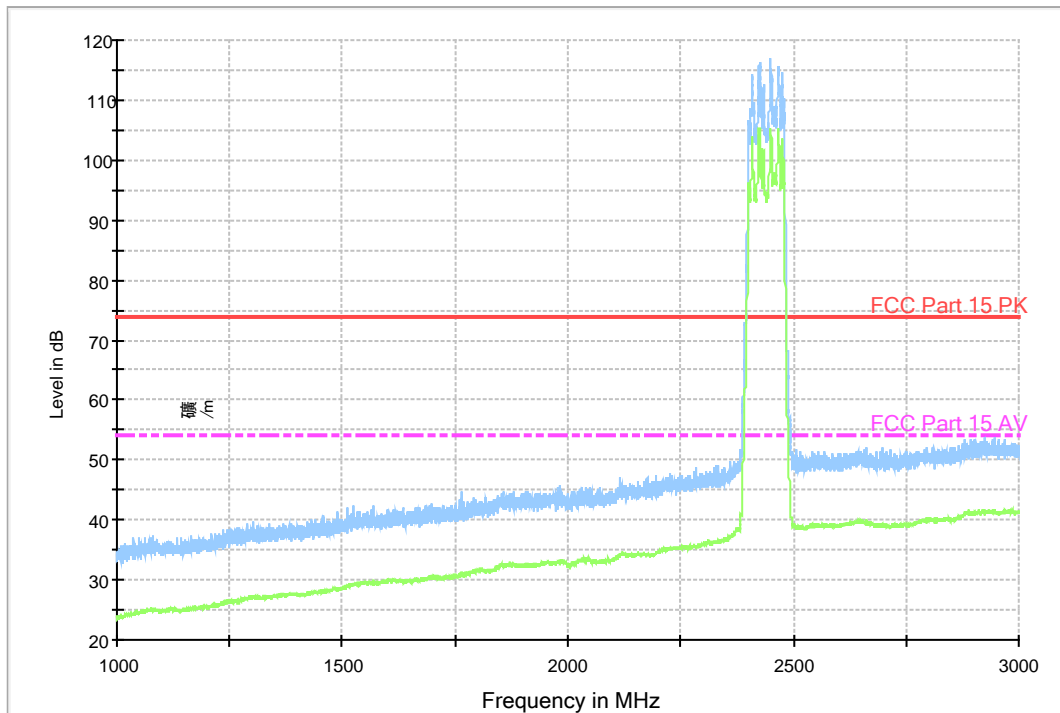


RE - TX - WLAN BT +AV+PK_1GHz-3GHz



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.20 Transmitter Spurious Emission - Radiated (802.11g, Ch11, 1 GHz-3 GHz)

RE - 3GHz-18GHz

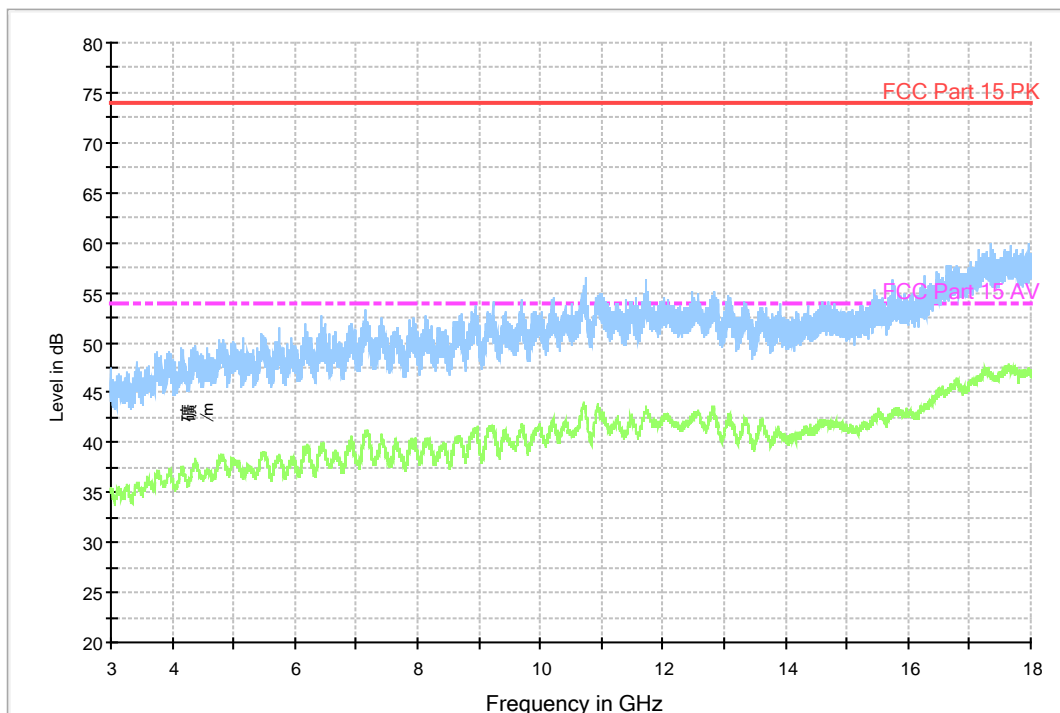


Fig.A.6.2.21 Transmitter Spurious Emission - Radiated (802.11g, Ch11, 3 GHz-18 GHz)

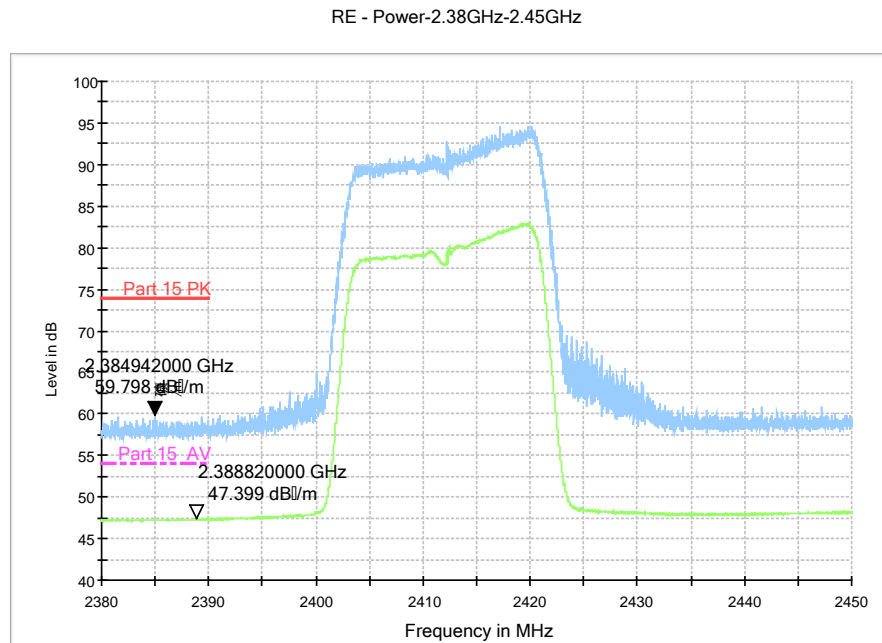
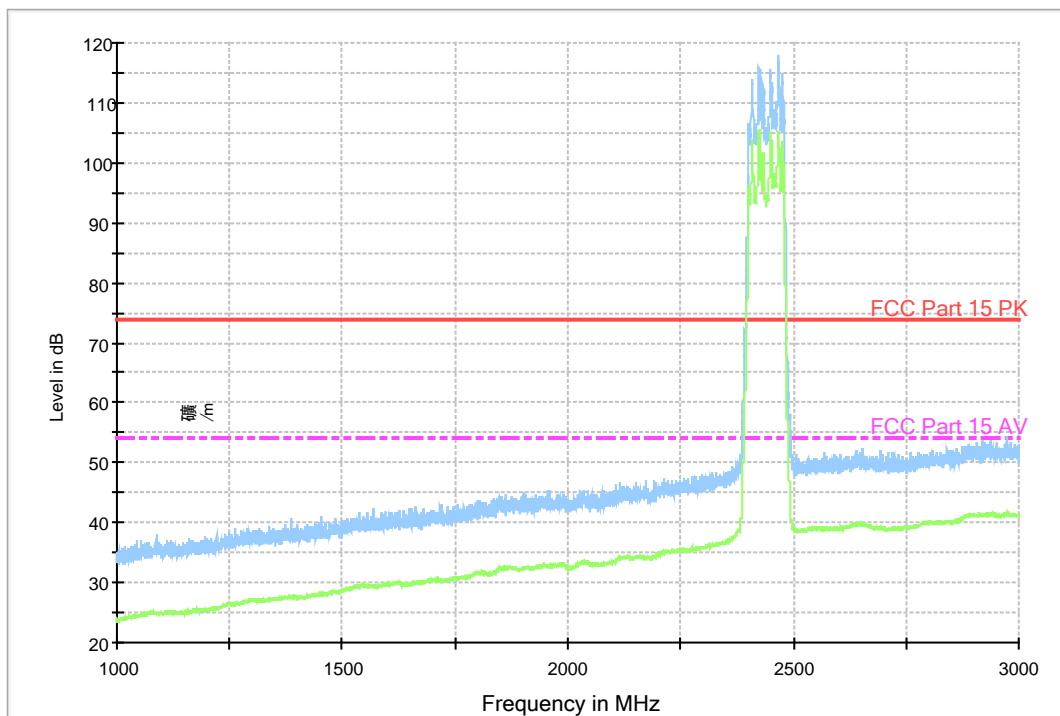


Fig.A.6.2.22 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.38 GHz - 2.45GHz

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



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.23 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch1, 1 GHz-3 GHz)

