

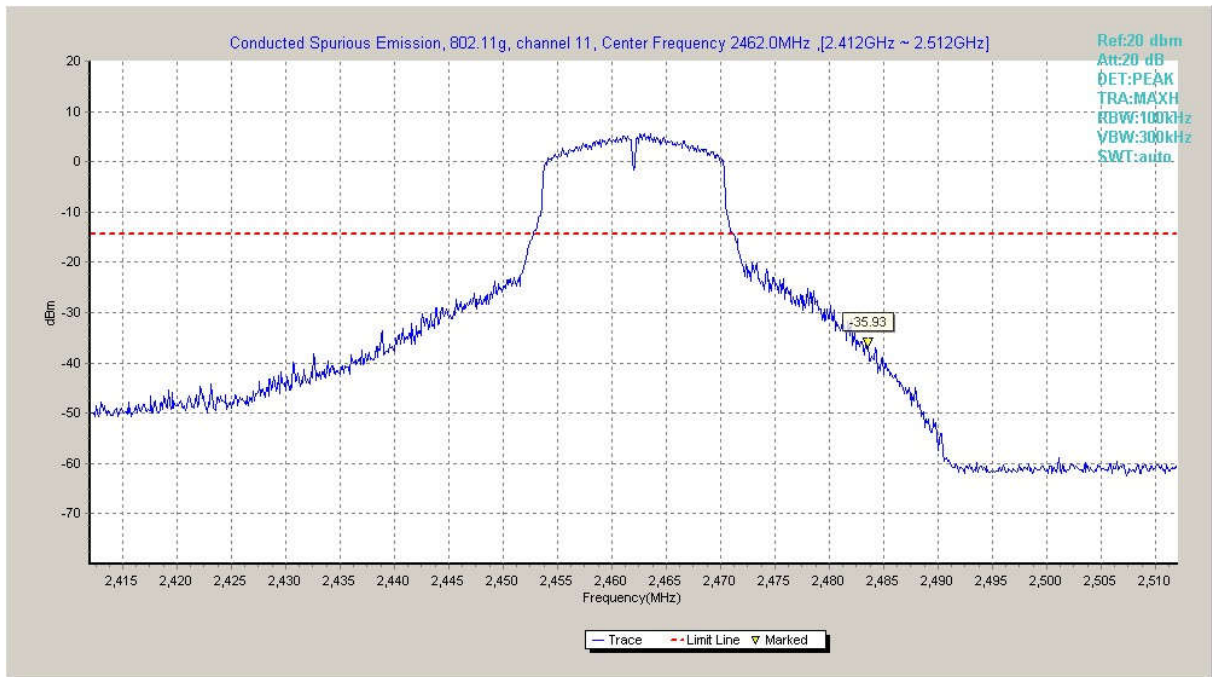


Fig.A.6.1.41 Transmitter Spurious Emission - Conducted (802.11g, Ch11, Center Frequency)

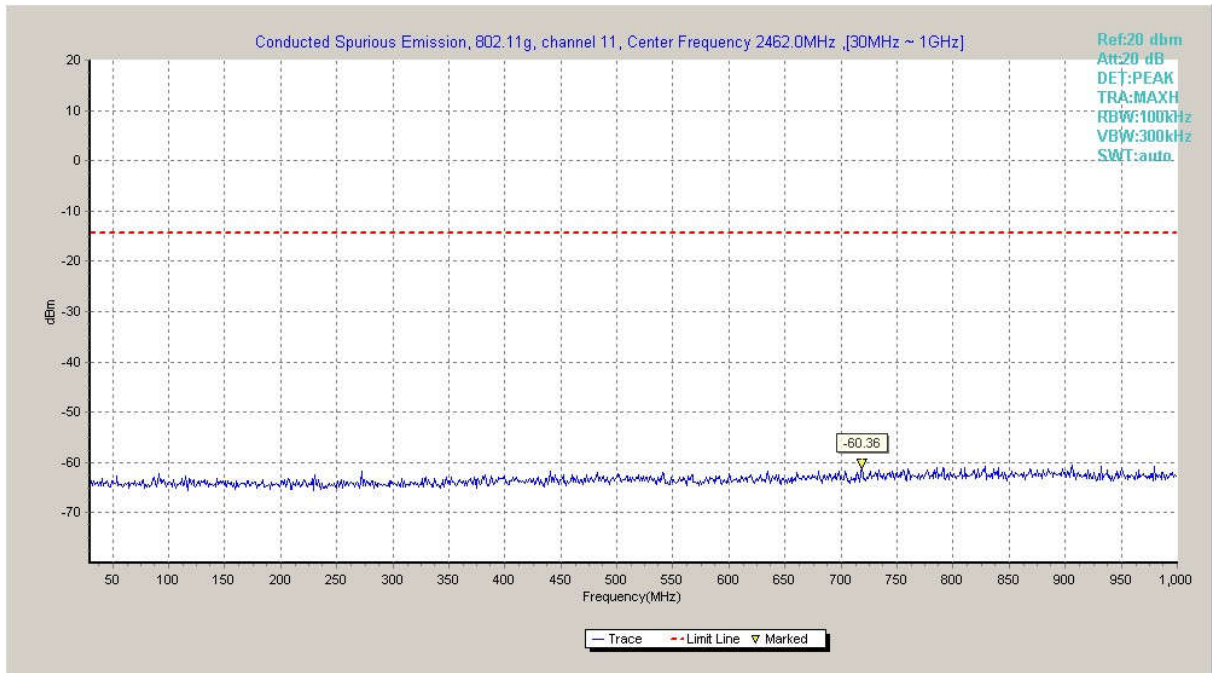


Fig.A.6.1.42 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 30 MHz-1 GHz)

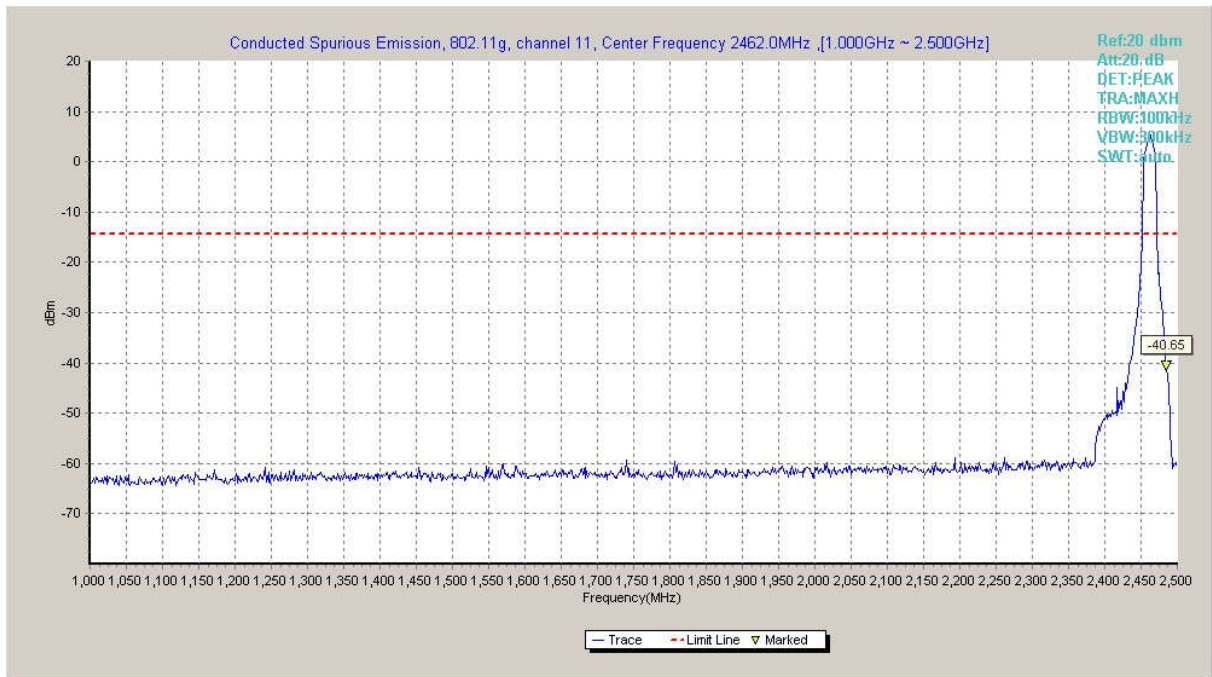


Fig.A.6.1.43 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 1 GHz-2.5 GHz)

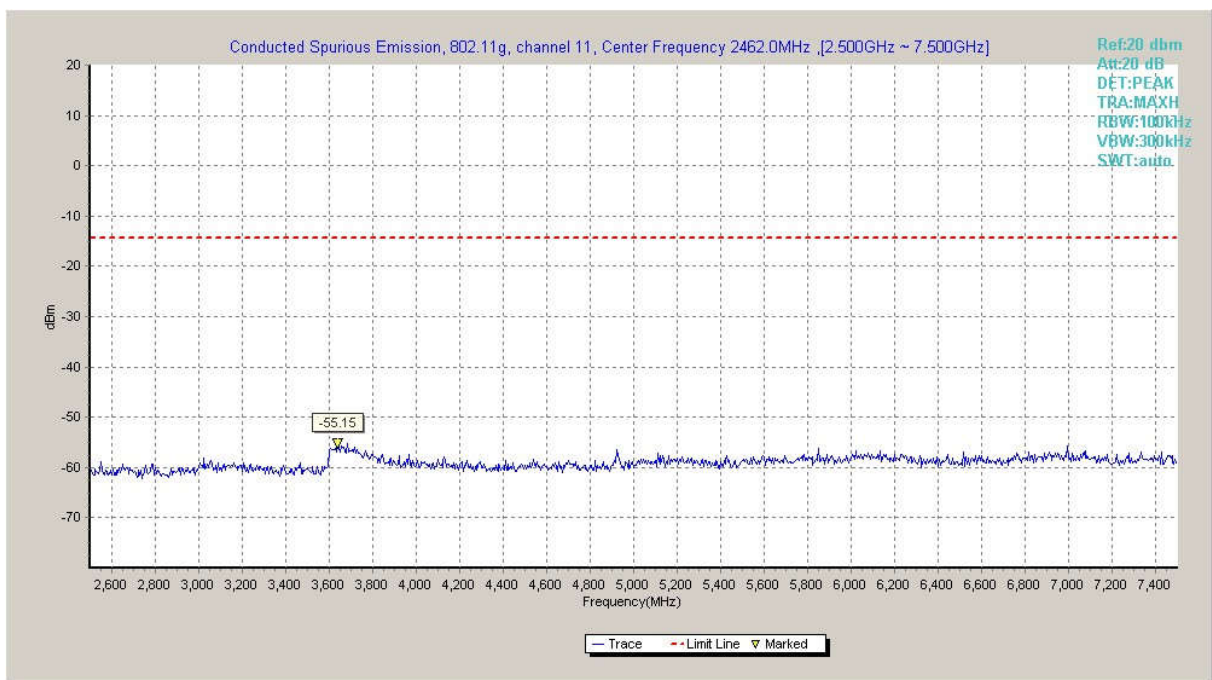


Fig.A.6.1.44 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 2.5 GHz-7.5 GHz)

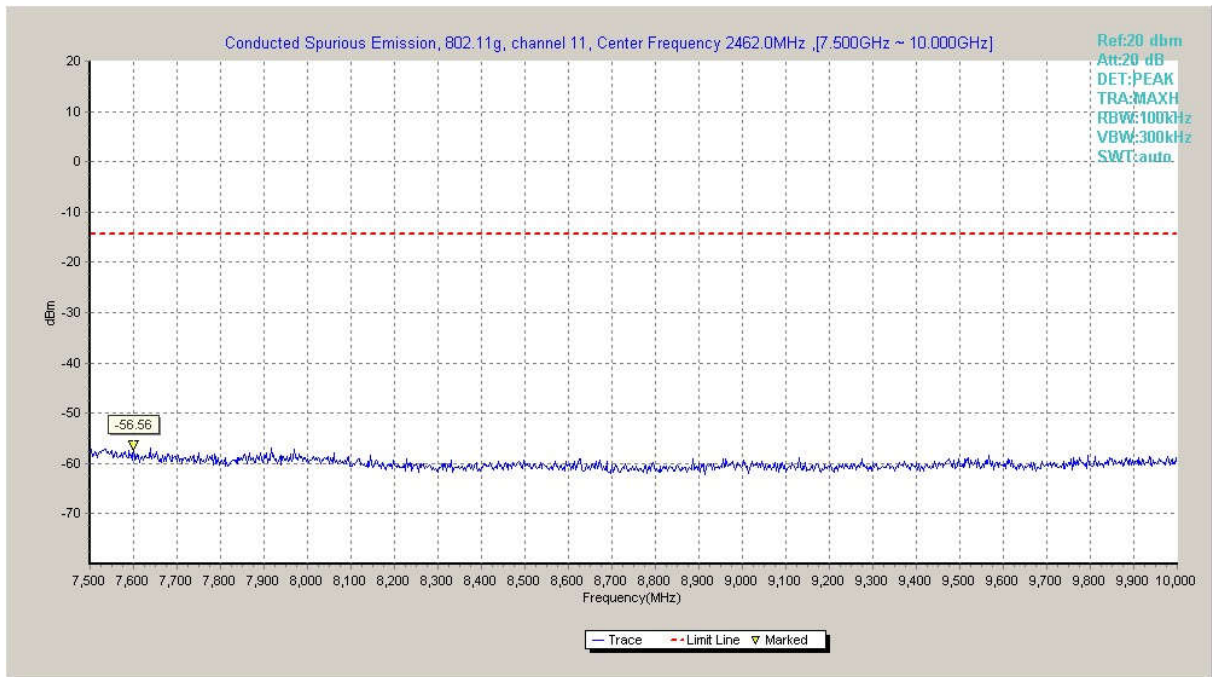


Fig.A.6.1.45 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 7.5 GHz-10 GHz)

