

Fig.B.6.1.21 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 7.5 GHz-10 GHz)

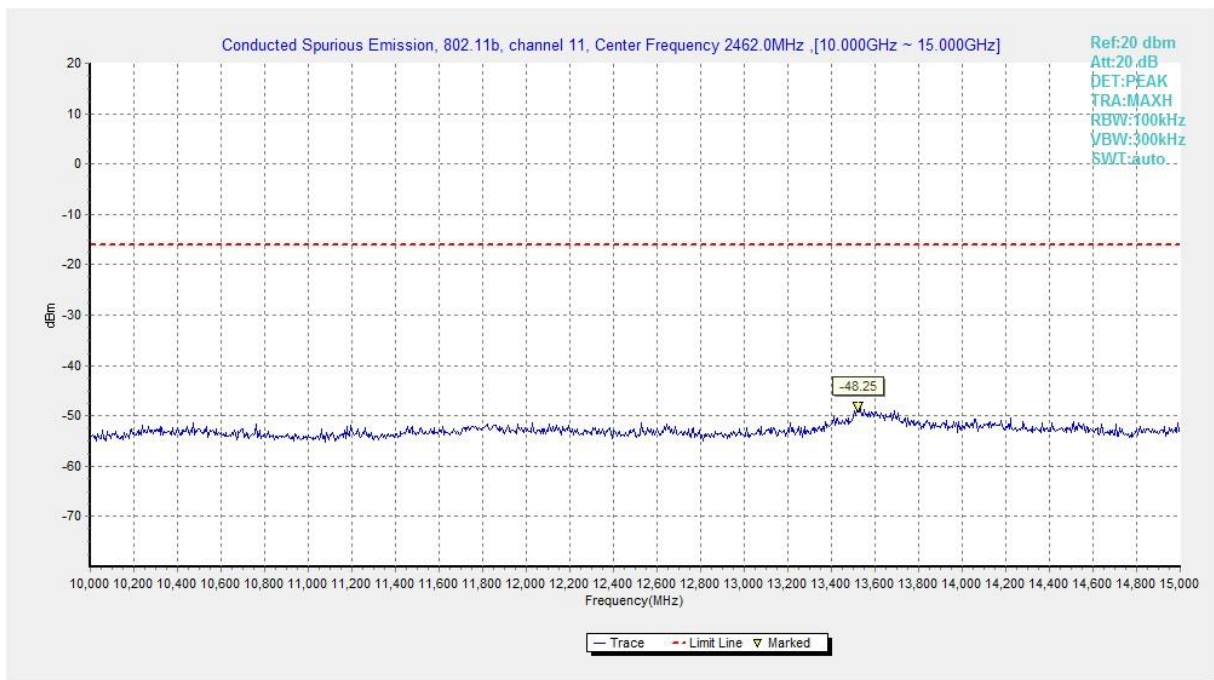


Fig.B.6.1.22 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 10 GHz-15 GHz)

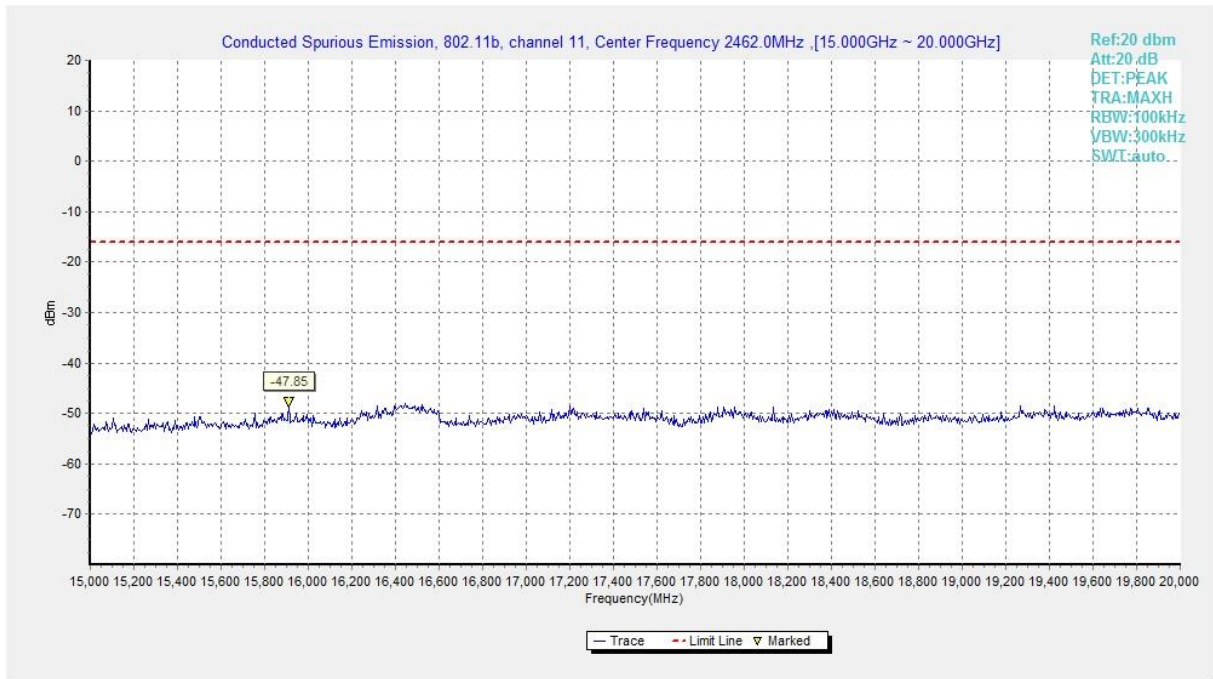


Fig.B.6.1.23 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 15 GHz-20 GHz)

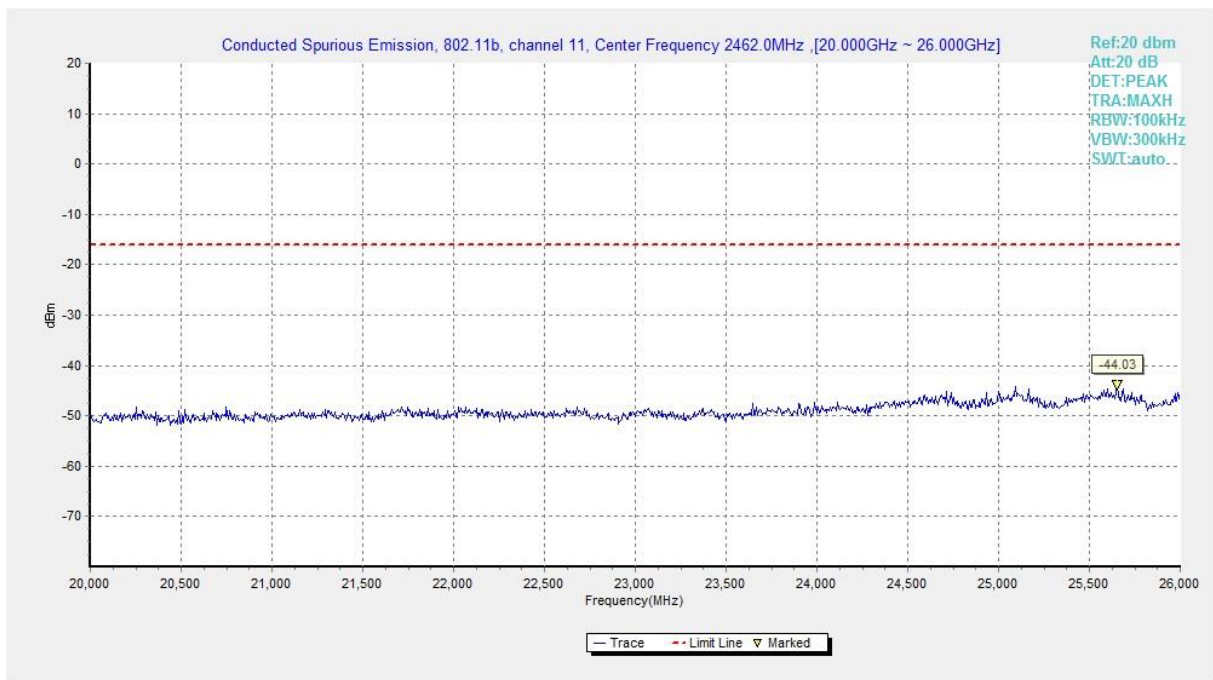


Fig.B.6.1.24 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 20 GHz-26 GHz)

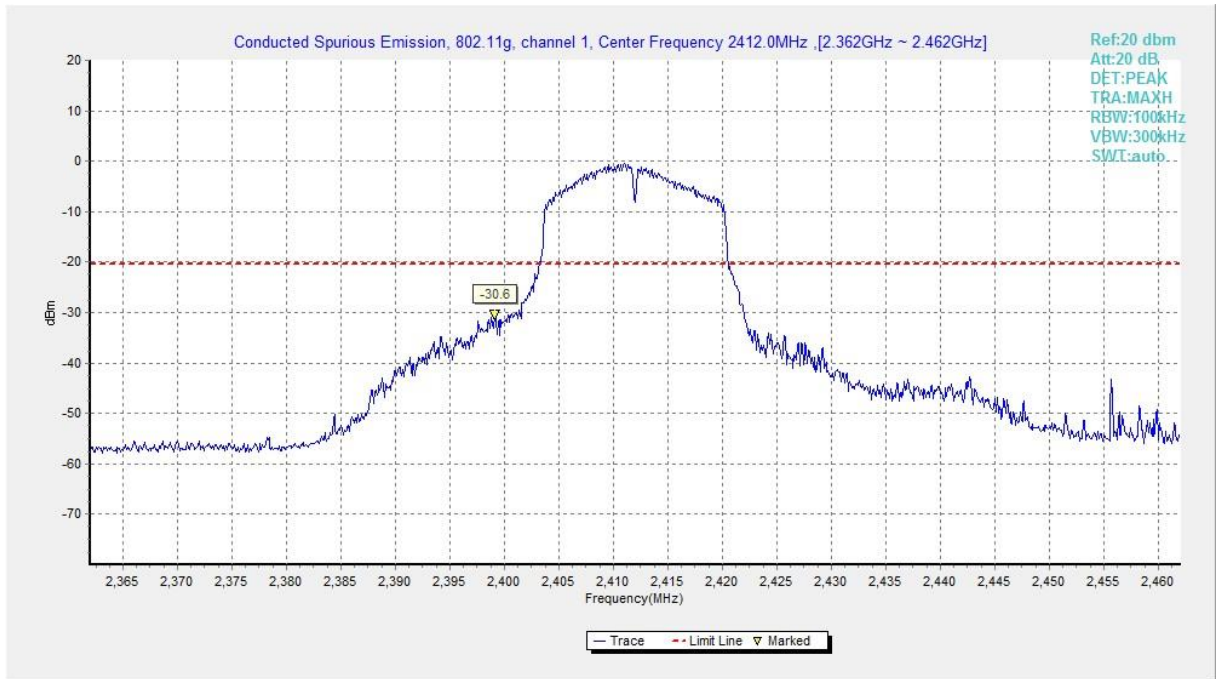


Fig.B.6.1.25 Transmitter Spurious Emission - Conducted (802.11g, Ch1, Center Frequency)

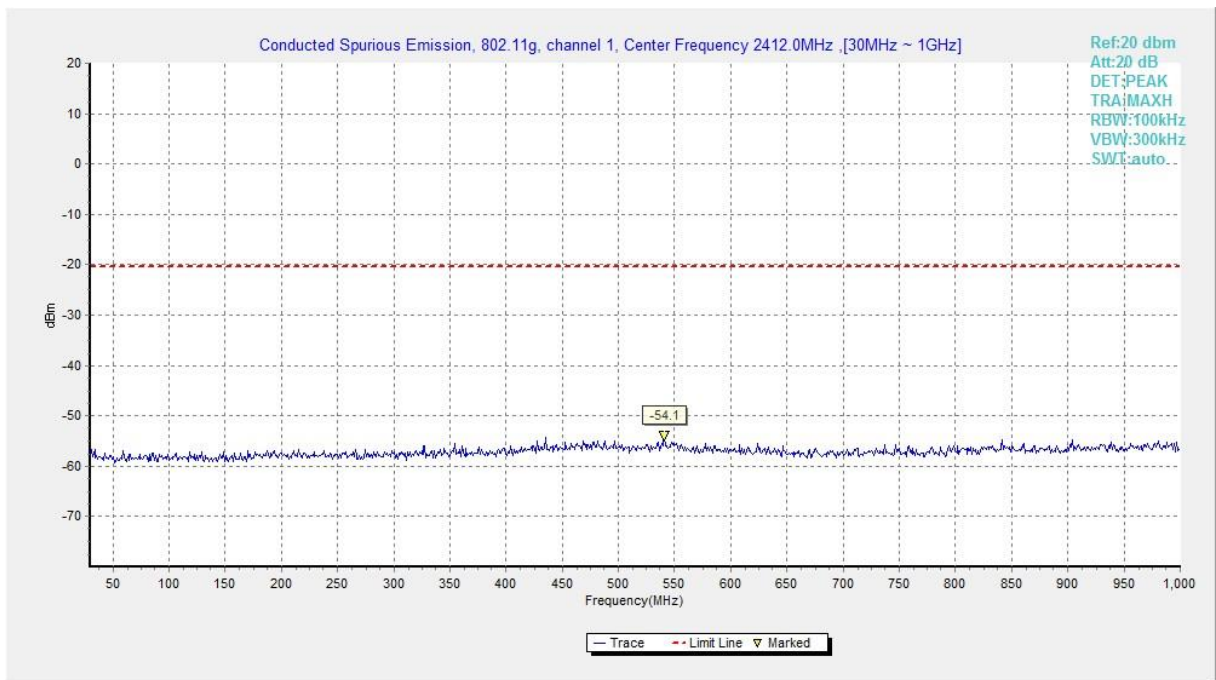


Fig.B.6.1.26 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 30 MHz-1 GHz)

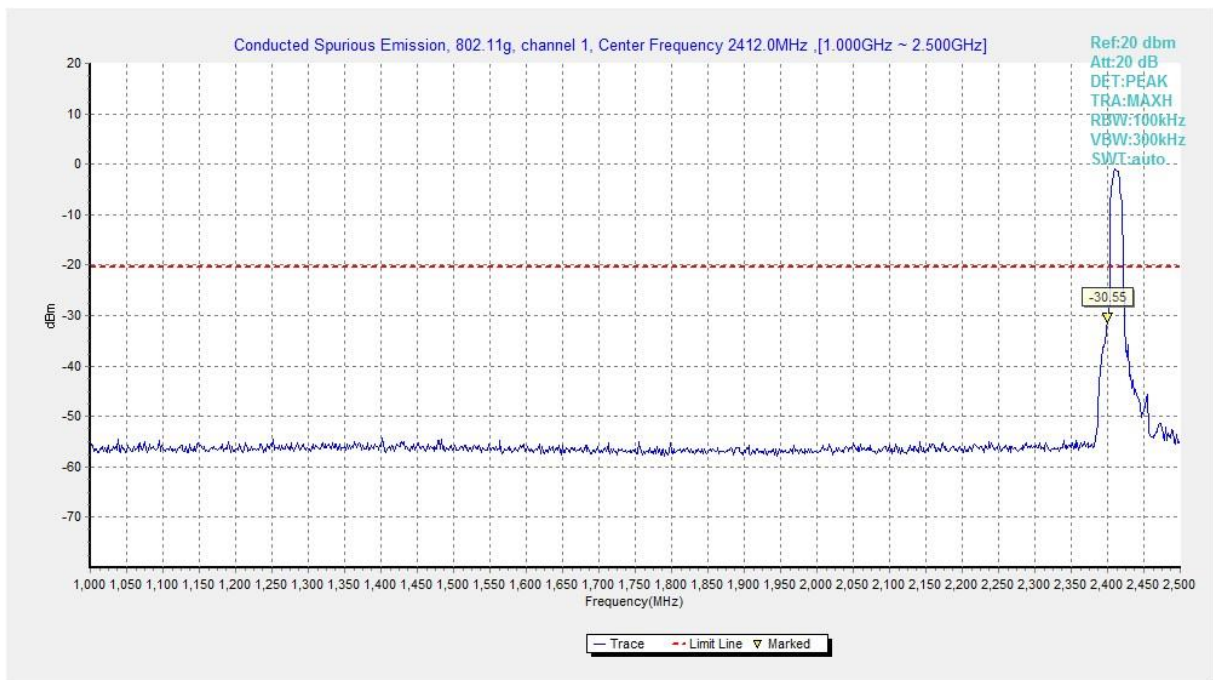


Fig.B.6.1.27 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 1 GHz-2.5 GHz)

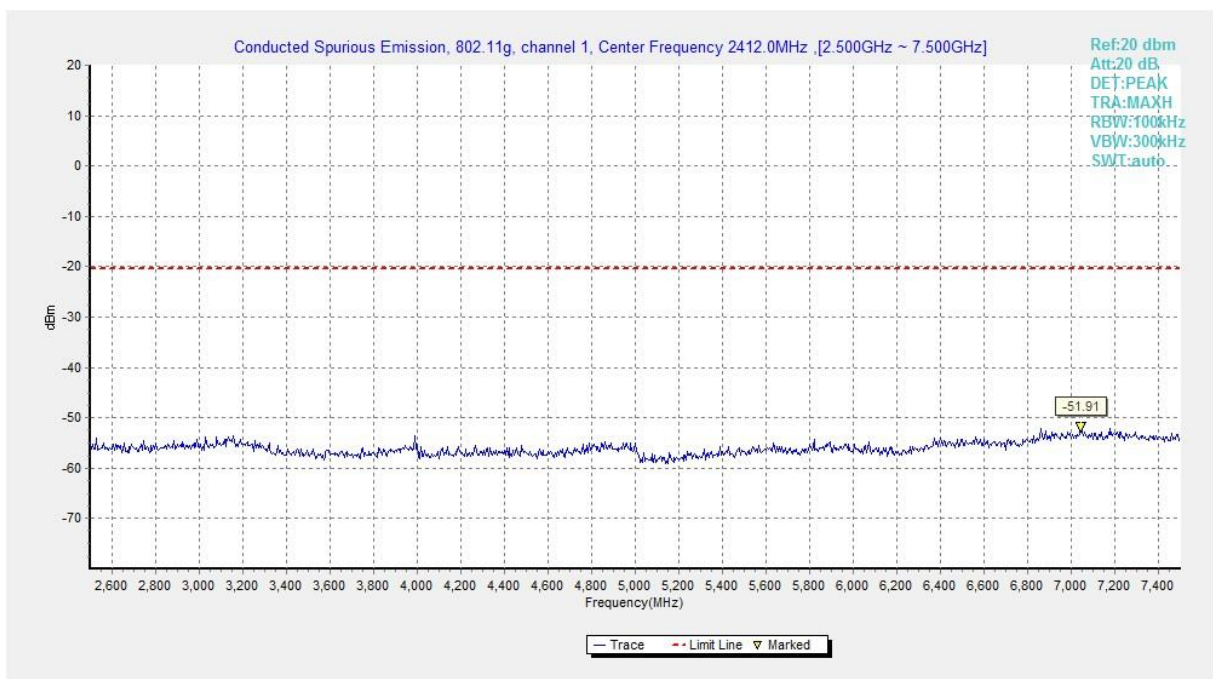


Fig.B.6.1.28 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 2.5 GHz-7.5 GHz)

