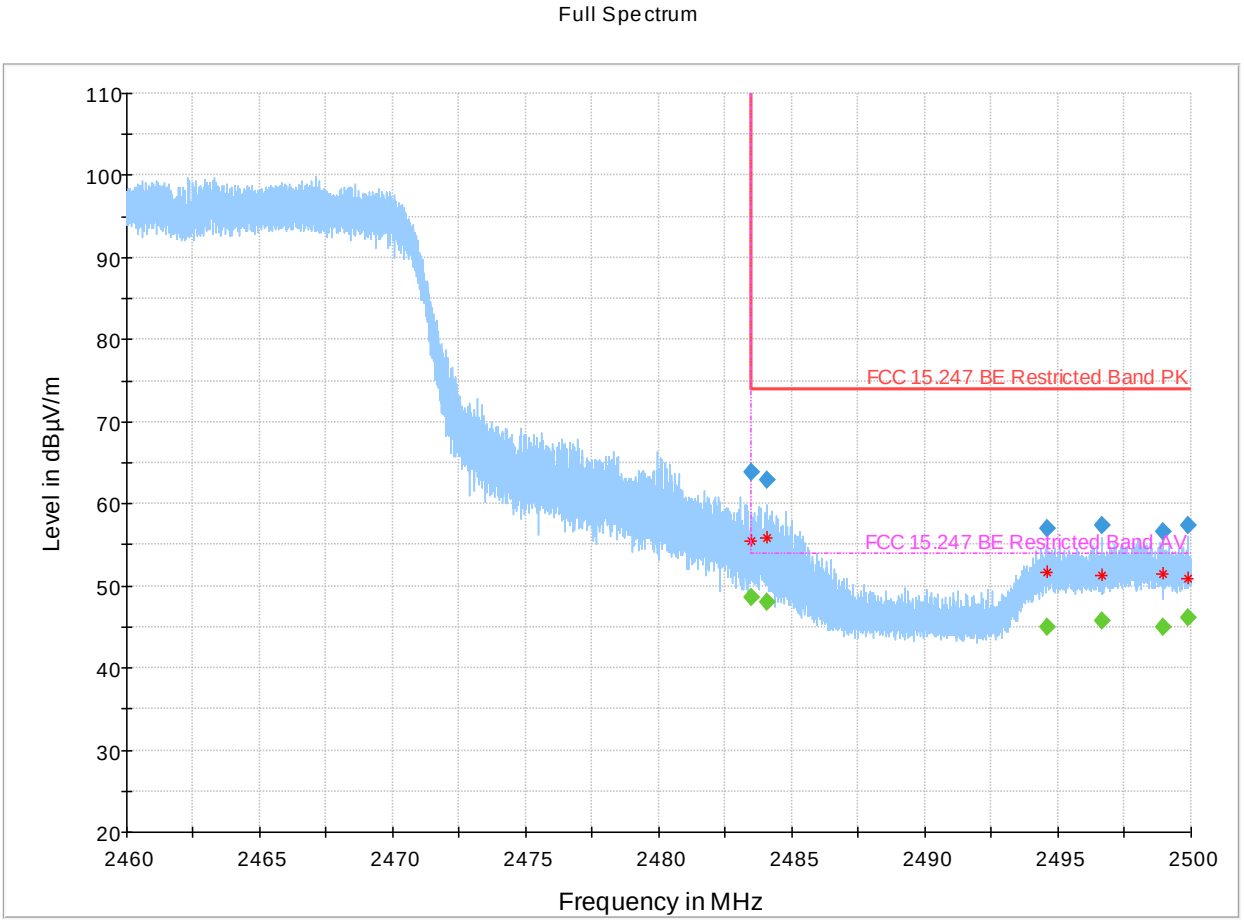


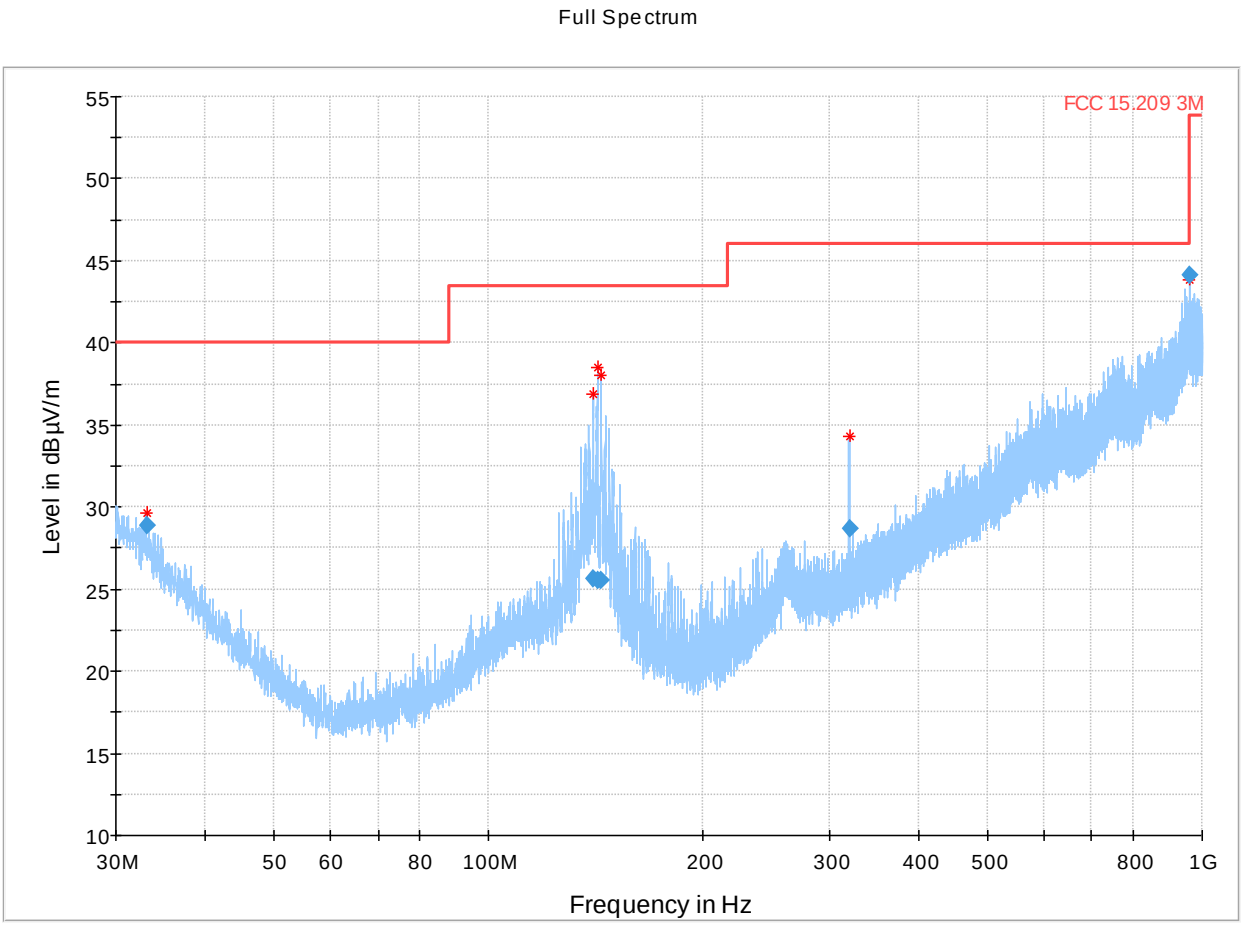

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-30:*** *Radiated emissions, 2462 MHz channel with 802.11n modulation, Restricted band-edge spectral plot*

***Table 8.3-7:*** *Radiated emissions, 2462 MHz channel with 802.11n modulation, Restricted band-edge results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 2483.500000 | --- | 48.68 | 53.90 | 5.22 | 5000.0 | 1000.000 | 126.3 | H | 293.0 | 0.2 |
| 2483.500000 | 63.84 | --- | 73.90 | 10.06 | 5000.0 | 1000.000 | 126.3 | H | 293.0 | 0.2 |
| 2484.032000 | --- | 48.04 | 53.90 | 5.86 | 5000.0 | 1000.000 | 125.4 | H | 290.0 | 0.2 |
| 2484.032000 | 62.88 | --- | 73.90 | 11.02 | 5000.0 | 1000.000 | 125.4 | H | 290.0 | 0.2 |
| 2494.614667 | --- | 44.94 | 53.90 | 8.96 | 5000.0 | 1000.000 | 159.8 | H | 281.0 | 0.2 |
| 2494.614667 | 56.92 | --- | 73.90 | 16.98 | 5000.0 | 1000.000 | 159.8 | H | 281.0 | 0.2 |
| 2496.625333 | --- | 45.71 | 53.90 | 8.19 | 5000.0 | 1000.000 | 129.6 | H | 289.0 | 0.3 |
| 2496.625333 | 57.41 | --- | 73.90 | 16.49 | 5000.0 | 1000.000 | 129.6 | H | 289.0 | 0.3 |
| 2498.964000 | --- | 45.02 | 53.90 | 8.88 | 5000.0 | 1000.000 | 154.0 | H | 275.0 | 0.3 |
| 2498.964000 | 56.65 | --- | 73.90 | 17.25 | 5000.0 | 1000.000 | 154.0 | H | 275.0 | 0.3 |
| 2499.906667 | --- | 46.11 | 53.90 | 7.79 | 5000.0 | 1000.000 | 131.3 | H | 341.0 | 0.3 |
| 2499.906667 | 57.34 | --- | 73.90 | 16.56 | 5000.0 | 1000.000 | 131.3 | H | 341.0 | 0.3 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.



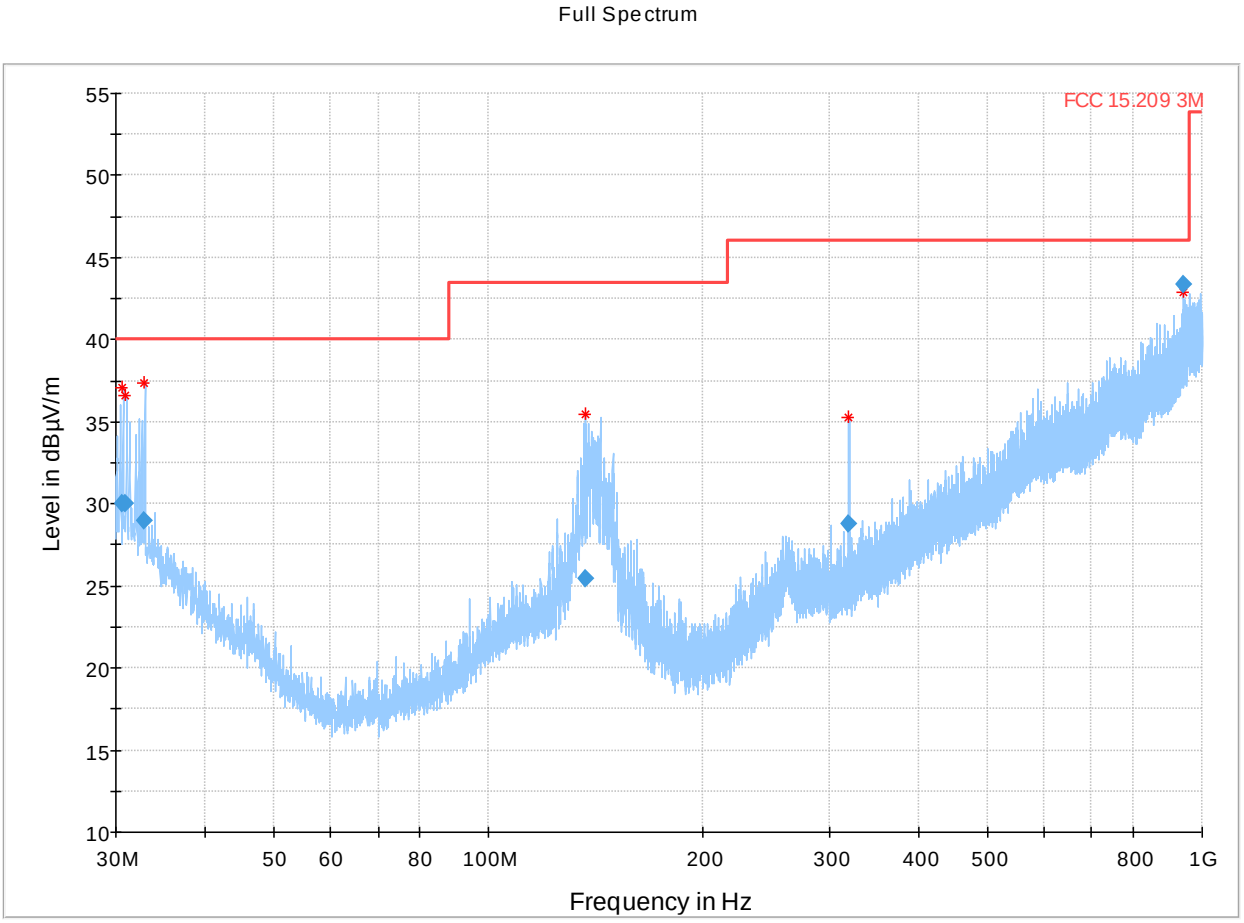

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-31:*** *Radiated emissions, 2412 MHz channel with 802.11b modulation, 30 – 1000 MHz spectral plot*

***Table 8.3-8:*** *Radiated emissions, 2412 MHz channel with 802.11b modulation, 30 – 1000 MHz results*

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|
| 33.211667 | 28.86 | 40.00 | 11.14 | 5000.0 | 120.000 | 266.6 | V | 304.0 | 23.1 |
| 140.242667 | 25.62 | 43.50 | 17.88 | 5000.0 | 120.000 | 132.1 | H | 215.0 | 18.6 |
| 141.975000 | 25.58 | 43.50 | 17.92 | 5000.0 | 120.000 | 234.8 | H | 267.0 | 18.5 |
| 143.745667 | 25.54 | 43.50 | 17.96 | 5000.0 | 120.000 | 246.7 | H | 36.0 | 18.5 |
| 320.130000 | 28.73 | 46.00 | 17.27 | 5000.0 | 120.000 | 271.9 | H | 252.0 | 21.3 |
| 959.143000 | 44.10 | 46.00 | 1.90 | 5000.0 | 120.000 | 182.9 | H | 230.0 | 35.4 |

Notes:
[1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
[4] Limits converted to dBµV/m and an inverse proportionality factor of 20 dB per decade has been used to normalize the specification limit to a measurement distance of 3 meters to determine compliance.



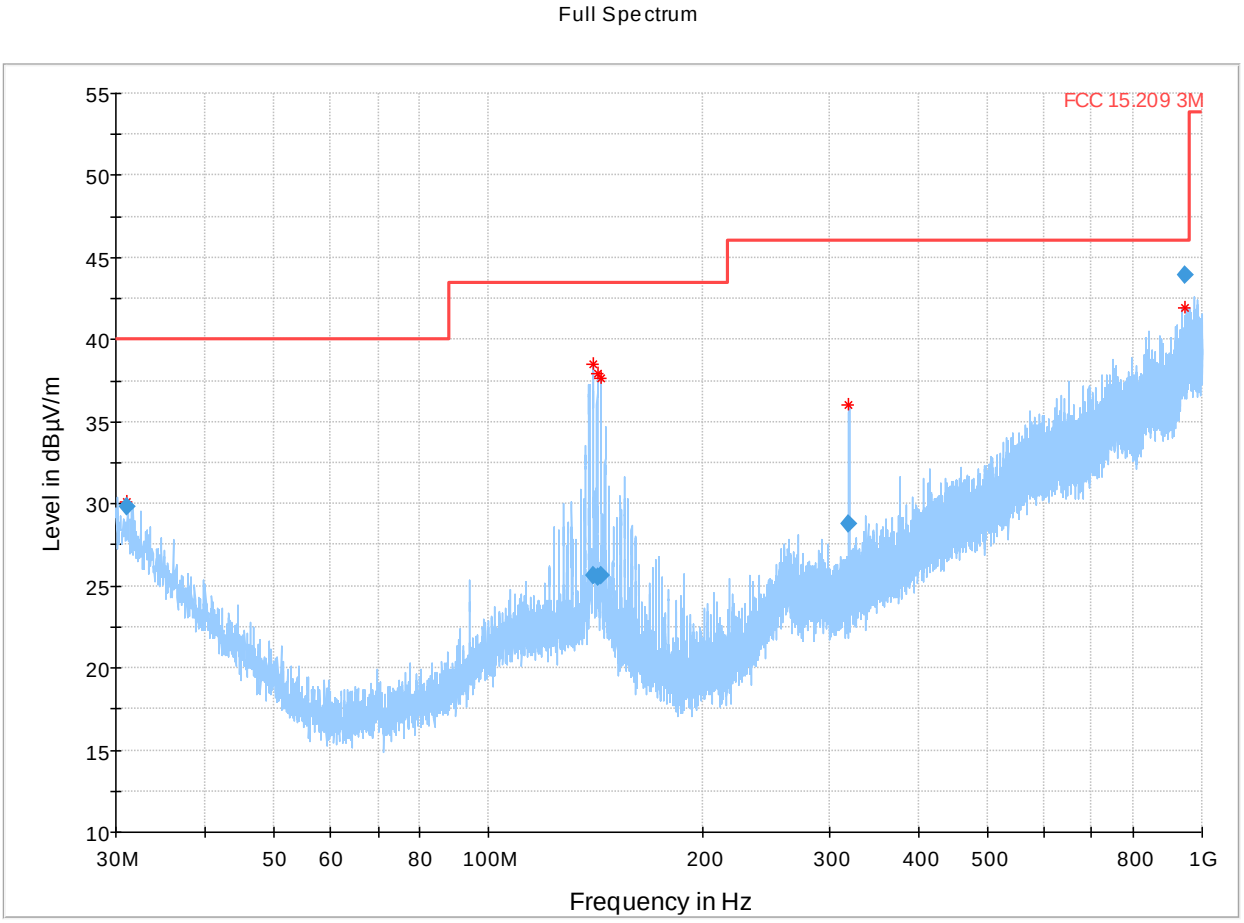

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-32:*** *Radiated emissions, 2412 MHz channel with 802.11g modulation, 30 – 1000 MHz spectral plot*

***Table 8.3-9:*** *Radiated emissions, 2412 MHz channel with 802.11g modulation, 30 – 1000 MHz results*

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|
| 30.643667 | 30.05 | 40.00 | 9.95 | 5000.0 | 120.000 | 104.4 | V | 69.0 | 24.6 |
| 30.887000 | 29.98 | 40.00 | 10.02 | 5000.0 | 120.000 | 296.6 | V | 231.0 | 24.4 |
| 32.874667 | 28.95 | 40.00 | 11.05 | 5000.0 | 120.000 | 111.3 | V | 275.0 | 23.2 |
| 136.581333 | 25.42 | 43.50 | 18.08 | 5000.0 | 120.000 | 294.7 | H | 220.0 | 18.4 |
| 320.010000 | 28.76 | 46.00 | 17.24 | 5000.0 | 120.000 | 280.5 | H | 197.0 | 21.3 |
| 938.991667 | 43.34 | 46.00 | 2.66 | 5000.0 | 120.000 | 321.8 | V | 72.0 | 34.7 |

Notes:
[1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
[4] Limits converted to dBµV/m and an inverse proportionality factor of 20 dB per decade has been used to normalize the specification limit to a measurement distance of 3 meters to determine compliance.



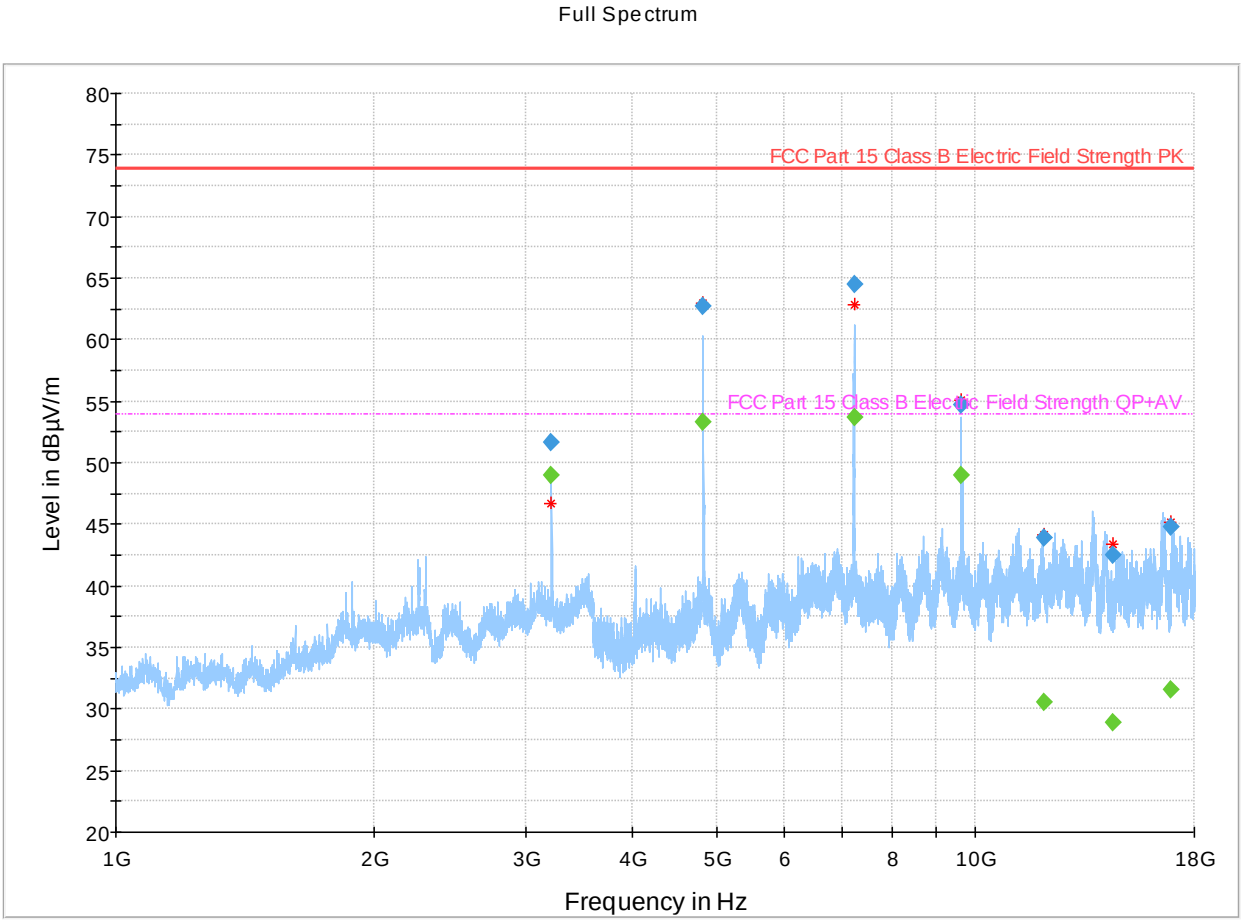

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-33:*** *Radiated emissions, 2412 MHz channel with 802.11n modulation, 30 – 1000 MHz spectral plot*

***Table 8.3-10:*** *Radiated emissions, 2412 MHz channel with 802.11n modulation, 30 – 1000 MHz results*

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|
| 31.136333 | 29.85 | 40.00 | 10.15 | 5000.0 | 120.000 | 214.5 | V | 0.0 | 24.3 |
| 140.242667 | 25.62 | 43.50 | 17.88 | 5000.0 | 120.000 | 363.9 | H | 51.0 | 18.6 |
| 142.095000 | 25.56 | 43.50 | 17.94 | 5000.0 | 120.000 | 330.4 | H | 226.0 | 18.5 |
| 144.002667 | 25.62 | 43.50 | 17.88 | 5000.0 | 120.000 | 274.3 | H | 134.0 | 18.5 |
| 319.850000 | 28.77 | 46.00 | 17.23 | 5000.0 | 120.000 | 182.9 | H | 176.0 | 21.3 |
| 948.216000 | 43.91 | 46.00 | 2.09 | 5000.0 | 120.000 | 193.2 | H | 160.0 | 35.2 |

Notes:
[1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
[4] Limits converted to dBµV/m and an inverse proportionality factor of 20 dB per decade has been used to normalize the specification limit to a measurement distance of 3 meters to determine compliance.