RE - 3GHz-18GHz

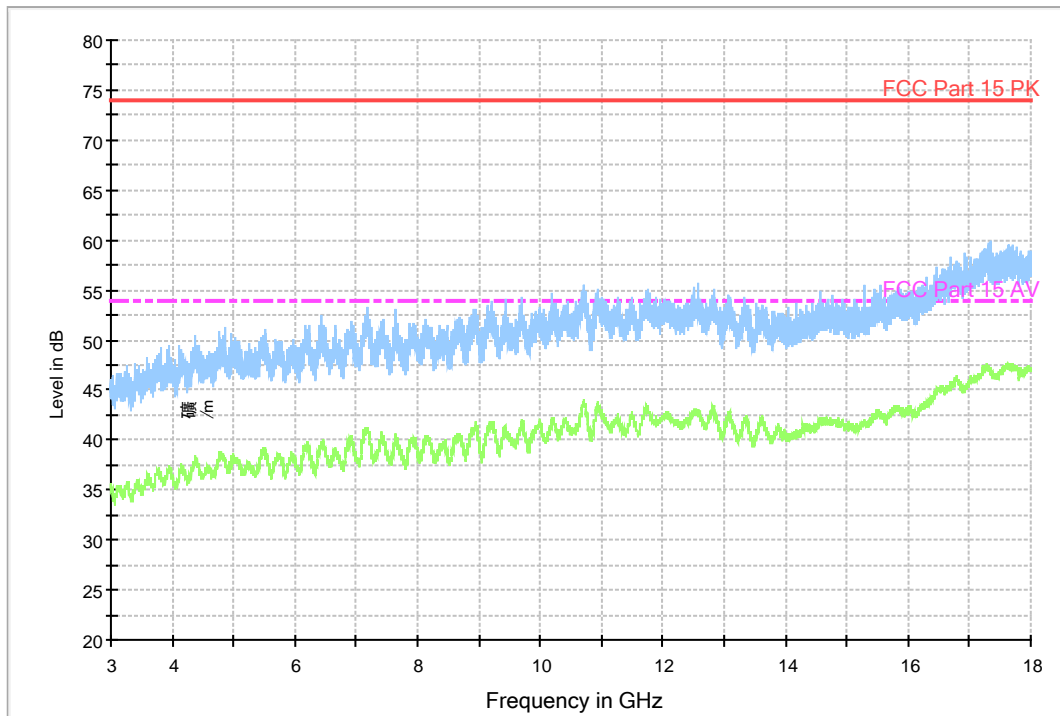


Fig.A.6.2.24 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch1, 3 GHz-18 GHz)

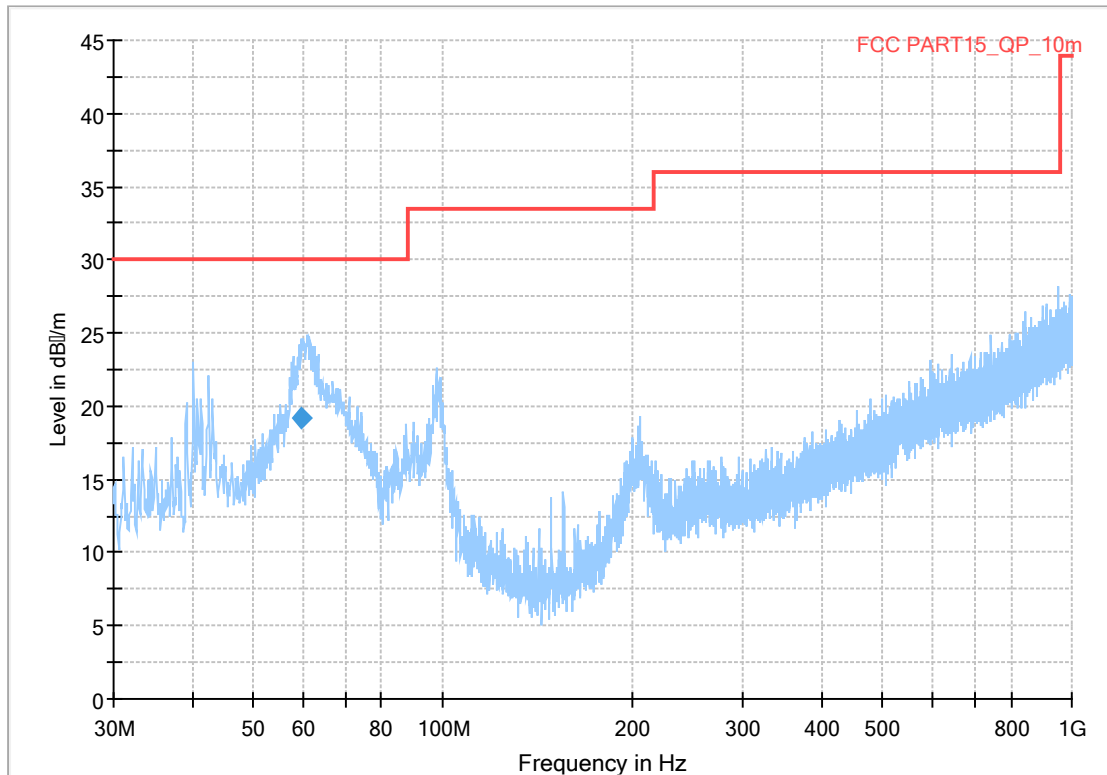
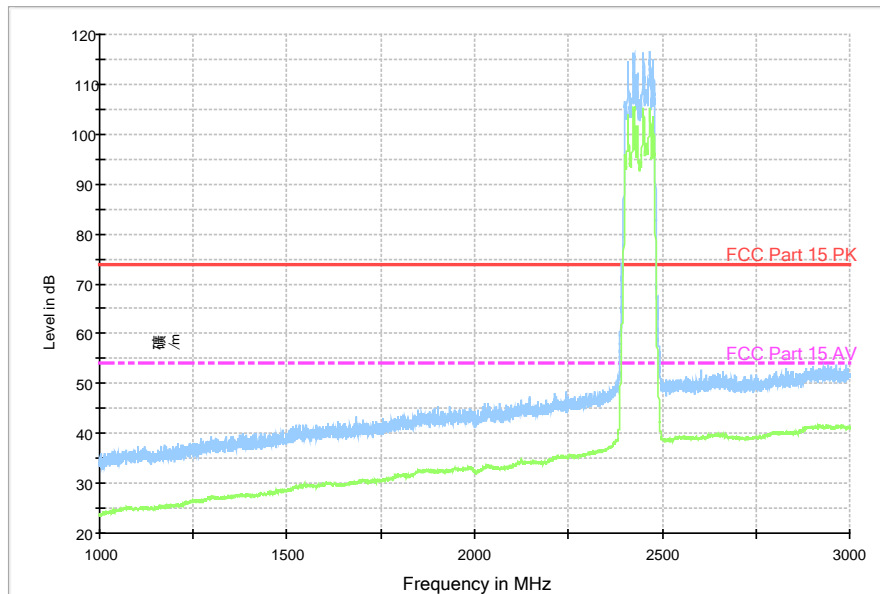


Fig.A.6.2.25 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 30 MHz-1 GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
59.516000	19.20	30.00	10.80	1000.0	120.000	315.0	V	-29.0	-12.1

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



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.26 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 1 GHz-3 GHz)

RE - 3GHz-18GHz

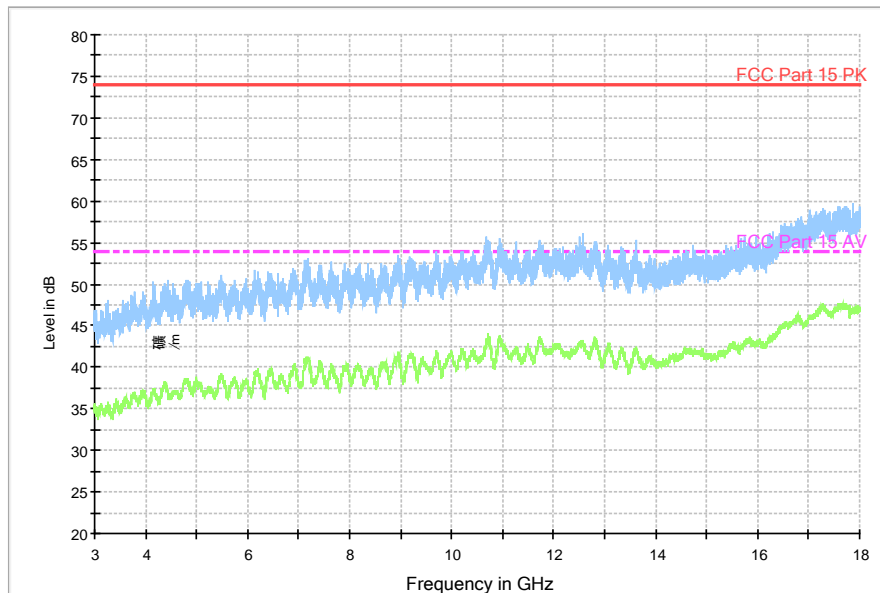


Fig.A.6.2.27 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 3 GHz-18 GHz)

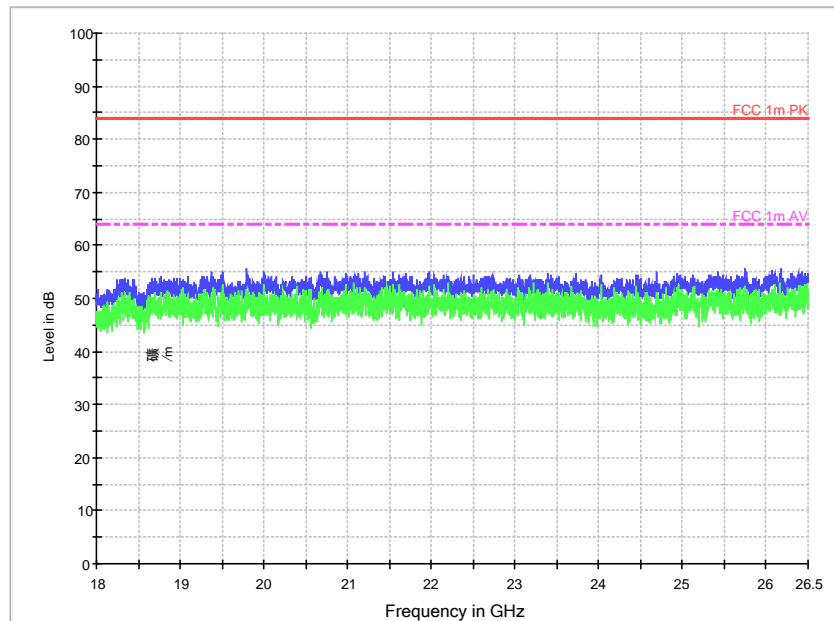


Fig.A.6.2.28 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 18GHz – 26.5GHz)

