

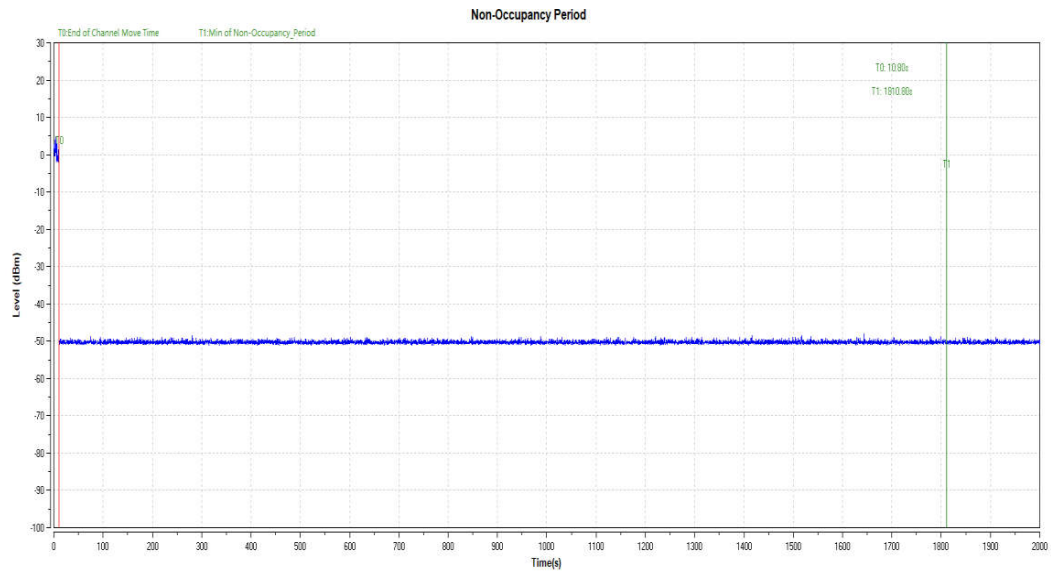


Fig. 62 Non-Occupancy Period (802.11ac-VHT80 Frequency Band: 5470MHz~5725MHz)

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	Channel	Test Results	Conclusion
802.11a	5180 MHz(CH36)	Fig.63	P
	5320 MHz(CH64)	Fig.64	P
	5500 MHz(CH100)	Fig.65	P
	5700 MHz(CH140)	Fig.66	P
	5745 MHz(CH149)	Fig.67	P
	5825 MHz(CH165)	Fig.68	P
802.11ac-VHT40	5190 MHz(CH38)	Fig.69	P
	5310 MHz(CH62)	Fig.70	P
	5510 MHz(CH102)	Fig.71	P
	5670 MHz(CH134)	Fig.72	P
	5755 MHz(CH151)	Fig.73	P
	5795 MHz(CH159)	Fig.74	P
802.11ax-HE80	5210 MHz(CH42)	Fig.75	P
	5290 MHz(CH58)	Fig.76	P
	5530 MHz(CH106)	Fig.77	P
	5610MHz(Ch122)	Fig.78	P
	5775 MHz(CH155)	Fig.79	P

MIMO:

Mode	Channel	Test Results	Conclusion
802.11n-HT20	5180 MHz(CH36)	Fig.80	P
	5320 MHz(CH64)	Fig.81	P
	5500 MHz(CH100)	Fig.82	P
	5700 MHz(CH140)	Fig.83	P
	5745 MHz(CH149)	Fig.84	P
	5825 MHz(CH165)	Fig.85	P



802.11ac-VHT40	5190 MHz(CH38)	Fig.86	P
	5310 MHz(CH62)	Fig.87	P
	5510 MHz(CH102)	Fig.88	P
	5670 MHz(CH134)	Fig.89	P
	5755 MHz(CH151)	Fig.90	P
	5795 MHz(CH159)	Fig.91	P
802.11ax-HE80	5210 MHz(CH42)	Fig.92	P
	5290 MHz(CH58)	Fig.93	P
	5530 MHz(CH106)	Fig.94	P
	5610MHz(Ch122)	Fig.95	P
	5775 MHz(CH155)	Fig.96	P

See below for test graphs.

Conclusion: PASS

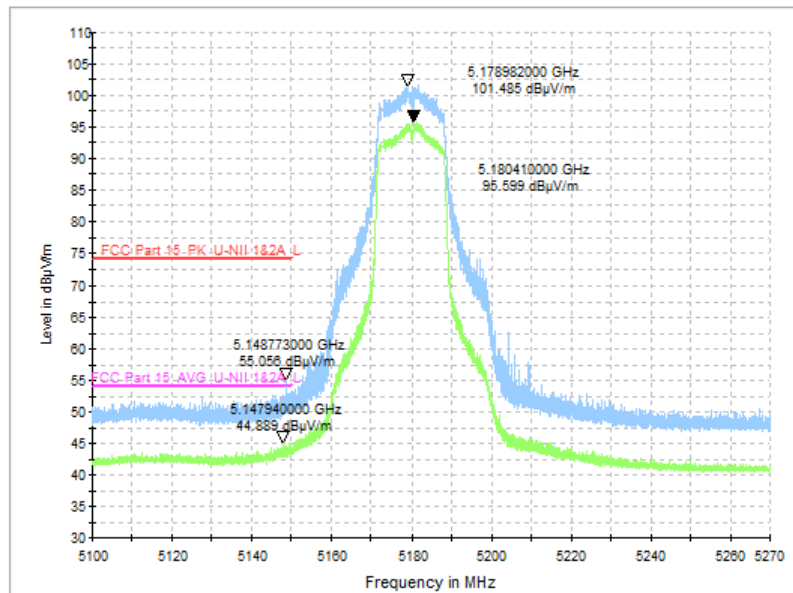


Fig. 63 Band Edges (802.11a, CH36 5180MHz)

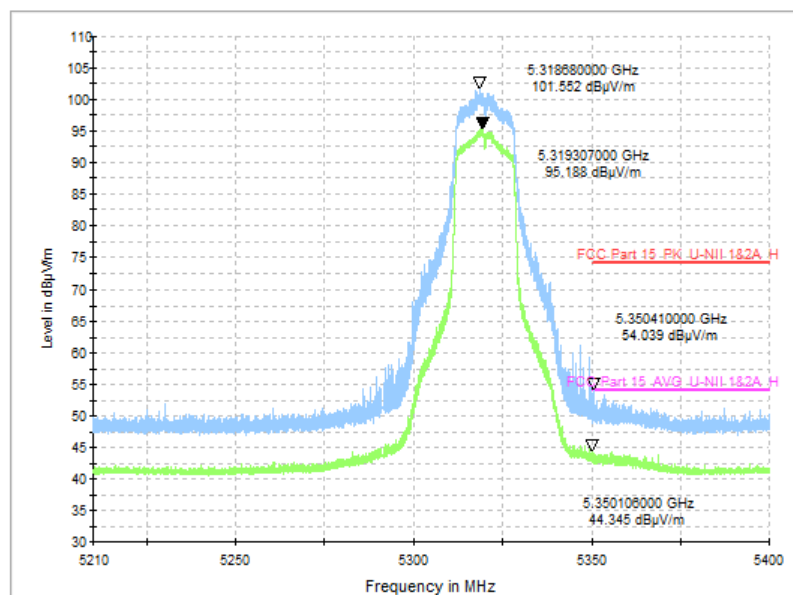


Fig. 64 Band Edges (802.11a, CH64 5320MHz)

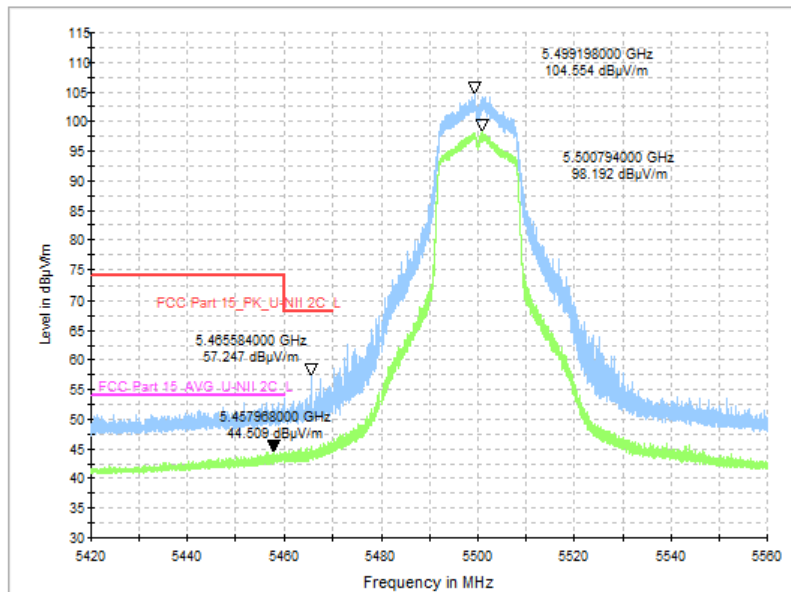


Fig. 65 Band Edges (802.11a, CH100 5500MHz)

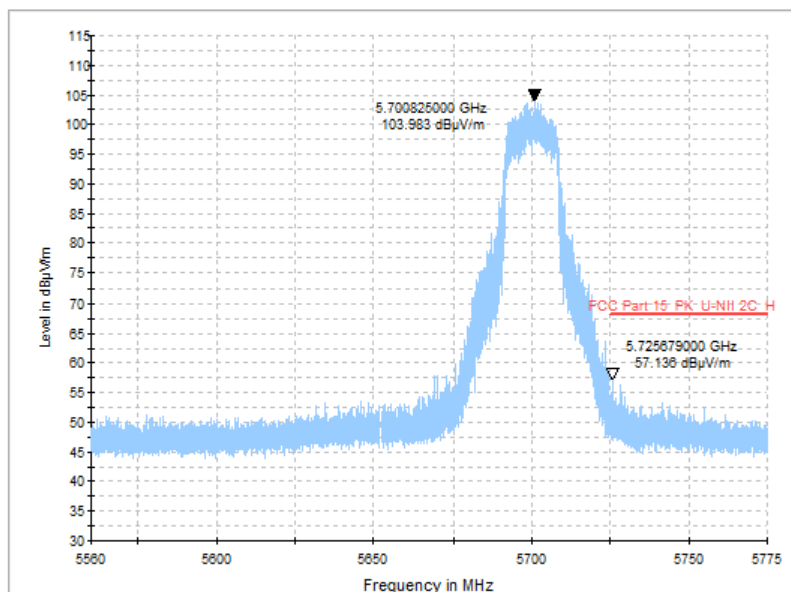


Fig. 66 Band Edges (802.11a, CH140 5700MHz)

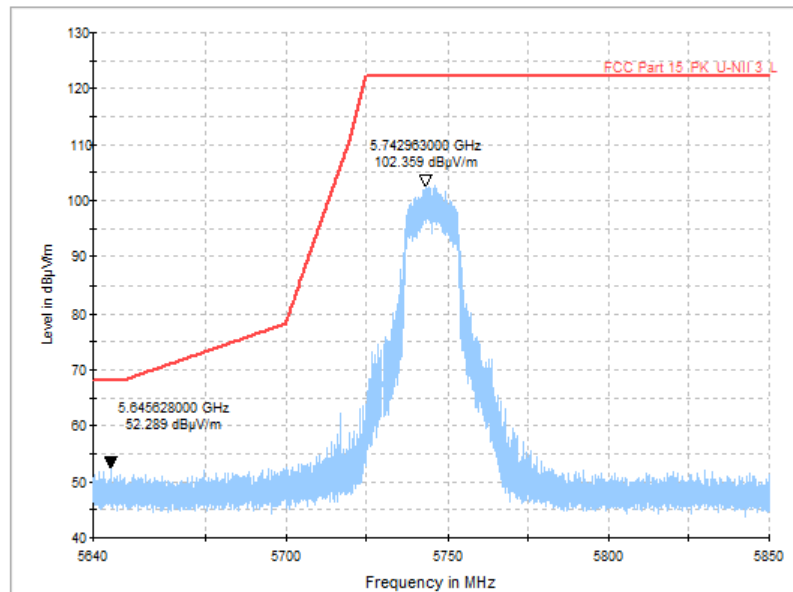


Fig. 67 Band Edges (802.11a, CH149 5745MHz)

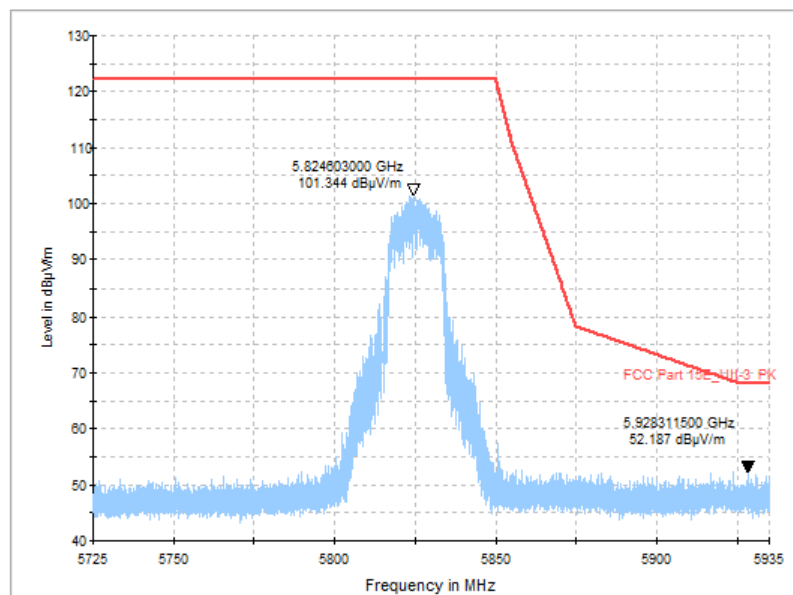


Fig. 68 Band Edges (802.11a, CH165 5825MHz)

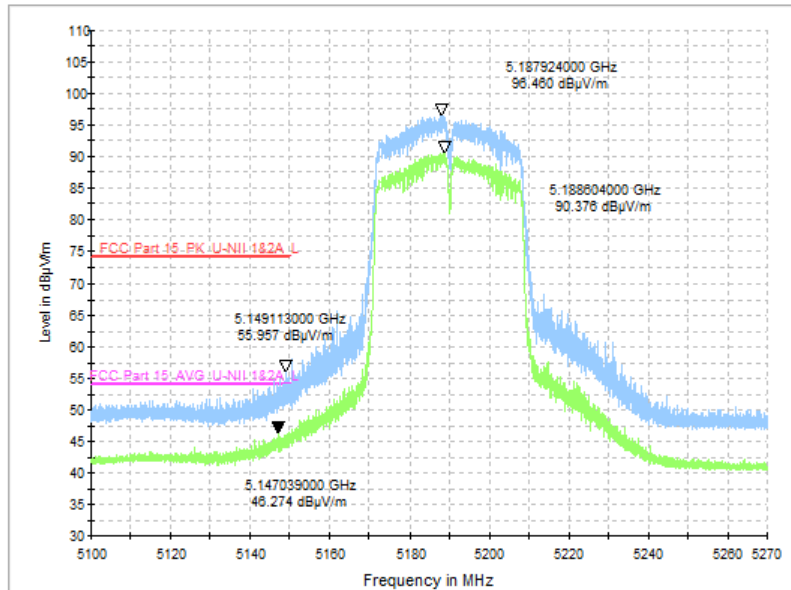


Fig. 69 Band Edges (802.11ac-VHT40, CH38 5190MHz)

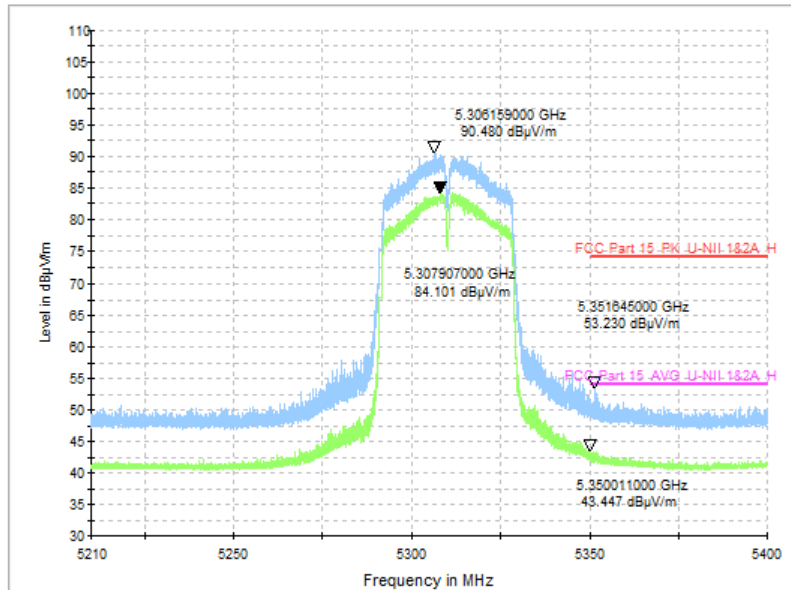


Fig. 70 Band Edges (802.11ac-VHT40, CH62 5310MHz)

