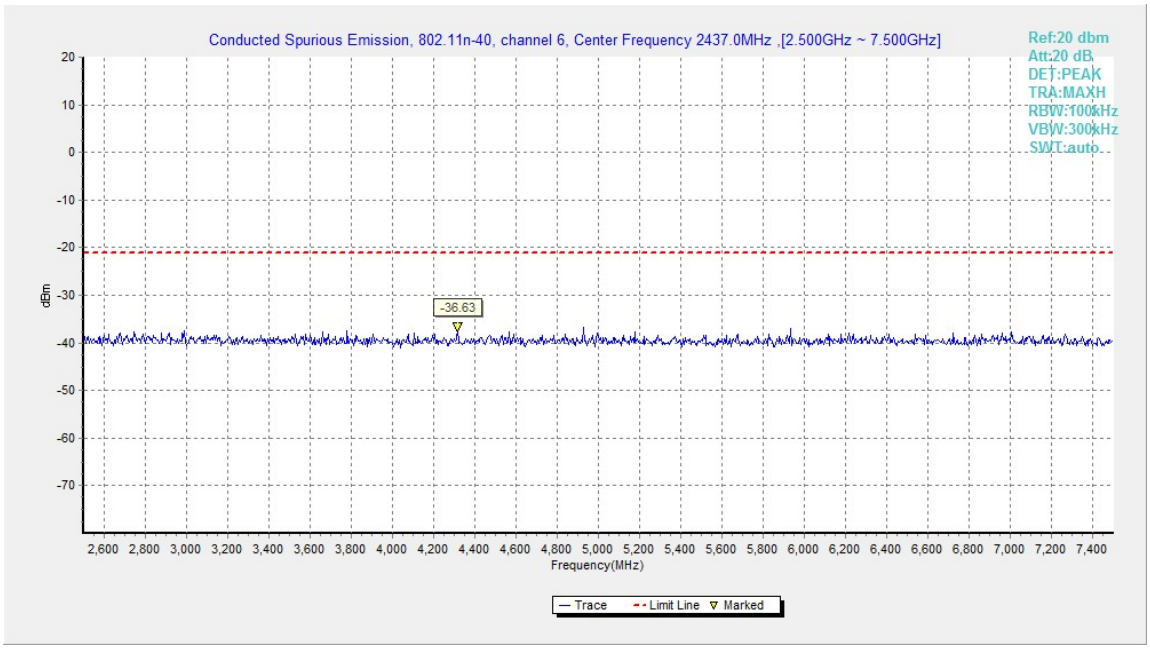

Fig.A.6.1.84 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)

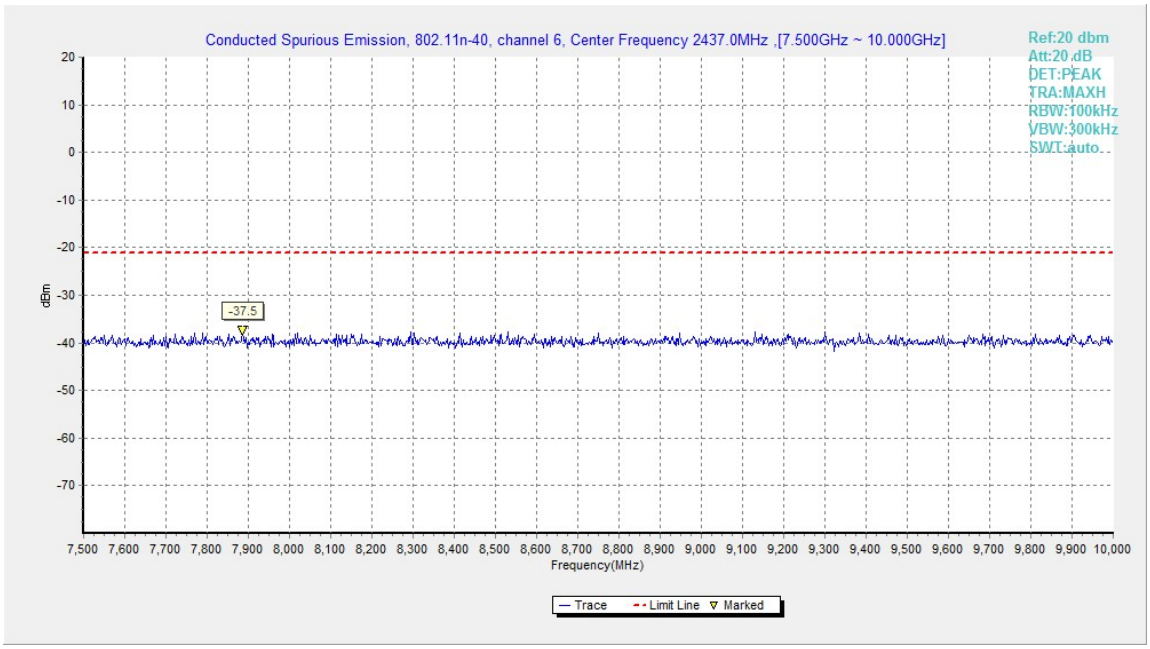

Fig.A.6.1.85 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)

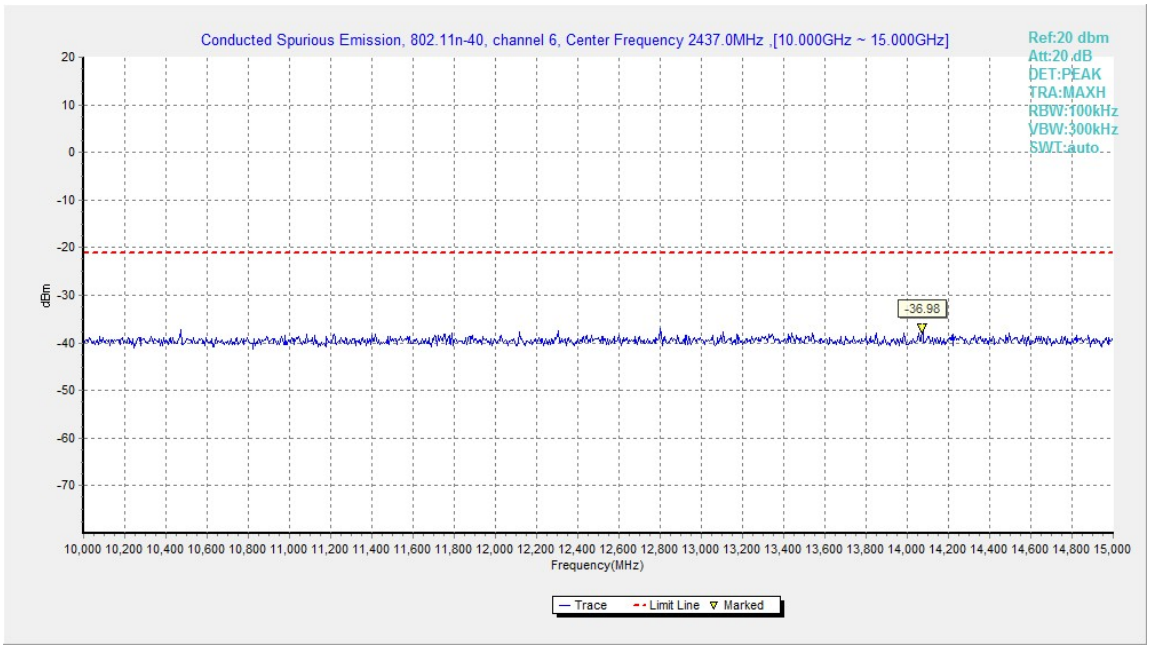

Fig.A.6.1.86 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 10 GHz-15 GHz)

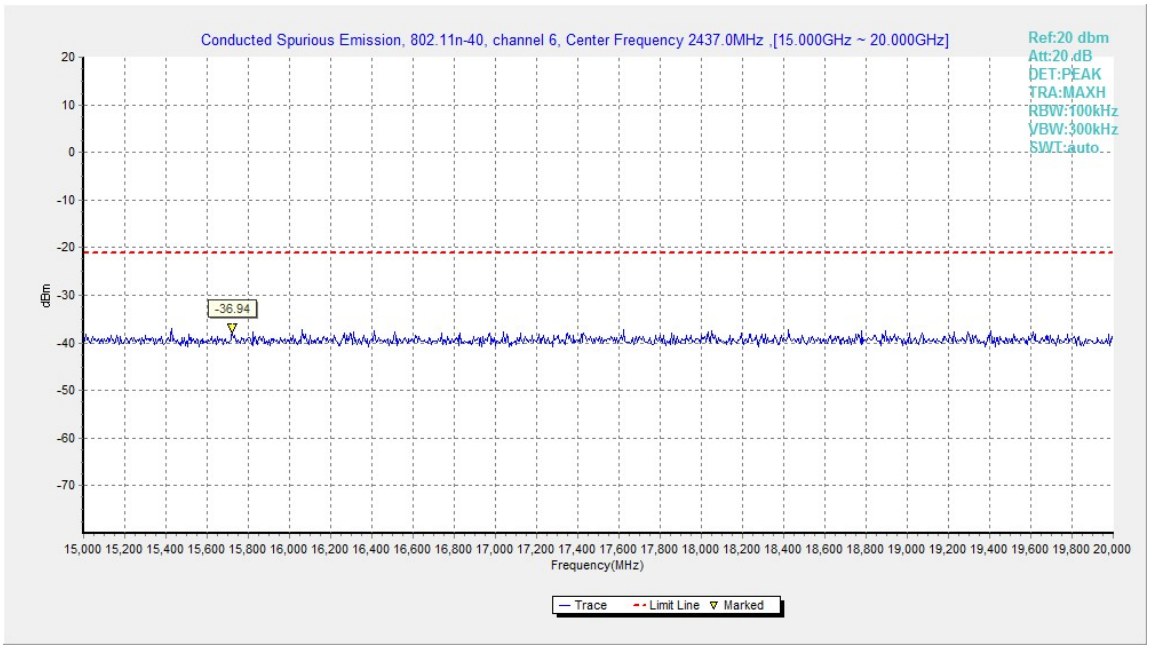

Fig.A.6.1.87 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 15 GHz-20 GHz)

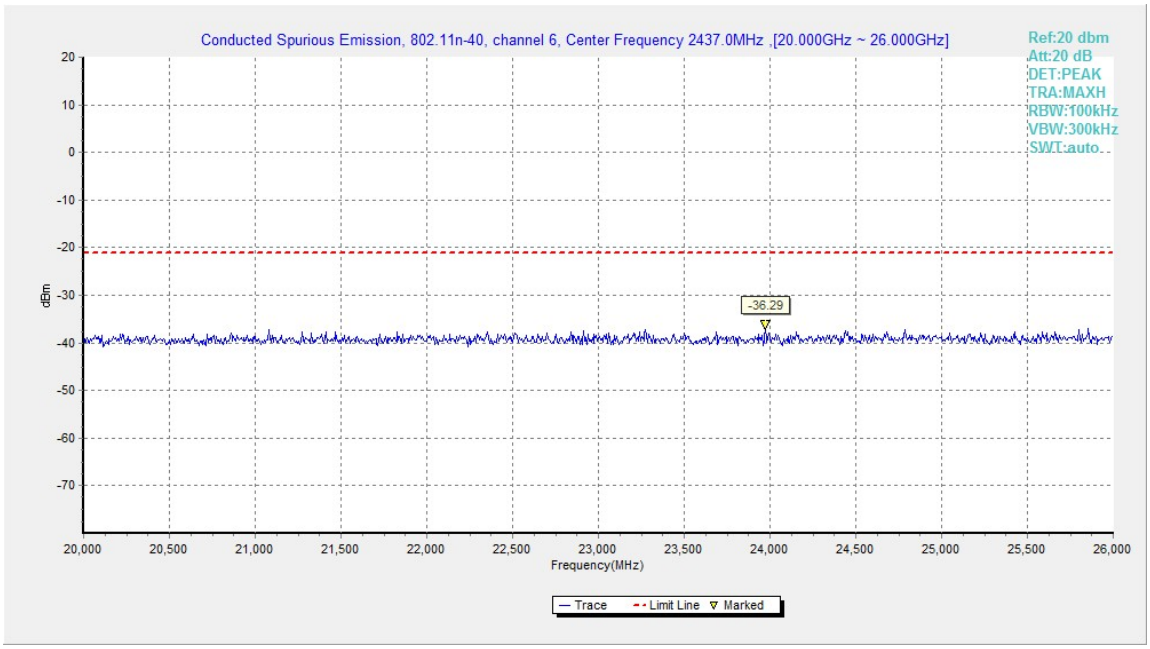

Fig.A.6.1.88 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 20 GHz-26 GHz)

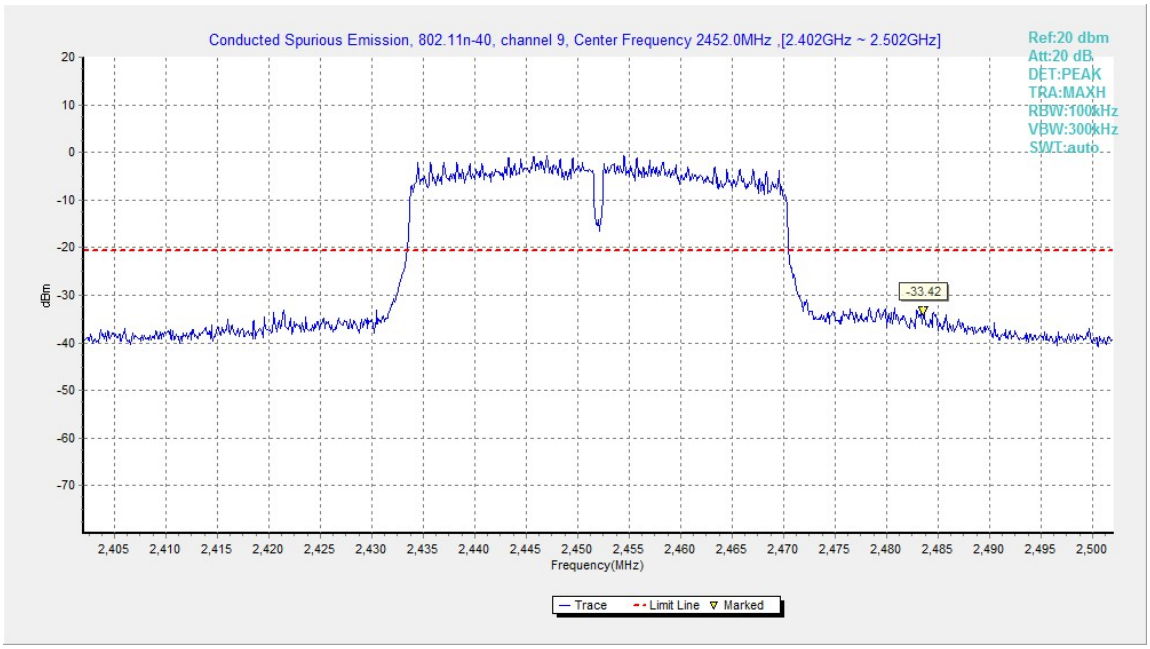

Fig.A.6.1.89 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, Center Frequency)

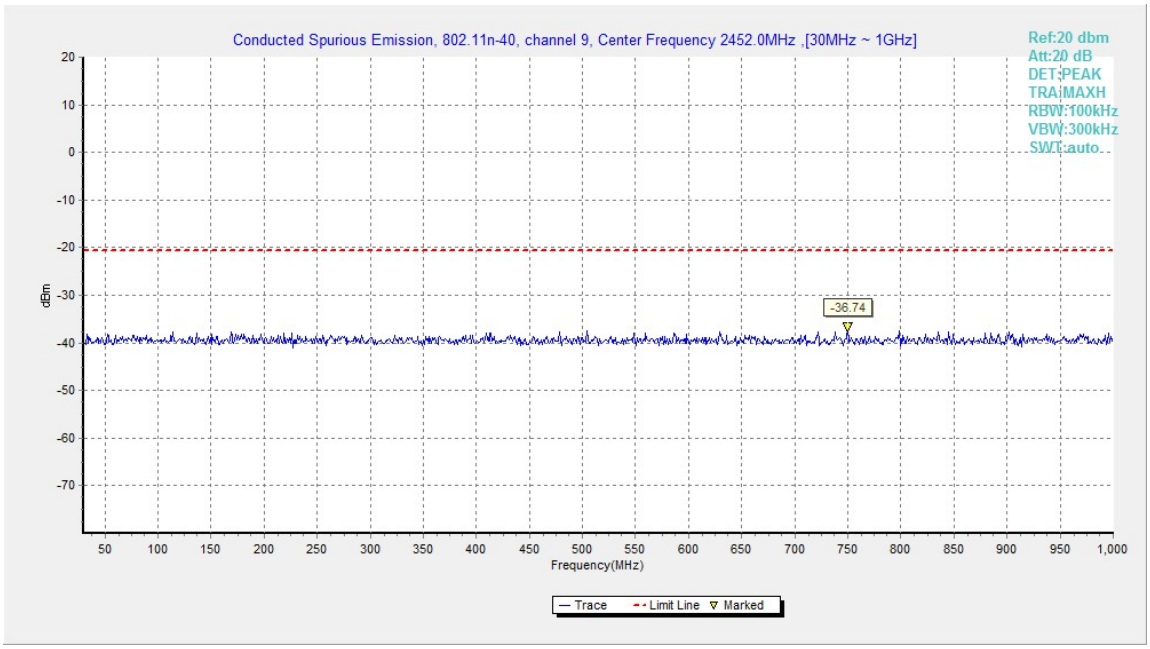

Fig.A.6.1.90 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 30 MHz-1 GHz)