RE - Power-2.45GHz-2.5GHz

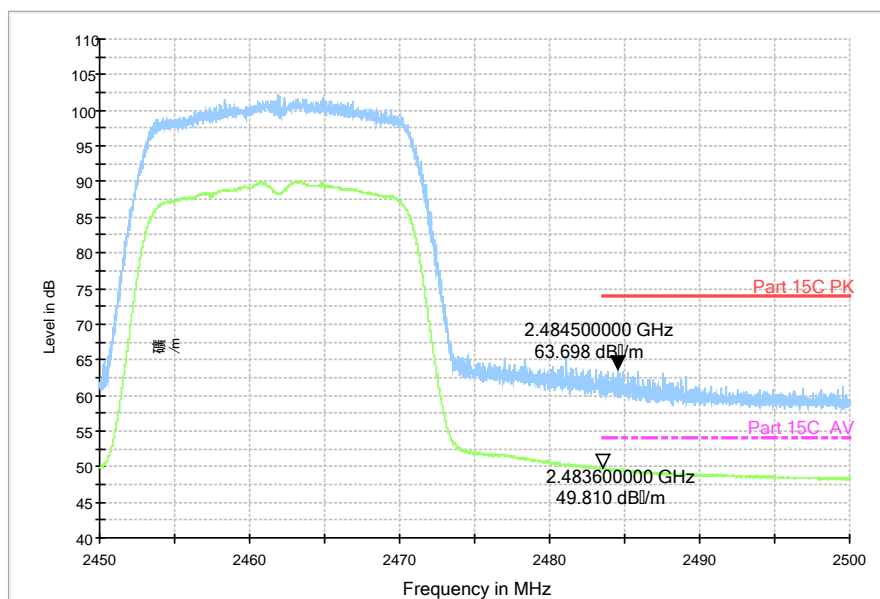
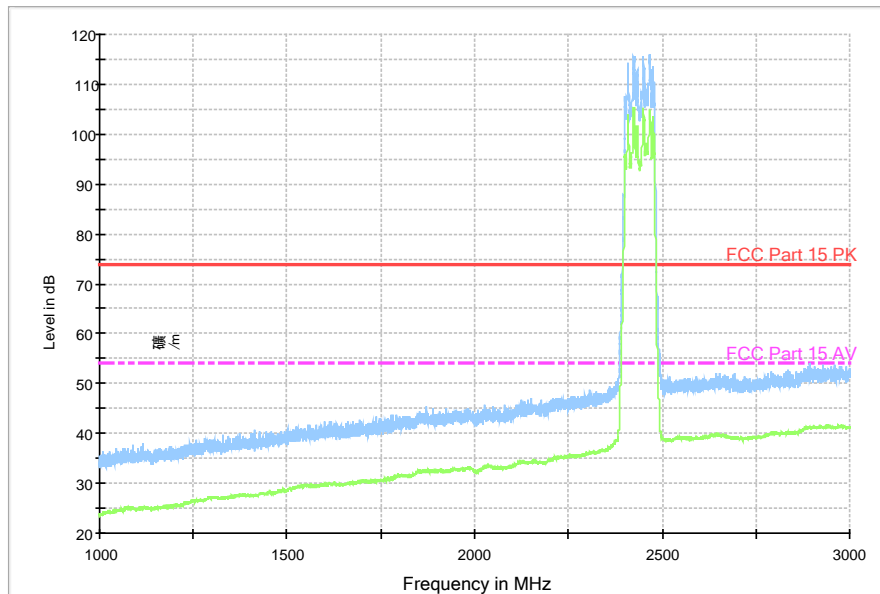


Fig.A.6.2.29 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

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



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.30 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch11, 1 GHz-3 GHz)

RE - 3GHz-18GHz

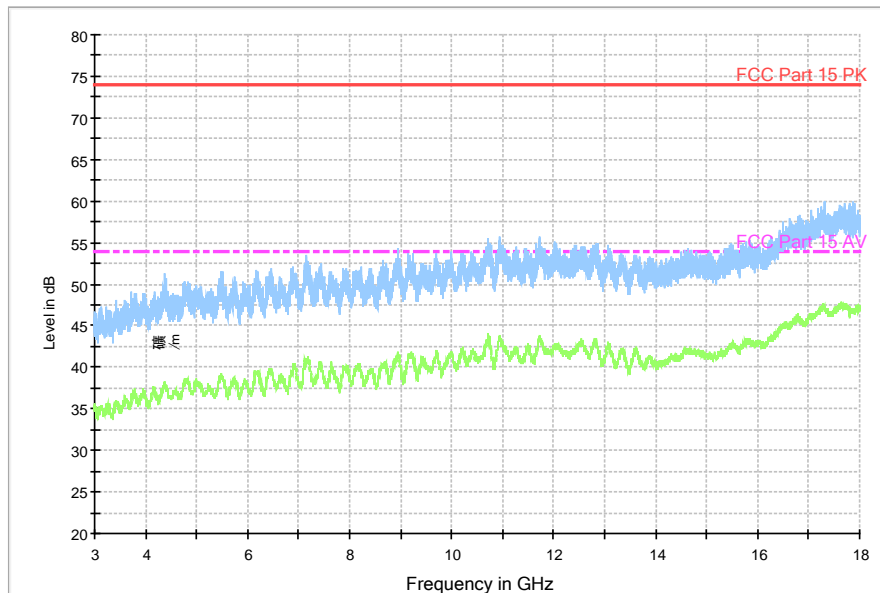


Fig.A.6.2.31 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch11, 3 GHz-18 GHz)

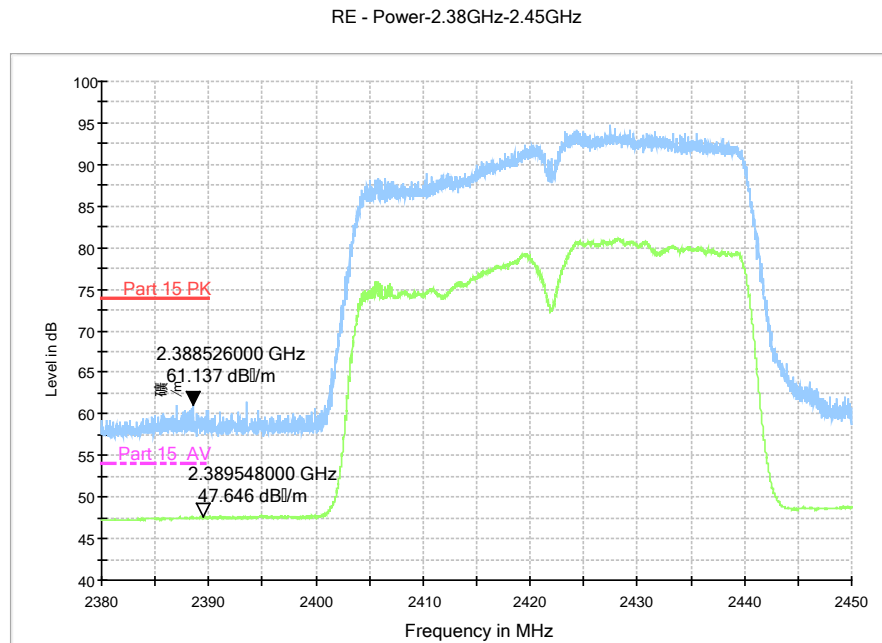
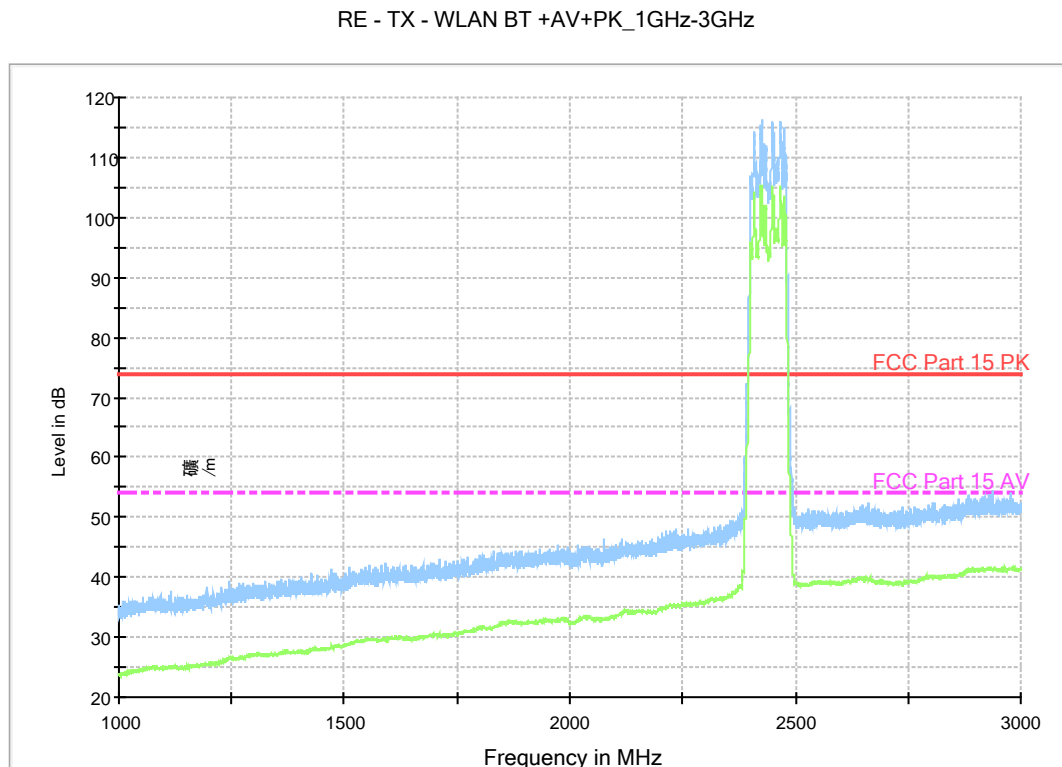


Fig.A.6.2.32 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.38 GHz - 2.43GHz



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.33 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch3, 1 GHz-3 GHz)

RE - 3GHz-18GHz

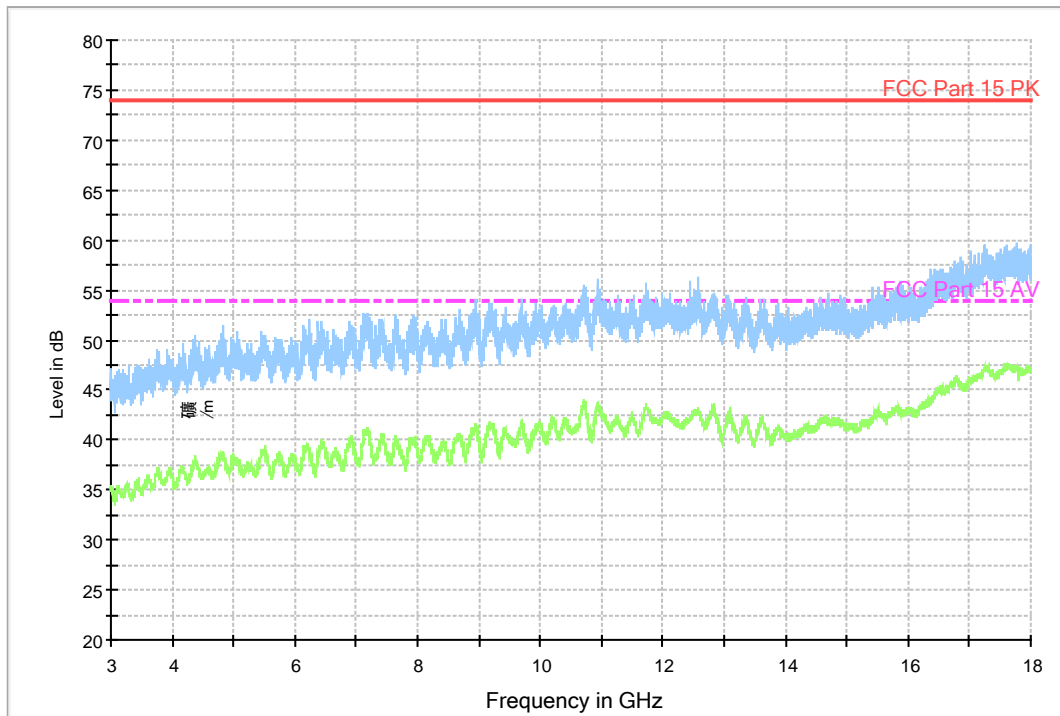


Fig.A.6.2.34 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch3, 3 GHz-18 GHz)

