

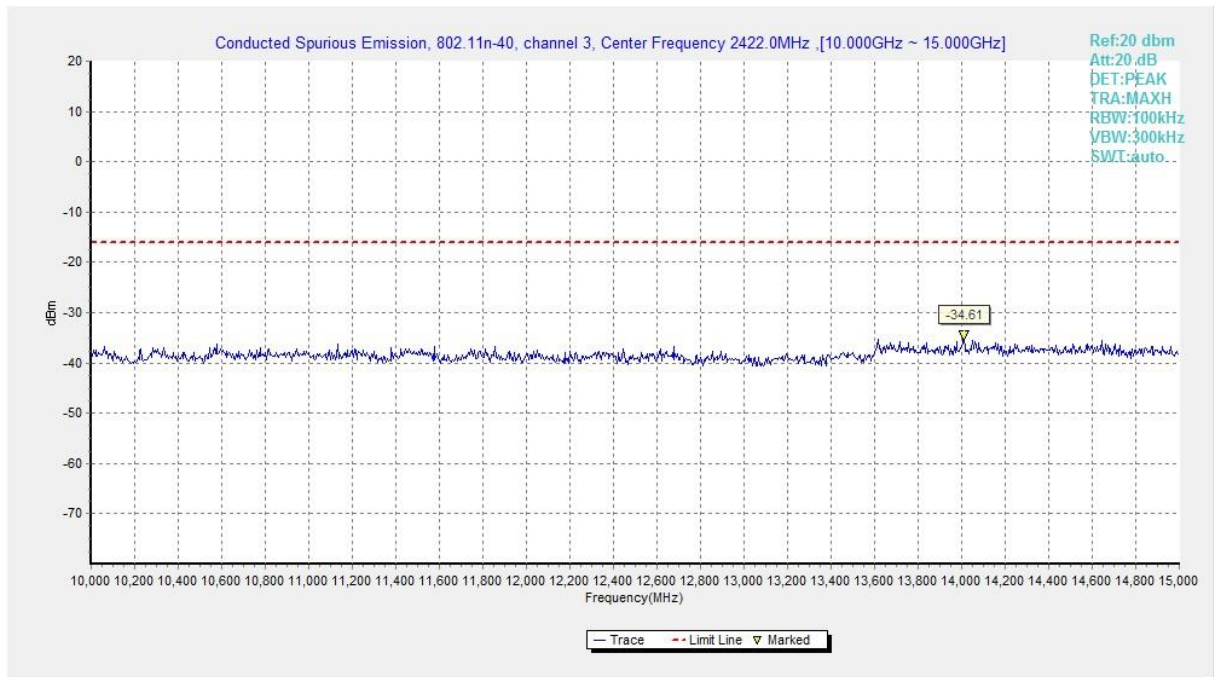


Fig.A.6.1.78 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 10 GHz-15 GHz)

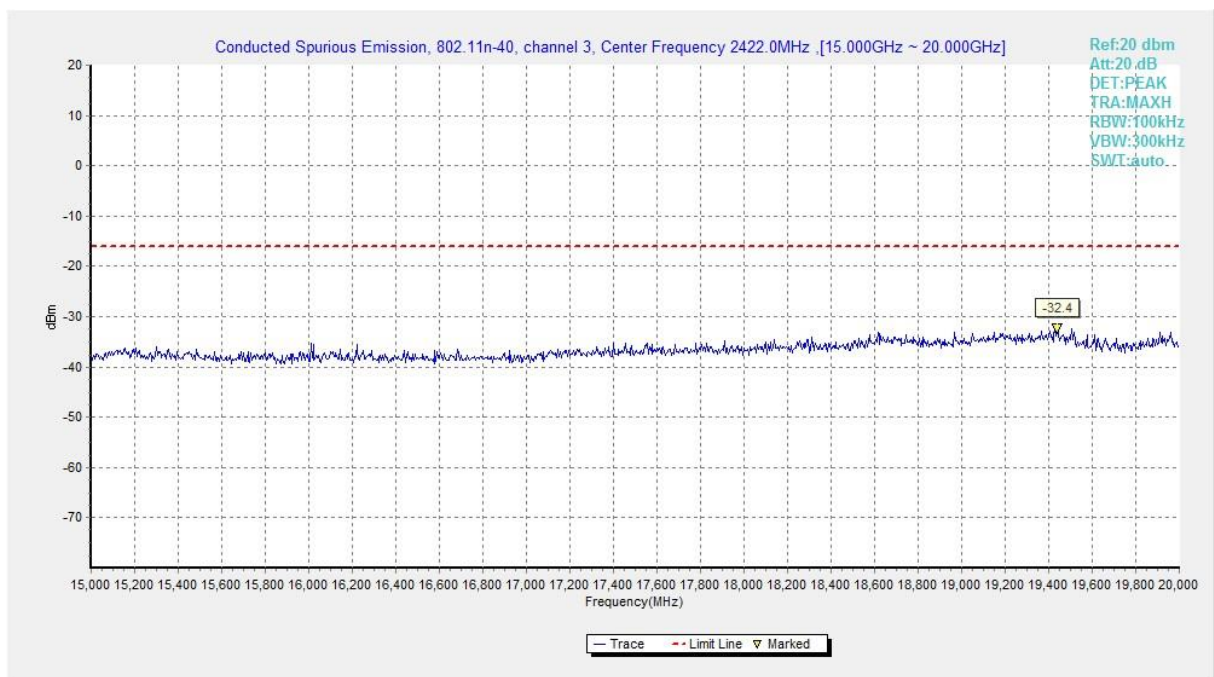


Fig.A.6.1.79 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 15 GHz-20 GHz)

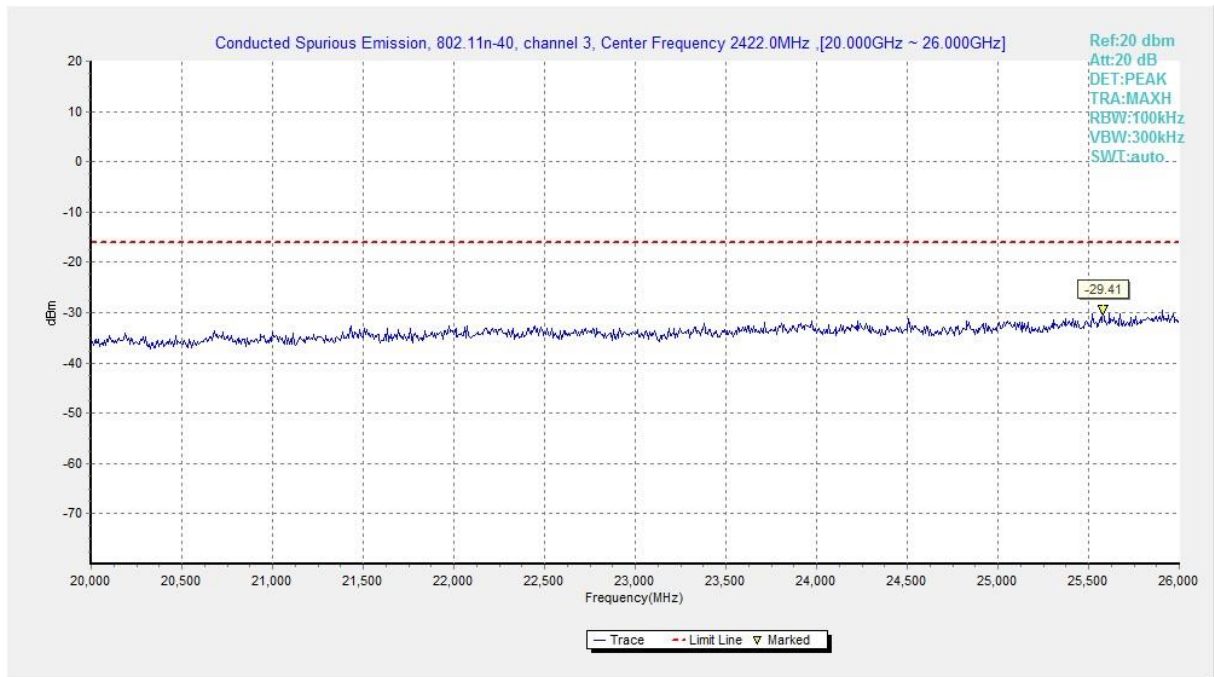


Fig.A.6.1.80 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 20 GHz-26 GHz)

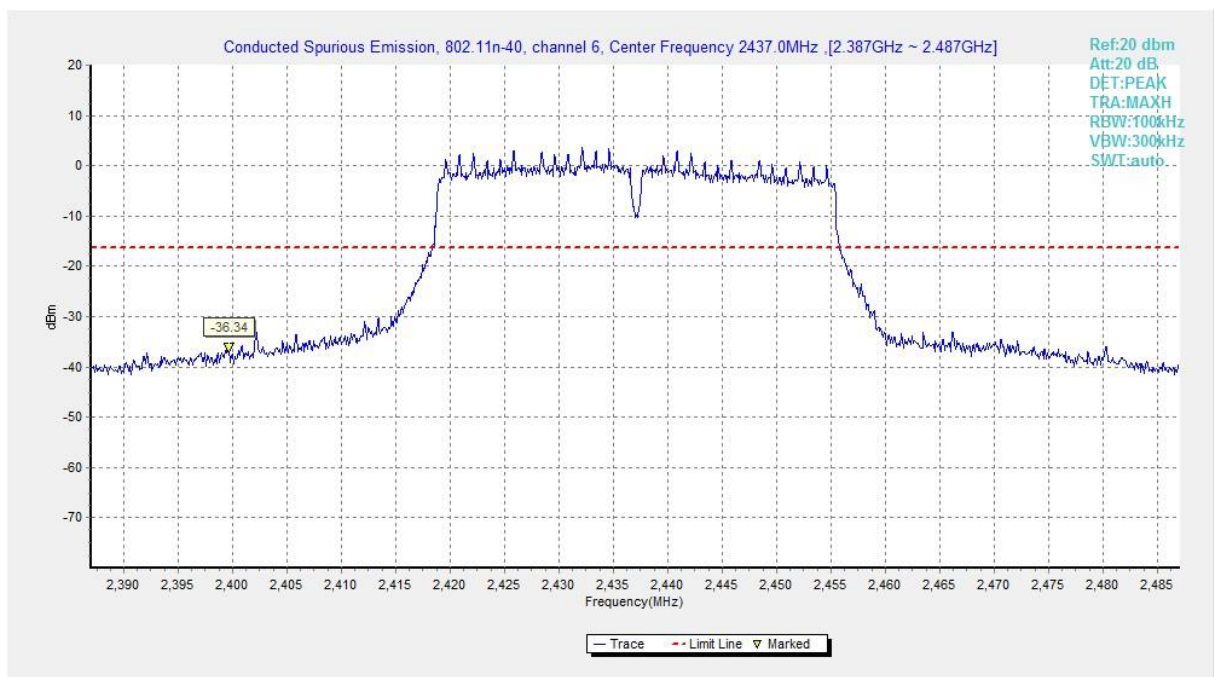


Fig.A.6.1.81 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, Center Frequency)

