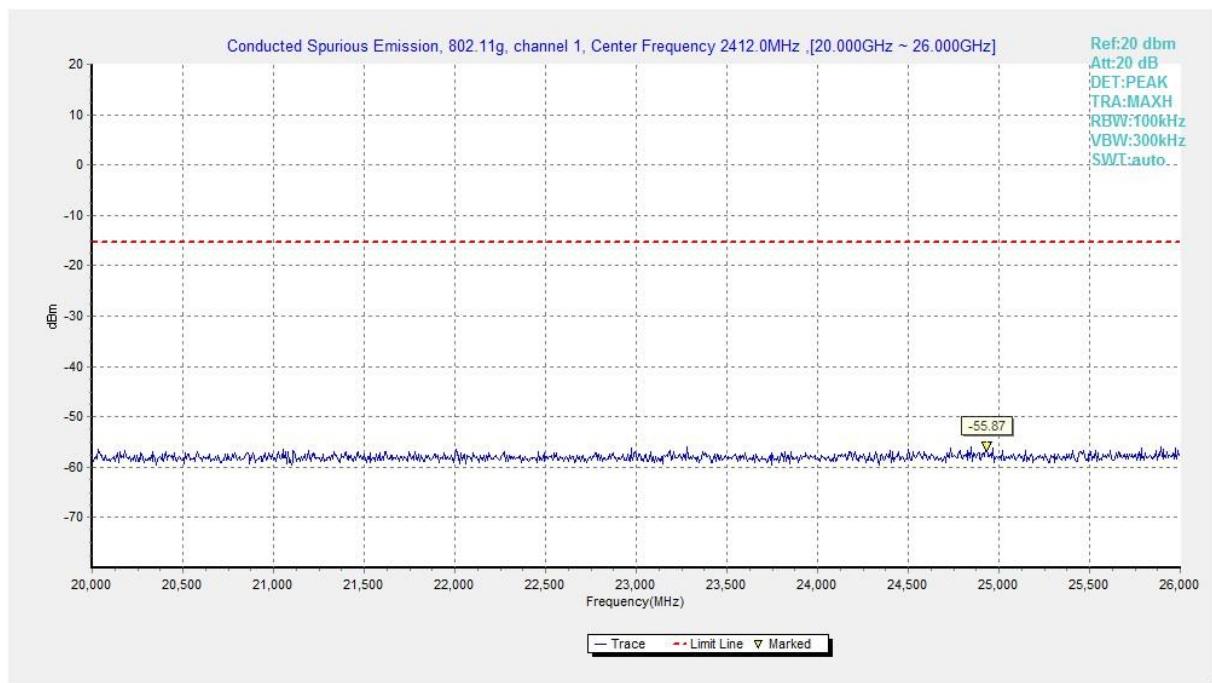
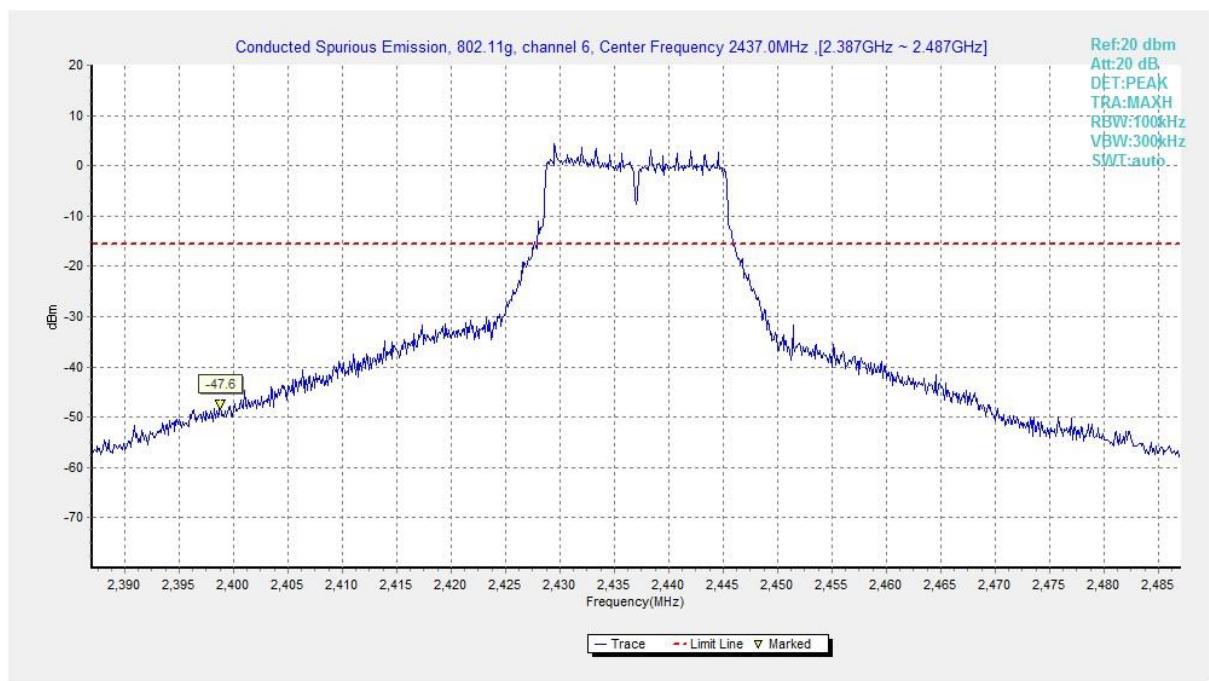


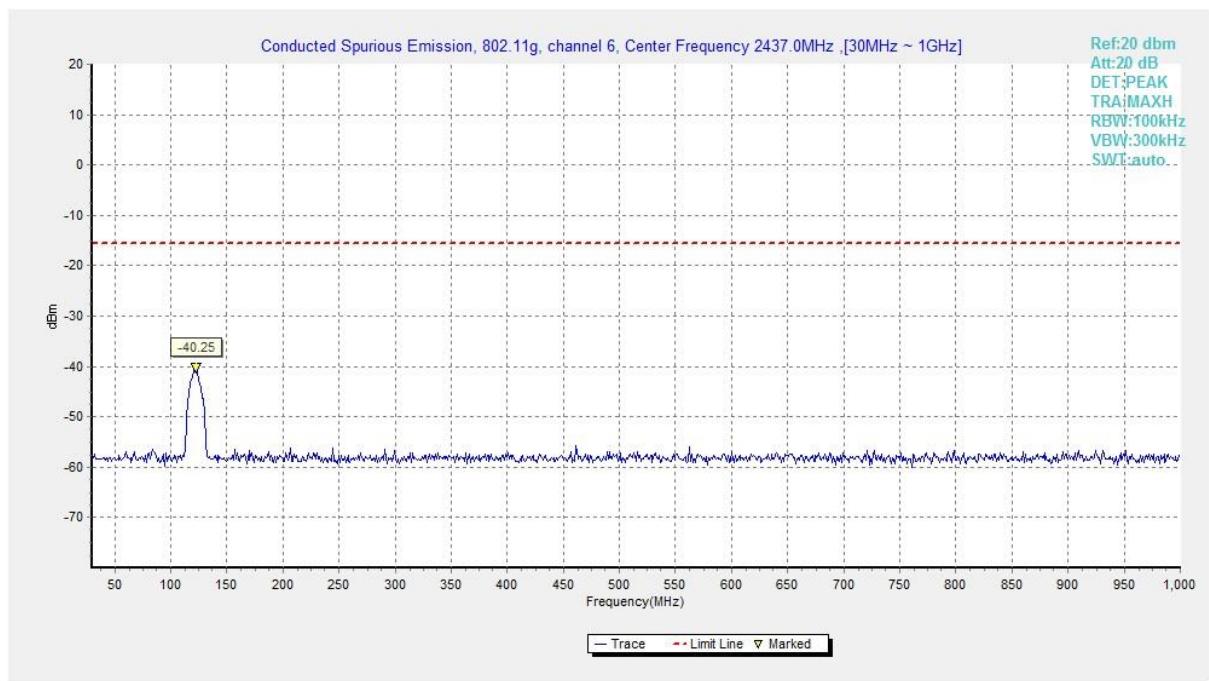
**Fig.A.6.1.31 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 15 GHz-20 GHz)**



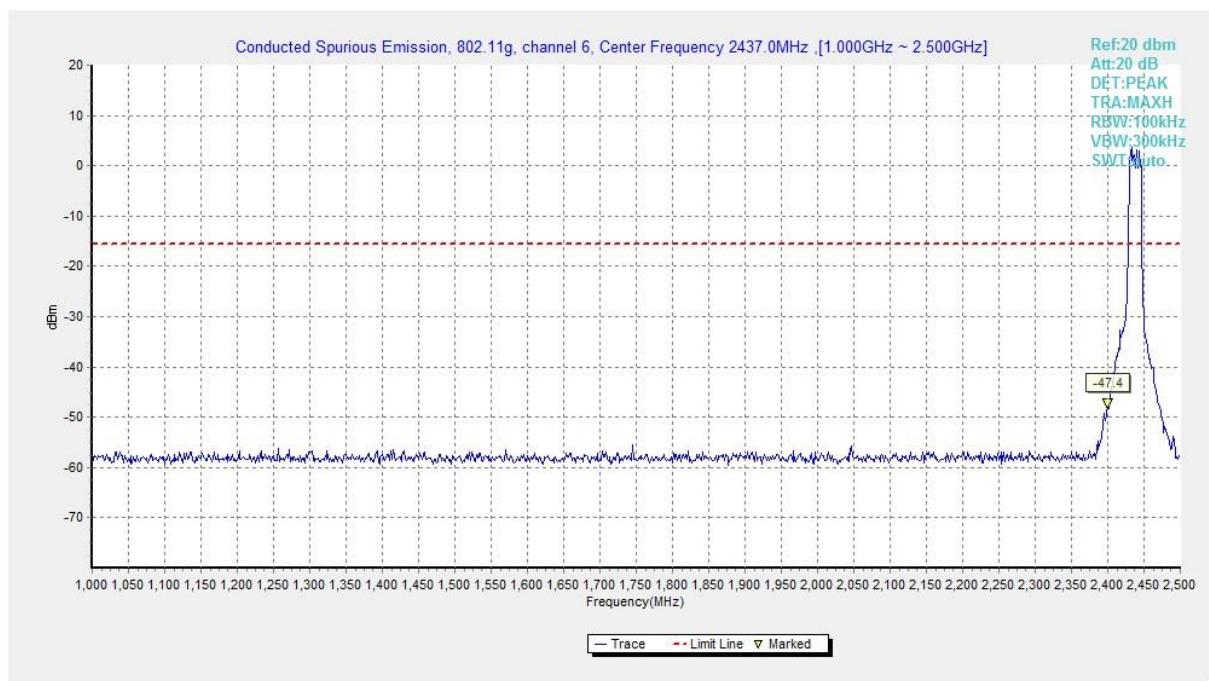
**Fig.A.6.1.32 Transmitter Spurious Emission - Conducted (802.11g, Ch1, 20 GHz-26 GHz)**



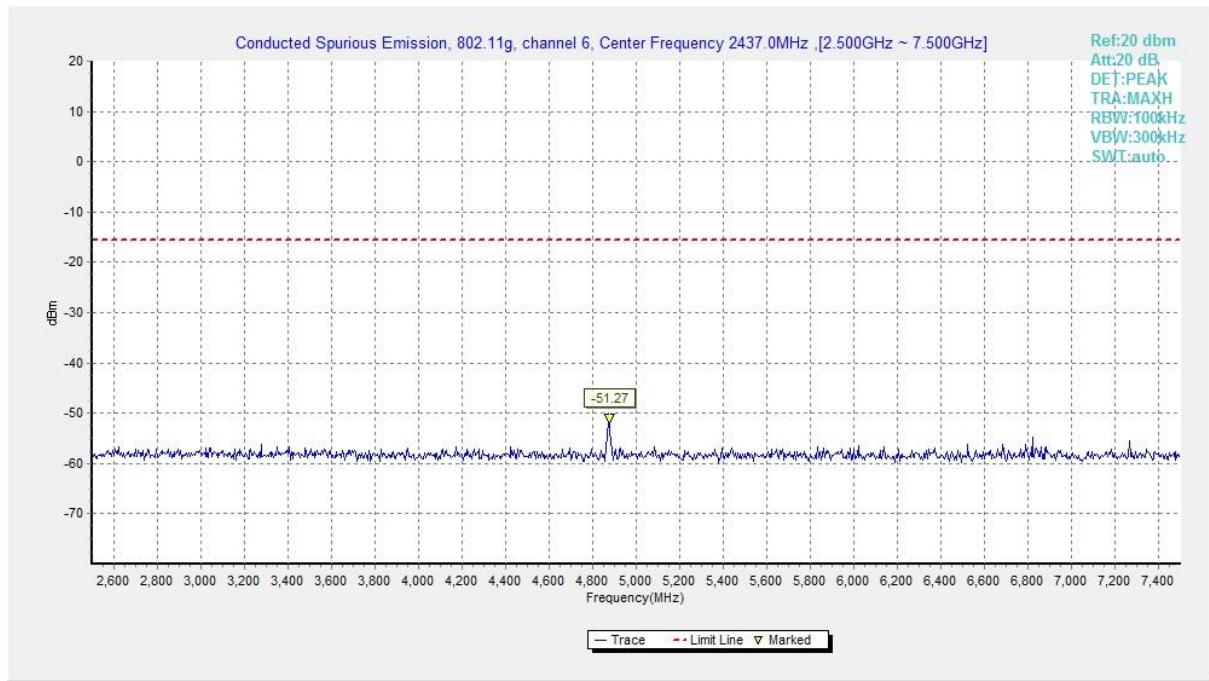
**Fig.A.6.1.33 Transmitter Spurious Emission - Conducted (802.11g, Ch6, Center Frequency)**



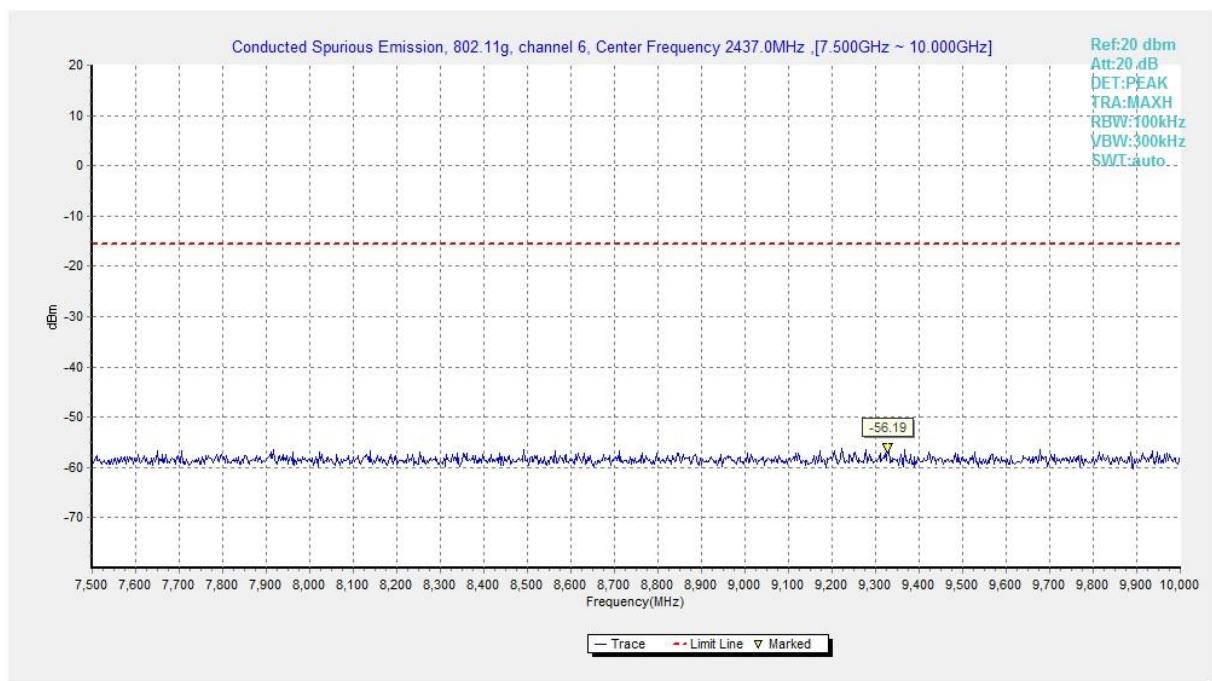
**Fig.A.6.1.34 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 30 MHz-1 GHz)**



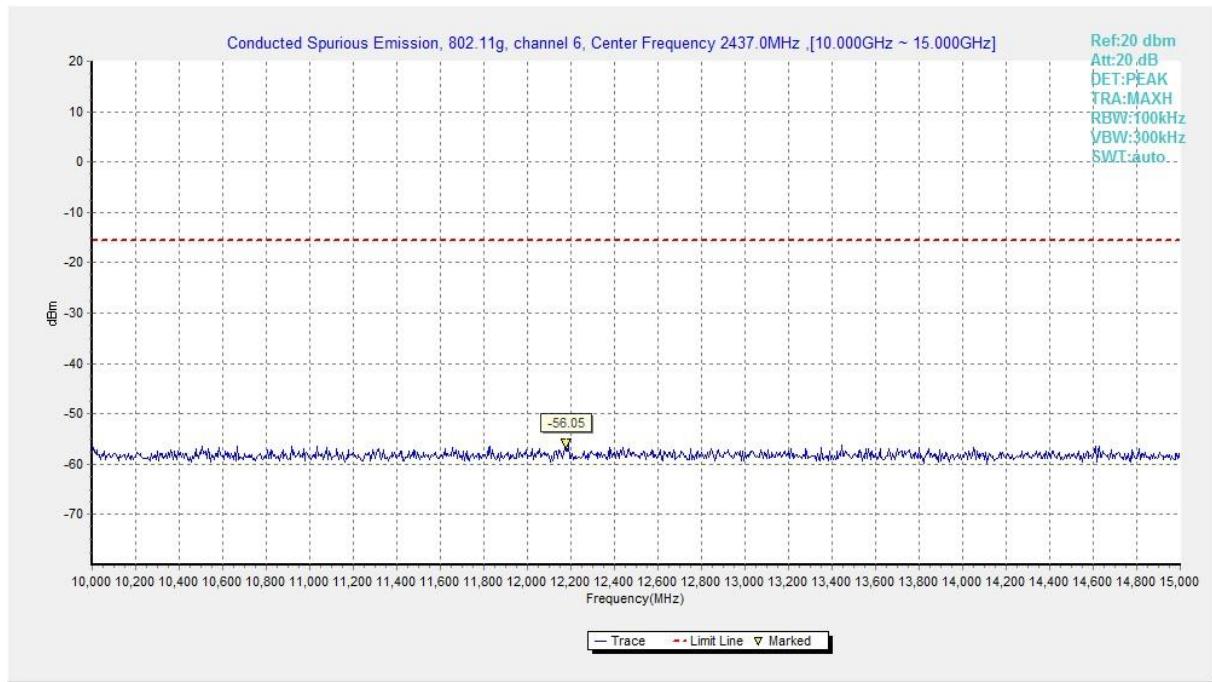
**Fig.A.6.1.35 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 1 GHz-2.5 GHz)**