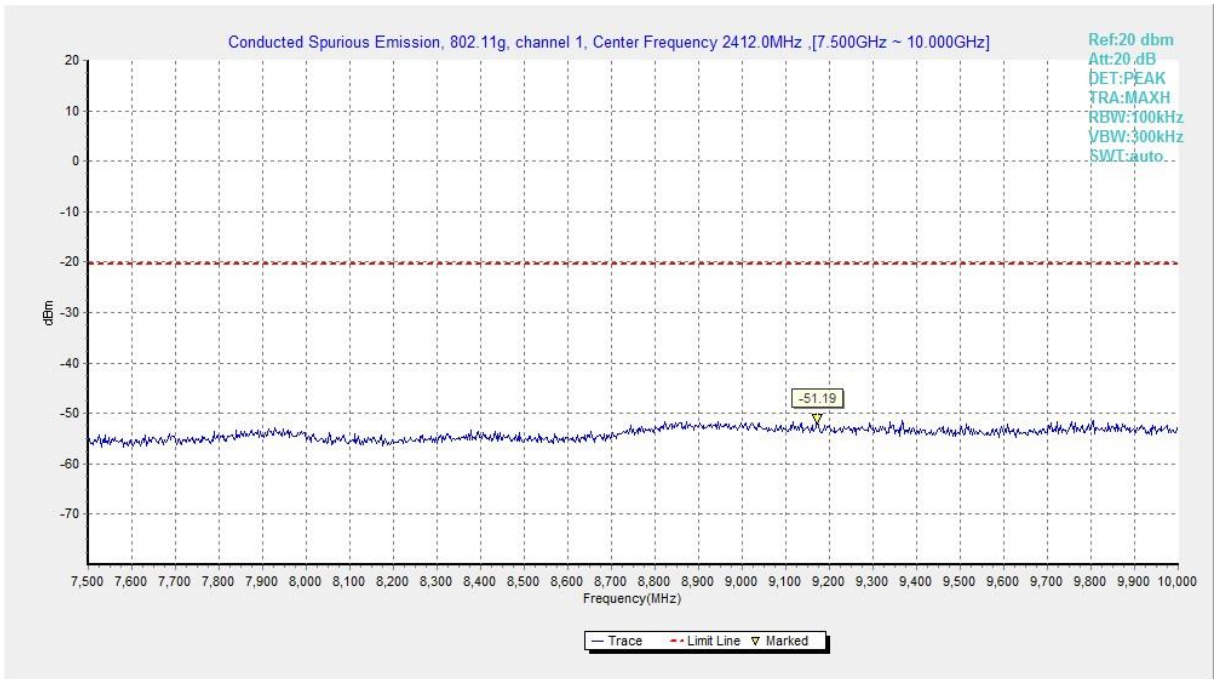


Fig.B.6.1.29 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 7.5 GHz-10 GHz)

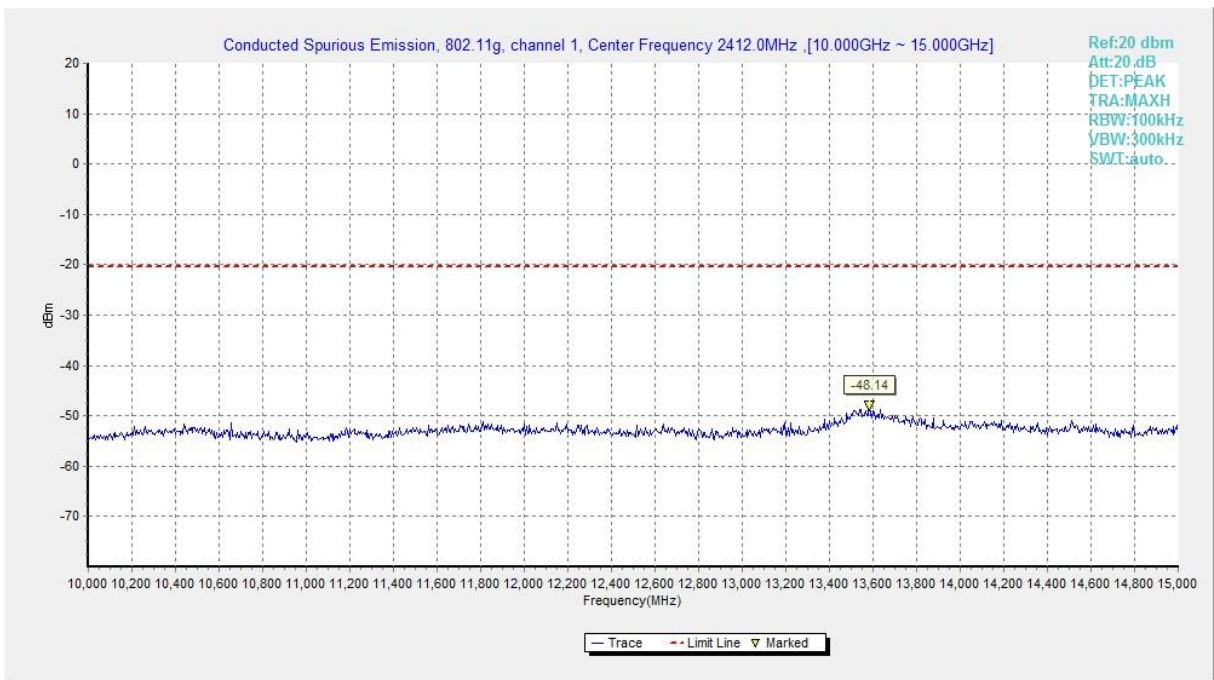


Fig.B.6.1.30 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 10 GHz-15 GHz)

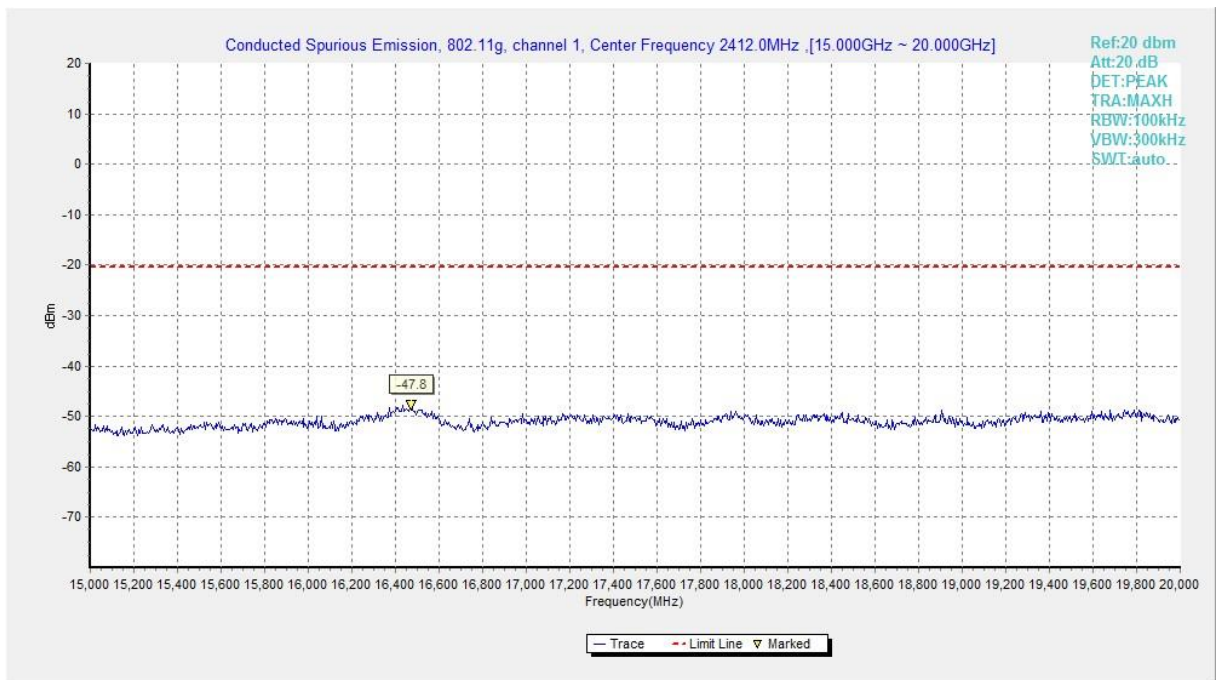


Fig.B.6.1.31 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 15 GHz-20 GHz)

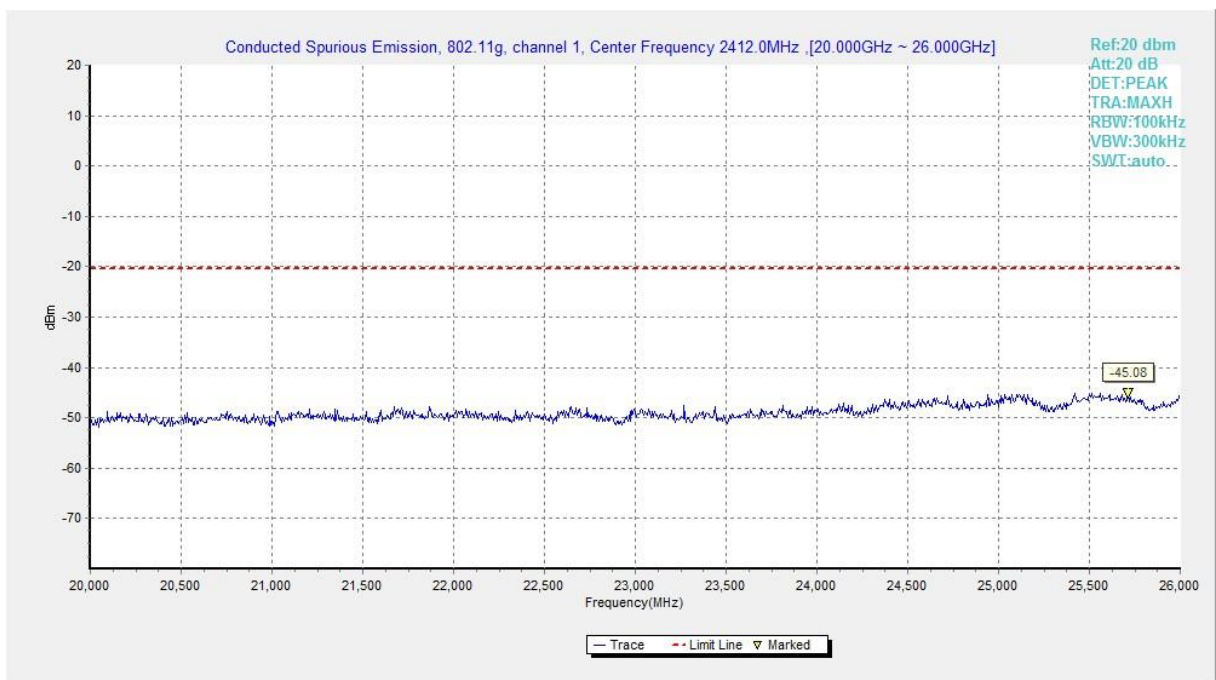


Fig.B.6.1.32 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 20 GHz-26 GHz)

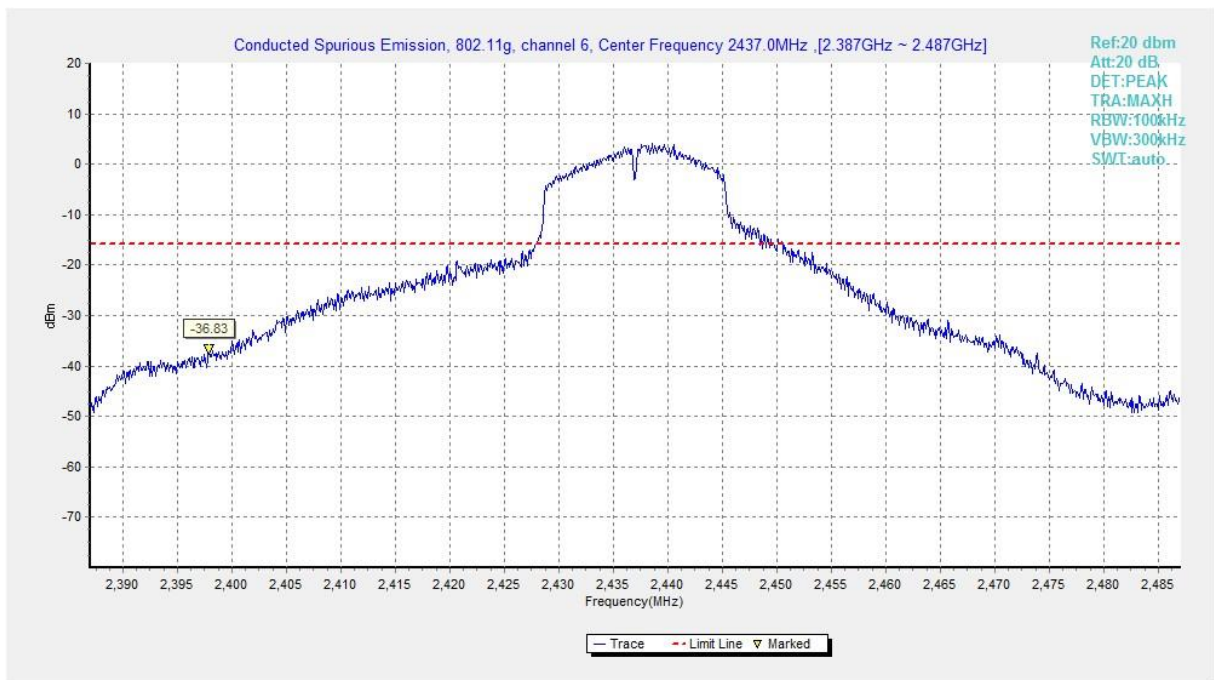


Fig.B.6.1.33 Transmitter Spurious Emission - Conducted (802.11g, Ch6, Center Frequency)

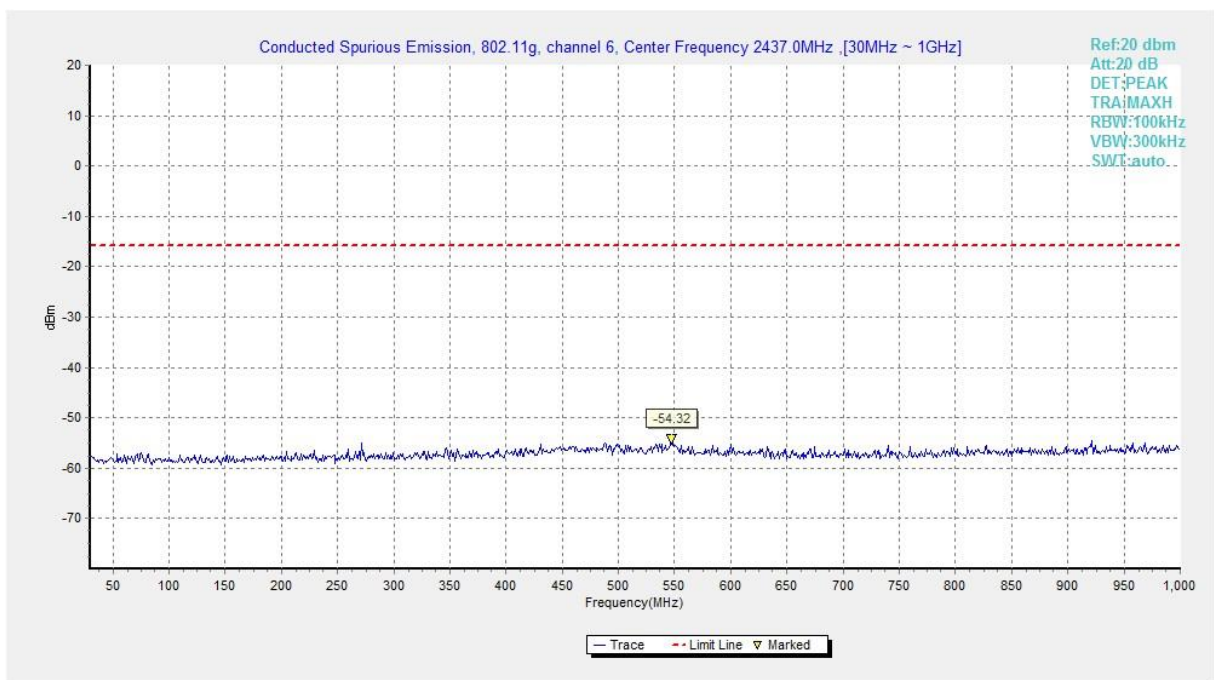


Fig.B.6.1.34 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 30 MHz-1 GHz)