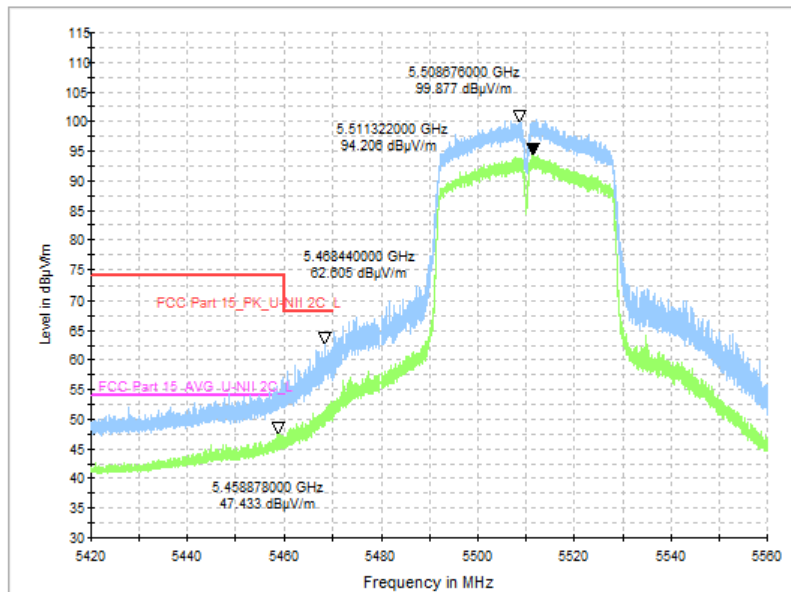


Fig. 71 Band Edges (802.11ac-VHT40, CH102 5510MHz)

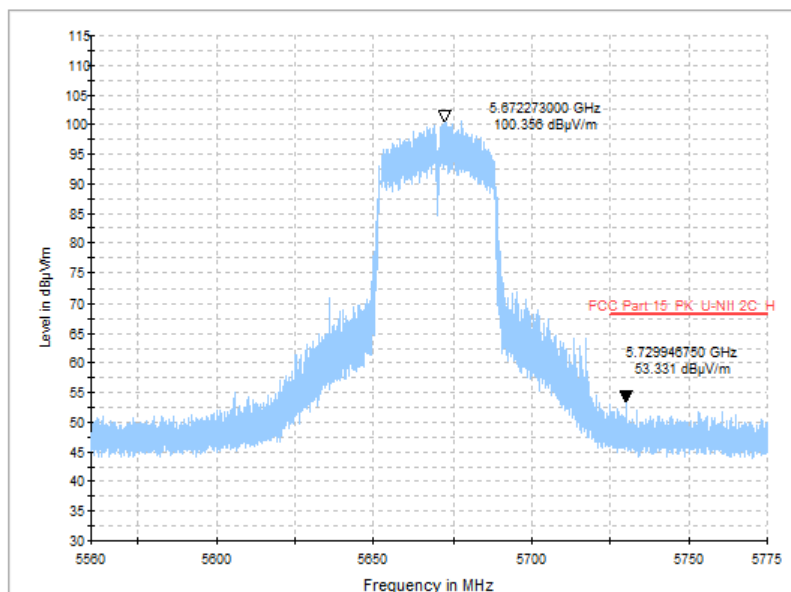


Fig. 72 Band Edges (802.11ac-VHT40, CH134 5670MHz)

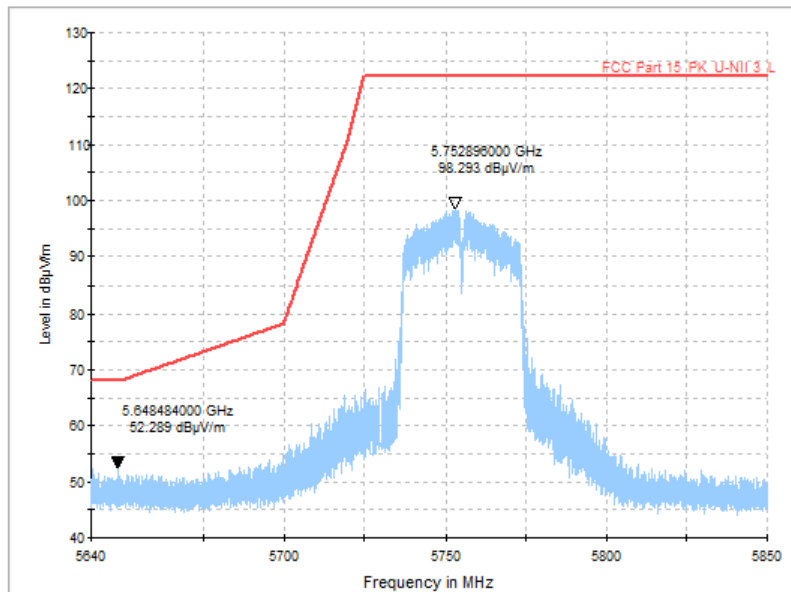


Fig. 73 Band Edges (802.11ac-VHT40, CH151 5755MHz)

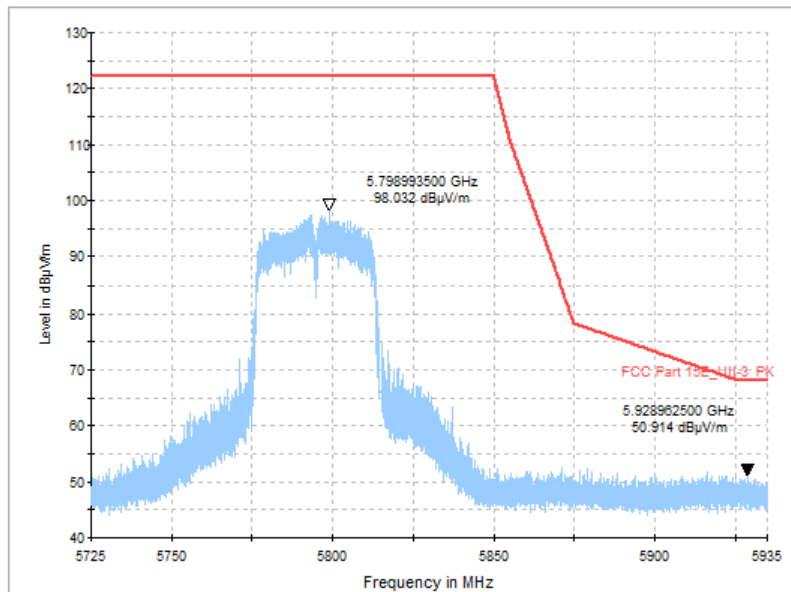


Fig. 74 Band Edges (802.11ac-VHT40, CH159 5795MHz)

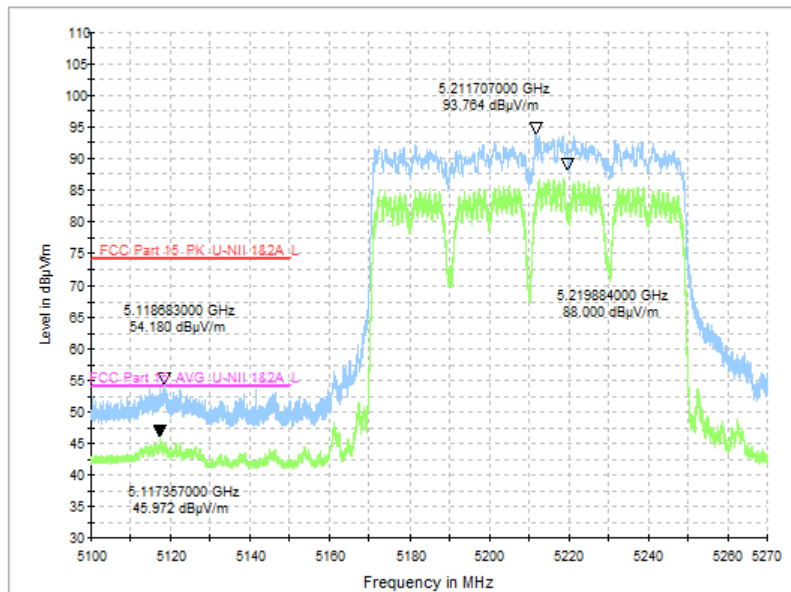


Fig. 75 Band Edges (802.11ax-HE80, CH42 5210MHz)

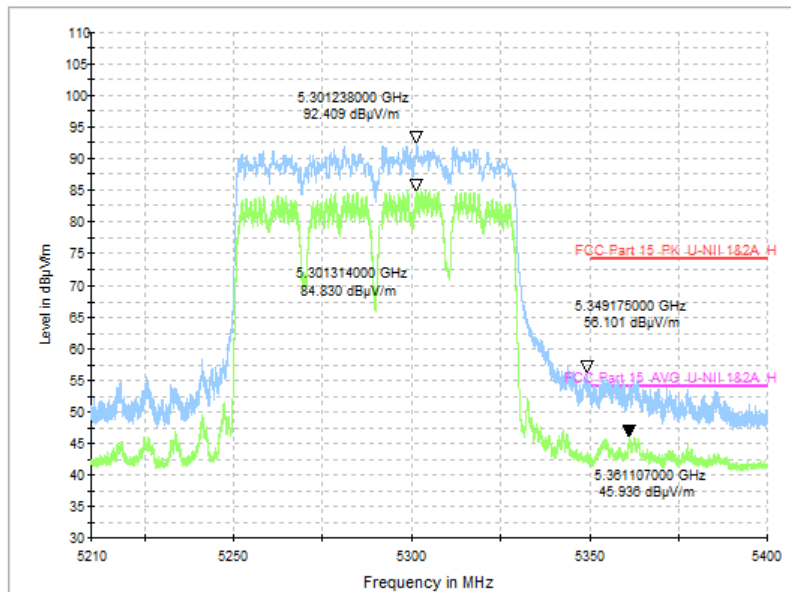


Fig. 76 Band Edges (802.11ax-HE80, CH58 5290MHz)

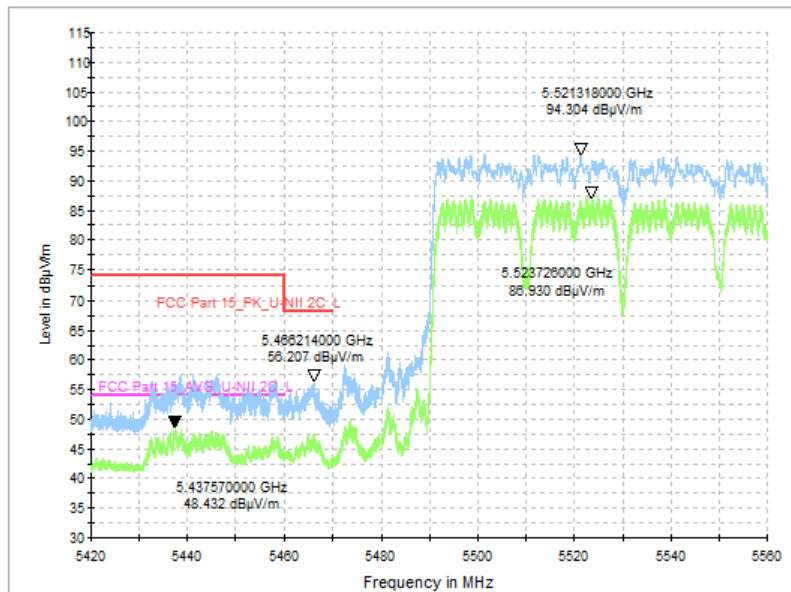


Fig. 77 Band Edges (802.11ax-HE80, CH106 5530MHz)

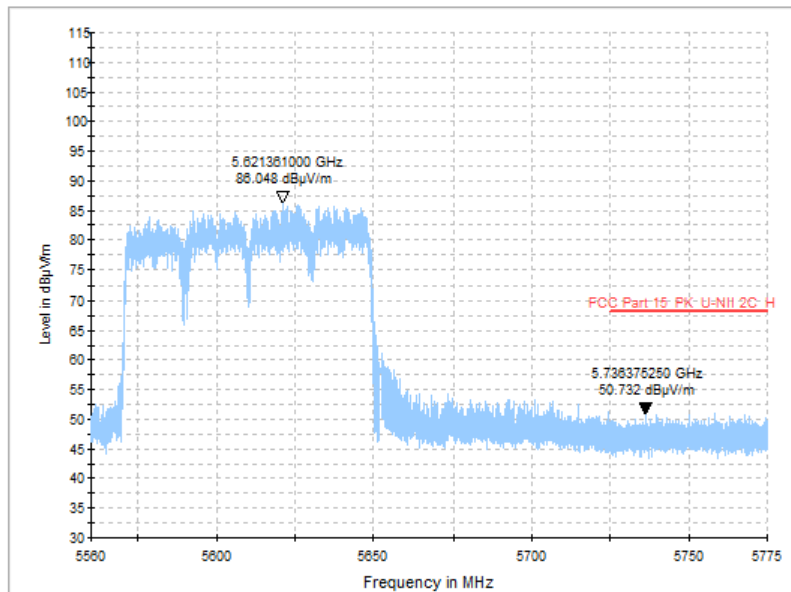


Fig. 78 Band Edges (802.11ax-HE80, CH122 5610MHz)

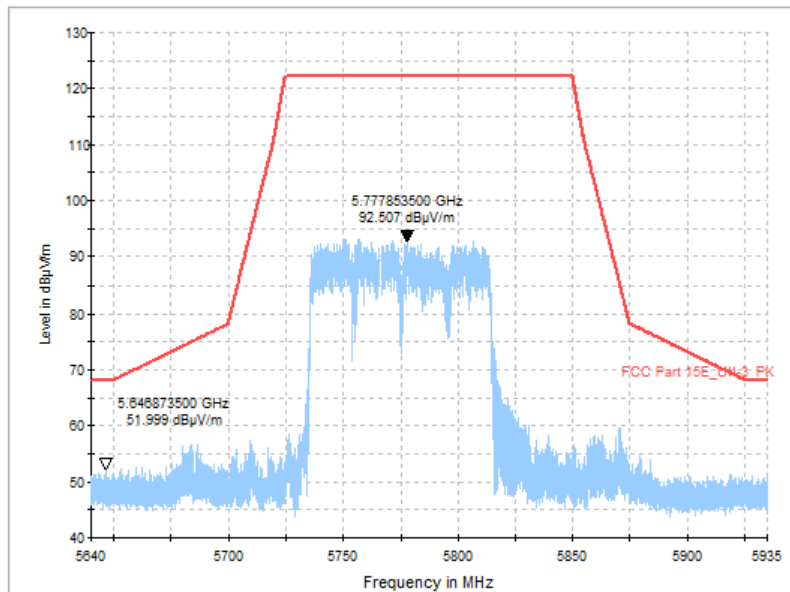


Fig. 79 Band Edges (802.11ax-HE80, CH155 5775MHz)

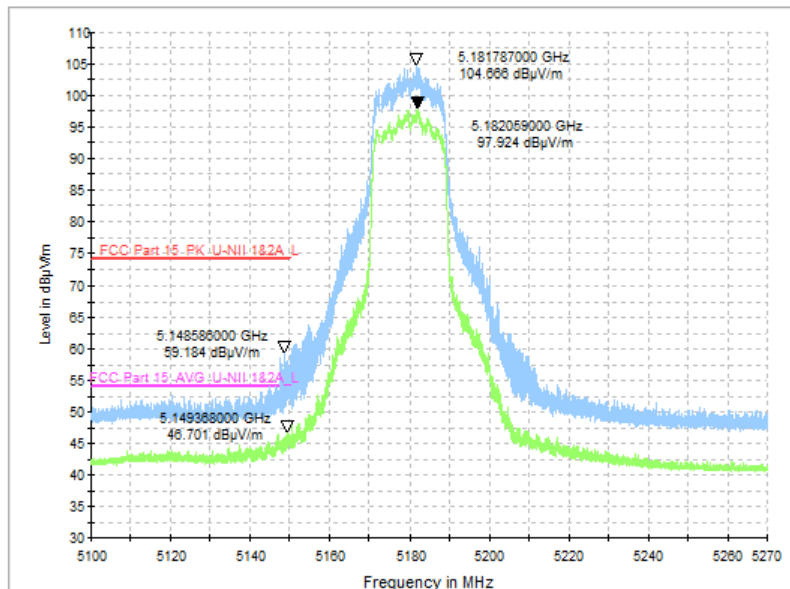


Fig. 80 Band Edges (802.11n-HT20, CH36 5180MHz, MIMO)

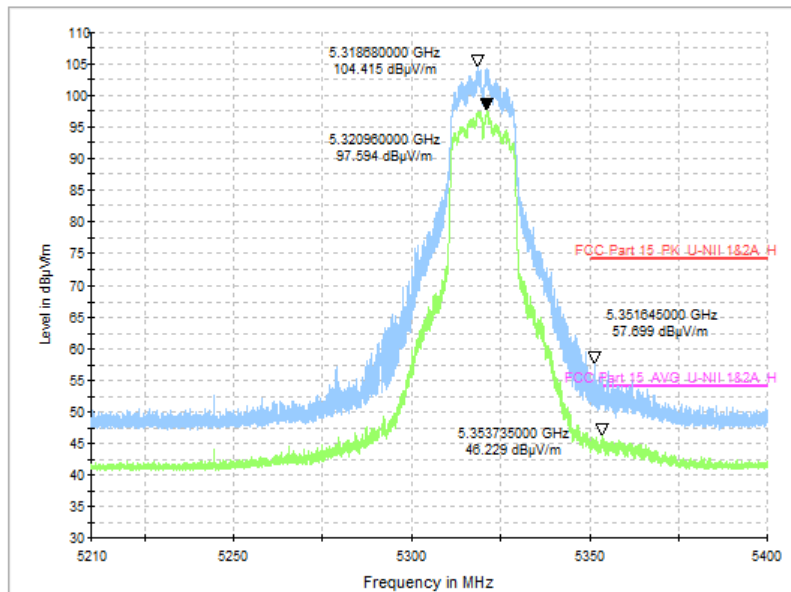


Fig. 81 Band Edges (802.11n-HT20, CH64 5320MHz, MIMO)

