

Fig.A.6.1.17 Transmitter Spurious Emission - Conducted (802.11b, Ch11, Center Frequency)

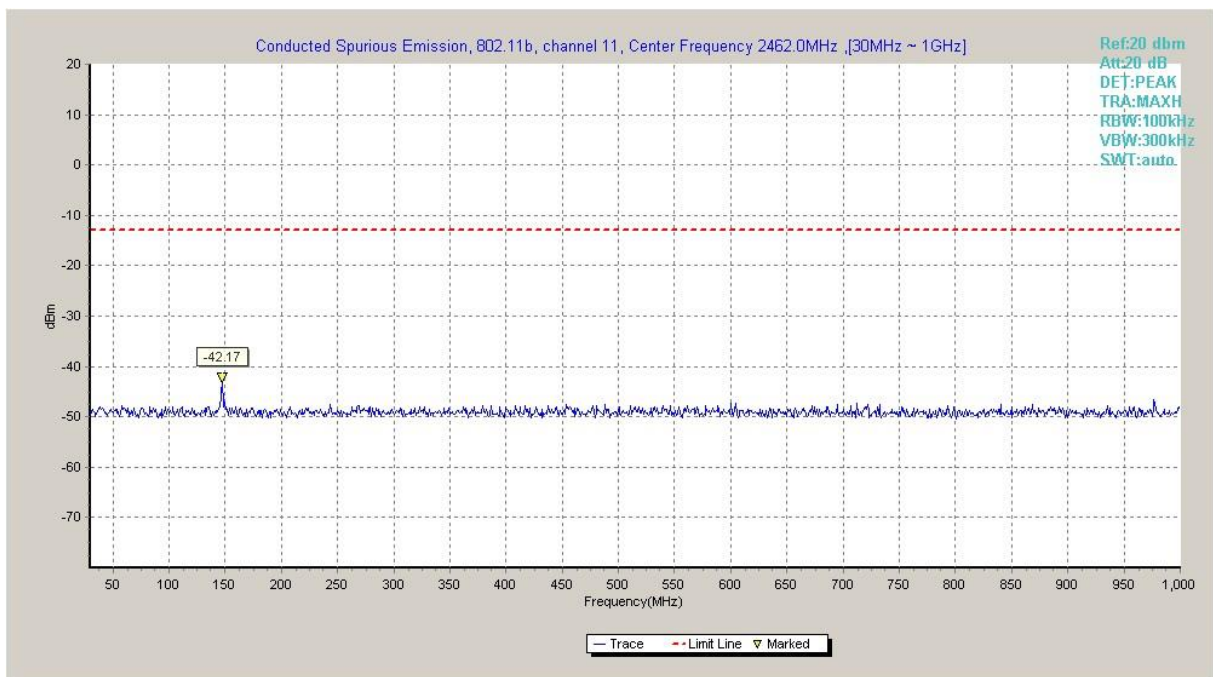


Fig.A.6.1.18 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 30 MHz-1 GHz)

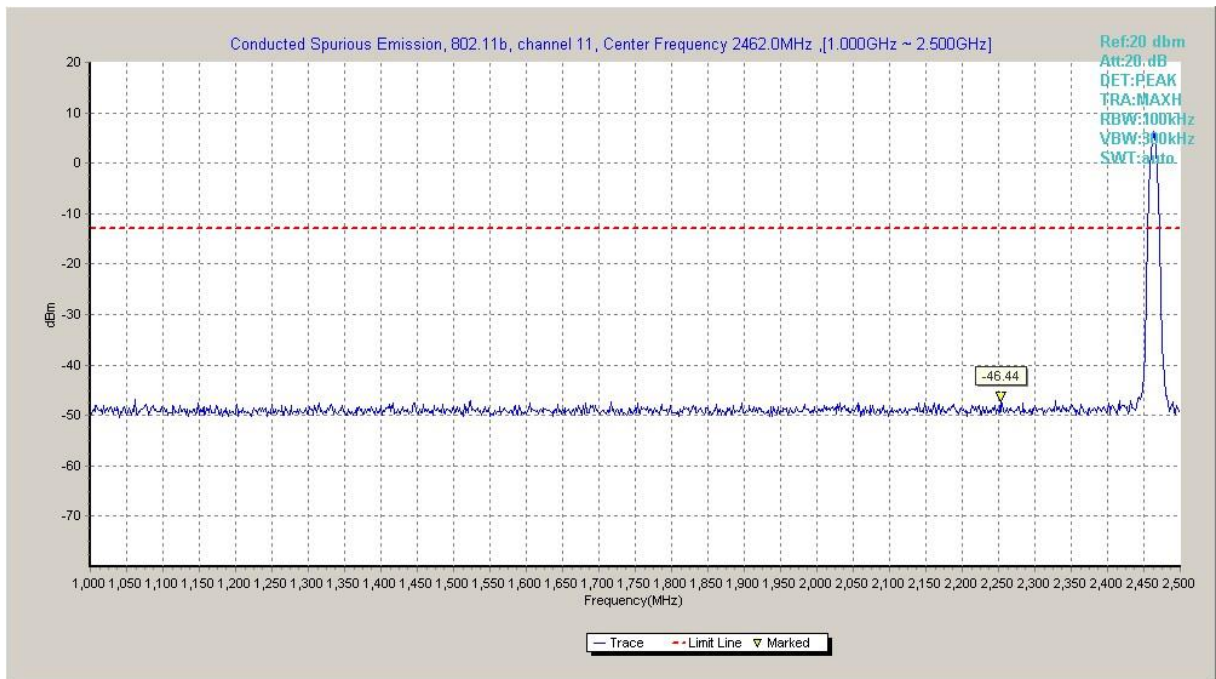


Fig.A.6.1.19 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 1 GHz-2.5 GHz)

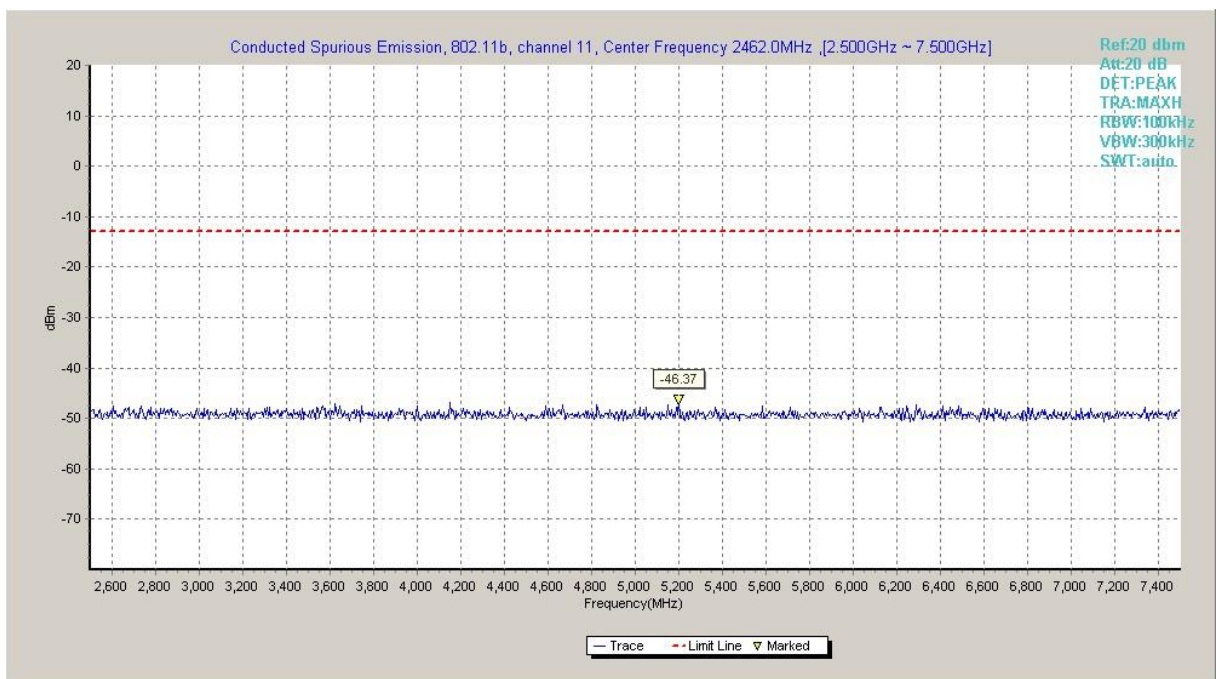


Fig.A.6.1.20 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 2.5 GHz-7.5 GHz)

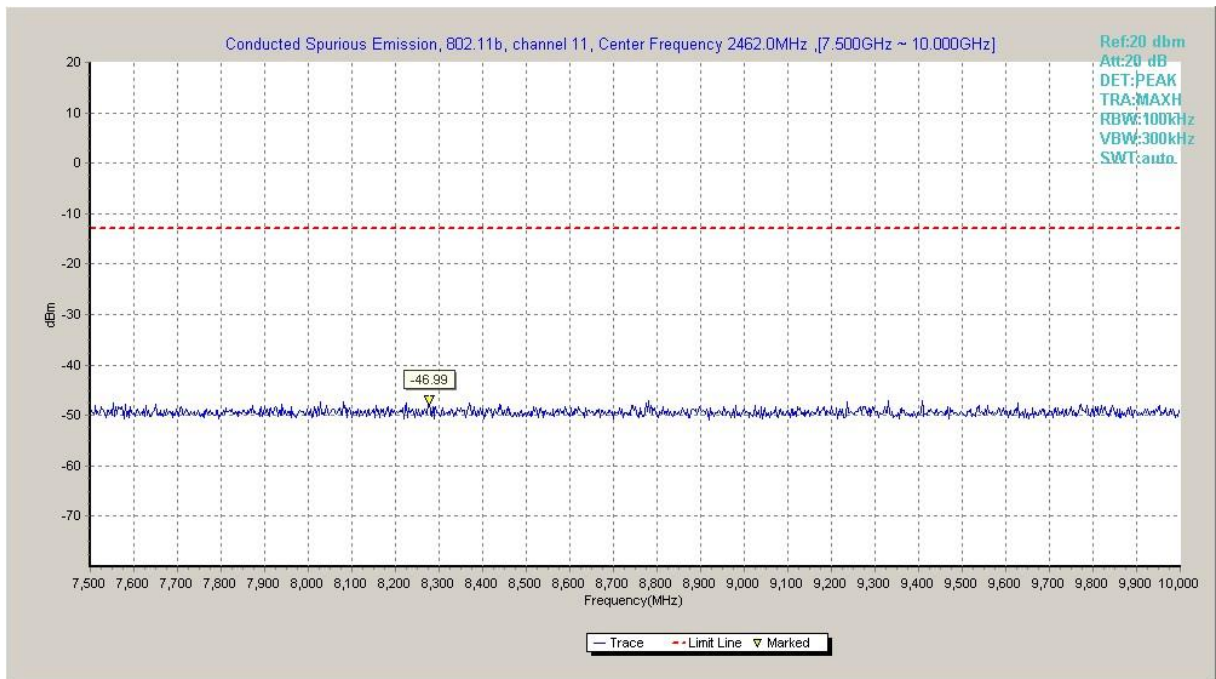


Fig.A.6.1.21 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 7.5 GHz-10 GHz)

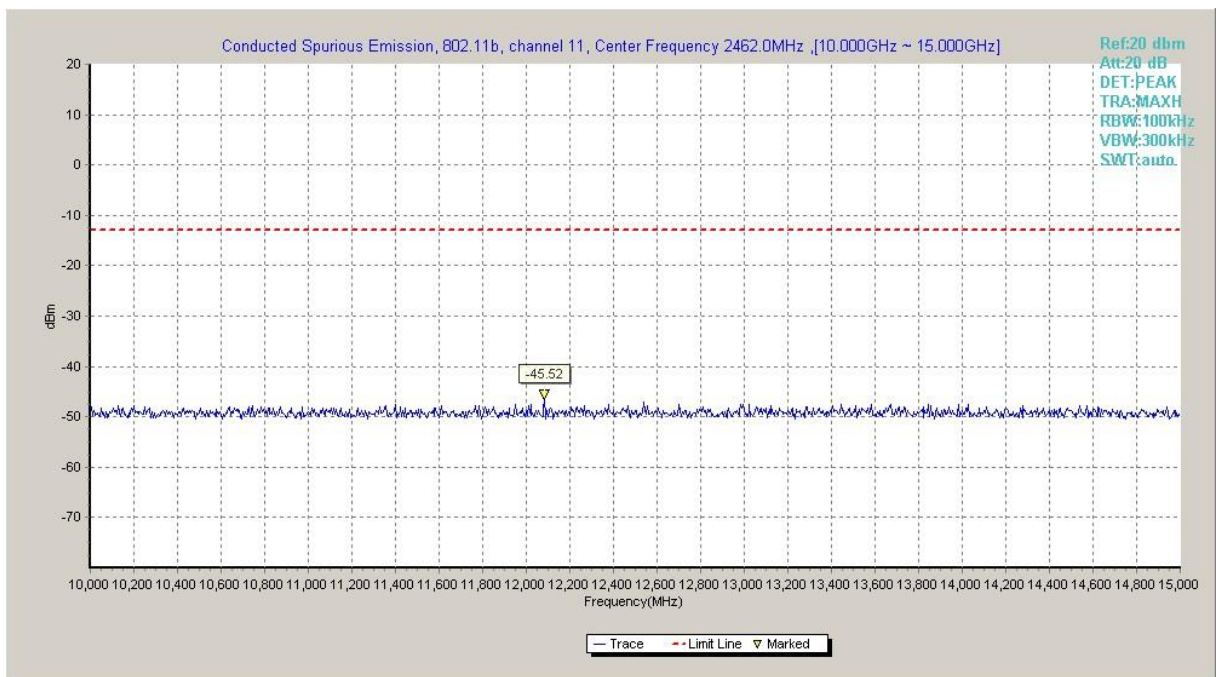


Fig.A.6.1.22 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 10 GHz-15 GHz)

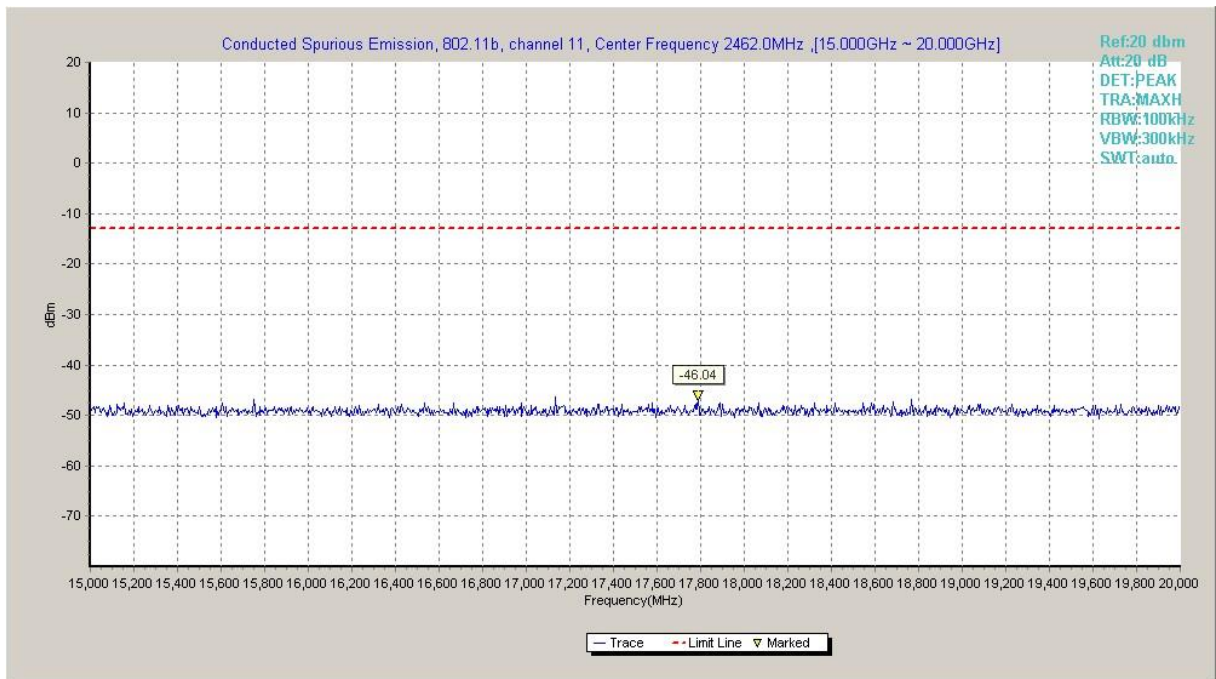


Fig.A.6.1.23 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 15 GHz-20 GHz)

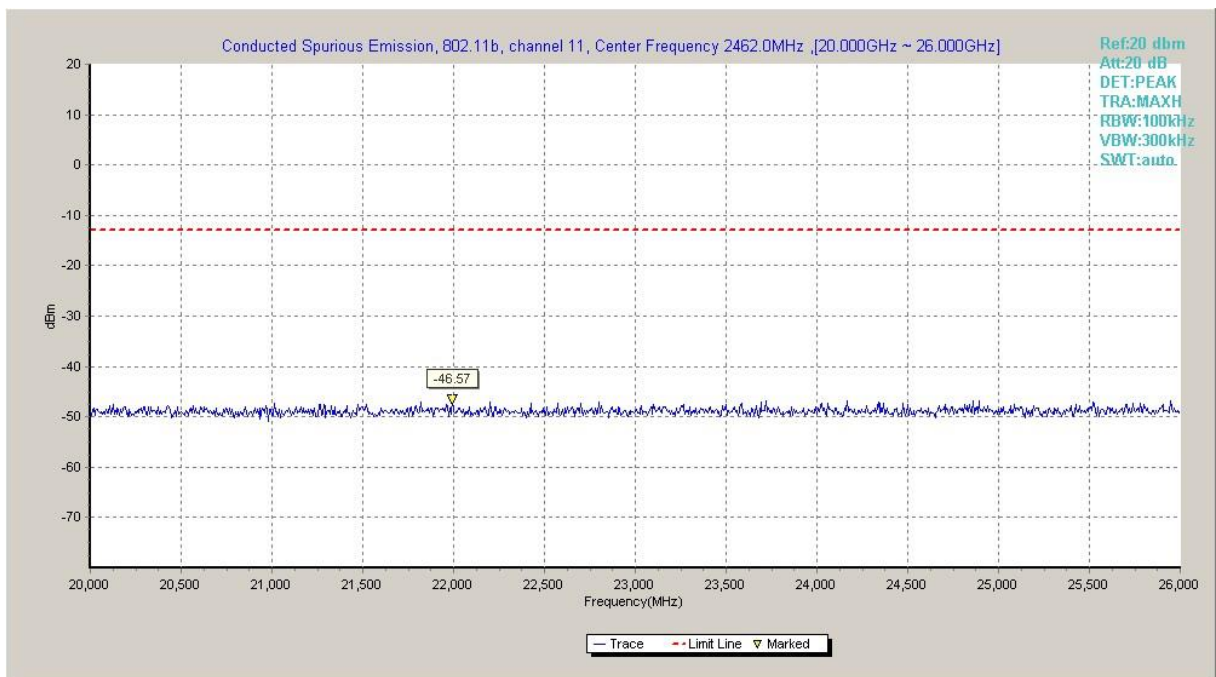


Fig.A.6.1.24 Transmitter Spurious Emission - Conducted (802.11b, Ch11, 20 GHz-26 GHz)

