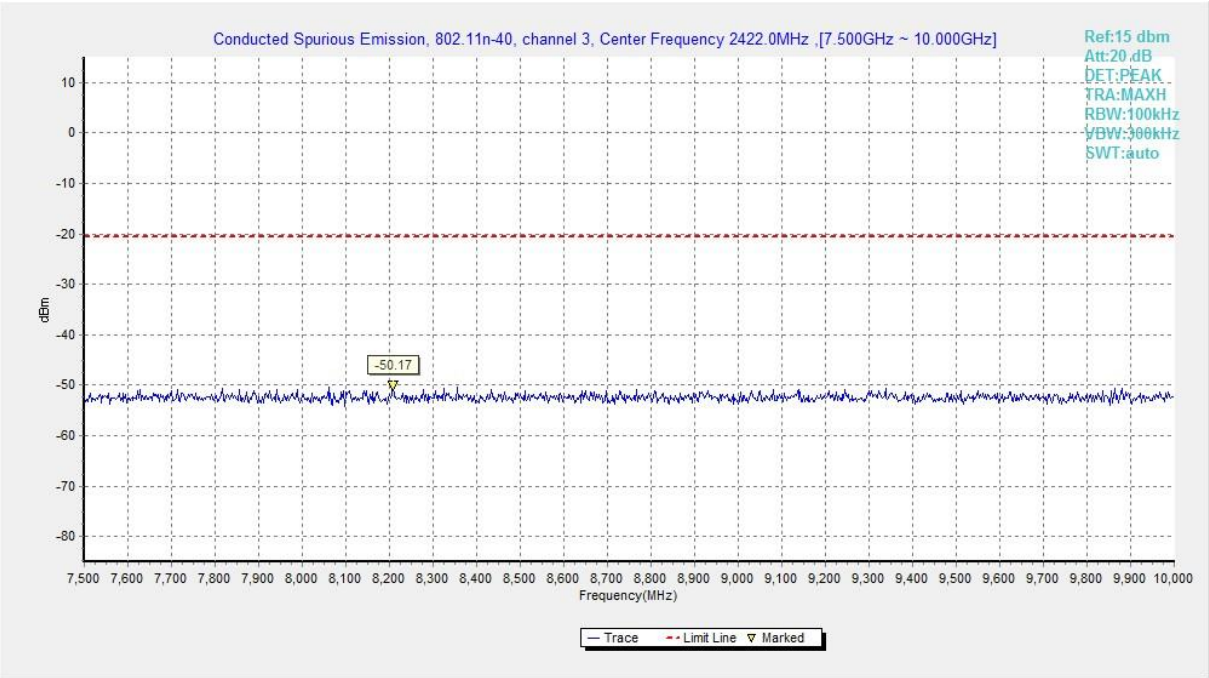

Fig.A.6.1.77 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 7.5 GHz-10 GHz)

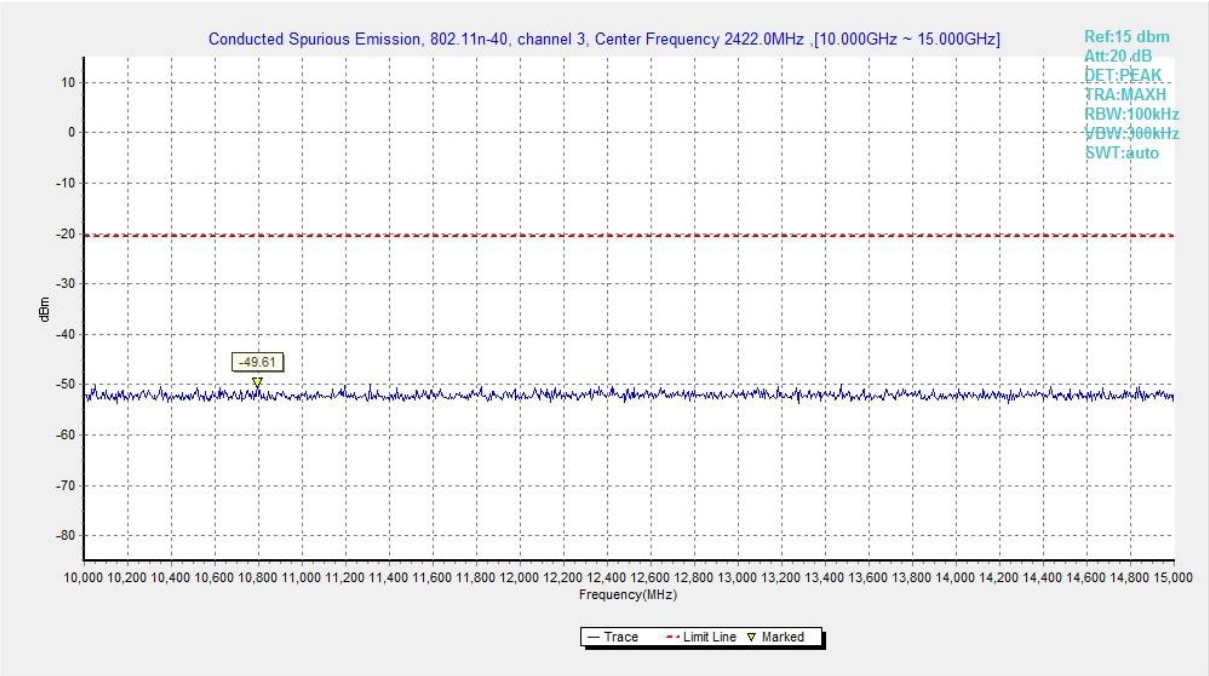

Fig.A.6.1.78 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 10 GHz-15 GHz)

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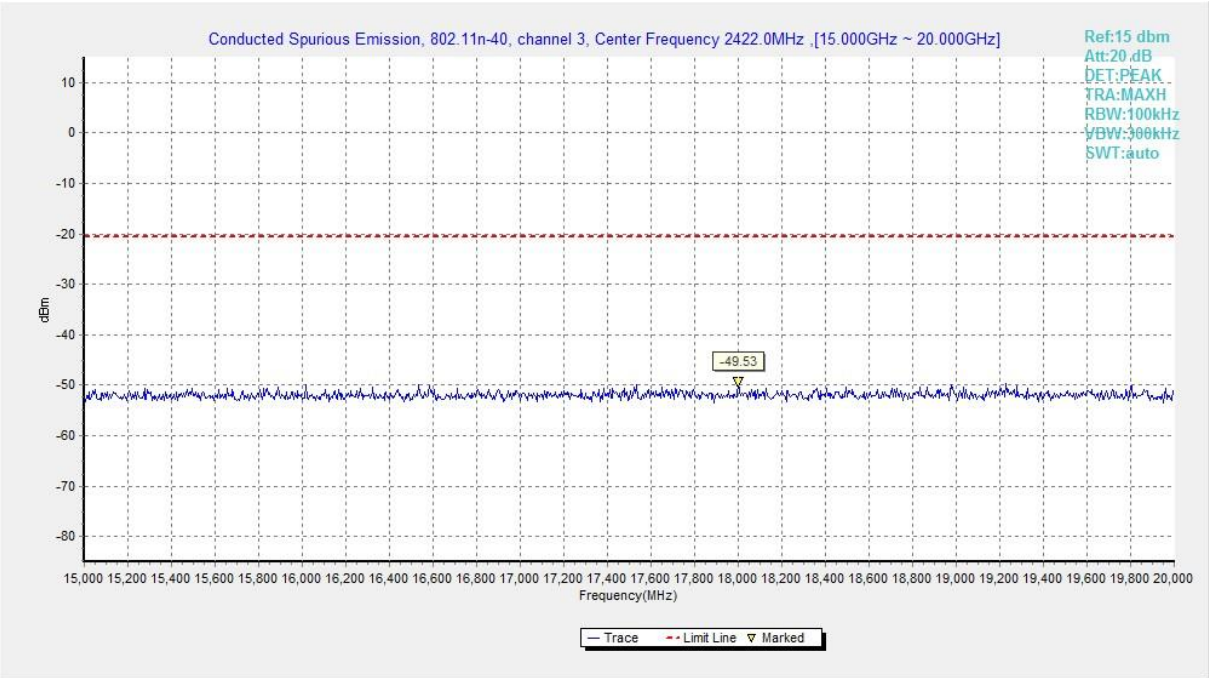

Fig.A.6.1.79 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 15 GHz-20 GHz)

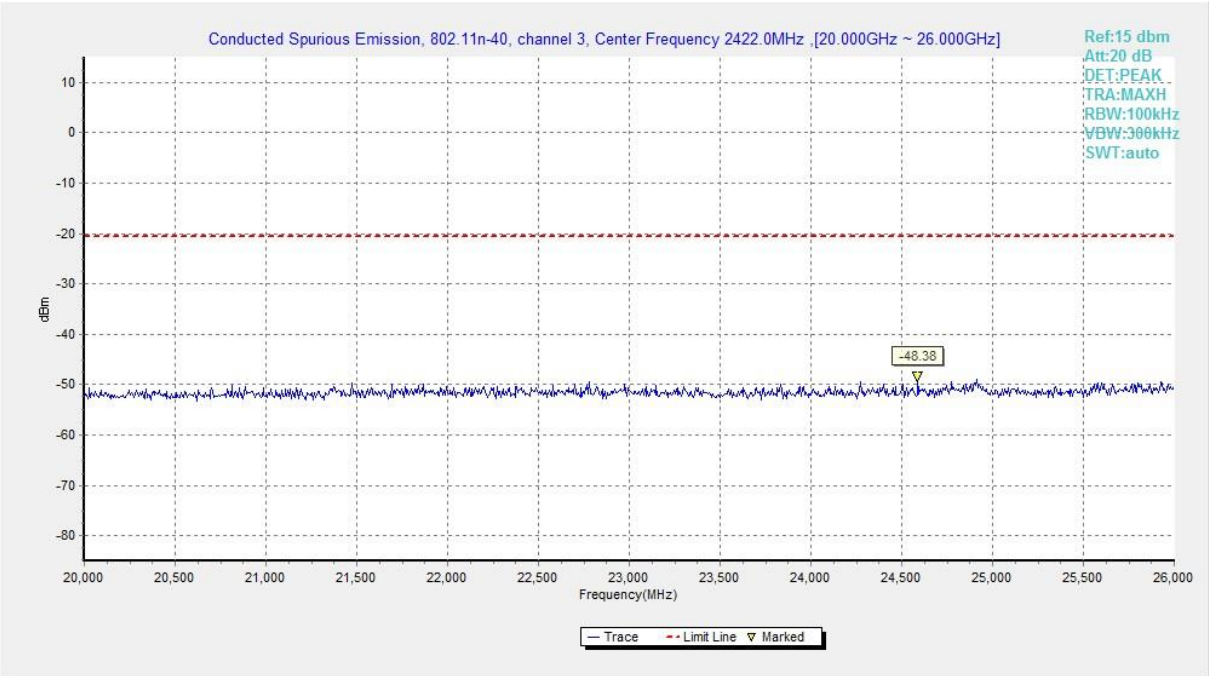

Fig.A.6.1.80 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 20 GHz-26 GHz)