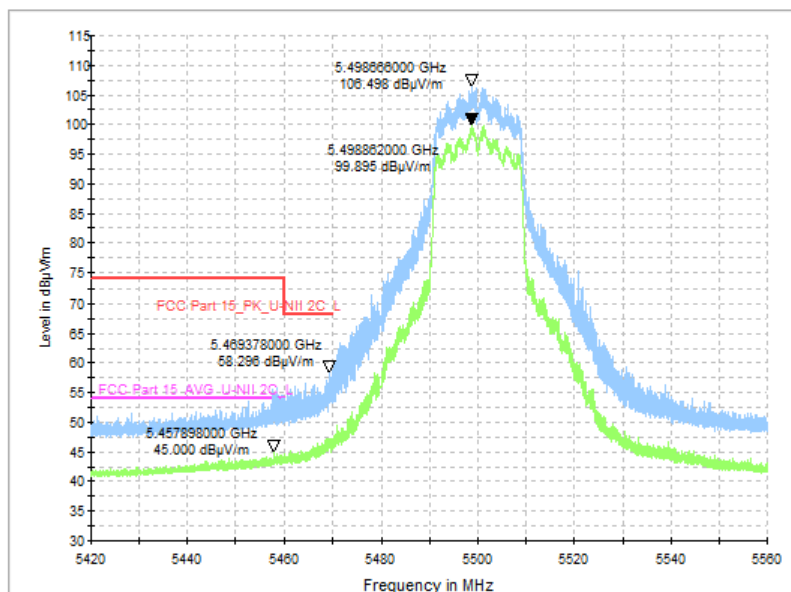


Fig. 82 Band Edges (802.11n-HT20, CH100 5500MHz, MIMO)

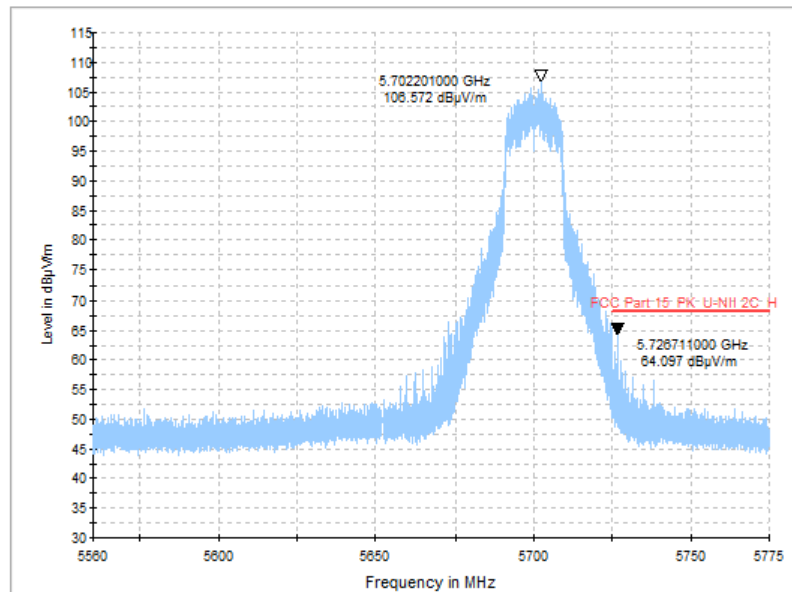


Fig. 83 Band Edges (802.11n-HT20, CH140 5700MHz, MIMO)

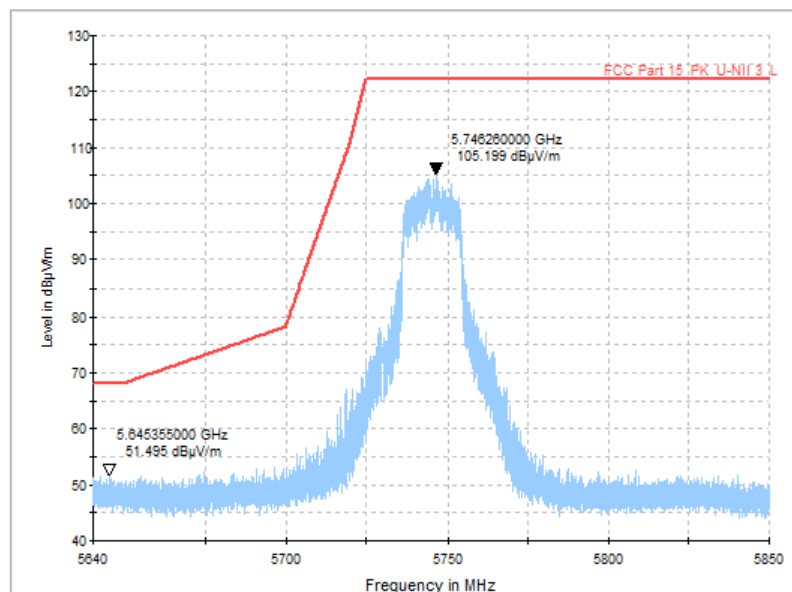


Fig. 84 Band Edges (802.11n-HT20, CH149 5745MHz, MIMO)

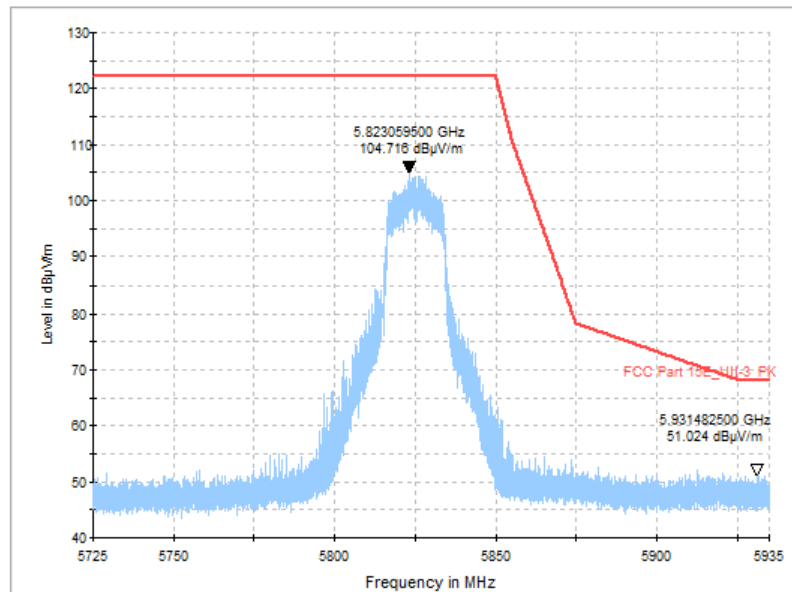


Fig. 85 Band Edges (802.11n-HT20, CH165 5825MHz, MIMO)

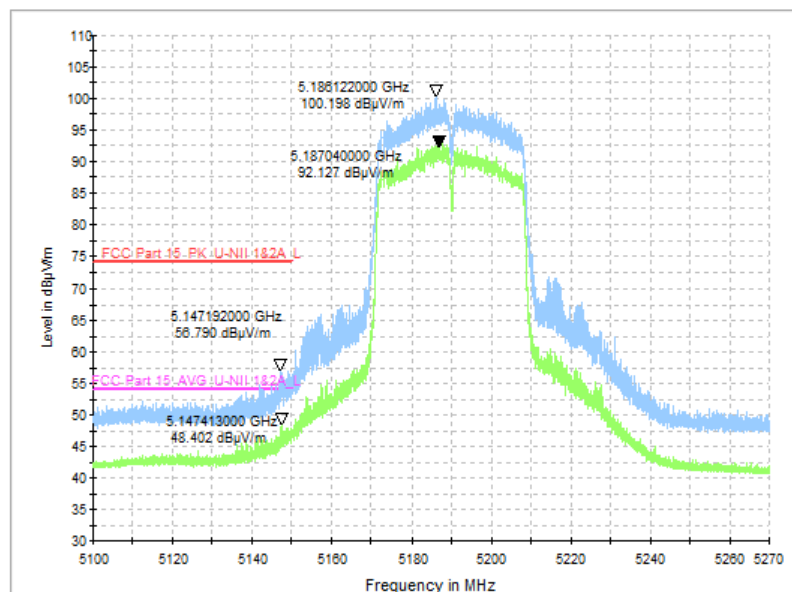


Fig. 86 Band Edges (802.11ac-VHT40, CH38 5190MHz, MIMO)

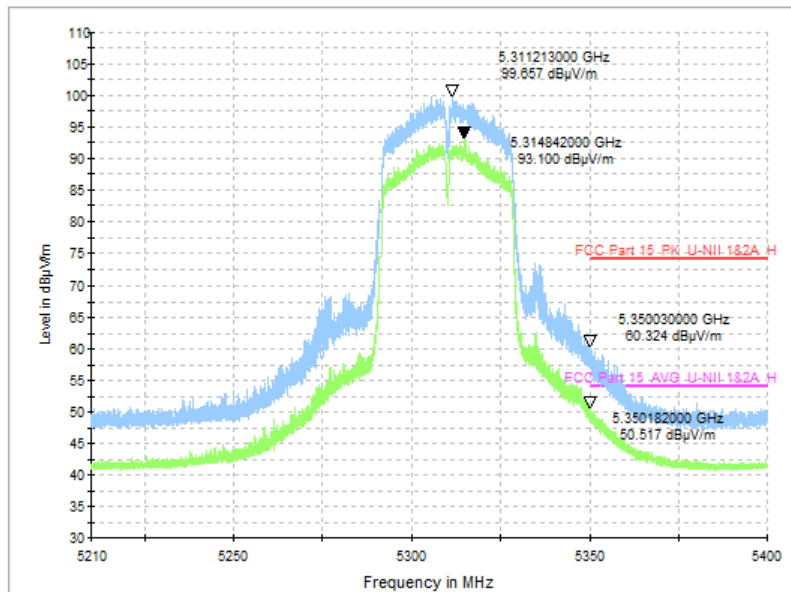


Fig. 87 Band Edges (802.11ac-VHT40, CH62 5310MHz, MIMO)

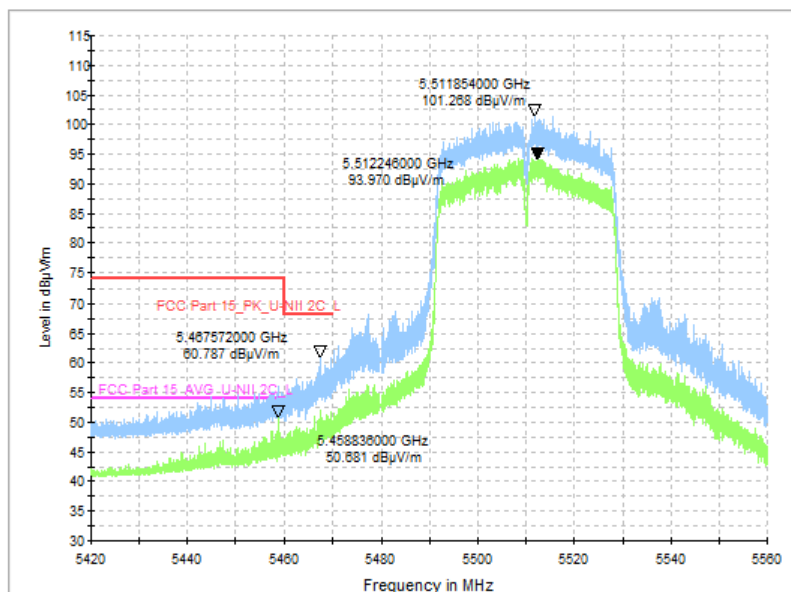


Fig. 88 Band Edges (802.11ac-VHT40, CH102 5510MHz, MIMO)

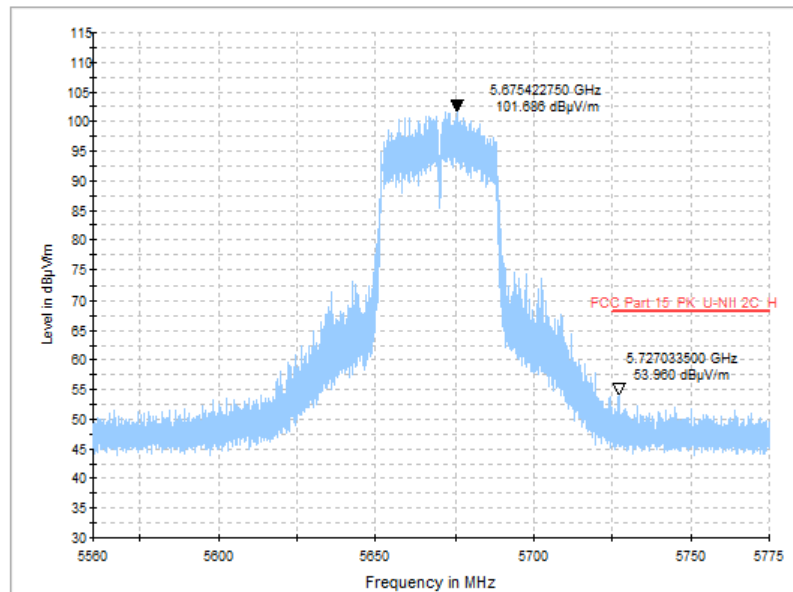


Fig. 89 Band Edges (802.11ac-VHT40, CH134 5670MHz, MIMO)

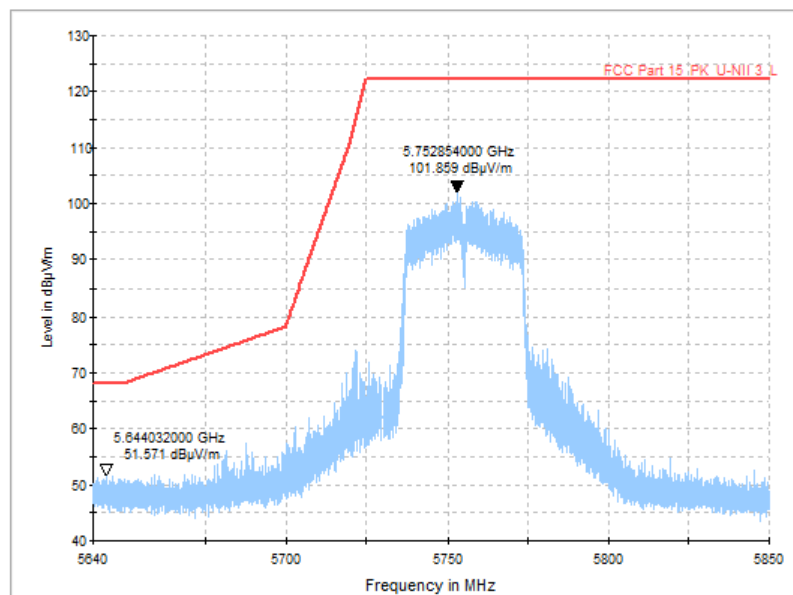


Fig. 90 Band Edges (802.11ac-VHT40, CH151 5755MHz, MIMO)

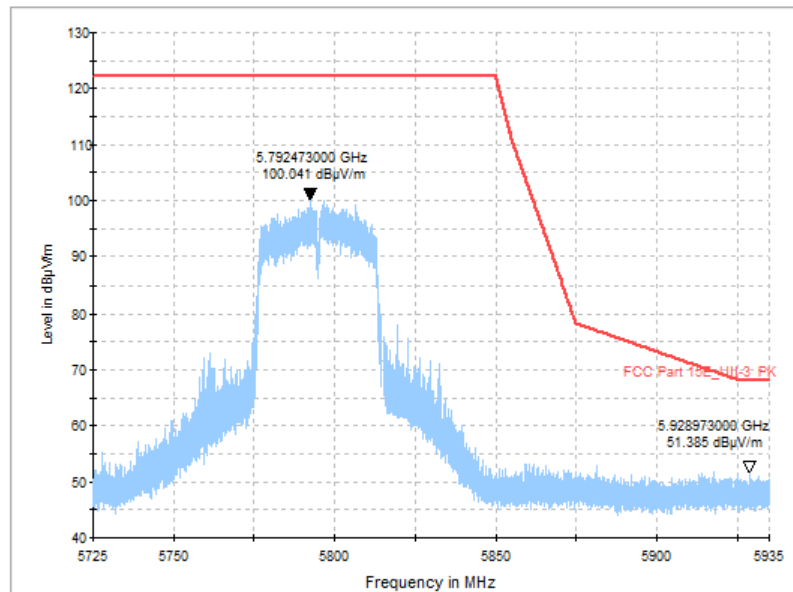


Fig. 91 Band Edges (802.11ac-VHT40, CH159 5795MHz, MIMO)