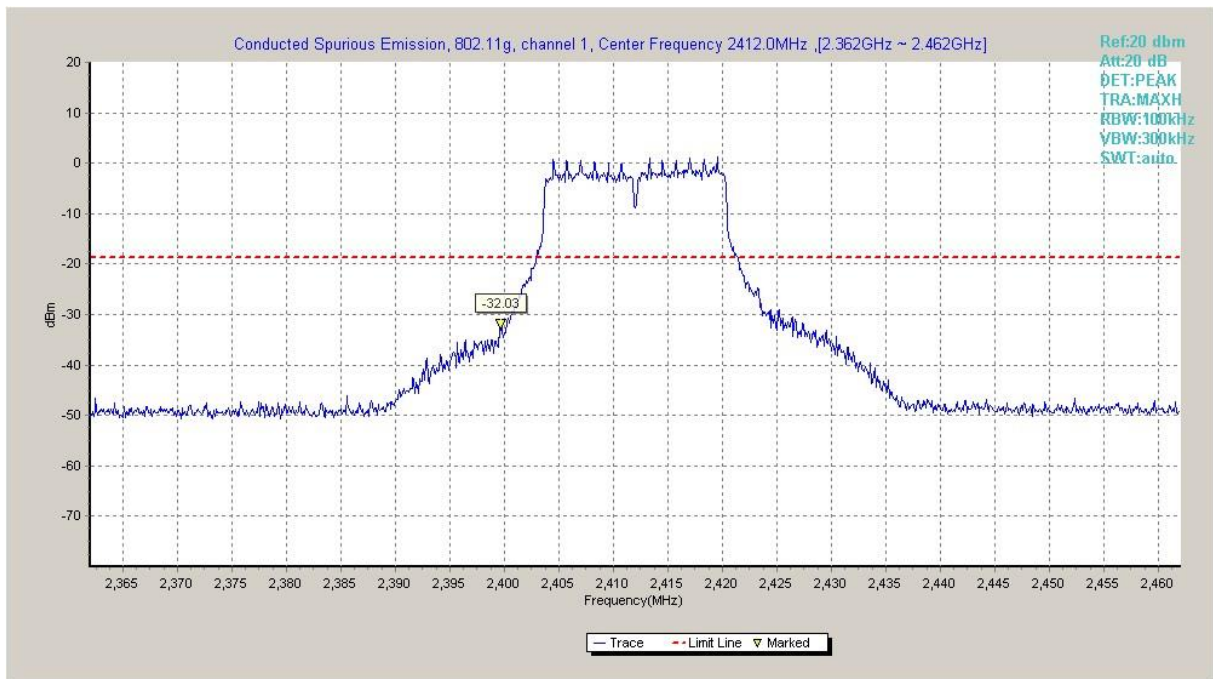


Fig.A.6.1.25 Transmitter Spurious Emission - Conducted (802.11g, Ch1, Center Frequency)

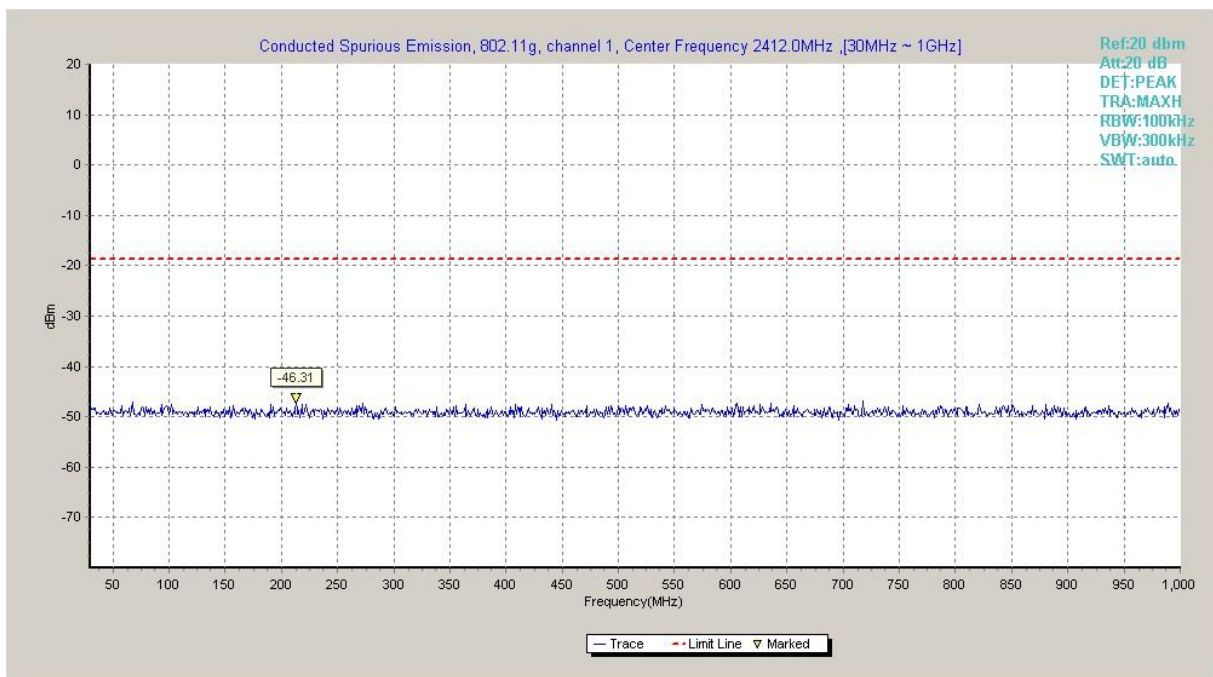


Fig.A.6.1.26 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 30 MHz-1 GHz)

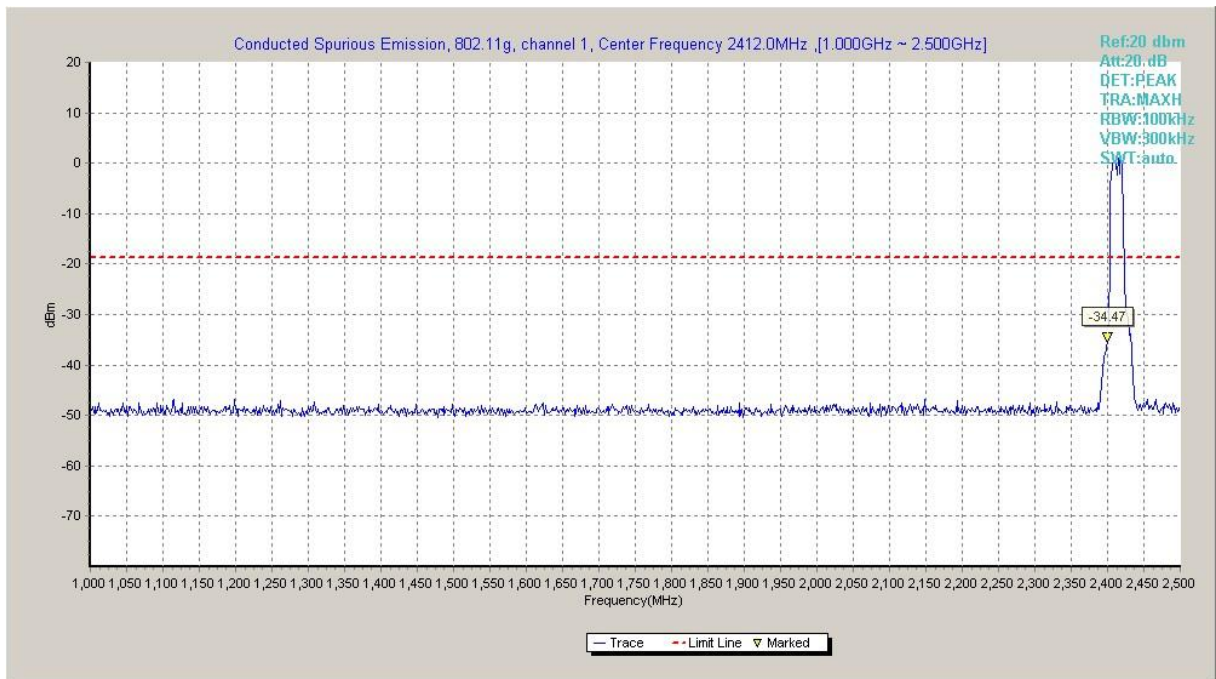


Fig.A.6.1.27 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 1 GHz-2.5 GHz)

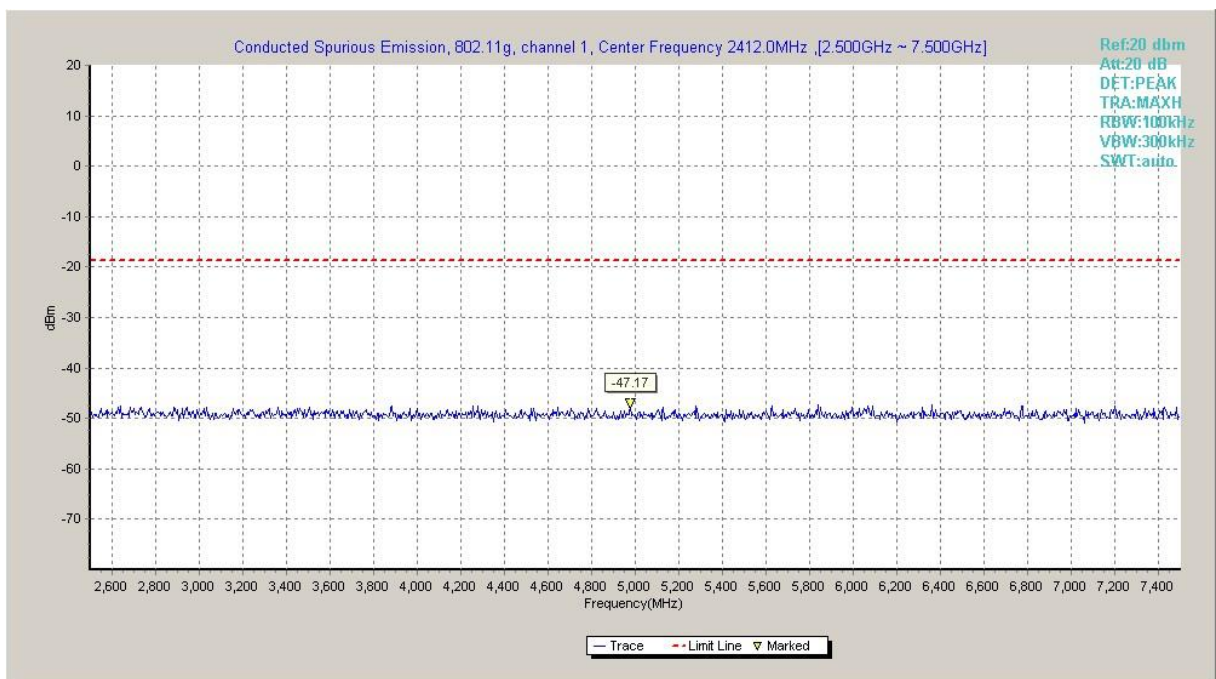


Fig.A.6.1.28 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 2.5 GHz-7.5 GHz)

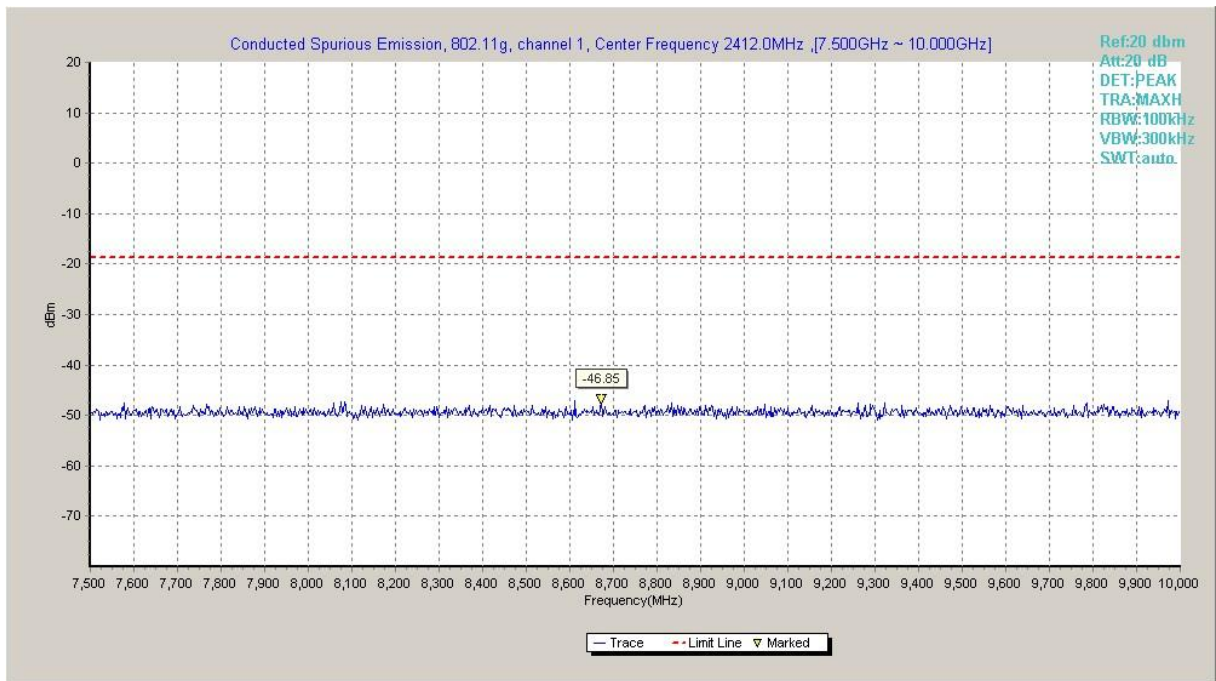


Fig.A.6.1.29 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 7.5 GHz-10 GHz)

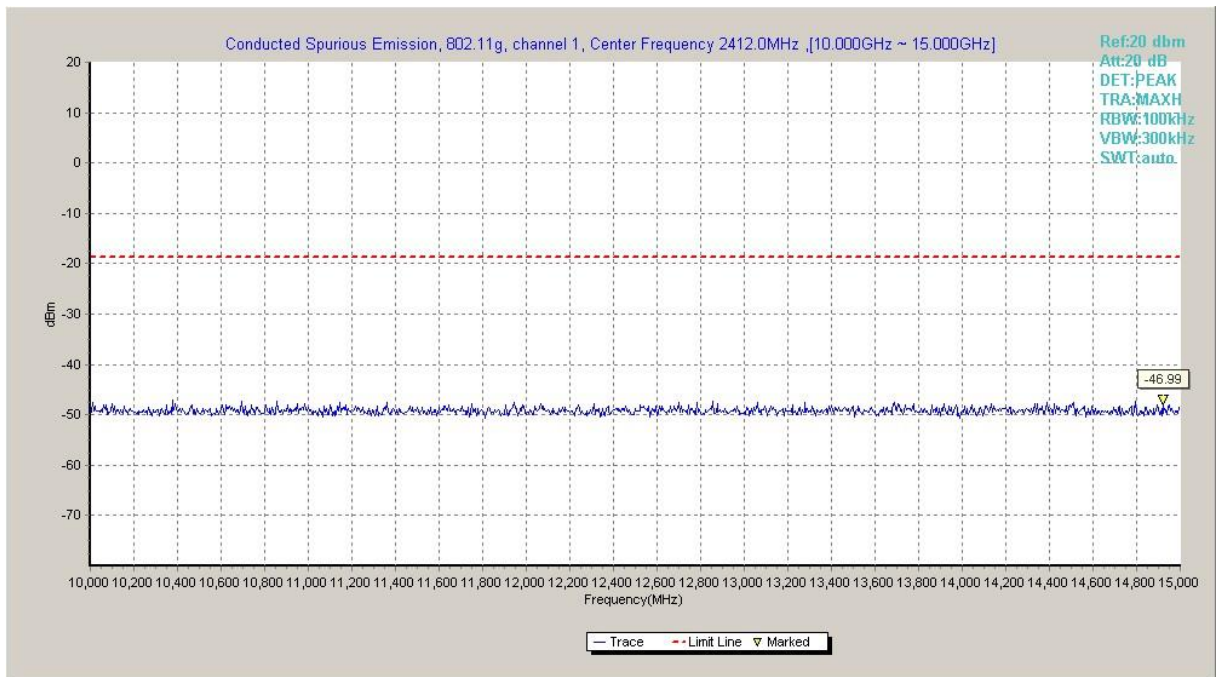


Fig.A.6.1.30 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 10 GHz-15 GHz)

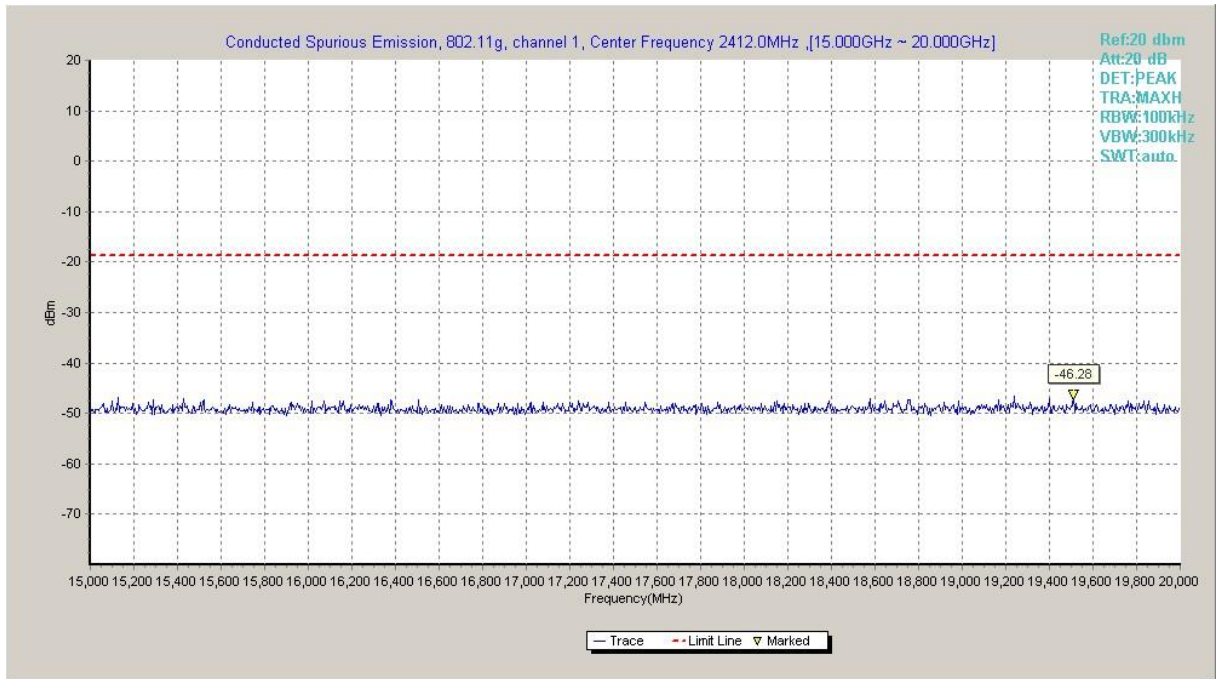


Fig.A.6.1.31 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 15 GHz-20 GHz)

