

Measurement Results:

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	CH 1	1 GHz ~18 GHz	Fig.45	P
	CH 6	1 GHz ~18 GHz	Fig.46	P
	CH 11	1 GHz ~18 GHz	Fig.47	P
	Restricted Band (CH1)	2.38 GHz ~ 2.45 GHz	Fig.48	P
	Restricted Band (CH11)	2.45 GHz ~ 2.5 GHz	Fig.49	P
802.11g	CH 1	1 GHz ~18 GHz	Fig.50	P
	CH 6	1 GHz ~18 GHz	Fig.51	P
	CH 11	1 GHz ~18 GHz	Fig.52	P
	Restricted Band (CH1)	2.38 GHz ~ 2.45 GHz	Fig.53	P
	Restricted Band (CH11)	2.45 GHz ~ 2.5 GHz	Fig.54	P
802.11n HT20	CH 1	1 GHz ~18 GHz	Fig.55	P
	CH 6	1 GHz ~18 GHz	Fig.56	P
	CH 11	1 GHz ~18 GHz	Fig.57	P
	Restricted Band (CH1)	2.38 GHz ~ 2.45 GHz	Fig.58	P
	Restricted Band (CH11)	2.45 GHz ~ 2.5 GHz	Fig.59	P
802.11n HT40	CH 3	1 GHz ~18 GHz	Fig.60	P
	CH 6	1 GHz ~18 GHz	Fig.61	P
	CH 9	1 GHz ~18 GHz	Fig.62	P
	Restricted Band (CH3)	2.38 GHz ~ 2.45 GHz	Fig.63	P
	Restricted Band (CH9)	2.45 GHz ~ 2.5 GHz	Fig.64	P
/	All Channels	9 kHz ~30 MHz	Fig.65	P
		30 MHz ~1 GHz	Fig.66	P
		18 GHz ~26.5 GHz	Fig.67	P

Worst-Case Result:

802.11b CH1 (1-18GHz)

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
12526.500000	56.75	74.00	17.25	H	20.0
13024.000000	56.40	74.00	17.61	H	20.1
15574.000000	55.96	74.00	18.04	V	21.0
15643.500000	57.15	74.00	16.85	H	21.3
16656.000000	57.11	74.00	16.89	H	22.3
17689.500000	56.15	74.00	17.85	H	22.8

Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
12900.500000	44.28	54.00	9.72	H	20.0
14688.500000	44.48	54.00	9.52	V	20.7
15577.500000	44.43	54.00	9.57	H	21.1
15657.000000	46.02	54.00	7.98	H	21.3
16638.500000	45.60	54.00	8.40	V	22.5
17693.500000	44.81	54.00	9.19	V	22.9

802.11g CH1 (1GHz-18GHz)

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
12514.000000	56.27	74.00	17.73	V	20.0
12899.000000	56.03	74.00	17.97	V	20.0
14683.500000	56.04	74.00	17.96	H	20.7
15013.000000	55.82	74.00	18.18	H	20.0
15623.500000	56.80	74.00	17.20	H	21.3
16575.000000	56.81	74.00	17.19	H	22.6

Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
12890.000000	44.37	54.00	9.63	H	19.9
14684.500000	44.65	54.00	9.35	H	20.7
15573.000000	44.47	54.00	9.53	V	21.0
15657.000000	45.91	54.00	8.09	V	21.3
16605.000000	45.65	54.00	8.35	H	22.9
17700.500000	44.68	54.00	9.32	H	22.9

802.11n HT20 CH1 (1GHz-18GHz)

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
12685.000000	55.90	74.00	18.10	V	19.9
12873.000000	55.89	74.00	18.11	H	19.8
15120.000000	56.56	74.00	17.44	V	20.0
15625.500000	57.38	74.00	16.62	H	21.3
16582.000000	57.05	74.00	16.95	V	22.7
17805.000000	56.11	74.00	17.89	V	22.7

Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
12900.500000	44.31	54.00	9.69	H	20.0
14691.000000	44.75	54.00	9.25	V	20.7
15576.500000	44.77	54.00	9.23	H	21.1
15667.500000	45.82	54.00	8.18	V	21.3
16593.500000	45.31	54.00	8.69	H	22.8
17700.000000	44.56	54.00	9.44	H	22.9

802.11n HT40 CH3 (1GHz-18GHz)

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
12885.500000	55.72	74.00	18.28	V	19.9
14508.500000	56.52	74.00	17.48	V	20.3
15566.500000	56.14	74.00	17.86	V	20.9
15784.000000	57.22	74.00	16.78	H	20.8
16741.000000	56.82	74.00	17.18	V	21.9
17699.500000	56.80	74.00	17.20	V	22.9

Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
12889.000000	44.20	54.00	9.80	V	19.9
14680.500000	44.77	54.00	9.23	H	20.7
15573.500000	44.39	54.00	9.61	H	21.0
15671.500000	45.70	54.00	8.30	V	21.3
16620.000000	45.51	54.00	8.49	H	22.7
17697.000000	44.45	54.00	9.55	V	22.9

Note:

A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss", and Antenna Factor, 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} +Cable Loss +Antenna Factor-Gain of the preamplifier.

See below for test graphs.

Conclusion: PASS

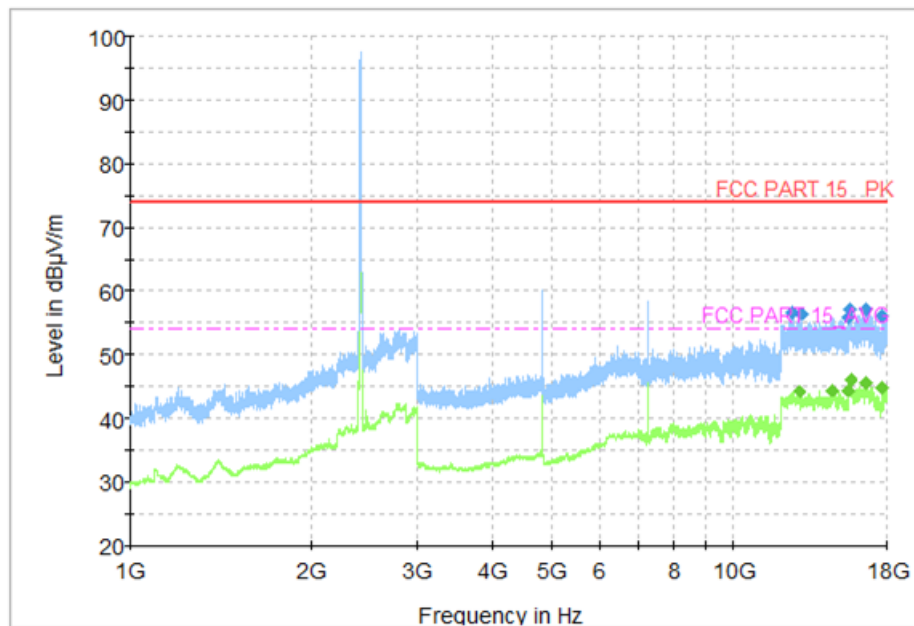


Fig.45 Radiated Spurious Emission (802.11b, CH1, 1 GHz-18GHz)

