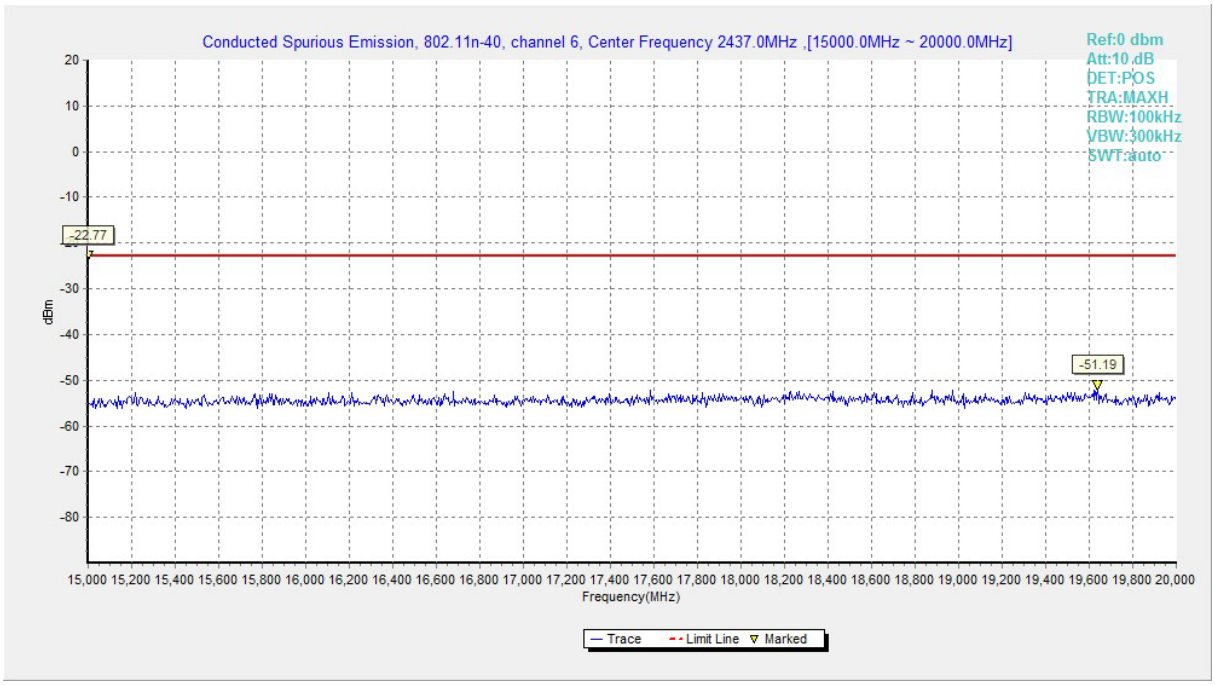

Fig.A.6.1.87 Conducted Spurious Emission (802.11n-HT40, Ch6, 15 GHz-20 GHz)

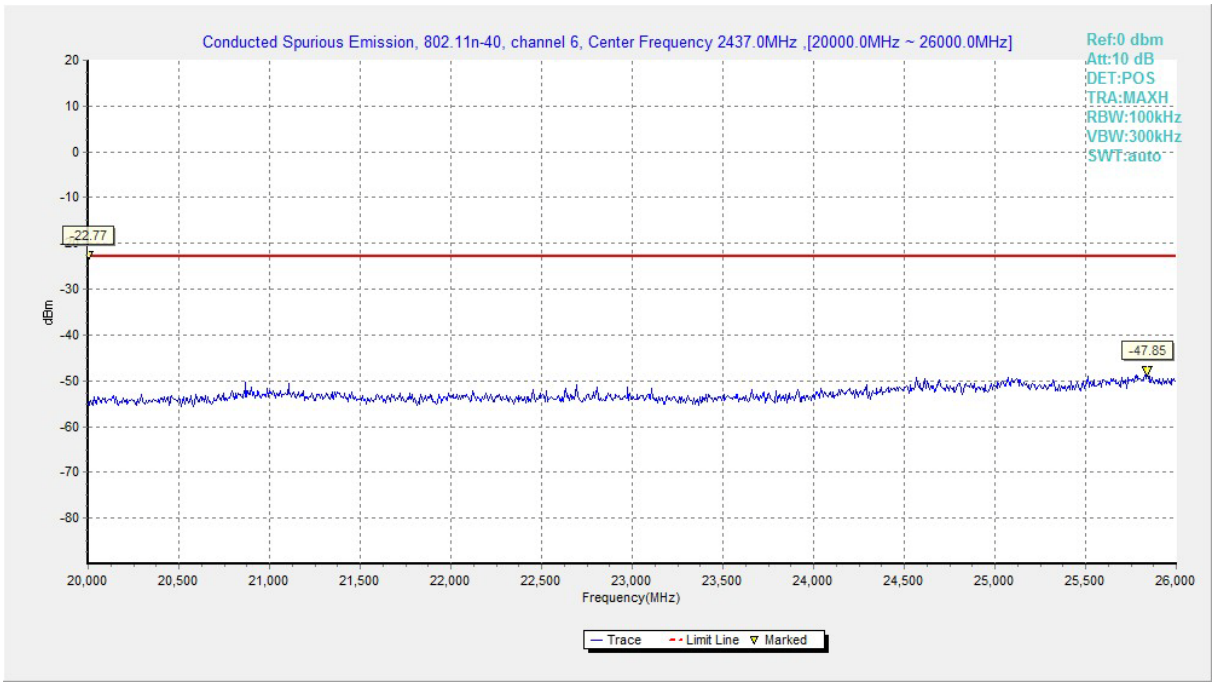

Fig.A.6.1.88 Conducted Spurious Emission (802.11n-HT40, Ch6, 20 GHz-26 GHz)

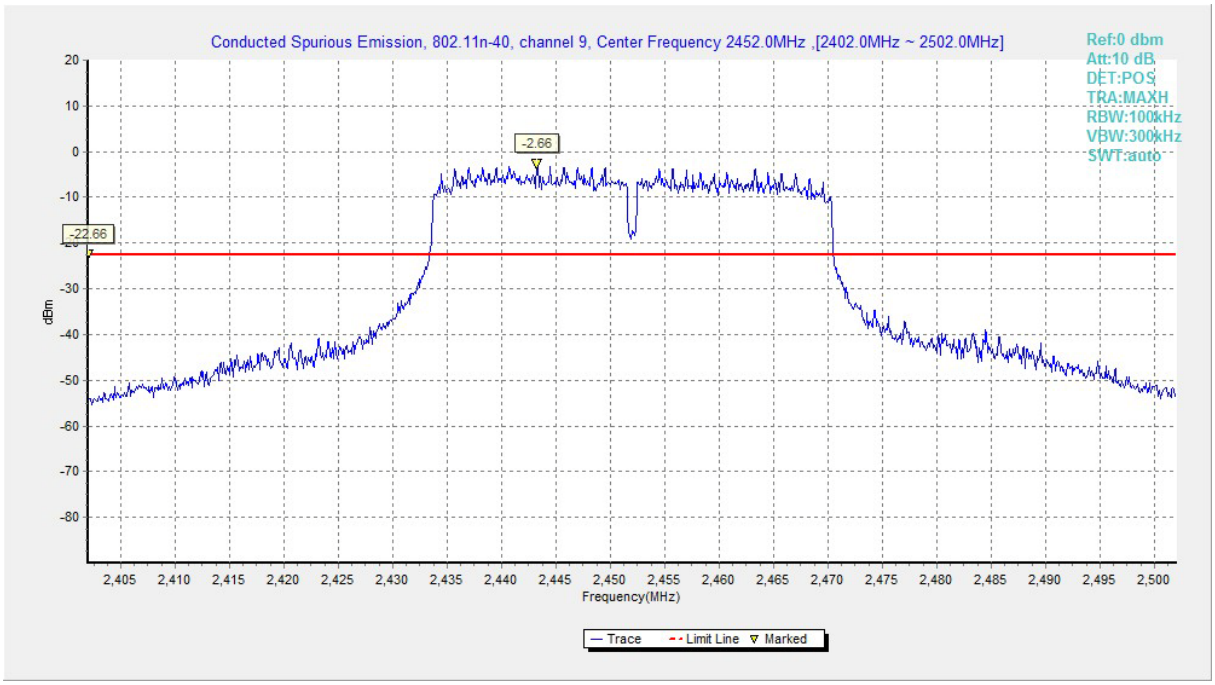

Fig.A.6.1.89 Conducted Spurious Emission (802.11n-HT40, Ch9, Center Frequency)

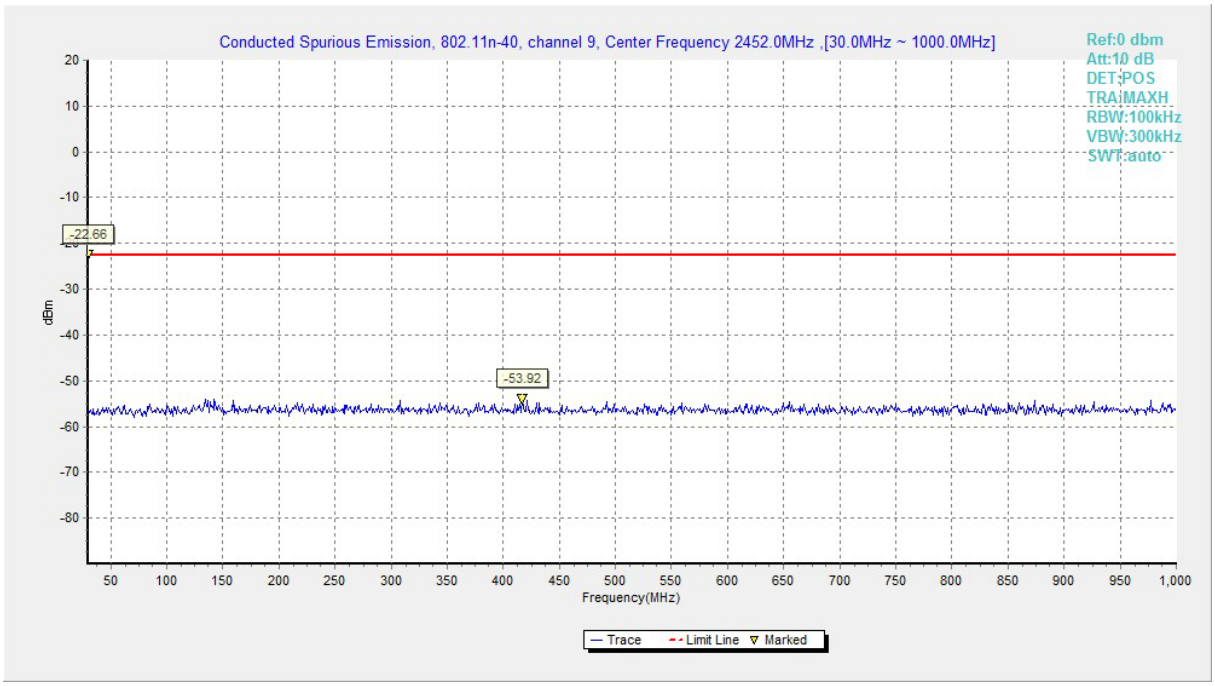

Fig.A.6.1.90 Conducted Spurious Emission (802.11n-HT40, Ch9, 30 MHz-1 GHz)

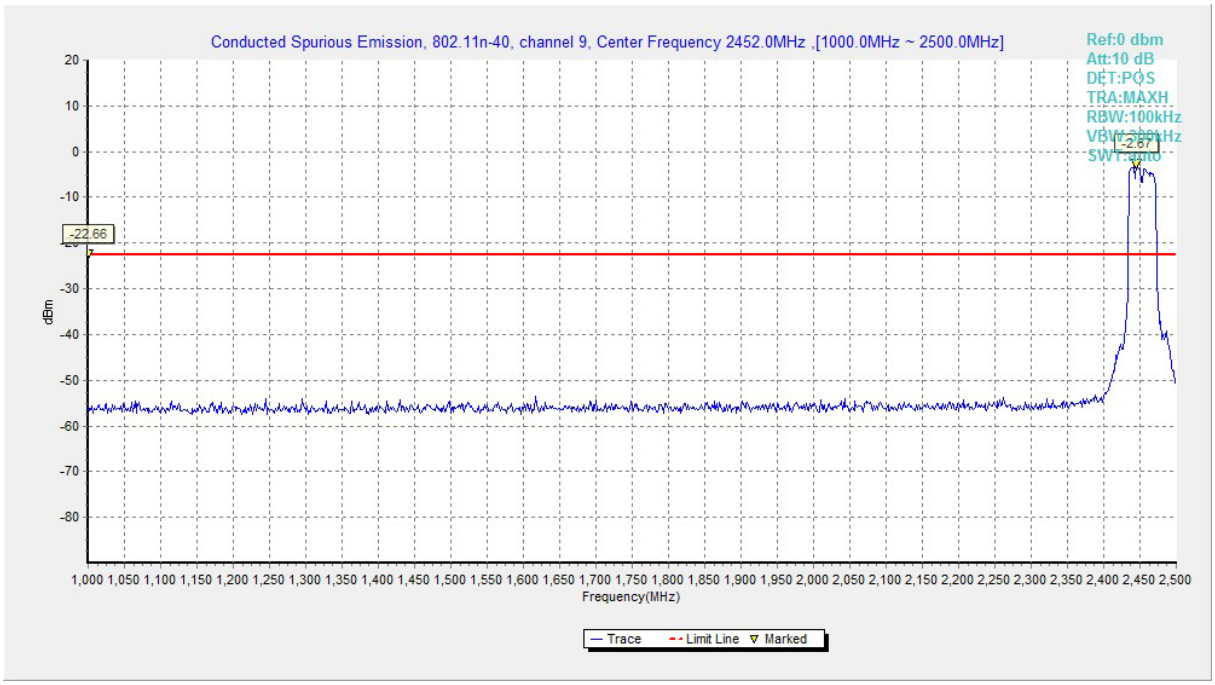

Fig.A.6.1.91 Conducted Spurious Emission (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)

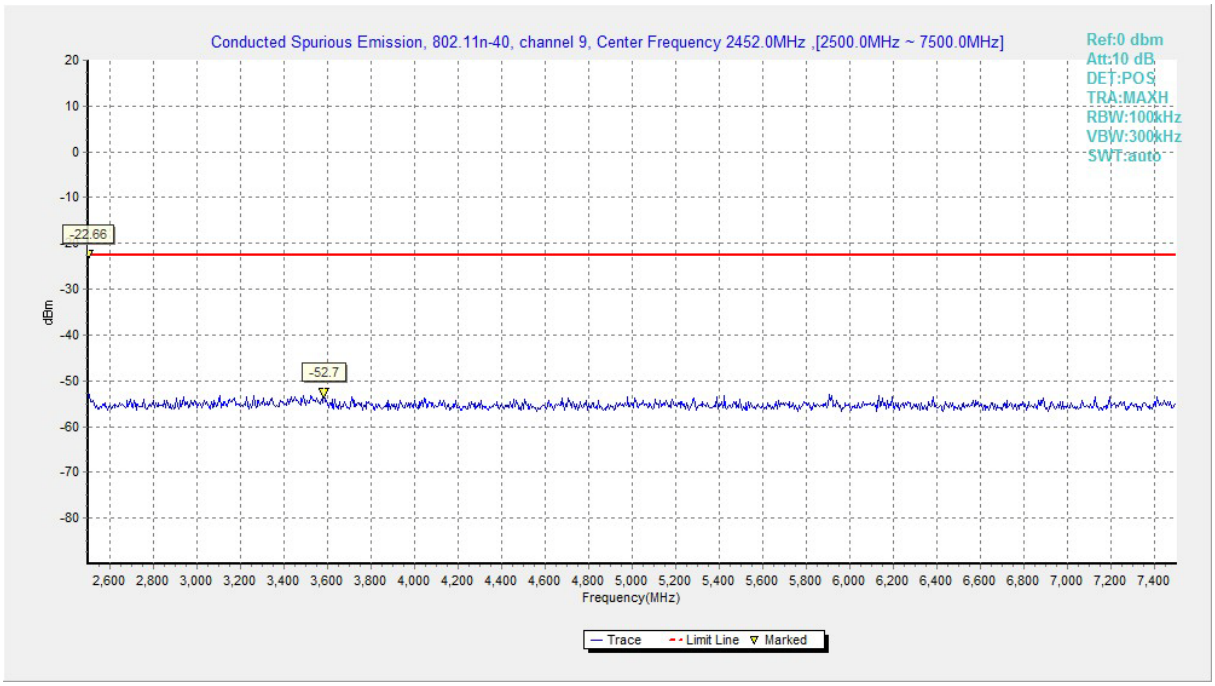

Fig.A.6.1.92 Conducted Spurious Emission (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)