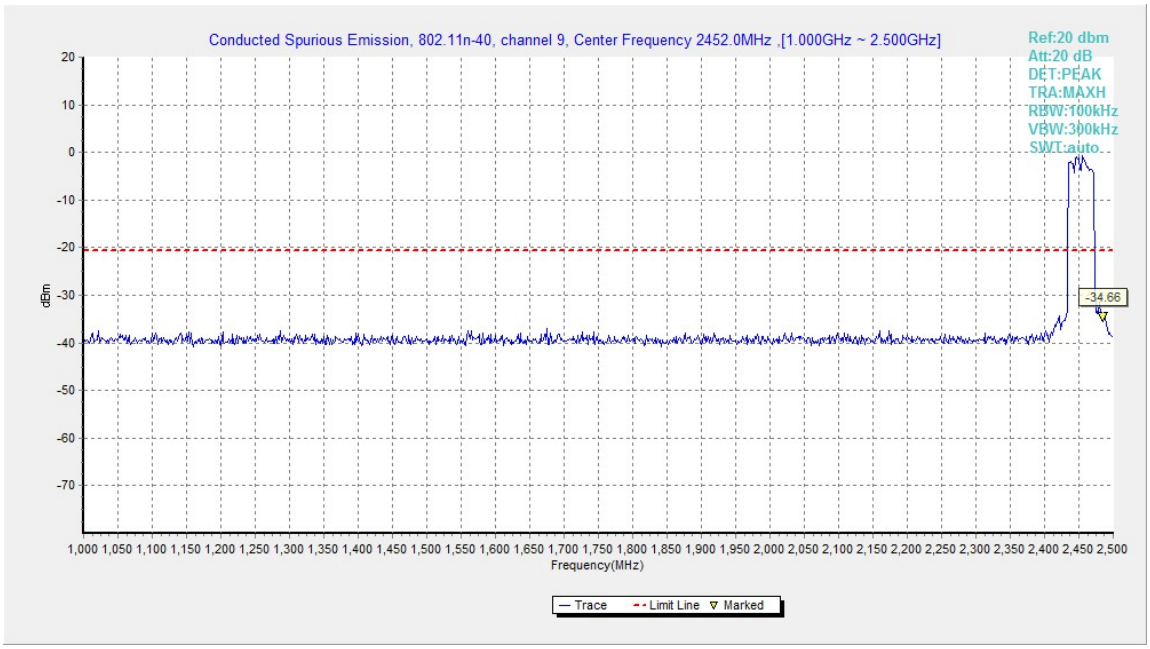

Fig.A.6.1.91 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

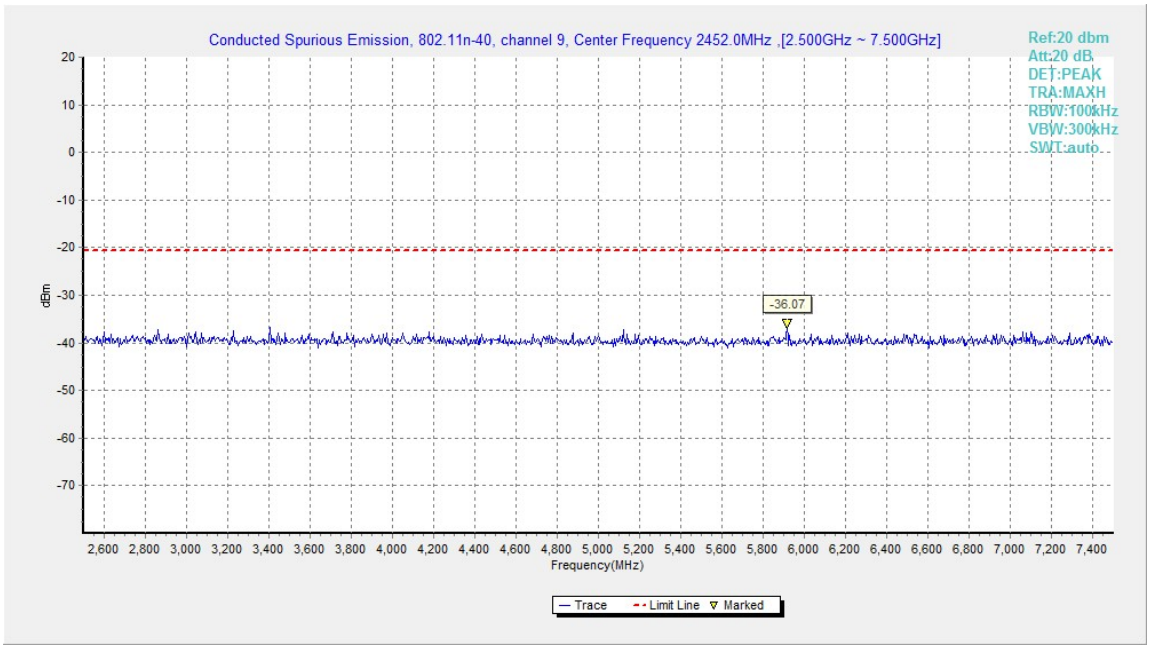

Fig.A.6.1.92 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)

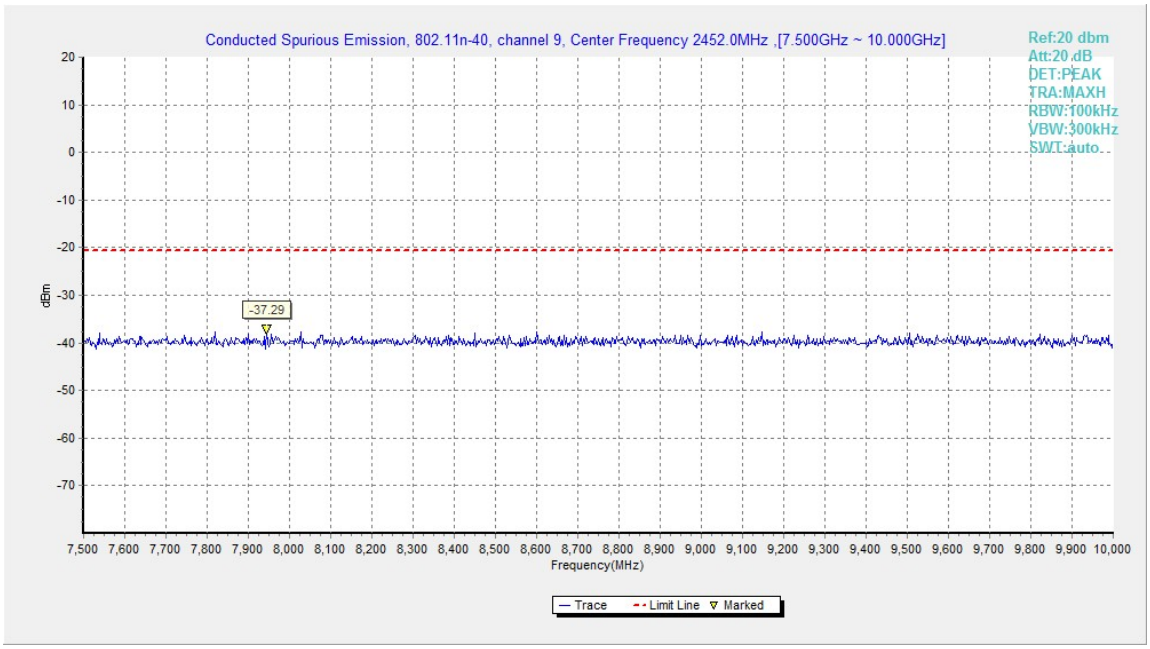

Fig.A.6.1.93 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

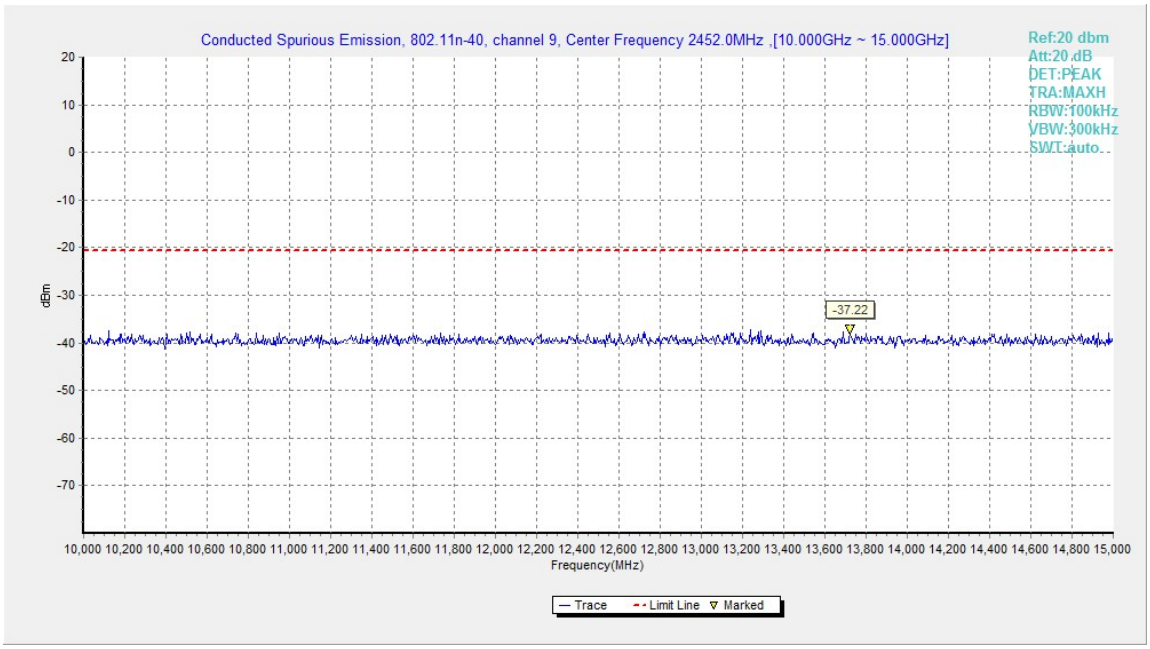

Fig.A.6.1.94 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 10 GHz-15 GHz)

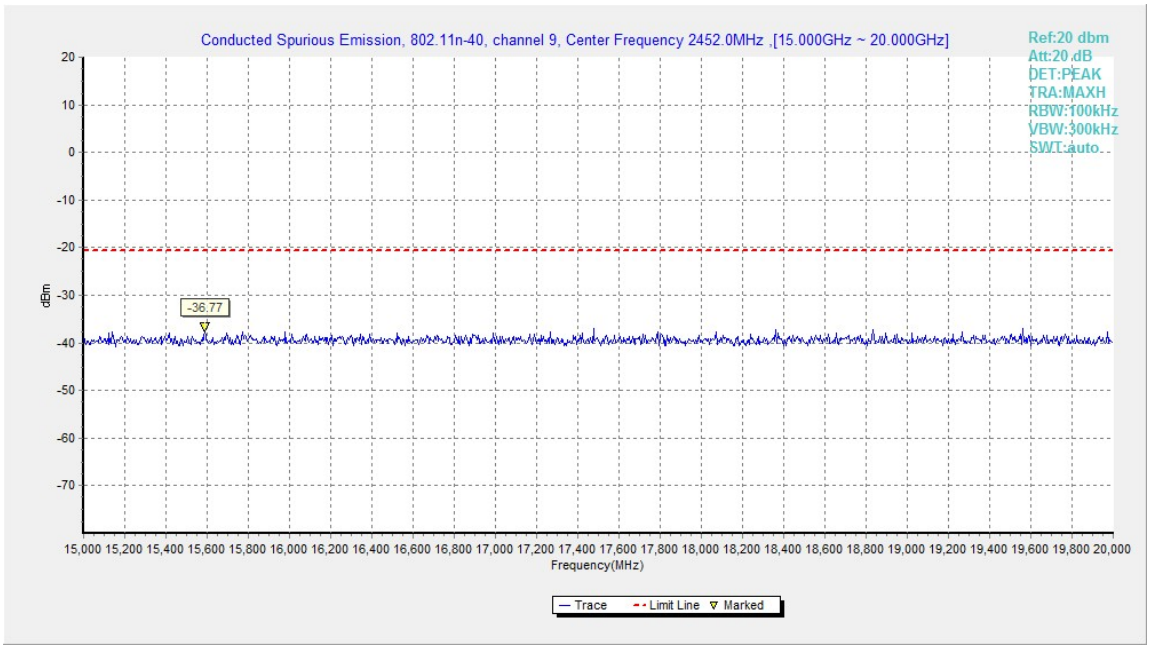

Fig.A.6.1.95 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 15 GHz-20 GHz)

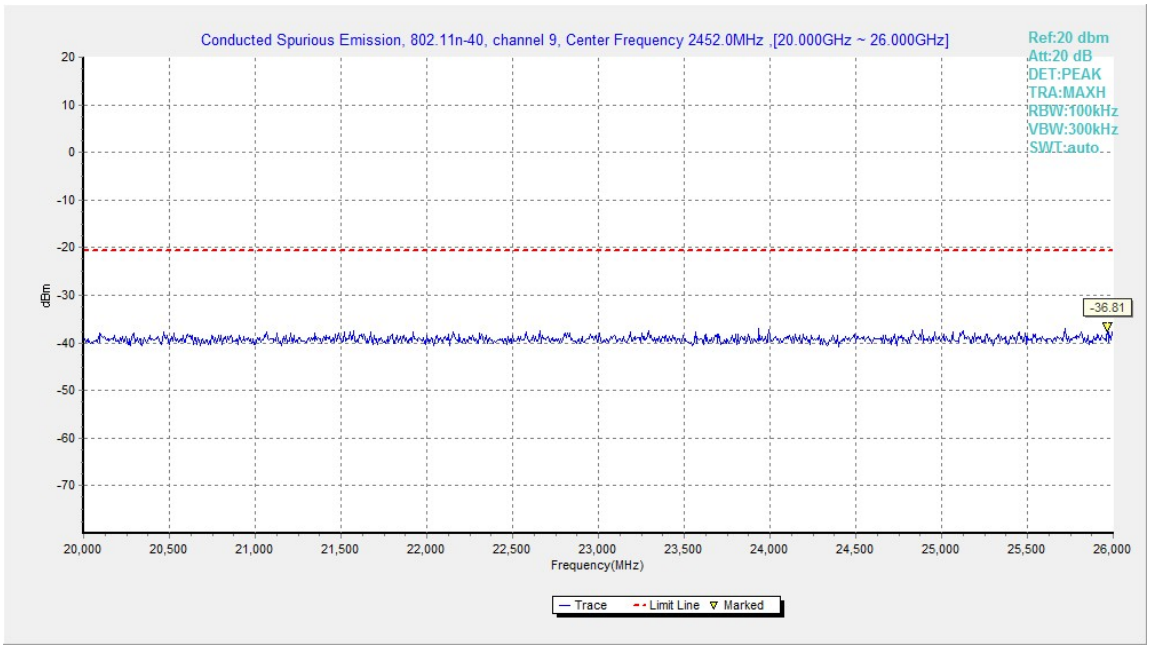

Fig.A.6.1.96 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 20 GHz-26 GHz)

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 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 ~2.45GHz	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 ~2.45GHz	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 ~2.45GHz	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

Average Result:

802.11b

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2377.400	47.00	2.9	32.1	12.06	H
2387.200	47.10	2.9	32.0	12.23	H
4824.000	52.02	-17.3	34.5	34.84	H
7236.000	38.49	-17.6	36.1	19.96	H
9648.000	39.70	-17.4	37.0	20.07	H
12060.000	41.64	-17.2	39.3	19.58	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2390.000	47.00	2.9	32.0	12.16	H
2483.600	48.20	2.9	32.8	12.51	H
4873.500	51.22	-18.3	34.5	35.03	H
7311.000	37.31	-18.6	36.1	19.84	H
9748.500	39.83	-17.3	37.2	19.96	H
12184.500	40.97	-17.7	39.2	19.43	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2483.600	48.30	2.9	32.8	12.61	H
2486.400	48.20	2.9	32.7	12.59	H
4923.000	46.47	-18.9	34.5	30.91	H
7386.000	38.93	-17.3	36.0	20.14	H
9847.500	39.09	-18.1	37.3	19.89	H
12310.500	40.57	-17.9	39.2	19.26	H

802.11g

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2386.400	47.03	2.9	32.0	12.16	H
2486.100	48.09	2.9	32.7	12.47	H
4824.000	39.20	-17.3	34.5	22.02	H
7236.000	38.44	-17.6	36.1	19.91	H
9648.000	39.66	-17.4	37.0	20.02	H
12060.000	41.59	-17.2	39.3	19.53	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2389.700	47.04	2.9	32.0	12.20	H
2486.900	48.13	2.9	32.7	12.52	H
4872.000	39.41	-18.3	34.5	23.18	H
7311.000	37.32	-18.6	36.1	19.86	H
9748.500	39.87	-17.3	37.2	20.00	H
12184.500	41.04	-17.7	39.2	19.50	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2387.600	47.04	2.9	32.0	12.18	H
2484.600	48.35	2.9	32.7	12.69	H
4924.500	36.43	-19.0	34.5	20.89	H
7386.000	38.91	-17.3	36.0	20.12	H
9847.500	39.17	-18.1	37.3	19.97	H
12310.500	40.52	-17.9	39.2	19.22	H