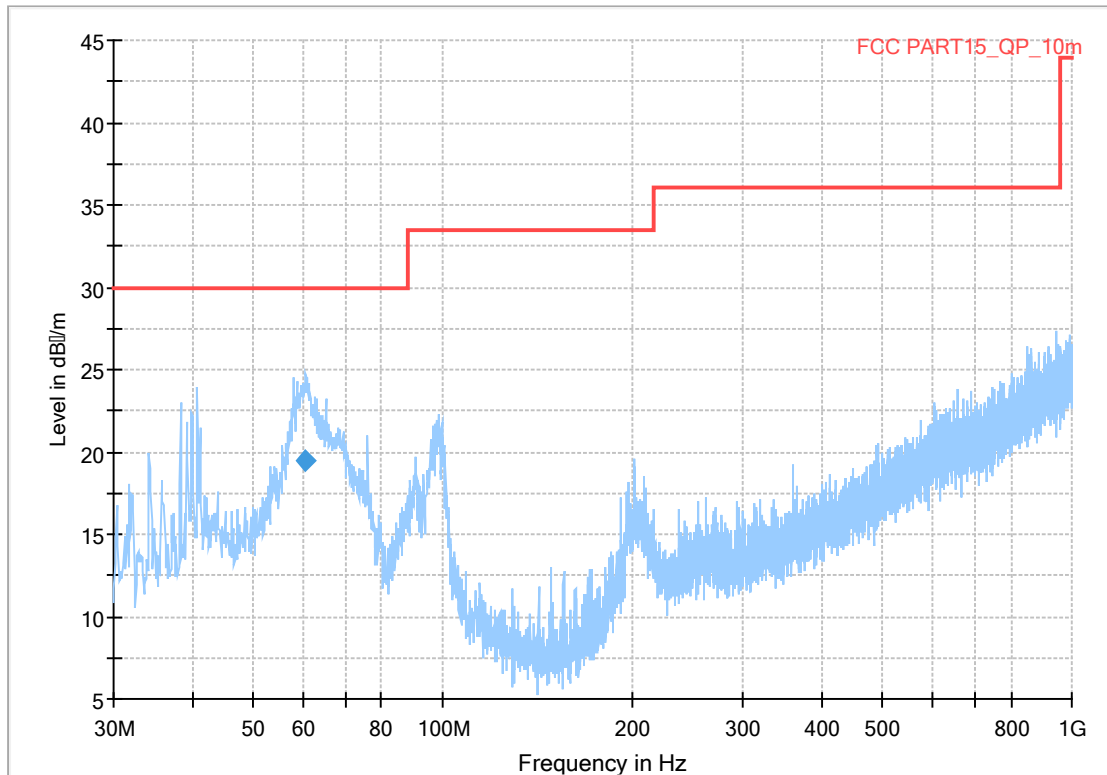
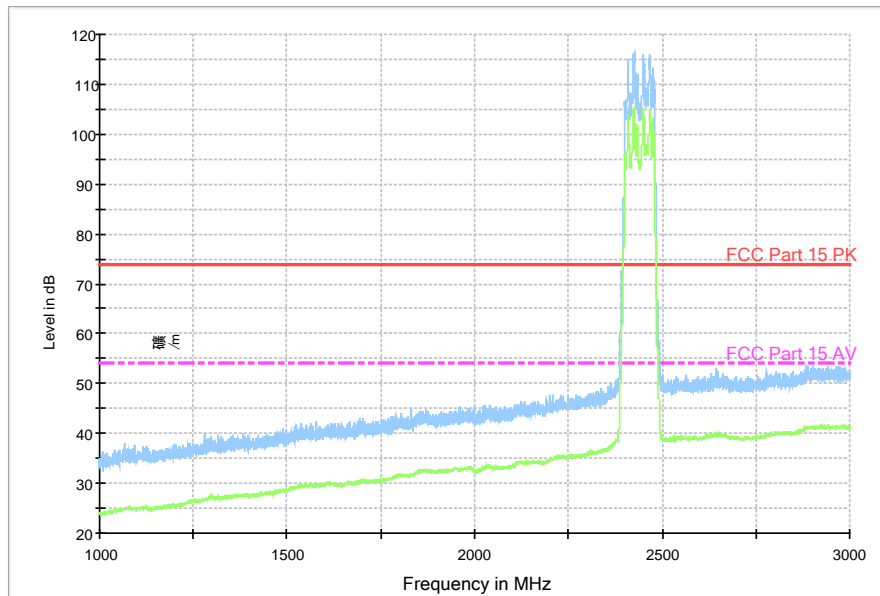


Fig.A.6.2.35 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 30 MHz-1 GHz)

Final_Result

Frequency (MHz)	QuasiPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
60.652000	19.49	30.00	10.51	1000.0	120.000	119.0	V	111.0	-12.3

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



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.36 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 1 GHz-3 GHz)

RE - 3GHz-18GHz

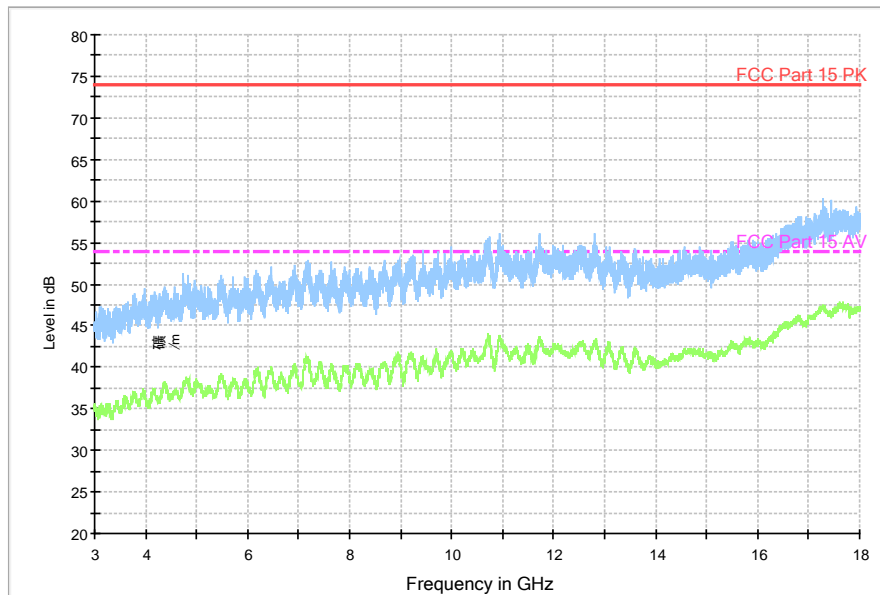


Fig.A.6.2.37 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 3 GHz-18 GHz)

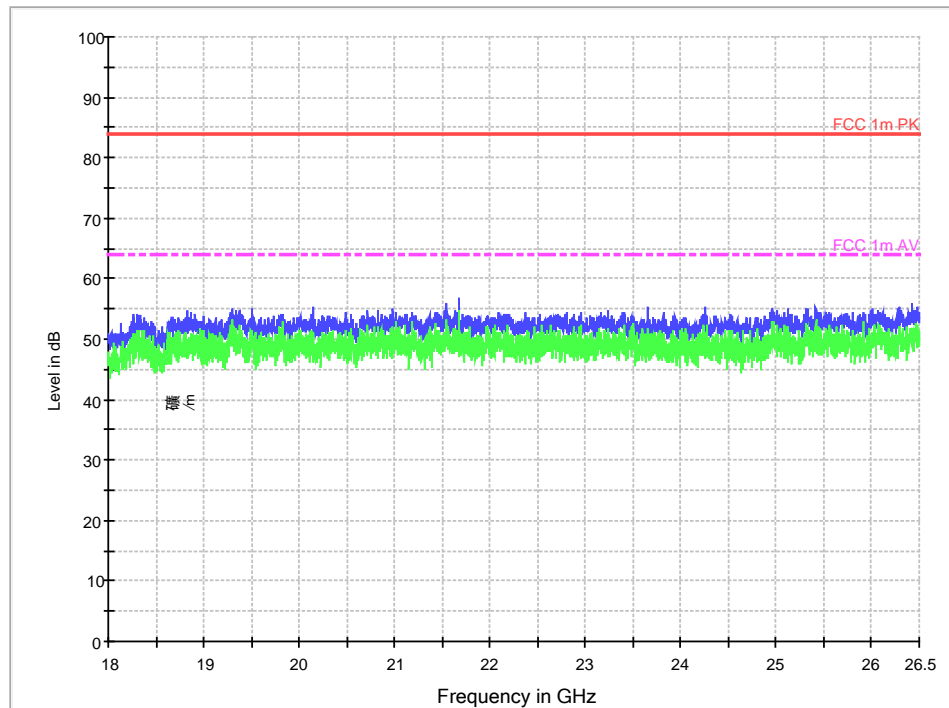


Fig.A.6.2.38 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 18GHz – 26.5GHz)

