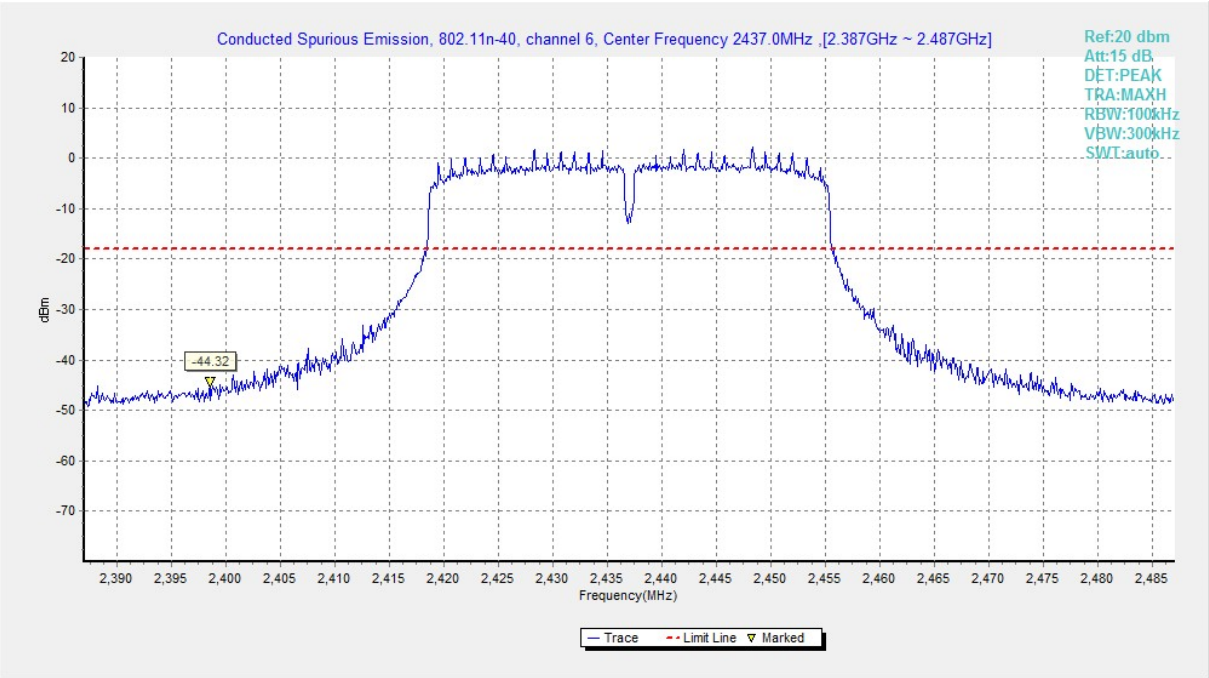

Fig.A.6.1.81 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, Center Frequency)

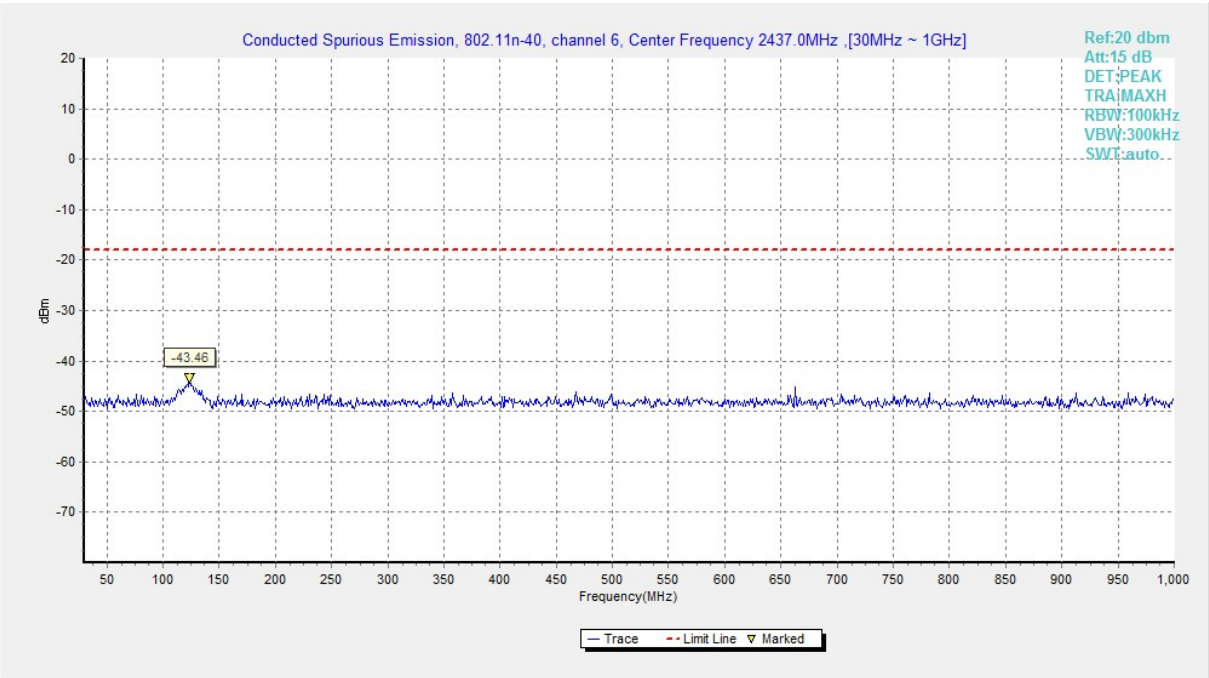

Fig.A.6.1.82 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 30 MHz-1 GHz)

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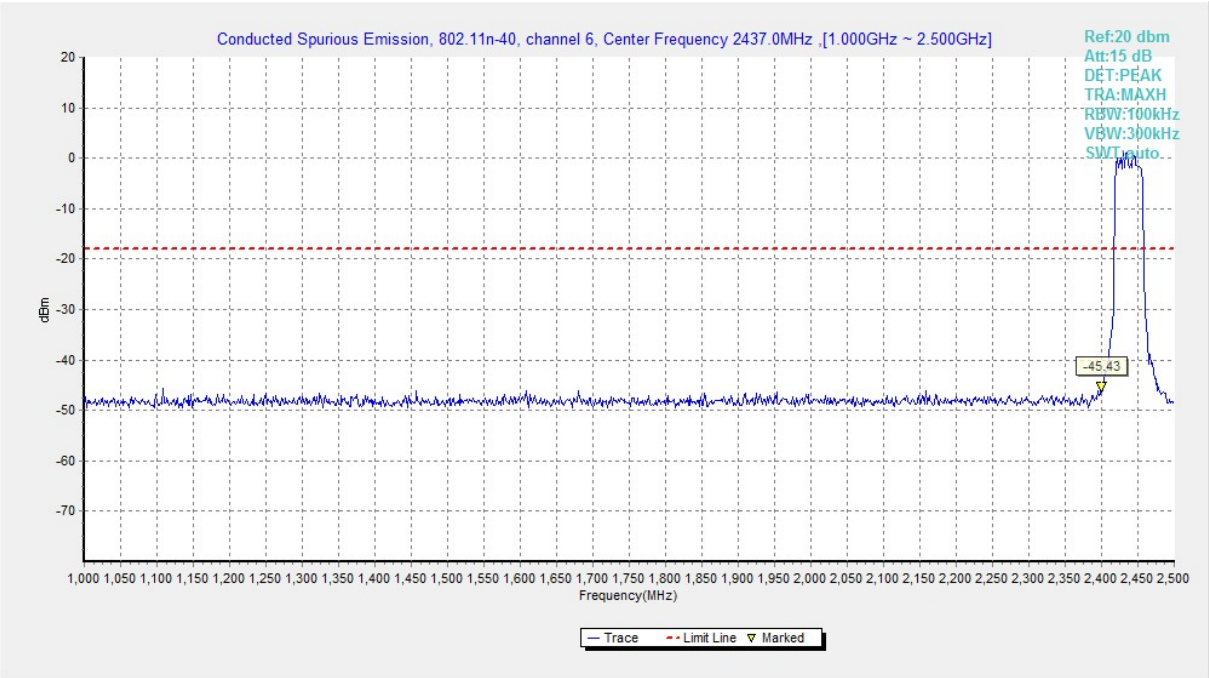

Fig.A.6.1.83 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)

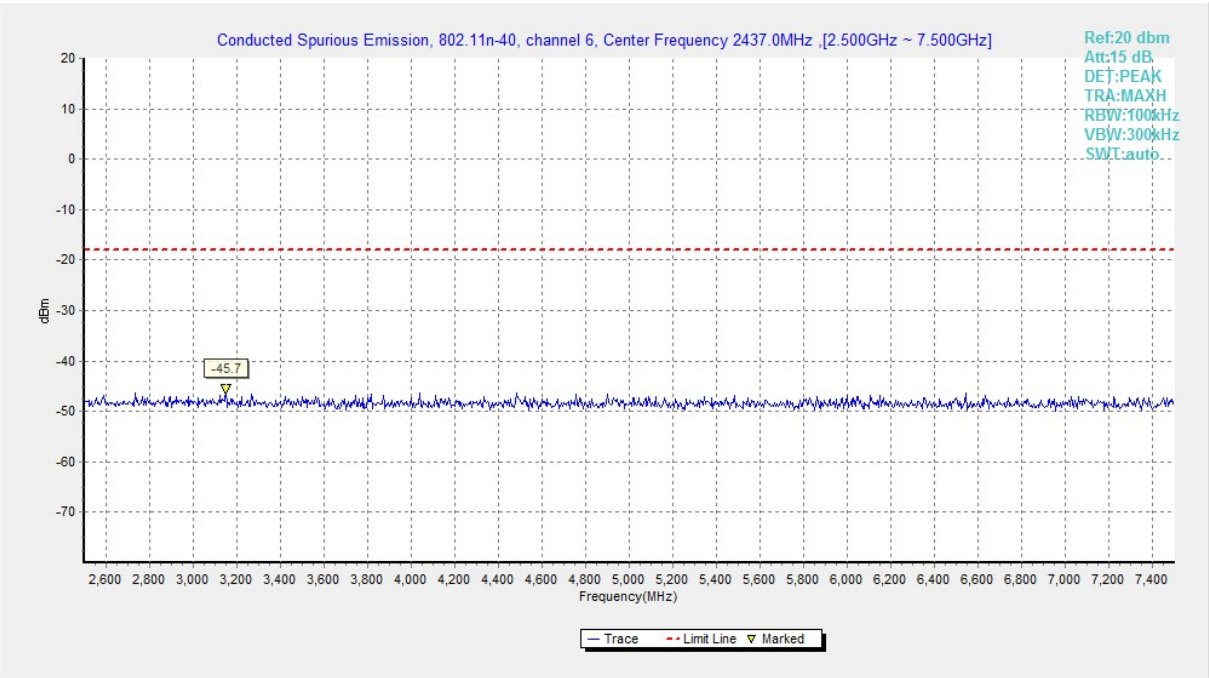

Fig.A.6.1.84 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)