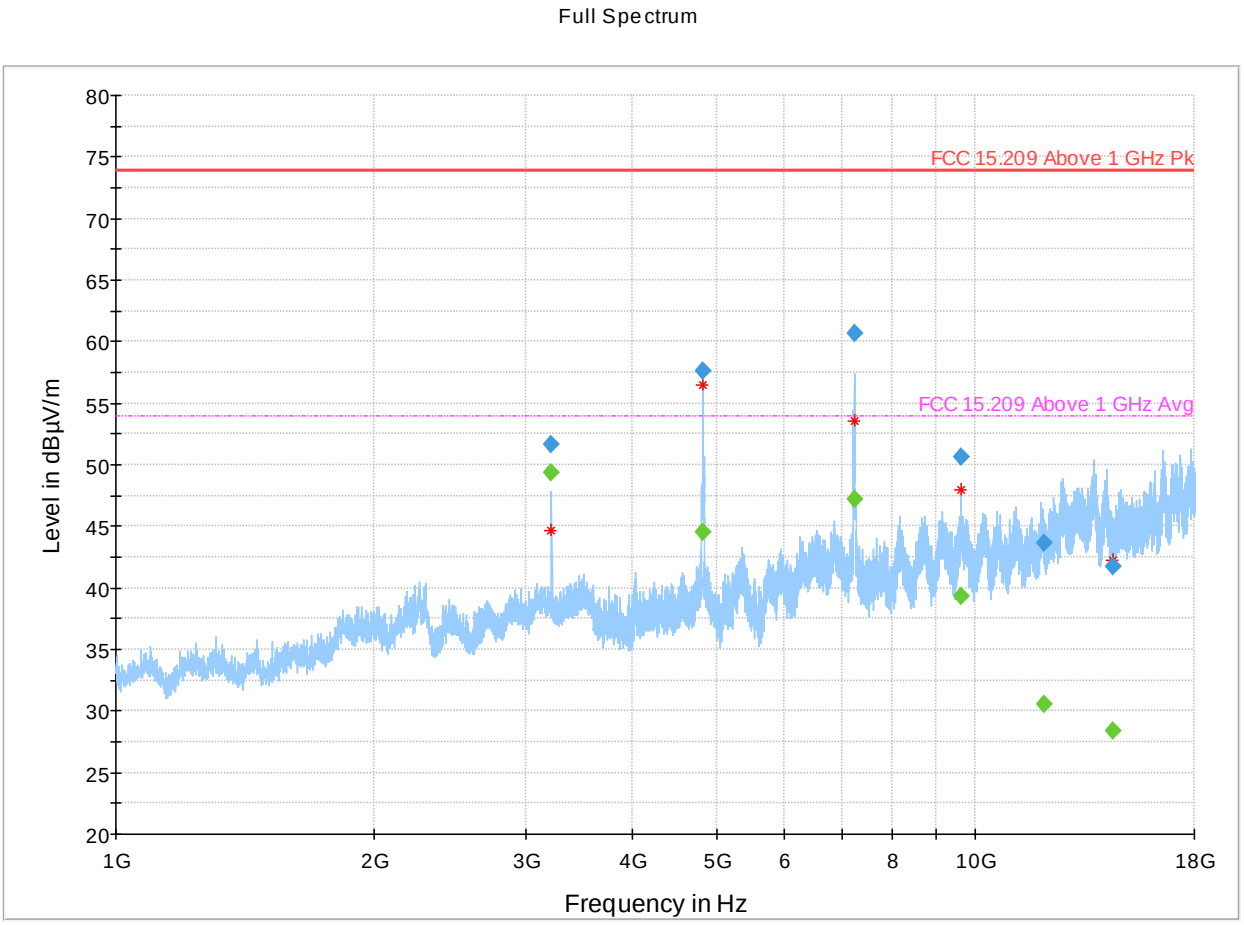

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-34:*** *Radiated emissions, 2412 MHz channel with 802.11b modulation, 1 – 18 GHz spectral plot*

***Table 8.3-11:*** *Radiated emissions, 2412 MHz channel with 802.11b modulation, 1 – 18 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 3216.433333 | 51.71 | --- | 73.90 | 22.19 | 5000.0 | 1000.000 | 149.3 | H | 26.0 | -7.5 |
| 3216.433333 | --- | 48.94 | 53.90 | 4.96 | 5000.0 | 1000.000 | 149.3 | H | 26.0 | -7.5 |
| 4824.466667 | 62.72 | --- | 73.90 | 11.18 | 5000.0 | 1000.000 | 122.8 | V | 289.0 | -1.6 |
| 4824.466667 | --- | 53.35 | 53.90 | 0.55 | 5000.0 | 1000.000 | 122.8 | V | 289.0 | -1.6 |
| 7236.066667 | --- | 53.72 | 53.90 | 0.18 | 5000.0 | 1000.000 | 164.4 | V | 318.0 | 2.2 |
| 7236.066667 | 64.52 | --- | 73.90 | 9.38 | 5000.0 | 1000.000 | 164.4 | V | 318.0 | 2.2 |
| 9648.666667 | --- | 48.96 | 53.90 | 4.94 | 5000.0 | 1000.000 | 197.0 | H | 1.0 | 5.3 |
| 9648.666667 | 54.68 | --- | 73.90 | 19.22 | 5000.0 | 1000.000 | 197.0 | H | 1.0 | 5.3 |
| 12046.600000 | --- | 30.49 | 53.90 | 23.41 | 5000.0 | 1000.000 | 380.4 | H | 158.0 | 5.1 |
| 12046.600000 | 43.87 | --- | 73.90 | 30.03 | 5000.0 | 1000.000 | 380.4 | H | 158.0 | 5.1 |
| 14476.200000 | --- | 28.94 | 53.90 | 24.96 | 5000.0 | 1000.000 | 261.1 | H | 158.0 | 7.4 |
| 14476.200000 | 42.47 | --- | 73.90 | 31.43 | 5000.0 | 1000.000 | 261.1 | H | 158.0 | 7.4 |
| 16887.000000 | --- | 31.51 | 53.90 | 22.39 | 5000.0 | 1000.000 | 144.0 | V | 34.0 | 10.3 |
| 16887.000000 | 44.76 | --- | 73.90 | 29.14 | 5000.0 | 1000.000 | 144.0 | V | 34.0 | 10.3 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
A notch filter at 2.4 GHz was used to reduce the level of the intentional transmitter



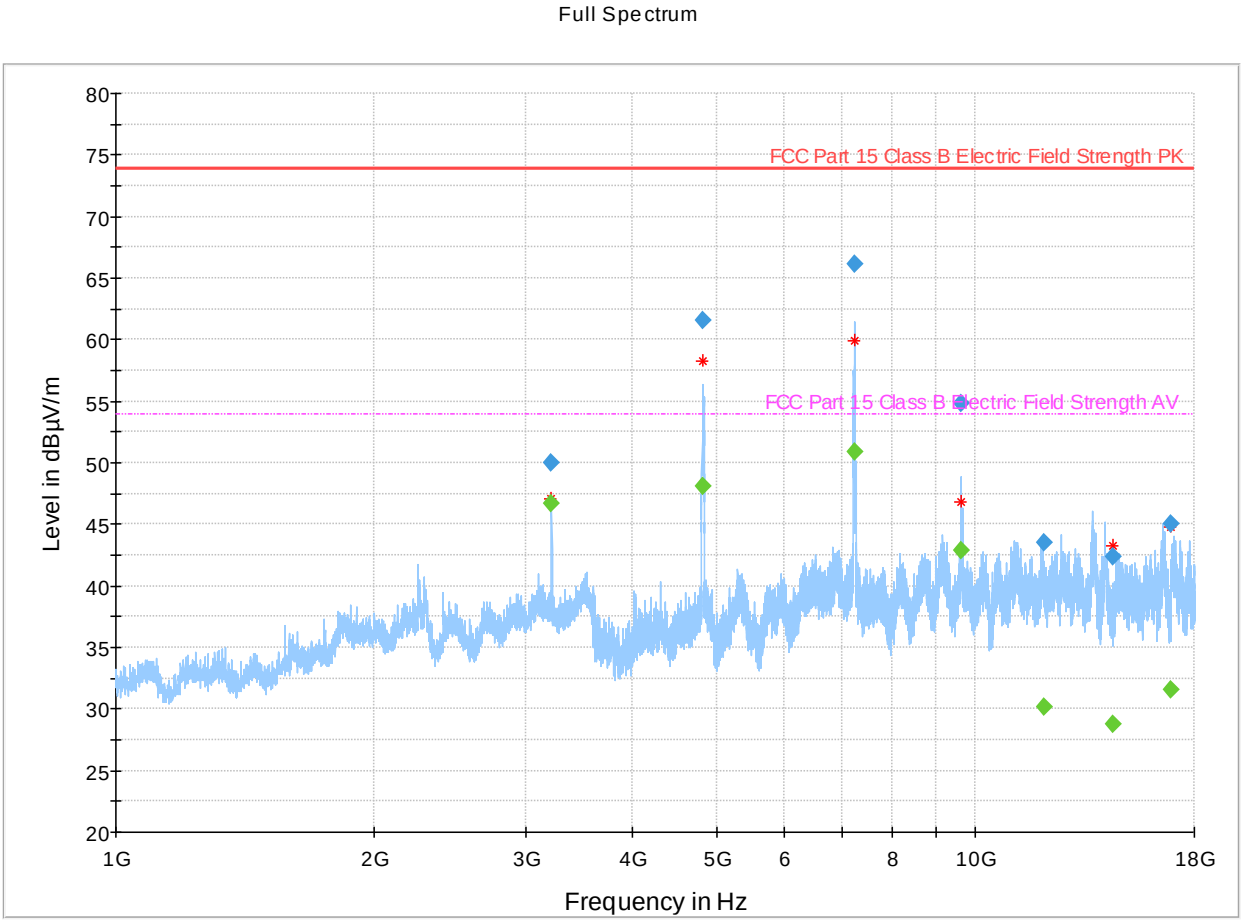

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-35:*** *Radiated emissions, 2412 MHz channel with 802.11g modulation, 1 – 18 GHz spectral plot*

***Table 8.3-12:*** *Radiated emissions, 2412 MHz channel with 802.11g modulation, 1 – 18 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 3216.266667 | --- | 49.31 | 53.90 | 4.59 | 5000.0 | 1000.000 | 116.5 | H | 349.0 | -7.5 |
| 3216.266667 | 51.71 | --- | 73.90 | 22.19 | 5000.0 | 1000.000 | 116.5 | H | 349.0 | -7.5 |
| 4824.866667 | --- | 44.49 | 53.90 | 9.41 | 5000.0 | 1000.000 | 121.4 | V | 288.0 | -1.6 |
| 4824.866667 | 57.68 | --- | 73.90 | 16.22 | 5000.0 | 1000.000 | 121.4 | V | 288.0 | -1.6 |
| 7238.566667 | 60.64 | --- | 73.90 | 13.26 | 5000.0 | 1000.000 | 109.1 | V | 286.0 | 2.2 |
| 7238.566667 | --- | 47.18 | 53.90 | 6.73 | 5000.0 | 1000.000 | 109.1 | V | 286.0 | 2.2 |
| 9648.200000 | 50.66 | --- | 73.90 | 23.24 | 5000.0 | 1000.000 | 229.3 | H | 178.0 | 5.3 |
| 9648.200000 | --- | 39.27 | 53.90 | 14.63 | 5000.0 | 1000.000 | 229.3 | H | 178.0 | 5.3 |
| 12054.200000 | 43.63 | --- | 73.90 | 30.27 | 5000.0 | 1000.000 | 318.4 | H | 95.0 | 5.1 |
| 12054.200000 | --- | 30.51 | 53.90 | 23.39 | 5000.0 | 1000.000 | 318.4 | H | 95.0 | 5.1 |
| 14465.800000 | 41.71 | --- | 73.90 | 32.19 | 5000.0 | 1000.000 | 98.0 | H | 271.0 | 7.5 |
| 14465.800000 | --- | 28.43 | 53.90 | 25.47 | 5000.0 | 1000.000 | 98.0 | H | 271.0 | 7.5 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
A notch filter at 2.4 GHz was used to reduce the level of the intentional transmitter



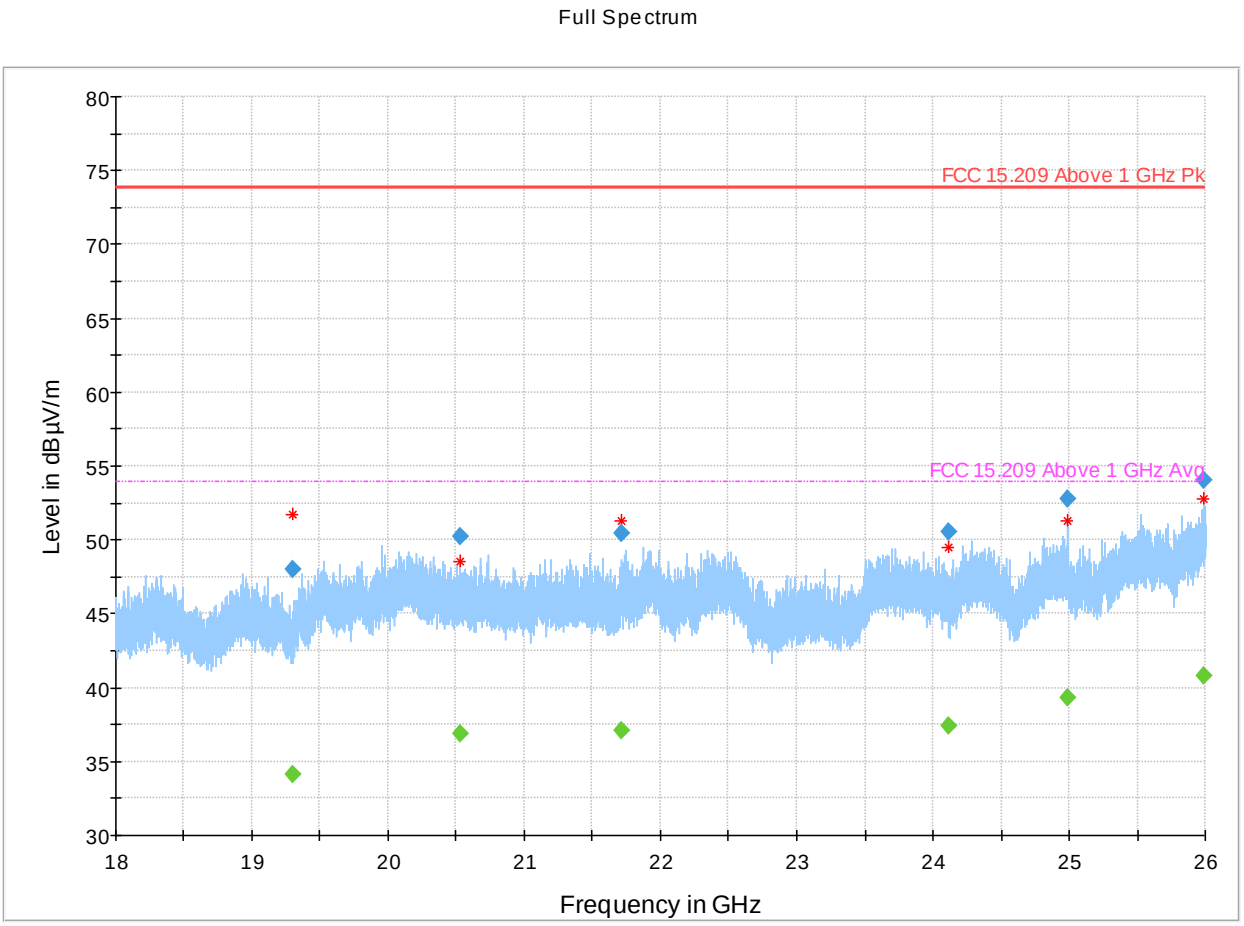

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-36:*** *Radiated emissions, 2412 MHz channel with 802.11n modulation, 1 – 18 GHz spectral plot*

***Table 8.3-13:*** *Radiated emissions, 2412 MHz channel with 802.11n modulation, 1 – 18 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 3216.433333 | 49.98 | --- | 73.90 | 23.92 | 5000.0 | 1000.000 | 142.3 | H | 26.0 | -7.5 |
| 3216.433333 | --- | 46.69 | 53.90 | 7.21 | 5000.0 | 1000.000 | 142.3 | H | 26.0 | -7.5 |
| 4822.466667 | --- | 48.09 | 53.90 | 5.81 | 5000.0 | 1000.000 | 127.0 | V | 287.0 | -1.6 |
| 4822.466667 | 61.58 | --- | 73.90 | 12.32 | 5000.0 | 1000.000 | 127.0 | V | 287.0 | -1.6 |
| 7244.300000 | 66.10 | --- | 73.90 | 7.80 | 5000.0 | 1000.000 | 98.0 | V | 290.0 | 2.3 |
| 7244.300000 | --- | 50.95 | 53.90 | 2.95 | 5000.0 | 1000.000 | 98.0 | V | 290.0 | 2.3 |
| 9648.833333 | 54.85 | --- | 73.90 | 19.05 | 5000.0 | 1000.000 | 125.0 | V | 288.0 | 5.3 |
| 9648.833333 | --- | 42.86 | 53.90 | 11.04 | 5000.0 | 1000.000 | 125.0 | V | 288.0 | 5.3 |
| 12049.800000 | 43.46 | --- | 73.90 | 30.44 | 5000.0 | 1000.000 | 383.2 | H | 259.0 | 5.1 |
| 12049.800000 | --- | 30.20 | 53.90 | 23.70 | 5000.0 | 1000.000 | 383.2 | H | 259.0 | 5.1 |
| 14475.800000 | 42.43 | --- | 73.90 | 31.47 | 5000.0 | 1000.000 | 162.2 | H | 0.0 | 7.4 |
| 14475.800000 | --- | 28.79 | 53.90 | 25.11 | 5000.0 | 1000.000 | 162.2 | H | 0.0 | 7.4 |
| 16896.600000 | 45.05 | --- | 73.90 | 28.85 | 5000.0 | 1000.000 | 379.6 | H | 57.0 | 10.6 |
| 16896.600000 | --- | 31.58 | 53.90 | 22.32 | 5000.0 | 1000.000 | 379.6 | H | 57.0 | 10.6 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
A notch filter at 2.4 GHz was used to reduce the level of the intentional transmitter



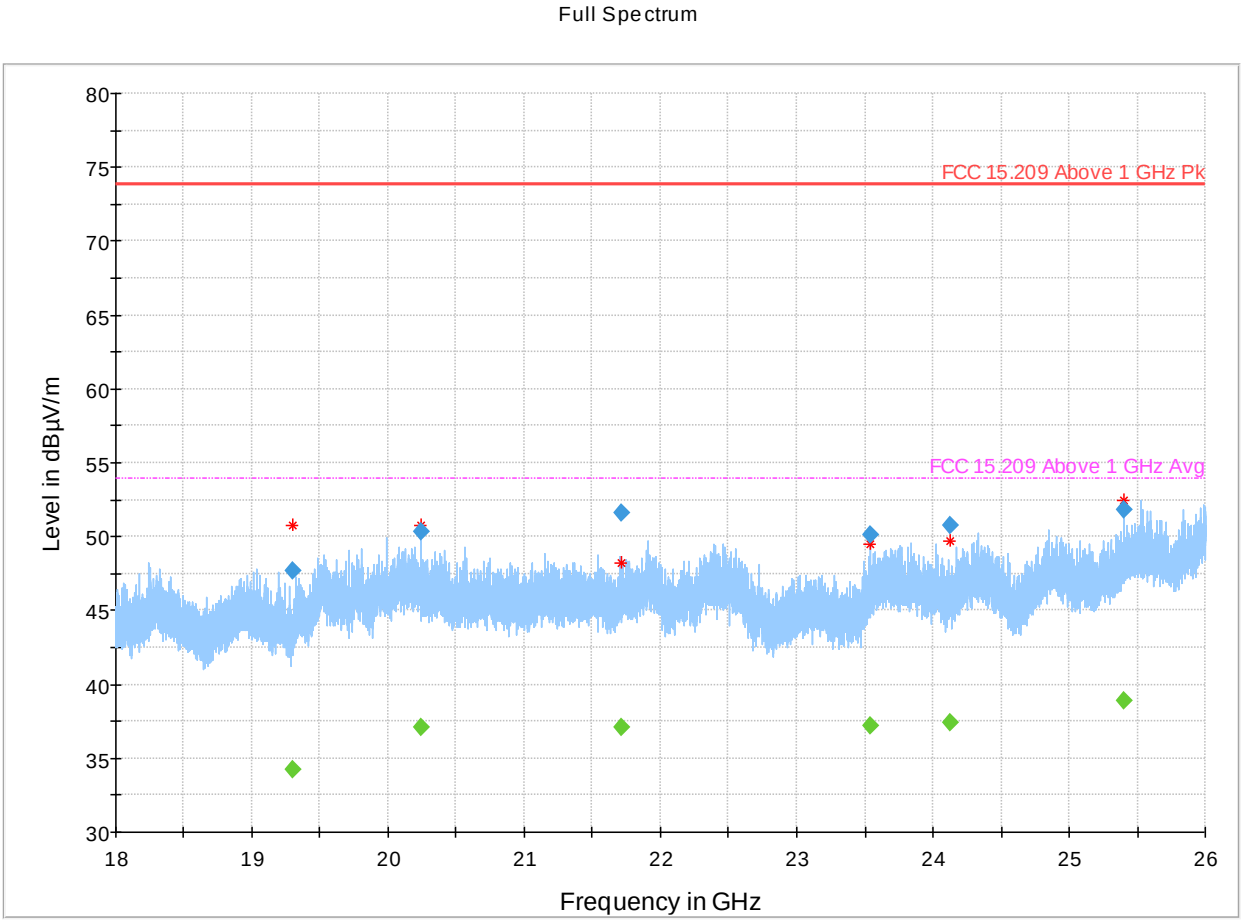

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-37:*** *Radiated emissions, 2412 MHz channel with 802.11b modulation, 18 – 26 GHz spectral plot*

***Table 8.3-14:*** *Radiated emissions, 2412 MHz channel with 802.11b modulation, 18 – 26 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 19294.700000 | --- | 34.18 | 53.90 | 19.72 | 5000.0 | 1000.000 | 122.7 | H | 132.0 | 10.3 |
| 19294.700000 | 48.05 | --- | 73.90 | 25.85 | 5000.0 | 1000.000 | 122.7 | H | 132.0 | 10.3 |
| 20532.300000 | --- | 36.87 | 53.90 | 17.03 | 5000.0 | 1000.000 | 125.0 | V | 100.0 | 12.5 |
| 20532.300000 | 50.20 | --- | 73.90 | 23.70 | 5000.0 | 1000.000 | 125.0 | V | 100.0 | 12.5 |
| 21709.500000 | 50.50 | --- | 73.90 | 23.40 | 5000.0 | 1000.000 | 113.3 | V | 271.0 | 11.6 |
| 21709.500000 | --- | 37.11 | 53.90 | 16.79 | 5000.0 | 1000.000 | 113.3 | V | 271.0 | 11.6 |
| 24117.500000 | --- | 37.43 | 53.90 | 16.47 | 5000.0 | 1000.000 | 124.9 | V | 299.0 | 11.4 |
| 24117.500000 | 50.52 | --- | 73.90 | 23.38 | 5000.0 | 1000.000 | 124.9 | V | 299.0 | 11.4 |
| 24992.700000 | 52.80 | --- | 73.90 | 21.10 | 5000.0 | 1000.000 | 112.0 | V | 180.0 | 12.6 |
| 24992.700000 | --- | 39.36 | 53.90 | 14.54 | 5000.0 | 1000.000 | 112.0 | V | 180.0 | 12.6 |
| 25990.966667 | --- | 40.85 | 53.90 | 13.05 | 5000.0 | 1000.000 | 125.0 | V | 198.0 | 15.3 |
| 25990.966667 | 54.07 | --- | 73.90 | 19.83 | 5000.0 | 1000.000 | 125.0 | V | 198.0 | 15.3 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.