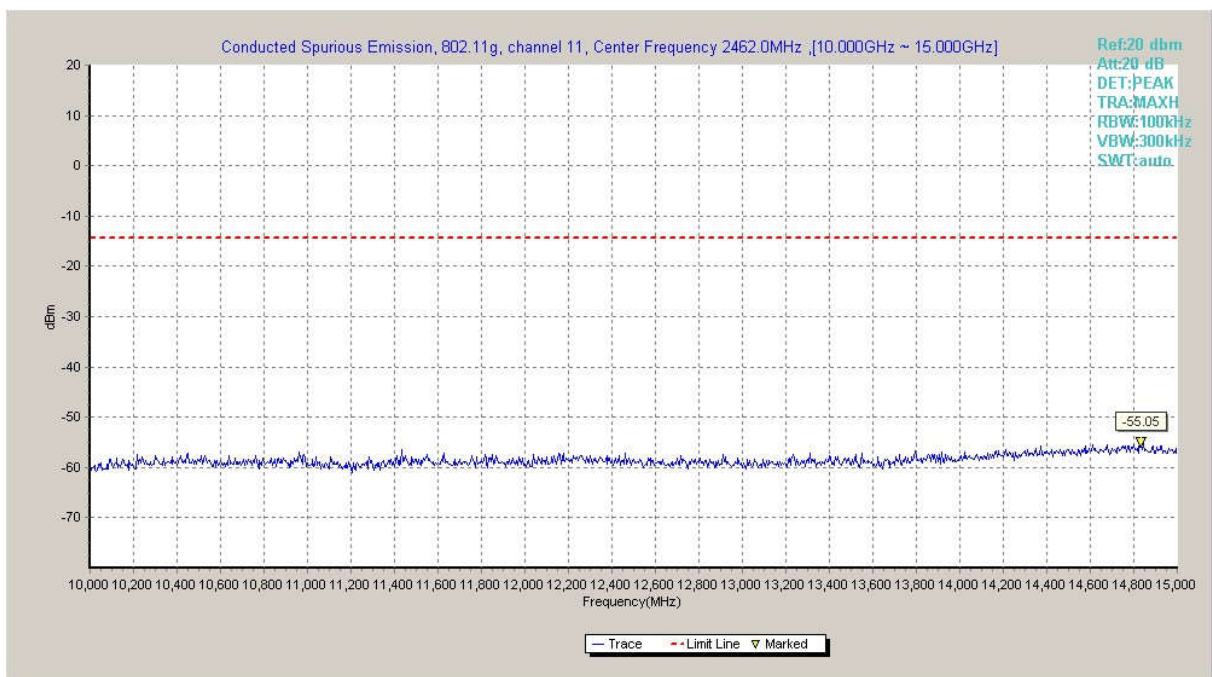


Fig.A.6.1.46 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 10 GHz-15 GHz)

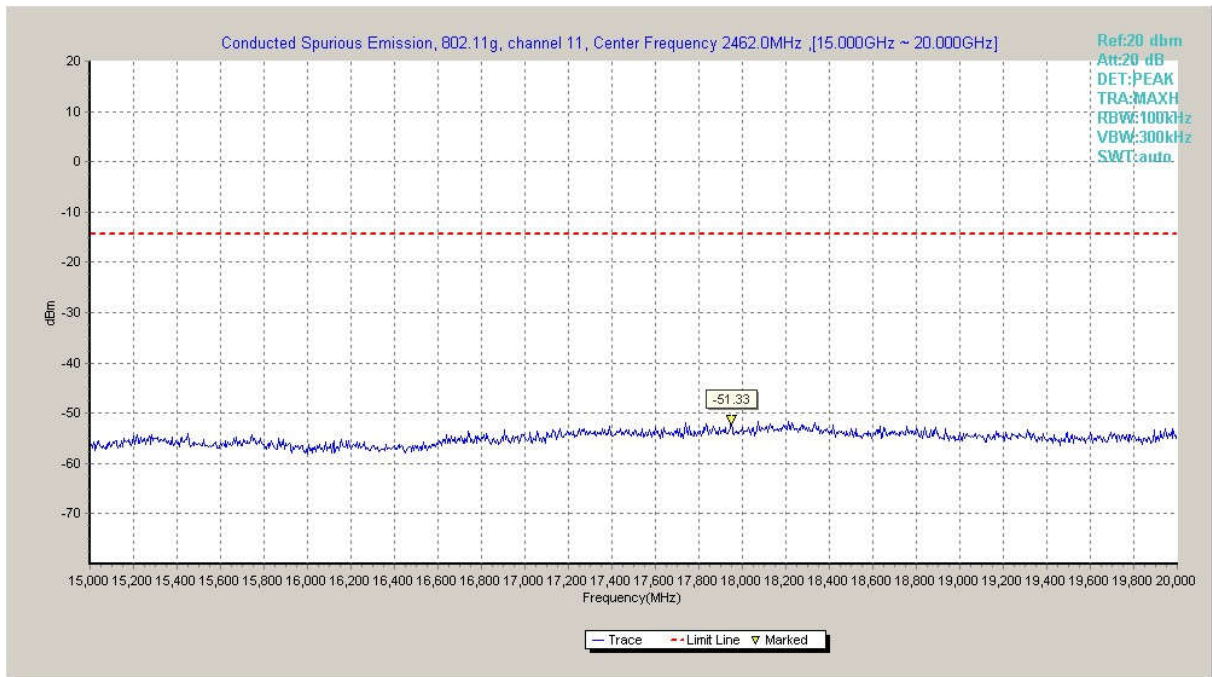


Fig.A.6.1.47 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 15 GHz-20 GHz)

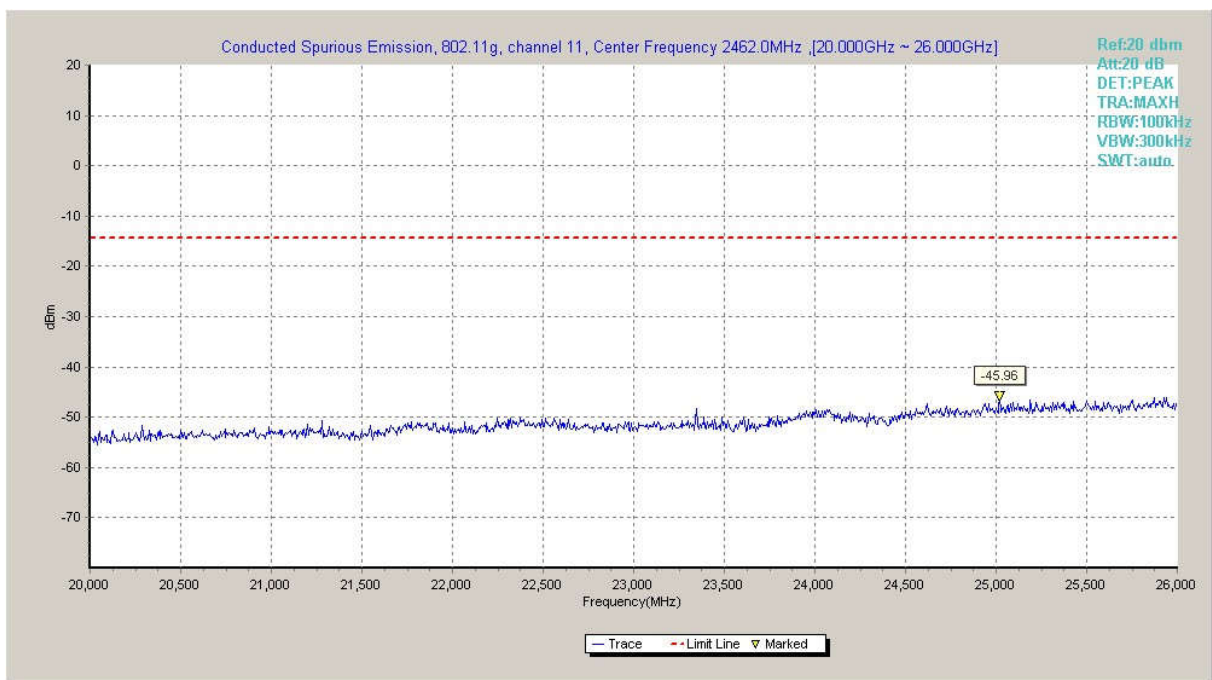


Fig.A.6.1.48 Transmitter Spurious Emission - Conducted (802.11g, Ch11, 20 GHz-26 GHz)

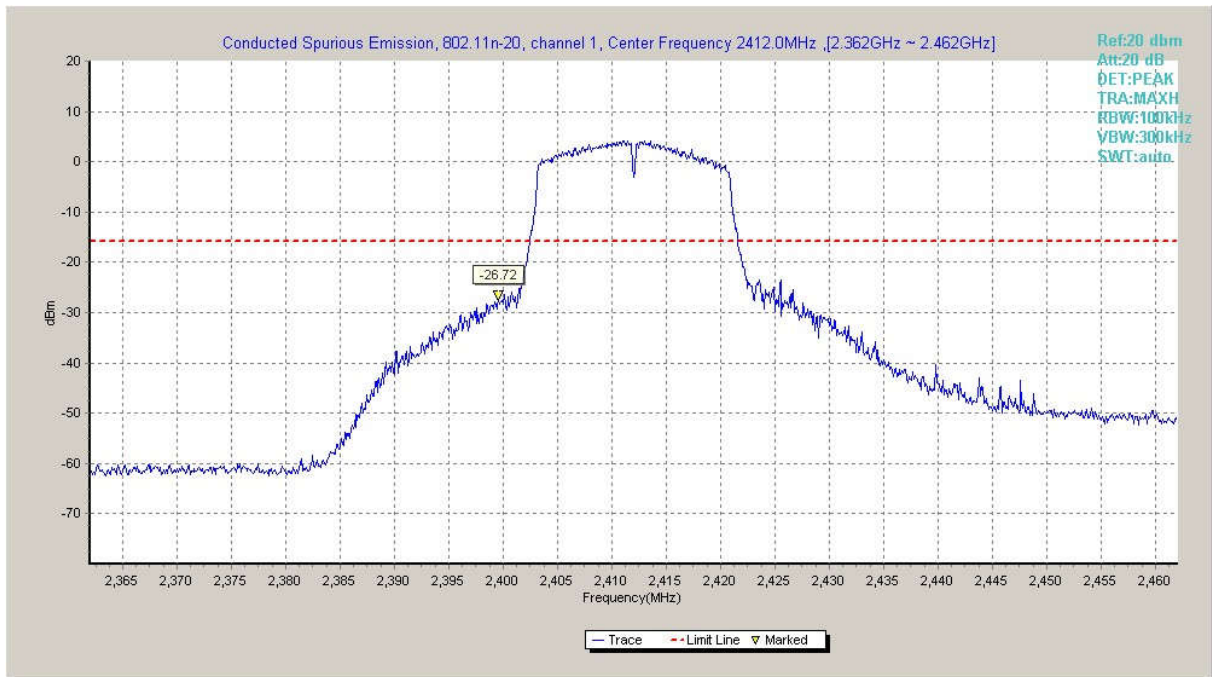


Fig.A.6.1.49 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, Center Frequency)

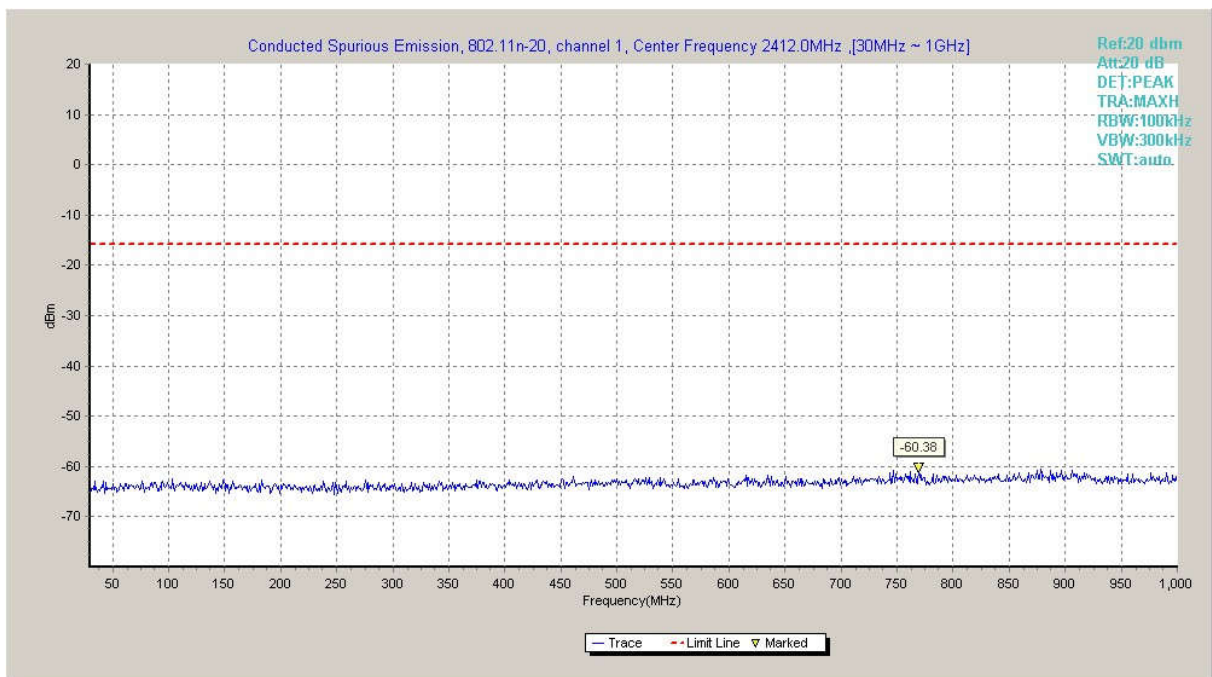


Fig.A.6.1.50 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 30 MHz-1 GHz)

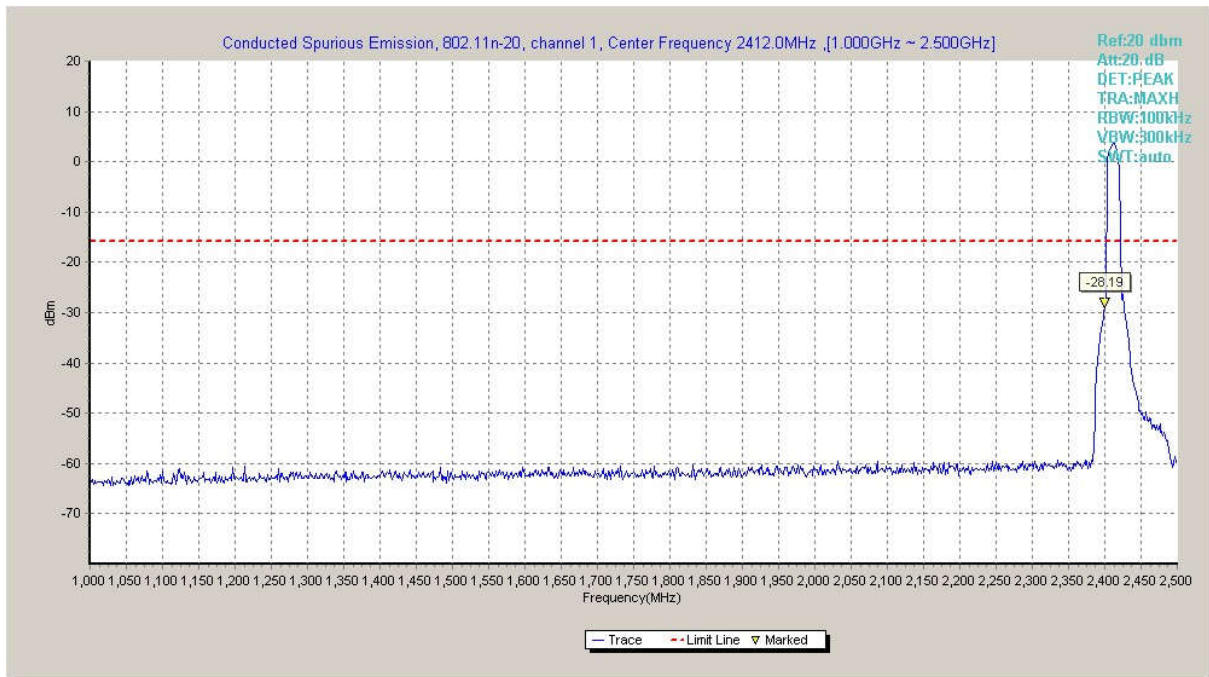


Fig.A.6.1.51 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 1 GHz-2.5 GHz)

