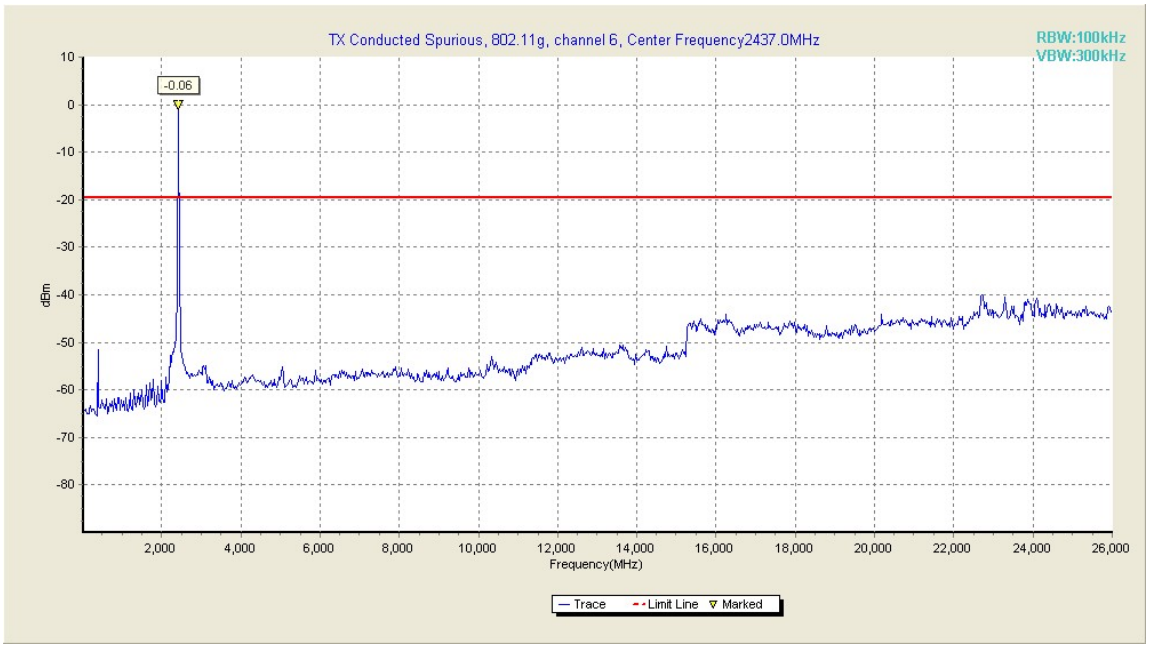

Fig. 42 Conducted Spurious Emission (802.11g, Ch6, 30 MHz-26 GHz)

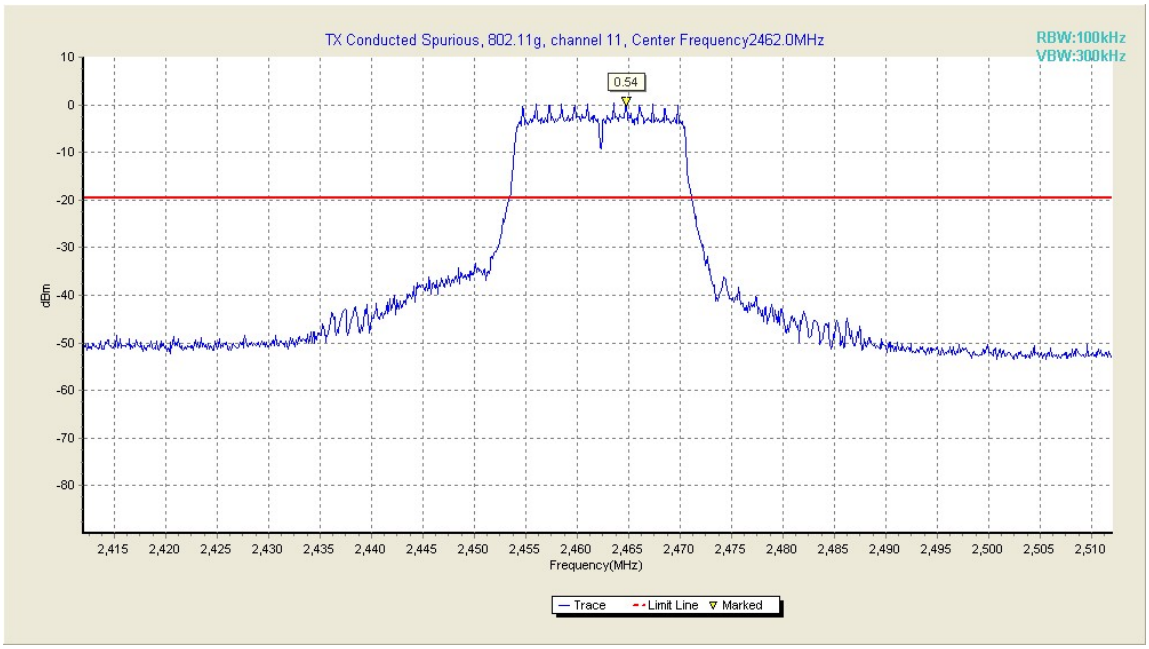

Fig. 43 Conducted Spurious Emission (802.11g, Ch11, Center Frequency)

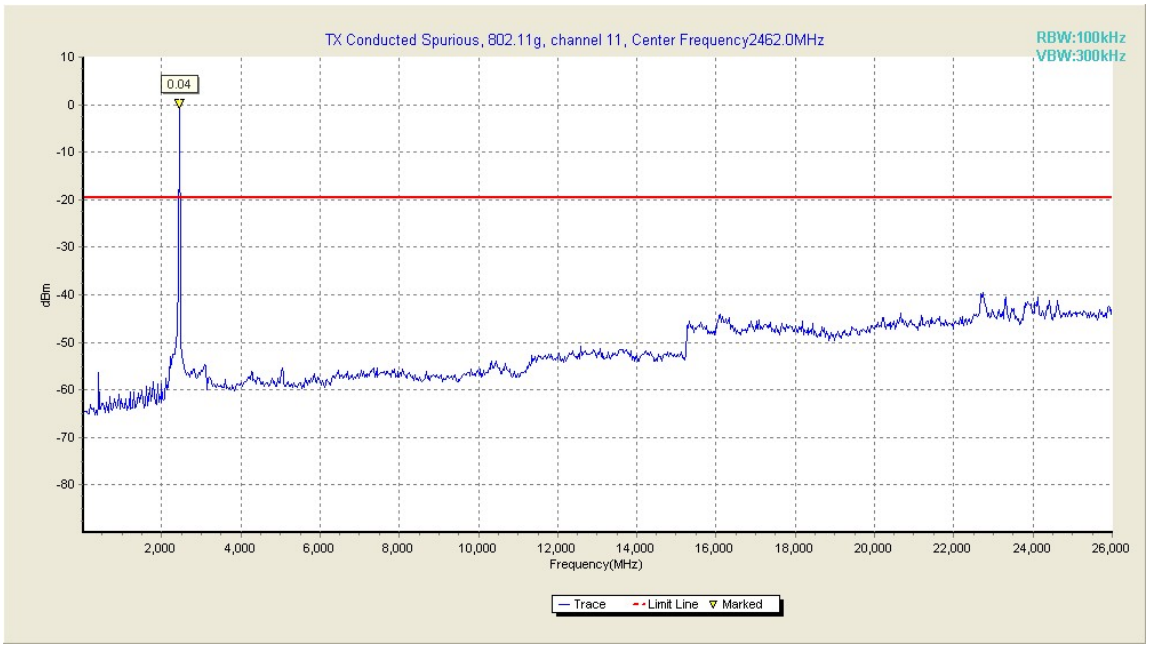

Fig. 44 Conducted Spurious Emission (802.11g, Ch11, 30 MHz-26 GHz)

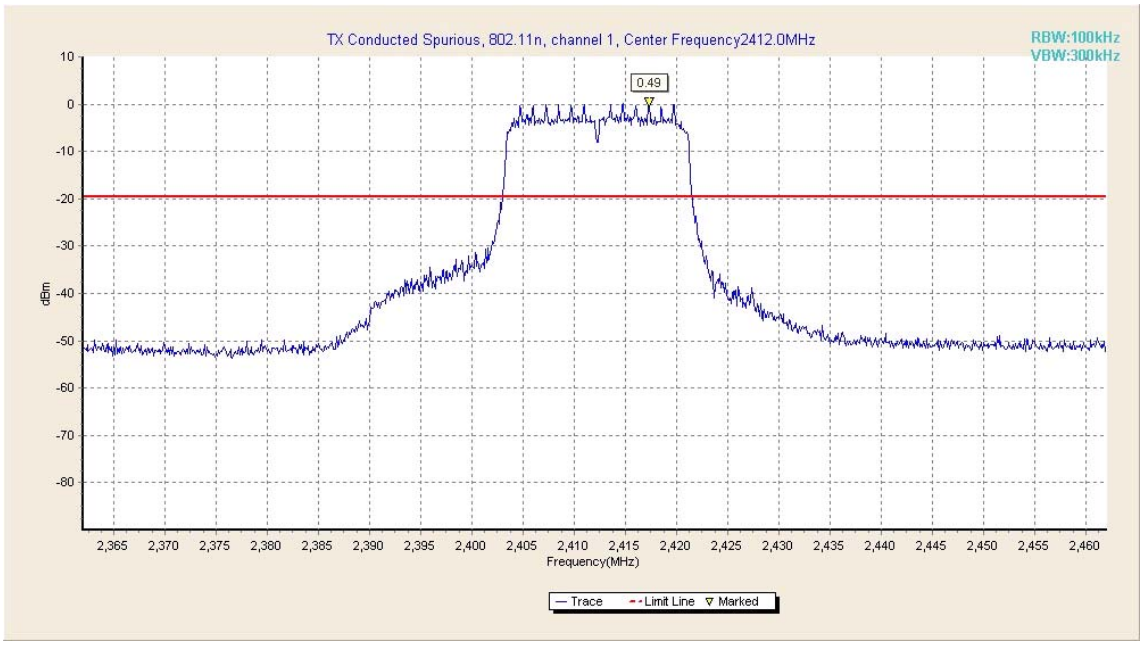

Fig. 45 Conducted Spurious Emission (802.11n-20MHz, Ch1, Center Frequency)

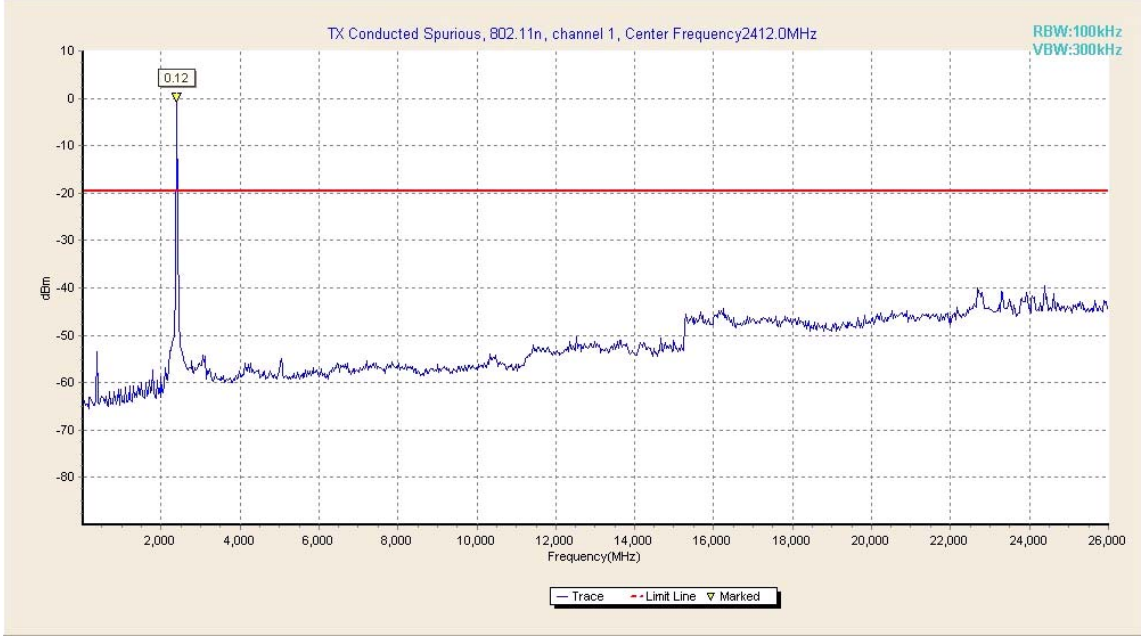

Fig. 46 Conducted Spurious Emission (802.11n-20MHz, Ch1, 30 MHz-26 GHz)

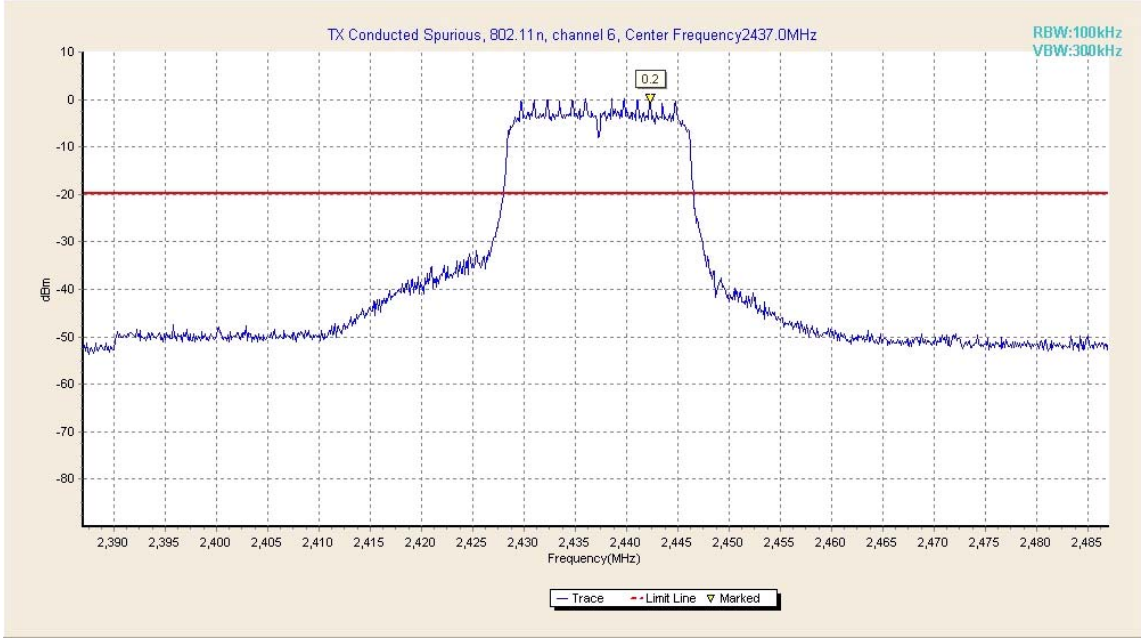

Fig. 47 Conducted Spurious Emission (802.11n-20MHz, Ch6, Center Frequency)

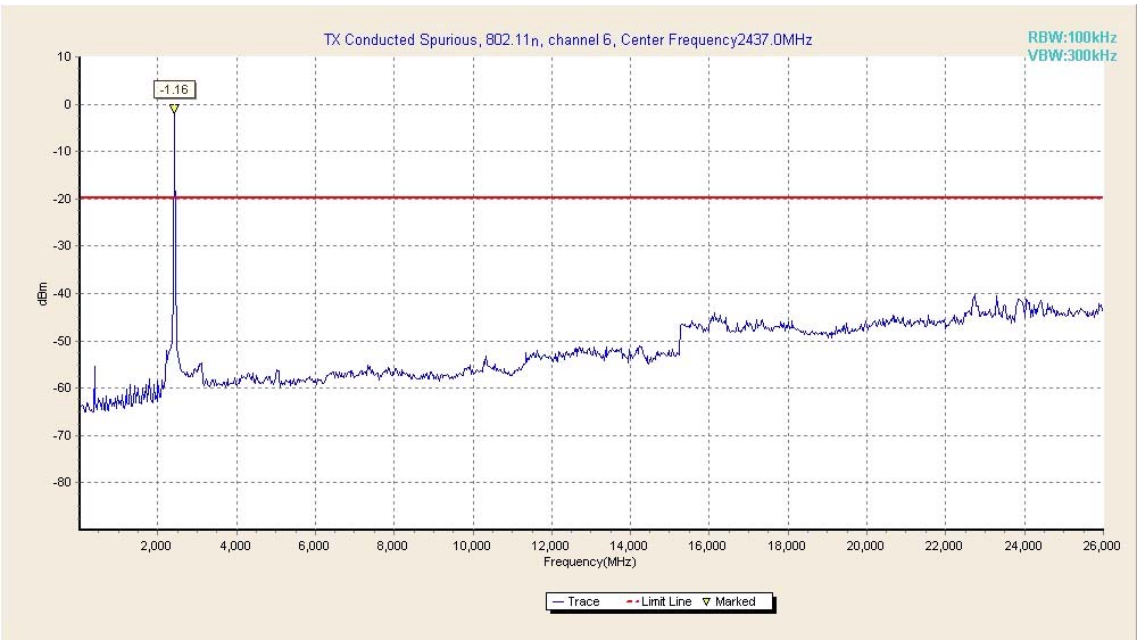

Fig. 48 Conducted Spurious Emission (802.11n-20MHz, Ch6, 30 MHz-26 GHz)

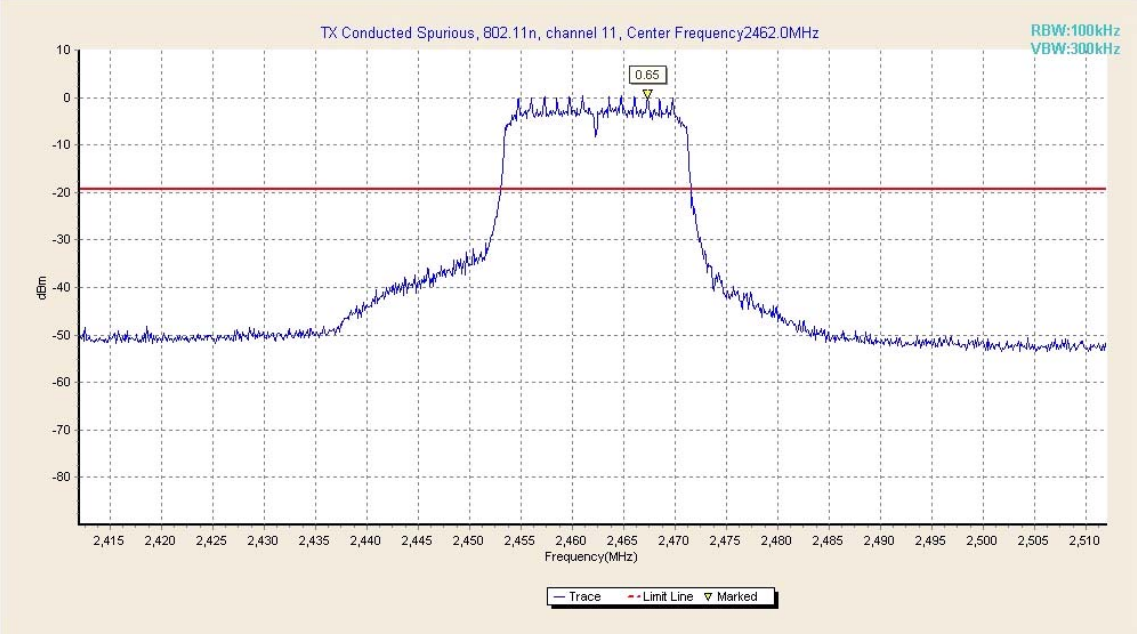

Fig. 49 Conducted Spurious Emission (802.11n-20MHz, Ch11, Center Frequency)