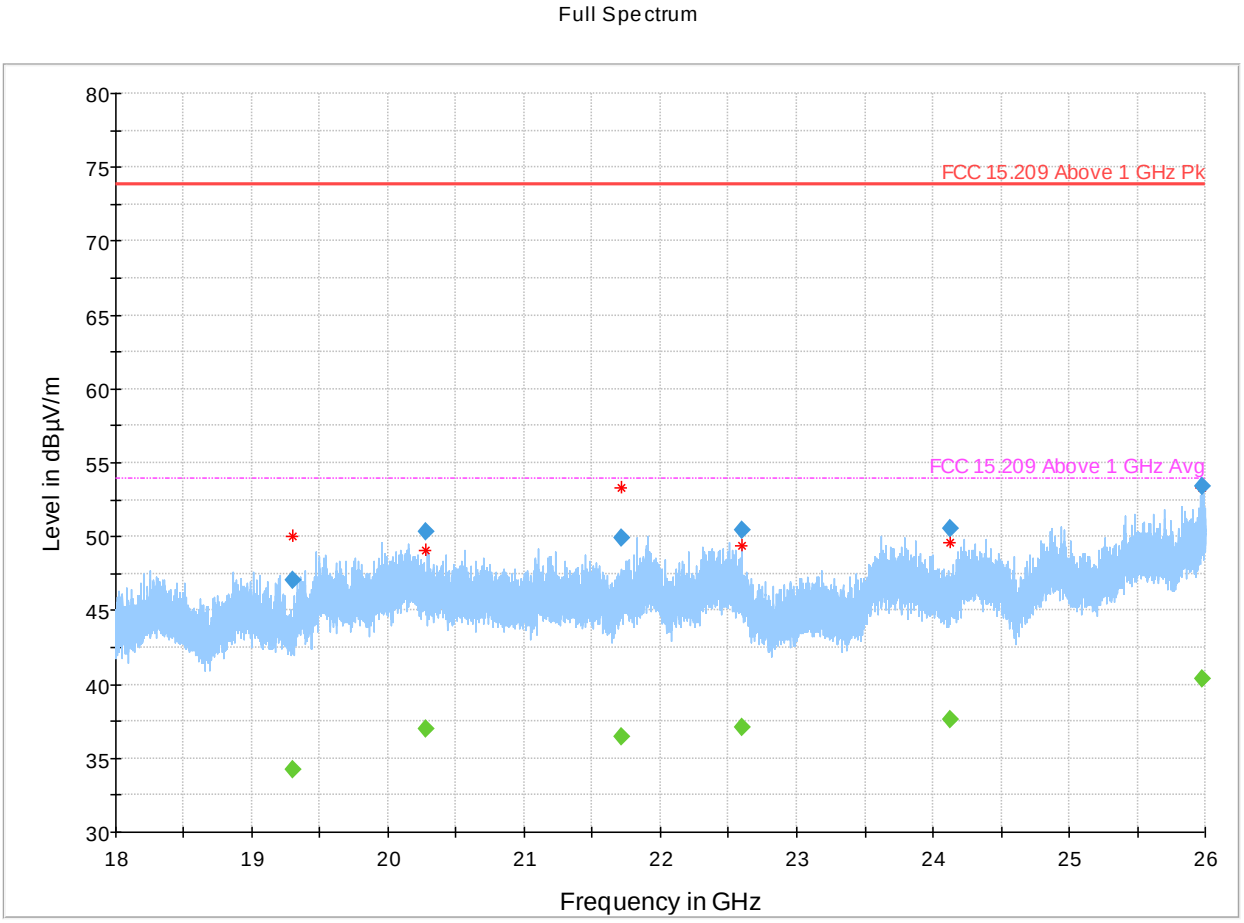

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-38:*** *Radiated emissions, 2412 MHz channel with 802.11g modulation, 18 – 26 GHz spectral plot*

***Table 8.3-15:*** *Radiated emissions, 2412 MHz channel with 802.11g modulation, 18 – 26 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 19295.500000 | --- | 34.28 | 53.90 | 19.62 | 5000.0 | 1000.000 | 106.4 | V | 323.0 | 10.2 |
| 19295.500000 | 47.68 | --- | 73.90 | 26.22 | 5000.0 | 1000.000 | 106.4 | V | 323.0 | 10.2 |
| 20239.100000 | --- | 37.05 | 53.90 | 16.85 | 5000.0 | 1000.000 | 119.2 | V | 153.0 | 12.3 |
| 20239.100000 | 50.34 | --- | 73.90 | 23.56 | 5000.0 | 1000.000 | 119.2 | V | 153.0 | 12.3 |
| 21707.900000 | --- | 37.07 | 53.90 | 16.83 | 5000.0 | 1000.000 | 125.0 | V | 322.0 | 11.6 |
| 21707.900000 | 51.61 | --- | 73.90 | 22.29 | 5000.0 | 1000.000 | 125.0 | V | 322.0 | 11.6 |
| 23538.033333 | --- | 37.18 | 53.90 | 16.72 | 5000.0 | 1000.000 | 106.5 | V | 248.0 | 11.9 |
| 23538.033333 | 50.16 | --- | 73.90 | 23.74 | 5000.0 | 1000.000 | 106.5 | V | 248.0 | 11.9 |
| 24122.500000 | 50.72 | --- | 73.90 | 23.18 | 5000.0 | 1000.000 | 125.1 | V | 178.0 | 11.3 |
| 24122.500000 | --- | 37.45 | 53.90 | 16.45 | 5000.0 | 1000.000 | 125.1 | V | 178.0 | 11.3 |
| 25402.566667 | 51.85 | --- | 73.90 | 22.05 | 5000.0 | 1000.000 | 115.7 | H | 139.0 | 13.6 |
| 25402.566667 | --- | 38.85 | 53.90 | 15.05 | 5000.0 | 1000.000 | 115.7 | H | 139.0 | 13.6 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.



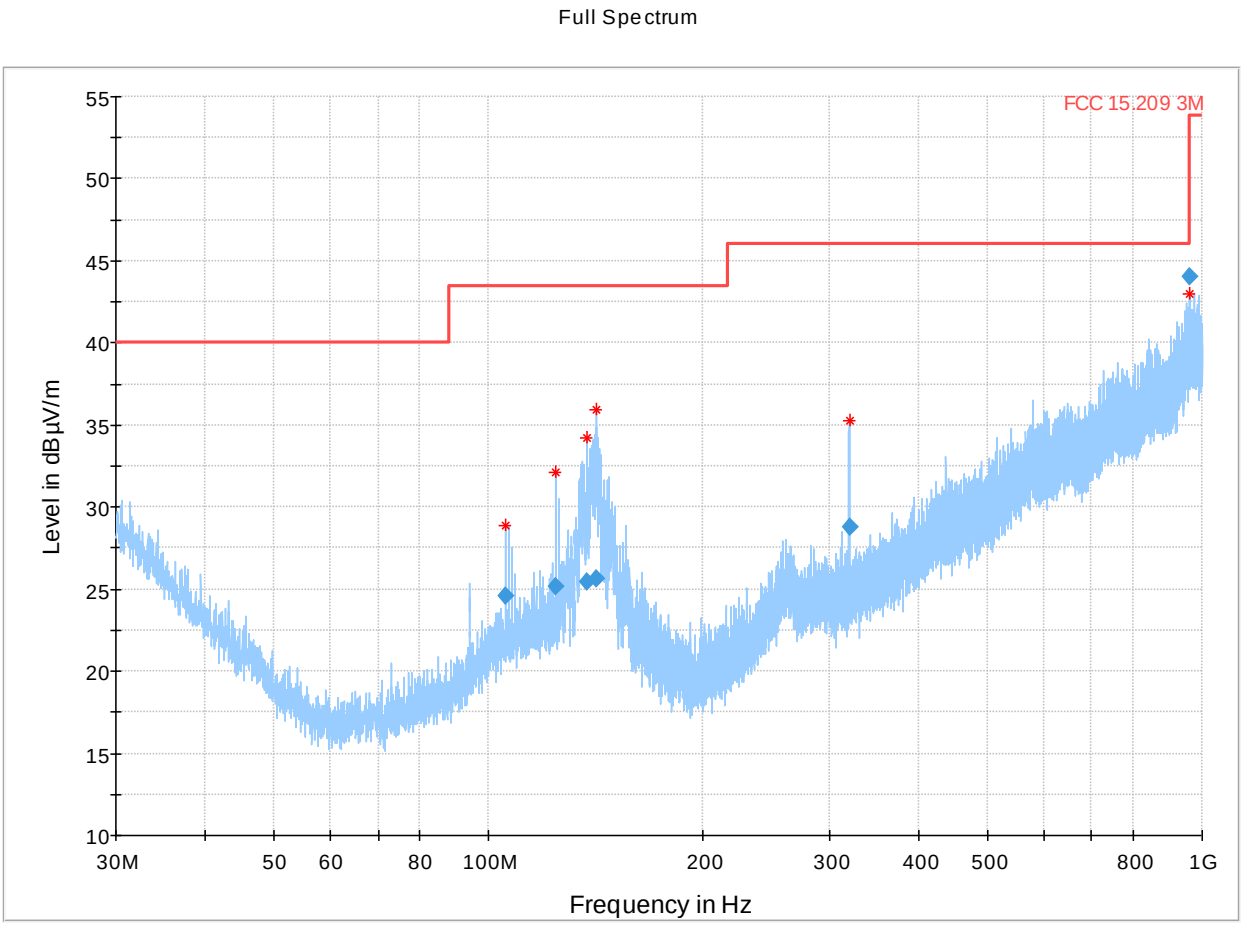

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-39:*** *Radiated emissions, 2412 MHz channel with 802.11n modulation, 18 – 26 GHz spectral plot*

***Table 8.3-16:*** *Radiated emissions, 2412 MHz channel with 802.11n modulation, 18 – 26 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 19298.300000 | 47.08 | --- | 73.90 | 26.82 | 5000.0 | 1000.000 | 125.0 | H | 150.0 | 10.3 |
| 19298.300000 | --- | 34.20 | 53.90 | 19.70 | 5000.0 | 1000.000 | 125.0 | H | 150.0 | 10.3 |
| 20281.500000 | 50.29 | --- | 73.90 | 23.61 | 5000.0 | 1000.000 | 125.0 | H | 205.0 | 12.3 |
| 20281.500000 | --- | 36.96 | 53.90 | 16.94 | 5000.0 | 1000.000 | 125.0 | H | 205.0 | 12.3 |
| 21710.300000 | --- | 36.45 | 53.90 | 17.45 | 5000.0 | 1000.000 | 220.2 | H | 163.0 | 11.4 |
| 21710.300000 | 49.90 | --- | 73.90 | 24.00 | 5000.0 | 1000.000 | 220.2 | H | 163.0 | 11.4 |
| 22596.966667 | 50.41 | --- | 73.90 | 23.49 | 5000.0 | 1000.000 | 108.3 | V | 204.0 | 11.9 |
| 22596.966667 | --- | 37.14 | 53.90 | 16.76 | 5000.0 | 1000.000 | 108.3 | V | 204.0 | 11.9 |
| 24122.500000 | --- | 37.60 | 53.90 | 16.30 | 5000.0 | 1000.000 | 111.8 | H | 294.0 | 11.4 |
| 24122.500000 | 50.58 | --- | 73.90 | 23.32 | 5000.0 | 1000.000 | 111.8 | H | 294.0 | 11.4 |
| 25978.300000 | 53.41 | --- | 73.90 | 20.49 | 5000.0 | 1000.000 | 175.1 | H | 308.0 | 15.2 |
| 25978.300000 | --- | 40.40 | 53.90 | 13.50 | 5000.0 | 1000.000 | 175.1 | H | 308.0 | 15.2 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.



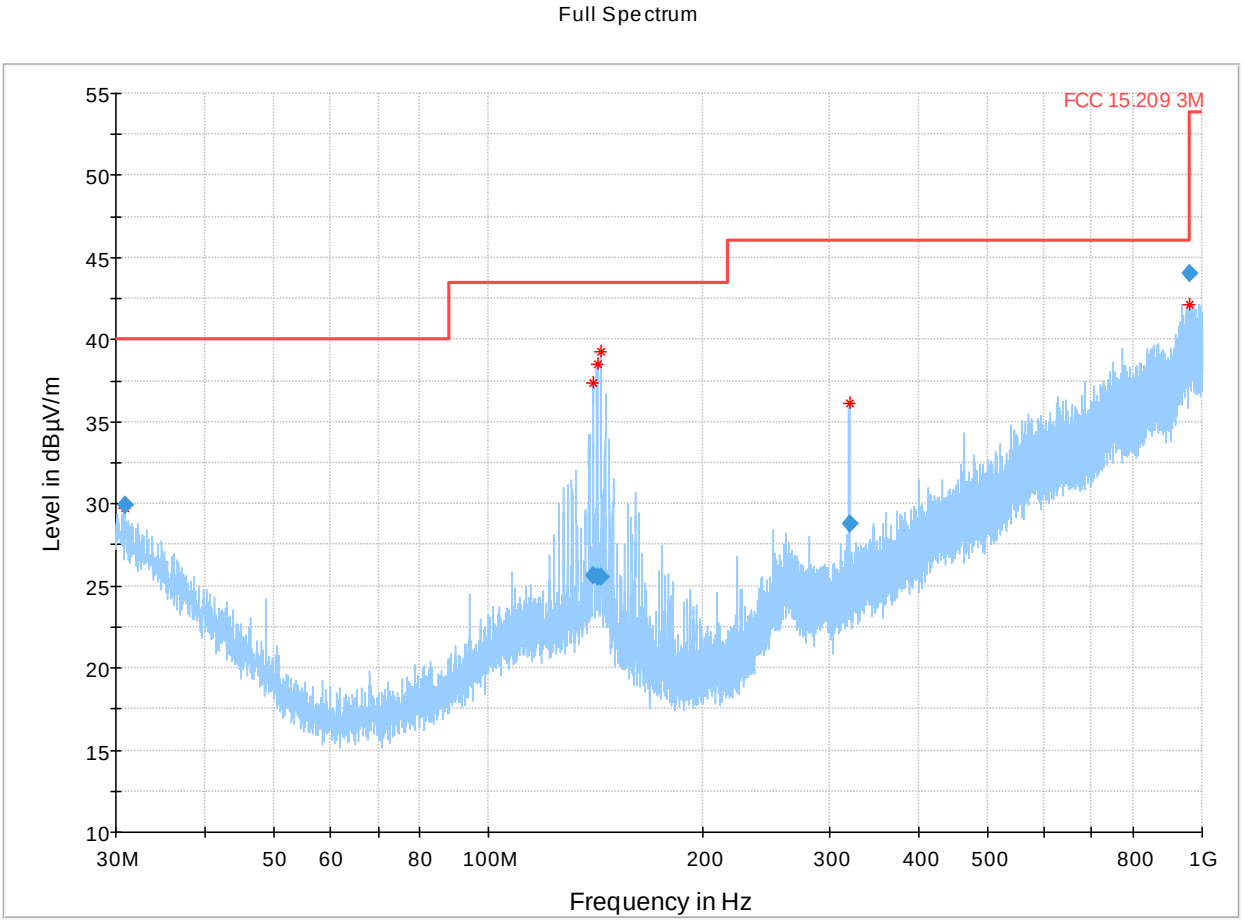

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-40:*** *Radiated emissions, 2442 MHz channel with 802.11b modulation, 30 – 1000 MHz spectral plot*

***Table 8.3-17:*** *Radiated emissions, 2442 MHz channel with 802.11b modulation, 30 – 1000 MHz results*

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|
| 105.792333 | 24.61 | 43.50 | 18.89 | 5000.0 | 120.000 | 147.8 | H | 201.0 | 17.7 |
| 124.108333 | 25.13 | 43.50 | 18.37 | 5000.0 | 120.000 | 135.6 | V | 136.0 | 18.1 |
| 137.559000 | 25.47 | 43.50 | 18.03 | 5000.0 | 120.000 | 225.3 | H | 0.0 | 18.5 |
| 141.463667 | 25.64 | 43.50 | 17.86 | 5000.0 | 120.000 | 122.9 | H | 17.0 | 18.5 |
| 320.090000 | 28.74 | 46.00 | 17.26 | 5000.0 | 120.000 | 318.3 | H | 150.0 | 21.3 |
| 959.280000 | 44.08 | 46.00 | 1.92 | 5000.0 | 120.000 | 114.2 | V | -1.0 | 35.4 |

Notes:
[1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
[4] Limits converted to dBµV/m and an inverse proportionality factor of 20 dB per decade has been used to normalize the specification limit to a measurement distance of 3 meters to determine compliance.



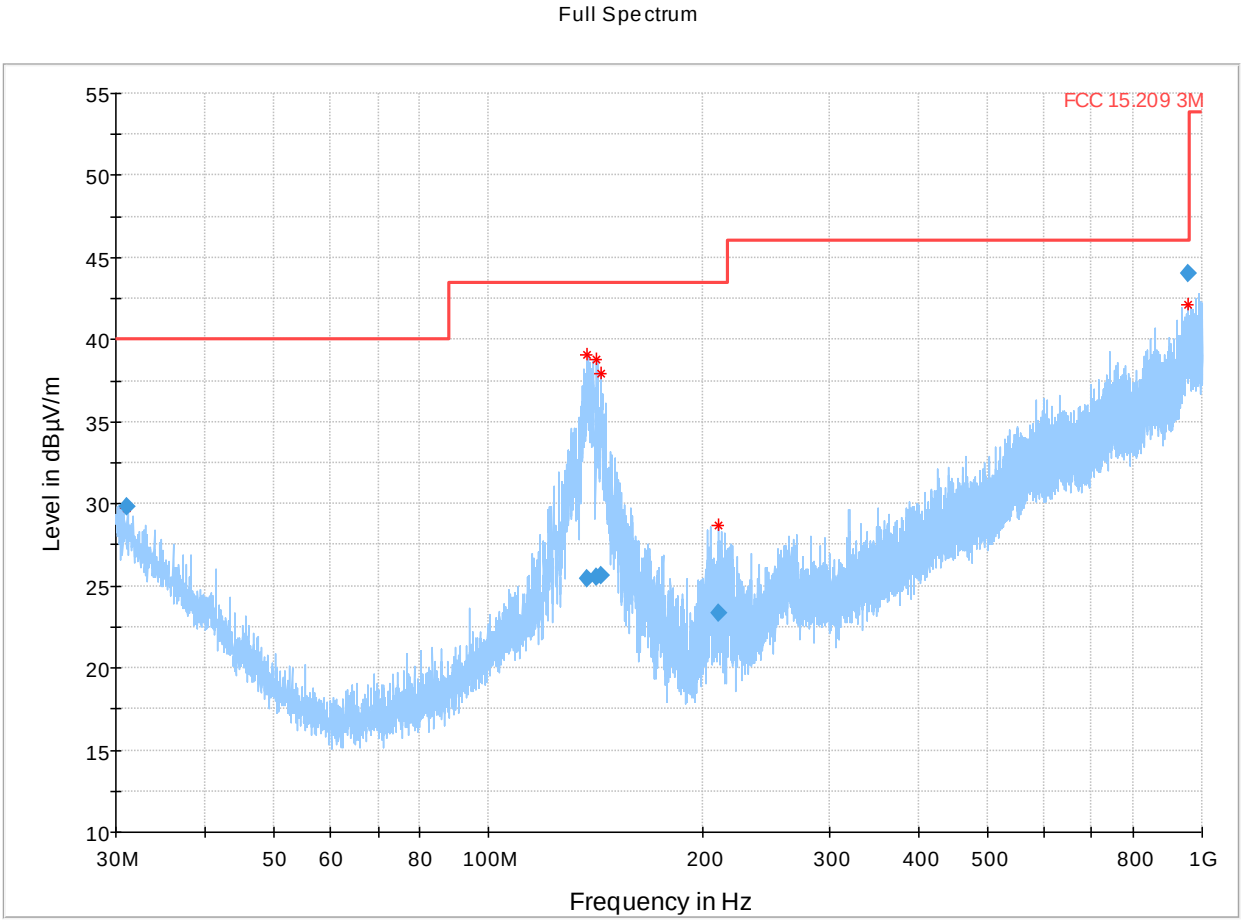

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-41:*** *Radiated emissions, 2442 MHz channel with 802.11g modulation, 30 – 1000 MHz spectral plot*

***Table 8.3-18:*** *Radiated emissions, 2442 MHz channel with 802.11g modulation, 30 – 1000 MHz results*

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|
| 30.876000 | 29.96 | 40.00 | 10.04 | 5000.0 | 120.000 | 151.7 | V | 211.0 | 24.4 |
| 140.025667 | 25.64 | 43.50 | 17.86 | 5000.0 | 120.000 | 344.4 | H | 325.0 | 18.6 |
| 142.085667 | 25.55 | 43.50 | 17.95 | 5000.0 | 120.000 | 137.7 | H | 27.0 | 18.5 |
| 143.665667 | 25.53 | 43.50 | 17.97 | 5000.0 | 120.000 | 379.7 | H | 136.0 | 18.5 |
| 320.137667 | 28.76 | 46.00 | 17.24 | 5000.0 | 120.000 | 252.0 | H | 110.0 | 21.3 |
| 958.424000 | 44.07 | 46.00 | 1.93 | 5000.0 | 120.000 | 109.4 | V | 261.0 | 35.4 |

Notes:
[1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
[4] Limits converted to dBµV/m and an inverse proportionality factor of 20 dB per decade has been used to normalize the specification limit to a measurement distance of 3 meters to determine compliance.