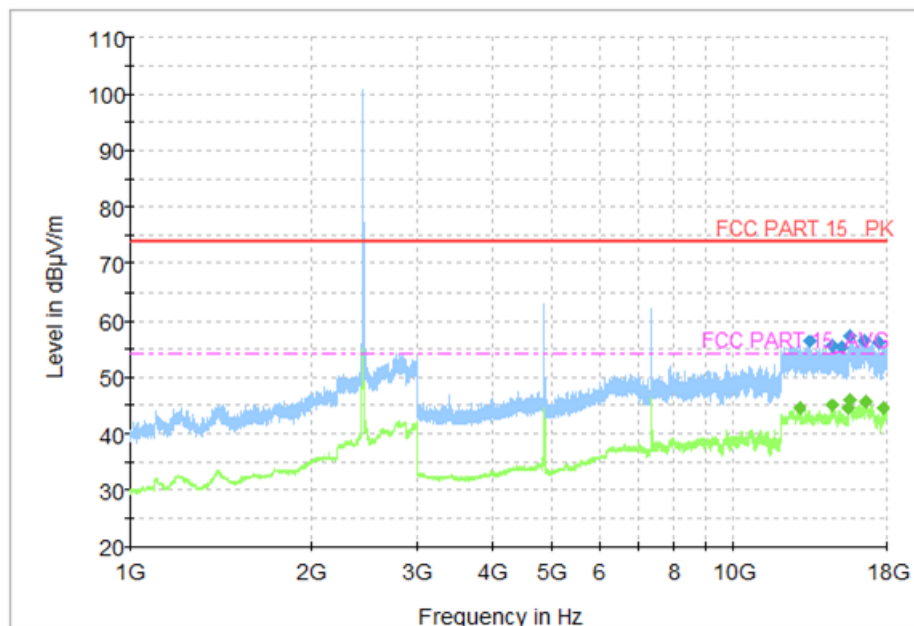


Fig.46 Radiated Spurious Emission (802.11b, CH6, 1 GHz-18GHz)

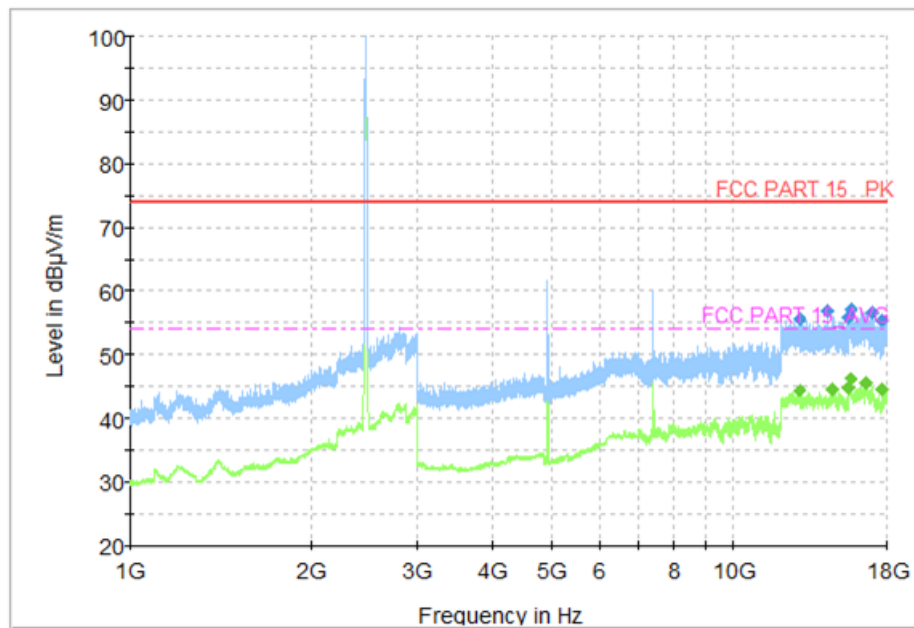


Fig.47 Radiated Spurious Emission (802.11b, CH11, 1 GHz-18GHz)

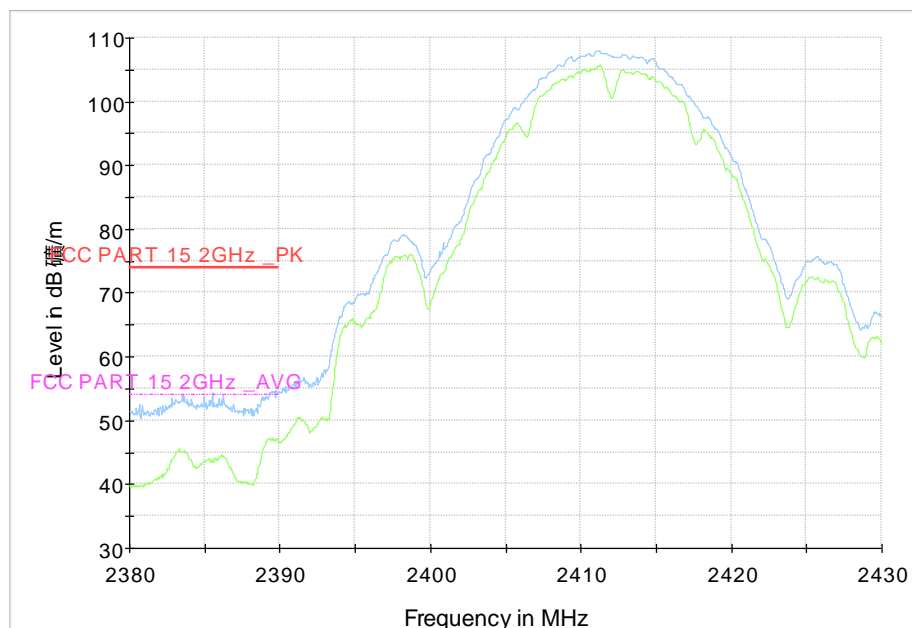


Fig.48 Radiated Restricted Band (802.11b, CH1, 2.38GHz~2.45GHz)

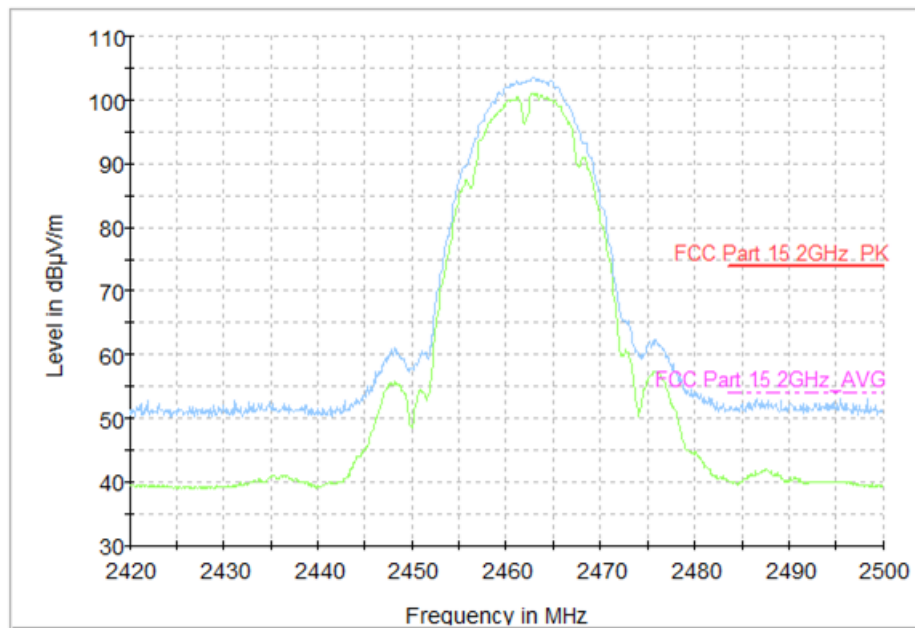


Fig.49 Radiated Restricted Band (802.11b, CH11, 2.45GHz~2.5GHz)

