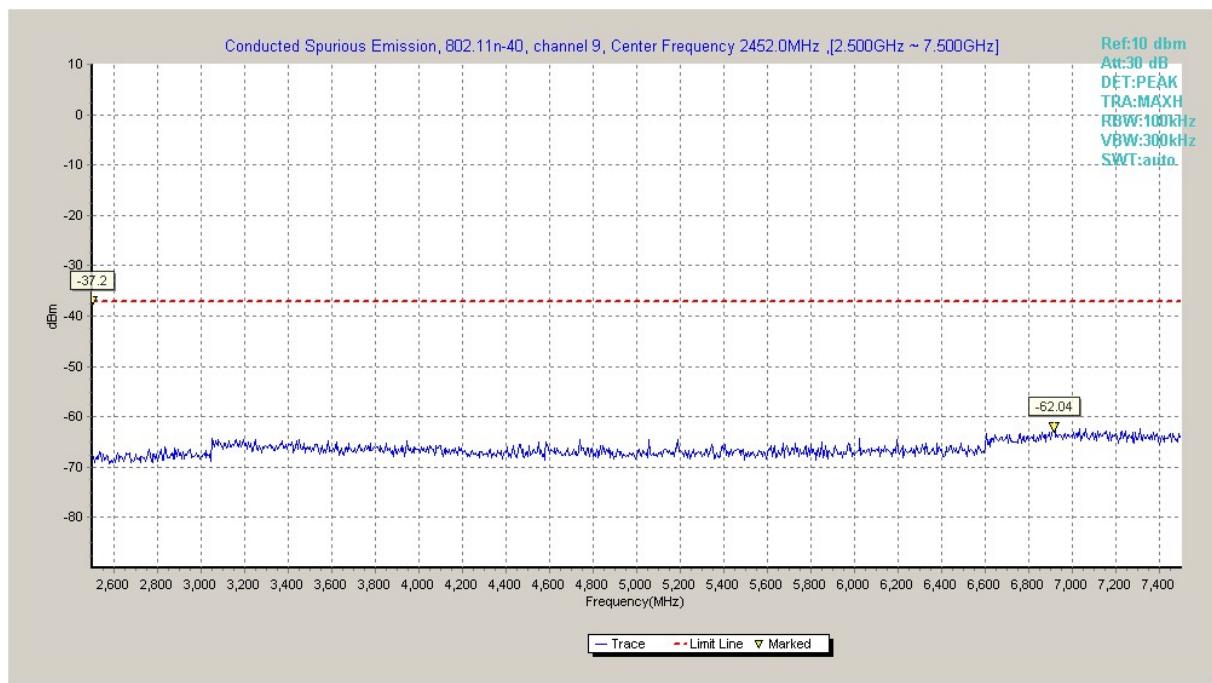
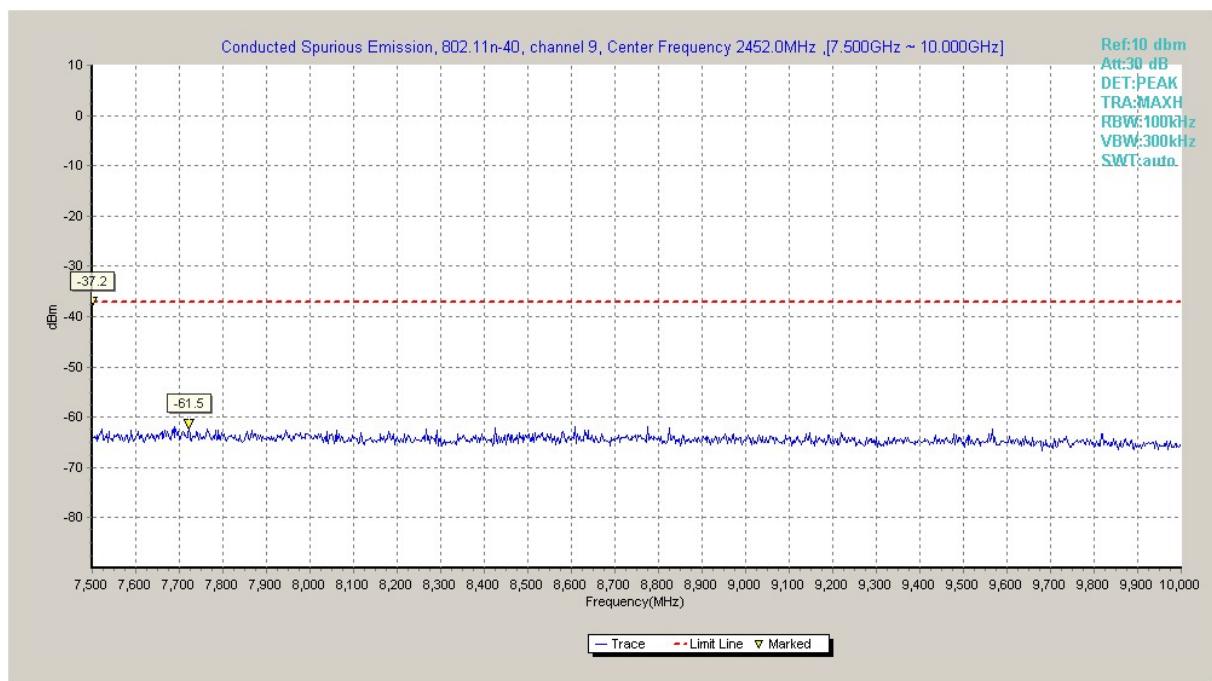


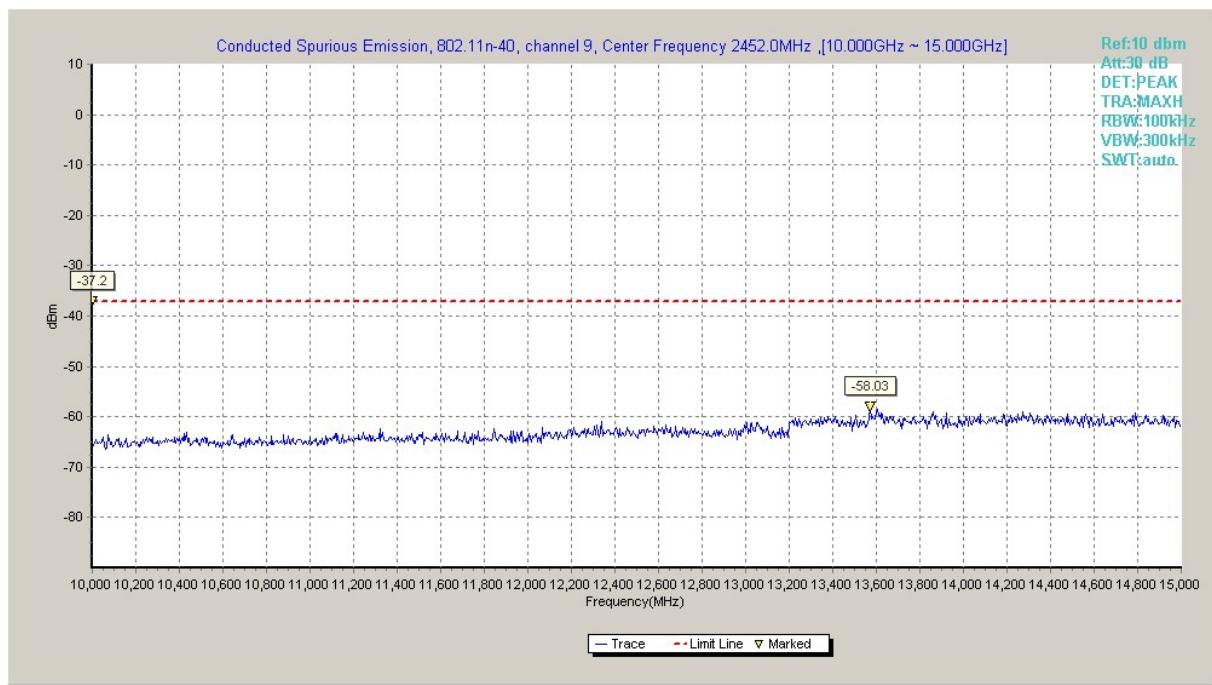
**Fig.A.6.1.139 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 1 GHz-2.5 GHz)**



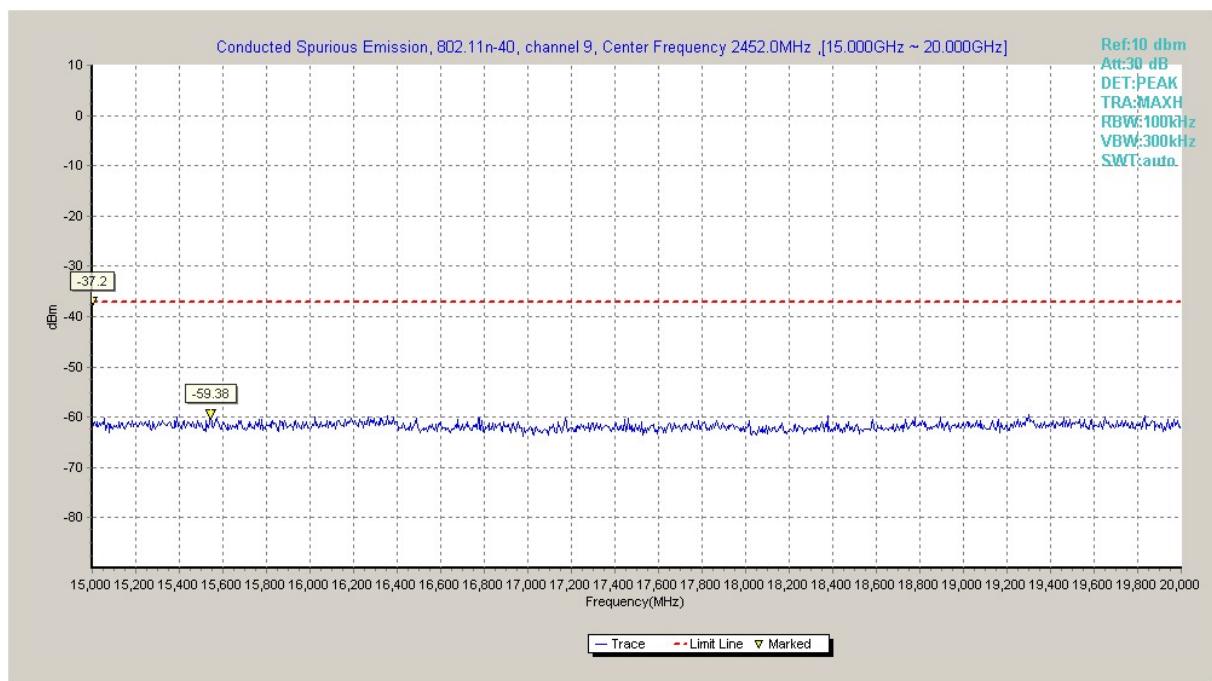
**Fig.A.6.1.140 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 2.5 GHz-7.5 GHz)**



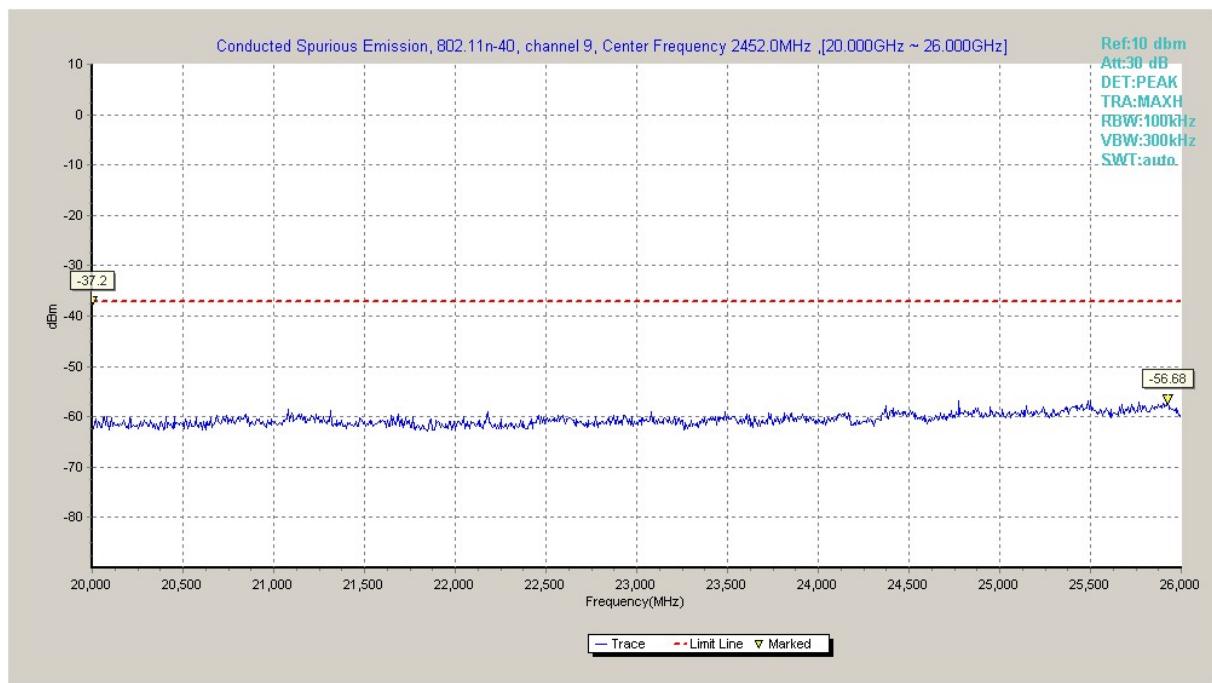
**Fig.A.6.1.141 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 7.5 GHz-10 GHz)**



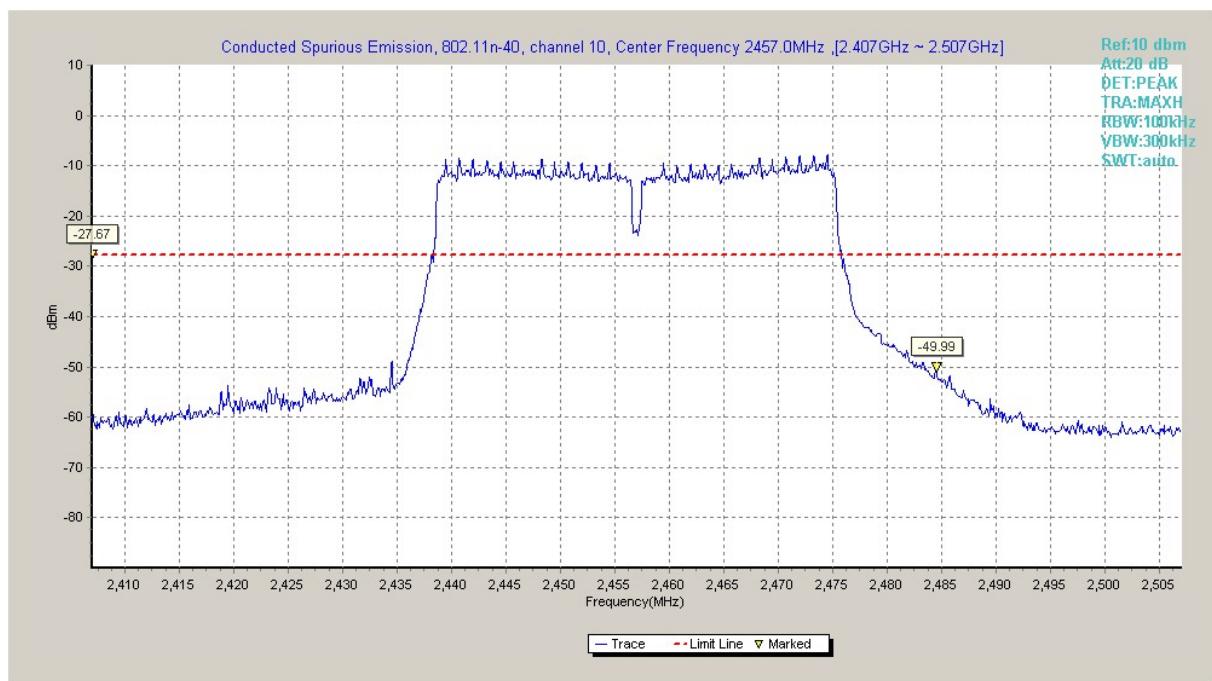
**Fig.A.6.1.142 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 10 GHz-15 GHz)**



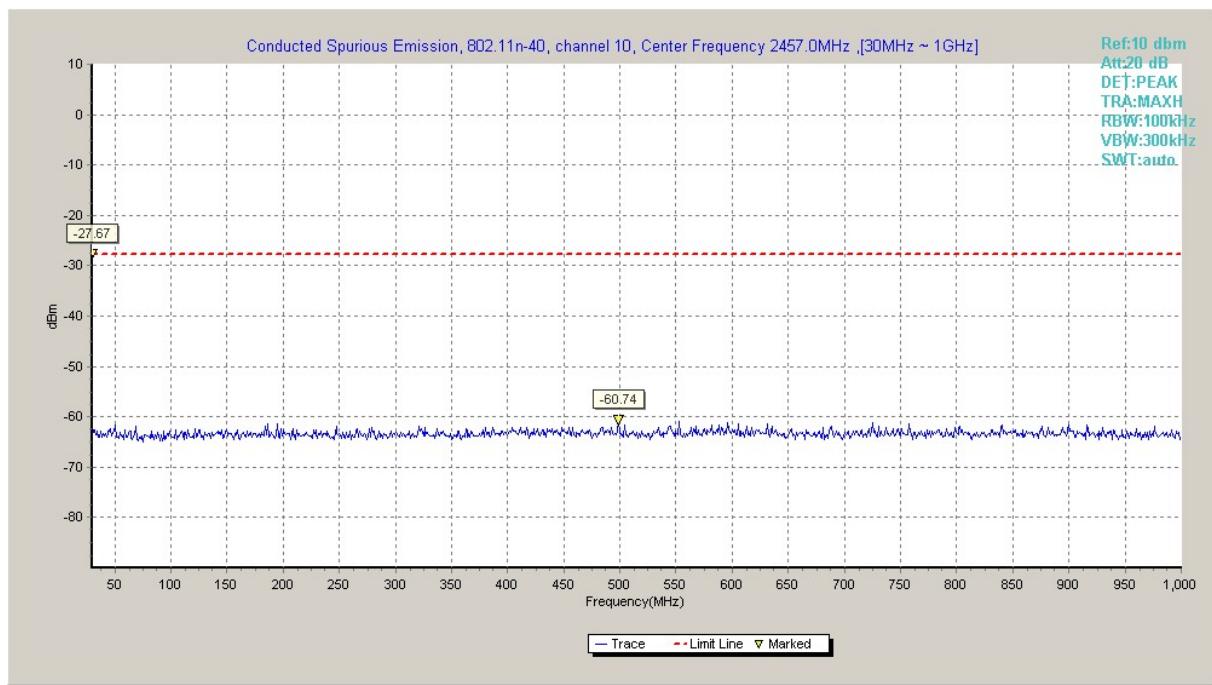
**Fig.A.6.1.143 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 15 GHz-20 GHz)**



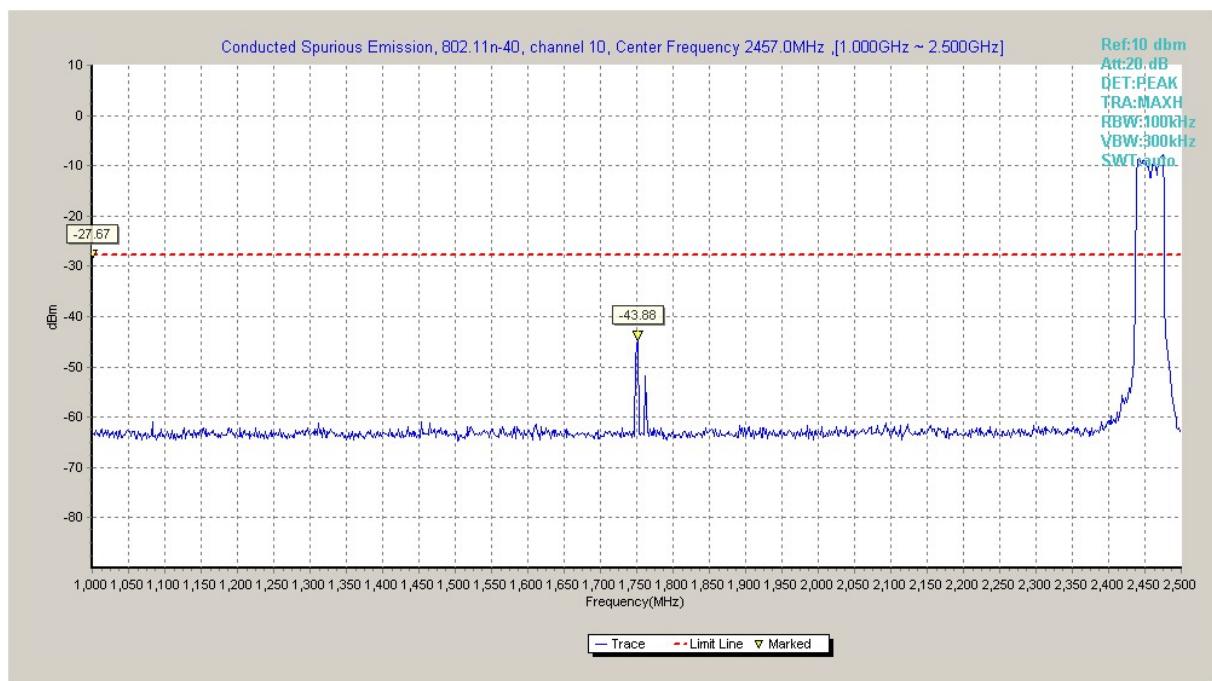
**Fig.A.6.1.144 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch9, 20 GHz-26 GHz)**



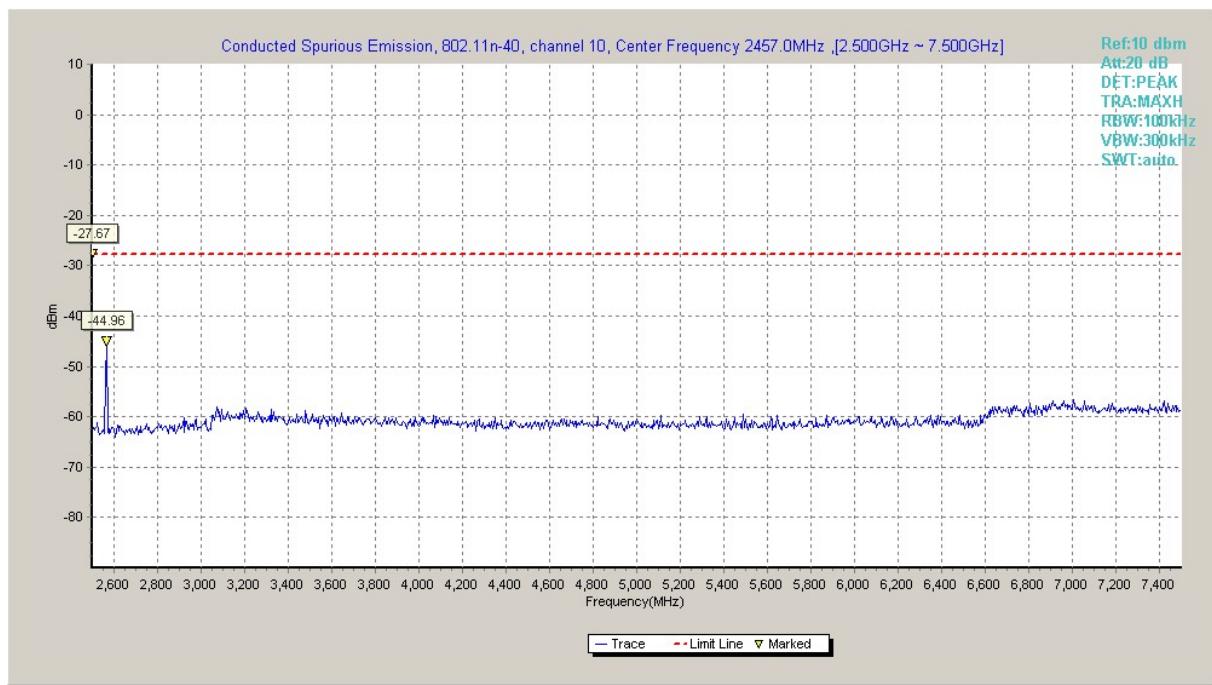
**Fig.A.6.1.145 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch10, Center Frequency)**



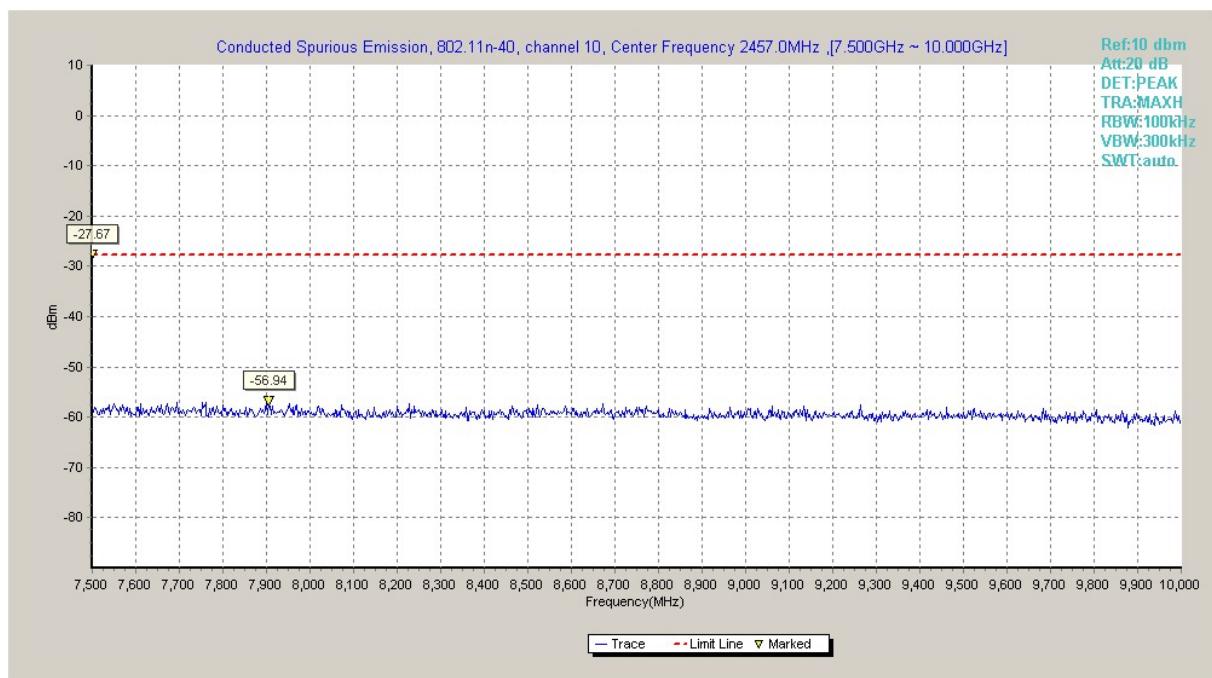
**Fig.A.6.1.146 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch10, 30 MHz-1 GHz)**



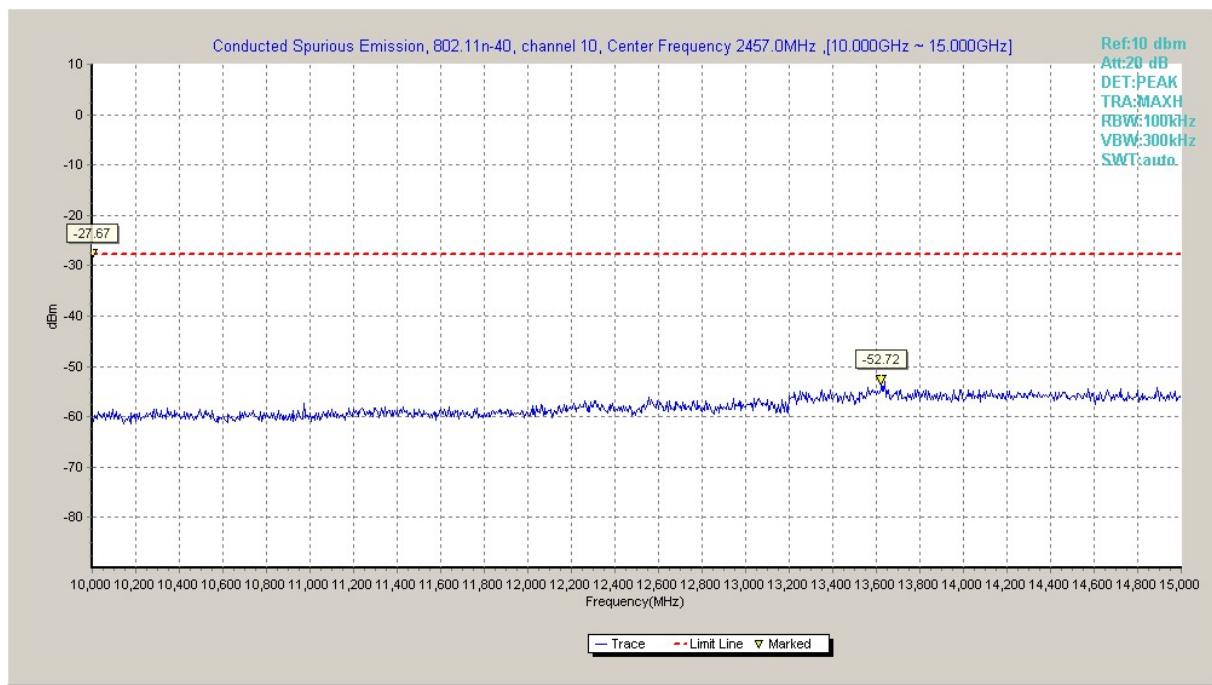
**Fig.A.6.1.147 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch10, 1 GHz-2.5 GHz)**



