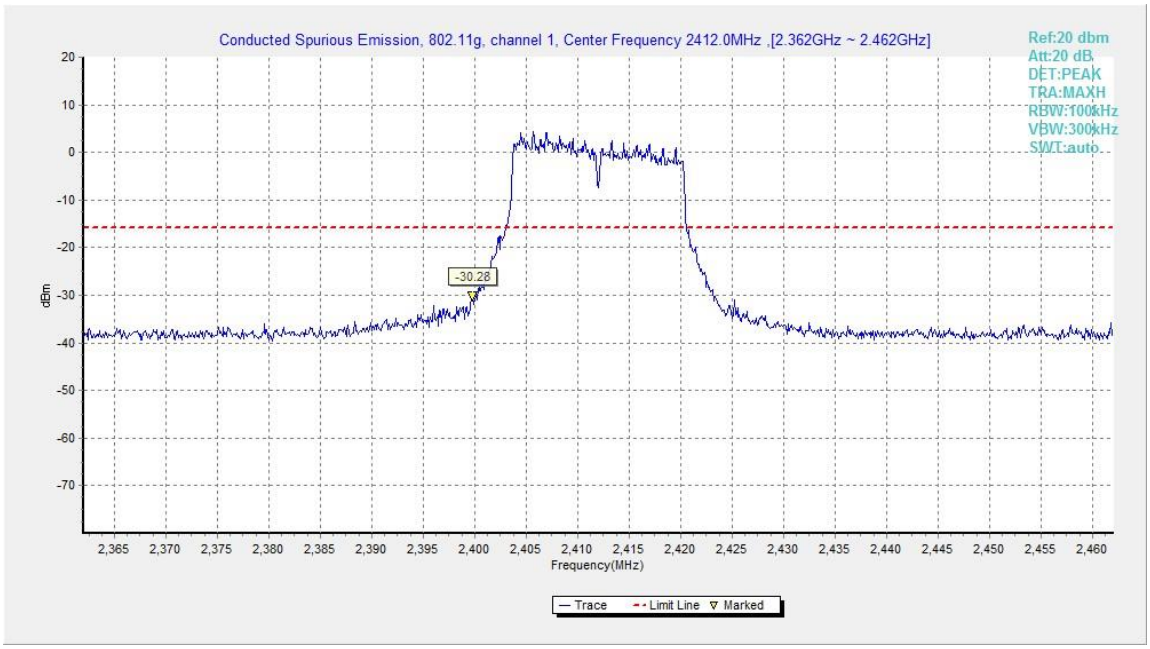

Fig.A.6.1.25 Transmitter Spurious Emission - Conducted (802.11g, Ch1, Center Frequency)

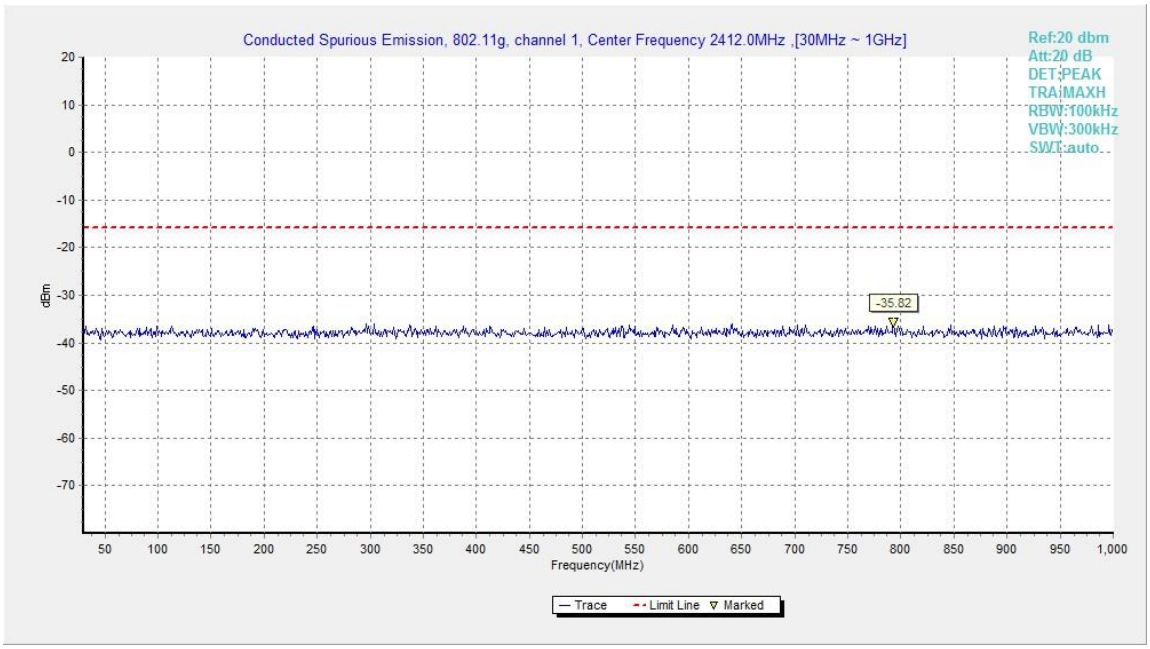

Fig.A.6.1.26 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 30 MHz-1 GHz)

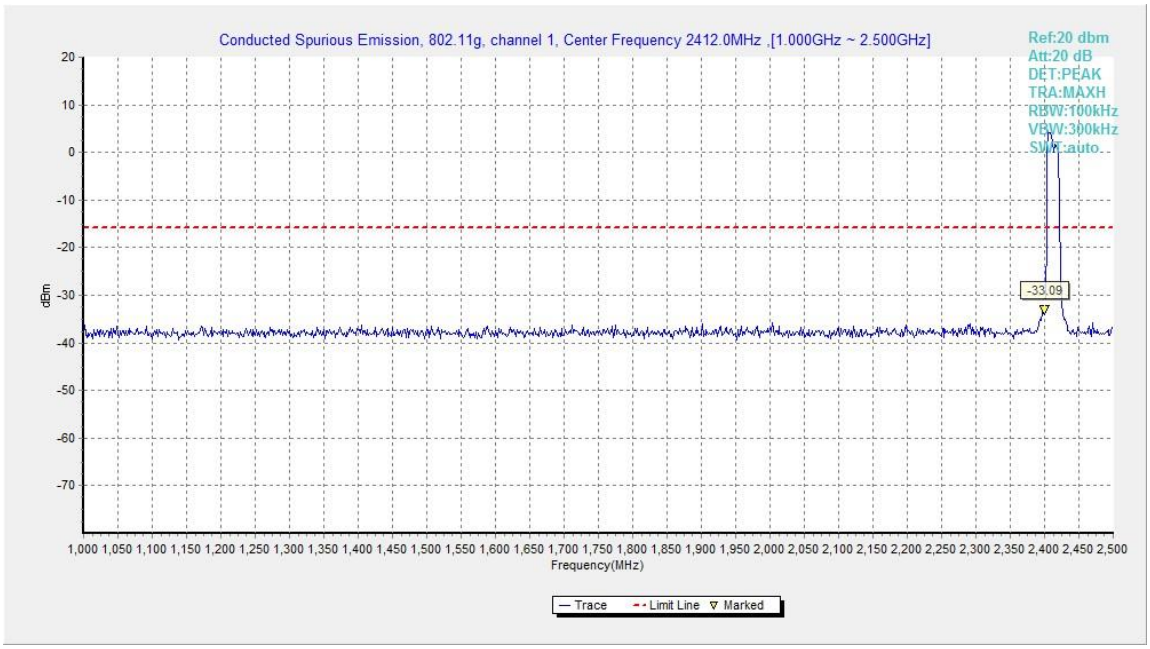

Fig.A.6.1.27 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 1 GHz-2.5 GHz)

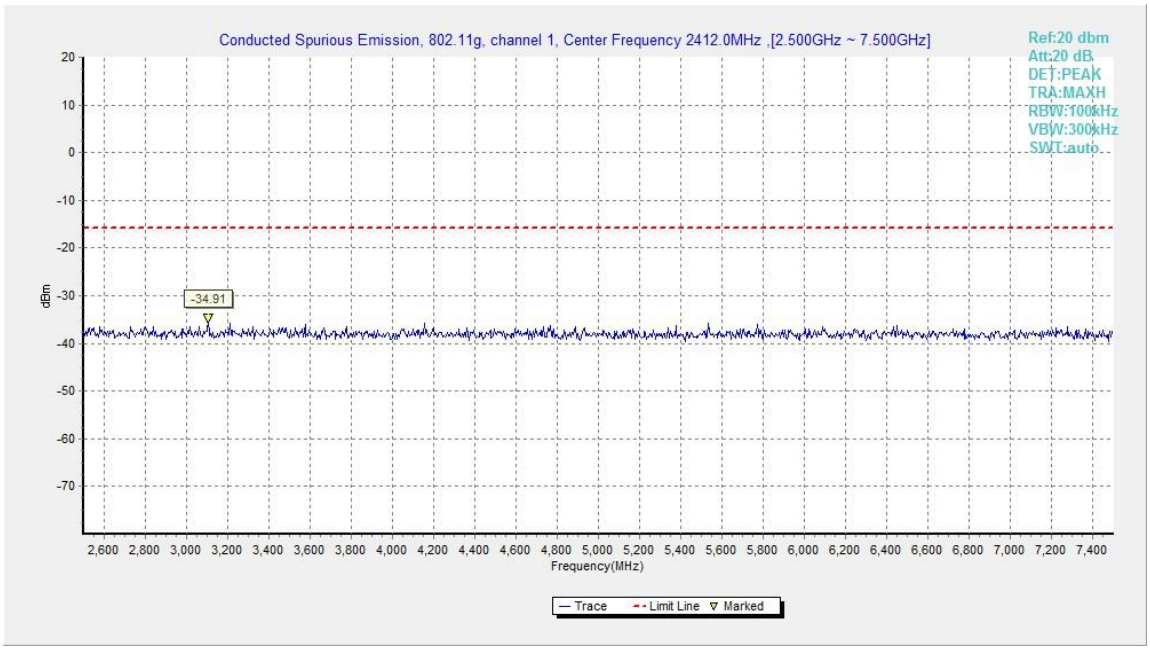

Fig.A.6.1.28 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 2.5 GHz-7.5 GHz)

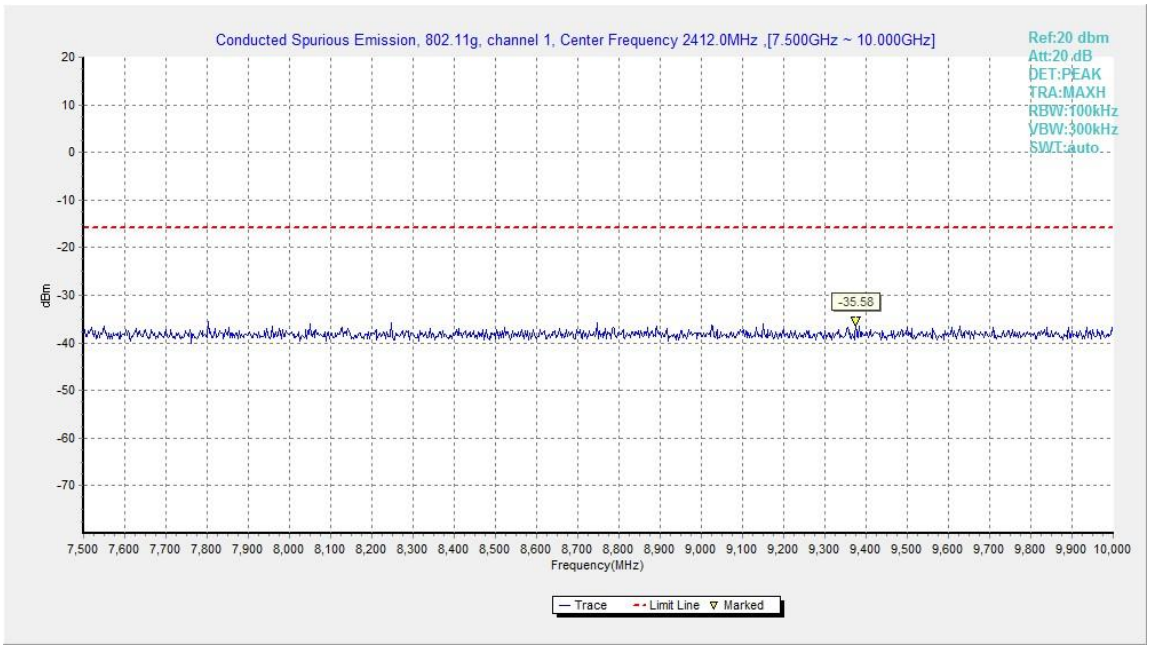

Fig.A.6.1.29 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 7.5 GHz-10 GHz)

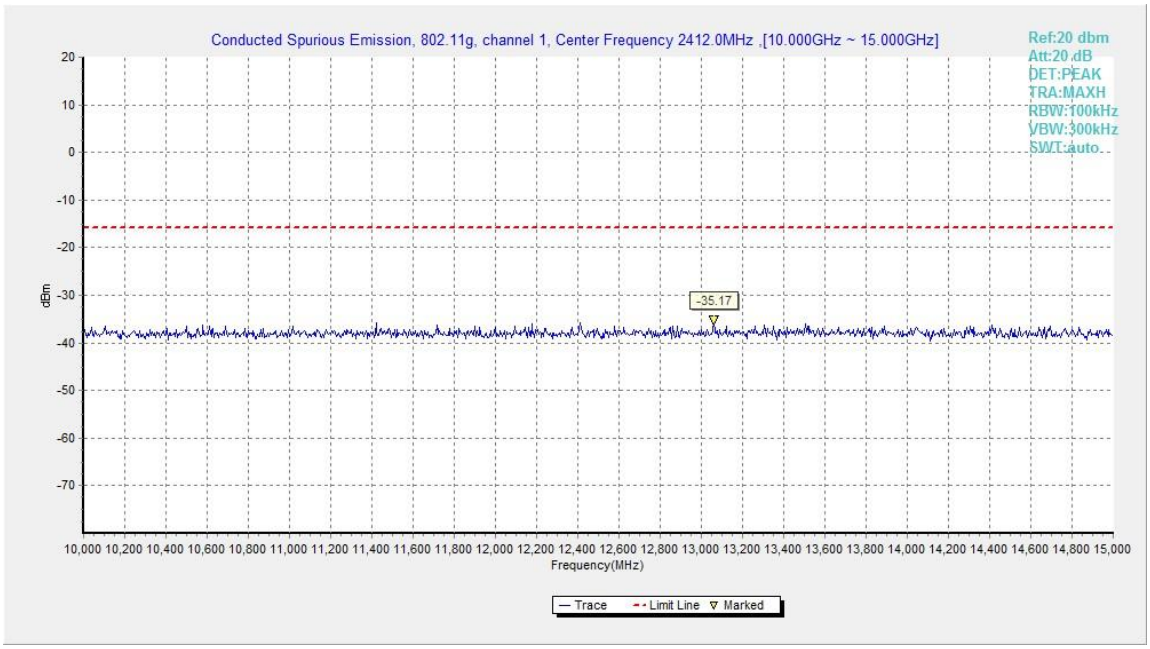

Fig.A.6.1.30 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 10 GHz-15 GHz)

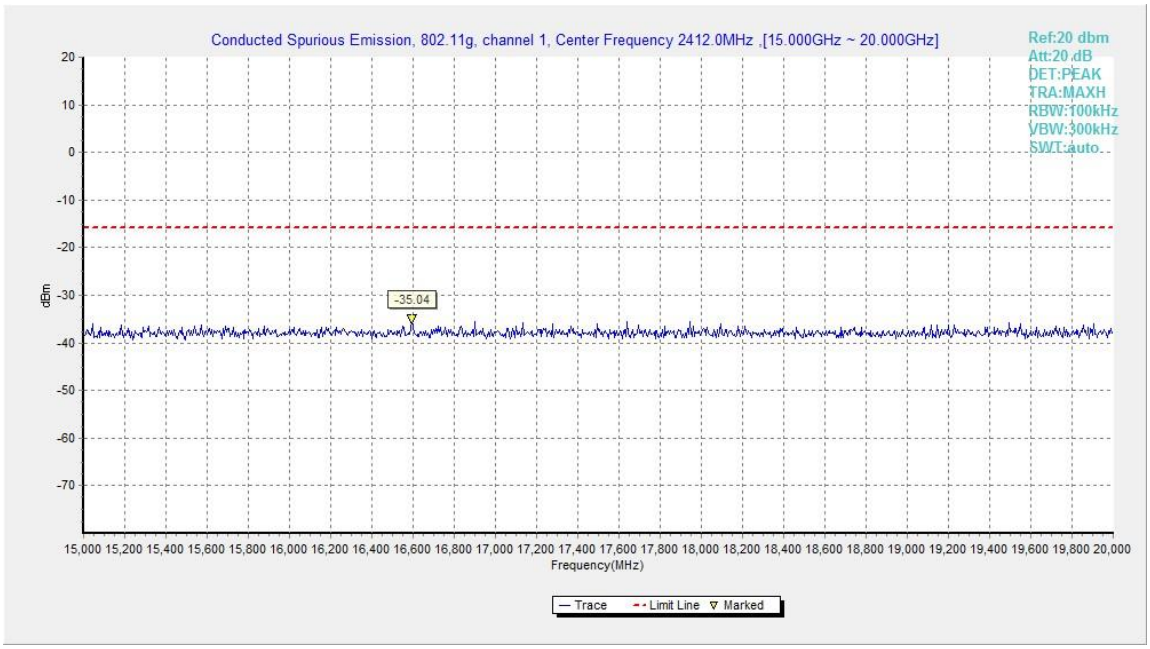

Fig.A.6.1.31 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 15 GHz-20 GHz)

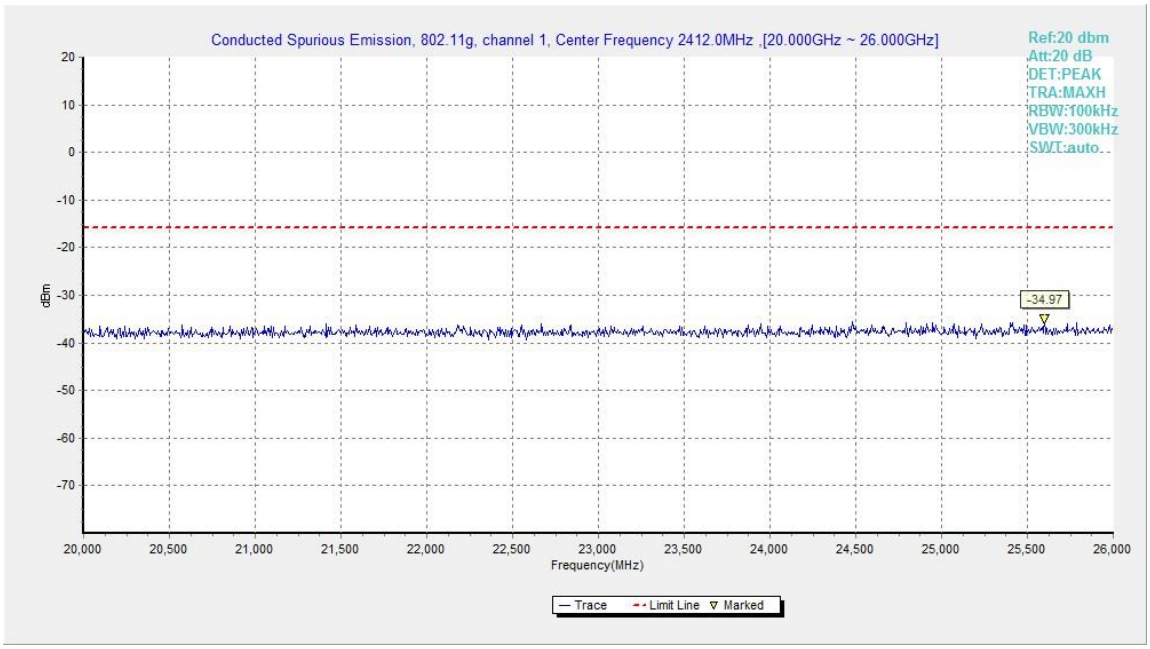

Fig.A.6.1.32 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 20 GHz-26 GHz)

