

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

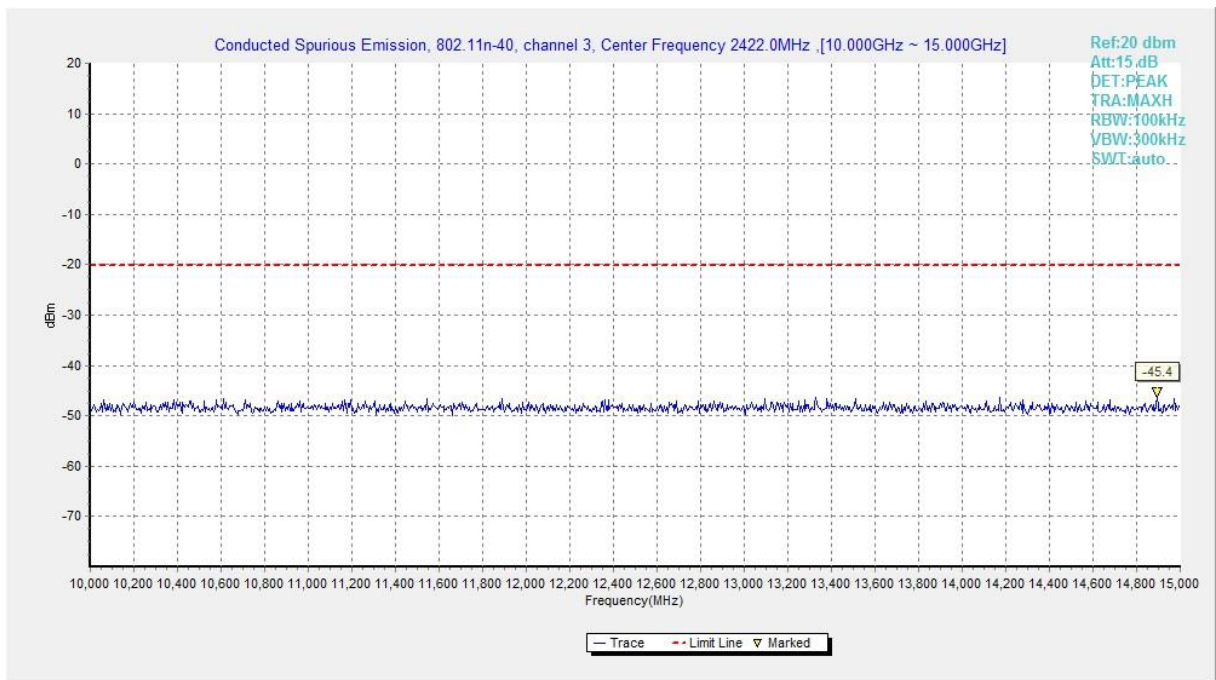


Fig.A.6.1.78 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 10 GHz-15 GHz)

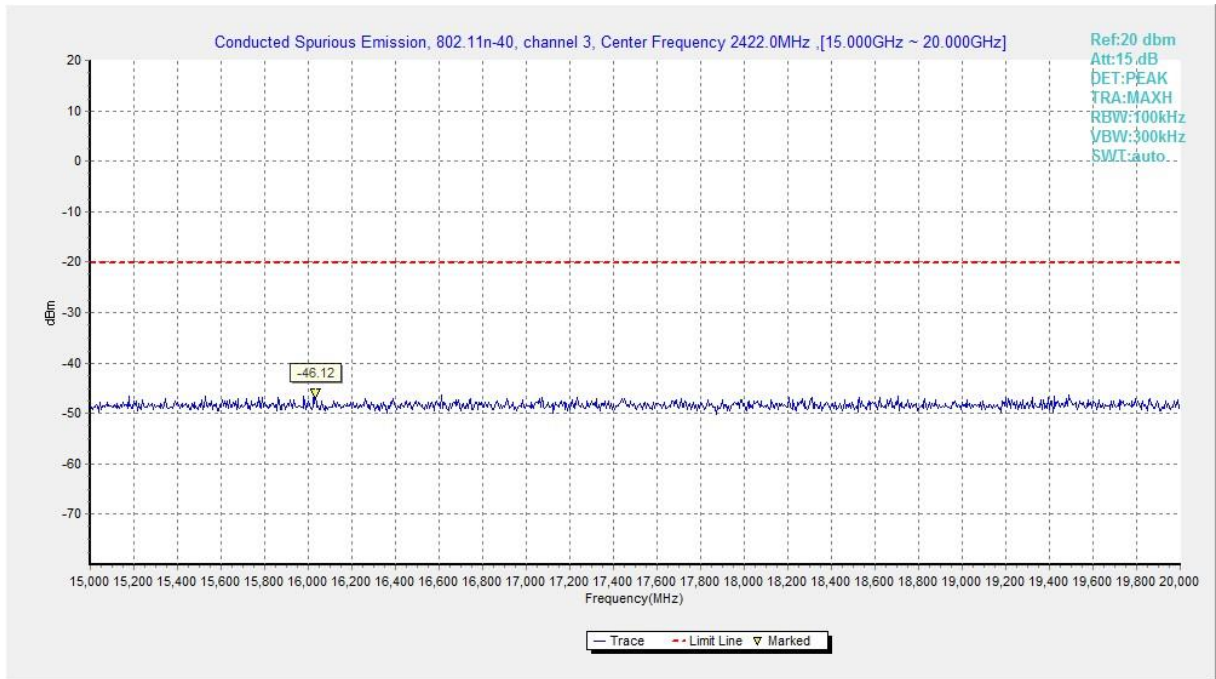


Fig.A.6.1.79 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 15 GHz-20 GHz)

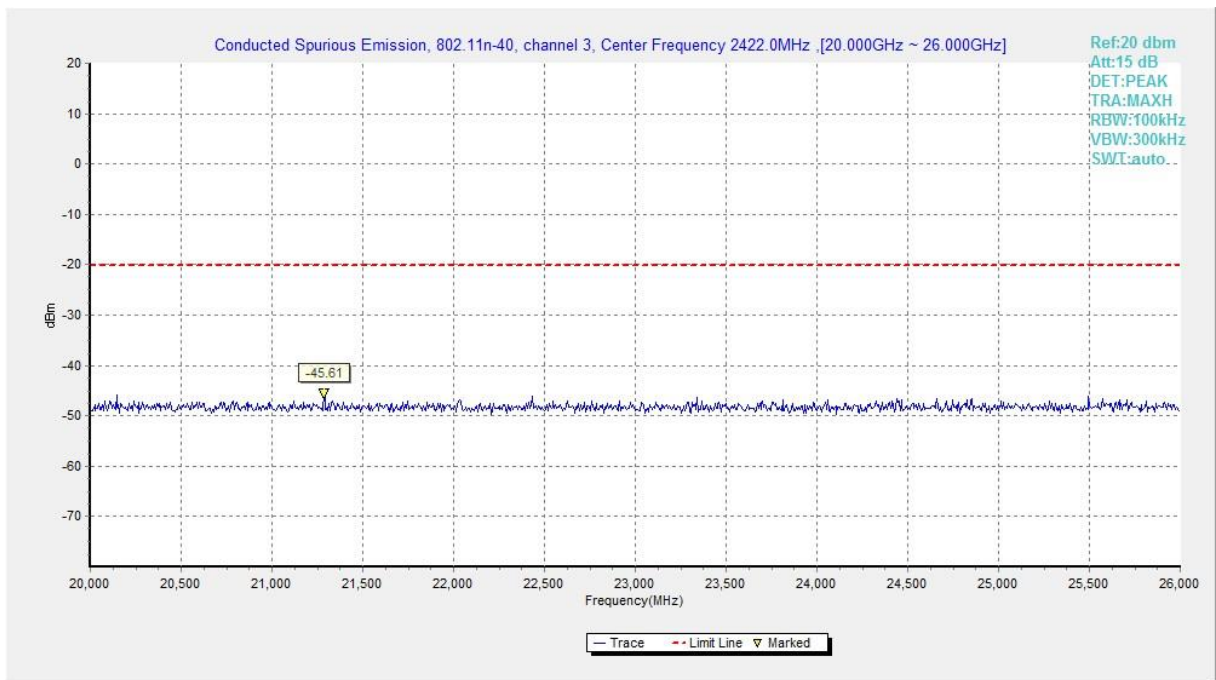


Fig.A.6.1.80 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 20 GHz-26 GHz)

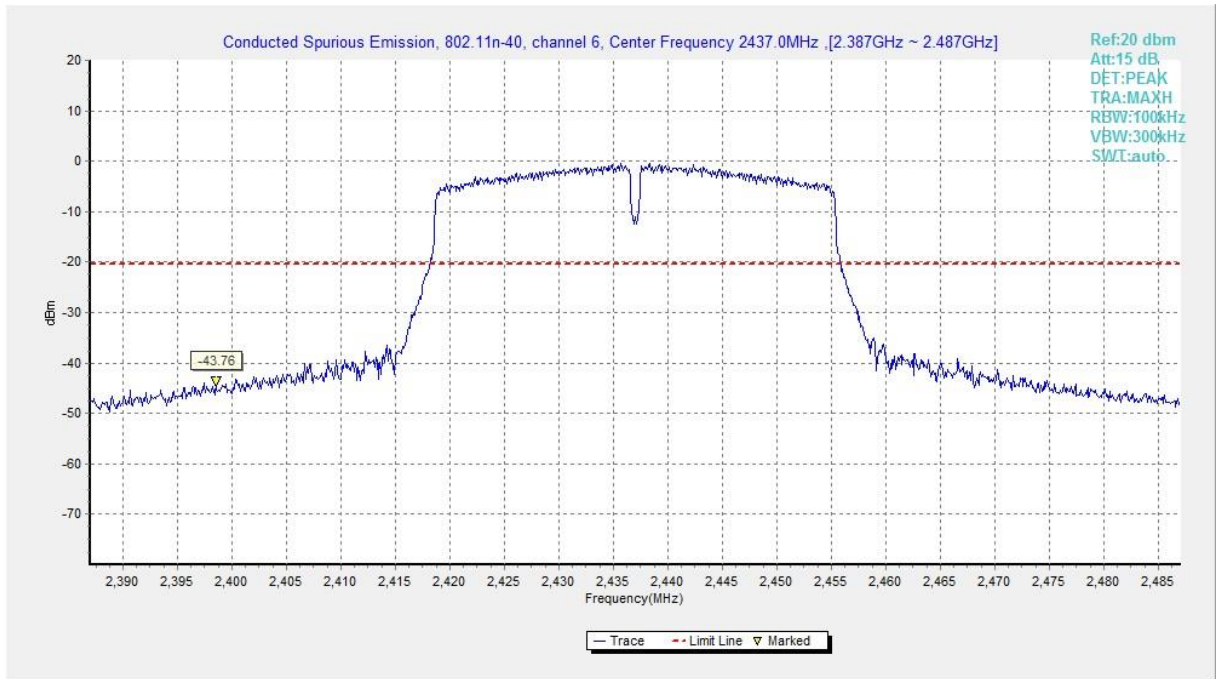


Fig.A.6.1.81 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, Center Frequency)