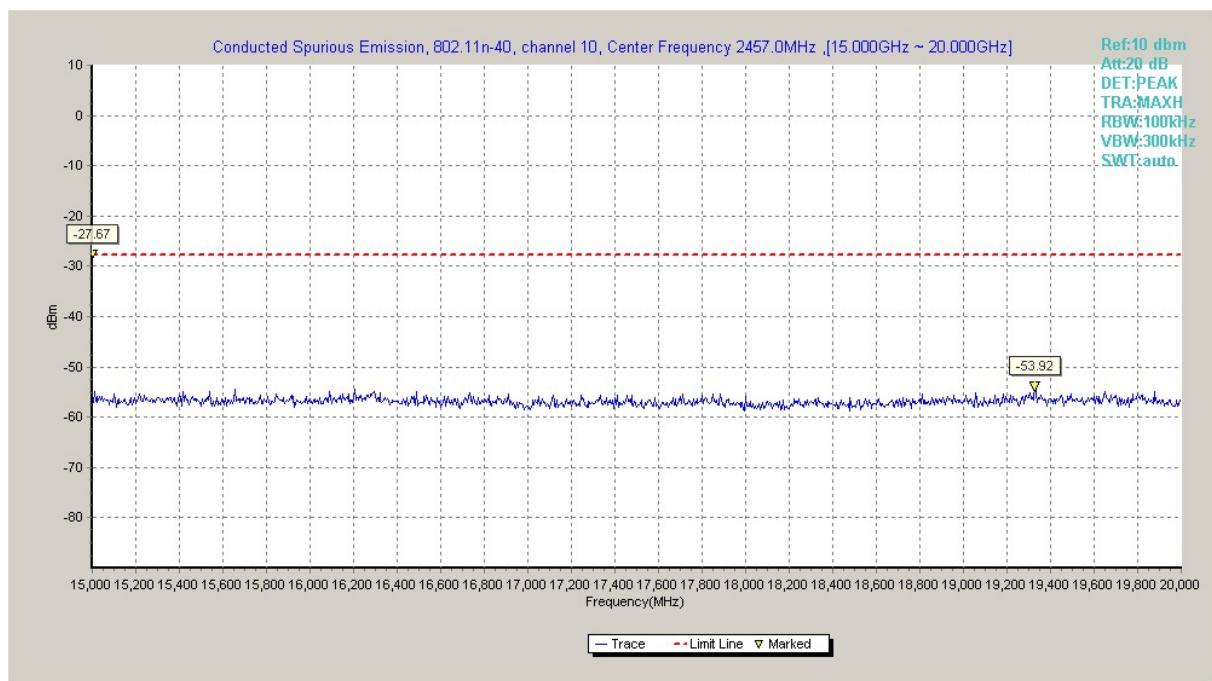
**Fig.A.6.1.148 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch10, 2.5 GHz-7.5 GHz)**



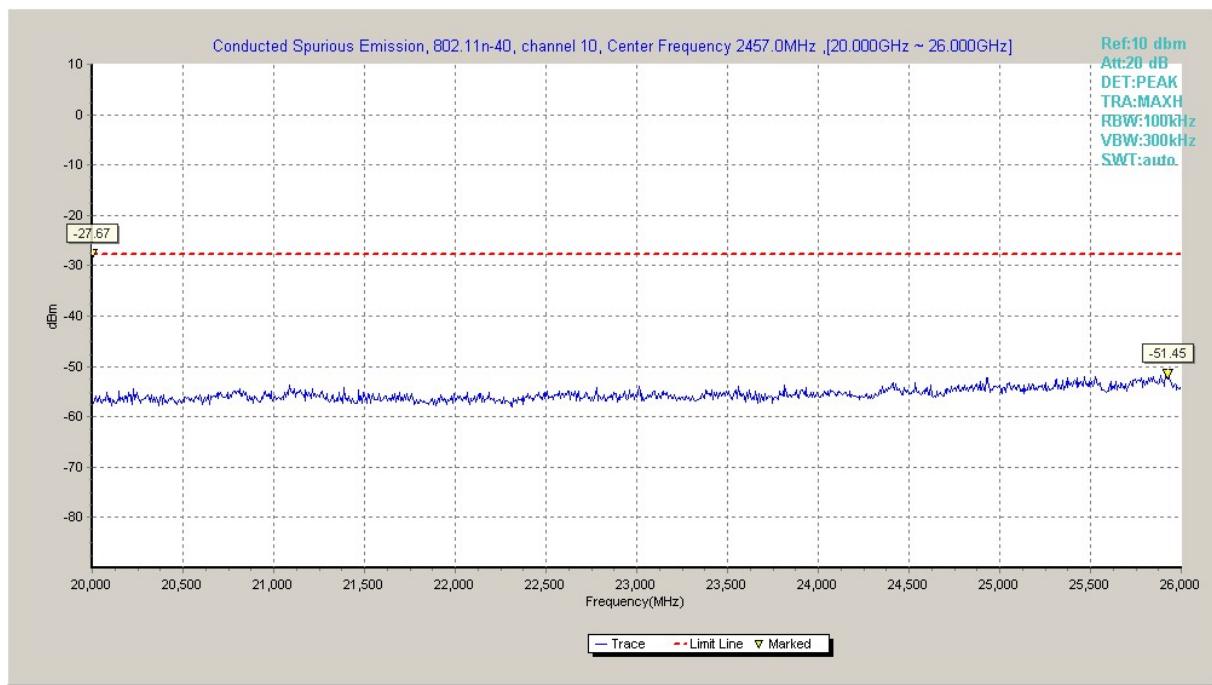
**Fig.A.6.1.149 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch10, 7.5 GHz-10 GHz)**



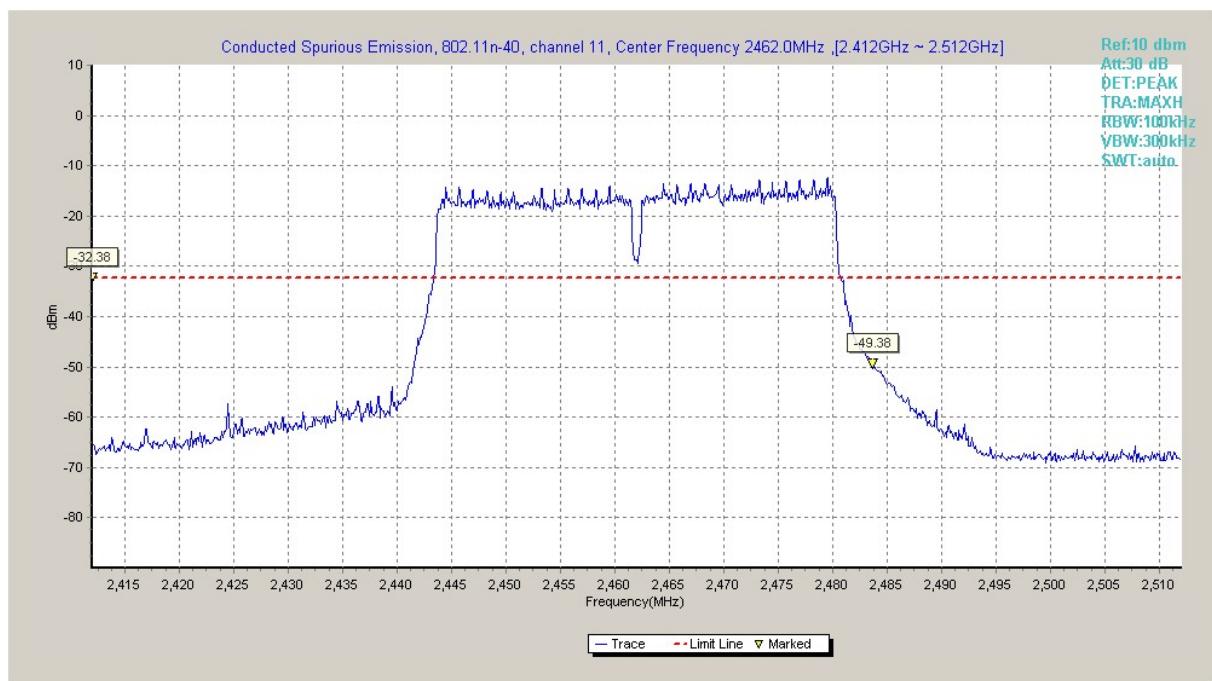
**Fig.A.6.1.150 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch10, 10 GHz-15 GHz)**



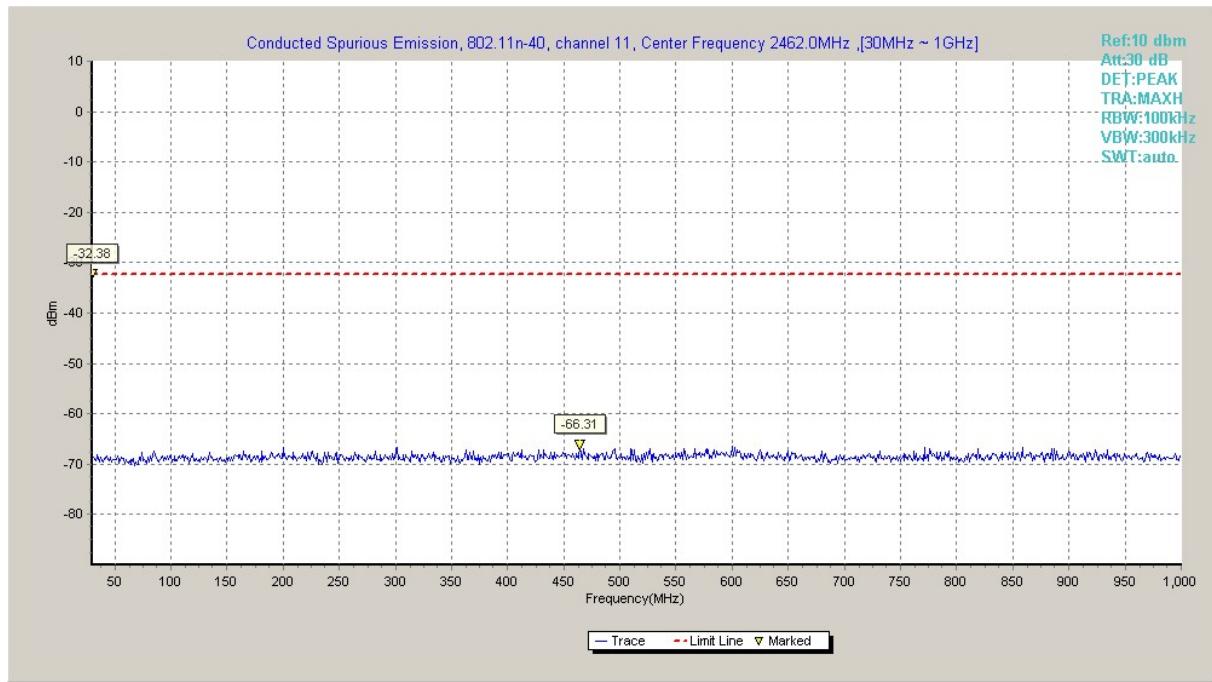
**Fig.A.6.1.151 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch10, 15 GHz-20 GHz)**



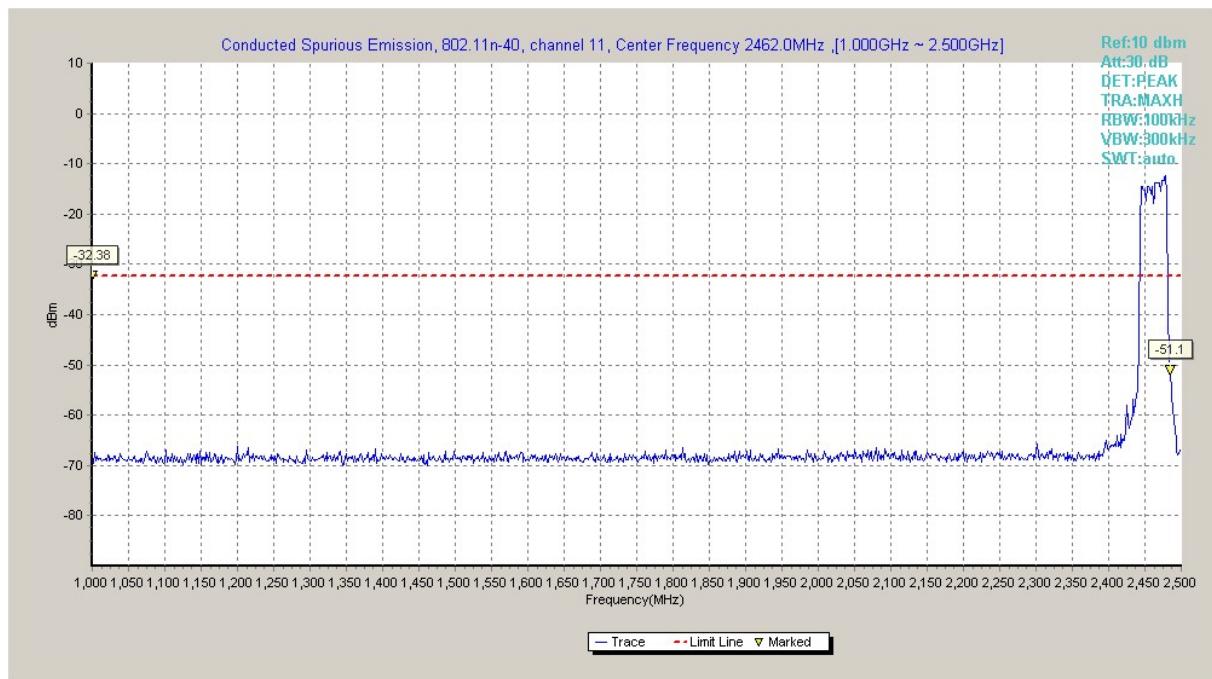
**Fig.A.6.1.152 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch10, 20 GHz-26 GHz)**



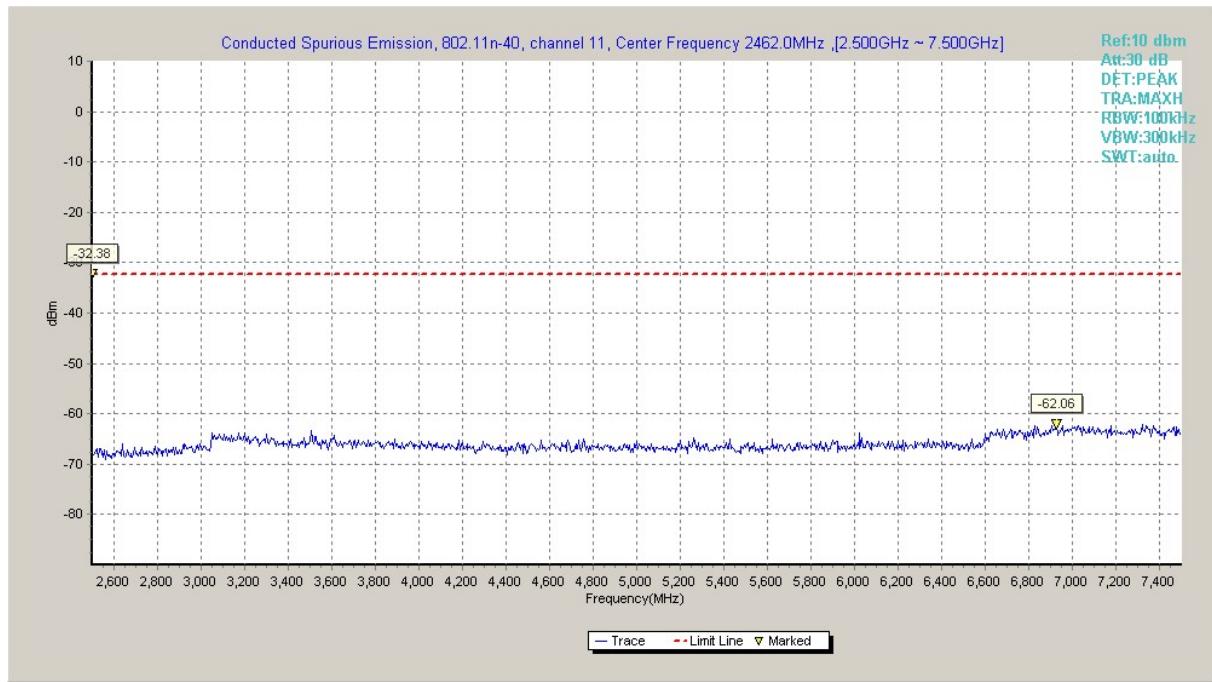
**Fig.A.6.1.153 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch11, Center Frequency)**



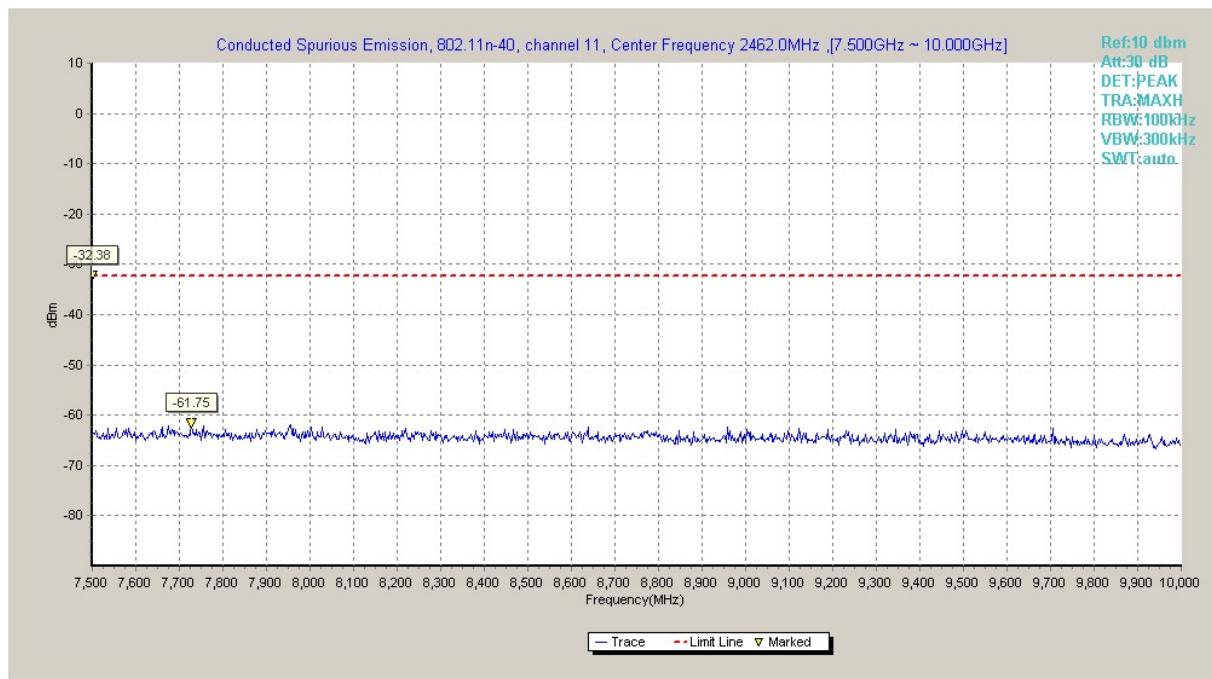
**Fig.A.6.1.154 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch11, 30 MHz-1 GHz)**



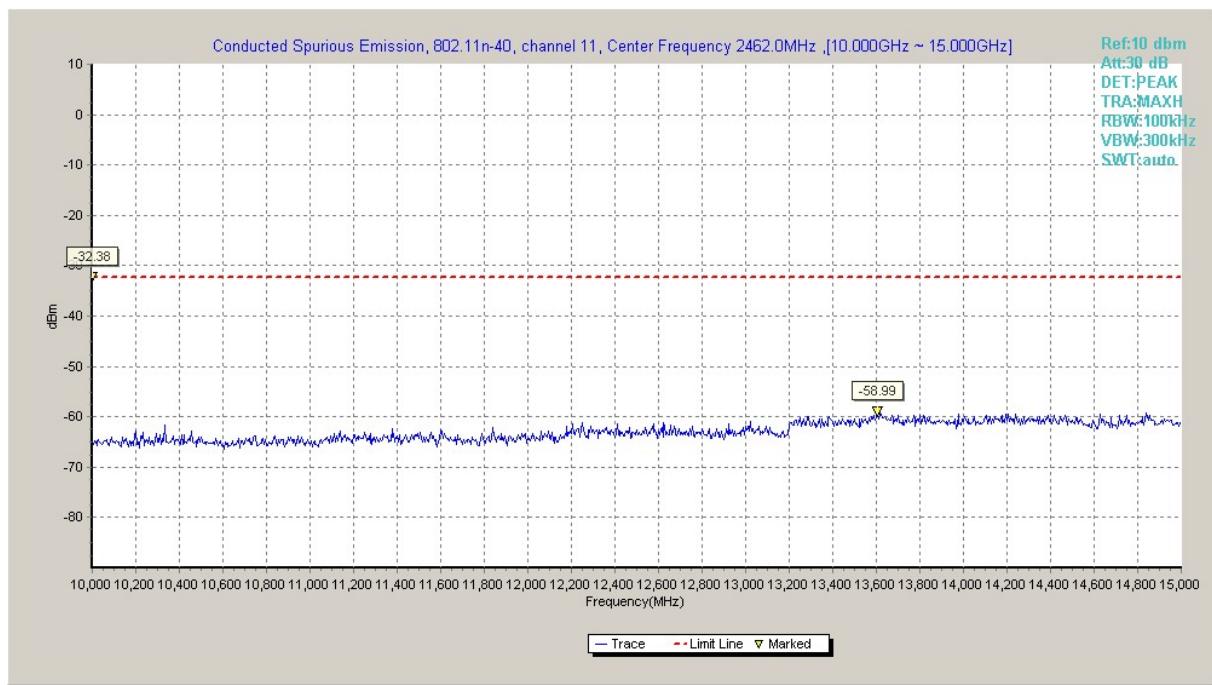
**Fig.A.6.1.155 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch11, 1 GHz-2.5 GHz)**



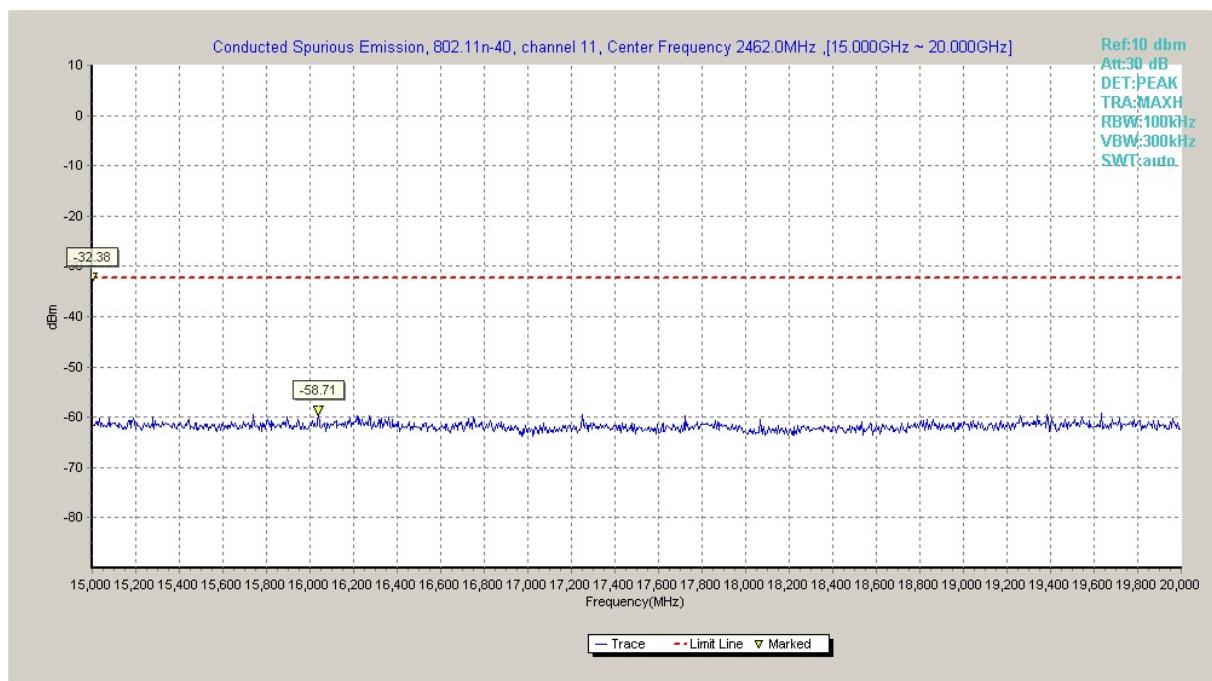
**Fig.A.6.1.156 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch11, 2.5 GHz-7.5 GHz)**



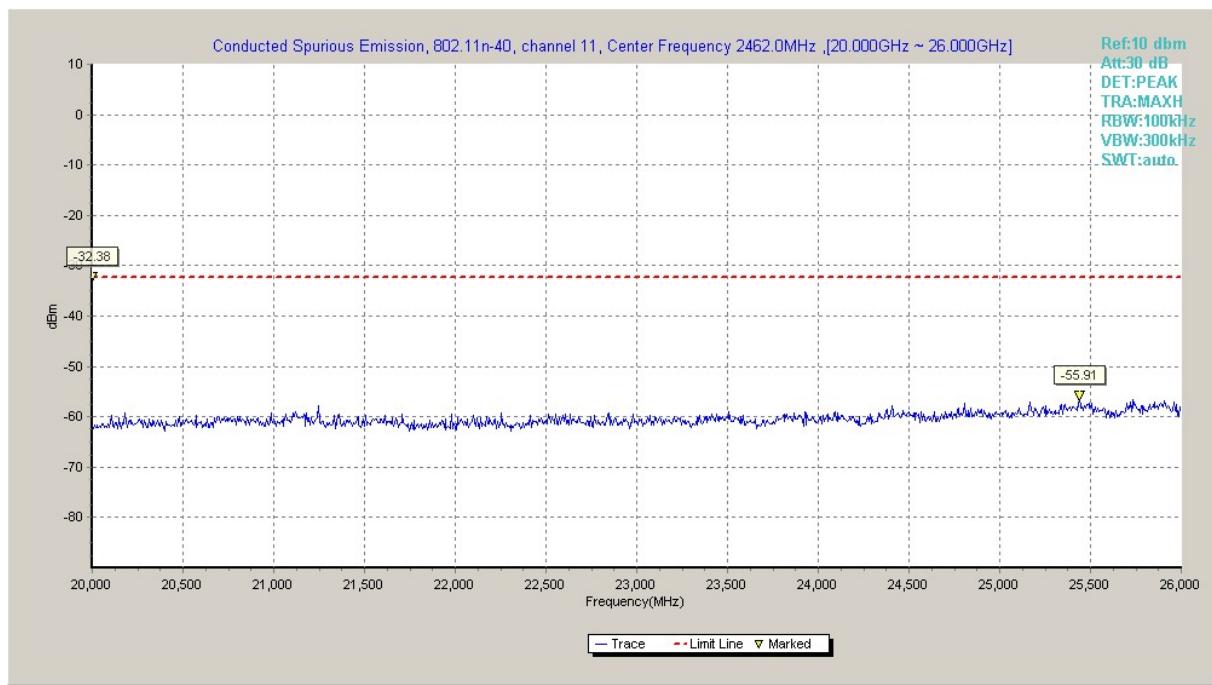
**Fig.A.6.1.157 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch11, 7.5 GHz-10 GHz)**



**Fig.A.6.1.158 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch11, 10 GHz-15 GHz)**



**Fig.A.6.1.159 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch11, 15 GHz-20 GHz)**



**Fig.A.6.1.160 Transmitter Spurious Emission - Conducted (802.11n-HT40, Ch11, 20 GHz-26 GHz)**

### A.6.2 Transmitter Spurious Emission - Radiated

**Method of Measurement: See ANSI C63.10-2013-clause 6.4 &6.5 & 6.6**

**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)).

**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

Frequency (MHz)	Field strength( $\mu$ V/m)	Measurement distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30

**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

**EUT ID: EUT1**

**Measurement Results:**
**802.11b mode**

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11b	Power	2.38GHz ~2.45GHz	Fig.A.6.2.1	P
	1	1 GHz ~ 3 GHz	Fig.A.6.2.2	P
		3 GHz ~ 18 GHz	Fig.A.6.2.3	P
	6	9 kHz ~30 MHz	Fig.A.6.2.4	P
		30 MHz ~1 GHz	Fig.A.6.2.5	P
		1 GHz ~ 3 GHz	Fig.A.6.2.6	P
		3 GHz ~ 18 GHz	Fig.A.6.2.7	P
		18 GHz~ 26.5 GHz	Fig.A.6.2.8	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.9	P
	11	1 GHz ~ 3 GHz	Fig.A.6.2.10	P
		3 GHz ~ 18 GHz	Fig.A.6.2.11	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.12	P
	12	1 GHz ~ 3 GHz	Fig.A.6.2.13	P
		3 GHz ~ 18 GHz	Fig.A.6.2.14	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.15	P
	13	1 GHz ~ 3 GHz	Fig.A.6.2.16	P
		3 GHz ~ 18 GHz	Fig.A.6.2.17	P

**802.11g mode**

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11g	Power	2.38GHz ~2.43GHz	Fig.A.6.2.18	P
	1	1 GHz ~ 3 GHz	Fig.A.6.2.19	P
		3 GHz ~ 18 GHz	Fig.A.6.2.20	P
	6	30 MHz ~1 GHz	Fig.A.6.2.21	P
		1 GHz ~ 3 GHz	Fig.A.6.2.22	P
		3 GHz ~ 18 GHz	Fig.A.6.2.23	P
		18 GHz~ 26.5 GHz	Fig.A.6.2.24	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.25	P
	11	1 GHz ~ 3 GHz	Fig.A.6.2.26	P
		3 GHz ~ 18 GHz	Fig.A.6.2.27	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.28	P
	12	1 GHz ~ 3 GHz	Fig.A.6.2.29	P
		3 GHz ~ 18 GHz	Fig.A.6.2.30	P
	Power	2.45GHz ~2.5GHz	Fig.A.6.2.31	P
	13	1 GHz ~ 3 GHz	Fig.A.6.2.32	P
		3 GHz ~ 18 GHz	Fig.A.6.2.33	P

**802.11n-HT20 mode**

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT20)	1	Power	2.38GHz ~2.45GHz	P
		1 GHz ~ 3 GHz	Fig.A.6.2.35	P
		3 GHz ~ 18 GHz	Fig.A.6.2.36	P
	6	30 MHz ~1 GHz	Fig.A.6.2.37	P
		1 GHz ~ 3 GHz	Fig.A.6.2.38	P
		3 GHz ~ 18 GHz	Fig.A.6.2.39	P
		18 GHz~ 26.5 GHz	Fig.A.6.2.40	P
	11	Power	2.45GHz ~2.5GHz	P
		1 GHz ~ 3 GHz	Fig.A.6.2.42	P
		3 GHz ~ 18 GHz	Fig.A.6.2.43	P
	12	Power	2.45GHz ~2.5GHz	P
		1 GHz ~ 3 GHz	Fig.A.6.2.45	P
	13	3 GHz ~ 18 GHz	Fig.A.6.2.46	P
		Power	2.45GHz ~2.5GHz	P
		1 GHz ~ 3 GHz	Fig.A.6.2.48	P
		3 GHz ~ 18 GHz	Fig.A.6.2.49	P

