

Fig. 23 Channel Move Time & Channel Closing Transmission Time (802.11a Frequency Band: 5250MHz ~ 5350MHz)

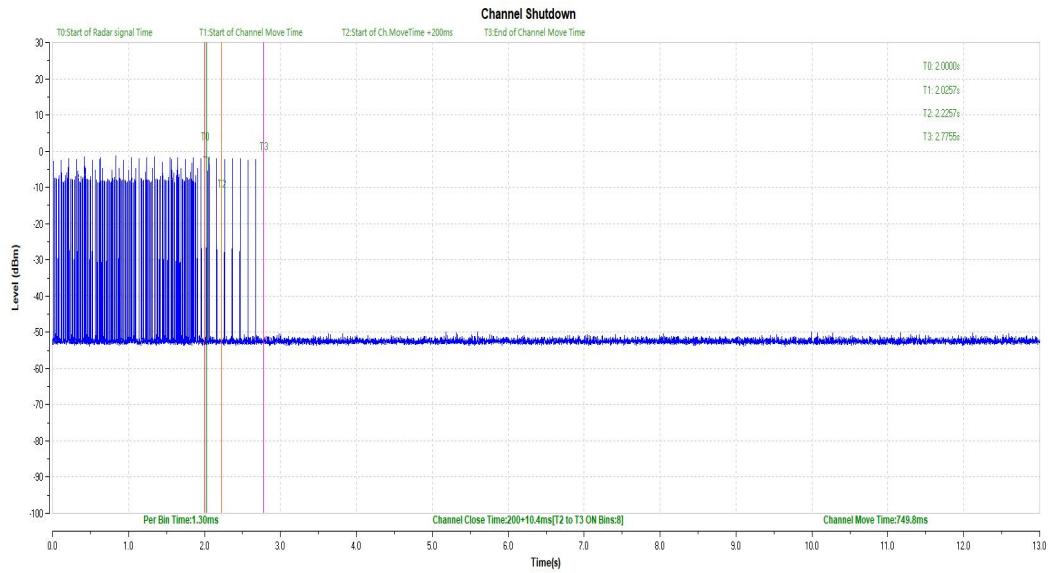


Fig. 24 Channel Move Time & Channel Closing Transmission Time (802.11ax-HE160 Frequency Band: 5470MHz~5725MHz)

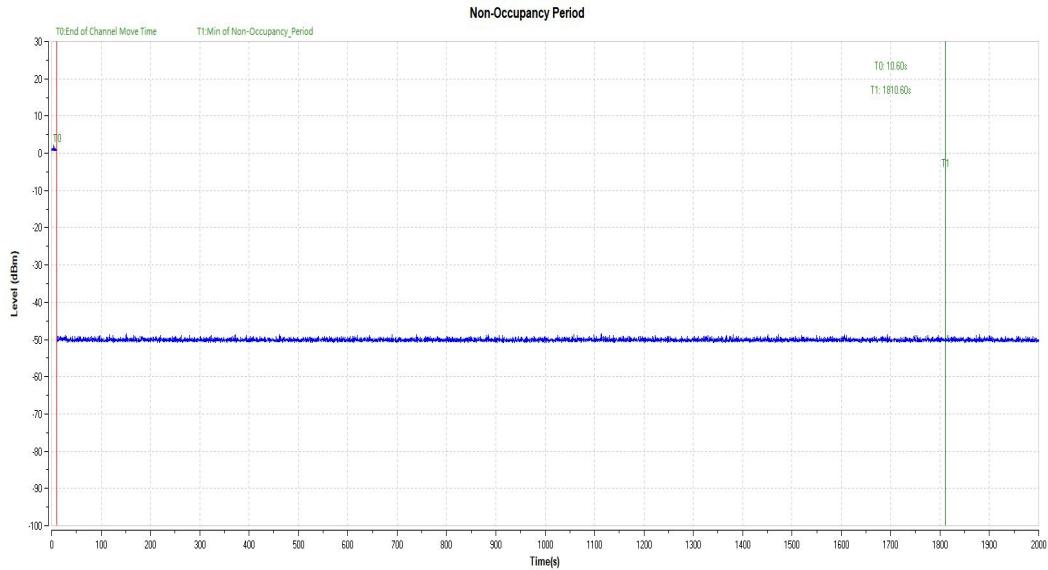


Fig. 25 Non-Occupancy Period (802.11a Frequency Band: 5250MHz ~ 5350MHz)

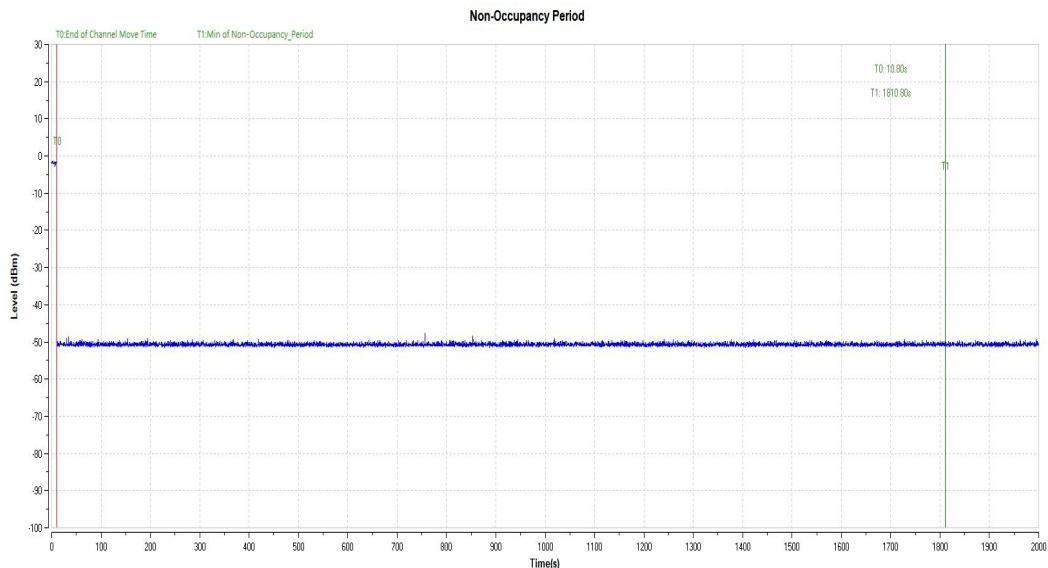


Fig. 26 Non-Occupancy Period (802.11ax-HE160 Frequency Band: 5470MHz~5725MHz)



A.8. Band Edges Compliance

Method of Measurement: See ANSI C63.10-clause 6.10.

Measurement Limit:

| Standard | Limit (dB μ V/m) | |
|------------------------|----------------------|----|
| FCC 47 CFR Part 15.209 | Peak | 74 |
| | Average | 54 |

The measurement is made according to KDB 789033

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)).

Measurement Result:

SISO:

| Mode | Frequency (MHz) | Test Results | Conclusion |
|---------|-----------------|--------------|------------|
| 802.11a | 5180MHz(CH36) | Fig.27 | P |
| | 5320MHz(CH64) | Fig.28 | P |
| | 5500MHz(CH100) | Fig.29 | P |
| | 5700MHz(CH140) | Fig.30 | P |
| | 5745MHz(CH149) | Fig.31 | P |
| | 5825MHz(CH165) | Fig.32 | P |

MIMO:

| Mode | Frequency (MHz) | Test Results | Conclusion |
|----------------|------------------------|---------------------|-------------------|
| 802.11ax-HE20 | 5180MHz(CH36) | Fig.33 | P |
| | 5320MHz(CH64) | Fig.34 | P |
| | 5500MHz(CH100) | Fig.35 | P |
| | 5700MHz(CH140) | Fig.36 | P |
| | 5745MHz(CH149) | Fig.37 | P |
| | 5825MHz(CH165) | Fig.38 | P |
| 802.11n-HT40 | 5190MHz(CH38) | Fig.39 | P |
| | 5310MHz(CH62) | Fig.40 | P |
| | 5510MHz(CH102) | Fig.41 | P |
| | 5670MHz(CH134) | Fig.42 | P |
| | 5755MHz(CH151) | Fig.43 | P |
| | 5795MHz(CH159) | Fig.44 | P |
| 802.11ac-VHT80 | 5210MHz(CH42) | Fig.45 | P |
| | 5290MHz(CH58) | Fig.46 | P |
| | 5530MHz(CH106) | Fig.47 | P |
| | 5610MHz(CH122) | Fig.48 | P |
| | 5775MHz(CH155) | Fig.49 | P |
| 802.11ax-HE160 | 5250MHz(CH50) | Fig.50 | P |
| | | Fig.51 | P |
| | 5570MHz(CH114) | Fig.52 | P |
| | | Fig.53 | P |

See below for test graphs.

Conclusion: PASS

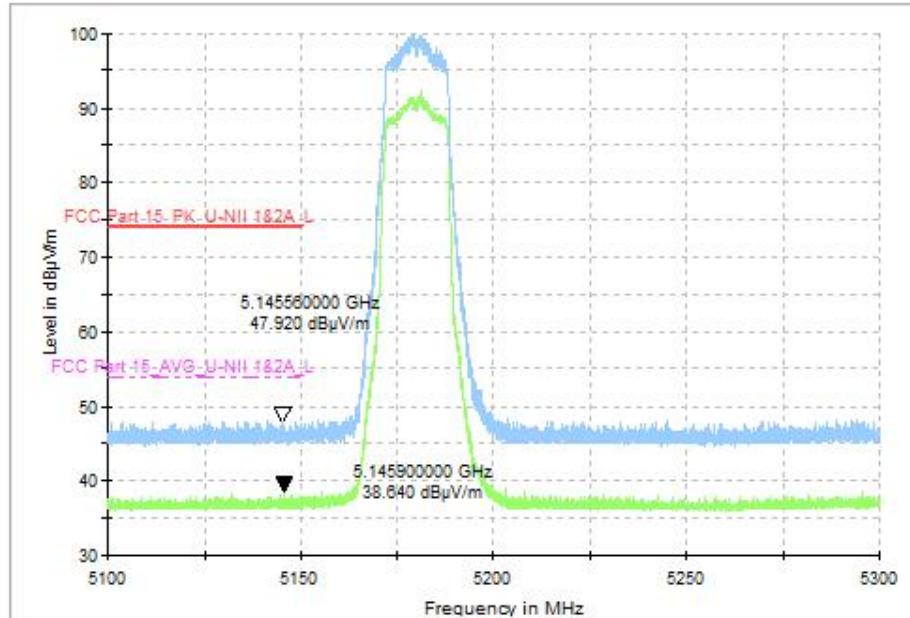


Fig. 27 Band Edges (802.11a, CH36 5180MHz)

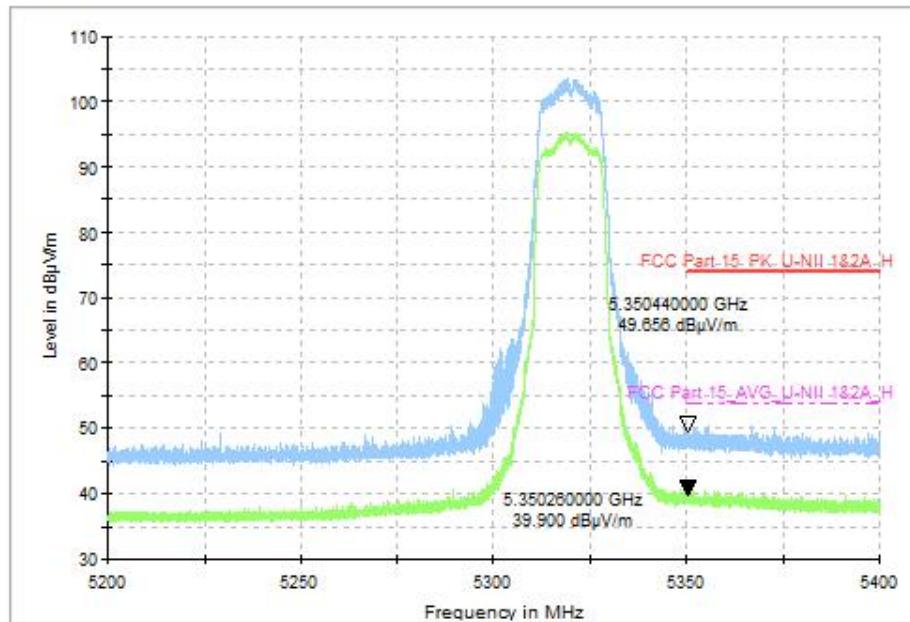


Fig. 28 Band Edges (802.11a, CH64 5320MHz)

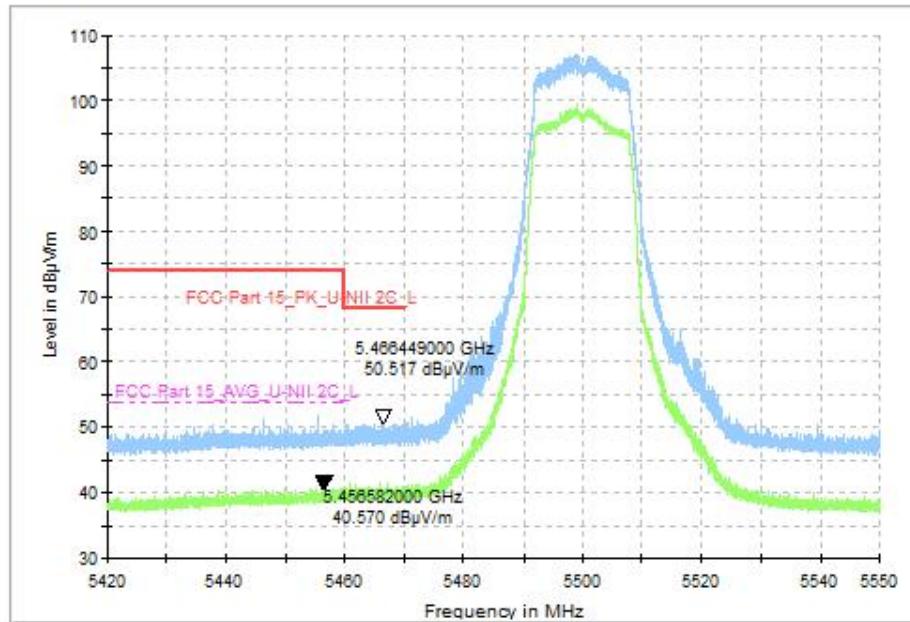


Fig. 29 Band Edges (802.11a, CH100 5500MHz)

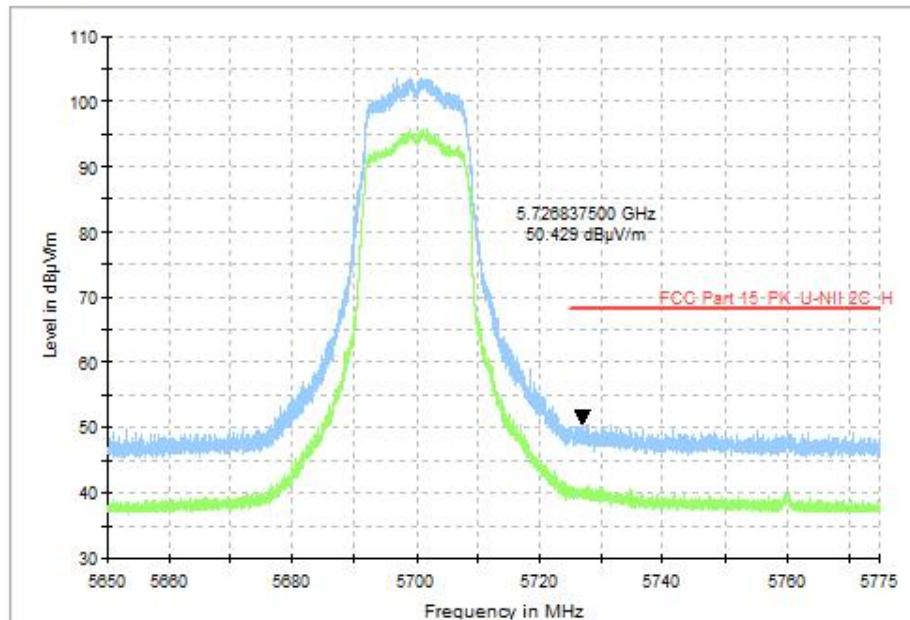


Fig. 30 Band Edges (802.11a, CH140 5700MHz)

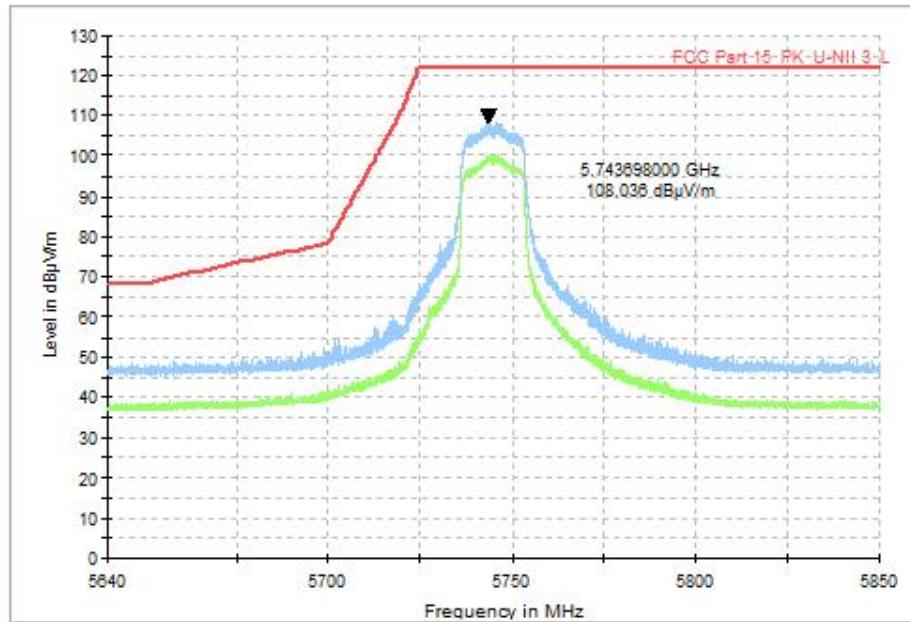


Fig. 31 Band Edges (802.11a, CH149 5745MHz)

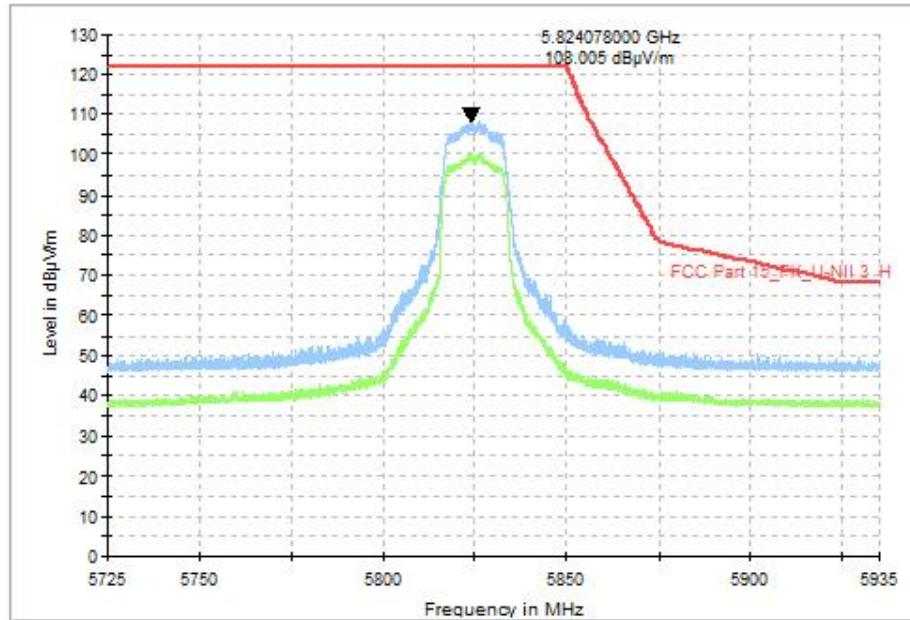


Fig. 32 Band Edges (802.11a, CH165 5825MHz)