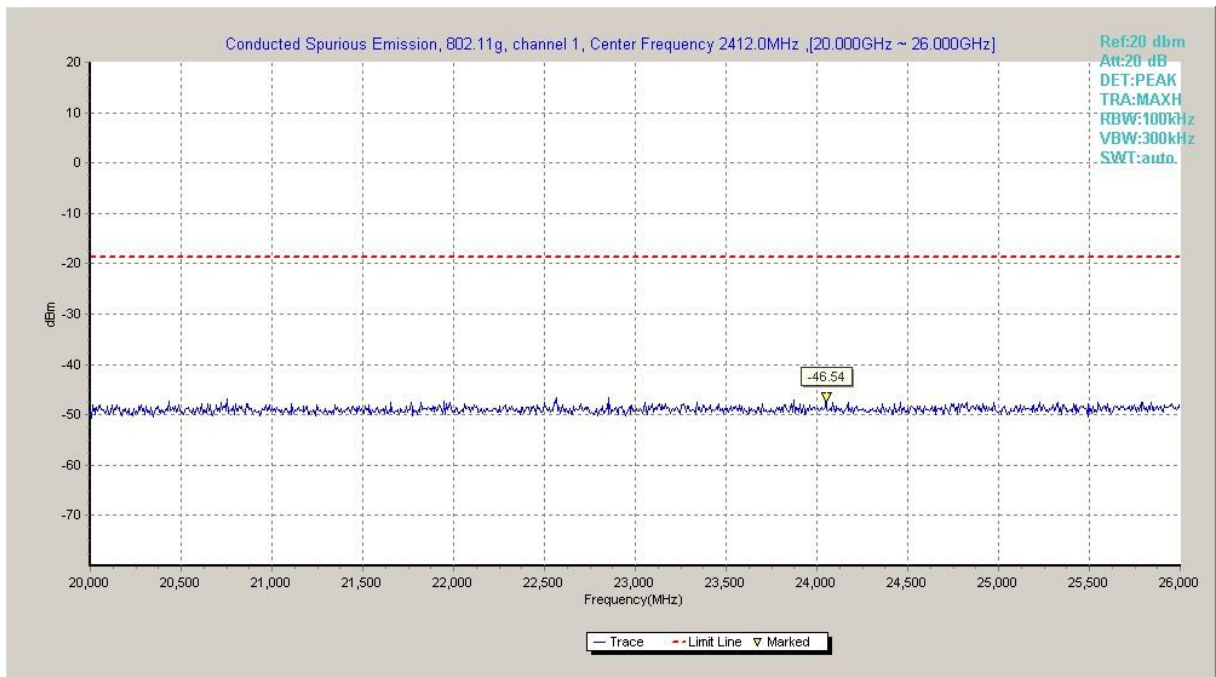


Fig.A.6.1.32 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 20 GHz-26 GHz)

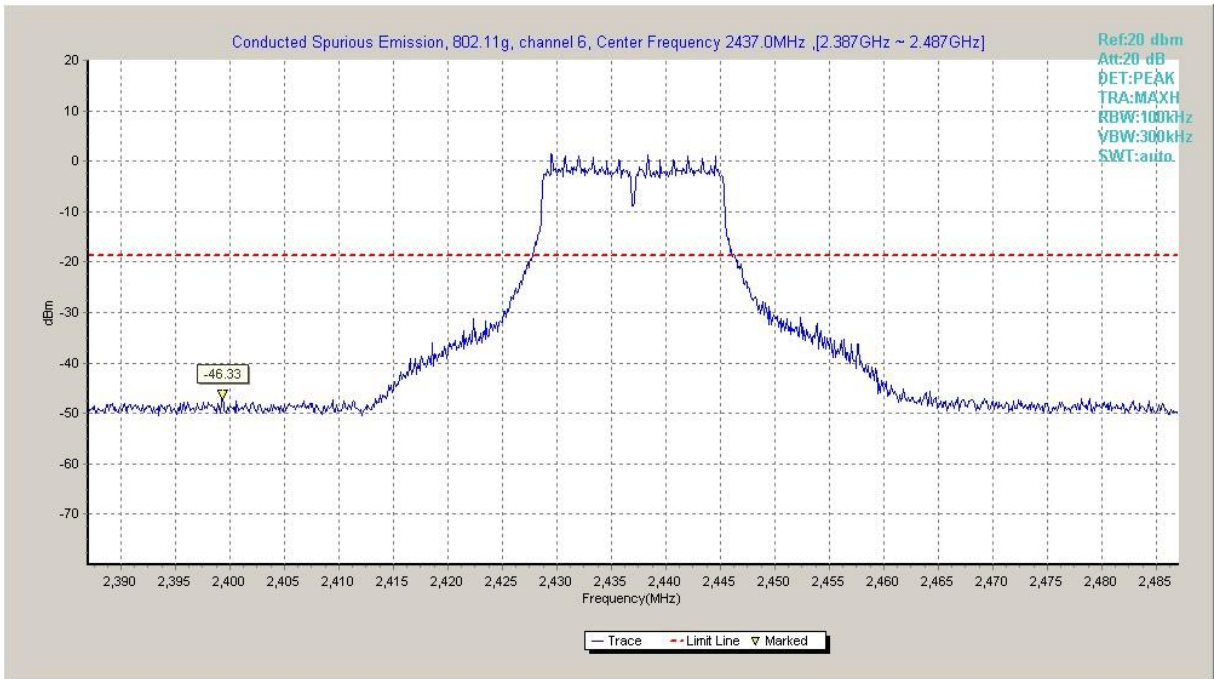


Fig.A.6.1.33 Transmitter Spurious Emission - Conducted (802.11g, Ch6, Center Frequency)

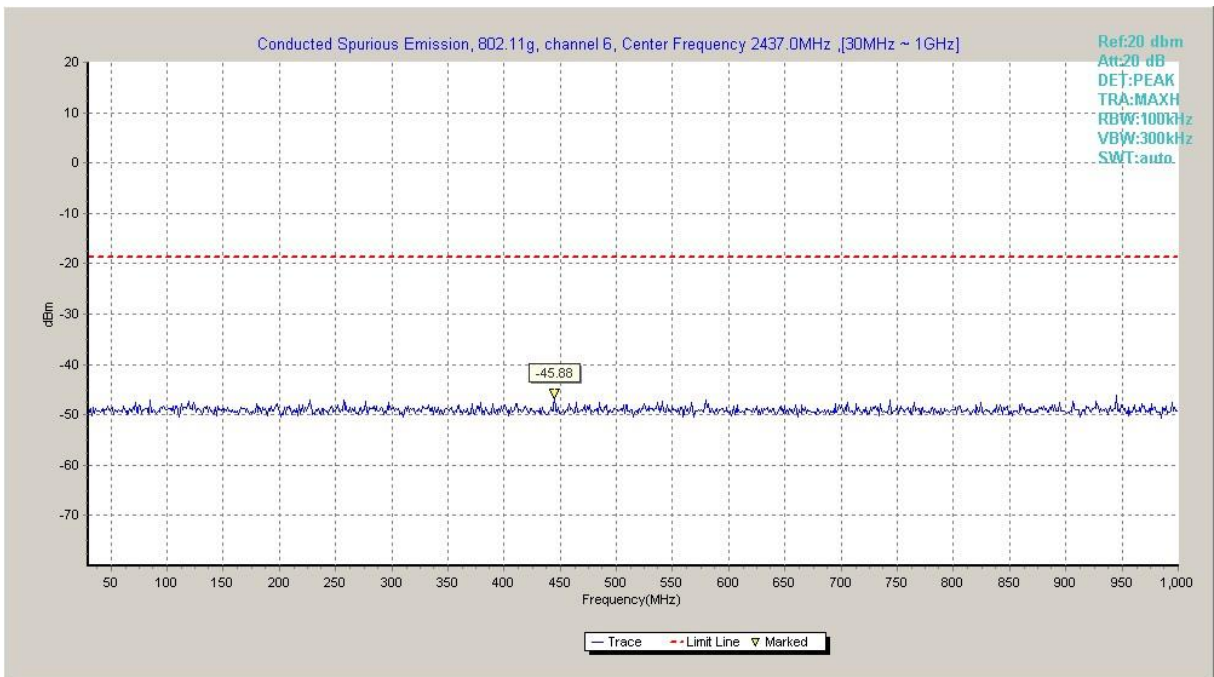


Fig.A.6.1.34 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 30 MHz-1 GHz)

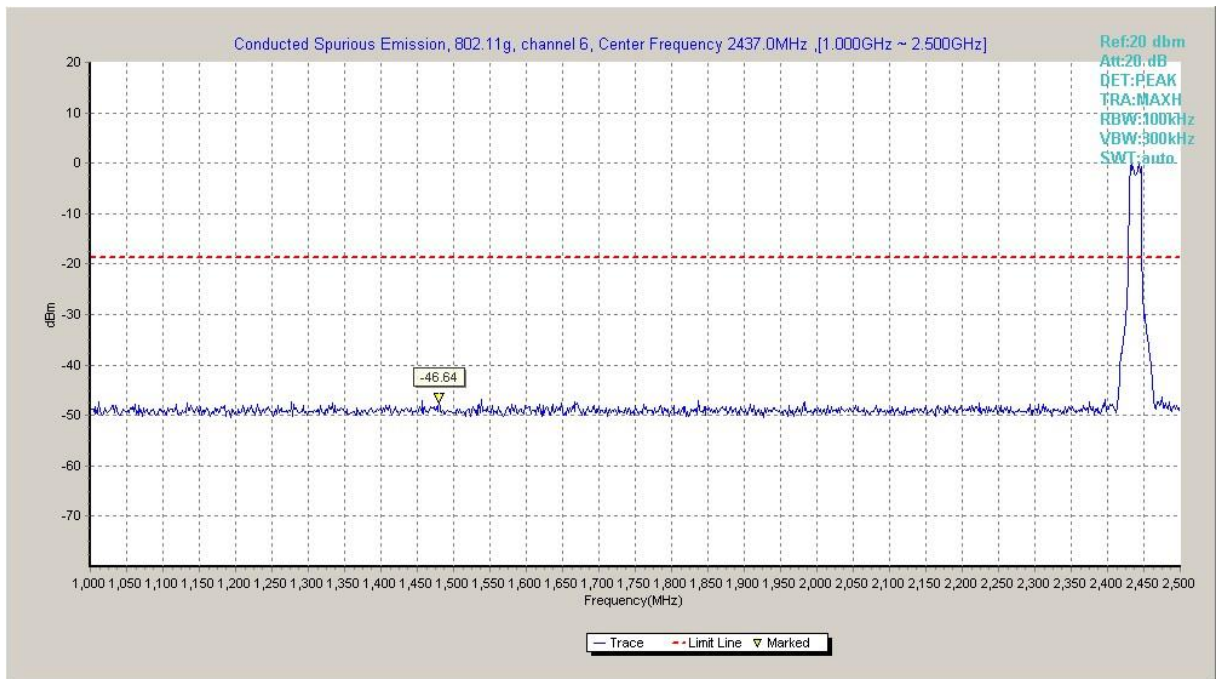


Fig.A.6.1.35 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 1 GHz-2.5 GHz)

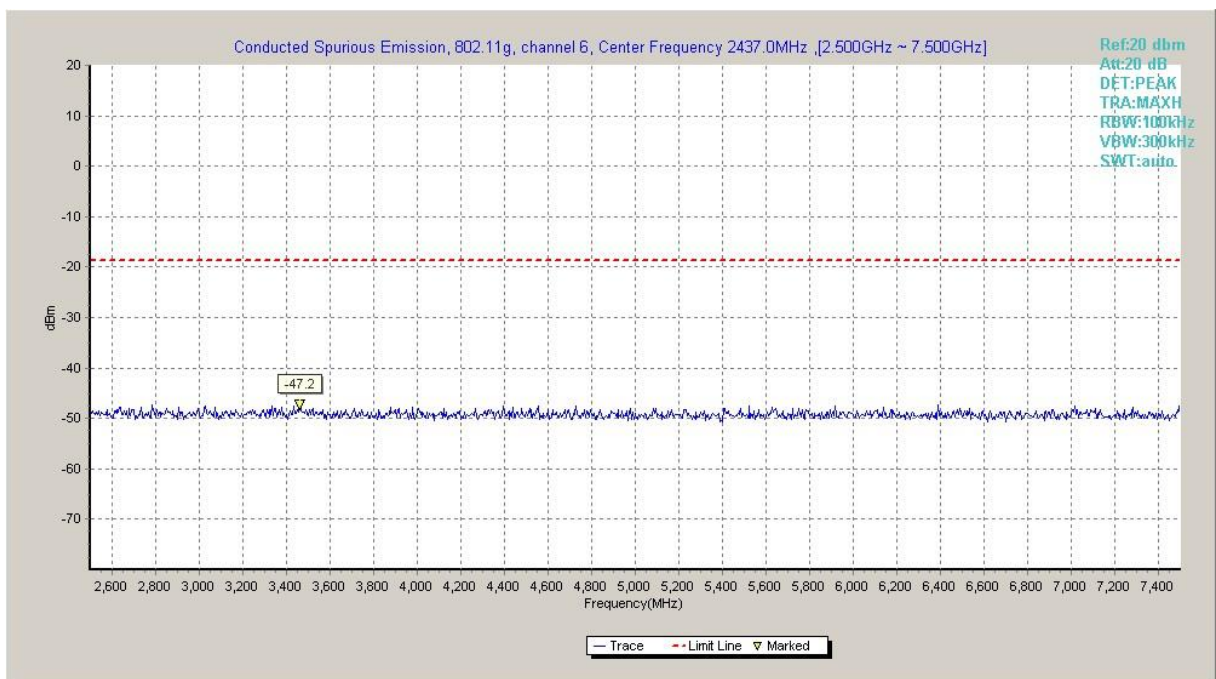


Fig.A.6.1.36 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 2.5 GHz-7.5 GHz)

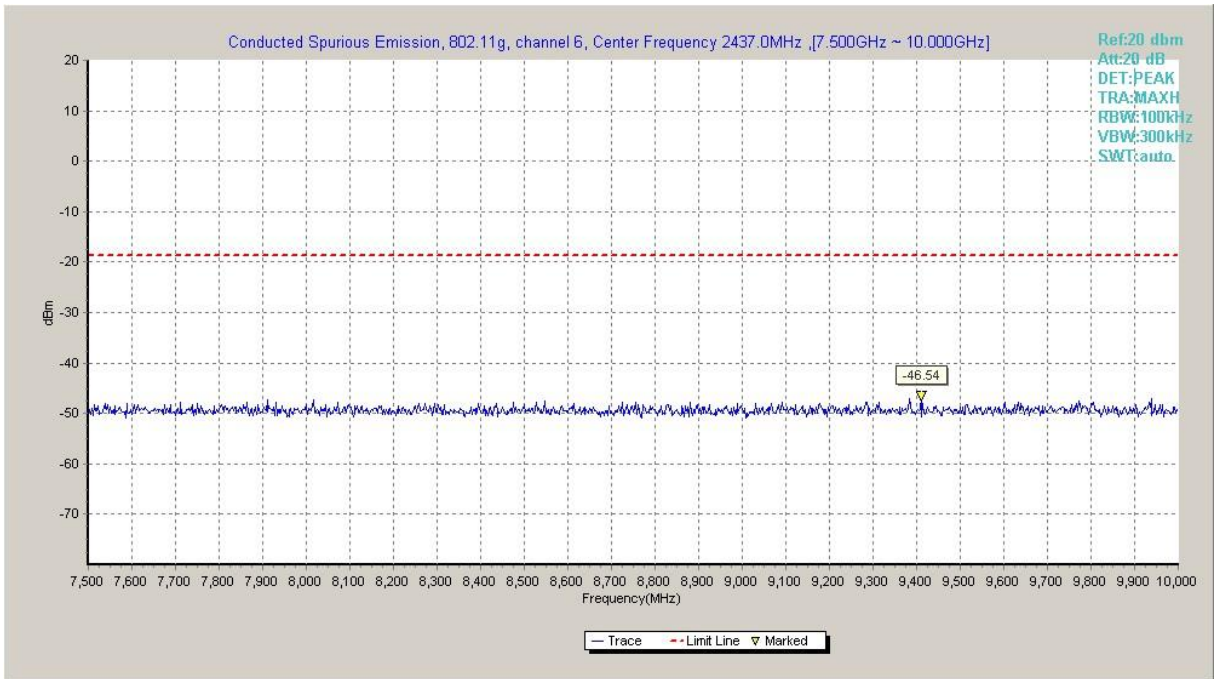


Fig.A.6.1.37 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 7.5 GHz-10 GHz)

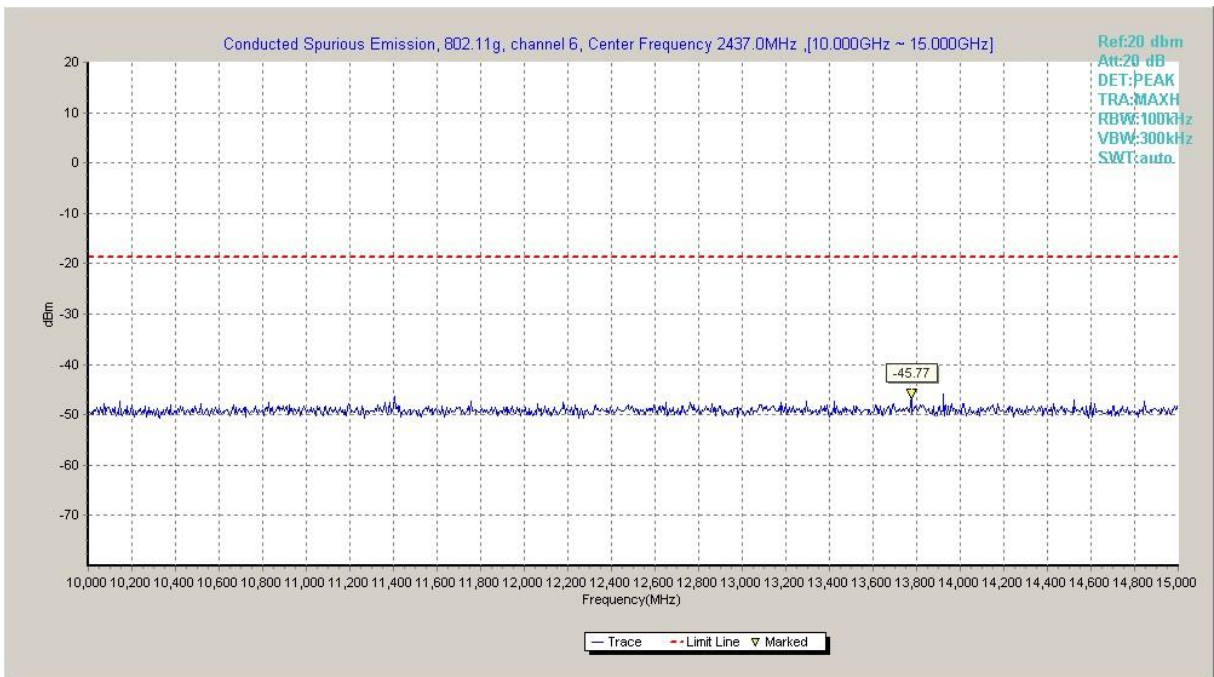


Fig.A.6.1.38 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 10 GHz-15 GHz)

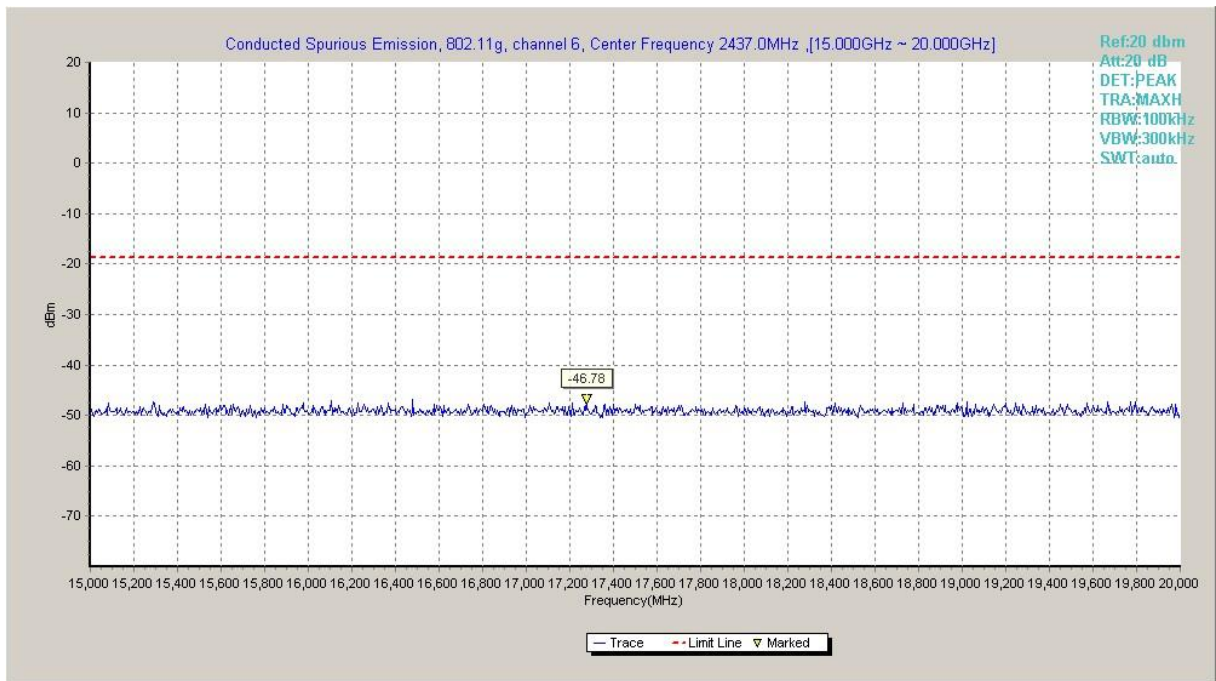


Fig.A.6.1.39 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 15 GHz-20 GHz)

