802.11n-HT40

Ch3

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	PMea (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17955.5	47	-25.5	46.7	25.8	V	54	7
17973.5	46.9	-25.5	46.7	25.7	V	54	7.1
17993.5	46.8	-25.5	46.7	25.6	V	54	7.2
17950.5	46.7	-25.5	46.7	25.5	V	54	7.3
17956.5	46.7	-25.5	46.7	25.5	V	54	7.3
2387.2	42.7	-14.2	28.1	28.8	V	54	11.3

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	PMea (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17969.5	46.8	-25.5	46.7	25.6	V	54	7.2
17974.5	46.7	-25.5	46.7	25.5	V	54	7.3
17953	46.6	-25.5	46.7	25.4	V	54	7.4
17967	46.6	-25.5	46.7	25.4	V	54	7.4
17975.5	46.6	-25.5	46.7	25.4	V	54	7.4
17944	46.5	-25.5	46.7	25.3	V	54	7.5

Ch9

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	PMea (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17988.5	47	-25.5	46.7	25.8	V	54	7
17960	46.8	-25.5	46.7	25.6	V	54	7.2
17962.5	46.8	-25.5	46.7	25.6	V	54	7.2
17966	46.8	-25.5	46.7	25.6	V	54	7.2
17969.5	46.8	-25.5	46.7	25.6	V	54	7.2
2485.2	42.2	-14.2	28.3	28.1	V	54	11.8

Peak Measurement results

802.11b

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	PMea (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17896.5	58	-25.5	46.7	36.8	V	74	16
17974	57.9	-25.5	46.7	36.7	V	74	16.1
17947.5	57.8	-25.5	46.7	36.6	V	74	16.2
17829	57.7	-25.5	46.7	36.5	V	74	16.3
17932.5	57.6	-25.5	46.7	36.4	V	74	16.4
2344.7	55.4	-14.6	28	42	V	74	18.6

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	PMea (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17929.5	58.5	-25.5	46.7	37.3	V	74	15.5
17990.5	58.1	-25.5	46.7	36.9	V	74	15.9
17927	57.9	-25.5	46.7	36.7	V	74	16.1
17966.5	57.7	-25.5	46.7	36.5	V	74	16.3
17998.5	57.6	-25.5	46.7	36.4	V	74	16.4
17908	57.5	-25.5	46.7	36.3	V	74	16.5

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	PMea (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17956	58.4	-25.5	46.7	37.2	V	74	15.6
17995	58.1	-25.5	46.7	36.9	V	74	15.9
17836	57.9	-25.5	46.7	36.7	V	74	16.1
17894	57.9	-25.5	46.7	36.7	V	74	16.1
17835.5	57.7	-25.5	46.7	36.5	V	74	16.3
2496	55.2	-14.2	28.3	41.1	V	74	18.8

802.11g

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	PMea (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17974	58	-25.5	46.7	36.8	V	74	16
17990	58	-25.5	46.7	36.8	V	74	16
17919.5	57.8	-25.5	46.7	36.6	V	74	16.2
17951	57.8	-25.5	46.7	36.6	V	74	16.2
17967.5	57.7	-25.5	46.7	36.5	V	74	16.3
2388	63.8	-14.2	28.1	49.9	V	74	10.2

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	PMea (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17950	58.1	-25.5	46.7	36.9	V	74	15.9
17956.5	57.7	-25.5	46.7	36.5	V	74	16.3
17987.5	57.7	-25.5	46.7	36.5	V	74	16.3
17876	57.6	-25.5	46.7	36.4	V	74	16.4
17882.5	57.5	-25.5	46.7	36.3	V	74	16.5
17956	57.4	-25.5	46.7	36.2	V	74	16.6

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	PMea (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17977	58.8	-25.5	46.7	37.6	V	74	15.2
17964.5	58.1	-25.5	46.7	36.9	V	74	15.9
17974.5	57.8	-25.5	46.7	36.6	V	74	16.2
17997	57.7	-25.5	46.7	36.5	V	74	16.3
17943.5	57.6	-25.5	46.7	36.4	V	74	16.4
2485.1	58.6	-14.2	28.3	44.5	V	74	15.4

