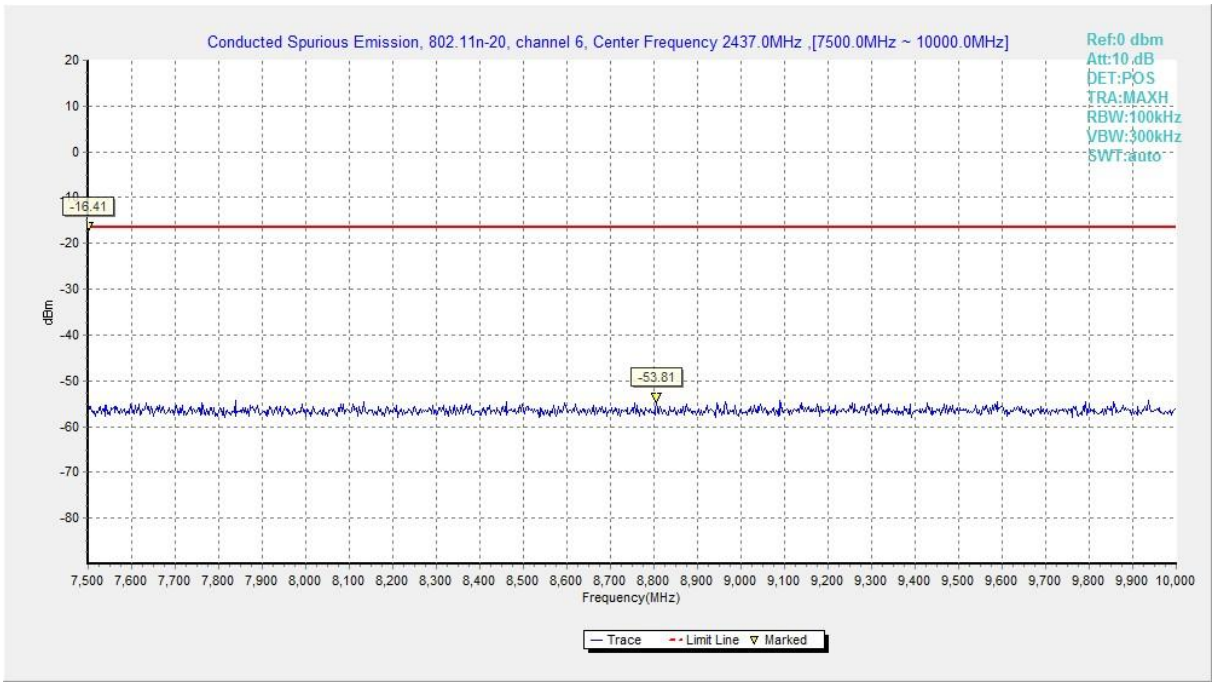

Fig. 76 Conducted Spurious Emission (802.11n-HT20, Ch6, 7.5 GHz-10 GHz)

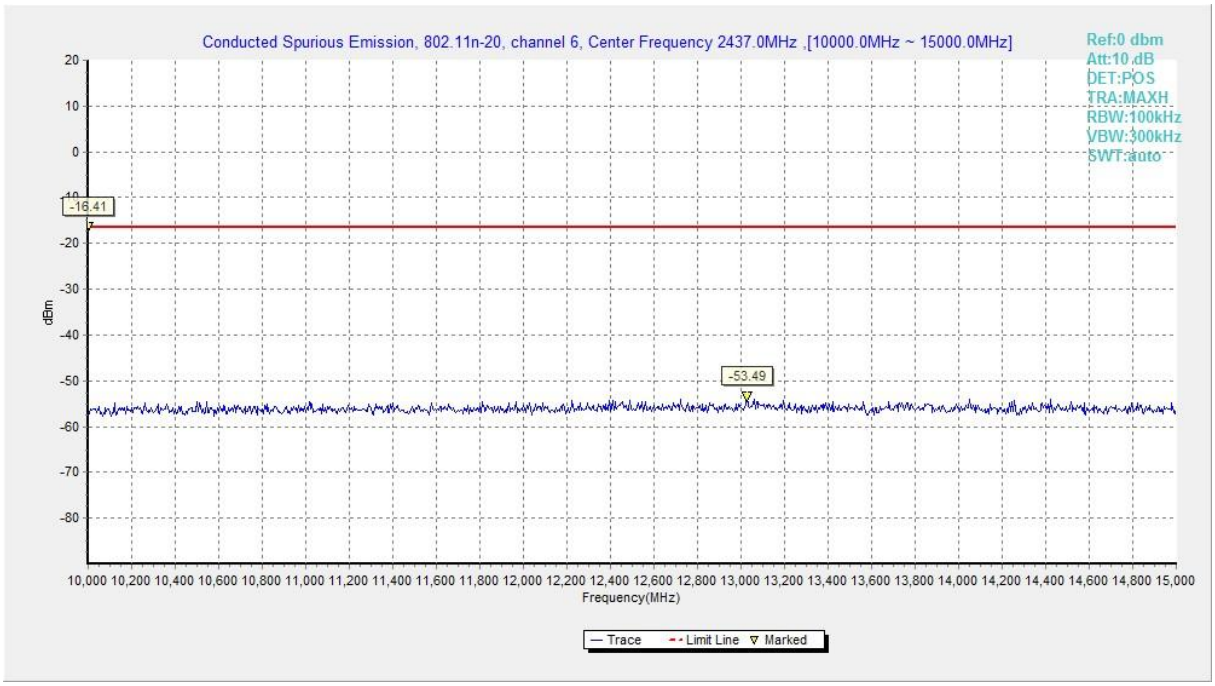

Fig. 77 Conducted Spurious Emission (802.11n-HT20, Ch6, 10 GHz-15 GHz)

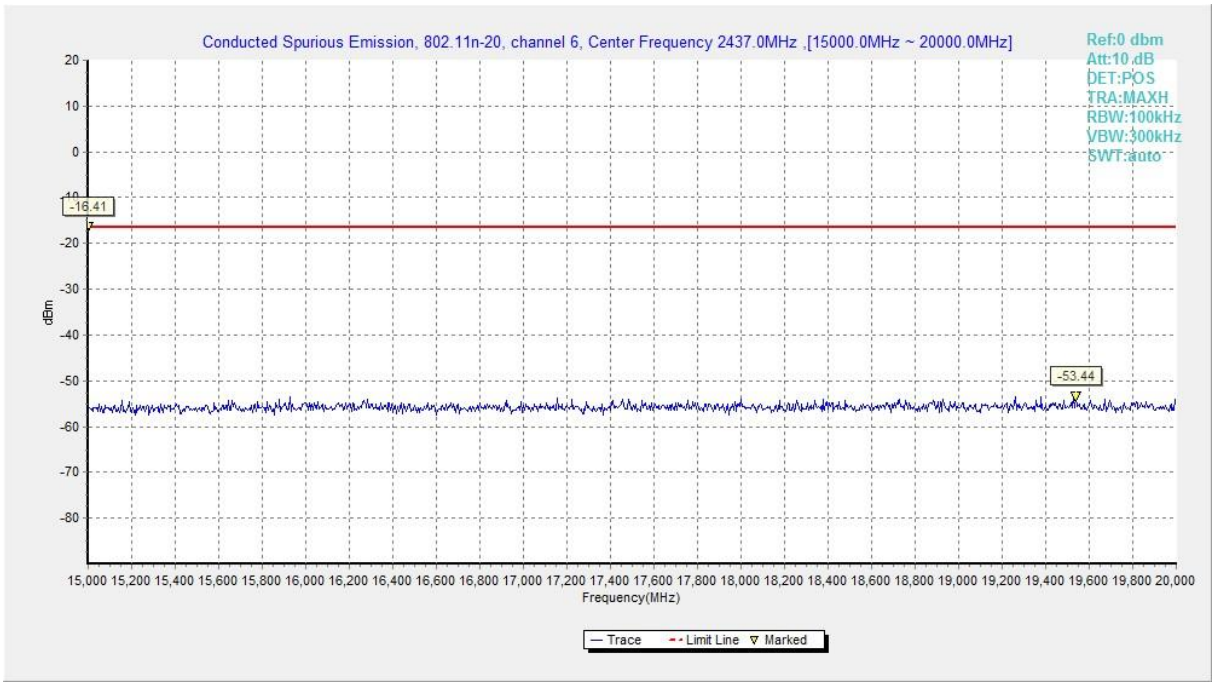

Fig. 78 Conducted Spurious Emission (802.11n-HT20, Ch6, 15 GHz-20 GHz)

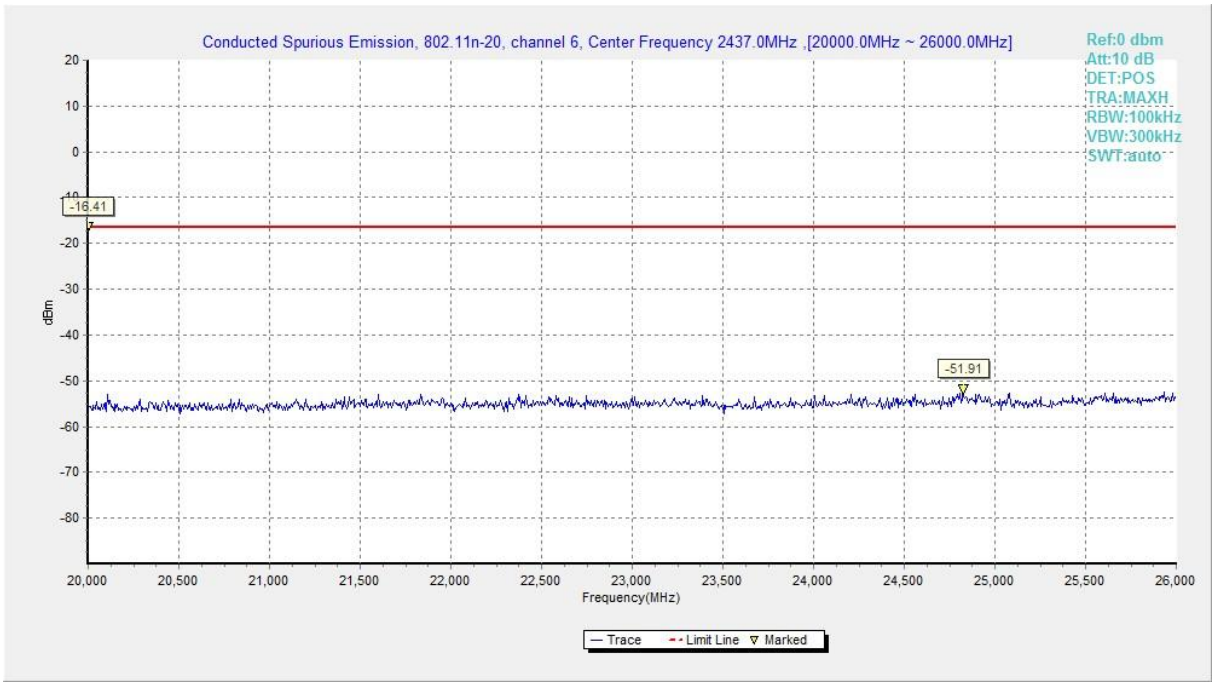

Fig. 79 Conducted Spurious Emission (802.11n-HT20, Ch6, 20 GHz-26 GHz)

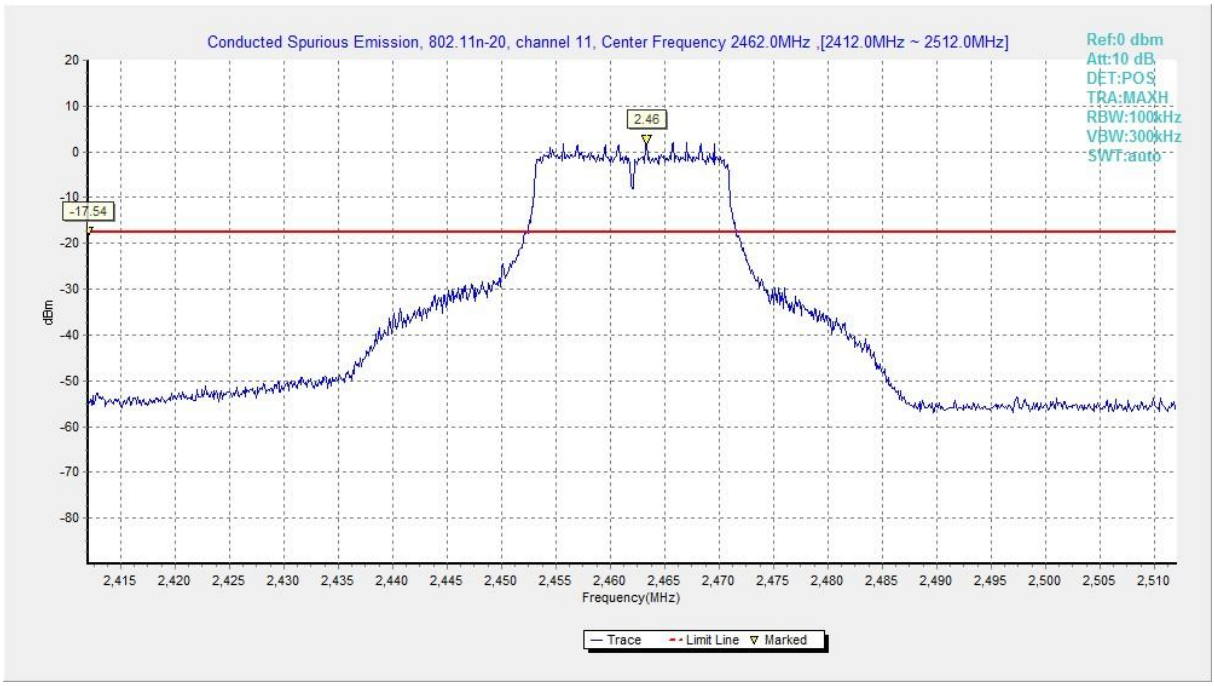

Fig. 80 Conducted Spurious Emission (802.11n-HT20, Ch11, Center Frequency)

