

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

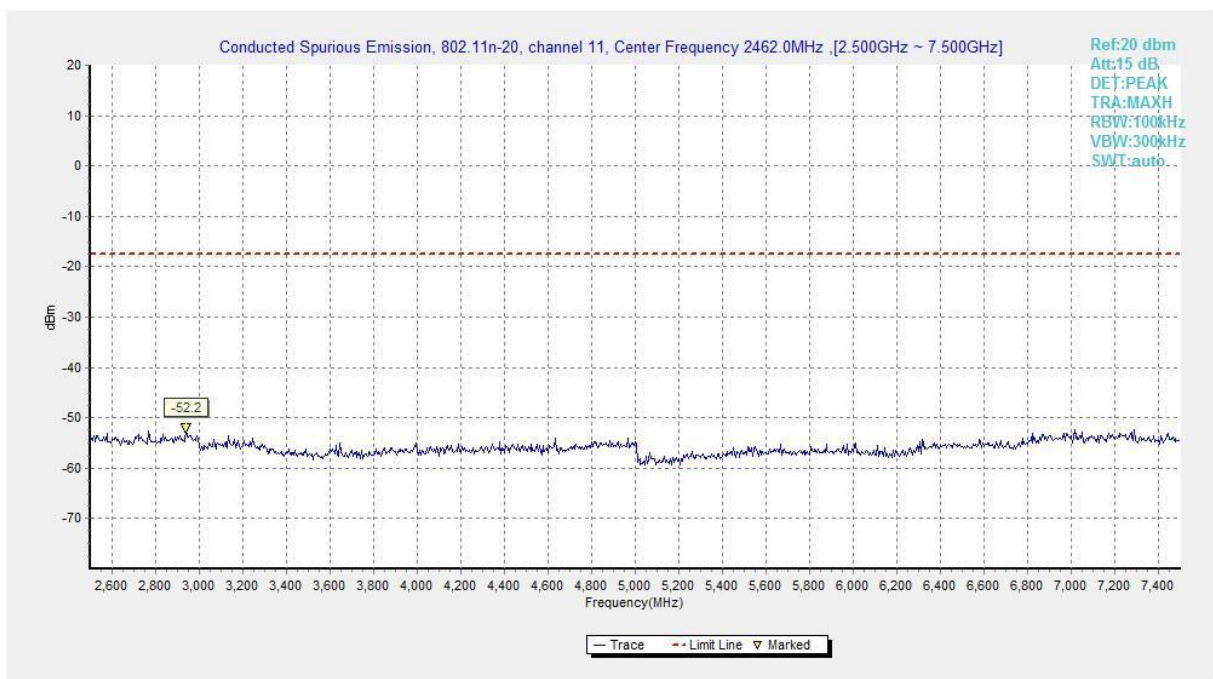


Fig.A.6.1.68 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 2.5 GHz-7.5 GHz)

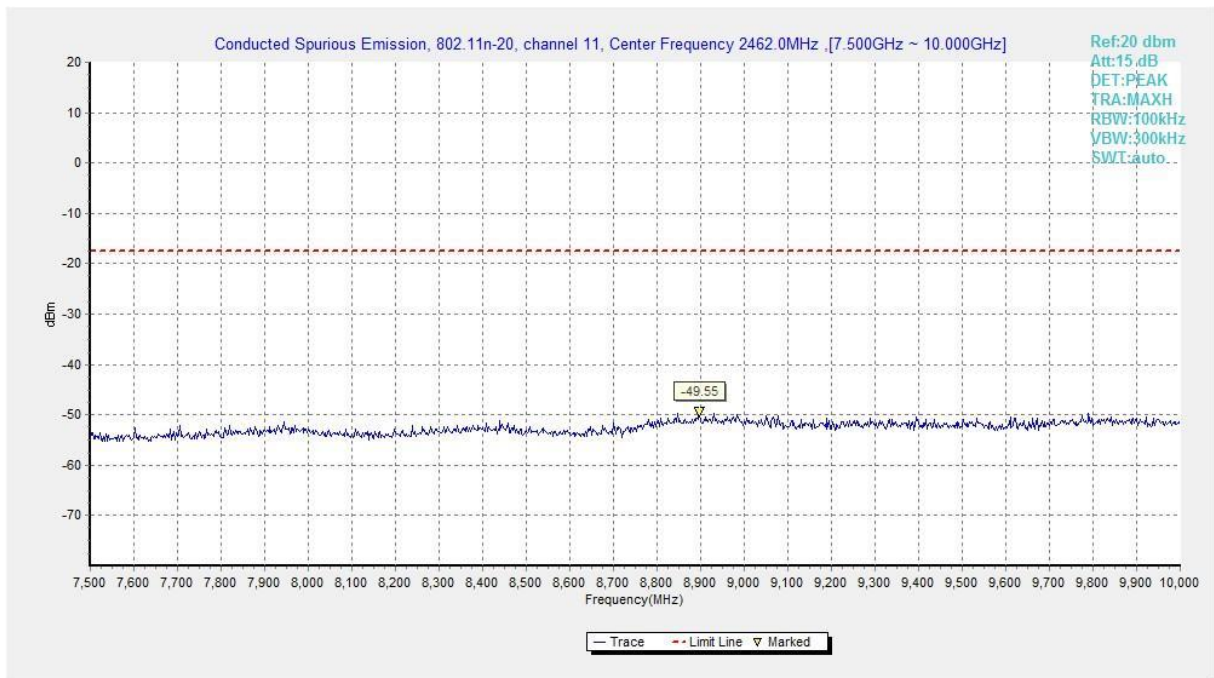


Fig.A.6.1.69 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 7.5 GHz-10 GHz)

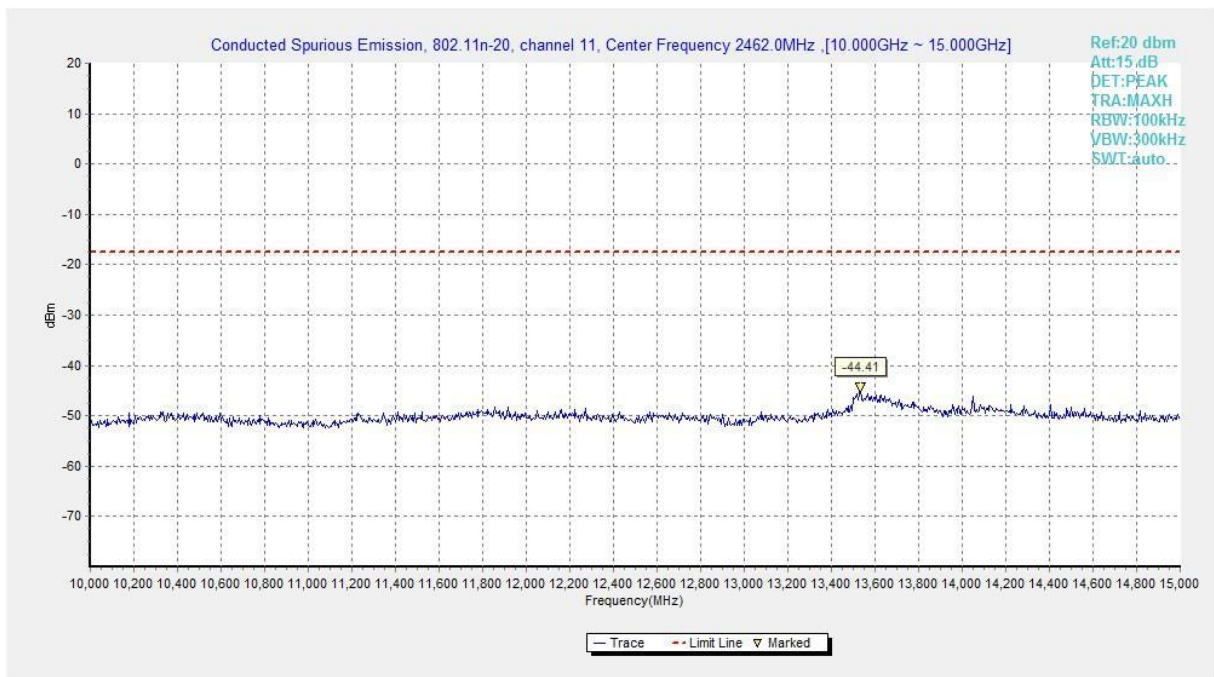


Fig.A.6.1.70 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 10 GHz-15 GHz)

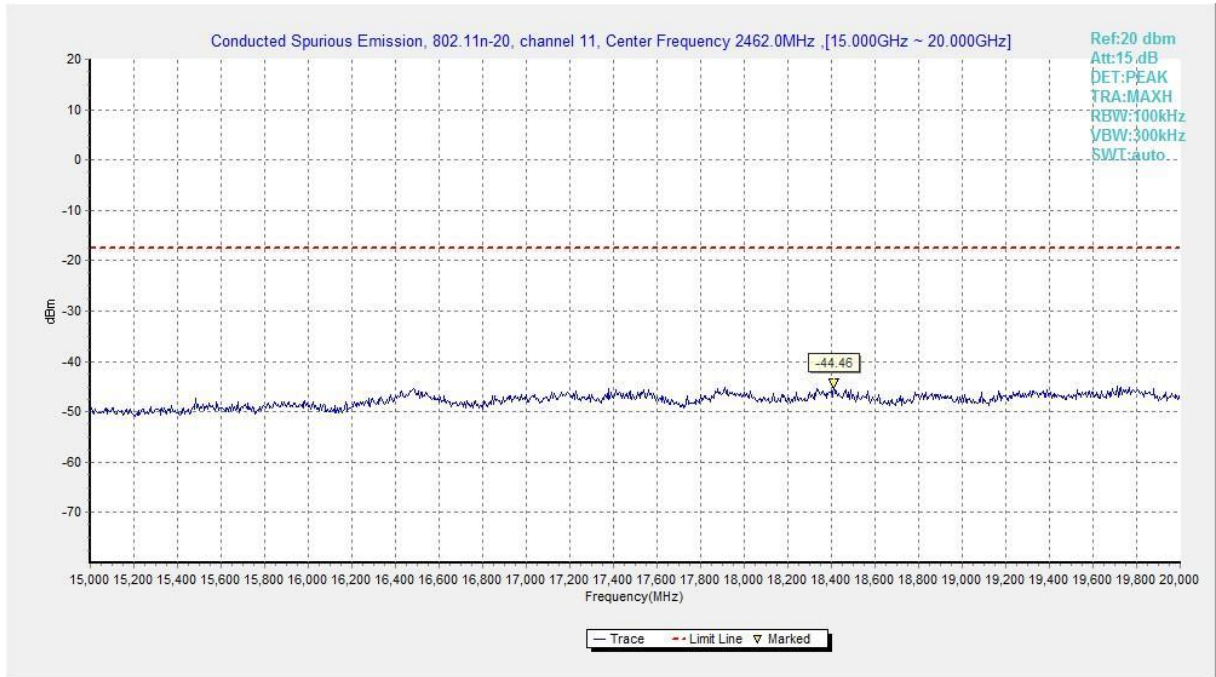


Fig.A.6.1.71 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 15 GHz-20 GHz)

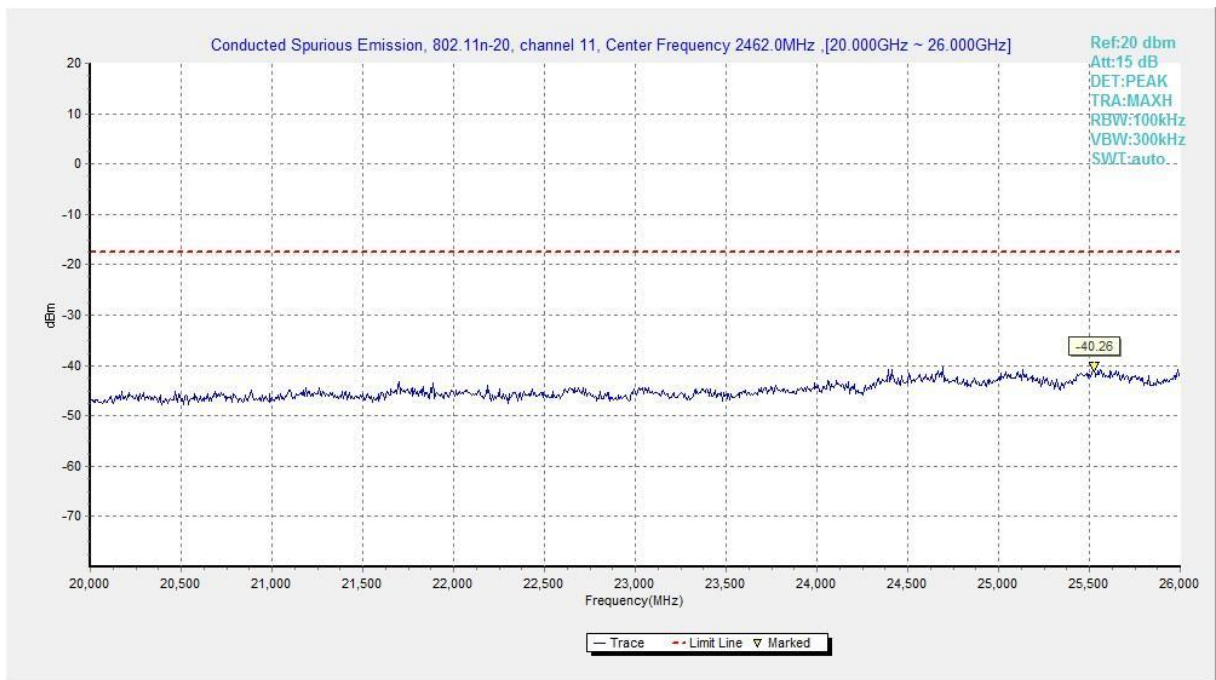


Fig.A.6.1.72 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 20 GHz-26 GHz)