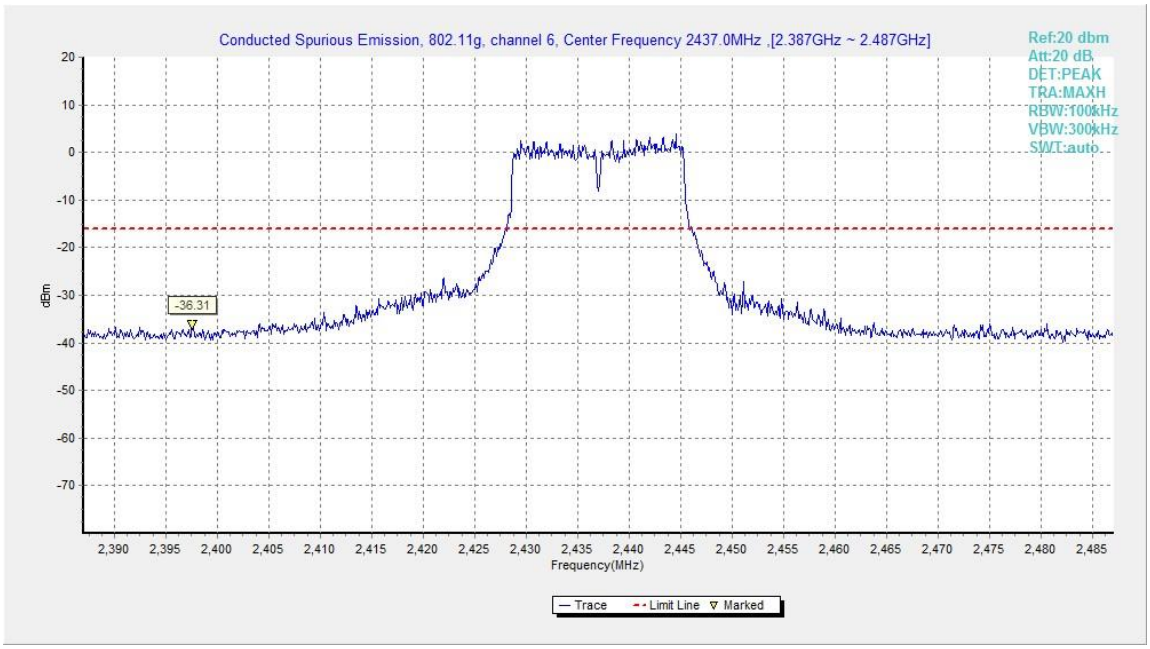

Fig.A.6.1.33 Transmitter Spurious Emission - Conducted (802.11g, Ch6, Center Frequency)

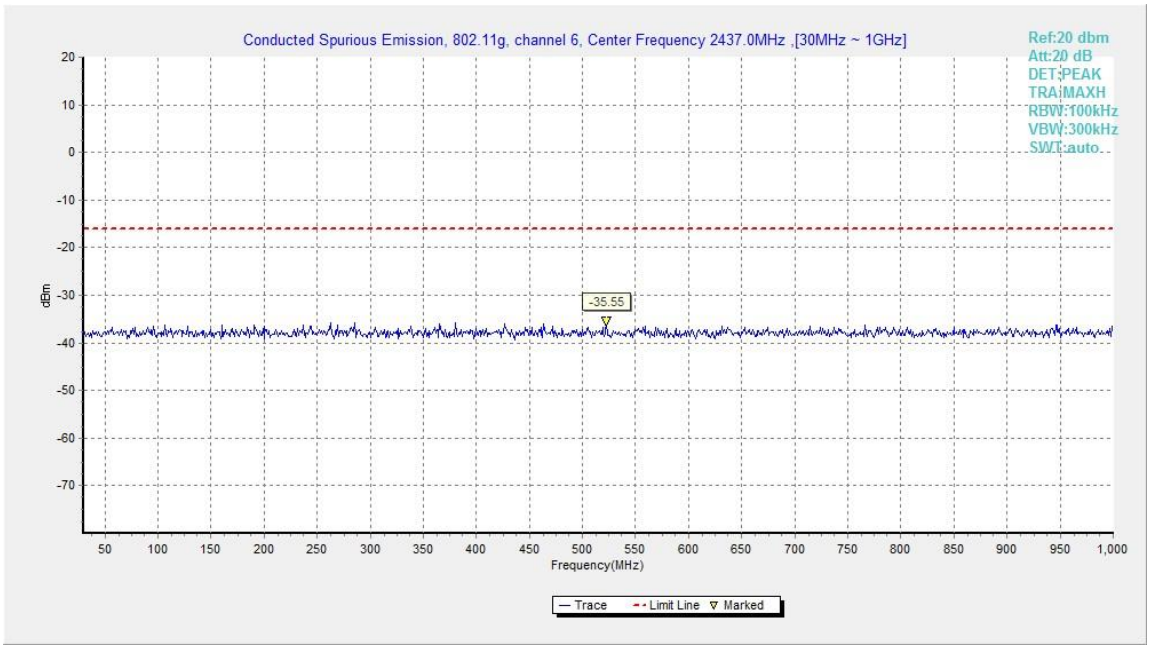

Fig.A.6.1.34 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 30 MHz-1 GHz)

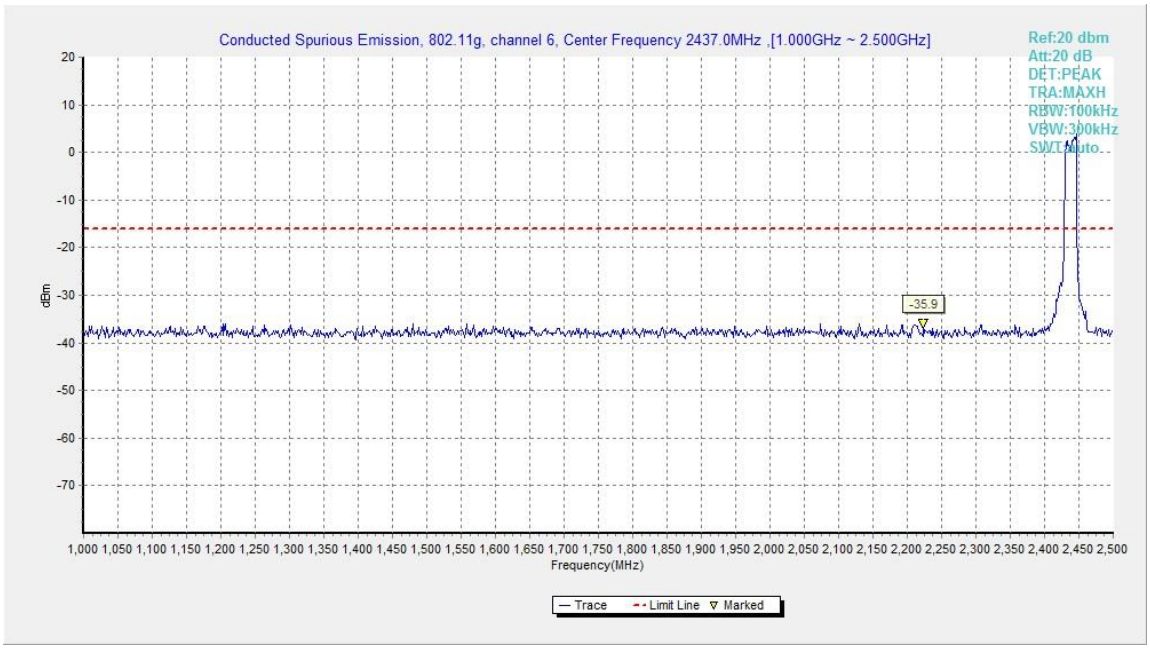

Fig.A.6.1.35 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 1 GHz-2.5 GHz)

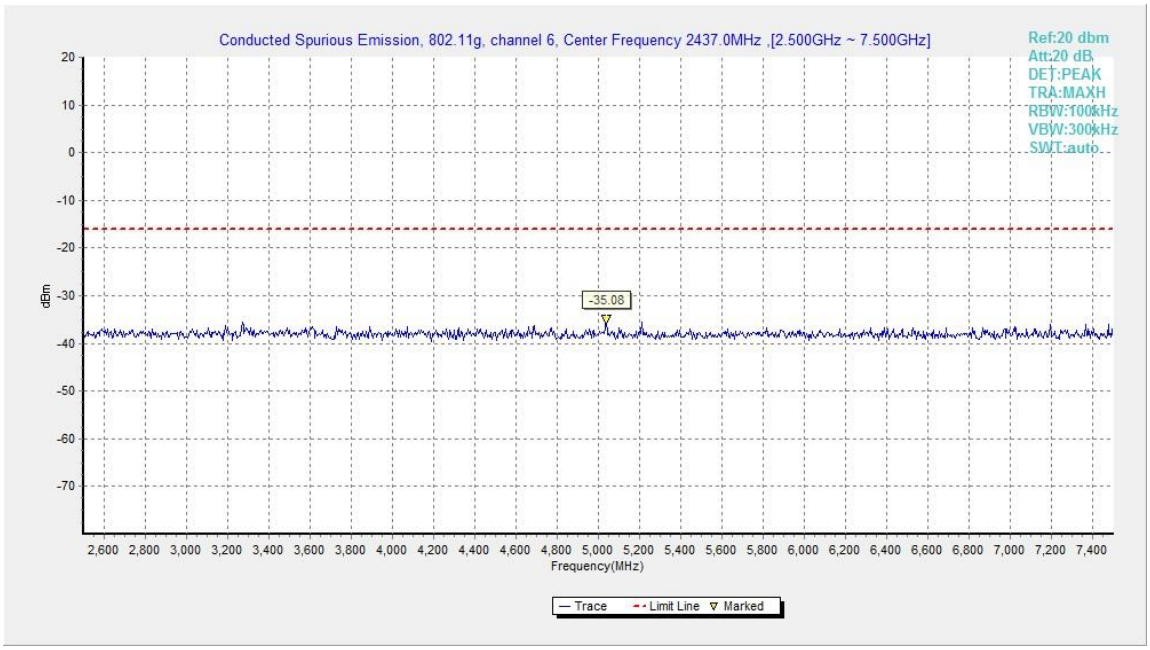

Fig.A.6.1.36 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 2.5 GHz-7.5 GHz)

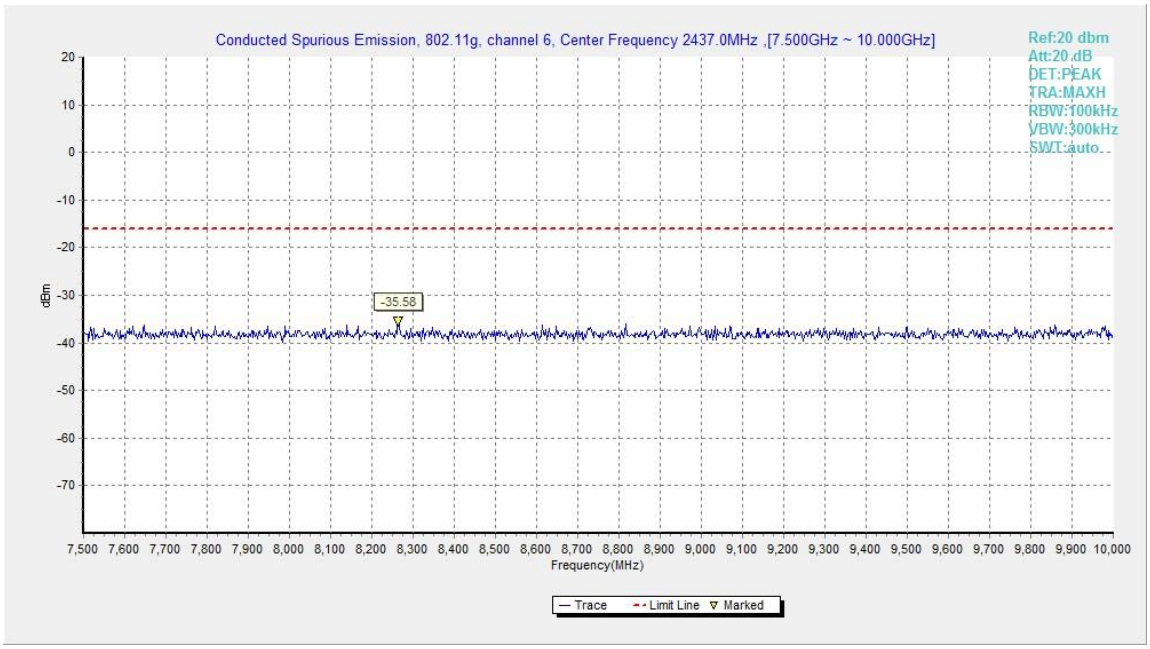

Fig.A.6.1.37 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 7.5 GHz-10 GHz)

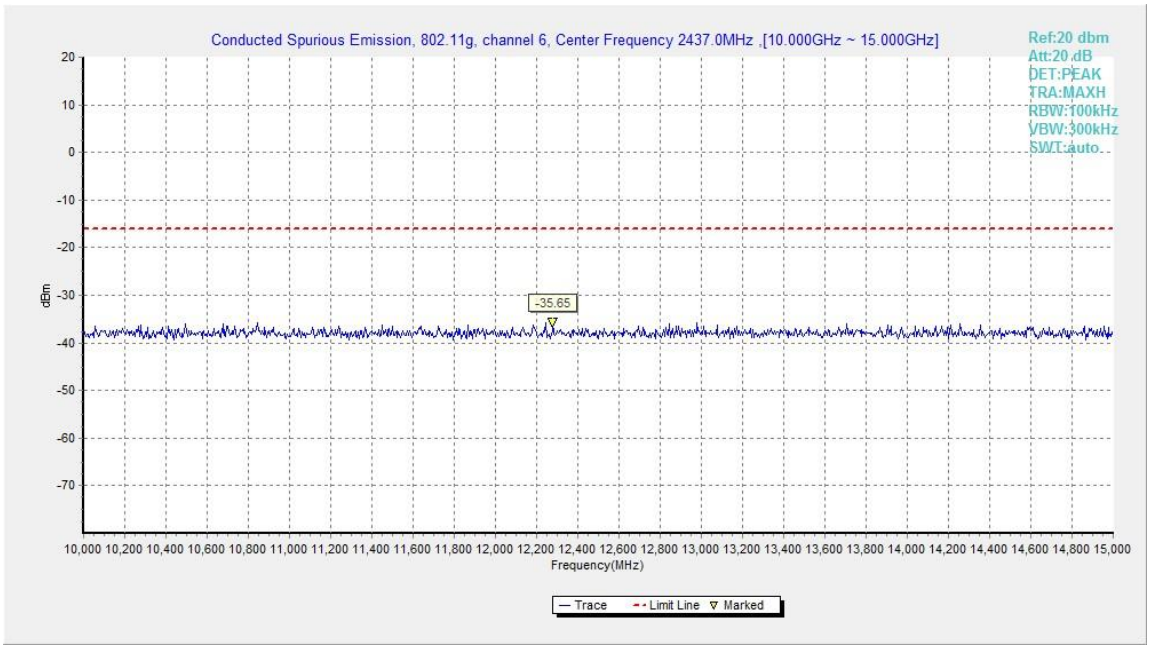

Fig.A.6.1.38 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 10 GHz-15 GHz)

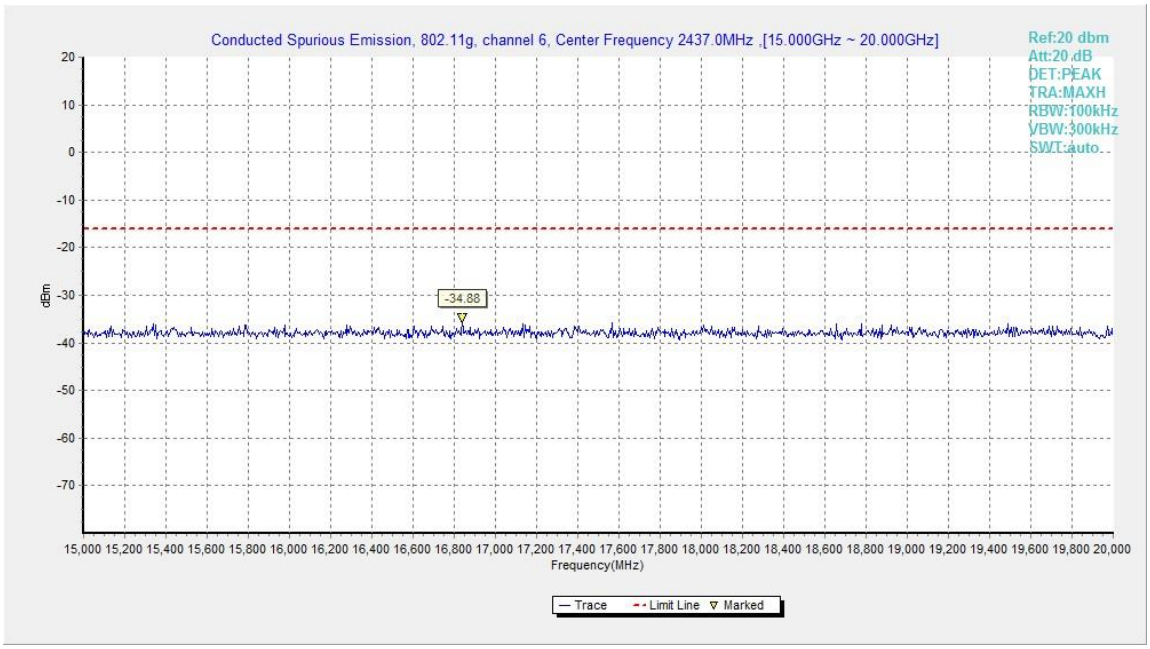

Fig.A.6.1.39 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 15 GHz-20 GHz)

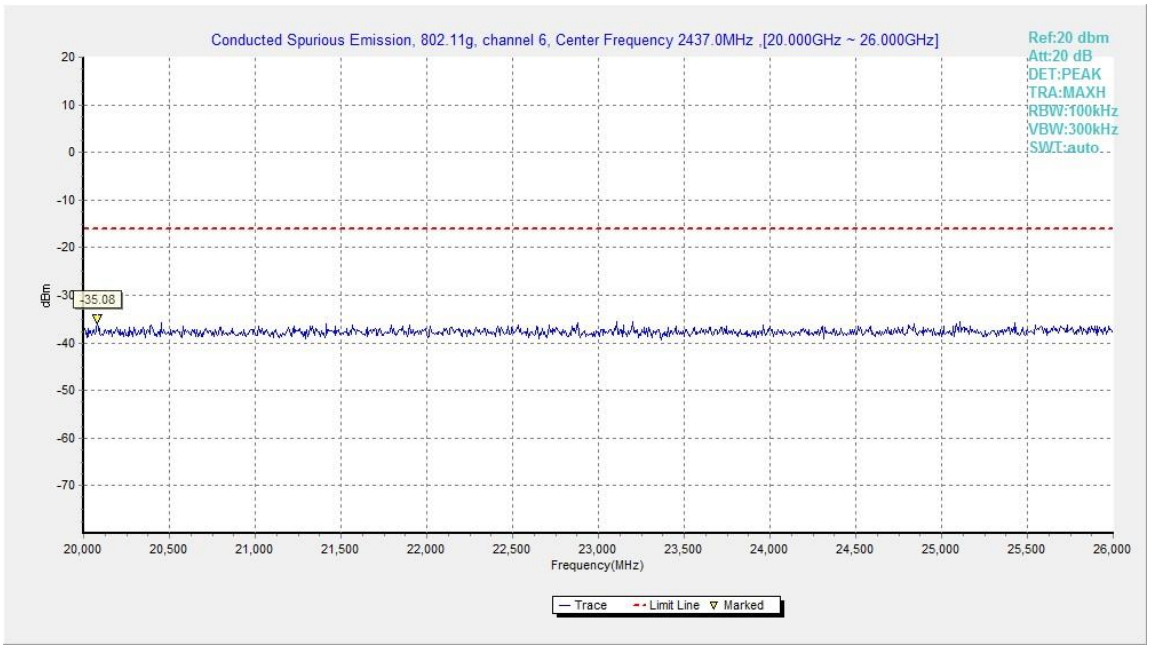

Fig.A.6.1.40 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 20 GHz-26 GHz)

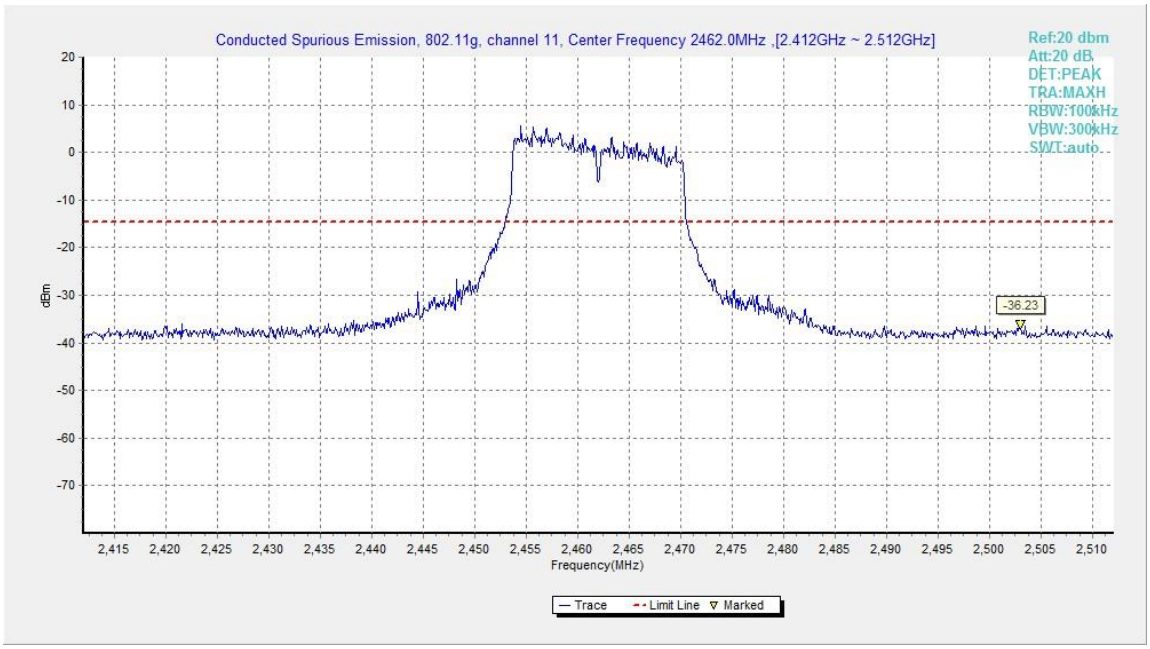

Fig.A.6.1.41 Transmitter Spurious Emission - Conducted (802.11g, Ch11, Center Frequency)