802.11n-HT20

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2386.700	47.12	2.9	32.0	12.25	H
2483.600	48.45	2.9	32.8	12.76	H
4822.500	38.83	-17.3	34.5	21.65	H
7236.000	38.48	-17.6	36.1	19.95	H
9648.000	39.68	-17.4	37.0	20.05	H
12060.000	41.68	-17.2	39.3	19.61	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2388.200	47.16	2.9	32.0	12.30	H
2483.800	48.62	2.9	32.8	12.94	H
4873.500	38.04	-18.3	34.5	21.85	H
7311.000	37.29	-18.6	36.1	19.82	H
9748.500	39.93	-17.3	37.2	20.05	H
12184.500	41.00	-17.7	39.2	19.46	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2389.900	47.14	2.9	32.0	12.29	H
2492.500	48.13	2.9	32.5	12.68	H
4924.500	36.59	-19.0	34.5	21.05	H
7386.000	38.99	-17.3	36.0	20.20	H
9847.500	39.16	-18.1	37.3	19.96	H
12310.500	40.57	-17.9	39.2	19.27	H

802.11n-HT40

Ch3

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2388.200	47.19	2.9	32.0	12.33	H
2484.000	48.28	2.9	32.7	12.60	H
4843.500	37.72	-17.5	34.5	20.75	H
7266.000	37.49	-18.8	36.1	20.14	H
9688.500	40.65	-16.5	37.1	20.05	H
12109.500	41.60	-17.3	39.3	19.64	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2386.400	47.16	2.9	32.0	12.28	H
2484.500	48.76	2.9	32.7	13.09	H
4873.500	37.76	-18.3	34.5	21.57	H
7311.000	37.33	-18.6	36.1	19.87	H
9748.500	39.96	-17.3	37.2	20.09	H
12184.500	41.05	-17.7	39.2	19.51	H

Ch9

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2388.700	47.07	2.9	32.0	12.21	H
2484.100	48.59	2.9	32.7	12.91	H
4903.500	36.45	-18.8	34.5	20.72	H
7356.000	38.12	-18.0	36.1	20.05	H
9808.500	38.28	-18.8	37.3	19.80	H
12259.500	40.78	-17.8	39.2	19.41	H

Peak Result:

802.11b

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2385.050	59.7	2.9	32.0	24.82	H
2387.476	59.6	2.9	32.0	24.73	H
4824.000	55.5	-17.3	34.5	38.32	V
17682.000	59.9	-13.1	41.1	31.93	V
17726.250	59.7	-13.2	41.0	31.92	V
17997.000	59.5	-13.5	40.8	32.25	V

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2374.200	50.1	-26.7	32.1	44.72	H
2507.000	50.3	-26.4	32.4	44.32	H
4837.500	54.6	-17.4	34.5	37.44	V
17586.750	60.1	-13.5	41.1	32.49	V
17322.750	60.0	-14.1	41.2	32.93	V
17284.500	59.9	-13.9	41.2	32.66	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2483.500	60.5	2.9	32.8	24.81	H
2487.320	61.3	2.9	32.7	25.74	H
4924.500	52.5	-19.0	34.5	36.92	V
17643.750	60.6	-13.0	41.1	32.51	H
17800.500	60.1	-13.4	41.0	32.63	V
17625.000	60.1	-13.1	41.1	32.11	H

802.11g

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2383.080	59.8	2.9	32.0	24.92	H
2387.308	59.6	2.9	32.0	24.76	V
17705.250	60.2	-13.2	41.0	32.36	H
17276.250	60.0	-14.0	41.2	32.77	H
17973.000	59.8	-13.6	40.8	32.61	V
17325.000	59.7	-14.2	41.2	32.69	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2359.600	50.6	-27.6	31.8	46.33	H
2505.400	50.6	-26.4	32.4	44.58	H
4874.250	53.2	-18.3	34.5	37.04	V
17742.000	60.5	-13.3	41.0	32.83	H
17745.750	60.3	-13.3	41.0	32.59	H
17792.250	60.2	-13.4	41.0	32.64	V

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2483.550	62.2	2.9	32.8	26.51	H
2488.420	61.2	2.9	32.6	25.61	H
17279.250	60.3	-14.0	41.2	33.07	H
17596.500	59.9	-13.4	41.1	32.18	H
17801.250	59.8	-13.4	41.0	32.32	H
17394.000	59.8	-14.5	41.2	33.16	H

802.11n-HT20

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2385.698	59.2	2.9	32.0	24.34	H
2389.590	59.4	2.9	32.0	24.50	H
17775.000	60.2	-13.4	41.0	32.58	H
17673.750	59.8	-13.1	41.1	31.81	V
17758.500	59.7	-13.3	41.0	31.99	V
17961.000	59.7	-13.6	40.8	32.44	V

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2376.600	50.4	-26.5	32.1	44.89	H
2505.800	51.0	-26.4	32.4	44.96	H
17946.750	60.7	-13.6	40.8	33.46	H
17682.000	60.3	-13.1	41.1	32.33	H
17336.250	60.0	-14.2	41.2	32.98	H
17958.000	59.9	-13.6	40.8	32.69	V

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2483.660	62.7	2.9	32.8	26.98	V
2484.110	62.6	2.9	32.7	26.90	H
17643.000	60.9	-13.0	41.1	32.82	V
17733.000	60.5	-13.3	41.0	32.71	H
17635.500	60.3	-13.0	41.1	32.25	V
17391.750	59.9	-14.5	41.2	33.19	H

802.11n-HT40

Ch3

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2388.302	61.2	2.9	32.0	26.39	H
2389.996	59.9	2.9	32.0	25.06	H
17693.250	59.9	-13.2	41.0	32.02	H
17965.500	59.7	-13.6	40.8	32.54	H
17283.750	59.7	-13.9	41.2	32.45	H
17664.750	59.5	-13.1	41.1	31.52	V

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2374.400	49.9	-26.7	32.1	44.55	H
2522.400	51.8	-26.8	32.7	45.89	V
17700.000	61.1	-13.2	41.0	33.26	H
17613.000	60.0	-13.2	41.1	32.14	V
17274.750	59.8	-14.0	41.2	32.64	V
17580.750	59.8	-13.6	41.1	32.21	V

Ch9

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2484.450	64.1	2.9	32.7	28.43	H
2486.400	63.2	2.9	32.7	27.60	H
17777.250	60.1	-13.4	41.0	32.51	H
17629.500	59.7	-13.0	41.1	31.67	V
17923.500	59.6	-13.6	40.9	32.29	H
17313.750	59.5	-14.1	41.2	32.38	V

Test graphs as below:

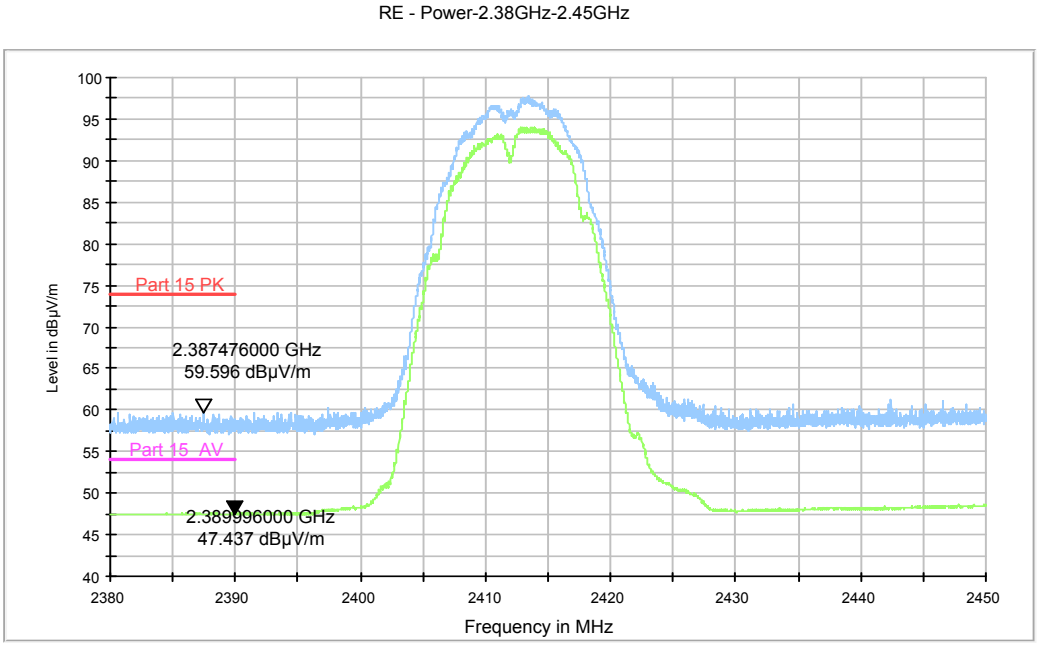

Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.38 GHz – 2.45GHz

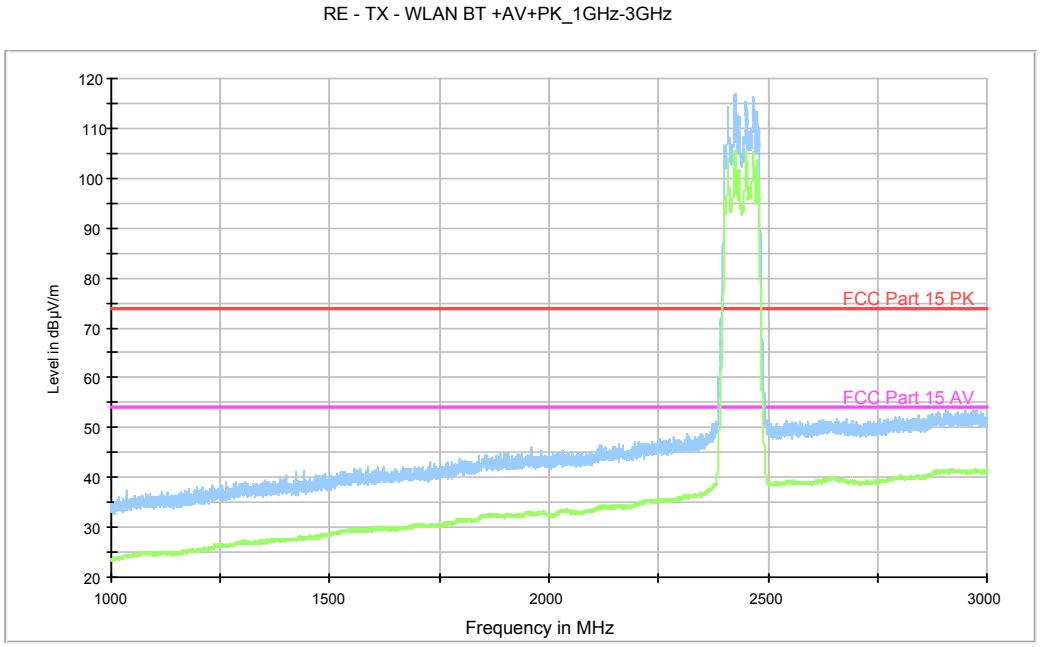

Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (802.11b, Ch1, 1 GHz-3 GHz)

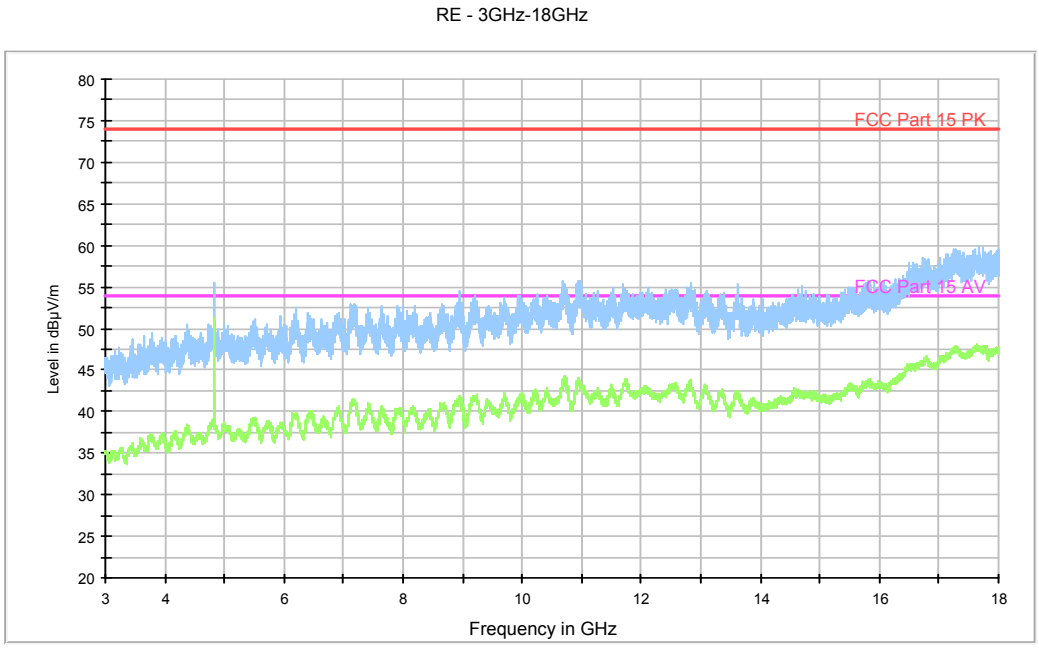

Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (802.11b, Ch1, 3 GHz-18 GHz)

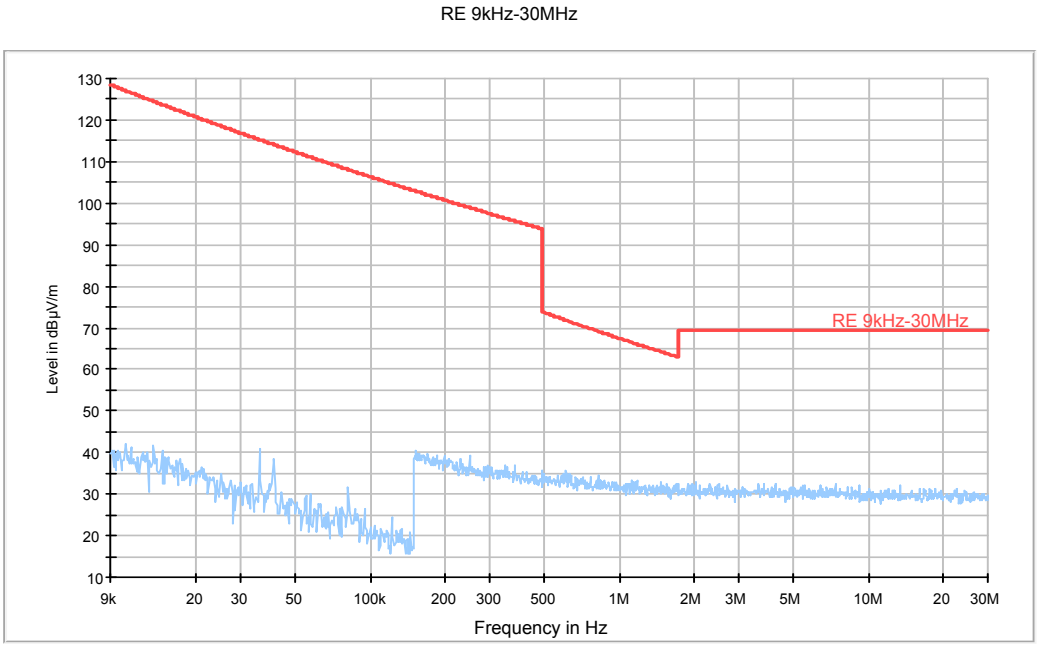

Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 9kHz-30 MHz)

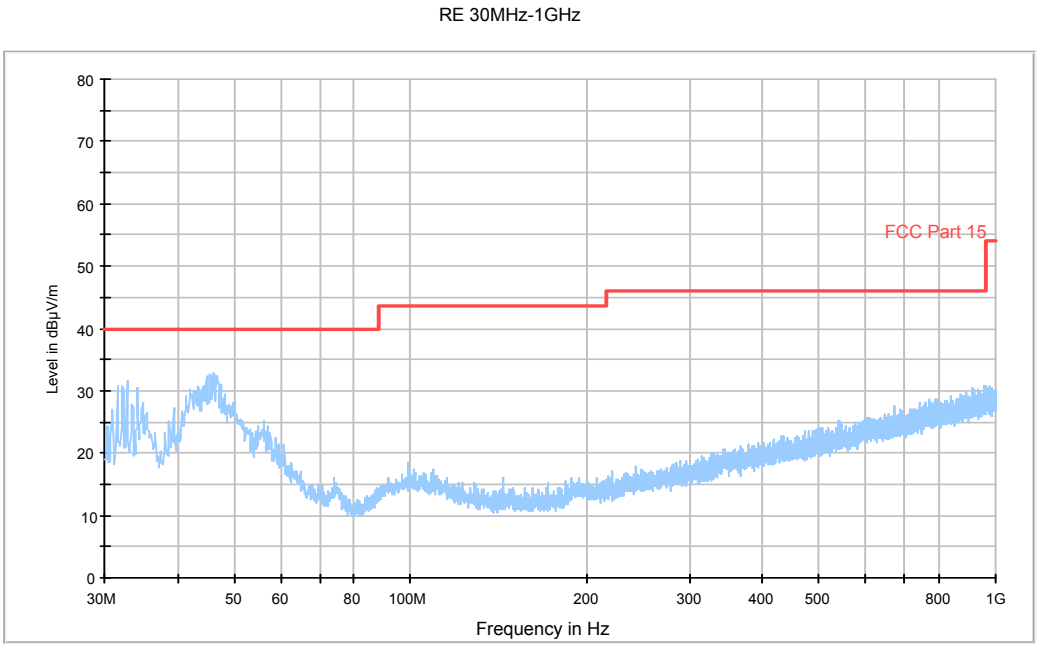

Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 30 MHz-1 GHz)