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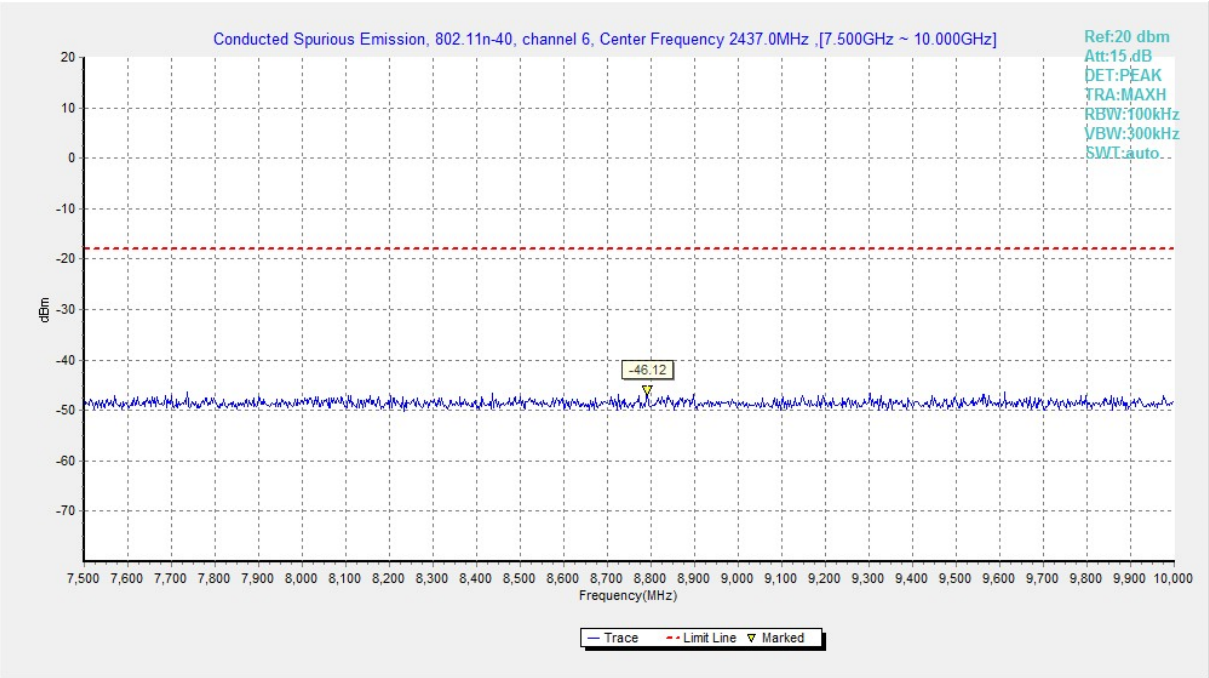

Fig.A.6.1.85 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)

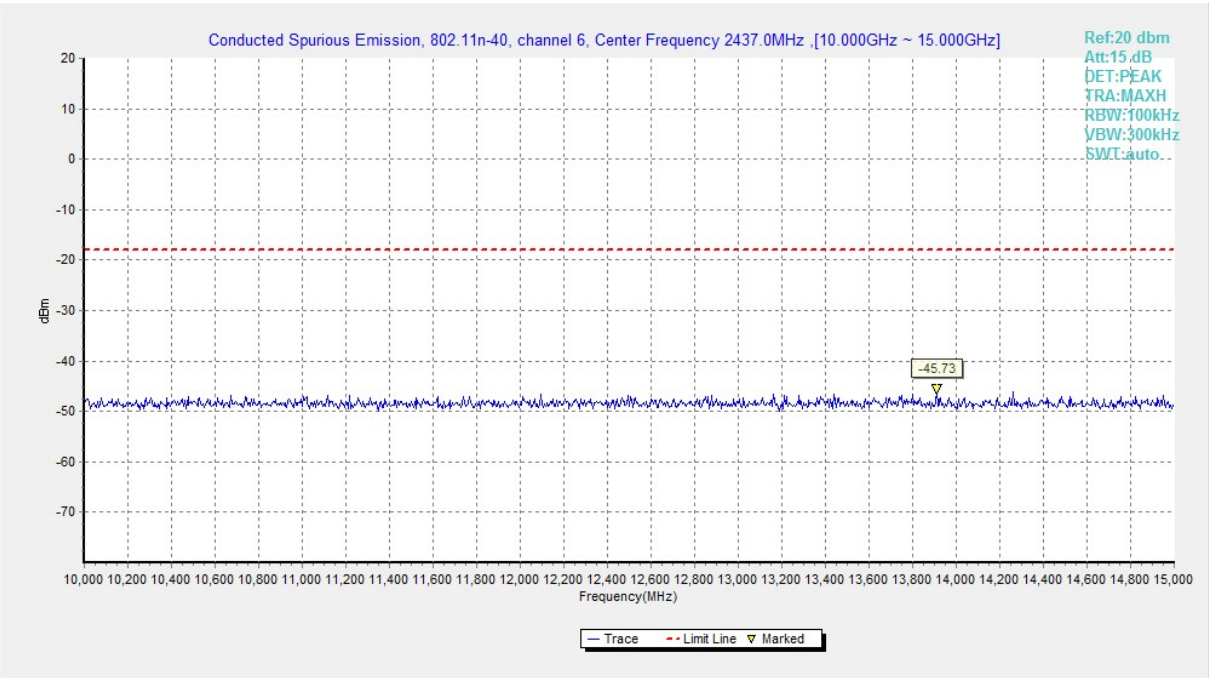

Fig.A.6.1.86 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 10 GHz-15 GHz)

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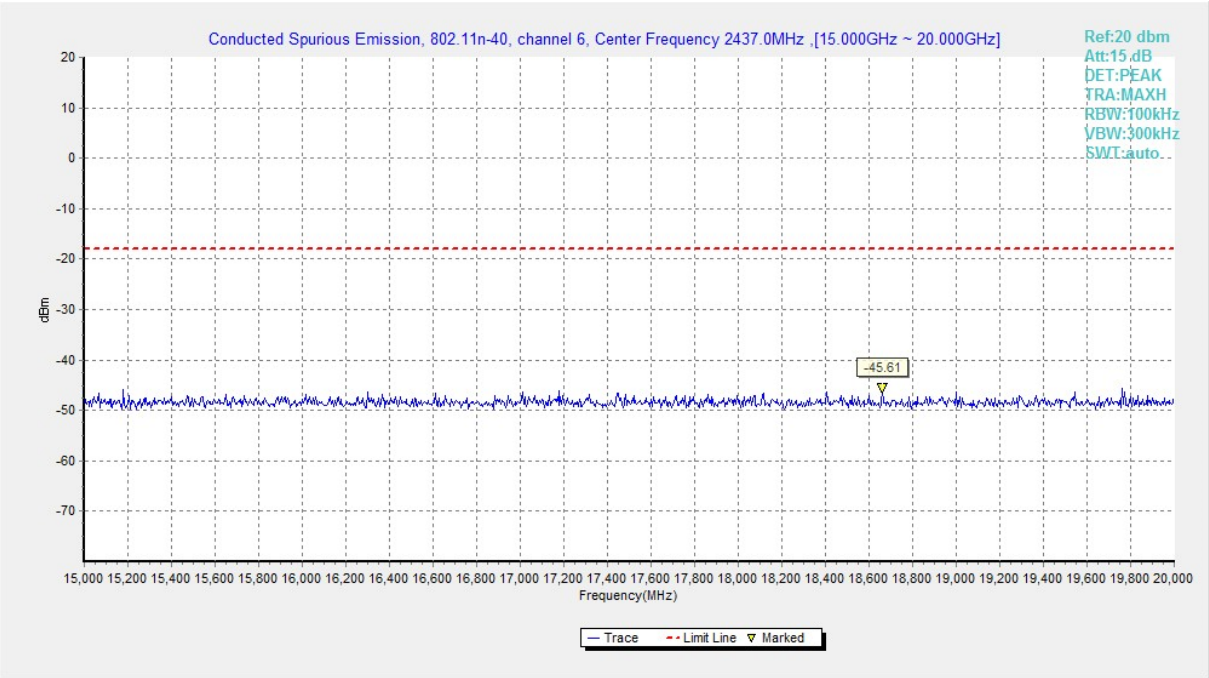

Fig.A.6.1.87 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 15 GHz-20 GHz)

