

Fig.A.6.1.75 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 1 GHz-2.5 GHz)

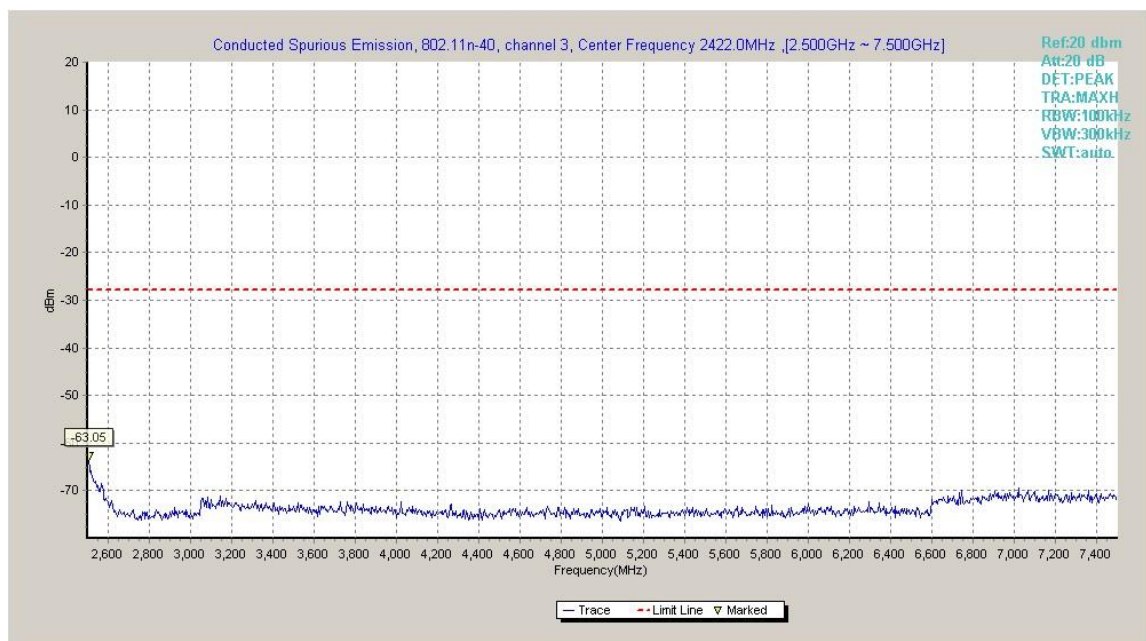


Fig.A.6.1.76 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 2.5 GHz-7.5 GHz)

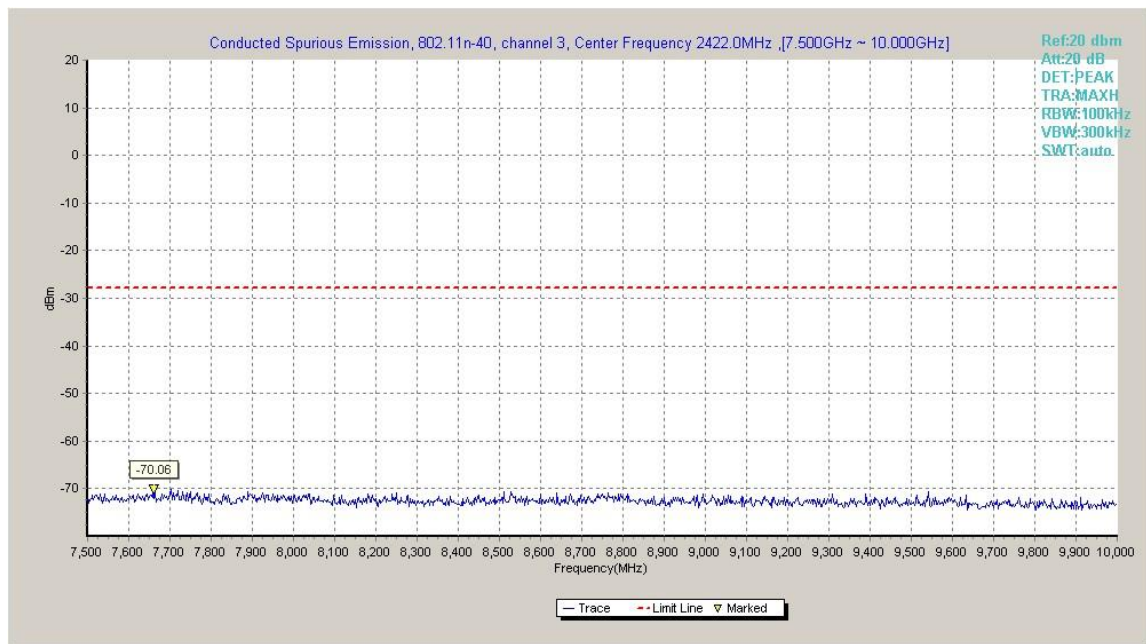


Fig.A.6.1.77 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 7.5 GHz-10 GHz)

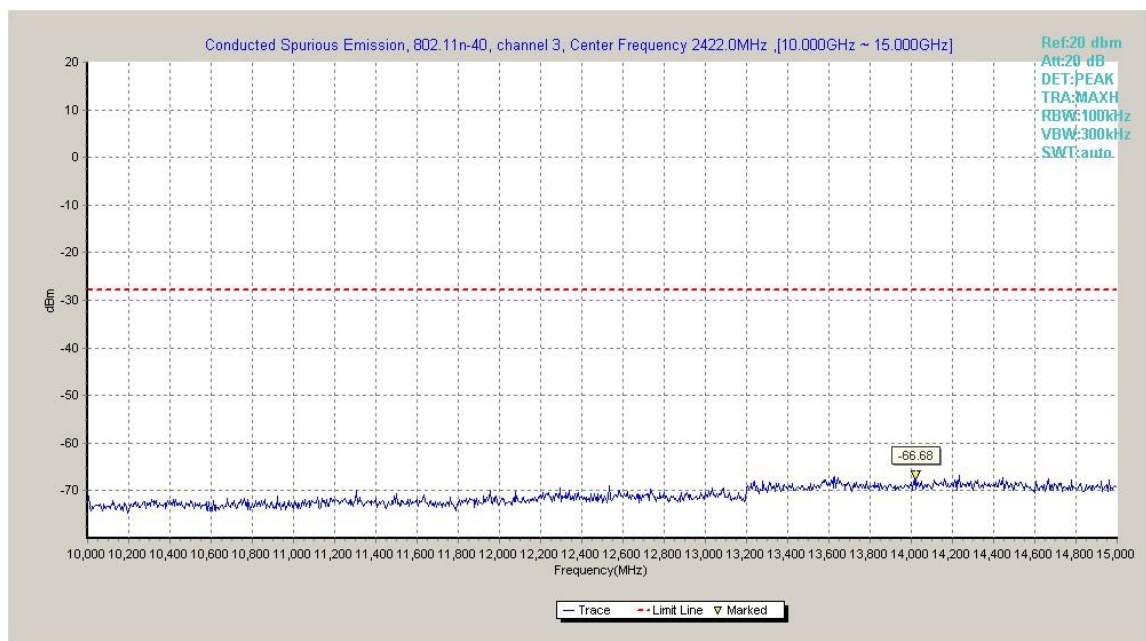


Fig.A.6.1.78 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 10 GHz-15 GHz)

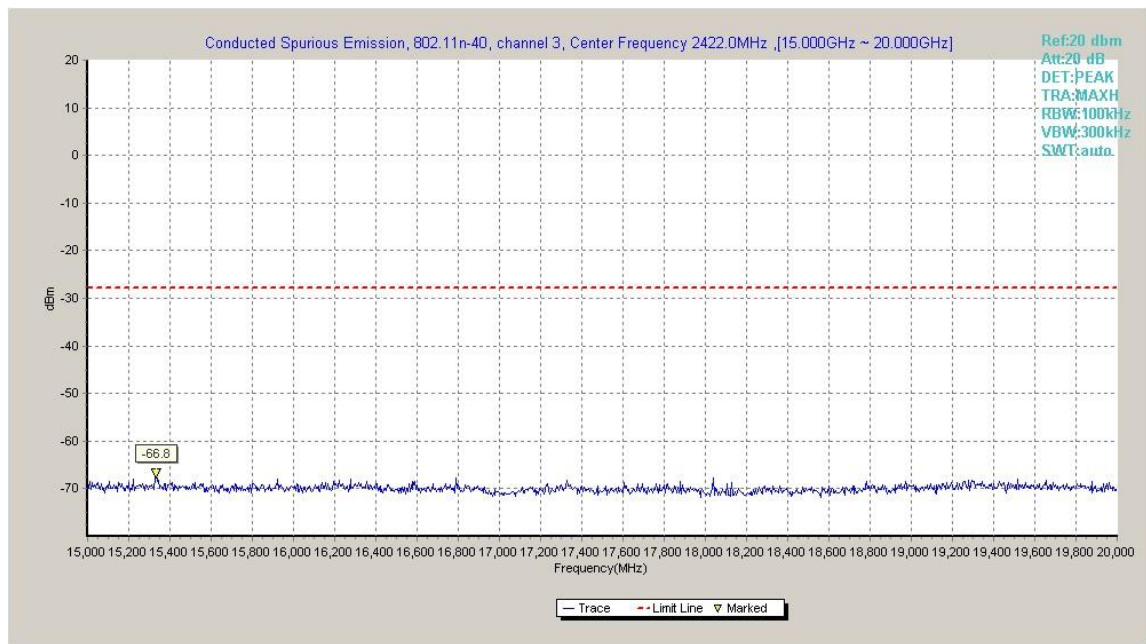


Fig.A.6.1.79 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 15 GHz-20 GHz)

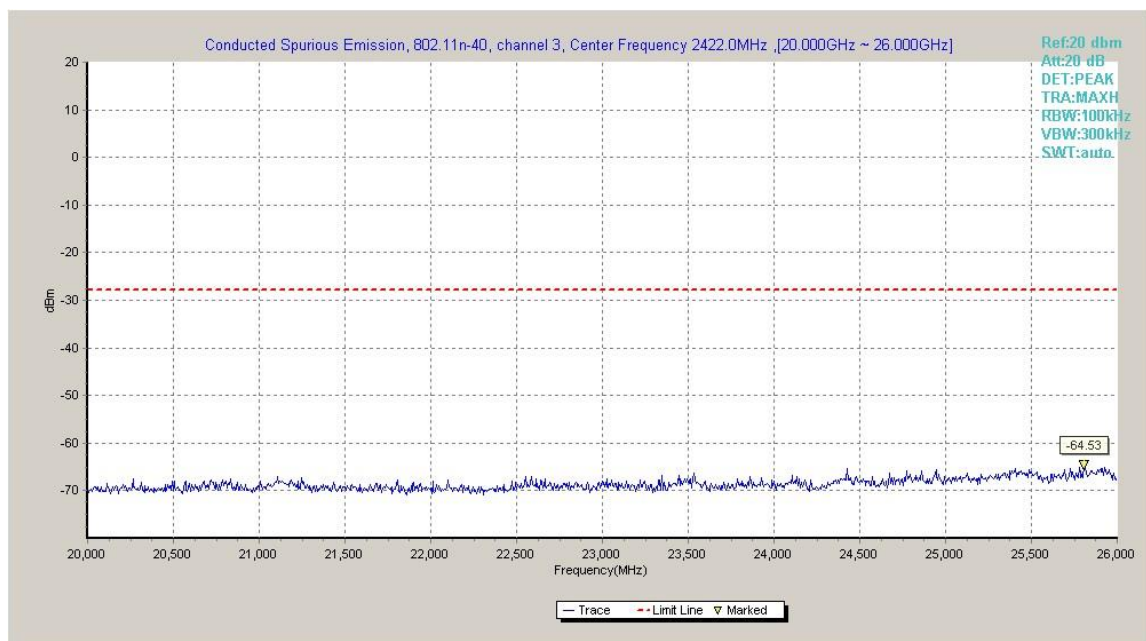


Fig.A.6.1.80 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 20 GHz-26 GHz)