RE - Power-2.45GHz-2.5GHz

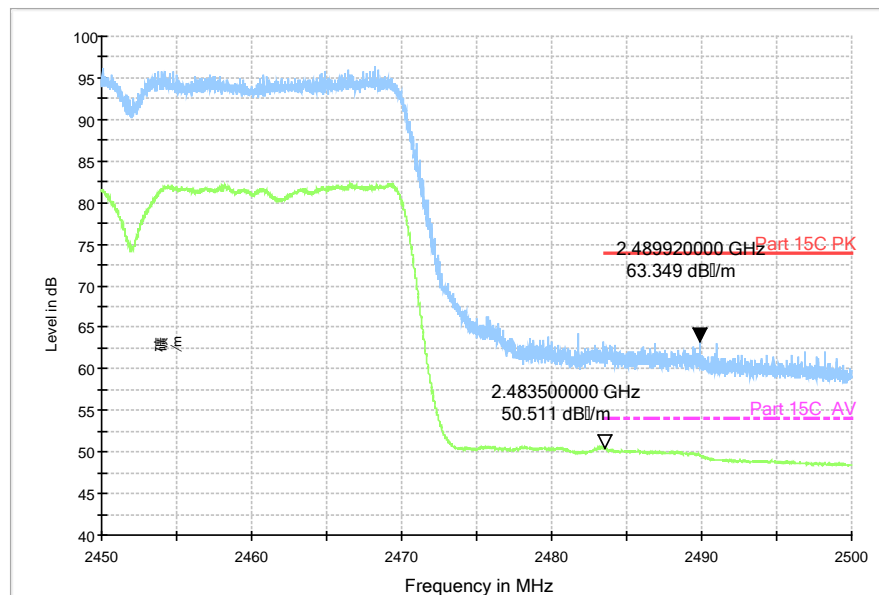
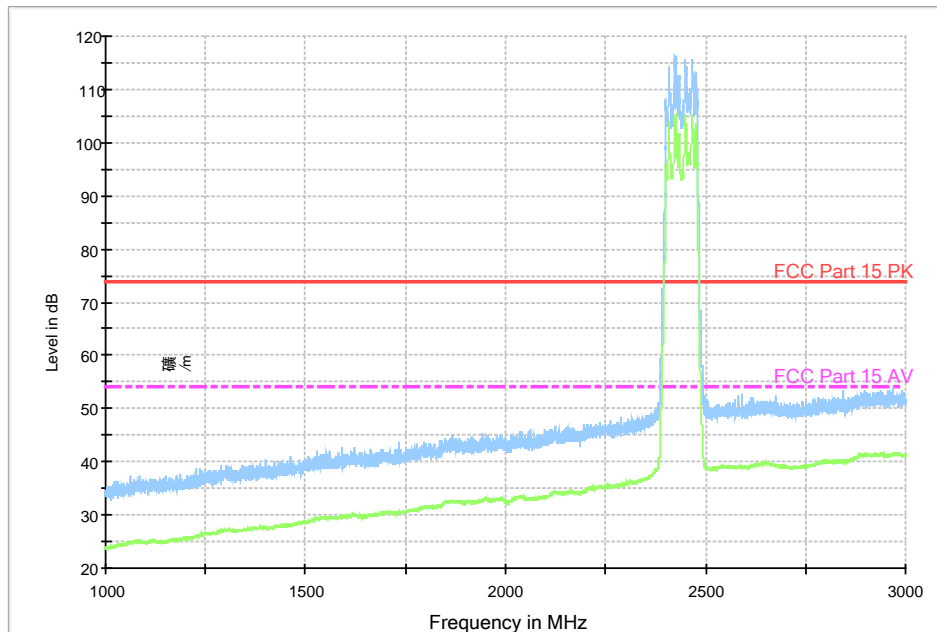


Fig.A.6.2.39 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

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



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.40 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch9, 1 GHz-3 GHz)

RE - 3GHz-18GHz

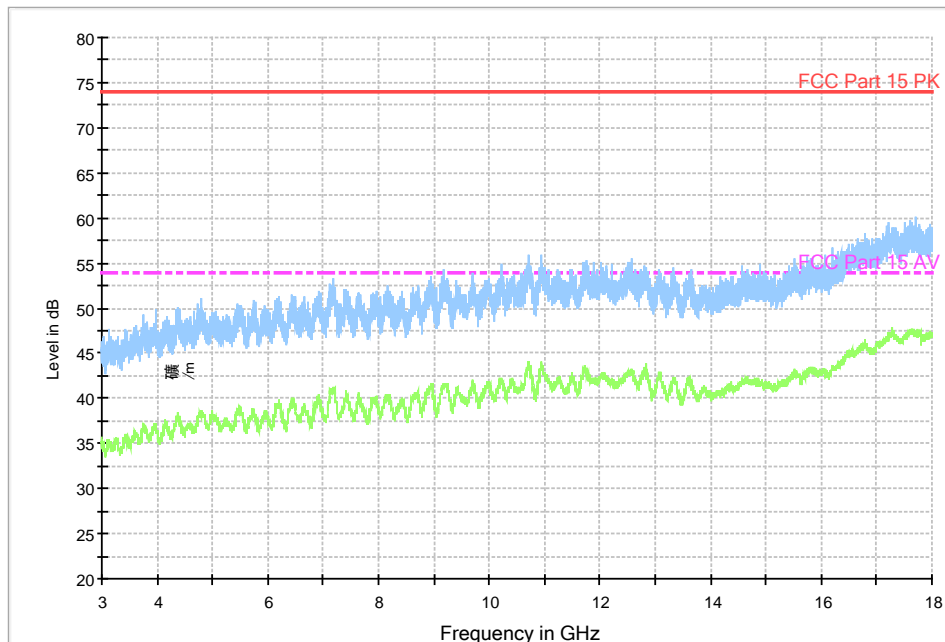


Fig.A.6.2.41 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch9, 3 GHz-18 GHz)

Measurement Results for Set.13 (New Cover):
802.11g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	Power	2.38GHz ~2.43GHz	Fig.A.6.2.42	P
	1	1 GHz ~ 3 GHz	Fig.A.6.2.43	P
		3 GHz ~ 18 GHz	Fig.A.6.2.44	P
	6	30 MHz ~1 GHz	Fig.A.6.2.45	P
		1 GHz ~ 3 GHz	Fig.A.6.2.46	P
		3 GHz ~ 18 GHz	Fig.A.6.2.47	P
		18 GHz~ 26.5 GHz	Fig.A.6.2.48	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.49	P
	11	1 GHz ~ 3 GHz	Fig.A.6.2.50	P
		3 GHz ~ 18 GHz	Fig.A.6.2.51	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:

$$\text{Result} = P_{Mea} + A_{Rpl} = P_{Mea} + \text{Cable Loss} + \text{Antenna Factor}$$

802.11g - Average
Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2382.600	46.8	2.9	32.0	11.901	54.0	7.2	H
2389.030	46.8	2.9	32.0	11.986	54.0	7.2	H
4824.000	37.47	-17.3	34.5	20.287	54.0	16.5	H
7236.000	38.37	-17.6	36.1	19.842	54.0	15.6	H
9648.000	39.55	-17.4	37.0	19.912	54.0	14.5	H
12060.000	41.64	-17.2	39.3	19.579	54.0	12.4	H

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2386.300	46.8	2.9	32.0	11.970	54.0	7.2	H
2484.000	48.0	2.9	32.7	12.352	54.0	6.0	H
4873.500	36.53	-18.3	34.5	20.342	54.0	17.5	H
7311.000	37.15	-18.6	36.1	19.685	54.0	16.9	H
9748.500	39.67	-17.3	37.2	19.798	54.0	14.3	H
12184.500	40.88	-17.7	39.2	19.336	54.0	13.1	H

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2483.710	48.2	2.9	32.8	12.531	54.0	5.8	H
2489.400	48.0	2.9	32.6	12.422	54.0	6.0	H
4924.500	36.03	-19.0	34.5	20.483	54.0	18.0	H
7386.000	38.78	-17.3	36.0	19.997	54.0	15.2	H
9847.500	38.92	-18.1	37.3	19.719	54.0	15.1	H
12310.500	40.35	-17.9	39.2	19.049	54.0	13.6	H

802.11g - Peak

Ch1

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2383.822	60.0	2.9	32.0	25.087	74.0	14.0	H
2385.236	59.9	2.9	32.0	25.047	74.0	14.1	V
17641.500	59.6	-13.0	41.1	31.507	74.0	14.4	V
17658.750	59.6	-13.1	41.1	31.561	74.0	14.4	H
17719.500	59.5	-13.2	41.0	31.739	74.0	14.5	V
17760.750	59.4	-13.3	41.0	31.778	74.0	14.6	H

Ch6

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2329.200	49.3	-27.7	31.3	45.706	74.0	24.7	V
2511.400	51.0	-26.5	32.5	45.068	74.0	23.0	V
17516.250	59.5	-14.3	41.2	32.609	74.0	14.5	V
17085.000	59.5	-15.3	41.3	33.464	74.0	14.5	H
17982.750	59.5	-13.6	40.8	32.302	74.0	14.5	V
2329.200	49.3	-27.7	31.3	45.706	74.0	24.7	V

Ch11

Frequency (MHz)	Measurement Result (dBμV/m)	Cable loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBμV)	Limit (dBμV/m)	Margin (dB)	Antenna Pol. (H/V)
2484.490	63.4	2.9	32.7	27.744	74.0	10.6	H
2484.960	64.1	2.9	32.7	28.472	74.0	9.9	H
17976.000	60.0	-13.6	40.8	32.834	74.0	14.0	V
17351.250	59.9	-14.3	41.2	32.958	74.0	14.1	V
17673.000	59.8	-13.1	41.1	31.856	74.0	14.2	H
17565.000	59.4	-13.7	41.1	31.959	74.0	14.6	H

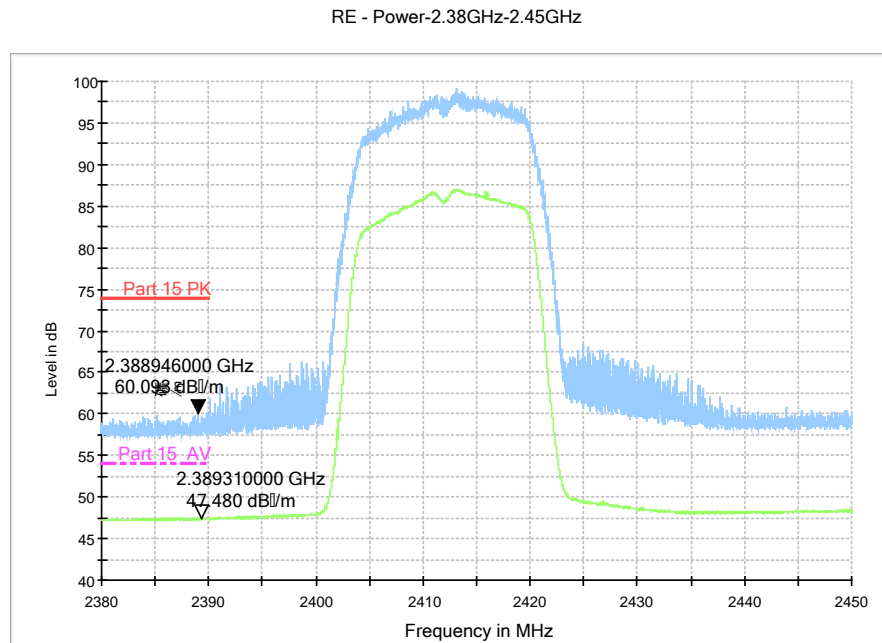
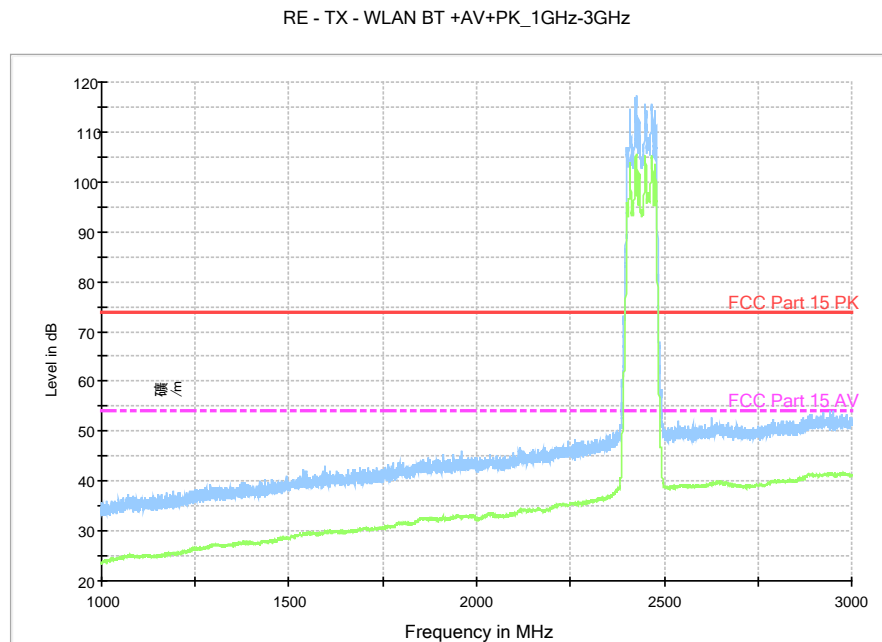