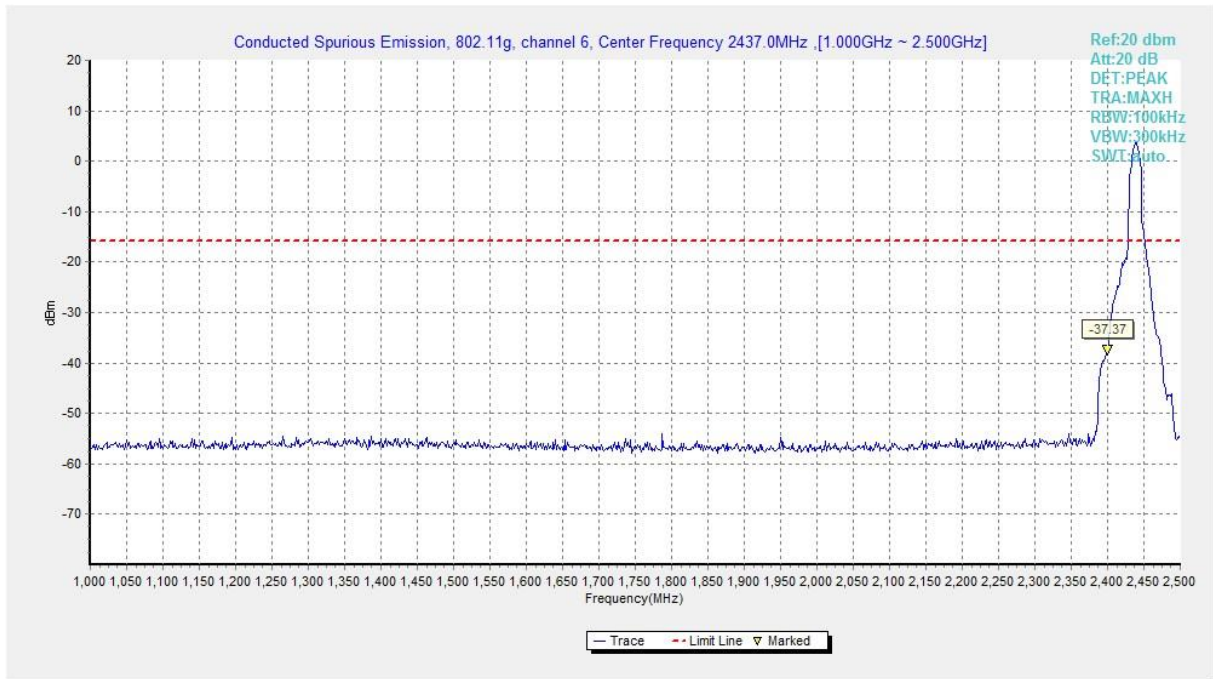


Fig.B.6.1.35 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 1 GHz-2.5 GHz)

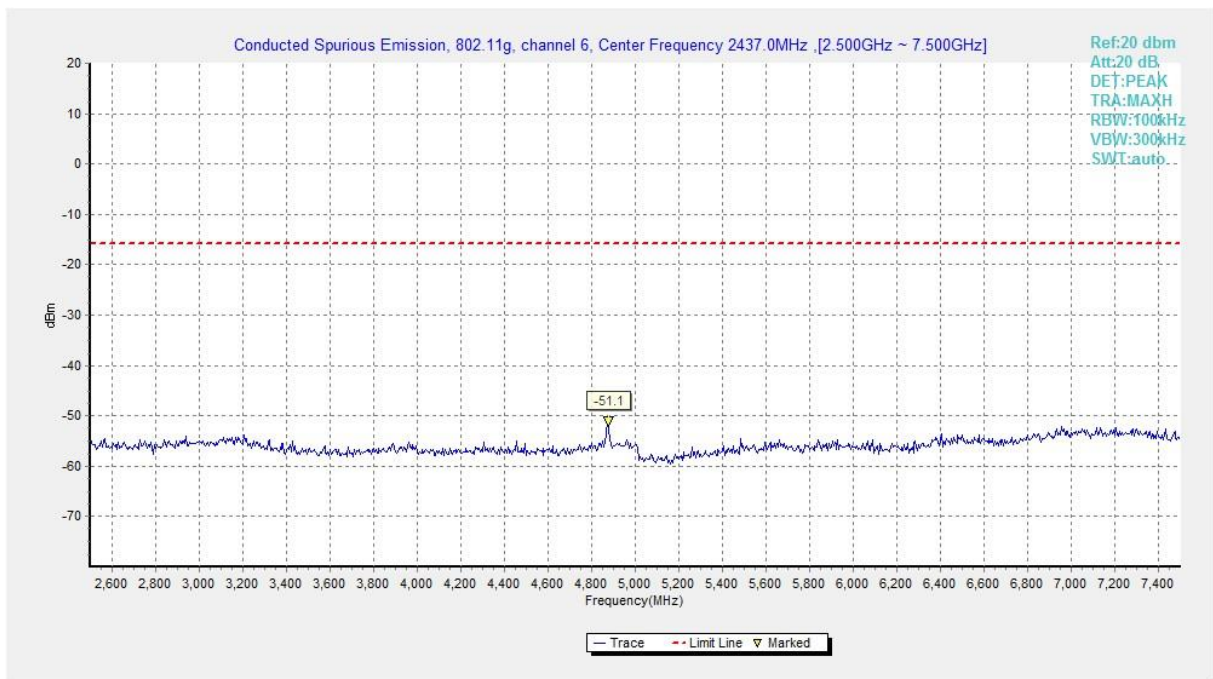


Fig.B.6.1.36 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 2.5 GHz-7.5 GHz)

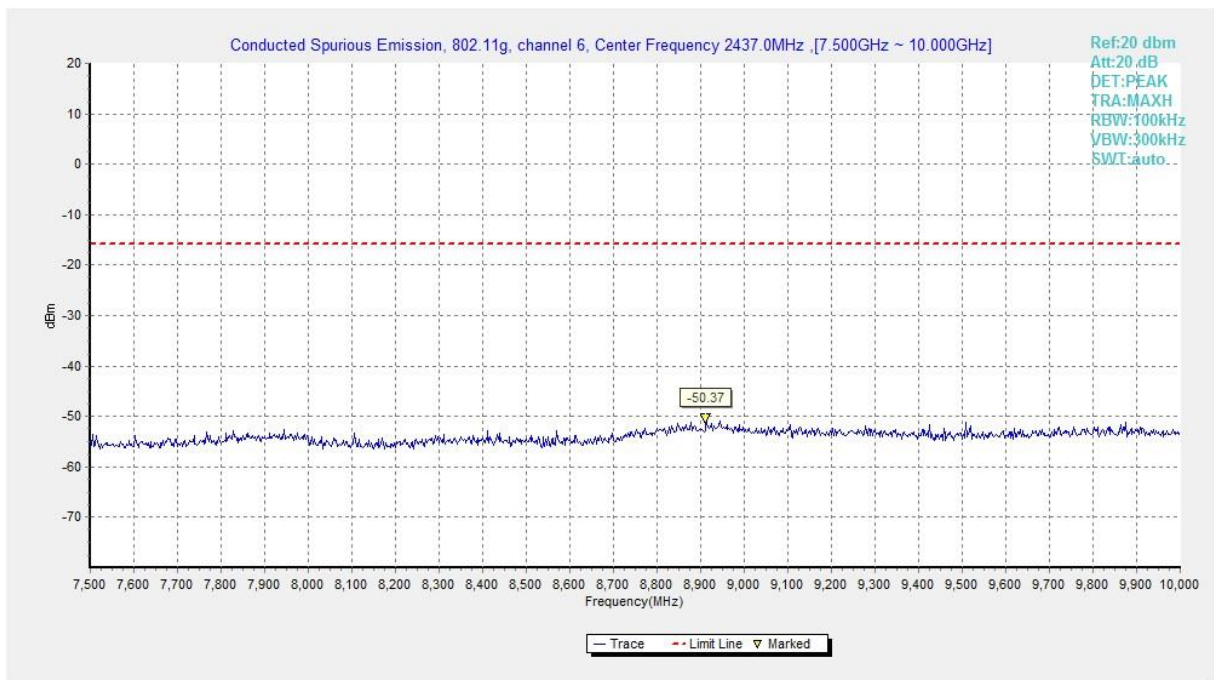


Fig.B.6.1.37 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 7.5 GHz-10 GHz)

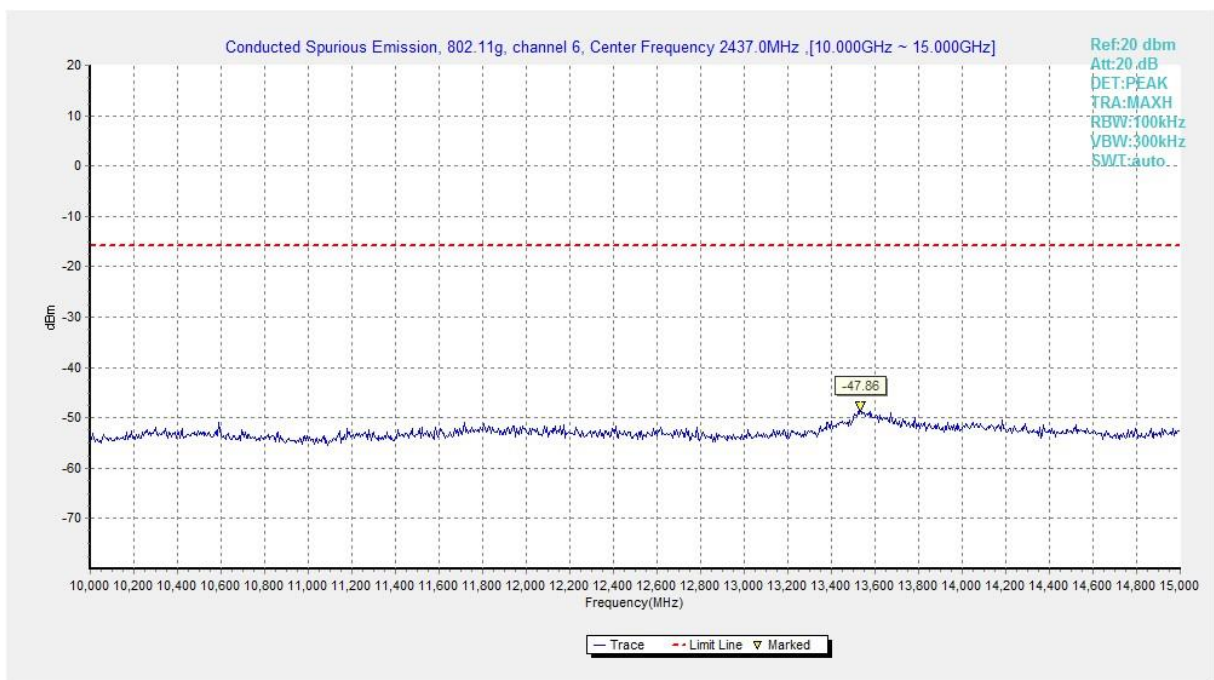


Fig.B.6.1.38 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 10 GHz-15 GHz)

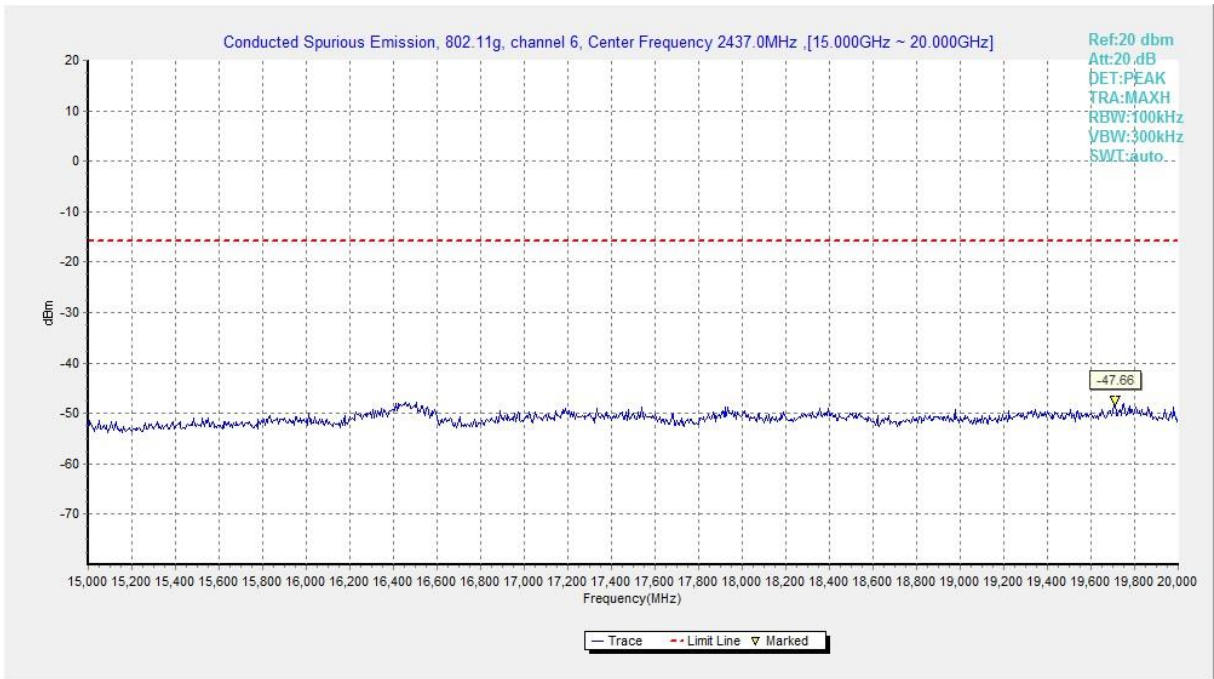


Fig.B.6.1.39 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 15 GHz-20 GHz)

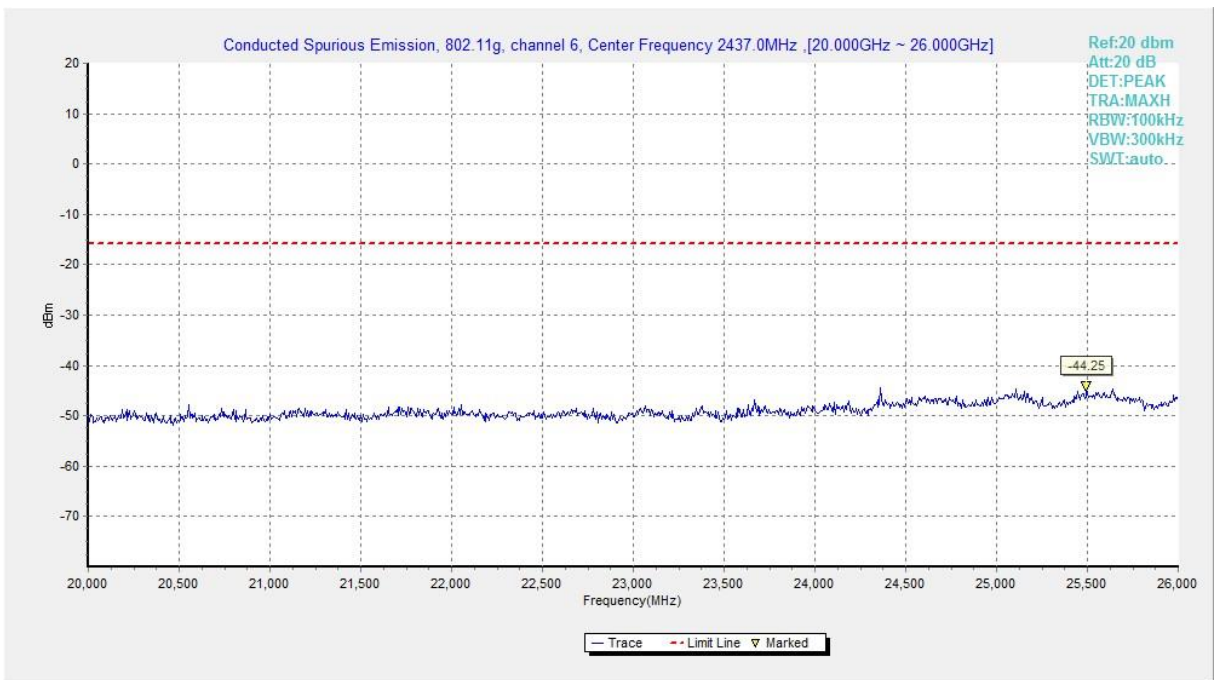


Fig.B.6.1.40 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 20 GHz-26 GHz)

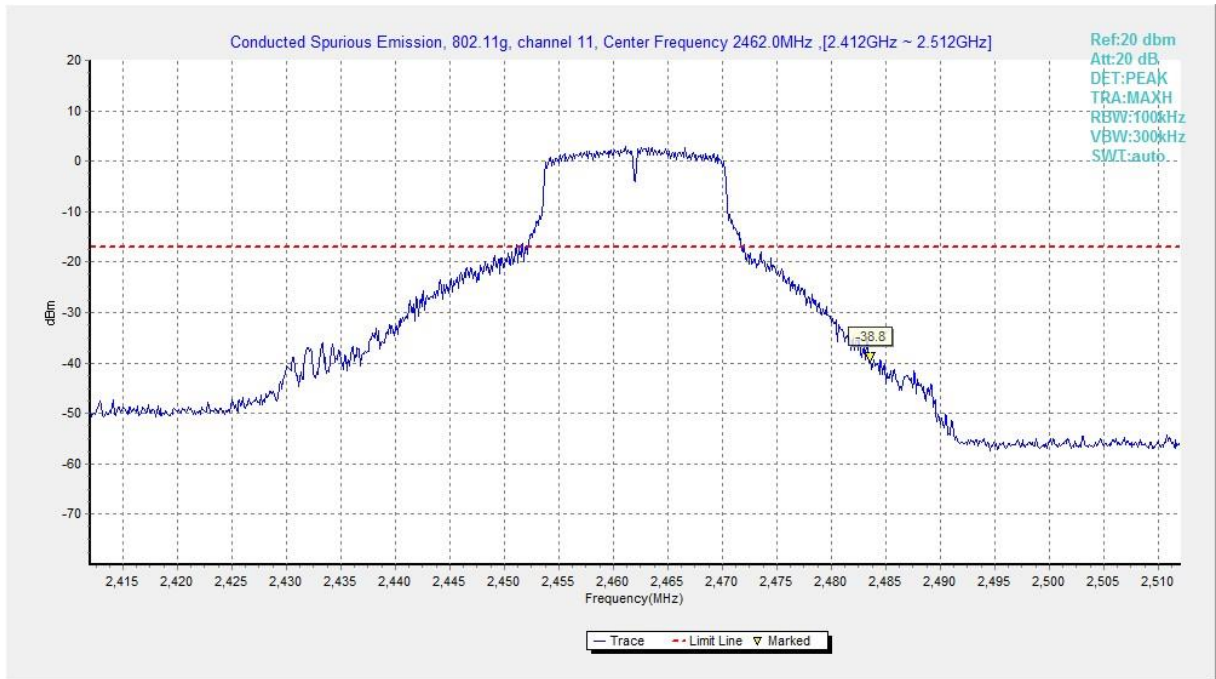


Fig.B.6.1.41 Transmitter Spurious Emission - Conducted (802.11g, Ch11, Center Frequency)