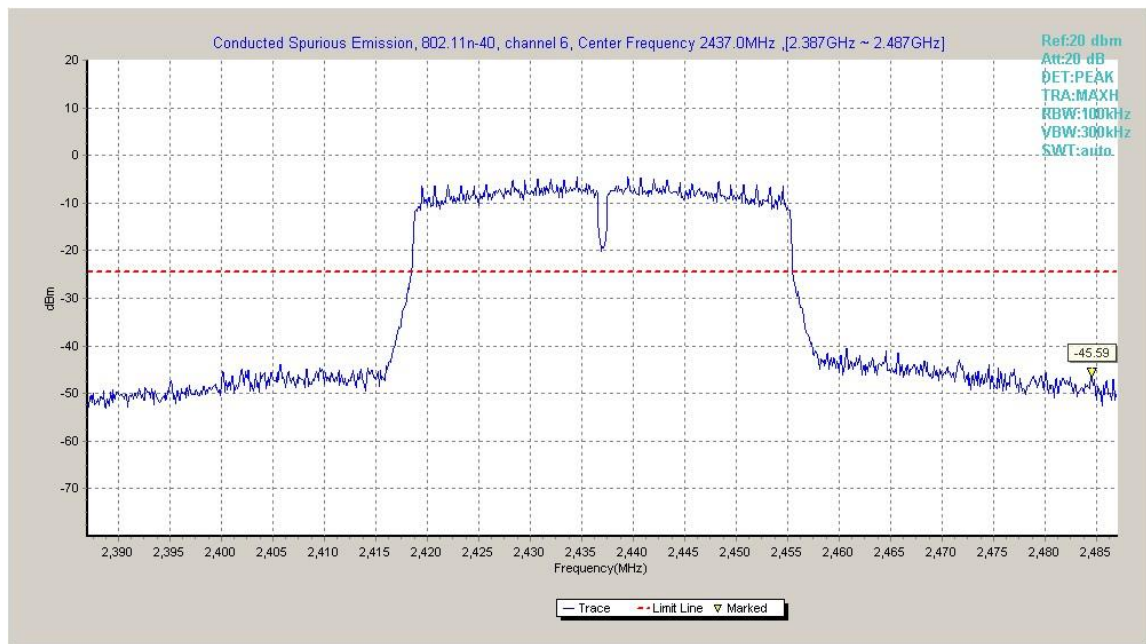


Fig.A.6.1.81 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, Center Frequency)

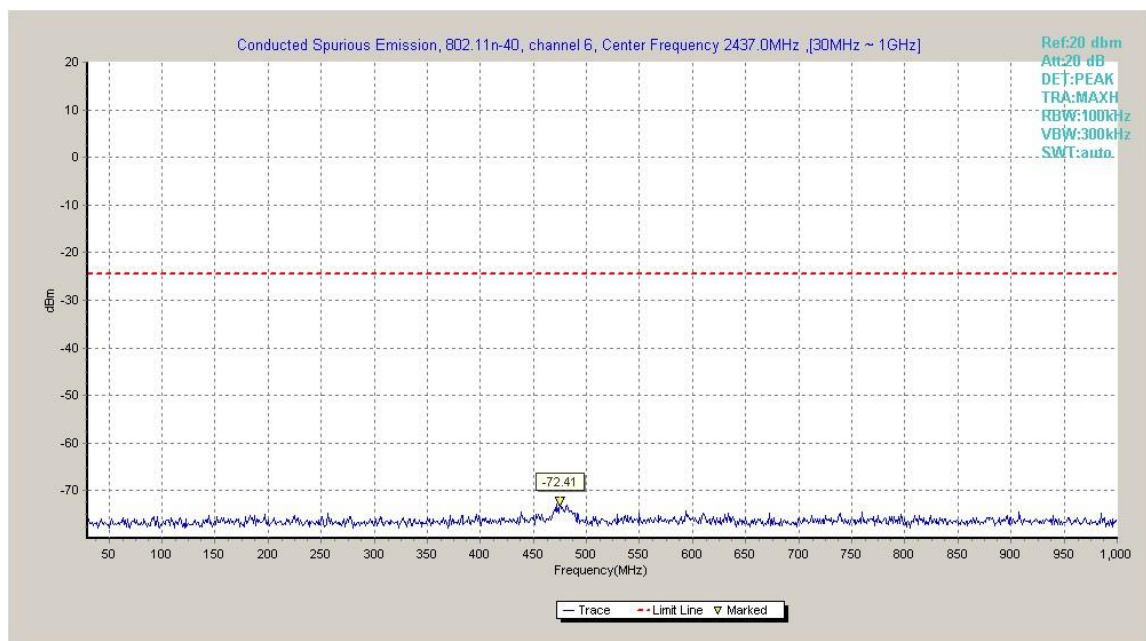


Fig.A.6.1.82 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 30 MHz-1 GHz)

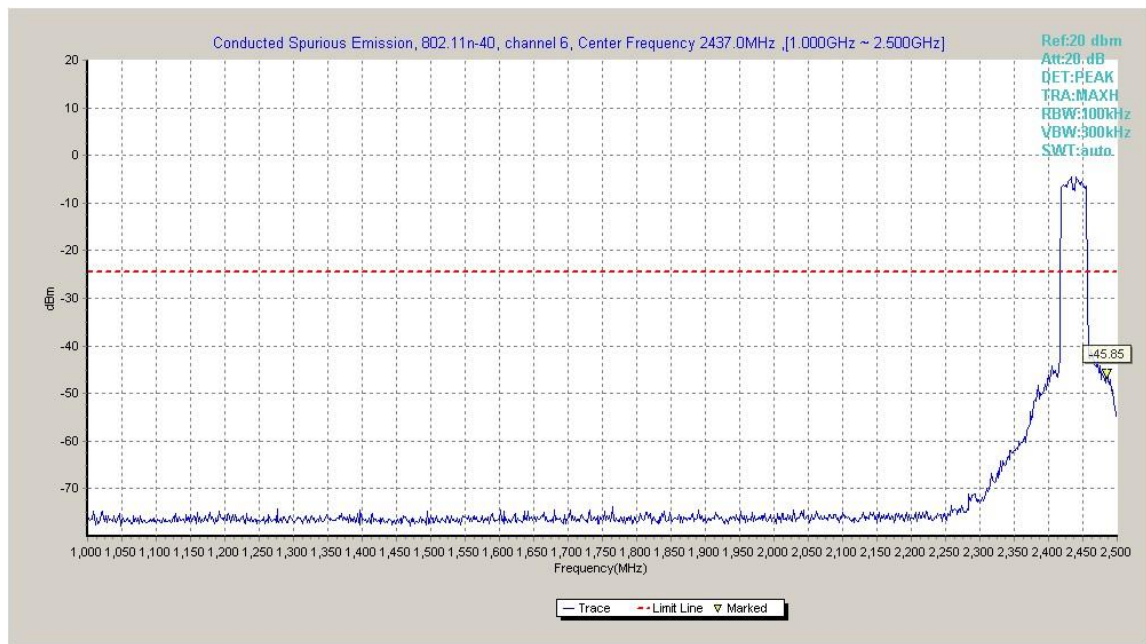


Fig.A.6.1.83 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)

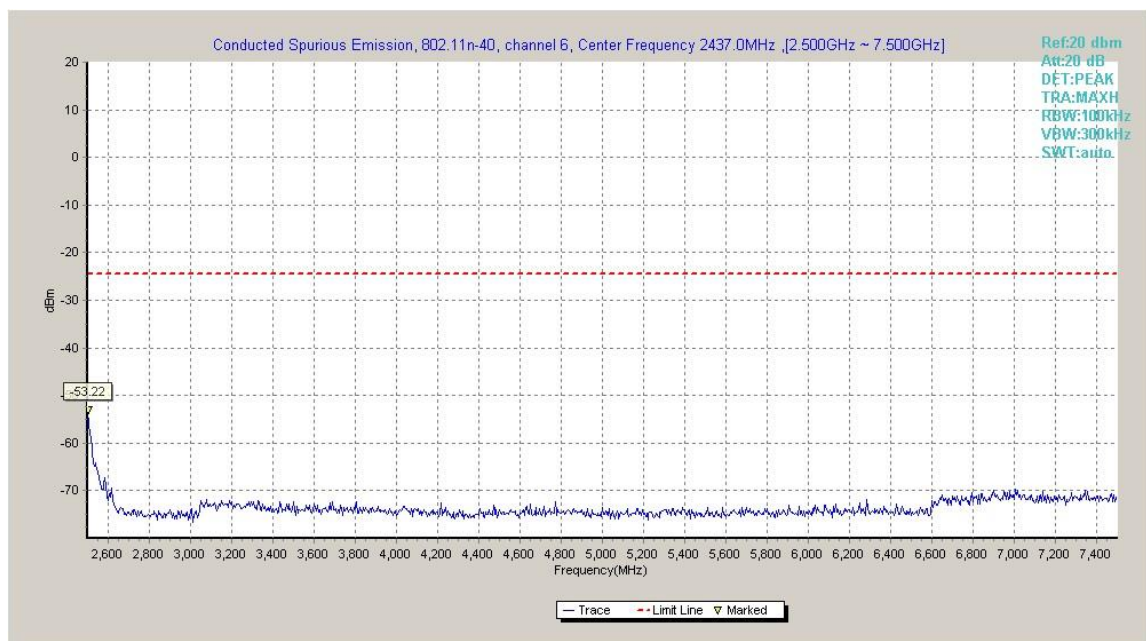


Fig.A.6.1.84 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)

