

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

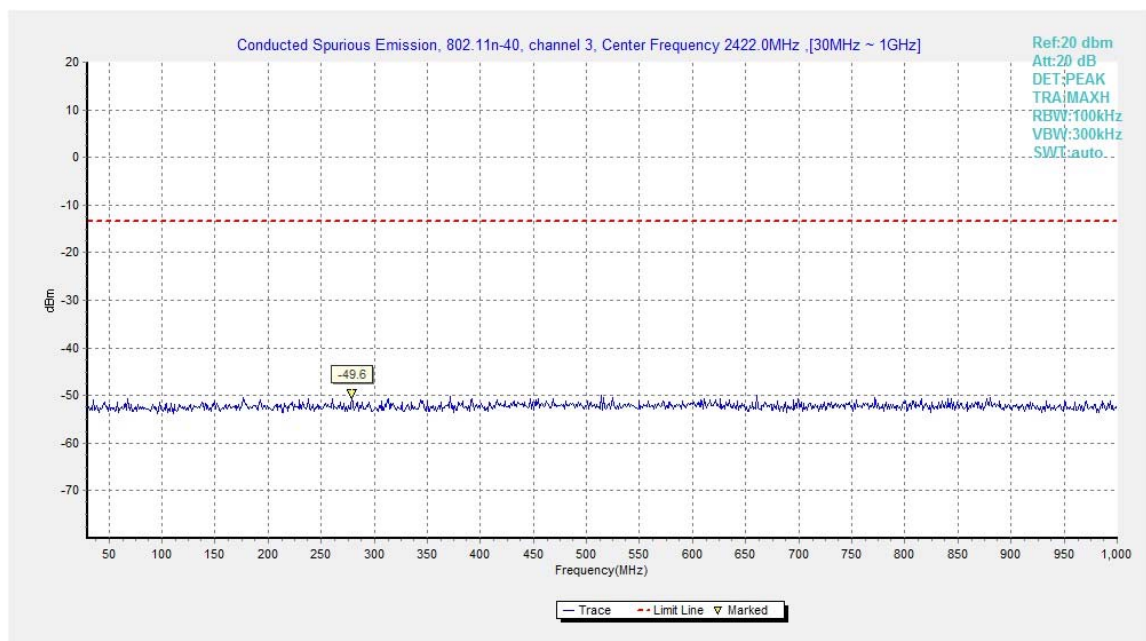


Fig.A.6.1.74 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 30 MHz-1 GHz)

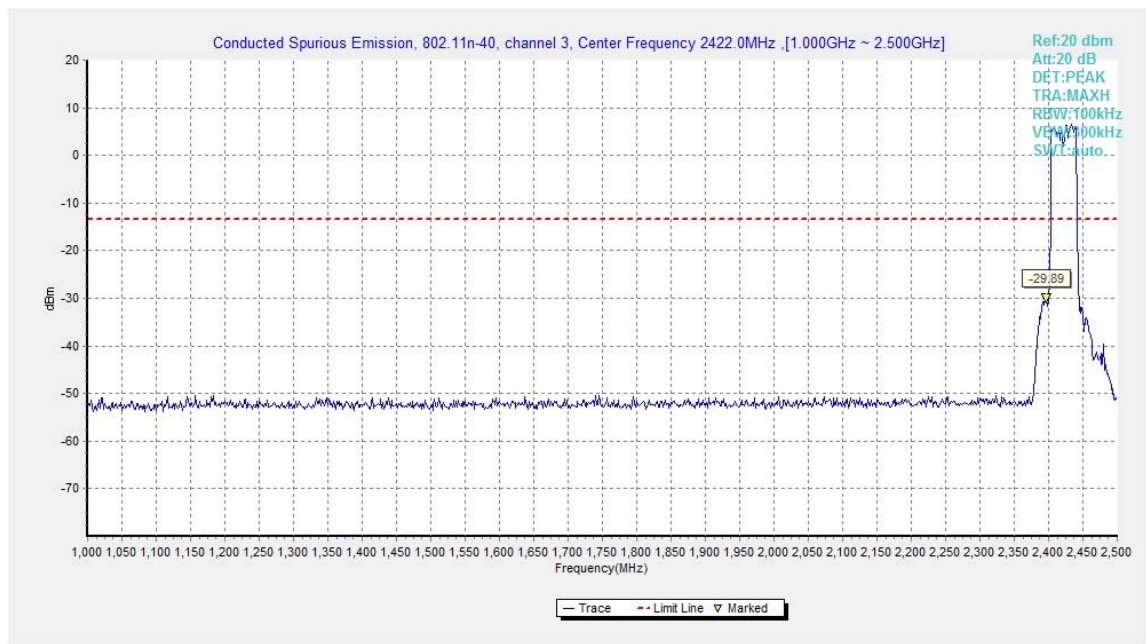


Fig.A.6.1.75 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 1 GHz-2.5 GHz)

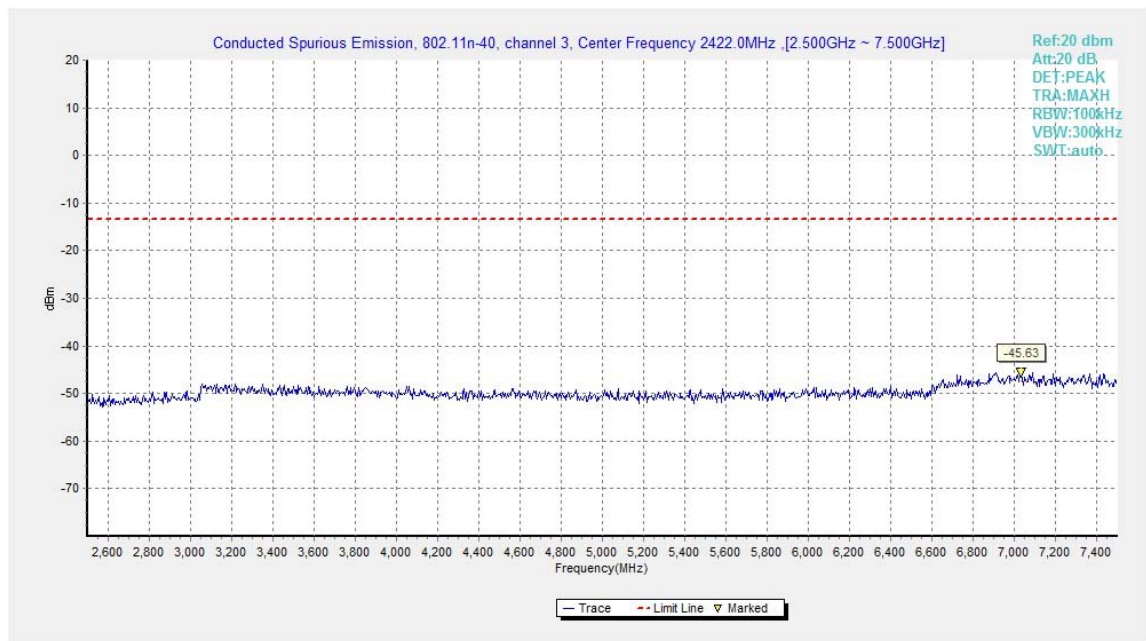


Fig.A.6.1.76 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 2.5 GHz-7.5 GHz)

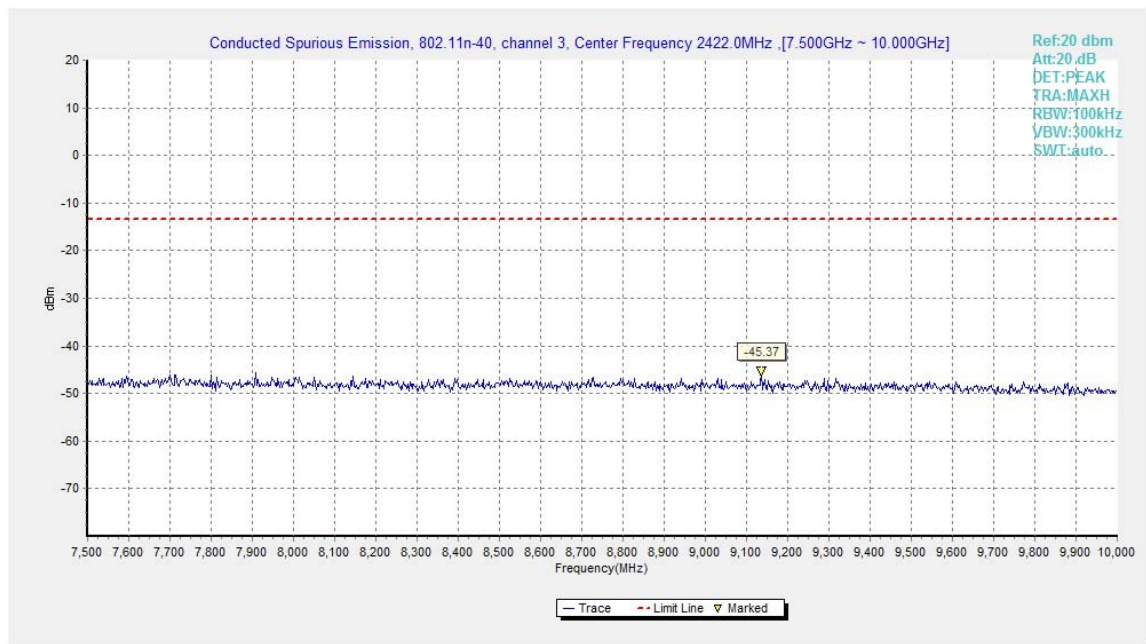


Fig.A.6.1.77 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 7.5 GHz-10 GHz)

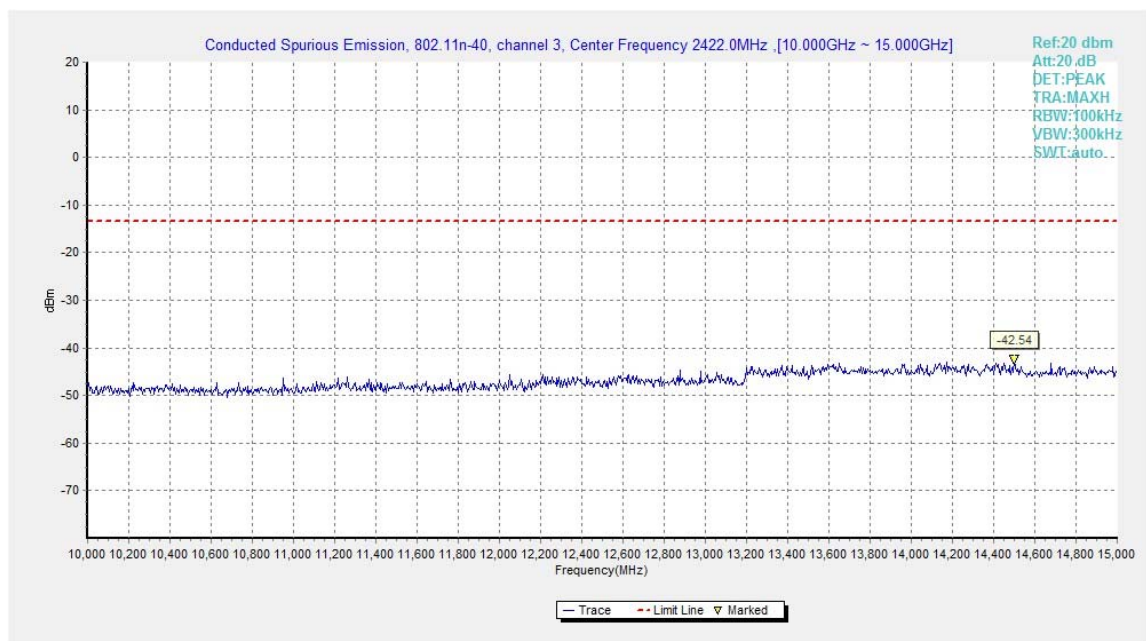


Fig.A.6.1.78 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 10 GHz-15 GHz)

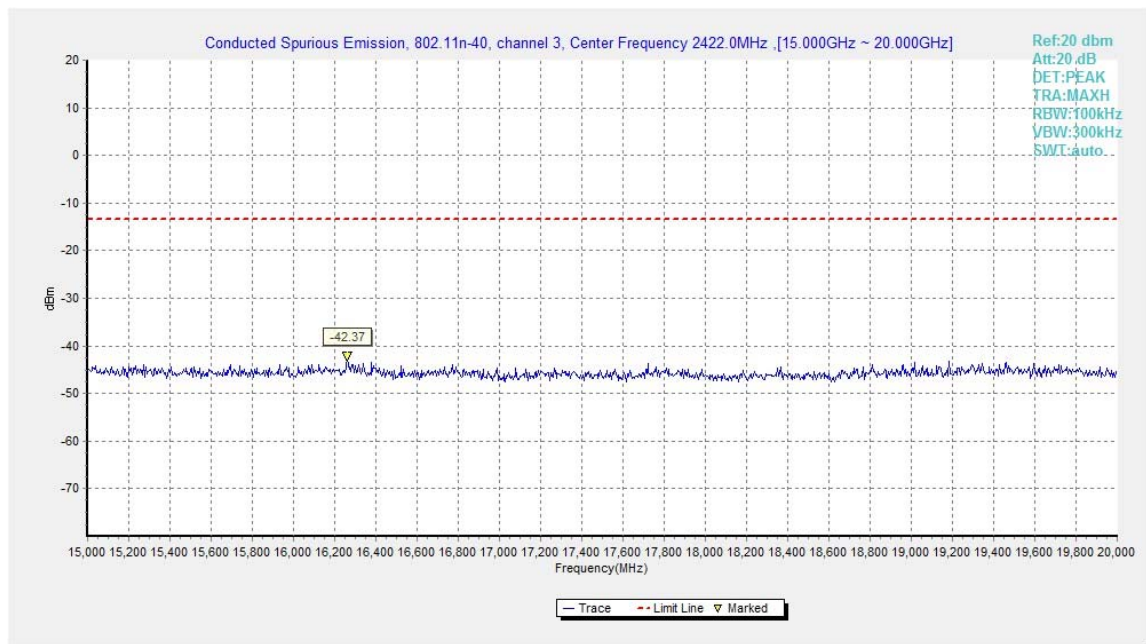


Fig.A.6.1.79 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 15 GHz-20 GHz)

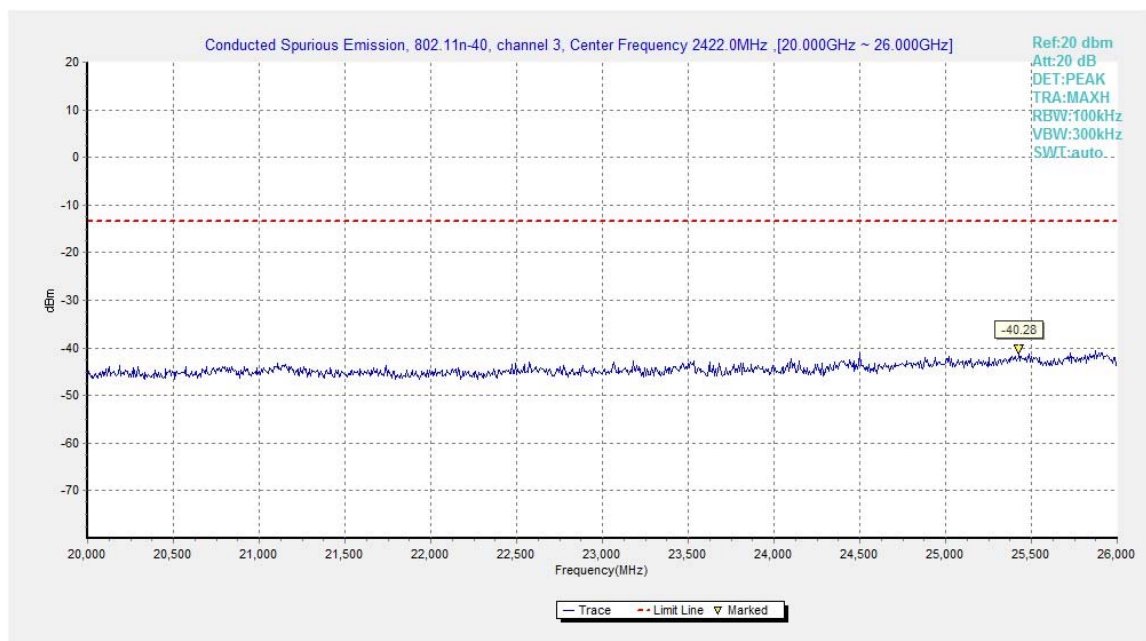


Fig.A.6.1.80 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch3, 20 GHz-26 GHz)

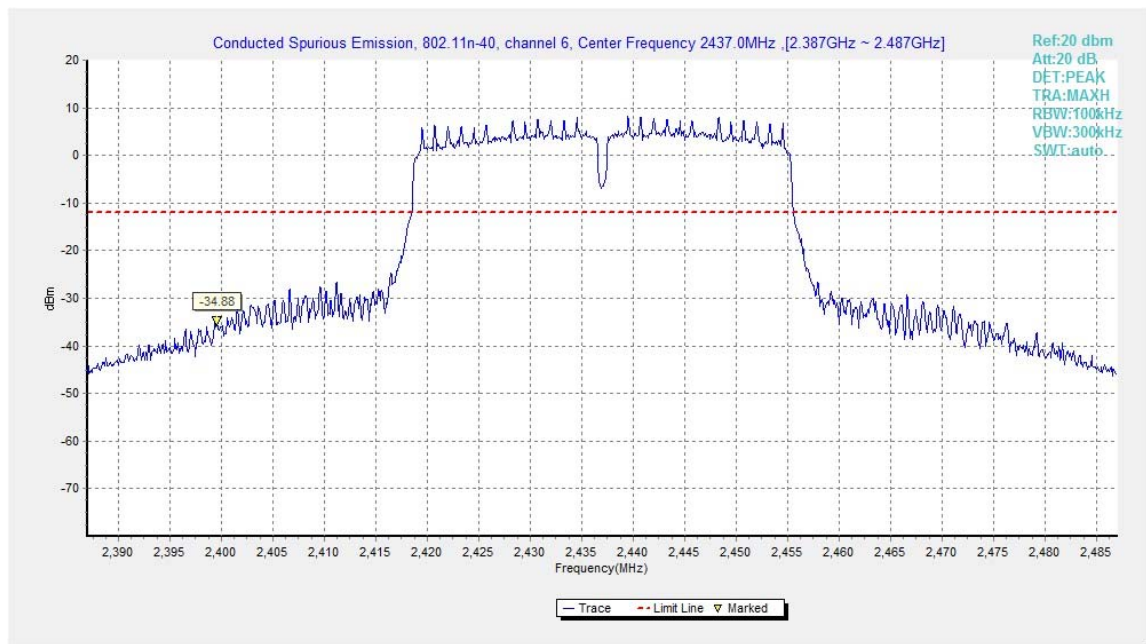


Fig.A.6.1.81 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, Center Frequency)

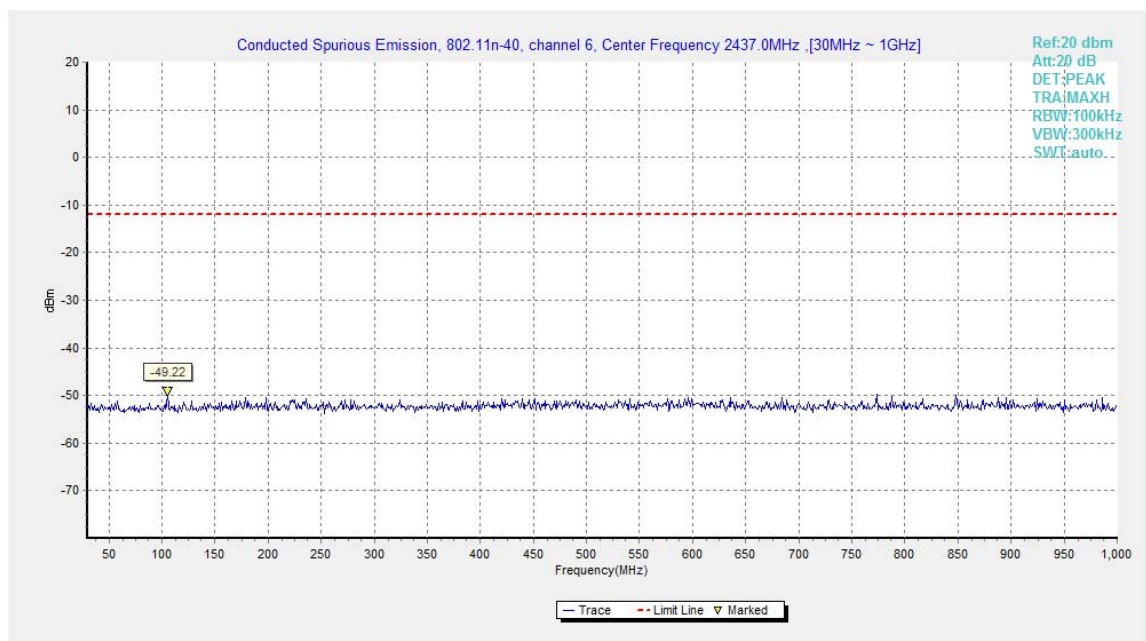


Fig.A.6.1.82 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 30 MHz-1 GHz)