802.11n-HT20

Ch1

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	PMea (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17964.5	57.9	-25.5	46.7	36.7	V	74	16.1
17972.5	57.9	-25.5	46.7	36.7	V	74	16.1
17990.5	57.7	-25.5	46.7	36.5	V	74	16.3
17959.5	57.6	-25.5	46.7	36.4	V	74	16.4
17918	57.5	-25.5	46.7	36.3	V	74	16.5
2381.6	55	-14.2	28.1	41.1	H	74	19

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	PMea (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17879.5	57.5	-25.5	46.7	36.3	V	74	16.5
17947.5	57.5	-25.5	46.7	36.3	V	74	16.5
17959	57.4	-25.5	46.7	36.2	V	74	16.6
17875.5	57.3	-25.5	46.7	36.1	V	74	16.7
17988.5	57.2	-25.5	46.7	36	V	74	16.8
17989	57.2	-25.5	46.7	36	V	74	16.8

Ch11

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	PMea (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17867	57.7	-25.5	46.7	36.5	V	74	16.3
17956.5	57.5	-25.5	46.7	36.3	V	74	16.5
17976	57.5	-25.5	46.7	36.3	V	74	16.5
17814	57.4	-25.5	46.7	36.2	V	74	16.6
17967.5	57.4	-25.5	46.7	36.2	V	74	16.6
2485.2	55.4	-14.2	28.3	41.3	V	74	18.6

802.11n-HT40

Ch3

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	PMea (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17875.5	58.2	-25.5	46.7	37	V	74	15.8
17961.5	57.9	-25.5	46.7	36.7	V	74	16.1
17952	57.8	-25.5	46.7	36.6	V	74	16.2
17966.5	57.5	-25.5	46.7	36.3	V	74	16.5
17992.5	57.5	-25.5	46.7	36.3	V	74	16.5
2389.1	55.6	-14.2	28.1	41.7	V	74	18.4

Ch6

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	PMea (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17987	58.9	-25.5	46.7	37.7	V	74	15.1
17977	58.4	-25.5	46.7	37.2	V	74	15.6
17986	58.2	-25.5	46.7	37	V	74	15.8
17898	58	-25.5	46.7	36.8	V	74	16
17923	57.7	-25.5	46.7	36.5	V	74	16.3
17937	57.7	-25.5	46.7	36.5	V	74	16.3

Ch9

Frequency (MHz)	Result (dBuV/m)	Cable Loss (dB)	Antenna Factor	PMea (dBuV/m)	Polarization	Limit (dBuV/m)	Magin (dBuV/m)
17970	58.3	-25.5	46.7	37.1	V	74	15.7
17985.5	58.2	-25.5	46.7	37	V	74	15.8
17962.5	58.1	-25.5	46.7	36.9	V	74	15.9
17998	57.7	-25.5	46.7	36.5	V	74	16.3
17946	57.6	-25.5	46.7	36.4	V	74	16.4
2485.1	54.8	-14.2	28.3	40.7	V	74	19.2

Test graphs as below:

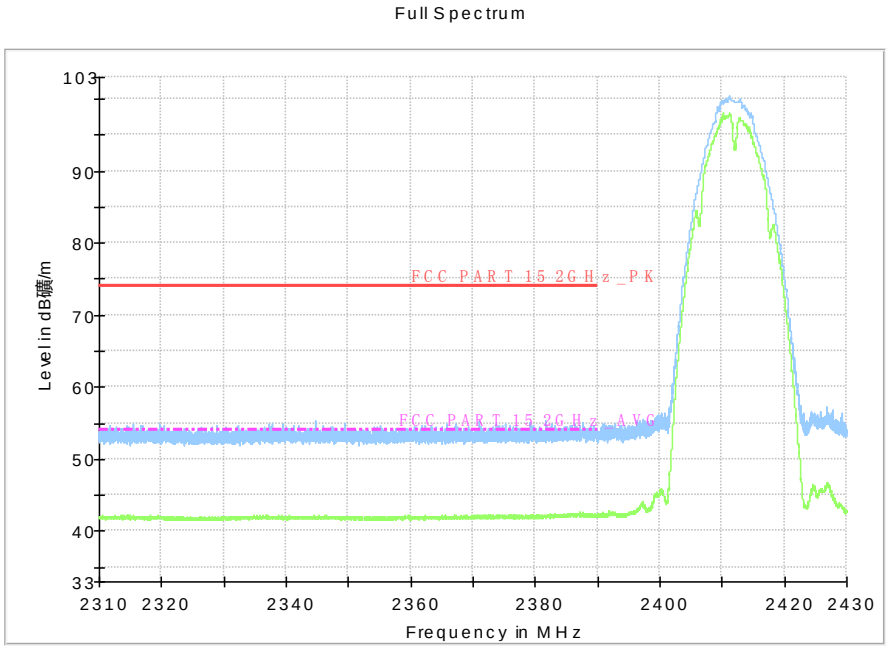

Fig.129 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.31 GHz – 2.45GHz

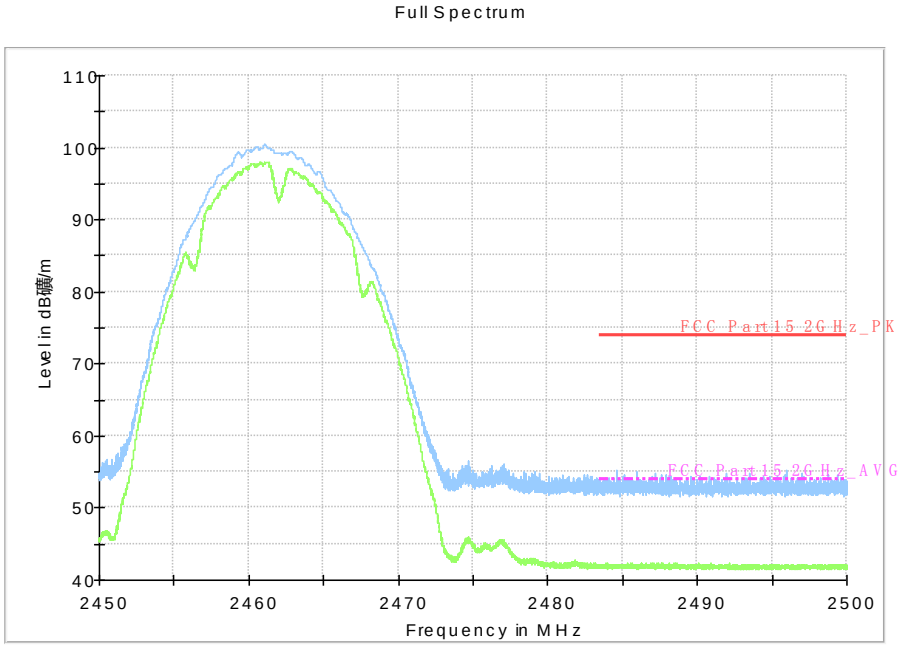

Fig.130 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

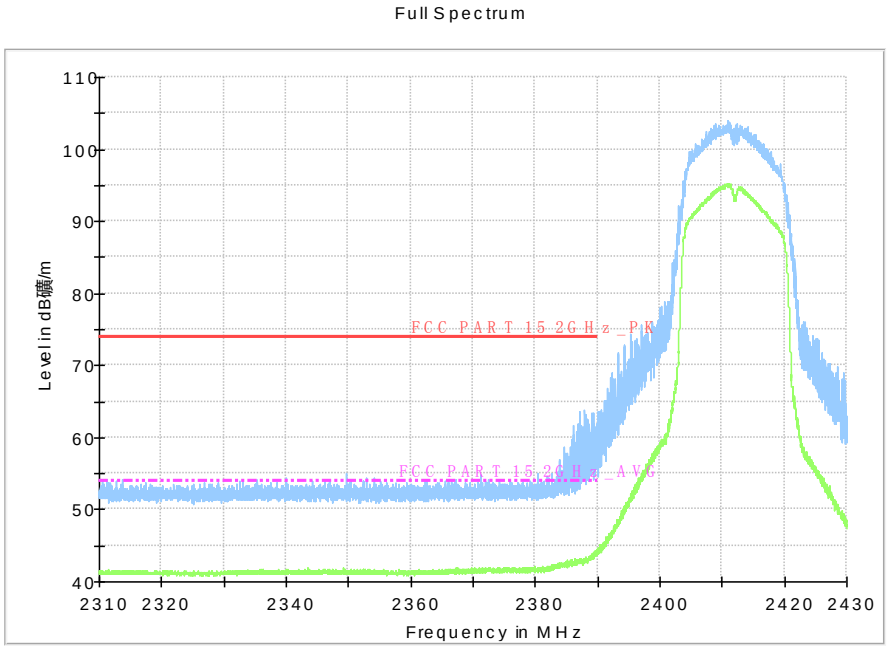