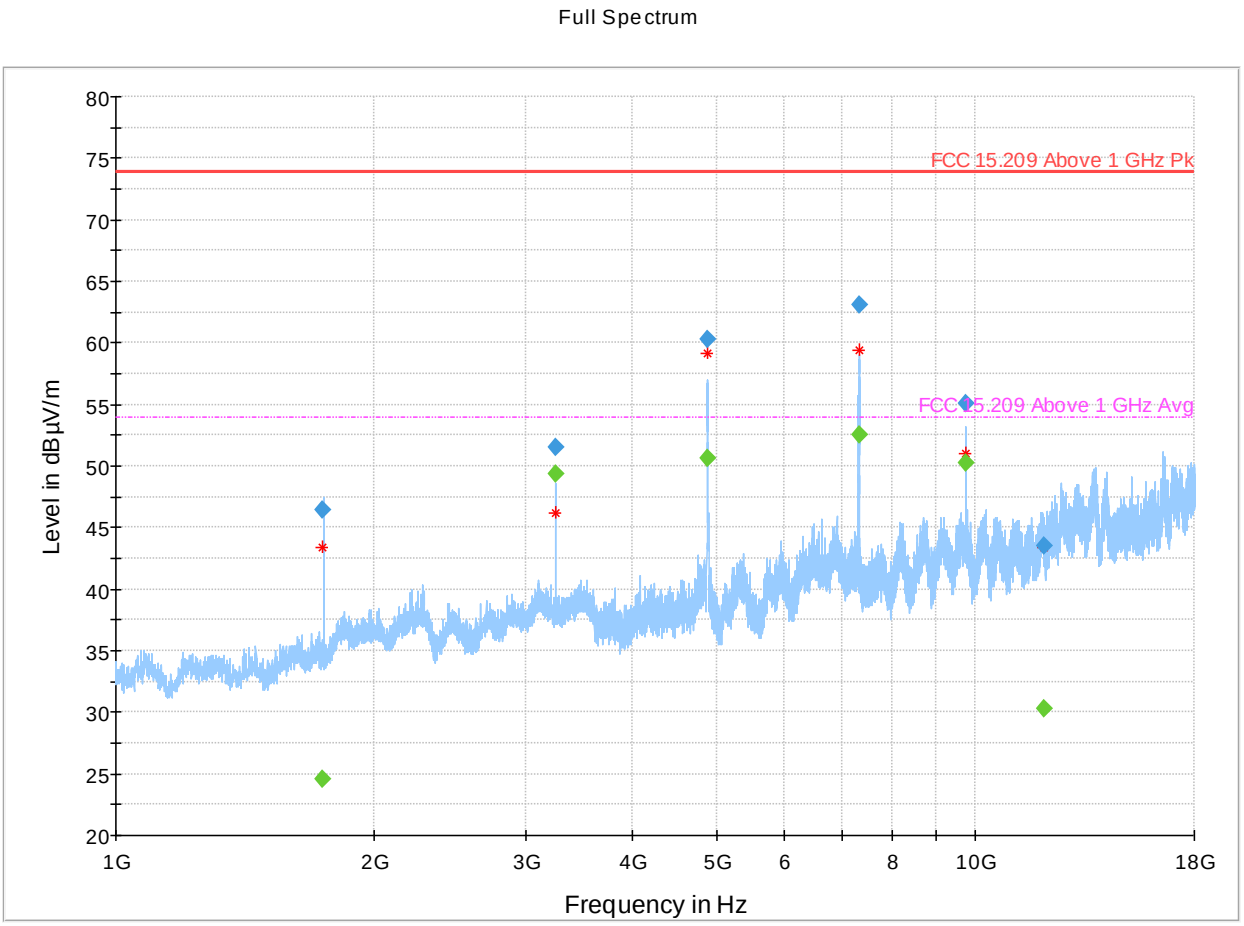

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-42:*** *Radiated emissions, 2442 MHz channel with 802.11n modulation, 30 – 1000 MHz spectral plot*

***Table 8.3-19:*** *Radiated emissions, 2442 MHz channel with 802.11n modulation, 30 – 1000 MHz results*

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|
| 31.104000 | 29.83 | 40.00 | 10.17 | 5000.0 | 120.000 | 237.6 | H | 0.0 | 24.3 |
| 137.530000 | 25.47 | 43.50 | 18.03 | 5000.0 | 120.000 | 271.2 | H | 186.0 | 18.5 |
| 141.813333 | 25.58 | 43.50 | 17.92 | 5000.0 | 120.000 | 390.3 | H | 157.0 | 18.5 |
| 143.993333 | 25.62 | 43.50 | 17.88 | 5000.0 | 120.000 | 374.8 | H | 0.0 | 18.5 |
| 209.768667 | 23.30 | 43.50 | 20.20 | 5000.0 | 120.000 | 187.6 | H | 0.0 | 16.4 |
| 956.725667 | 44.03 | 46.00 | 1.97 | 5000.0 | 120.000 | 379.5 | H | 136.0 | 35.4 |

Notes:
[1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
[4] Limits converted to dBµV/m and an inverse proportionality factor of 20 dB per decade has been used to normalize the specification limit to a measurement distance of 3 meters to determine compliance.



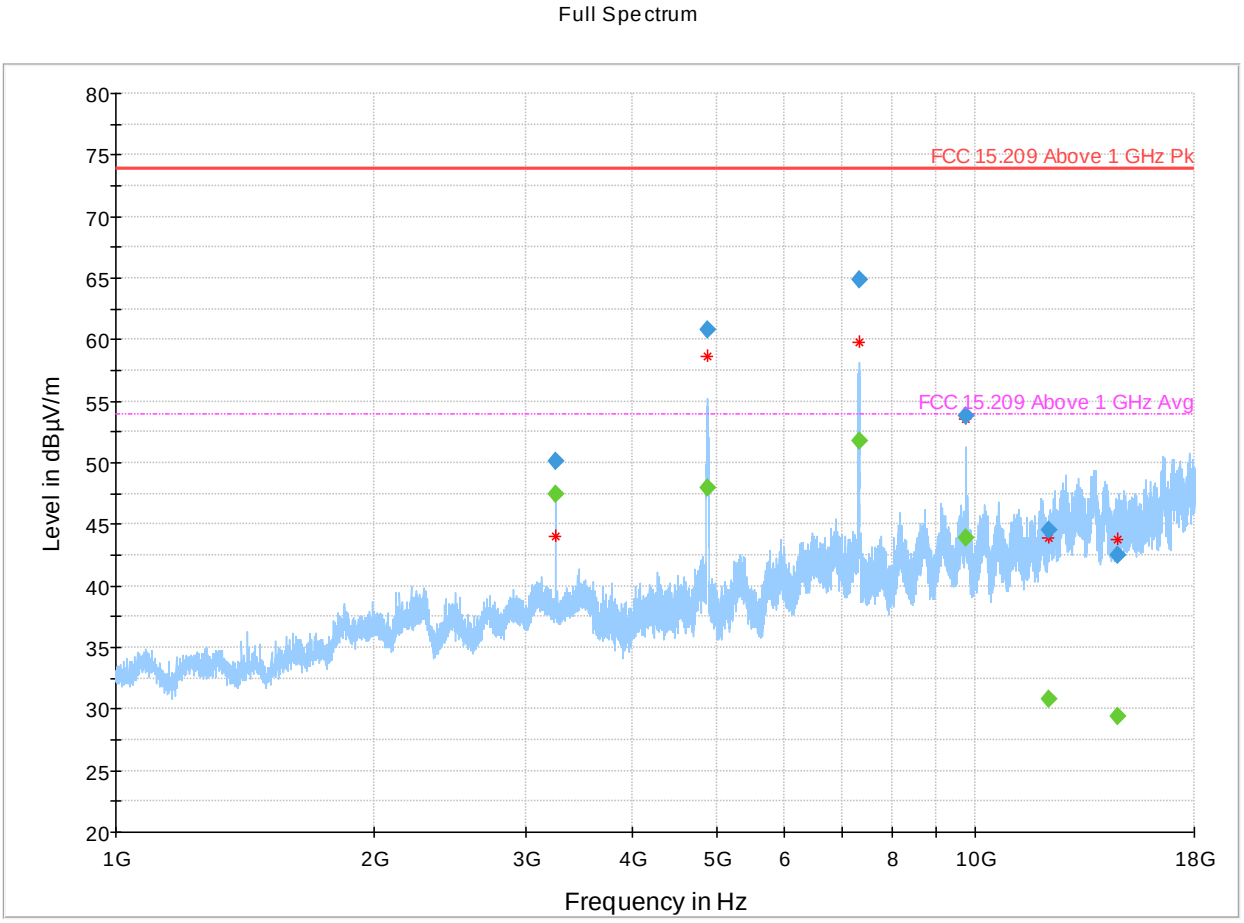

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-43:*** *Radiated emissions, 2442 MHz channel with 802.11b modulation, 1 – 18 GHz spectral plot*

***Table 8.3-20:*** *Radiated emissions, 2442 MHz channel with 802.11b modulation, 1 – 18 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1740.766667 | 46.44 | --- | 73.90 | 27.46 | 5000.0 | 1000.000 | 119.2 | V | 86.0 | -13.3 |
| 1740.766667 | --- | 24.54 | 53.90 | 29.36 | 5000.0 | 1000.000 | 119.2 | V | 86.0 | -13.3 |
| 3256.100000 | --- | 49.34 | 53.90 | 4.56 | 5000.0 | 1000.000 | 130.2 | H | 345.0 | -7.5 |
| 3256.100000 | 51.58 | --- | 73.90 | 22.32 | 5000.0 | 1000.000 | 130.2 | H | 345.0 | -7.5 |
| 4884.433333 | --- | 50.64 | 53.90 | 3.26 | 5000.0 | 1000.000 | 124.9 | H | 65.0 | -1.7 |
| 4884.433333 | 60.24 | --- | 73.90 | 13.66 | 5000.0 | 1000.000 | 124.9 | H | 65.0 | -1.7 |
| 7325.733333 | --- | 52.55 | 53.90 | 1.35 | 5000.0 | 1000.000 | 98.0 | V | 289.0 | 1.7 |
| 7325.733333 | 63.13 | --- | 73.90 | 10.77 | 5000.0 | 1000.000 | 98.0 | V | 289.0 | 1.7 |
| 9768.633333 | 55.02 | --- | 73.90 | 18.88 | 5000.0 | 1000.000 | 191.4 | V | 318.0 | 4.6 |
| 9768.633333 | --- | 50.23 | 53.90 | 3.67 | 5000.0 | 1000.000 | 191.4 | V | 318.0 | 4.6 |
| 12052.600000 | --- | 30.29 | 53.90 | 23.61 | 5000.0 | 1000.000 | 141.3 | H | 104.0 | 5.1 |
| 12052.600000 | 43.50 | --- | 73.90 | 30.40 | 5000.0 | 1000.000 | 141.3 | H | 104.0 | 5.1 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
A notch filter at 2.4 GHz was used to reduce the level of the intentional transmitter



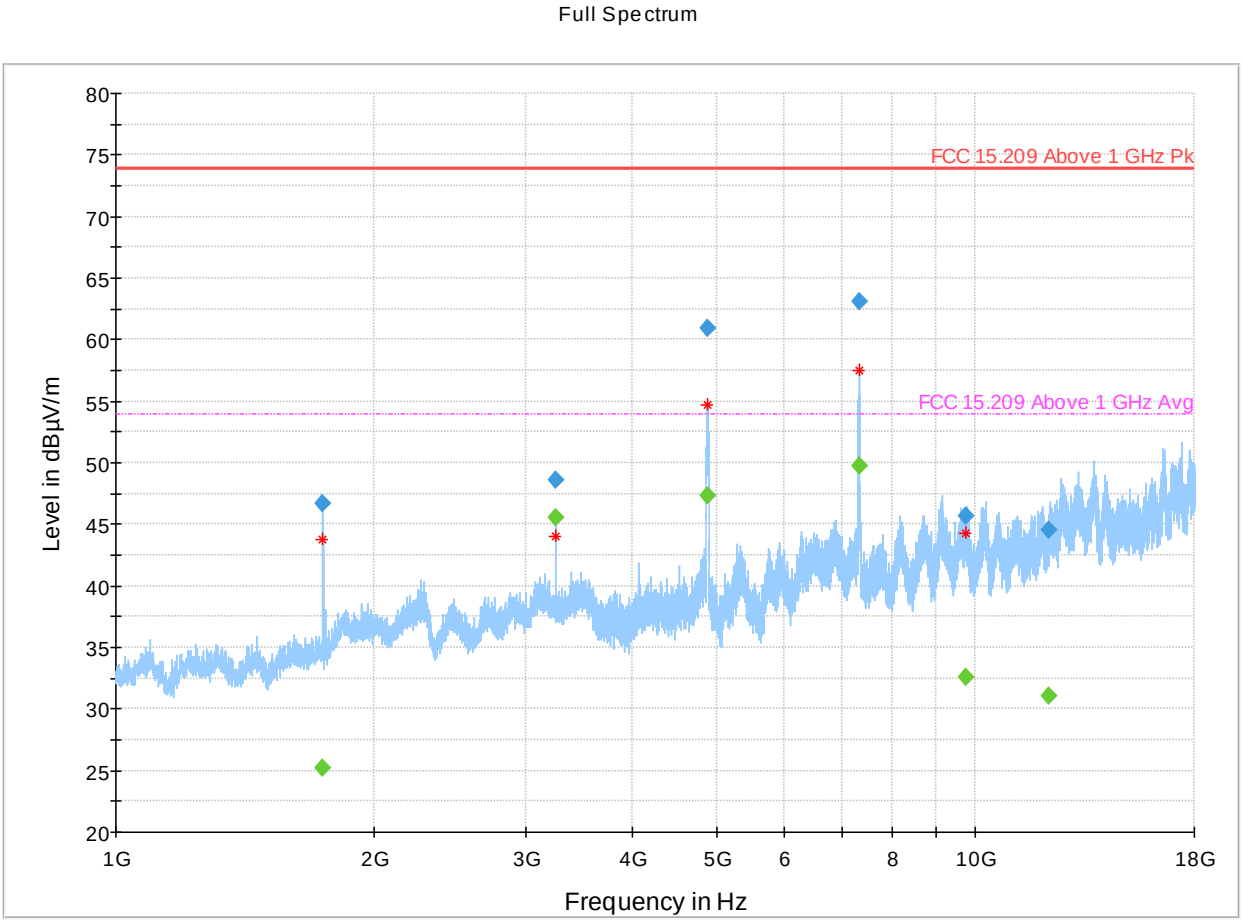

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-44:*** *Radiated emissions, 2442 MHz channel with 802.11g modulation, 1 – 18 GHz spectral plot*

***Table 8.3-21:*** *Radiated emissions, 2442 MHz channel with 802.11g modulation, 1 – 18 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 3256.100000 | --- | 47.40 | 53.90 | 6.50 | 5000.0 | 1000.000 | 131.2 | H | 349.0 | -7.5 |
| 3256.100000 | 50.09 | --- | 73.90 | 23.81 | 5000.0 | 1000.000 | 131.2 | H | 349.0 | -7.5 |
| 4884.800000 | 60.86 | --- | 73.90 | 13.04 | 5000.0 | 1000.000 | 119.1 | V | 289.0 | -1.7 |
| 4884.800000 | --- | 48.01 | 53.90 | 5.89 | 5000.0 | 1000.000 | 119.1 | V | 289.0 | -1.7 |
| 7328.733333 | 64.89 | --- | 73.90 | 9.01 | 5000.0 | 1000.000 | 98.0 | V | 286.0 | 1.7 |
| 7328.733333 | --- | 51.81 | 53.90 | 2.09 | 5000.0 | 1000.000 | 98.0 | V | 286.0 | 1.7 |
| 9768.800000 | --- | 43.92 | 53.90 | 9.98 | 5000.0 | 1000.000 | 168.7 | V | 342.0 | 4.6 |
| 9768.800000 | 53.86 | --- | 73.90 | 20.04 | 5000.0 | 1000.000 | 168.7 | V | 342.0 | 4.6 |
| 12209.000000 | 44.57 | --- | 73.90 | 29.33 | 5000.0 | 1000.000 | 190.2 | V | 87.0 | 6.9 |
| 12209.000000 | --- | 30.80 | 53.90 | 23.10 | 5000.0 | 1000.000 | 190.2 | V | 87.0 | 6.9 |
| 14653.400000 | 42.51 | --- | 73.90 | 31.39 | 5000.0 | 1000.000 | 271.8 | H | 104.0 | 7.6 |
| 14653.400000 | --- | 29.41 | 53.90 | 24.49 | 5000.0 | 1000.000 | 271.8 | H | 104.0 | 7.6 |

Notes:
[1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
A notch filter at 2.4 GHz was used to reduce the level of the intentional transmitter



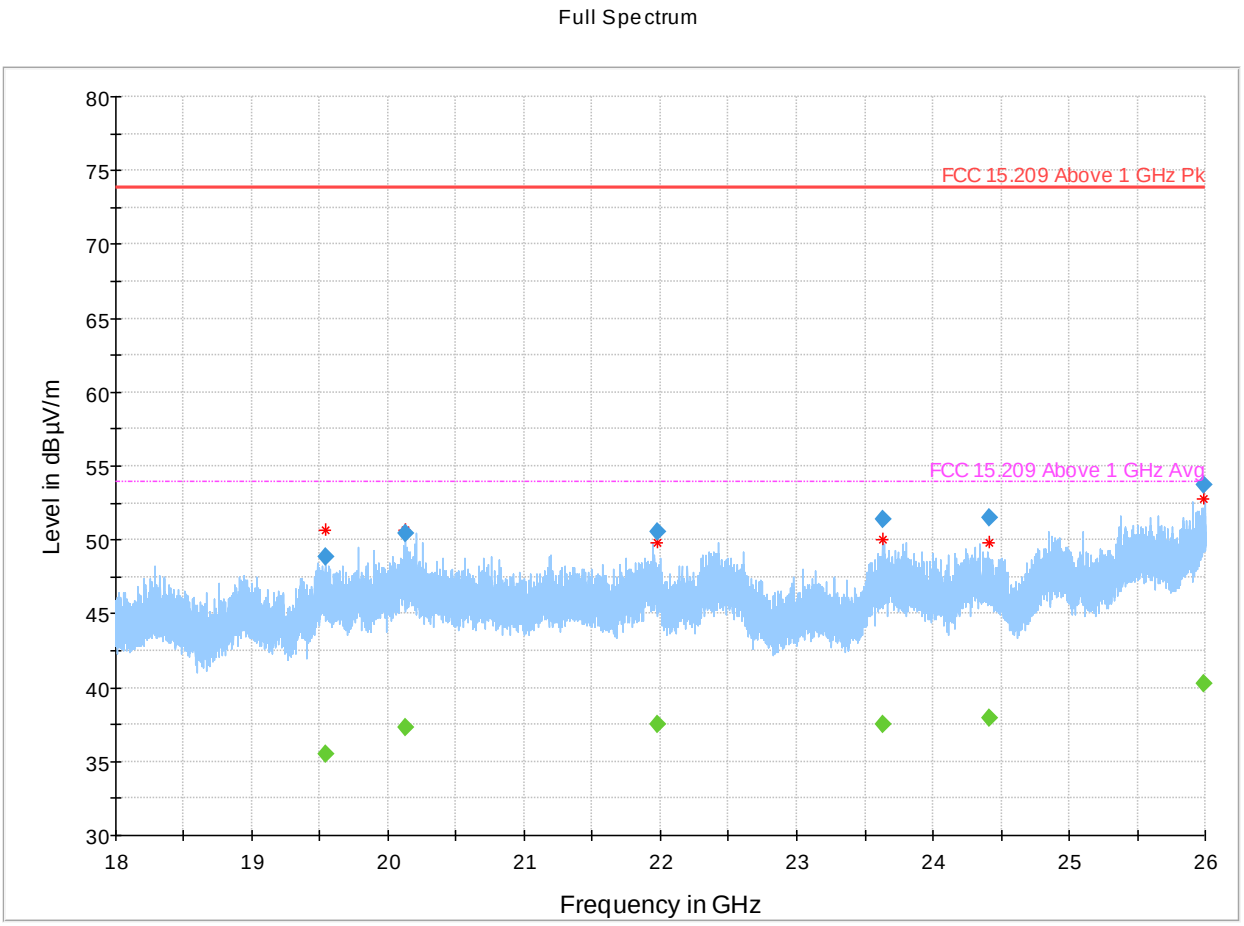

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-45:*** *Radiated emissions, 2442 MHz channel with 802.11n modulation, 1 – 18 GHz spectral plot*

***Table 8.3-22:*** *Radiated emissions, 2442 MHz channel with 802.11n modulation, 1 – 18 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1741.100000 | --- | 25.17 | 53.90 | 28.73 | 5000.0 | 1000.000 | 110.6 | V | 56.0 | -13.3 |
| 1741.100000 | 46.67 | --- | 73.90 | 27.23 | 5000.0 | 1000.000 | 110.6 | V | 56.0 | -13.3 |
| 3256.100000 | 48.64 | --- | 73.90 | 25.26 | 5000.0 | 1000.000 | 122.1 | H | 343.0 | -7.5 |
| 3256.100000 | --- | 45.53 | 53.90 | 8.37 | 5000.0 | 1000.000 | 122.1 | H | 343.0 | -7.5 |
| 4887.066667 | --- | 47.37 | 53.90 | 6.53 | 5000.0 | 1000.000 | 125.0 | V | 280.0 | -1.7 |
| 4887.066667 | 60.99 | --- | 73.90 | 12.91 | 5000.0 | 1000.000 | 125.0 | V | 280.0 | -1.7 |
| 7327.000000 | 63.11 | --- | 73.90 | 10.79 | 5000.0 | 1000.000 | 168.3 | V | 299.0 | 1.7 |
| 7327.000000 | --- | 49.79 | 53.90 | 4.11 | 5000.0 | 1000.000 | 168.3 | V | 299.0 | 1.7 |
| 9757.000000 | 45.65 | --- | 73.90 | 28.25 | 5000.0 | 1000.000 | 225.1 | H | 180.0 | 4.6 |
| 9757.000000 | --- | 32.53 | 53.90 | 21.37 | 5000.0 | 1000.000 | 225.1 | H | 180.0 | 4.6 |
| 12205.800000 | 44.52 | --- | 73.90 | 29.38 | 5000.0 | 1000.000 | 146.7 | V | 179.0 | 6.9 |
| 12205.800000 | --- | 31.04 | 53.90 | 22.86 | 5000.0 | 1000.000 | 146.7 | V | 179.0 | 6.9 |

Notes:
[1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
A notch filter at 2.4 GHz was used to reduce the level of the intentional transmitter



