

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

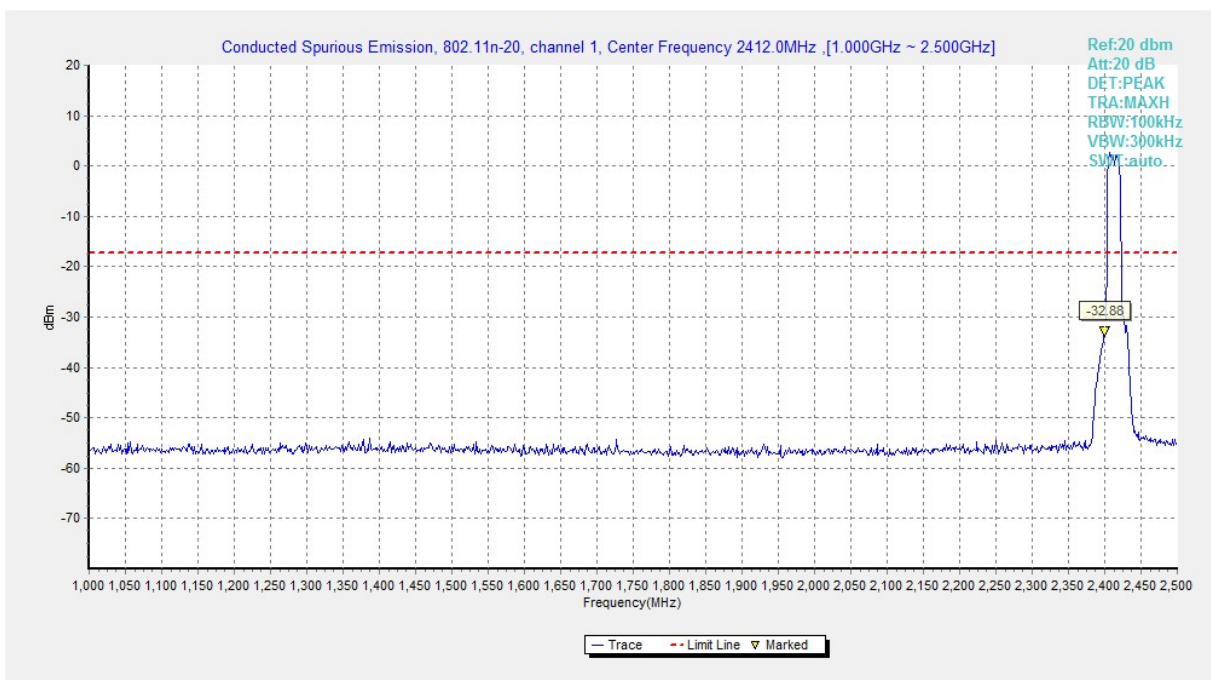


Fig.A.6.1.51 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 1 GHz- 2.5 GHz)

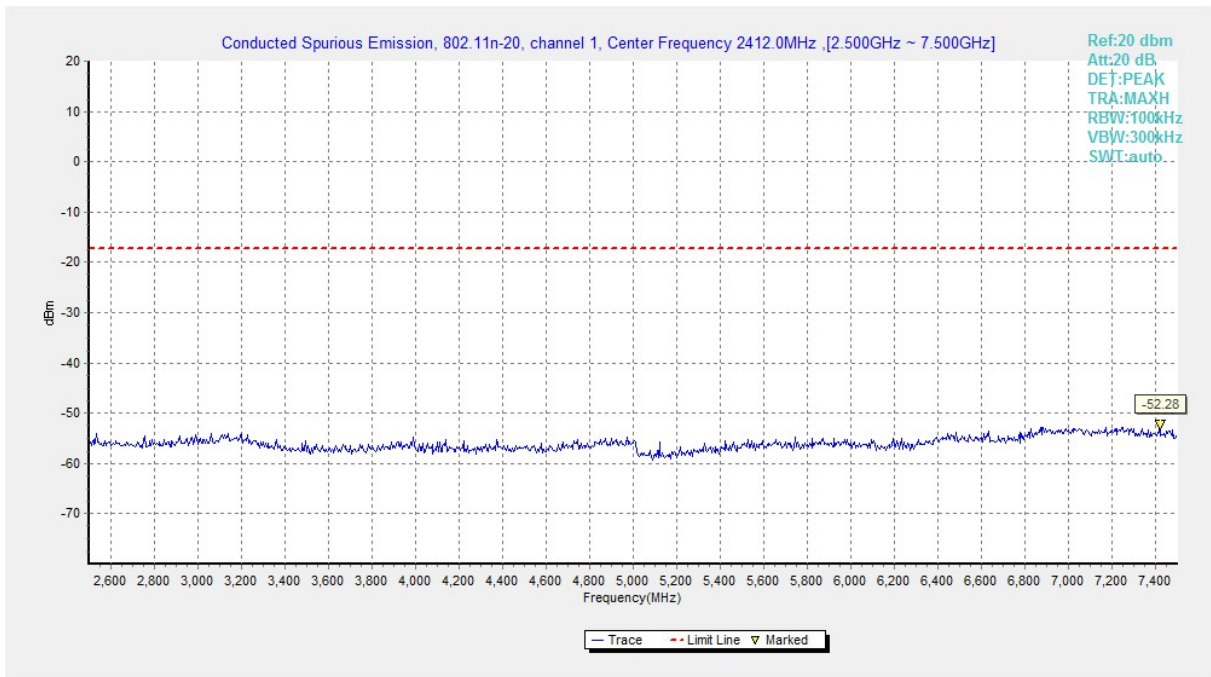


Fig.A.6.1.52 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 2.5 GHz-7.5 GHz)

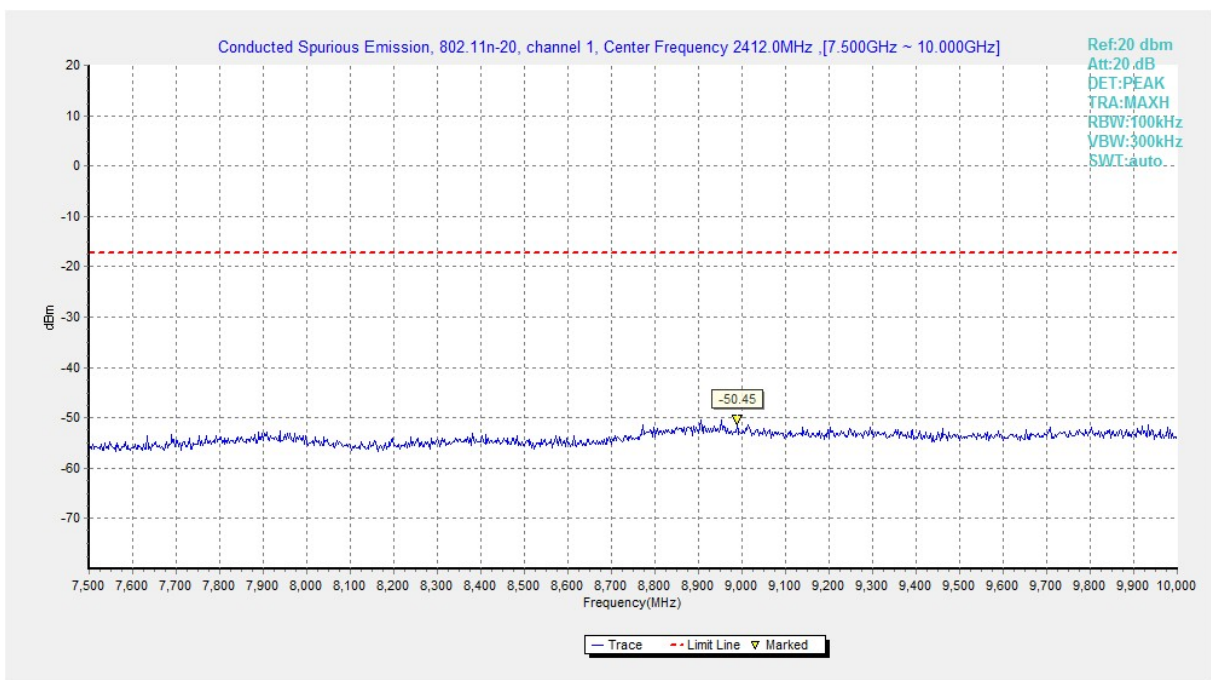


Fig.A.6.1.53 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 7.5 GHz-10 GHz)

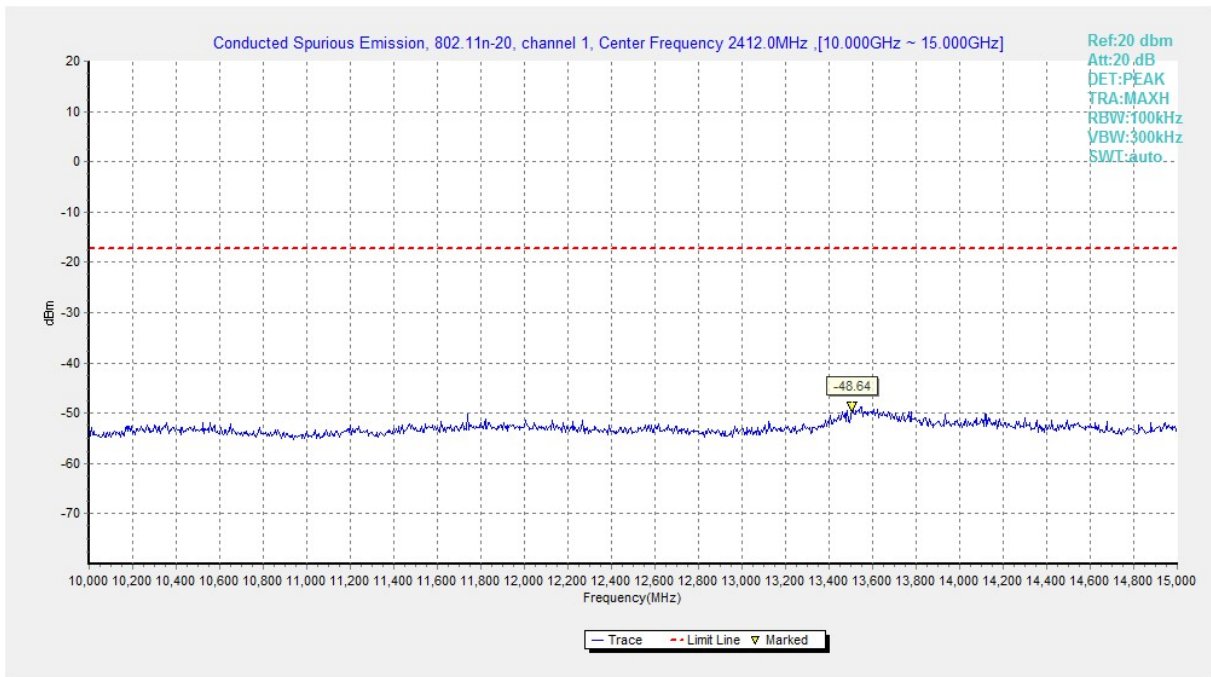


Fig.A.6.1.54 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 10 GHz-15 GHz)

