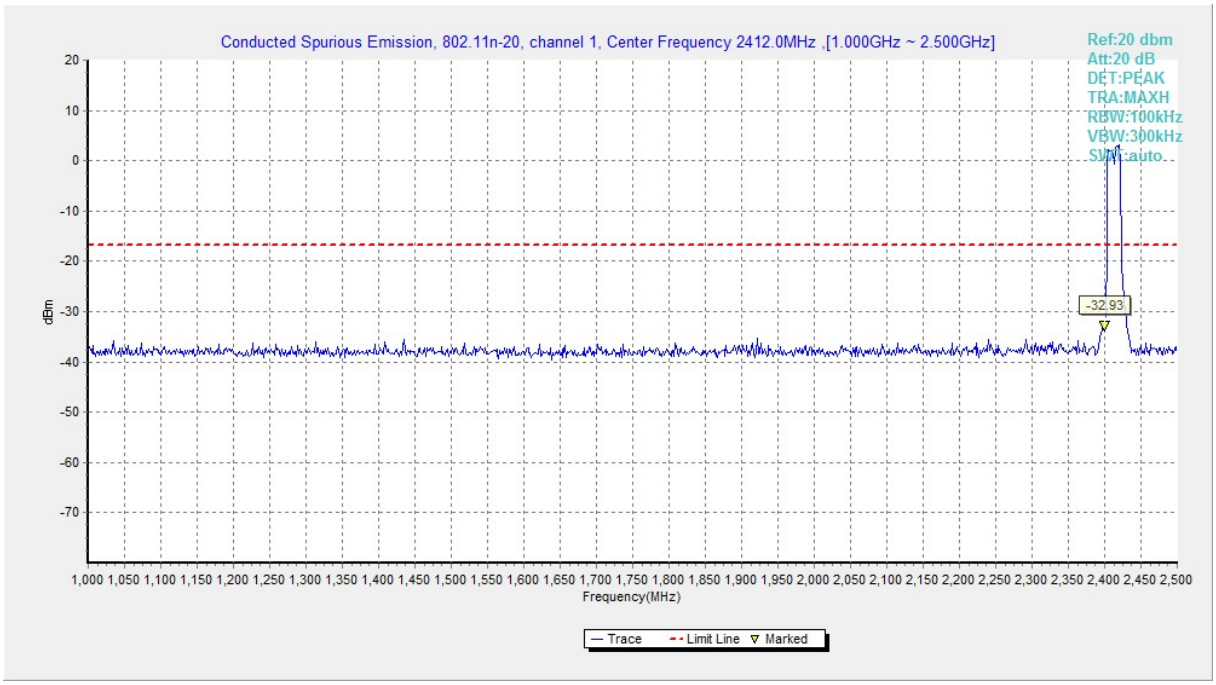

Fig.A.6.1.51 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 1 GHz-2.5 GHz)

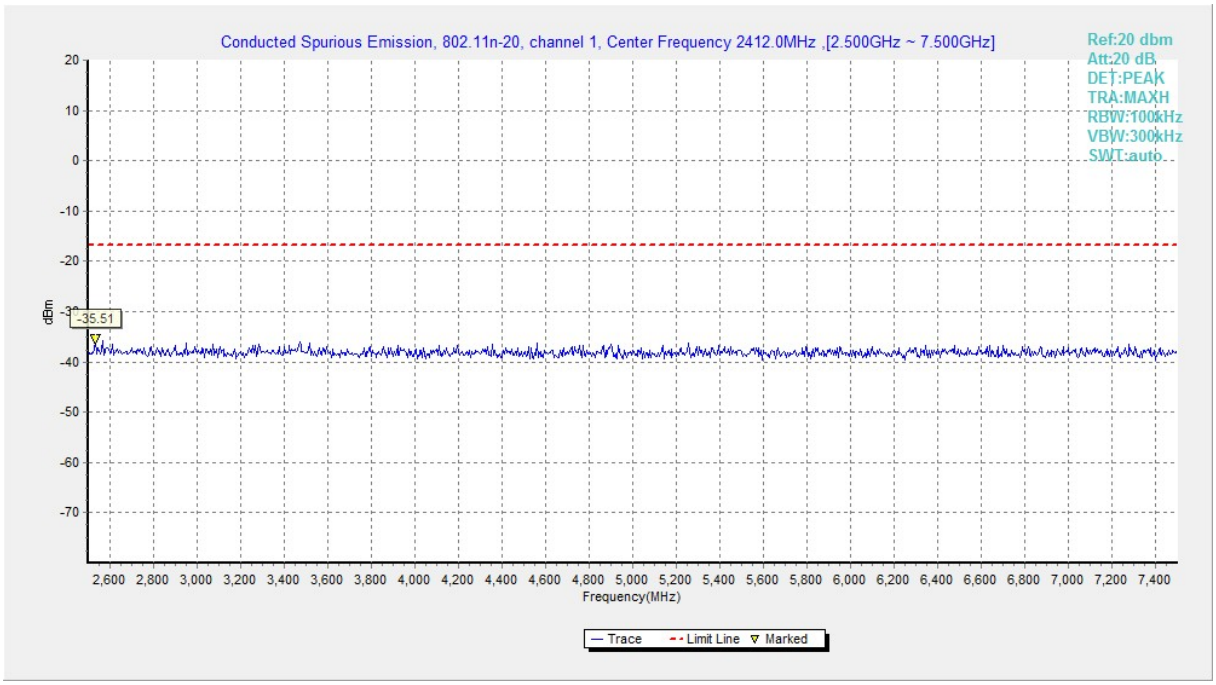

Fig.A.6.1.52 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 2.5 GHz-7.5 GHz)

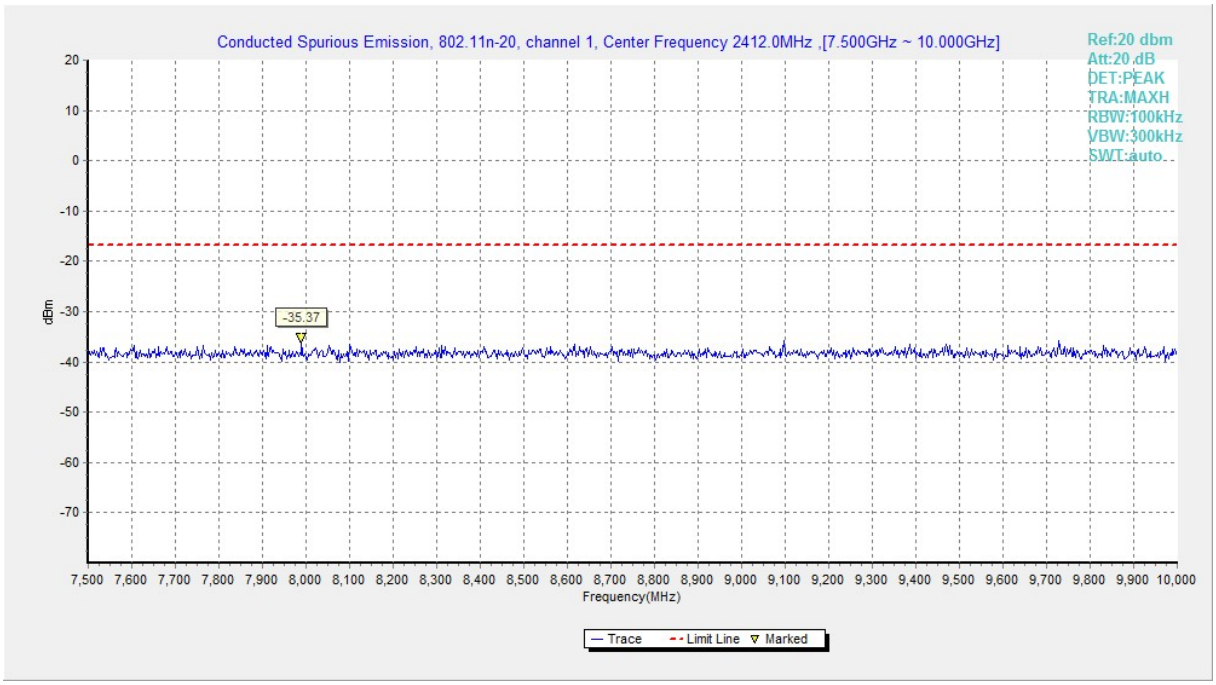

Fig.A.6.1.53 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 7.5 GHz-10 GHz)