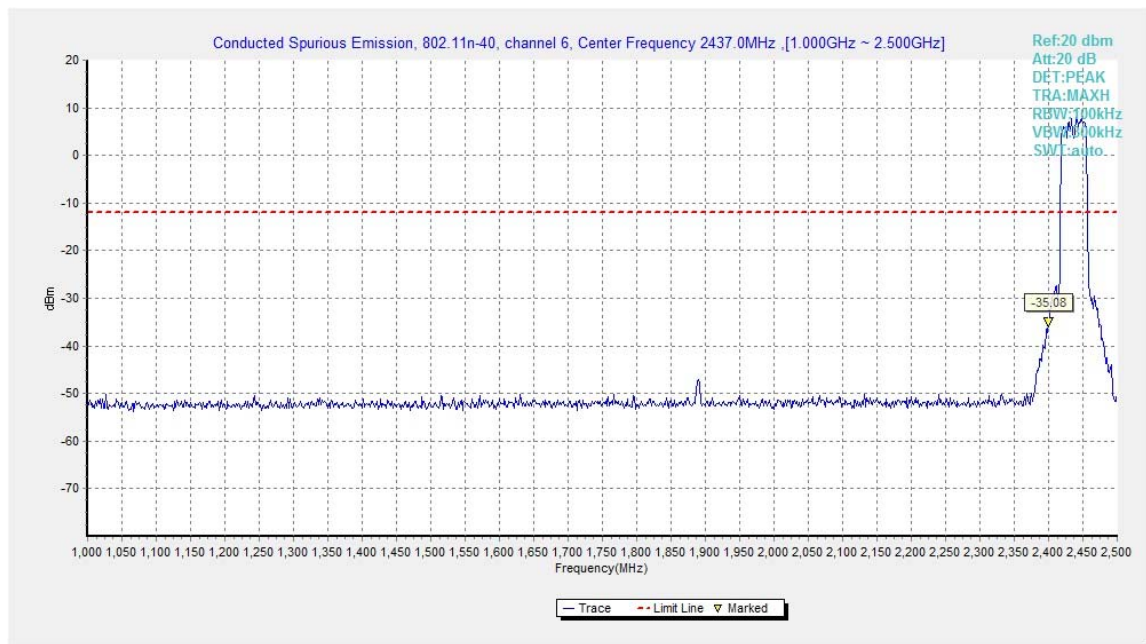


Fig.A.6.1.83 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 1 GHz-2.5 GHz)

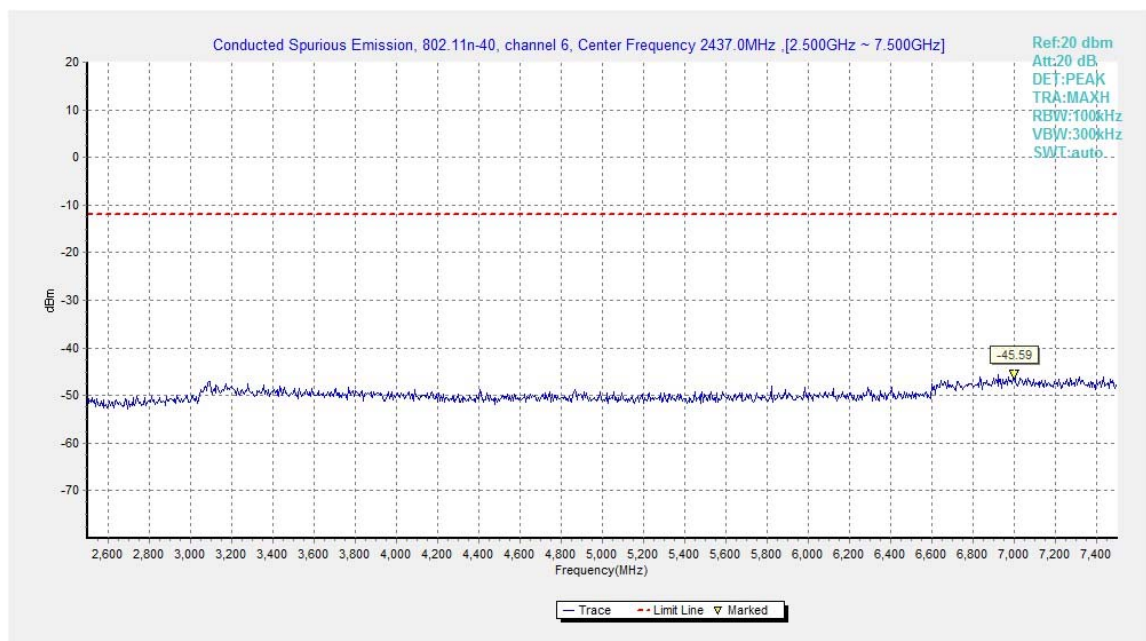


Fig.A.6.1.84 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 2.5 GHz-7.5 GHz)

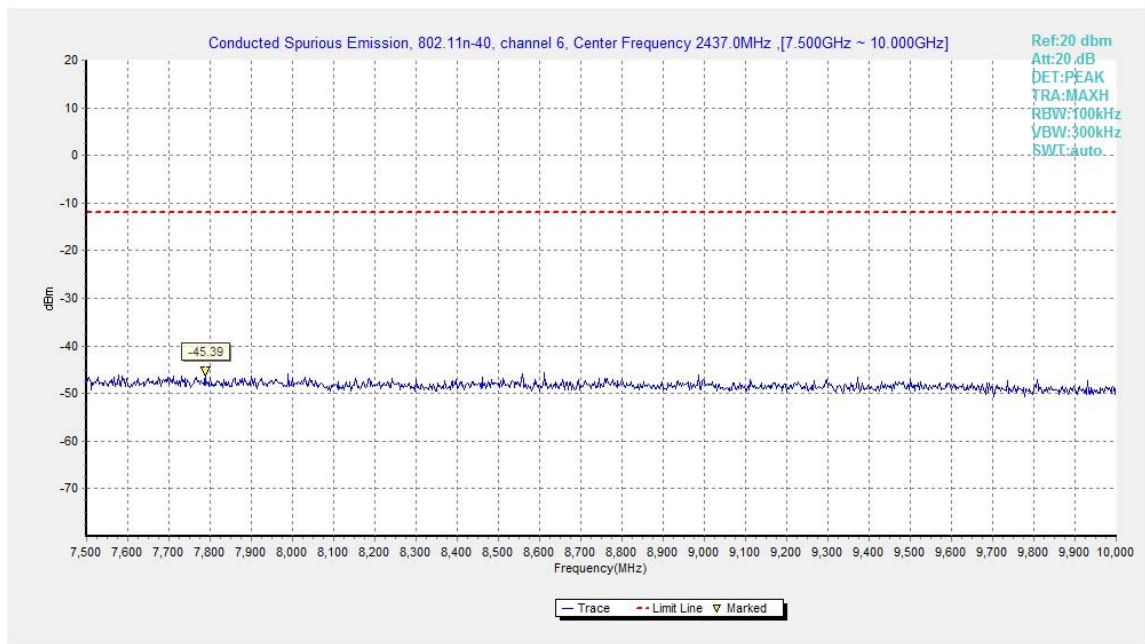


Fig.A.6.1.85 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 7.5 GHz-10 GHz)

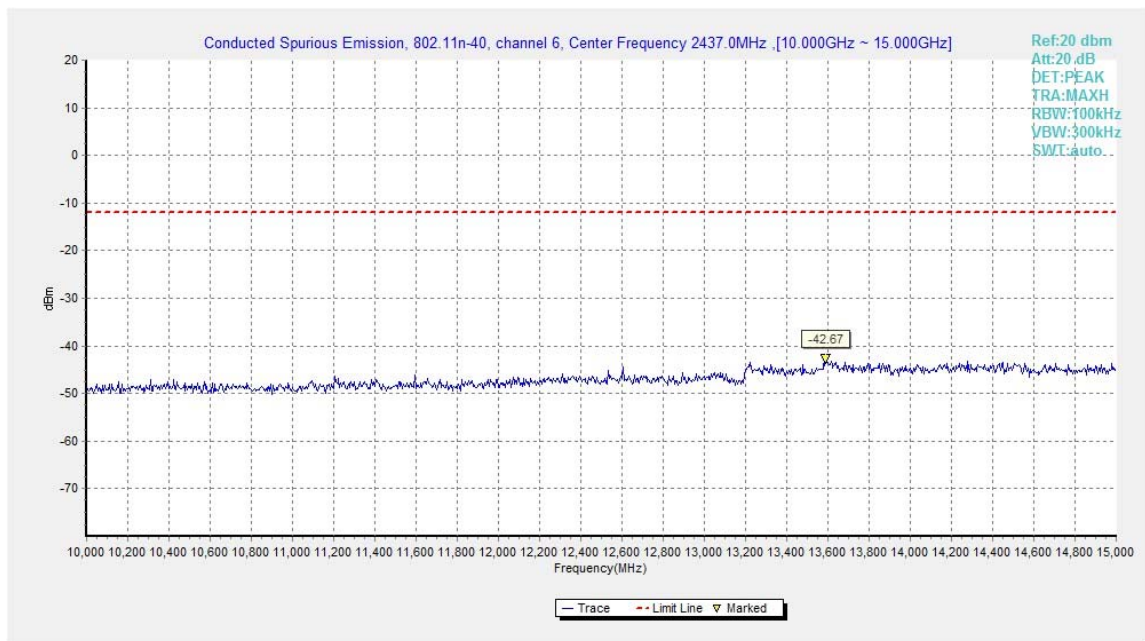


Fig.A.6.1.86 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 10 GHz-15 GHz)

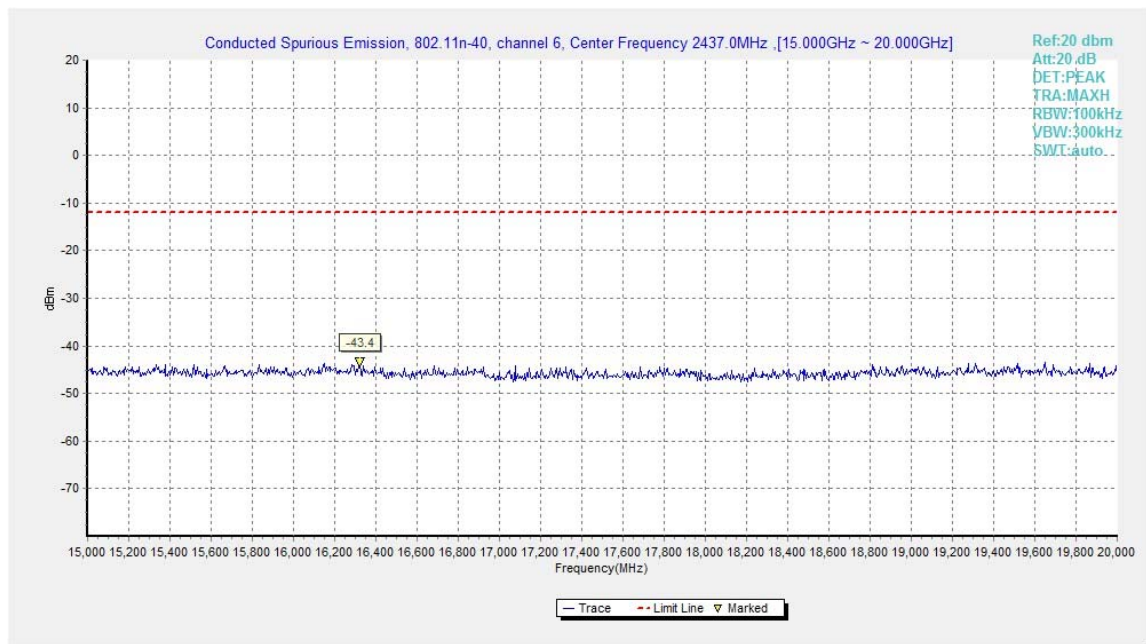


Fig.A.6.1.87 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 15 GHz-20 GHz)

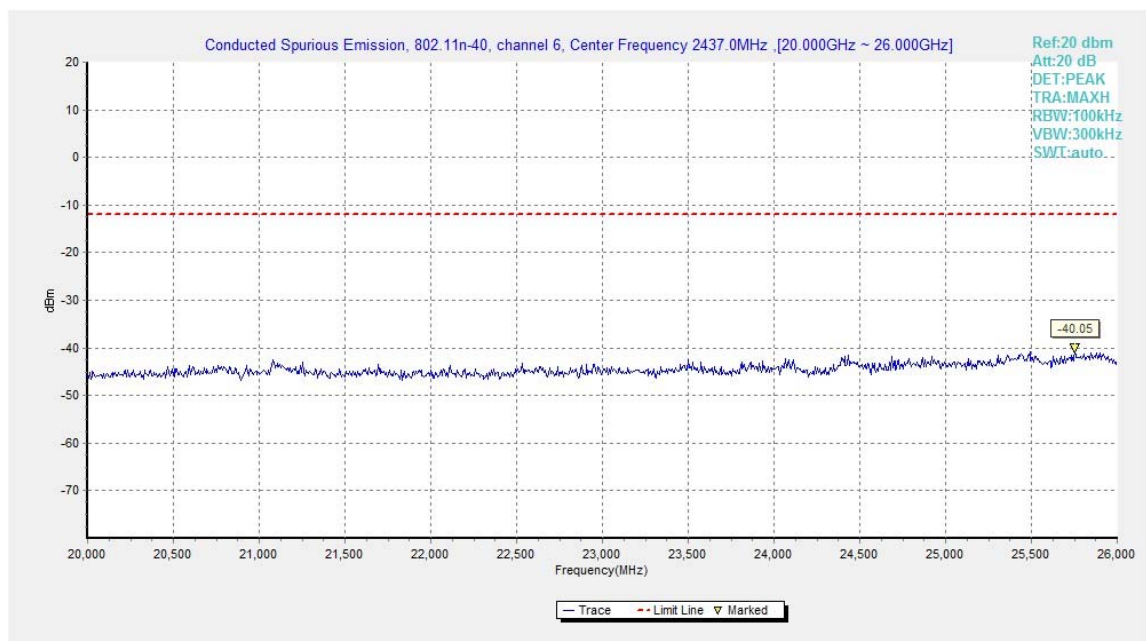


Fig.A.6.1.88 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch6, 20 GHz-26 GHz)

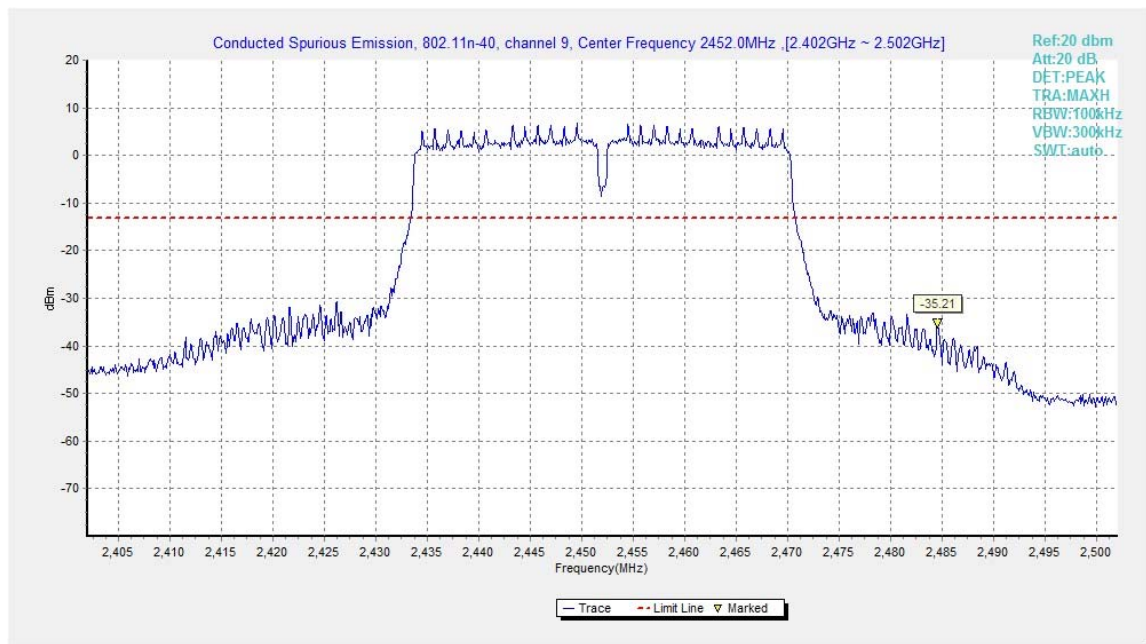


Fig.A.6.1.89 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, Center Frequency)

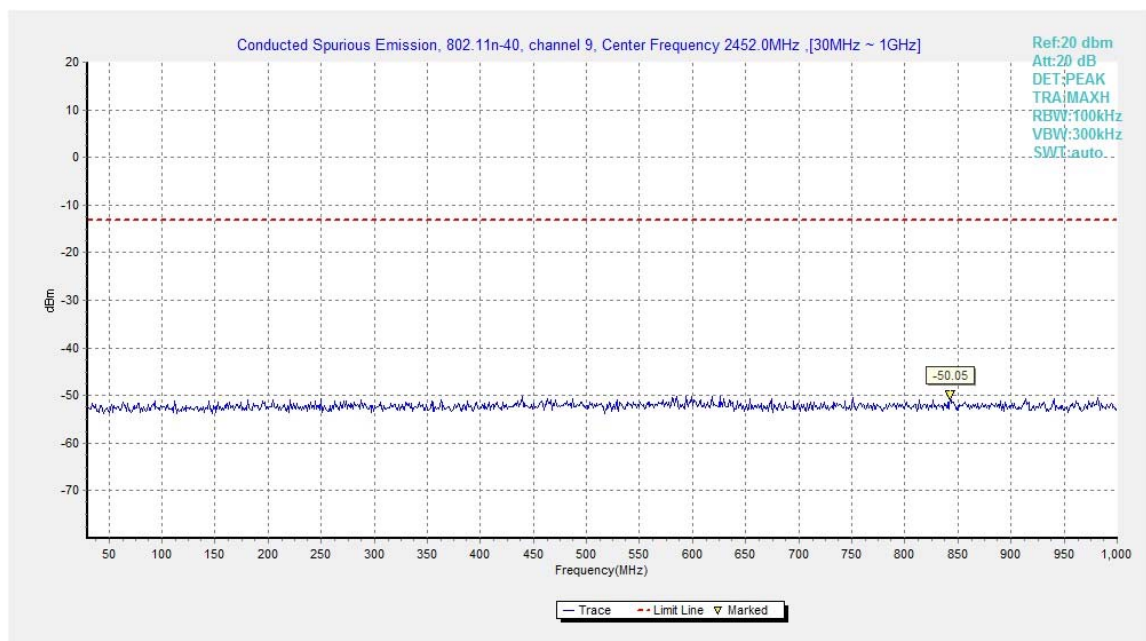


Fig.A.6.1.90 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 30 MHz-1 GHz)