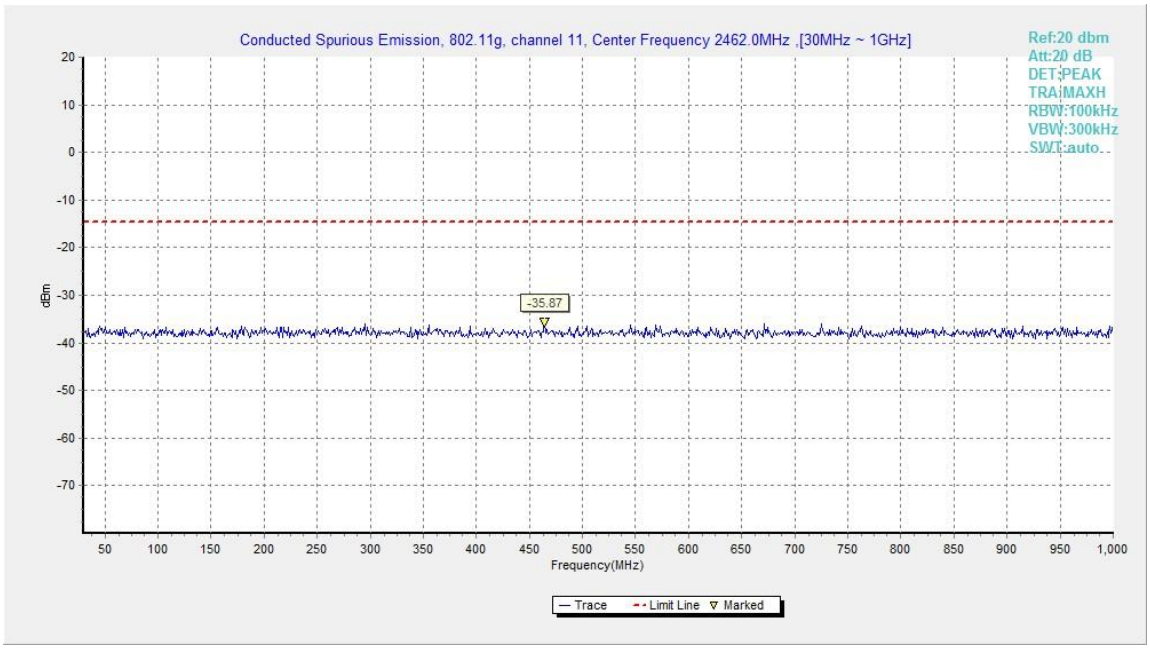

Fig.A.6.1.42 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 30 MHz-1 GHz)

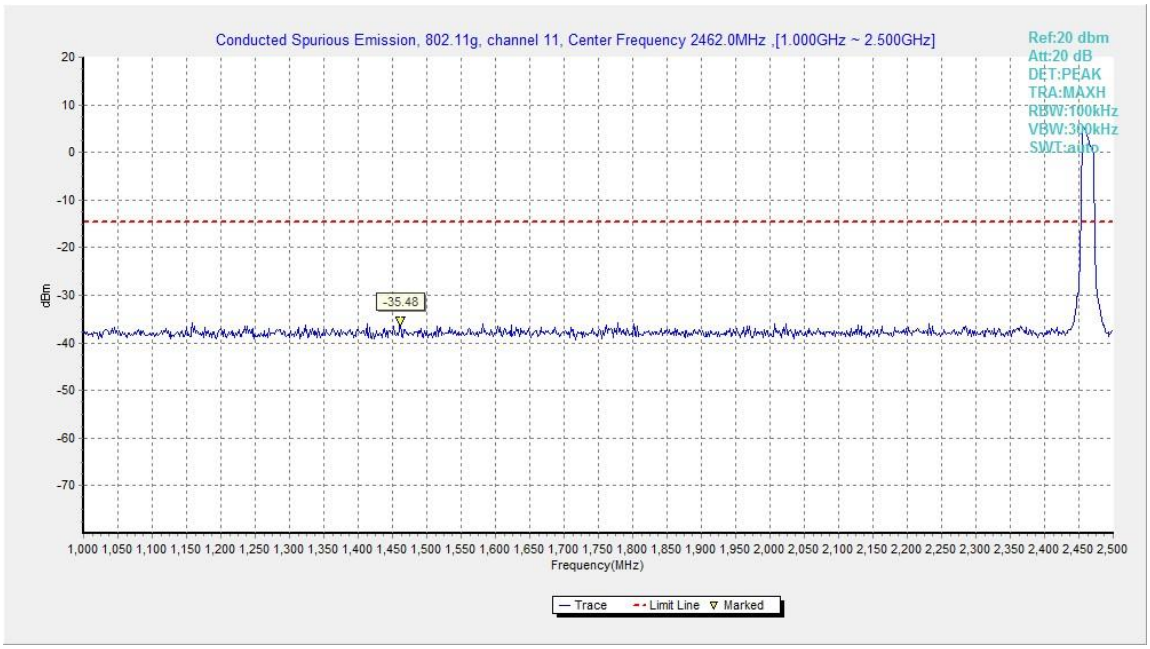

Fig.A.6.1.43 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 1 GHz-2.5 GHz)

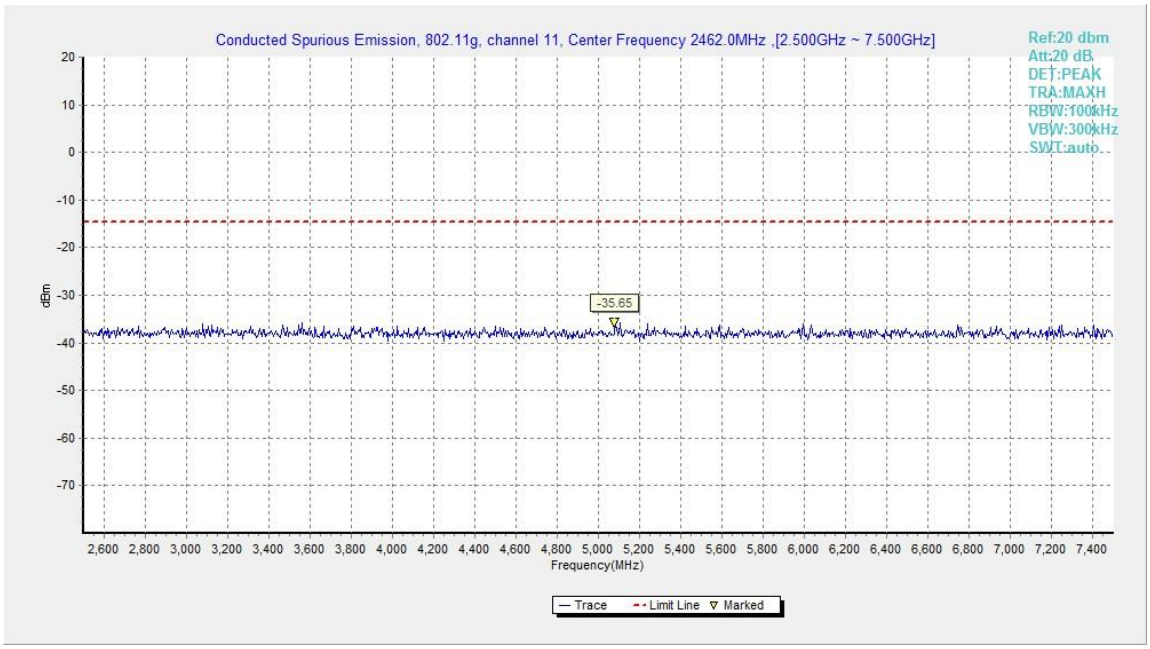

Fig.A.6.1.44 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 2.5 GHz-7.5 GHz)

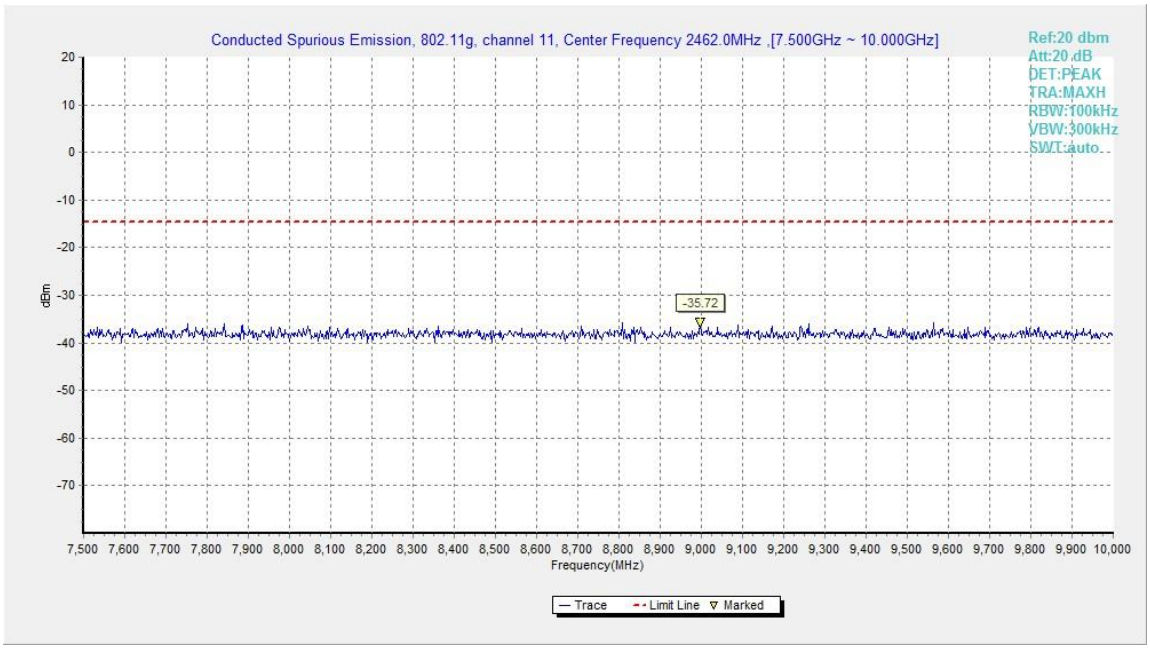

Fig.A.6.1.45 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 7.5 GHz-10 GHz)

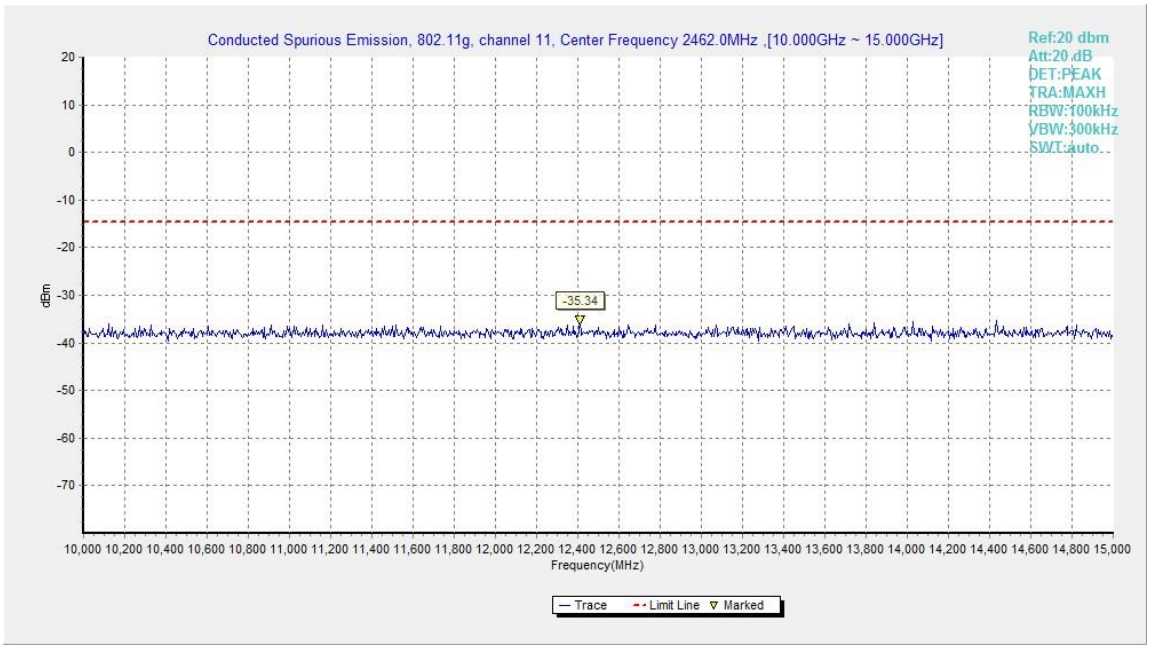

Fig.A.6.1.46 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 10 GHz-15 GHz)

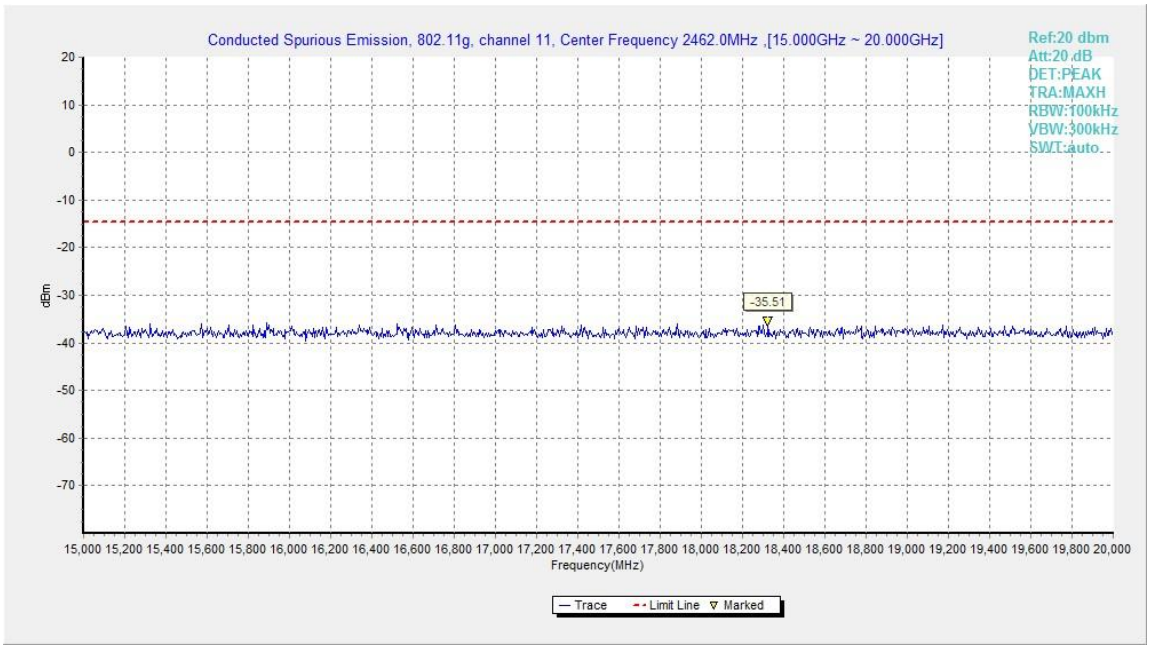

Fig.A.6.1.47 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 15 GHz-20 GHz)

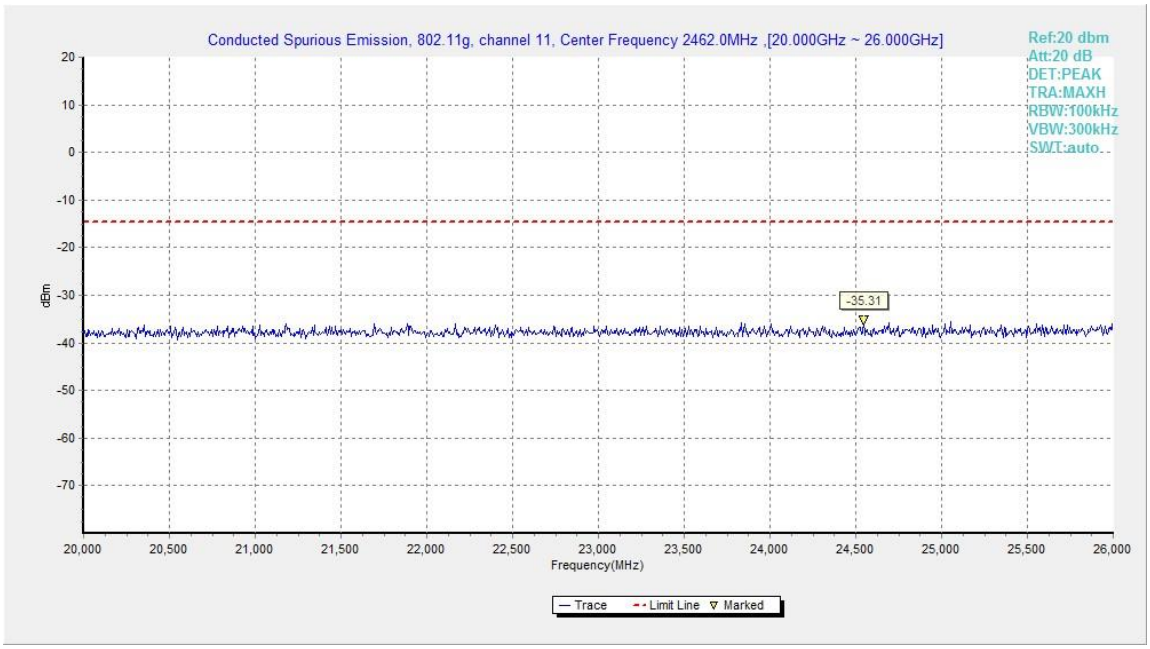

Fig.A.6.1.48 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 20 GHz-26 GHz)

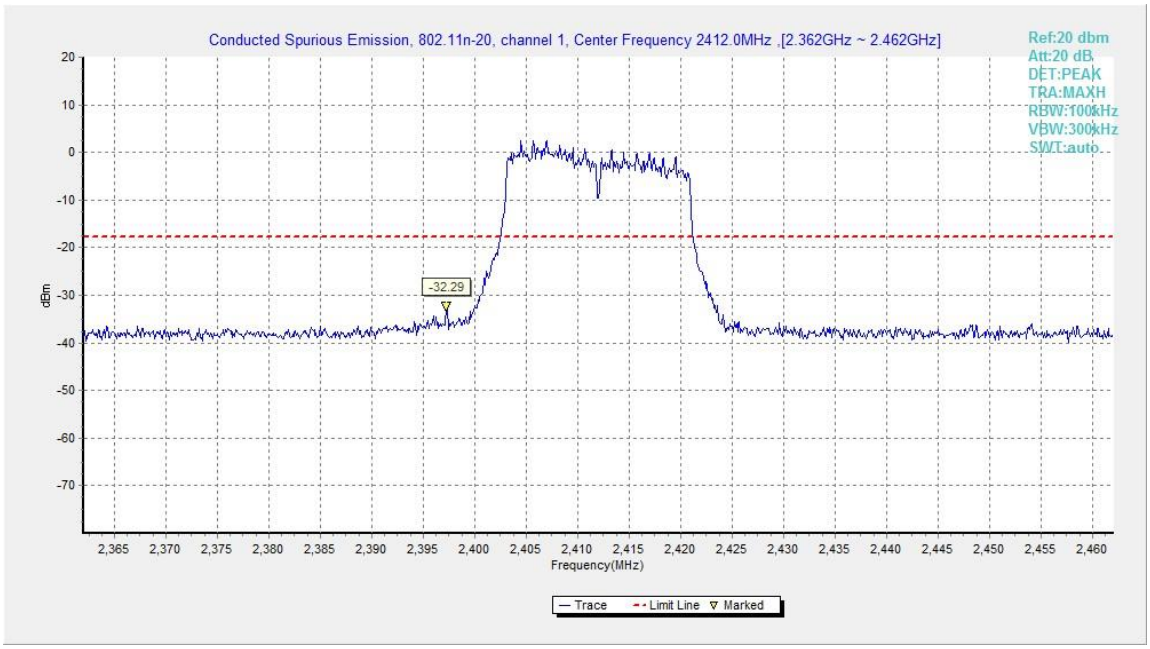

Fig.A.6.1.49 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, Center Frequency)