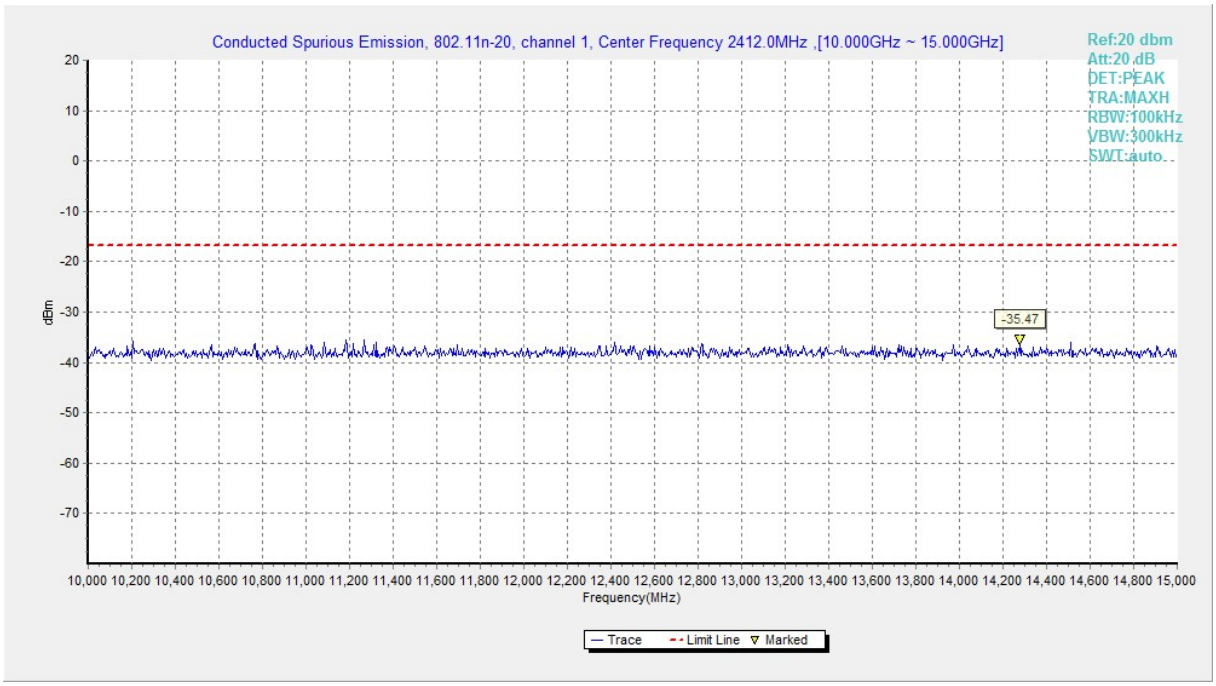

Fig.A.6.1.54 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 10 GHz-15 GHz)

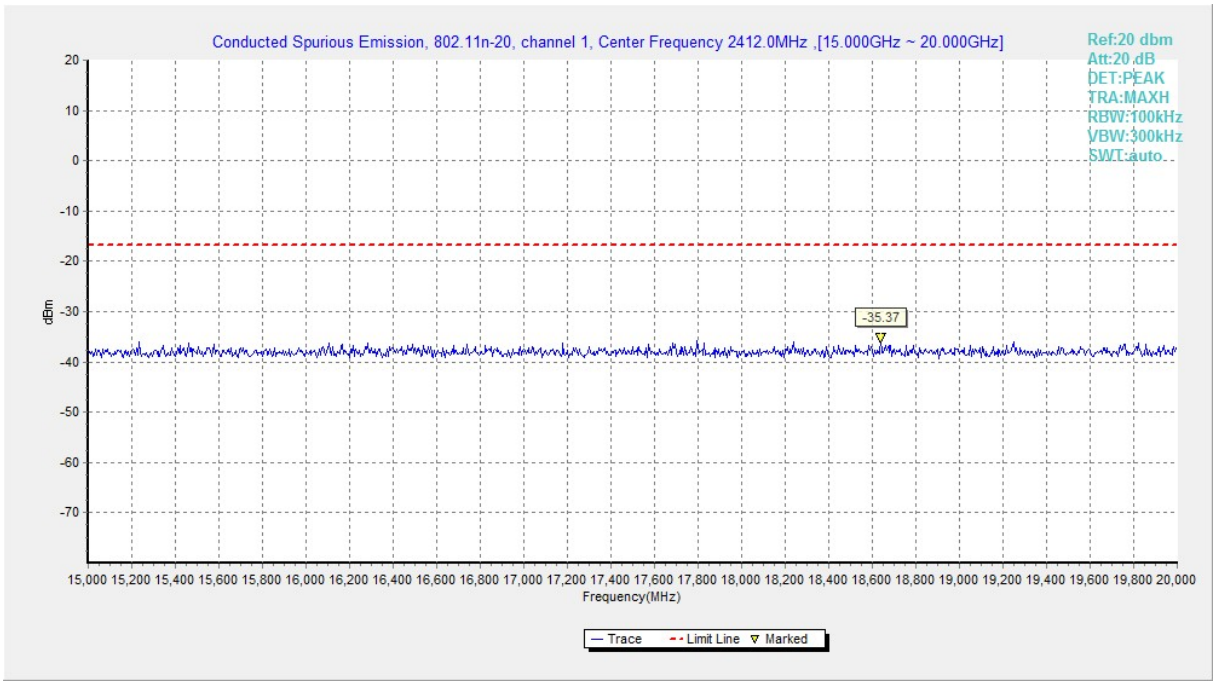

Fig.A.6.1.55 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 15 GHz-20 GHz)

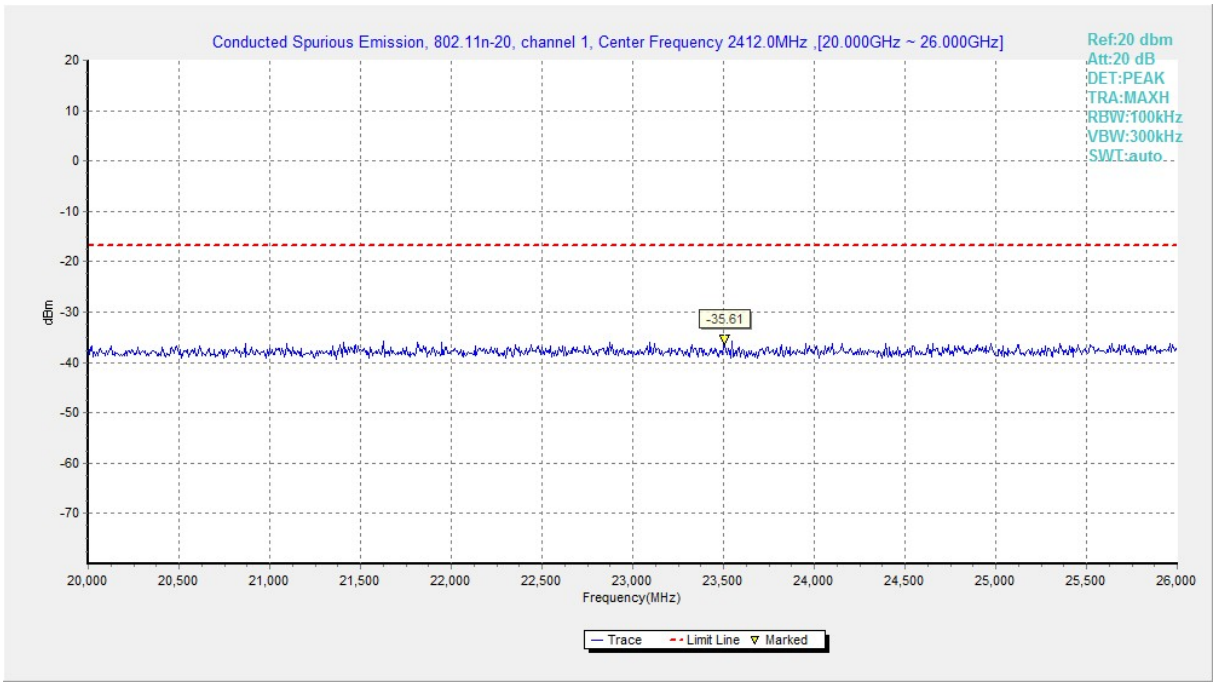

Fig.A.6.1.56 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 20 GHz-26 GHz)

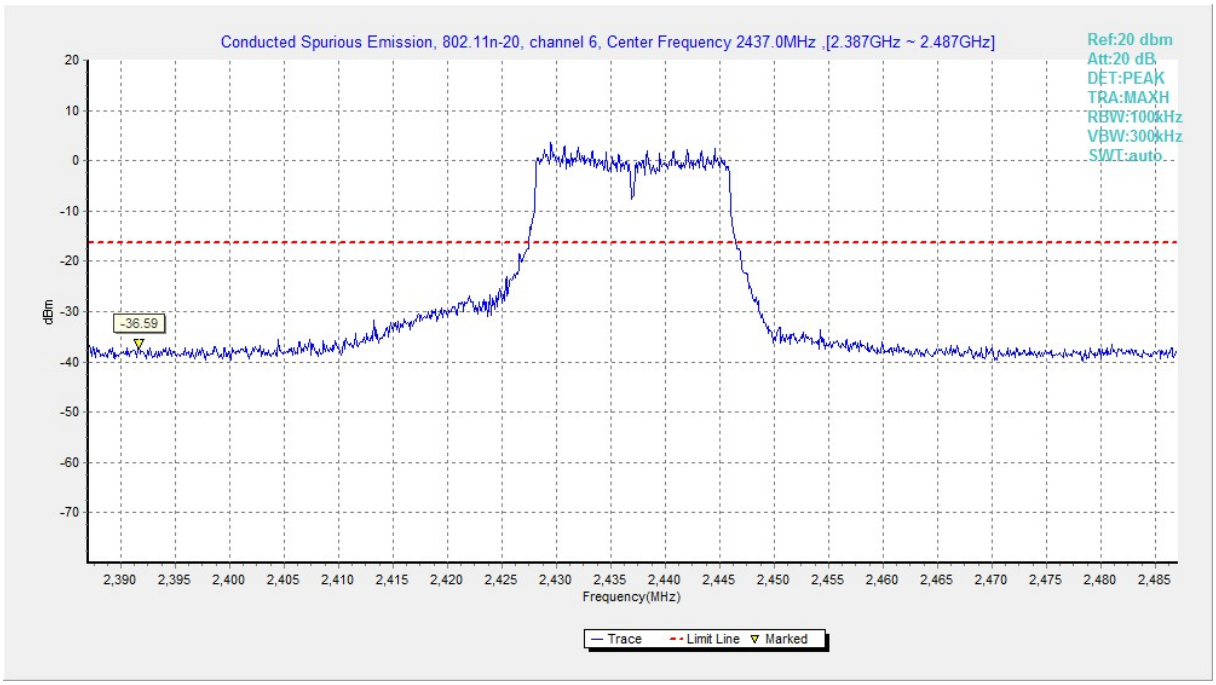

Fig.A.6.1.57 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, Center Frequency)