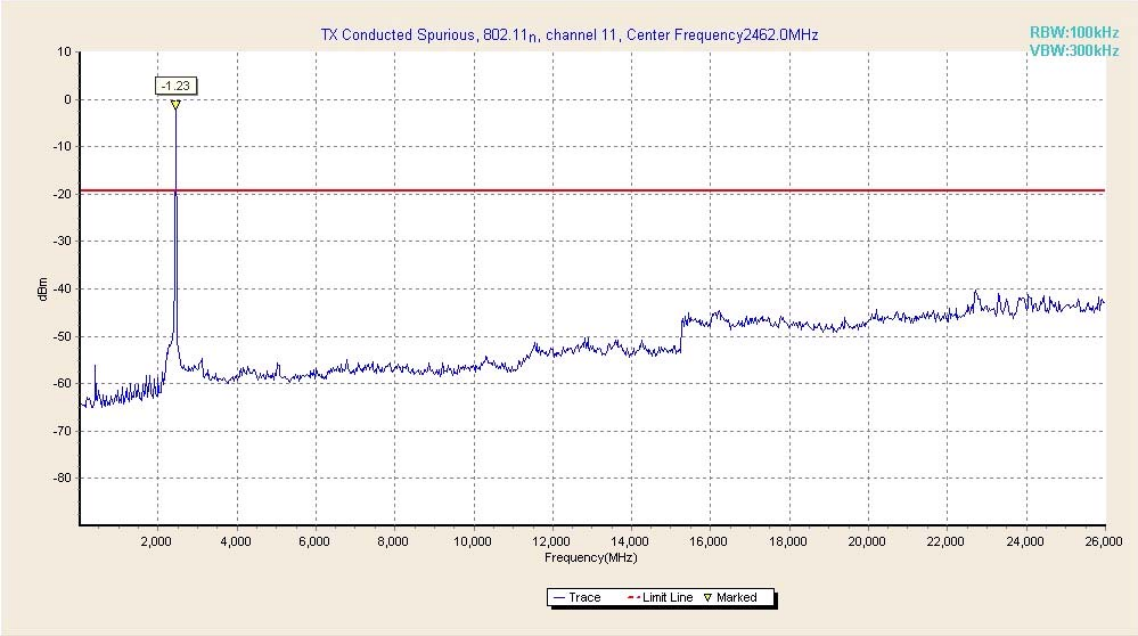

Fig. 50 Conducted Spurious Emission (802.11n-20MHz, Ch11, 30 MHz-26 GHz)

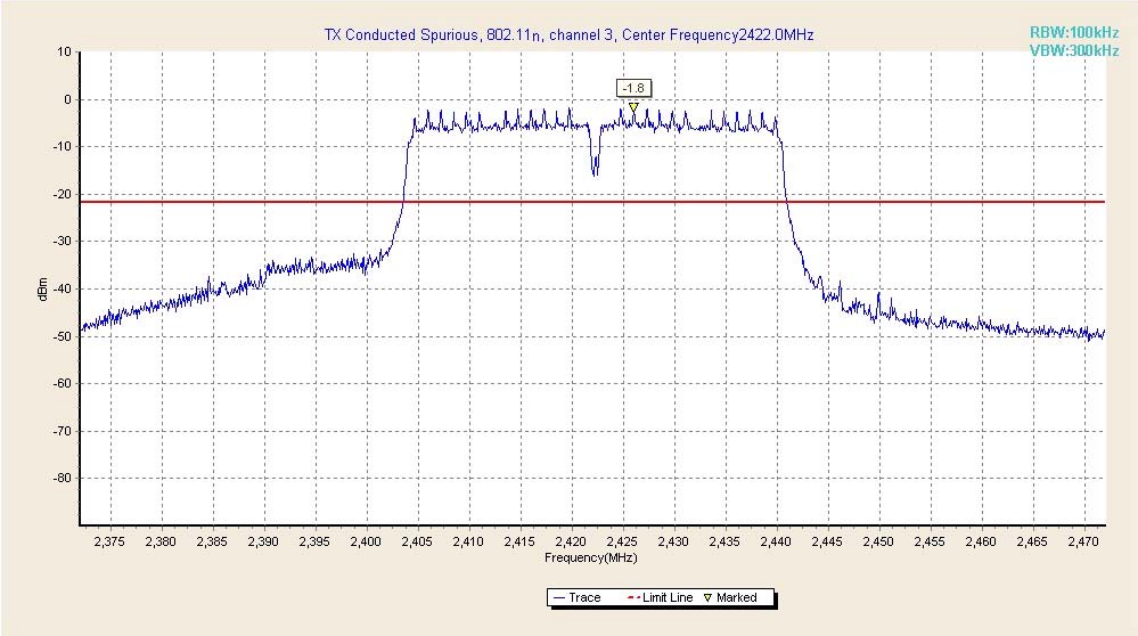

Fig. 51 Conducted Spurious Emission (802.11n-40MHz, Ch3, Center Frequency)

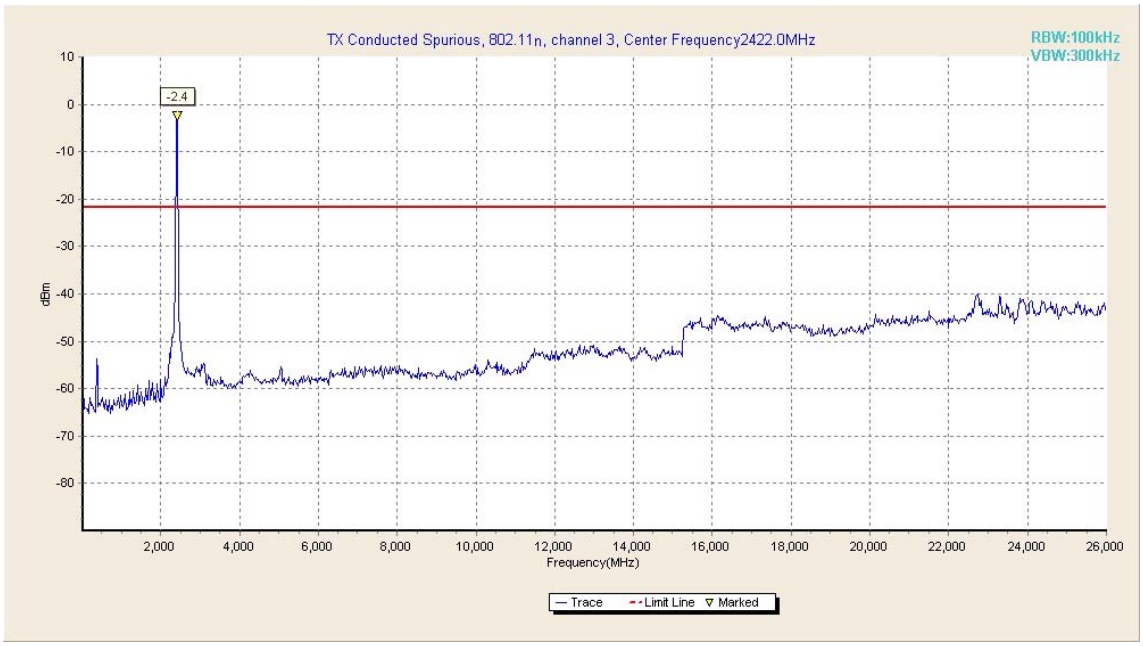

Fig. 52 Conducted Spurious Emission (802.11n-40MHz, Ch3, 30 MHz-26 GHz)

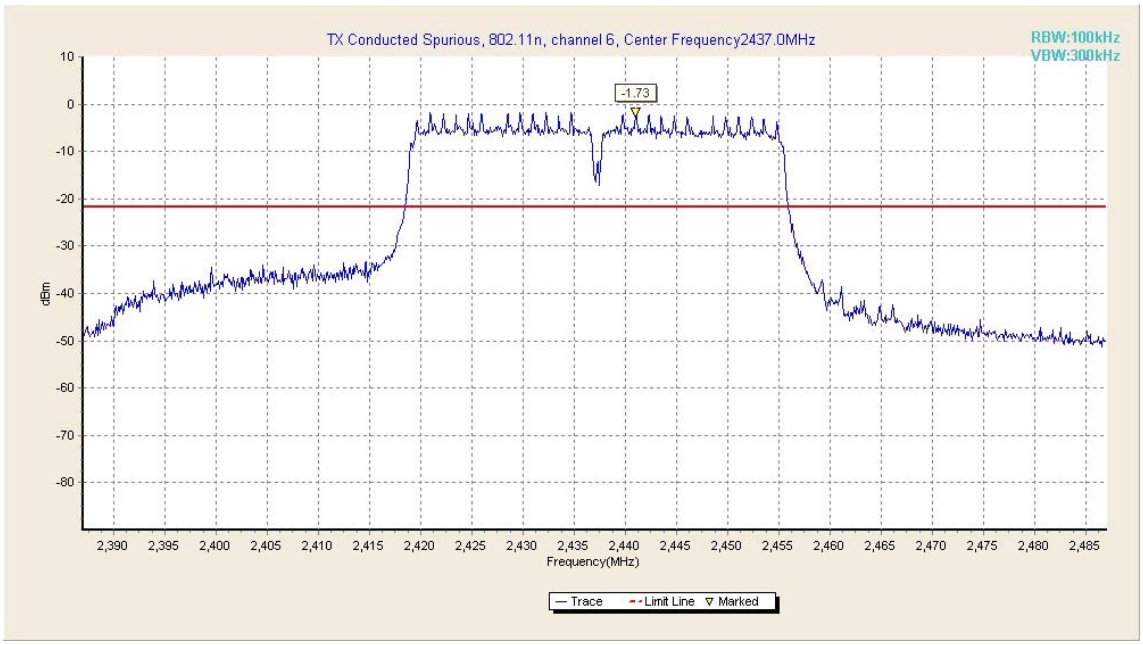

Fig. 53 Conducted Spurious Emission (802.11n-40MHz, Ch6, Center Frequency)

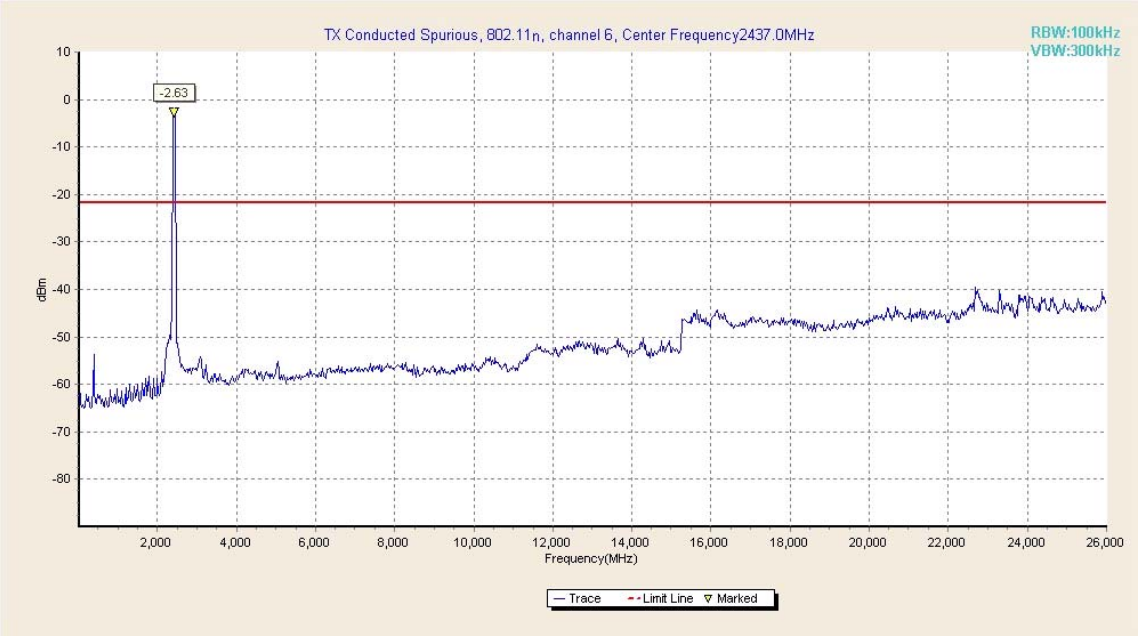

Fig. 54 Conducted Spurious Emission (802.11n-40MHz, Ch6, 30 MHz-26 GHz)

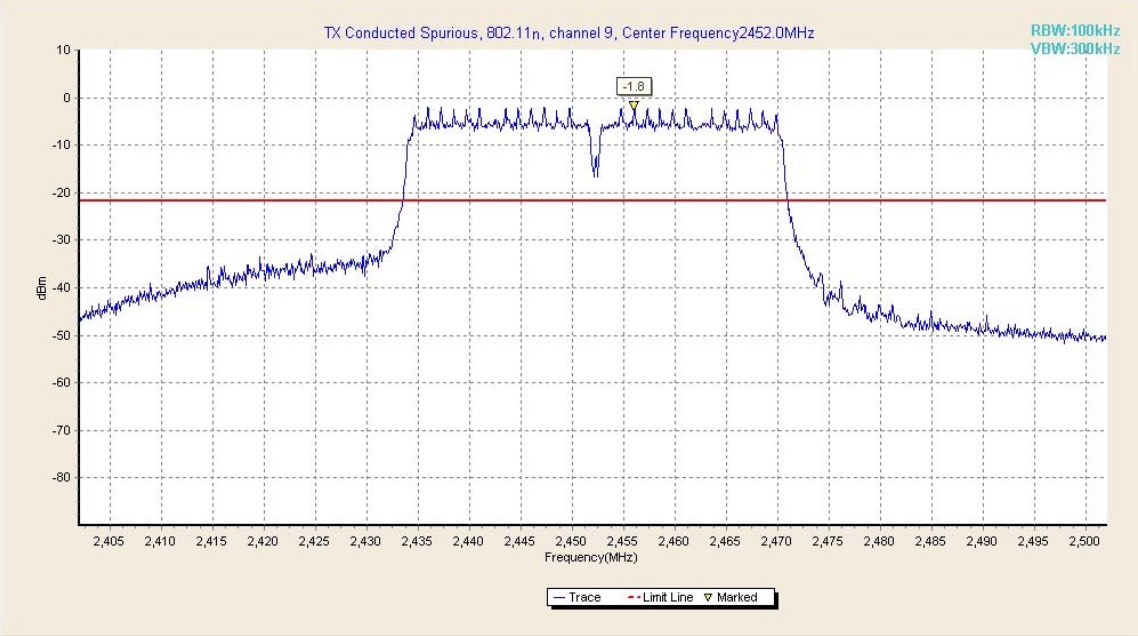

Fig. 55 Conducted Spurious Emission (802.11n-40MHz, Ch9, Center Frequency)

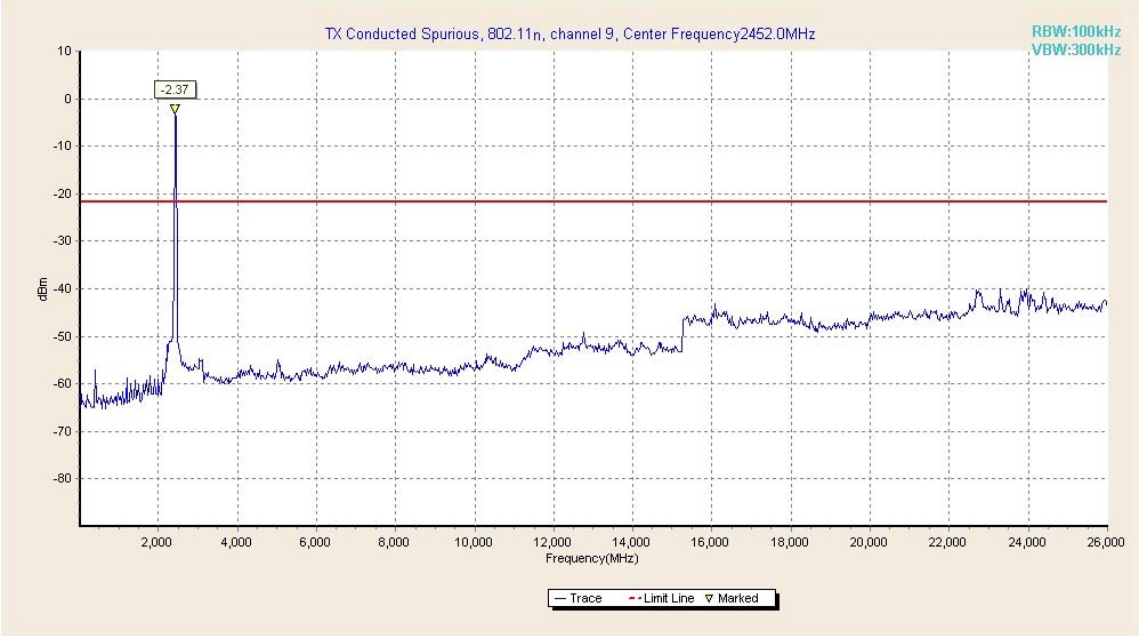

Fig. 56 Conducted Spurious Emission (802.11n-40MHz, Ch9, 30 MHz-26 GHz)

A.6.2 Transmitter Spurious Emission - Radiated

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209	20dB below peak output power

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

The measurement is made according to ANSI C63.4 and KDB558074.

Limit in restricted band:

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Test Condition

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100KHz/300KHz	5
1000-4000	1MHz/1MHz	15
4000-18000	1MHz/1MHz	40
18000-26500	1MHz/1MHz	20

Measurement Results:

802.11b/g mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	Power	2.38GHz ~2.45GHz	Fig.57	P
	1	30 MHz ~1 GHz	Fig.58	P
		1 GHz ~ 4 GHz	Fig.59	P
		4 GHz ~ 18 GHz	Fig.60	P
	6	30 MHz ~1 GHz	Fig.61	P
		1 GHz ~ 4 GHz	Fig.62	P
		4 GHz ~ 18 GHz	Fig.63	P
	Power	2.45GHz ~2.5GHz	Fig.64	P
	11	30 MHz ~1 GHz	Fig.65	P
		1 GHz ~ 4 GHz	Fig.66	P
		4 GHz ~ 18 GHz	Fig.67	P
802.11g	Power	2.38GHz ~2.43GHz	Fig.68	P
	1	30 MHz ~1 GHz	Fig.69	P
		1 GHz ~ 4 GHz	Fig.70	P
		4 GHz ~ 18 GHz	Fig.71	P
	6	30 MHz ~1 GHz	Fig.72	P
		1 GHz ~ 4 GHz	Fig.73	P
		4 GHz ~ 18 GHz	Fig.74	P
	Power	2.45GHz ~2.5GHz	Fig.75	P
	11	30 MHz ~1 GHz	Fig.76	P
		1 GHz ~ 4 GHz	Fig.77	P
		4 GHz ~ 18 GHz	Fig.78	P

802.11n mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (20MHz)	Power	2.38GHz ~2.45GHz	Fig.79	P
	1	30 MHz ~1 GHz	Fig.80	P
		1 GHz ~ 4 GHz	Fig.81	P
		4 GHz ~ 18 GHz	Fig.82	P
	6	30 MHz ~1 GHz	Fig.83	P
		1 GHz ~ 4 GHz	Fig.84	P
		4 GHz ~ 18 GHz	Fig.85	P
	Power	2.45GHz ~2.5GHz	Fig.86	P
	11	30 MHz ~1 GHz	Fig.87	P
		1 GHz ~ 4 GHz	Fig.88	P
		4 GHz ~ 18 GHz	Fig.89	P
802.11n (40MHz)	Power	2.38GHz ~2.45GHz	Fig.90	P
	3	30 MHz ~1 GHz	Fig.91	P
		1 GHz ~ 4 GHz	Fig.92	P

		4 GHz ~ 18 GHz	Fig.93	P
	6	30 MHz ~1 GHz	Fig.94	P
		1 GHz ~ 4 GHz	Fig.95	P
		4 GHz ~ 18 GHz	Fig.96	P
	Power	2.45GHz ~2.5GHz	Fig.97	P
	9	30 MHz ~1 GHz	Fig.98	P
		1 GHz ~ 4 GHz	Fig.99	P
		4 GHz ~ 18 GHz	Fig.100	P
/	All channels	18 GHz~ 26.5 GHz	Fig.101	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

802.11b

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2410.822	71.34	-18.7	27.5	62.54	VERTICAL
2414.83	71.26	-18.7	27.5	62.46	HORIZONTAL
2418.838	66.88	-18.7	27.5	58.08	VERTICAL
2406.814	66.72	-18.7	27.5	57.92	VERTICAL
2402.806	49.24	-18.7	27.5	40.44	VERTICAL
2422.846	47.68	-18.8	27.5	38.98	HORIZONTAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2438.878	75.3	-18.9	27.5	66.7	HORIZONTAL
2434.87	74.06	-18.9	27.5	65.46	VERTICAL
2442.886	70.78	-18.9	27.5	62.18	HORIZONTAL
2430.862	61.7	-18.9	27.5	53.1	VERTICAL
2446.894	53.4	-18.9	27.5	44.8	HORIZONTAL
3699.399	38.7	-19.2	33.4	24.5	VERTICAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2458.918	73.56	-18.7	27.5	64.76	VERTICAL
2462.926	73.02	-18.6	27.5	64.12	HORIZONTAL
2466.934	70.62	-18.6	27.5	61.72	VERTICAL
2454.91	63.25	-18.7	27.5	54.45	VERTICAL
2470.942	59.4	-18.4	27.5	50.3	HORIZONTAL
3703.407	38.67	-19.1	33.4	24.37	VERTICAL

