

Fig.A.6.1.81 Conducted Spurious Emission (802.11n- HT40, Ch6, Center Frequency)

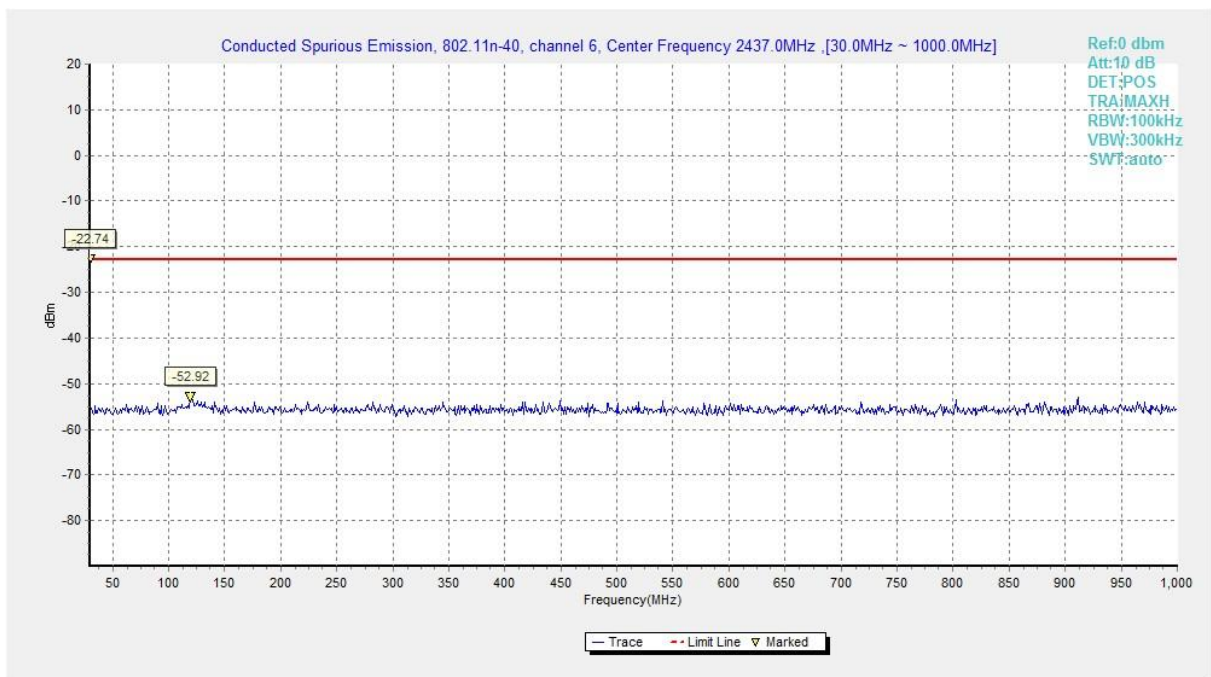


Fig.A.6.1.82 Conducted Spurious Emission (802.11n- HT40, Ch6, 30 MHz-1 GHz)

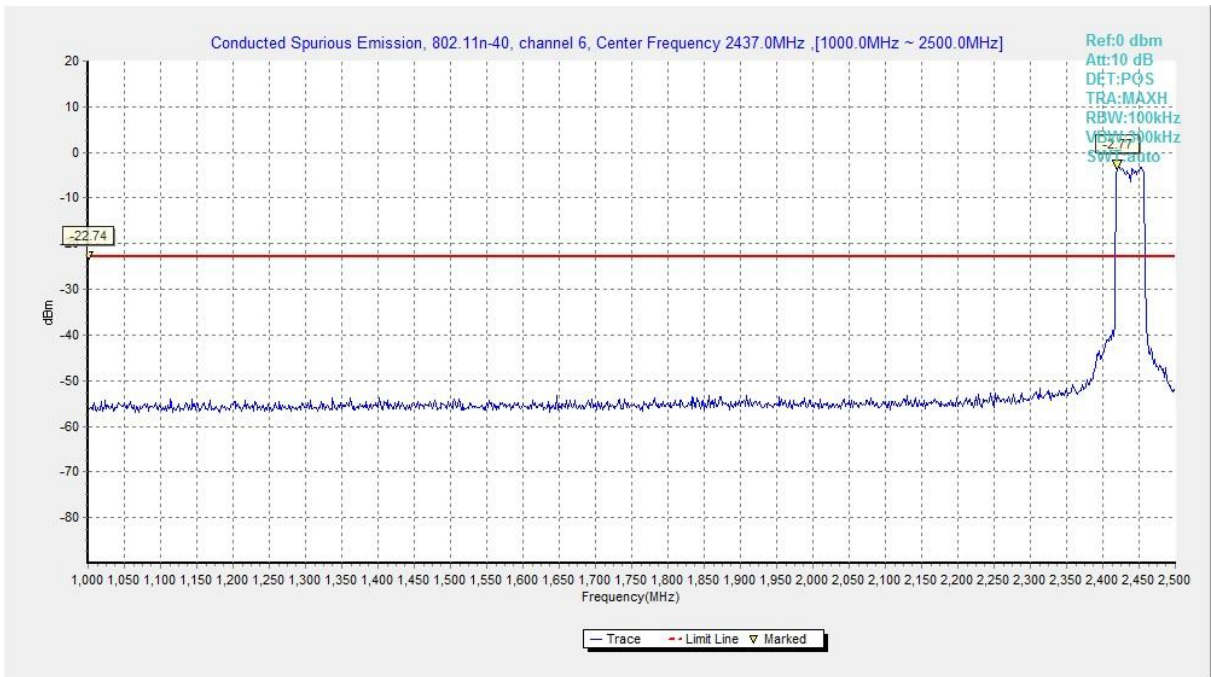


Fig.A.6.1.83 Conducted Spurious Emission (802.11n- HT40, Ch6, 1 GHz-2.5 GHz)

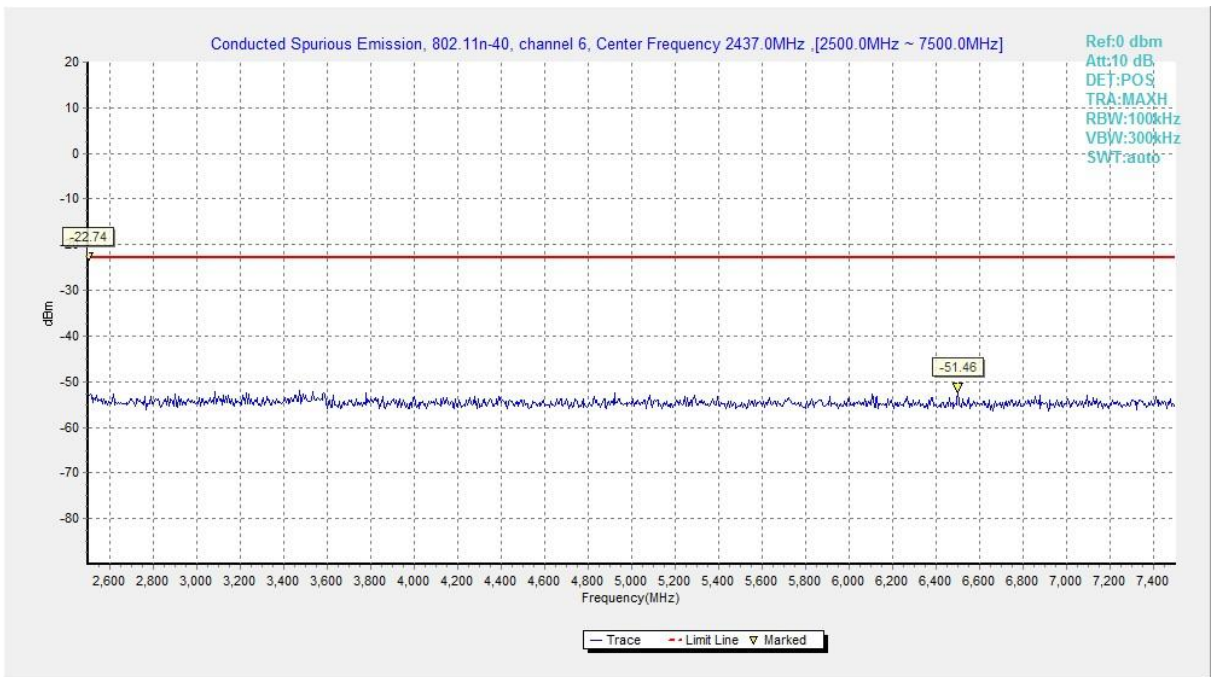


Fig.A.6.1.84 Conducted Spurious Emission (802.11n- HT40, Ch6, 2.5 GHz-7.5 GHz)

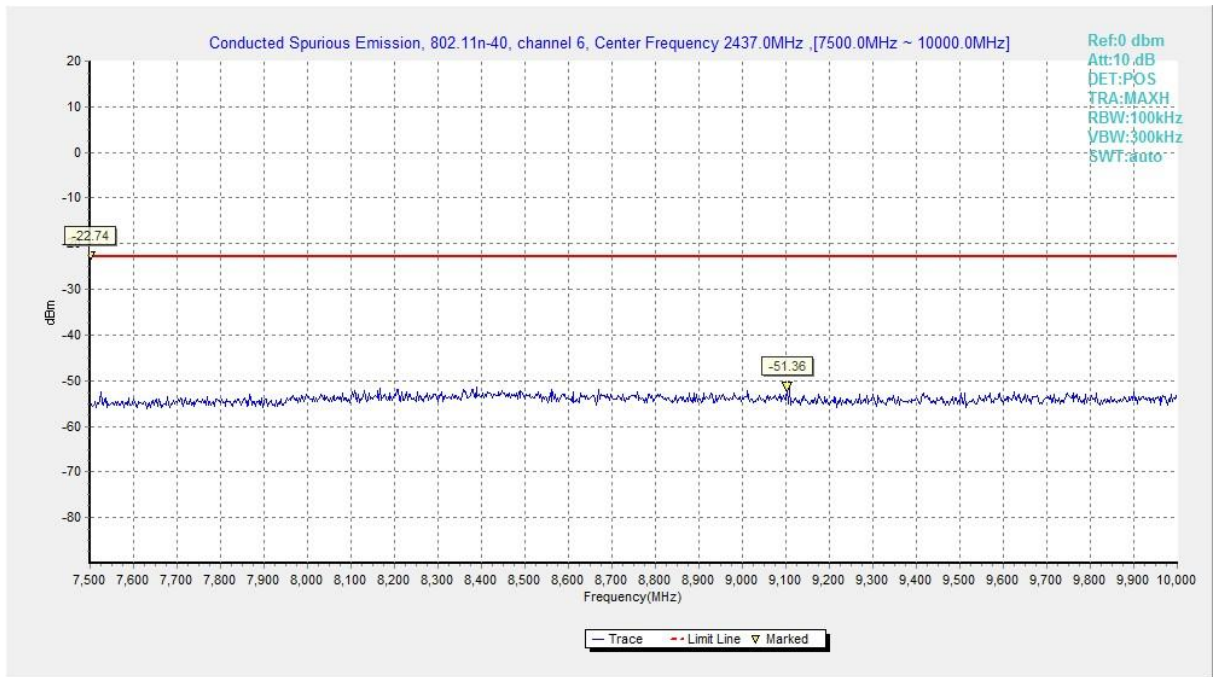


Fig.A.6.1.85 Conducted Spurious Emission (802.11n- HT40, Ch6, 7.5 GHz-10 GHz)