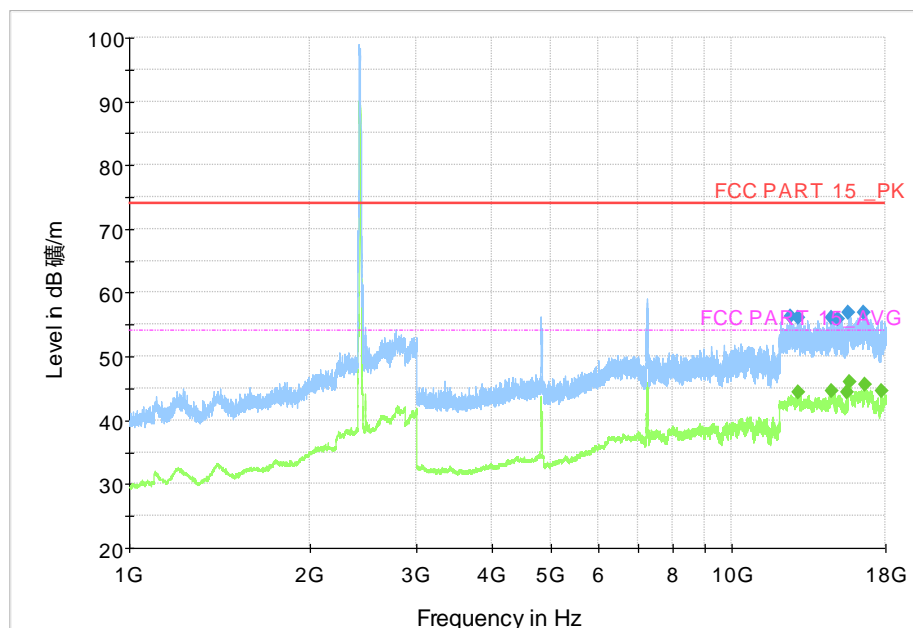


Fig.50 Radiated Spurious Emission (802.11g, CH1, 1 GHz-18 GHz)

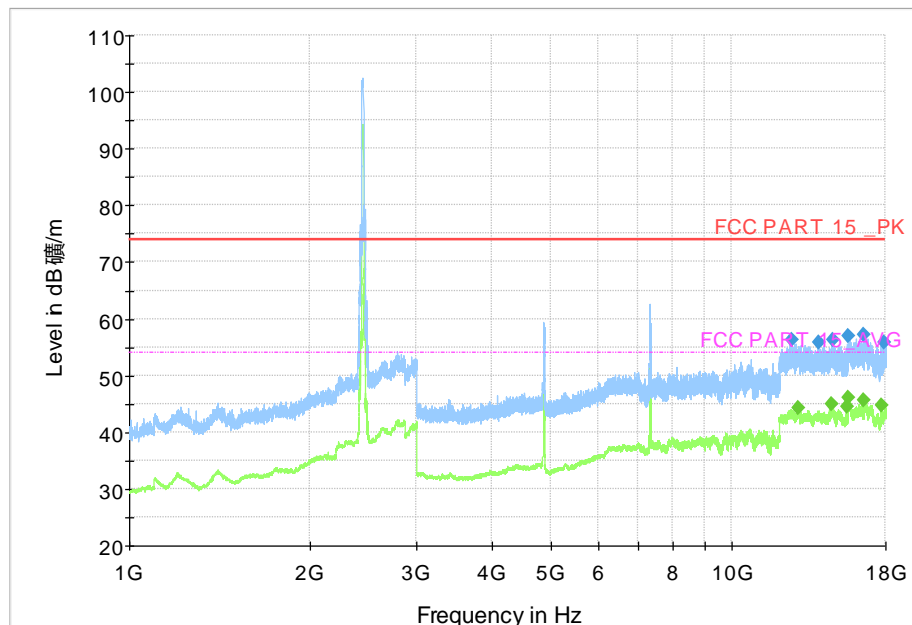


Fig.51 Radiated Spurious Emission (802.11g, CH6, 1 GHz-18 GHz)

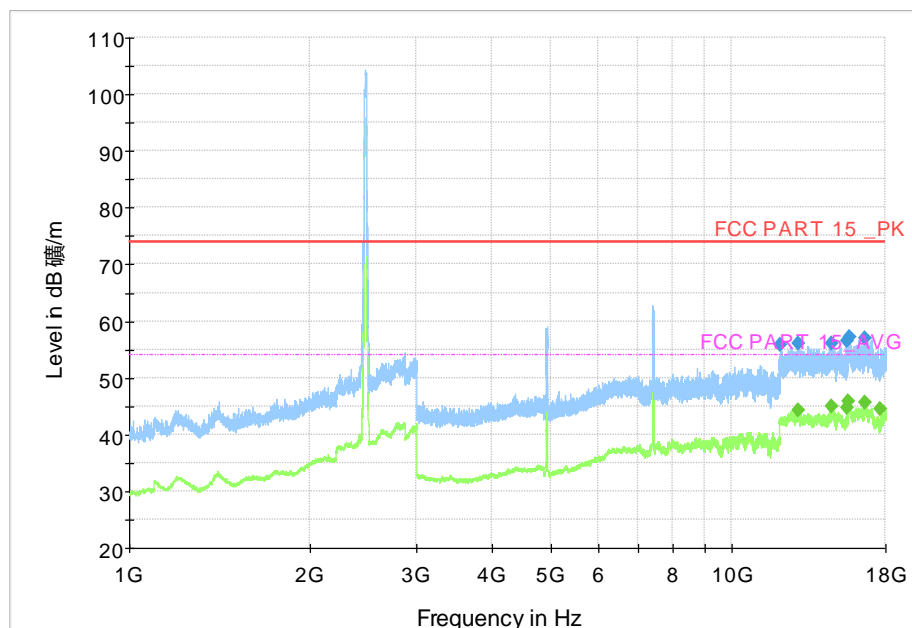


Fig.52 Radiated Spurious Emission (802.11g, CH11, 1 GHz-18 GHz)

