

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

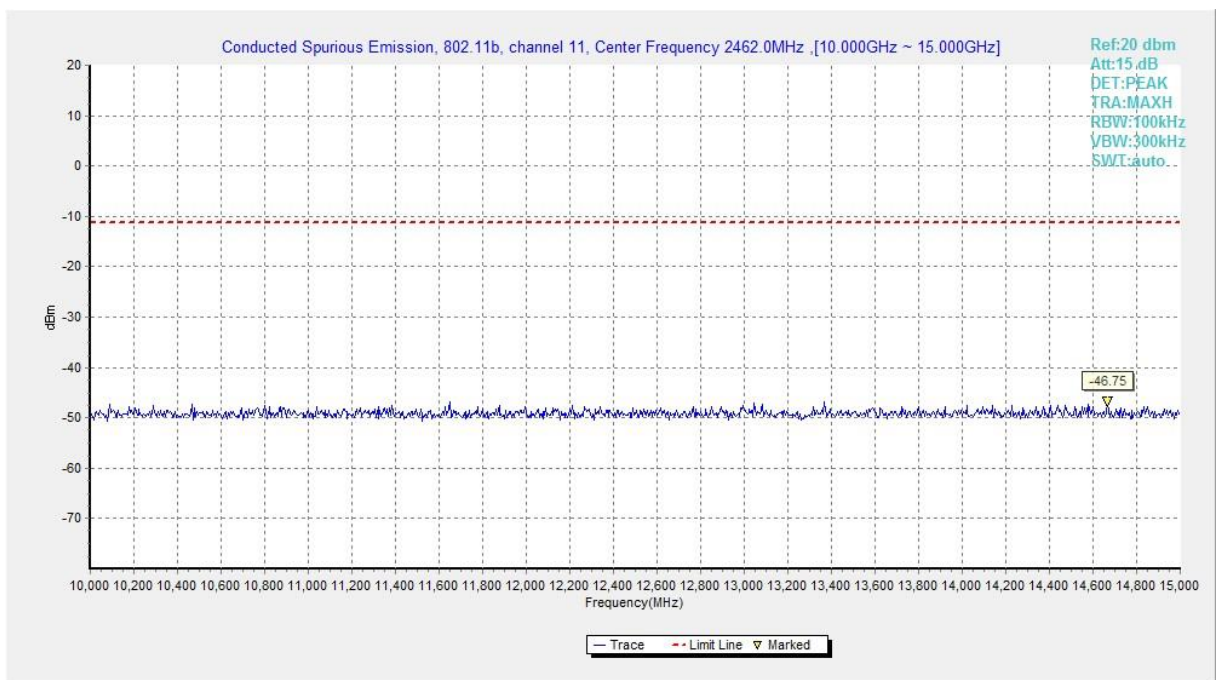


Fig.B.6.1.22 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 10 GHz-15 GHz)

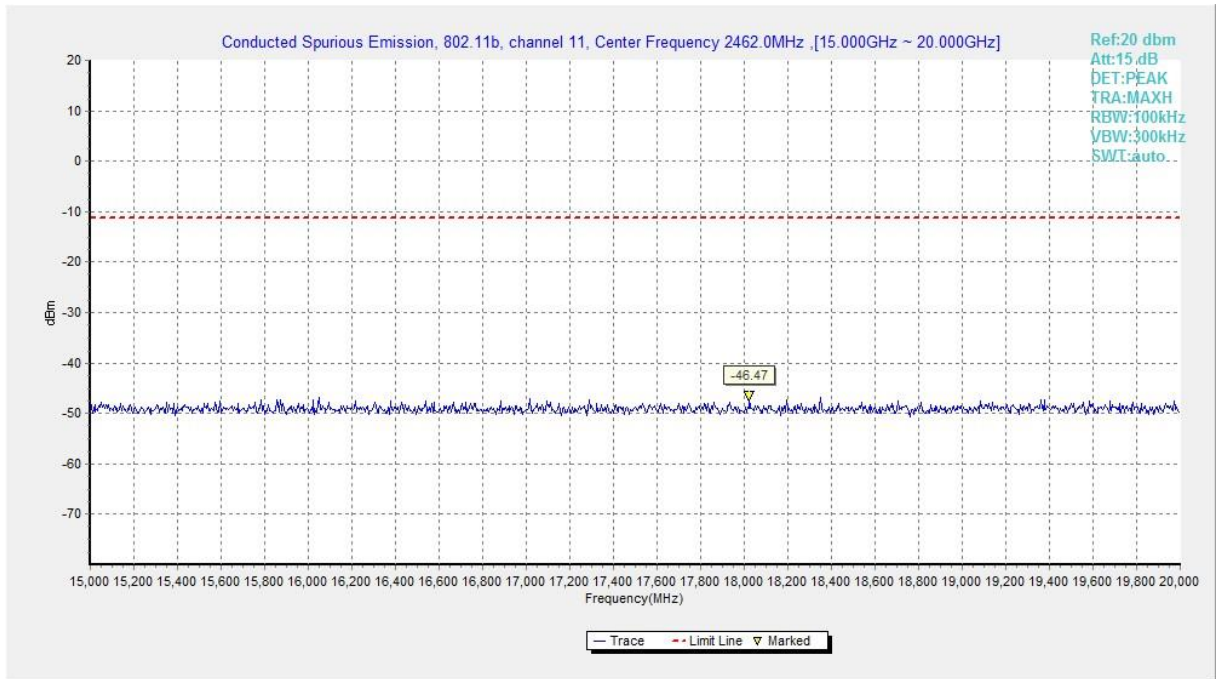


Fig.B.6.1.23 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 15 GHz-20 GHz)

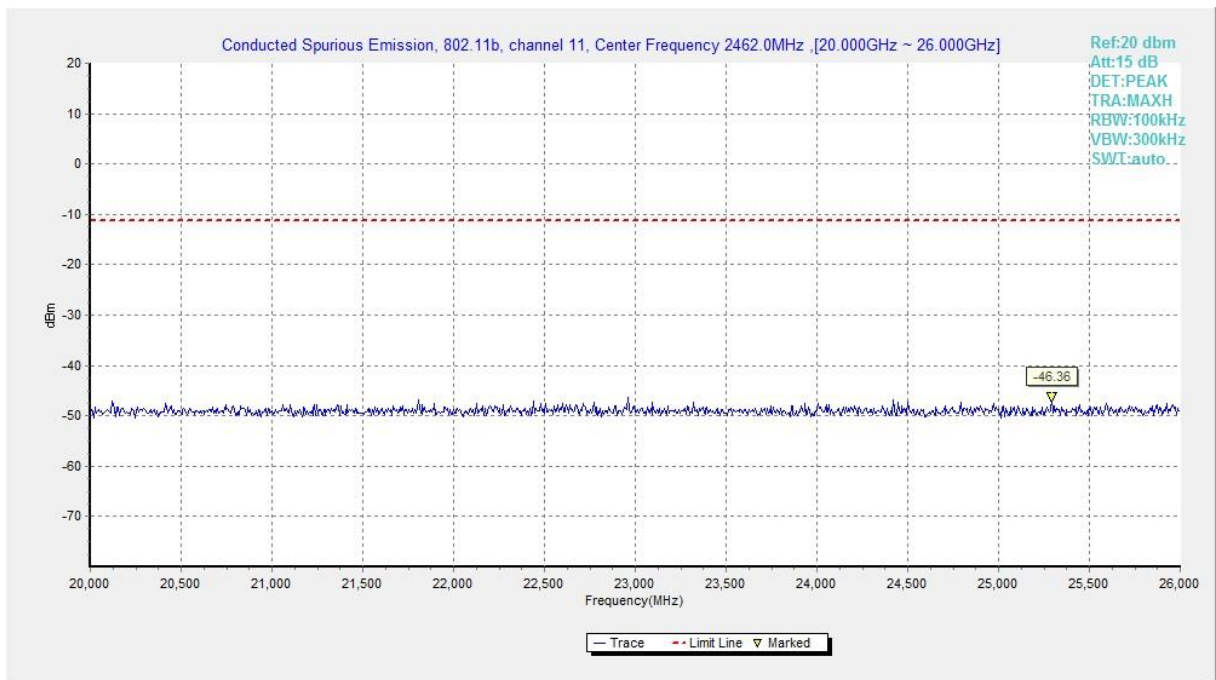


Fig.B.6.1.24 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 20 GHz-26 GHz)

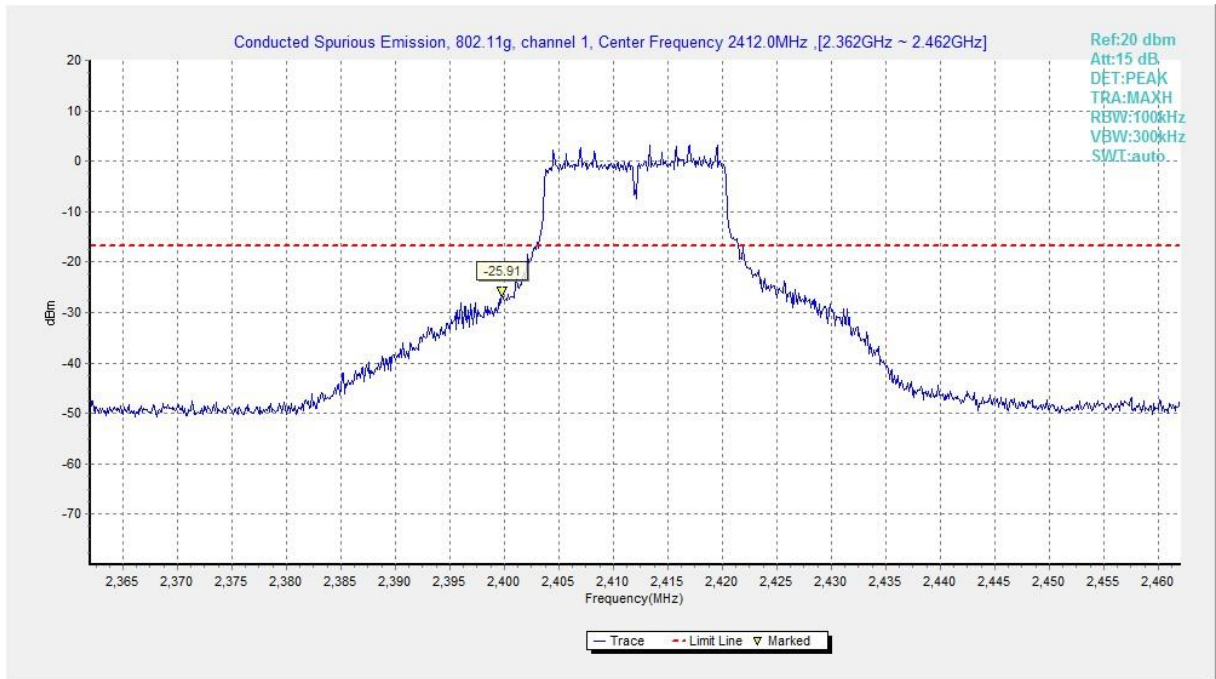


Fig.B.6.1.25 Transmitter Spurious Emission - Conducted (802.11g, Ch1, Center Frequency)

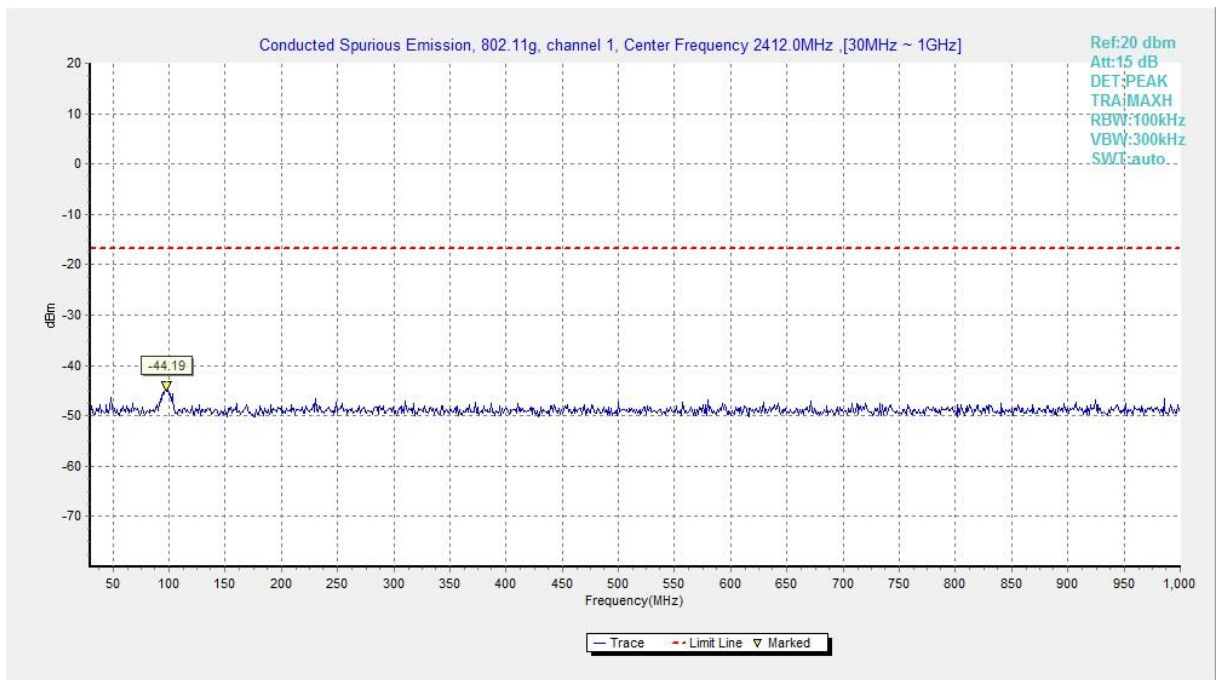


Fig.B.6.1.26 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 30 MHz-1 GHz)

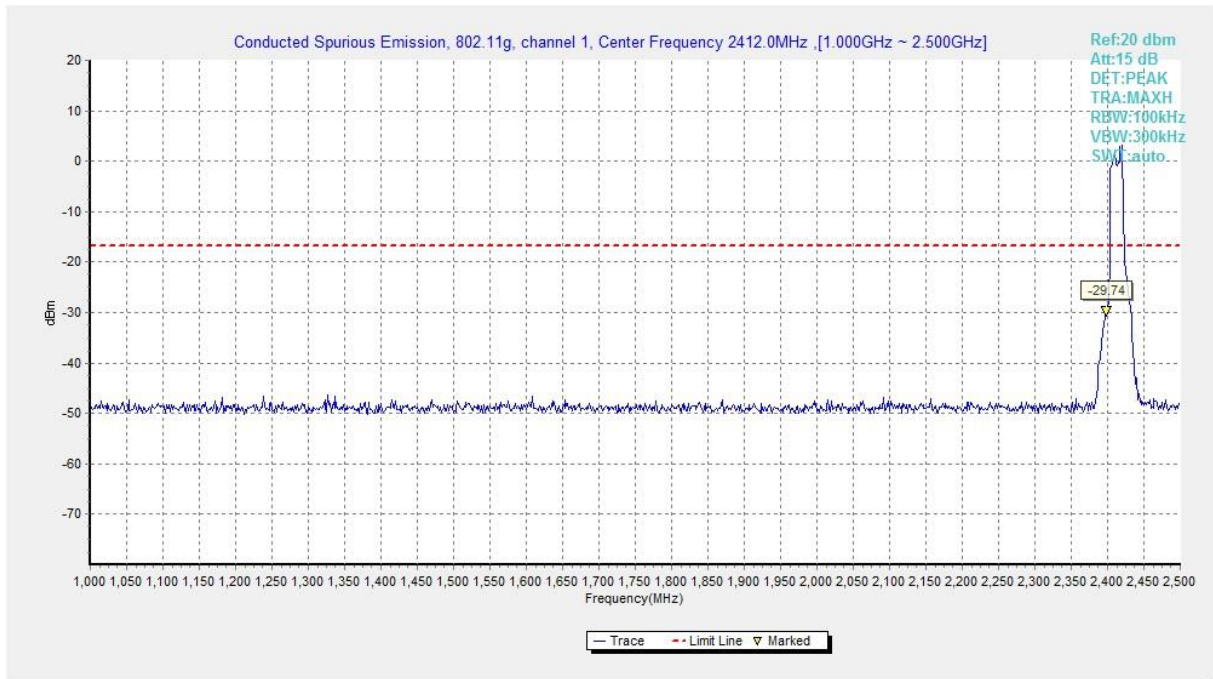


Fig.B.6.1.27 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 1 GHz-2.5 GHz)

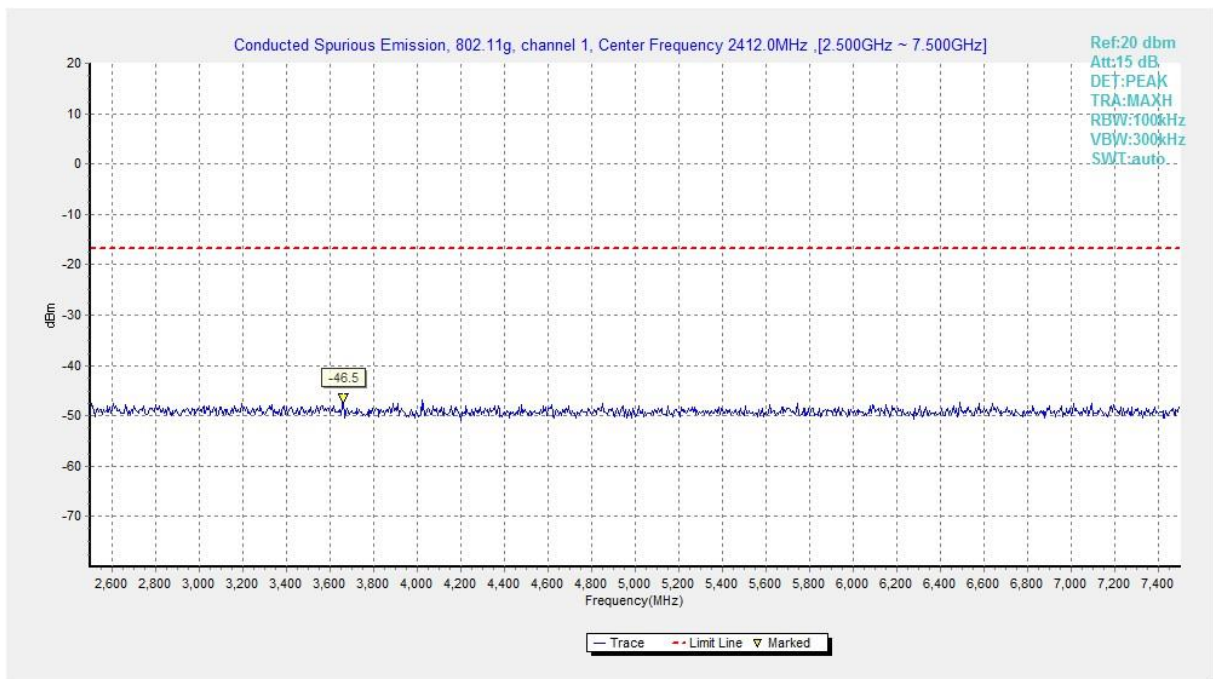


Fig.B.6.1.28 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 2.5 GHz-7.5 GHz)