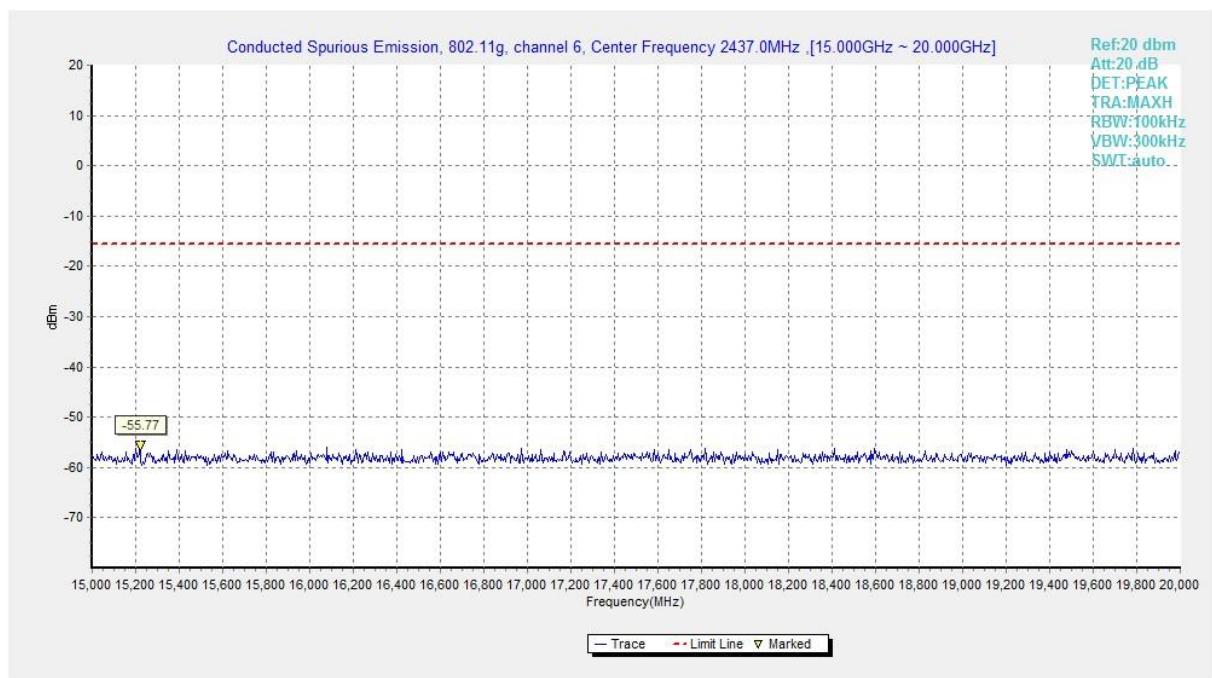
**Fig.A.6.1.36 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 2.5 GHz-7.5 GHz)**



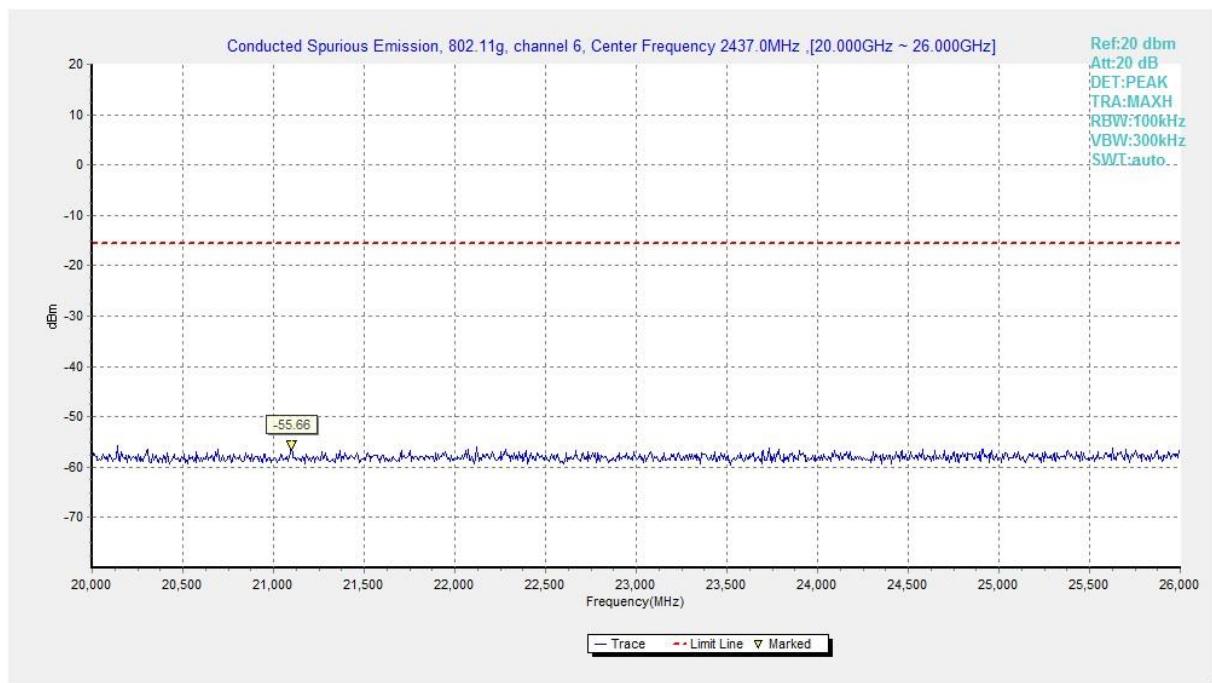
**Fig.A.6.1.37 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 7.5 GHz-10 GHz)**



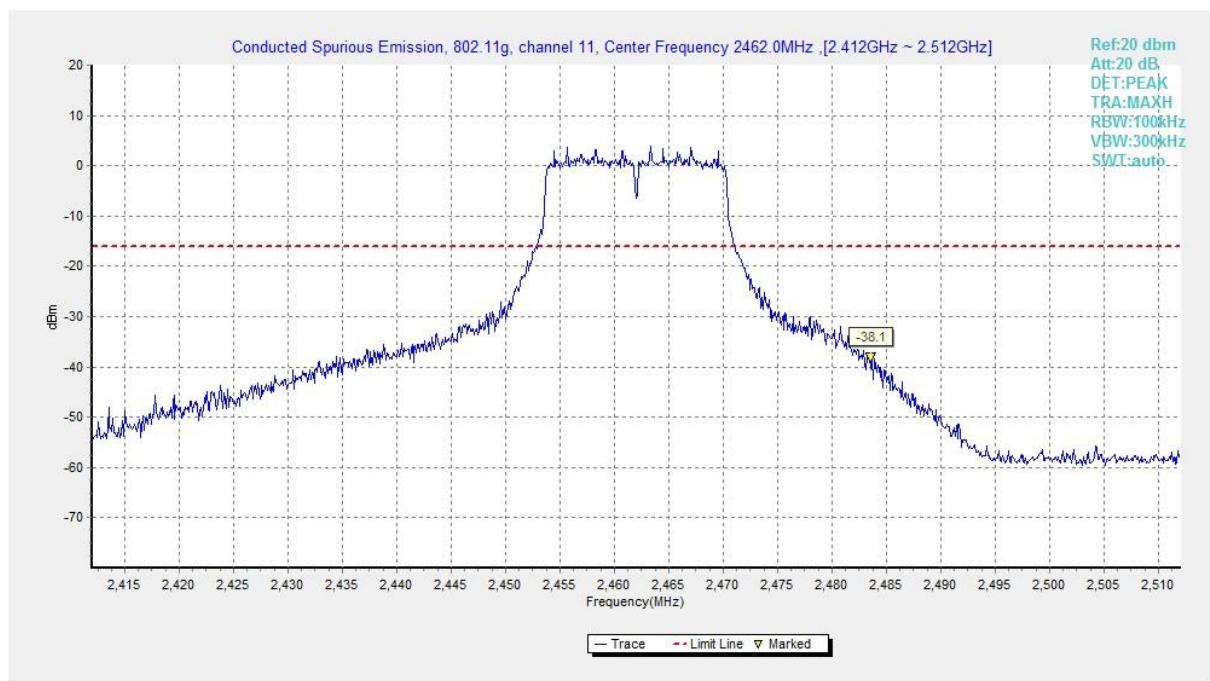
**Fig.A.6.1.38 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 10 GHz-15 GHz)**



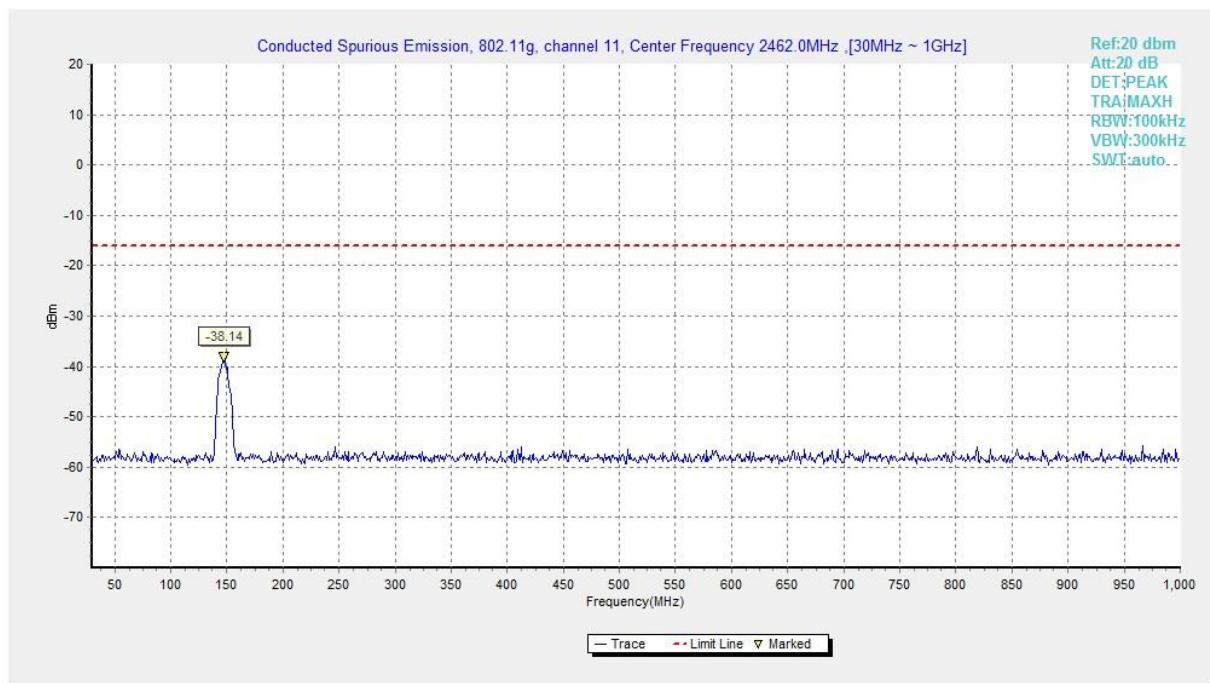
**Fig.A.6.1.39 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 15 GHz-20 GHz)**



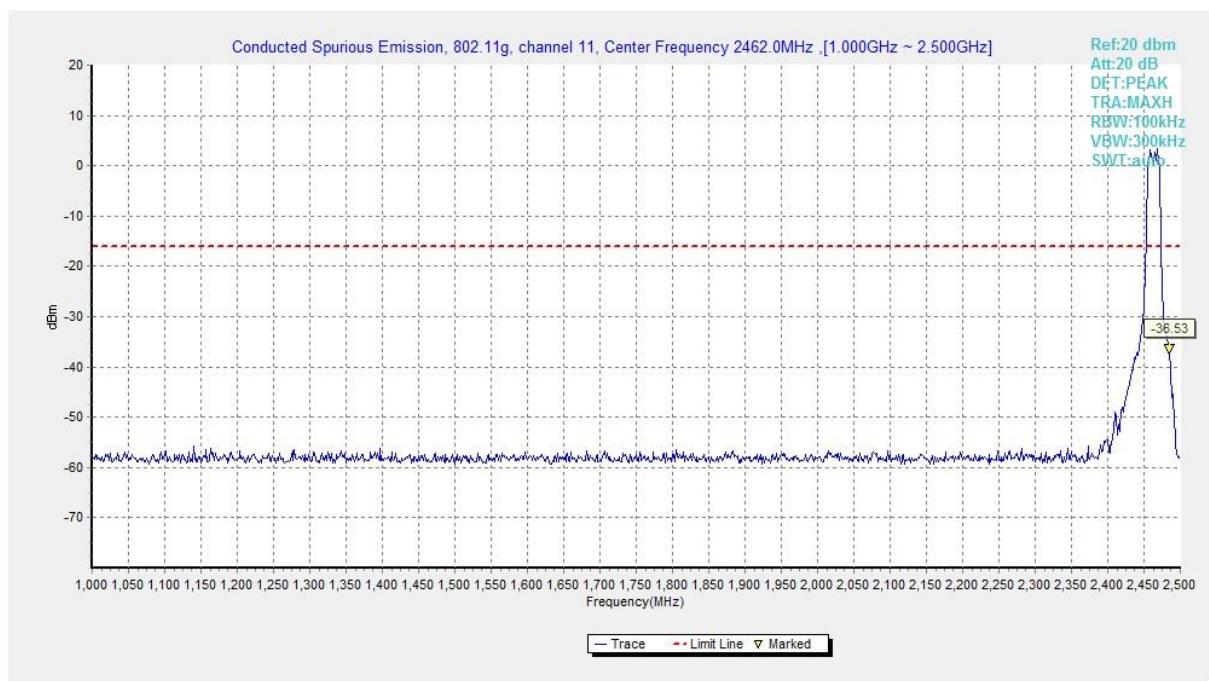
**Fig.A.6.1.40 Transmitter Spurious Emission - Conducted (802.11g, Ch6, 20 GHz-26 GHz)**



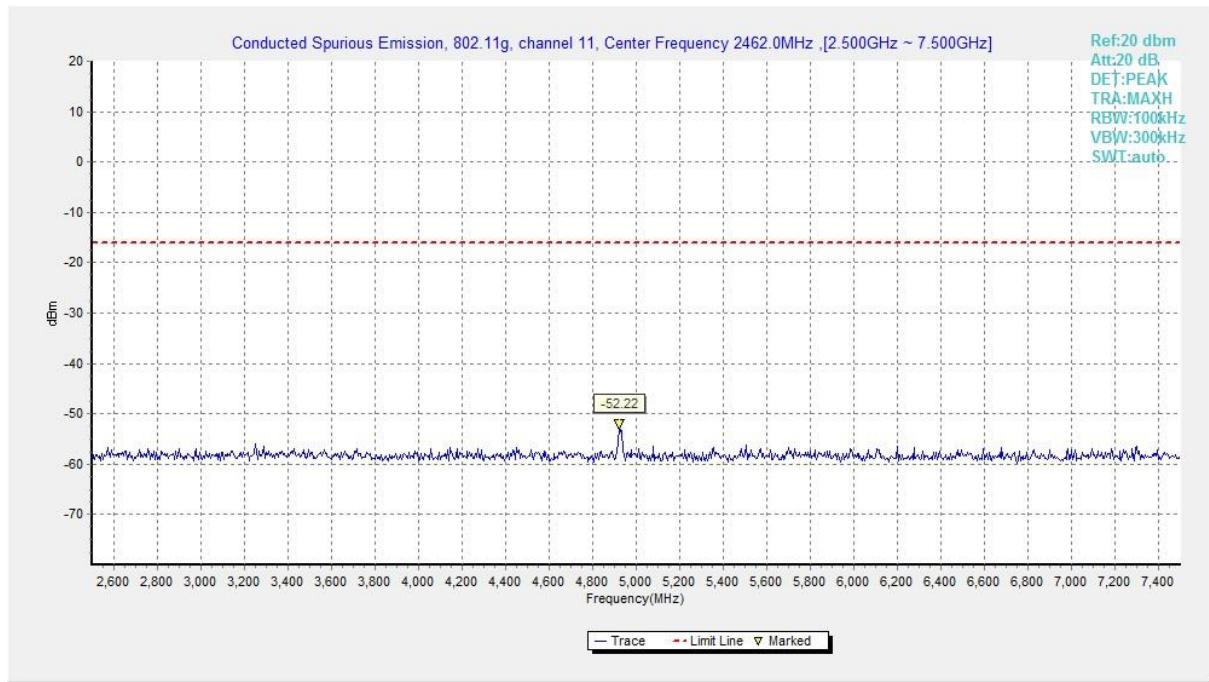
**Fig.A.6.1.41 Transmitter Spurious Emission - Conducted (802.11g, Ch11, Center Frequency)**



