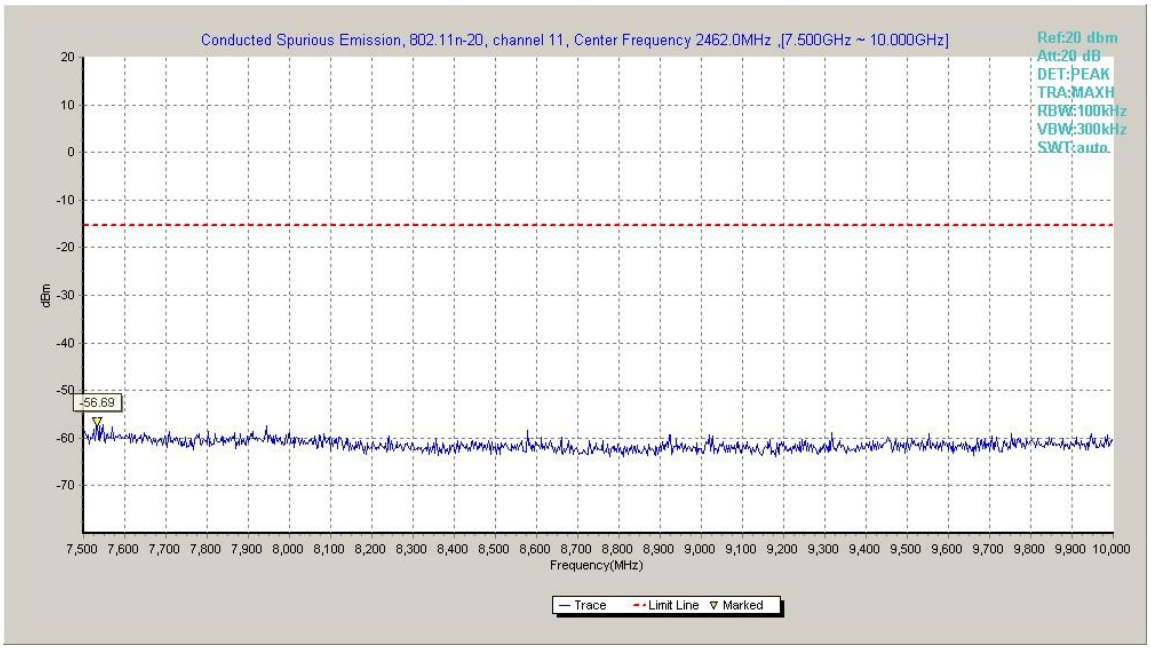

Fig.A.6.1.69 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 7.5 GHz-10 GHz)

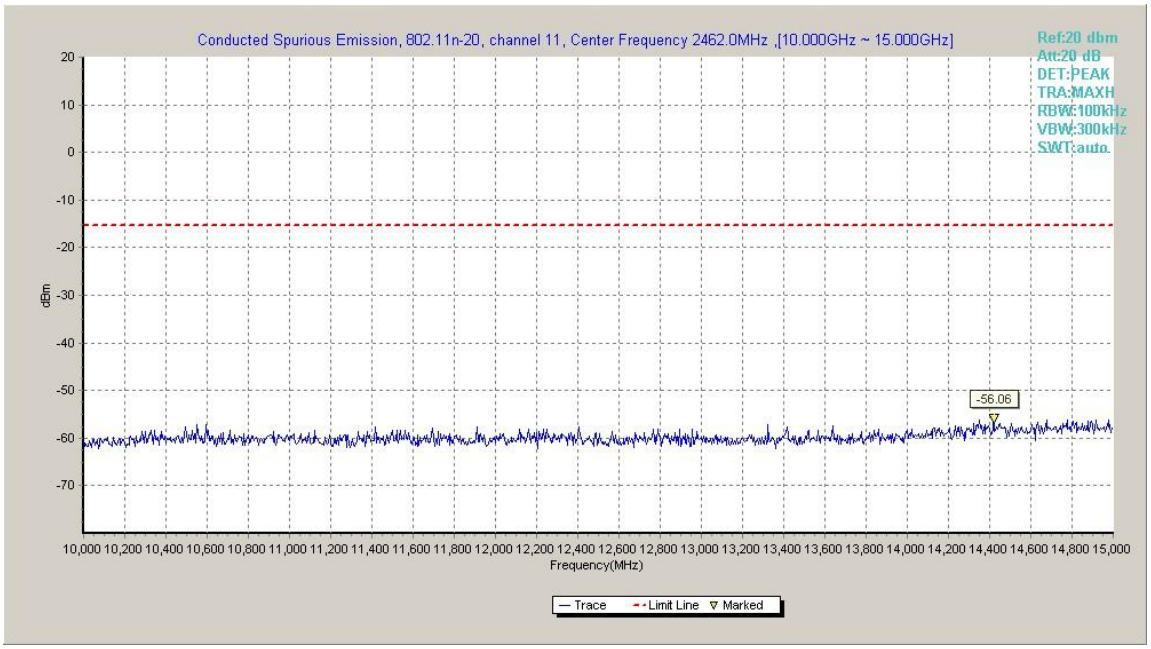

Fig.A.6.1.70 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 10 GHz-15 GHz)

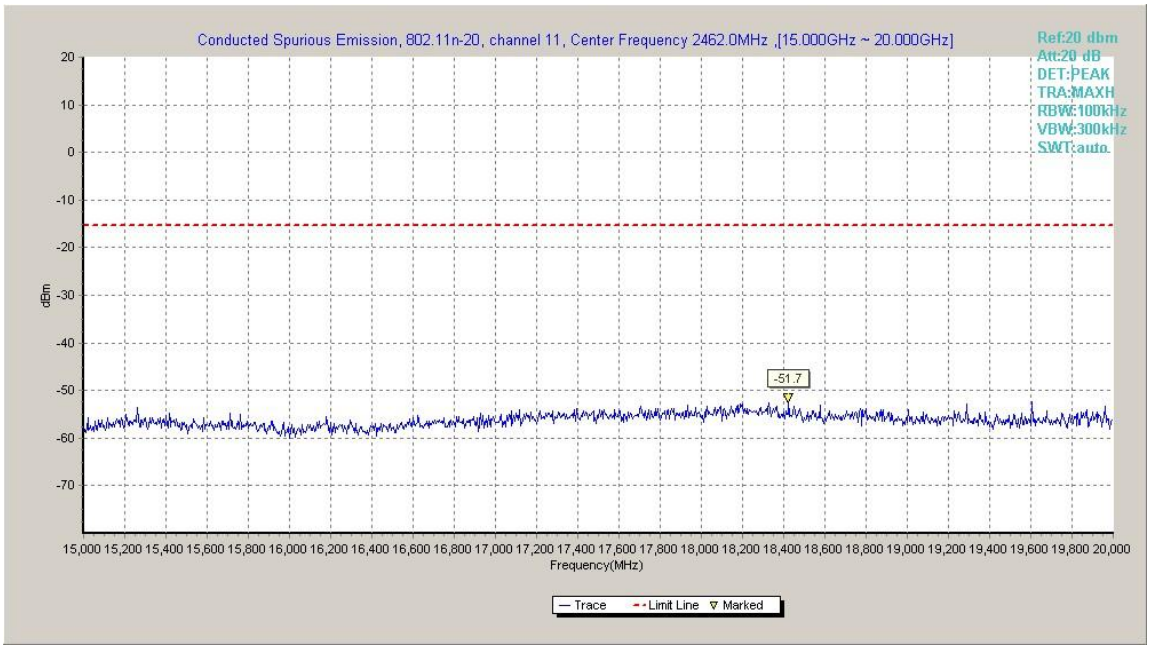

Fig.A.6.1.71 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 15 GHz-20 GHz)

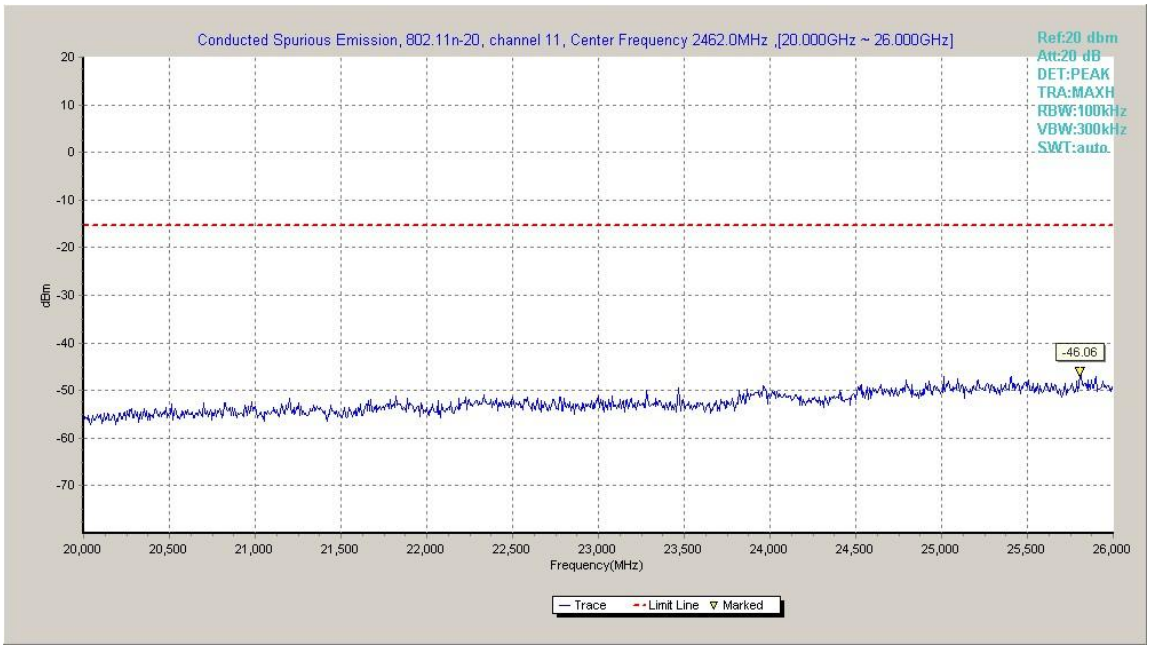

Fig.A.6.1.72 Transmitter Spurious Emission - Conducted (802.11n-HT20, Ch11, 20 GHz-26 GHz)

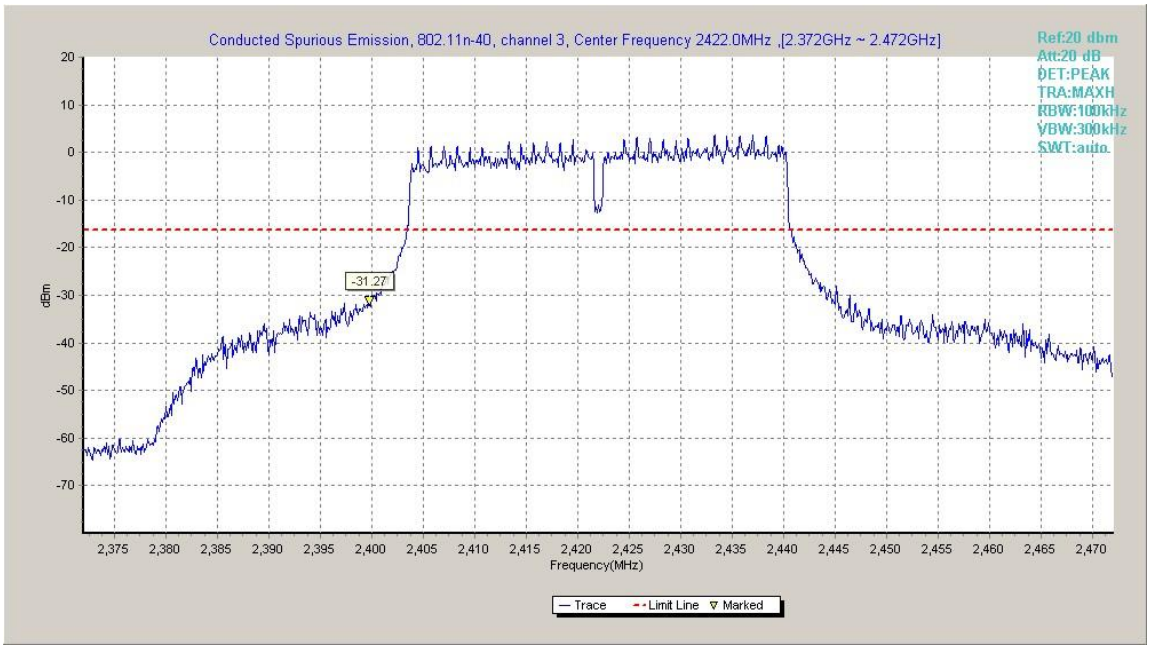

Fig.A.6.1.73 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, Center Frequency)