#### 802.11n-HT40 mode

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n (HT40)	3	Power	2.38GHz ~2.45GHz	P
		1 GHz ~ 3 GHz	Fig.A.6.2.51	P
		3 GHz ~ 18 GHz	Fig.A.6.2.52	P
	6	30 MHz ~1 GHz	Fig.A.6.2.53	P
		1 GHz ~ 3 GHz	Fig.A.6.2.54	P
		3 GHz ~ 18 GHz	Fig.A.6.2.55	P
		18 GHz~ 26.5 GHz	Fig.A.6.2.56	P
	9	Power	2.45GHz ~2.5GHz	P
		1 GHz ~ 3 GHz	Fig.A.6.2.58	P
		3 GHz ~ 18 GHz	Fig.A.6.2.59	P
	10	Power	2.45GHz ~2.5GHz	P
		1 GHz ~ 3 GHz	Fig.A.6.2.61	P
		3 GHz ~ 18 GHz	Fig.A.6.2.62	P
	11	Power	2.45GHz ~2.5GHz	P
		1 GHz ~ 3 GHz	Fig.A.6.2.64	P
		3 GHz ~ 18 GHz	Fig.A.6.2.65	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:

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

**802.11b**

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
2384.690	44.1	-38.8	27.7	55.200	HORIZONTAL
17962.500	50.8	-17.7	45.6	22.900	HORIZONTAL
17994.500	50.8	-17.7	45.6	22.900	VERTICAL
17967.000	50.7	-17.7	45.6	22.800	HORIZONTAL
17969.500	50.6	-17.7	45.6	22.700	HORIZONTAL
17977.000	50.6	-17.7	45.6	22.700	VERTICAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17971.000	50.8	-17.7	45.6	22.900	HORIZONTAL
17931.000	50.8	-17.7	45.6	22.900	HORIZONTAL
17996.000	50.6	-17.7	45.6	22.700	HORIZONTAL
17915.000	50.6	-17.7	45.6	22.700	VERTICAL
17921.500	50.6	-17.7	45.6	22.700	VERTICAL
17959.000	50.6	-17.7	45.6	22.700	HORIZONTAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
2490.085	44.3	-38.9	27.7	55.500	HORIZONTAL
17907.000	50.8	-18.5	45.6	23.700	VERTICAL
17967.500	50.7	-17.7	45.6	22.800	VERTICAL
17894.500	50.7	-18.5	45.6	23.600	HORIZONTAL
17969.000	50.6	-17.7	45.6	22.700	VERTICAL
17984.000	50.6	-17.7	45.6	22.700	HORIZONTAL

Ch12

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17990.500	50.7	-17.7	45.6	22.800	HORIZONTAL
17934.000	50.6	-17.7	45.6	22.700	HORIZONTAL
17950.500	50.6	-17.7	45.6	22.700	VERTICAL
17996.000	50.6	-17.7	45.6	22.700	HORIZONTAL
17951.000	50.5	-17.7	45.6	22.600	HORIZONTAL
17945.000	50.5	-17.7	45.6	22.600	HORIZONTAL

Ch13

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17972.500	50.9	-17.7	45.6	23.000	VERTICAL
17937.000	50.7	-17.7	45.6	22.800	HORIZONTAL
17964.000	50.7	-17.7	45.6	22.800	VERTICAL
17915.000	50.6	-17.7	45.6	22.700	HORIZONTAL
17995.500	50.6	-17.7	45.6	22.700	VERTICAL
17961.000	50.6	-17.7	45.6	22.700	HORIZONTAL

**802.11g**

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
2389.995	46.4	-38.8	27.7	57.500	HORIZONTAL
17866.000	50.7	-18.5	45.6	23.600	HORIZONTAL
17962.000	50.6	-17.7	45.6	22.700	VERTICAL
17967.000	50.6	-17.7	45.6	22.700	HORIZONTAL
17974.000	50.5	-17.7	45.6	22.600	HORIZONTAL
17943.500	50.5	-17.7	45.6	22.600	VERTICAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17982.5	50.8	-17.7	45.6	22.9	HORIZONTAL
17973.5	50.8	-17.7	45.6	22.9	HORIZONTAL
17980.5	50.7	-17.7	45.6	22.8	VERTICAL
17960	50.6	-17.7	45.6	22.7	HORIZONTAL
17944	50.6	-17.7	45.6	22.7	HORIZONTAL
17968.5	50.6	-17.7	45.6	22.7	VERTICAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
2483.500	50.5	-38.9	27.7	61.700	HORIZONTAL
17979.500	50.8	-17.7	45.6	22.900	HORIZONTAL
17887.000	50.7	-18.5	45.6	23.600	VERTICAL
17977.000	50.6	-17.7	45.6	22.700	HORIZONTAL
17990.000	50.6	-17.7	45.6	22.700	HORIZONTAL
17974.000	50.6	-17.7	45.6	22.700	VERTICAL

Ch12

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17911.000	50.9	-18.5	45.6	23.800	VERTICAL
17979.500	50.7	-17.7	45.6	22.800	HORIZONTAL
17972.500	50.6	-17.7	45.6	22.700	VERTICAL
17962.500	50.6	-17.7	45.6	22.700	HORIZONTAL
17906.000	50.6	-18.5	45.6	23.500	VERTICAL
17914.500	50.5	-17.7	45.6	22.600	HORIZONTAL

Ch13

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17866.000	50.7	-18.5	45.6	23.600	HORIZONTAL
17962.000	50.6	-17.7	45.6	22.700	HORIZONTAL
17967.000	50.6	-17.7	45.6	22.700	HORIZONTAL
17974.000	50.5	-17.7	45.6	22.600	HORIZONTAL
17943.500	50.5	-17.7	45.6	22.600	VERTICAL
17978.500	50.5	-17.7	45.6	22.600	VERTICAL

### 802.11n-HT20

Ch1

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
2390.000	45.1	-38.8	27.7	56.200	VERTICAL
17912.000	50.9	-18.5	45.6	23.800	VERTICAL
17969.500	50.7	-17.7	45.6	22.800	HORIZONTAL
17985.500	50.6	-17.7	45.6	22.700	HORIZONTAL
17951.500	50.6	-17.7	45.6	22.700	VERTICAL
17859.000	50.6	-18.5	45.6	23.500	HORIZONTAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17962.000	50.6	-17.7	45.6	22.700	HORIZONTAL
17938.000	50.6	-17.7	45.6	22.700	HORIZONTAL
17959.000	50.6	-17.7	45.6	22.700	VERTICAL
17882.000	50.5	-18.5	45.6	23.400	HORIZONTAL
17975.500	50.5	-17.7	45.6	22.600	HORIZONTAL
17984.000	50.5	-17.7	45.6	22.600	HORIZONTAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
2483.545	51.6	-38.9	27.7	62.800	HORIZONTAL
17971.500	50.8	-17.7	45.6	22.900	HORIZONTAL
17883.000	50.7	-18.5	45.6	23.600	VERTICAL
17985.500	50.7	-17.7	45.6	22.800	HORIZONTAL
17769.000	50.6	-18.5	45.6	23.500	VERTICAL
17926.500	50.5	-17.7	45.6	22.600	HORIZONTAL

Ch12

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17967.000	51.0	-17.7	45.6	23.100	HORIZONTAL
17999.000	50.8	-17.7	45.6	22.900	HORIZONTAL
17919.000	50.7	-17.7	45.6	22.800	VERTICAL
17945.000	50.7	-17.7	45.6	22.800	HORIZONTAL
17924.000	50.6	-17.7	45.6	22.700	HORIZONTAL
17982.000	50.6	-17.7	45.6	22.700	VERTICAL

Ch13

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17993.500	50.8	-17.7	45.6	22.900	VERTICAL
17926.000	50.7	-17.7	45.6	22.800	HORIZONTAL
17934.500	50.7	-17.7	45.6	22.800	VERTICAL
17980.500	50.6	-17.7	45.6	22.700	HORIZONTAL
17988.000	50.6	-17.7	45.6	22.700	HORIZONTAL
17985.000	50.6	-17.7	45.6	22.700	HORIZONTAL

## 802.11n-HT40

Ch3

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
2389.980	46.1	-38.8	27.7	57.200	VERTICAL
17998.000	50.5	-17.7	45.6	22.600	VERTICAL
17896.500	50.5	-18.5	45.6	23.400	VERTICAL
17990.500	50.5	-17.7	45.6	22.600	VERTICAL
17963.500	50.5	-17.7	45.6	22.600	HORIZONTAL
17984.500	50.4	-17.7	45.6	22.500	HORIZONTAL

Ch6

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17986.500	50.7	-17.7	45.6	22.800	HORIZONTAL
17968.000	50.6	-17.7	45.6	22.700	VERTICAL
17896.000	50.6	-18.5	45.6	23.500	VERTICAL
17976.500	50.5	-17.7	45.6	22.600	VERTICAL
17984.500	50.5	-17.7	45.6	22.600	VERTICAL
17955.000	50.5	-17.7	45.6	22.600	VERTICAL

Ch9

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
2483.690	50.3	-38.9	27.7	61.500	VERTICAL
17986.000	50.8	-17.7	45.6	22.900	VERTICAL
17966.000	50.7	-17.7	45.6	22.800	VERTICAL
17898.000	50.7	-18.5	45.6	23.600	VERTICAL
17989.500	50.7	-17.7	45.6	22.800	VERTICAL
17978.500	50.6	-17.7	45.6	22.700	HORIZONTAL

Ch10

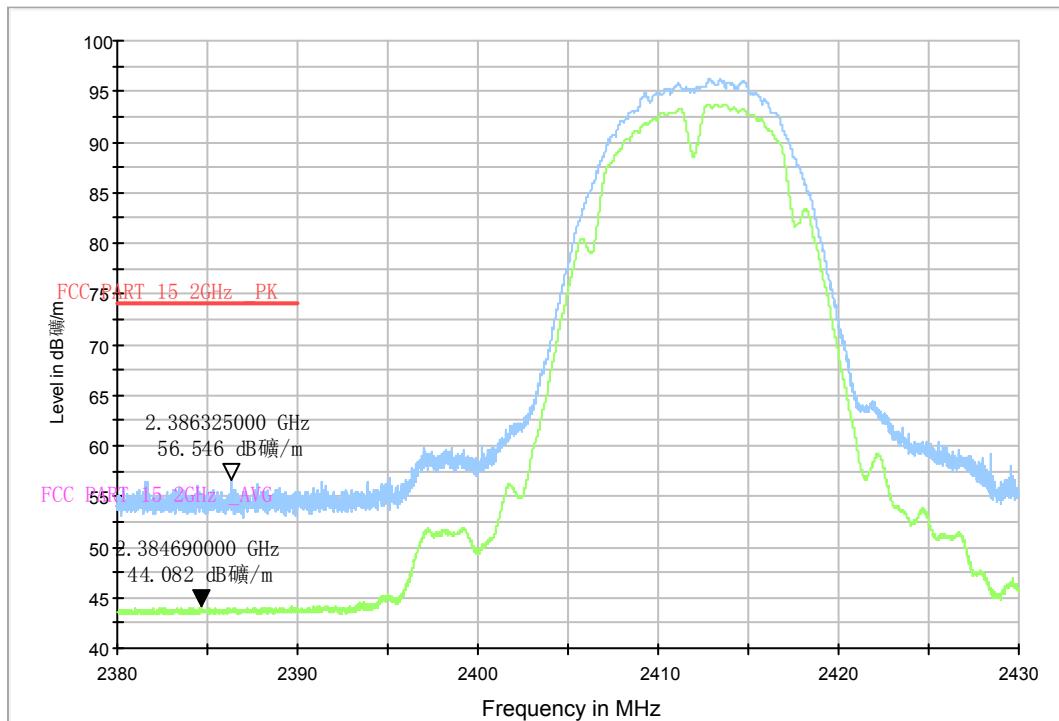
Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17984.000	50.8	-17.7	45.6	22.900	HORIZONTAL
17994.500	50.6	-17.7	45.6	22.700	HORIZONTAL
17982.000	50.6	-17.7	45.6	22.700	VERTICAL
17906.000	50.6	-18.5	45.6	23.500	VERTICAL
17932.000	50.6	-17.7	45.6	22.700	VERTICAL
17933.000	50.5	-17.7	45.6	22.600	HORIZONTAL

Ch11

Frequency(MHz)	Result (dBuV/m)	Cable Loss(dB)	Antenna Factor	P <sub>Mea</sub> (dBuV/m)	Polarization
17971.500	50.9	-17.7	45.6	23.000	HORIZONTAL
17882.000	50.7	-18.5	45.6	23.600	HORIZONTAL
17927.000	50.7	-17.7	45.6	22.800	VERTICAL
17951.000	50.6	-17.7	45.6	22.700	VERTICAL
17938.000	50.6	-17.7	45.6	22.700	HORIZONTAL
17920.000	50.6	-17.7	45.6	22.700	HORIZONTAL

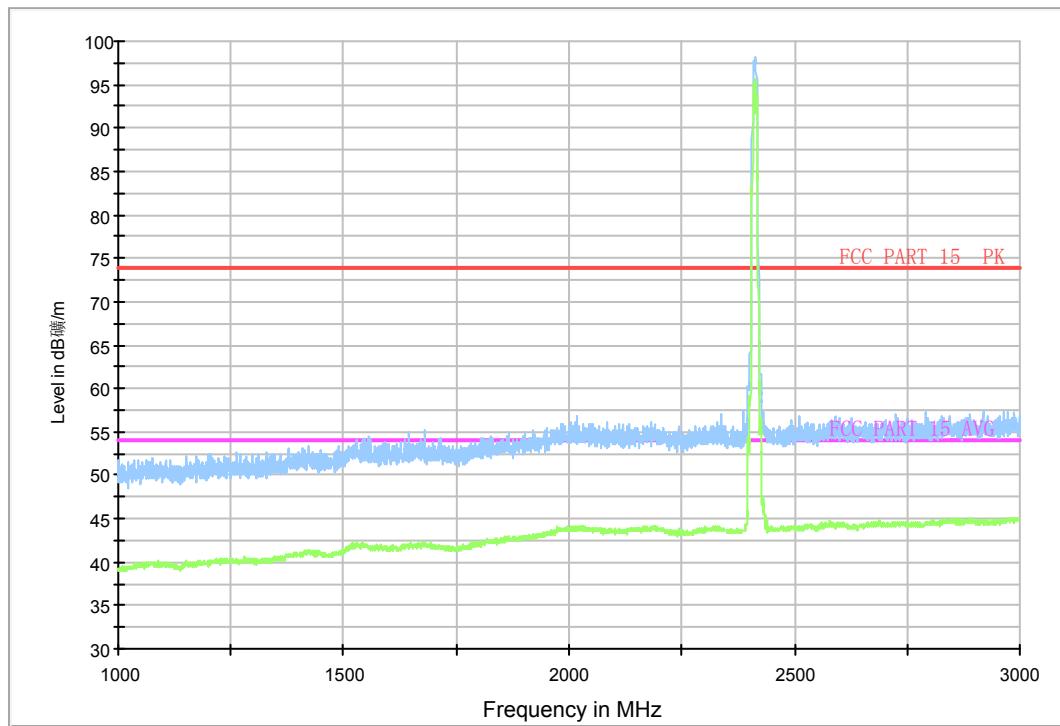
Test graphs as below:

RE-Power\_2.38G-2.43GHz



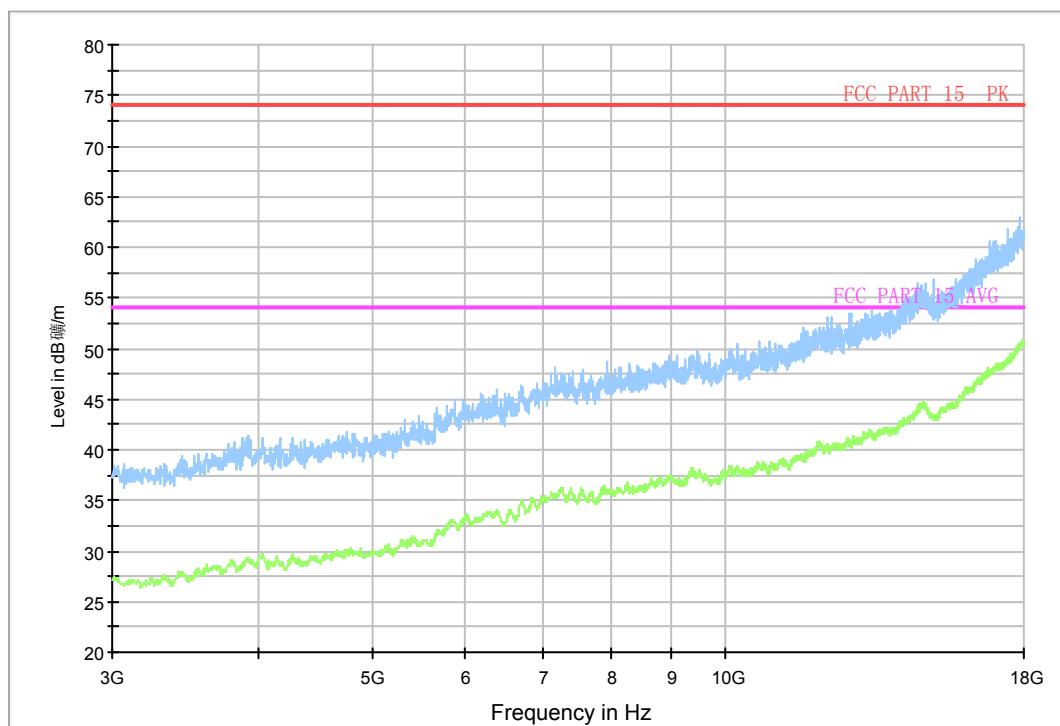
**Fig.A.6.2.1 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch1, 2.38 GHz – 2.45GHz**

RE\_WLAN\_1G-3GHz

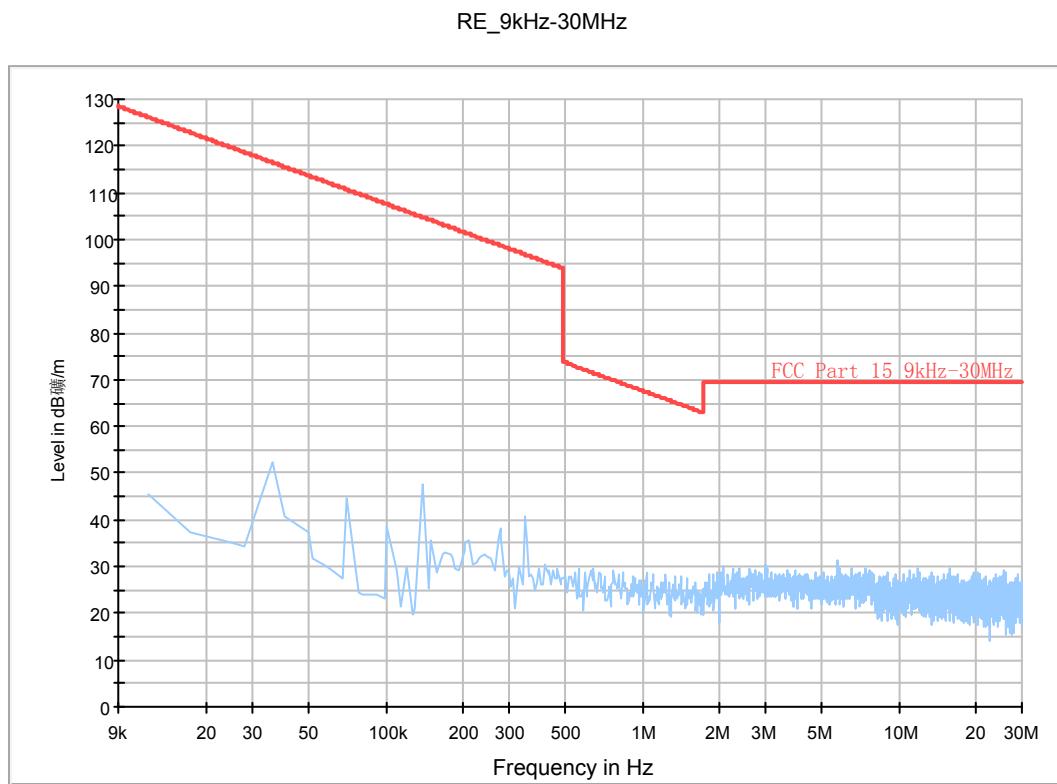


**Fig.A.6.2.2 Transmitter Spurious Emission - Radiated (802.11b, Ch1, 1 GHz-3 GHz)**

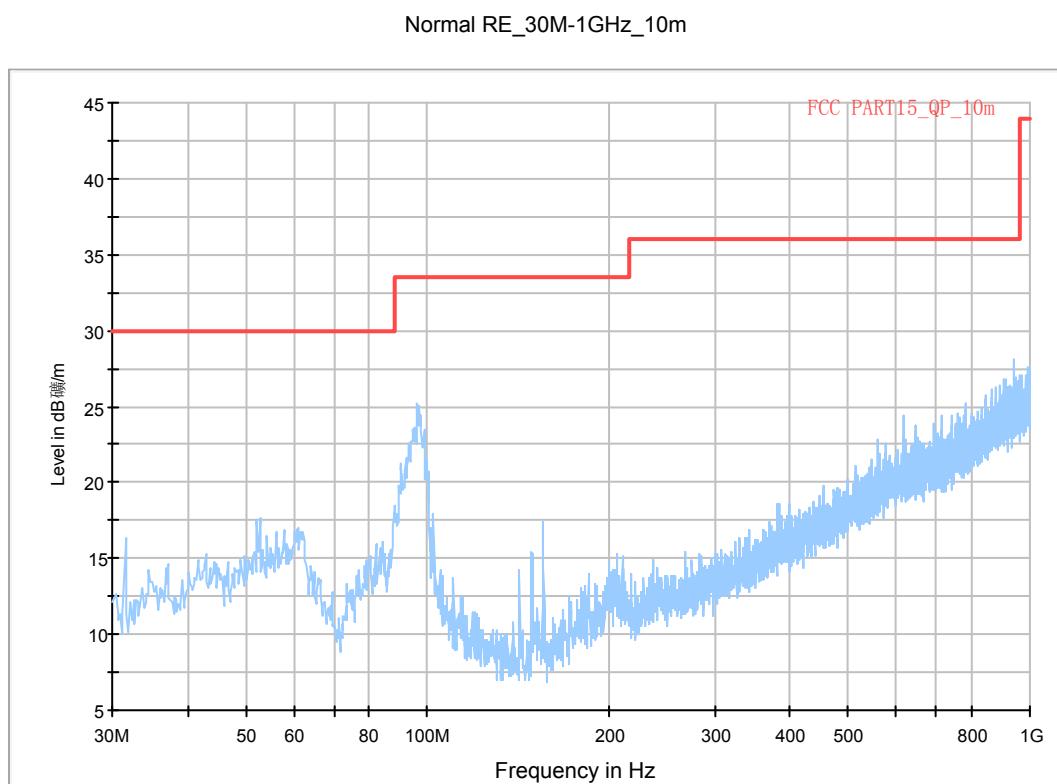
Normal RE\_3G-18GHz\_filter



**Fig.A.6.2.3 Transmitter Spurious Emission - Radiated (802.11b, Ch1, 3 GHz-18 GHz)**

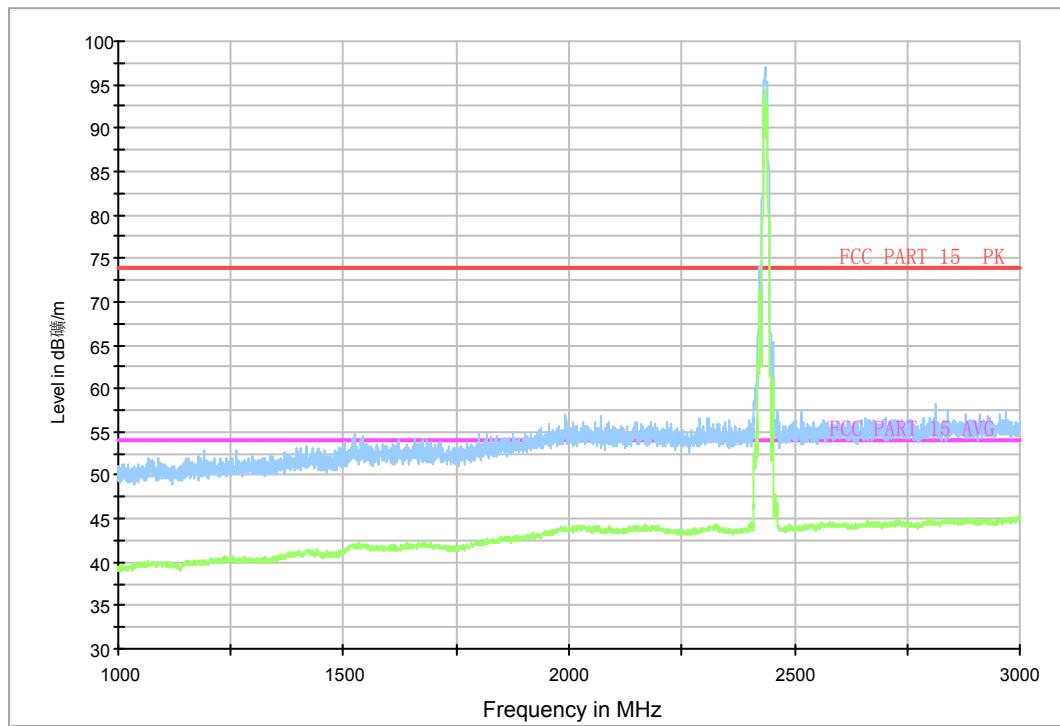


**Fig.A.6.2.4 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 9kHz-30 MHz)**



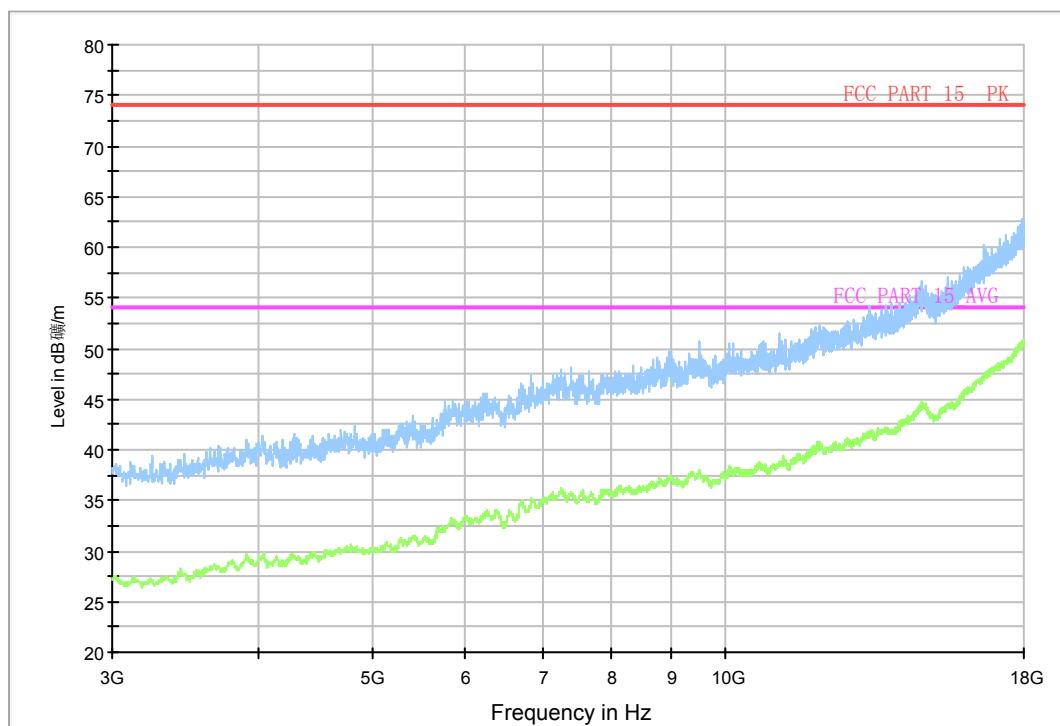
**Fig.A.6.2.5 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 30 MHz-1 GHz)**

RE\_WLAN\_1G-3GHz



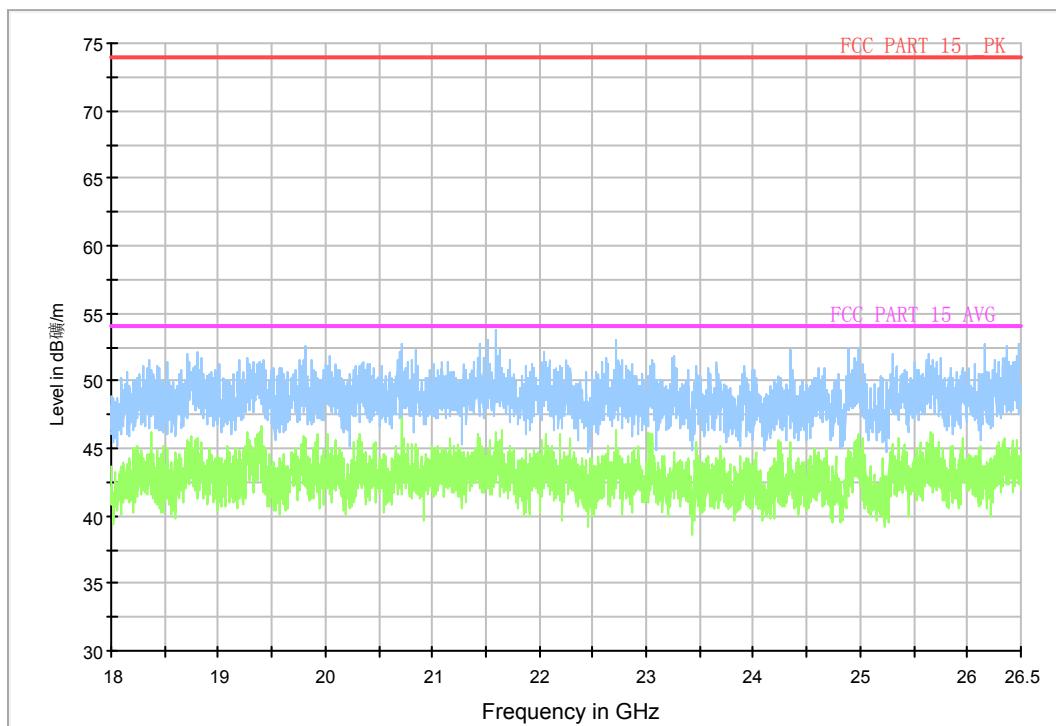
**Fig.A.6.2.6 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 1 GHz-3 GHz)**