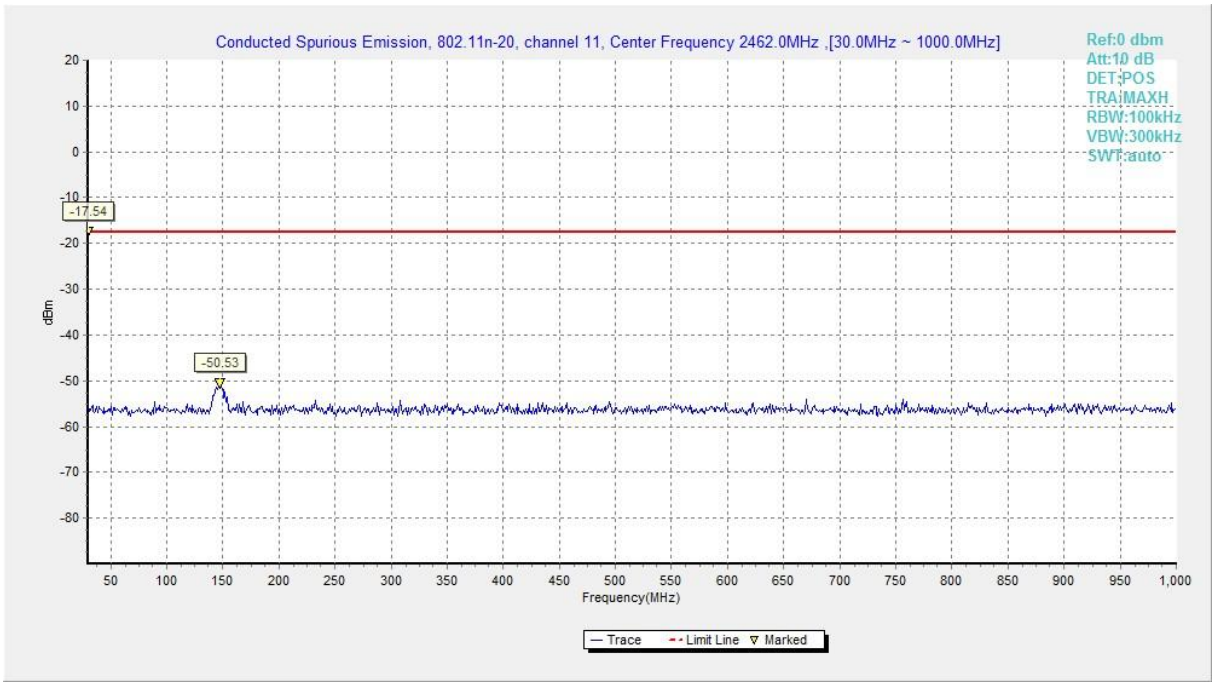

Fig. 81 Conducted Spurious Emission (802.11n-HT20, Ch11, 30 MHz-1 GHz)

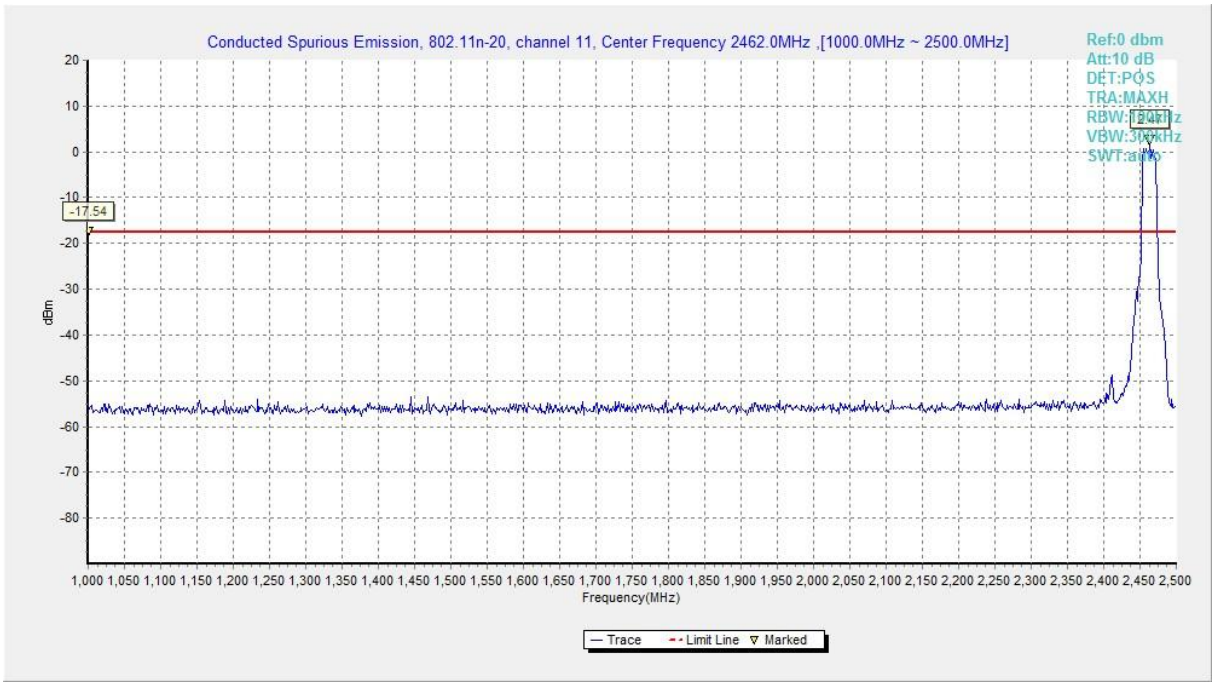

Fig. 82 Conducted Spurious Emission (802.11n-HT20, Ch11, 1 GHz-2.5 GHz)

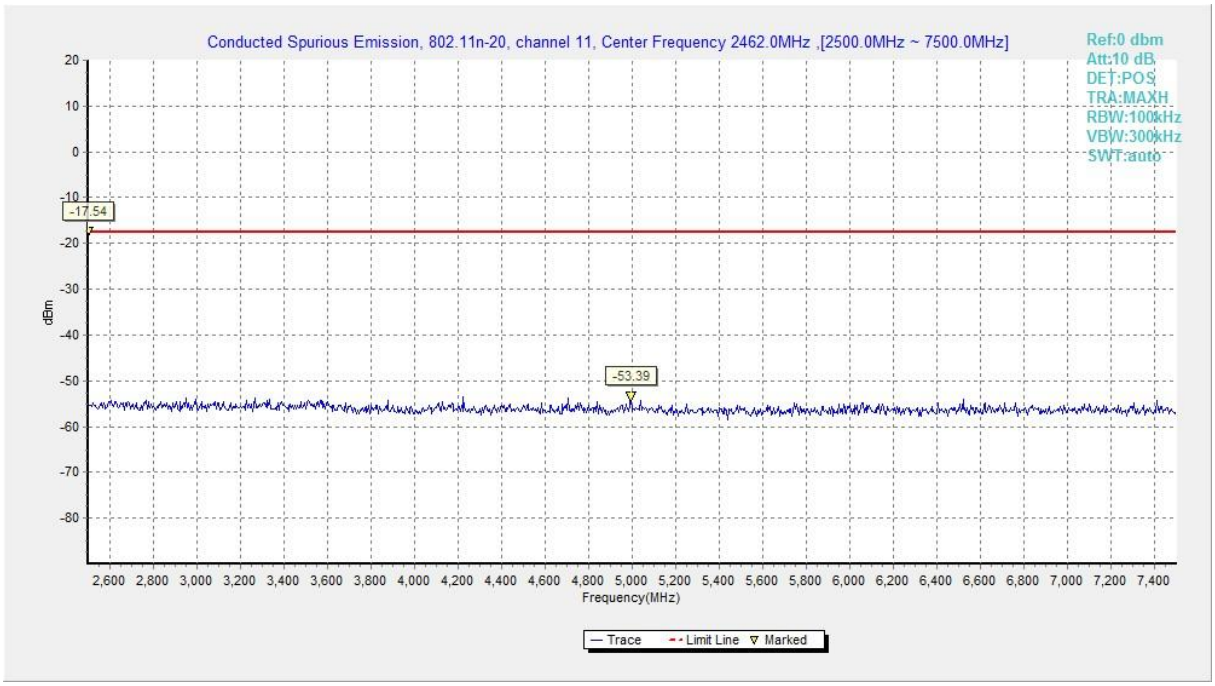

Fig. 83 Conducted Spurious Emission (802.11n-HT20, Ch11, 2.5 GHz-7.5 GHz)

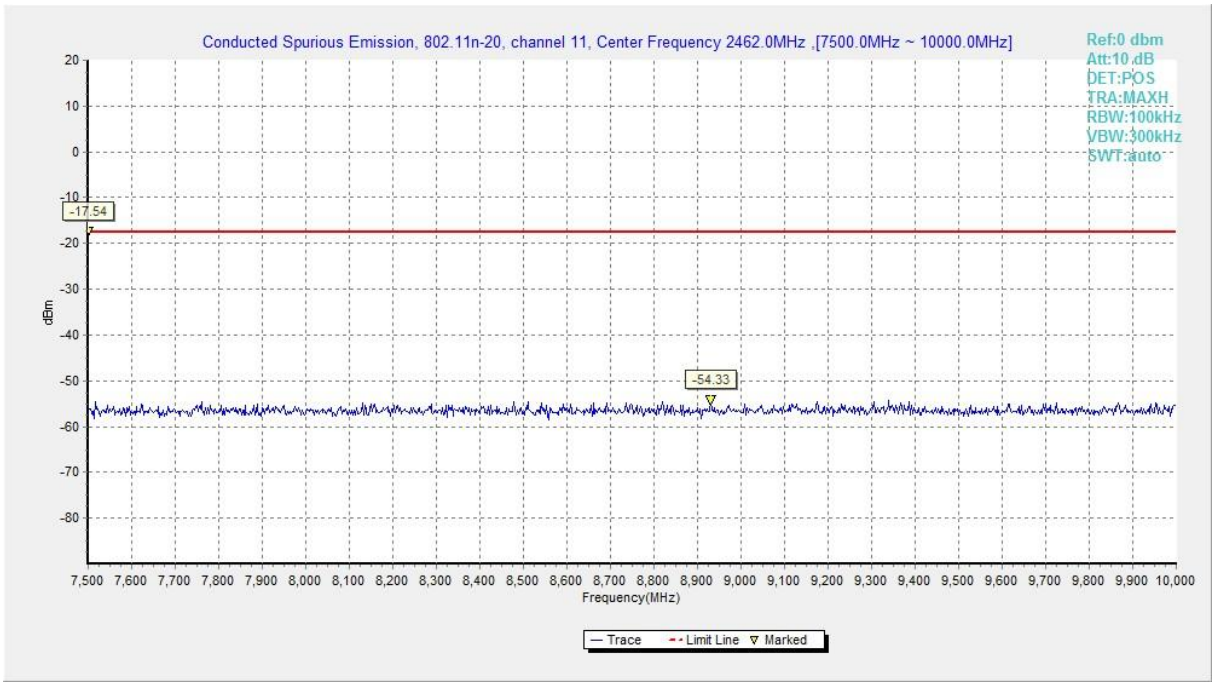

Fig. 84 Conducted Spurious Emission (802.11n-HT20, Ch11, 7.5 GHz-10 GHz)

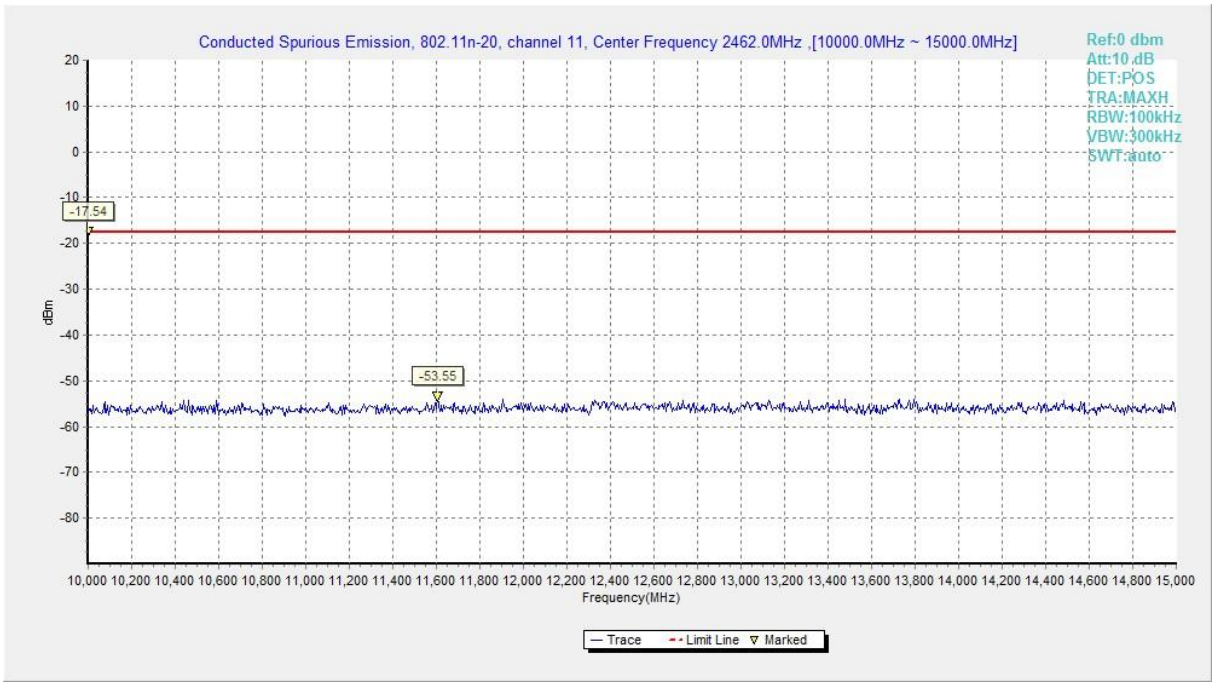

Fig. 85 Conducted Spurious Emission (802.11n-HT20, Ch11, 10 GHz-15 GHz)