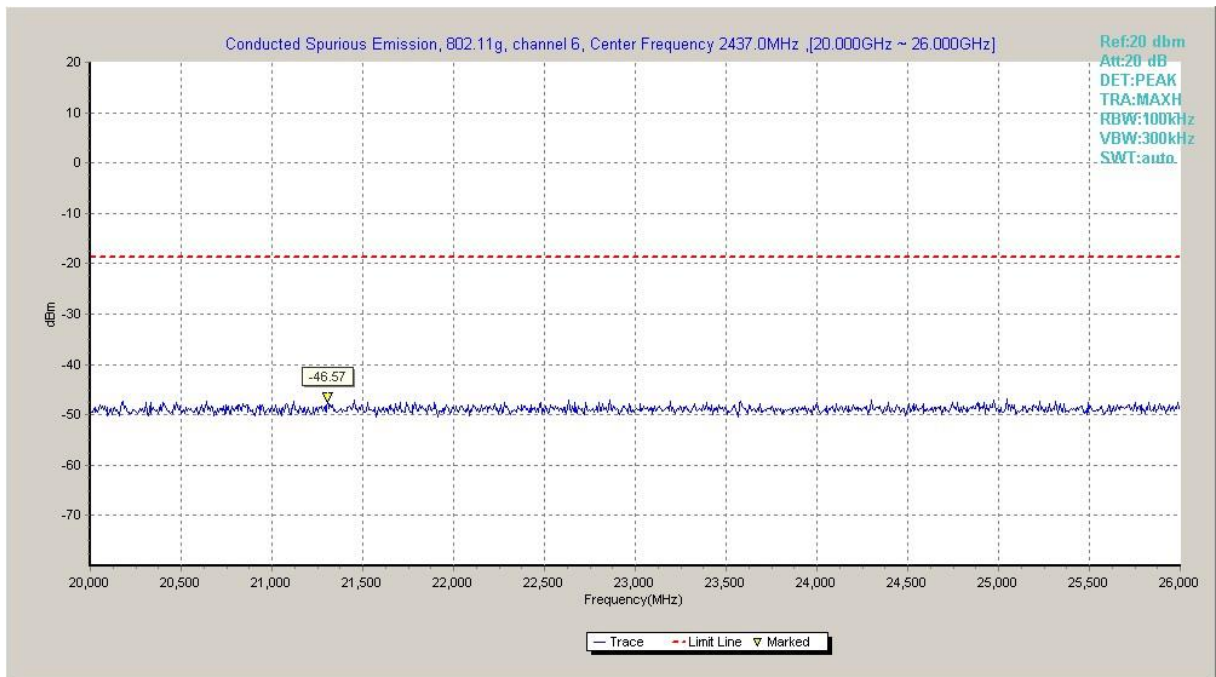


Fig.A.6.1.40 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 20 GHz-26 GHz)

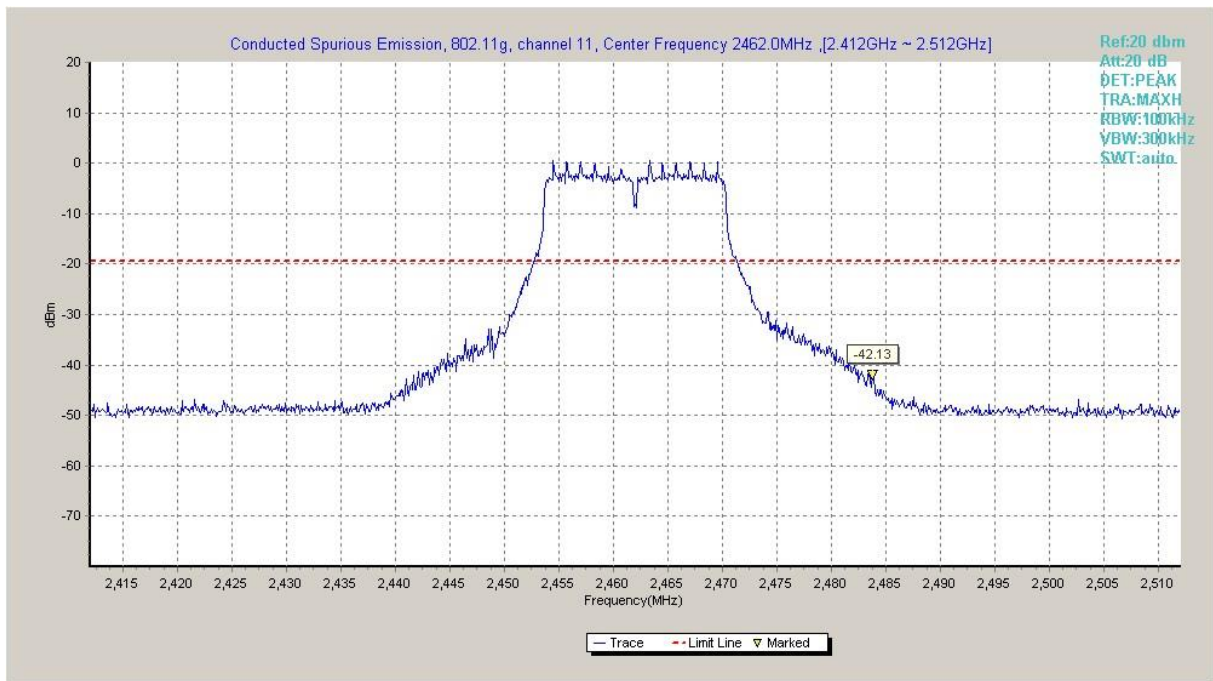


Fig.A.6.1.41 Transmitter Spurious Emission - Conducted (802.11g, Ch11, Center Frequency)

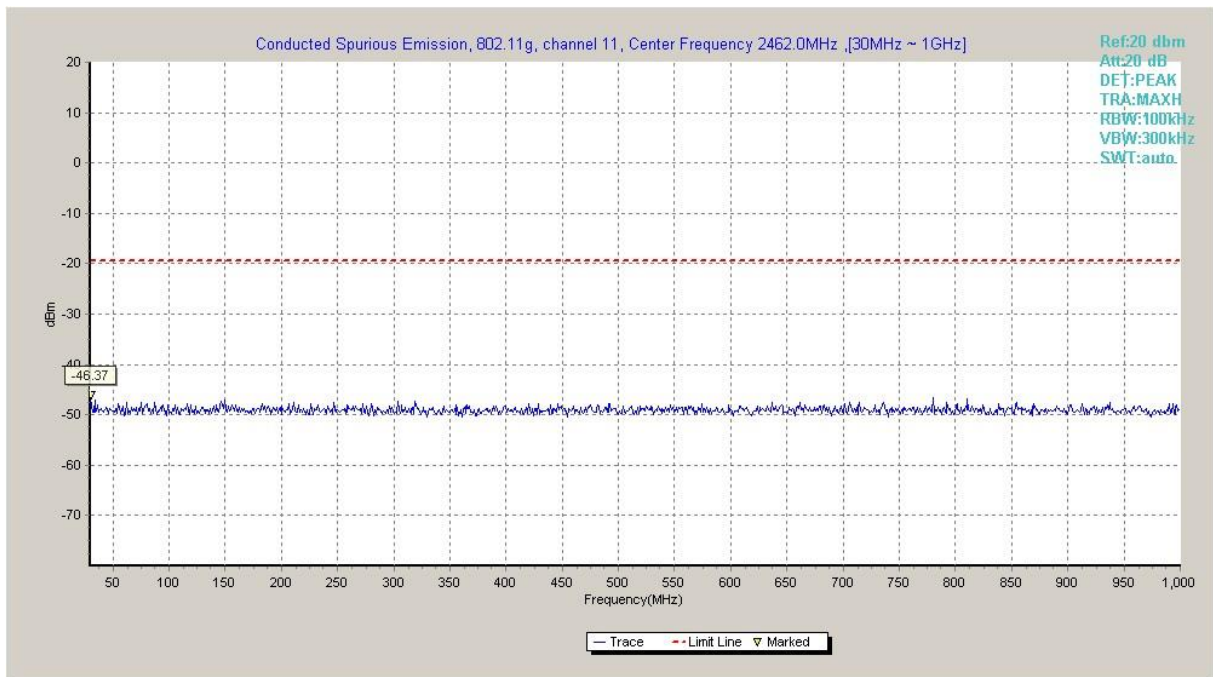


Fig.A.6.1.42 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 30 MHz-1 GHz)

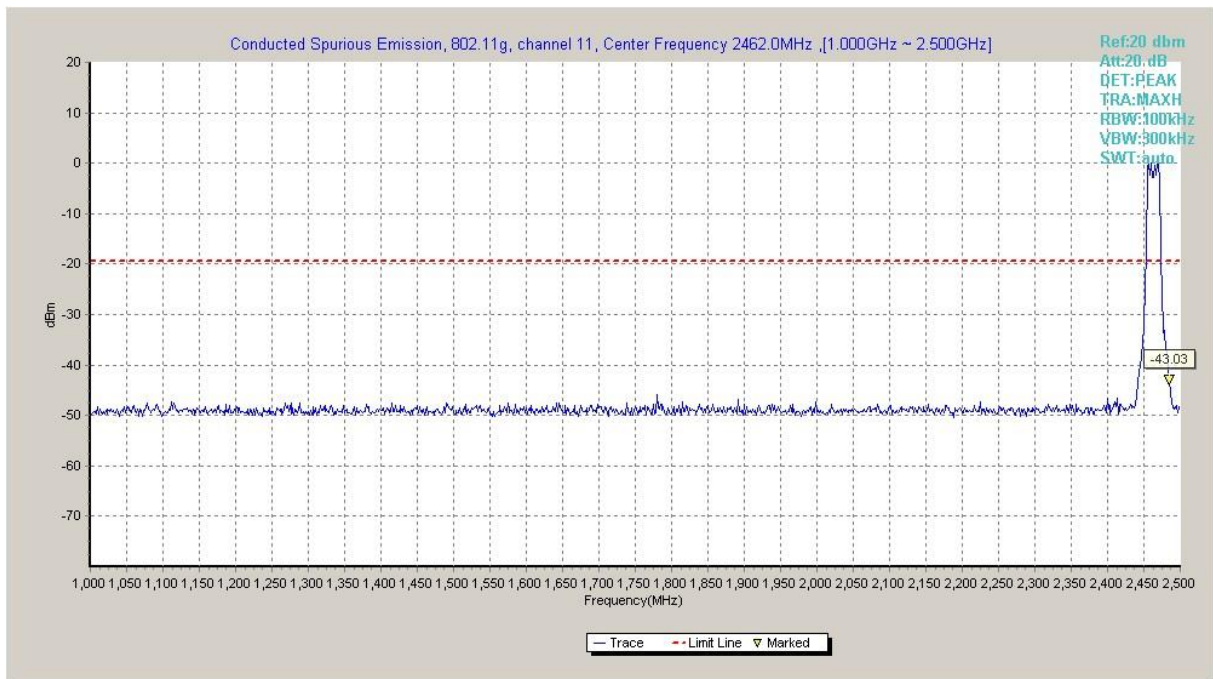


Fig.A.6.1.43 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 1 GHz-2.5 GHz)

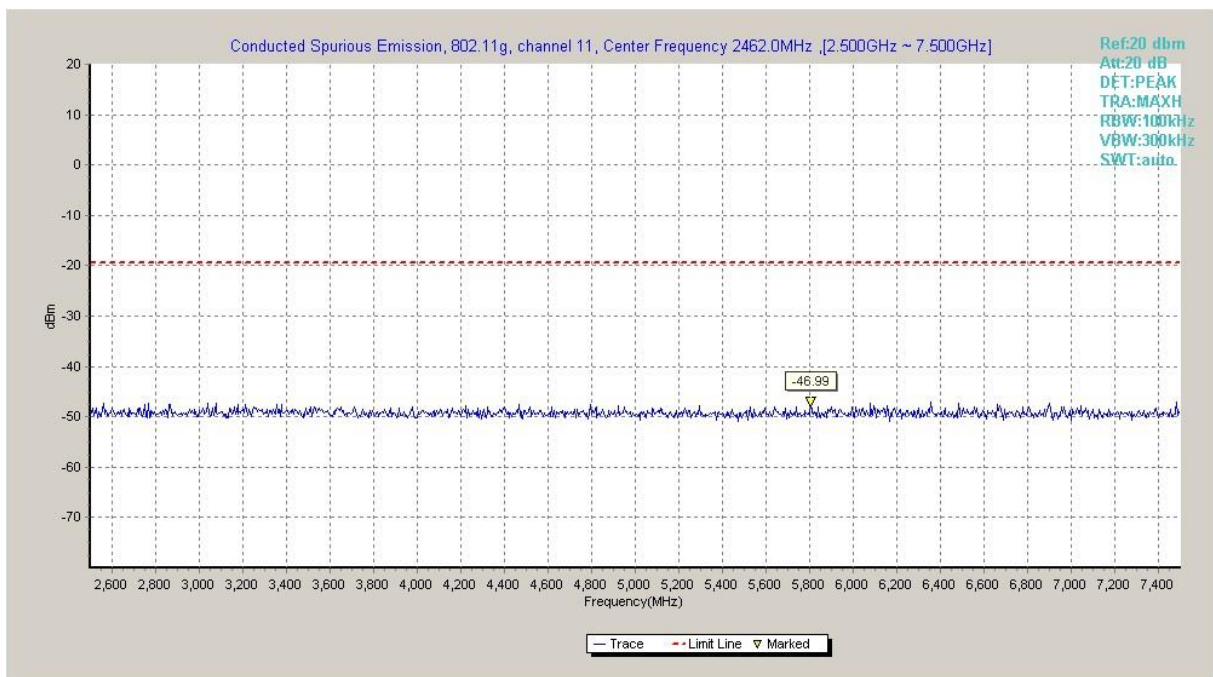


Fig.A.6.1.44 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 2.5 GHz-7.5 GHz)

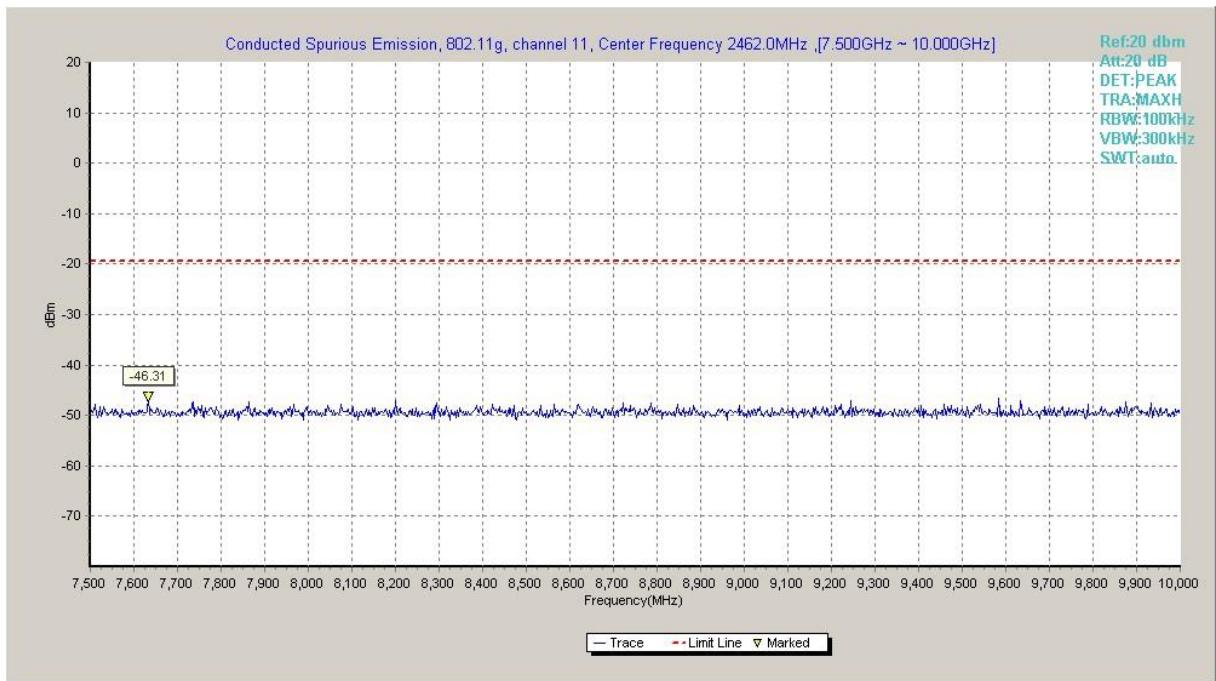


Fig.A.6.1.45 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 7.5 GHz-10 GHz)

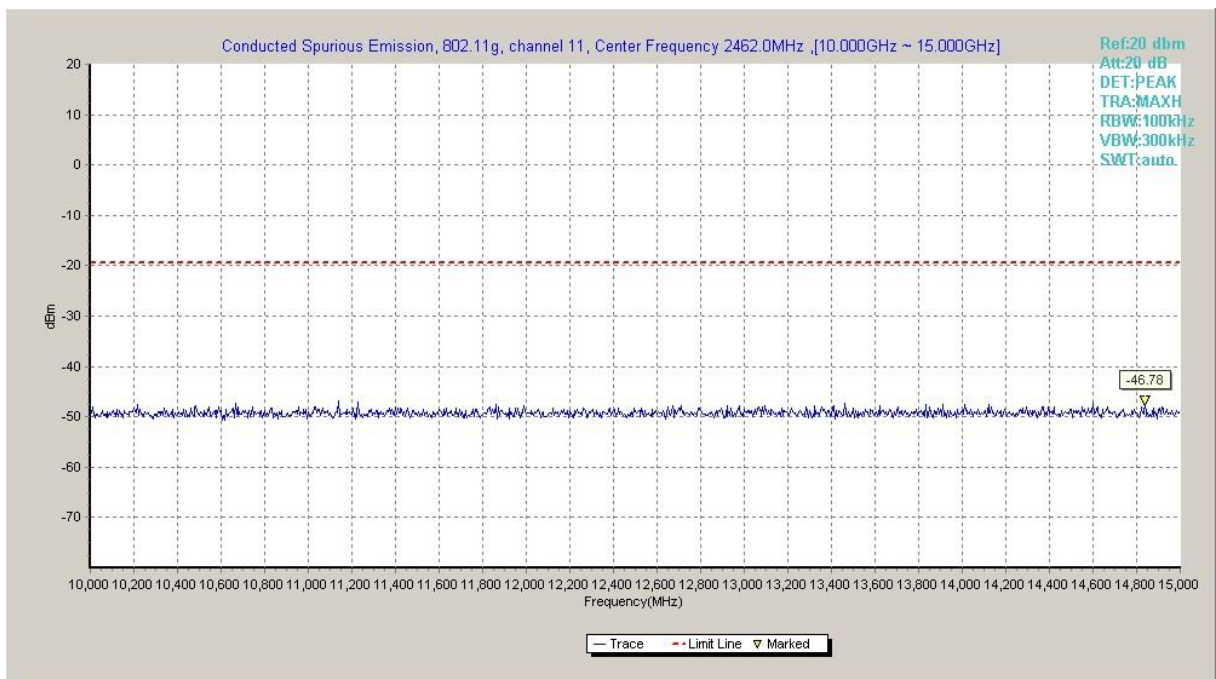


Fig.A.6.1.46 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 10 GHz-15 GHz)