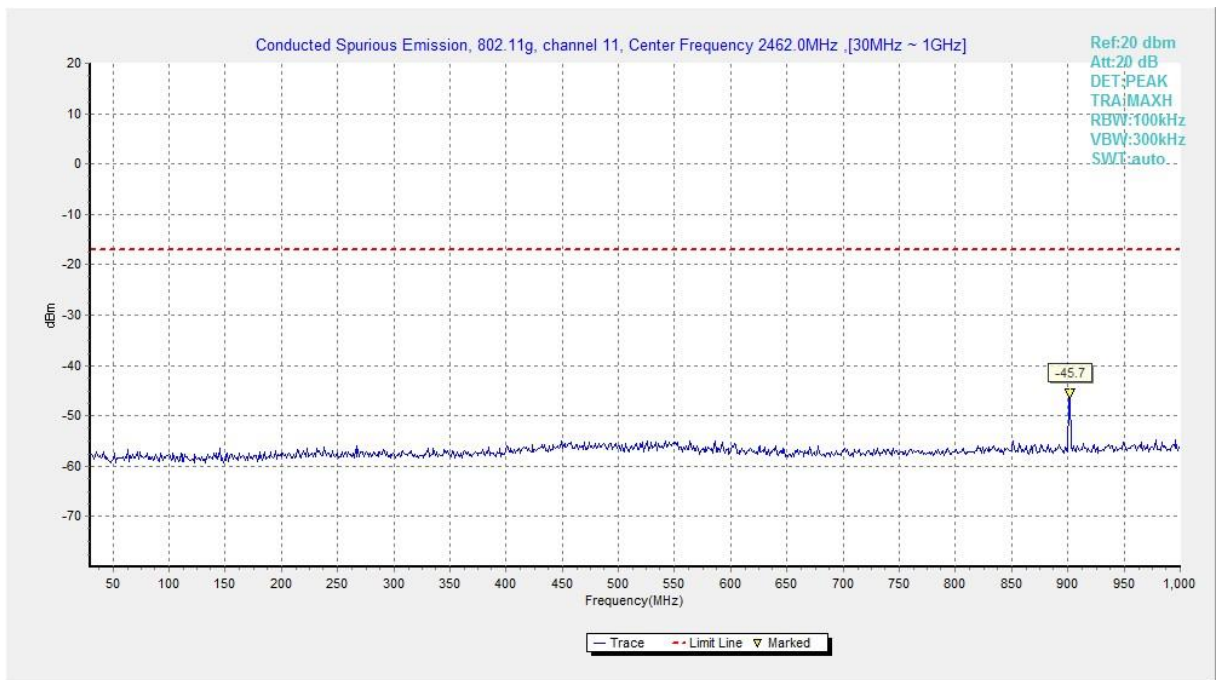


Fig.B.6.1.42 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 30 MHz-1 GHz)

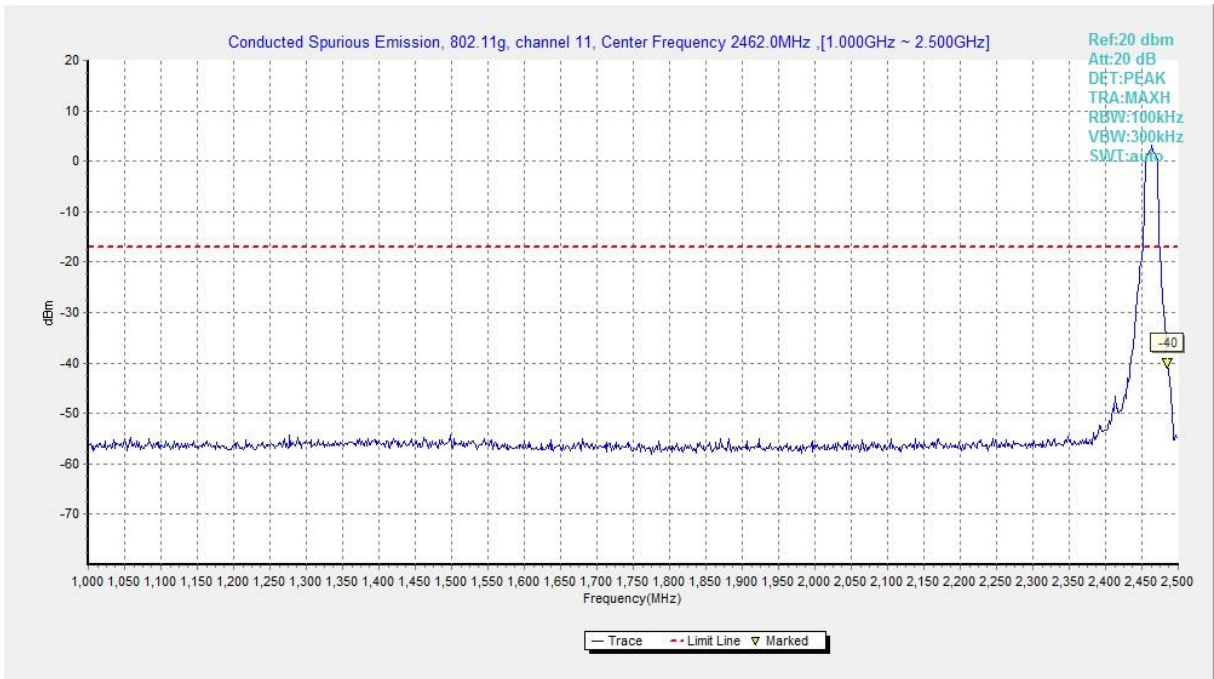


Fig.B.6.1.43 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 1 GHz-2.5 GHz)

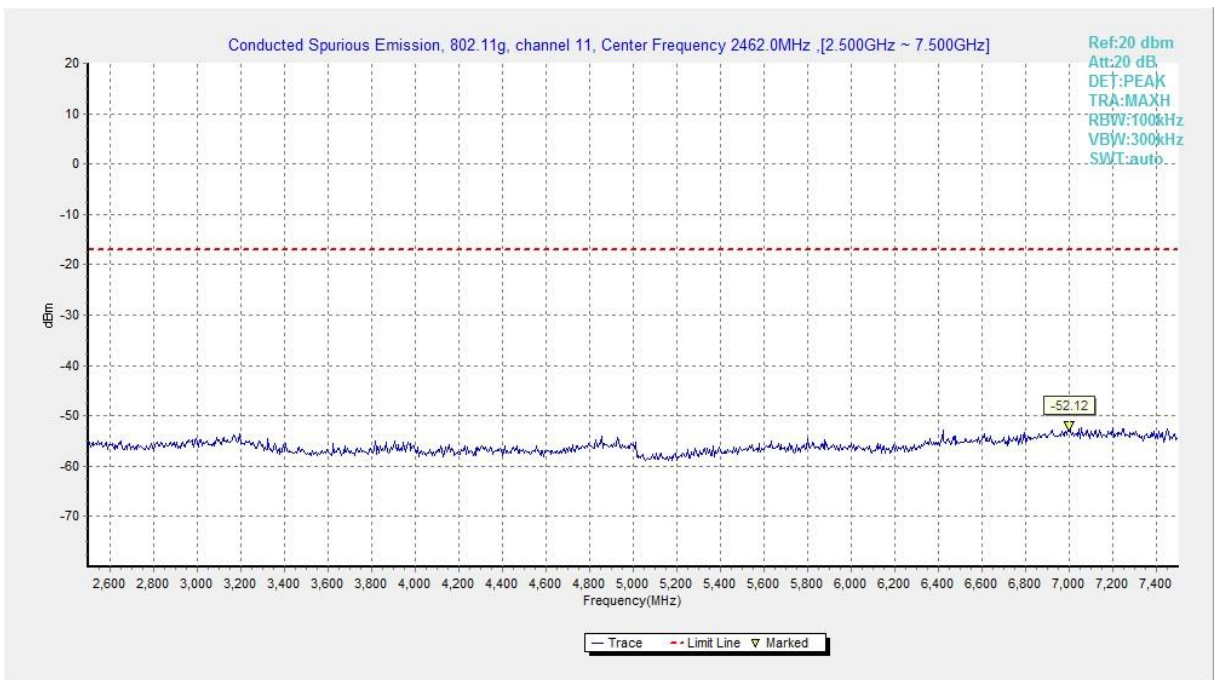


Fig.B.6.1.44 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 2.5 GHz-7.5 GHz)

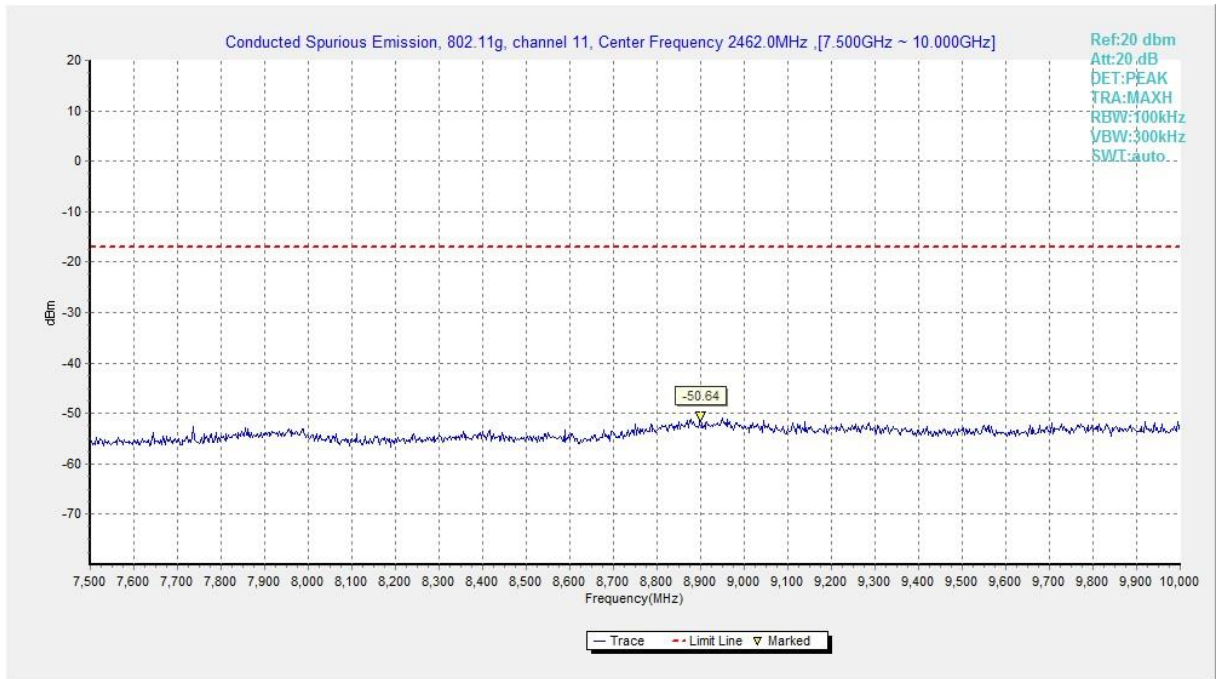


Fig.B.6.1.45 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 7.5 GHz-10 GHz)

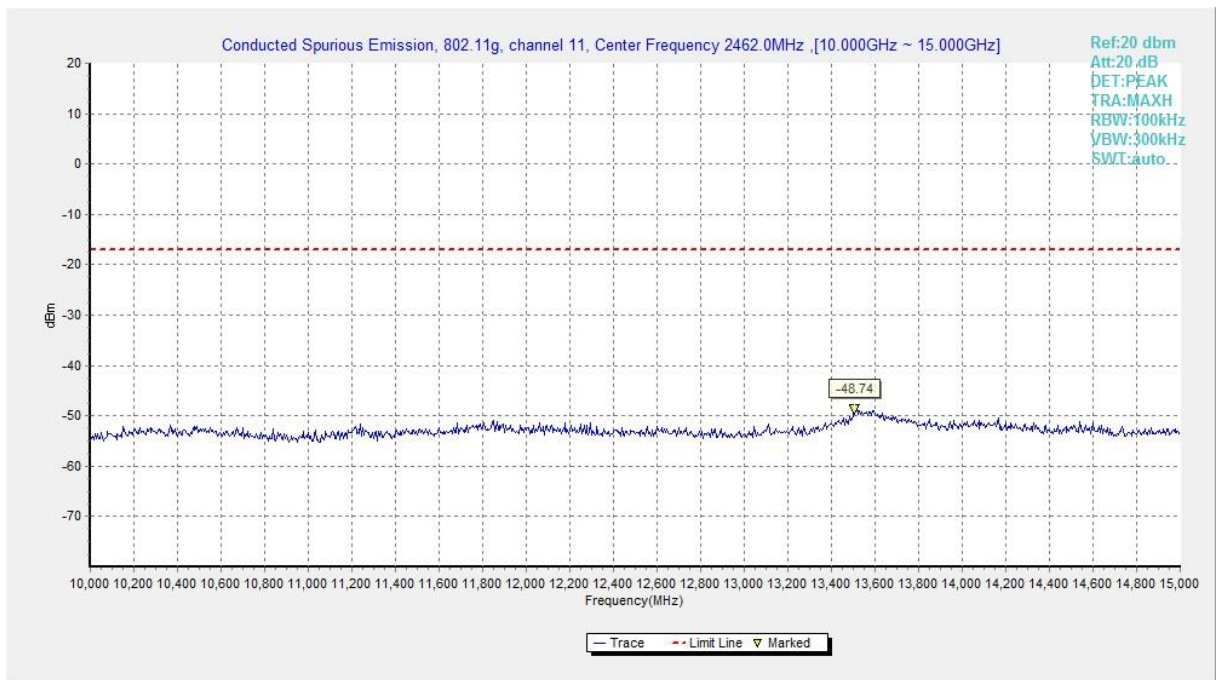


Fig.B.6.1.46 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 10 GHz-15 GHz)

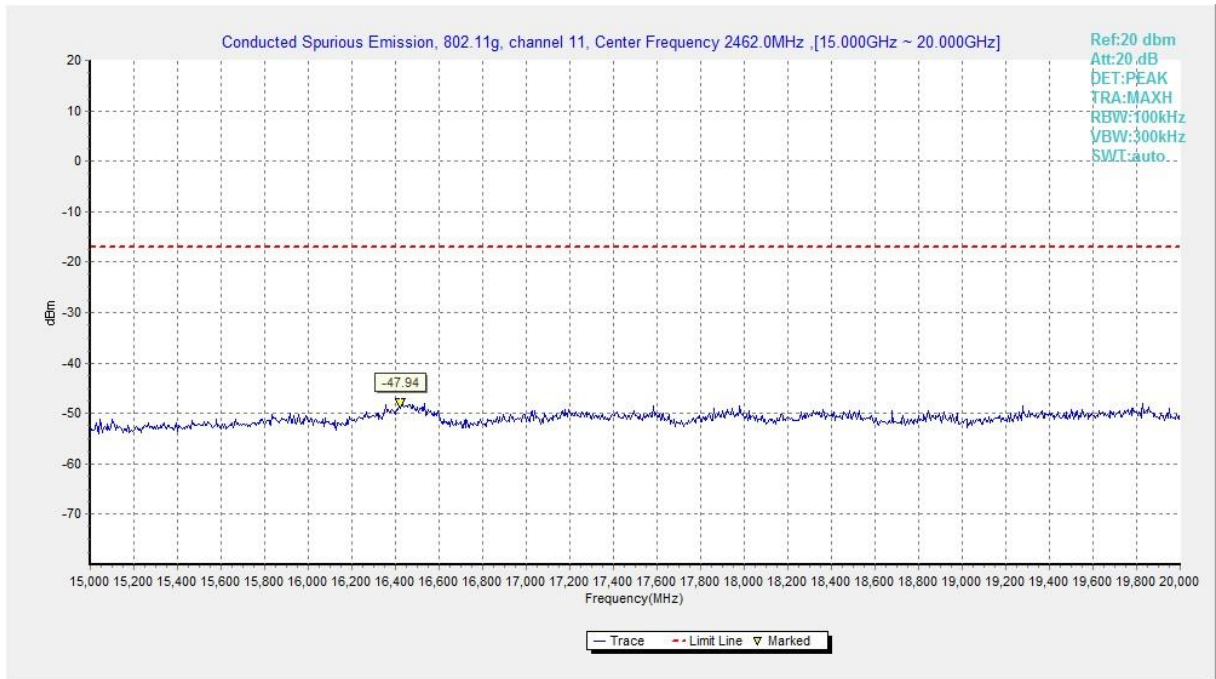


Fig.B.6.1.47 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 15 GHz-20 GHz)

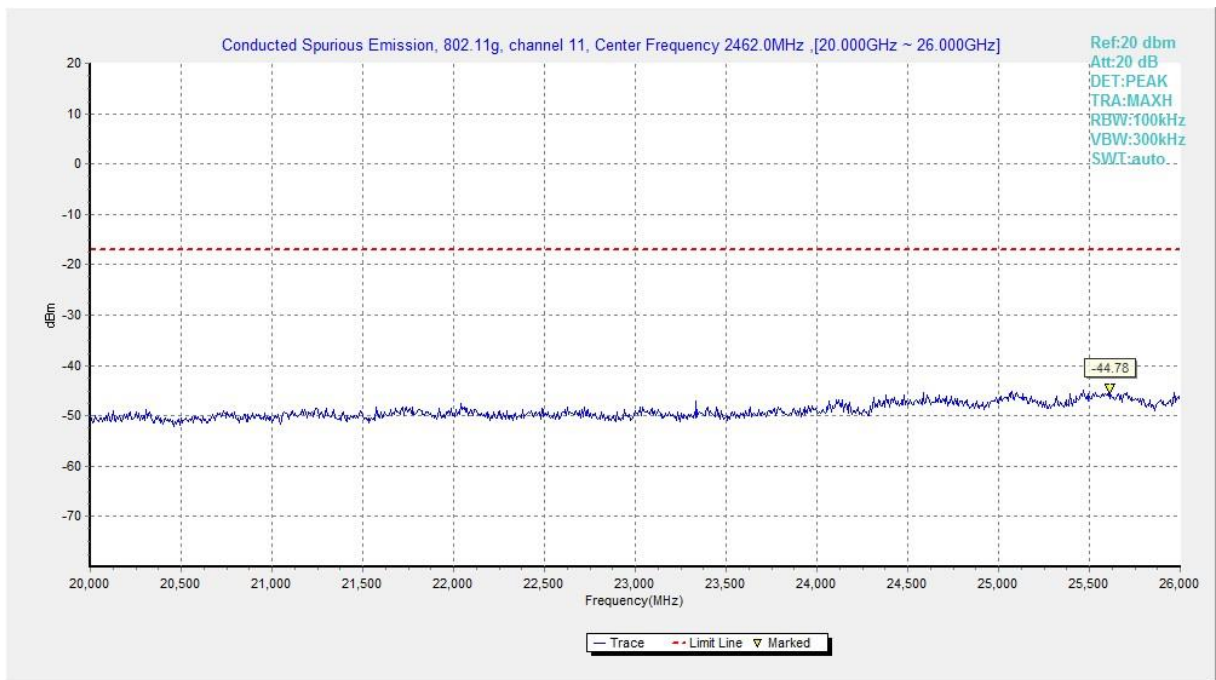


Fig.B.6.1.48 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 20 GHz-26 GHz)