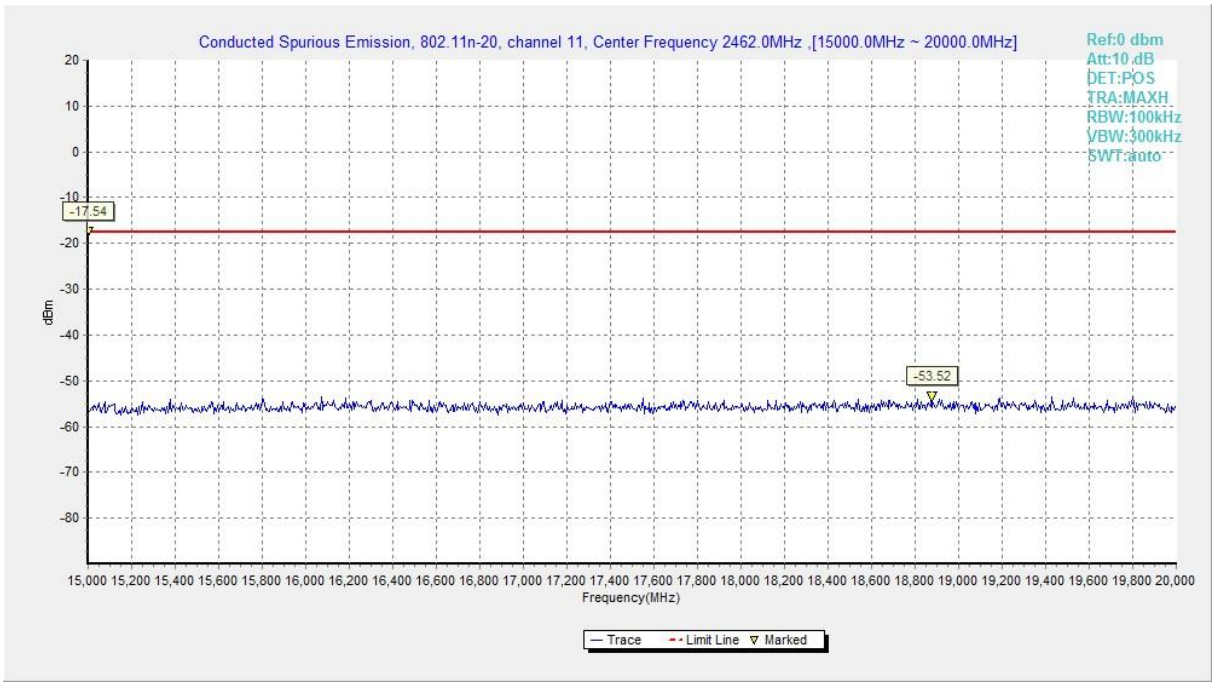

Fig. 86 Conducted Spurious Emission (802.11n-HT20, Ch11, 15 GHz-20 GHz)

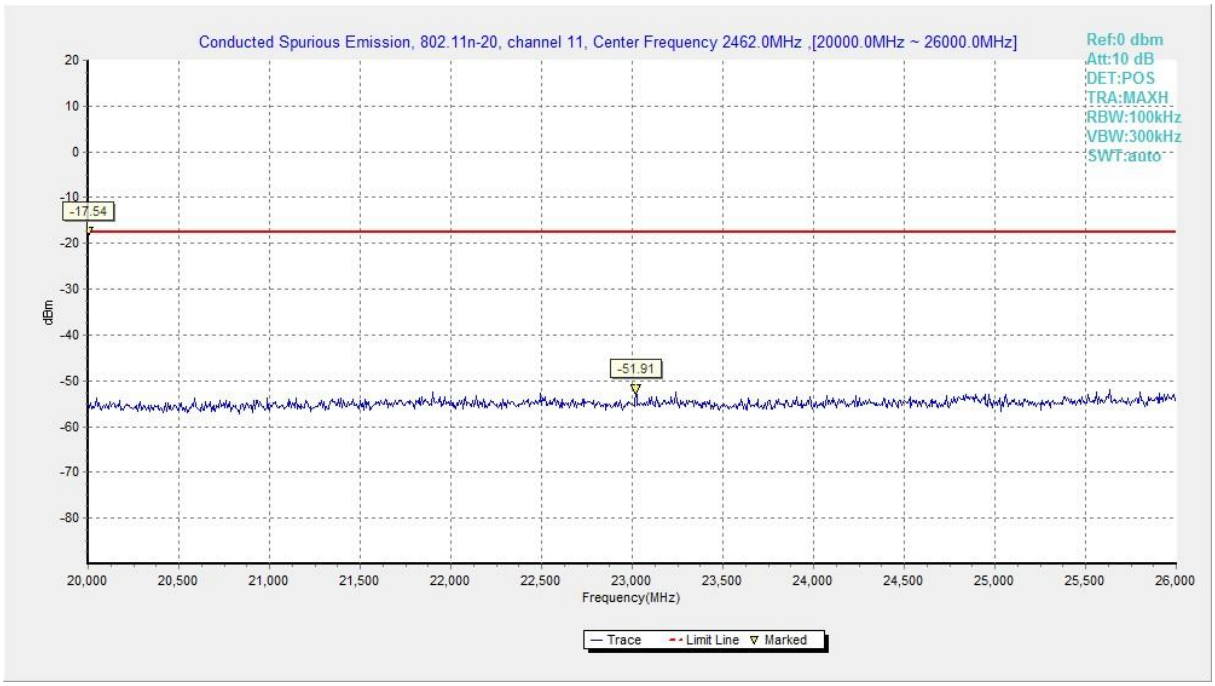

Fig. 87 Conducted Spurious Emission (802.11n-HT20, Ch11, 20 GHz-26 GHz)

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.88	P
	1	30 MHz ~1 GHz	Fig.89	P
		1 GHz ~ 3 GHz	Fig.90	P
		3 GHz ~ 18 GHz	Fig.91	P
	6	30 MHz ~1 GHz	Fig.92	P
		1 GHz ~ 3 GHz	Fig.93	P
		3 GHz ~ 18 GHz	Fig.94	P
	Power	2.45GHz ~2.5GHz	Fig.95	P
	11	30 MHz ~1 GHz	Fig.96	P
		1 GHz ~ 3 GHz	Fig.97	P
		3 GHz ~ 18 GHz	Fig.98	P
802.11g	Power	2.38GHz ~2.45GHz	Fig.99	P
	1	30 MHz ~1 GHz	Fig.100	P
		1 GHz ~ 3 GHz	Fig.101	P
		3 GHz ~ 18 GHz	Fig.102	P
	6	30 MHz ~1 GHz	Fig.103	P
		1 GHz ~ 3 GHz	Fig.104	P
		3 GHz ~ 18 GHz	Fig.105	P
	Power	2.45GHz~2.5GHz	Fig.106	P
	11	30 MHz ~1 GHz	Fig.107	P
		1 GHz ~ 3 GHz	Fig.108	P
		3 GHz ~ 18 GHz	Fig.109	P
802.11n-HT20	Power	2.38GHz ~2.45GHz	Fig.110	P
	1	30 MHz ~1 GHz	Fig.111	P
		1 GHz ~ 3 GHz	Fig.112	P
		3 GHz ~ 18 GHz	Fig.113	P
	6	30 MHz ~1 GHz	Fig.114	P
		1 GHz ~ 3 GHz	Fig.115	P
		3 GHz ~ 18 GHz	Fig.116	P
	Power	2.45GHz~2.5GHz	Fig.117	P
	11	30 MHz ~1 GHz	Fig.118	P
		1 GHz ~ 3 GHz	Fig.119	P
		3 GHz ~ 18 GHz	Fig.120	P
/	All channels	18 GHz~ 26.5 GHz	Fig.121	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	51.5	-38.8	27.7	62.600	VERTICAL
17891.250	54.4	-18.5	45.6	27.300	VERTICAL
17821.875	53.5	-18.5	45.6	26.400	HORIZONTAL
17700.000	53.5	-18.9	45.6	26.800	HORIZONTAL
17695.313	53.4	-18.9	45.6	26.700	HORIZONTAL
17973.750	53.4	-17.7	45.6	25.500	VERTICAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
17931.563	54.7	-17.7	45.6	26.800	HORIZONTAL
17776.875	54.3	-18.5	45.6	27.200	HORIZONTAL
17873.438	54.2	-18.5	45.6	27.100	HORIZONTAL
17767.500	53.9	-18.5	45.6	26.800	HORIZONTAL
17802.188	53.4	-18.5	45.6	26.300	VERTICAL
17970.000	53.4	-17.7	45.6	25.500	VERTICAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2483.500	50.5	-38.9	27.7	61.700	HORIZONTAL
17726.250	53.8	-18.9	45.6	27.100	HORIZONTAL
17958.750	53.7	-17.7	45.6	25.800	HORIZONTAL
17729.063	53.6	-18.9	45.6	26.900	VERTICAL
17783.438	53.5	-18.5	45.6	26.400	HORIZONTAL
17955.938	53.3	-17.7	45.6	25.400	HORIZONTAL

802.11g

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2390.000	61.1	-38.8	27.7	72.200	HORIZONTAL
17978.438	54.4	-17.7	45.6	26.500	HORIZONTAL
17827.500	54.1	-18.5	45.6	27.000	HORIZONTAL
17797.500	54.0	-18.5	45.6	26.900	VERTICAL
17765.625	54.0	-18.5	45.6	26.900	HORIZONTAL
17802.188	53.8	-18.5	45.6	26.700	VERTICAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
17990.625	54.2	-17.7	45.6	26.300	VERTICAL
17989.688	54.1	-17.7	45.6	26.200	VERTICAL
17820.938	53.7	-18.5	45.6	26.600	VERTICAL
17958.750	53.5	-17.7	45.6	25.600	HORIZONTAL
17741.250	53.5	-18.5	45.6	26.400	HORIZONTAL
17971.875	53.0	-17.7	45.6	25.100	HORIZONTAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2483.500	60.4	-38.9	27.7	71.600	VERTICAL
17954.063	53.9	-17.7	45.6	26.000	HORIZONTAL
17628.750	53.6	-18.9	45.6	26.900	VERTICAL
17957.813	53.5	-17.7	45.6	25.600	VERTICAL
17967.188	53.3	-17.7	45.6	25.400	HORIZONTAL
17742.188	53.3	-18.5	45.6	26.200	HORIZONTAL

802.11n-HT20

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2390.000	64.7	-38.8	27.7	75.800	VERTICAL
17744.063	54.7	-18.5	45.6	27.600	HORIZONTAL
17765.625	53.7	-18.5	45.6	26.600	HORIZONTAL
17914.688	53.7	-17.7	45.6	25.800	VERTICAL
17963.438	53.7	-17.7	45.6	25.800	HORIZONTAL
17953.125	53.5	-17.7	45.6	25.600	VERTICAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
17763.750	54.5	-18.5	45.6	27.400	VERTICAL
17760.000	53.8	-18.5	45.6	26.700	VERTICAL
17727.188	53.8	-18.9	45.6	27.100	VERTICAL
17983.125	53.6	-17.7	45.6	25.700	VERTICAL
17622.188	53.5	-18.9	45.6	26.800	VERTICAL
17925.938	53.5	-17.7	45.6	25.600	HORIZONTAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2483.500	63.2	-38.9	27.7	74.400	VERTICAL
17635.313	53.5	-18.9	45.6	26.800	HORIZONTAL
17969.063	53.5	-17.7	45.6	25.600	VERTICAL
17980.313	53.5	-17.7	45.6	25.600	VERTICAL
17961.563	53.0	-17.7	45.6	25.100	VERTICAL
17850.000	52.9	-18.5	45.6	25.800	HORIZONTAL

Test graphs as below:

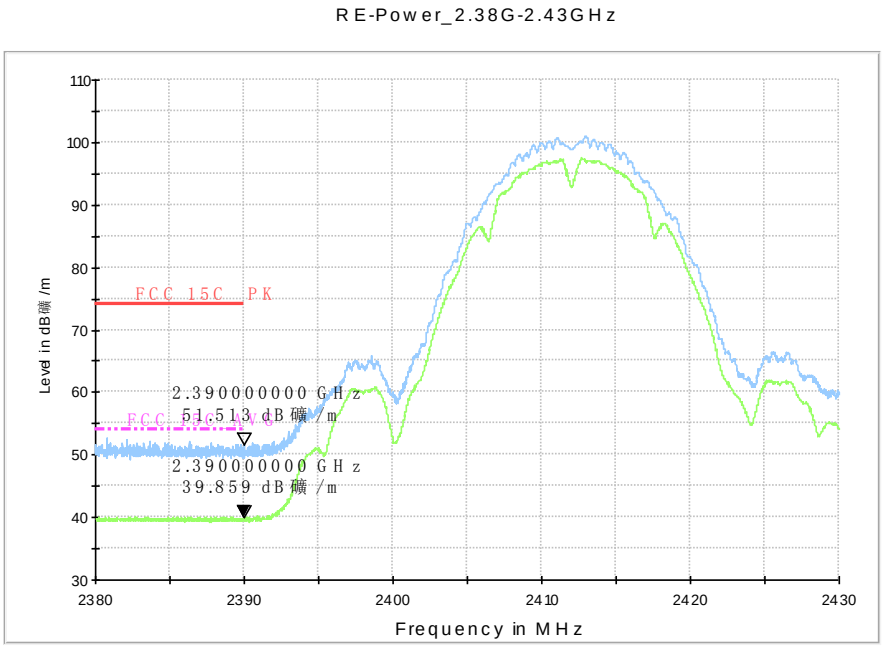

Fig. 88 Radiated Spurious Emission (Power): 802.11b, ch1, 2.38 GHz - 2.45GHz

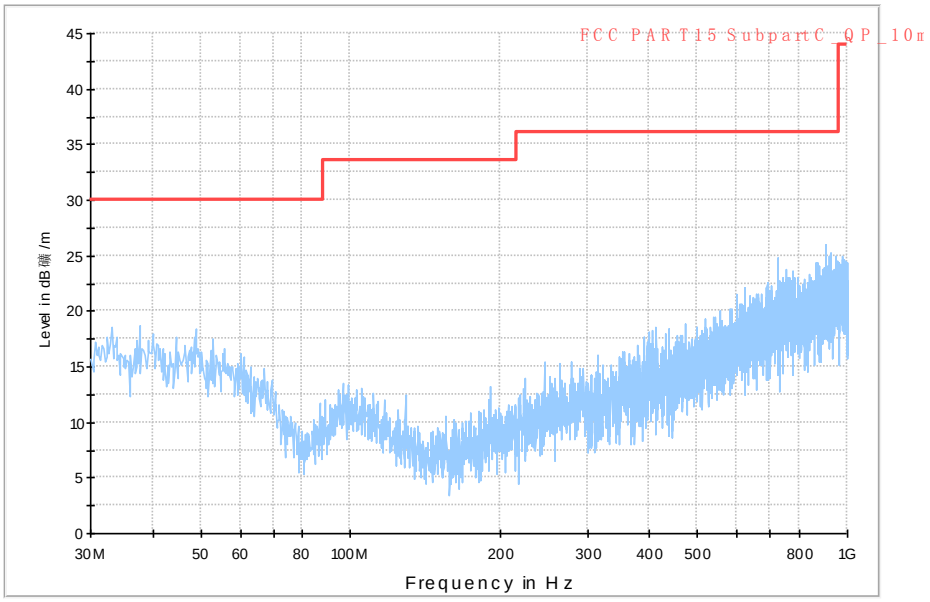

Fig. 89 Radiated Spurious Emission (802.11b, Ch1, 30 MHz-1 GHz)