Fig.A.6.2.42 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.38 GHz - 2.43GHz



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.43 Transmitter Spurious Emission - Radiated (802.11g, Ch1, 1 GHz-3 GHz)

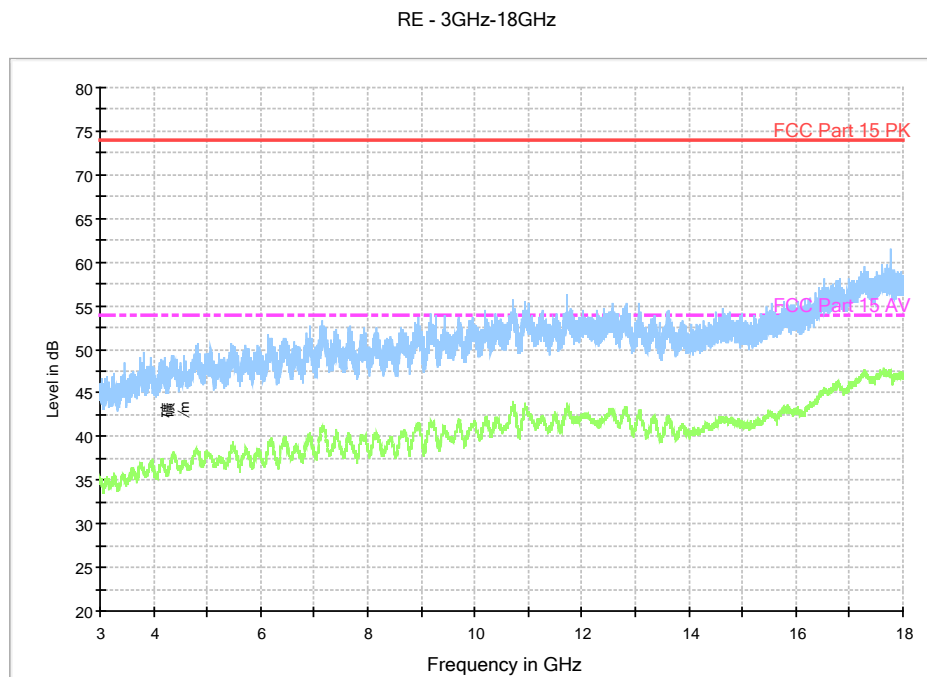


Fig.A.6.2.44 Transmitter Spurious Emission - Radiated (802.11g, Ch1, 3 GHz-18 GHz)

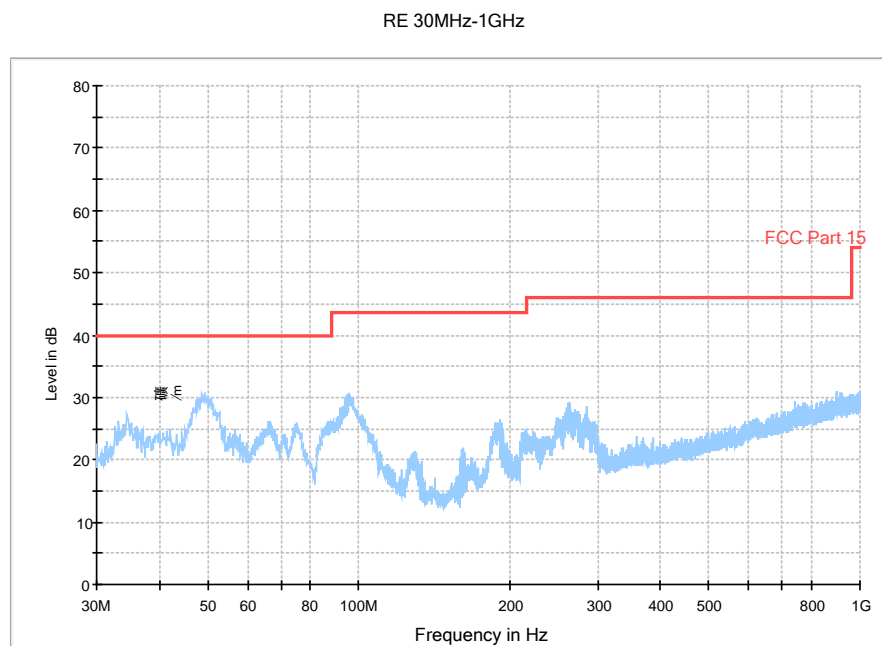
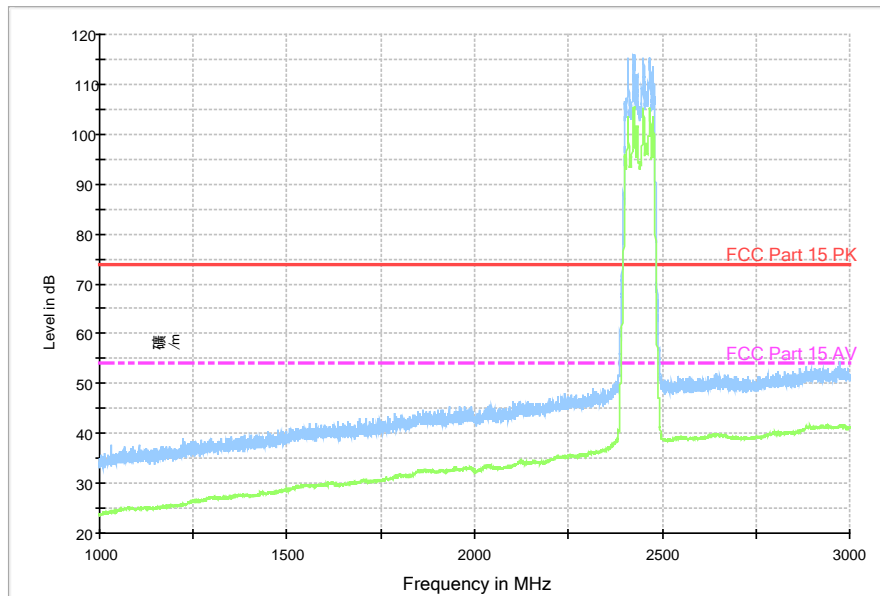


Fig.A.6.2.45 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 30 MHz-1 GHz)

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



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.46 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 1 GHz-3 GHz)

RE - 3GHz-18GHz

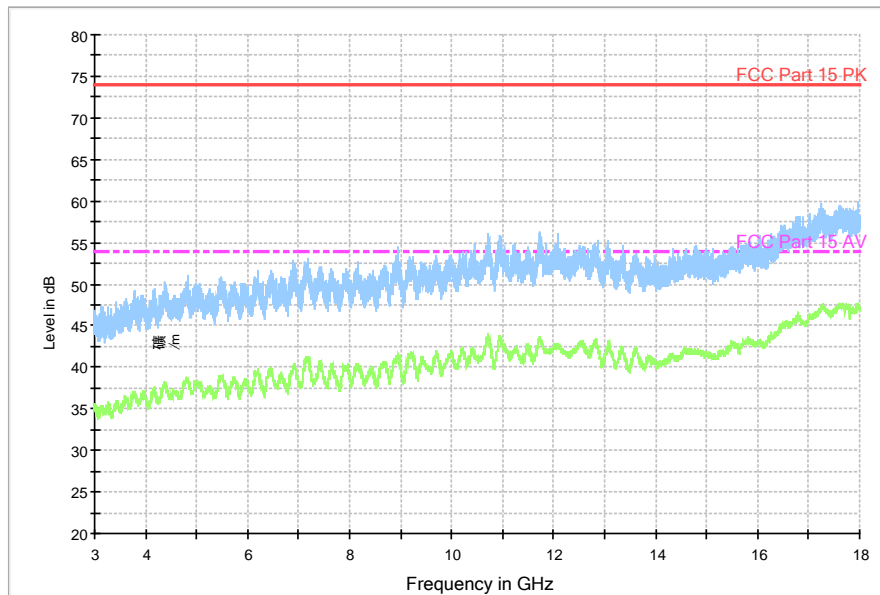


Fig.A.6.2.47 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 3 GHz-18 GHz)

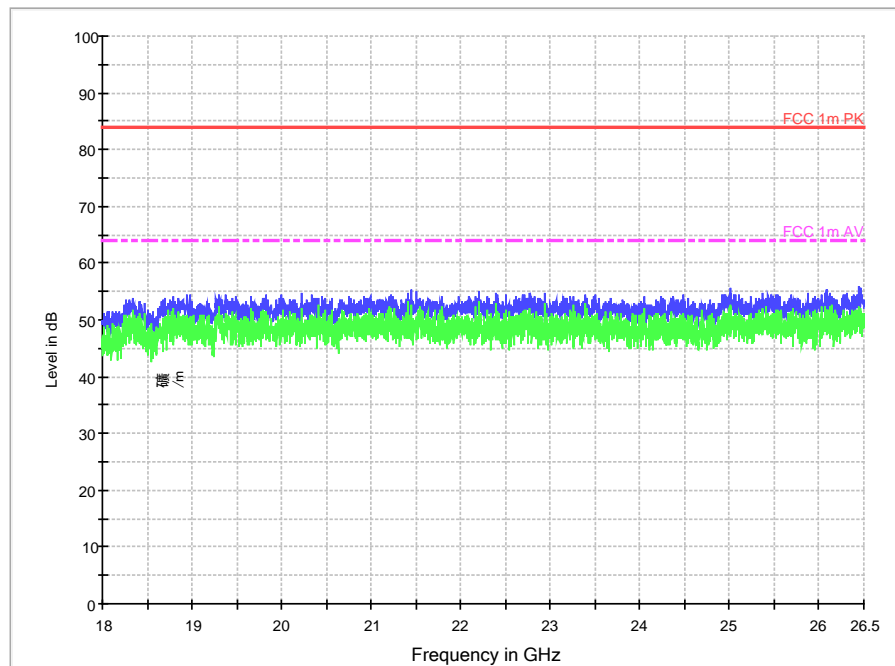


Fig.A.6.2.48 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 18GHz – 26.5GHz)