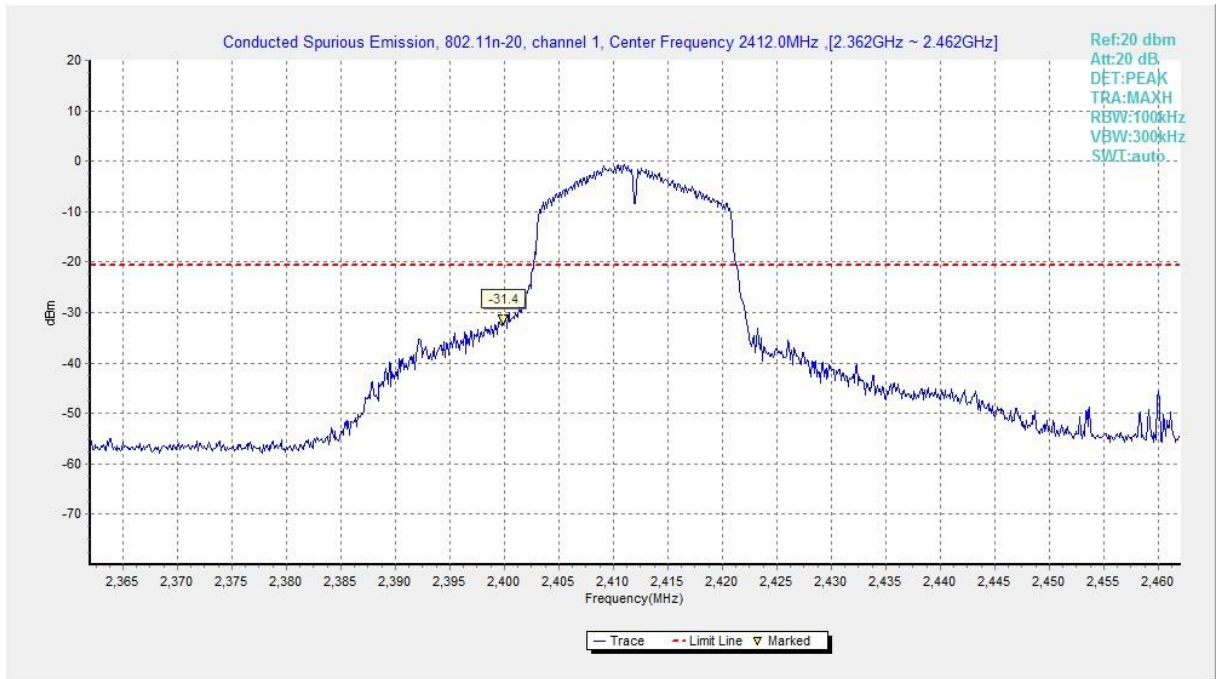


Fig.B.6.1.49 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, Center Frequency)

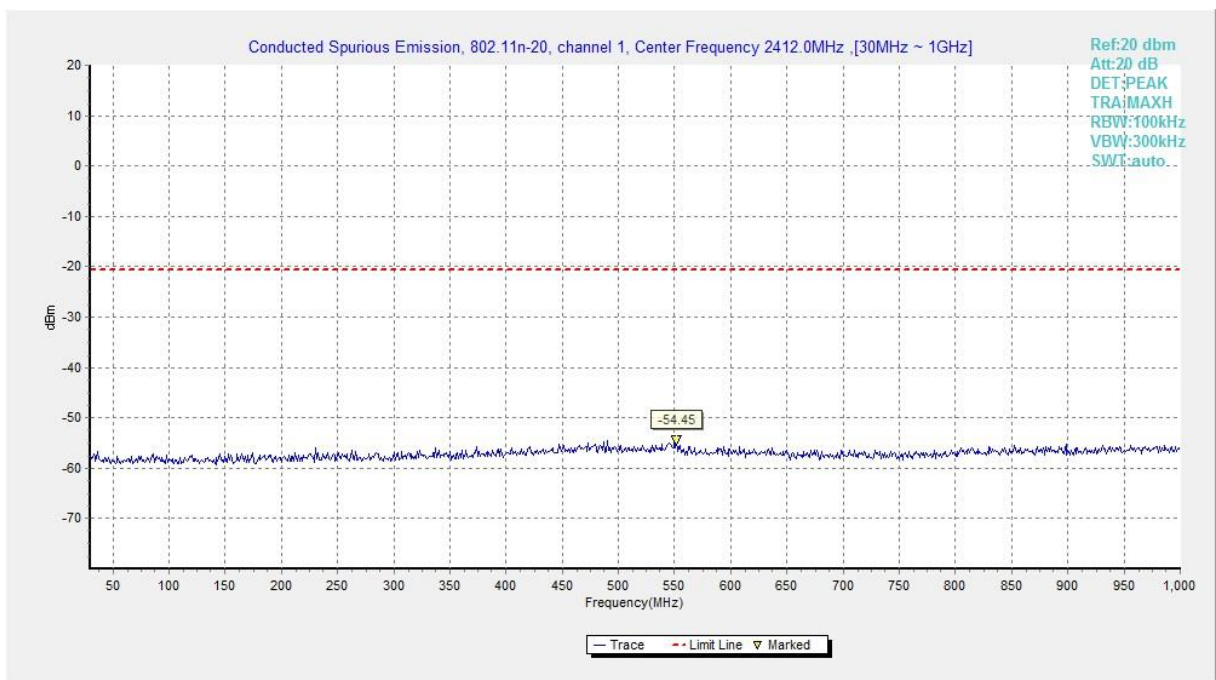


Fig.B.6.1.50 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 30 MHz-1 GHz)

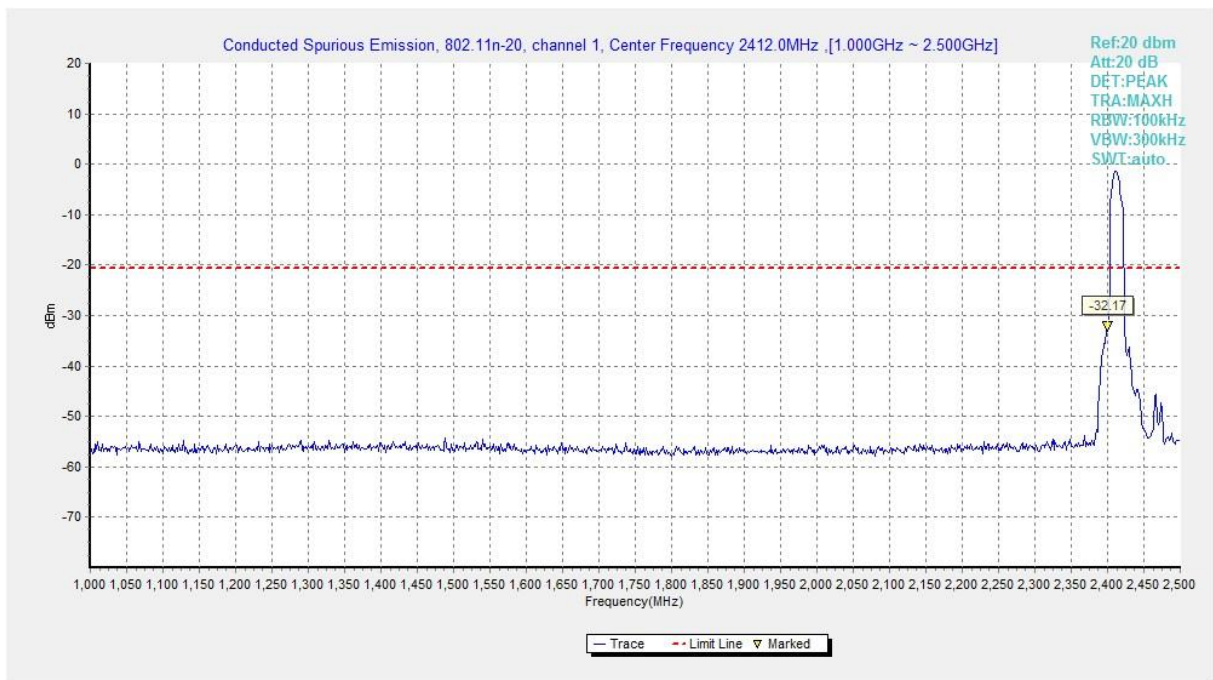


Fig.B.6.1.51 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 1 GHz-2.5 GHz)

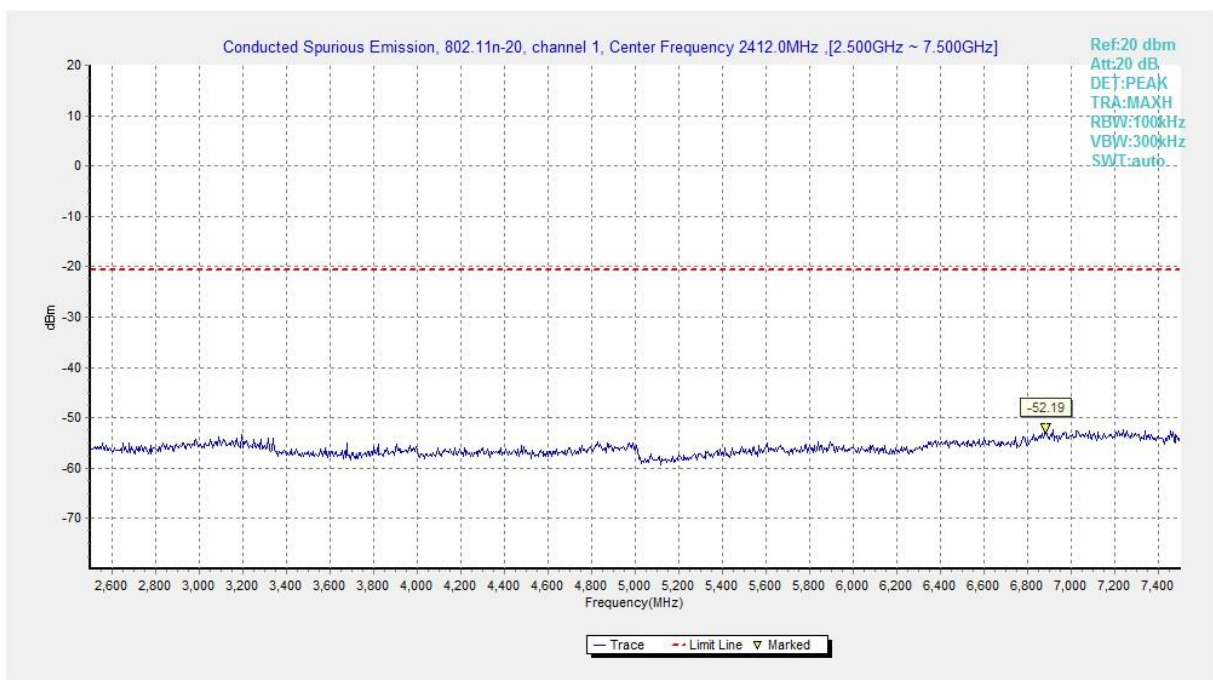


Fig.B.6.1.52 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 2.5 GHz-7.5 GHz)

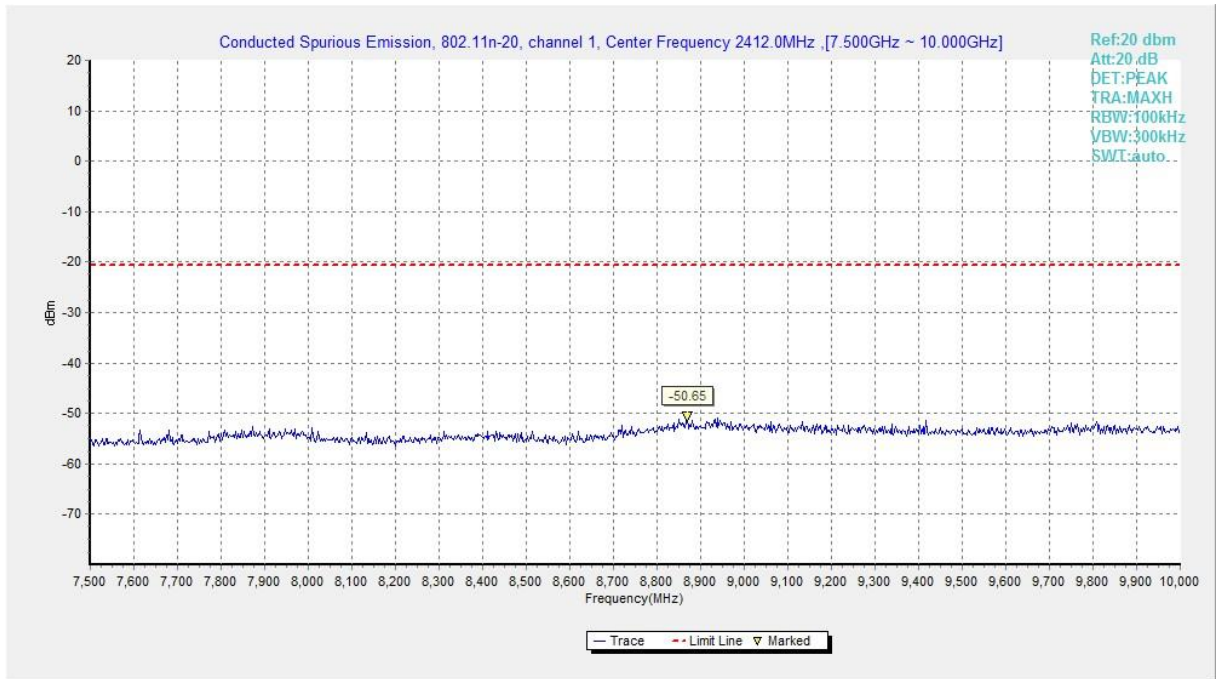


Fig.B.6.1.53 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 7.5 GHz-10 GHz)

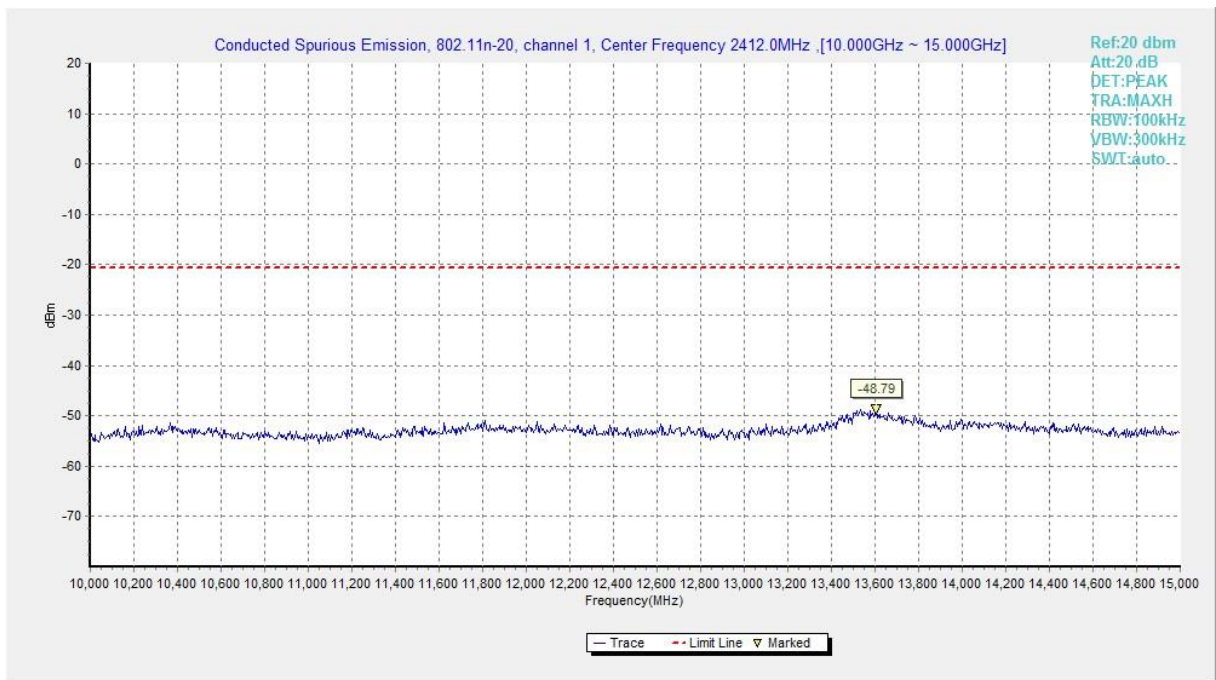


Fig.B.6.1.54 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 10 GHz-15 GHz)

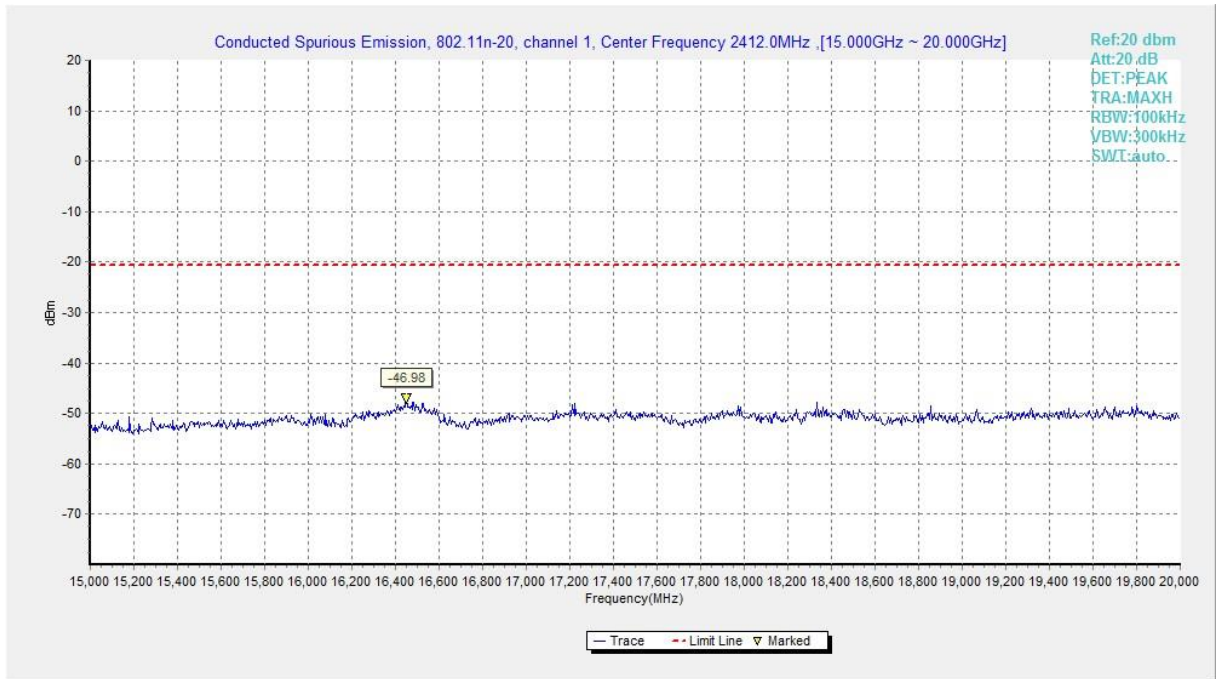


Fig.B.6.1.55 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 15 GHz-20 GHz)