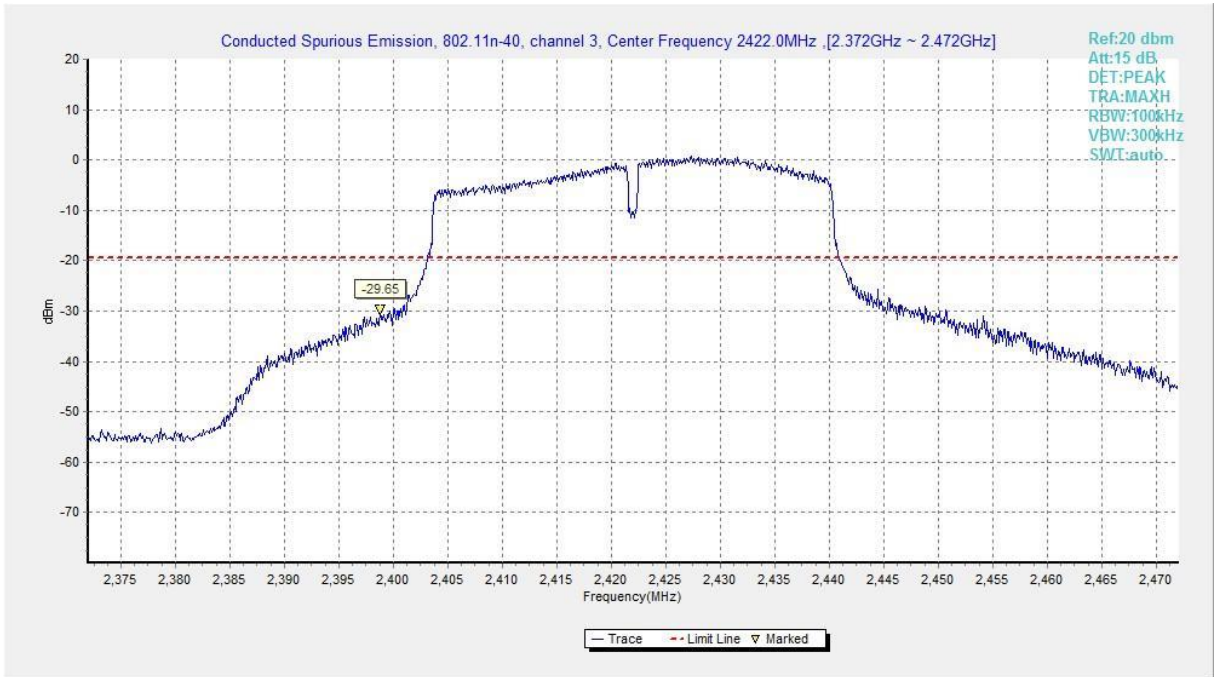


Fig.A.6.1.73 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, Center Frequency)

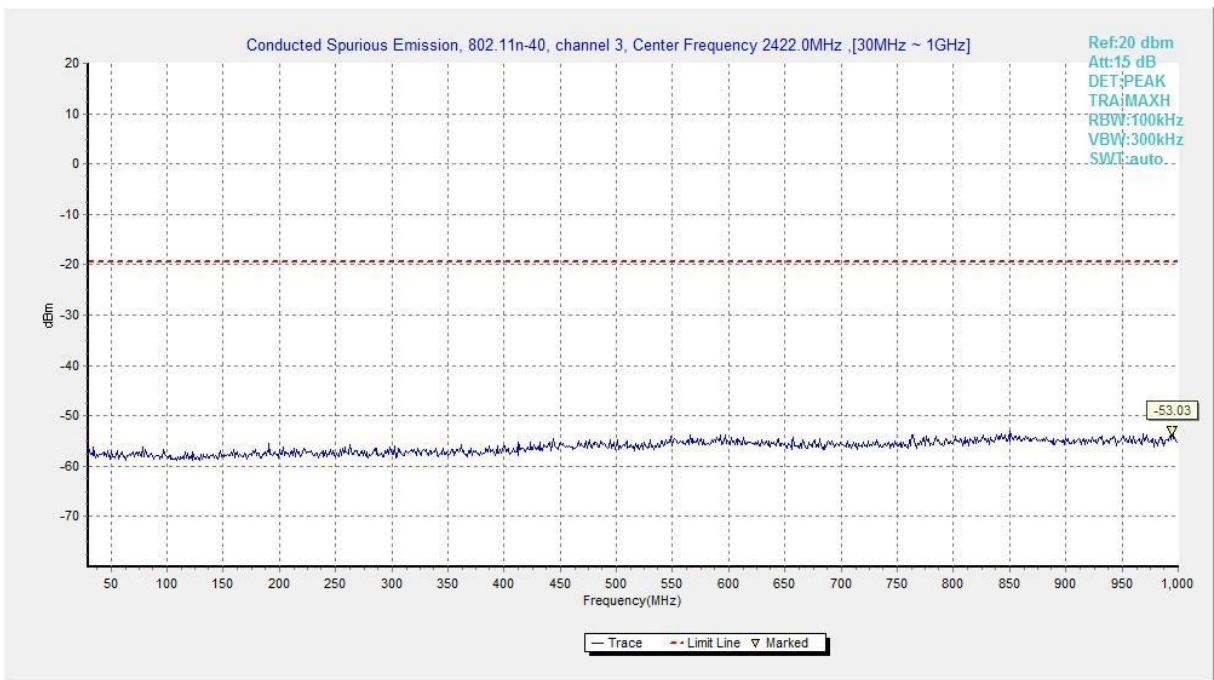


Fig.A.6.1.74 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 30 MHz-1 GHz)

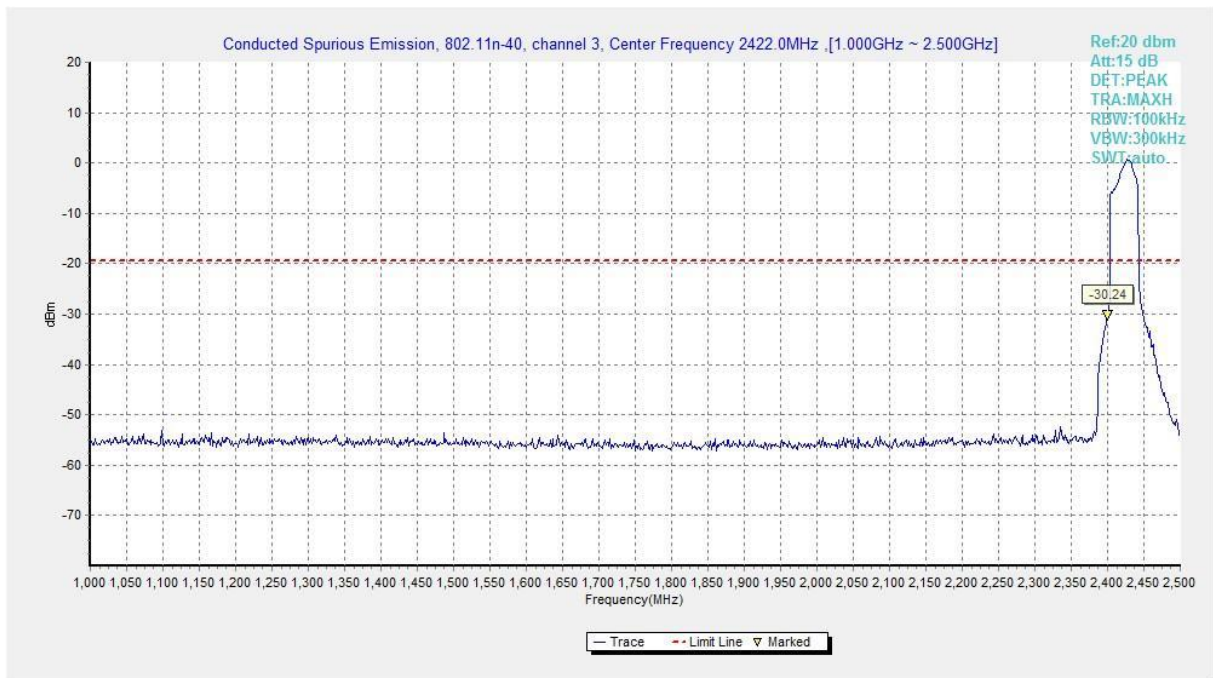


Fig.A.6.1.75 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 1 GHz-2.5 GHz)

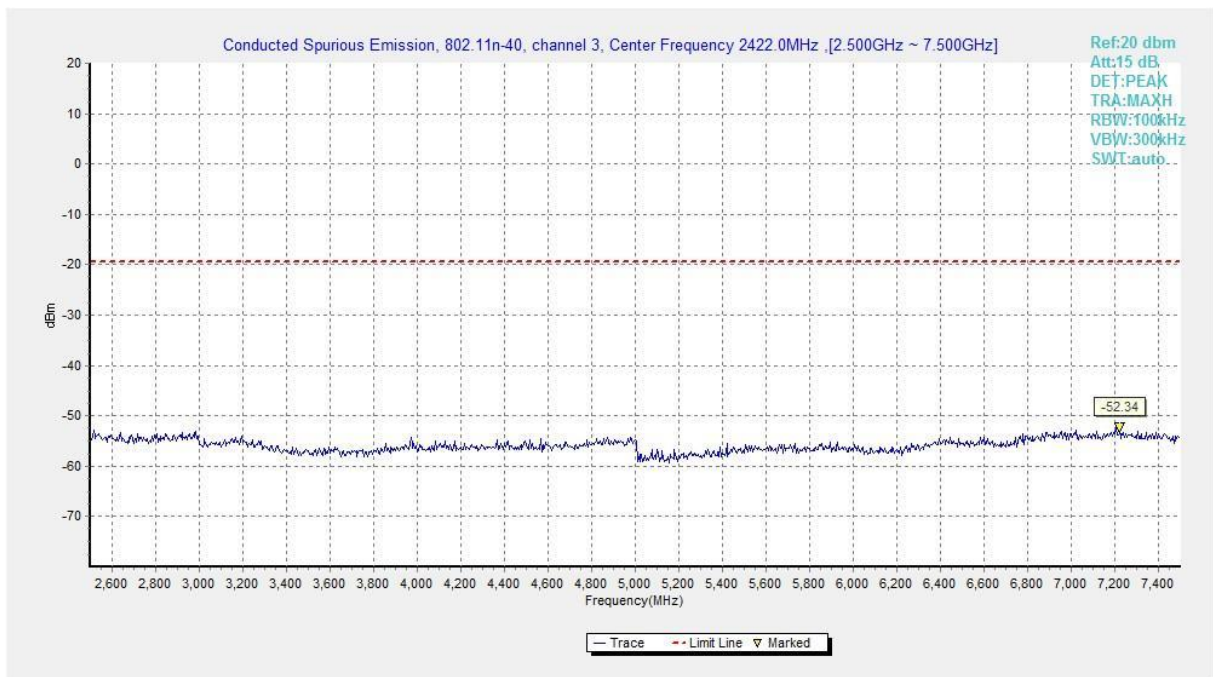


Fig.A.6.1.76 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 2.5 GHz-7.5 GHz)

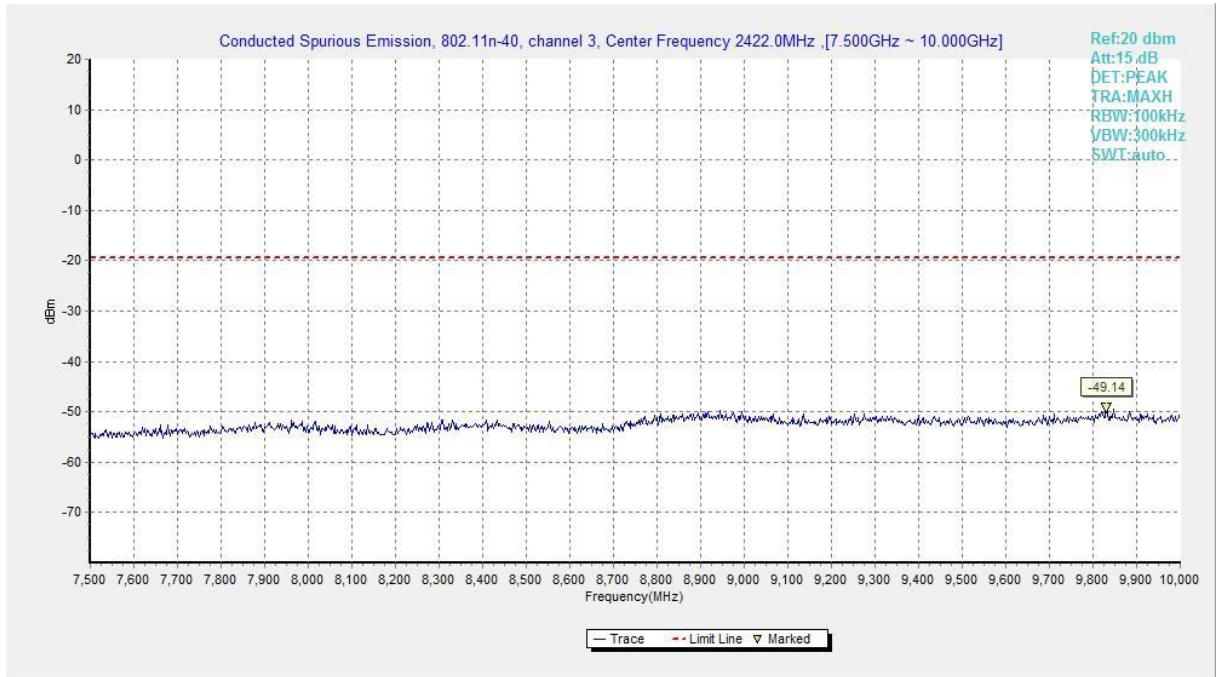


Fig.A.6.1.77 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 7.5 GHz-10 GHz)