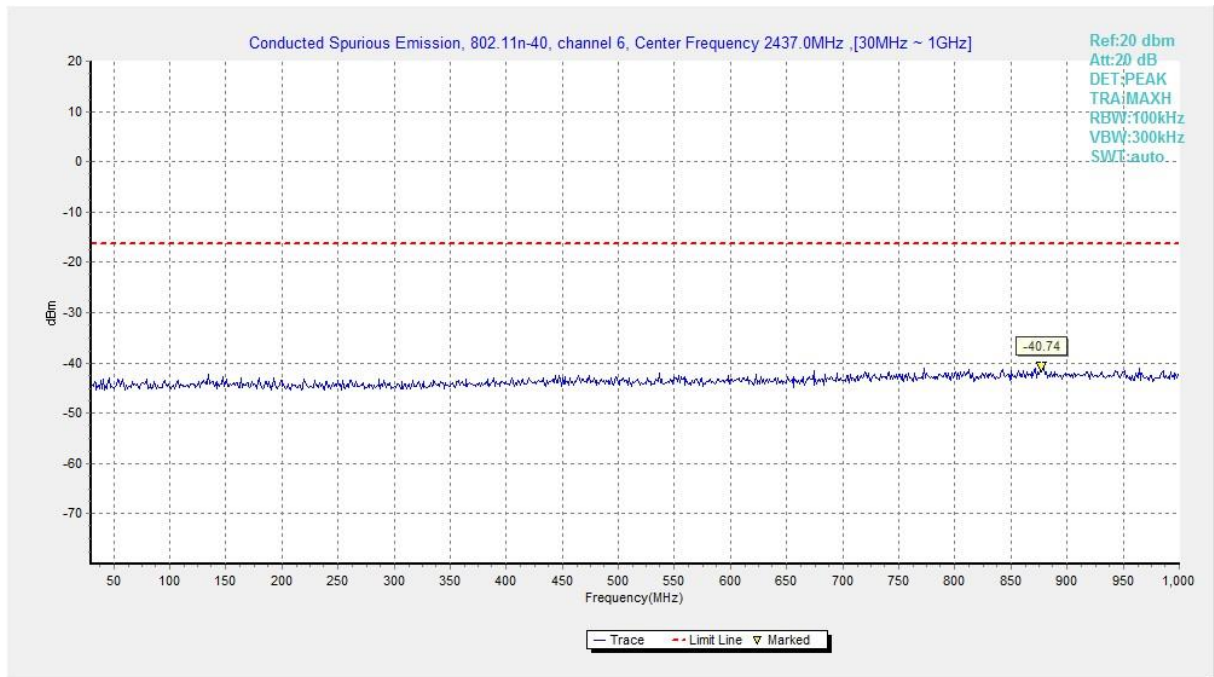


Fig.A.6.1.82 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 30 MHz-1 GHz)

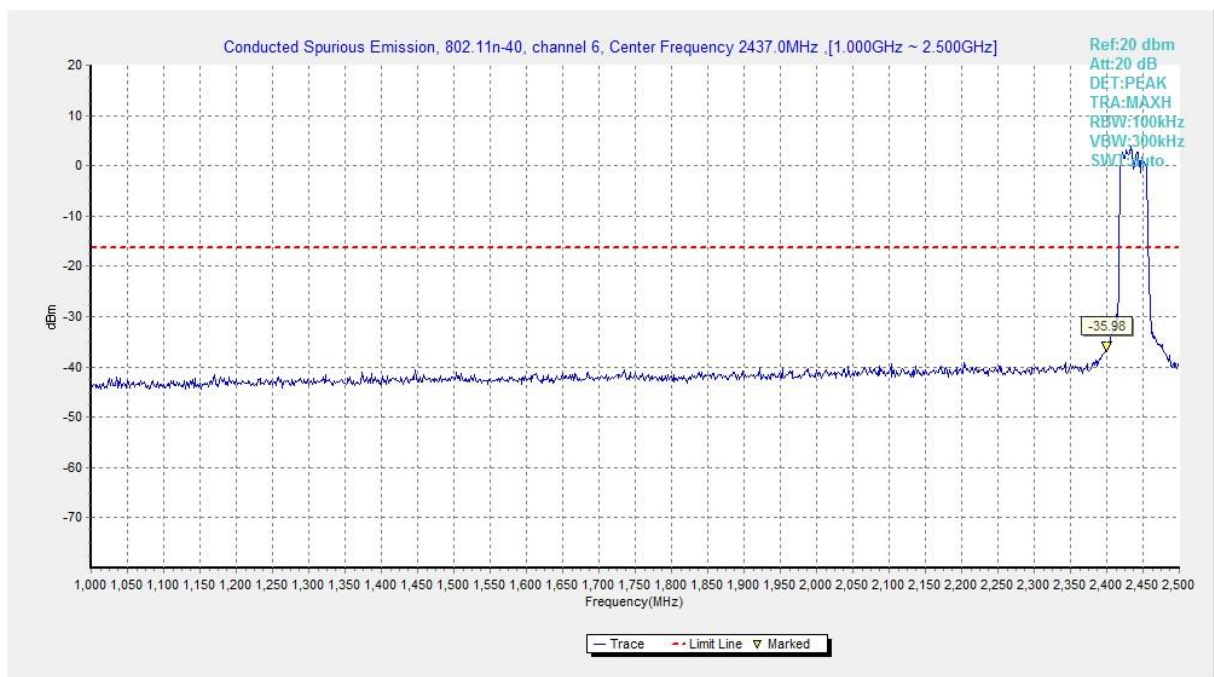


Fig.A.6.1.83 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)

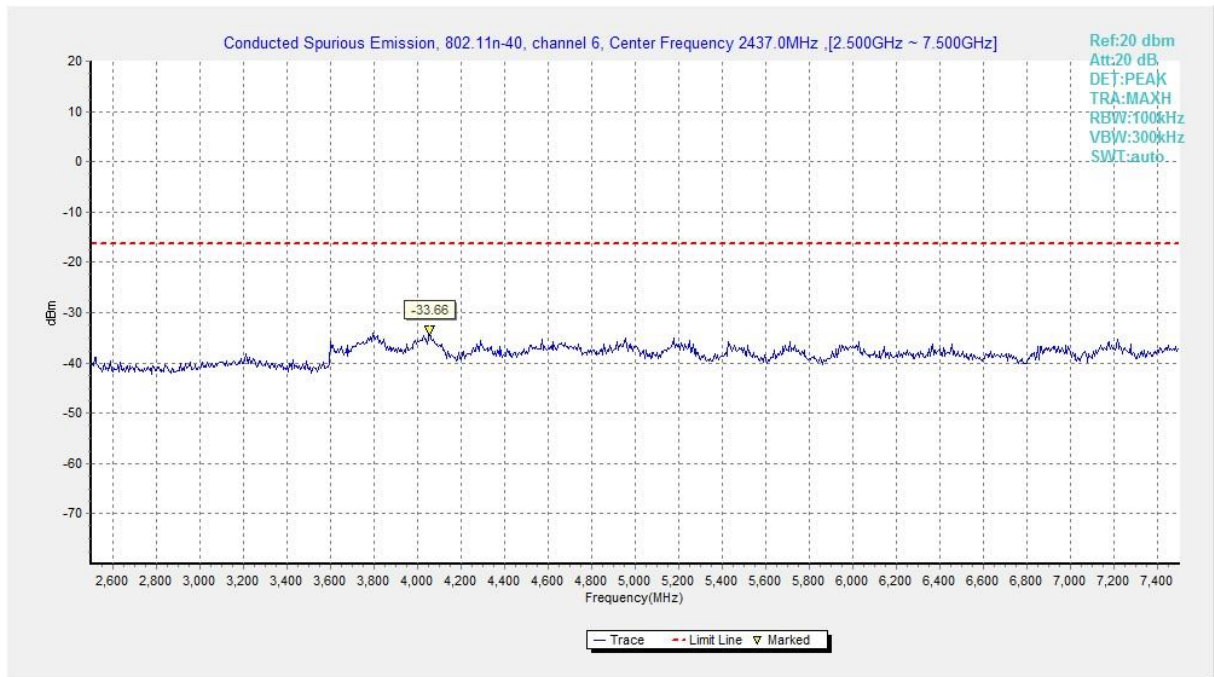


Fig.A.6.1.84 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)

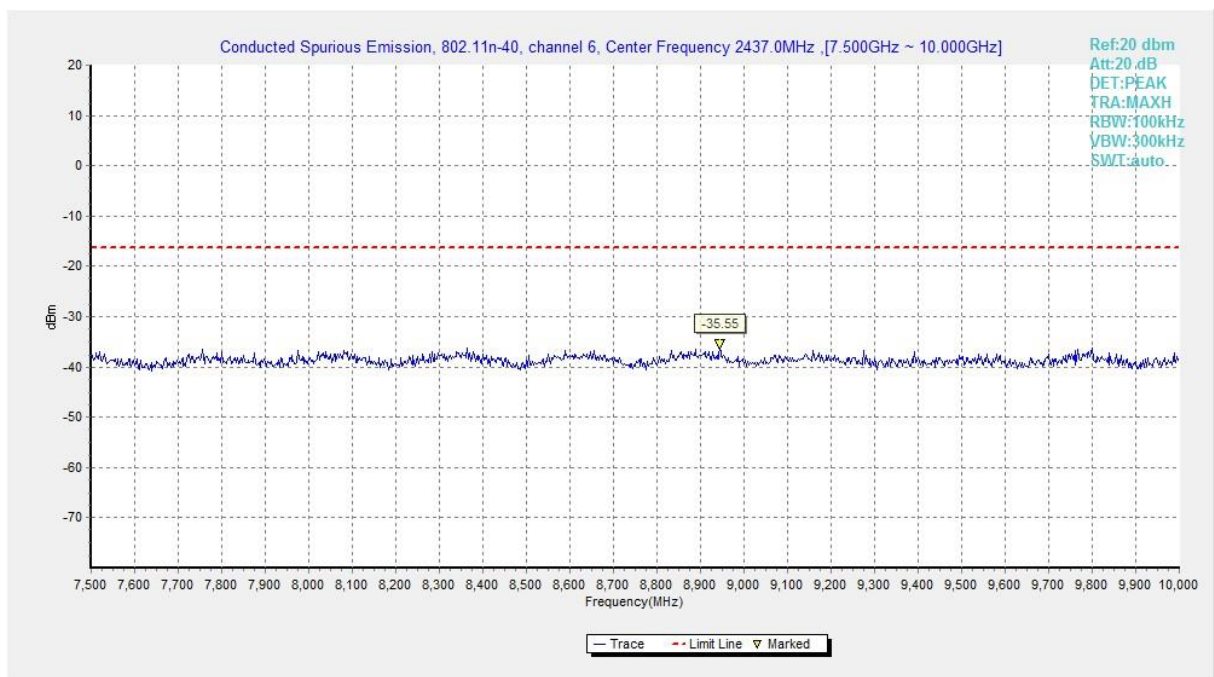


Fig.A.6.1.85 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)