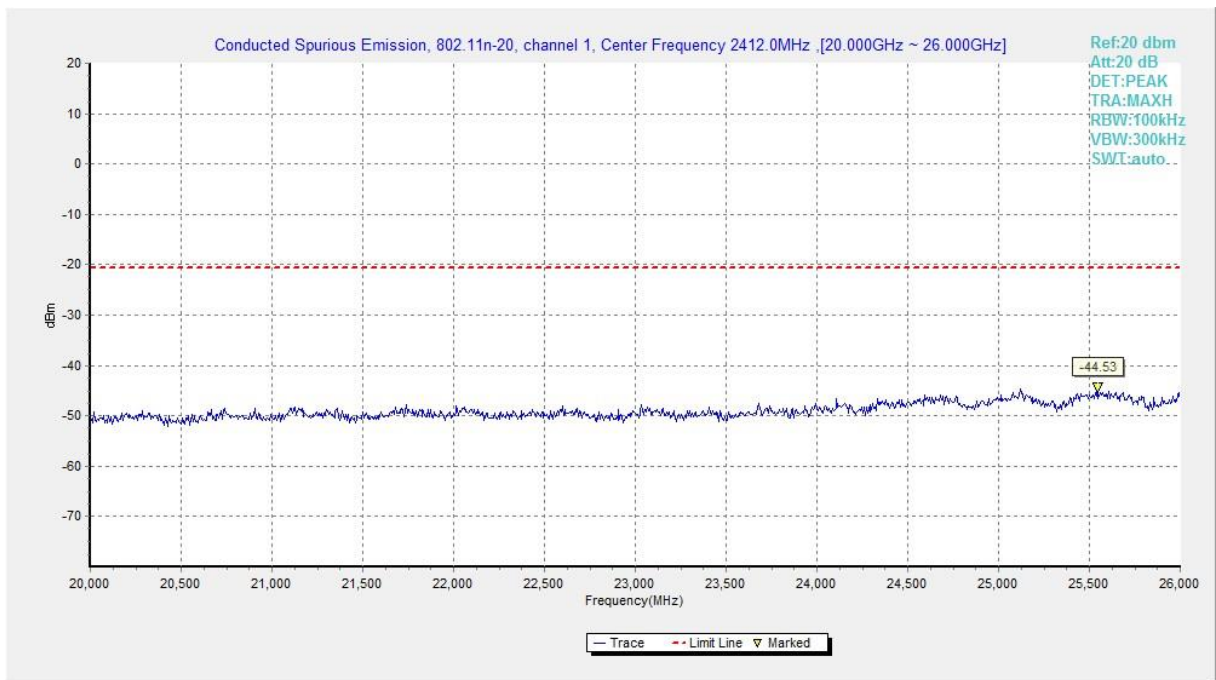


Fig.B.6.1.56 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 20 GHz-26 GHz)

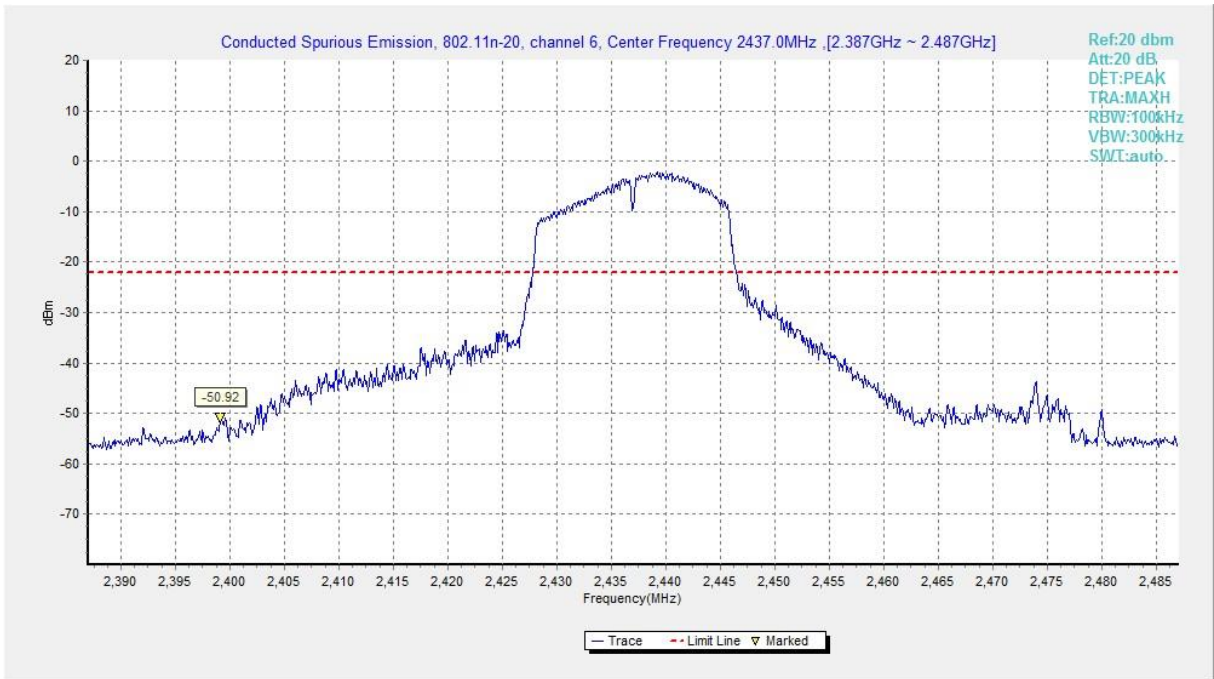


Fig.B.6.1.57 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, Center Frequency)

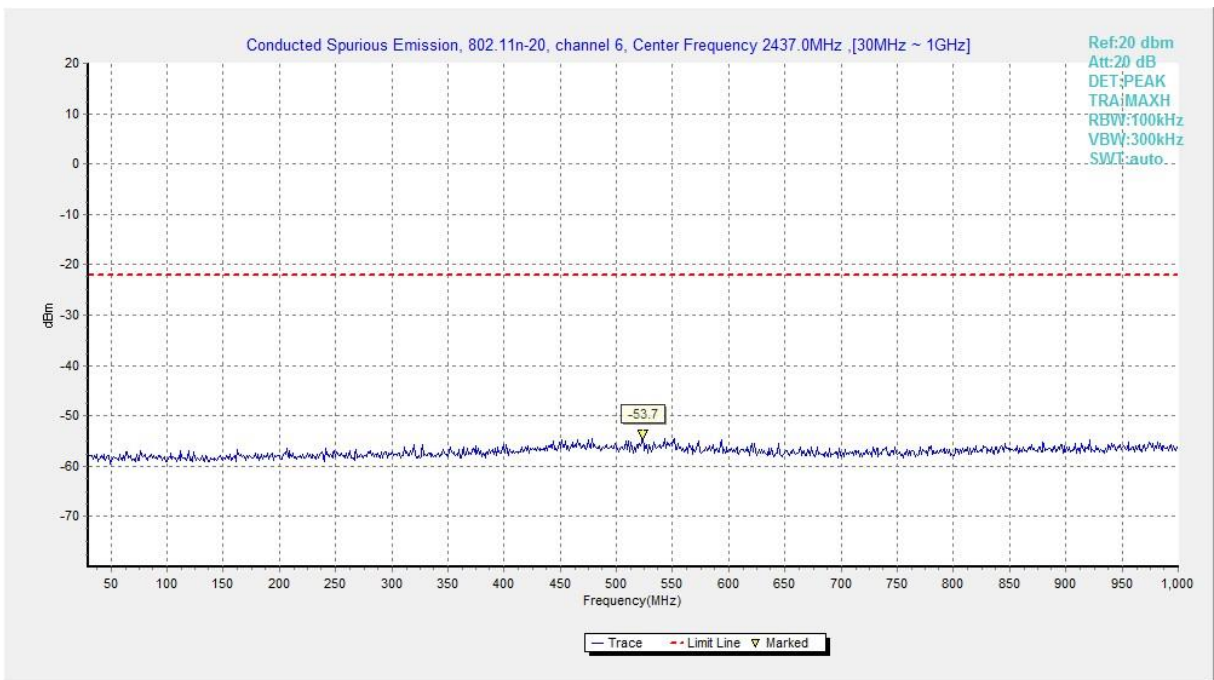


Fig.B.6.1.58 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 30 MHz-1 GHz)

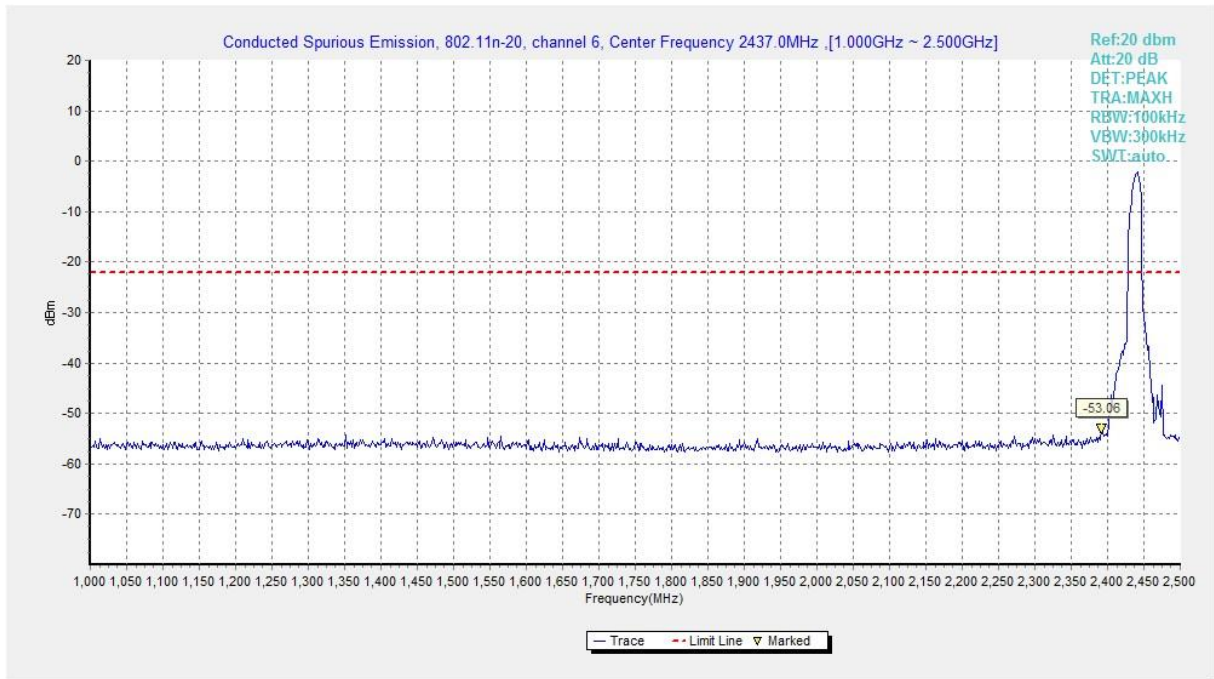


Fig.B.6.1.59 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 1 GHz-2.5 GHz)

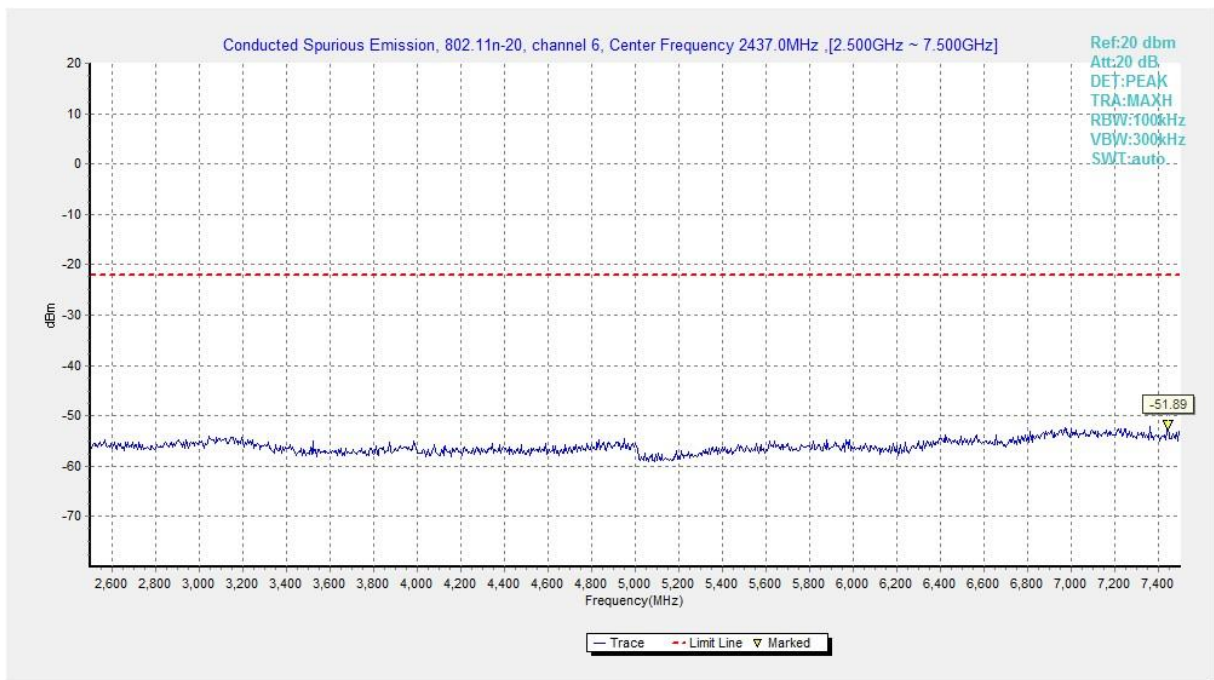


Fig.B.6.1.60 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 2.5 GHz-7.5 GHz)

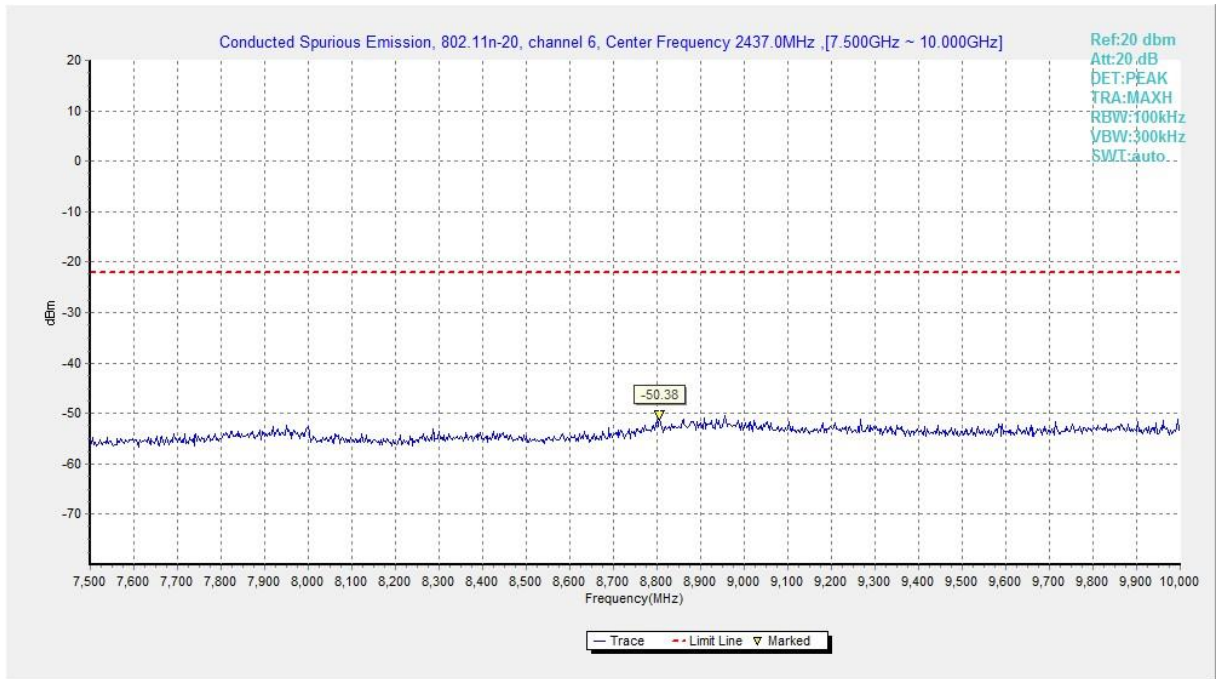


Fig.B.6.1.61 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 7.5 GHz-10 GHz)