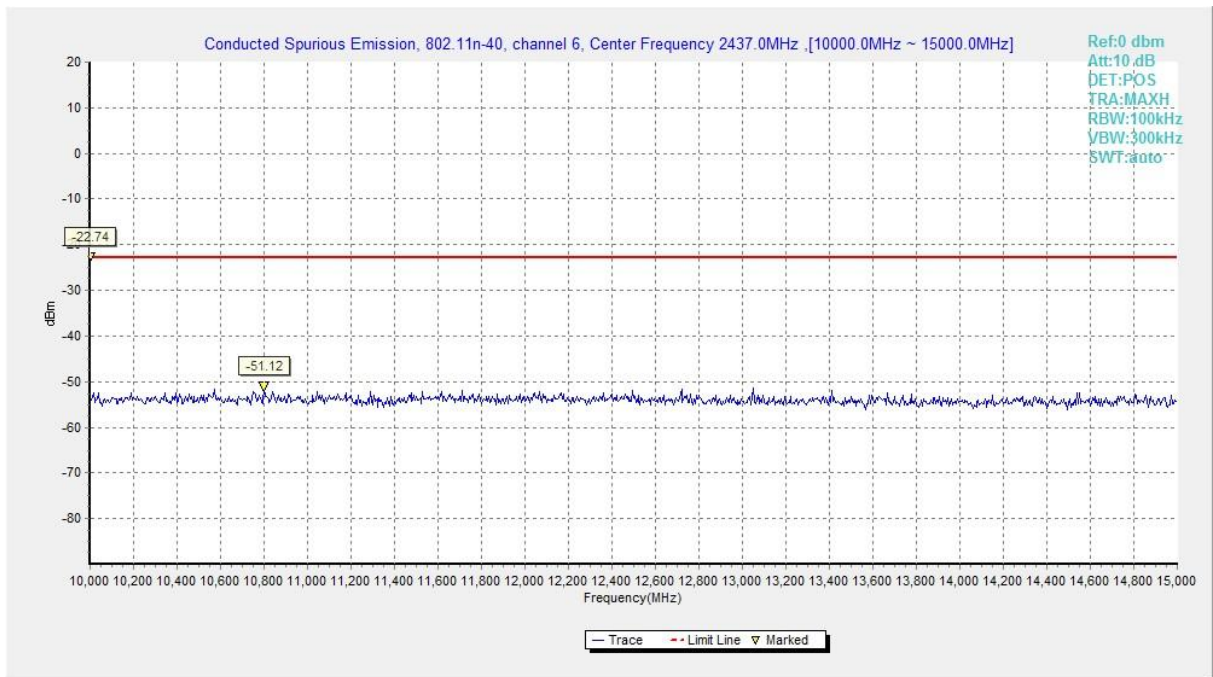


Fig.A.6.1.86 Conducted Spurious Emission (802.11n- HT40, Ch6, 10 GHz-15 GHz)

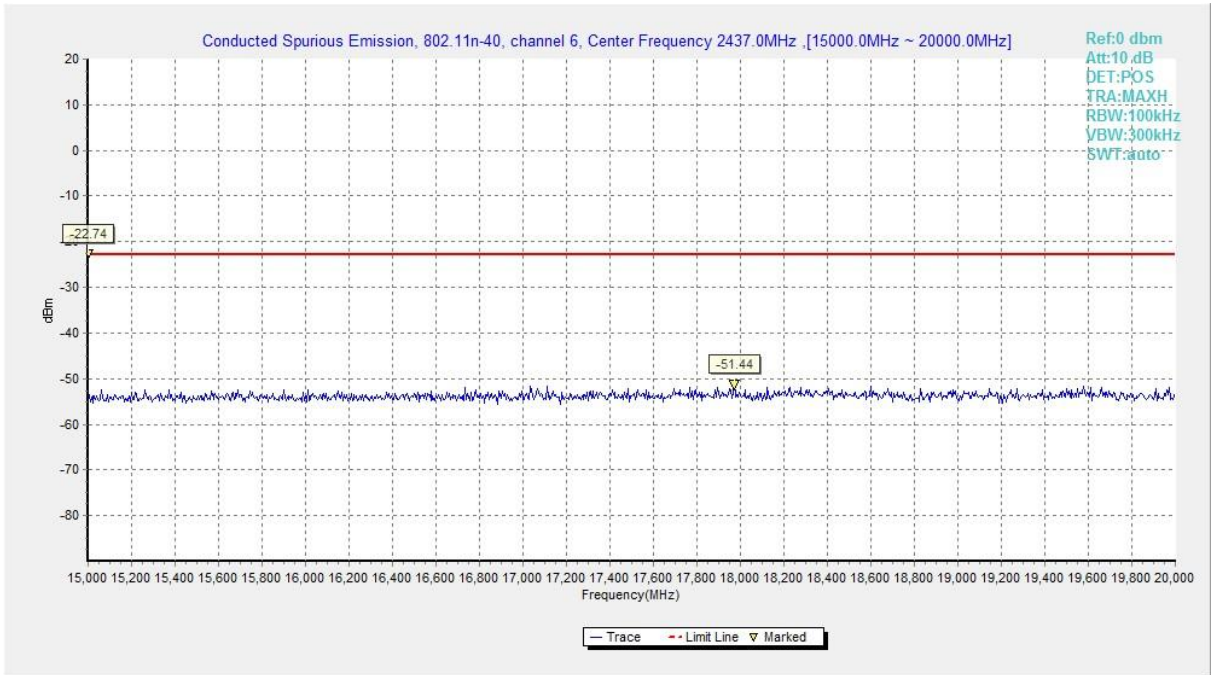


Fig.A.6.1.87 Conducted Spurious Emission (802.11n- HT40, Ch6, 15 GHz-20 GHz)

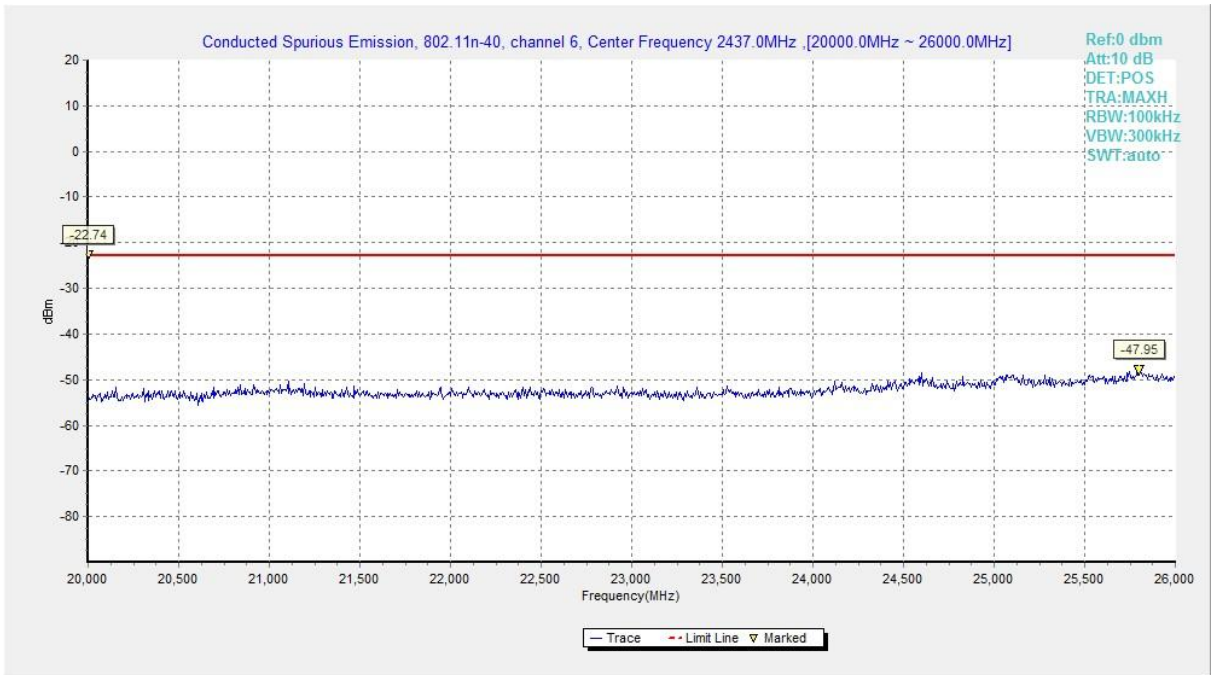


Fig.A.6.1.88 Conducted Spurious Emission (802.11n- HT40, Ch6, 20 GHz-26 GHz)

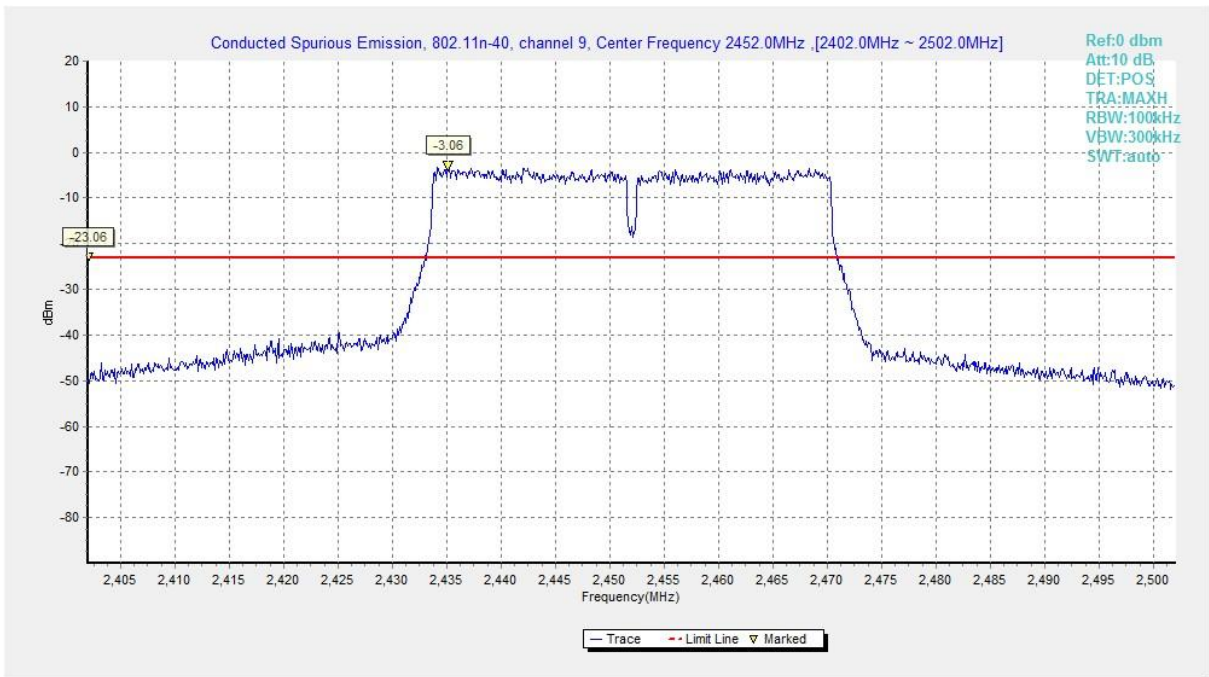


Fig.A.6.1.89 Conducted Spurious Emission (802.11n- HT40, Ch9, Center Frequency)

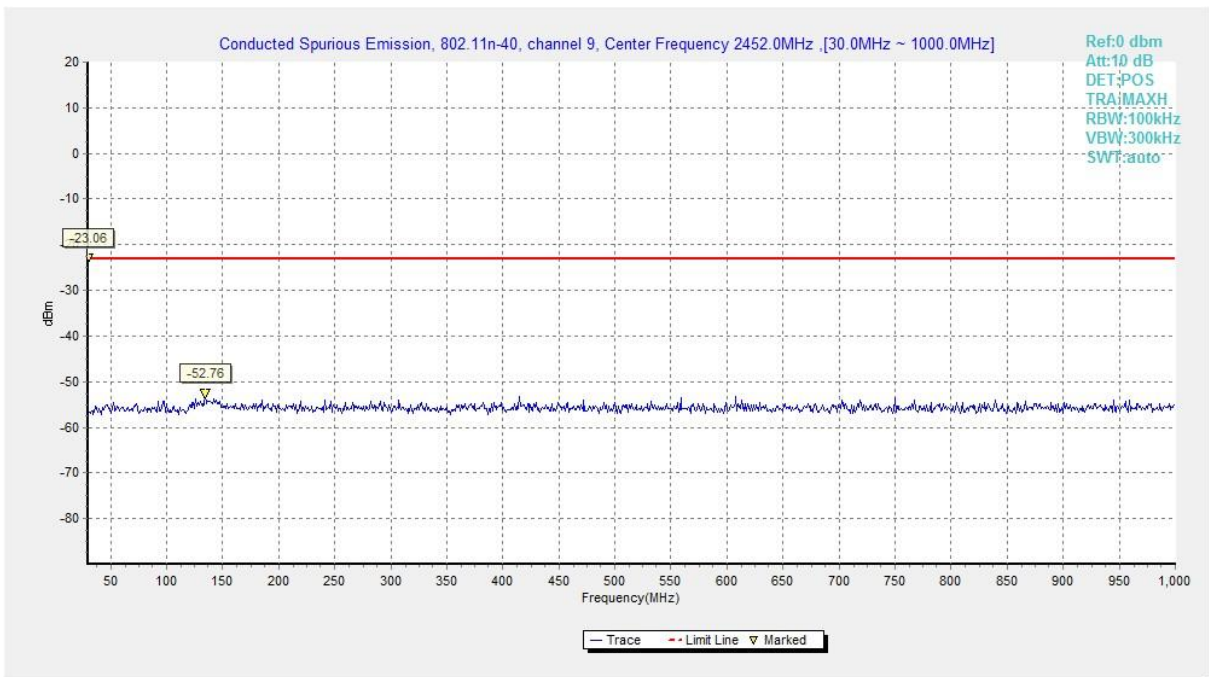


Fig.A.6.1.90 Conducted Spurious Emission (802.11n- HT40, Ch9, 30 MHz-1 GHz)