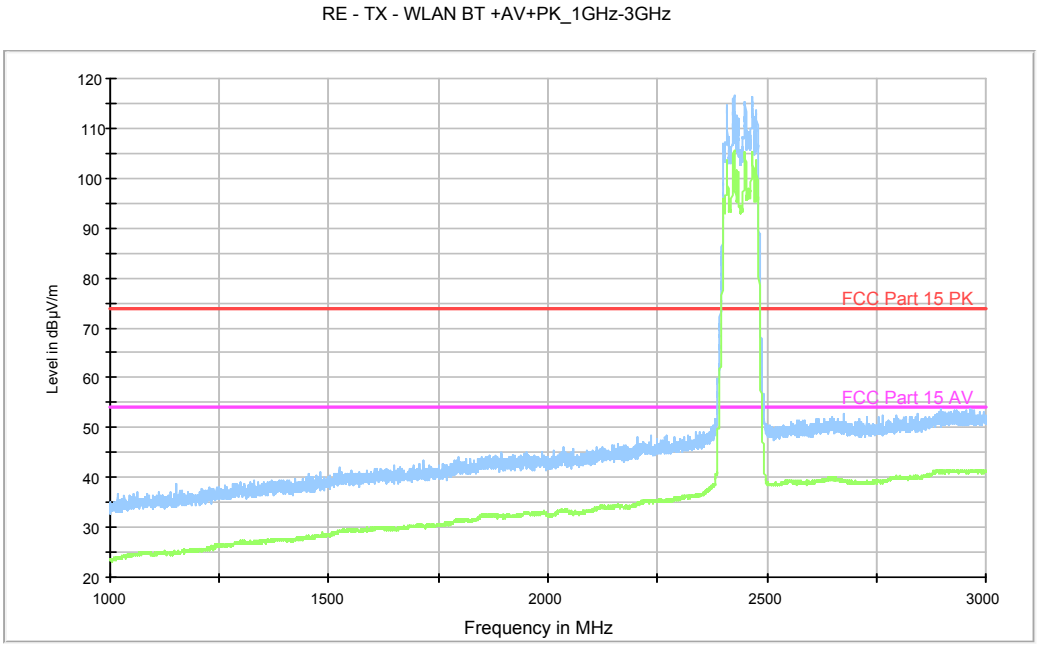

Fig.A.6.2.6 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 1 GHz-3 GHz)

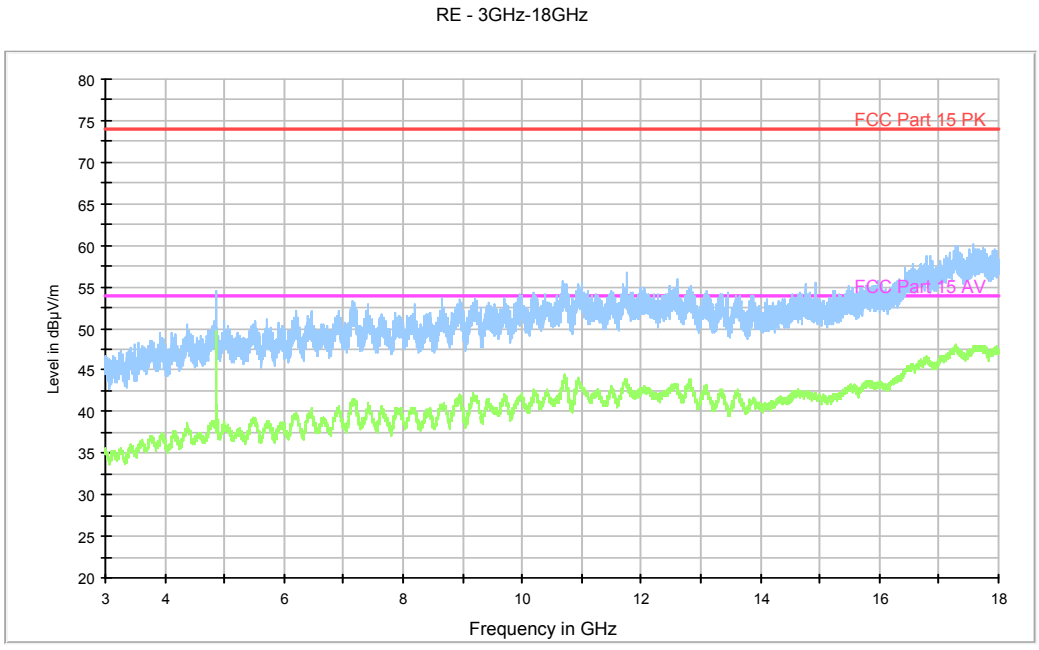

Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 3 GHz-18 GHz)

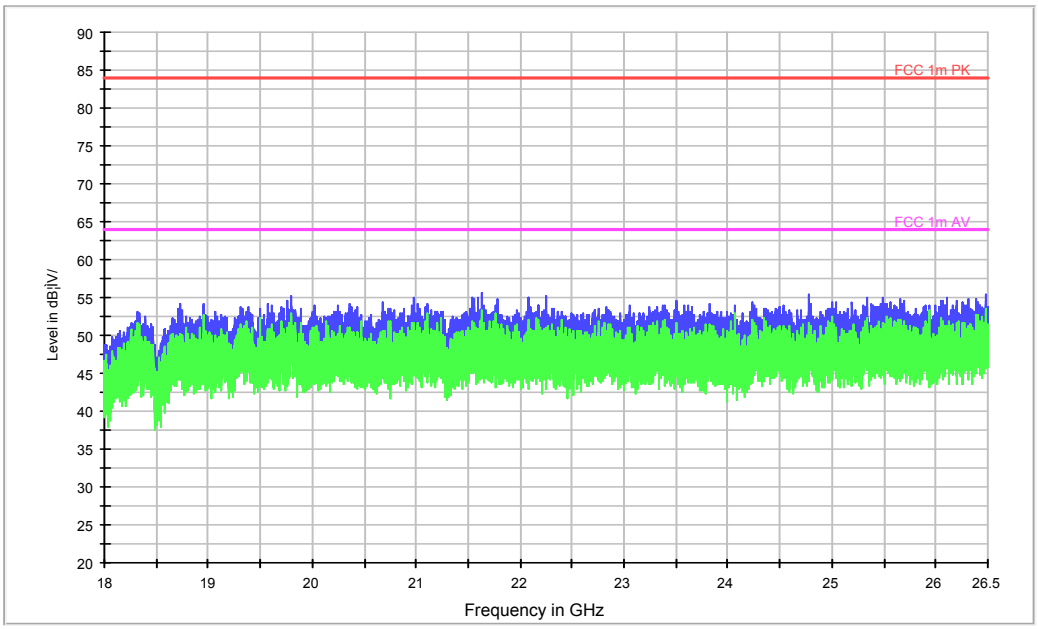

Fig.A.6.2.8 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 18GHz – 26.5GHz)

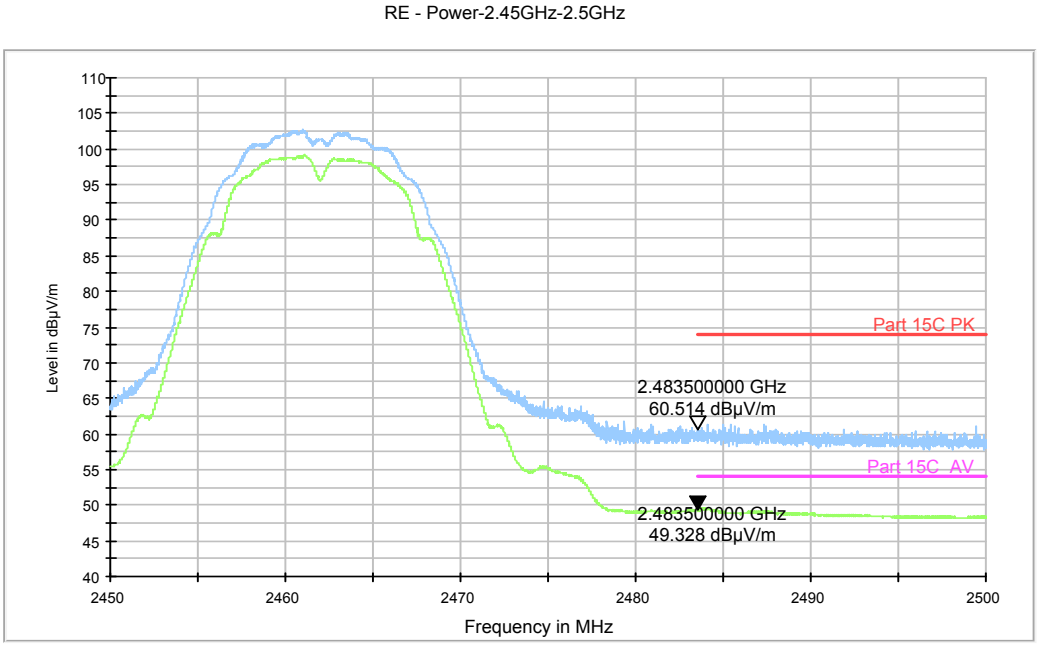

Fig.A.6.2.9 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

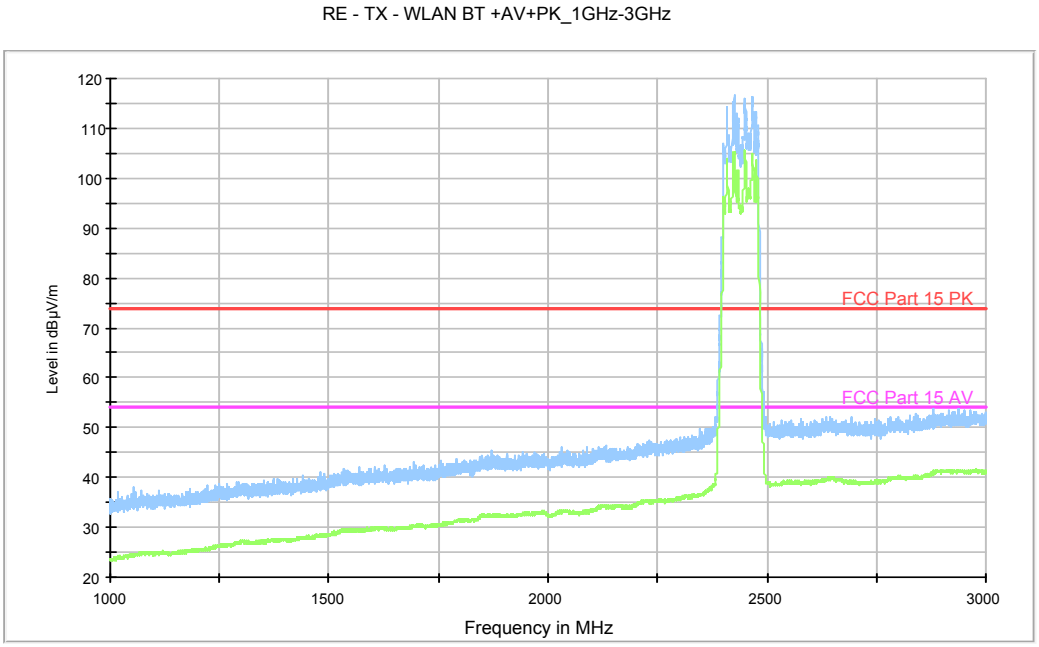

Fig.A.6.2.10 Transmitter Spurious Emission - Radiated (802.11b, Ch11, 1 GHz-3 GHz)

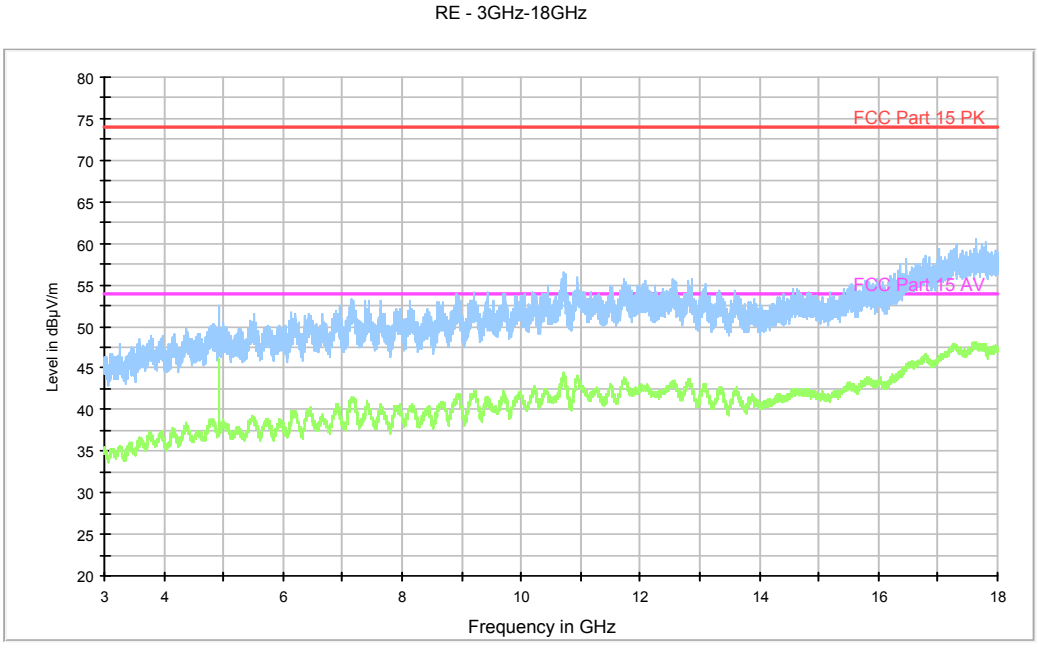

Fig.A.6.2.11 Transmitter Spurious Emission - Radiated (802.11b, Ch11, 3 GHz-18 GHz)

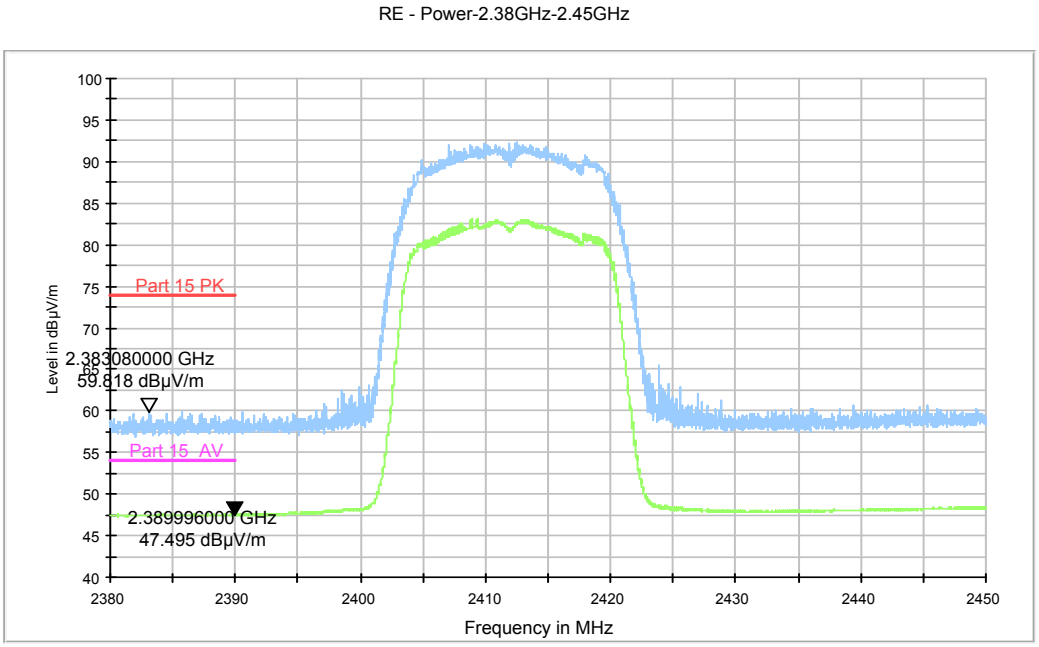

Fig.A.6.2.12 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.38 GHz - 2.45GHz

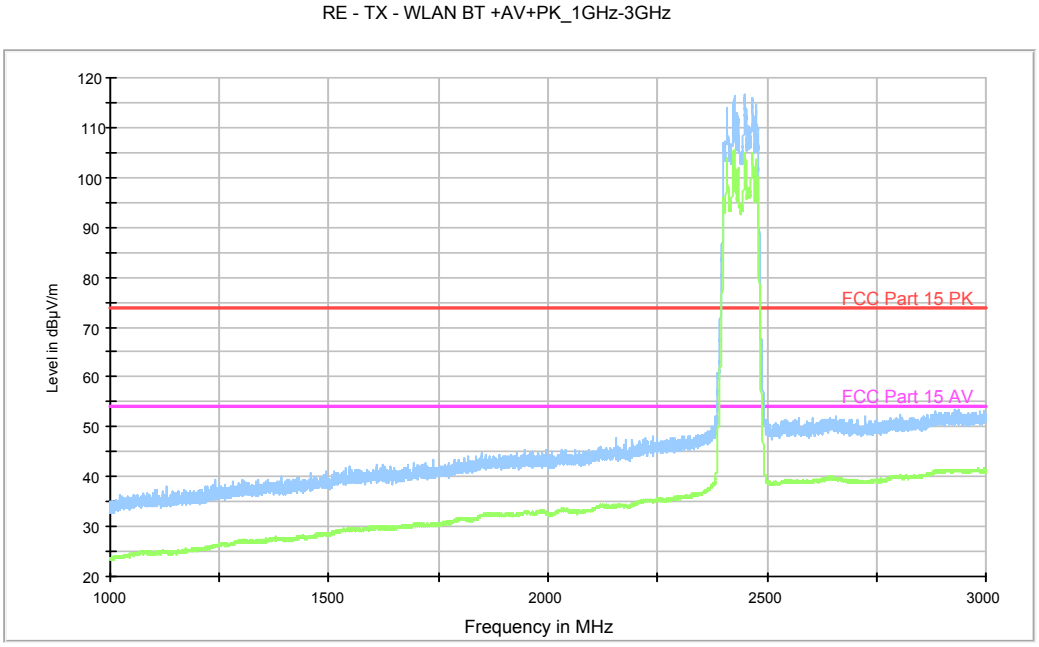

Fig.A.6.2.13 Transmitter Spurious Emission - Radiated (802.11g, Ch1, 1 GHz-3 GHz)