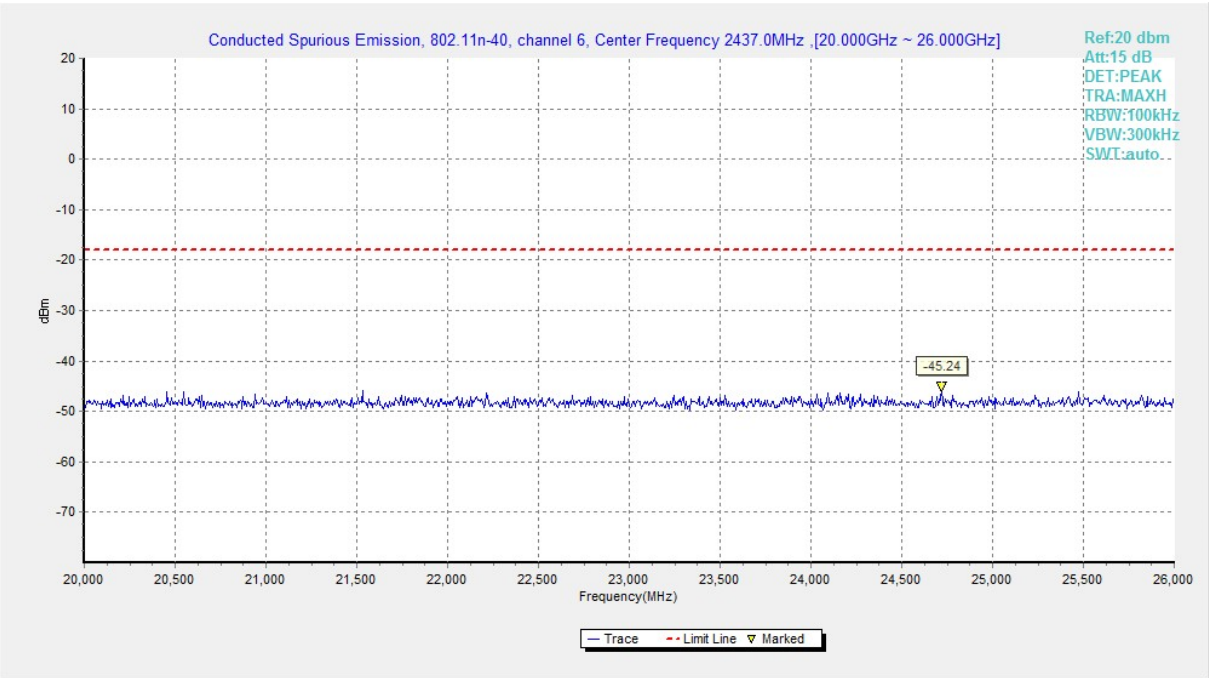

Fig.A.6.1.88 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 20 GHz-26 GHz)

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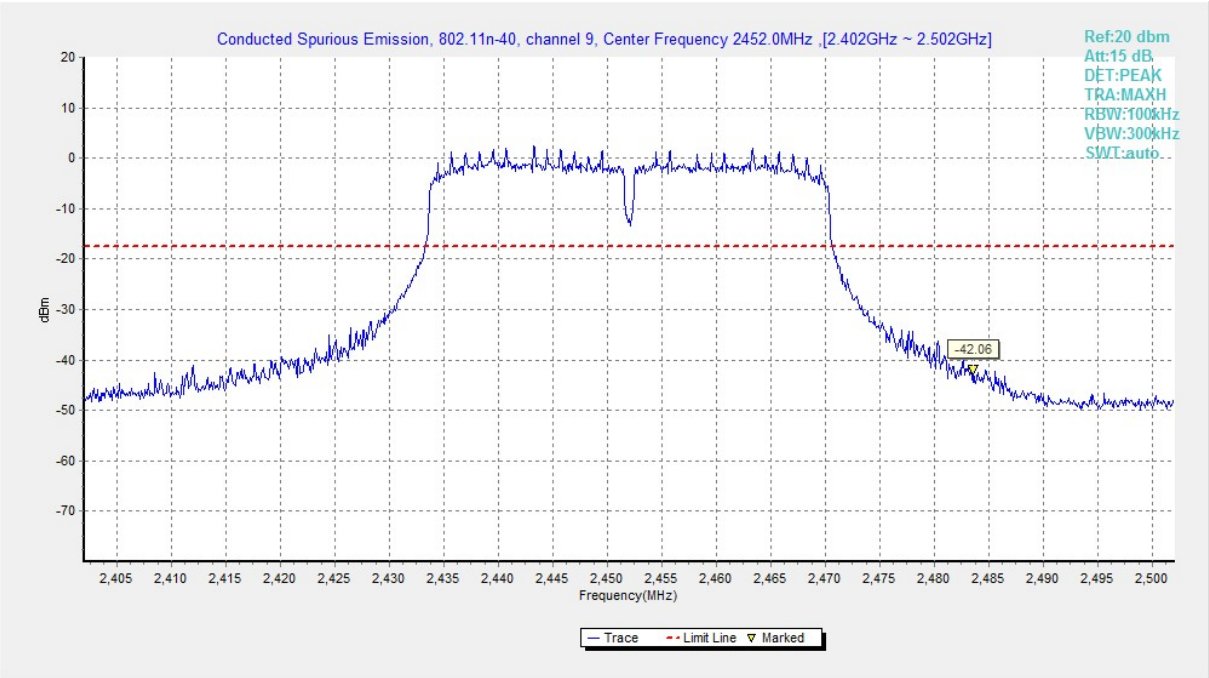

Fig.A.6.1.89 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, Center Frequency)

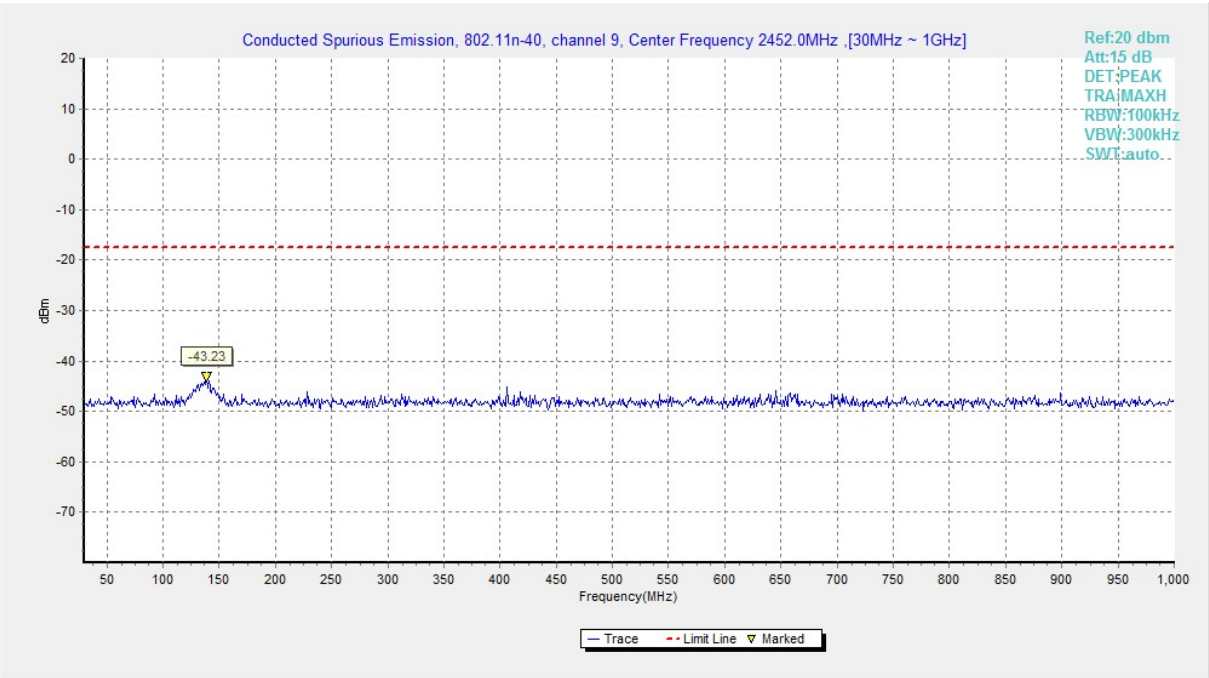

Fig.A.6.1.90 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 30 MHz-1 GHz)

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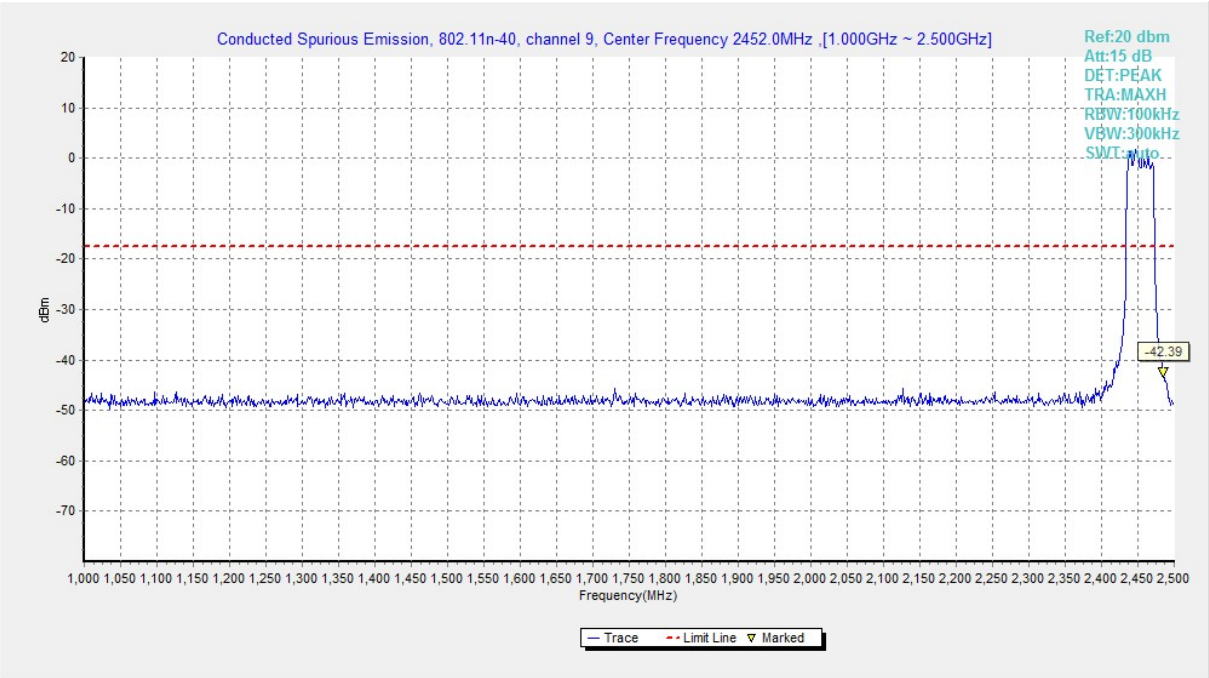