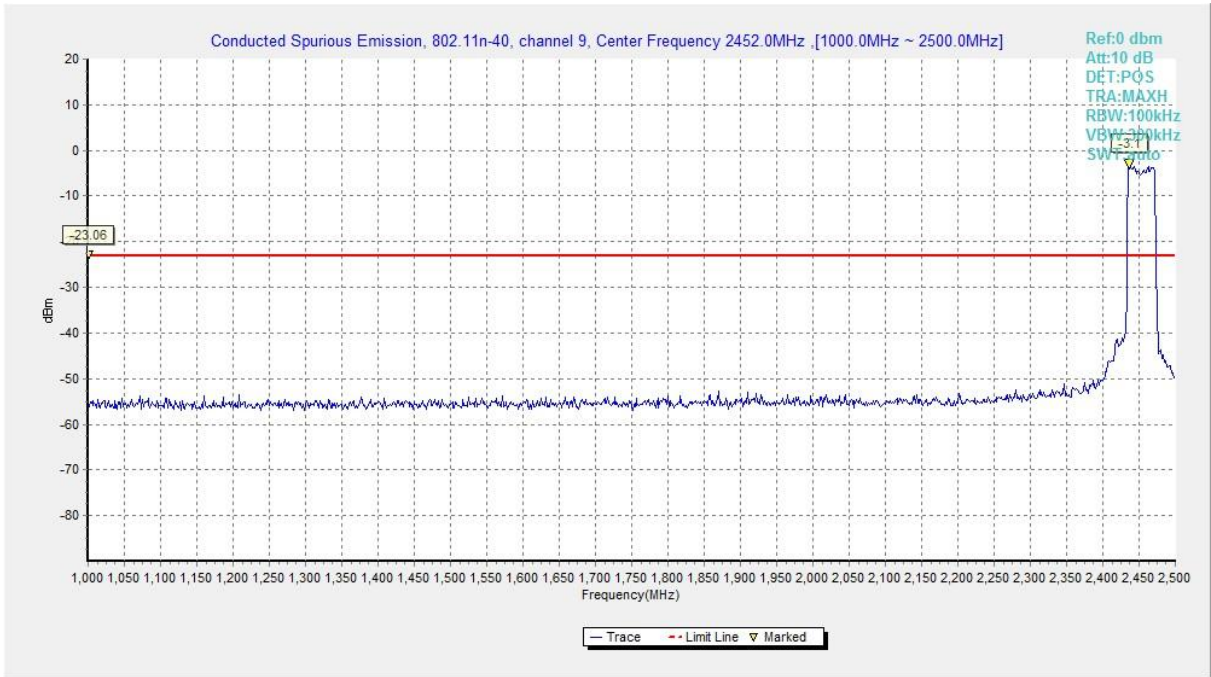


Fig.A.6.1.91 Conducted Spurious Emission (802.11n- HT40, Ch9, 1 GHz-2.5 GHz)

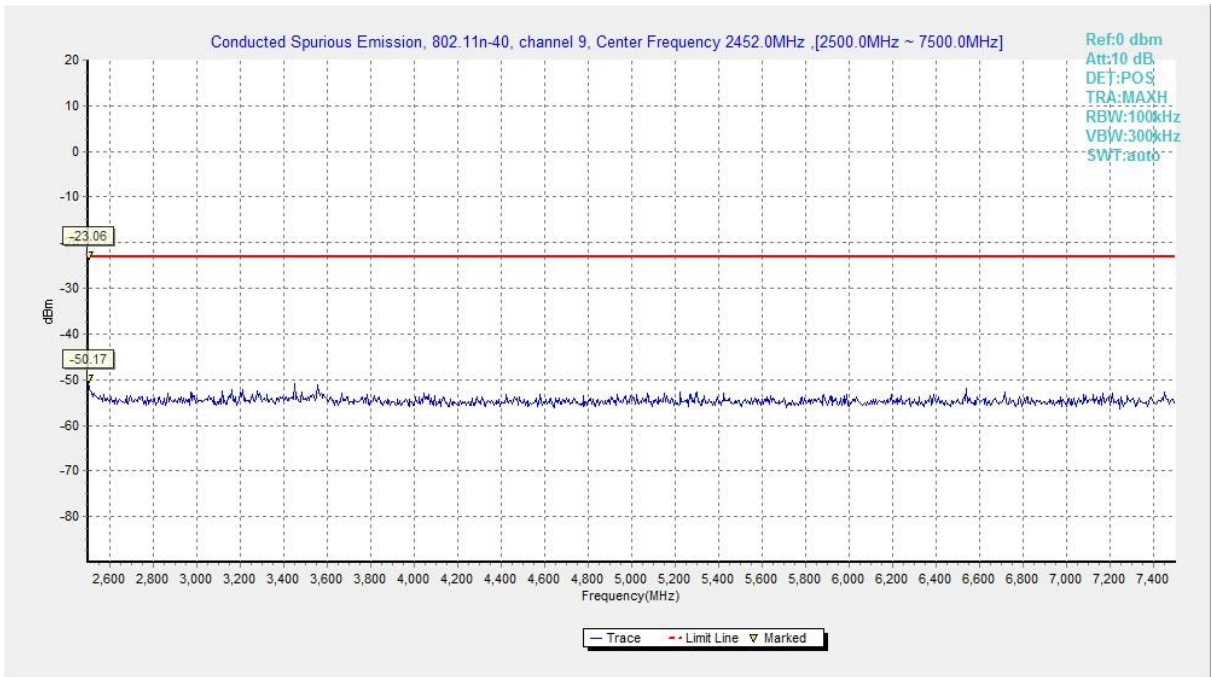


Fig.A.6.1.92 Conducted Spurious Emission (802.11n- HT40, Ch9, 2.5 GHz-7.5 GHz)

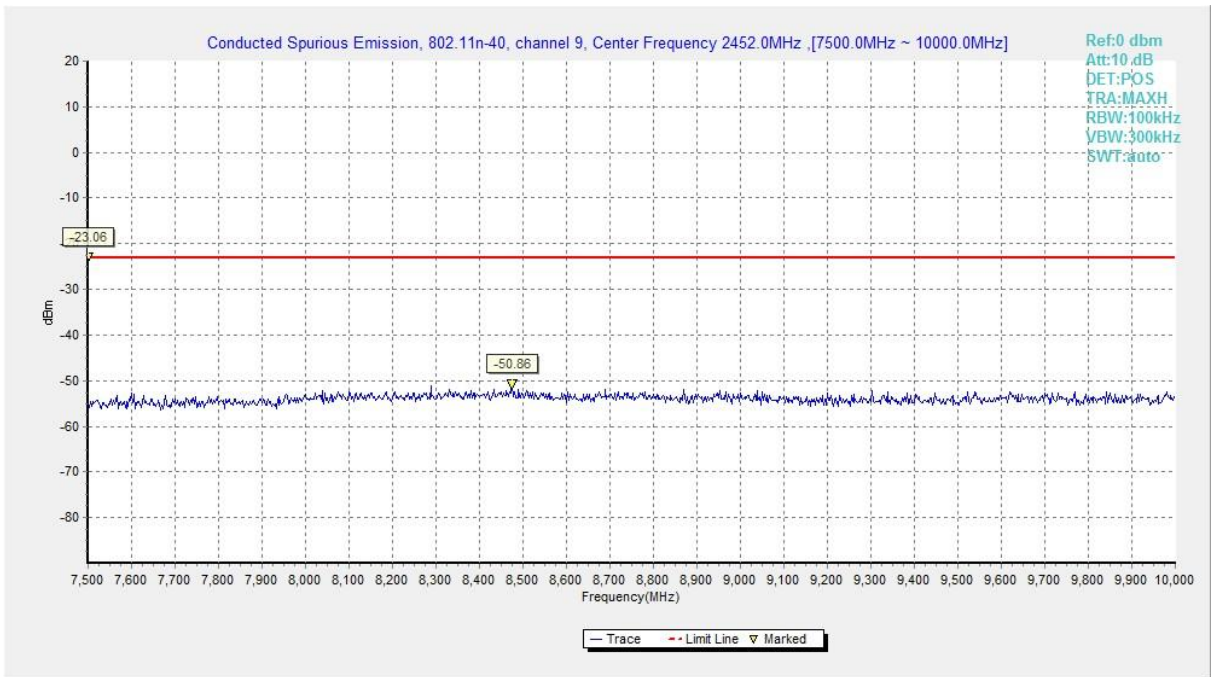


Fig.A.6.1.93 Conducted Spurious Emission (802.11n- HT40, Ch9, 7.5 GHz-10 GHz)

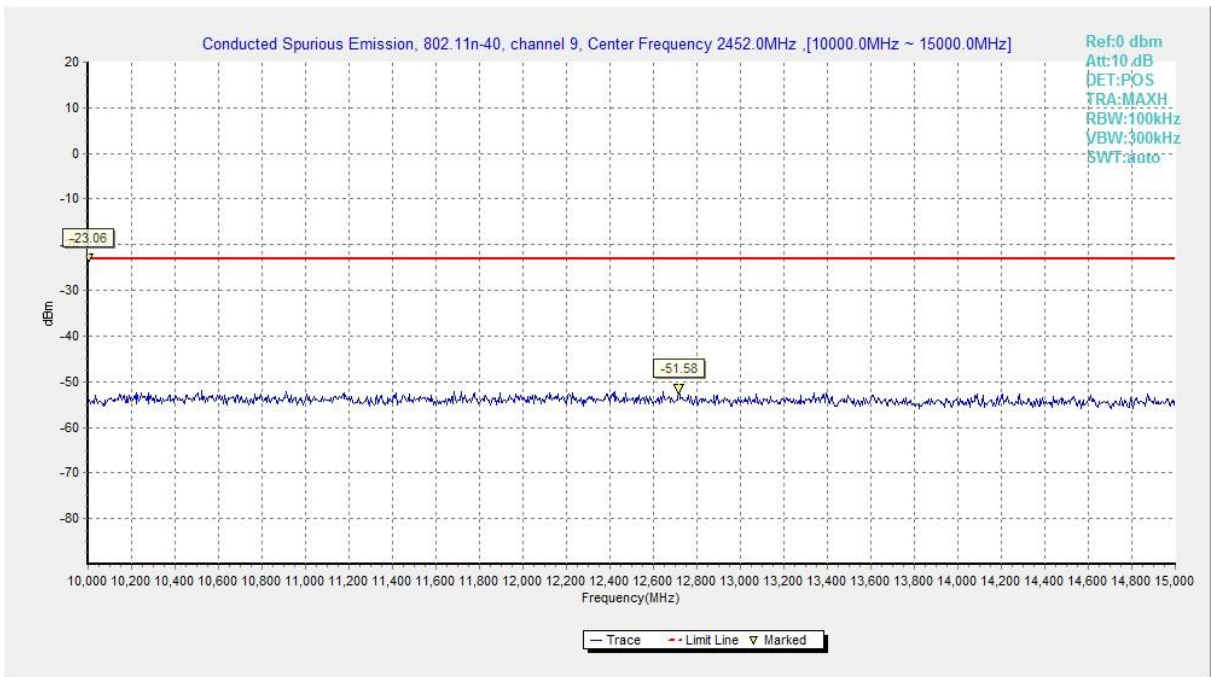


Fig.A.6.1.94 Conducted Spurious Emission (802.11n- HT40, Ch9, 10 GHz-15 GHz)