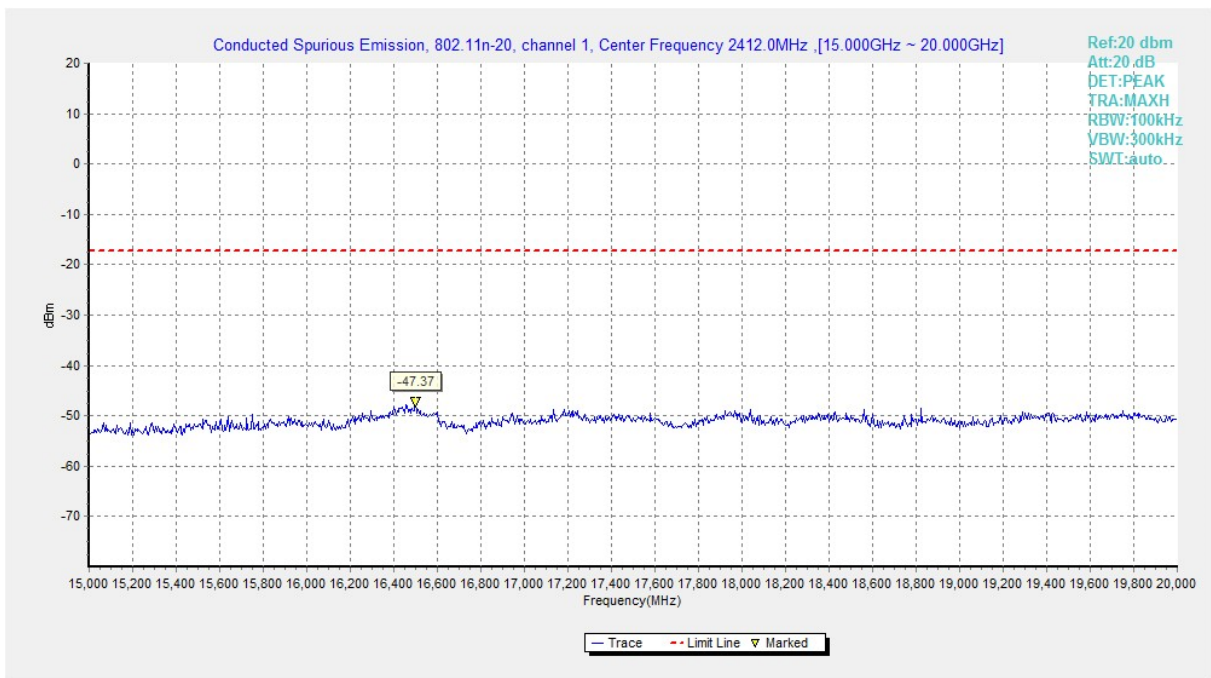


Fig.A.6.1.55 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 15 GHz-20 GHz)

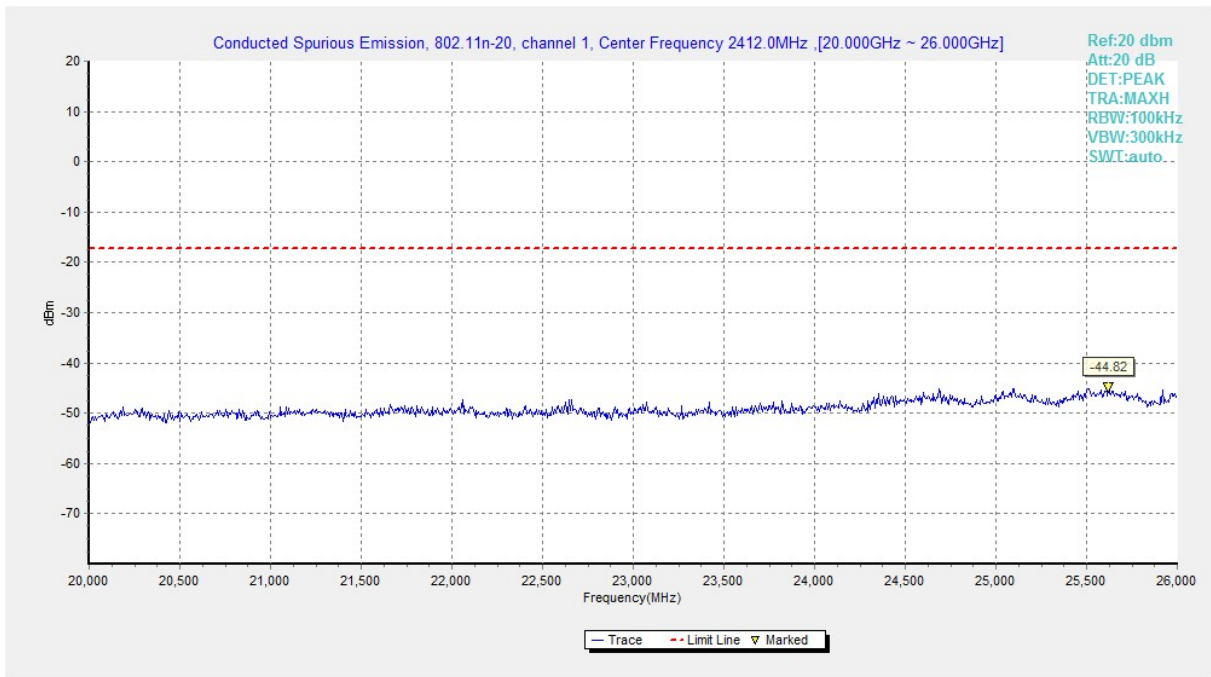


Fig.A.6.1.56 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch1, 20 GHz-26 GHz)

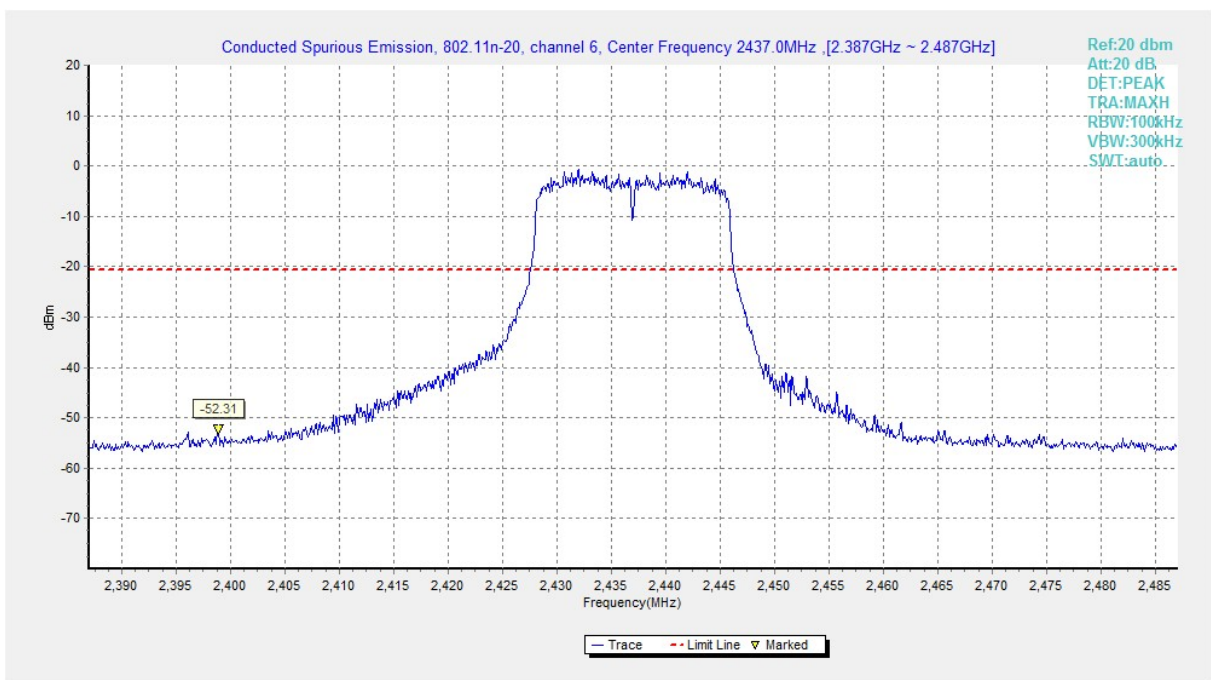


Fig.A.6.1.57 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, Center Frequency)

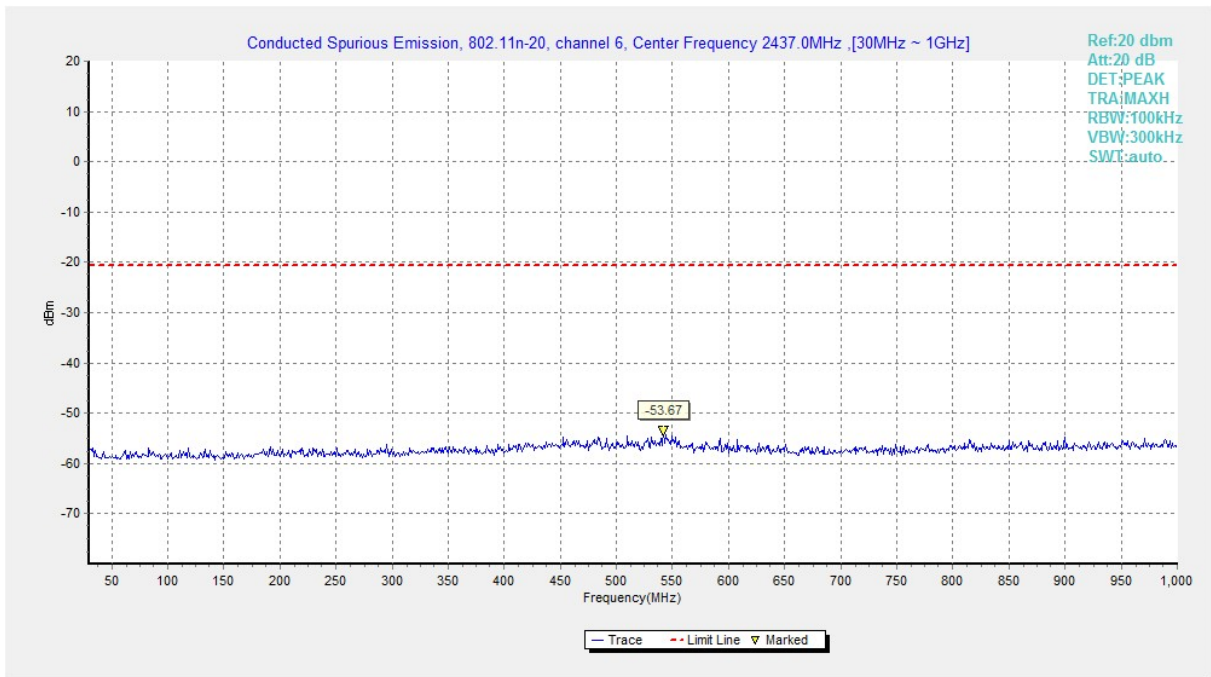


Fig.A.6.1.58 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 30 MHz- 1 GHz)

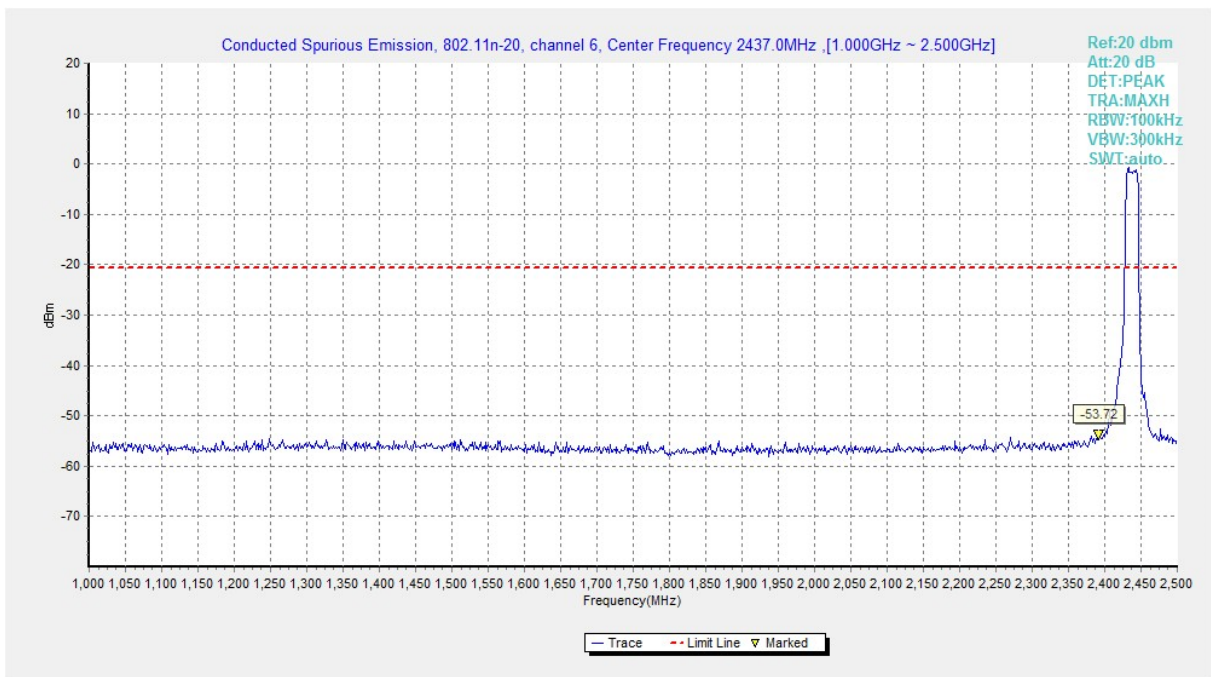


Fig.A.6.1.59 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 1 GHz- 2.5 GHz)