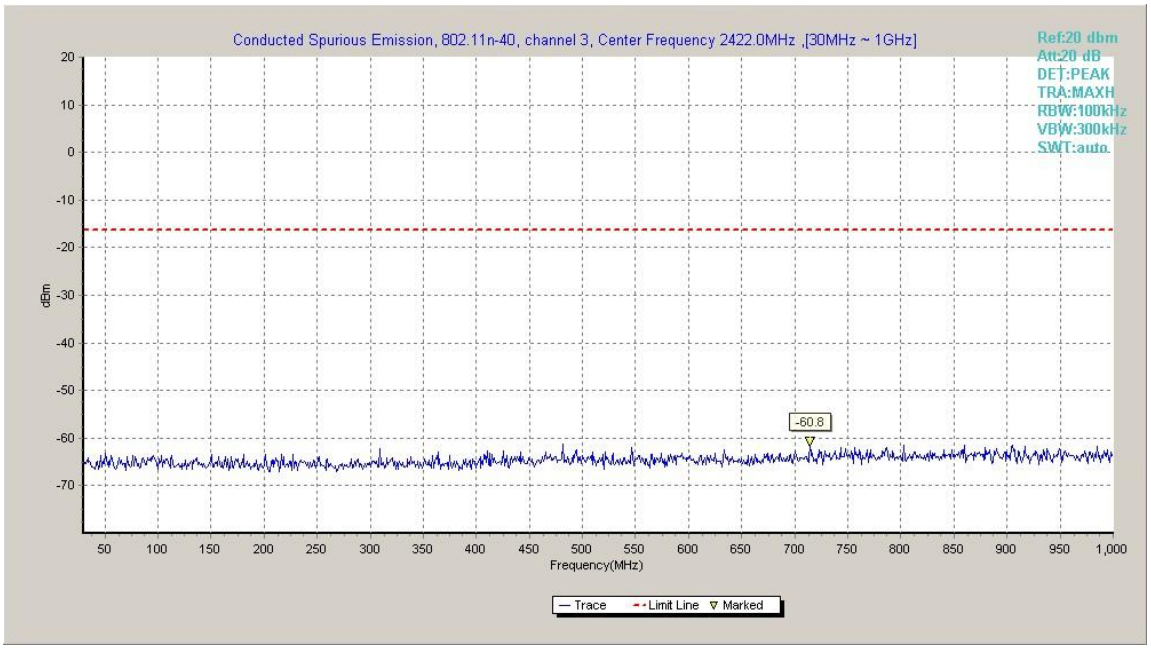

Fig.A.6.1.74 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 30 MHz-1 GHz)

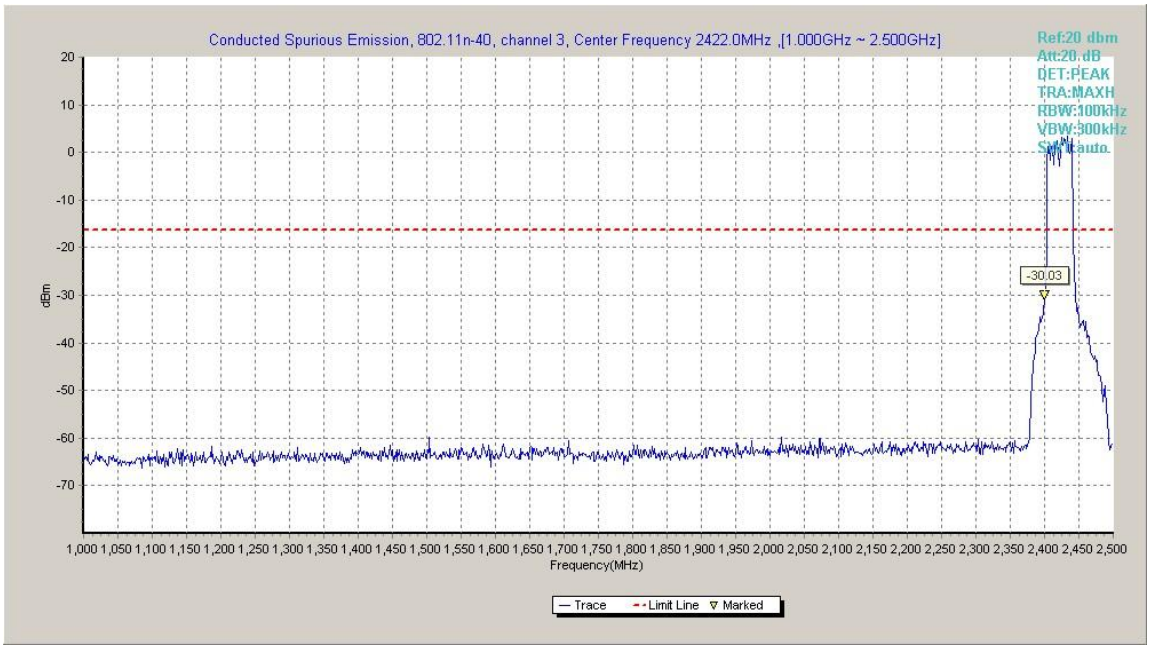

Fig.A.6.1.75 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 1 GHz-2.5 GHz)

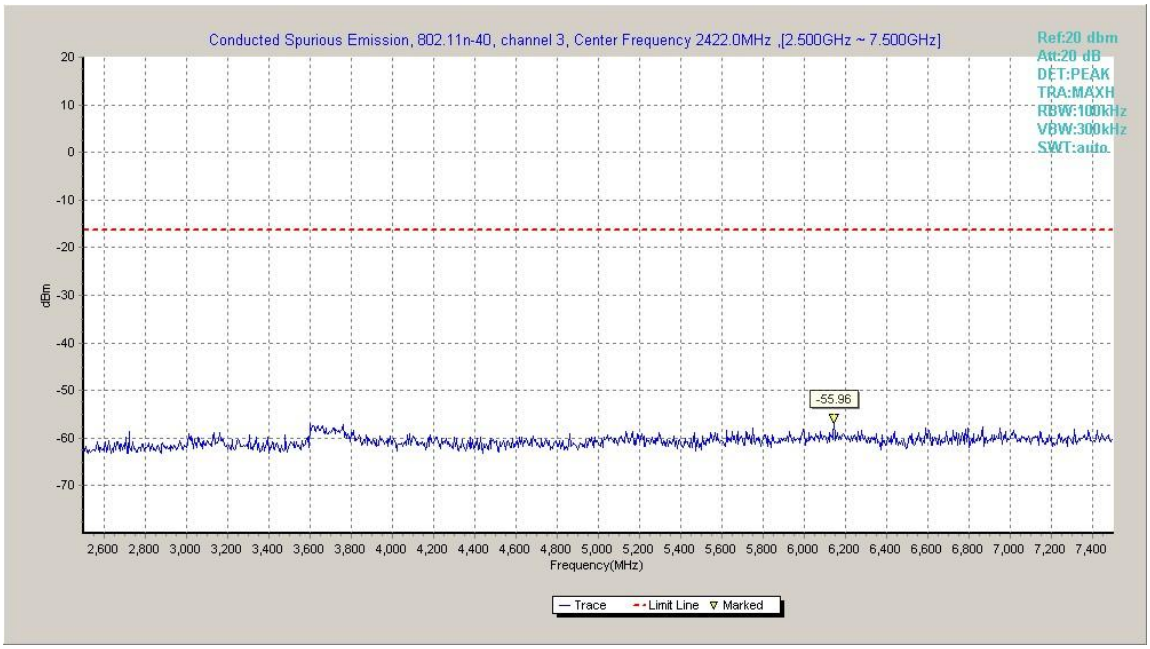

Fig.A.6.1.76 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 2.5 GHz-7.5 GHz)

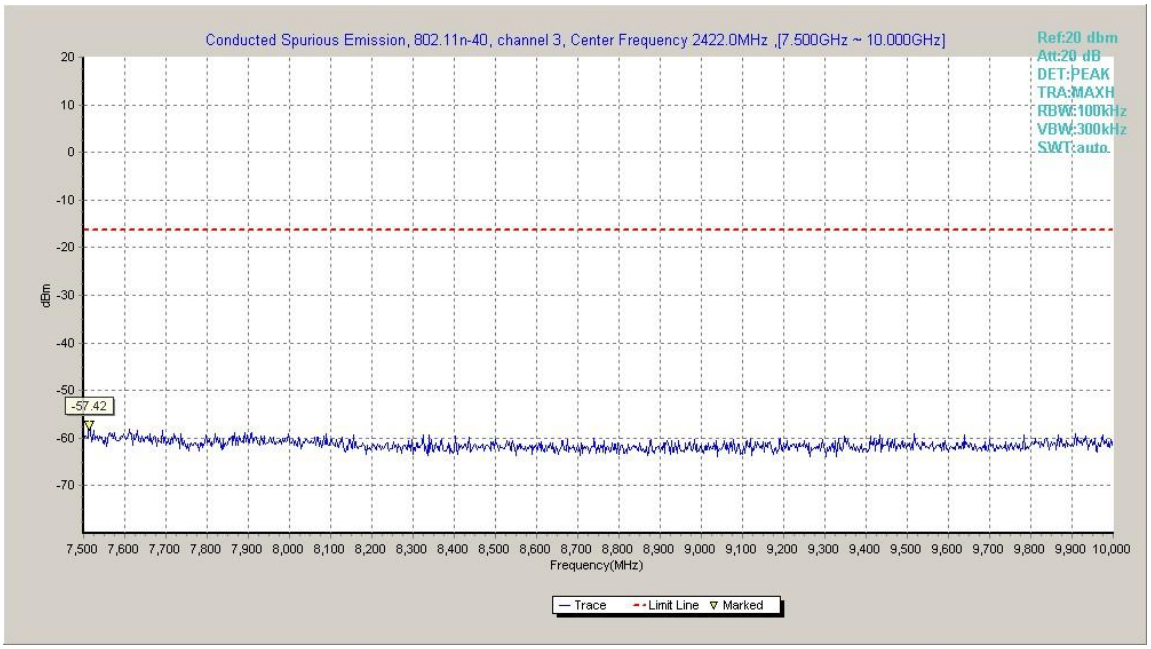

Fig.A.6.1.77 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 7.5 GHz-10 GHz)

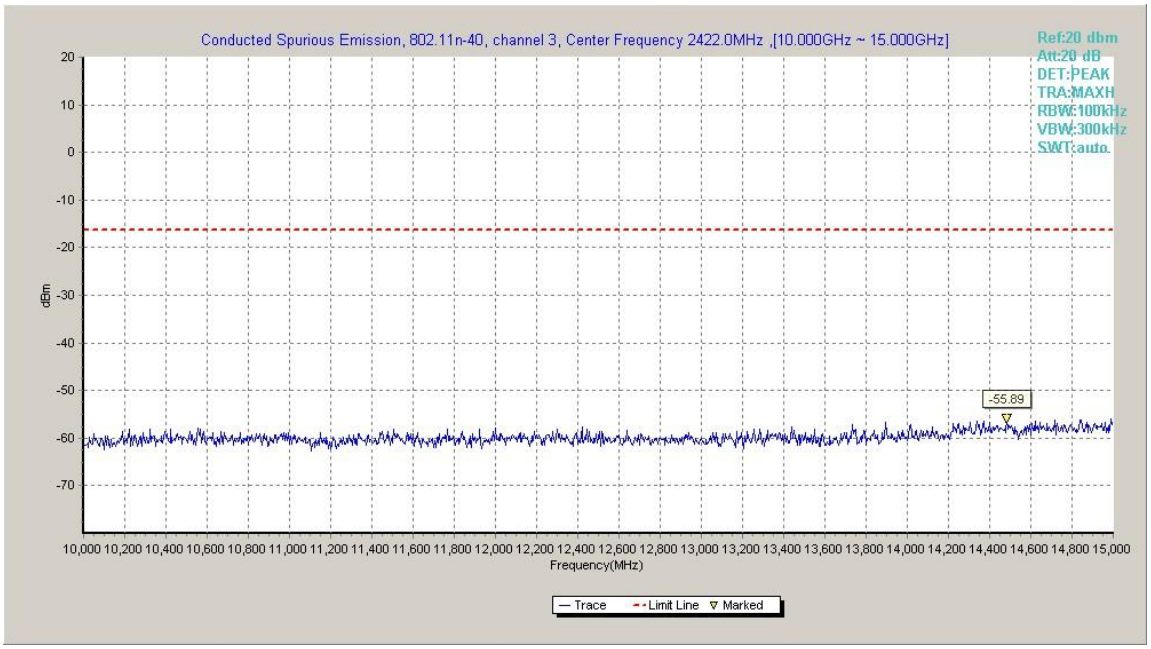

Fig.A.6.1.78 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 10 GHz-15 GHz)

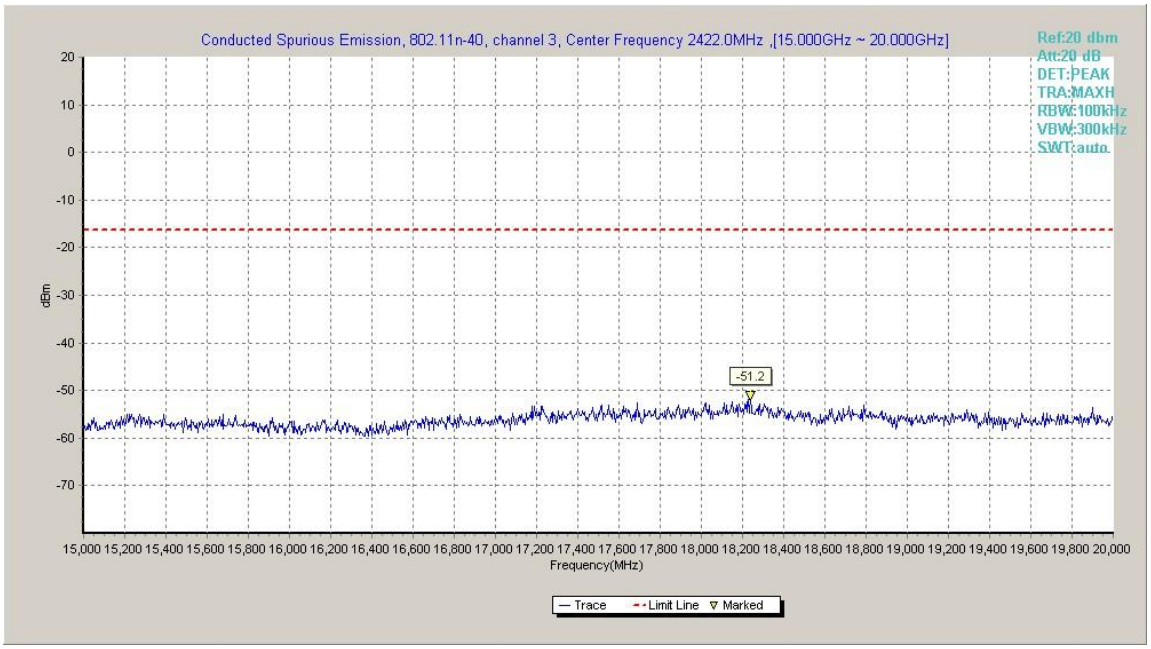

Fig.A.6.1.79 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 15 GHz-20 GHz)