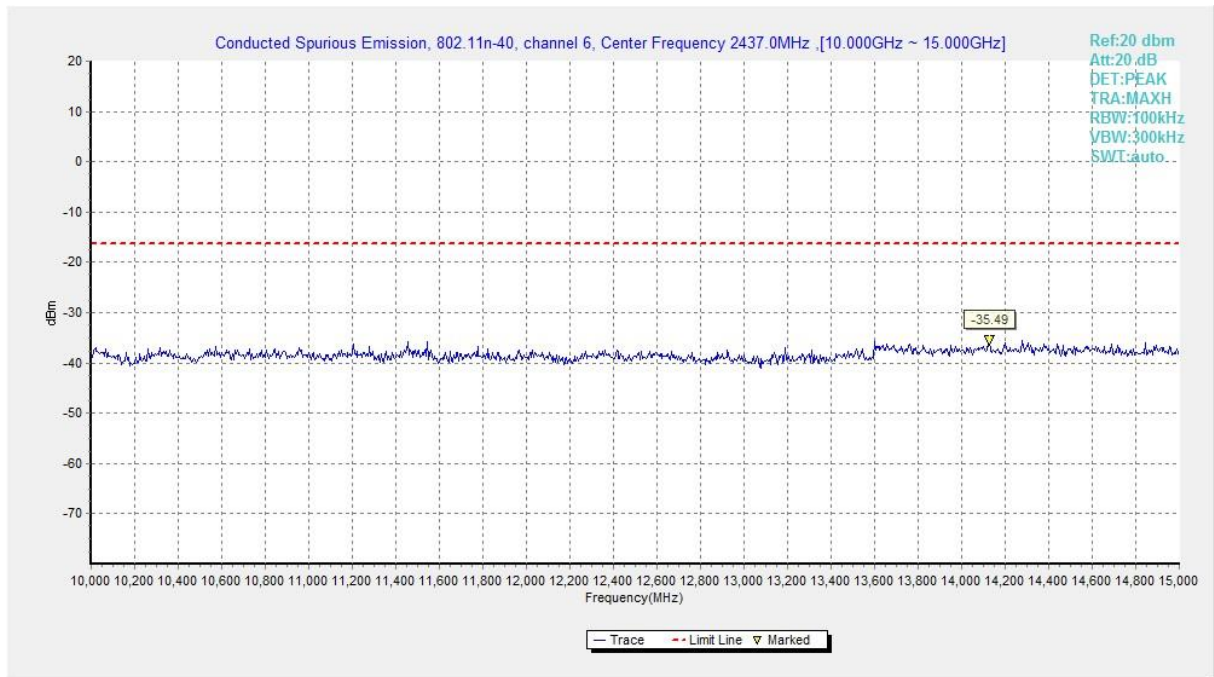


Fig.A.6.1.86 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 10 GHz-15 GHz)

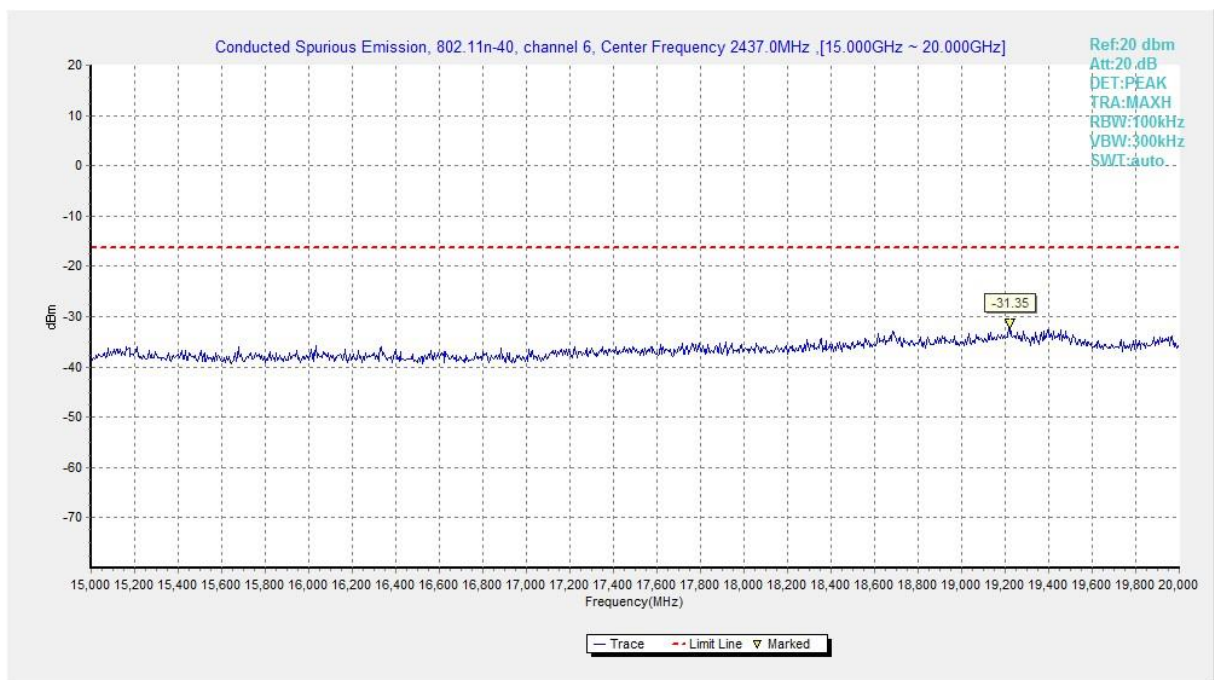


Fig.A.6.1.87 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 15 GHz-20 GHz)

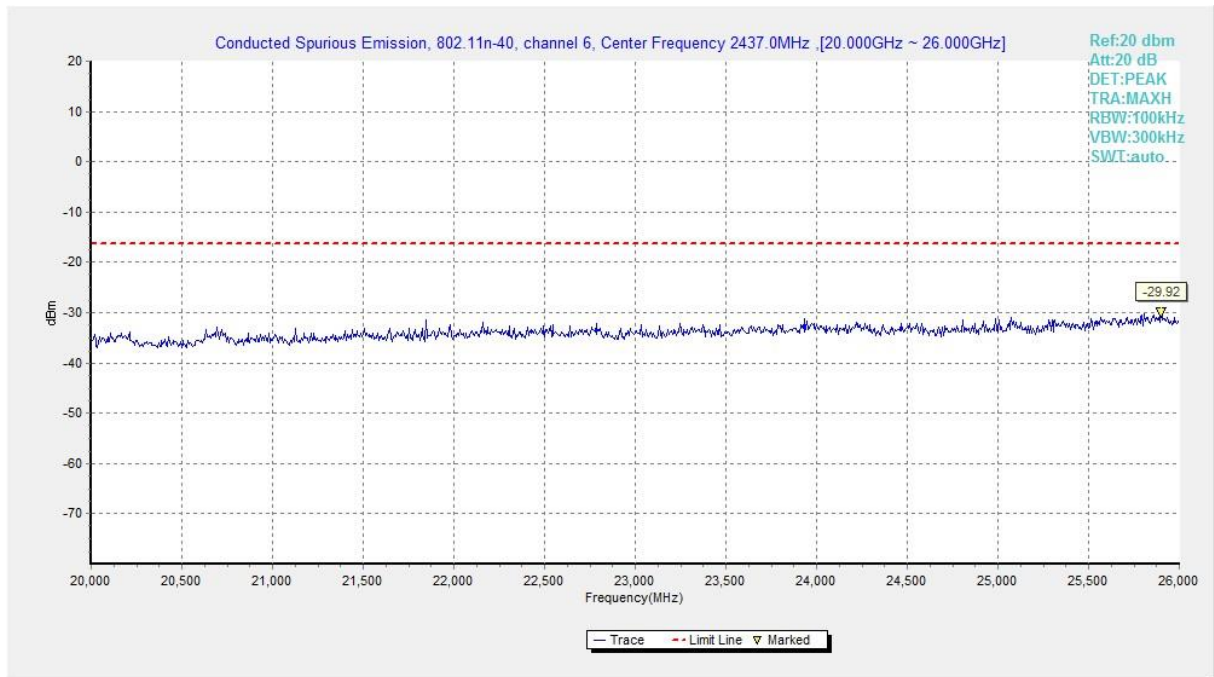


Fig.A.6.1.88 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 20 GHz-26 GHz)

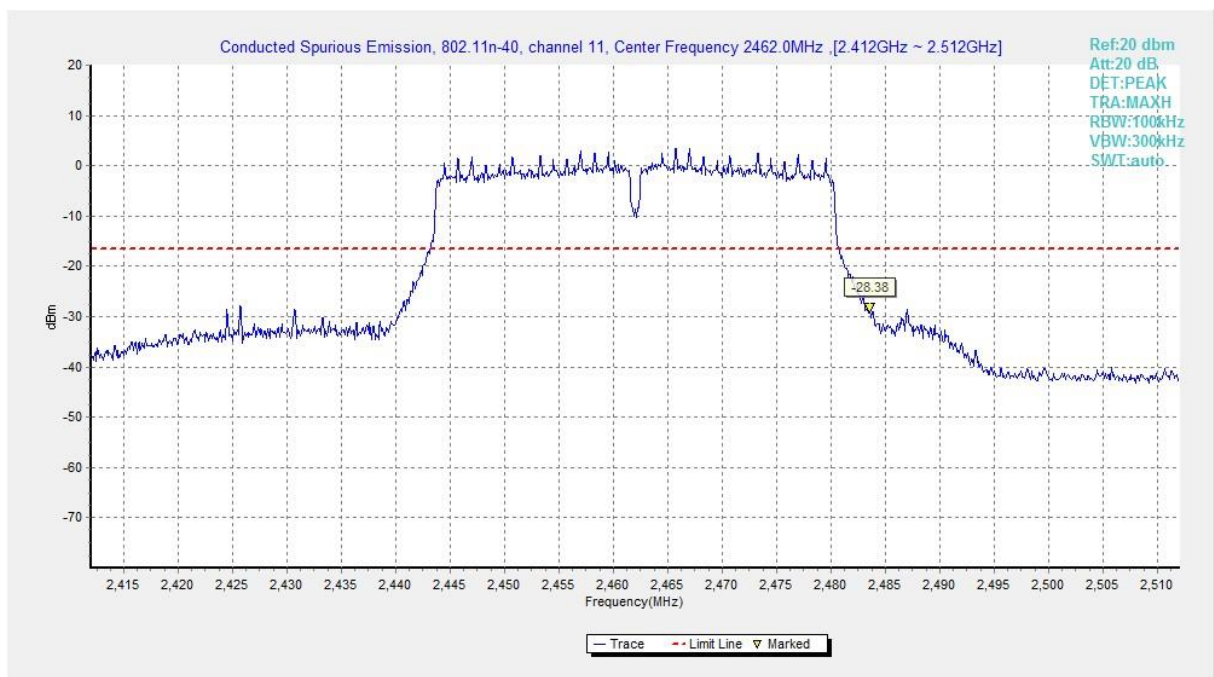


Fig.A.6.1.89 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, Center Frequency)