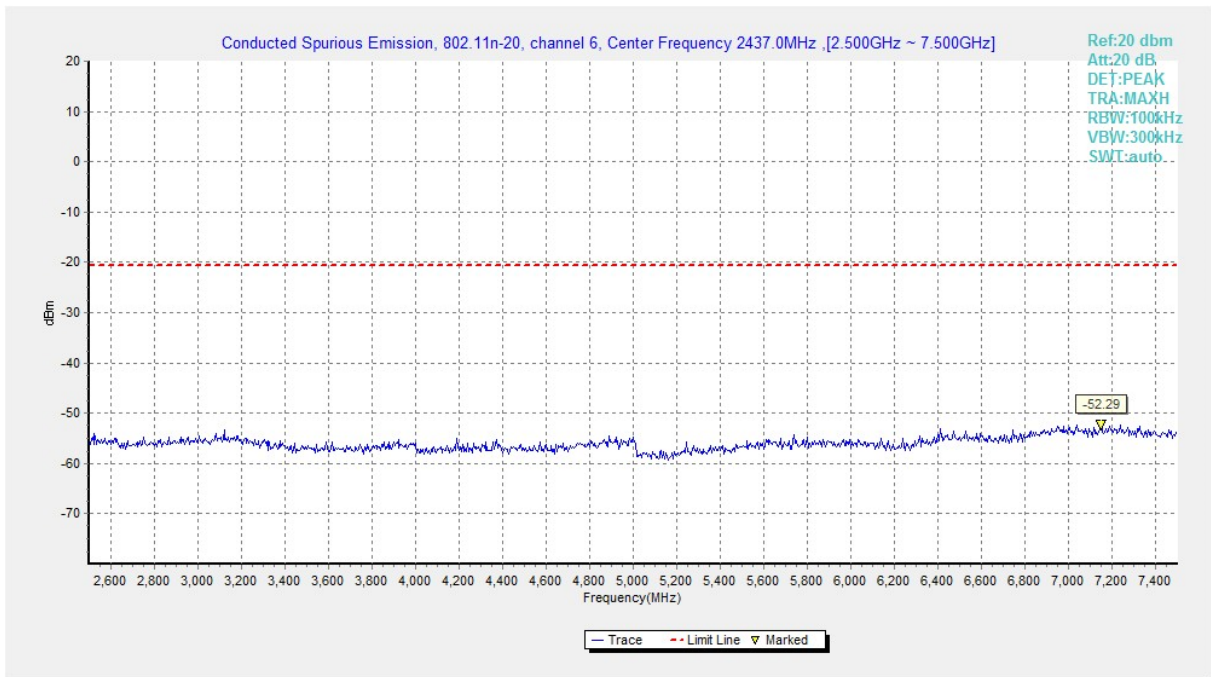


Fig.A.6.1.60 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 2.5 GHz- 7.5 GHz)

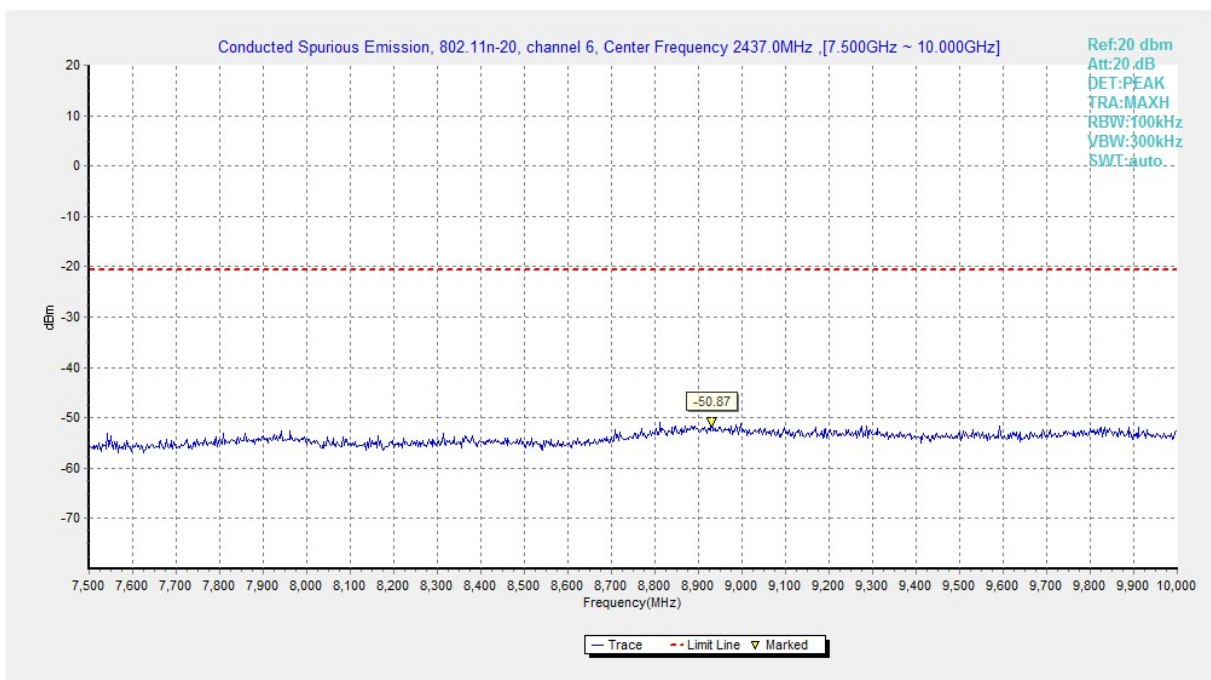


Fig.A.6.1.61 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 7.5 GHz- 10 GHz)

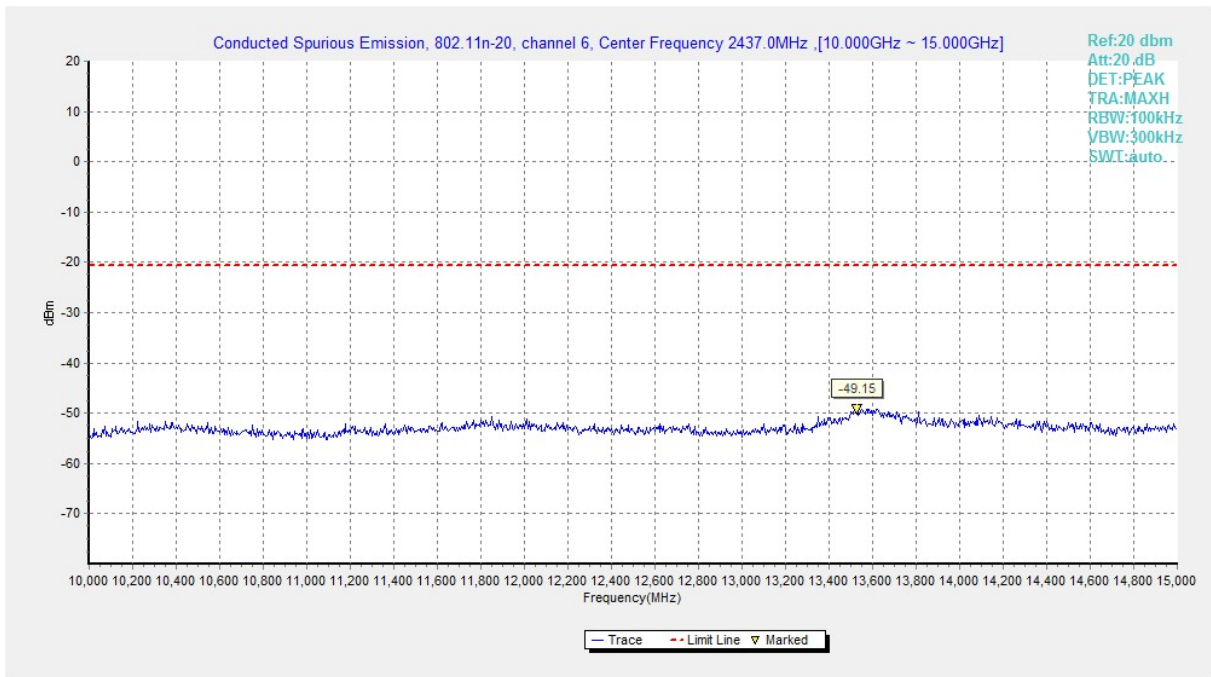


Fig.A.6.1.62 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 10 GHz-15 GHz)

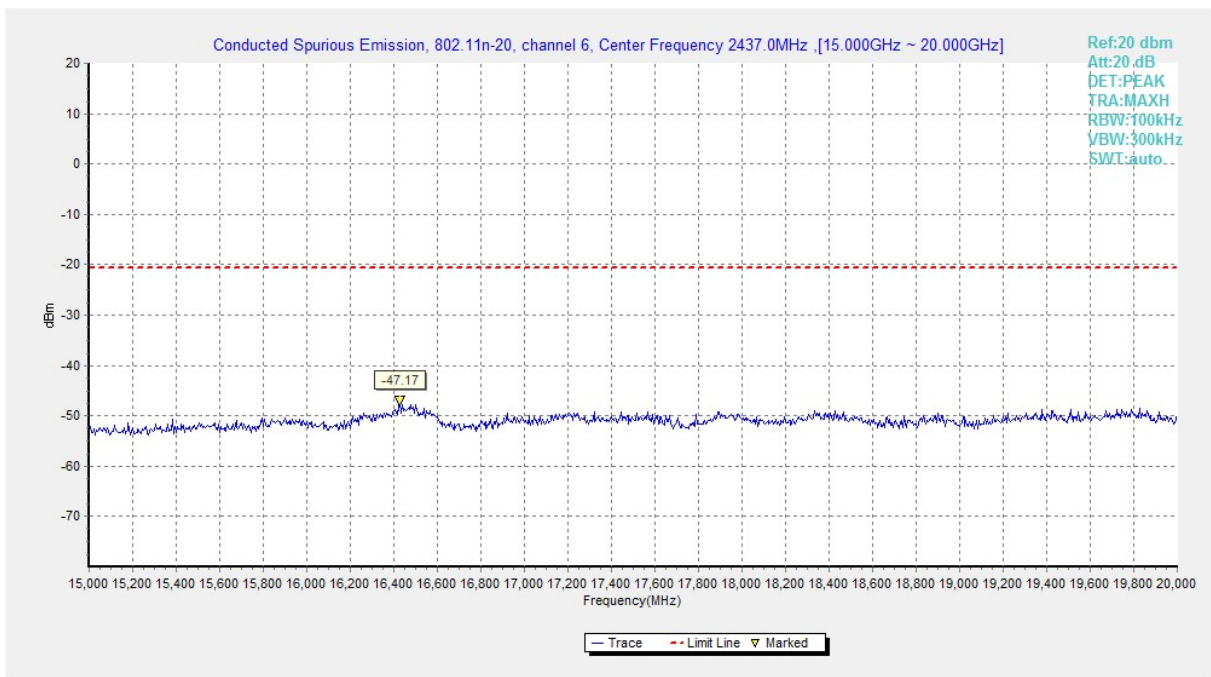


Fig.A.6.1.63 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 15 GHz-20 GHz)