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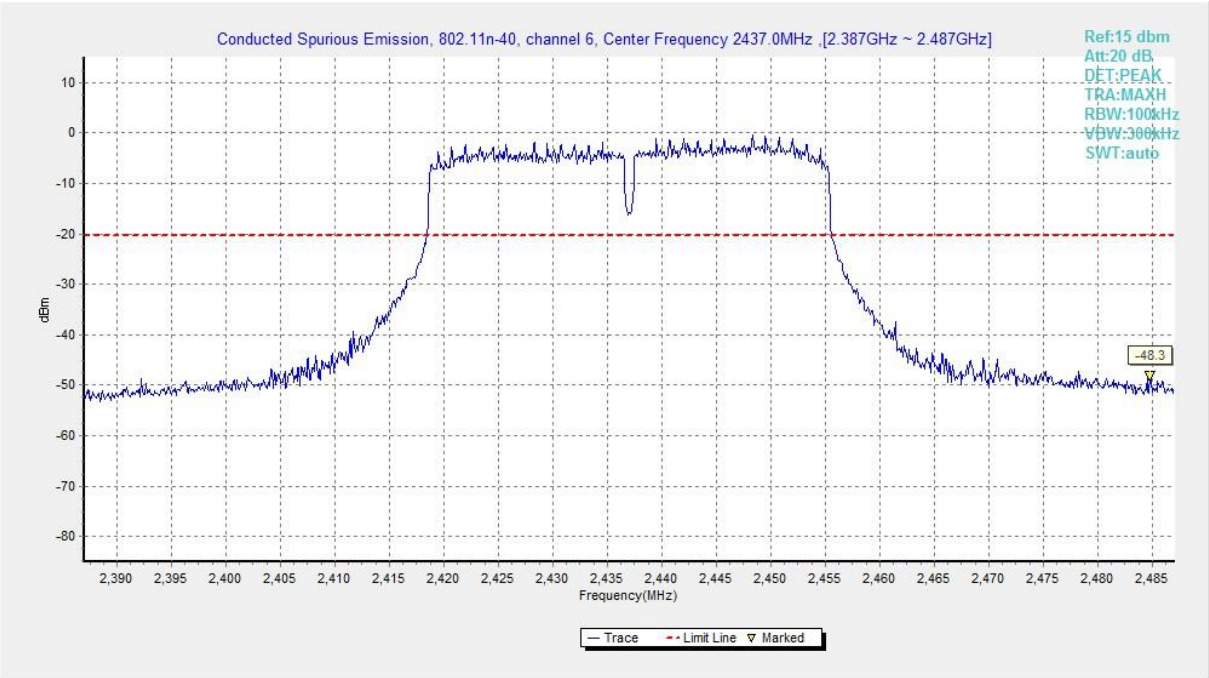

Fig.A.6.1.81 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, Center Frequency)

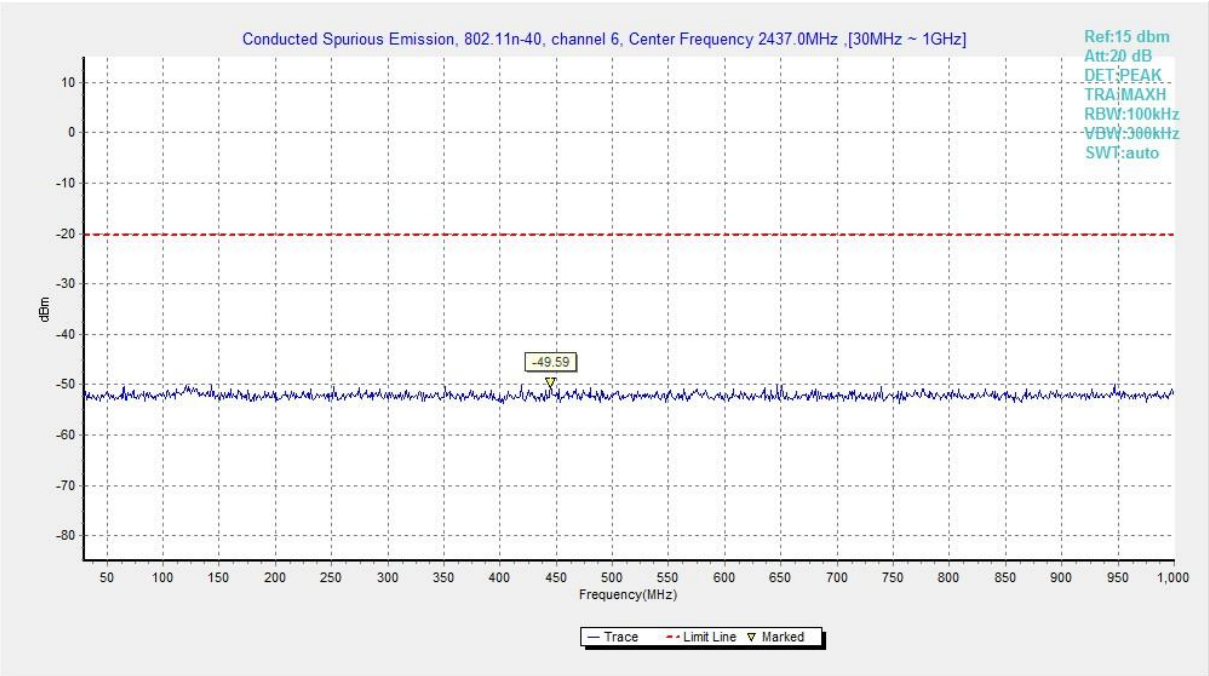

Fig.A.6.1.82 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 30 MHz-1 GHz)

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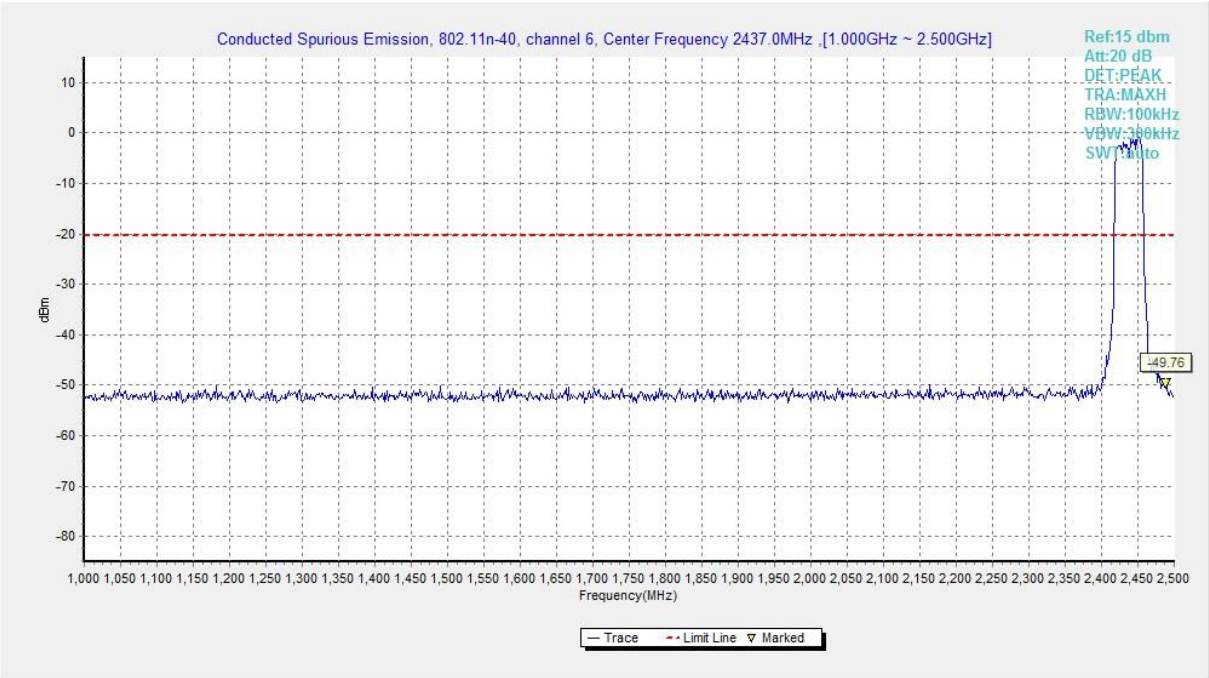

Fig.A.6.1.83 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)

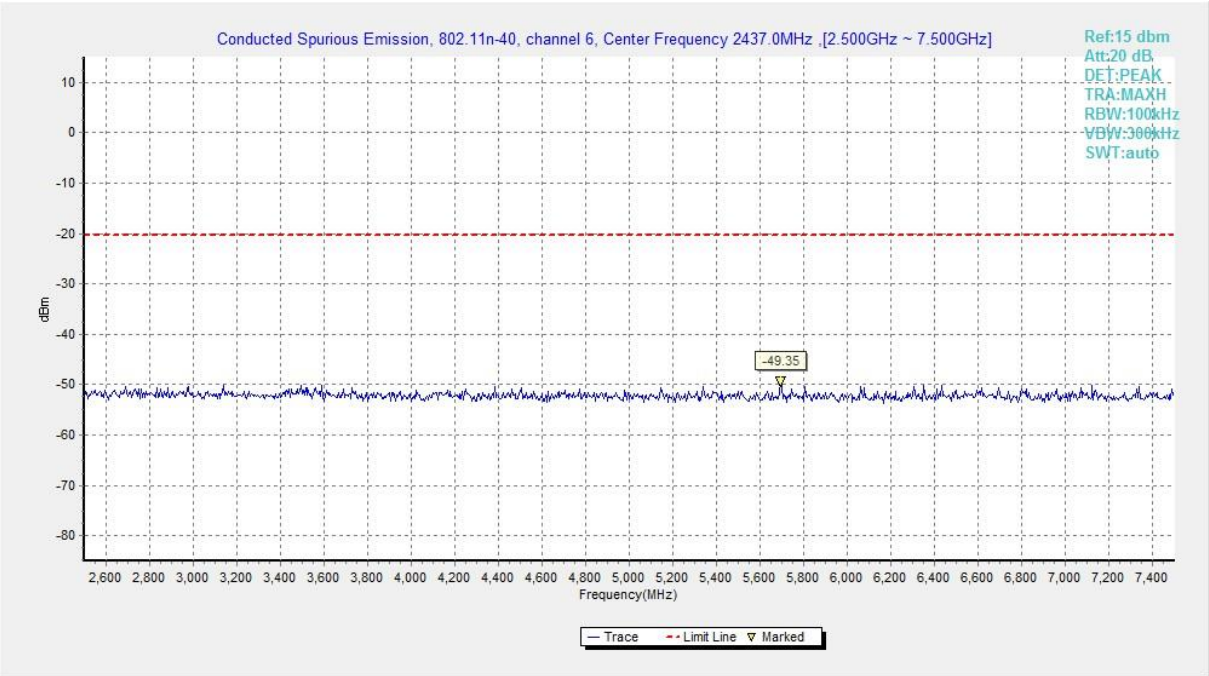

Fig.A.6.1.84 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)