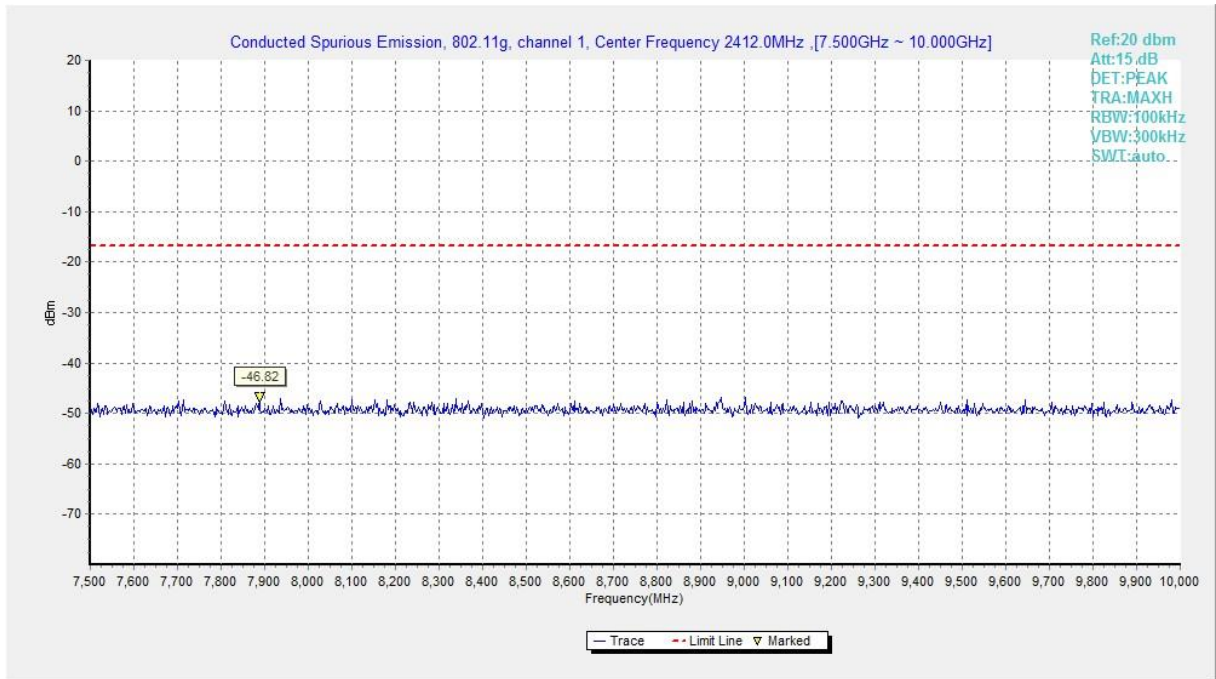


Fig.B.6.1.29 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 7.5 GHz-10 GHz)

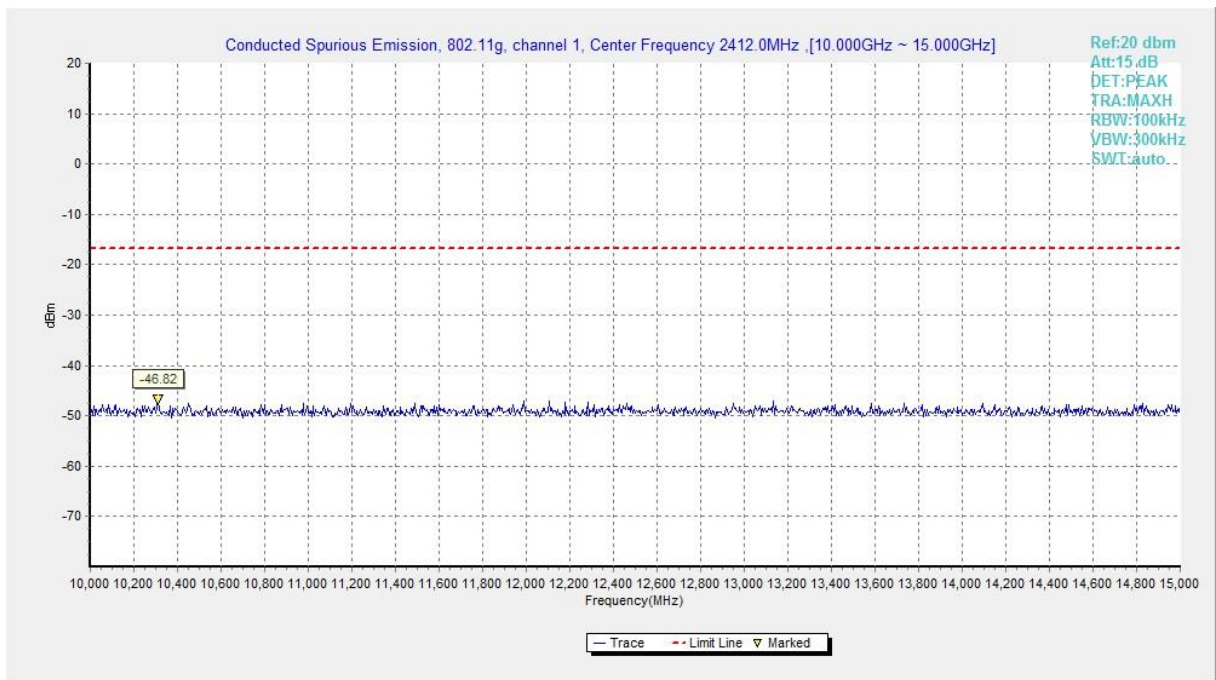


Fig.B.6.1.30 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 10 GHz-15 GHz)

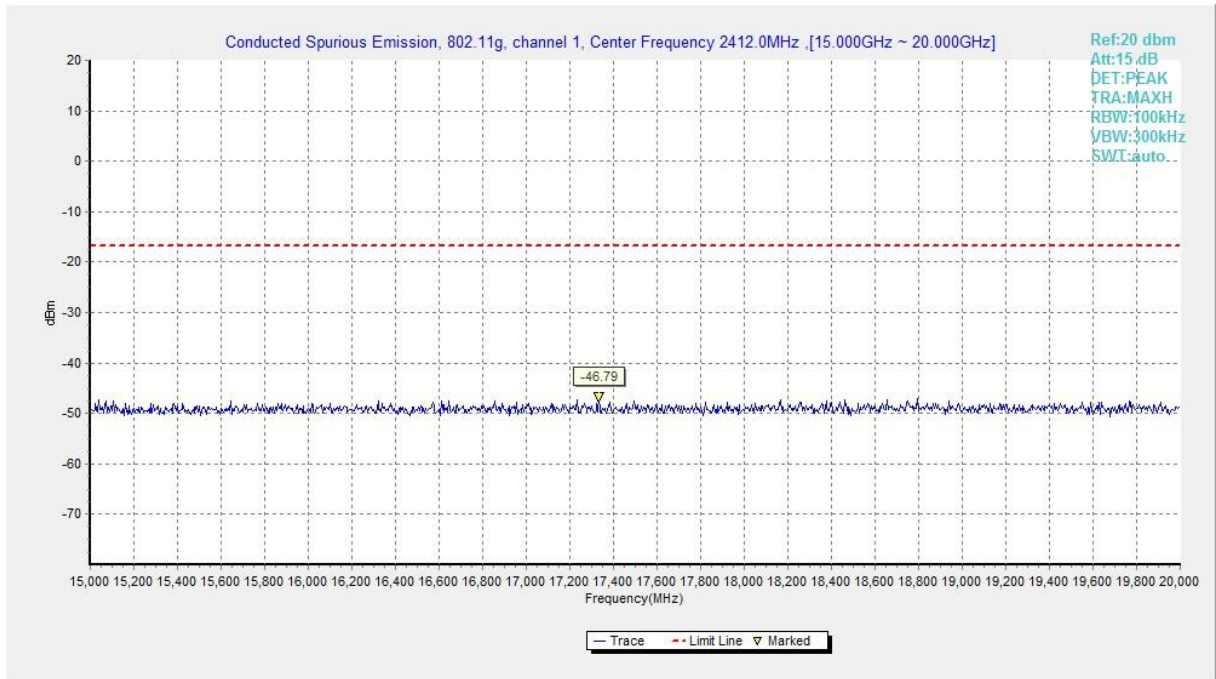


Fig.B.6.1.31 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 15 GHz-20 GHz)

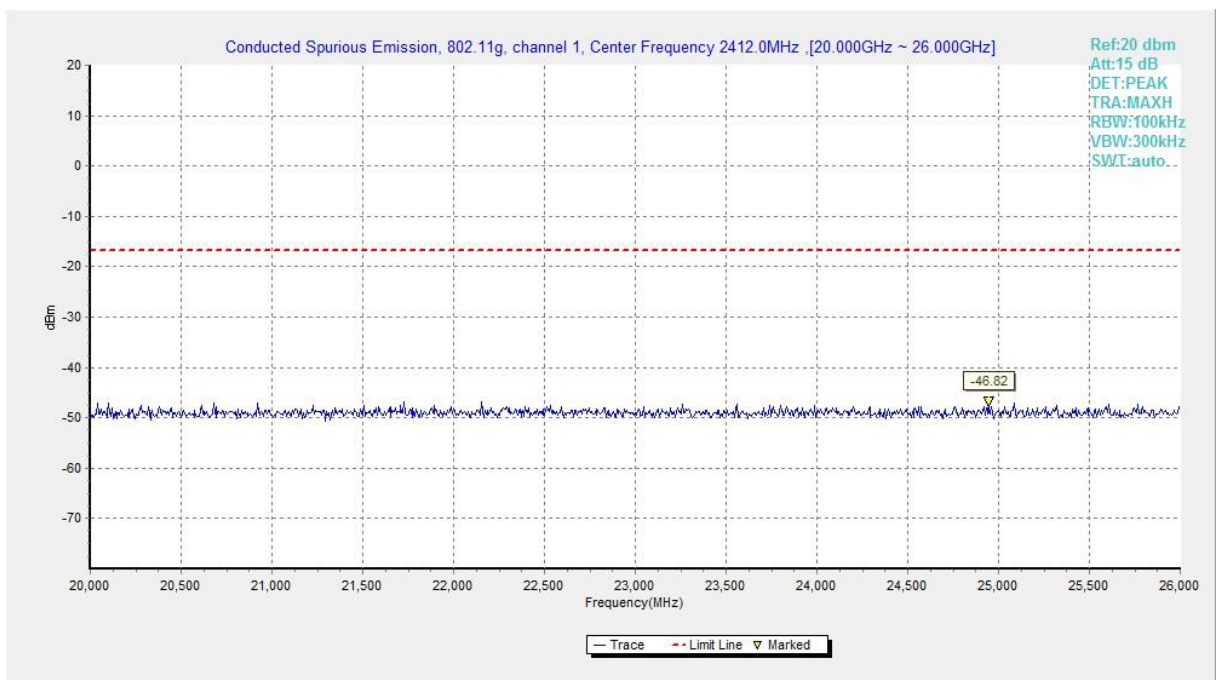


Fig.B.6.1.32 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 20 GHz-26 GHz)

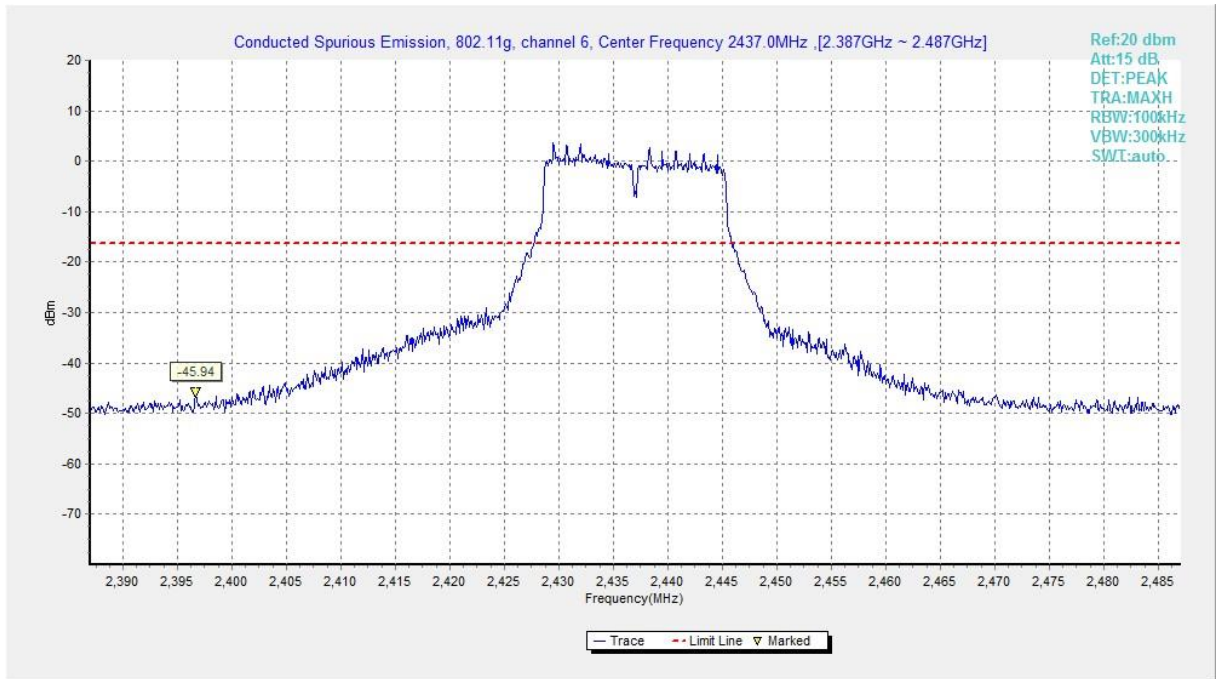


Fig.B.6.1.33 Transmitter Spurious Emission - Conducted (802.11g, Ch6, Center Frequency)

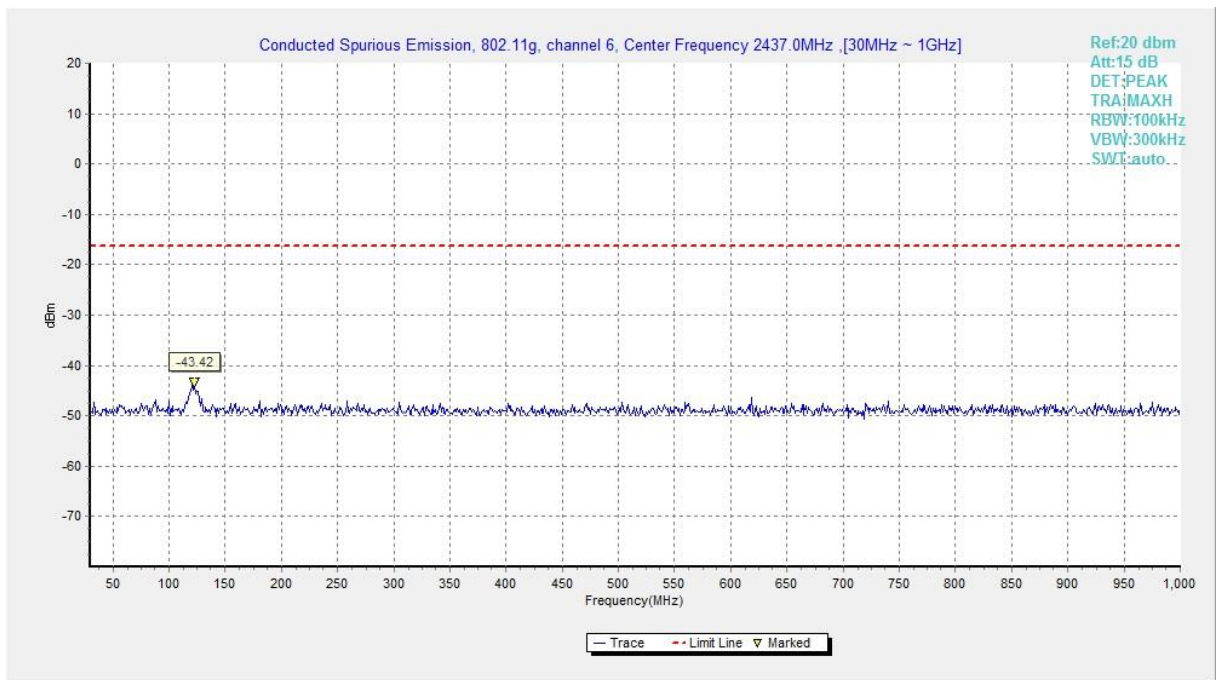


Fig.B.6.1.34 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 30 MHz-1 GHz)