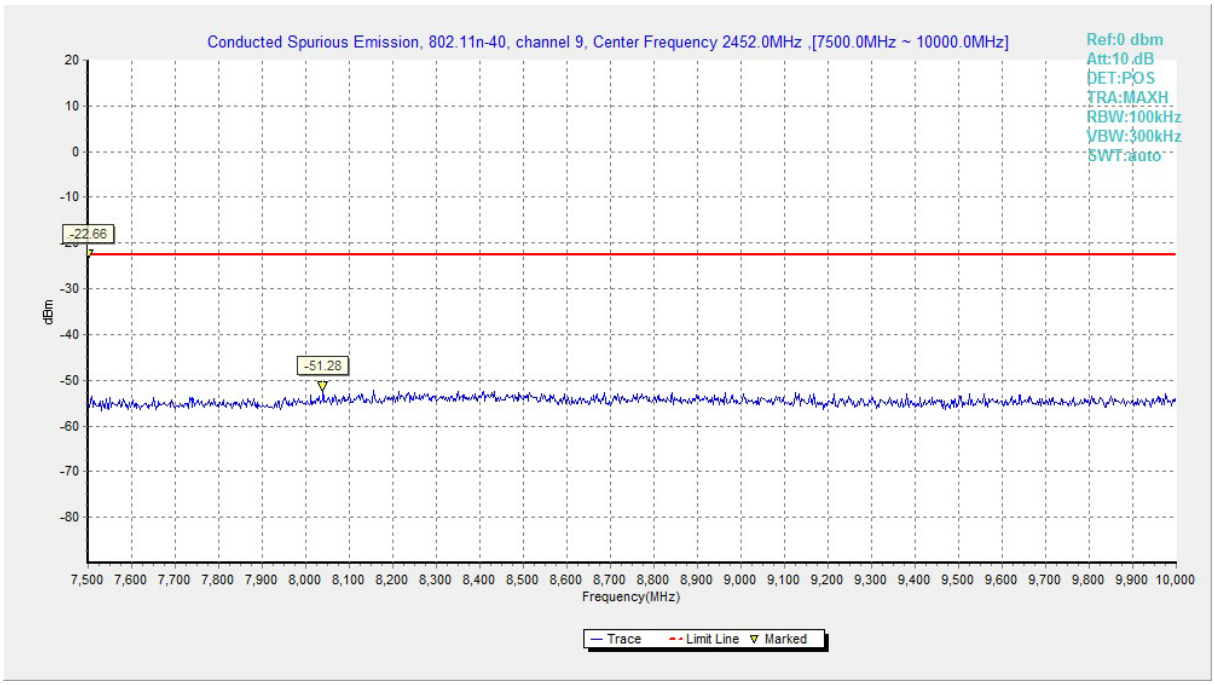

Fig.A.6.1.93 Conducted Spurious Emission (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)

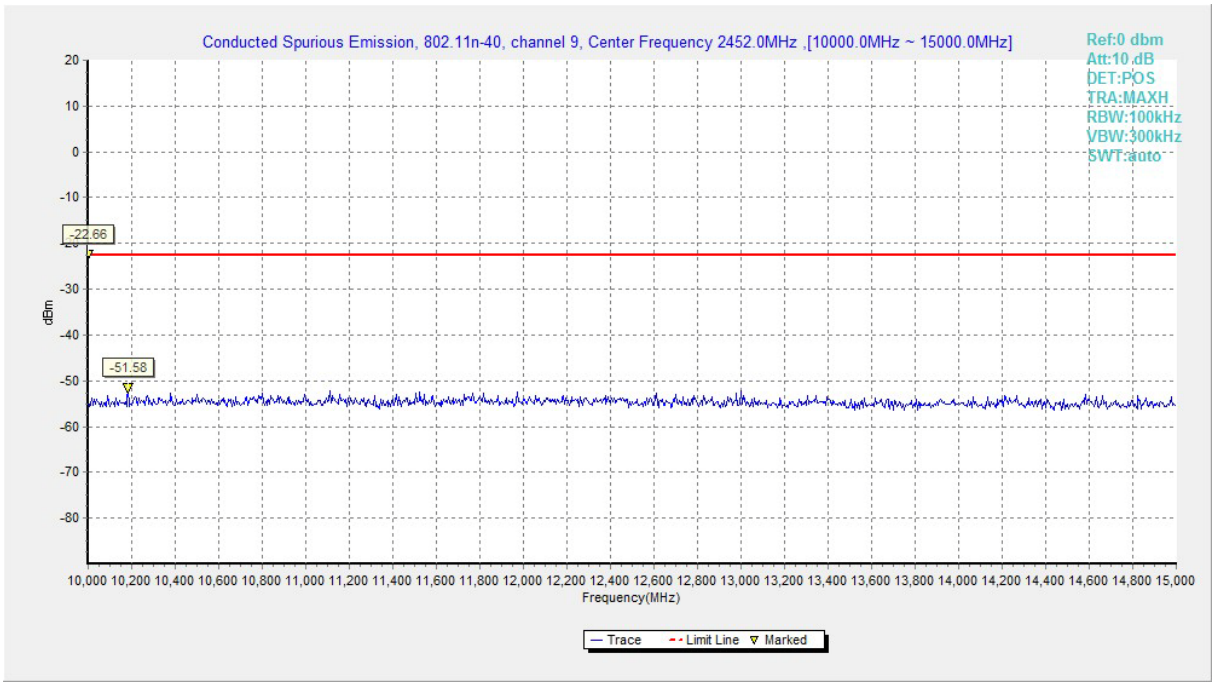

Fig.A.6.1.94 Conducted Spurious Emission (802.11n-HT40, Ch9, 10 GHz-15 GHz)

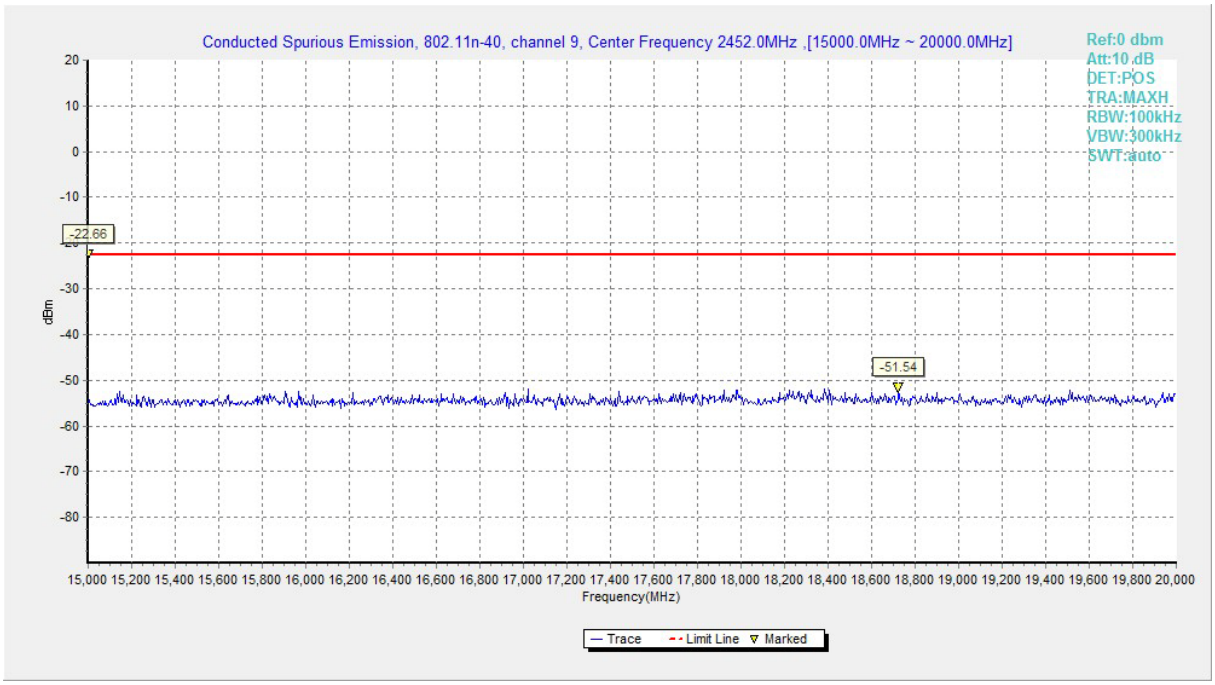

Fig.A.6.1.95 Conducted Spurious Emission (802.11n-HT40, Ch9, 15 GHz-20 GHz)

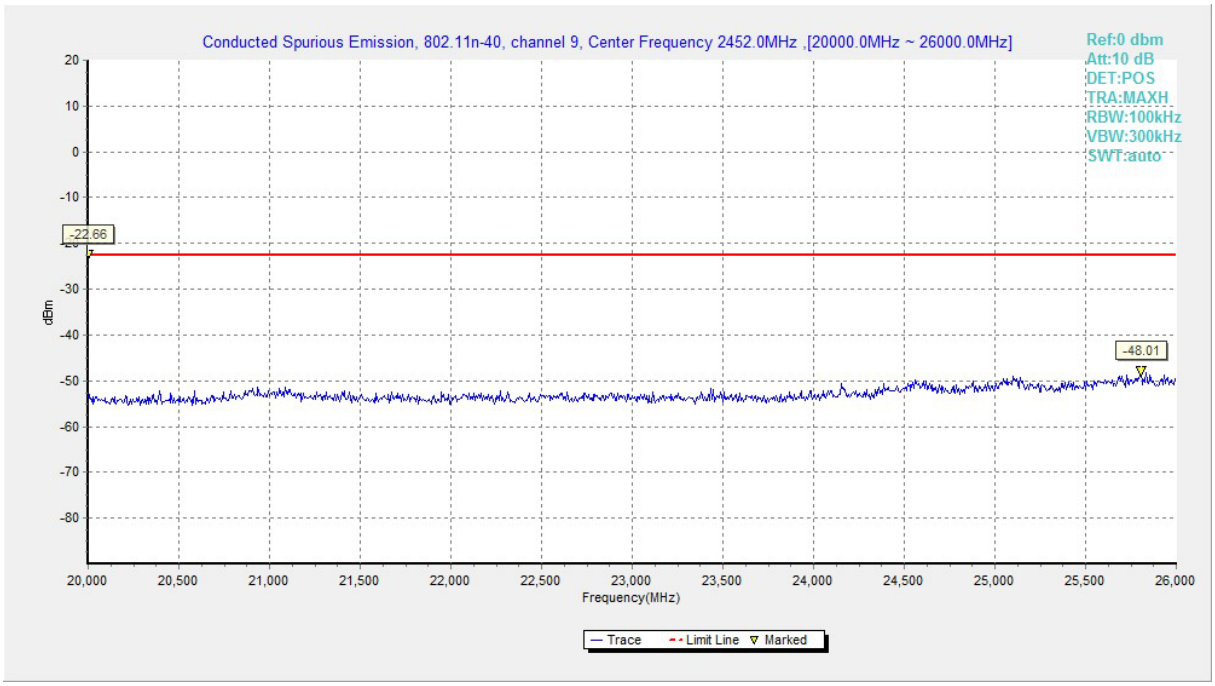

Fig.A.6.1.96 Conducted Spurious Emission (802.11n-HT40, Ch9, 20 GHz-26 GHz)

A.6.2 Transmitter Spurious Emission - Radiated

Limit in restricted band:

Measurement Results:

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	Power	2.38GHz ~2.45GHz	Fig.A.6.2.1	P
	1	30 MHz ~1 GHz	Fig.A.6.2.2	P
		1 GHz ~ 3 GHz	Fig.A.6.2.3	P
		3 GHz ~ 18 GHz	Fig.A.6.2.4	P
	6	30 MHz ~1 GHz	Fig.A.6.2.5	P
		1 GHz ~ 3 GHz	Fig.A.6.2.6	P
		3 GHz ~ 18 GHz	Fig.A.6.2.7	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.8	P
	11	30 MHz ~1 GHz	Fig.A.6.2.9	P
		1 GHz ~ 3 GHz	Fig.A.6.2.10	P
		3 GHz ~ 18 GHz	Fig.A.6.2.11	P
802.11g	Power	2.38GHz ~2.45GHz	Fig.A.6.2.12	P
	1	30 MHz ~1 GHz	Fig.A.6.2.13	P
		1 GHz ~ 3 GHz	Fig.A.6.2.14	P
		3 GHz ~ 18 GHz	Fig.A.6.2.15	P
	6	30 MHz ~1 GHz	Fig.A.6.2.16	P
		1 GHz ~ 3 GHz	Fig.A.6.2.17	P
		3 GHz ~ 18 GHz	Fig.A.6.2.18	P
	Power	2.45GHz~2.5GHz	Fig.A.6.2.19	P
	11	30 MHz ~1 GHz	Fig.A.6.2.20	P
		1 GHz ~ 3 GHz	Fig.A.6.2.21	P
		3 GHz ~ 18 GHz	Fig.A.6.2.22	P
802.11n-HT20	Power	2.38GHz ~2.45GHz	Fig.A.6.2.23	P
	1	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
	6	30 MHz ~1 GHz	Fig.A.6.2.27	P
		1 GHz ~ 3 GHz	Fig.A.6.2.28	P
		3 GHz ~ 18 GHz	Fig.A.6.2.29	P
	Power	2.45GHz~2.5GHz	Fig.A.6.2.30	P
	11	30 MHz ~1 GHz	Fig.A.6.2.31	P
		1 GHz ~ 3 GHz	Fig.A.6.2.32	P
		3 GHz ~ 18 GHz	Fig.A.6.2.33	P
802.11n-HT40	Power	2.38GHz ~2.45GHz	Fig.A.6.2.34	P
	3	30 MHz ~1 GHz	Fig.A.6.2.35	P
		1 GHz ~ 3 GHz	Fig.A.6.2.36	P

		3 GHz ~ 18 GHz	Fig.A.6.2.37	P
	6	30 MHz ~1 GHz	Fig.A.6.2.38	P
		1 GHz ~ 3 GHz	Fig.A.6.2.39	P
		3 GHz ~ 18 GHz	Fig.A.6.2.40	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.41	P
	9	30 MHz ~1 GHz	Fig.A.6.2.42	P
		1 GHz ~ 3 GHz	Fig.A.6.2.43	P
/		3 GHz ~ 18 GHz	Fig.A.6.2.44	P
	All channels	18 GHz~ 26.5 GHz	Fig.A.6.2.45	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

These recorded emissions around 21GHz are highest noise floor levels since no higher spurious emission is detected.