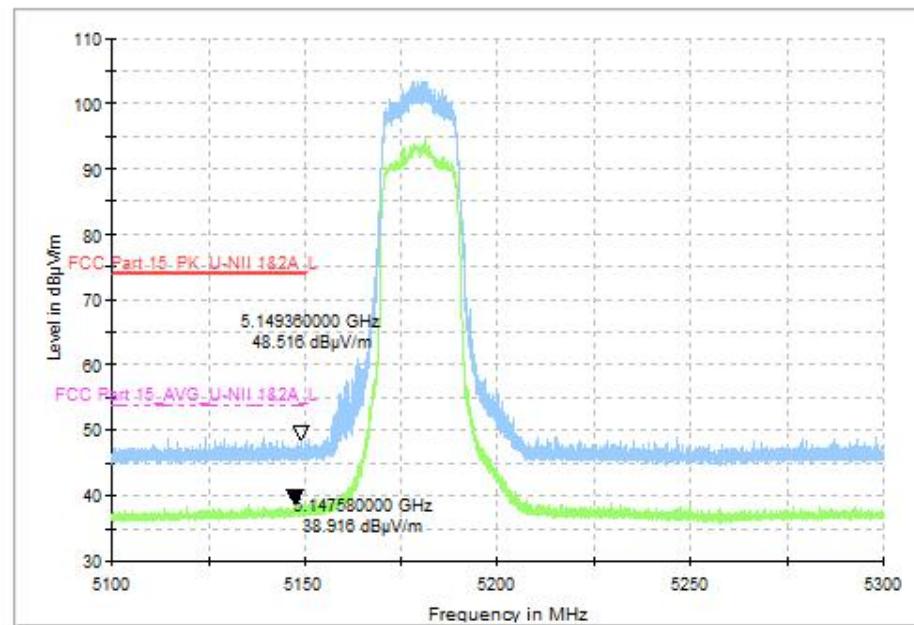


Fig. 33 Band Edges (802.11ax-HE20, CH36 5180MHz), MIMO

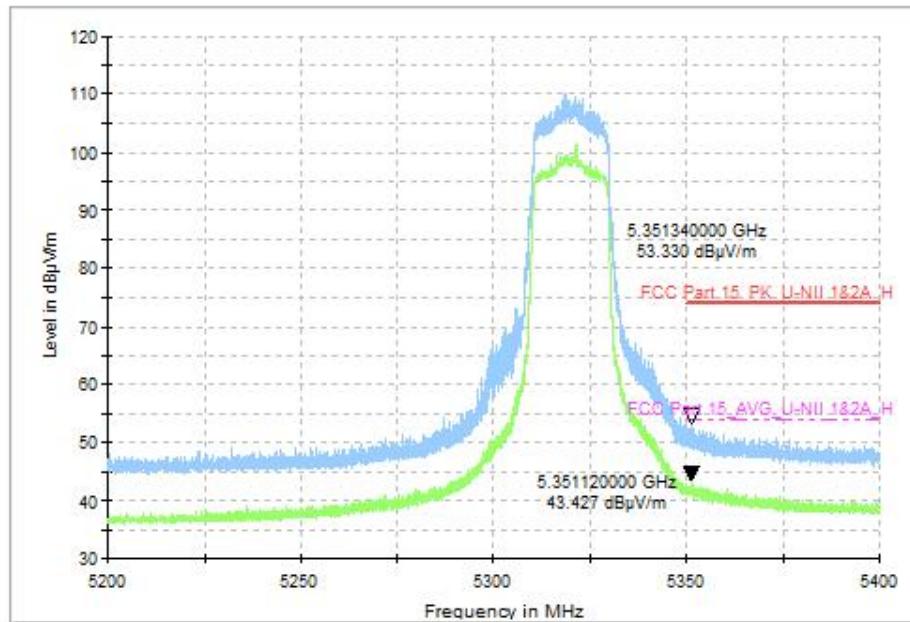


Fig. 34 Band Edges (802.11ax-HE20, CH64 5320MHz), MIMO

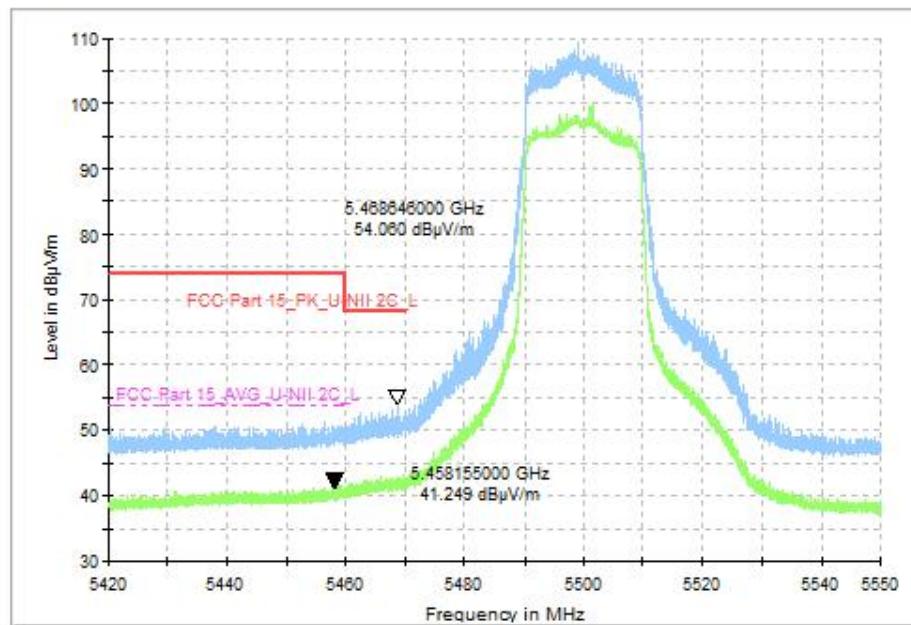


Fig. 35 Band Edges (802.11ax-HE20, CH100 5500MHz), MIMO

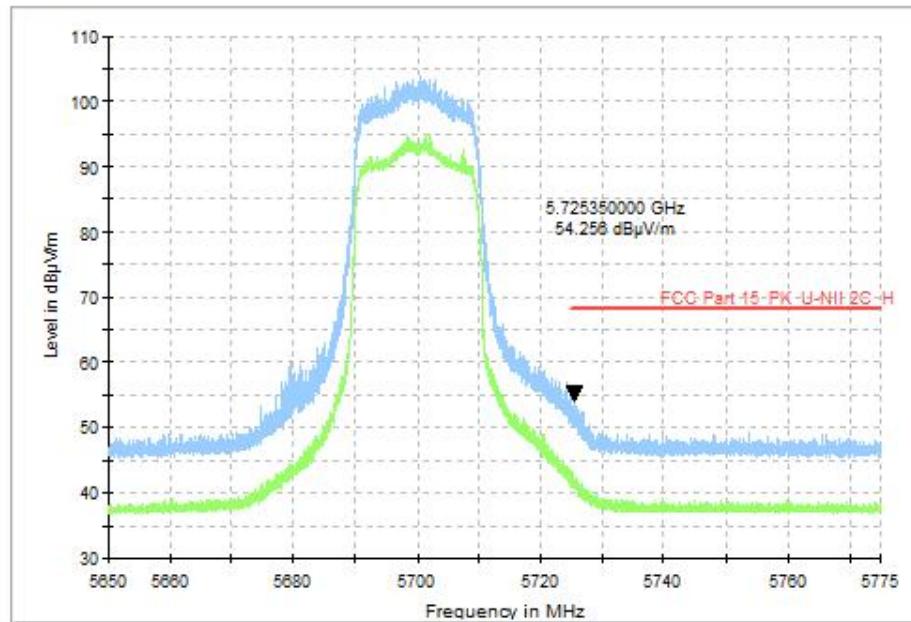


Fig. 36 Band Edges (802.11ax-HE20, CH140 5700MHz), MIMO

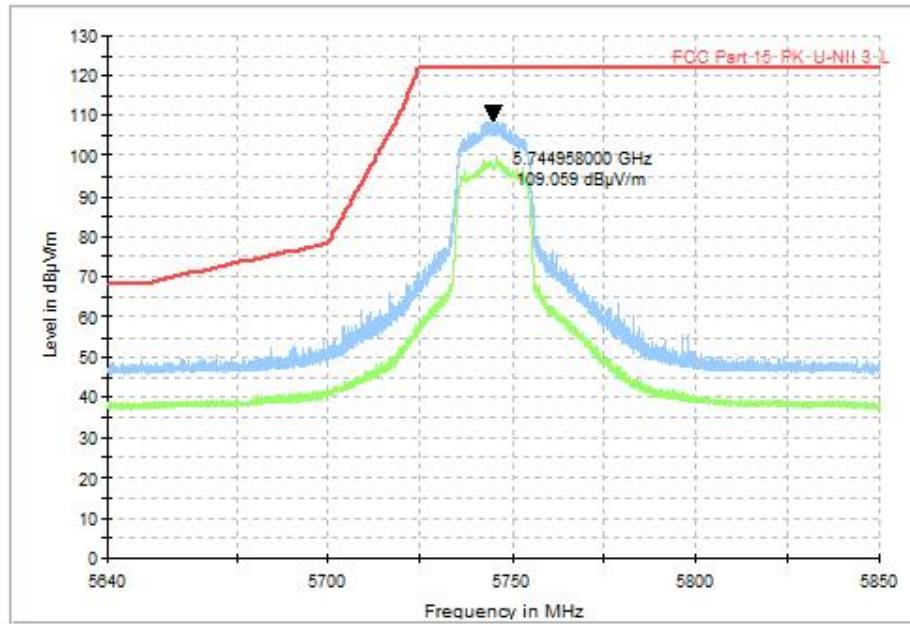


Fig. 37 Band Edges (802.11ax-HE20, CH149 5745MHz), MIMO

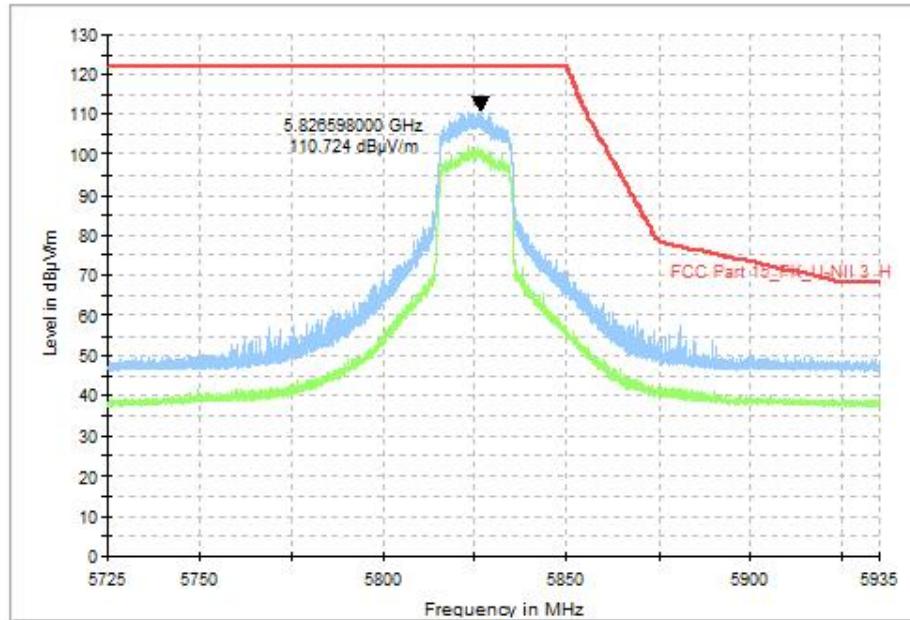


Fig. 38 Band Edges (802.11ax-HE20, CH165 5825MHz), MIMO

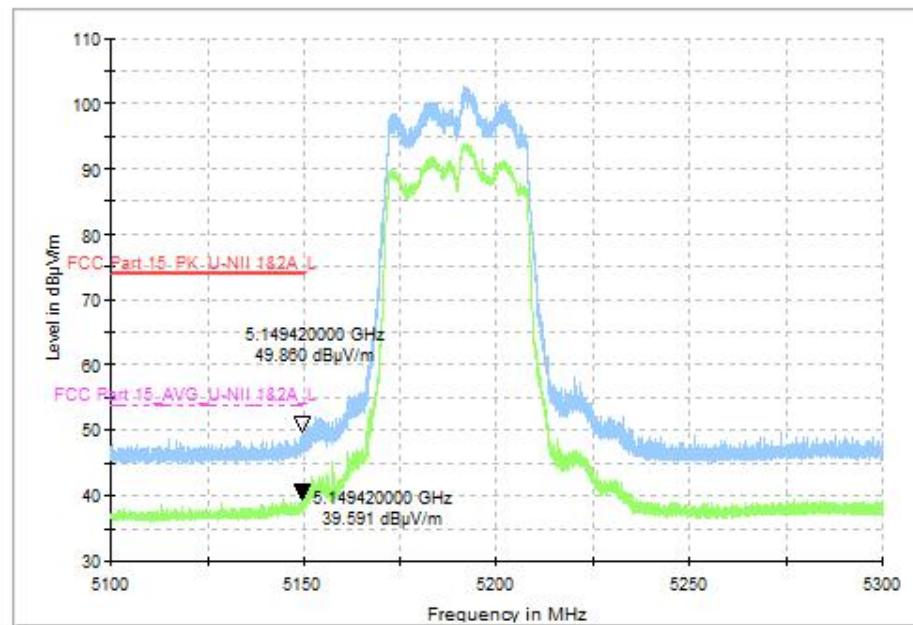


Fig. 39 Band Edges (802.11n-HT40, CH38 5190MHz), MIMO

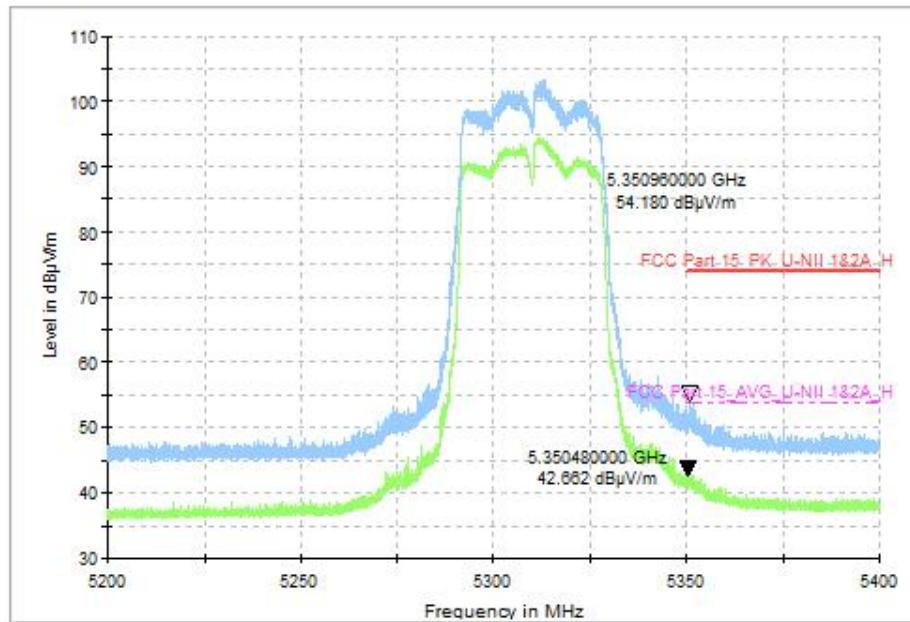


Fig. 40 Band Edges (802.11n-HT40, CH62 5310MHz), MIMO

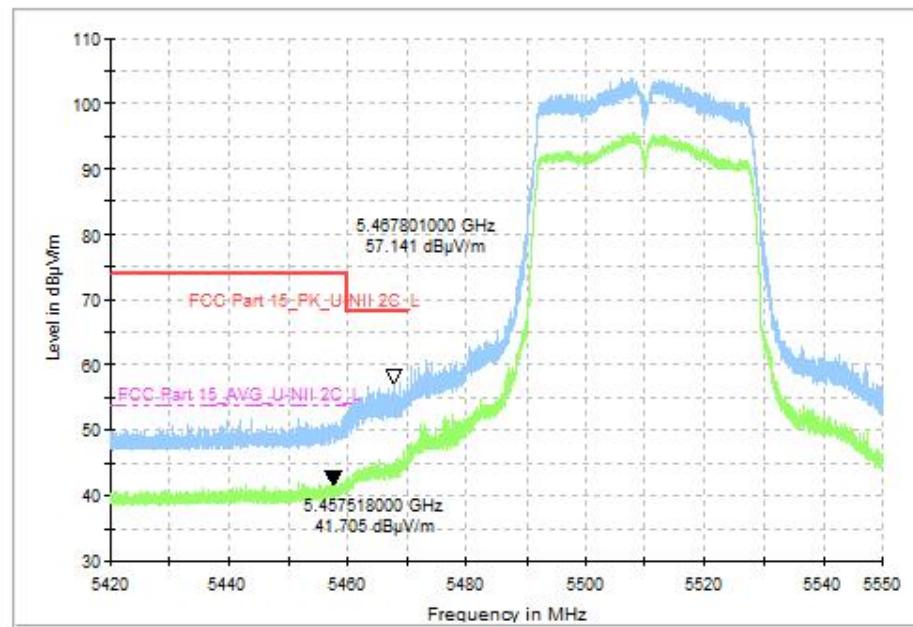


Fig. 41 Band Edges (802.11n-HT40, CH102 5510MHz), MIMO

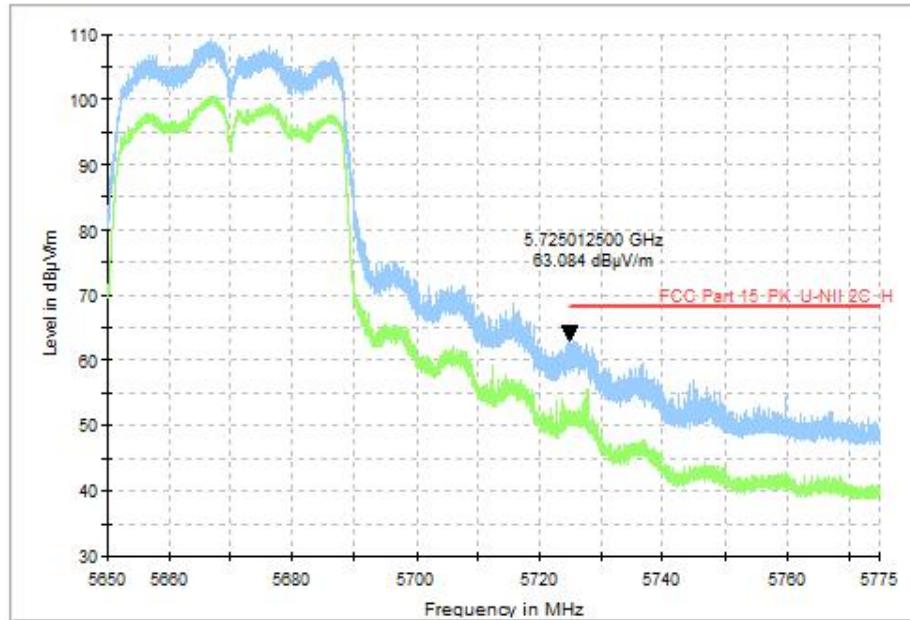


Fig. 42 Band Edges (802.11n-HT40, CH134 5670MHz), MIMO

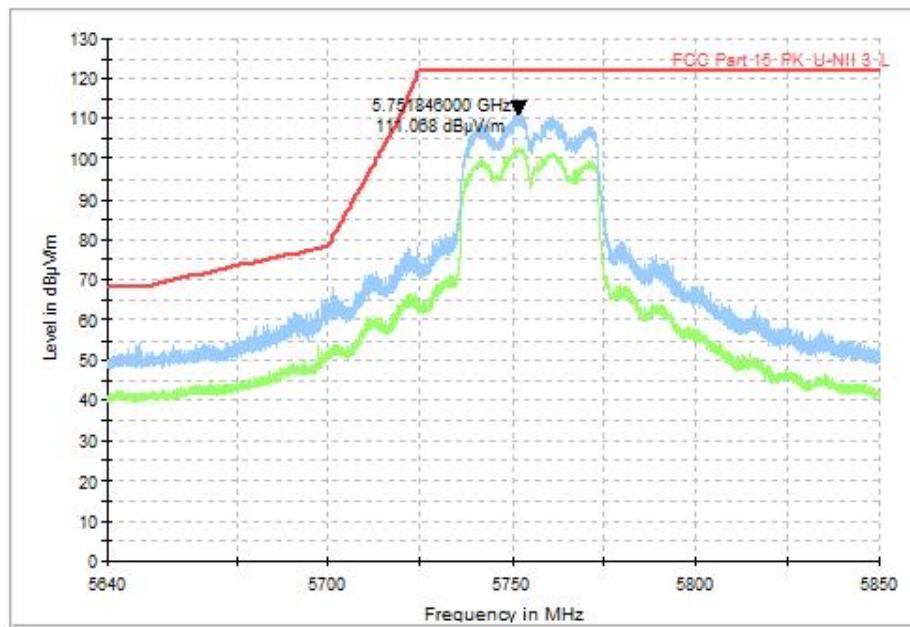


Fig. 43 Band Edges (802.11n-HT40, CH151 5755MHz), MIMO

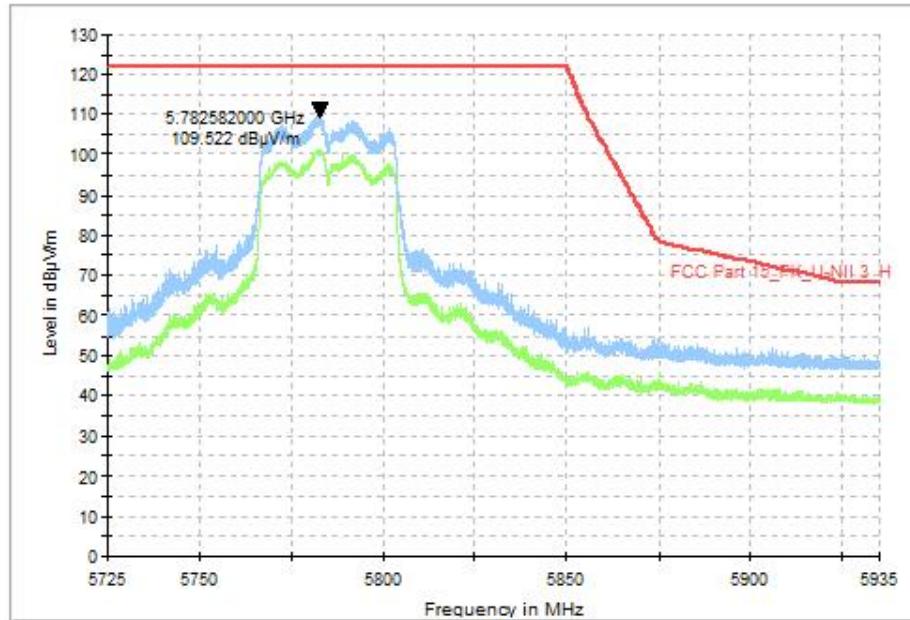


Fig. 44 Band Edges (802.11n-HT40, CH159 5795MHz), MIMO

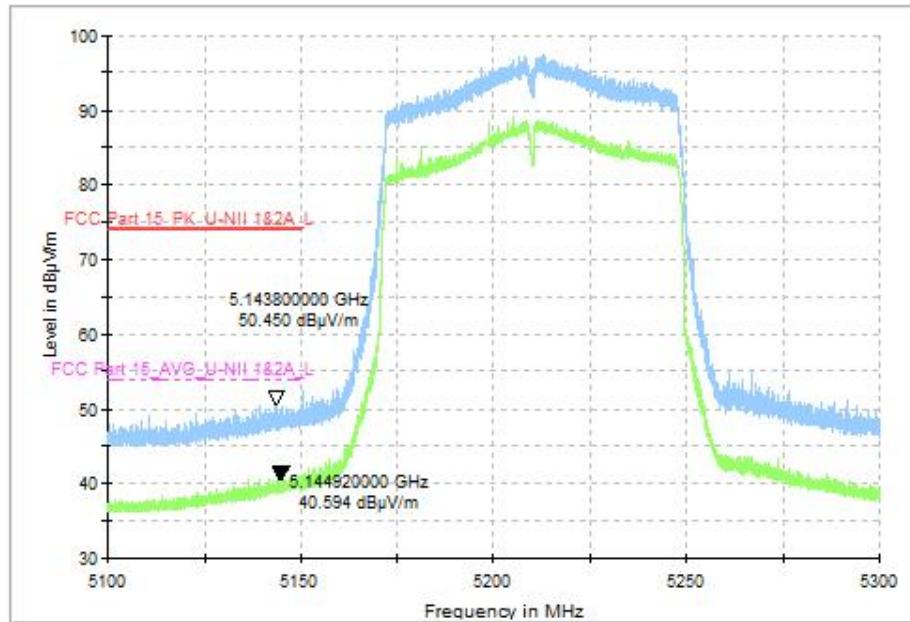


Fig. 45 Band Edges (802.11ac-VHT80, CH42 5210MHz), MIMO

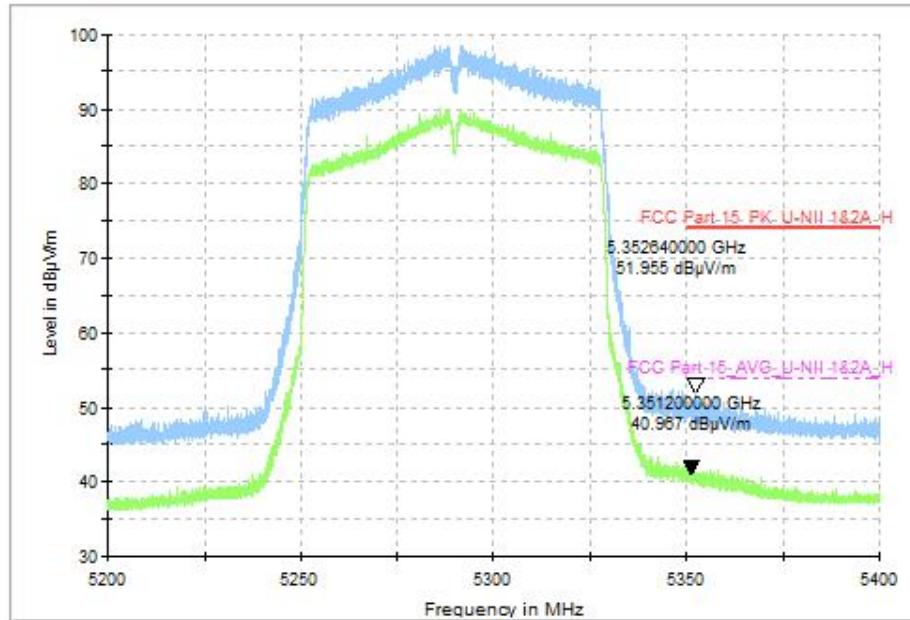


Fig. 46 Band Edges (802.11ac-VHT80, CH58 5290MHz), MIMO

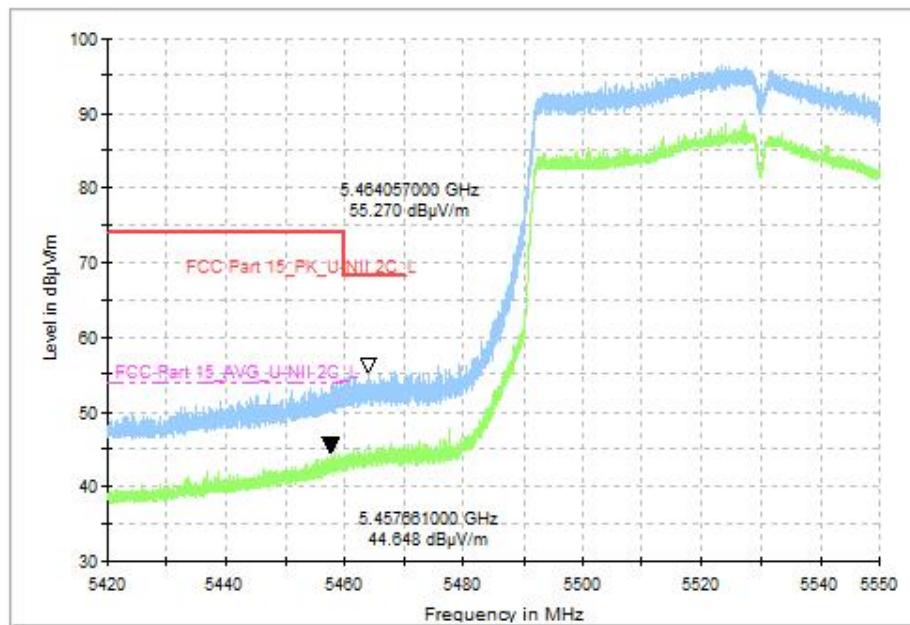


Fig. 47 Band Edges (802.11ac-VHT80, CH106 5530MHz), MIMO

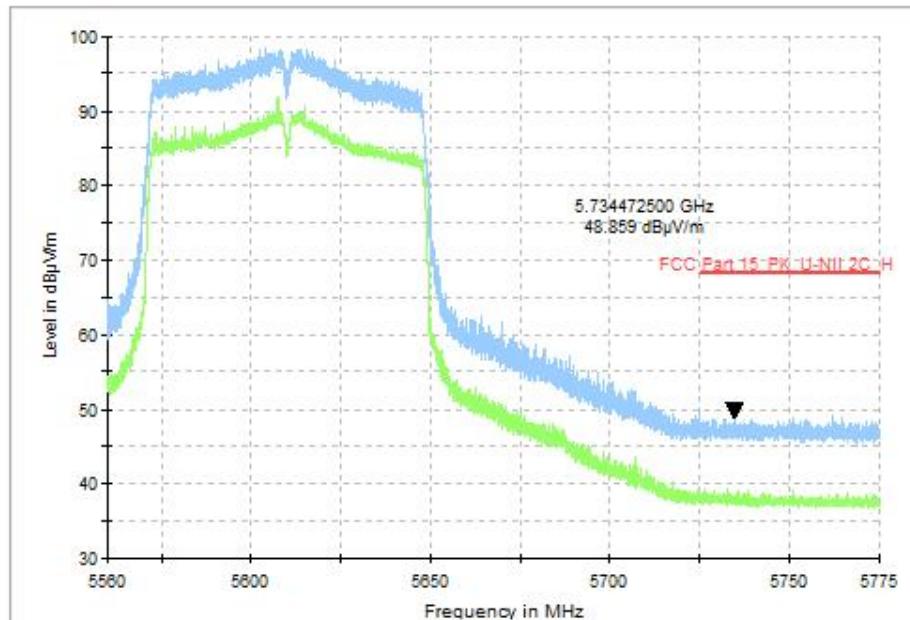