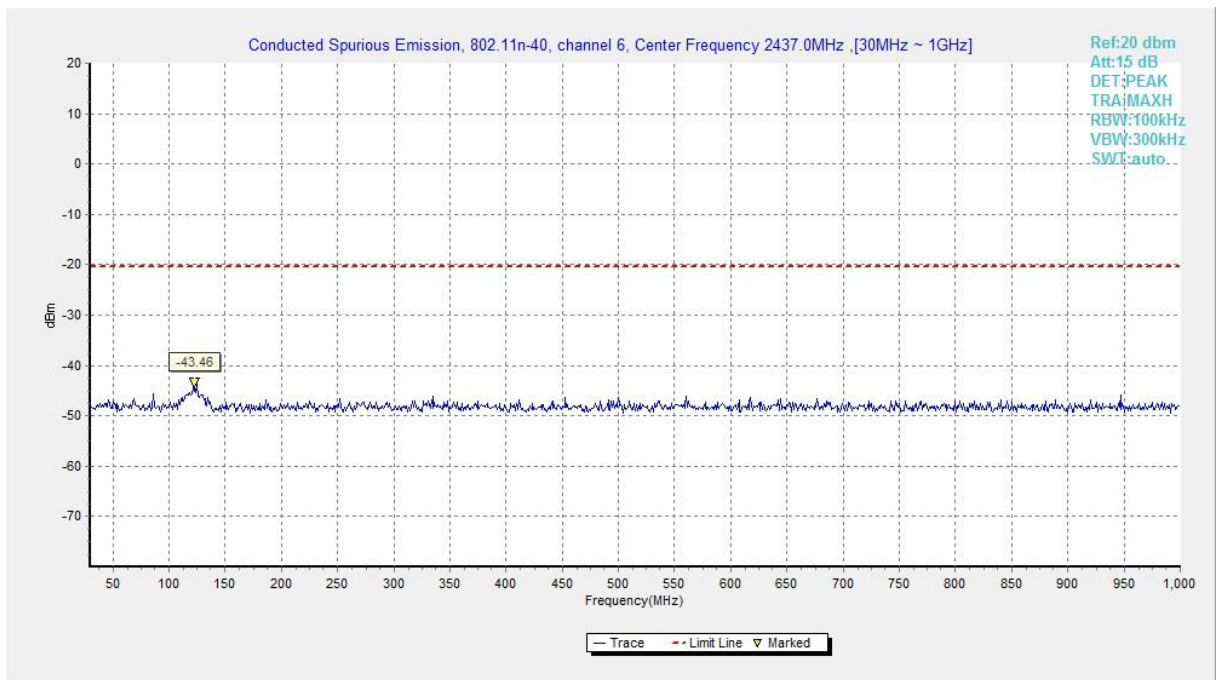


Fig.A.6.1.82 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 30 MHz-1 GHz)

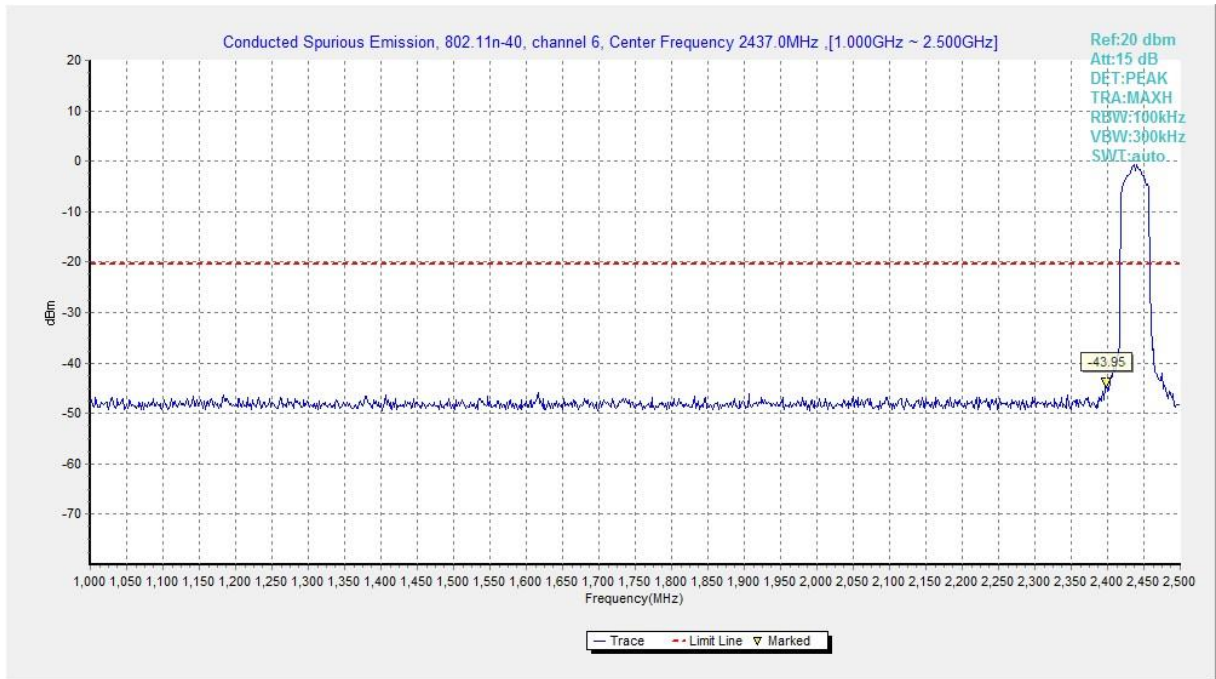


Fig.A.6.1.83 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)

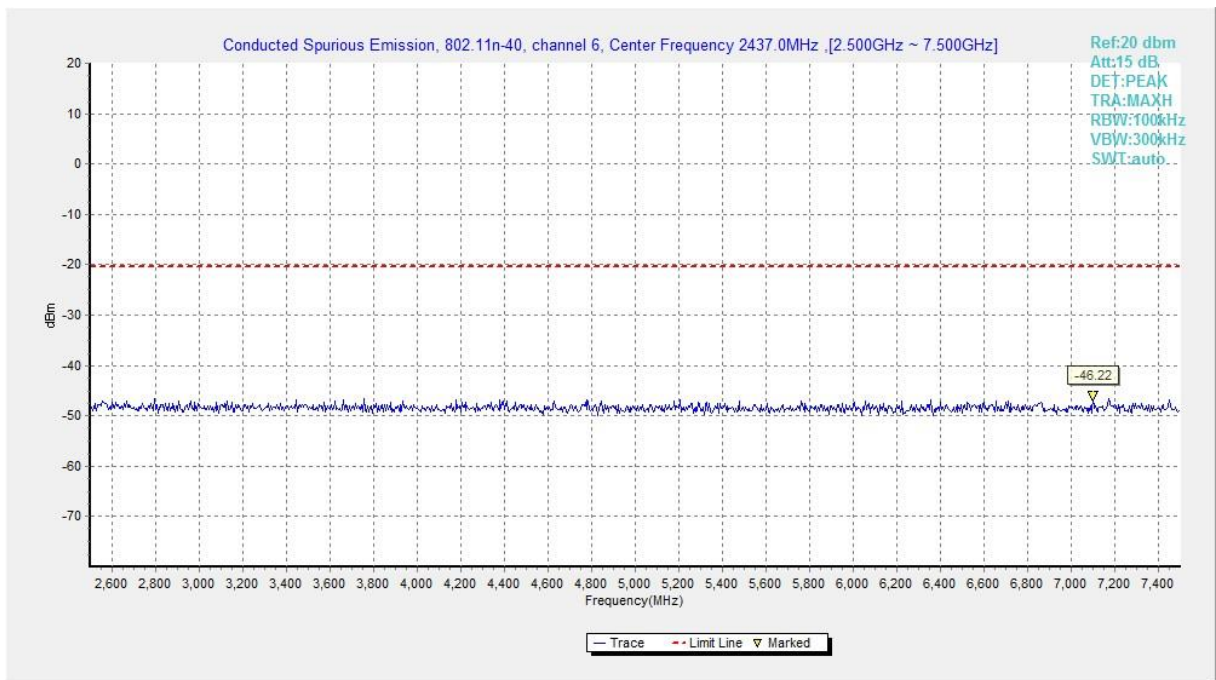


Fig.A.6.1.84 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)

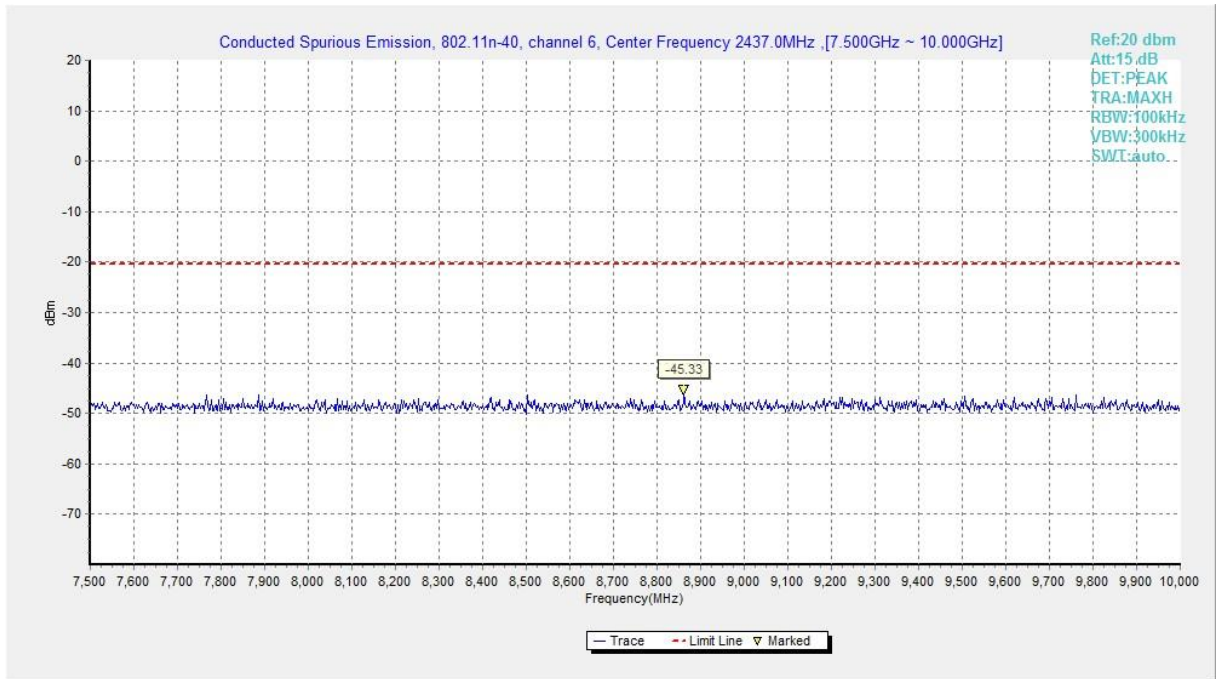


Fig.A.6.1.85 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)