Normal RE\_3G-18GHz\_filter



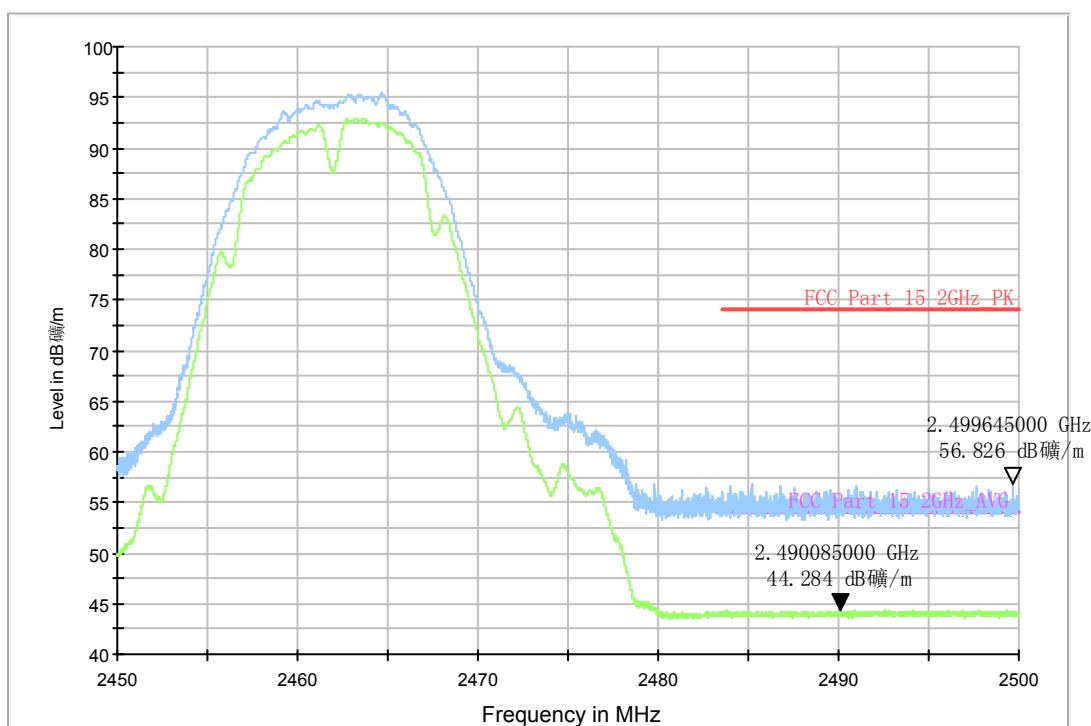
**Fig.A.6.2.7 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 3 GHz-18 GHz)**

Normal RE\_18G-26.5GHz



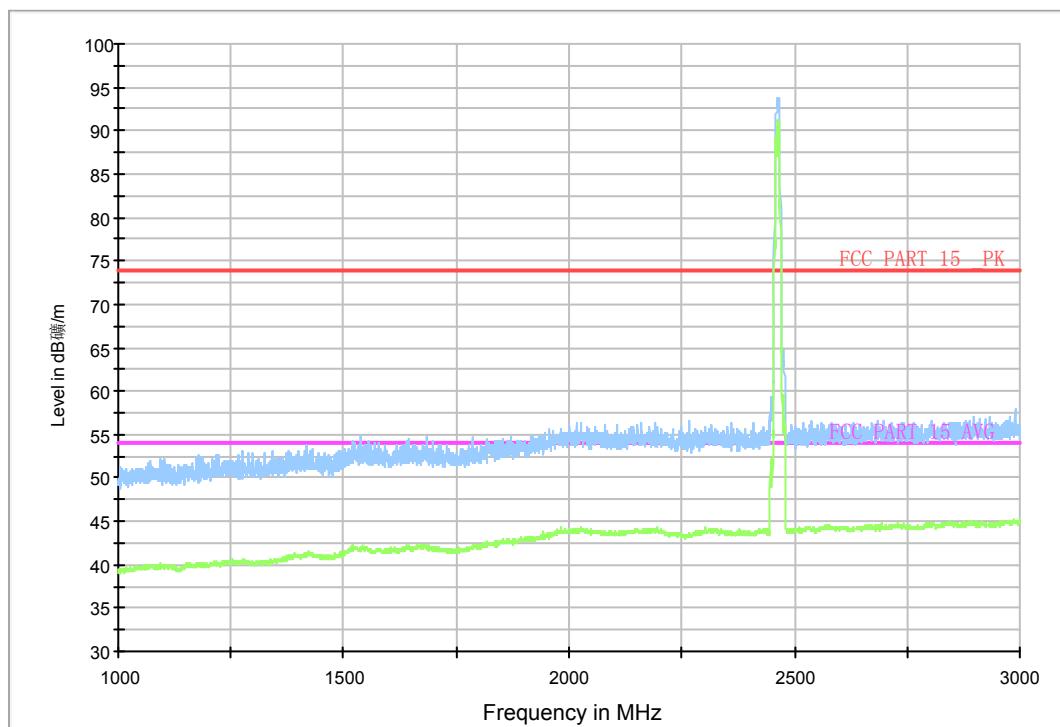
**Fig.A.6.2.8 Transmitter Spurious Emission - Radiated (802.11b, Ch6, 18GHz – 26.5GHz)**

RE-Power\_2.45G-2.5GHz



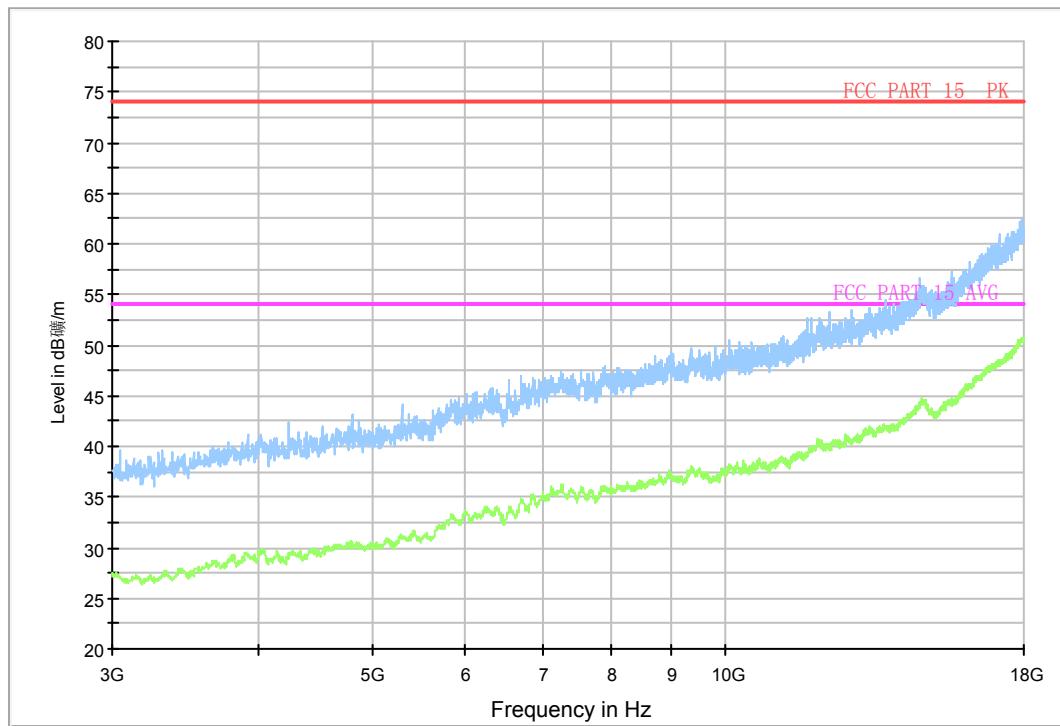
**Fig.A.6.2.9 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz**

RE\_WLAN\_1G-3GHz



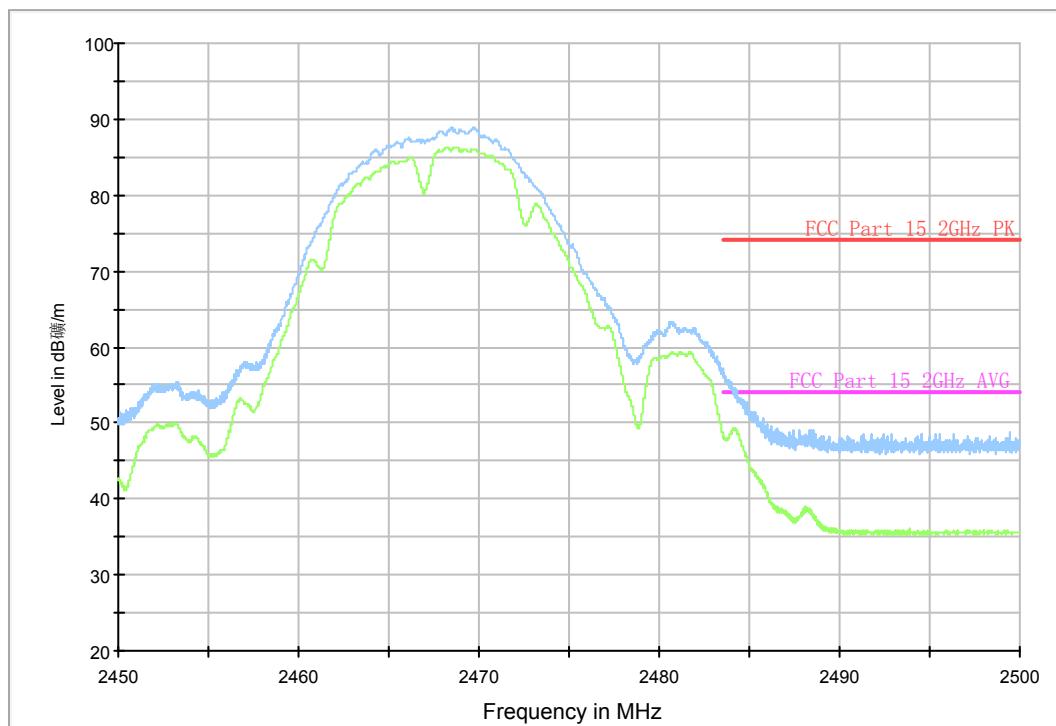
**Fig.A.6.2.10 Transmitter Spurious Emission - Radiated (802.11b, Ch11, 1 GHz-3 GHz)**

Normal RE\_3G-18GHz\_filter



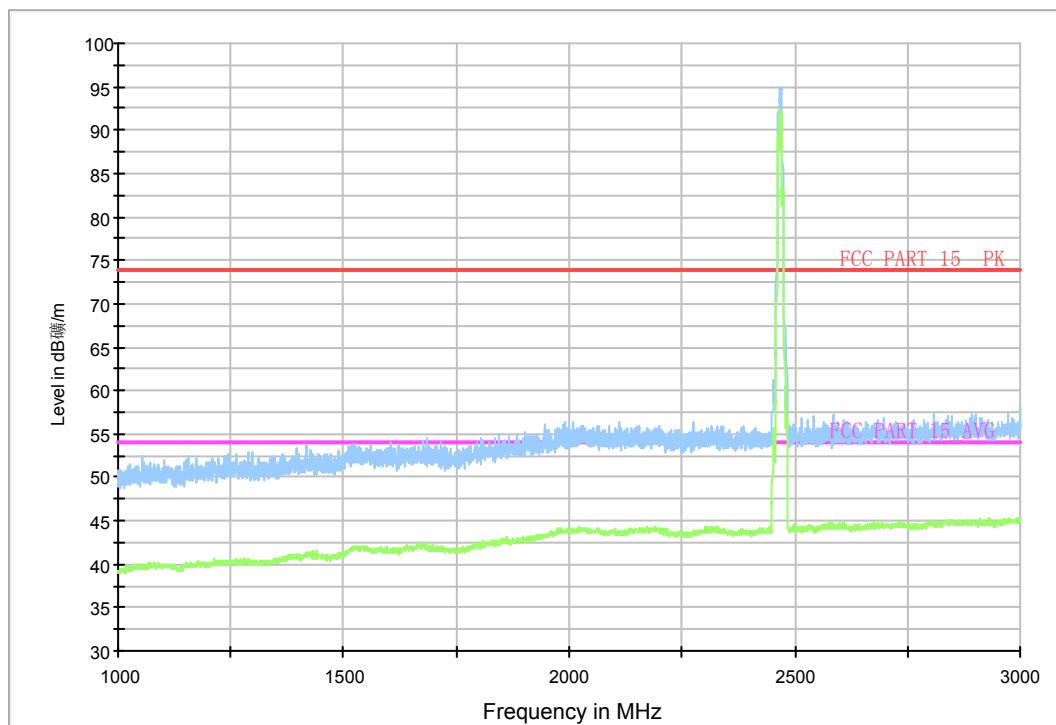
**Fig.A.6.2.11 Transmitter Spurious Emission - Radiated (802.11b, Ch11, 3 GHz-18 GHz)**

RE-Power\_2.45G-2.5GHz

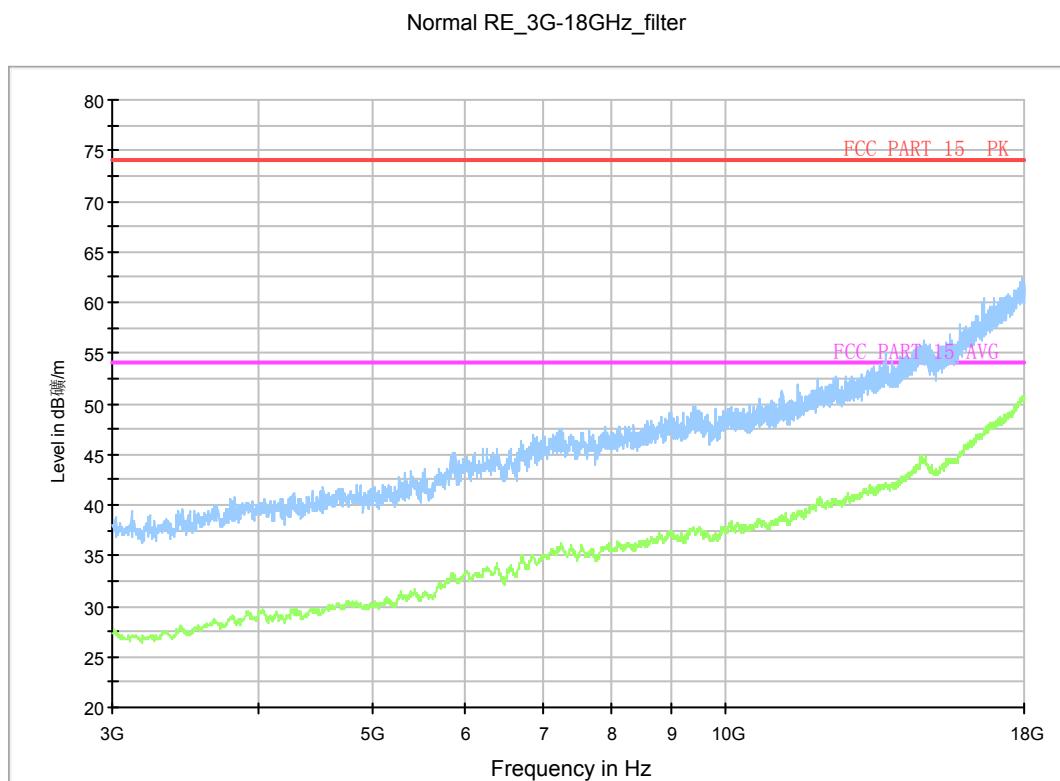


**Fig.A.6.2.12 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch12, 2.45 GHz - 2.50GHz**

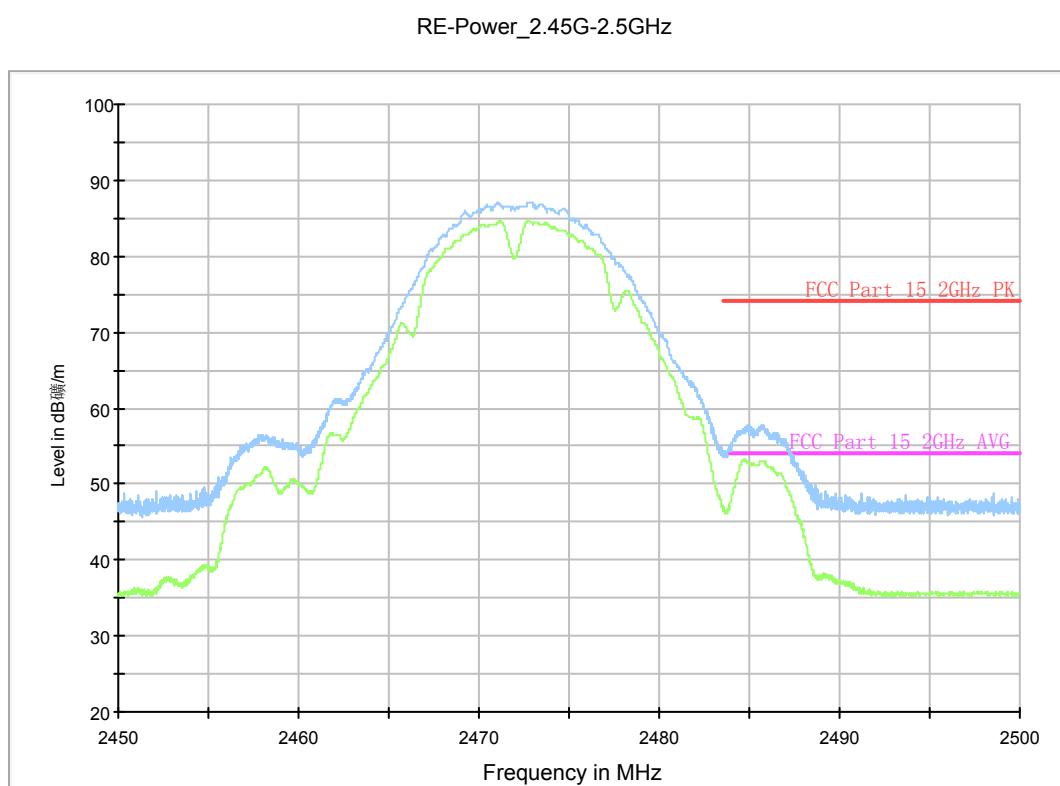
RE\_WLAN\_1G-3GHz



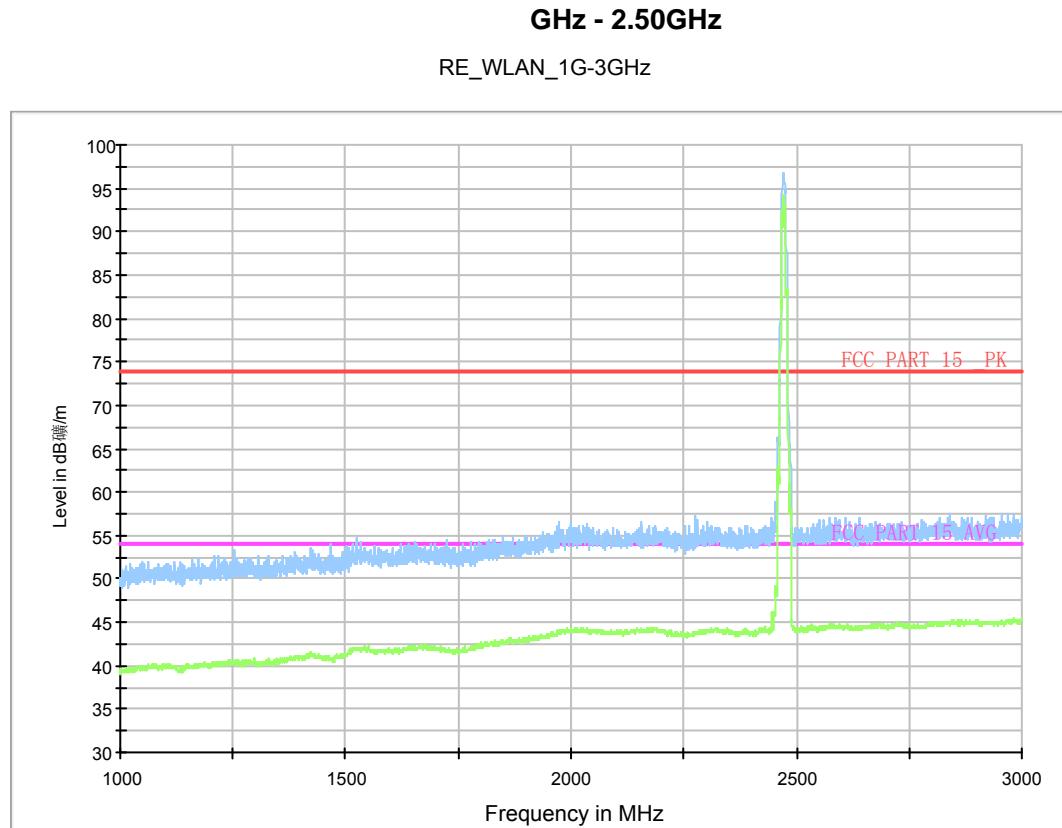
**Fig.A.6.2.13 Transmitter Spurious Emission - Radiated (802.11b, Ch12, 1 GHz-3 GHz)**



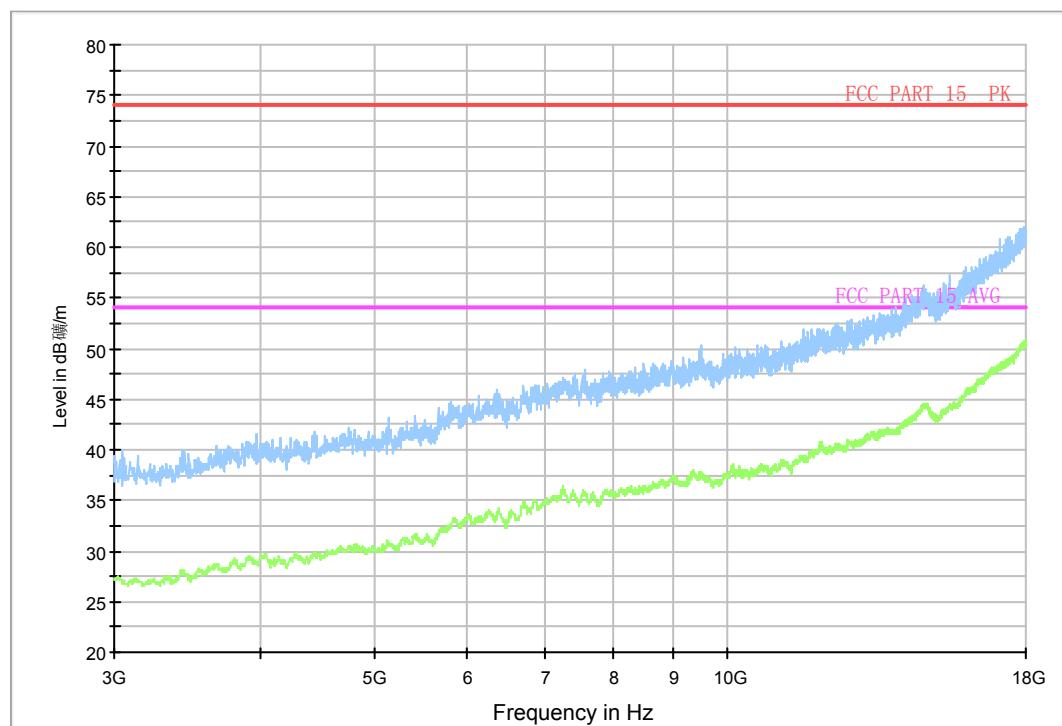
**Fig.A.6.2.14 Transmitter Spurious Emission - Radiated (802.11b, Ch12, 3 GHz-18 GHz)**



**Fig.A.6.2.15 Transmitter Spurious Emission - Radiated (Power): 802.11b, ch13, 2.45**

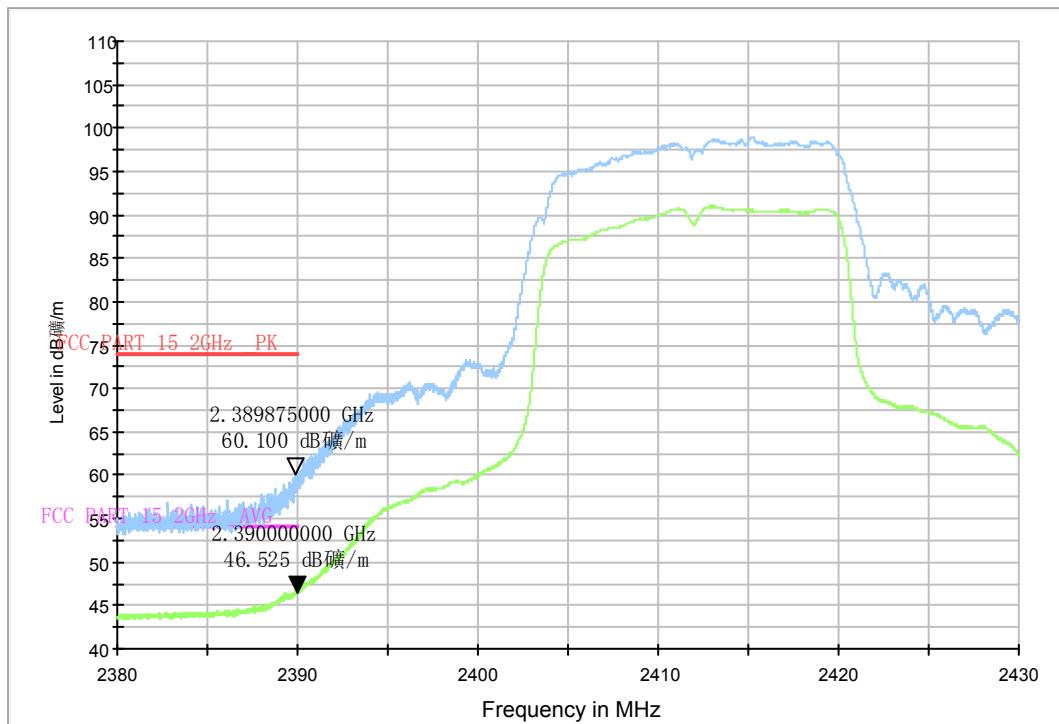


**Fig.A.6.2.16 Transmitter Spurious Emission - Radiated (802.11b, Ch13, 1 GHz-3 GHz)**  
Normal RE\_3G-18GHz\_filter



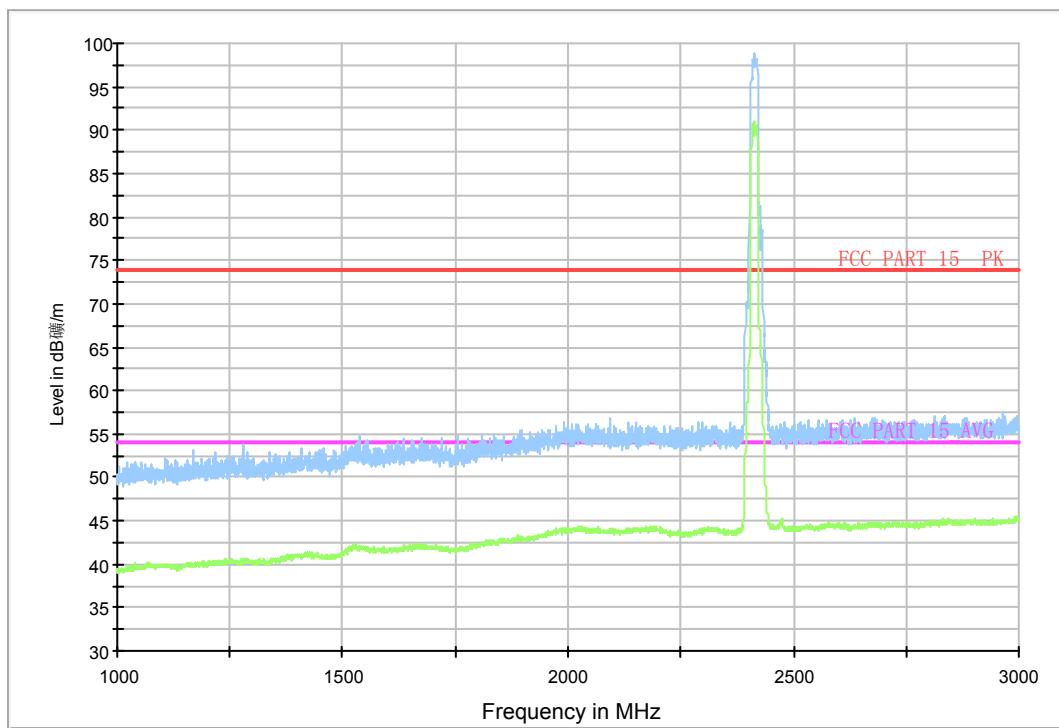
**Fig.A.6.2.17 Transmitter Spurious Emission - Radiated (802.11b, Ch13, 3 GHz-18 GHz)**