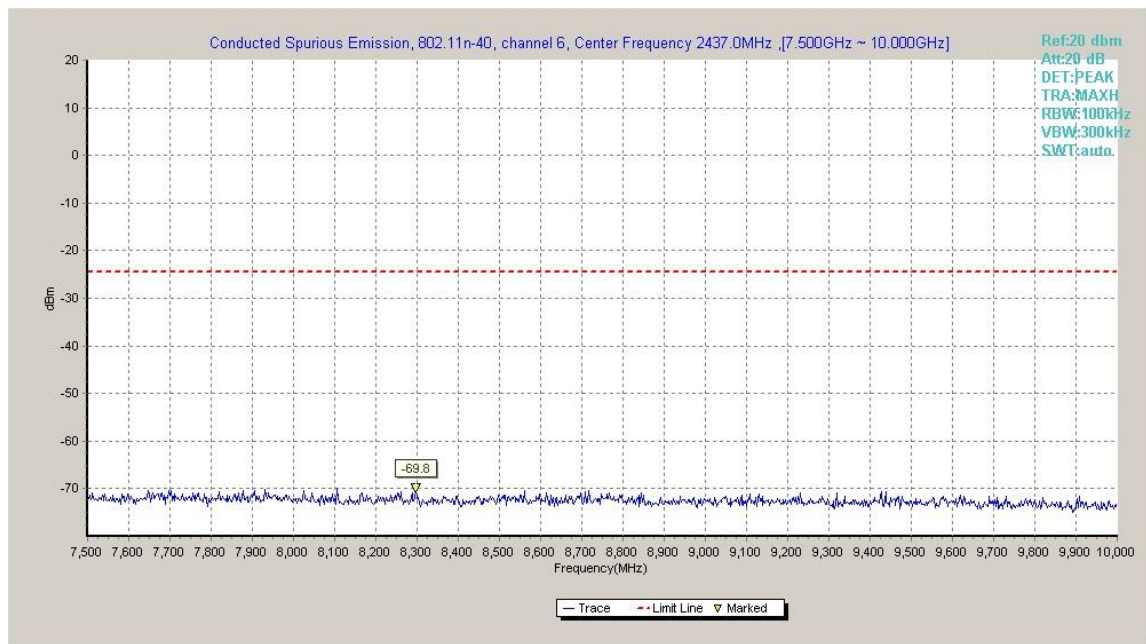


Fig.A.6.1.85 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)

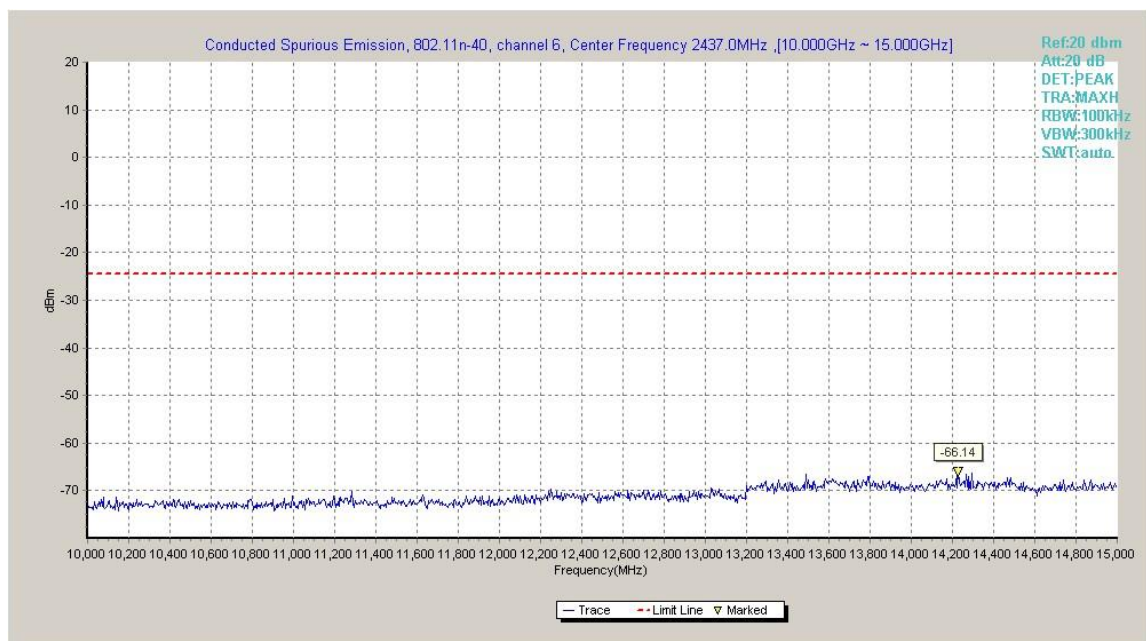


Fig.A.6.1.86 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 10 GHz-15 GHz)

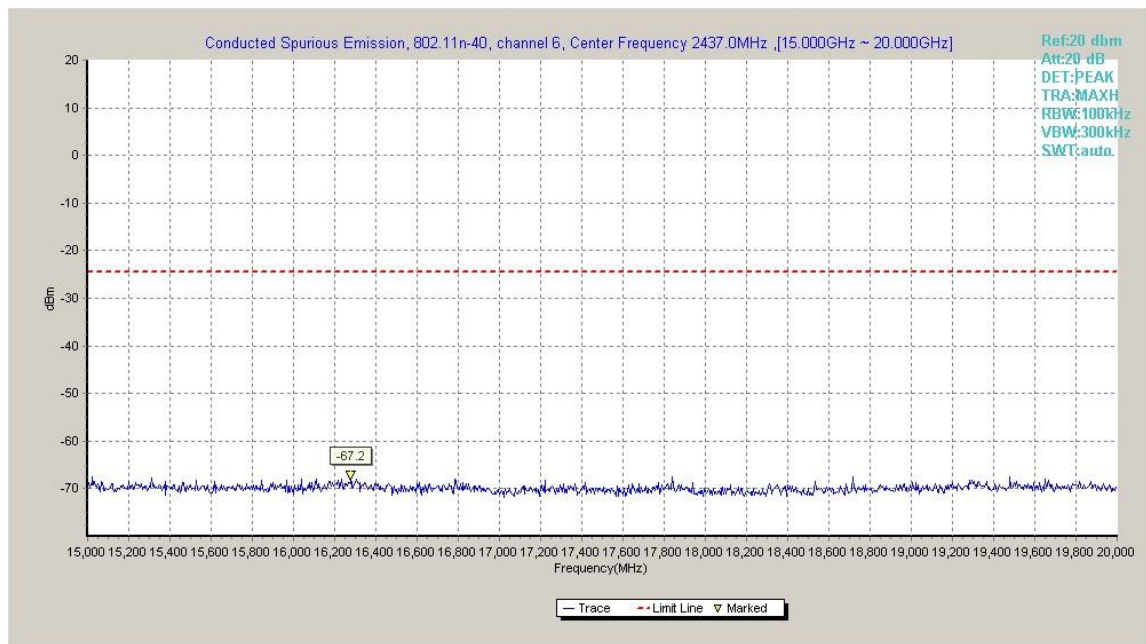


Fig.A.6.1.87 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 15 GHz-20 GHz)

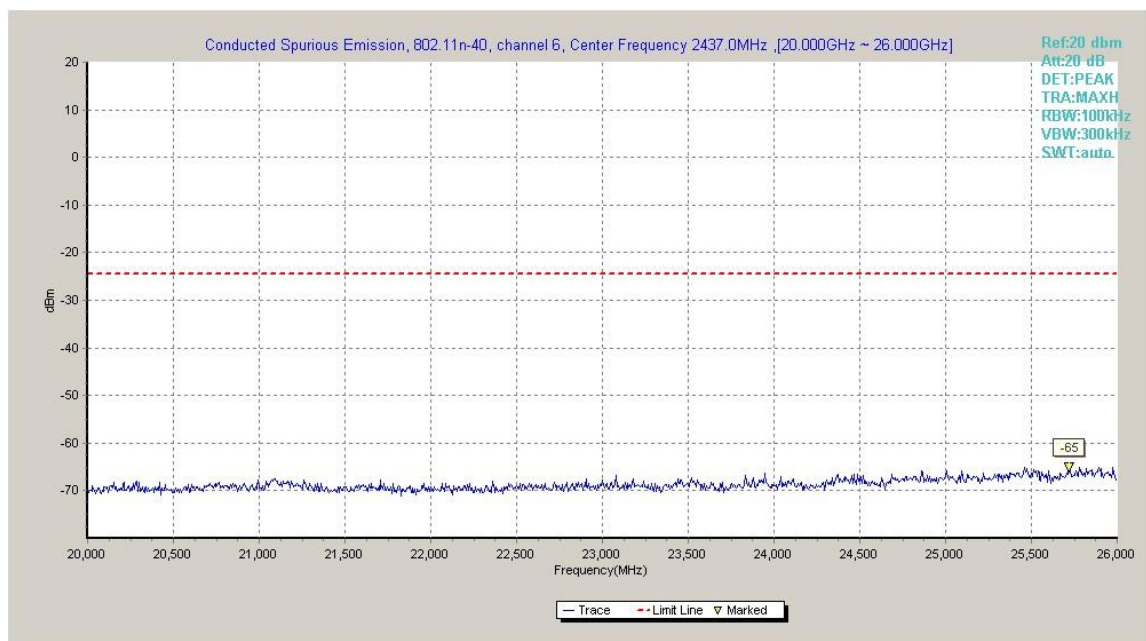


Fig.A.6.1.88 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 20 GHz-26 GHz)

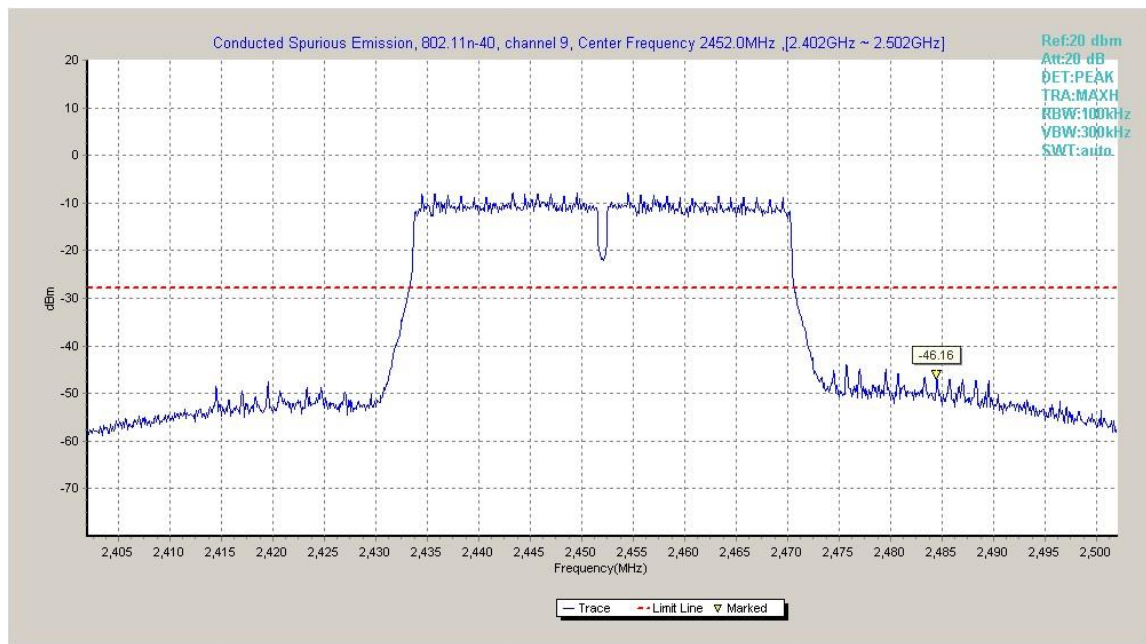


Fig.A.6.1.89 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, Center Frequency)