Fig. 48 Band Edges (802.11ac-VHT80, CH122 5610MHz), MIMO

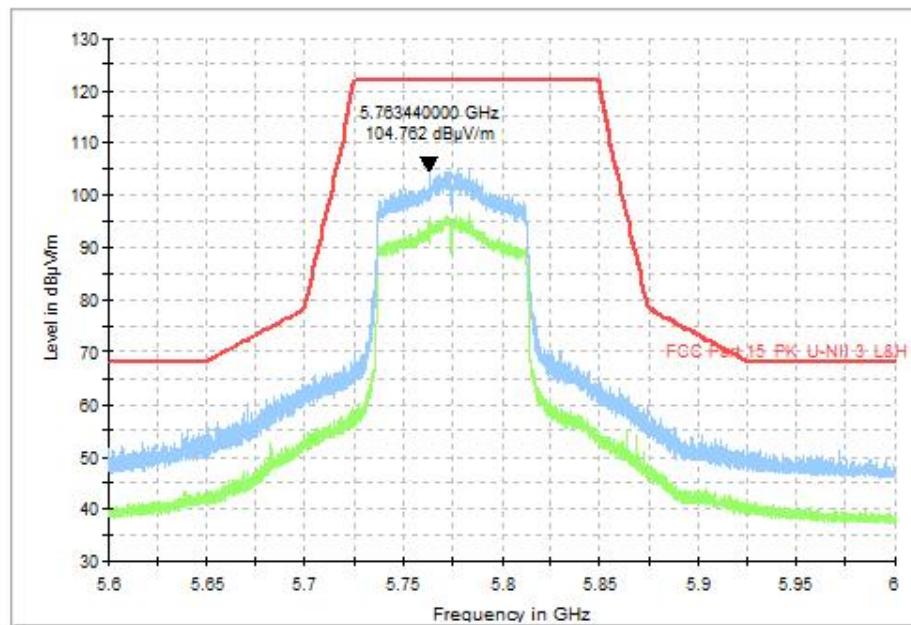


Fig. 49 Band Edges (802.11ac-VHT80, CH155 5775MHz), MIMO

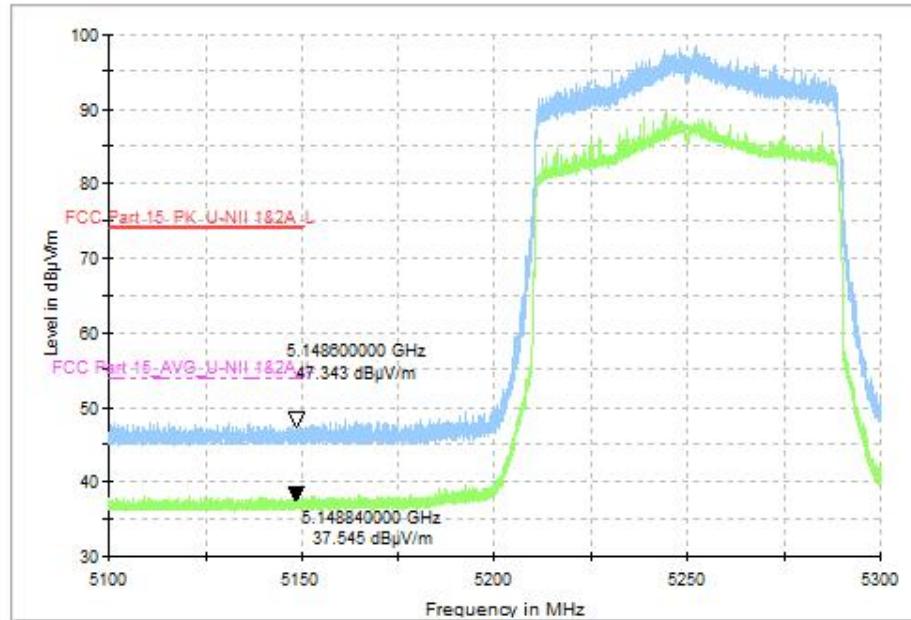


Fig. 50 Band Edges (802.11ax-HE160, CH50 5250MHz), MIMO

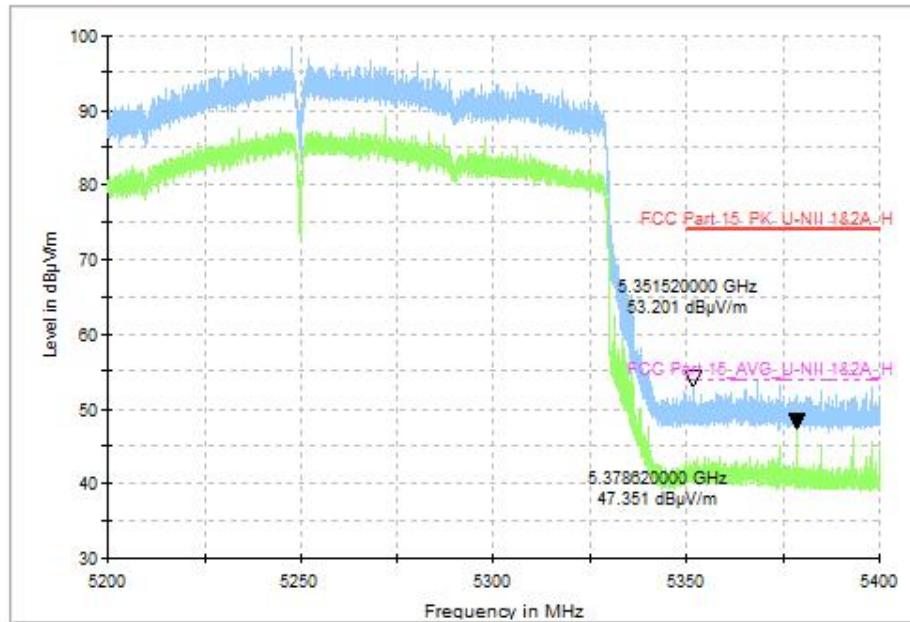


Fig. 51 Band Edges (802.11ax-HE160, CH50 5250MHz), MIMO

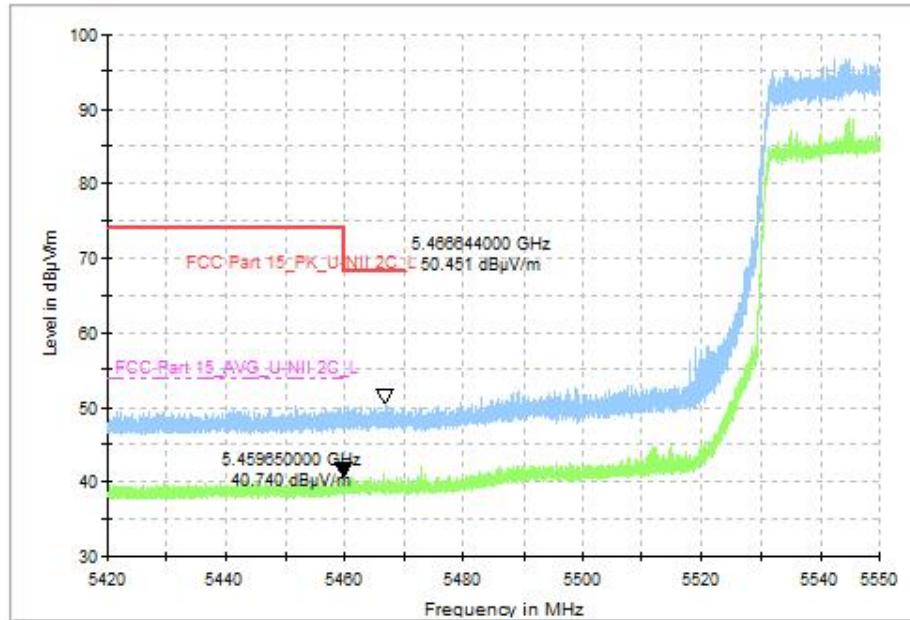


Fig. 52 Band Edges (802.11ax-HE160, CH114 5570MHz), MIMO

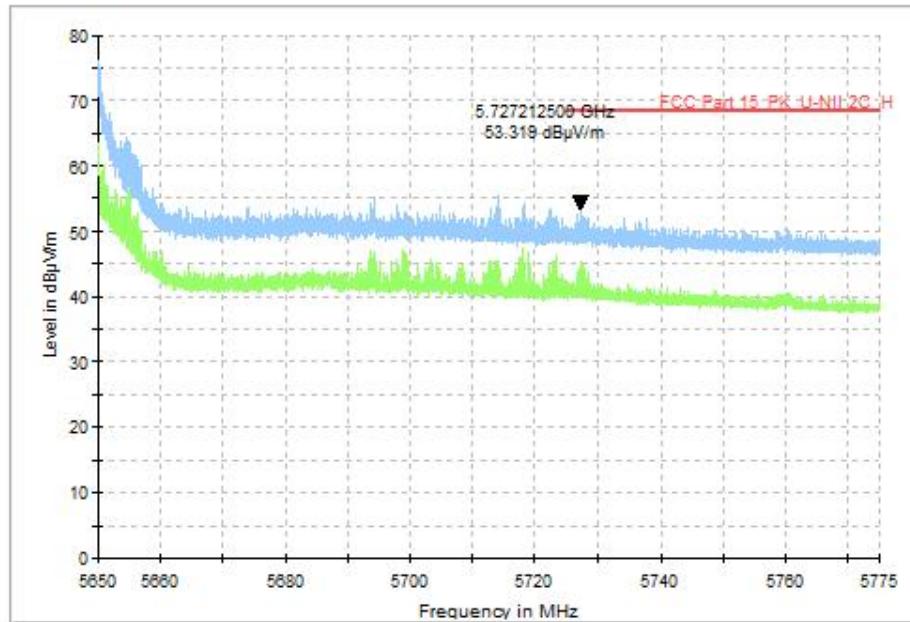


Fig. 53 Band Edges (802.11ax-HE160, CH114 5570MHz), MIMO



A.9. Transmitter Spurious Emission

Measurement of method: See KDB 789033 D02 v02r01, Section G.3, G.4, G.5 and G.6.

Measurement Limit:

| Standard | Limit (dB μ V/m) | |
|------------------------|----------------------|----|
| FCC 47 CFR Part 15.209 | Peak | 74 |
| | Average | 54 |

The measurement is made according to KDB 789033.

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

Limit in restricted band:

| Frequency of emission (MHz) | Field strength (dB μ V/m) | Measurement distance (m) |
|-----------------------------|-------------------------------|--------------------------|
| 30-88 | 40.0 | 3 |
| 88-216 | 43.5 | 3 |
| 216-960 | 46.0 | 3 |
| Above 960 | 54.0 | 3 |

Note: For frequency range below 960MHz, the limit in 15.209 is defined in 10m test distance. The limit used above is calculated from 10m to 3m.

The measurement results include the horizontal polarization and vertical polarization measurements. For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases were recorded in this report.