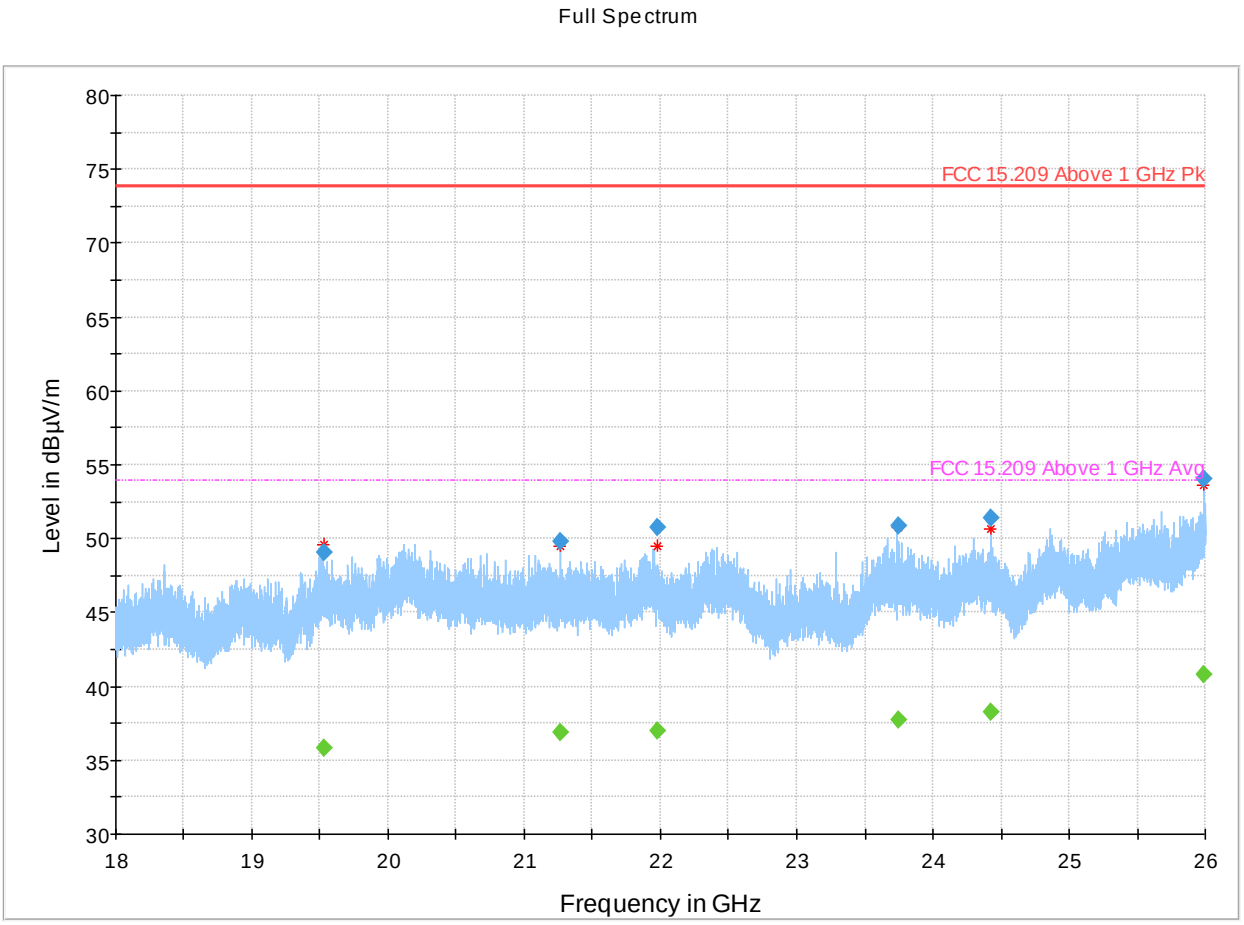

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-46:*** *Radiated emissions, 2442 MHz channel with 802.11b modulation, 18 – 26 GHz spectral plot*

***Table 8.3-23:*** *Radiated emissions, 2442 MHz channel with 802.11b modulation, 18 – 26 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 19535.100000 | --- | 35.47 | 53.90 | 18.43 | 5000.0 | 1000.000 | 115.0 | H | 104.0 | 11.2 |
| 19535.100000 | 48.88 | --- | 73.90 | 25.02 | 5000.0 | 1000.000 | 115.0 | H | 104.0 | 11.2 |
| 20124.833333 | --- | 37.30 | 53.90 | 16.60 | 5000.0 | 1000.000 | 115.8 | H | 127.0 | 12.0 |
| 20124.833333 | 50.43 | --- | 73.90 | 23.47 | 5000.0 | 1000.000 | 115.8 | H | 127.0 | 12.0 |
| 21975.900000 | --- | 37.49 | 53.90 | 16.41 | 5000.0 | 1000.000 | 115.7 | H | 179.0 | 11.3 |
| 21975.900000 | 50.52 | --- | 73.90 | 23.38 | 5000.0 | 1000.000 | 115.7 | H | 179.0 | 11.3 |
| 23627.366667 | --- | 37.50 | 53.90 | 16.40 | 5000.0 | 1000.000 | 119.8 | V | 292.0 | 11.6 |
| 23627.366667 | 51.41 | --- | 73.90 | 22.49 | 5000.0 | 1000.000 | 119.8 | V | 292.0 | 11.6 |
| 24419.500000 | 51.51 | --- | 73.90 | 22.39 | 5000.0 | 1000.000 | 175.0 | H | 348.0 | 11.4 |
| 24419.500000 | --- | 37.95 | 53.90 | 15.95 | 5000.0 | 1000.000 | 175.0 | H | 348.0 | 11.4 |
| 25994.166667 | 53.74 | --- | 73.90 | 20.16 | 5000.0 | 1000.000 | 223.2 | V | 260.0 | 15.3 |
| 25994.166667 | --- | 40.27 | 53.90 | 13.63 | 5000.0 | 1000.000 | 223.2 | V | 260.0 | 15.3 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.



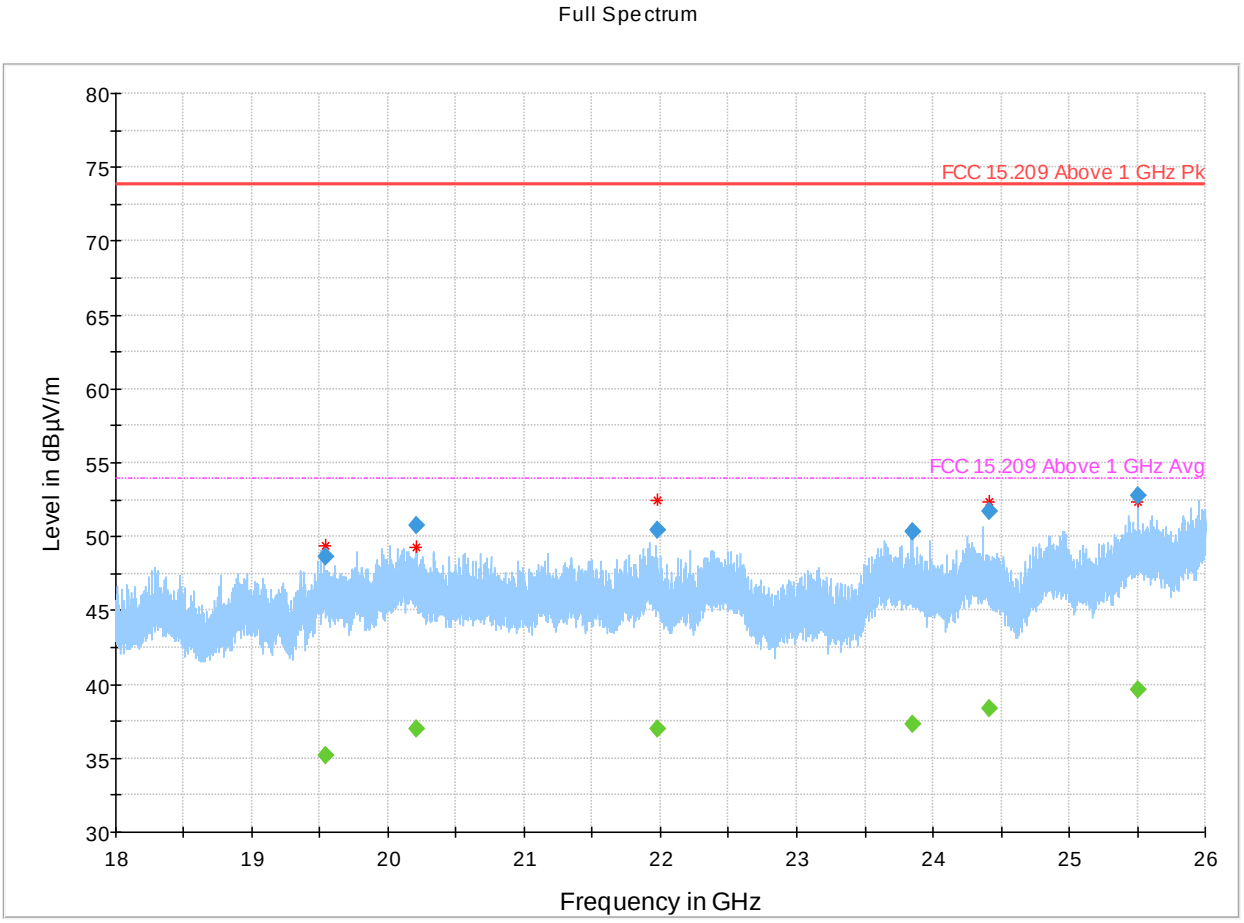

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-47:*** *Radiated emissions, 2442 MHz channel with 802.11g modulation, 18 – 26 GHz spectral plot*

***Table 8.3-24:*** *Radiated emissions, 2442 MHz channel with 802.11g modulation, 18 – 26 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 19533.900000 | --- | 35.82 | 53.90 | 18.08 | 5000.0 | 1000.000 | 117.9 | H | 41.0 | 11.2 |
| 19533.900000 | 49.04 | --- | 73.90 | 24.86 | 5000.0 | 1000.000 | 117.9 | H | 41.0 | 11.2 |
| 21262.166667 | --- | 36.84 | 53.90 | 17.06 | 5000.0 | 1000.000 | 192.8 | H | 191.0 | 11.8 |
| 21262.166667 | 49.84 | --- | 73.90 | 24.06 | 5000.0 | 1000.000 | 192.8 | H | 191.0 | 11.8 |
| 21976.700000 | --- | 37.03 | 53.90 | 16.87 | 5000.0 | 1000.000 | 201.9 | H | 214.0 | 11.3 |
| 21976.700000 | 50.79 | --- | 73.90 | 23.11 | 5000.0 | 1000.000 | 201.9 | H | 214.0 | 11.3 |
| 23742.300000 | --- | 37.78 | 53.90 | 16.12 | 5000.0 | 1000.000 | 106.5 | V | 87.0 | 11.3 |
| 23742.300000 | 50.89 | --- | 73.90 | 23.01 | 5000.0 | 1000.000 | 106.5 | V | 87.0 | 11.3 |
| 24420.300000 | 51.38 | --- | 73.90 | 22.52 | 5000.0 | 1000.000 | 125.0 | H | 9.0 | 11.4 |
| 24420.300000 | --- | 38.28 | 53.90 | 15.62 | 5000.0 | 1000.000 | 125.0 | H | 9.0 | 11.4 |
| 25986.566667 | 54.04 | --- | 73.90 | 19.86 | 5000.0 | 1000.000 | 122.9 | V | 181.0 | 15.3 |
| 25986.566667 | --- | 40.76 | 53.90 | 13.14 | 5000.0 | 1000.000 | 122.9 | V | 181.0 | 15.3 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.



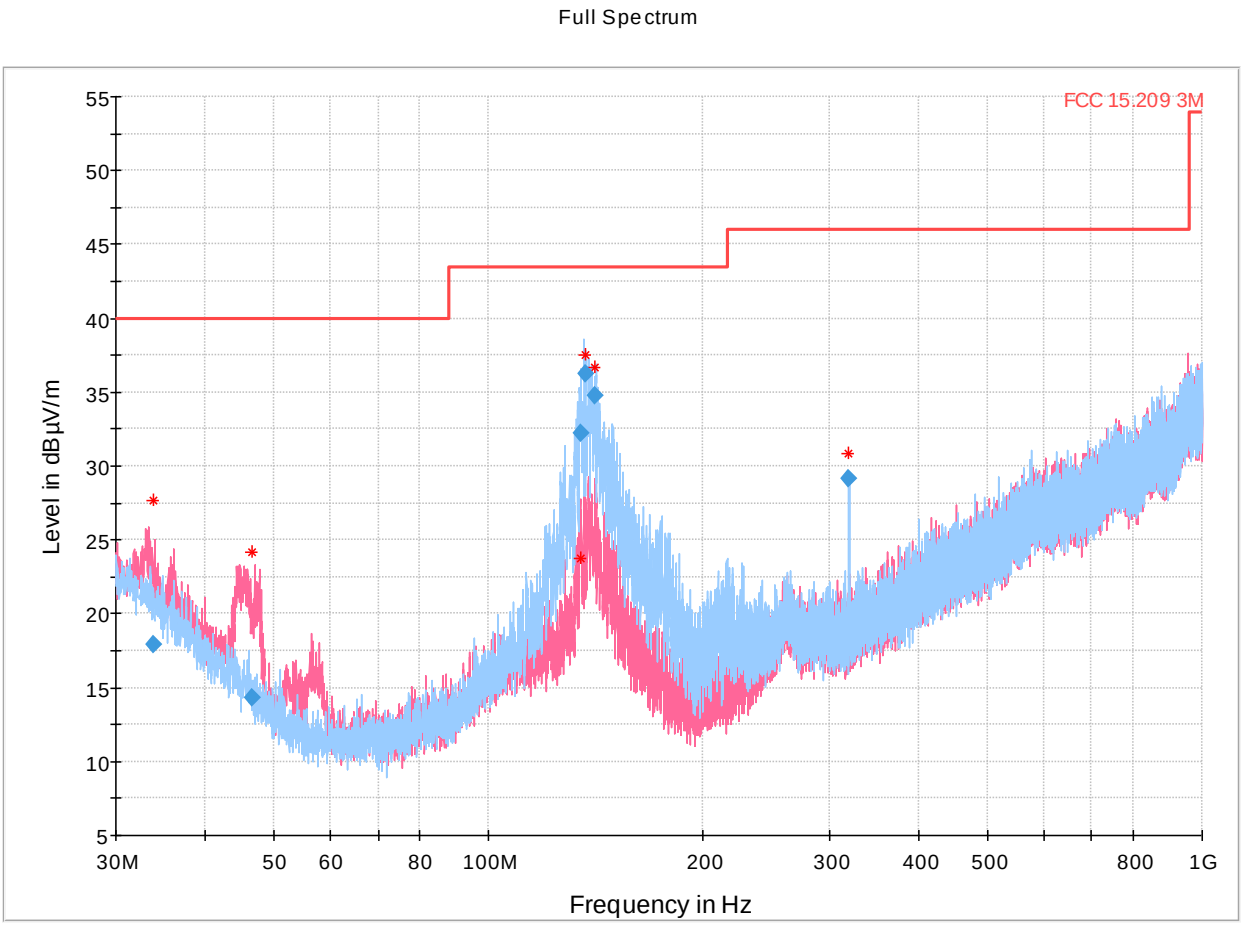

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-48:*** *Radiated emissions, 2442 MHz channel with 802.11n modulation, 18 – 26 GHz spectral plot*

***Table 8.3-25:*** *Radiated emissions, 2442 MHz channel with 802.11n modulation, 18 – 26 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 19538.500000 | --- | 35.20 | 53.90 | 18.70 | 5000.0 | 1000.000 | 199.3 | H | 24.0 | 11.2 |
| 19538.500000 | 48.68 | --- | 73.90 | 25.22 | 5000.0 | 1000.000 | 199.3 | H | 24.0 | 11.2 |
| 20202.700000 | --- | 37.00 | 53.90 | 16.90 | 5000.0 | 1000.000 | 125.0 | V | 212.0 | 12.2 |
| 20202.700000 | 50.80 | --- | 73.90 | 23.10 | 5000.0 | 1000.000 | 125.0 | V | 212.0 | 12.2 |
| 21975.500000 | --- | 37.04 | 53.90 | 16.86 | 5000.0 | 1000.000 | 225.0 | H | 127.0 | 11.3 |
| 21975.500000 | 50.44 | --- | 73.90 | 23.46 | 5000.0 | 1000.000 | 225.0 | H | 127.0 | 11.3 |
| 23848.166667 | --- | 37.29 | 53.90 | 16.61 | 5000.0 | 1000.000 | 214.9 | V | 236.0 | 11.3 |
| 23848.166667 | 50.31 | --- | 73.90 | 23.59 | 5000.0 | 1000.000 | 214.9 | V | 236.0 | 11.3 |
| 24418.300000 | --- | 38.39 | 53.90 | 15.51 | 5000.0 | 1000.000 | 117.6 | H | 275.0 | 11.4 |
| 24418.300000 | 51.67 | --- | 73.90 | 22.23 | 5000.0 | 1000.000 | 117.6 | H | 275.0 | 11.4 |
| 25508.300000 | --- | 39.69 | 53.90 | 14.21 | 5000.0 | 1000.000 | 108.3 | H | 6.0 | 13.7 |
| 25508.300000 | 52.76 | --- | 73.90 | 21.14 | 5000.0 | 1000.000 | 108.3 | H | 6.0 | 13.7 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.



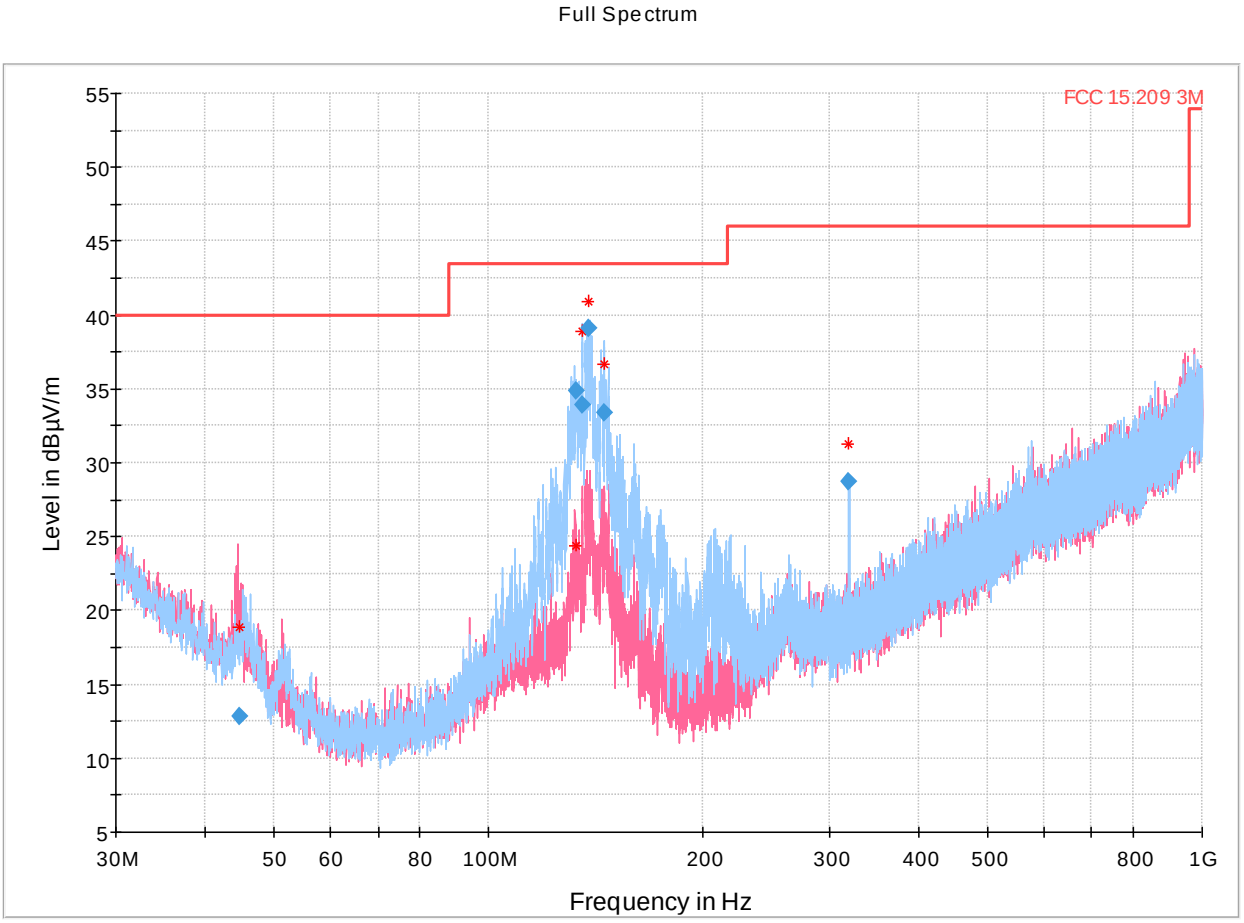

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-49:*** *Radiated emissions, 2462 MHz channel with 802.11b modulation, 30 – 1000 MHz spectral plot*

***Table 8.3-26:*** *Radiated emissions, 2462 MHz channel with 802.11b modulation, 30 – 1000 MHz results*

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|
| 33.830333 | 17.90 | 40.00 | 22.10 | 5000.0 | 120.000 | 269.8 | V | 271.0 | 22.7 |
| 46.602667 | 14.28 | 40.00 | 25.72 | 5000.0 | 120.000 | 111.2 | V | 79.0 | 15.8 |
| 134.342667 | 32.24 | 43.50 | 11.26 | 5000.0 | 120.000 | 189.8 | H | 176.0 | 18.4 |
| 136.258000 | 36.27 | 43.50 | 7.23 | 5000.0 | 120.000 | 161.7 | H | 190.0 | 18.4 |
| 140.886667 | 34.81 | 43.50 | 8.69 | 5000.0 | 120.000 | 152.9 | H | 166.0 | 18.6 |
| 320.017667 | 29.21 | 46.00 | 16.79 | 5000.0 | 120.000 | 109.2 | H | 190.0 | 21.3 |

Notes:
[1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
[4] Limits converted to dBµV/m and an inverse proportionality factor of 20 dB per decade has been used to normalize the specification limit to a measurement distance of 3 meters to determine compliance.