802.11g

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2414.83	69.28	-18.7	27.5	60.48	VERTICAL
2418.838	68.66	-18.7	27.5	59.86	VERTICAL
2410.822	66.84	-18.7	27.5	58.04	VERTICAL
2406.814	66.32	-18.7	27.5	57.52	HORIZONTAL
2422.846	55.79	-18.8	27.5	47.09	VERTICAL
2402.806	50.1	-18.7	27.5	41.3	HORIZONTAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2438.878	67.65	-18.9	27.5	59.05	VERTICAL
2434.87	66.9	-18.9	27.5	58.3	VERTICAL
2442.886	65.04	-18.9	27.5	56.44	VERTICAL
2430.862	60.34	-18.9	27.5	51.74	HORIZONTAL
2446.894	57.77	-18.9	27.5	49.17	HORIZONTAL
3699.399	38.67	-19.2	33.4	24.47	VERTICAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2458.918	67.07	-18.7	27.5	58.27	VERTICAL
2462.926	67.05	-18.6	27.5	58.15	HORIZONTAL
2466.934	66.76	-18.6	27.5	57.86	VERTICAL
2454.91	64.17	-18.7	27.5	55.37	HORIZONTAL
2470.942	61.43	-18.4	27.5	52.33	HORIZONTAL
2787.575	39.09	-18.9	29.2	28.79	VERTICAL

802.11n-20MHz

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2406.814	72.7	-18.7	27.5	63.9	HORIZONTAL
2414.83	72.53	-18.7	27.5	63.73	VERTICAL
2418.838	71.7	-18.7	27.5	62.9	VERTICAL
2410.822	71.07	-18.7	27.5	62.27	HORIZONTAL
2422.846	57.28	-18.8	27.5	48.58	VERTICAL
2402.806	55.04	-18.7	27.5	46.24	VERTICAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2438.878	69.71	-18.9	27.5	61.11	HORIZONTAL
2434.87	66.79	-18.9	27.5	58.19	VERTICAL
2442.886	66.42	-18.9	27.5	57.82	HORIZONTAL
2430.862	62	-18.9	27.5	53.4	VERTICAL
2446.894	60.76	-18.9	27.5	52.16	VERTICAL
2426.854	41.2	-18.8	27.5	32.5	VERTICAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2458.918	68.38	-18.7	27.5	59.58	VERTICAL
2454.91	66.03	-18.7	27.5	57.23	HORIZONTAL
2466.934	66.01	-18.6	27.5	57.11	HORIZONTAL
2462.926	64.72	-18.6	27.5	55.82	HORIZONTAL
2470.942	63.39	-18.4	27.5	54.29	VERTICAL
2787.575	39.02	-18.9	29.2	28.72	VERTICAL

802.11n-40MHz

Ch3

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2398.798	80.02	-18.8	27.5	71.32	HORIZONTAL
2402.806	78.5	-18.7	27.5	69.7	VERTICAL
2406.814	78.25	-18.7	27.5	69.45	VERTICAL
2410.822	78.22	-18.7	27.5	69.42	HORIZONTAL
2426.854	78	-18.8	27.5	69.3	VERTICAL
2422.846	77.99	-18.8	27.5	69.29	VERTICAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2442.886	78.15	-18.9	27.5	69.55	VERTICAL
2430.862	77.87	-18.9	27.5	69.27	VERTICAL
2446.894	77.45	-18.9	27.5	68.85	VERTICAL
2434.87	77.43	-18.9	27.5	68.83	HORIZONTAL
2426.854	77.12	-18.8	27.5	68.42	VERTICAL
2450.902	76.58	-18.7	27.5	67.78	HORIZONTAL

Ch9

Frequency(MHz)	Result (dBuV/m)	Cable Loss	Antenna Factor	P_{Mea} (dBuV/m)	Polarization
2454.91	77	-18.7	27.5	68.2	HORIZONTAL
2466.934	76.63	-18.6	27.5	67.73	VERTICAL
2450.902	76.38	-18.7	27.5	67.58	HORIZONTAL
2474.95	76.37	-18.4	27.5	67.27	HORIZONTAL
2470.942	76.28	-18.4	27.5	67.18	VERTICAL
2458.918	76.26	-18.7	27.5	67.46	VERTICAL

Test graphs as below:

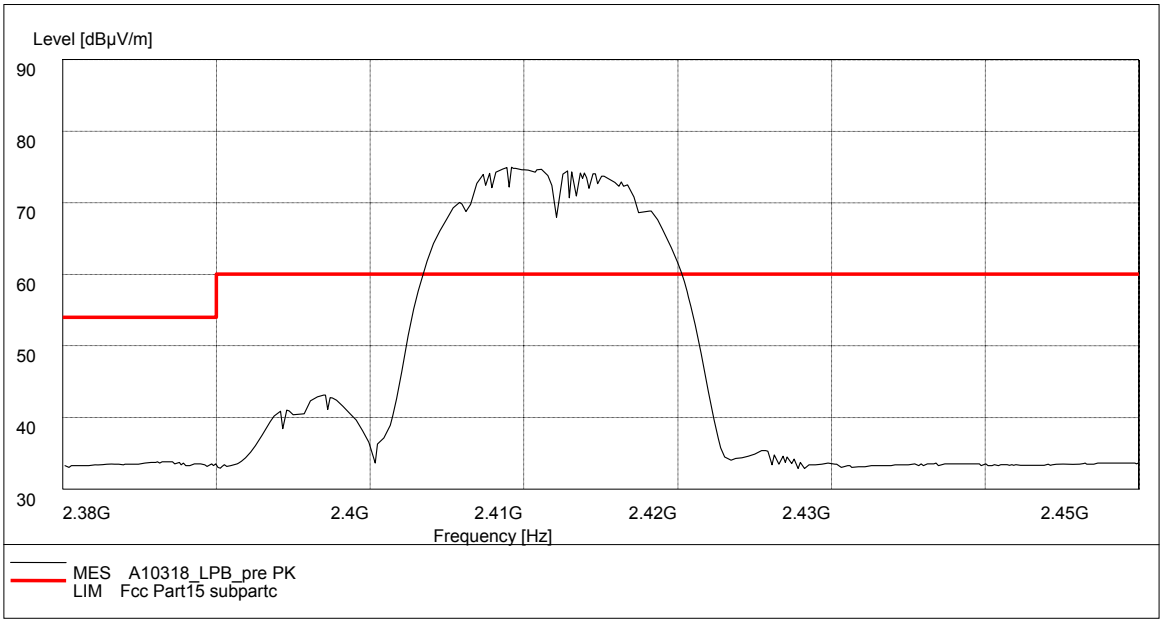

Fig. 57 Radiated Spurious Emission (Power): 802.11b, ch1, 2.38 GHz - 245GHz

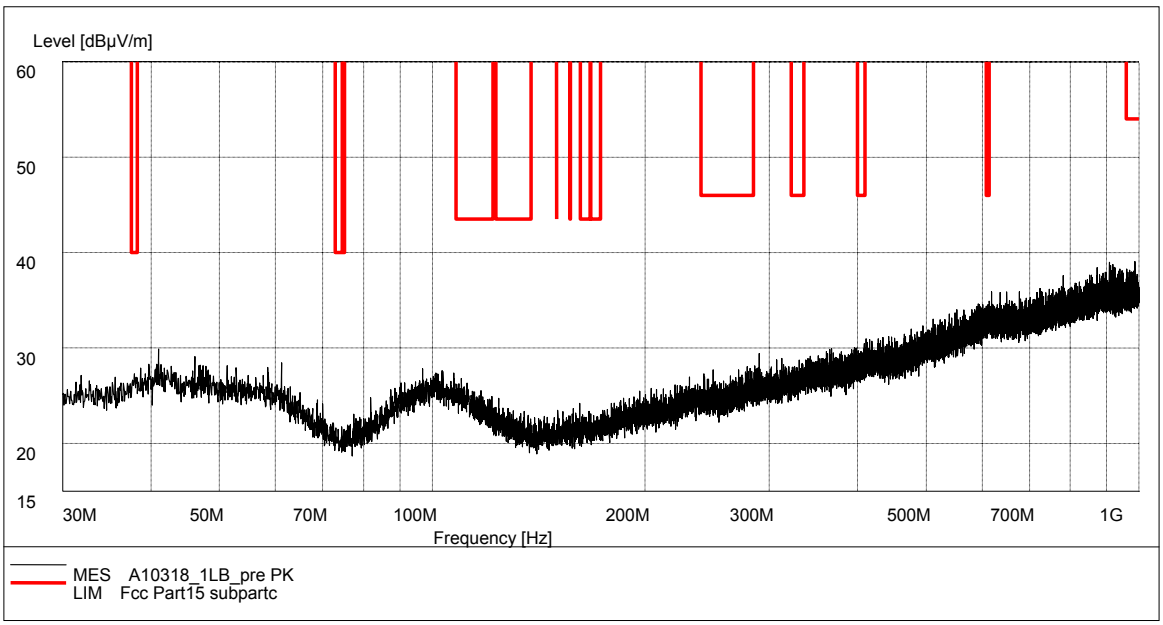

Fig. 58 Radiated Spurious Emission (802.11b, Ch1, 30 MHz-1 GHz)

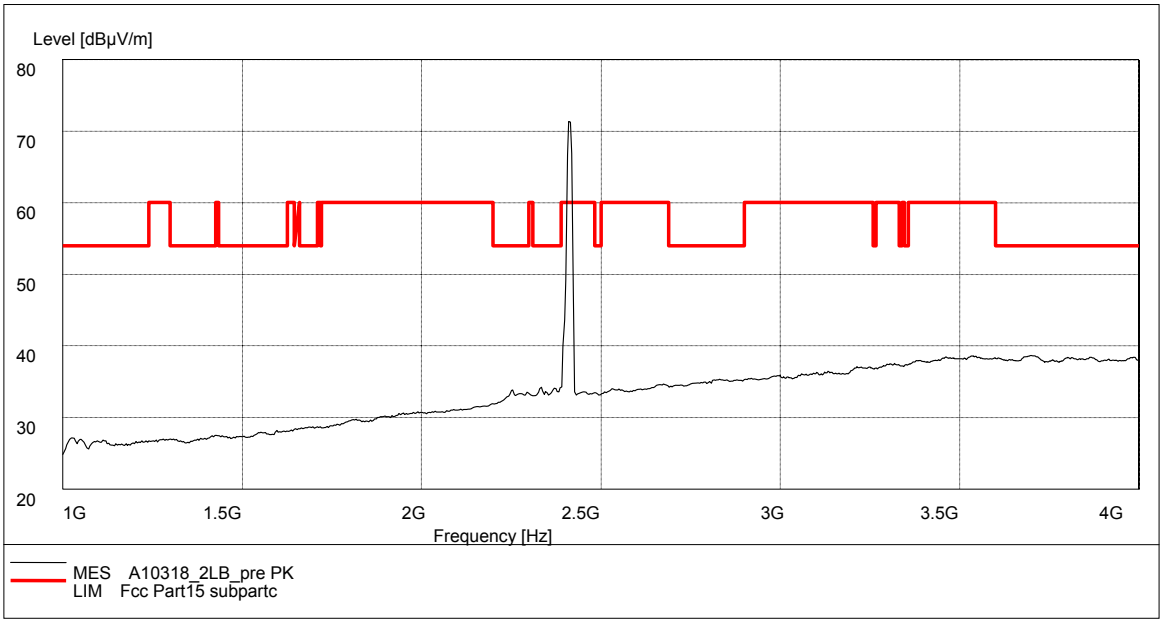

Fig. 59 Radiated Spurious Emission (802.11b, Ch1, 1 GHz-4 GHz)

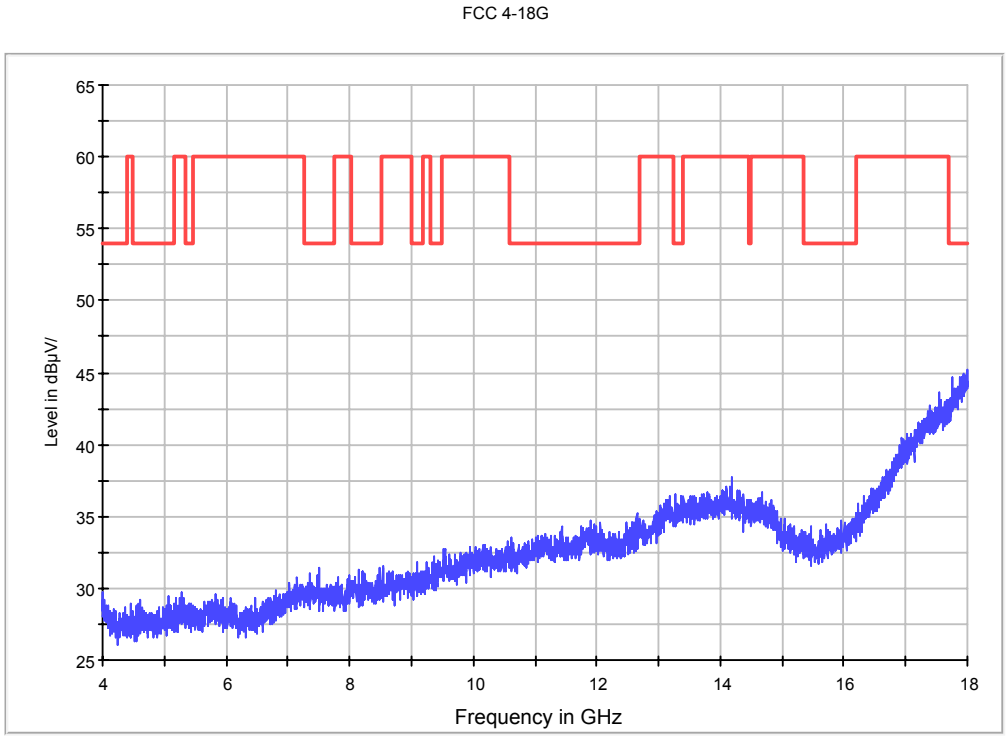

Fig. 60 Radiated Spurious Emission (802.11b, Ch1, 4 GHz-18 GHz)

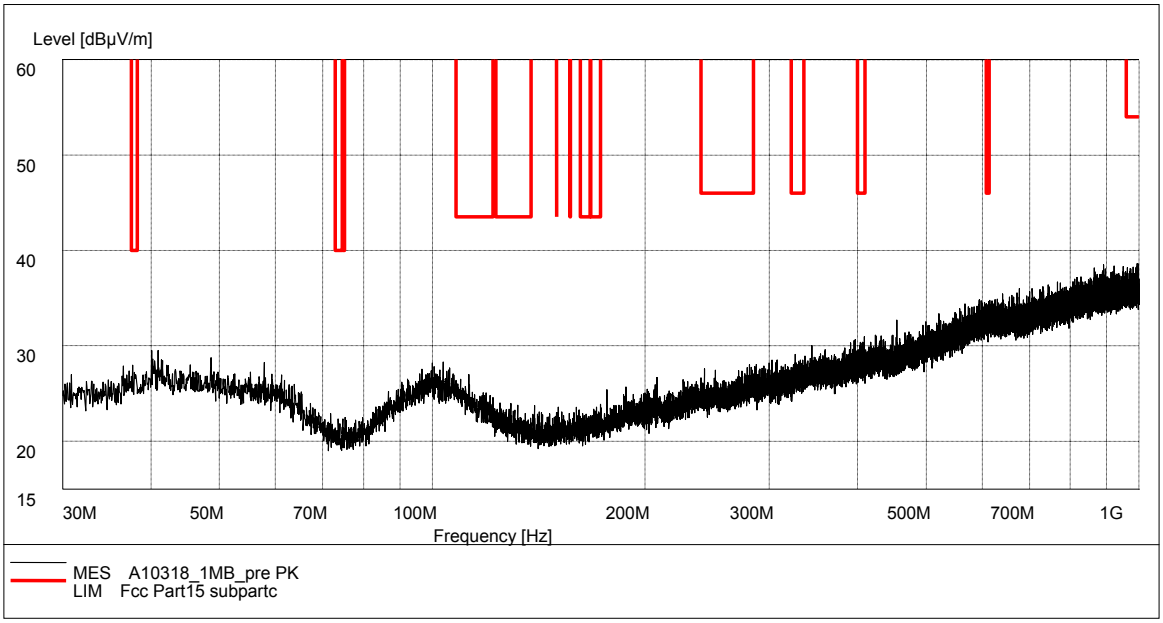

Fig. 61 Radiated Spurious Emission (802.11b, Ch6, 30 MHz-1 GHz)

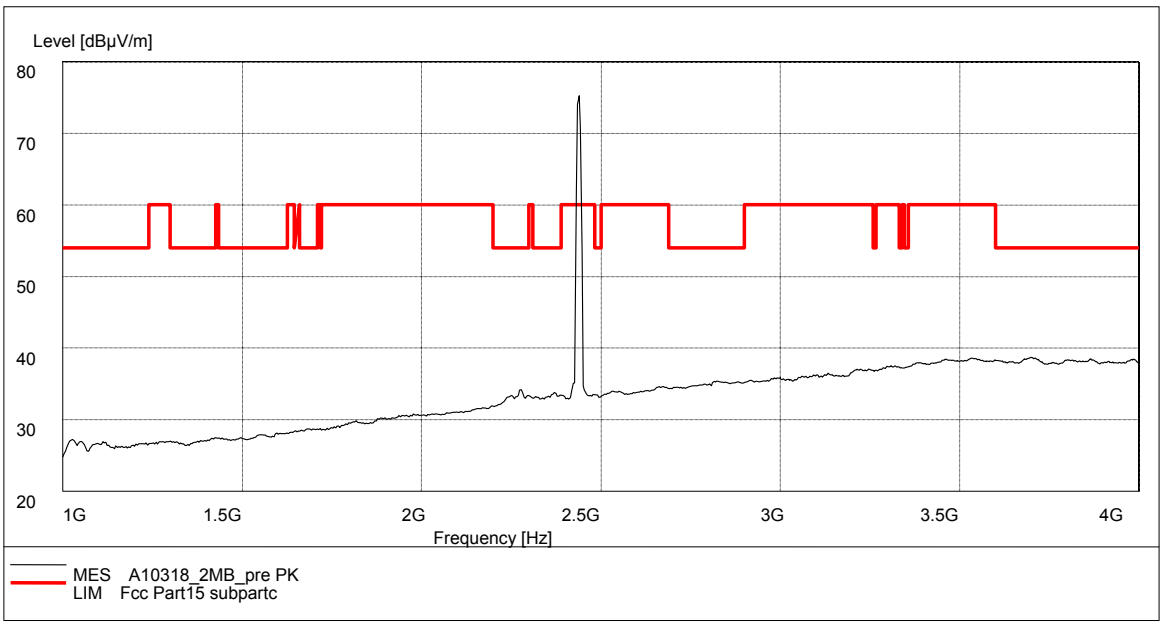

Fig. 62 Radiated Spurious Emission (802.11b, Ch6, 1 GHz-4 GHz)

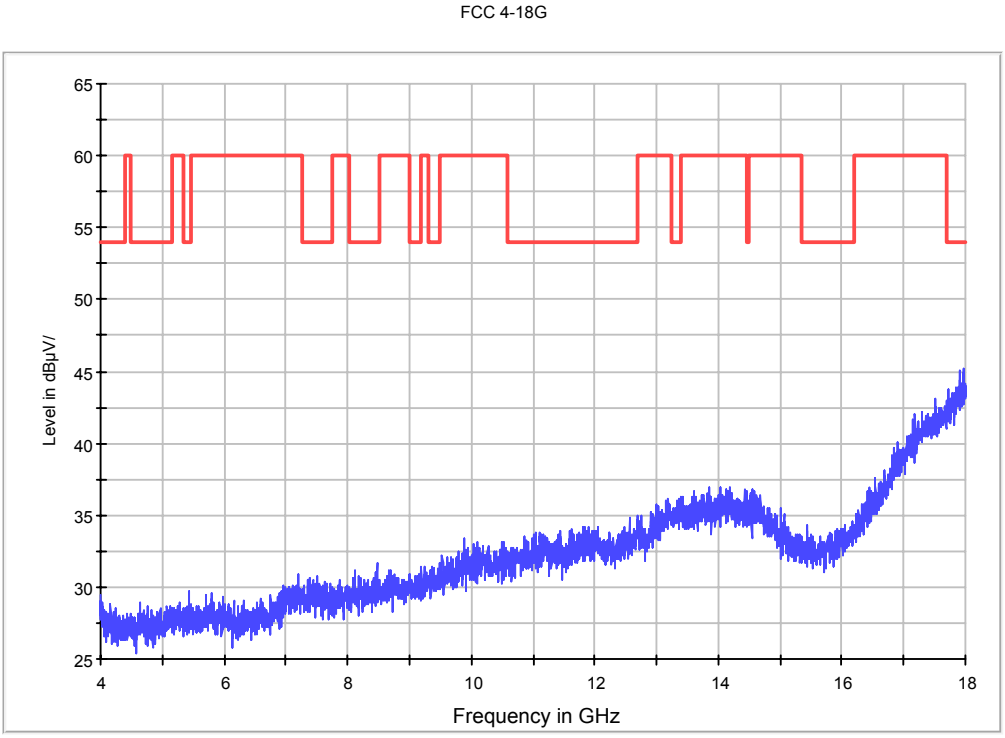

Fig. 63 Radiated Spurious Emission (802.11b, Ch6, 4 GHz-18 GHz)