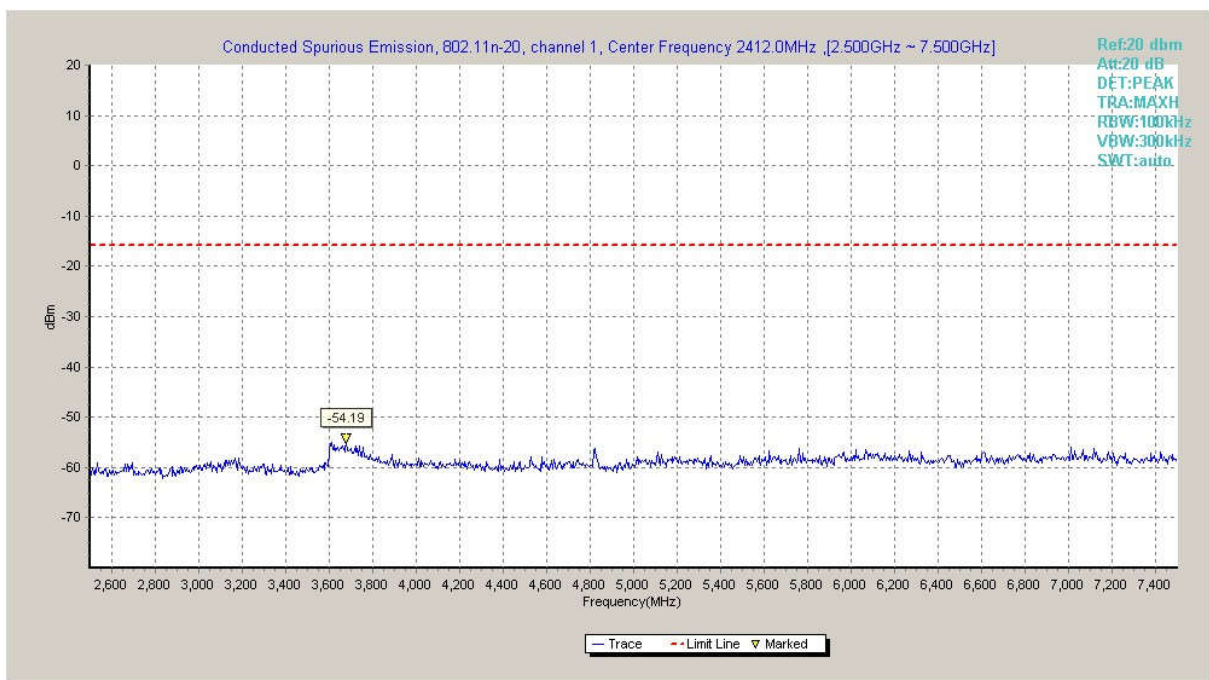


Fig.A.6.1.52 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 2.5 GHz-7.5 GHz)

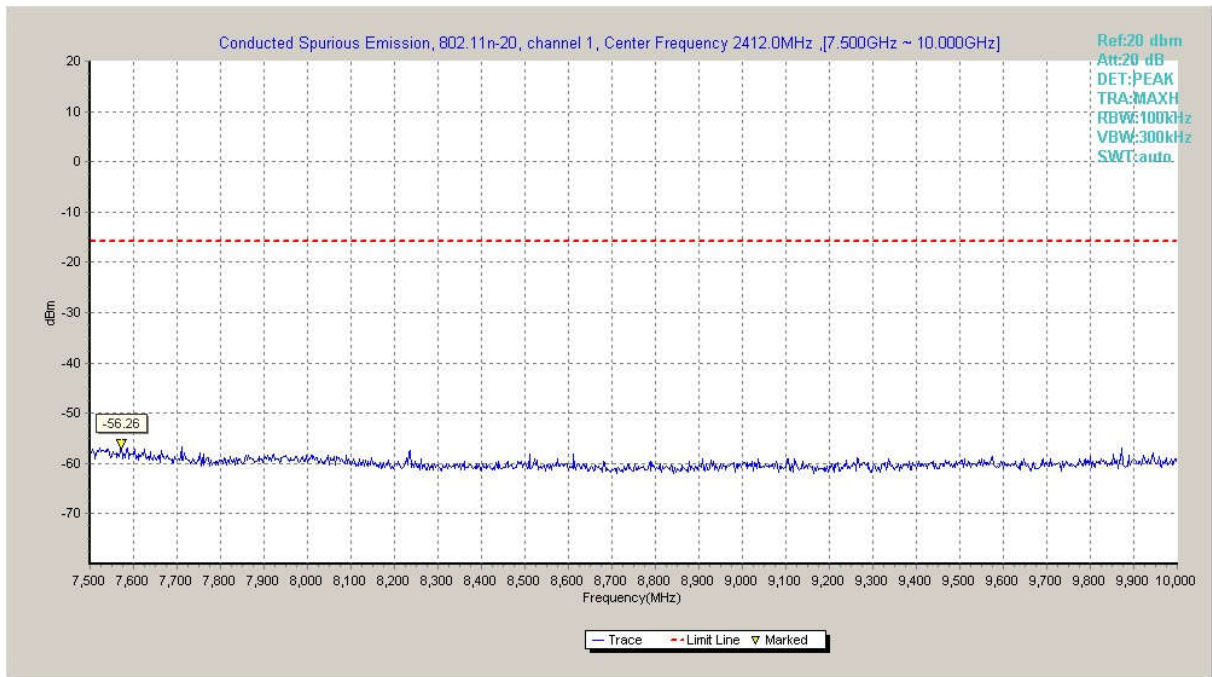


Fig.A.6.1.53 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 7.5 GHz-10 GHz)

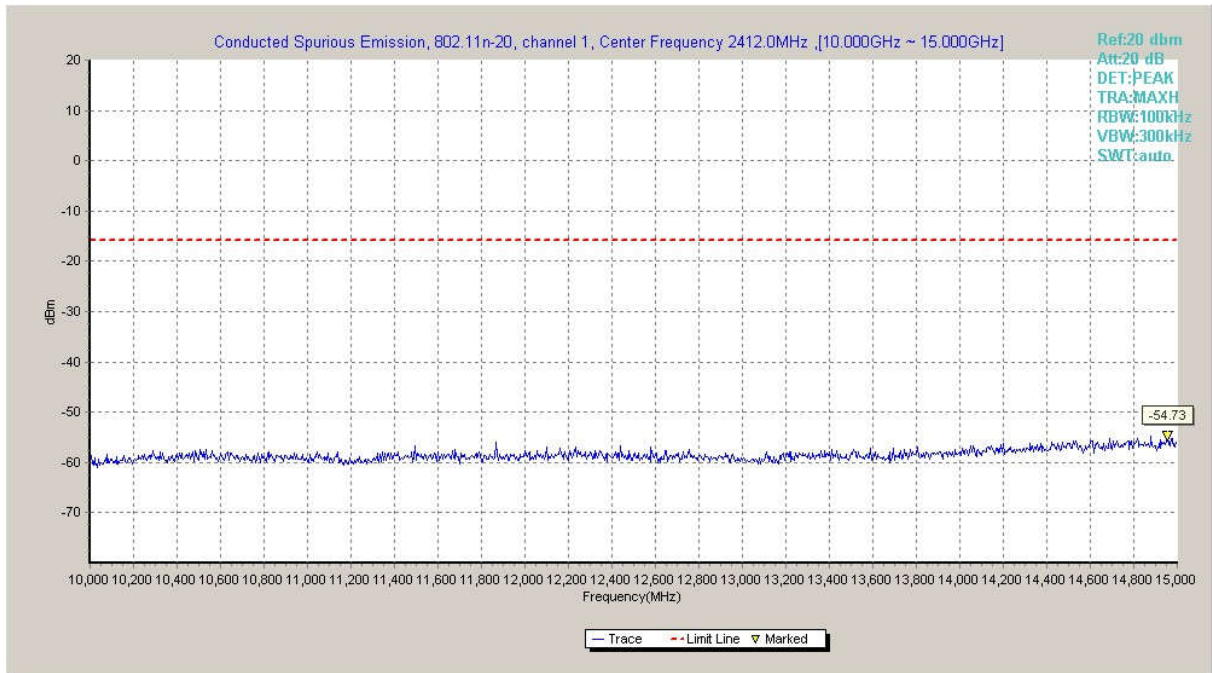


Fig.A.6.1.54 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 10 GHz-15 GHz)

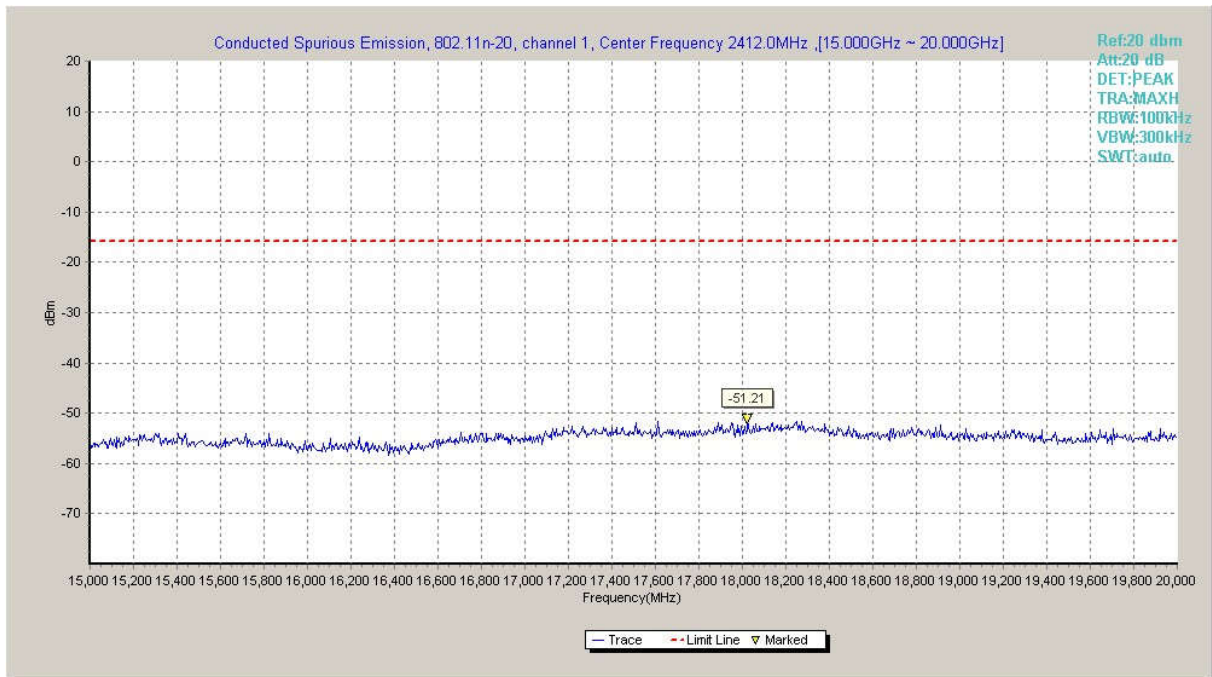


Fig.A.6.1.55 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 15 GHz-20 GHz)

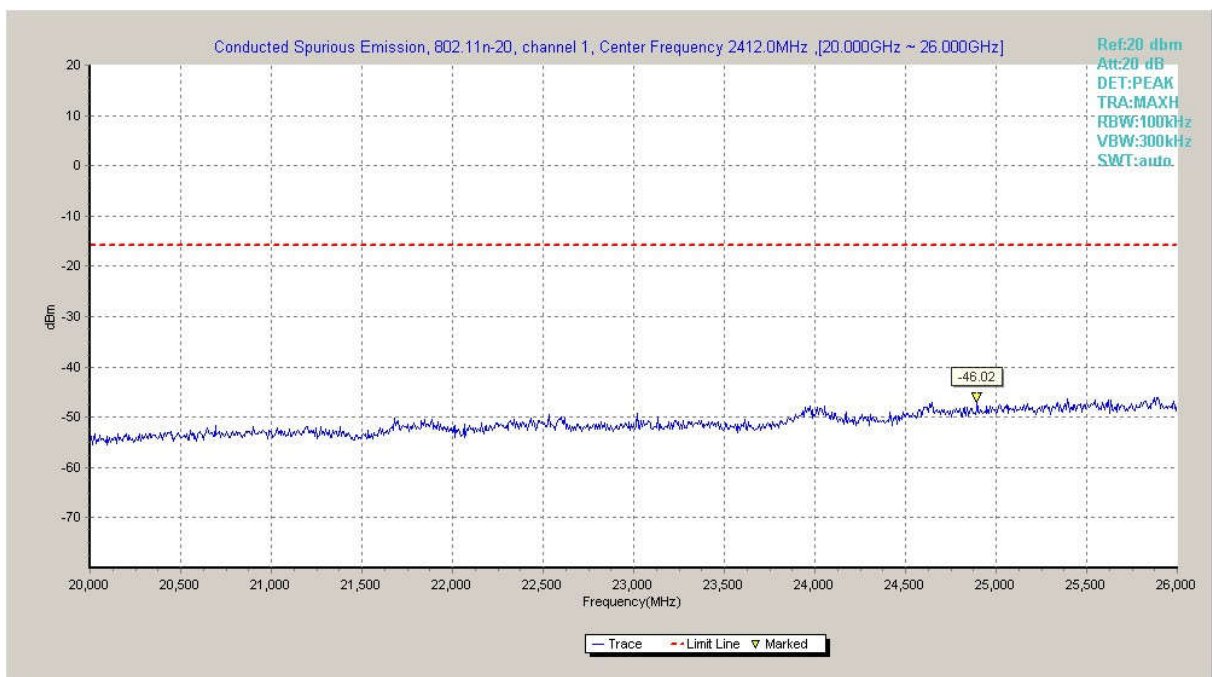


Fig.A.6.1.56 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 20 GHz-26 GHz)