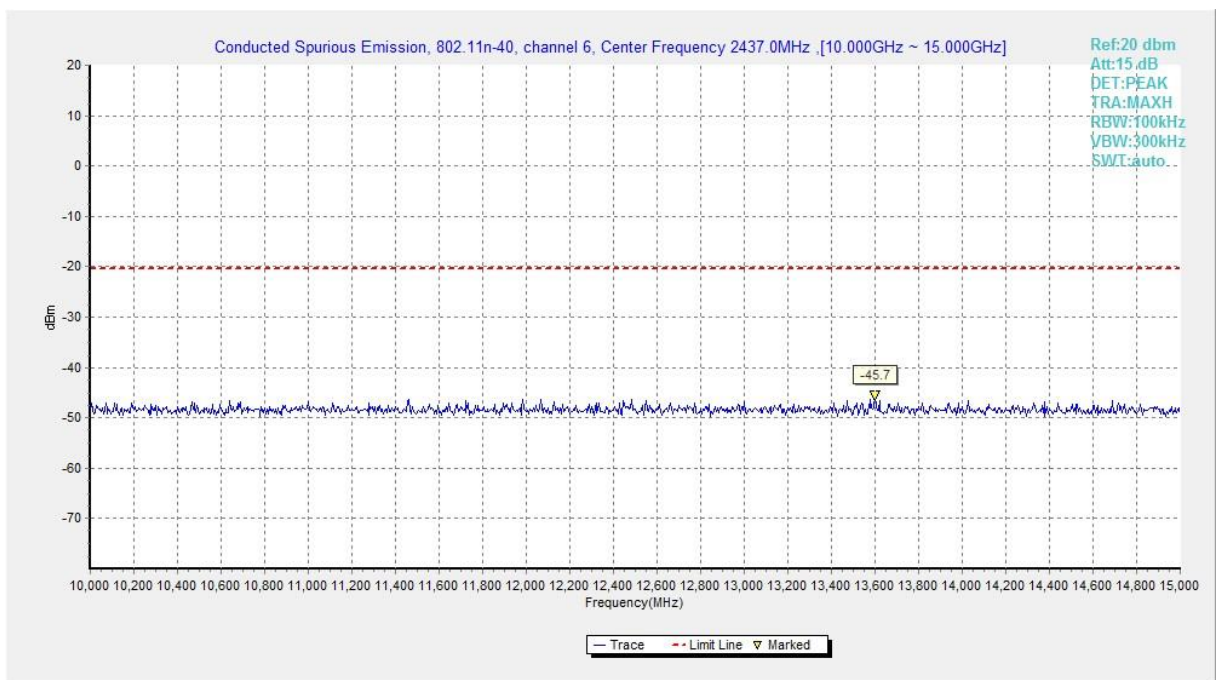


Fig.A.6.1.86 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 10 GHz-15 GHz)

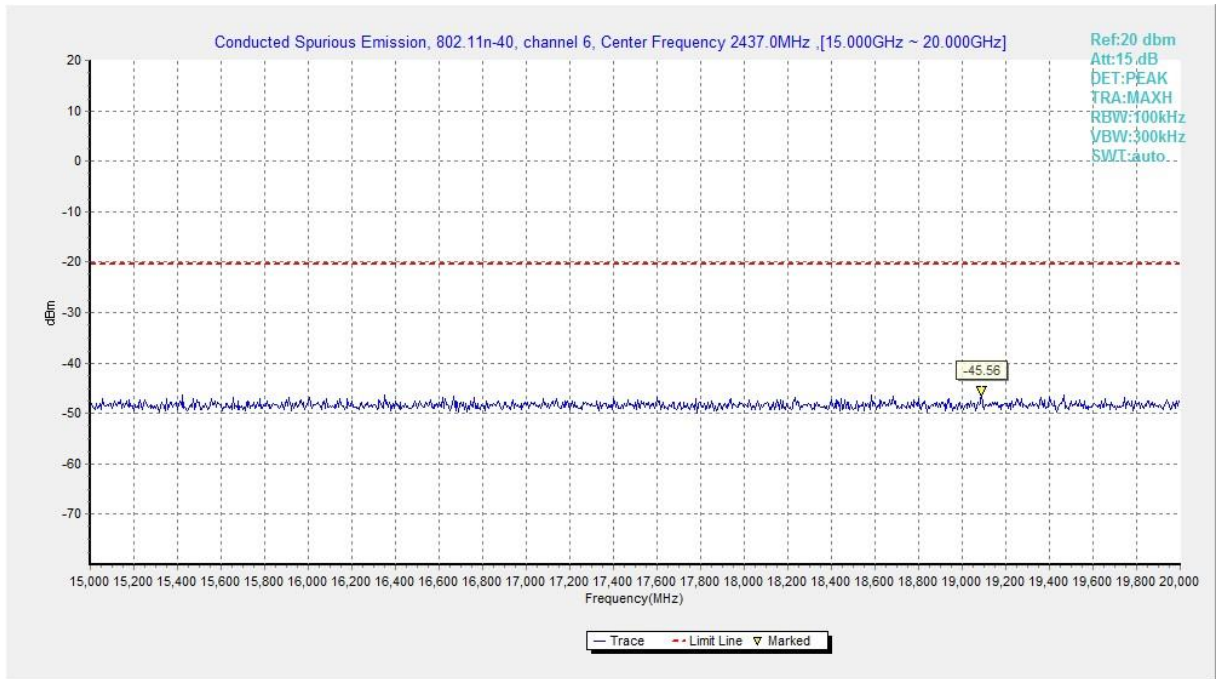


Fig.A.6.1.87 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 15 GHz-20 GHz)

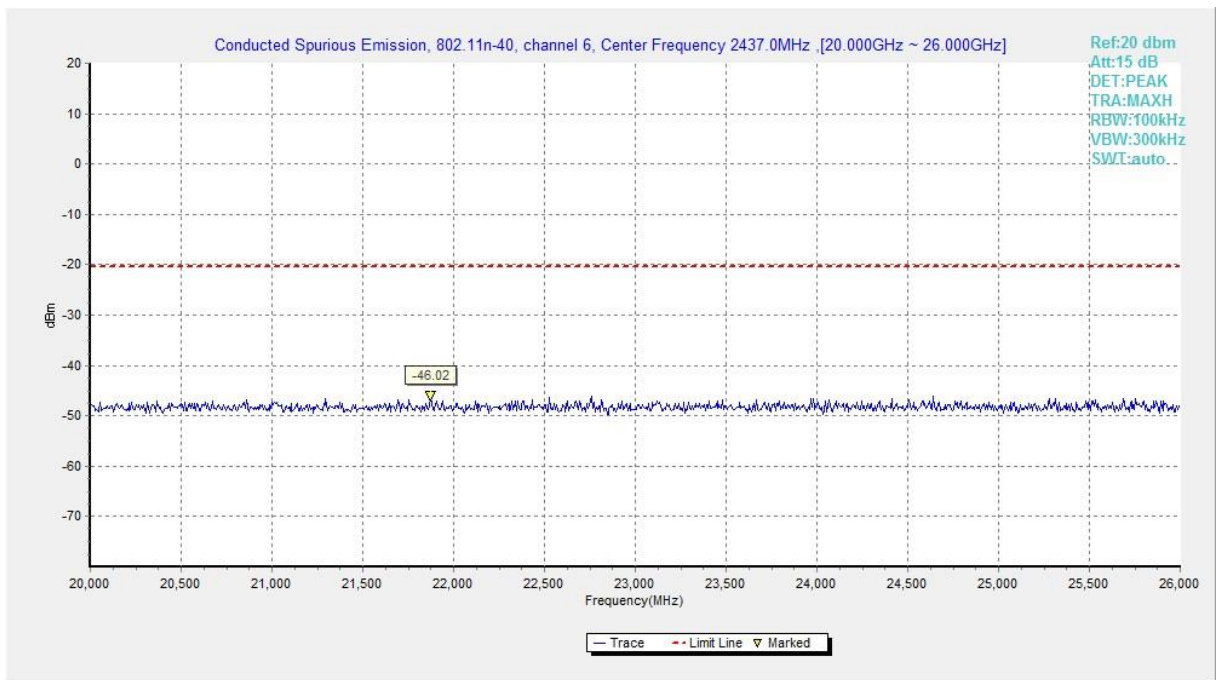


Fig.A.6.1.88 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 20 GHz-26 GHz)

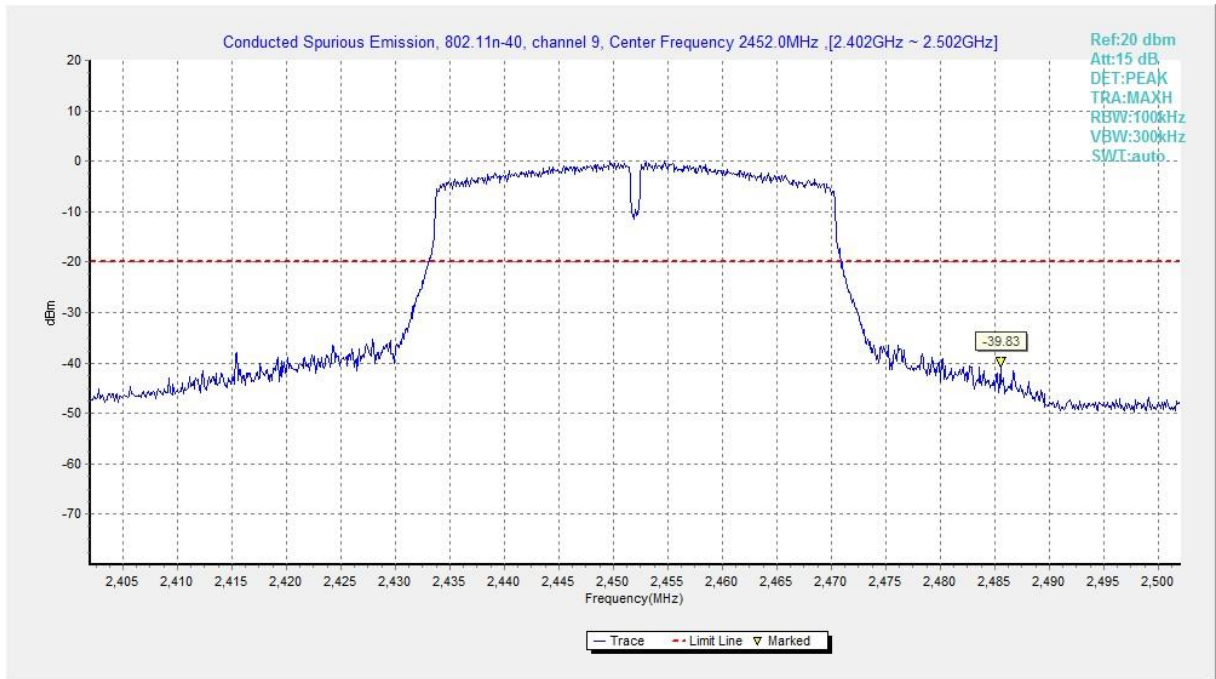


Fig.A.6.1.89 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, Center Frequency)