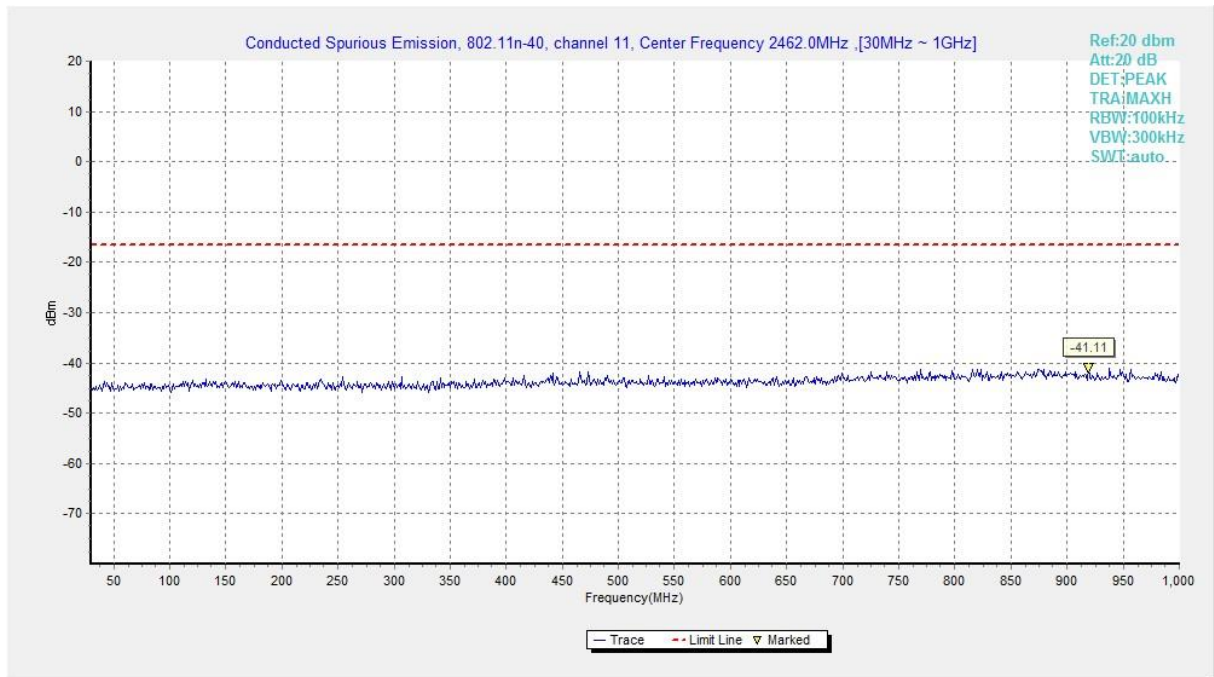


Fig.A.6.1.90 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 30 MHz-1 GHz)

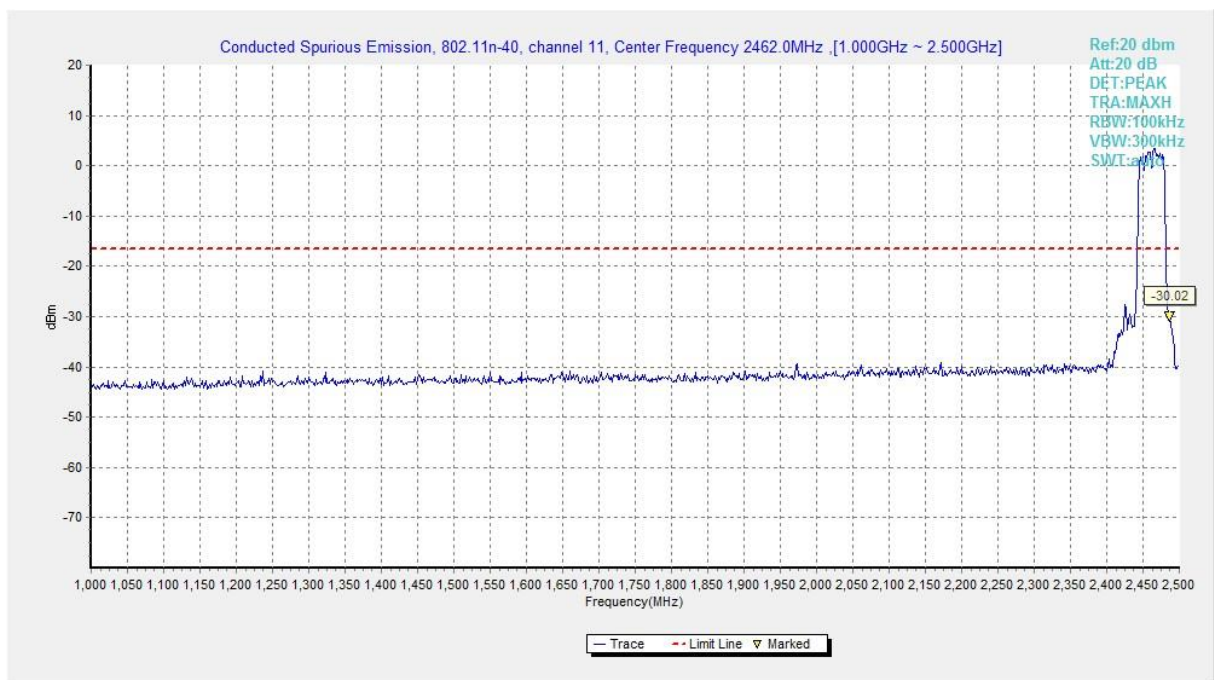


Fig.A.6.1.91 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

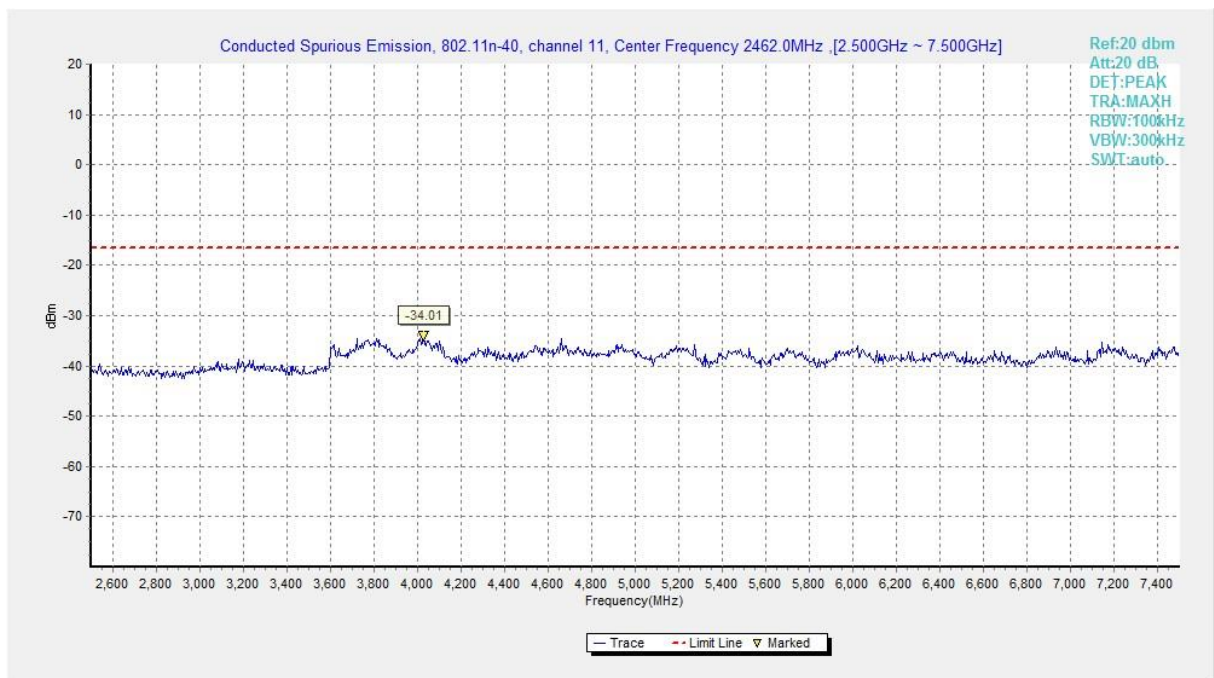


Fig.A.6.1.92 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)