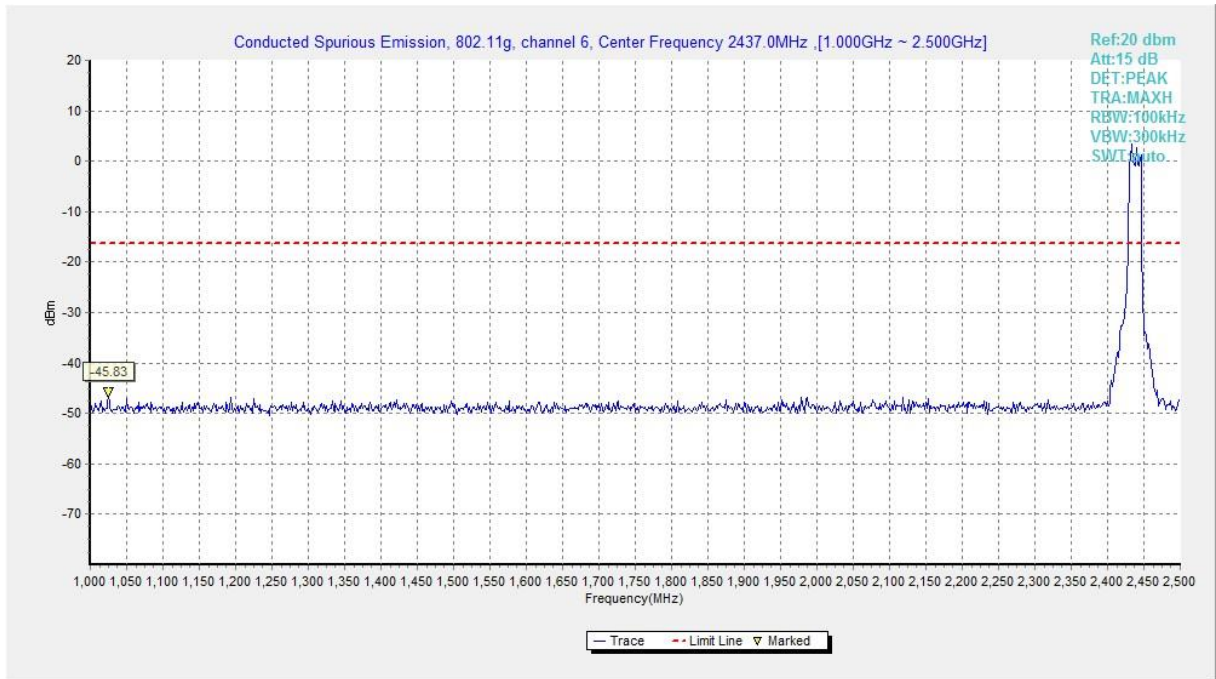


Fig.B.6.1.35 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 1 GHz-2.5 GHz)

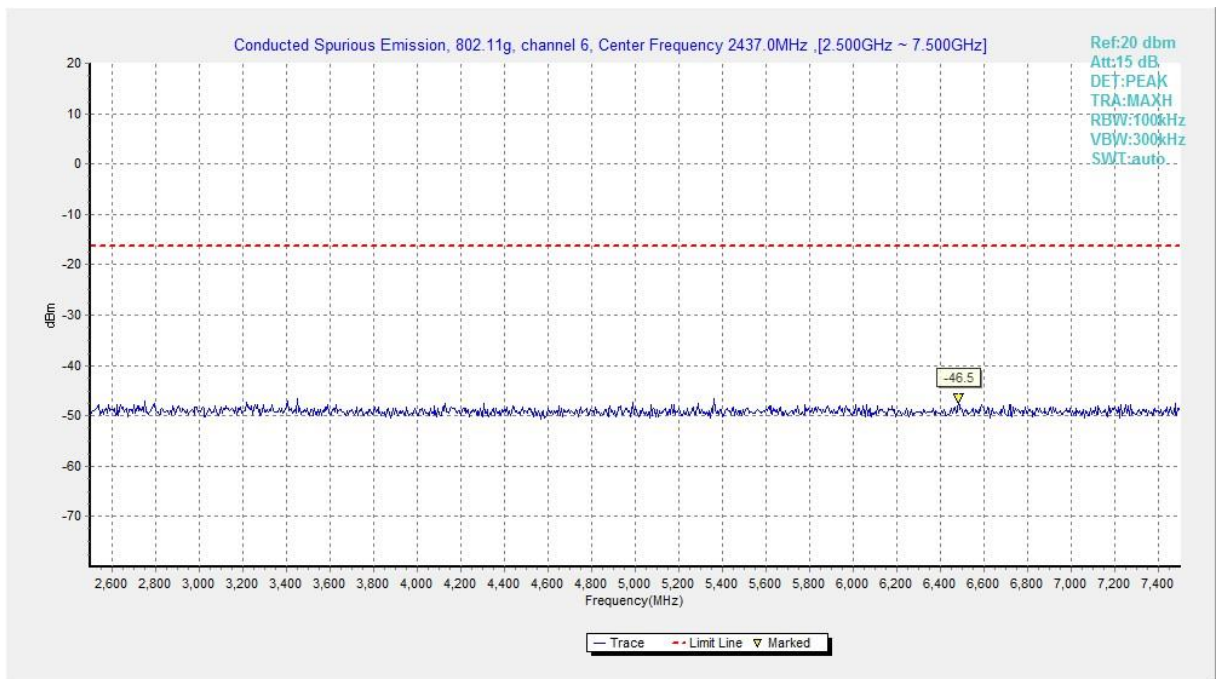


Fig.B.6.1.36 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 2.5 GHz-7.5 GHz)

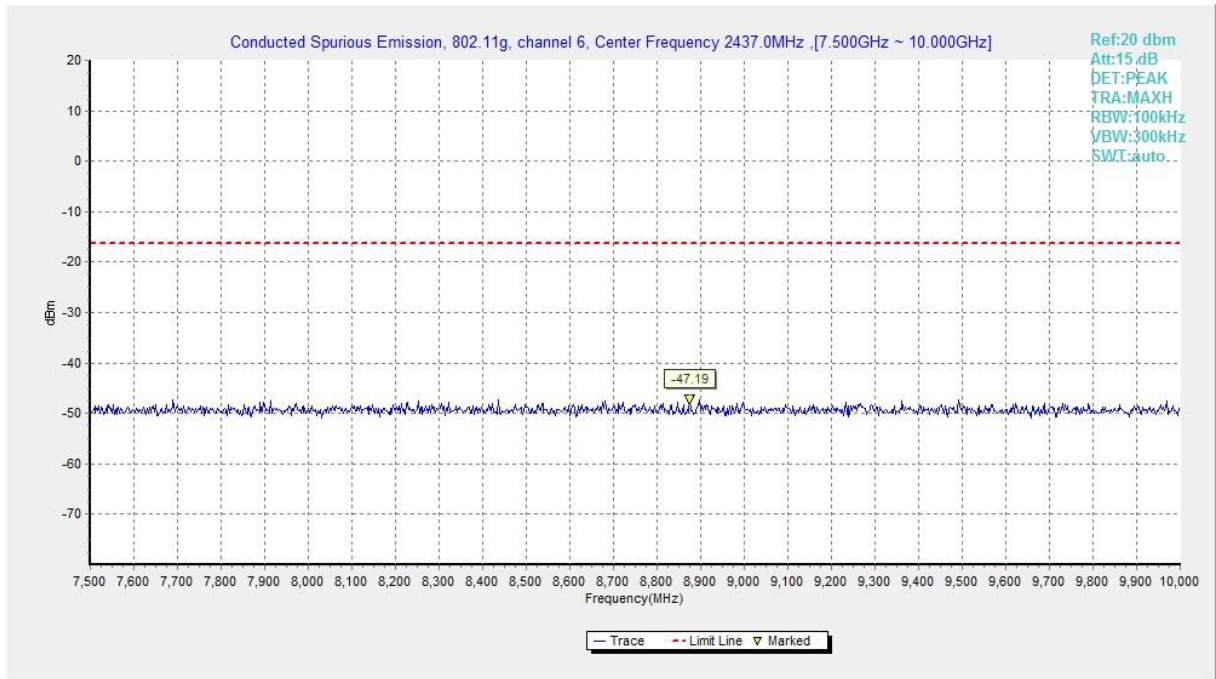


Fig.B.6.1.37 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 7.5 GHz-10 GHz)

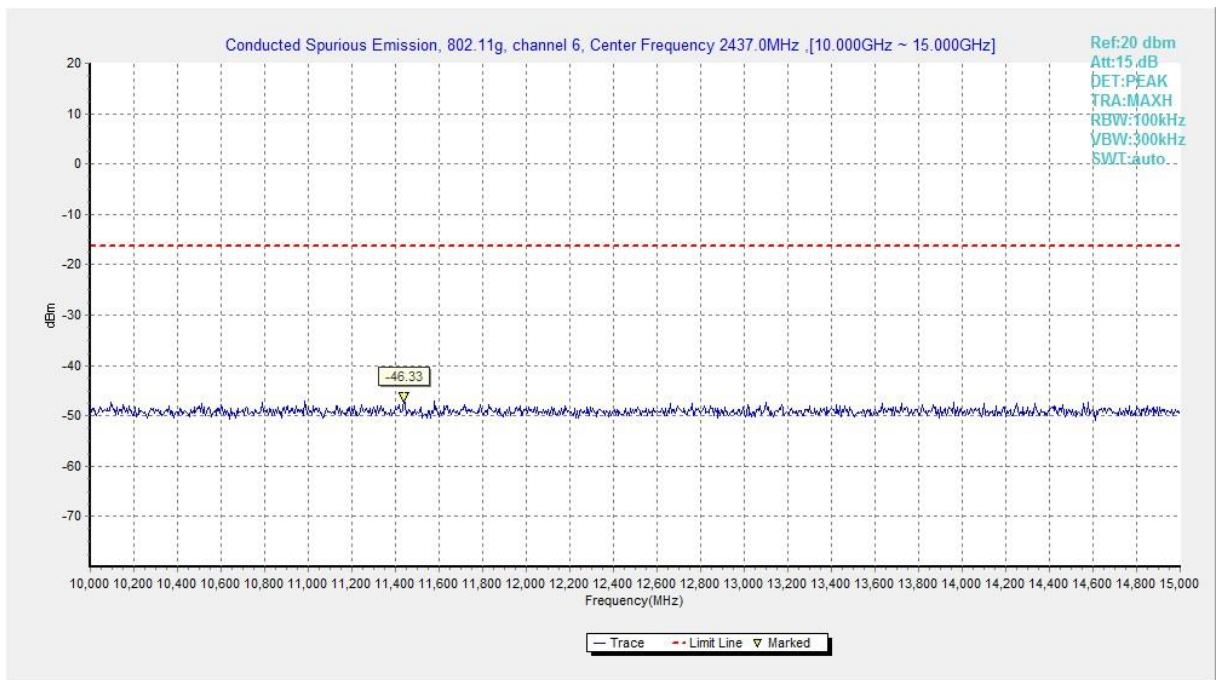


Fig.B.6.1.38 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 10 GHz-15 GHz)

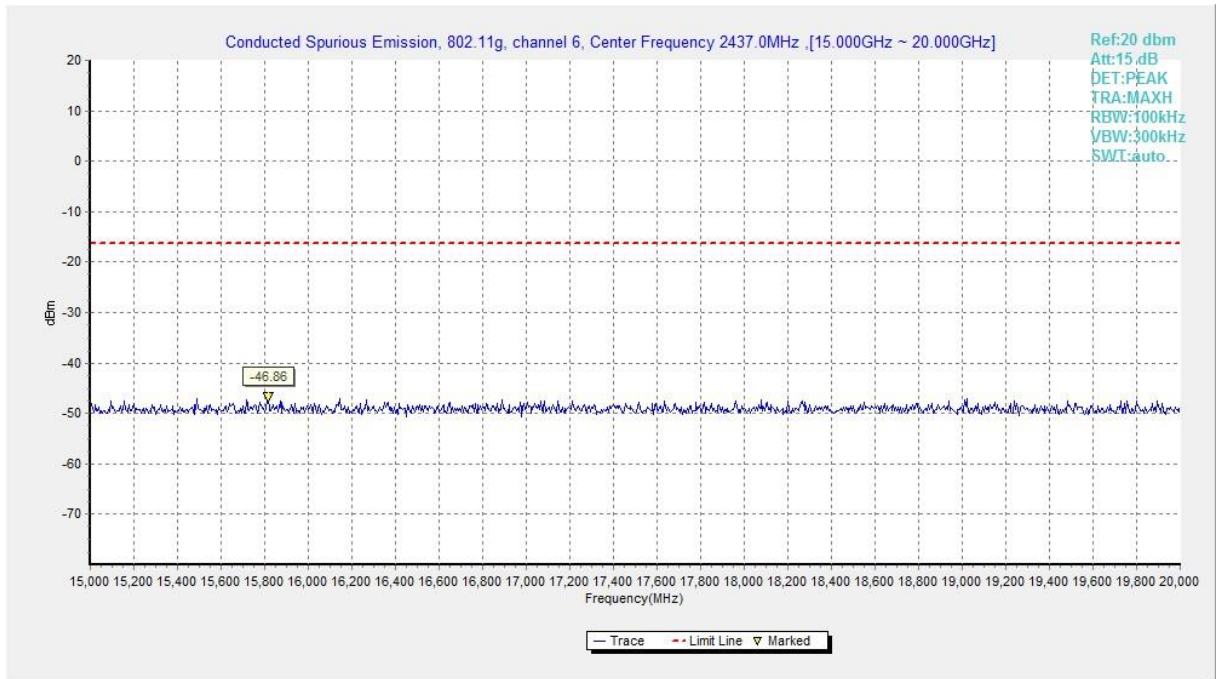


Fig.B.6.1.39 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 15 GHz-20 GHz)

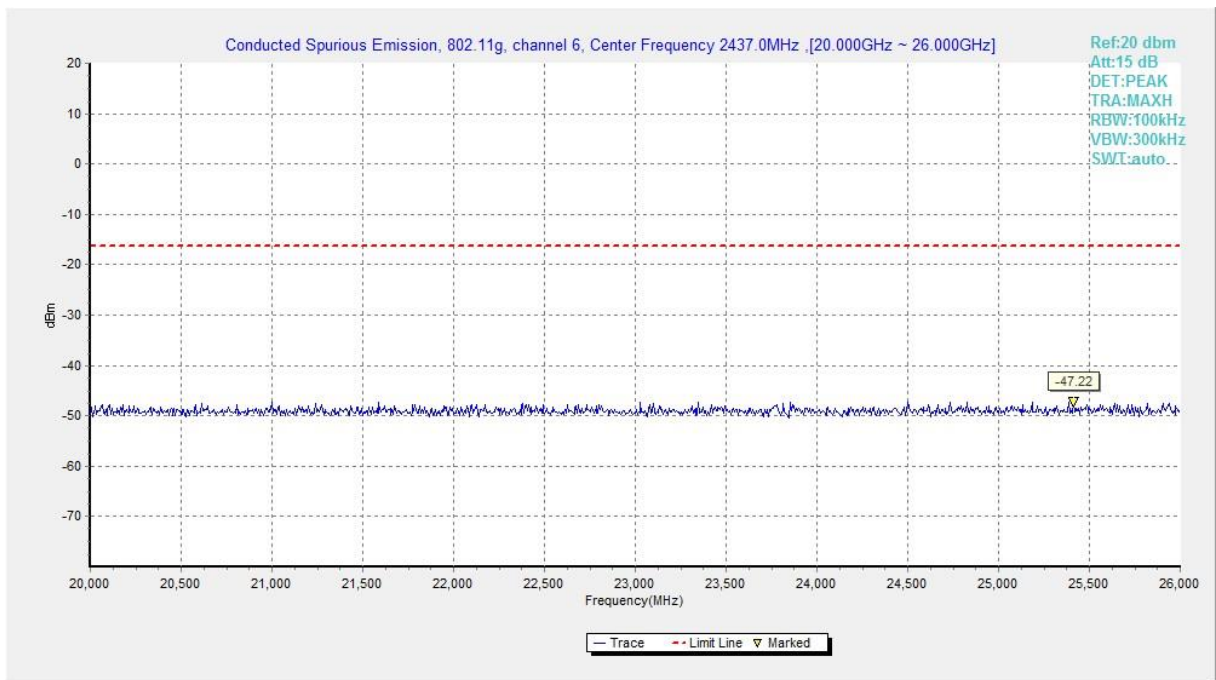


Fig.B.6.1.40 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 20 GHz-26 GHz)

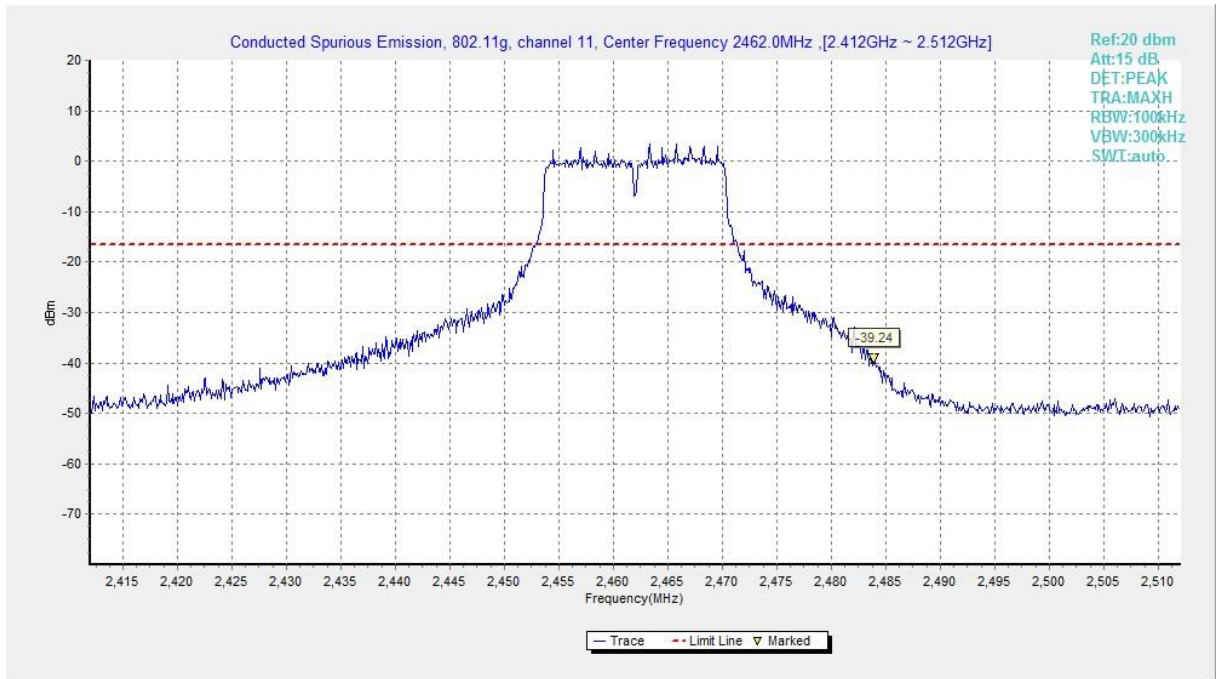


Fig.B.6.1.41 Transmitter Spurious Emission - Conducted (802.11g, Ch11, Center Frequency)