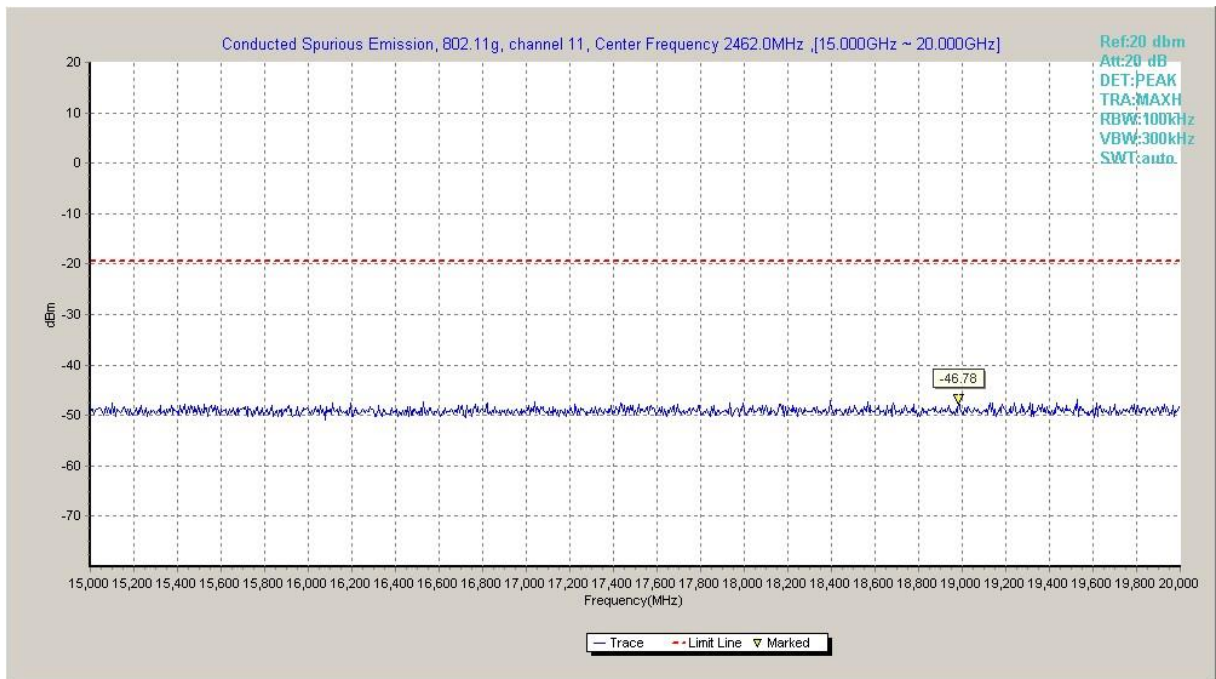


Fig.A.6.1.47 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 15 GHz-20 GHz)

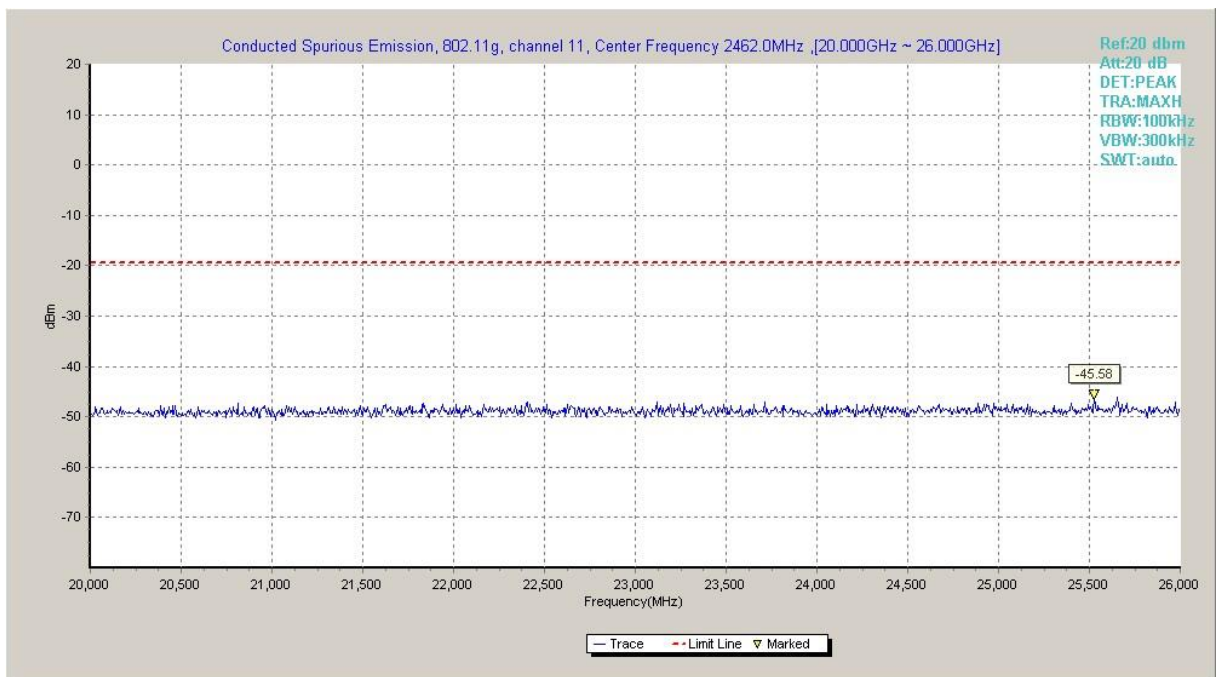


Fig.A.6.1.48 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 20 GHz-26 GHz)

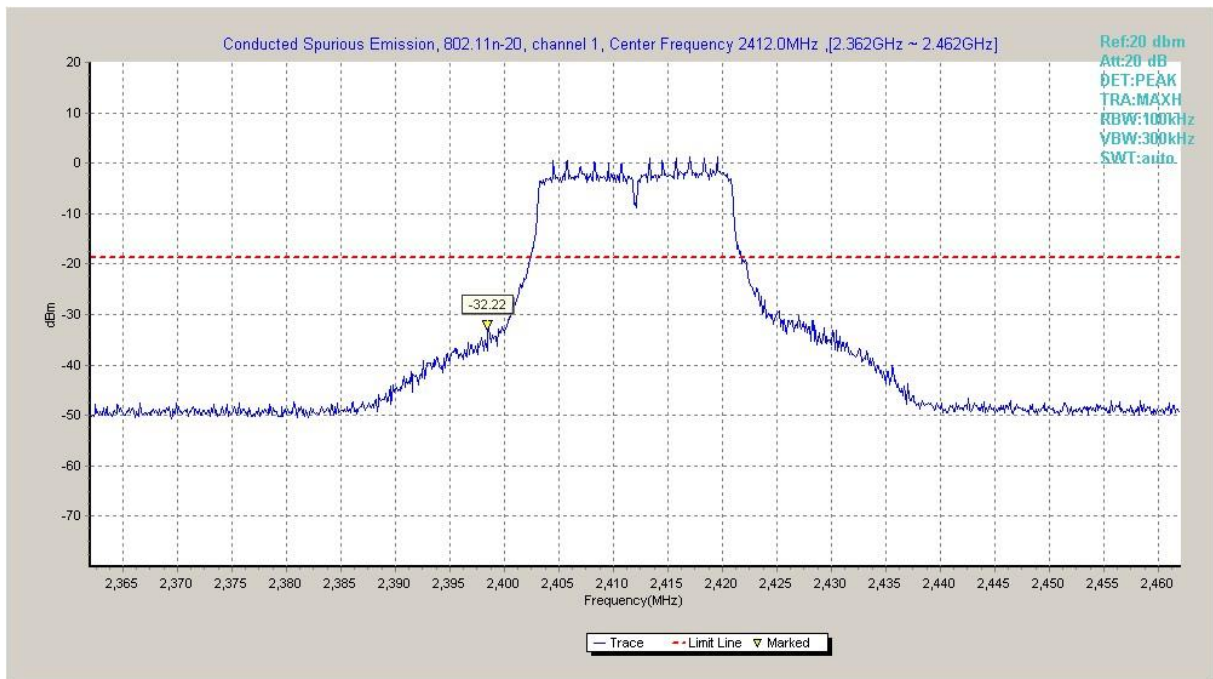


Fig.A.6.1.49 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, Center Frequency)

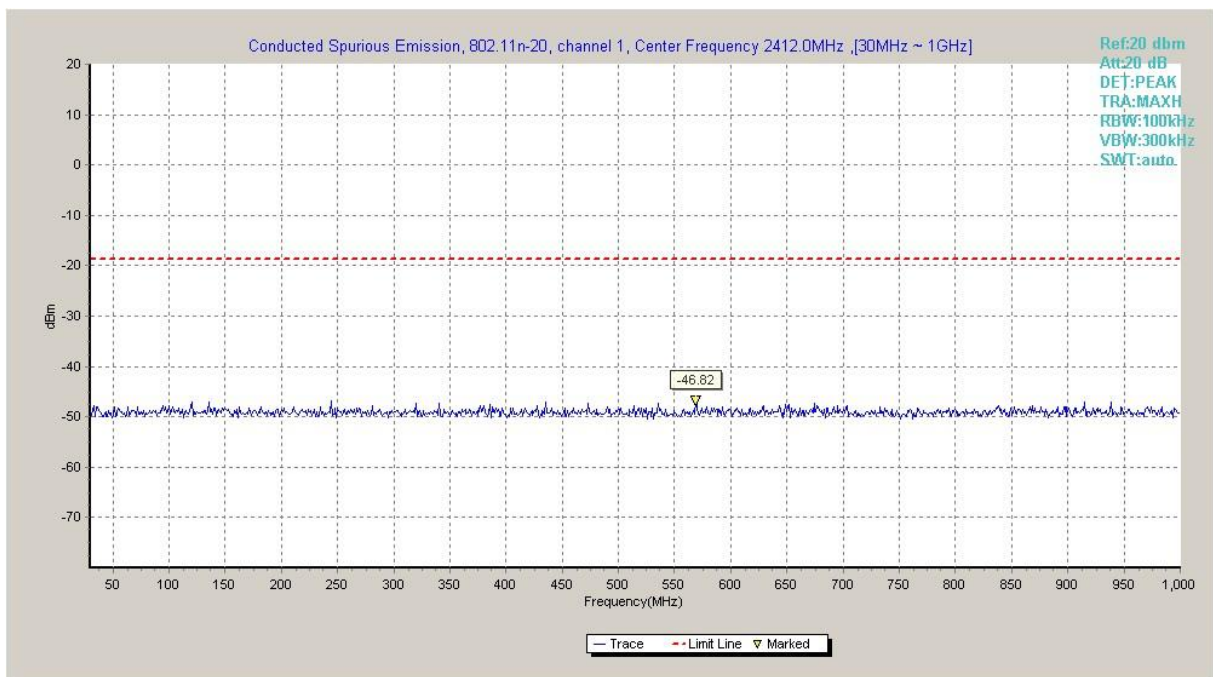


Fig.A.6.1.50 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 30 MHz-1 GHz)

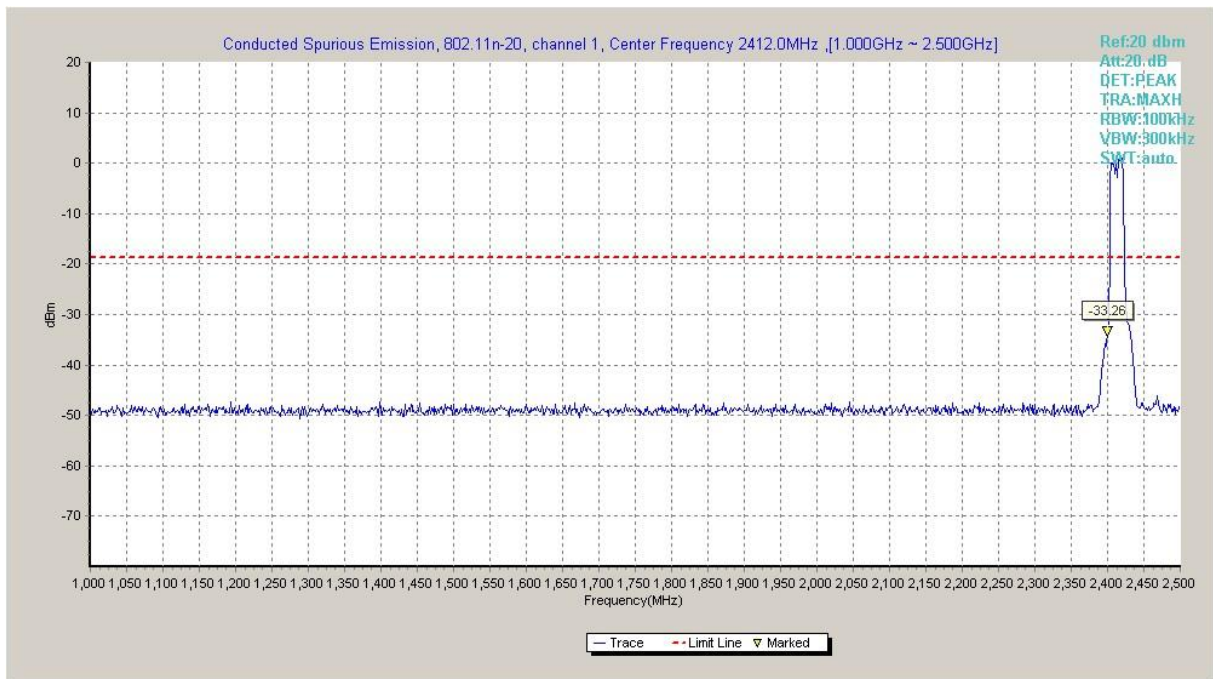


Fig.A.6.1.51 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 1 GHz-2.5 GHz)

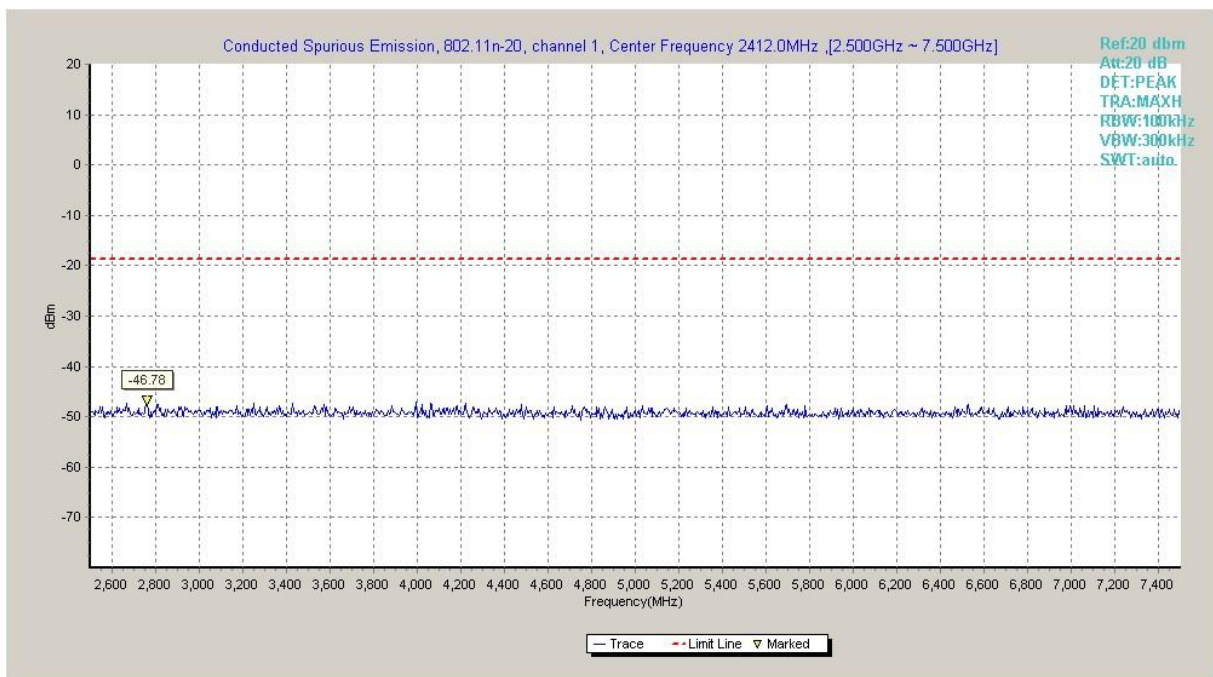


Fig.A.6.1.52 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 2.5 GHz-7.5 GHz)

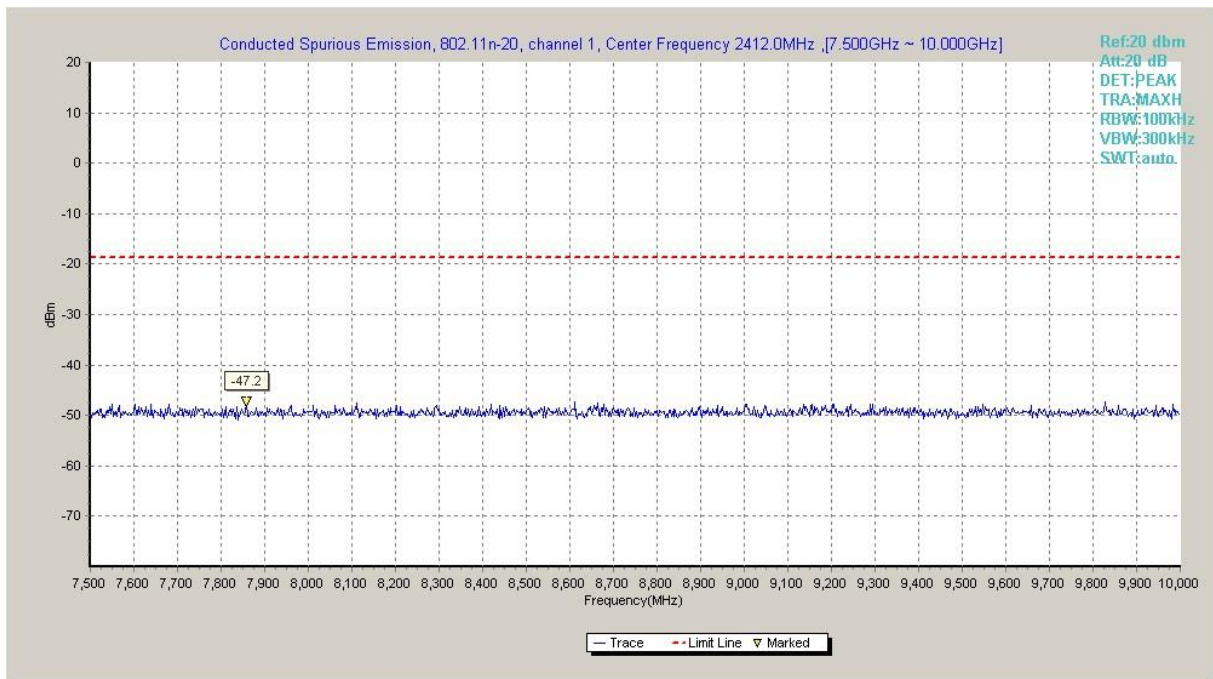


Fig.A.6.1.53 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 7.5 GHz-10 GHz)