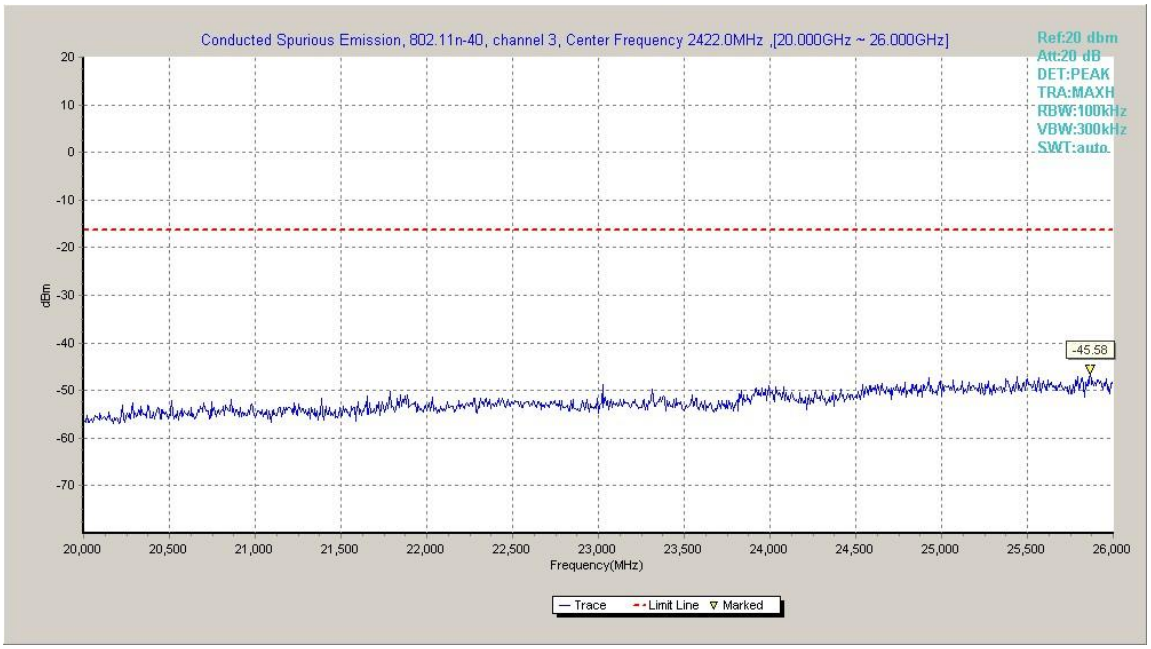

Fig.A.6.1.80 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 20 GHz-26 GHz)

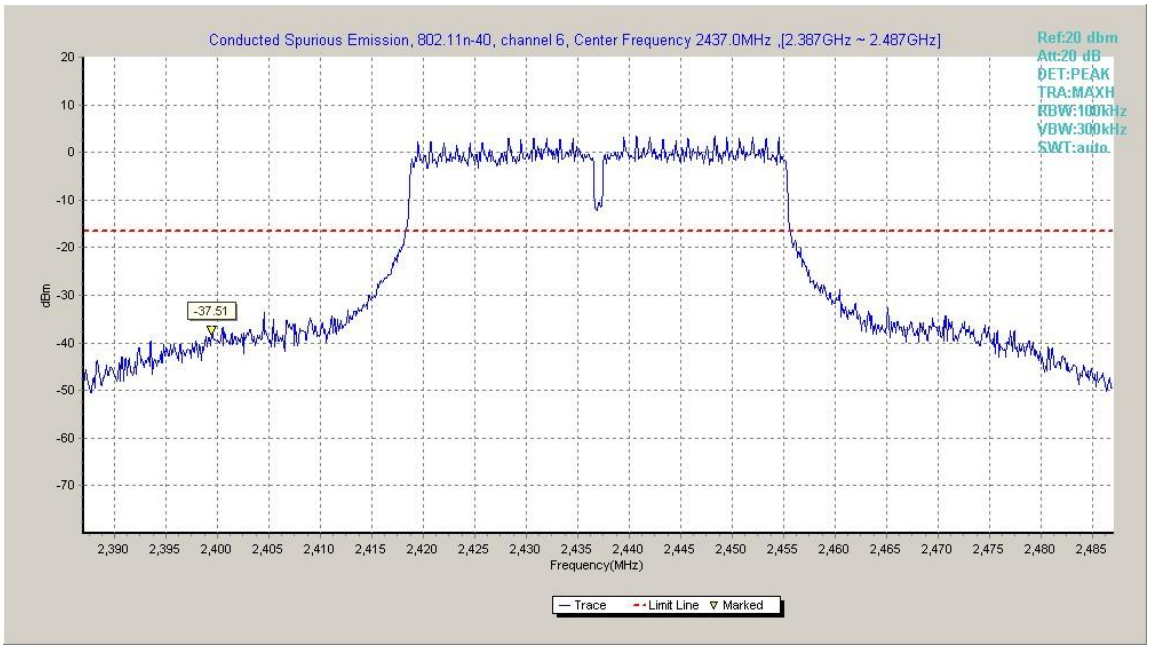

Fig.A.6.1.81 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, Center Frequency)

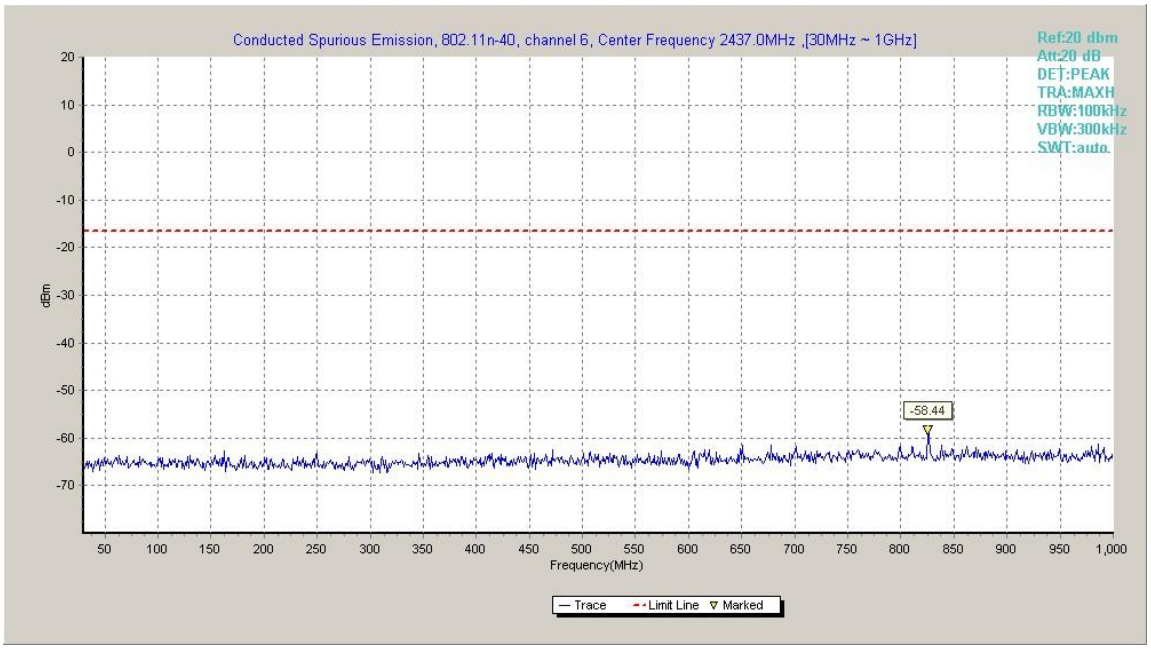

Fig.A.6.1.82 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 30 MHz-1 GHz)

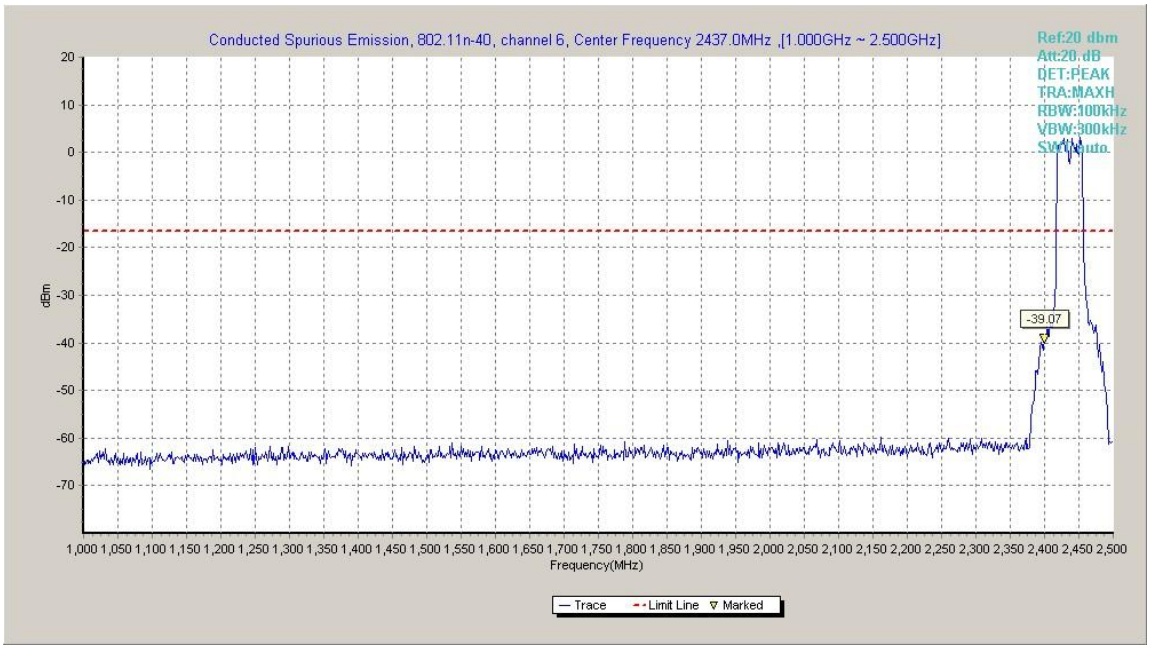

Fig.A.6.1.83 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)

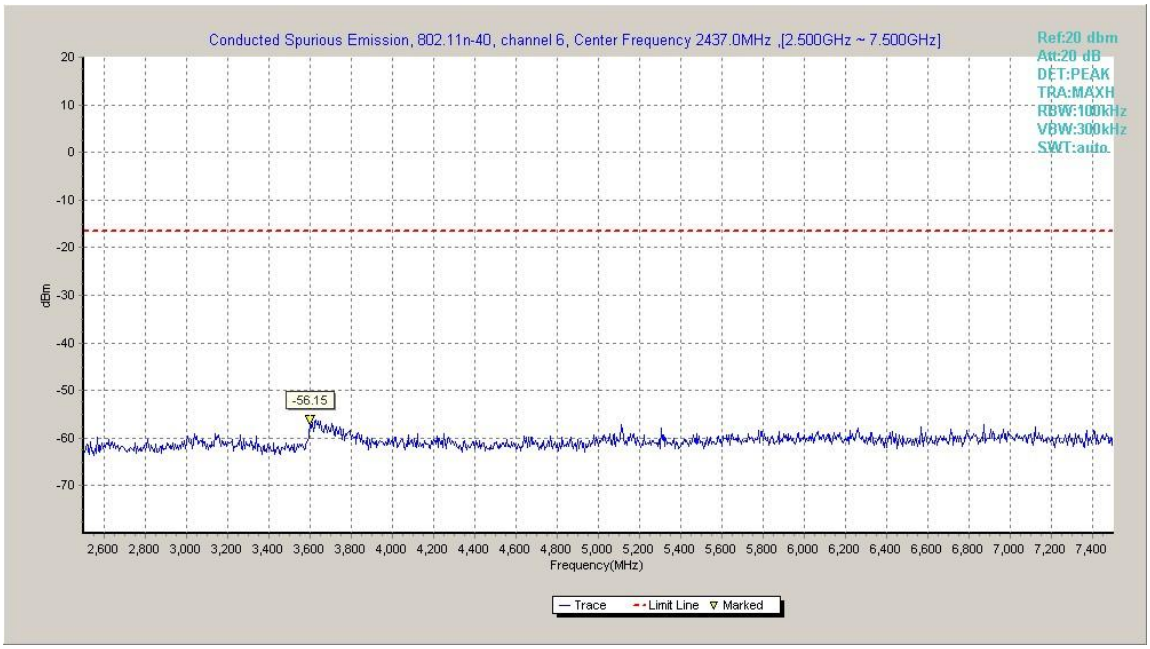

Fig.A.6.1.84 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)