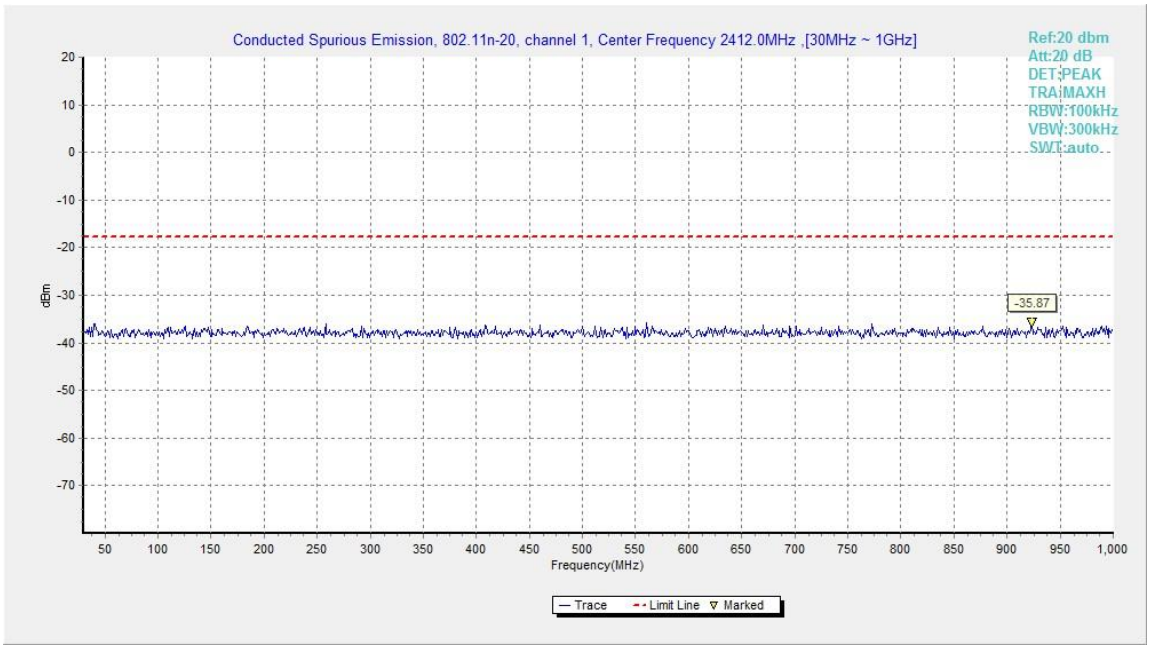

Fig.A.6.1.50 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 30 MHz-1 GHz)

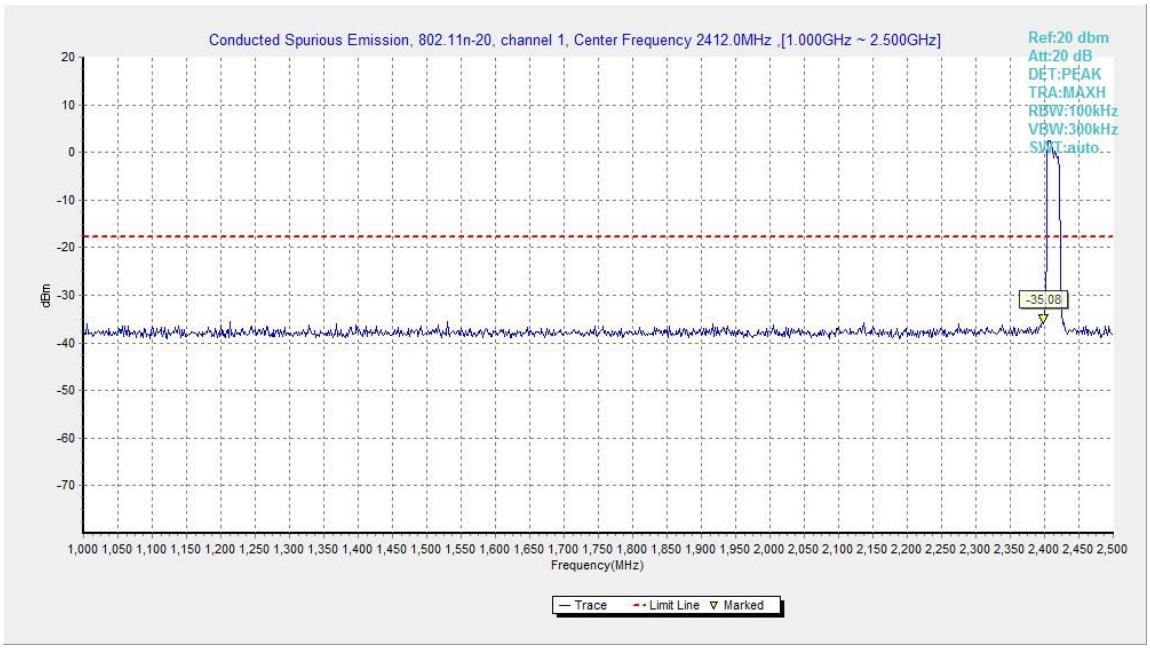

Fig.A.6.1.51 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 1 GHz-2.5 GHz)

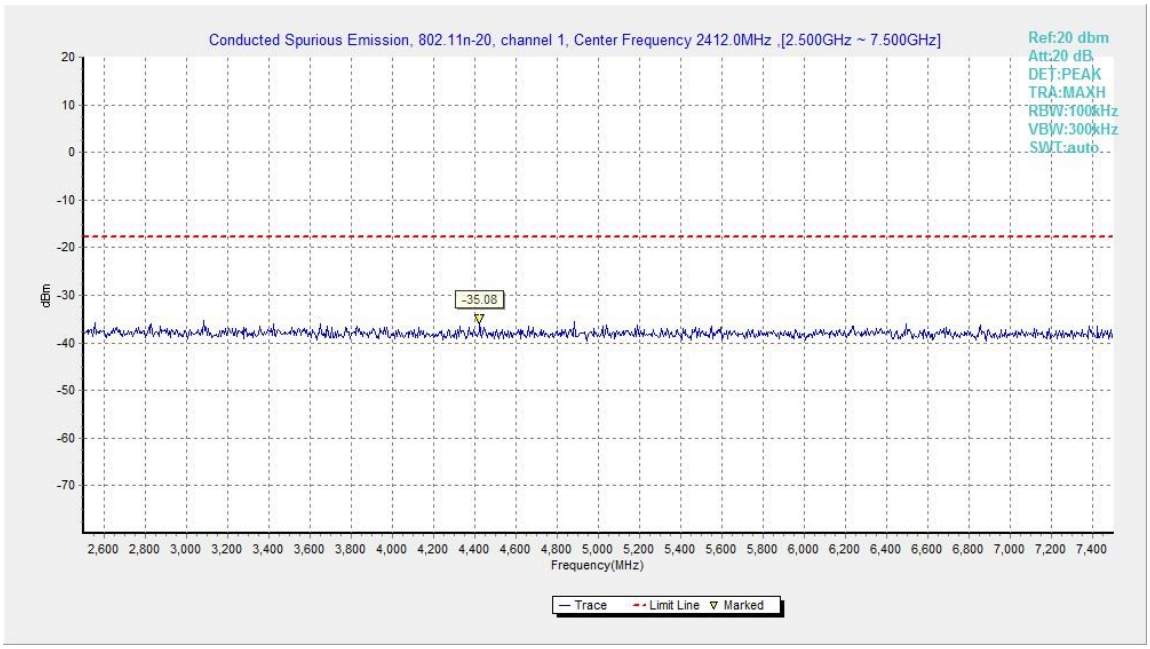

Fig.A.6.1.52 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 2.5 GHz-7.5 GHz)

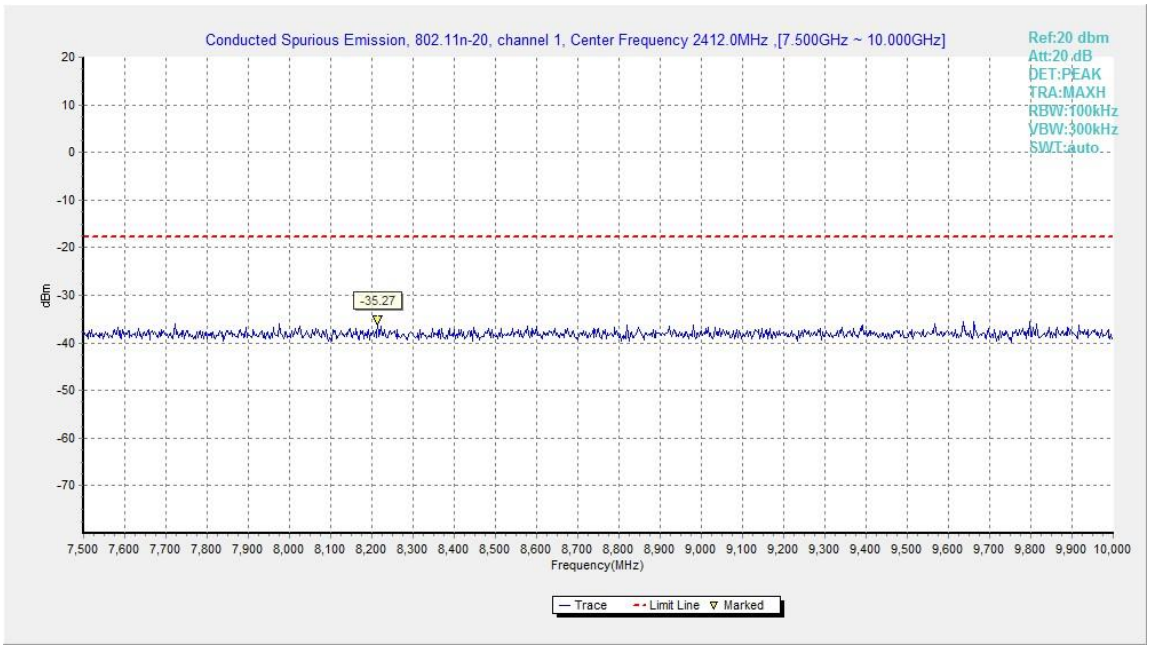

Fig.A.6.1.53 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 7.5 GHz-10 GHz)

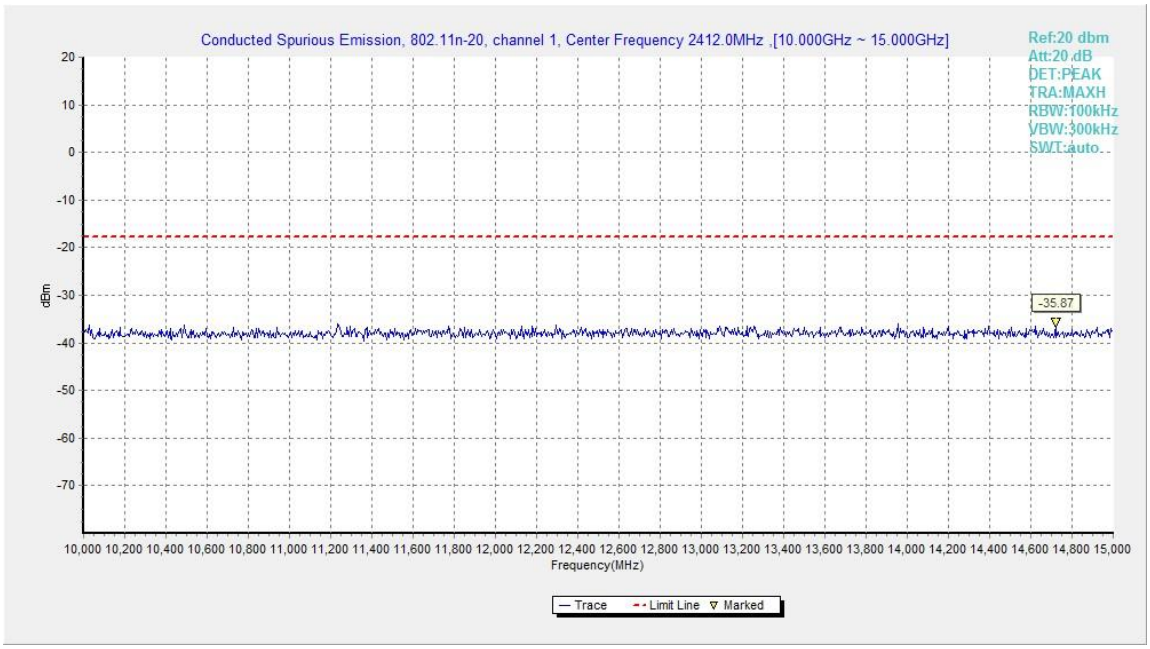

Fig.A.6.1.54 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 10 GHz-15 GHz)

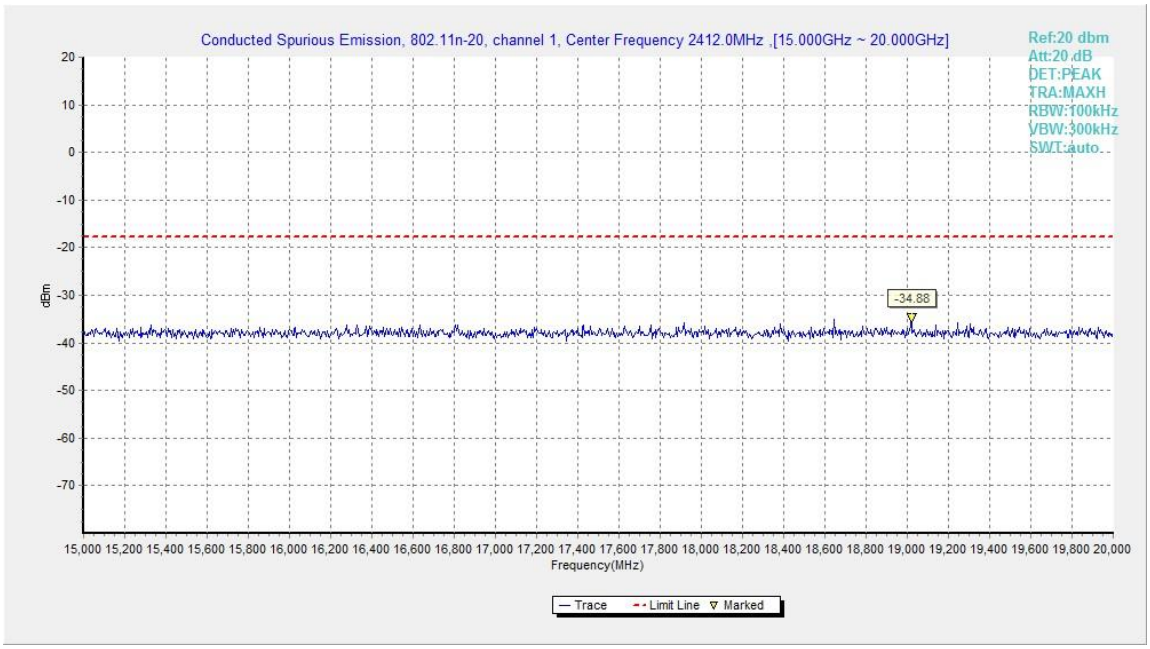

Fig.A.6.1.55 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 15 GHz-20 GHz)

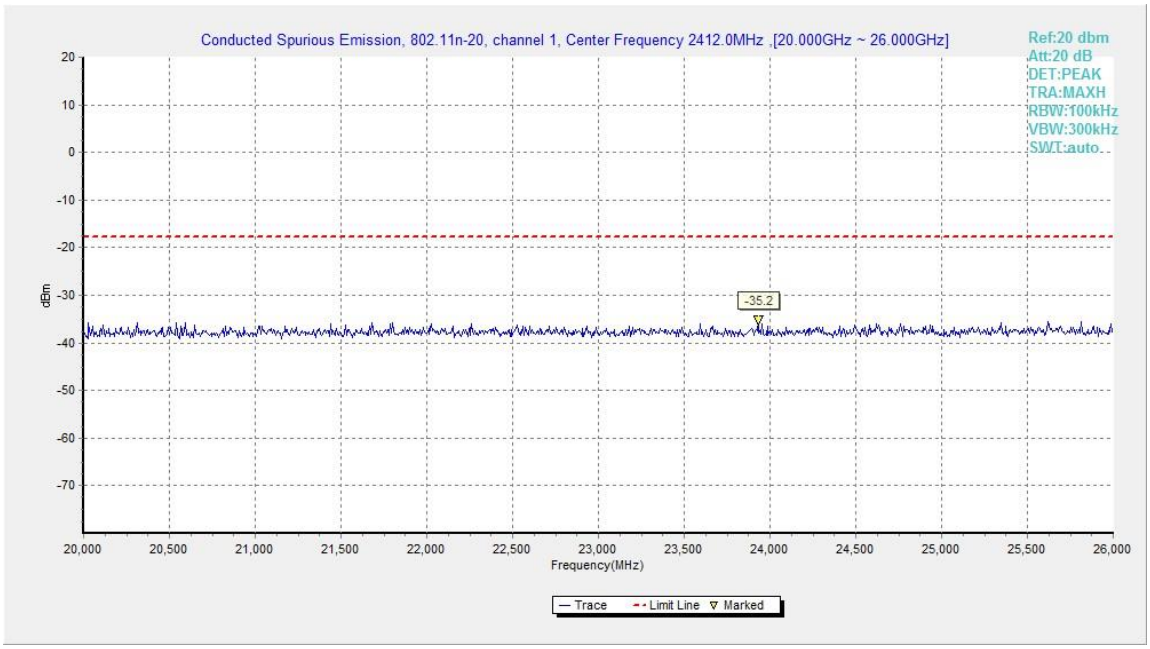

Fig.A.6.1.56 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 20 GHz-26 GHz)

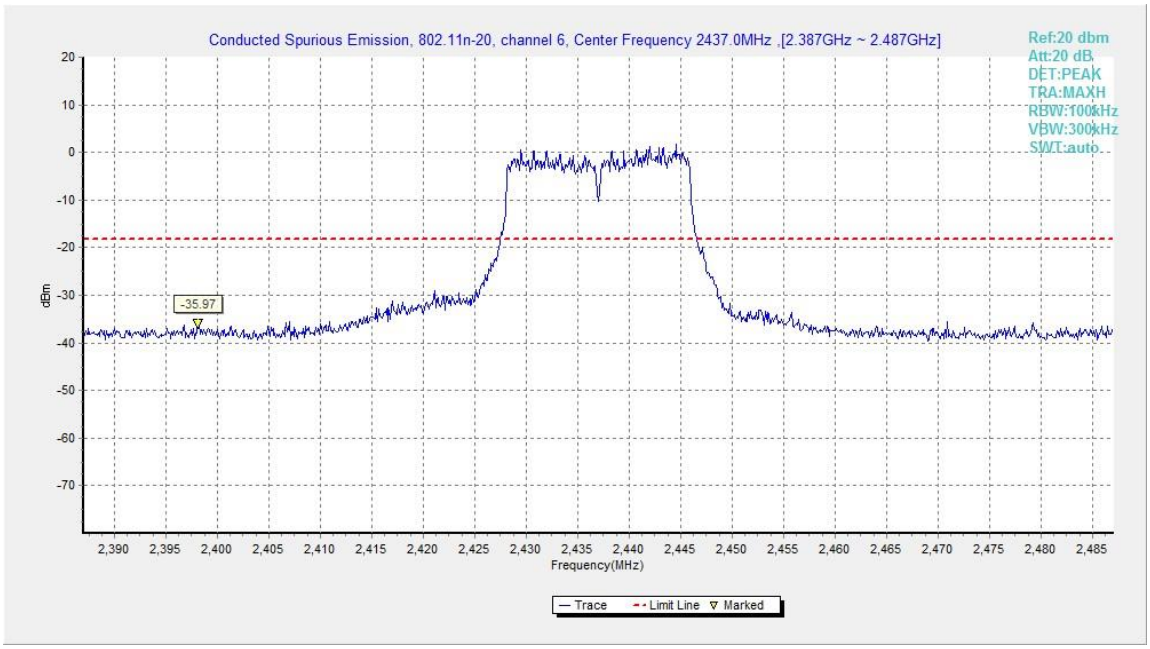

Fig.A.6.1.57 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, Center Frequency)