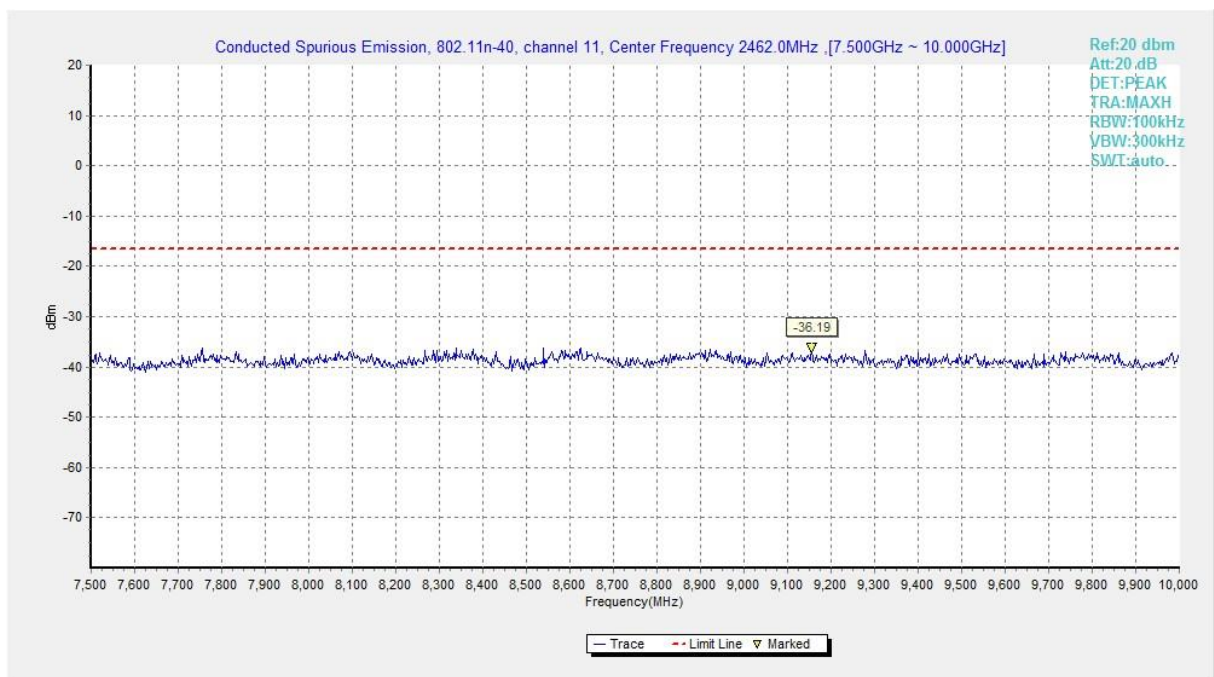


Fig.A.6.1.93 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

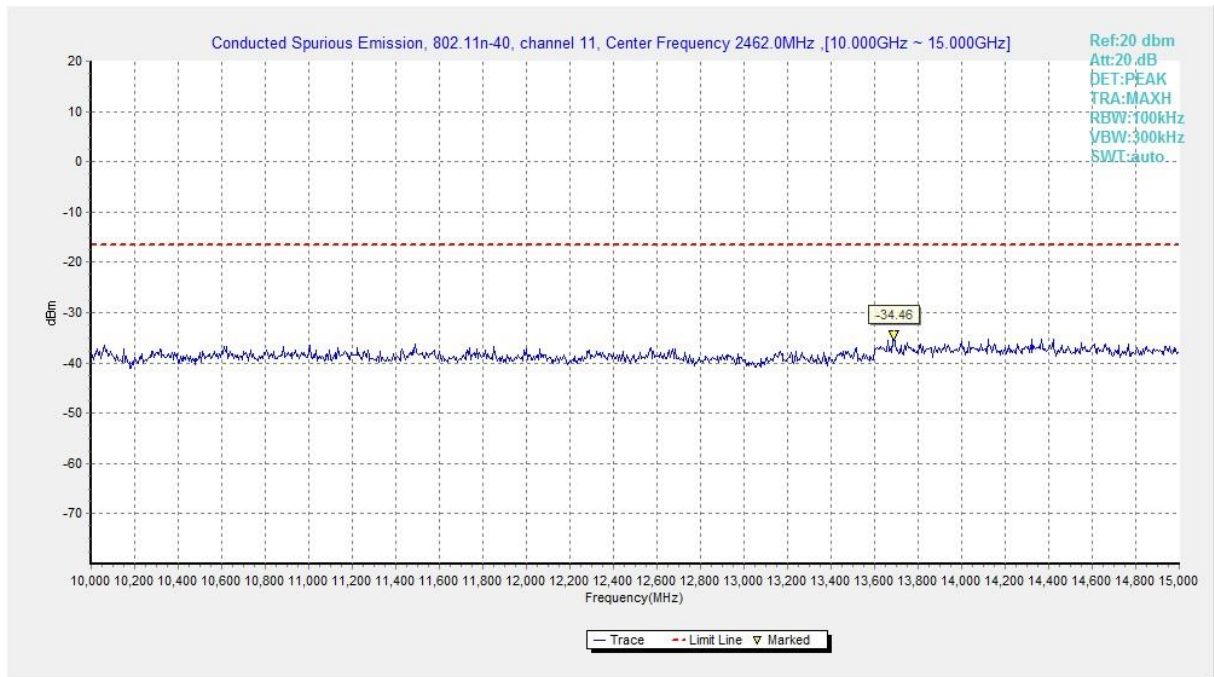


Fig.A.6.1.94 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 10 GHz-15 GHz)

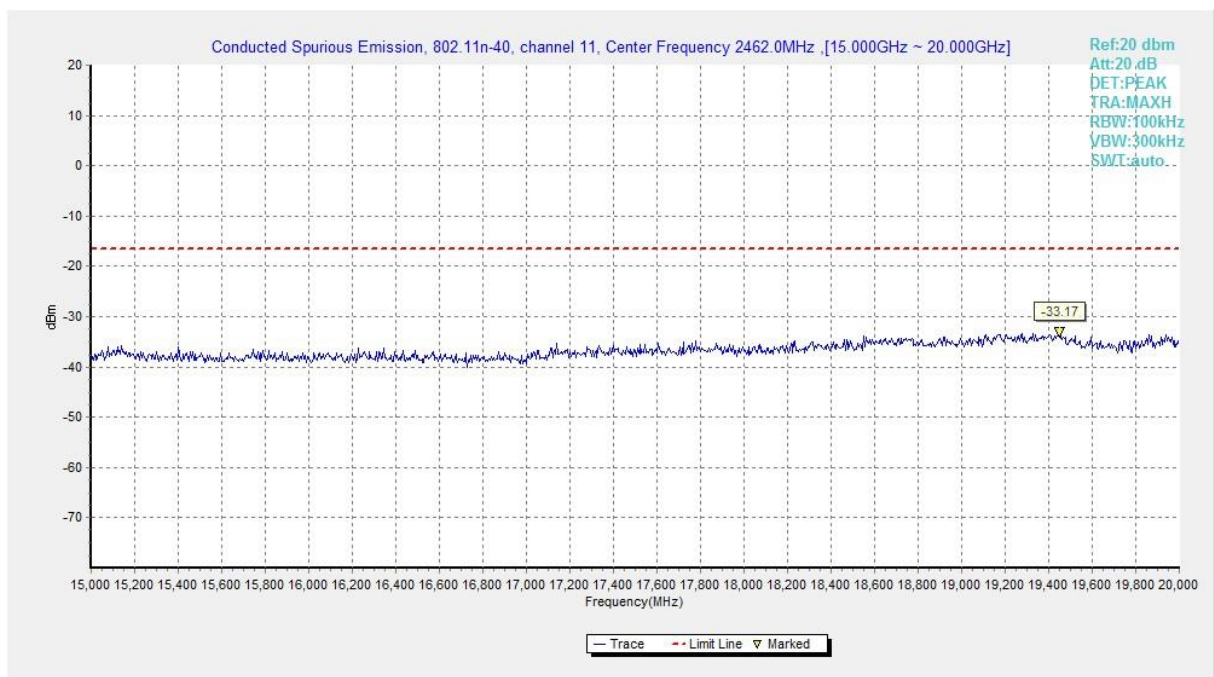


Fig.A.6.1.95 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 15 GHz-20 GHz)

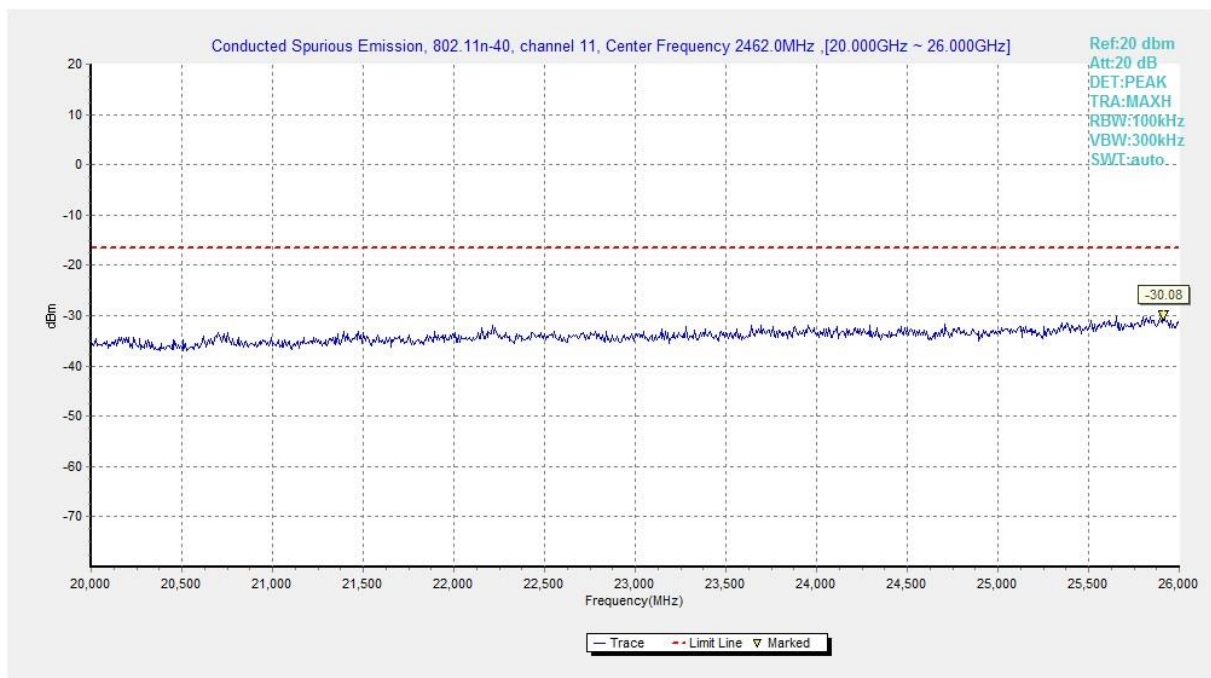


Fig.A.6.1.96 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 20 GHz-26 GHz)

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
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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: UT08a

Measurement Results:

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:

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

Peak
802.11b
Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2352.854	60.74	2.8	32.0	25.94	74.0	13.3	H	155	22
2386.062	60.61	2.9	32.0	25.75	74.0	13.4	H	155	44
4823.500	48.50	-33.2	34.1	47.61	74.0	25.5	V	155	0
7236.000	43.47	-30.9	35.8	38.56	74.0	30.5	H	155	0
9648.000	43.49	-30.5	36.7	37.24	74.0	30.5	V	155	22
12060.000	46.62	-28.7	38.7	36.59	74.0	27.4	H	155	176

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2366.800	44.41	-34.6	32.0	47.04	74.0	29.6	H	155	22
2505.400	44.60	-34.2	32.1	46.70	74.0	29.4	H	155	242
4874.000	48.61	-33.3	34.2	47.76	74.0	25.4	V	155	44
7311.000	43.27	-30.8	35.8	38.26	74.0	30.7	H	155	88
9748.000	44.86	-30.3	36.9	38.34	74.0	29.1	V	155	176
12185.000	46.96	-28.1	38.8	36.25	74.0	27.0	H	155	0