802.11b

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2390.000	50.2	-38.8	27.7	61.300	HORIZONTAL
17997.000	52.5	-17.7	45.6	24.600	VERTICAL
17932.500	51.5	-17.7	45.6	23.600	HORIZONTAL
17844.000	51.2	-18.5	45.6	24.100	VERTICAL
17821.500	51.0	-18.5	45.6	23.900	HORIZONTAL
17827.500	50.4	-18.5	45.6	23.300	HORIZONTAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
18000.000	52.3	-45.6	44.5	53.366	HORIZONTAL
17832.000	51.0	-18.5	45.6	23.900	VERTICAL
17895.000	50.9	-18.5	45.6	23.800	VERTICAL
17770.500	50.8	-18.5	45.6	23.700	HORIZONTAL
17880.000	50.4	-18.5	45.6	23.300	VERTICAL
17764.500	50.4	-18.5	45.6	23.300	VERTICAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2483.555	50.3	-38.9	27.7	61.500	VERTICAL
17850.000	51.0	-18.5	45.6	23.900	HORIZONTAL
17998.500	50.9	-17.7	45.6	23.000	HORIZONTAL
17866.500	50.5	-18.5	45.6	23.400	VERTICAL
17875.500	50.0	-18.5	45.6	22.900	VERTICAL
17862.000	49.9	-18.5	45.6	22.800	HORIZONTAL

802.11g

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2389.995	59.2	-38.8	27.7	70.300	HORIZONTAL
18000.000	51.0	-45.6	44.5	52.066	VERTICAL
17823.000	50.2	-18.5	45.6	23.100	HORIZONTAL
17829.000	50.1	-18.5	45.6	23.000	VERTICAL
17773.500	49.8	-18.5	45.6	22.700	VERTICAL
17830.500	49.5	-18.5	45.6	22.400	VERTICAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
17998.500	52.8	-17.7	45.6	24.900	HORIZONTAL
17874.000	50.2	-18.5	45.6	23.100	VERTICAL
17632.500	50.1	-18.9	45.6	23.400	VERTICAL
17898.000	49.8	-18.5	45.6	22.700	HORIZONTAL
17905.500	49.6	-18.5	45.6	22.500	VERTICAL
17733.000	49.2	-18.9	45.6	22.500	HORIZONTAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2483.545	63.4	-38.9	27.7	74.600	HORIZONTAL
17997.000	52.9	-17.7	45.6	25.000	HORIZONTAL
17767.500	52.6	-18.5	45.6	25.500	VERTICAL
17884.500	52.5	-18.5	45.6	25.400	VERTICAL
17866.500	50.2	-18.5	45.6	23.100	VERTICAL
17719.500	49.5	-18.9	45.6	22.800	VERTICAL

802.11n-HT20

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2389.780	51.7	-38.8	27.7	62.800	VERTICAL
17997.000	53.1	-17.7	45.6	25.200	VERTICAL
17860.500	50.5	-18.5	45.6	23.400	HORIZONTAL
17902.500	50.3	-18.5	45.6	23.200	VERTICAL
17824.500	50.3	-18.5	45.6	23.200	VERTICAL
17995.500	50.0	-17.7	45.6	22.100	VERTICAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
18000.000	51.2	-45.6	44.5	52.266	VERTICAL
17874.000	51.2	-18.5	45.6	24.100	HORIZONTAL
17857.500	50.5	-18.5	45.6	23.400	VERTICAL
17820.000	50.4	-18.5	45.6	23.300	HORIZONTAL
17764.500	50.3	-18.5	45.6	23.200	VERTICAL
17865.000	49.7	-18.5	45.6	22.600	HORIZONTAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2484.280	65.0	-38.9	27.7	76.200	VERTICAL
17998.500	56.3	-17.7	45.6	28.400	HORIZONTAL
17874.000	51.2	-18.5	45.6	24.100	HORIZONTAL
17737.500	50.8	-18.5	45.6	23.700	VERTICAL
17746.500	50.3	-18.5	45.6	23.200	VERTICAL
17820.000	49.8	-18.5	45.6	22.700	VERTICAL

802.11n-HT40

Ch3

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2389.890	62.1	-38.8	27.7	73.200	VERTICAL
17844.000	51.0	-18.5	45.6	23.900	HORIZONTAL
17998.500	50.2	-17.7	45.6	22.300	VERTICAL
17901.000	49.6	-18.5	45.6	22.500	VERTICAL
17851.500	49.5	-18.5	45.6	22.400	HORIZONTAL
17806.500	48.9	-18.5	45.6	21.800	HORIZONTAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
18000.000	52.0	-45.6	44.5	53.066	VERTICAL
17808.000	51.0	-18.5	45.6	23.900	VERTICAL
17830.500	50.3	-18.5	45.6	23.200	HORIZONTAL
17773.500	49.8	-18.5	45.6	22.700	VERTICAL
17818.500	49.6	-18.5	45.6	22.500	HORIZONTAL
17890.500	49.6	-18.5	45.6	22.500	HORIZONTAL

Ch9

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2484.275	69.4	-38.9	27.7	80.600	VERTICAL
17874.000	50.4	-18.5	45.6	23.300	HORIZONTAL
17997.000	49.9	-17.7	45.6	22.000	VERTICAL
17914.500	49.3	-17.7	45.6	21.400	HORIZONTAL
17920.500	49.2	-17.7	45.6	21.300	VERTICAL
17979.000	49.1	-17.7	45.6	21.200	HORIZONTAL

Test graphs as below:

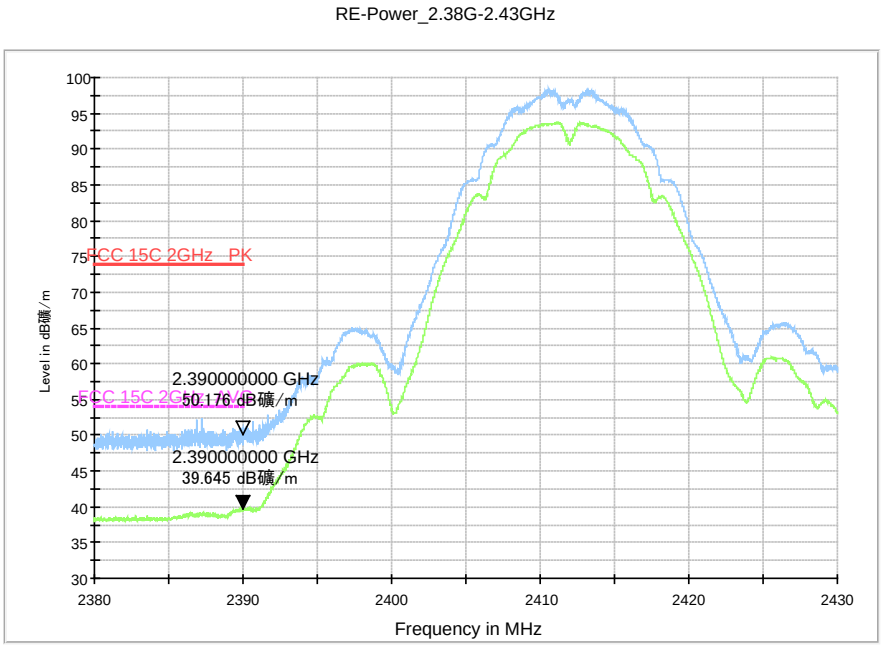

Fig.A.6.2.1 Radiated Spurious Emission (Power): 802.11b, ch1, 2.38 GHz – 2.45GHz

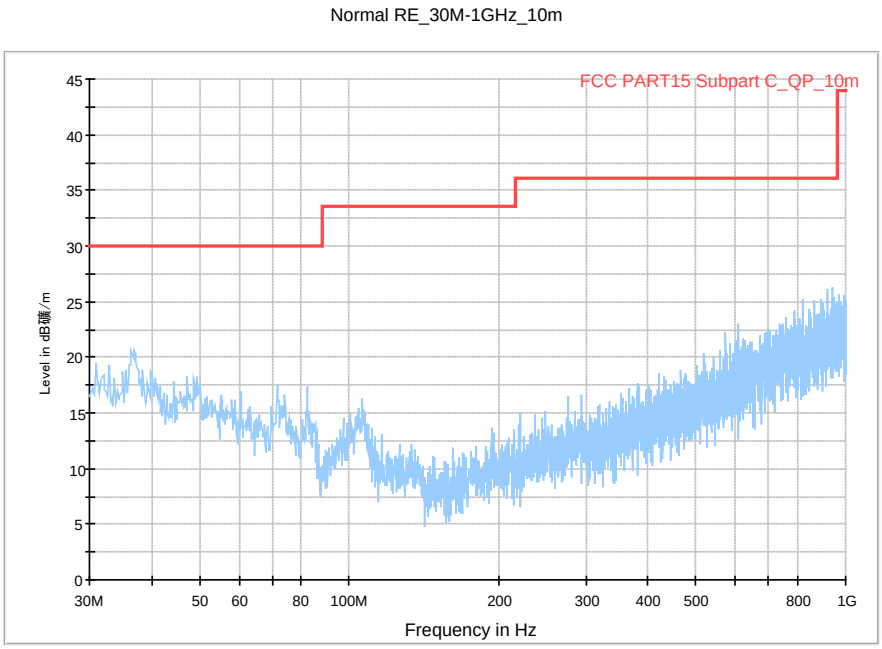

Fig.A.6.2.2 Radiated Spurious Emission (802.11b, Ch1, 30 MHz-1 GHz)

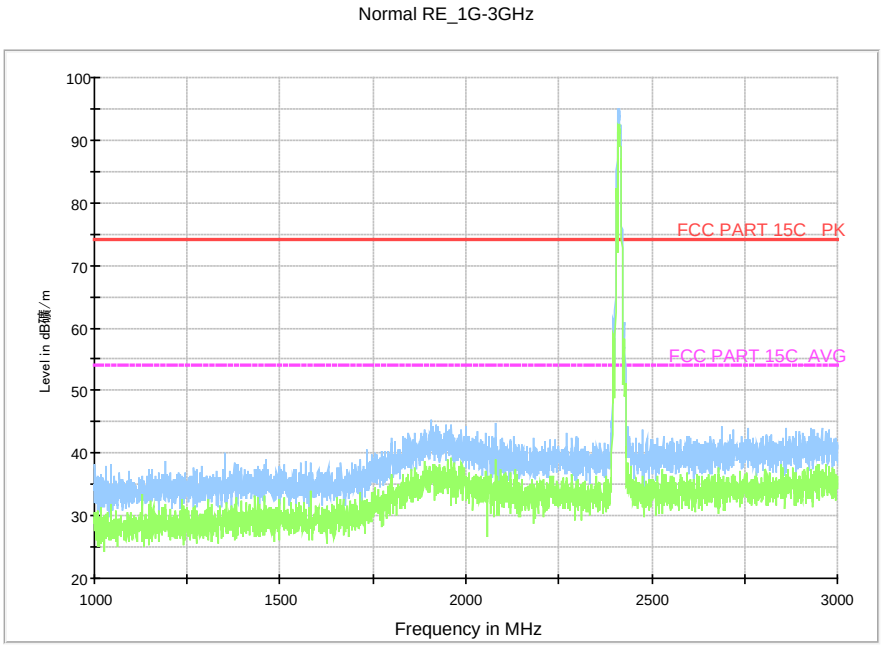

Fig.A.6.2.3 Radiated Spurious Emission (802.11b, Ch1, 1 GHz-3 GHz)

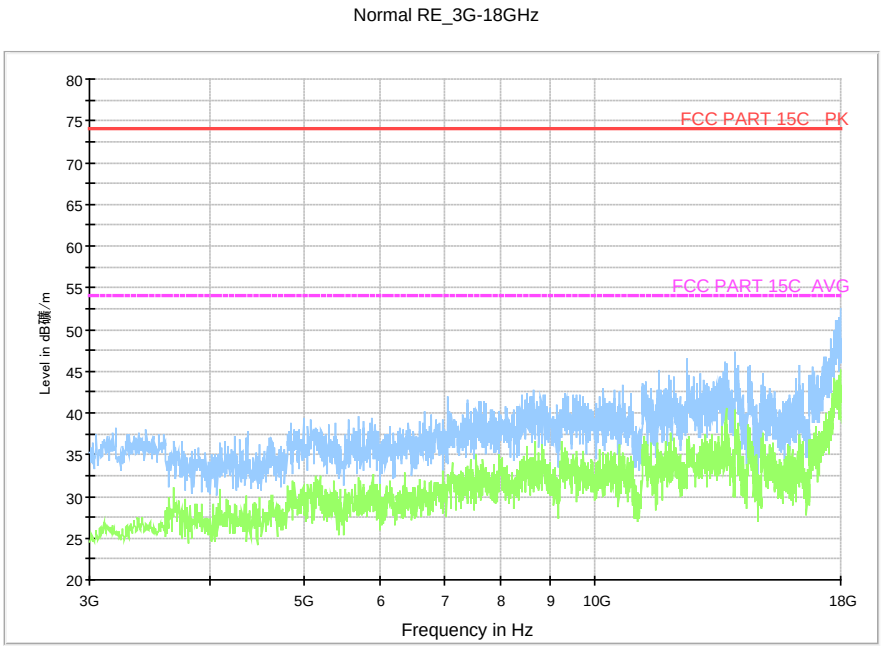

Fig.A.6.2.4 Radiated Spurious Emission (802.11b, Ch1, 3 GHz-18 GHz)

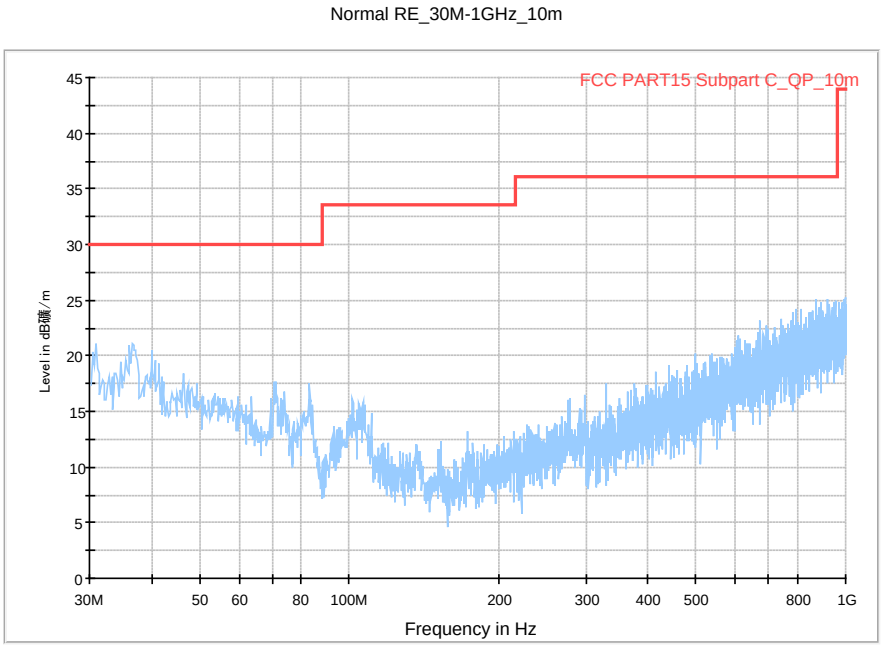

Fig.A.6.2.5 Radiated Spurious Emission (802.11b, Ch6, 30 MHz-1 GHz)

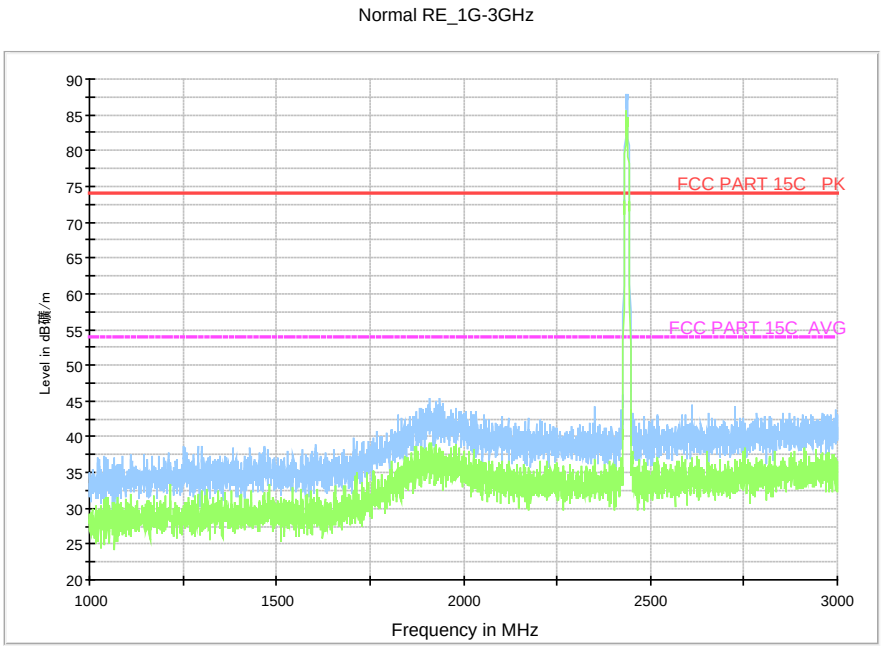

Fig.A.6.2.6 Radiated Spurious Emission (802.11b, Ch6, 1 GHz-3 GHz)