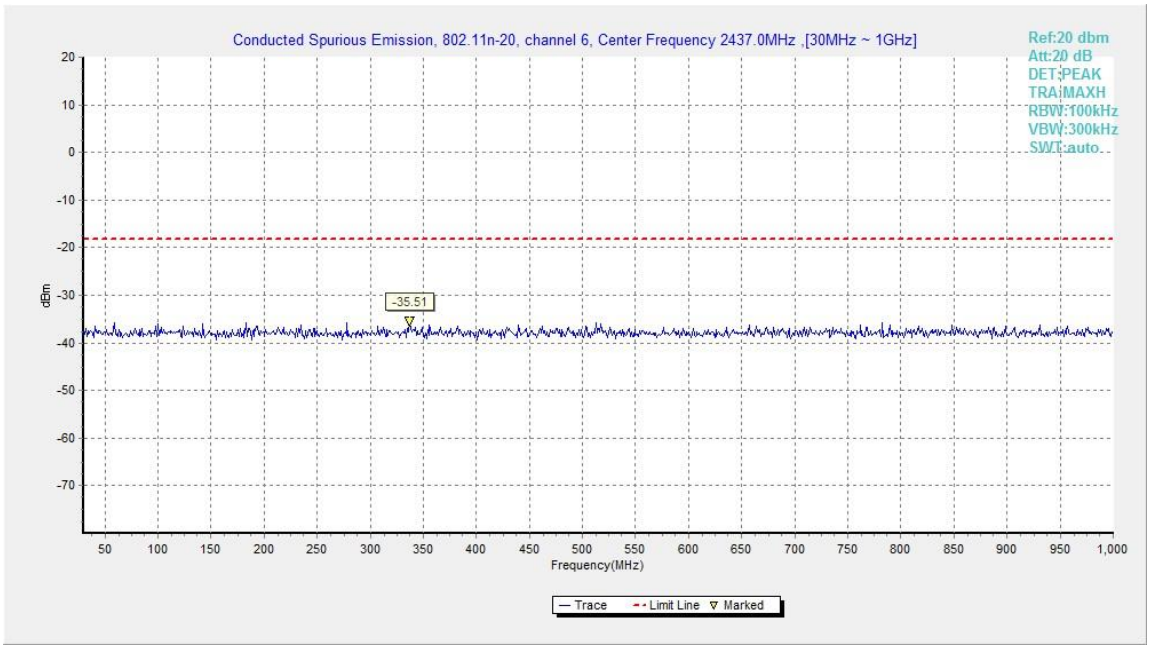

Fig.A.6.1.58 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 30 MHz-1 GHz)

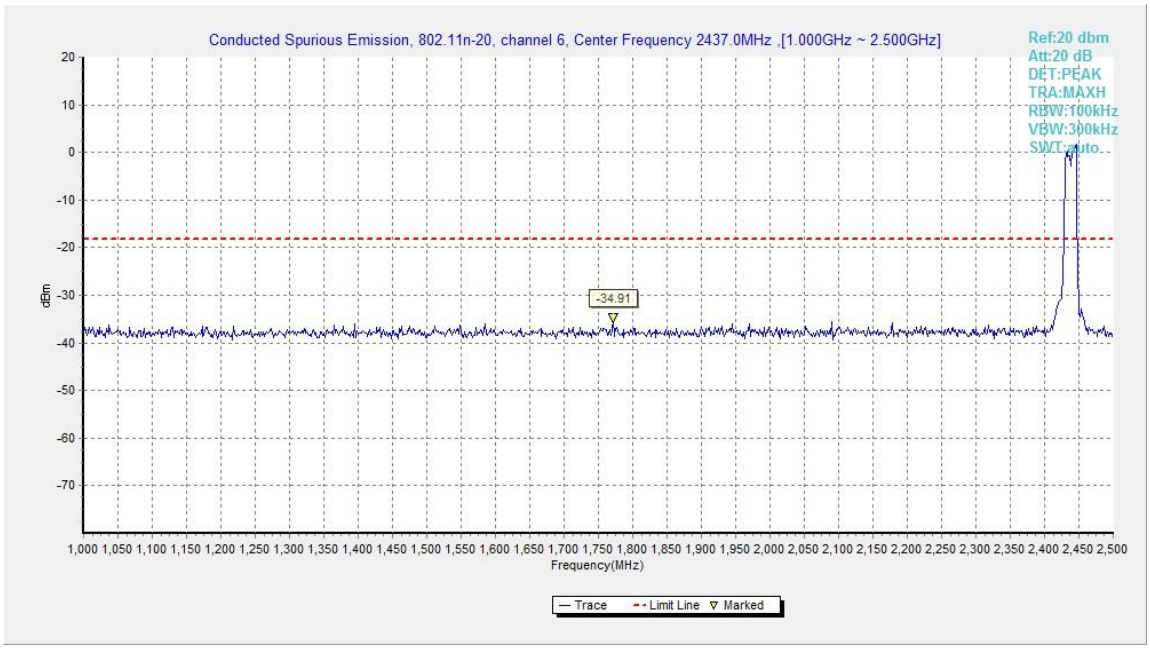

Fig.A.6.1.59 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 1 GHz-2.5 GHz)

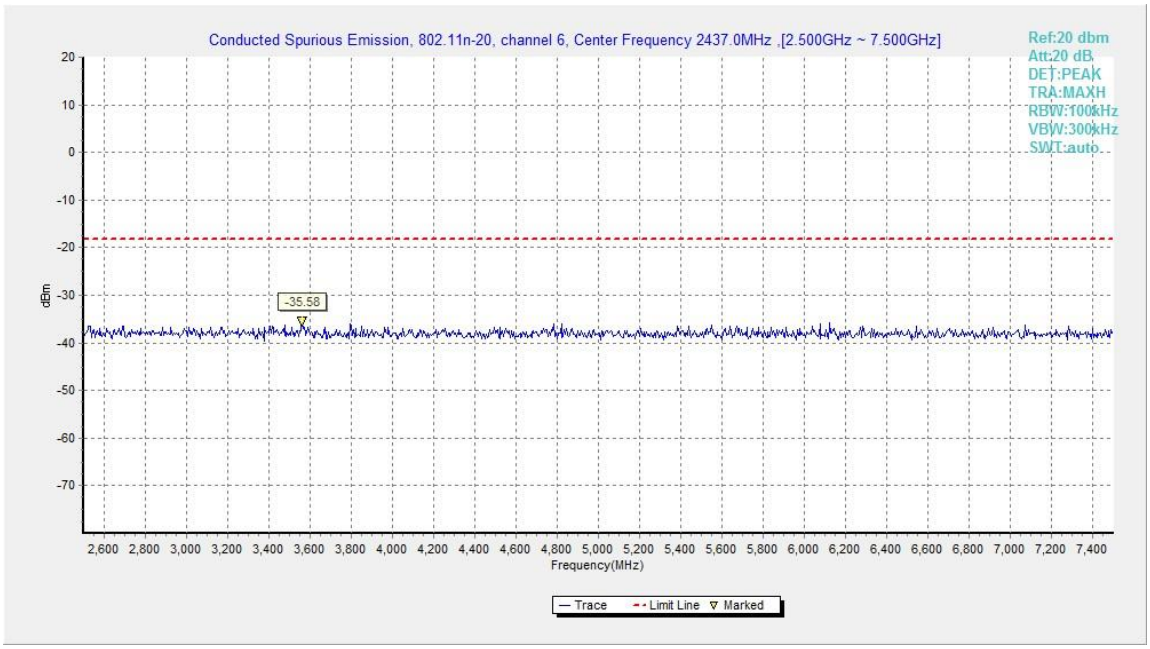

Fig.A.6.1.60 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 2.5 GHz-7.5 GHz)

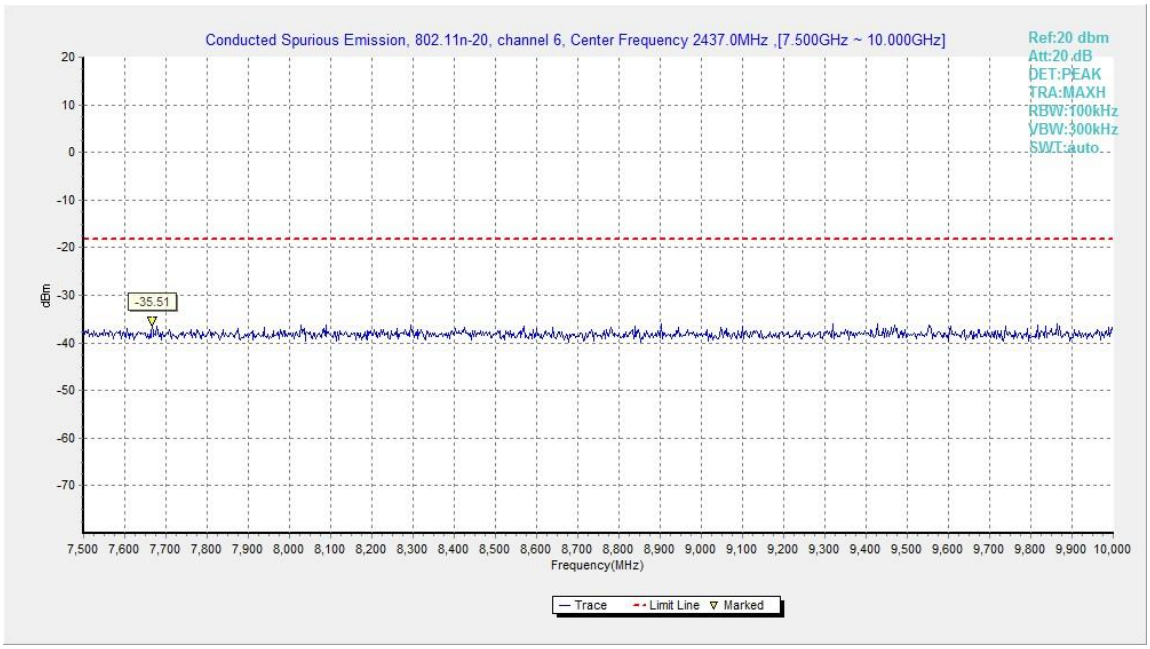

Fig.A.6.1.61 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 7.5 GHz-10 GHz)

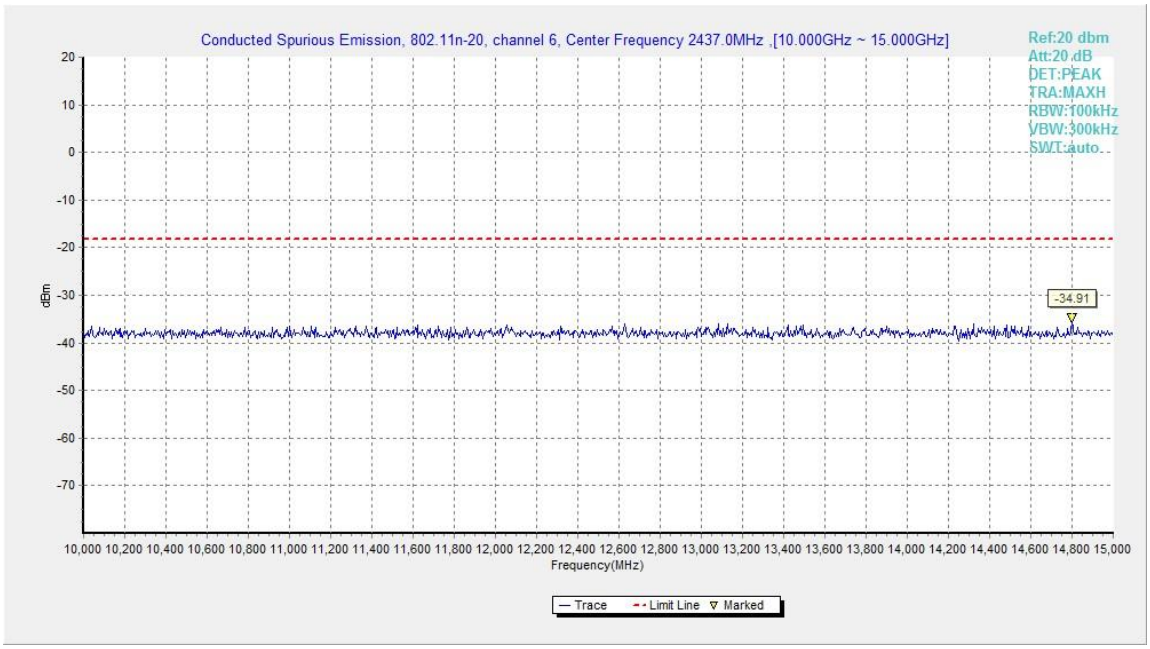

Fig.A.6.1.62 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 10 GHz-15 GHz)

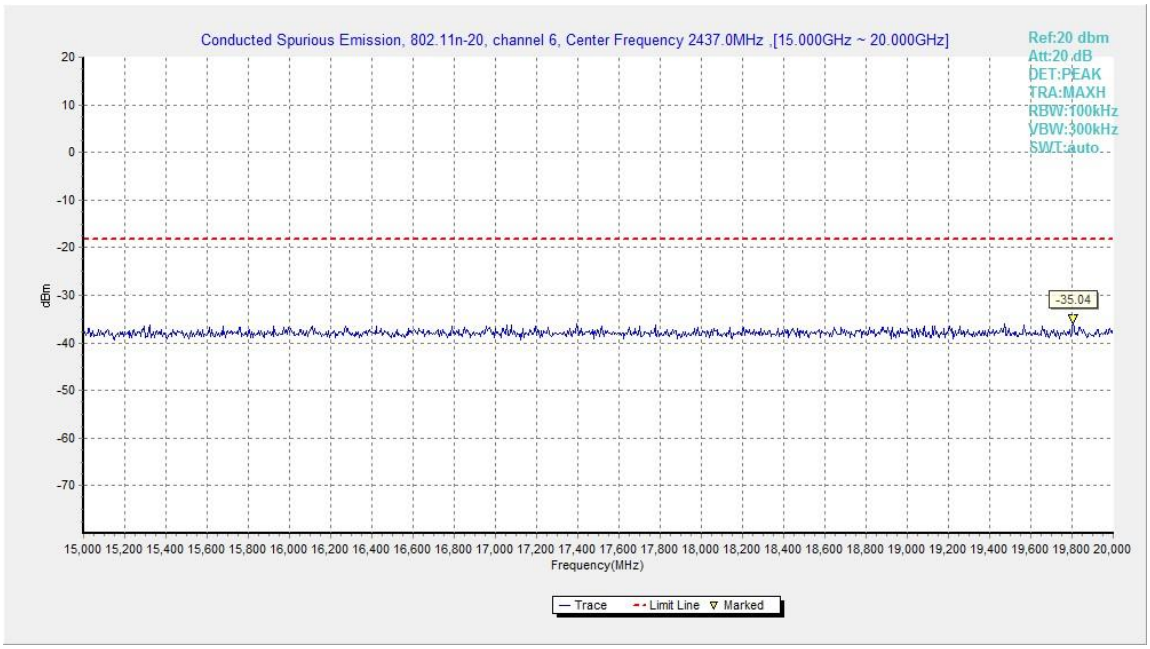

Fig.A.6.1.63 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 15 GHz-20 GHz)

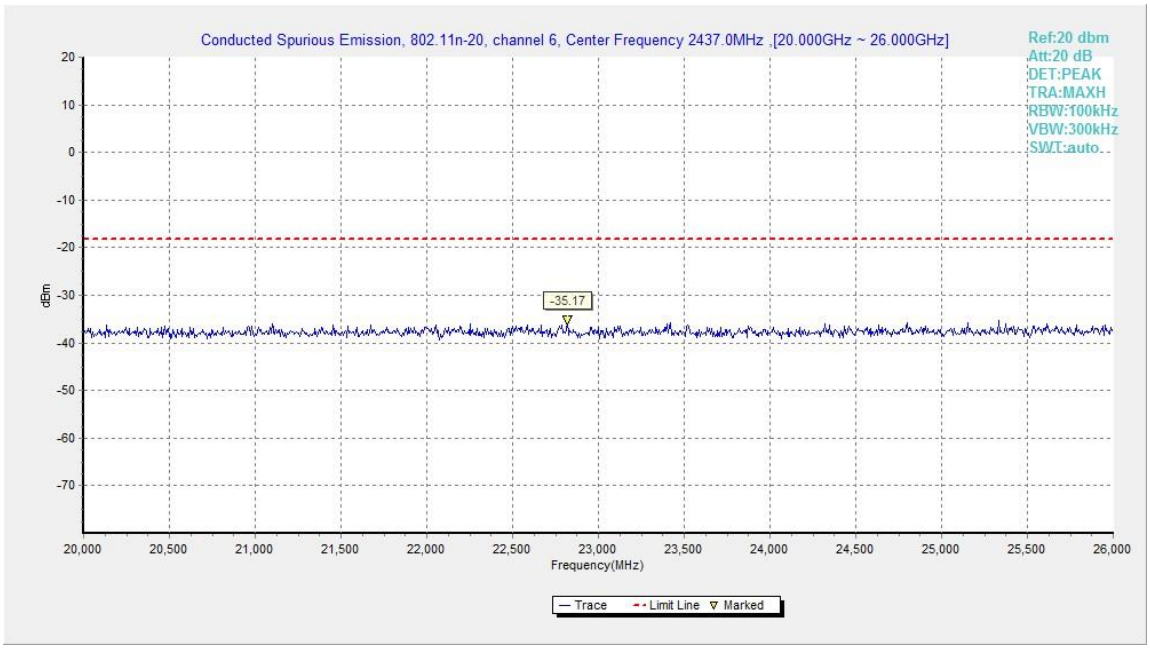

Fig.A.6.1.64 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 20 GHz-26 GHz)

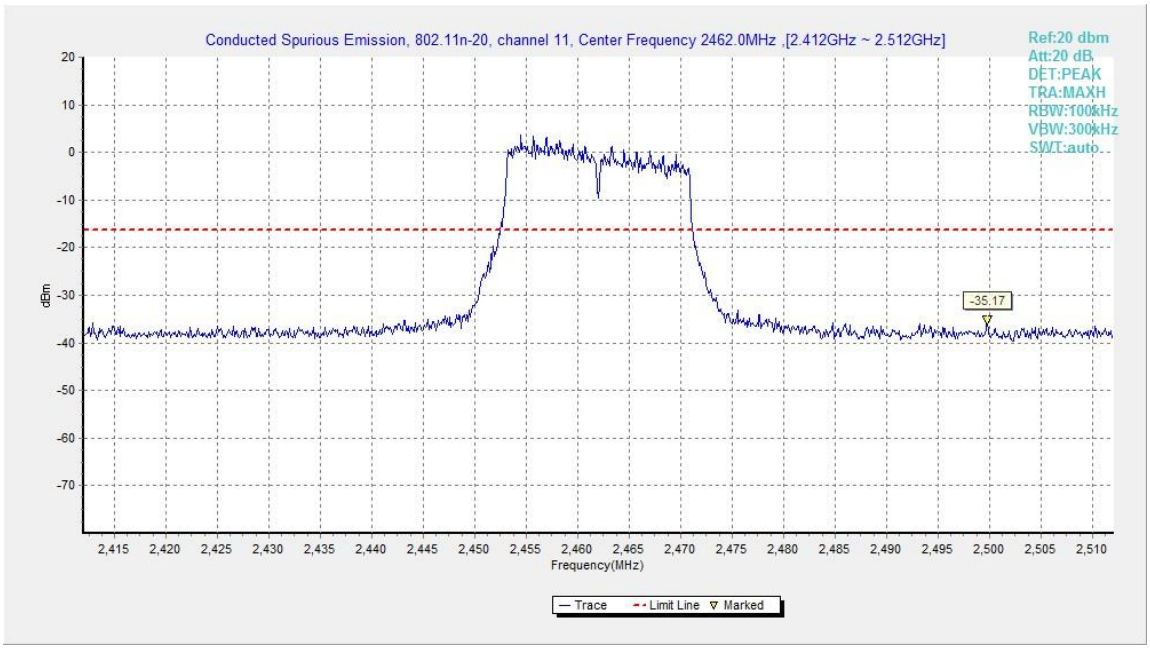

Fig.A.6.1.65 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, Center Frequency)

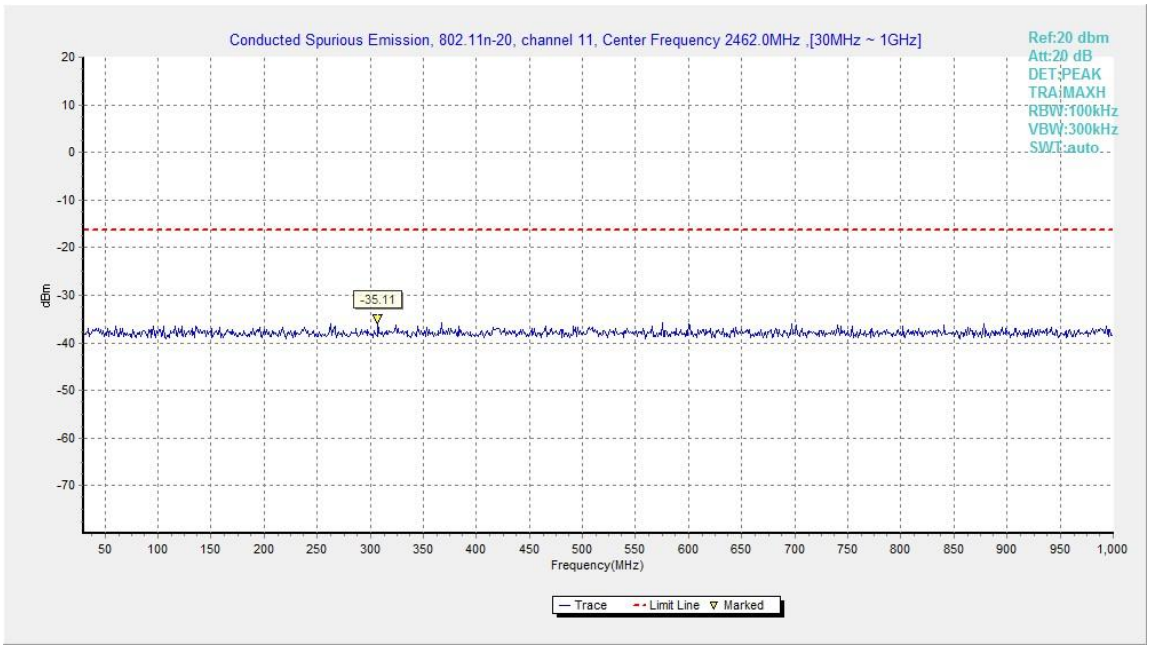

Fig.A.6.1.66 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 30 MHz-1 GHz)