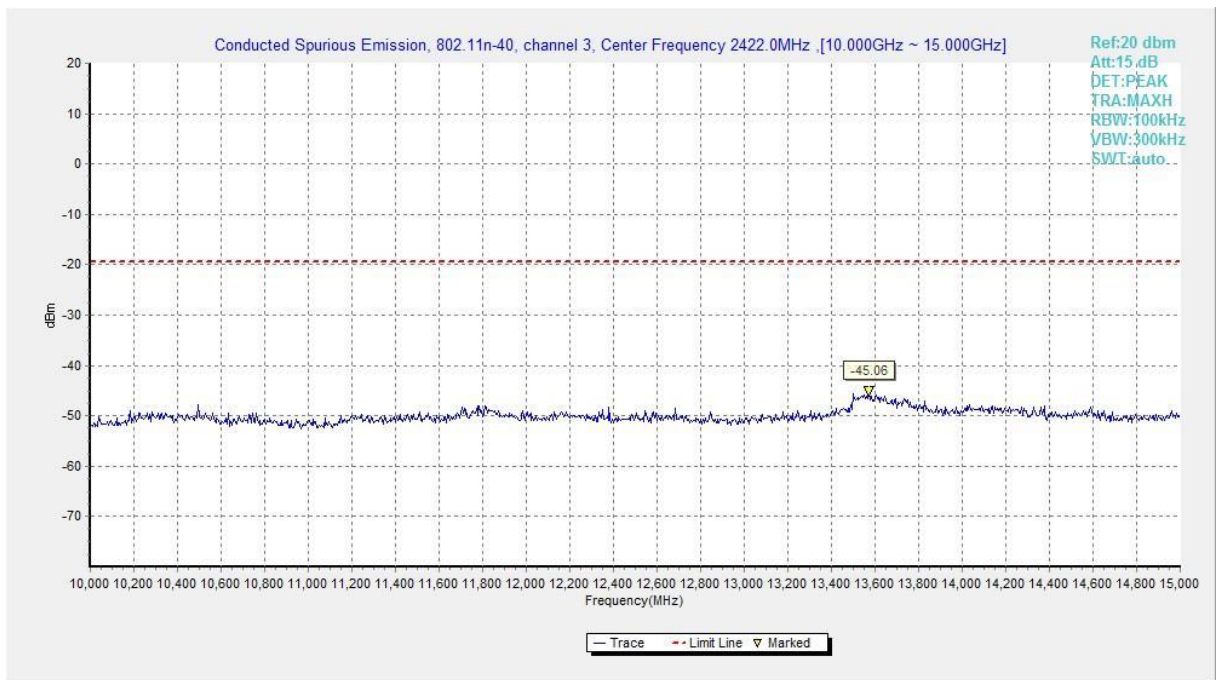


Fig.A.6.1.78 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 10 GHz-15 GHz)

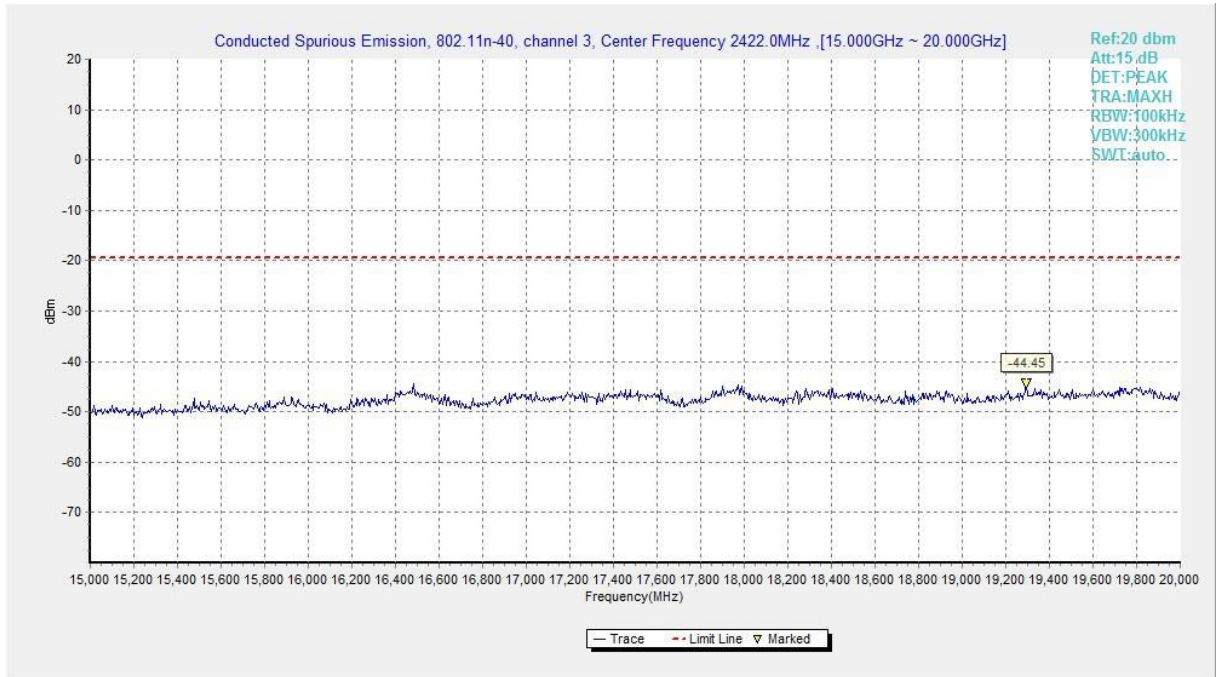


Fig.A.6.1.79 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 15 GHz-20 GHz)

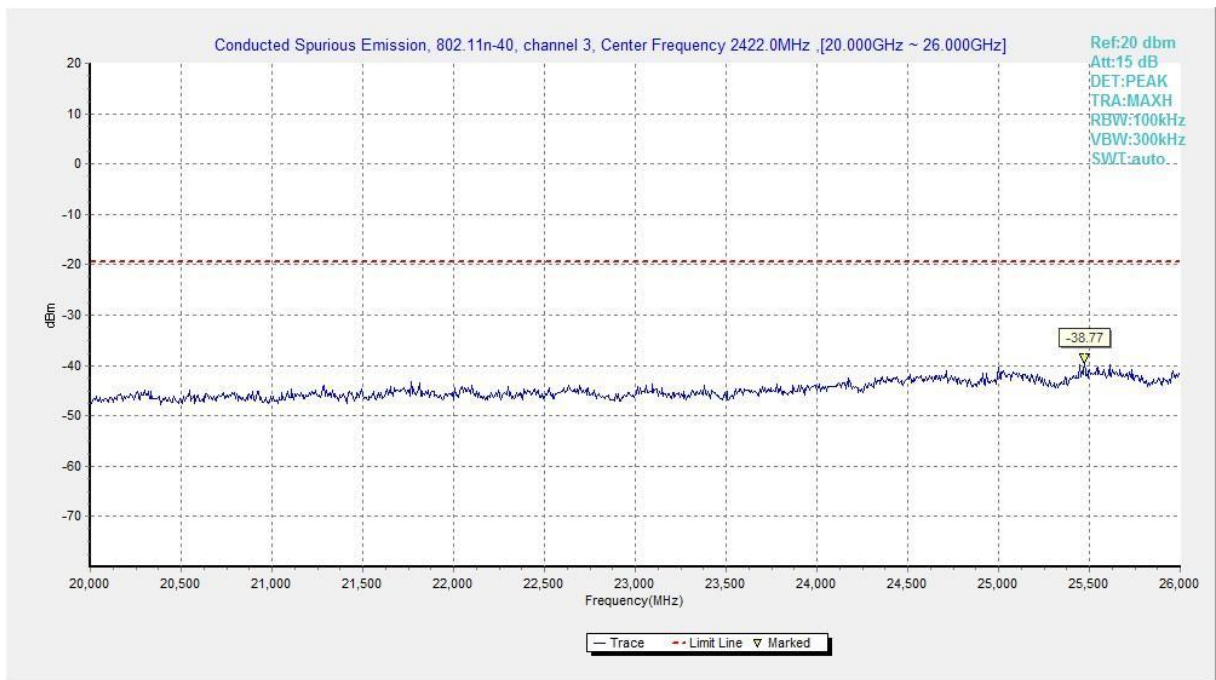


Fig.A.6.1.80 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 20 GHz-26 GHz)

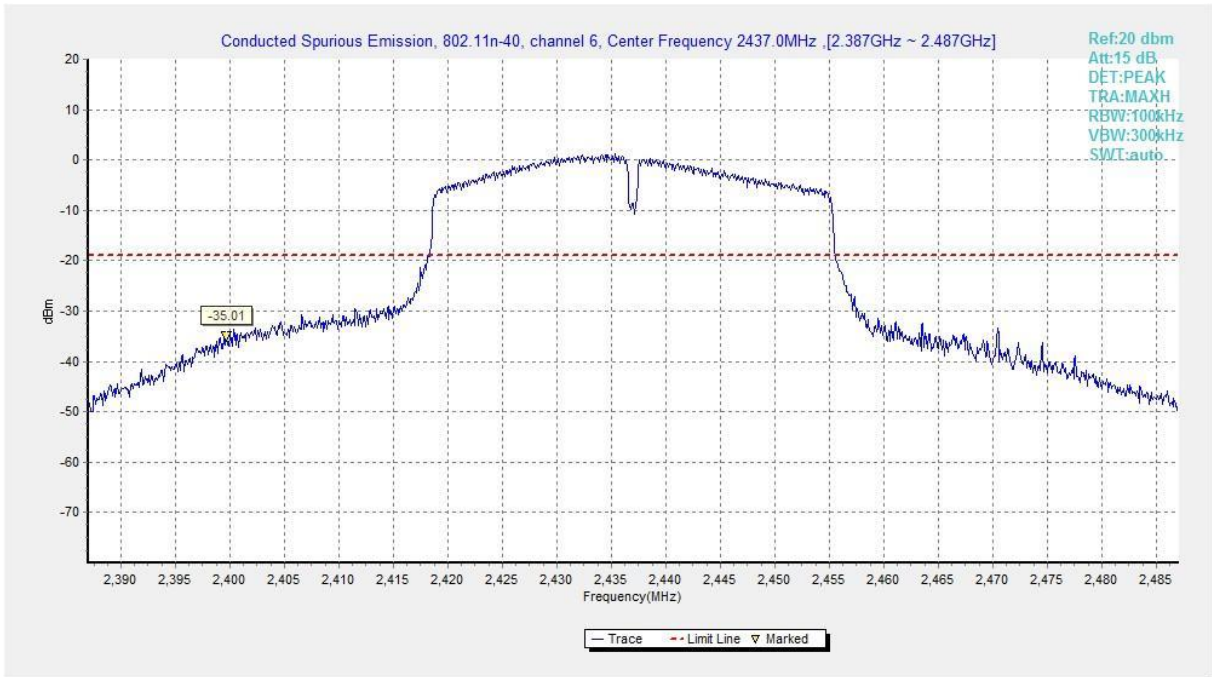


Fig.A.6.1.81 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, Center Frequency)

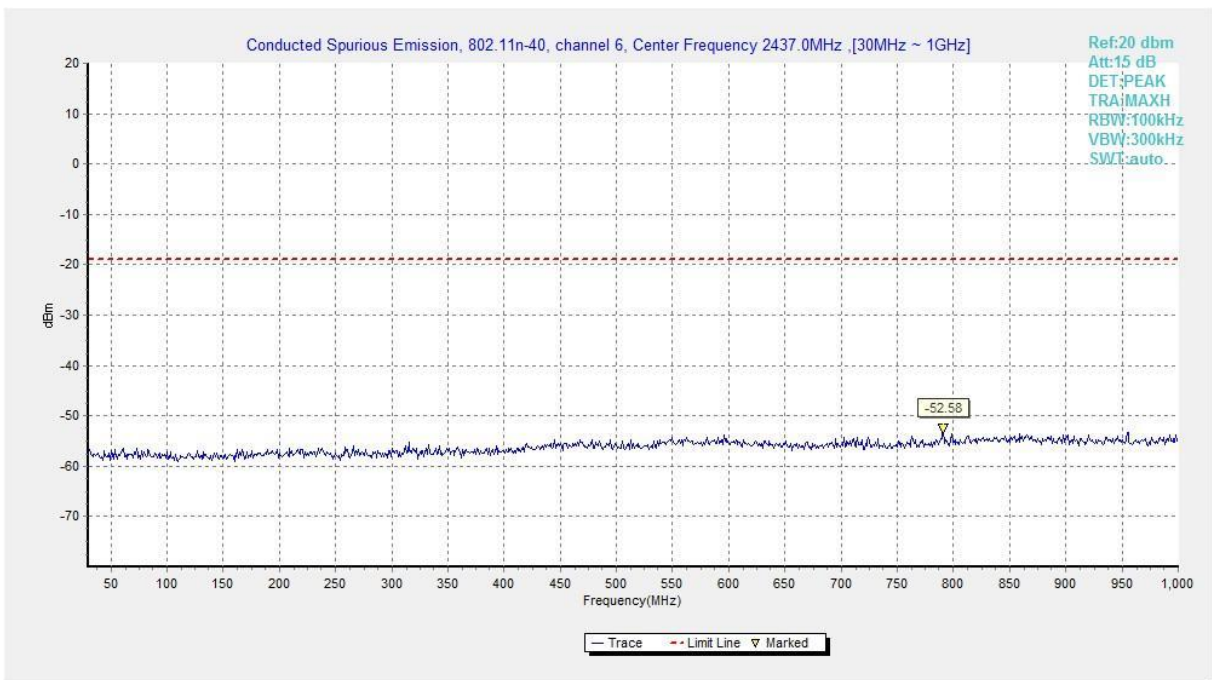


Fig.A.6.1.82 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 30 MHz-1 GHz)