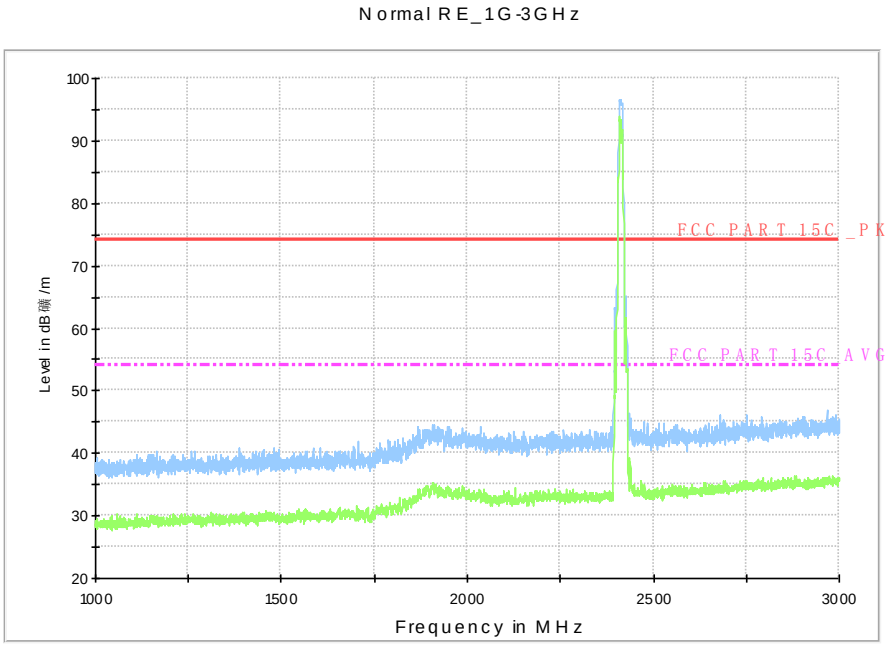

Fig. 90 Radiated Spurious Emission (802.11b, Ch1, 1 GHz-3 GHz)

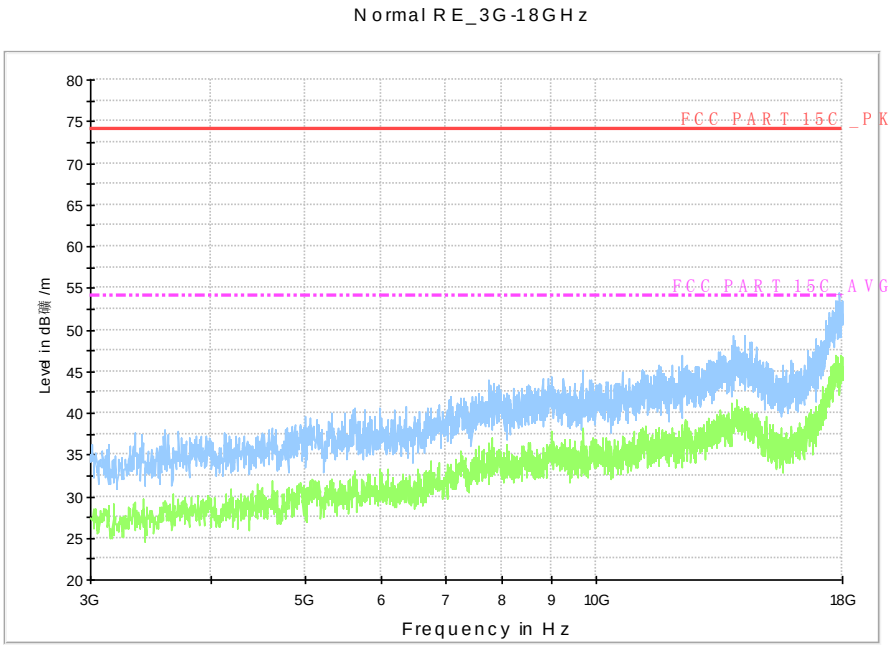

Fig. 91 Radiated Spurious Emission (802.11b, Ch1, 3 GHz-18 GHz)

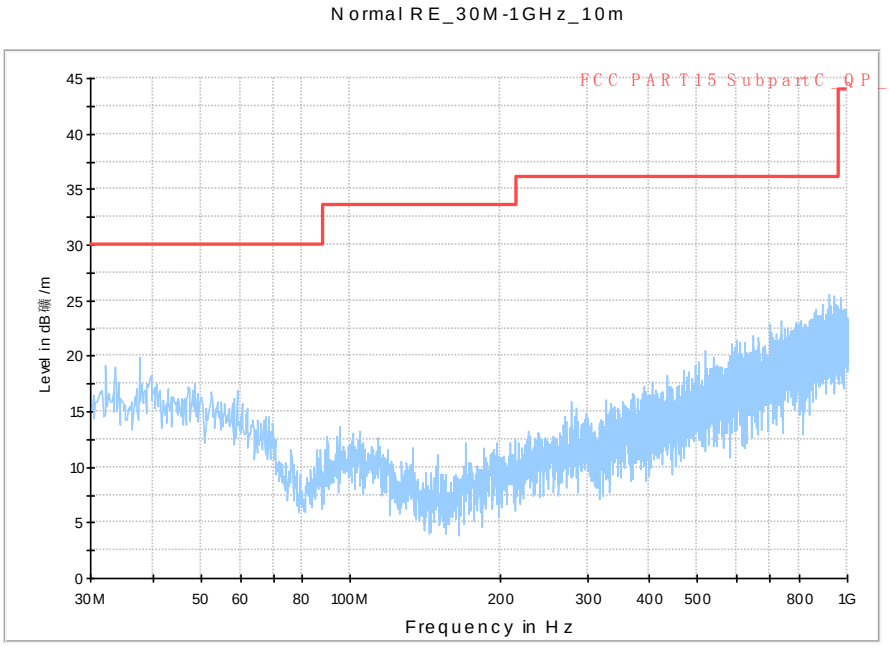

Fig. 92 Radiated Spurious Emission (802.11b, Ch6, 30 MHz-1 GHz)

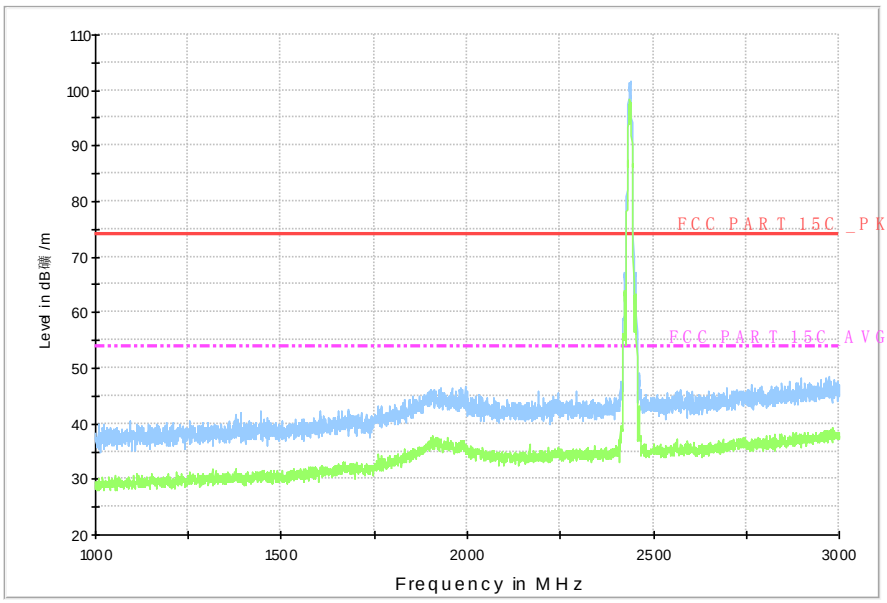

Fig. 93 Radiated Spurious Emission (802.11b, Ch6, 1 GHz-3 GHz)

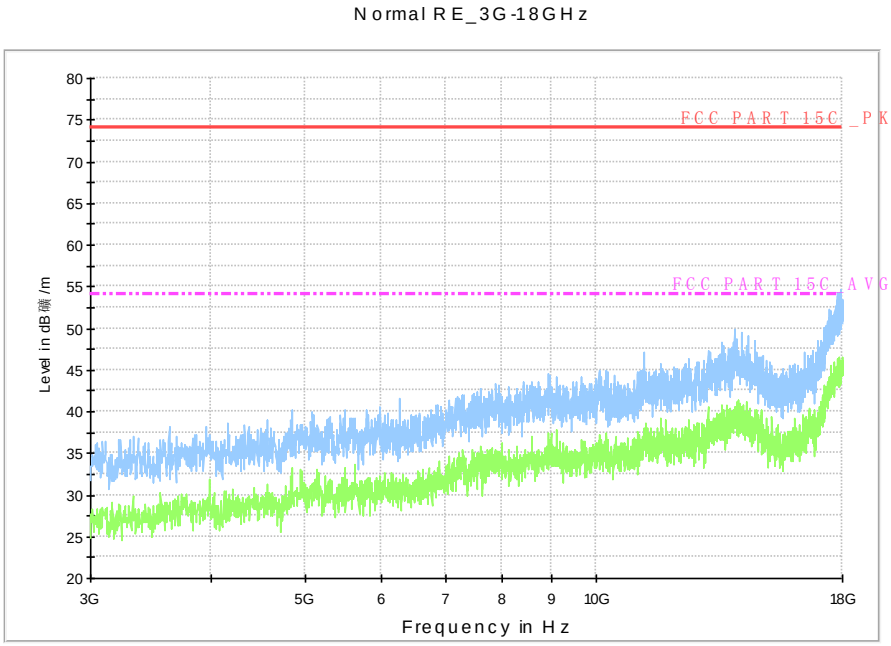

Fig. 94 Radiated Spurious Emission (802.11b, Ch6, 3 GHz-18 GHz)

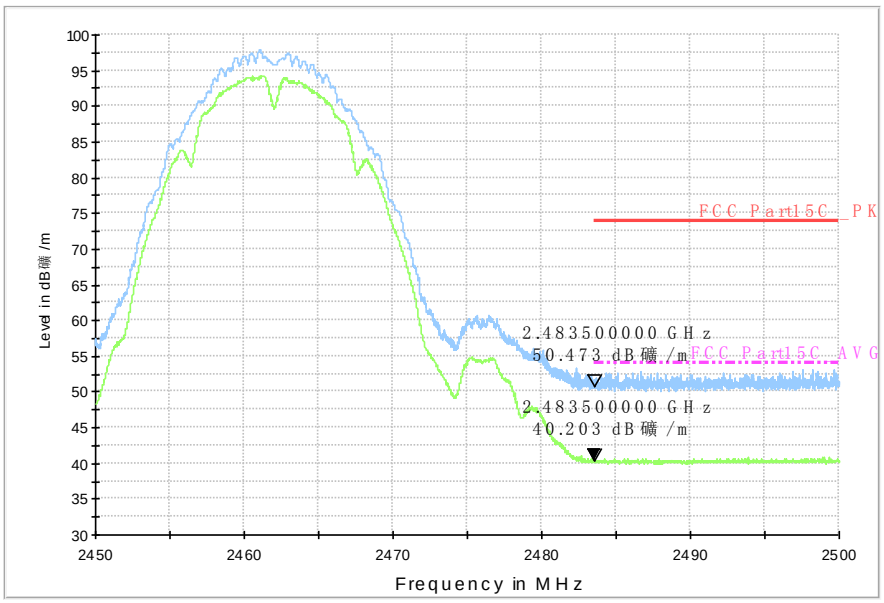

Fig. 95 Radiated Spurious Emission (Power): 802.11b, ch11, 2.45 GHz - 2.5GHz

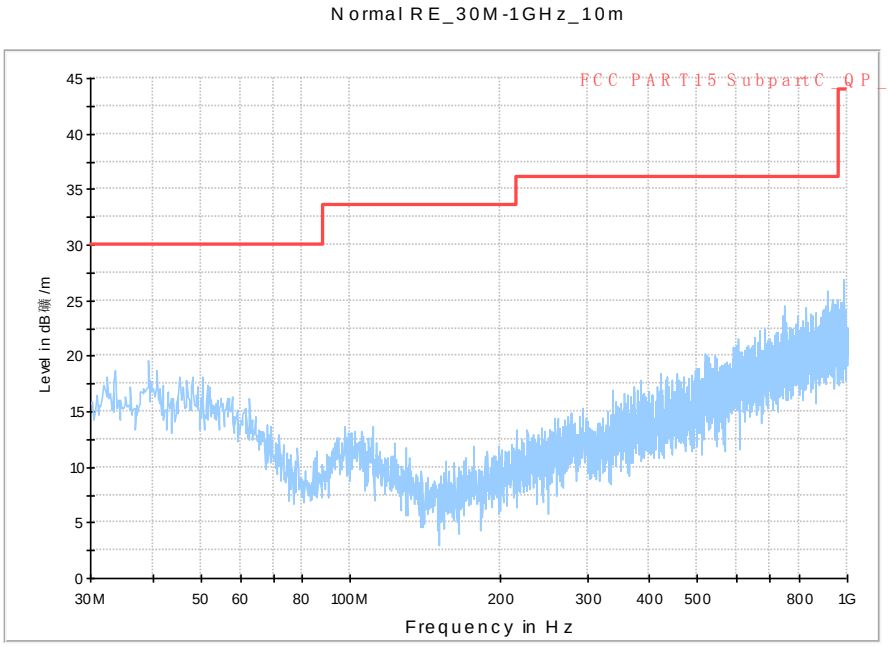

Fig. 96 Radiated Spurious Emission (802.11b, Ch11, 30 MHz-1 GHz)