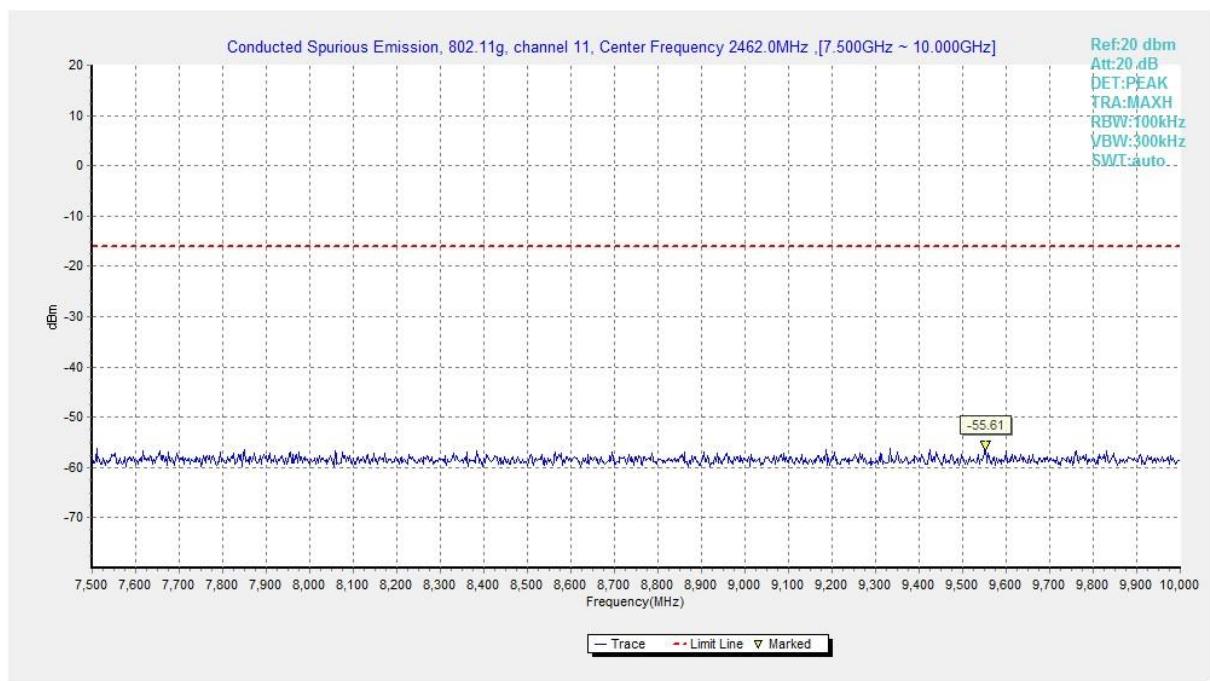
**Fig.A.6.1.42 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 30 MHz-1 GHz)**



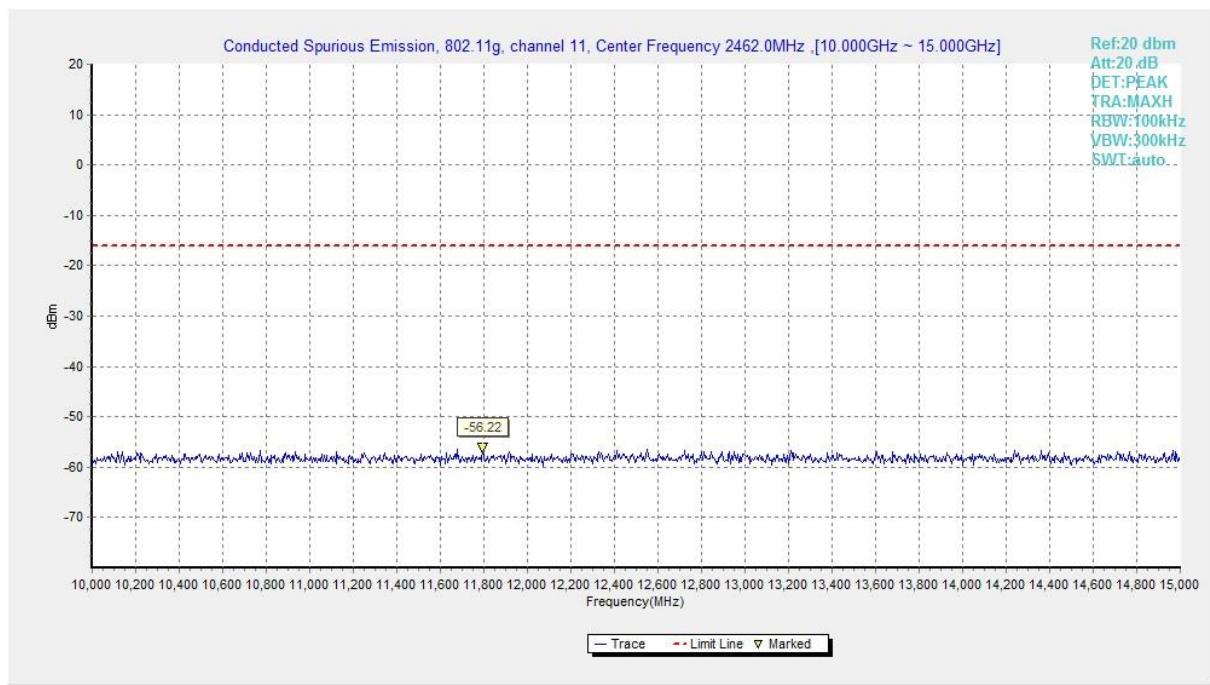
**Fig.A.6.1.43 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 1 GHz-2.5 GHz)**



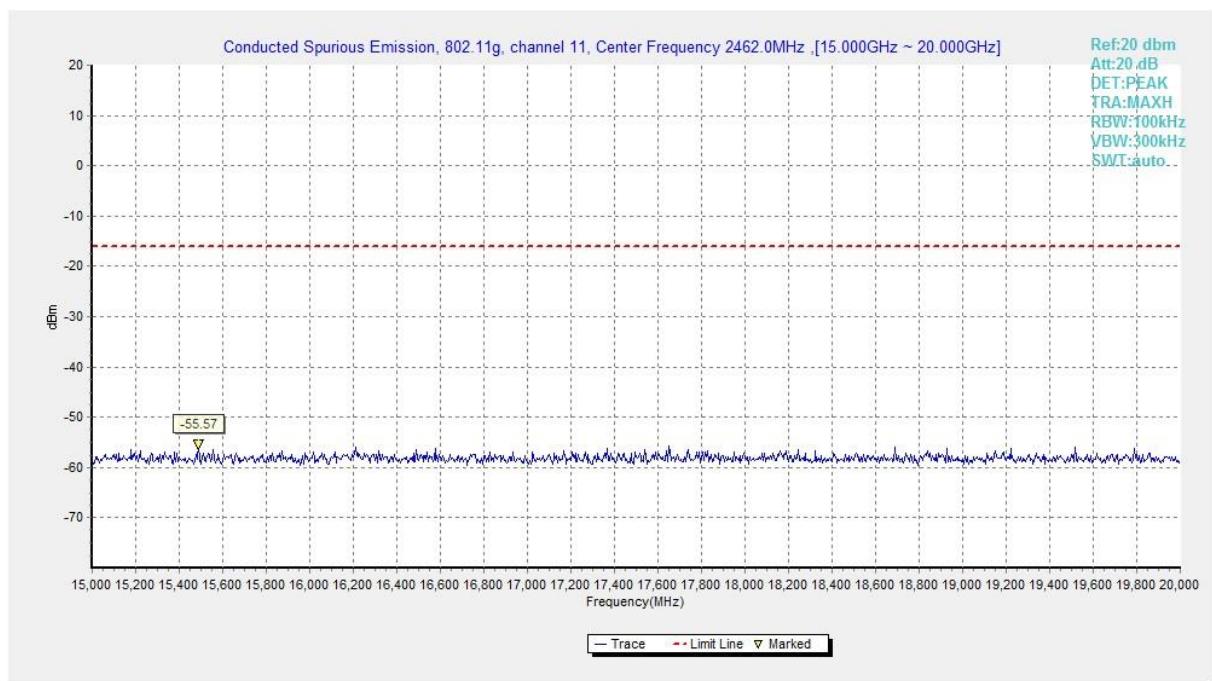
**Fig.A.6.1.44 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 2.5 GHz-7.5 GHz)**



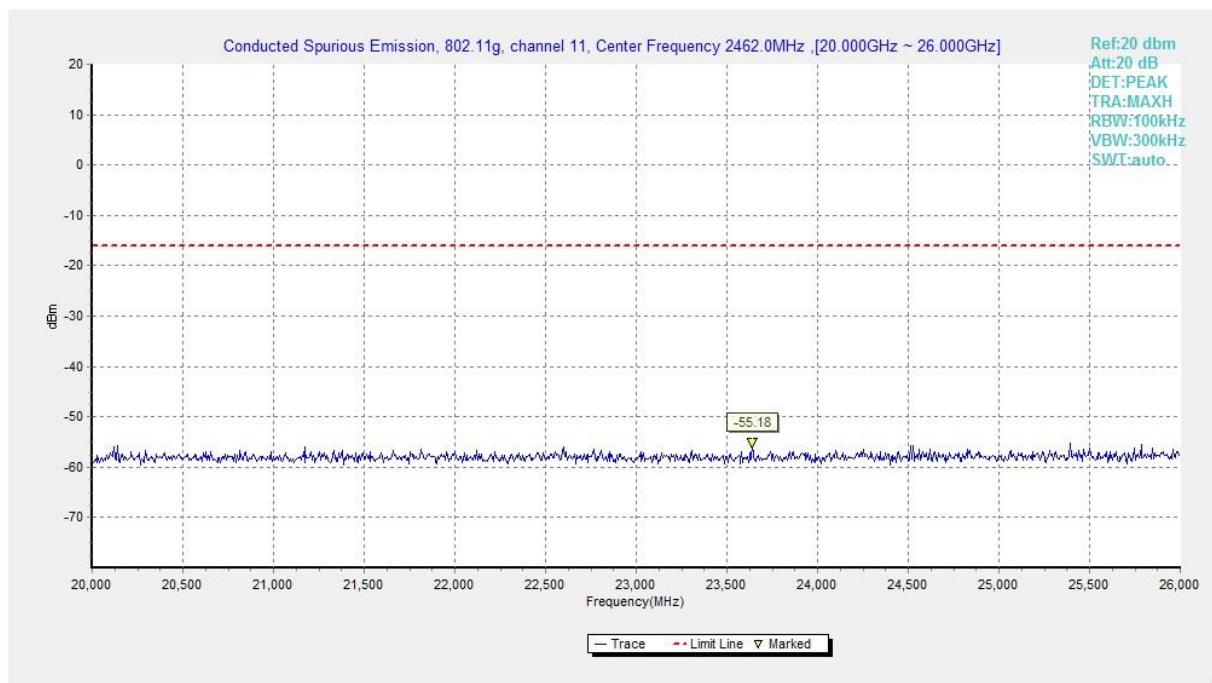
**Fig.A.6.1.45 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 7.5 GHz-10 GHz)**



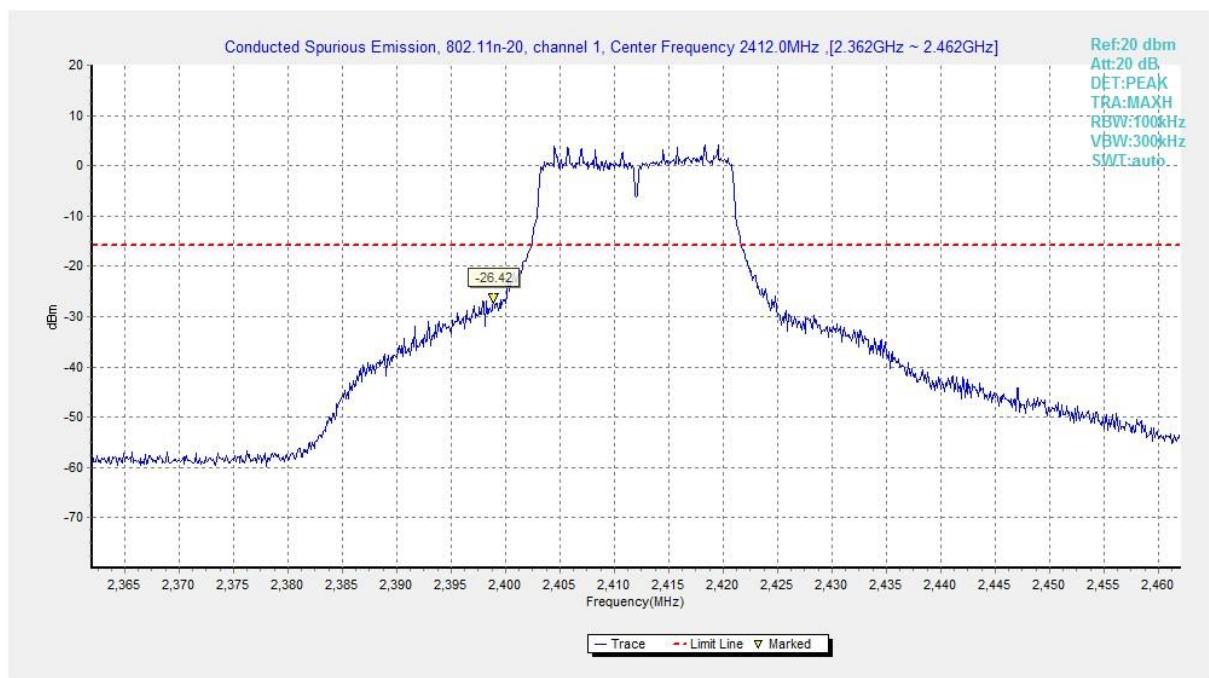
**Fig.A.6.1.46 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 10 GHz-15 GHz)**



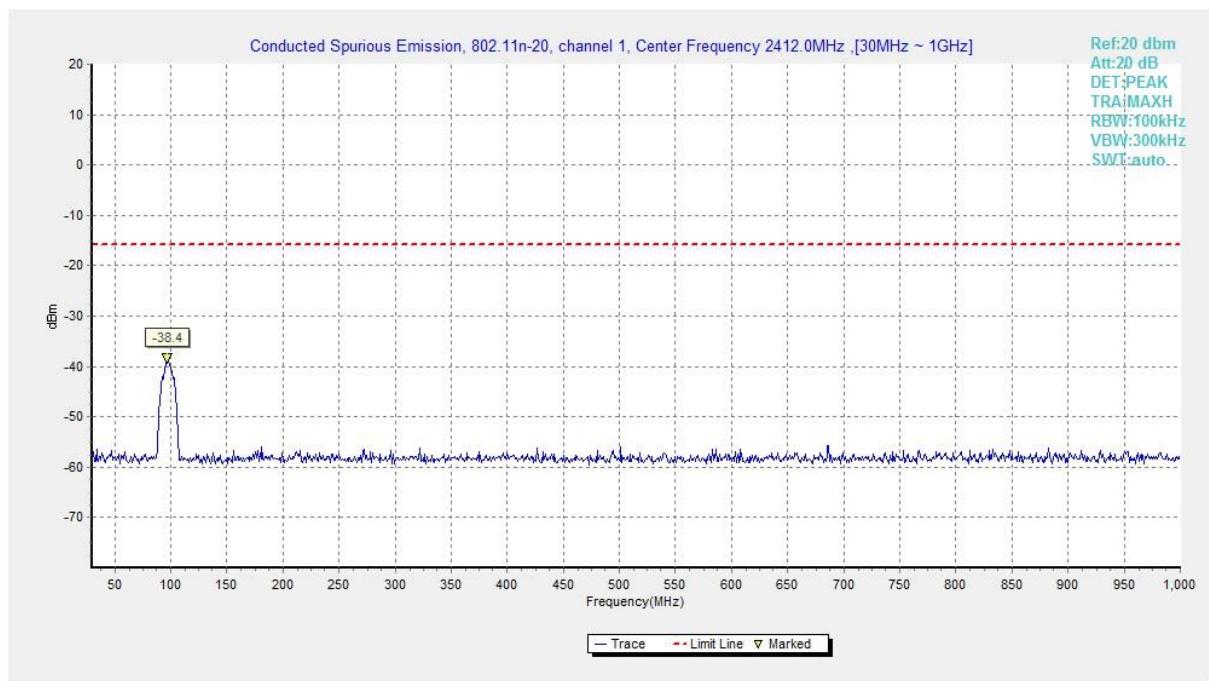
**Fig.A.6.1.47 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 15 GHz-20 GHz)**



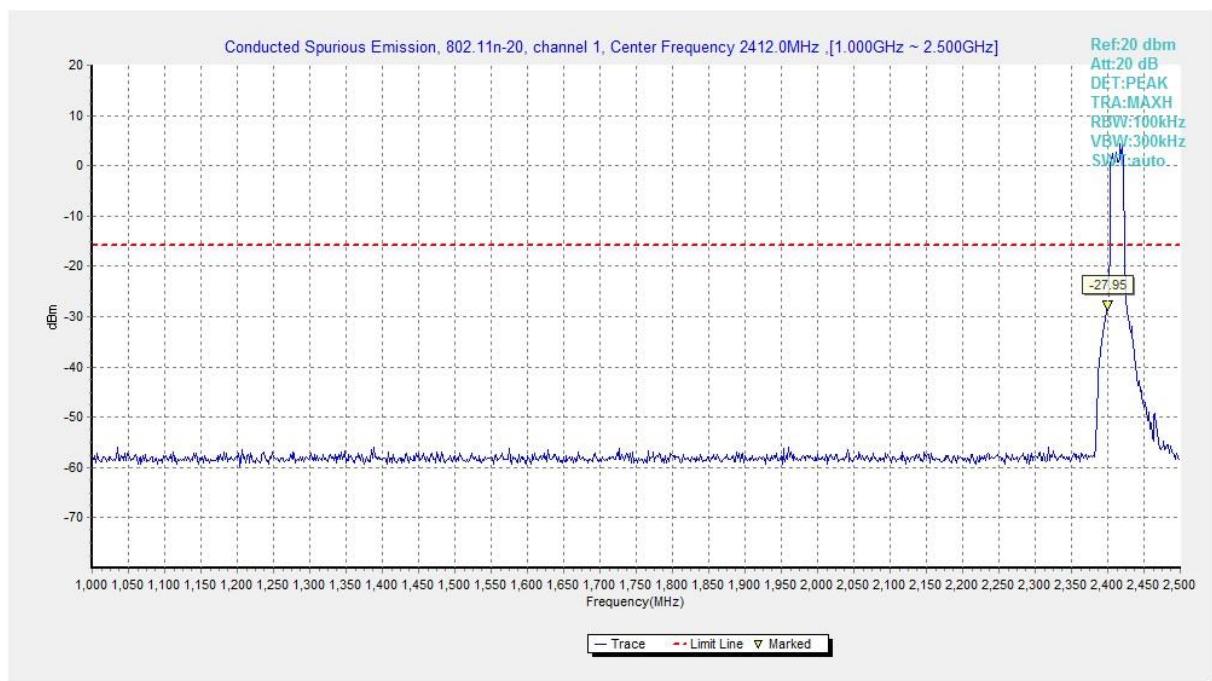
**Fig.A.6.1.48 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 20 GHz-26 GHz)**