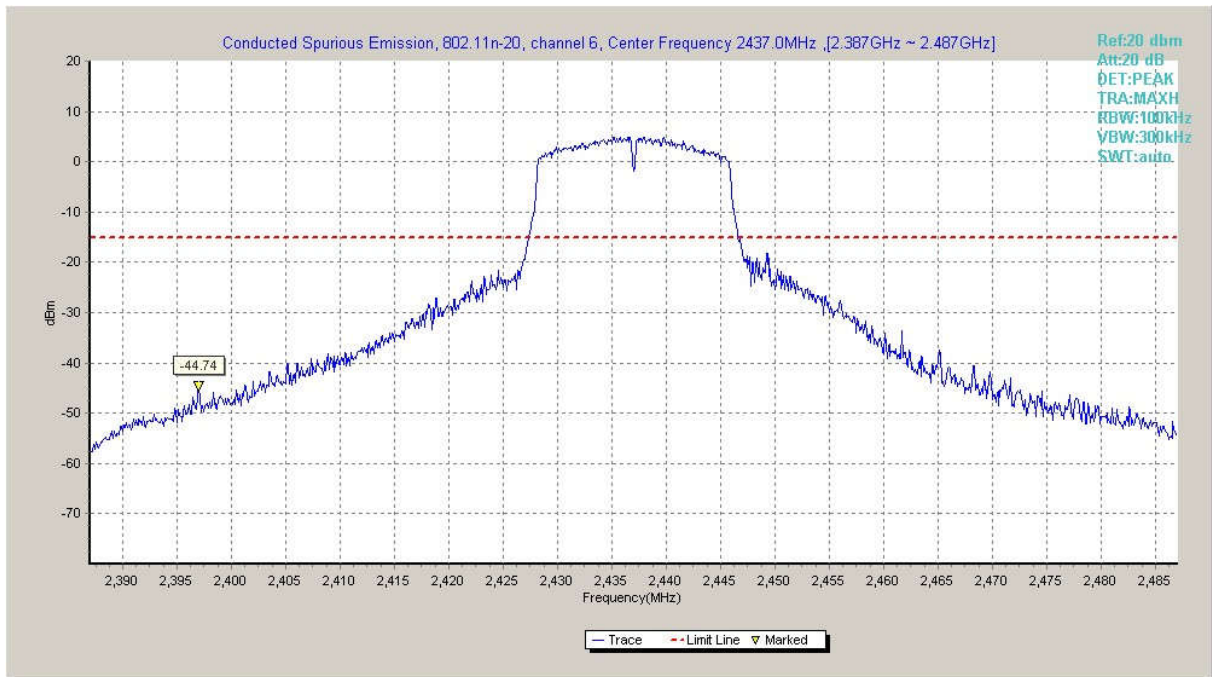


Fig.A.6.1.57 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, Center Frequency)

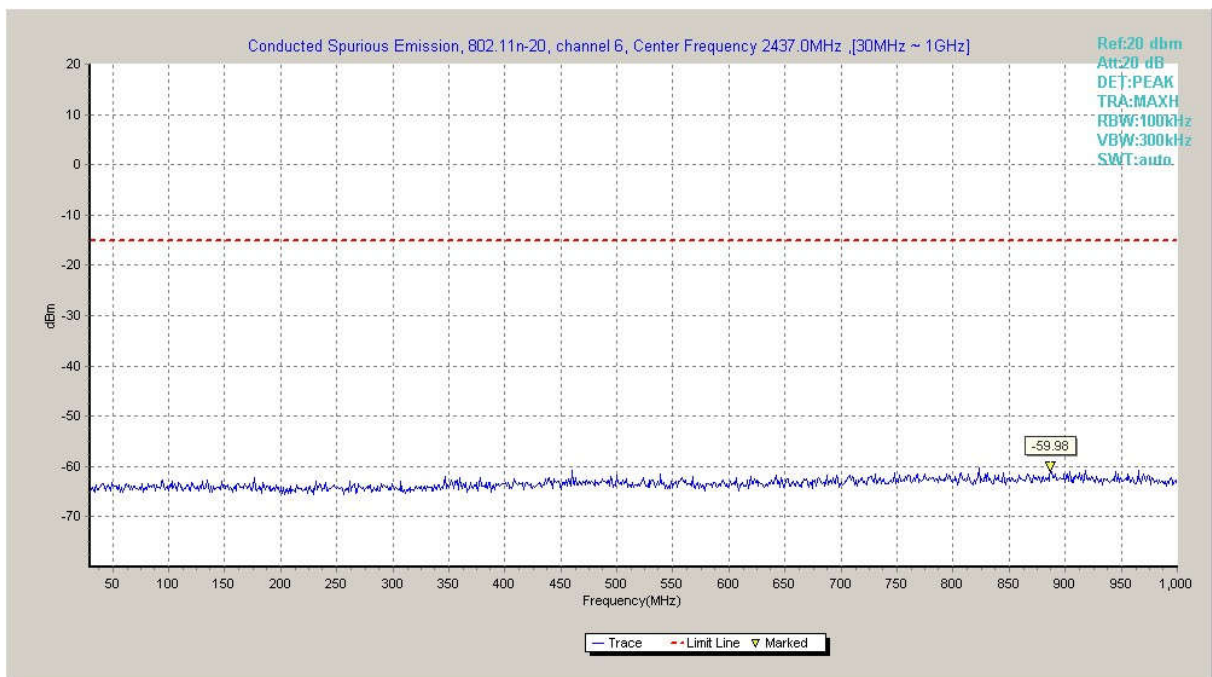


Fig.A.6.1.58 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 30 MHz-1 GHz)

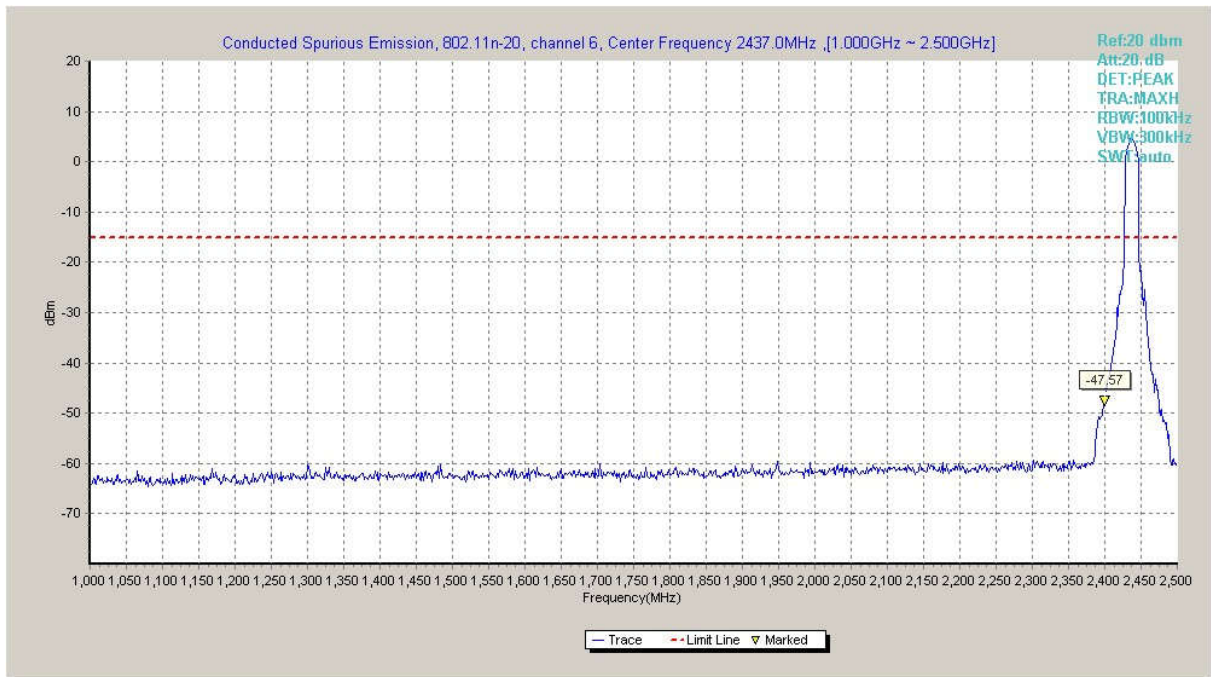


Fig.A.6.1.59 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 1 GHz-2.5 GHz)

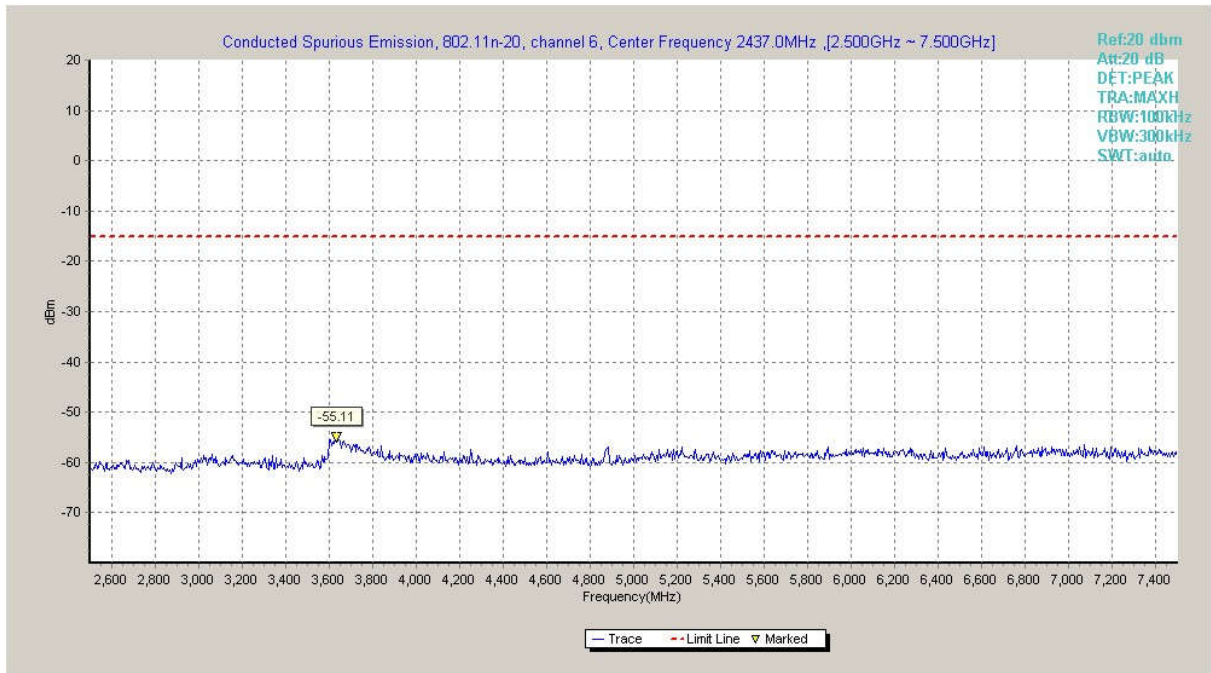


Fig.A.6.1.60 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 2.5 GHz-7.5 GHz)

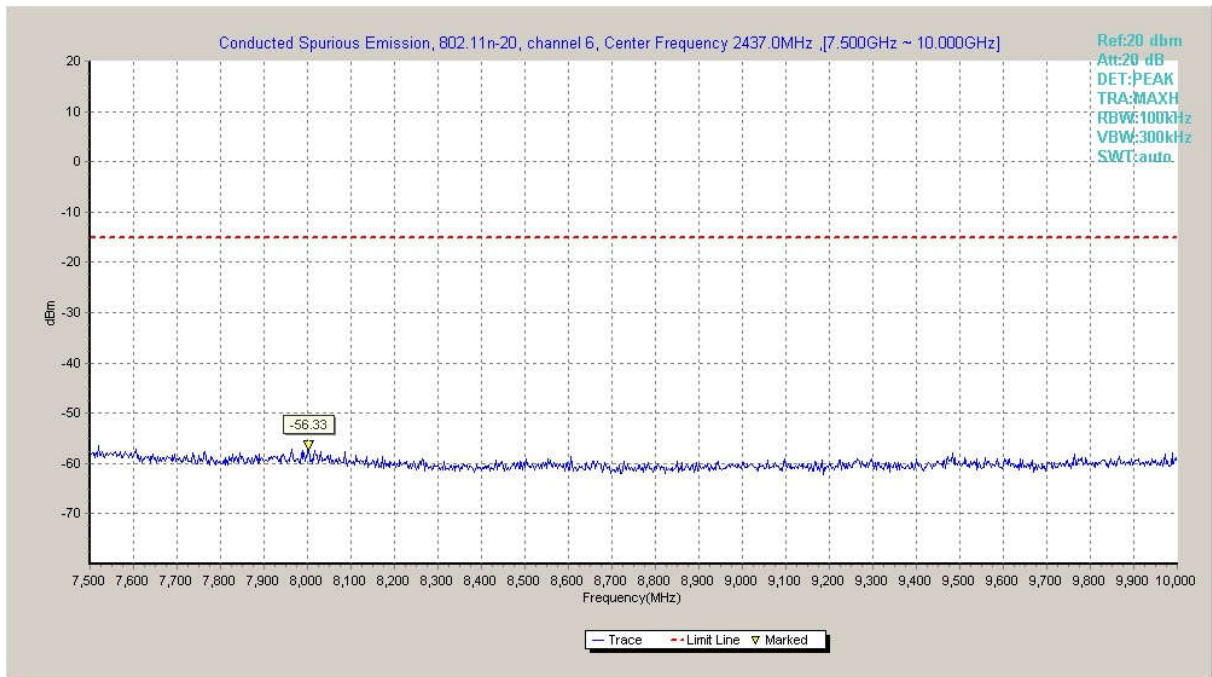


Fig.A.6.1.61 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 7.5 GHz-10 GHz)

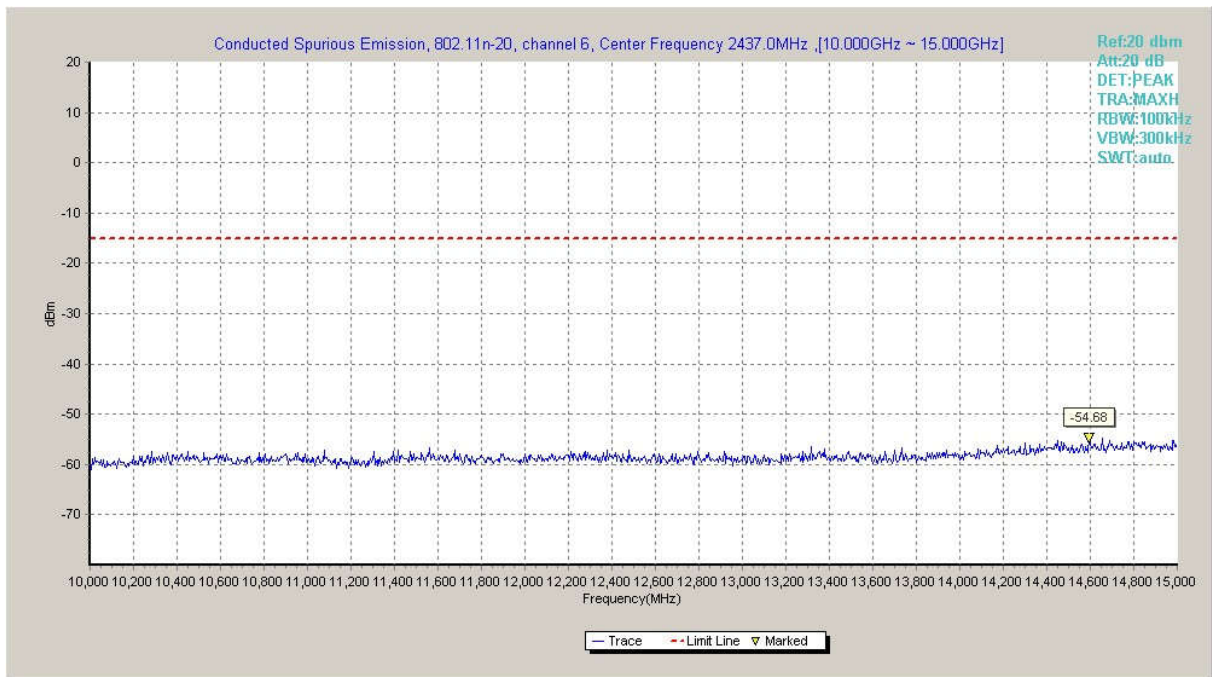


Fig.A.6.1.62 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 10 GHz-15 GHz)