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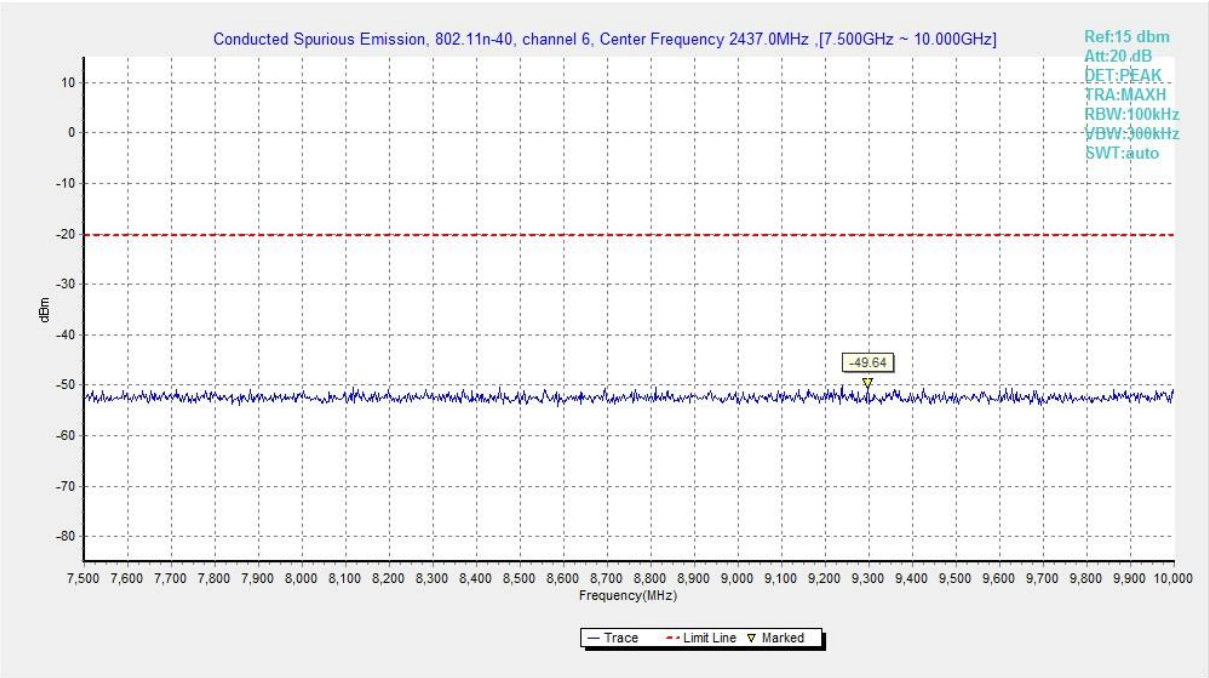

Fig.A.6.1.85 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)

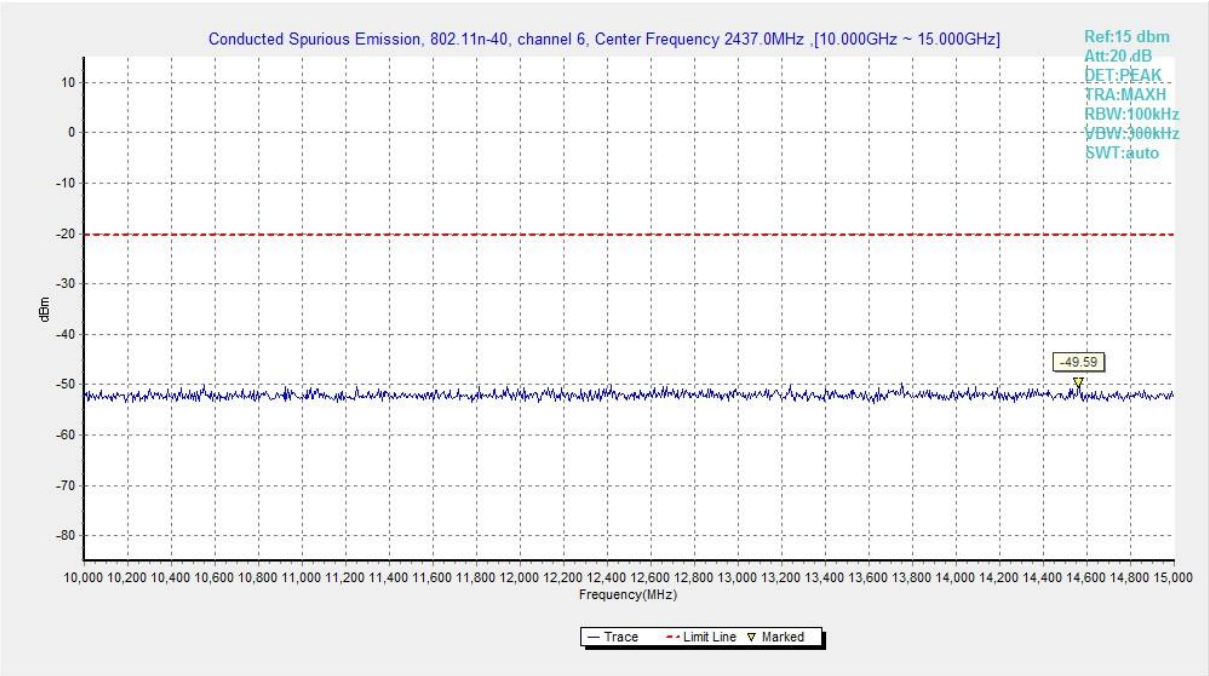

Fig.A.6.1.86 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 10 GHz-15 GHz)

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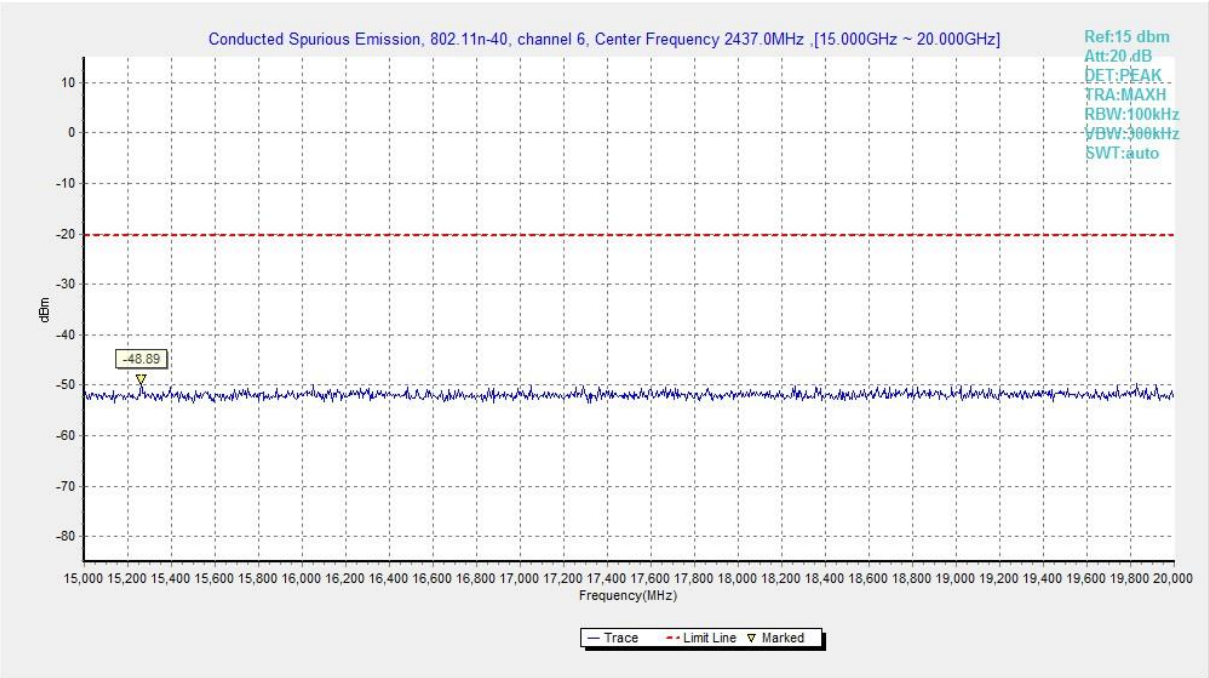

Fig.A.6.1.87 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 15 GHz-20 GHz)

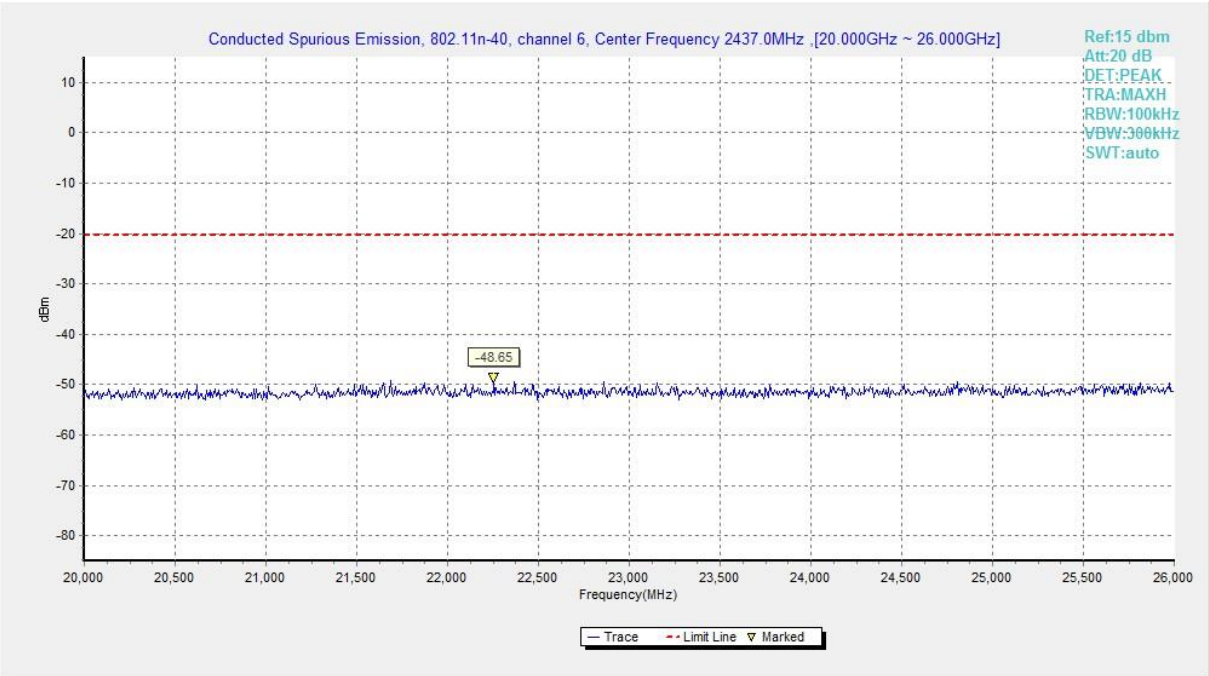

Fig.A.6.1.88 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 20 GHz-26 GHz)

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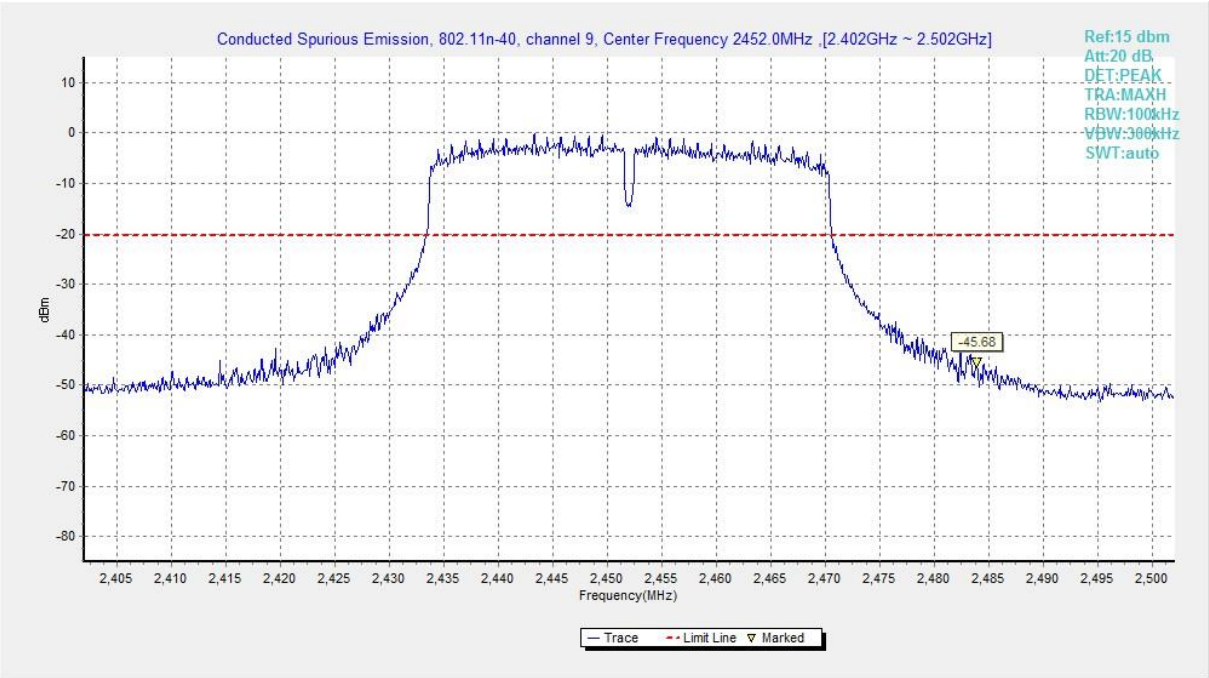