Measurement Result:

SISO:

| Mode | Frequency (MHz) | Frequency Range | Test Results | Conclusion |
|---------|-----------------|-----------------|--------------|------------|
| 802.11a | 5180MHz(CH36) | 1 GHz ~18 GHz | Fig.54 | P |
| | 5200MHz(CH40) | 1 GHz ~18 GHz | Fig.55 | P |
| | 5240MHz(CH48) | 1 GHz ~18 GHz | Fig.56 | P |
| | 5260MHz(CH52) | 1 GHz ~18 GHz | Fig.57 | P |
| | 5280MHz(CH56) | 1 GHz ~18 GHz | Fig.58 | P |
| | 5320MHz(CH64) | 1 GHz ~18 GHz | Fig.59 | P |
| | 5500MHz(CH100) | 1 GHz ~18 GHz | Fig.60 | P |
| | 5600MHz(CH120) | 1 GHz ~18 GHz | Fig.61 | P |
| | 5700MHz(CH140) | 1 GHz ~18 GHz | Fig.62 | P |
| | 5745MHz(CH149) | 1 GHz ~18 GHz | Fig.63 | P |
| | 5785MHz(CH157) | 1 GHz ~18 GHz | Fig.64 | P |
| | 5825MHz(CH165) | 1 GHz ~18 GHz | Fig.65 | P |

**MIMO:**

| Mode | Frequency (MHz) | Frequency Range | Test Results | Conclusion |
|--------------------|------------------|-----------------|--------------|------------|
| 802.11ax -HE20 | 5180MHz(CH36) | 1 GHz ~18 GHz | Fig.66 | P |
| | 5200MHz(CH40) | 1 GHz ~18 GHz | Fig.67 | P |
| | 5240MHz(CH48) | 1 GHz ~18 GHz | Fig.68 | P |
| | 5260MHz(CH52) | 1 GHz ~18 GHz | Fig.69 | P |
| | 5280MHz(CH56) | 1 GHz ~18 GHz | Fig.70 | P |
| | 5320MHz(CH64) | 1 GHz ~18 GHz | Fig.71 | P |
| | 5500MHz(CH100) | 1 GHz ~18 GHz | Fig.72 | P |
| | 5600MHz(CH120) | 1 GHz ~18 GHz | Fig.73 | P |
| | 5700MHz(CH140) | 1 GHz ~18 GHz | Fig.74 | P |
| | 5745MHz(CH149) | 1 GHz ~18 GHz | Fig.75 | P |
| | 5785MHz(CH157) | 1 GHz ~18 GHz | Fig.76 | P |
| | 5825MHz(CH165) | 1 GHz ~18 GHz | Fig.77 | P |
| 802.11n- HT40 | 5190MHz(CH38) | 1 GHz ~18 GHz | Fig.78 | P |
| | 5230MHz(CH46) | 1 GHz ~18 GHz | Fig.79 | P |
| | 5270MHz(CH54) | 1 GHz ~18 GHz | Fig.80 | P |
| | 5310MHz(CH62) | 1 GHz ~18 GHz | Fig.81 | P |
| | 5510MHz(CH102) | 1 GHz ~18 GHz | Fig.82 | P |
| | 5580MHz(CH118) | 1 GHz ~18 GHz | Fig.83 | P |
| | 5670MHz(CH134) | 1 GHz ~18 GHz | Fig.84 | P |
| | 5755MHz(CH151) | 1 GHz ~18 GHz | Fig.85 | P |
| | 5795MHz(CH159) | 1 GHz ~18 GHz | Fig.86 | P |
| 802.11ac -VHT80 | 5210MHz(CH42) | 1 GHz ~18 GHz | Fig.87 | P |
| | 5290MHz(CH58) | 1 GHz ~18 GHz | Fig.88 | P |
| | 5530MHz(CH106) | 1 GHz ~18 GHz | Fig.89 | P |
| | 5610MHz(CH122) | 1 GHz ~18 GHz | Fig.90 | P |
| | 5775MHz(CH155) | 1 GHz ~18 GHz | Fig.91 | P |
| 802.11ax -HE160 | 5250MHz(CH50) | 1 GHz ~18 GHz | Fig.92 | P |
| | 5570MHz(CH114) | 1 GHz ~18 GHz | Fig.93 | P |
| All channels | 30 MHz ~1 GHz | Fig.94 | P | |
| | 18 GHz ~26.5 GHz | Fig.95 | P | |
| | 26.5GHz~40GHz | Fig.96 | P | |

**Worst Case Result:****SISO:****802.11a CH120**

| Frequency (MHz) | MaxPeak (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Pol | Corr. (dB/m) |
|-----------------|------------------------|----------------------|-------------|-----|--------------|
| 7466.769231 | 48.04 | 74.00 | 25.96 | H | 7.1 |
| 8282.769231 | 45.19 | 74.00 | 28.81 | H | 6.8 |
| 10854.923077 | 46.50 | 74.00 | 27.50 | H | 10.1 |
| 12193.384615 | 48.03 | 74.00 | 25.97 | H | 12.6 |
| 15899.538462 | 52.94 | 74.00 | 21.06 | V | 15.7 |
| 17908.615385 | 57.30 | 74.00 | 16.70 | V | 21.8 |

| Frequency (MHz) | Average (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Pol | Corr. (dB/m) |
|-----------------|------------------------|----------------------|-------------|-----|--------------|
| 7466.769231 | 40.67 | 54.00 | 13.33 | H | 7.1 |
| 8282.769231 | 34.25 | 54.00 | 19.75 | H | 6.8 |
| 10854.923077 | 36.37 | 54.00 | 17.63 | H | 10.1 |
| 12193.384615 | 37.58 | 54.00 | 16.42 | H | 12.6 |
| 15899.538462 | 41.51 | 54.00 | 12.49 | V | 15.7 |
| 17908.615385 | 45.98 | 54.00 | 8.02 | V | 21.8 |

MIMO:**802.11ax-HE20 CH120**

| Frequency (MHz) | MaxPeak (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Pol | Corr. (dB/m) |
|-----------------|------------------------|----------------------|-------------|-----|--------------|
| 7466.307692 | 45.95 | 74.00 | 28.05 | H | 7.1 |
| 8249.076923 | 45.69 | 74.00 | 28.31 | H | 6.8 |
| 10923.230769 | 48.22 | 74.00 | 25.78 | V | 10.5 |
| 11871.230769 | 48.11 | 74.00 | 25.89 | H | 12.6 |
| 15933.230769 | 52.29 | 74.00 | 21.71 | V | 15.9 |
| 17923.846154 | 56.34 | 74.00 | 17.66 | H | 21.7 |

| Frequency (MHz) | Average (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Pol | Corr. (dB/m) |
|-----------------|------------------------|----------------------|-------------|-----|--------------|
| 7466.307692 | 36.28 | 54.00 | 17.72 | H | 7.1 |
| 8249.076923 | 34.78 | 54.00 | 19.22 | H | 6.8 |
| 10923.230769 | 36.80 | 54.00 | 17.20 | V | 10.5 |
| 11871.230769 | 37.41 | 54.00 | 16.59 | H | 12.6 |
| 15933.230769 | 41.58 | 54.00 | 12.42 | V | 15.9 |
| 17923.846154 | 45.88 | 54.00 | 8.12 | H | 21.7 |



No.I23N01711-WLAN 5GHz

802.11n-HT40 CH118

| Frequency (MHz) | MaxPeak (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Pol | Corr. (dB/m) |
|-----------------|------------------------|----------------------|-------------|-----|--------------|
| 7488.461539 | 44.72 | 74.00 | 29.28 | H | 7.1 |
| 8250.461539 | 45.70 | 74.00 | 28.30 | H | 6.8 |
| 11126.307692 | 46.53 | 74.00 | 27.47 | H | 10.7 |
| 12398.307692 | 48.89 | 74.00 | 25.11 | H | 12.7 |
| 15877.384615 | 52.03 | 74.00 | 21.97 | H | 15.6 |
| 17895.692308 | 57.72 | 74.00 | 16.28 | V | 21.8 |

| Frequency (MHz) | Average (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Pol | Corr. (dB/m) |
|-----------------|------------------------|----------------------|-------------|-----|--------------|
| 7488.461539 | 34.21 | 54.00 | 19.79 | H | 7.1 |
| 8250.461539 | 34.82 | 54.00 | 19.18 | H | 6.8 |
| 11126.307692 | 36.55 | 54.00 | 17.45 | H | 10.7 |
| 12398.307692 | 37.95 | 54.00 | 16.05 | H | 12.7 |
| 15877.384615 | 41.59 | 54.00 | 12.41 | H | 15.6 |
| 17895.692308 | 45.65 | 54.00 | 8.35 | V | 21.8 |

802.11ac-VHT80 CH155

| Frequency (MHz) | MaxPeak (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Pol | Corr. (dB/m) |
|-----------------|------------------------|----------------------|-------------|-----|--------------|
| 7467.692308 | 44.71 | 74.00 | 29.29 | H | 7.1 |
| 8240.769231 | 44.52 | 74.00 | 29.48 | H | 6.8 |
| 10876.615385 | 46.61 | 74.00 | 27.39 | H | 10.2 |
| 11864.307692 | 47.98 | 74.00 | 26.02 | H | 12.5 |
| 15932.307692 | 52.19 | 74.00 | 21.81 | H | 15.9 |
| 17930.769231 | 56.72 | 74.00 | 17.28 | V | 21.7 |

| Frequency (MHz) | Average (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Pol | Corr. (dB/m) |
|-----------------|------------------------|----------------------|-------------|-----|--------------|
| 7467.692308 | 34.31 | 54.00 | 19.69 | H | 7.1 |
| 8240.769231 | 34.37 | 54.00 | 19.63 | H | 6.8 |
| 10876.615385 | 36.28 | 54.00 | 17.72 | H | 10.2 |
| 11864.307692 | 37.51 | 54.00 | 16.49 | H | 12.5 |
| 15932.307692 | 41.46 | 54.00 | 12.54 | H | 15.9 |
| 17930.769231 | 45.55 | 54.00 | 8.45 | V | 21.7 |

**802.11ax-HE160 CH114**

| Frequency (MHz) | MaxPeak (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Pol | Corr. (dB/m) |
|-----------------|------------------------|----------------------|-------------|-----|--------------|
| 7589.076923 | 45.27 | 74.00 | 28.73 | H | 6.6 |
| 8270.307692 | 45.15 | 74.00 | 28.85 | H | 6.8 |
| 11015.538462 | 47.73 | 74.00 | 26.27 | V | 10.9 |
| 12180.923077 | 48.56 | 74.00 | 25.44 | V | 12.6 |
| 15877.384615 | 52.30 | 74.00 | 21.70 | V | 15.6 |
| 17893.846154 | 56.11 | 74.00 | 17.89 | V | 21.8 |

| Frequency (MHz) | Average (dB μ V/m) | Limit (dB μ V/m) | Margin (dB) | Pol | Corr. (dB/m) |
|-----------------|------------------------|----------------------|-------------|-----|--------------|
| 7589.076923 | 33.90 | 54.00 | 20.10 | H | 6.6 |
| 8270.307692 | 34.57 | 54.00 | 19.43 | H | 6.8 |
| 11015.538462 | 37.10 | 54.00 | 16.90 | V | 10.9 |
| 12180.923077 | 37.68 | 54.00 | 16.32 | V | 12.6 |
| 15877.384615 | 42.14 | 54.00 | 11.86 | V | 15.6 |
| 17893.846154 | 45.51 | 54.00 | 8.49 | V | 21.8 |

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:

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

See below for test graphs.

Conclusion: PASS

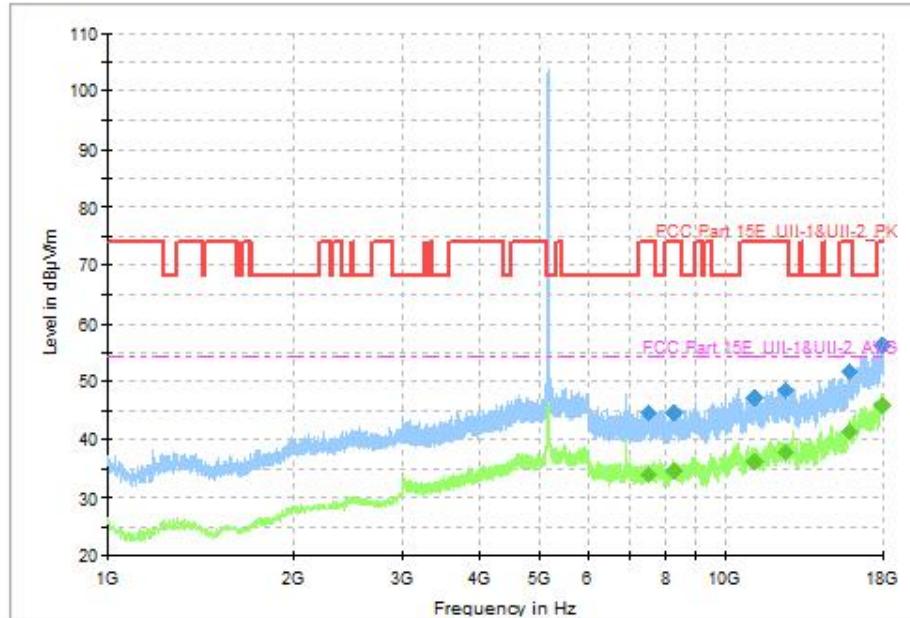


Fig. 54 Transmitter Spurious Emission (802.11a, CH36 5180MHz, 1GHz-18GHz)

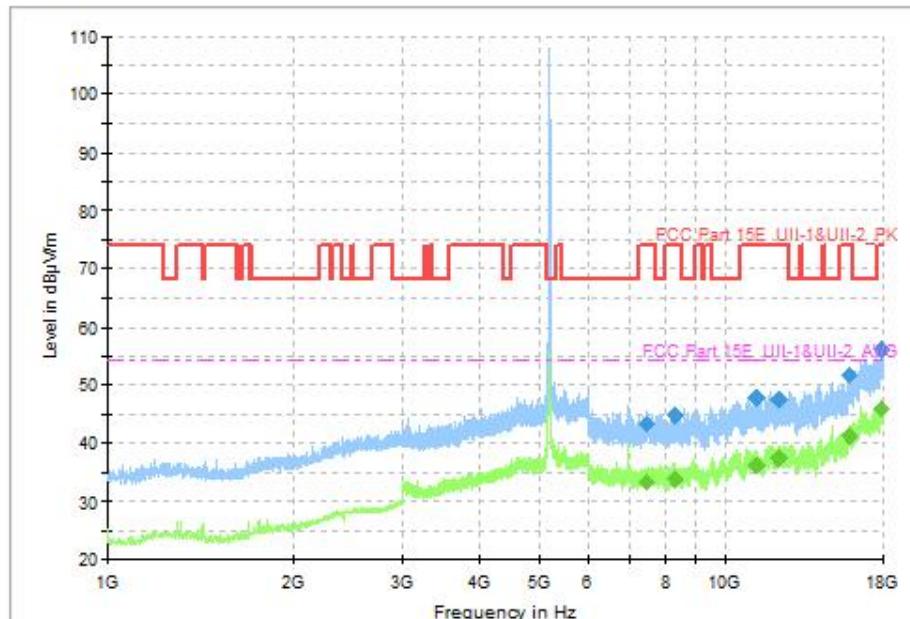


Fig. 55 Transmitter Spurious Emission (802.11a, CH40 5200MHz, 1GHz-18GHz)

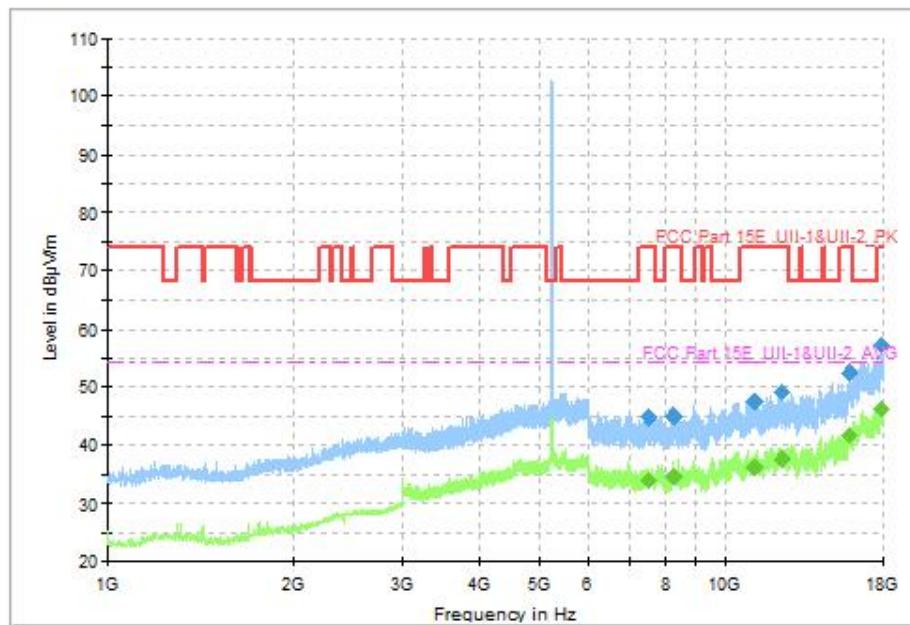


Fig. 56 Transmitter Spurious Emission (802.11a, CH48 5240MHz, 1GHz-18GHz)

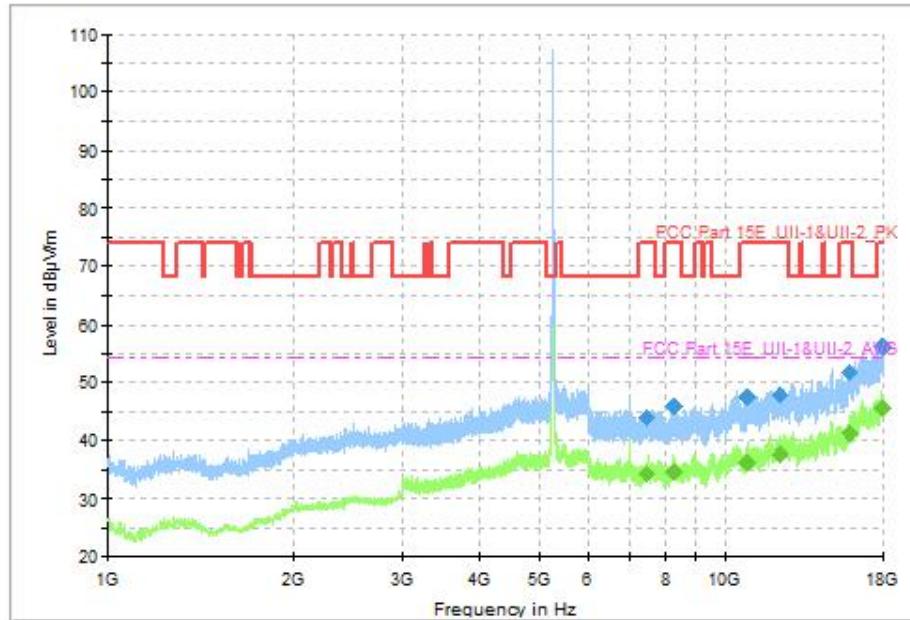


Fig. 57 Transmitter Spurious Emission (802.11a, CH52 5260MHz, 1GHz-18GHz)

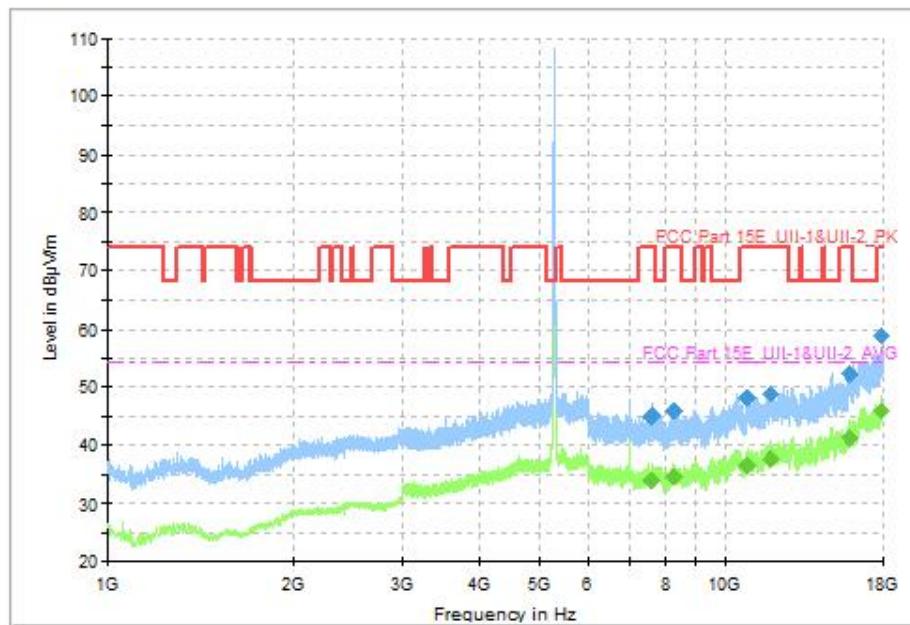


Fig. 58 Transmitter Spurious Emission (802.11a, CH56 5280MHz, 1GHz-18GHz)

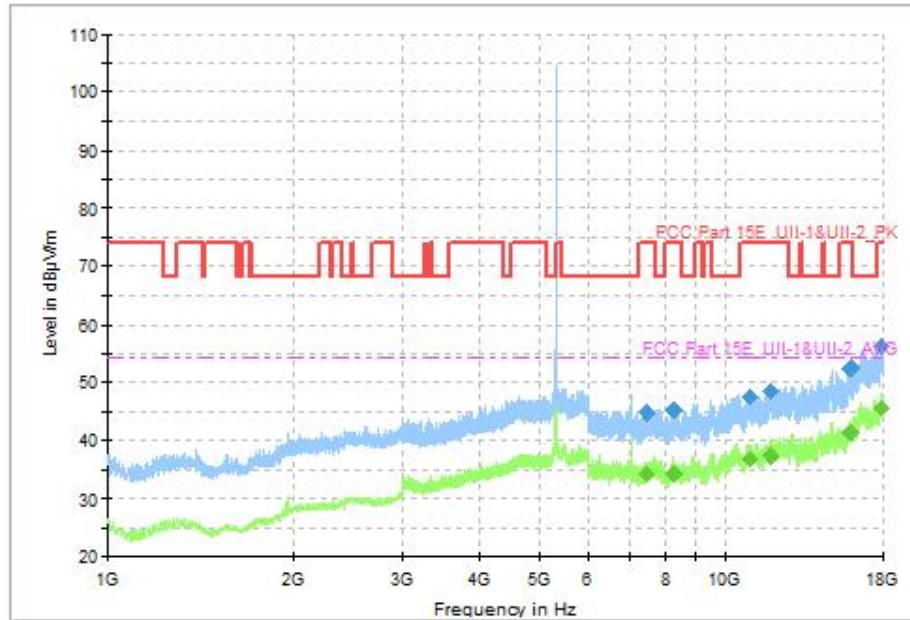


Fig. 59 Transmitter Spurious Emission (802.11a, CH64 5320MHz, 1GHz-18GHz)