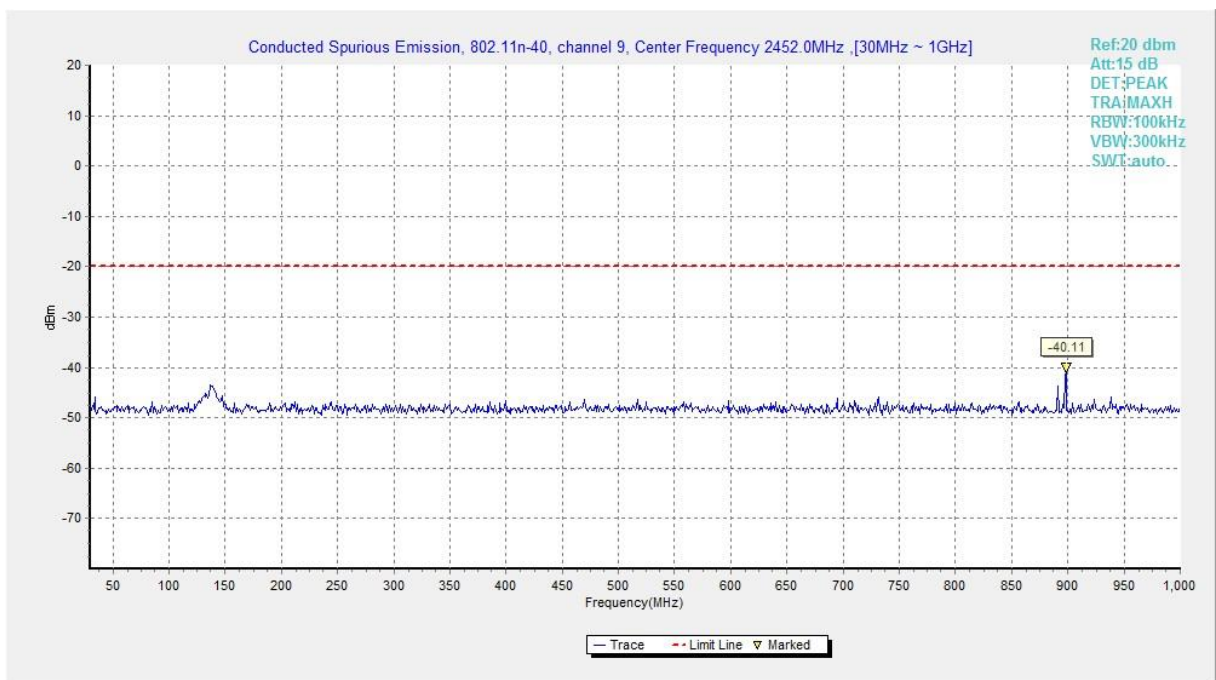


Fig.A.6.1.90 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 30 MHz-1 GHz)

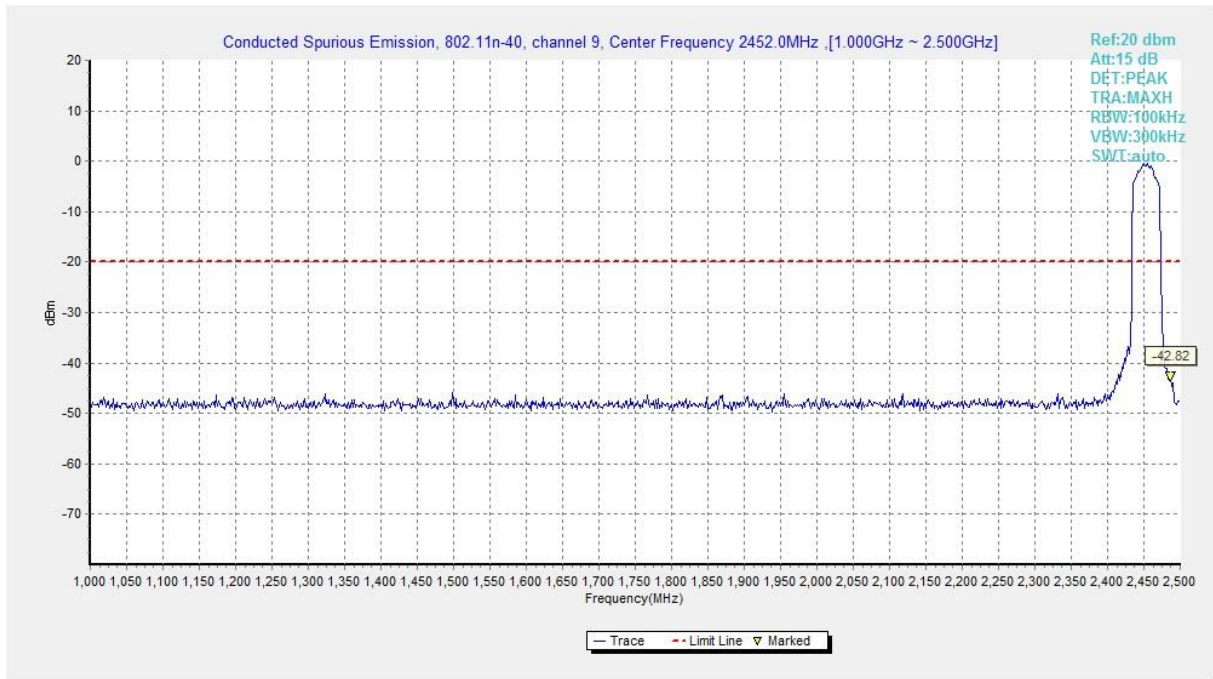


Fig.A.6.1.91 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

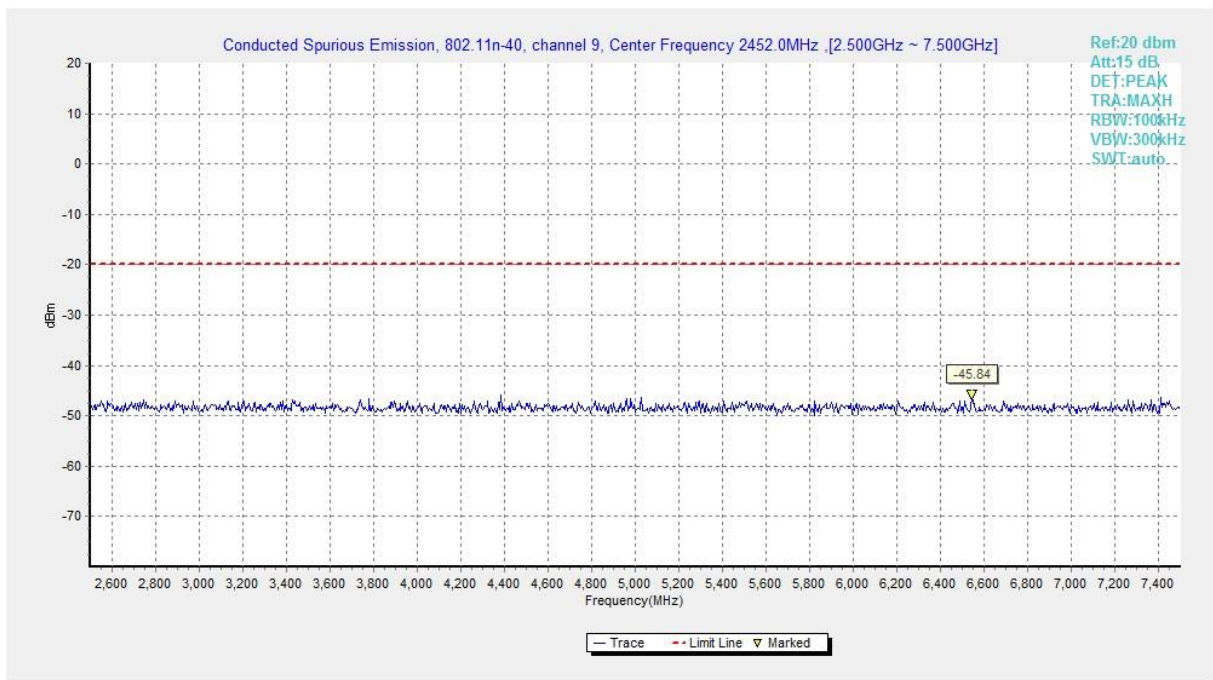


Fig.A.6.1.92 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)