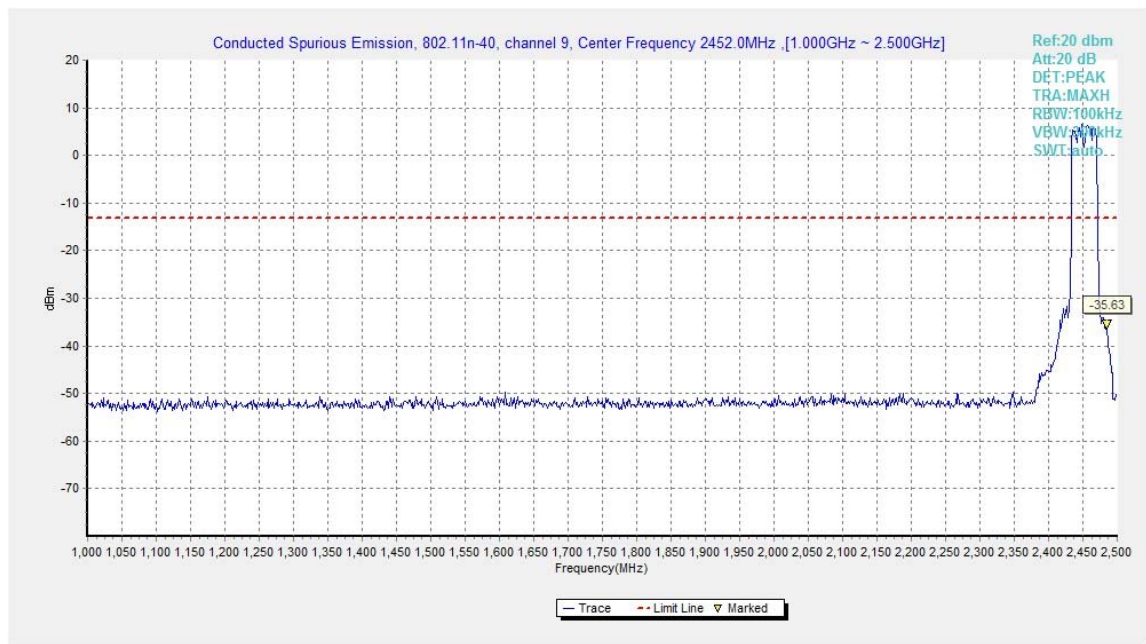


Fig.A.6.1.91 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

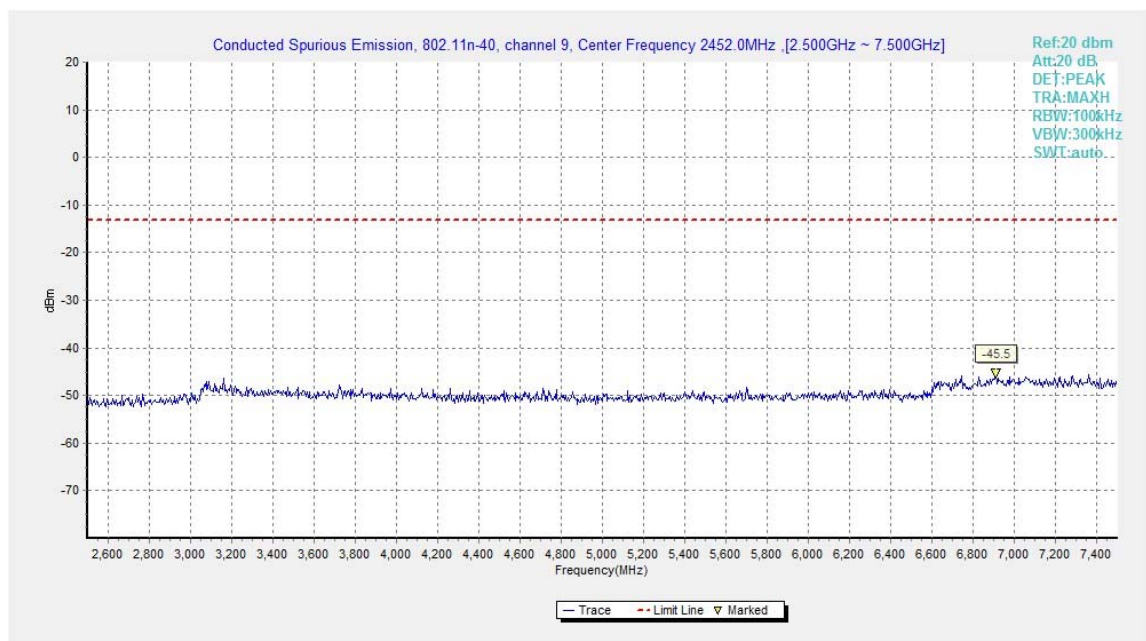


Fig.A.6.1.92 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)

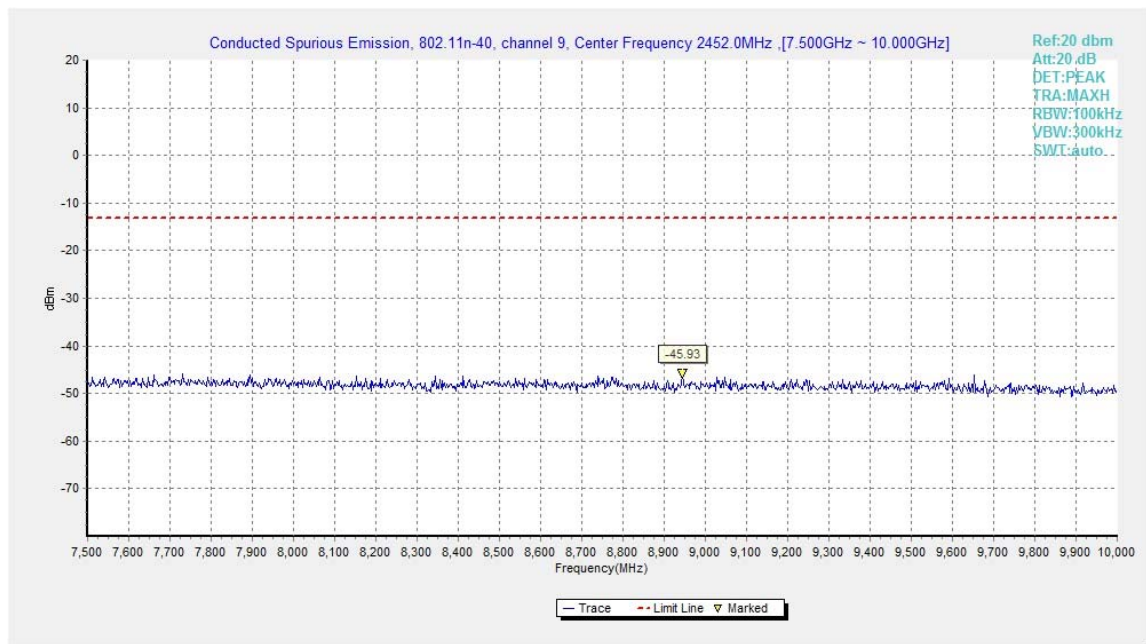


Fig.A.6.1.93 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

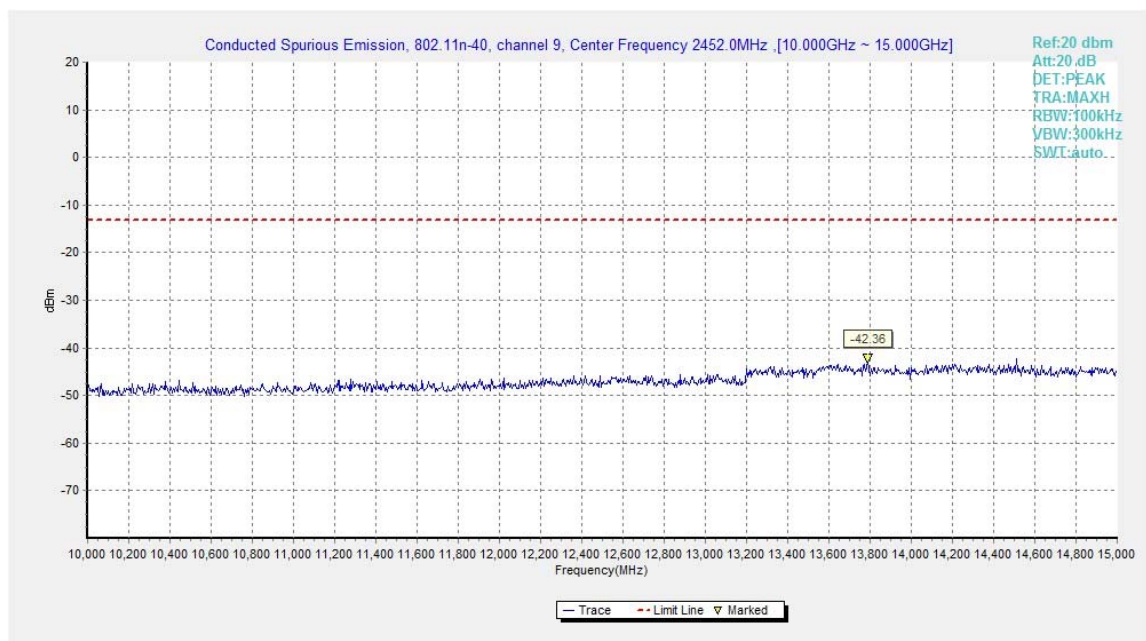


Fig.A.6.1.94 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 10 GHz-15 GHz)

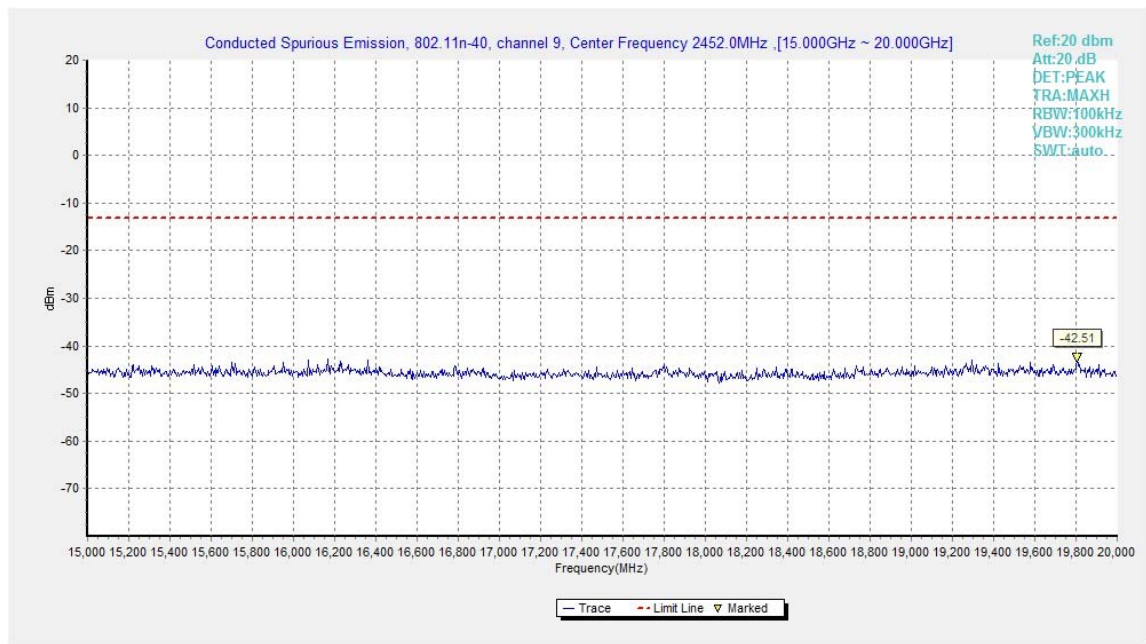


Fig.A.6.1.95 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 15 GHz-20 GHz)

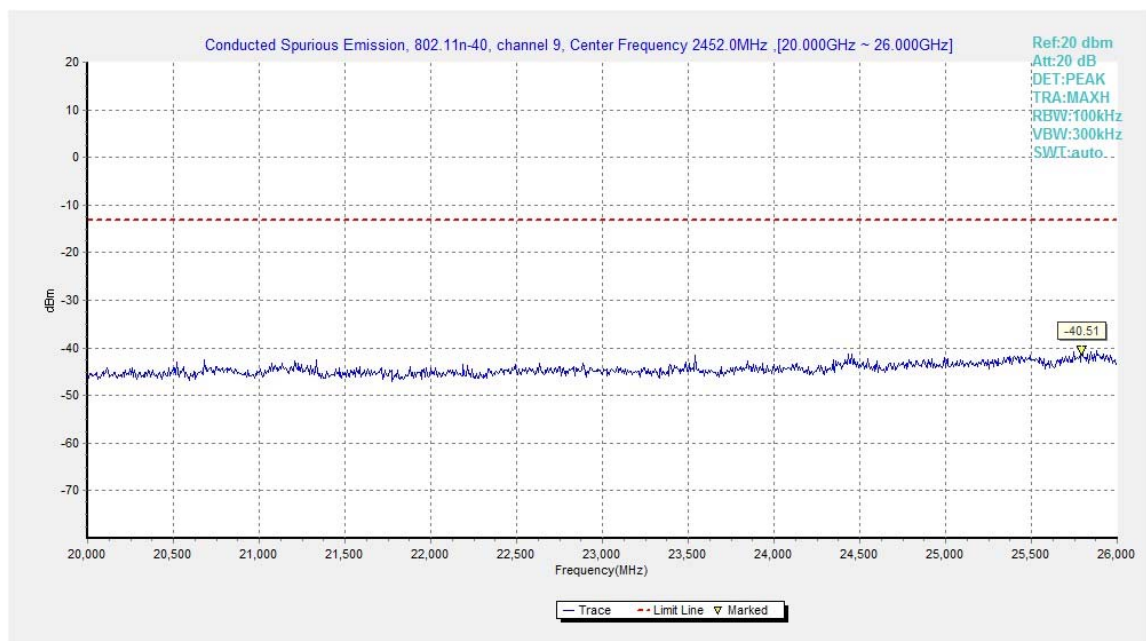


Fig.A.6.1.96 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 20 GHz-26 GHz)

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: EUT1

Measurement Results:
802.11b mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	Power	2.38GHz ~2.45GHz	Fig.A.6.2.1	P
	1	1 GHz ~ 3 GHz	Fig.A.6.2.2	P
		3 GHz ~ 18 GHz	Fig.A.6.2.3	P
	6	30 MHz ~1 GHz	Fig.A.6.2.4	P
		1 GHz ~ 3 GHz	Fig.A.6.2.5	P
		3 GHz ~ 18 GHz	Fig.A.6.2.6	P
		18 GHz~ 26.5 GHz	Fig.A.6.2.7	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.8	P
	11	1 GHz ~ 3 GHz	Fig.A.6.2.9	P
		3 GHz ~ 18 GHz	Fig.A.6.2.10	P

802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	Power	2.38GHz ~2.43GHz	Fig.A.6.2.11	P
	1	1 GHz ~ 3 GHz	Fig.A.6.2.12	P
		3 GHz ~ 18 GHz	Fig.A.6.2.13	P
	6	30 MHz ~1 GHz	Fig.A.6.2.14	P
		1 GHz ~ 3 GHz	Fig.A.6.2.15	P
		3 GHz ~ 18 GHz	Fig.A.6.2.16	P
		18 GHz~ 26.5 GHz	Fig.A.6.2.17	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.18	P
	11	1 GHz ~ 3 GHz	Fig.A.6.2.19	P
		3 GHz ~ 18 GHz	Fig.A.6.2.20	P

802.11n-HT20 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	Power	2.38GHz ~2.45GHz	Fig.A.6.2.21	P
	1	1 GHz ~ 3 GHz	Fig.A.6.2.22	P
		3 GHz ~ 18 GHz	Fig.A.6.2.23	P
	6	30 MHz ~1 GHz	Fig.A.6.2.24	P
		1 GHz ~ 3 GHz	Fig.A.6.2.25	P
		3 GHz ~ 18 GHz	Fig.A.6.2.26	P
		18 GHz~ 26.5 GHz	Fig.A.6.2.27	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.28	P
	11	1 GHz ~ 3 GHz	Fig.A.6.2.29	P
		3 GHz ~ 18 GHz	Fig.A.6.2.30	P

802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT40)	Power	2.38GHz ~2.45GHz	Fig.A.6.2.31	P
	3	1 GHz ~ 3 GHz	Fig.A.6.2.32	P
		3 GHz ~ 18 GHz	Fig.A.6.2.33	P
	6	30 MHz ~1 GHz	Fig.A.6.2.34	P
		1 GHz ~ 3 GHz	Fig.A.6.2.35	P
		3 GHz ~ 18 GHz	Fig.A.6.2.36	P
		18 GHz~ 26.5 GHz	Fig.A.6.2.37	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.38	P
	9	1 GHz ~ 3 GHz	Fig.A.6.2.39	P
		3 GHz ~ 18 GHz	Fig.A.6.2.40	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= $P_{Mea}+A_{Rpl}= P_{Mea}+Cable\ Loss+Antenna\ Factor$

Average Result:
802.11b
Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2382.700	46.23	2.9	32.0	11.33	54.0	7.8	H
2387.600	46.36	2.9	32.0	11.50	54.0	7.6	H
4824.000	35.23	-32.8	34.5	33.49	54.0	18.8	H
7236.000	37.73	-31.7	36.1	33.36	54.0	16.3	H
9648.000	40.17	-30.4	37.0	33.48	54.0	13.8	H
12060.000	43.23	-29.6	39.3	33.56	54.0	10.8	H

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2384.500	46.50	2.9	32.0	11.61	54.0	7.5	H
2486.900	46.60	2.9	32.7	11.00	54.0	7.4	H
4874.000	35.32	-32.7	34.5	33.53	54.0	18.7	H
7311.000	37.64	-31.9	36.1	33.47	54.0	16.4	H
9748.000	39.99	-30.7	37.2	33.46	54.0	14.0	H

12185.000	43.54	-29.4	39.2	33.75	54.0	10.5	H
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Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2487.200	46.96	2.9	32.7	11.36	54.0	7.0	H
2485.200	46.99	2.9	32.7	11.34	54.0	7.0	H
4924.000	35.21	-33.1	34.5	33.80	54.0	18.8	H
7386.000	37.69	-31.8	36.0	33.48	54.0	16.3	H
9848.000	40.65	-30.1	37.3	33.40	54.0	13.3	H
12310.000	43.40	-29.7	39.2	33.92	54.0	10.6	H

802.11g

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2385.100	46.28	2.9	32.0	11.40	54.0	7.7	H
2389.200	46.29	2.9	32.0	11.44	54.0	7.7	H
4824.000	35.14	-32.8	34.5	33.39	54.0	18.9	H
7236.000	37.72	-31.7	36.1	33.36	54.0	16.3	H
9648.000	40.24	-30.4	37.0	33.56	54.0	13.8	H
12060.000	43.32	-29.6	39.3	33.65	54.0	10.7	H

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2386.700	46.60	2.9	32.0	11.73	54.0	7.4	H
2484.560	46.70	2.9	32.7	11.04	54.0	7.3	H
4874.000	35.34	-32.7	34.5	33.55	54.0	18.7	H
7311.000	37.58	-31.9	36.1	33.41	54.0	16.4	H
9748.000	39.98	-30.7	37.2	33.45	54.0	14.0	H
12185.000	43.50	-29.4	39.2	33.71	54.0	10.5	H

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2485.100	47.05	2.9	32.7	11.40	54.0	7.0	H
2484.800	47.07	2.9	32.7	11.42	54.0	6.9	H
4924.000	35.46	-33.1	34.5	34.04	54.0	18.5	H

7386.000	37.68	-31.8	36.0	33.48	54.0	16.3	H
9848.000	40.00	-30.1	37.3	32.75	54.0	14.0	H
12310.000	43.52	-29.7	39.2	34.05	54.0	10.5	H

802.11n-HT20

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2384.660	46.30	2.9	32.0	11.42	54.0	7.7	H
2388.240	46.33	2.9	32.0	11.47	54.0	7.7	H
4824.000	35.23	-32.8	34.5	33.48	54.0	18.8	H
7236.000	37.79	-31.7	36.1	33.43	54.0	16.2	H
9648.000	40.15	-30.4	37.0	33.46	54.0	13.9	H
12060.000	43.25	-29.6	39.3	33.58	54.0	10.7	H

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2383.450	46.60	2.9	32.0	11.71	54.0	7.4	H
2489.600	46.70	2.9	32.6	11.17	54.0	7.3	H
4874.000	35.43	-32.7	34.5	33.63	54.0	18.6	H
7311.000	37.55	-31.9	36.1	33.38	54.0	16.5	H
9748.000	40.20	-30.7	37.2	33.67	54.0	13.8	H
12185.000	43.53	-29.4	39.2	33.74	54.0	10.5	H

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2485.230	47.00	2.9	32.7	11.35	54.0	7.0	H
2487.500	46.97	2.9	32.6	11.38	54.0	7.0	H
4924.000	35.17	-33.1	34.5	33.75	54.0	18.8	H
7386.000	37.69	-31.8	36.0	33.48	54.0	16.3	H
9848.000	40.78	-30.1	37.3	33.53	54.0	13.2	H
12310.000	43.50	-29.7	39.2	34.03	54.0	10.5	H

802.11n-HT40
Ch3

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2381.800	46.21	2.9	32.0	11.31	54.0	7.8	H
2389.200	46.30	2.9	32.0	11.45	54.0	7.7	H
4844.000	35.29	-32.7	34.5	33.48	54.0	18.7	H
7266.000	37.72	-31.9	36.1	33.48	54.0	16.3	H
9688.000	40.05	-30.7	37.1	33.67	54.0	13.9	H
12110.000	43.45	-29.5	39.3	33.68	54.0	10.6	H

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2382.450	46.50	2.9	32.0	11.60	54.0	7.5	H
2488.900	46.60	2.9	32.6	11.05	54.0	7.4	H
4874.000	35.36	-32.7	34.5	33.57	54.0	18.6	H
7311.000	37.59	-31.9	36.1	33.42	54.0	16.4	H
9748.000	40.01	-30.7	37.2	33.48	54.0	14.0	H
12185.000	43.51	-29.4	39.2	33.71	54.0	10.5	H