Fig.A.6.1.89 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, Center Frequency)

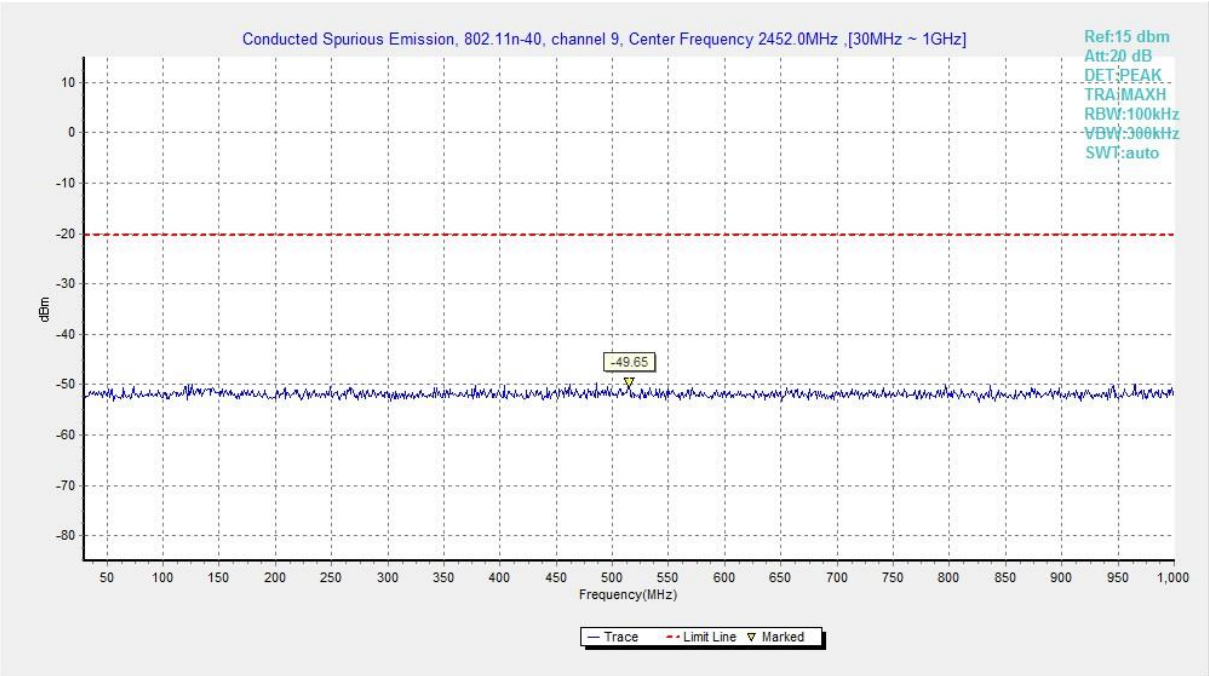

Fig.A.6.1.90 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 30 MHz-1 GHz)

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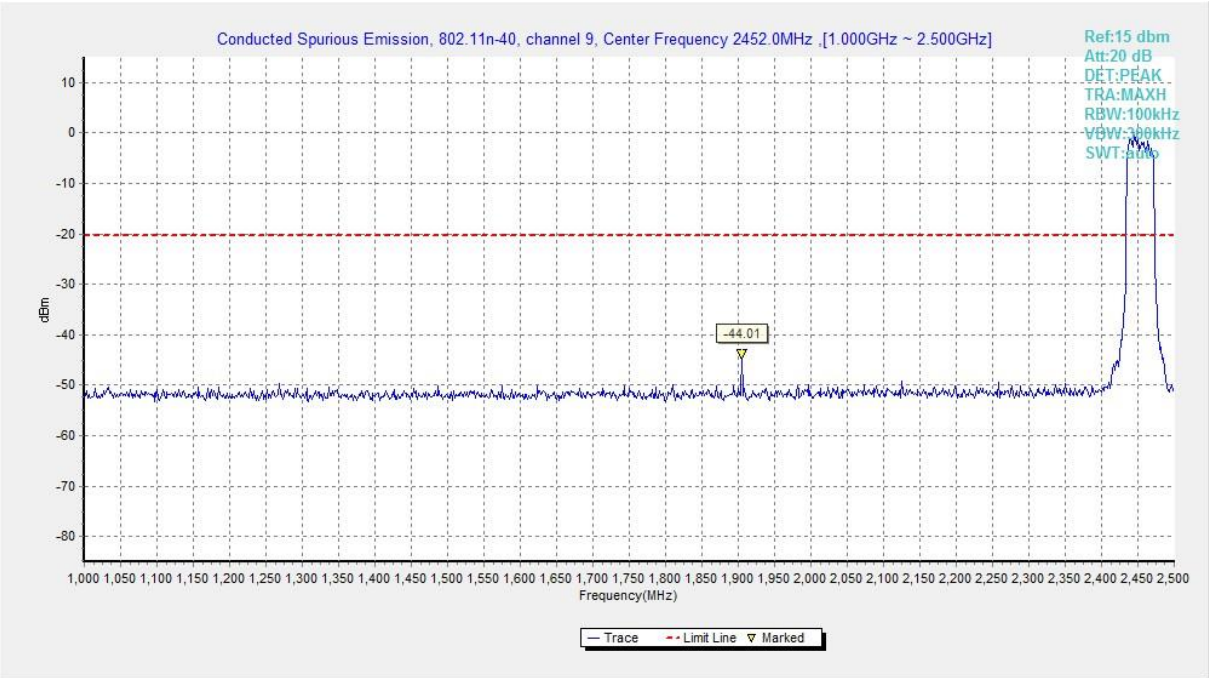

Fig.A.6.1.91 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

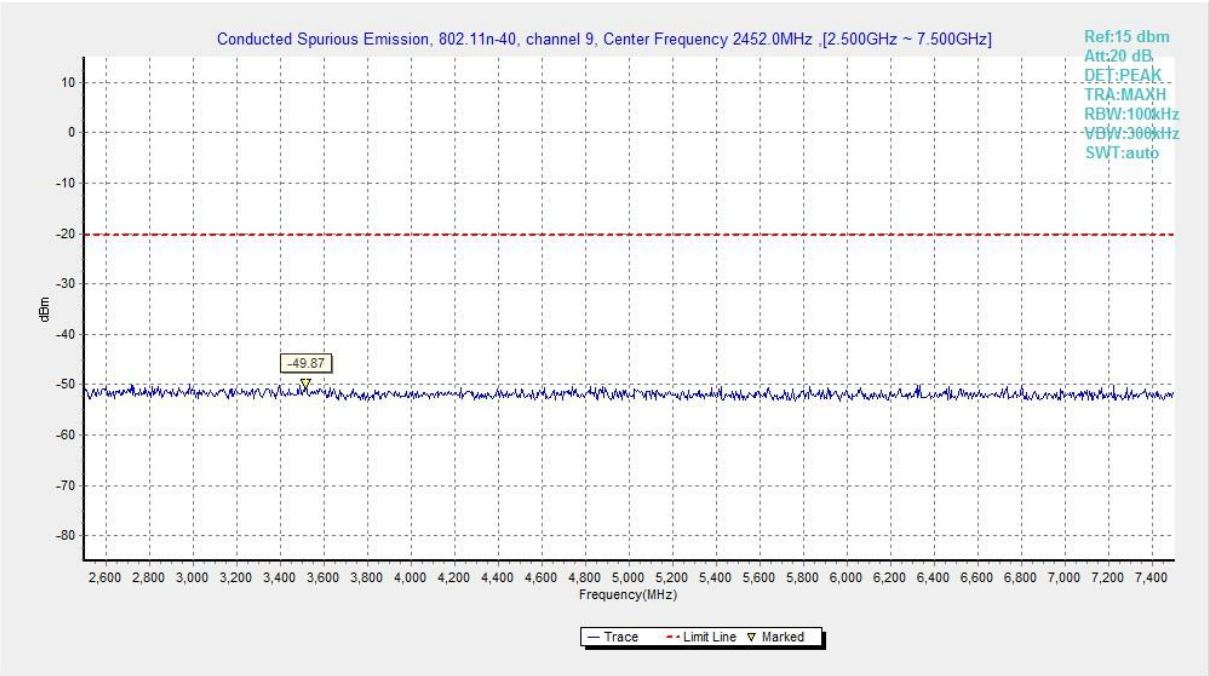

Fig.A.6.1.92 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)

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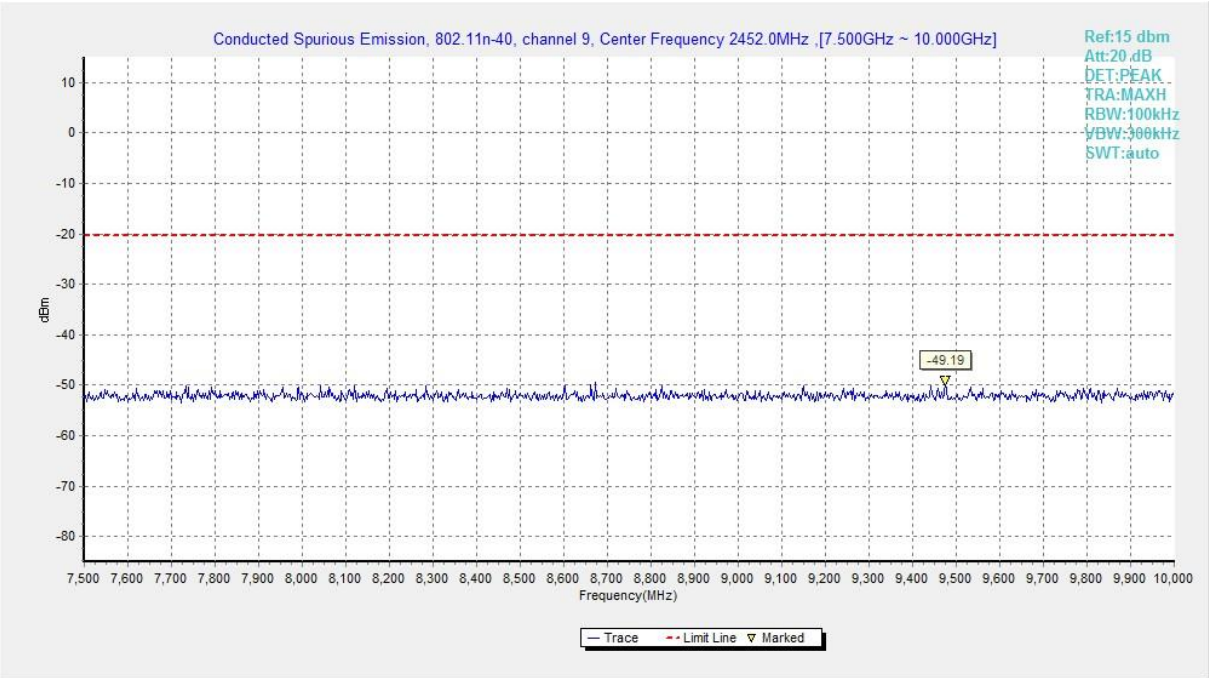