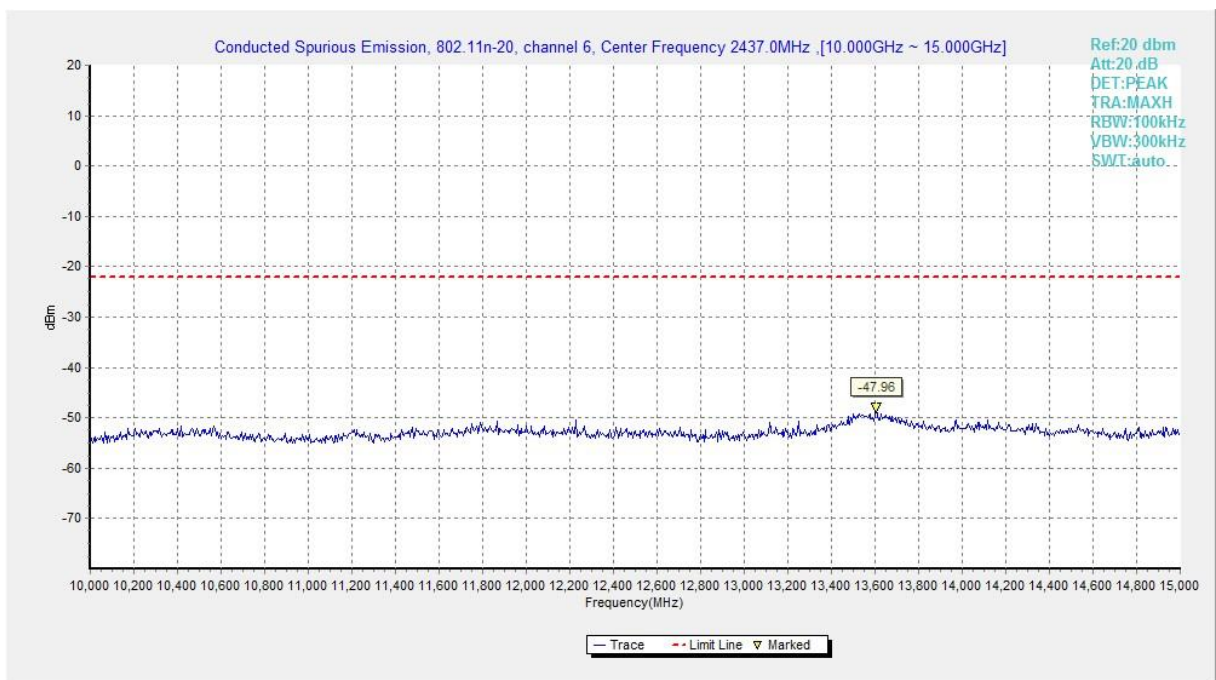


Fig.B.6.1.62 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 10 GHz-15 GHz)

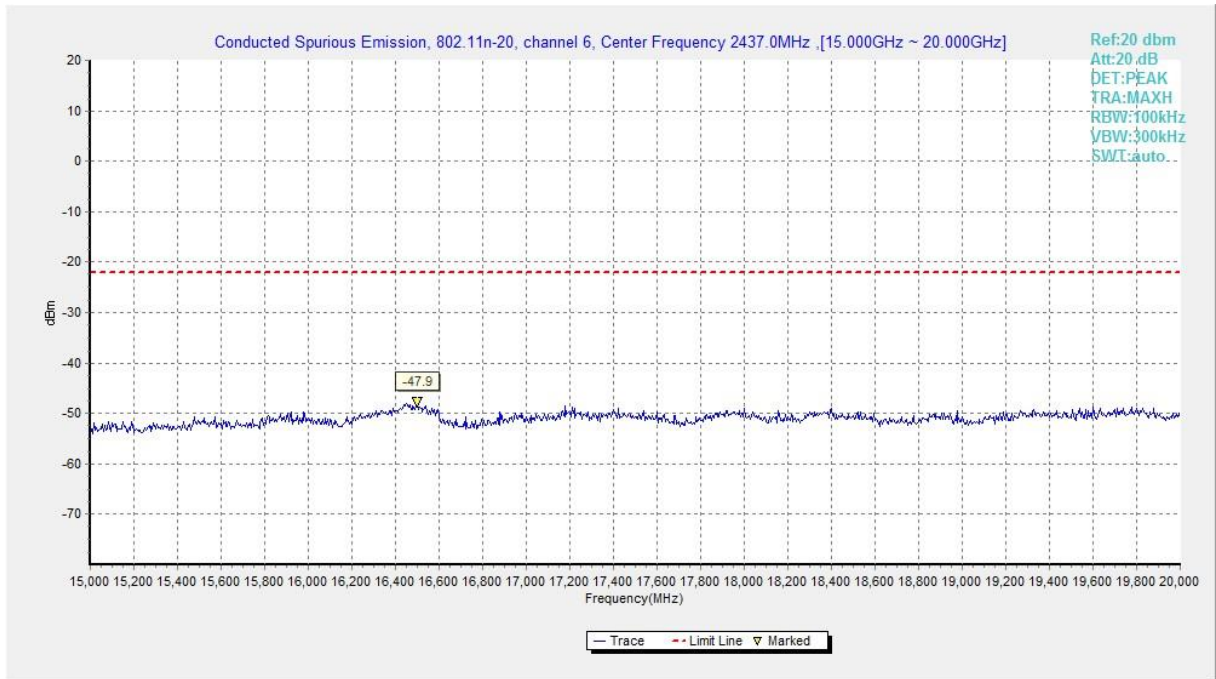


Fig.B.6.1.63 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 15 GHz-20 GHz)

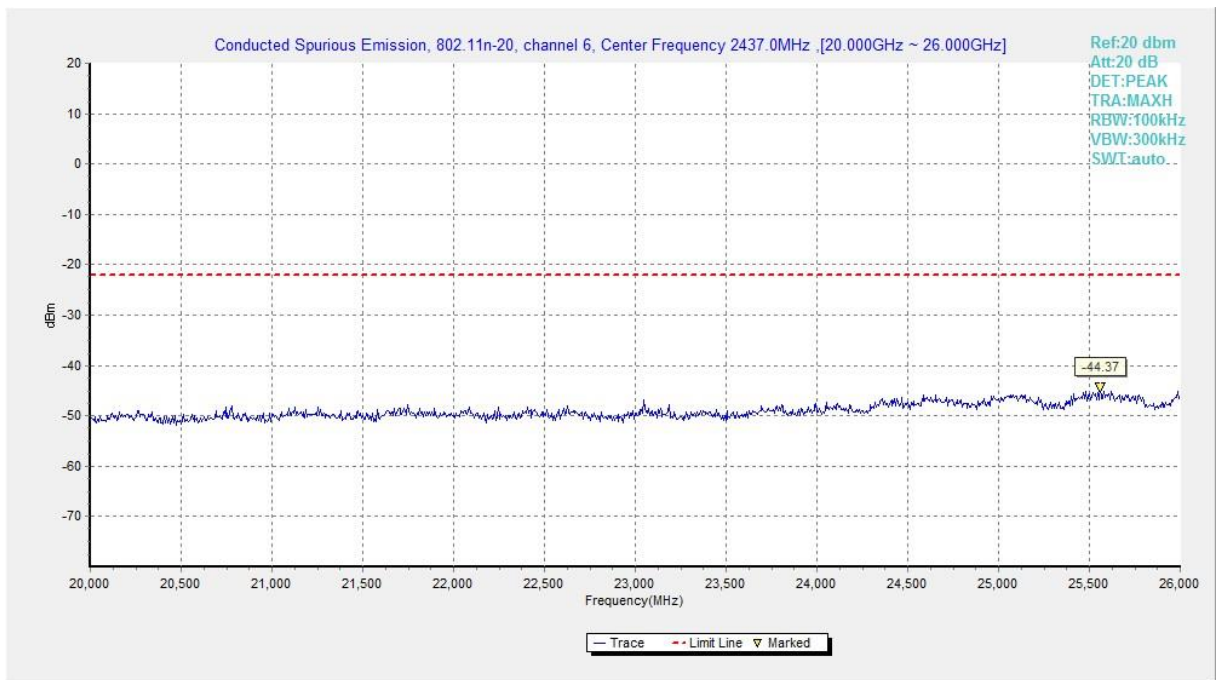


Fig.B.6.1.64 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 20 GHz-26 GHz)

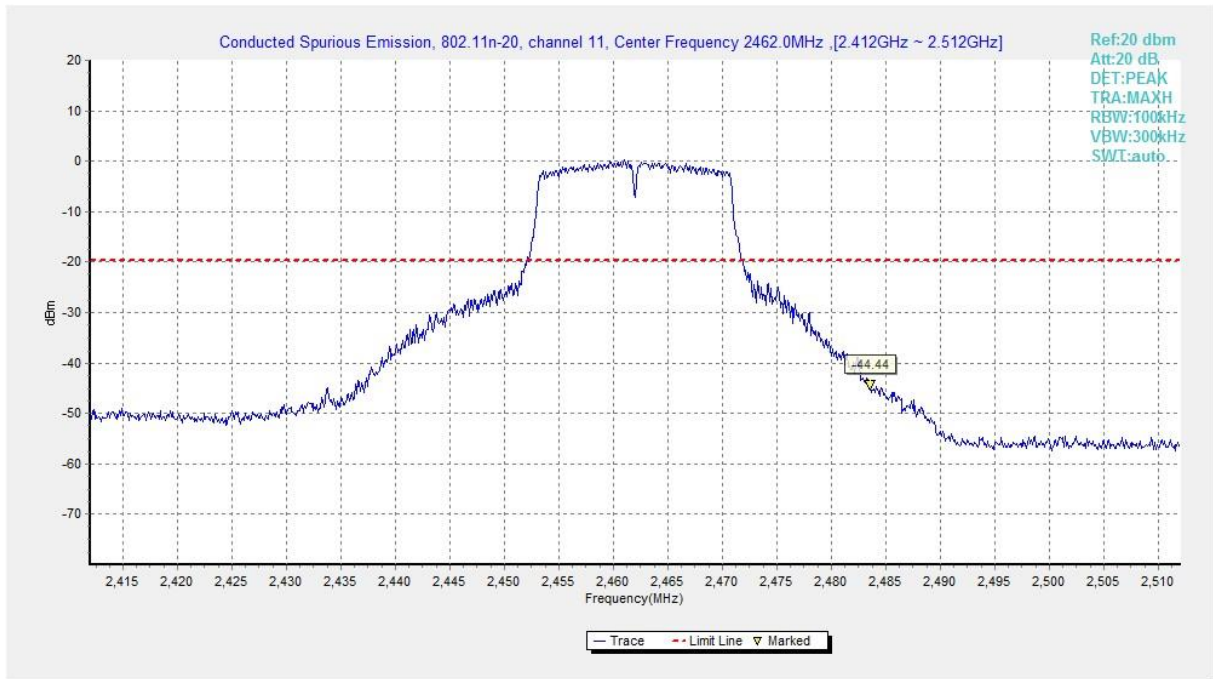


Fig.B.6.1.65 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, Center Frequency)

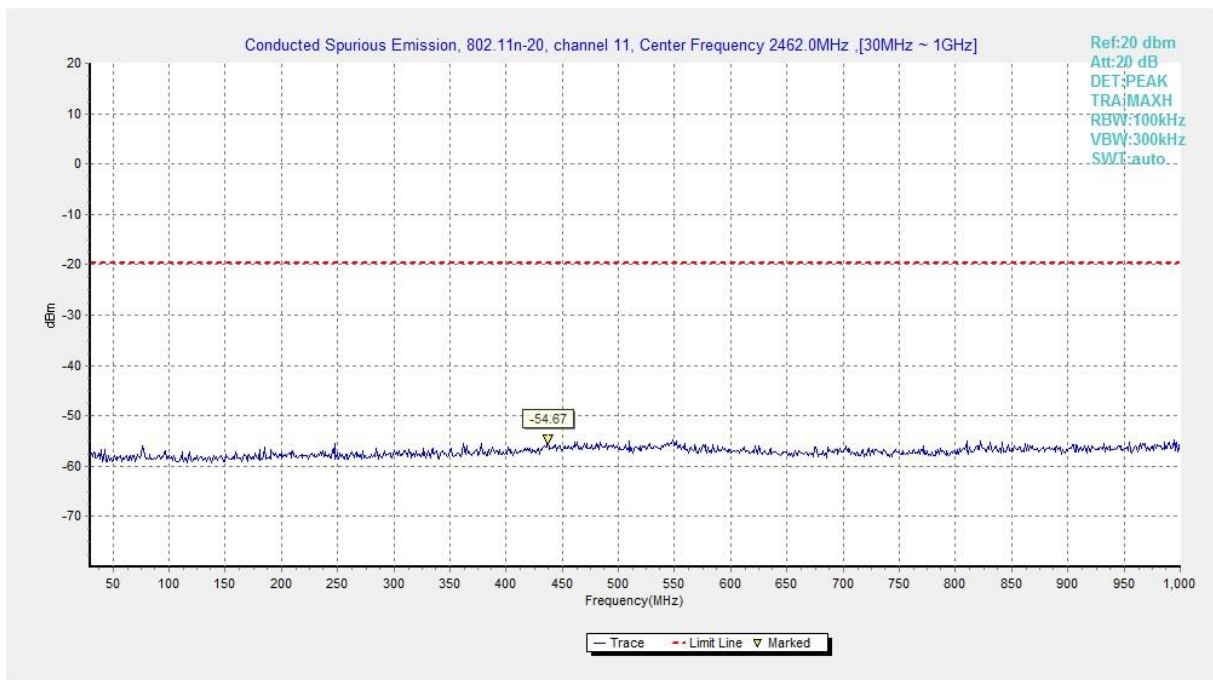


Fig.B.6.1.66 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 30 MHz-1 GHz)

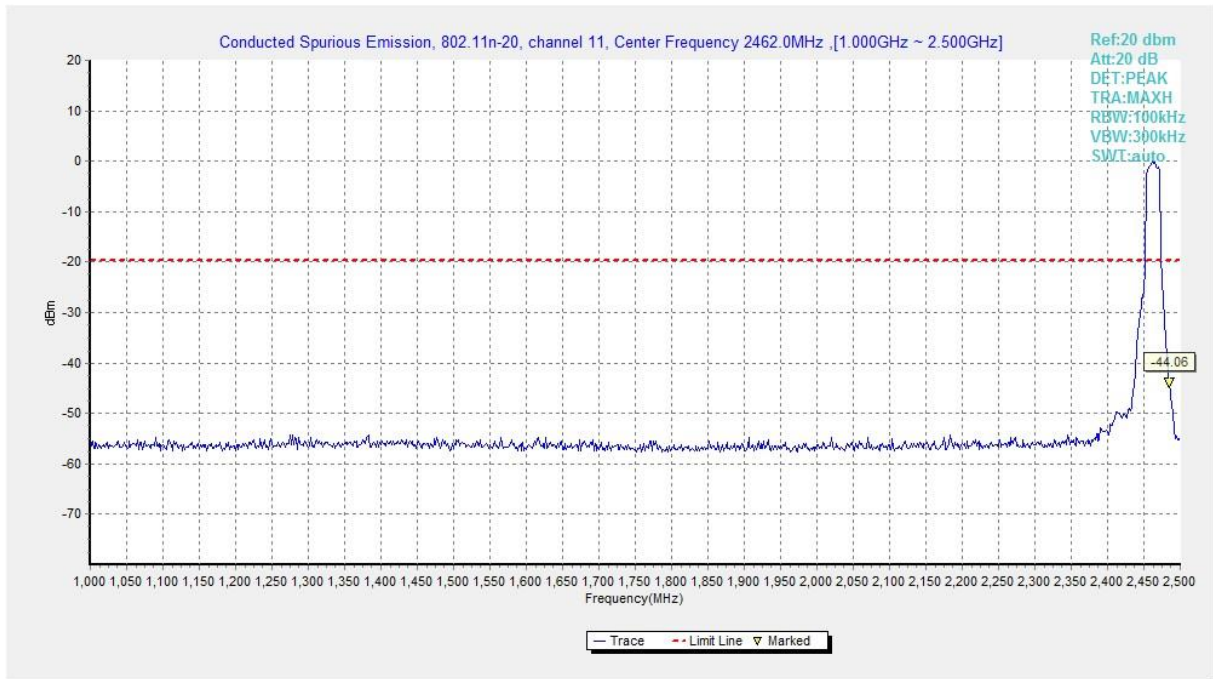


Fig.B.6.1.67 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 1 GHz-2.5 GHz)

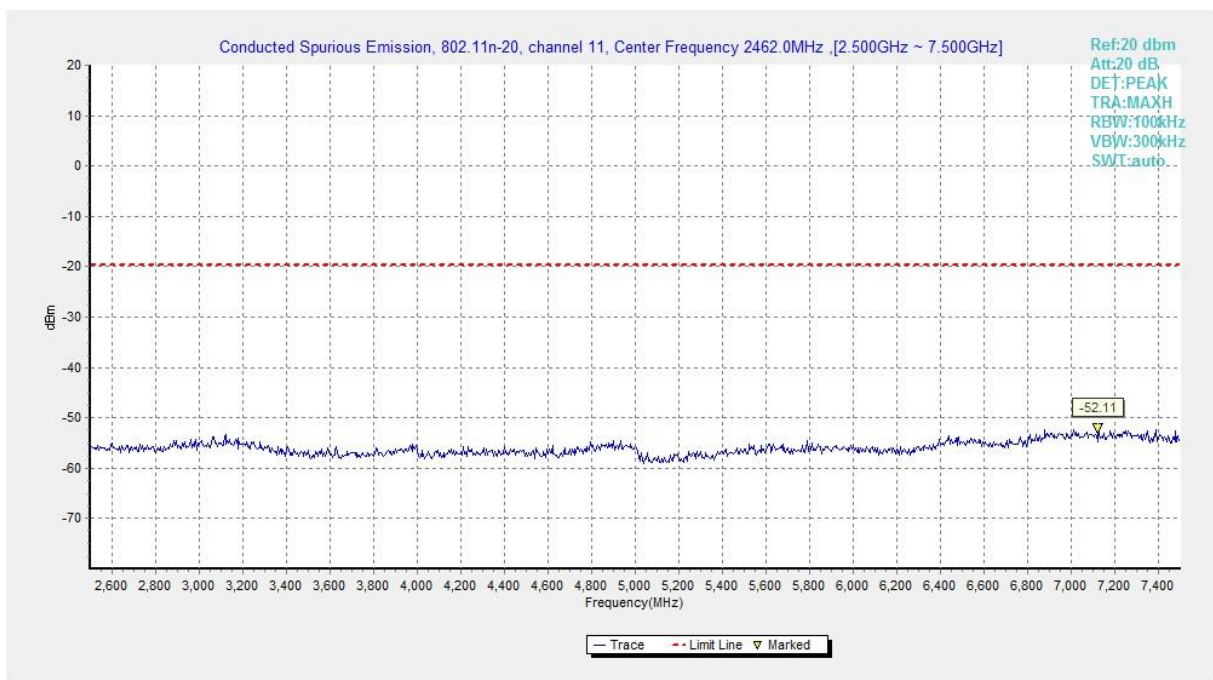


Fig.B.6.1.68 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 2.5 GHz-7.5 GHz)