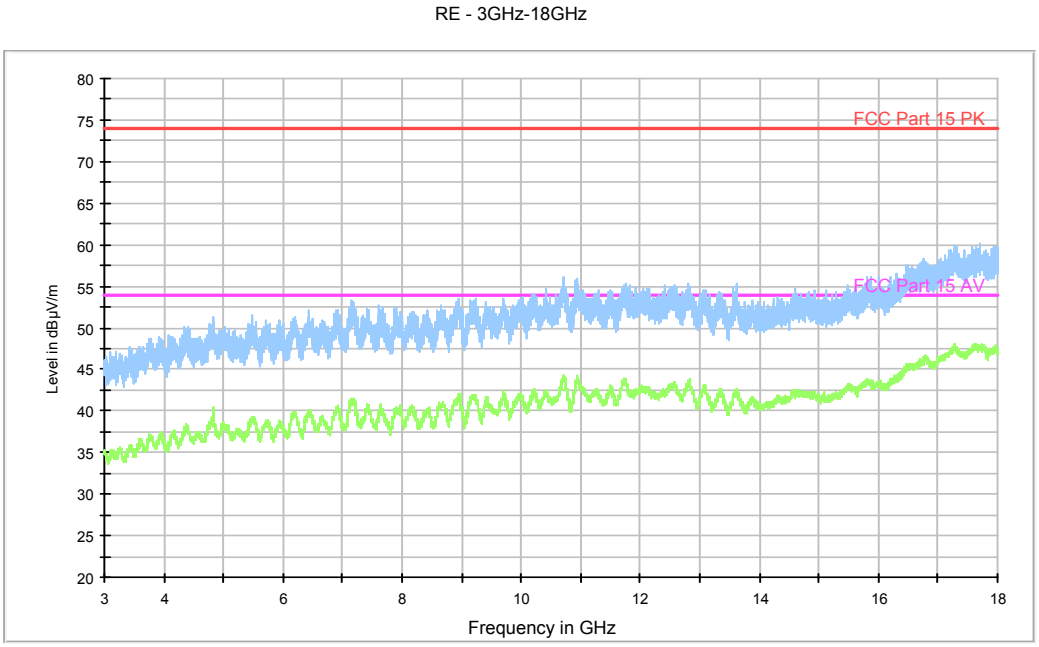

Fig.A.6.2.14 Transmitter Spurious Emission - Radiated (802.11g, Ch1, 3 GHz-18 GHz)

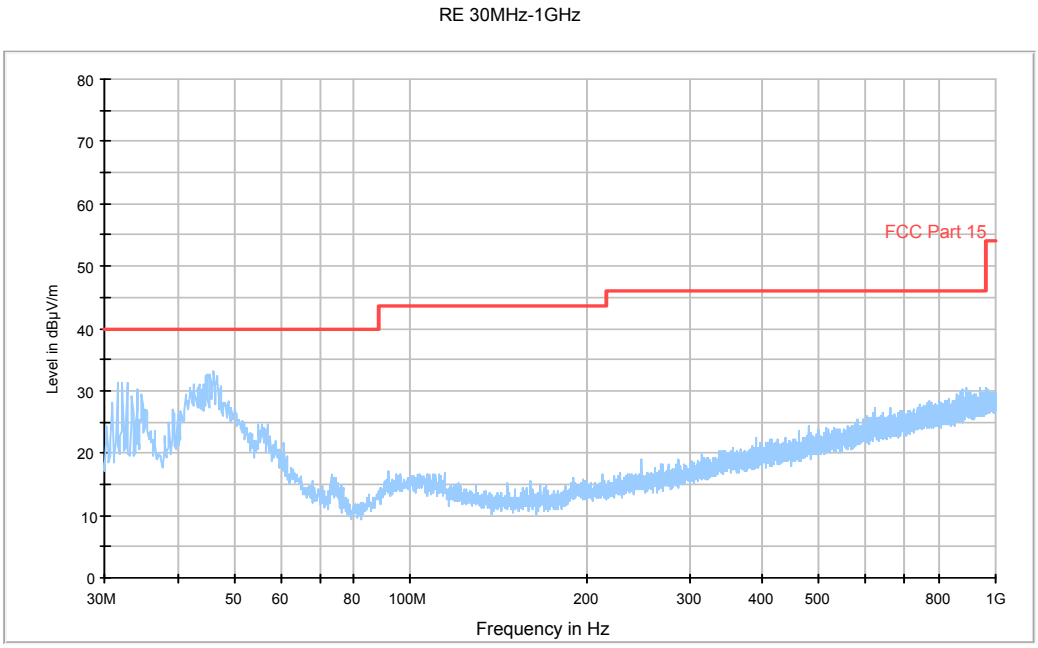

Fig.A.6.2.15 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 30 MHz-1 GHz)

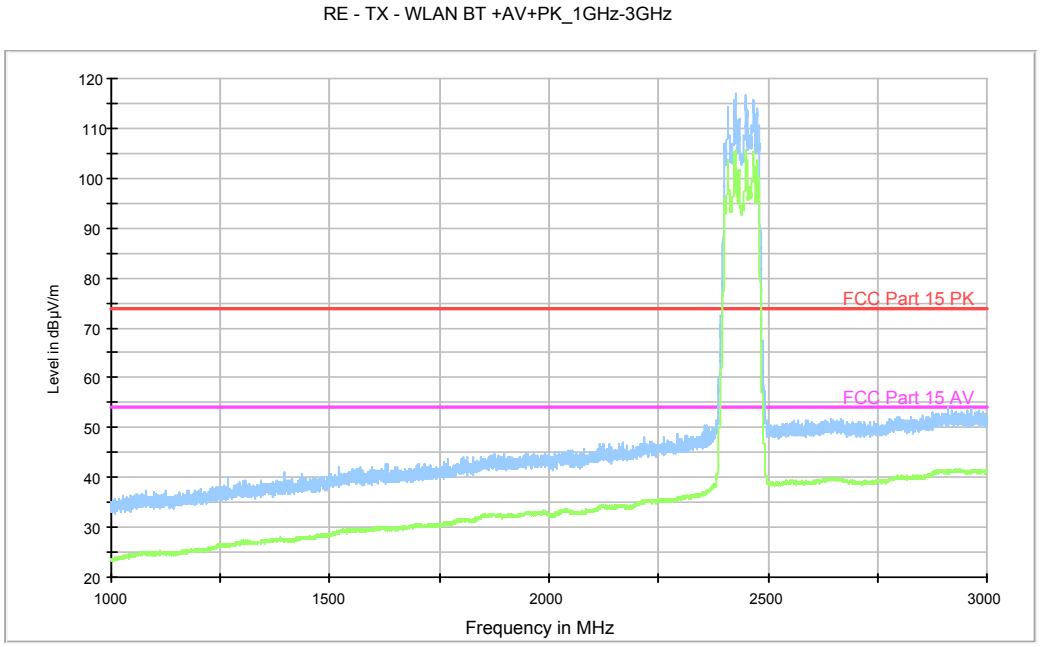

Fig.A.6.2.16 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 1 GHz-3 GHz)

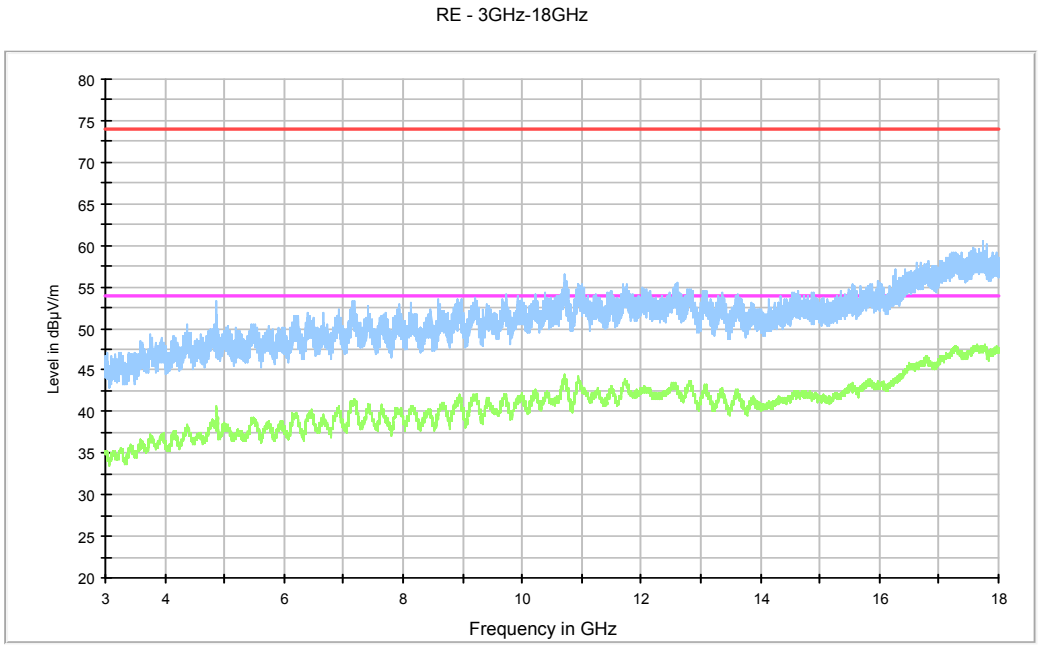

Fig.A.6.2.17 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 3 GHz-18 GHz)

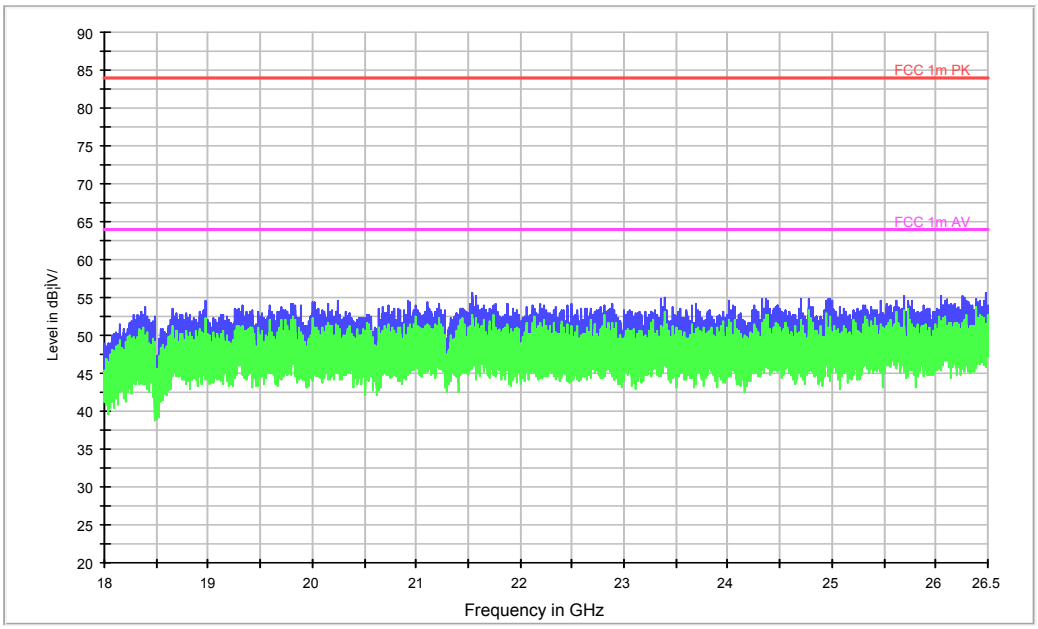

Fig.A.6.2.18 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 18GHz – 26.5GHz)

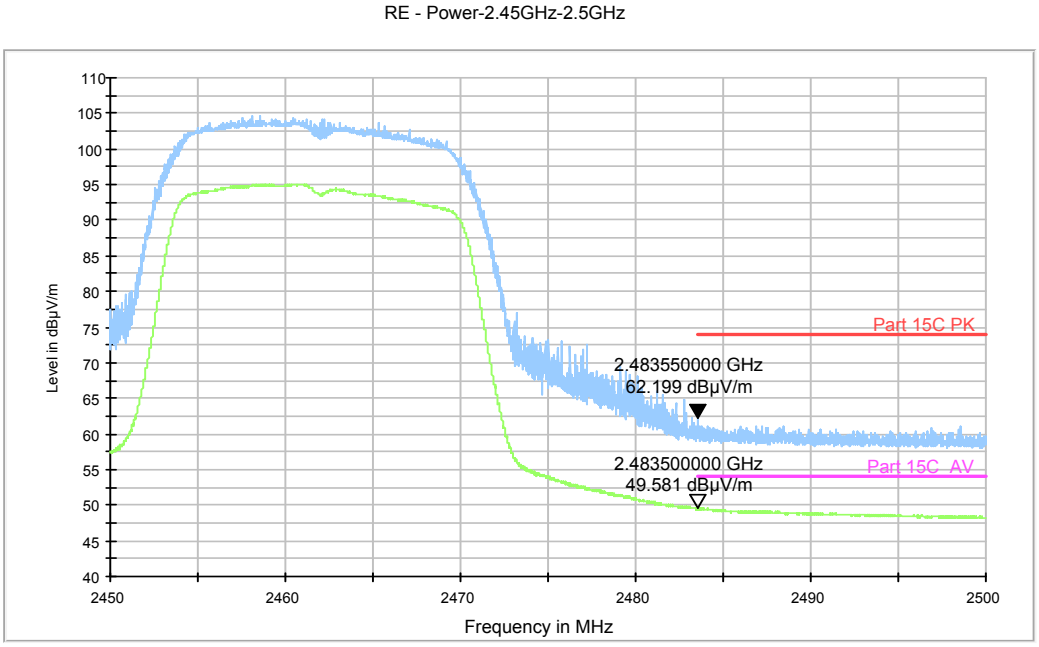

Fig.A.6.2.19 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

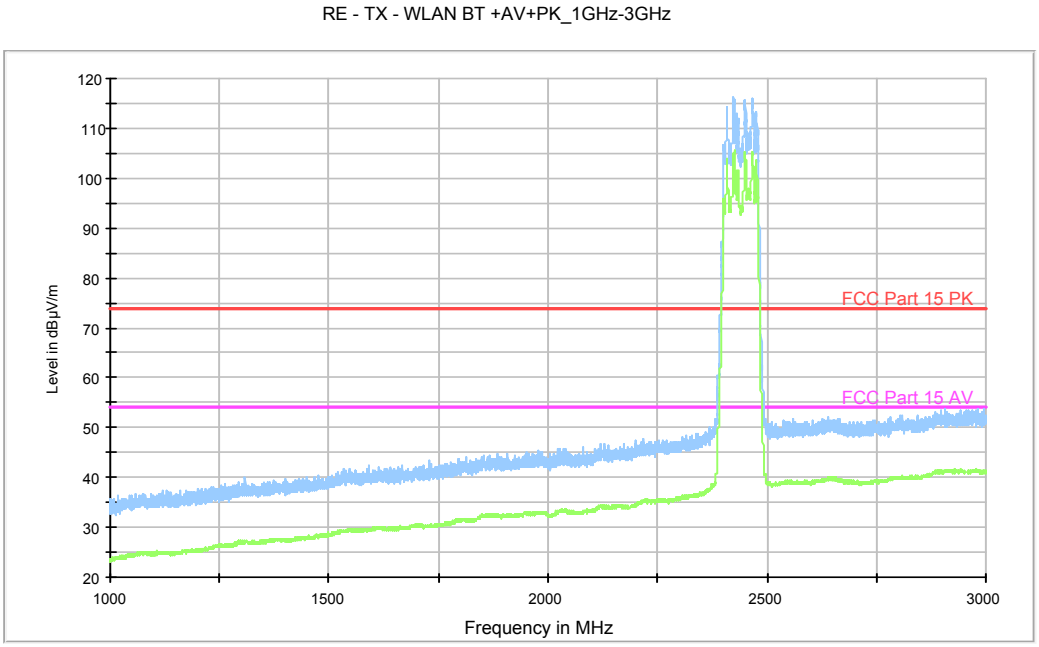

Fig.A.6.2.20 Transmitter Spurious Emission - Radiated (802.11g, Ch11, 1 GHz-3 GHz)