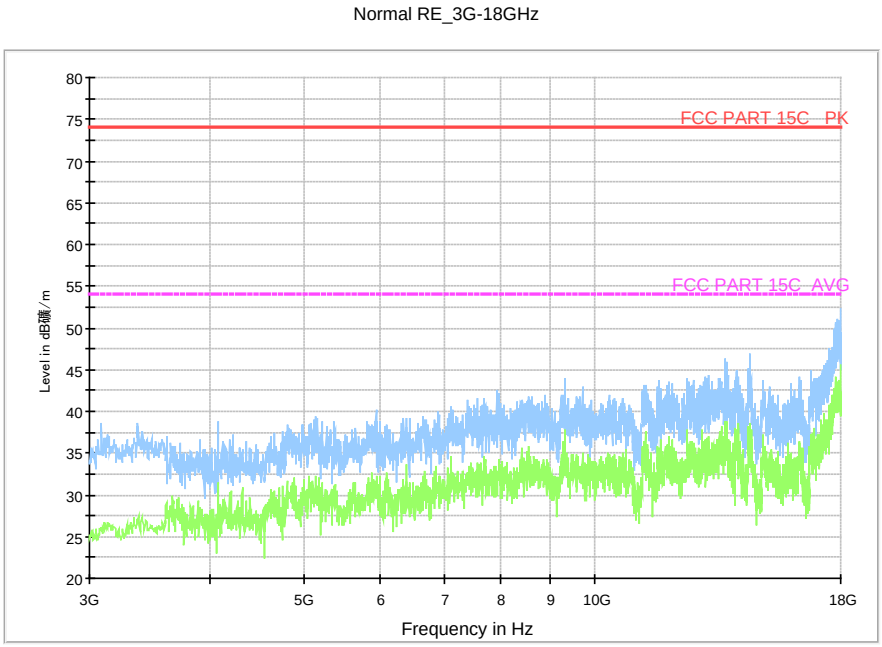

Fig.A.6.2.7 Radiated Spurious Emission (802.11b, Ch6, 3 GHz-18 GHz)

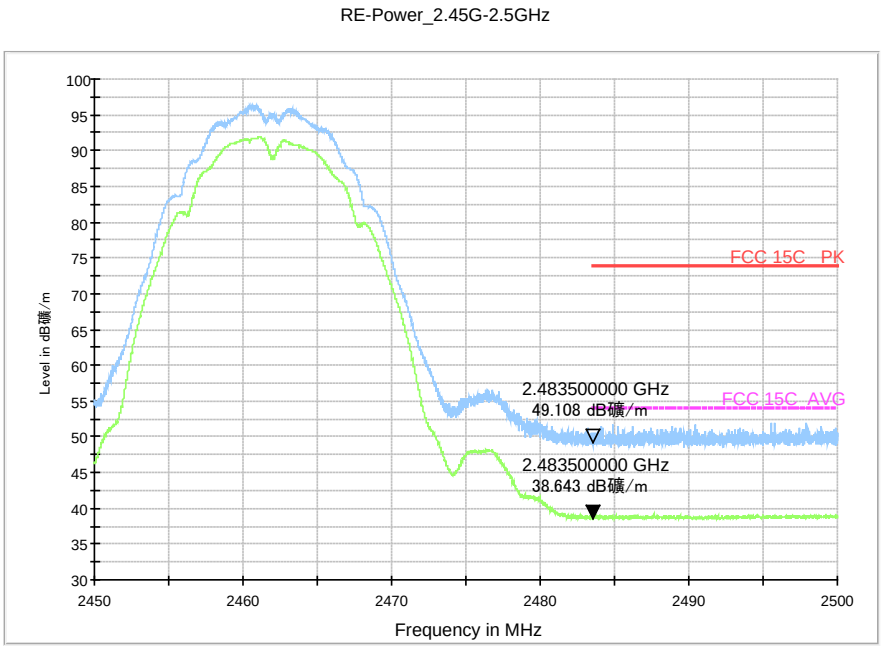

Fig.A.6.2.8 Radiated Spurious Emission (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

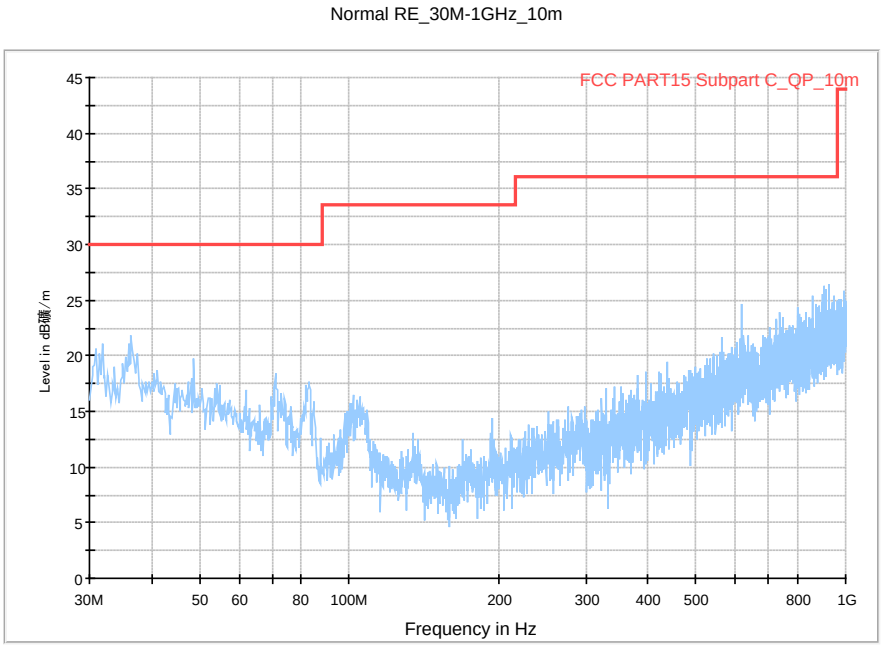

Fig.A.6.2.9 Radiated Spurious Emission (802.11b, Ch11, 30 MHz-1 GHz)

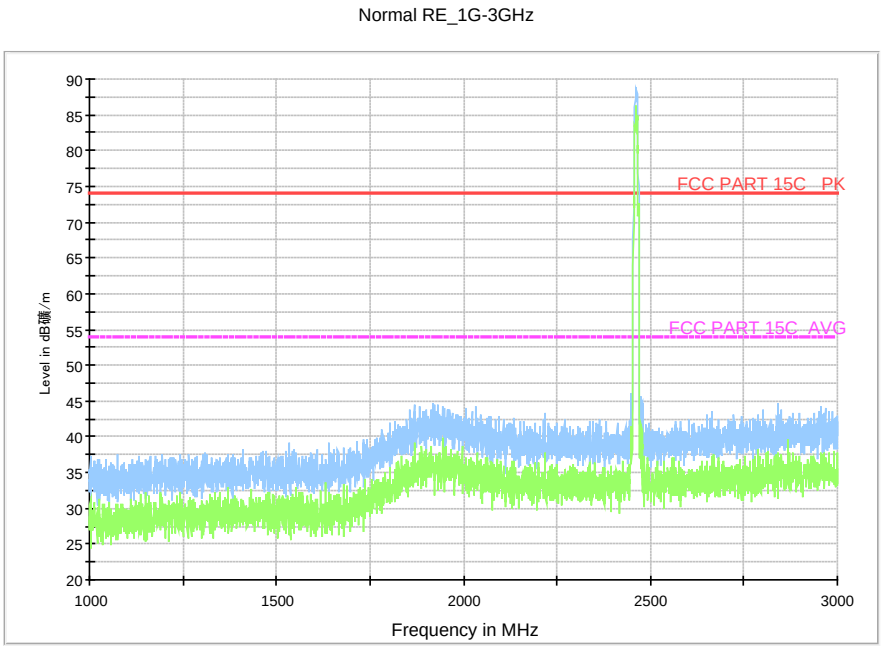

Fig.A.6.2.10 Radiated Spurious Emission (802.11b, Ch11, 1 GHz-3 GHz)

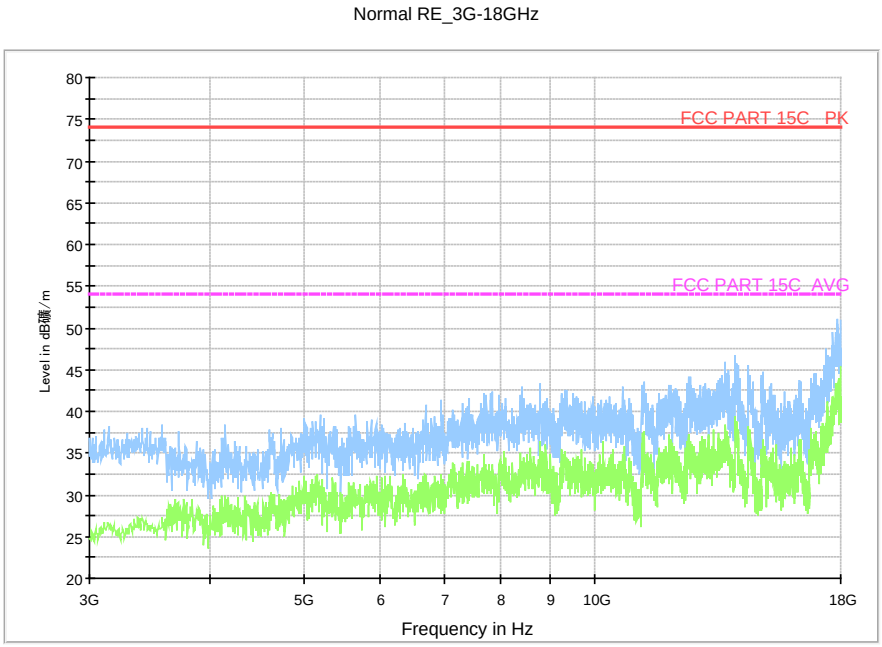

Fig.A.6.2.11 Radiated Spurious Emission (802.11b, Ch11, 3 GHz-18 GHz)

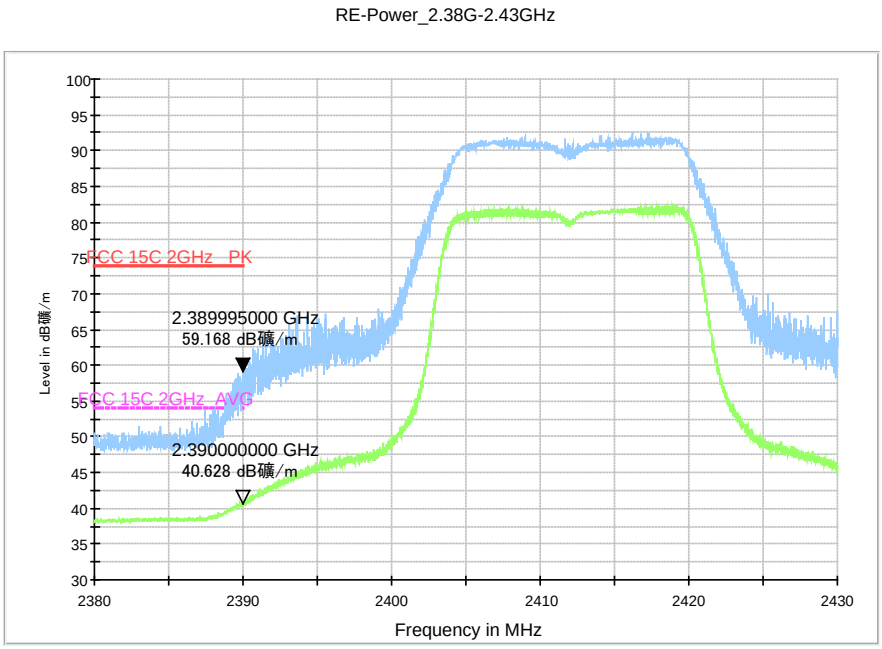

Fig.A.6.2.12 Radiated Spurious Emission (Power): 802.11g, ch1, 2.38 GHz - 2.45GHz

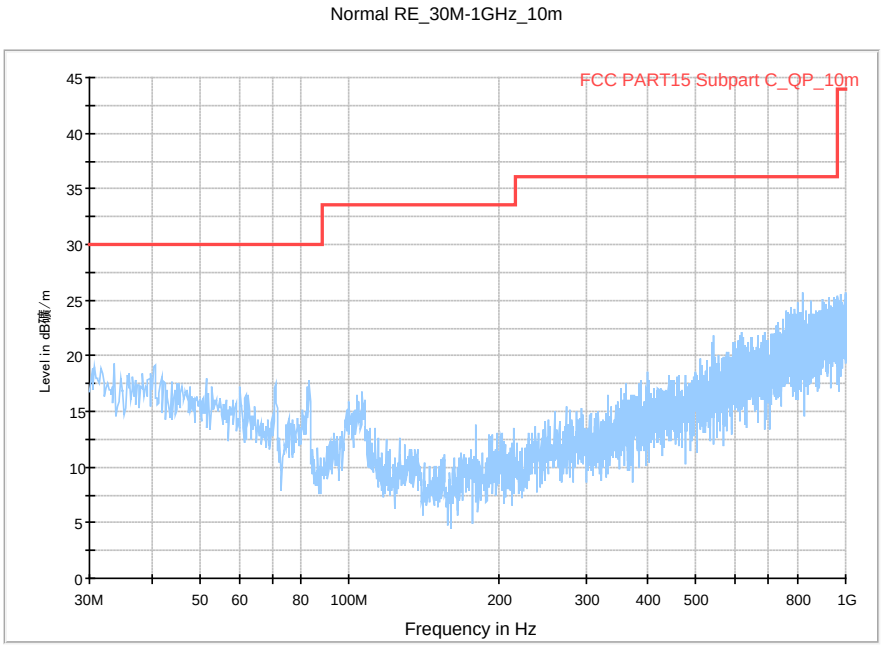

Fig.A.6.2.13 Radiated Spurious Emission (802.11g, Ch1, 30 MHz-1 GHz)

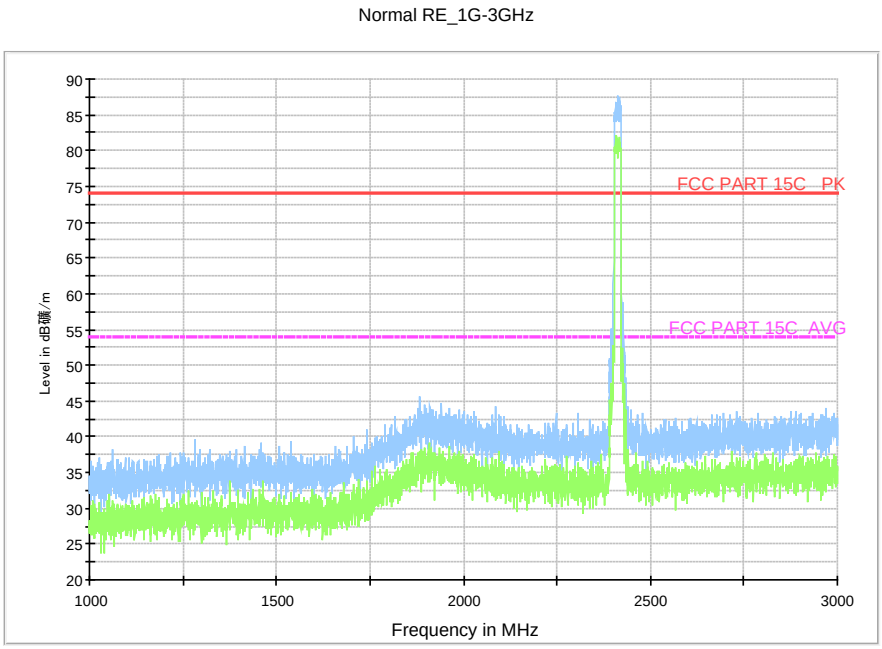

Fig.A.6.2.14 Radiated Spurious Emission (802.11g, Ch1, 1 GHz-3 GHz)

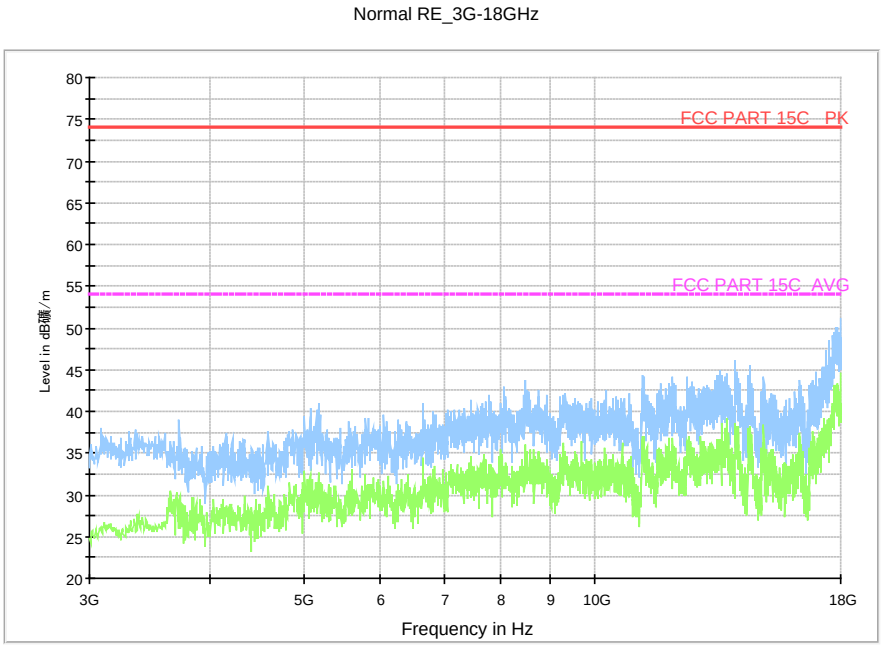

Fig.A.6.2.15 Radiated Spurious Emission (802.11g, Ch1, 3 GHz-18 GHz)