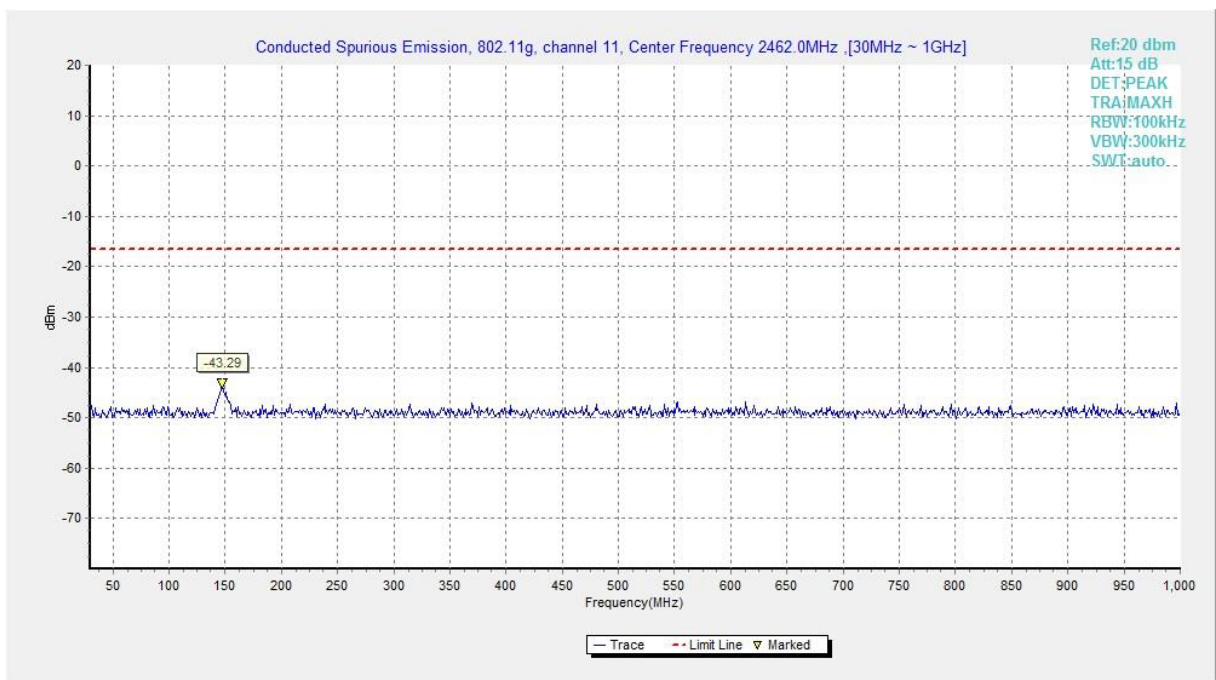


Fig.B.6.1.42 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 30 MHz-1 GHz)

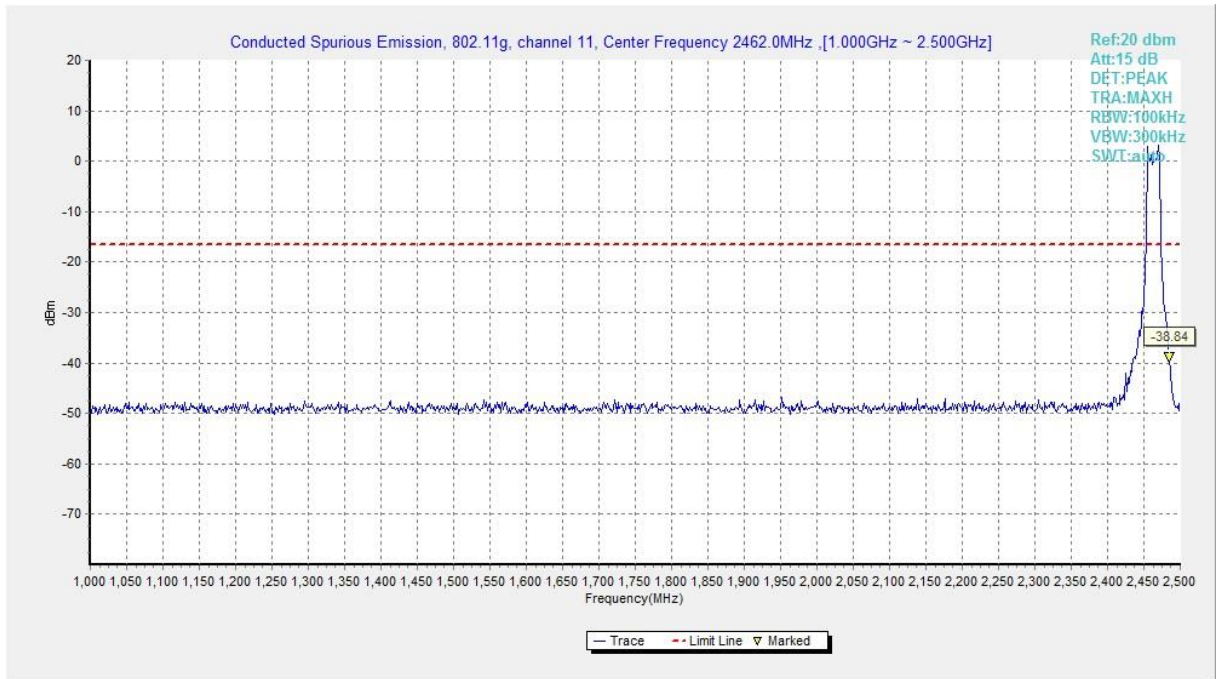


Fig.B.6.1.43 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 1 GHz-2.5 GHz)

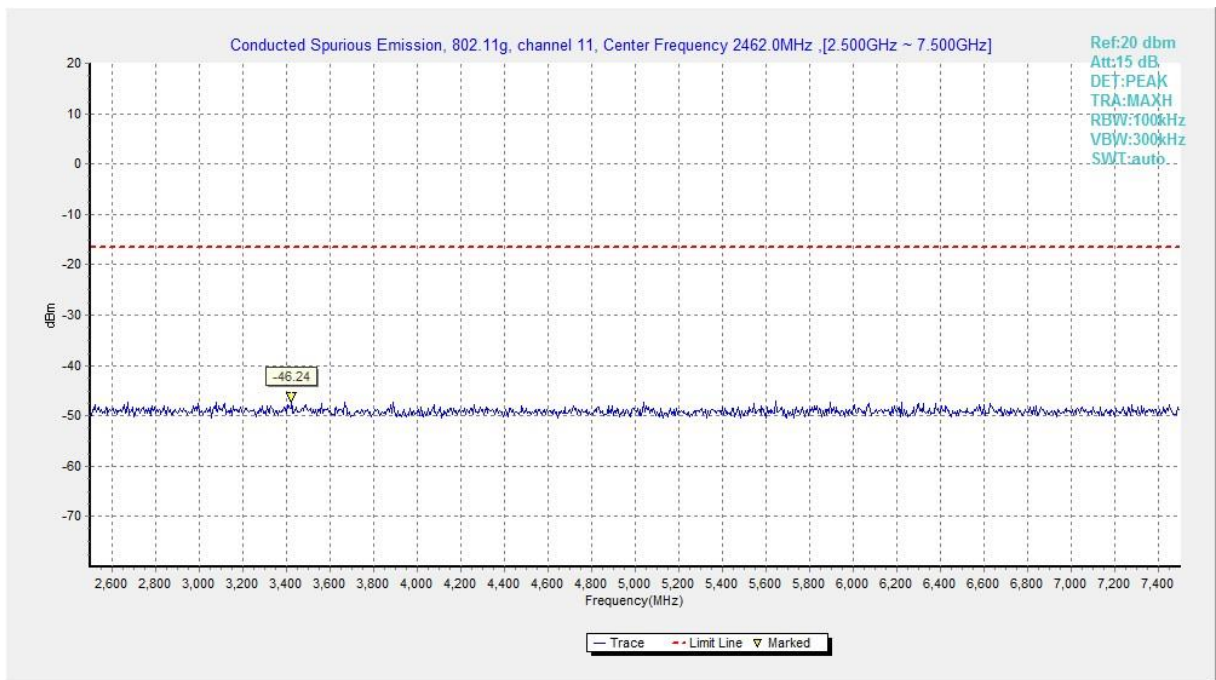


Fig.B.6.1.44 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 2.5 GHz-7.5 GHz)

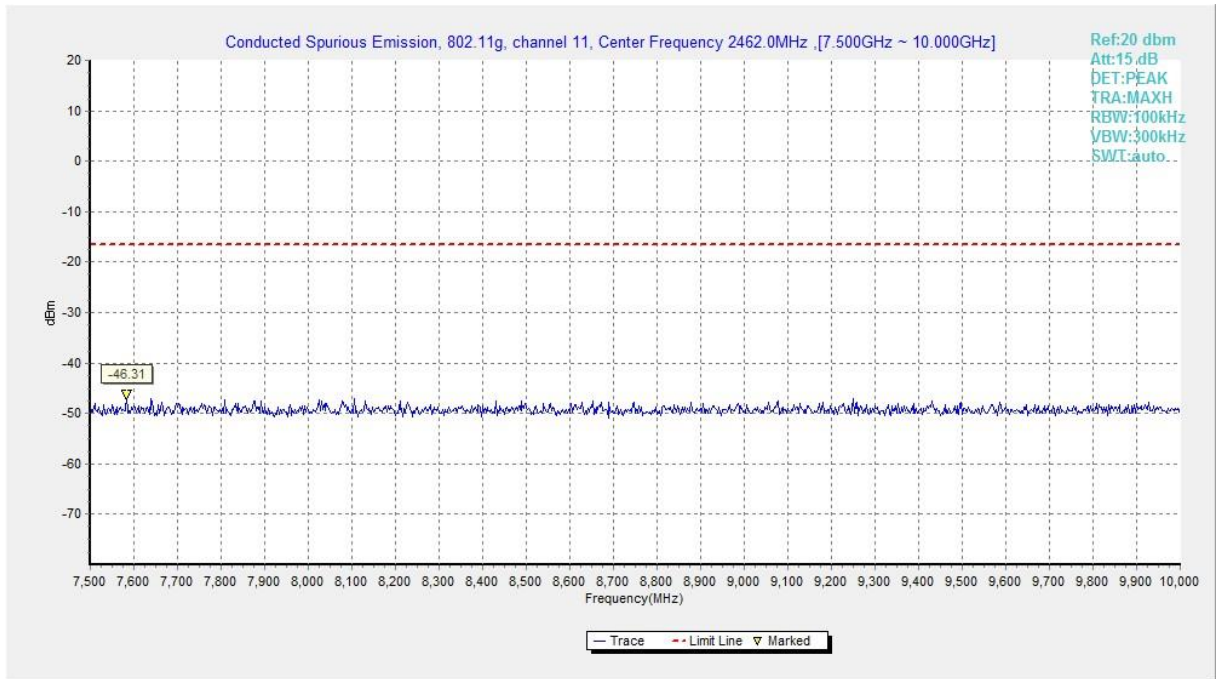


Fig.B.6.1.45 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 7.5 GHz-10 GHz)

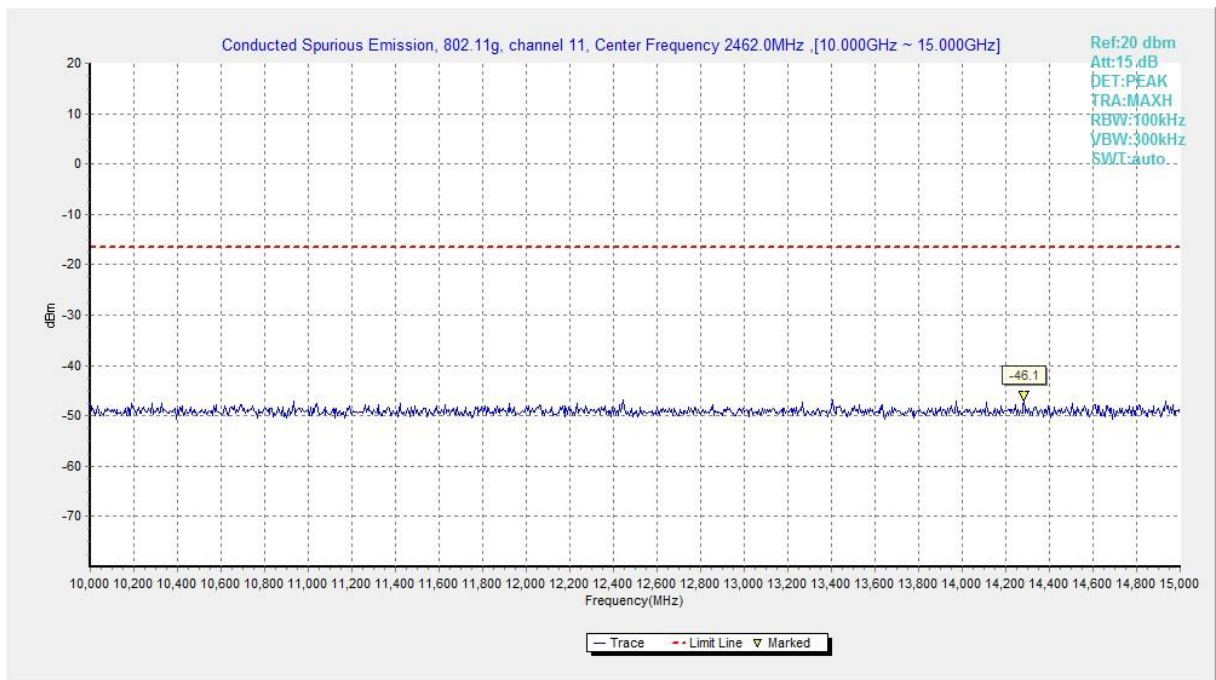


Fig.B.6.1.46 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 10 GHz-15 GHz)

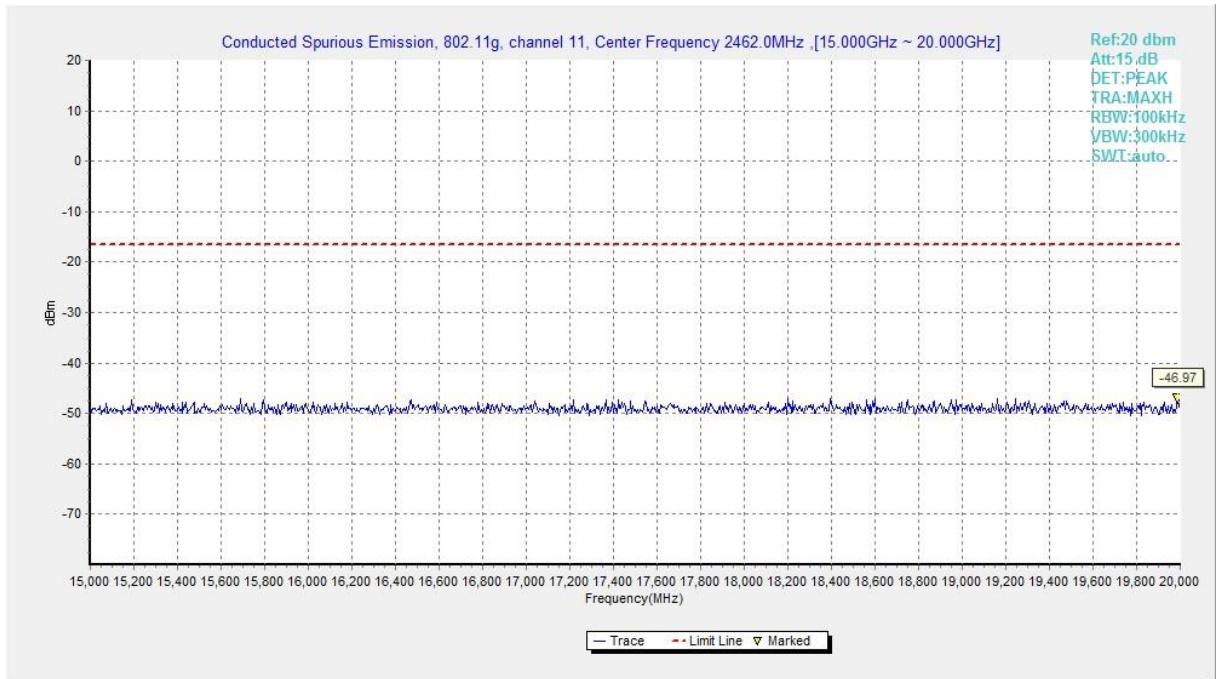


Fig.B.6.1.47 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 15 GHz-20 GHz)