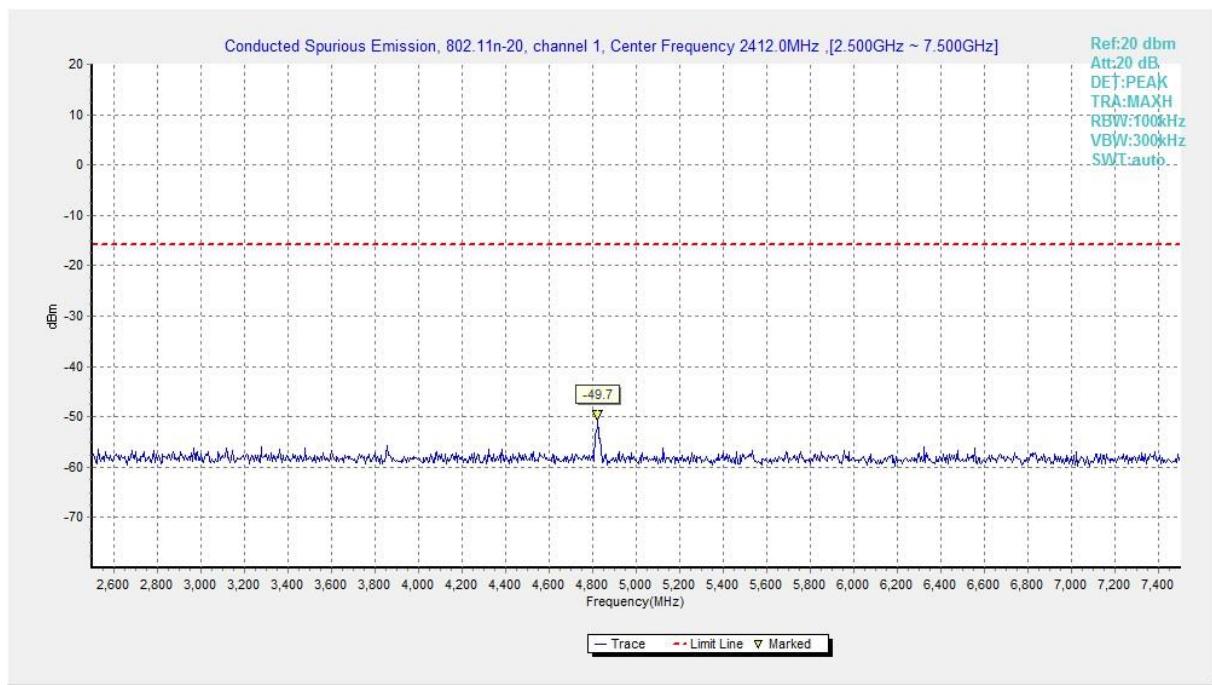
**Fig.A.6.1.49 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, Center Frequency)**



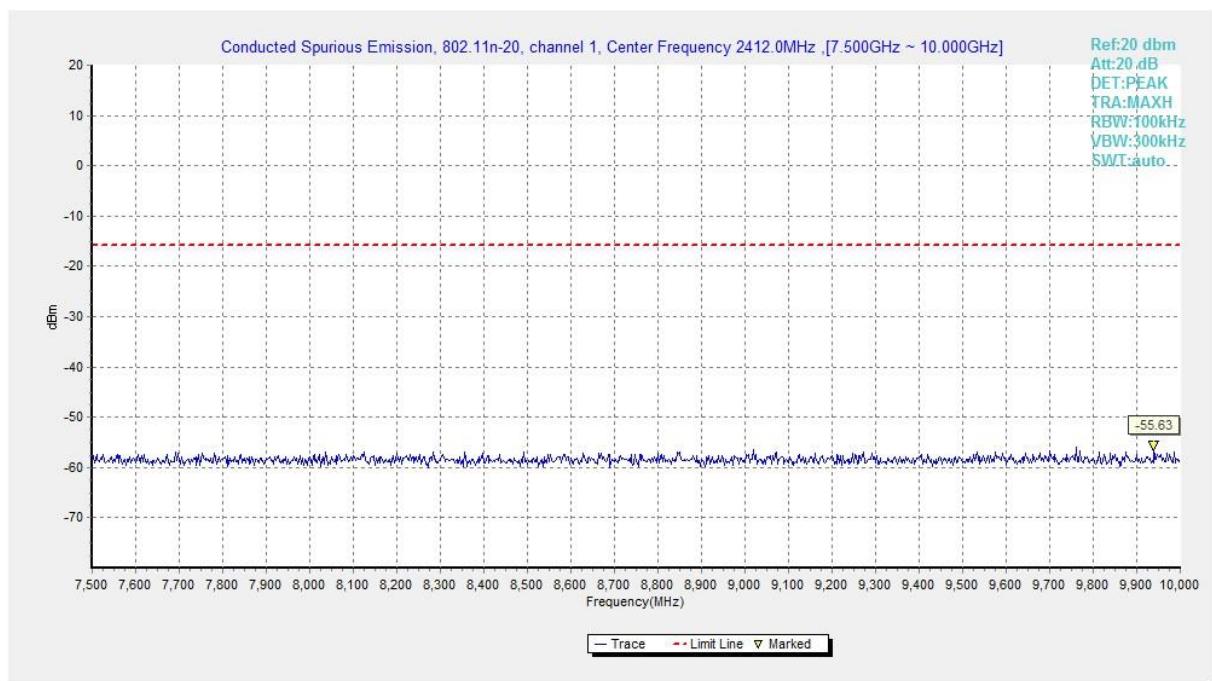
**Fig.A.6.1.50 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 30 MHz-1 GHz)**



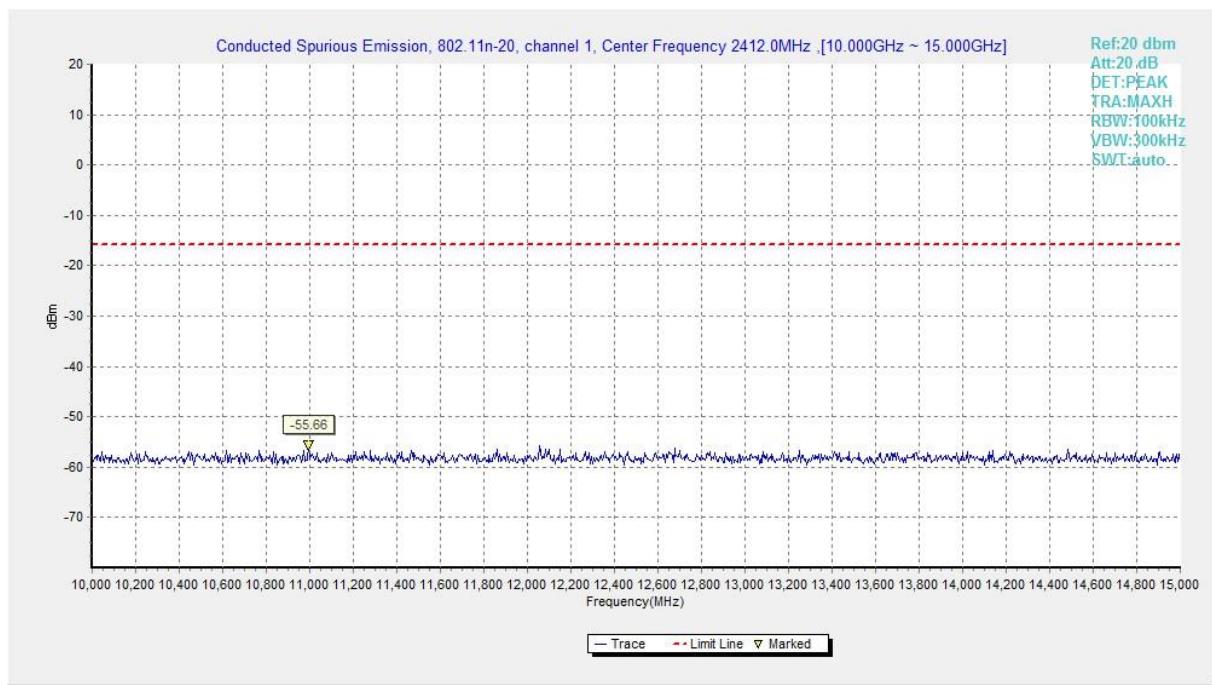
**Fig.A.6.1.51 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 1 GHz-2.5 GHz)**



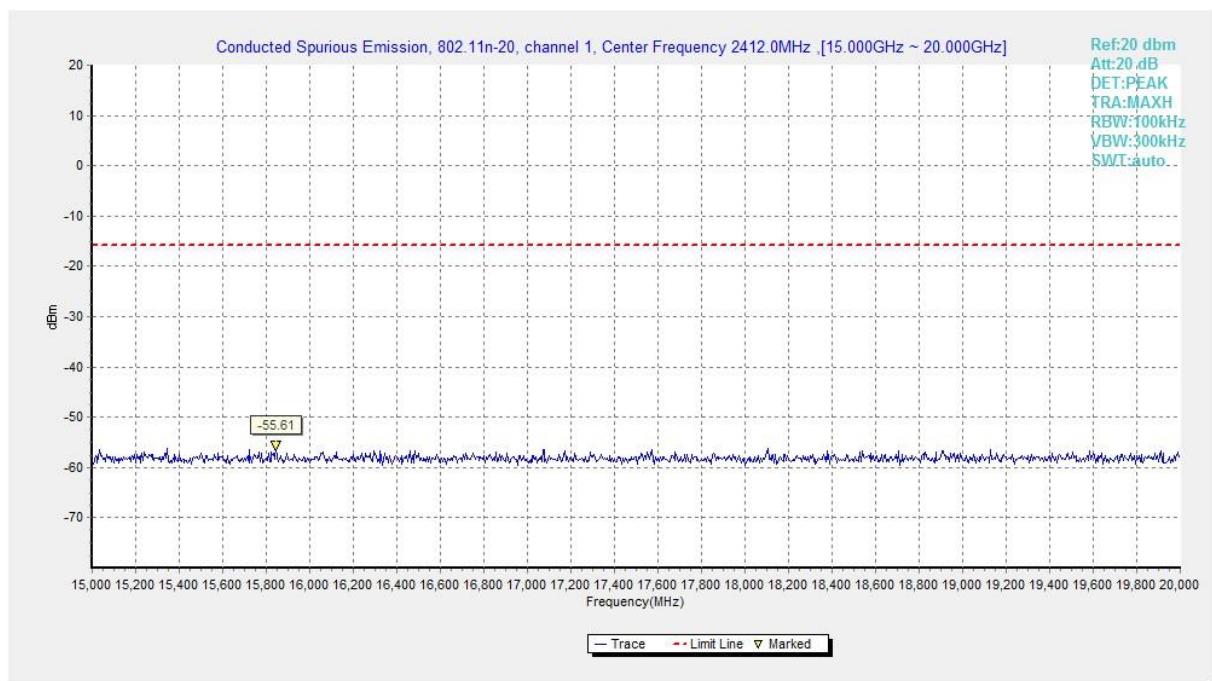
**Fig.A.6.1.52 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 2.5 GHz-7.5 GHz)**



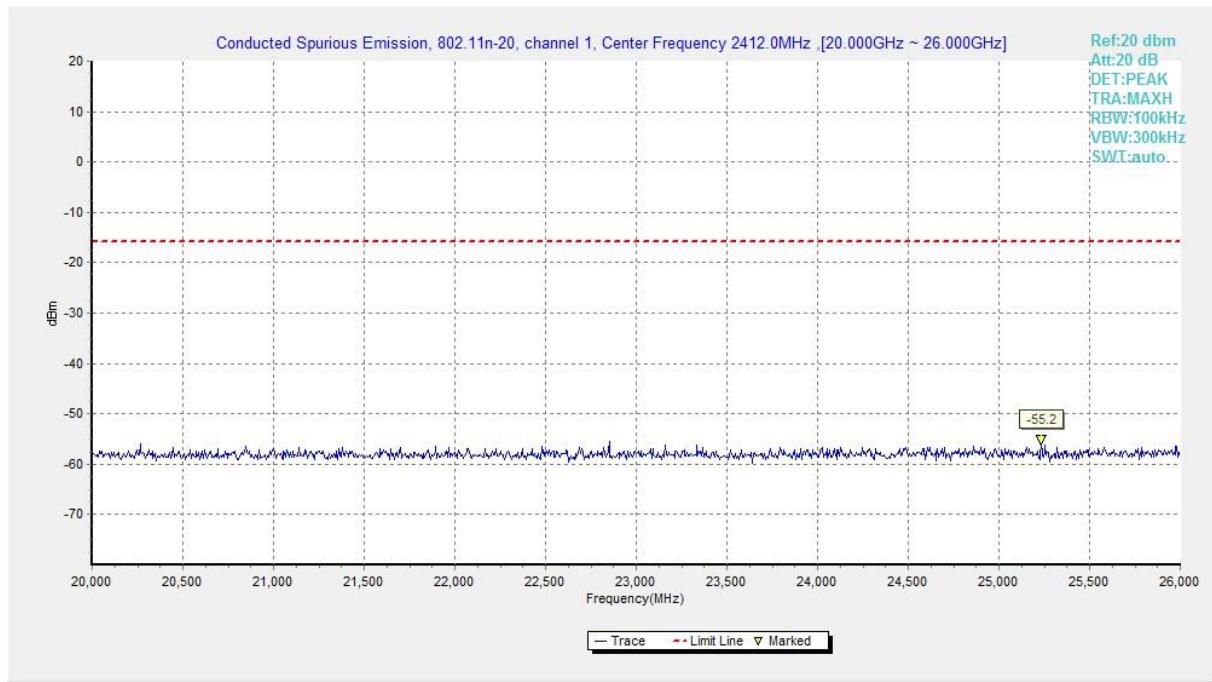
**Fig.A.6.1.53 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 7.5 GHz-10 GHz)**



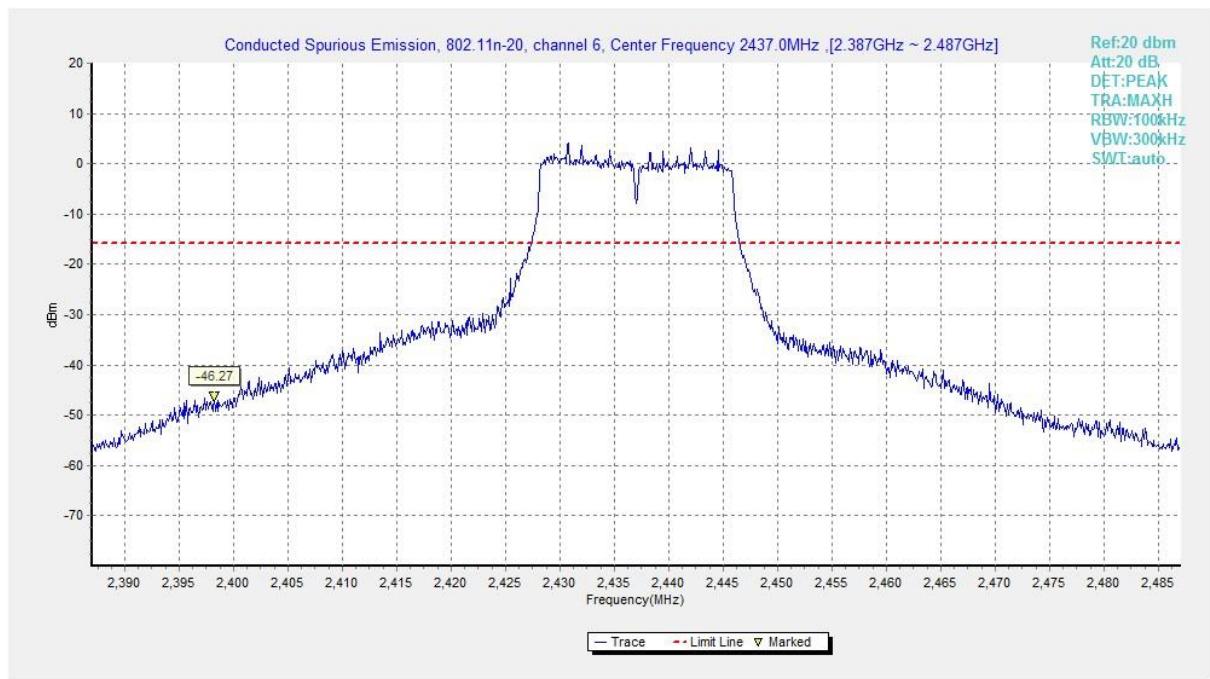
**Fig.A.6.1.54 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 10 GHz-15 GHz)**