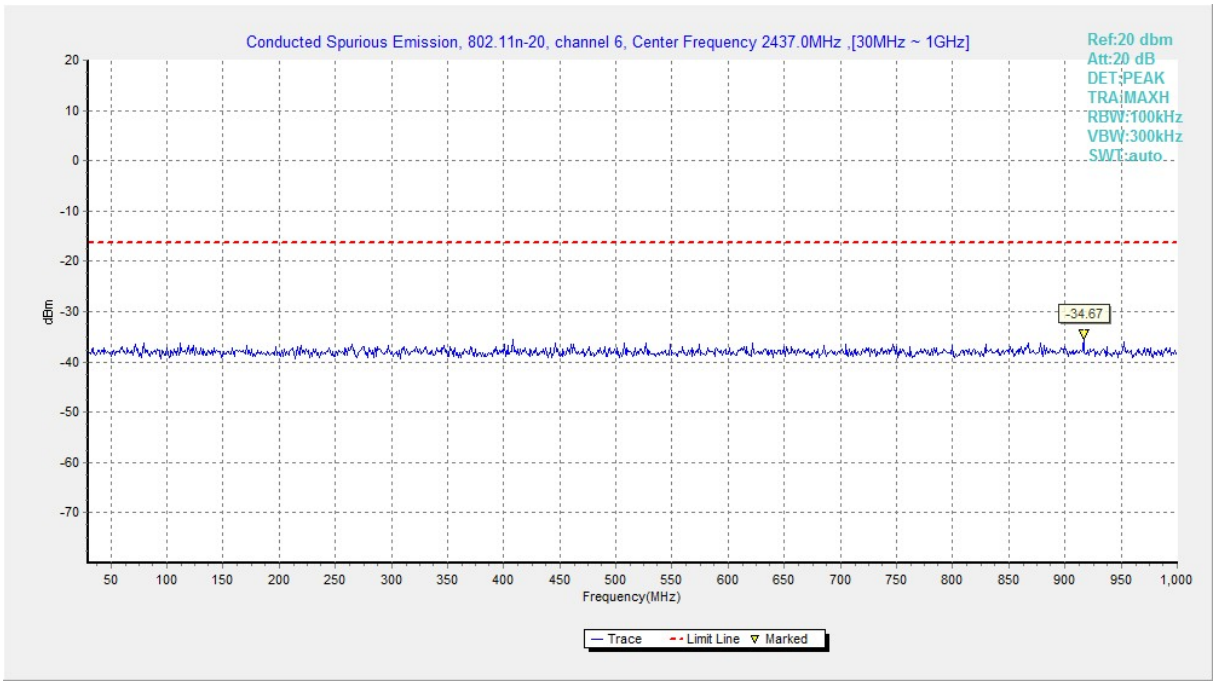

Fig.A.6.1.58 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 30 MHz-1 GHz)

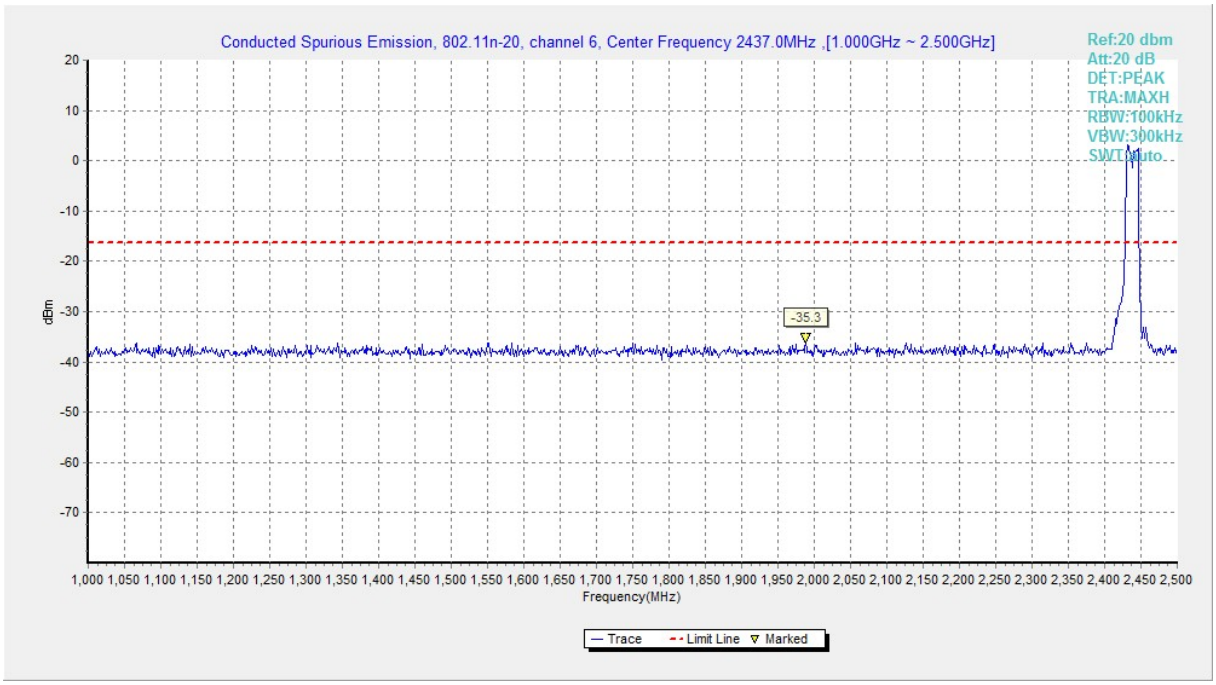

Fig.A.6.1.59 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 1 GHz-2.5 GHz)

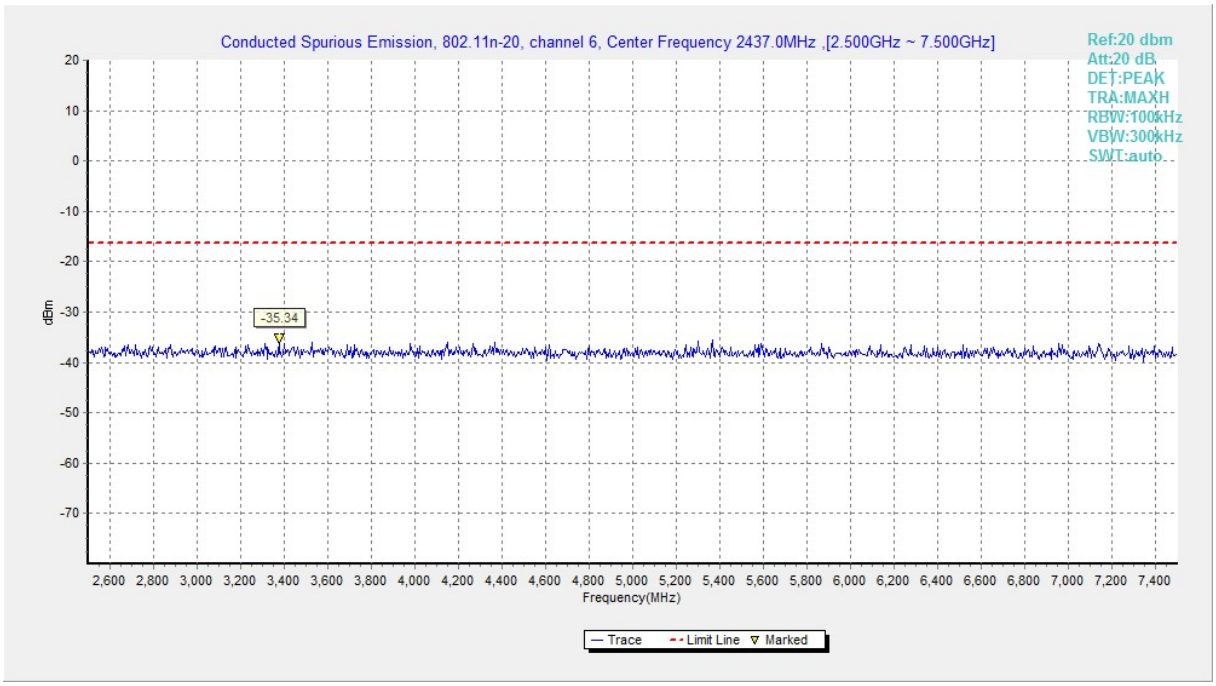

Fig.A.6.1.60 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 2.5 GHz-7.5 GHz)