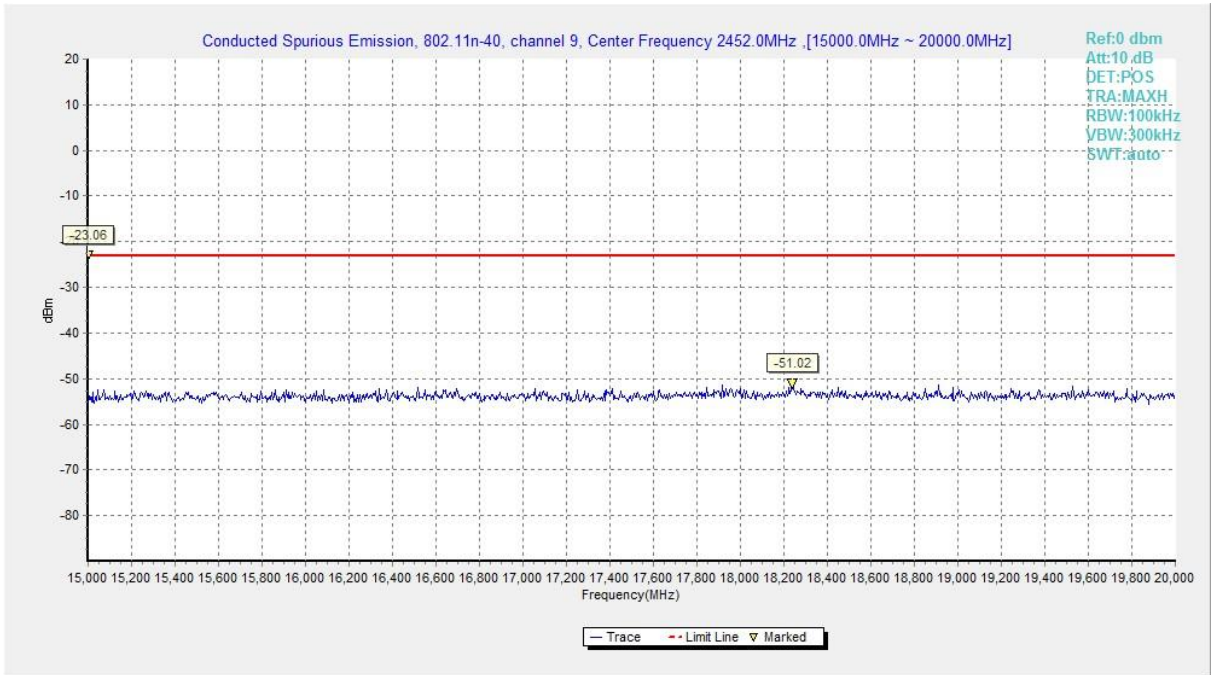


Fig.A.6.1.95 Conducted Spurious Emission (802.11n- HT40, Ch9, 15 GHz-20 GHz)

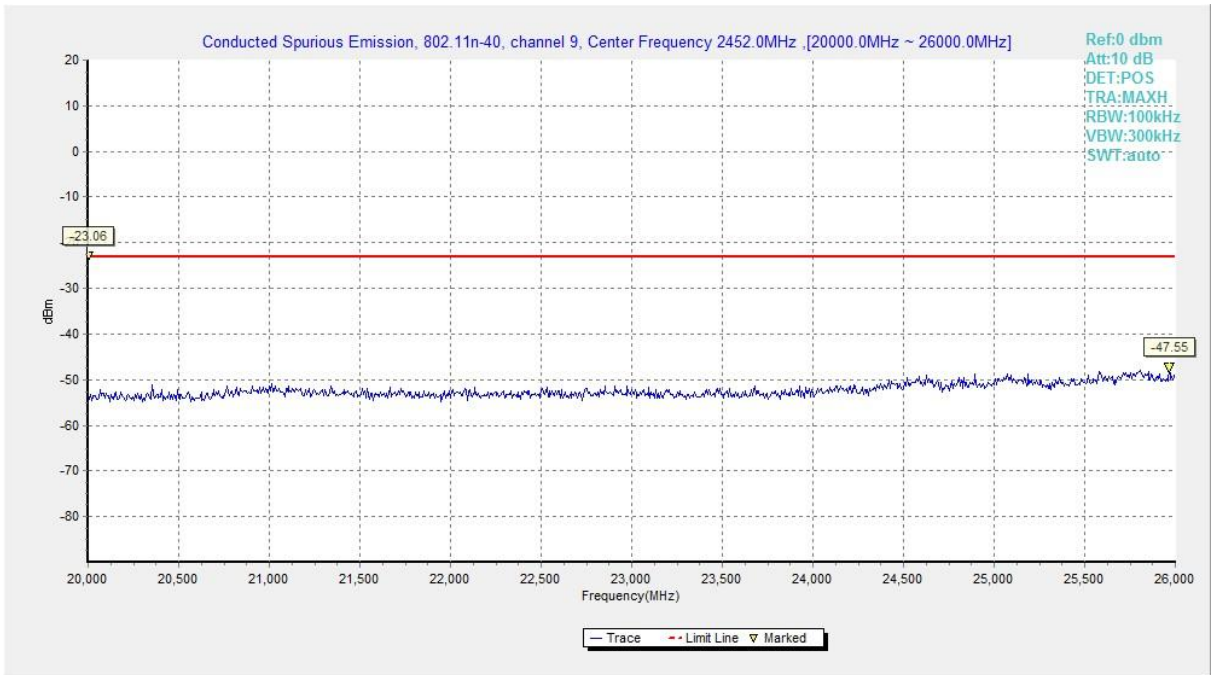


Fig.A.6.1.96 Conducted Spurious Emission (802.11n- HT40, Ch9, 20 GHz-26 GHz)

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 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 |
| 1000-3000 | 1MHz/1MHz | 15 |
| 3000-18000 | 1MHz/1MHz | 40 |
| 18000-26500 | 1MHz/1MHz | 20 |

EUT ID:EUT1

Modulation type and data rate tested:

| | | | |
|-------------|--------------|--------------|--------------|
| 802.11b | 802.11g | 802.11n-HT20 | 802.11n-HT40 |
| 11Mbps(CCK) | 54Mbps(OFDM) | MCS6(OFDM) | MCS7(OFDM) |

Measurement Results-Cable charging:

802.11b/g mode

| Mode | Channel | Frequency Range | Test Results | Conclusion |
|---------|---------|------------------|------------------|--------------|
| 802.11b | Power | 2.38GHz ~2.45GHz | Fig.A.6.2.1 | P |
| | 1 | 30 MHz ~1 GHz | Fig.A.6.2.2 | P |
| | | 1 GHz ~ 3 GHz | Fig.A.6.2.3 | P |
| | | 3 GHz ~ 18 GHz | Fig.A.6.2.4 | P |
| | 6 | 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 |
| | Power | 2.45GHz ~2.5GHz | Fig.A.6.2.8 | P |
| | 11 | 30 MHz ~1 GHz | Fig.A.6.2.9 | P |
| | | 1 GHz ~ 3 GHz | Fig.A.6.2.10 | P |
| | | 3 GHz ~ 18 GHz | Fig.A.6.2.11 | P |
| | 802.11g | Power | 2.38GHz ~2.43GHz | Fig.A.6.2.12 |
| 1 | | 30 MHz ~1 GHz | Fig.A.6.2.13 | P |
| | | 1 GHz ~ 3 GHz | Fig.A.6.2.14 | P |
| | | 3 GHz ~ 18 GHz | Fig.A.6.2.15 | P |
| 6 | | 30 MHz ~1 GHz | Fig.A.6.2.16 | P |
| | | 1 GHz ~ 3 GHz | Fig.A.6.2.17 | P |
| | | 3 GHz ~ 18 GHz | Fig.A.6.2.18 | P |
| Power | | 2.45GHz ~2.5GHz | Fig.A.6.2.19 | P |
| 11 | | 30 MHz ~1 GHz | Fig.A.6.2.20 | P |
| | | 1 GHz ~ 3 GHz | Fig.A.6.2.21 | P |
| | | 3 GHz ~ 18 GHz | Fig.A.6.2.22 | P |

802.11n mode

| Mode | Channel | Frequency Range | Test Results | Conclusion | |
|-------------------|-------------------|------------------|------------------|--------------|----------|
| 802.11n (HT20) | Power | 2.38GHz ~2.45GHz | Fig.A.6.2.23 | P | |
| | 1 | 30 MHz ~1 GHz | Fig.A.6.2.24 | P | |
| | | 1 GHz ~ 3 GHz | Fig.A.6.2.25 | P | |
| | | 3 GHz ~ 18 GHz | Fig.A.6.2.26 | P | |
| | 6 | 30 MHz ~1 GHz | Fig.A.6.2.27 | P | |
| | | 1 GHz ~ 3 GHz | Fig.A.6.2.28 | P | |
| | | 3 GHz ~ 18 GHz | Fig.A.6.2.29 | P | |
| | Power | 2.45GHz ~2.5GHz | Fig.A.6.2.30 | P | |
| | 11 | 30 MHz ~1 GHz | Fig.A.6.2.31 | P | |
| | | 1 GHz ~ 3 GHz | Fig.A.6.2.32 | P | |
| | | 3 GHz ~ 18 GHz | Fig.A.6.2.33 | P | |
| | 802.11n (HT40) | Power | 2.38GHz ~2.45GHz | Fig.A.6.2.34 | P |
| | | 3 | 30 MHz ~1 GHz | Fig.A.6.2.35 | P |
| 1 GHz ~ 3 GHz | | | Fig.A.6.2.36 | P | |
| 3 GHz ~ 18 GHz | | | Fig.A.6.2.37 | P | |
| 6 | | 30 MHz ~1 GHz | Fig.A.6.2.38 | P | |
| | | 1 GHz ~ 3 GHz | Fig.A.6.2.39 | P | |
| | | 3 GHz ~ 18 GHz | Fig.A.6.2.40 | P | |
| Power | | 2.45GHz ~2.5GHz | Fig.A.6.2.41 | P | |
| 9 | | 30 MHz ~1 GHz | Fig.A.6.2.42 | P | |
| | | 1 GHz ~ 3 GHz | Fig.A.6.2.43 | P | |
| | | 3 GHz ~ 18 GHz | Fig.A.6.2.44 | P | |
| / | | All channels | 18 GHz~ 26.5 GHz | Fig.A.6.2.45 | P |

Conclusion: Pass

Measurement Uncertainty:

| Frequency Range | Uncertainty(dB) |
|-----------------|-----------------|
| f ≤ 1GHz | 3.9 |
| f > 1GHz | 4.3 |

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 _{Mea} (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 2390.000 | 35.9 | -38.8 | 27.7 | 47.000 | VERTICAL |
| 17929.500 | 46.2 | -17.7 | 45.6 | 18.300 | VERTICAL |
| 17545.500 | 45.6 | -19.2 | 45.6 | 19.200 | HORIZONTAL |
| 17982.000 | 45.4 | -17.7 | 45.6 | 17.500 | HORIZONTAL |
| 17770.500 | 45.2 | -18.5 | 45.6 | 18.100 | HORIZONTAL |
| 17988.000 | 45.1 | -17.7 | 45.6 | 17.200 | VERTICAL |

Ch6

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P _{Mea} (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 17770.500 | 45.7 | -18.5 | 45.6 | 18.600 | HORIZONTAL |
| 17806.500 | 45.5 | -18.5 | 45.6 | 18.400 | VERTICAL |
| 17754.000 | 45.3 | -18.5 | 45.6 | 18.200 | HORIZONTAL |
| 17739.000 | 45.2 | -18.5 | 45.6 | 18.100 | VERTICAL |
| 17922.000 | 45.1 | -17.7 | 45.6 | 17.200 | VERTICAL |
| 17574.000 | 44.9 | -18.9 | 45.6 | 18.200 | HORIZONTAL |

Ch11

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P _{Mea} (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 2483.500 | 37.2 | -38.9 | 27.7 | 48.400 | VERTICAL |
| 17800.500 | 45.7 | -18.5 | 45.6 | 18.600 | HORIZONTAL |
| 17811.000 | 45.7 | -18.5 | 45.6 | 18.600 | VERTICAL |
| 17809.500 | 45.6 | -18.5 | 45.6 | 18.500 | VERTICAL |
| 17977.500 | 45.2 | -17.7 | 45.6 | 17.300 | HORIZONTAL |
| 17691.000 | 45.0 | -18.9 | 45.6 | 18.300 | HORIZONTAL |