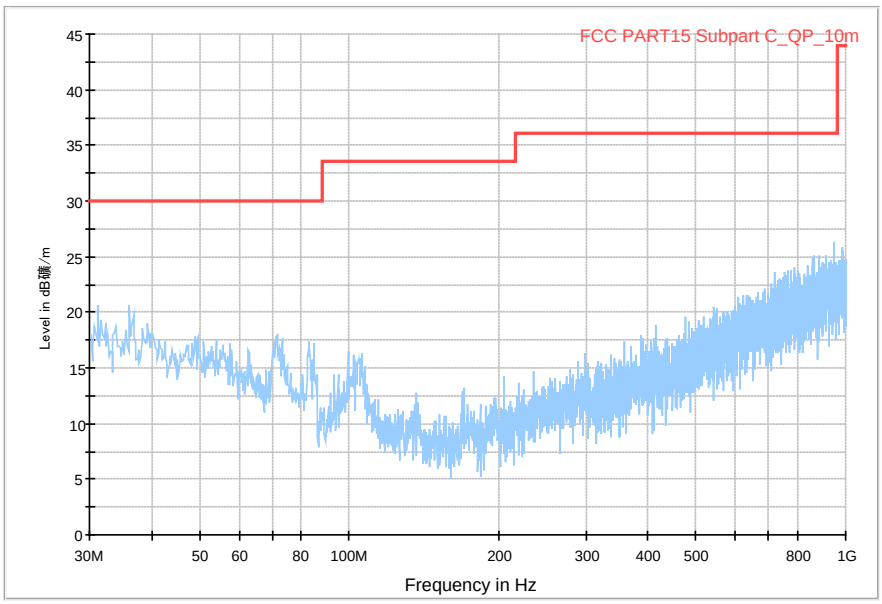

Fig.A.6.2.16 Radiated Spurious Emission (802.11g, Ch6, 30 MHz-1 GHz)

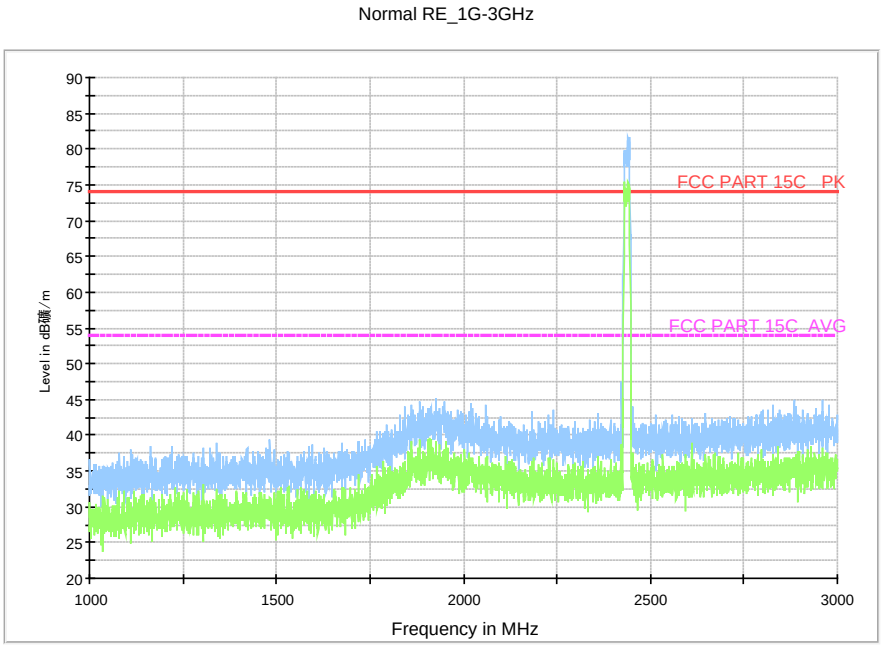

Fig.A.6.2.17 Radiated Spurious Emission (802.11g, Ch6, 1 GHz-3 GHz)

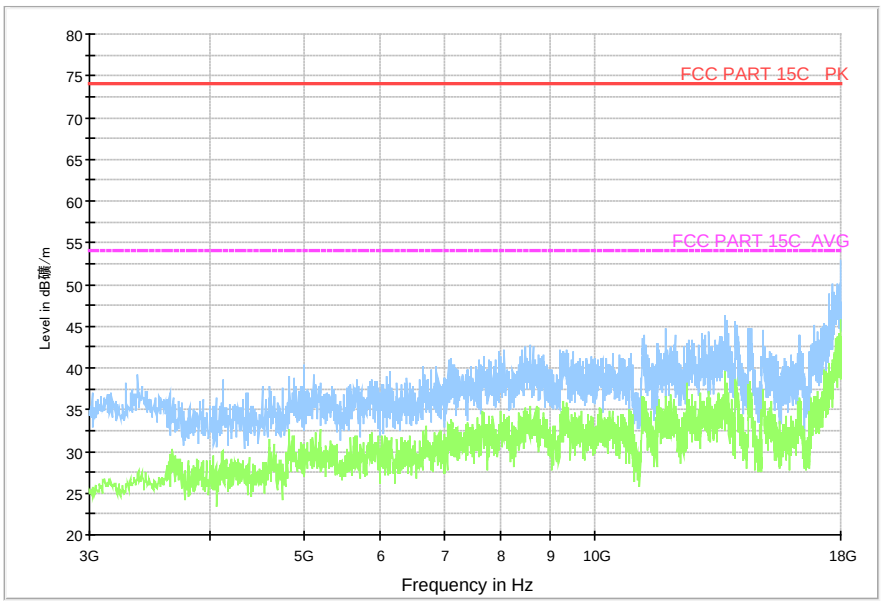

Fig.A.6.2.18 Radiated Spurious Emission (802.11g, Ch6, 3 GHz-18 GHz)

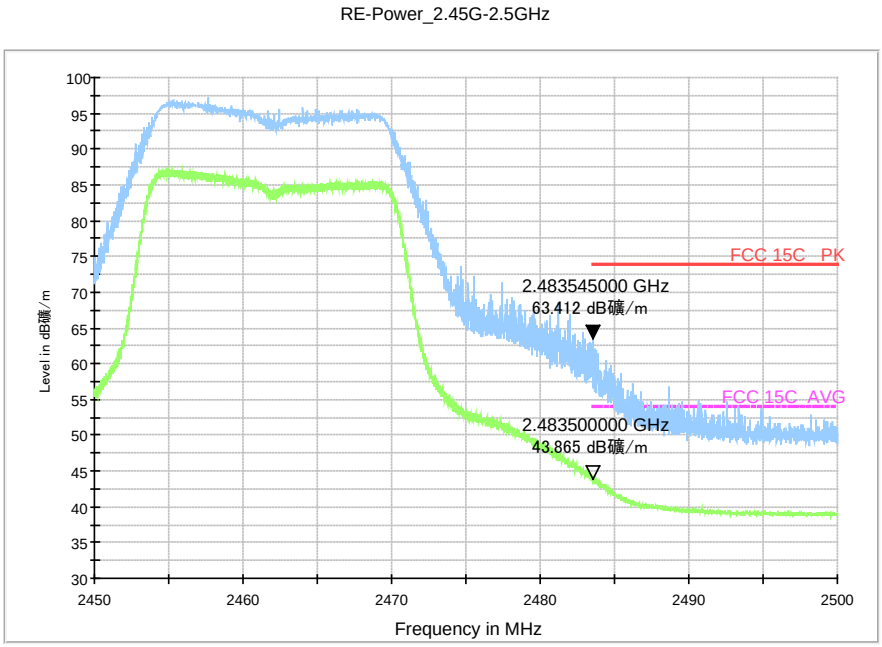

Fig.A.6.2.19 Radiated Spurious Emission (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

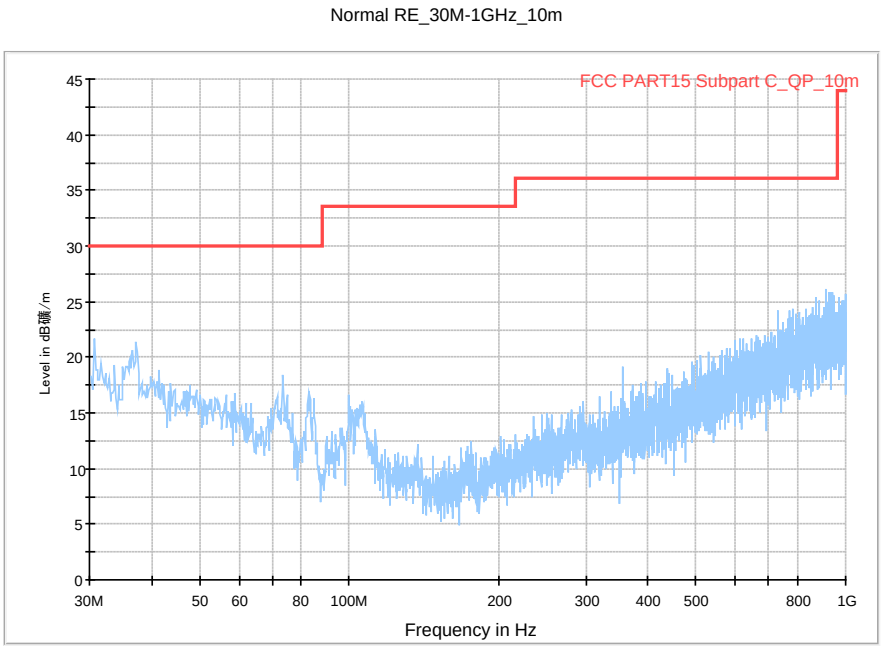

Fig.A.6.2.20 Radiated Spurious Emission (802.11g, Ch11, 30 MHz-1 GHz)

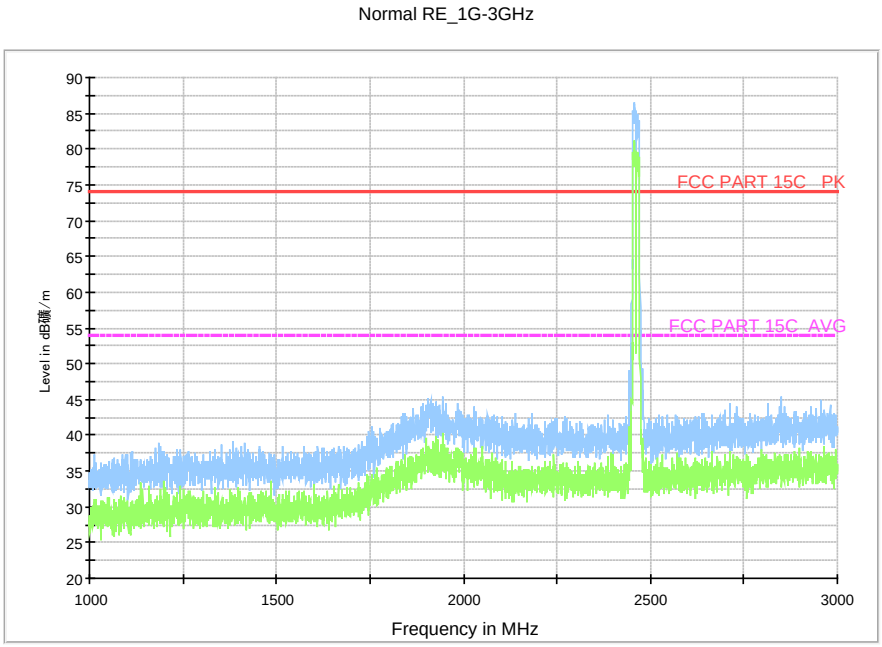

Fig.A.6.2.21 Radiated Spurious Emission (802.11g, Ch11, 1 GHz-3 GHz)

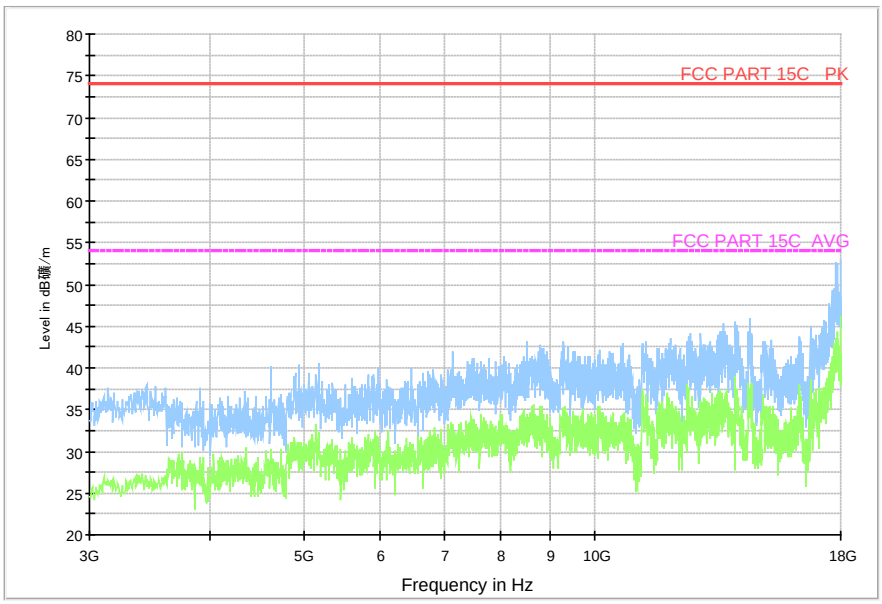

Fig.A.6.2.22 Radiated Spurious Emission (802.11g, Ch11, 3 GHz-18 GHz)

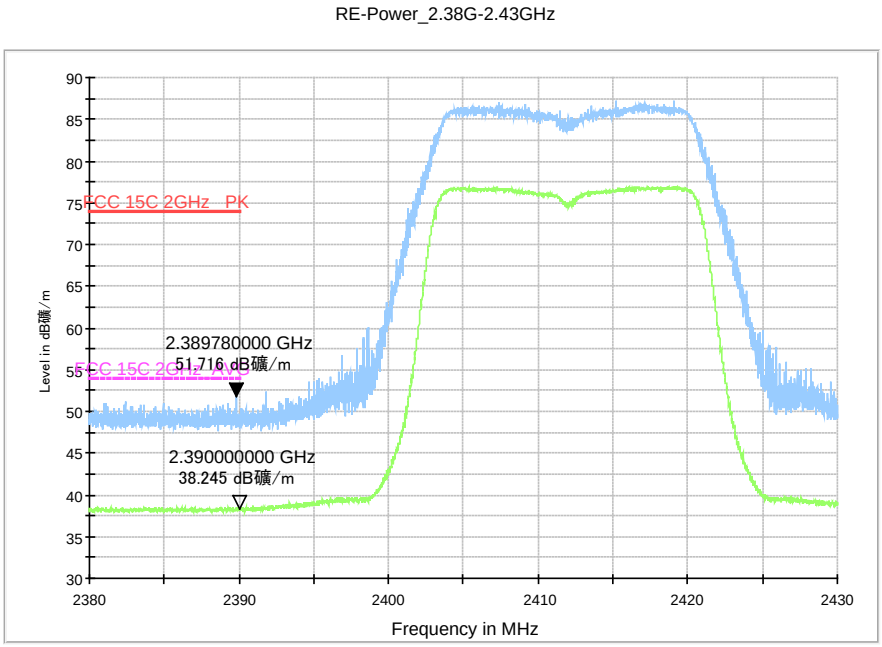

Fig.A.6.2.23 Radiated Spurious Emission (Power): 802.11n-HT20, ch1, 2.38 GHz - 2.45GHz