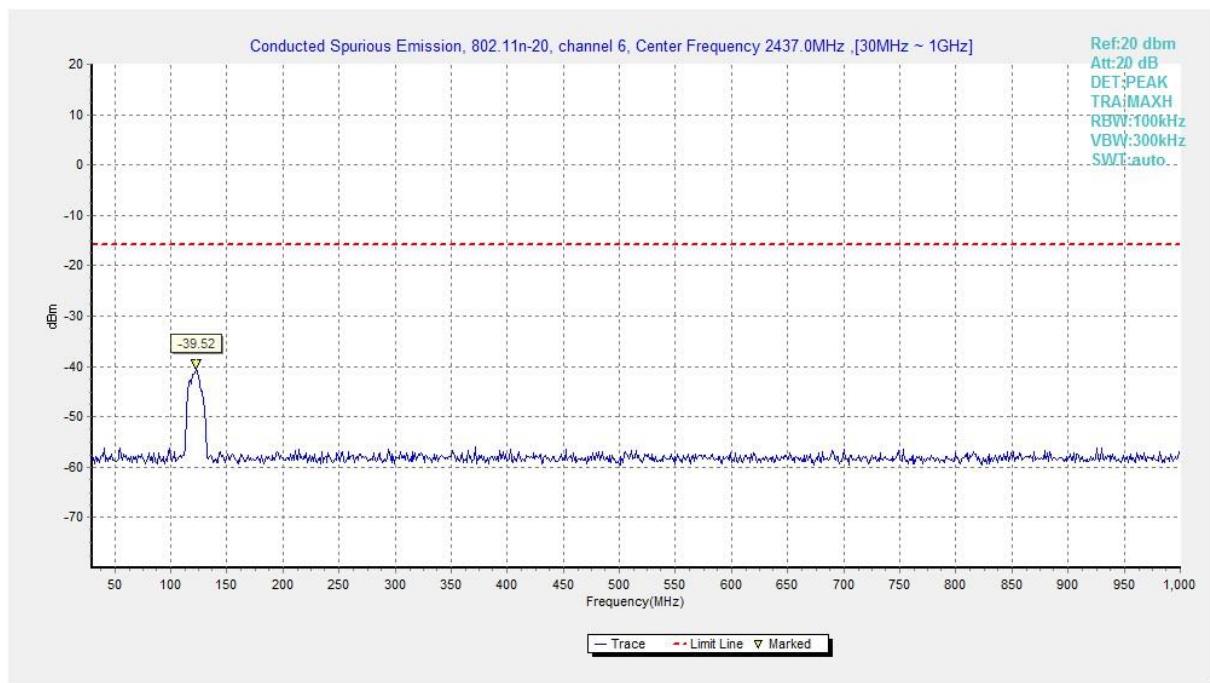
**Fig.A.6.1.55 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 15 GHz-20 GHz)**



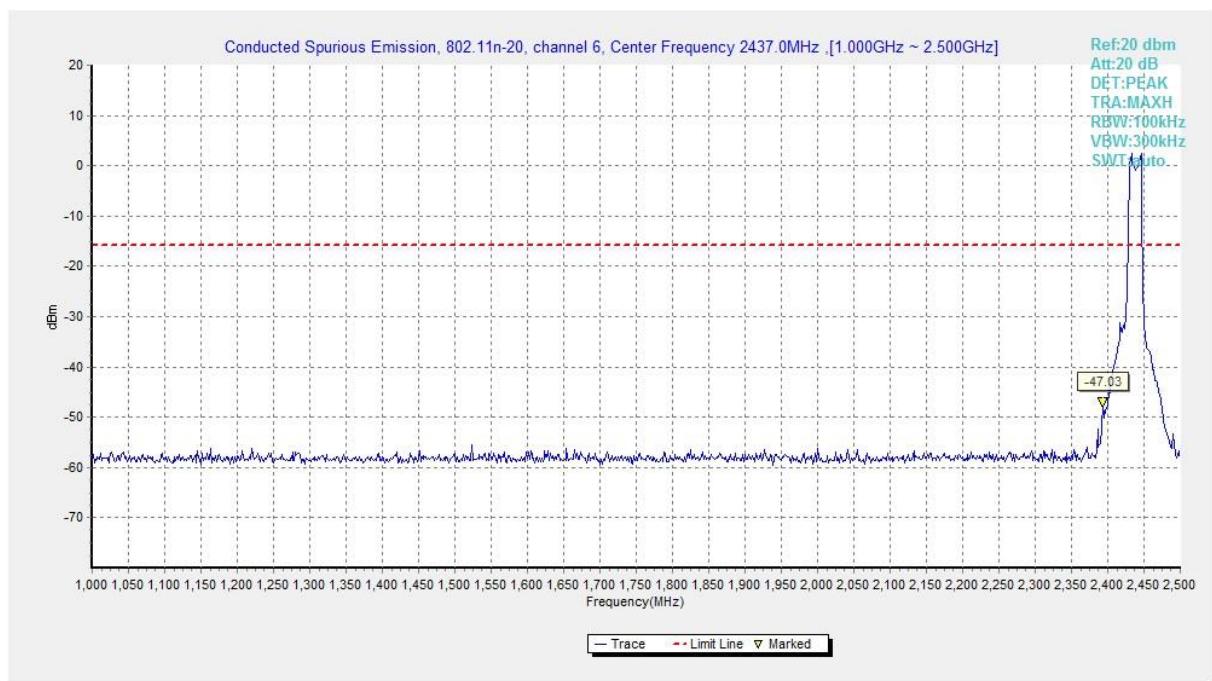
**Fig.A.6.1.56 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 20 GHz-26 GHz)**



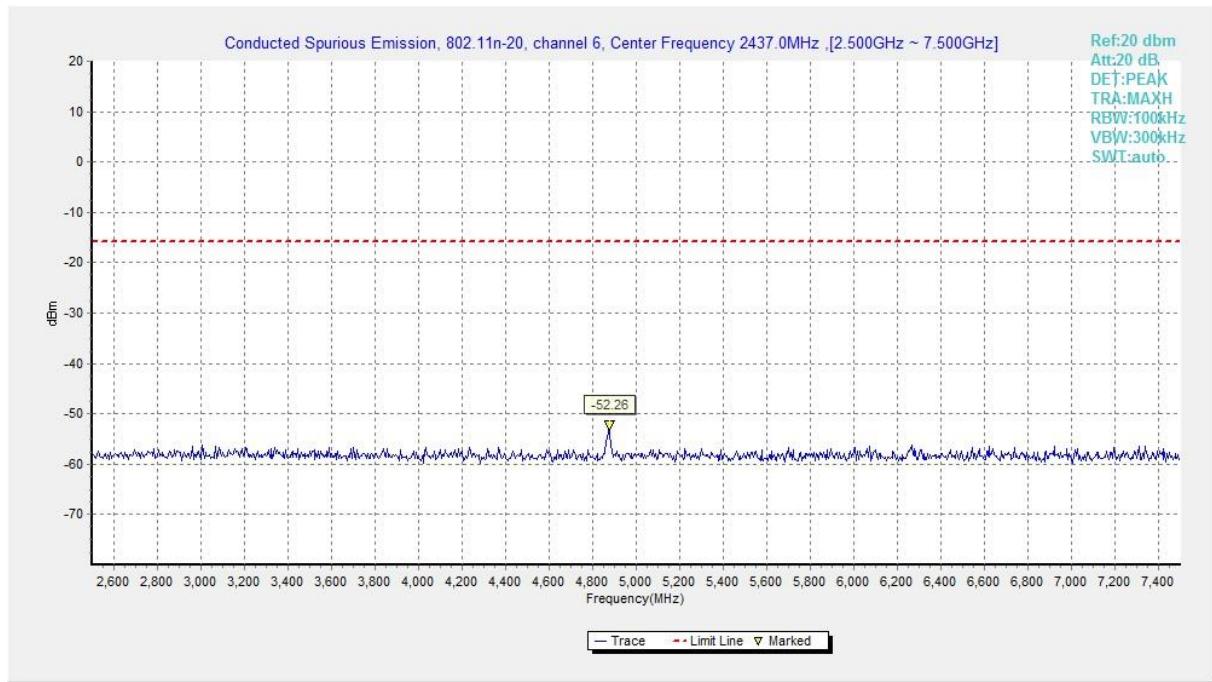
**Fig.A.6.1.57 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, Center Frequency)**



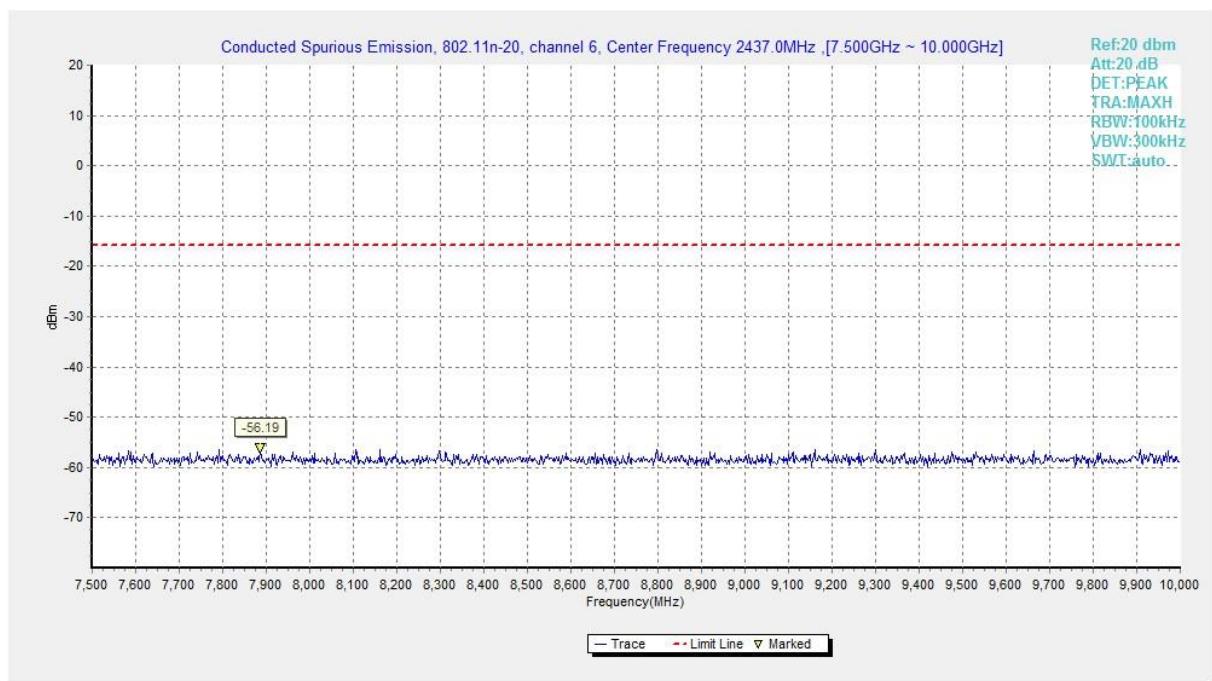
**Fig.A.6.1.58 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 30 MHz-1 GHz)**



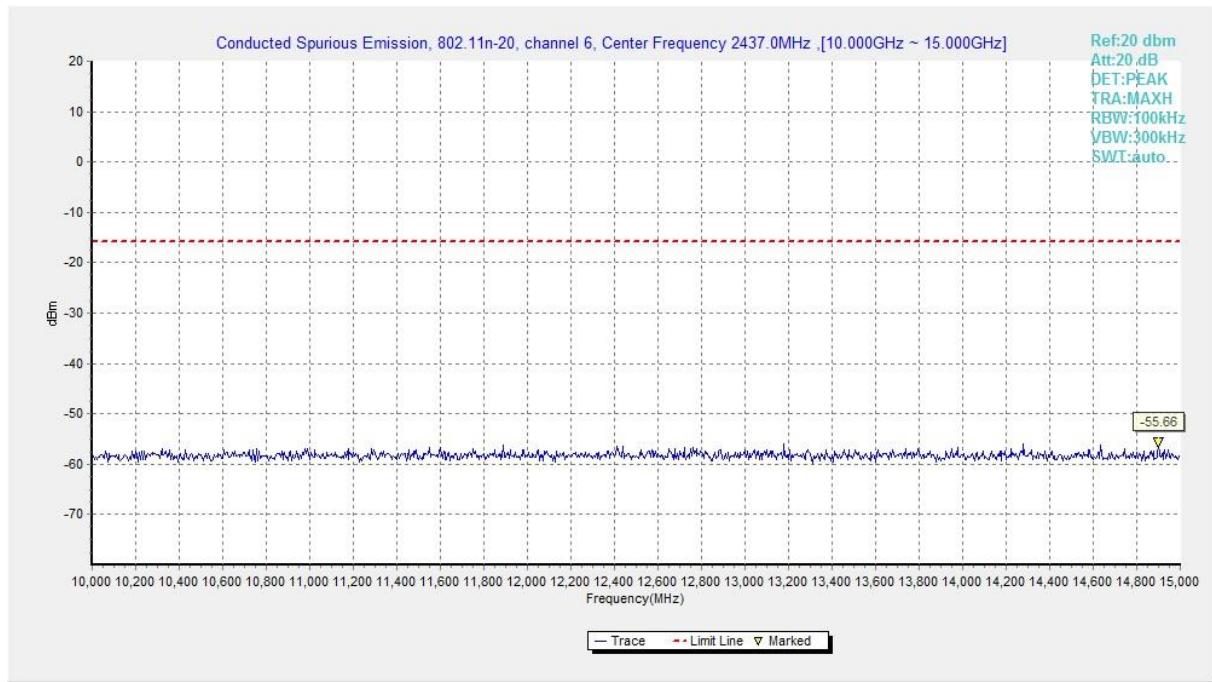
**Fig.A.6.1.59 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 1 GHz-2.5 GHz)**



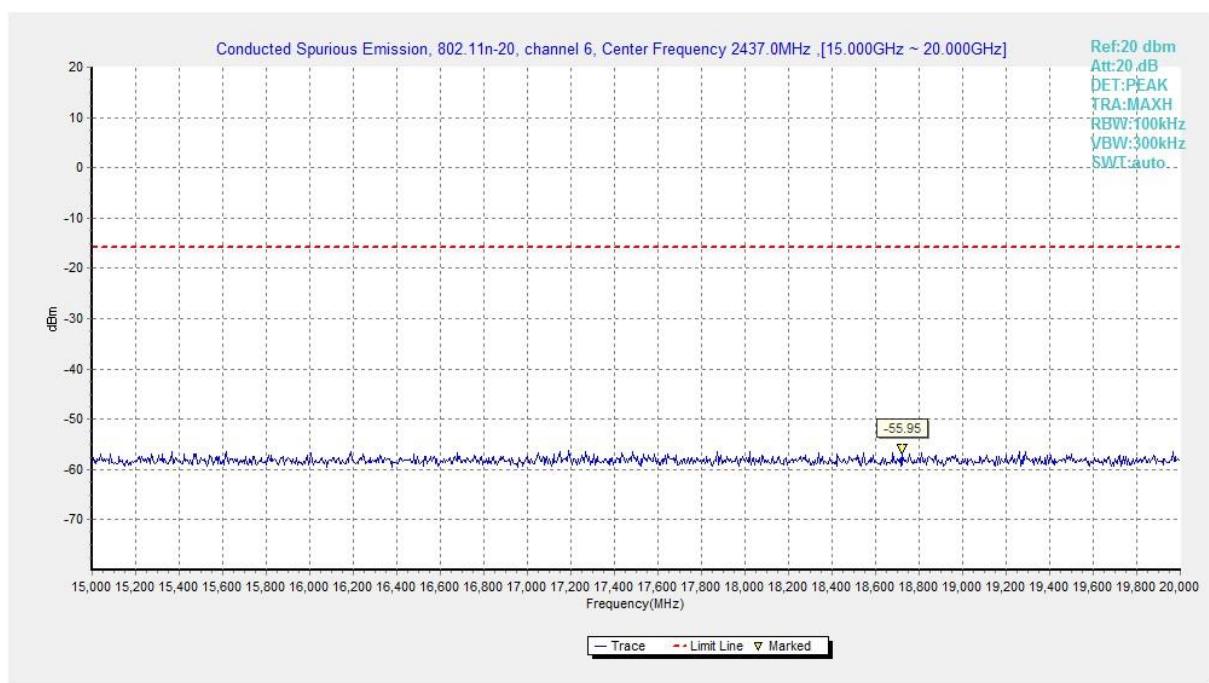
**Fig.A.6.1.60 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 2.5 GHz-7.5 GHz)**



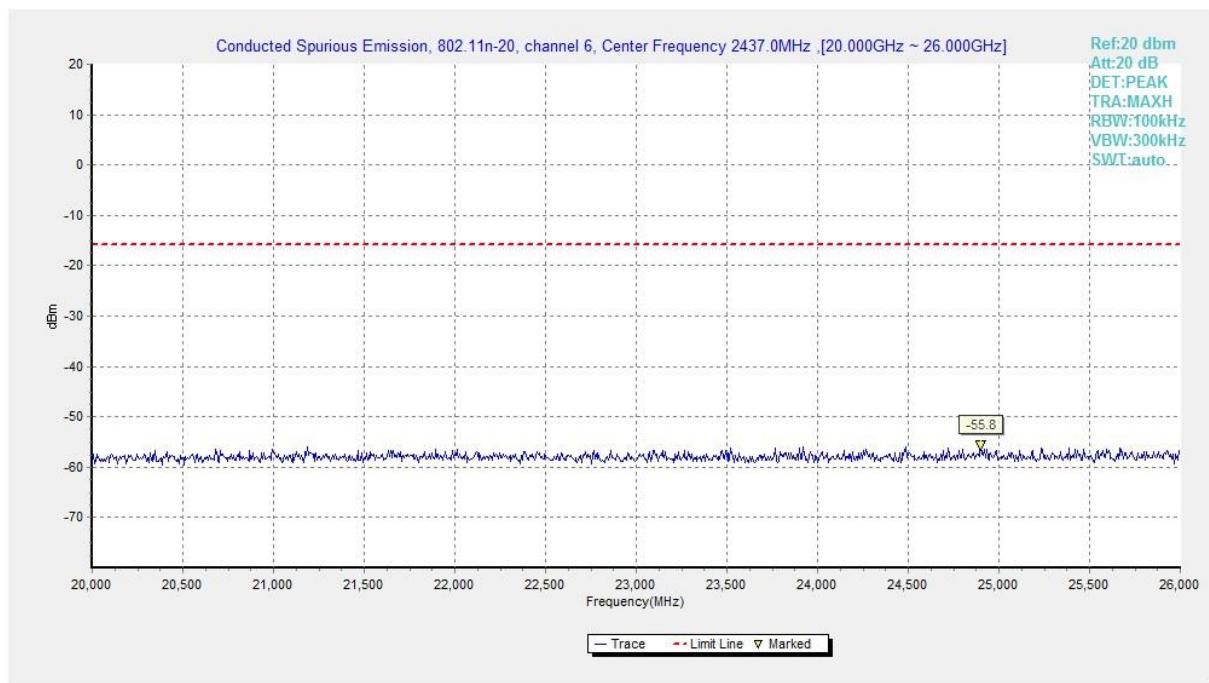
**Fig.A.6.1.61 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 7.5 GHz-10 GHz)**