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2485.410	60.75	2.9	32.1	25.73	74.0	13.2	H	155	0
2492.830	60.90	2.9	32.1	25.87	74.0	13.1	H	155	22
4923.500	46.84	-33.5	34.2	46.19	74.0	27.2	V	155	352
7386.000	42.64	-31.5	35.9	38.24	74.0	31.4	V	155	352
9848.000	43.78	-30.2	37.0	36.96	74.0	30.2	H	155	176
12310.000	47.22	-27.8	38.9	36.08	74.0	26.8	V	155	176

802.11g
Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2388.120	60.80	2.9	32.0	25.94	74.0	13.2	H	155	0
2389.730	62.13	2.9	32.0	27.27	74.0	11.9	H	155	22
4822.500	45.36	-33.2	34.1	44.47	74.0	28.6	H	155	88
7236.000	43.04	-30.9	35.8	38.12	74.0	31.0	V	155	22
9648.000	43.96	-30.5	36.7	37.70	74.0	30.0	V	155	132
12060.000	46.33	-28.7	38.7	36.29	74.0	27.7	H	155	352

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)
2371.800	44.34	-34.4	32.0	46.78	74.0	29.7	H	155	22
2507.600	44.62	-34.2	32.1	46.74	74.0	29.4	H	155	0
4876.000	46.92	-33.3	34.2	46.08	74.0	27.1	V	155	44
7311.000	43.48	-30.8	35.8	38.47	74.0	30.5	H	155	22
9748.000	44.46	-30.3	36.9	37.94	74.0	29.5	V	155	0
12185.000	47.61	-28.1	38.8	36.90	74.0	26.4	V	155	44

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.820	61.98	2.9	32.1	26.96	74.0	12.0	H	155	88
2484.240	61.71	2.9	32.1	26.69	74.0	12.3	H	155	22
4924.500	46.39	-33.5	34.2	45.75	74.0	27.6	V	155	220
7386.000	43.02	-31.5	35.9	38.61	74.0	31.0	V	155	242
9848.000	43.65	-30.2	37.0	36.84	74.0	30.3	V	155	44
12310.000	46.65	-27.8	38.9	35.52	74.0	27.3	V	155	66

802.11n-HT20
Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2386.482	60.33	2.9	32.0	25.47	74.0	13.7	H	155	110
2388.358	61.07	2.9	32.0	26.21	74.0	12.9	V	155	132
4822.000	45.31	-33.2	34.1	44.42	74.0	28.7	H	155	242
7236.000	42.73	-30.9	35.8	37.81	74.0	31.3	V	155	264
9648.000	43.61	-30.5	36.7	37.36	74.0	30.4	V	155	286
12060.000	46.12	-28.7	38.7	36.09	74.0	27.9	V	155	308

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)
2369.000	44.41	-34.5	32.0	46.96	74.0	29.6	H	155	22
2503.200	44.25	-34.2	32.1	46.33	74.0	29.7	H	155	44
4876.500	46.98	-33.3	34.2	46.13	74.0	27.0	V	155	88
7311.000	43.49	-30.8	35.8	38.48	74.0	30.5	V	155	0
9748.000	43.95	-30.3	36.9	37.43	74.0	30.0	H	155	110
12185.000	47.74	-28.1	38.8	37.03	74.0	26.3	H	155	132

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2484.940	61.32	2.9	32.1	26.30	74.0	12.7	H	155	88
2485.900	61.76	2.9	32.1	26.73	74.0	12.2	H	155	132
4929.000	45.73	-33.6	34.2	45.11	74.0	28.3	H	155	0
7386.000	42.50	-31.5	35.9	38.10	74.0	31.5	H	155	66
9848.000	43.58	-30.2	37.0	36.77	74.0	30.4	V	155	44
12310.000	47.71	-27.8	38.9	36.58	74.0	26.3	H	155	242

802.11n-HT40
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)
2388.386	65.29	2.9	32.0	30.43	74.0	8.7	H	155	220
2389.506	64.98	2.9	32.0	30.11	74.0	9.0	H	155	88
4844.000	44.97	-33.2	34.1	44.07	74.0	29.0	H	155	66
7266.000	43.70	-30.6	35.8	38.49	74.0	30.3	V	155	0
9688.000	43.73	-30.4	36.8	37.33	74.0	30.3	V	155	44
12110.000	47.21	-28.5	38.8	36.91	74.0	26.8	V	155	242

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)
2363.000	44.50	-34.8	32.0	47.29	74.0	29.5	H	155	22
2504.400	44.36	-34.2	32.1	46.46	74.0	29.6	H	155	44
4880.500	45.17	-33.3	34.2	44.33	74.0	28.8	V	155	0
7311.000	42.73	-30.8	35.8	37.72	74.0	31.3	H	155	0
9748.000	44.72	-30.3	36.9	38.20	74.0	29.3	V	155	22
12185.000	47.16	-28.1	38.8	36.45	74.0	26.8	H	155	176

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)
2483.515	63.43	2.9	32.1	28.42	74.0	10.6	H	155	176
2483.970	63.75	2.9	32.1	28.74	74.0	10.2	H	155	0
4902.500	45.45	-33.4	34.2	44.70	74.0	28.6	V	155	22
7356.000	42.93	-31.2	35.8	38.26	74.0	31.1	V	155	352
9808.000	43.95	-30.3	36.9	37.33	74.0	30.1	V	155	0
12260.000	47.52	-27.9	38.9	36.54	74.0	26.5	H	155	0

Average
802.11b

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2387.300	46.92	2.9	32.0	12.06	54.0	7.1	H	155	24
2390.000	46.81	2.9	32.0	11.94	54.0	7.2	H	155	46
4824.000	43.99	-33.2	34.1	43.10	54.0	10.0	H	155	6
7236.000	30.56	-30.9	35.8	25.65	54.0	23.4	H	155	5
9648.000	31.80	-30.5	36.7	25.55	54.0	22.2	H	155	25
12060.000	34.11	-28.7	38.7	24.08	54.0	19.9	H	155	184

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)
2414.400	46.74	2.9	32.0	11.83	54.0	7.3	H	155	28
2454.300	47.30	2.9	32.1	12.33	54.0	6.7	H	155	248
4874.000	44.39	-33.3	34.2	43.54	54.0	9.6	H	155	38
7311.000	30.89	-30.8	35.8	25.88	54.0	23.1	H	155	98
9748.000	32.14	-30.3	36.9	25.62	54.0	21.9	H	155	183
12185.000	35.11	-28.1	38.8	24.40	54.0	18.9	H	155	356

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.500	46.81	2.9	32.1	11.80	54.0	7.2	H	155	354
2488.800	46.69	2.9	32.1	11.66	54.0	7.3	H	155	28
4924.000	42.37	-33.5	34.2	41.73	54.0	11.6	H	155	348
7386.000	30.71	-31.5	35.9	26.31	54.0	23.3	H	155	345
9848.000	31.90	-30.2	37.0	25.09	54.0	22.1	H	155	184
12310.000	34.79	-27.8	38.9	23.66	54.0	19.2	H	155	182

802.11g
Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2389.400	48.24	2.9	32.0	13.37	54.0	5.8	H	155	6
2390.000	48.45	2.9	32.0	13.58	54.0	5.6	H	155	26
4824.000	33.19	-33.2	34.1	32.29	54.0	20.8	H	155	92
7236.000	30.83	-30.9	35.8	25.91	54.0	23.2	H	155	24
9648.000	31.91	-30.5	36.7	25.66	54.0	22.1	H	155	136
12060.000	34.28	-28.7	38.7	24.24	54.0	19.7	H	155	356

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)
2411.000	46.99	2.9	32.0	12.09	54.0	7.0	H	155	18
2458.900	47.36	2.9	32.1	12.38	54.0	6.6	H	155	4
4874.000	34.22	-33.3	34.2	33.37	54.0	19.8	H	155	20
7311.000	30.78	-30.8	35.8	25.77	54.0	23.2	H	155	28
9748.000	32.11	-30.3	36.9	25.59	54.0	21.9	H	155	4
12185.000	35.03	-28.1	38.8	24.33	54.0	19.0	H	155	40

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.500	48.51	2.9	32.1	13.49	54.0	5.5	H	155	92
2484.100	48.18	2.9	32.1	13.16	54.0	5.8	H	155	26
4924.000	33.99	-33.5	34.2	33.35	54.0	20.0	H	155	222
7386.000	30.65	-31.5	35.9	26.24	54.0	23.4	H	155	248
9848.000	31.93	-30.2	37.0	25.12	54.0	22.1	H	155	46
12310.000	34.73	-27.8	38.9	23.59	54.0	19.3	H	155	68

802.11n-HT20
Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2388.900	47.66	2.9	32.0	12.80	54.0	6.3	H	155	24
2389.900	47.84	2.9	32.0	12.98	54.0	6.2	H	155	336
4823.000	32.18	-33.2	34.1	31.29	54.0	21.8	H	155	248
7236.000	30.86	-30.9	35.8	25.94	54.0	23.1	H	155	268
9648.000	31.91	-30.5	36.7	25.66	54.0	22.1	H	155	290
12060.000	34.41	-28.7	38.7	24.38	54.0	19.6	H	155	300

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)
2410.200	46.93	2.9	32.0	12.03	54.0	7.1	H	155	16
2462.100	46.96	2.9	32.1	11.97	54.0	7.0	H	155	48
4874.000	33.58	-33.3	34.2	32.73	54.0	20.4	H	155	80
7311.000	30.80	-30.8	35.8	25.79	54.0	23.2	H	155	8
9748.000	32.10	-30.3	36.9	25.58	54.0	21.9	H	155	102
12185.000	35.09	-28.1	38.8	24.38	54.0	18.9	H	155	118

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2483.500	47.96	2.9	32.1	12.94	54.0	6.0	H	155	92
2484.100	47.73	2.9	32.1	12.71	54.0	6.3	H	155	136
4924.000	33.05	-33.5	34.2	32.41	54.0	21.0	H	155	8
7386.000	30.69	-31.5	35.9	26.29	54.0	23.3	H	155	70
9848.000	31.97	-30.2	37.0	25.15	54.0	22.0	H	155	48
12310.000	34.89	-27.8	38.9	23.75	54.0	19.1	H	155	246

802.11n-HT40
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)
2389.000	51.47	2.9	32.0	16.61	54.0	2.5	H	155	226
2390.000	51.61	2.9	32.0	16.74	54.0	2.4	H	155	92
4844.000	32.13	-33.2	34.1	31.22	54.0	21.9	H	155	70
7266.000	31.24	-30.6	35.8	26.03	54.0	22.8	H	155	8
9688.000	31.94	-30.4	36.8	25.54	54.0	22.1	H	155	48
12110.000	34.60	-28.5	38.8	24.30	54.0	19.4	H	155	246