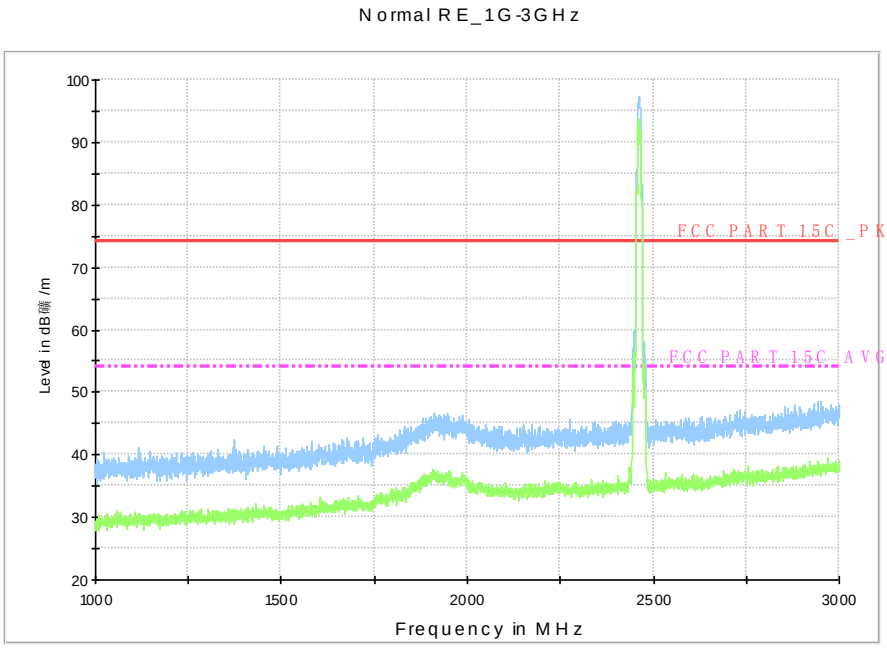

Fig. 97 Radiated Spurious Emission (802.11b, Ch11, 1 GHz-3 GHz)

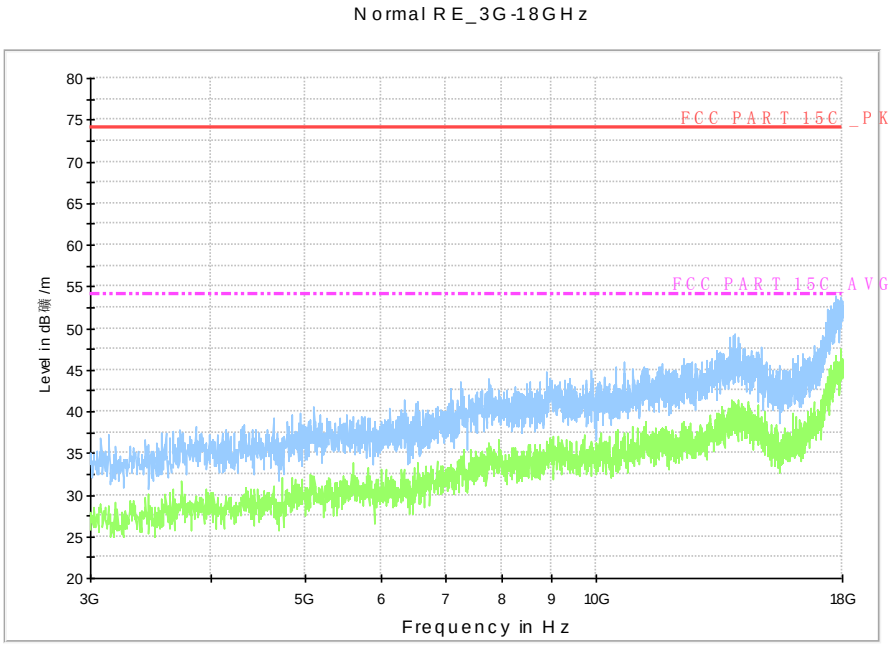

Fig. 98 Radiated Spurious Emission (802.11b, Ch11, 3 GHz-18 GHz)

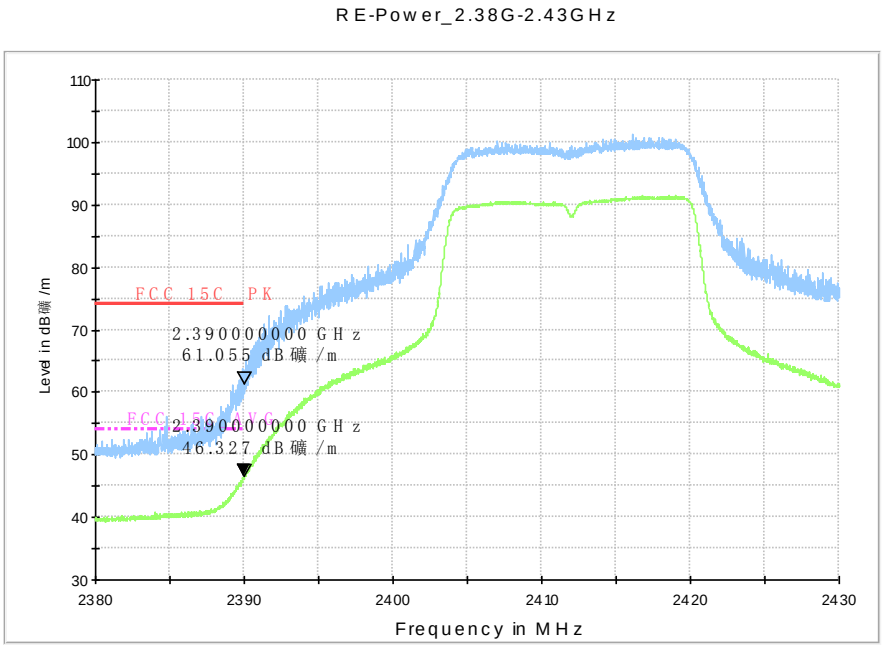

Fig. 99 Radiated Spurious Emission (Power): 802.11g, ch1, 2.38 GHz - 2.45GHz

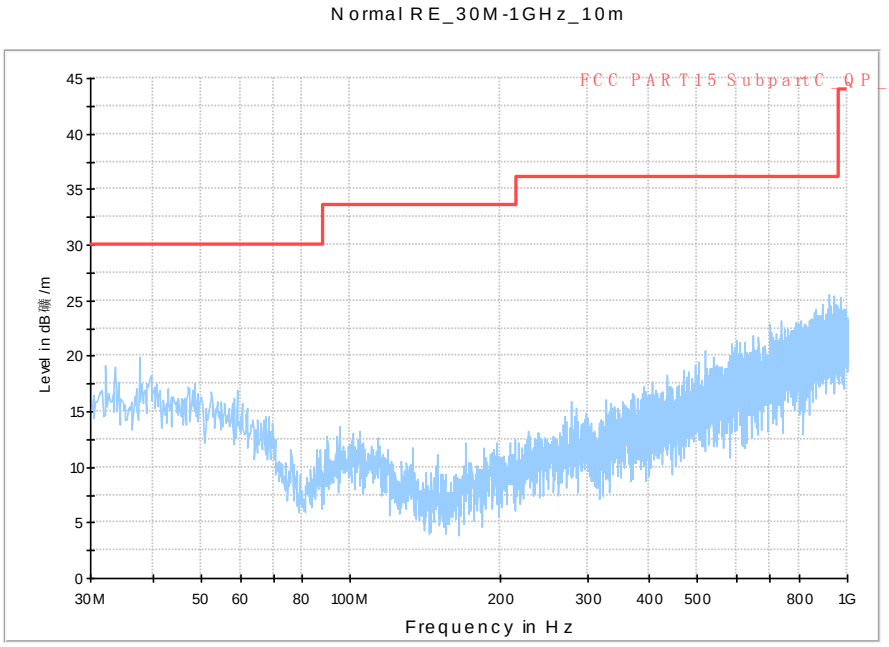

Fig. 100 Radiated Spurious Emission (802.11g, Ch1, 30 MHz-1 GHz)

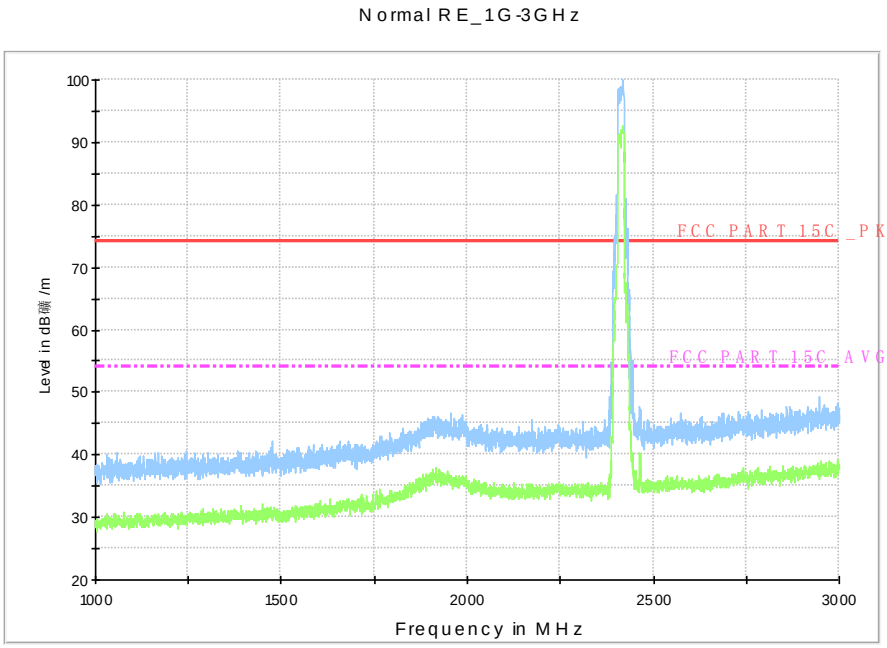

Fig. 101 Radiated Spurious Emission (802.11g, Ch1, 1 GHz-3 GHz)

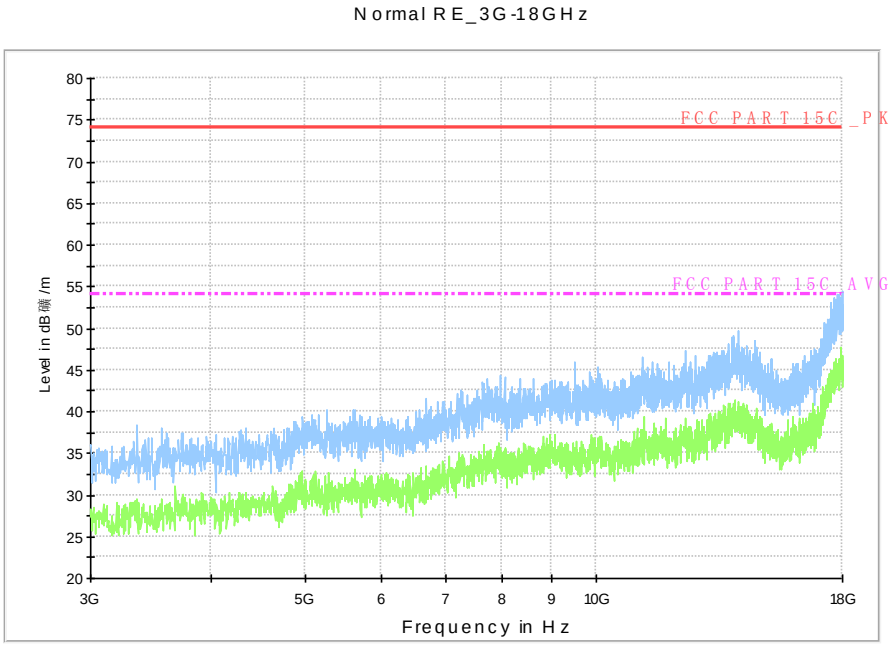

Fig. 102 Radiated Spurious Emission (802.11g, Ch1, 3 GHz-18 GHz)