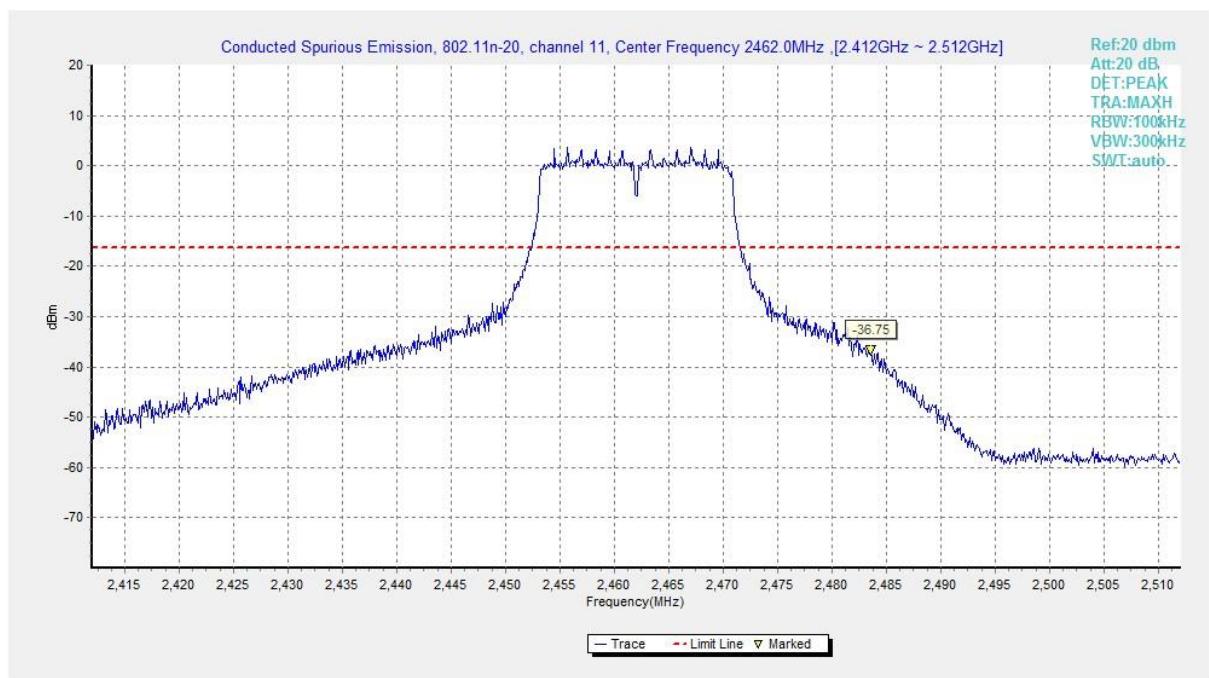
**Fig.A.6.1.62 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 10 GHz-15 GHz)**



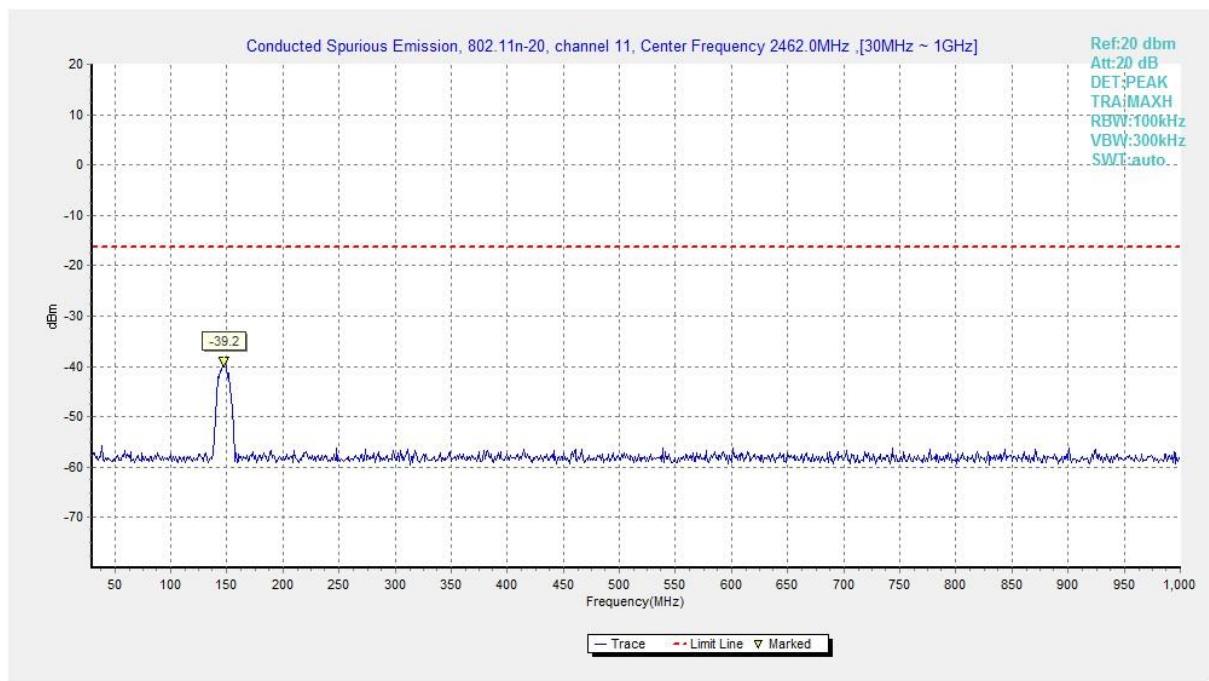
**Fig.A.6.1.63 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 15 GHz-20 GHz)**



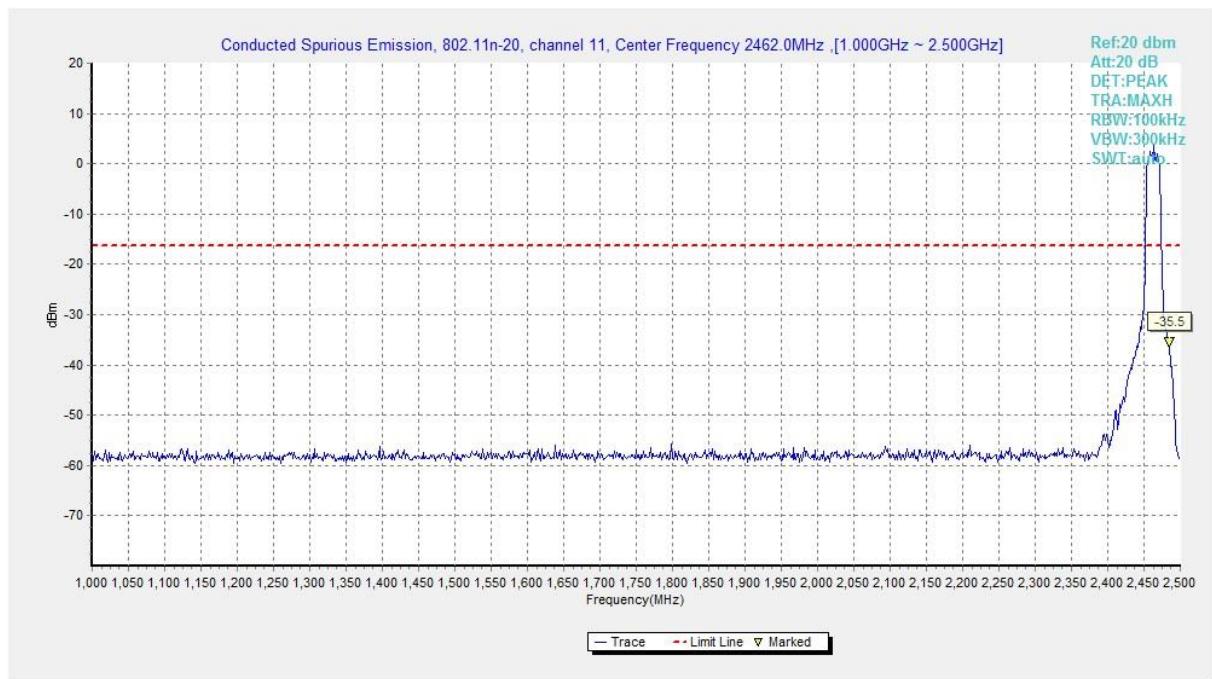
**Fig.A.6.1.64 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 20 GHz-26 GHz)**



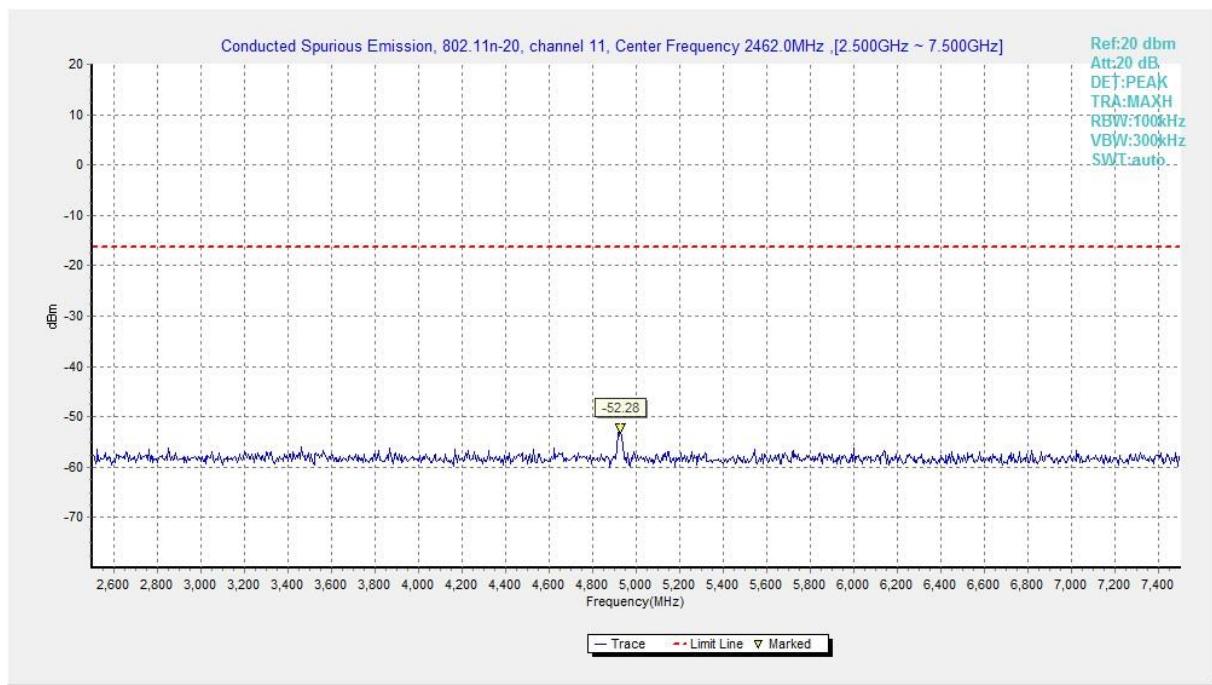
**Fig.A.6.1.65 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, Center Frequency)**



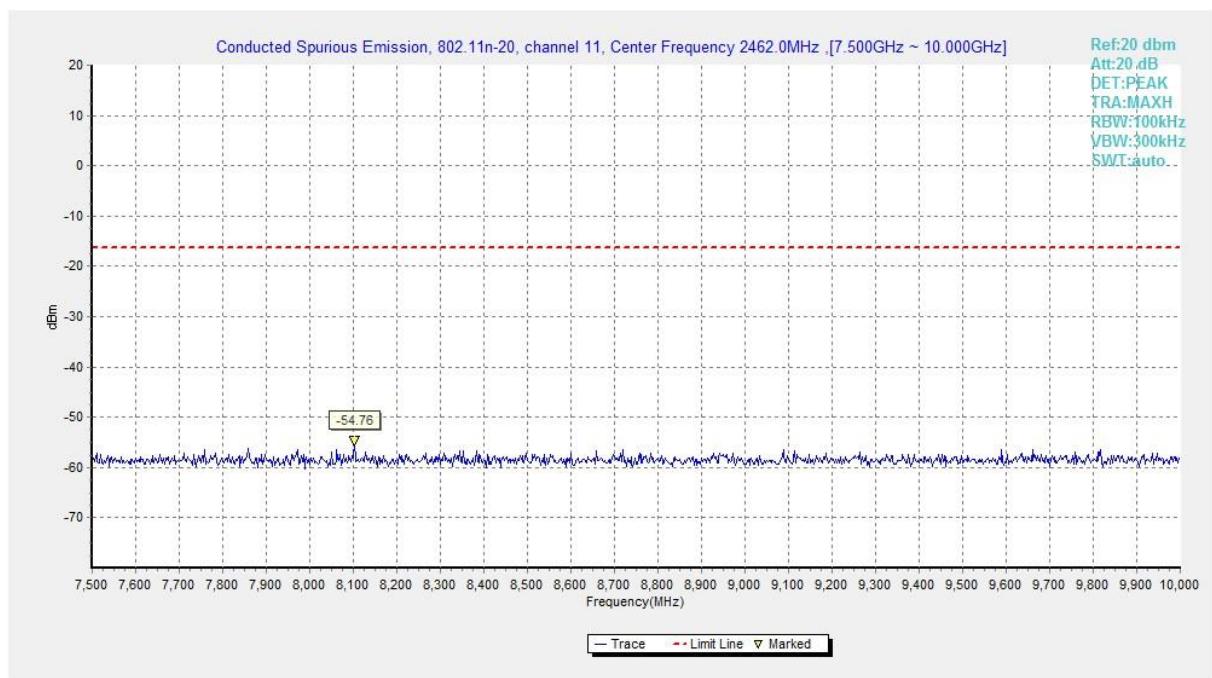
**Fig.A.6.1.66 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 30 MHz-1 GHz)**



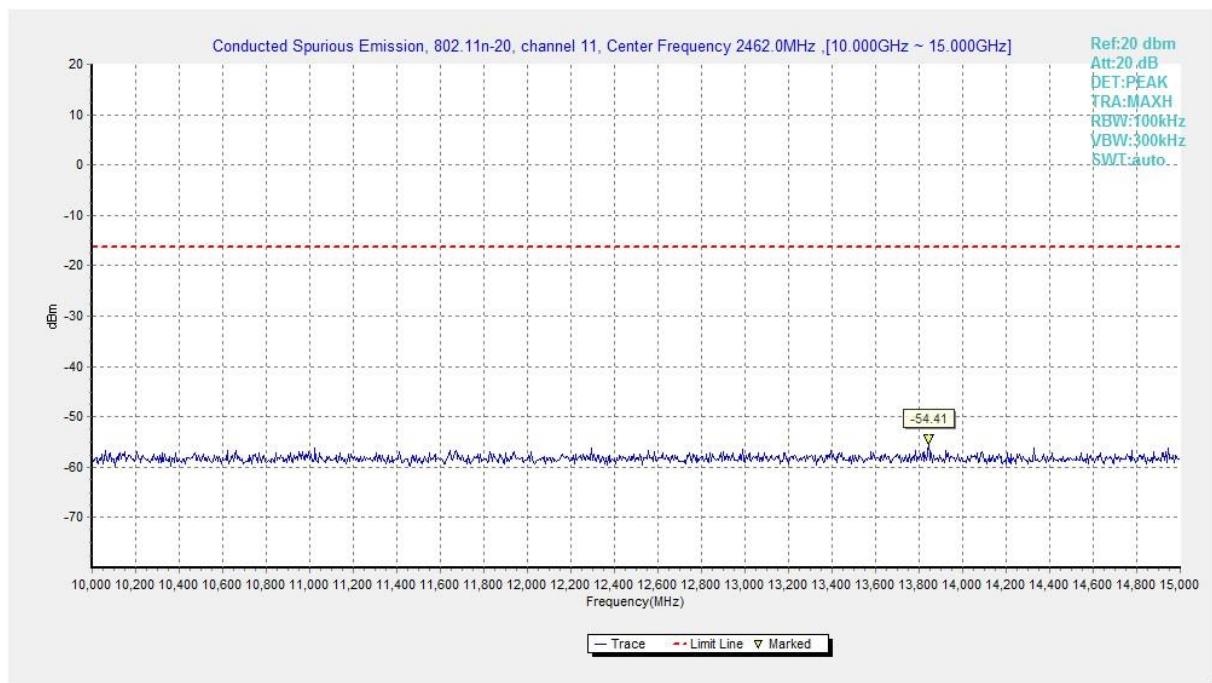
**Fig.A.6.1.67 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 1 GHz-2.5 GHz)**



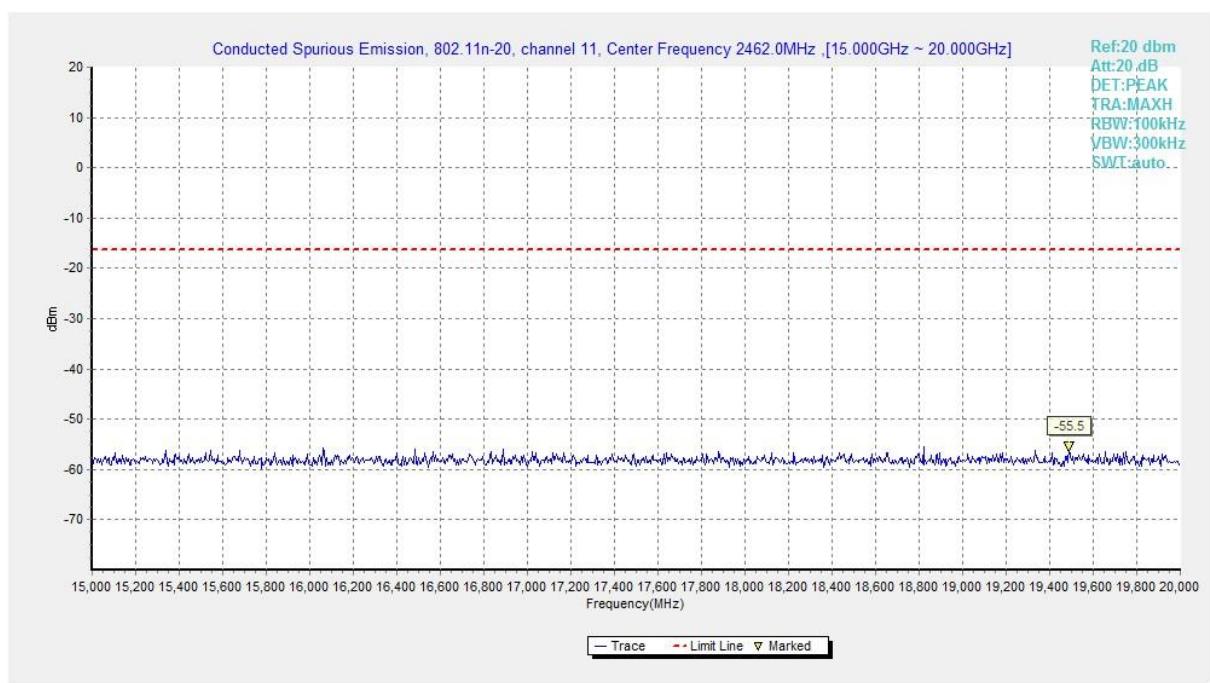
**Fig.A.6.1.68 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 2.5 GHz-7.5 GHz)**