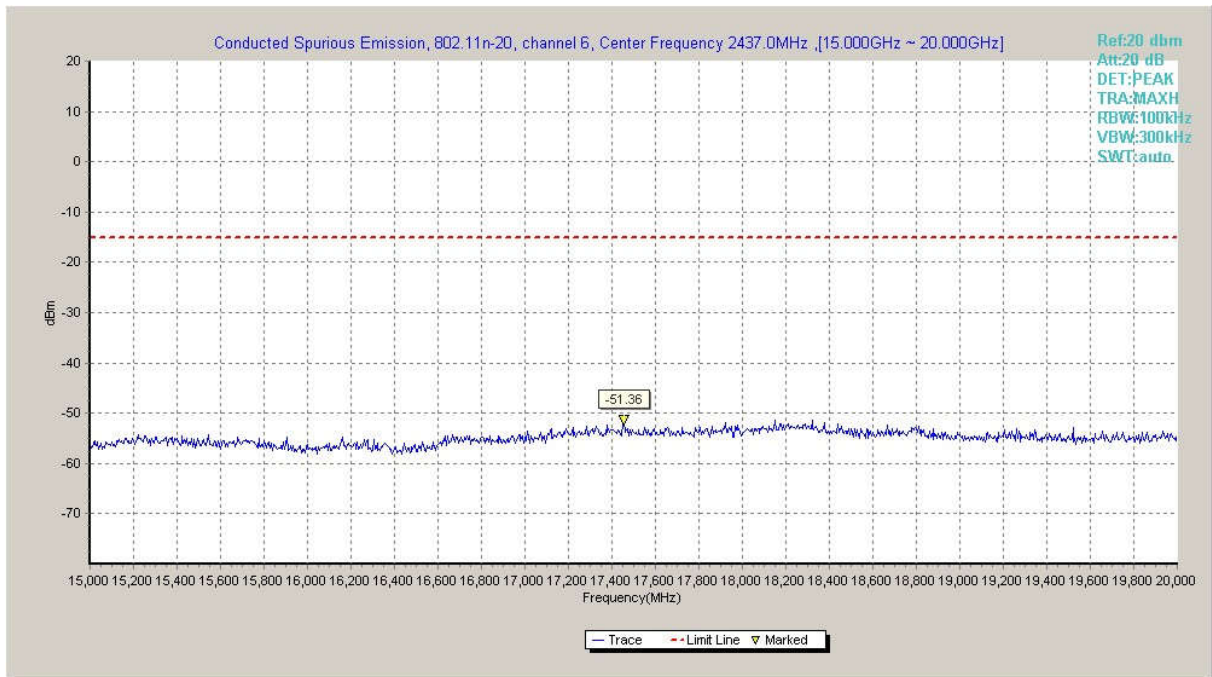


Fig.A.6.1.63 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 15 GHz-20 GHz)

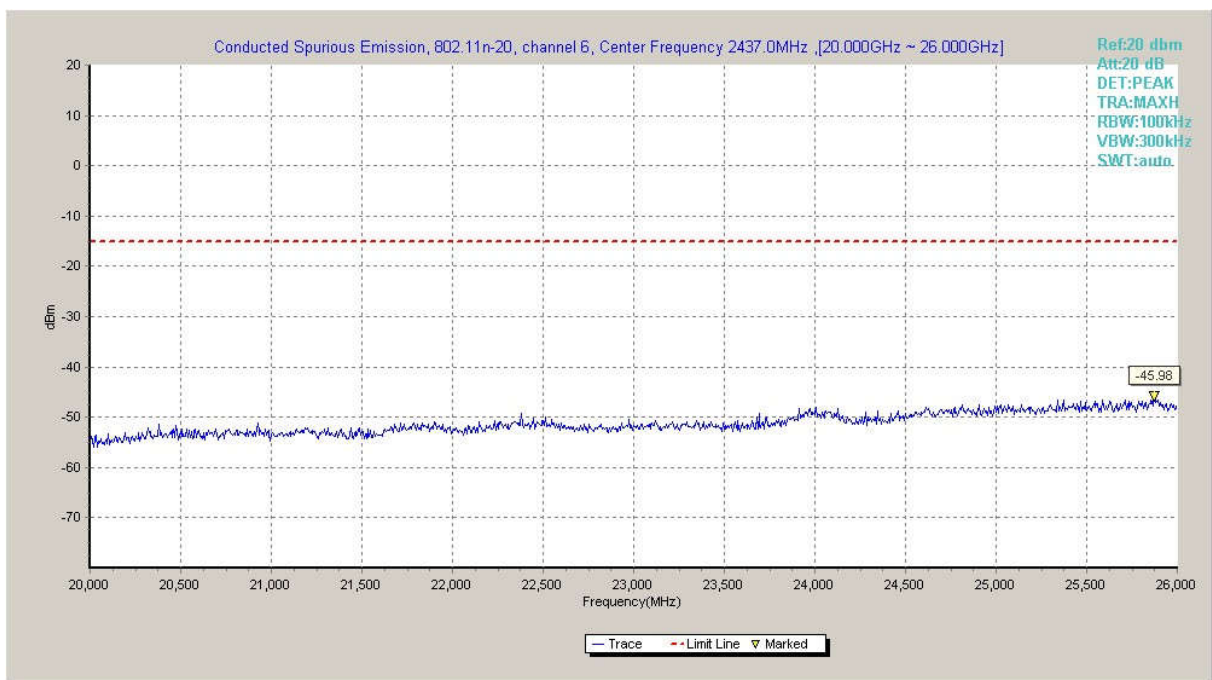


Fig.A.6.1.64 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 20 GHz-26 GHz)

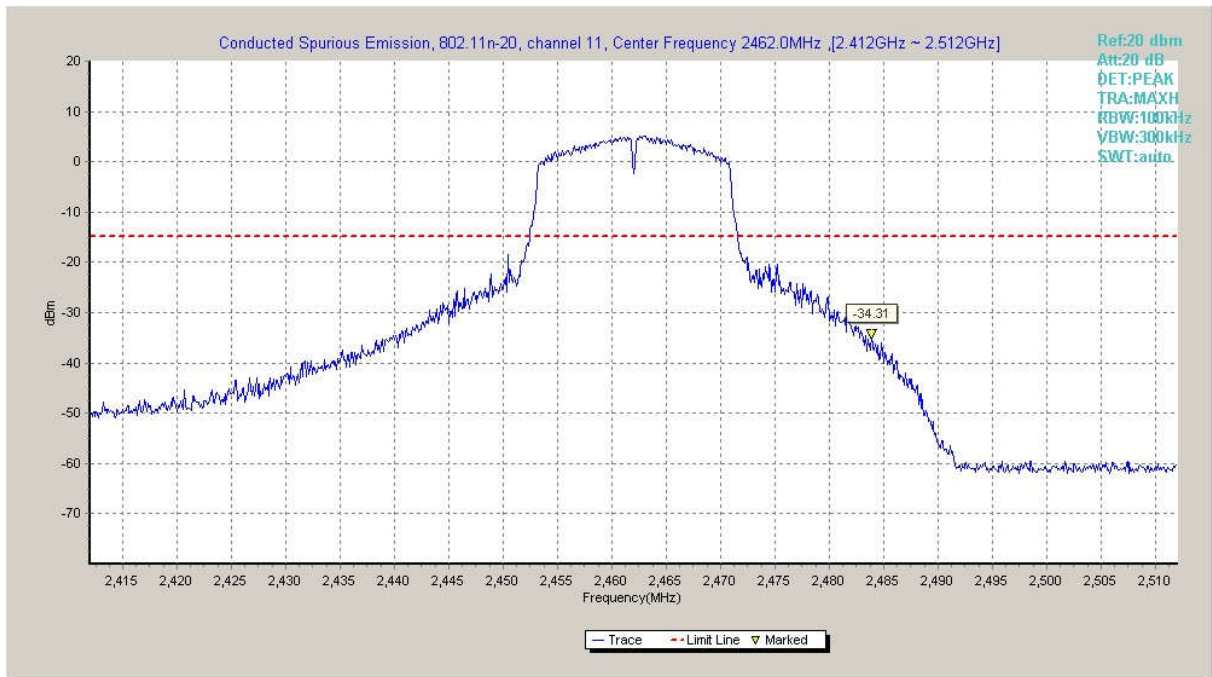


Fig.A.6.1.65 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, Center Frequency)

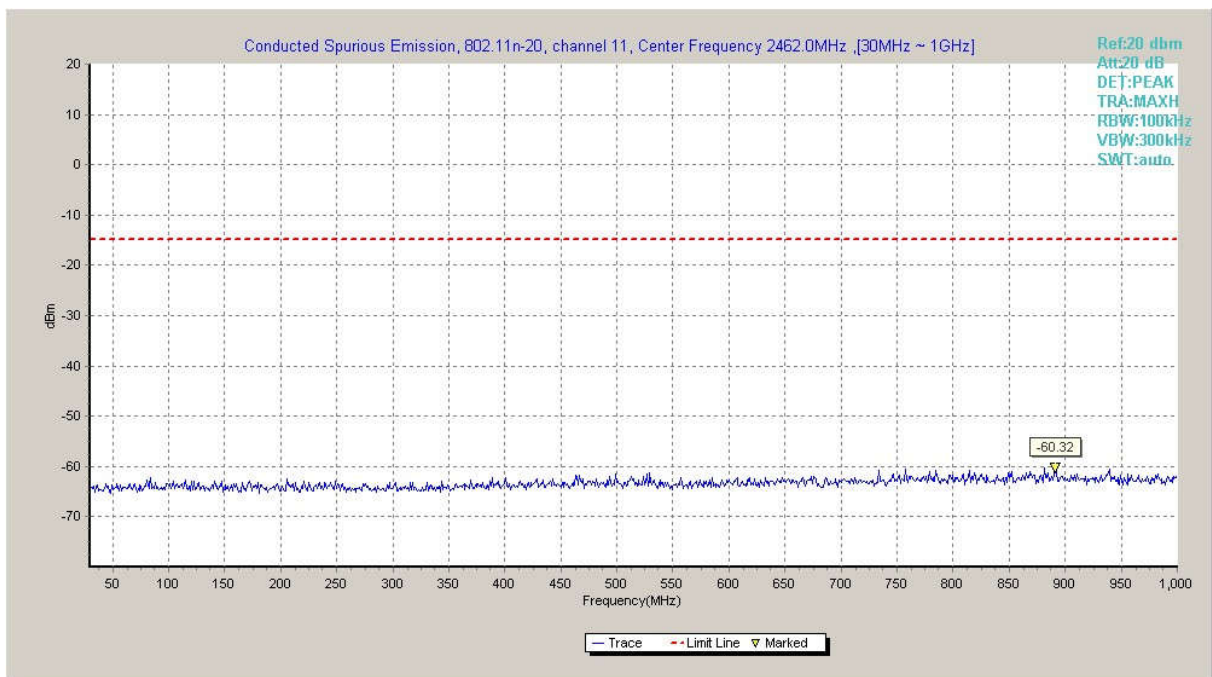


Fig.A.6.1.66 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 30 MHz-1 GHz)

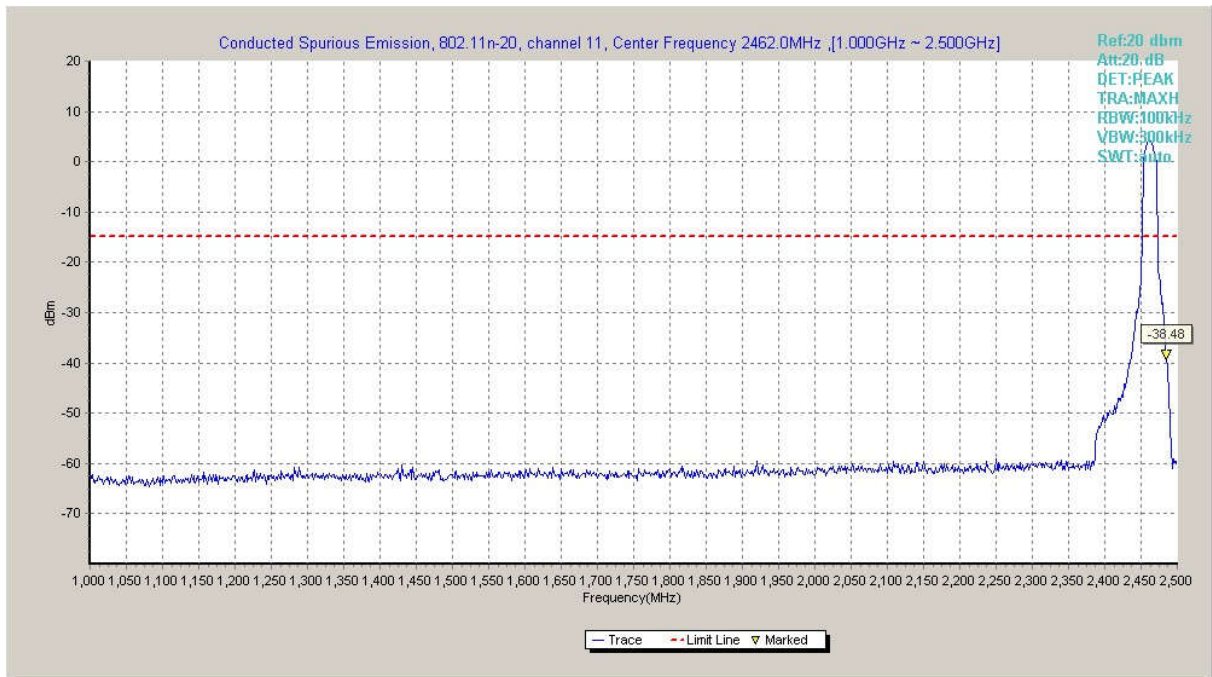


Fig.A.6.1.67 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 1 GHz-2.5 GHz)