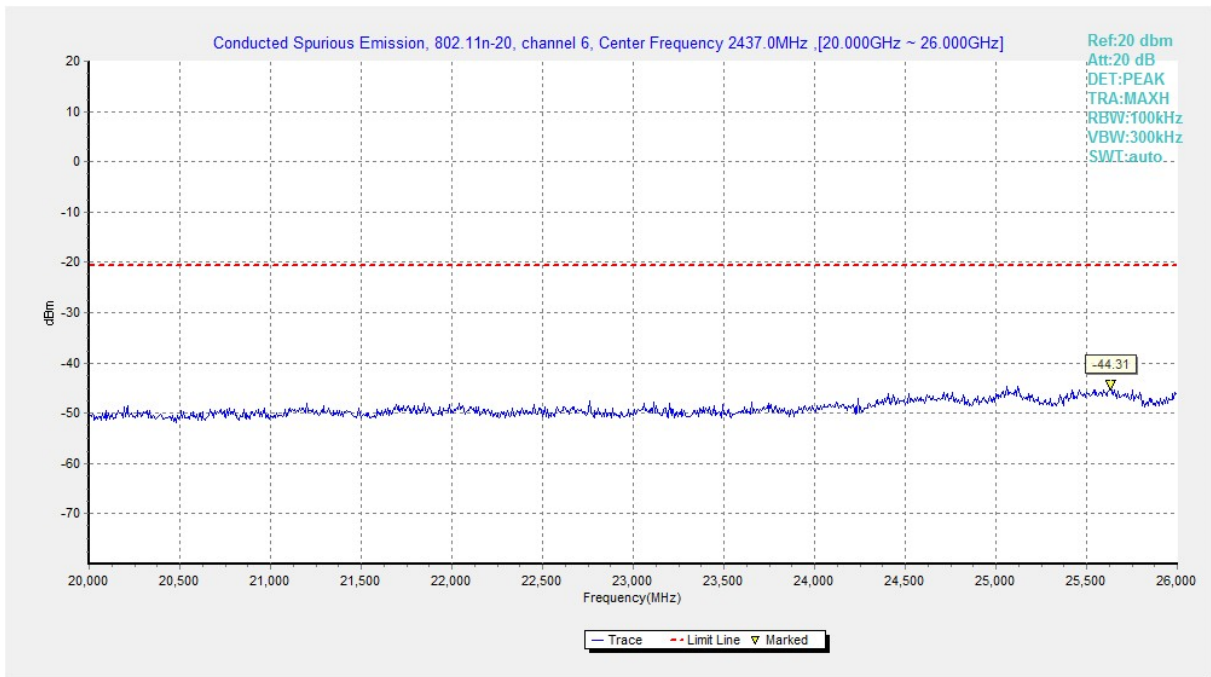


Fig.A.6.1.64 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch6, 20 GHz-26 GHz)

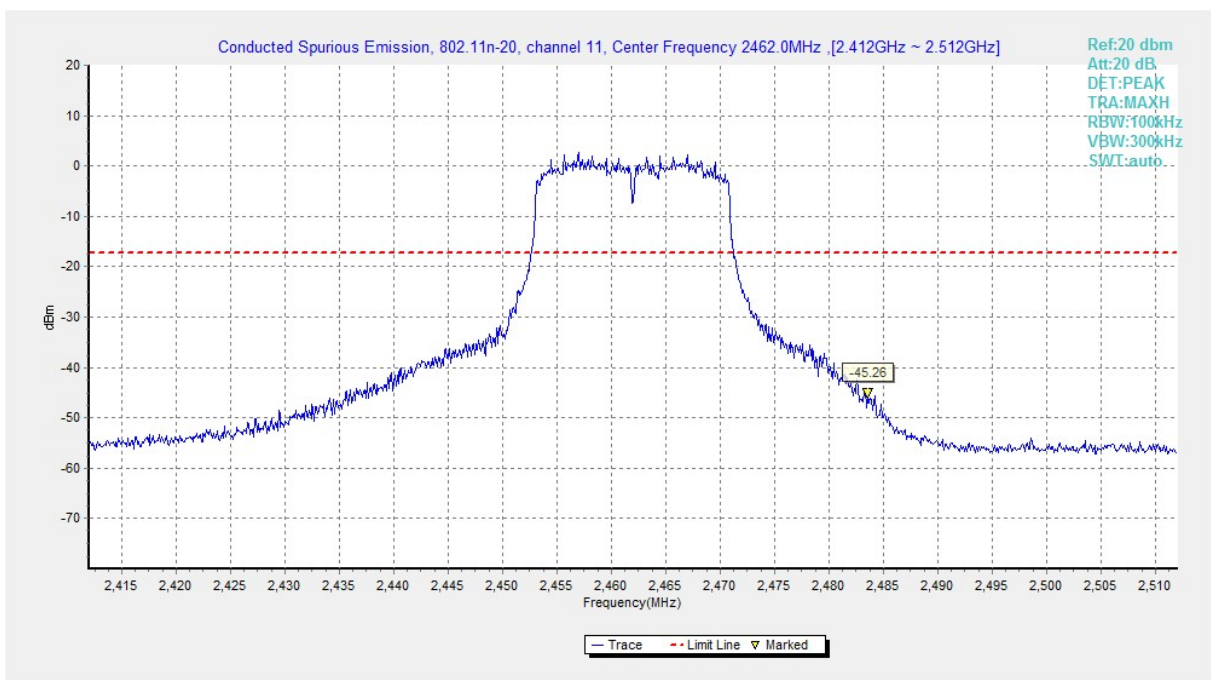


Fig.A.6.1.65 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, Center Frequency)

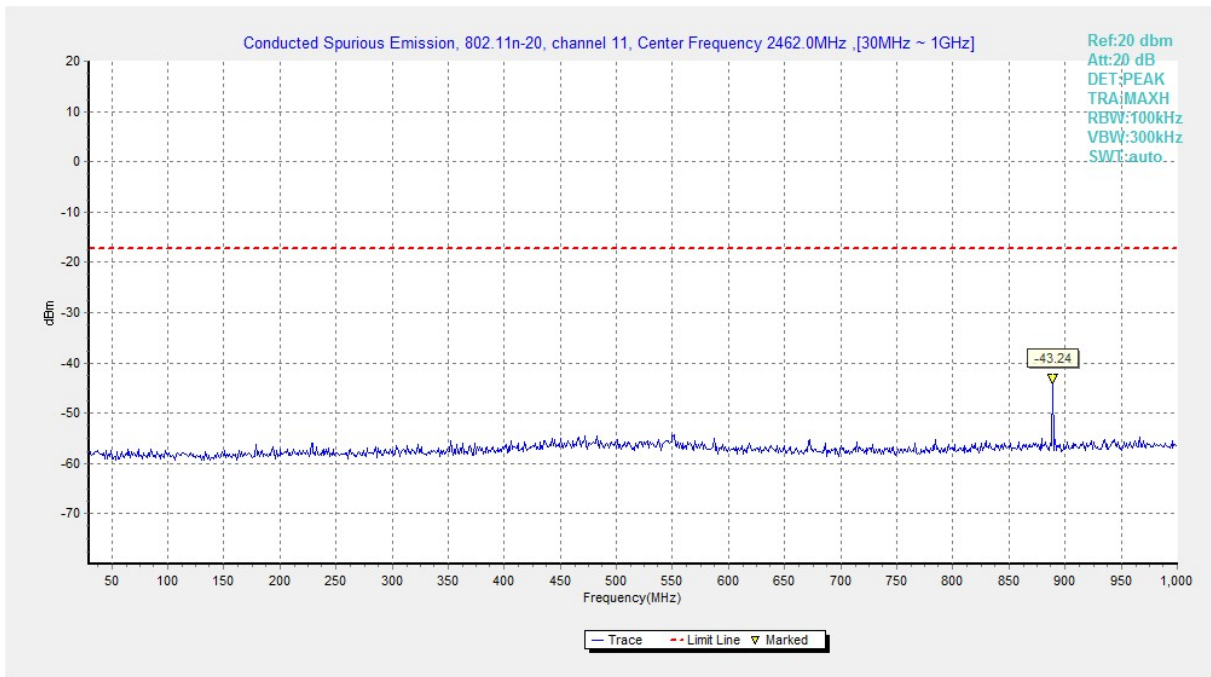


Fig.A.6.1.66 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 30 MHz- 1 GHz)

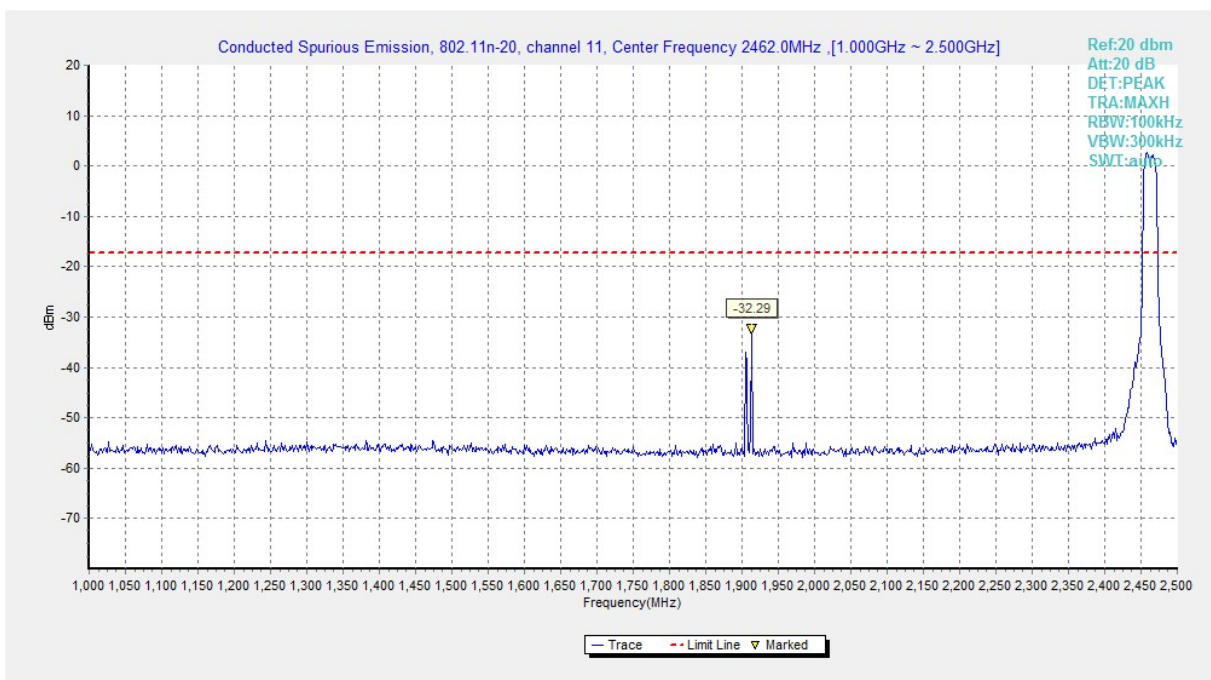


Fig.A.6.1.67 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 1 GHz- 2.5 GHz)

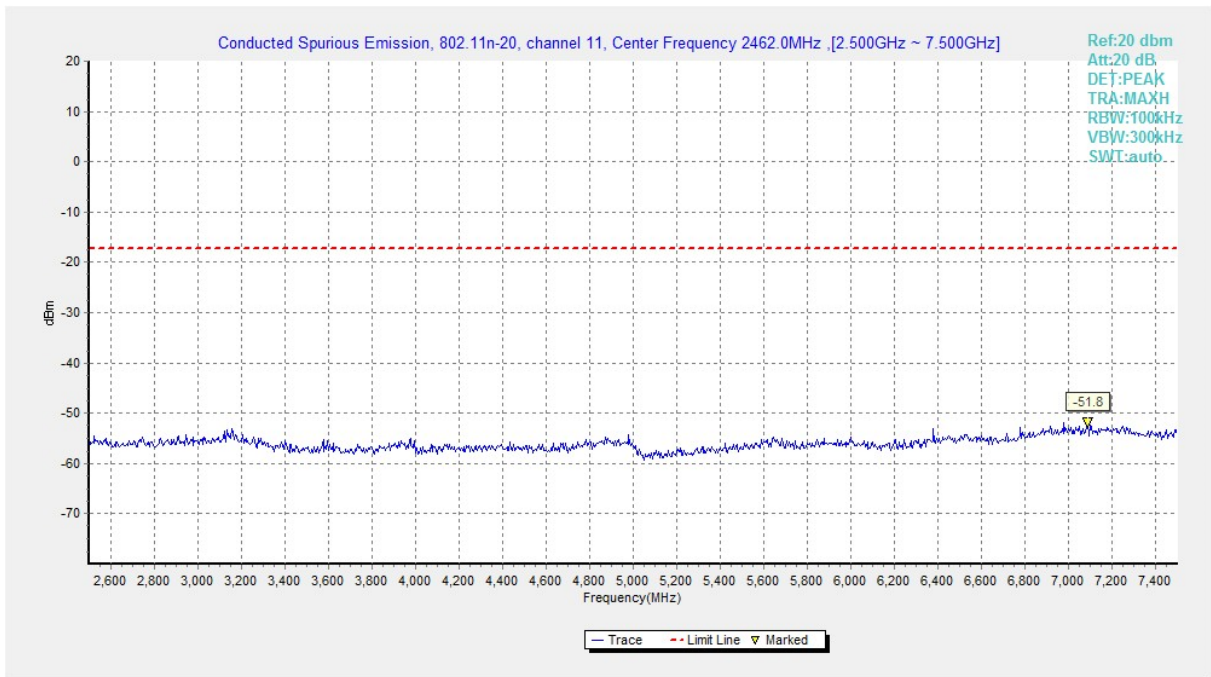


Fig.A.6.1.68 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 2.5 GHz-7.5 GHz)