RE-Power\_2.38G-2.43GHz

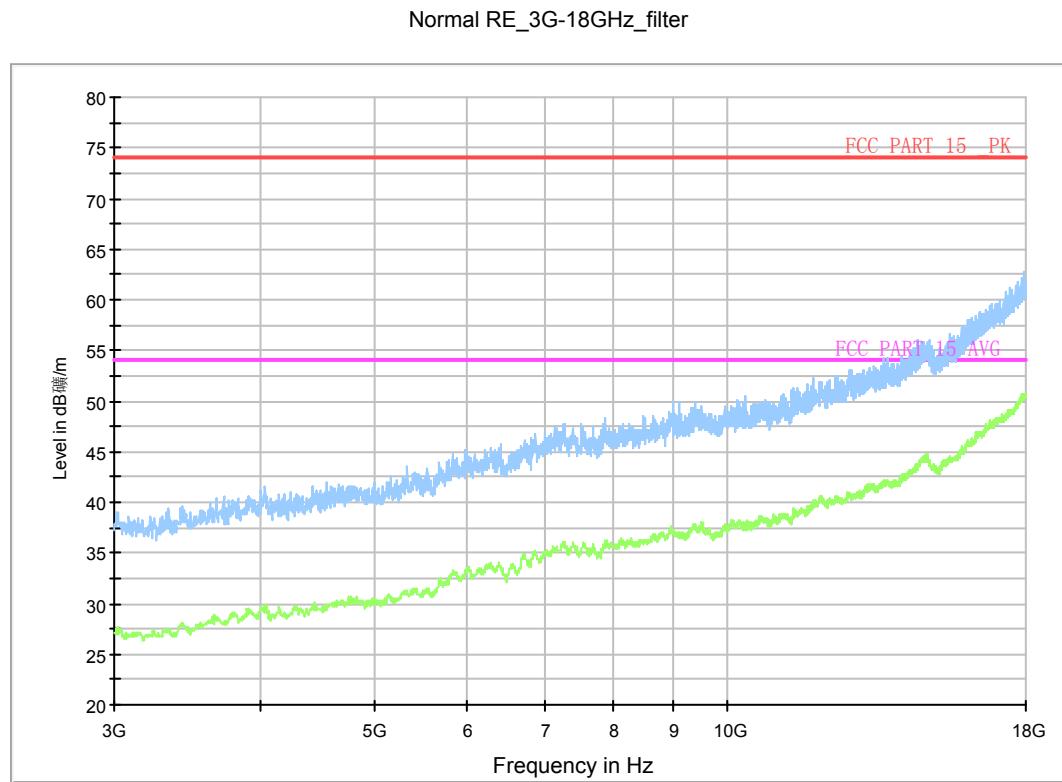


**Fig.A.6.2.18 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch1, 2.38 GHz - 2.45GHz**

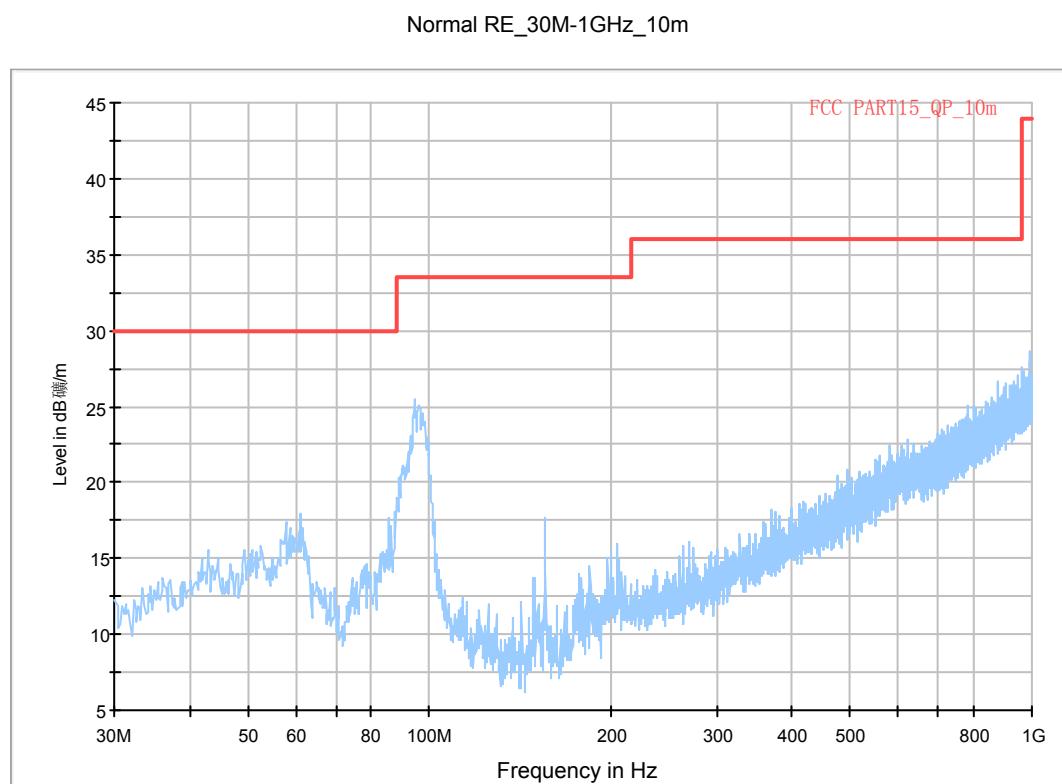
RE\_WLAN\_1G-3GHz



**Fig.A.6.2.19 Transmitter Spurious Emission - Radiated (802.11g, Ch1, 1 GHz-3 GHz)**

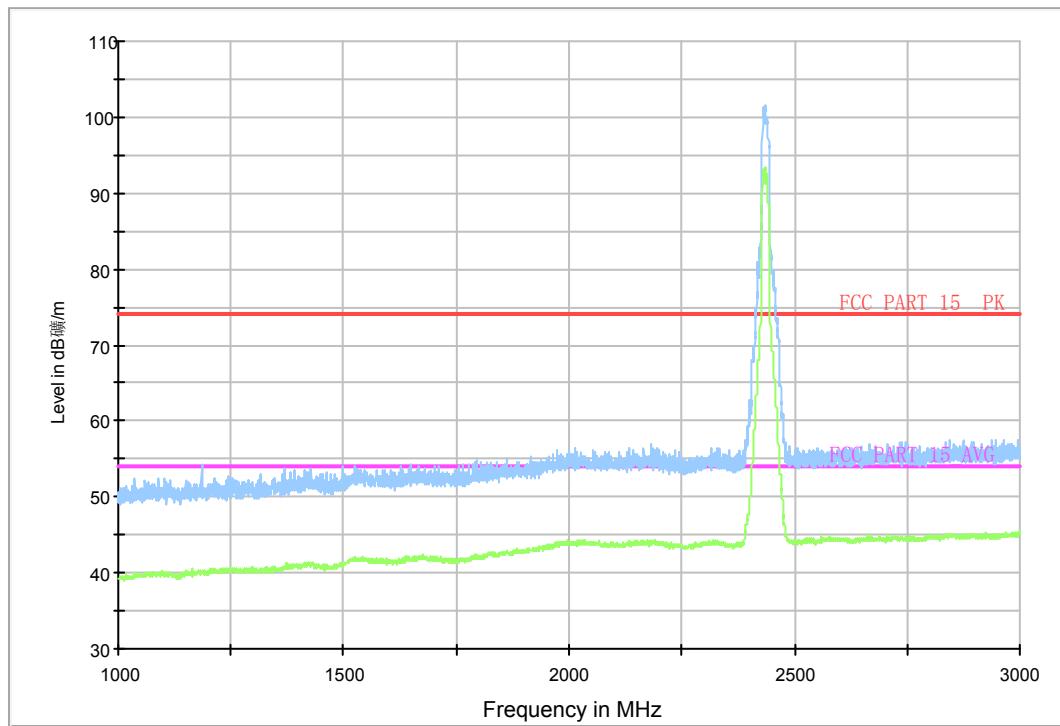


**Fig.A.6.2.20 Transmitter Spurious Emission - Radiated (802.11g, Ch1, 3 GHz-18 GHz)**

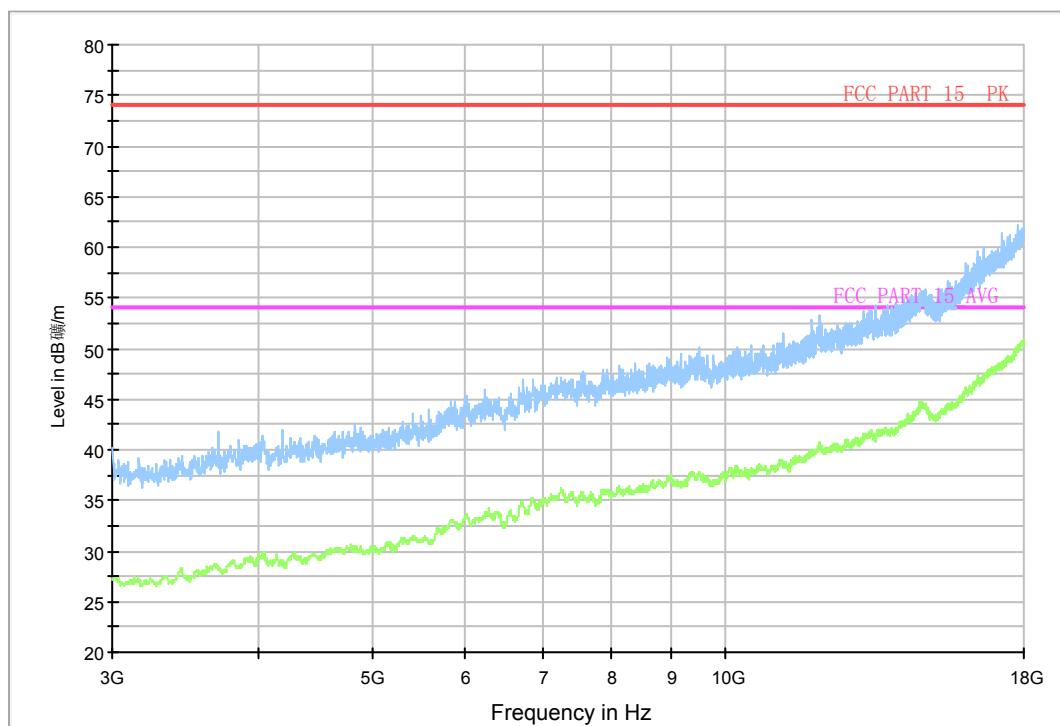


**Fig.A.6.2.21 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 30 MHz-1 GHz)**

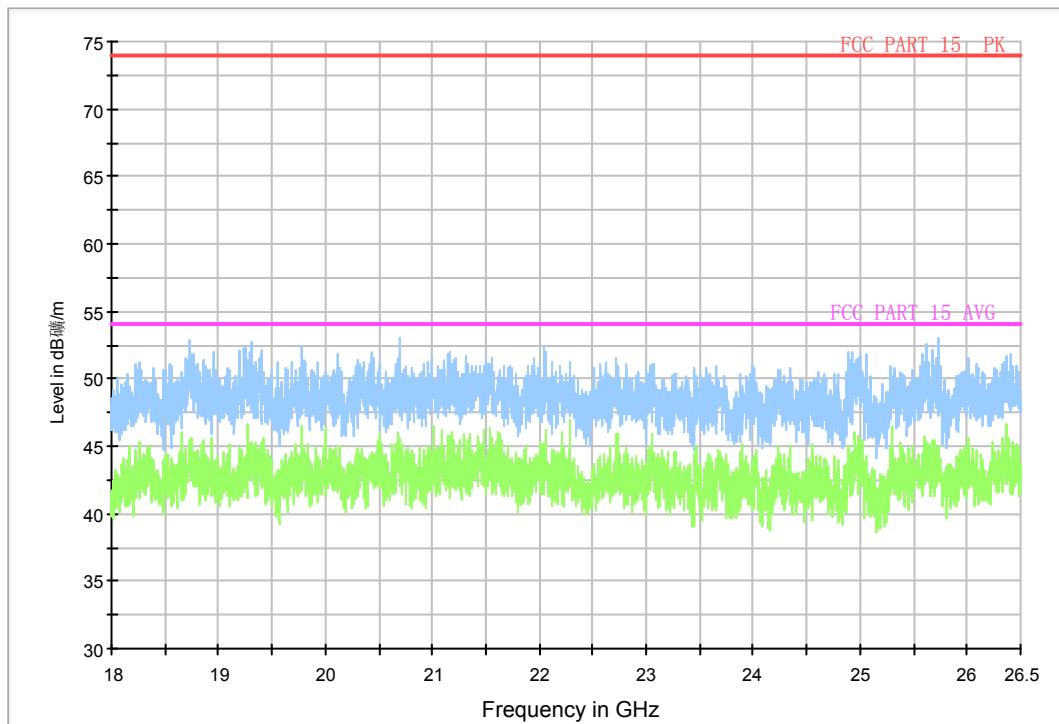
RE\_WLAN\_1G-3GHz


**Fig.A.6.2.22 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 1 GHz-3 GHz)**

Normal RE\_3G-18GHz\_filter

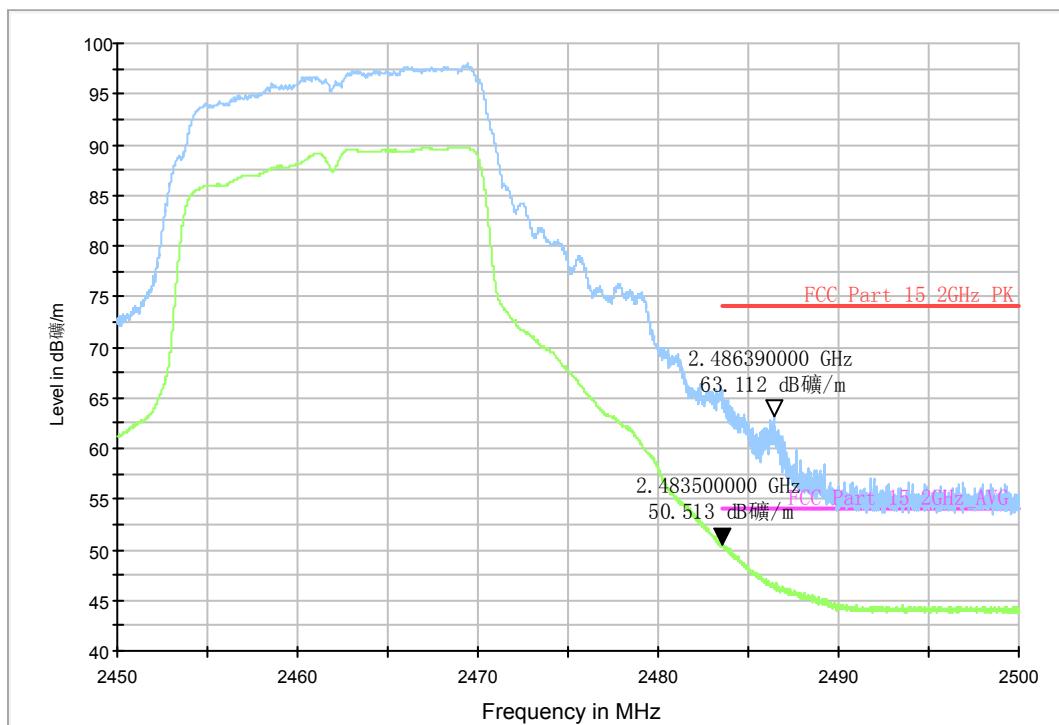

**Fig.A.6.2.23 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 3 GHz-18 GHz)**

Normal RE\_18G-26.5GHz

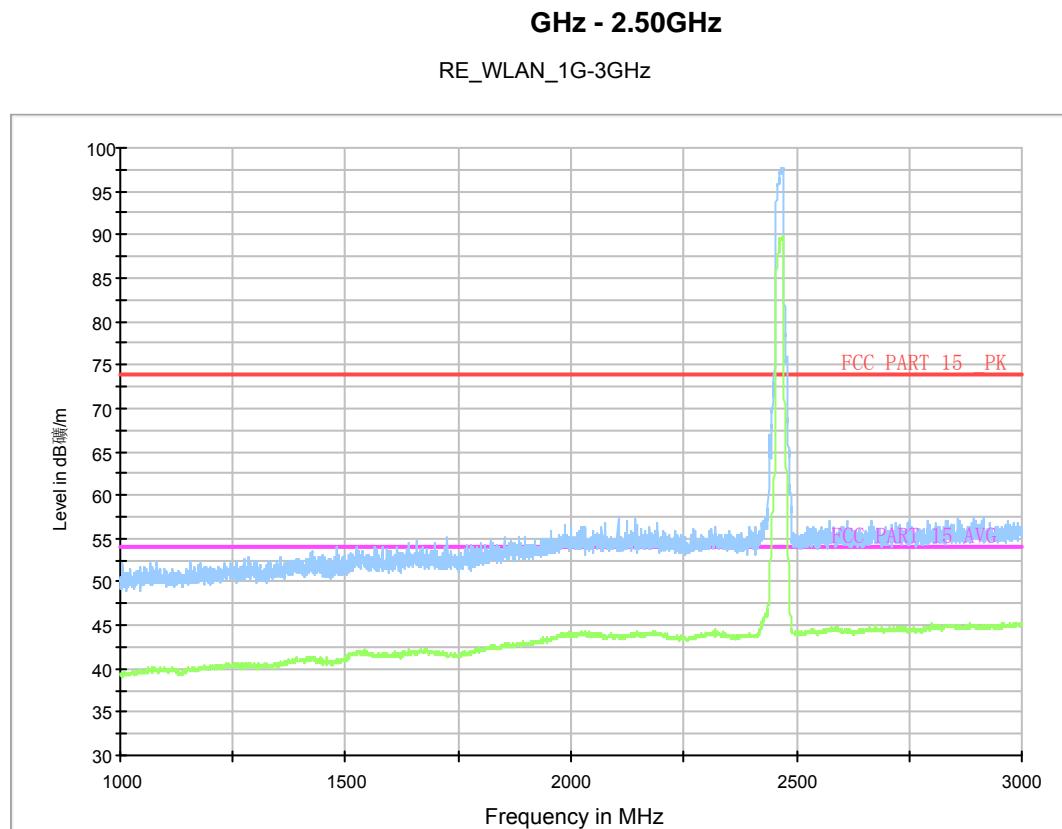


**Fig.A.6.2.24 Transmitter Spurious Emission - Radiated (802.11g, Ch6, 18GHz – 26.5GHz)**

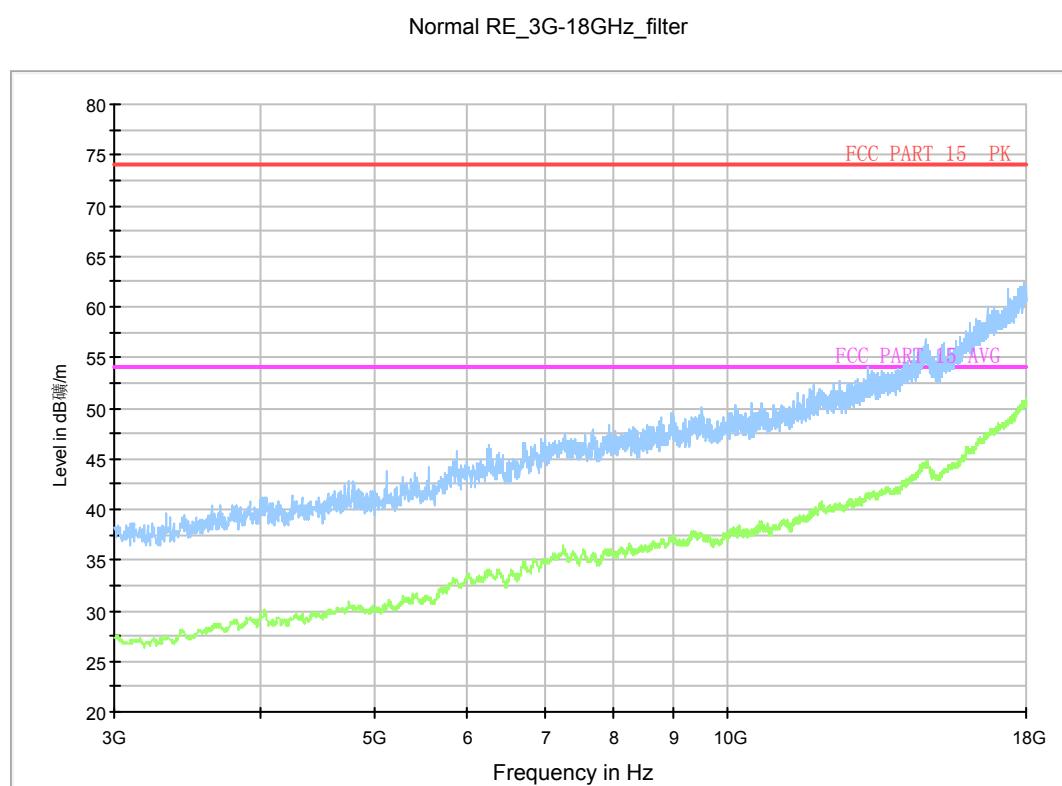
RE-Power\_2.45G-2.5GHz



**Fig.A.6.2.25 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch11, 2.45**

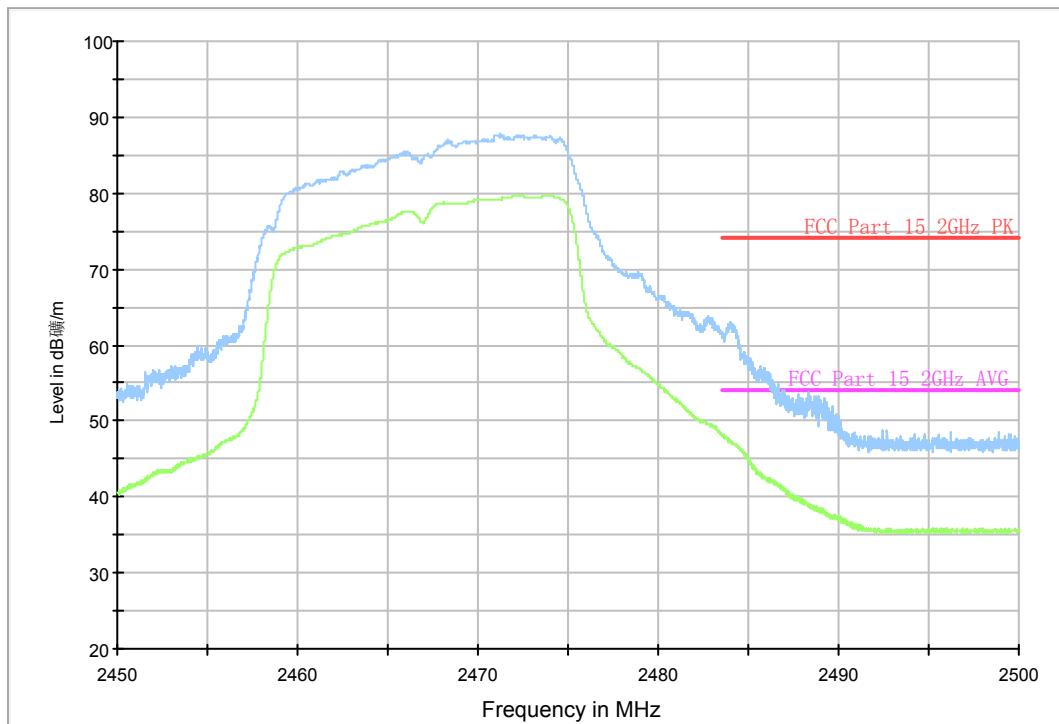


**Fig.A.6.2.26 Transmitter Spurious Emission - Radiated (802.11g, Ch11, 1 GHz-3 GHz)**



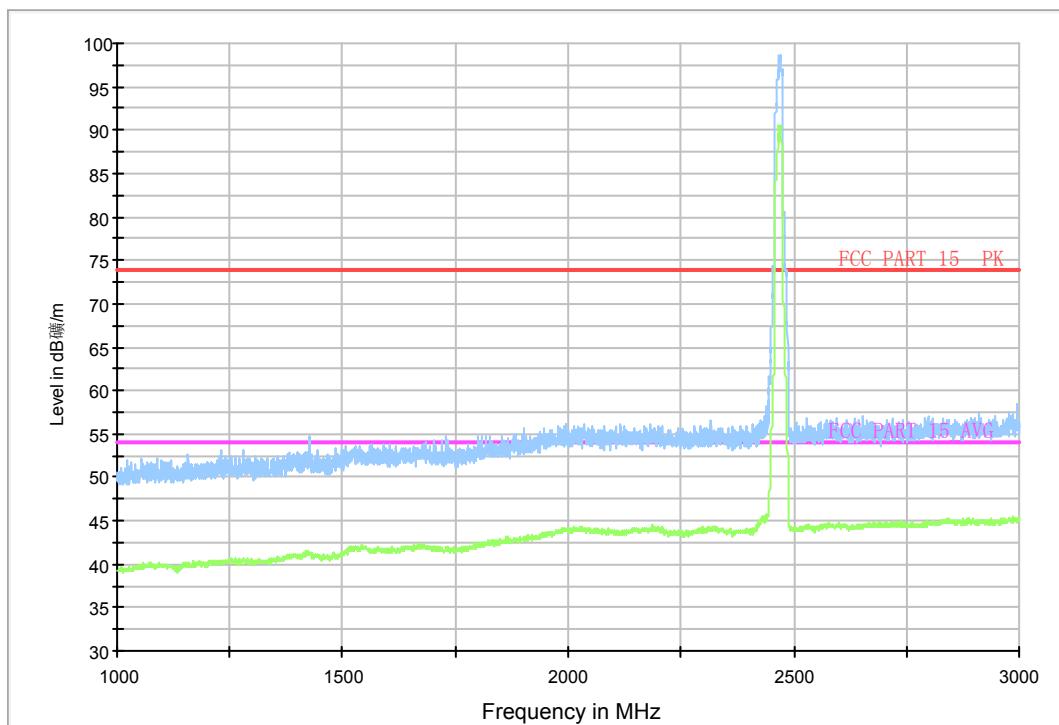
**Fig.A.6.2.27 Transmitter Spurious Emission - Radiated (802.11g, Ch11, 3 GHz-18 GHz)**

RE-Power\_2.45G-2.5GHz

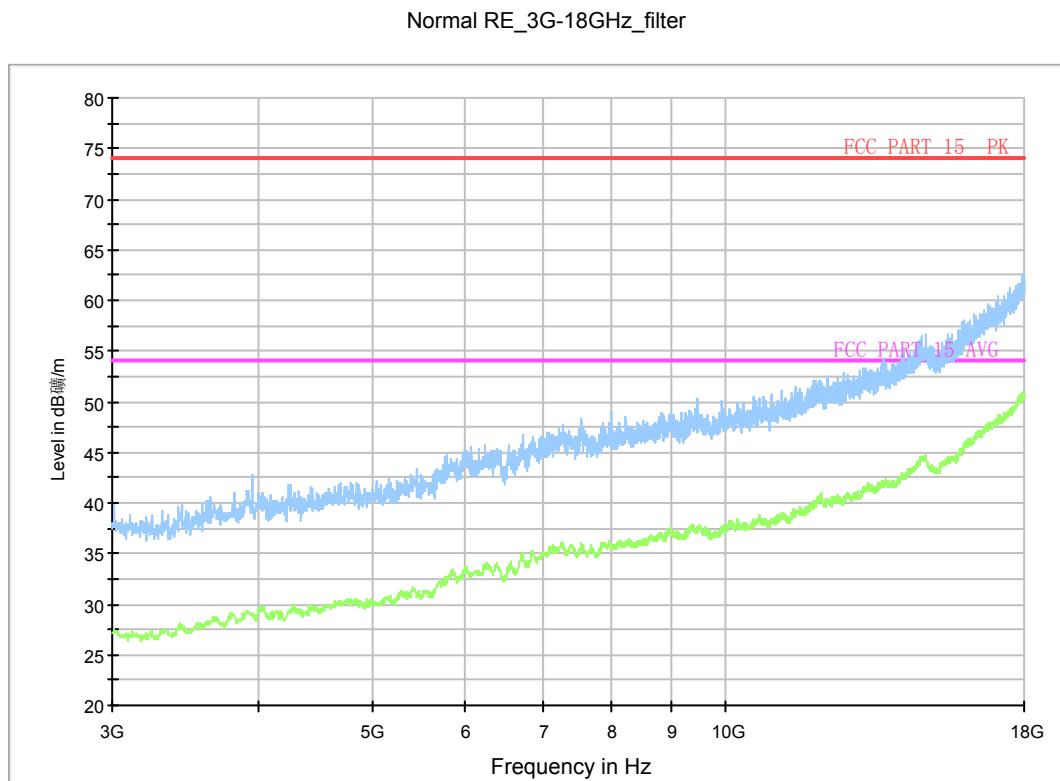


**Fig.A.6.2.28 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch12, 2.45 GHz - 2.50GHz**

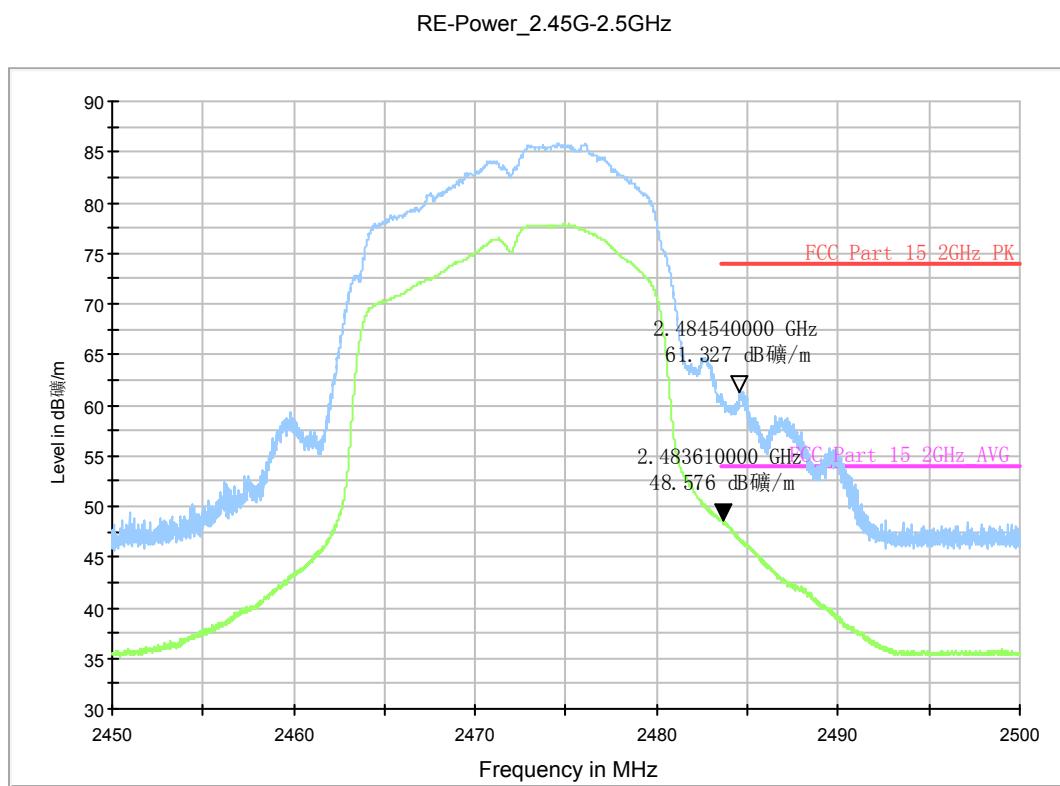
RE\_WLAN\_1G-3GHz



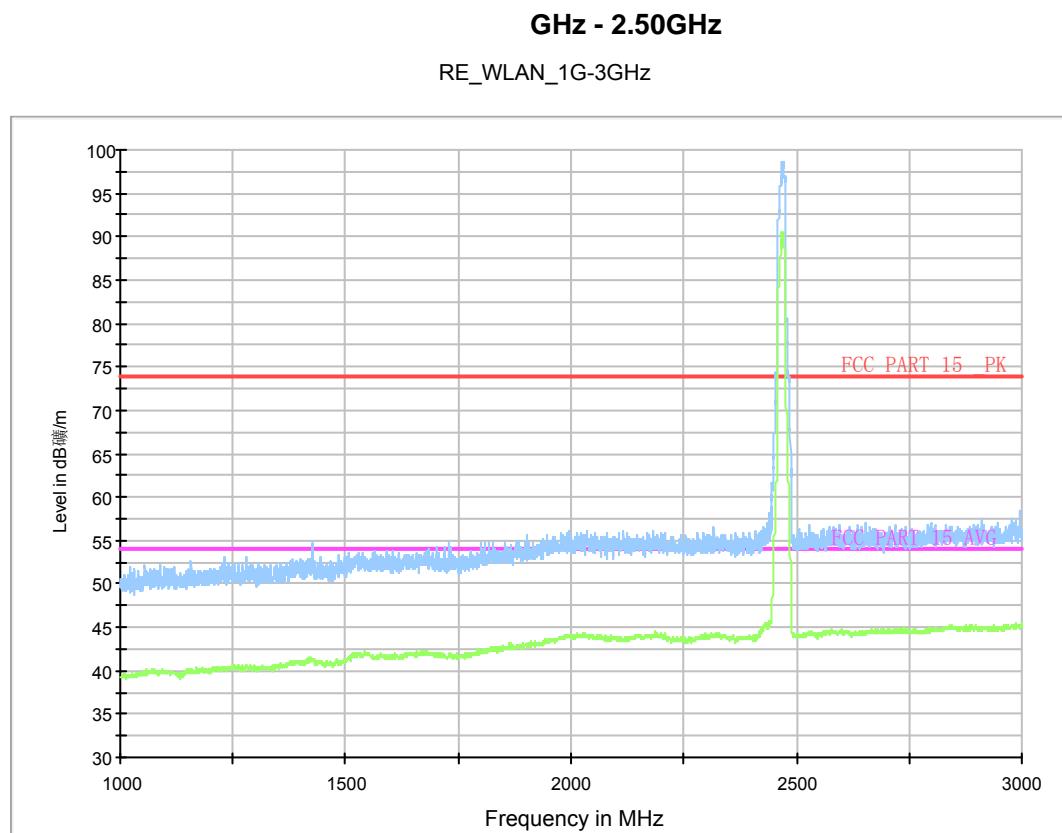
**Fig.A.6.2.29 Transmitter Spurious Emission - Radiated (802.11g, Ch12, 1 GHz-3 GHz)**