Fig.131 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.31 GHz - 2.45GHz

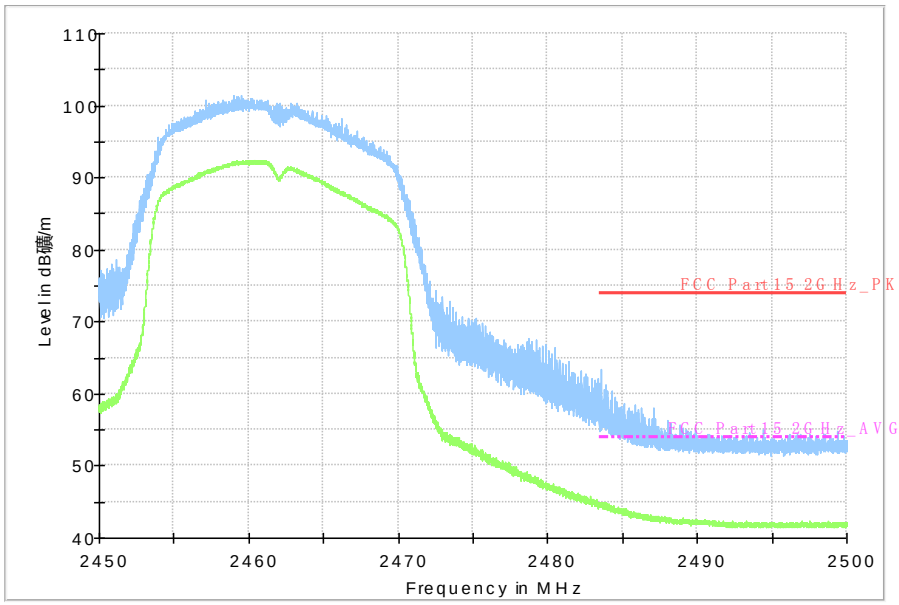

Fig.132 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

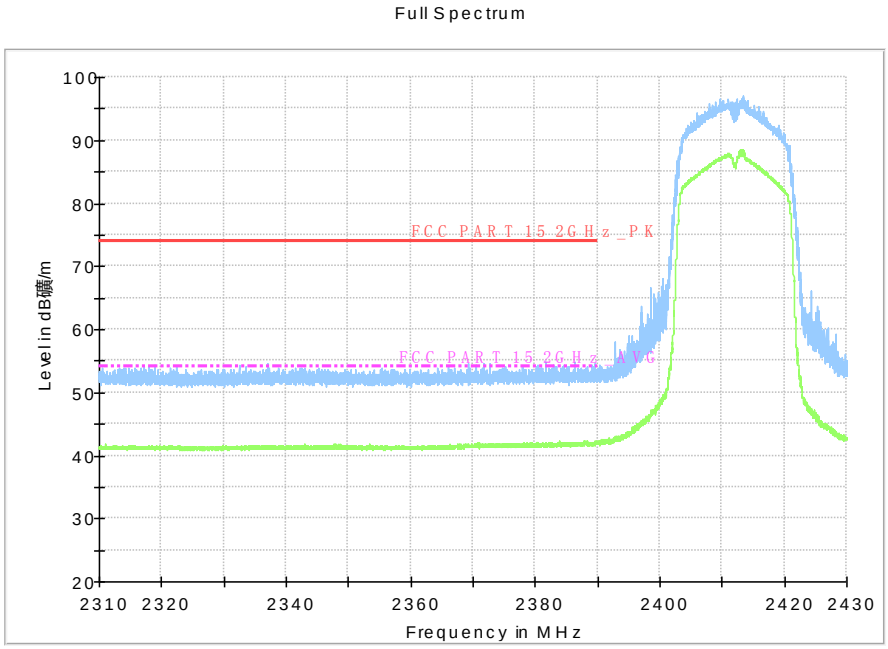

Fig.133 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.31 GHz - 2.45GHz