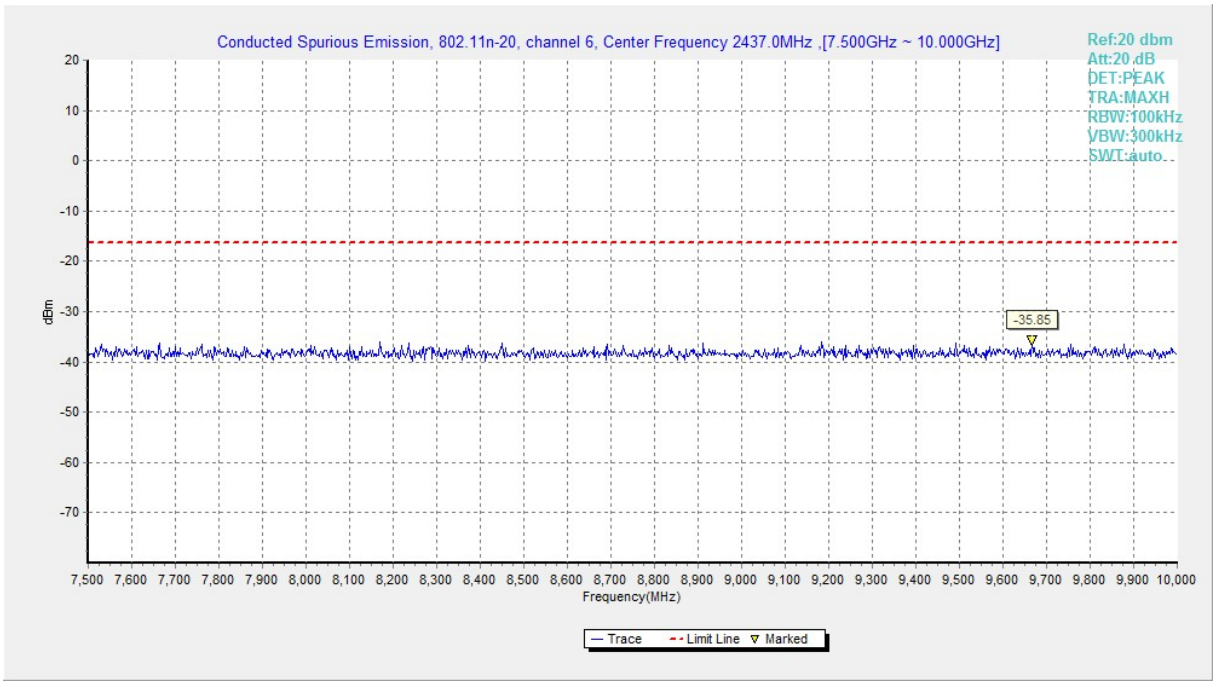

Fig.A.6.1.61 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 7.5 GHz-10 GHz)

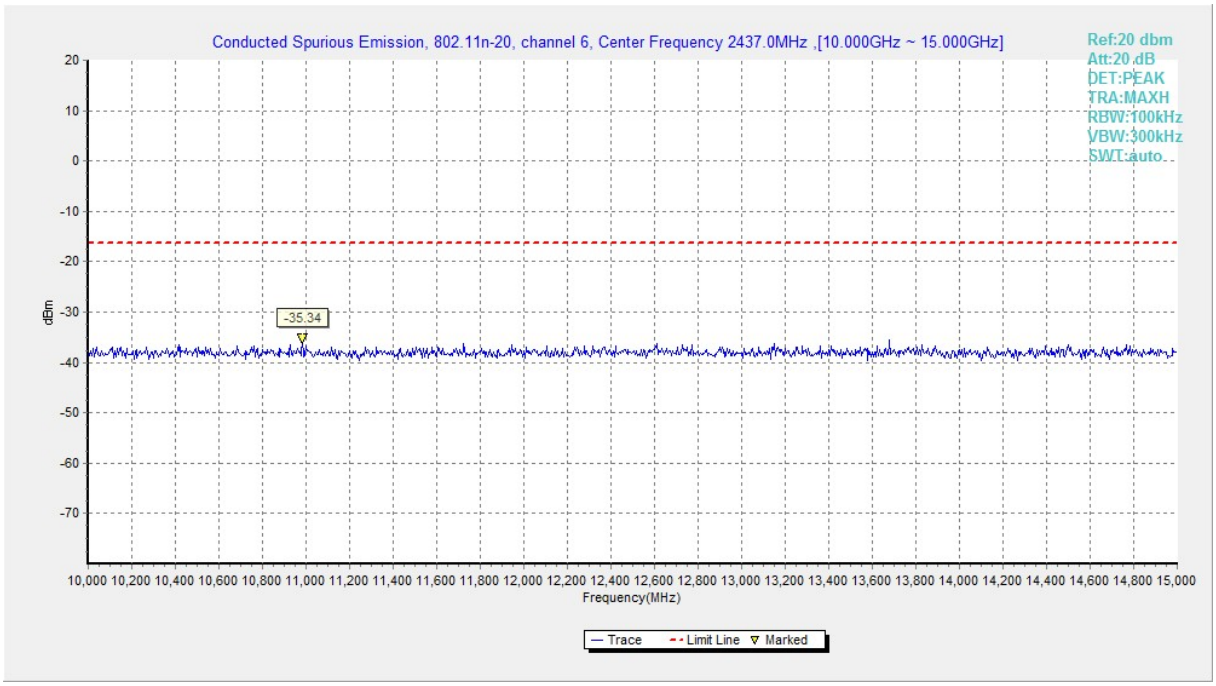

Fig.A.6.1.62 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 10 GHz-15 GHz)

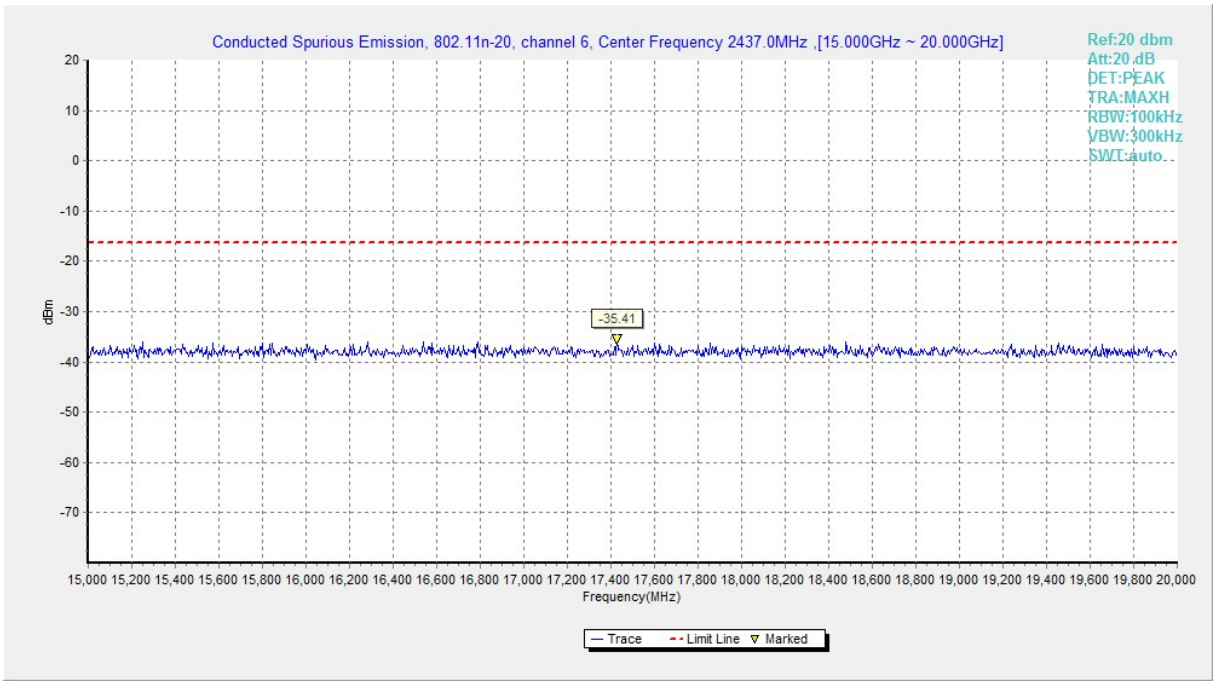

Fig.A.6.1.63 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 15 GHz-20 GHz)

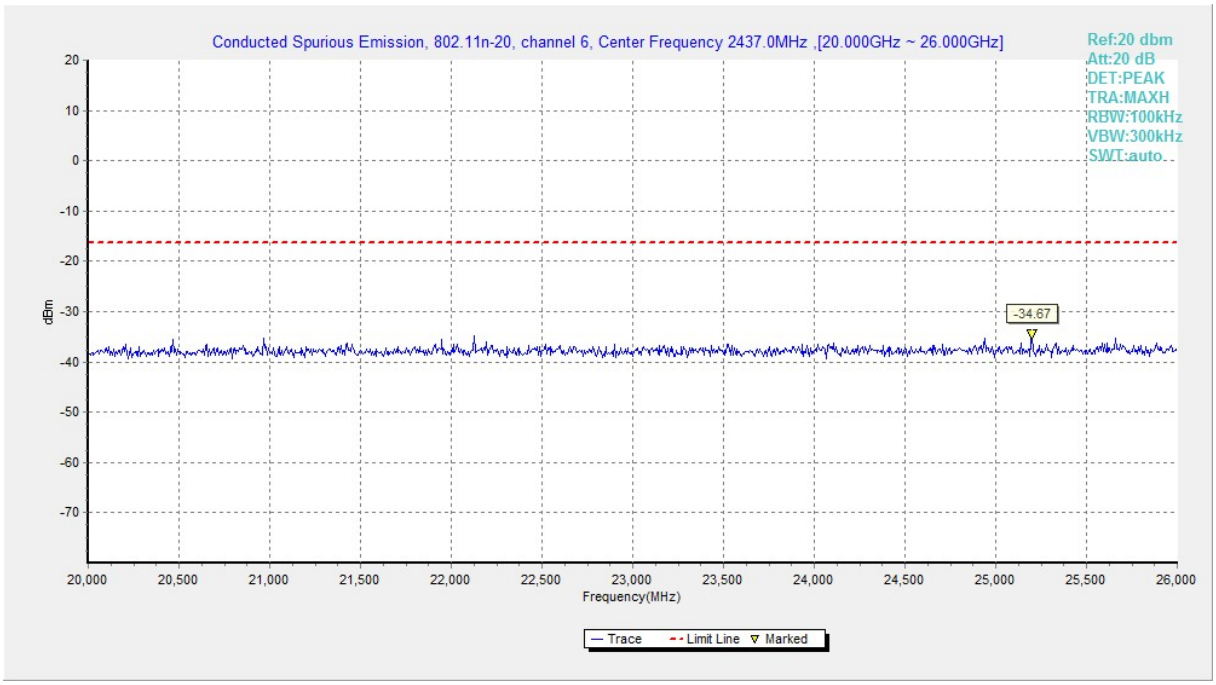

Fig.A.6.1.64 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 20 GHz-26 GHz)