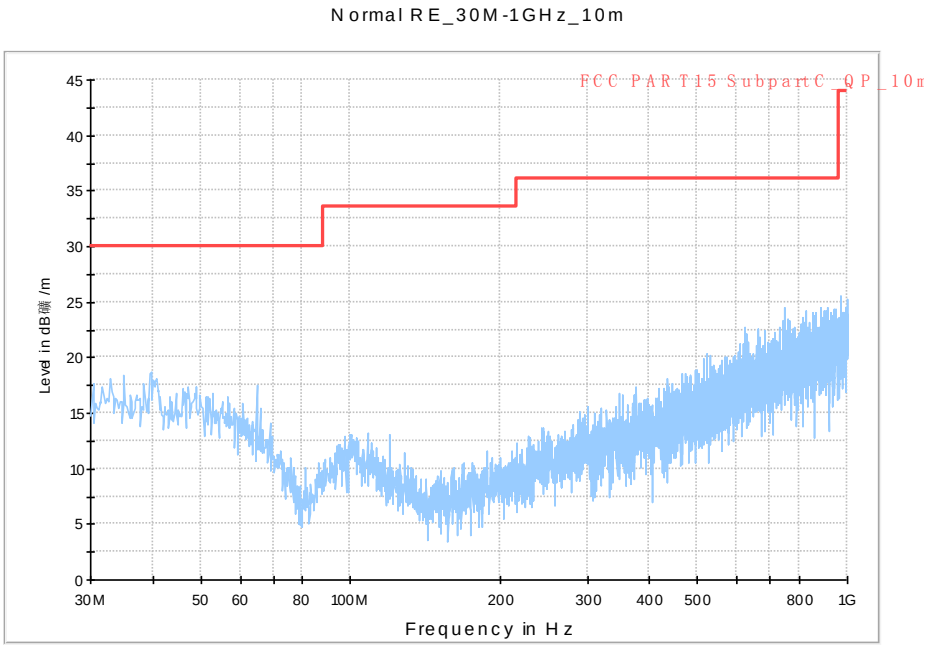

Fig. 103 Radiated Spurious Emission (802.11g, Ch6, 30 MHz-1 GHz)

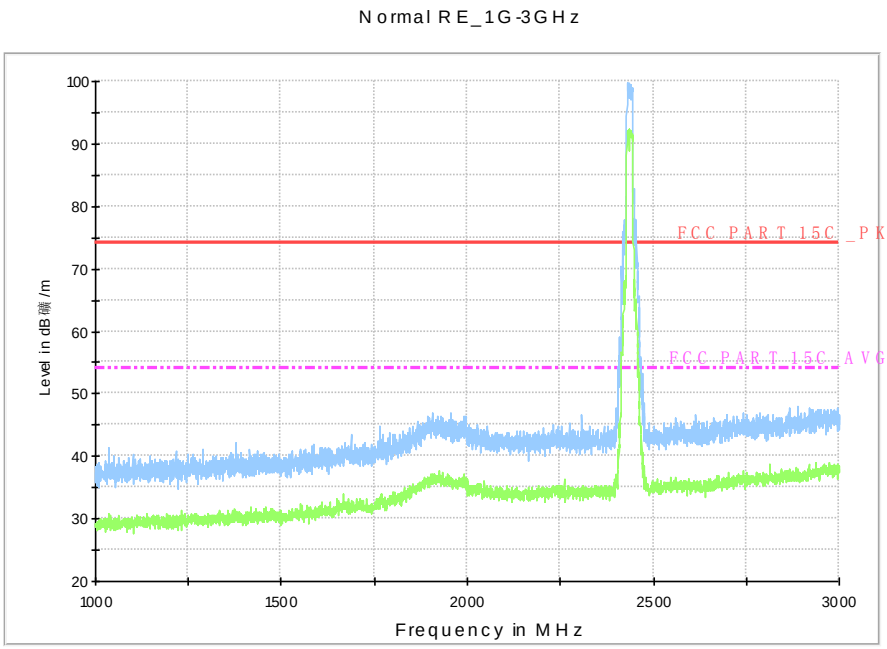

Fig. 104 Radiated Spurious Emission (802.11g, Ch6, 1 GHz-3 GHz)

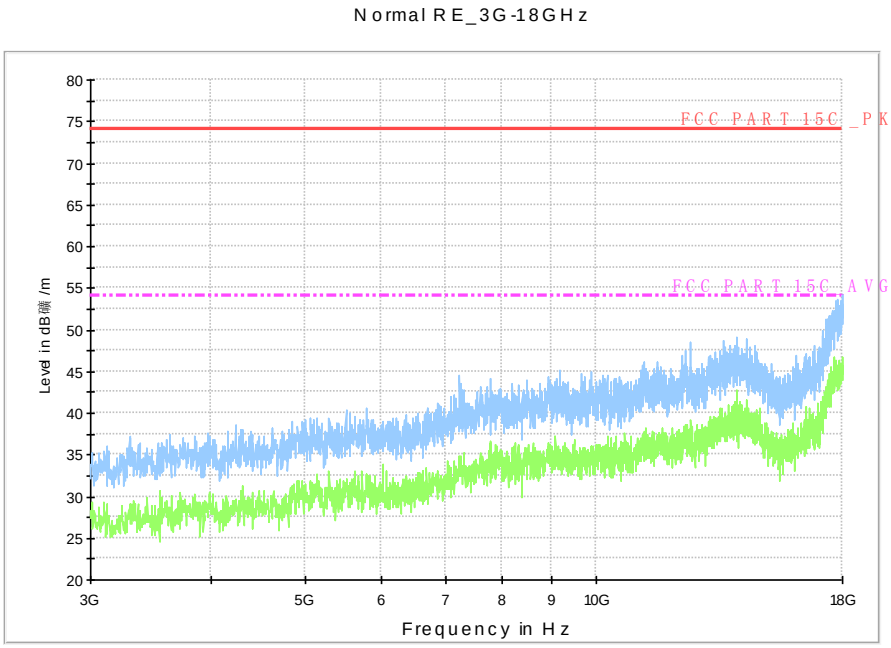

Fig. 105 Radiated Spurious Emission (802.11g, Ch6, 3 GHz-18 GHz)

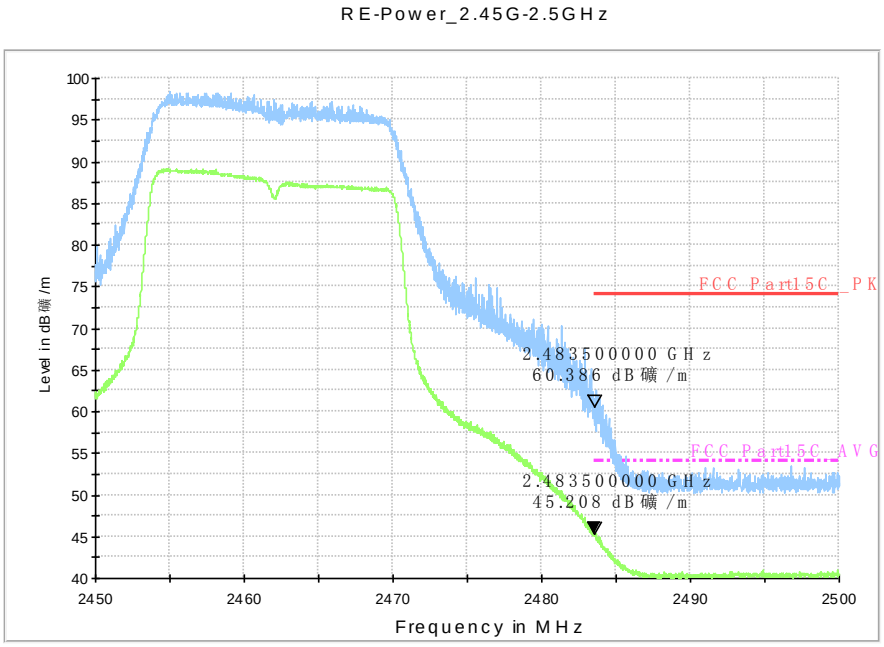

Fig. 106 Radiated Spurious Emission (Power): 802.11g, ch11, 2.45 GHz - 2.5GHz

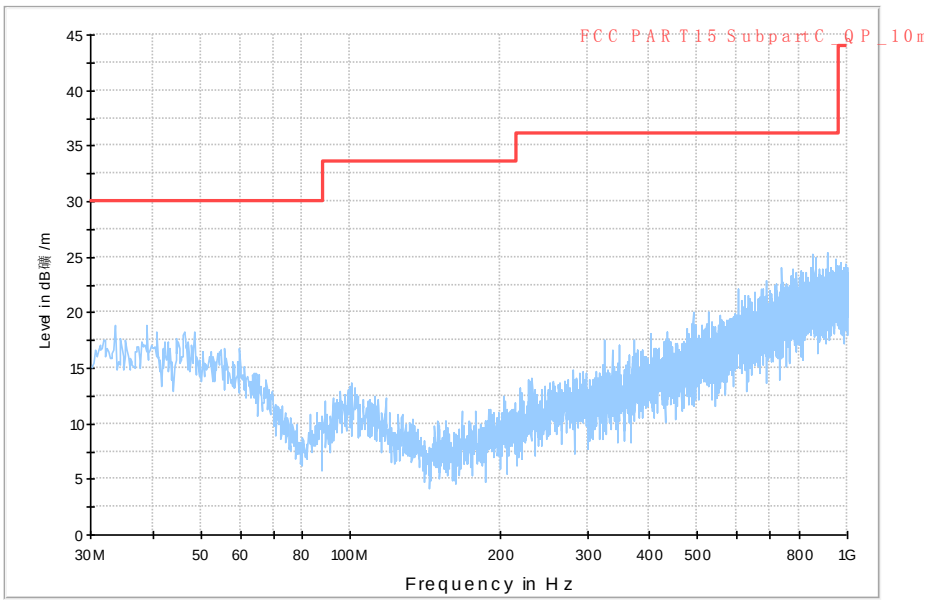

Fig. 107 Radiated Spurious Emission (802.11g, Ch11, 30 MHz-1 GHz)

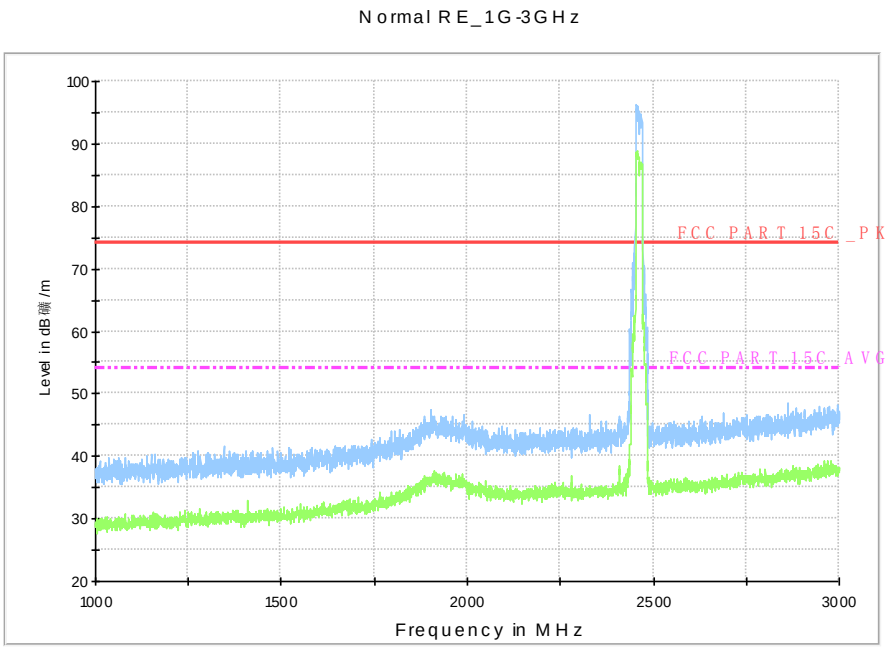

Fig. 108 Radiated Spurious Emission (802.11g, Ch11, 1 GHz-3 GHz)

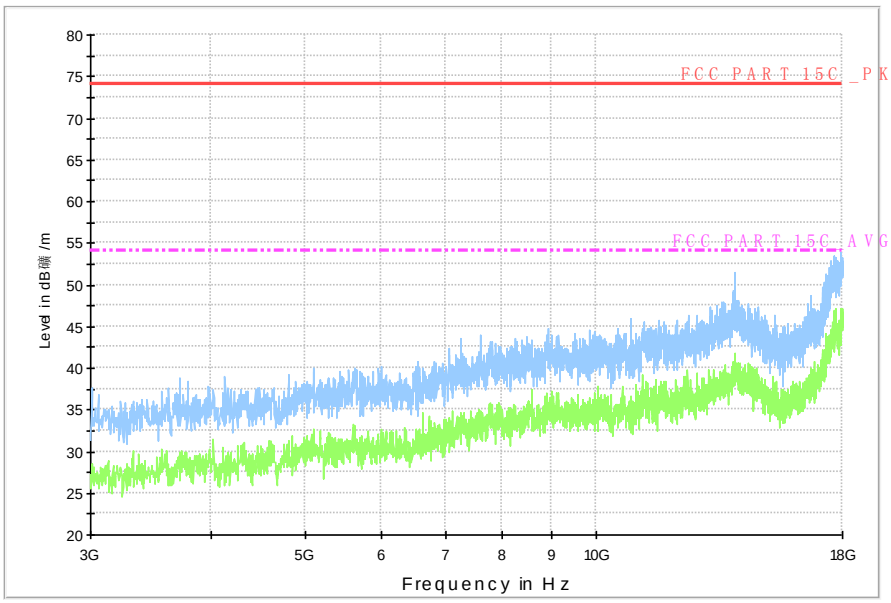

Fig. 109 Radiated Spurious Emission (802.11g, Ch11, 3 GHz-18 GHz)