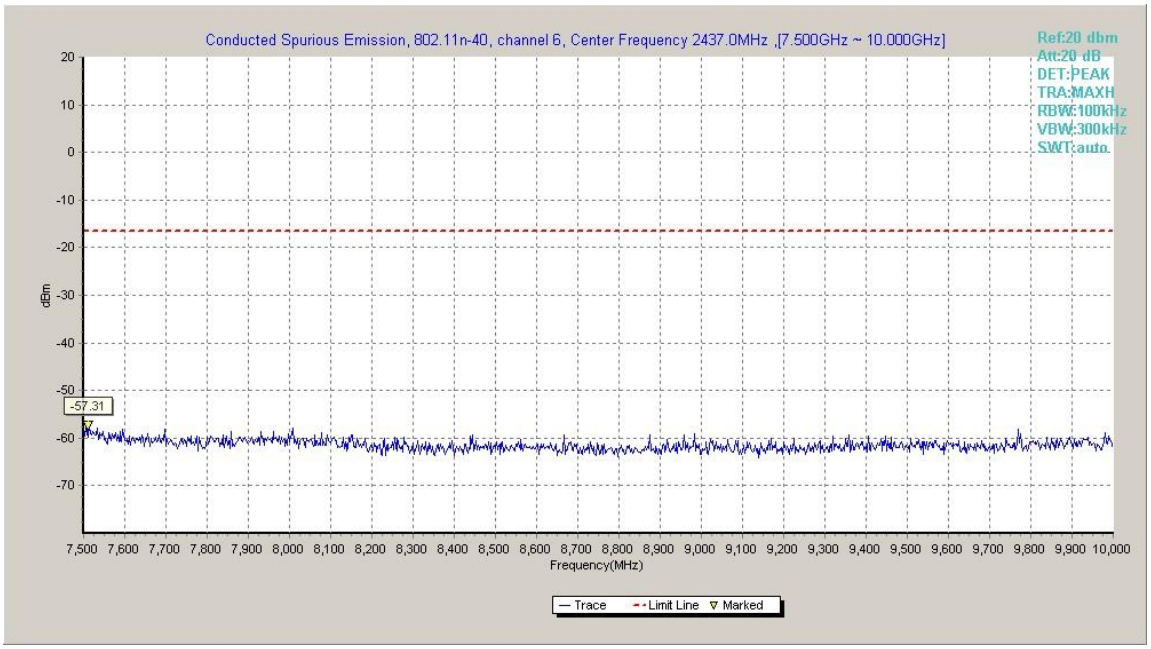

Fig.A.6.1.85 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)

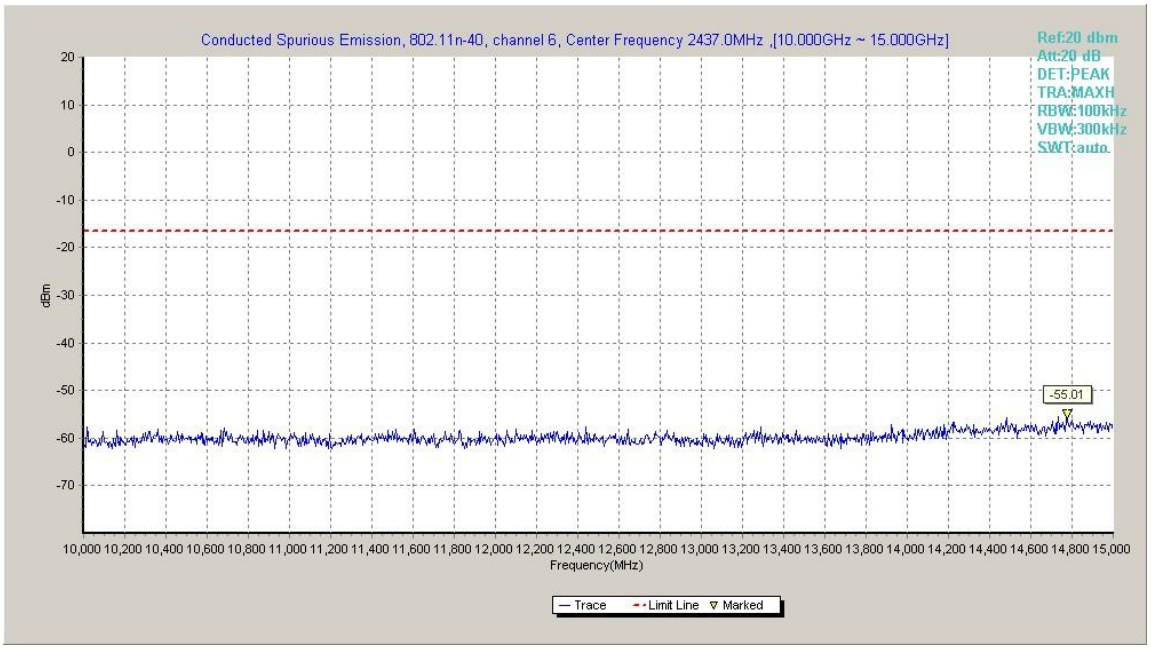

Fig.A.6.1.86 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 10 GHz-15 GHz)

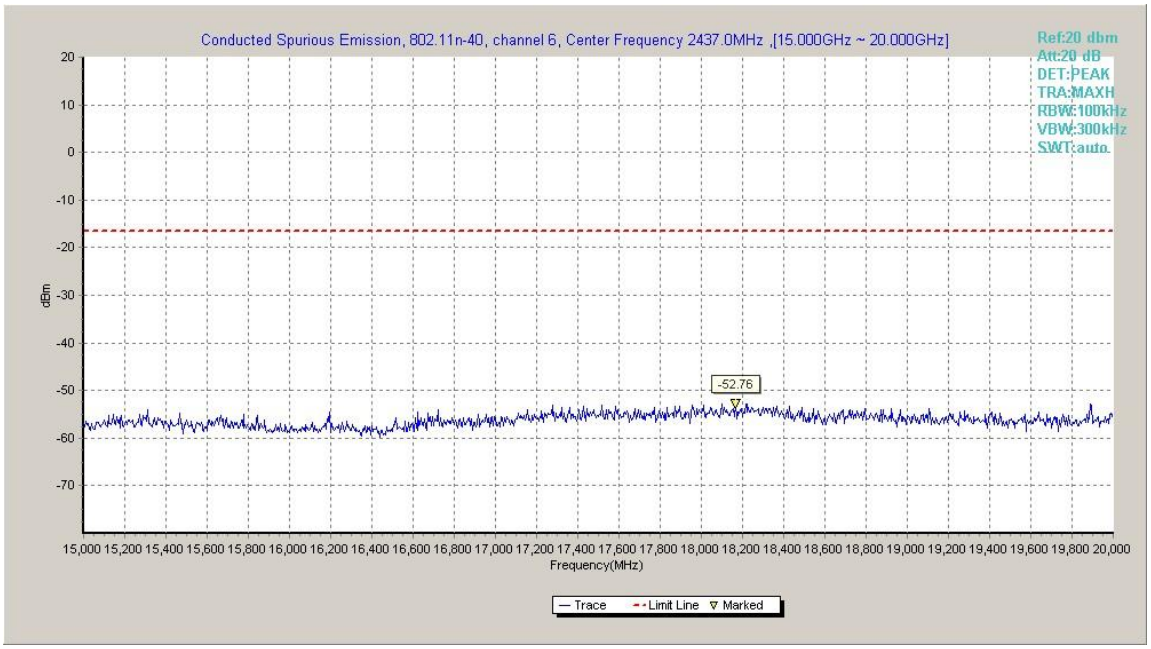

Fig.A.6.1.87 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 15 GHz-20 GHz)

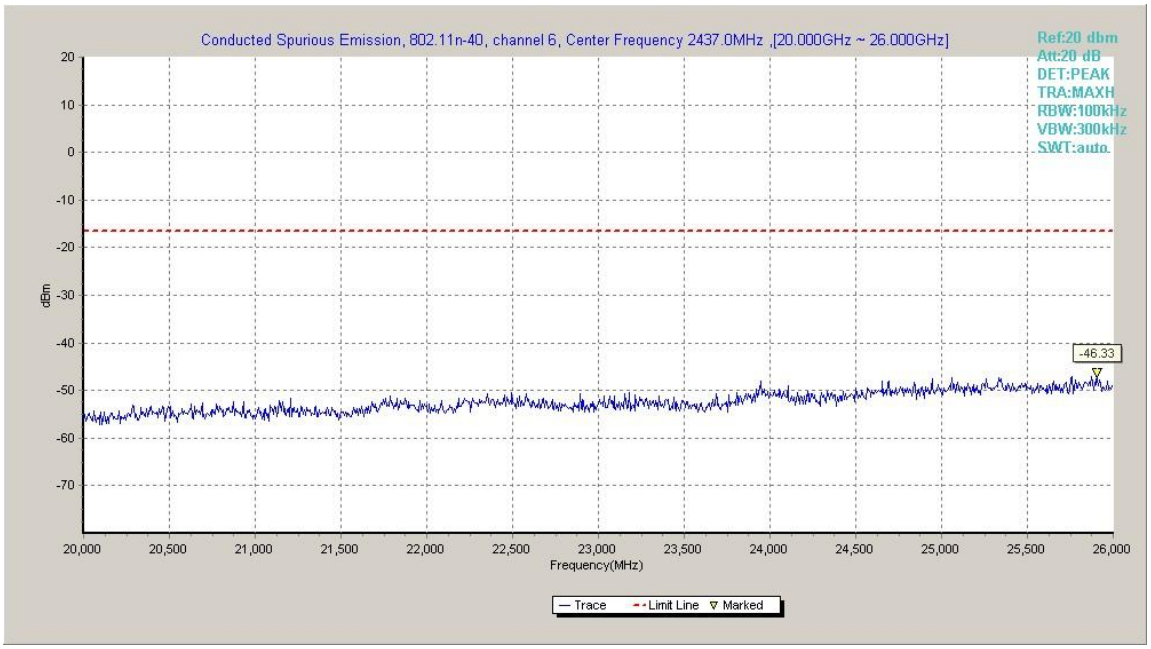

Fig.A.6.1.88 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 20 GHz-26 GHz)

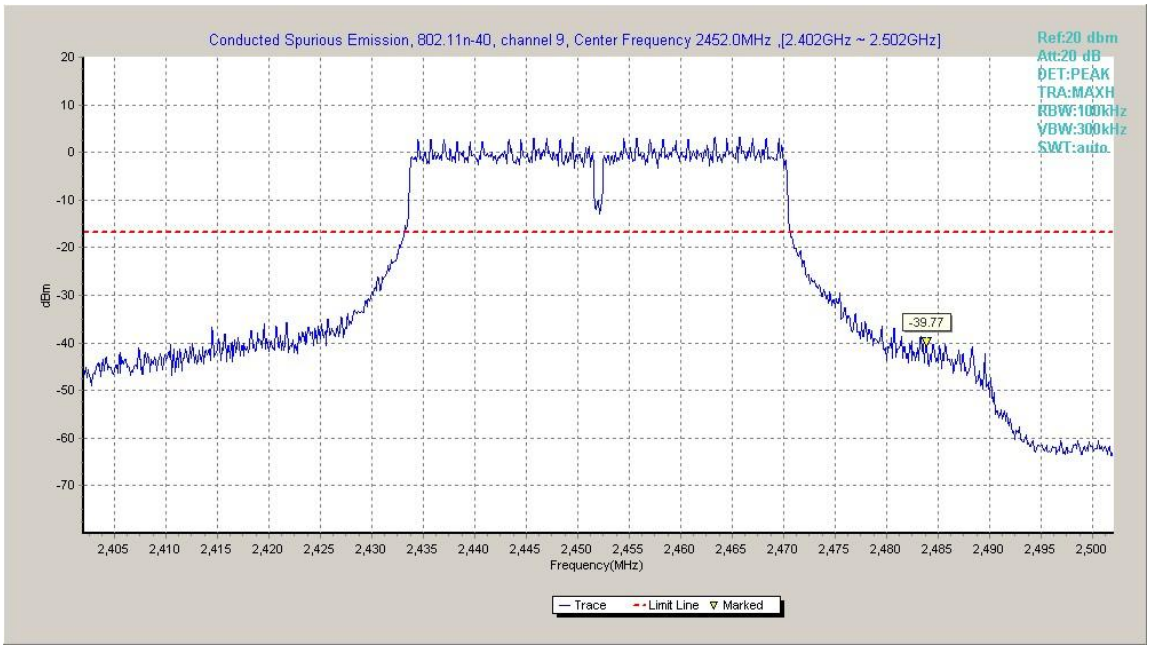

Fig.A.6.1.89 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, Center Frequency)