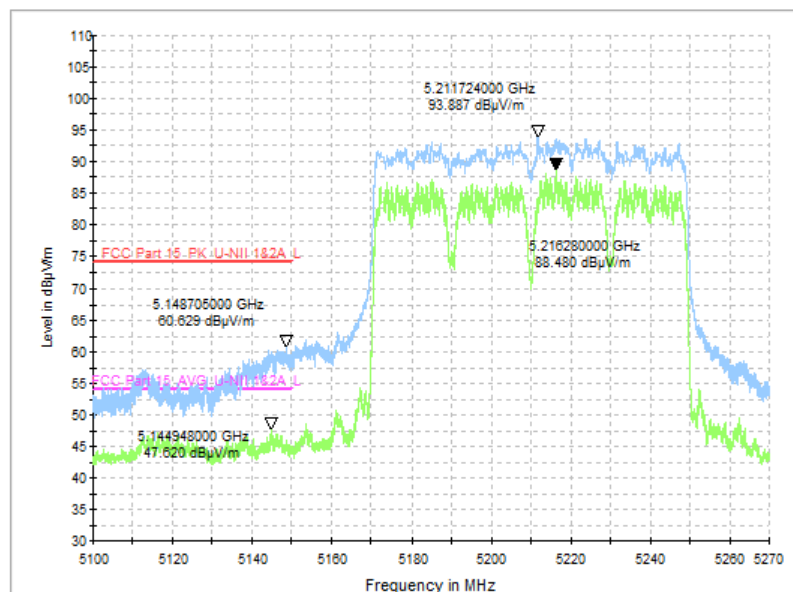


Fig. 92 Band Edges (802.11ax-HE80, CH42 5210MHz, MIMO)

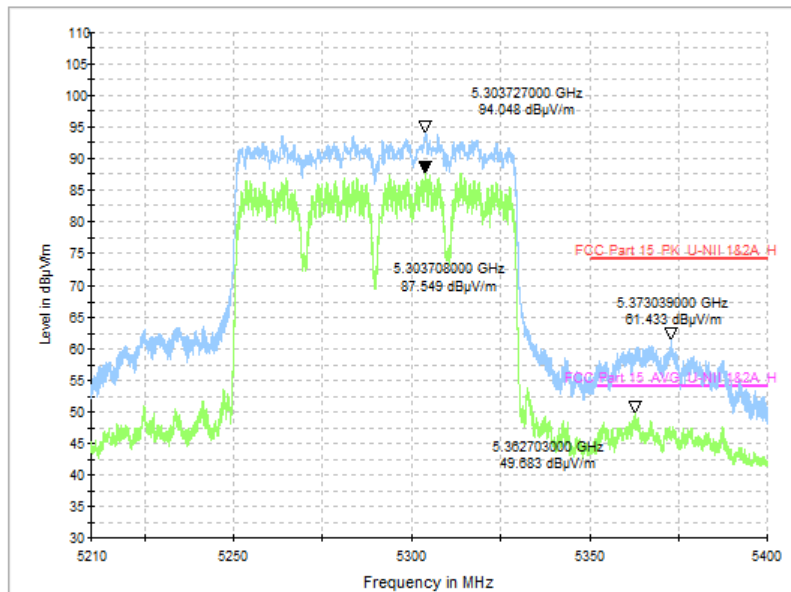


Fig. 93 Band Edges (802.11ax-HE80, CH58 5290MHz, MIMO)

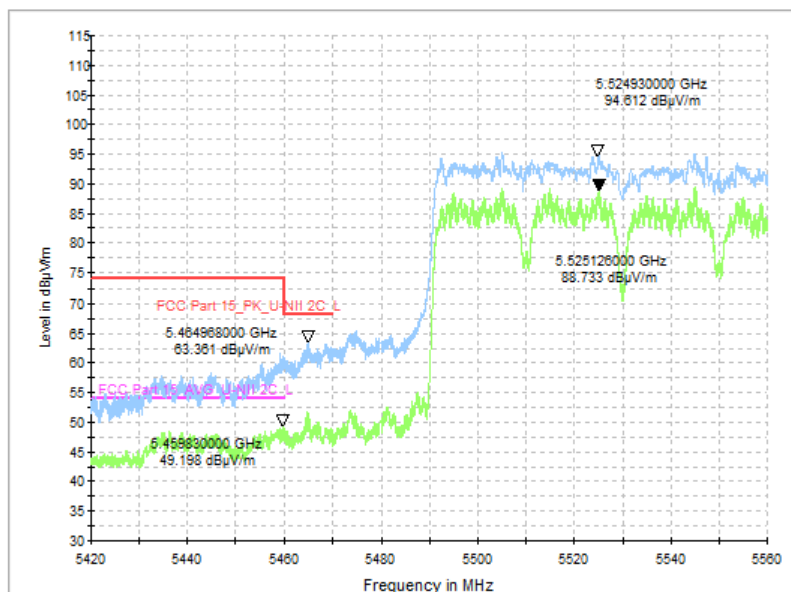


Fig. 94 Band Edges (802.11ax-HE80, CH106 5530MHz, MIMO)

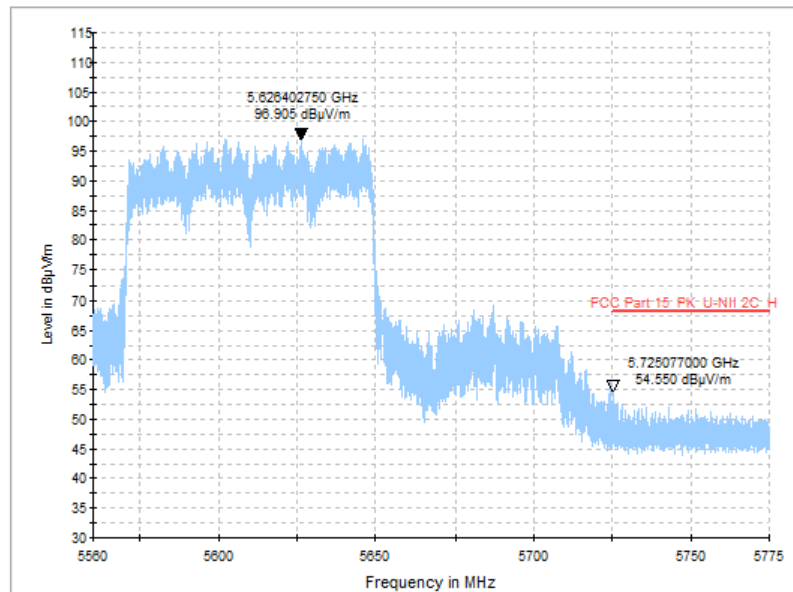


Fig. 95 Band Edges (802.11ax-HE80, CH122 5610MHz, MIMO)

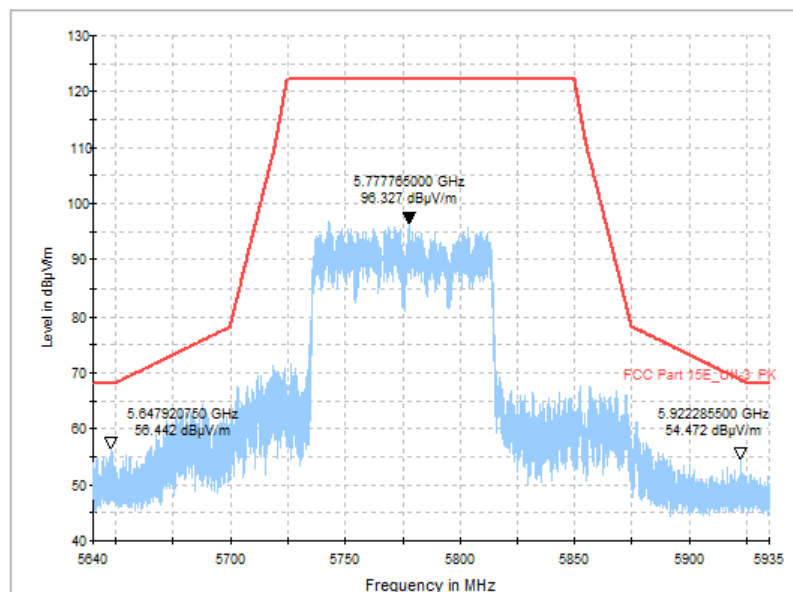


Fig. 96 Band Edges (802.11ax-HE80, CH155 5775MHz, MIMO)

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 (dBμV/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 (dBμV/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.

Measurement Result:

SISO:

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11a	5180MHz(Ch36)	1 GHz ~18 GHz	Fig.97	P
	5200MHz(Ch40)	1 GHz ~18 GHz	Fig.98	P
	5240MHz(Ch48)	1 GHz ~18 GHz	Fig.99	P
	5260MHz(Ch52)	1 GHz ~18 GHz	Fig.100	P
	5280MHz(Ch56)	1 GHz ~18 GHz	Fig.101	P
	5320MHz(Ch64)	1 GHz ~18 GHz	Fig.102	P
	5500MHz(Ch100)	1 GHz ~18 GHz	Fig.103	P
	5600MHz(Ch120)	1 GHz ~18 GHz	Fig.104	P
	5700MHz(Ch140)	1 GHz ~18 GHz	Fig.105	P
	5745MHz(Ch149)	1 GHz ~18 GHz	Fig.106	P
	5785MHz(Ch157)	1 GHz ~18 GHz	Fig.107	P
	5825MHz(Ch165)	1 GHz ~18 GHz	Fig.108	P
802.11ac -VHT40	5190MHz(Ch38)	1 GHz ~18 GHz	Fig.109	P
	5230MHz(Ch46)	1 GHz ~18 GHz	Fig.110	P
	5270MHz(Ch54)	1 GHz ~18 GHz	Fig.111	P
	5310MHz(Ch62)	1 GHz ~18 GHz	Fig.112	P
	5510MHz(Ch102)	1 GHz ~18 GHz	Fig.113	P
	5580MHz(Ch118)	1 GHz ~18 GHz	Fig.114	P

	5670MHz(Ch134)	1 GHz ~18 GHz	Fig.115	P
	5755MHz(Ch151)	1 GHz ~18 GHz	Fig.116	P
	5795MHz(Ch159)	1 GHz ~18 GHz	Fig.117	P
802.11ax -HE80	5210MHz(Ch42)	1 GHz ~18 GHz	Fig.118	P
	5290MHz(Ch58)	1 GHz ~18 GHz	Fig.119	P
	5530MHz(Ch106)	1 GHz ~18 GHz	Fig.120	P
	5610MHz(Ch122)	1 GHz ~18 GHz	Fig.121	P
	5775MHz(Ch155)	1 GHz ~18 GHz	Fig.122	P
All channels		30 MHz ~1 GHz	Fig.123	P
		18 GHz ~26.5 GHz	Fig.124	P
		26.5GHz~40GHz	Fig.125	P

MIMO:

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n- HT20	5180MHz(Ch36)	1 GHz ~18 GHz	Fig.126	P
	5200MHz(Ch40)	1 GHz ~18 GHz	Fig.127	P
	5240MHz(Ch48)	1 GHz ~18 GHz	Fig.128	P
	5260MHz(Ch52)	1 GHz ~18 GHz	Fig.129	P
	5280MHz(Ch56)	1 GHz ~18 GHz	Fig.130	P
	5320MHz(Ch64)	1 GHz ~18 GHz	Fig.131	P
	5500MHz(Ch100)	1 GHz ~18 GHz	Fig.132	P
	5600MHz(Ch120)	1 GHz ~18 GHz	Fig.133	P
	5700MHz(Ch140)	1 GHz ~18 GHz	Fig.134	P
	5745MHz(Ch149)	1 GHz ~18 GHz	Fig.135	P
	5785MHz(Ch157)	1 GHz ~18 GHz	Fig.136	P
	5825MHz(Ch165)	1 GHz ~18 GHz	Fig.137	P
802.11ac -VHT40	5190MHz(Ch38)	1 GHz ~18 GHz	Fig.138	P
	5230MHz(Ch46)	1 GHz ~18 GHz	Fig.139	P
	5270MHz(Ch54)	1 GHz ~18 GHz	Fig.140	P
	5310MHz(Ch62)	1 GHz ~18 GHz	Fig.141	P
	5510MHz(Ch102)	1 GHz ~18 GHz	Fig.142	P
	5580MHz(Ch118)	1 GHz ~18 GHz	Fig.143	P
	5670MHz(Ch134)	1 GHz ~18 GHz	Fig.144	P
	5755MHz(Ch151)	1 GHz ~18 GHz	Fig.145	P
	5795MHz(Ch159)	1 GHz ~18 GHz	Fig.146	P
802.11ax -HE80	5210MHz(Ch42)	1 GHz ~18 GHz	Fig.147	P
	5290MHz(Ch58)	1 GHz ~18 GHz	Fig.148	P
	5530MHz(Ch106)	1 GHz ~18 GHz	Fig.149	P
	5610MHz(Ch122)	1 GHz ~18 GHz	Fig.150	P
	5775MHz(Ch155)	1 GHz ~18 GHz	Fig.151	P
All channels		30 MHz ~1 GHz	Fig.152	P
		18 GHz ~26.5 GHz	Fig.153	P
		26.5GHz~40GHz	Fig.154	P

**Worst Case Result:****SISO:****802.11a CH140**

Frequency (MHz)	Max Peak (dBμV/m)	Pol	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
6976.000000	52.6	H	17.3	15.6	68.2
8764.300000	43.6	H	-1.6	24.6	68.2
9991.600000	44.9	H	-0.5	23.3	68.2
13907.800000	50.6	H	5.0	17.6	68.2
14722.900000	50.4	H	5.4	17.8	68.2
17964.400000	53.5	H	5.5	20.5	74.0

Frequency (MHz)	Average (dBμV/m)	Pol	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
7424.800000	31.1	H	-2.2	22.9	54.0
8219.500000	31.1	H	-2.3	22.9	54.0
11064.400000	34.9	H	1.6	19.1	54.0
13358.500000	35.6	H	3.4	18.4	54.0
15447.700000	36.3	H	4.3	17.7	54.0
17963.600000	42.7	H	13.4	11.3	54.0

802.11ac-VHT40 CH134

Frequency (MHz)	Max Peak (dBμV/m)	Pol	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
6942.700000	52.5	H	17.1	15.7	68.2
7921.600000	43.9	H	-2.0	24.3	68.2
8893.300000	45.3	H	-1.7	22.9	68.2
10265.200000	47.6	V	0.6	20.6	68.2
14200.600000	52.0	V	5.9	16.2	68.2
17966.800000	53.4	V	7.7	20.6	74.0

Frequency (MHz)	Average (dBμV/m)	Pol	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
7498.900000	31.6	V	-2.3	22.4	54.0
8292.100000	31.9	V	-2.1	22.1	54.0
9434.200000	33.2	H	-1.0	20.8	54.0
12298.000000	35.6	V	1.9	18.4	54.0
15774.700000	35.8	H	3.0	18.2	54.0
17965.600000	42.4	V	13.4	11.6	54.0

802.11ax-HE80 CH155

Frequency (MHz)	Max Peak (dBμV/m)	Pol	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
6974.500000	53.9	H	17.6	14.3	68.2
8723.800000	43.9	H	-1.7	24.3	68.2
10003.600000	45.1	H	-0.5	23.1	68.2
13923.400000	49.8	V	4.9	18.4	68.2
17156.800000	49.9	V	6.5	18.3	68.2
17964.000000	54.4	H	13.4	19.6	74.0

Frequency (MHz)	Average (dBμV/m)	Pol	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
7502.200000	31.5	V	-2.3	22.5	54.0
8307.100000	31.5	V	-2.1	22.5	54.0
12276.700000	35.8	H	1.8	18.2	54.0
13387.600000	36.5	V	3.6	17.5	54.0
15455.500000	36.9	H	4.2	17.1	54.0
17964.000000	42.4	H	13.4	11.6	54.0

MIMO:
802.11n-HT20 CH48

Frequency (MHz)	Max Peak (dBμV/m)	Pol	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
6887.200000	52.5	H	16.5	15.7	68.2
7821.400000	43.1	V	-2.4	25.1	68.2
8840.200000	43.9	V	-1.7	24.3	68.2
10239.400000	45.8	V	0.6	22.4	68.2
14717.200000	50.4	H	5.3	17.8	68.2
17701.200000	52.8	H	7.7	21.2	74.0

Frequency (MHz)	Average (dBμV/m)	Pol	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
7501.900000	31.5	V	-2.3	22.5	54.0
8295.100000	32.0	H	-2.1	22.0	54.0
9438.700000	33.1	V	-1.0	20.9	54.0
11035.900000	35.4	V	1.7	18.6	54.0
15779.800000	36.0	V	2.9	18.0	54.0
17932.400000	41.0	V	13.2	13.0	54.0

802.11ac-VHT40 CH46

Frequency (MHz)	Max Peak (dBμV/m)	Pol	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
6946.600000	52.4	H	17.1	15.8	68.2
9990.700000	45.8	H	-0.5	22.4	68.2
12955.300000	47.3	H	2.7	20.9	68.2
13900.600000	49.4	H	5.1	18.8	68.2
14720.800000	51.3	H	5.3	16.9	68.2
17702.800000	52.4	H	6.6	21.6	74.0

Frequency (MHz)	Average (dBμV/m)	Pol	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
7423.900000	31.5	H	-2.2	22.5	54.0
8097.100000	31.8	H	-2.0	22.2	54.0
9089.800000	32.5	H	-1.4	21.5	54.0
13318.600000	35.4	H	3.1	18.6	54.0
15425.800000	36.8	H	3.9	17.2	54.0
17850.000000	40.8	H	11.1	13.2	54.0

802.11ax-HE80 CH155

Frequency (MHz)	Max Peak (dBμV/m)	Pol	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
6982.300000	53.8	H	17.7	14.4	68.2
8701.600000	44.3	V	-1.7	23.9	68.2
9940.900000	45.6	V	-0.6	22.6	68.2
13954.600000	49.8	V	4.8	18.4	68.2
17088.400000	50.4	H	6.1	17.8	68.2
17950.400000	54.5	H	13.6	19.5	74.0