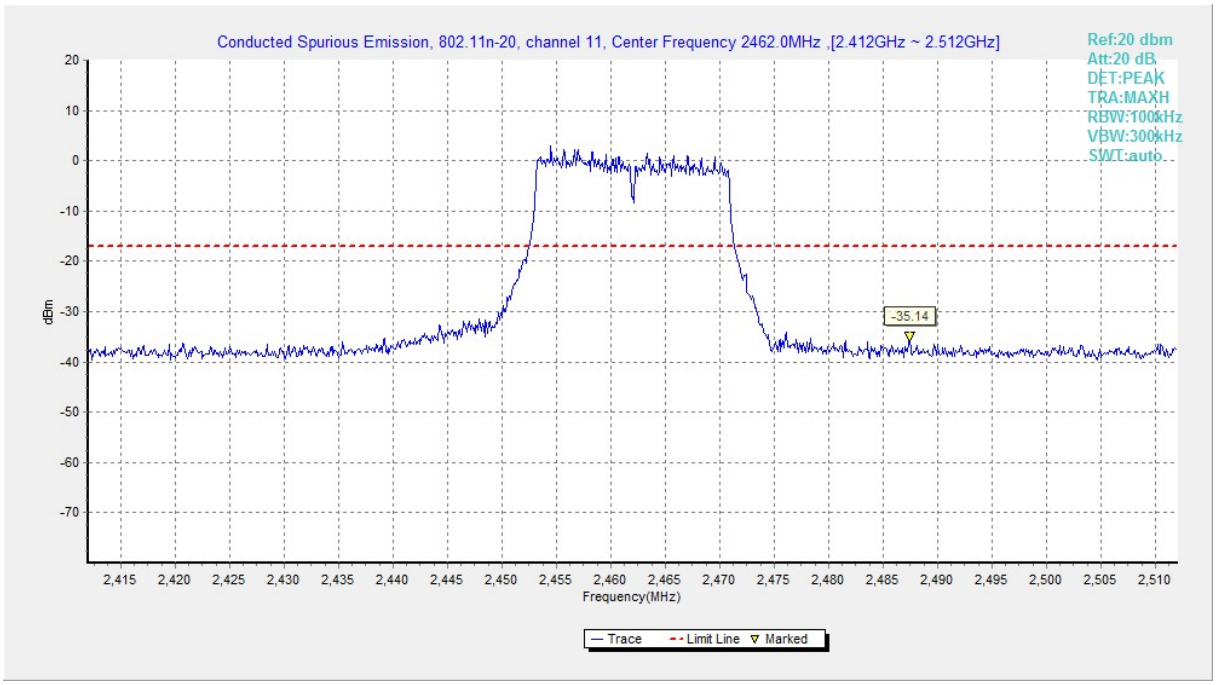

Fig.A.6.1.65 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, Center Frequency)

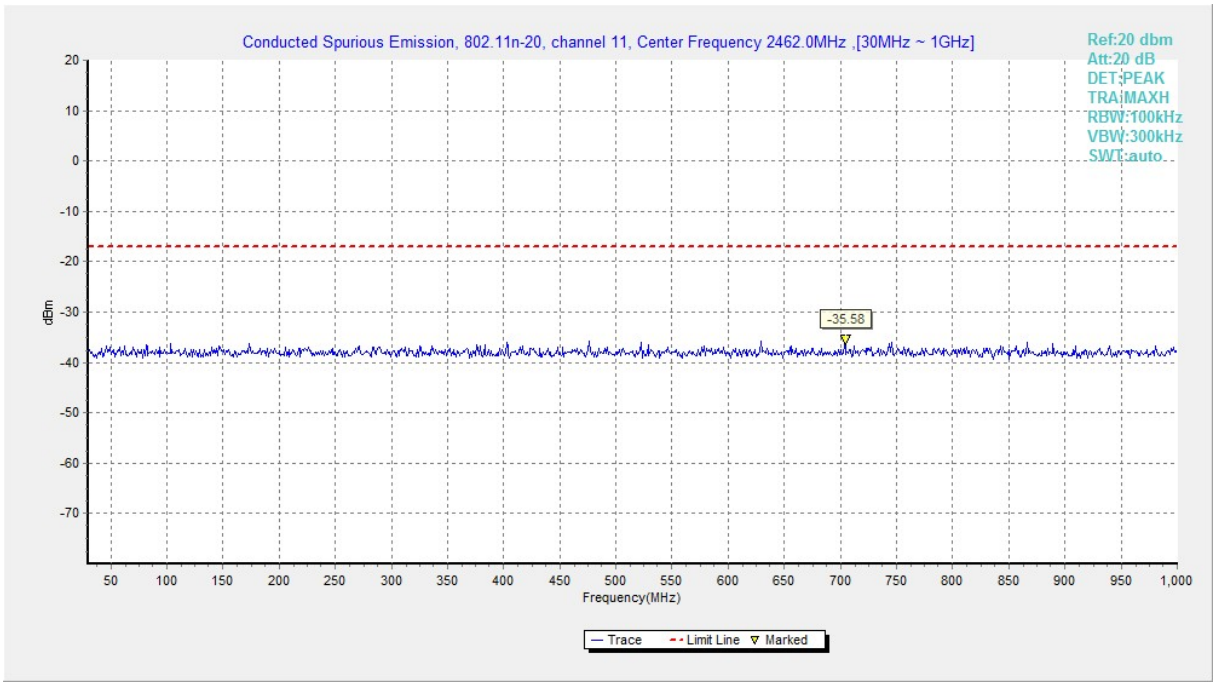

Fig.A.6.1.66 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 30 MHz-1 GHz)

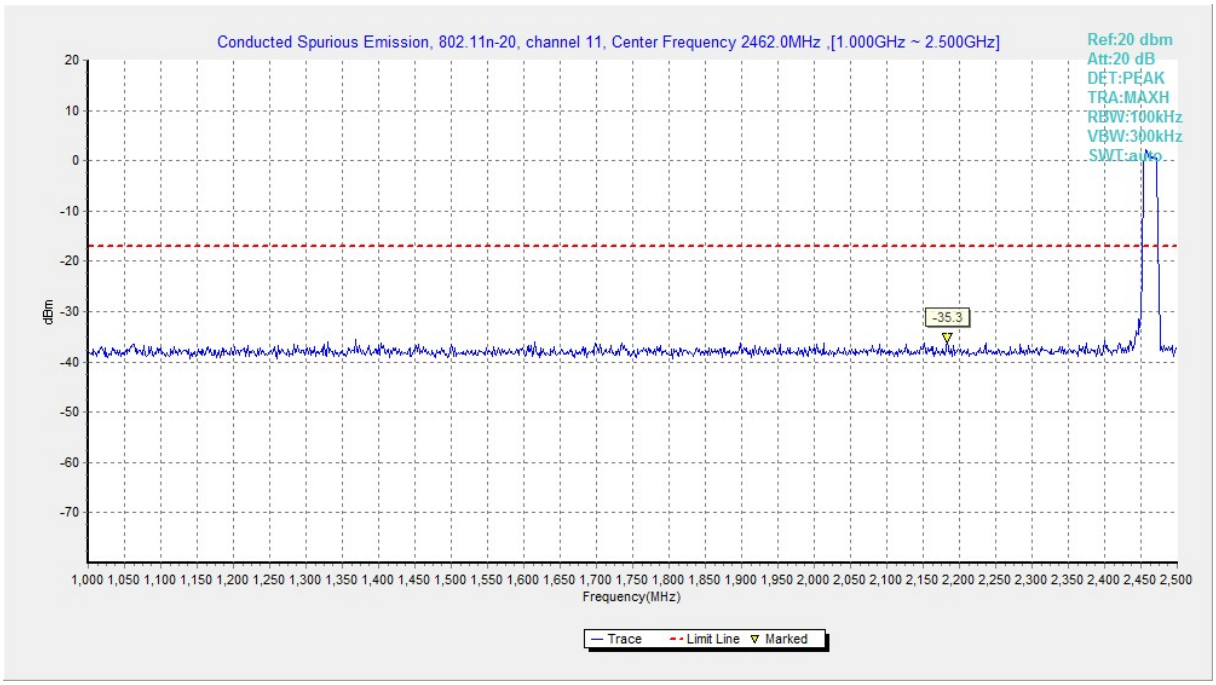

Fig.A.6.1.67 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 1 GHz-2.5 GHz)