RE - Power-2.45GHz-2.5GHz

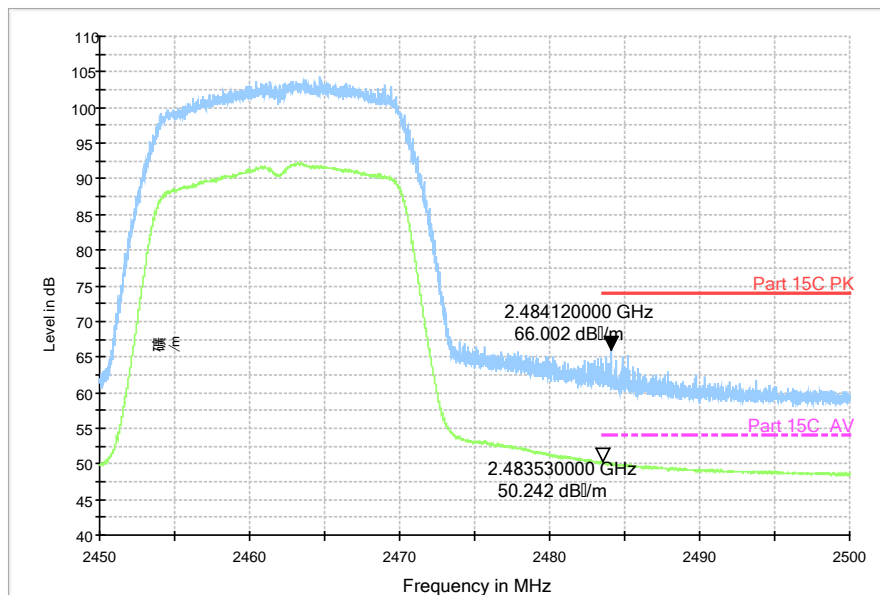
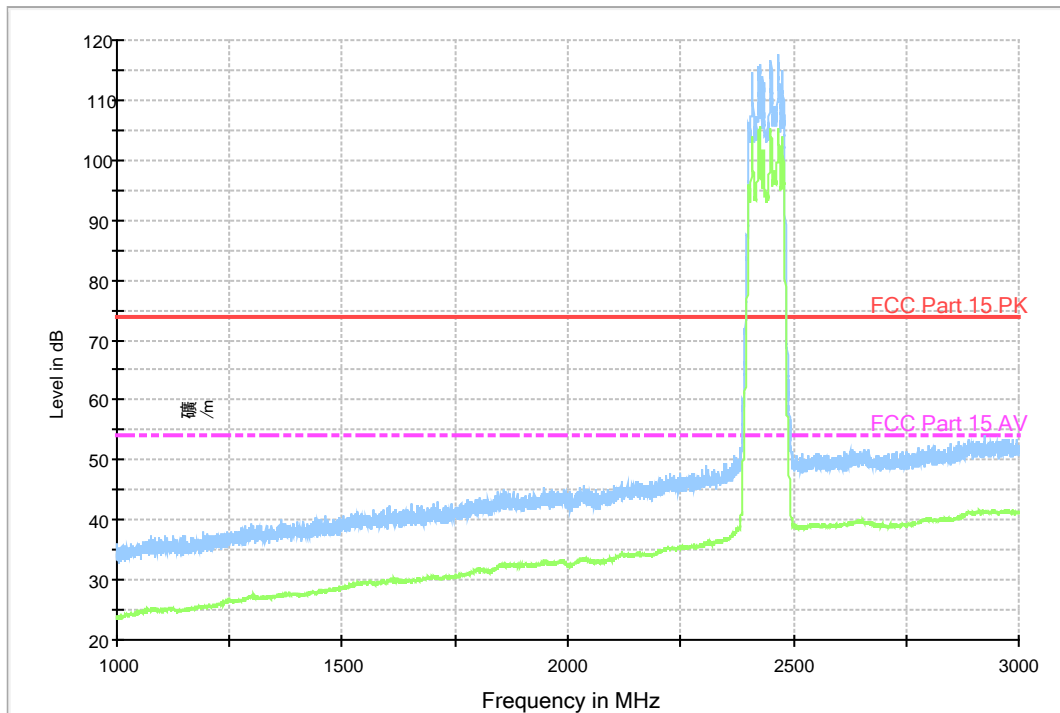


Fig.A.6.2.49 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

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



Note: the spike over the limit is the WLAN carrier frequency and coming from the radio equipment.

Fig.A.6.2.50 Transmitter Spurious Emission - Radiated (802.11g, Ch11, 1 GHz-3 GHz)

RE - 3GHz-18GHz

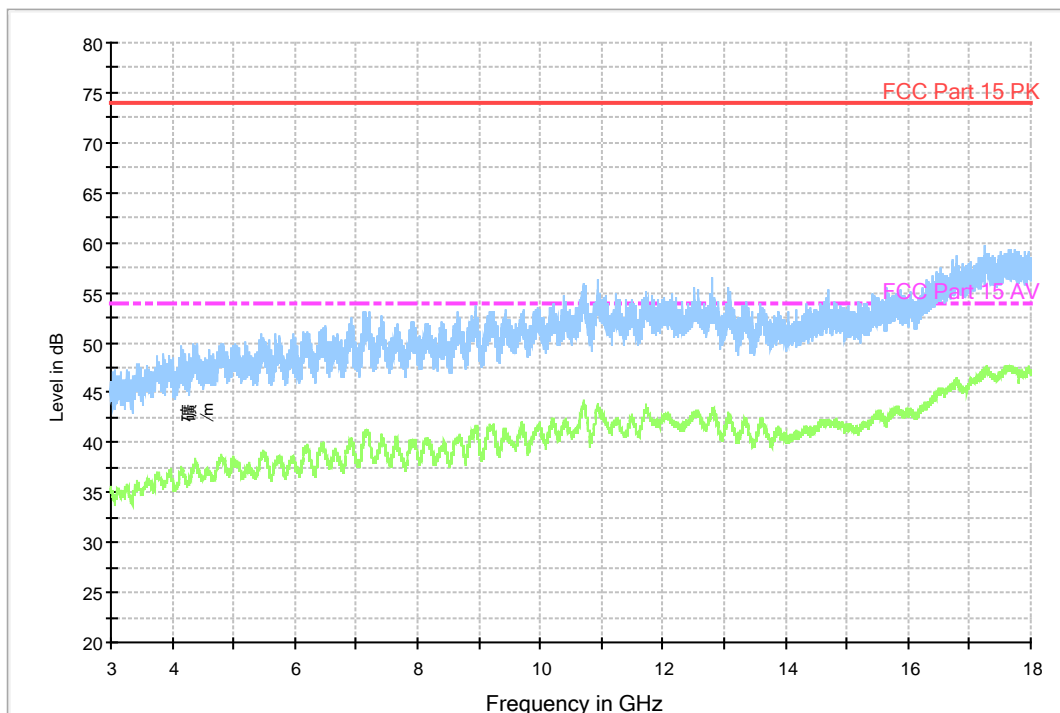


Fig.A.6.2.51 Transmitter Spurious Emission - Radiated (802.11g, Ch11, 3 GHz-18 GHz)

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.7.2 Fig.A.7.3 Fig.A.7.4 Fig.A.7.5	Fig.A.7.5	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.7.5	P
0.5 to 5	46	Fig.A.7.2		
5 to 30	50	Fig.A.7.3		
		Fig.A.7.4 Fig.A.7.5		
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.				

Conclusion: Pass

Test graphs as below:

Traffic: Set.10

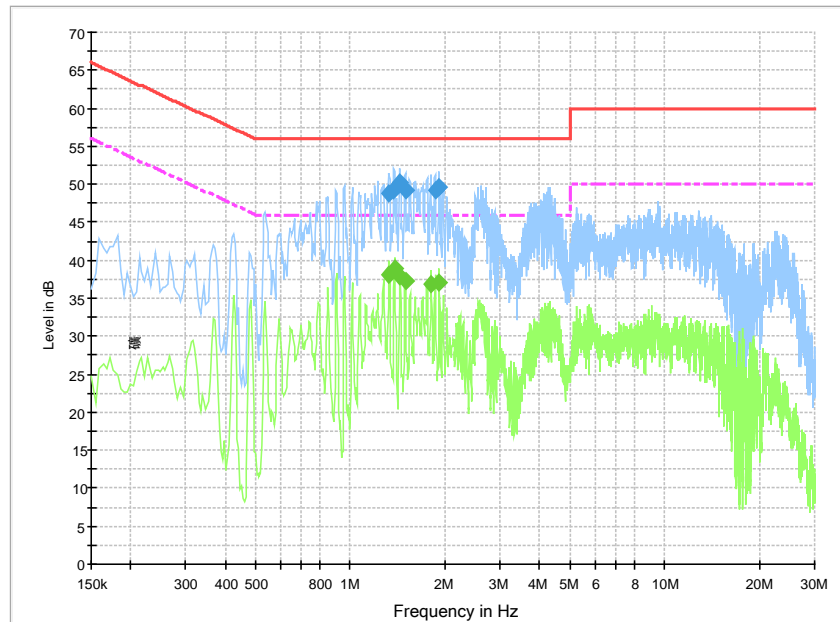


Fig.A.7.1 AC Powerline Conducted Emission-802.11b

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)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
1.324500	48.7	GND	L1	10.3	7.3	56.0
1.378500	49.2	GND	N	10.4	6.8	56.0
1.437000	50.2	GND	N	10.4	5.8	56.0
1.495500	49.2	GND	N	10.4	6.8	56.0
1.864500	49.2	GND	L1	10.4	6.8	56.0
1.918500	49.6	GND	N	10.4	6.4	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
1.329000	38.1	GND	N	10.4	7.9	46.0
1.383000	38.9	GND	L1	10.3	7.1	46.0
1.437000	37.8	GND	N	10.4	8.2	46.0
1.495500	37.2	GND	N	10.4	8.8	46.0
1.806000	36.8	GND	N	10.4	9.2	46.0
1.918500	37.0	GND	N	10.4	9.0	46.0