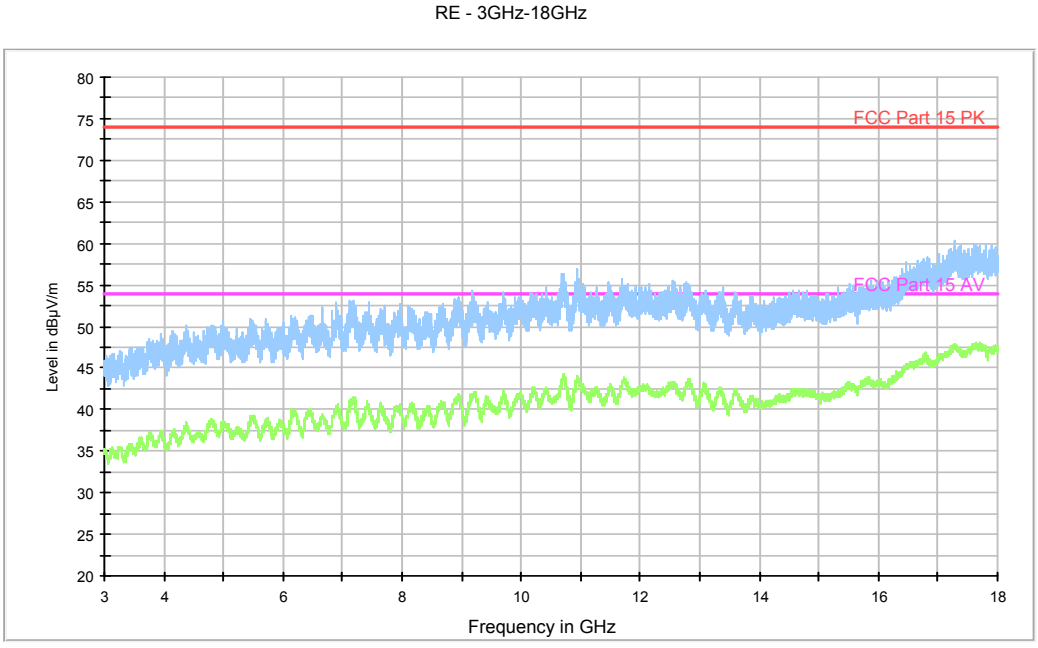

Fig.A.6.2.21 Transmitter Spurious Emission - Radiated (802.11g, Ch11, 3 GHz-18 GHz)

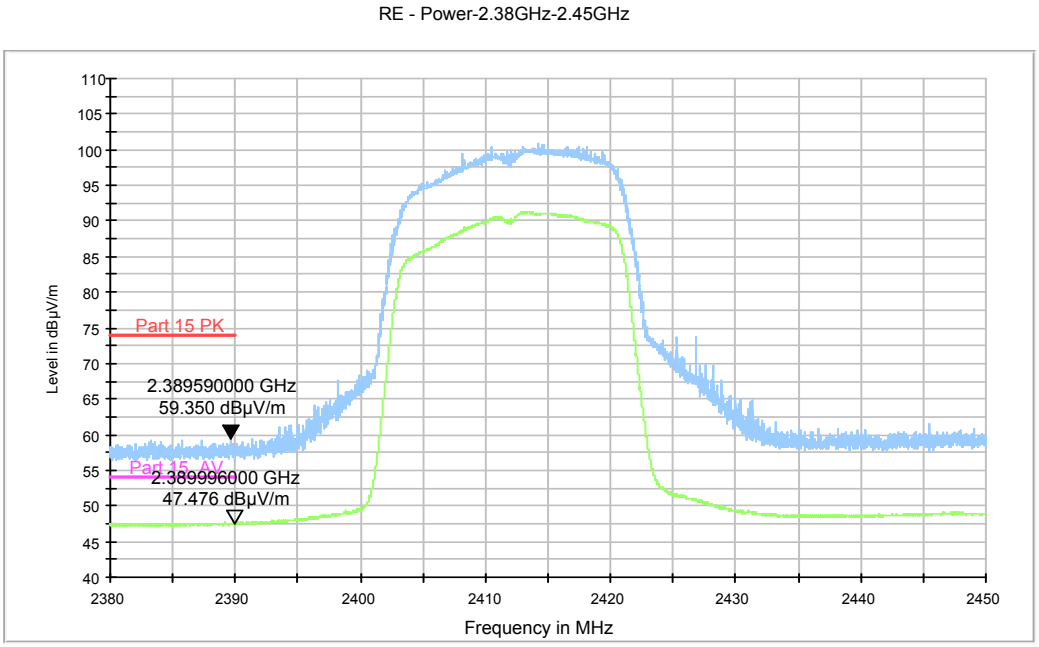

Fig.A.6.2.22 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.38 GHz - 2.45GHz

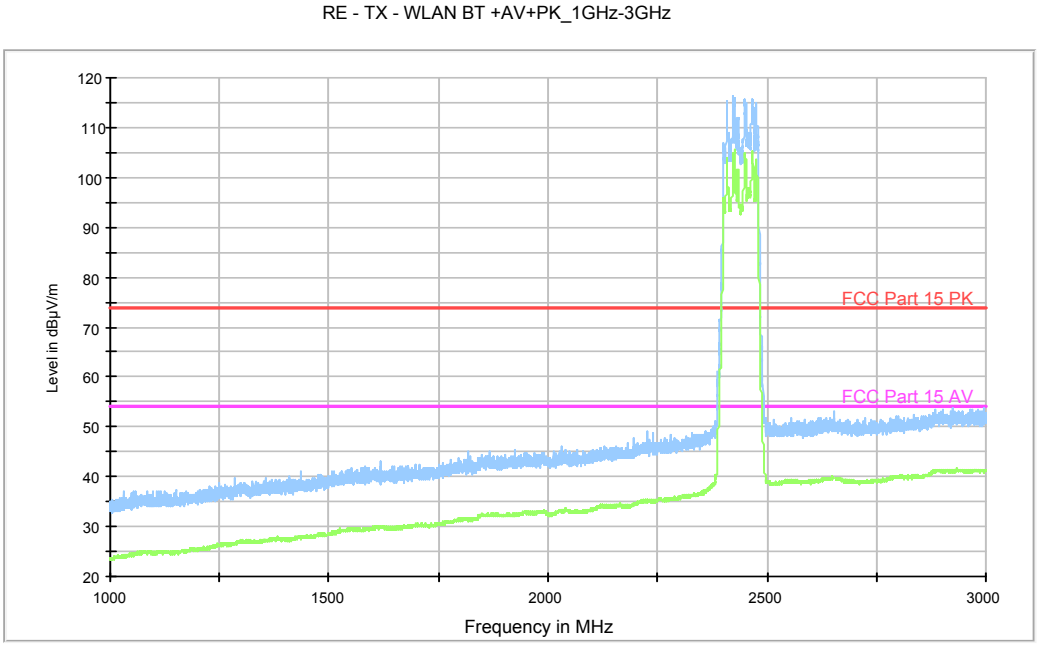

Fig.A.6.2.23 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch1, 1 GHz-3 GHz)

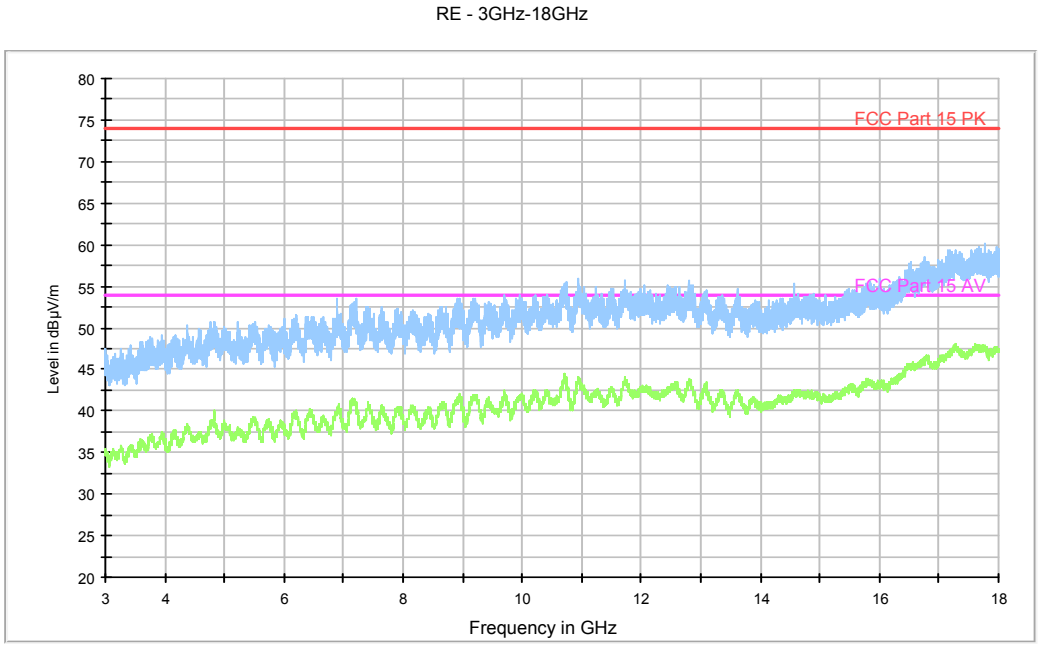

Fig.A.6.2.24 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch1, 3 GHz-18 GHz)

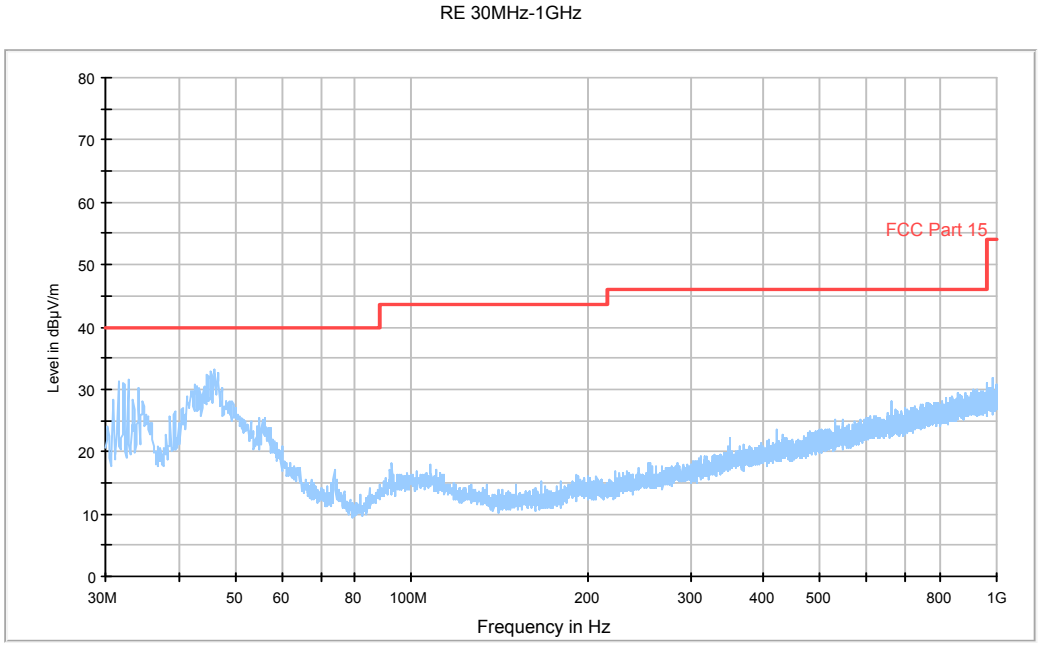

Fig.A.6.2.25 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 30 MHz-1 GHz)

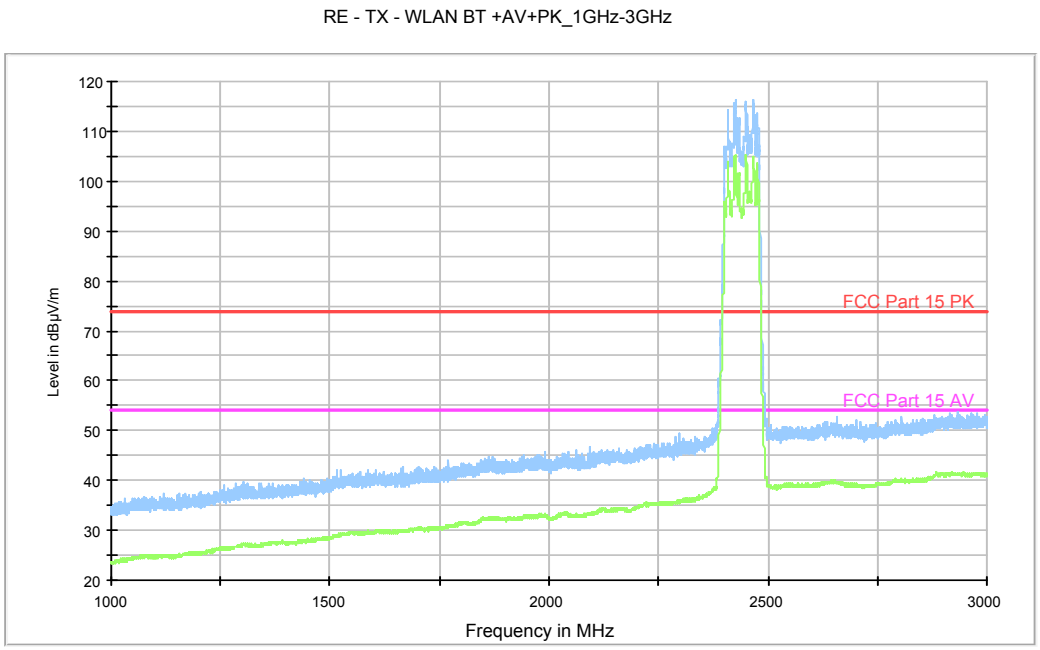

Fig.A.6.2.26 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 1 GHz-3 GHz)

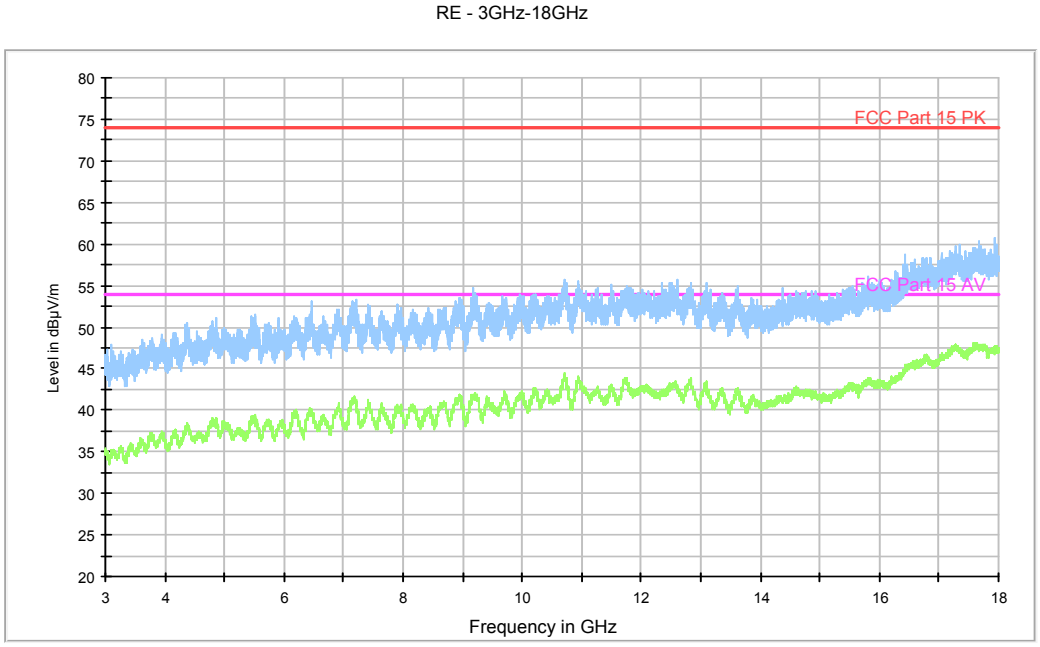

Fig.A.6.2.27 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 3 GHz-18 GHz)

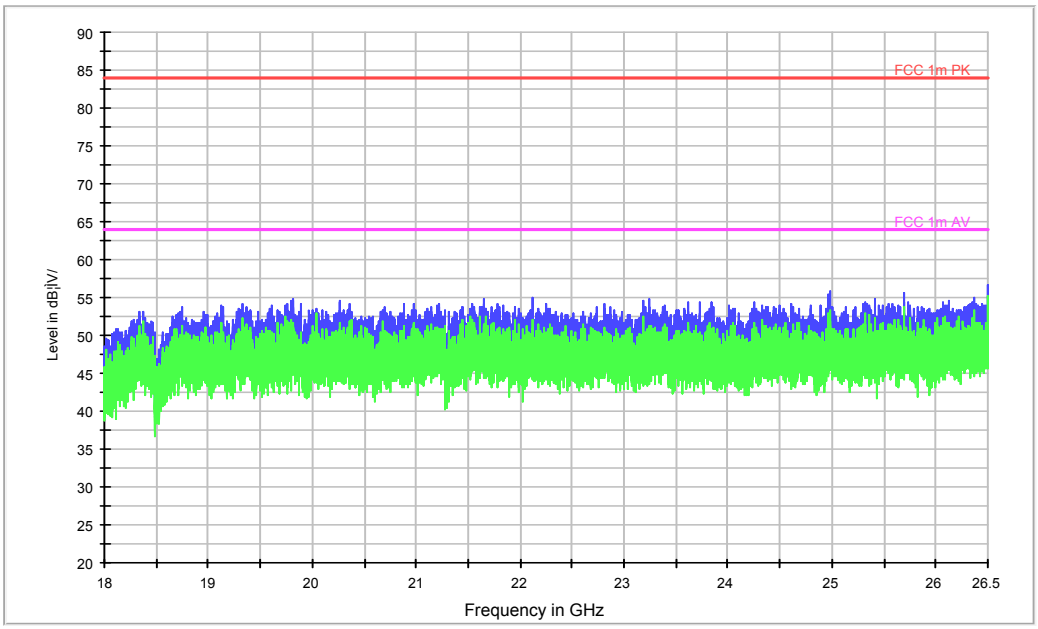

Fig.A.6.2.28 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 18GHz – 26.5GHz)