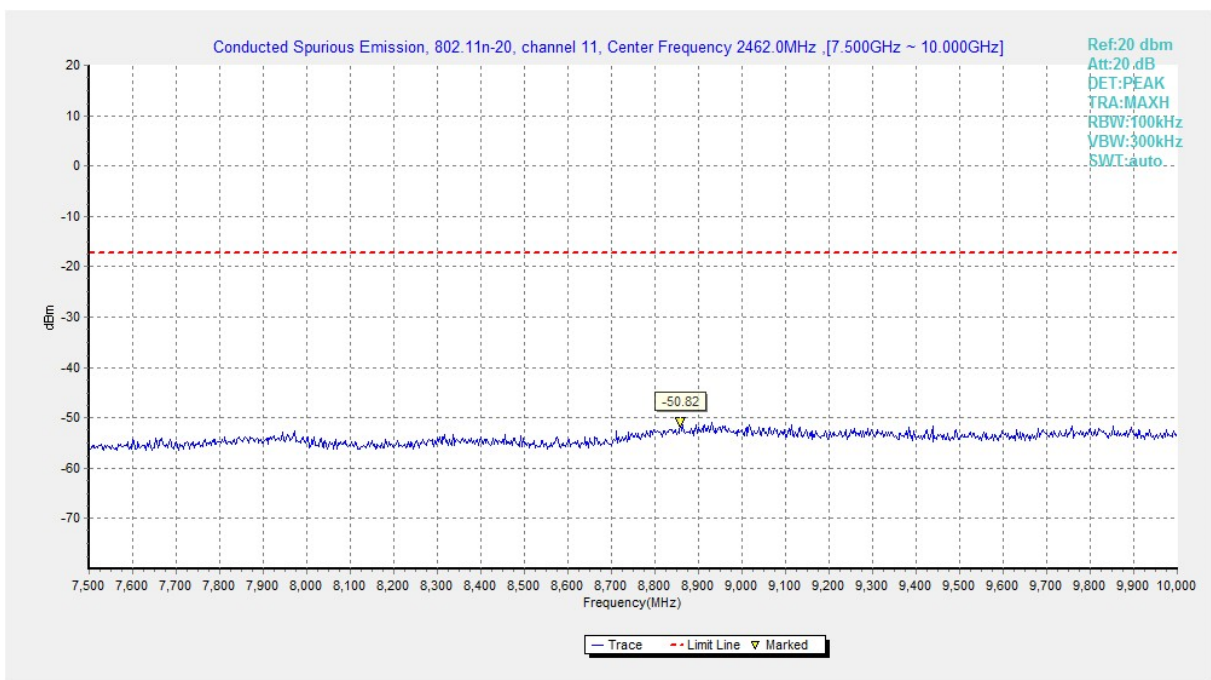


Fig.A.6.1.69 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 7.5 GHz-10 GHz)

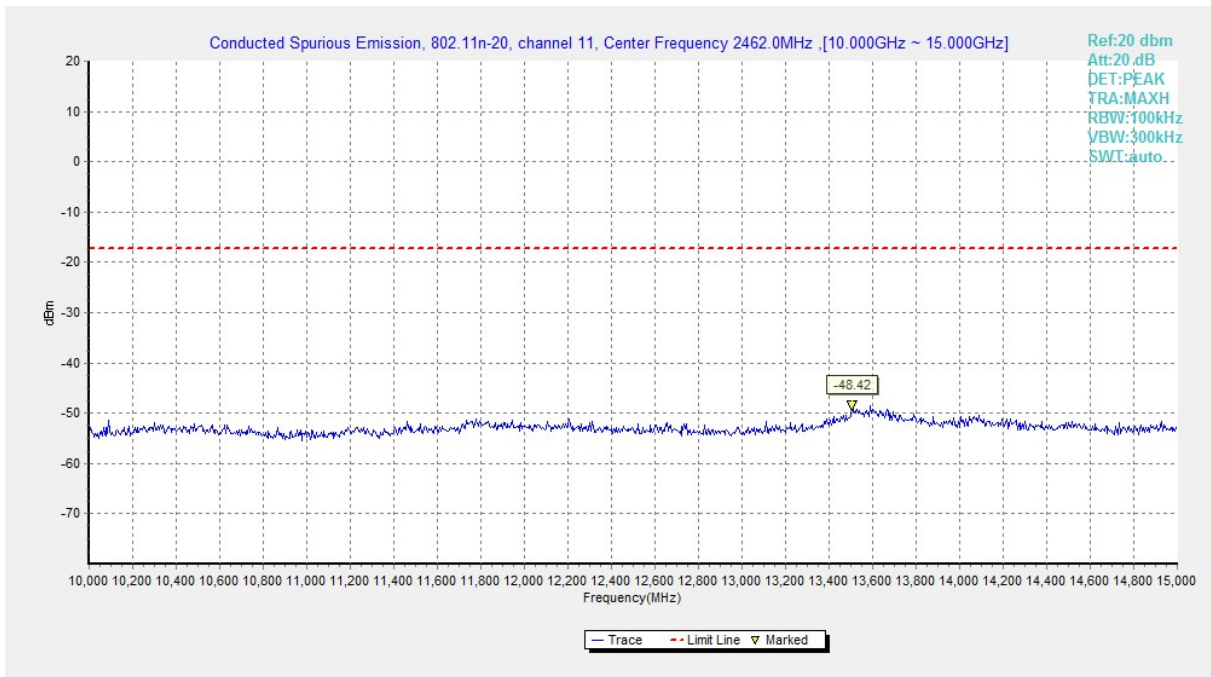


Fig.A.6.1.70 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 10 GHz-15 GHz)

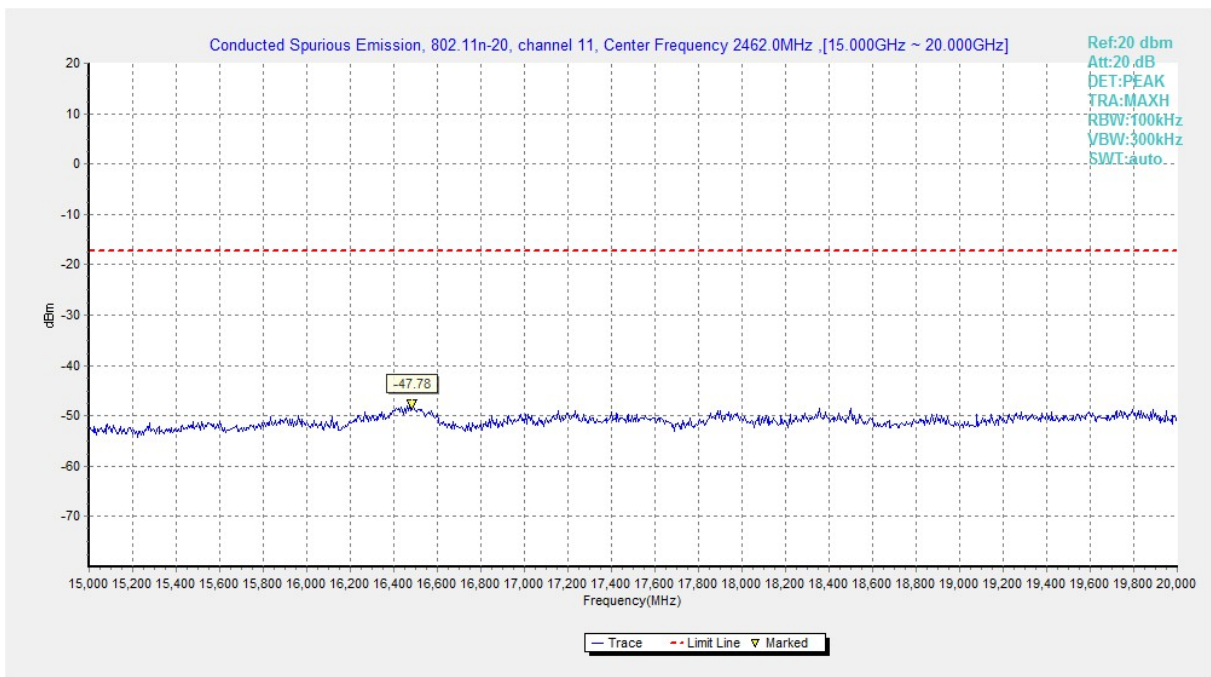


Fig.A.6.1.71 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 15 GHz-20 GHz)

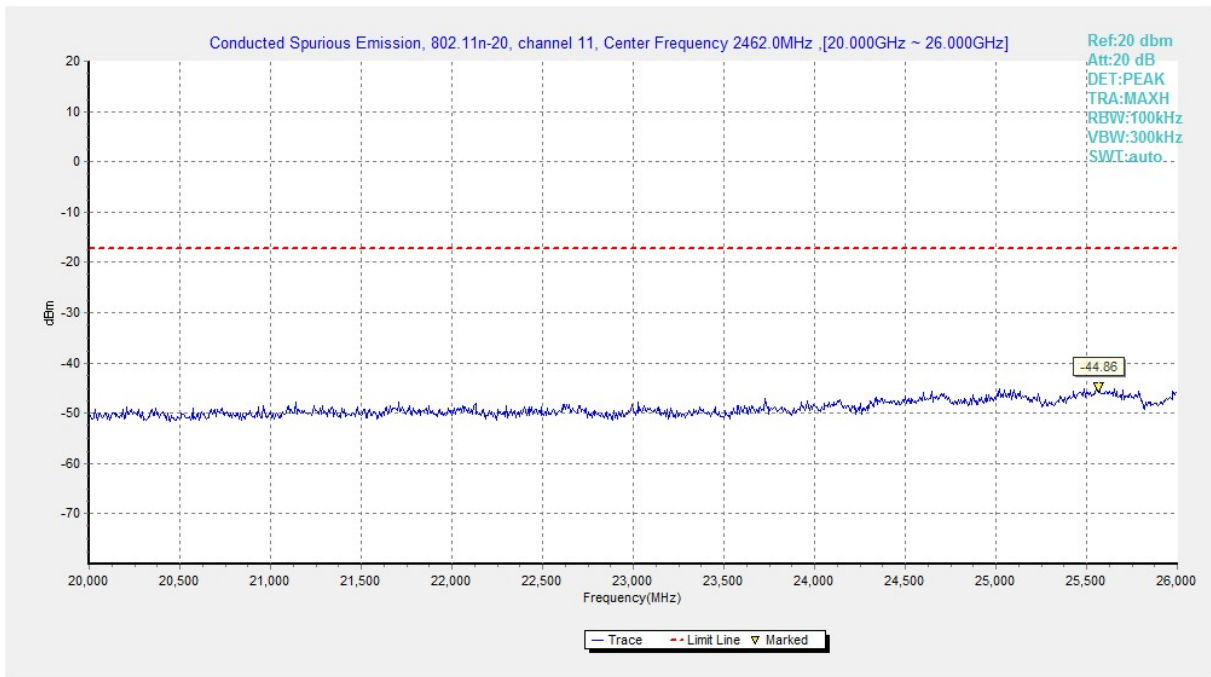


Fig.A.6.1.72 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 20 GHz-26 GHz)

.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	Power(ch1)	2.31GHz ~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)	2.31GHz ~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)	2.31GHz ~2.43GHz	Fig.A.6.2.5	P
	Power(ch11)	2.45GHz ~2.5GHz	Fig.A.6.2.6	P