802.11g

Ch1

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P _{Mea} (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 2390.000 | 40.2 | -38.8 | 27.7 | 51.300 | VERTICAL |
| 17797.500 | 45.8 | -18.5 | 45.6 | 18.700 | HORIZONTAL |
| 17769.000 | 45.2 | -18.5 | 45.6 | 18.100 | VERTICAL |
| 17715.000 | 44.9 | -18.9 | 45.6 | 18.200 | HORIZONTAL |
| 17818.500 | 44.7 | -18.5 | 45.6 | 17.600 | VERTICAL |
| 17475.000 | 44.5 | -19.2 | 41.5 | 22.200 | VERTICAL |

Ch6

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P _{Mea} (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 17778.000 | 45.9 | -18.5 | 45.6 | 18.800 | VERTICAL |
| 17802.000 | 45.4 | -18.5 | 45.6 | 18.300 | VERTICAL |
| 17844.000 | 45.3 | -18.5 | 45.6 | 18.200 | VERTICAL |
| 17545.500 | 45.2 | -19.2 | 45.6 | 18.800 | HORIZONTAL |
| 17893.500 | 45.2 | -18.5 | 45.6 | 18.100 | VERTICAL |
| 17773.500 | 45.1 | -18.5 | 45.6 | 18.000 | HORIZONTAL |

Ch11

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P _{Mea} (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 2483.500 | 42.4 | -38.9 | 27.7 | 53.600 | VERTICAL |
| 17814.000 | 46.6 | -18.5 | 45.6 | 19.500 | HORIZONTAL |
| 17551.500 | 45.9 | -19.2 | 45.6 | 19.500 | VERTICAL |
| 17980.500 | 45.5 | -17.7 | 45.6 | 17.600 | VERTICAL |
| 17805.000 | 45.2 | -18.5 | 45.6 | 18.100 | HORIZONTAL |
| 17869.500 | 45.0 | -18.5 | 45.6 | 17.900 | HORIZONTAL |

802.11n-HT20

Ch1

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P _{Mea} (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 2390.000 | 40.3 | -38.8 | 27.7 | 51.400 | VERTICAL |
| 17572.500 | 45.9 | -18.9 | 45.6 | 19.200 | HORIZONTAL |
| 17988.000 | 44.9 | -17.7 | 45.6 | 17.000 | VERTICAL |
| 17748.000 | 44.8 | -18.5 | 45.6 | 17.700 | VERTICAL |
| 17946.000 | 44.8 | -17.7 | 45.6 | 16.900 | VERTICAL |
| 17697.000 | 44.7 | -18.9 | 45.6 | 18.000 | HORIZONTAL |

Ch6

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P _{Mea} (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 17667.000 | 45.6 | -18.9 | 45.6 | 18.900 | HORIZONTAL |
| 17545.500 | 45.3 | -19.2 | 45.6 | 18.900 | HORIZONTAL |
| 17911.500 | 45.2 | -18.5 | 45.6 | 18.100 | VERTICAL |
| 17458.500 | 45.2 | -19.2 | 41.5 | 22.900 | VERTICAL |
| 17803.500 | 45.2 | -18.5 | 45.6 | 18.100 | HORIZONTAL |
| 17976.000 | 45.1 | -17.7 | 45.6 | 17.200 | HORIZONTAL |

Ch11

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P _{Mea} (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 2483.500 | 38.6 | -38.9 | 27.7 | 49.800 | VERTICAL |
| 17973.000 | 45.4 | -17.7 | 45.6 | 17.500 | VERTICAL |
| 17775.000 | 45.1 | -18.5 | 45.6 | 18.000 | HORIZONTAL |
| 17992.500 | 44.9 | -17.7 | 45.6 | 17.000 | HORIZONTAL |
| 17974.500 | 44.9 | -17.7 | 45.6 | 17.000 | VERTICAL |
| 17925.000 | 44.9 | -17.7 | 45.6 | 17.000 | VERTICAL |

802.11n-HT40

Ch3

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P _{Mea} (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 2390.000 | 39.7 | -38.8 | 27.7 | 50.800 | VERTICAL |
| 17980.500 | 46.5 | -17.7 | 45.6 | 18.600 | HORIZONTAL |
| 17818.500 | 45.5 | -18.5 | 45.6 | 18.400 | VERTICAL |
| 17674.500 | 45.1 | -18.9 | 45.6 | 18.400 | VERTICAL |
| 17772.000 | 45.1 | -18.5 | 45.6 | 18.000 | VERTICAL |
| 17740.500 | 45.1 | -18.5 | 45.6 | 18.000 | VERTICAL |

Ch6

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P _{Mea} (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 17986.500 | 45.8 | -17.7 | 45.6 | 17.900 | VERTICAL |
| 17890.500 | 45.8 | -18.5 | 45.6 | 18.700 | HORIZONTAL |
| 17763.000 | 45.8 | -18.5 | 45.6 | 18.700 | VERTICAL |
| 17676.000 | 45.7 | -18.9 | 45.6 | 19.000 | VERTICAL |
| 17715.000 | 45.5 | -18.9 | 45.6 | 18.800 | HORIZONTAL |
| 17910.000 | 45.5 | -18.5 | 45.6 | 18.400 | HORIZONTAL |

Ch9

| Frequency(MHz) | Result (dBuV/m) | Cable Loss(dB) | Antenna Factor | P _{Mea} (dBuV/m) | Polarization |
|----------------|-----------------|----------------|----------------|---------------------------|--------------|
| 2483.500 | 41.6 | -38.9 | 27.7 | 52.800 | VERTICAL |
| 17985.000 | 46.2 | -17.7 | 45.6 | 18.300 | HORIZONTAL |
| 17935.500 | 45.8 | -17.7 | 45.6 | 17.900 | HORIZONTAL |
| 17769.000 | 45.7 | -18.5 | 45.6 | 18.600 | VERTICAL |
| 17839.500 | 45.1 | -18.5 | 45.6 | 18.000 | VERTICAL |
| 17818.500 | 45.0 | -18.5 | 45.6 | 17.900 | VERTICAL |

Test graphs as below:

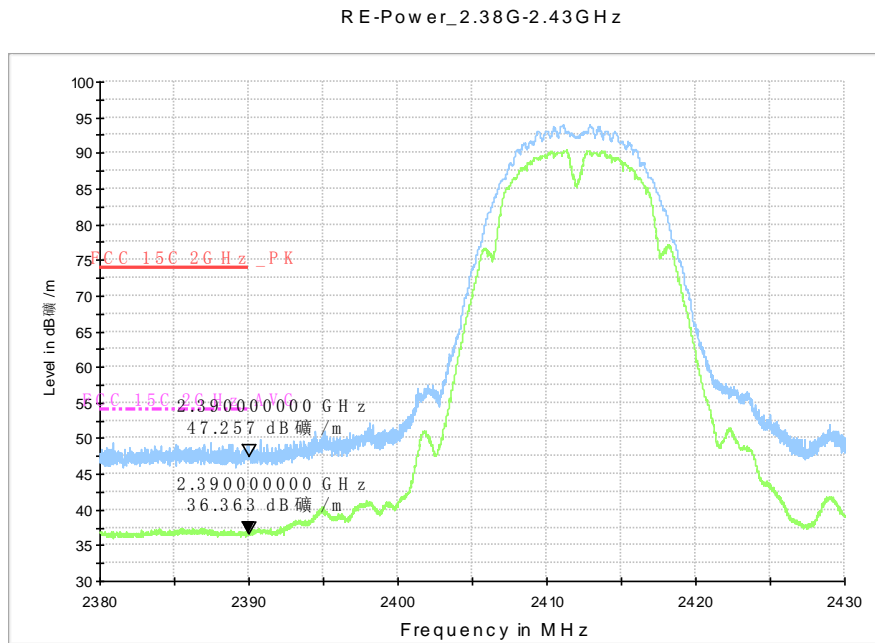


Fig.A.6.2.1 Radiated Spurious Emission (Power): 802.11b, ch1, 2.38 GHz – 2.45GHz

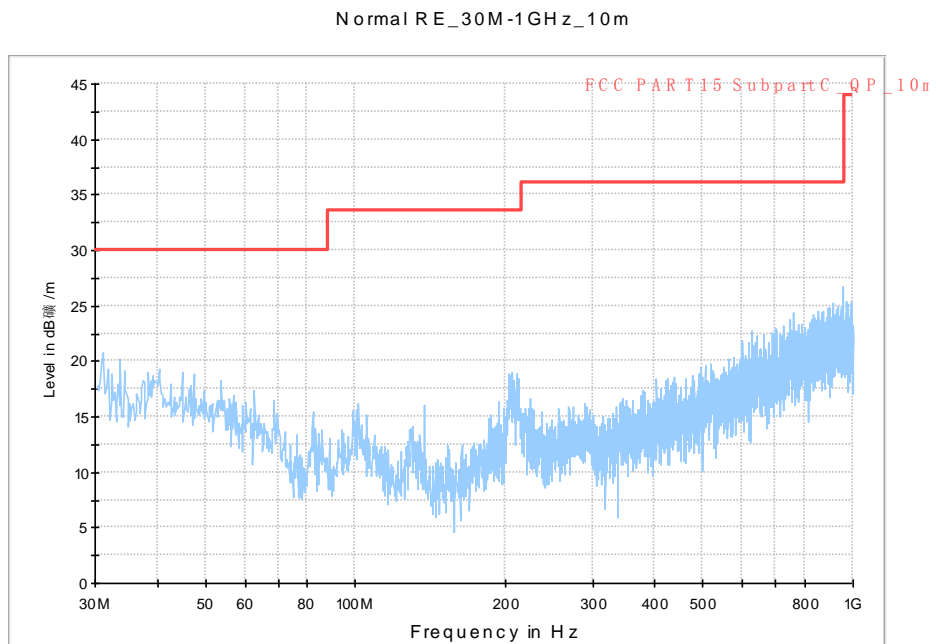


Fig.A.6.2.2 Radiated Spurious Emission (802.11b, Ch1, 30 MHz-1 GHz)

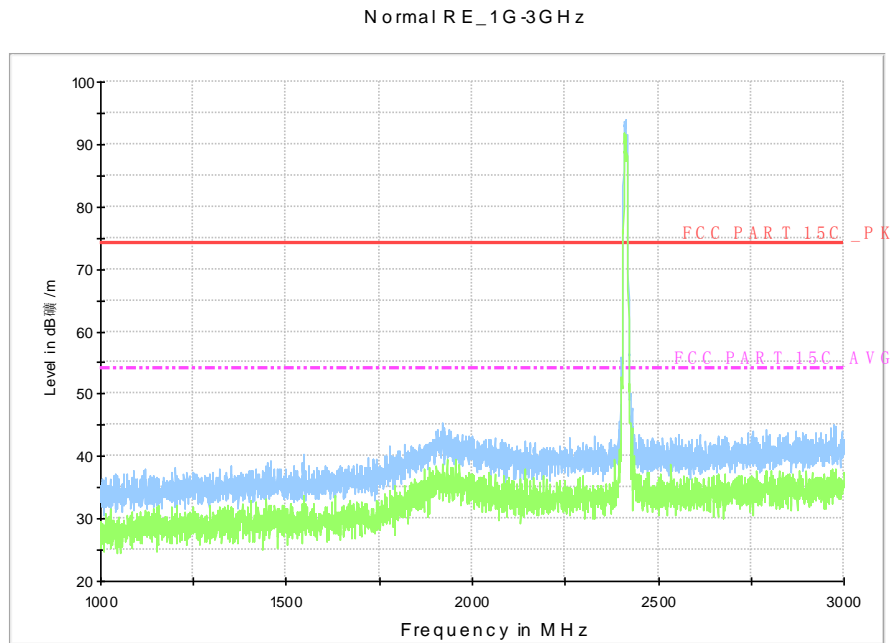


Fig.A.6.2.3 Radiated Spurious Emission (802.11b, Ch1, 1 GHz-3 GHz)