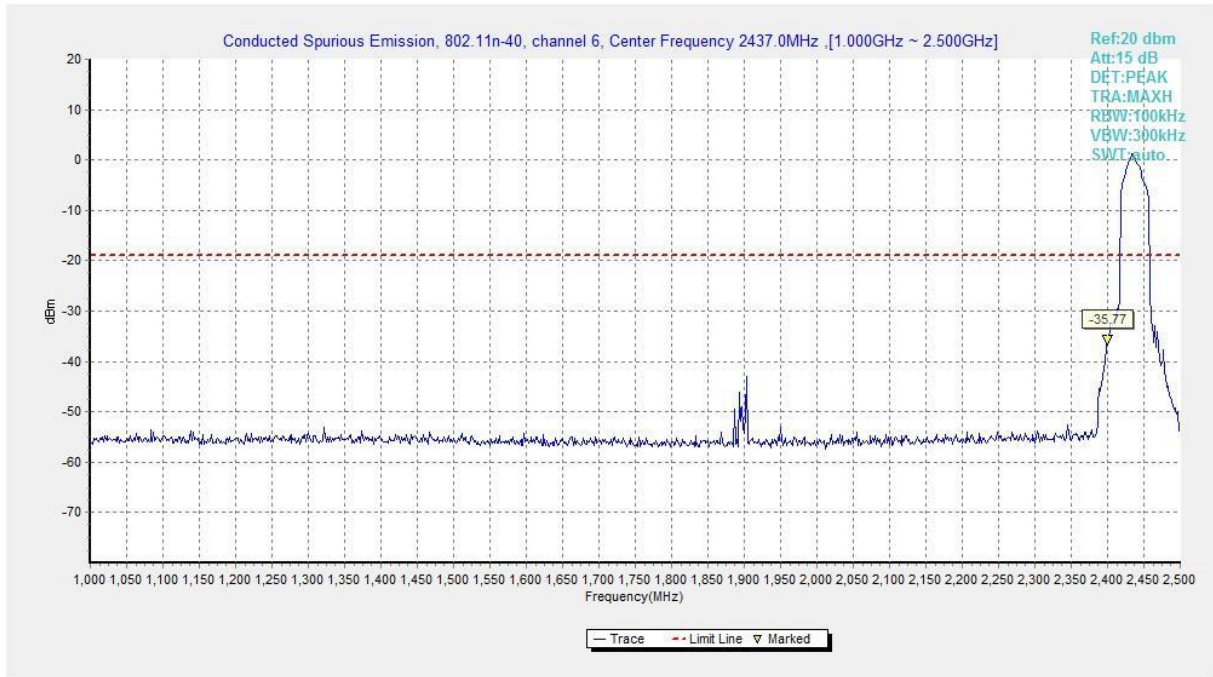


Fig.A.6.1.83 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)

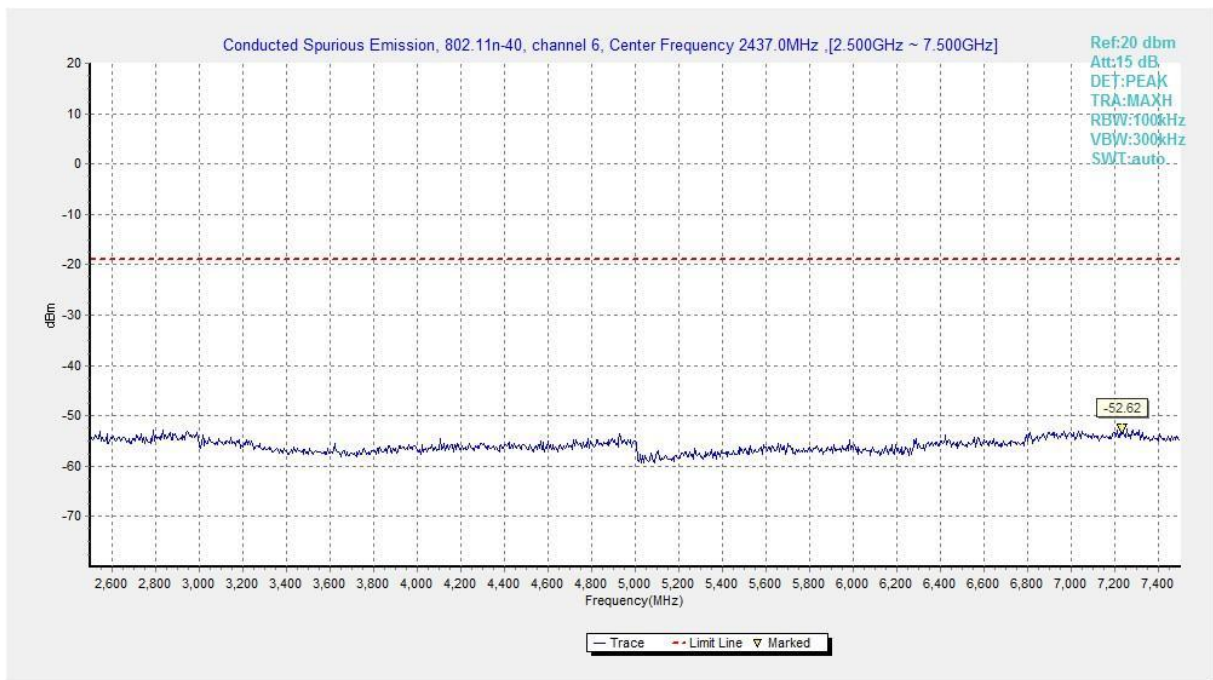


Fig.A.6.1.84 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)

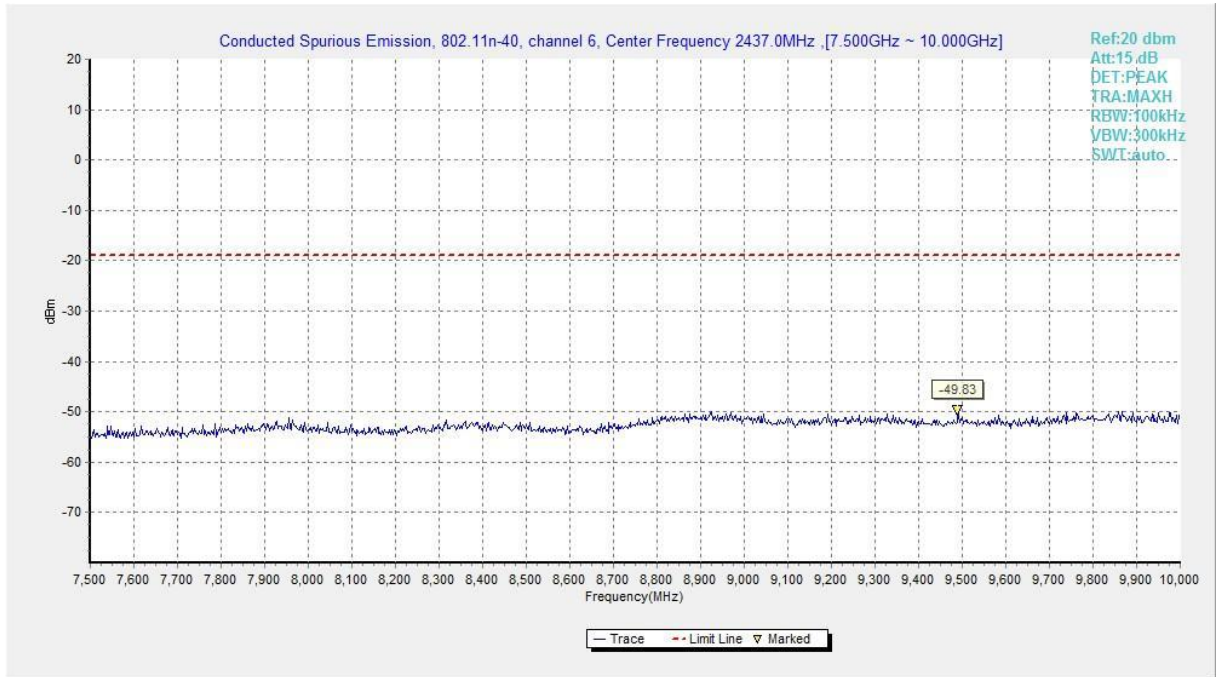


Fig.A.6.1.85 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)

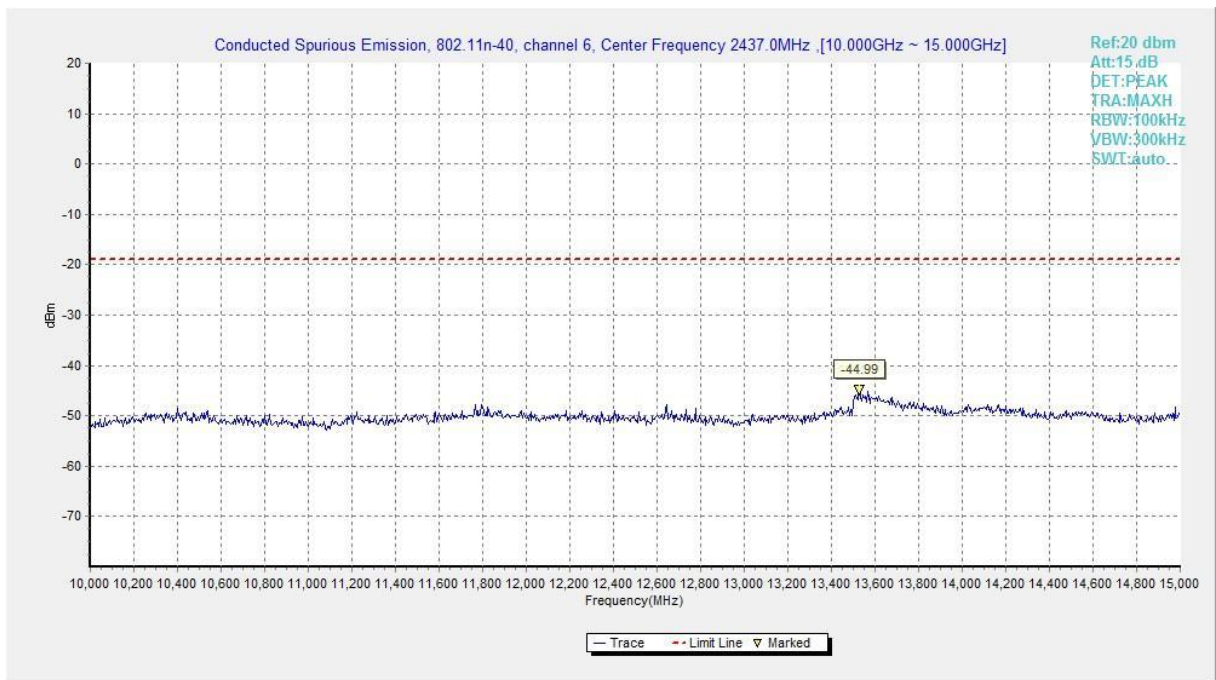


Fig.A.6.1.86 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 10 GHz-15 GHz)

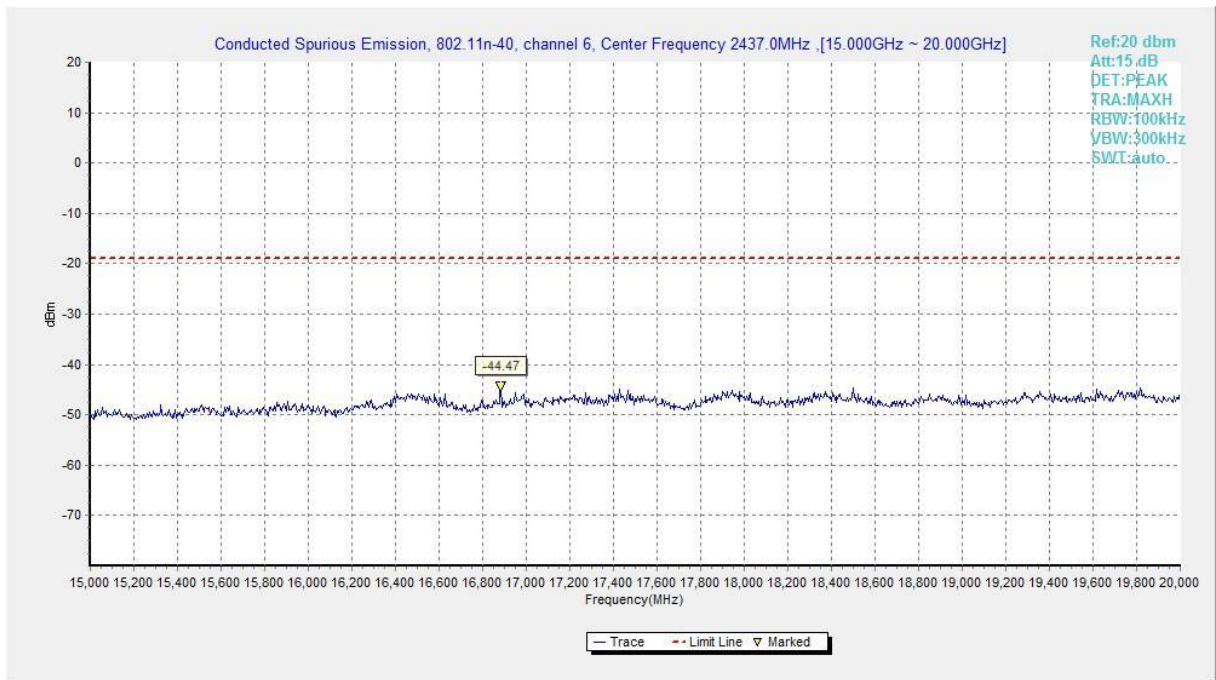


Fig.A.6.1.87 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 15 GHz-20 GHz)