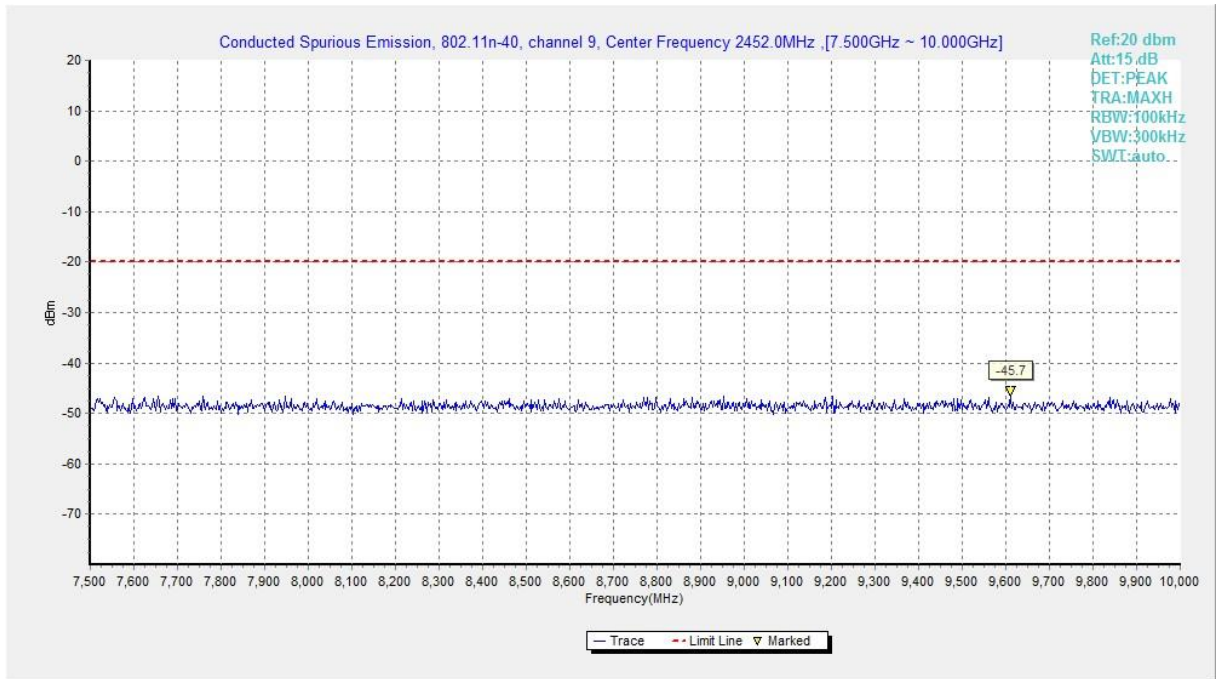


Fig.A.6.1.93 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

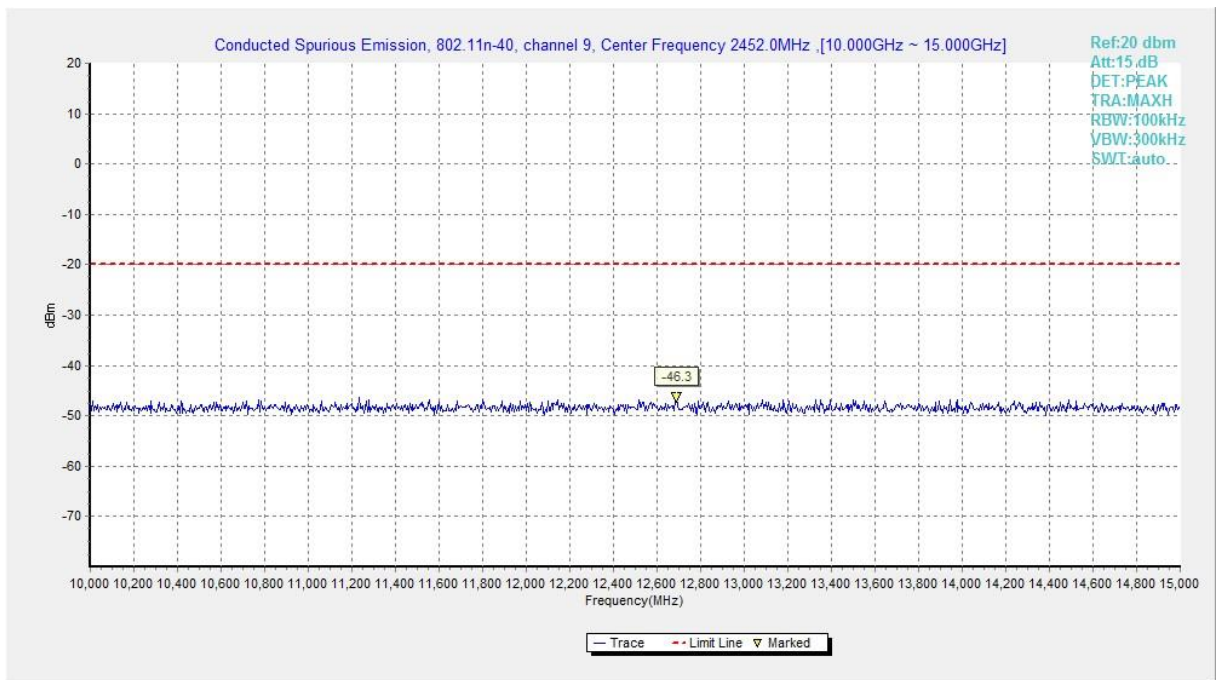


Fig.A.6.1.94 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 10 GHz-15 GHz)

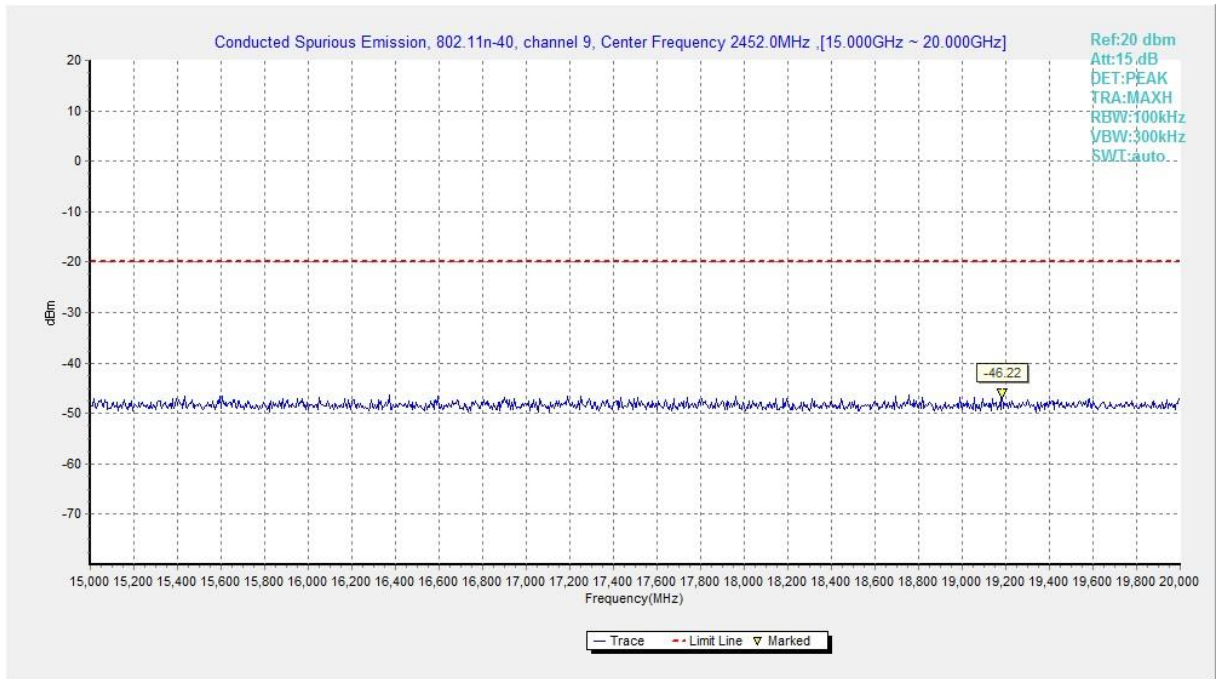


Fig.A.6.1.95 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 15 GHz-20 GHz)

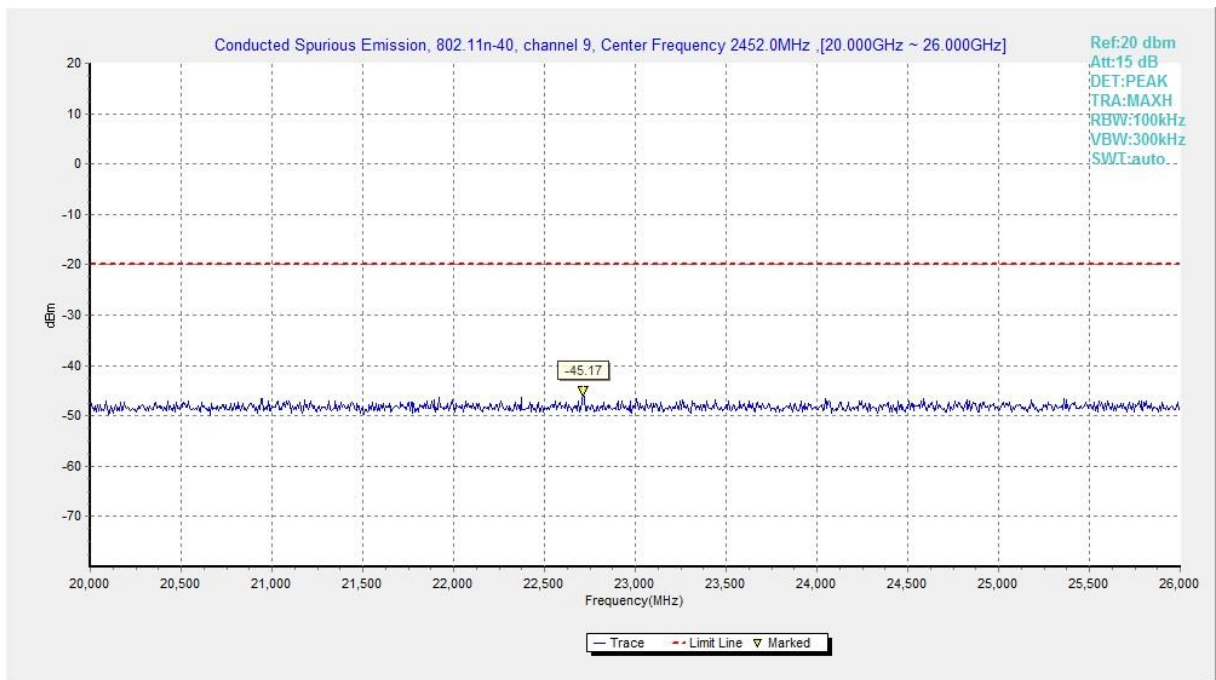


Fig.A.6.1.96 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 20 GHz-26 GHz)

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

Test Procedure

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: UT13a

Measurement results for Set.1:
802.11b mode

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

802.11g mode

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

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	1	2.31GHz~2.43GHz---L	Fig.A.6.2.5	P
	11	2.45GHz~2.50GHz---H	Fig.A.6.2.6	P

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT40)	3	2.31GHz~2.43GHz---L	Fig.A.6.2.7	P
	9	2.45GHz~2.50GHz---H	Fig.A.6.2.8	P

Conclusion: Pass
Note:

1. 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:

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

2. The range of evaluated frequency is from 9 kHz to 26GHz. Measurement value show only up to 6 maximum emissions noted.

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)
2378.95	59.71	2.86	31.99	24.86	74	14.29	V
2385.208	60.04	2.86	31.99	25.18	74	13.96	H
4824	39.06	-33.24	34.13	38.16	74	34.95	V
7236	40.24	-30.88	35.8	35.32	74	33.76	V
9648	42.4	-30.46	36.71	36.15	74	31.6	H
12060	43.2	-28.7	38.74	33.17	74	30.8	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)
2363.2	43.64	-34.75	31.97	46.42	74	30.36	H
2511.2	44.05	-34.27	32.12	46.2	74	29.95	H
4874	40.37	-33.3	34.15	39.52	74	33.63	V
7311	39.8	-30.82	35.83	34.79	74	34.2	V
9748	40.92	-30.33	36.85	34.4	74	33.08	V
12185	45.06	-28.11	38.81	34.35	74	28.94	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)
2483.825	60.02	2.93	32.09	25	74	13.98	V
2484.11	60.09	2.93	32.09	25.07	74	13.91	V
4924	37.87	-33.53	34.17	37.22	74	36.13	H
7386	39.7	-31.45	35.86	35.3	74	34.3	H
9848	40.31	-30.18	36.99	33.49	74	33.7	H
12310	43.46	-27.75	38.89	32.33	74	30.54	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)
2384.69	59.81	2.86	31.99	24.95	74	14.19	V
2389.59	60.08	2.87	32	25.21	74	13.92	H
4874	41.22	-33.3	34.15	40.37	74	32.78	V
7311	42.07	-30.82	35.83	37.06	74	31.93	H
9748	42.78	-30.33	36.85	36.26	74	31.22	H
12185	45.88	-28.11	38.81	35.17	74	28.12	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)
2365.6	43.23	-34.66	31.98	45.92	74	30.77	V
2514.2	43.79	-34.3	32.13	45.96	74	30.21	H
4874	39.99	-33.3	34.15	39.14	74	34.01	V
7311	41	-30.82	35.83	35.99	74	33	V
9748	42.4	-30.33	36.85	35.88	74	31.6	V
12185	45.2	-28.11	38.81	34.5	74	28.8	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)
2483.91	66.06	2.93	32.09	31.05	74	7.94	H
2484.09	64.86	2.93	32.09	29.85	74	9.14	V
4924	40.7	-33.53	34.17	40.06	74	33.3	V
7386	43.1	-31.45	35.86	38.7	74	30.9	H
9848	41.59	-30.18	36.99	34.78	74	32.41	V
12310	46.12	-27.75	38.89	34.98	74	27.88	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)
2389.576	62.96	2.87	32	28.09	74	11.04	H
2389.66	63.4	2.87	32	28.53	74	10.61	V
4824	38.73	-33.24	34.13	37.84	74	35.27	H
7236	40.99	-30.88	35.8	36.08	74	33.01	H
9648	41.79	-30.46	36.71	35.53	74	32.22	V
12060	44.6	-28.7	38.74	34.56	74	29.41	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)
2370.8	43.59	-34.46	31.98	46.07	74	30.41	V
2509.4	43.65	-34.25	32.12	45.79	74	30.35	H
4874	39.79	-33.3	34.15	38.94	74	34.21	V
7311	40.78	-30.82	35.83	35.77	74	33.22	V
9748	42.22	-30.33	36.85	35.7	74	31.78	V
12185	44.11	-28.11	38.81	33.41	74	29.89	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)
2483.68	47.68	2.93	32.09	12.66	74	26.32	H
2485.45	65	2.93	32.09	29.98	74	9	V
4924	38.48	-33.53	34.17	37.84	74	35.52	H
7386	41.42	-31.45	35.86	37.02	74	32.58	V
9848	42.51	-30.18	36.99	35.7	74	31.49	V
12310	43.89	-27.75	38.89	32.75	74	30.11	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)
2389.842	67.67	2.87	32	32.8	74	6.33	H
2389.926	67.65	2.87	32	32.78	74	6.35	V
4844	37.8	-33.23	34.14	36.89	74	36.2	V
7266	40.58	-30.6	35.81	35.37	74	33.42	H
9688	41.54	-30.37	36.77	35.14	74	32.46	H
12110	44.13	-28.47	38.77	33.83	74	29.87	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)
2367	44.11	-34.61	31.98	46.74	74	29.89	V
2513.6	44.01	-34.29	32.13	46.17	74	29.99	V
4874	39.83	-33.3	34.15	38.98	74	34.17	V
7311	39.58	-30.82	35.83	34.57	74	34.43	V
9748	42.79	-30.33	36.85	36.27	74	31.21	V
12185	44.94	-28.11	38.81	34.23	74	29.06	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)
2484.39	70.07	2.93	32.09	35.05	74	3.93	H
2484.61	70.07	2.93	32.09	35.05	74	3.93	H
4904	39.2	-33.42	34.16	38.46	74	34.8	H
7356	41.79	-31.17	35.84	37.12	74	32.21	V
9808	41.52	-30.32	36.94	34.9	74	32.49	H
12260	44.54	-27.88	38.86	33.56	74	29.46	H

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)
2387.34	46.24	2.86	32	11.38	54	7.76	V
2389.98	46.31	2.87	32	11.45	54	7.69	V
4824.4	26.21	-33.24	34.13	25.32	54	27.79	V
7236.4	28.22	-30.88	35.8	23.31	54	25.78	H
9648.4	29.89	-30.46	36.71	23.64	54	24.11	H
12060.4	31.74	-28.7	38.74	21.71	54	22.26	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)
2409.78	46.42	2.88	32.02	11.52	54	7.58	V
2459.7	46.46	2.91	32.06	11.48	54	7.54	V
4873.9	30.47	-33.3	34.15	29.62	54	23.53	V
7311.1	28.36	-30.82	35.83	23.35	54	25.64	V
9748.3	29.35	-30.33	36.85	22.82	54	24.66	H
12184.6	32.35	-28.11	38.81	21.65	54	21.65	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)
2483.76	46.43	2.93	32.09	11.41	54	7.57	V
2486.16	46.4	2.93	32.09	11.37	54	7.6	V
4924.3	28.62	-33.53	34.17	27.98	54	25.38	H
7385.8	27.99	-31.45	35.86	23.58	54	26.01	H
9848.2	29.53	-30.18	36.99	22.72	54	24.47	V
12309.7	32.2	-27.75	38.89	21.06	54	21.8	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)
2388.9	46.39	2.87	32	11.53	54	7.61	V
2389.62	46.45	2.87	32	11.59	54	7.55	V
4873.9	27.93	-33.3	34.15	27.08	54	26.07	V
7311.1	29.71	-30.82	35.83	24.7	54	24.29	H
9748.3	30.57	-30.33	36.85	24.05	54	23.43	H
12184.6	33.55	-28.11	38.81	22.84	54	20.45	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)
2413.62	46.63	2.88	32.02	11.72	54	7.37	V
2455.86	46.89	2.91	32.06	11.92	54	7.11	V
4873.9	28.1	-33.3	34.15	27.25	54	25.9	V
7311.1	29.8	-30.82	35.83	24.79	54	24.2	H
9748.3	30.72	-30.33	36.85	24.2	54	23.28	H
12184.6	33.6	-28.11	38.81	22.9	54	20.4	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)
2483.52	46.99	2.93	32.09	11.97	54	7.01	V
2484.12	46.98	2.93	32.09	11.96	54	7.02	V
4924.3	28.18	-33.53	34.17	27.54	54	25.82	H
7385.8	29.29	-31.45	35.86	24.88	54	24.71	V
9848.2	30.53	-30.18	36.99	23.71	54	23.47	H
12309.7	33.21	-27.75	38.89	22.08	54	20.79	H

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)
2388.96	46.33	2.87	32	11.47	54	7.67	V
2389.92	46.44	2.87	32	11.57	54	7.56	V
4824.4	28.07	-33.24	34.13	27.17	54	25.93	H
7236.4	29.97	-30.88	35.8	25.05	54	24.03	V
9648.4	30.55	-30.46	36.71	24.29	54	23.45	H
12060.4	33.18	-28.7	38.74	23.15	54	20.82	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)
2417.34	47.11	2.88	32.02	12.2	54	6.9	V
2455.44	47.03	2.91	32.06	12.06	54	6.97	V
4873.9	28.06	-33.3	34.15	27.2	54	25.95	V
7311.1	29.7	-30.82	35.83	24.69	54	24.3	V
9748.3	30.64	-30.33	36.85	24.12	54	23.36	V
12184.6	33.52	-28.11	38.81	22.81	54	20.49	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)
2483.58	46.66	2.93	32.09	11.64	54	7.34	V
2484.18	46.65	2.93	32.09	11.63	54	7.35	V
4924.3	28.16	-33.53	34.17	27.52	54	25.84	V
7385.8	29.25	-31.45	35.86	24.85	54	24.75	H
9848.2	30.47	-30.18	36.99	23.66	54	23.53	V
12309.7	33.21	-27.75	38.89	22.07	54	20.8	H

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)
2389.08	46.46	2.87	32	11.6	54	7.54	V
2389.68	46.49	2.87	32	11.63	54	7.51	V
4844.2	27.76	-33.23	34.14	26.85	54	26.24	H
7266.1	29.64	-30.6	35.81	24.43	54	24.36	V
9688	29.95	-30.37	36.77	23.55	54	24.05	H
12109.9	32.72	-28.47	38.77	22.42	54	21.28	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)
2401.92	47.26	2.87	32.01	12.38	54	6.74	V
2464.08	47.56	2.92	32.07	12.57	54	6.44	V
4873.9	27.95	-33.3	34.15	27.09	54	26.06	H
7311.1	29.67	-30.82	35.83	24.66	54	24.33	V
9748.3	30.45	-30.33	36.85	23.93	54	23.55	V
12184.6	33.32	-28.11	38.81	22.61	54	20.69	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)
2483.52	46.66	2.93	32.09	11.64	54	7.34	V
2484.3	46.69	2.93	32.09	11.67	54	7.31	V
4903.6	28.4	-33.42	34.16	27.65	54	25.61	V
7356.1	29.84	-31.17	35.84	25.17	54	24.16	H
9807.7	30.1	-30.33	36.94	23.49	54	23.9	V
12260.2	32.84	-27.88	38.86	21.86	54	21.16	V

Test graphs as below:

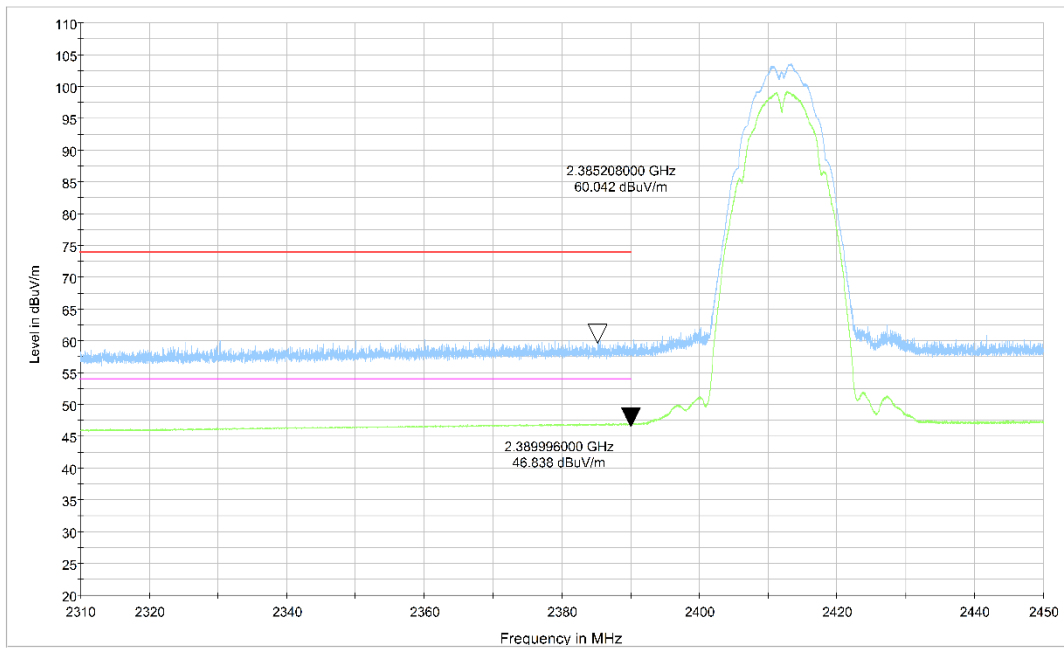


Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz – 2.45GHz

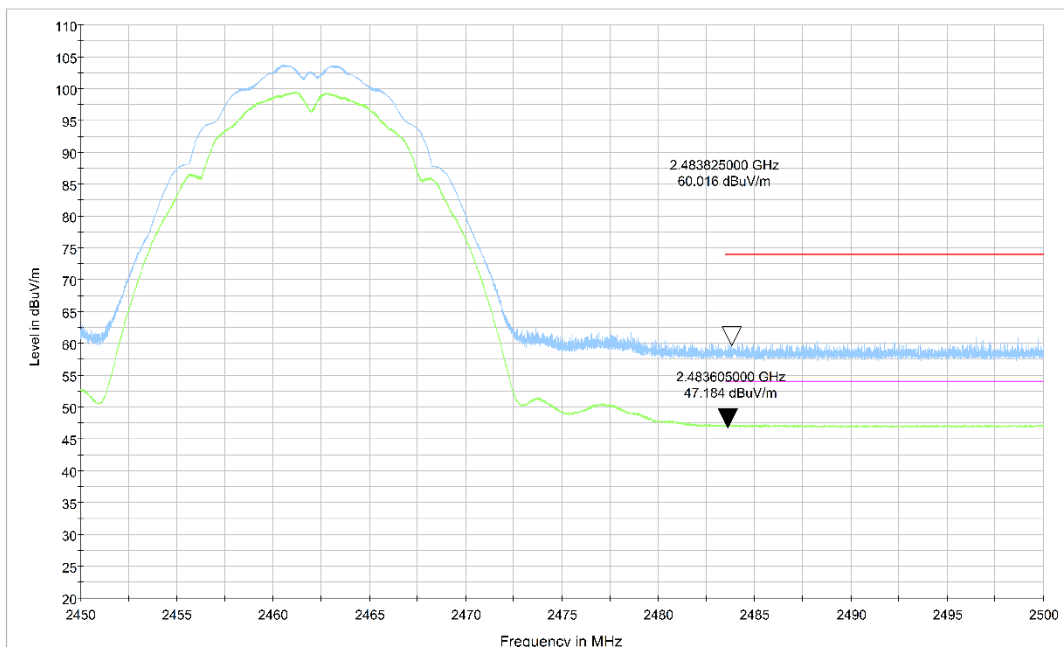


Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

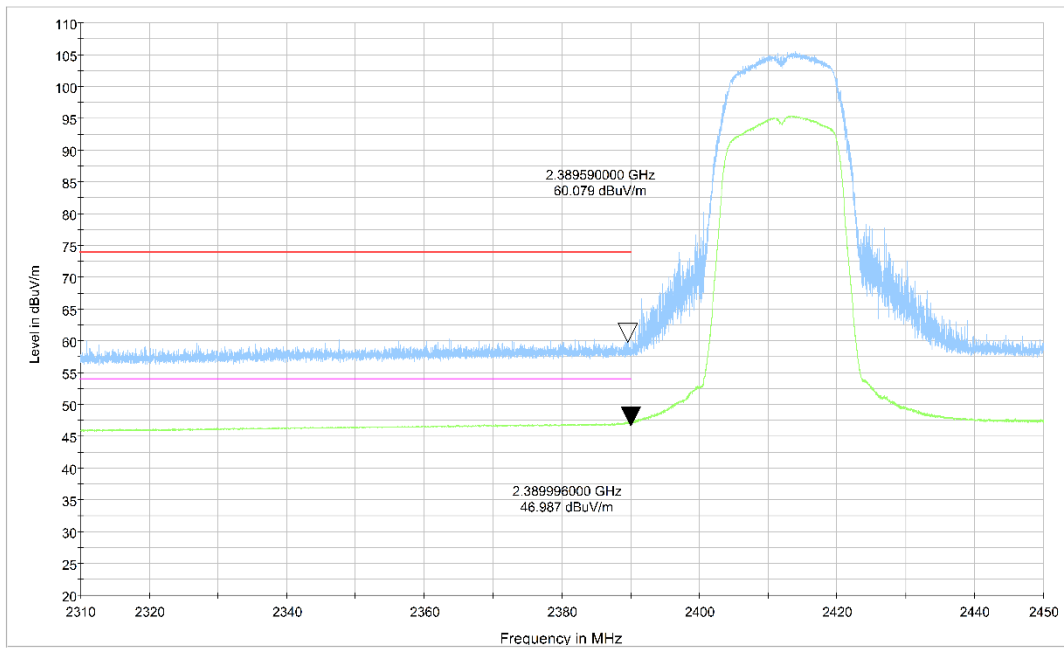


Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31 GHz - 2.45GHz

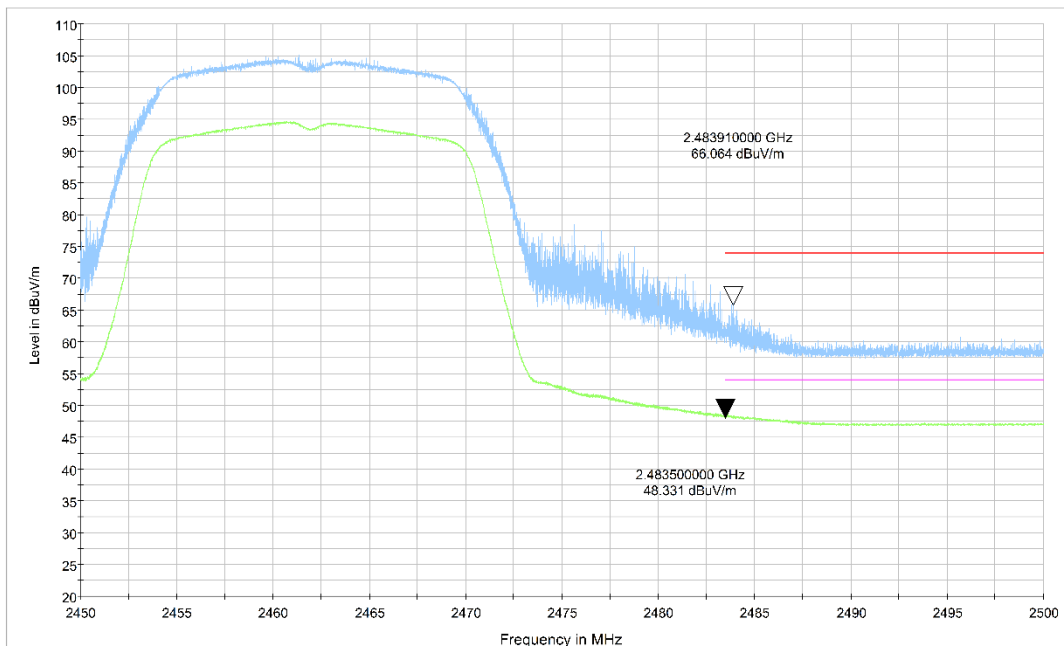


Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

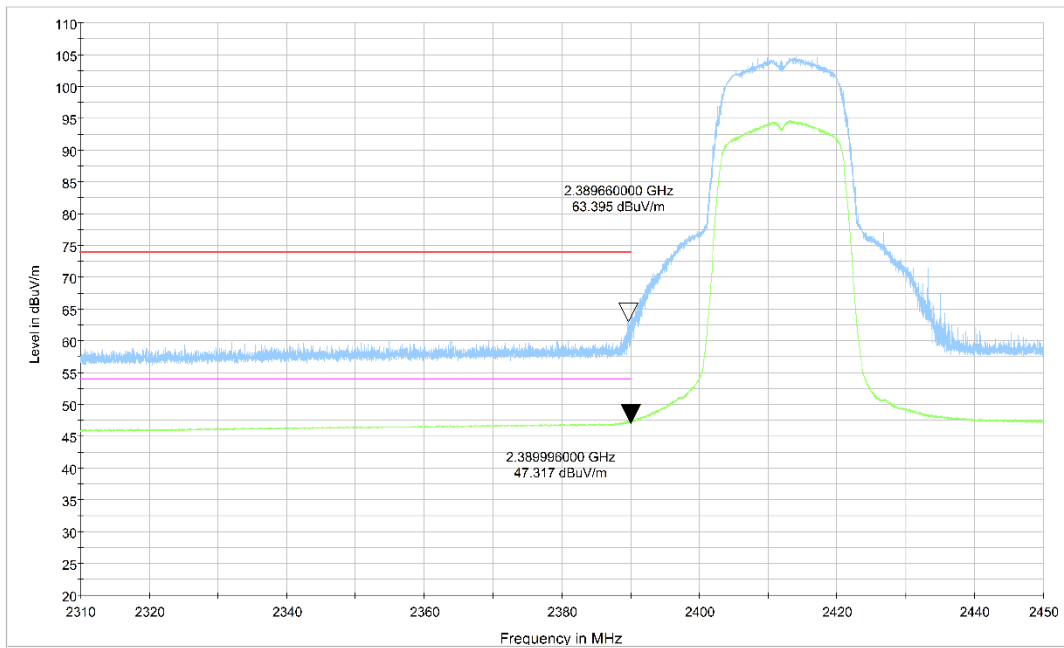


Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.31 GHz - 2.45GHz

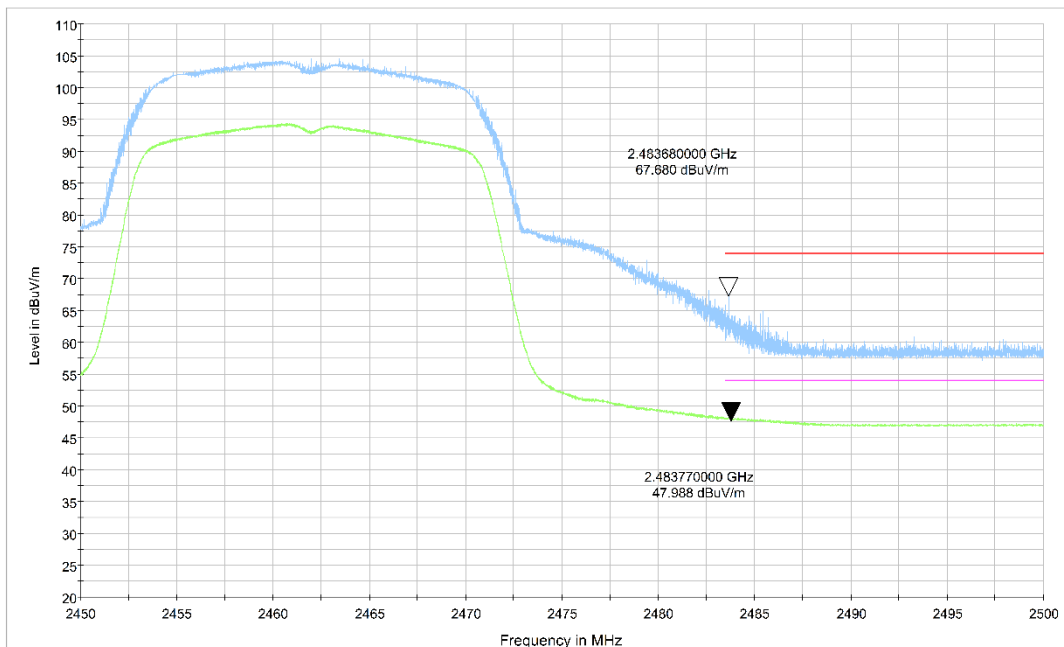


Fig.A.6.2.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

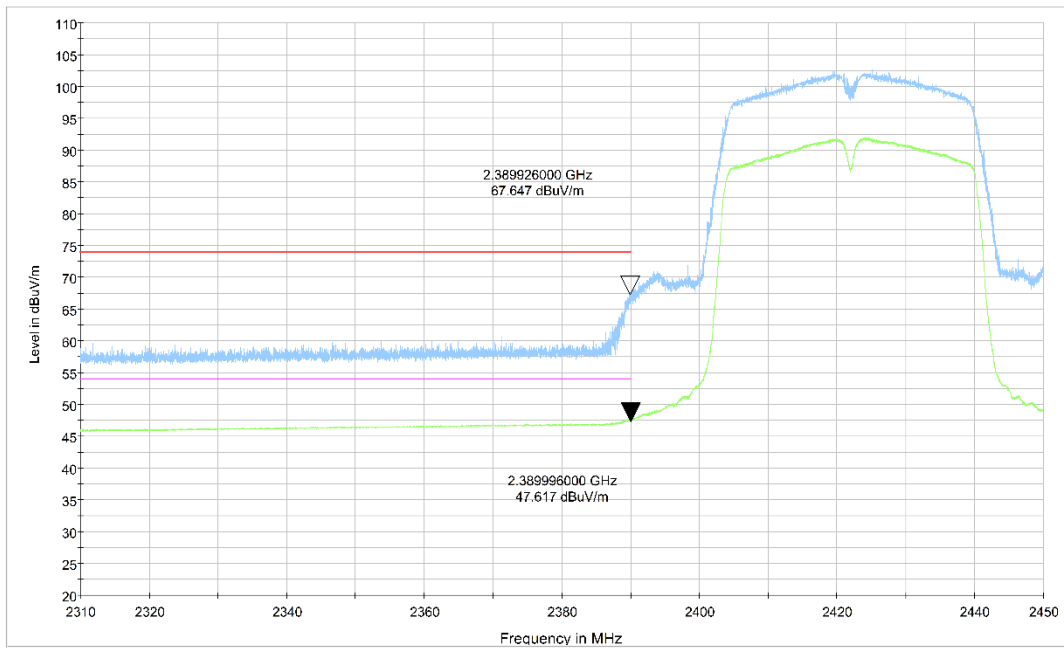


Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.31 GHz - 2.45GHz

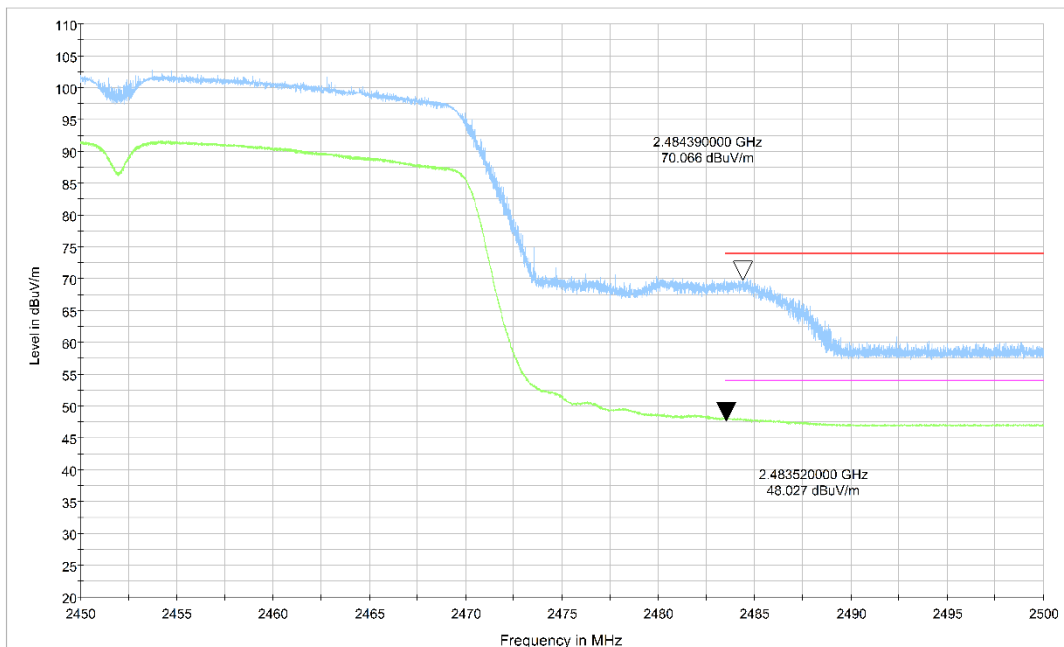


Fig.A.6.2.8 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

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		
		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:

Result for Traffic:

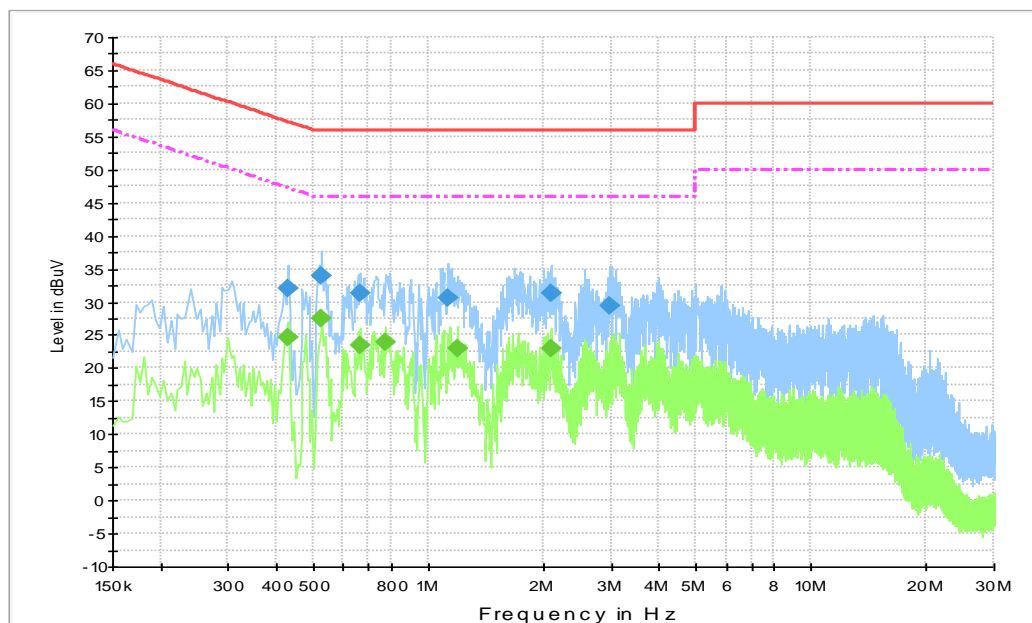


Fig.A.7.1 AC Powerline Conducted Emission-802.11b

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

Final Result 1

Frequency (MHz)	QuasiPeak (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.429000	32.0	1000.	9.000	L1	9.9	25.3	57.3
0.528000	34.0	1000.	9.000	L1	9.9	22.0	56.0
0.663000	31.4	1000.	9.000	L1	9.9	24.6	56.0
1.126500	30.7	1000.	9.000	L1	9.8	25.3	56.0
2.085000	31.3	1000.	9.000	L1	9.7	24.8	56.0
2.989500	29.5	1000.	9.000	L1	9.7	26.5	56.0

Final Result 2

Frequency (MHz)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.429000	24.6	1000.0	9.000	L1	9.9	22.7	47.3
0.528000	27.4	1000.0	9.000	L1	9.9	18.6	46.0