Fig.A.6.1.91 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

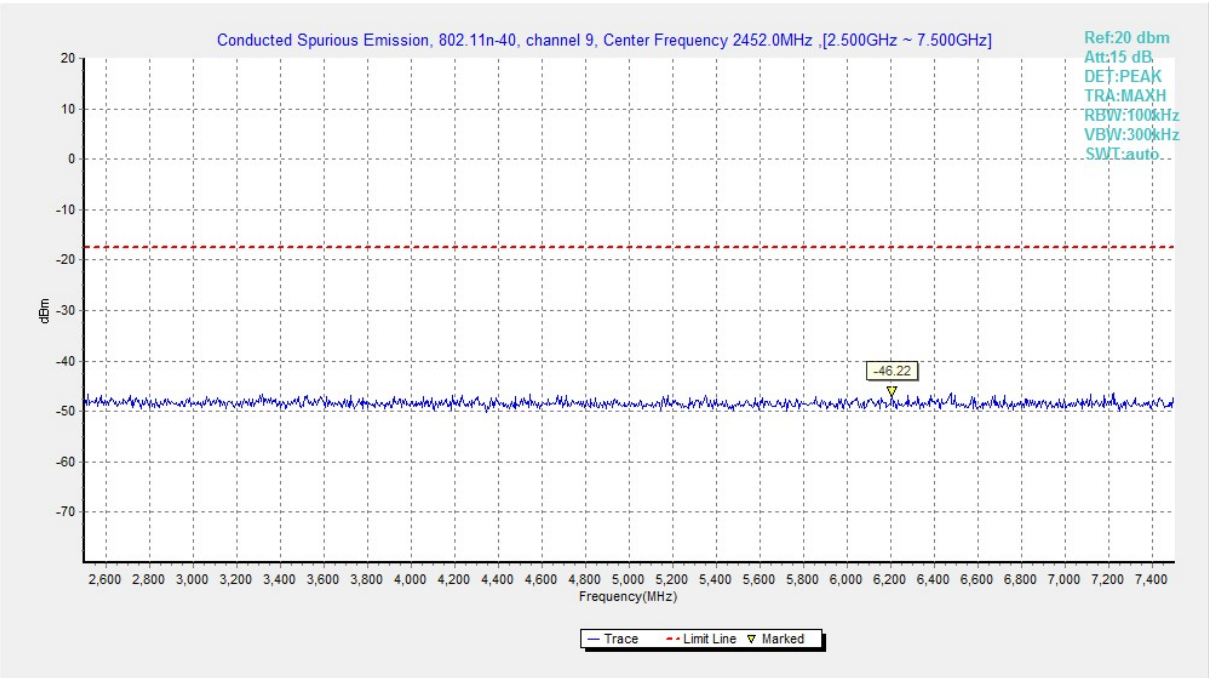

Fig.A.6.1.92 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)

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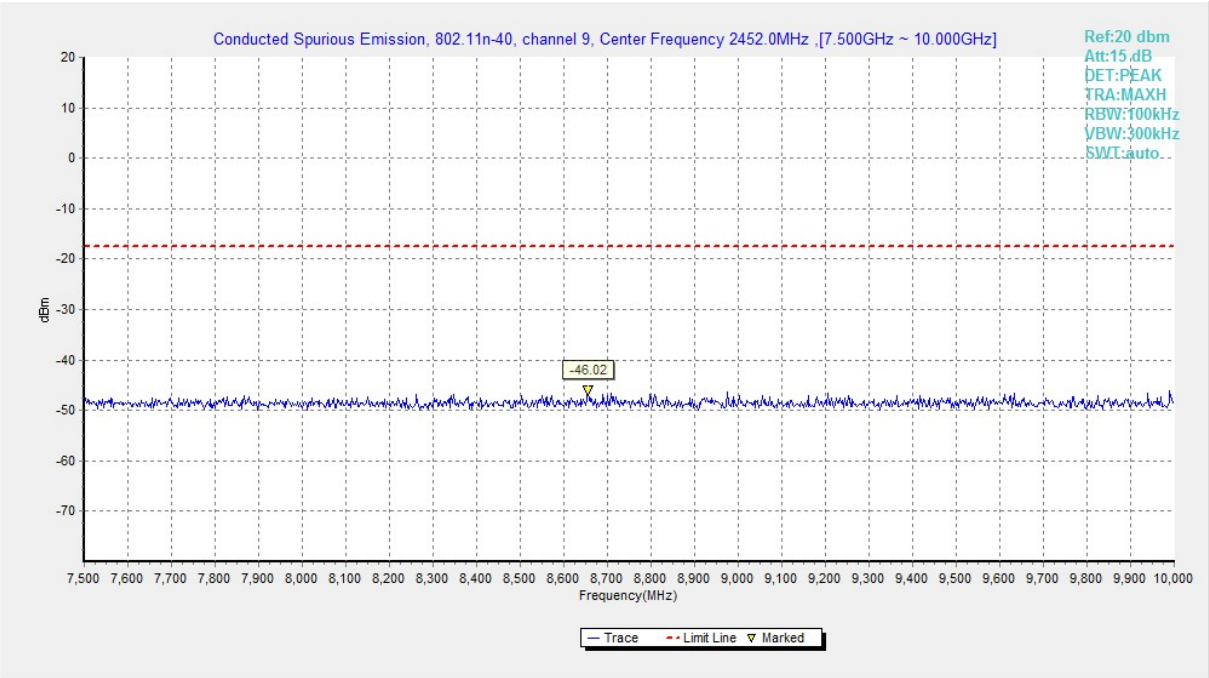

Fig.A.6.1.93 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

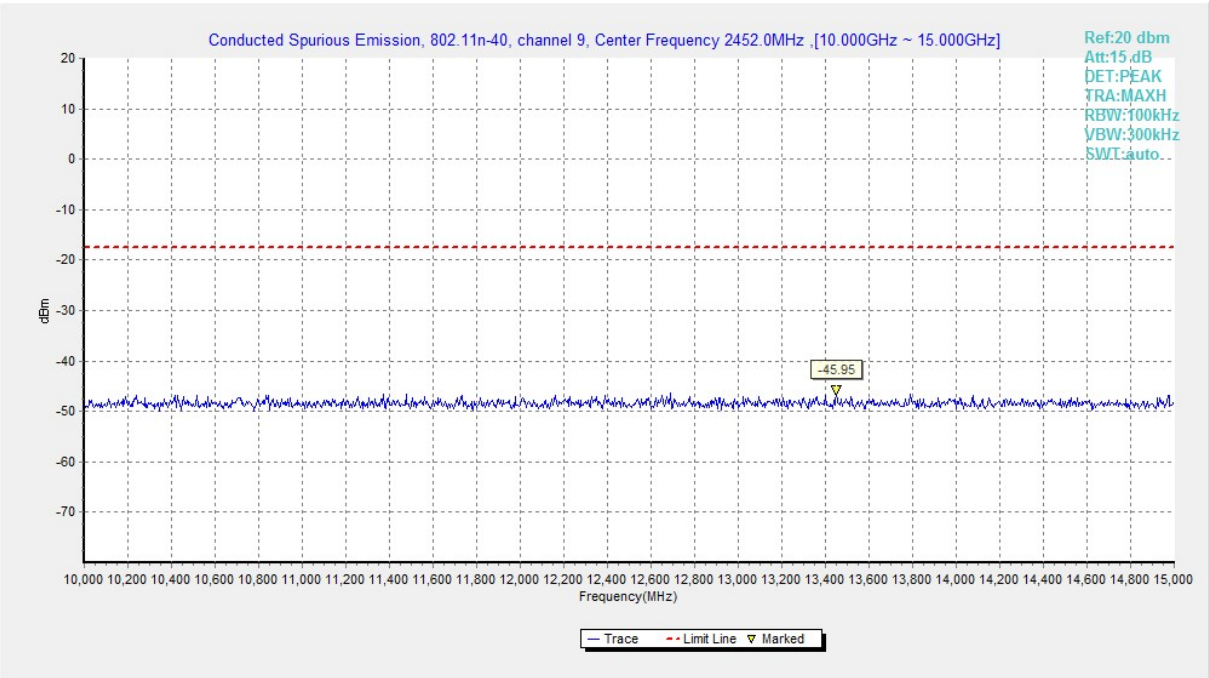

Fig.A.6.1.94 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 10 GHz-15 GHz)

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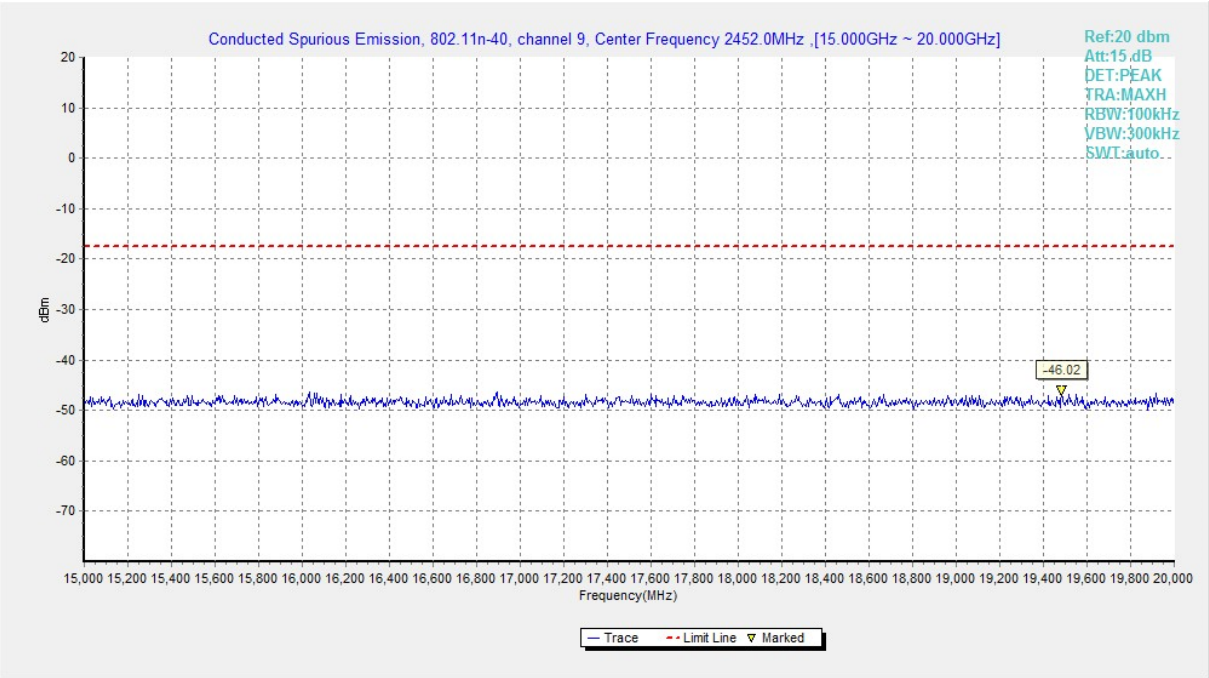