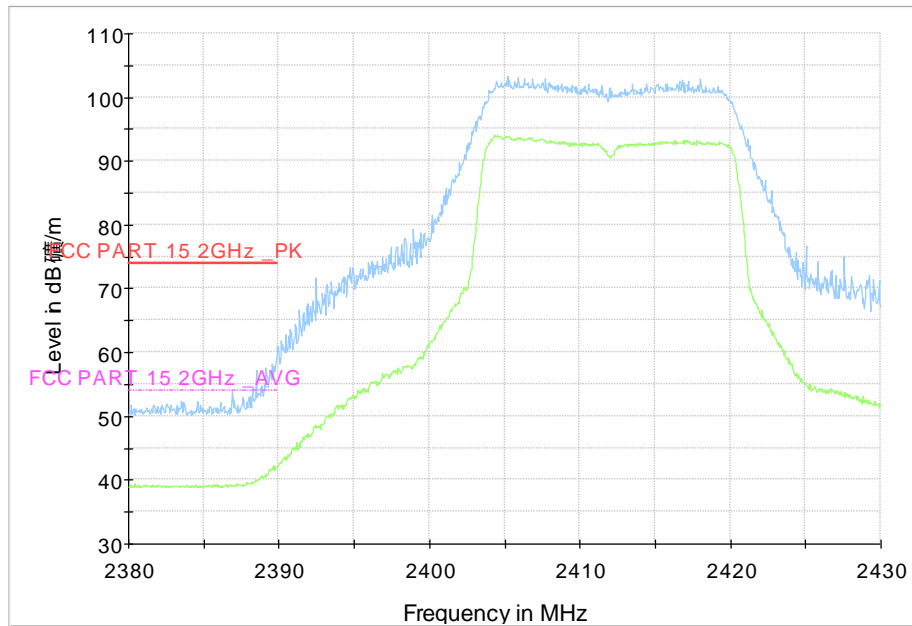


Fig.53 Radiated Restricted Band (802.11g, CH1, 2.38GHz~2.45GHz)

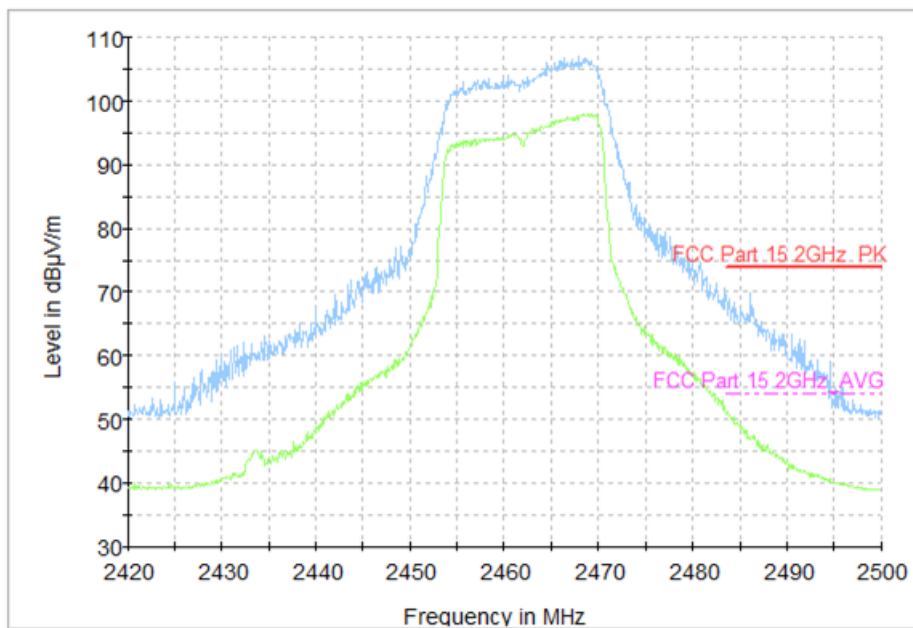


Fig.54 Radiated Restricted Band (802.11g, CH11, 2.45GHz~2.5GHz)

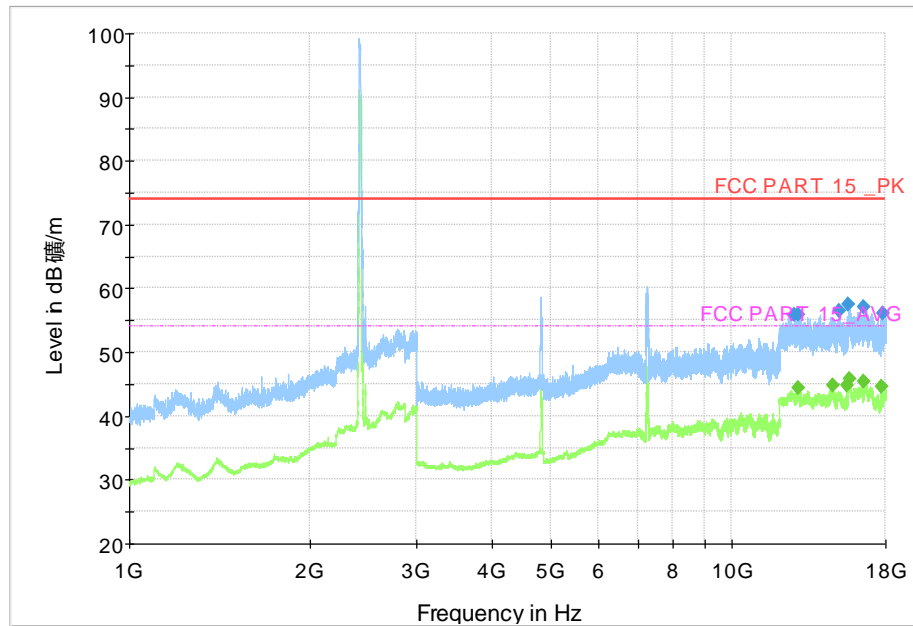


Fig.55 Radiated Spurious Emission (802.11n HT20, CH1, 1 GHz-18 GHz)

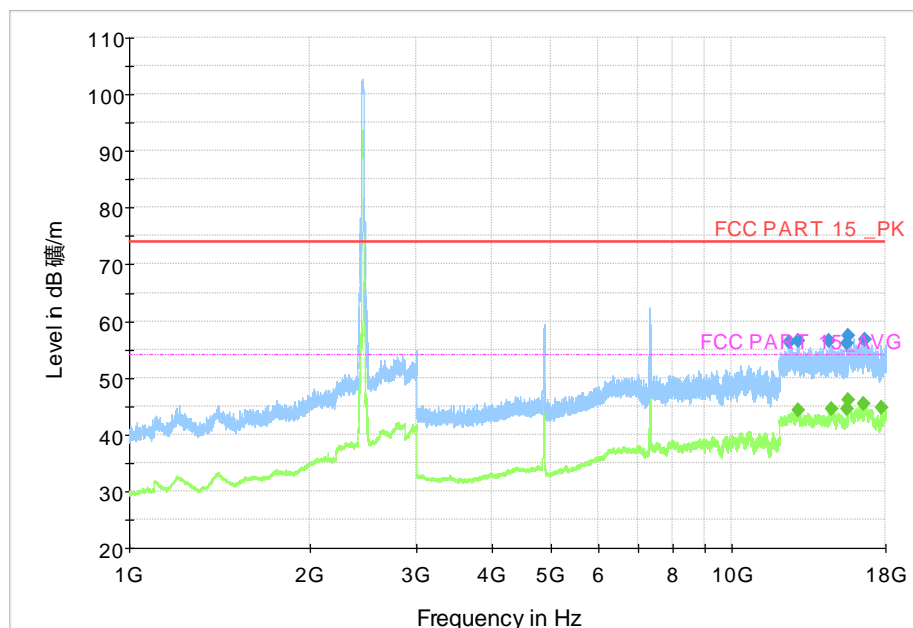


Fig.56 Radiated Spurious Emission (802.11n HT20, CH6, 1 GHz-18 GHz)