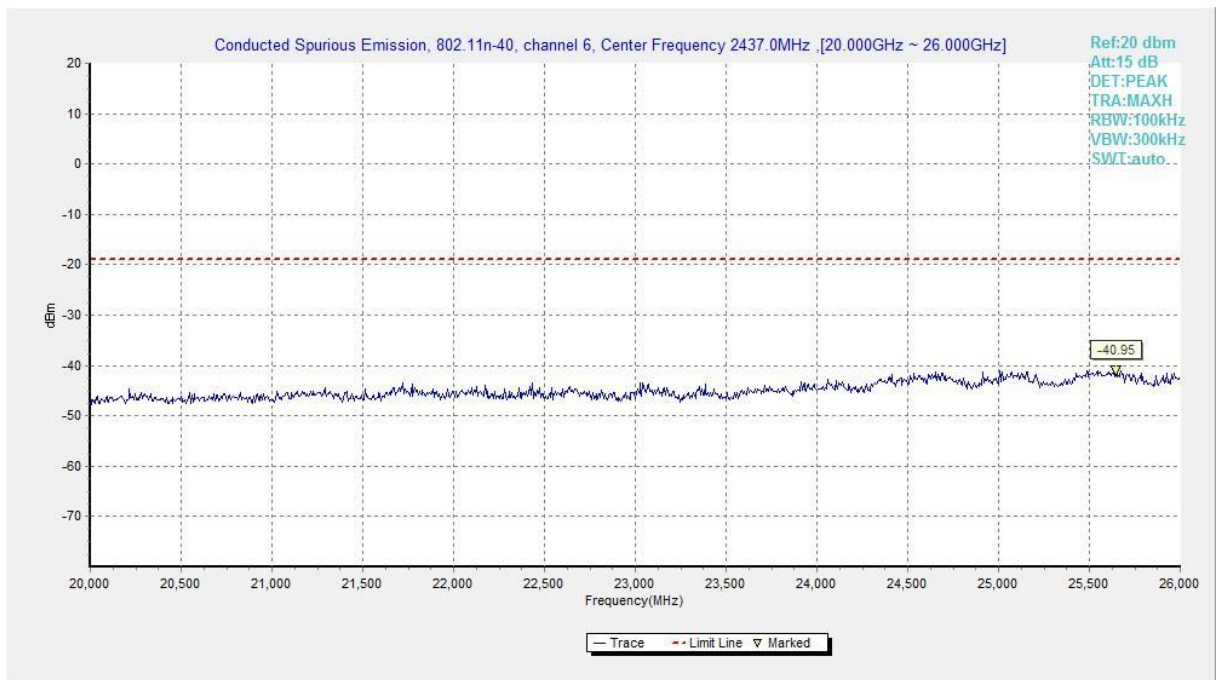


Fig.A.6.1.88 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 20 GHz-26 GHz)

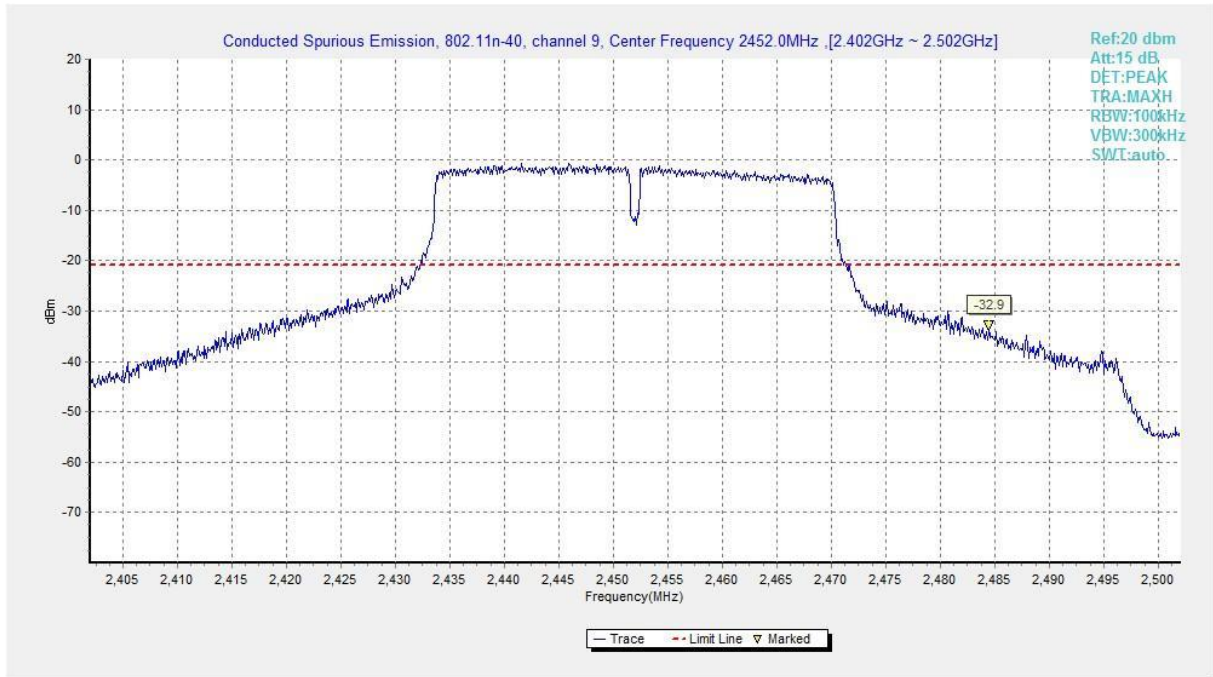


Fig.A.6.1.89 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, Center Frequency)

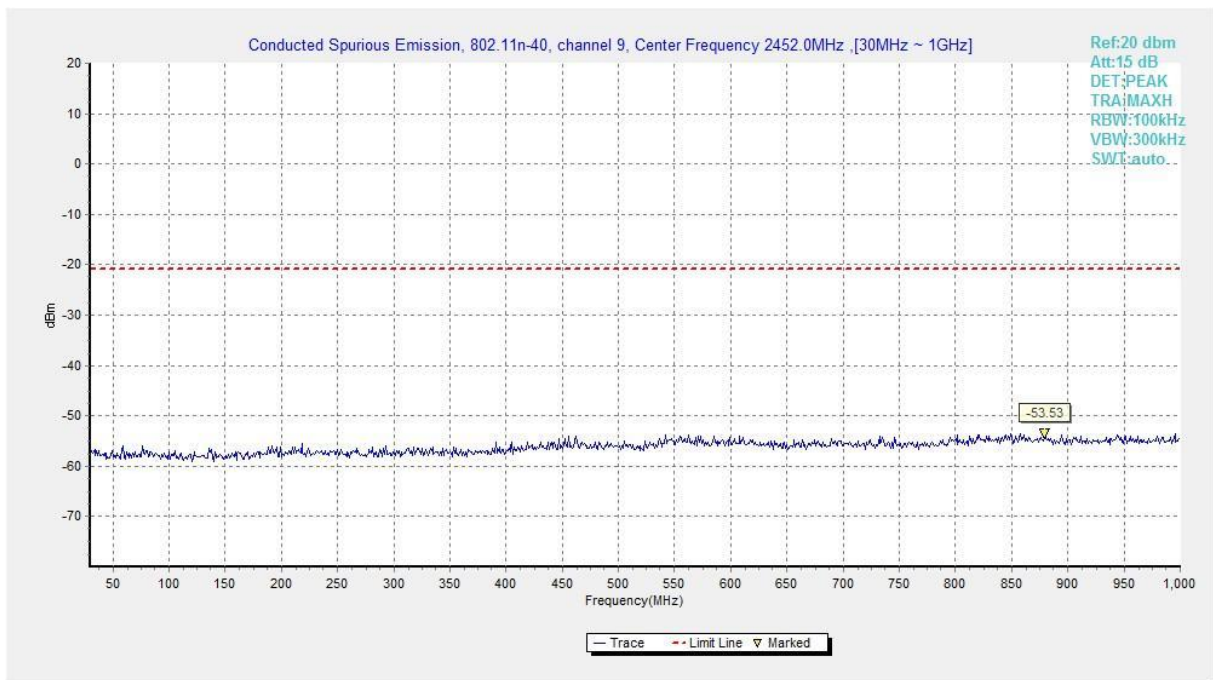


Fig.A.6.1.90 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 30 MHz-1 GHz)

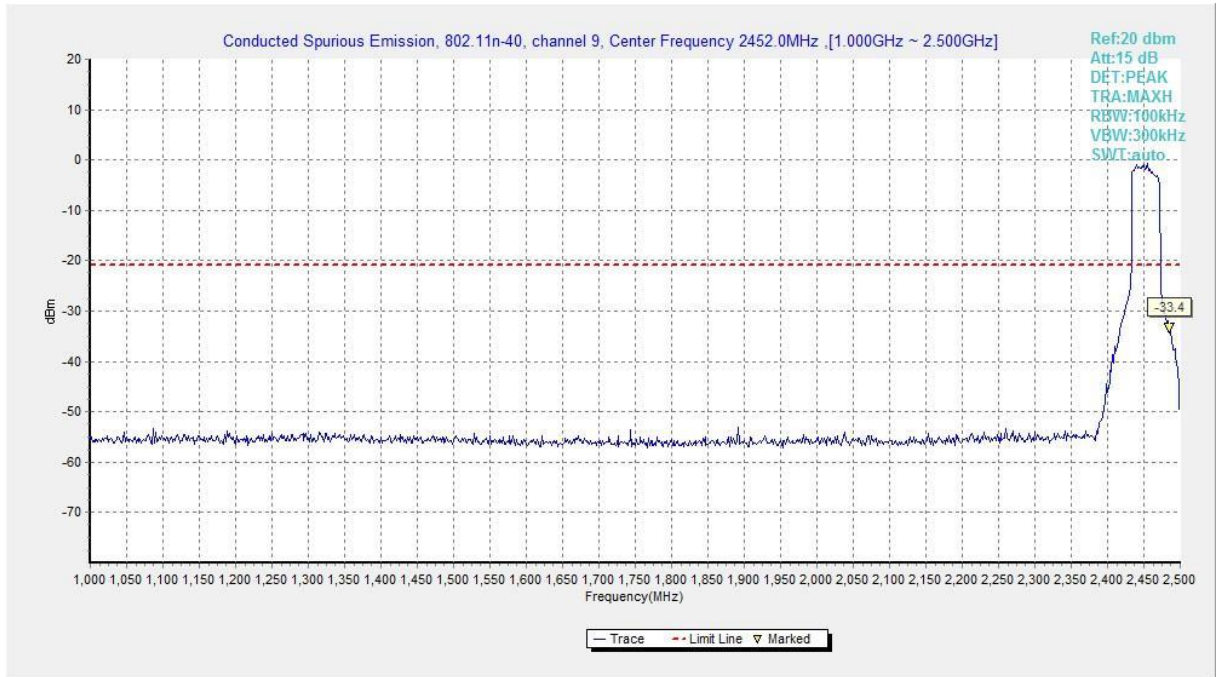


Fig.A.6.1.91 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

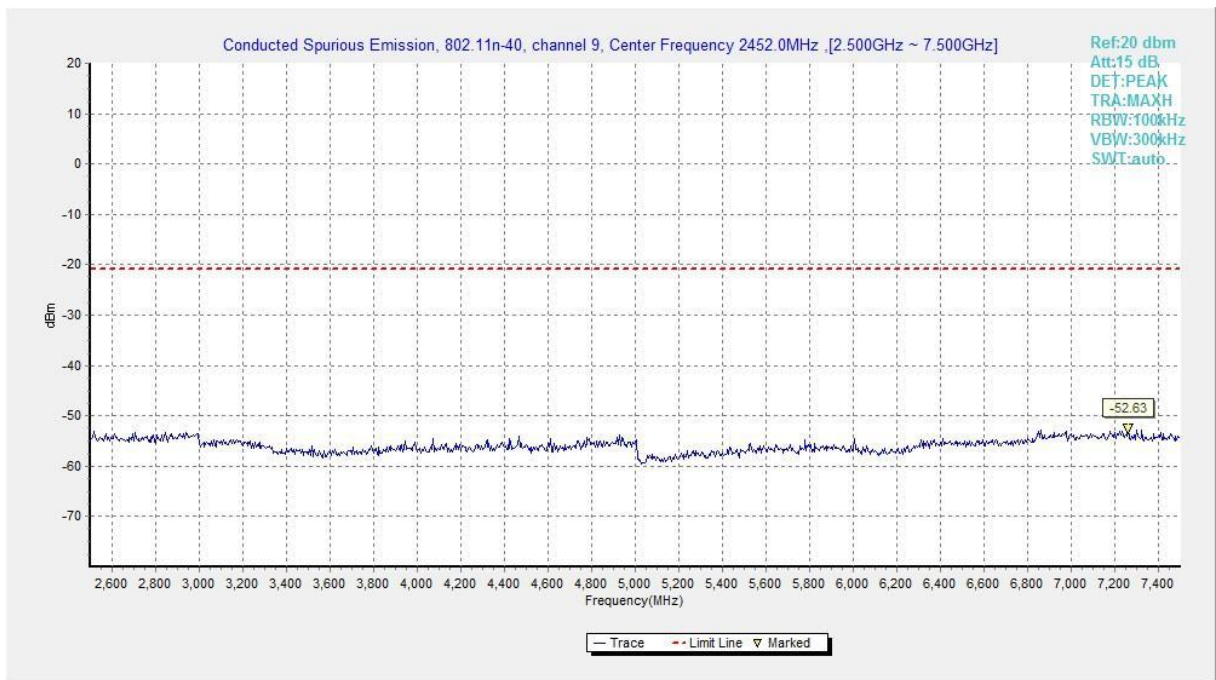


Fig.A.6.1.92 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)