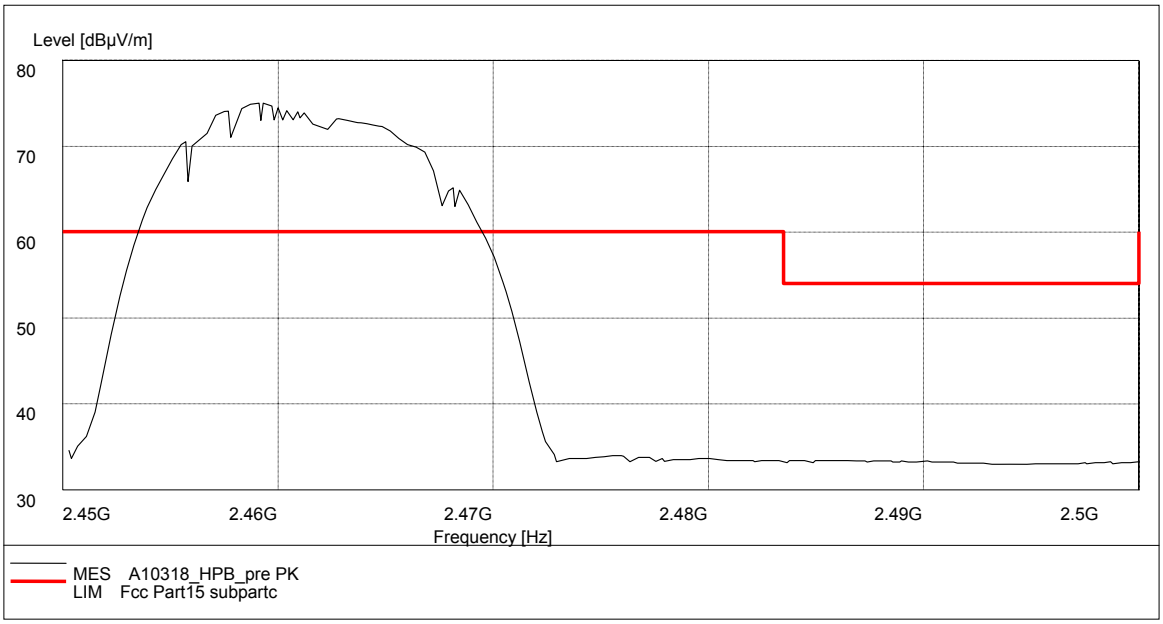

Fig. 64 Radiated Spurious Emission (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

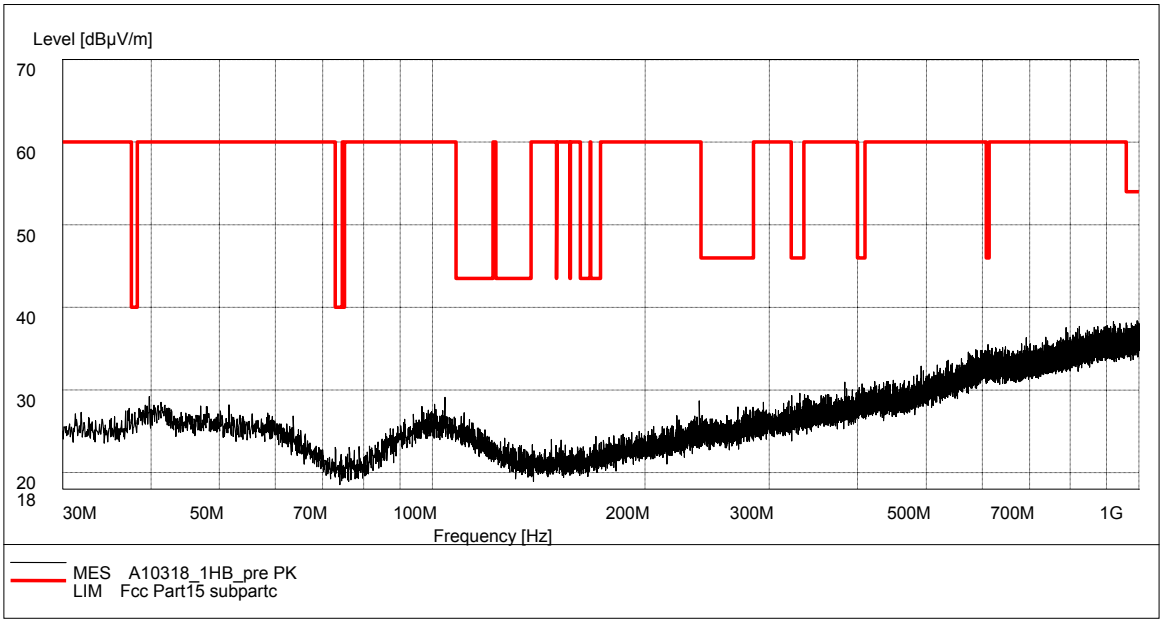

Fig. 65 Radiated Spurious Emission (802.11b, Ch11, 30 MHz-1 GHz)

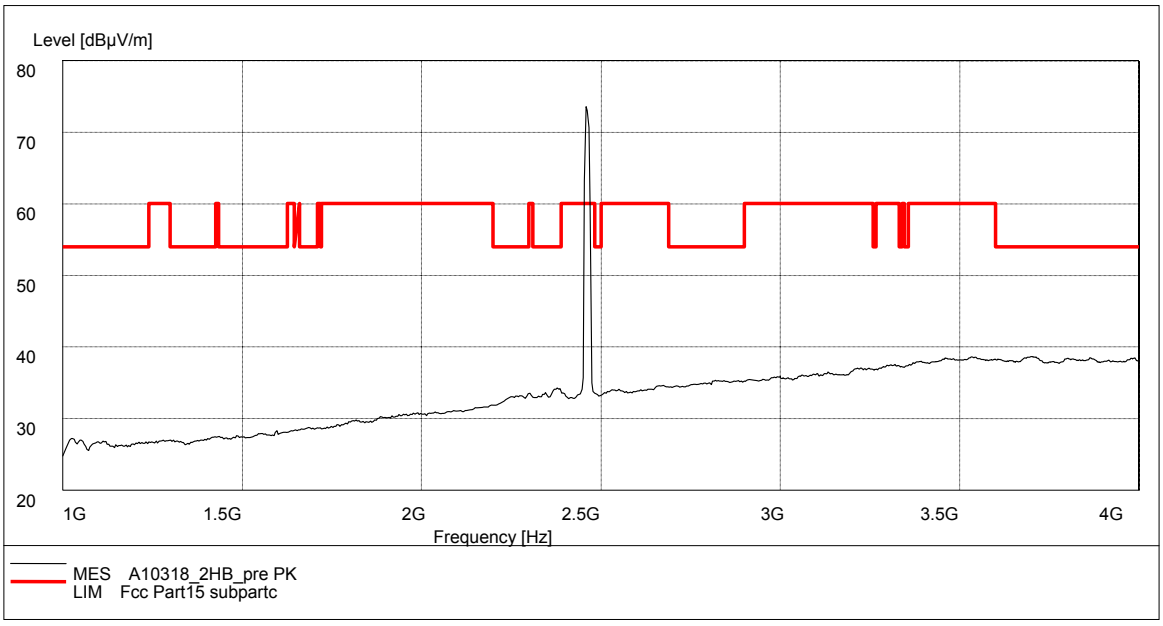

Fig. 66 Radiated Spurious Emission (802.11b, Ch11, 1 GHz-4 GHz)

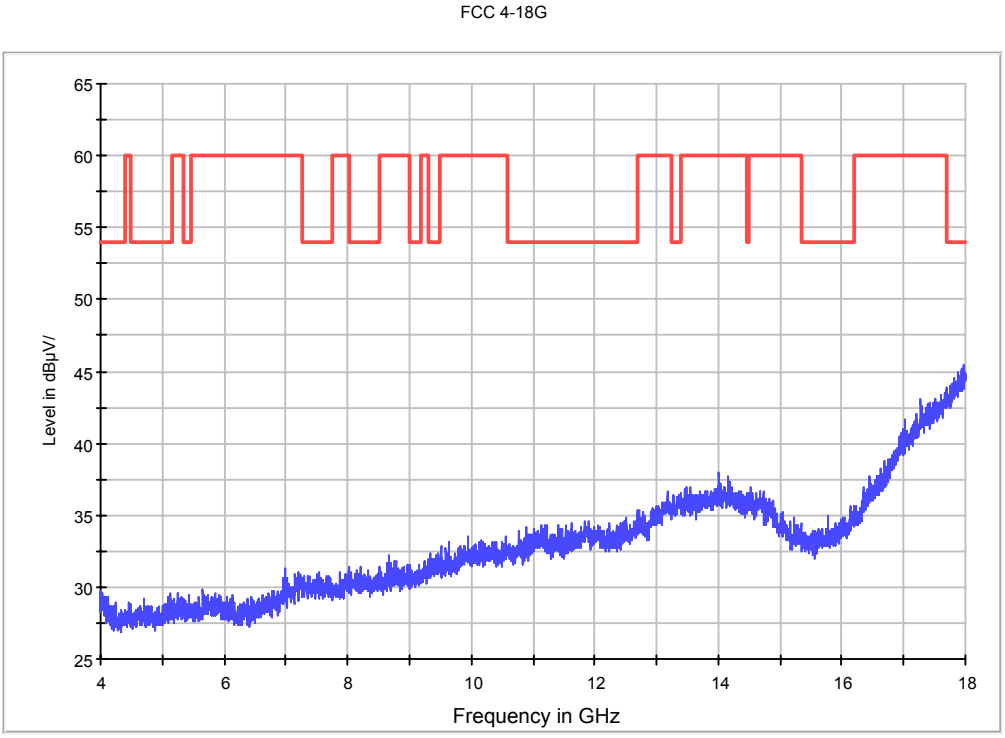

Fig. 67 Radiated Spurious Emission (802.11b, Ch11, 4 GHz-18 GHz)

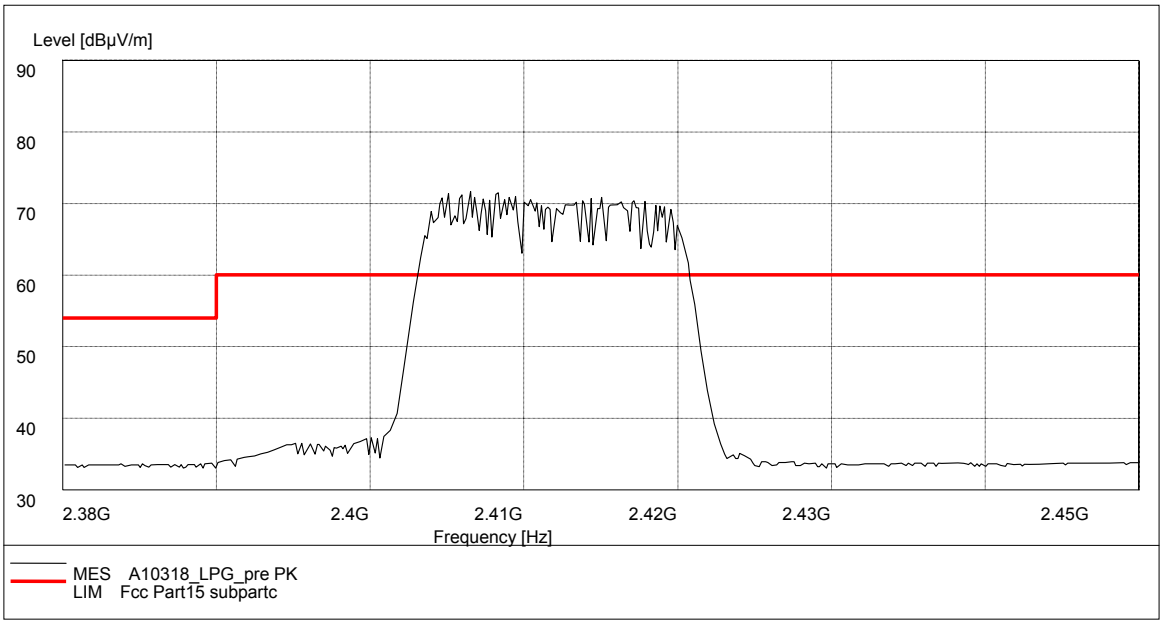

Fig. 68 Radiated Spurious Emission (Power): 802.11g, ch1, 2.38 GHz - 2.45GHz

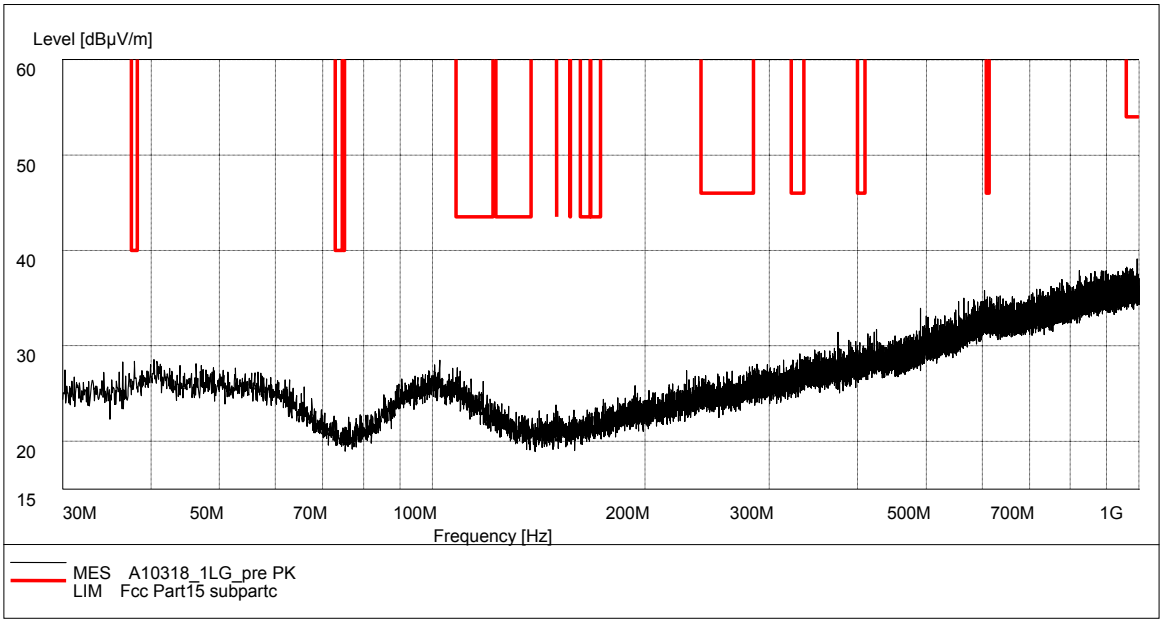

Fig. 69 Radiated Spurious Emission (802.11g, Ch1, 30 MHz-1 GHz)

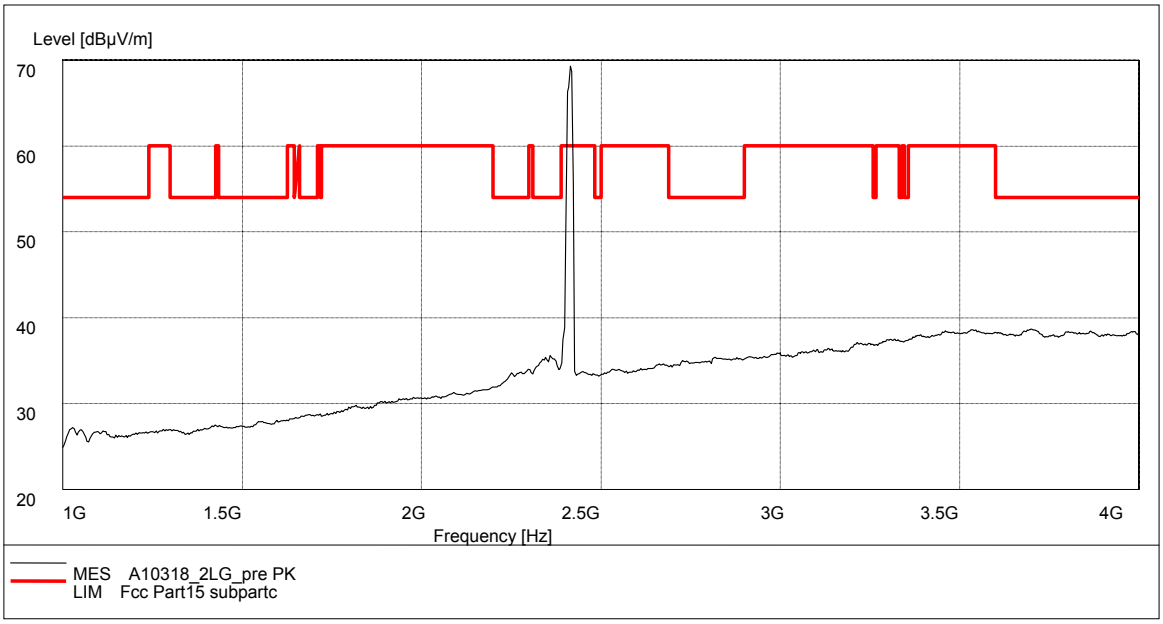

Fig. 70 Radiated Spurious Emission (802.11g, Ch1, 1 GHz-4 GHz)

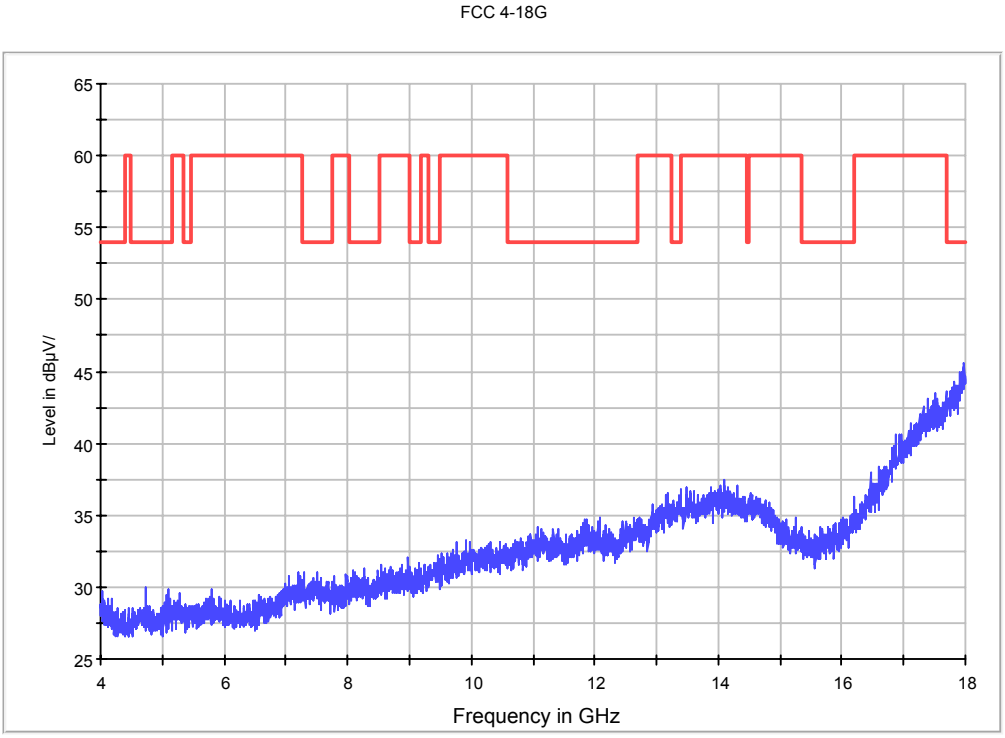

Fig. 71 Radiated Spurious Emission (802.11g, Ch1, 4 GHz-18 GHz)