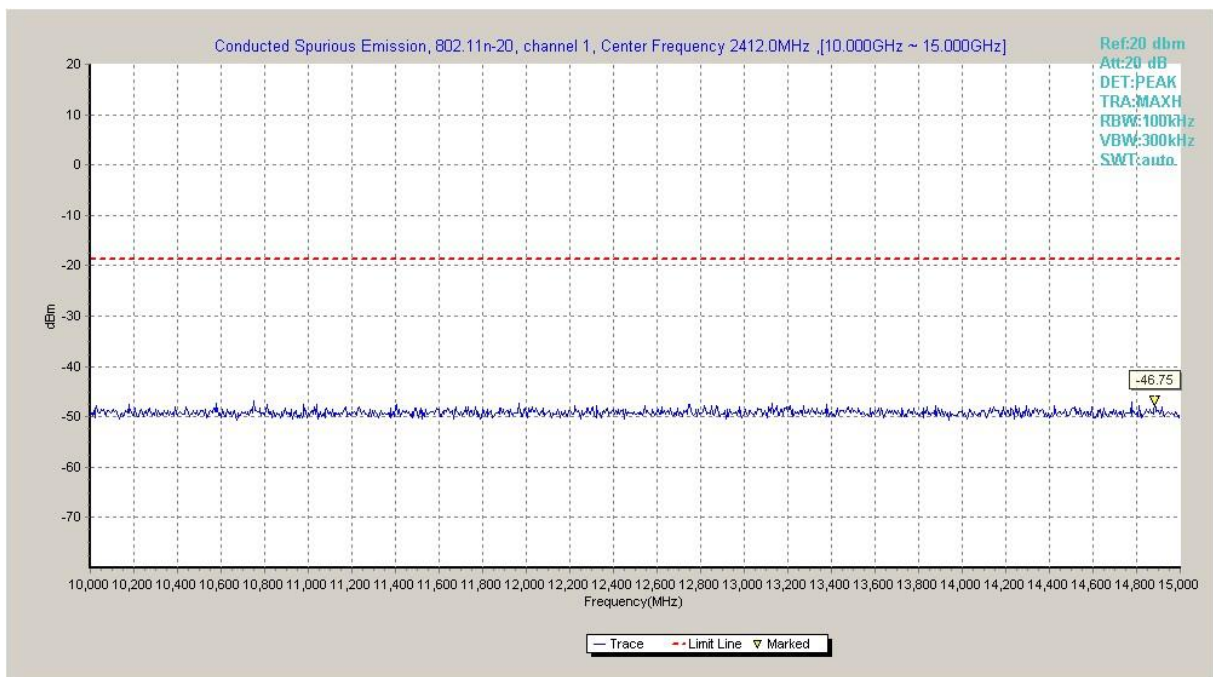


Fig.A.6.1.54 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 10 GHz-15 GHz)

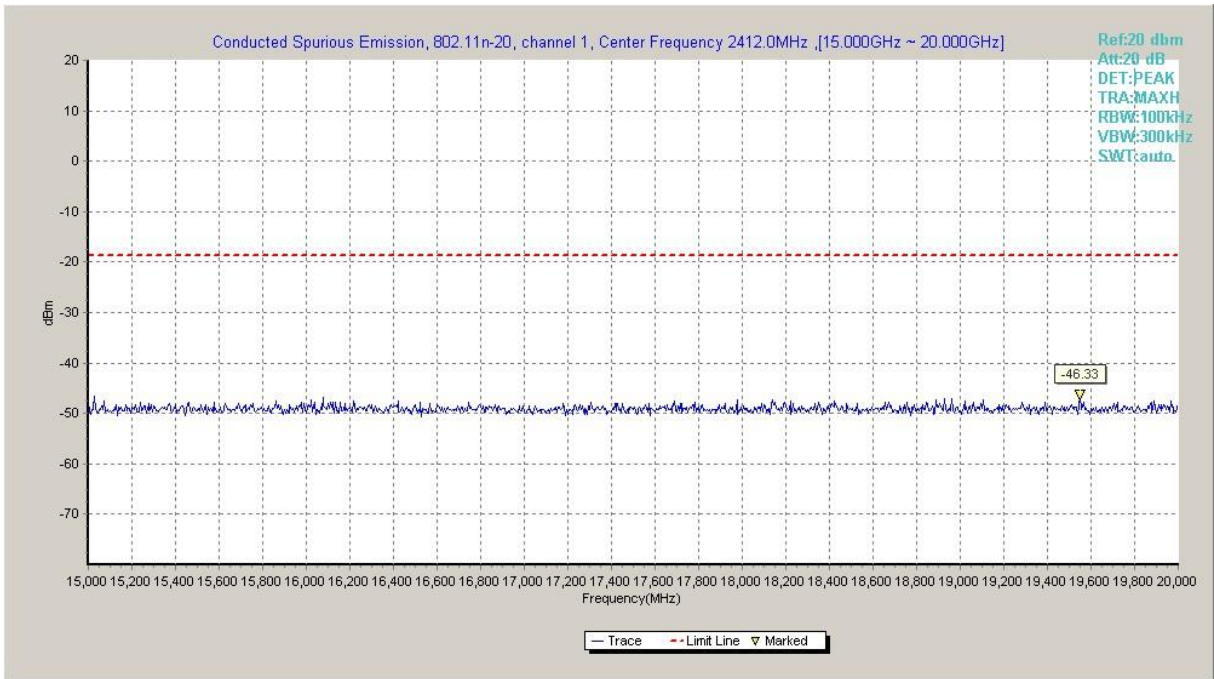


Fig.A.6.1.55 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 15 GHz-20 GHz)

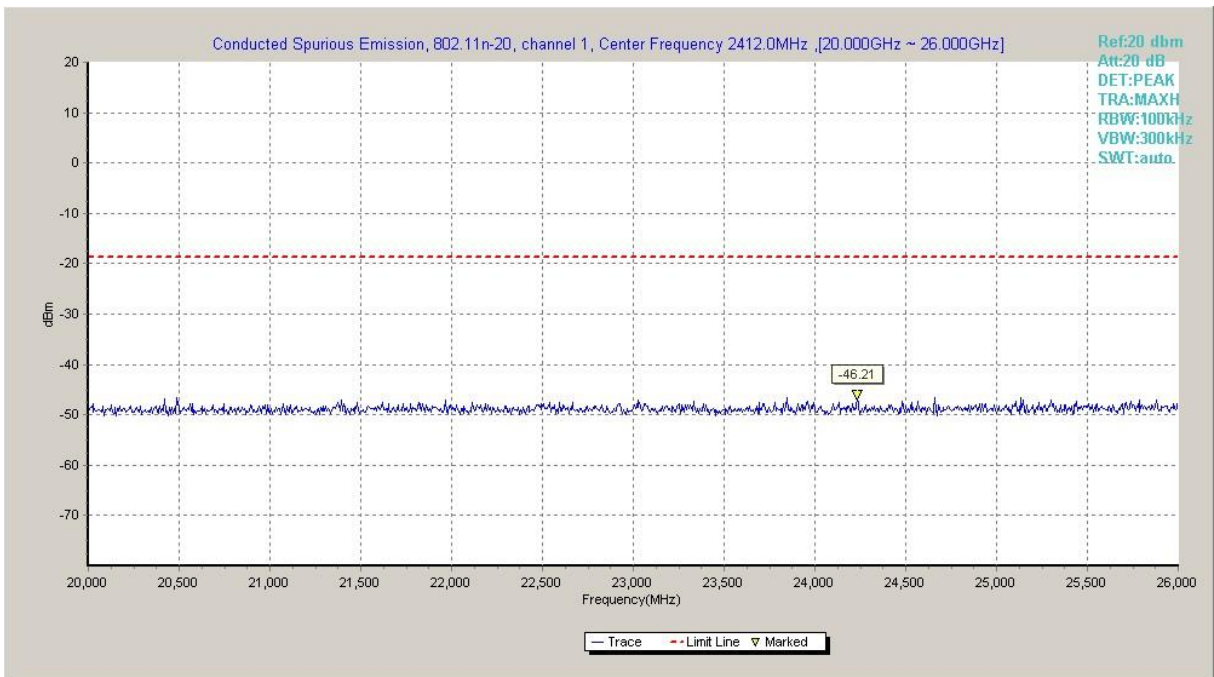


Fig.A.6.1.56 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 20 GHz-26 GHz)

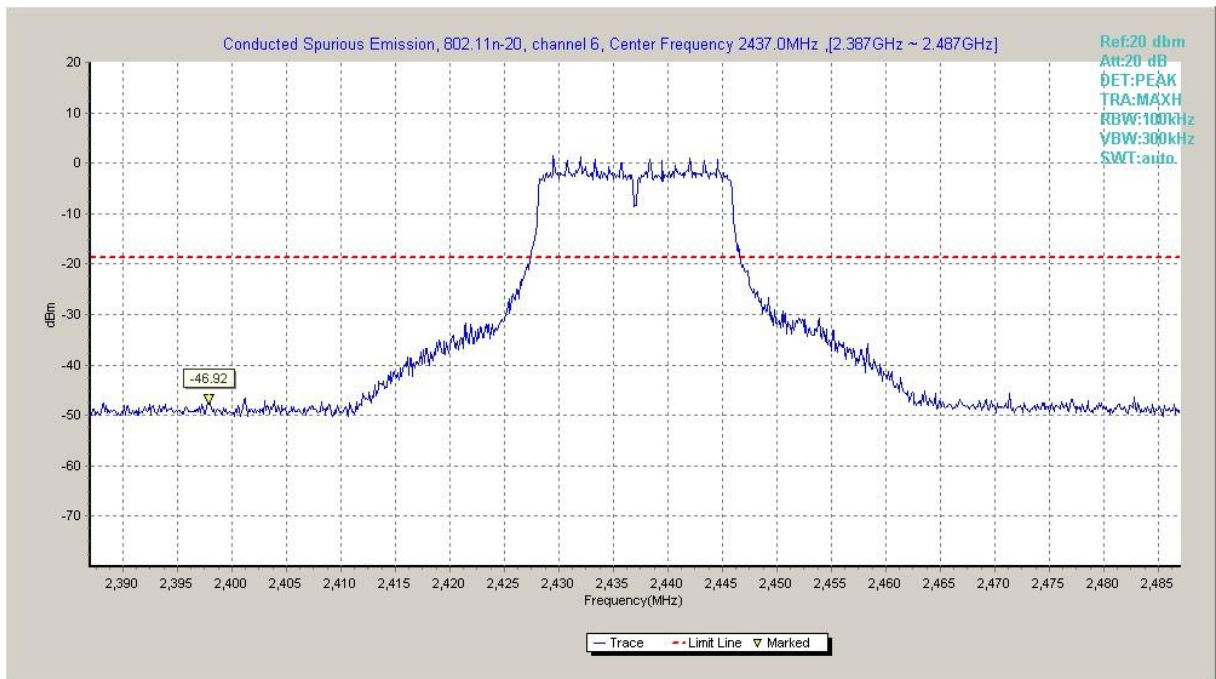


Fig.A.6.1.57 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, Center Frequency)

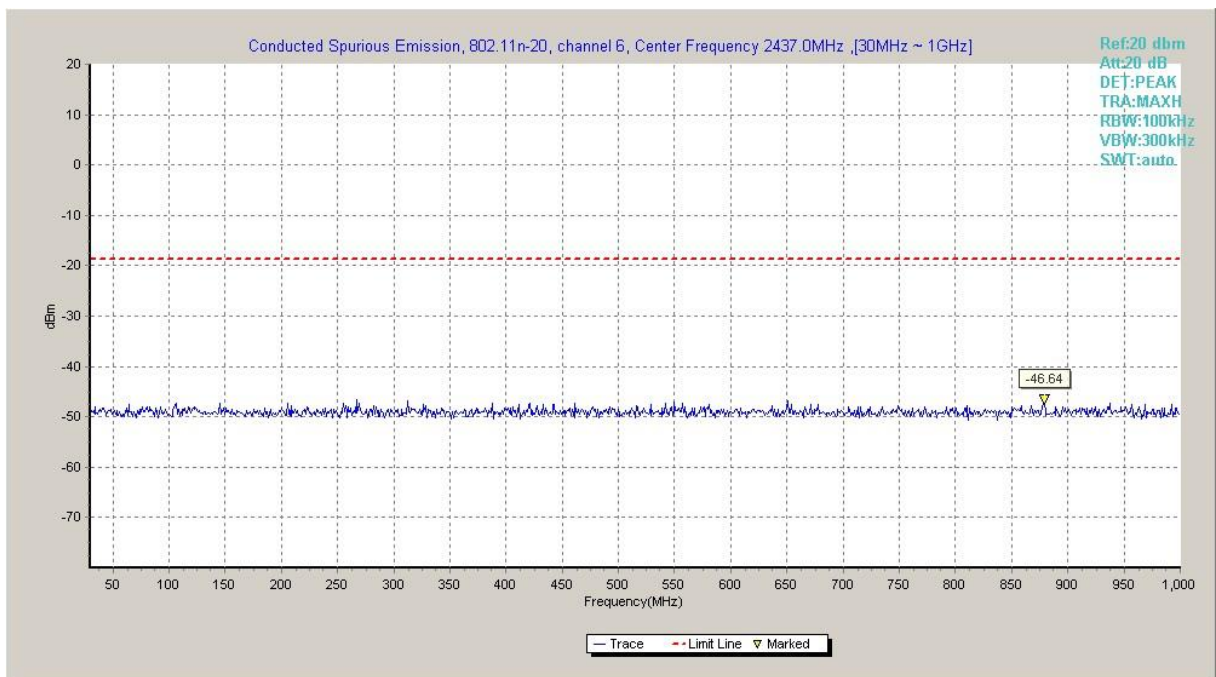


Fig.A.6.1.58 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 30 MHz-1 GHz)

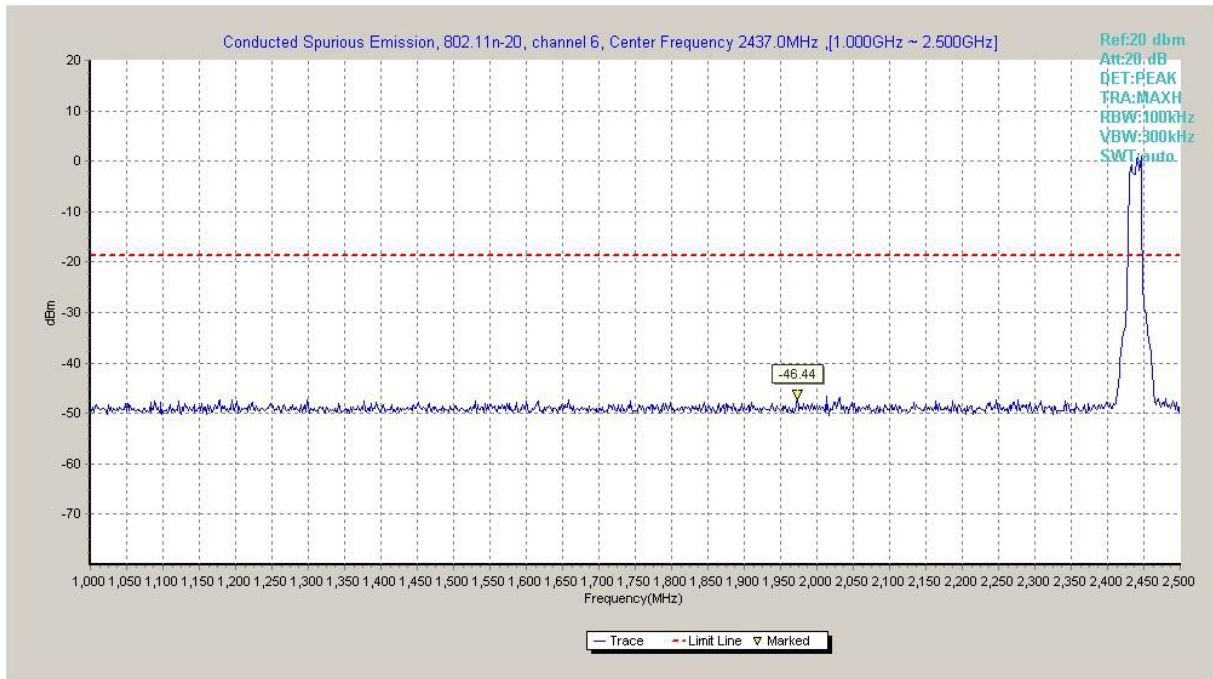


Fig.A.6.1.59 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 1 GHz-2.5 GHz)

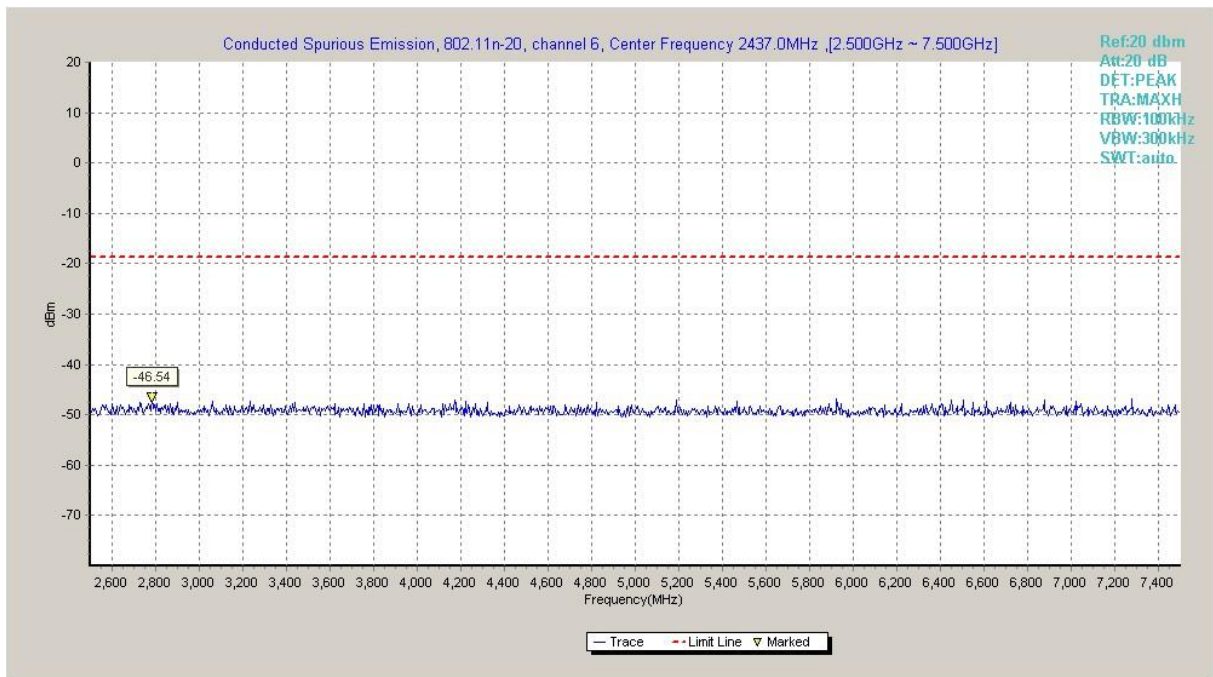


Fig.A.6.1.60 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 2.5 GHz-7.5 GHz)