0.663000	23.4	1000.0	9.000	L1	9.9	22.6	46.0
0.771000	23.9	1000.0	9.000	L1	9.8	22.1	46.0
1.194000	23.0	1000.0	9.000	L1	9.8	23.0	46.0
2.085000	22.8	1000.0	9.000	L1	9.7	23.2	46.0

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

Result for Idle:

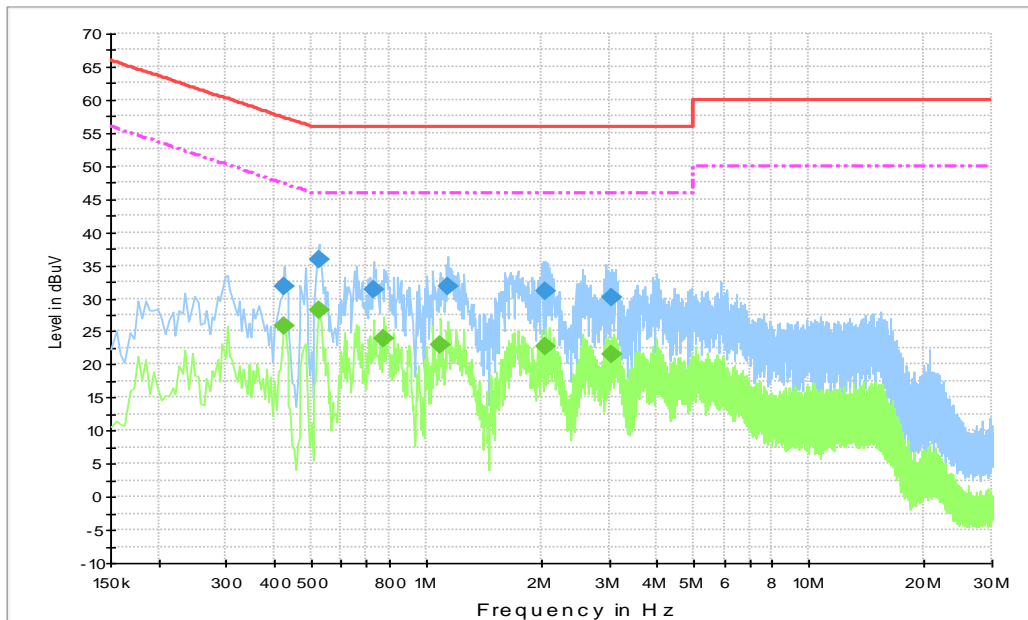


Fig.A.7.2 AC Powerline Conducted Emission-Idle

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)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.424500	31.7	1000.	9.000	L1	9.9	25.7	57.4
0.523500	35.8	1000.	9.000	L1	9.9	20.2	56.0
0.726000	31.4	1000.	9.000	L1	9.8	24.6	56.0
1.140000	31.7	1000.	9.000	L1	9.8	24.3	56.0
2.040000	31.1	1000.	9.000	L1	9.7	24.9	56.0
3.048000	30.2	1000.	9.000	L1	9.7	25.8	56.0

Final Result 2




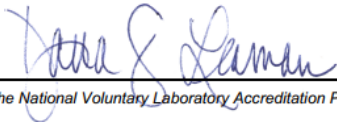
Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.424500	25.8	1000.0	9.000	L1	9.9	21.6	47.4
0.523500	28.3	1000.0	9.000	L1	9.9	17.7	46.0
0.775500	23.8	1000.0	9.000	L1	9.8	22.2	46.0
1.090500	23.0	1000.0	9.000	L1	9.8	23.0	46.0
2.049000	22.8	1000.0	9.000	L1	9.7	23.2	46.0
3.043500	21.5	1000.0	9.000	L1	9.7	24.5	46.0

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

ANNEX B: EUT parameters

Disclaimer: The antenna gain 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

<p>United States Department of Commerce National Institute of Standards and Technology</p>  	
<hr/> <h3>Certificate of Accreditation to ISO/IEC 17025:2017</h3> <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 17025:2017. 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></p>	
<hr/> <p>2020-09-29 through 2021-09-30 <i>Effective Dates</i></p>	  <hr/> <p><i>For the National Voluntary Laboratory Accreditation Program</i></p>

END OF REPORT