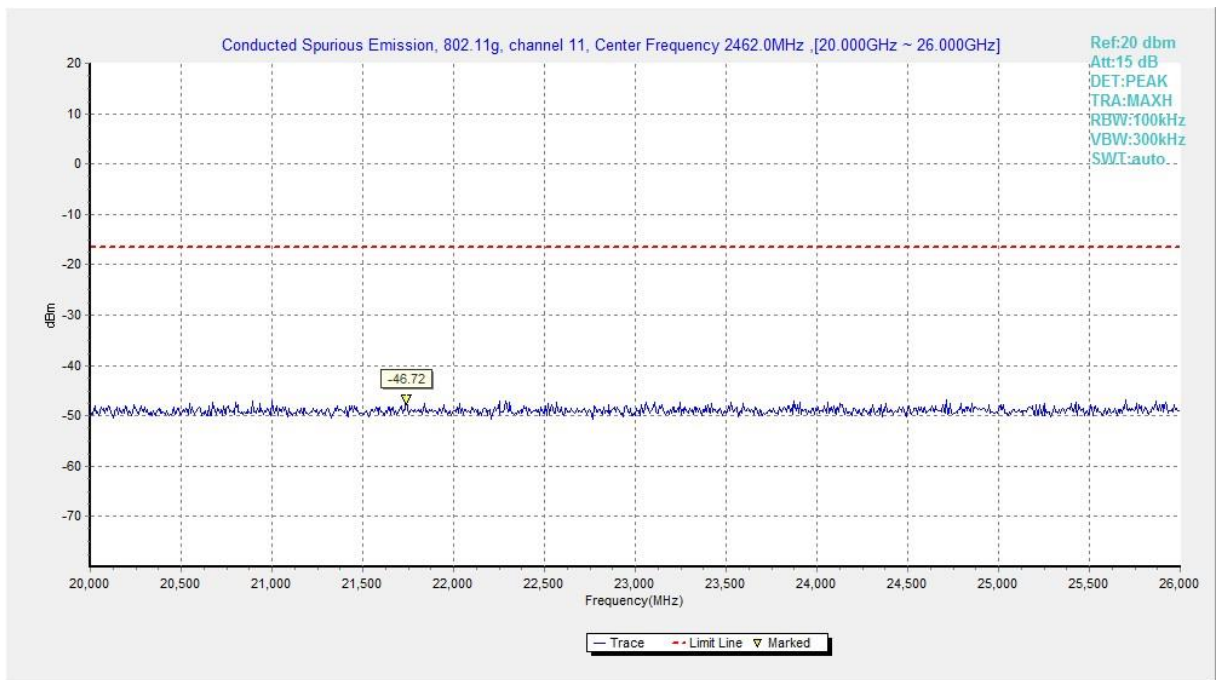


Fig.B.6.1.48 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 20 GHz-26 GHz)

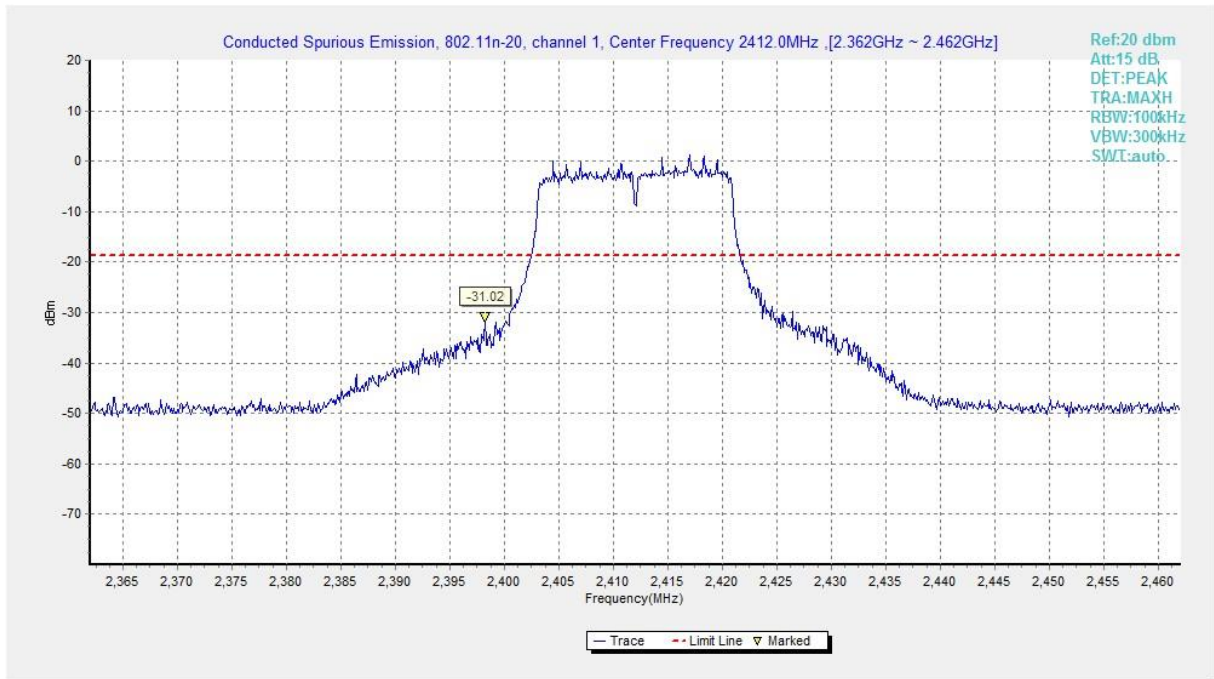


Fig.B.6.1.49 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, Center Frequency)

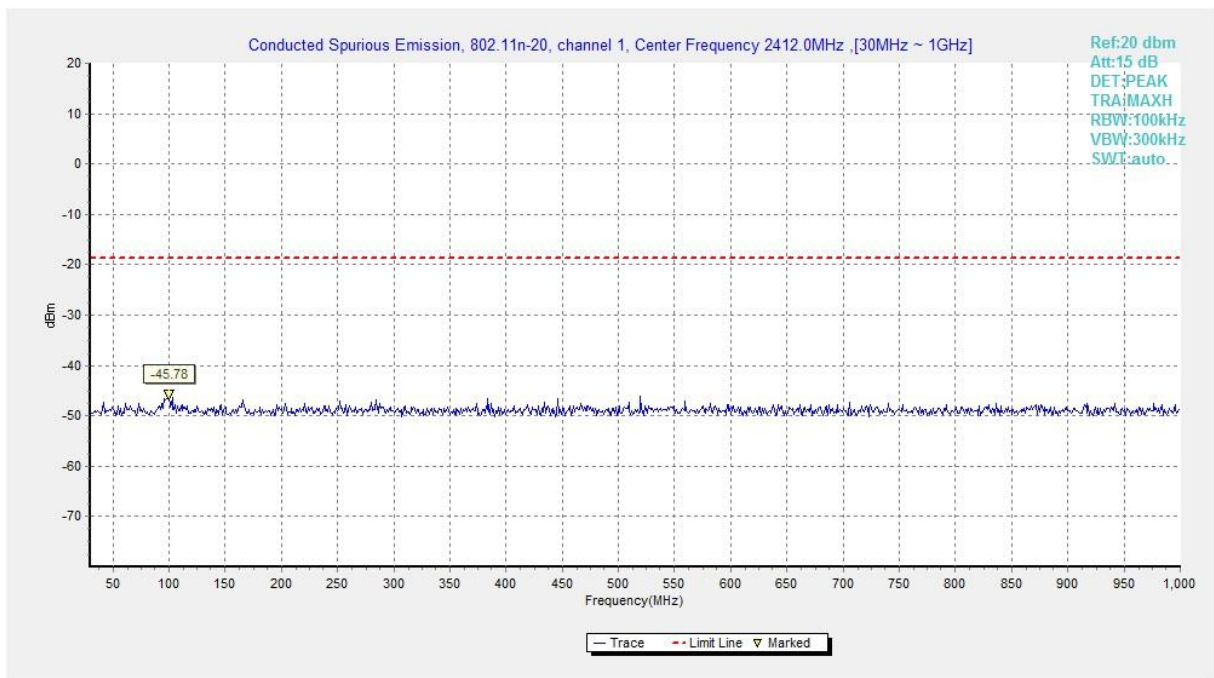


Fig.B.6.1.50 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 30 MHz-1 GHz)

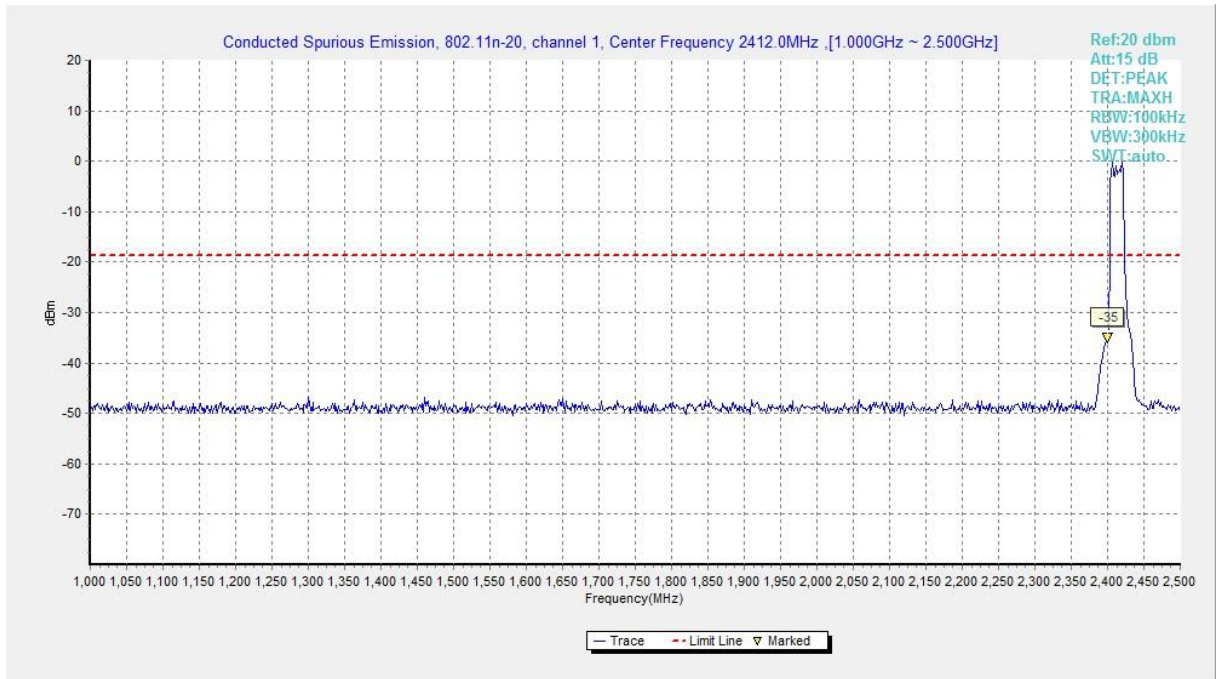


Fig.B.6.1.51 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 1 GHz-2.5 GHz)

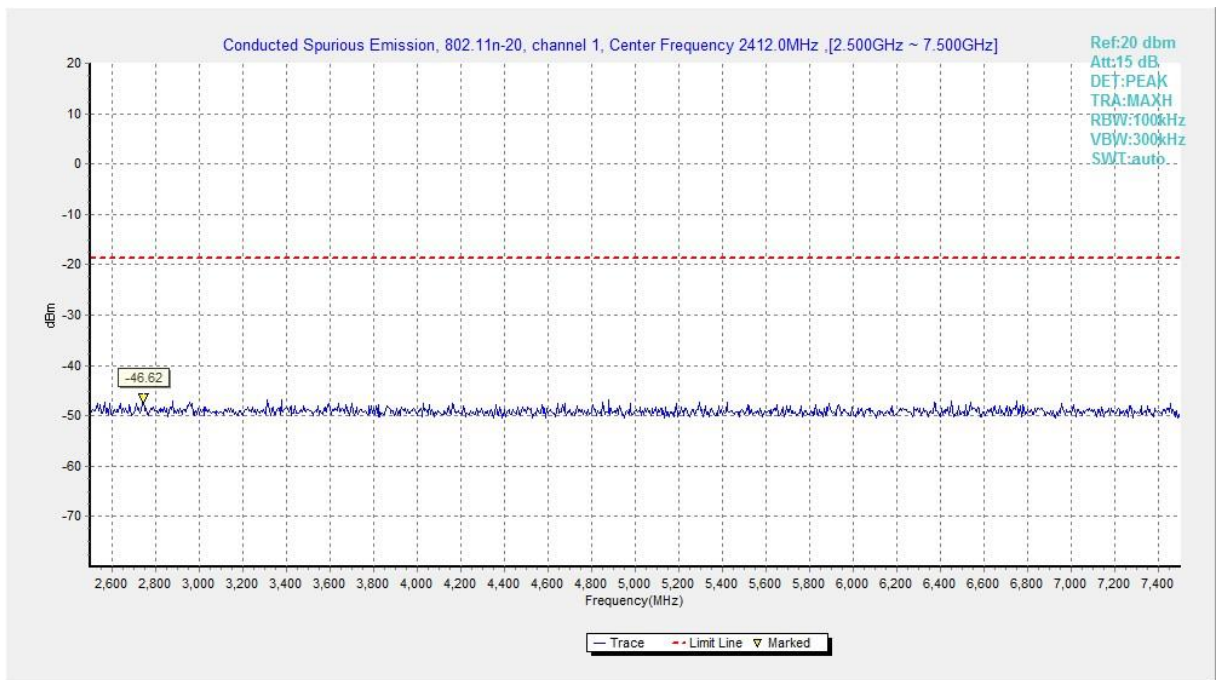


Fig.B.6.1.52 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 2.5 GHz-7.5 GHz)

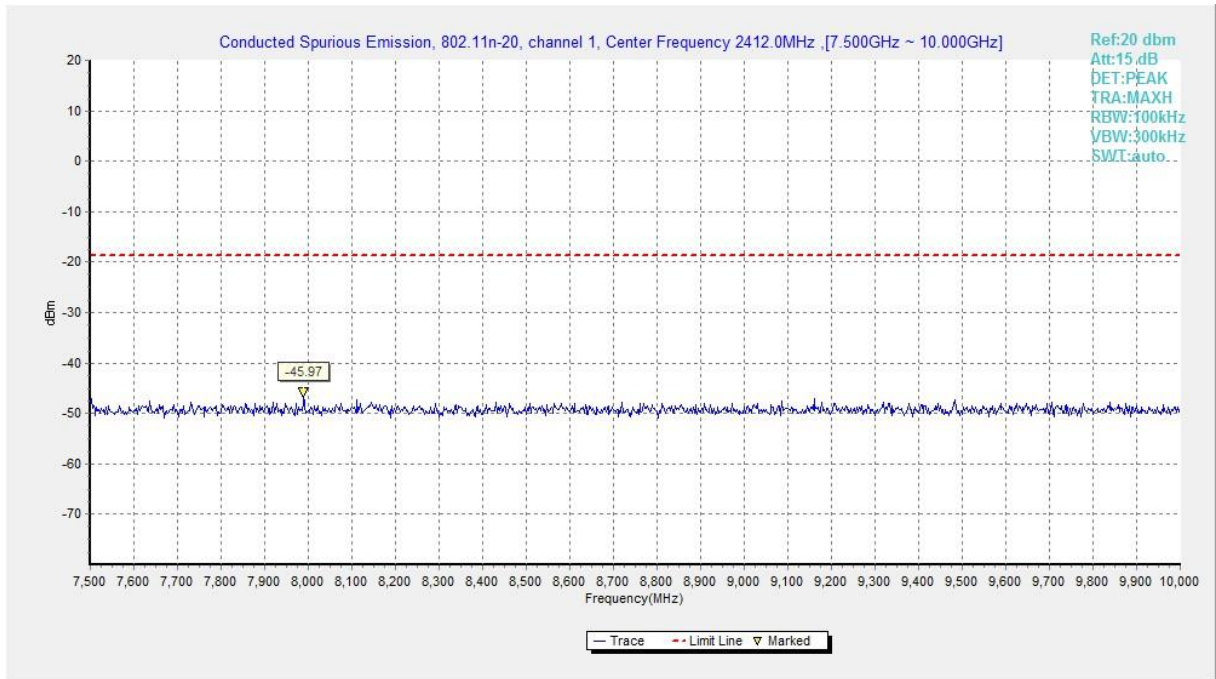


Fig.B.6.1.53 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 7.5 GHz-10 GHz)

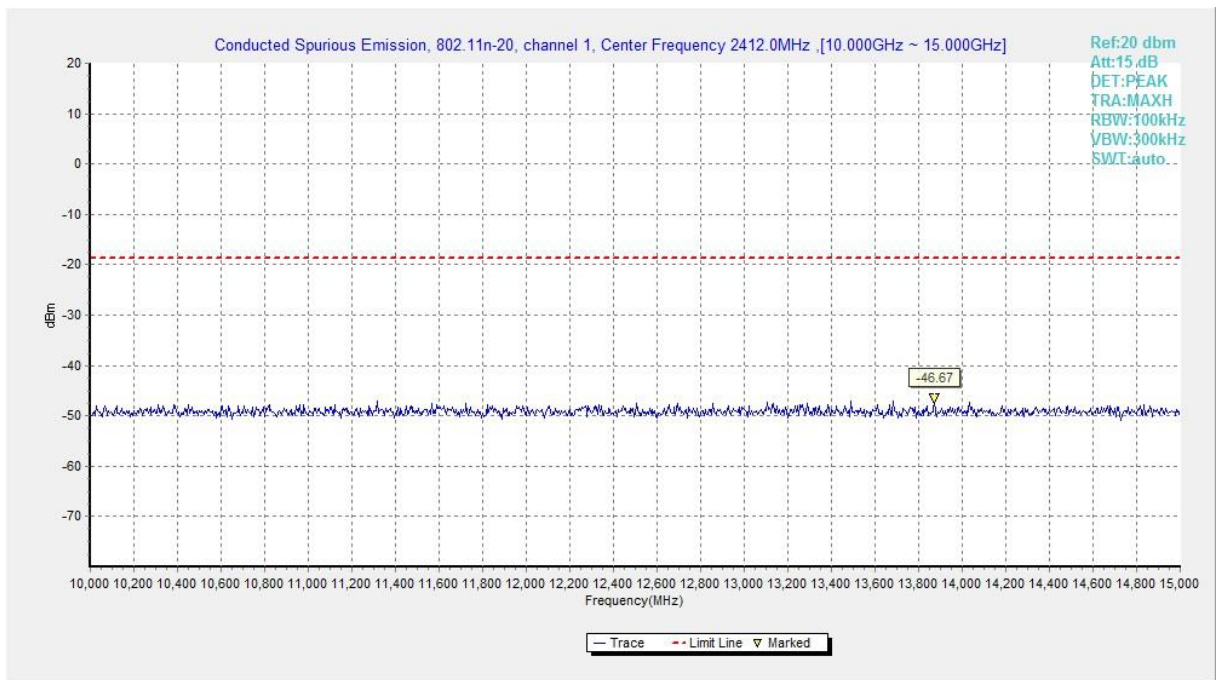


Fig.B.6.1.54 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 10 GHz-15 GHz)