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)
2405.500	51.89	2.9	32.0	17.00	54.0	2.1	H	155	28
2463.300	51.36	2.9	32.1	16.38	54.0	2.6	H	155	46
4873.000	32.57	-33.3	34.2	31.71	54.0	21.4	H	155	8
7311.000	30.84	-30.8	35.8	25.83	54.0	23.2	H	155	6
9748.000	32.12	-30.3	36.9	25.60	54.0	21.9	H	155	24
12185.000	35.09	-28.1	38.8	24.38	54.0	18.9	H	155	185

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	50.18	2.9	32.1	15.17	54.0	3.8	H	155	184
2484.100	49.94	2.9	32.1	14.93	54.0	4.1	H	155	6
4904.000	33.45	-33.4	34.2	32.71	54.0	20.6	H	155	26
7356.000	30.94	-31.2	35.8	26.27	54.0	23.1	H	155	246
9808.000	31.74	-30.3	36.9	25.13	54.0	22.3	H	155	8
12260.000	34.84	-27.9	38.9	23.86	54.0	19.2	H	155	2

Test graphs as below:

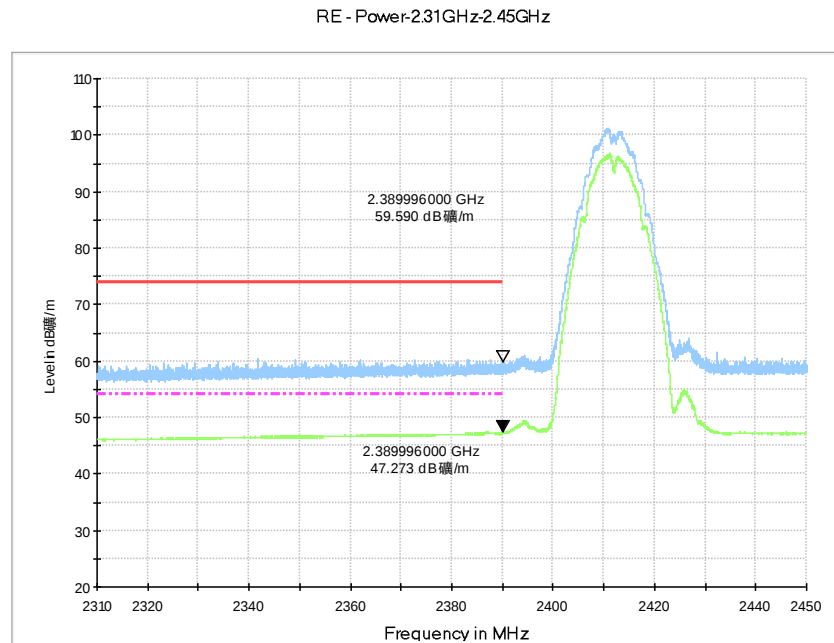


Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz – 2.45GHz

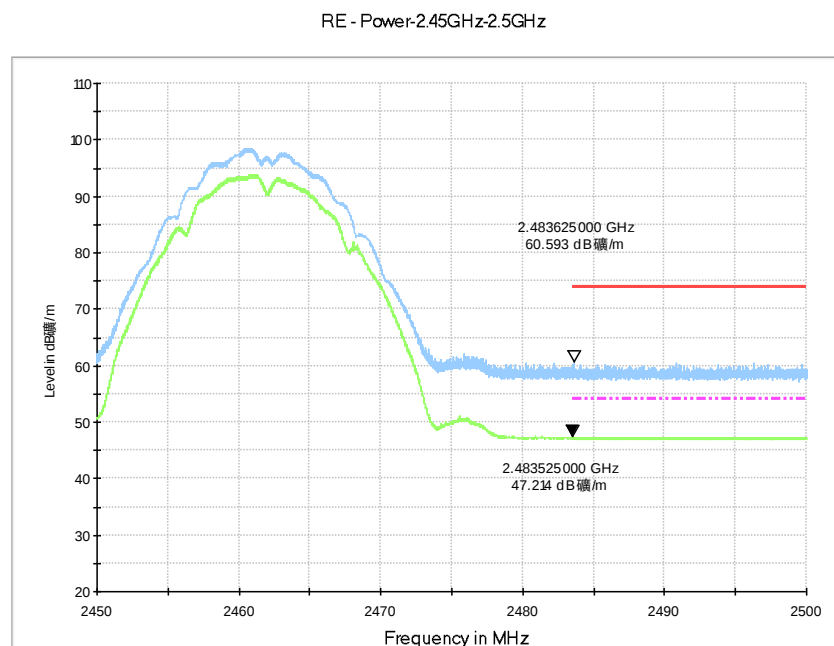


Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

RE - Power-2.31GHz-2.45GHz

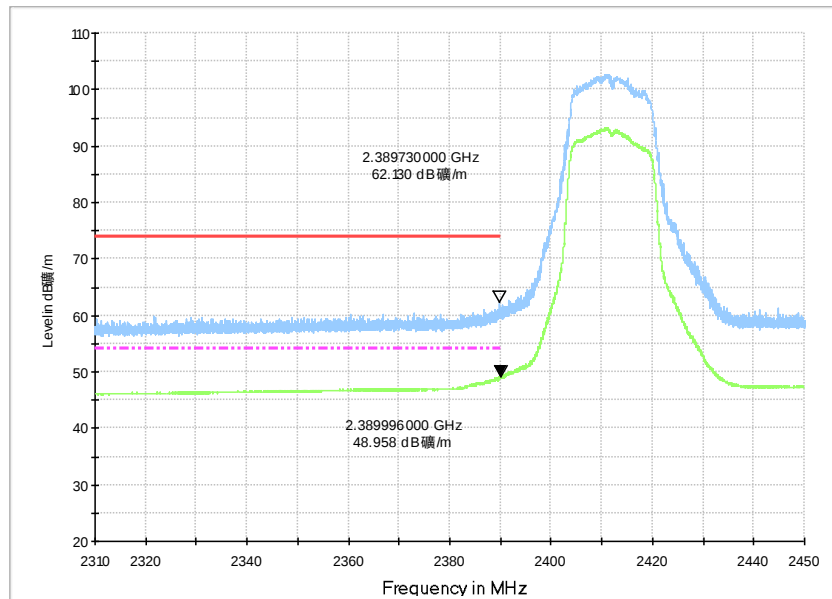


Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31 GHz - 2.45GHz

RE - Power-2.45GHz-2.5GHz

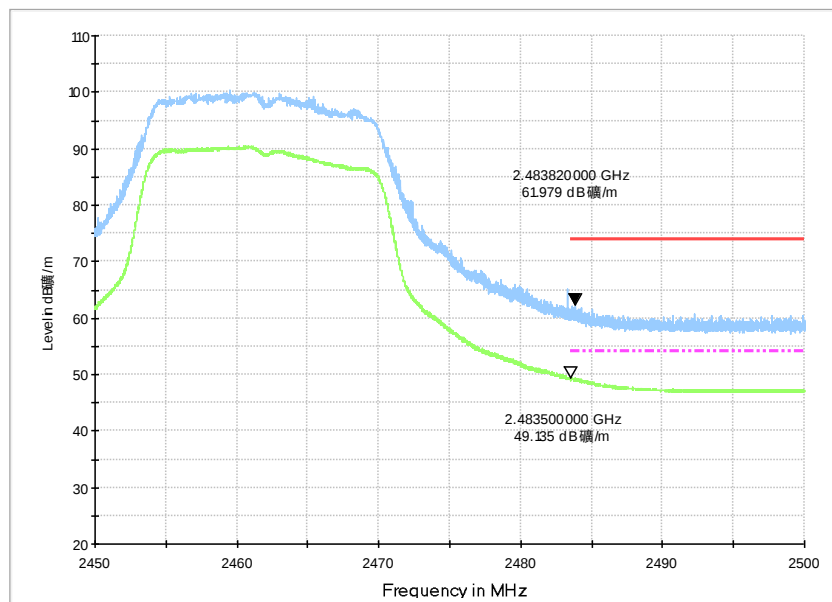
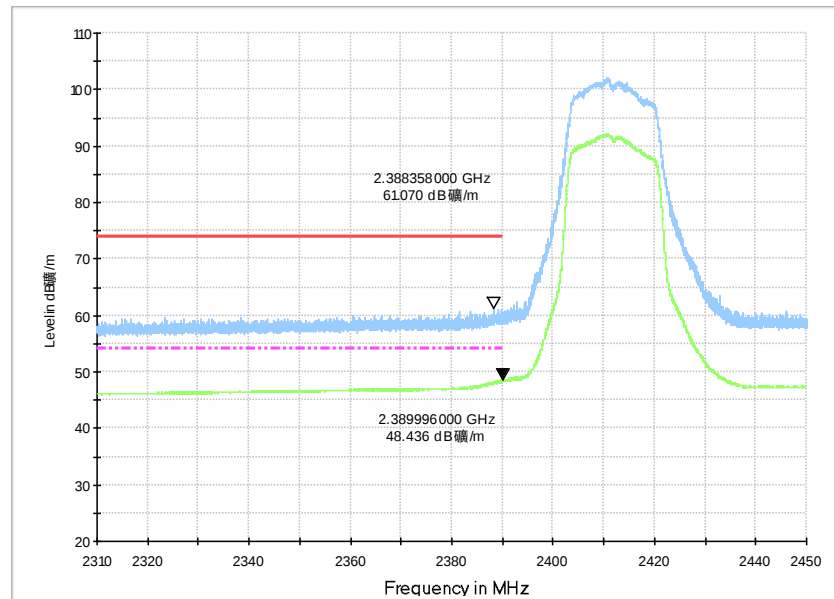


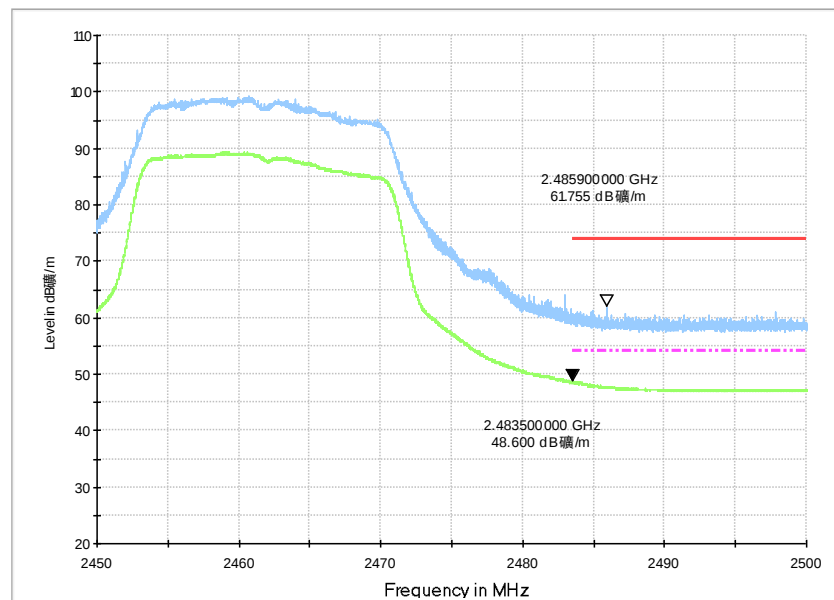
Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