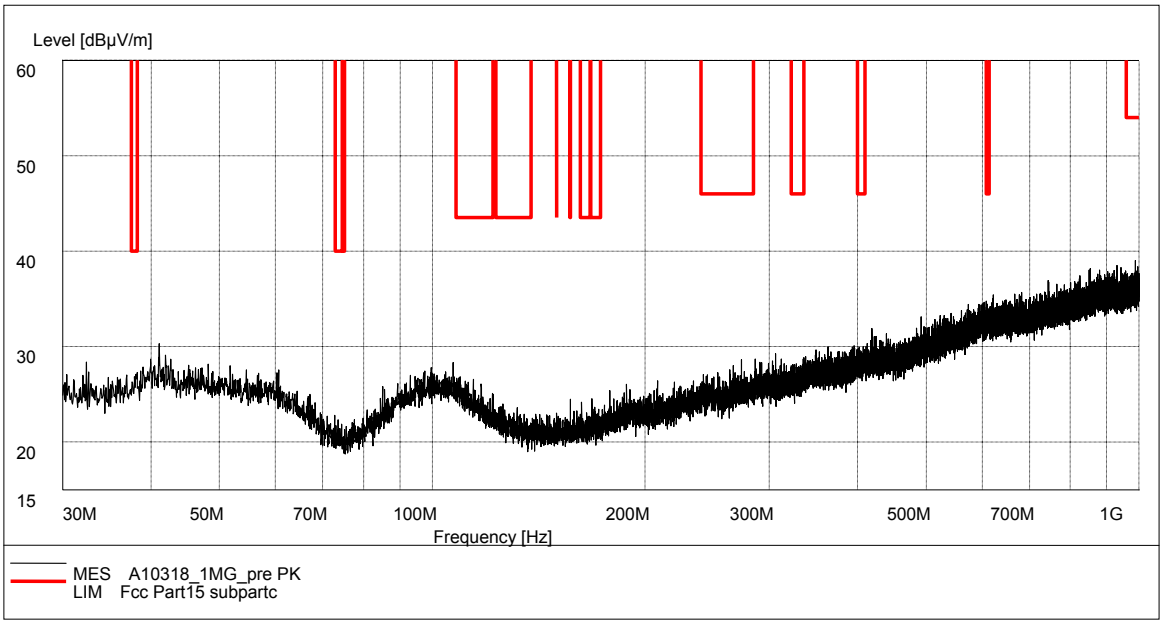

Fig. 72 Radiated Spurious Emission (802.11g, Ch6, 30 MHz-1 GHz)

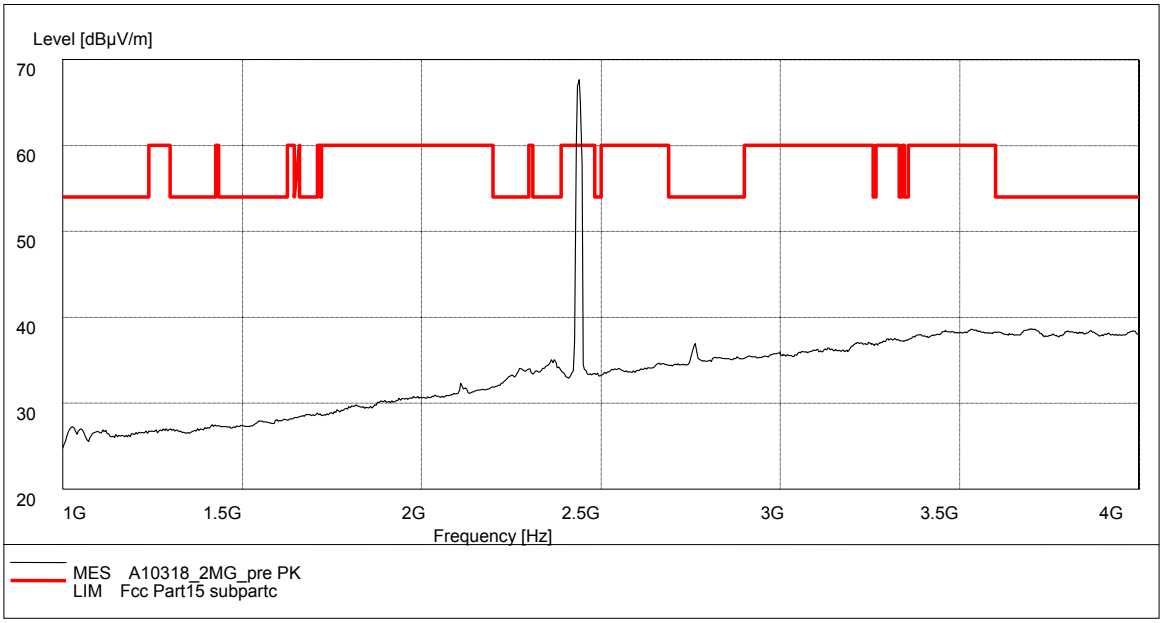

Fig. 73 Radiated Spurious Emission (802.11g, Ch6, 1 GHz-4 GHz)

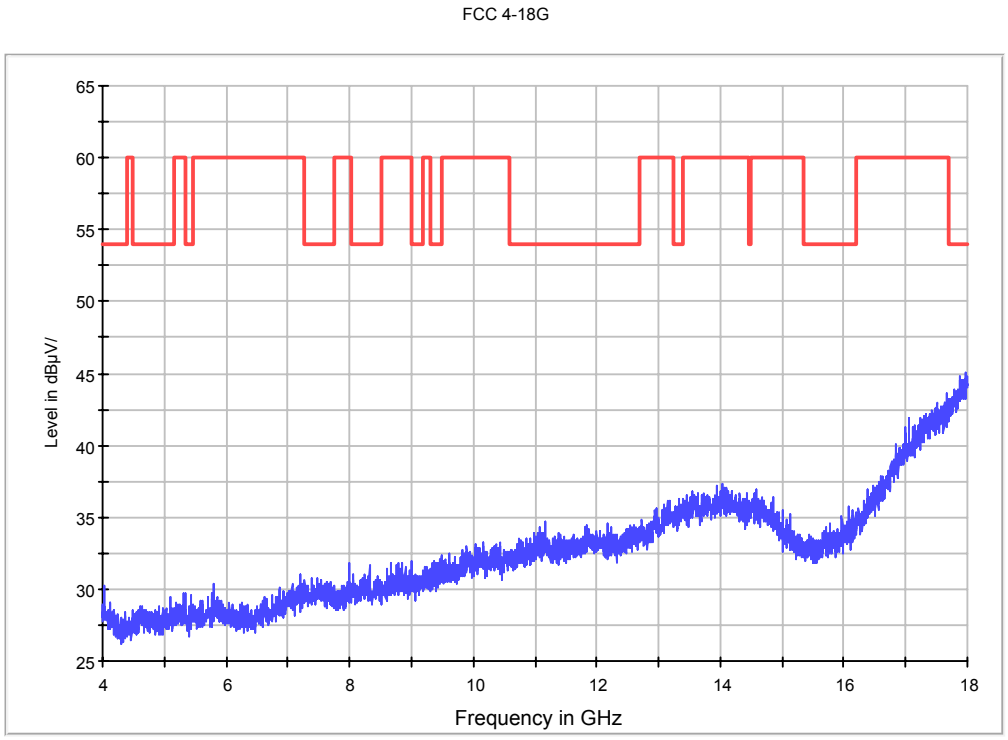

Fig. 74 Radiated Spurious Emission (802.11g, Ch6, 4 GHz-18 GHz)

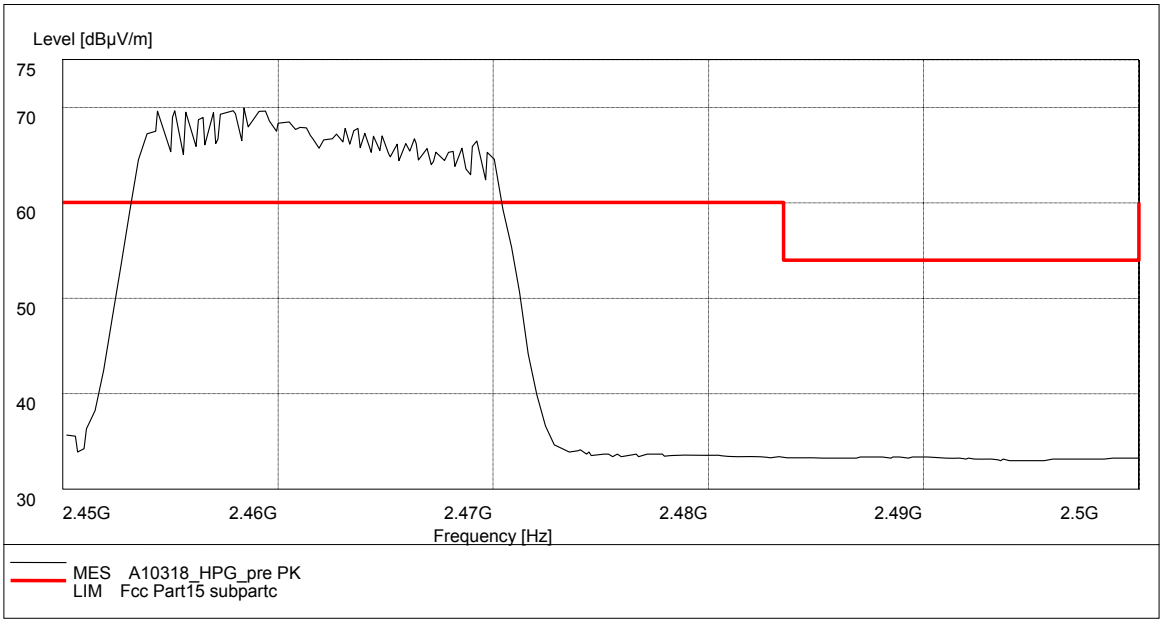

Fig. 75 Radiated Spurious Emission (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

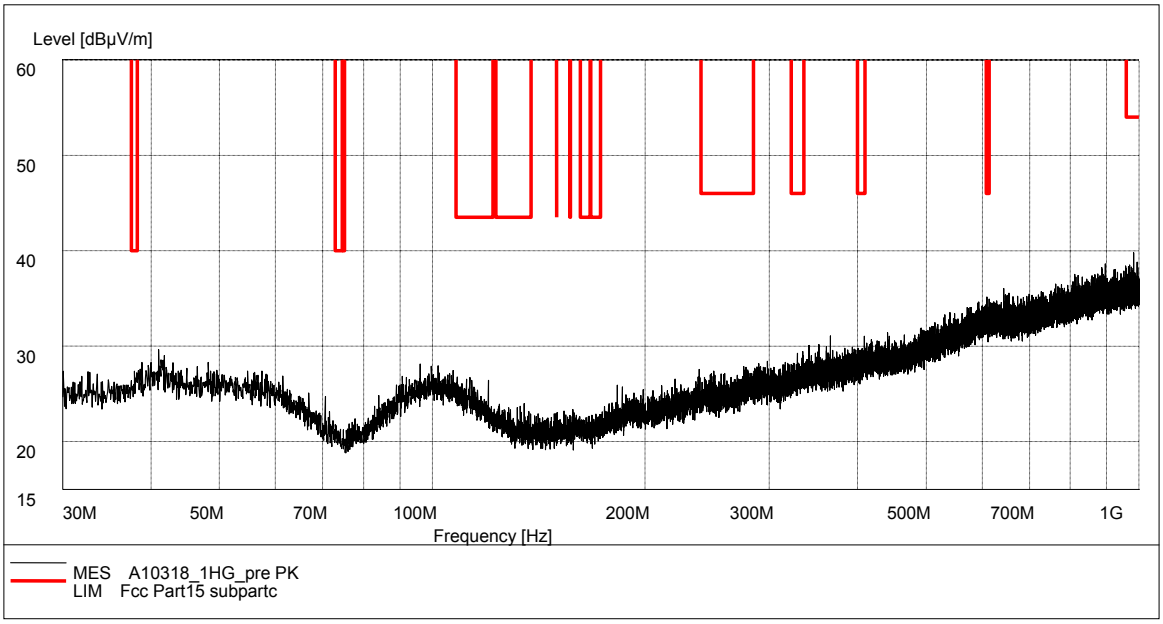

Fig. 76 Radiated Spurious Emission (802.11g, Ch11, 30 MHz-1 GHz)

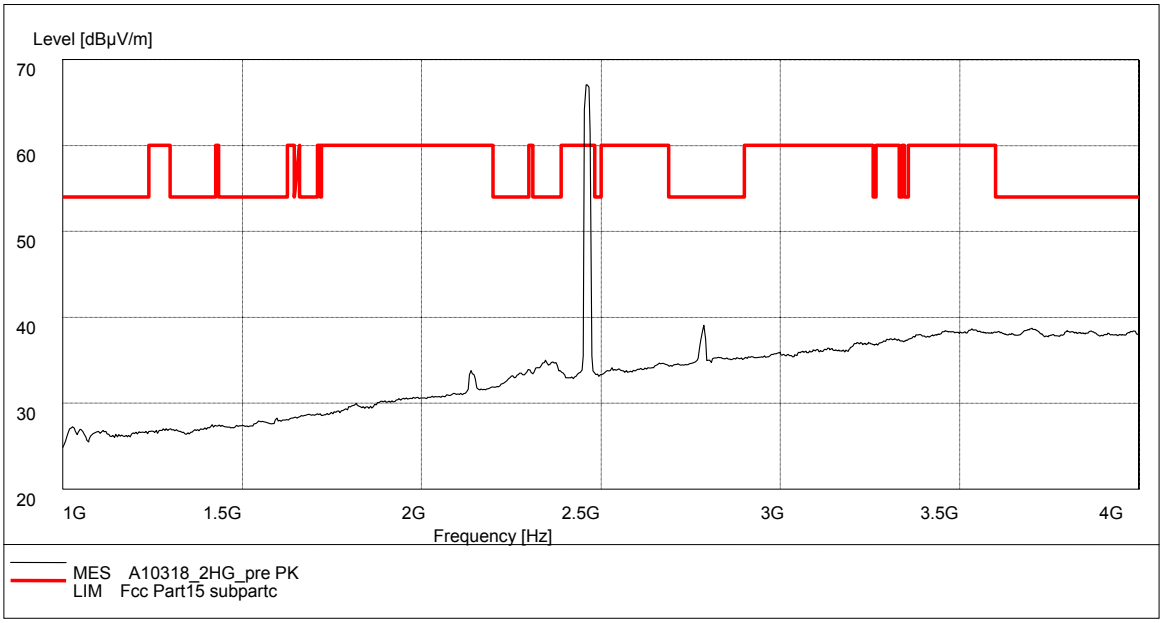

Fig. 77 Radiated Spurious Emission (802.11g, Ch11, 1 GHz-4 GHz)

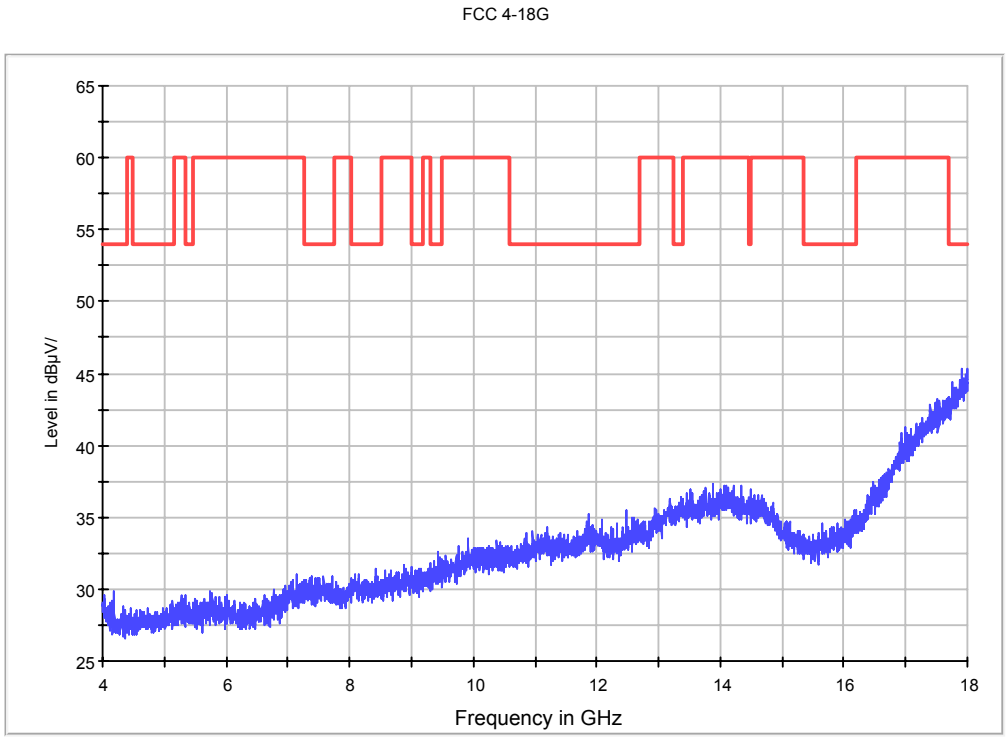

Fig. 78 Radiated Spurious Emission (802.11g, Ch11, 4 GHz-18 GHz)

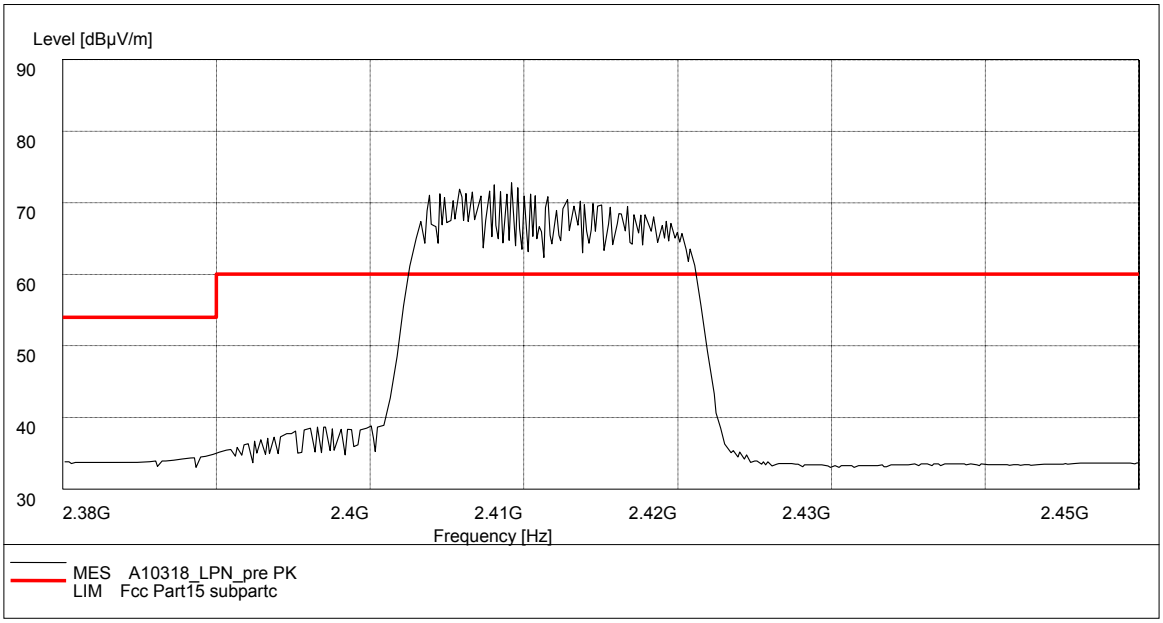

Fig. 79 Radiated Spurious Emission (Power): 802.11n-20MHz, ch1, 2.38 GHz - 2.45GHz