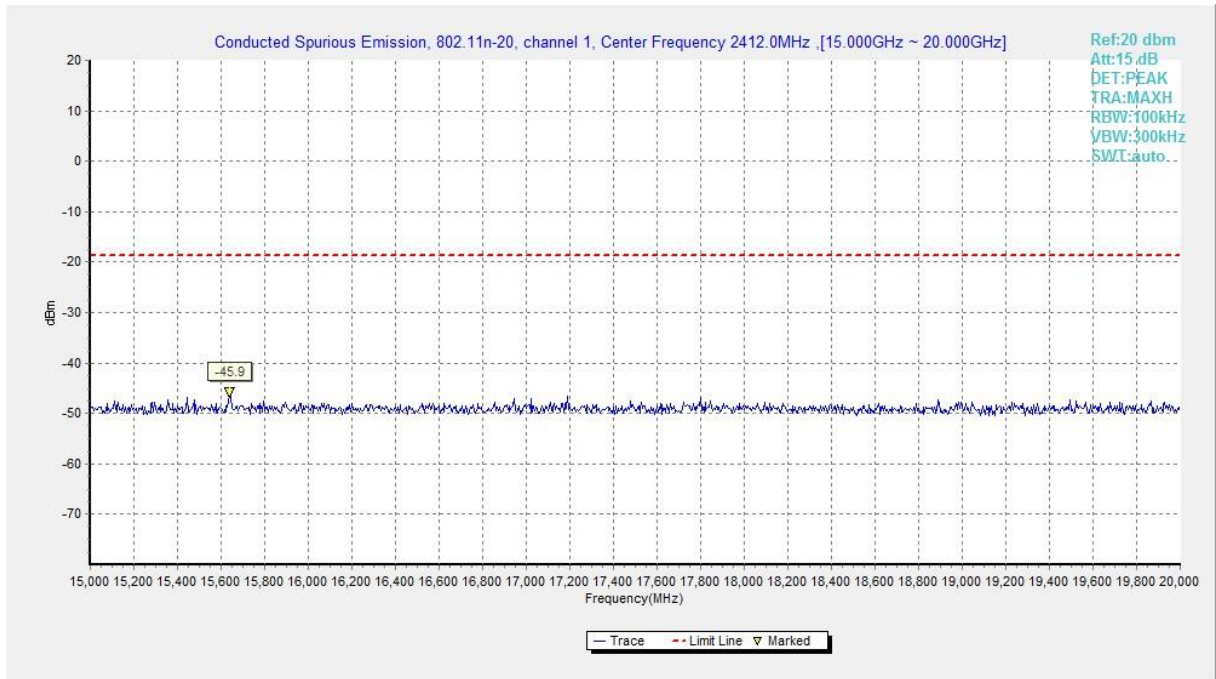


Fig.B.6.1.55 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 15 GHz-20 GHz)

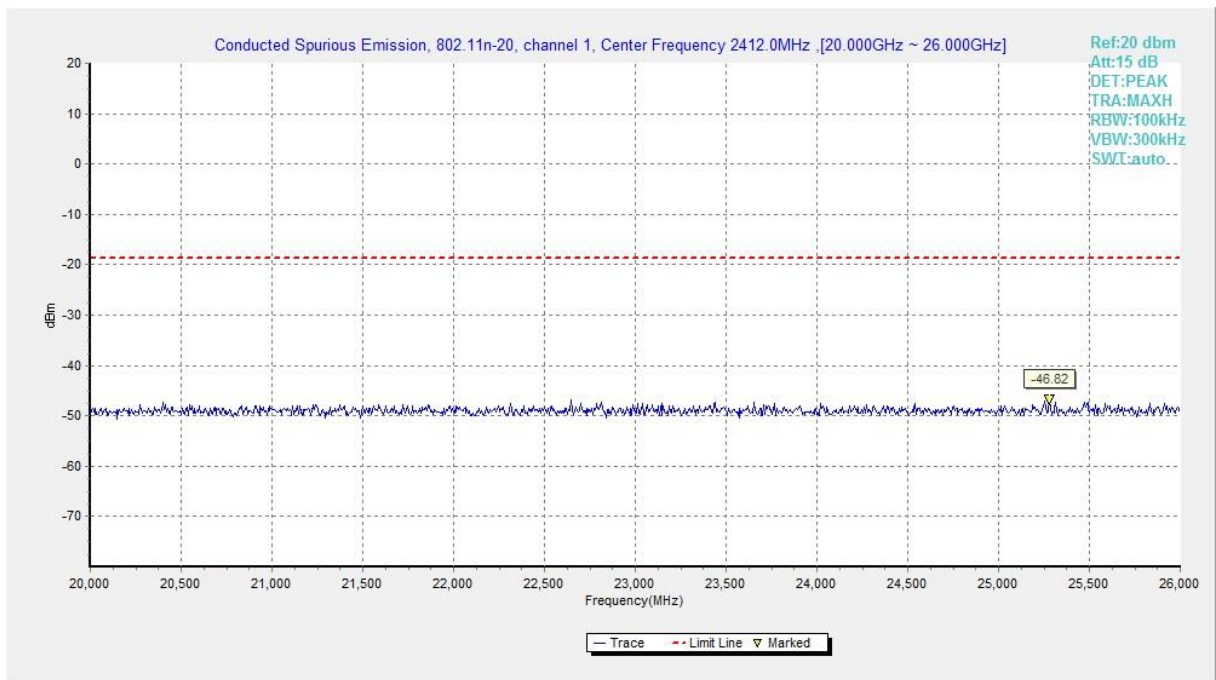


Fig.B.6.1.56 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 20 GHz-26 GHz)

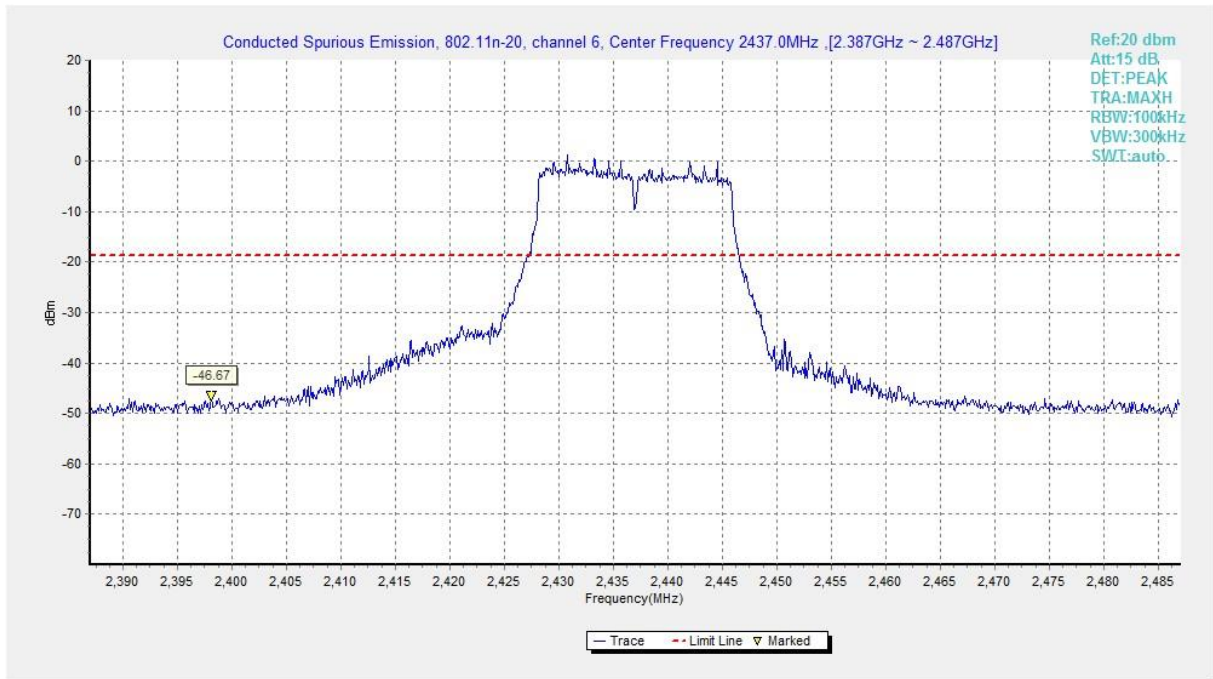


Fig.B.6.1.57 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, Center Frequency)

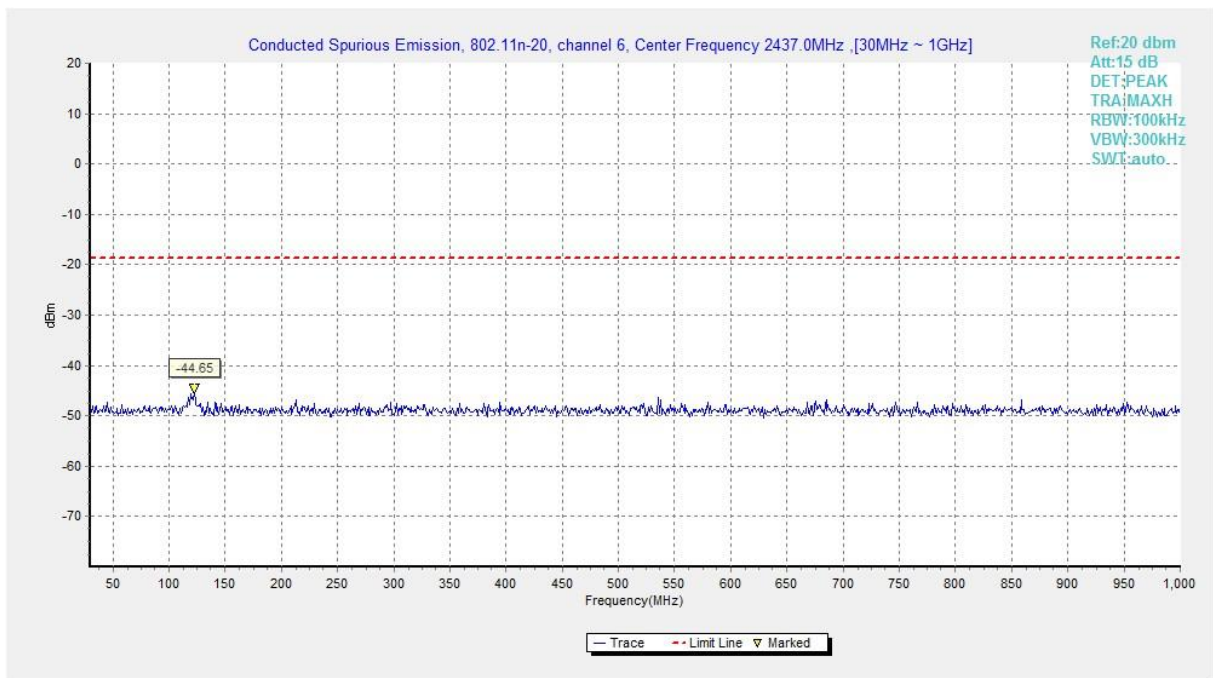


Fig.B.6.1.58 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 30 MHz-1 GHz)

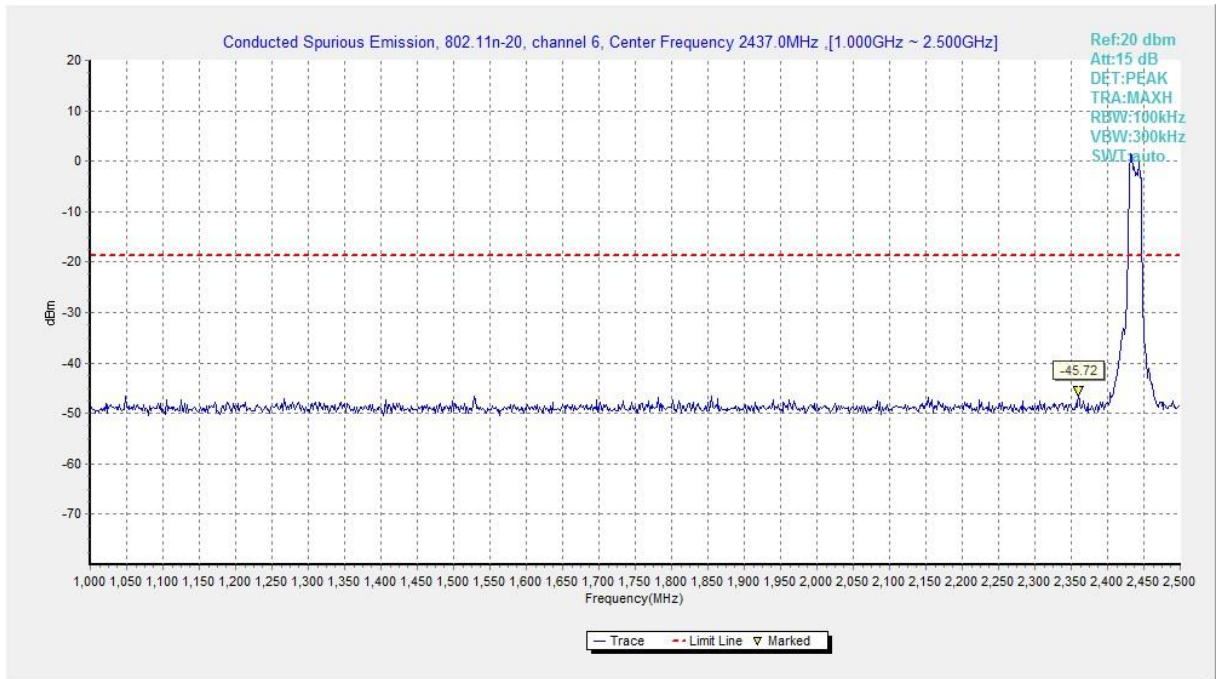


Fig.B.6.1.59 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 1 GHz-2.5 GHz)

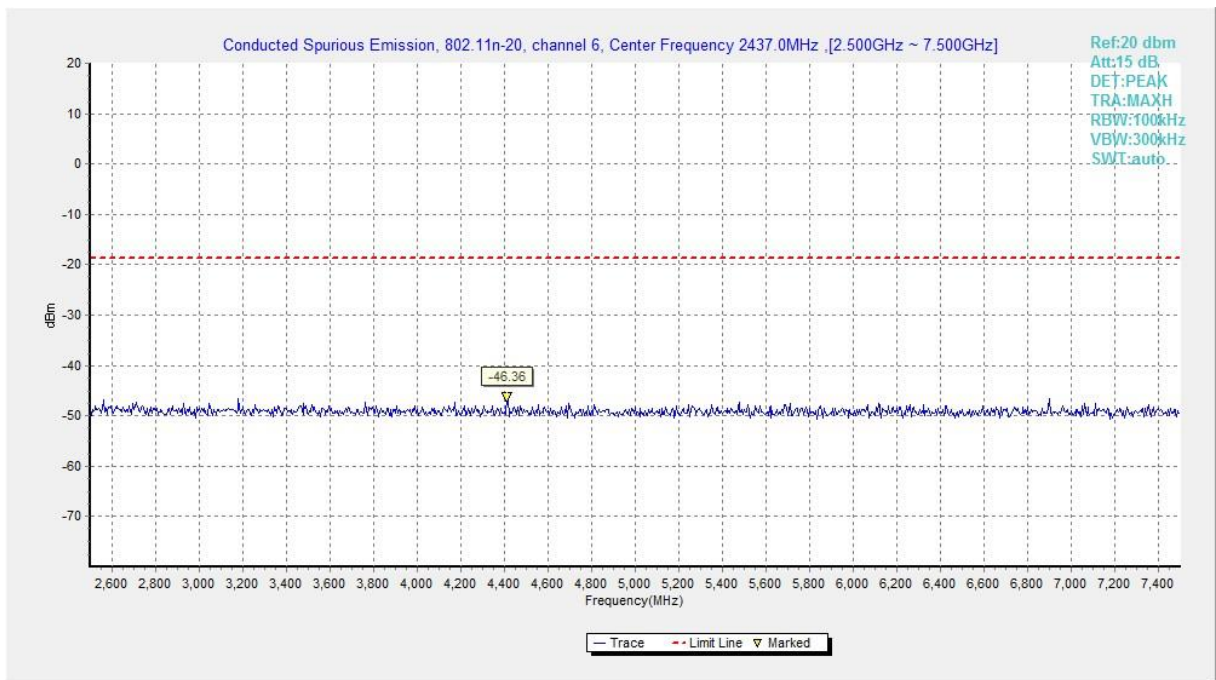


Fig.B.6.1.60 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 2.5 GHz-7.5 GHz)

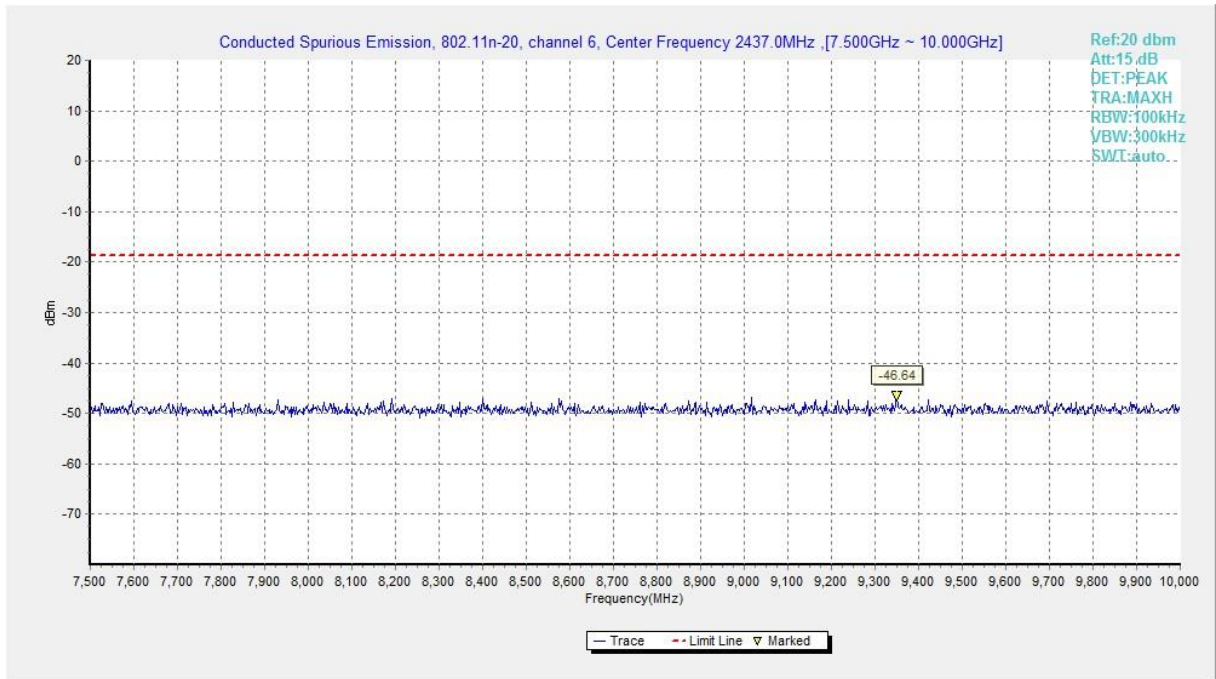


Fig.B.6.1.61 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 7.5 GHz-10 GHz)