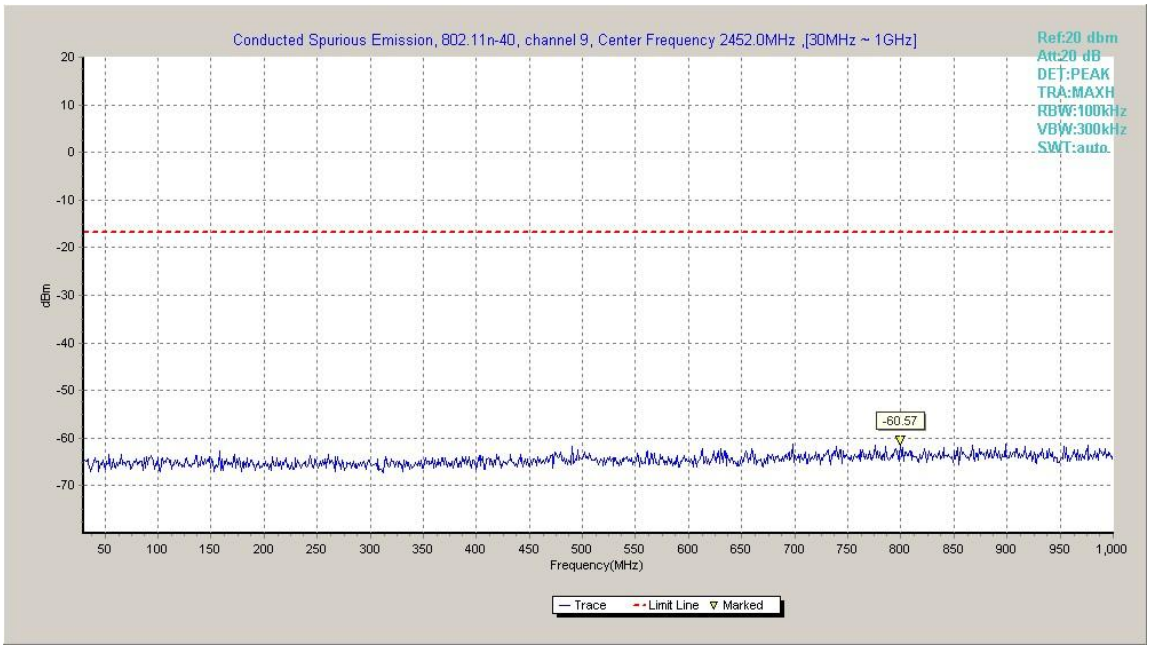

Fig.A.6.1.90 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 30 MHz-1 GHz)

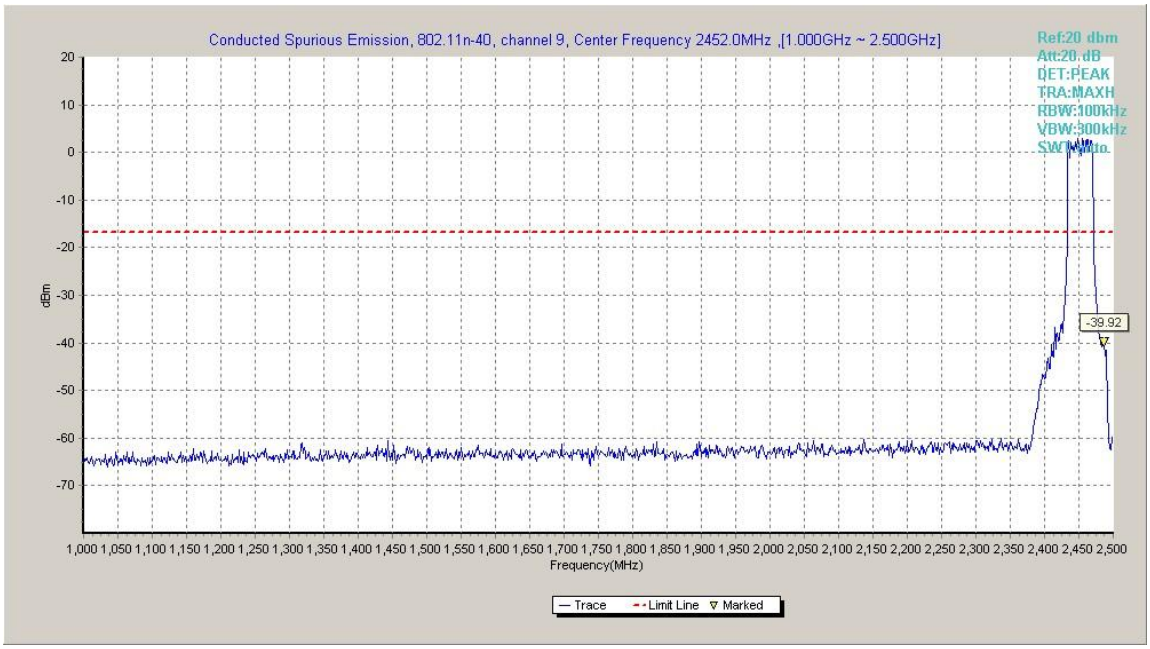

Fig.A.6.1.91 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

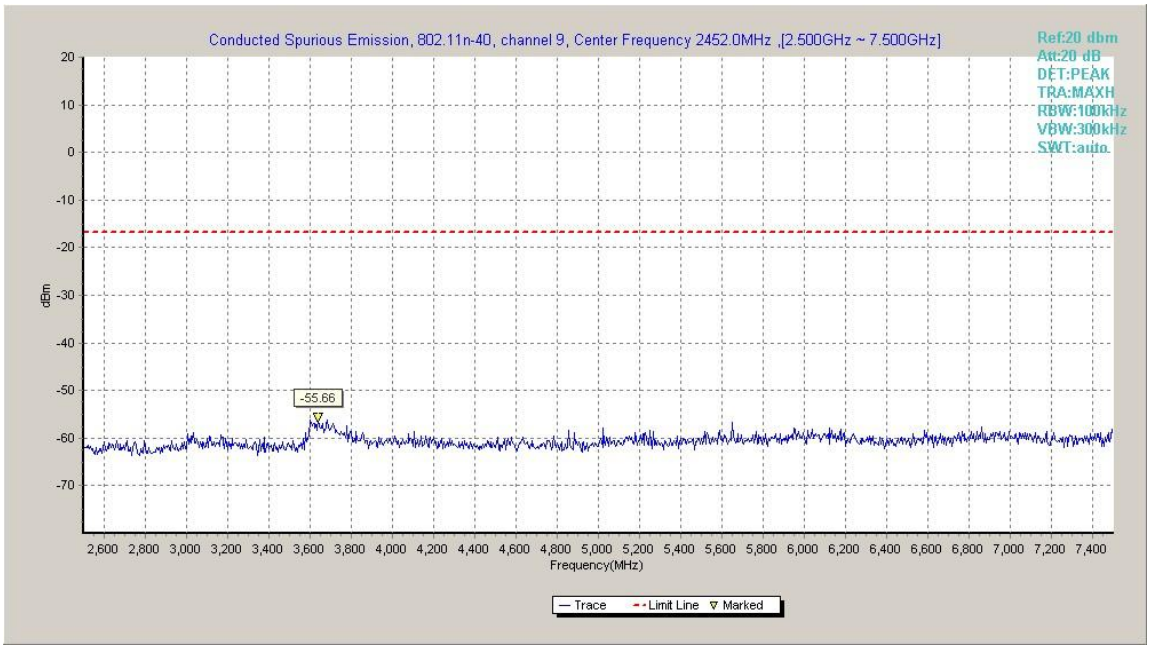

Fig.A.6.1.92 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)

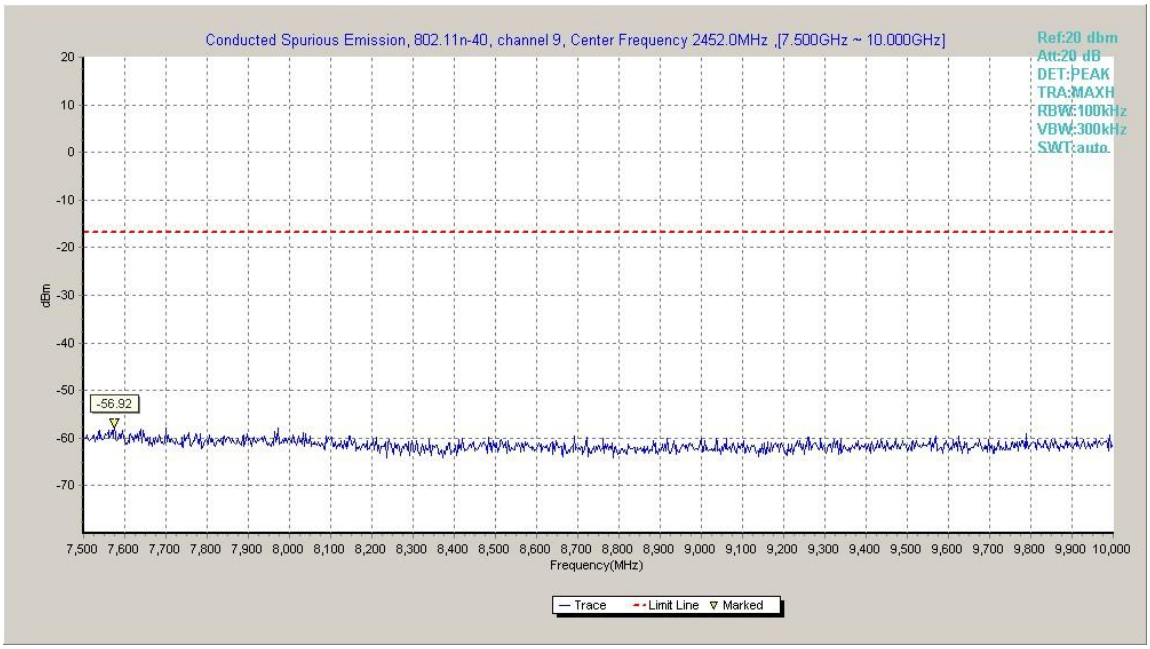

Fig.A.6.1.93 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

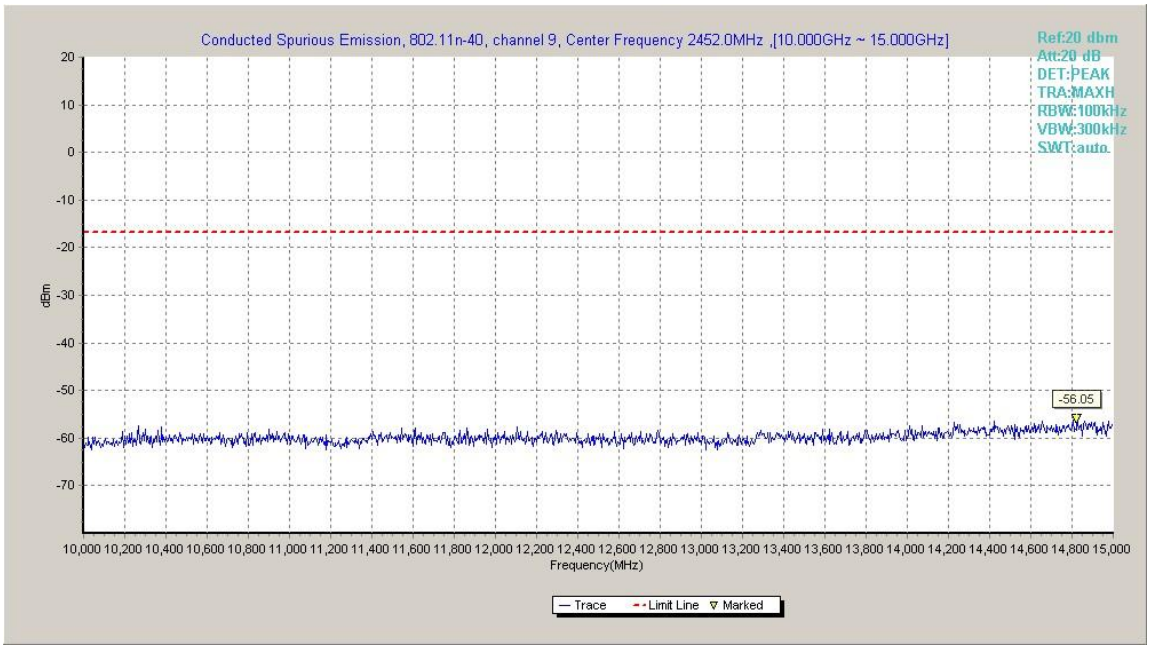

Fig.A.6.1.94 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 10 GHz-15 GHz)

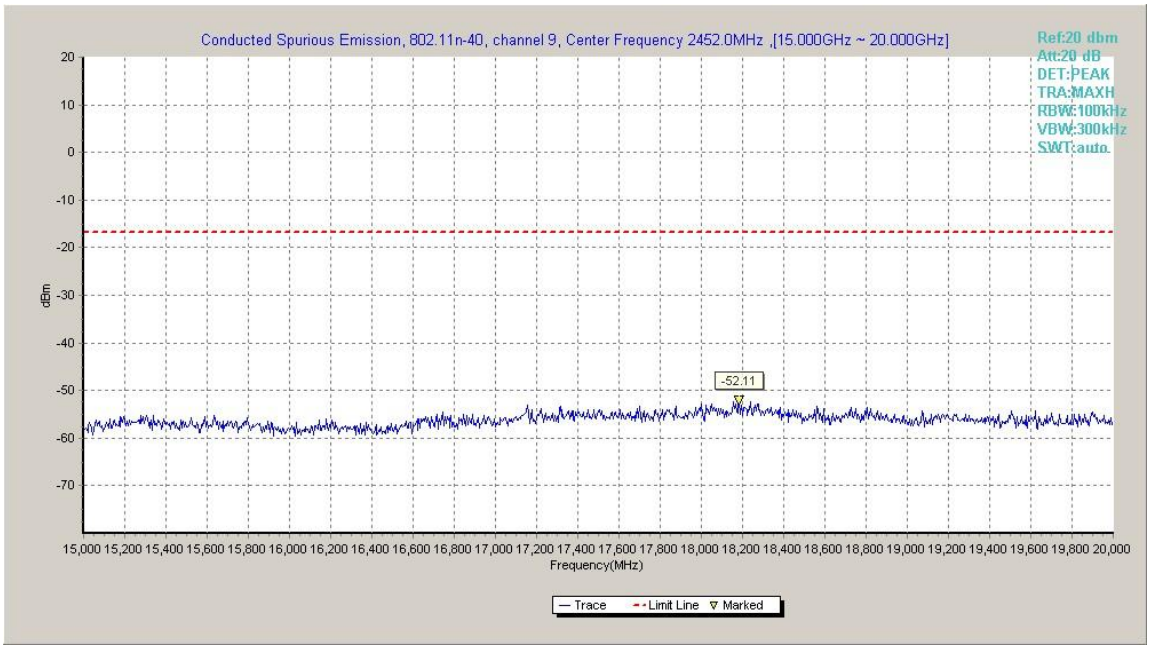

Fig.A.6.1.95 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 15 GHz-20 GHz)