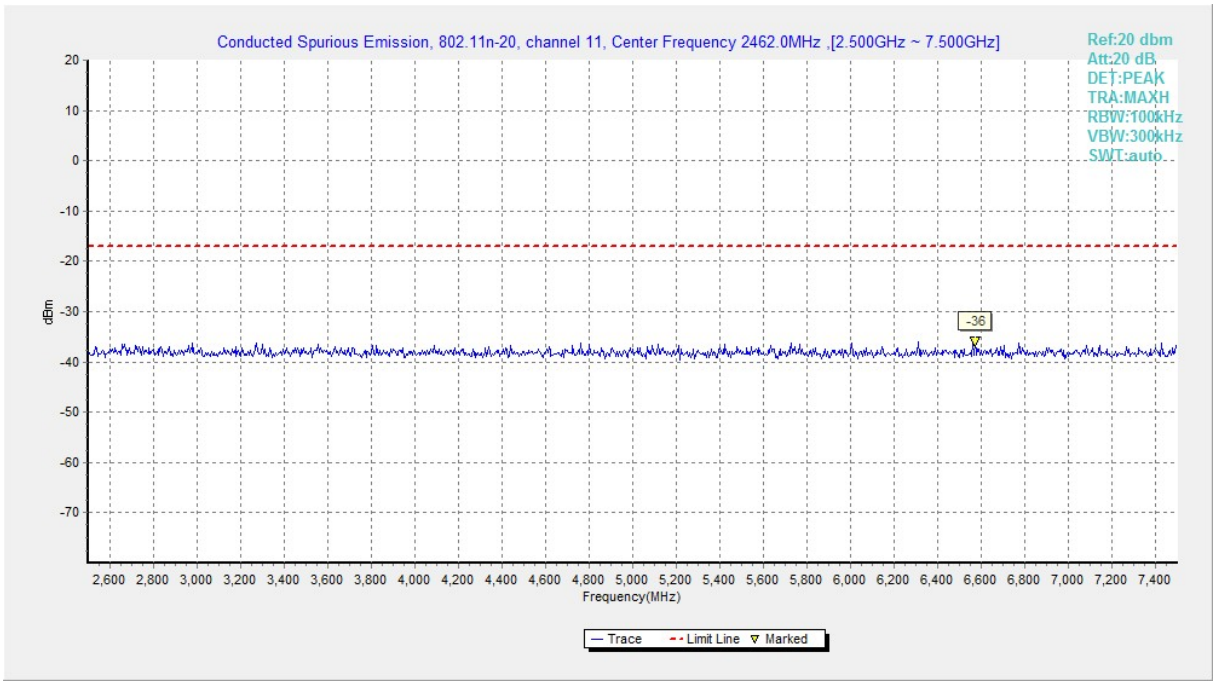

Fig.A.6.1.68 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 2.5 GHz-7.5 GHz)

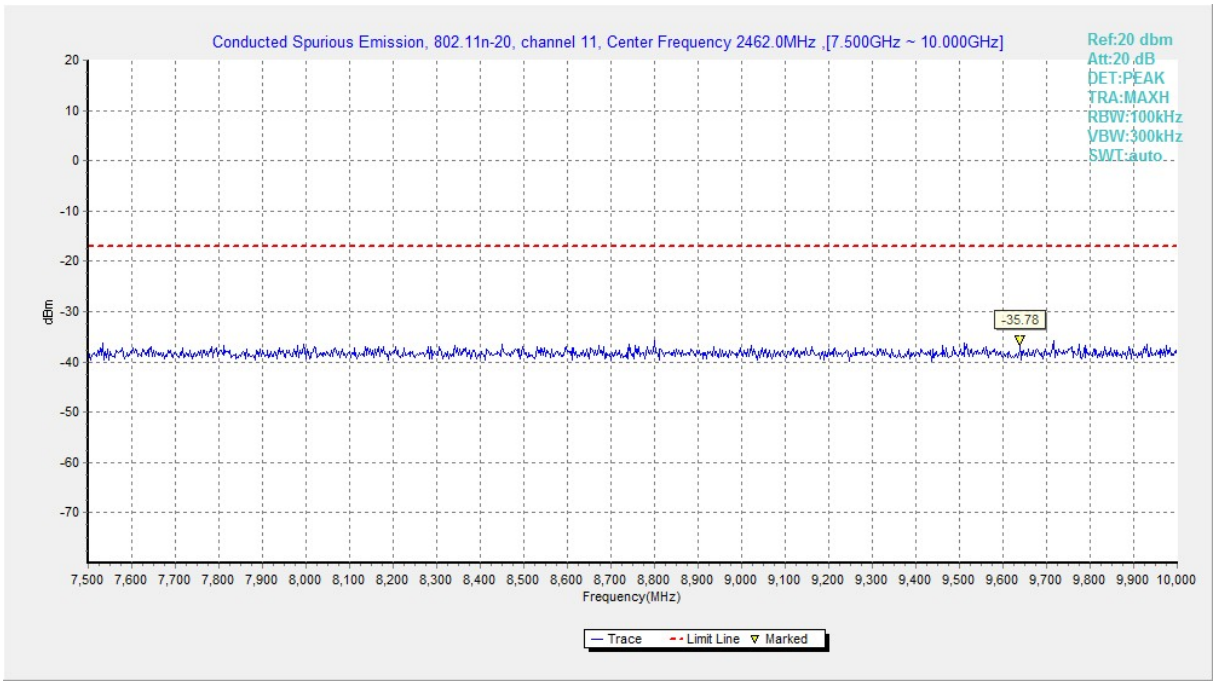

Fig.A.6.1.69 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 7.5 GHz-10 GHz)

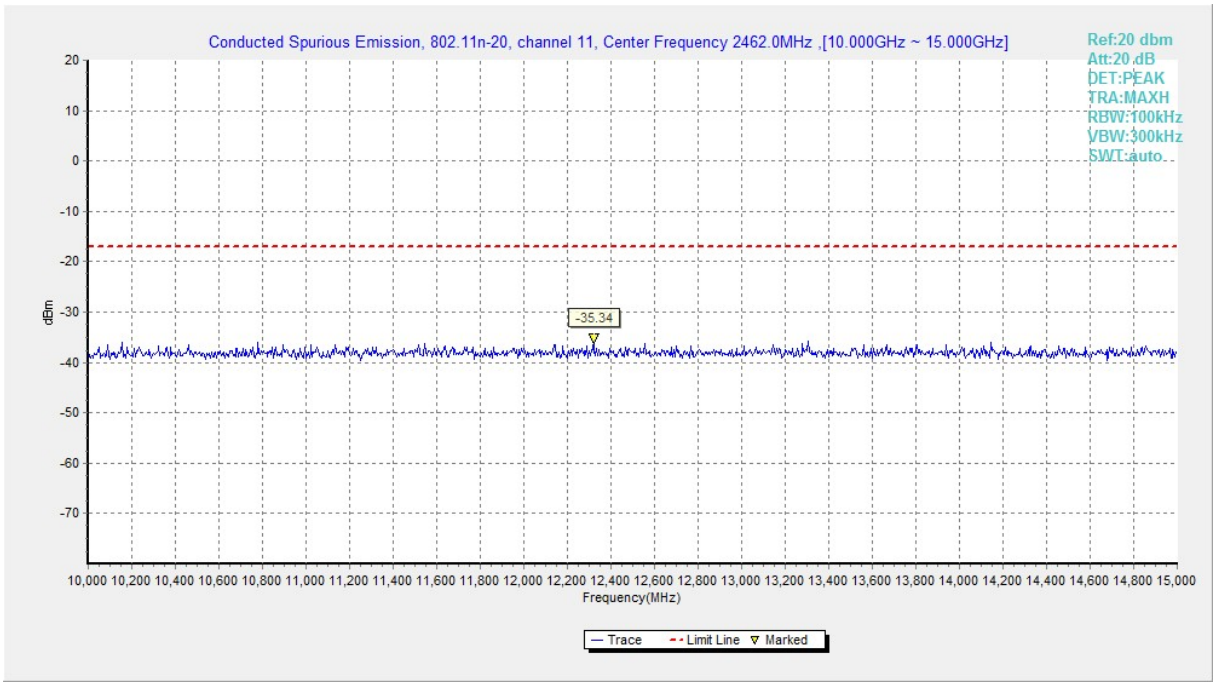

Fig.A.6.1.70 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 10 GHz-15 GHz)

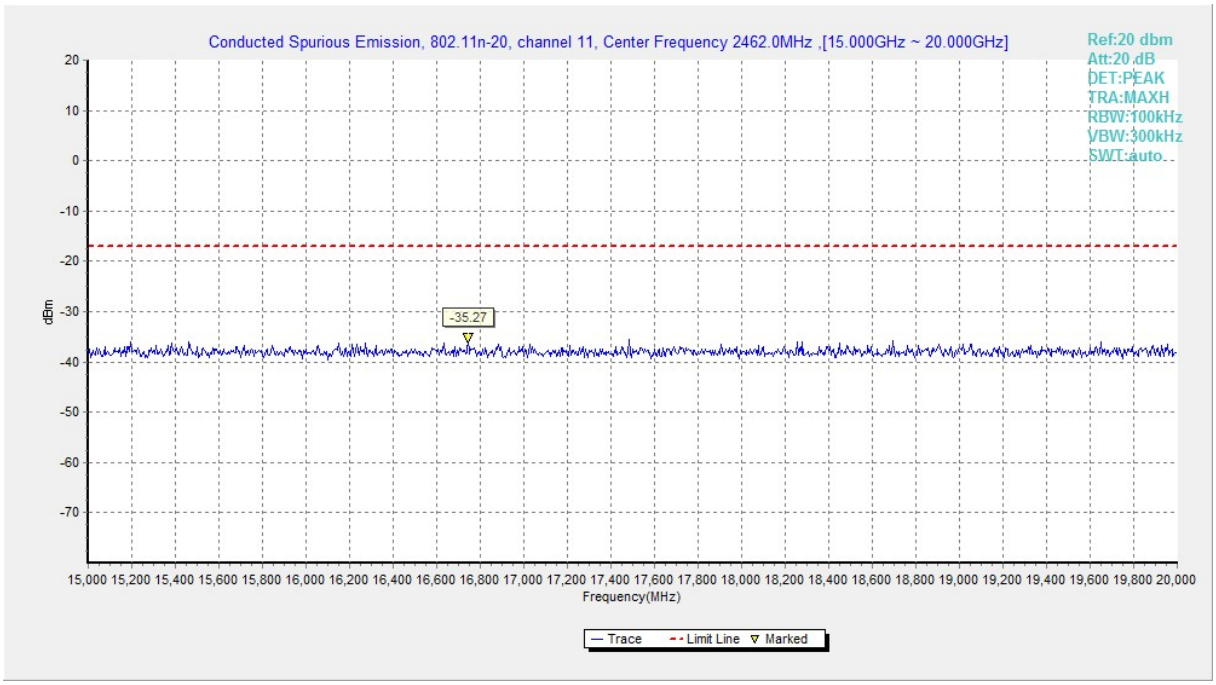

Fig.A.6.1.71 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 15 GHz-20 GHz)