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n(HT40)	Power(ch3)	2.31GHz ~2.43GHz	Fig.A.6.2.7	P
	Power(ch9)	2.45GHz ~2.5GHz	Fig.A.6.2.8	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 (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2389.100	46.66	2.9	32.0	11.78	54.0	7.3	H	155	28
2390.000	46.82	2.9	32.0	11.94	54.0	7.2	H	155	46
4824.000	29.10	-33.2	34.1	28.21	54.0	24.9	H	155	8
7236.000	31.21	-30.9	35.8	26.29	54.0	22.8	H	155	6
9648.000	32.06	-30.5	36.7	25.81	54.0	21.9	H	155	24
12060.000	34.09	-28.7	38.7	24.06	54.0	19.9	H	155	185

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2386.700	46.60	2.9	32.0	11.72	54.0	7.4	H	155	226
2485.800	46.68	2.9	32.2	11.57	54.0	7.3	H	155	92
4874.000	29.68	-33.3	34.2	28.83	54.0	24.3	H	155	70
7311.000	31.04	-30.8	35.8	26.03	54.0	23.0	H	155	8
9748.000	31.63	-30.3	36.9	25.11	54.0	22.4	H	155	48
12185.000	34.25	-28.1	38.8	23.55	54.0	19.7	H	155	246

Ch11

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.500	46.75	2.9	32.2	11.64	54.0	7.3	H	155	184
2484.200	46.71	2.9	32.2	11.60	54.0	7.3	H	155	6
4924.000	29.82	-33.5	34.2	29.18	54.0	24.2	H	155	26
7386.000	30.53	-31.5	35.9	26.13	54.0	23.5	H	155	246
9848.000	31.69	-30.2	37.0	24.88	54.0	22.3	H	155	8
12310.000	34.05	-27.8	38.9	22.92	54.0	19.9	H	155	2

802.11b-Peak

Ch1

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2358.118	60.44	2.8	32.0	25.63	74.0	13.6	H	155	22
2368.870	60.44	2.9	32.0	25.60	74.0	13.6	H	155	44
4824.000	42.94	-33.2	34.1	42.05	74.0	31.1	V	155	0
7236.000	44.20	-30.9	35.8	39.29	74.0	29.8	H	155	0
9648.000	45.20	-30.5	36.7	38.94	74.0	28.8	V	155	22
12060.000	47.38	-28.7	38.7	37.35	74.0	26.6	H	155	176

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2375.600	44.82	-34.3	32.0	47.10	74.0	29.2	H	155	264
2508.800	45.28	-34.2	32.2	47.32	74.0	28.7	H	155	132
4874.000	40.36	-33.3	34.2	39.51	74.0	33.6	H	155	110
7311.000	42.31	-30.8	35.8	37.37	74.0	31.7	H	155	44
9748.000	42.98	-30.3	36.9	36.41	74.0	31.0	H	155	22
12185.000	45.44	-28.1	38.9	34.60	74.0	28.6	V	155	0

Ch11

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2484.295	61.35	2.9	32.2	26.24	74.0	12.7	H	155	176
2495.775	61.47	2.9	32.2	26.34	74.0	12.5	H	155	0
4924.000	43.23	-33.5	34.2	42.59	74.0	30.8	V	155	22
7386.000	44.69	-31.5	35.9	40.29	74.0	29.3	V	155	352
9848.000	46.42	-30.2	37.0	39.61	74.0	27.6	V	155	0
12310.000	46.73	-27.8	38.9	35.60	74.0	27.3	H	155	0

802.11g - Average

Ch1

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2389.200	49.21	2.9	32.0	14.32	54.0	4.8	H	155	28
2389.900	49.42	2.9	32.0	14.54	54.0	4.6	H	155	46
4824.000	29.21	-33.2	34.1	28.32	54.0	24.8	H	155	8
7236.000	31.34	-30.9	35.8	26.43	54.0	22.7	H	155	6
9648.000	32.15	-30.5	36.7	25.90	54.0	21.9	H	155	24
12060.000	34.12	-28.7	38.7	24.09	54.0	19.9	H	155	185

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2390.800	48.92	2.9	32.0	14.03	54.0	5.1	H	155	92
2484.000	47.18	2.9	32.2	12.07	54.0	6.8	H	155	26
4874.000	29.67	-33.3	34.2	28.81	54.0	24.3	H	155	222
7311.000	31.14	-30.8	35.8	26.13	54.0	22.9	H	155	248
9748.000	31.74	-30.3	36.9	25.22	54.0	22.3	H	155	46
12185.000	34.34	-28.1	38.8	23.63	54.0	19.7	H	155	68

Ch11

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.500	47.50	2.9	32.2	12.40	54.0	6.5	H	155	8
2484.300	47.28	2.9	32.2	12.17	54.0	6.7	H	155	28
4924.000	29.27	-33.5	34.2	28.63	54.0	24.7	H	155	246
7386.000	30.62	-31.5	35.9	26.22	54.0	23.4	H	155	249
9848.000	31.77	-30.2	37.0	24.96	54.0	22.2	H	155	186
12310.000	34.26	-27.8	38.9	23.13	54.0	19.7	H	155	128

802.11g - Peak
Ch1

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2389.264	69.27	2.9	32.0	34.38	74.0	4.7	H	155	22
2389.730	68.98	2.9	32.0	34.09	74.0	5.0	H	155	44
4824.000	42.44	-33.2	34.1	41.55	74.0	31.6	V	155	0
7236.000	44.55	-30.9	35.8	39.63	74.0	29.5	H	155	0
9648.000	45.24	-30.5	36.7	38.99	74.0	28.8	V	155	22
12060.000	47.28	-28.7	38.7	37.25	74.0	26.7	H	155	176

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2326.600	43.03	-35.4	31.9	46.48	74.0	31.0	H	155	88
2564.200	44.13	-34.6	32.3	46.44	74.0	29.9	H	155	22
4874.000	41.44	-33.3	34.2	40.59	74.0	32.6	V	155	220
7311.000	43.24	-30.8	35.8	38.23	74.0	30.8	V	155	242
9748.000	45.16	-30.3	36.9	38.64	74.0	28.8	V	155	44
12185.000	45.48	-28.1	38.8	34.77	74.0	28.5	V	155	66

Ch11

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.695	65.93	2.9	32.2	30.83	74.0	8.1	H	155	248
2483.810	65.39	2.9	32.2	30.28	74.0	8.6	H	155	268
4924.000	43.42	-33.5	34.2	42.78	74.0	30.6	V	155	352
7386.000	44.56	-31.5	35.9	40.16	74.0	29.4	V	155	352
9848.000	46.39	-30.2	37.0	39.58	74.0	27.6	V	155	176
12310.000	46.68	-27.8	38.9	35.55	74.0	27.3	H	155	132

802.11n-HT20-Average

Ch1

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2389.700	49.37	2.9	32.0	14.49	54.0	4.6	H	155	226
2388.600	49.16	2.9	32.0	14.28	54.0	4.8	H	155	92
4824.000	29.22	-33.2	34.1	28.32	54.0	24.8	H	155	70
7236.000	31.13	-30.9	35.8	26.22	54.0	22.9	H	155	8
9648.000	31.38	-30.5	36.7	25.13	54.0	22.6	H	155	48
12060.000	33.90	-28.7	38.7	23.86	54.0	20.1	H	155	246

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2390.500	48.87	2.9	32.0	13.98	54.0	5.1	H	155	92
2484.000	47.70	2.9	32.2	12.59	54.0	6.3	H	155	136
4874.000	29.26	-33.3	34.2	28.41	54.0	24.7	H	155	8
7311.000	31.25	-30.8	35.8	26.24	54.0	22.8	H	155	70
9748.000	31.74	-30.3	36.9	25.22	54.0	22.3	H	155	48
12185.000	34.41	-28.1	38.8	23.70	54.0	19.6	H	155	246

Ch11

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.500	47.79	2.9	32.2	12.69	54.0	6.2	H	155	18
2483.900	47.63	2.9	32.2	12.52	54.0	6.4	H	155	4
4924.000	29.36	-33.5	34.2	28.71	54.0	24.6	H	155	20
7386.000	30.72	-31.5	35.9	26.32	54.0	23.3	H	155	28
9848.000	31.59	-30.2	37.0	24.78	54.0	22.4	H	155	4
12310.000	34.12	-27.8	38.9	22.99	54.0	19.9	H	155	40

802.11n-HT20-Peak

Ch1

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2389.492	69.59	2.9	32.0	34.70	74.0	4.4	H	155	220
2389.814	69.22	2.9	32.0	34.33	74.0	4.8	H	155	88
4824.000	42.35	-33.2	34.1	41.46	74.0	31.7	H	155	66
7236.000	44.46	-30.9	35.8	39.55	74.0	29.5	V	155	0
9648.000	45.27	-30.5	36.7	39.02	74.0	28.7	V	155	44
12060.000	47.19	-28.7	38.7	37.16	74.0	26.8	V	155	242

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2362.200	44.21	-34.8	32.0	47.03	74.0	29.8	H	155	88
2608.000	45.12	-35.0	32.3	47.82	74.0	28.9	H	155	132
4874.000	41.27	-33.3	34.2	40.42	74.0	32.7	H	155	0
7311.000	43.27	-30.8	35.8	38.26	74.0	30.7	H	155	66
9748.000	45.32	-30.3	36.9	38.80	74.0	28.7	V	155	44
12185.000	45.49	-28.1	38.8	34.78	74.0	28.5	H	155	242

Ch11

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.630	66.92	2.9	32.2	31.81	74.0	7.1	H	155	22
2484.196	66.11	2.9	32.2	31.00	74.0	7.9	H	155	0
4924.000	43.45	-33.5	34.2	42.81	74.0	30.6	V	155	44
7386.000	44.62	-31.5	35.9	40.22	74.0	29.4	H	155	22
9848.000	46.44	-30.2	37.0	39.63	74.0	27.6	V	155	0
12310.000	46.72	-27.8	38.9	35.59	74.0	27.3	V	155	44

802.11n-HT40-Average

Ch3

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)
2390.000	51.68	2.9	32.0	16.79	54.0	2.3	H	155	16
2389.856	51.49	2.9	32.0	16.61	54.0	2.5	H	155	48
4844.000	29.04	-33.2	34.1	28.13	54.0	25.0	H	155	80
7266.000	30.44	-30.6	35.8	25.23	54.0	23.6	H	155	8
9688.000	31.48	-30.4	36.8	25.08	54.0	22.5	H	155	102
12110.000	34.10	-28.5	38.8	23.80	54.0	19.9	H	155	118

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)
2389.600	49.11	2.9	32.0	14.23	54.0	4.9	H	155	20
2485.700	50.04	2.9	32.2	14.93	54.0	4.0	H	155	18
4874.000	29.86	-33.3	34.2	29.01	54.0	24.1	H	155	90
7311.000	31.25	-30.8	35.8	26.24	54.0	22.8	H	155	114
9748.000	31.63	-30.3	36.9	25.11	54.0	22.4	H	155	36
12185.000	34.17	-28.1	38.8	23.47	54.0	19.8	H	155	2

Ch9

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	50.56	2.9	32.2	15.46	54.0	3.4	H	155	24
2483.900	50.30	2.9	32.2	15.19	54.0	3.7	H	155	336
4904.000	29.22	-33.4	34.2	28.48	54.0	24.8	H	155	248
7356.000	30.57	-31.2	35.8	25.90	54.0	23.4	H	155	268
9808.000	31.52	-30.3	36.9	24.91	54.0	22.5	H	155	290
12260.000	34.28	-27.9	38.9	23.30	54.0	19.7	H	155	300

802.11n-HT40-Peak

Ch3

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2388.666	71.04	2.9	32.0	36.16	74.0	3.0	H	155	22
2389.884	70.45	2.9	32.0	35.56	74.0	3.6	H	155	44
4844.000	41.47	-33.2	34.1	40.56	74.0	32.5	V	155	88
7266.000	43.45	-30.6	35.8	38.24	74.0	30.6	V	155	0
9688.000	45.68	-30.4	36.8	39.28	74.0	28.3	H	155	110
12110.000	45.64	-28.5	38.8	35.34	74.0	28.4	H	155	132

Ch6

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2270.800	43.41	-35.6	31.8	47.25	74.0	30.6	H	155	21
2551.600	44.42	-34.7	32.2	46.86	74.0	29.6	H	155	22
4874.000	41.23	-33.3	34.2	40.38	74.0	32.8	H	155	82
7311.000	43.23	-30.8	35.8	38.22	74.0	30.8	V	155	120
9748.000	45.01	-30.3	36.9	38.49	74.0	29.0	V	155	54
12185.000	46.45	-28.1	38.8	35.74	74.0	27.6	H	155	2