Fig.A.6.1.93 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

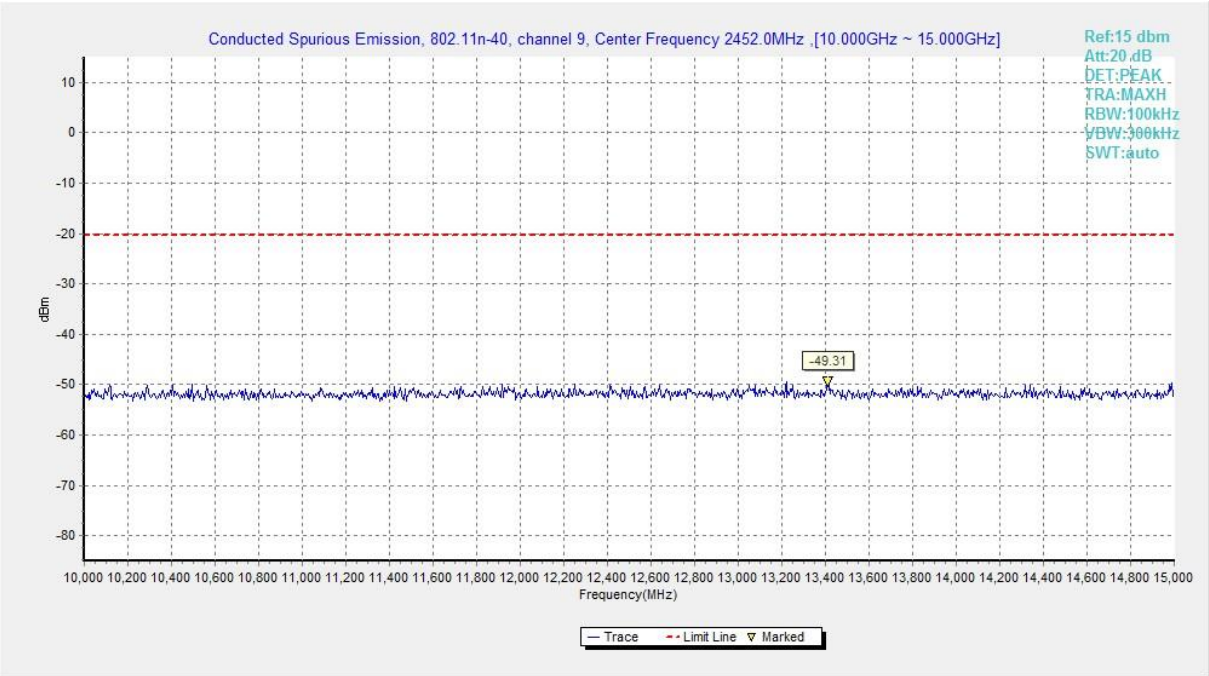

Fig.A.6.1.94 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 10 GHz-15 GHz)

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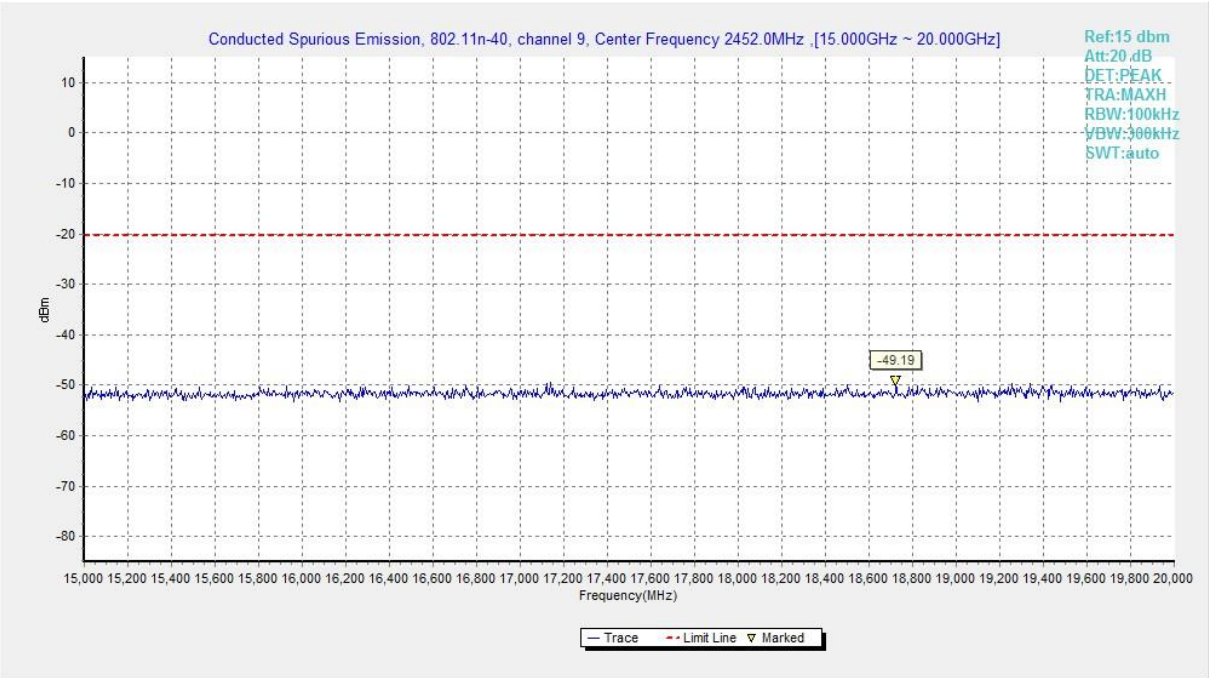

Fig.A.6.1.95 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 15 GHz-20 GHz)

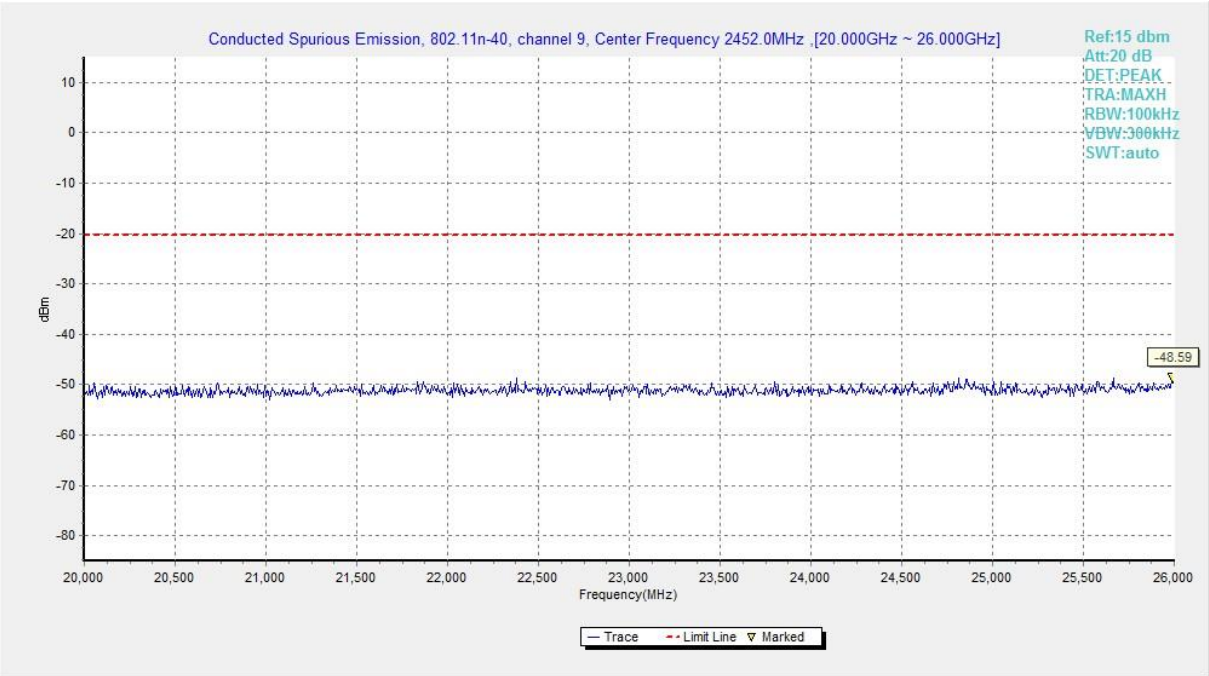

Fig.A.6.1.96 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 20 GHz-26 GHz)

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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)
2387.200	46.42	2.9	32.0	11.56	54.0	7.6	H	155	16
2389.300	46.35	2.9	32.0	11.48	54.0	7.7	H	155	48
4824.400	29.60	-33.2	34.1	28.70	54.0	24.4	H	155	80
7236.400	30.99	-30.9	35.8	26.07	54.0	23.0	H	155	8
9648.400	40.70	-30.5	36.7	34.44	54.0	13.3	H	155	102
12060.400	34.05	-28.7	38.7	24.01	54.0	20.0	H	155	118

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)
2424.200	46.75	2.9	32.0	11.83	54.0	7.3	H	155	8
2449.700	46.71	2.9	32.1	11.75	54.0	7.3	H	155	52
4873.900	29.17	-33.3	34.2	28.32	54.0	24.8	H	155	18
7311.100	30.75	-30.8	35.8	25.74	54.0	23.3	H	155	6
9748.300	42.49	-30.3	36.9	35.97	54.0	11.5	H	155	48
12184.600	34.48	-28.1	38.8	23.77	54.0	19.5	H	155	128

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	46.50	2.9	32.1	11.49	54.0	7.5	H	155	6
2483.600	46.49	2.9	32.1	11.47	54.0	7.5	H	155	48
4924.300	28.85	-33.5	34.2	28.21	54.0	25.1	H	155	92
7385.800	30.12	-31.5	35.9	25.72	54.0	23.9	H	155	48
9848.200	44.28	-30.2	37.0	37.47	54.0	9.7	H	155	68
12309.700	34.22	-27.8	38.9	23.08	54.0	19.8	H	155	92

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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)
2357.306	60.59	2.8	32.0	25.77	74.0	13.4	H	155	22
2381.120	60.69	2.9	32.0	25.84	74.0	13.3	H	155	44
4824.000	40.91	-33.2	34.1	40.01	74.0	33.1	V	155	88
7236.000	41.85	-30.9	35.8	36.93	74.0	32.2	V	155	0
9648.000	44.80	-30.5	36.7	38.55	74.0	29.2	H	155	110
12060.000	45.58	-28.7	38.7	35.55	74.0	28.4	H	155	132

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)
2238.400	43.62	-35.6	31.9	47.32	74.0	30.4	V	155	0
2531.600	45.63	-34.5	32.2	47.97	74.0	28.4	H	155	44
4874.000	41.74	-33.3	34.2	40.89	74.0	32.3	V	155	22
7311.000	43.12	-30.8	35.8	38.11	74.0	30.9	H	155	0
7948.000	47.77	-30.5	35.8	42.47	74.0	26.2	H	155	44
12185.000	46.61	-28.1	38.8	35.90	74.0	27.4	V	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)
2489.725	60.70	2.9	32.1	25.67	74.0	13.3	H	155	0
2498.555	60.63	2.9	32.1	25.58	74.0	13.4	H	155	44
4924.000	41.10	-33.5	34.2	40.46	74.0	32.9	V	155	88
7386.000	40.66	-31.5	35.9	36.26	74.0	33.3	V	155	44
9848.000	48.60	-30.2	37.0	41.79	74.0	25.4	V	155	66
12310.000	44.99	-27.8	38.9	33.86	74.0	29.0	H	155	88