Traffic: Set.11

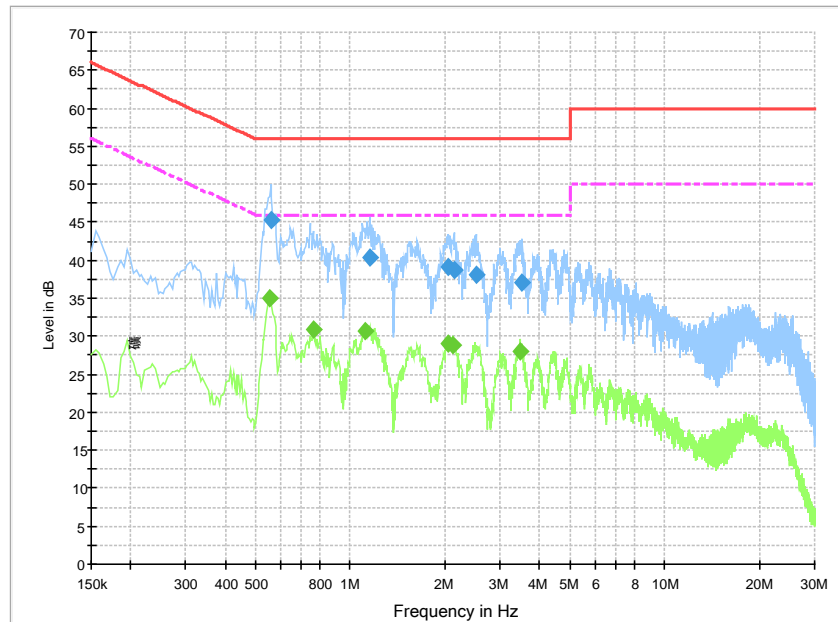


Fig.A.7.2 AC Powerline Conducted Emission-802.11b

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)
0.559500	45.3	GND	N	10.4	10.7	56.0
1.149000	40.4	GND	L1	10.3	15.6	56.0
2.058000	39.2	GND	L1	10.4	16.8	56.0
2.134500	38.7	GND	L1	10.4	17.3	56.0
2.508000	38.1	GND	N	10.5	17.9	56.0
3.529500	37.0	GND	L1	10.4	19.0	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.555000	35.0	GND	L1	10.3	11.0	46.0
0.762000	30.9	GND	N	10.4	15.1	46.0
1.117500	30.6	GND	L1	10.3	15.4	46.0
2.058000	29.1	GND	L1	10.4	16.9	46.0
2.125500	28.9	GND	L1	10.4	17.1	46.0
3.471000	28.1	GND	L1	10.4	17.9	46.0

Traffic: Set.12

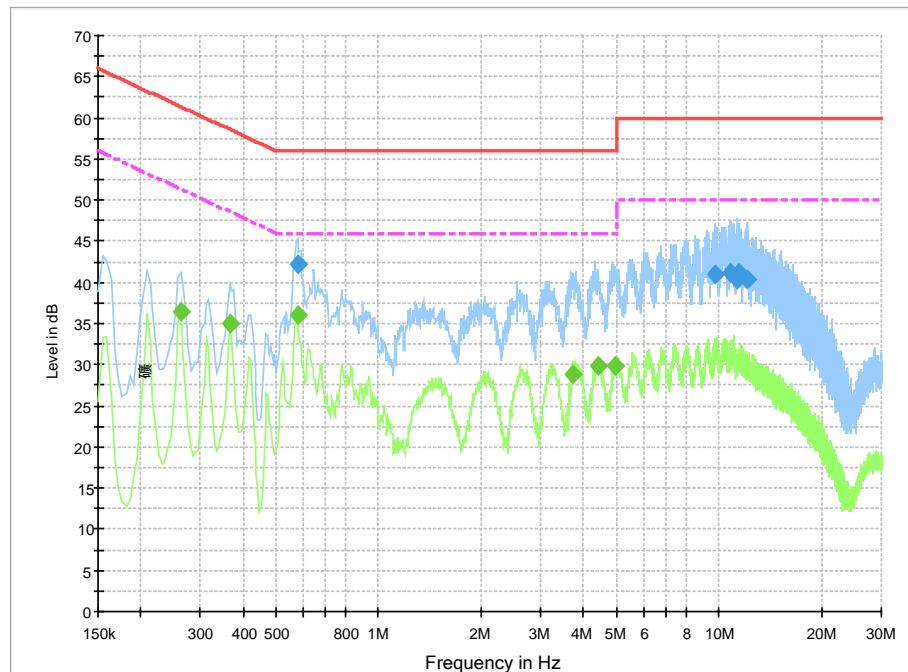


Fig.A.7.3 AC Powerline Conducted Emission-802.11b

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)
0.577500	42.3	GND	N	10.4	13.7	56.0
9.766500	40.9	GND	L1	10.7	19.1	60.0
10.833000	41.1	GND	N	10.7	18.9	60.0
11.377500	40.3	GND	N	10.7	19.7	60.0
11.467500	41.1	GND	L1	10.8	18.9	60.0
12.111000	40.3	GND	L1	10.8	19.7	60.0

Final Result 2

Frequency (MHz)	Average (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.262500	36.5	GND	N	10.3	14.8	51.4
0.366000	35.0	GND	N	10.4	13.6	48.6
0.577500	36.0	GND	N	10.4	10.0	46.0
3.741000	28.7	GND	N	10.5	17.3	46.0
4.425000	29.9	GND	N	10.5	16.1	46.0
4.978500	29.9	GND	N	10.6	16.1	46.0

Traffic: Set.13 (New Cover)

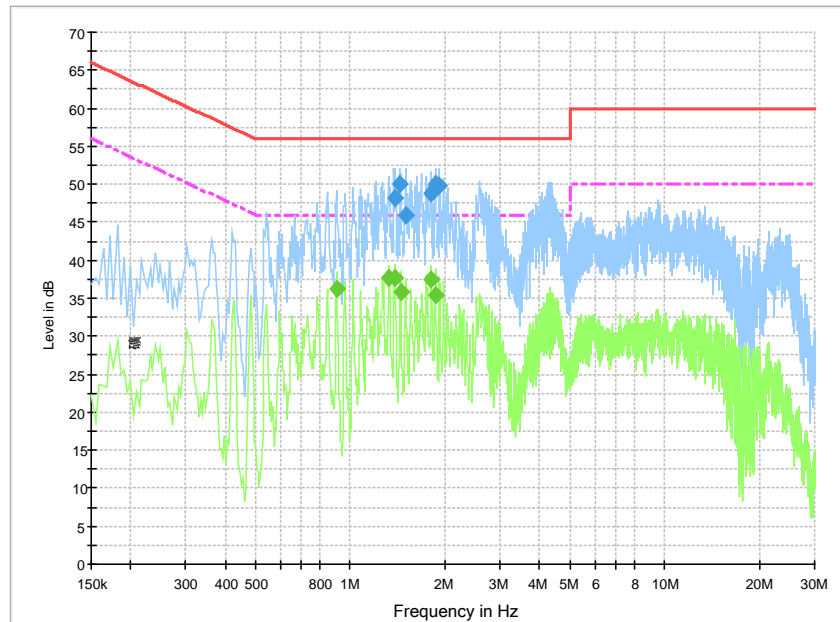


Fig.A.7.4 AC Powerline Conducted Emission-802.11b

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)
1.387500	48.2	GND	L1	10.3	7.8	56.0
1.437000	50.0	GND	L1	10.3	6.0	56.0
1.504500	45.9	GND	L1	10.3	10.1	56.0
1.806000	48.8	GND	L1	10.4	7.2	56.0
1.860000	50.0	GND	L1	10.4	6.0	56.0
1.918500	49.9	GND	L1	10.4	6.1	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
0.906000	36.3	GND	L1	10.3	9.7	46.0
1.329000	37.7	GND	L1	10.3	8.3	46.0
1.387500	37.6	GND	L1	10.3	8.4	46.0
1.446000	35.7	GND	L1	10.3	10.3	46.0
1.806000	37.5	GND	N	10.4	8.5	46.0
1.869000	35.5	GND	L1	10.4	10.5	46.0

Idle: Set.10

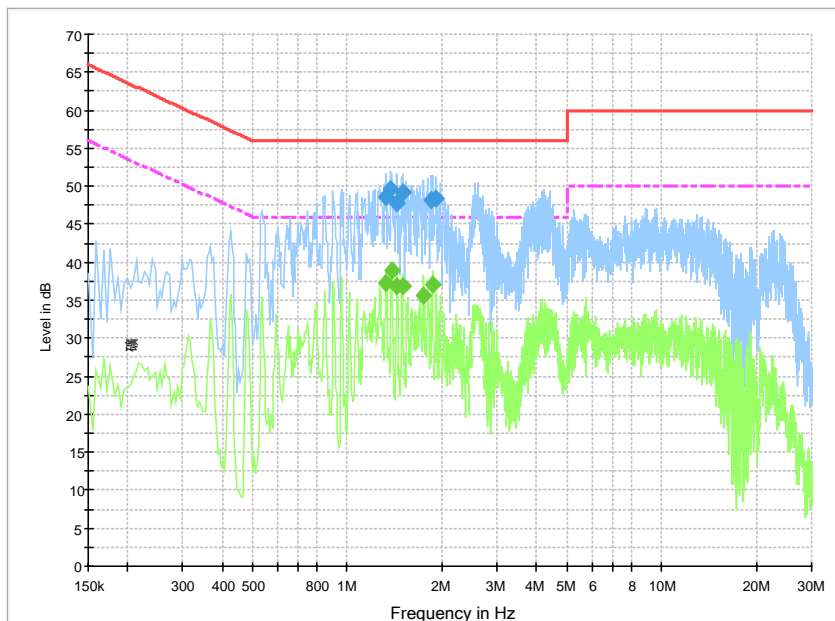


Fig.A.7.5 AC Powerline Conducted Emission-Idle

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

Final Result 1

Frequency (MHz)	QuasiPeak (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
1.324500	48.6	GND	N	10.4	7.4	56.0
1.378500	49.6	GND	N	10.4	6.4	56.0
1.441500	47.9	GND	L1	10.3	8.1	56.0
1.495500	49.2	GND	N	10.4	6.8	56.0
1.855500	48.1	GND	L1	10.4	7.9	56.0
1.914000	48.4	GND	N	10.4	7.6	56.0

Final Result 2

Frequency (MHz)	Average (dBμV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBμV)
1.324500	37.2	GND	N	10.4	8.8	46.0
1.383000	38.9	GND	L1	10.3	7.1	46.0
1.441500	36.9	GND	L1	10.3	9.1	46.0
1.495500	36.9	GND	N	10.4	9.1	46.0
1.752000	35.7	GND	N	10.4	10.3	46.0
1.864500	37.0	GND	N	10.4	9.0	46.0

END OF REPORT