RE - Power-2.31GHz-2.45GHz



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

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

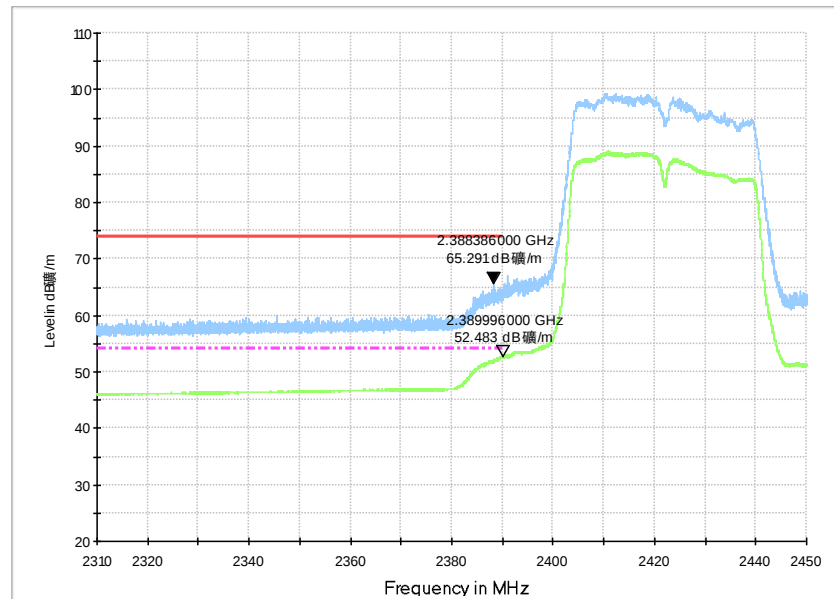


Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.31 GHz - 2.45GHz

RE - Power-2.45GHz-2.5GHz

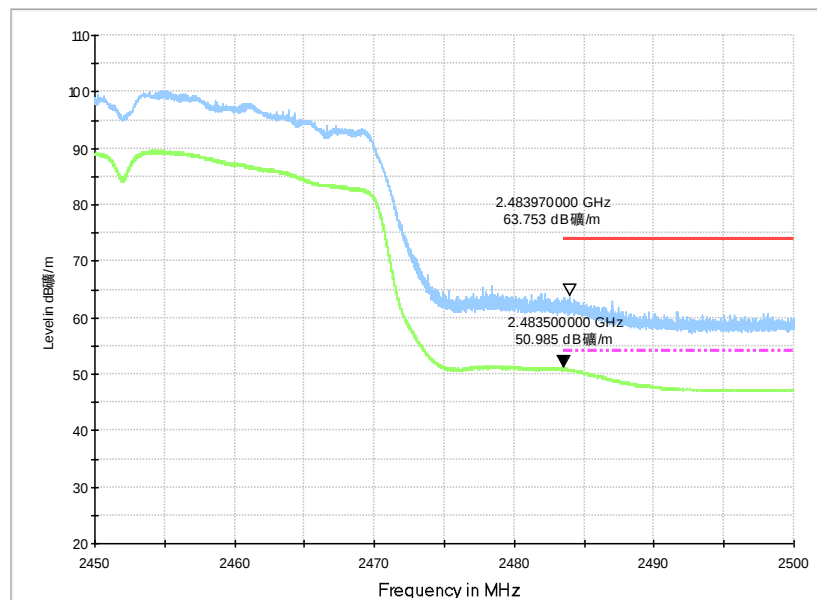


Fig.A.6.2.8 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

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 (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	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.7.2	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:

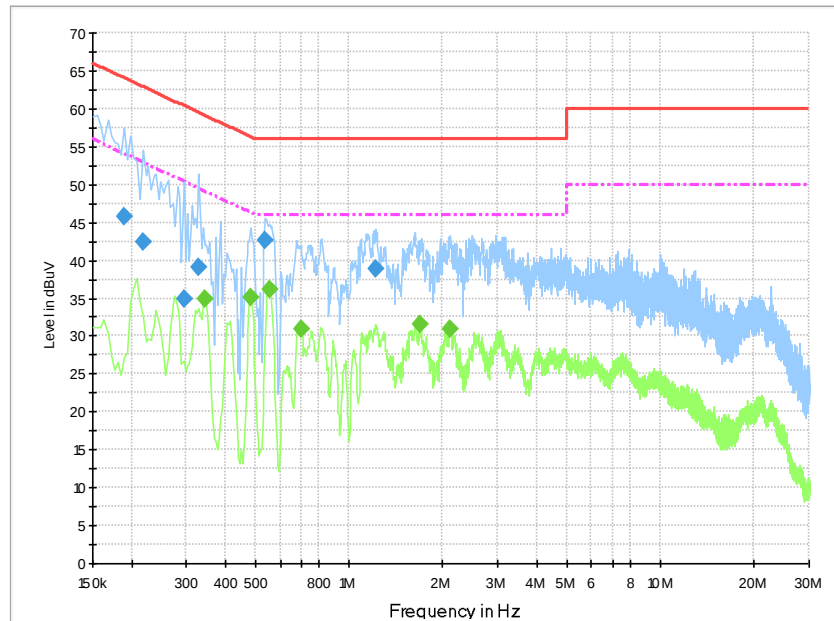


Fig.A.7.1 AC Powerline Conducted Emission-802.11b

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Correction (dB)	Margin (dB)	Limit (dBuV)	Comment
0.190500	45.7	5000.	9.000	On	N	20.0	18.3	64.0	
0.217500	42.3	5000.	9.000	On	N	19.9	20.6	62.9	
0.294000	34.9	5000.	9.000	On	N	19.9	25.5	60.4	
0.330000	39.0	5000.	9.000	On	L1	19.9	20.4	59.5	
0.537000	42.6	5000.	9.000	On	L1	20.0	13.4	56.0	
1.216500	38.9	5000.	9.000	On	L1	19.8	17.1	56.0	

Final Result 2

Frequency (MHz)	Average (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Correction (dB)	Margin (dB)	Limit (dBuV)	Comment
0.343500	35.0	5000.	9.000	On	L1	20.0	14.2	49.1	
0.483000	35.1	5000.	9.000	On	L1	20.0	11.2	46.3	
0.555000	36.2	5000.	9.000	On	L1	20.0	9.8	46.0	
0.699000	31.0	5000.	9.000	On	L1	19.9	15.0	46.0	
1.698000	31.6	5000.	9.000	On	L1	19.8	14.4	46.0	
2.112000	31.0	5000.	9.000	On	L1	19.8	15.0	46.0	

Result for Idle:

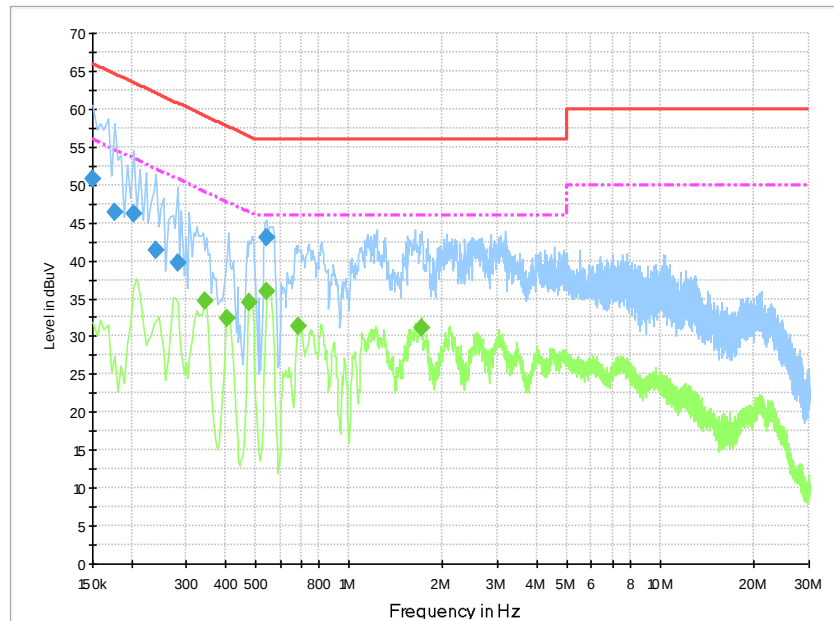


Fig.A.7.2 AC Powerline Conducted Emission-Iidle

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

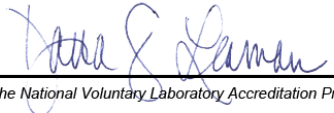
Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.150000	50.8	5000.	9.000	On	L1	19.8	15.2	66.0	
0.177000	46.4	5000.	9.000	On	N	20.1	18.2	64.6	
0.204000	46.1	5000.	9.000	On	L1	19.9	17.3	63.4	
0.240000	41.4	5000.	9.000	On	L1	19.9	20.7	62.1	
0.280500	39.6	5000.	9.000	On	L1	19.9	21.2	60.8	
0.546000	43.1	5000.	9.000	On	L1	20.0	12.9	56.0	

Final Result 2

Frequency (MHz)	Average (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.343500	34.7	5000.0	9.000	On	L1	20.0	14.4	49.1	
0.406500	32.3	5000.0	9.000	On	L1	20.0	15.4	47.7	
0.478500	34.5	5000.0	9.000	On	L1	20.0	11.9	46.4	
0.546000	36.0	5000.0	9.000	On	L1	20.0	10.0	46.0	
0.685500	31.3	5000.0	9.000	On	L1	19.9	14.7	46.0	
1.707000	31.1	5000.0	9.000	On	L1	19.8	14.9	46.0	

ANNEX B: Accreditation Certificate

United States Department of Commerce National Institute of Standards and Technology NVLAP[®]  ilac-MRA	
Certificate of Accreditation to ISO/IEC 17025:2017	
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>	
2020-09-29 through 2021-09-30 <i>Effective Dates</i>	 DEPARTMENT OF COMMERCE UNITED STATES OF AMERICA  <i>Dana S. Laman</i> For the National Voluntary Laboratory Accreditation Program

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