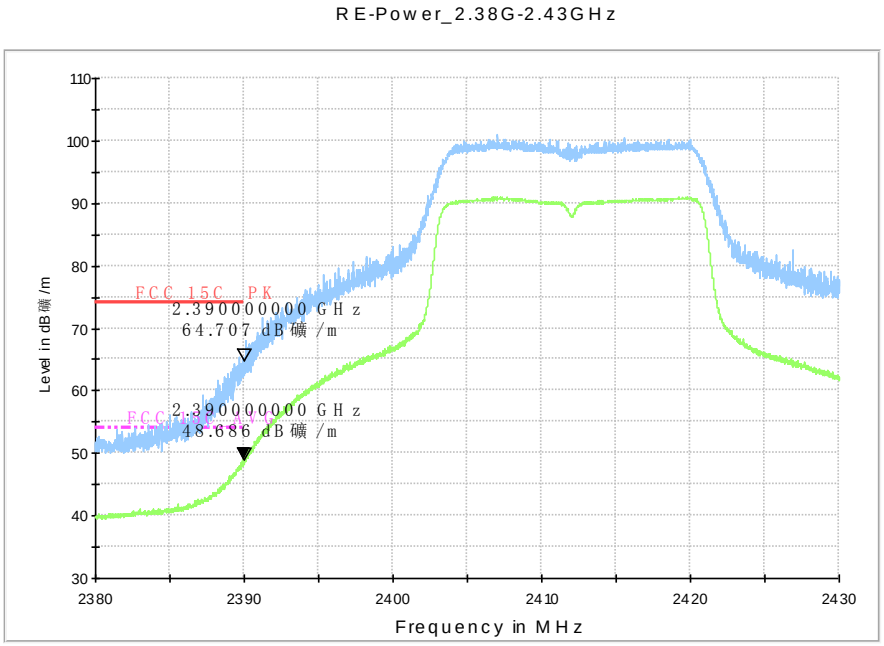

Fig. 110 Radiated Spurious Emission (Power): 802.11n-HT20, ch1, 2.38 GHz - 2.45GHz

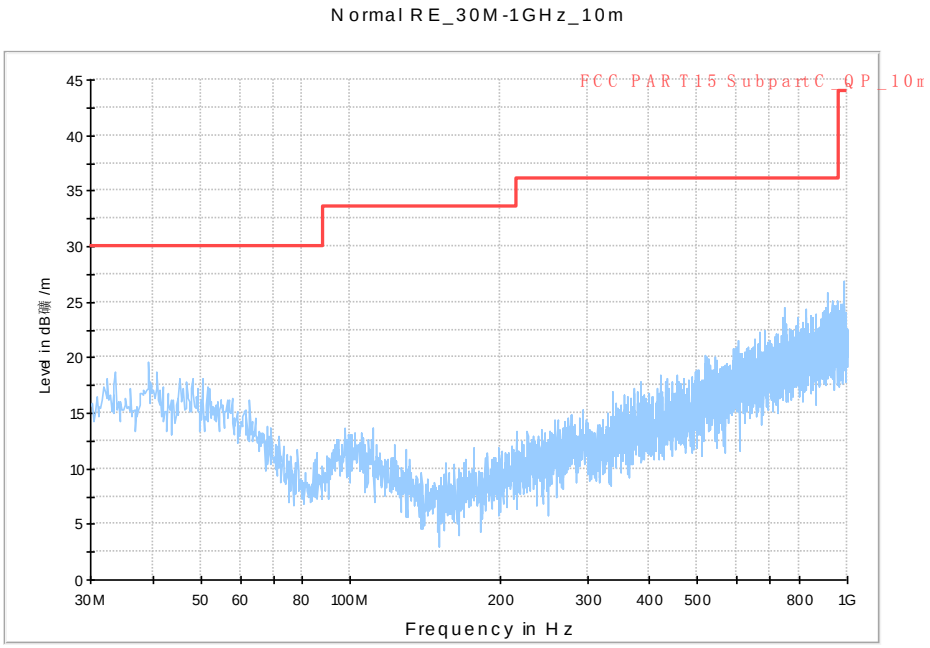

Fig. 111 Radiated Spurious Emission (802.11n-HT20, Ch1, 30 MHz-1 GHz)

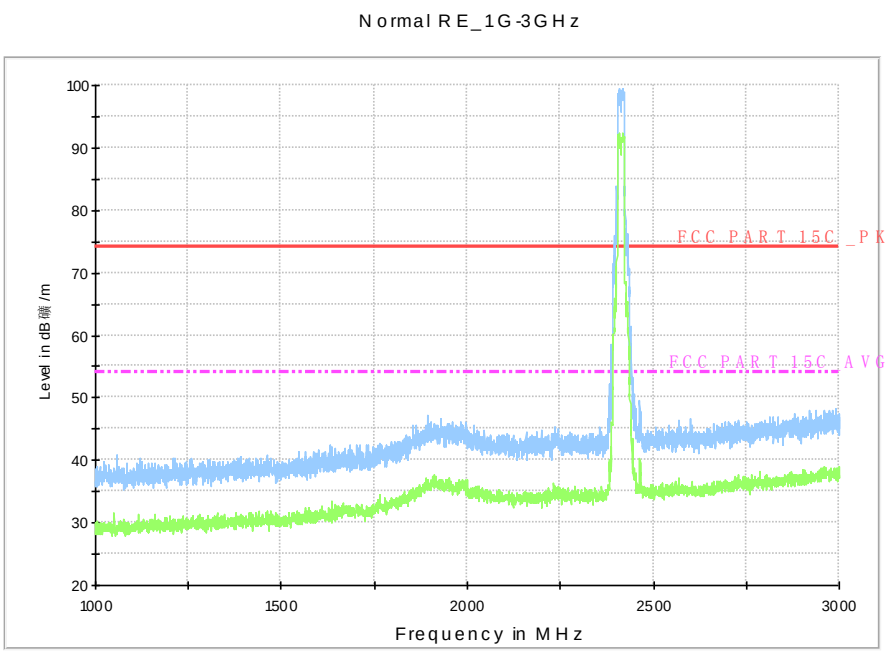

Fig. 112 Radiated Spurious Emission (802.11n-HT20, Ch1, 1 GHz-3 GHz)

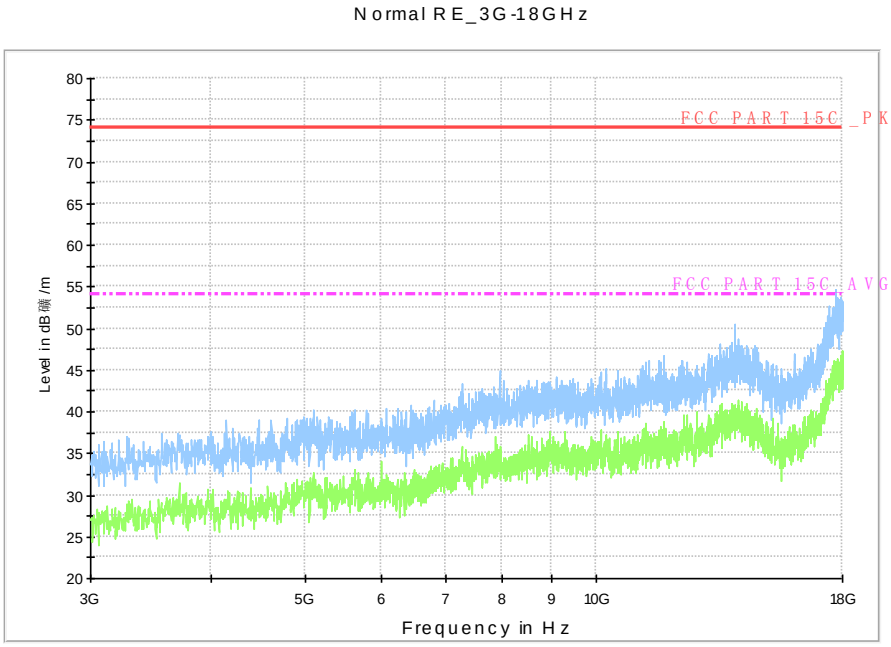

Fig. 113 Radiated Spurious Emission (802.11n-HT20, Ch1, 3 GHz-18 GHz)

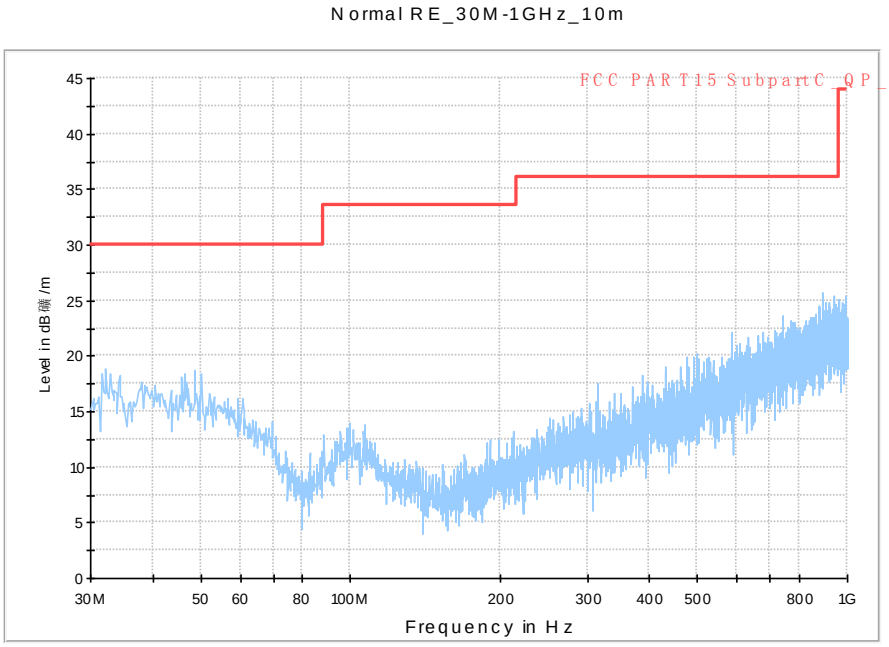

Fig. 114 Radiated Spurious Emission (802.11n-HT20, Ch6, 30 MHz-1 GHz)

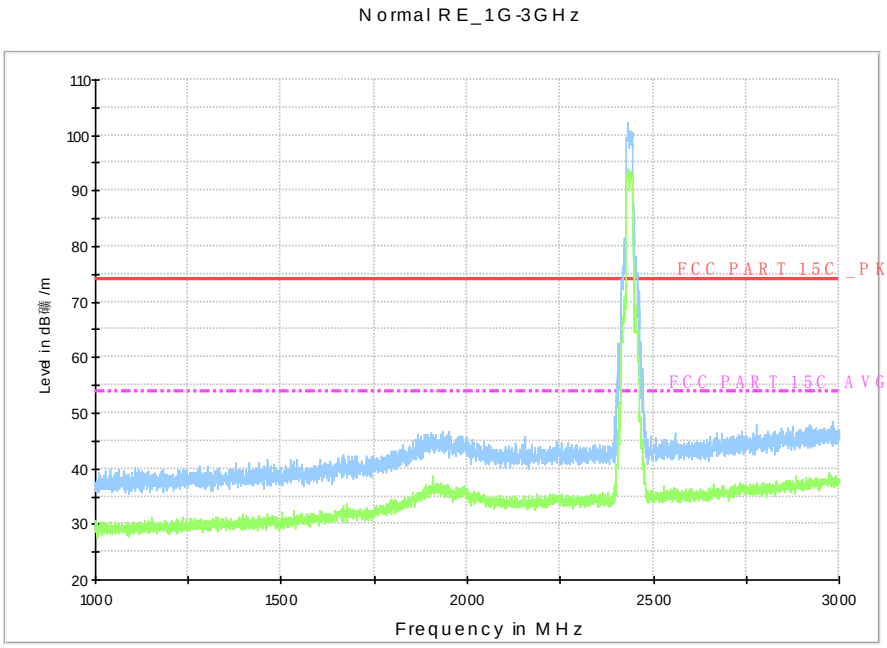

Fig. 115 Radiated Spurious Emission (802.11n-HT20, Ch6, 1 GHz-3 GHz)

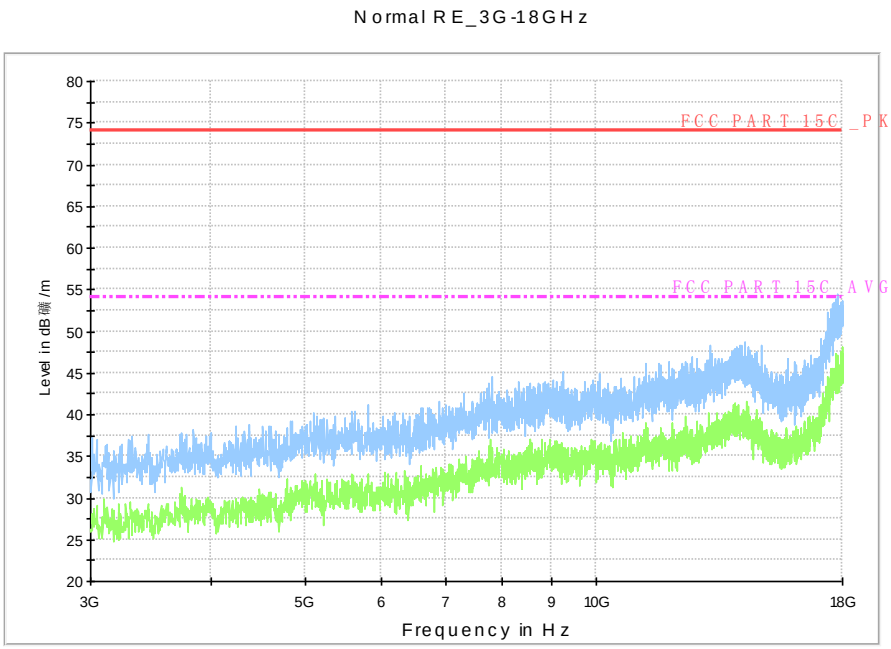

Fig. 116 Radiated Spurious Emission (802.11n-HT20, Ch6, 3 GHz-18 GHz)