Ch9

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2484.200	47.10	2.9	32.7	11.43	54.0	6.9	H
2486.350	47.01	2.9	32.7	11.39	54.0	7.0	H
4904.000	35.39	-32.9	34.5	33.78	54.0	18.6	H
7356.000	37.83	-31.9	36.1	33.68	54.0	16.2	H
9808.000	40.22	-30.4	37.3	33.30	54.0	13.8	H
12260.000	43.53	-29.6	39.2	33.91	54.0	10.5	H

Peak Result:
802.11b
Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2383.340	59.19	2.9	32.0	24.29	74.0	14.8	H
2389.908	59.44	2.9	32.0	24.59	74.0	14.6	H
17902.500	53.35	-24.2	40.9	36.71	74.0	20.7	H

17736.000	52.17	-24.2	41.0	35.35	74.0	21.8	V
17816.250	52.12	-23.1	40.9	34.27	74.0	21.9	H
17799.000	52.12	-23.2	41.0	34.33	74.0	21.9	H

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2265.600	50.20	-28.2	30.8	47.56	74.0	23.8	H
2674.250	52.71	-26.7	33.4	46.03	74.0	21.3	H
17806.500	52.06	-23.0	41.0	34.14	74.0	21.9	H
17793.750	52.04	-23.2	41.0	34.32	74.0	22.0	H
17889.000	52.00	-24.1	40.9	35.17	74.0	22.0	H
17799.000	51.79	-23.2	41.0	33.99	74.0	22.2	V

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2484.570	60.22	2.9	32.7	24.55	74.0	13.8	H
2488.280	60.64	2.9	32.6	25.08	74.0	13.4	H
17798.250	52.95	-23.2	41.0	35.16	74.0	21.1	V
17804.250	52.01	-23.1	41.0	34.13	74.0	22.0	V
17801.250	51.94	-23.1	41.0	34.11	74.0	22.1	H
17808.750	51.92	-23.0	41.0	33.97	74.0	22.1	H

802.11g

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2387.728	59.29	2.9	32.0	24.43	74.0	14.7	H
2388.760	59.39	2.9	32.0	24.53	74.0	14.6	H
17830.500	53.68	-23.3	40.9	36.02	74.0	20.3	V
17805.000	53.34	-23.1	41.0	35.45	74.0	20.7	H
17809.500	52.99	-23.0	41.0	35.04	74.0	21.0	V
17804.250	52.80	-23.1	41.0	34.92	74.0	21.2	H

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2374.200	49.81	-26.7	32.1	44.43	74.0	24.2	H

2677.800	52.62	-26.7	33.4	45.99	74.0	21.4	H
17829.750	52.29	-23.3	40.9	34.62	74.0	21.7	V
17808.000	52.06	-23.0	41.0	34.12	74.0	21.9	H
17840.250	51.92	-23.4	40.9	34.41	74.0	22.1	V
17796.750	51.92	-23.2	41.0	34.16	74.0	22.1	H

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2484.240	59.88	2.9	32.7	24.21	74.0	14.1	H
2487.056	60.23	2.9	32.7	24.63	74.0	13.8	H
17802.750	52.91	-23.1	41.0	35.06	74.0	21.1	H
17787.000	52.67	-23.4	41.0	35.06	74.0	21.3	V
17806.500	52.55	-23.0	41.0	34.64	74.0	21.5	V
17828.250	52.14	-23.2	40.9	34.45	74.0	21.9	H

802.11n-HT20

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2382.996	59.40	2.9	32.0	24.50	74.0	14.6	V
2389.198	60.51	2.9	32.0	25.66	74.0	13.5	H
17802.750	52.34	-23.1	41.0	34.49	74.0	21.7	V
17807.250	52.21	-23.0	41.0	34.28	74.0	21.8	H
17810.250	52.16	-23.0	41.0	34.21	74.0	21.8	H
17796.750	52.07	-23.2	41.0	34.31	74.0	21.9	V

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2370.400	49.68	-27.0	32.0	44.63	74.0	24.3	H
2631.800	52.53	-26.8	33.4	45.89	74.0	21.5	V
17796.000	52.75	-23.2	41.0	35.00	74.0	21.3	H
17806.500	52.39	-23.0	41.0	34.47	74.0	21.6	V
17810.250	52.36	-23.0	41.0	34.41	74.0	21.6	V
17825.250	52.24	-23.2	40.9	34.51	74.0	21.8	V

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2485.230	60.10	2.9	32.7	24.46	74.0	13.9	H
2490.370	60.27	2.9	32.6	24.76	74.0	13.7	V
17825.250	52.41	-23.2	40.9	34.68	74.0	21.6	V
17826.750	52.30	-23.2	40.9	34.59	74.0	21.7	V
17799.000	52.21	-23.2	41.0	34.41	74.0	21.8	V
17811.750	52.13	-23.0	41.0	34.20	74.0	21.9	V

802.11n-HT40

Ch3

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2386.396	60.70	2.9	32.0	25.83	74.0	13.3	H
2387.673	61.44	2.9	32.0	26.58	74.0	12.6	H
17800.500	52.76	-23.1	41.0	34.94	74.0	21.2	V
17809.500	52.47	-23.0	41.0	34.51	74.0	21.5	V
17816.250	52.32	-23.1	40.9	34.47	74.0	21.7	V
17796.750	52.26	-23.2	41.0	34.49	74.0	21.7	V

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2378.890	49.57	-26.4	32.1	43.88	74.0	24.4	H
2633.800	51.72	-26.8	33.4	45.05	74.0	22.3	H
17796.000	53.05	-23.2	41.0	35.30	74.0	20.9	H
17743.500	52.43	-24.1	41.0	35.50	74.0	21.6	V
17829.750	52.21	-23.3	40.9	34.54	74.0	21.8	V
17810.250	52.11	-23.0	41.0	34.16	74.0	21.9	V

Ch9

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver eading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2485.450	59.85	2.9	32.7	24.21	74.0	14.2	H
2487.280	60.29	2.9	32.7	24.70	74.0	13.7	H
17812.500	52.56	-23.0	40.9	34.65	74.0	21.4	V
17759.250	52.52	-23.8	41.0	35.34	74.0	21.5	H
17810.250	52.47	-23.0	41.0	34.52	74.0	21.5	V
17795.250	52.34	-23.2	41.0	34.60	74.0	21.7	H

Test graphs as below:

RE - Power-2.38GHz-2.45GHz

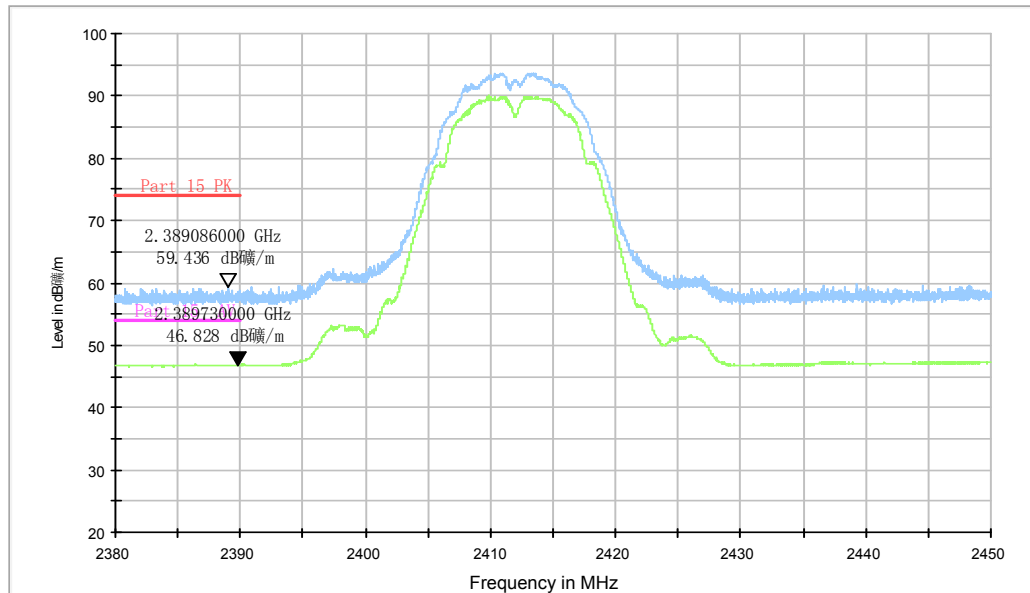


Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.38 GHz – 2.45GHz

RE - TX - WLAN BT +AV+PK_1GHz-3GHz

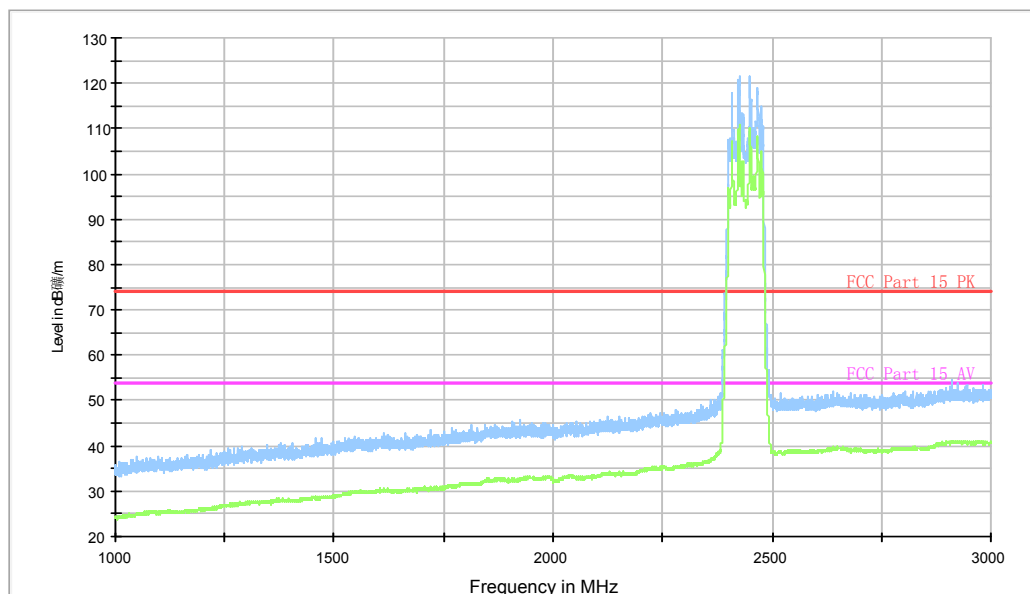


Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (802.11b, Ch1, 1 GHz-3 GHz)

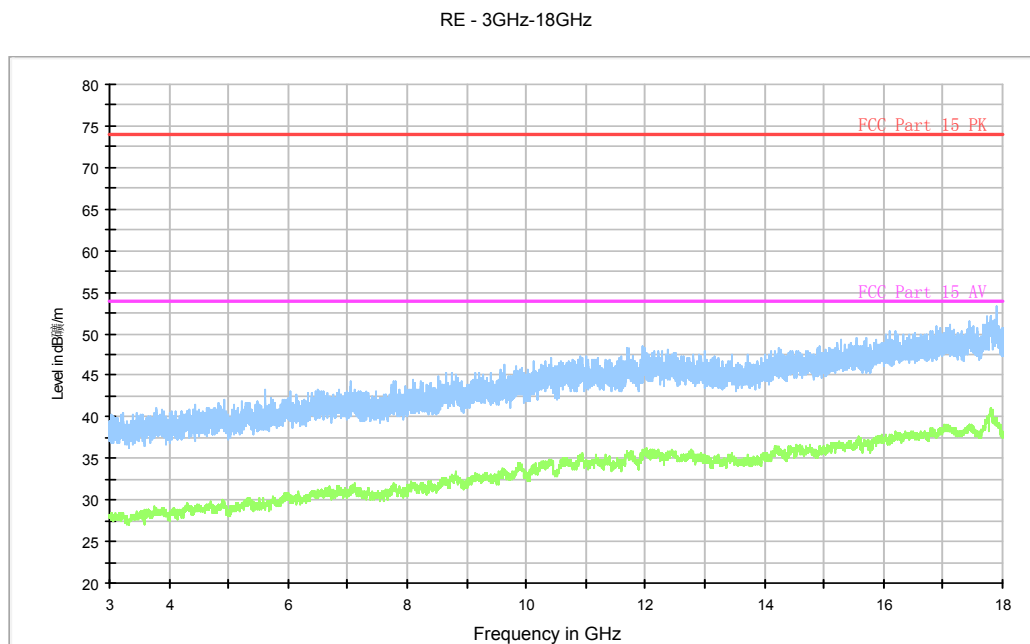


Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (802.11b, Ch1, 3 GHz-18 GHz)

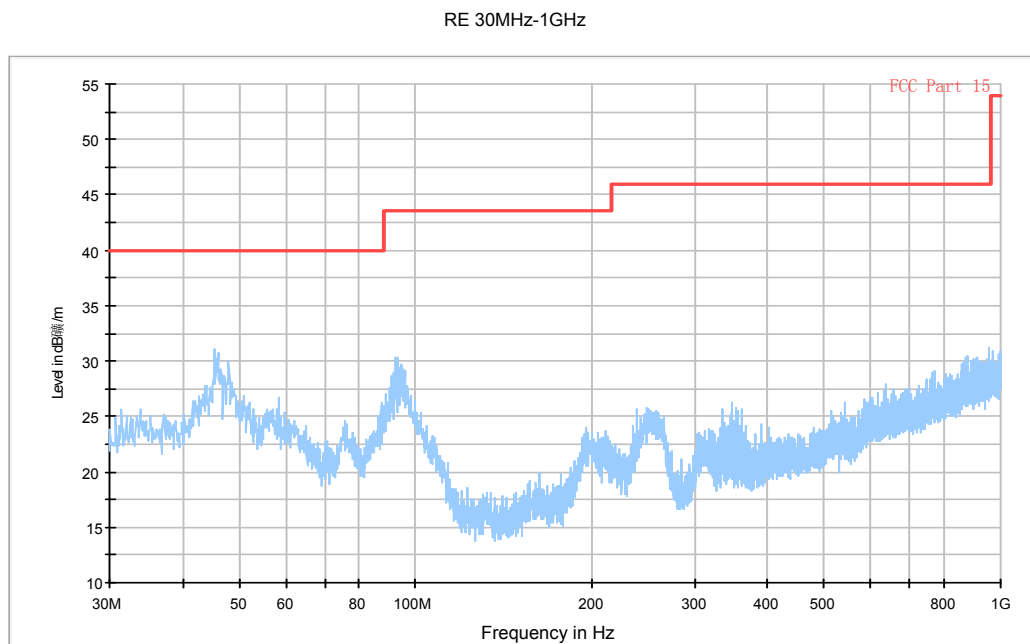


Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 30 MHz-1 GHz)

RE - TX - WLAN BT +AV+PK_1GHz-3GHz

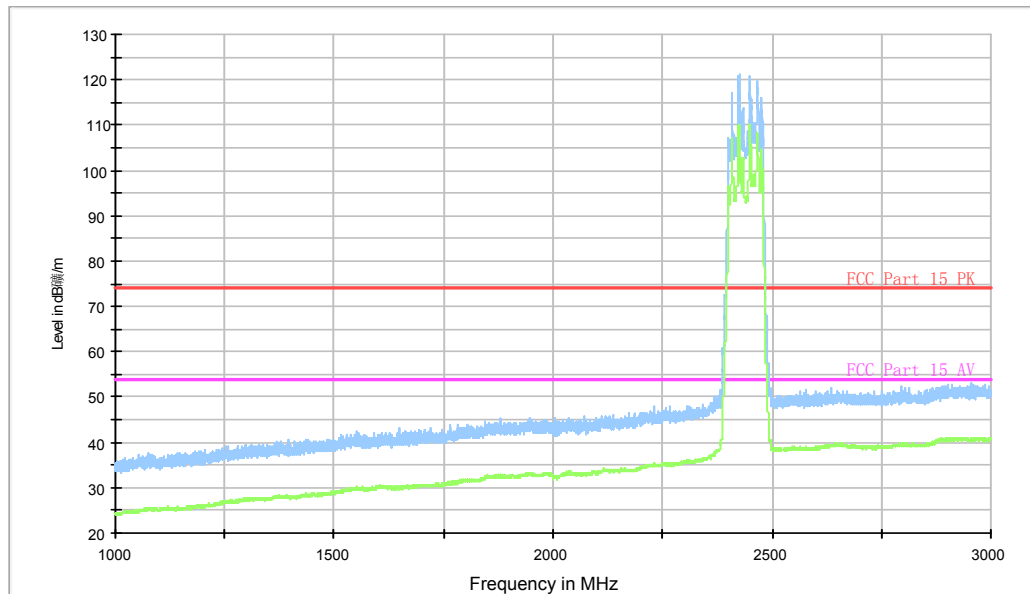


Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 1 GHz-3 GHz)

RE - 3GHz-18GHz

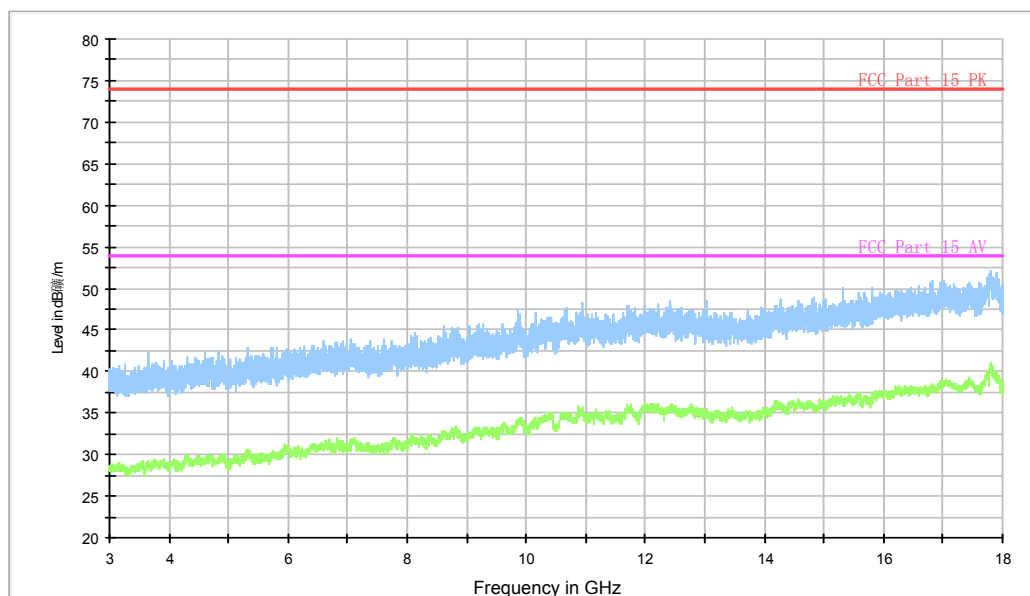


Fig.A.6.2.6 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 3 GHz-18 GHz)

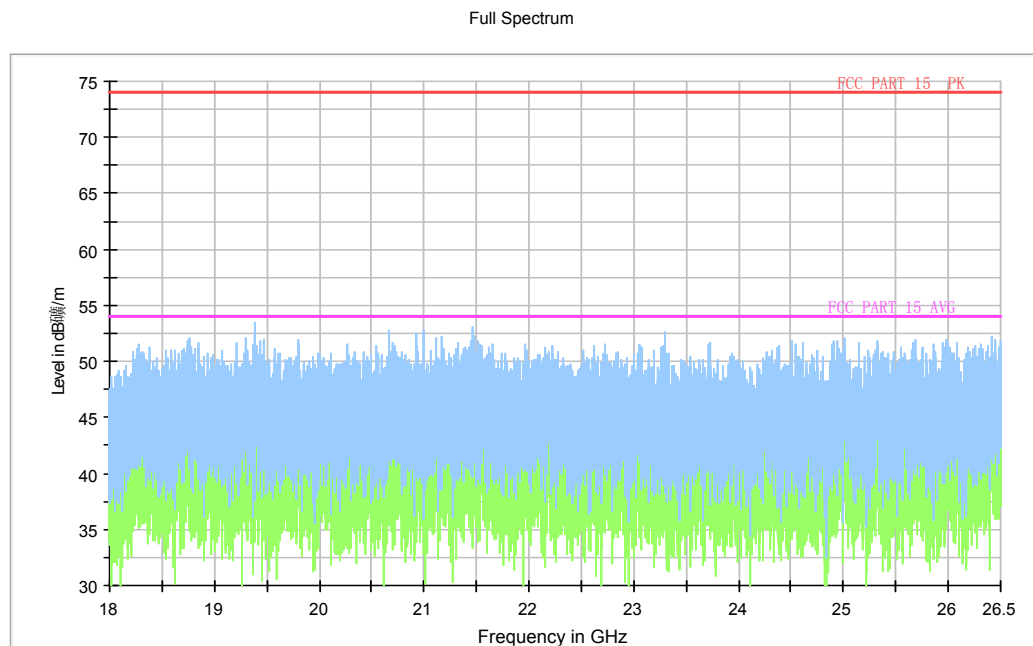


Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 18GHz – 26.5GHz)