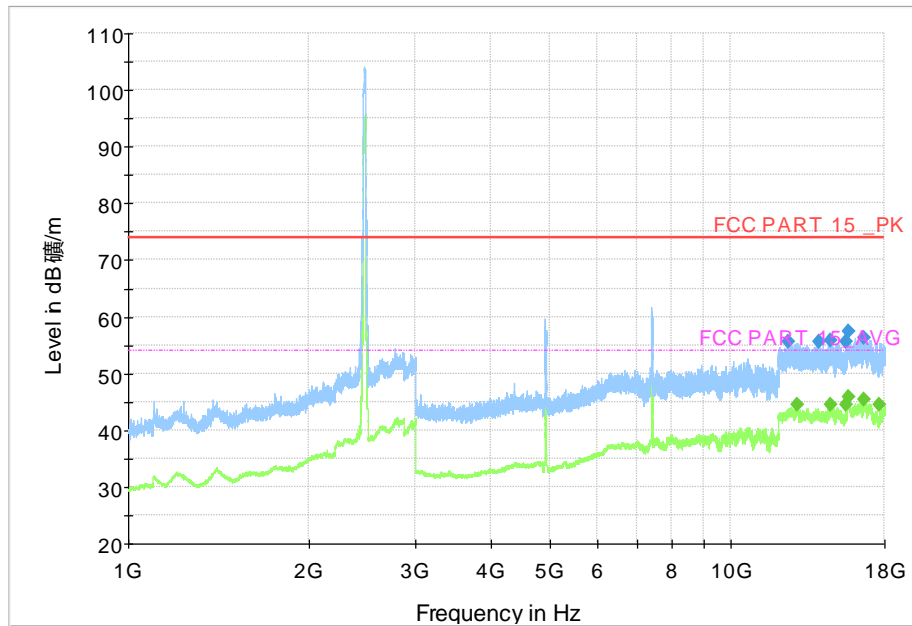


Fig.57 Radiated Spurious Emission (802.11n HT20, CH11, 1 GHz-18 GHz)

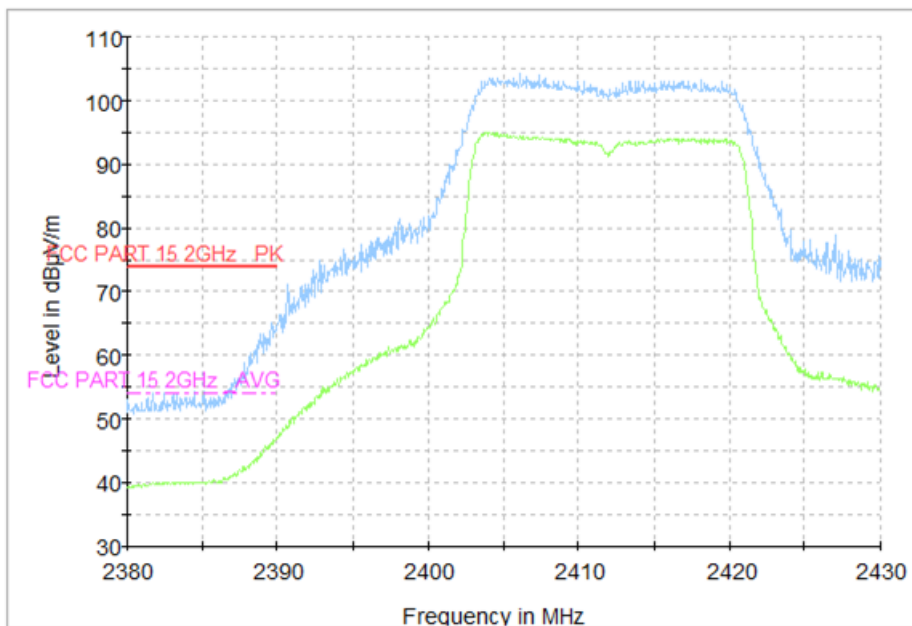


Fig.58 Radiated Restricted Band (802.11n HT20, CH1, 2.38GHz~2.45GHz)

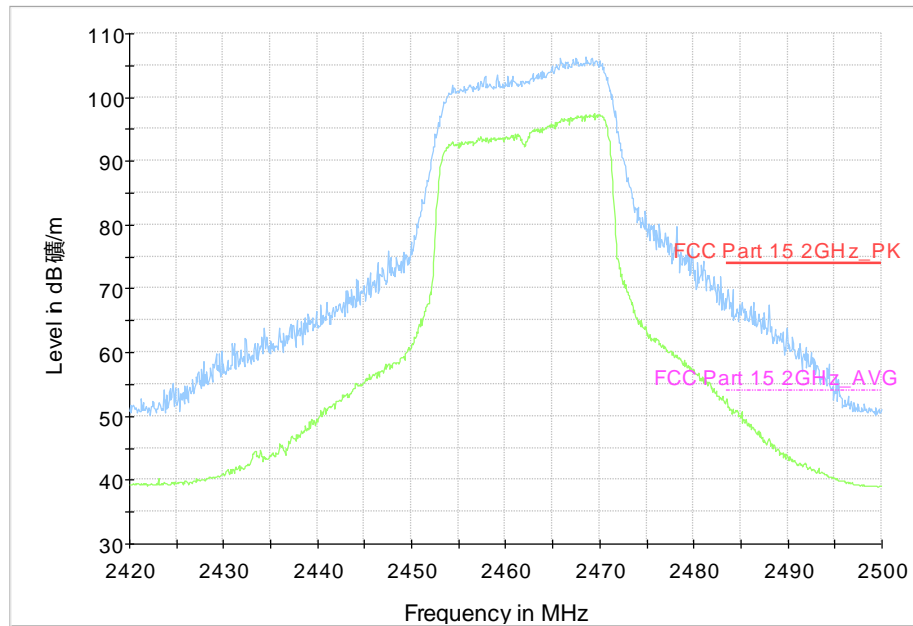


Fig.59 Radiated Restricted Band (802.11n HT20, CH11, 2.45GHz~2.5GHz)