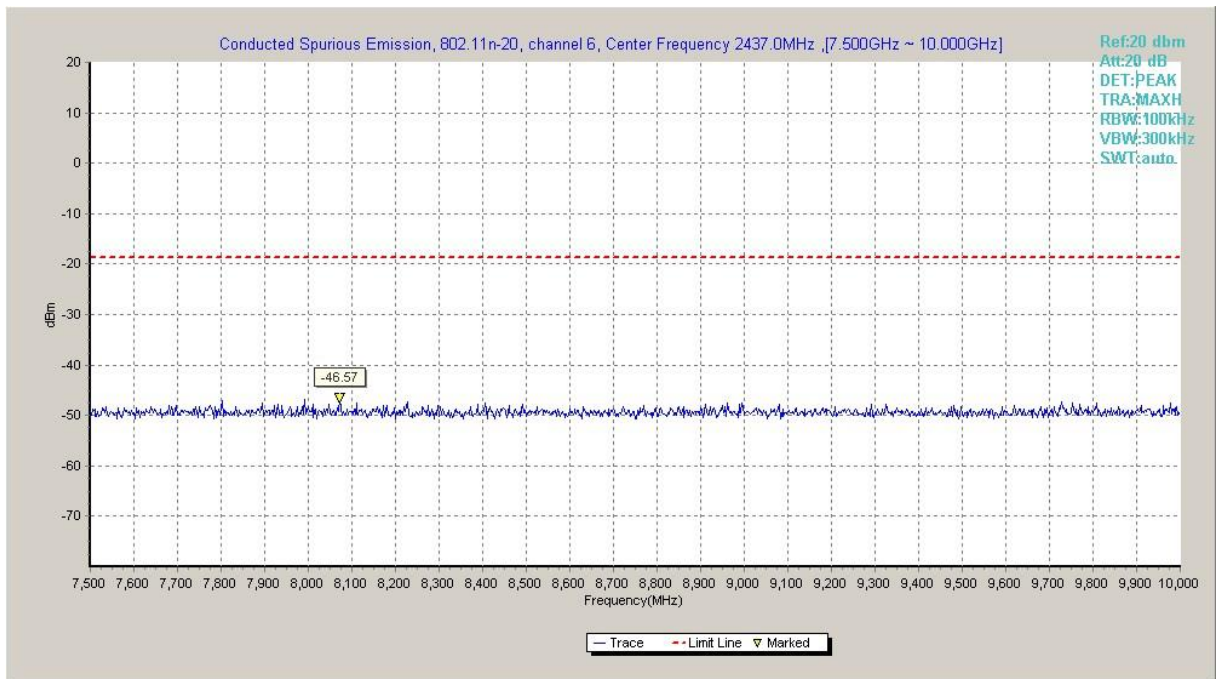


Fig.A.6.1.61 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 7.5 GHz-10 GHz)

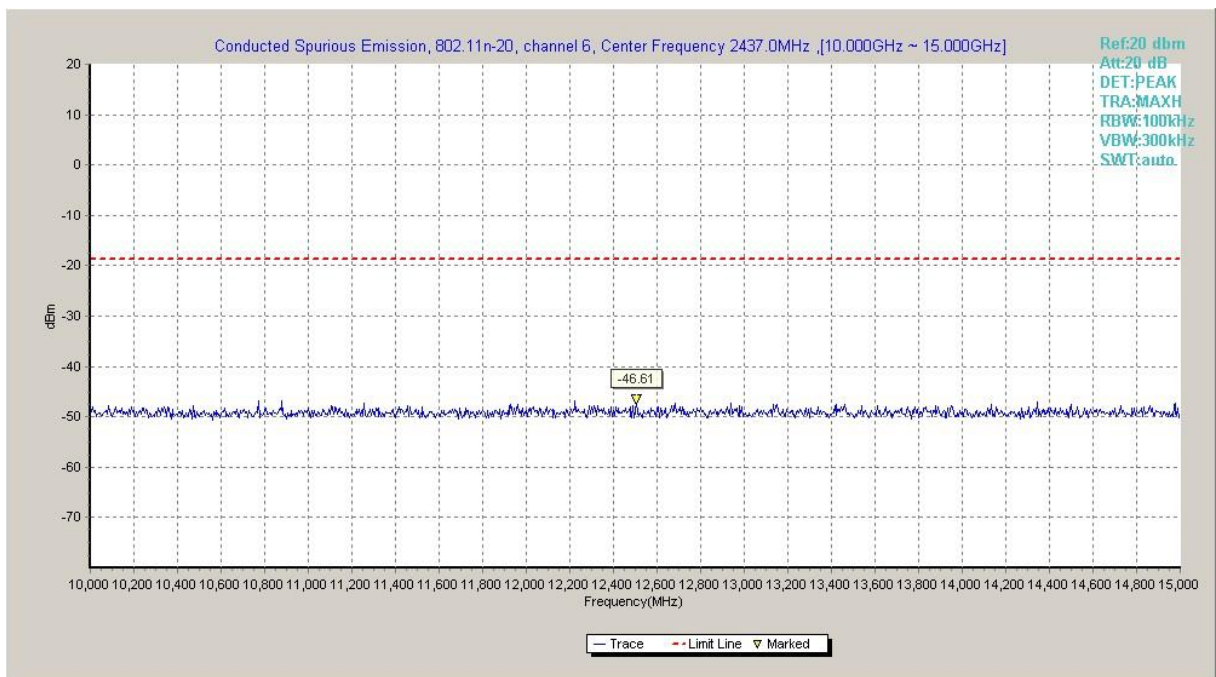


Fig.A.6.1.62 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 10 GHz-15 GHz)

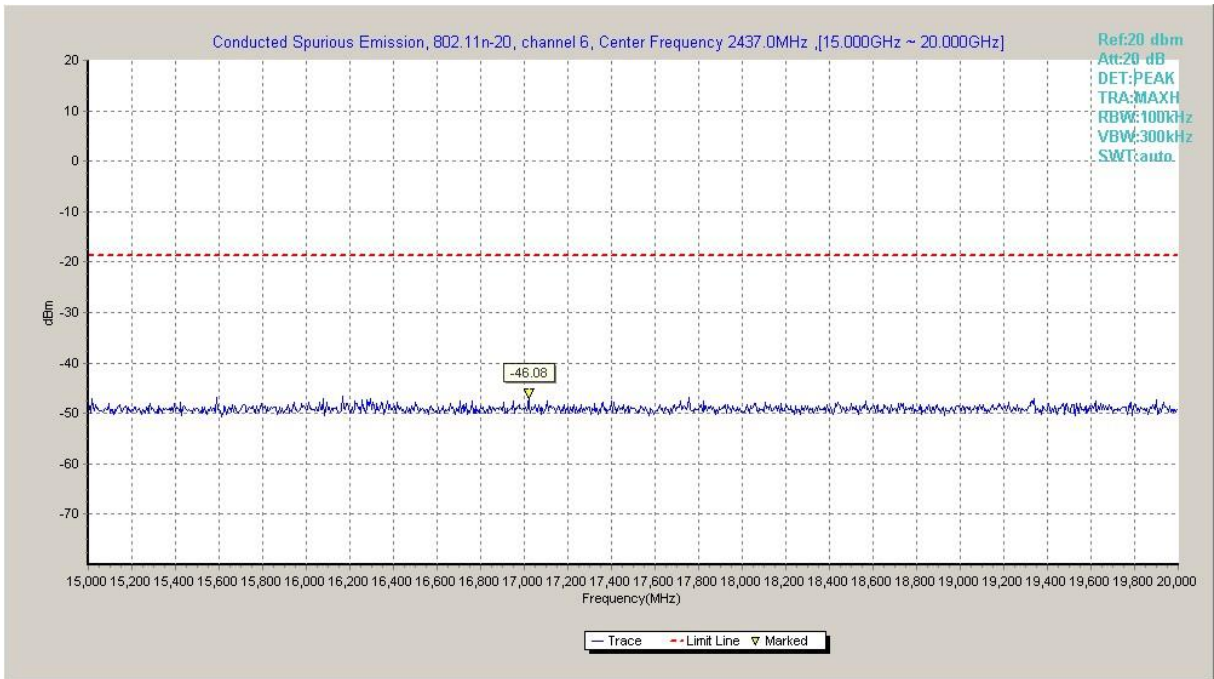


Fig.A.6.1.63 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 15 GHz-20 GHz)

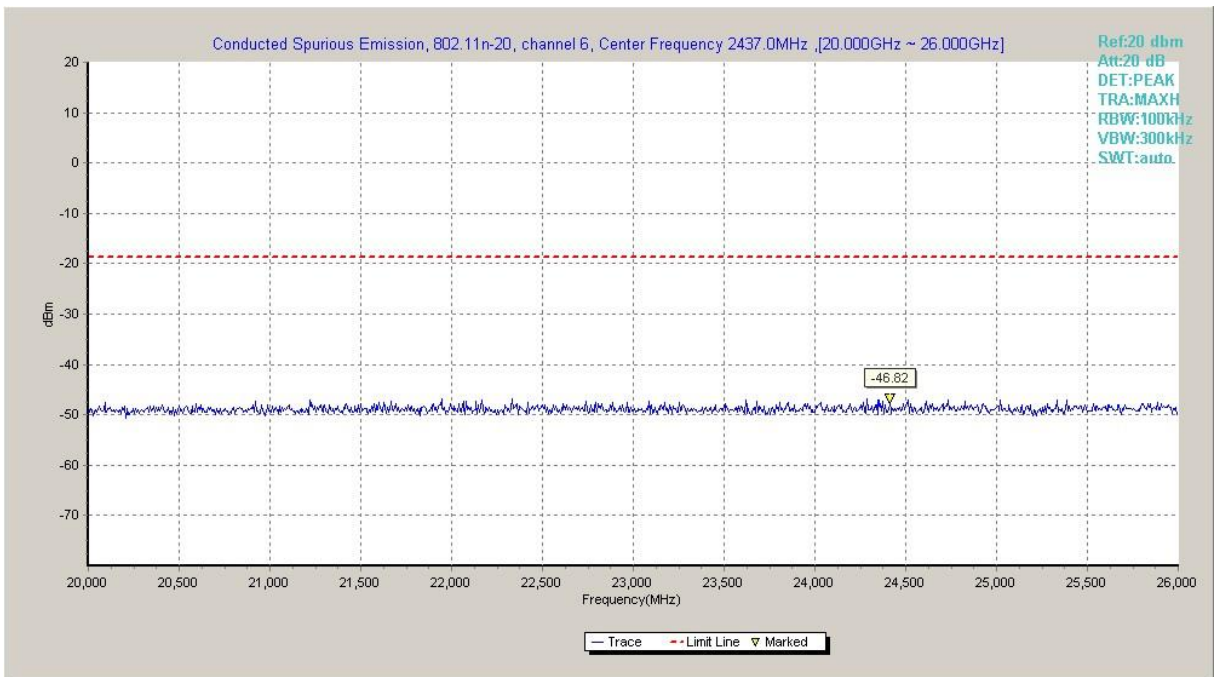


Fig.A.6.1.64 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 20 GHz-26 GHz)

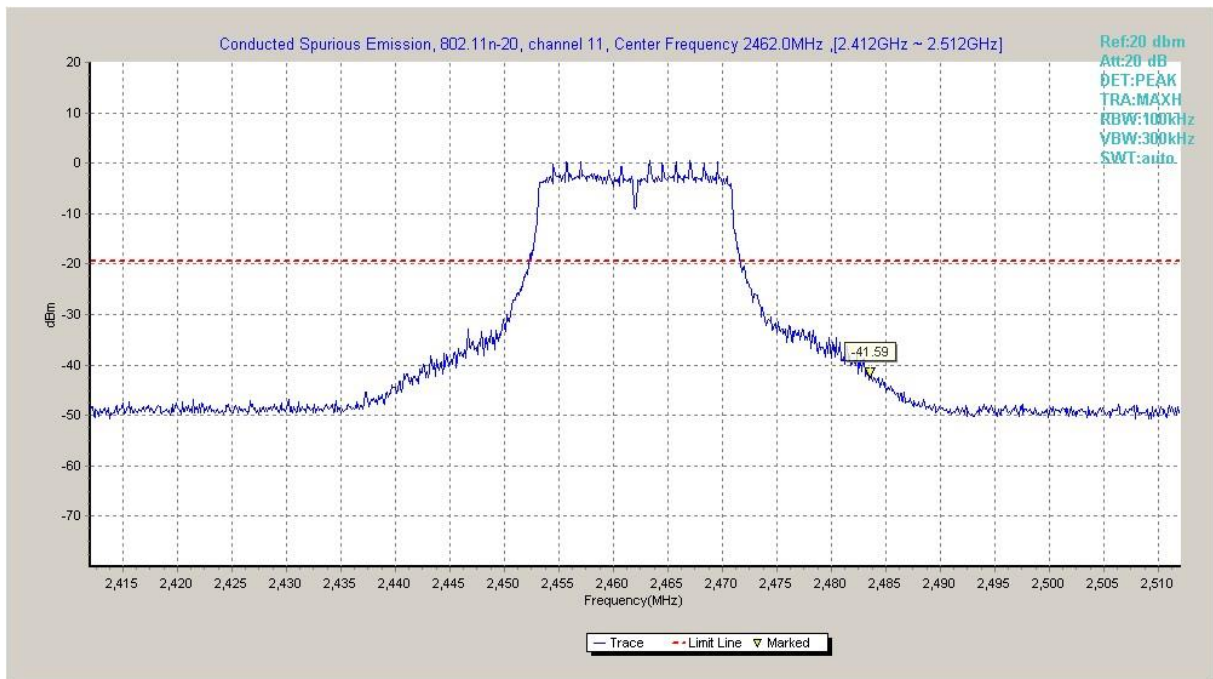


Fig.A.6.1.65 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, Center Frequency)

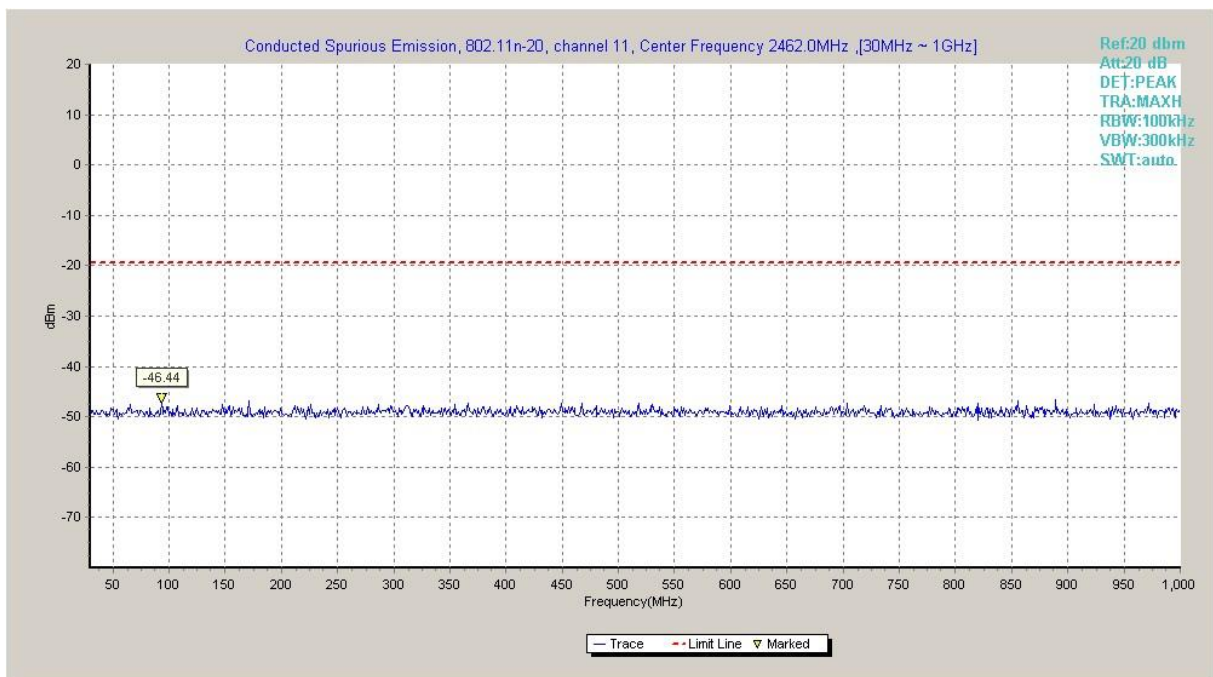


Fig.A.6.1.66 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 30 MHz-1 GHz)

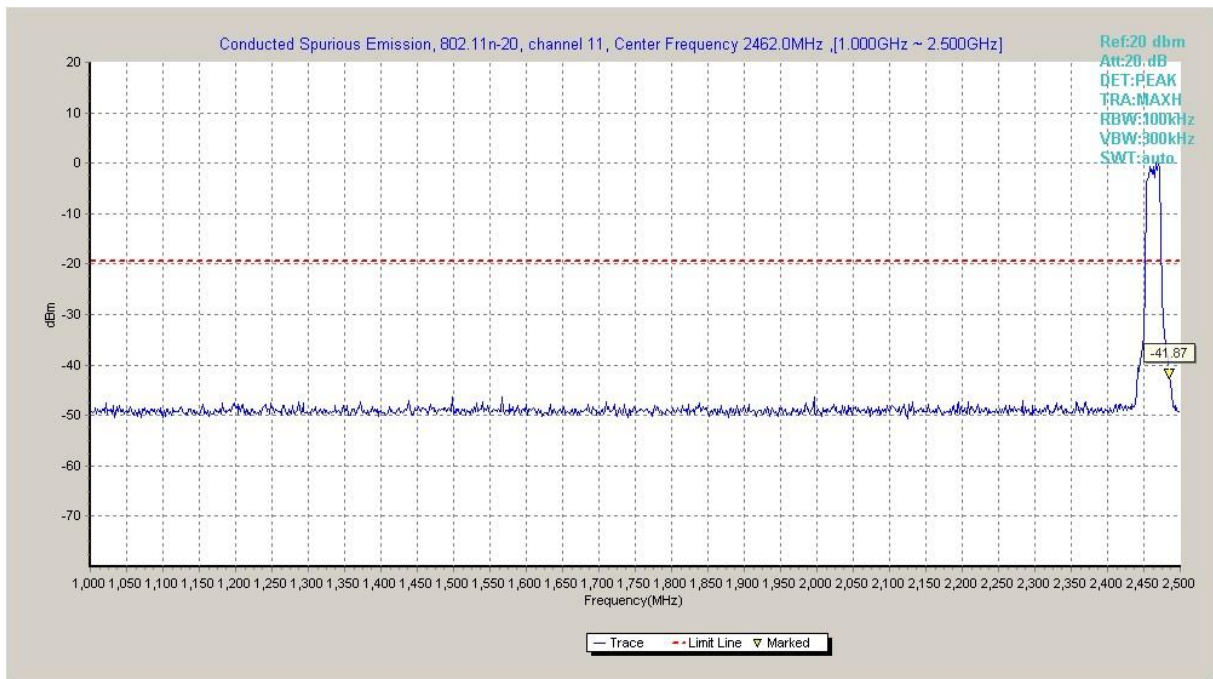


Fig.A.6.1.67 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 1 GHz-2.5 GHz)