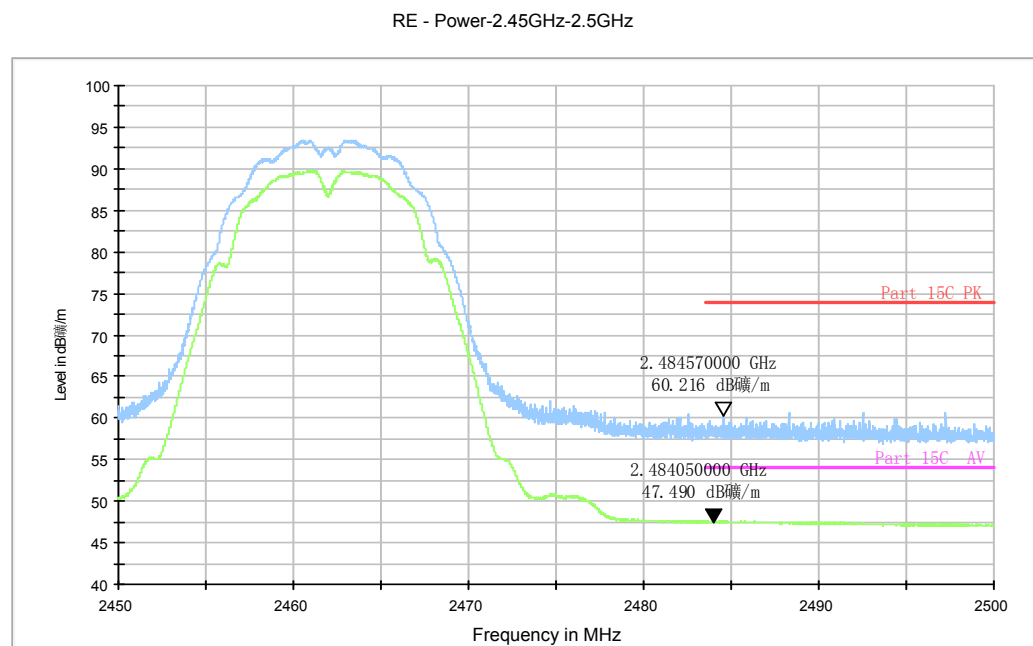


Fig.A.6.2.8 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

RE - TX - WLAN BT +AV+PK_1GHz-3GHz

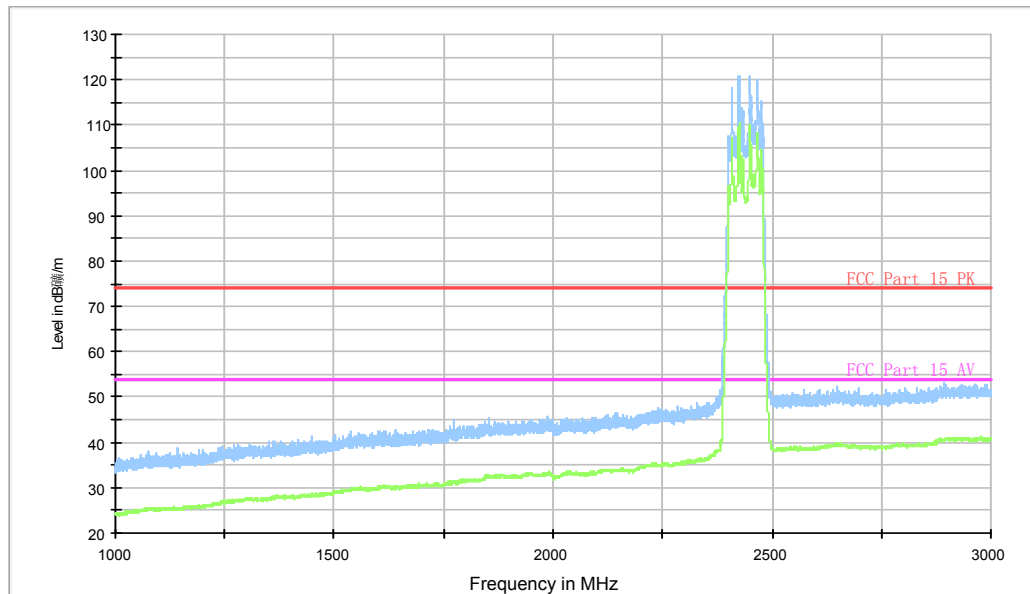


Fig.A.6.2.9 Transmitter Spurious Emission - Radiated (802.11b, Ch11, 1 GHz-3 GHz)

RE - 3GHz-18GHz

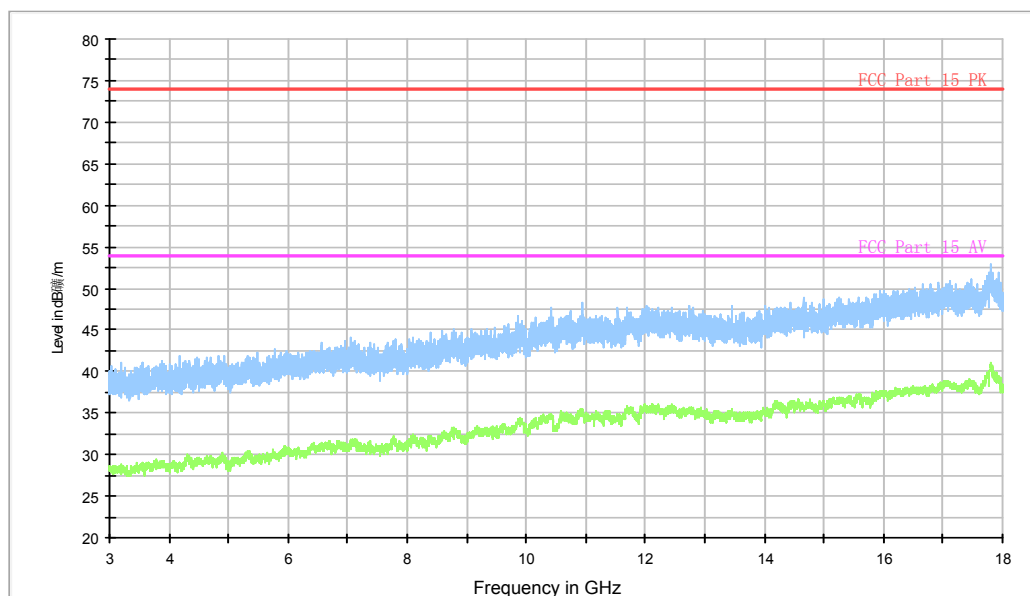


Fig.A.6.2.10 Transmitter Spurious Emission - Radiated (802.11b, Ch11, 3 GHz-18 GHz)

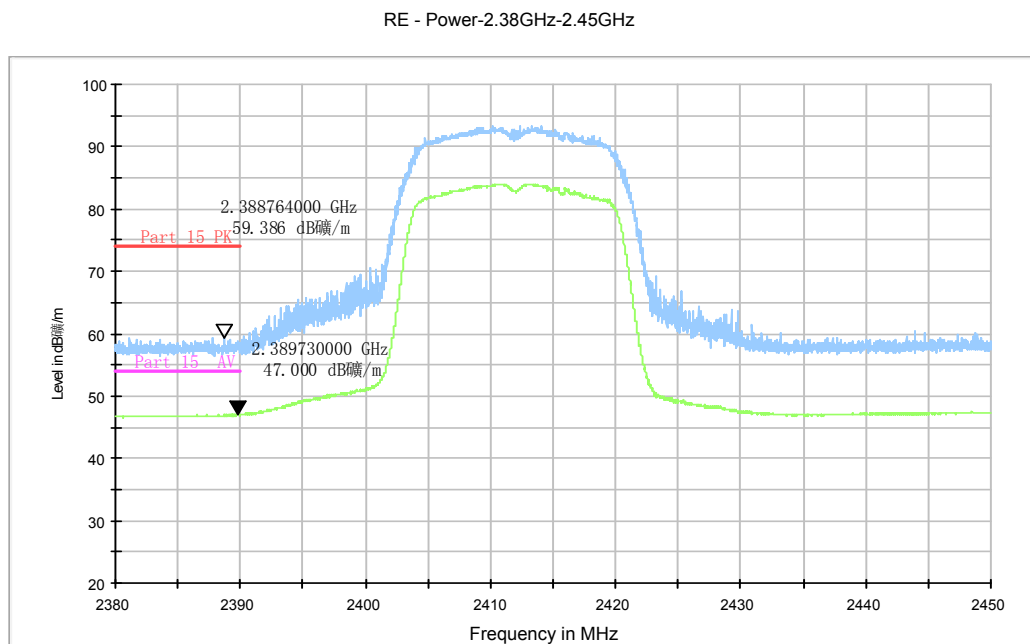


Fig.A.6.2.11 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.38 GHz - 2.45GHz

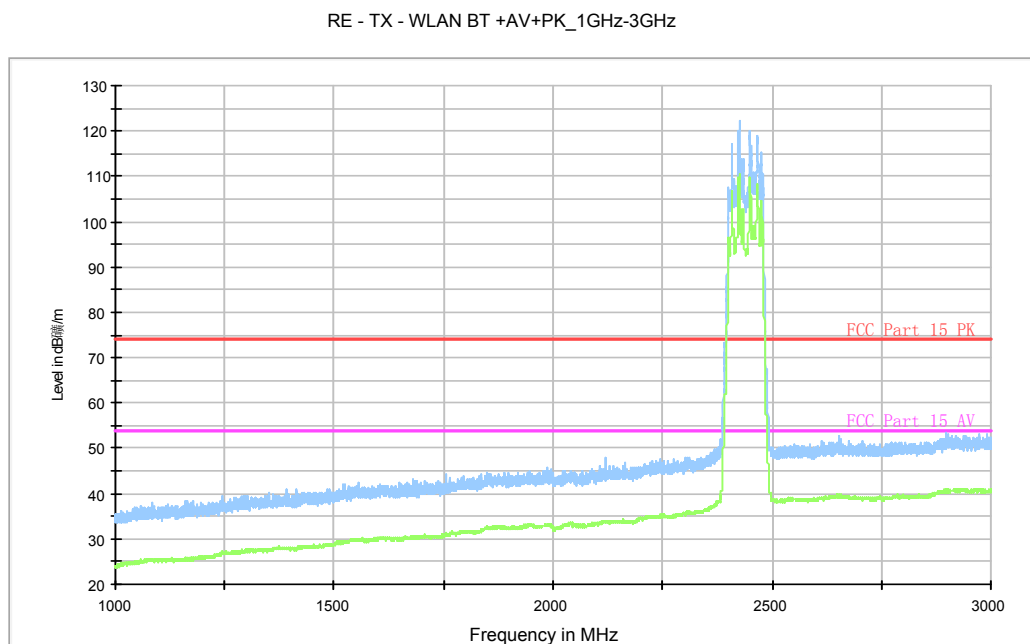


Fig.A.6.2.12 Transmitter Spurious Emission - Radiated (802.11g, Ch1, 1 GHz-3 GHz)

RE - 3GHz-18GHz

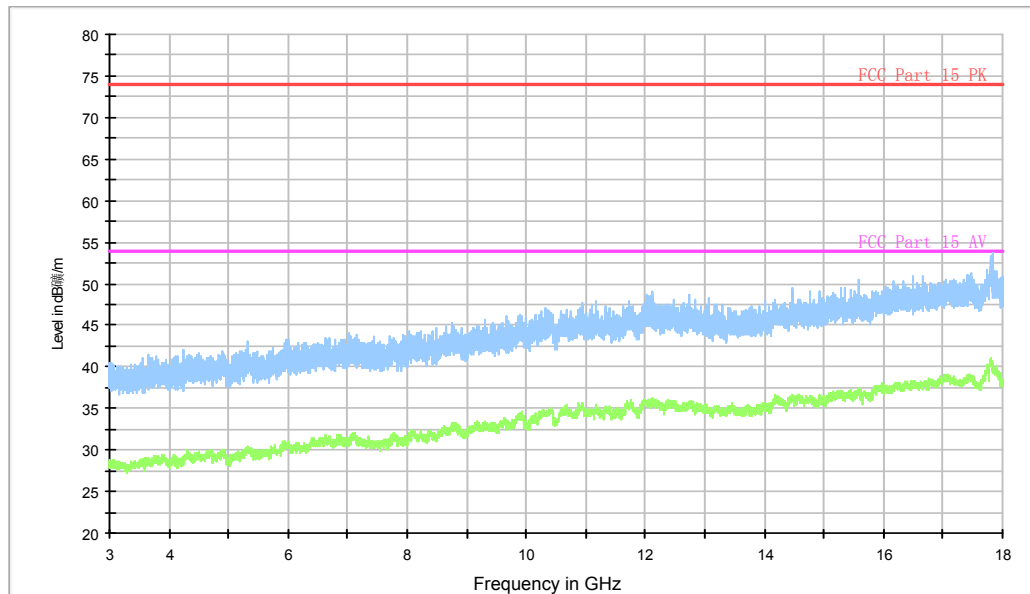


Fig.A.6.2.13 Transmitter Spurious Emission - Radiated (802.11g, Ch1, 3 GHz-18 GHz)

RE 30MHz-1GHz

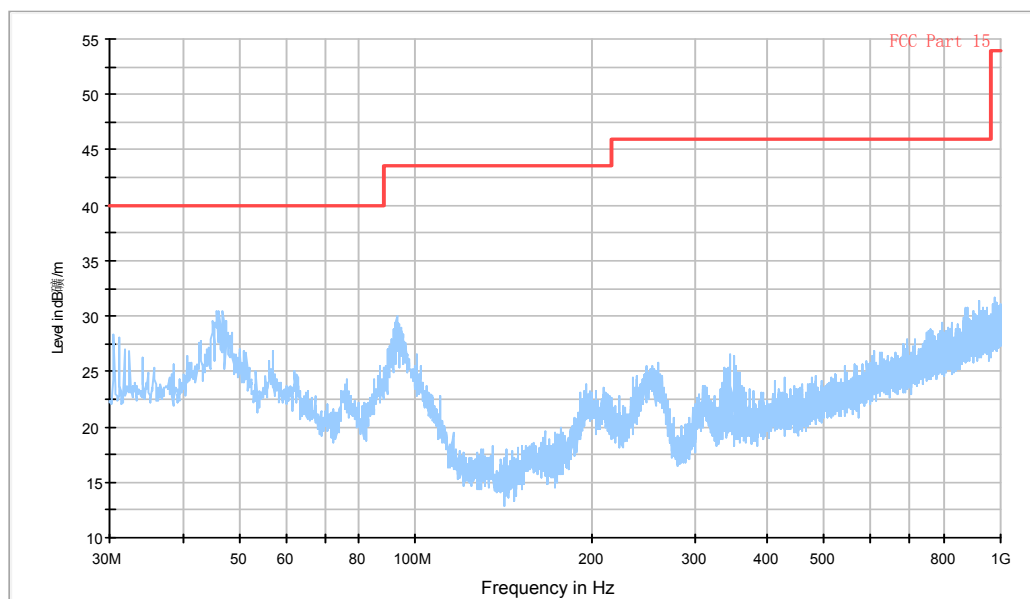


Fig.A.6.2.14 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 30 MHz-1 GHz)

RE - TX - WLAN BT +AV+PK_1GHz-3GHz

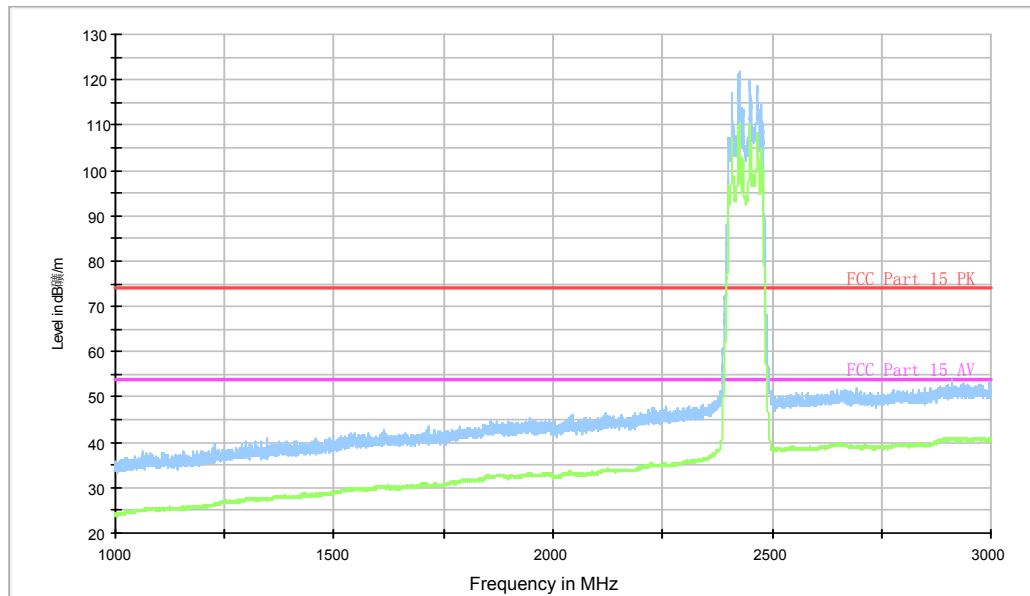


Fig.A.6.2.15 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 1 GHz-3 GHz)

RE - 3GHz-18GHz

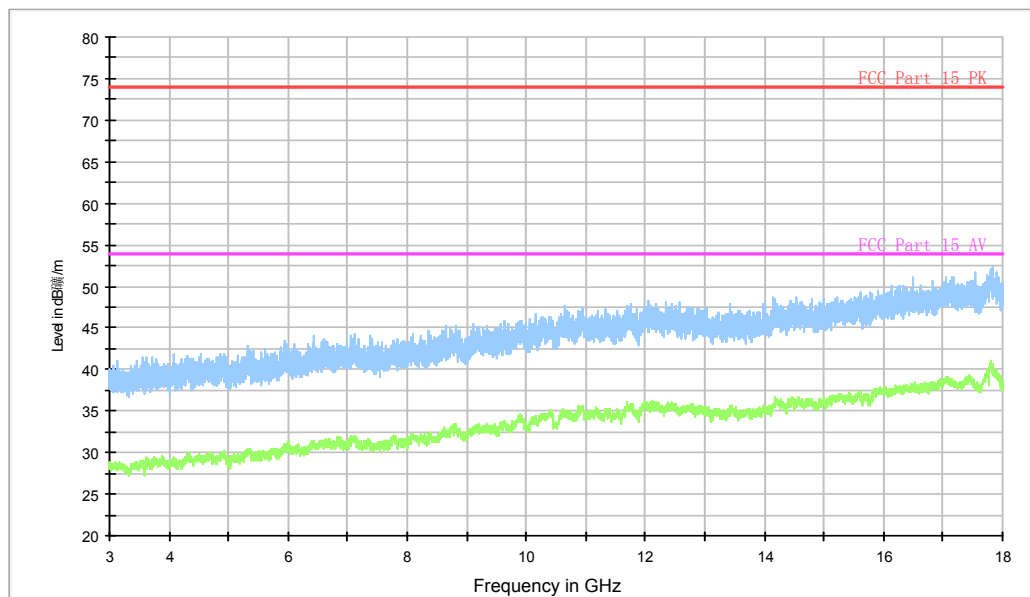


Fig.A.6.2.16 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 3 GHz-18 GHz)

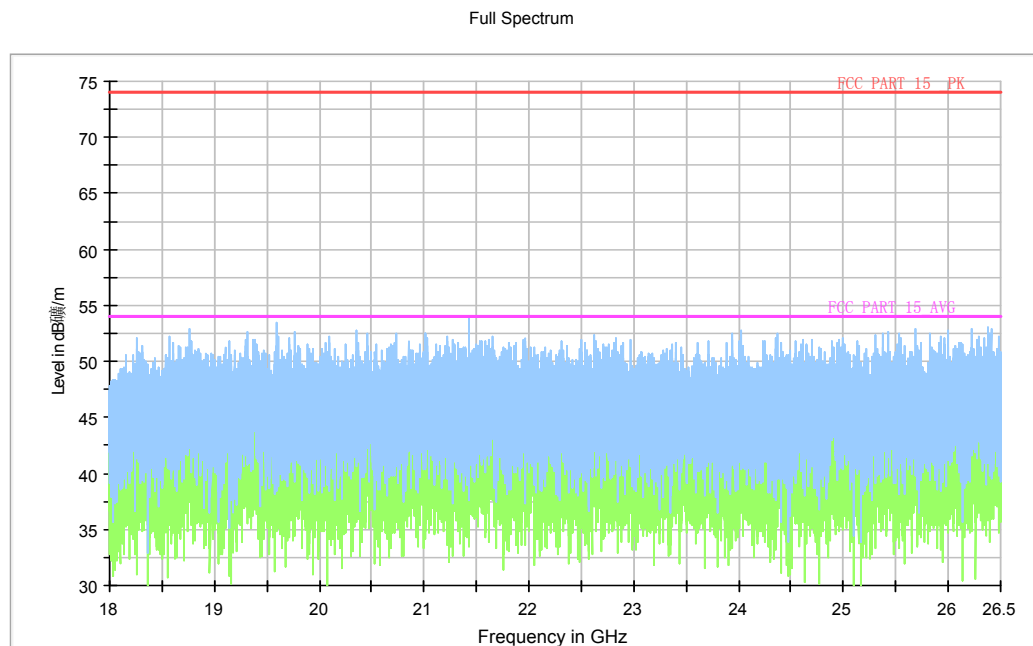


Fig.A.6.2.17 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 18GHz – 26.5GHz)