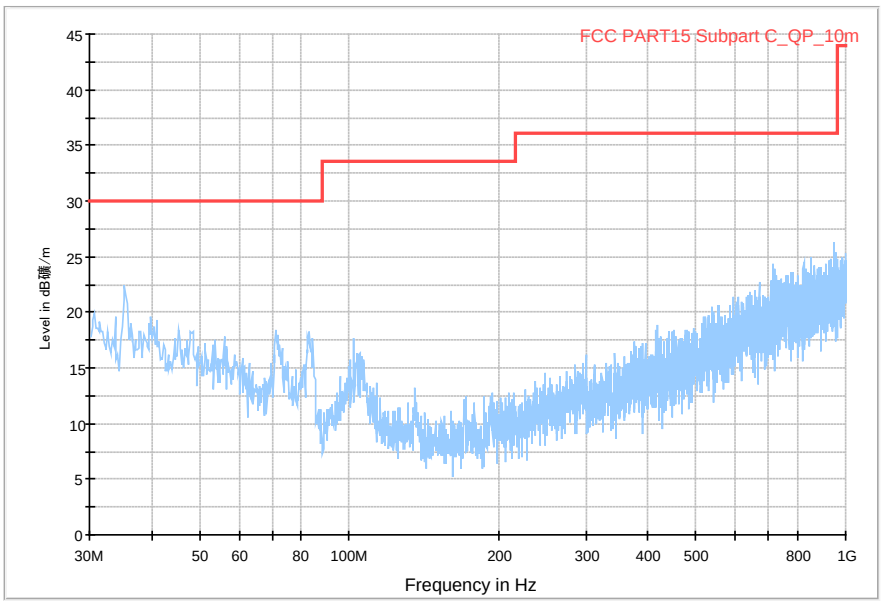

Fig.A.6.2.24 Radiated Spurious Emission (802.11n-HT20, Ch1, 30 MHz-1 GHz)

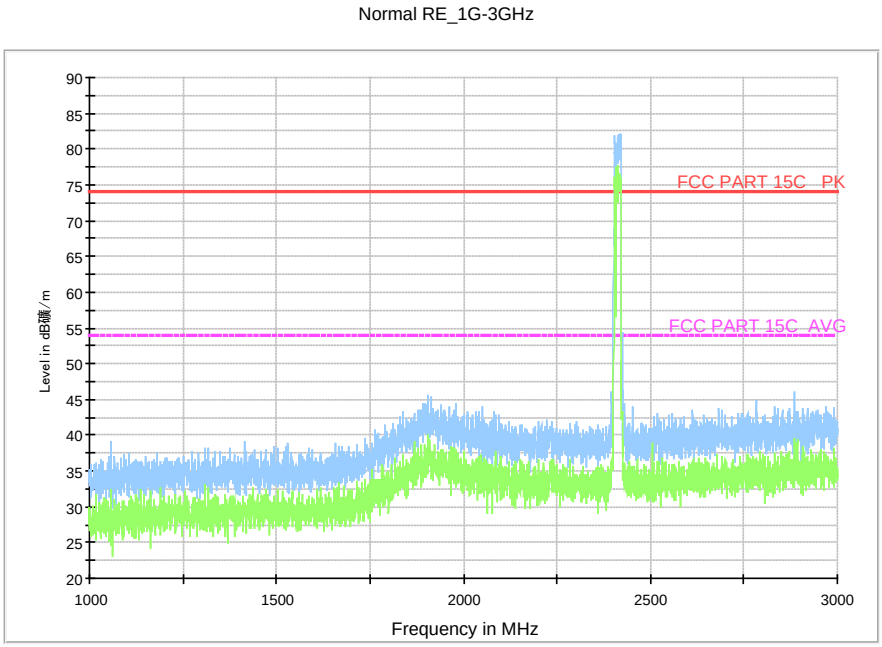

Fig.A.6.2.25 Radiated Spurious Emission (802.11n-HT20, Ch1, 1 GHz-3 GHz)

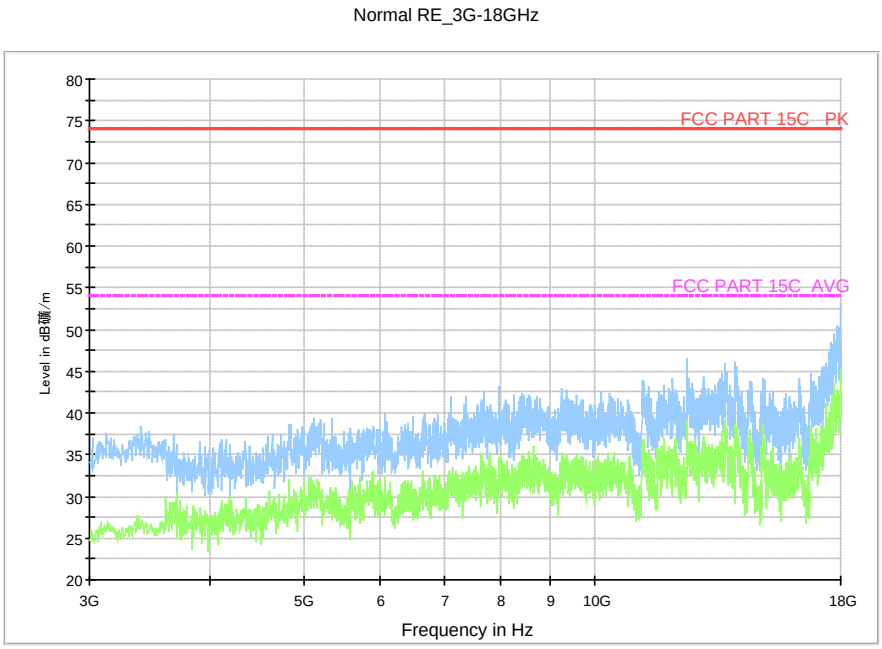

Fig.A.6.2.26 Radiated Spurious Emission (802.11n-HT20, Ch1, 3 GHz-18 GHz)

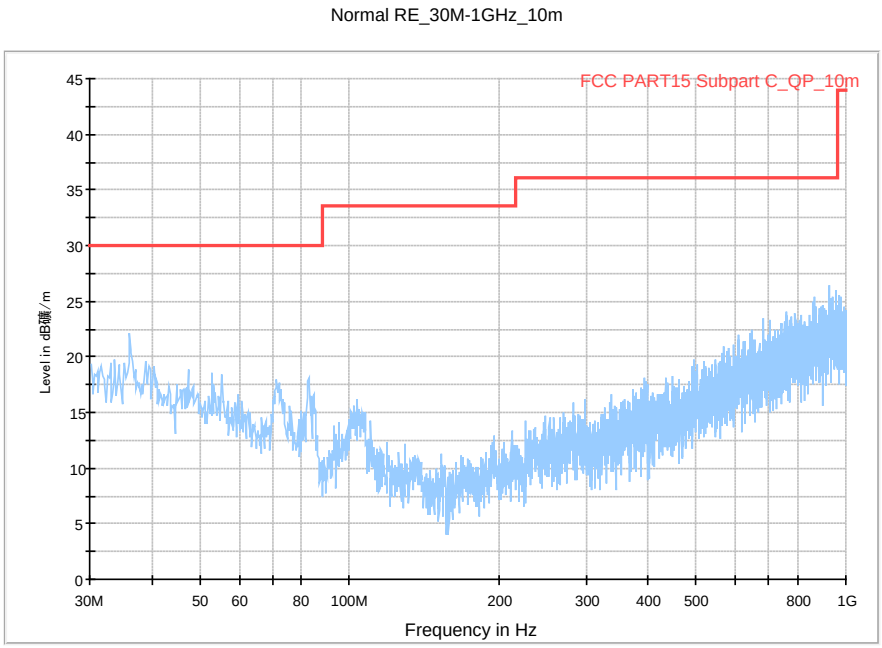

Fig.A.6.2.27 Radiated Spurious Emission (802.11n-HT20, Ch6, 30 MHz-1 GHz)

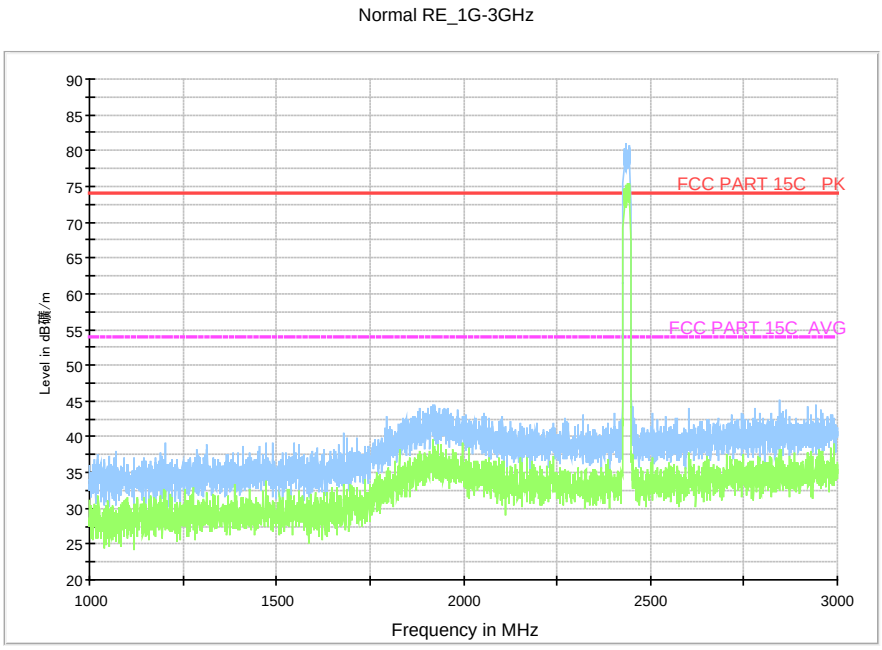

Fig.A.6.2.28 Radiated Spurious Emission (802.11n-HT20, Ch6, 1 GHz-3 GHz)

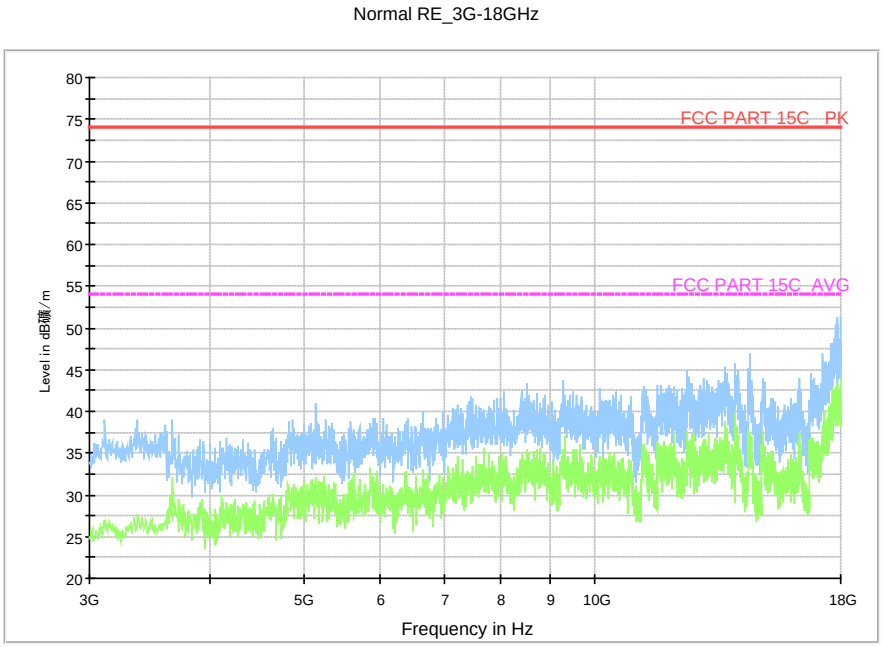

Fig.A.6.2.29 Radiated Spurious Emission (802.11n-HT20, Ch6, 3 GHz-18 GHz)

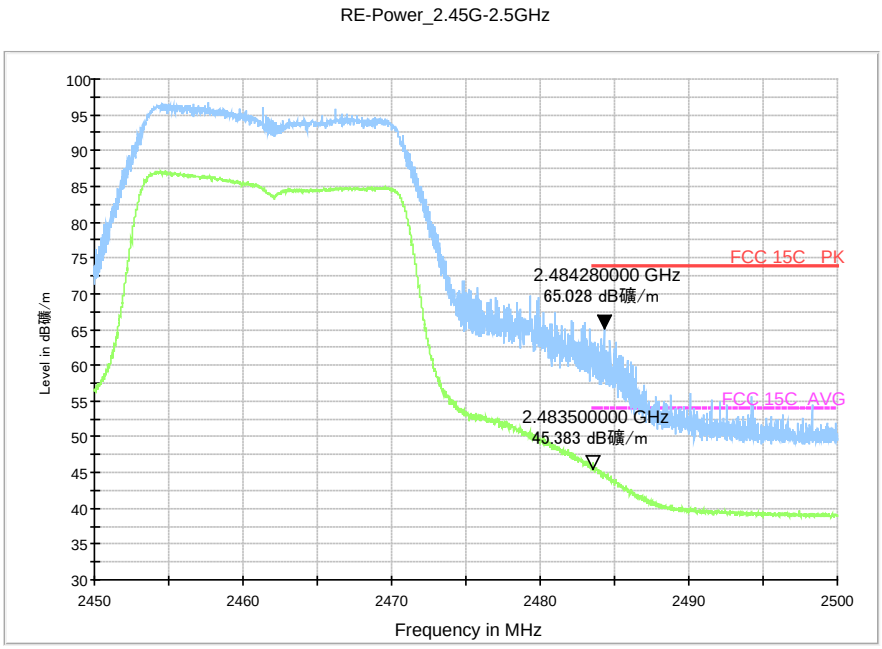

Fig.A.6.2.30 Radiated Spurious Emission (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

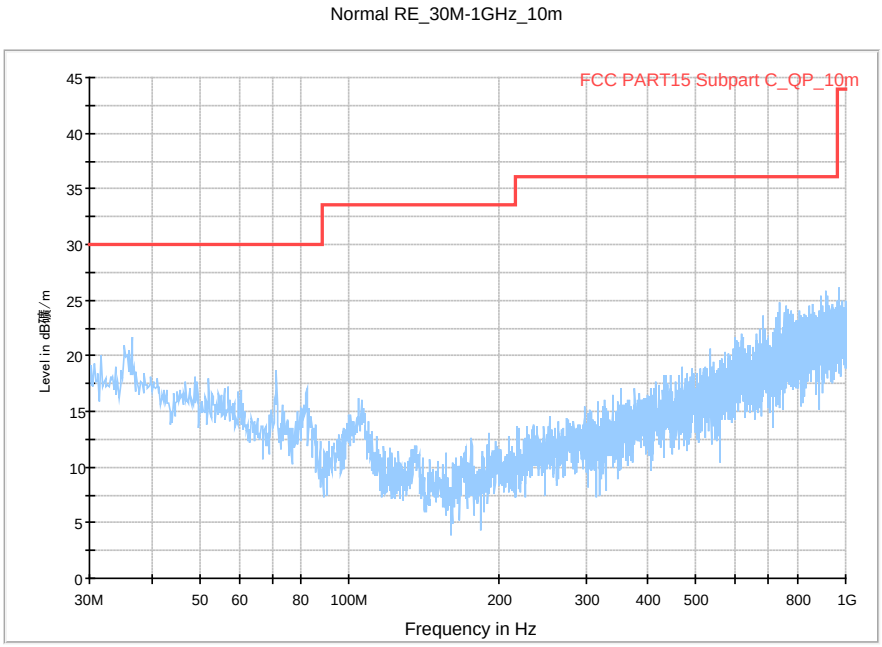

Fig.A.6.2.31 Radiated Spurious Emission (802.11n-HT20, Ch11, 30 MHz-1 GHz)