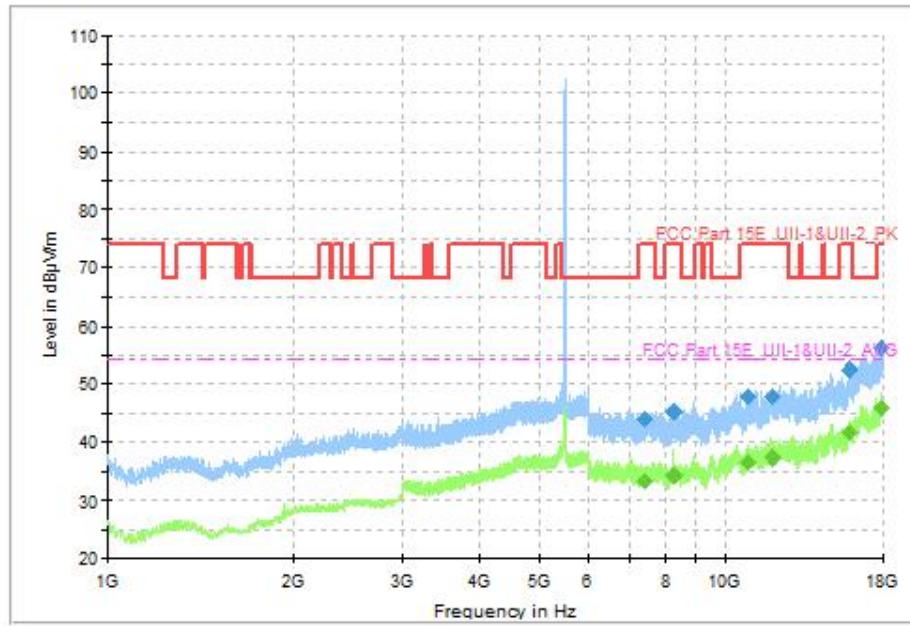


Fig. 60 Transmitter Spurious Emission (802.11a, CH100 5500MHz, 1GHz-18GHz)

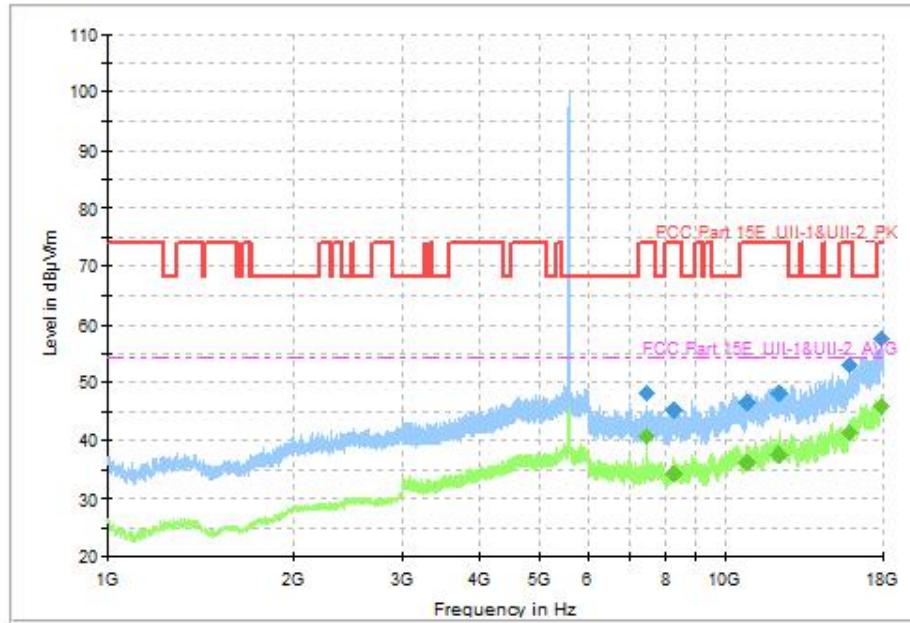


Fig. 61 Transmitter Spurious Emission (802.11a, CH120 5600MHz, 1GHz-18GHz)

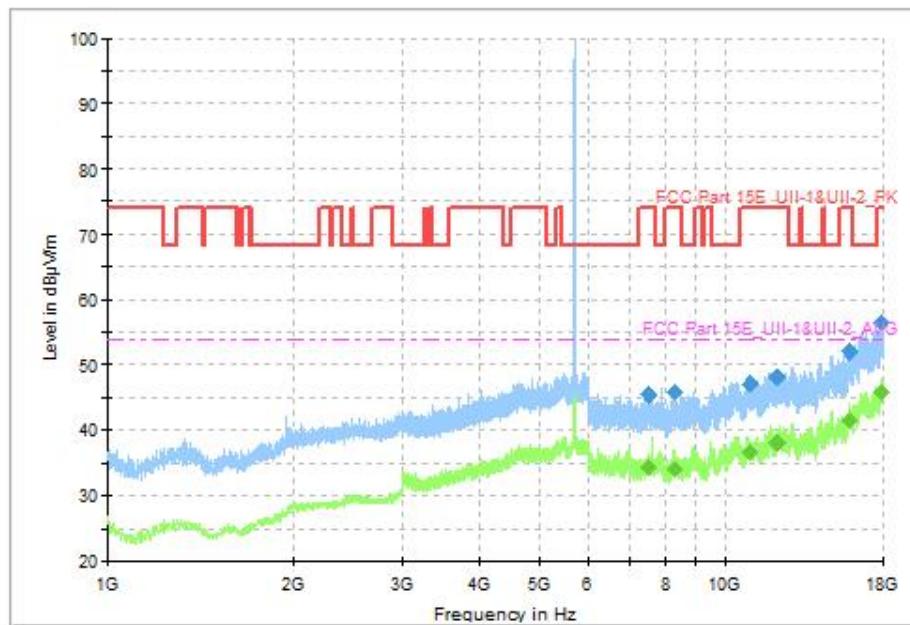


Fig. 62 Transmitter Spurious Emission (802.11a, CH140 5700MHz, 1GHz-18GHz)

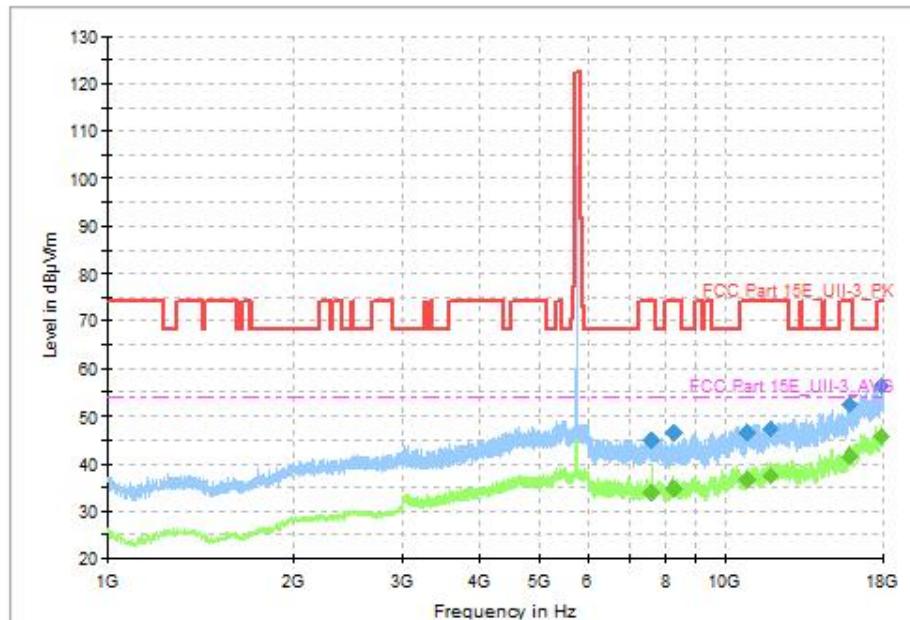


Fig. 63 Transmitter Spurious Emission (802.11a, CH149 5745MHz, 1GHz-18GHz)

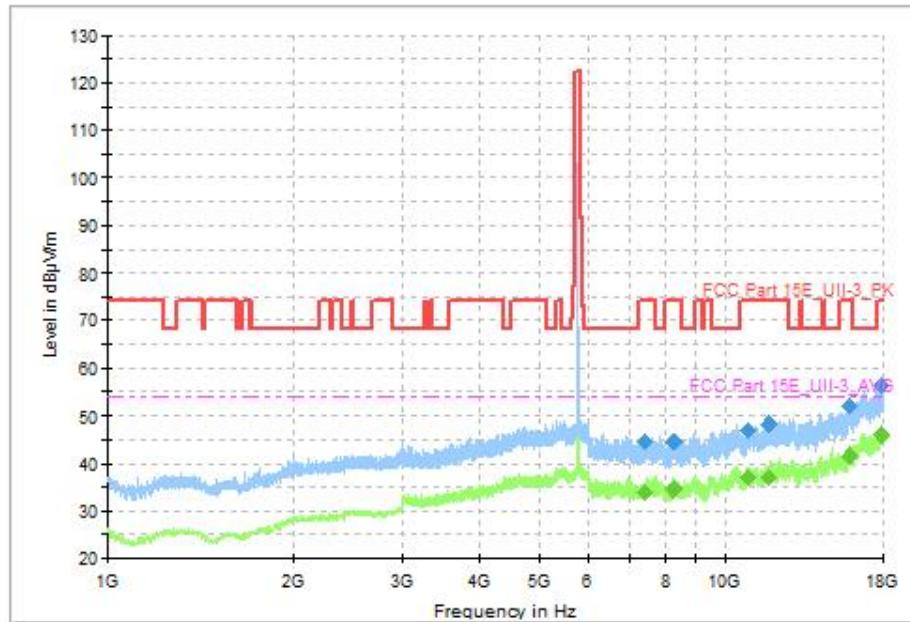


Fig. 64 Transmitter Spurious Emission (802.11a, CH157 5785MHz, 1GHz-18GHz)

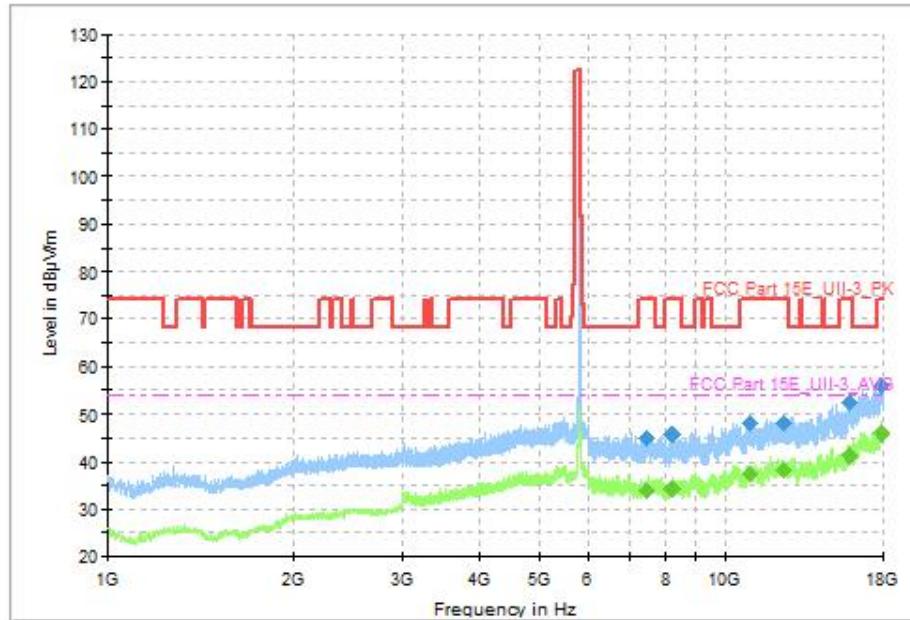


Fig. 65 Transmitter Spurious Emission (802.11a, CH165 5825MHz, 1GHz-18GHz)

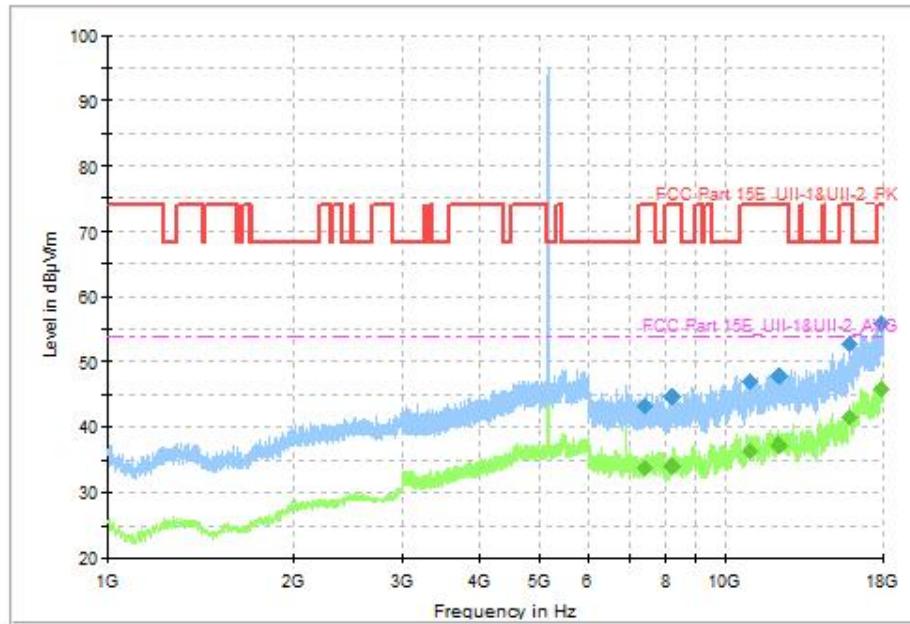


Fig. 66 Transmitter Spurious Emission (802.11ax-HE20, CH36 5180MHz, 1GHz-18GHz), MIMO

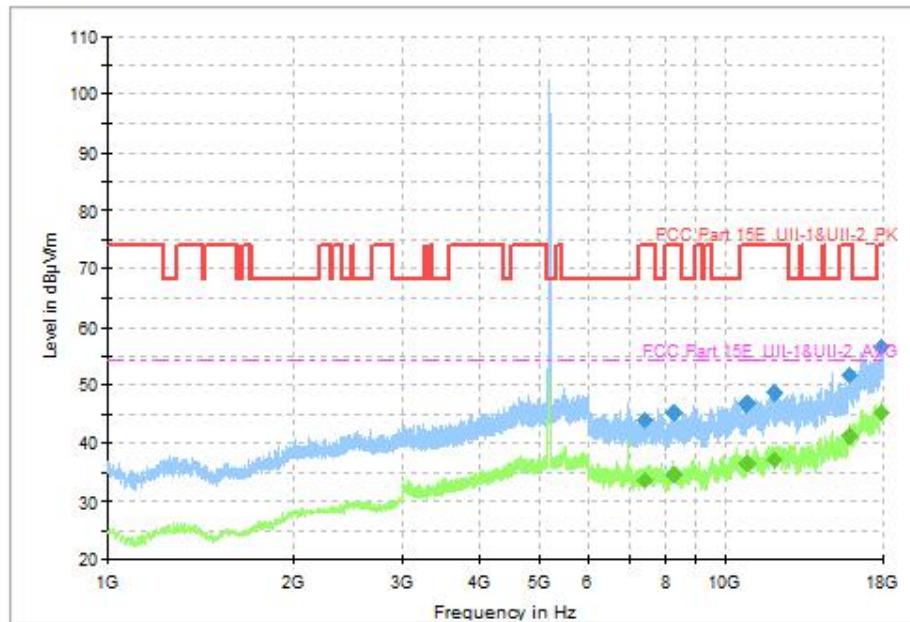


Fig. 67 Transmitter Spurious Emission (802.11ax-HE20, CH40 5200MHz, 1GHz-18GHz), MIMO

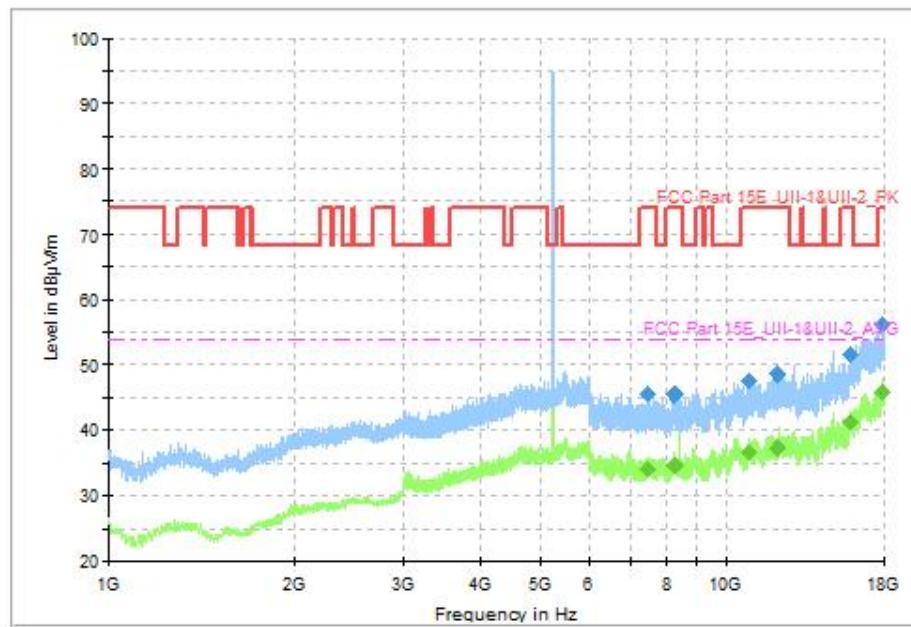


Fig. 68 Transmitter Spurious Emission (802.11ax-HE20, CH48 5240MHz, 1GHz-18GHz), MIMO

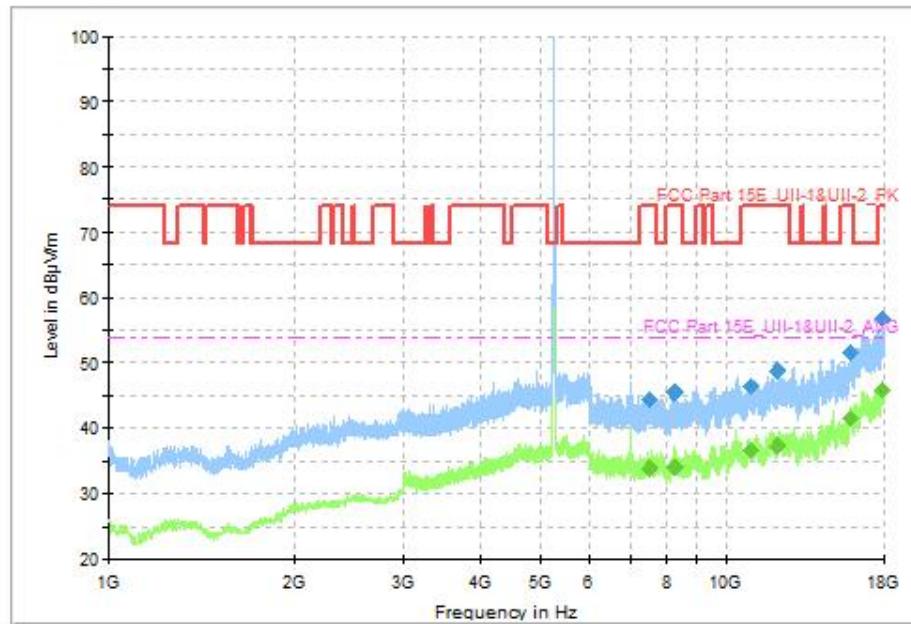


Fig. 69 Transmitter Spurious Emission (802.11ax-HE20, CH52 5260MHz, 1GHz-18GHz), MIMO

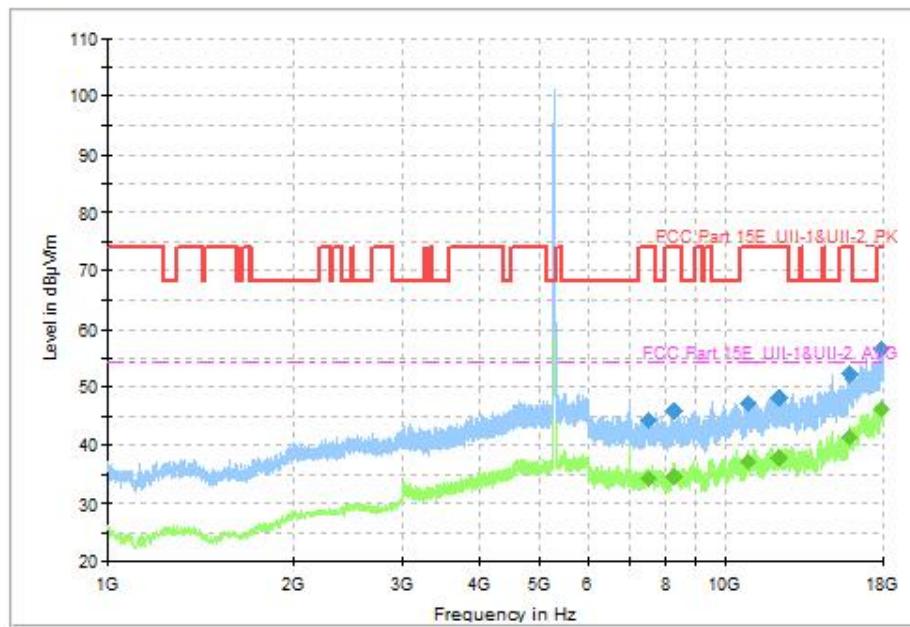


Fig. 70 Transmitter Spurious Emission (802.11ax-HE20, CH56 5280MHz, 1GHz-18GHz), MIMO