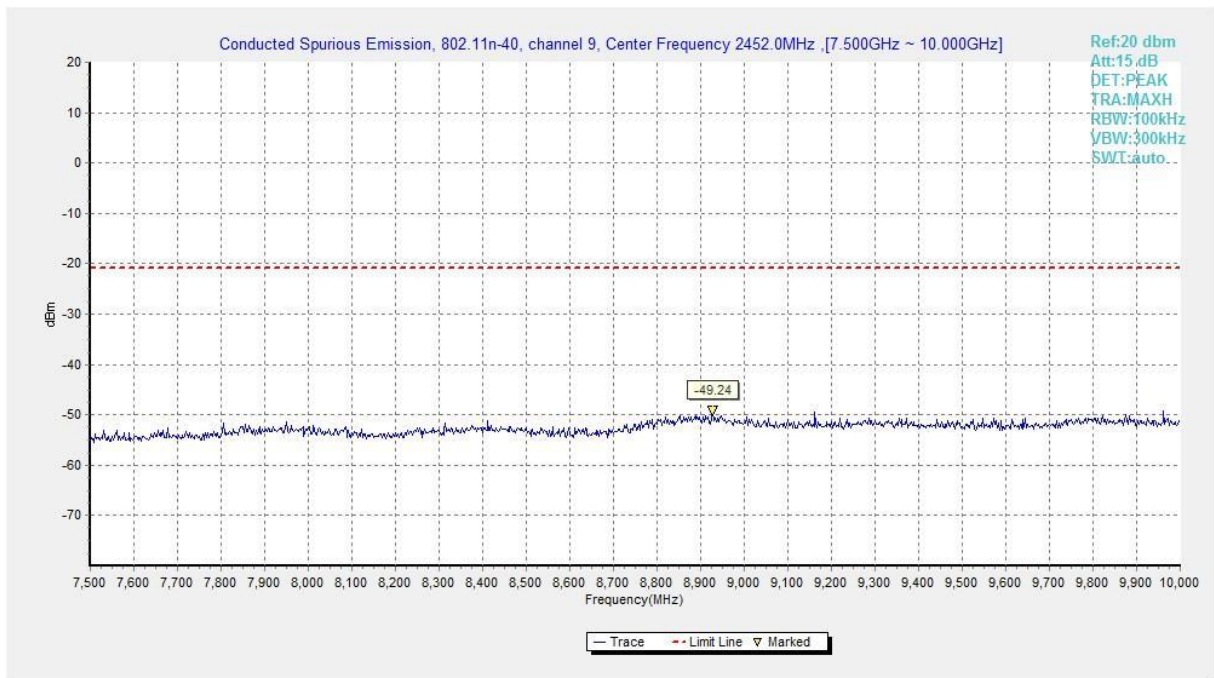


Fig.A.6.1.93 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

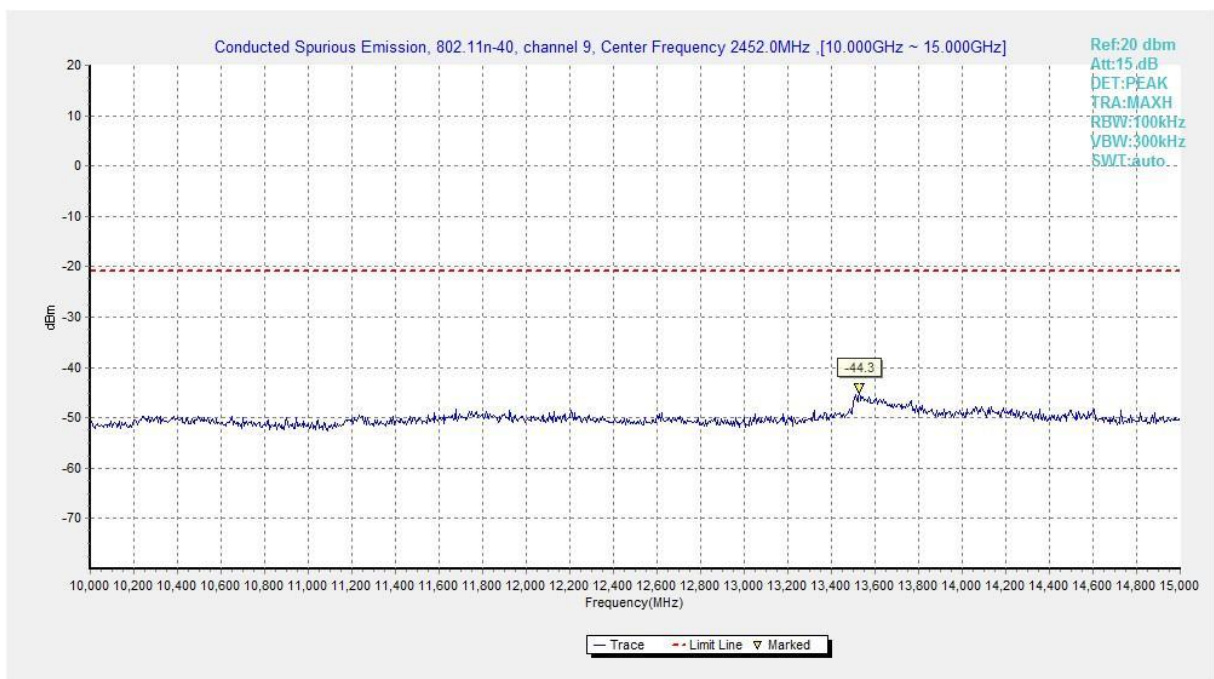


Fig.A.6.1.94 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 10 GHz-15 GHz)

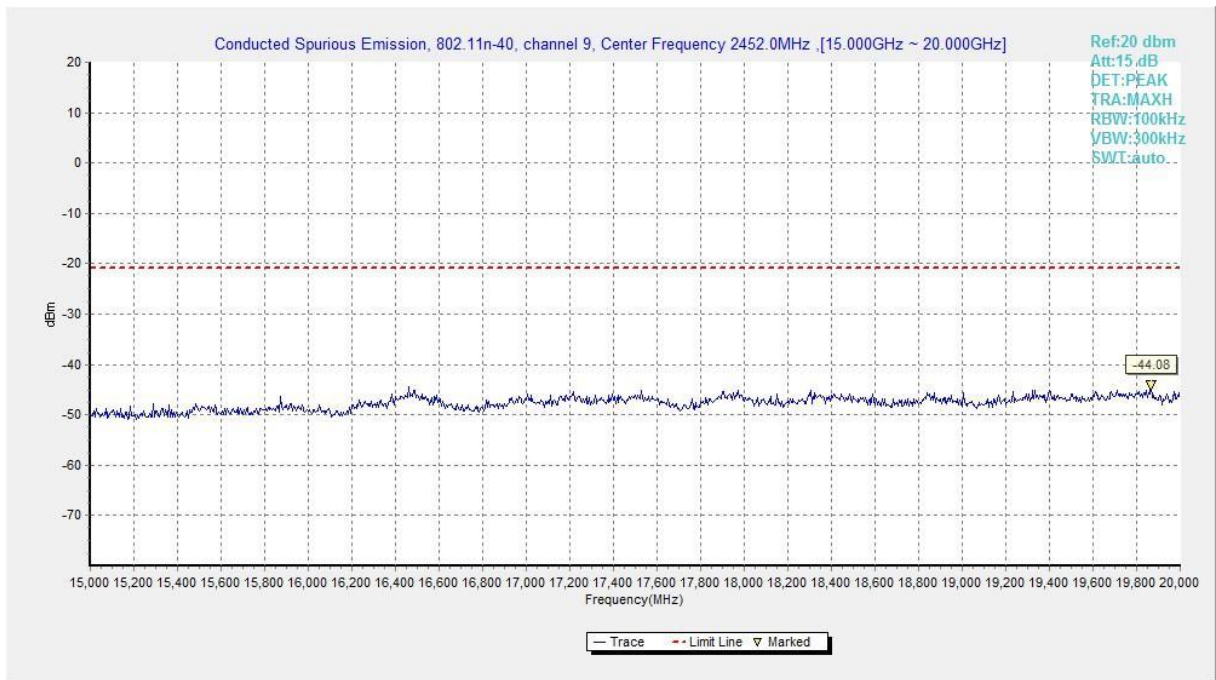


Fig.A.6.1.95 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 15 GHz-20 GHz)

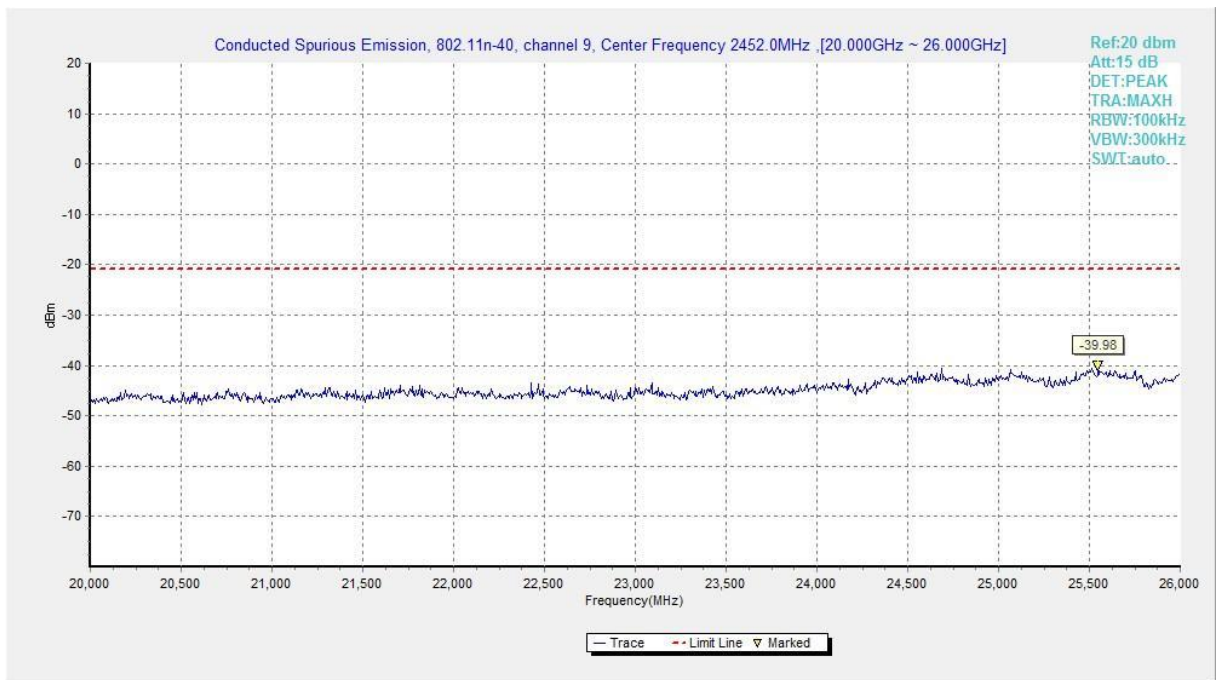


Fig.A.6.1.96 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 20 GHz-26 GHz)

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 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 Set.1:
802.11b mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	1	2.31GHz~2.45GHz---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~2.45GHz---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~2.45GHz---L	Fig.A.6.2.5	P
	11	2.45GHz~2.50GHz---H	Fig.A.6.2.6	P

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT40)	3	2.31GHz~2.45GHz---L	Fig.A.6.2.7	P
	9	2.45GHz~2.50GHz---H	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:

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

Peak
802.11b

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2388.162	60.62	3.5	31.9	25.26	74.0	13.4	H
2388.554	60.33	3.5	31.9	24.97	74.0	13.7	H
4824.000	39.32	-26.0	33.9	31.41	74.0	34.7	H
7236.000	41.90	-24.2	35.6	30.49	74.0	32.1	V
9648.000	44.13	-24.3	37.0	31.44	74.0	29.9	H
12060.000	47.95	-22.4	38.9	31.46	74.0	26.1	H

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2347.400	48.52	-31.6	31.8	48.25	74.0	25.5	H
2503.400	50.19	-29.9	32.0	48.13	74.0	23.8	H
4874.000	39.36	-26.3	34.0	31.72	74.0	34.6	V
7311.000	42.28	-25.0	35.6	31.69	74.0	31.7	V
9748.000	44.57	-24.1	37.1	31.58	74.0	29.4	H
12185.000	47.59	-22.5	38.9	31.21	74.0	26.4	V

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2484.185	60.50	3.4	32.0	25.11	74.0	13.5	H
2485.645	60.96	3.4	32.0	25.58	74.0	13.0	H
4924.000	39.72	-26.5	34.0	32.27	74.0	34.3	V
7386.000	44.78	-24.6	35.6	33.74	74.0	29.2	H
9848.000	45.39	-24.0	37.2	32.21	74.0	28.6	V
12310.000	50.06	-21.3	38.9	32.43	74.0	23.9	V

802.11g

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2389.786	63.11	3.5	31.9	27.75	74.0	10.9	H
2389.982	65.49	3.5	31.9	30.13	74.0	8.5	H
4824.000	39.45	-26.0	33.9	31.55	74.0	34.5	V
7236.000	42.89	-24.2	35.6	31.49	74.0	31.1	H
9648.000	44.94	-24.3	37.0	32.25	74.0	29.1	V
12060.000	48.07	-22.4	38.9	31.59	74.0	25.9	H

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2346.600	48.12	-31.6	31.8	47.86	74.0	25.9	H
2504.200	49.69	-30.0	32.0	47.64	74.0	24.3	H
4874.000	41.05	-26.3	34.0	33.40	74.0	32.9	H
7311.000	41.56	-25.0	35.6	30.97	74.0	32.4	H
9748.000	45.62	-24.1	37.1	32.62	74.0	28.4	V
12185.000	48.70	-22.5	38.9	32.31	74.0	25.3	H