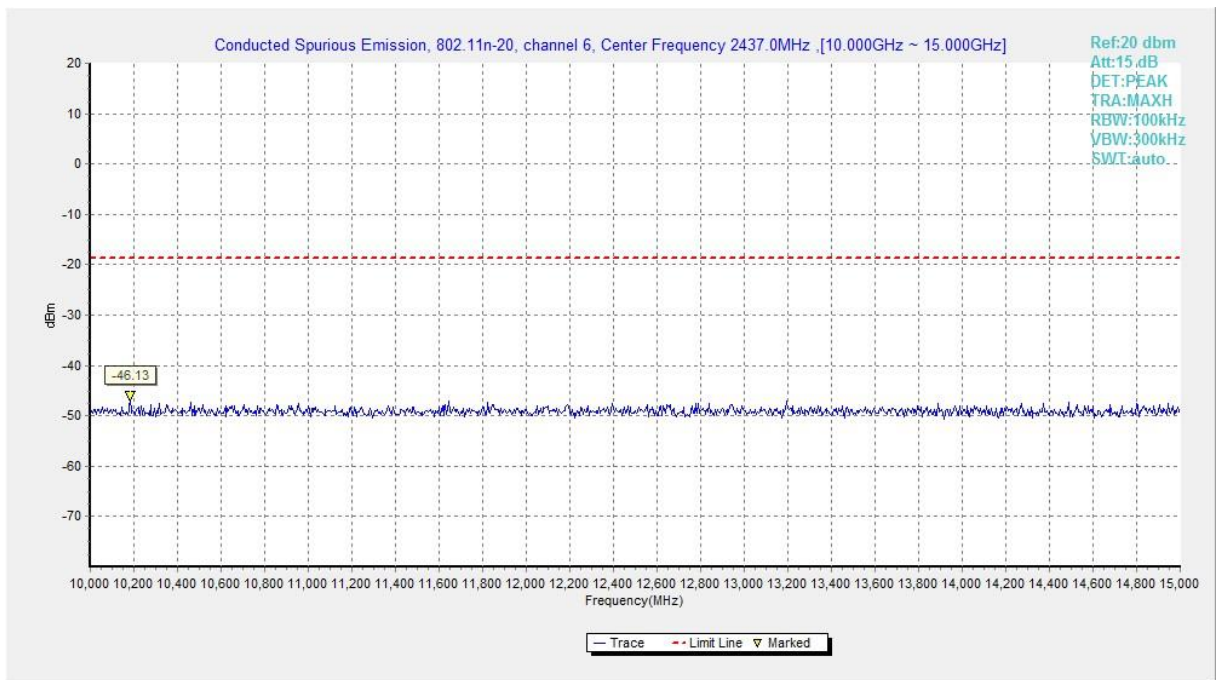


Fig.B.6.1.62 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 10 GHz-15 GHz)

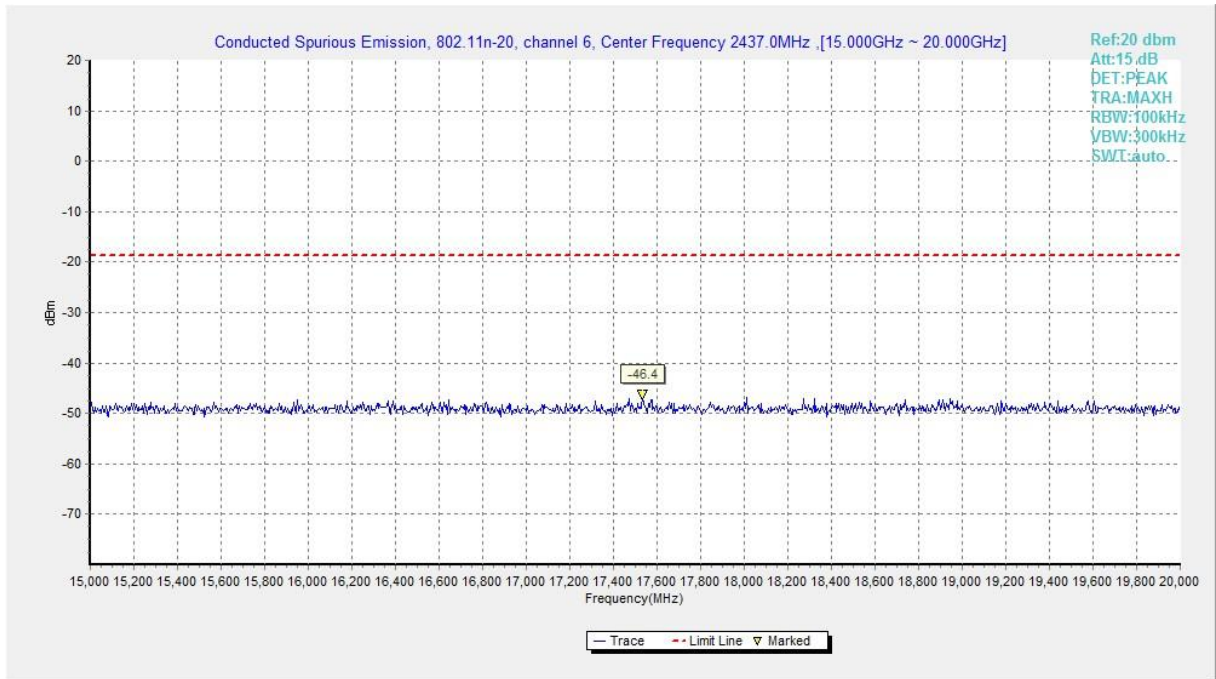


Fig.B.6.1.63 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 15 GHz-20 GHz)

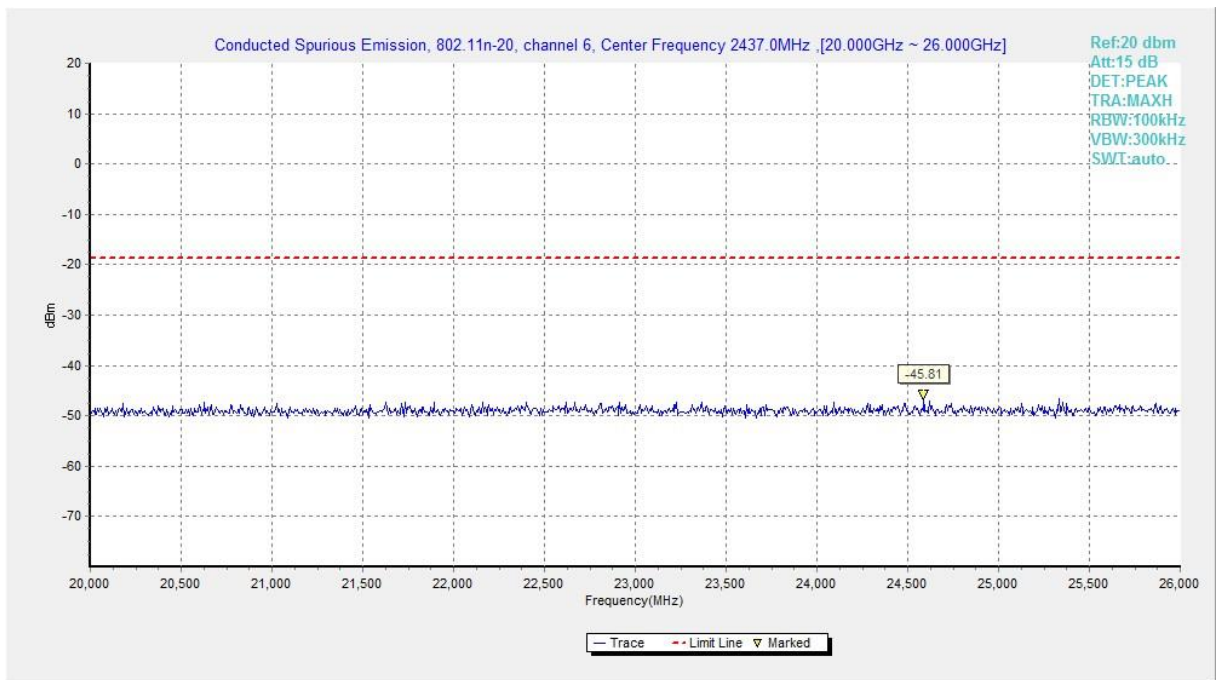


Fig.B.6.1.64 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 20 GHz-26 GHz)

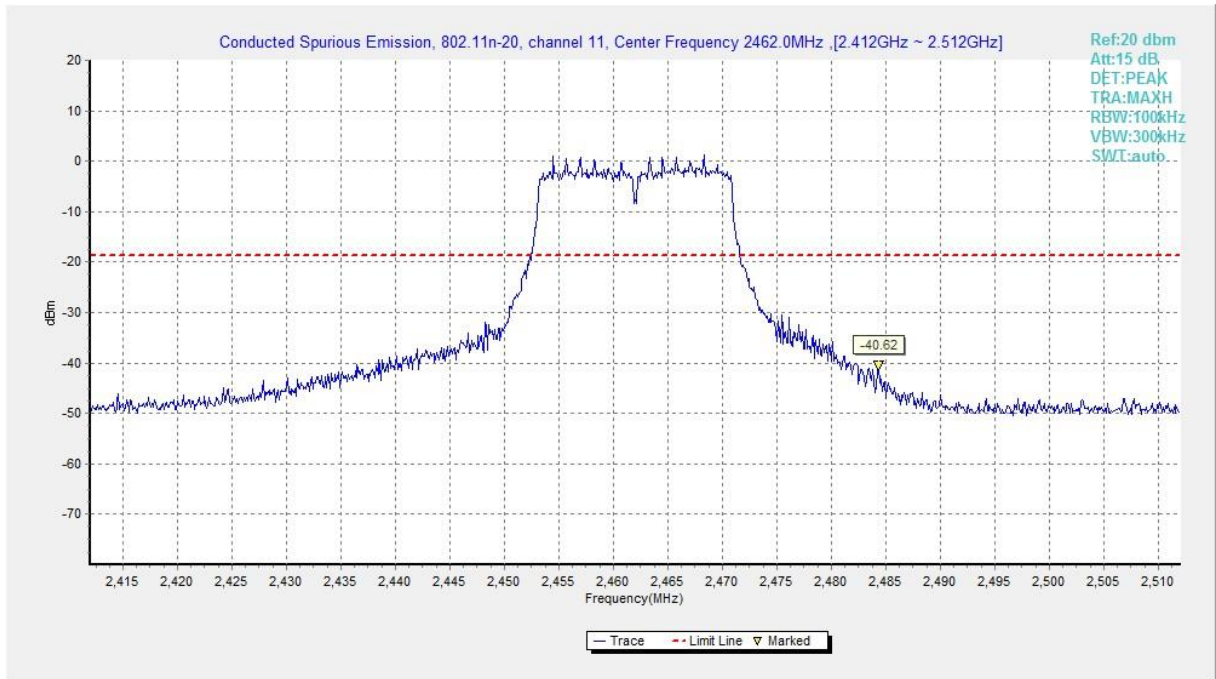


Fig.B.6.1.65 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, Center Frequency)

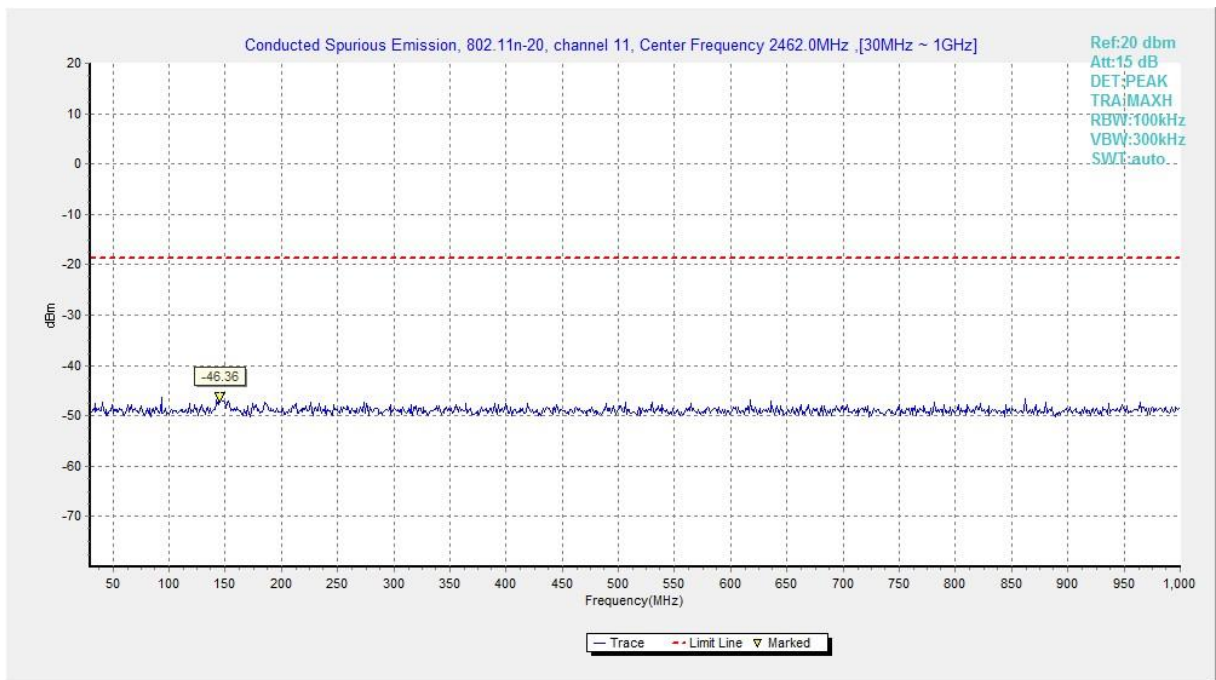


Fig.B.6.1.66 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 30 MHz-1 GHz)

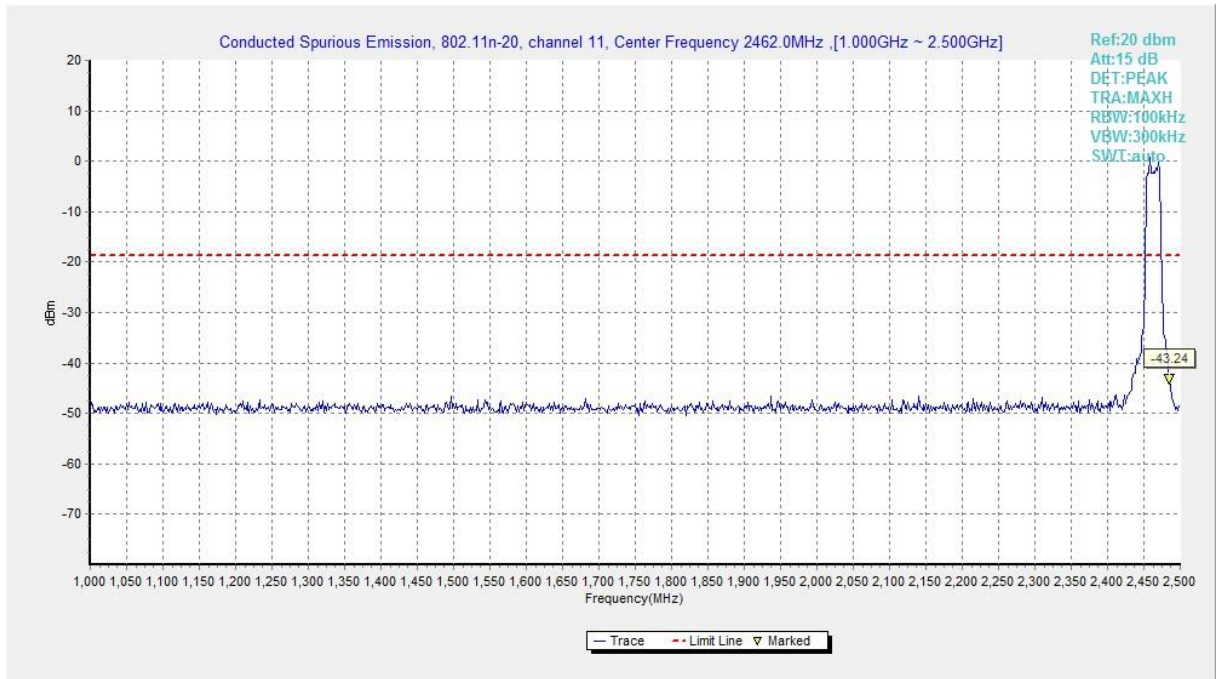


Fig.B.6.1.67 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 1 GHz-2.5 GHz)