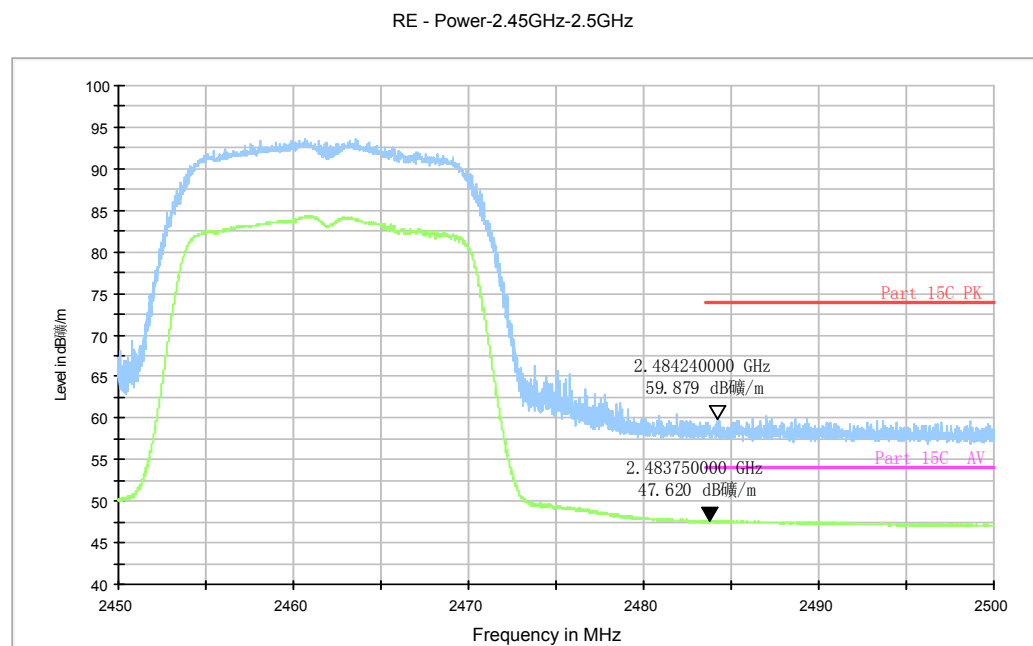


Fig.A.6.2.18 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

RE - TX - WLAN BT +AV+PK_1GHz-3GHz

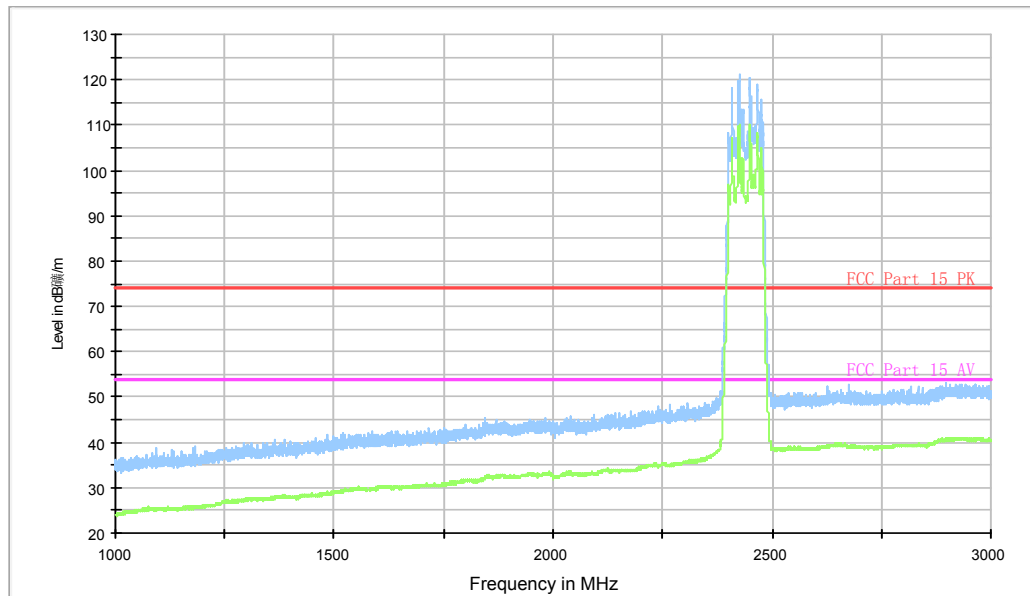


Fig.A.6.2.19 Transmitter Spurious Emission - Radiated (802.11g, Ch11, 1 GHz-3 GHz)

RE - 3GHz-18GHz

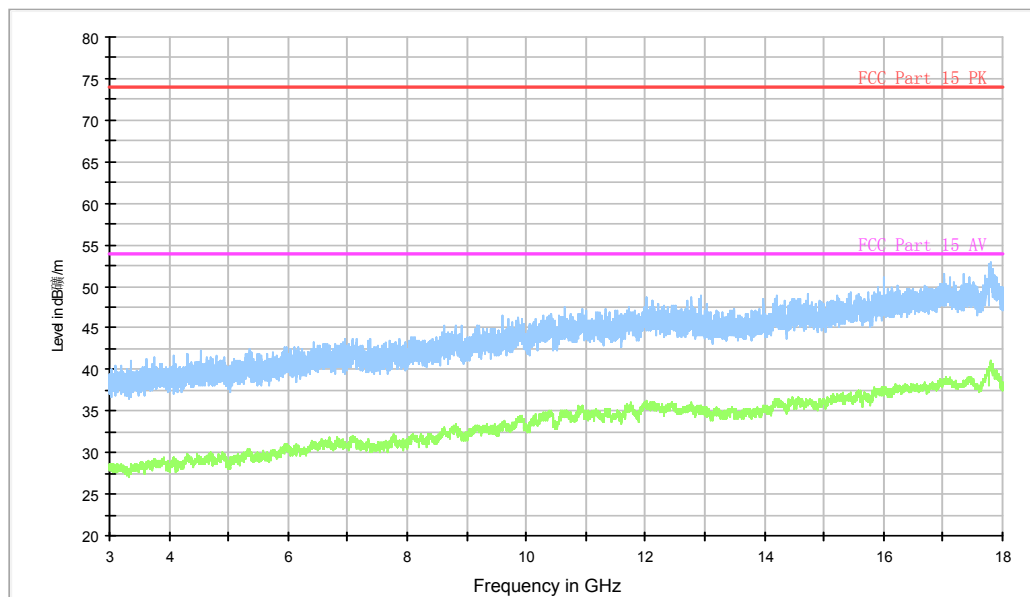
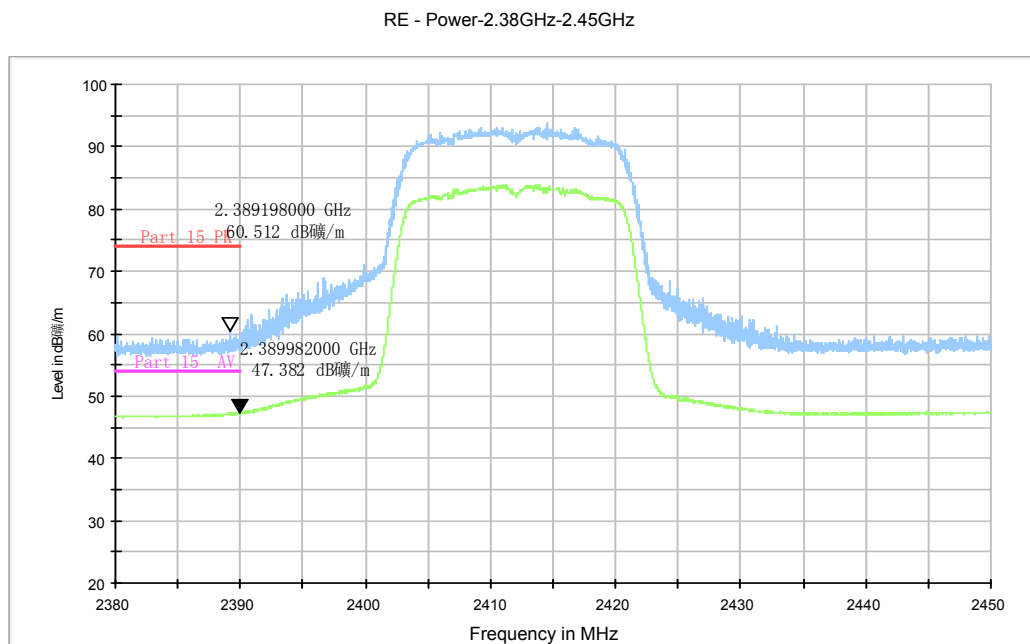
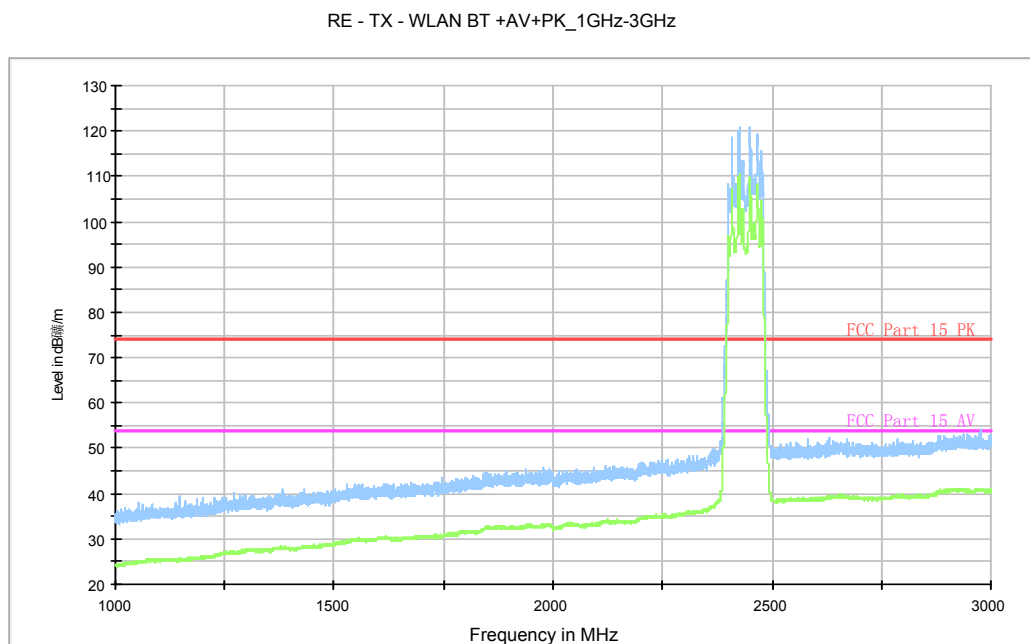


Fig.A.6.2.20 Transmitter Spurious Emission - Radiated (802.11g, Ch11, 3 GHz-18 GHz)



**Fig.A.6.2.21 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1,
2.38 GHz - 2.45GHz**



**Fig.A.6.2.22 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch1, 1 GHz-3
GHz)**

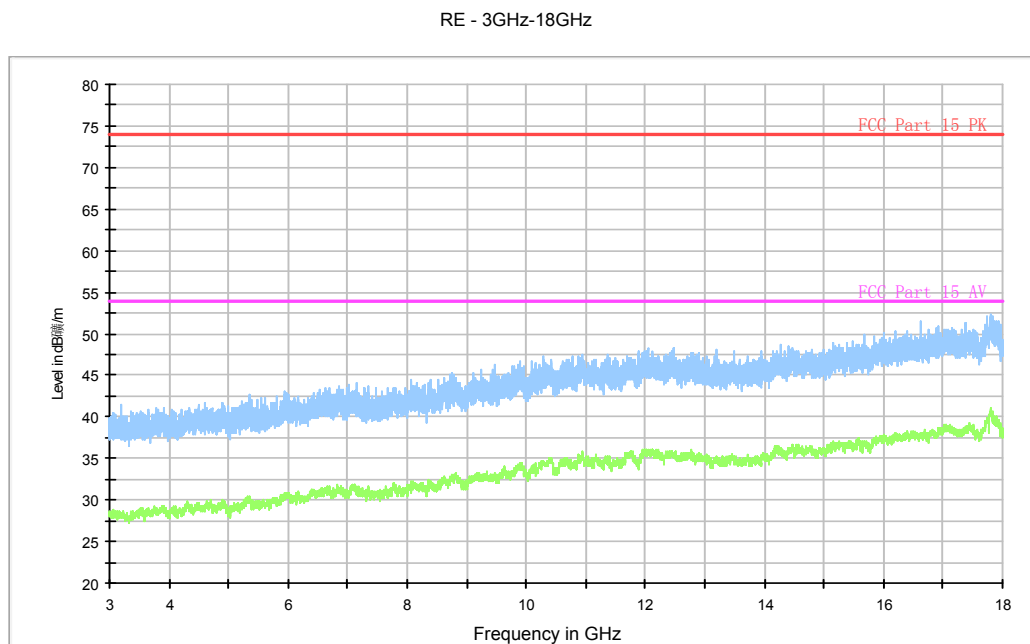


Fig.A.6.2.23 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch1, 3 GHz-18 GHz)

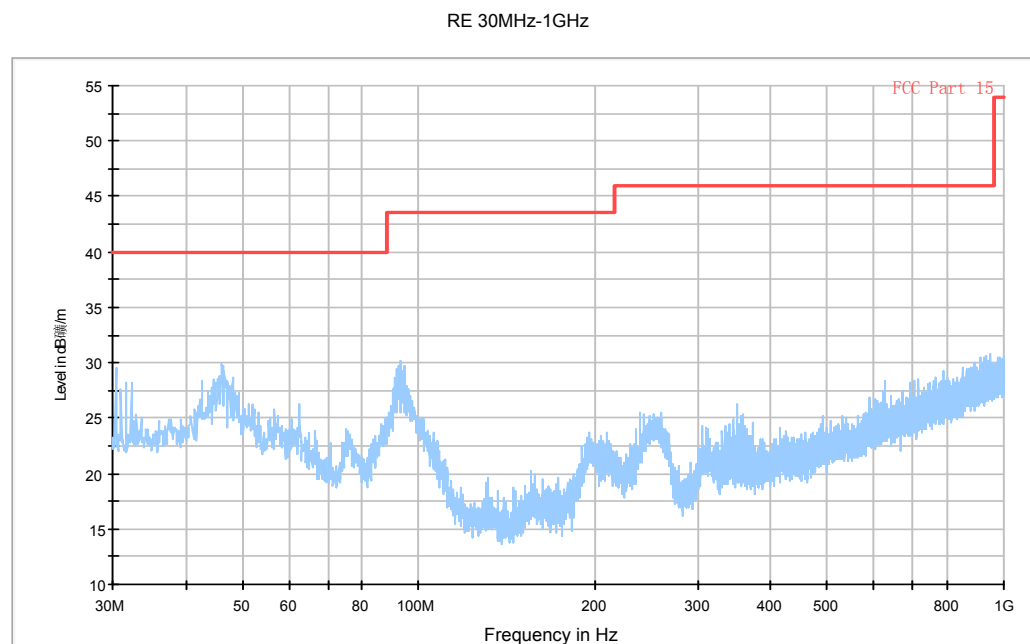


Fig.A.6.2.24 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 30 MHz-1 GHz)

RE - TX - WLAN BT +AV+PK_1GHz-3GHz

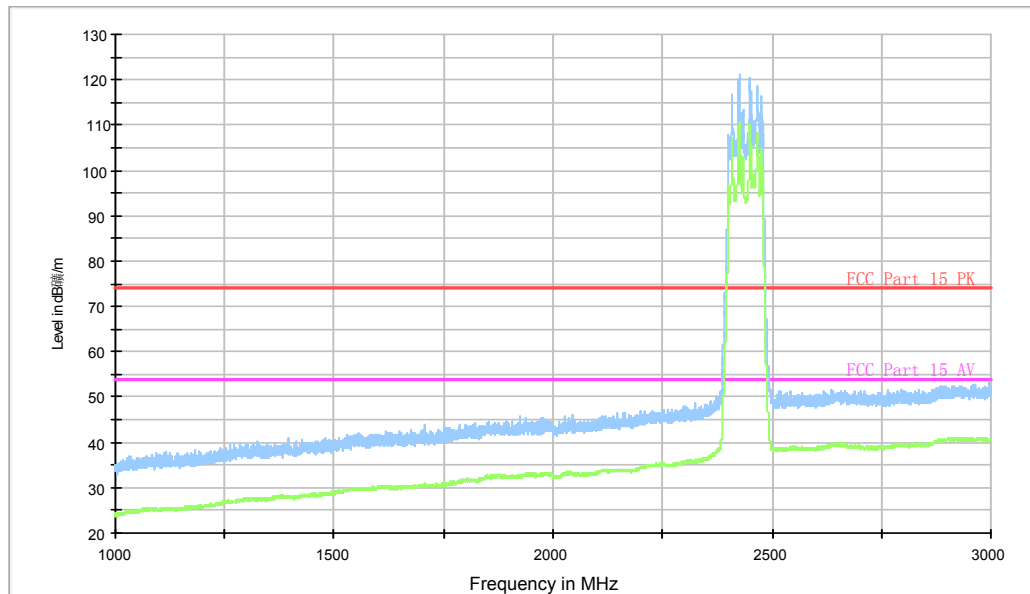


Fig.A.6.2.25 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 1 GHz-3 GHz)

RE - 3GHz-18GHz

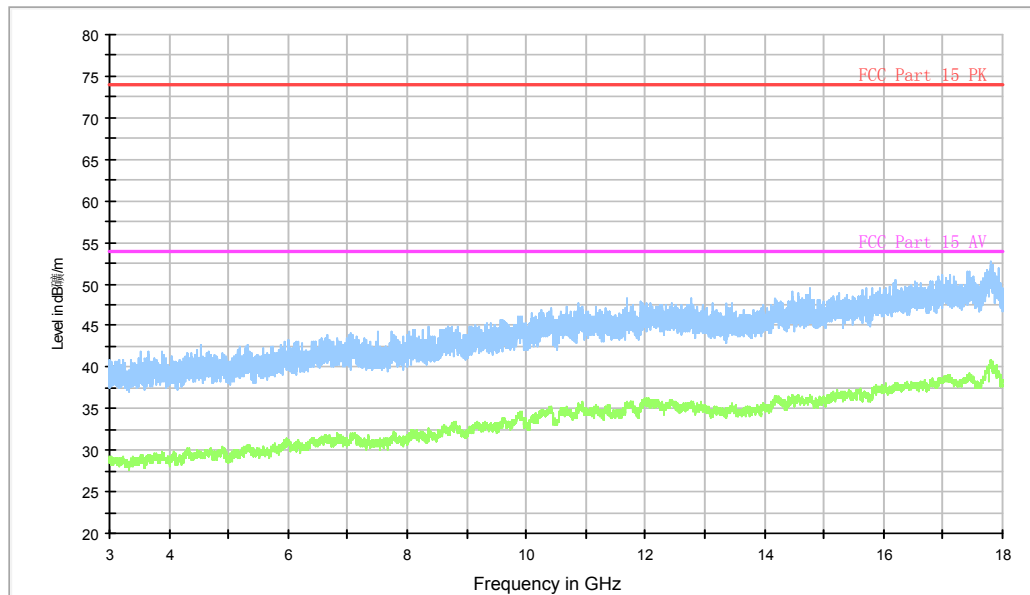


Fig.A.6.2.26 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 3 GHz-18 GHz)