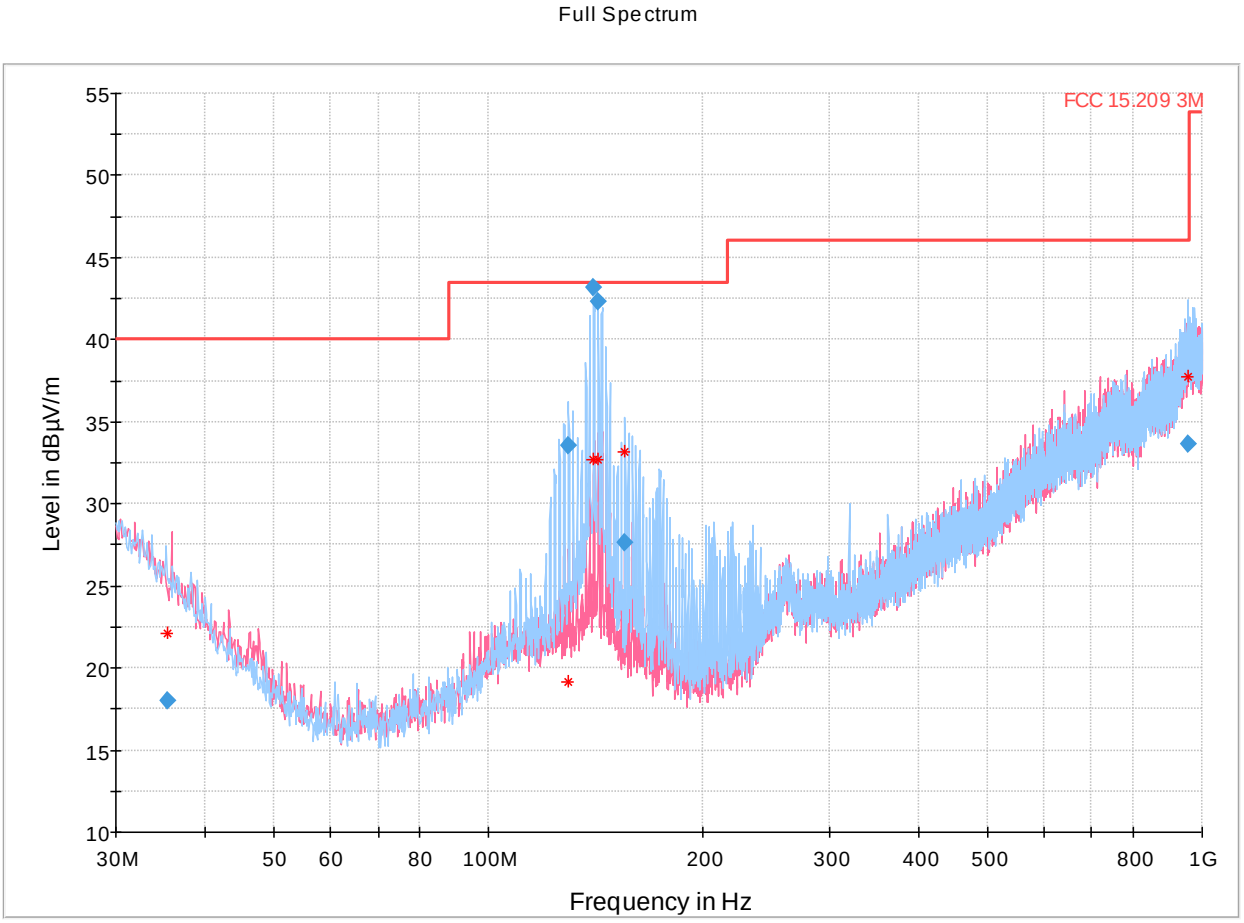

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-50:*** *Radiated emissions, 2462 MHz channel with 802.11g modulation, 30 – 1000 MHz spectral plot*

***Table 8.3-27:*** *Radiated emissions, 2462 MHz channel with 802.11g modulation, 30 – 1000 MHz results*

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|
| 44.785333 | 12.82 | 40.00 | 27.18 | 5000.0 | 120.000 | 174.0 | V | 252.0 | 16.6 |
| 132.576333 | 34.87 | 43.50 | 8.63 | 5000.0 | 120.000 | 202.9 | H | 179.0 | 18.3 |
| 134.912667 | 33.96 | 43.50 | 9.54 | 5000.0 | 120.000 | 204.8 | H | 153.0 | 18.4 |
| 138.043000 | 39.06 | 43.50 | 4.44 | 5000.0 | 120.000 | 216.8 | H | 179.0 | 18.5 |
| 145.433000 | 33.44 | 43.50 | 10.06 | 5000.0 | 120.000 | 214.7 | H | 170.0 | 18.3 |
| 320.017667 | 28.76 | 46.00 | 17.24 | 5000.0 | 120.000 | 109.3 | H | 177.0 | 21.3 |

Notes:
[1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
[4] Limits converted to dBµV/m and an inverse proportionality factor of 20 dB per decade has been used to normalize the specification limit to a measurement distance of 3 meters to determine compliance.



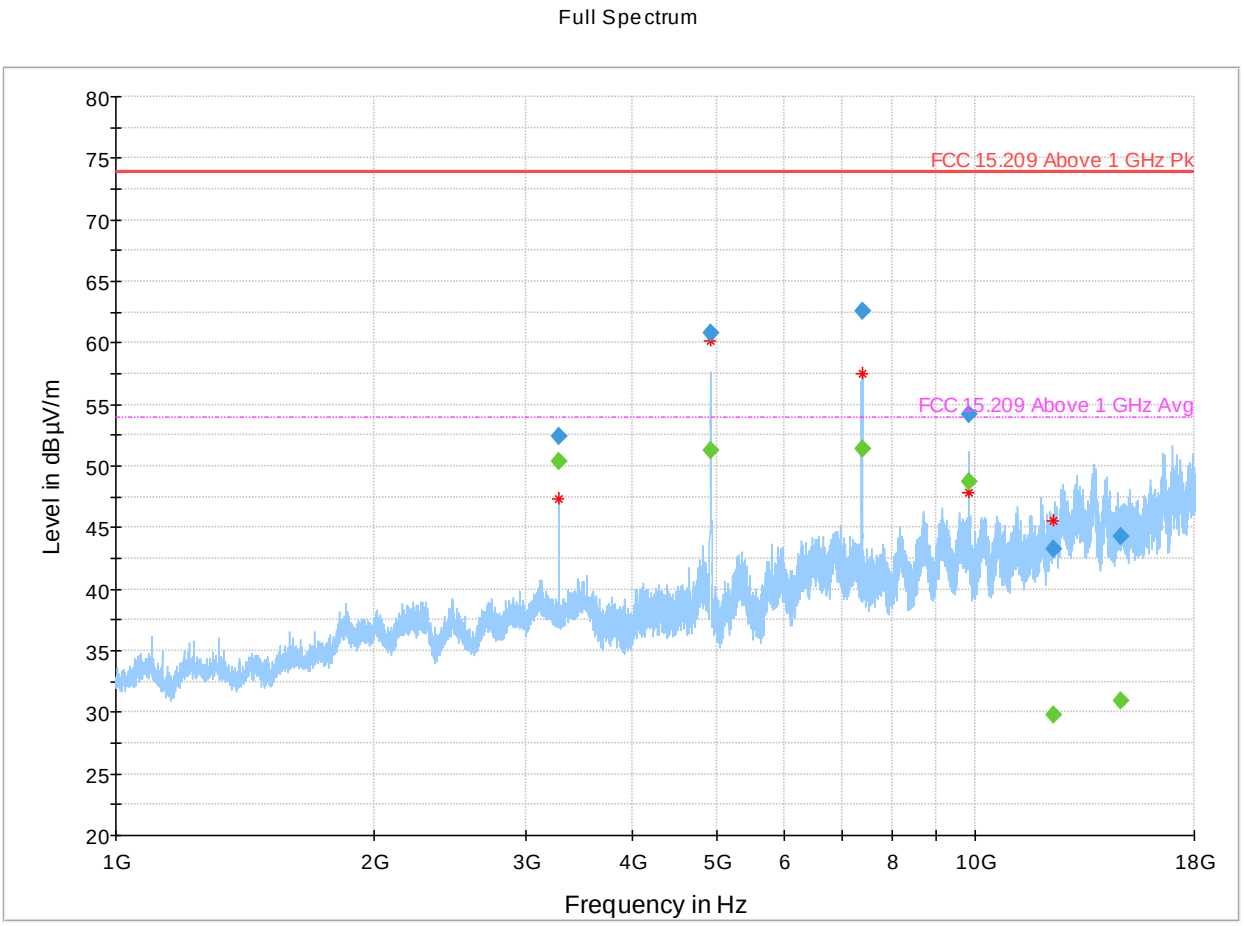

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-51:*** *Radiated emissions, 2462 MHz channel with 802.11n modulation, 30 – 1000 MHz spectral plot*

***Table 8.3-28:*** *Radiated emissions, 2462 MHz channel with 802.11n modulation, 30 – 1000 MHz results*

| Frequency (MHz) | QuasiPeak (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|
| 35.521250 | 18.04 | 40.00 | 21.96 | 5000.0 | 120.000 | 122.2 | V | 58.0 | 21.6 |
| 129.243750 | 33.52 | 43.50 | 9.98 | 5000.0 | 120.000 | 121.7 | H | 211.0 | 18.2 |
| 140.440000 | 43.18 | 43.50 | 0.32 | 5000.0 | 120.000 | 185.9 | H | 182.0 | 18.6 |
| 142.178750 | 42.28 | 43.50 | 1.22 | 5000.0 | 120.000 | 188.7 | H | 184.0 | 18.5 |
| 155.072500 | 27.61 | 43.50 | 15.89 | 5000.0 | 120.000 | 144.1 | H | 184.0 | 17.5 |
| 957.621250 | 33.65 | 46.00 | 12.35 | 5000.0 | 120.000 | 361.2 | H | 213.0 | 35.4 |

Notes:
[1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
[4] Limits converted to dBµV/m and an inverse proportionality factor of 20 dB per decade has been used to normalize the specification limit to a measurement distance of 3 meters to determine compliance.



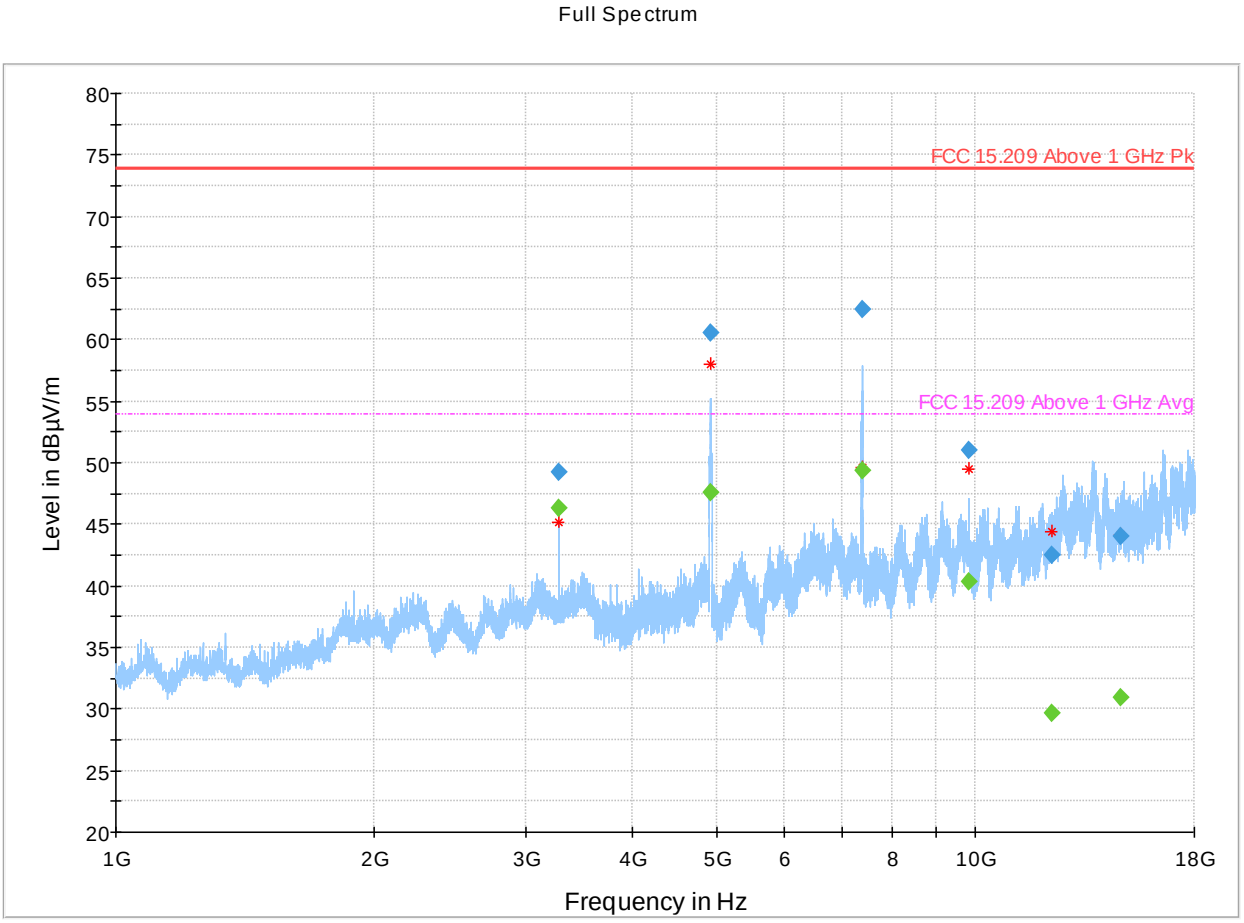

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-52:*** *Radiated emissions, 2462 MHz channel with 802.11b modulation, 1 – 18 GHz spectral plot*

***Table 8.3-29:*** *Radiated emissions, 2462 MHz channel with 802.11b modulation, 1 – 18 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 3282.733333 | --- | 50.42 | 53.90 | 3.48 | 5000.0 | 1000.000 | 130.4 | H | 348.0 | -7.4 |
| 3282.733333 | 52.42 | --- | 73.90 | 21.48 | 5000.0 | 1000.000 | 130.4 | H | 348.0 | -7.4 |
| 4924.366667 | 60.86 | --- | 73.90 | 13.04 | 5000.0 | 1000.000 | 109.0 | V | 341.0 | -1.9 |
| 4924.366667 | --- | 51.22 | 53.90 | 2.68 | 5000.0 | 1000.000 | 109.0 | V | 341.0 | -1.9 |
| 7386.066667 | --- | 51.39 | 53.90 | 2.51 | 5000.0 | 1000.000 | 109.0 | V | 280.0 | 1.0 |
| 7386.066667 | 62.63 | --- | 73.90 | 11.27 | 5000.0 | 1000.000 | 109.0 | V | 280.0 | 1.0 |
| 9848.700000 | --- | 48.76 | 53.90 | 5.14 | 5000.0 | 1000.000 | 200.7 | V | 333.0 | 3.8 |
| 9848.700000 | 54.15 | --- | 73.90 | 19.75 | 5000.0 | 1000.000 | 200.7 | V | 333.0 | 3.8 |
| 12318.600000 | --- | 29.76 | 53.90 | 24.14 | 5000.0 | 1000.000 | 401.0 | V | 303.0 | 5.9 |
| 12318.600000 | 43.28 | --- | 73.90 | 30.62 | 5000.0 | 1000.000 | 401.0 | V | 303.0 | 5.9 |
| 14772.200000 | 44.24 | --- | 73.90 | 29.66 | 5000.0 | 1000.000 | 321.0 | V | 208.0 | 8.1 |
| 14772.200000 | --- | 30.93 | 53.90 | 22.97 | 5000.0 | 1000.000 | 321.0 | V | 208.0 | 8.1 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
A notch filter at 2.4 GHz was used to reduce the level of the intentional transmitter



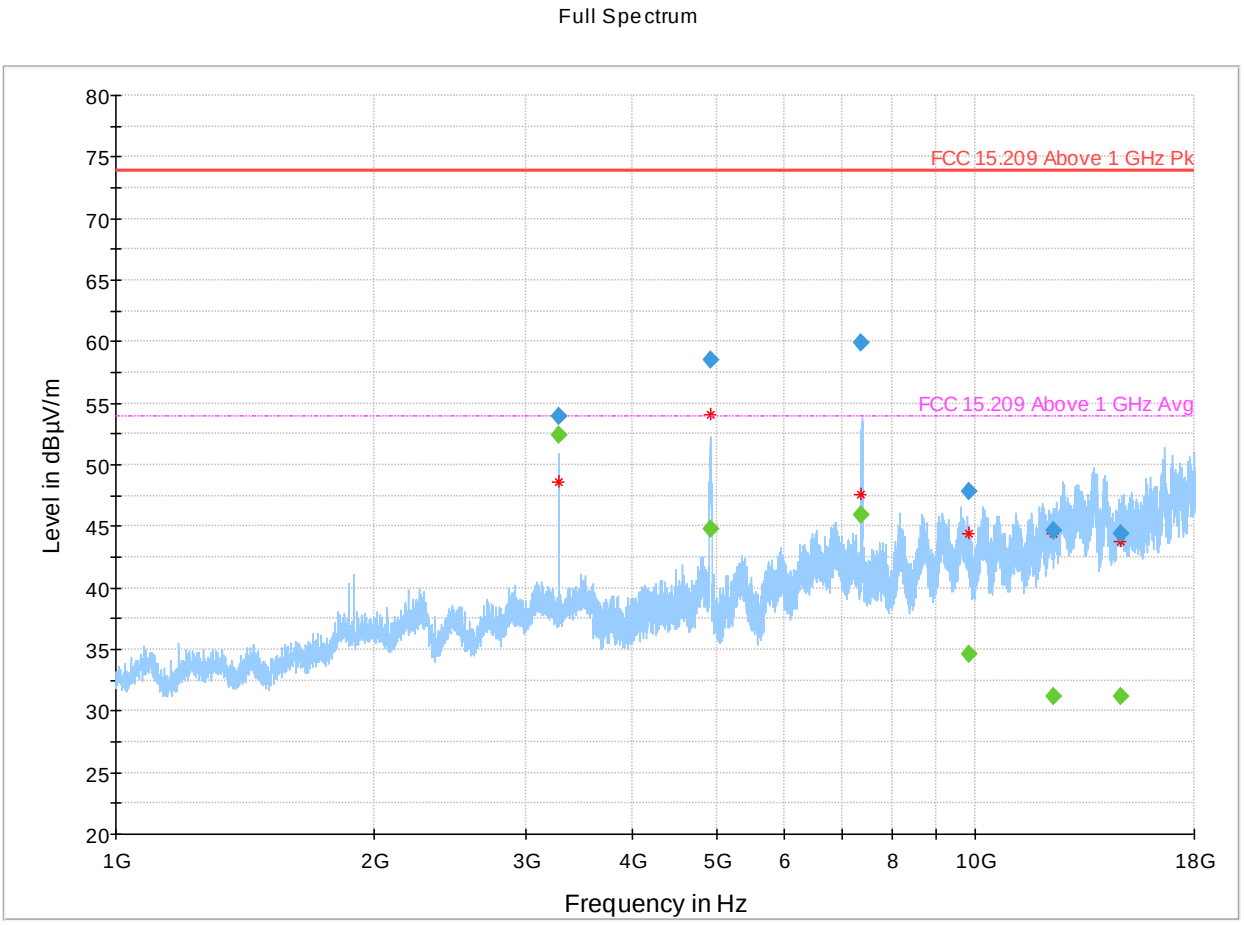

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-53:*** *Radiated emissions, 2462 MHz channel with 802.11g modulation, 1 – 18 GHz spectral plot*

***Table 8.3-30:*** *Radiated emissions, 2462 MHz channel with 802.11g modulation, 1 – 18 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 3282.733333 | 49.25 | --- | 73.90 | 24.65 | 5000.0 | 1000.000 | 128.7 | H | 341.0 | -7.4 |
| 3282.733333 | --- | 46.32 | 53.90 | 7.58 | 5000.0 | 1000.000 | 128.7 | H | 341.0 | -7.4 |
| 4925.033333 | --- | 47.53 | 53.90 | 6.37 | 5000.0 | 1000.000 | 122.2 | V | 343.0 | -1.9 |
| 4925.033333 | 60.55 | --- | 73.90 | 13.35 | 5000.0 | 1000.000 | 122.2 | V | 343.0 | -1.9 |
| 7388.666667 | --- | 49.40 | 53.90 | 4.50 | 5000.0 | 1000.000 | 113.6 | V | 286.0 | 1.0 |
| 7388.666667 | 62.47 | --- | 73.90 | 11.43 | 5000.0 | 1000.000 | 113.6 | V | 286.0 | 1.0 |
| 9848.533333 | --- | 40.34 | 53.90 | 13.56 | 5000.0 | 1000.000 | 160.6 | V | 332.0 | 3.8 |
| 9848.533333 | 51.04 | --- | 73.90 | 22.86 | 5000.0 | 1000.000 | 160.6 | V | 332.0 | 3.8 |
| 12305.400000 | --- | 29.65 | 53.90 | 24.25 | 5000.0 | 1000.000 | 293.1 | H | 240.0 | 6.0 |
| 12305.400000 | 42.55 | --- | 73.90 | 31.35 | 5000.0 | 1000.000 | 293.1 | H | 240.0 | 6.0 |
| 14769.000000 | 44.08 | --- | 73.90 | 29.82 | 5000.0 | 1000.000 | 156.3 | V | 312.0 | 8.1 |
| 14769.000000 | --- | 30.97 | 53.90 | 22.93 | 5000.0 | 1000.000 | 156.3 | V | 312.0 | 8.1 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
A notch filter at 2.4 GHz was used to reduce the level of the intentional transmitter



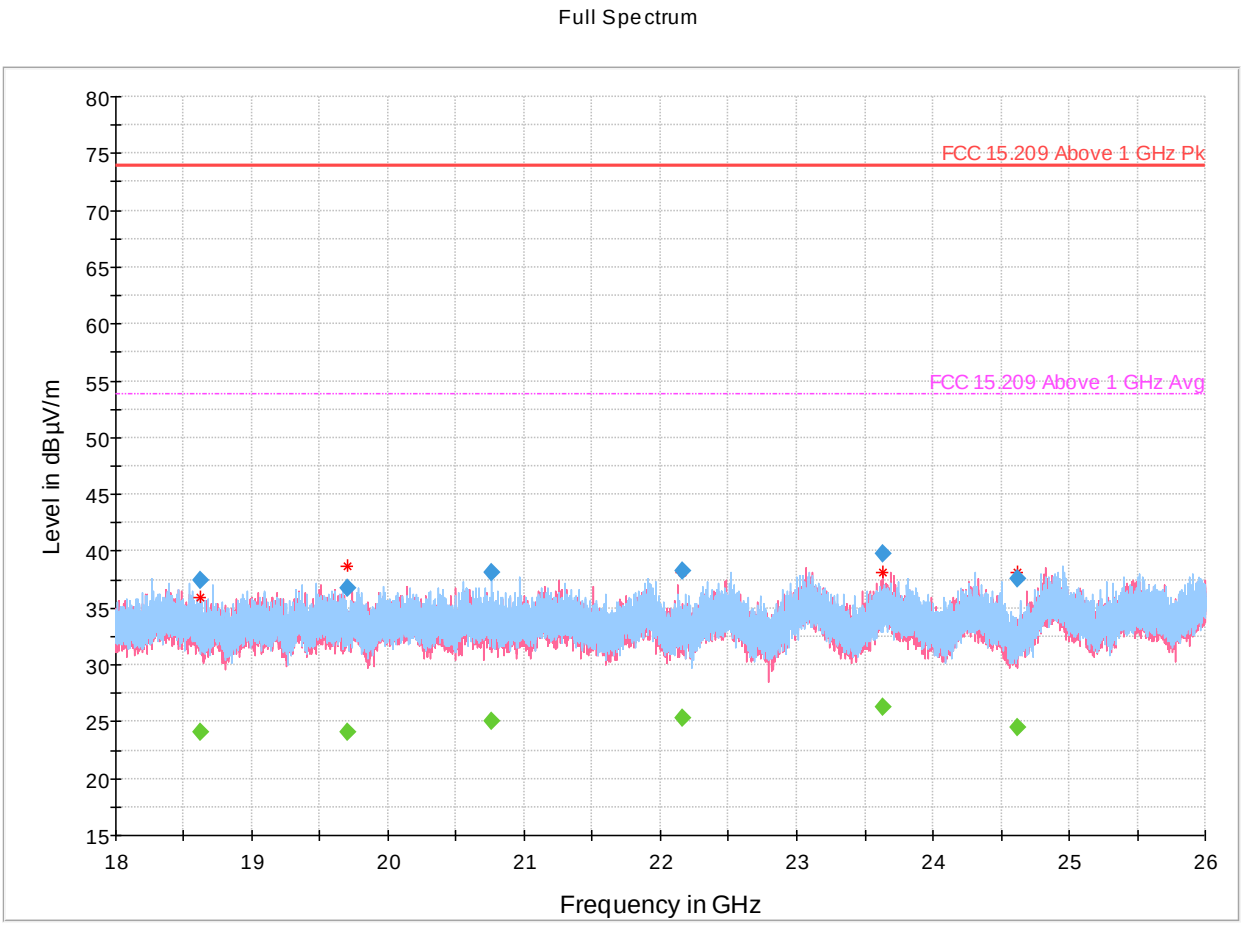

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-54:*** *Radiated emissions, 2462 MHz channel with 802.11n modulation, 1 – 18 GHz spectral plot*