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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)
2389.800	46.37	2.9	32.0	11.50	54.0	7.6	H	155	20
2390.000	46.35	2.9	32.0	11.49	54.0	7.7	H	155	18
4824.400	28.89	-33.2	34.1	28.00	54.0	25.1	H	155	90
7236.400	31.07	-30.9	35.8	26.15	54.0	22.9	H	155	114
9648.400	40.03	-30.5	36.7	33.77	54.0	14.0	H	155	36
12062.400	34.17	-28.7	38.7	24.12	54.0	19.8	H	155	2

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)
2421.400	47.24	2.9	32.0	12.32	54.0	6.8	H	155	4
2451.200	47.08	2.9	32.1	12.12	54.0	6.9	H	155	26
4873.900	28.80	-33.3	34.2	27.95	54.0	25.2	H	155	356
7311.100	30.78	-30.8	35.8	25.77	54.0	23.2	H	155	348
9748.300	42.20	-30.3	36.9	35.68	54.0	11.8	H	155	174
12184.600	34.48	-28.1	38.8	23.77	54.0	19.5	H	155	112

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	46.68	2.9	32.1	11.66	54.0	7.3	H	155	268
2483.800	46.63	2.9	32.1	11.62	54.0	7.4	H	155	138
4924.300	28.83	-33.5	34.2	28.19	54.0	25.2	H	155	104
7385.800	30.09	-31.5	35.9	25.69	54.0	23.9	H	155	40
9848.200	38.03	-30.2	37.0	31.21	54.0	16.0	H	155	28
12309.700	34.15	-27.8	38.9	23.02	54.0	19.8	H	155	8

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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)
2384.802	60.55	2.9	32.0	25.69	74.0	13.5	H	155	22
2386.748	61.61	2.9	32.0	26.75	74.0	12.4	H	155	22
4824.000	39.86	-33.2	34.1	38.97	74.0	34.1	H	155	88
7236.000	42.17	-30.9	35.8	37.25	74.0	31.8	V	155	110
9648.000	46.71	-30.5	36.7	40.46	74.0	27.3	V	155	44
12060.000	47.14	-28.7	38.7	37.11	74.0	26.9	H	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)
2103.400	44.31	-34.9	31.7	47.52	74.0	29.7	H	155	0
2754.800	45.08	-34.6	32.6	47.11	74.0	28.9	V	155	22
4874.000	40.28	-33.3	34.2	39.43	74.0	33.7	V	155	352
7311.000	41.95	-30.8	35.8	36.94	74.0	32.0	V	155	352
9748.000	47.84	-30.3	36.9	41.32	74.0	26.2	V	155	176
12185.000	45.50	-28.1	38.8	34.80	74.0	28.5	V	155	110

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)
2484.025	64.24	2.9	32.1	29.22	74.0	9.8	H	155	264
2484.320	63.21	2.9	32.1	28.19	74.0	10.8	H	155	132
4824.000	41.69	-33.2	34.1	40.80	74.0	32.3	H	155	110
7386.000	41.30	-31.5	35.9	36.90	74.0	32.7	H	155	44
9848.000	45.63	-30.2	37.0	38.81	74.0	28.4	H	155	22
12310.000	46.30	-27.8	38.9	35.16	74.0	27.7	V	155	0

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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)
2389.700	46.36	2.9	32.0	11.50	54.0	7.6	H	155	8
2390.000	46.39	2.9	32.0	11.52	54.0	7.6	H	155	28
4824.400	29.07	-33.2	34.1	28.17	54.0	24.9	H	155	119
7236.400	31.04	-30.9	35.8	26.12	54.0	23.0	H	155	146
9648.400	41.34	-30.5	36.7	35.09	54.0	12.7	H	155	76
12060.400	34.04	-28.7	38.7	24.00	54.0	20.0	H	155	94

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)
2421.100	47.20	2.9	32.0	12.29	54.0	6.8	H	155	28
2452.000	47.03	2.9	32.1	12.07	54.0	7.0	H	155	248
4873.900	28.98	-33.3	34.2	28.13	54.0	25.0	H	155	38
7311.100	30.62	-30.8	35.8	25.61	54.0	23.4	H	155	98
9748.300	44.76	-30.3	36.9	38.24	54.0	9.2	H	155	183
12184.600	34.30	-28.1	38.8	23.59	54.0	19.7	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	46.78	2.9	32.1	11.77	54.0	7.2	H	155	18
2483.700	46.78	2.9	32.1	11.76	54.0	7.2	H	155	56
4924.300	28.75	-33.5	34.2	28.11	54.0	25.3	H	155	139
7385.800	30.02	-31.5	35.9	25.62	54.0	24.0	H	155	108
9848.200	47.23	-30.2	37.0	40.42	54.0	6.8	H	155	78
12309.700	34.02	-27.8	38.9	22.88	54.0	20.0	H	155	36

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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)
2355.150	60.32	2.8	32.0	25.51	74.0	13.7	H	155	0
2389.576	61.79	2.9	32.0	26.93	74.0	12.2	H	155	22
4824.000	40.72	-33.2	34.1	39.82	74.0	33.3	H	155	110
7236.000	42.64	-30.9	35.8	37.72	74.0	31.4	V	155	132
9648.000	47.71	-30.5	36.7	41.45	74.0	26.3	V	155	66
12060.000	45.36	-28.7	38.7	35.33	74.0	28.6	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)
2005.800	43.91	-35.4	31.6	47.68	74.0	30.1	H	155	22
2685.400	44.48	-34.3	32.5	46.37	74.0	29.5	H	155	242
4874.000	41.65	-33.3	34.2	40.80	74.0	32.3	V	155	44
7311.000	43.40	-30.8	35.8	38.39	74.0	30.6	H	155	88
9748.000	49.54	-30.3	36.9	43.02	74.0	24.5	V	155	176
12185.000	46.07	-28.1	38.8	35.37	74.0	27.9	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)
2483.880	65.58	2.9	32.1	30.56	74.0	8.4	H	155	22
2484.640	64.67	2.9	32.1	29.65	74.0	9.3	H	155	44
4924.000	41.10	-33.5	34.2	40.46	74.0	32.9	H	155	132
7386.000	41.49	-31.5	35.9	37.09	74.0	32.5	V	155	110
9848.000	50.91	-30.2	37.0	44.10	74.0	23.1	H	155	88
12310.000	45.58	-27.8	38.9	34.44	74.0	28.4	H	155	44

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802.11n-HT40-Average

Ch3

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2389.800	46.36	2.9	32.0	11.49	54.0	7.6	H	155	92
2389.900	46.34	2.9	32.0	11.47	54.0	7.7	H	155	26
4844.200	28.89	-33.2	34.1	27.99	54.0	25.1	H	155	222
7266.100	31.14	-30.6	35.8	25.92	54.0	22.9	H	155	248
9688.000	41.99	-30.4	36.8	35.58	54.0	12.0	H	155	46
12109.900	34.06	-28.5	38.8	23.76	54.0	19.9	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)
2412.400	46.71	2.9	32.0	11.80	54.0	7.3	H	155	20
2460.000	46.96	2.9	32.1	11.98	54.0	7.0	H	155	248
4873.900	28.83	-33.3	34.2	27.97	54.0	25.2	H	155	49
7311.100	30.75	-30.8	35.8	25.74	54.0	23.3	H	155	82
9748.300	44.17	-30.3	36.9	37.65	54.0	9.8	H	155	168
12184.600	34.36	-28.1	38.8	23.66	54.0	19.6	H	155	8

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	46.65	2.9	32.1	11.63	54.0	7.4	H	155	28
2483.700	46.64	2.9	32.1	11.62	54.0	7.4	H	155	46
4903.600	29.00	-33.4	34.2	28.26	54.0	25.0	H	155	8
7356.000	30.72	-31.2	35.8	26.05	54.0	23.3	H	155	6
9807.700	45.46	-30.3	36.9	38.85	54.0	8.5	H	155	24
12260.200	34.06	-27.9	38.9	23.08	54.0	19.9	H	155	185

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802.11n-HT40-Peak

Ch3

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)	Antenna Height (cm)	Turntable angle (deg)
2368.520	60.21	2.9	32.0	25.38	74.0	13.8	H	155	88
2376.444	60.38	2.9	32.0	25.54	74.0	13.6	H	155	22
4844.000	40.15	-33.2	34.1	39.25	74.0	33.8	V	155	220
7266.000	42.44	-30.6	35.8	37.23	74.0	31.6	V	155	242
9688.000	47.29	-30.4	36.8	40.89	74.0	26.7	V	155	44
12110.000	45.65	-28.5	38.8	35.35	74.0	28.4	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)
2273.400	42.99	-35.6	31.9	46.72	74.0	31.0	H	155	22
2709.600	44.51	-34.6	32.5	46.58	74.0	29.5	V	155	242
4874.000	40.56	-33.3	34.2	39.71	74.0	33.4	H	155	44
7311.000	41.81	-30.8	35.8	36.80	74.0	32.2	V	155	88
9748.000	48.99	-30.3	36.9	42.47	74.0	25.0	V	155	176
12185.000	45.78	-28.1	38.8	35.08	74.0	28.2	V	155	0

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)
2483.540	62.98	2.9	32.1	27.96	74.0	11.0	H	155	22
2483.755	62.30	2.9	32.1	27.28	74.0	11.7	H	155	44
4904.000	40.90	-33.4	34.2	40.16	74.0	33.1	V	155	0
7356.000	42.98	-31.2	35.8	38.31	74.0	31.0	H	155	0
9808.000	49.82	-30.3	36.9	43.21	74.0	24.2	V	155	22
12260.000	44.82	-27.9	38.9	33.84	74.0	29.2	H	155	176

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Test graphs as below:

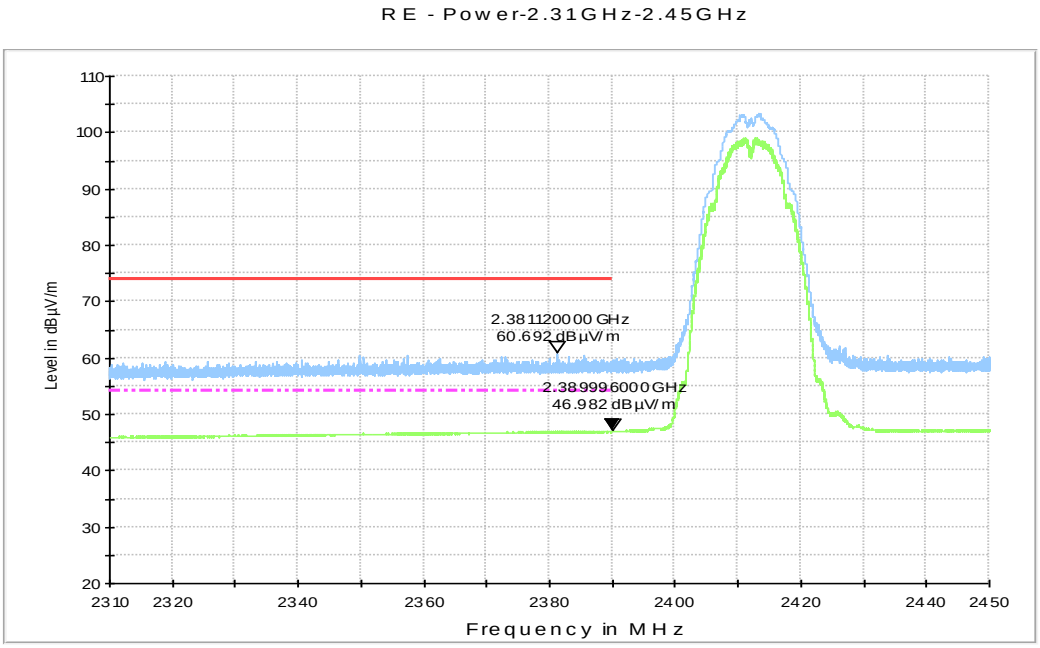

Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz – 2.45GHz

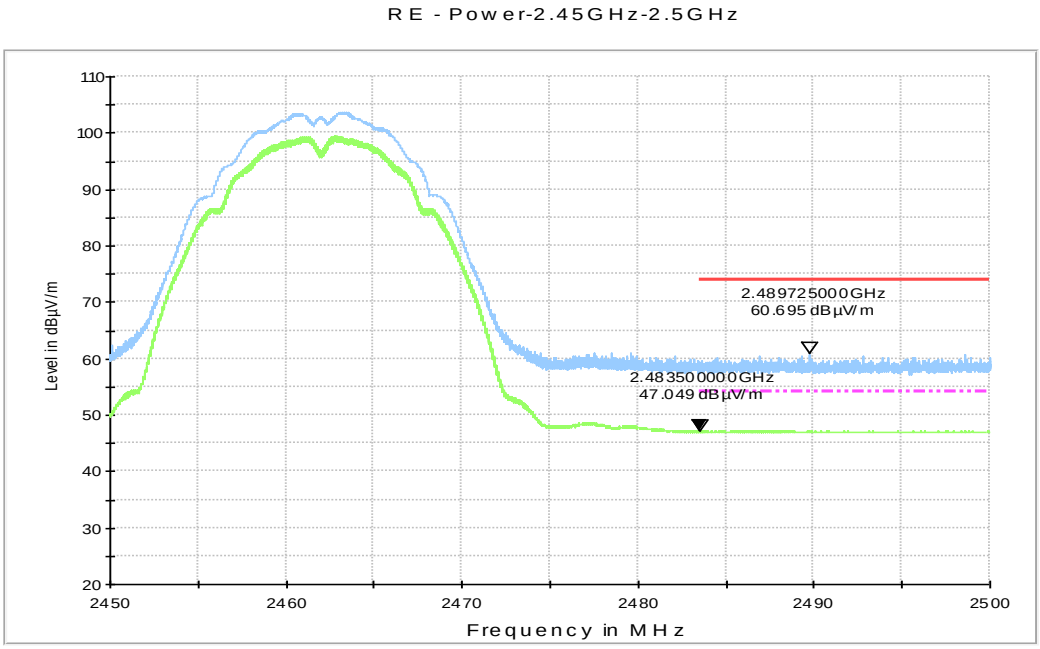

Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

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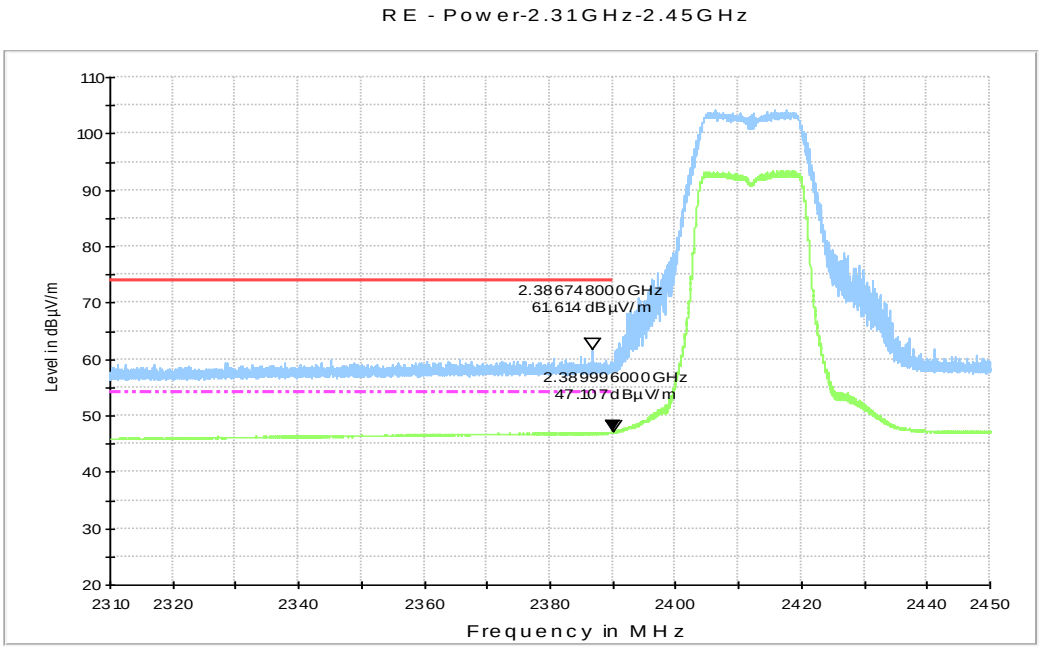

Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31 GHz - 2.43GHz

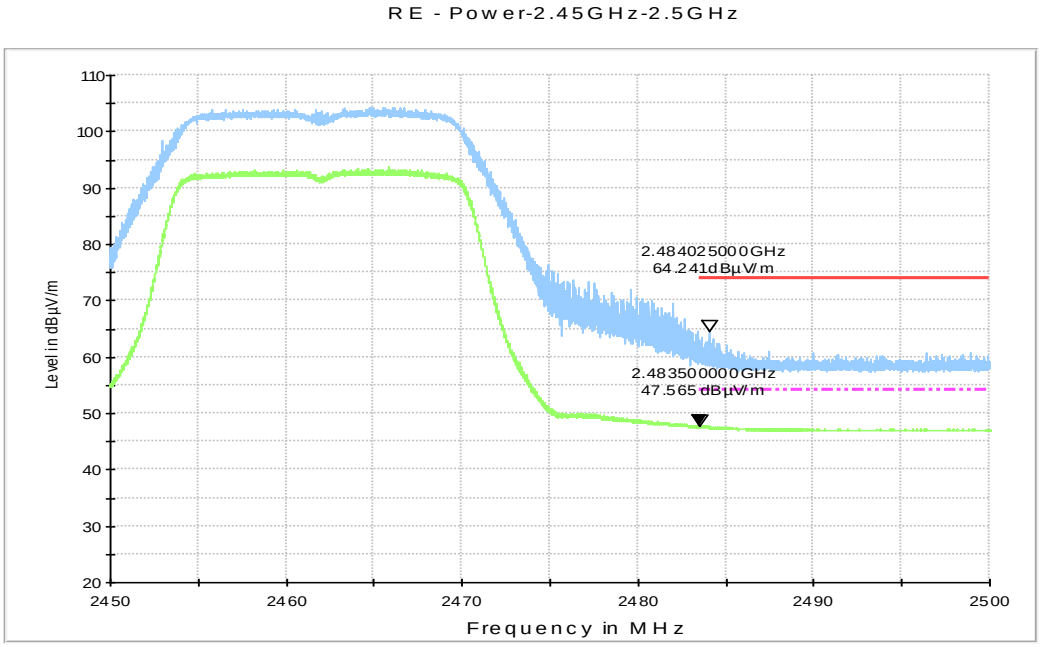

Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

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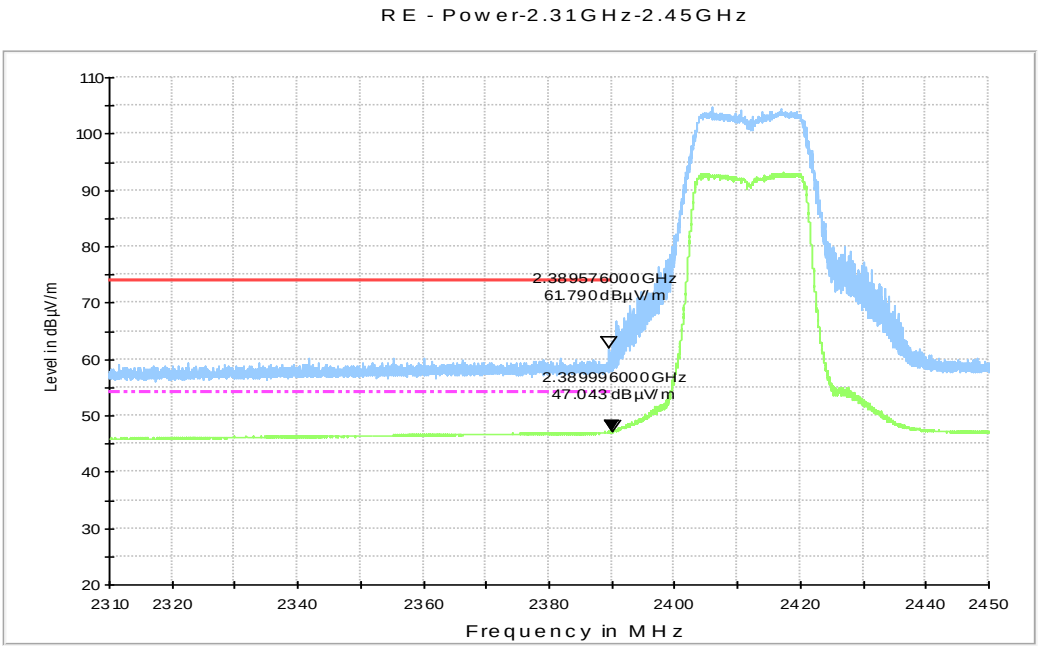

Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.31GHz - 2.45GHz

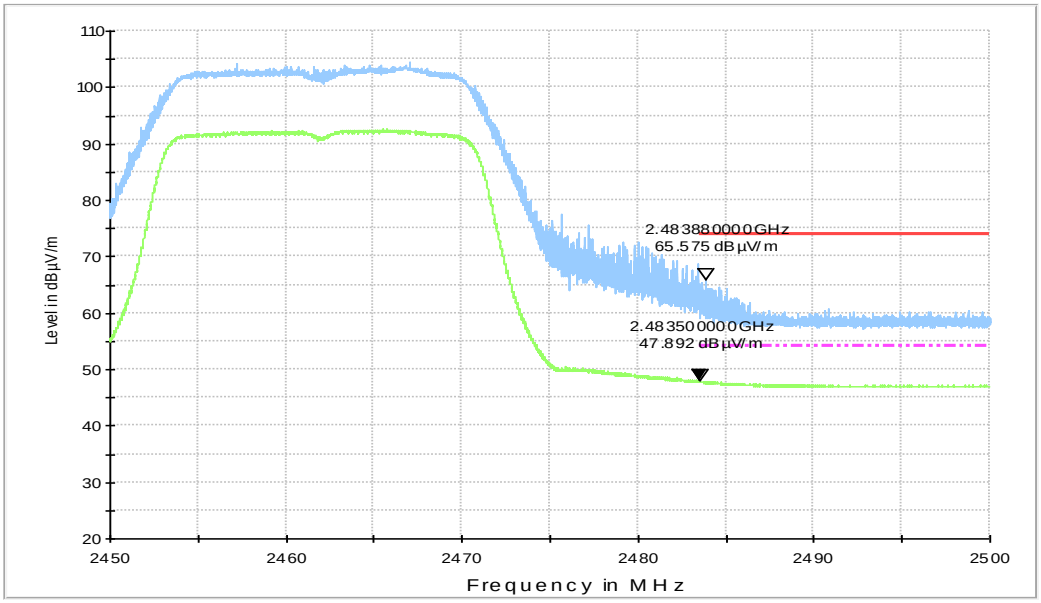

Fig.A.6.2.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

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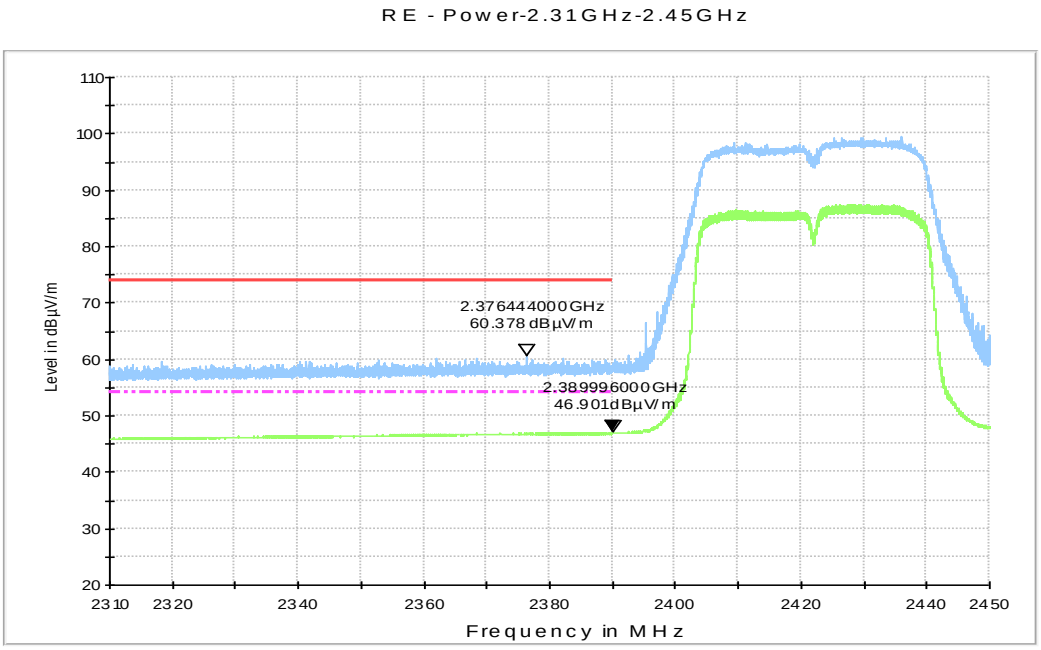

Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.31GHz - 2.45GHz

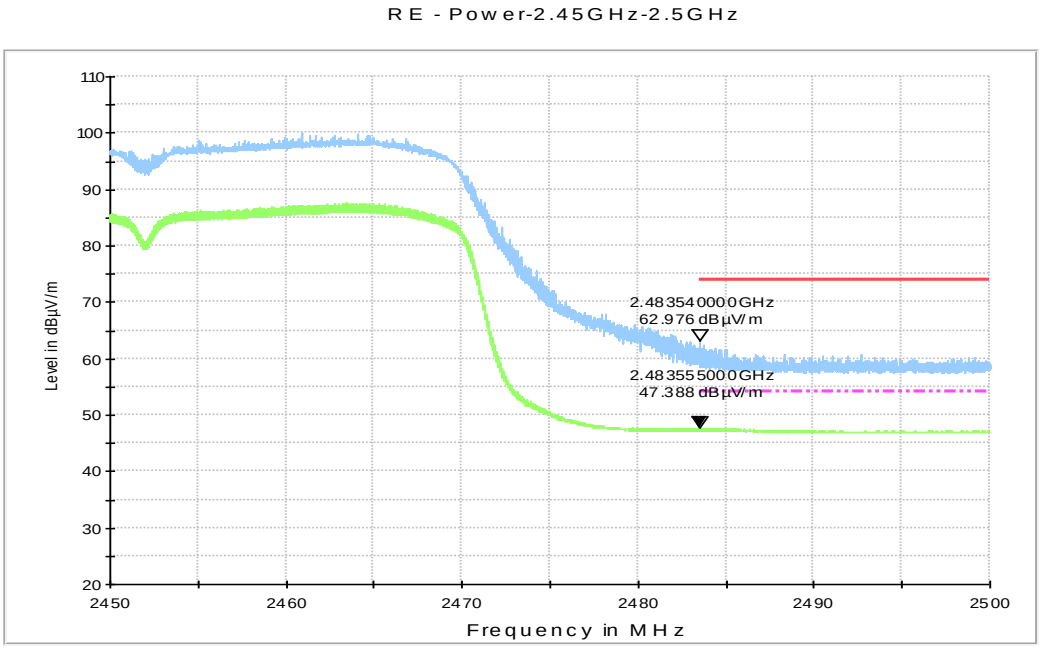

Fig.A.6.2.8 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

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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:

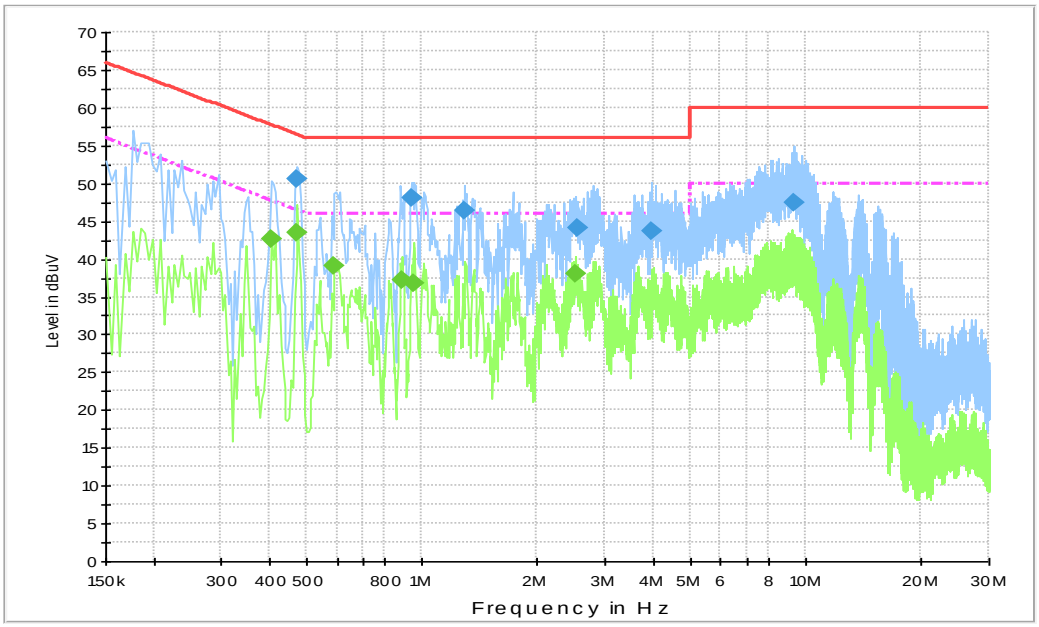

Fig.A.7.1 AC Powerline Conducted Emission-802.11b

Note1: 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)
0.474000	50.5	1000.	9.000	L1	20.0	6.0	56.4
0.937500	48.0	1000.	9.000	L1	19.9	8.0	56.0
1.293000	46.3	1000.	9.000	L1	19.8	9.7	56.0
2.535000	44.0	1000.	9.000	L1	19.8	12.0	56.0
3.979500	43.7	1000.	9.000	L1	19.8	12.3	56.0
9.303000	47.4	1000.	9.000	L1	19.9	12.6	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.406500	42.7	1000.0	9.000	L1	20.0	5.0	47.7
0.474000	43.4	1000.0	9.000	L1	20.0	3.0	46.4
0.591000	39.1	1000.0	9.000	L1	20.0	6.9	46.0
0.888000	37.2	1000.0	9.000	L1	19.8	8.8	46.0
0.955500	36.8	1000.0	9.000	L1	19.9	9.2	46.0
2.521500	38.0	1000.0	9.000	L1	19.8	8.0	46.0

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

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Idle:

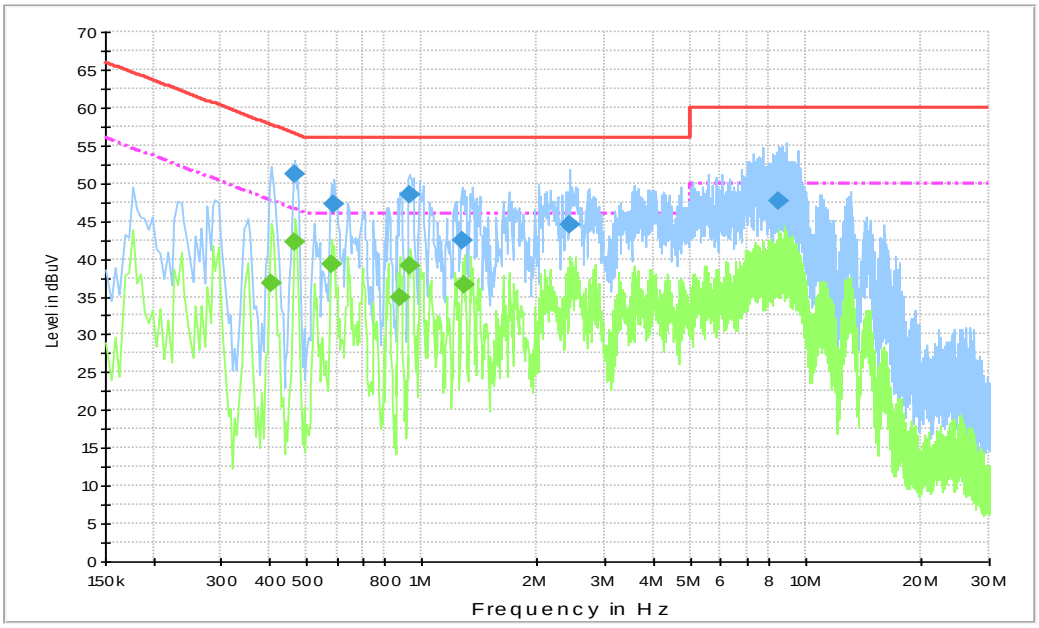

Fig.A.7.2 AC Powerline Conducted Emission-Idle

Note1: 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)
0.465000	51.2	1000.	9.000	L1	20.0	5.4	56.6
0.591000	47.3	1000.	9.000	L1	20.0	8.7	56.0
0.928500	48.4	1000.	9.000	L1	19.9	7.6	56.0
1.270500	42.4	1000.	9.000	L1	19.8	13.6	56.0
2.427000	44.4	1000.	9.000	L1	19.8	11.6	56.0
8.434500	47.6	1000.	9.000	L1	19.8	12.4	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	Meas. Time (ms)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.406500	36.7	1000.0	9.000	L1	20.0	11.0	47.7
0.465000	42.3	1000.0	9.000	L1	20.0	4.2	46.6
0.582000	39.3	1000.0	9.000	L1	20.0	6.7	46.0
0.874500	34.9	1000.0	9.000	L1	19.8	11.1	46.0
0.933000	39.1	1000.0	9.000	L1	19.9	6.9	46.0
1.288500	36.5	1000.0	9.000	L1	19.8	9.5	46.0

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

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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

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Electromagnetic Compatibility & Telecommunications

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).

2020-09-29 through 2021-09-30
Effective Dates

DEPARTMENT OF COMMERCE · UNITED STATES OF AMERICA

For the National Voluntary Laboratory Accreditation Program

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

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