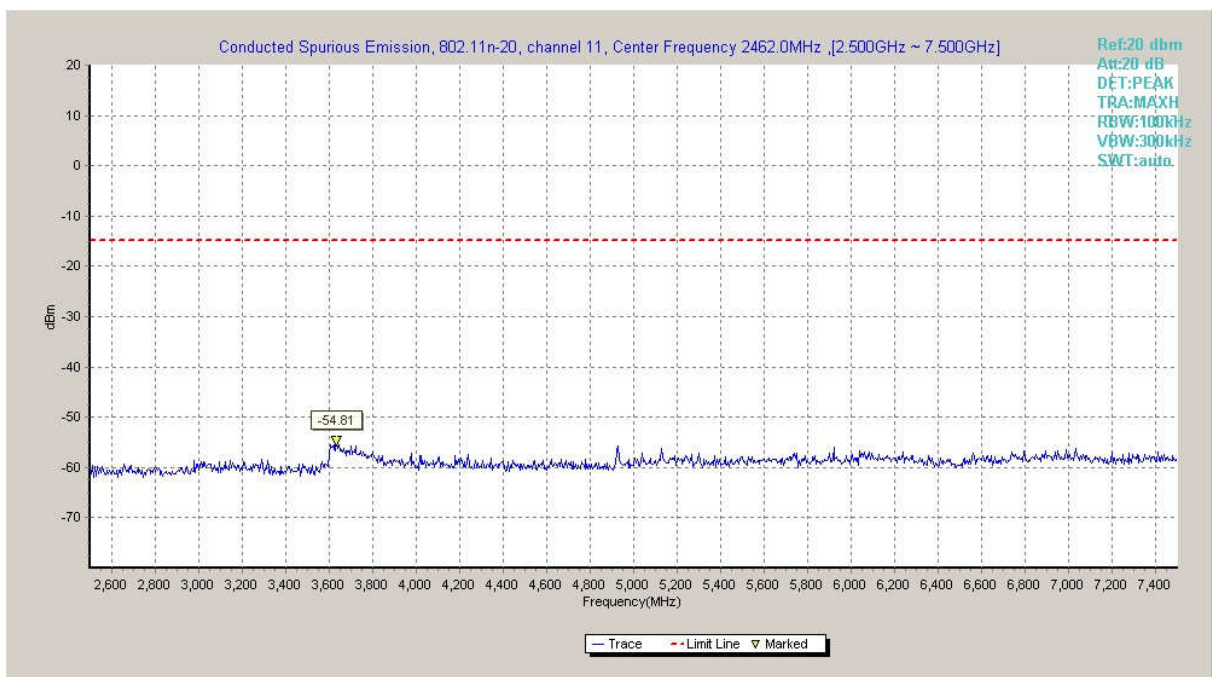


Fig.A.6.1.68 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 2.5 GHz-7.5 GHz)

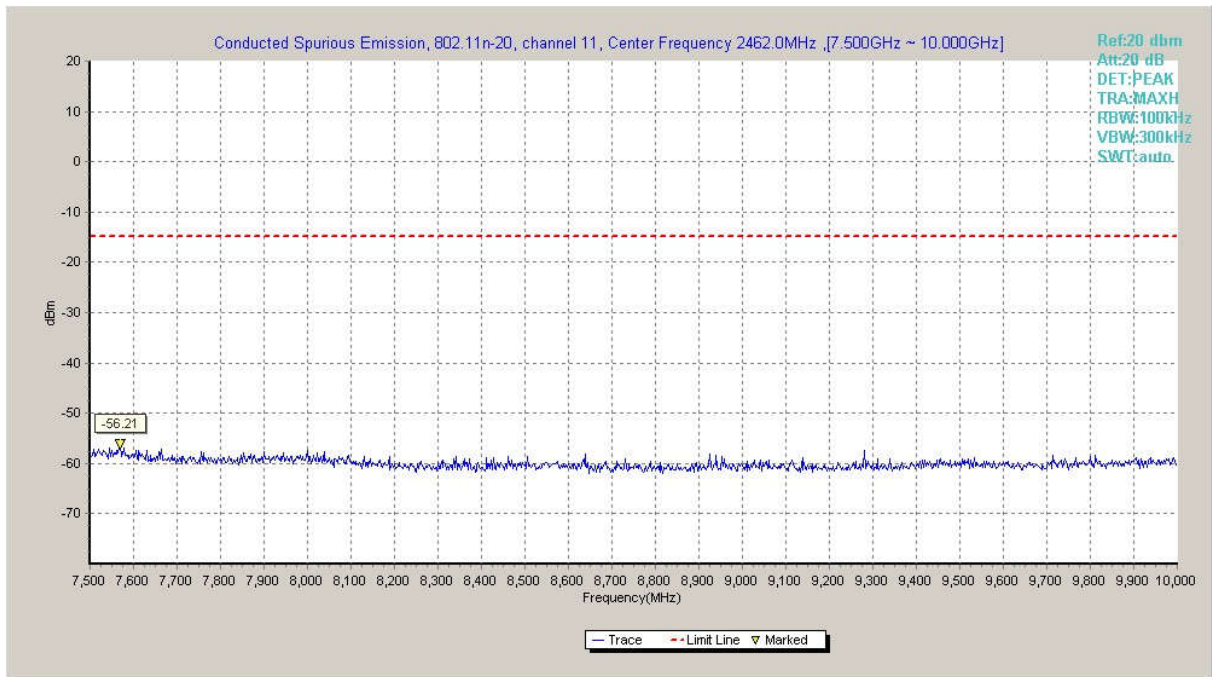


Fig.A.6.1.69 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 7.5 GHz-10 GHz)

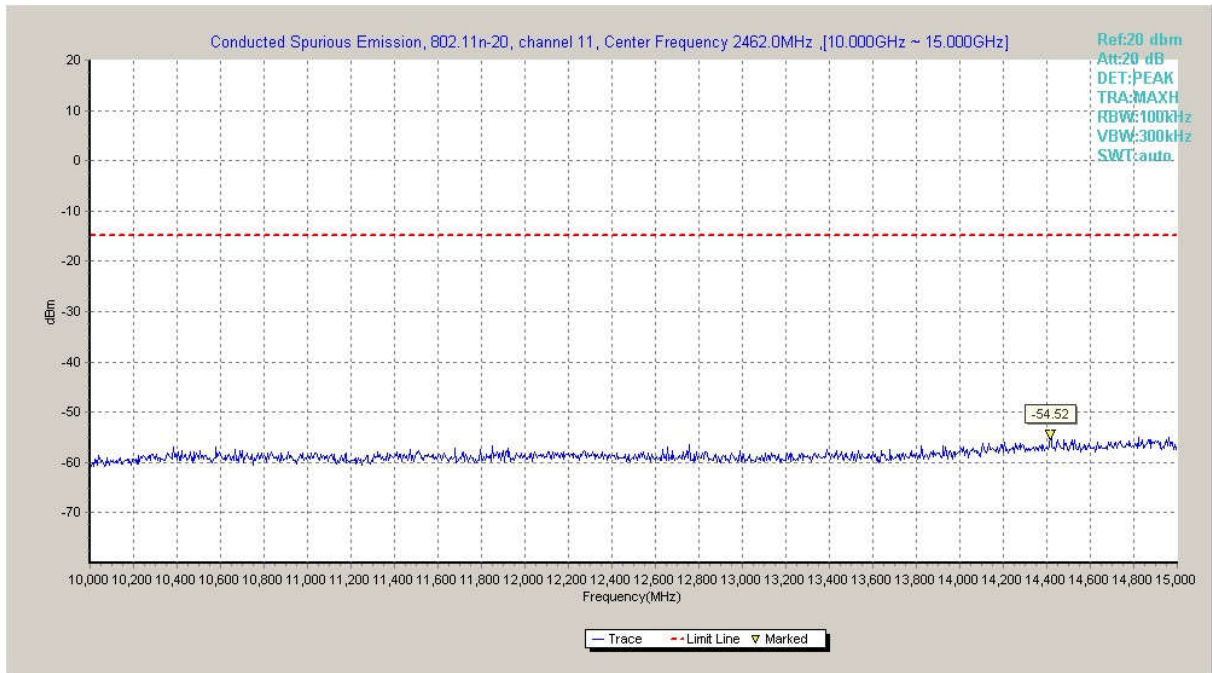


Fig.A.6.1.70 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 10 GHz-15 GHz)

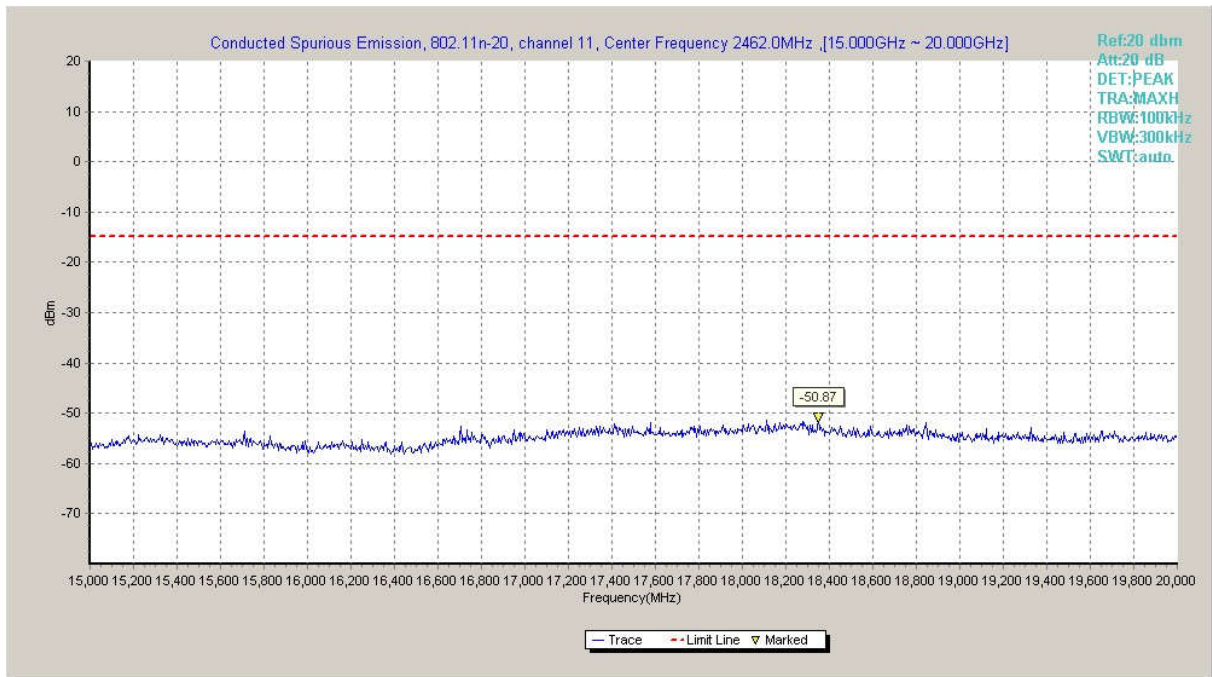


Fig.A.6.1.71 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 15 GHz-20 GHz)

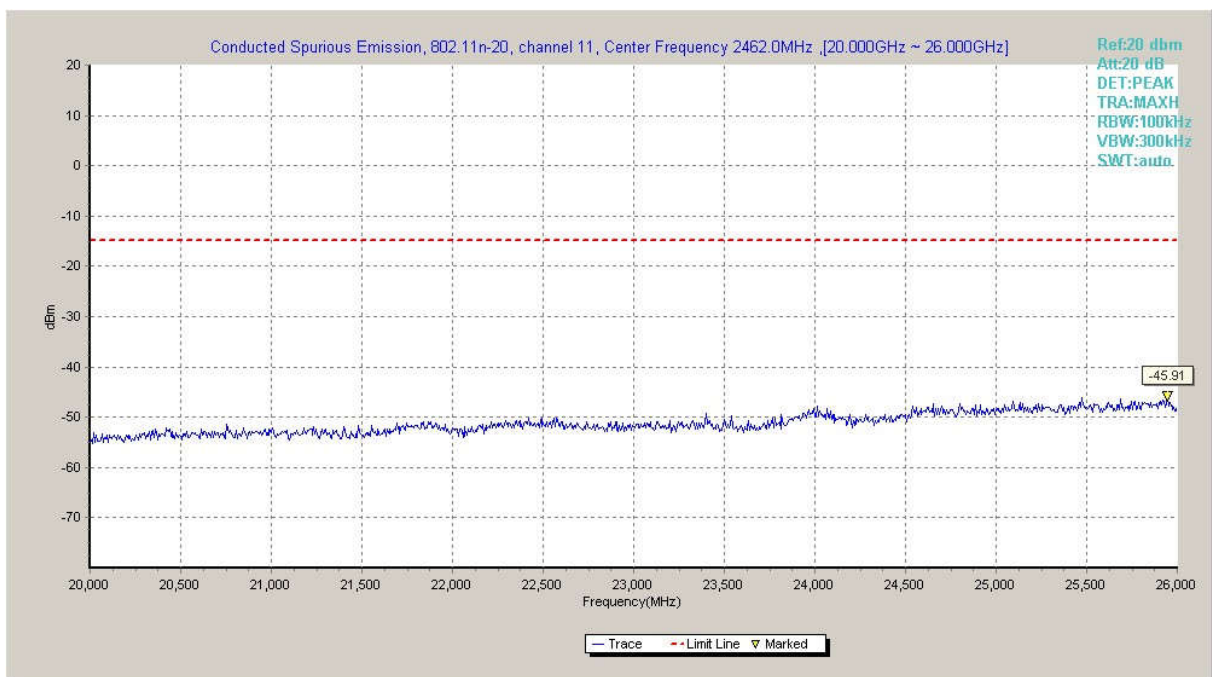


Fig.A.6.1.72 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 20 GHz-26 GHz)

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(μV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

Test Condition

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100KHz/300KHz	5
1000-4000	1MHz/3MHz	15
4000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

EUT ID: EUT1

Measurement Results for EUT1:

802.11b mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	1	2.31GHz~2.43GHz---L	Fig.A.6.2.1	P
	11	2.45GHz~2.50GHz---H	Fig.A.6.2.2	P

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	1	2.31GHz~2.43GHz---L	Fig.A.6.2.3	P
	11	2.45GHz~2.50GHz---H	Fig.A.6.2.4	P

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	1	2.31GHz~2.43GHz---L	Fig.A.6.2.5	P
	11	2.45GHz~2.50GHz---H	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:

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

802.11b-Average

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2389.200	46.84	2.9	32.0	12.01	54.0	7.2	H	155	18
2390.000	46.86	2.9	32.0	12.03	54.0	7.1	H	155	56
4824.000	40.72	-35.2	34.1	41.87	54.0	13.3	H	155	139
7236.000	34.09	-32.4	35.8	30.73	54.0	19.9	H	155	108
9648.000	39.76	-30.1	36.8	33.12	54.0	14.2	H	155	78
12060.000	37.49	-31.0	38.9	29.61	54.0	16.5	H	155	36

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2399.600	46.88	2.9	32.0	12.04	54.0	7.1	H	155	268
2474.400	46.79	2.9	32.0	11.87	54.0	7.2	H	155	138

4874.000	34.46	-35.5	34.1	35.88	54.0	19.5	H	155	104
7311.000	35.07	-31.6	35.8	30.87	54.0	18.9	H	155	40
9748.000	38.05	-31.3	36.9	32.43	54.0	15.9	H	155	28
12185.000	37.34	-29.1	39.0	27.49	54.0	16.7	H	155	8

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.500	46.72	2.9	32.0	11.79	54.0	7.3	H	155	16
2484.200	46.82	2.9	32.0	11.89	54.0	7.2	H	155	48
4924.000	37.73	-35.2	34.1	38.81	54.0	16.3	H	155	80
7386.000	35.57	-31.2	35.8	31.00	54.0	18.4	H	155	8
9848.000	36.61	-30.5	37.0	30.13	54.0	17.4	H	155	102
12310.000	37.66	-31.6	39.0	30.24	54.0	16.3	H	155	118

802.11b-Peak

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2380.868	60.48	2.9	32.0	25.67	74.0	13.5	H	155	22
2384.634	60.20	2.9	32.0	25.38	74.0	13.8	H	155	44
4824.000	46.75	-35.2	34.1	47.90	74.0	27.3	H	155	132
7236.000	46.32	-32.4	35.8	42.97	74.0	27.7	V	155	110
9648.000	55.09	-30.1	36.8	48.45	74.0	18.9	H	155	88
12060.000	47.32	-31.0	38.9	39.43	74.0	26.7	H	155	44