Ch9

Frequency (MHz)	Measurement Result (dB μ V/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.500	70.79	2.9	32.2	35.69	74.0	3.2	H	155	110
2484.130	68.58	2.9	32.2	33.47	74.0	5.4	V	155	132
4904.000	42.85	-33.4	34.2	42.11	74.0	31.2	H	155	242
7356.000	44.34	-31.2	35.8	39.67	74.0	29.7	V	155	264
9808.000	45.31	-30.3	36.9	38.70	74.0	28.7	V	155	286

12260.000	47.27	-27.9	38.9	36.29	74.0	26.7	V	155	308
-----------	-------	-------	------	-------	------	------	---	-----	-----

Test graphs as below:

RE - Power-2.31GHz-2.45GHz

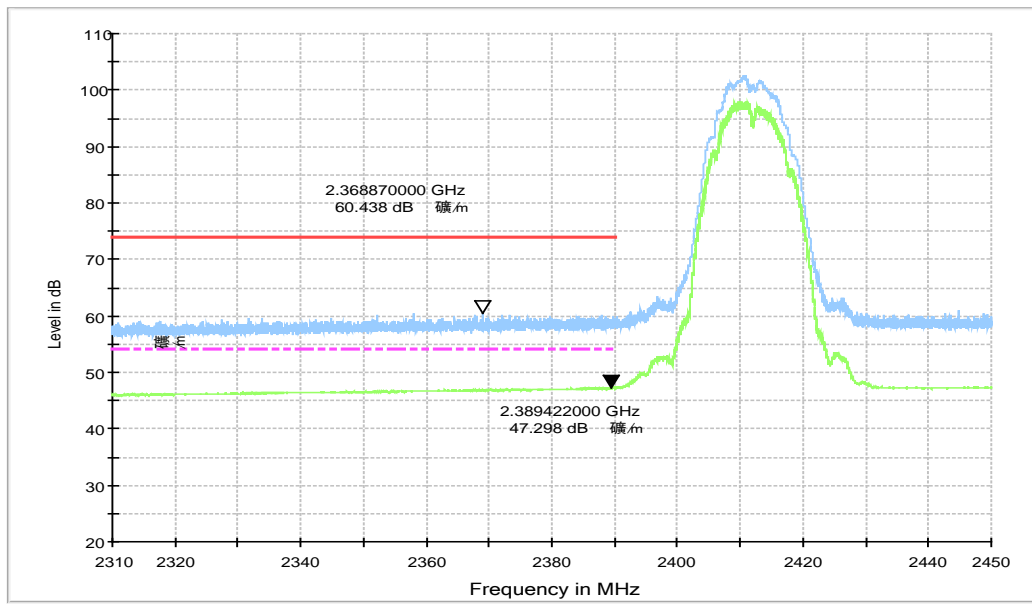


Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz – 2.45GHz

RE - Power-2.45GHz-2.5GHz

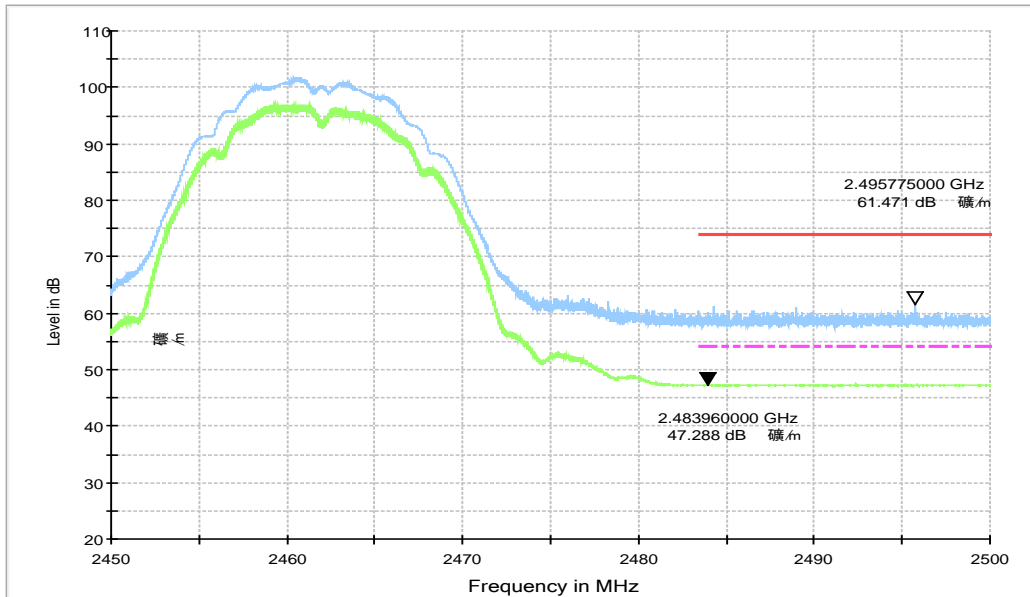


Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

RE - Power-2.31GHz-2.45GHz

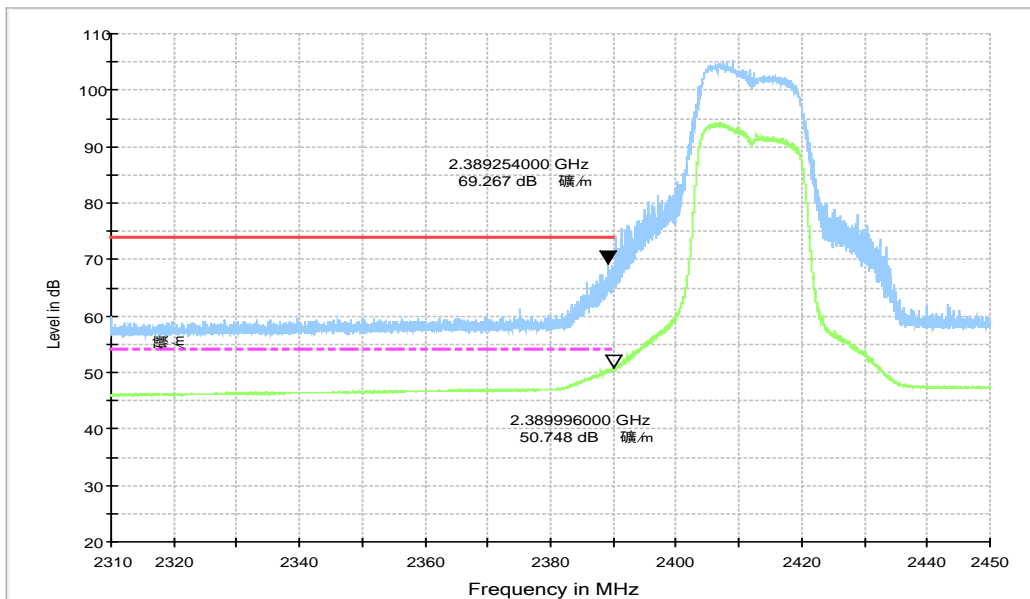


Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31 GHz - 2.43GHz

RE - Power-2.45GHz-2.5GHz

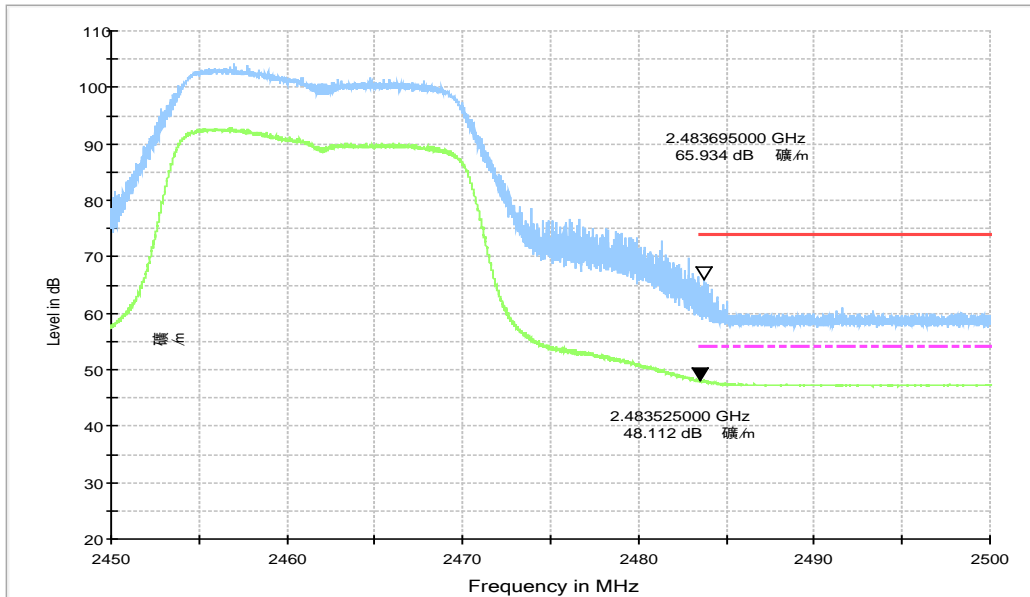


Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

RE - Power-2.31GHz-2.45GHz

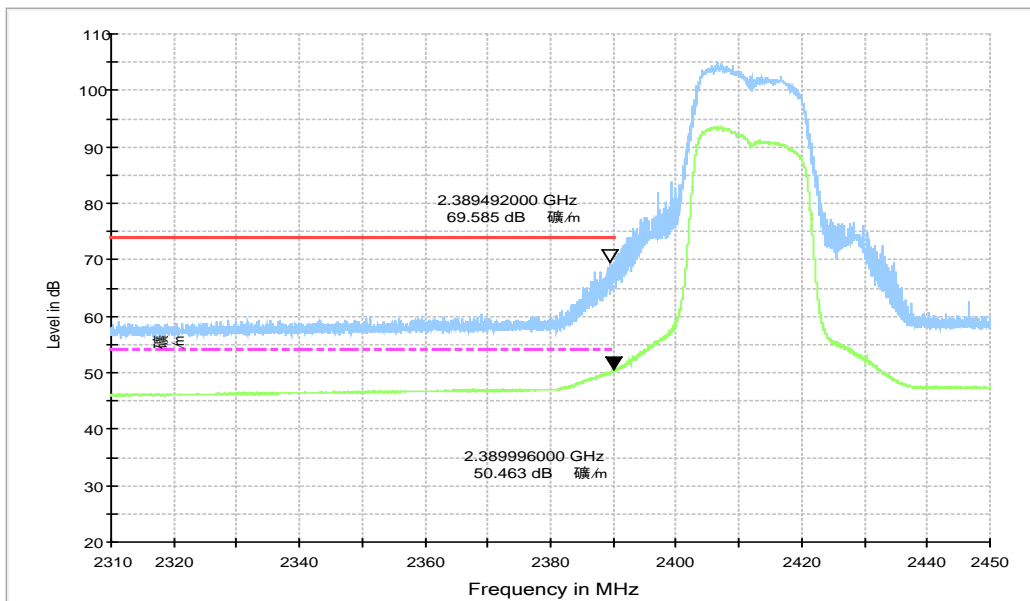


Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.31GHz - 2.45GHz

RE - Power-2.45GHz-2.5GHz

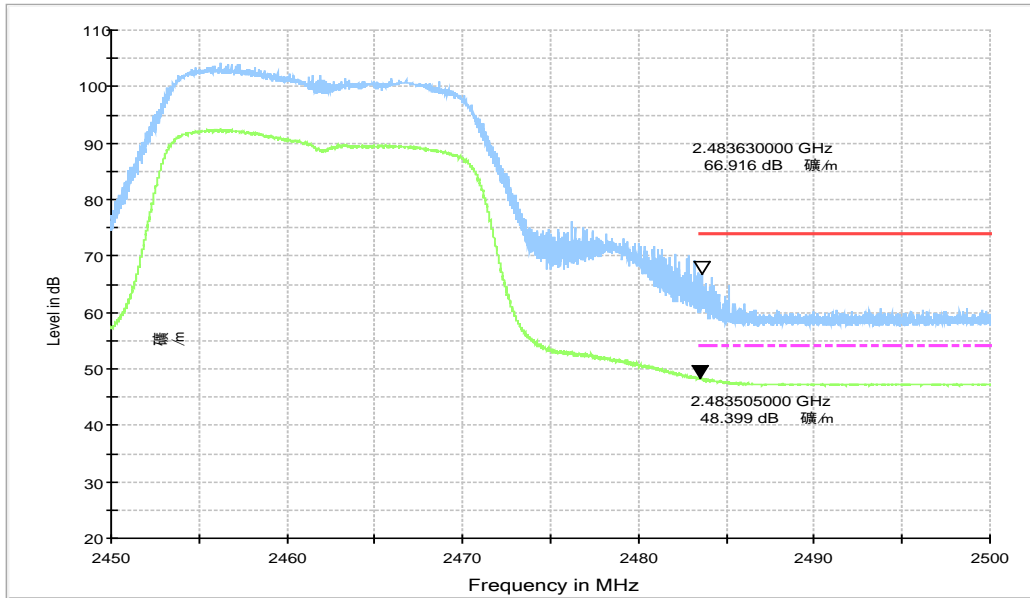


Fig.A.6.2.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

RE - Power-2.31GHz-2.45GHz

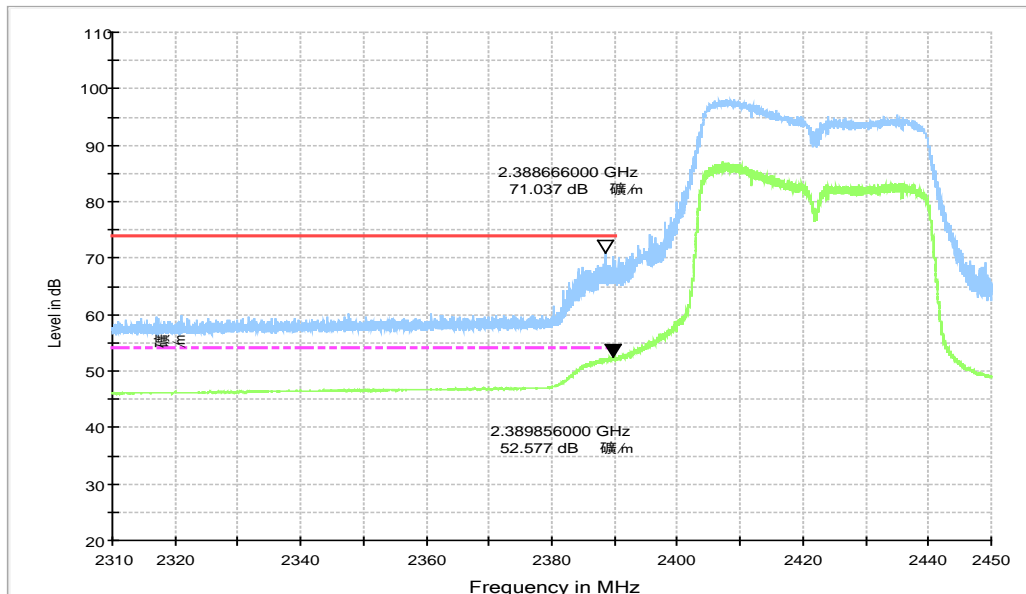


Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.31GHz - 2.45GHz

RE - Power-2.45GHz-2.5GHz

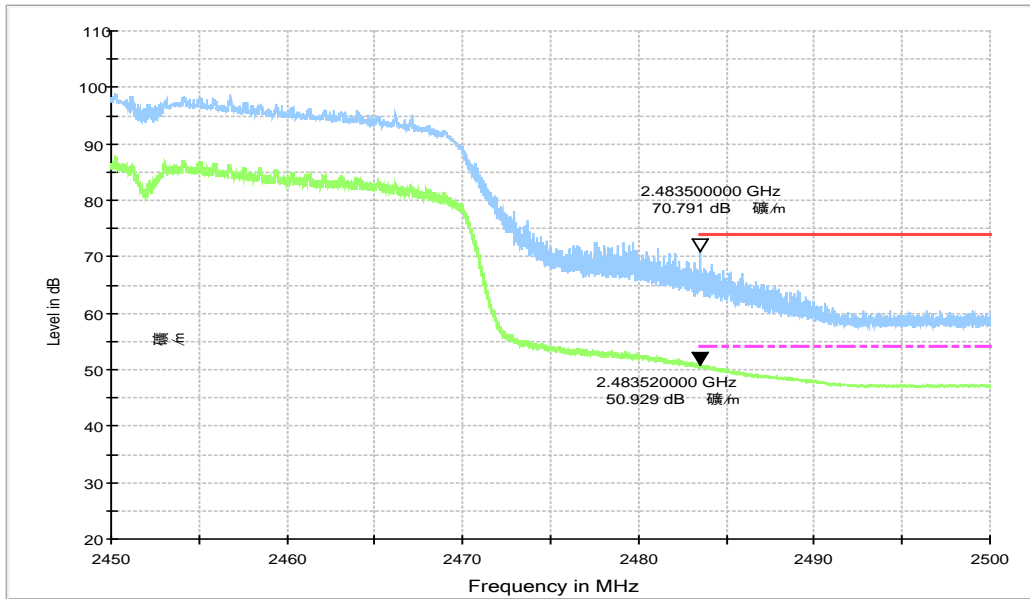


Fig.A.6.2.8 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

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 (dB μ V)	Result (dB μ 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 μ V)	Result (dB μ 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:

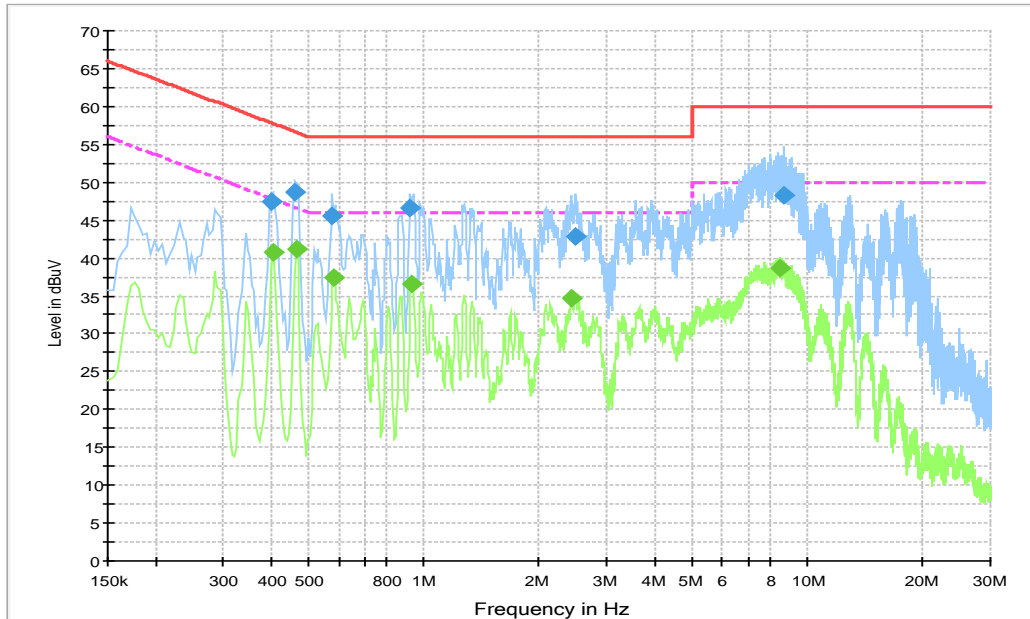


Fig.A.7.1 AC Powerline Conducted Emission-802.11b

Note1: The graphic result above is the maximum of the measurements for both phase line and neutral line.

Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V)	Meas. Time	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.402000	47.5	5000.	9.000	L1	20.0	10.3	57.8
0.460500	48.8	5000.	9.000	L1	20.0	7.9	56.7