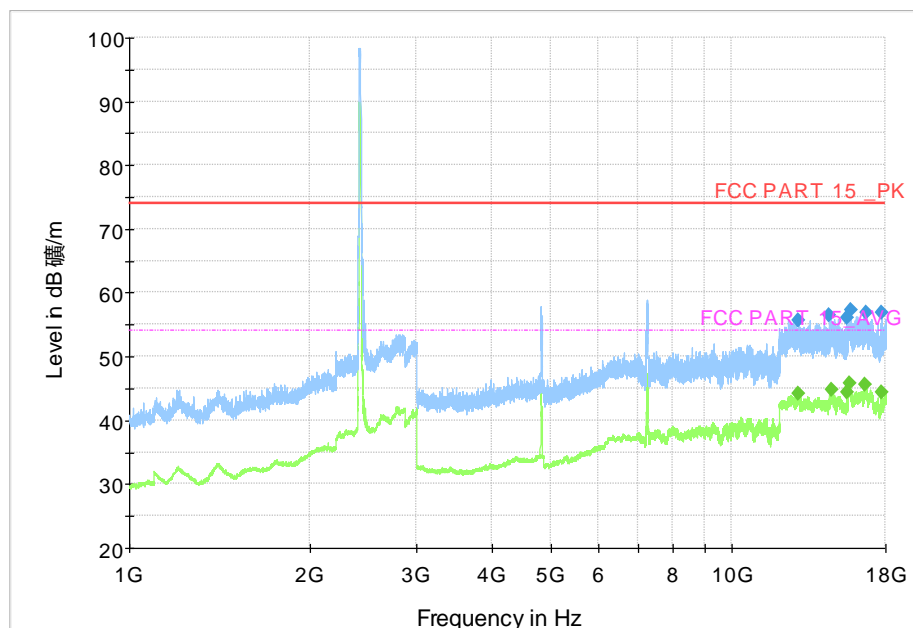


Fig.60 Radiated Spurious Emission (802.11n HT40, CH3, 1 GHz-18 GHz)

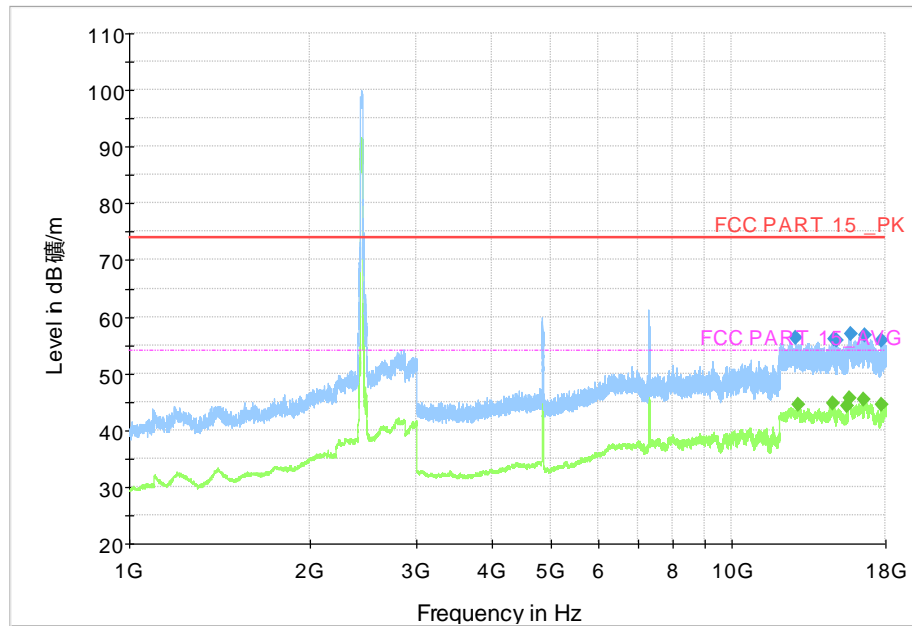


Fig.61 Radiated Spurious Emission (802.11n HT40, CH6, 1 GHz-18 GHz)

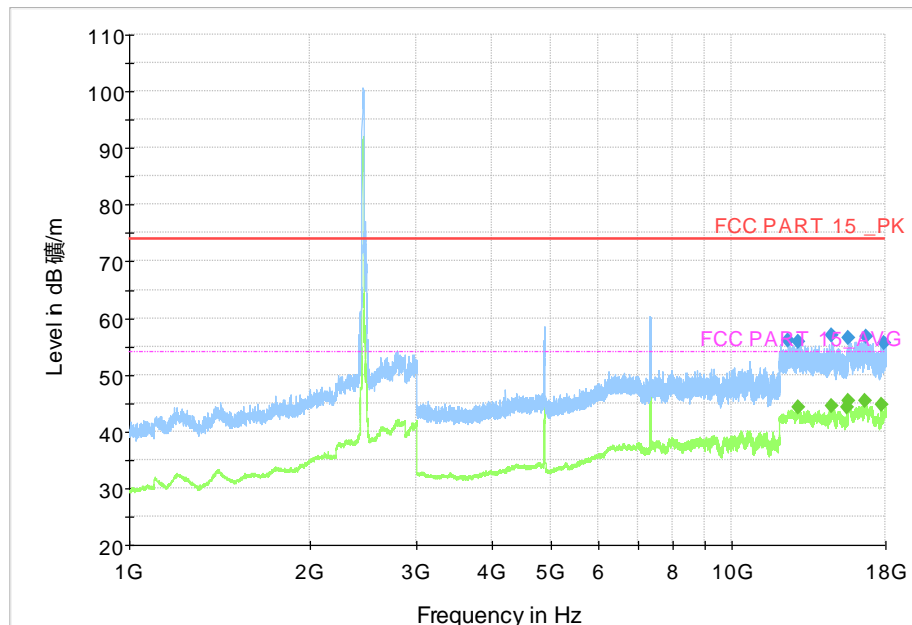


Fig.62 Radiated Spurious Emission (802.11n HT40, CH9, 1 GHz-18 GHz)

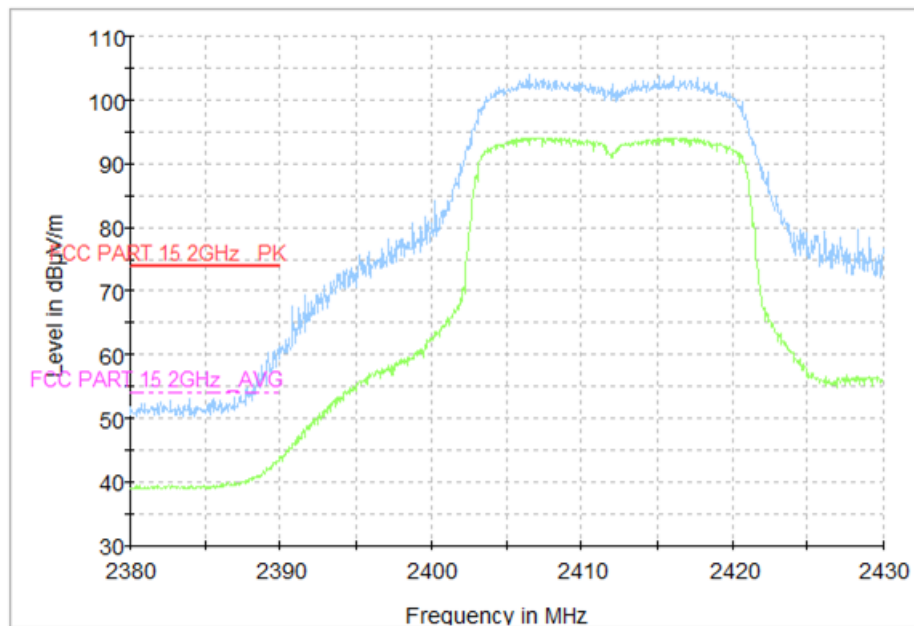


Fig.63 Radiated Restricted Band (802.11n HT40, CH3, 2.38GHz~2.45GHz)