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2484.135	62.81	3.4	32.0	27.42	74.0	11.2	H
2484.365	62.94	3.4	32.0	27.55	74.0	11.1	H
4924.000	41.28	-26.5	34.0	33.83	74.0	32.7	H
7386.000	42.87	-24.6	35.6	31.83	74.0	31.1	V
9848.000	46.68	-24.0	37.2	33.50	74.0	27.3	H
12310.000	49.03	-21.3	38.9	31.40	74.0	25.0	V

802.11n-HT20
Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2389.590	63.43	3.5	31.9	28.07	74.0	10.6	H
2389.884	63.67	3.5	31.9	28.31	74.0	10.3	H
4824.000	40.85	-26.0	33.9	32.95	74.0	33.1	V
7236.000	43.67	-24.2	35.6	32.26	74.0	30.3	V
9648.000	46.53	-24.3	37.0	33.84	74.0	27.5	V
12060.000	48.68	-22.4	38.9	32.19	74.0	25.3	H

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2349.200	49.22	-31.5	31.8	48.94	74.0	24.8	H
2505.800	50.03	-30.0	32.0	48.00	74.0	24.0	H
4874.000	40.09	-26.3	34.0	32.44	74.0	33.9	H
7311.000	41.38	-25.0	35.6	30.79	74.0	32.6	H
9748.000	45.11	-24.1	37.1	32.11	74.0	28.9	H
12185.000	49.13	-22.5	38.9	32.75	74.0	24.9	H

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.810	64.66	3.4	32.0	29.26	74.0	9.3	H
2483.830	64.77	3.4	32.0	29.38	74.0	9.2	H
4924.000	40.88	-26.5	34.0	33.43	74.0	33.1	V
7386.000	43.20	-24.6	35.6	32.17	74.0	30.8	V
9848.000	45.64	-24.0	37.2	32.46	74.0	28.4	V
12310.000	48.94	-21.3	38.9	31.30	74.0	25.1	V

802.11n-HT40
Ch3

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2389.492	65.10	3.5	31.9	29.74	74.0	8.9	H
2389.716	65.97	3.5	31.9	30.61	74.0	8.0	H
4844.000	40.24	-26.2	33.9	32.53	74.0	33.8	V
7266.000	43.73	-24.4	35.6	32.48	74.0	30.3	V
9688.000	45.69	-24.1	37.0	32.79	74.0	28.3	H
12110.000	49.00	-22.1	38.9	32.22	74.0	25.0	H

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2347.800	48.37	-31.6	31.8	48.10	74.0	25.6	H
2503.200	50.13	-29.9	32.0	48.07	74.0	23.9	H
4874.000	39.97	-26.3	34.0	32.32	74.0	34.0	H
7311.000	42.47	-25.0	35.6	31.88	74.0	31.5	H
9748.000	46.49	-24.1	37.1	33.49	74.0	27.5	H
12185.000	49.63	-22.5	38.9	33.25	74.0	24.4	V

Ch9

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.790	69.42	3.4	32.0	34.03	74.0	4.6	H
2484.975	69.70	3.4	32.0	34.31	74.0	4.3	H
4904.000	41.68	-26.4	34.0	34.07	74.0	32.3	H
7356.000	43.72	-24.6	35.6	32.74	74.0	30.3	H
9808.000	46.06	-23.9	37.2	32.76	74.0	27.9	H
12260.000	49.42	-21.5	38.9	32.01	74.0	24.6	V

Average
802.11b

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2389.268	47.00	3.5	31.9	11.64	54.0	7.0	H
2389.819	46.99	3.5	31.9	11.63	54.0	7.0	H
4824.000	29.27	-26.0	33.9	21.37	54.0	24.7	V
7236.000	31.95	-24.2	35.6	20.55	54.0	22.0	V
9648.000	33.46	-24.3	37.0	20.77	54.0	20.5	H
12060.000	36.82	-22.4	38.9	20.33	54.0	17.2	V

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2408.650	48.05	3.4	31.9	12.76	54.0	6.0	H
2469.426	47.74	3.5	32.0	12.27	54.0	6.3	H
4874.250	29.15	-26.3	34.0	21.50	54.0	24.8	V
7311.000	31.07	-25.0	35.6	20.48	54.0	22.9	V
9747.750	34.00	-24.1	37.1	21.01	54.0	20.0	V
12185.250	36.92	-22.5	38.9	20.54	54.0	17.1	V

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.660	47.05	3.4	32.0	11.65	54.0	6.9	H
2484.002	47.09	3.4	32.0	11.70	54.0	6.9	H
4923.750	29.63	-26.5	34.0	22.18	54.0	24.4	V
7386.000	32.17	-24.6	35.6	21.13	54.0	21.8	H
9848.250	34.08	-24.0	37.2	20.91	54.0	19.9	H
12309.750	37.53	-21.3	38.9	19.90	54.0	16.5	H

802.11g

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2389.876	47.99	3.5	31.9	12.63	54.0	6.0	H
2389.990	48.04	3.5	31.9	12.68	54.0	6.0	H
4824.000	29.61	-26.0	33.9	21.70	54.0	24.4	V
7236.000	32.49	-24.2	35.6	21.09	54.0	21.5	H
9648.000	33.85	-24.3	37.0	21.17	54.0	20.1	V
12060.000	37.25	-22.4	38.9	20.76	54.0	16.8	V

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2403.870	48.29	3.4	31.9	13.02	54.0	5.7	H
2463.539	49.63	3.5	32.0	14.20	54.0	4.4	H
4874.250	29.53	-26.3	34.0	21.88	54.0	24.5	V
7311.000	31.48	-25.0	35.6	20.89	54.0	22.5	H
9747.750	34.36	-24.1	37.1	21.37	54.0	19.6	H
12185.250	37.20	-22.5	38.9	20.82	54.0	16.8	H

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.565	48.38	3.4	32.0	12.99	54.0	5.6	H
2484.857	48.35	3.4	32.0	12.96	54.0	5.7	H
4923.750	30.11	-26.5	34.0	22.66	54.0	23.9	V
7386.000	32.49	-24.6	35.6	21.45	54.0	21.5	H
9848.250	34.43	-24.0	37.2	21.25	54.0	19.6	H
12309.750	37.71	-21.3	38.9	20.08	54.0	16.3	V

802.11n-HT20

Ch1

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2389.800	47.86	3.5	31.9	12.50	54.0	6.1	H
2389.990	47.88	3.5	31.9	12.52	54.0	6.1	H
4824.000	29.86	-26.0	33.9	21.96	54.0	24.1	H
7236.000	32.68	-24.2	35.6	21.28	54.0	21.3	H
9648.000	34.22	-24.3	37.0	21.53	54.0	19.8	H
12060.000	37.51	-22.4	38.9	21.02	54.0	16.5	V

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2407.796	47.73	3.4	31.9	12.44	54.0	6.3	H
2461.503	49.66	3.5	32.0	14.24	54.0	4.3	H
4874.250	30.26	-26.3	34.0	22.61	54.0	23.7	H
7311.000	32.06	-25.0	35.6	21.47	54.0	21.9	H
9747.750	34.78	-24.1	37.1	21.79	54.0	19.2	V
12185.250	37.58	-22.5	38.9	21.20	54.0	16.4	H

Ch11

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.546	48.31	3.4	32.0	12.91	54.0	5.7	H
2483.831	48.27	3.4	32.0	12.88	54.0	5.7	H
4923.750	30.36	-26.5	34.0	22.91	54.0	23.6	V
7386.000	32.66	-24.6	35.6	21.62	54.0	21.3	V
9848.250	34.71	-24.0	37.2	21.53	54.0	19.3	H
12309.750	38.02	-21.3	38.9	20.39	54.0	16.0	V

802.11n-HT40
Ch3

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2389.857	48.98	3.5	31.9	13.62	54.0	5.0	H
2389.990	49.02	3.5	31.9	13.66	54.0	5.0	H
4844.250	30.45	-26.2	33.9	22.74	54.0	23.6	V
7266.000	33.09	-24.4	35.6	21.84	54.0	20.9	H
9687.750	34.70	-24.1	37.0	21.80	54.0	19.3	H
12110.250	37.99	-22.1	38.9	21.21	54.0	16.0	V

Ch6

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2395.443	48.83	3.4	31.9	13.54	54.0	5.2	H
2477.086	49.52	3.5	32.0	14.08	54.0	4.5	H
4874.250	30.32	-26.3	34.0	22.67	54.0	23.7	H
7311.000	32.20	-25.0	35.6	21.62	54.0	21.8	H
9747.750	35.14	-24.1	37.1	22.15	54.0	18.9	V
12185.250	37.82	-22.5	38.9	21.44	54.0	16.2	V

Ch9

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.774	50.33	3.4	32.0	14.93	54.0	3.7	H
2484.059	50.28	3.4	32.0	14.89	54.0	3.7	H
4904.250	31.07	-26.4	34.0	23.45	54.0	22.9	V
7356.000	33.15	-24.6	35.6	22.18	54.0	20.8	H
9807.750	35.09	-23.9	37.2	21.79	54.0	18.9	H
12260.250	38.38	-21.5	38.9	20.96	54.0	15.6	H

Test graphs as below:

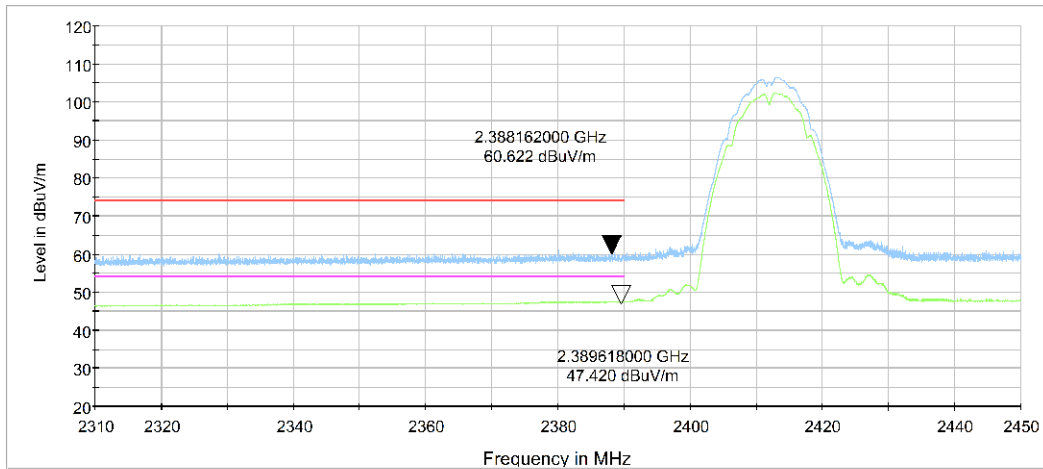


Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz – 2.45GHz

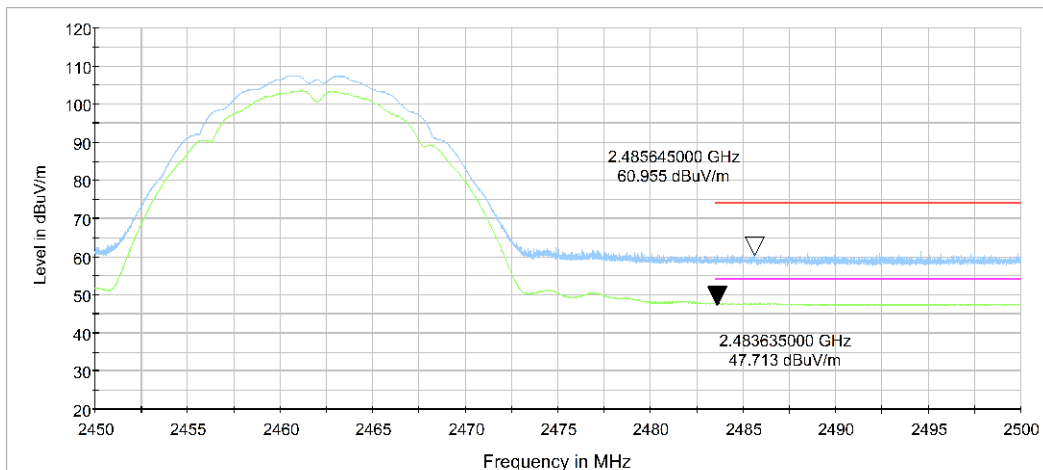


Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

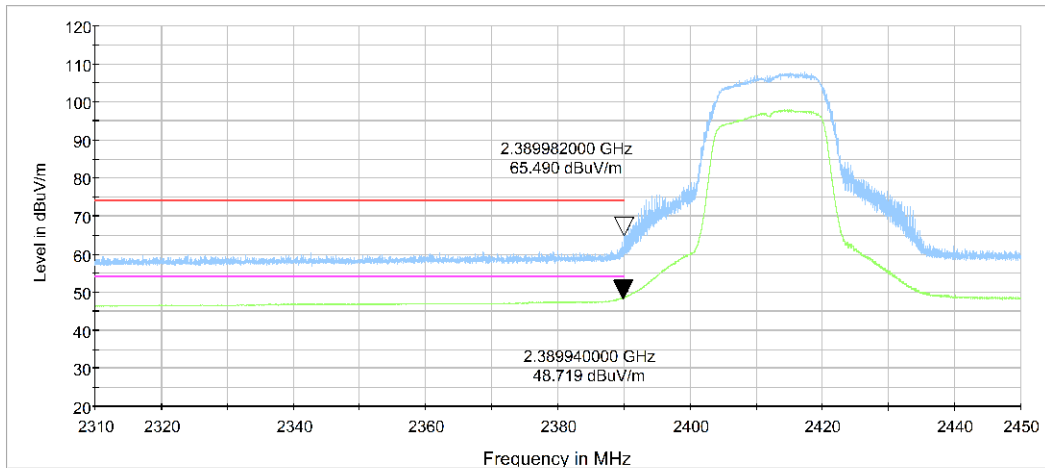


Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31 GHz - 2.45GHz

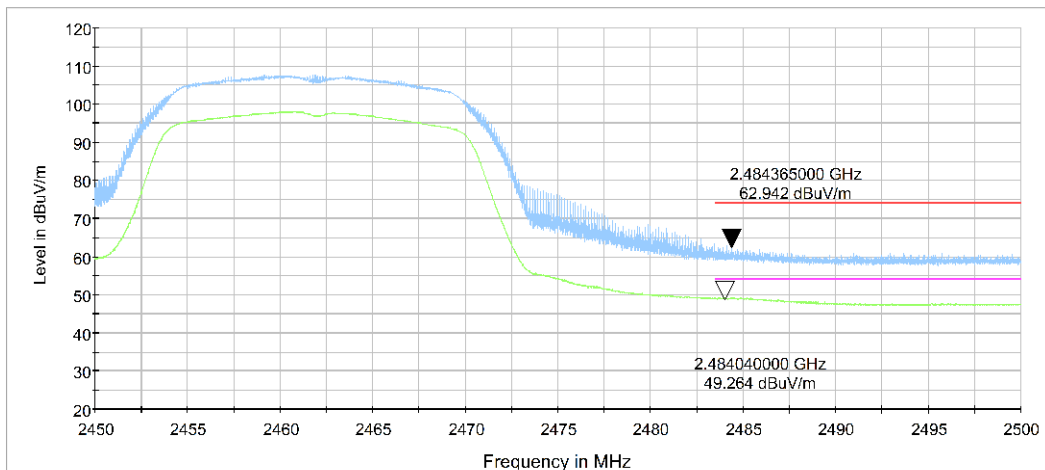


Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

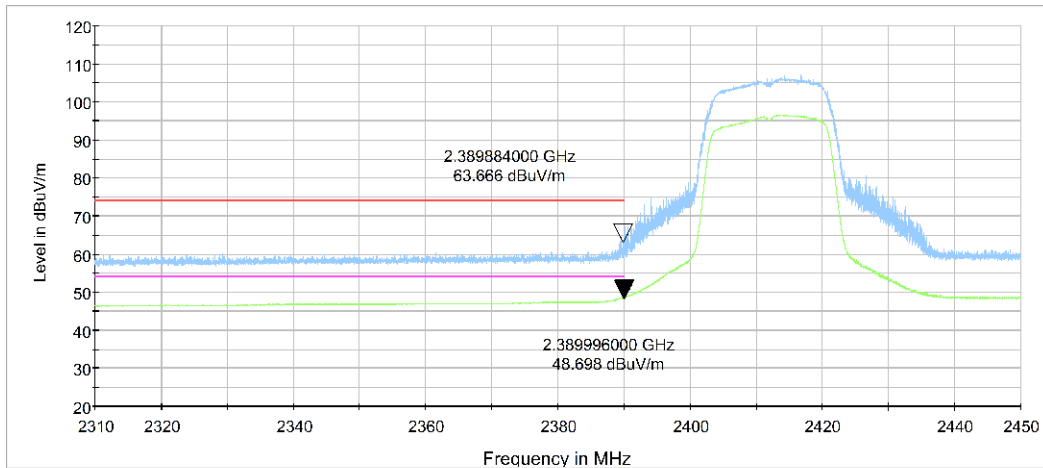


Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.31 GHz - 2.45GHz

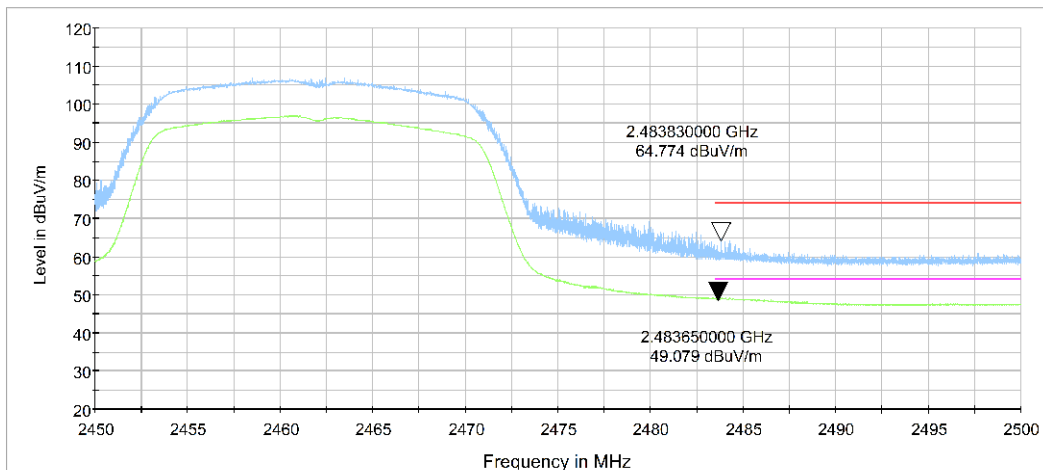


Fig.A.6.2.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

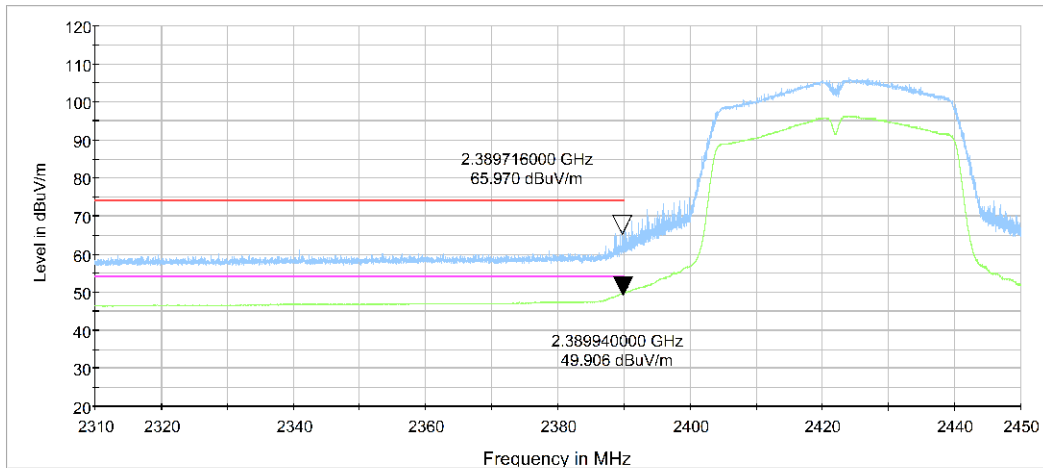


Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.31 GHz - 2.45GHz

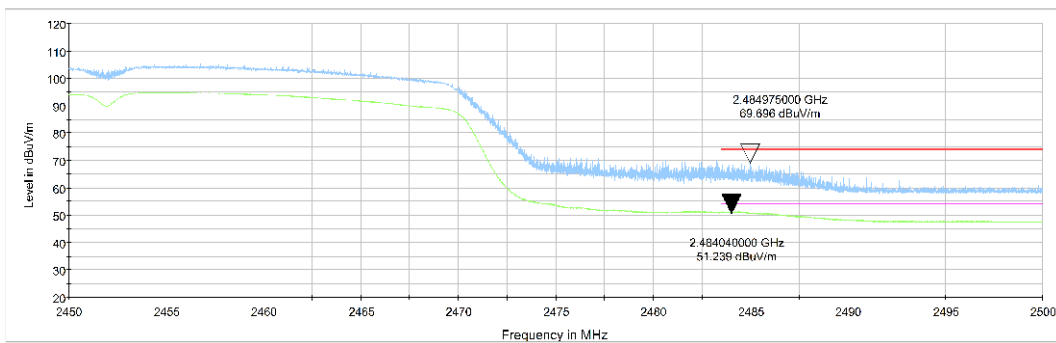


Fig.A.6.2.8 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

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 AE1-3		
		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 AE1-3		
		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:

Measurement results for Set.1:

Result for Traffic:

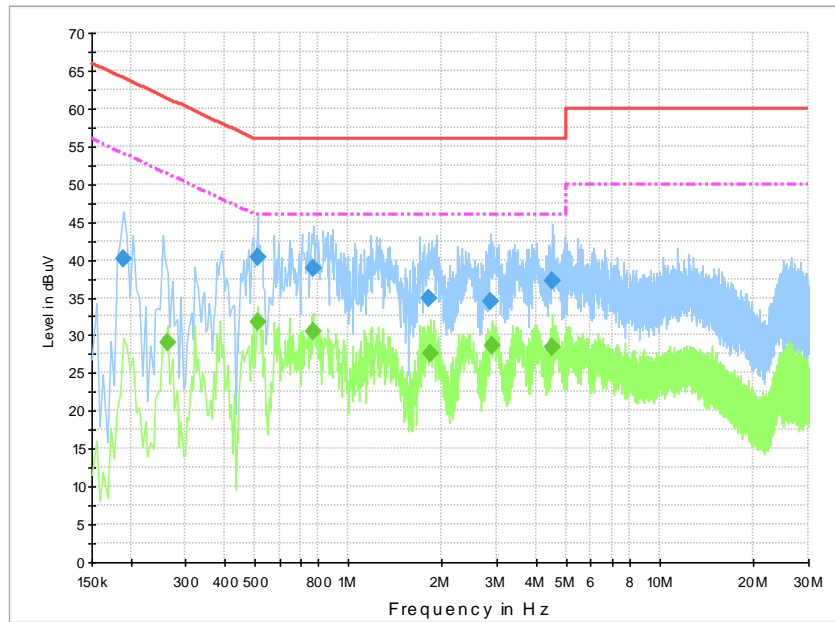


Fig.A.7.1 AC Powerline Conducted Emission-802.11b

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)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.190500	40.2	5000.0	9.000	On	L1	20.0	23.8	64.0
0.510000	40.4	5000.0	9.000	On	L1	19.9	15.6	56.0
0.775500	38.8	5000.0	9.000	On	L1	19.8	17.2	56.0
1.801500	34.8	5000.0	9.000	On	N	19.7	21.2	56.0
2.872500	34.5	5000.0	9.000	On	N	19.6	21.5	56.0
4.519500	37.2	5000.0	9.000	On	L1	19.6	18.8	56.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.262500	29.1	5000.0	9.000	On	L1	19.8	22.3	51.4
0.510000	31.7	5000.0	9.000	On	L1	19.9	14.3	46.0
0.771000	30.6	5000.0	9.000	On	L1	19.8	15.4	46.0
1.842000	27.7	5000.0	9.000	On	L1	19.7	18.3	46.0
2.890500	28.6	5000.0	9.000	On	L1	19.6	17.4	46.0
4.528500	28.4	5000.0	9.000	On	L1	19.6	17.6	46.0

Measurement results for Set.1:

Result for Idle:

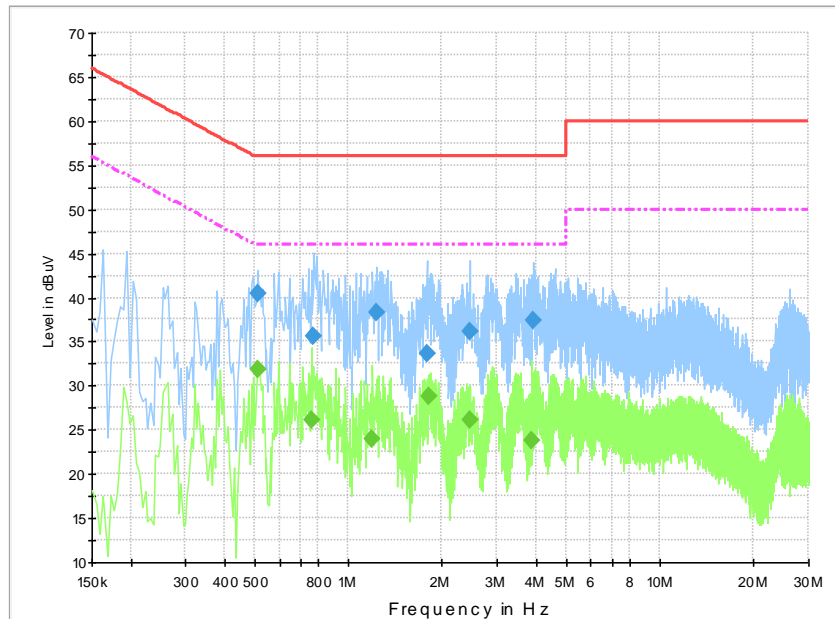


Fig.A.7.2 AC Powerline Conducted Emission-Idle

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)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.510000	40.4	5000.0	9.000	On	L1	19.9	15.6	56.0
0.775500	35.6	5000.0	9.000	On	N	19.8	20.4	56.0
1.225500	38.3	5000.0	9.000	On	L1	19.7	17.7	56.0
1.783500	33.7	5000.0	9.000	On	N	19.7	22.3	56.0
2.449500	36.2	5000.0	9.000	On	L1	19.6	19.8	56.0
3.939000	37.4	5000.0	9.000	On	L1	19.6	18.6	56.0

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.510000	31.8	5000.0	9.000	On	L1	19.9	14.2	46.0
0.762000	26.1	5000.0	9.000	On	N	19.8	19.9	46.0
1.194000	24.0	5000.0	9.000	On	N	19.7	22.0	46.0
1.801500	28.8	5000.0	9.000	On	L1	19.7	17.2	46.0
2.449500	26.1	5000.0	9.000	On	N	19.6	19.9	46.0
3.894000	23.9	5000.0	9.000	On	N	19.6	22.1	46.0

ANNEX B: EUT parameters

Disclaimer: The worse case provided by the client may affect the validity of the measurement results in this report, and the client shall bear the impact and consequences arising therefrom.

ANNEX C: Accreditation Certificate

United States Department of Commerce National Institute of Standards and Technology	
	
<hr/> Certificate of Accreditation to ISO/IEC 17025:2017 <hr/>	
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 17025:2017. 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>	
<hr/> 2021-09-29 through 2022-09-30 Effective Dates	 For the National Voluntary Laboratory Accreditation Program

END OF REPORT