Frequency (MHz)	Average (dBμV/m)	Pol	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
7448.800000	31.3	H	-2.3	22.7	54.0
8228.800000	31.0	V	-2.3	23.0	54.0
11372.800000	34.8	V	1.4	19.2	54.0
13280.500000	34.8	H	3.0	19.2	54.0
15437.800000	36.4	V	4.1	17.6	54.0
17950.400000	42.3	H	13.6	11.7	54.0

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

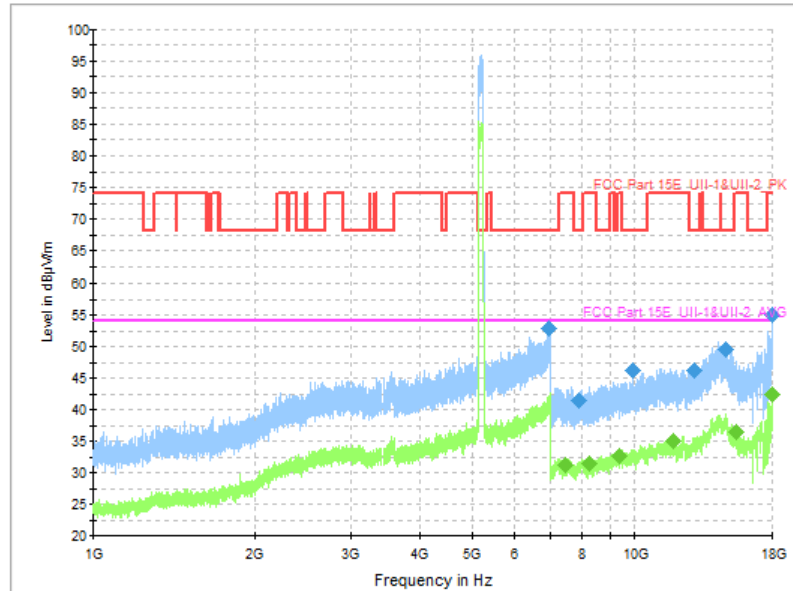


Fig. 97 Transmitter Spurious Emission (802.11a, CH36 5180MHz, 1 GHz-18 GHz)

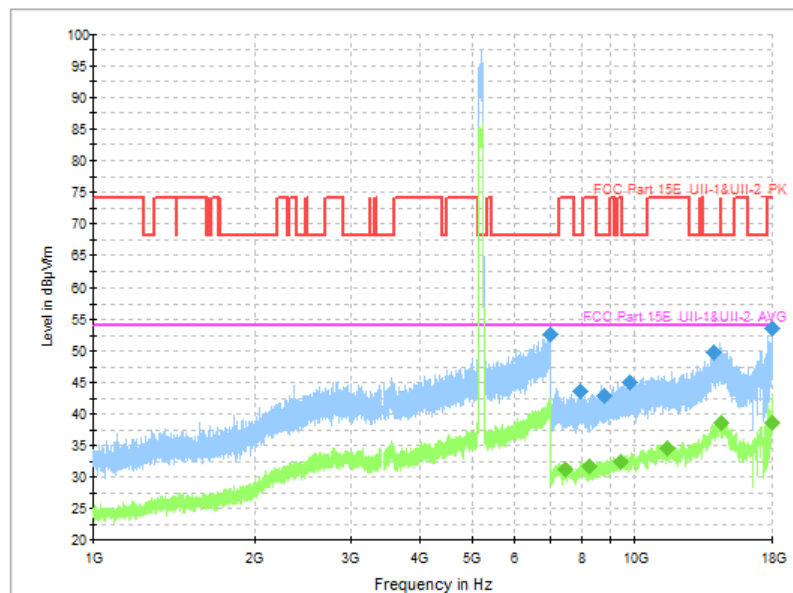


Fig. 98 Transmitter Spurious Emission (802.11a, CH40 5200MHz, 1 GHz-18 GHz)

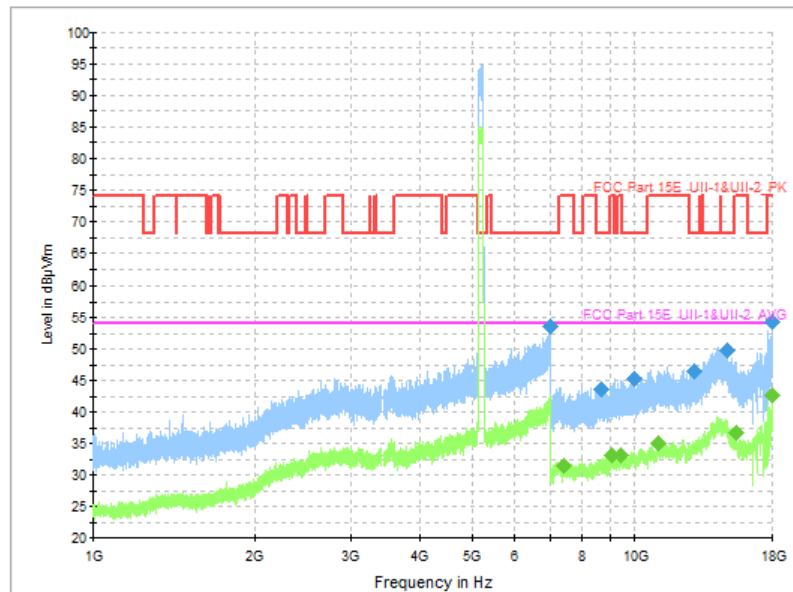


Fig. 99 Transmitter Spurious Emission (802.11a, CH48 5240MHz, 1 GHz-18 GHz)

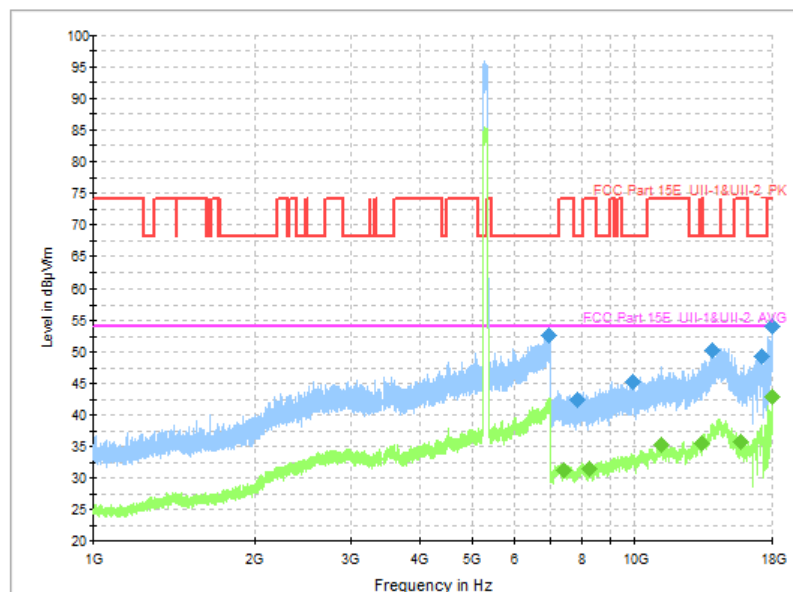


Fig. 100 Transmitter Spurious Emission (802.11a, CH52 5260MHz, 1 GHz-18 GHz)

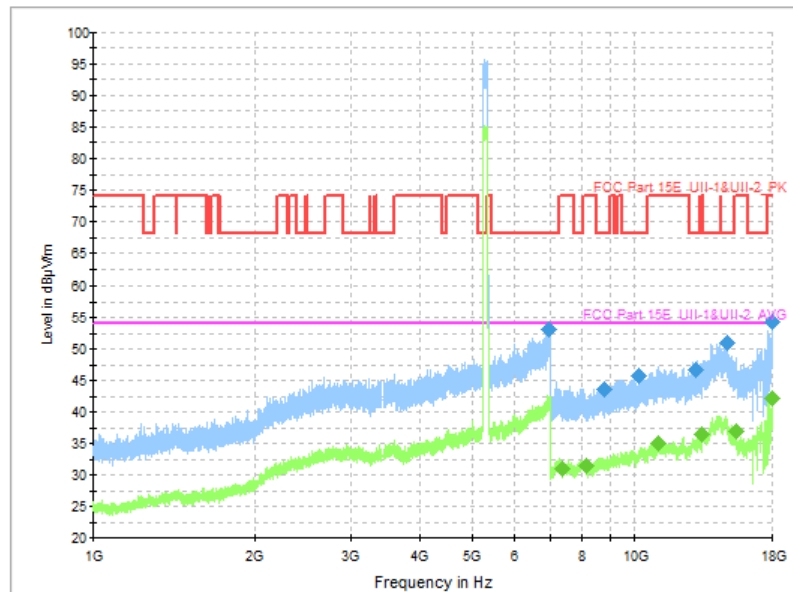


Fig. 101 Transmitter Spurious Emission (802.11a, CH56 5280MHz, 1 GHz-18 GHz)

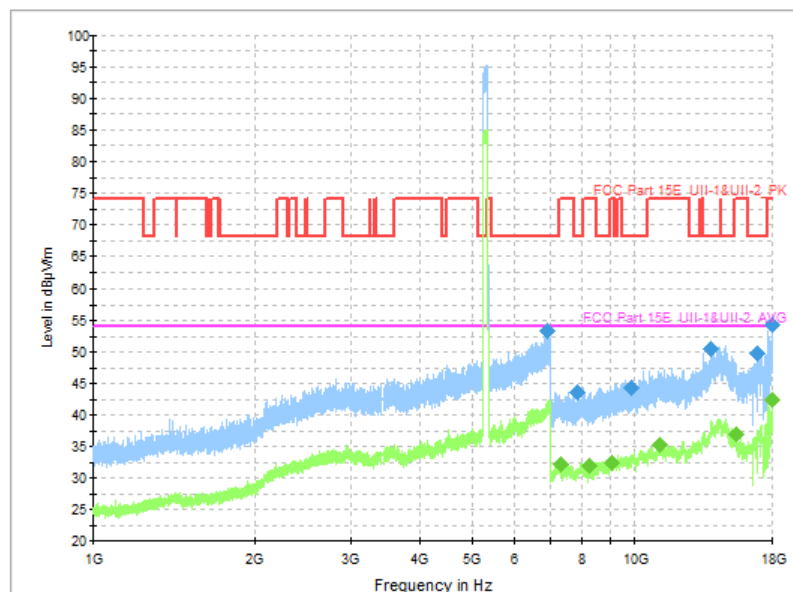


Fig. 102 Transmitter Spurious Emission (802.11a, CH64 5320MHz, 1 GHz-18 GHz)

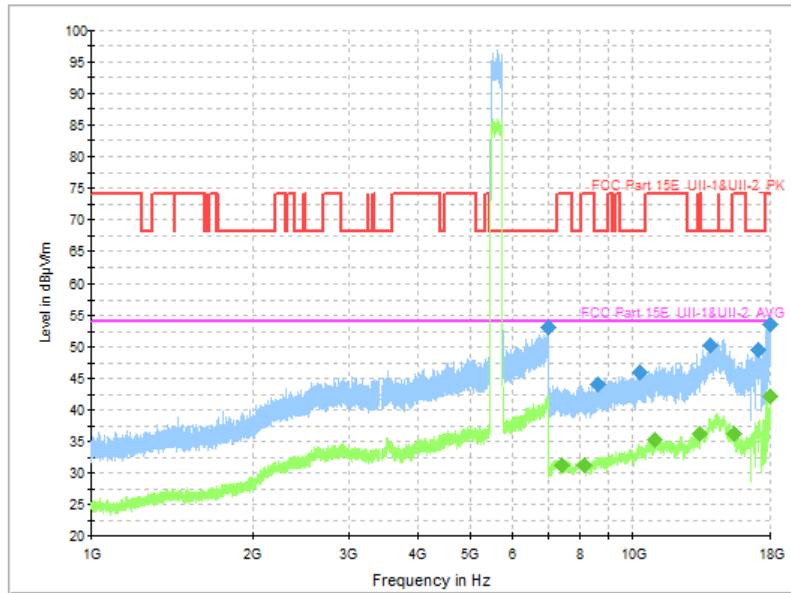


Fig. 103 Transmitter Spurious Emission (802.11a, CH100 5500MHz, 1 GHz-18 GHz)

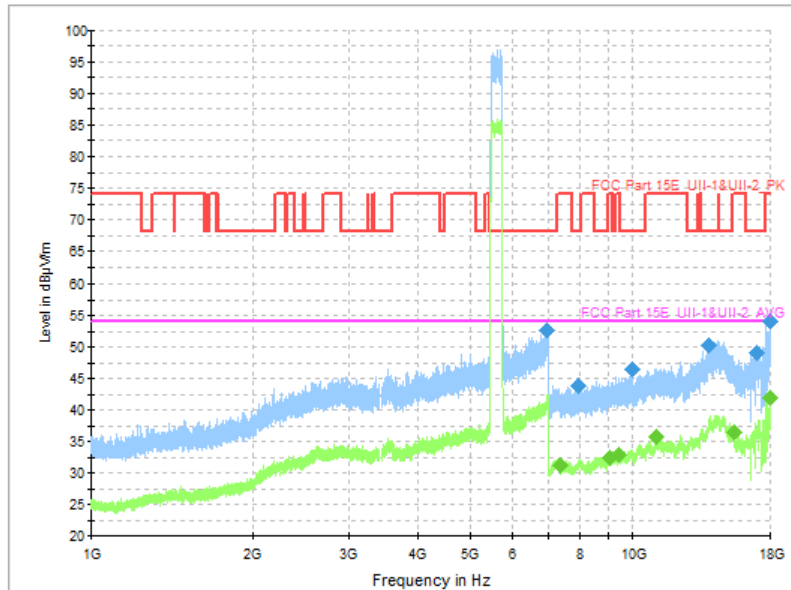


Fig. 104 Transmitter Spurious Emission (802.11a, CH120 5600MHz, 1 GHz-18 GHz)

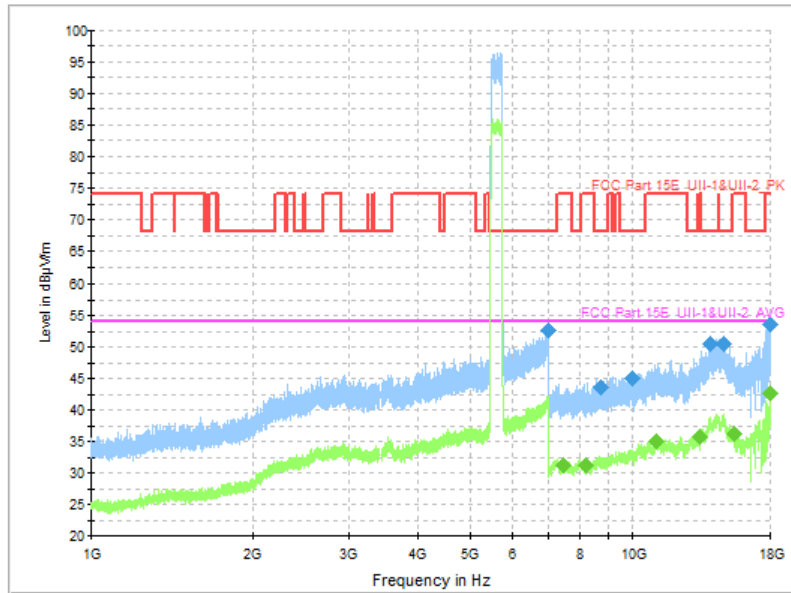


Fig. 105 Transmitter Spurious Emission (802.11a, CH140 5700MHz, 1 GHz-18 GHz)

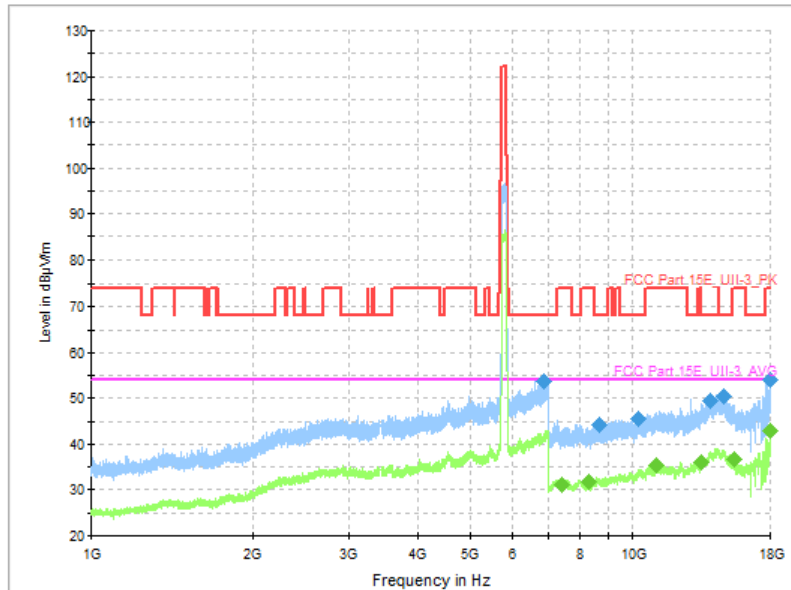


Fig. 106 Transmitter Spurious Emission (802.11a, CH149 5745MHz, 1 GHz-18 GHz)