0.577500	45.6	5000.	9.000	L1	20.0	10.4	56.0
0.919500	46.6	5000.	9.000	L1	19.9	9.4	56.0
2.476500	42.8	5000.	9.000	L1	19.8	13.2	56.0
8.673000	48.3	5000.	9.000	L1	19.9	11.7	60.0

Final Result 2

Frequency (MHz)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.406500	40.8	5000.	9.000	L1	20.0	6.9	47.7
0.465000	41.2	5000.	9.000	L1	20.0	5.4	46.6
0.582000	37.4	5000.	9.000	L1	20.0	8.6	46.0
0.928500	36.6	5000.	9.000	L1	19.9	9.4	46.0
2.427000	34.8	5000.	9.000	L1	19.8	11.2	46.0
8.488500	38.6	5000.	9.000	L1	19.9	11.4	50.0

Note2: The measurement results showed here are worst cases of the combinations of different chargers.

Idle:

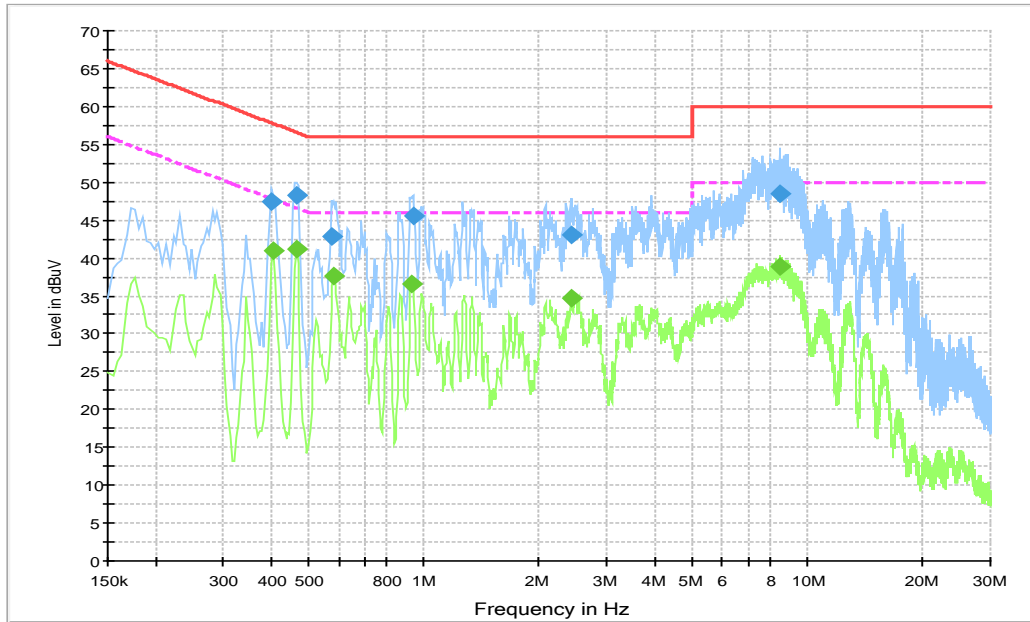


Fig.A.7.2 AC Powerline Conducted Emission-Idle

Note1: 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	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.402000	47.5	5000.	9.000	L1	20.0	10.3	57.8
0.465000	48.4	5000.	9.000	L1	20.0	8.2	56.6
0.573000	42.9	5000.	9.000	L1	20.0	13.1	56.0
0.937500	45.6	5000.	9.000	L1	19.9	10.4	56.0
2.431500	43.1	5000.	9.000	L1	19.8	12.9	56.0
8.452500	48.4	5000.	9.000	L1	19.9	11.6	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.406500	40.9	5000.	9.000	L1	20.0	6.8	47.7
0.465000	41.2	5000.	9.000	L1	20.0	5.4	46.6
0.582000	37.6	5000.	9.000	L1	20.0	8.4	46.0
0.928500	36.6	5000.	9.000	L1	19.9	9.4	46.0
2.422500	34.6	5000.	9.000	L1	19.8	11.4	46.0
8.470500	38.9	5000.	9.000	L1	19.9	11.1	50.0

Note2: The measurement results showed here are worst cases of the combinations of different chargers

ANNEX B: Accreditation Certificate

<p>United States Department of Commerce National Institute of Standards and Technology</p> 	
<hr/> <p>Certificate of Accreditation to ISO/IEC 17025:2005</p> <hr/>	
<p>NVLAP LAB CODE: 600118-0</p>	
<p>Telecommunication Technology Labs, CAICT Beijing China</p>	
<p><i>is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:</i></p>	
<p>Electromagnetic Compatibility & Telecommunications</p>	
<p><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></p>	
<hr/> <p>2019-09-26 through 2020-09-30 <i>Effective Dates</i></p>	 <hr/> <p><i>[Signature]</i> For the National Voluntary Laboratory Accreditation Program</p>

END OF REPORT