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2347.650	47.43	-27.7	31.9	43.16	74.0	26.6	H	155	264
2735.630	48.31	-26.6	32.3	42.63	74.0	25.7	H	155	132
4874.000	44.70	-35.5	34.1	46.12	74.0	29.3	H	155	110
7311.000	45.28	-31.6	35.8	41.08	74.0	28.7	H	155	44
9748.000	50.45	-31.3	36.9	44.83	74.0	23.5	H	155	22
12185.000	48.32	-29.1	39.0	38.47	74.0	25.7	V	155	0

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2485.490	60.60	2.9	32.0	25.68	74.0	13.4	H	155	22
2485.975	60.50	2.9	32.0	25.57	74.0	13.5	H	155	44
4924.000	47.64	-35.2	34.1	48.72	74.0	26.4	V	155	88
7386.000	45.60	-31.2	35.8	41.03	74.0	28.4	V	155	0
9848.000	52.06	-30.5	37.0	45.59	74.0	21.9	H	155	110
12310.000	48.63	-31.6	39.0	41.20	74.0	25.4	H	155	132

802.11g - Average

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2389.600	47.48	2.9	32.0	12.66	54.0	6.5	H	155	28
2390.000	47.51	2.9	32.0	12.69	54.0	6.5	H	155	46
4824.500	32.17	-35.2	34.1	33.32	54.0	21.8	H	155	8
7236.000	34.17	-32.4	35.8	30.81	54.0	19.8	H	155	6
9648.000	39.53	-30.1	36.8	32.89	54.0	14.5	H	155	24
12060.000	37.59	-31.0	38.9	29.70	54.0	16.4	H	155	185

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2425.000	47.87	2.9	32.0	13.00	54.0	6.1	H	155	28
2449.600	47.81	2.9	32.0	12.92	54.0	6.2	H	155	248
4874.000	30.99	-35.5	34.1	32.41	54.0	23.0	H	155	38
7311.000	35.29	-31.6	35.8	31.09	54.0	18.7	H	155	98
9748.000	38.12	-31.3	36.9	32.49	54.0	15.9	H	155	183
12185.000	37.36	-29.1	39.0	27.51	54.0	16.6	H	155	356

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.800	47.72	2.9	32.0	12.79	54.0	6.3	H	155	20
2487.200	47.71	2.9	32.0	12.78	54.0	6.3	H	155	18
4924.000	31.03	-35.2	34.1	32.10	54.0	23.0	H	155	90
7386.000	35.51	-31.2	35.8	30.94	54.0	18.5	H	155	114
9848.000	37.68	-30.5	37.0	31.21	54.0	16.3	H	155	36
12310.000	37.63	-31.6	39.0	30.21	54.0	16.4	H	155	2

802.11g - Peak

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2374.358	61.00	2.9	32.0	26.19	74.0	13.0	H	155	22
2389.702	61.69	2.9	32.0	26.86	74.0	12.3	H	155	44
4825.500	45.11	-35.2	34.1	46.27	74.0	28.9	V	155	0
7236.000	48.16	-32.4	35.8	44.81	74.0	25.8	H	155	0
9648.000	52.50	-30.1	36.8	45.86	74.0	21.5	V	155	22
12060.000	49.83	-31.0	38.9	41.94	74.0	24.2	H	155	176

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2312.800	47.17	-27.8	31.9	43.03	74.0	26.8	H	155	22
2558.250	48.21	-26.8	32.1	42.94	74.0	25.8	H	155	242
4874.000	44.57	-35.5	34.1	45.98	74.0	29.4	V	155	44
7311.000	45.34	-31.6	35.8	41.14	74.0	28.7	H	155	88
9748.000	50.28	-31.3	36.9	44.66	74.0	23.7	V	155	176
12185.000	48.43	-29.1	39.0	38.58	74.0	25.6	H	155	0

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.550	64.57	2.9	32.0	29.65	74.0	9.4	H	155	22
2483.670	64.58	2.9	32.0	29.65	74.0	9.4	H	155	22
4924.000	47.73	-35.2	34.1	48.81	74.0	26.3	H	155	88
7386.000	45.58	-31.2	35.8	41.01	74.0	28.4	V	155	110
9848.000	52.14	-30.5	37.0	45.67	74.0	21.9	V	155	44
12310.000	48.58	-31.6	39.0	41.15	74.0	25.4	H	155	0

802.11n-HT20-Average

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2389.600	51.04	2.9	32.0	16.22	54.0	3.0	H	155	5
2390.000	51.55	2.9	32.0	16.72	54.0	2.5	H	155	25
4824.000	29.93	-35.2	34.1	31.08	54.0	24.1	H	155	356
7236.000	33.64	-32.4	35.8	30.29	54.0	20.4	H	155	350
9648.000	38.87	-30.1	36.8	32.23	54.0	15.1	H	155	185
12060.000	36.78	-31.0	38.9	28.90	54.0	17.2	H	155	187

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2413.200	47.39	2.9	32.0	12.54	54.0	6.6	H	155	4
2462.400	46.94	2.9	32.0	12.03	54.0	7.1	H	155	2
4874.000	30.55	-35.5	34.1	31.97	54.0	23.5	H	155	25
7311.000	34.46	-31.6	35.8	30.26	54.0	19.5	H	155	350
9748.000	37.48	-31.3	36.9	31.85	54.0	16.5	H	155	92
12185.000	36.97	-29.1	39.0	27.11	54.0	17.0	H	155	85

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.600	51.13	2.9	32.0	16.20	54.0	2.9	H	155	175
2483.800	50.94	2.9	32.0	16.01	54.0	3.1	H	155	194
4924.000	30.65	-35.2	34.1	31.73	54.0	23.3	H	155	215
7386.000	35.05	-31.2	35.8	30.48	54.0	19.0	H	155	196
9848.000	36.17	-30.5	37.0	29.70	54.0	17.8	H	155	241
12310.000	37.43	-31.6	39.0	30.00	54.0	16.6	H	155	259

802.11n-HT20-Peak

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2389.478	70.57	2.9	32.0	35.75	74.0	3.4	H	155	0
2389.534	71.21	2.9	32.0	36.39	74.0	2.8	H	155	0
4824.000	40.85	-35.2	34.1	42.00	74.0	33.1	V	155	22
7236.000	43.19	-32.4	35.8	39.83	74.0	30.8	V	155	352
9648.000	49.08	-30.1	36.8	42.44	74.0	24.9	V	155	88
12060.000	45.12	-31.0	38.9	37.23	74.0	28.9	V	155	88

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2301.850	47.8	-27.8	31.9	43.70	74.0	26.2	V	155	176
2583.650	48.8	-26.8	32.1	43.57	74.0	25.2	H	155	198
4874.000	40.55	-35.5	34.1	41.96	74.0	33.5	V	155	220
7311.000	45.04	-31.6	35.8	40.84	74.0	29.0	H	155	198
9748.000	48.02	-31.3	36.9	42.40	74.0	26.0	H	155	242
12185.000	46.47	-29.1	39.0	36.62	74.0	27.5	V	155	264

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2484.020	71.86	2.9	32.0	36.93	74.0	2.1	H	155	0
2484.345	71.50	2.9	32.0	36.58	74.0	2.5	H	155	44
4924.000	41.76	-35.2	34.1	42.84	74.0	32.2	V	155	88
7386.000	45.63	-31.2	35.8	41.06	74.0	28.4	V	155	44
9848.000	46.23	-30.5	37.0	39.76	74.0	27.8	V	155	66
12310.000	46.90	-31.6	39.0	39.47	74.0	27.1	H	155	88

Test graphs as below:

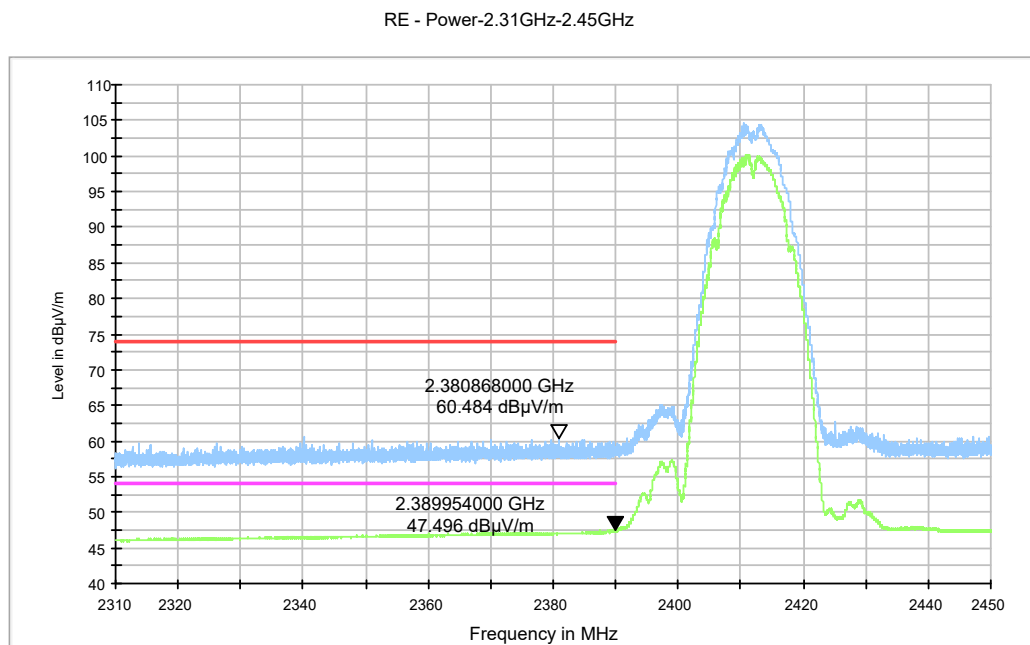


Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz – 2.43GHz

RE - Power-2.45GHz-2.5GHz

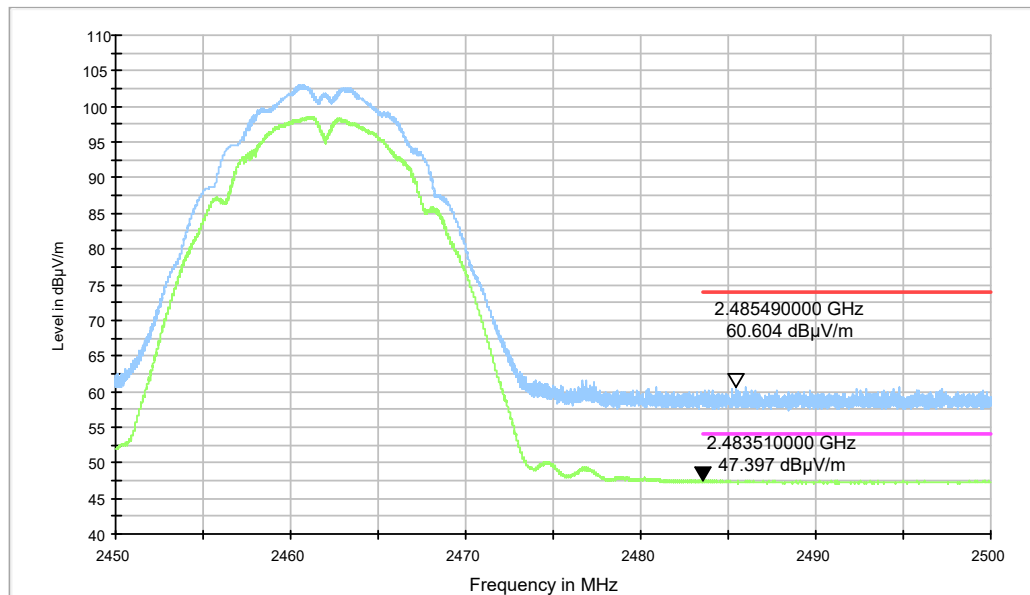


Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

RE - Power-2.31GHz-2.45GHz

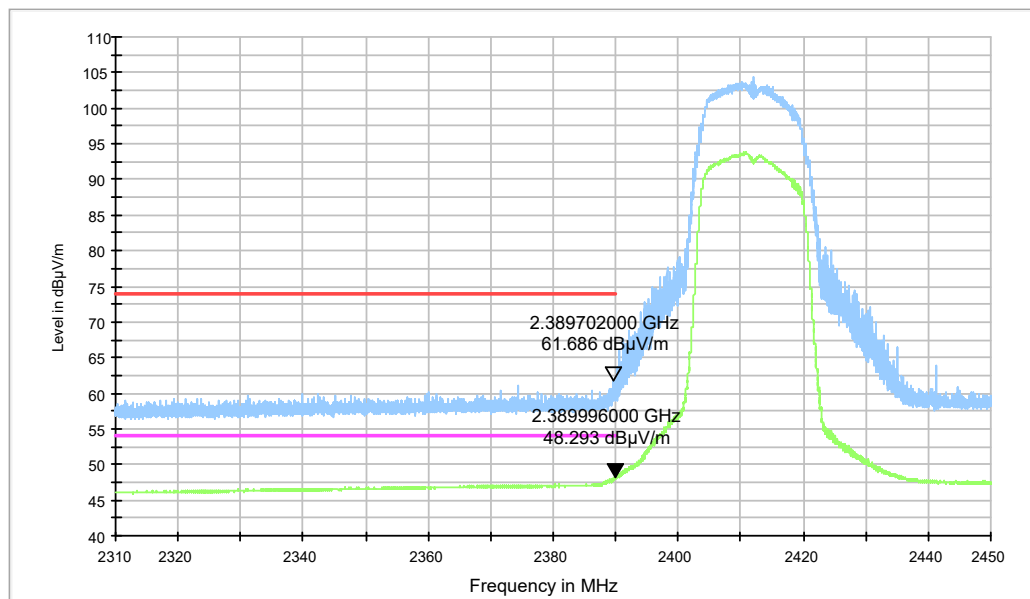


Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31 GHz - 2.43GHz

RE - Power-2.45GHz-2.5GHz

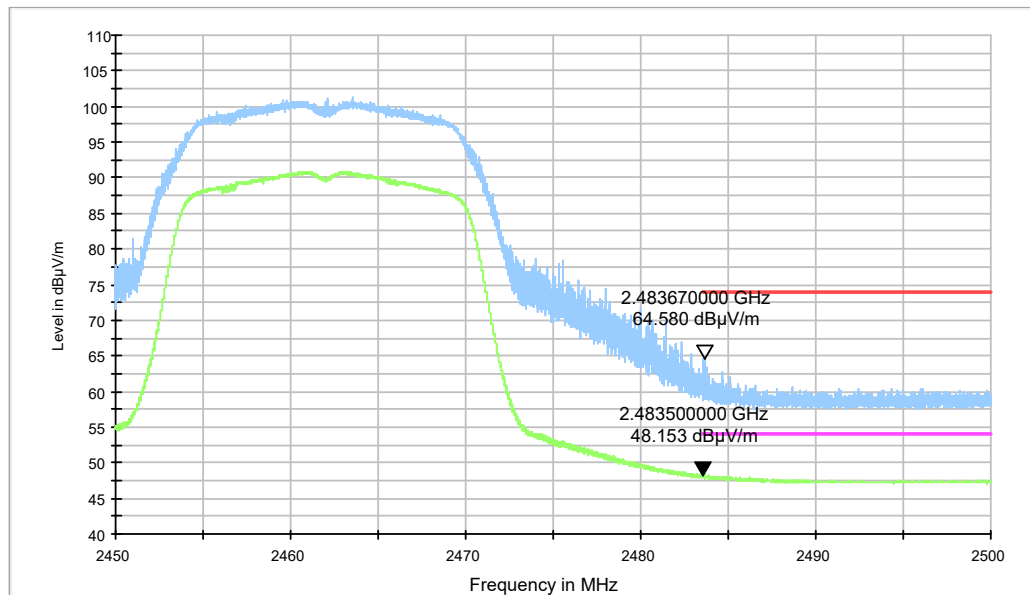


Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

RE - Power-2.31GHz-2.45GHz

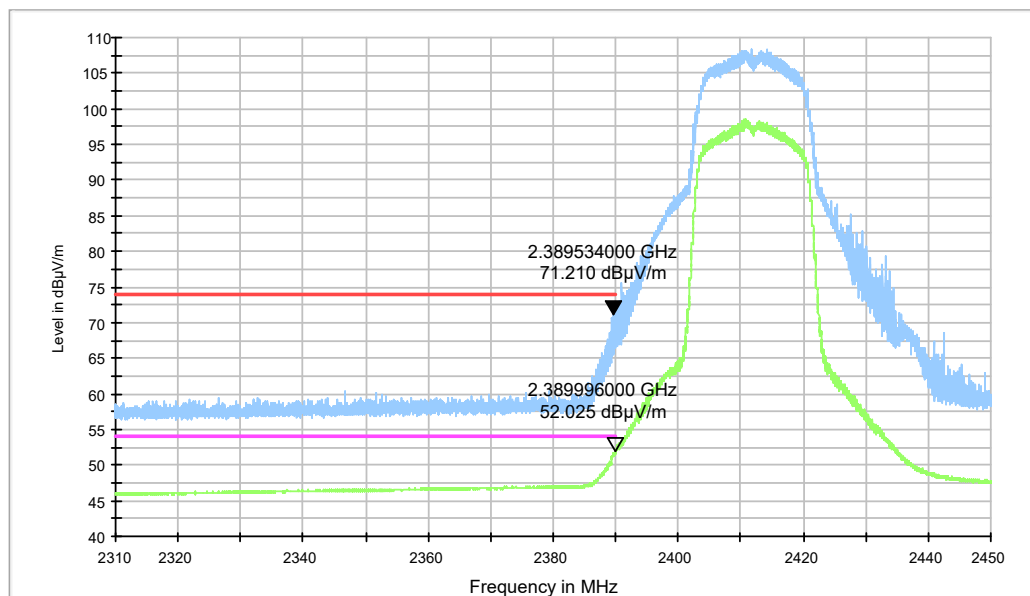


Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.31 GHz - 2.43GHz

RE - Power-2.45GHz-2.5GHz

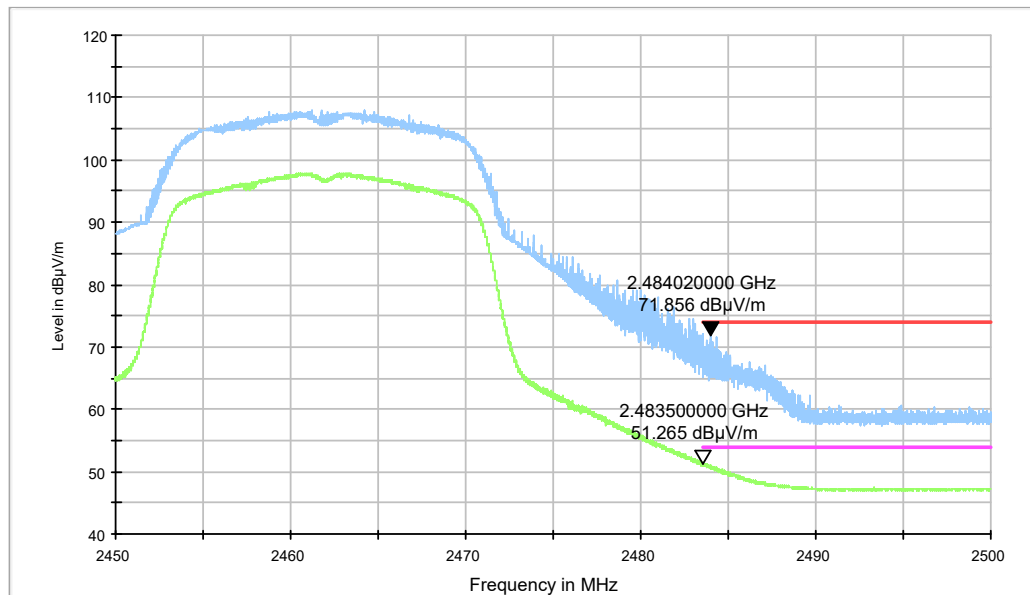


Fig.A.6.2.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

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 within the fundamental emission band of the transmitter, but only for those measurements.³⁶ 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 (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	66 to 56	Fig.A.7.1 Fig.A.7.3	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 (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	56 to 46	Fig.A.7.1 Fig.A.7.3	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 with AE2:

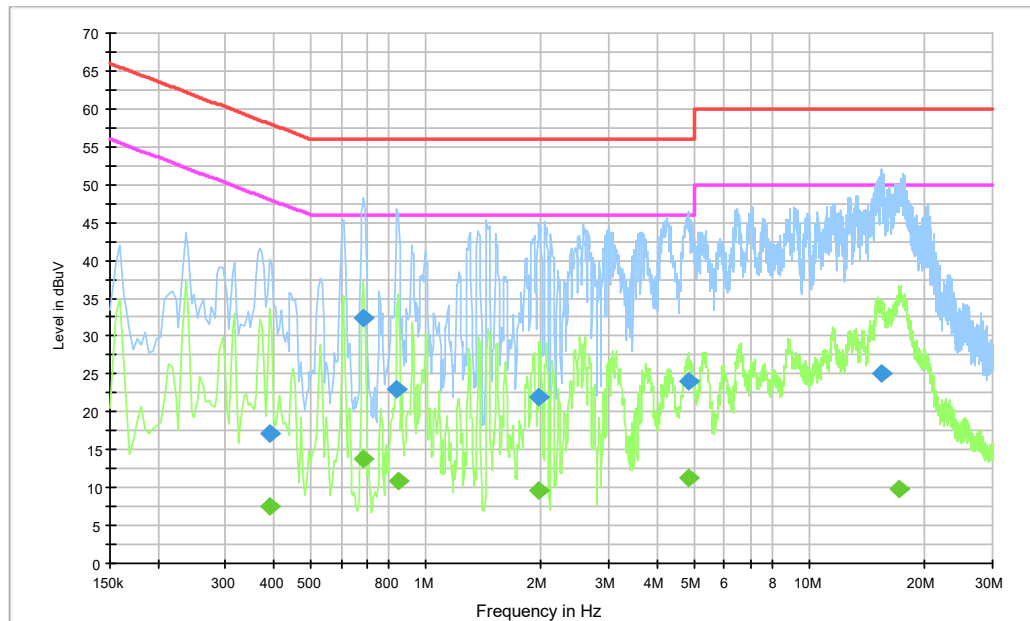


Fig.A.7.1 AC Powerline Conducted Emission-802.11b

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.393000	17.1	10000	9.000	L1	20.0	40.9	58.0
0.690000	32.4	10000	9.000	L1	19.9	23.6	56.0
0.838500	23.0	10000	9.000	L1	19.9	33.0	56.0
1.963500	22.0	10000	9.000	L1	19.8	34.0	56.0
4.848000	24.0	10000	9.000	L1	19.8	32.0	56.0
15.454500	25.1	10000	9.000	L1	20.0	34.9	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.393000	7.6	10000.	9.000	L1	20.0	40.4	48.0
0.690000	13.9	10000.	9.000	L1	19.9	32.1	46.0
0.843000	10.8	10000.	9.000	L1	19.9	35.2	46.0
1.977000	9.6	10000.	9.000	L1	19.8	36.4	46.0
4.839000	11.2	10000.	9.000	L1	19.8	34.8	46.0
17.151000	9.8	10000.	9.000	L1	20.0	40.2	50.0

Idle with AE2:

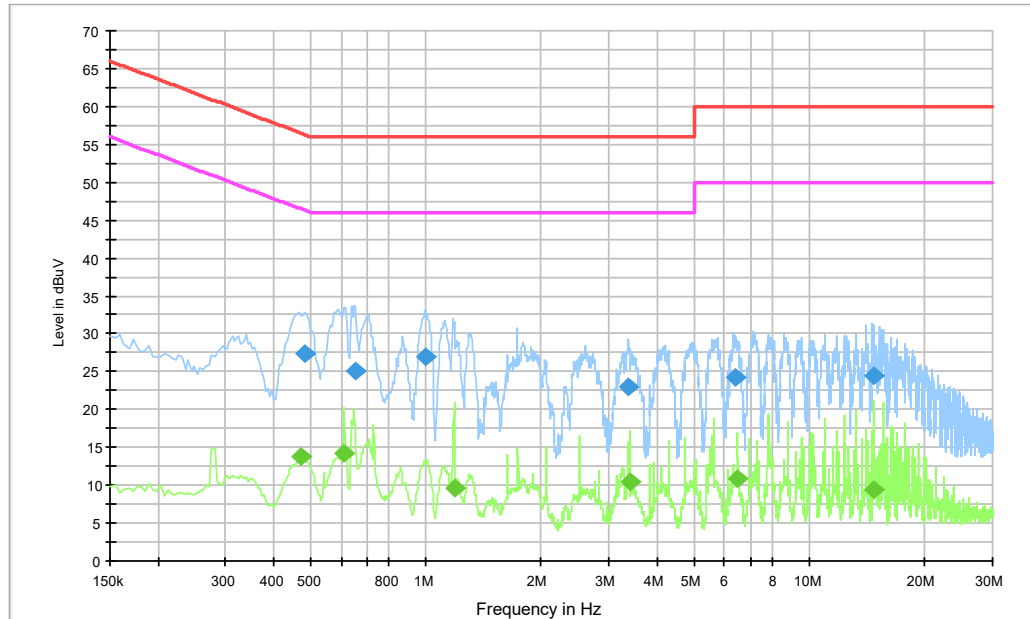


Fig.A.7.2 AC Powerline Conducted Emission-Idle

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.483000	27.4	10000	9.000	L1	20.0	28.9	56.3
0.654000	25.0	10000	9.000	L1	19.9	31.0	56.0
0.996000	27.0	10000	9.000	L1	19.8	29.0	56.0
3.381000	22.9	10000	9.000	L1	19.8	33.1	56.0
6.409500	24.3	10000	9.000	L1	19.9	35.7	60.0
14.626500	24.4	10000	9.000	L1	20.0	35.6	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.469500	13.7	10000.	9.000	L1	20.0	32.8	46.5
0.613500	14.3	10000.	9.000	L1	20.0	31.7	46.0
1.185000	9.5	10000.	9.000	L1	19.8	36.5	46.0
3.394500	10.4	10000.	9.000	L1	19.8	35.6	46.0
6.513000	10.9	10000.	9.000	L1	19.9	39.1	50.0
14.626500	9.3	10000.	9.000	L1	20.0	40.7	50.0

Traffic with AE3:

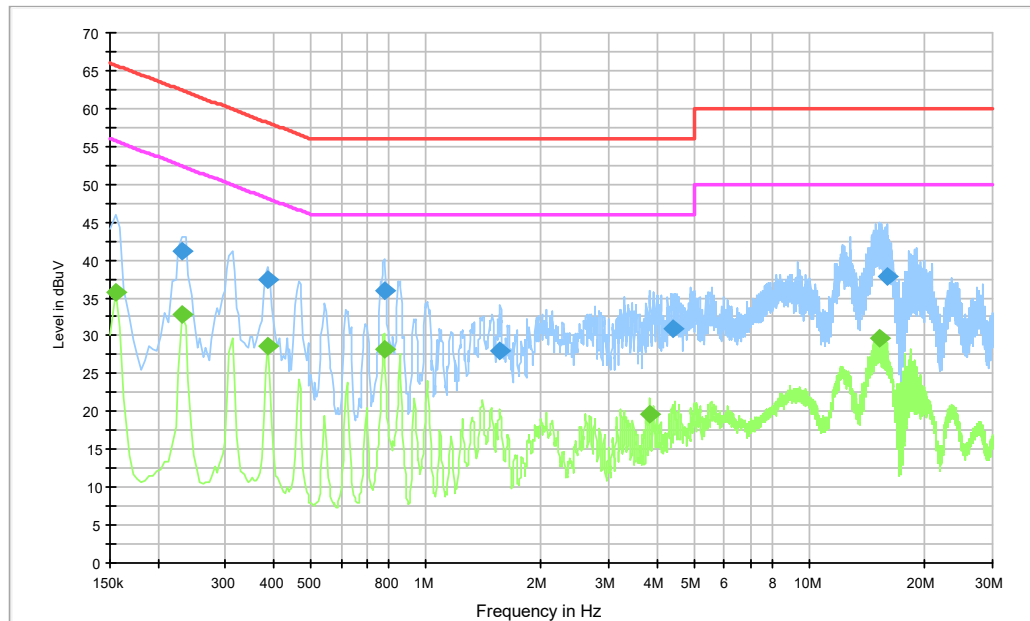


Fig.A.7.3 AC Powerline Conducted Emission-802.11b

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

Final Result 1

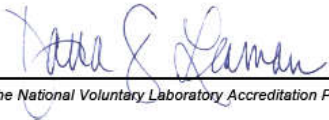
Frequency (MHz)	QuasiPeak (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.231000	41.2	10000	9.000	L1	20.0	21.2	62.4
0.388500	37.3	10000	9.000	L1	20.0	20.8	58.1
0.780000	35.9	10000	9.000	L1	20.0	20.1	56.0
1.563000	28.1	10000	9.000	L1	19.8	27.9	56.0
4.384500	30.9	10000	9.000	L1	19.8	25.1	56.0
15.895500	37.8	10000	9.000	L1	20.0	22.2	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.154500	35.6	10000.	9.000	L1	19.9	20.1	55.8
0.231000	32.9	10000.	9.000	L1	20.0	19.6	52.4
0.388500	28.7	10000.	9.000	L1	20.0	19.4	48.1
0.780000	28.2	10000.	9.000	L1	20.0	17.8	46.0
3.844500	19.7	10000.	9.000	L1	19.8	26.3	46.0
15.274500	29.6	10000.	9.000	L1	20.0	20.4	50.0

Note: The measurement results showed here are worst cases of the combinations of different USB cables.

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	
<i>is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:</i>	
Electromagnetic Compatibility & Telecommunications	
<i>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 Communique dated January 2009).</i>	
2019-09-26 through 2020-09-30 <i>Effective Dates</i>	  <i>For the National Voluntary Laboratory Accreditation Program</i>

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