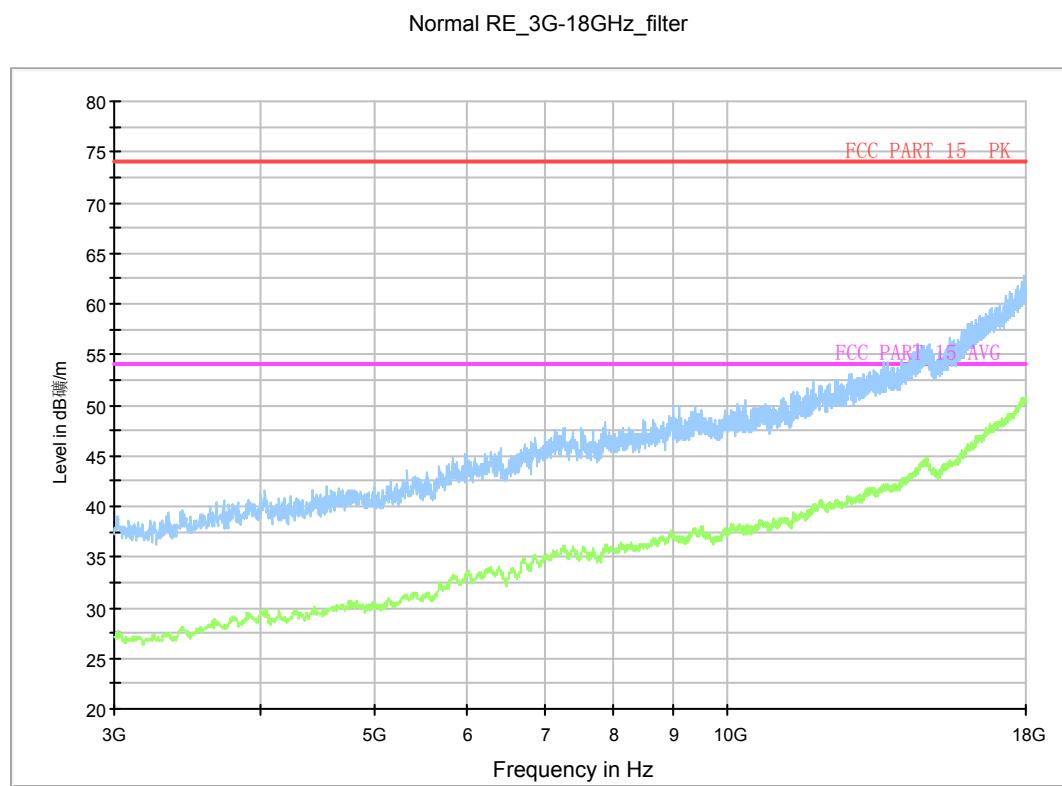
**Fig.A.6.2.30 Transmitter Spurious Emission - Radiated (802.11g, Ch12, 3 GHz-18 GHz)**



**Fig.A.6.2.31 Transmitter Spurious Emission - Radiated (Power): 802.11g, ch13, 2.45**

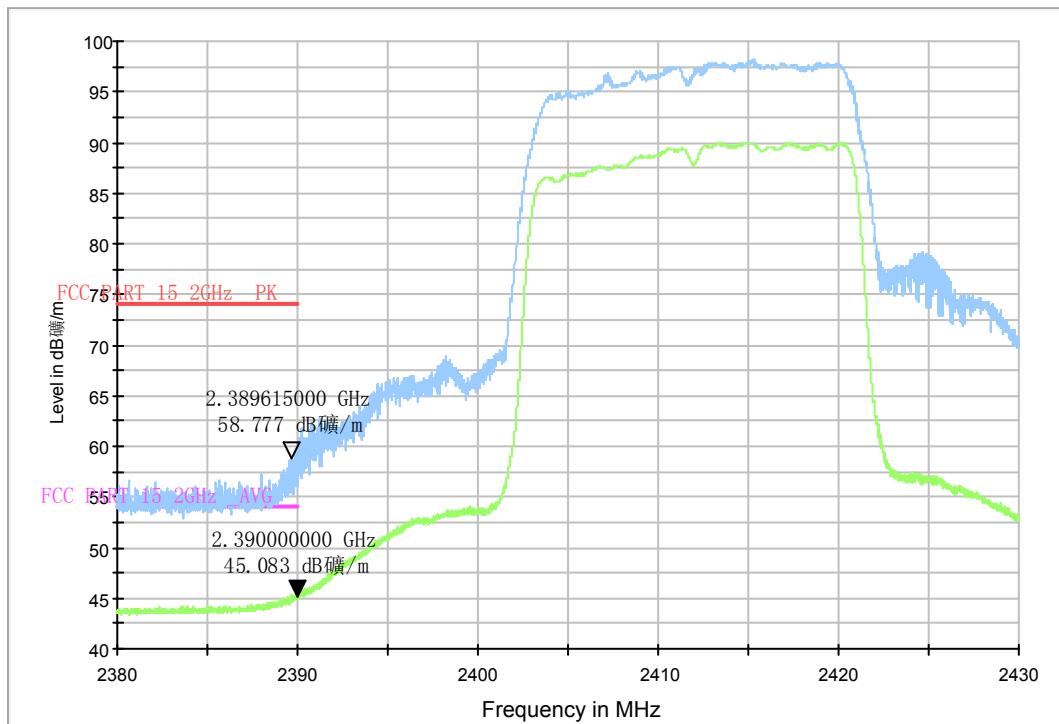


**Fig.A.6.2.32 Transmitter Spurious Emission - Radiated (802.11g, Ch13, 1 GHz-3 GHz)**



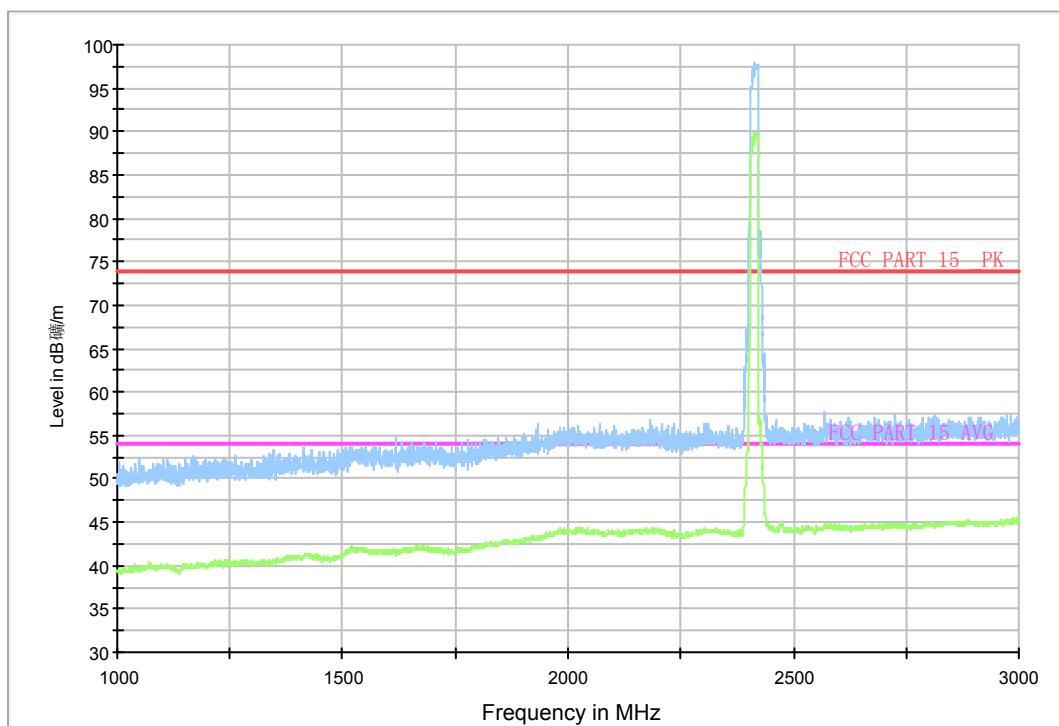
**Fig.A.6.2.33 Transmitter Spurious Emission - Radiated (802.11g, Ch13, 3 GHz-18 GHz)**

RE-Power\_2.38G-2.43GHz

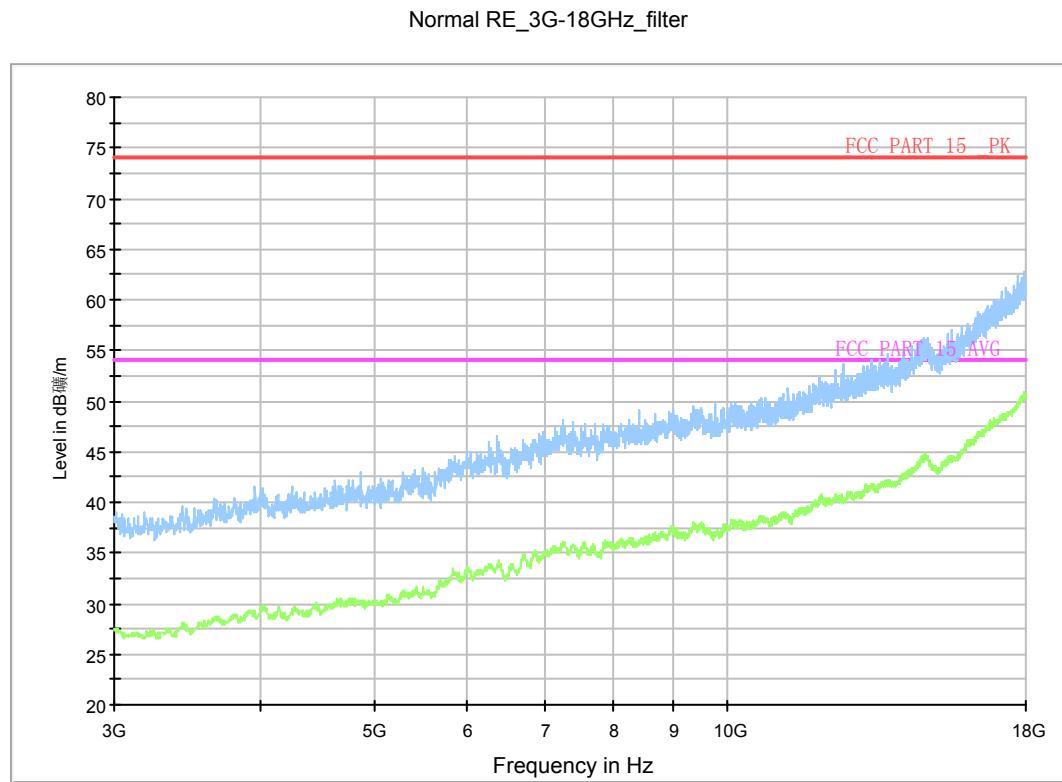


**Fig.A.6.2.34 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch1, 2.38 GHz - 2.45GHz**

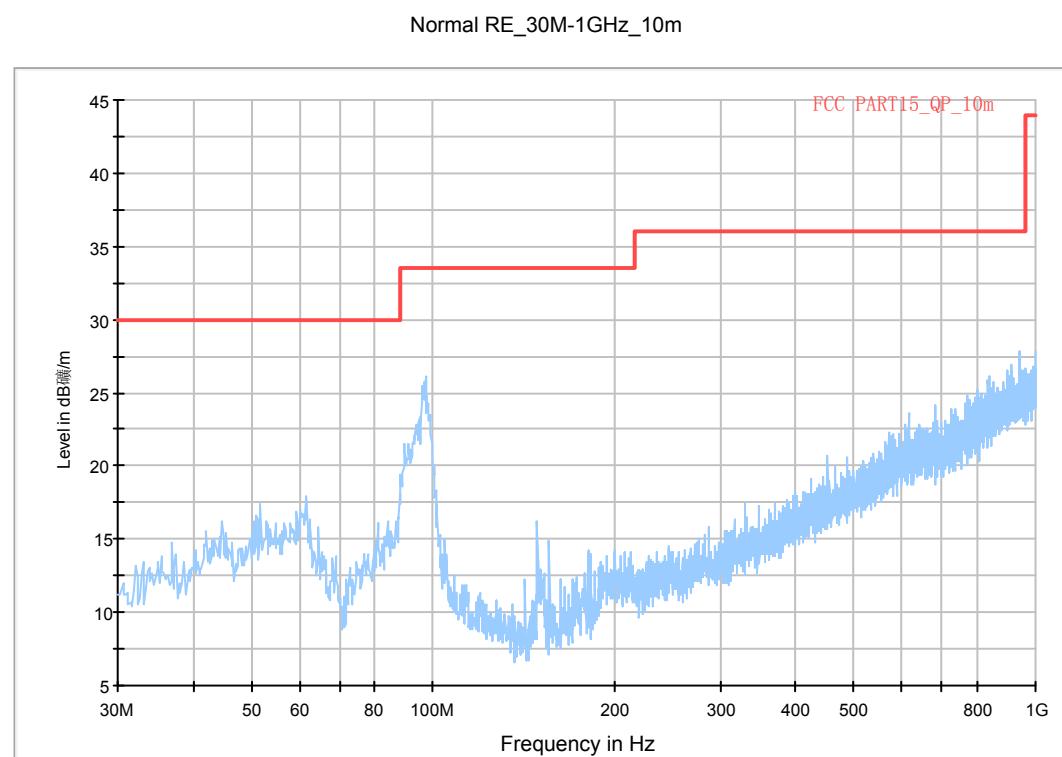
RE\_WLAN\_1G-3GHz



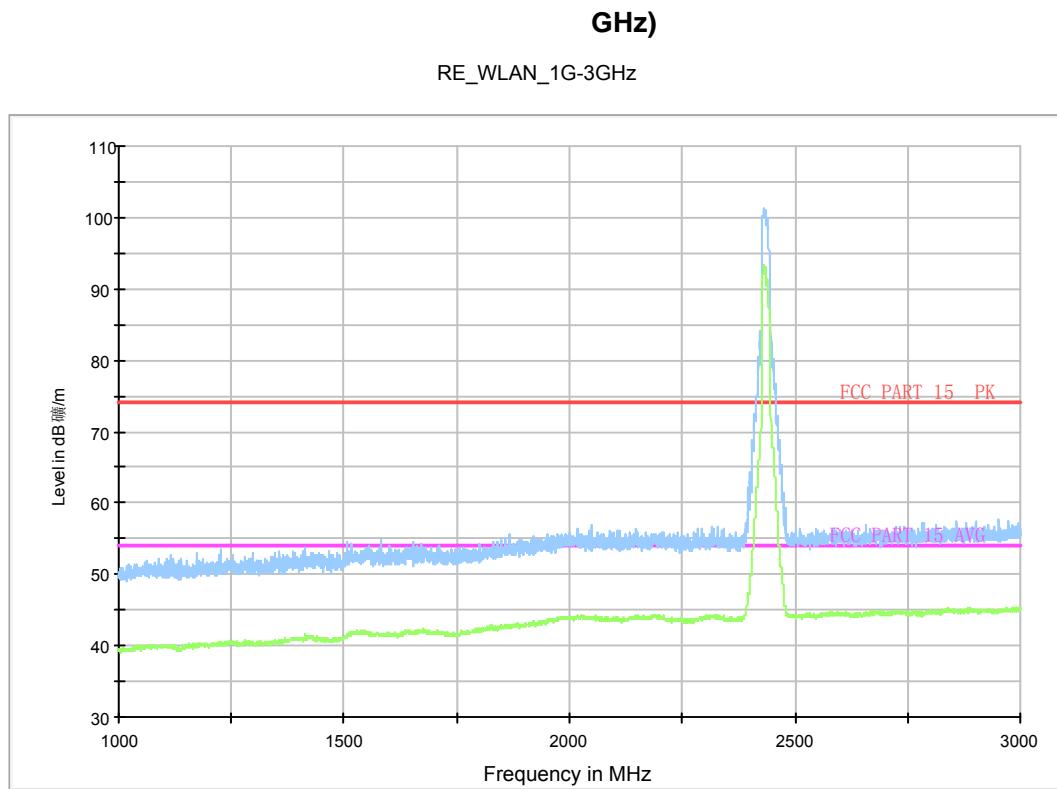
**Fig.A.6.2.35 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch1, 1 GHz-3 GHz)**



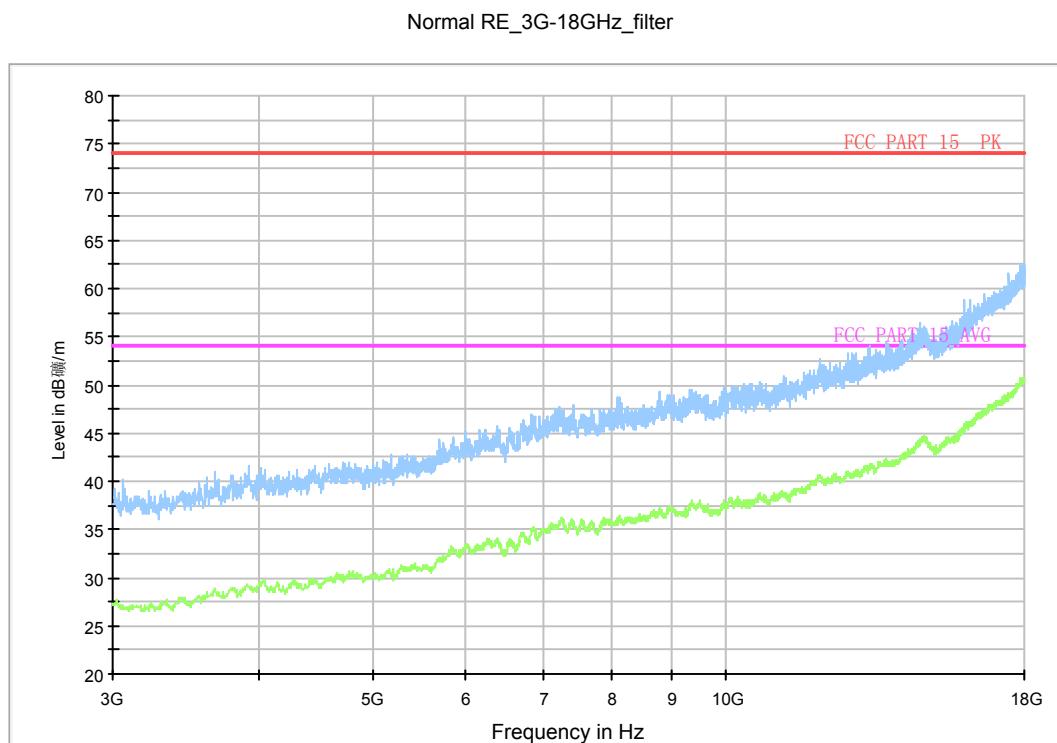
**Fig.A.6.2.36 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch1, 3 GHz-18 GHz)**



**Fig.A.6.2.37 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 30 MHz-1**

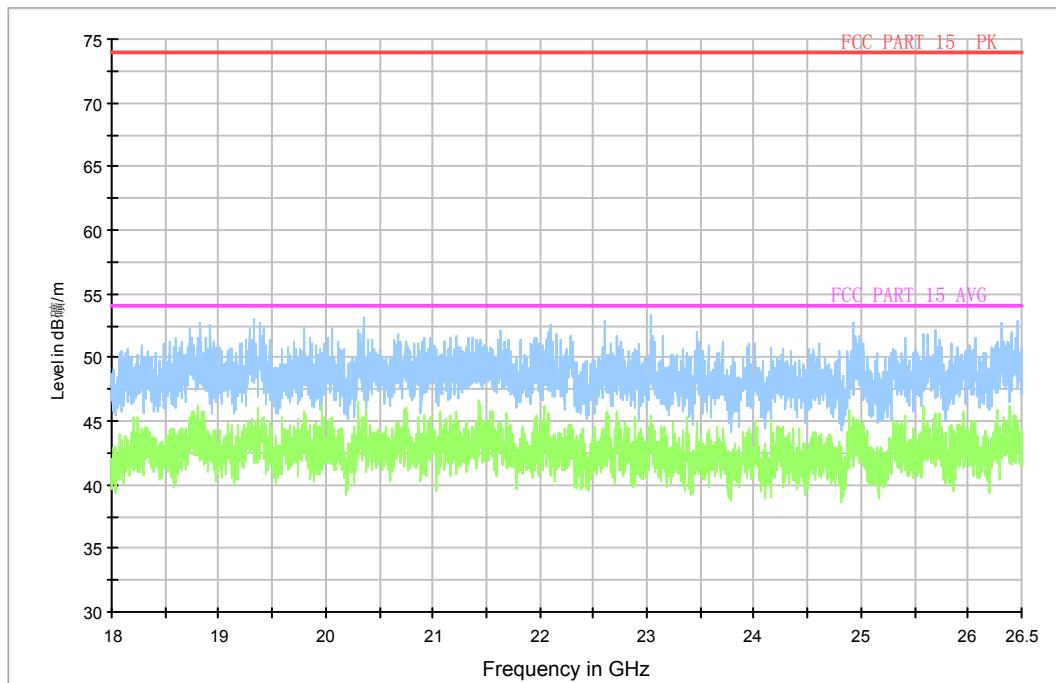


**Fig.A.6.2.38 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 1 GHz-3 GHz)**



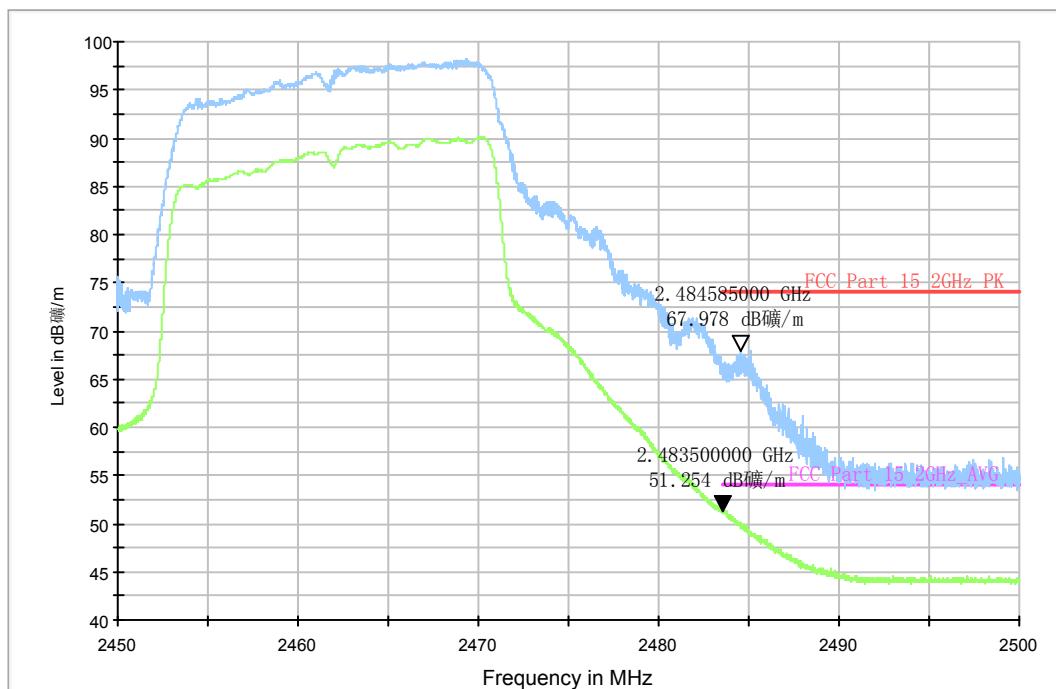
**Fig.A.6.2.39 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 3 GHz-18 GHz)**

Normal RE\_18G-26.5GHz



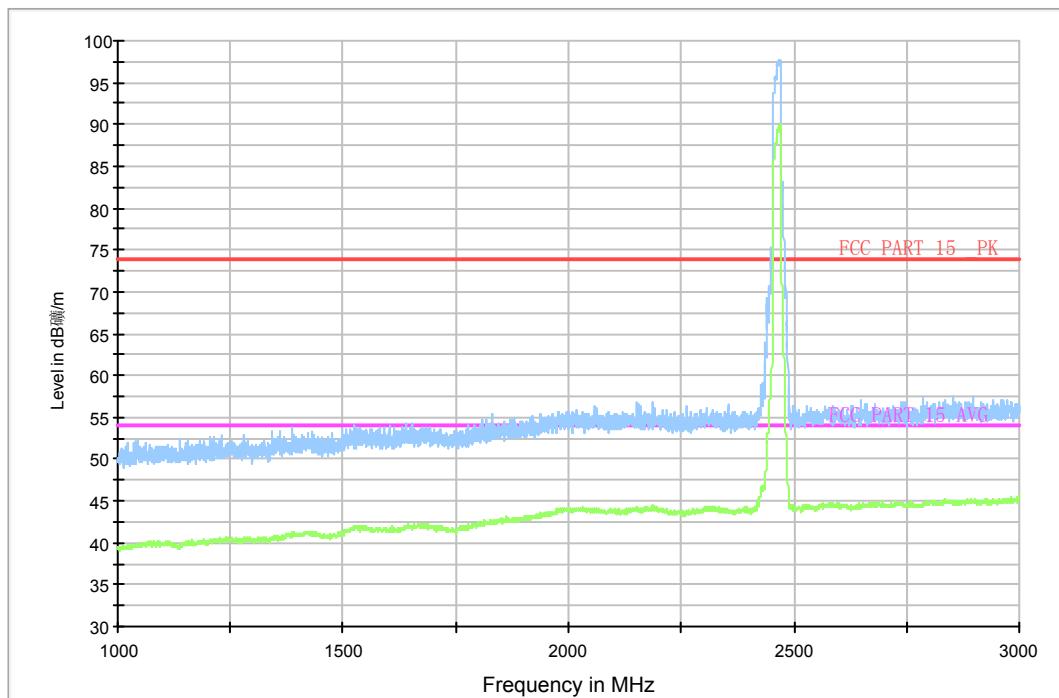
**Fig.A.6.2.40 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch6, 18GHz – 26.5GHz)**

RE-Power\_2.45G-2.5GHz



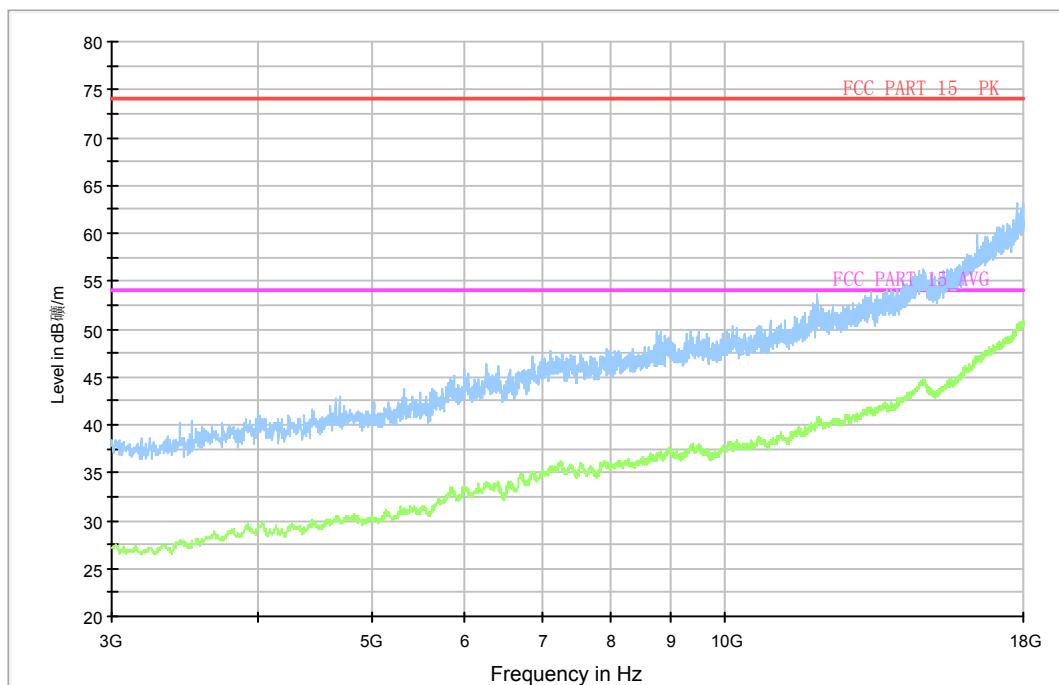
**Fig.A.6.2.41 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch11, 2.45 GHz - 2.50GHz**