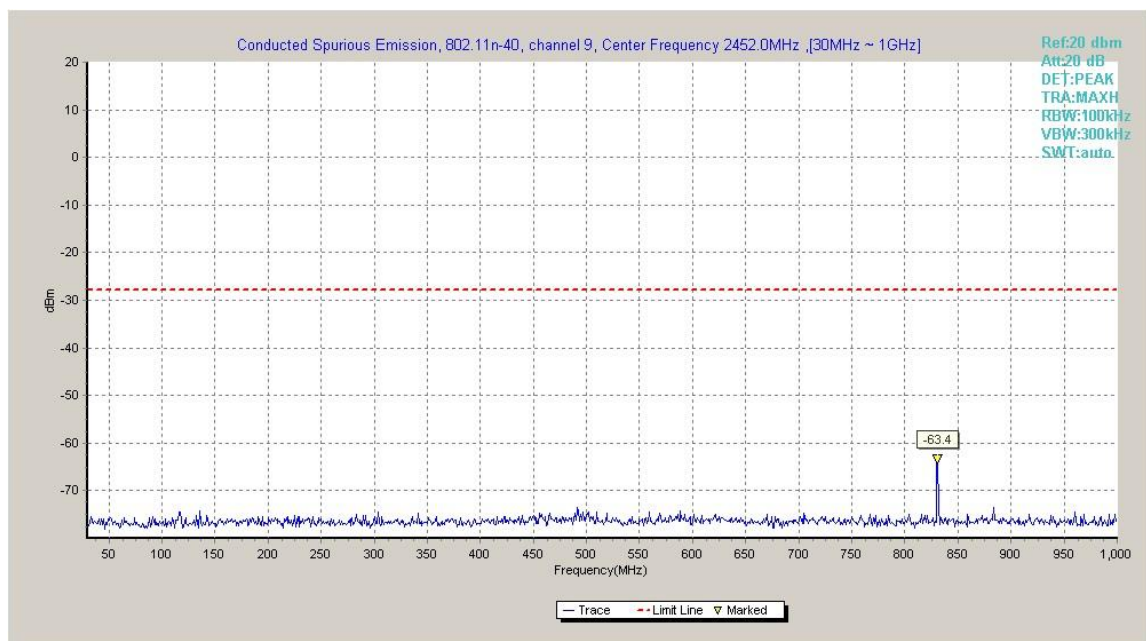


Fig.A.6.1.90 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 30 MHz-1 GHz)

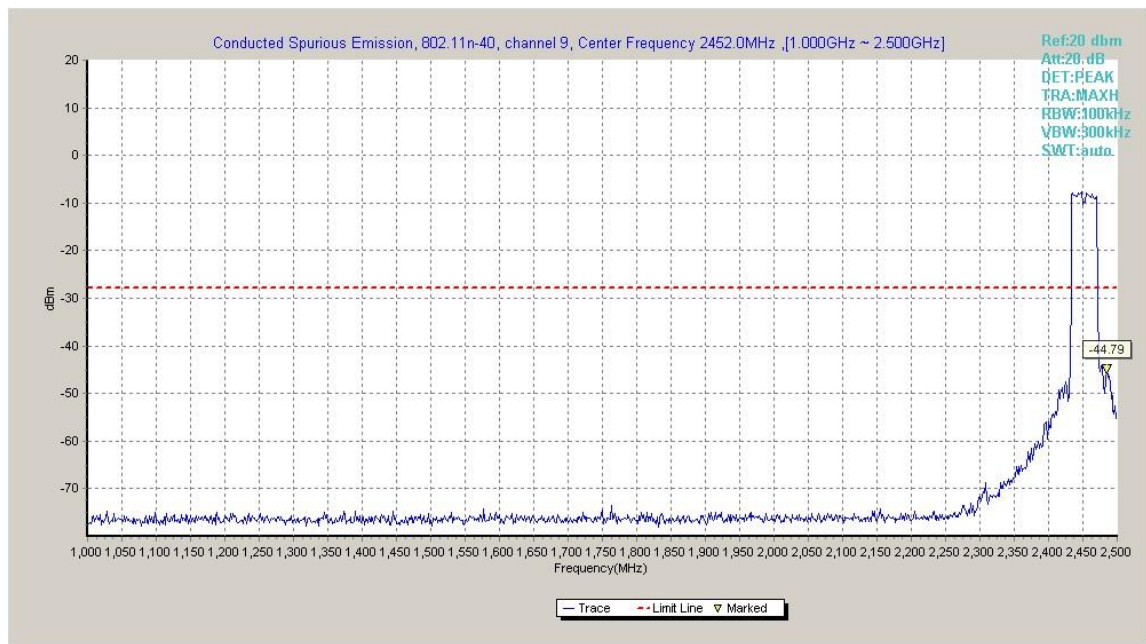


Fig.A.6.1.91 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

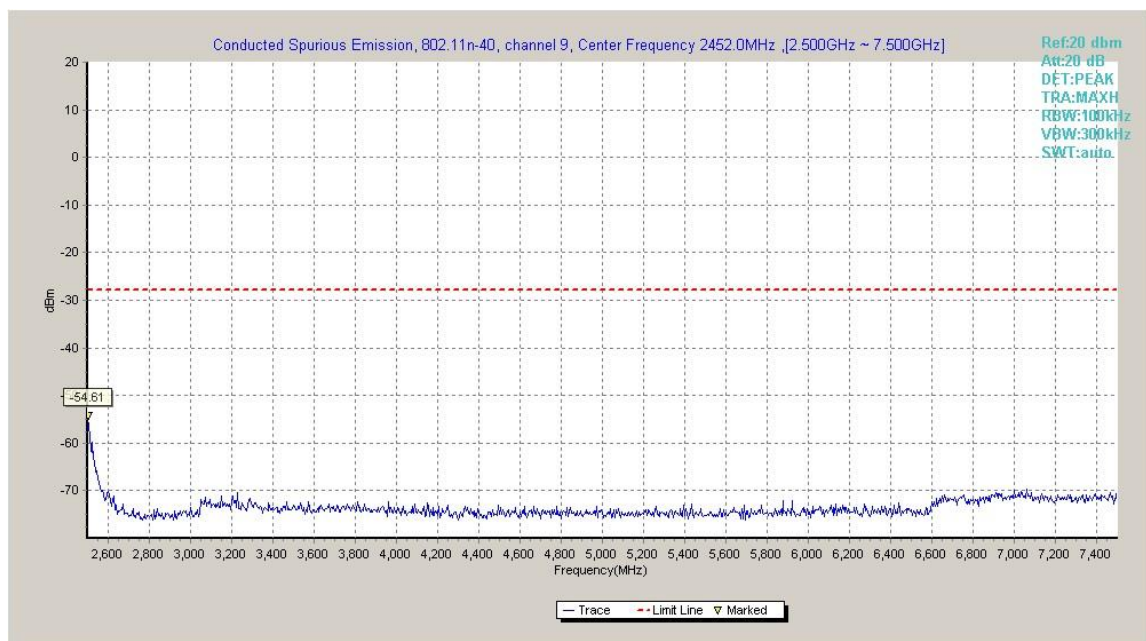


Fig.A.6.1.92 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)

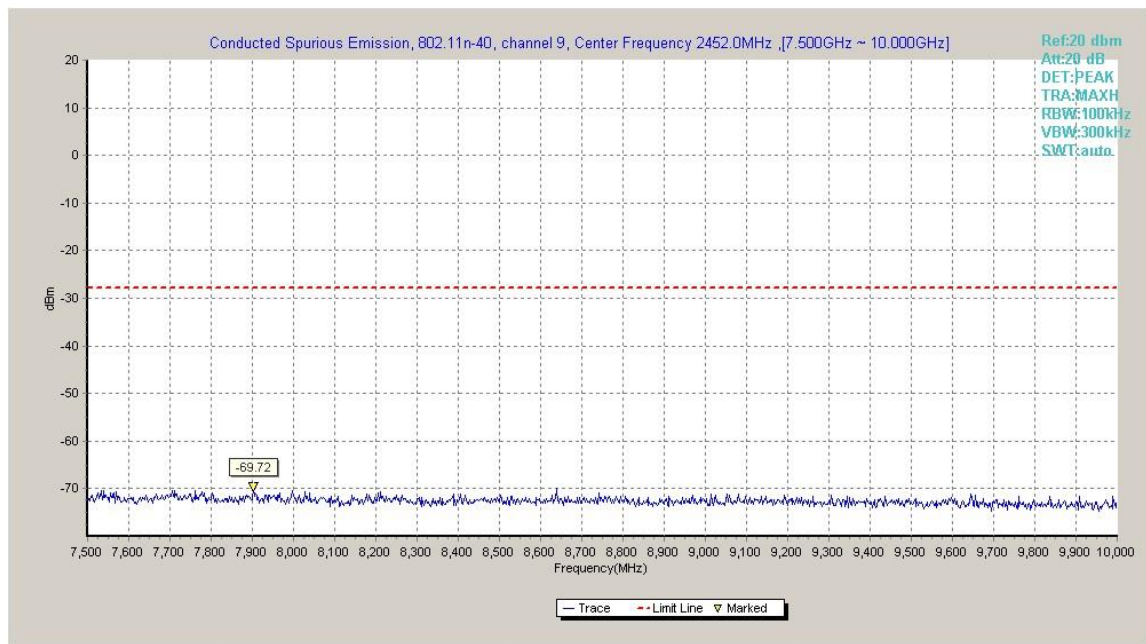


Fig.A.6.1.93 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

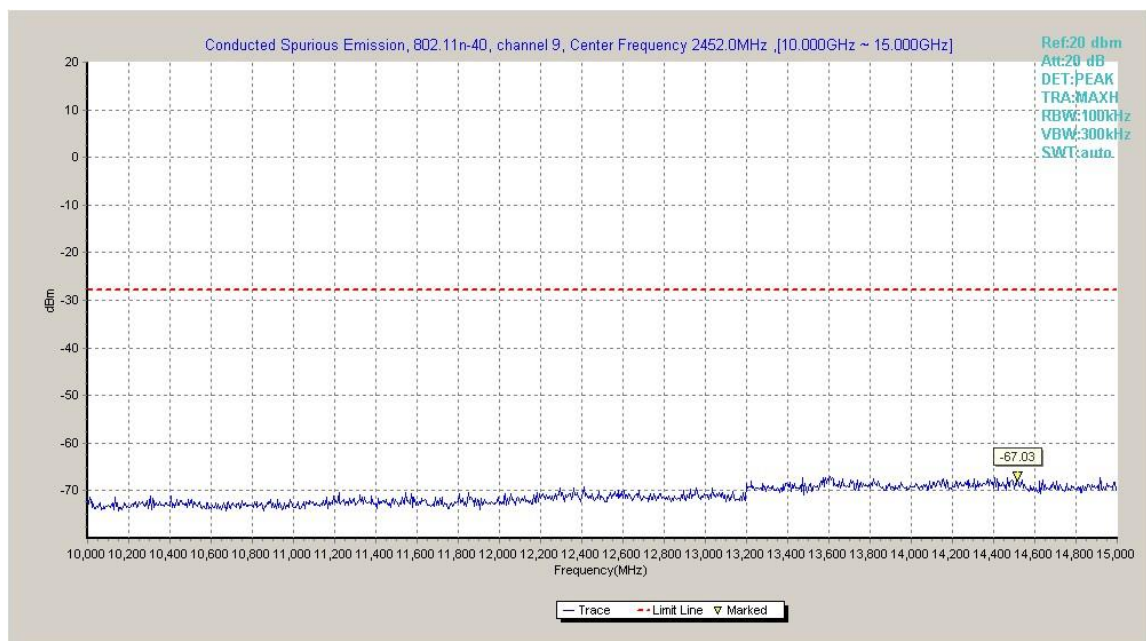


Fig.A.6.1.94 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 10 GHz-15 GHz)