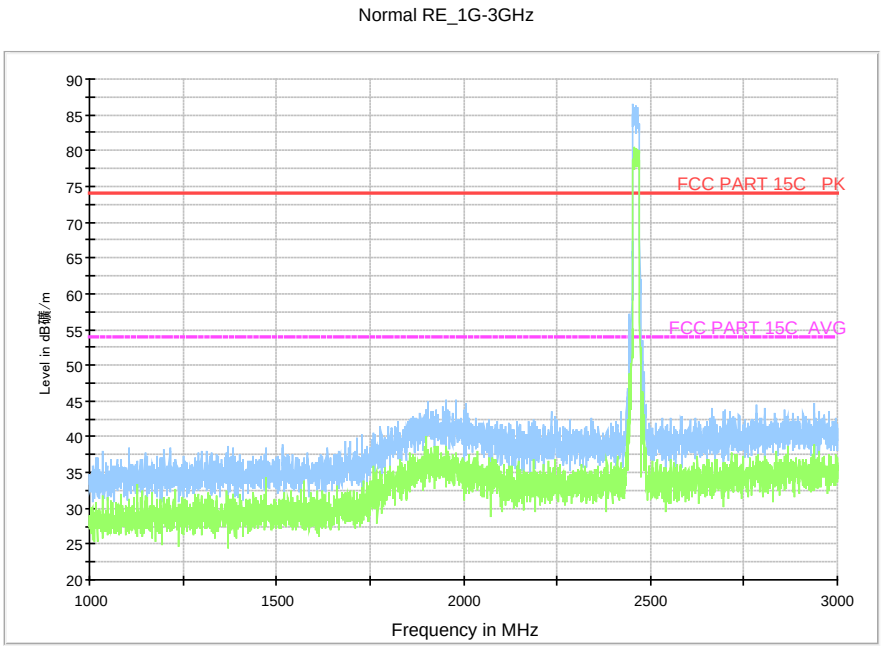

Fig.A.6.2.32 Radiated Spurious Emission (802.11n-HT20, Ch11, 1 GHz-3 GHz)

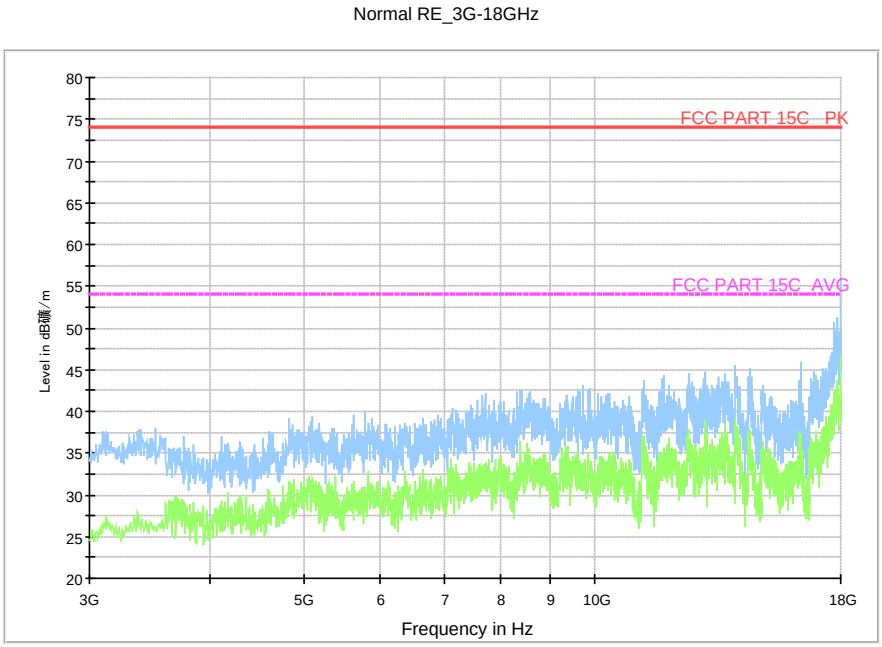

Fig.A.6.2.33 Radiated Spurious Emission (802.11n-HT20, Ch11, 3 GHz-18 GHz)

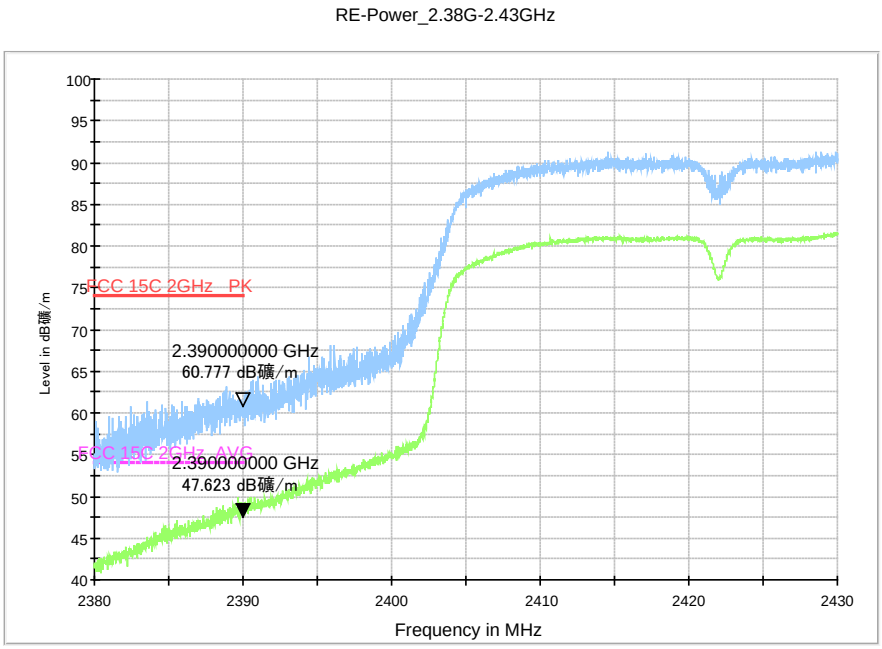

Fig.A.6.2.34 Radiated Spurious Emission (Power): 802.11n-HT40, ch3, 2.38 GHz - 2.45GHz

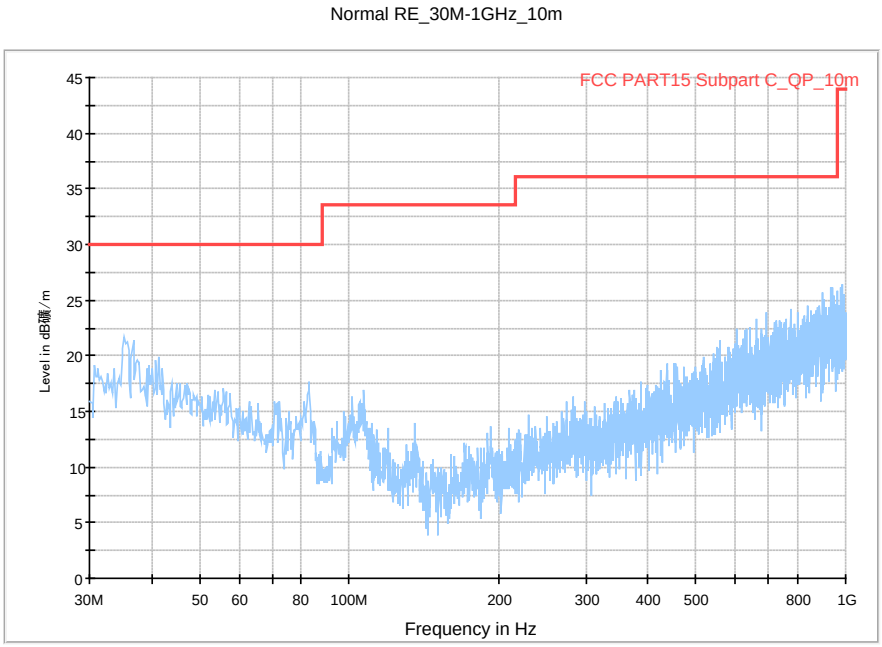

Fig.A.6.2.35 Radiated Spurious Emission (802.11n-HT40, ch3, 30 MHz-1 GHz)

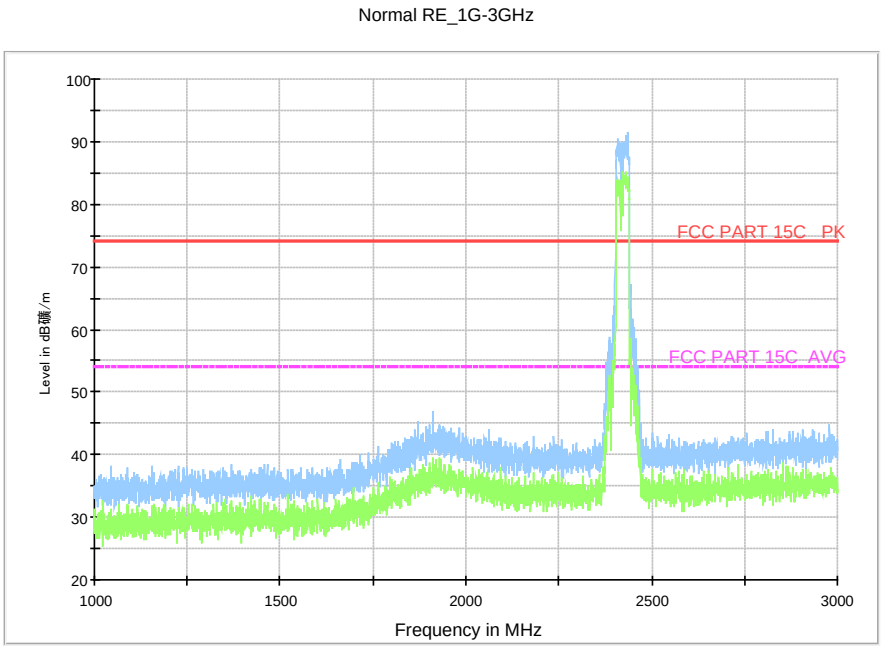

Fig.A.6.2.36 Radiated Spurious Emission (802.11n-HT40, ch3, 1 GHz-3 GHz)

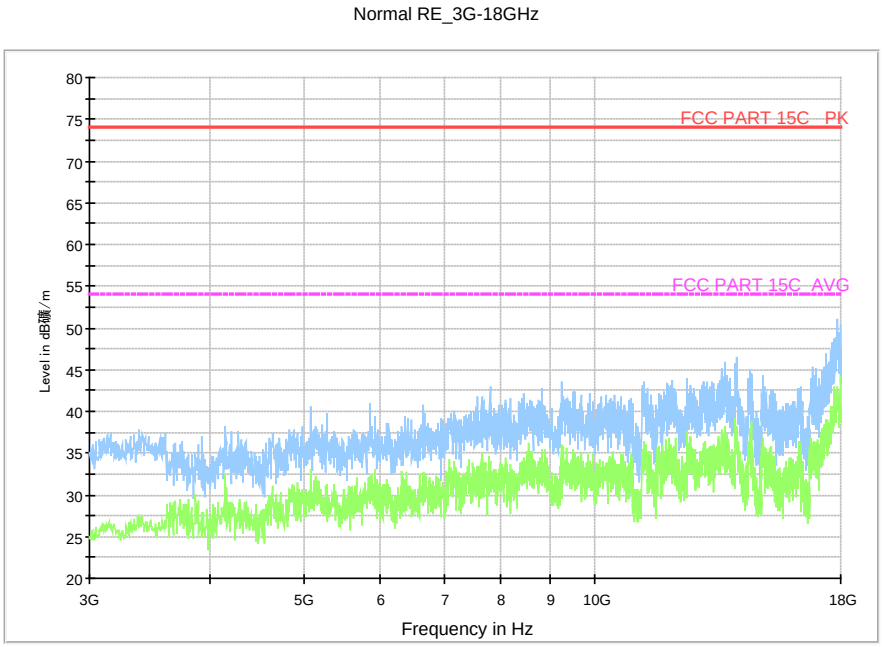

Fig.A.6.2.37 Radiated Spurious Emission (802.11n-HT40, ch3, 3 GHz-18 GHz)

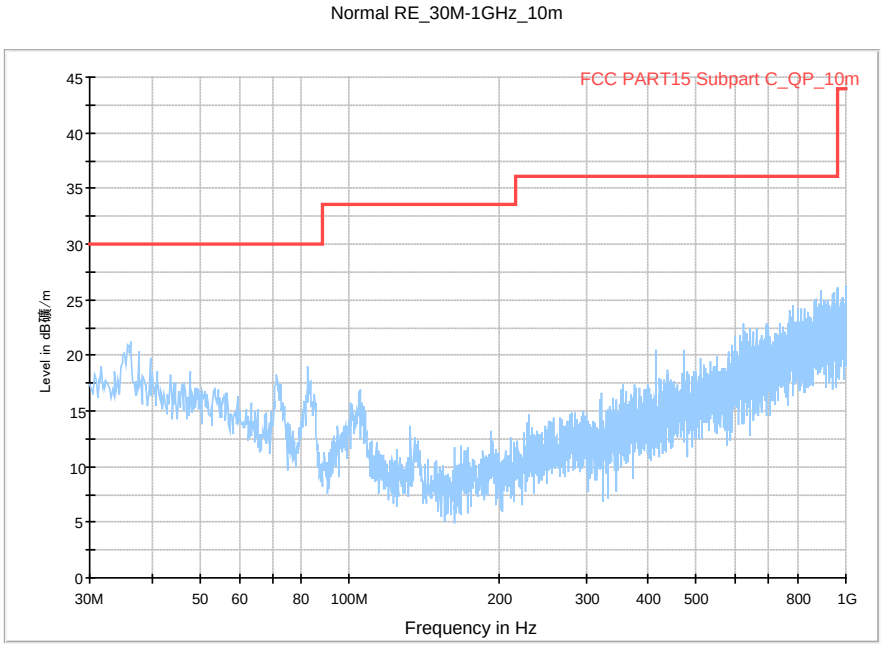

Fig.A.6.2.38 Radiated Spurious Emission (802.11n-HT40, Ch6, 30 MHz-1 GHz)

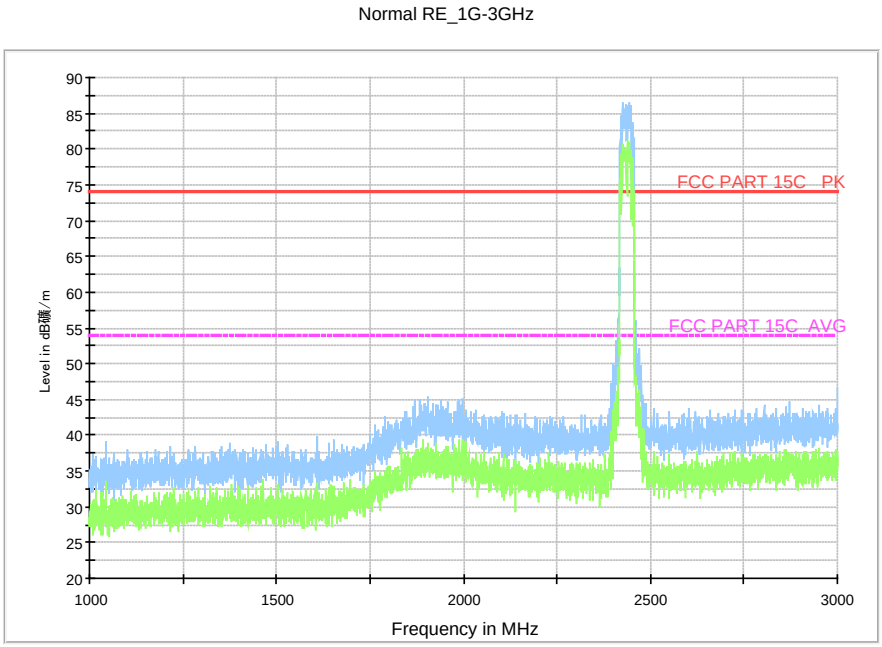

Fig.A.6.2.39 Radiated Spurious Emission (802.11n-HT40, Ch6, 1 GHz-3 GHz)