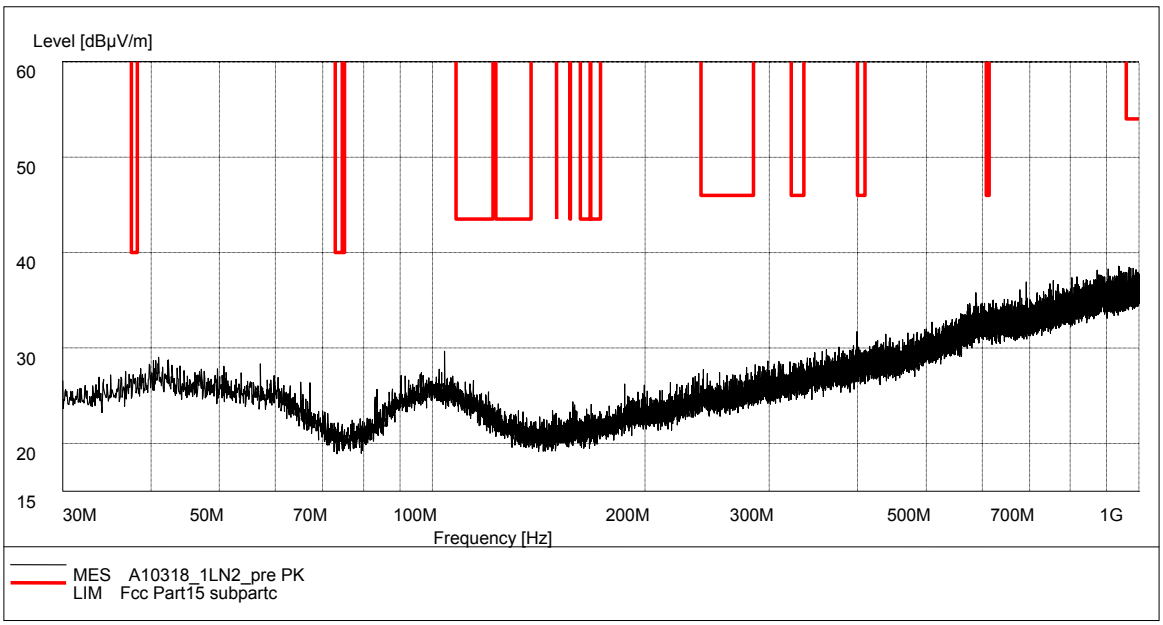

Fig. 80 Radiated Spurious Emission (802.11n-20MHz, Ch1, 30 MHz-1 GHz)

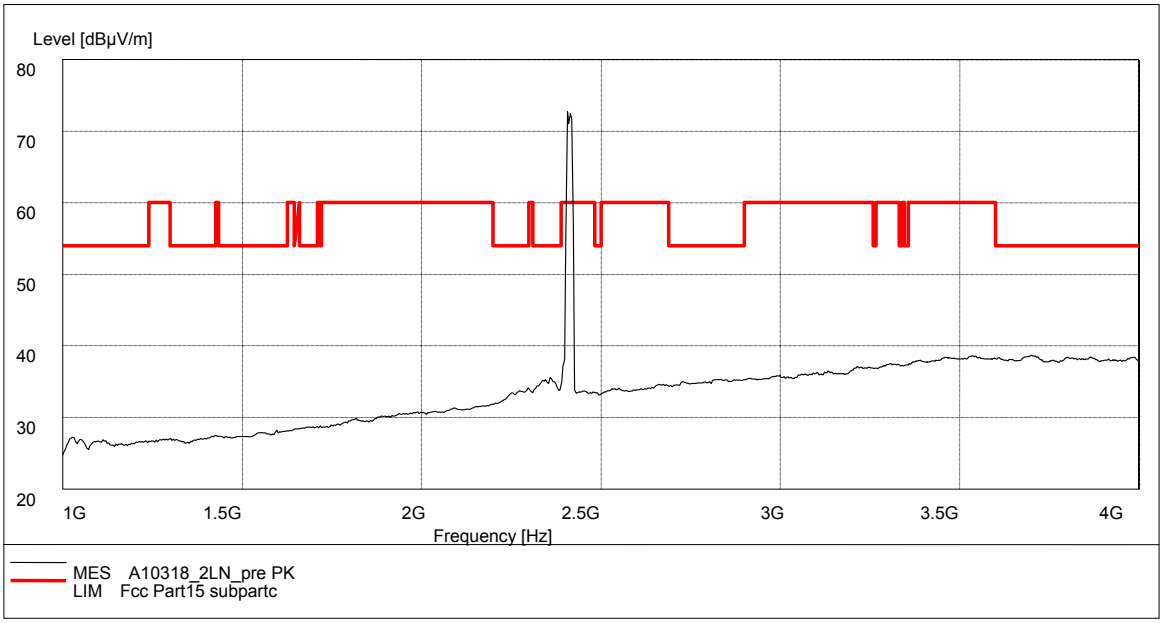

Fig. 81 Radiated Spurious Emission (802.11n-20MHz, Ch1, 1 GHz-4 GHz)

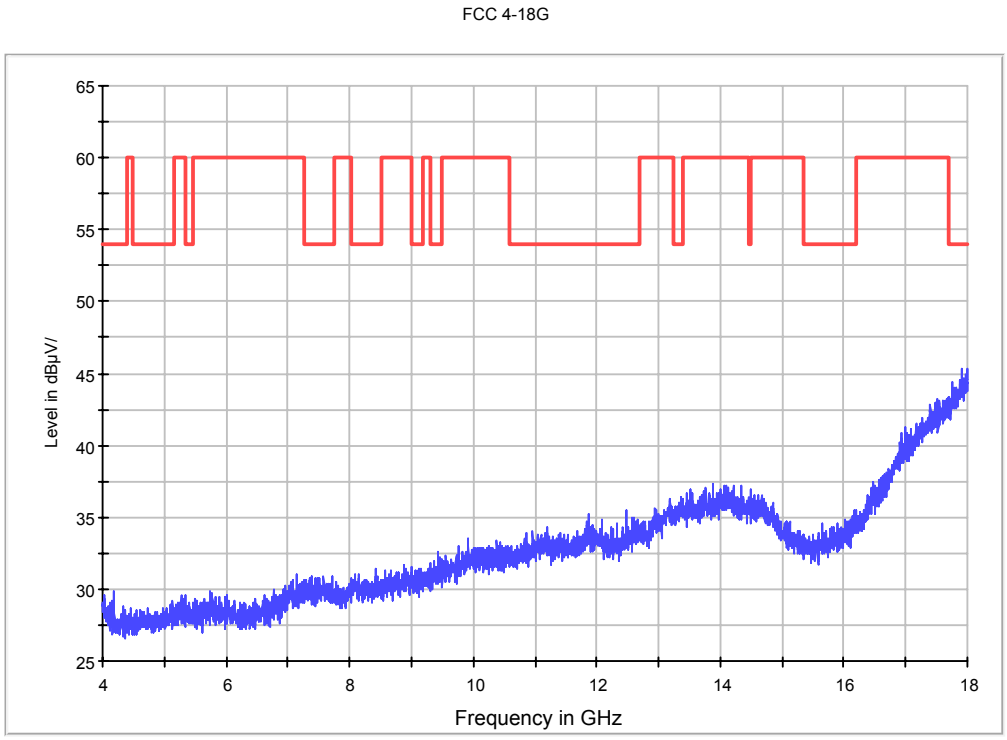

Fig. 82 Radiated Spurious Emission (802.11n-20MHz, Ch1, 4 GHz-18 GHz)

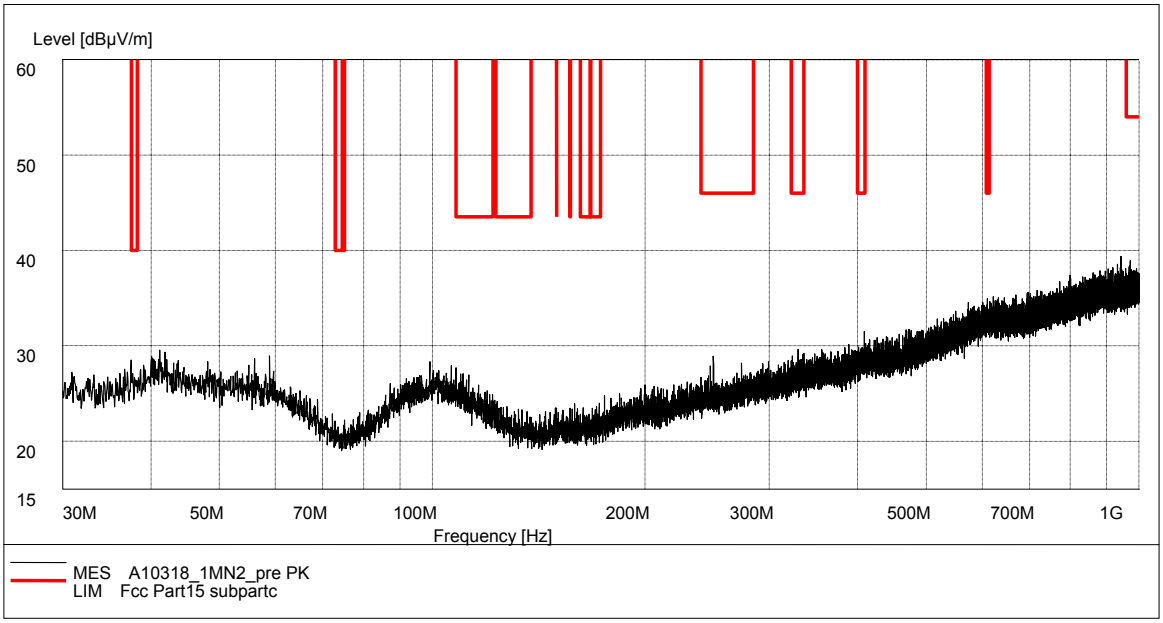

Fig. 83 Radiated Spurious Emission (802.11n-20MHz, Ch6, 30 MHz-1 GHz)

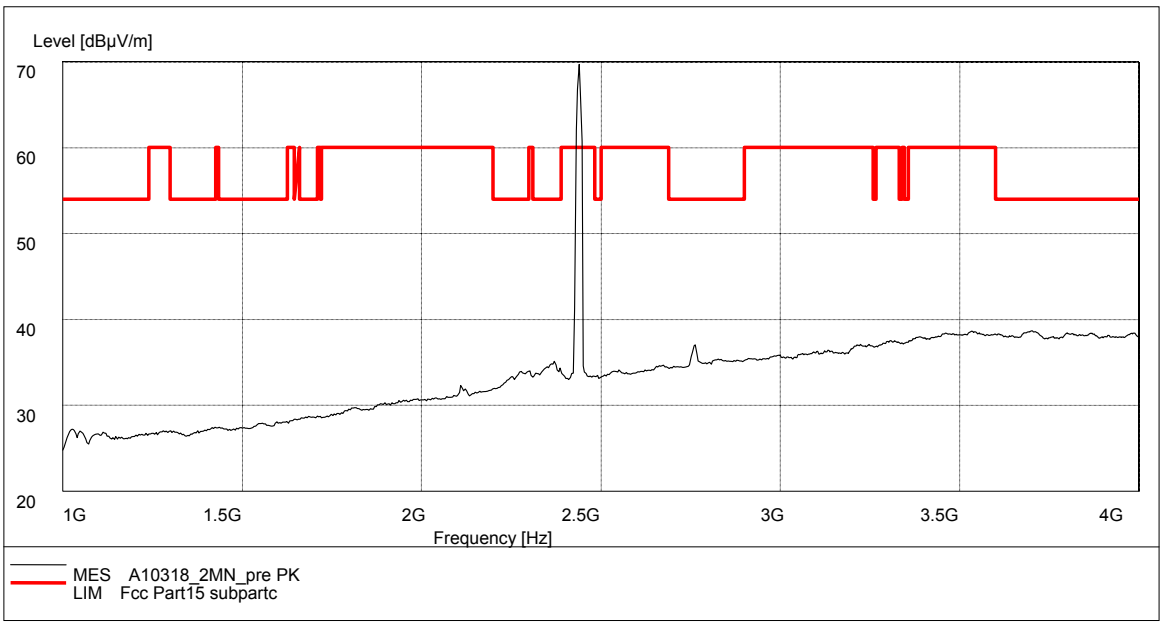

Fig. 84 Radiated Spurious Emission (802.11n-20MHz, Ch6, 1 GHz-4 GHz)

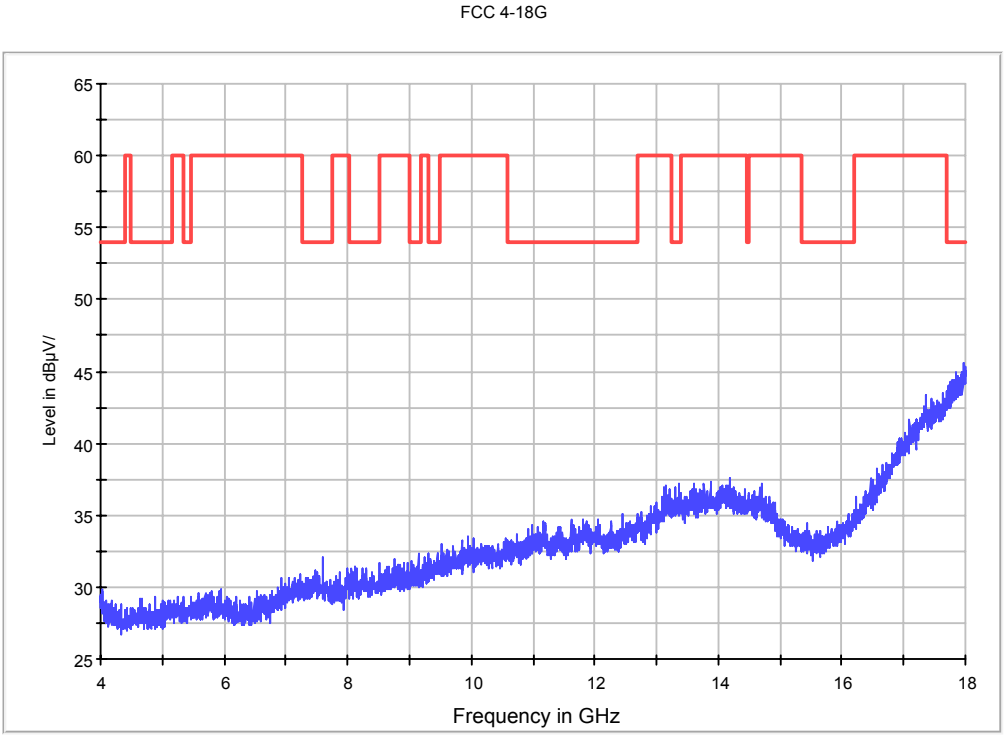

Fig. 85 Radiated Spurious Emission (802.11n-20MHz, Ch6, 4 GHz-18 GHz)

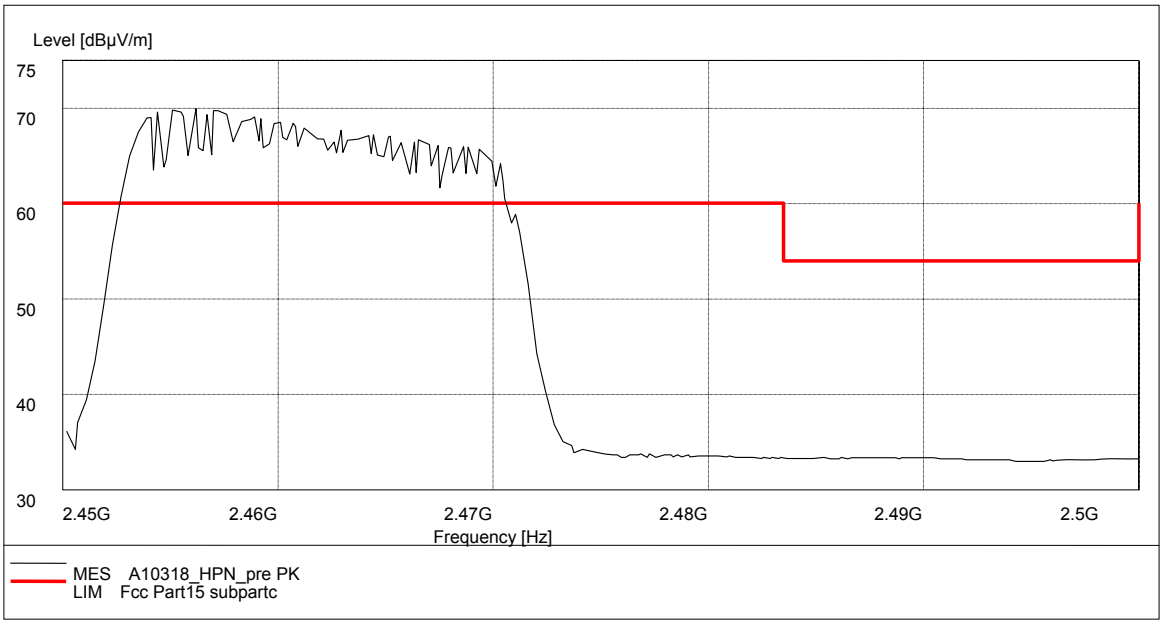

Fig. 86 Radiated Spurious Emission (Power): 802.11n-20MHz, ch11, 2.45 GHz - 2.50GHz

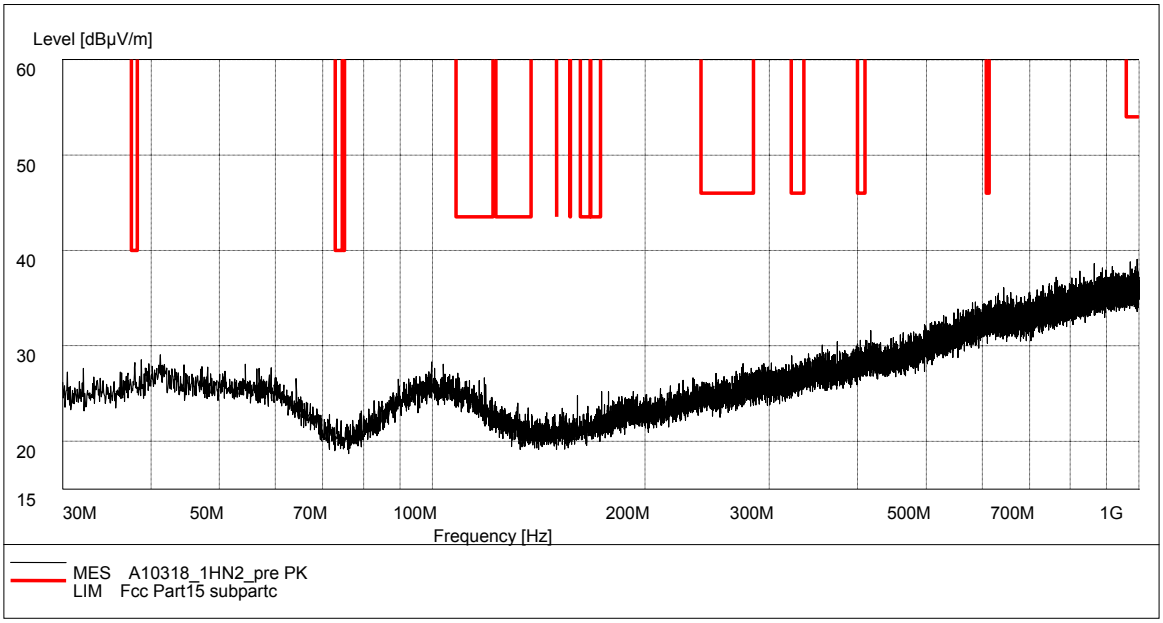

Fig. 87 Radiated Spurious Emission (802.11n-20MHz, Ch11, 30 MHz-1 GHz)