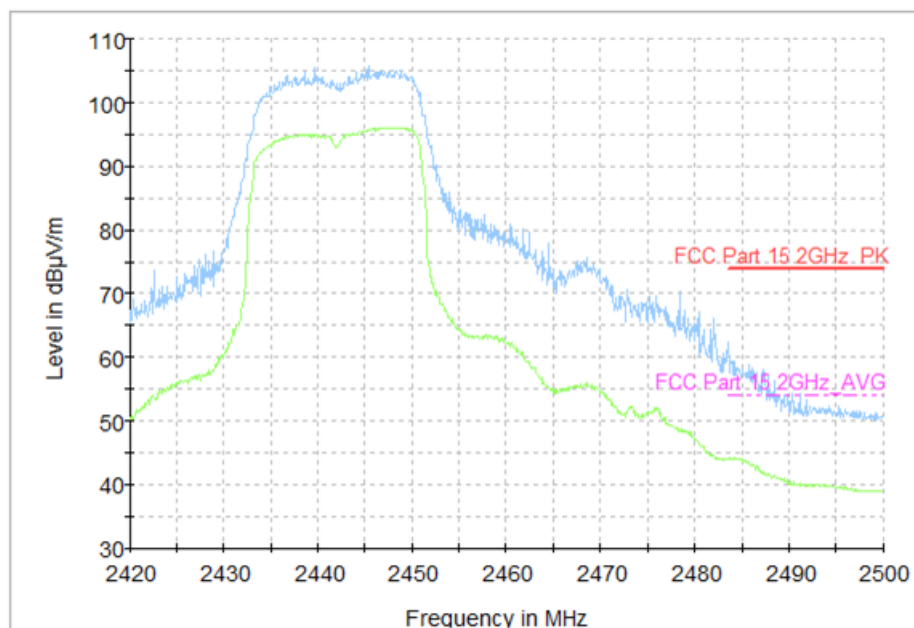


Fig.64 Radiated Restricted Band (802.11n HT40, CH9, 2.45GHz~2.5GHz)

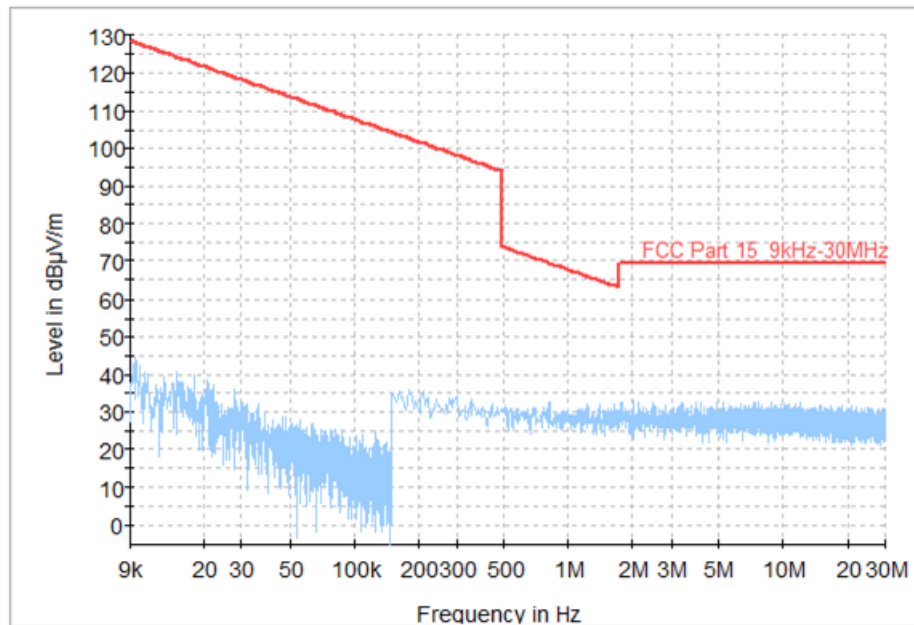


Fig.65 Radiated Spurious Emission (All Channels, 9KHz-30 MHz)

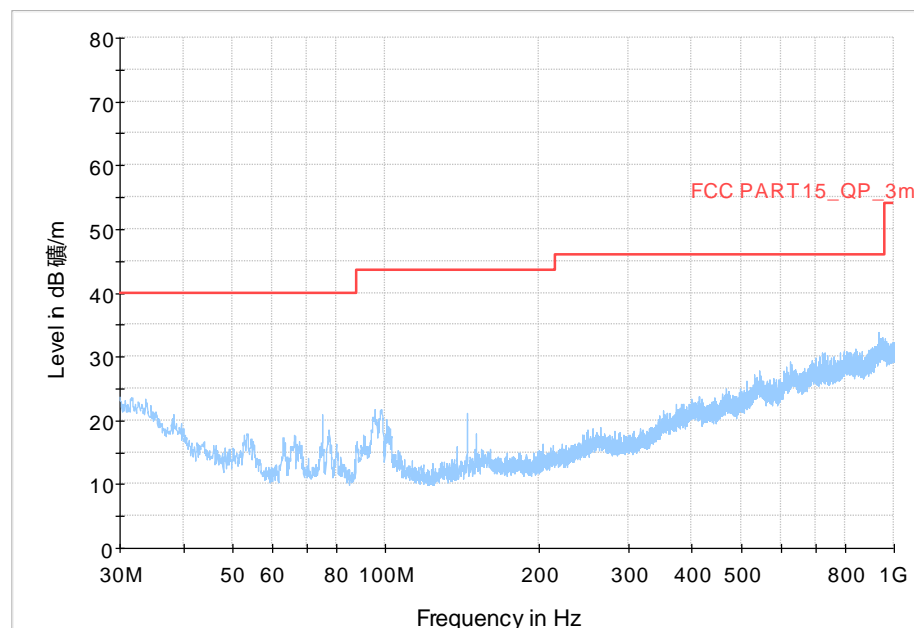


Fig.66 Radiated Spurious Emission (All Channels, 30MHz-1 GHz)