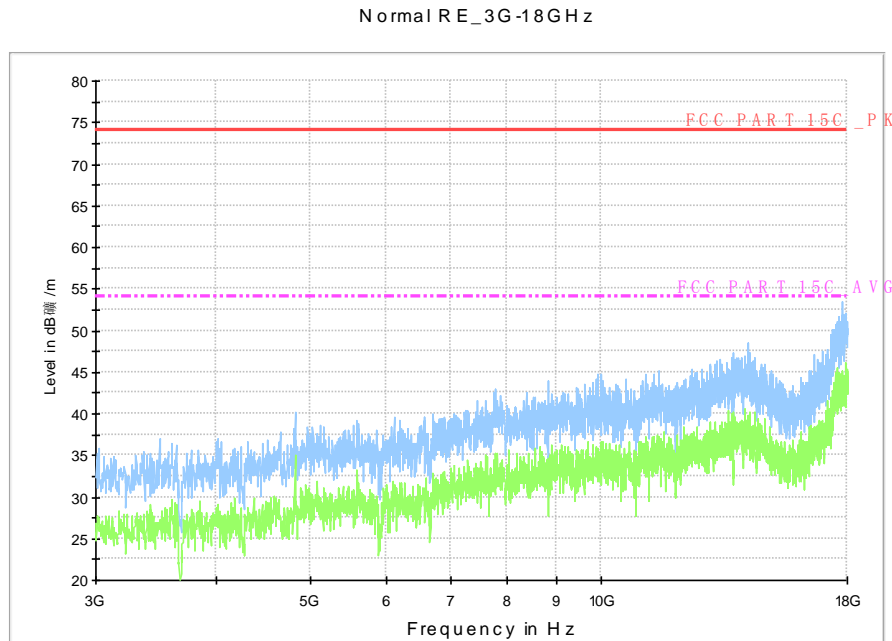


Fig.A.6.2.4 Radiated Spurious Emission (802.11b, Ch1, 3 GHz-18 GHz)

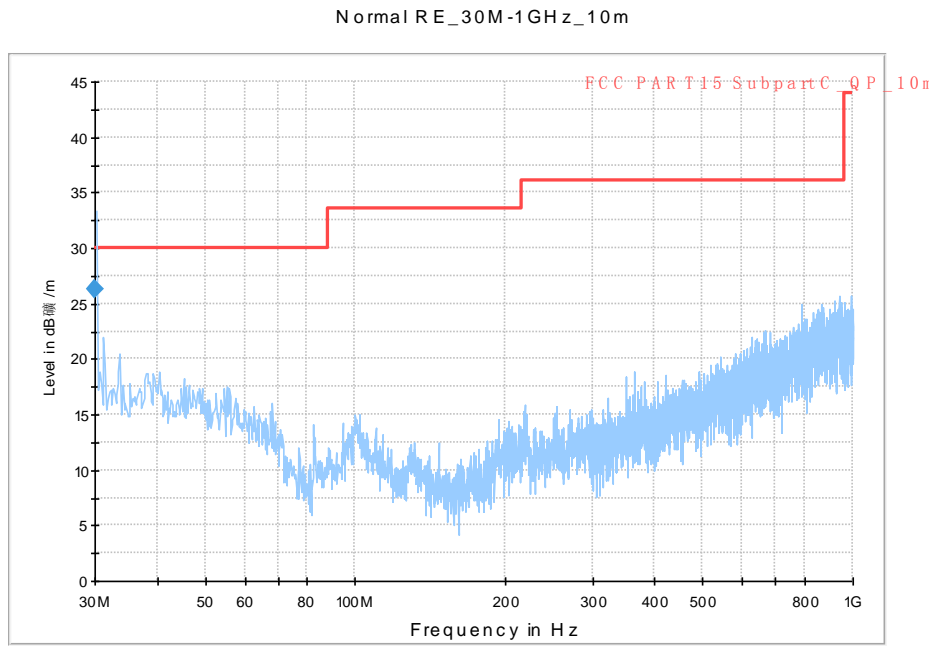


Fig.A.6.2.5 Radiated Spurious Emission (802.11b, Ch6, 30 MHz-1 GHz)

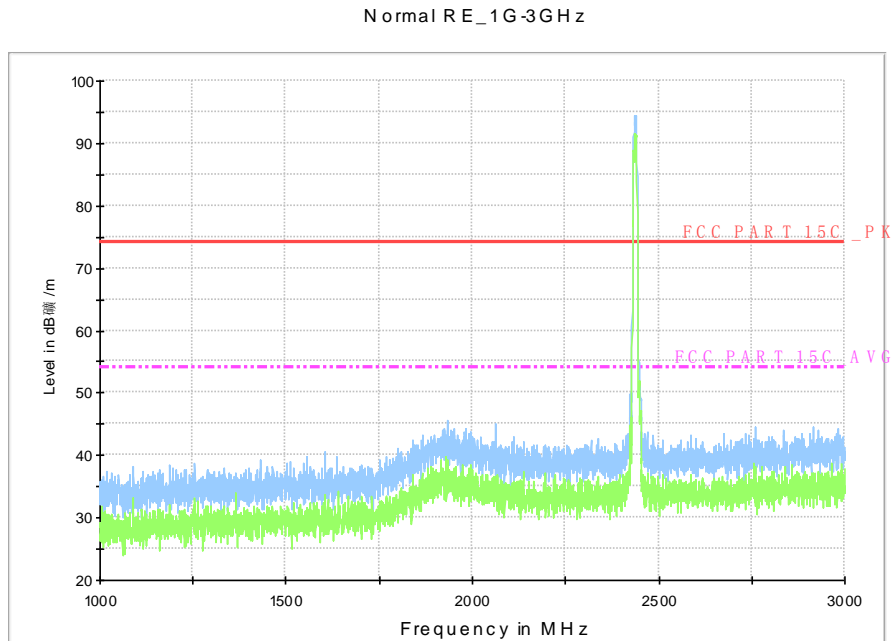


Fig.A.6.2.6 Radiated Spurious Emission (802.11b, Ch6, 1 GHz-3 GHz)

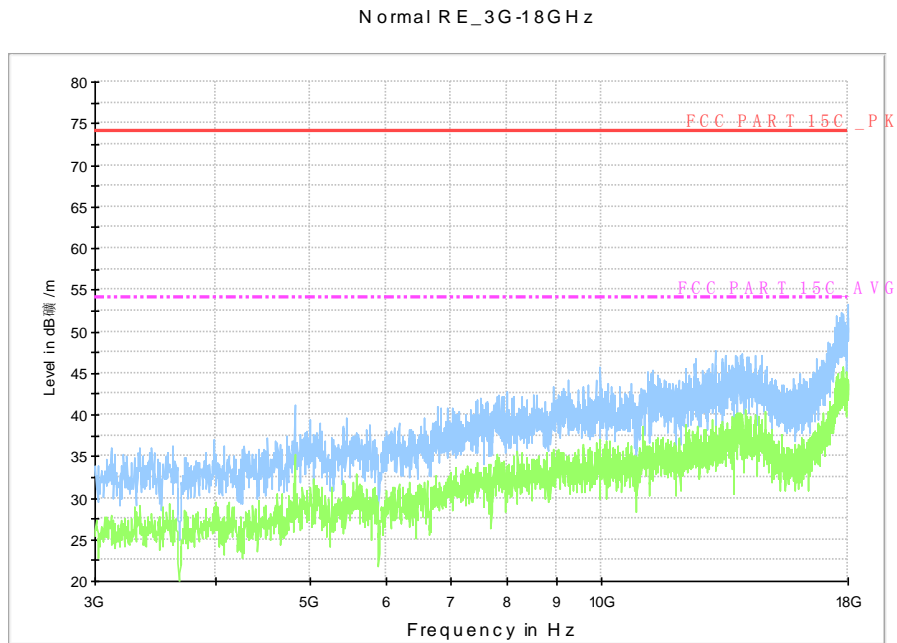


Fig.A.6.2.7 Radiated Spurious Emission (802.11b, Ch6, 3 GHz-18 GHz)

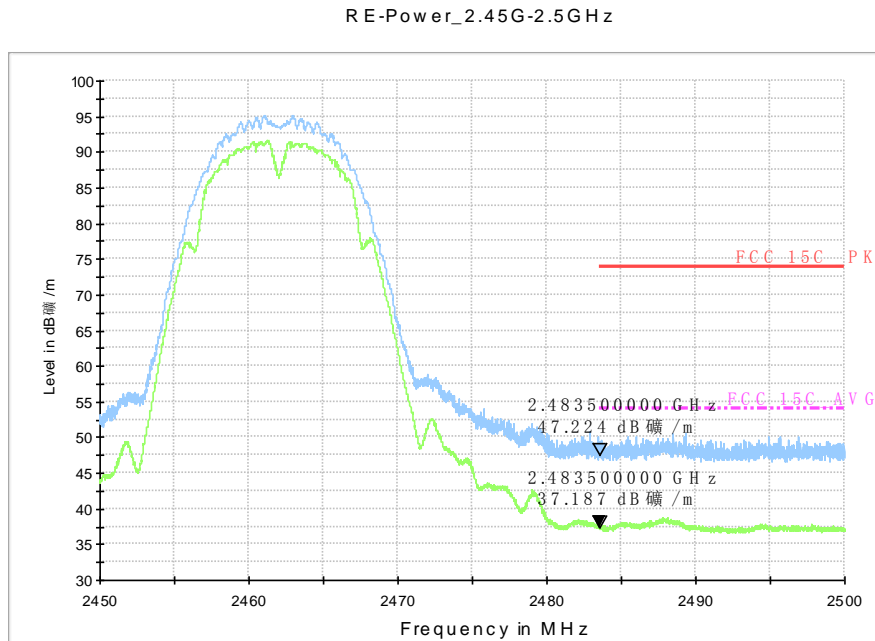


Fig.A.6.2.8 Radiated Spurious Emission (Power): 802.11b, ch11, 2.45 GHz - 2.50GHz

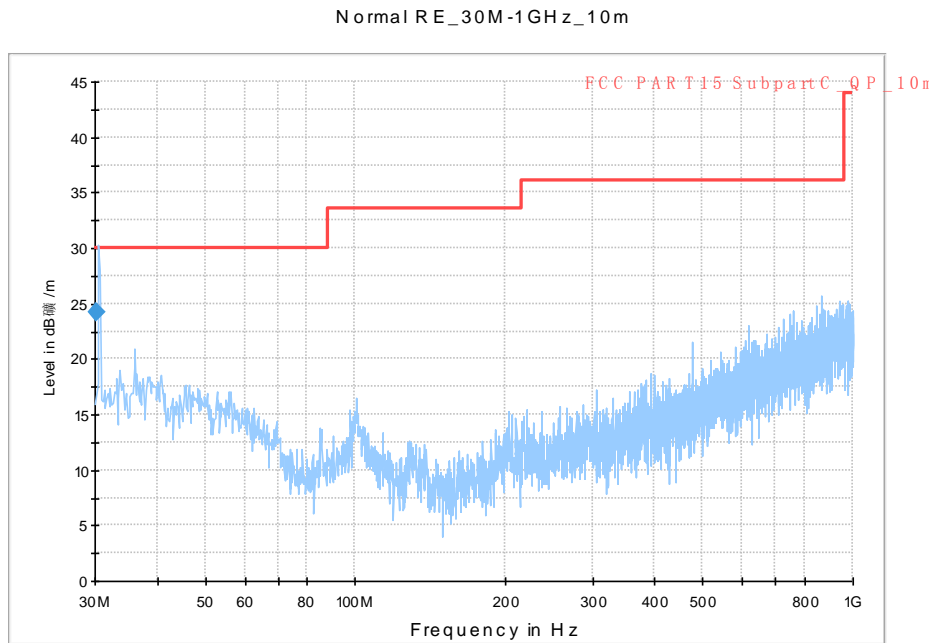


Fig.A.6.2.9 Radiated Spurious Emission (802.11b, Ch11, 30 MHz-1 GHz)