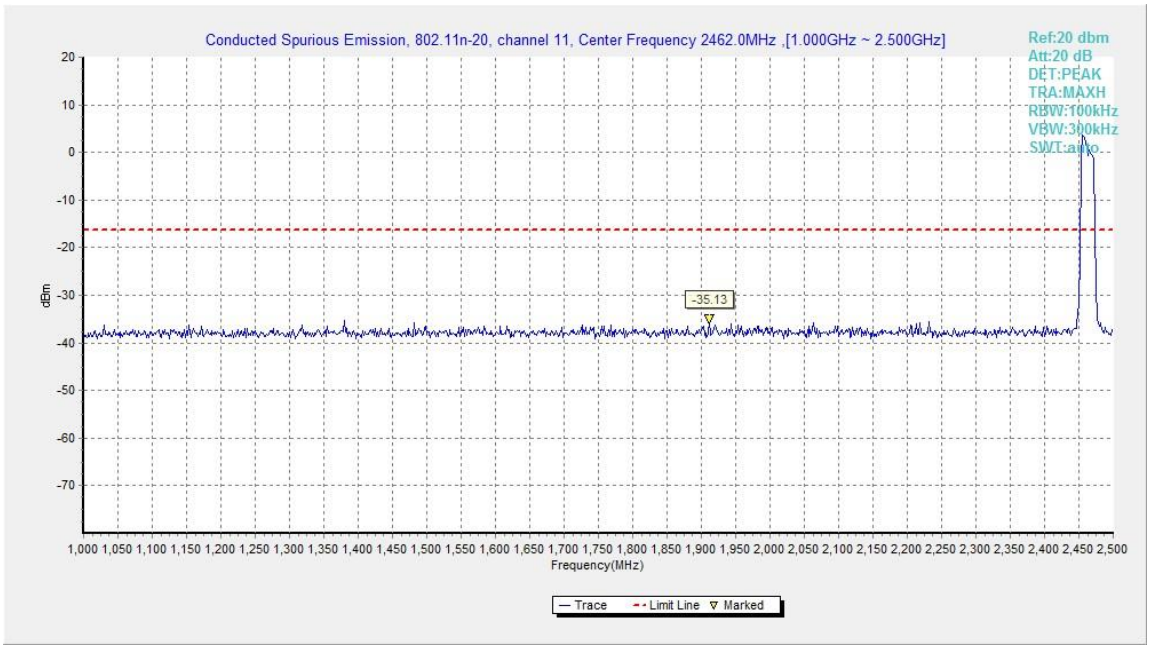

Fig.A.6.1.67 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 1 GHz-2.5 GHz)

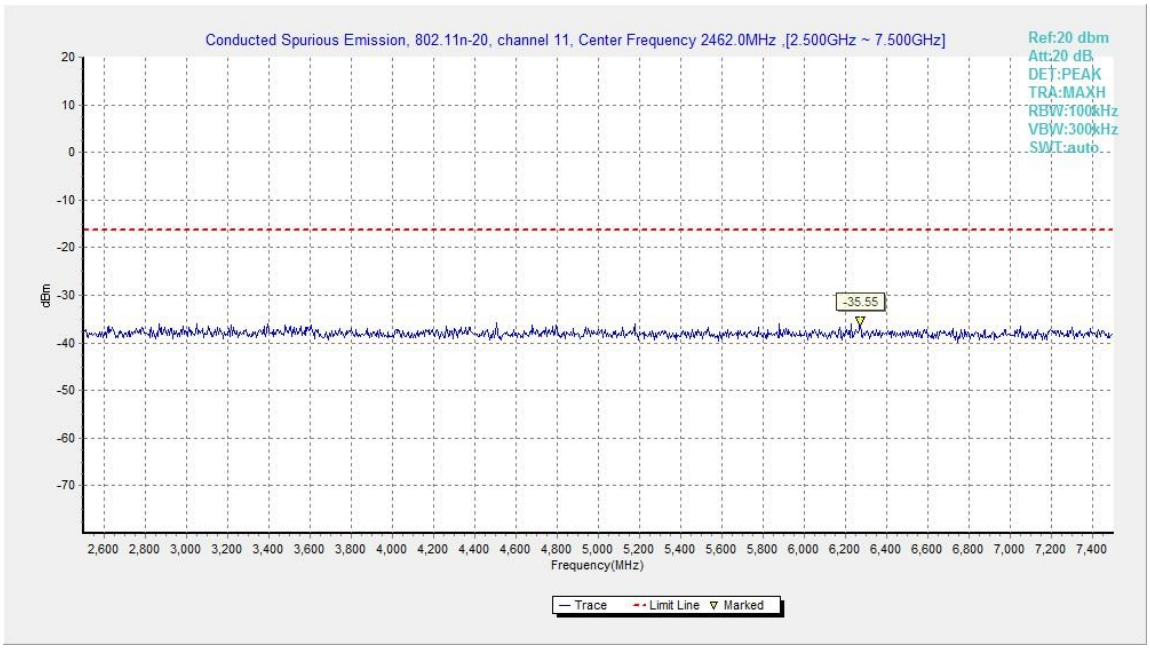

Fig.A.6.1.68 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 2.5 GHz-7.5 GHz)

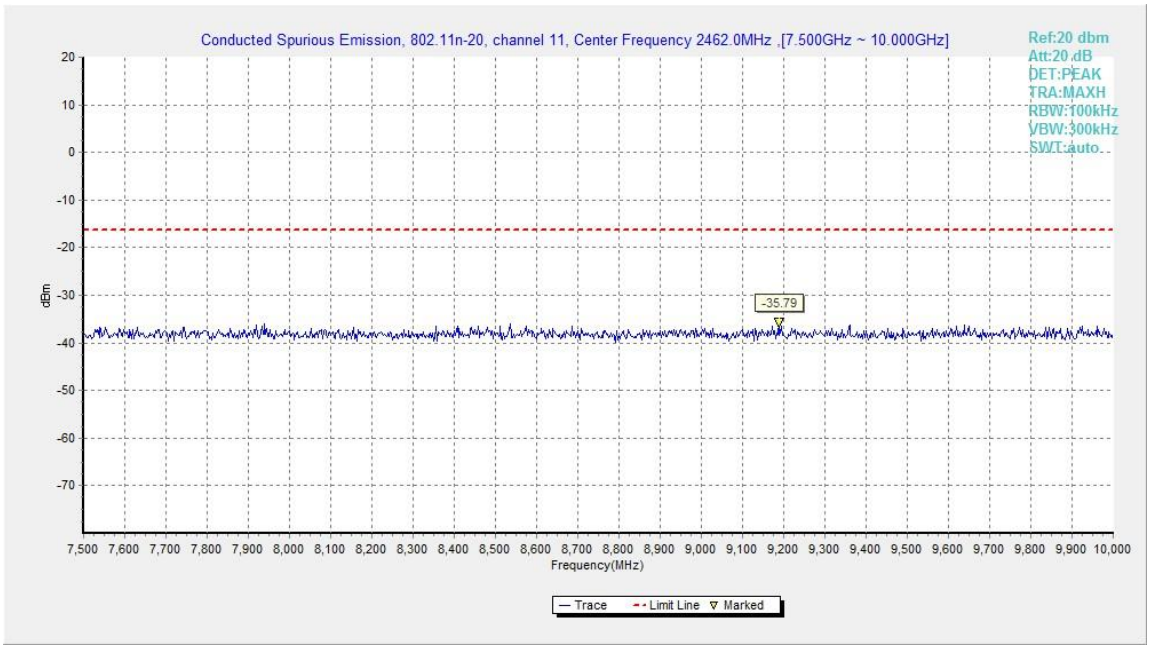

Fig.A.6.1.69 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 7.5 GHz-10 GHz)

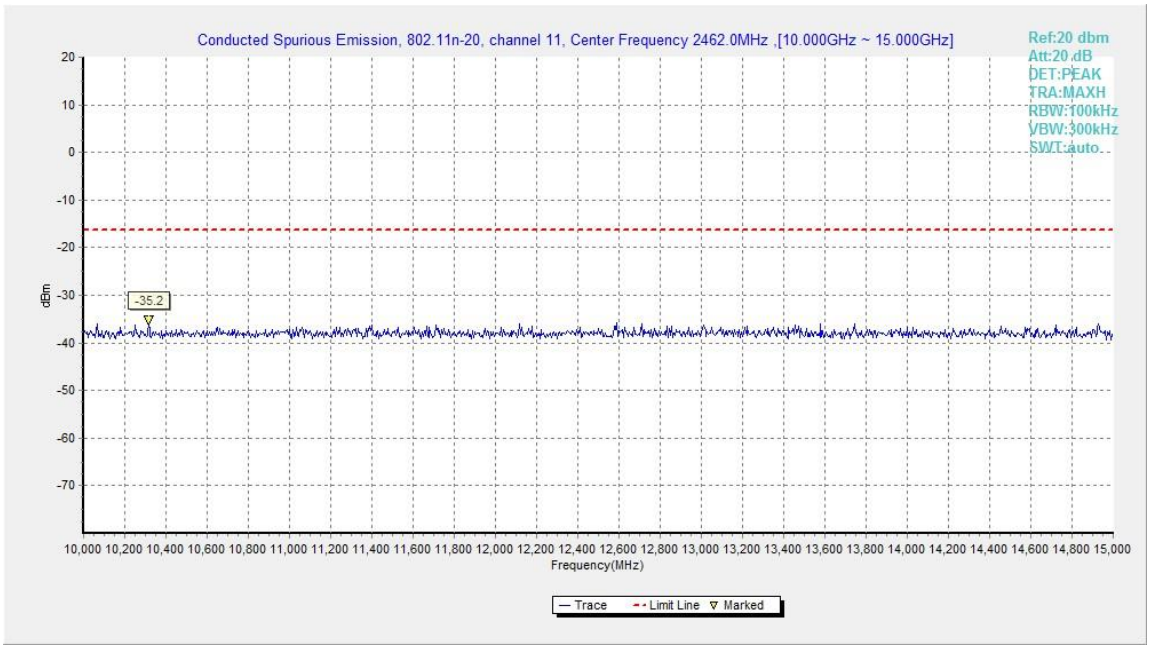

Fig.A.6.1.70 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 10 GHz-15 GHz)

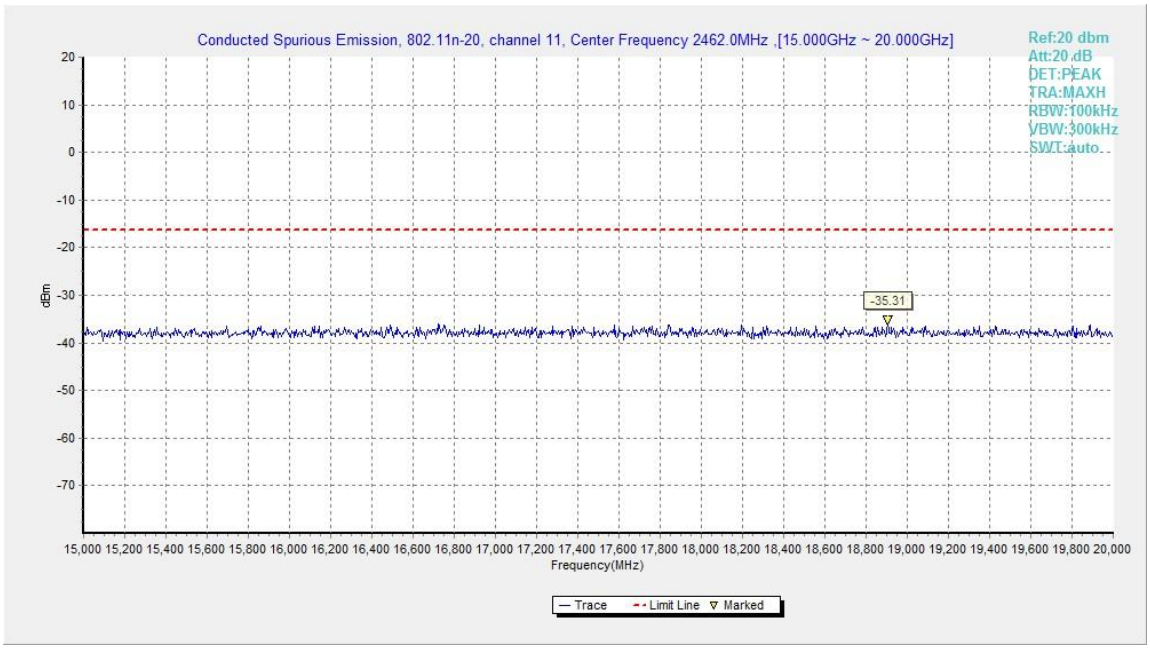

Fig.A.6.1.71 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 15 GHz-20 GHz)

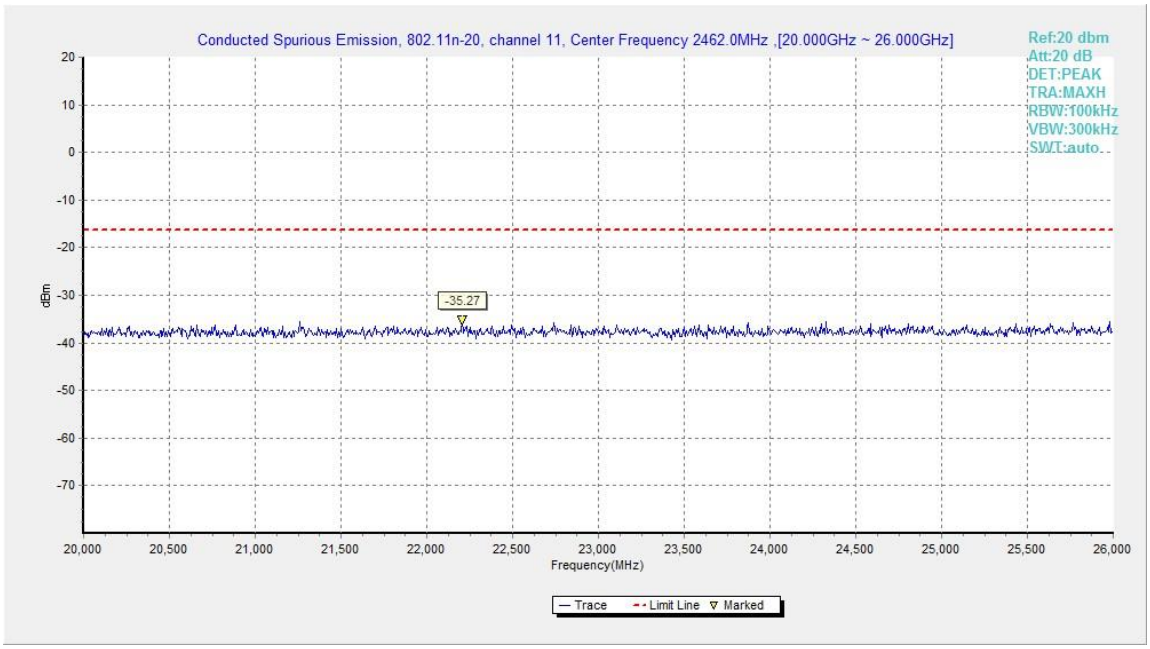

Fig.A.6.1.72 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 20 GHz-26 GHz)

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**

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
2376.500	50.93	2.9	32.1	15.98	H
2389.030	50.75	2.9	32.0	15.89	H
4824.000	38.14	-17.3	34.5	20.96	V
7236.000	38.87	-17.6	36.1	20.34	V
9648.000	40.33	-17.4	37.0	20.70	H
12060.000	42.34	-17.2	39.3	20.28	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2417.000	51.41	2.9	31.8	16.76	H
2457.250	51.69	2.9	32.5	16.24	V
4875.000	37.12	-18.3	34.5	20.97	V
7311.000	37.84	-18.6	36.1	20.38	H
9748.500	40.43	-17.3	37.2	20.56	V
12184.500	42.02	-17.7	39.2	20.48	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2483.575	51.90	2.9	32.8	16.21	V
2487.750	51.93	2.9	32.6	16.35	H
4924.500	36.82	-19.0	34.5	21.27	V
7386.000	39.75	-17.3	36.0	20.96	H
9849.000	39.79	-18.1	37.3	20.57	V
12310.500	41.57	-17.9	39.2	20.26	V

802.11g

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2373.750	52.82	2.9	32.1	17.89	V
2386.765	52.92	2.9	32.0	18.05	H
4824.000	38.13	-17.3	34.5	20.96	V
7236.000	38.89	-17.6	36.1	20.36	H
9648.000	40.37	-17.4	37.0	20.73	H
12060.000	42.38	-17.2	39.3	20.31	V

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2407.000	53.58	2.9	31.8	18.86	V
2461.750	53.55	2.9	32.7	17.97	H
4875.000	37.15	-18.3	34.5	21.00	H
7311.000	37.89	-18.6	36.1	20.43	V
9748.500	40.43	-17.3	37.2	20.56	V
12186.000	41.95	-17.7	39.2	20.41	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2483.525	53.54	2.9	32.8	17.84	V
2492.000	53.25	2.9	32.5	17.79	H
4924.500	36.79	-19.0	34.5	21.24	V
7386.000	39.64	-17.3	36.0	20.86	H
9849.000	39.75	-18.1	37.3	20.52	V
12310.500	41.65	-17.9	39.2	20.34	H

802.11n-HT20

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2383.750	52.78	2.9	32.0	17.89	H
2389.750	52.75	2.9	32.0	17.90	H
4824.000	38.20	-17.3	34.5	21.02	V
7236.000	38.90	-17.6	36.1	20.37	V
9648.000	40.35	-17.4	37.0	20.72	V
12060.000	42.34	-17.2	39.3	20.28	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2416.000	53.47	2.9	31.8	18.82	V
2457.000	53.41	2.9	32.5	17.96	V
4875.000	37.15	-18.3	34.5	20.99	H
7311.000	37.81	-18.6	36.1	20.35	H
9748.500	40.49	-17.3	37.2	20.62	V
12186.000	42.01	-17.7	39.2	20.48	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2483.550	53.64	2.9	32.8	17.95	H
2489.000	53.40	2.9	32.6	17.86	H
4924.500	36.80	-19.0	34.5	21.26	V
7386.000	39.61	-17.3	36.0	20.82	H
9849.000	39.84	-18.1	37.3	20.62	V
12310.500	41.51	-17.9	39.2	20.21	H

Peak Result:

802.11b

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2382.300	54.3	2.9	32.1	19.33	H
2387.280	53.8	2.9	32.0	18.98	H
17653.500	59.0	-13.1	41.1	30.97	V
17648.250	58.9	-13.0	41.0	30.86	V
17303.250	58.8	-13.7	41.1	31.35	H
17277.750	58.6	-13.9	41.2	31.33	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2420.050	46.8	2.9	31.8	12.15	H
2521.500	48.9	2.9	32.5	13.46	V
17651.250	59.4	-13.1	41.1	31.41	V
17292.000	59.0	-13.0	41.0	30.99	H
17655.750	59.0	-13.7	41.1	31.59	V
17295.000	58.9	-13.9	41.2	31.58	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2483.500	54.8	2.9	32.8	19.09	V
2485.725	54.9	2.9	32.6	19.32	H
17958.750	59.1	-13.6	40.8	31.86	V
17672.250	59.0	-13.5	40.9	31.60	H
17722.500	58.7	-13.5	40.9	31.30	V
17662.500	58.7	-13.5	40.9	31.27	V

802.11g

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2388.820	58.8	2.9	32.1	23.86	V
2389.240	59.1	2.9	32.0	24.27	H
17748.750	58.9	-13.1	41.1	30.91	V
17823.000	58.9	-13.0	41.0	30.87	H
17734.500	58.8	-13.7	41.1	31.36	H
17262.750	58.8	-13.9	41.2	31.46	V