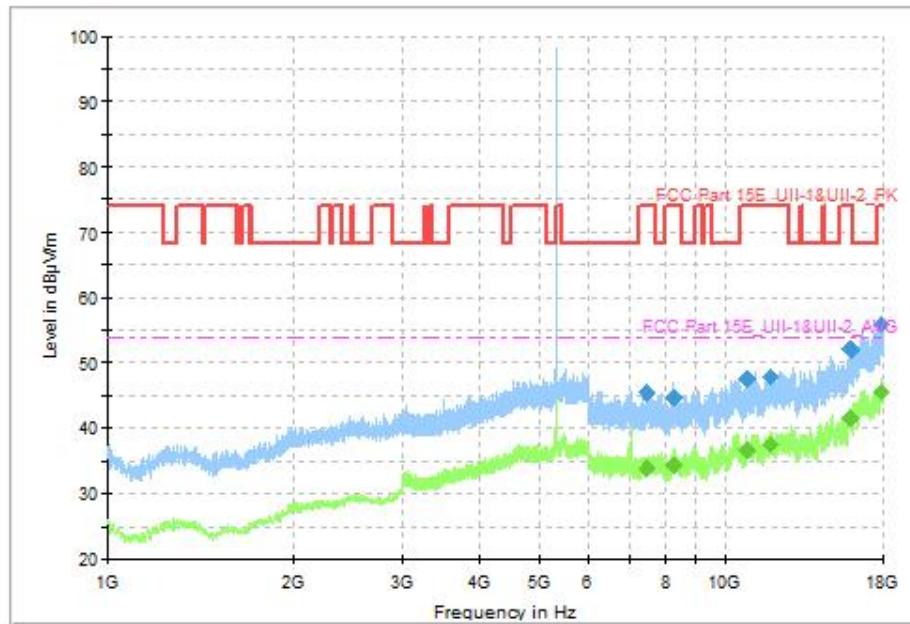


Fig. 71 Transmitter Spurious Emission (802.11ax-HE20, CH64 5320MHz, 1GHz-18GHz), MIMO

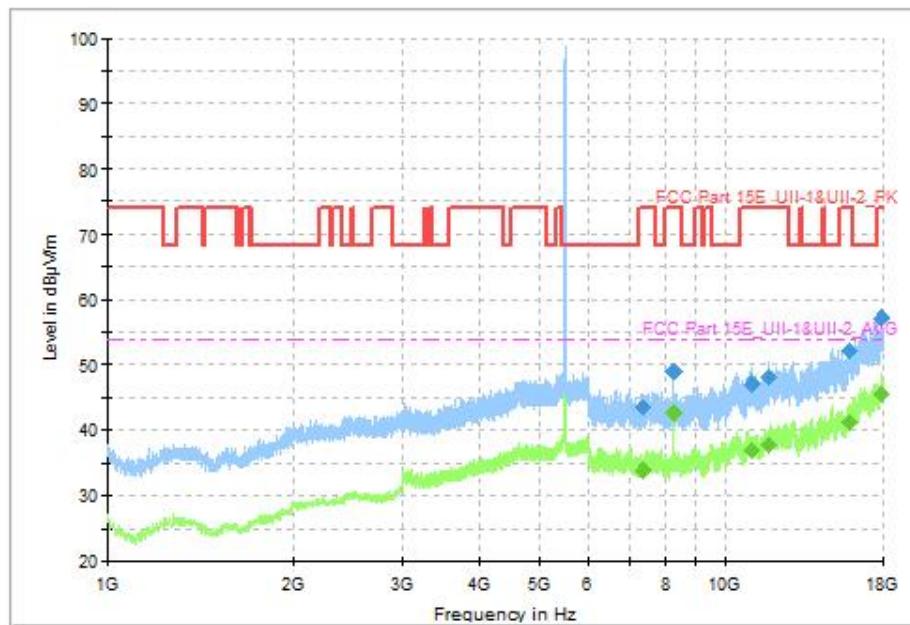


Fig. 72 Transmitter Spurious Emission (802.11ax-HE20, CH100 5500MHz, 1GHz-18GHz), MIMO

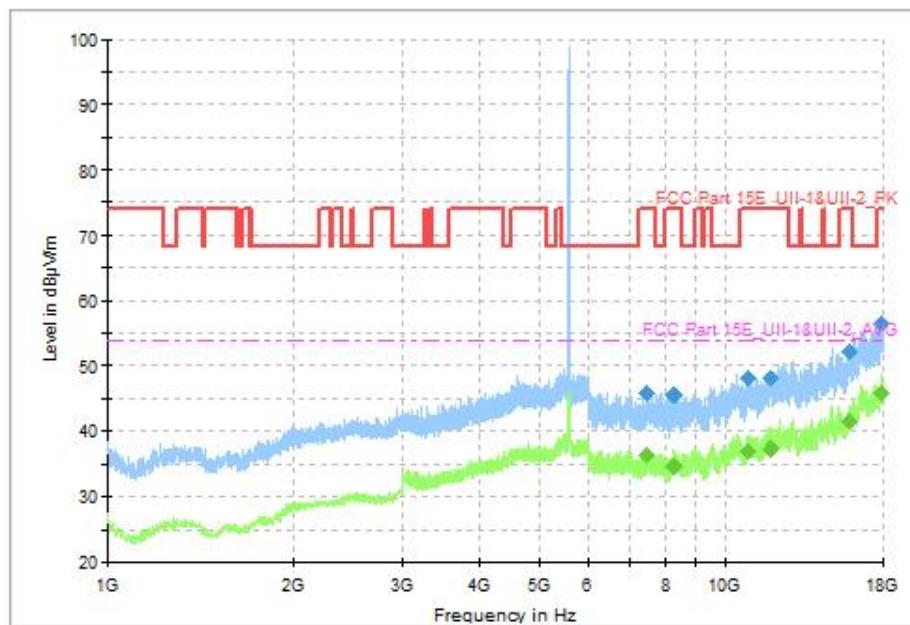


Fig. 73 Transmitter Spurious Emission (802.11ax-HE20, CH120 5600MHz, 1GHz-18GHz), MIMO

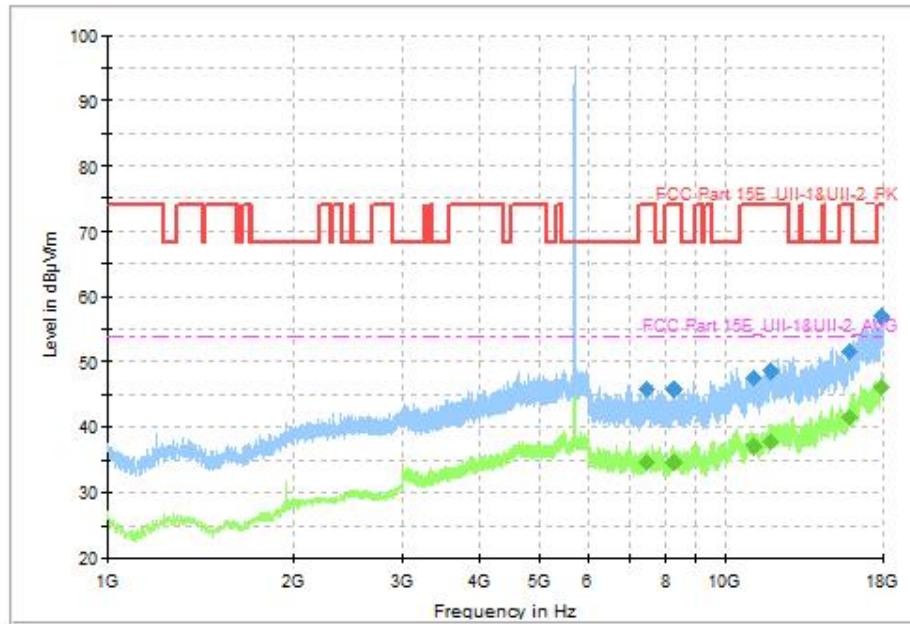


Fig. 74 Transmitter Spurious Emission (802.11ax-HE20, CH140 5700MHz, 1GHz-18GHz), MIMO

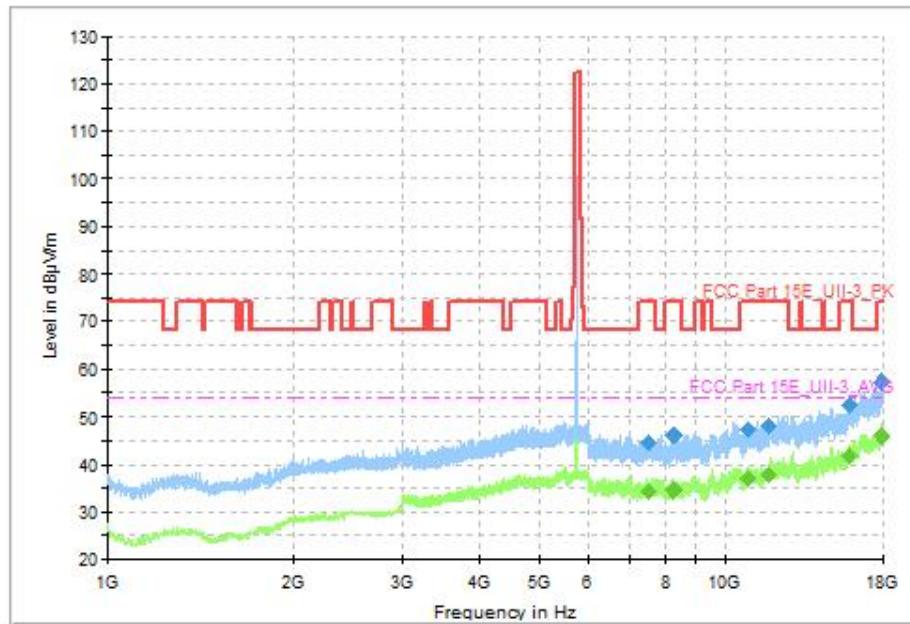


Fig. 75 Transmitter Spurious Emission (802.11ax-HE20, CH149 5745MHz, 1GHz-18GHz), MIMO

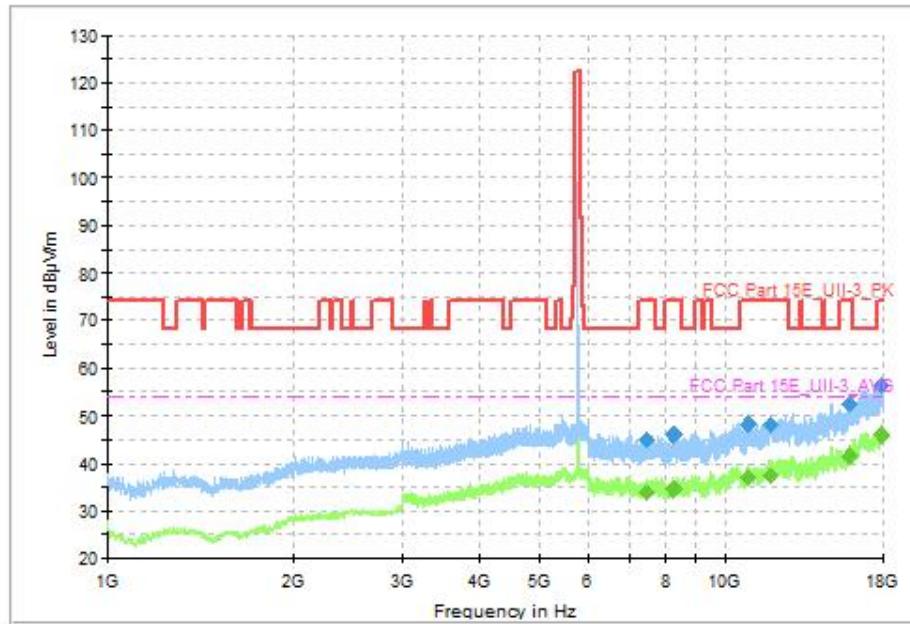


Fig. 76 Transmitter Spurious Emission (802.11ax-HE20, CH157 5785MHz, 1GHz-18GHz), MIMO

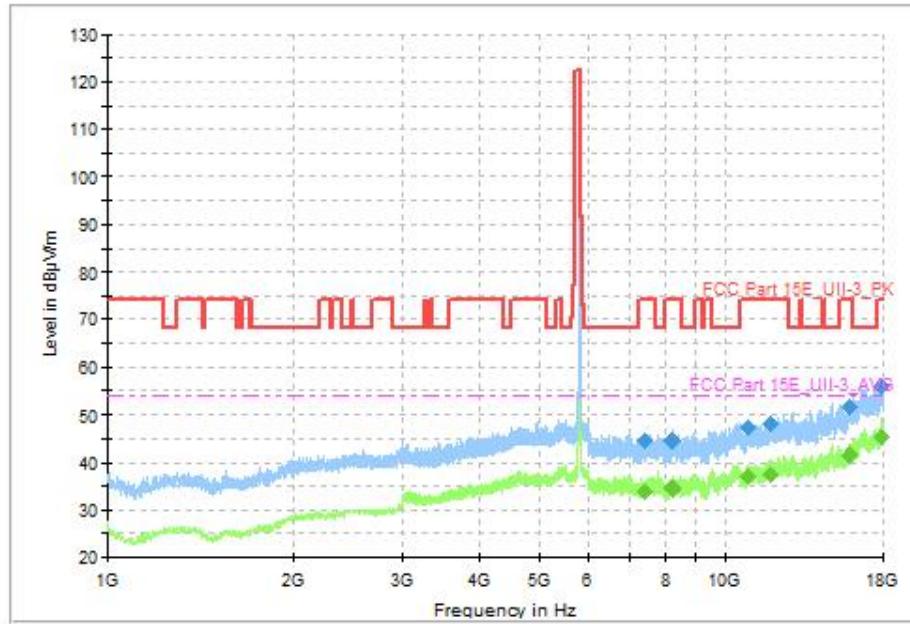


Fig. 77 Transmitter Spurious Emission (802.11ax-HE20, CH165 5825MHz, 1GHz-18GHz), MIMO

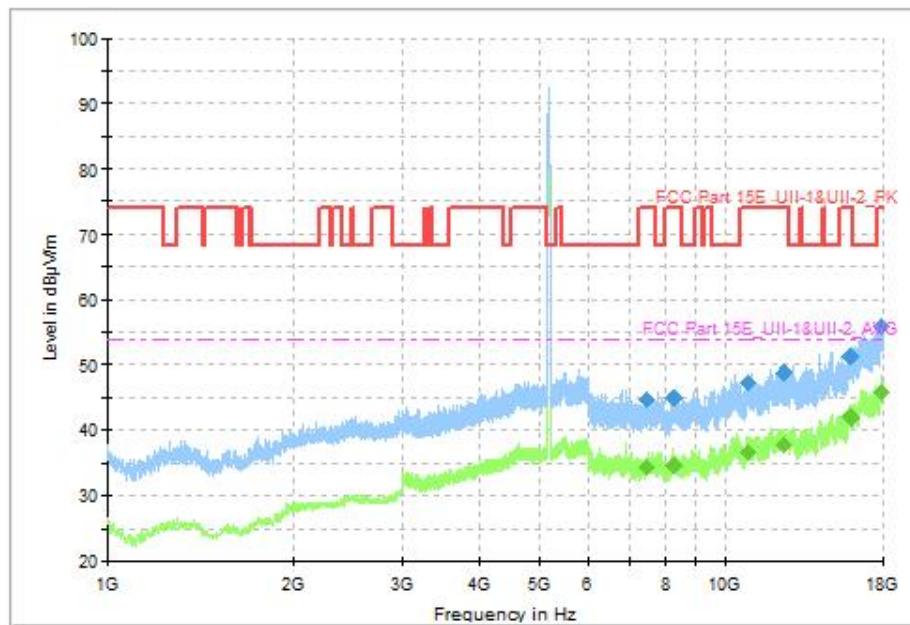


Fig. 78 Transmitter Spurious Emission (802.11n-HT40, CH38 5190MHz, 1GHz-18GHz), MIMO

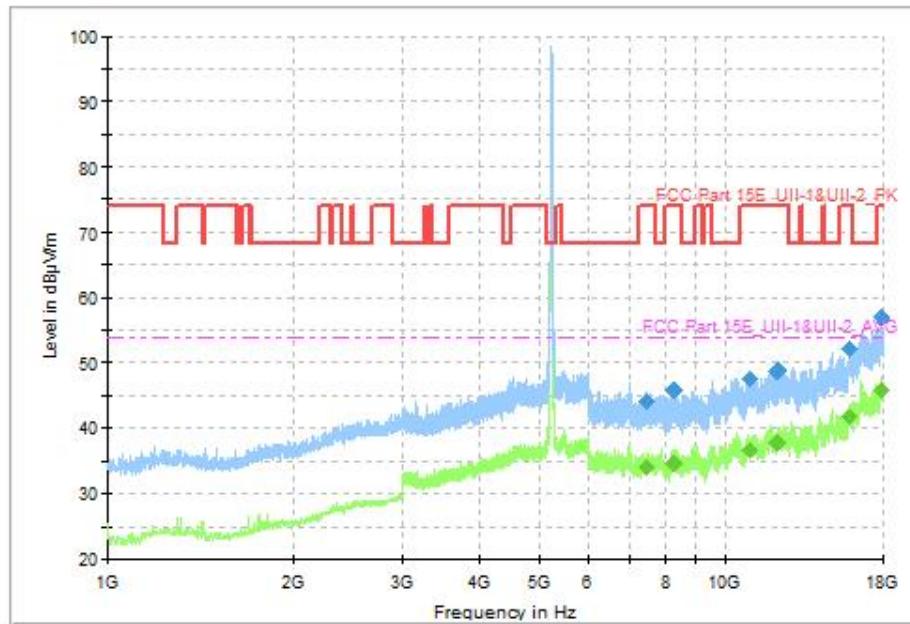


Fig. 79 Transmitter Spurious Emission (802.11n-HT40, CH46 5230MHz, 1GHz-18GHz), MIMO

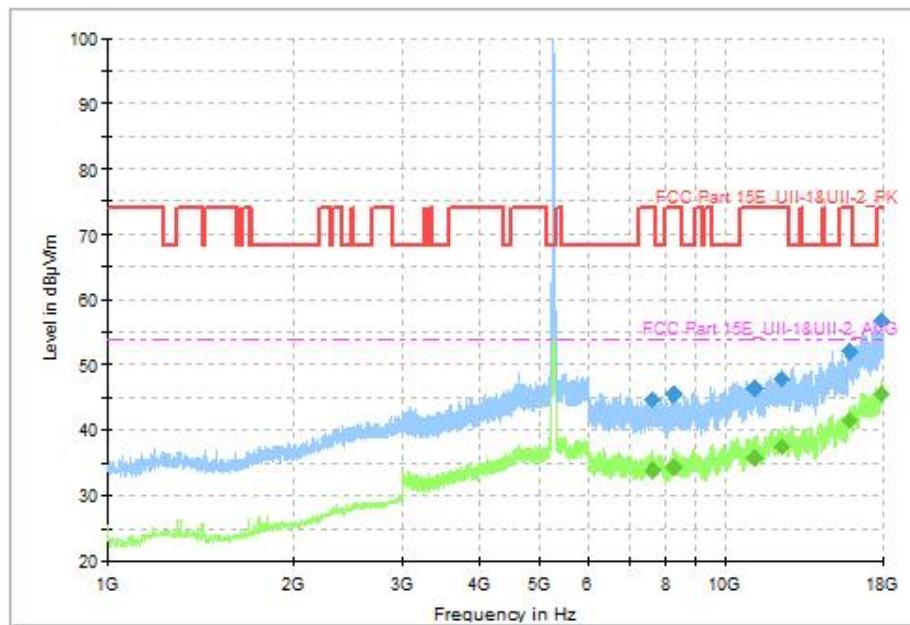


Fig. 80 Transmitter Spurious Emission (802.11n-HT40, CH54 5270MHz, 1GHz-18GHz), MIMO

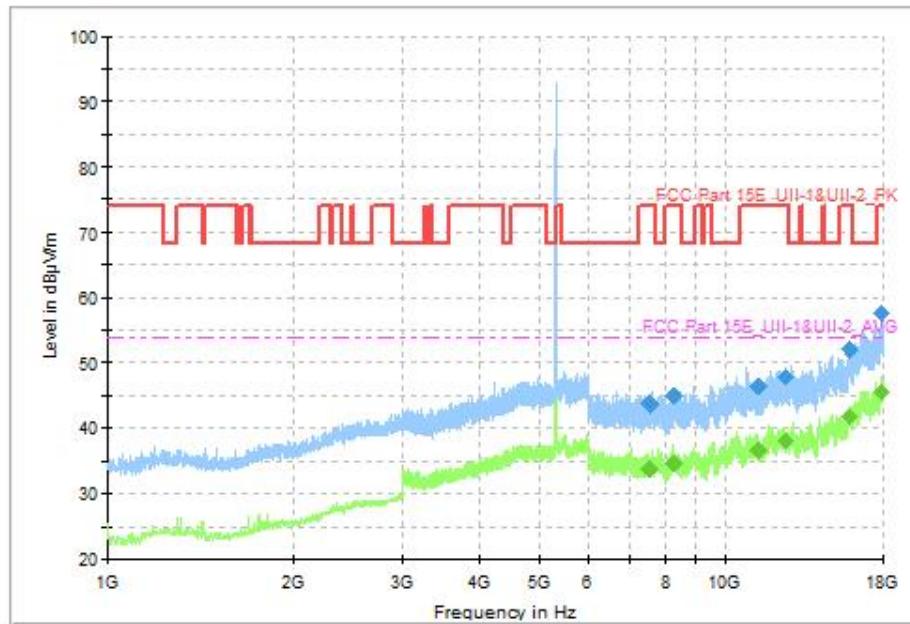


Fig. 81 Transmitter Spurious Emission (802.11n-HT40, CH62 5310MHz, 1GHz-18GHz), MIMO