Fig.A.6.1.95 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 15 GHz-20 GHz)

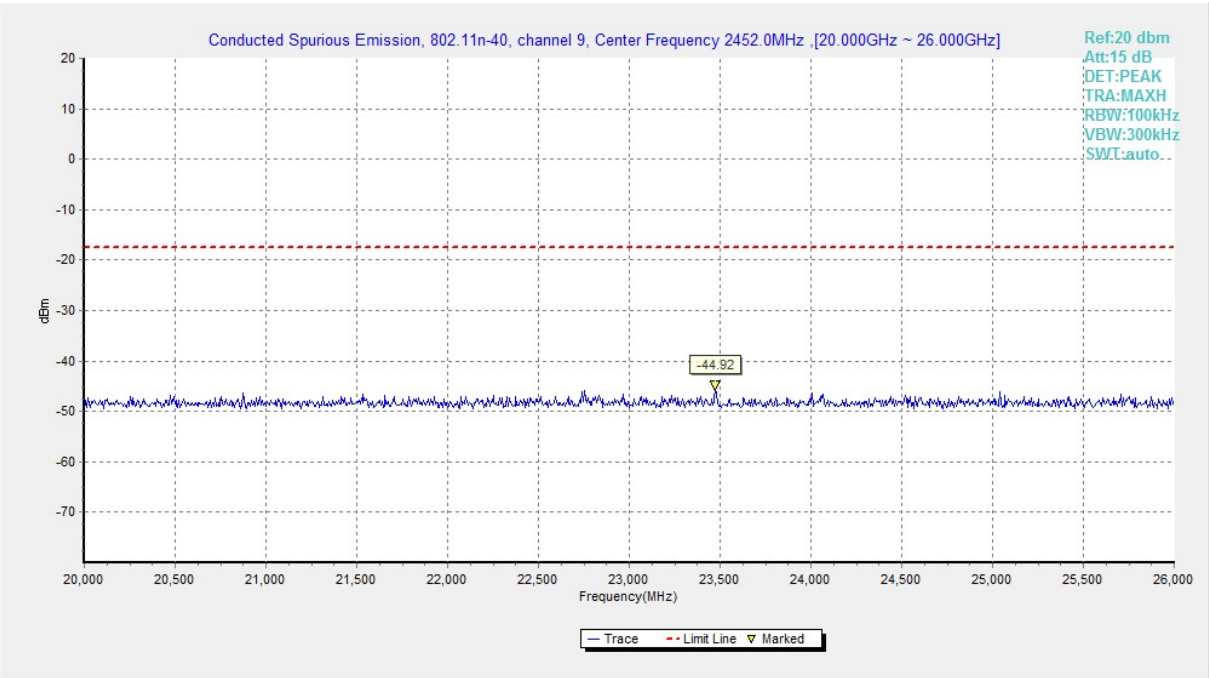

Fig.A.6.1.96 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 20 GHz-26 GHz)

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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

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Measurement Results for EUT1:

802.11b mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	Power(ch1)	2.31GHz ~2.43GHz	Fig.A.6.2.1	**P**
	Power(ch11)	2.45GHz ~2.5GHz	Fig.A.6.2.2	**P**

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	Power(ch1)	2.31GHz ~2.43GHz	Fig.A.6.2.3	**P**
	Power(ch11)	2.45GHz ~2.5GHz	Fig.A.6.2.4	**P**

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n(HT20)	Power(ch1)	2.31GHz ~2.43GHz	Fig.A.6.2.5	**P**
	Power(ch11)	2.45GHz ~2.5GHz	Fig.A.6.2.6	**P**

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n(HT40)	Power(ch3)	2.31GHz ~2.43GHz	Fig.A.6.2.7	**P**
	Power(ch9)	2.45GHz ~2.5GHz	Fig.A.6.2.8	**P**

Conclusion: Pass

Note:

A "reference path loss" is established and the A_{Rpl} is the attenuation of “reference path loss”, and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

P_{Mea} is the field strength recorded from the instrument.

The measurement results are obtained as described below:

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

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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)	Antenna Height (cm)	Turntable angle (deg)
2388.100	46.39	2.9	32.0	11.51	54.0	7.6	H	155	175
2390.000	46.44	2.9	32.0	11.55	54.0	7.6	H	155	5
4824.000	30.87	-32.7	34.1	29.43	54.0	23.1	H	155	26
7236.000	34.40	-29.8	35.7	28.44	54.0	19.6	H	155	355
9648.000	47.77	-29.8	36.8	40.78	54.0	6.2	H	155	6
12060.000	37.39	-28.6	38.9	27.05	54.0	16.6	H	155	12

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)
2422.700	46.74	2.9	32.1	11.78	54.0	7.3	H	155	170
2450.900	46.74	2.9	32.1	11.71	54.0	7.3	H	155	150
4874.000	31.08	-32.6	34.2	29.55	54.0	22.9	H	155	20
7311.000	34.29	-29.6	35.8	28.15	54.0	19.7	H	155	180
9748.000	47.96	-29.6	36.9	40.65	54.0	6.0	H	155	202
12185.000	37.60	-28.3	38.9	27.00	54.0	16.4	H	155	8

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	46.60	2.9	32.2	11.49	54.0	7.4	H	155	20
2485.400	46.64	2.9	32.2	11.53	54.0	7.4	H	155	248
4924.000	31.49	-32.6	34.2	29.89	54.0	22.5	H	155	49
7386.000	33.83	-30.1	35.8	28.16	54.0	20.2	H	155	335
9848.000	46.16	-29.5	37.0	38.61	54.0	7.8	H	155	180
12310.000	38.04	-27.8	39.0	26.92	54.0	16.0	H	155	8

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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)	Antenna Height (cm)	Turntable angle (deg)
2345.140	60.24	2.8	31.9	25.46	74.0	13.8	H	155	176
2363.718	60.42	2.8	32.0	25.60	74.0	13.6	H	155	0
4824.000	42.05	-32.7	34.1	40.62	74.0	31.9	V	155	22
7236.000	44.85	-29.8	35.7	38.89	74.0	29.2	V	155	352
9648.000	51.89	-29.8	36.8	44.90	74.0	22.1	V	155	0
12060.000	47.26	-28.6	38.9	36.92	74.0	26.7	V	155	0

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)
2367.000	47.93	-27.2	32.0	43.13	74.0	26.1	H	155	176
2508.800	48.01	-26.5	32.2	42.27	74.0	26.0	H	155	154
4874.000	41.64	-32.6	34.2	40.11	74.0	32.4	V	155	22
7311.000	44.77	-29.6	35.8	38.63	74.0	29.2	V	155	176
9748.000	51.73	-29.6	36.9	44.42	74.0	22.3	H	155	198
12185.000	47.66	-28.3	38.9	37.06	74.0	26.3	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)
2493.890	60.65	2.9	32.2	25.52	74.0	13.4	H	155	22
2495.905	60.63	2.9	32.2	25.50	74.0	13.4	H	155	242
4924.000	40.77	-32.6	34.2	39.17	74.0	33.2	V	155	44
7386.000	43.79	-30.1	35.8	38.12	74.0	30.2	H	155	330
9848.000	51.48	-29.5	37.0	43.93	74.0	22.5	H	155	176
12310.000	48.43	-27.8	39.0	37.31	74.0	25.6	H	155	0

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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)	Antenna Height (cm)	Turntable angle (deg)
2389.400	47.61	2.9	32.0	12.73	54.0	6.4	H	155	48
2390.000	47.93	2.9	32.0	13.05	54.0	6.1	H	155	6
4824.000	30.92	-32.7	34.1	29.48	54.0	23.1	H	155	312
7236.000	34.33	-29.8	35.7	28.38	54.0	19.7	H	155	48
9648.000	48.29	-29.8	36.8	41.29	54.0	5.7	H	155	68
12060.000	37.44	-28.6	38.9	27.10	54.0	16.6	H	155	80

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)
2415.200	48.34	2.9	32.1	13.40	54.0	5.7	H	155	25
2459.700	48.08	2.9	32.1	13.03	54.0	5.9	H	155	49
4874.000	30.96	-32.6	34.2	29.43	54.0	23.0	H	155	4
7311.000	34.28	-29.6	35.8	28.14	54.0	19.7	H	155	6
9748.000	47.58	-29.6	36.9	40.27	54.0	6.4	H	155	25
12185.000	37.53	-28.3	38.9	26.93	54.0	16.5	H	155	186

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	48.17	2.9	32.2	13.07	54.0	5.8	H	155	20
2483.900	47.83	2.9	32.2	12.72	54.0	6.2	H	155	45
4924.000	31.48	-32.6	34.2	29.88	54.0	22.5	H	155	240
7386.000	33.87	-30.1	35.8	28.20	54.0	20.1	H	155	180
9848.000	46.37	-29.5	37.0	38.82	54.0	7.6	H	155	85
12310.000	38.01	-27.8	39.0	26.88	54.0	16.0	H	155	25

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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)	Antenna Height (cm)	Turntable angle (deg)
2389.702	65.90	2.9	32.0	31.02	74.0	8.1	H	155	44
2389.800	65.28	2.9	32.0	30.39	74.0	8.7	H	155	0
4824.000	41.42	-32.7	34.1	39.98	74.0	32.6	V	155	308
7236.000	45.97	-29.8	35.7	40.02	74.0	28.0	H	155	44
9468.000	52.15	-30.1	36.6	45.63	74.0	21.8	V	155	66
12060.000	46.65	-28.6	38.9	36.31	74.0	27.4	H	155	88

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)
2374.400	48.01	-26.7	32.0	42.71	74.0	26.0	H	155	22
2498.200	49.17	-25.9	32.2	42.88	74.0	24.8	V	155	44
4874.000	43.05	-32.6	34.2	41.52	74.0	31.0	H	155	0
7311.000	44.69	-29.6	35.8	38.54	74.0	29.3	H	155	0
9748.000	51.77	-29.6	36.9	44.46	74.0	22.2	H	155	22
12185.000	47.76	-28.3	38.9	37.16	74.0	26.2	H	155	176

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)
2483.515	67.62	2.9	32.2	32.52	74.0	6.4	H	155	22
2483.580	68.70	2.9	32.2	33.60	74.0	5.3	H	155	44
4924.000	41.91	-32.6	34.2	40.30	74.0	32.1	H	155	242
7386.000	45.15	-30.1	35.8	39.49	74.0	28.8	H	155	176
9848.000	52.51	-29.5	37.0	44.97	74.0	21.5	H	155	88
12310.000	47.65	-27.8	39.0	36.52	74.0	26.4	V	155	22