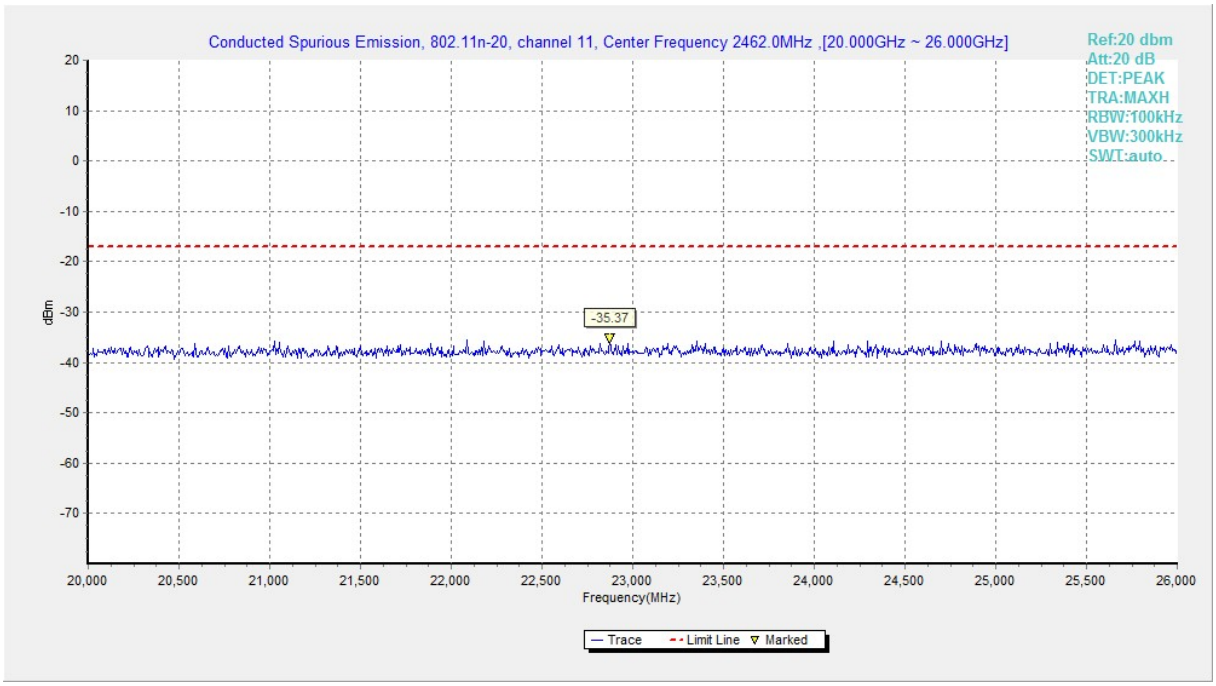

Fig.A.6.1.72 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 20 GHz-26 GHz)

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

Peak Results：

802.11b

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2386.650	54.8	2.9	32.0	19.93	V
2880.250	61.2	3.2	33.7	24.34	H
17568.000	59.7	-13.7	41.1	32.24	H
17622.750	59.6	-13.1	41.1	31.65	H
17946.000	59.6	-13.6	40.8	32.39	V
17826.000	59.4	-13.5	40.9	31.99	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2348.250	56.2	2.8	31.6	21.74	H
2574.500	59.8	3.0	33.0	23.81	V
17766.000	60.2	-13.3	41.0	32.60	H
17667.750	60.2	-13.1	41.1	32.21	H
17616.000	60.1	-13.2	41.1	32.18	H
17239.500	59.9	-14.2	41.2	32.89	V

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2485.552	56.8	2.9	32.7	21.16	V
2872.750	58.2	3.2	33.6	21.46	H
17647.500	60.3	-13.0	41.1	32.31	H
17940.750	60.2	-13.6	40.8	32.95	V
17577.750	59.7	-13.6	41.1	32.15	H
17982.750	59.7	-13.6	40.8	32.49	V

802.11g

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization

2389.205	56.3	2.9	32.0	21.45	V
2321.750	55.3	2.8	31.2	21.31	H
17709.750	60.9	-13.2	41.0	33.09	H
17593.500	60.6	-13.4	41.1	32.91	V
17931.750	60.0	-13.6	40.9	32.71	V
17236.500	59.9	-14.3	41.2	32.92	V

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2798.000	59.1	3.1	33.5	22.49	H
2898.250	60.6	3.2	34.0	23.44	H
17933.250	60.2	-13.6	40.9	32.95	V
17683.500	59.9	-13.1	41.1	32.01	H
17980.500	59.8	-13.6	40.8	32.65	V
17298.750	59.8	-14.0	41.2	32.63	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2313.000	55.7	2.8	31.1	21.78	V
2484.475	66.3	2.9	32.7	30.63	H
17949.000	60.5	-13.6	40.8	33.24	H
17583.750	60.3	-13.5	41.1	32.70	V
17739.750	60.3	-13.3	41.0	32.54	V
17662.500	60.2	-13.1	41.1	32.21	H

802.11n-HT20

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2385.635	54.5	2.9	32.0	19.62	H
2939.750	60.7	3.2	33.9	23.57	H
17315.250	60.3	-14.1	41.2	33.23	H
17606.250	60.3	-13.3	41.1	32.48	H
17604.750	60.2	-13.3	41.1	32.36	V
17498.250	60.1	-14.5	41.2	33.40	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization

2879.750	60.0	3.2	33.7	23.15	V
2942.000	60.0	3.2	33.9	22.87	H
17559.750	61.8	-13.8	41.2	34.46	V
17618.250	60.7	-13.2	41.1	32.78	V
17221.500	60.0	-14.4	41.2	33.19	H
17969.250	59.8	-13.6	40.8	32.61	V

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2256.750	55.4	2.8	30.9	21.75	H
2484.125	60.3	2.9	32.7	24.62	H
17635.500	60.8	-13.0	41.1	32.72	V
17644.500	60.7	-13.0	41.1	32.63	H
17769.750	60.4	-13.4	41.0	32.77	V
17703.750	60.2	-13.2	41.0	32.39	H

Average Results：

802.11b

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2389.940	46.20	2.9	32.0	11.35	H
2644.000	48.90	3.0	33.6	12.26	H
4824.000	53.23	-17.3	34.5	36.05	H
9648.000	39.41	-17.4	37.0	19.78	H
12060.000	41.53	-17.2	39.3	19.47	H
16884.000	44.11	-16.1	41.4	18.72	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2371.200	45.90	2.9	32.0	11.01	H
2647.200	48.90	3.0	33.7	12.21	V
4875.000	46.08	-18.3	34.5	29.93	H
9748.500	39.44	-17.3	37.2	19.57	H
12184.500	40.68	-17.7	39.2	19.14	H
17059.000	44.51	-15.5	41.4	18.66	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization

2483.500	47.50	2.9	32.8	11.81	H
2394.400	46.20	2.9	31.9	11.39	H
4924.500	52.28	-19.0	34.5	36.73	H
9849.000	38.89	-18.1	37.3	19.66	H
12310.500	40.31	-17.9	39.2	19.00	H
17234.000	45.92	-14.3	41.2	18.98	H

802.11g

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2389.975	47.10	2.9	32.0	12.25	V
2642.800	48.80	3.0	33.6	12.18	H
4824.000	38.61	-17.3	34.5	21.43	H
9648.000	39.42	-17.4	37.0	19.79	H
12060.000	41.49	-17.2	39.3	19.43	H
16884.000	44.17	-16.1	41.4	18.79	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2370.400	45.90	2.9	32.0	11.03	H
2644.000	48.90	3.0	33.6	12.26	H
4875.000	36.66	-18.3	34.5	20.51	H
9748.500	39.46	-17.3	37.2	19.59	H
12184.500	40.72	-17.7	39.2	19.18	H
17059.000	44.85	-15.5	41.4	19.00	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2483.525	48.80	2.9	32.8	13.11	H
2484.400	48.20	2.9	32.7	12.53	H
4924.500	36.07	-19.0	34.5	20.52	H
9849.000	38.82	-18.1	37.3	19.60	H
12310.500	40.61	-17.9	39.2	19.30	H
17234.000	45.76	-14.3	41.2	18.82	H

802.11n-HT20

Ch1

Frequency(MHz)	Result	Cable	Antenna	P_{Mea}	Polarization

	(dBuV/m)	Loss(dB)	Factor	(dBuV/m)	
2389.695	46.50	2.9	32.0	11.65	V
2381.000	46.10	2.9	32.1	11.19	H
4824.000	38.63	-17.3	34.5	21.45	H
9648.000	39.42	-17.4	37.0	19.78	H
12060.000	41.52	-17.2	39.3	19.46	H
16884.000	44.15	-16.1	41.4	18.77	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2377.200	46.10	2.9	32.1	11.16	H
2652.000	48.80	3.0	33.7	12.08	V
4875.000	36.72	-18.3	34.5	20.57	H
9748.500	39.45	-17.3	37.2	19.58	H
12184.500	40.70	-17.7	39.2	19.16	H
17059.000	44.77	-15.5	41.4	18.91	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2483.650	48.10	2.9	32.8	12.41	H
2484.400	47.80	2.9	32.7	12.13	H
4924.500	36.21	-19.0	34.5	20.67	H
9849.000	38.85	-18.1	37.3	19.62	H
12310.500	40.46	-17.9	39.2	19.15	H
17234.000	45.84	-14.3	41.2	18.90	H