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2369.750	48.6	2.9	31.8	13.869	V
2626.500	51.3	2.9	32.7	15.771	H
17631.750	59.1	-13.1	41.1	31.07	H
17937.750	58.9	-13.0	41.0	30.87	V
17370.750	58.9	-13.7	41.1	31.46	V
17284.500	58.7	-13.9	41.2	31.41	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2483.625	68.6	2.9	32.8	32.91	V
2484.450	65.5	2.9	32.5	30.05	H
17664.000	58.7	-13.1	41.1	30.75	V
17664.750	58.7	-13.0	41.0	30.75	H
17151.000	58.7	-15.1	41.4	32.41	V
17301.750	58.7	-13.9	41.2	31.39	H

802.11n-HT20

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2386.545	54.5	2.9	32.0	19.57	H
2389.135	55.6	2.9	32.0	20.71	H
17620.500	59.0	-13.1	41.1	31.01	V
17679.000	59.0	-13.0	41.0	31.01	V
17589.750	58.8	-13.7	41.1	31.41	V
17220.750	58.8	-13.9	41.2	31.47	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2352.500	48.2	2.9	31.8	13.57	V
2653.375	50.7	2.9	32.5	15.24	V
17693.250	59.0	-13.5	40.9	31.61	H
17765.250	58.8	-13.5	40.9	31.38	H
17230.500	58.8	-13.9	41.2	31.48	V
17950.500	58.7	-13.6	40.8	31.49	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2484.025	65.6	2.9	32.8	29.86	H
2484.250	63.1	2.9	32.6	27.52	H
17738.250	59.4	-13.2	41.0	31.65	V
17357.250	59.3	-13.8	41.2	31.93	H
17625.000	58.9	-13.1	41.1	30.88	V
17804.250	58.8	-13.5	40.9	31.41	H

Test graphs as below:

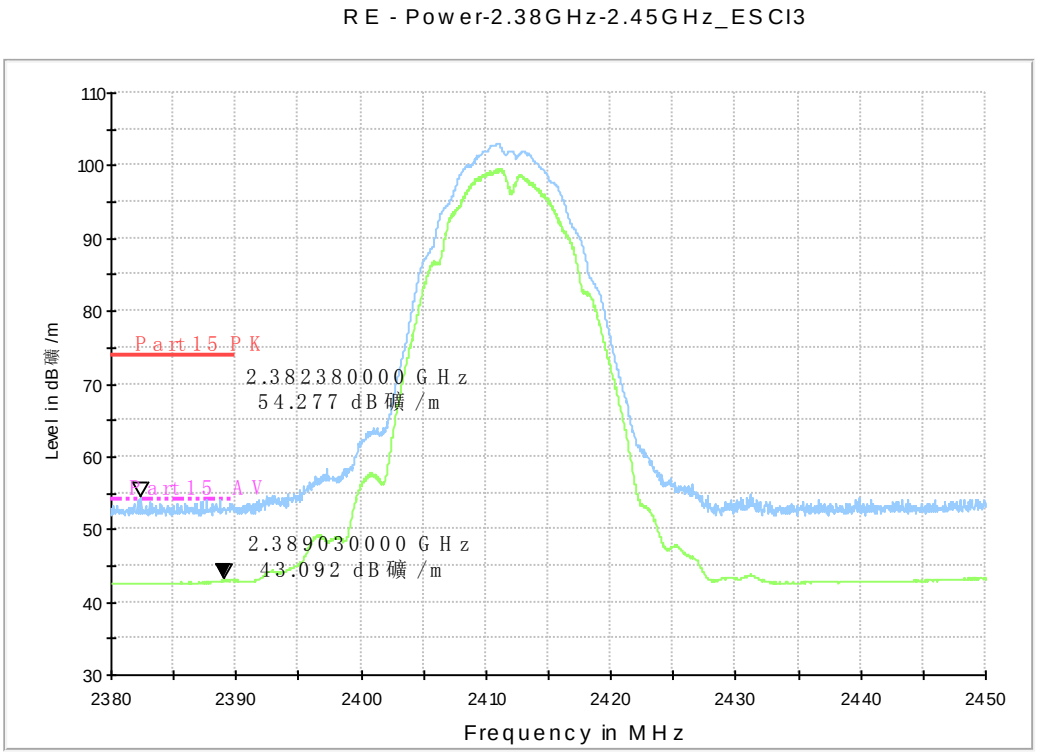

Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.38 GHz – 2.45GHz

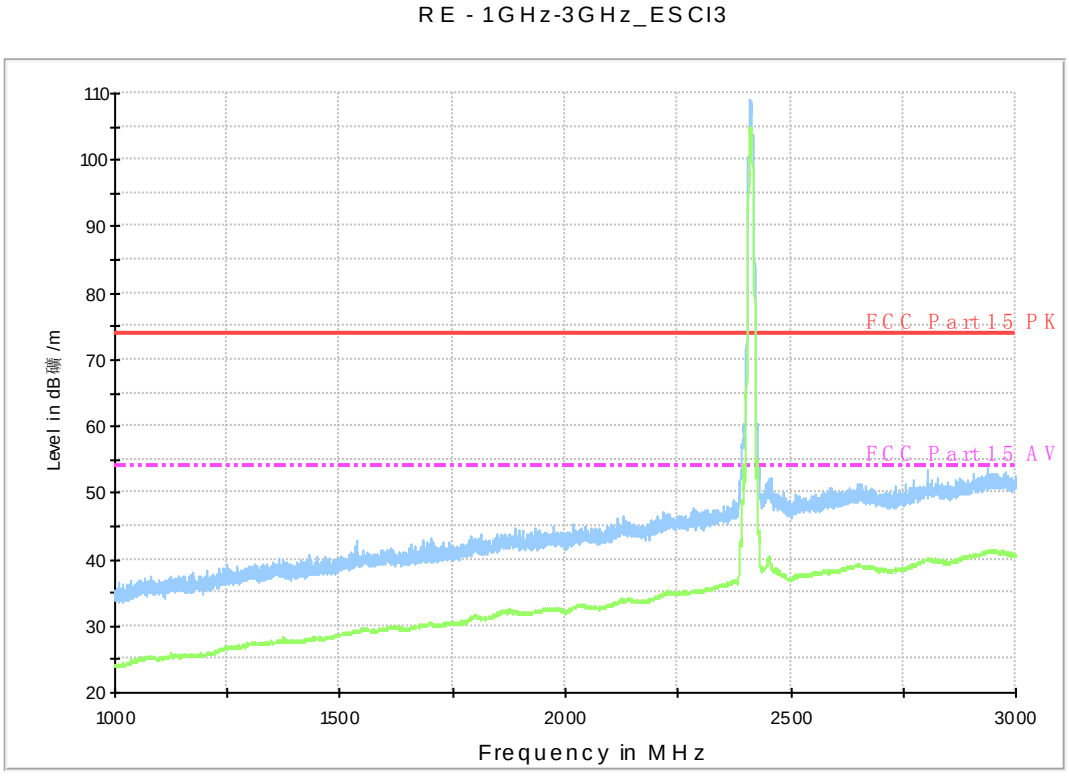

Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (802.11b, Ch1, 1 GHz-3 GHz)

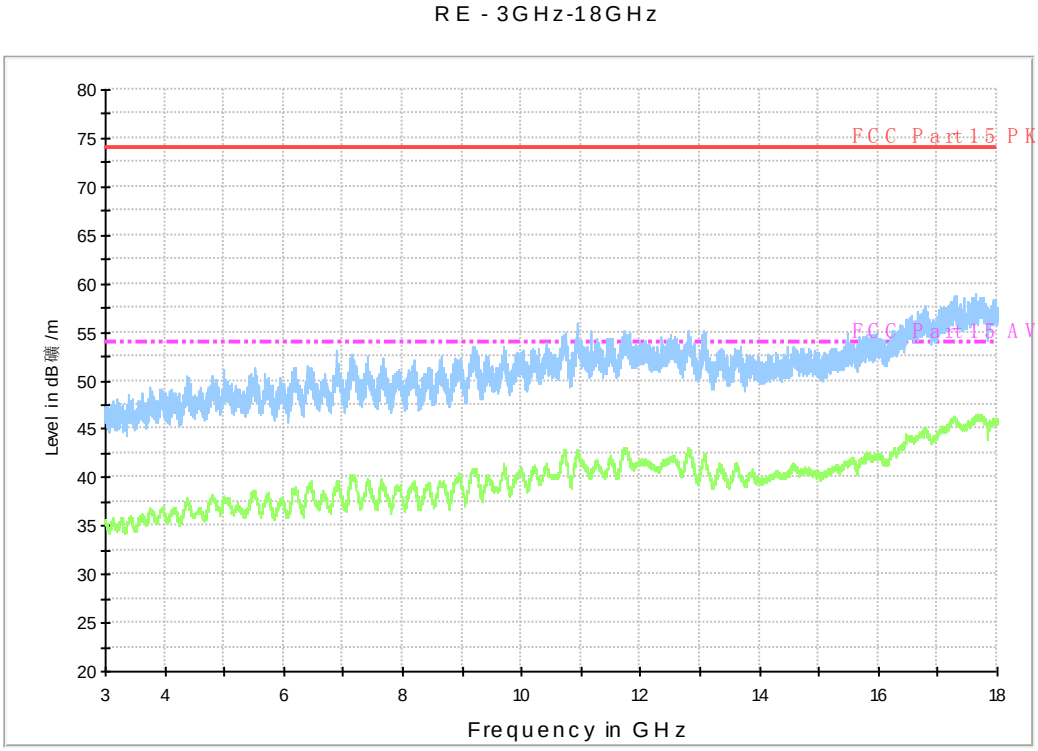

Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (802.11b, Ch1, 3 GHz-18 GHz)

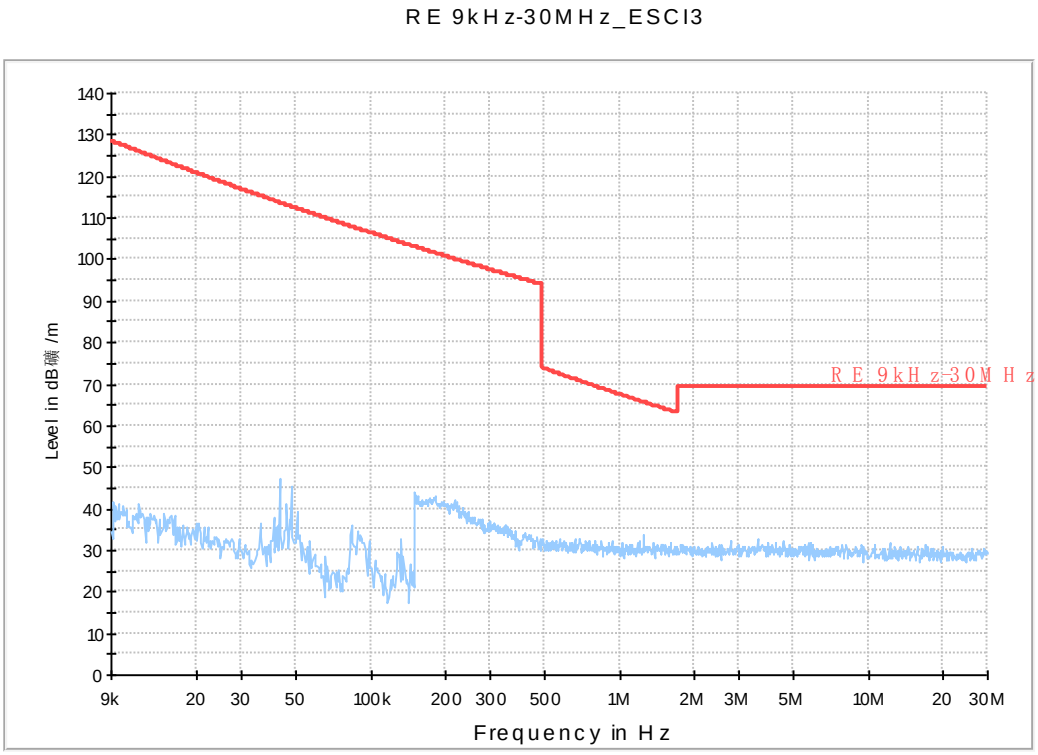

Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 9kHz-30 MHz)

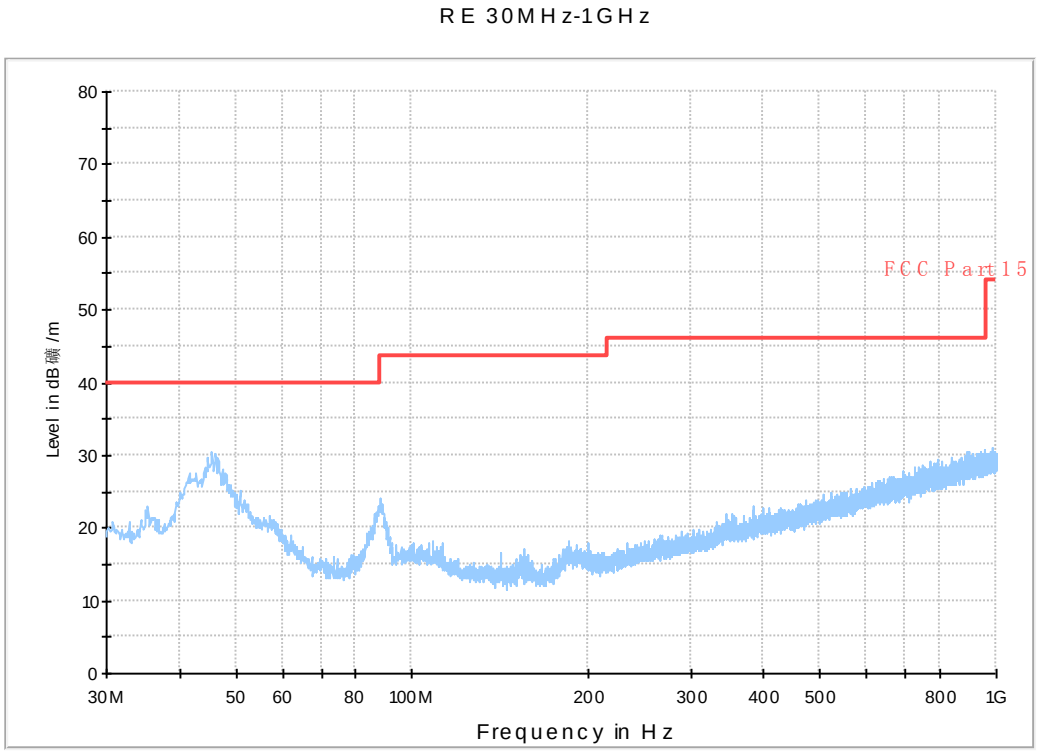

Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 30 MHz-1 GHz)

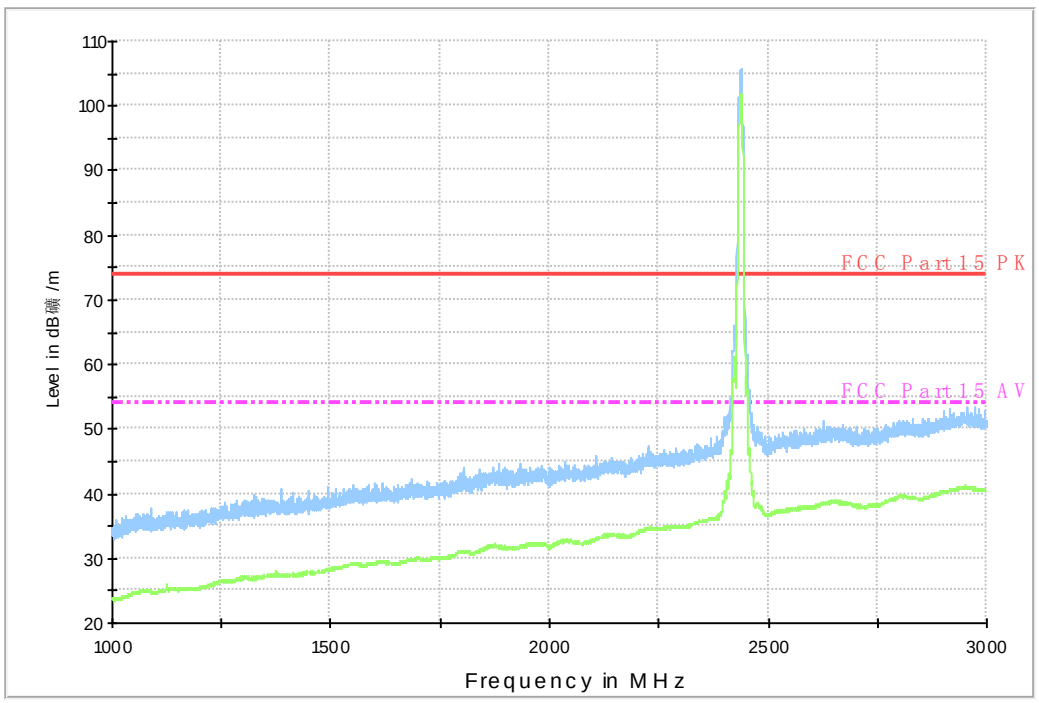

Fig.A.6.2.6 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 1 GHz-3 GHz)

RE - 3GHz-18GHz

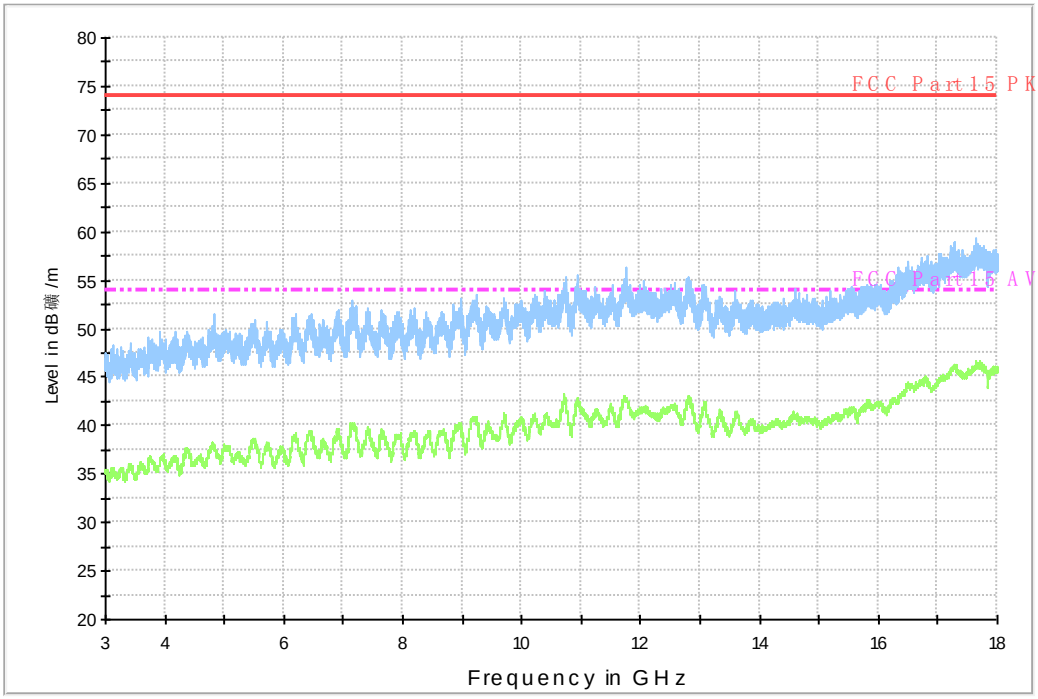

Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 3 GHz-18 GHz)

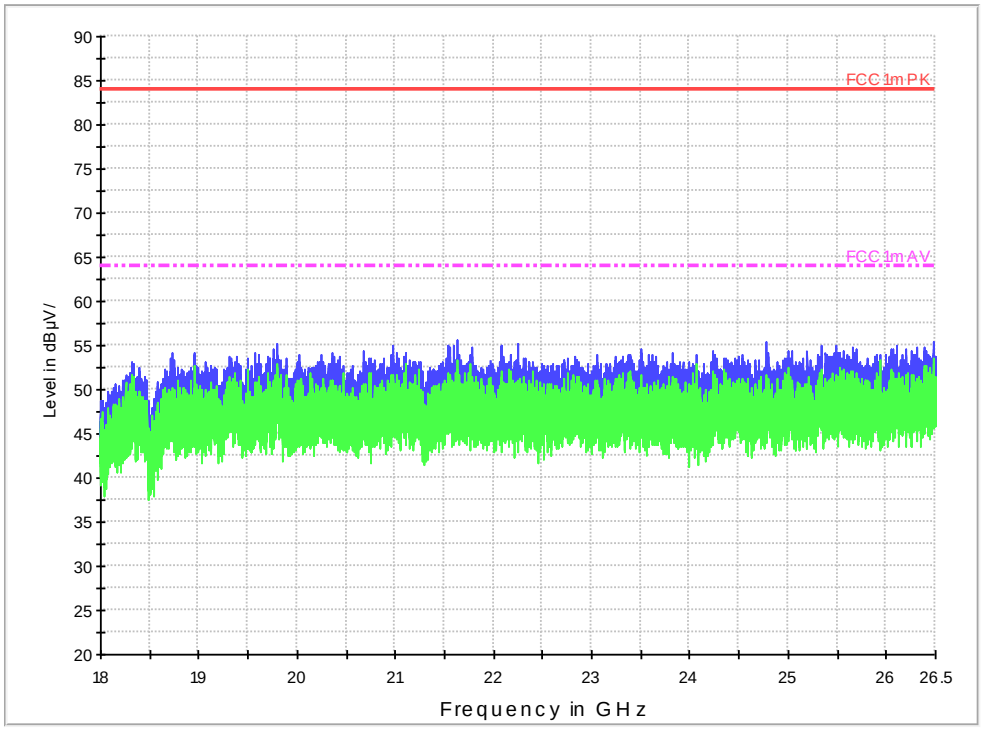

Fig.A.6.2.8 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 18GHz –

26.5GHz)