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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)	Antenna Height (cm)	Turntable angle (deg)
2389.000	47.49	2.9	32.0	12.61	54.0	6.5	H	155	135
2390.000	47.73	2.9	32.0	12.84	54.0	6.3	H	155	160
4824.000	30.92	-32.7	34.1	29.48	54.0	23.1	H	155	92
7236.000	34.38	-29.8	35.7	28.43	54.0	19.6	H	155	115
9648.000	48.15	-29.8	36.8	41.15	54.0	5.9	H	155	112
12060.000	37.30	-28.6	38.9	26.96	54.0	16.7	H	155	85

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)
2417.100	48.85	2.9	32.1	13.90	54.0	5.2	H	155	4
2458.200	48.83	2.9	32.1	13.79	54.0	5.2	H	155	2
4874.000	31.02	-32.6	34.2	29.49	54.0	23.0	H	155	25
7311.000	34.34	-29.6	35.8	28.20	54.0	19.7	H	155	350
9748.000	47.05	-29.6	36.9	39.74	54.0	6.9	H	155	92
12185.000	37.53	-28.3	38.9	26.93	54.0	16.5	H	155	85

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	48.20	2.9	32.2	13.10	54.0	5.8	H	155	6
2484.200	47.78	2.9	32.2	12.68	54.0	6.2	H	155	48
4924.000	31.37	-32.6	34.2	29.76	54.0	22.6	H	155	92
7386.000	33.89	-30.1	35.8	28.23	54.0	20.1	H	155	48
9848.000	46.98	-29.5	37.0	39.43	54.0	7.0	H	155	68
12310.000	37.97	-27.8	39.0	26.85	54.0	16.0	H	155	92

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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)	Antenna Height (cm)	Turntable angle (deg)
2389.352	68.10	2.9	32.0	33.22	74.0	5.9	H	155	132
2389.576	68.28	2.9	32.0	33.40	74.0	5.7	H	155	154
4824.000	41.29	-32.7	34.1	39.85	74.0	32.7	V	155	88
7236.000	45.29	-29.8	35.7	39.34	74.0	28.7	H	155	110
9648.000	53.32	-29.8	36.8	46.32	74.0	20.7	V	155	110
12060.000	46.96	-28.6	38.9	36.62	74.0	27.0	V	155	88

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)
2375.600	48.10	-26.6	32.0	42.72	74.0	25.9	H	155	0
2516.400	48.45	-26.6	32.2	42.88	74.0	25.5	H	155	0
4874.000	42.46	-32.6	34.2	40.93	74.0	31.5	V	155	22
7311.000	45.02	-29.6	35.8	38.88	74.0	29.0	V	155	352
9748.000	51.97	-29.6	36.9	44.66	74.0	22.0	V	155	88
12185.000	47.75	-28.3	38.9	37.15	74.0	26.3	V	155	88

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)
2483.665	67.45	2.9	32.2	32.34	74.0	6.6	H	155	0
2483.845	68.63	2.9	32.2	33.52	74.0	5.4	H	155	44
4924.000	43.47	-32.6	34.2	41.86	74.0	30.5	V	155	88
7386.000	44.73	-30.1	35.8	39.06	74.0	29.3	V	155	44
9848.000	51.36	-29.5	37.0	43.82	74.0	22.6	V	155	66
12310.000	47.83	-27.8	39.0	36.70	74.0	26.2	H	155	88

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802.11n-HT40-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)	Antenna Height (cm)	Turntable angle (deg)
2389.100	46.96	2.9	32.0	12.08	54.0	7.0	H	155	92
2390.000	46.93	2.9	32.0	12.05	54.0	7.1	H	155	26
4844.000	30.92	-32.6	34.1	29.39	54.0	23.1	H	155	222
7266.000	34.40	-29.6	35.8	28.29	54.0	19.6	H	155	248
9688.000	47.09	-29.8	36.8	40.03	54.0	6.9	H	155	46
12110.000	37.95	-28.3	38.9	27.31	54.0	16.1	H	155	68

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)
2406.800	47.33	2.9	32.0	12.41	54.0	6.7	H	155	5
2464.900	47.99	2.9	32.1	12.93	54.0	6.0	H	155	25
4874.000	31.08	-32.6	34.2	29.55	54.0	22.9	H	155	356
7311.000	34.36	-29.6	35.8	28.22	54.0	19.6	H	155	350
9748.000	47.35	-29.6	36.9	40.04	54.0	6.7	H	155	185
12185.000	37.52	-28.3	38.9	26.92	54.0	16.5	H	155	187

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	47.18	2.9	32.2	12.07	54.0	6.8	H	155	86
2484.600	47.18	2.9	32.2	12.07	54.0	6.8	H	155	107
4904.000	31.60	-32.6	34.2	30.09	54.0	22.4	H	155	130
7356.000	34.55	-29.7	35.8	28.49	54.0	19.4	H	155	152
9808.000	47.31	-29.4	37.0	39.74	54.0	6.7	H	155	174
12260.000	38.00	-28.0	39.0	27.09	54.0	16.0	H	155	195

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802.11n-HT40-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)	Antenna Height (cm)	Turntable angle (deg)
2389.030	63.37	2.9	32.0	28.49	74.0	10.6	H	155	88
2389.590	63.83	2.9	32.0	28.95	74.0	10.2	H	155	22
4844.000	42.10	-32.6	34.1	40.57	74.0	31.9	V	155	220
7266.000	44.89	-29.6	35.8	38.78	74.0	29.1	V	155	242
9688.000	52.38	-29.8	36.8	45.32	74.0	21.6	V	155	44
12110.000	48.10	-28.3	38.9	37.46	74.0	25.9	V	155	66

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)
2376.600	47.77	-26.5	32.0	42.31	74.0	26.2	H	155	0
2500.200	48.96	-26.3	32.2	43.02	74.0	25.0	H	155	22
4874.000	42.38	-32.6	34.2	40.85	74.0	31.6	H	155	352
7311.000	45.58	-29.6	35.8	39.43	74.0	28.4	V	155	352
9748.000	52.30	-29.6	36.9	44.99	74.0	21.7	V	155	176
12185.000	47.04	-28.3	38.9	36.44	74.0	27.0	V	155	176

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)
2483.855	65.40	2.9	32.2	30.29	74.0	8.6	V	155	88
2483.890	65.83	2.9	32.2	30.72	74.0	8.2	H	155	110
4904.000	41.60	-32.6	34.2	40.08	74.0	32.4	V	155	132
7356.000	46.24	-29.7	35.8	40.18	74.0	27.8	H	155	154
9808.000	52.23	-29.4	37.0	44.66	74.0	21.8	V	155	176
12260.000	47.75	-28.0	39.0	36.84	74.0	26.3	V	155	198

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Test graphs as below:

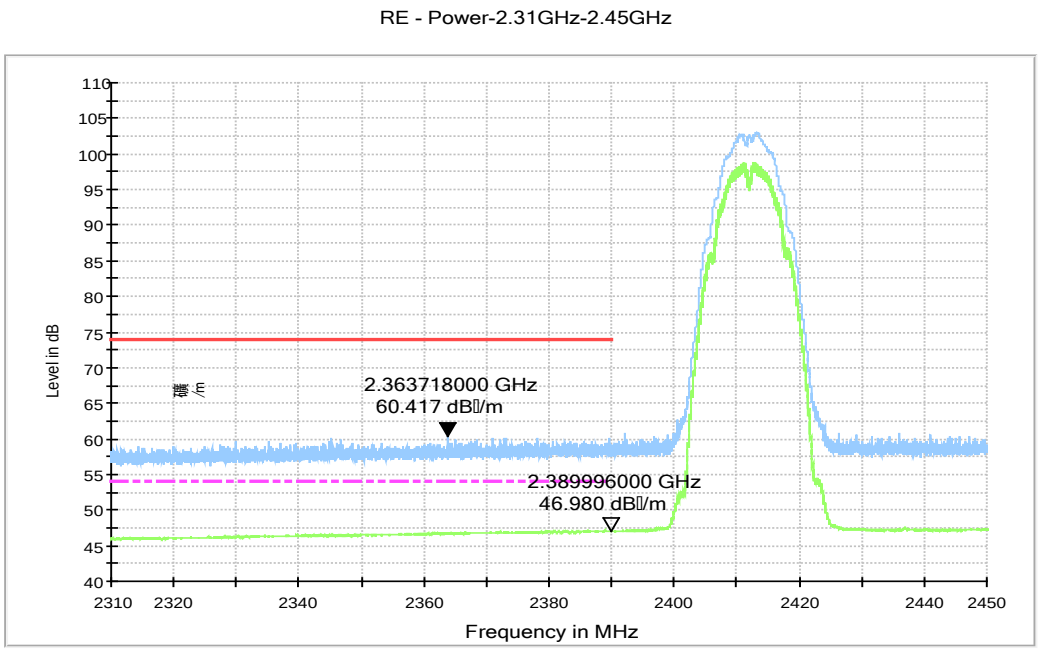

Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz – 2.43GHz

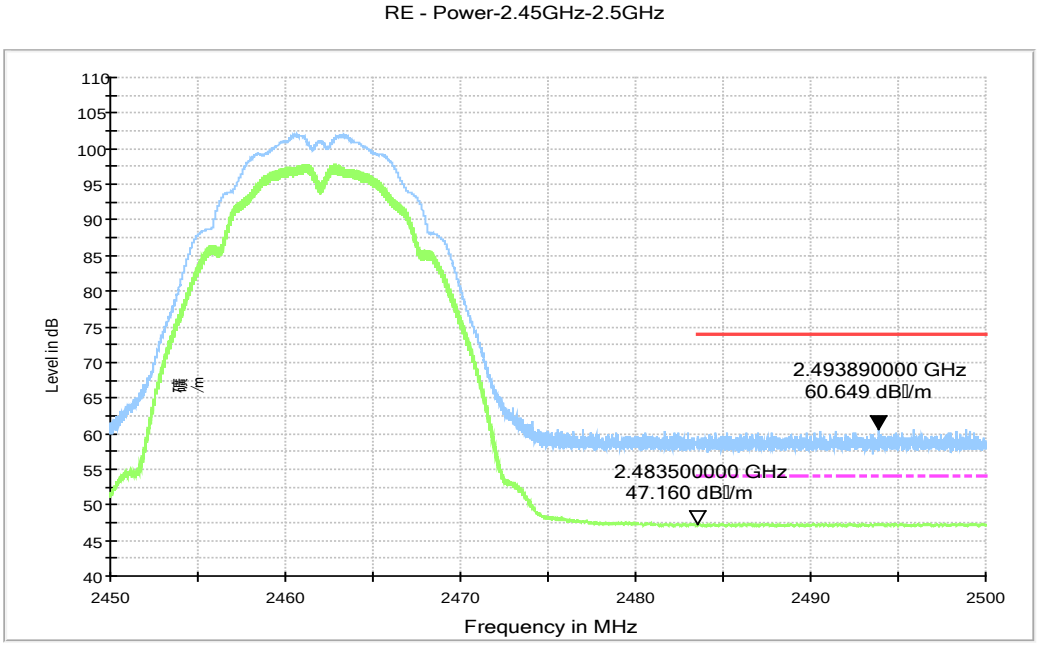

Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

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RE - Power-2.31GHz-2.45GHz

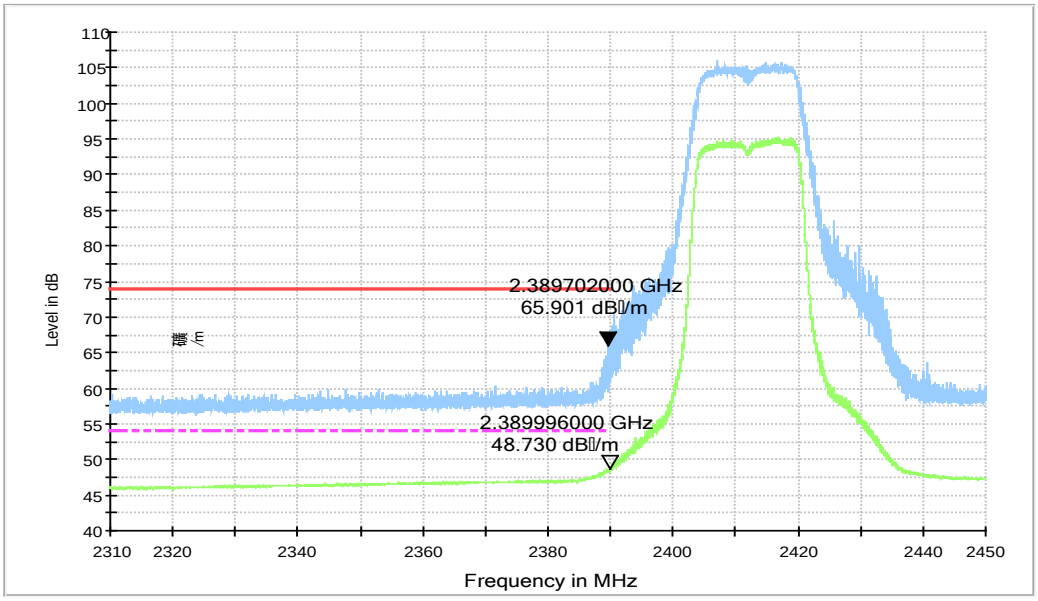

Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31 GHz - 2.43GHz

RE - Power-2.45GHz-2.5GHz

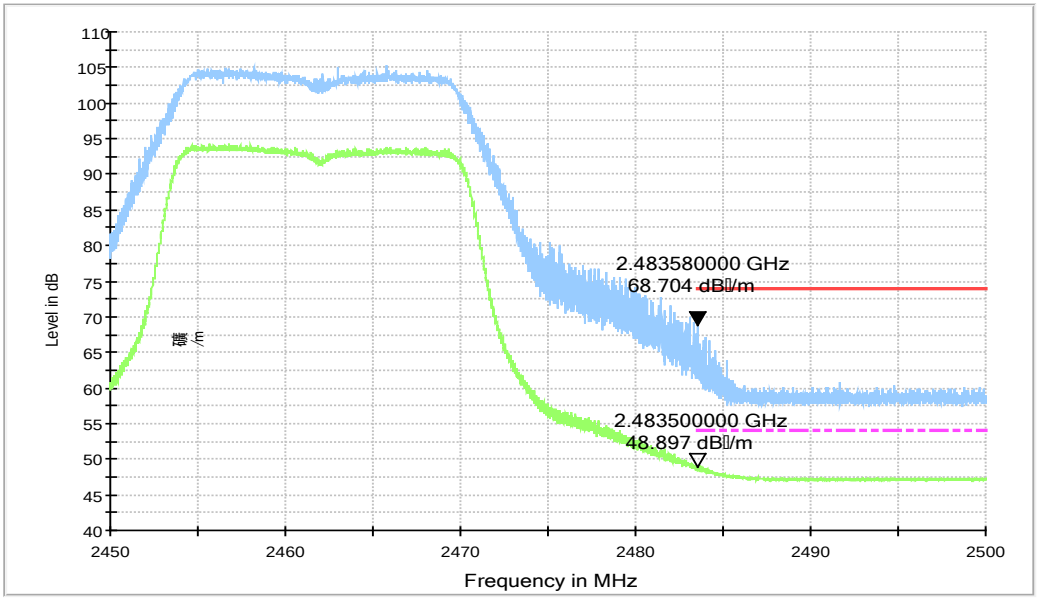

Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

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RE - Power-2.31GHz-2.45GHz

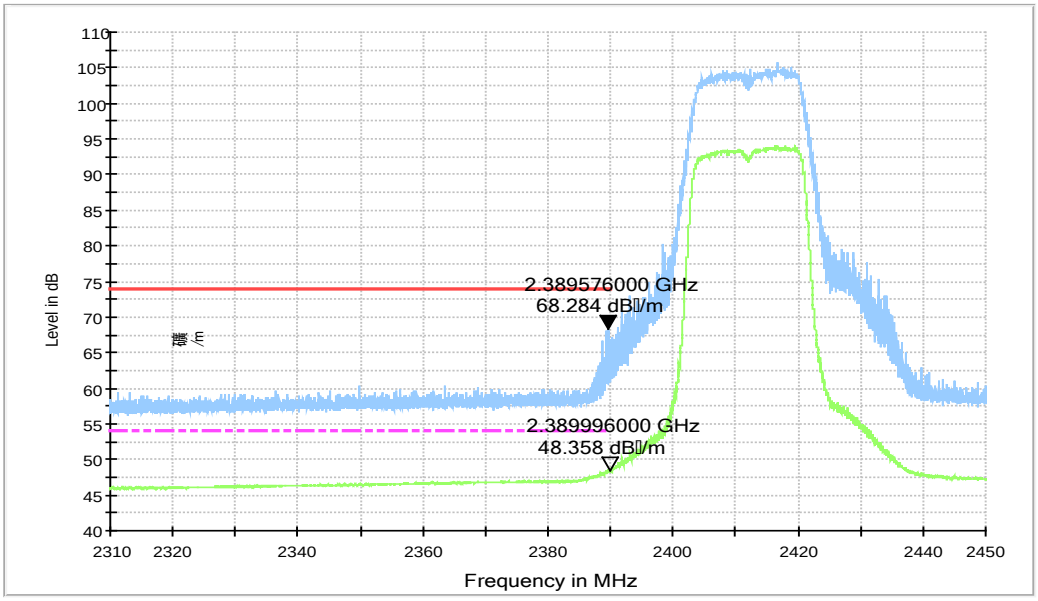

Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.31GHz - 2.45GHz

RE - Power-2.45GHz-2.5GHz

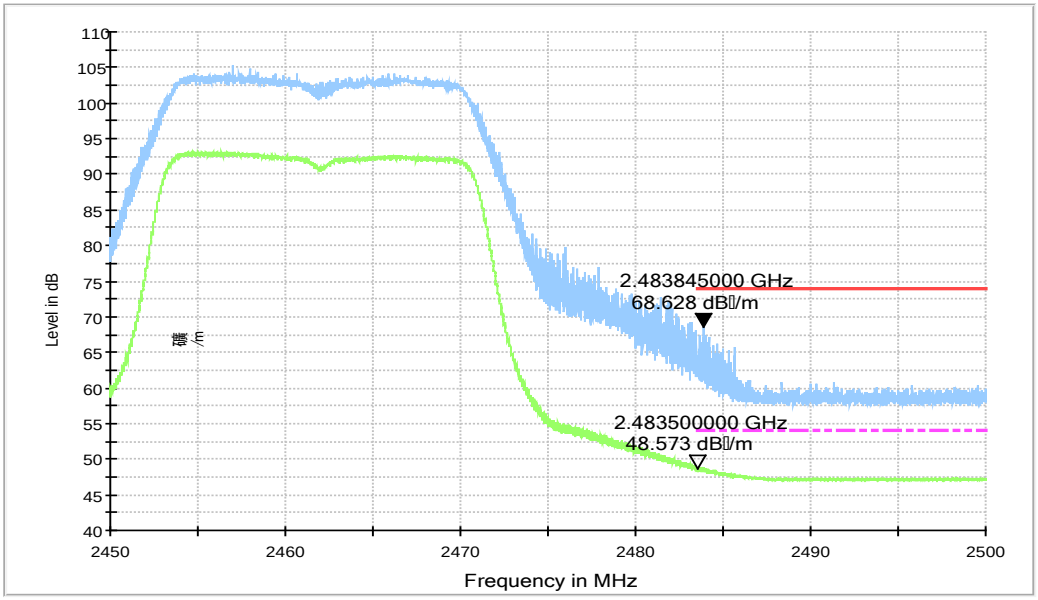

Fig.A.6.2.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

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RE - Power-2.31GHz-2.45GHz

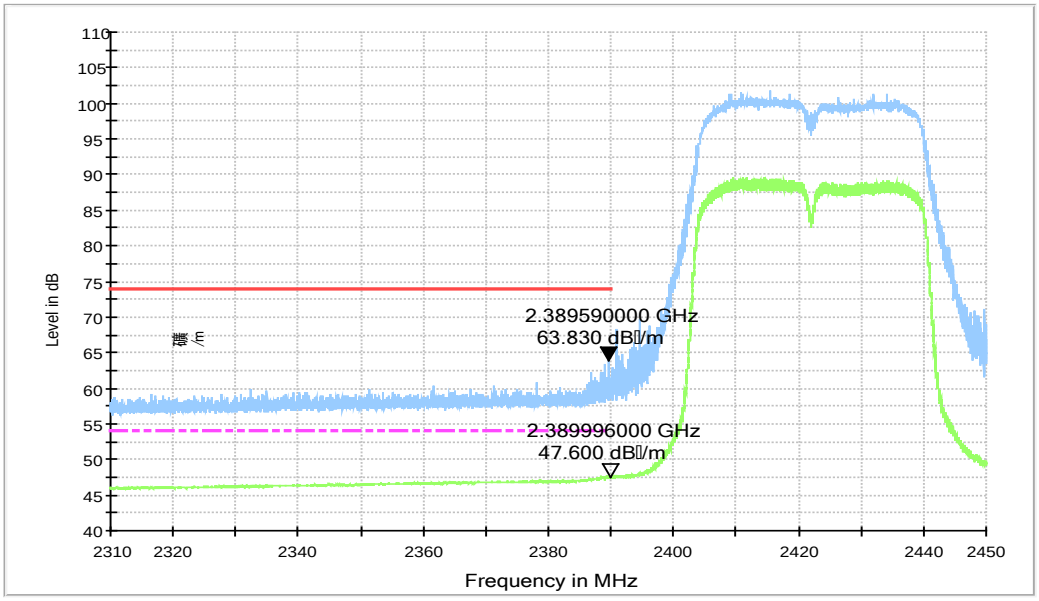

Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.31GHz - 2.45GHz

RE - Power-2.45GHz-2.5GHz

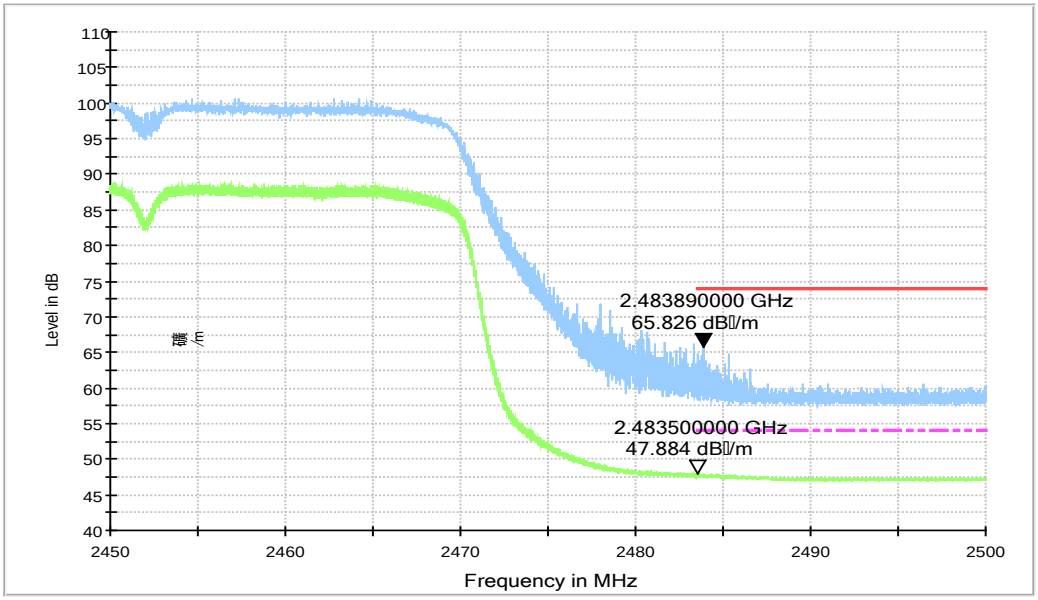

Fig.A.6.2.8 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

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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

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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:

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Traffic:

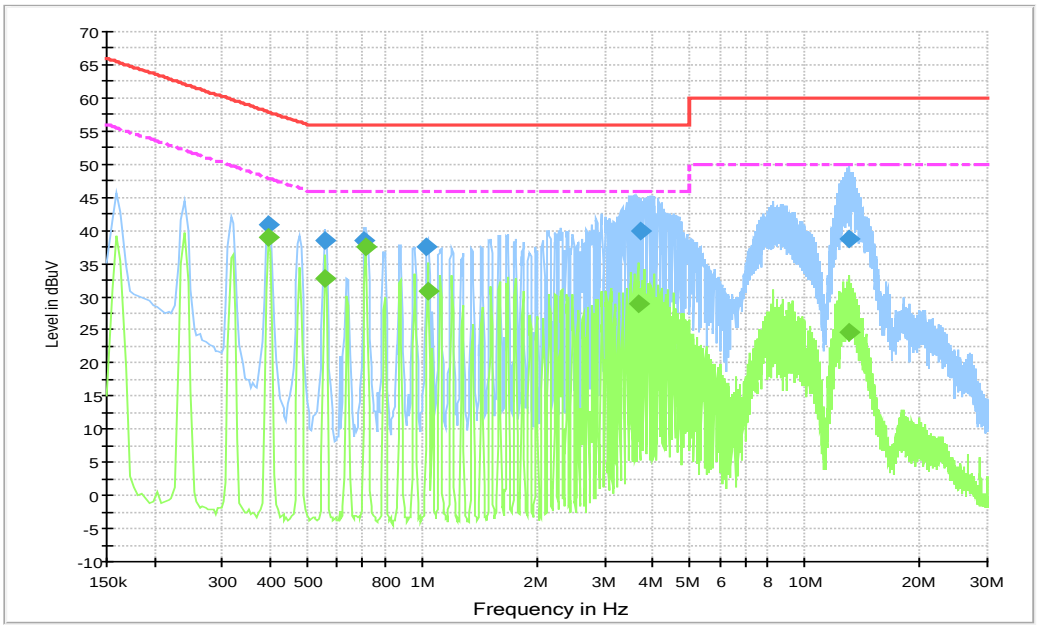

Fig.A.7.1 AC Powerline Conducted Emission-802.11b

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)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.397500	40.9	15000	9.000	L1	10.1	17.0	57.9
0.559500	38.4	15000	9.000	L1	10.1	17.6	56.0
0.708000	38.4	15000	9.000	L1	10.0	17.6	56.0
1.027500	37.5	15000	9.000	L1	10.1	18.5	56.0