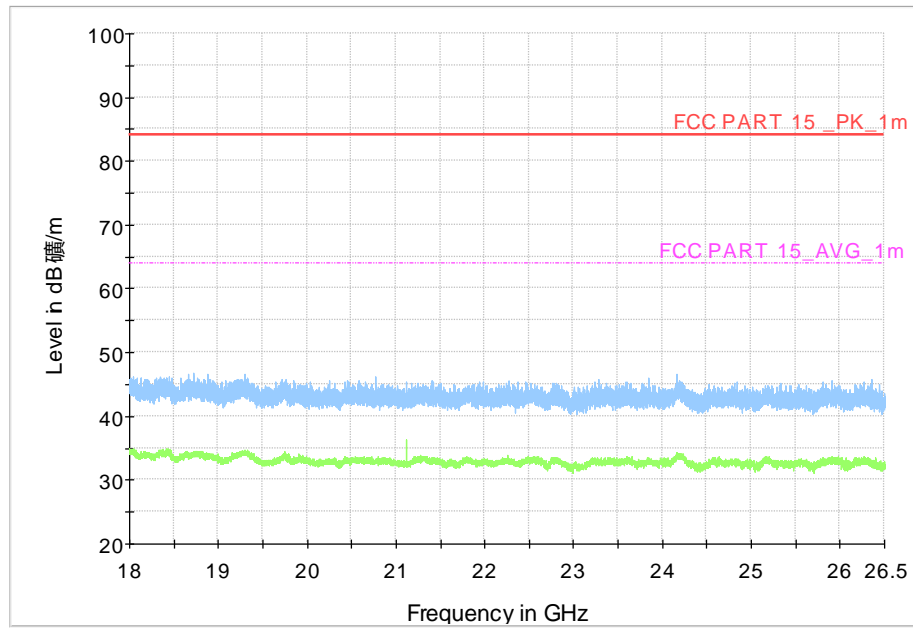


Fig.67 Radiated Spurious Emission (All Channels, 18 GHz-26.5 GHz)

A.7 AC Power line Conducted Emission

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dB μ V)	Result (dB μ V)		Conclusion
		Traffic	Idle	
0.15 to 0.5	66 to 56	Fig.68	Fig.69	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-peak Limit (dB μ V)	Result (dB μ V)		Conclusion
		Traffic	Idle	
0.15 to 0.5	56 to 46	Fig 70	Fig 71	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.

Note: The measurement results include the L1 and N measurements.

See below for test graphs.

Conclusion: PASS

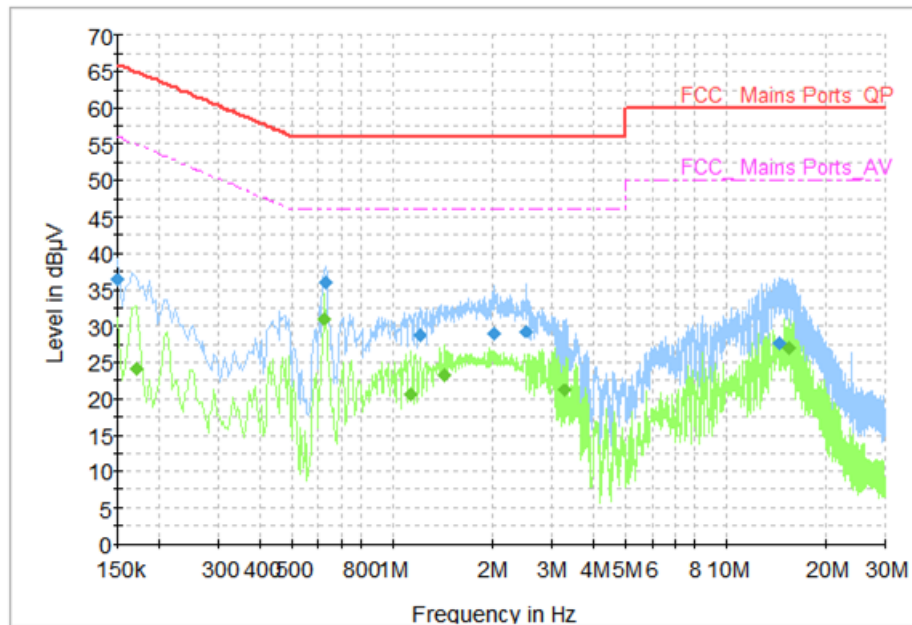


Fig.68 AC Power line Conducted Emission (Traffic)

Measurement Results: Quasi Peak

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	36.36	66.00	29.64	L1	ON	9.7
0.630000	35.94	56.00	20.06	N	ON	9.7
1.202000	28.65	56.00	27.35	N	ON	9.7
2.006000	28.99	56.00	27.01	N	ON	9.7
2.506000	29.33	56.00	26.67	N	ON	9.7
14.334000	27.63	60.00	32.37	N	ON	9.9

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.170000	24.20	54.96	30.76	N	ON	9.6
0.622000	31.03	46.00	14.97	N	ON	9.7
1.130000	20.61	46.00	25.39	L1	ON	9.7
1.430000	23.27	46.00	22.73	L1	ON	9.7
3.286000	21.18	46.00	24.82	N	ON	9.7
15.458000	27.06	50.00	22.94	L1	ON	10.1

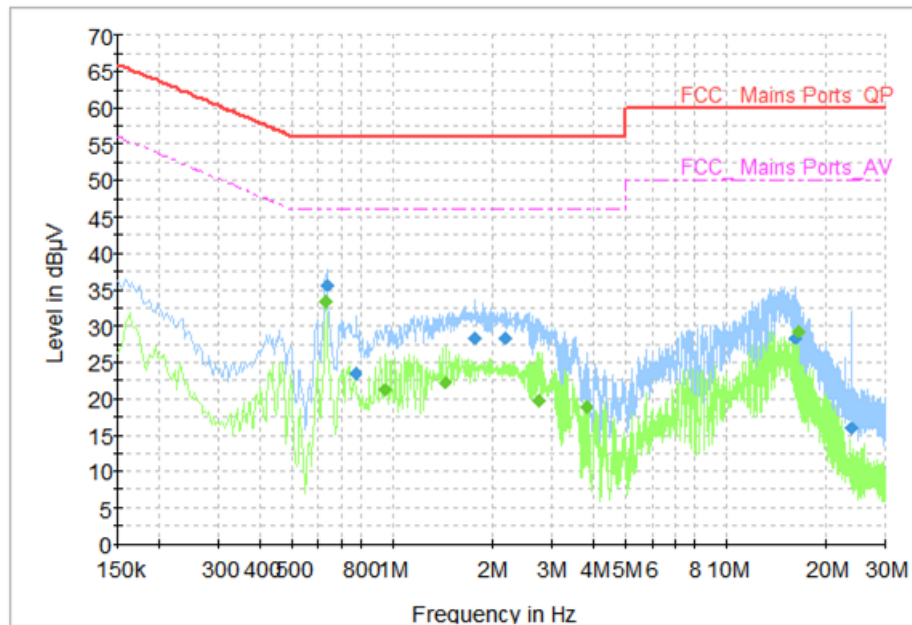


Fig.69 AC Power line Conducted Emission (Idle)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.634000	35.62	56.00	20.38	N	ON	9.7
0.774000	23.49	56.00	32.51	L1	ON	9.7
1.766000	28.35	56.00	27.65	L1	ON	9.7
2.182000	28.47	56.00	27.53	N	ON	9.7
16.142000	28.30	60.00	31.70	N	ON	10.1
23.746000	15.86	60.00	44.14	L1	ON	10.1

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.630000	33.40	46.00	12.60	L1	ON	9.7
0.950000	21.12	46.00	24.88	N	ON	9.7
1.442000	22.22	46.00	23.78	N	ON	9.7
2.746000	19.77	46.00	26.23	N	ON	9.7
3.802000	18.81	46.00	27.19	L1	ON	9.7
16.438000	29.23	50.00	20.77	L1	ON	10.1

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