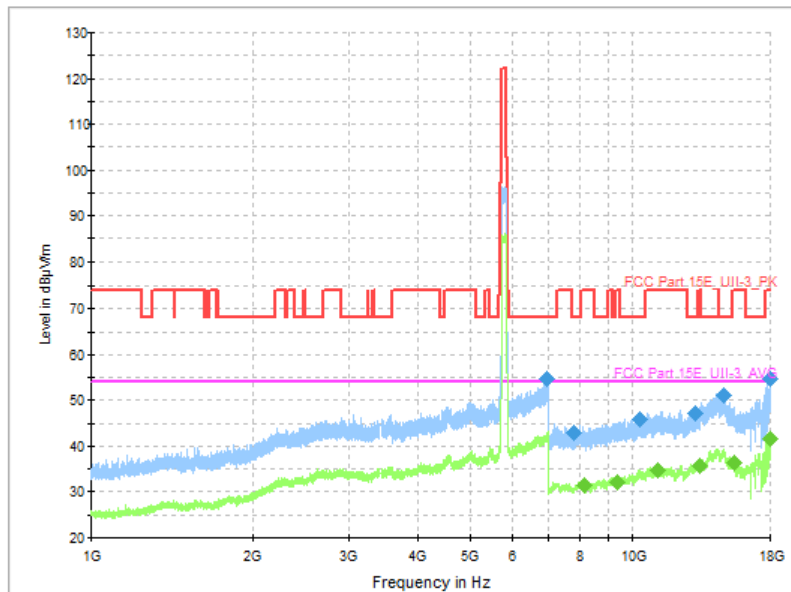


Fig. 107 Transmitter Spurious Emission (802.11a, CH157 5785MHz, 1 GHz-18 GHz)

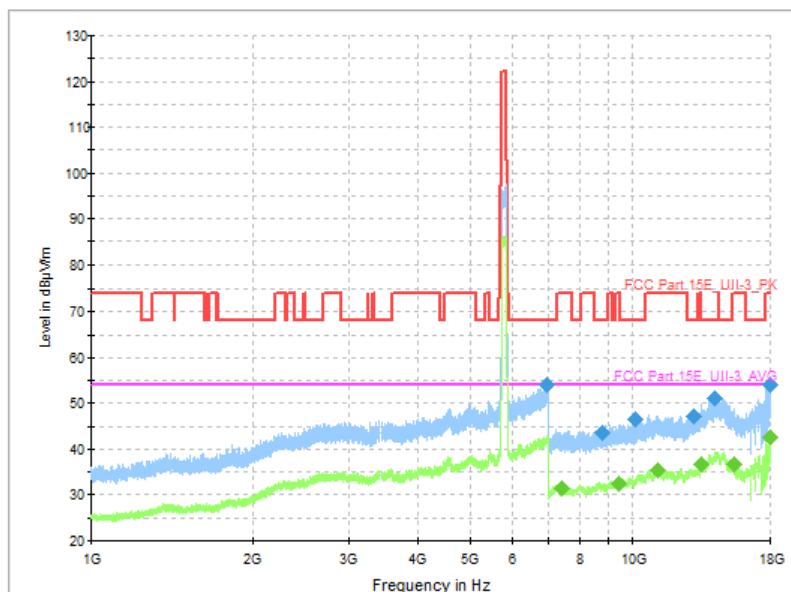


Fig. 108 Transmitter Spurious Emission (802.11a, CH165 5825MHz, 1 GHz-18 GHz)

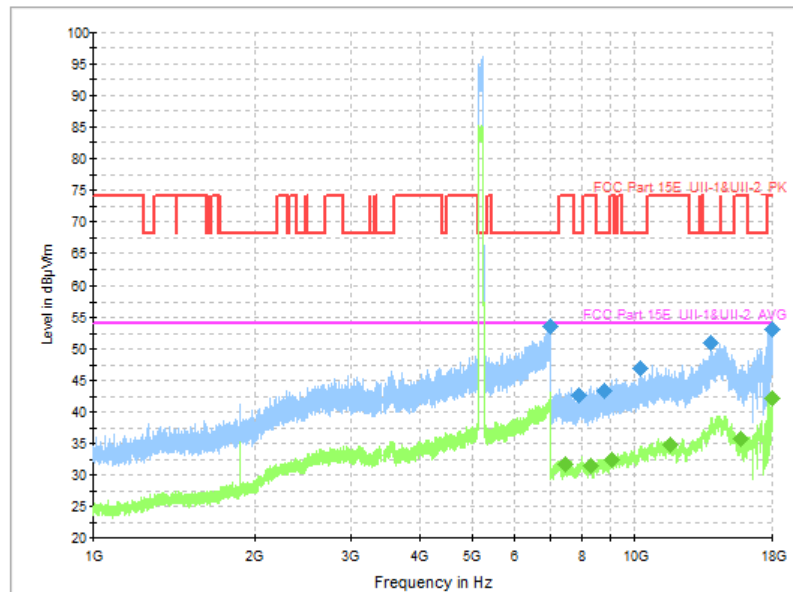


Fig. 109 Transmitter Spurious Emission (802.11ac-VHT40, CH38 5190MHz, 1 GHz-18 GHz)

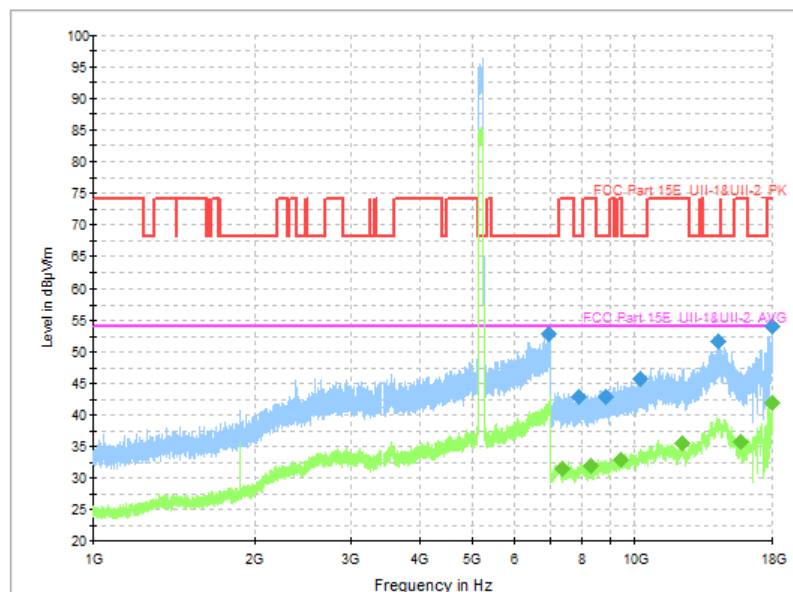


Fig. 110 Transmitter Spurious Emission (802.11ac-VHT40, CH46 5230MHz, 1 GHz-18 GHz)

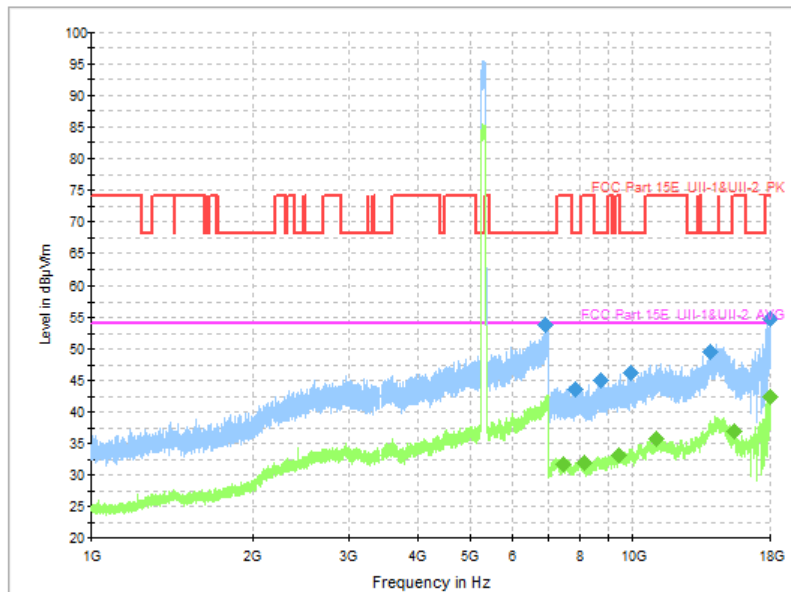


Fig. 111 Transmitter Spurious Emission (802.11ac-VHT40, CH54 5270MHz, 1 GHz-18 GHz)

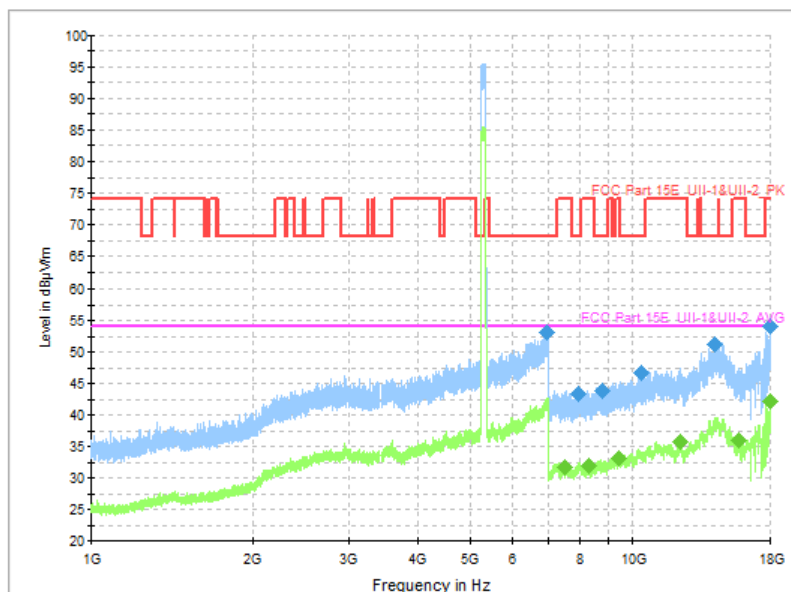


Fig. 112 Transmitter Spurious Emission (802.11ac-VHT40, CH62 5310MHz, 1 GHz-18 GHz)

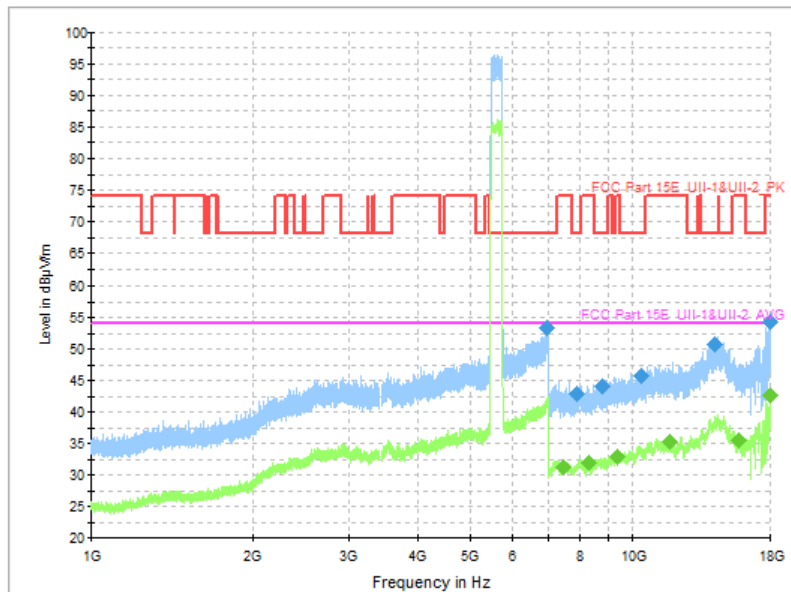


Fig. 113 Transmitter Spurious Emission (802.11ac-VHT40, CH102 5510MHz, 1 GHz-18 GHz)

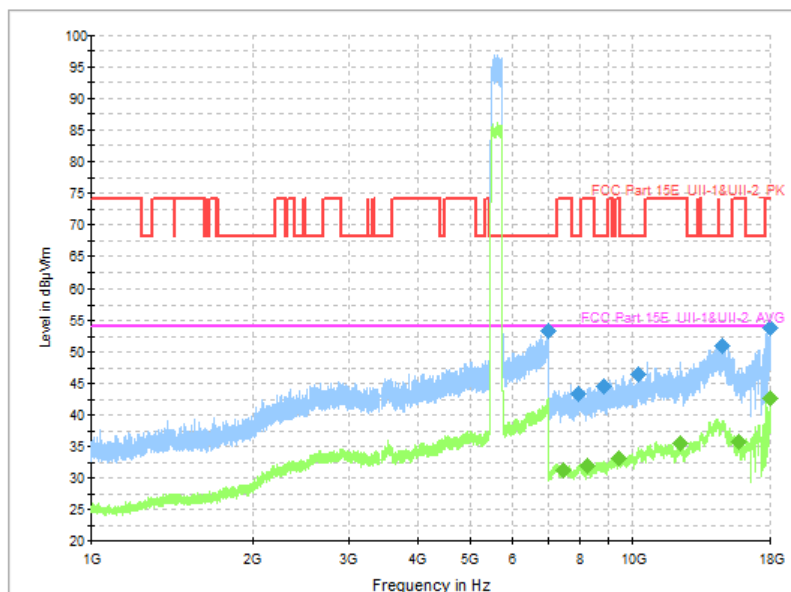


Fig. 114 Transmitter Spurious Emission (802.11ac-VHT40, CH118 5580MHz, 1 GHz-18 GHz)

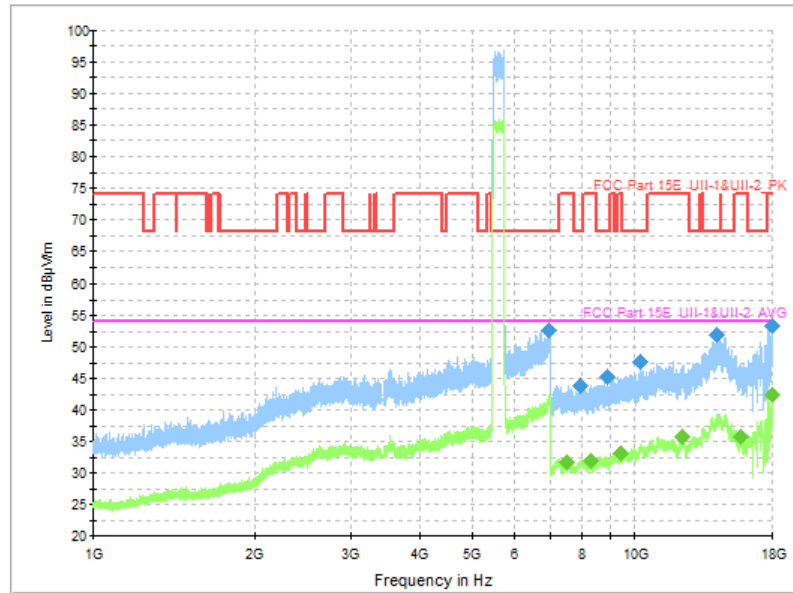


Fig. 115 Transmitter Spurious Emission (802.11ac-VHT40, CH134 5670MHz, 1 GHz-18 GHz)

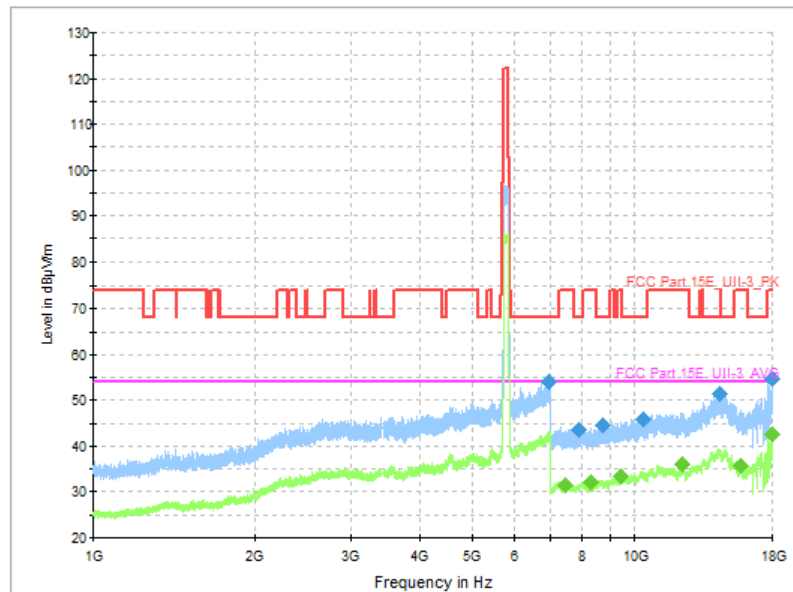


Fig. 116 Transmitter Spurious Emission (802.11ac-VHT40, CH151 5755MHz, 1 GHz-18 GHz)