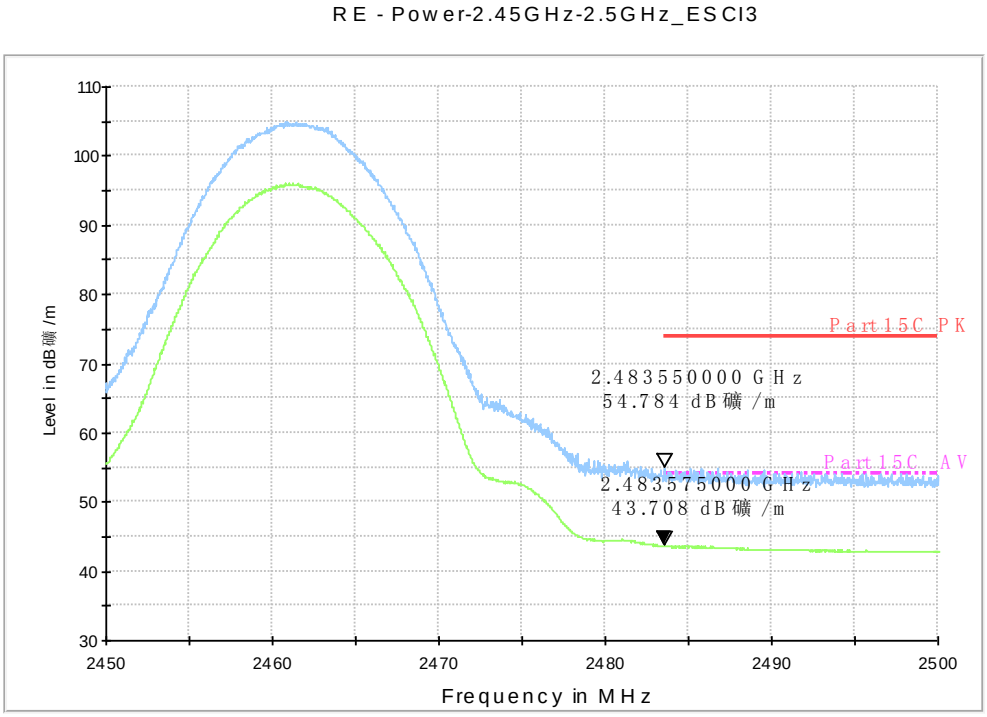

Fig.A.6.2.9 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

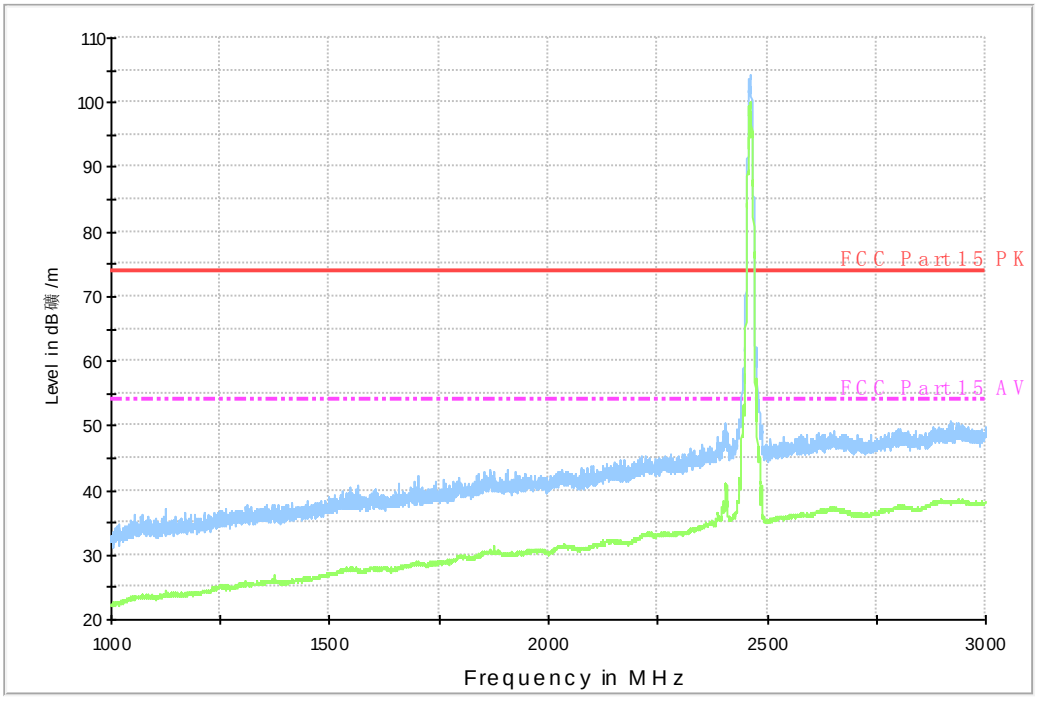

Fig.A.6.2.10 Transmitter Spurious Emission - Radiated (802.11b, Ch11, 1 GHz-3 GHz)

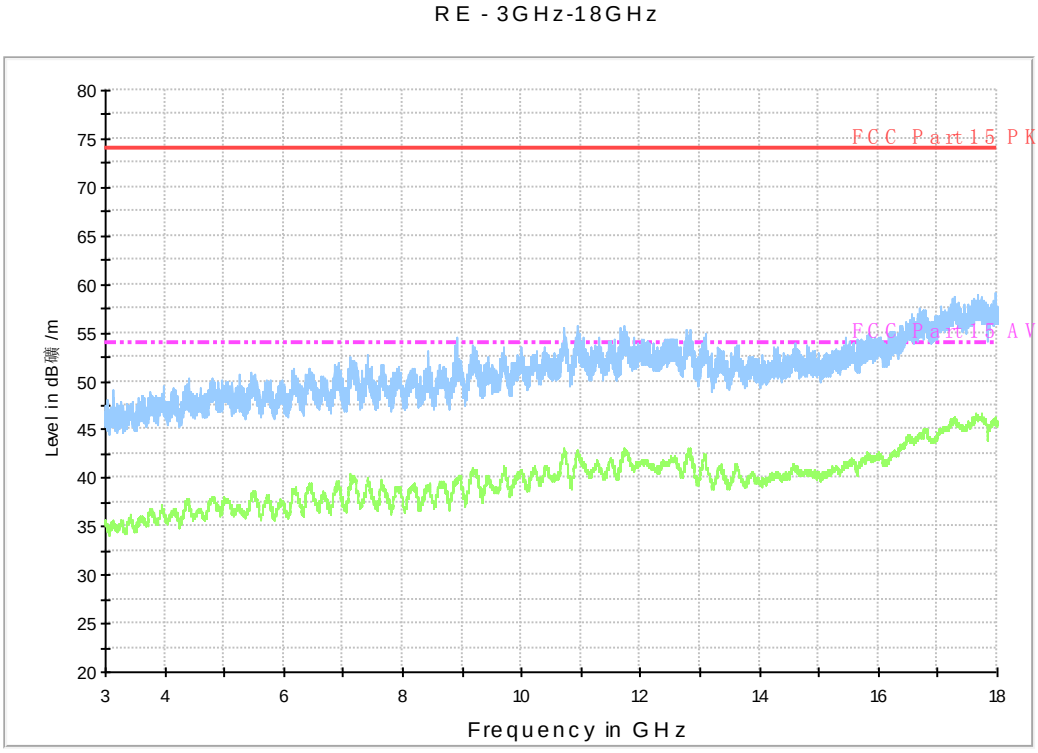

Fig.A.6.2.11 Transmitter Spurious Emission - Radiated (802.11b, Ch11, 3 GHz-18 GHz)

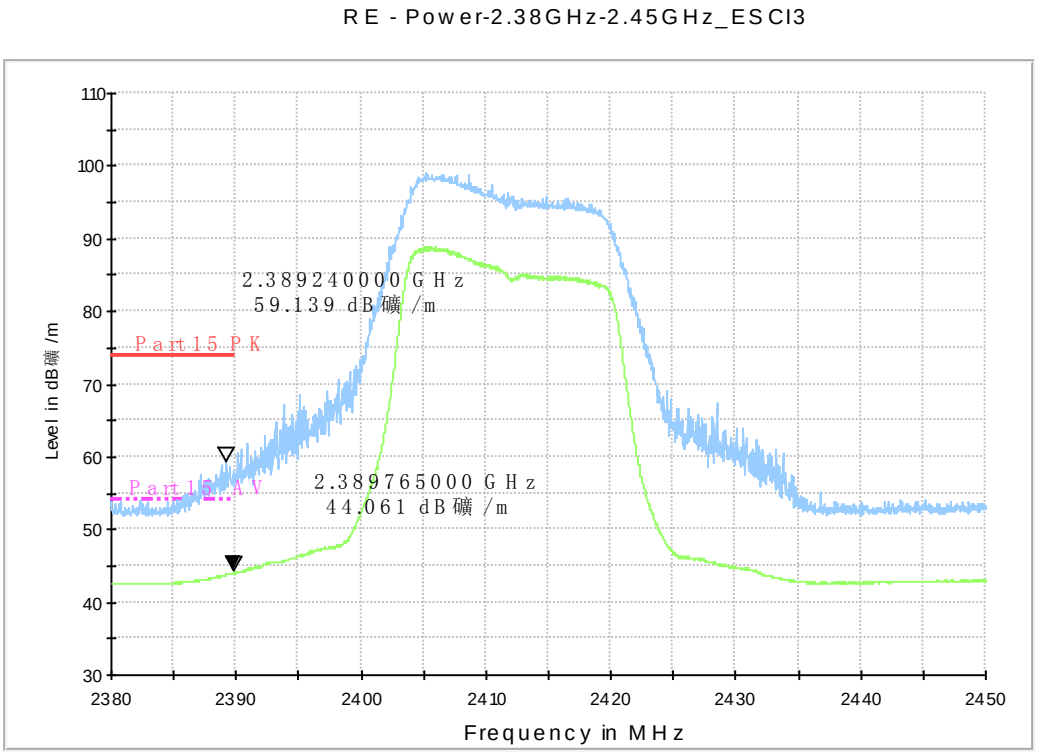

Fig.A.6.2.12 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.38 GHz

- 2.45GHz

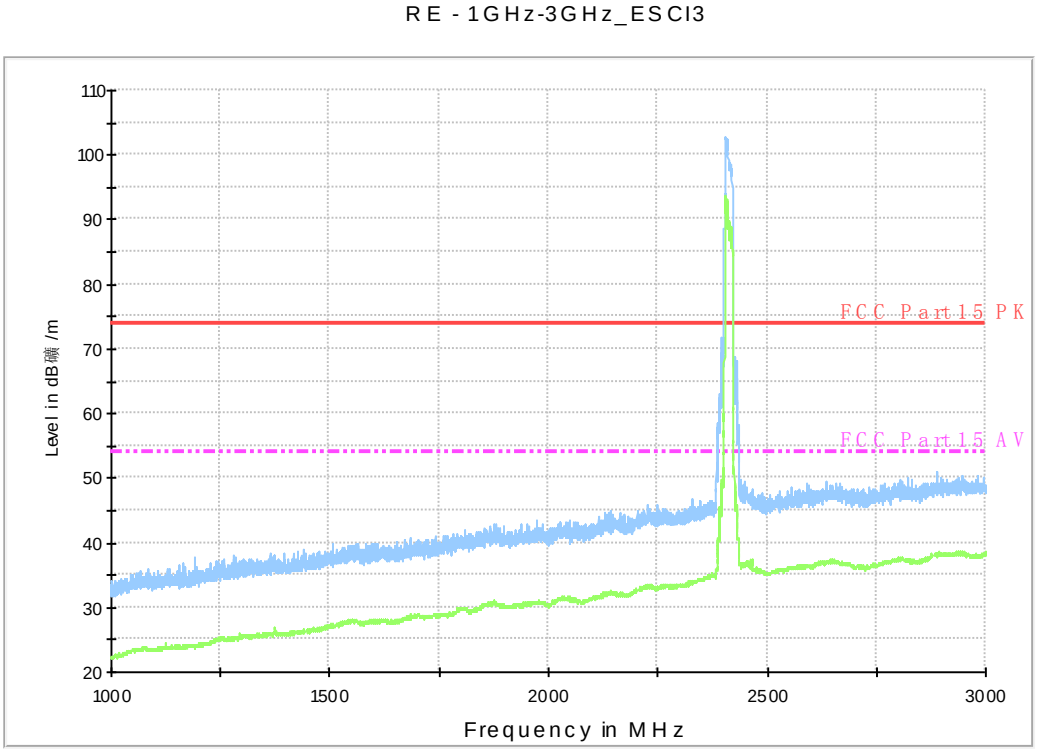

Fig.A.6.2.13 Transmitter Spurious Emission - Radiated (802.11g, Ch1, 1 GHz-3 GHz)

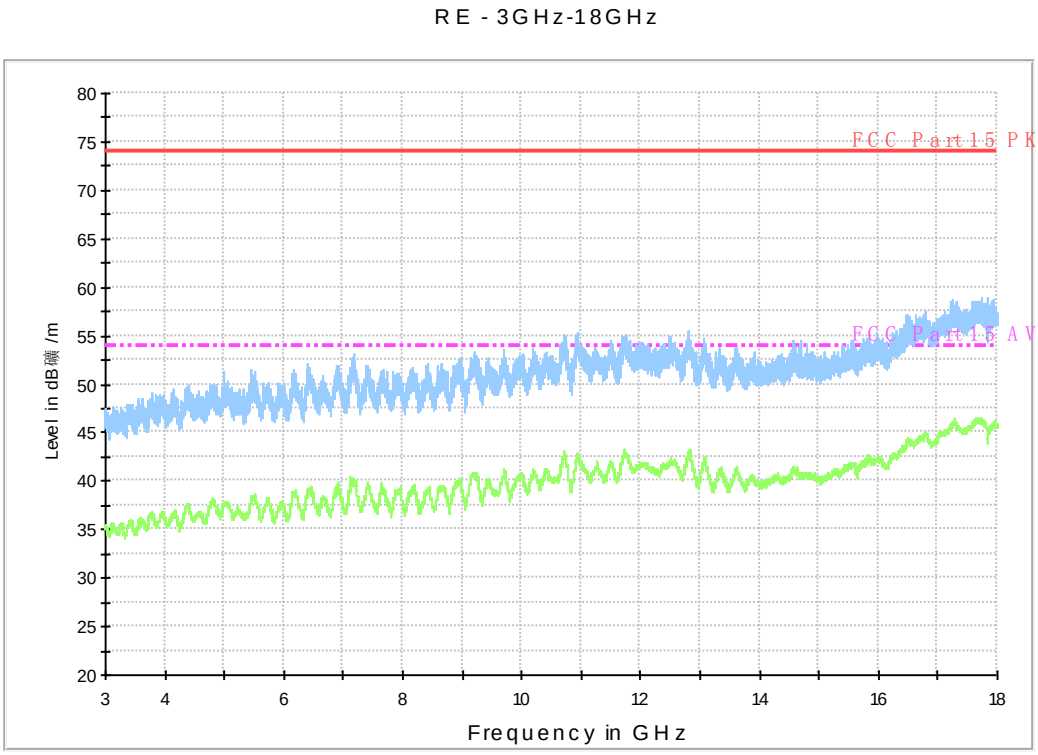

Fig.A.6.2.14 Transmitter Spurious Emission - Radiated (802.11g, Ch1, 3 GHz-18 GHz)

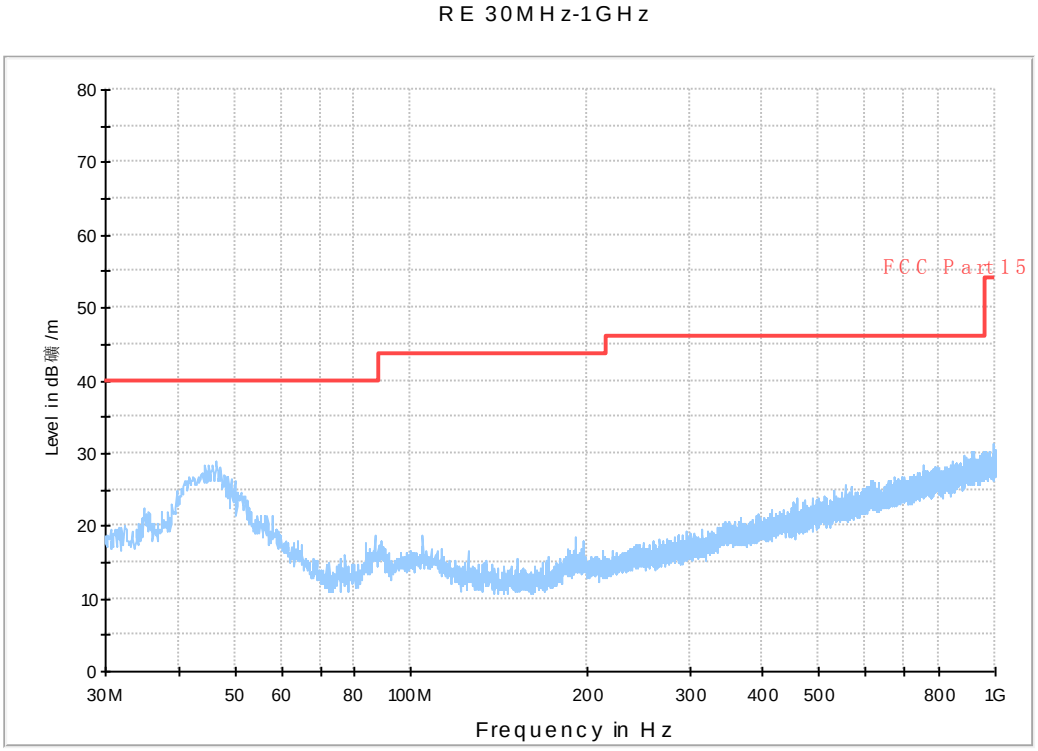

Fig.A.6.2.15 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 30 MHz-1 GHz)

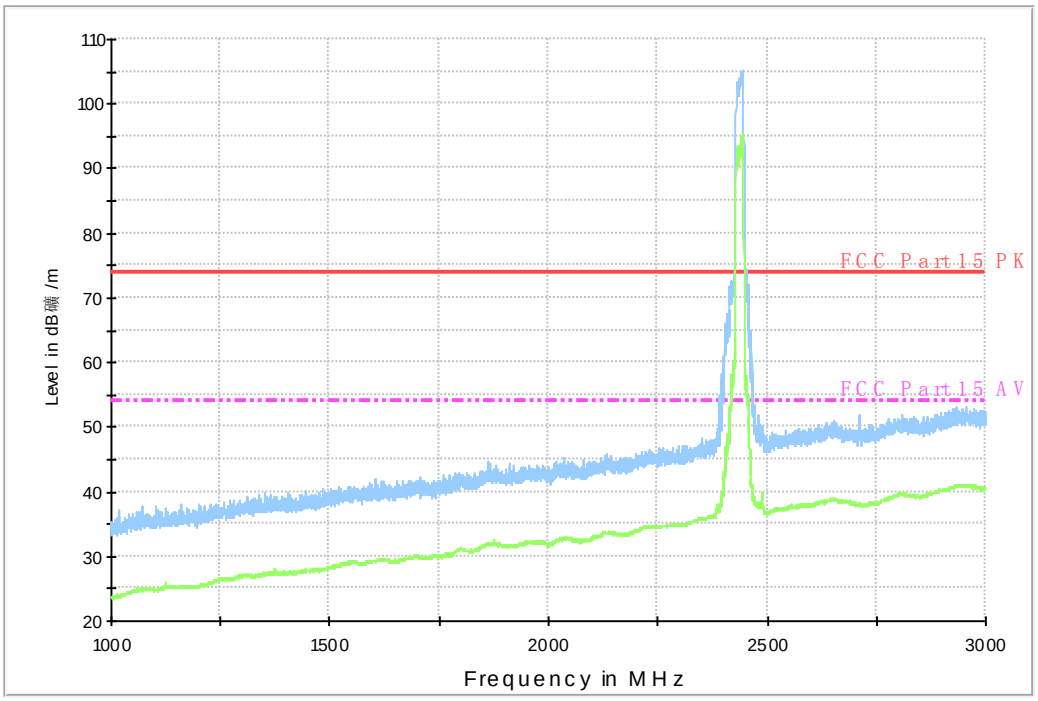

Fig.A.6.2.16 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 1 GHz-3 GHz)