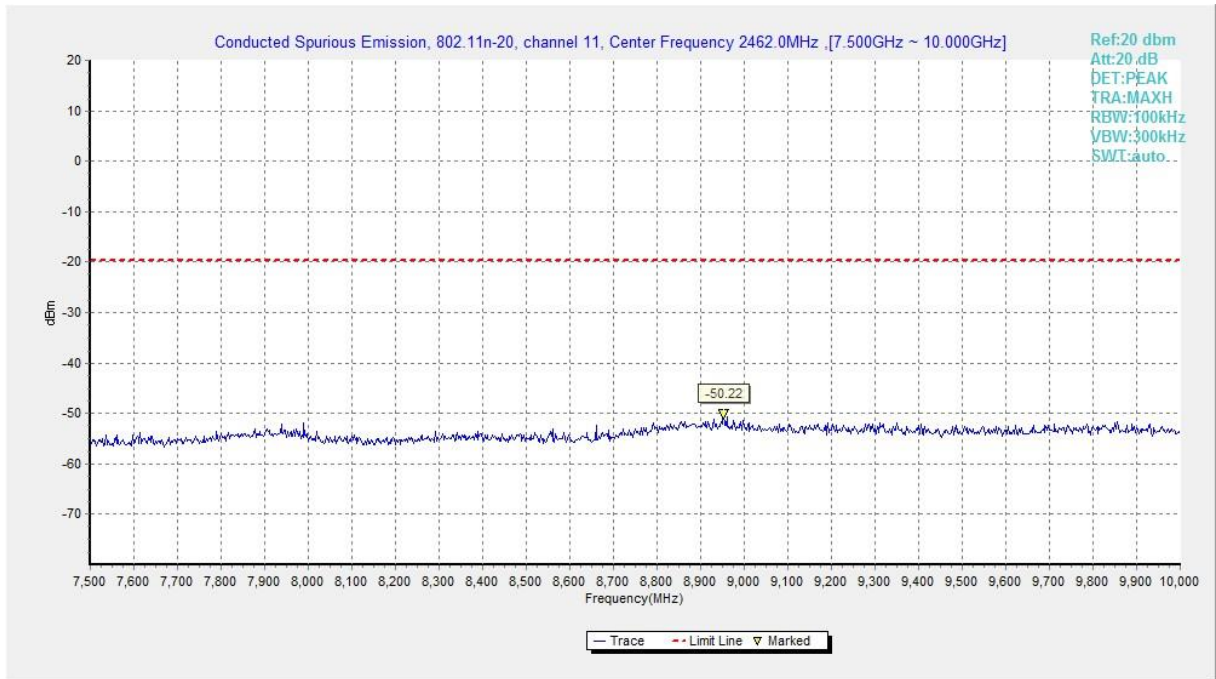


Fig.B.6.1.69 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 7.5 GHz-10 GHz)

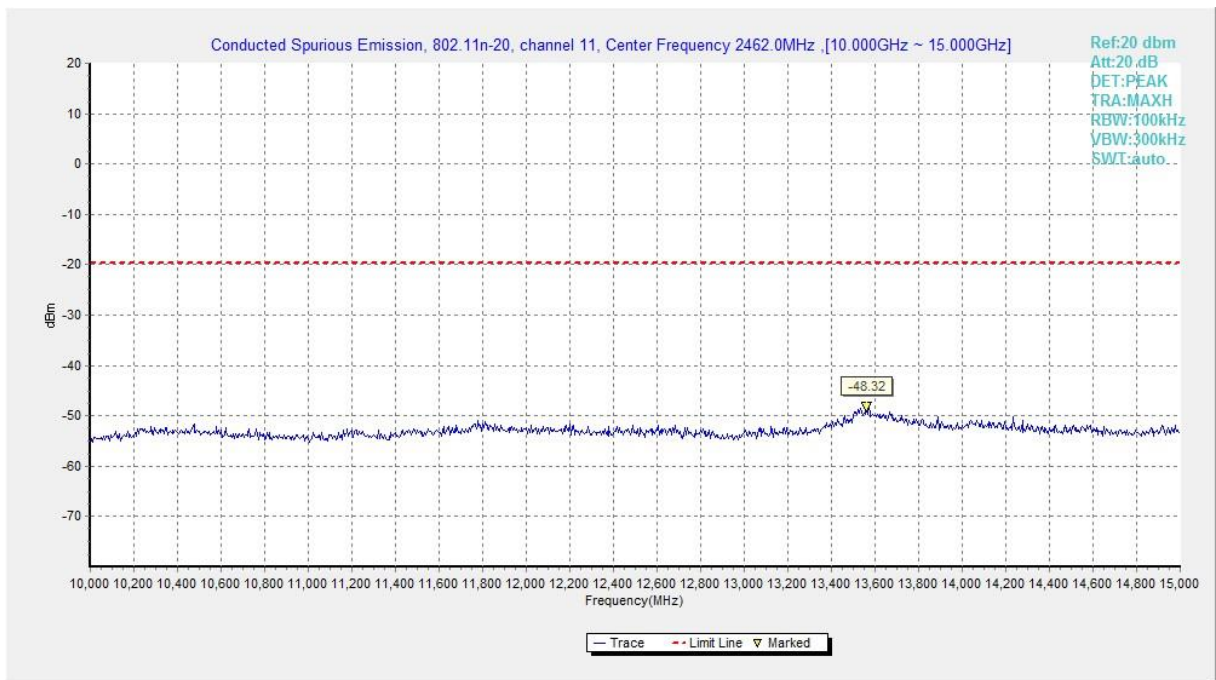


Fig.B.6.1.70 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 10 GHz-15 GHz)

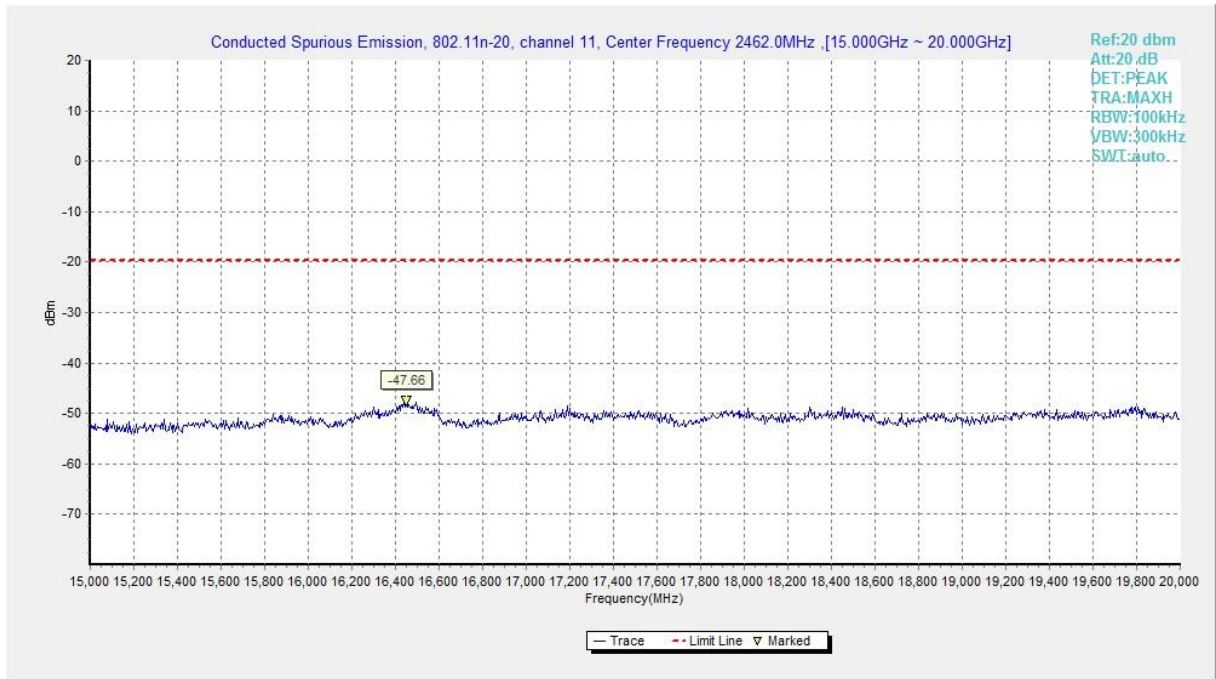


Fig.B.6.1.71 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 15 GHz-20 GHz)

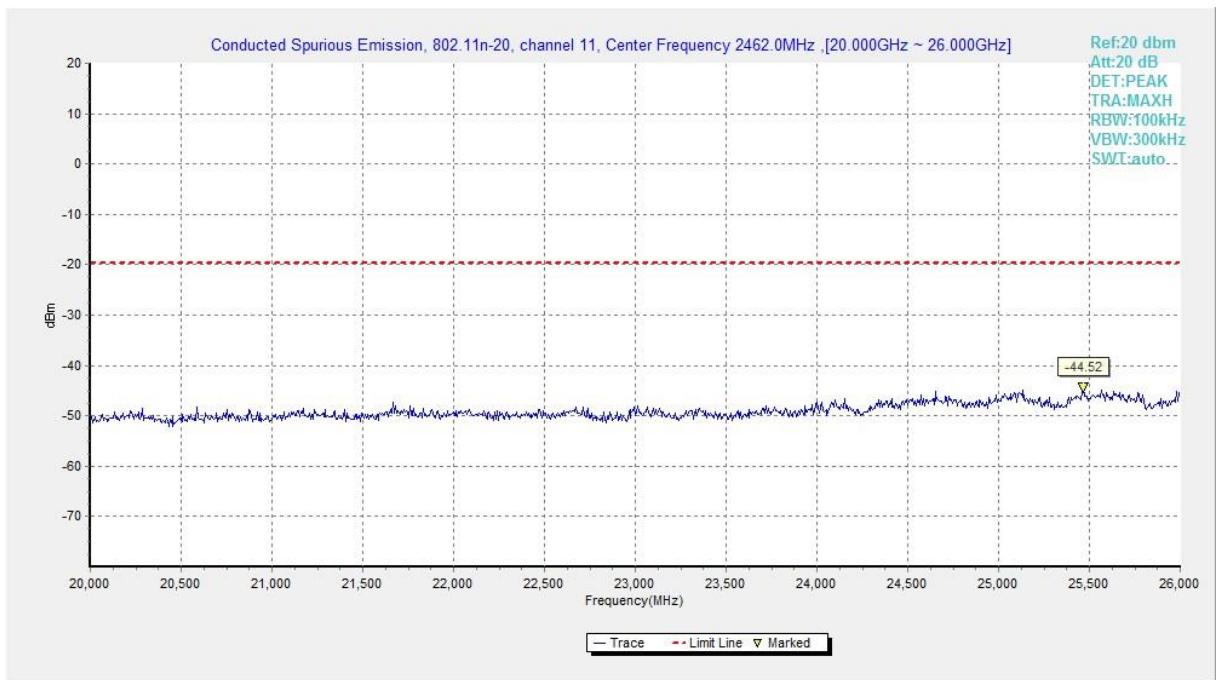


Fig.B.6.1.72 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 20 GHz-26 GHz)

B.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	2.31GHz ~2.43GHz	Fig.B.6.2.1	P
	Power	2.45GHz ~2.5GHz	Fig.B.6.2.2	P

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	Power	2.31GHz ~2.43GHz	Fig.B.6.2.3	P
	Power	2.45GHz ~2.5GHz	Fig.B.6.2.4	P

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	Power	2.31GHz ~2.43GHz	Fig.B.6.2.5	P
	Power	2.45GHz ~2.5GHz	Fig.B.6.2.6	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:

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

Average Measurement results
802.11b

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17987	47	-25.5	46.7	25.8	V	54	7
17986	46.9	-25.5	46.7	25.7	V	54	7.1
17996	46.8	-25.5	46.7	25.6	V	54	7.2
17946.5	46.7	-25.5	46.7	25.5	V	54	7.3
17960	46.7	-25.5	46.7	25.5	V	54	7.3
2389.6	42.4	-20	28.1	34.4	H	54	11.6

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17980.5	47	-25.5	46.7	25.8	V	54	7
17940.5	46.9	-25.5	46.7	25.7	V	54	7.1
17959	46.9	-25.5	46.7	25.7	V	54	7.1
17948	46.8	-25.5	46.7	25.6	V	54	7.2
17960.5	46.8	-25.5	46.7	25.6	V	54	7.2
17974.5	46.8	-25.5	46.7	25.6	V	54	7.2

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17993.5	47.1	-25.5	46.7	25.9	V	54	6.9
17962	47	-25.5	46.7	25.8	V	54	7
17982.5	47	-25.5	46.7	25.8	V	54	7
17946	46.9	-25.5	46.7	25.7	V	54	7.1
17979	46.9	-25.5	46.7	25.7	V	54	7.1
2486.3	46	-20	28.3	37.7	H	54	8

802.11g

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17971	47	-25.5	46.7	25.8	V	54	7
17941.5	46.9	-25.5	46.7	25.7	V	54	7.1
17944.5	46.9	-25.5	46.7	25.7	V	54	7.1
17961.5	46.9	-25.5	46.7	25.7	V	54	7.1
17945	46.8	-25.5	46.7	25.6	V	54	7.2
2389.9	46.5	-20	28.1	38.5	H	54	7.5

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17993.5	47.1	-25.5	46.7	25.9	V	54	6.9
17979	46.8	-25.5	46.7	25.6	V	54	7.2
17980.5	46.8	-25.5	46.7	25.6	V	54	7.2
17970	46.7	-25.5	46.7	25.5	V	54	7.3
17992.5	46.7	-25.5	46.7	25.5	V	54	7.3
17998	46.7	-25.5	46.7	25.5	V	54	7.3

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17969	47	-25.5	46.7	25.8	V	54	7
17993.5	46.9	-25.5	46.7	25.7	V	54	7.1
17968	46.8	-25.5	46.7	25.6	V	54	7.2
17927	46.7	-25.5	46.7	25.5	V	54	7.3
17959	46.7	-25.5	46.7	25.5	V	54	7.3
2485.6	43.3	-20	28.3	35	H	54	10.7

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Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17981.5	47	-25.5	46.7	25.8	V	54	7
17951	46.9	-25.5	46.7	25.7	V	54	7.1
17946.5	46.8	-25.5	46.7	25.6	V	54	7.2
17948.5	46.7	-25.5	46.7	25.5	V	54	7.3
17959.5	46.7	-25.5	46.7	25.5	V	54	7.3
2378.2	42.2	-20	28.1	34.2	H	54	11.8

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17978	46.9	-25.5	46.7	25.7	V	54	7.1
17961	46.8	-25.5	46.7	25.6	V	54	7.2
17961.5	46.8	-25.5	46.7	25.6	V	54	7.2
17900	46.7	-25.5	46.7	25.5	V	54	7.3
17993	46.7	-25.5	46.7	25.5	V	54	7.3
17937.5	46.6	-25.5	46.7	25.4	V	54	7.4

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17939	47	-25.5	46.7	25.8	V	54	7
17971	46.8	-25.5	46.7	25.6	V	54	7.2
17983.5	46.8	-25.5	46.7	25.6	V	54	7.2
17948	46.7	-25.5	46.7	25.5	V	54	7.3
17965	46.7	-25.5	46.7	25.5	V	54	7.3
2485.1	43.5	-20	28.3	35.2	H	54	10.5

Peak Measurement results
802.11b

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17988.5	58	-25.5	46.7	36.8	V	74	16
17844.5	57.9	-25.5	46.7	36.7	V	74	16.1
17956	57.9	-25.5	46.7	36.7	V	74	16.1
17911	57.7	-25.5	46.7	36.5	V	74	16.3
17910.5	57.5	-25.5	46.7	36.3	V	74	16.5
2386.6	55.1	-20	28.1	47.1	H	74	18.9

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17596	58.1	-25.7	46	37.9	V	74	15.9
17953	58	-25.5	46.7	36.8	V	74	16
17853.5	57.8	-25.5	46.7	36.6	V	74	16.2
17926.5	57.8	-25.5	46.7	36.6	V	74	16.2
17935.5	57.8	-25.5	46.7	36.6	V	74	16.2
17997	57.8	-25.5	46.7	36.6	V	74	16.2

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17995.5	58.9	-25.5	46.7	37.7	V	74	15.1
17943.5	58.4	-25.5	46.7	37.2	V	74	15.6
17959.5	58.1	-25.5	46.7	36.9	V	74	15.9
17963.5	57.8	-25.5	46.7	36.6	V	74	16.2
17973	57.8	-25.5	46.7	36.6	V	74	16.2
2490.1	59.4	-20	28.3	51.1	H	74	14.6

802.11g

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Margin (dBuV/m)
17505	58	-26.9	45.2	39.6	V	74	16
17891	57.9	-25.5	46.7	36.7	V	74	16.1
17978	57.8	-25.5	46.7	36.6	V	74	16.2
17753	57.7	-25.5	46.7	36.5	V	74	16.3
17964.5	57.7	-25.5	46.7	36.5	V	74	16.3
2389.7	61.1	-20	28.1	53.1	H	74	12.9

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Margin (dBuV/m)
17970.5	58.2	-25.5	46.7	37	V	74	15.8
17858.5	58	-25.5	46.7	36.8	V	74	16
17990	57.7	-25.5	46.7	36.5	V	74	16.3
17969.5	57.5	-25.5	46.7	36.3	V	74	16.5
17993.5	57.3	-25.5	46.7	36.1	V	74	16.7
17994	57.3	-25.5	46.7	36.1	V	74	16.7

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Margin (dBuV/m)
17987.5	58.4	-25.5	46.7	37.2	V	74	15.6
17969	57.9	-25.5	46.7	36.7	V	74	16.1
17986	57.9	-25.5	46.7	36.7	V	74	16.1
17826	57.7	-25.5	46.7	36.5	V	74	16.3
17878.5	57.6	-25.5	46.7	36.4	V	74	16.4
2485.2	56.1	-20	28.3	47.8	H	74	17.9

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Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17943	57.9	-25.5	46.7	36.7	V	74	16.1
17993.5	57.9	-25.5	46.7	36.7	V	74	16.1
17940	57.8	-25.5	46.7	36.6	V	74	16.2
17953.5	57.6	-25.5	46.7	36.4	V	74	16.4
17989.5	57.6	-25.5	46.7	36.4	V	74	16.4
2372.6	55.2	-20.1	28	47.2	H	74	18.8

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17861	58.5	-25.5	46.7	37.3	V	74	15.5
17961	57.9	-25.5	46.7	36.7	V	74	16.1
17859.5	57.7	-25.5	46.7	36.5	V	74	16.3
17944.5	57.7	-25.5	46.7	36.5	V	74	16.3
17956	57.7	-25.5	46.7	36.5	V	74	16.3
17929.5	57.6	-25.5	46.7	36.4	V	74	16.4

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17935	58.3	-25.5	46.7	37.1	V	74	15.7
17938.5	58.2	-25.5	46.7	37	V	74	15.8
17937.5	58.1	-25.5	46.7	36.9	V	74	15.9
17900.5	57.8	-25.5	46.7	36.6	V	74	16.2
17974	57.7	-25.5	46.7	36.5	V	74	16.3
2485.1	55.8	-20	28.3	47.5	H	74	18.2