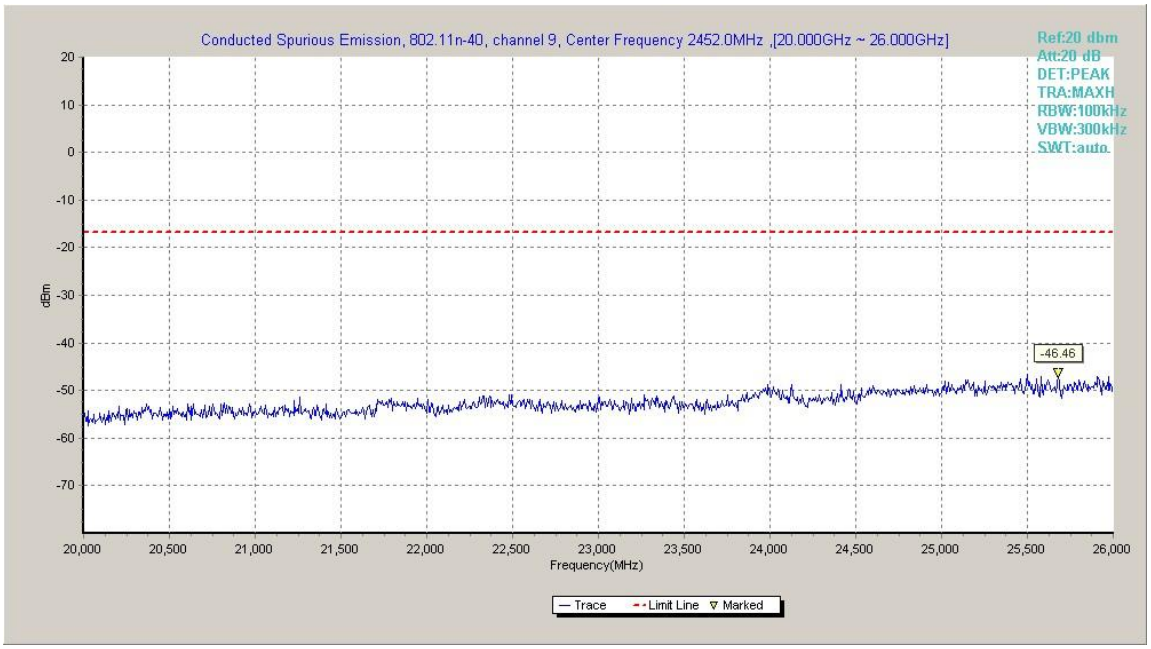

Fig.A.6.1.96 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 20 GHz-26 GHz)

A.6.2 Transmitter Spurious Emission - Radiated

Method of Measurement: See ANSI C63.10-2013-clause 6.4 &6.5 & 6.6

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209	20dB below peak output power

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Limit in restricted band:

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Frequency (MHz)	Field strength(μV/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

Test Condition

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100KHz/300KHz	5
1000-4000	1MHz/1MHz	15
4000-18000	1MHz/1MHz	40
18000-26500	1MHz/1MHz	20

EUT ID: EUT5

Measurement Results:

Measurement Results for Set.11:

802.11b mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	Power	2.38GHz ~2.43GHz	Fig.A.6.2.1	**P**
	1	1 GHz ~ 3 GHz	--	**P**
		3 GHz ~ 18 GHz	--	**P**
	6	9 kHz ~30 MHz	--	**P**
		30 MHz ~1 GHz	--	**P**
		1 GHz ~ 3 GHz	--	**P**
		3 GHz ~ 18 GHz	--	**P**
		18 GHz~ 26.5 GHz	--	**P**
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.2	**P**
	11	1 GHz ~ 3 GHz	--	**P**
		3 GHz ~ 18 GHz	--	**P**

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	Power	2.38GHz ~2.43GHz	Fig.A.6.2.3	**P**
	1	1 GHz ~ 3 GHz	--	**P**
		3 GHz ~ 18 GHz	--	**P**
	6	30 MHz ~1 GHz	--	**P**
		1 GHz ~ 3 GHz	--	**P**
		3 GHz ~ 18 GHz	--	**P**
		18 GHz~ 26.5 GHz	--	**P**
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.4	**P**
	11	1 GHz ~ 3 GHz	--	**P**
		3 GHz ~ 18 GHz	--	**P**

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	Power	2.38GHz ~2.43GHz	Fig.A.6.2.5	**P**
	1	1 GHz ~ 3 GHz	--	**P**
		3 GHz ~ 18 GHz	--	**P**
	6	30 MHz ~1 GHz	--	**P**
		1 GHz ~ 3 GHz	--	**P**
		3 GHz ~ 18 GHz	--	**P**
		18 GHz~ 26.5 GHz	--	**P**
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.6	**P**
	11	1 GHz ~ 3 GHz	--	**P**
		3 GHz ~ 18 GHz	--	**P**

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT40)	Power	2.38GHz ~2.43GHz	Fig.A.6.2.7	**P**
	3	1 GHz ~ 3 GHz	--	**P**
		3 GHz ~ 18 GHz	--	**P**
	6	30 MHz ~1 GHz	--	**P**
		1 GHz ~ 3 GHz	--	**P**
		3 GHz ~ 18 GHz	--	**P**
		18 GHz~ 26.5 GHz	--	**P**
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.8	**P**
	9	1 GHz ~ 3 GHz	--	**P**
		3 GHz ~ 18 GHz	--	**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

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)
2385.800	46.34	2.9	32.0	11.46	54.0	7.7	H	155	25
2389.900	46.40	2.9	32.0	11.55	54.0	7.6	H	155	49
4824.000	35.54	-32.8	34.5	33.79	54.0	18.5	H	155	4
7236.000	38.05	-31.7	36.1	33.69	54.0	16.0	H	155	6
9648.000	37.67	-30.4	37.0	30.99	54.0	16.3	H	155	25
12060.000	42.90	-29.6	39.3	33.22	54.0	11.1	H	155	186

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)
2388.500	46.34	2.9	32.0	11.48	54.0	7.7	H	155	4
2486.800	46.37	2.9	32.7	10.77	54.0	7.6	H	155	2
4873.500	35.08	-32.7	34.5	33.29	54.0	18.9	H	155	25
7311.000	38.25	-31.9	36.1	34.08	54.0	15.8	H	155	350
9748.500	38.00	-30.7	37.2	31.46	54.0	16.0	H	155	92
12184.500	43.44	-29.4	39.2	33.65	54.0	10.6	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)
2380.100	46.25	2.9	32.1	11.33	54.0	7.8	H	155	20
2386.100	46.26	2.9	32.0	11.39	54.0	7.7	H	155	45
4924.500	35.39	-33.1	34.5	33.98	54.0	18.6	H	155	240
7386.000	37.87	-31.8	36.0	33.66	54.0	16.1	H	155	180
9847.500	39.76	-30.1	37.3	32.51	54.0	14.2	H	155	85
12310.500	43.84	-29.7	39.2	34.36	54.0	10.2	H	155	25

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)
2382.128	59.87	2.9	32.0	24.97	74.0	14.1	H	155	22
2385.012	59.33	2.9	32.0	24.45	74.0	14.7	V	155	44
4824.000	39.19	-32.8	34.5	37.44	74.0	34.8	H	155	0
7236.000	40.96	-31.7	36.1	36.60	74.0	33.0	H	155	0
9648.000	40.27	-30.4	37.0	33.59	74.0	33.7	H	155	22
12060.000	44.60	-29.6	39.3	34.92	74.0	29.4	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)
2364.800	48.49	-32.7	32.0	49.19	74.0	25.5	H	155	0
2508.800	48.39	-32.2	32.1	48.47	74.0	25.6	H	155	0
4874.250	39.00	-32.7	34.5	37.21	74.0	35.0	V	155	22
7311.000	40.44	-31.9	36.1	36.28	74.0	33.6	V	155	352
9747.750	41.94	-30.7	37.2	35.41	74.0	32.1	V	155	88
12185.250	45.41	-29.4	39.2	35.62	74.0	28.6	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)
2489.230	59.71	2.9	32.6	24.17	74.0	14.3	H	155	22
2493.770	59.72	2.9	32.5	24.31	74.0	14.3	H	155	44
4923.750	41.32	-33.1	34.5	39.90	74.0	32.7	H	155	242
7386.000	40.48	-31.8	36.0	36.27	74.0	33.5	H	155	176
9848.250	42.85	-30.1	37.3	35.60	74.0	31.1	H	155	88
12309.750	46.13	-29.7	39.2	36.65	74.0	27.9	V	155	22

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)
2385.400	46.32	2.9	32.0	11.44	54.0	7.7	H	155	175
2389.100	46.46	2.9	32.0	11.61	54.0	7.5	H	155	5
4824.000	35.06	-32.8	34.5	33.31	54.0	18.9	H	155	26
7236.000	38.03	-31.7	36.1	33.66	54.0	16.0	H	155	355
9648.000	37.62	-30.4	37.0	30.94	54.0	16.4	H	155	6
12060.000	42.94	-29.6	39.3	33.27	54.0	11.1	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)
2385.500	46.34	2.9	32.0	11.47	54.0	7.7	H	155	20
2487.400	46.42	2.9	32.7	10.84	54.0	7.6	H	155	248
4873.500	35.05	-32.7	34.5	33.26	54.0	18.9	H	155	49
7311.000	37.89	-31.9	36.1	33.72	54.0	16.1	H	155	335
9748.500	38.05	-30.7	37.2	31.51	54.0	16.0	H	155	180
12184.500	43.43	-29.4	39.2	33.63	54.0	10.6	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)
2385.900	46.26	2.9	32.0	11.39	54.0	7.7	H	155	135
2389.900	46.26	2.9	32.0	11.41	54.0	7.7	H	155	160
4924.500	35.32	-33.1	34.5	33.91	54.0	18.7	H	155	92
7386.000	37.96	-31.8	36.0	33.76	54.0	16.0	H	155	115
9847.500	39.75	-30.1	37.3	32.50	54.0	14.2	H	155	112
12310.500	43.84	-29.7	39.2	34.37	54.0	10.2	H	155	85

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)
2381.162	59.17	2.9	32.1	24.26	74.0	14.8	H	155	176
2389.100	59.60	2.9	32.0	24.75	74.0	14.4	H	155	0
4824.000	39.12	-32.8	34.5	37.37	74.0	34.9	V	155	22
7236.000	40.45	-31.7	36.1	36.09	74.0	33.5	V	155	352
9648.000	42.13	-30.4	37.0	35.44	74.0	31.9	V	155	0
12060.000	45.53	-29.6	39.3	35.86	74.0	28.5	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)
2369.800	47.63	-32.8	32.0	48.45	74.0	26.4	H	155	22
2500.600	47.99	-31.9	32.1	47.81	74.0	26.0	H	155	242
4874.250	39.15	-32.7	34.5	37.36	74.0	34.9	V	155	44
7311.000	40.88	-31.9	36.1	36.71	74.0	33.1	H	155	330
9747.750	40.47	-30.7	37.2	33.94	74.0	33.5	H	155	176
12185.250	45.01	-29.4	39.2	35.22	74.0	29.0	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)
2485.070	61.20	2.9	32.7	25.55	74.0	12.8	H	155	132
2494.810	59.37	2.9	32.4	23.98	74.0	14.6	H	155	154
4923.750	39.86	-33.1	34.5	38.44	74.0	34.1	V	155	88
7386.000	41.59	-31.8	36.0	37.39	74.0	32.4	H	155	110
9848.250	44.41	-30.1	37.3	37.16	74.0	29.6	V	155	110
12309.750	43.73	-29.7	39.2	34.26	74.0	30.3	V	155	88

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)
2388.200	46.43	2.9	32.0	11.58	54.0	7.6	H	155	5
2389.800	46.45	2.9	32.0	11.60	54.0	7.5	H	155	25
4873.500	35.08	-32.7	34.5	33.29	54.0	18.9	H	155	356
7311.000	37.83	-31.9	36.1	33.66	54.0	16.2	H	155	350
9648.000	37.57	-30.4	37.0	30.89	54.0	16.4	H	155	185
12060.000	42.94	-29.6	39.3	33.27	54.0	11.1	H	155	187