***Table 8.3-31:*** *Radiated emissions, 2462 MHz channel with 802.11n modulation, 1 – 18 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 3282.733333 | --- | 52.45 | 53.90 | 1.45 | 5000.0 | 1000.000 | 143.8 | H | 349.0 | -7.4 |
| 3282.733333 | 53.98 | --- | 73.90 | 19.92 | 5000.0 | 1000.000 | 143.8 | H | 349.0 | -7.4 |
| 4927.000000 | 58.46 | --- | 73.90 | 15.44 | 5000.0 | 1000.000 | 110.7 | V | 290.0 | -1.9 |
| 4927.000000 | --- | 44.75 | 53.90 | 9.15 | 5000.0 | 1000.000 | 110.7 | V | 290.0 | -1.9 |
| 7379.300000 | --- | 45.95 | 53.90 | 7.95 | 5000.0 | 1000.000 | 136.3 | V | 34.0 | 1.0 |
| 7379.300000 | 59.91 | --- | 73.90 | 13.99 | 5000.0 | 1000.000 | 136.3 | V | 34.0 | 1.0 |
| 9847.400000 | --- | 34.57 | 53.90 | 19.33 | 5000.0 | 1000.000 | 171.9 | V | 350.0 | 3.8 |
| 9847.400000 | 47.83 | --- | 73.90 | 26.07 | 5000.0 | 1000.000 | 171.9 | V | 350.0 | 3.8 |
| 12318.600000 | 44.60 | --- | 73.90 | 29.30 | 5000.0 | 1000.000 | 275.7 | V | 355.0 | 5.9 |
| 12318.600000 | --- | 31.22 | 53.90 | 22.68 | 5000.0 | 1000.000 | 275.7 | V | 355.0 | 5.9 |
| 14764.200000 | --- | 31.13 | 53.90 | 22.77 | 5000.0 | 1000.000 | 113.7 | V | 136.0 | 8.1 |
| 14764.200000 | 44.36 | --- | 73.90 | 29.54 | 5000.0 | 1000.000 | 113.7 | V | 136.0 | 8.1 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.
A notch filter at 2.4 GHz was used to reduce the level of the intentional transmitter



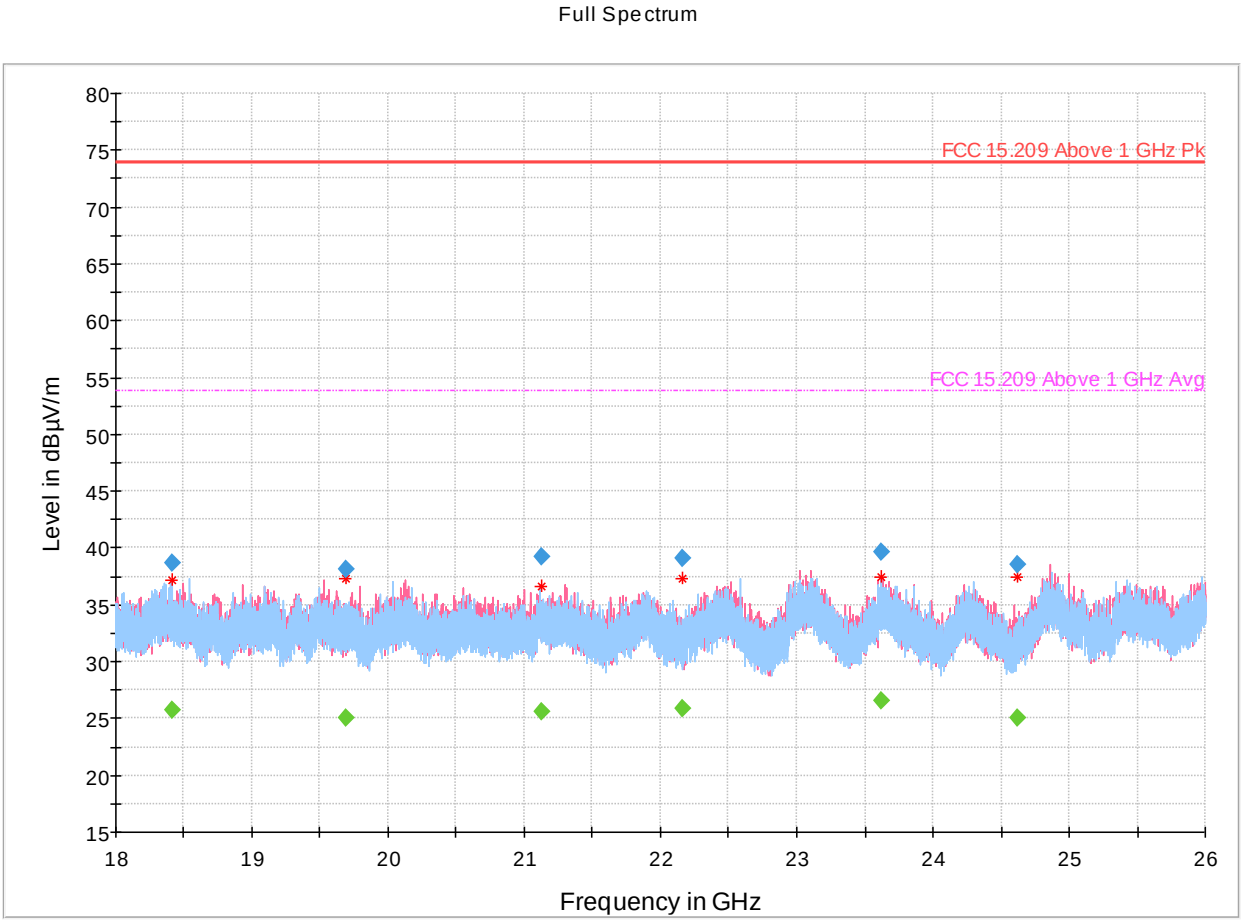

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-55:*** *Radiated emissions, 2462 MHz channel with 802.11b modulation, 18 – 26 GHz spectral plot*

***Table 8.3-32:*** *Radiated emissions, 2462 MHz channel with 802.11b modulation, 18 – 26 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 18624.566667 | 37.43 | --- | 73.90 | 36.47 | 5000.0 | 1000.000 | 108.3 | H | 120.0 | 2.7 |
| 18624.566667 | --- | 24.09 | 53.90 | 29.81 | 5000.0 | 1000.000 | 108.3 | H | 120.0 | 2.7 |
| 19696.300000 | 36.80 | --- | 73.90 | 37.10 | 5000.0 | 1000.000 | 117.8 | H | 151.0 | 2.1 |
| 19696.300000 | --- | 24.09 | 53.90 | 29.81 | 5000.0 | 1000.000 | 117.8 | H | 151.0 | 2.1 |
| 20756.166667 | 38.14 | --- | 73.90 | 35.76 | 5000.0 | 1000.000 | 117.6 | H | 331.0 | 2.6 |
| 20756.166667 | --- | 25.00 | 53.90 | 28.90 | 5000.0 | 1000.000 | 117.6 | H | 331.0 | 2.6 |
| 22159.900000 | 38.22 | --- | 73.90 | 35.68 | 5000.0 | 1000.000 | 202.0 | H | 351.0 | 2.0 |
| 22159.900000 | --- | 25.27 | 53.90 | 28.63 | 5000.0 | 1000.000 | 202.0 | H | 351.0 | 2.0 |
| 23630.033333 | 39.81 | --- | 73.90 | 34.09 | 5000.0 | 1000.000 | 192.6 | V | 154.0 | 1.6 |
| 23630.033333 | --- | 26.32 | 53.90 | 27.58 | 5000.0 | 1000.000 | 192.6 | V | 154.0 | 1.6 |
| 24619.500000 | 37.57 | --- | 73.90 | 36.33 | 5000.0 | 1000.000 | 115.7 | H | 242.0 | 2.5 |
| 24619.500000 | --- | 24.54 | 53.90 | 29.36 | 5000.0 | 1000.000 | 115.7 | H | 242.0 | 2.5 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.



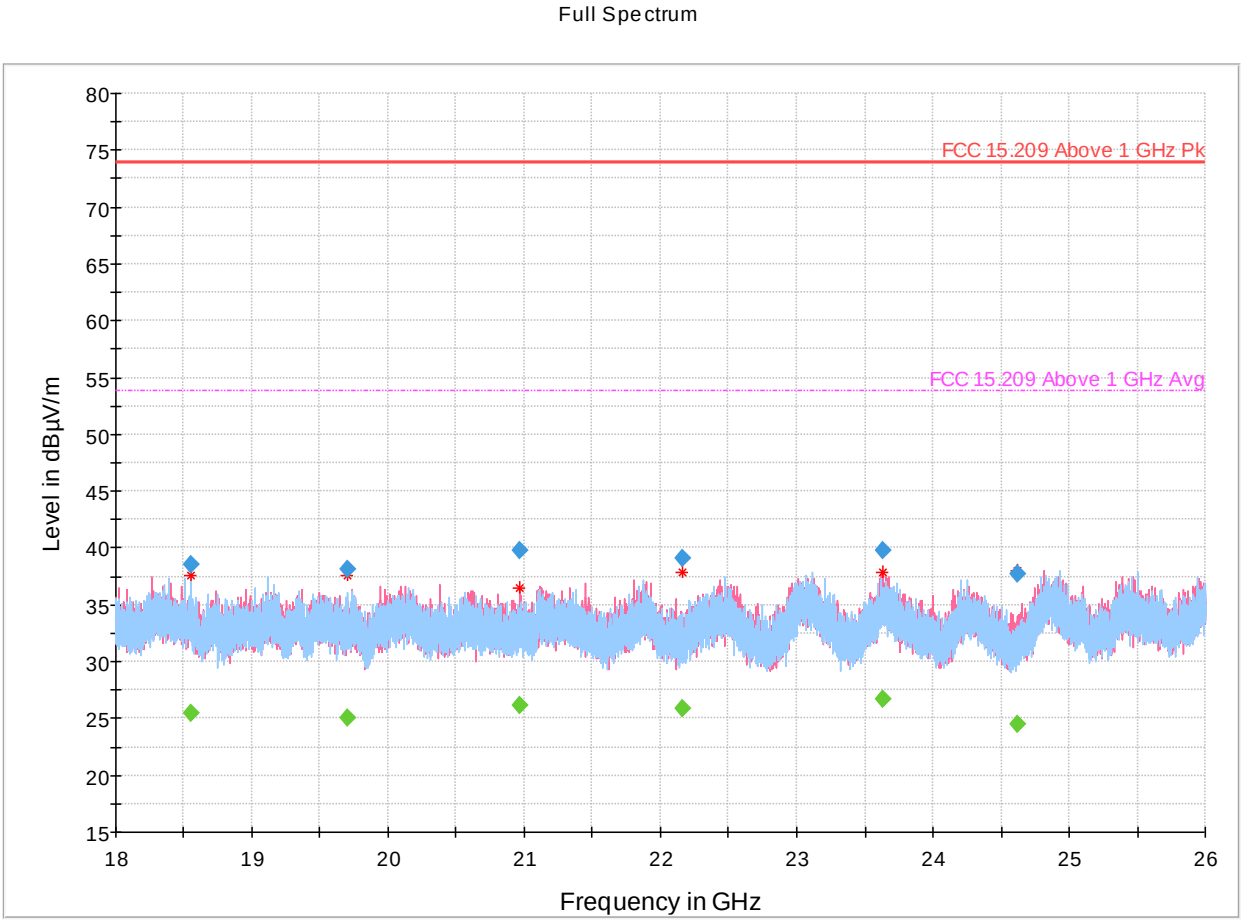

The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-56:*** *Radiated emissions, 2462 MHz channel with 802.11g modulation, 18 – 26 GHz spectral plot*

***Table 8.3-33:*** *Radiated emissions, 2462 MHz channel with 802.11g modulation, 18 – 26 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 18411.233333 | --- | 25.71 | 53.90 | 28.19 | 5000.0 | 1000.000 | 197.8 | H | 180.0 | 2.4 |
| 18411.233333 | 38.68 | --- | 73.90 | 35.22 | 5000.0 | 1000.000 | 197.8 | H | 180.0 | 2.4 |
| 19693.500000 | --- | 24.99 | 53.90 | 28.91 | 5000.0 | 1000.000 | 193.6 | H | 93.0 | 2.1 |
| 19693.500000 | 38.09 | --- | 73.90 | 35.81 | 5000.0 | 1000.000 | 193.6 | H | 93.0 | 2.1 |
| 21121.366667 | 39.20 | --- | 73.90 | 34.70 | 5000.0 | 1000.000 | 125.0 | V | 201.0 | 2.8 |
| 21121.366667 | --- | 25.56 | 53.90 | 28.34 | 5000.0 | 1000.000 | 125.0 | V | 201.0 | 2.8 |
| 22160.500000 | --- | 25.87 | 53.90 | 28.03 | 5000.0 | 1000.000 | 195.4 | H | 173.0 | 2.0 |
| 22160.500000 | 39.06 | --- | 73.90 | 34.84 | 5000.0 | 1000.000 | 195.4 | H | 173.0 | 2.0 |
| 23620.300000 | --- | 26.54 | 53.90 | 27.36 | 5000.0 | 1000.000 | 199.2 | H | 315.0 | 1.6 |
| 23620.300000 | 39.63 | --- | 73.90 | 34.27 | 5000.0 | 1000.000 | 199.2 | H | 315.0 | 1.6 |
| 24621.100000 | 38.56 | --- | 73.90 | 35.34 | 5000.0 | 1000.000 | 225.0 | H | 227.0 | 2.5 |
| 24621.100000 | --- | 25.10 | 53.90 | 28.80 | 5000.0 | 1000.000 | 225.0 | H | 227.0 | 2.5 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.




The spectral plot is a summation of a vertical and horizontal scan. The spectral scan has been corrected with the associated transducer factors (i.e. antenna factors, cable loss, amplifier gains, and attenuators).

***Figure 8.3-57:*** *Radiated emissions, 2462 MHz channel with 802.11n modulation, 18 – 26 GHz spectral plot*

***Table 8.3-34:*** *Radiated emissions, 2462 MHz channel with 802.11n modulation, 18 – 26 GHz results*

| Frequency (MHz) | MaxPeak (dBµV/m) | CAverage (dBµV/m) | Limit (dBµV/m) | Margin (dB) | Meas. Time (ms) | Bandwidth (kHz) | Height (cm) | Pol | Azimuth (deg) | Corr. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|
| 18550.033333 | --- | 25.47 | 53.90 | 28.43 | 5000.0 | 1000.000 | 204.7 | H | 181.0 | 2.9 |
| 18550.033333 | 38.48 | --- | 73.90 | 35.42 | 5000.0 | 1000.000 | 204.7 | H | 181.0 | 2.9 |
| 19696.700000 | --- | 25.00 | 53.90 | 28.90 | 5000.0 | 1000.000 | 191.3 | H | 182.0 | 2.1 |
| 19696.700000 | 38.09 | --- | 73.90 | 35.81 | 5000.0 | 1000.000 | 191.3 | H | 182.0 | 2.1 |
| 20968.566667 | 39.77 | --- | 73.90 | 34.13 | 5000.0 | 1000.000 | 225.0 | V | 97.0 | 2.8 |
| 20968.566667 | --- | 26.21 | 53.90 | 27.69 | 5000.0 | 1000.000 | 225.0 | V | 97.0 | 2.8 |
| 22160.500000 | --- | 25.86 | 53.90 | 28.04 | 5000.0 | 1000.000 | 196.0 | H | 196.0 | 2.0 |
| 22160.500000 | 39.04 | --- | 73.90 | 34.86 | 5000.0 | 1000.000 | 196.0 | H | 196.0 | 2.0 |
| 23633.766667 | 39.84 | --- | 73.90 | 34.06 | 5000.0 | 1000.000 | 220.8 | V | 199.0 | 1.6 |
| 23633.766667 | --- | 26.66 | 53.90 | 27.24 | 5000.0 | 1000.000 | 220.8 | V | 199.0 | 1.6 |
| 24621.500000 | --- | 24.55 | 53.90 | 29.35 | 5000.0 | 1000.000 | 125.0 | H | 12.0 | 2.5 |
| 24621.500000 | 37.67 | --- | 73.90 | 36.23 | 5000.0 | 1000.000 | 125.0 | H | 12.0 | 2.5 |

Notes: [1] Field strength (dBµV/m) = receiver/spectrum analyzer value (dBµV) + correction factor (dB)
[2] Correction factor = antenna factor ACF (dB) + cable loss (dB) - pre amp (dB)
[3] The maximum measured value observed over a period of 5 seconds was recorded.

## 8.4 FCC 15.247(e) and RSS-247 5.2(b) Power spectral density of digital transmission system

### 8.4.1 References

Title 47 → Chapter I → Subchapter A → Part 15 → Subpart C → §15.247(e) / ANSI C63.10: 2013

(e) For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this Section. The same method of determining the conducted output power shall be used to determine the power spectral density.

RSS-247 → §5.2(b)

(a) The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of Section 5.4(4), (i.e. the power spectral density shall be determined using the same method as is used to determine the conducted output power).

### 8.4.2 Test summary

| | | | |
|---|---|---|---|
| Verdict | Pass | | |
| Test date | November 24, 2020 | Temperature | 21 °C |
| Test engineer | James Cunningham, EMC/MIL/WL Supervisor | Air pressure | 1009 mbar |
| Test location | Wireless bench | Relative humidity | 28 % |

### 8.4.3 Notes

Testing was performed in WiFi mode and the EUT transmitting on a fixed channel at full power.

The EUT antenna port was connected to the spectrum analyzer via low loss cable and a suitable attenuator. The loss of this assembly was corrected for via a transducer factor in the spectrum analyzer.

### 8.4.4 Setup details

| | |
|---|---|
| EUT setup configuration | Table top |
| Test facility | Nemko San Diego |
| Measurement details | Measurement performed as per C63.10 §11.10.2 Method – PKPSD (peak PSD) |

Receiver/spectrum analyzer settings:

| | |
|---|---|
| Resolution bandwidth | 3 kHz |
| Video bandwidth | 10 kHz (≥ 3 x RBW) |
| Frequency span | 1.5 x DTS bandwidth |
| Detector mode | Peak |
| Trace mode | Max Hold |
| Sweep time | Auto |

### 8.4.5 Test data

***Table 8.4-1:*** *Power spectral density of DTS*

| Transmitter Frequency (MHz) | Modulation Scheme | Data Rate | Measured Level (dBm/3 kHz) | Limit (dBm/3 kHz) |
|---|---|---|---|---|
| 2412 | 802.11b | 1 Mbps | -14.01 | 8.00 |
| 2412 | 802.11g | 6 Mbps | -17.91 | 8.00 |
| 2412 | 802.11n | MCS0 | -17.56 | 8.00 |
| 2442 | 802.11b | 1 Mbps | -13.54 | 8.00 |
| 2442 | 802.11g | 6 Mbps | -17.58 | 8.00 |
| 2442 | 802.11n | MCS0 | -17.33 | 8.00 |
| 2462 | 802.11b | 1 Mbps | -13.69 | 8.00 |
| 2462 | 802.11g | 6 Mbps | -17.18 | 8.00 |
| 2462 | 802.11n | MCS0 | -17.18 | 8.00 |