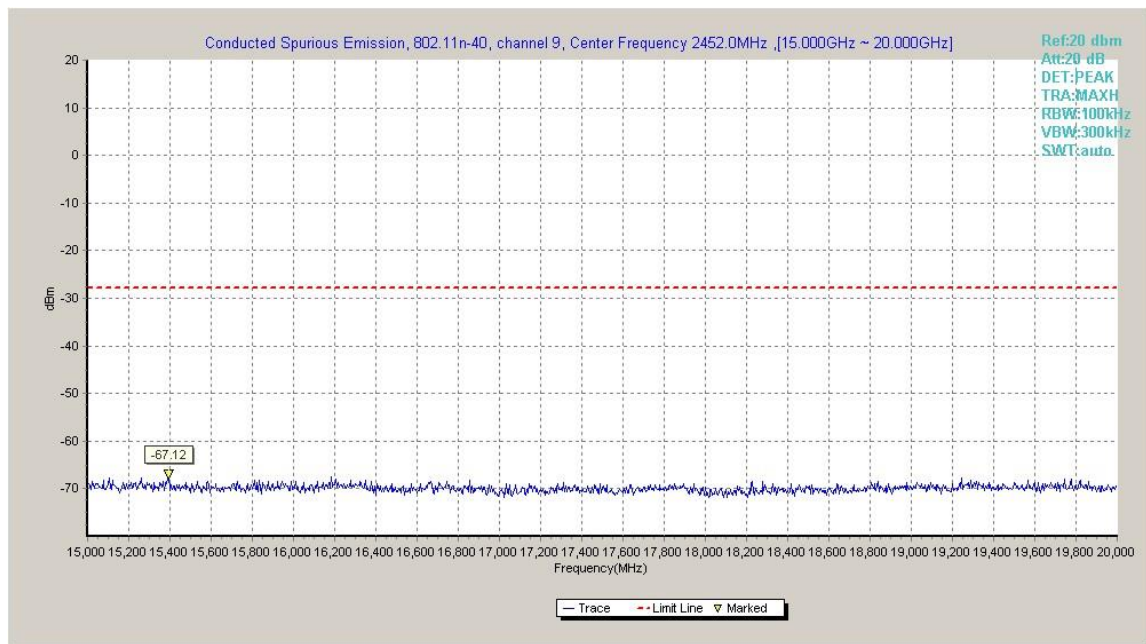


Fig.A.6.1.95 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 15 GHz-20 GHz)

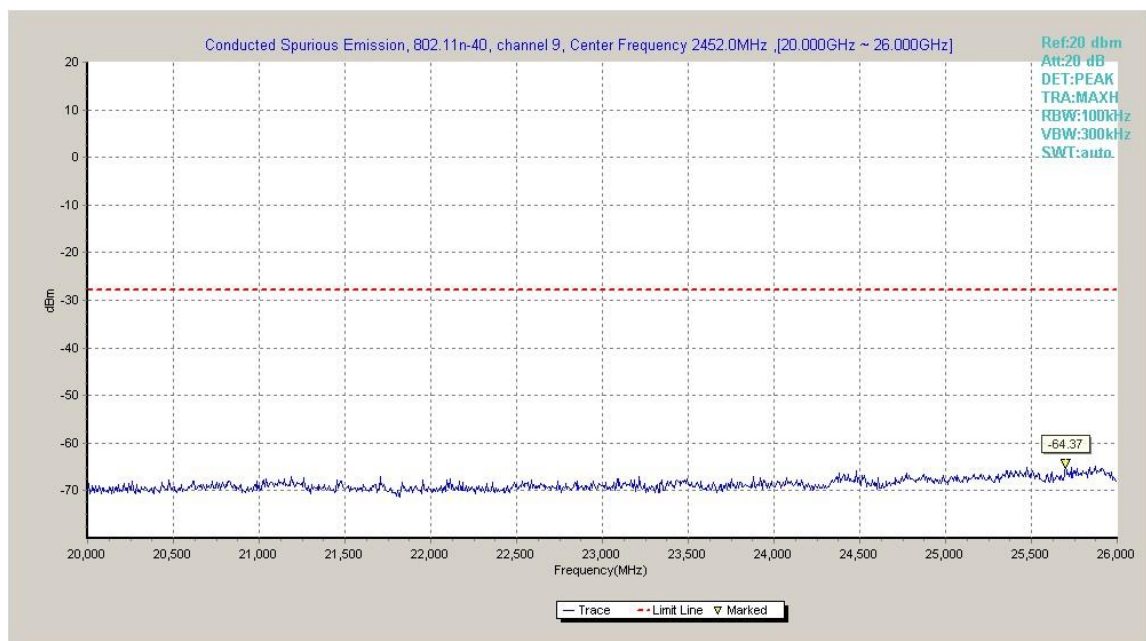


Fig.A.6.1.96 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 20 GHz-26 GHz)

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 3/10 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: EUT4

Measurement Results for Set.10:

802.11b mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	Power	2.38GHz ~2.43GHz	Fig.A.6.2.1	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.2	P

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	Power	2.38GHz ~2.43GHz	Fig.A.6.2.3	P
	Power	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	2.38GHz ~2.43GHz	Fig.A.6.2.5	P
	Power	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	2.38GHz ~2.43GHz	Fig.A.6.2.7	P
	Power	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:

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

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)
2381.200	46.4	2.9	32.0	11.48	54.0	7.6	H
2385.900	46.4	2.9	32.0	11.53	54.0	7.6	H
4824.000	36.91	-32.8	34.5	35.16	54.0	17.1	H
7236.000	37.74	-31.7	36.1	33.37	54.0	16.3	H
9648.000	40.25	-30.4	37.0	33.56	54.0	13.8	H
12060.000	43.31	-29.6	39.3	33.63	54.0	10.7	H

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)
2382.560	46.6	2.9	32.0	11.66	54.0	7.4	H
2486.890	46.7	2.9	32.7	11.07	54.0	7.3	H
4873.500	35.97	-32.7	34.5	34.18	54.0	18.0	H
7311.000	37.55	-31.9	36.1	33.39	54.0	16.4	H
9748.500	39.99	-30.7	37.2	33.46	54.0	14.0	H
12184.500	43.52	-29.4	39.2	33.73	54.0	10.5	H

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)
2483.500	47.2	2.9	32.8	11.53	54.0	6.8	H
2484.300	47.2	2.9	32.7	11.53	54.0	6.8	H
4924.500	35.25	-33.1	34.5	33.84	54.0	18.7	H
7386.000	37.73	-31.8	36.0	33.52	54.0	16.3	H
9847.500	40.72	-30.1	37.3	33.47	54.0	13.3	H
12310.500	43.34	-29.7	39.2	33.86	54.0	10.7	H

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)
2386.496	60.3	2.9	32.0	25.41	74.0	13.7	V
2387.084	59.6	2.9	32.0	24.70	74.0	14.4	H
4824.000	42.3	-32.8	34.5	40.57	74.0	31.7	V
7236.000	40.7	-31.7	36.1	36.34	74.0	33.3	V
9648.000	44.4	-30.4	37.0	37.73	74.0	29.6	H
12060.000	45.9	-29.6	39.3	36.26	74.0	28.1	H

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)
2372.650	50.1	-26.8	32.1	44.84	74.0	23.9	V
2607.420	52.3	-26.9	33.0	46.08	74.0	21.7	V
4874.250	40.5	-32.7	34.5	38.67	74.0	33.5	H
7311.000	40.6	-31.9	36.1	36.38	74.0	33.5	H
9747.750	42.9	-30.7	37.2	36.38	74.0	31.1	V
12185.250	44.9	-29.4	39.2	35.06	74.0	29.2	H

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)
2486.740	59.9	2.9	32.7	24.30	74.0	14.1	H
2491.080	59.9	2.9	32.5	24.37	74.0	14.1	V
4923.750	40.3	-33.1	34.5	38.84	74.0	33.7	V
7386.000	41.2	-31.8	36.0	36.95	74.0	32.9	H
9848.250	45.3	-30.1	37.3	38.02	74.0	28.7	V
12309.750	44.5	-29.7	39.2	34.98	74.0	29.5	H

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)
2389.200	46.7	2.9	32.0	11.82	54.0	7.3	H
2389.800	46.8	2.9	32.0	11.96	54.0	7.2	H
4824.000	35.12	-32.8	34.5	33.37	54.0	18.9	H
7236.000	37.75	-31.7	36.1	33.38	54.0	16.3	H
9648.000	40.20	-30.4	37.0	33.52	54.0	13.8	H
12060.000	43.32	-29.6	39.3	33.65	54.0	10.7	H

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)
2388.610	46.7	2.9	32.0	11.84	54.0	7.3	H
2486.920	46.8	2.9	32.7	11.20	54.0	7.2	H
4873.500	35.26	-32.7	34.5	33.46	54.0	18.7	H
7311.000	37.57	-31.9	36.1	33.41	54.0	16.4	H
9748.500	40.06	-30.7	37.2	33.53	54.0	13.9	H
12184.500	43.55	-29.4	39.2	33.76	54.0	10.4	H

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)
2483.500	47.9	2.9	32.8	12.20	54.0	6.1	H
2485.300	47.6	2.9	32.7	11.96	54.0	6.4	H
4924.500	35.12	-33.1	34.5	33.71	54.0	18.9	H
7386.000	37.79	-31.8	36.0	33.58	54.0	16.2	H
9847.500	40.76	-30.1	37.3	33.51	54.0	13.2	H
12310.500	43.43	-29.7	39.2	33.95	54.0	10.6	H

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)
2388.904	59.9	2.9	32.0	25.01	74.0	14.1	H
2389.982	61.4	2.9	32.0	26.54	74.0	12.6	V
4824.000	39.3	-32.8	34.5	37.54	74.0	34.7	V
7236.000	40.7	-31.7	36.1	36.36	74.0	33.3	H
9648.000	43.4	-30.4	37.0	36.76	74.0	30.6	V
12060.000	45.4	-29.6	39.3	35.74	74.0	28.6	H

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)
2383.640	51.8	-24.7	32.0	44.51	74.0	22.2	V
2536.480	51.8	-26.8	32.9	45.69	74.0	22.2	V
4874.250	39.1	-32.7	34.5	37.28	74.0	34.9	V
7311.000	42.1	-31.9	36.1	37.94	74.0	31.9	H
9747.750	43.5	-30.7	37.2	36.95	74.0	30.5	V
12185.250	46.2	-29.4	39.2	36.45	74.0	27.8	V

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)
2483.570	64.6	2.9	32.8	28.90	74.0	9.4	H
2484.650	62.0	2.9	32.7	26.39	74.0	12.0	H
4923.750	39.5	-33.1	34.5	38.09	74.0	34.5	V
7386.000	40.9	-31.8	36.0	36.69	74.0	33.1	V
9848.250	44.2	-30.1	37.3	36.96	74.0	29.8	H
12309.750	45.1	-29.7	39.2	35.60	74.0	28.9	H