Test graphs as below:

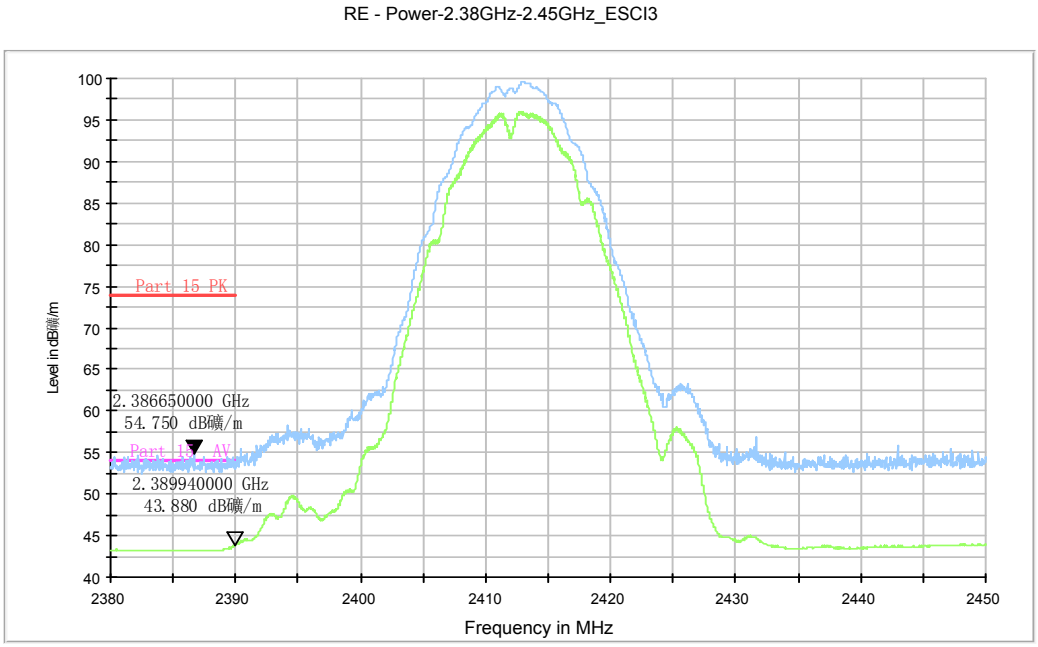

Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.38 GHz – 2.45GHz

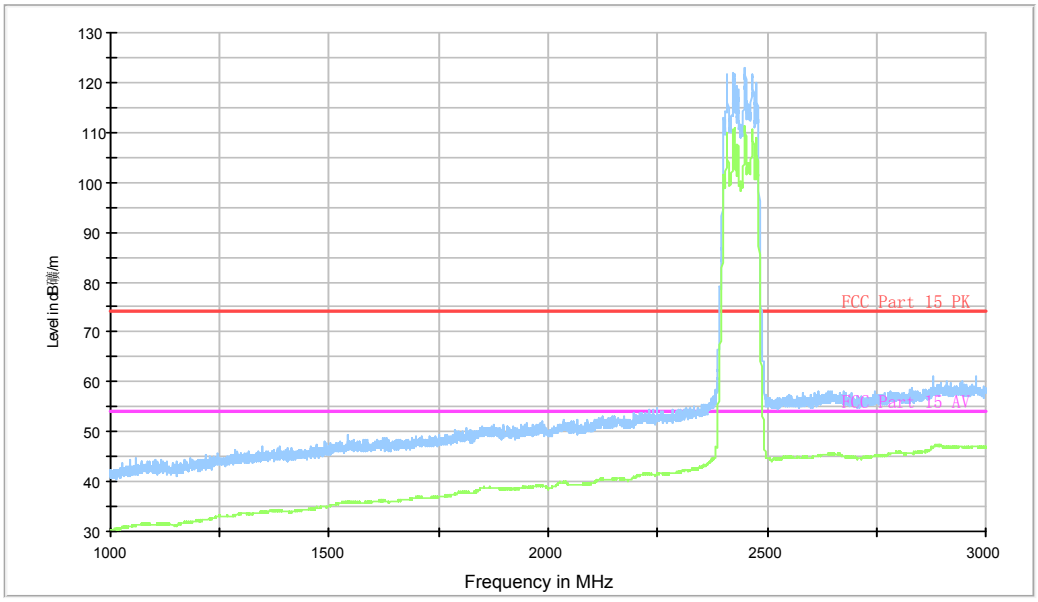

Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (802.11b, Ch1, 1 GHz-3 GHz)

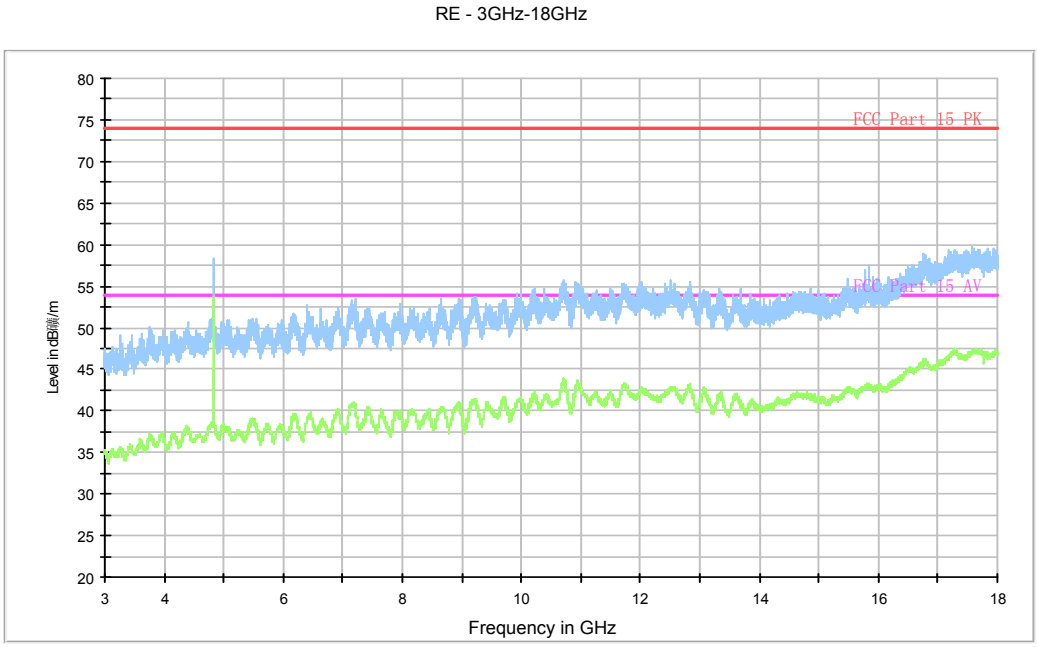

Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (802.11b, Ch1, 3 GHz-18 GHz)

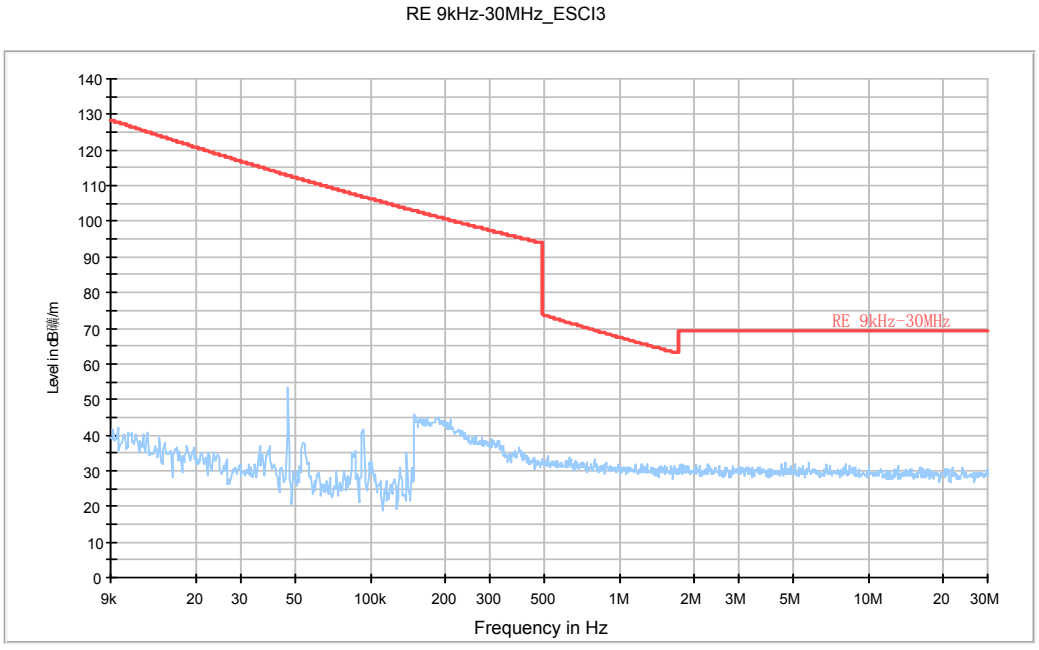

Fig.A.6.2.4

Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 9kHz-30 MHz)