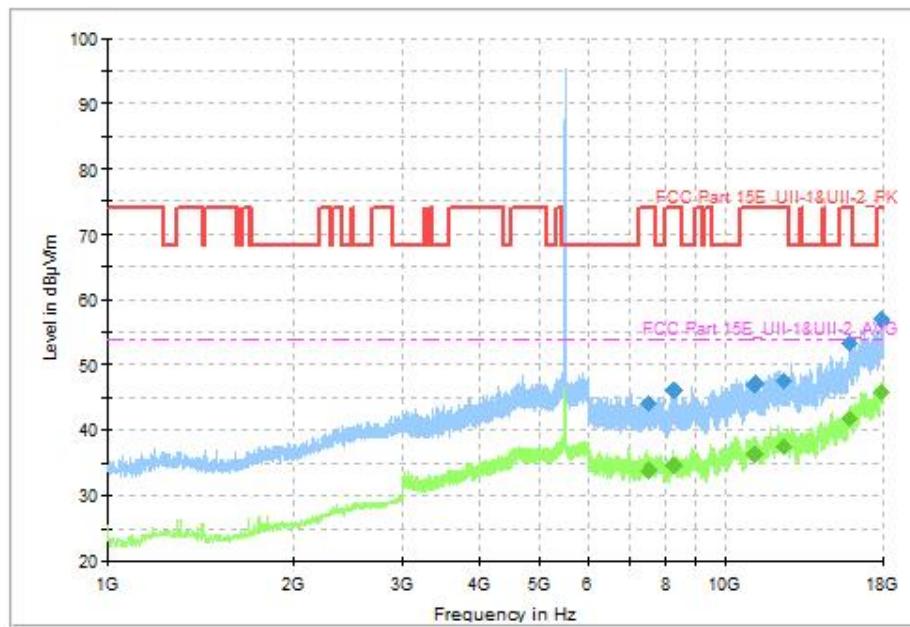


Fig. 82 Transmitter Spurious Emission (802.11n-HT40, CH102 5510MHz, 1GHz-18GHz), MIMO

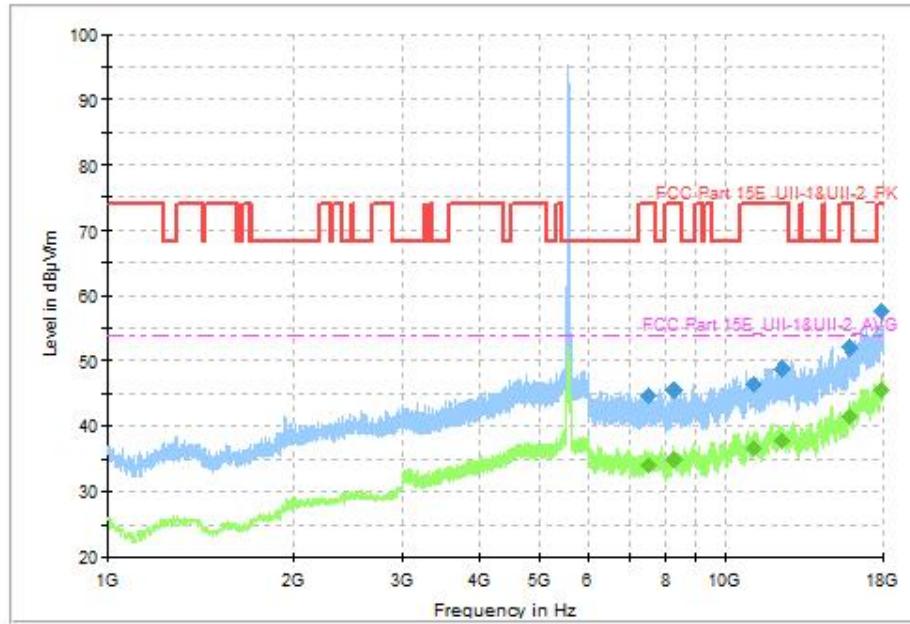


Fig. 83 Transmitter Spurious Emission (802.11n-HT40, CH118 5580MHz, 1GHz-18GHz), MIMO

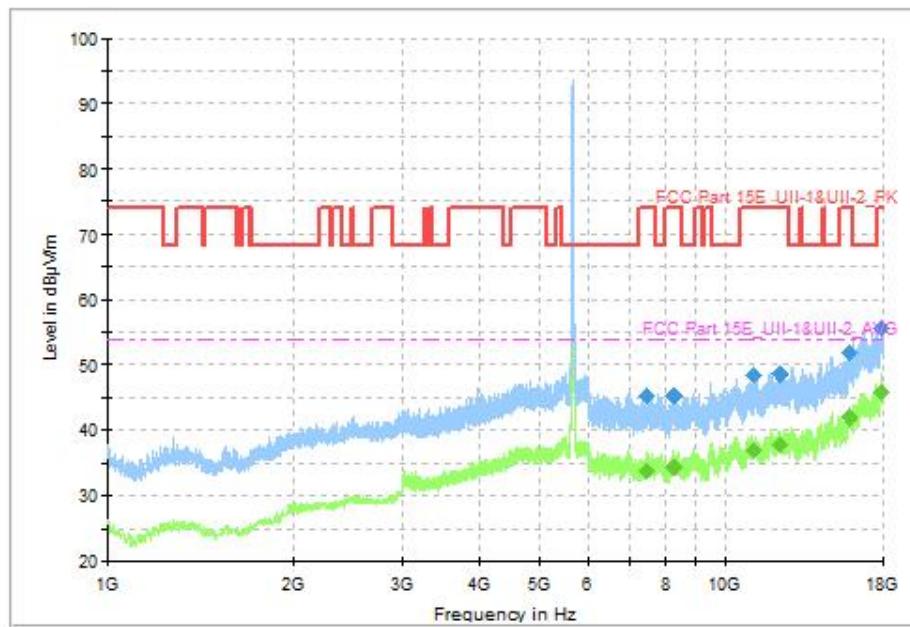


Fig. 84 Transmitter Spurious Emission (802.11n-HT40, CH134 5670MHz, 1GHz-18GHz), MIMO

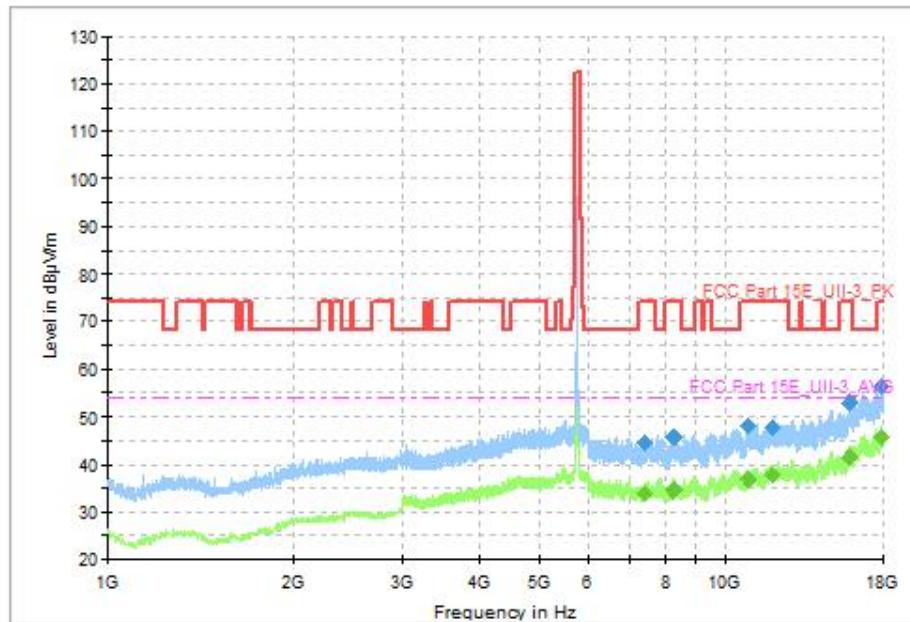


Fig. 85 Transmitter Spurious Emission (802.11n-HT40, CH151 5755MHz, 1GHz-18GHz), MIMO

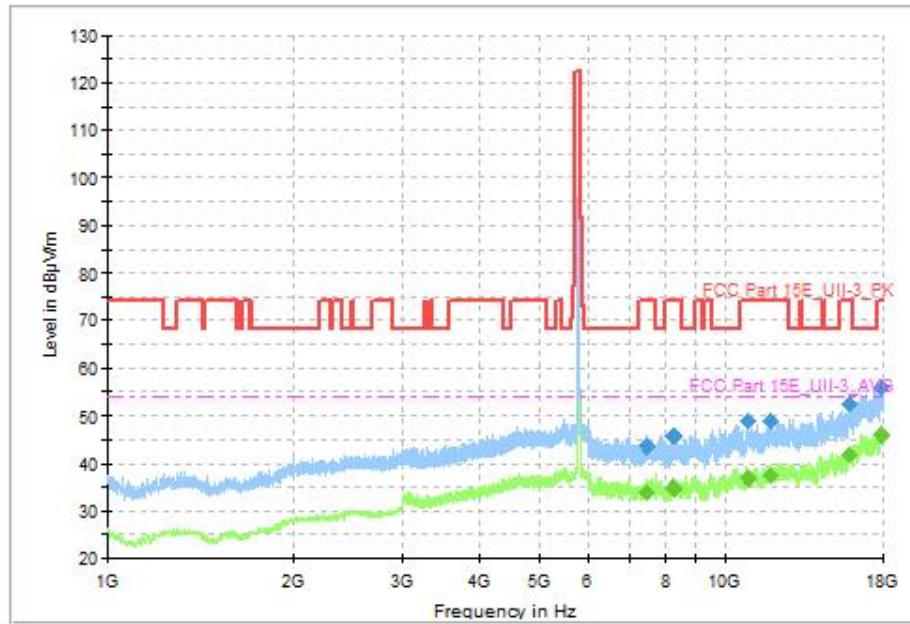


Fig. 86 Transmitter Spurious Emission (802.11n-HT40, CH159 5795MHz, 1GHz-18GHz), MIMO

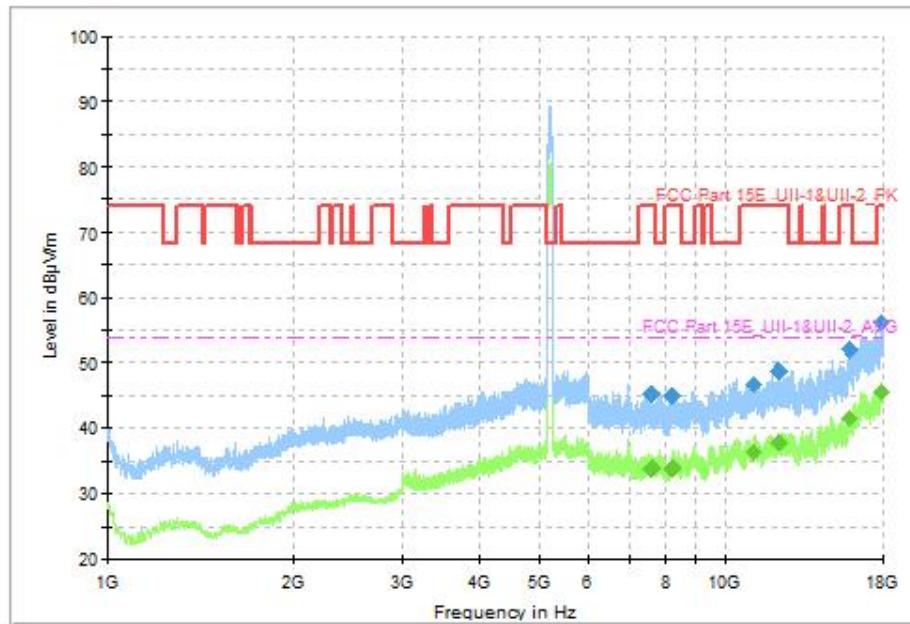


Fig. 87 Transmitter Spurious Emission (802.11ac-VHT80, CH42 5210MHz, 1GHz-18GHz), MIMO

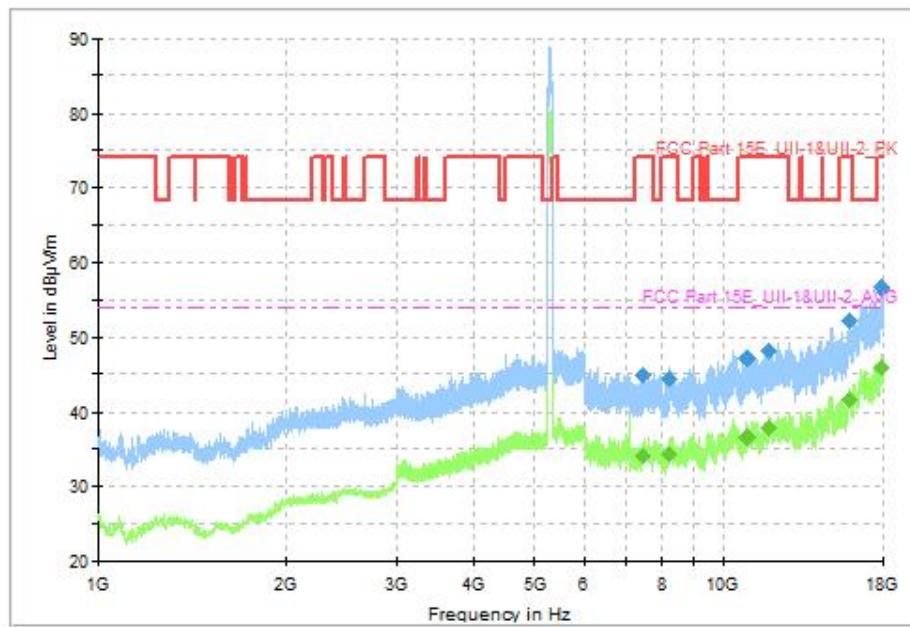


Fig. 88 Transmitter Spurious Emission (802.11ac-VHT80, CH58 5290MHz, 1GHz-18GHz), MIMO

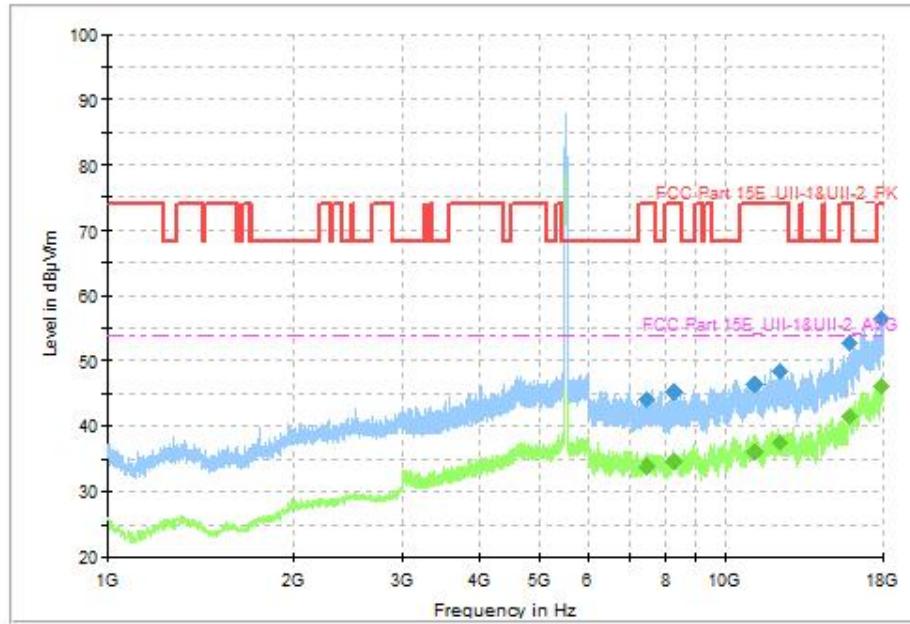


Fig. 89 Transmitter Spurious Emission (802.11ac-VHT80, CH106 5530MHz, 1GHz-18GHz), MIMO

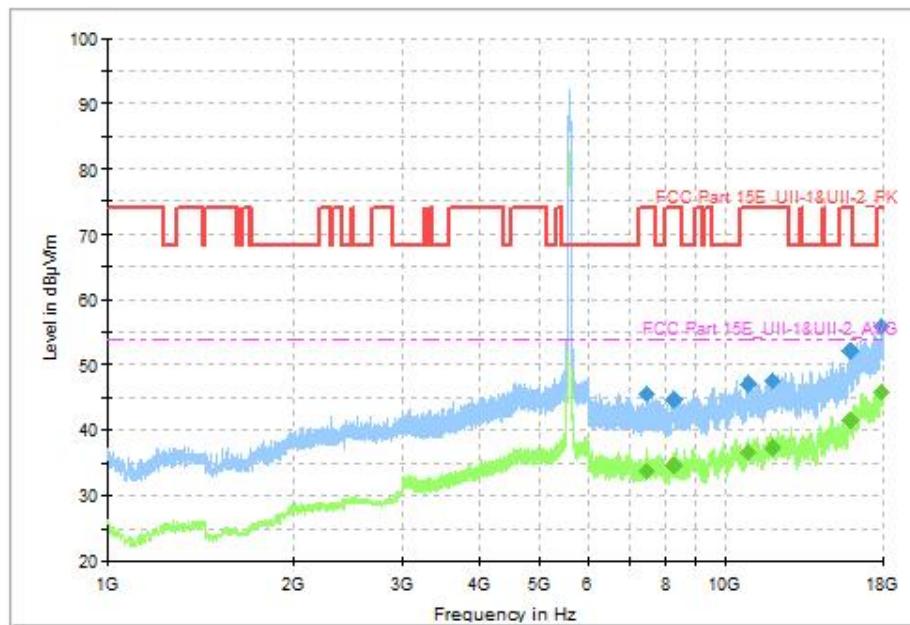


Fig. 90 Transmitter Spurious Emission (802.11ac-VHT80, CH122 5610MHz, 1GHz-18GHz), MIMO

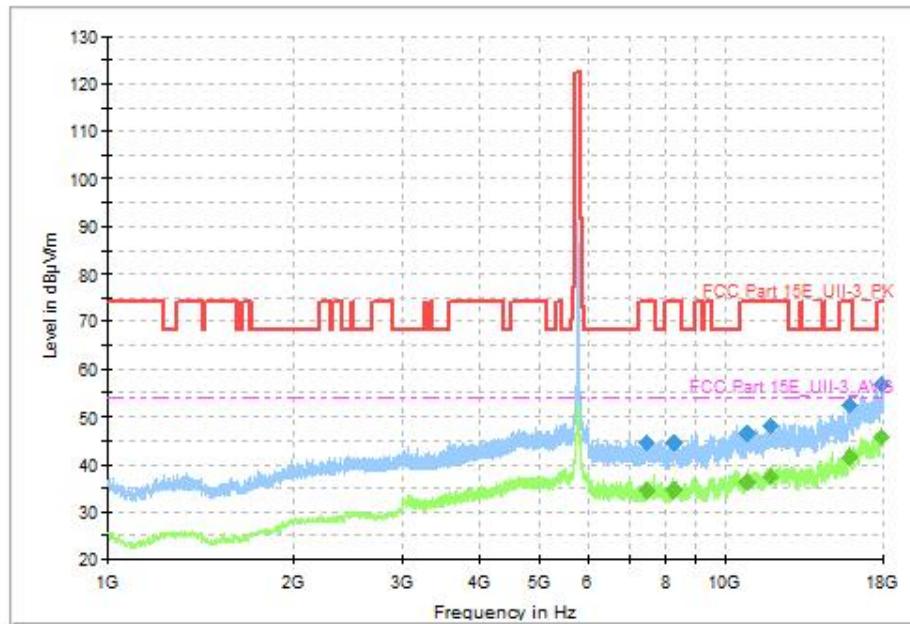


Fig. 91 Transmitter Spurious Emission (802.11ac-VHT80, CH155 5775MHz, 1GHz-18GHz), MIMO

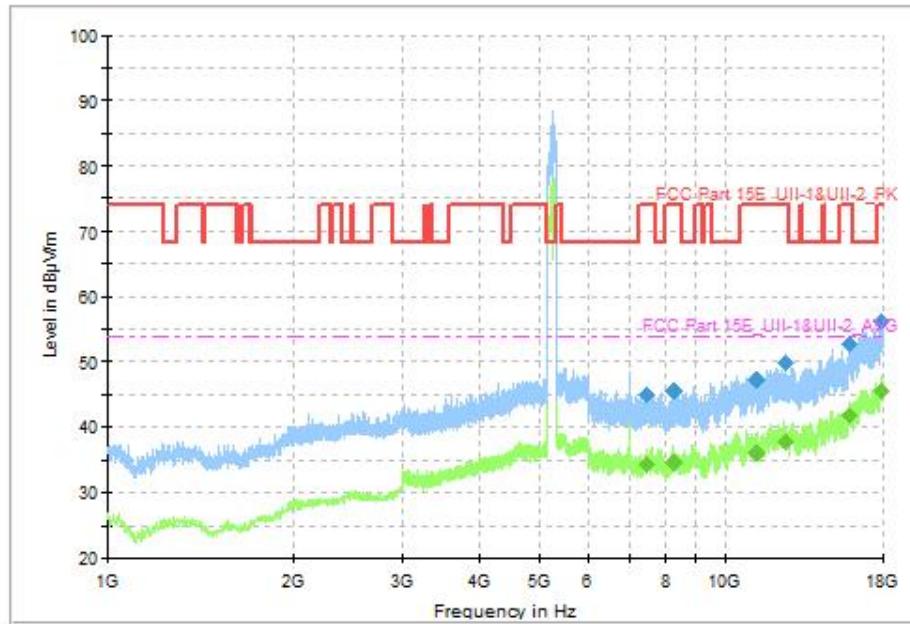


Fig. 92 Transmitter Spurious Emission (802.11ax-HE160, CH50 5250MHz, 1GHz-18GHz), MIMO