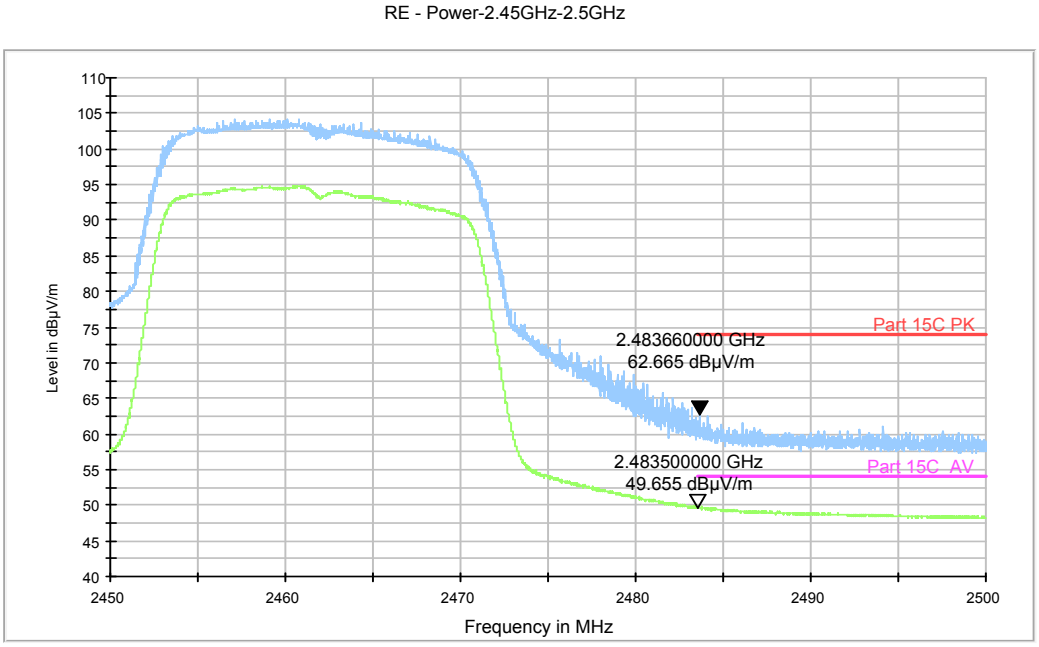

Fig.A.6.2.29 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

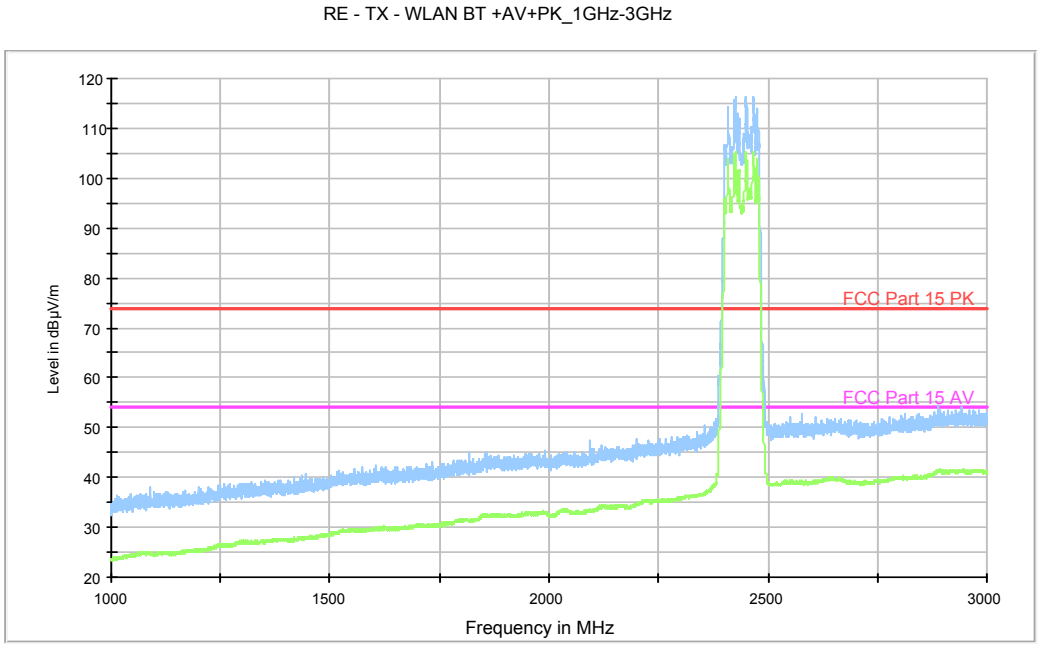

Fig.A.6.2.30 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch11, 1 GHz-3 GHz)

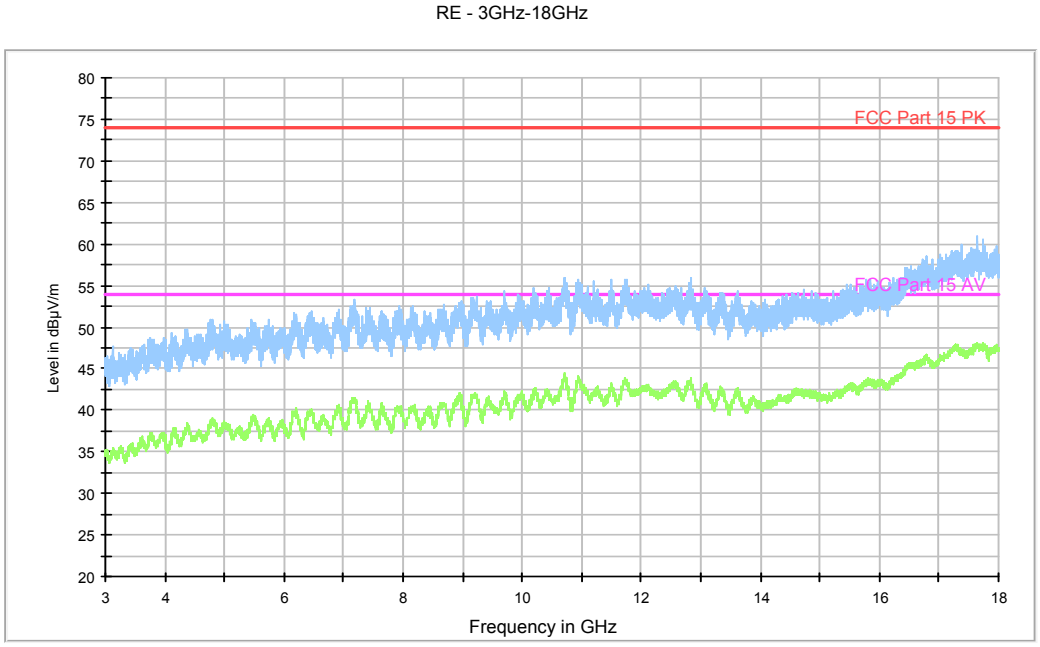

Fig.A.6.2.31 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch11, 3 GHz-18 GHz)

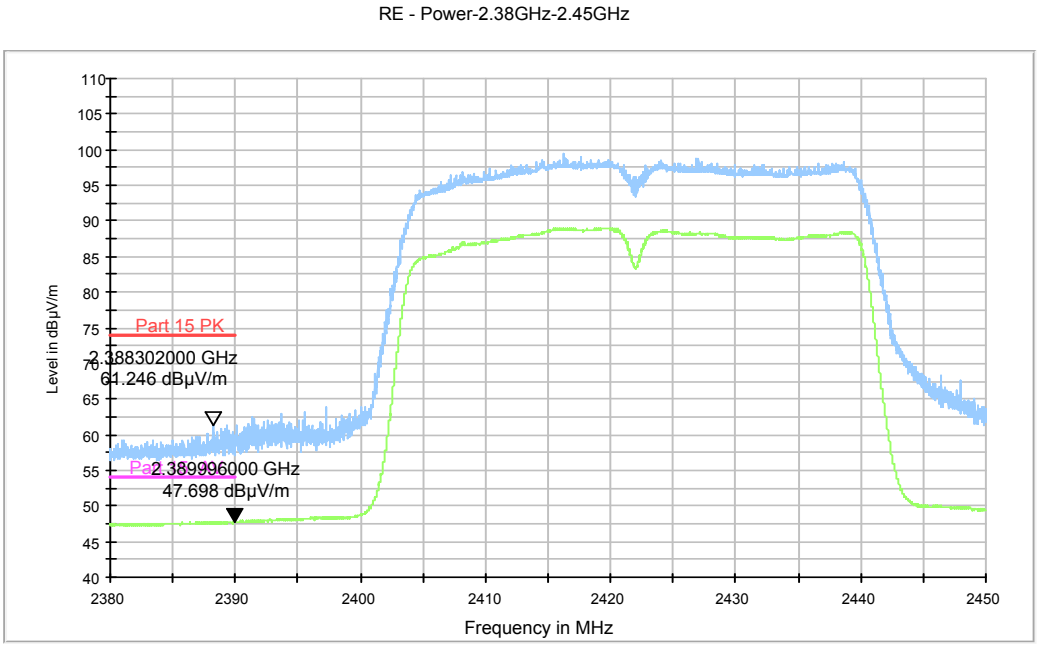

Fig.A.6.2.32 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.38 GHz - 2.45GHz

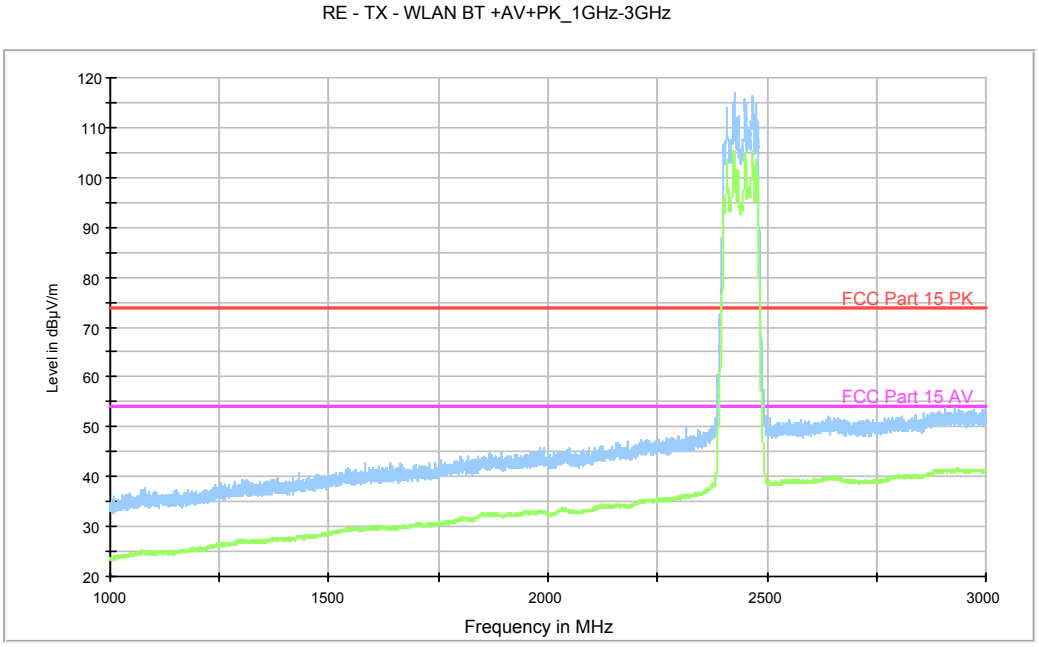

Fig.A.6.2.33 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch3, 1 GHz-3 GHz)

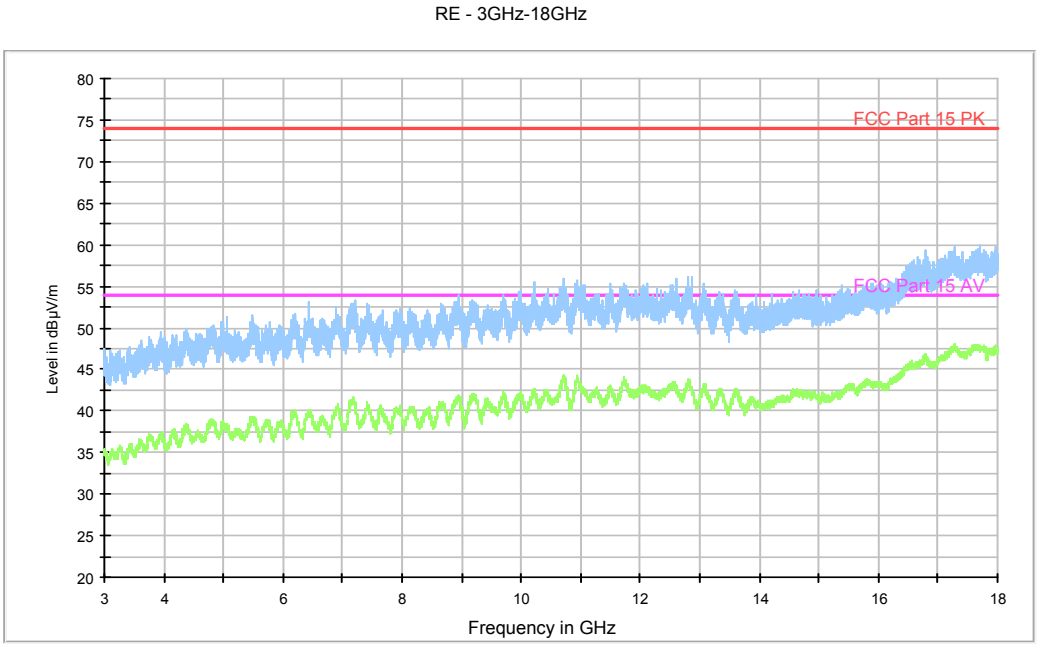

Fig.A.6.2.34 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch3, 3 GHz-18 GHz)

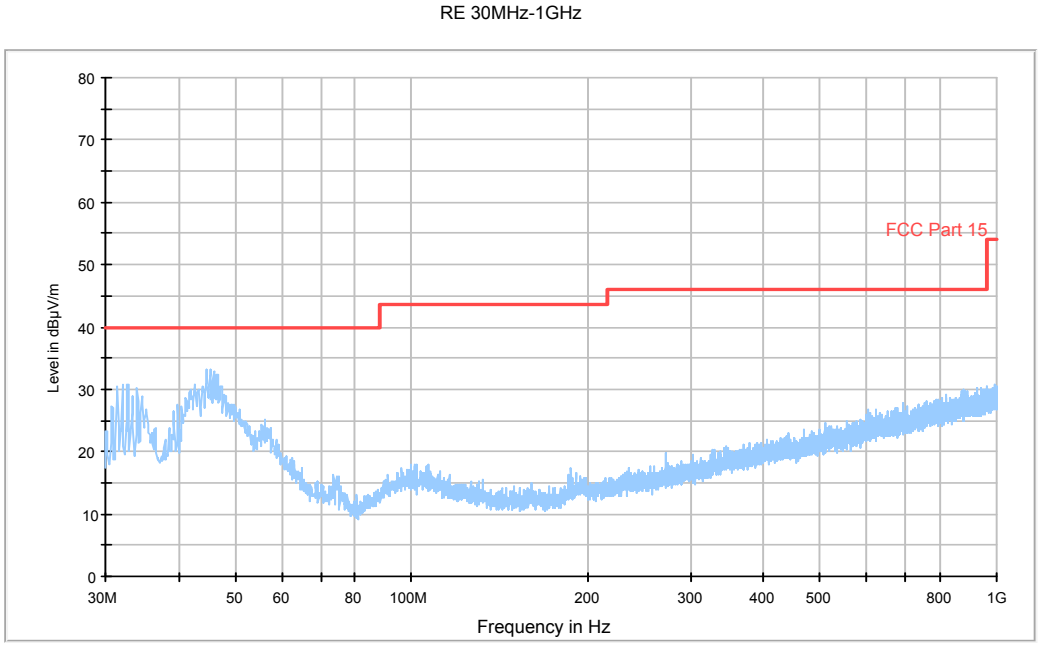

Fig.A.6.2.35 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 30 MHz-1 GHz)

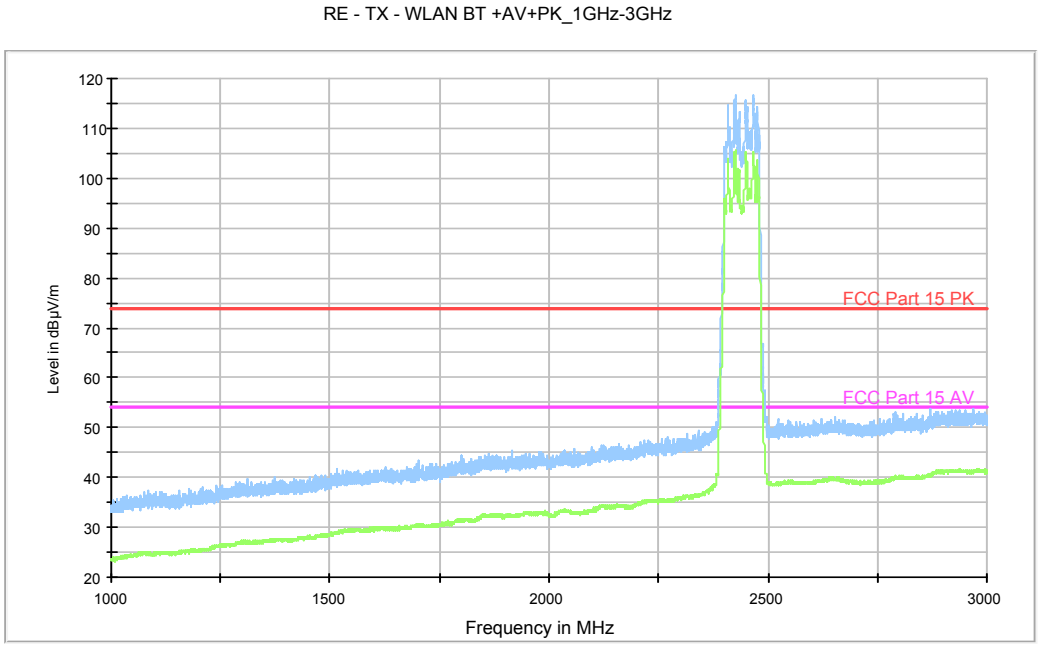

Fig.A.6.2.36 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 1 GHz-3 GHz)