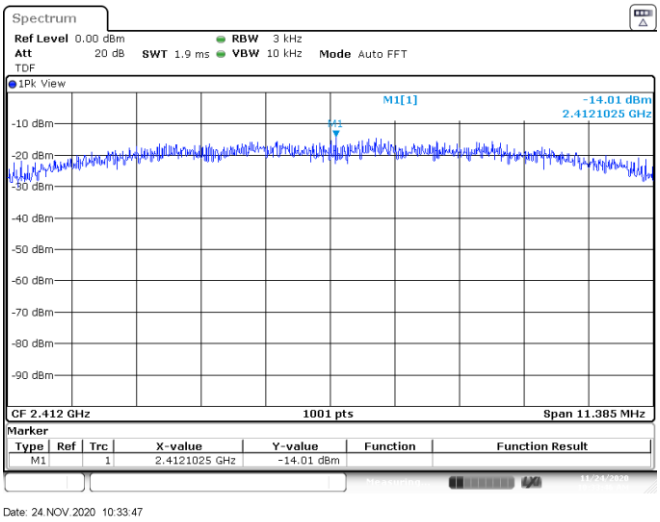



***Figure 8.4-1:*** *Peak PSD, 2412 MHz with 802.11b modulation*

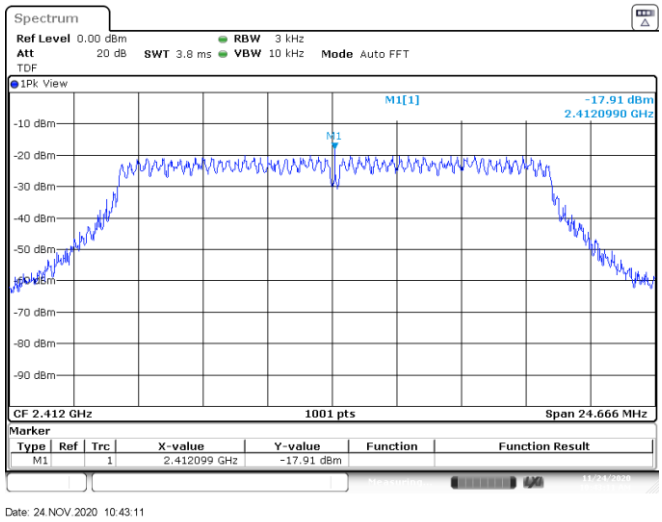



**Figure 8.4-2:** Peak PSD, 2412 MHz with 802.11g modulation

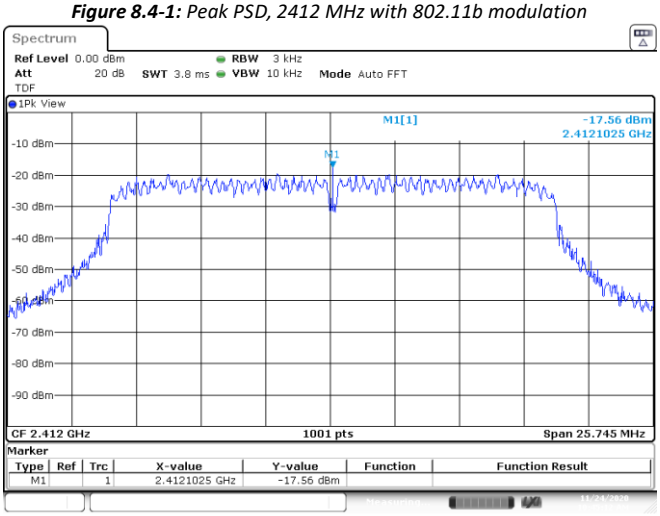



**Figure 8.4-3:** Peak PSD, 2412 MHz with 802.11n modulation

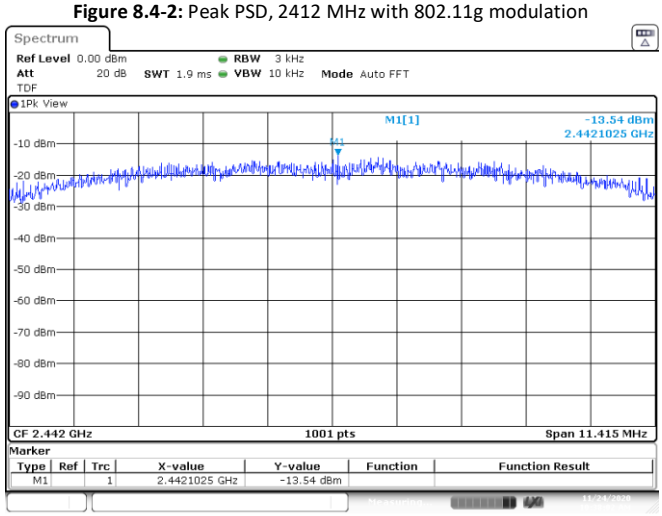



**Figure 8.4-4:** Peak PSD, 2442 MHz with 802.11b modulation

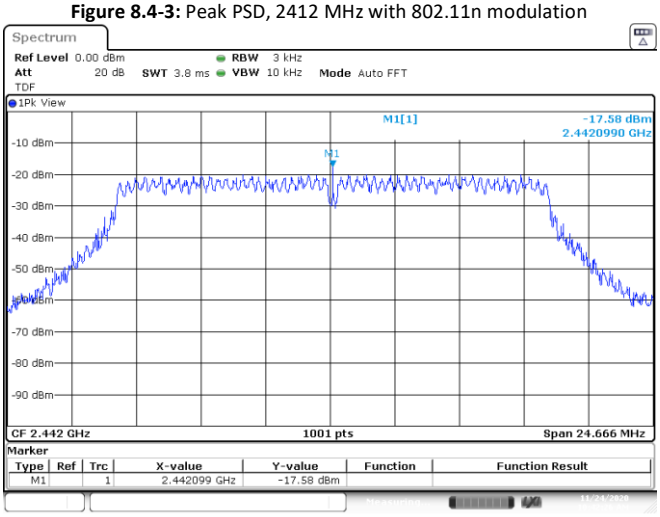



**Figure 8.4-5:** Peak PSD, 2442 MHz with 802.11g modulation

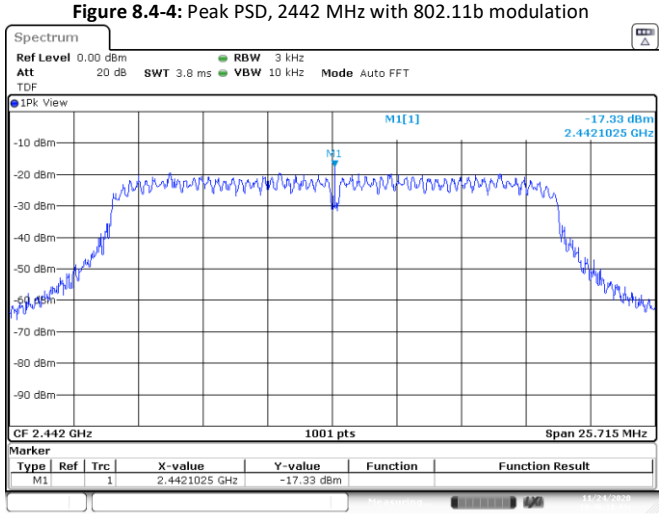



**Figure 8.4-6:** Peak PSD, 2442 MHz with 802.11n modulation

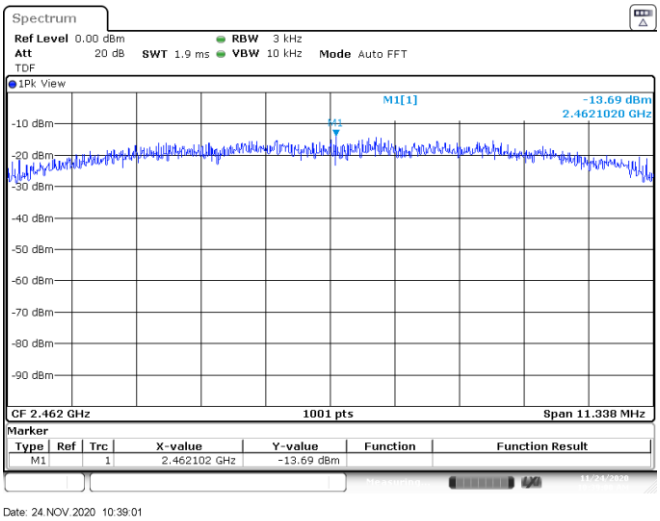



**Figure 8.4-7:** Peak PSD, 2462 MHz with 802.11b modulation

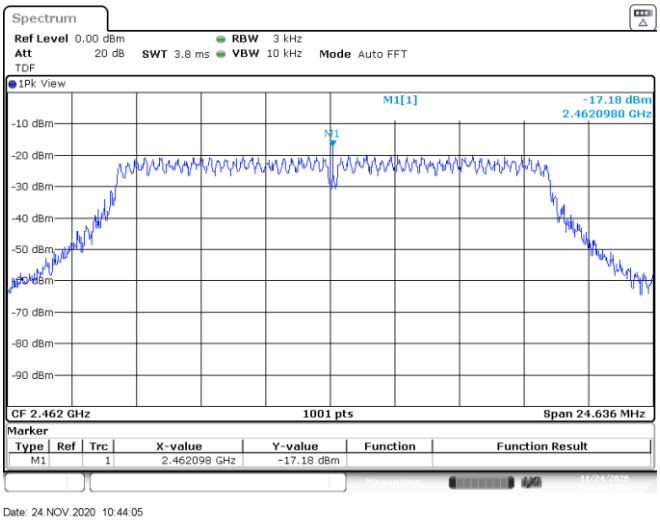



**Figure 8.4-8:** Peak PSD, 2462 MHz with 802.11g modulation

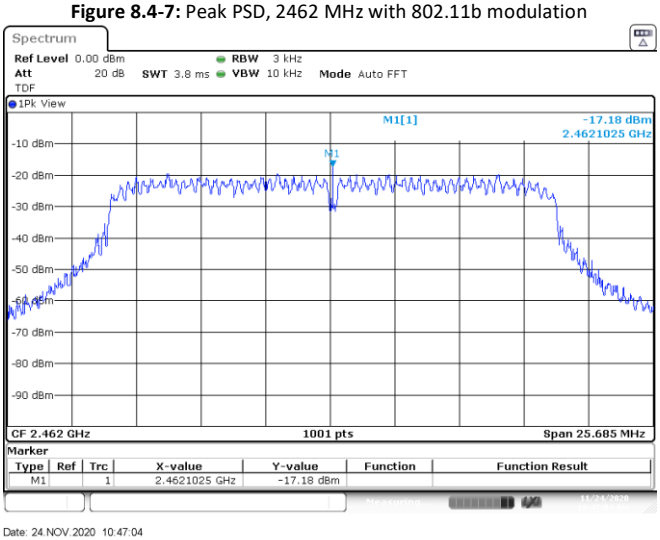



**Figure 8.4-9:** Peak PSD, 2462 MHz with 802.11n modulation

## 8.5 RSS-GEN 6.7 Occupied bandwidth (or 99% emission bandwidth)

### 8.5.1 References

RSS-Gen → §6.7

The occupied bandwidth or the "99% emission bandwidth" is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

### 8.5.2 Test summary

| | | | |
|---|---|---|---|
| Test date | November 11, 2020 | Temperature | 22 °C |
| Test engineer | David Hewitt, EMC Specialist | Air pressure | 1007 mbar |
| Test location | Wireless bench | Relative humidity | 31 % |
| Test date | November 24, 2020 | Temperature | 21 °C |
| Test engineer | James Cunningham, EMC/MIL/WL Supervisor | Air pressure | 1009 mbar |
| Test location | Wireless bench | Relative humidity | 28 % |

### 8.5.3 Notes

Testing was performed in WiFi mode and the EUT transmitting on a fixed channel at full power. For the 2462 MHz channel with 802.11g and 802.11n modulations, the delta marker function was used to find the occupied bandwidth.

### 8.5.4 Setup details

| | |
|---|---|
| EUT setup configuration | Tabletop |
| Test facility | Nemko San Diego |
| Measurement details | Measurement performed as per C63.10 §6.9.3 using the built-in function of the spectrum analyzer |

Receiver/spectrum analyzer settings:

| | |
|---|---|
| Resolution bandwidth | 500 kHz; (100 kHz later testing) |
| Video bandwidth | 2 MHz; (300 kHz later testing) |
| Detector mode | Peak |
| Trace mode | Max Hold |
| Measurement time | Long enough for trace to stabilize |

### 8.5.5 Test data

***Table 8.5-1:*** *99% Occupied bandwidth*

| Test Frequency (MHz) | Modulation | Data rate | 99%Bandwidth (MHz) |
|---|---|---|---|
| 2412 | 802.11b | 1 Mbps | 13.006 |
| 2412 | 802.11g | 6 Mbps | 16.748 |
| 2412 | 802.11n | MCS0 | 17.446 |
| 2442 | 802.11b | 1 Mbps | 13.014 |
| 2442 | 802.11g | 6 Mbps | 16.758 |
| 2442 | 802.11n | MCS0 | 17.457 |
| 2462 | 802.11b | 1 Mbps | 12.967 |
| 2462 | 802.11g | 6 Mbps | 16.404 |
| 2462 | 802.11n | MCS0 | 17.403 |

## 8.5.5 Test data, continued

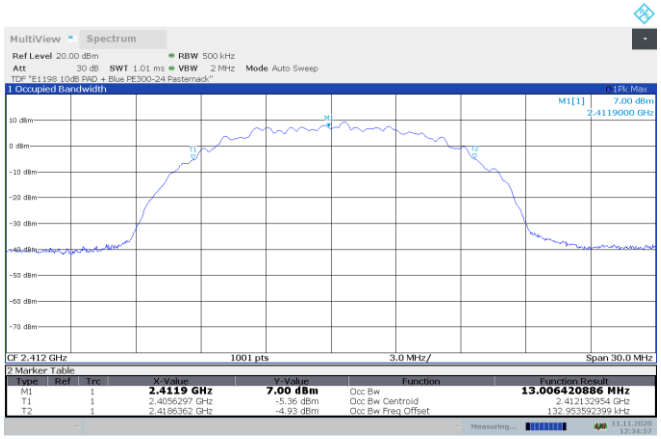



**Figure 8.5-1:** 99% bandwidth, 2412 MHz, 802.11b

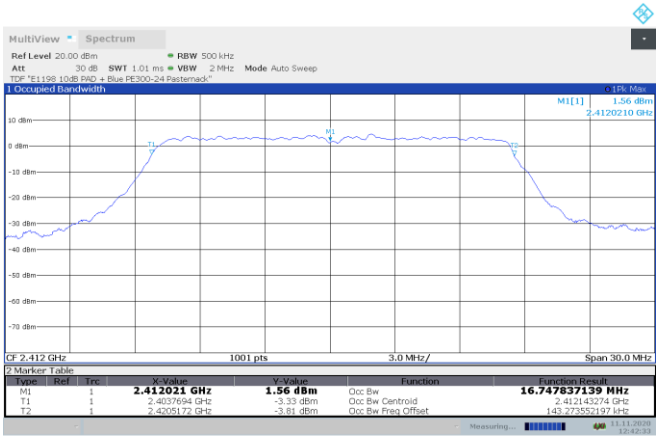



**Figure 8.5-2:** 99% bandwidth, 2412 MHz, 802.11g

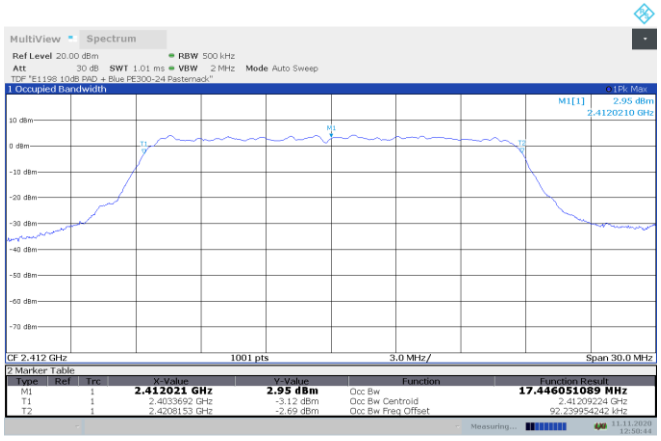



**Figure 8.5-3:** 99% bandwidth, 2412 MHz, 802.11n

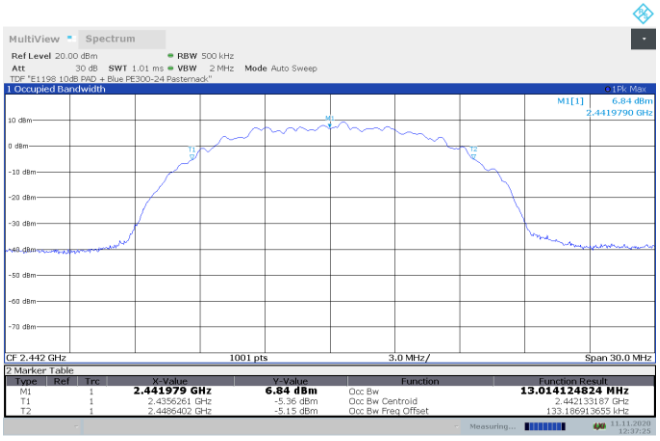



**Figure 8.5-4:** 99% bandwidth, 2442 MHz, 802.11b

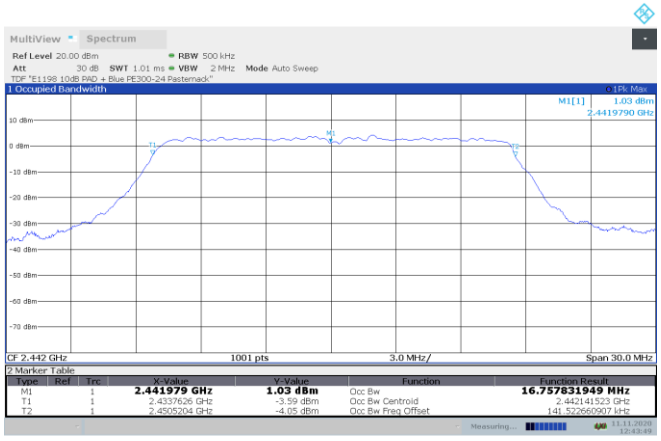



**Figure 8.5-5:** 99% bandwidth, 2442 MHz, 802.11g

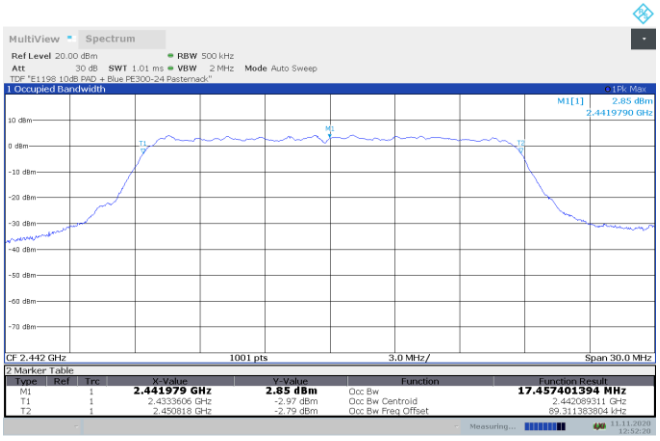



**Figure 8.5-6:** 99% bandwidth, 2442 MHz, 802.11n

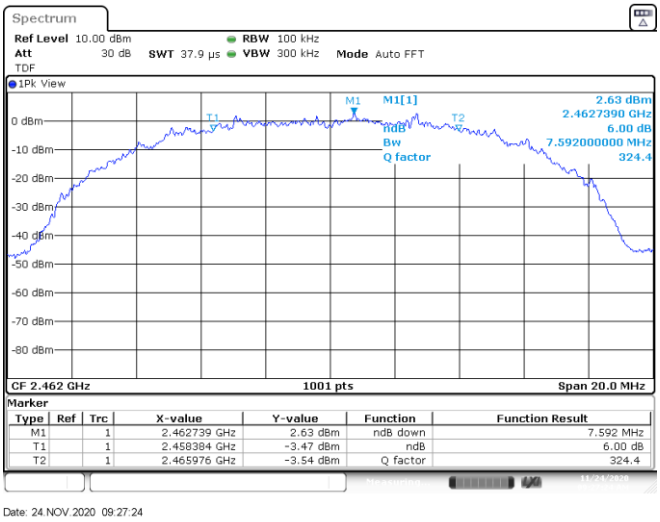



**Figure 8.5-7:** 99% bandwidth, 2462 MHz, 802.11b

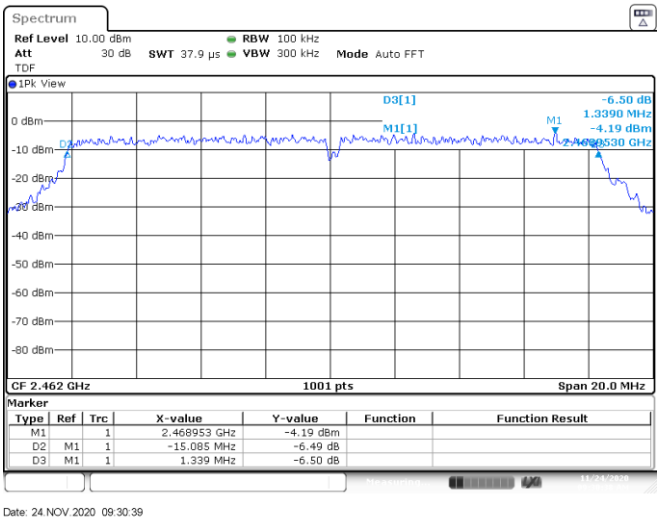



**Figure 8.5-8:** 99% bandwidth, 2462 MHz, 802.11g

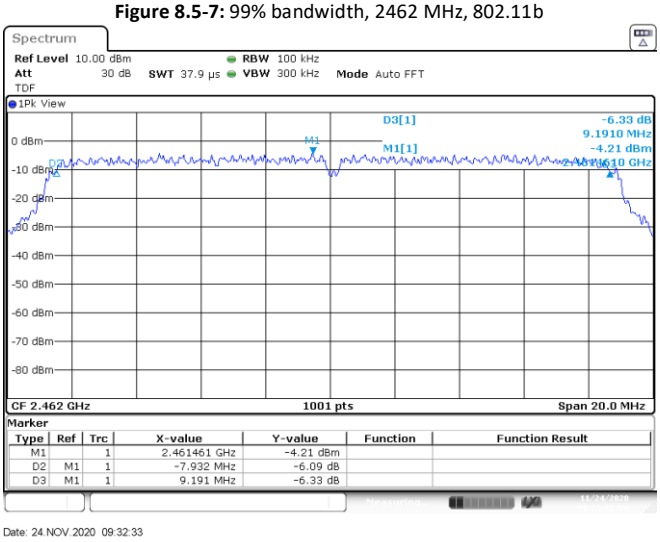



**Figure 8.5-9:** 99% bandwidth, 2462 MHz, 802.11n

# Section 9 Block diagrams of test set-ups

## 9.1 Radiated emissions set-up

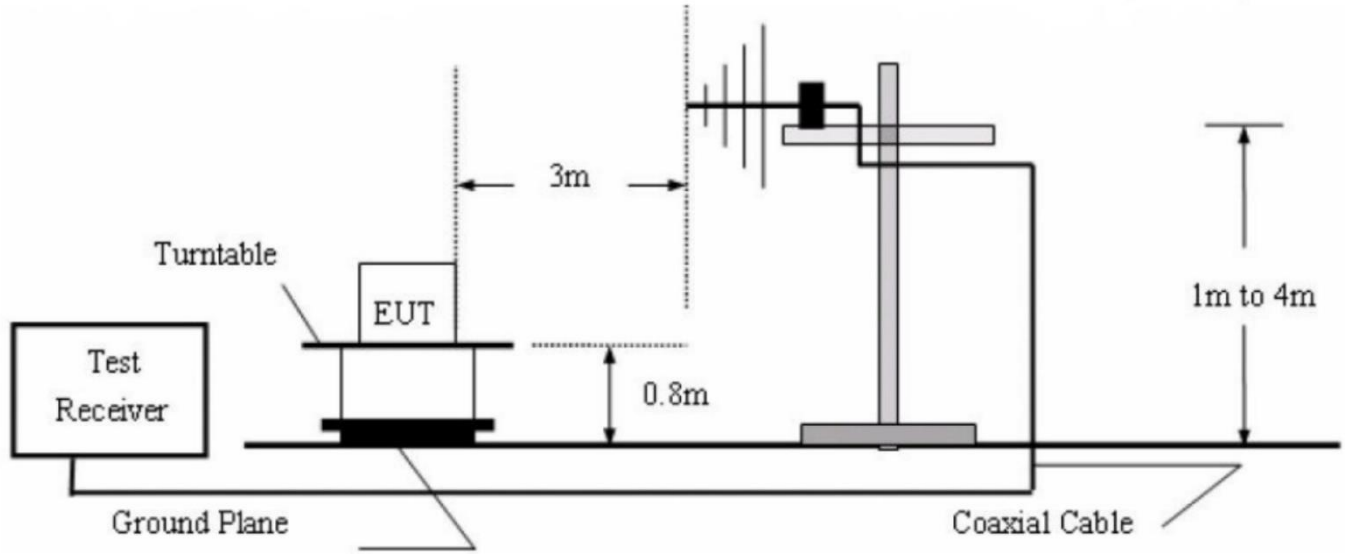



***Figure 9.1-1:*** *30 MHz - 1000 MHz Setup*

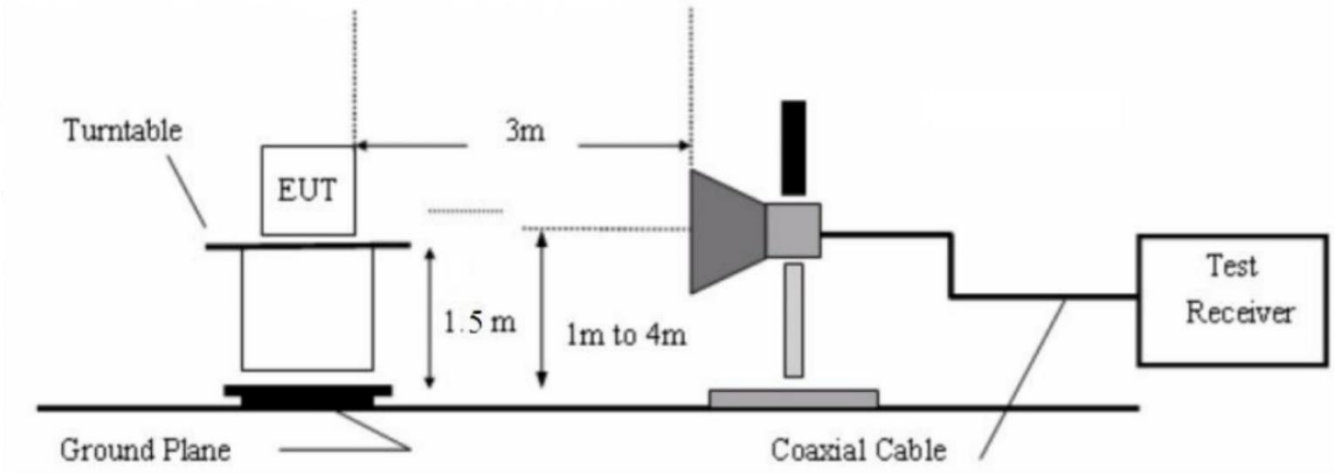



**Figure 9.1-2:** 1 GHz - 26 GHz Setup