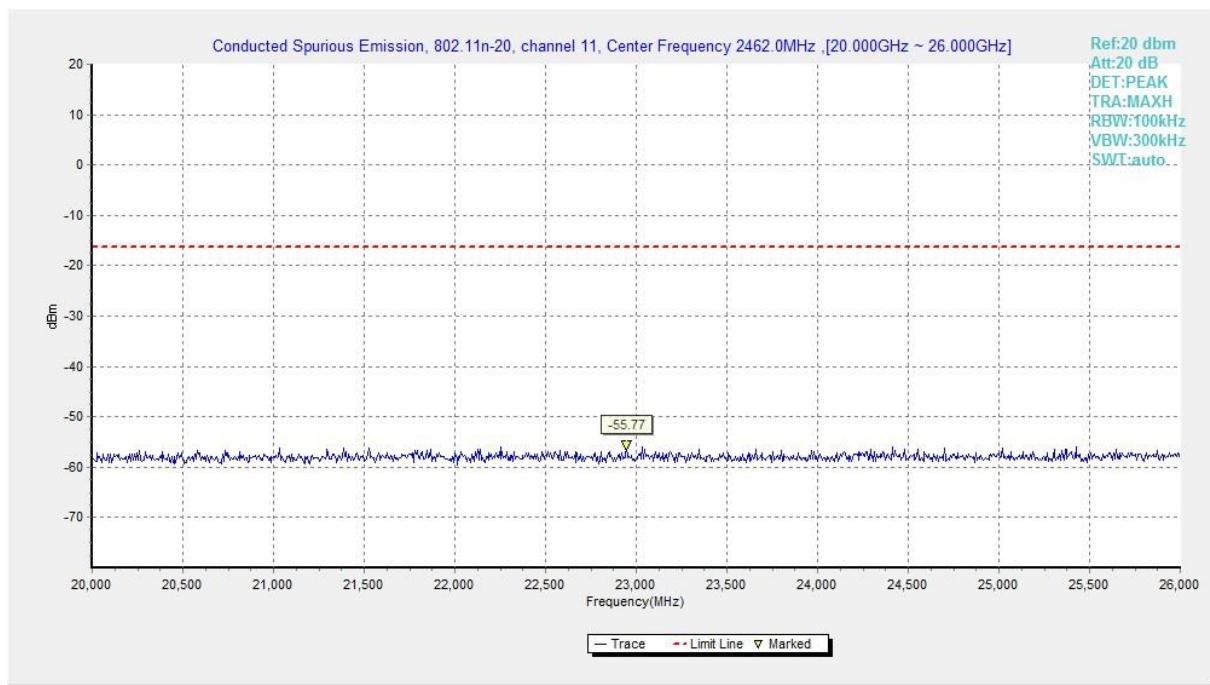
**Fig.A.6.1.69 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 7.5 GHz-10 GHz)**



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



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



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

### A.6.2 Transmitter Spurious Emission - Radiated

**Method of Measurement: See ANSI C63.10-2013-clause 6.4 &6.5 & 6.6**

**Measurement Limit:**

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209	20dB below peak output power

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

**Limit in restricted band:**

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Frequency (MHz)	Field strength( $\mu$ 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(ch1)	2.38GHz ~2.43GHz	Fig.A.6.2.1	P
	Power(ch11)	2.45GHz ~2.5GHz	Fig.A.6.2.2	P

**802.11g mode**

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	Power(ch1)	2.38GHz ~2.43GHz	Fig.A.6.2.3	P
	Power(ch11)	2.45GHz ~2.5GHz	Fig.A.6.2.4	P

**802.11n-HT20 mode**

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	Power(ch1)	2.38GHz ~2.43GHz	Fig.A.6.2.5	P
	Power(ch11)	2.45GHz ~2.5GHz	Fig.A.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:

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

**802.11b-Average**

Ch1

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2386.400	46.52	2.9	32.0	11.65	54.0	7.5	H	155	170
2389.000	46.53	2.9	32.0	11.68	54.0	7.5	H	155	150
4824.000	33.12	-32.8	34.5	31.37	54.0	20.9	H	155	20
7236.000	37.31	-31.7	36.1	32.95	54.0	16.7	H	155	180
9648.000	40.56	-30.4	37.0	33.88	54.0	13.4	H	155	202
12060.000	41.71	-29.6	39.3	32.04	54.0	12.3	H	155	8

Ch6

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2388.370	46.54	2.9	32.0	11.69	54.0	7.5	H	155	25
2486.342	46.65	2.9	32.7	11.03	54.0	7.4	H	155	49
4873.500	32.91	-32.7	34.5	31.12	54.0	21.1	H	155	4
7311.000	38.26	-31.9	36.1	34.09	54.0	15.7	H	155	6
9748.500	39.34	-30.7	37.2	32.80	54.0	14.7	H	155	25
12184.500	43.70	-29.4	39.2	33.90	54.0	10.3	H	155	186

Ch11

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.520	46.78	2.9	32.8	11.09	54.0	7.2	H	155	4
2484.960	46.56	2.9	32.7	10.91	54.0	7.4	H	155	2
4924.500	33.51	-33.1	34.5	32.10	54.0	20.5	H	155	25
7386.000	38.73	-31.8	36.0	34.52	54.0	15.3	H	155	350
9847.500	40.21	-30.1	37.3	32.96	54.0	13.8	H	155	92
12310.500	41.64	-29.7	39.2	32.17	54.0	12.4	H	155	85

**802.11b-Peak**

Ch1

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2380.336	60.77	2.9	32.1	25.85	74.0	13.2	H	155	176
2386.986	60.48	2.9	32.0	25.62	74.0	13.5	H	155	154
4824.000	41.05	-32.8	34.5	39.30	74.0	33.0	V	155	22
7236.000	42.18	-31.7	36.1	37.82	74.0	31.8	V	155	176
9648.000	46.46	-30.4	37.0	39.78	74.0	27.5	H	155	198
12060.000	46.27	-29.6	39.3	36.60	74.0	27.7	H	155	0

Ch6

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2366.200	48.07	-27.2	31.9	43.34	74.0	25.9	H	155	22
2507.400	48.49	-26.4	32.4	42.50	74.0	25.5	V	155	44
4874.250	40.32	-32.7	34.5	38.53	74.0	33.7	H	155	0
7311.000	44.00	-31.9	36.1	39.83	74.0	30.0	H	155	0
9747.750	44.15	-30.7	37.2	37.62	74.0	29.8	H	155	22
12185.250	46.87	-29.4	39.2	37.07	74.0	27.1	H	155	176

Ch11

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2488.290	60.96	2.9	32.6	25.39	74.0	13.0	H	155	0
2488.730	60.41	2.9	32.6	24.86	74.0	13.6	H	155	0
4923.750	40.51	-33.1	34.5	39.09	74.0	33.5	V	155	22
7386.000	44.52	-31.8	36.0	40.31	74.0	29.5	V	155	352
9848.250	45.57	-30.1	37.3	38.31	74.0	28.4	V	155	88
12309.750	46.19	-29.7	39.2	36.71	74.0	27.8	V	155	88

**802.11g - Average**

Ch1

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2389.954	46.75	2.9	32.0	11.90	54.0	7.3	H	155	20
2389.200	46.62	2.9	32.0	11.77	54.0	7.4	H	155	45
4824.000	33.16	-32.8	34.5	31.41	54.0	20.8	H	155	240
7236.000	37.32	-31.7	36.1	32.96	54.0	16.7	H	155	180
9648.000	40.54	-30.4	37.0	33.85	54.0	13.5	H	155	85
12060.000	41.64	-29.6	39.3	31.97	54.0	12.4	H	155	25

Ch6

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2385.760	46.69	2.9	32.0	11.82	54.0	7.3	H	155	175
2487.950	46.62	2.9	32.6	11.05	54.0	7.4	H	155	5
4873.500	32.98	-32.7	34.5	31.19	54.0	21.0	H	155	26
7311.000	38.20	-31.9	36.1	34.03	54.0	15.8	H	155	355
9748.500	39.31	-30.7	37.2	32.78	54.0	14.7	H	155	6
12184.500	43.75	-29.4	39.2	33.95	54.0	10.3	H	155	12

Ch11

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.830	46.77	2.9	32.8	11.08	54.0	7.2	H	155	20
2485.240	46.59	2.9	32.7	10.95	54.0	7.4	H	155	248
4924.500	33.60	-33.1	34.5	32.19	54.0	20.4	H	155	49
7386.000	38.69	-31.8	36.0	34.49	54.0	15.3	H	155	335
9847.500	40.22	-30.1	37.3	32.97	54.0	13.8	H	155	180
12310.500	41.74	-29.7	39.2	32.27	54.0	12.3	H	155	8

**802.11g - Peak**

Ch1

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2389.590	63.54	2.9	32.0	28.70	74.0	10.5	H	155	22
2389.884	64.15	2.9	32.0	29.30	74.0	9.8	H	155	44
4824.000	40.53	-32.8	34.5	38.78	74.0	33.5	H	155	242
7236.000	43.56	-31.7	36.1	39.20	74.0	30.4	H	155	176
9648.000	45.87	-30.4	37.0	39.18	74.0	28.1	H	155	88
12060.000	44.74	-29.6	39.3	35.06	74.0	29.3	V	155	22

Ch6

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2366.420	48.07	-27.2	31.9	43.33	74.0	25.9	H	155	176
2507.420	48.49	-26.4	32.4	42.50	74.0	25.5	H	155	0
4874.250	40.64	-32.7	34.5	38.85	74.0	33.4	V	155	22
7311.000	44.71	-31.9	36.1	40.55	74.0	29.3	V	155	352
9747.750	45.09	-30.7	37.2	38.56	74.0	28.9	V	155	0
12185.250	46.76	-29.4	39.2	36.97	74.0	27.2	V	155	0

Ch11

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.600	66.47	2.9	32.8	30.78	74.0	7.5	H	155	22
2483.790	66.11	2.9	32.8	30.42	74.0	7.9	H	155	242
4923.750	40.88	-33.1	34.5	39.46	74.0	33.1	V	155	44
7386.000	45.71	-31.8	36.0	41.50	74.0	28.3	H	155	330
9848.250	46.24	-30.1	37.3	38.99	74.0	27.8	H	155	176
12309.750	46.97	-29.7	39.2	37.50	74.0	27.0	H	155	0

**802.11n-HT20-Average**

Ch1

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2389.435	46.75	2.9	32.0	11.90	54.0	7.3	H	155	135
2389.995	46.76	2.9	32.0	11.92	54.0	7.2	H	155	160
4824.000	33.04	-32.8	34.5	31.29	54.0	21.0	H	155	92
7236.000	37.27	-31.7	36.1	32.91	54.0	16.7	H	155	115
9648.000	40.51	-30.4	37.0	33.82	54.0	13.5	H	155	112
12060.000	41.64	-29.6	39.3	31.97	54.0	12.4	H	155	85

Ch6

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2388.647	46.67	2.9	32.0	11.82	54.0	7.3	H	155	5
2483.942	46.68	2.9	32.7	11.00	54.0	7.3	H	155	25
4873.500	32.90	-32.7	34.5	31.11	54.0	21.1	H	155	356
7311.000	38.21	-31.9	36.1	34.05	54.0	15.8	H	155	350
9748.500	39.32	-30.7	37.2	32.79	54.0	14.7	H	155	185
12184.500	43.76	-29.4	39.2	33.96	54.0	10.2	H	155	187

Ch11

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.657	47.34	2.9	32.8	11.65	54.0	6.7	H	155	6
2483.743	47.33	2.9	32.8	11.64	54.0	6.7	H	155	48
4924.500	33.54	-33.1	34.5	32.13	54.0	20.5	H	155	92
7386.000	38.65	-31.8	36.0	34.45	54.0	15.3	H	155	48
9847.500	40.20	-30.1	37.3	32.95	54.0	13.8	H	155	68
12310.500	41.65	-29.7	39.2	32.18	54.0	12.4	H	155	92

**802.11n-HT20-Peak**

Ch1

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2389.352	66.03	2.9	32.0	31.18	74.0	8.0	H	155	132
2389.436	67.10	2.9	32.0	32.25	74.0	6.9	H	155	154
4824.000	40.91	-32.8	34.5	39.16	74.0	33.1	V	155	88
7236.000	44.86	-31.7	36.1	40.50	74.0	29.1	H	155	110
9648.000	46.75	-30.4	37.0	40.07	74.0	27.2	V	155	110
12060.000	45.87	-29.6	39.3	36.20	74.0	28.1	V	155	88

Ch6

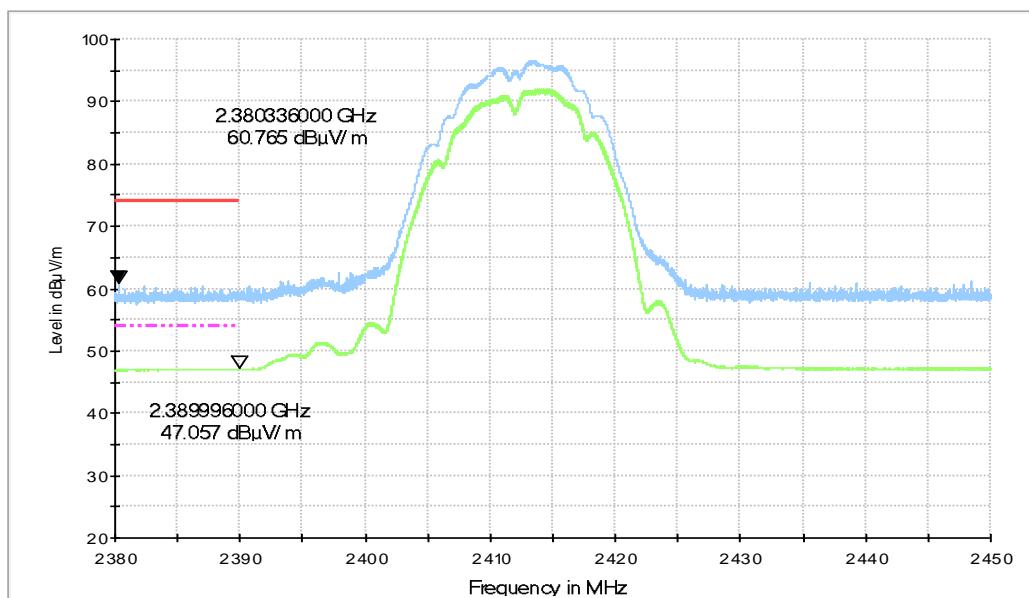
Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2374.420	47.99	-26.7	32.1	42.59	74.0	26.0	H	155	0
2503.240	48.45	-26.3	32.4	42.44	74.0	25.6	H	155	22
4874.250	40.22	-32.7	34.5	38.43	74.0	33.8	H	155	352
7311.000	44.53	-31.9	36.1	40.36	74.0	29.5	V	155	352
9747.750	44.39	-30.7	37.2	37.86	74.0	29.6	V	155	176
12185.250	46.92	-29.4	39.2	37.13	74.0	27.1	V	155	176

Ch11

Frequency (MHz)	Measurement Result (dB $\mu$ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB $\mu$ V)	Limit (dB $\mu$ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.580	72.20	2.9	32.8	36.51	74.0	1.8	H	155	0
2485.020	72.49	2.9	32.7	36.84	74.0	1.5	H	155	44
4923.750	40.28	-33.1	34.5	38.87	74.0	33.7	V	155	88
7386.000	44.69	-31.8	36.0	40.48	74.0	29.3	V	155	44
9848.250	45.63	-30.1	37.3	38.37	74.0	28.4	V	155	66
12309.750	47.38	-29.7	39.2	37.90	74.0	26.6	H	155	88