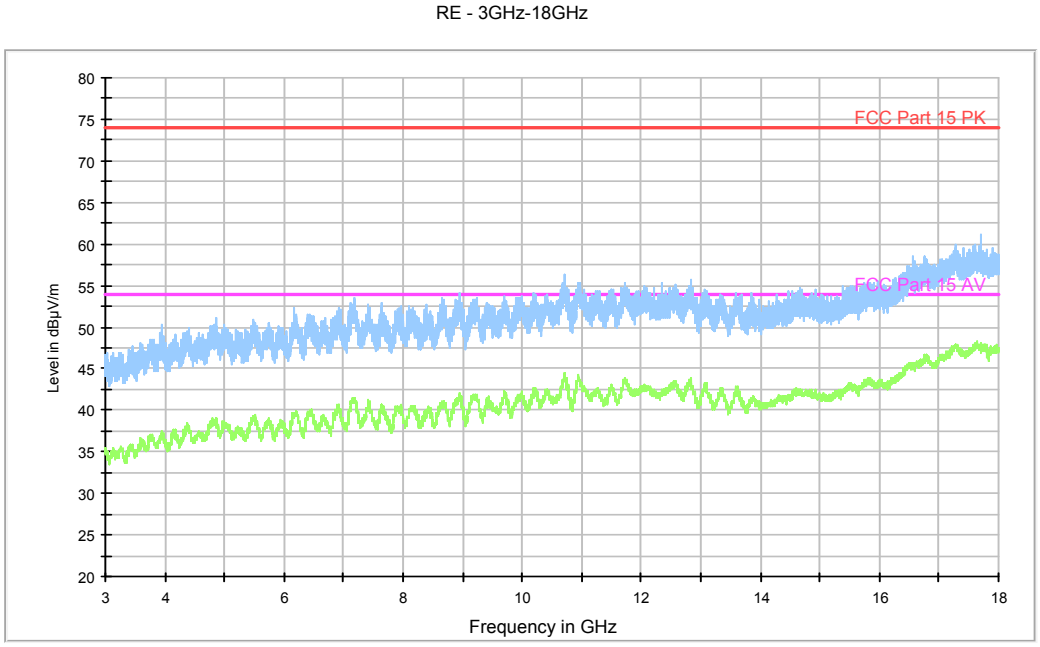

Fig.A.6.2.37 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 3 GHz-18 GHz)

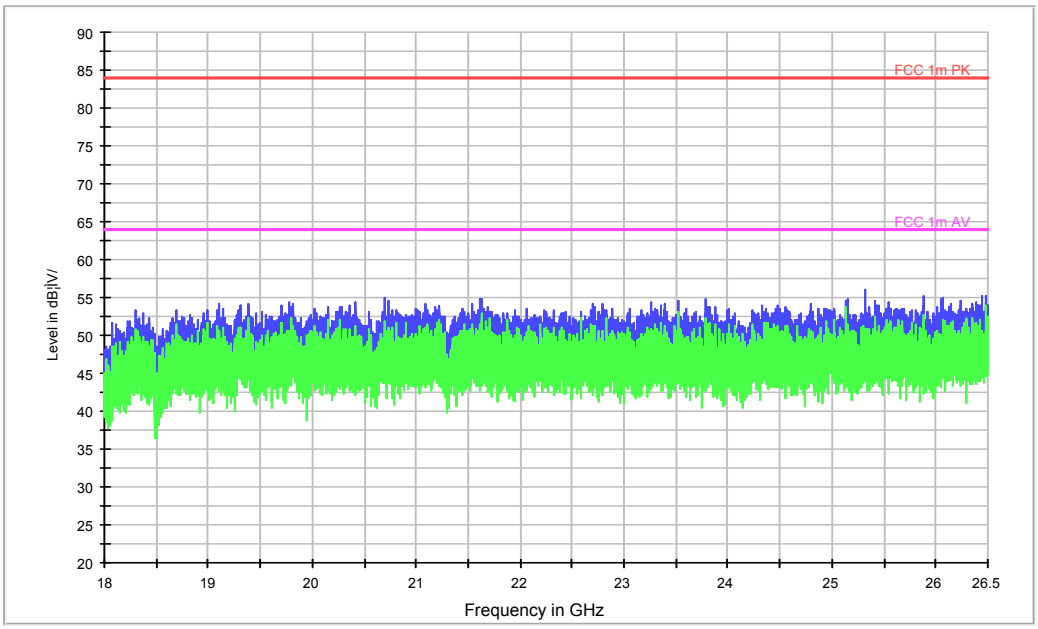

Fig.A.6.2.38 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 18GHz – 26.5GHz)

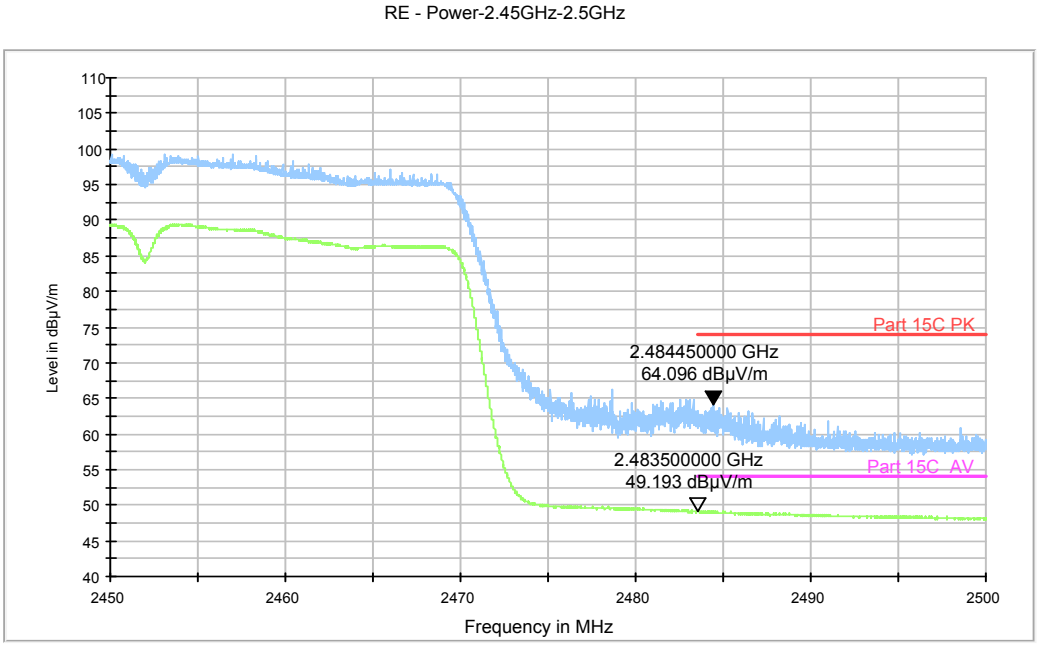

Fig.A.6.2.39 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

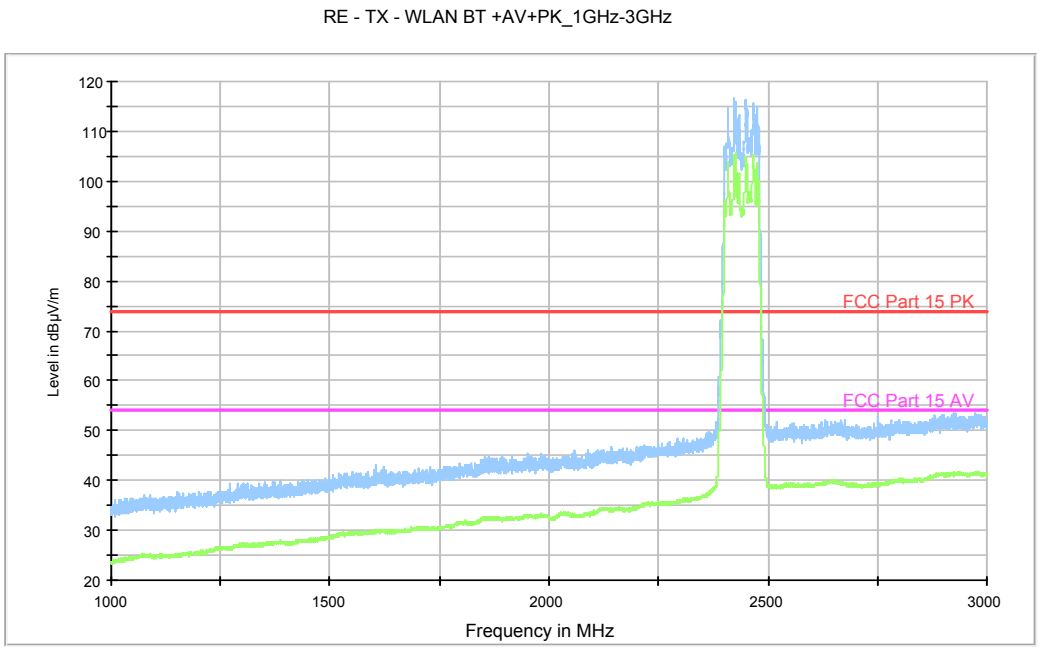

Fig.A.6.2.40 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch9, 1 GHz-3 GHz)

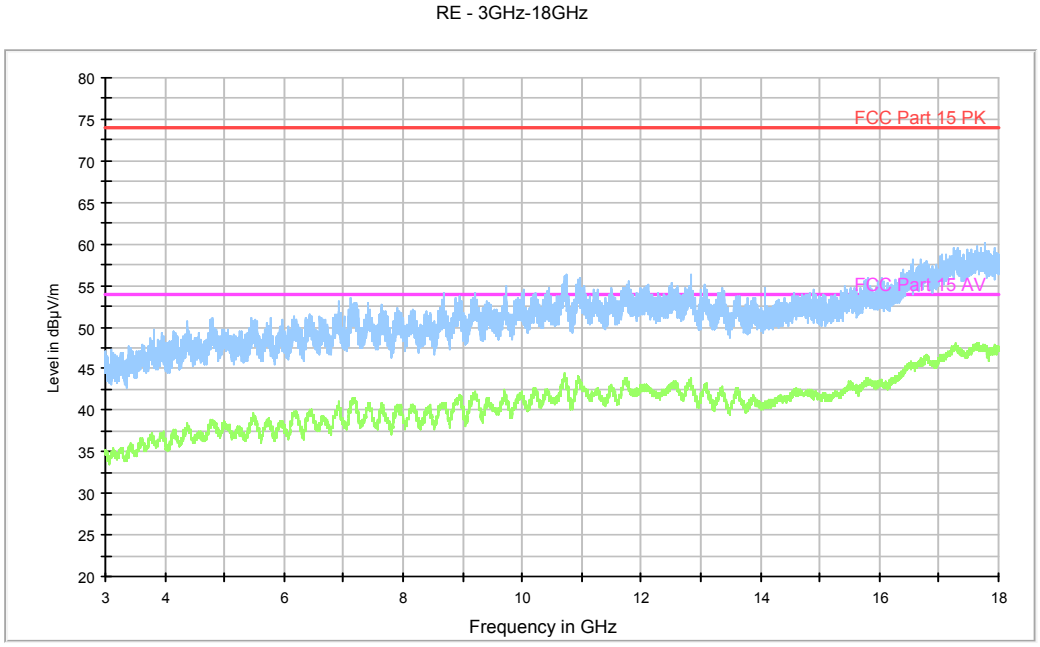

Fig.A.6.2.41 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch9, 3 GHz-18 GHz)

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 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	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.7.2	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:

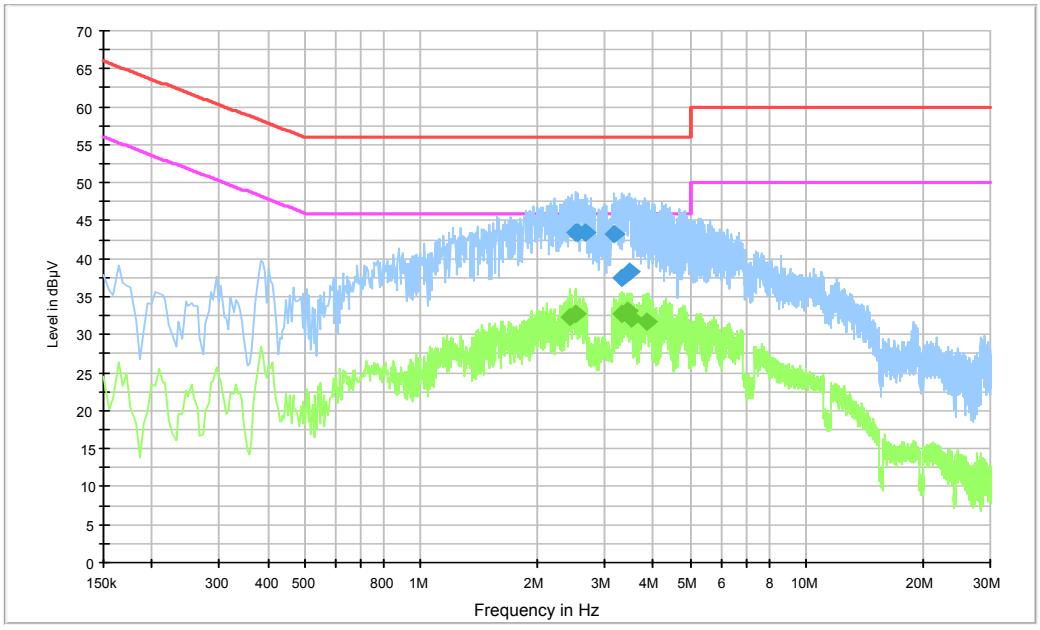

Fig.A.7.1 AC Powerline Conducted Emission-802.11b

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)
2.521500	43.5	GND	L1	10.4	12.5	56.0
2.539500	43.4	GND	L1	10.4	12.6	56.0
2.670000	43.5	GND	L1	10.4	12.5	56.0
3.165000	43.3	GND	L1	10.4	12.7	56.0
3.309000	37.4	GND	N	10.5	18.6	56.0
3.457500	38.3	GND	N	10.5	17.7	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
2.445000	32.4	GND	L1	10.4	13.6	46.0
2.512500	32.7	GND	L1	10.4	13.3	46.0
3.313500	32.8	GND	L1	10.4	13.2	46.0
3.421500	33.2	GND	L1	10.4	12.8	46.0
3.498000	32.2	GND	L1	10.4	13.8	46.0
3.862500	31.6	GND	L1	10.4	14.4	46.0

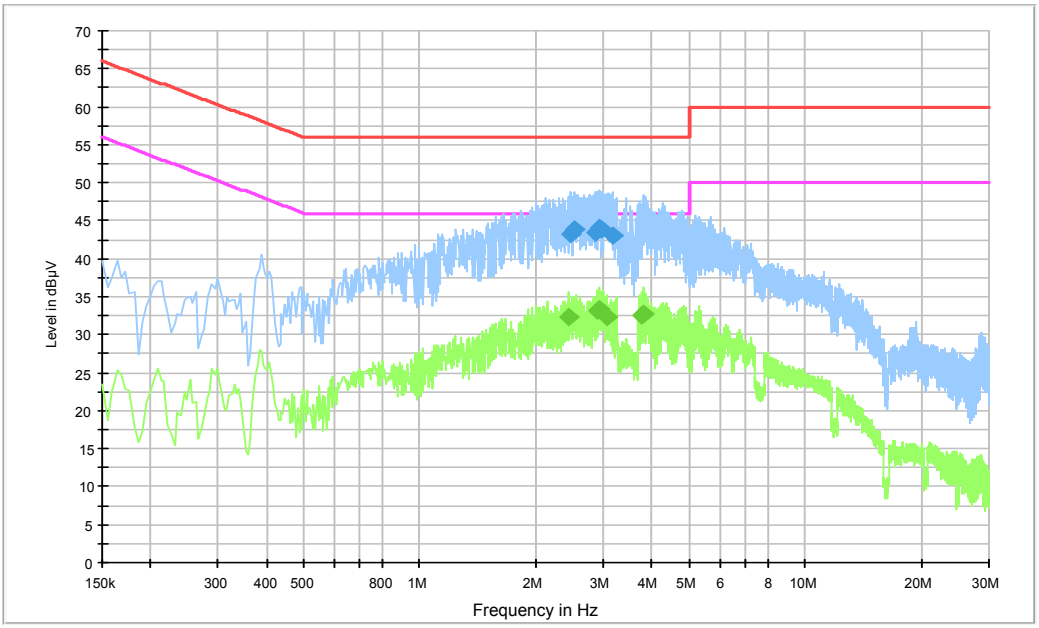

Fig.A.7.1 AC Powerline Conducted Emission-Idle

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)
2.467500	43.1	GND	L1	10.4	12.9	56.0
2.508000	43.9	GND	L1	10.4	12.1	56.0
2.863500	43.4	GND	L1	10.4	12.6	56.0
2.926500	44.1	GND	L1	10.4	11.9	56.0
2.967000	43.9	GND	L1	10.4	12.1	56.0
3.151500	43.0	GND	L1	10.4	13.0	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
2.431500	32.4	GND	L1	10.4	13.6	46.0
2.890500	33.2	GND	L1	10.4	12.8	46.0
2.908500	33.3	GND	L1	10.4	12.7	46.0
3.057000	32.4	GND	L1	10.4	13.6	46.0
3.781500	32.5	GND	L1	10.4	13.5	46.0
3.799500	32.7	GND	L1	10.4	13.3	46.0

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