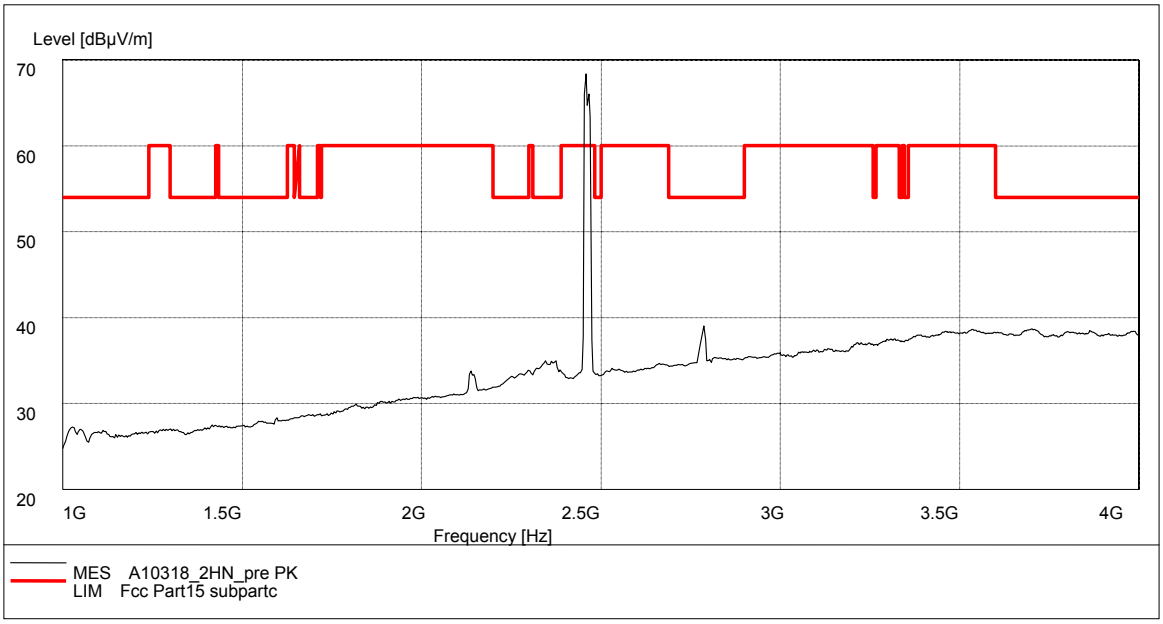

Fig. 88 Radiated Spurious Emission (802.11n-20MHz, Ch11, 1 GHz-4 GHz)

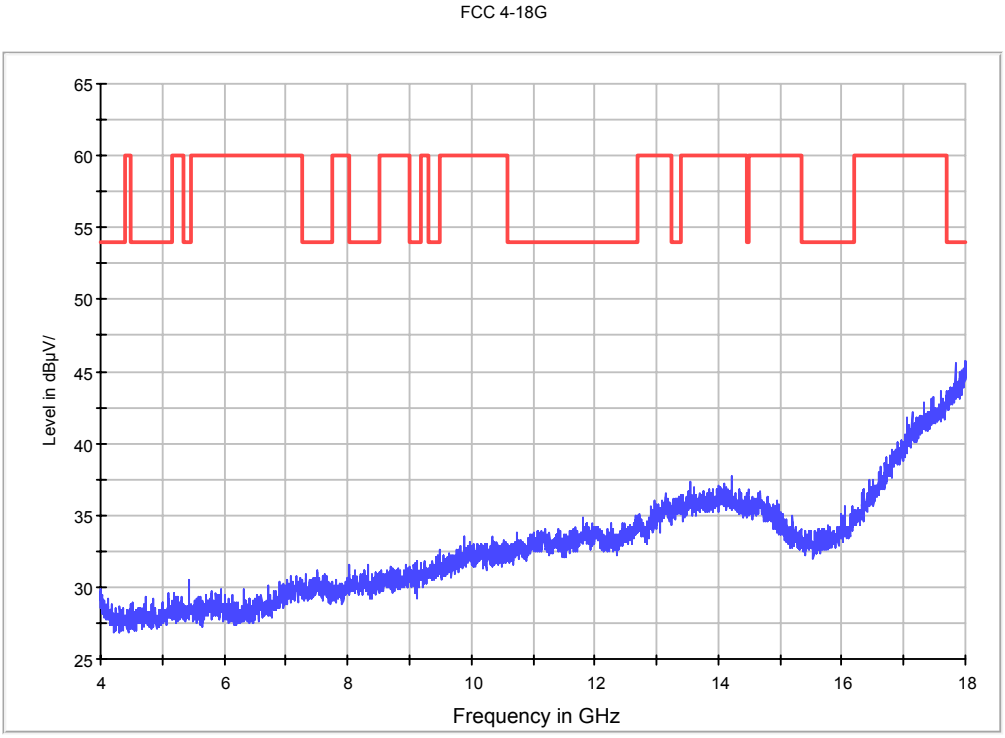

Fig. 89 Radiated Spurious Emission (802.11n-20MHz, Ch11, 4 GHz-18 GHz)

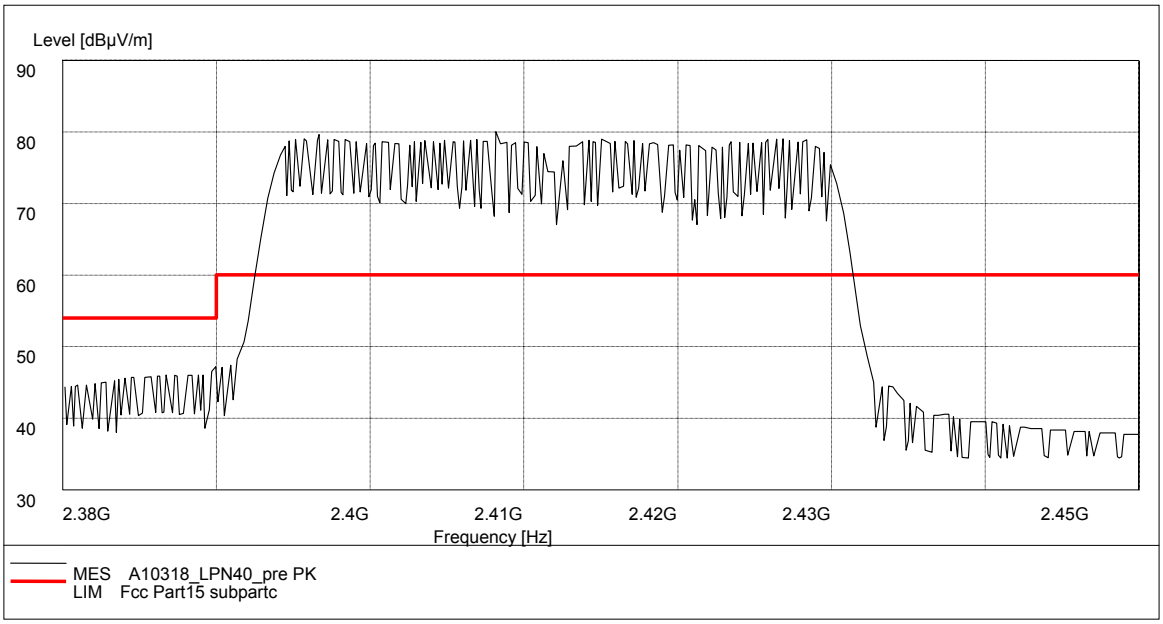

Fig. 90 Radiated Spurious Emission (Power): 802.11n-40MHz, ch3, 2.38 GHz - 2.45GHz

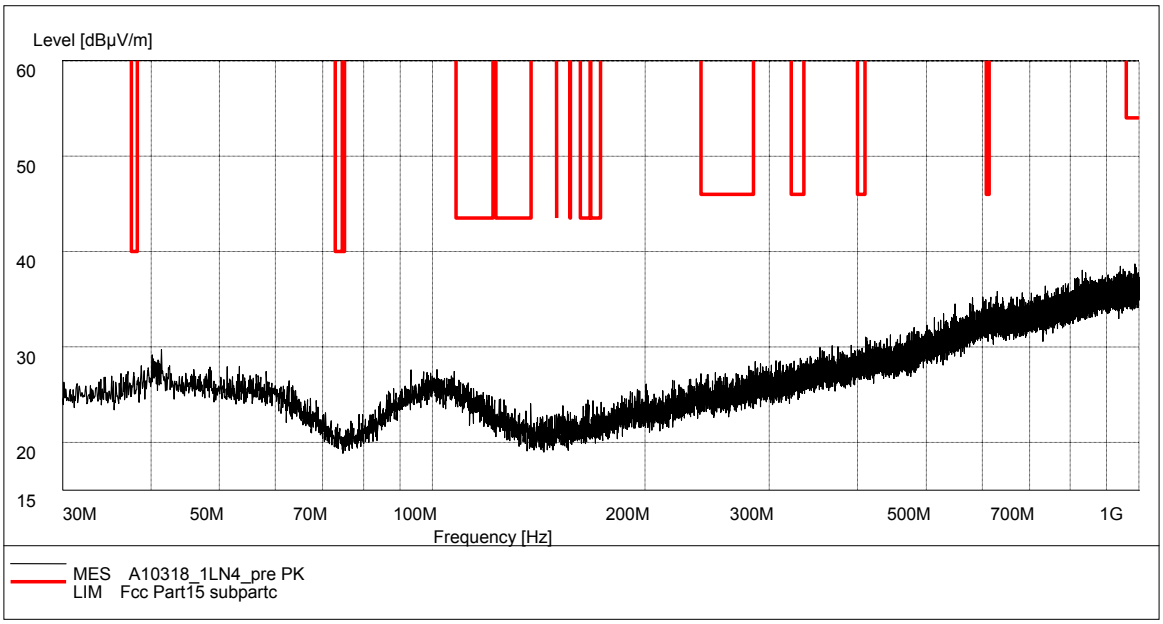

Fig. 91 Radiated Spurious Emission (802.11n-40MHz, Ch3, 30 MHz-1 GHz)

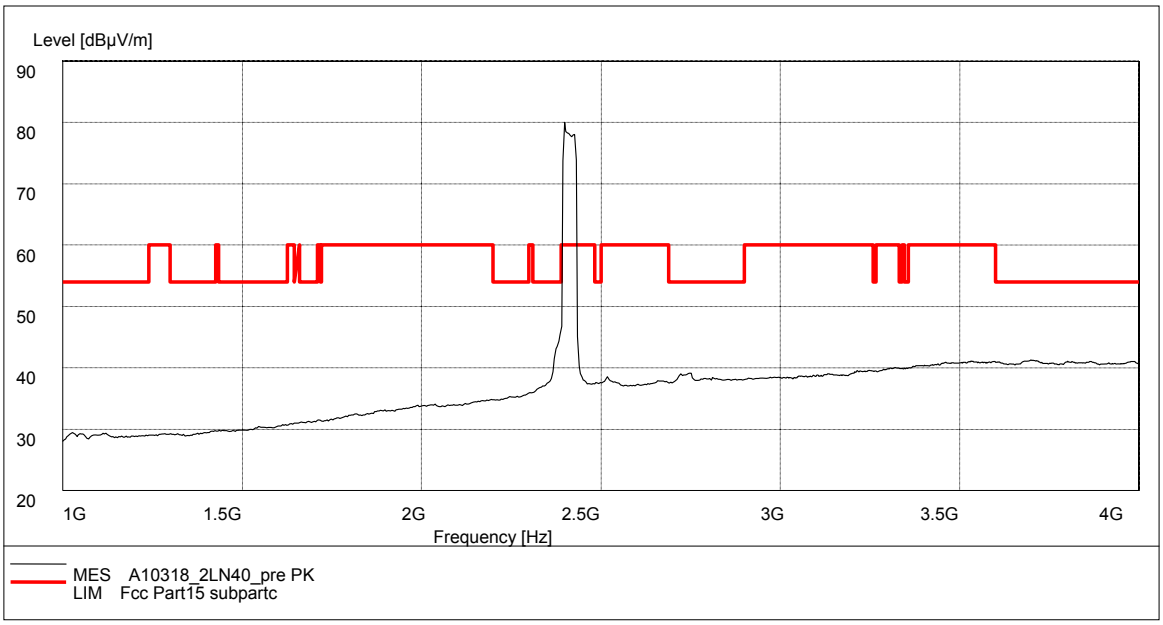

Fig. 92 Radiated Spurious Emission (802.11n-40MHz, Ch3, 1 GHz-4 GHz)

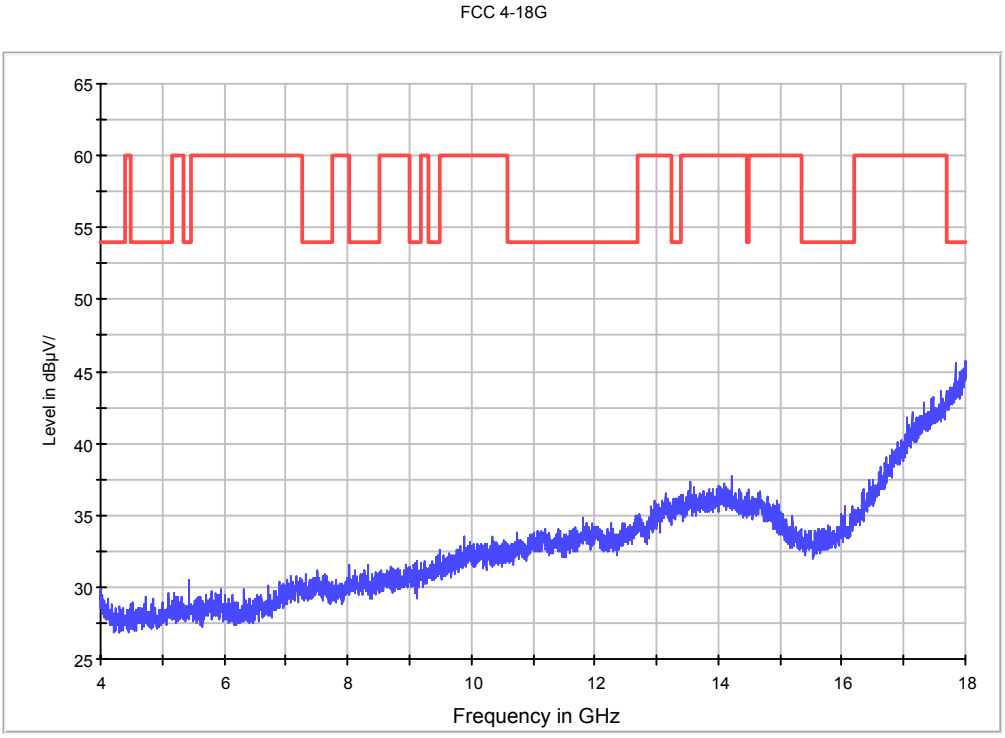

Fig. 93 Radiated Spurious Emission (802.11n-40MHz, Ch3, 4 GHz-18 GHz)

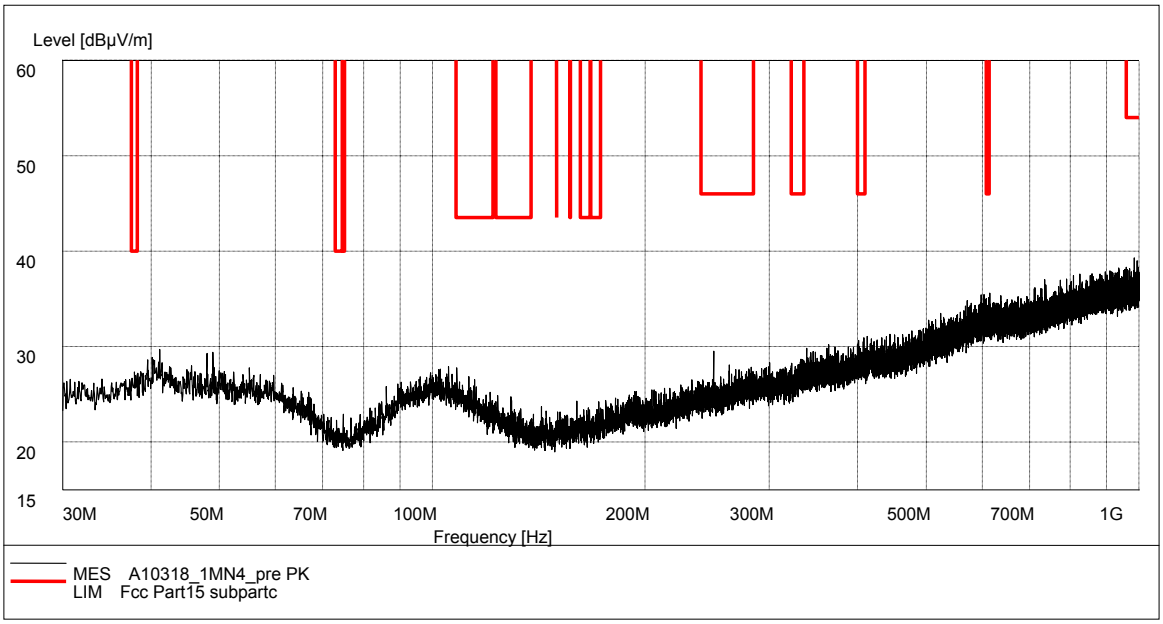

Fig. 94 Radiated Spurious Emission (802.11n-40MHz, Ch6, 30 MHz-1 GHz)

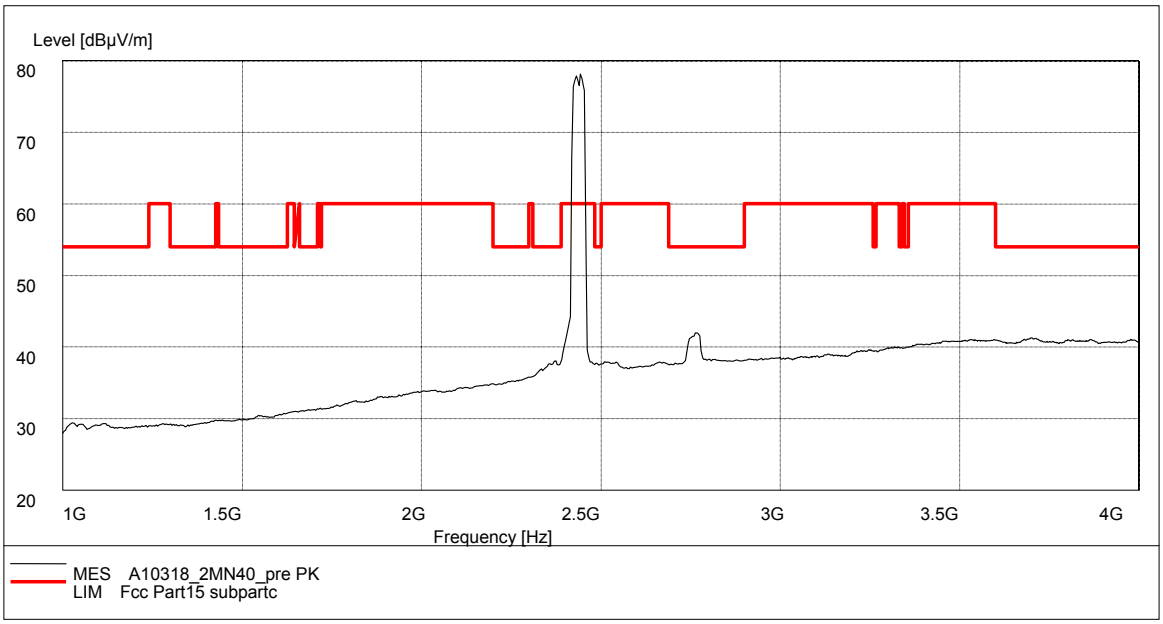

Fig. 95 Radiated Spurious Emission (802.11n-40MHz, Ch6, 1 GHz-4 GHz)

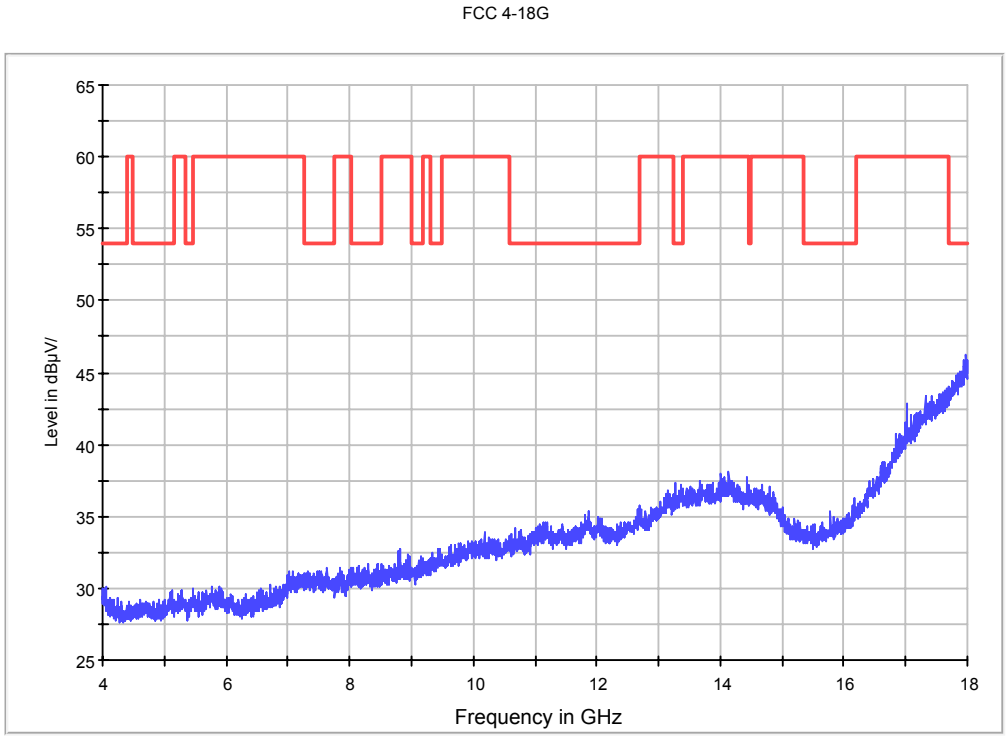

Fig. 96 Radiated Spurious Emission (802.11n-40MHz, Ch6, 4 GHz-18 GHz)