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)
2389.700	46.36	2.9	32.0	11.52	54.0	7.6	H	155	86
2487.300	46.47	2.9	32.7	10.88	54.0	7.5	H	155	107
4873.500	35.05	-32.7	34.5	33.26	54.0	19.0	H	155	130
7311.000	37.85	-31.9	36.1	33.68	54.0	16.2	H	155	152
9748.500	37.99	-30.7	37.2	31.46	54.0	16.0	H	155	174
12184.500	43.43	-29.4	39.2	33.64	54.0	10.6	H	155	195

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)
2387.800	46.24	2.9	32.0	11.38	54.0	7.8	H	155	175
2388.900	46.29	2.9	32.0	11.44	54.0	7.7	H	155	194
4942.500	35.35	-33.2	34.5	34.09	54.0	18.7	H	155	215
7386.000	37.86	-31.8	36.0	33.66	54.0	16.1	H	155	196
9847.500	39.81	-30.1	37.3	32.56	54.0	14.2	H	155	241
12310.500	43.87	-29.7	39.2	34.40	54.0	10.1	H	155	259

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)
2381.428	59.65	2.9	32.0	24.74	74.0	14.4	H	155	0
2385.950	59.47	2.9	32.0	24.60	74.0	14.5	H	155	22
4824.000	39.62	-32.8	34.5	37.87	74.0	34.4	H	155	352
7236.000	41.22	-31.7	36.1	36.86	74.0	32.8	V	155	352
9648.000	43.04	-30.4	37.0	36.36	74.0	31.0	V	155	176
12060.000	46.62	-29.6	39.3	36.94	74.0	27.4	V	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)
2363.000	48.06	-32.7	32.0	48.72	74.0	25.9	V	155	88
2510.400	48.73	-32.3	32.1	48.87	74.0	25.3	H	155	110
4874.250	38.47	-32.7	34.5	36.68	74.0	35.5	V	155	132
7311.000	41.06	-31.9	36.1	36.90	74.0	32.9	H	155	154
9747.750	40.07	-30.7	37.2	33.55	74.0	33.9	V	155	176
12185.250	44.99	-29.4	39.2	35.20	74.0	29.0	V	155	198

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)
2484.100	60.17	2.9	32.7	24.49	74.0	13.8	V	155	176
2489.270	60.37	2.9	32.6	24.83	74.0	13.6	H	155	198
4923.750	39.27	-33.1	34.5	37.85	74.0	34.7	V	155	220
7384.000	40.10	-31.8	36.0	35.90	74.0	33.9	H	155	198
9848.250	43.05	-30.1	37.3	35.79	74.0	31.0	H	155	242
12309.750	44.73	-29.7	39.2	35.26	74.0	29.3	V	155	264

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)
2389.300	47.44	2.9	32.0	12.59	54.0	6.6	H	155	40
2390.000	47.54	2.9	32.0	12.69	54.0	6.5	H	155	65
4843.500	34.84	-32.7	34.5	33.03	54.0	19.2	H	155	84
7266.000	38.14	-31.9	36.1	33.90	54.0	15.9	H	155	107
9688.500	37.47	-30.7	37.1	31.09	54.0	16.5	H	155	135
12109.500	43.06	-29.5	39.3	33.29	54.0	10.9	H	155	151

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)
2390.000	46.57	2.9	32.0	11.73	54.0	7.4	H	155	6
2485.300	46.53	2.9	32.7	10.88	54.0	7.5	H	155	48
4873.500	35.02	-32.7	34.5	33.23	54.0	19.0	H	155	92
7311.000	37.79	-31.9	36.1	33.62	54.0	16.2	H	155	48
9748.500	38.06	-30.7	37.2	31.53	54.0	15.9	H	155	68
12184.500	43.36	-29.4	39.2	33.57	54.0	10.6	H	155	92

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)
2388.000	46.34	2.9	32.0	11.48	54.0	7.7	H	155	24
2390.000	46.39	2.9	32.0	11.54	54.0	7.6	H	155	336
4903.500	35.42	-32.9	34.5	33.81	54.0	18.6	H	155	248
7356.000	37.84	-31.9	36.1	33.69	54.0	16.2	H	155	268
9808.500	39.05	-30.3	37.3	32.13	54.0	15.0	H	155	290
12259.500	43.66	-29.6	39.2	34.03	54.0	10.3	H	155	300

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)
2385.810	60.30	2.9	32.0	25.42	74.0	13.7	V	155	44
2389.086	60.71	2.9	32.0	25.85	74.0	13.3	H	155	66
4844.250	38.68	-32.7	34.5	36.87	74.0	35.3	H	155	88
7266.000	41.06	-31.9	36.1	36.83	74.0	32.9	V	155	110
9687.750	40.60	-30.7	37.1	34.22	74.0	33.4	V	155	132
12110.250	46.00	-29.5	39.3	36.23	74.0	28.0	H	155	154

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)
2368.800	47.35	-32.8	32.0	48.16	74.0	26.6	H	155	0
2504.200	49.07	-32.0	32.1	49.01	74.0	24.9	H	155	44
4874.250	38.91	-32.7	34.5	37.11	74.0	35.1	V	155	88
7311.000	42.57	-31.9	36.1	38.41	74.0	31.4	V	155	44
9747.750	41.95	-30.7	37.2	35.42	74.0	32.1	V	155	66
12185.250	45.67	-29.4	39.2	35.88	74.0	28.3	H	155	88

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)
2483.570	60.31	2.9	32.8	24.62	74.0	13.7	H	155	22
2496.420	59.69	2.9	32.4	24.34	74.0	14.3	H	155	330
4904.250	40.65	-32.9	34.5	39.04	74.0	33.4	H	155	242
7356.000	41.72	-31.9	36.1	37.57	74.0	32.3	V	155	264
9807.750	42.30	-30.4	37.3	35.38	74.0	31.7	V	155	286
12260.250	45.87	-29.6	39.2	36.24	74.0	28.1	V	155	308

Test graphs as below:

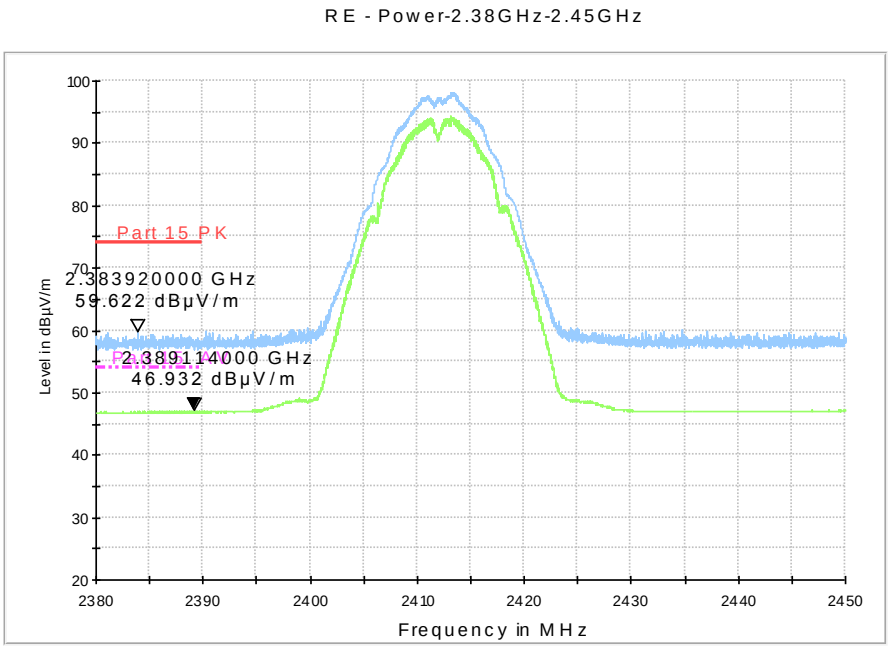

Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.38 GHz – 2.43GHz

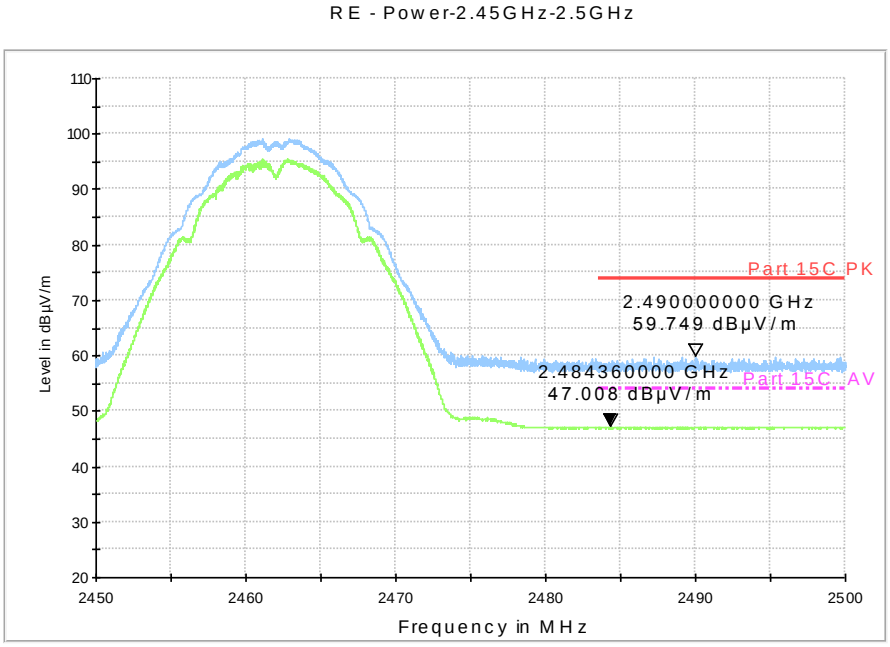

Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

RE - Power-2.38GHz-2.45GHz

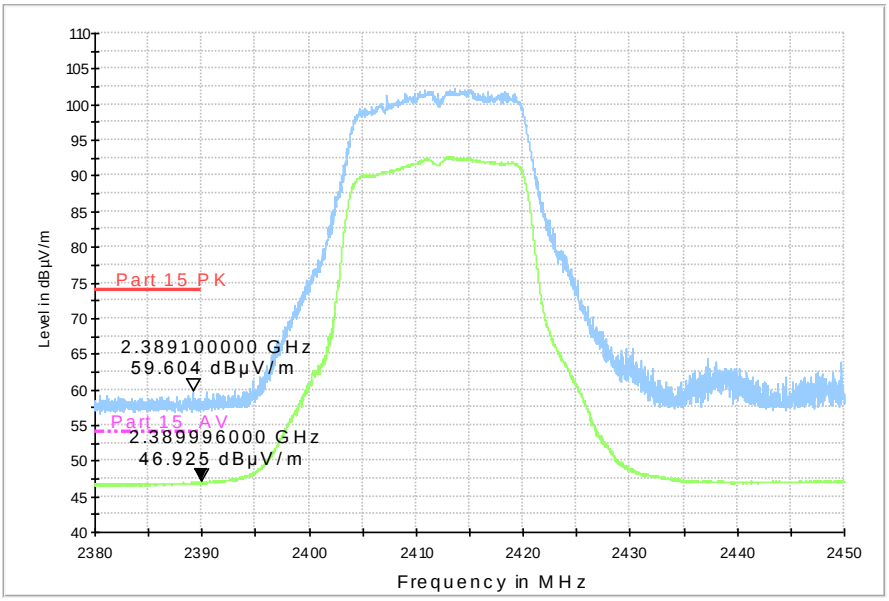

Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.38 GHz - 2.43GHz

RE - Power-2.45GHz-2.5GHz

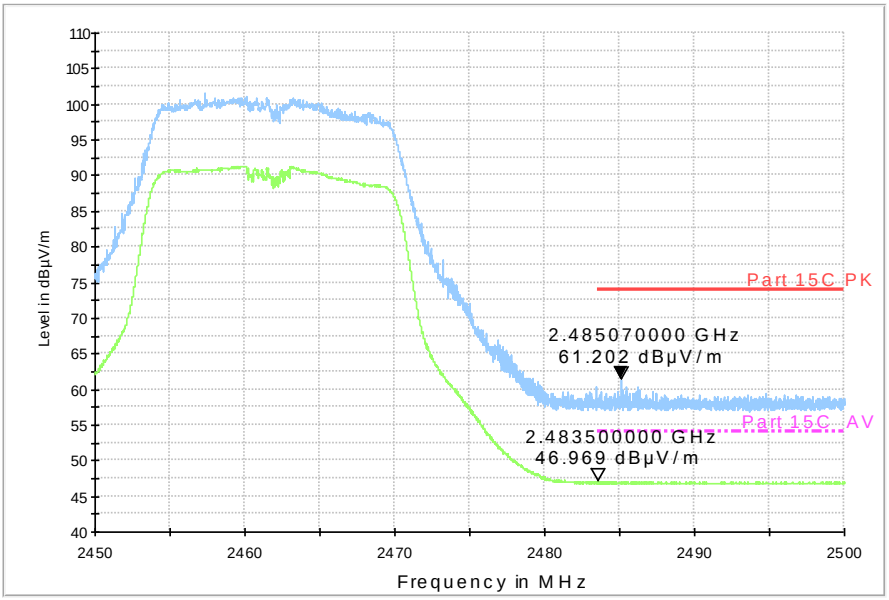

Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

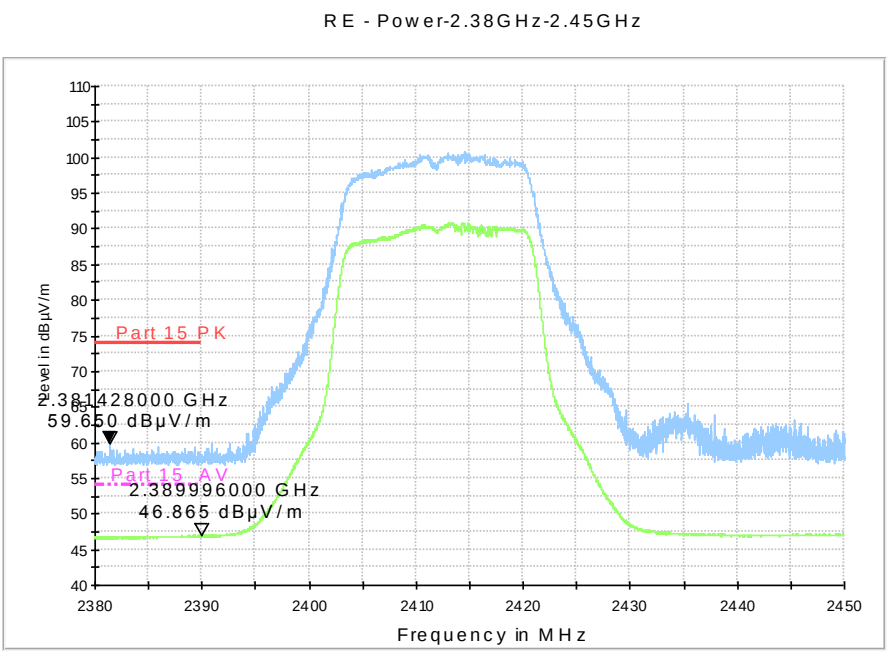

Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.38 GHz - 2.45GHz

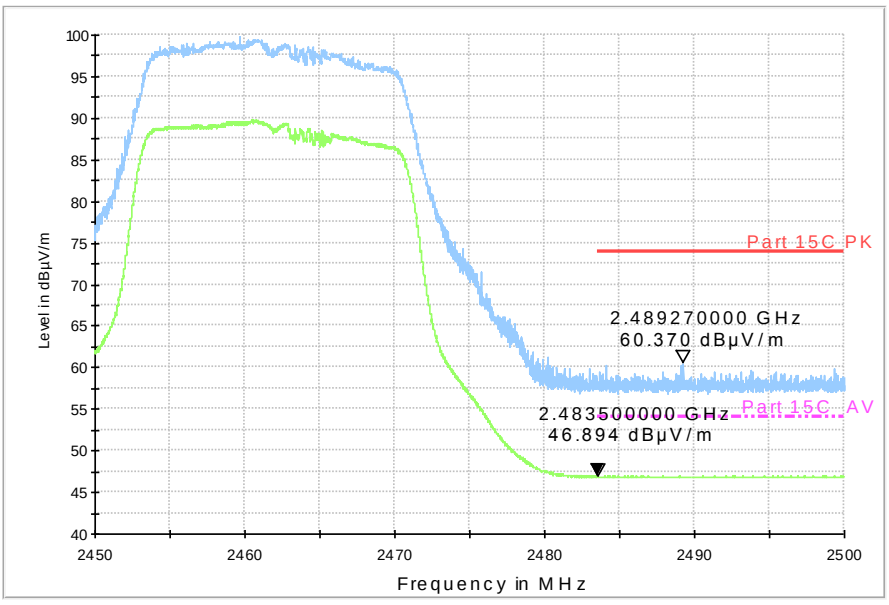

Fig.A.6.2.6 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

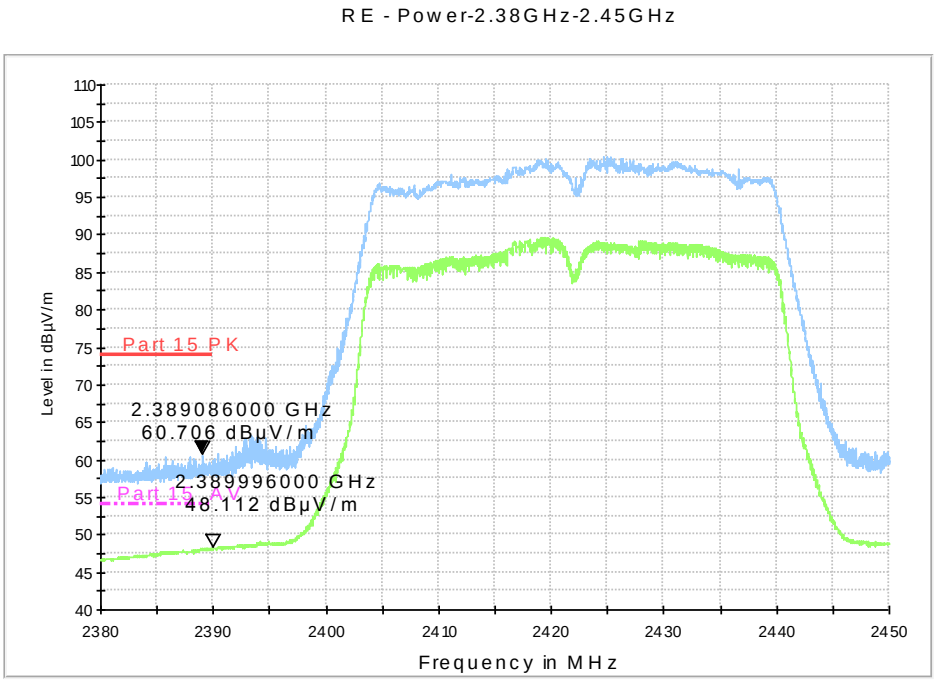

Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.38 GHz - 2.43GHz

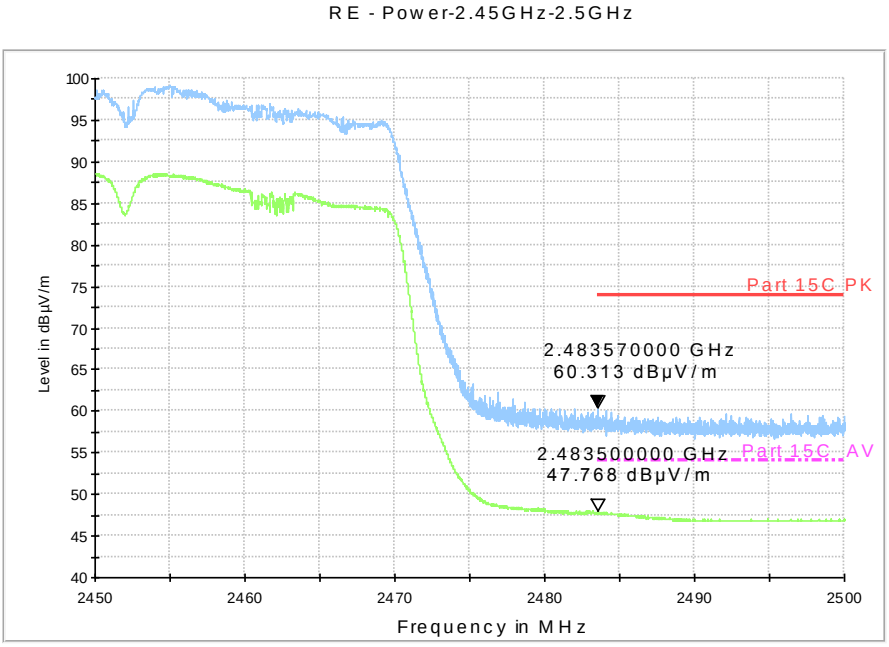

Fig.A.6.2.8 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

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:

Traffic: Set.11

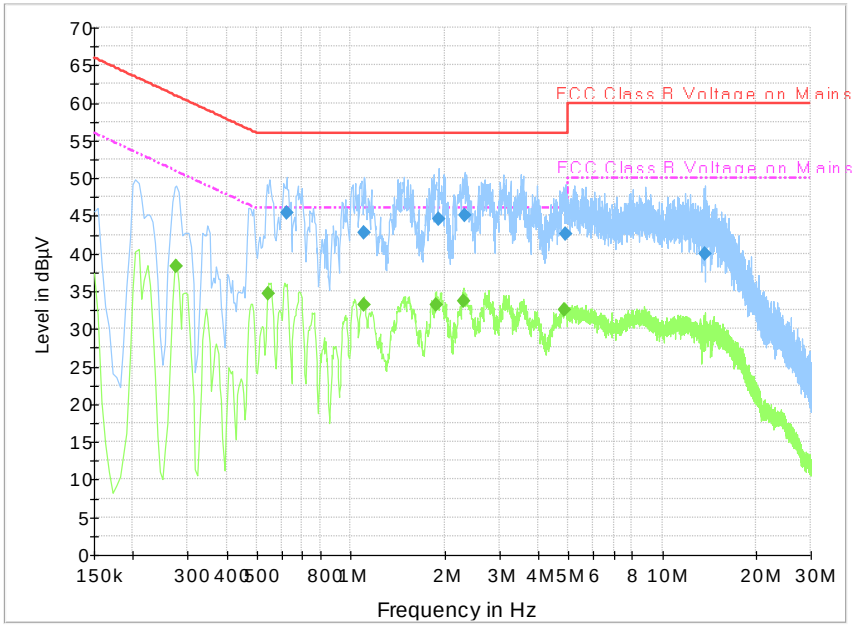

Fig.A.7.1 AC Powerline Conducted Emission-802.11b

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	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.622500	45.3	2000.	9.000	On	L1	19.8	10.7	56.0	
1.108500	42.8	2000.	9.000	On	L1	19.6	13.2	56.0	
1.918500	44.5	2000.	9.000	On	L1	19.7	11.5	56.0	
2.319000	45.1	2000.	9.000	On	L1	19.7	10.9	56.0	
4.893000	42.5	2000.	9.000	On	L1	19.6	13.5	56.0	
13.70850	39.9	2000.	9.000	On	L1	19.9	20.1	60.0	

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.276000	38.4	2000.	9.000	On	L1	19.8	12.6	50.9	
0.546000	34.7	2000.	9.000	On	L1	19.9	11.3	46.0	
1.099500	33.2	2000.	9.000	On	L1	19.6	12.8	46.0	
1.878000	33.2	2000.	9.000	On	L1	19.7	12.8	46.0	
2.296500	33.7	2000.	9.000	On	L1	19.7	12.3	46.0	
4.870500	32.5	2000.	9.000	On	L1	19.6	13.5	46.0	

Idle: Set.11

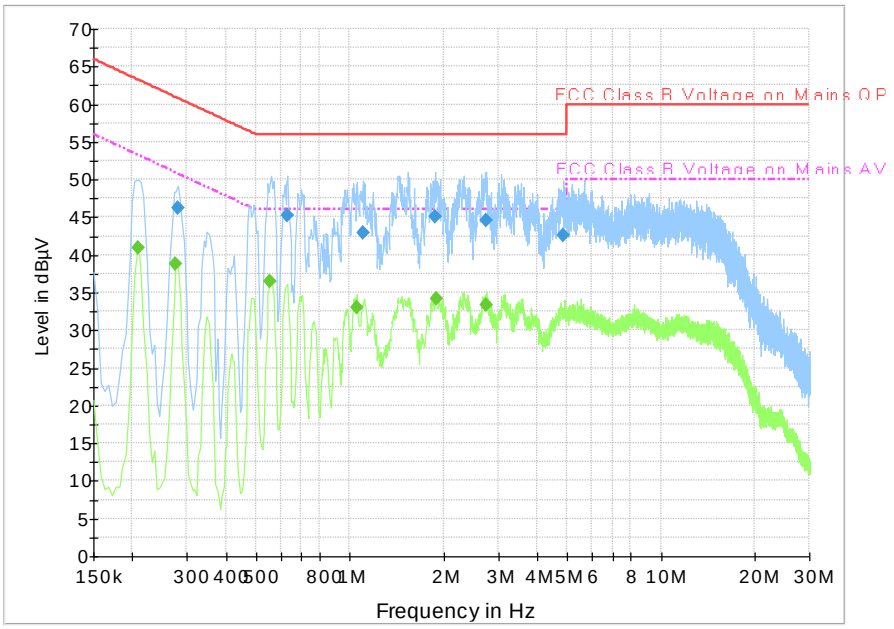

Fig.A.7.2 AC Powerline Conducted Emission-Idle

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	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.280500	46.2	2000.	9.000	On	L1	19.8	14.6	60.8	
0.631500	45.3	2000.	9.000	On	L1	19.8	10.7	56.0	
1.099500	43.0	2000.	9.000	On	L1	19.6	13.0	56.0	
1.882500	45.0	2000.	9.000	On	L1	19.7	11.0	56.0	
2.733000	44.5	2000.	9.000	On	L1	19.7	11.5	56.0	
4.857000	42.7	2000.	9.000	On	L1	19.6	13.3	56.0	

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.208500	40.9	2000.	9.000	On	L1	19.8	12.4	53.3	
0.276000	38.8	2000.	9.000	On	L1	19.8	12.1	50.9	
0.555000	36.6	2000.	9.000	On	L1	19.9	9.4	46.0	
1.050000	33.1	2000.	9.000	On	L1	19.6	12.9	46.0	
1.905000	34.2	2000.	9.000	On	L1	19.7	11.8	46.0	
2.755500	33.4	2000.	9.000	On	L1	19.7	12.6	46.0	

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).

2016-09-29 through 2017-09-30
Effective Dates

DEPARTMENT OF COMMERCE · UNITED STATES OF AMERICA

For the National Voluntary Laboratory Accreditation Program

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