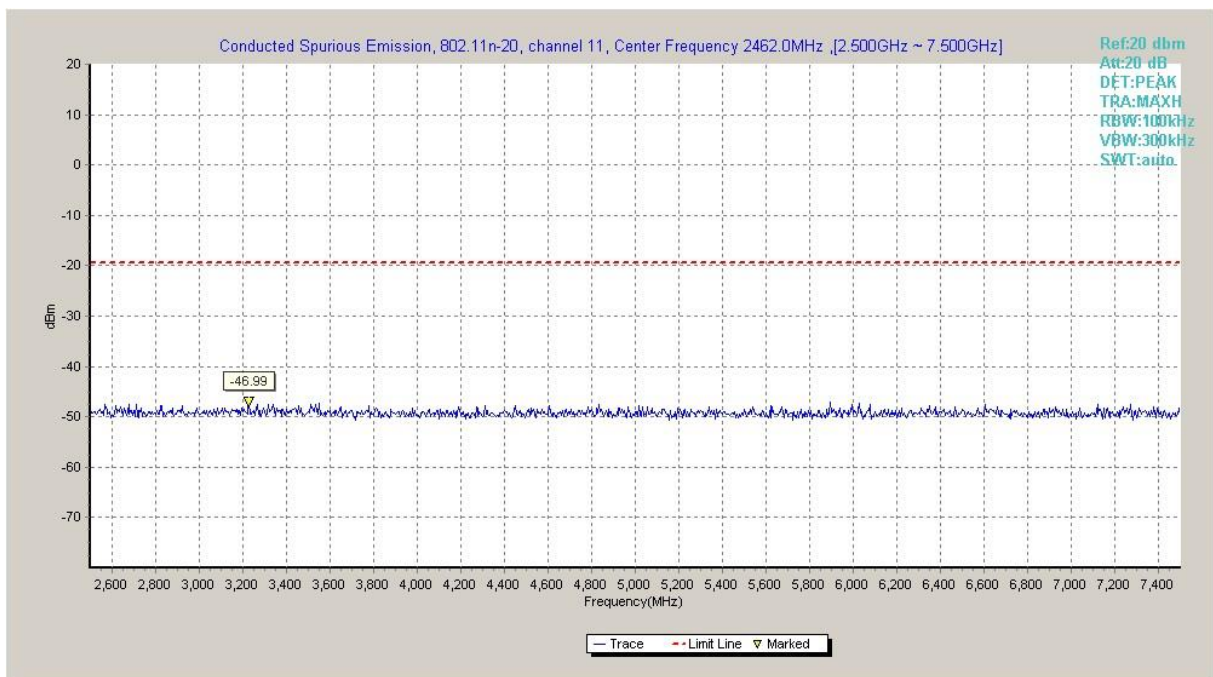


Fig.A.6.1.68 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 2.5 GHz-7.5 GHz)

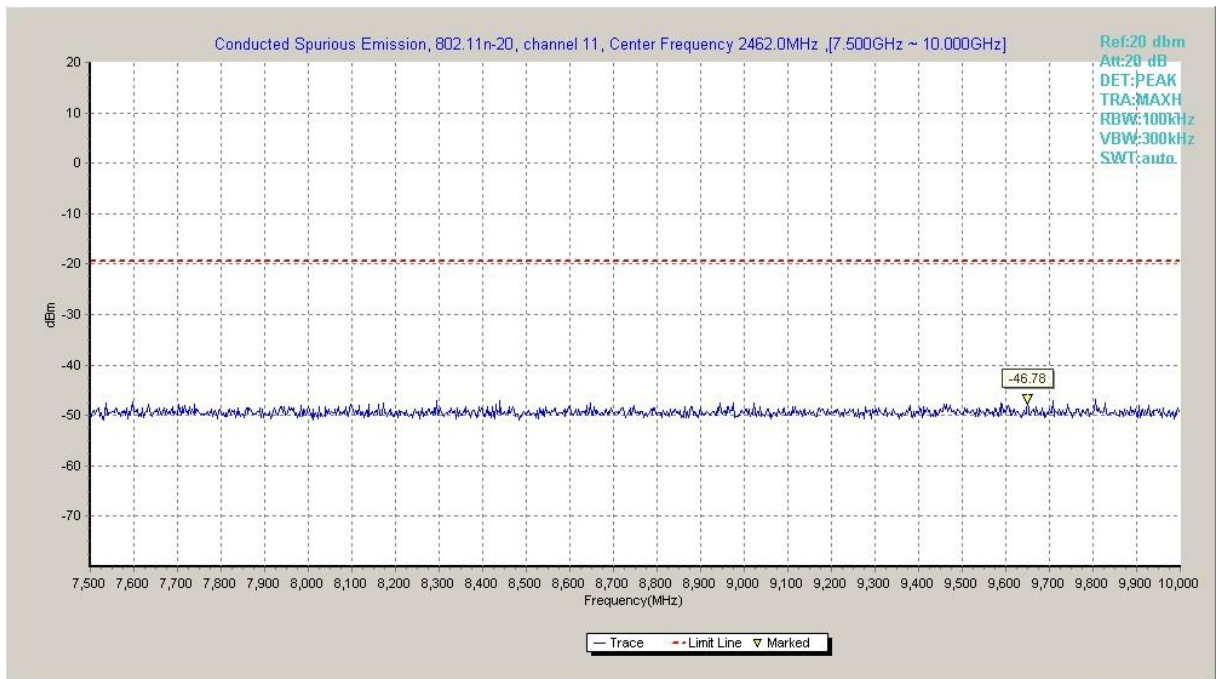


Fig.A.6.1.69 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 7.5 GHz-10 GHz)

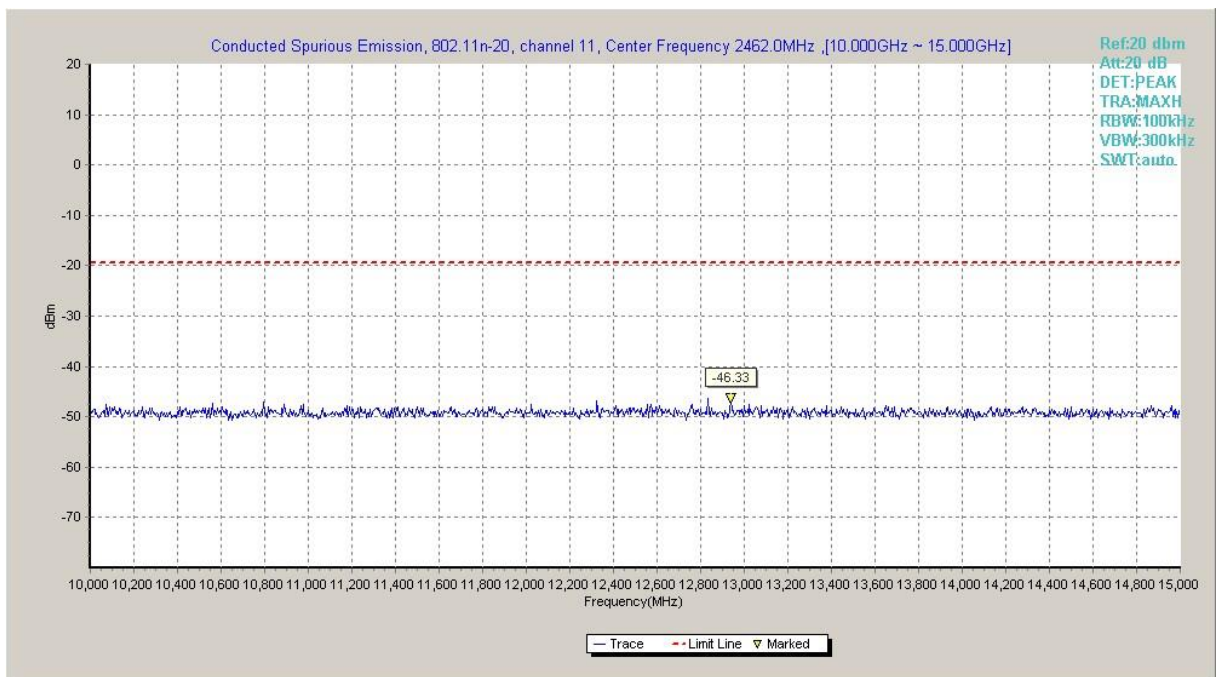


Fig.A.6.1.70 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 10 GHz-15 GHz)

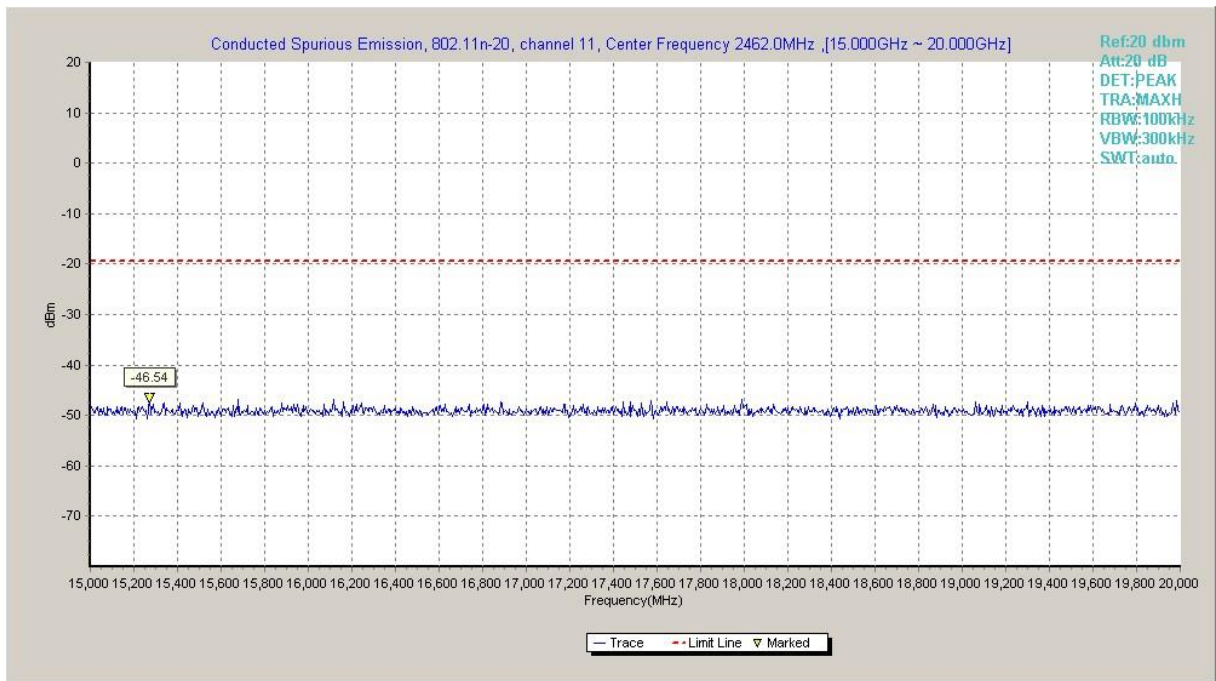


Fig.A.6.1.71 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 15 GHz-20 GHz)

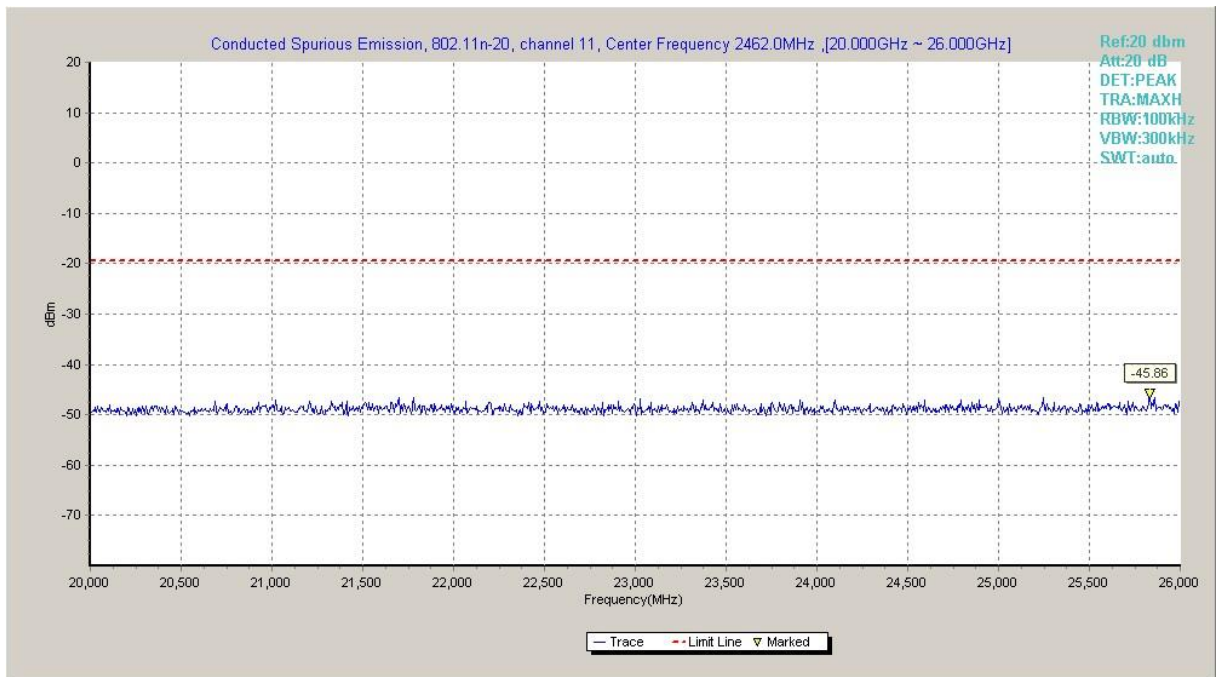


Fig.A.6.1.72 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 20 GHz-26 GHz)

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(μ V/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 for Set.1:

802.11b mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	Power	2.38GHz ~2.43GHz	Fig.A.6.2.1	P
	1	1 GHz ~ 3 GHz	--	P
		3 GHz ~ 18 GHz	--	P
	6	9 kHz ~30 MHz	--	P
		30 MHz ~1 GHz	--	P
		1 GHz ~ 3 GHz	--	P
		3 GHz ~ 18 GHz	--	P
	Power	18 GHz~ 26.5 GHz	--	P
		2.45GHz ~2.5GHz	Fig.A.6.2.2	P
		11	1 GHz ~ 3 GHz	--
	3 GHz ~ 18 GHz		--	P

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	Power	2.38GHz ~2.43GHz	Fig.A.6.2.3	P
	1	1 GHz ~ 3 GHz	--	P
		3 GHz ~ 18 GHz	--	P
	Power	2.38GHz ~2.43GHz	Fig.A.6.2.4	P
	2	1 GHz ~ 3 GHz	--	P
		3 GHz ~ 18 GHz	--	P
	6	30 MHz ~1 GHz	--	P
		1 GHz ~ 3 GHz	--	P
		3 GHz ~ 18 GHz	--	P
		18 GHz~ 26.5 GHz	--	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.5	P
	9	1 GHz ~ 3 GHz	--	P
		3 GHz ~ 18 GHz	--	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.6	P
	10	1 GHz ~ 3 GHz	--	P
		3 GHz ~ 18 GHz	--	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.7	P
	11	1 GHz ~ 3 GHz	--	P
		3 GHz ~ 18 GHz	--	P

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	Power	2.38GHz ~2.43GHz	Fig.A.6.2.8	P
	1	1 GHz ~ 3 GHz	--	P
		3 GHz ~ 18 GHz	--	P
	Power	2.38GHz ~2.43GHz	Fig.A.6.2.9	P
	2	1 GHz ~ 3 GHz	--	P
		3 GHz ~ 18 GHz	--	P
	6	30 MHz ~1 GHz	--	P
		1 GHz ~ 3 GHz	--	P
		3 GHz ~ 18 GHz	--	P
		18 GHz~ 26.5 GHz	--	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.10	P
	9	1 GHz ~ 3 GHz	--	P
		3 GHz ~ 18 GHz	--	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.11	P
	10	1 GHz ~ 3 GHz	--	P
		3 GHz ~ 18 GHz	--	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.12	P
	11	1 GHz ~ 3 GHz	--	P
3 GHz ~ 18 GHz		--	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:

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

802.11b-Average

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBμV)	Polarization
2389.500	42.1	-38.8	27.2	53.749	H
17849.000	39.2	-25.7	43.4	21.542	H
17852.500	39.1	-25.7	43.4	21.442	V
17854.000	39.0	-25.7	43.4	21.342	H
17738.000	39.0	-25.7	43.4	21.342	H
17848.000	39.0	-25.7	43.4	21.342	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBμV)	Polarization
17878.000	39.0	-25.7	43.4	21.342	H
17859.500	39.0	-25.7	43.4	21.342	H
17402.000	38.9	-25.9	40.1	24.745	V
17414.000	38.9	-25.9	40.1	24.745	H
17376.000	38.9	-26.6	40.1	25.401	H
17437.000	38.9	-25.9	40.1	24.745	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBμV)	Polarization
2483.600	42.3	-39.0135	27.2	54.11353836	H
17924.000	38.9	-25.5019	43.4	21.00193024	H
17761.500	38.8	-25.7419	43.4	21.14189759	V
17439.000	38.8	-25.9454	40.1	24.64538498	H
17882.500	38.8	-25.7419	43.4	21.14189759	H
17756.000	38.7	-25.7419	43.4	21.04189759	H

802.11b-Peak

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBμV)	Polarization
2389.540	54.0	-38.8	27.2	65.649	H
17795.500	50.6	-25.7	43.4	32.942	H
17765.000	50.5	-25.7	43.4	32.842	V
17856.500	50.5	-25.7	43.4	32.842	H
17933.500	50.3	-25.5	43.4	32.402	H
17844.000	50.3	-25.7	43.4	32.642	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBμV)	Polarization
17451.500	51.2	-25.9	40.1	37.045	H
17814.500	51.0	-25.7	43.4	33.342	H
17815.500	50.9	-25.7	43.4	33.242	V
17858.500	50.9	-25.7	43.4	33.242	H
17842.000	50.7	-25.7	43.4	33.042	H
17389.500	50.7	-25.9	40.1	36.545	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBμV)	Polarization
2483.500	53.3	-39.0	27.2	65.114	H
17769.500	51.3	-25.7	43.4	33.642	H
17761.000	51.0	-25.7	43.4	33.342	V
17682.500	51.0	-26.9	43.4	34.452	H
17776.500	50.8	-25.7	43.4	33.142	H
17392.000	50.8	-25.9	40.1	36.645	H

802.11g - Average

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBμV)	Polarization
2388.886	46.3	-38.8	27.2	57.949	H
17852.500	39.0	-25.7	43.4	21.342	H
17842.000	39.0	-25.7	43.4	21.342	V
17853.000	39.0	-25.7	43.4	21.342	H
17849.500	38.9	-25.7	43.4	21.242	H
17872.500	38.9	-25.7	43.4	21.242	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBμV)	Polarization
17878.000	39.0	-25.7	43.4	21.342	H
17859.500	39.0	-25.7	43.4	21.342	H
17402.000	38.9	-25.9	40.1	24.745	V
17414.000	38.9	-25.9	40.1	24.745	H
17376.000	38.9	-26.6	40.1	25.401	H
17437.000	38.9	-25.9	40.1	24.745	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBμV)	Polarization
2484.005	48.5	-39.0	27.2	60.314	H
17861.000	39.3	-25.7	43.4	21.642	H
17780.000	39.1	-25.7	43.4	21.442	V
17879.500	39.0	-25.7	43.4	21.342	H
17771.000	38.9	-25.7	43.4	21.242	H
17454.000	38.9	-25.9	40.1	24.745	H

802.11g - Peak

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBμV)	Polarization
2389.200	63.9	-38.8	27.2	75.549	H
17791.500	50.8	-25.7	43.4	33.142	H
17904.000	50.7	-25.7	43.4	33.042	V
17933.000	50.6	-25.5	43.4	32.702	H
17477.500	50.6	-25.9	40.1	36.445	H
17446.500	50.5	-25.9	40.1	36.345	H

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBμV)	Polarization
17451.500	51.2	-25.9454	40.1	37.04538498	H
17814.500	51	-25.7419	43.4	33.34189759	H
17815.500	50.9	-25.7419	43.4	33.24189759	V
17858.500	50.9	-25.7419	43.4	33.24189759	H
17842.000	50.7	-25.7419	43.4	33.04189759	H
17389.500	50.7	-25.9454	40.1	36.54538498	H

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	Receiver Reading (dBμV)	Polarization
2484.180	67.0	-39.0	27.2	78.814	H
17546.500	51.2	-25.9	43.4	33.745	H
17370.500	51.2	-26.6	40.1	37.701	V
17846.000	50.7	-25.7	43.4	33.042	H
17341.500	50.7	-26.6	40.1	37.201	H
17797.000	50.6	-25.7	43.4	32.942	H