3.736500	39.9	15000	9.000	N	10.2	16.1	56.0
13.033500	38.7	15000	9.000	N	10.6	21.3	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.397500	38.9	15000.	9.000	L1	10.1	9.0	47.9
0.559500	32.7	15000.	9.000	L1	10.1	13.3	46.0
0.712500	37.6	15000.	9.000	L1	10.0	8.4	46.0
1.036500	30.8	15000.	9.000	L1	10.1	15.2	46.0
3.664500	28.9	15000.	9.000	L1	10.1	17.1	46.0
13.033500	24.5	15000.	9.000	N	10.6	25.5	50.0

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Idle:

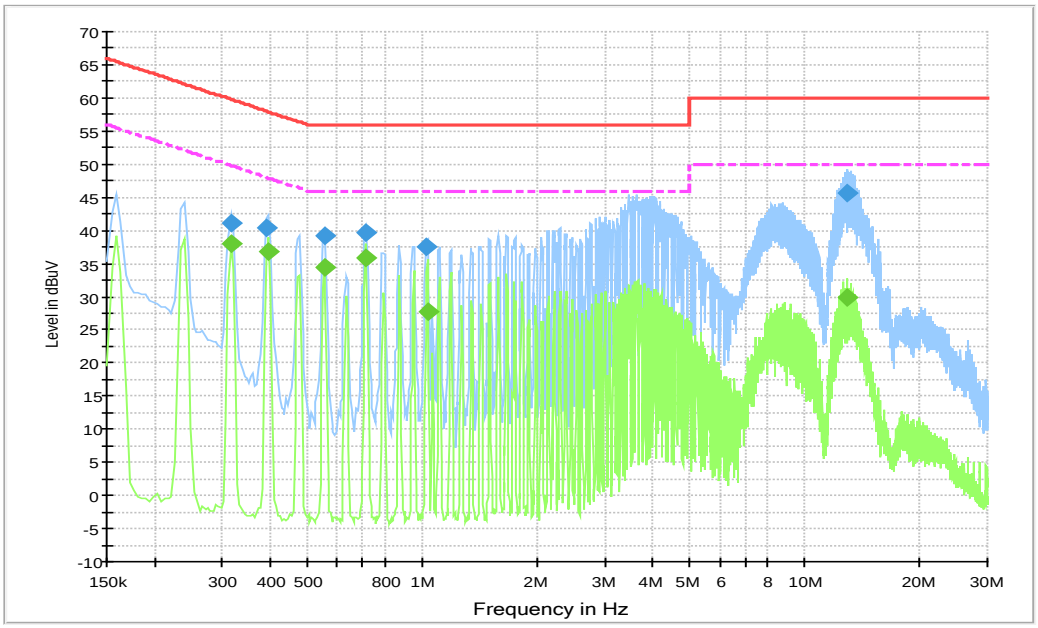

Fig.A.7.2 AC Powerline Conducted Emission-Idle

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)
0.316500	41.2	15000	9.000	N	10.1	18.6	59.8
0.393000	40.3	15000	9.000	L1	10.1	17.7	58.0
0.555000	39.1	15000	9.000	L1	10.1	16.9	56.0
0.712500	39.6	15000	9.000	L1	10.0	16.4	56.0
1.027500	37.5	15000	9.000	N	10.1	18.5	56.0
12.952500	45.7	15000	9.000	L1	10.7	14.3	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.316500	37.9	15000.	9.000	L1	10.1	11.9	49.8
0.397500	36.9	15000.	9.000	L1	10.1	11.0	47.9
0.555000	34.4	15000.	9.000	L1	10.1	11.6	46.0
0.712500	35.9	15000.	9.000	L1	10.0	10.1	46.0
1.032000	27.8	15000.	9.000	L1	10.1	18.2	46.0
12.966000	30.0	15000.	9.000	L1	10.7	20.0	50.0

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ANNEX B: Accreditation Certificate

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 600118-0

Telecommunication Technology Labs, CAICT
Beijing
China

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Electromagnetic Compatibility & Telecommunications

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2019-09-26 through 2020-09-30
Effective Dates

DEPARTMENT OF COMMERCE · UNITED STATES OF AMERICA

For the National Voluntary Laboratory Accreditation Program

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

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