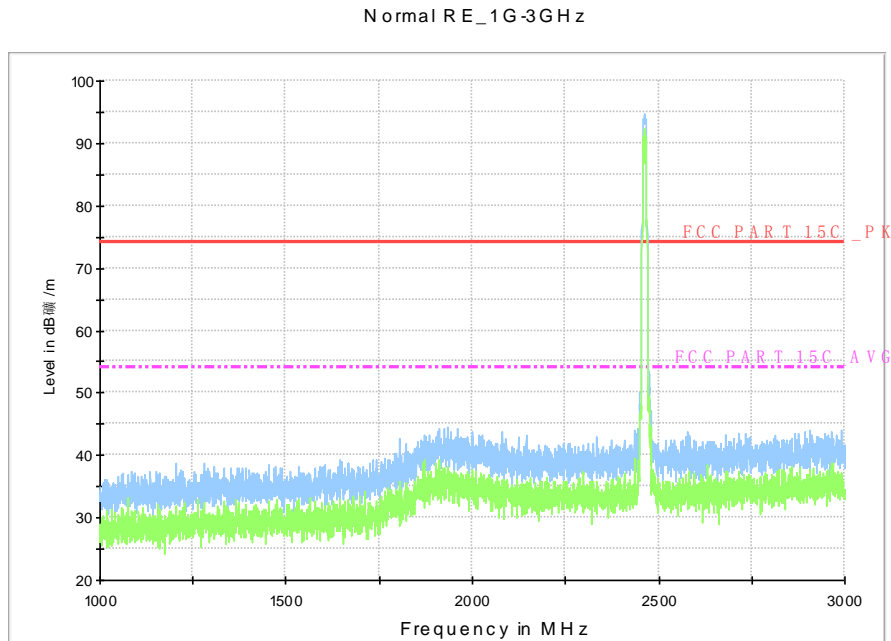


Fig.A.6.2.10 Radiated Spurious Emission (802.11b, Ch11, 1 GHz-3 GHz)

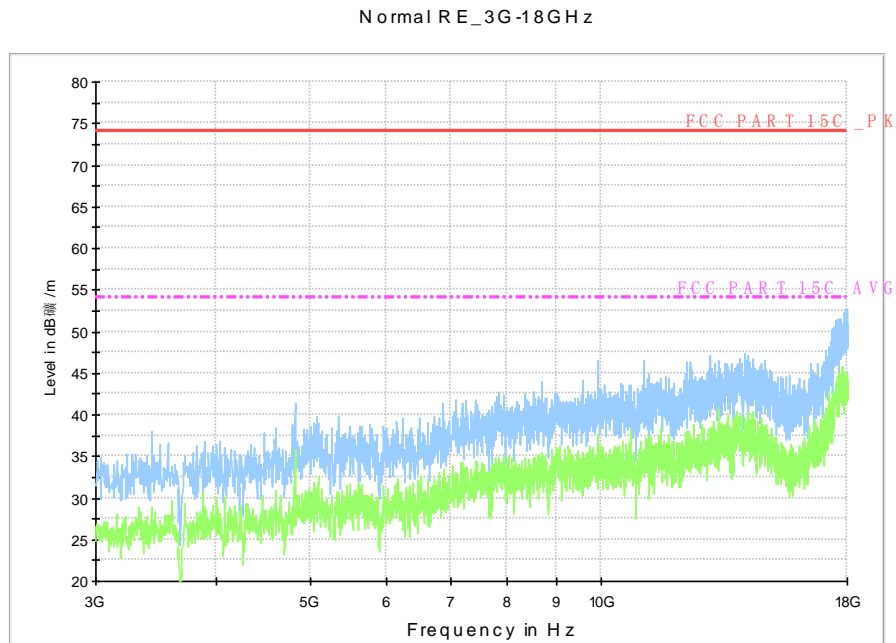


Fig.A.6.2.11 Radiated Spurious Emission (802.11b, Ch11, 3 GHz-18 GHz)

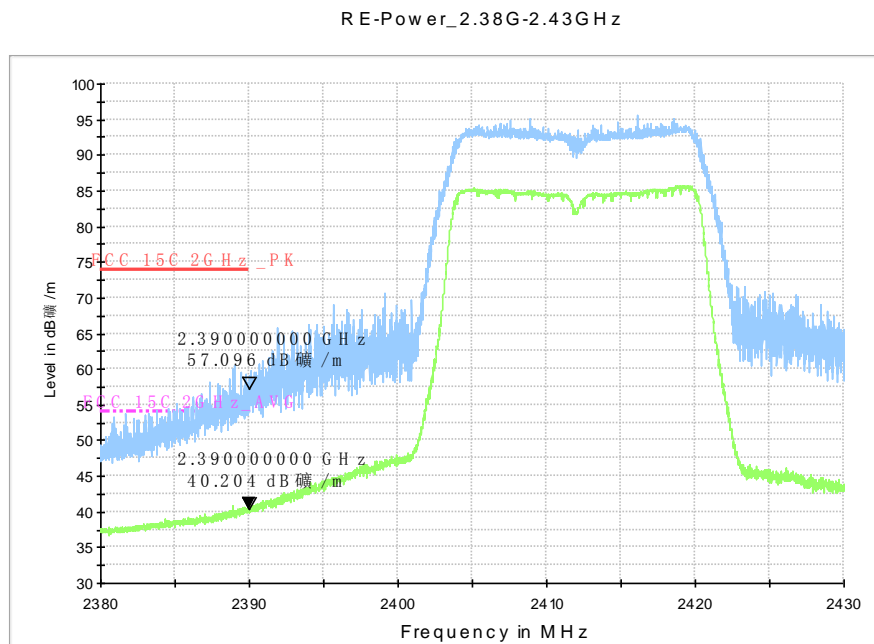


Fig.A.6.2.12 Radiated Spurious Emission (Power): 802.11g, ch1, 2.38 GHz - 2.45GHz

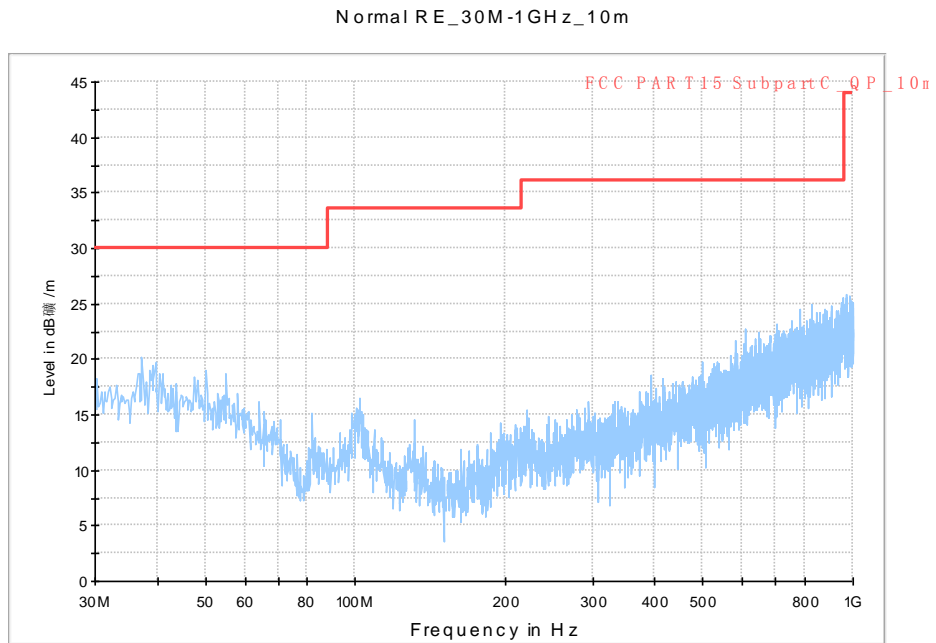


Fig.A.6.2.13 Radiated Spurious Emission (802.11g, Ch1, 30 MHz-1 GHz)

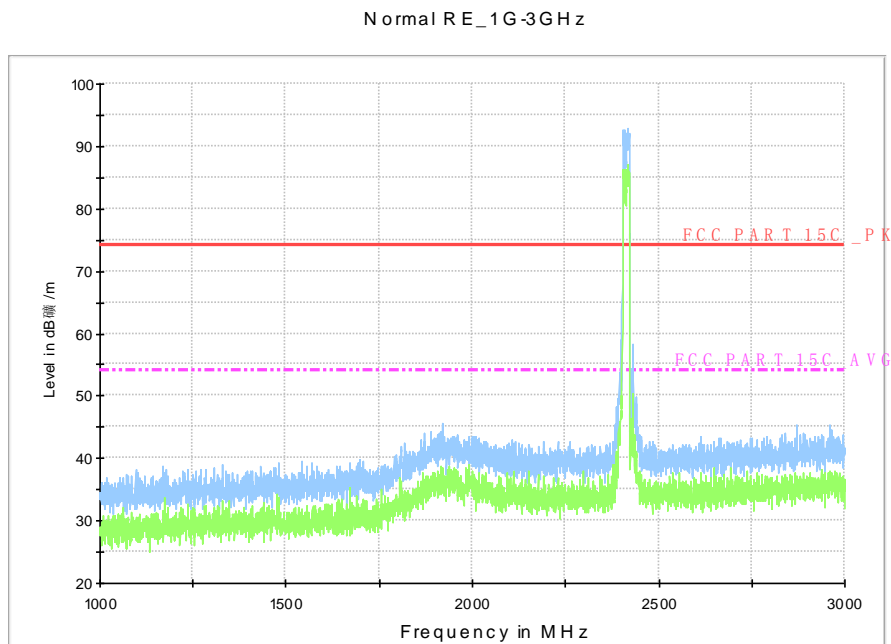


Fig.A.6.2.14 Radiated Spurious Emission (802.11g, Ch1, 1 GHz-3 GHz)

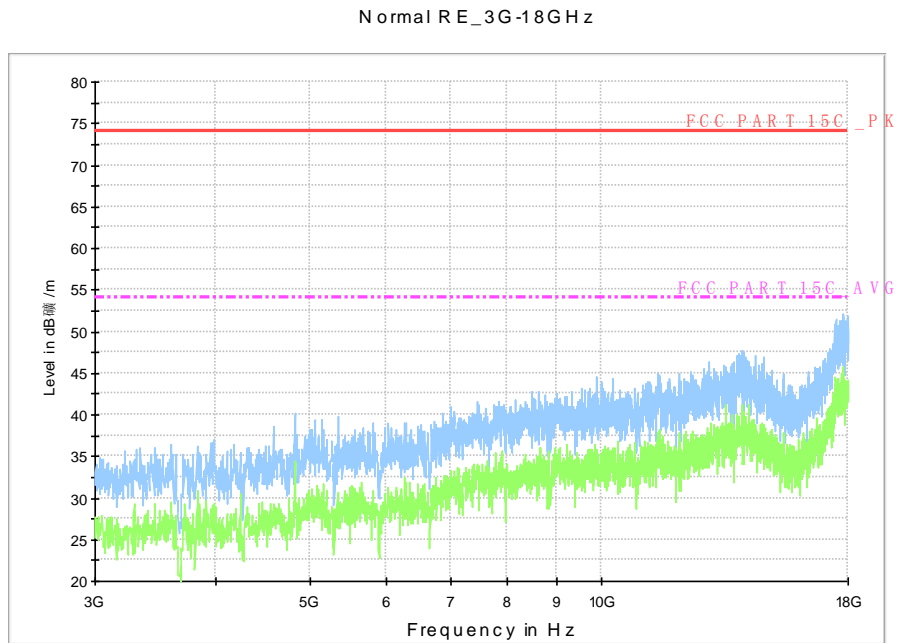


Fig.A.6.2.15 Radiated Spurious Emission (802.11g, Ch1, 3 GHz-18 GHz)

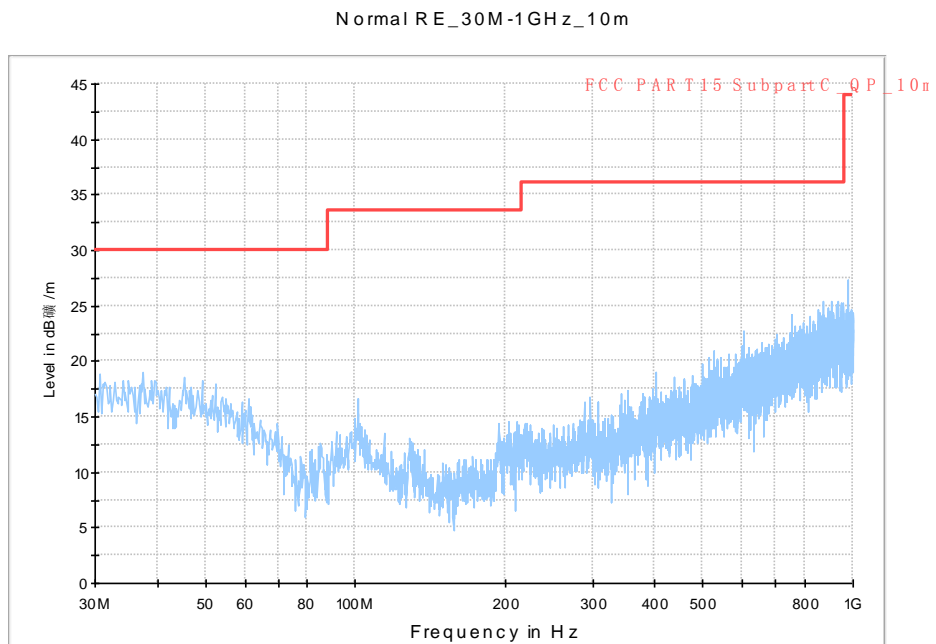


Fig.A.6.2.16 Radiated Spurious Emission (802.11g, Ch6, 30 MHz-1 GHz)