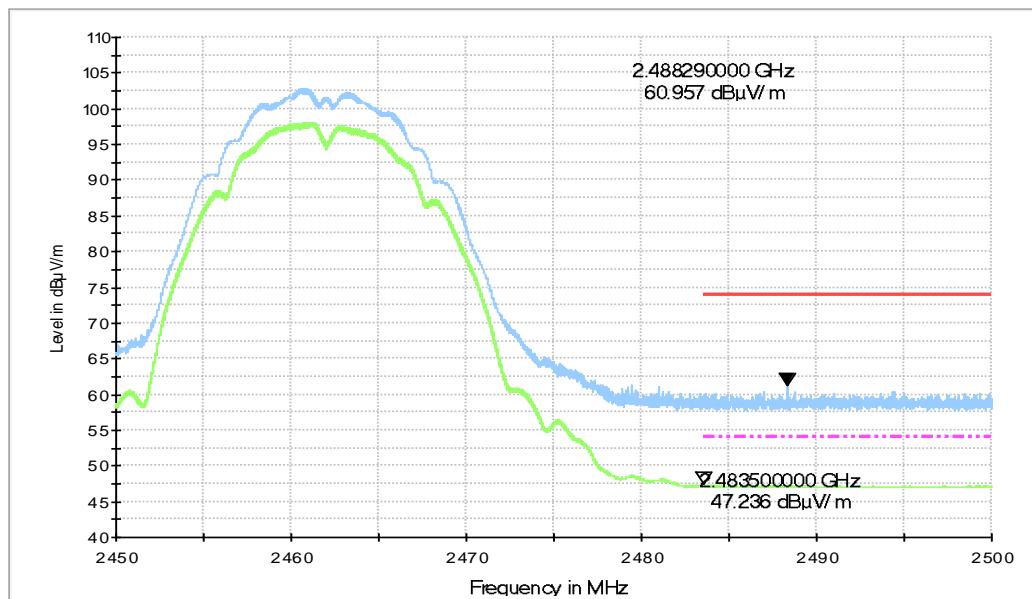
**Test graphs as below:**

RE - Power-2.38GHz-2.45GHz



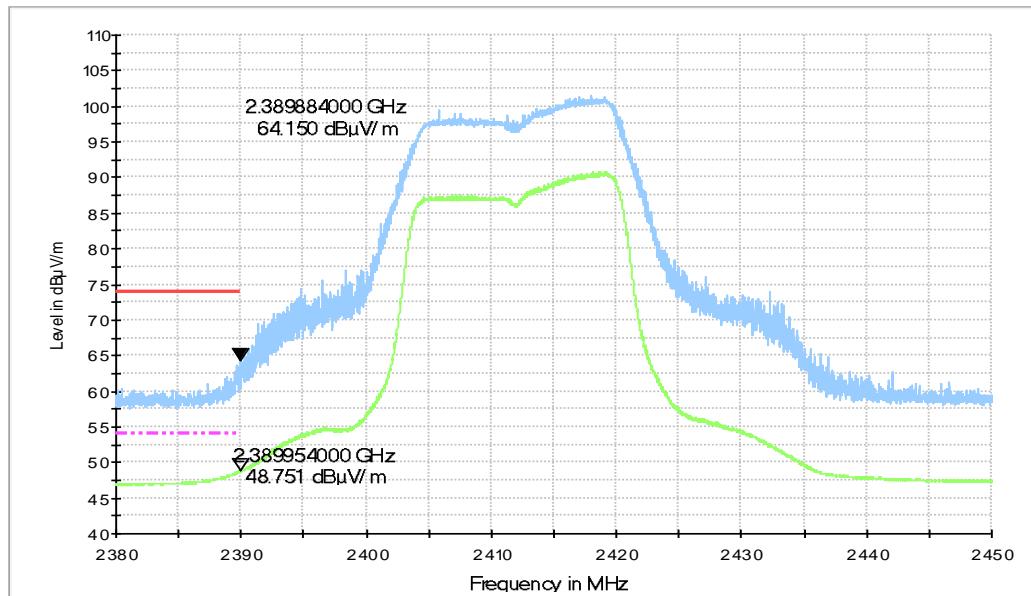
**Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.38 GHz – 2.43GHz**

RE - Power-2.45GHz-2.5GHz



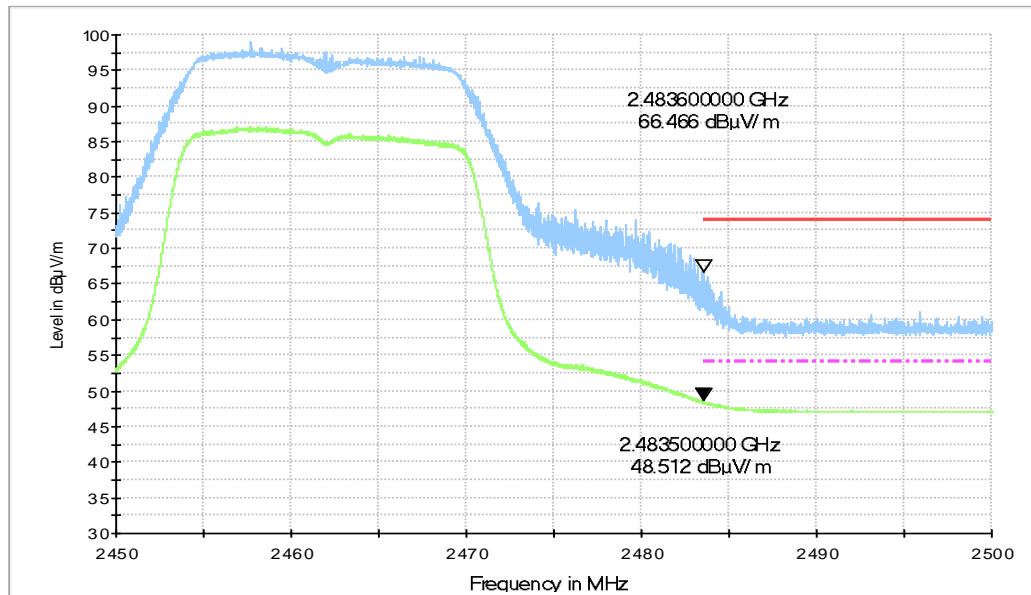
**Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz – 2.50GHz**

RE - Power-2.38GHz-2.45GHz



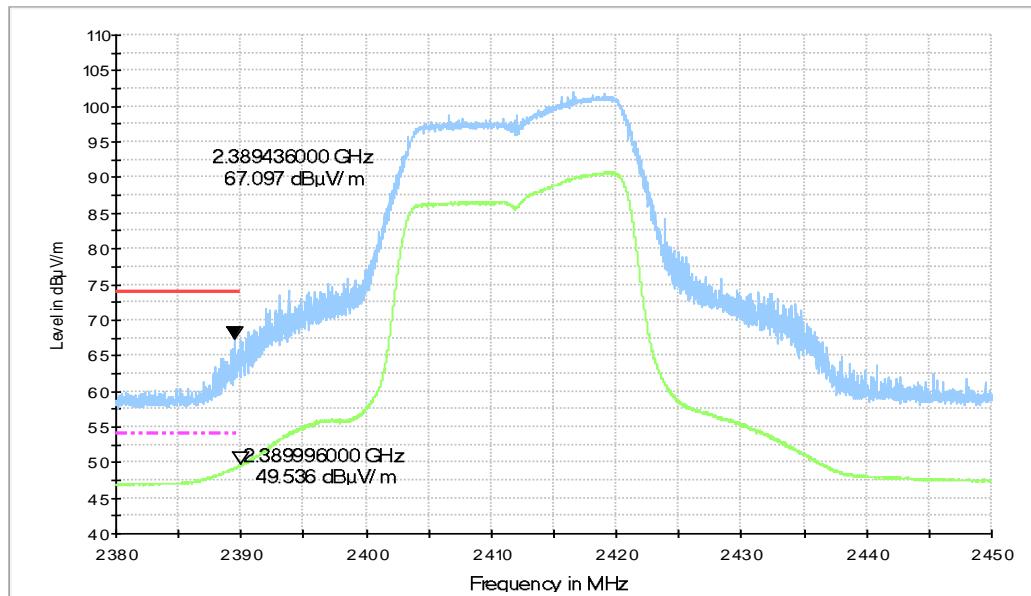
**Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.38 GHz - 2.43GHz**

RE - Power-2.45GHz-2.5GHz



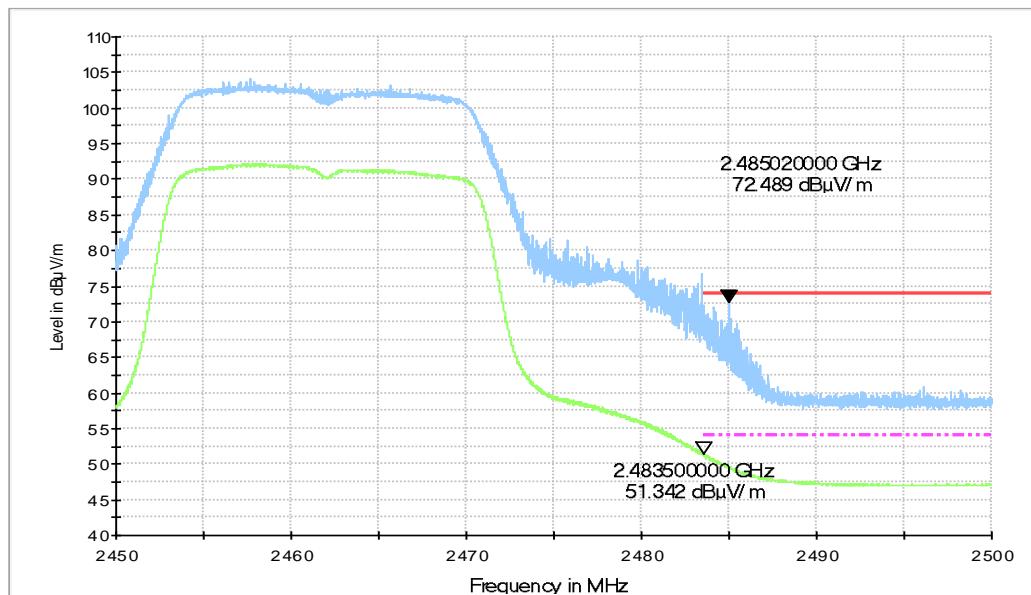
**Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz**

RE - Power-2.38GHz-2.45GHz



**Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.38 GHz - 2.45GHz**

RE - Power-2.45GHz-2.5GHz



**Fig.A.6.2.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz**

## A.7. AC Power-line Conducted Emission

**Method of Measurement: See ANSI C63.10-2013-clause 6.2**

- 1 The one EUT cable configuration and arrangement and mode of operation that produced the emission with the highest amplitude relative to the limit is selected for the final measurement, while applying the appropriate modulating signal to the EUT.
- 2 If the EUT is relocated from an exploratory test site to a final test site, the highest emissions shall be remaximized at the final test location before final ac power-line conducted emission measurements are performed.
- 3 The final test on all current-carrying conductors of all of the power cords to the equipment that comprises the EUT (but not the cords associated with other non-EUT equipment in the system) is then performed for the full frequency range for which the EUT is being tested for compliance without further variation of the EUT arrangement, cable positions, or EUT mode of operation.
- 4 If the EUT is comprised of equipment units that have their own separate ac power connections, e.g., floor-standing equipment with independent power cords for each shelf that are able to connect directly to the ac power network, each current-carrying conductor of one unit is measured while the other units are connected to a second (or more) LISN(s). All units shall be separately measured. If a power strip is provided by the manufacturer, to supply all of the units making up the EUT, only the conductors in the power cord of the power strip shall be measured.
- 5 If the EUT uses a detachable antenna, these measurements shall be made with a suitable dummy load connected to the antenna output terminals; otherwise, the tests shall be made with the antenna connected and, if adjustable, fully extended. When measuring the ac conducted emissions from a device that operates between 150 kHz and 30 MHz a non-detachable antenna may be replaced with a dummy load for the measurements.<sup>36</sup> Record the six highest EUT emissions relative to the limit of each of the current-carrying conductors of the power cords of the equipment that comprises the EUT over the frequency range specified by the procuring or regulatory agency. Diagram or photograph the test setup that was used. See Clause 8 for full reporting requirements.

**Test Condition:**

Voltage (V)	Frequency (Hz)
120	60

**Measurement Result and limit:**

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion	
		With charger			
		802.11b	Idle		
0.15 to 0.5	66 to 56	Fig.A.7.1	Fig.A.7.2	P	
0.5 to 5	56				
5 to 30	60				

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

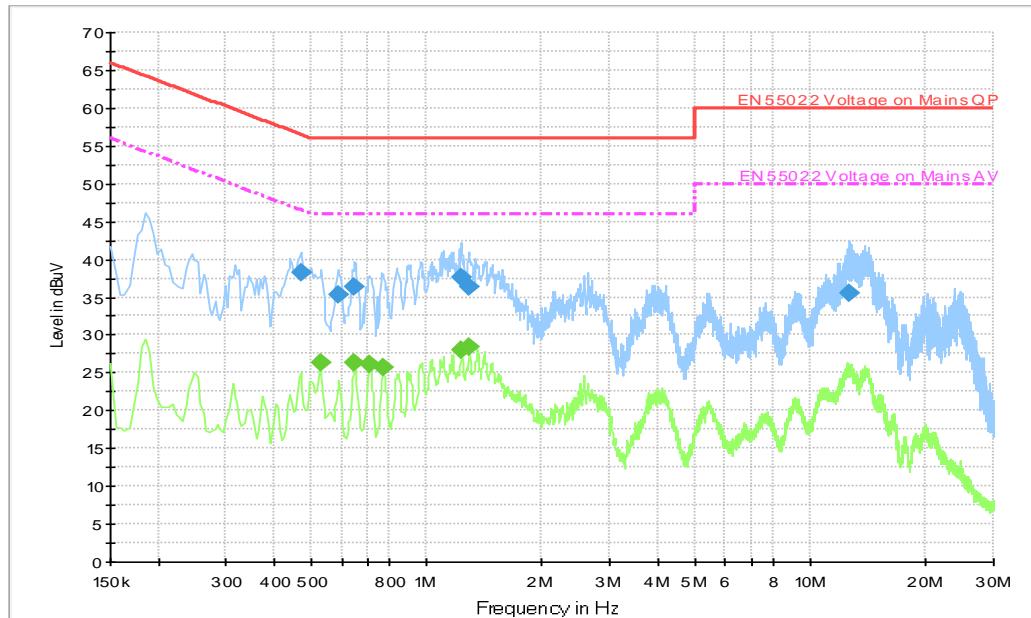
WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion	
		With charger			
		802.11b	Idle		
0.15 to 0.5	56 to 46	Fig.A.7.1	Fig.A.7.2	P	
0.5 to 5	46				
5 to 30	50				

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

**Conclusion: Pass**
**Test graphs as below:**

Traffic: Set.11



**Fig.A.7.1 AC Powerline Conducted Emission-802.11b**

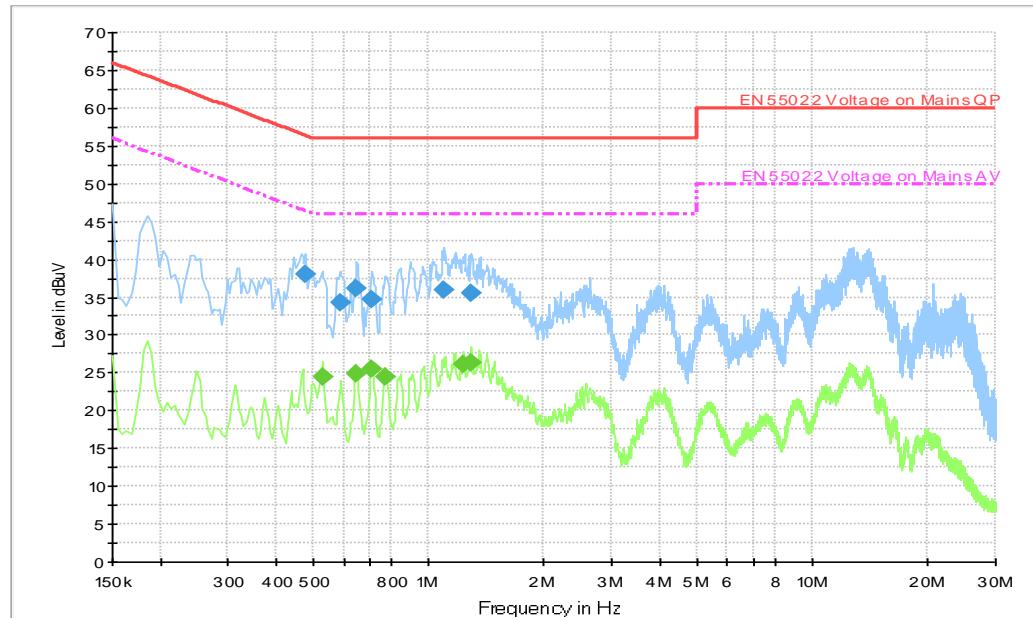
Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

### Final Result 1

Frequency (MHz)	QuasiPeak (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.469500	38.2	10000	9.000	GND	N	10.3	18.3	56.5
0.586500	35.3	10000	9.000	GND	N	10.4	20.7	56.0
0.649500	36.4	10000	9.000	GND	N	10.3	19.6	56.0
1.230000	37.6	10000	9.000	GND	L1	10.4	18.4	56.0
1.288500	36.4	10000	9.000	GND	L1	10.4	19.6	56.0
12.655500	35.6	10000	9.000	GND	L1	11.0	24.4	60.0

### Final Result 2

Frequency (MHz)	Average (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.528000	26.4	10000.	9.000	GND	L1	10.3	19.6	46.0
0.649500	26.4	10000.	9.000	GND	L1	10.3	19.6	46.0
0.712500	26.2	10000.	9.000	GND	L1	10.4	19.8	46.0
0.771000	25.7	10000.	9.000	GND	L1	10.4	20.3	46.0
1.230000	28.1	10000.	9.000	GND	L1	10.4	17.9	46.0
1.293000	28.4	10000.	9.000	GND	L1	10.4	17.6	46.0

**Idle: Set.11**

**Fig.A.7.2 AC Powerline Conducted Emission-Idle**

Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

**Final Result 1**

Frequency (MHz)	QuasiPeak (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.478500	38.0	10000	9.000	GND	N	10.3	18.3	56.4
0.586500	34.2	10000	9.000	GND	N	10.4	21.8	56.0
0.649500	36.2	10000	9.000	GND	N	10.3	19.8	56.0
0.712500	34.7	10000	9.000	GND	N	10.4	21.3	56.0
1.099500	35.8	10000	9.000	GND	L1	10.4	20.2	56.0
1.293000	35.6	10000	9.000	GND	L1	10.4	20.4	56.0

**Final Result 2**

Frequency (MHz)	Average (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.528000	24.5	10000.	9.000	GND	L1	10.3	21.5	46.0
0.649500	24.9	10000.	9.000	GND	L1	10.3	21.1	46.0
0.712500	25.4	10000.	9.000	GND	L1	10.4	20.6	46.0
0.771000	24.5	10000.	9.000	GND	L1	10.4	21.5	46.0
1.230000	26.2	10000.	9.000	GND	L1	10.4	19.8	46.0
1.293000	26.4	10000.	9.000	GND	L1	10.4	19.6	46.0



## ANNEX B: Accreditation Certificate

United States Department of Commerce  
National Institute of Standards and Technology



### Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 600118-0

**Telecommunication Technology Labs, CAICT**

Beijing  
China

*is accredited by the National Voluntary Laboratory Accreditation Program for specific services,  
listed on the Scope of Accreditation, for:*

**Electromagnetic Compatibility & Telecommunications**

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality  
management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).*

2018-09-28 through 2019-09-30

Effective Dates



For the National Voluntary Laboratory Accreditation Program

\*\*\*END OF REPORT\*\*\*