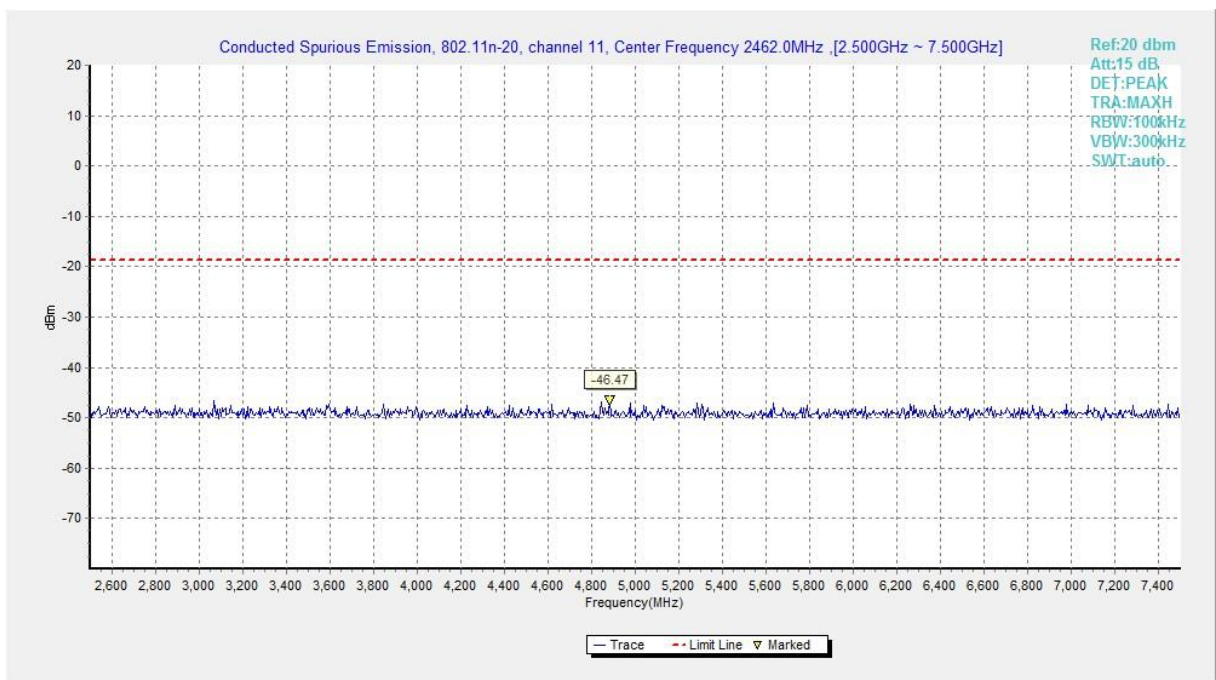


Fig.B.6.1.68 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 2.5 GHz-7.5 GHz)

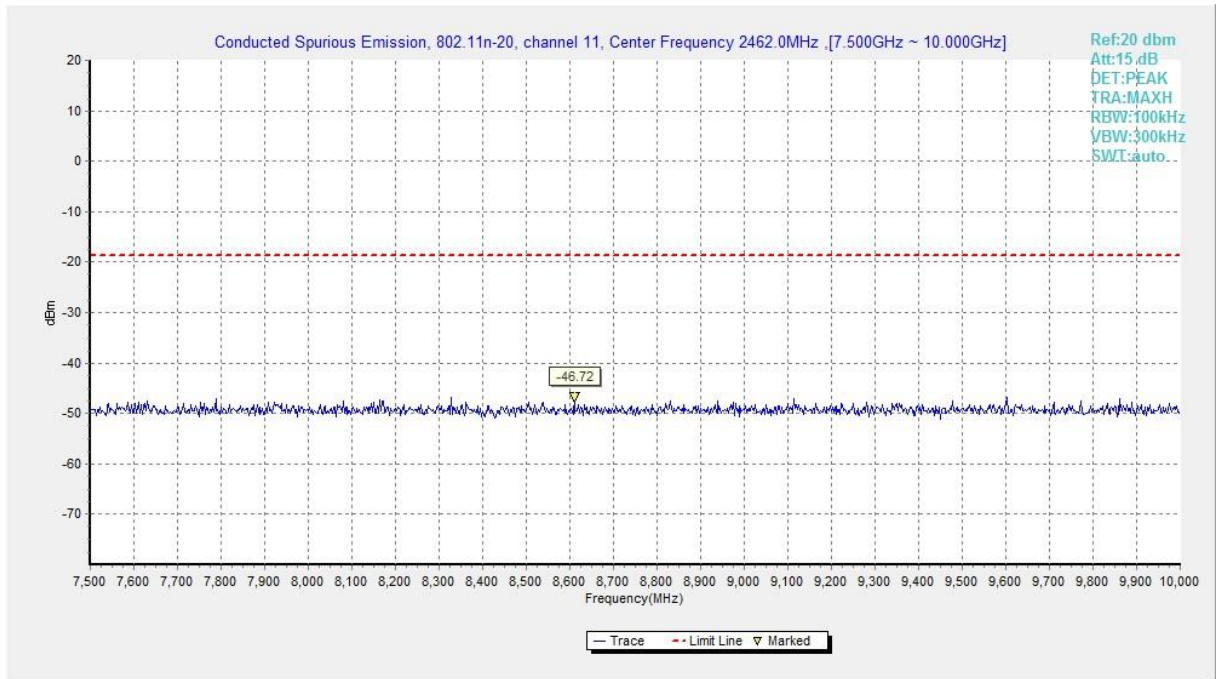


Fig.B.6.1.69 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 7.5 GHz-10 GHz)

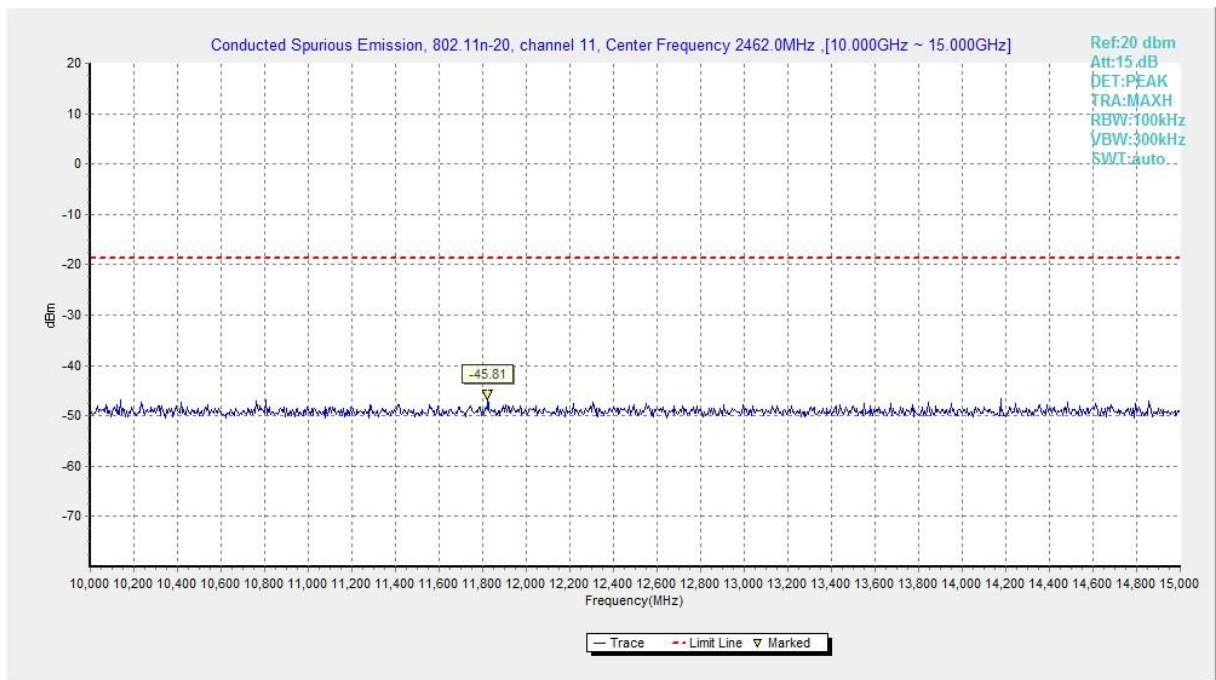


Fig.B.6.1.70 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 10 GHz-15 GHz)

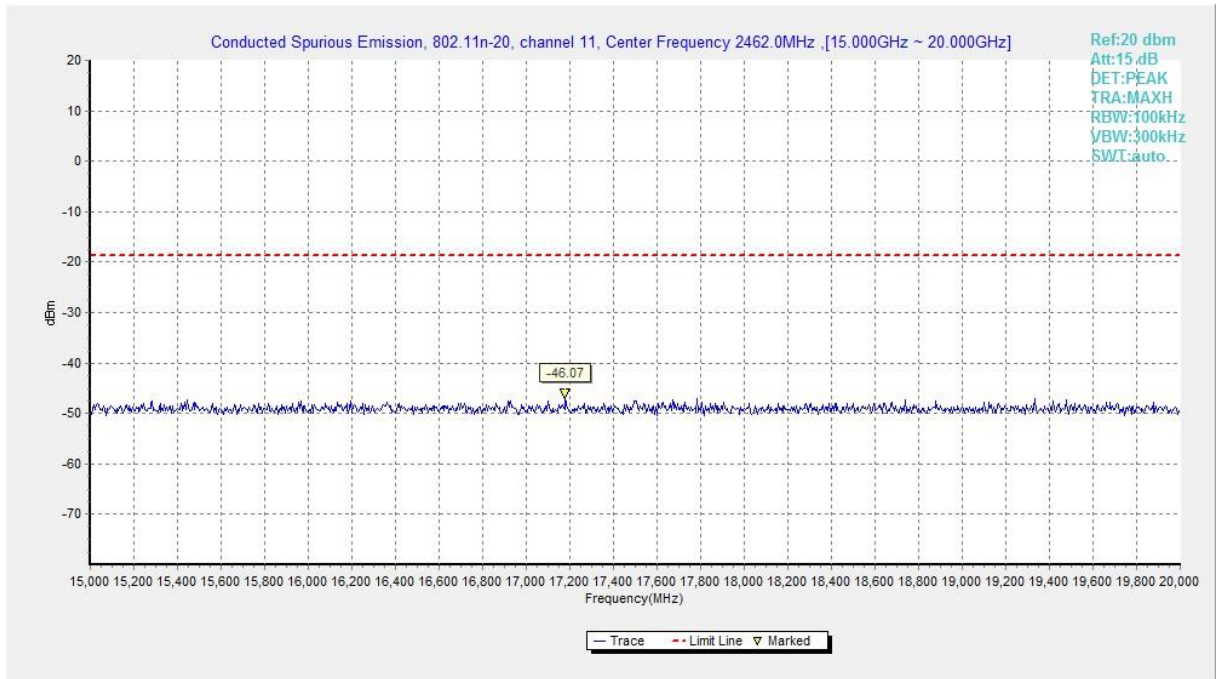


Fig.B.6.1.71 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 15 GHz-20 GHz)

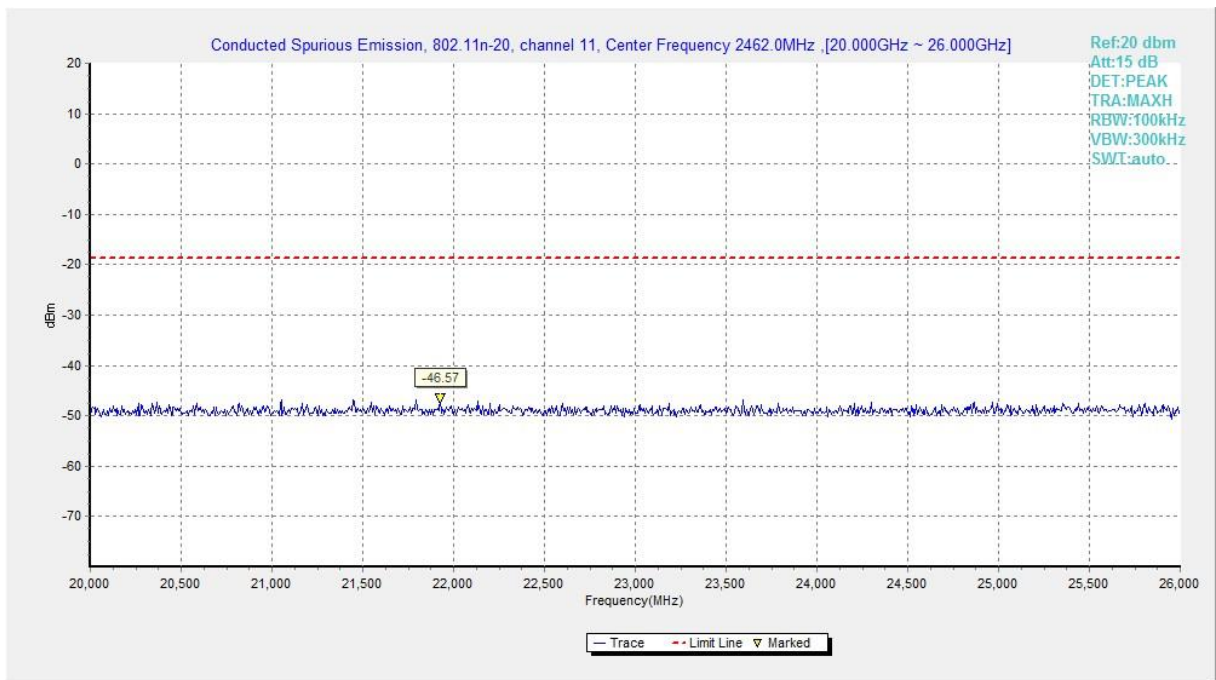


Fig.B.6.1.72 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 20 GHz-26 GHz)

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($\mu\text{V}/\text{m}$)	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($\mu\text{V}/\text{m}$)	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)
17955	46.9	-25.5	46.7	25.7	V	54	7.1
17967	46.9	-25.5	46.7	25.7	V	54	7.1
17961	46.6	-25.5	46.7	25.4	V	54	7.4
17963	46.6	-25.5	46.7	25.4	V	54	7.4
17974.5	46.6	-25.5	46.7	25.4	V	54	7.4
2387.5	42.5	-20	28.1	34.5	H	54	11.5

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17965	46.8	-25.5	46.7	25.6	V	54	7.2
17957	46.7	-25.5	46.7	25.5	V	54	7.3
17990	46.7	-25.5	46.7	25.5	V	54	7.3
17994.5	46.7	-25.5	46.7	25.5	V	54	7.3
17945.5	46.6	-25.5	46.7	25.4	V	54	7.4
17952	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)
17975.5	46.9	-25.5	46.7	25.7	V	54	7.1
17983.5	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
17964	46.7	-25.5	46.7	25.5	V	54	7.3
17978.5	46.7	-25.5	46.7	25.5	V	54	7.3
2485.1	42.5	-20	28.3	34.2	H	54	11.5

802.11g

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17965	47.1	-25.5	46.7	25.9	V	54	6.9
17994.5	46.9	-25.5	46.7	25.7	V	54	7.1
17962	46.7	-25.5	46.7	25.5	V	54	7.3
17946.5	46.6	-25.5	46.7	25.4	V	54	7.4
17952.5	46.6	-25.5	46.7	25.4	V	54	7.4
2390	48.1	-20	28.1	40.1	H	54	5.9

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17938	46.6	-25.5	46.7	25.4	V	54	7.4
17951	46.6	-25.5	46.7	25.4	V	54	7.4
17968	46.6	-25.5	46.7	25.4	V	54	7.4
17975.5	46.6	-25.5	46.7	25.4	V	54	7.4
17987	46.6	-25.5	46.7	25.4	V	54	7.4
17942.5	46.5	-25.5	46.7	25.3	V	54	7.5

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17988	46.8	-25.5	46.7	25.6	V	54	7.2
17992	46.7	-25.5	46.7	25.5	V	54	7.3
17934	46.6	-25.5	46.7	25.4	V	54	7.4
17974	46.6	-25.5	46.7	25.4	V	54	7.4
17983.5	46.6	-25.5	46.7	25.4	V	54	7.4
2485.3	46.5	-20	28.3	38.2	H	54	7.5

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Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Margin (dBuV/m)
17986	47.1	-25.5	46.7	25.9	V	54	6.9
17982.5	46.8	-25.5	46.7	25.6	V	54	7.2
17976.5	46.7	-25.5	46.7	25.5	V	54	7.3
17983.5	46.7	-25.5	46.7	25.5	V	54	7.3
17964	46.6	-25.5	46.7	25.4	V	54	7.4
2389.8	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)	Margin (dBuV/m)
17962	47.1	-25.5	46.7	25.9	V	54	6.9
17955	46.7	-25.5	46.7	25.5	V	54	7.3
17885.5	46.6	-25.5	46.7	25.4	V	54	7.4
17991	46.6	-25.5	46.7	25.4	V	54	7.4
17940	46.5	-25.5	46.7	25.3	V	54	7.5
17954.5	46.5	-25.5	46.7	25.3	V	54	7.5

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Margin (dBuV/m)
17954	46.8	-25.5	46.7	25.6	V	54	7.2
17954.5	46.8	-25.5	46.7	25.6	V	54	7.2
17956.5	46.8	-25.5	46.7	25.6	V	54	7.2
17969	46.7	-25.5	46.7	25.5	V	54	7.3
17976.5	46.7	-25.5	46.7	25.5	V	54	7.3
2485.1	42.9	-20	28.3	34.6	H	54	11.1

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)
17962.5	58	-25.5	46.7	36.8	V	74	16
17855.5	57.4	-25.5	46.7	36.2	V	74	16.6
17945.5	57.4	-25.5	46.7	36.2	V	74	16.6
17981.5	57.4	-25.5	46.7	36.2	V	74	16.6
17889	57.3	-25.5	46.7	36.1	V	74	16.7
2388.8	55.8	-20	28.1	47.8	H	74	18.2

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	P _{Mea} (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17987	57.9	-25.5	46.7	36.7	V	74	16.1
17989	57.7	-25.5	46.7	36.5	V	74	16.3
17964	57.6	-25.5	46.7	36.4	V	74	16.4
17974.5	57.5	-25.5	46.7	36.3	V	74	16.5
17953	57.3	-25.5	46.7	36.1	V	74	16.7
17968.5	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)	Magin (dBuV/m)
17882.5	58.3	-25.5	46.7	37.1	V	74	15.7
17944.5	57.7	-25.5	46.7	36.5	V	74	16.3
17983.5	57.3	-25.5	46.7	36.1	V	74	16.7
17994	57	-25.5	46.7	35.8	V	74	17
17996	57	-25.5	46.7	35.8	V	74	17
2488.1	55.1	-20	28.3	46.8	V	74	18.9