RE\_WLAN\_1G-3GHz



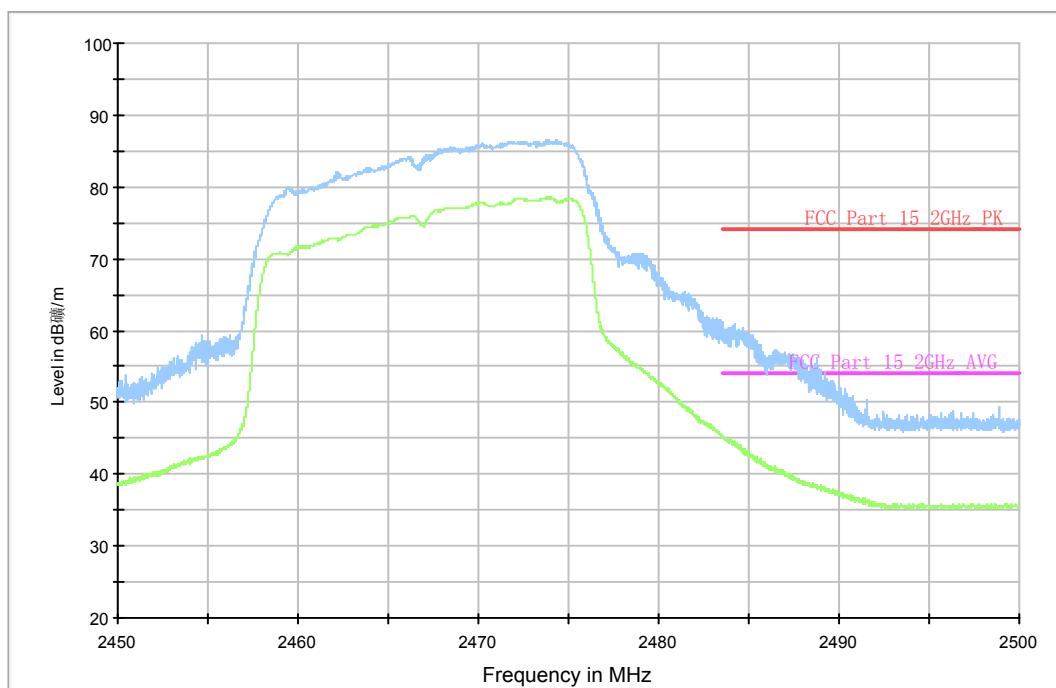
**Fig.A.6.2.42 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch11, 1 GHz-3 GHz)**

Normal RE\_3G-18GHz\_filter



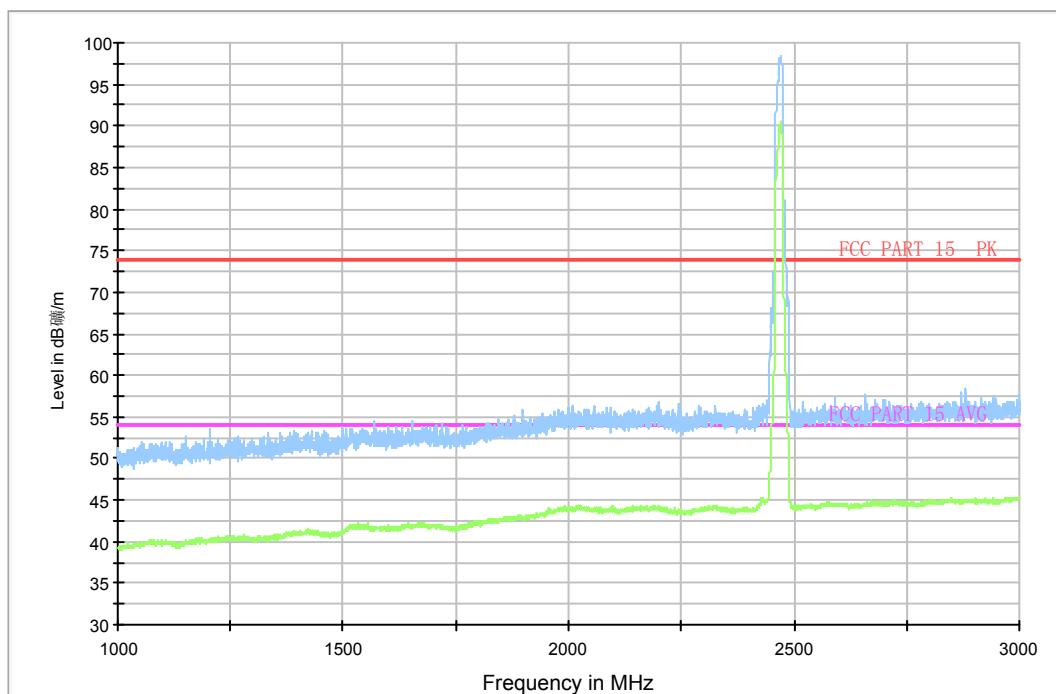
**Fig.A.6.2.43 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch11, 3 GHz-18 GHz)**

RE-Power\_2.45G-2.5GHz

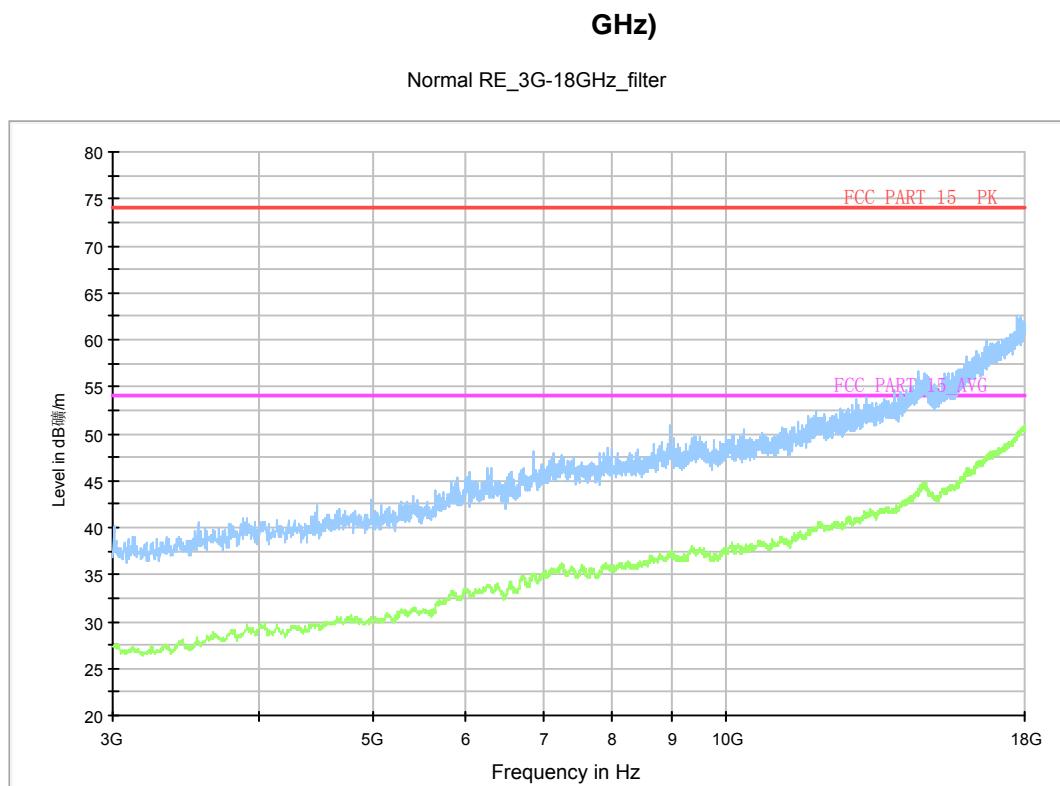


**Fig.A.6.2.44 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch12, 2.45 GHz - 2.50GHz**

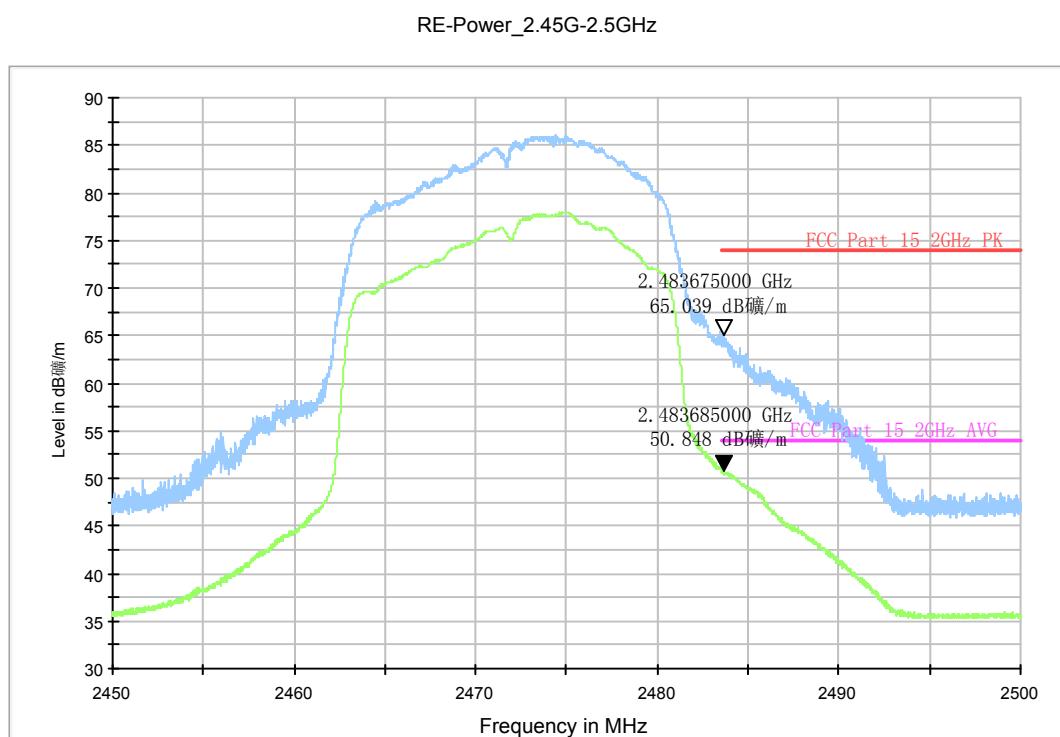
RE\_WLAN\_1G-3GHz



**Fig.A.6.2.45 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch12, 1 GHz-3 GHz)**

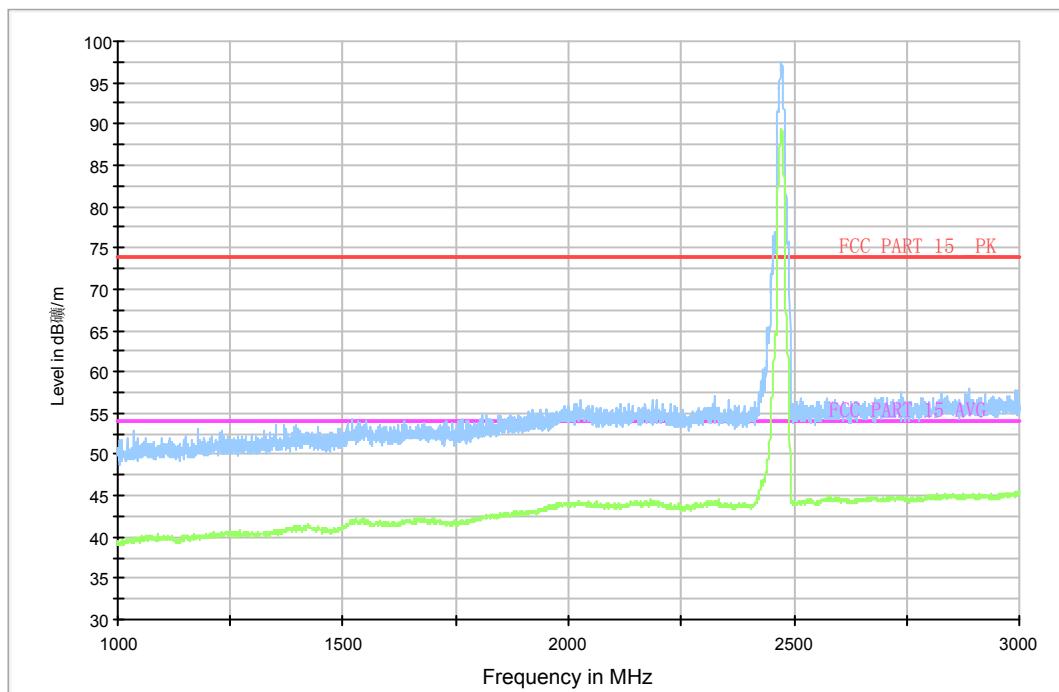


**Fig.A.6.2.46 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch12, 3 GHz-18 GHz)**



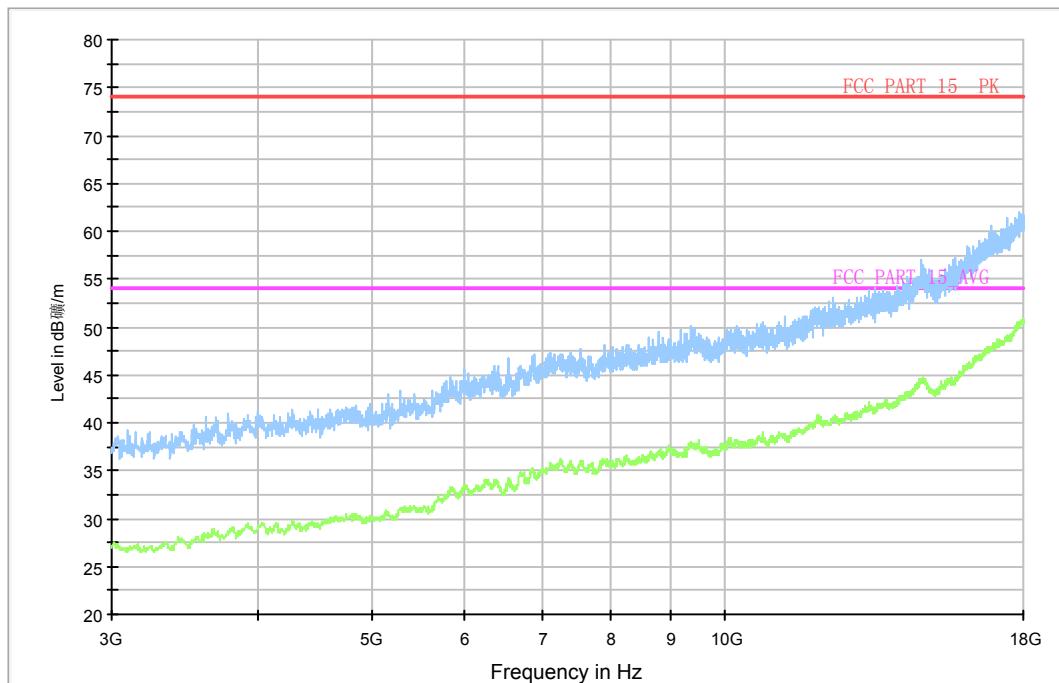
**Fig.A.6.2.47 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT20, ch13, 2.45 GHz - 2.50GHz**

RE\_WLAN\_1G-3GHz



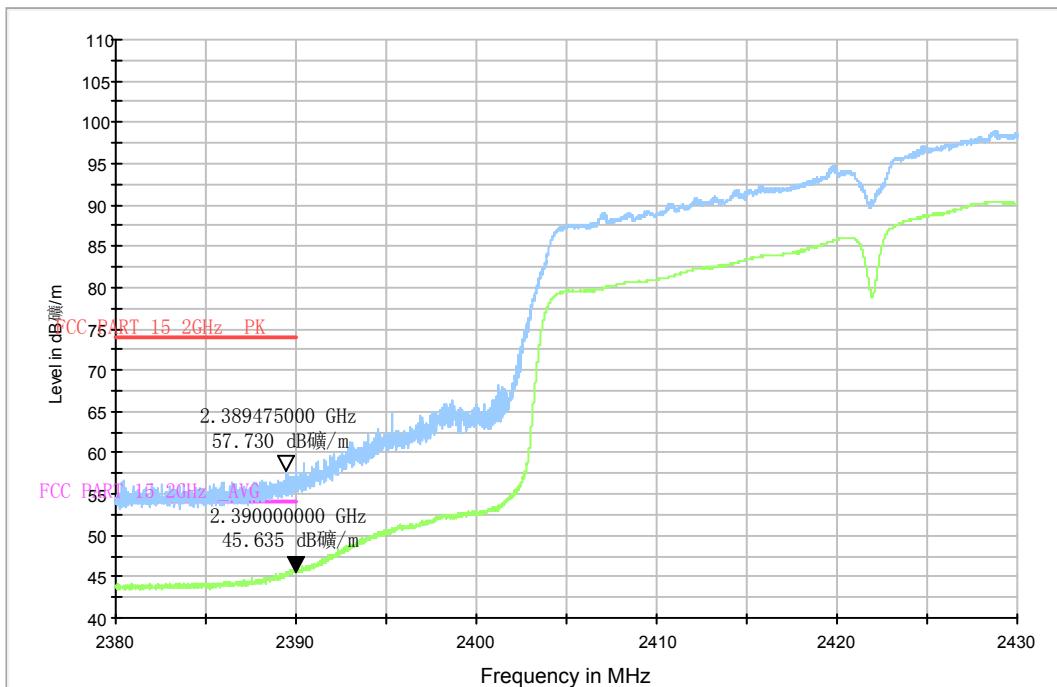
**Fig.A.6.2.48 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch13, 1 GHz-3 GHz)**

Normal RE\_3G-18GHz\_filter



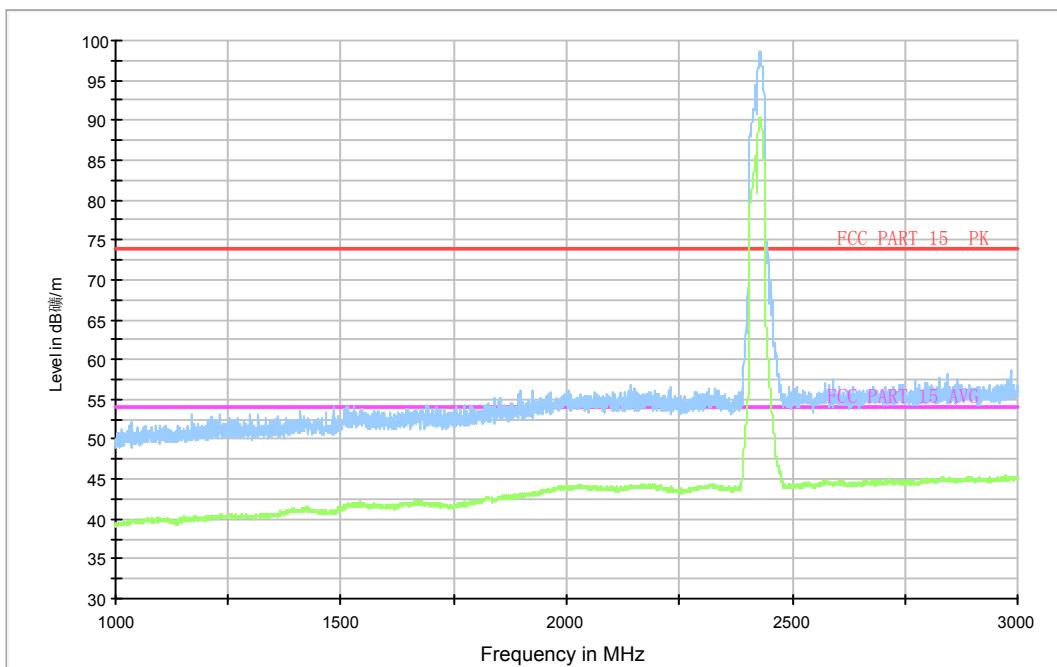
**Fig.A.6.2.49 Transmitter Spurious Emission - Radiated (802.11n-HT20, Ch13, 3 GHz-18 GHz)**

RE-Power\_2.38G-2.43GHz

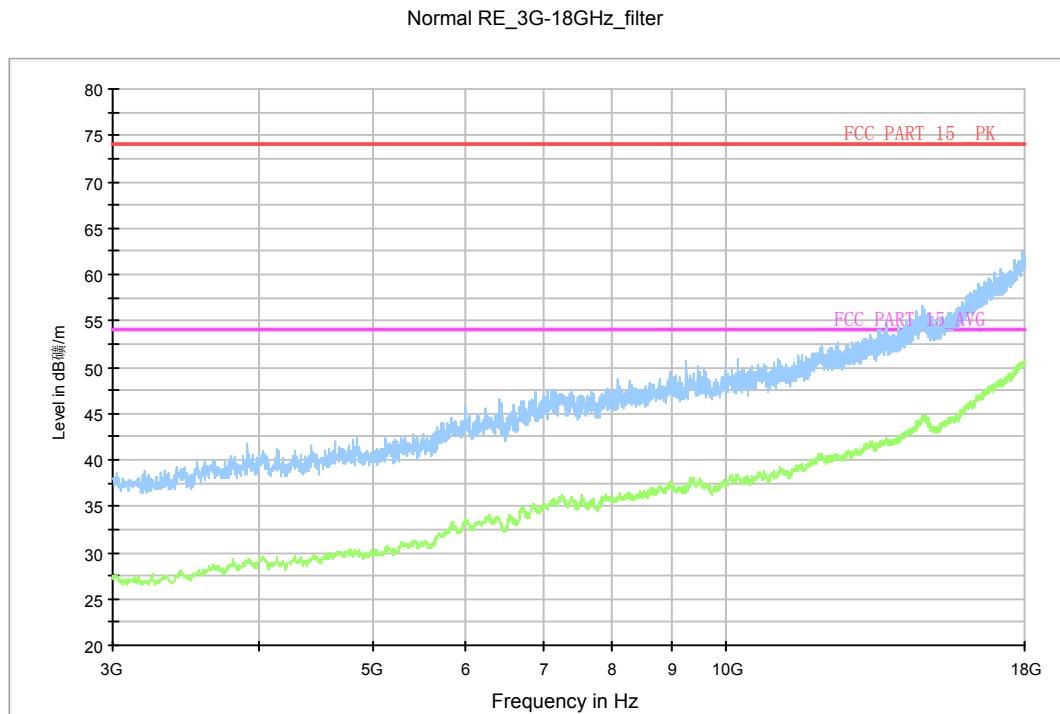


**Fig.A.6.2.50 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch3, 2.38 GHz - 2.45GHz**

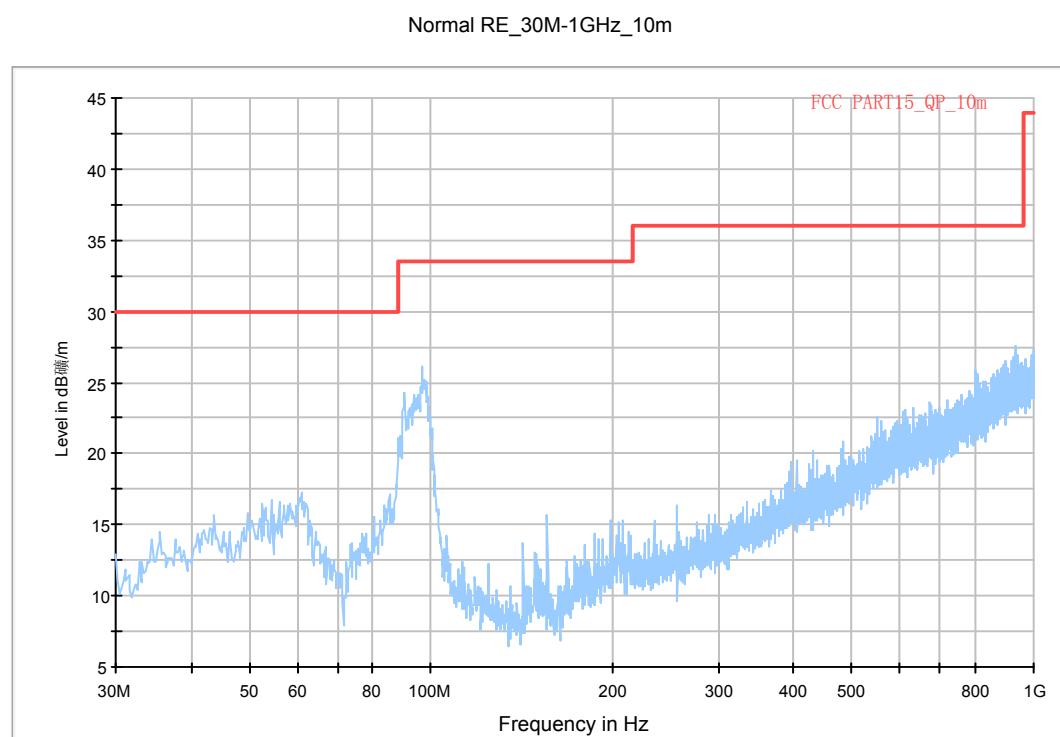
RE\_WLAN\_1G-3GHz



**Fig.A.6.2.51 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch3, 1 GHz-3 GHz)**

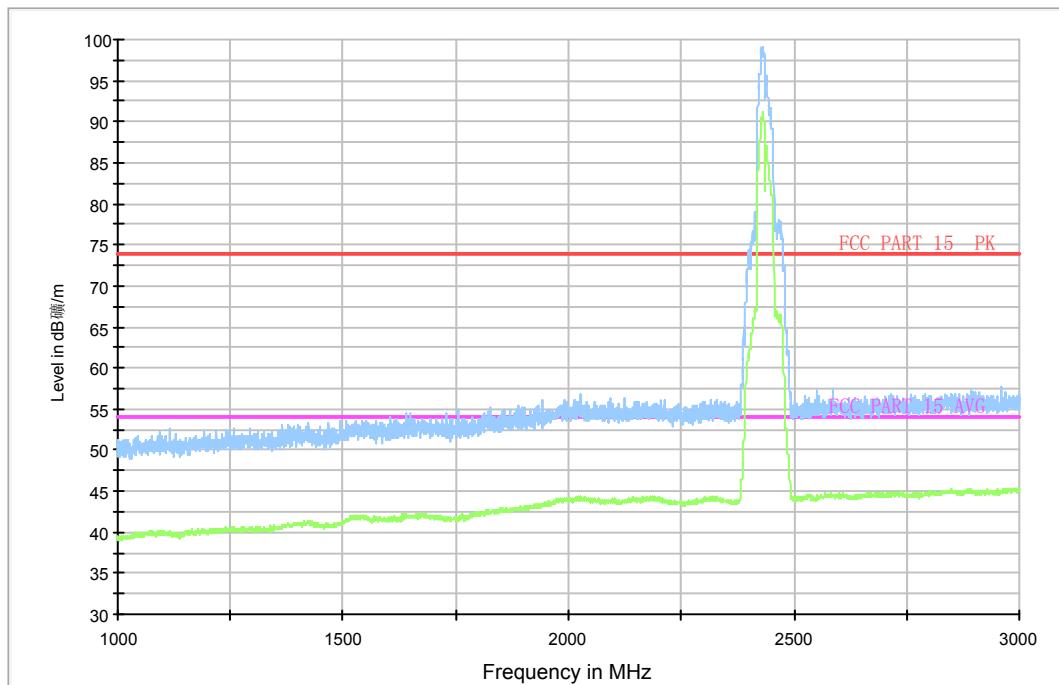


**Fig.A.6.2.52 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch3, 3 GHz-18 GHz)**



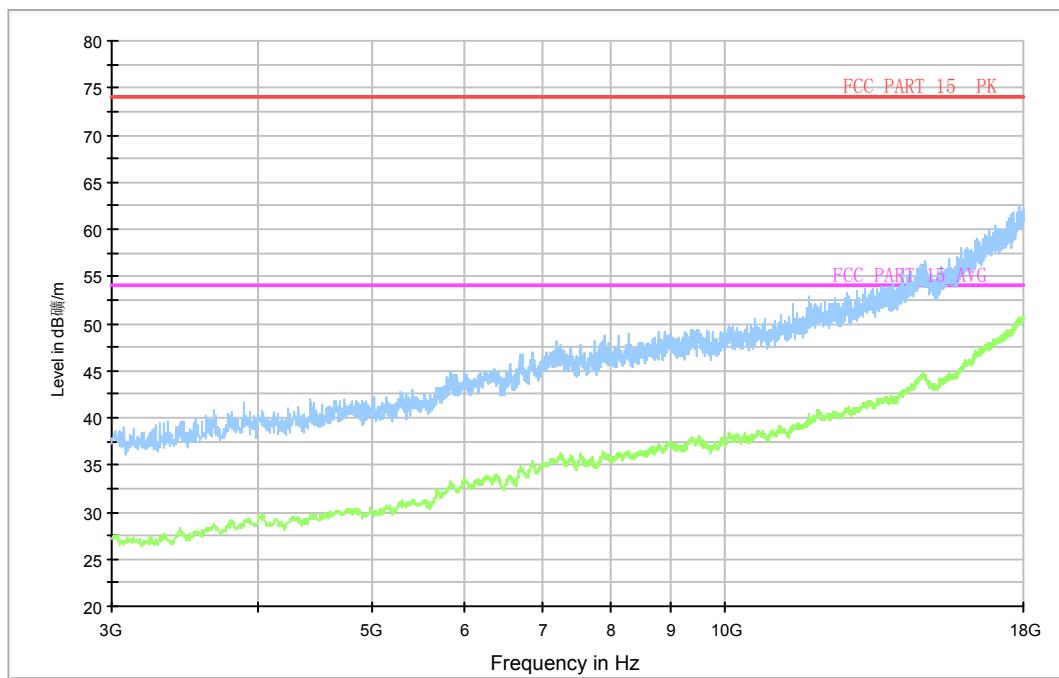
**Fig.A.6.2.53 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 30 MHz-1 GHz)**

RE\_WLAN\_1G-3GHz



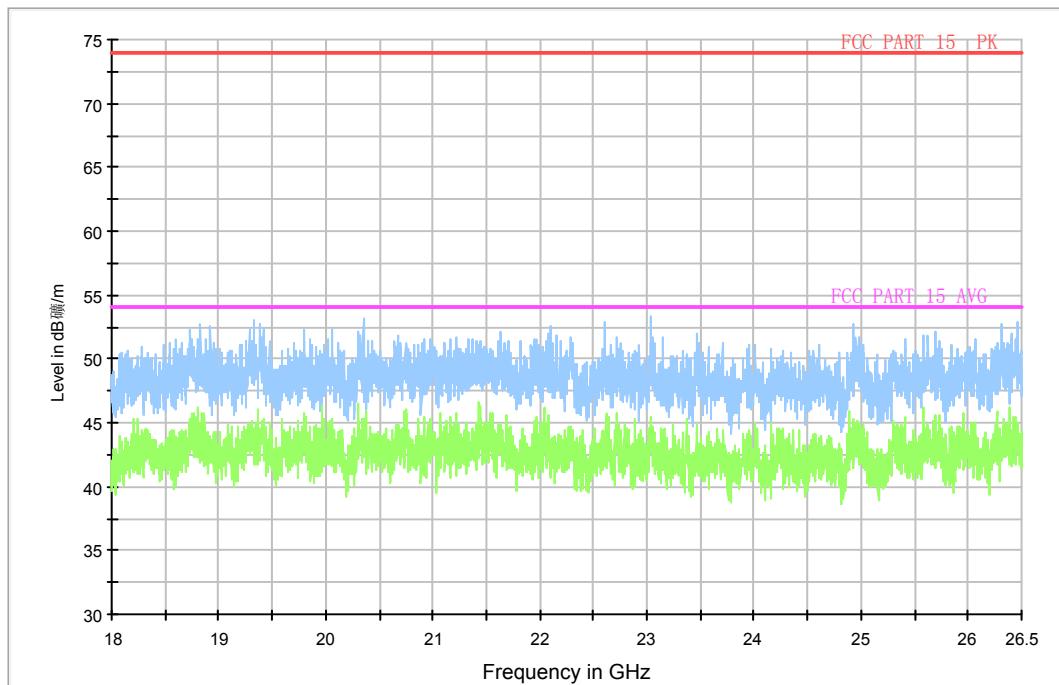
**Fig.A.6.2.54 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 1 GHz-3 GHz)**