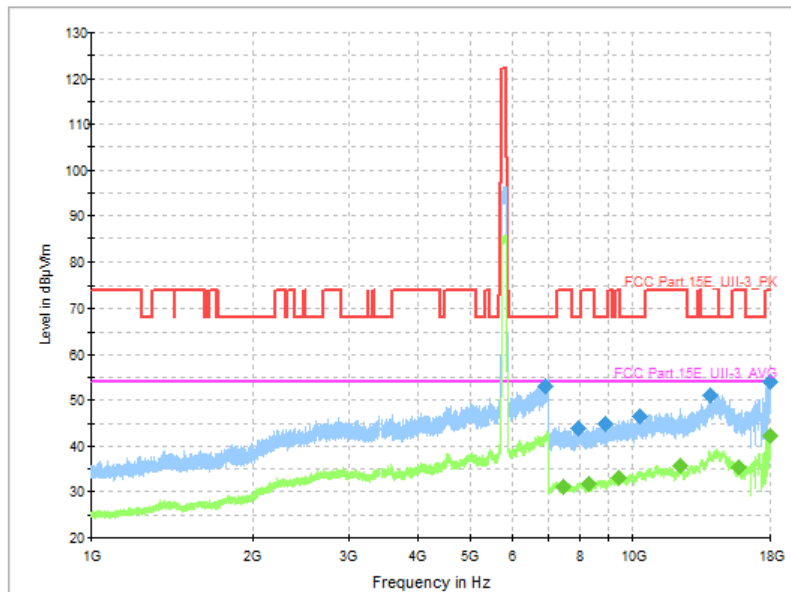


Fig. 117 Transmitter Spurious Emission (802.11ac-VHT40, CH159 5795MHz, 1 GHz-18 GHz)

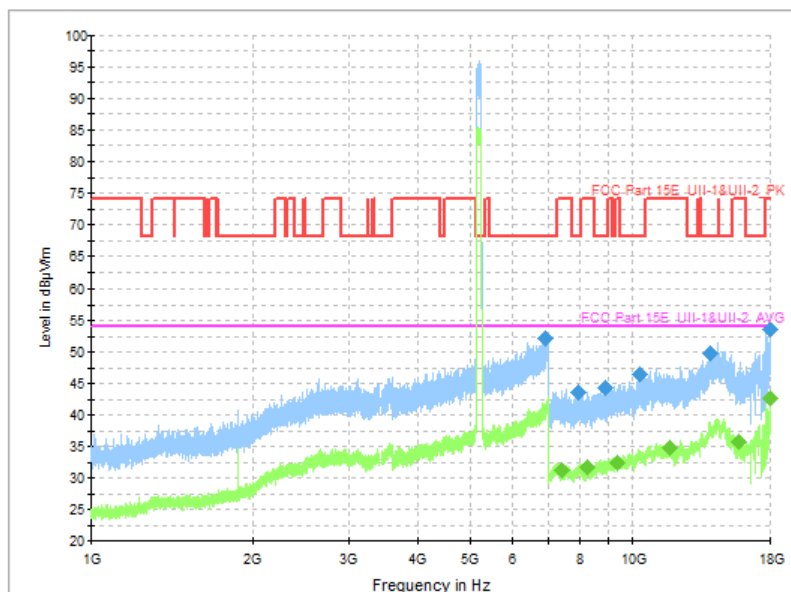


Fig. 118 Transmitter Spurious Emission (802.11ax-HE80, CH42 5210MHz, 1 GHz-18 GHz)

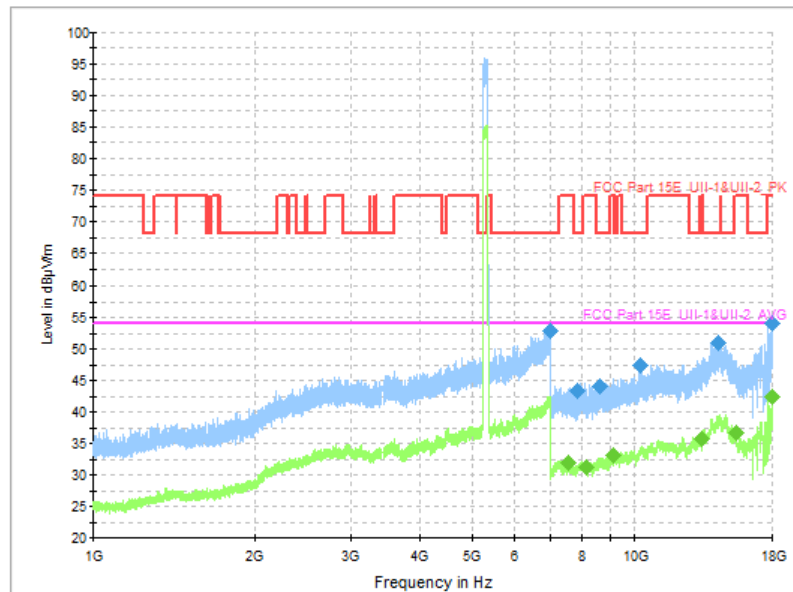


Fig. 119 Transmitter Spurious Emission (802.11ax-HE80, CH58 5290MHz, 1 GHz-18 GHz)

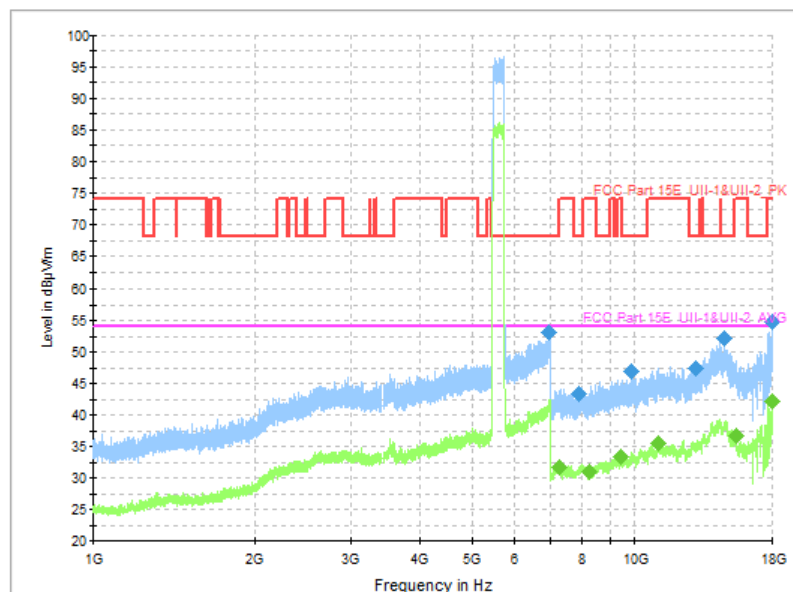


Fig. 120 Transmitter Spurious Emission (802.11ax-HE80, CH106 5530MHz, 1 GHz-18 GHz)

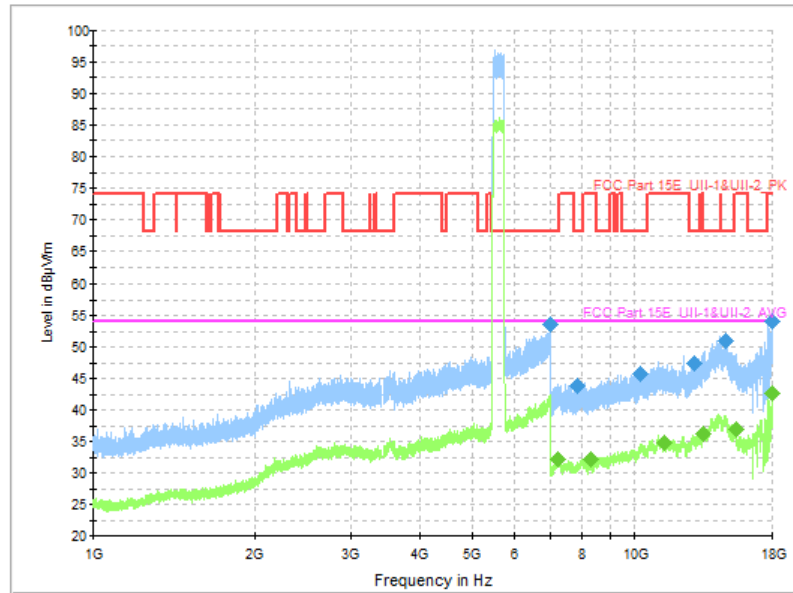


Fig. 121 Transmitter Spurious Emission (802.11ax-HE80, CH122 5610MHz, 1 GHz-18 GHz)

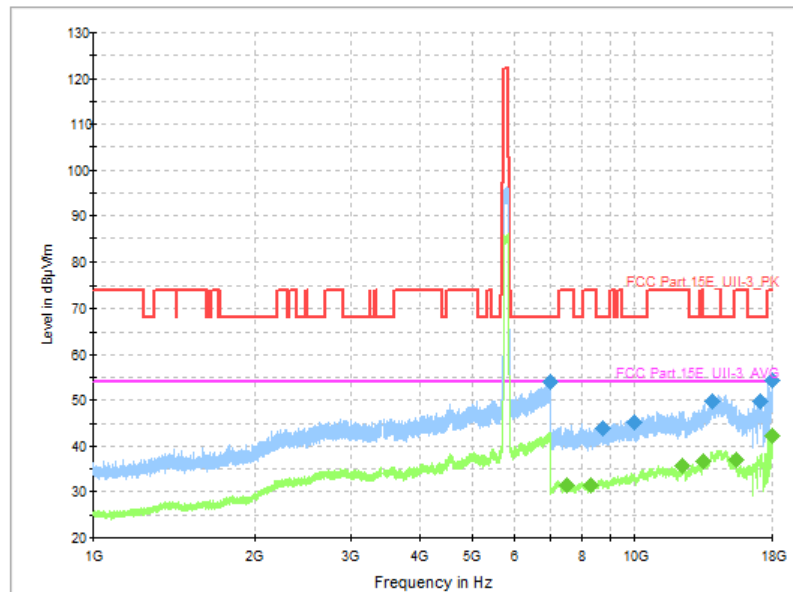


Fig. 122 Transmitter Spurious Emission (802.11ax-HE80, CH155 5775MHz, 1 GHz-18 GHz)

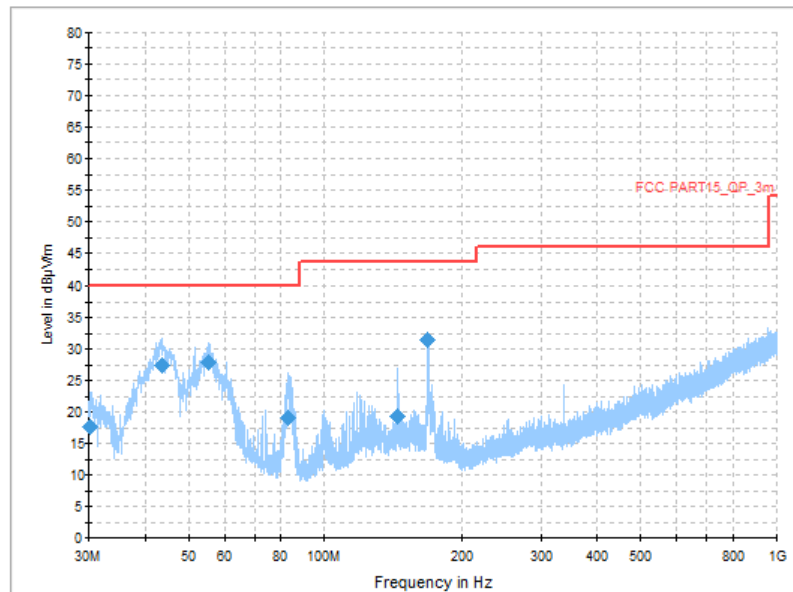


Fig. 123 Transmitter Spurious Emission (All channel, 30MHz~1GHz)

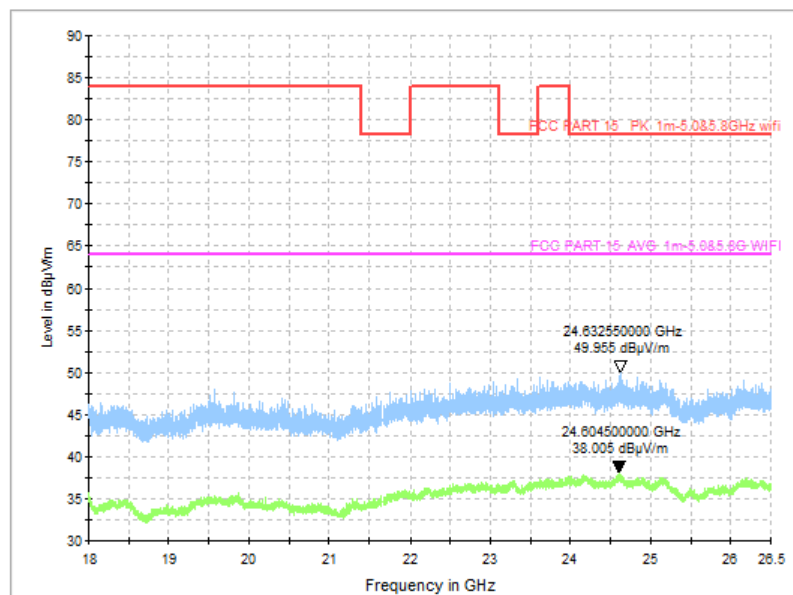


Fig. 124 Transmitter Spurious Emission (All channel, 18GHz~26.5GHz)

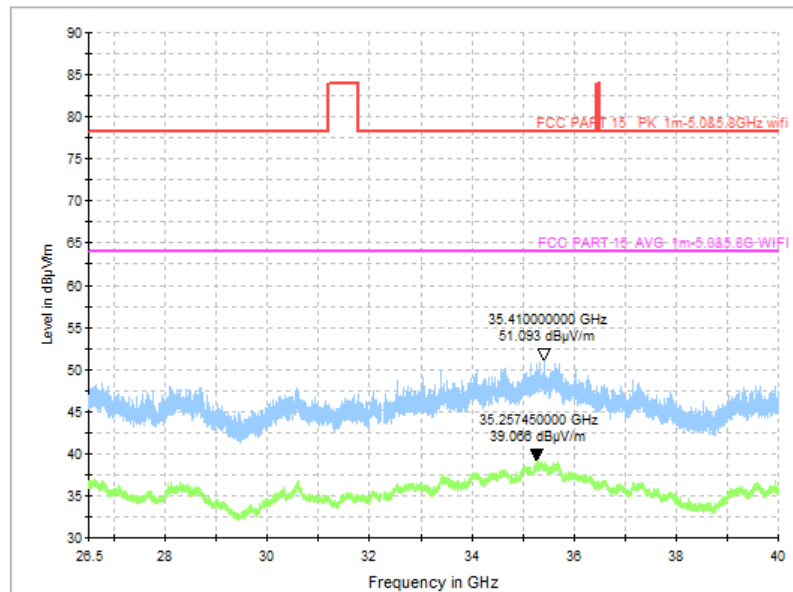


Fig. 125 Transmitter Spurious Emission (All channel, 26.5GHz~40GHz)

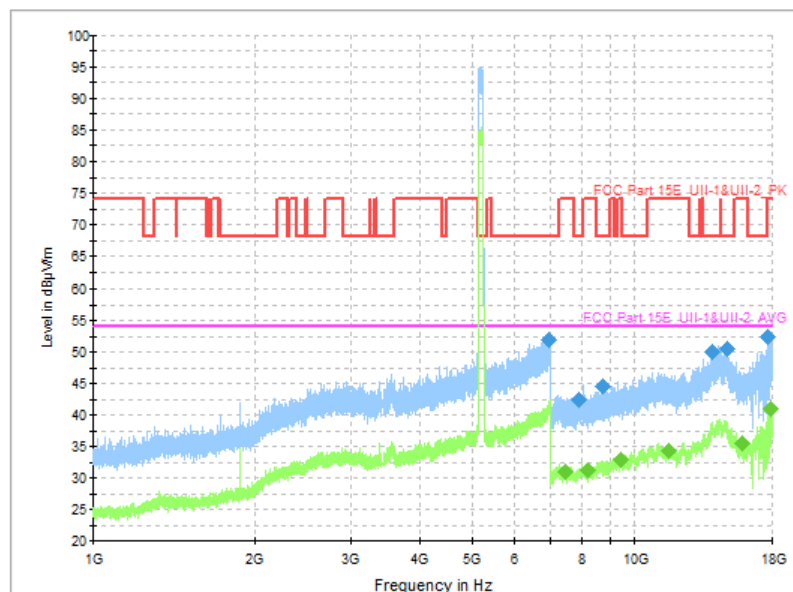


Fig. 126 Transmitter Spurious Emission (802.11n-HT20, CH36 5180MHz, 1 GHz-18 GHz, MIMO)

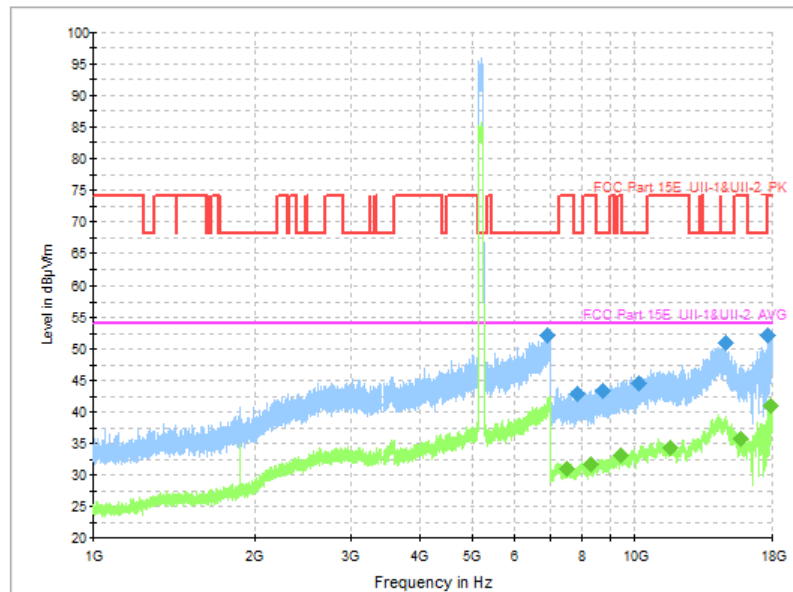


Fig. 127 Transmitter Spurious Emission (802.11n-HT20, CH40 5200MHz, 1 GHz-18 GHz, MIMO)