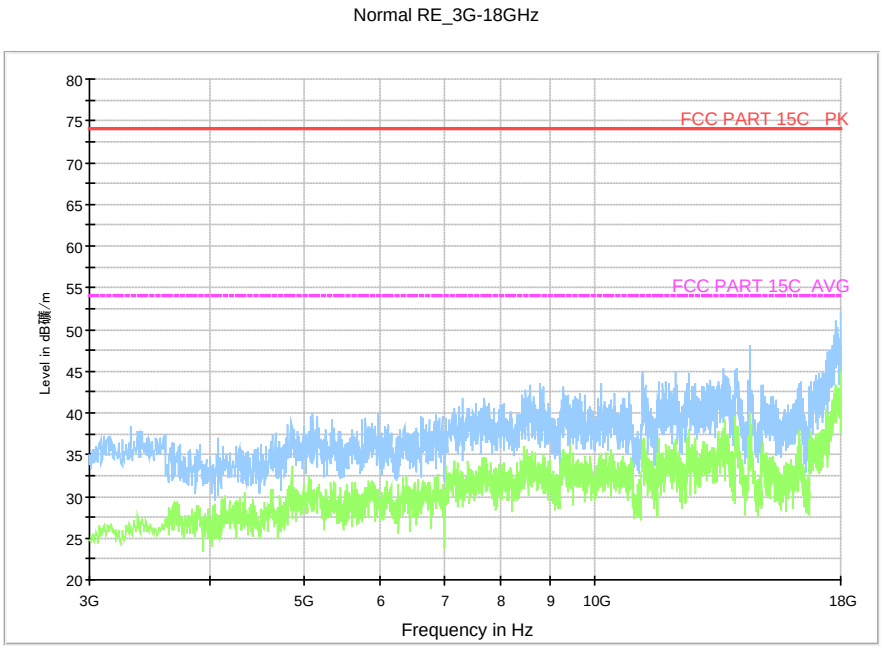

Fig.A.6.2.40 Radiated Spurious Emission (802.11n-HT40, Ch6, 3 GHz-18 GHz)

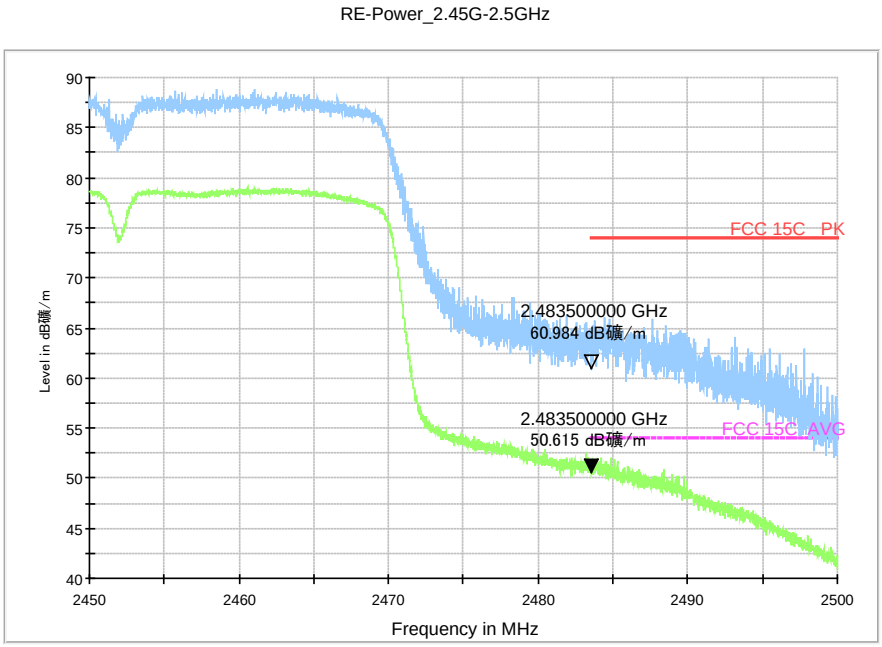

Fig.A.6.2.41 Radiated Spurious Emission (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

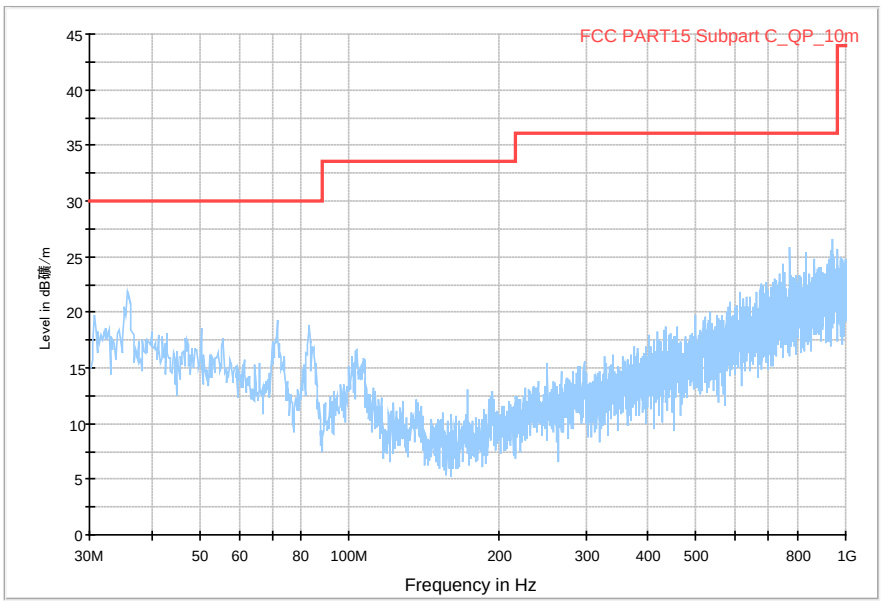

Fig.A.6.2.42 Radiated Spurious Emission (802.11n-HT40, ch9, 30 MHz-1 GHz)

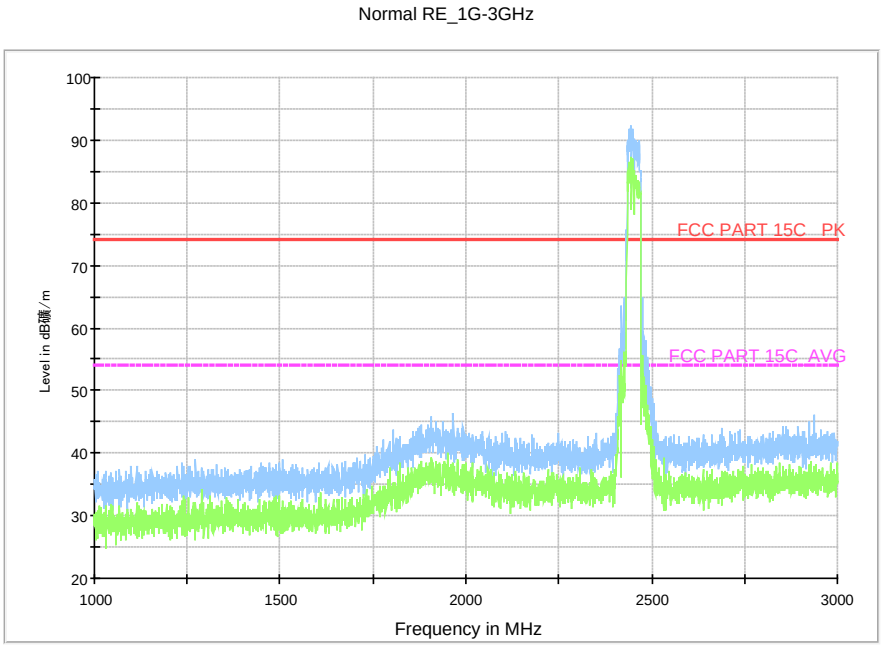

Fig.A.6.2.43 Radiated Spurious Emission (802.11n-HT40, ch9, 1 GHz-3 GHz)

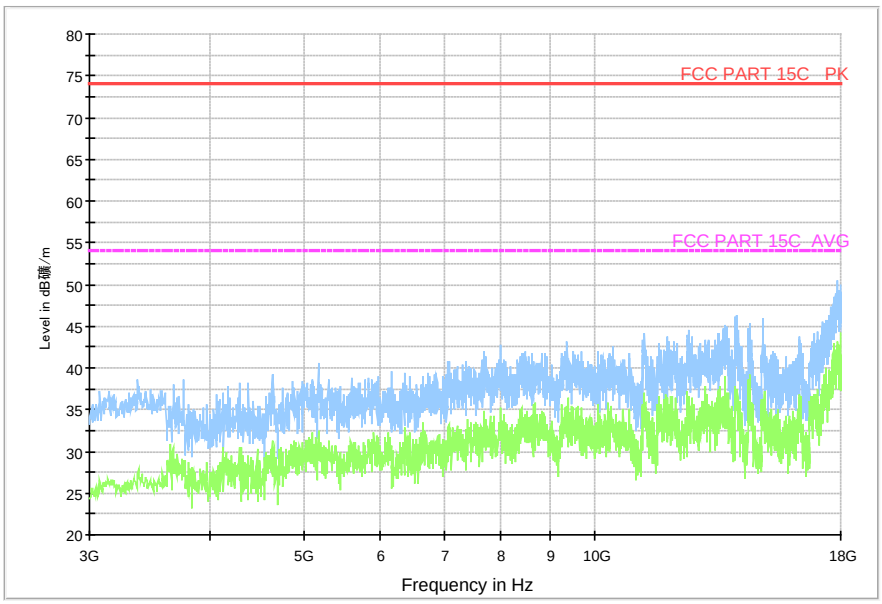

Fig.A.6.2.44 Radiated Spurious Emission (802.11n-HT40, ch9, 3 GHz-18 GHz)

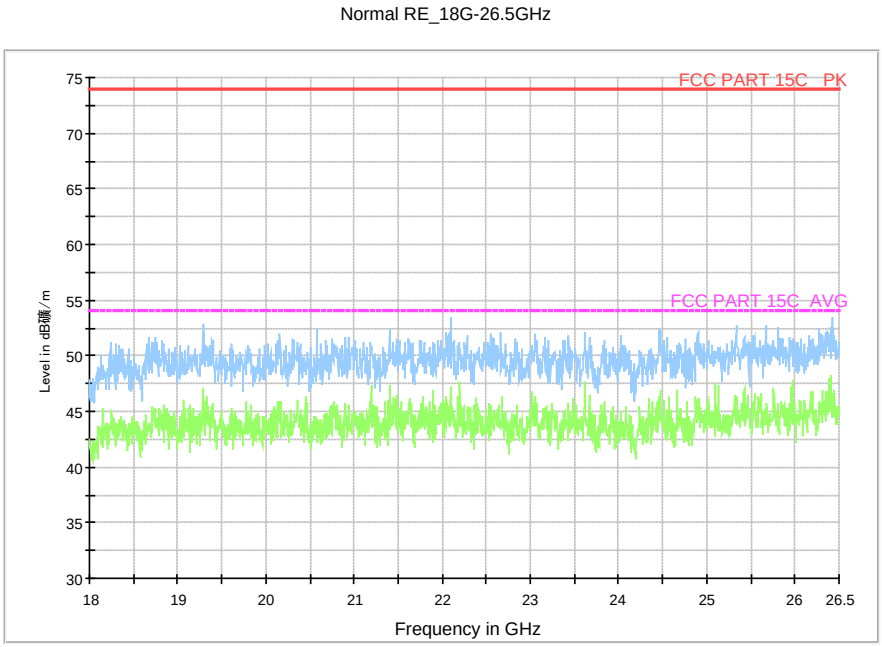

Fig.A.6.2.45 Radiated Spurious Emission (All channels): 18GHz – 26.5GHz

A.7. AC Powerline Conducted Emission

Test Condition:

Voltage（V）	Frequency（Hz）
110	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.7.1	Fig.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.				

The measurement is made according to ANSI C63.10

Note: Expanded measurement uncertainty for this test item is U =3.2dB, k=2.

Conclusion: PASS

Test graphs as below:

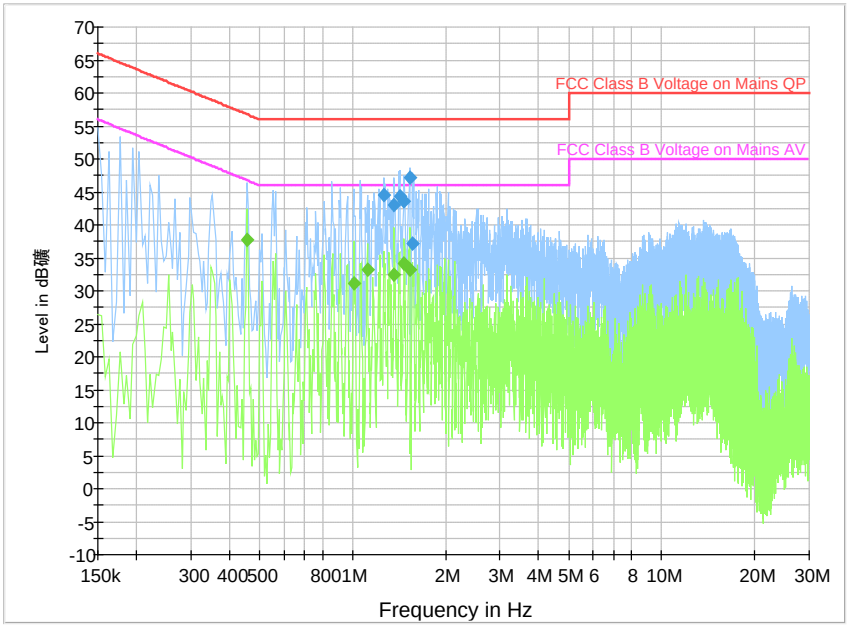

Fig.A.7.1 AC Powerline Conducted Emission-802.11b

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

Measurement Result 1:

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
1.257000	44.6	GND	L1	9.7	11.4	56.0
1.365000	43.1	GND	L1	9.7	12.9	56.0
1.419000	44.3	GND	L1	9.7	11.7	56.0
1.468500	43.7	GND	L1	9.7	12.3	56.0
1.527000	47.1	GND	L1	9.7	8.9	56.0
1.563000	37.2	GND	N	9.7	18.8	56.0

Measurement Result 2:

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.456000	37.8	GND	L1	9.8	9.0	46.8
1.009500	31.0	GND	L1	9.7	15.0	46.0
1.117500	33.1	GND	L1	9.7	12.9	46.0
1.365000	32.5	GND	L1	9.7	13.5	46.0
1.468500	34.2	GND	L1	9.7	11.8	46.0
1.527000	33.2	GND	L1	9.7	12.8	46.0

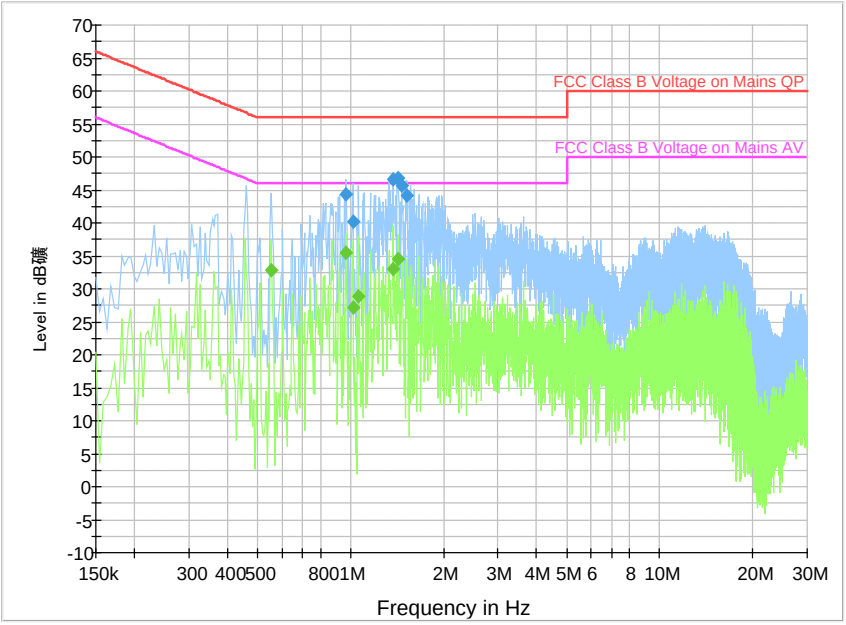

Fig.A.7.2 AC Powerline Conducted Emission-Idle

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

Measurement Result 1:

Frequency (MHz)	QuasiPeak (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.969000	44.4	GND	L1	9.7	11.6	56.0
1.018500	40.1	GND	L1	9.7	15.9	56.0
1.374000	46.6	GND	L1	9.7	9.4	56.0
1.419000	46.7	GND	L1	9.7	9.3	56.0
1.464000	45.7	GND	L1	9.7	10.3	56.0
1.522500	44.2	GND	L1	9.7	11.8	56.0

Measurement Result 2:

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.555000	32.8	GND	L1	9.8	13.2	46.0
0.964500	35.5	GND	L1	9.7	10.5	46.0
1.018500	27.1	GND	L1	9.7	18.9	46.0
1.063500	28.8	GND	L1	9.7	17.2	46.0
1.374000	33.0	GND	L1	9.7	13.0	46.0
1.423500	34.6	GND	L1	9.7	11.4	46.0

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