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)
2389.300	46.5	2.9	32.0	11.68	54.0	7.5	H
2390.000	46.6	2.9	32.0	11.76	54.0	7.4	H
4824.000	35.16	-32.8	34.5	33.41	54.0	18.8	H
7236.000	37.76	-31.7	36.1	33.40	54.0	16.2	H
9648.000	40.31	-30.4	37.0	33.63	54.0	13.7	H
12060.000	43.27	-29.6	39.3	33.60	54.0	10.7	H

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)
2388.560	46.8	2.9	32.0	11.90	54.0	7.2	H
2486.890	47.9	2.9	32.7	12.32	54.0	6.1	H
4873.500	35.21	-32.7	34.5	33.42	54.0	18.8	H
7311.000	37.52	-31.9	36.1	33.36	54.0	16.5	H
9748.500	39.94	-30.7	37.2	33.41	54.0	14.1	H
12184.500	43.57	-29.4	39.2	33.77	54.0	10.4	H

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)
2483.500	47.8	2.9	32.8	12.13	54.0	6.2	H
2484.600	47.6	2.9	32.7	11.97	54.0	6.4	H
4924.500	35.07	-33.1	34.5	33.65	54.0	18.9	H
7386.000	37.73	-31.8	36.0	33.52	54.0	16.3	H
9847.500	40.76	-30.1	37.3	33.51	54.0	13.2	H
12310.500	43.39	-29.7	39.2	33.92	54.0	10.6	H

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)
2387.434	59.7	2.9	32.0	24.80	74.0	14.3	H
2389.926	61.3	2.9	32.0	26.45	74.0	12.7	H
4824.000	38.7	-32.8	34.5	36.92	74.0	35.3	H
7236.000	40.5	-31.7	36.1	36.15	74.0	33.5	V
9648.000	44.6	-30.4	37.0	37.88	74.0	29.4	V
12060.000	46.2	-29.6	39.3	36.57	74.0	27.8	H

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)
2383.384	51.5	-24.9	32.0	44.34	74.0	22.5	H
2635.826	52.7	-26.8	33.5	45.96	74.0	21.3	H
4874.250	39.2	-32.7	34.5	37.45	74.0	34.8	H
7311.000	41.7	-31.9	36.1	37.58	74.0	32.3	H
9747.750	43.9	-30.7	37.2	37.36	74.0	30.1	V
12185.250	45.4	-29.4	39.2	35.56	74.0	28.6	V

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)
2483.780	64.6	2.9	32.8	28.87	74.0	9.4	H
2484.680	63.8	2.9	32.7	28.09	74.0	10.2	V
4923.750	39.8	-33.1	34.5	38.33	74.0	34.2	V
7386.000	40.4	-31.8	36.0	36.19	74.0	33.6	H
9848.250	45.8	-30.1	37.3	38.57	74.0	28.2	V
12309.750	44.8	-29.7	39.2	35.29	74.0	29.2	H

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)
2385.420	46.6	2.9	32.0	11.76	54.0	7.4	H
2389.510	46.9	2.9	32.0	12.07	54.0	7.1	H
4843.500	35.09	-32.7	34.5	33.28	54.0	18.9	H
7266.000	37.58	-31.9	36.1	33.34	54.0	16.4	H
9688.500	39.82	-30.7	37.1	33.44	54.0	14.2	H
12109.500	43.40	-29.5	39.3	33.63	54.0	10.6	H

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)
2385.670	46.8	2.9	32.0	11.92	54.0	7.2	H
2486.870	47.1	2.9	32.7	11.52	54.0	6.9	H
4873.500	35.21	-32.7	34.5	33.42	54.0	18.8	H
7311.000	37.52	-31.9	36.1	33.36	54.0	16.5	H
9748.500	39.94	-30.7	37.2	33.41	54.0	14.1	H
12184.500	43.57	-29.4	39.2	33.77	54.0	10.4	H

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)
2483.900	47.9	2.9	32.7	12.23	54.0	6.1	H
2484.300	47.8	2.9	32.7	12.15	54.0	6.2	H
4903.500	35.29	-32.9	34.5	33.68	54.0	18.7	H
7356.000	37.80	-31.9	36.1	33.65	54.0	16.2	H
9808.500	40.22	-30.3	37.3	33.30	54.0	13.8	H
12259.500	43.53	-29.6	39.2	33.91	54.0	10.5	H

802.11n-HT40-Peak

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)
2381.760	60.5	2.9	32.0	25.62	74.0	13.5	V
2387.854	62.0	2.9	32.0	27.12	74.0	12.0	V
4844.250	39.0	-32.7	34.5	37.16	74.0	35.0	H
7266.000	40.7	-31.9	36.1	36.49	74.0	33.3	V
9687.750	44.3	-30.7	37.1	37.92	74.0	29.7	H
12110.250	46.9	-29.5	39.3	37.15	74.0	27.1	H

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)
2365.560	49.9	-27.3	31.9	45.22	74.0	24.1	V
2654.448	52.3	-26.7	33.6	45.38	74.0	21.7	V
4874.250	39.6	-32.7	34.5	37.77	74.0	34.4	H
7311.000	40.0	-31.9	36.1	35.87	74.0	34.0	H
9747.750	44.0	-30.7	37.2	37.47	74.0	30.0	V
12185.250	45.6	-29.4	39.2	35.81	74.0	28.4	H

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)
2484.430	64.9	2.9	32.7	29.26	74.0	9.1	H
2484.570	65.3	2.9	32.7	29.67	74.0	8.7	H
4904.250	39.3	-32.9	34.5	37.69	74.0	34.7	V
7356.000	41.7	-31.9	36.1	37.52	74.0	32.3	H
9807.750	43.3	-30.4	37.3	36.34	74.0	30.7	V
12260.250	46.1	-29.6	39.2	36.50	74.0	27.9	V

Test graphs as below:

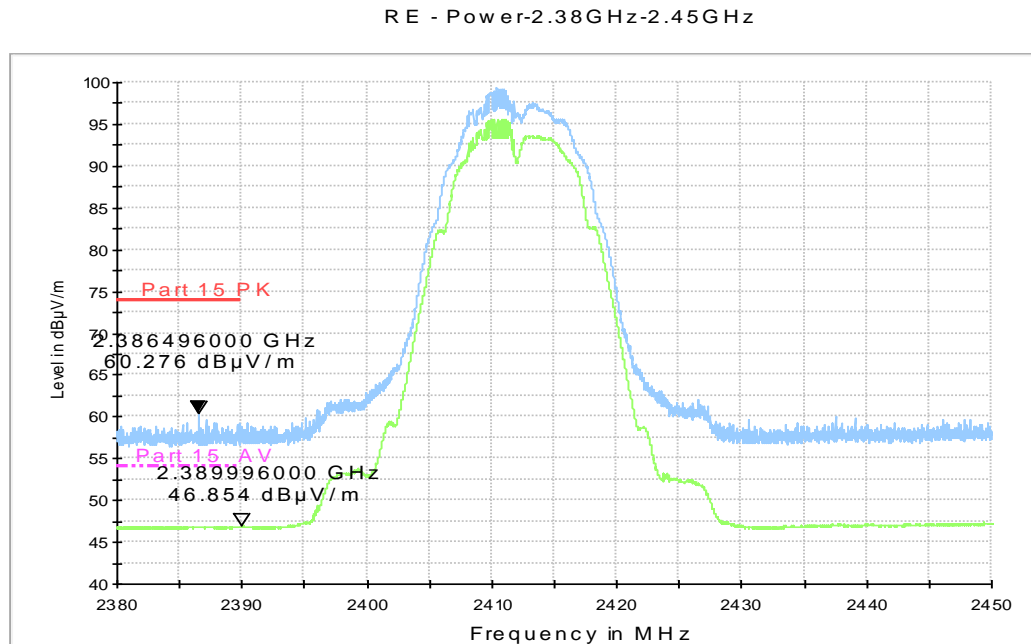


Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.38 GHz – 2.43GHz

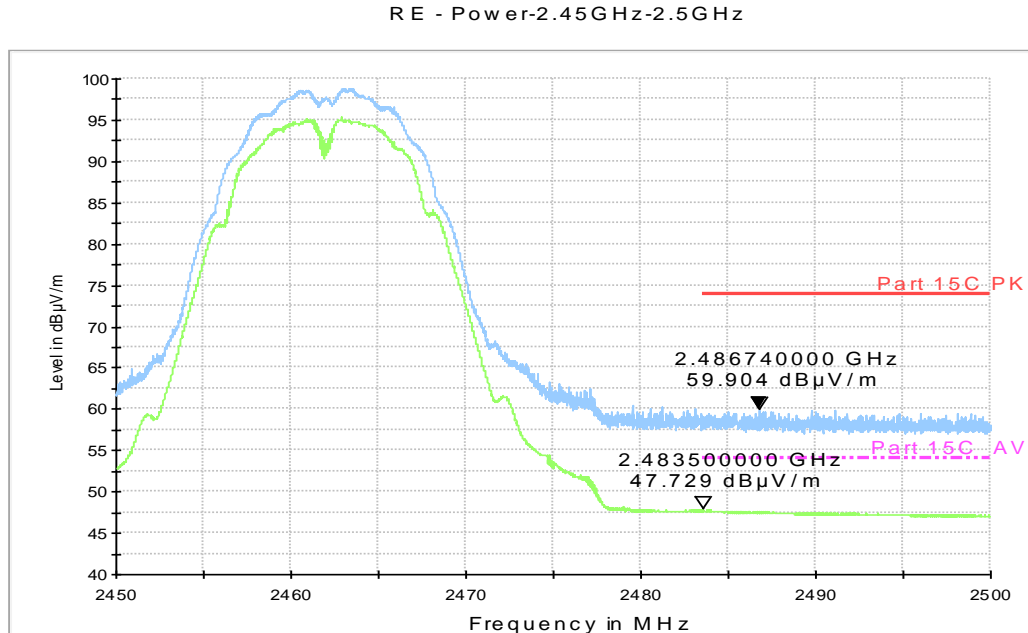


Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

RE - Power-2.38GHz-2.45GHz

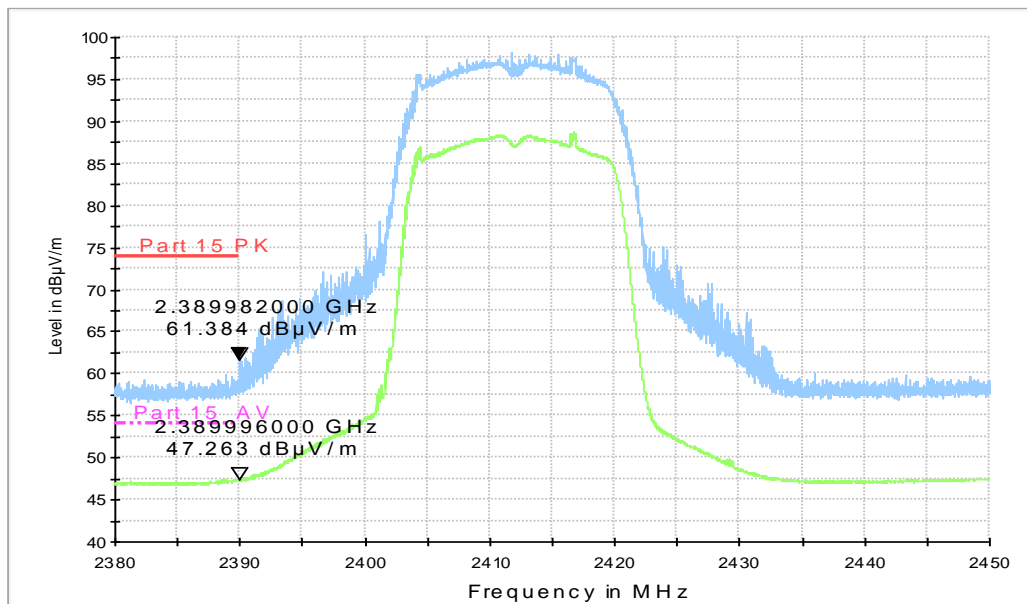


Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.38 GHz - 2.43GHz

RE - Power-2.45GHz-2.5GHz

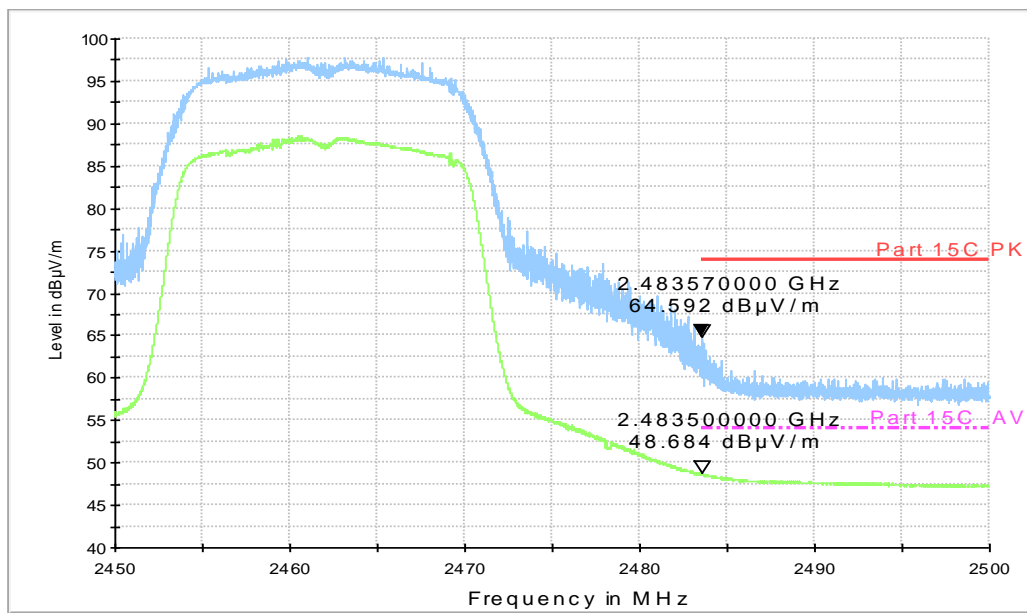
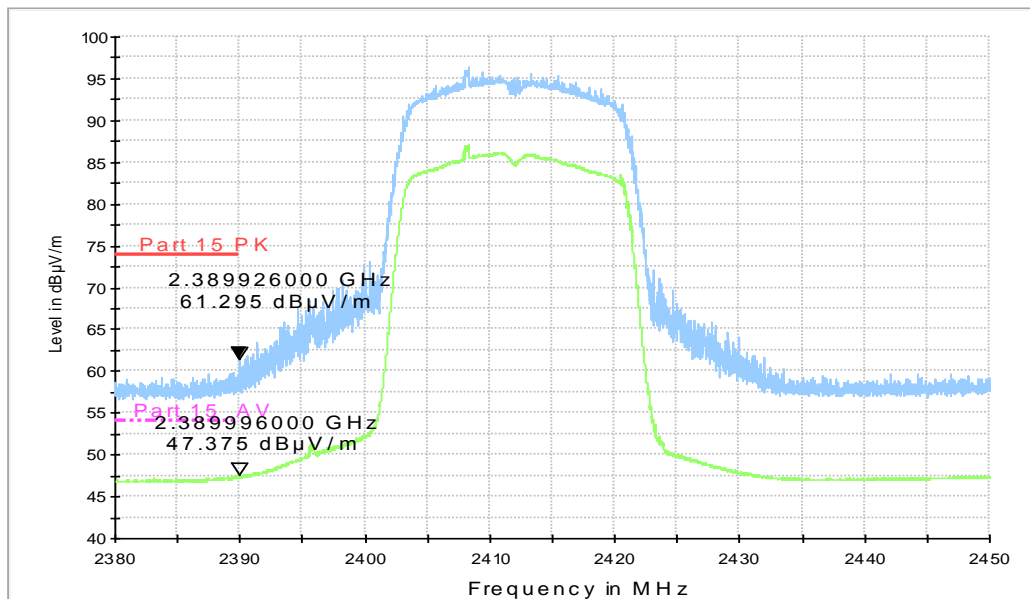


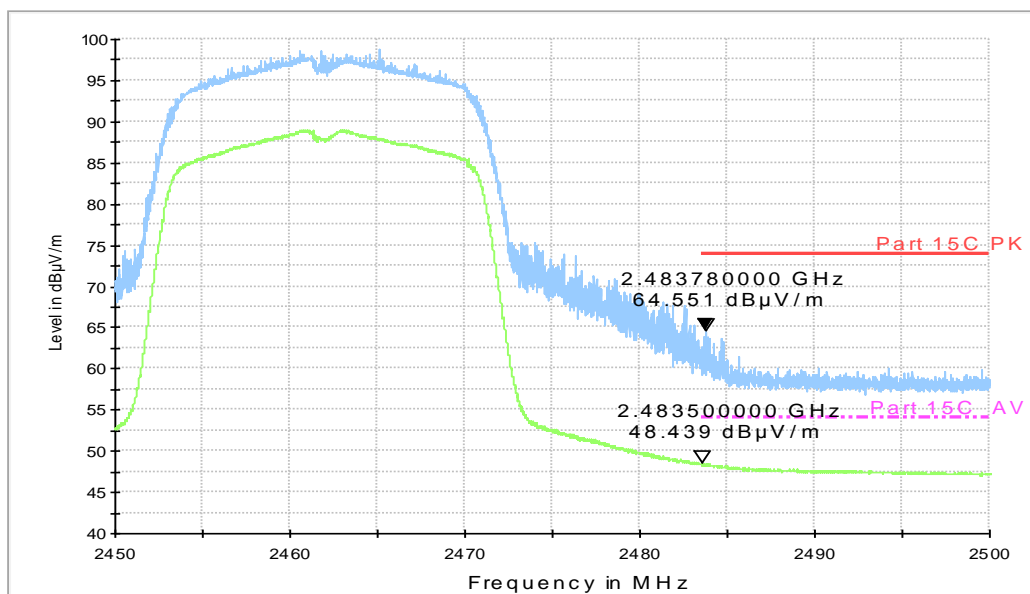
Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

RE - Power-2.38GHz-2.45GHz

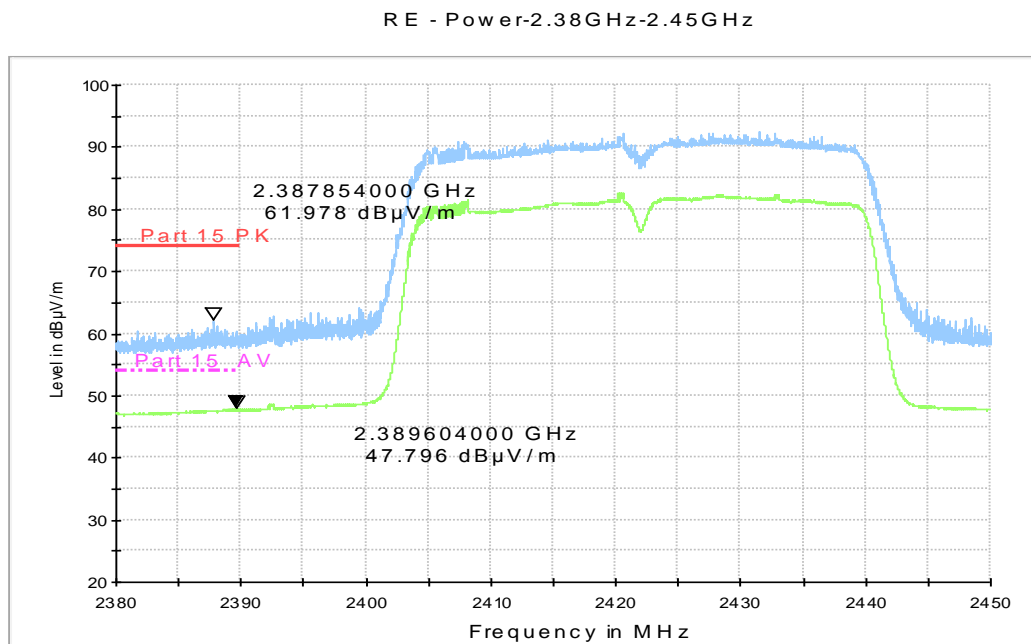


**Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1,
2.38 GHz - 2.45GHz**

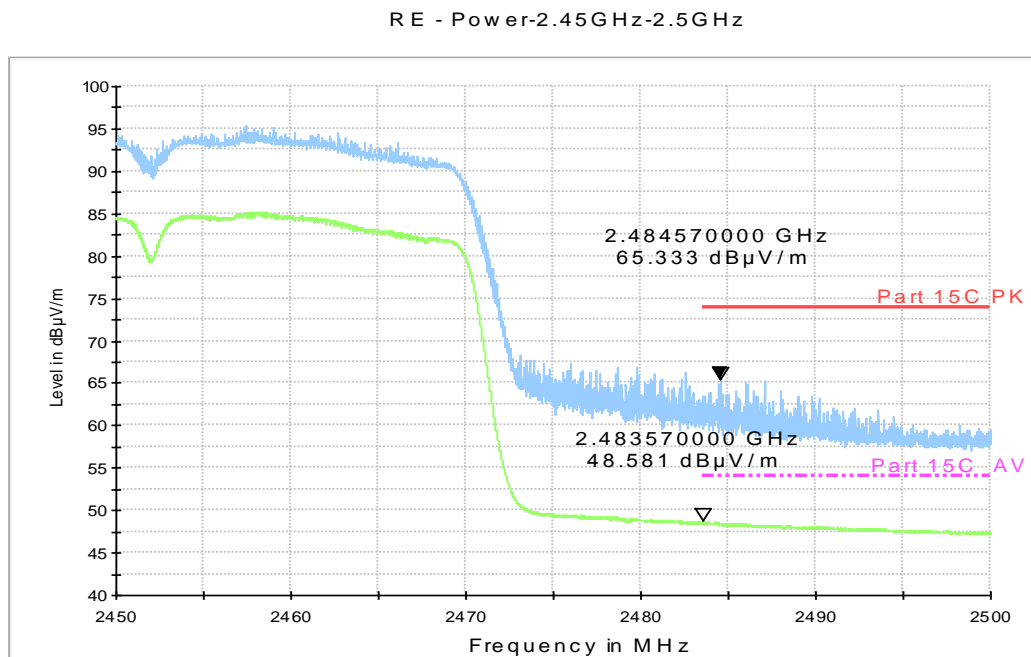
RE - Power-2.45GHz-2.5GHz



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



**Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3,
2.38 GHz - 2.43GHz**



**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 (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11b	Idle	
0.15 to 0.5	66 to 56	Fig.A.7.1 Fig.A.7.2 Fig.A.7.3 Fig.A.7.4 Fig.A.7.5	Fig.A.7.5	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.7.5	P
0.5 to 5	46	Fig.A.7.2		
5 to 30	50	Fig.A.7.3		
		Fig.A.7.4 Fig.A.7.5		
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.10