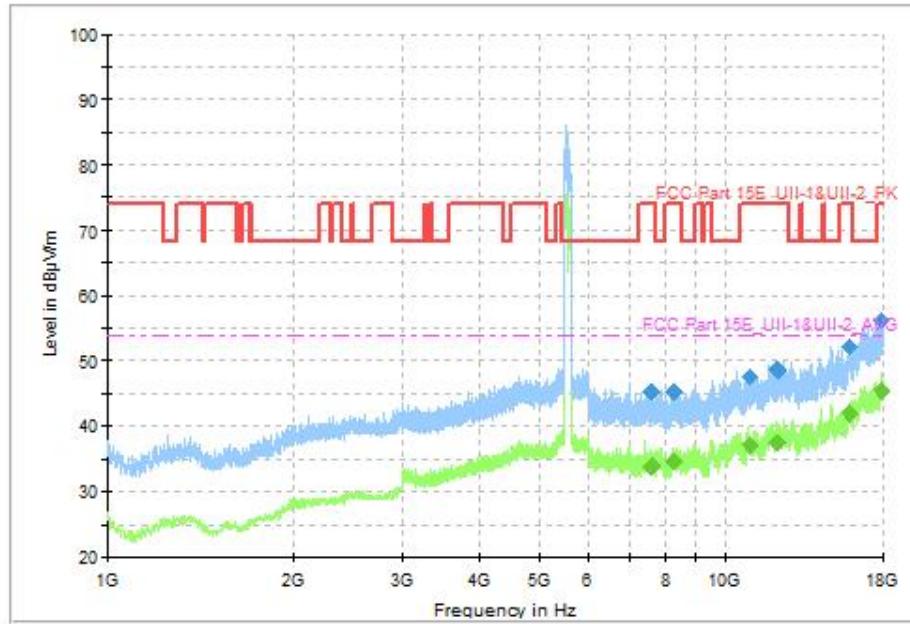


Fig. 93 Transmitter Spurious Emission (802.11ax-HE160, CH114 5570MHz, 1GHz-18GHz), MIMO

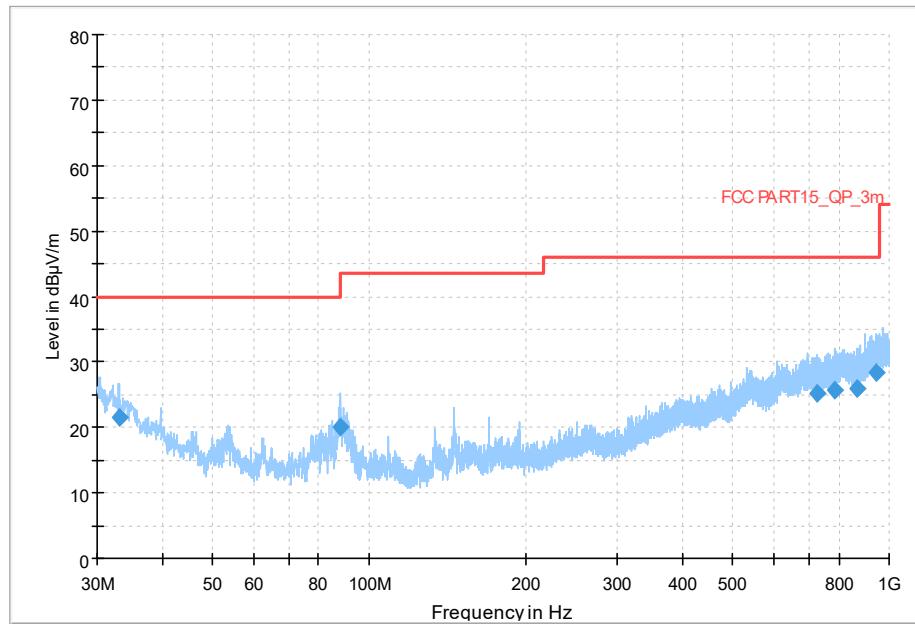


Fig. 94 Transmitter Spurious Emission (All channel, 30MHz~1GHz), MIMO

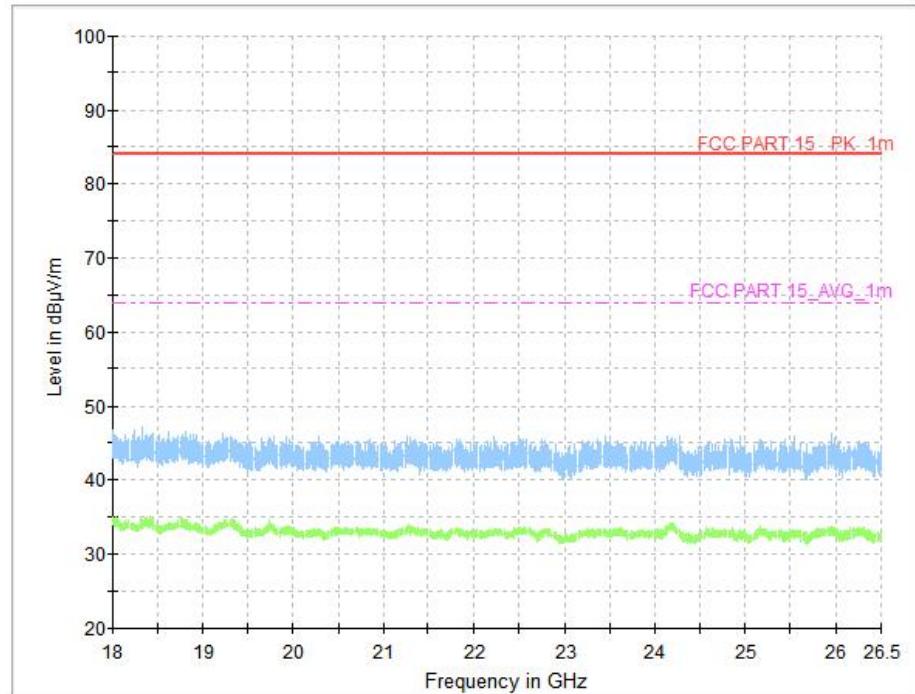


Fig. 95 Transmitter Spurious Emission (All channel, 18GHz~26.5GHz), MIMO

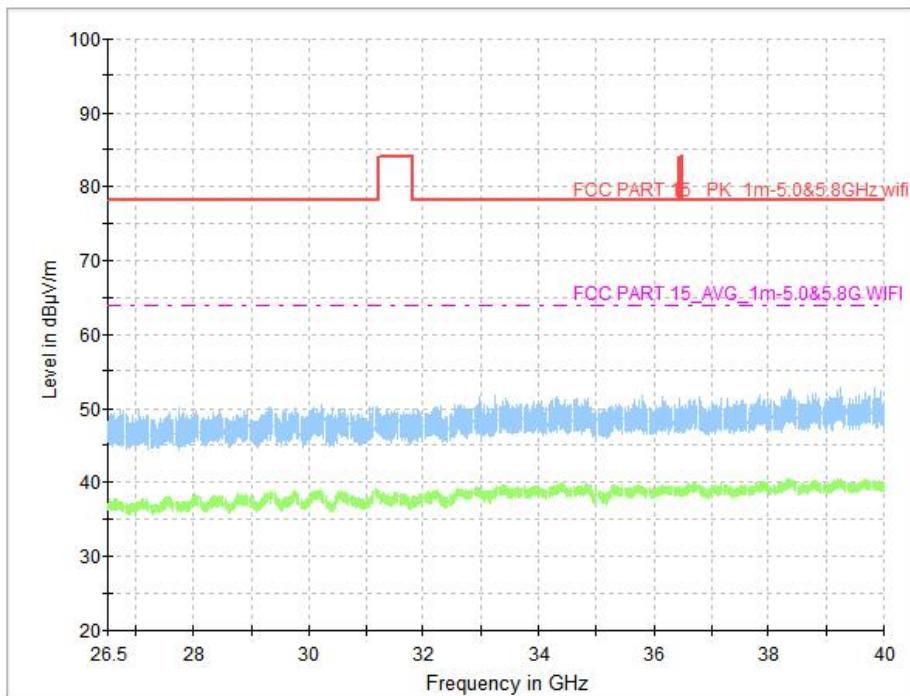


Fig. 96 Transmitter Spurious Emission (All channel, 26.5GHz~40GHz), MIMO



A.10. Radiated Spurious Emissions < 30MHz

Method of Measurement: See ANSI C63.10-clause 6.4.

Measurement Limit (15.209, 9kHz-30MHz):

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

The measurement is made according to KDB 789033.

Note: The measurement distance during the test is 3m. The limit used in plots recalculated based on the extrapolation factor of 40 dB/decade.

Measurement Result (Worst case):

SISO:

| Mode | Frequency Range | Test Results | Conclusion |
|-------------|-----------------|--------------|------------|
| All Channel | 9 kHz ~30 MHz | Fig.97 | P |

MIMO:

| Mode | Frequency Range | Test Results | Conclusion |
|-------------|-----------------|--------------|------------|
| All Channel | 9 kHz ~30 MHz | Fig.98 | P |

See below for test graphs.

Conclusion: PASS

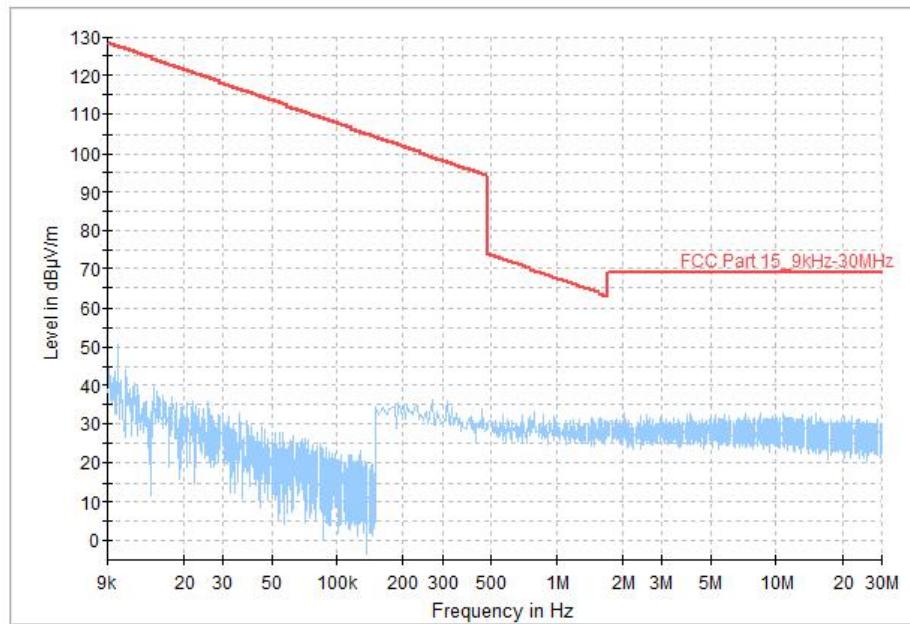


Fig. 97 Radiated Spurious Emission (All Channel, 9 kHz ~30 MHz)

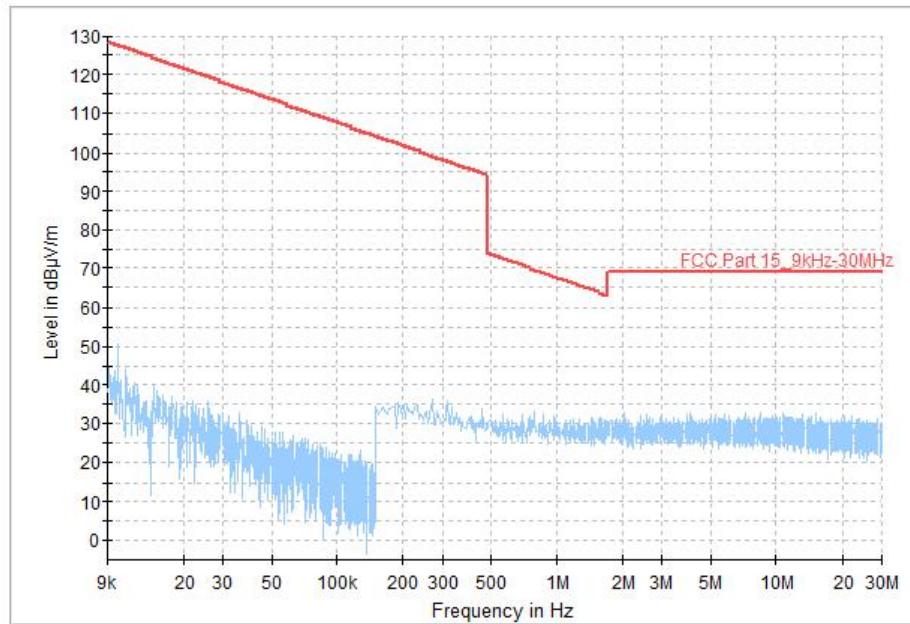


Fig. 98 Radiated Spurious Emission (All Channel, 9 kHz ~30 MHz), MIMO



A.11. AC Power Line Conducted Emission

Method of Measurement: See ANSI C63.10-clause 6.2.

Test Condition:

| Voltage (V) | Frequency (Hz) |
|-------------|----------------|
| 120 | 60 |

Measurement Result and limit:

| Frequency range (MHz) | Quasi-peak Limit (dB μ V) | Average-peak Limit (dB μ V) | Result (dB μ V) | | Conclusion |
|-----------------------|-------------------------------|---------------------------------|---------------------|---------|------------|
| | | | Traffic | Idle | |
| 0.15 to 0.5 | 66 to 56 | 56 to 46 | Fig.99 | Fig.100 | P |
| 0.5 to 5 | 56 | 46 | | | |
| 5 to 30 | 60 | 50 | | | |

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

Note: The measurement results include the L1 and N measurements.

See below for test graphs.

Conclusion: PASS

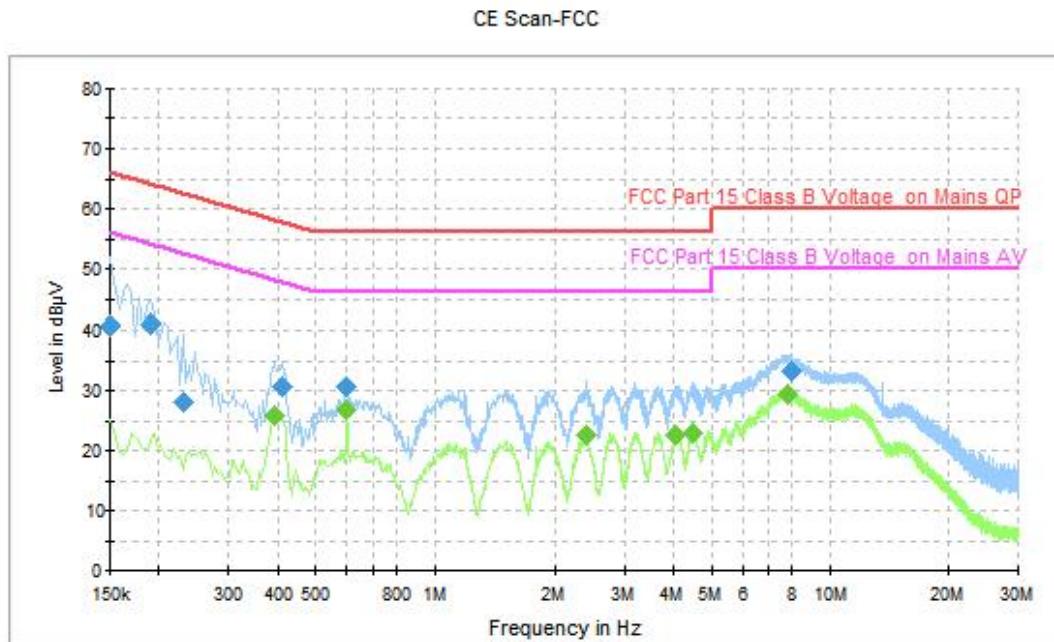


Fig. 99 AC Power line Conducted Emission (Traffic)

Measurement Result: Quasi Peak

| Frequency (MHz) | Quasi Peak (dB μ V) | PE | Line | Corr. (dB) | Limit (dB μ V) | Margin (dB) |
|-----------------|-------------------------|-----|------|------------|--------------------|-------------|
| 0.150000 | 40.7 | GND | N | 9.8 | 25.3 | 66.0 |
| 0.190000 | 41.0 | GND | L1 | 9.8 | 24.0 | 64.0 |
| 0.230000 | 28.1 | GND | N | 9.8 | 34.4 | 62.4 |
| 0.410000 | 30.7 | GND | N | 9.8 | 26.9 | 57.6 |
| 0.598000 | 30.8 | GND | L1 | 9.8 | 25.2 | 56.0 |
| 7.994000 | 33.3 | GND | N | 9.7 | 26.8 | 60.0 |

Measurement Result: Average

| Frequency (MHz) | Average (dB μ V) | PE | Line | Corr. (dB) | Limit (dB μ V) | Margin (dB) |
|-----------------|----------------------|-----|------|------------|--------------------|-------------|
| 0.394000 | 25.9 | GND | L1 | 9.8 | 22.1 | 48.0 |
| 0.598000 | 26.7 | GND | L1 | 9.8 | 19.3 | 46.0 |
| 2.394000 | 22.5 | GND | L1 | 9.8 | 23.5 | 46.0 |
| 4.054000 | 22.6 | GND | L1 | 9.8 | 23.4 | 46.0 |
| 4.482000 | 22.8 | GND | L1 | 9.8 | 23.2 | 46.0 |
| 7.802000 | 29.3 | GND | N | 9.7 | 20.7 | 50.0 |

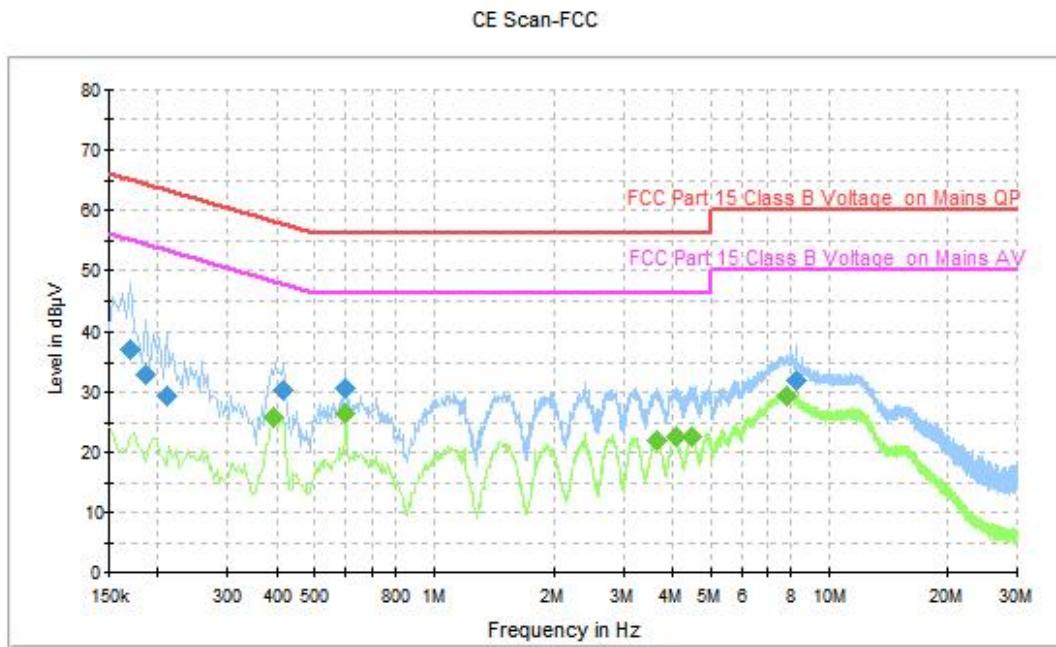


Fig. 100 AC Power line Conducted Emission (Idle)

Measurement Result: Quasi Peak

| Frequency (MHz) | Quasi Peak (dB μ V) | PE | Line | Corr. (dB) | Limit (dB μ V) | Margin (dB) |
|-----------------|-------------------------|-----|------|------------|--------------------|-------------|
| 0.170000 | 37.0 | GND | L1 | 9.8 | 28.0 | 65.0 |
| 0.186000 | 32.9 | GND | L1 | 9.8 | 31.3 | 64.2 |
| 0.210000 | 29.4 | GND | L1 | 9.8 | 33.8 | 63.2 |
| 0.414000 | 30.3 | GND | N | 9.8 | 27.3 | 57.6 |
| 0.598000 | 30.5 | GND | L1 | 9.8 | 25.5 | 56.0 |
| 8.274000 | 31.8 | GND | L1 | 9.8 | 28.2 | 60.0 |

Measurement Result: Average

| Frequency (MHz) | Average (dB μ V) | PE | Line | Corr. (dB) | Limit (dB μ V) | Margin (dB) |
|-----------------|----------------------|-----|------|------------|--------------------|-------------|
| 0.394000 | 25.8 | GND | L1 | 9.8 | 22.1 | 48.0 |
| 0.598000 | 26.6 | GND | L1 | 9.8 | 19.4 | 46.0 |
| 3.654000 | 22.0 | GND | L1 | 9.8 | 24.0 | 46.0 |
| 4.070000 | 22.6 | GND | L1 | 9.8 | 23.4 | 46.0 |
| 4.470000 | 22.7 | GND | L1 | 9.8 | 23.3 | 46.0 |
| 7.822000 | 29.5 | GND | N | 9.7 | 20.5 | 50.0 |



No.I23N01711-WLAN 5GHz

A.12. Power control

A Transmission Power Control mechanism is not required for systems with an e.i.r.p. of less than 27dBm (500mW).

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