Normal RE\_3G-18GHz\_filter



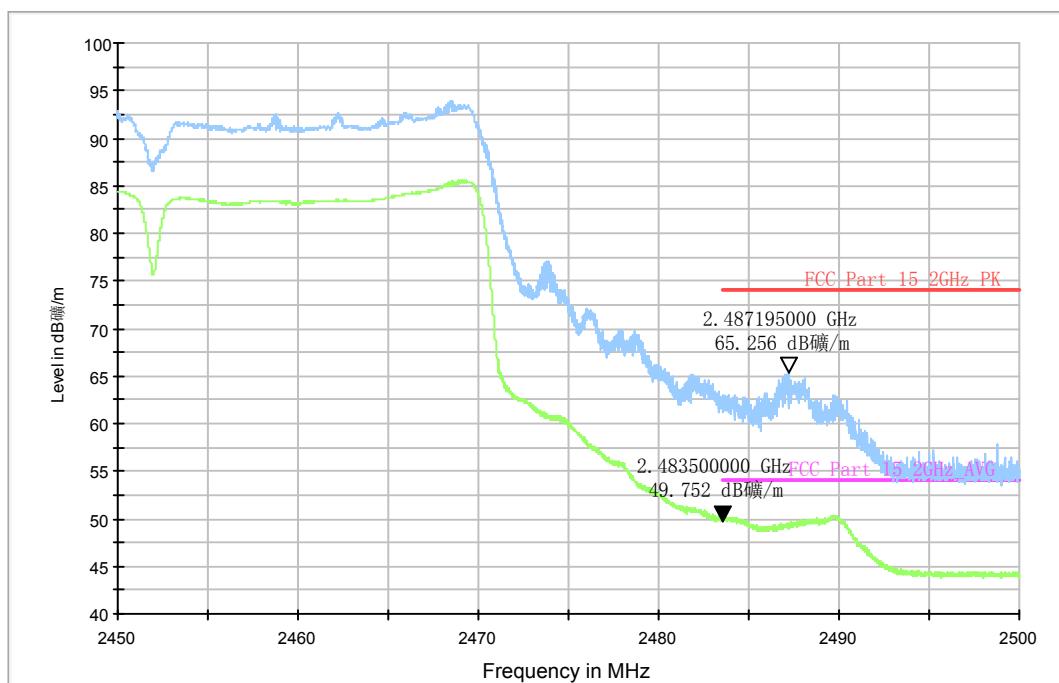
**Fig.A.6.2.55 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 3 GHz-18 GHz)**

Normal RE\_18G-26.5GHz



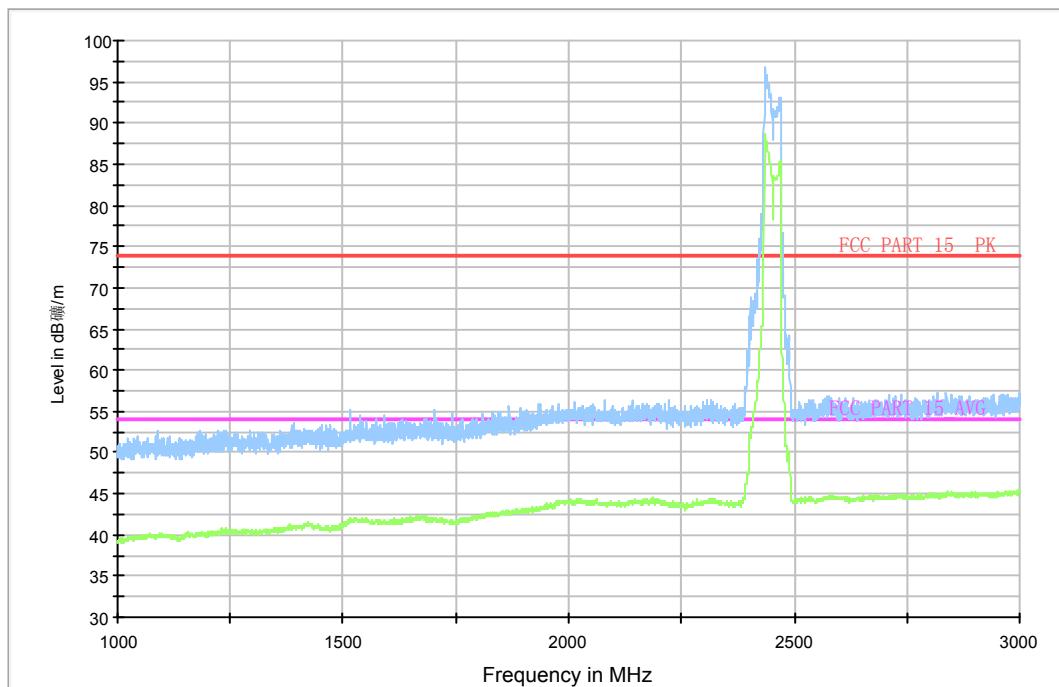
**Fig.A.6.2.56 Transmitter Spurious Emission - Radiated (802.11n-HT40, Ch6, 18GHz – 26.5GHz)**

RE-Power\_2.45G-2.5GHz



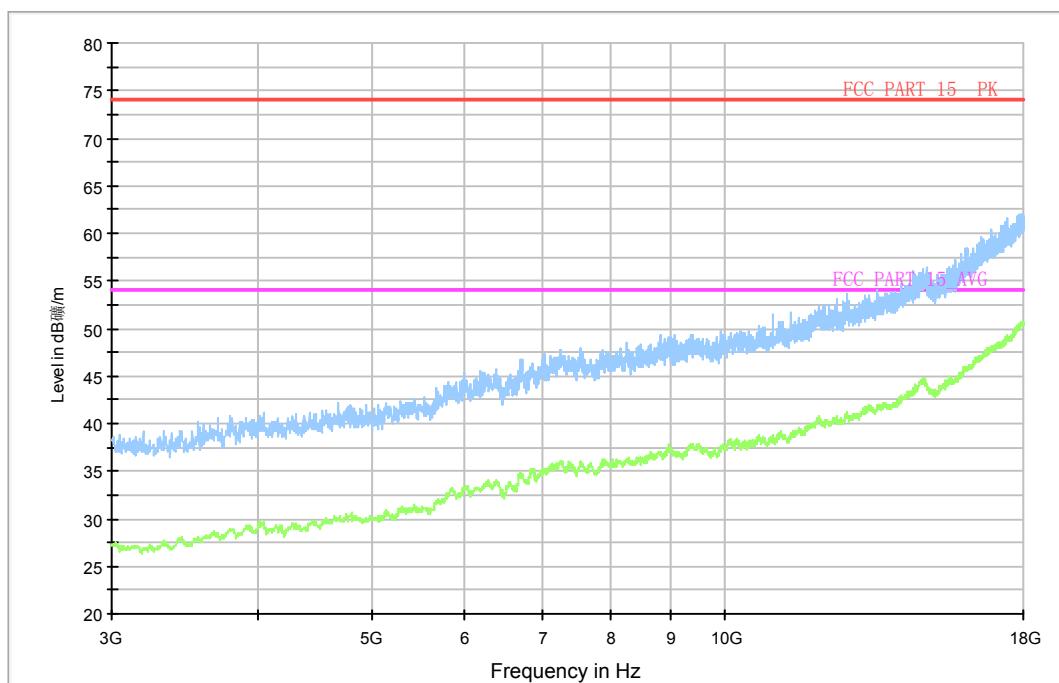
**Fig.A.6.2.57 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch9, 2.45 GHz - 2.50GHz**

RE\_WLAN\_1G-3GHz



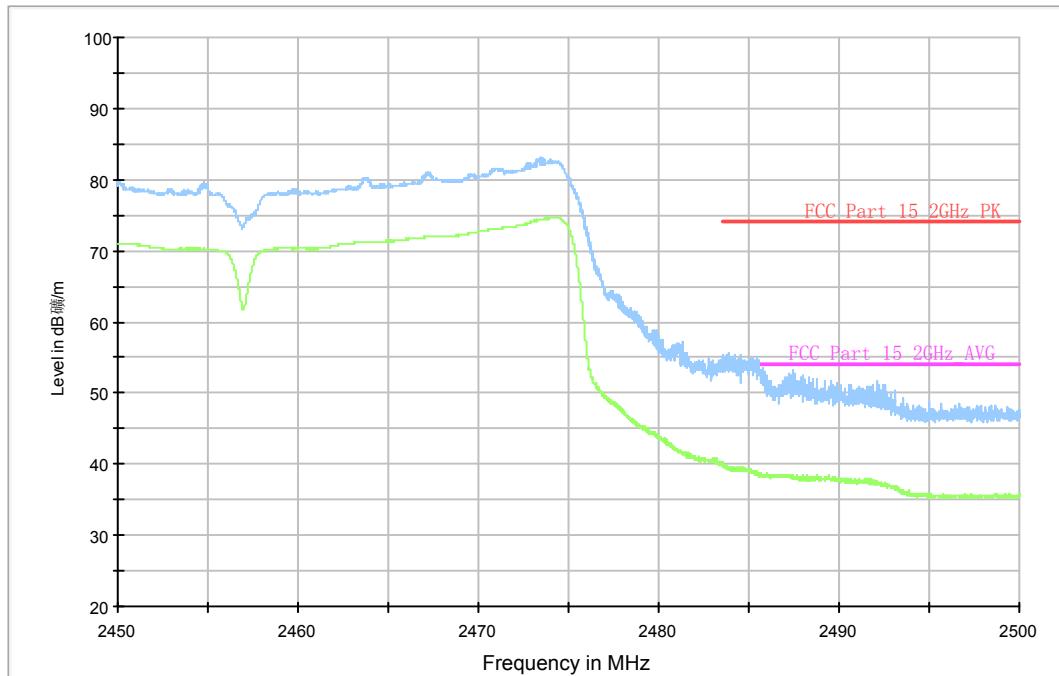
**Fig.A.6.2.58 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch9, 1 GHz-3 GHz)**

Normal RE\_3G-18GHz\_filter



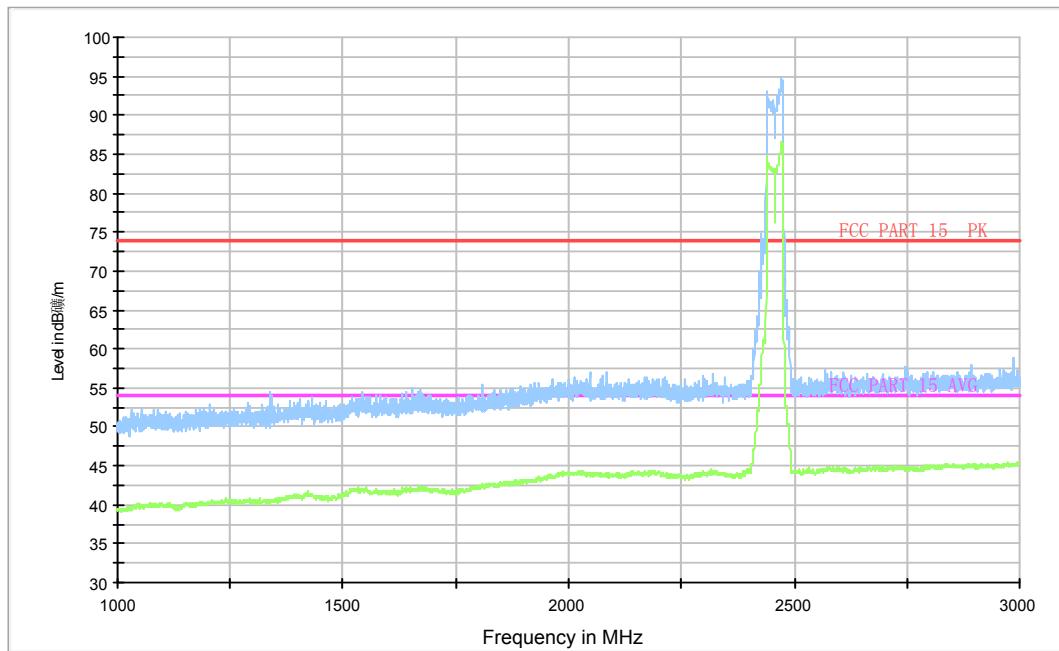
**Fig.A.6.2.59 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch9, 3 GHz-18 GHz)**

RE-Power\_2.45G-2.5GHz

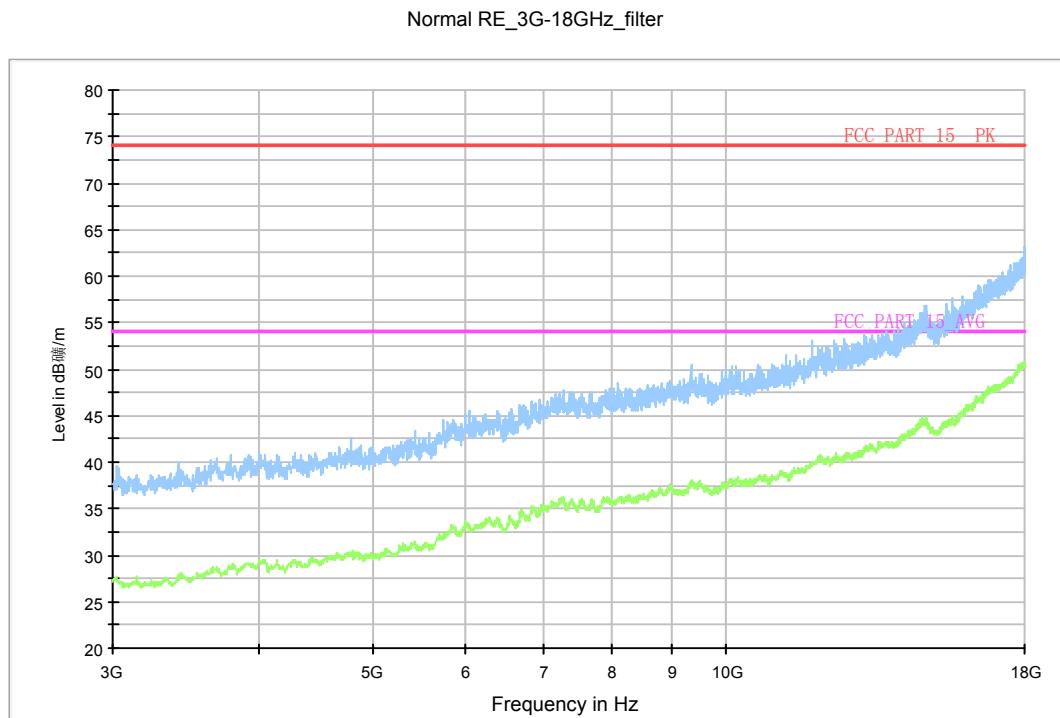


**Fig.A.6.2.60 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch10, 2.45 GHz - 2.50GHz**

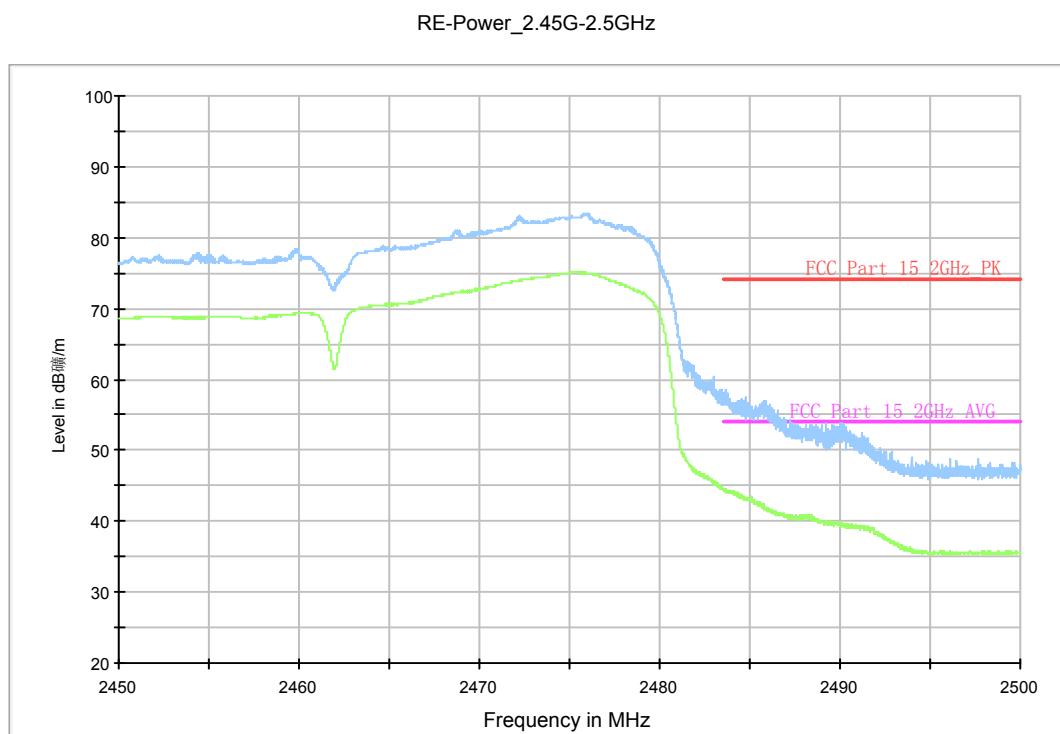
RE\_WLAN\_1G-3GHz



**Fig.A.6.2.61 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch10, 1 GHz-3 GHz)**

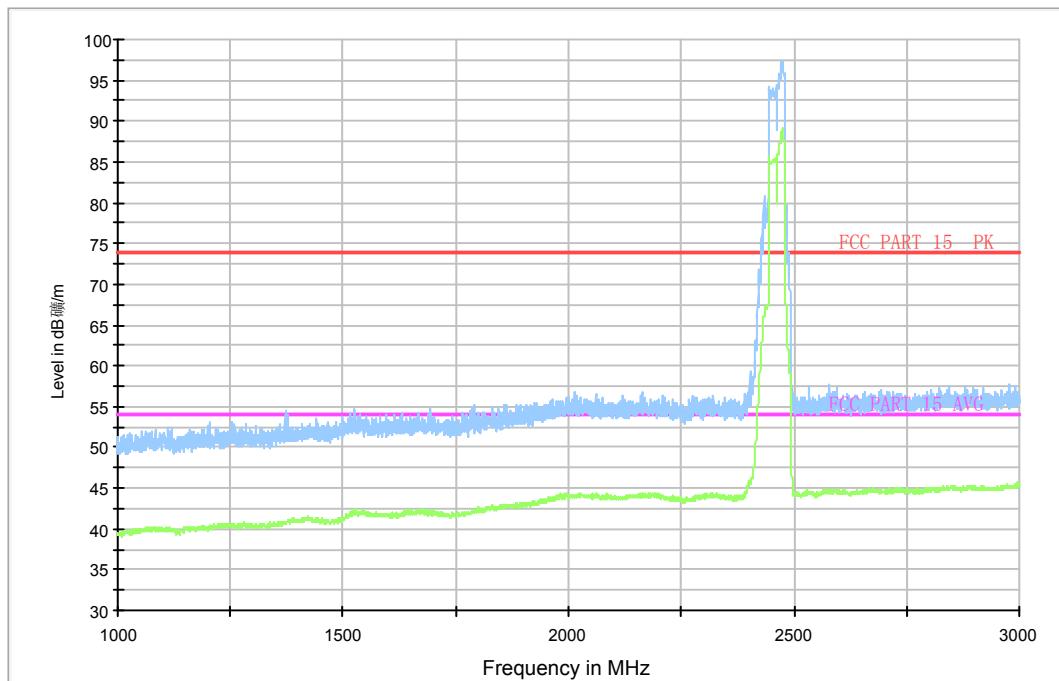


**Fig.A.6.2.62 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch10, 3 GHz-18 GHz)**



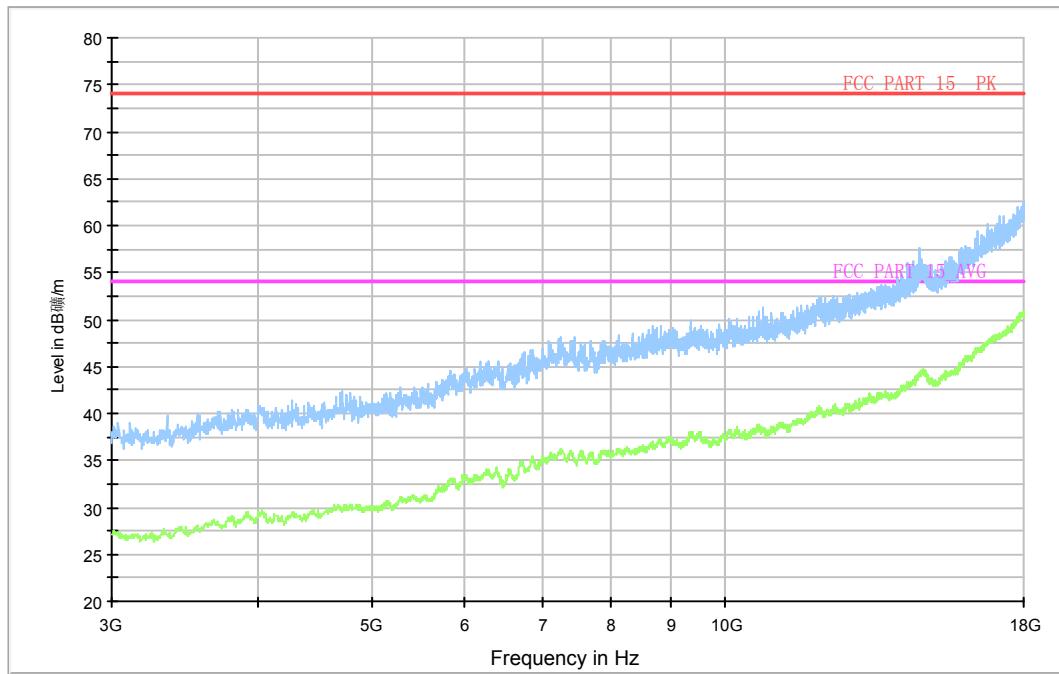
**Fig.A.6.2.63 Transmitter Spurious Emission - Radiated (Power): 802.11n-HT40, ch11, 2.45 GHz - 2.50GHz**

RE\_WLAN\_1G-3GHz



**Fig.A.6.2.64 Transmitter Spurious Emission - Radiated (802.11n-HT40, ch11, 1 GHz-3 GHz)**

Normal RE\_3G-18GHz\_filter



**Fig.A.6.2.65 Transmitter Spurious Emission - Radiated (802.11n-HT40, 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.<sup>36</sup> 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)

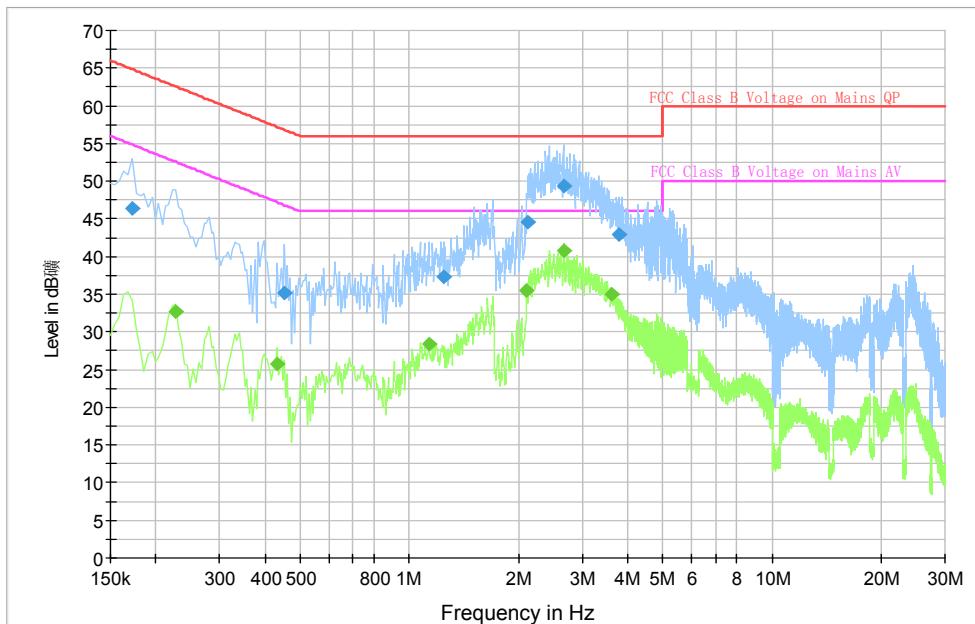
Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion	
		With charger			
		802.11b	Idle		
0.15 to 0.5	66 to 56	Fig.A.7.1	Fig.A.7.2	P	
0.5 to 5	56				
5 to 30	60				

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 (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion	
		With charger			
		802.11b	Idle		
0.15 to 0.5	56 to 46	Fig.A.7.1	Fig.A.7.2	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.A.7.1 AC Powerline Conducted Emission-802.11b-ch6-11Mbps**

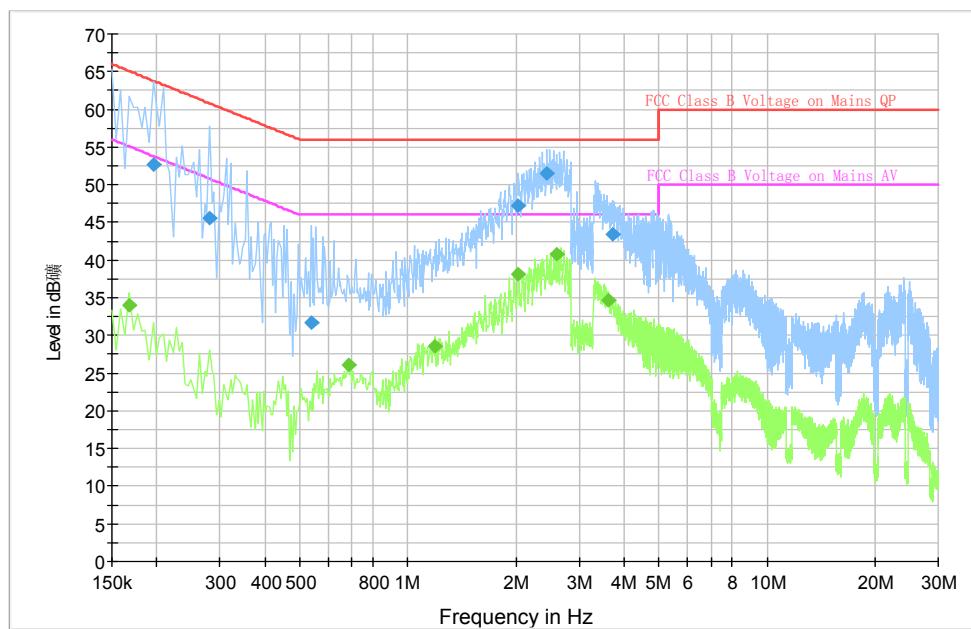
Note: The graphic result above is the maximum of the measurements for both phase line and neutral line.

## Final Result 1

Frequency (MHz)	QuasiPeak (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.172500	46.4	2000.0	9.000	On	L1	19.8	18.5	64.8
0.451500	35.1	2000.0	9.000	On	N	19.9	21.7	56.8
1.243500	37.2	2000.0	9.000	On	L1	19.7	18.8	56.0
2.116500	44.6	2000.0	9.000	On	L1	19.6	11.4	56.0
2.661000	49.3	2000.0	9.000	On	L1	19.4	6.7	56.0
3.786000	43.0	2000.0	9.000	On	L1	19.5	13.0	56.0

## Final Result 2

Frequency (MHz)	CAverage (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.226500	32.6	2000.0	9.000	On	N	19.8	19.9	52.6
0.433500	25.7	2000.0	9.000	On	N	19.9	21.5	47.2
1.131000	28.4	2000.0	9.000	On	L1	19.7	17.6	46.0
2.107500	35.4	2000.0	9.000	On	L1	19.6	10.6	46.0
2.670000	40.7	2000.0	9.000	On	L1	19.4	5.3	46.0
3.619500	35.1	2000.0	9.000	On	L1	19.5	10.9	46.0


**Fig.A.7.2 AC Powerline Conducted Emission-Idle-ch6-11Mbps**

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

Final Result 1

Frequency (MHz)	QuasiPeak (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.195000	52.6	2000.0	9.000	On	L1	19.8	11.2	63.8
0.280500	45.6	2000.0	9.000	On	L1	19.8	15.2	60.8
0.537000	31.6	2000.0	9.000	On	L1	19.9	24.4	56.0
2.031000	47.2	2000.0	9.000	On	L1	19.7	8.8	56.0
2.431500	51.5	2000.0	9.000	On	L1	19.1	4.5	56.0
3.727500	43.4	2000.0	9.000	On	L1	19.5	12.6	56.0

Final Result 2

Frequency (MHz)	CAverage (dB $\mu$ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB $\mu$ V)
0.168000	34.0	2000.0	9.000	On	L1	19.8	21.1	55.1
0.685500	26.1	2000.0	9.000	On	N	19.8	19.9	46.0
1.189500	28.6	2000.0	9.000	On	L1	19.7	17.4	46.0
2.031000	38.2	2000.0	9.000	On	L1	19.7	7.8	46.0
2.607000	40.9	2000.0	9.000	On	L1	19.2	5.1	46.0
3.624000	34.7	2000.0	9.000	On	L1	19.5	11.3	46.0

## ANNEX B: Accreditation Certificate



**China National Accreditation Service for Conformity Assessment**

### **LABORATORY ACCREDITATION CERTIFICATE**

**(No. CNAS L0570 )**

**Telecommunication Technology Labs,**

**Academy of Telecommunication Research, MIIT**

No.52, Huayuan North Road, Haidian District, Beijing, China

No.51, Xueyuan Road, Haidian District, Beijing, China

*to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing and calibration.*

*The scope of accreditation is detailed in the attached schedule bearing the same accreditation number as above. The schedule forms an integral part of this certificate.*

**Date of Issue:** 2014-10-29

**Date of Expiry:** 2017-06-19

**Date of Initial Accreditation:** 1998-07-03

A handwritten signature in black ink, likely belonging to Wang Lin, who is mentioned in the text below.

Signed on behalf of China National Accreditation Service  
for Conformity Assessment

China National Accreditation Service for Conformity Assessment (CNAS) is authorized by Certification and Accreditation Administration of the People's Republic of China (CNCA) to operate the national accreditation schemes for conformity assessment. CNAS is the signatory to International Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (ILAC MRA) and Asia Pacific Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (APLAC MRA).

No.CNAS AL 2

0011149

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