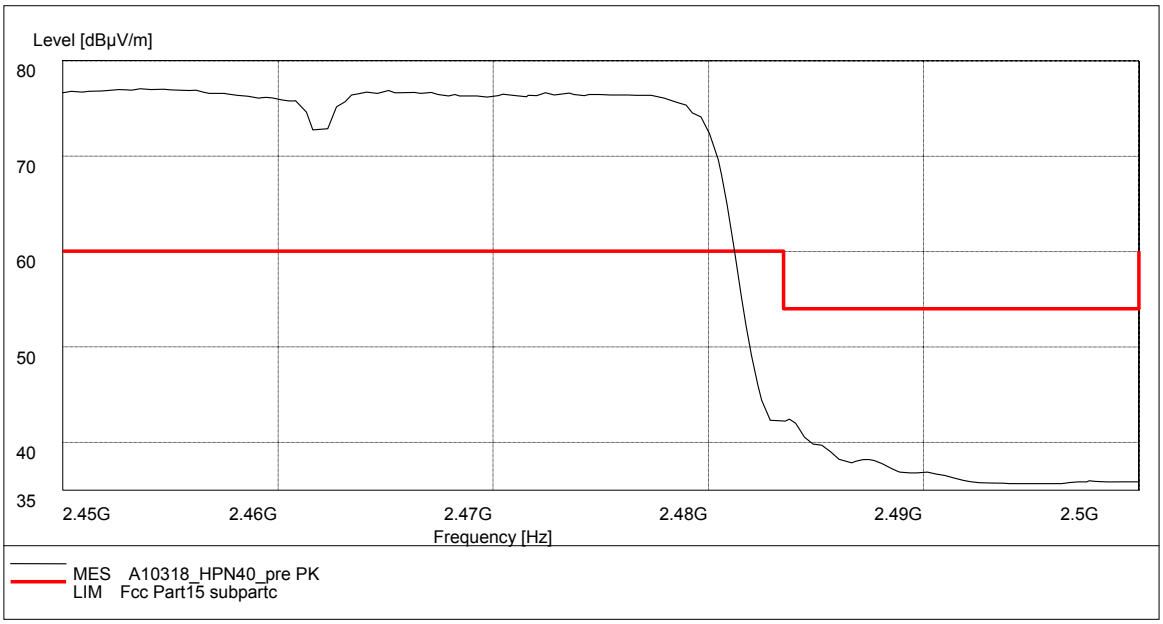

Fig. 97 Radiated Spurious Emission (Power): 802.11n-40MHz, ch9, 2.45 GHz - 2.50GHz

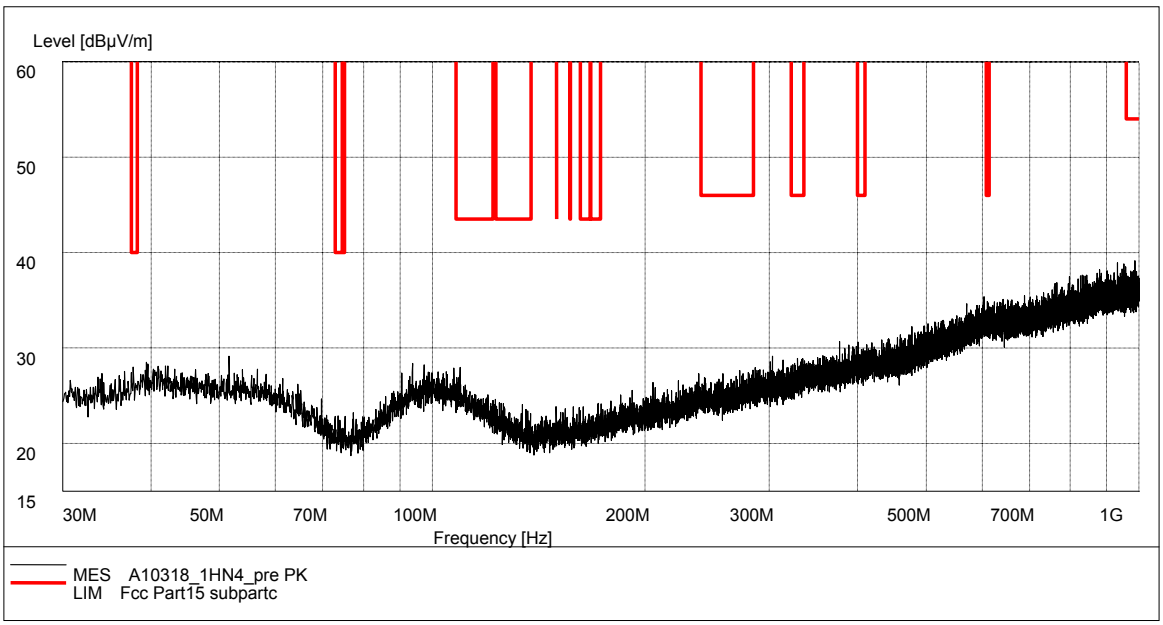

Fig. 98 Radiated Spurious Emission (802.11n-40MHz, Ch9, 30 MHz-1 GHz)

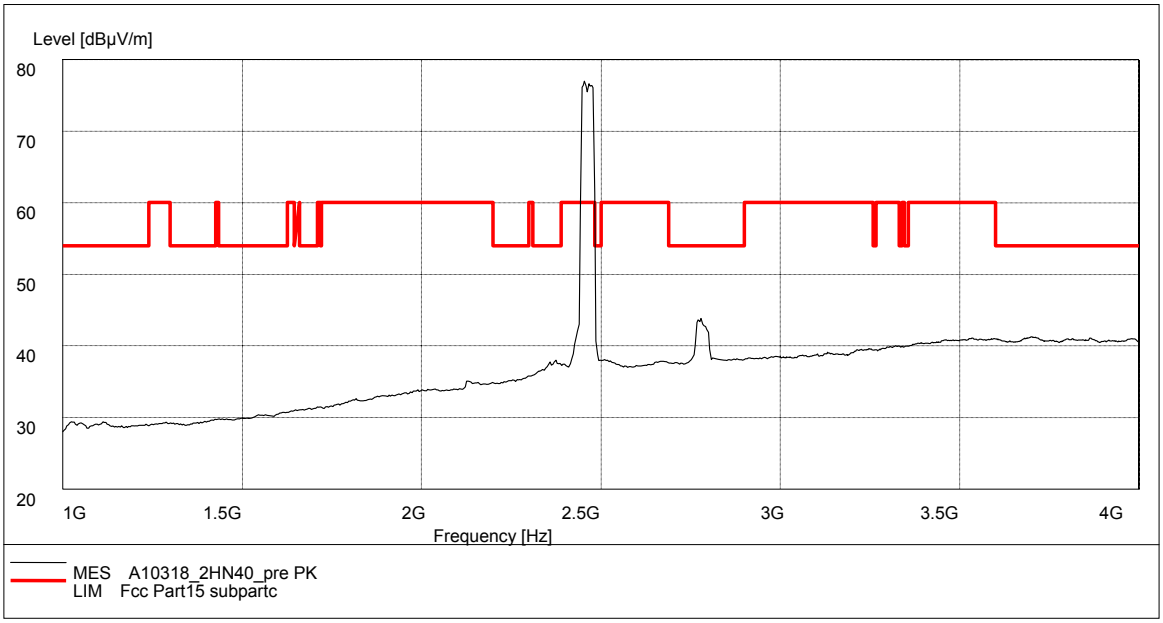

Fig. 99 Radiated Spurious Emission (802.11n-40MHz, Ch9, 1 GHz-4 GHz)

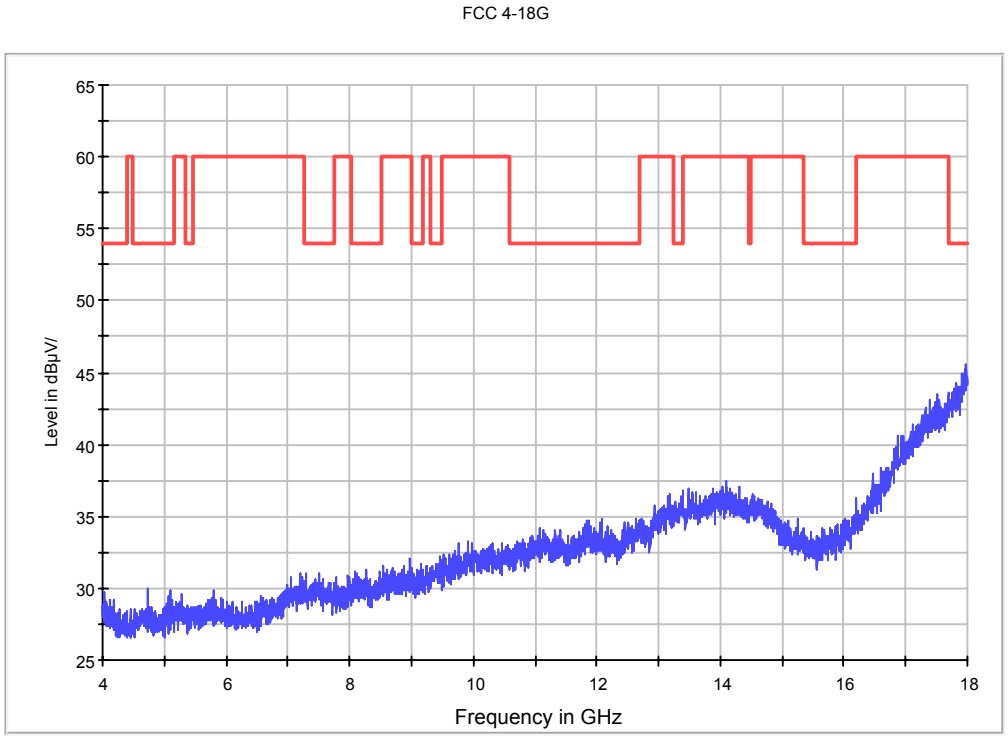

Fig. 100 Radiated Spurious Emission (802.11n-40MHz, Ch9, 4 GHz-18 GHz)

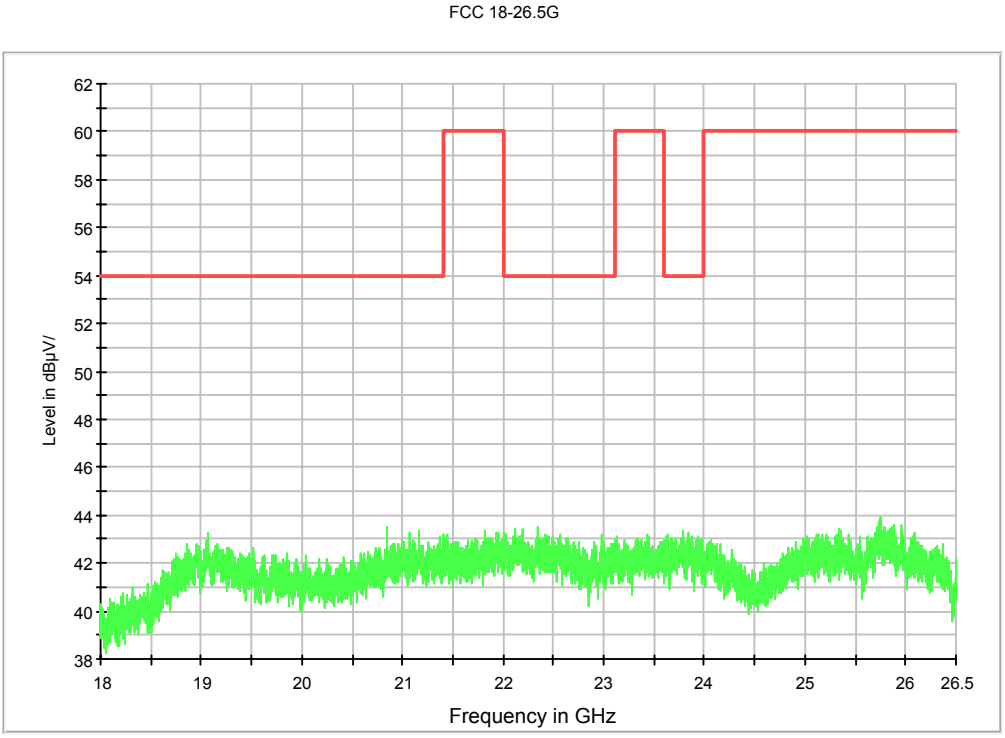

Fig. 101 Radiated emission: 18 GHz - 26.5 GHz

A.7. AC Powerline Conducted Emission

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		
		802.11n	Idle	
0.15 to 0.5	66 o 56	Fig. 102	Fig.103	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		
		802.11n	Idle	
0.15 to 0.5	56 to 46	Fig.102	Fig.103	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 C63.4 and KDB558074

Conclusion: PASS

Test graphs as below:

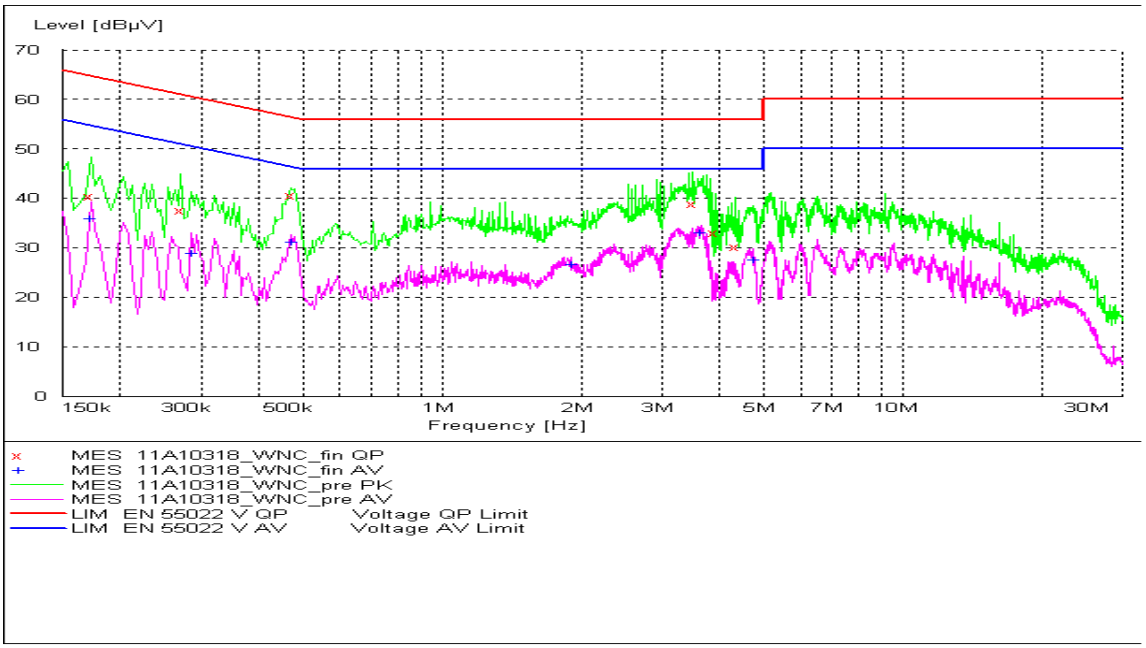

Fig. 102 AC Powerline Conducted Emission-802.11n

MEASUREMENT RESULT: "11A10318_WNC_fin QP"

Frequency (MHz)	Level (dBµV)	Transd (dB)	Limit (dBµV)	Margin (dB)	Line	PE
0.1725	40.4	10.1	65	24.4	L1	GND
0.2715	37.6	10.1	61	23.5	N	GND
0.4695	40.6	10.1	57	15.9	N	GND
3.506386	38.9	10.1	56	17.1	L1	GND
3.90586	33.1	10.1	56	22.9	N	GND
4.342161	30.2	10.1	56	25.8	L1	GND

MEASUREMENT RESULT: "11A10318_WNC_fin AV"

Frequency (MHz)	Level (dBµV)	Transd (dB)	Limit (dBµV)	Margin (dB)	Line	PE
0.1725	35.9	10.1	55	19	N	GND
0.285	28.9	10.1	51	21.7	N	GND
0.4695	31.3	10.1	47	15.2	N	GND
1.9005	26.7	10.1	46	19.3	L1	GND
3.634785	33.1	10.1	46	12.9	L1	GND
4.731708	27.6	10.2	46	18.4	N	GND

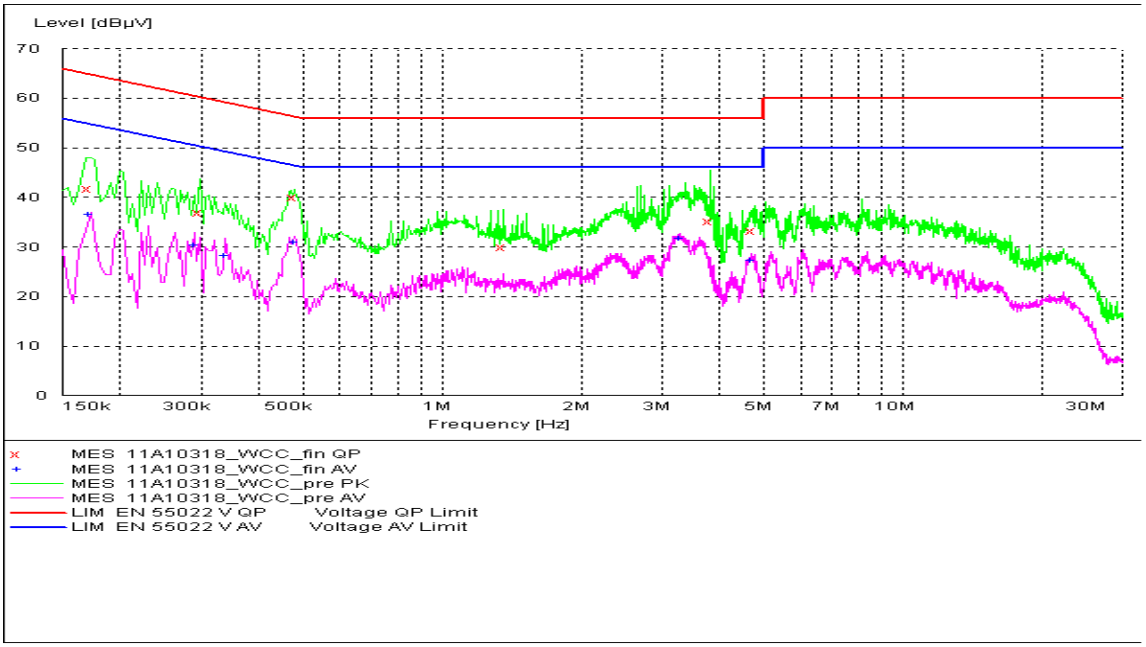

Fig. 103 AC Powerline Conducted Emission-Idle

MEASUREMENT RESULT: "11A10318_WCC_fin QP"

Frequency (MHz)	Level (dBµV)	Transd (dB)	Limit (dBµV)	Margin (dB)	Line	PE
0.1725	41.8	10.1	65	23.1	L1	GND
0.2985	36.9	10.1	60	23.4	N	GND
0.4785	39.9	10.1	56	16.5	N	GND
1.3605	30	10.1	56	26	L1	GND
3.813327	35.1	10.2	56	20.9	N	GND
4.750654	33.2	10.2	56	22.8	L1	GND

MEASUREMENT RESULT: "11A10318_WCC_fin AV"

Frequency (MHz)	Level (dBµV)	Transd (dB)	Limit (dBµV)	Margin (dB)	Line	PE
0.1725	36.5	10.1	55	18.3	N	GND
0.2895	30.2	10.1	51	20.3	N	GND
0.339	28.1	10.1	49	21.1	N	GND
0.4785	30.9	10.1	46	15.4	N	GND
3.282653	31.6	10.1	46	14.4	L1	GND
4.684674	27.3	10.2	46	18.7	L1	GND

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