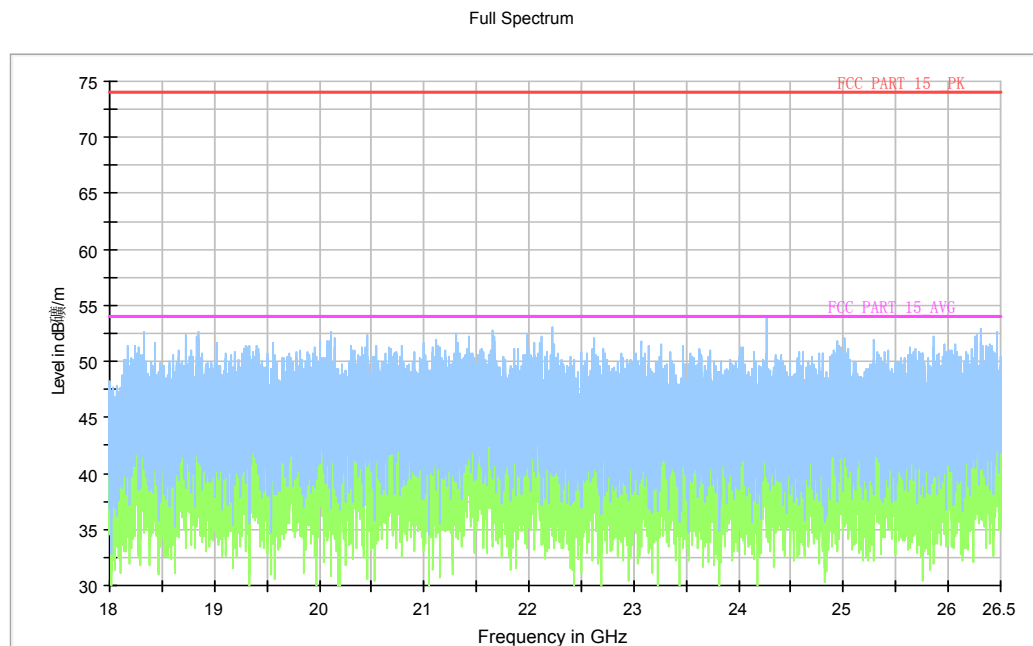


Fig.A.6.2.27 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 18GHz – 26.5GHz)

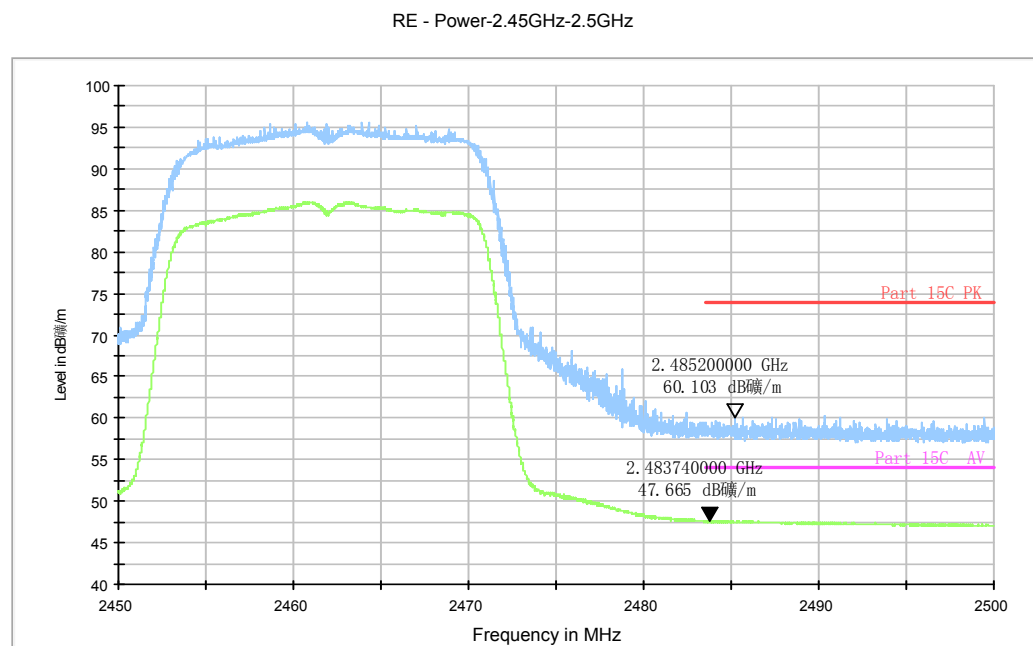


Fig.A.6.2.28 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

RE - TX - WLAN BT +AV+PK_1GHz-3GHz

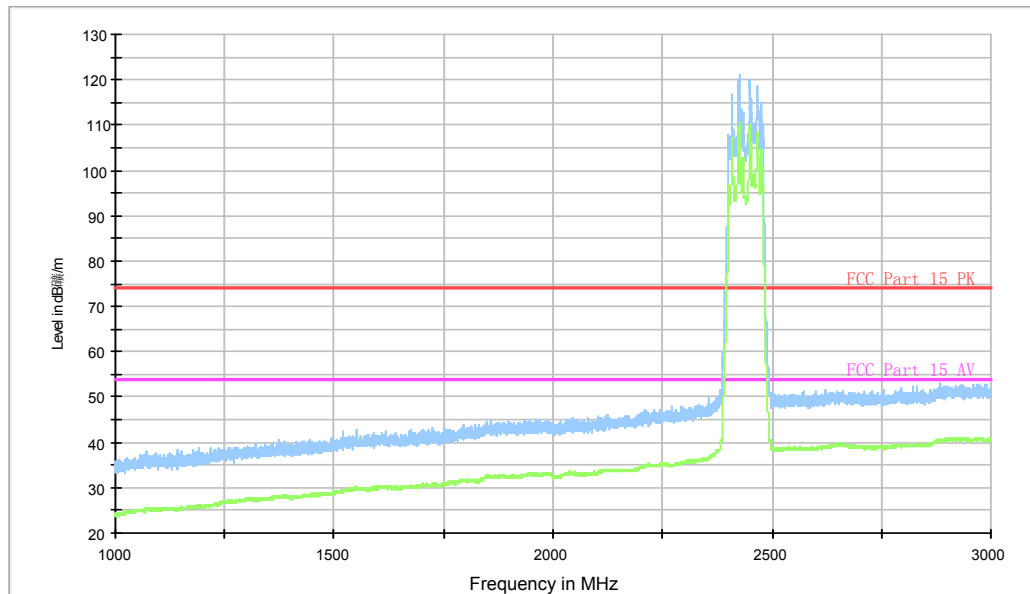


Fig.A.6.2.29 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch11, 1 GHz-3 GHz)

RE - 3GHz-18GHz

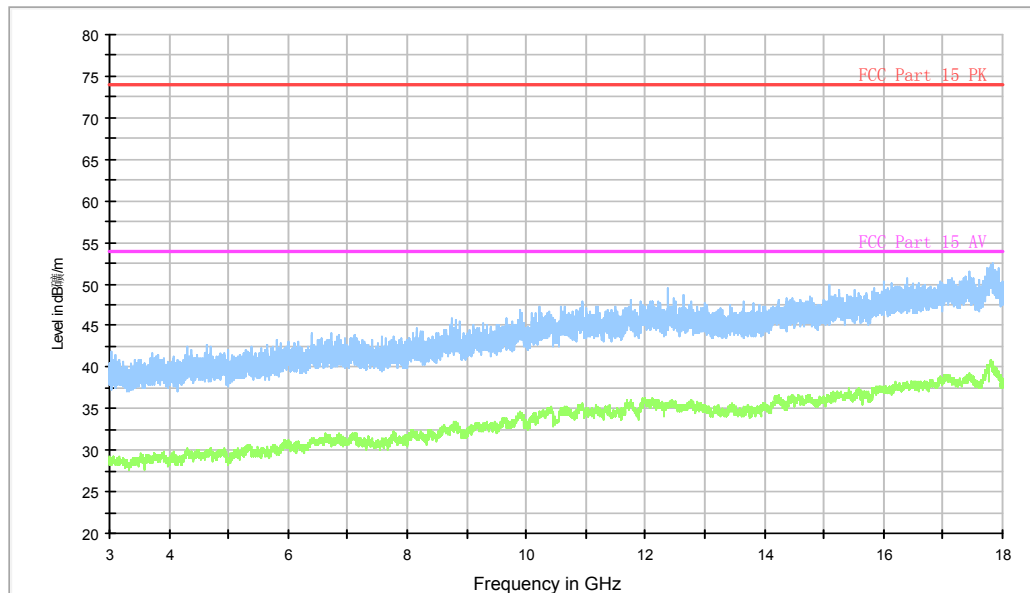


Fig.A.6.2.30 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch11, 3 GHz-18 GHz)

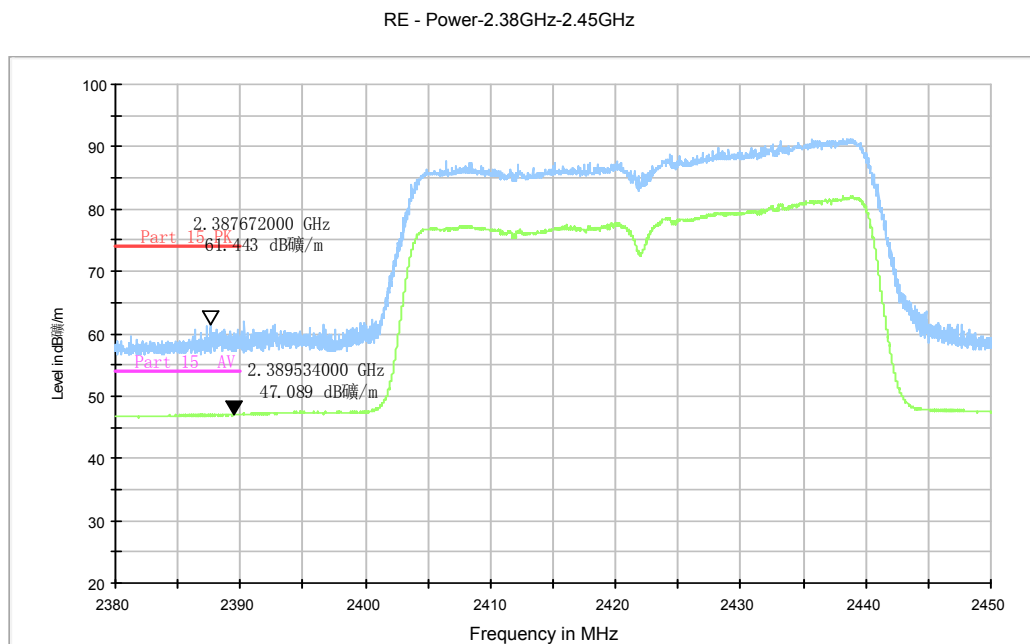


Fig.A.6.2.31 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.38 GHz - 2.45GHz

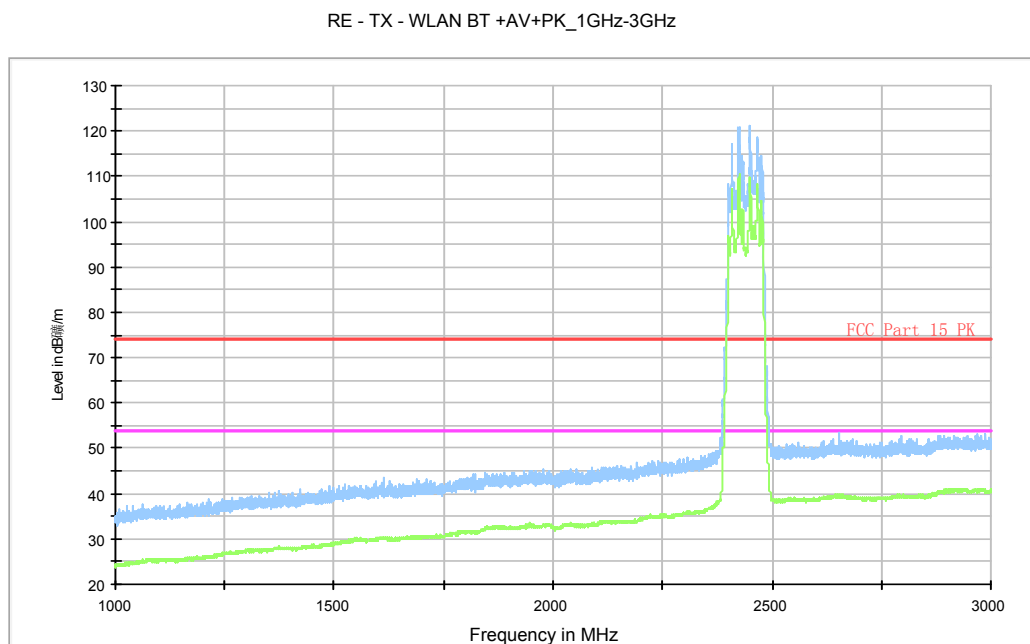


Fig.A.6.2.32 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch3, 1 GHz-3 GHz)

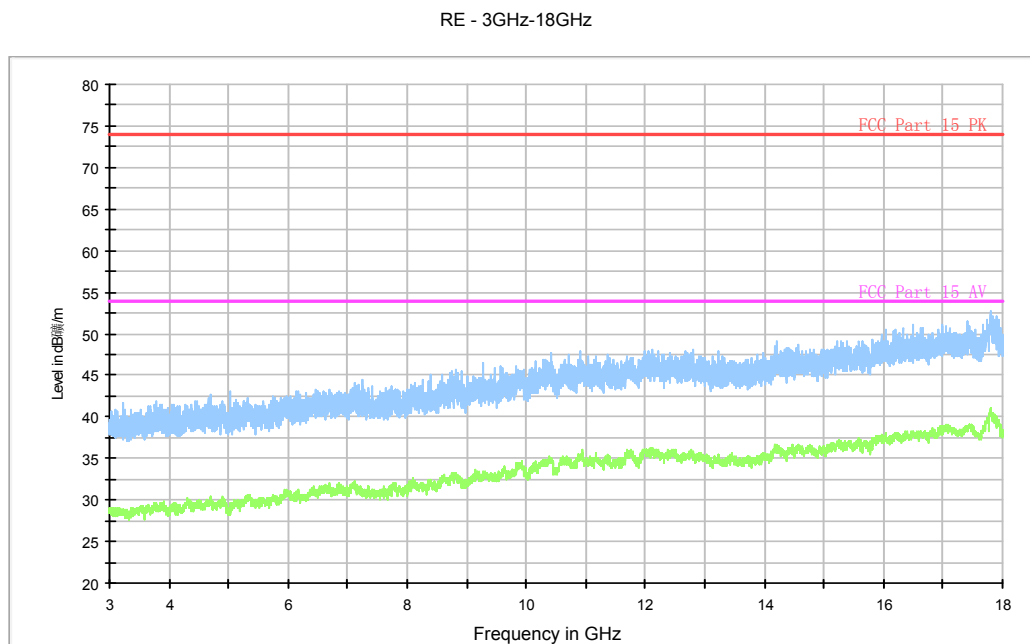


Fig.A.6.2.33 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch3, 3 GHz-18 GHz)

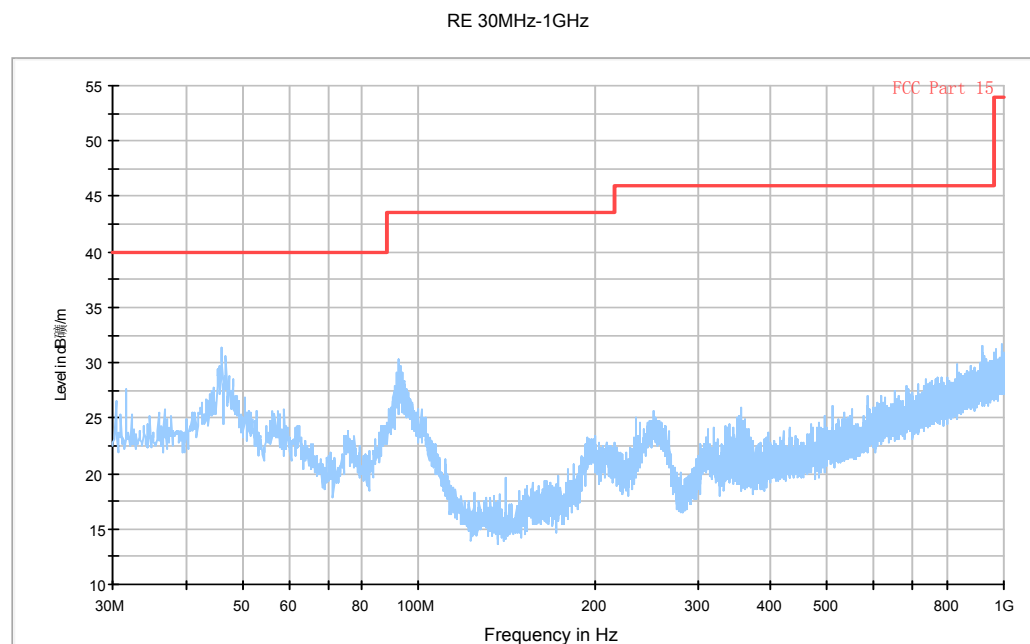


Fig.A.6.2.34 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 30 MHz-1 GHz)

RE - TX - WLAN BT +AV+PK_1GHz-3GHz

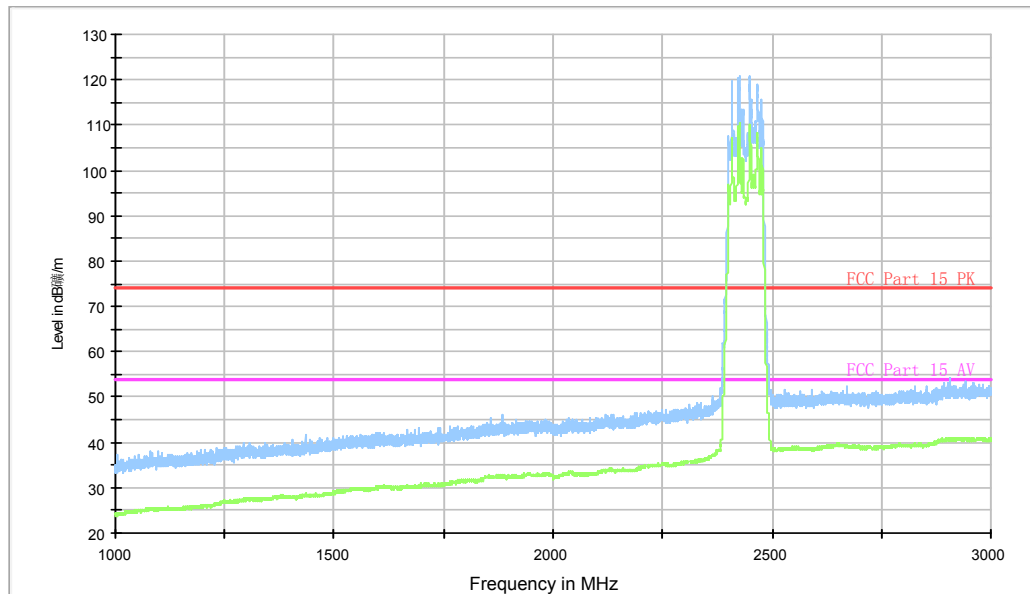


Fig.A.6.2.35 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 1 GHz-3 GHz)

RE - 3GHz-18GHz

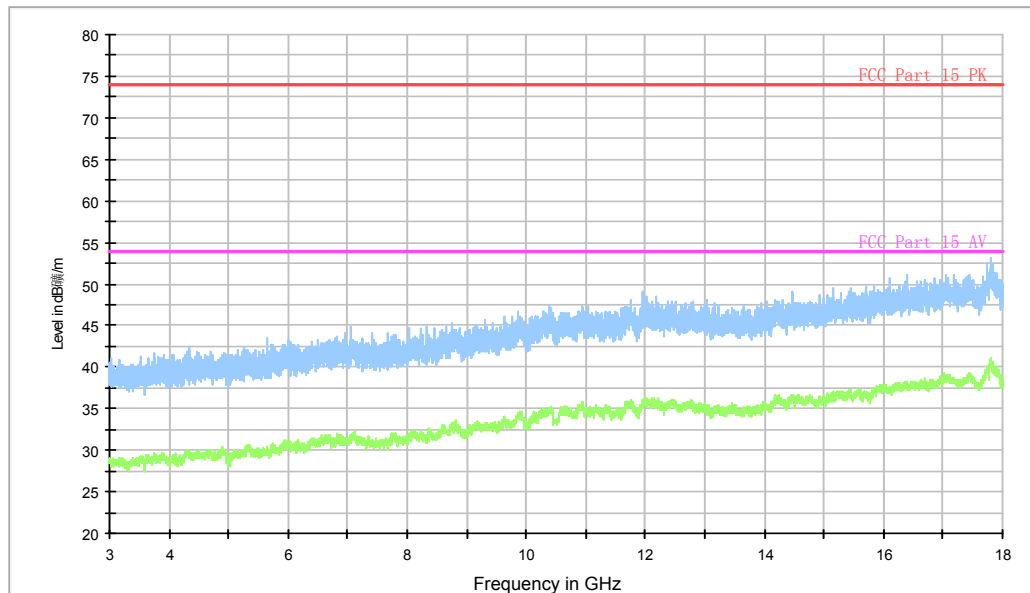


Fig.A.6.2.36 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 3 GHz-18 GHz)