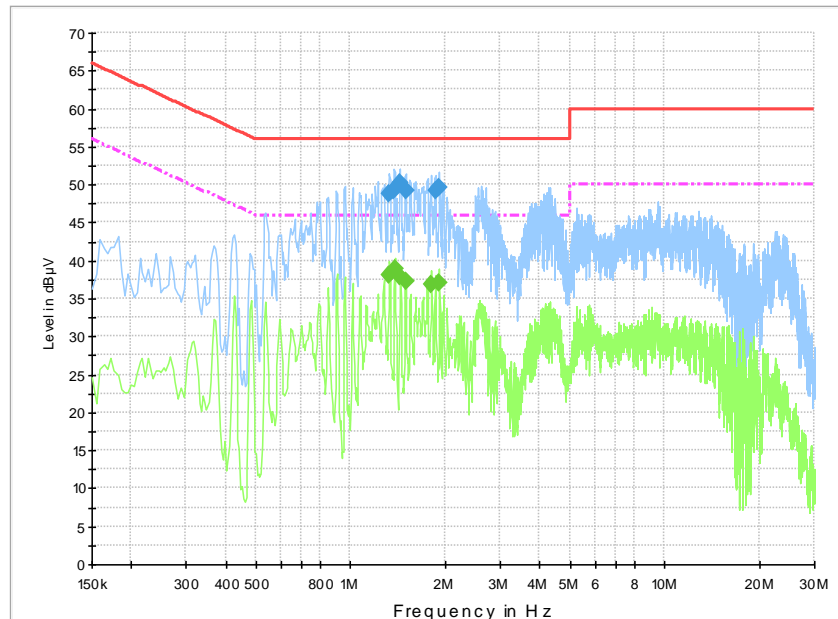


Fig.A.7.1 AC Powerline Conducted Emission-802.11b

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)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.324500	48.7	GND	L1	10.3	7.3	56.0
1.378500	49.2	GND	N	10.4	6.8	56.0
1.437000	50.2	GND	N	10.4	5.8	56.0
1.495500	49.2	GND	N	10.4	6.8	56.0
1.864500	49.2	GND	L1	10.4	6.8	56.0
1.918500	49.6	GND	N	10.4	6.4	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.329000	38.1	GND	N	10.4	7.9	46.0
1.383000	38.9	GND	L1	10.3	7.1	46.0
1.437000	37.8	GND	N	10.4	8.2	46.0
1.495500	37.2	GND	N	10.4	8.8	46.0
1.806000	36.8	GND	N	10.4	9.2	46.0
1.918500	37.0	GND	N	10.4	9.0	46.0

Traffic: Set.11

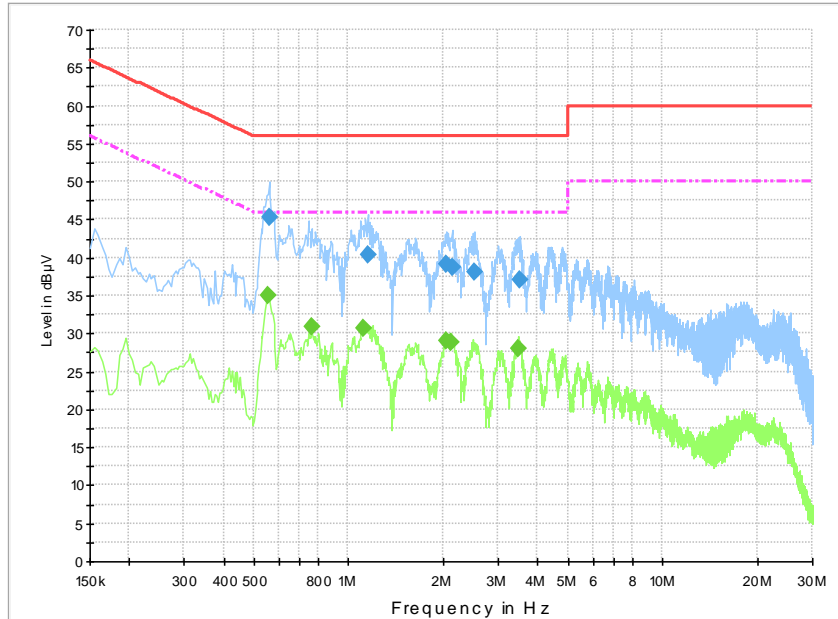


Fig.A.7.2 AC Powerline Conducted Emission-802.11b

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)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.559500	45.3	GND	N	10.4	10.7	56.0
1.149000	40.4	GND	L1	10.3	15.6	56.0
2.058000	39.2	GND	L1	10.4	16.8	56.0
2.134500	38.7	GND	L1	10.4	17.3	56.0
2.508000	38.1	GND	N	10.5	17.9	56.0
3.529500	37.0	GND	L1	10.4	19.0	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.555000	35.0	GND	L1	10.3	11.0	46.0
0.762000	30.9	GND	N	10.4	15.1	46.0
1.117500	30.6	GND	L1	10.3	15.4	46.0
2.058000	29.1	GND	L1	10.4	16.9	46.0
2.125500	28.9	GND	L1	10.4	17.1	46.0
3.471000	28.1	GND	L1	10.4	17.9	46.0

Traffic: Set.12

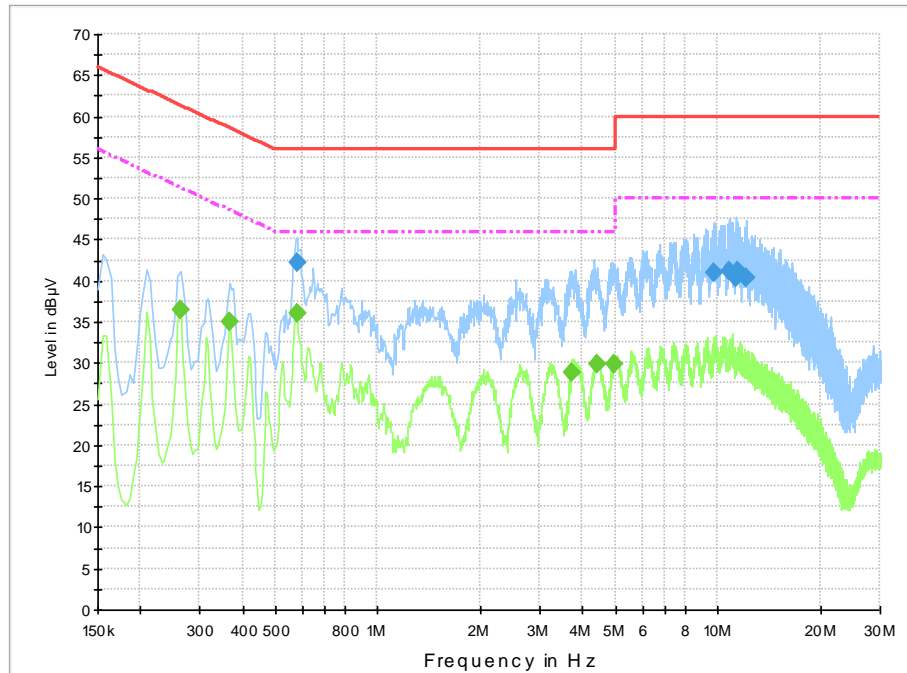


Fig.A.7.3 AC Powerline Conducted Emission-802.11b

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)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.577500	42.3	GND	N	10.4	13.7	56.0
9.766500	40.9	GND	L1	10.7	19.1	60.0
10.833000	41.1	GND	N	10.7	18.9	60.0
11.377500	40.3	GND	N	10.7	19.7	60.0
11.467500	41.1	GND	L1	10.8	18.9	60.0
12.111000	40.3	GND	L1	10.8	19.7	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.262500	36.5	GND	N	10.3	14.8	51.4
0.366000	35.0	GND	N	10.4	13.6	48.6
0.577500	36.0	GND	N	10.4	10.0	46.0
3.741000	28.7	GND	N	10.5	17.3	46.0
4.425000	29.9	GND	N	10.5	16.1	46.0
4.978500	29.9	GND	N	10.6	16.1	46.0

Idle: Set.10

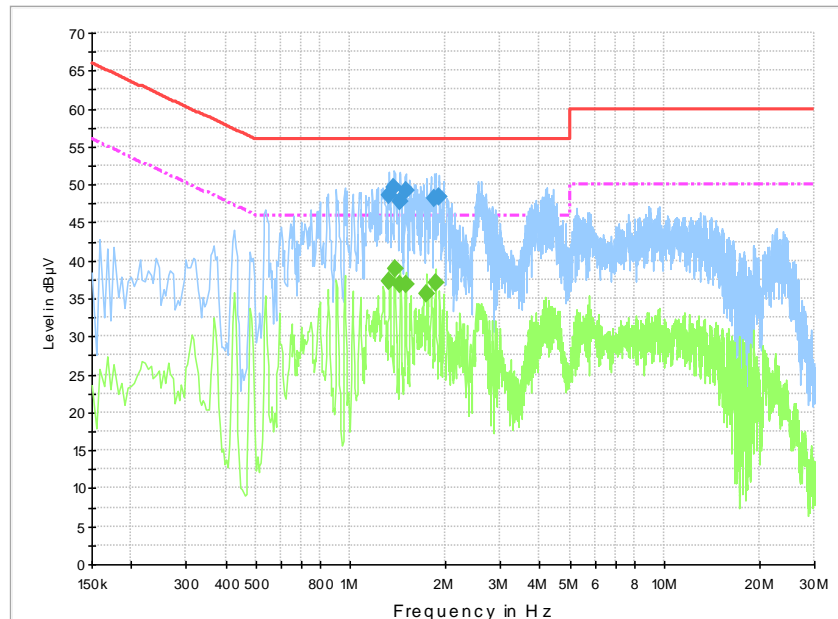


Fig.A.7.4 AC Powerline Conducted Emission-Idle

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)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.324500	48.6	GND	N	10.4	7.4	56.0
1.378500	49.6	GND	N	10.4	6.4	56.0
1.441500	47.9	GND	L1	10.3	8.1	56.0
1.495500	49.2	GND	N	10.4	6.8	56.0
1.855500	48.1	GND	L1	10.4	7.9	56.0
1.914000	48.4	GND	N	10.4	7.6	56.0

Final Result 2

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.324500	37.2	GND	N	10.4	8.8	46.0
1.383000	38.9	GND	L1	10.3	7.1	46.0
1.441500	36.9	GND	L1	10.3	9.1	46.0
1.495500	36.9	GND	N	10.4	9.1	46.0
1.752000	35.7	GND	N	10.4	10.3	46.0
1.864500	37.0	GND	N	10.4	9.0	46.0

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