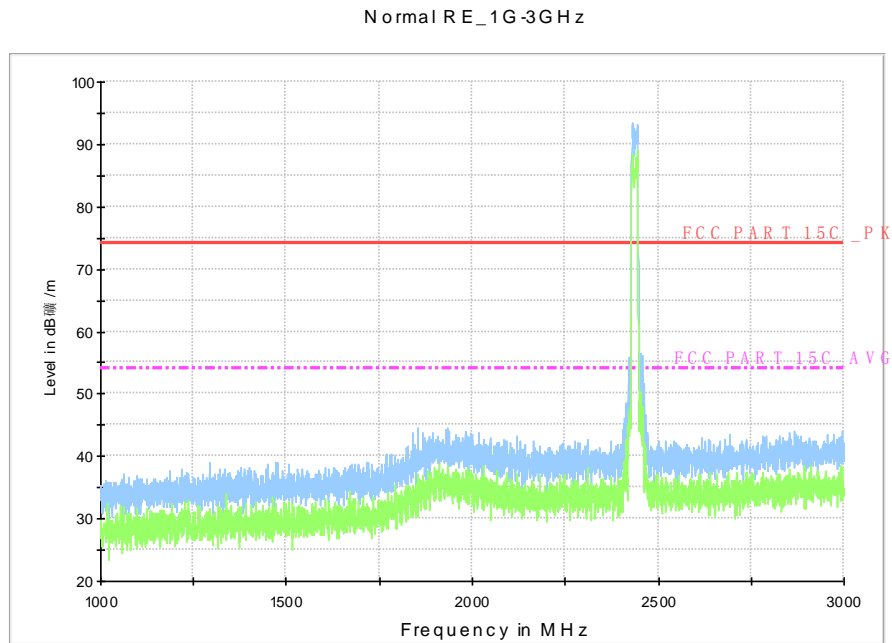


Fig.A.6.2.17 Radiated Spurious Emission (802.11g, Ch6, 1 GHz-3 GHz)

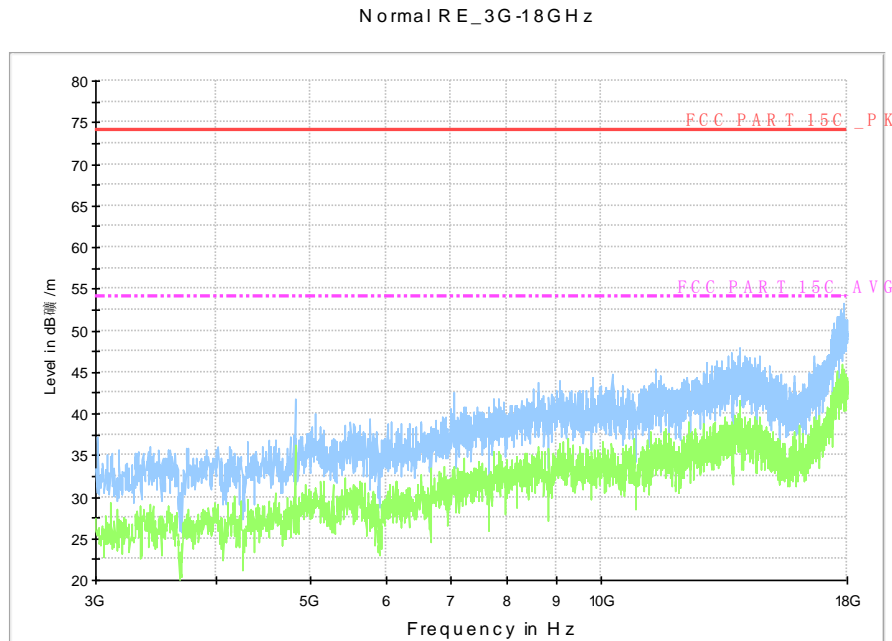


Fig.A.6.2.18 Radiated Spurious Emission (802.11g, Ch6, 3 GHz-18 GHz)

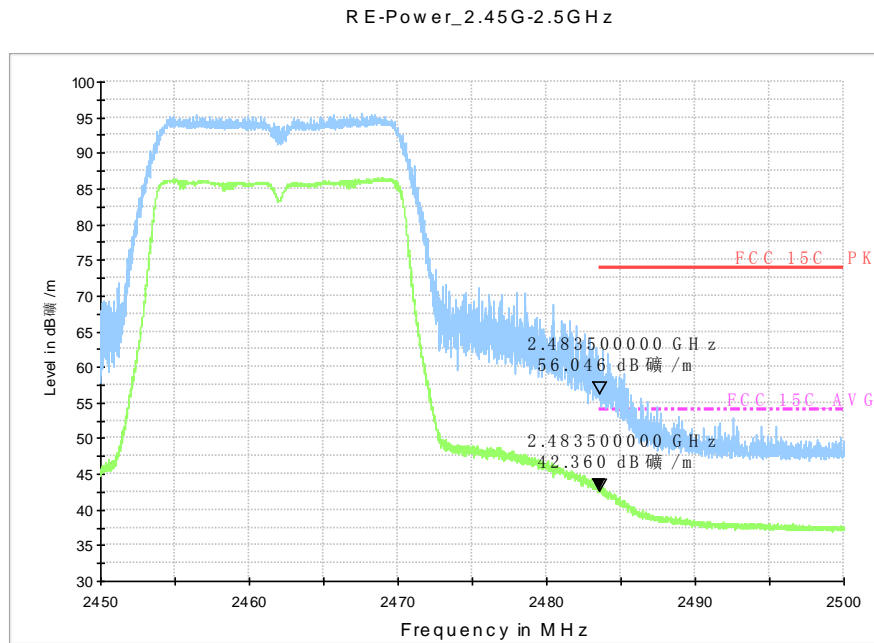


Fig.A.6.2.19 Radiated Spurious Emission (Power): 802.11g, ch11, 2.45 GHz - 2.50GHz

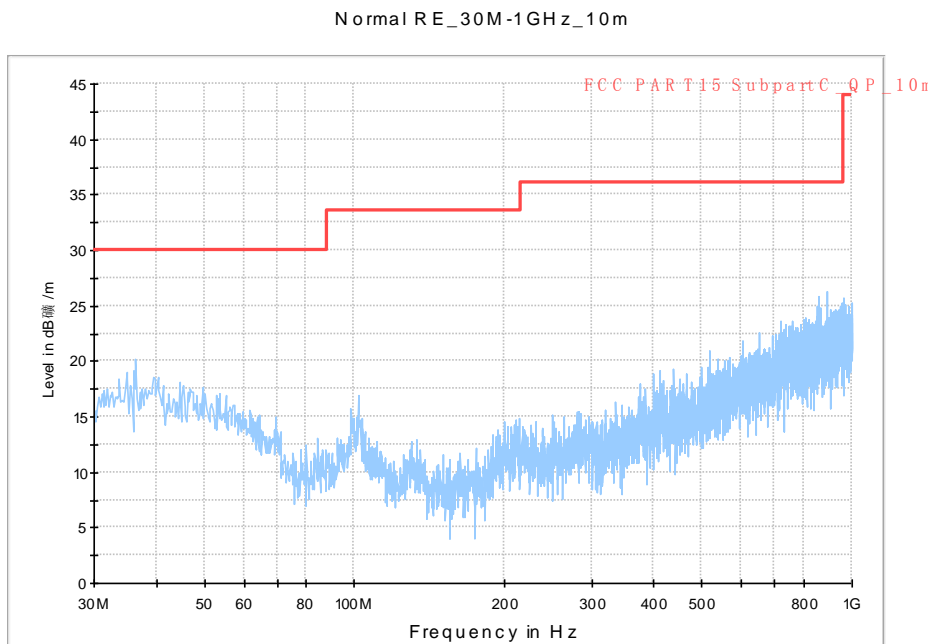


Fig.A.6.2.20 Radiated Spurious Emission (802.11g, Ch11, 30 MHz-1 GHz)

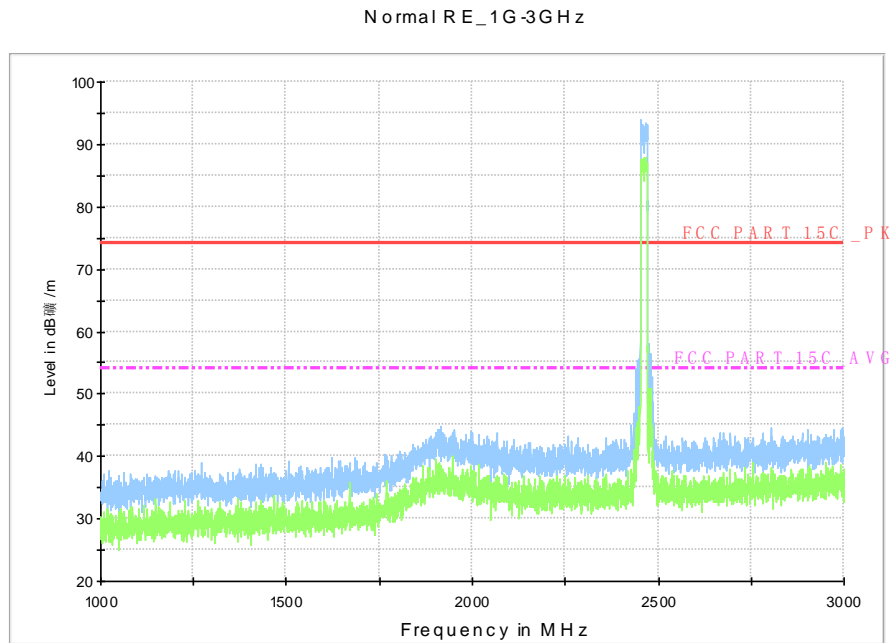


Fig.A.6.2.21 Radiated Spurious Emission (802.11g, Ch11, 1 GHz-3 GHz)

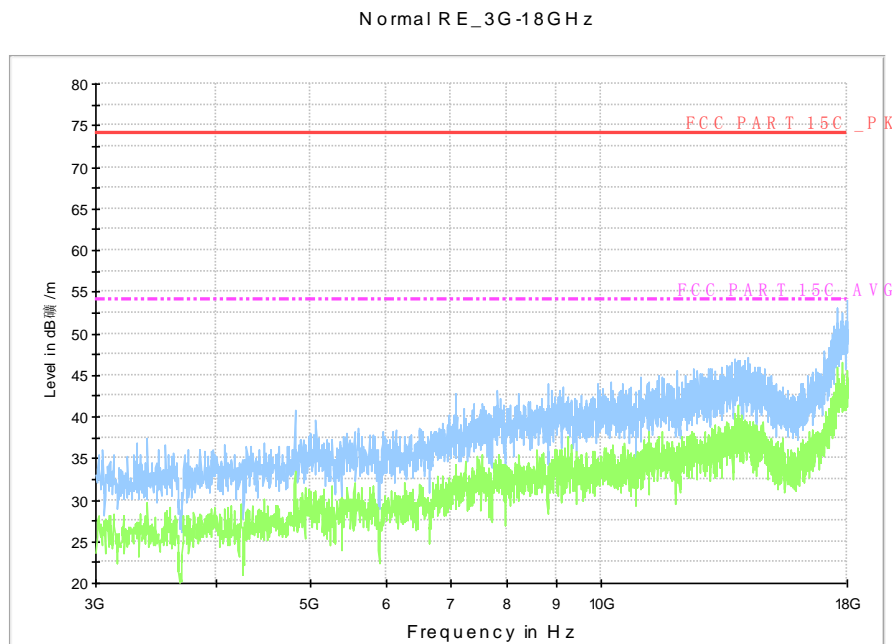


Fig.A.6.2.22 Radiated Spurious Emission (802.11g, Ch11, 3 GHz-18 GHz)