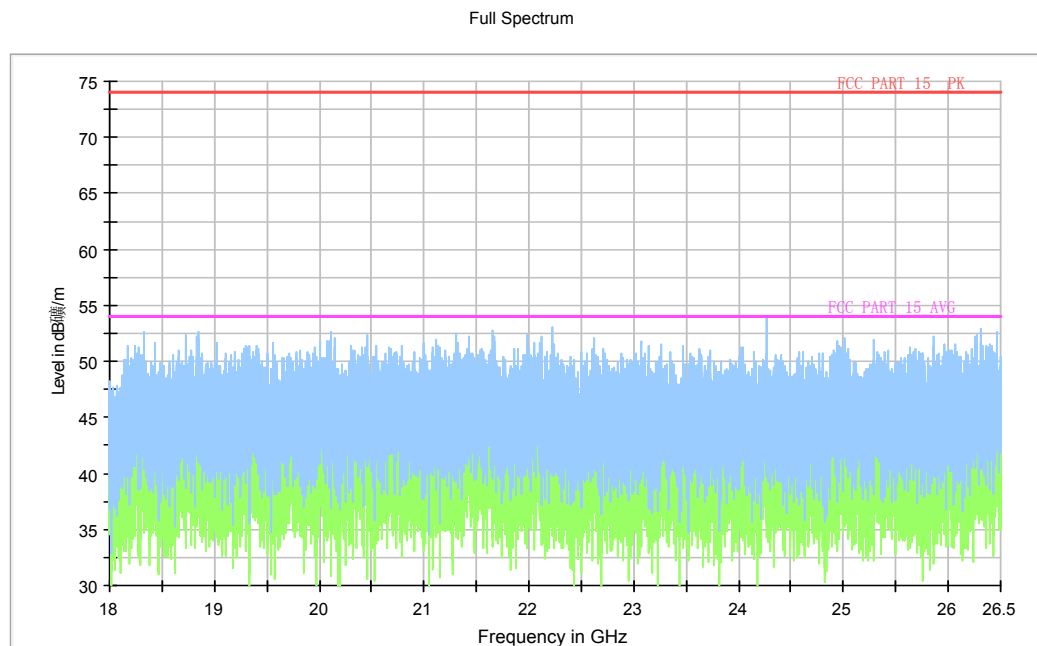


Fig.A.6.2.37 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 18GHz – 26.5GHz)

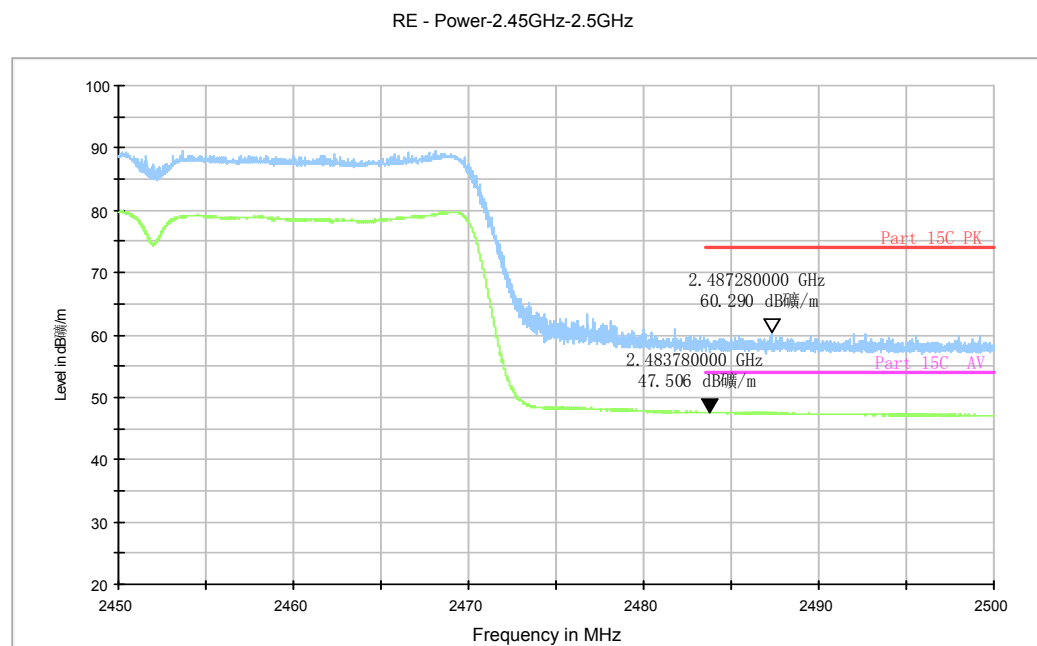


Fig.A.6.2.38 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

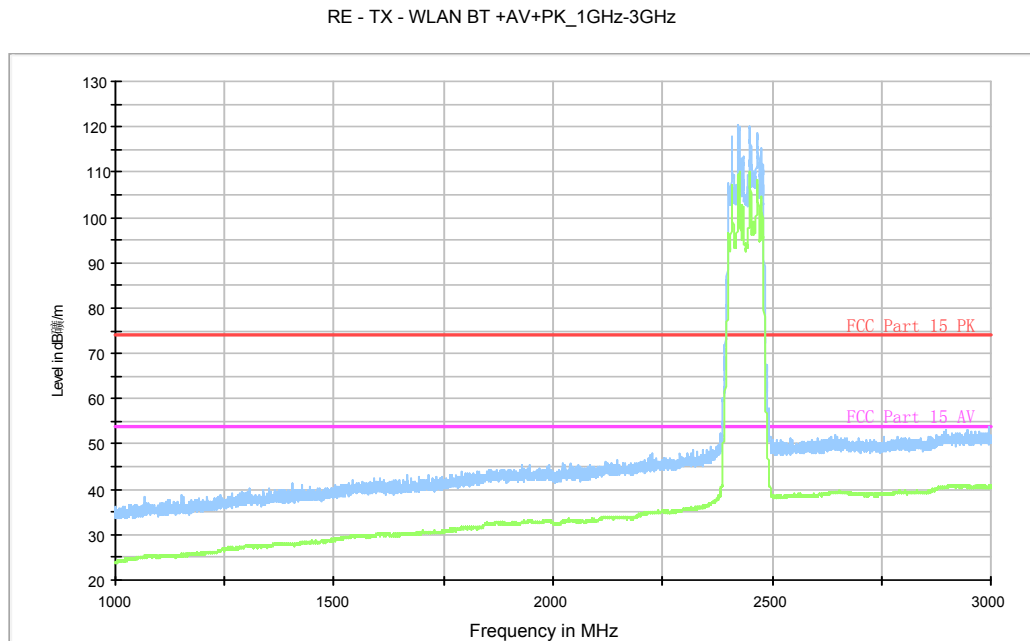


Fig.A.6.2.39 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch9, 1 GHz-3 GHz)

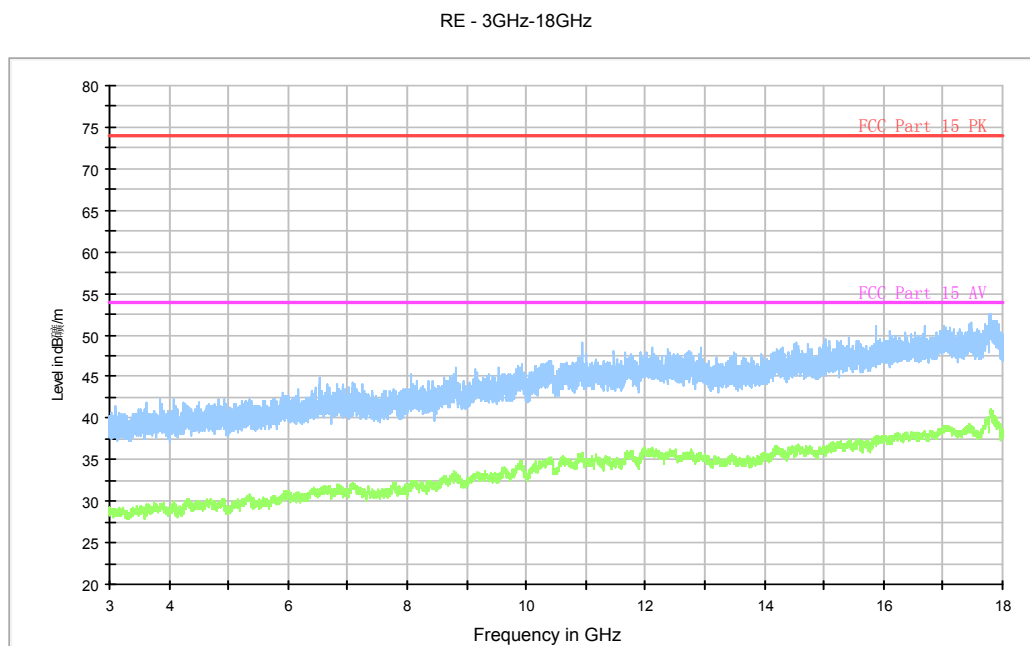


Fig.A.6.2.40 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch9, 3 GHz-18 GHz)

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.7.3	Fig.A.7.2 Fig.A.7.4	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.7.3	Fig.A.7.2 Fig.A.7.4	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:

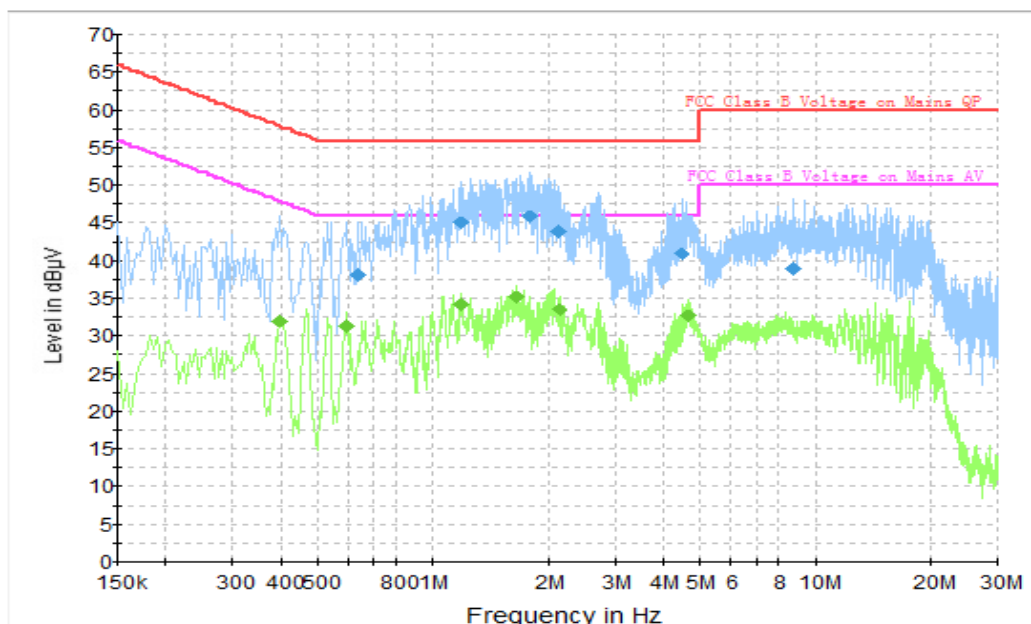


Fig.A.7.1 AC Powerline Conducted Emission-802.11b

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)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.636000	38.1	2000.0	9.000	On	N	19.8	17.9	56.0
1.189500	45.1	2000.0	9.000	On	L1	19.7	10.9	56.0
1.797000	45.9	2000.0	9.000	On	N	19.7	10.1	56.0
2.130000	44.0	2000.0	9.000	On	L1	19.5	12.0	56.0
4.456500	40.9	2000.0	9.000	On	L1	19.6	15.1	56.0
8.718000	38.9	2000.0	9.000	On	N	19.7	21.1	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.397500	32.1	2000.0	9.000	On	N	19.9	15.8	47.9
0.595500	31.3	2000.0	9.000	On	L1	19.8	14.7	46.0
1.189500	34.2	2000.0	9.000	On	L1	19.7	11.8	46.0
1.662000	35.1	2000.0	9.000	On	L1	19.7	10.9	46.0
2.139000	33.6	2000.0	9.000	On	N	19.5	12.4	46.0
4.650000	32.7	2000.0	9.000	On	N	19.6	13.3	46.0

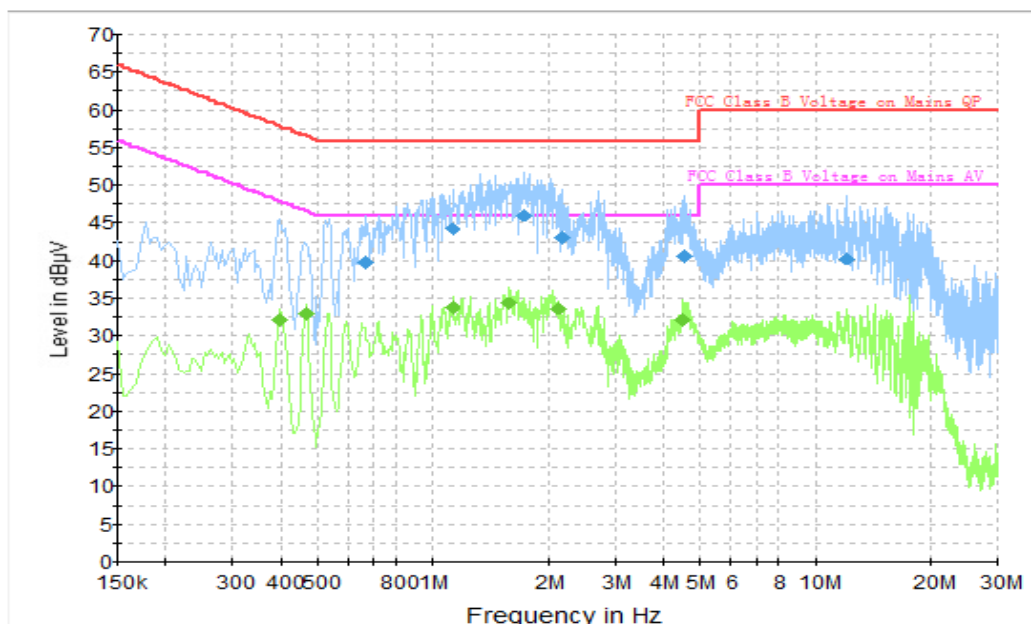


Fig.A.7.2 AC Powerline Conducted Emission-Iidle

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.663000	39.8	2000.0	9.000	On	L1	19.8	16.2	56.0
1.122000	44.2	2000.0	9.000	On	N	19.7	11.8	56.0
1.725000	46.1	2000.0	9.000	On	L1	19.7	9.9	56.0
2.184000	43.1	2000.0	9.000	On	L1	19.3	12.9	56.0
4.551000	40.6	2000.0	9.000	On	N	19.6	15.4	56.0
12.052500	40.3	2000.0	9.000	On	N	19.7	19.7	60.0

Final Result 2

Frequency (MHz)	Average (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.397500	32.2	2000.0	9.000	On	L1	19.9	15.7	47.9
0.465000	33.0	2000.0	9.000	On	L1	19.9	13.6	46.6
1.122000	33.8	2000.0	9.000	On	N	19.7	12.2	46.0
1.585500	34.4	2000.0	9.000	On	N	19.7	11.6	46.0
2.130000	33.8	2000.0	9.000	On	N	19.5	12.2	46.0
4.528500	32.2	2000.0	9.000	On	N	19.6	13.8	46.0

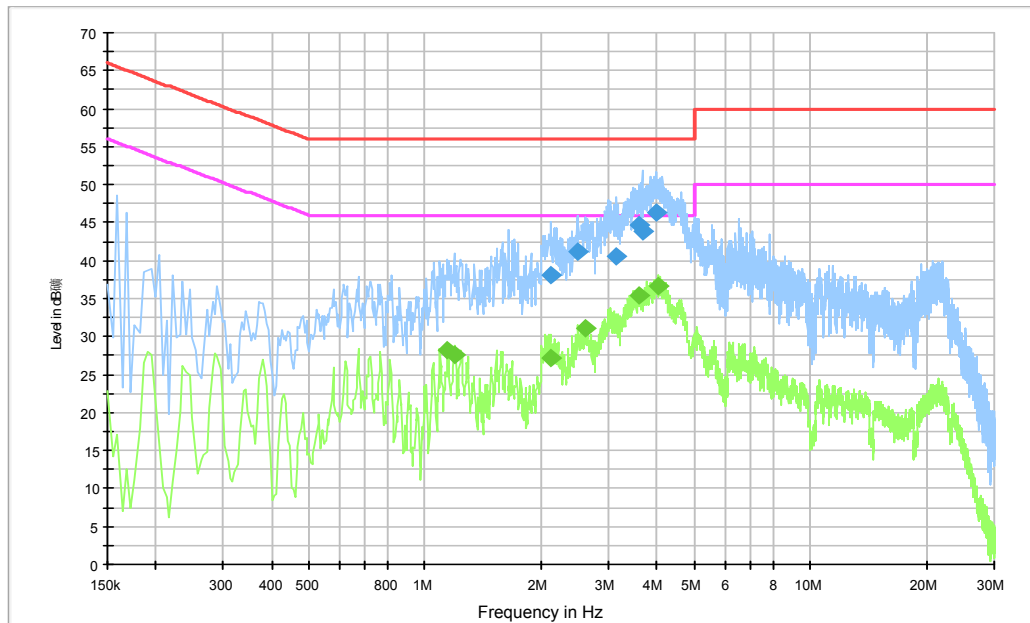


Fig.A.7.3 AC Powerline Conducted Emission-802.11b

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)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
2.121000	38.1	GND	L1	10.4	17.9	56.0
2.494500	41.2	GND	L1	10.4	14.8	56.0
3.147000	40.5	GND	N	10.5	15.5	56.0
3.588000	44.6	GND	L1	10.4	11.4	56.0
3.660000	43.8	GND	N	10.5	12.2	56.0
3.997500	46.2	GND	L1	10.4	9.8	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
1.144500	28.1	GND	L1	10.3	17.9	46.0
1.189500	27.5	GND	L1	10.3	18.5	46.0
2.121000	27.1	GND	L1	10.4	18.9	46.0
2.598000	31.0	GND	L1	10.4	15.0	46.0
3.601500	35.4	GND	L1	10.4	10.6	46.0
4.047000	36.6	GND	L1	10.5	9.4	46.0

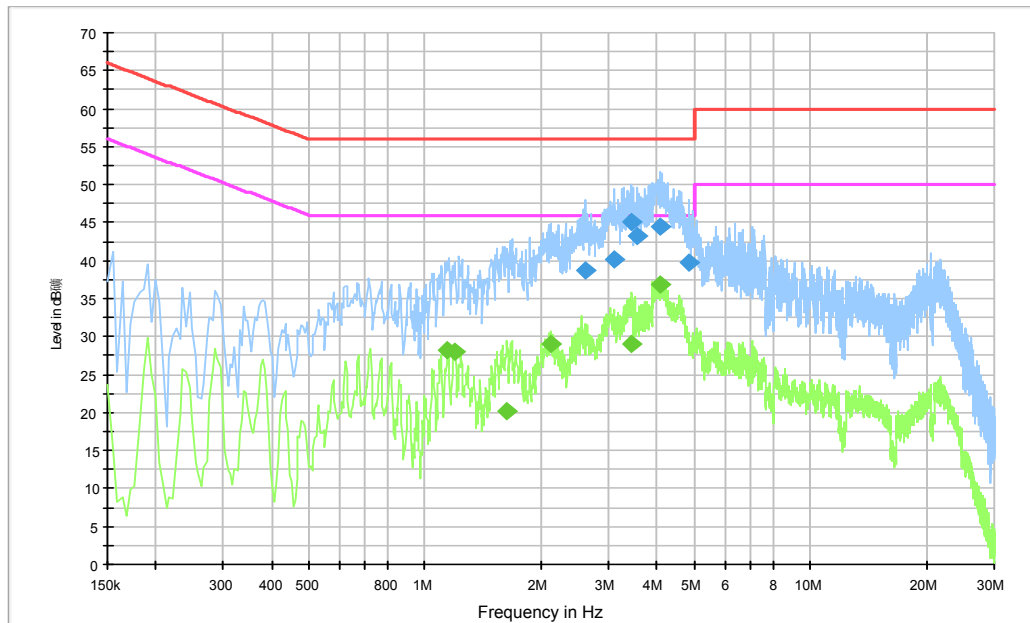


Fig.A.7.4 AC Powerline Conducted Emission-Iidle

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
2.607000	38.7	GND	N	10.5	17.3	56.0
3.084000	40.2	GND	N	10.5	15.8	56.0
3.417000	45.0	GND	L1	10.4	11.0	56.0
3.574500	43.2	GND	N	10.5	12.8	56.0
4.092000	44.4	GND	N	10.5	11.6	56.0
4.825500	39.8	GND	N	10.6	16.2	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
1.144500	28.3	GND	L1	10.3	17.7	46.0
1.194000	27.9	GND	L1	10.3	18.1	46.0
1.630500	20.2	GND	L1	10.3	25.8	46.0
2.116500	29.1	GND	L1	10.4	16.9	46.0
3.453000	29.0	GND	L1	10.4	17.0	46.0
4.092000	36.9	GND	L1	10.5	9.1	46.0

END OF REPORT