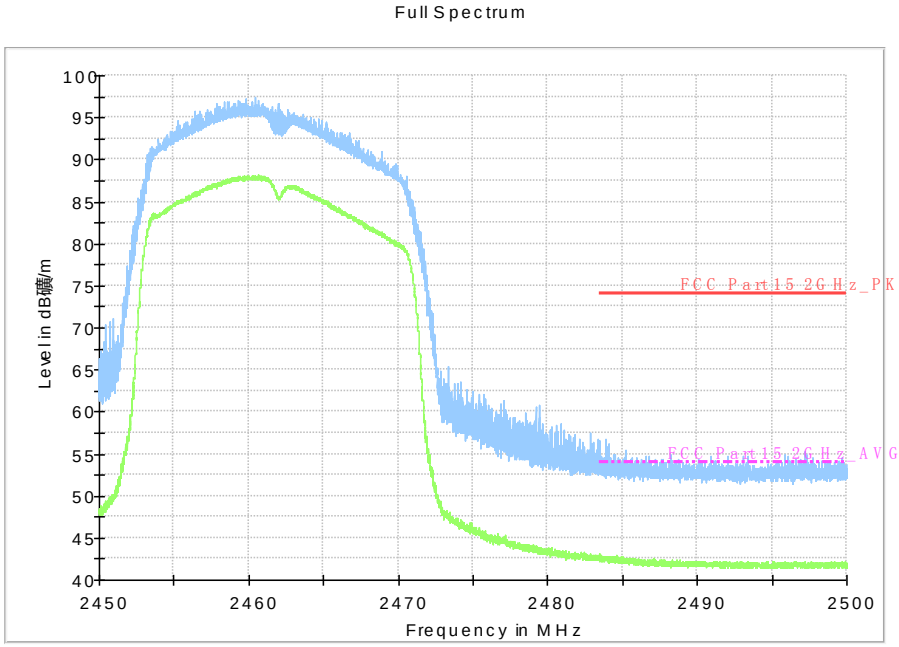

Fig.134 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz

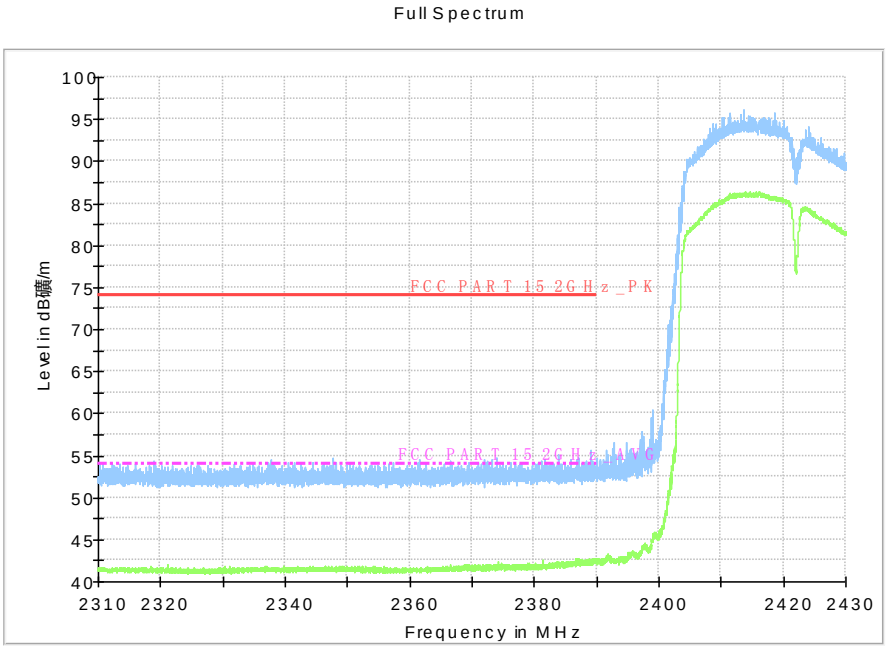

Fig.135 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.31 GHz - 2.45GHz

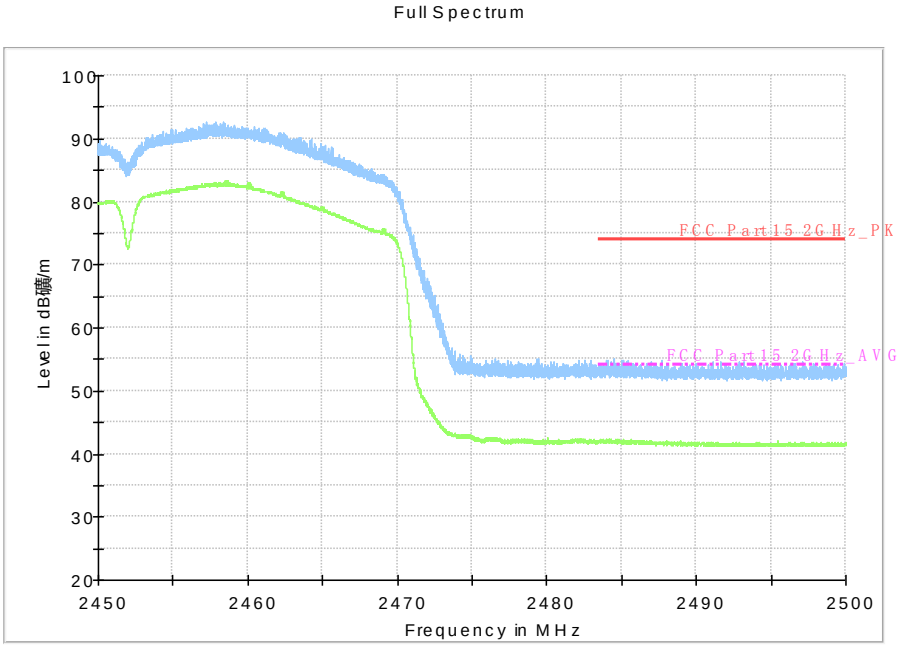

Fig.136 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz

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:

Set.1

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.137.	Fig.138.	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.137.	Fig.138.	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:

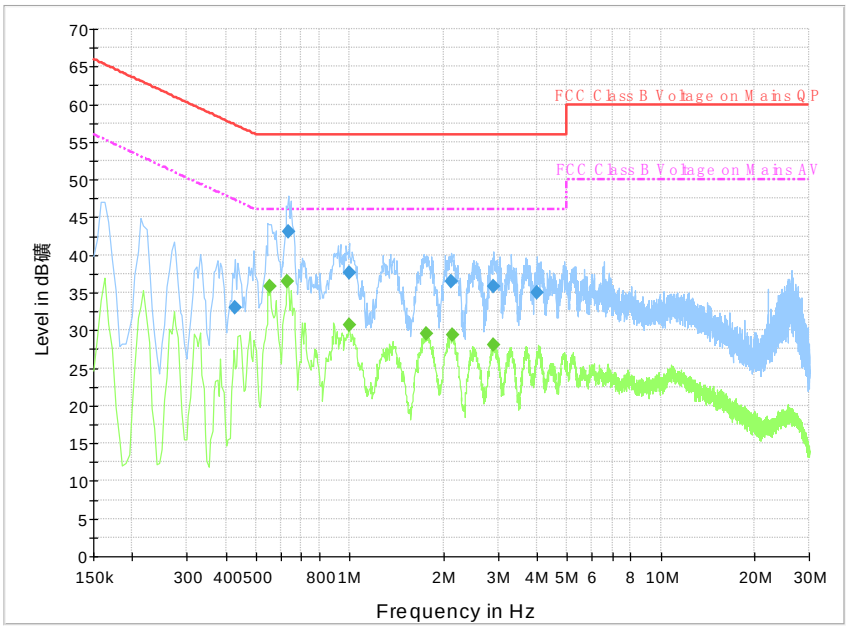

Fig.137 AC Powerline Conducted Emission-802.11b

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)	Line	Margin(dB)	Limit(dBµV)
0.429000	33.0	N	24.3	57.3
0.636000	43.0	L1	13.0	56.0
0.996000	37.6	L1	18.4	56.0
2.112000	36.6	L1	19.4	56.0
2.895000	35.9	L1	20.1	56.0
4.006500	35.0	L1	21.0	56.0

Final Result 2

Frequency(MHz)	Average(dBµV)	Line	Margin(dB)	Limit(dBµV)
0.555000	35.9	L1	10.1	46.0
0.631500	36.5	L1	9.5	46.0
0.996000	30.6	L1	15.4	46.0
1.765500	29.5	L1	16.5	46.0
2.143500	29.4	L1	16.6	46.0
2.908500	28.1	L1	17.9	46.0

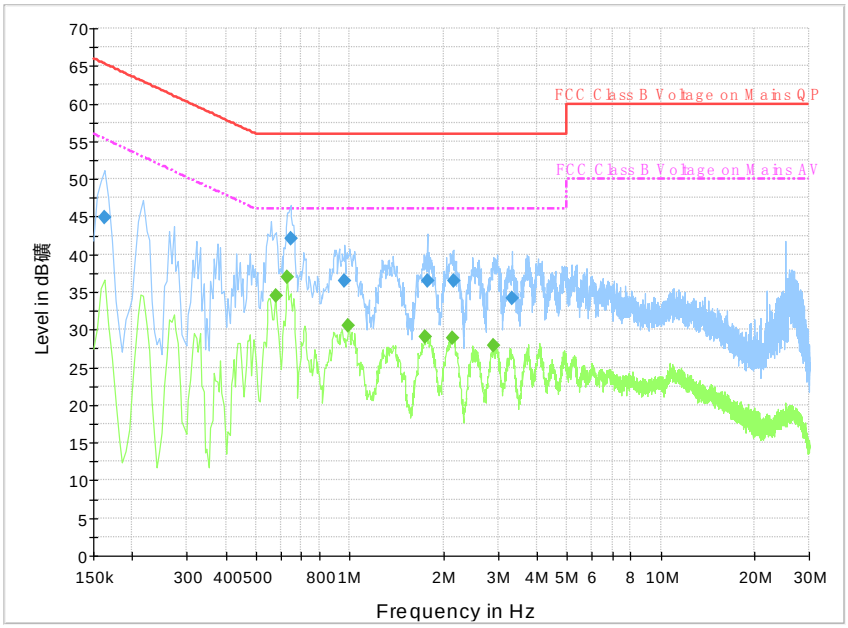

Fig.138 AC Powerline Conducted Emission-Idle

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)	Line	Margin(dB)	Limit(dBµV)
0.163500	44.9	N	20.4	65.3
0.645000	42.1	L1	13.9	56.0
0.964500	36.5	L1	19.5	56.0
1.774500	36.6	L1	19.4	56.0
2.152500	36.4	L1	19.6	56.0
3.336000	34.2	L1	21.8	56.0

Final Result 2

Frequency(MHz)	Average(dBµV)	Line	Margin(dB)	Limit(dBµV)
0.577500	34.6	L1	11.4	46.0
0.631500	36.9	L1	9.1	46.0
0.991500	30.5	L1	15.5	46.0
1.756500	29.1	L1	16.9	46.0
2.148000	29.0	L1	17.0	46.0
2.908500	28.0	L1	18.0	46.0

*****END OF REPORT*****