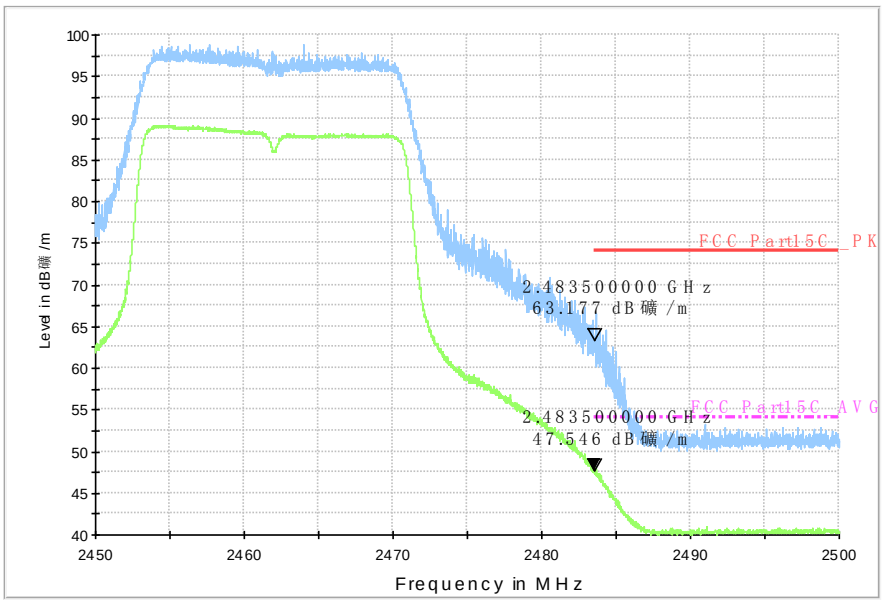

Fig. 117 Radiated Spurious Emission (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.5GHz

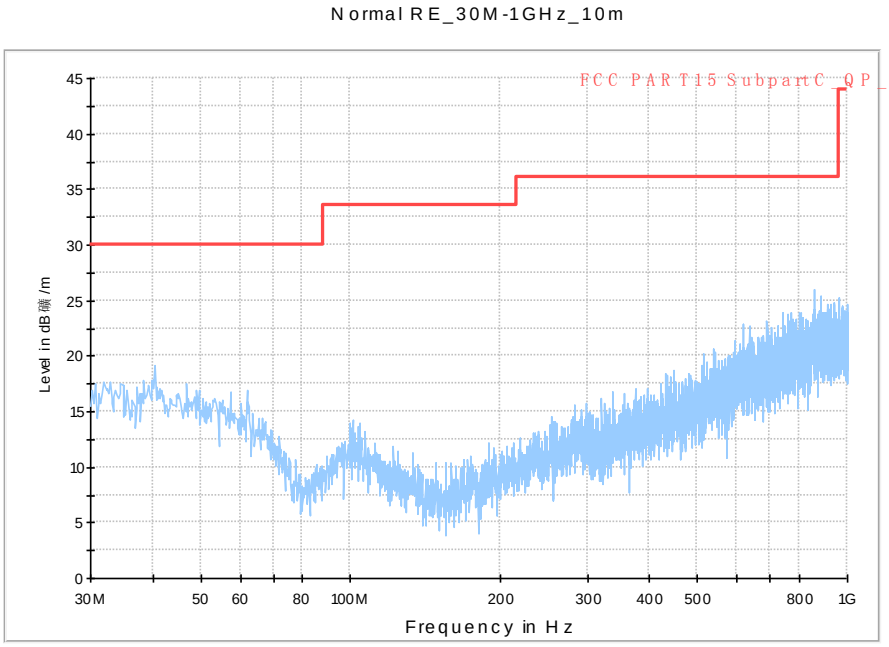

Fig. 118 Radiated Spurious Emission (802.11n-HT20, Ch11, 30 MHz-1 GHz)

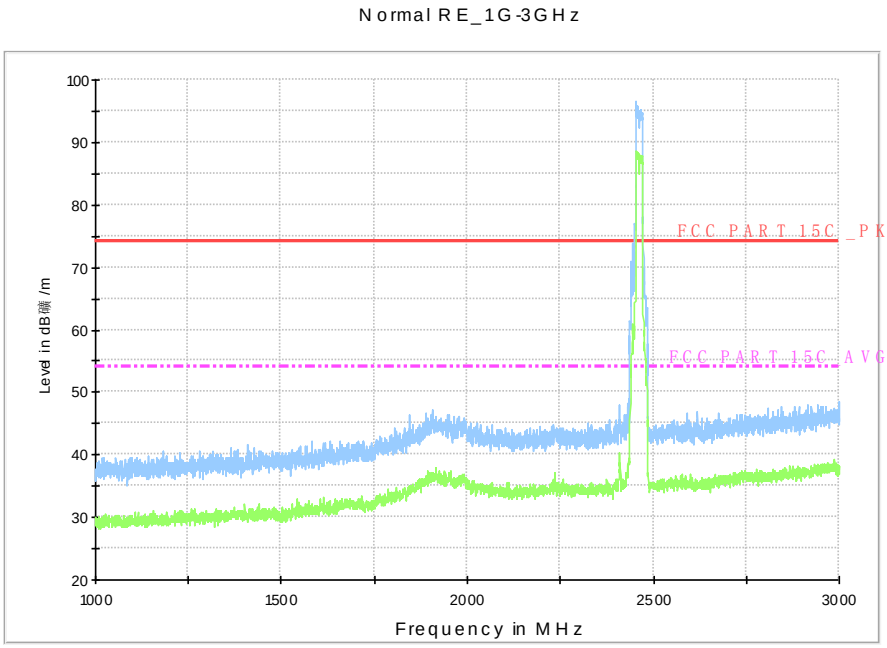

Fig. 119 Radiated Spurious Emission (802.11n-HT20, Ch11, 1 GHz-3 GHz)

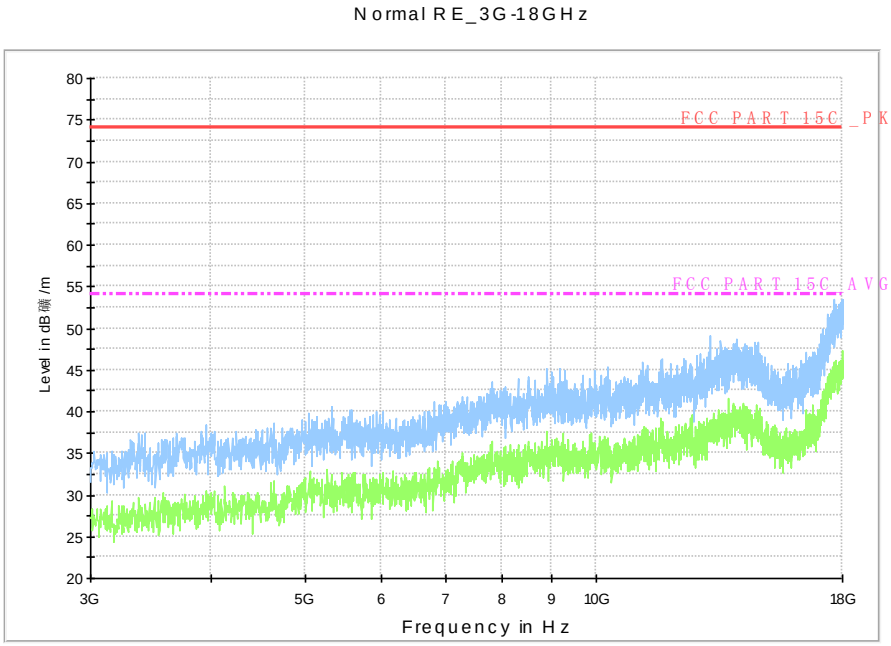

Fig. 120 Radiated Spurious Emission (802.11n-HT20, Ch11, 3 GHz-18 GHz)

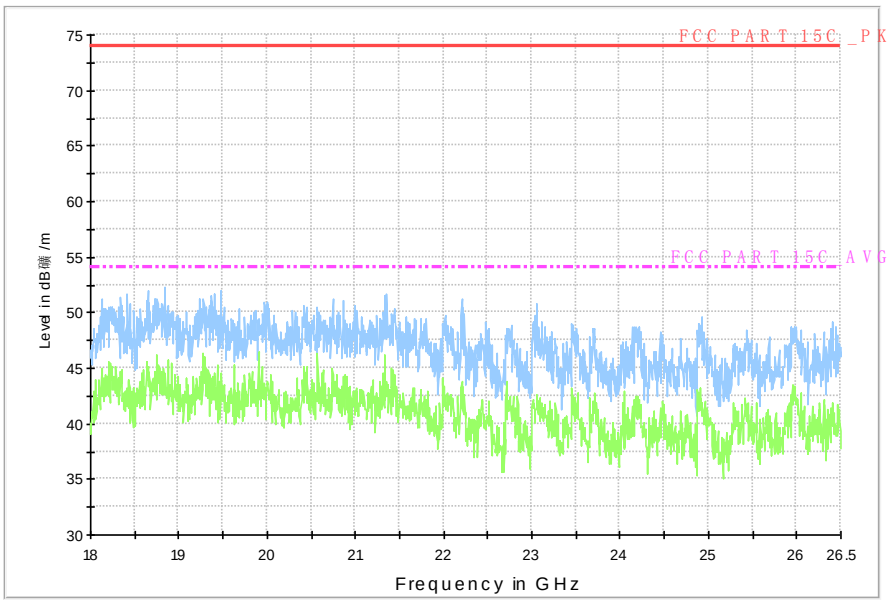

Fig. 121 Radiated emission: 18 GHz – 26.5 GHz

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.122	Fig.123	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.122	Fig.123	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:

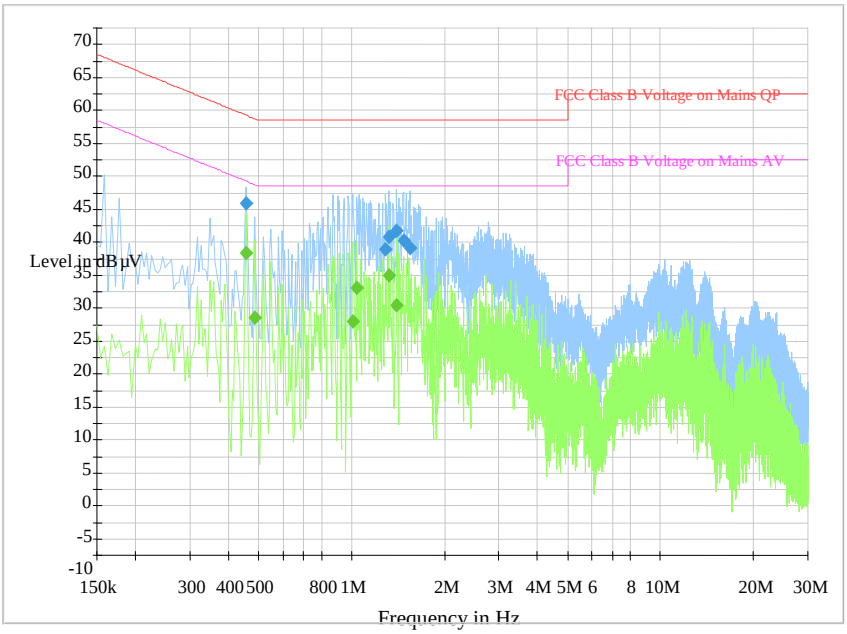

Fig. 122 AC Powerline Conducted Emission-802.11b

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)
0.456000	43.4	GND	L1	9.8	13.4	56.8
1.288500	36.3	GND	L1	9.7	19.7	56.0
1.320000	38.4	GND	L1	9.7	17.6	56.0
1.396500	39.2	GND	L1	9.7	16.8	56.0
1.473000	37.7	GND	L1	9.7	18.3	56.0
1.545000	36.6	GND	L1	9.7	19.4	56.0

Measurement Result 2:

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.456000	35.9	GND	L1	9.8	10.9	46.8
0.487500	26.1	GND	L1	9.8	20.1	46.2
1.009500	25.5	GND	L1	9.7	20.5	46.0
1.041000	30.5	GND	L1	9.7	15.5	46.0
1.320000	32.4	GND	L1	9.7	13.6	46.0
1.522501	36.8	GND	N	9.9	9.2	46.0

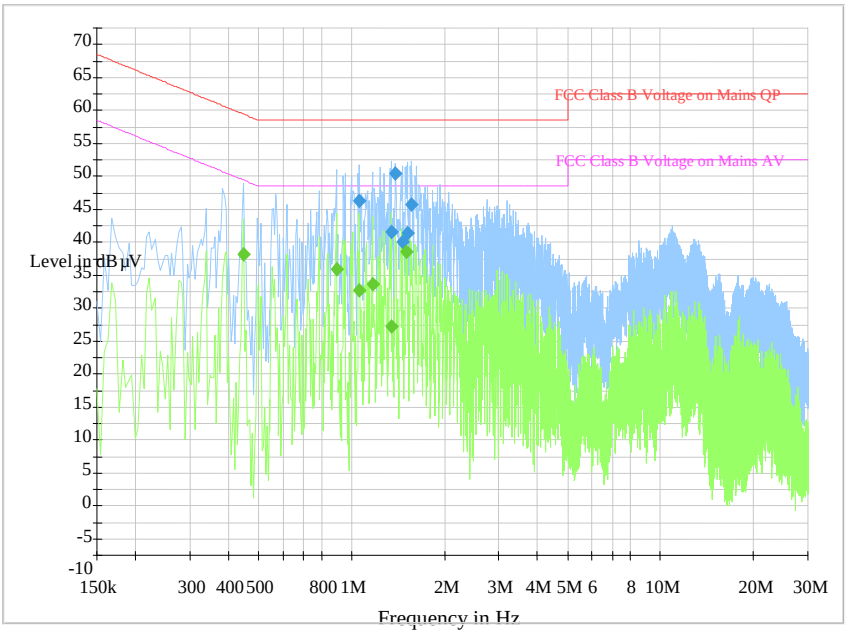

Fig. 123 AC Powerline Conducted Emission-Idle

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)
1.063500	43.8	GND	L1	9.7	12.2	56.0
1.342500	39.0	GND	L1	9.7	17.0	56.0
1.387500	48.0	GND	L1	9.7	8.0	56.0
1.459500	37.5	GND	L1	9.7	18.5	56.0
1.518000	38.9	GND	L1	9.7	17.1	56.0
1.567500	43.3	GND	L1	9.7	12.7	56.0

Measurement Result 2:

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.447000	35.6	GND	L1	9.8	11.3	46.9
0.892500	33.4	GND	L1	9.7	12.6	46.0
1.063500	30.2	GND	L1	9.7	15.8	46.0
1.171500	31.1	GND	L1	9.7	14.9	46.0
1.342500	24.6	GND	L1	9.7	21.4	46.0
1.527001	34.6	GND	N	9.9	11.4	46.0