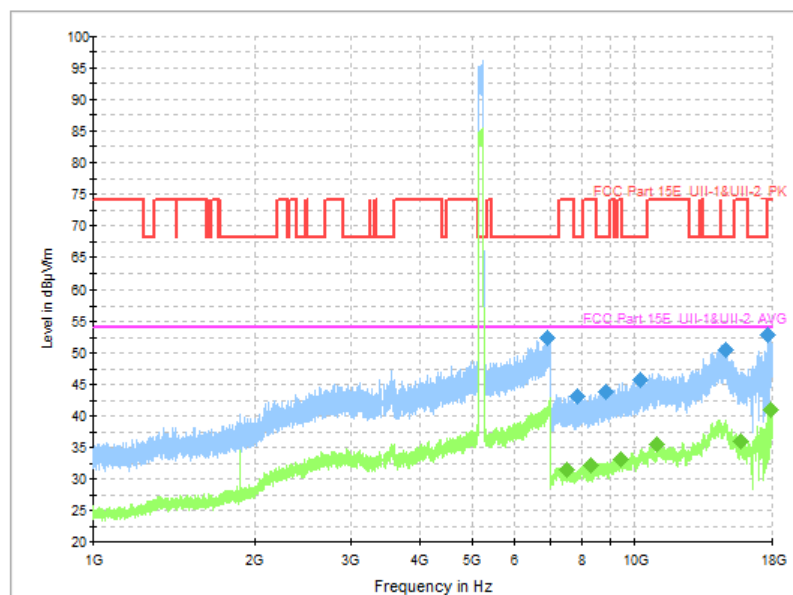


Fig. 128 Transmitter Spurious Emission (802.11n-HT20, CH48 5240MHz, 1 GHz-18 GHz, MIMO)

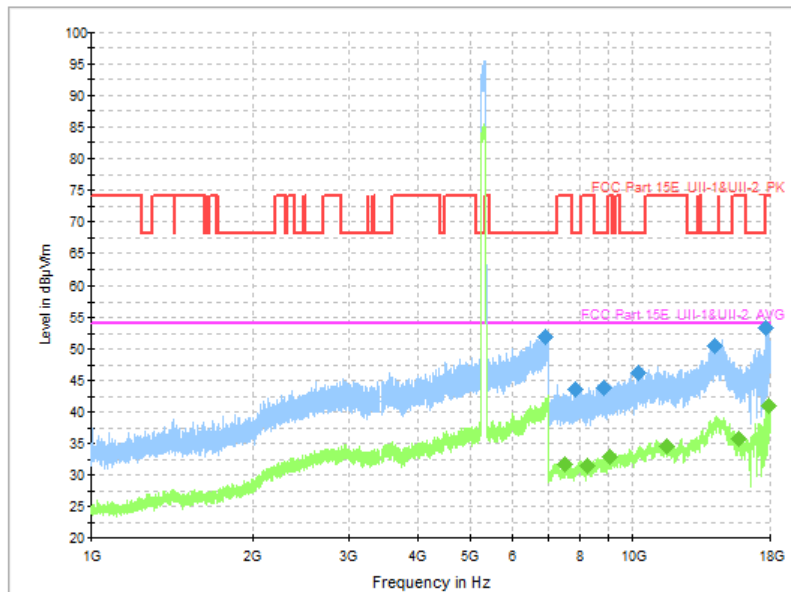


Fig. 129 Transmitter Spurious Emission (802.11n-HT20, CH52 5260MHz, 1 GHz-18 GHz, MIMO)

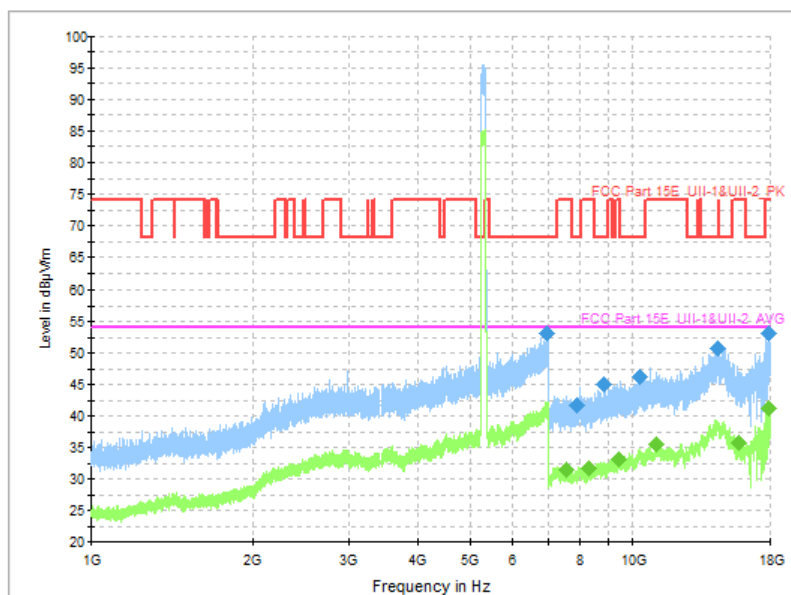


Fig. 130 Transmitter Spurious Emission (802.11n-HT20, CH56 5280MHz, 1 GHz-18 GHz, MIMO)

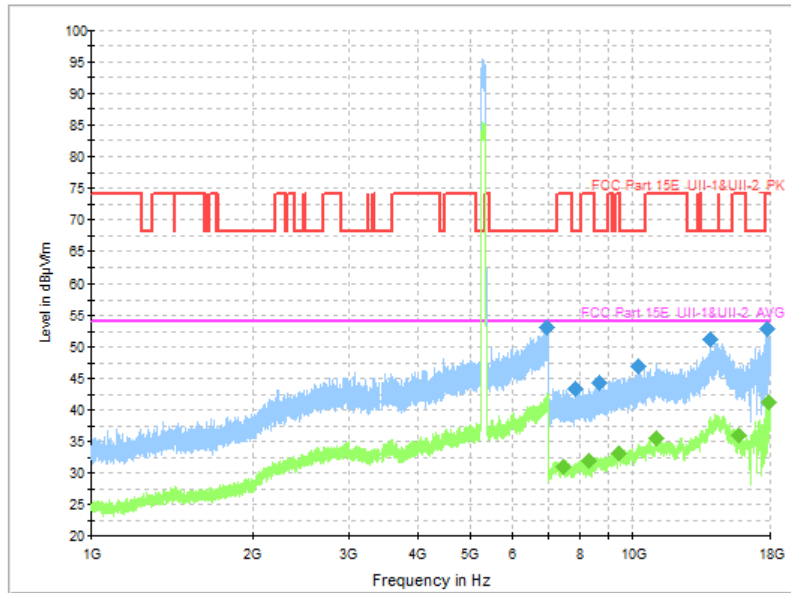


Fig. 131 Transmitter Spurious Emission (802.11n-HT20, CH64 5320MHz, 1 GHz-18 GHz, MIMO)

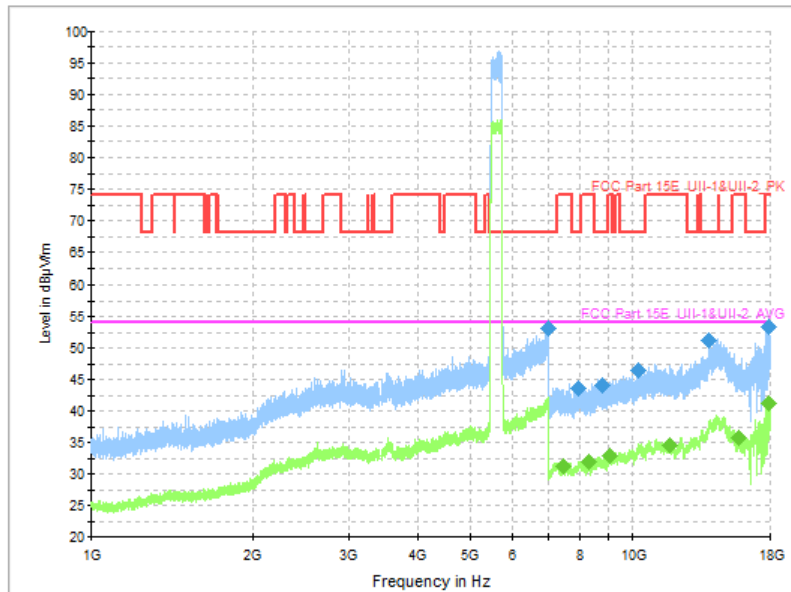


Fig. 132 Transmitter Spurious Emission (802.11n-HT20, CH100 5500MHz, 1 GHz-18 GHz, MIMO)

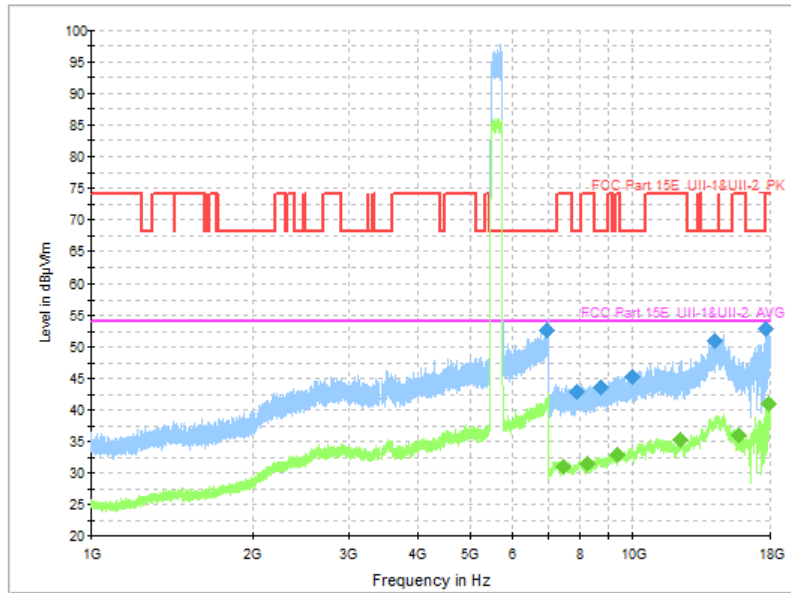


Fig. 133 Transmitter Spurious Emission (802.11n-HT20, CH120 5600MHz, 1 GHz-18 GHz, MIMO)

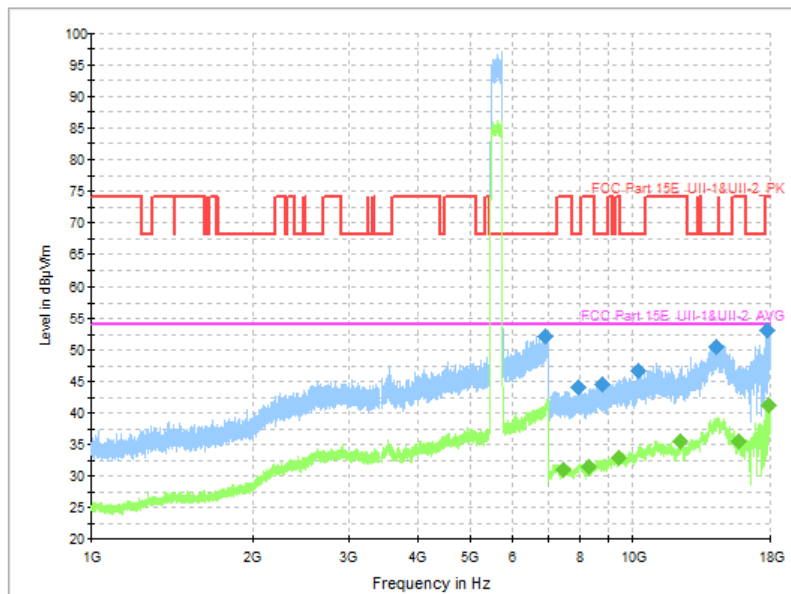


Fig. 134 Transmitter Spurious Emission (802.11n-HT20, CH140 5700MHz, 1 GHz-18 GHz, MIMO)

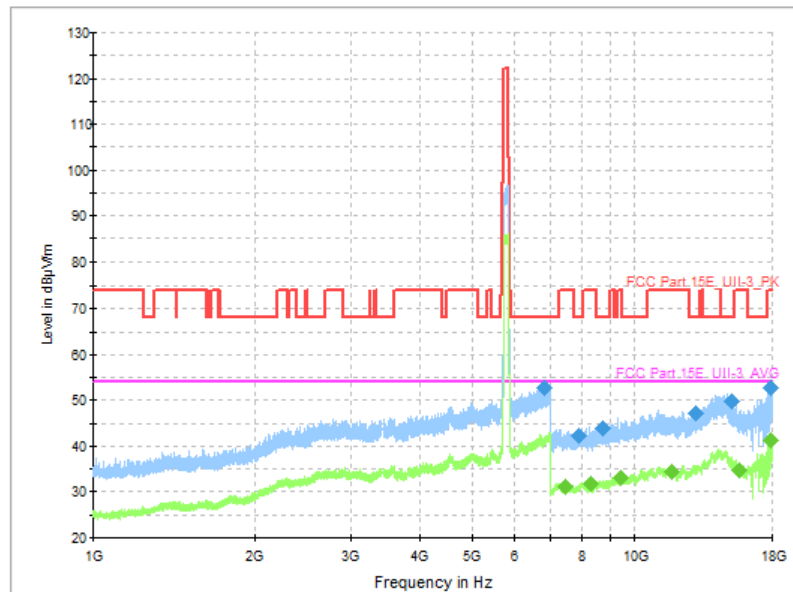


Fig. 135 Transmitter Spurious Emission (802.11n-HT20, CH149 5745MHz, 1 GHz-18 GHz, MIMO)

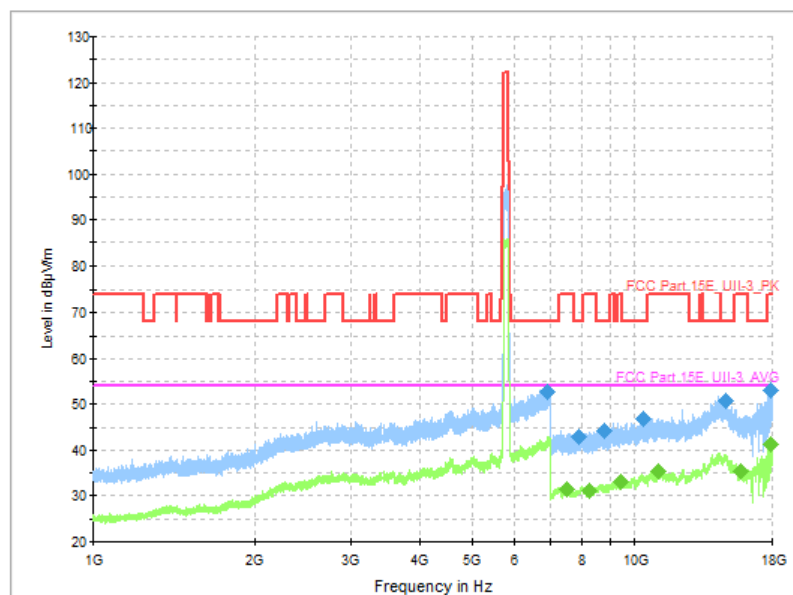


Fig. 136 Transmitter Spurious Emission (802.11n-HT20, CH157 5785MHz, 1 GHz-18 GHz, MIMO)

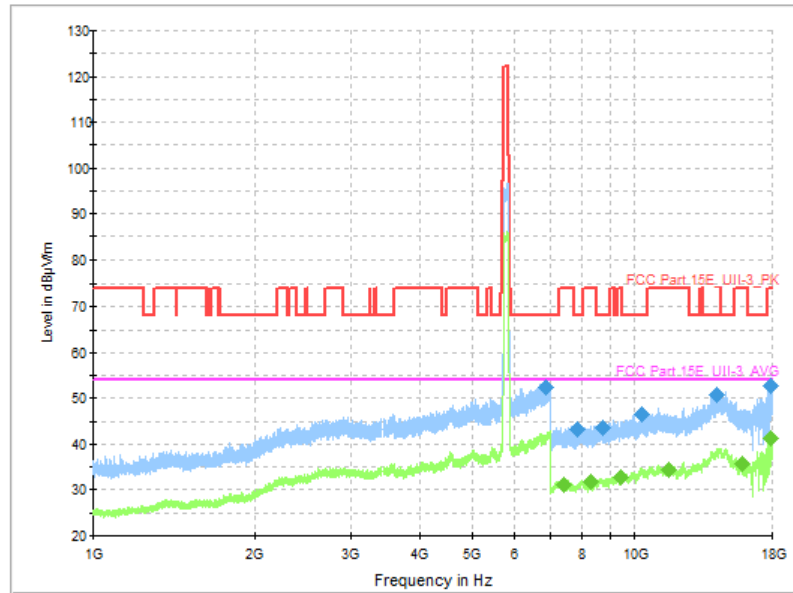


Fig. 137 Transmitter Spurious Emission (802.11n-HT20, CH165 5825MHz, 1 GHz-18 GHz, MIMO)

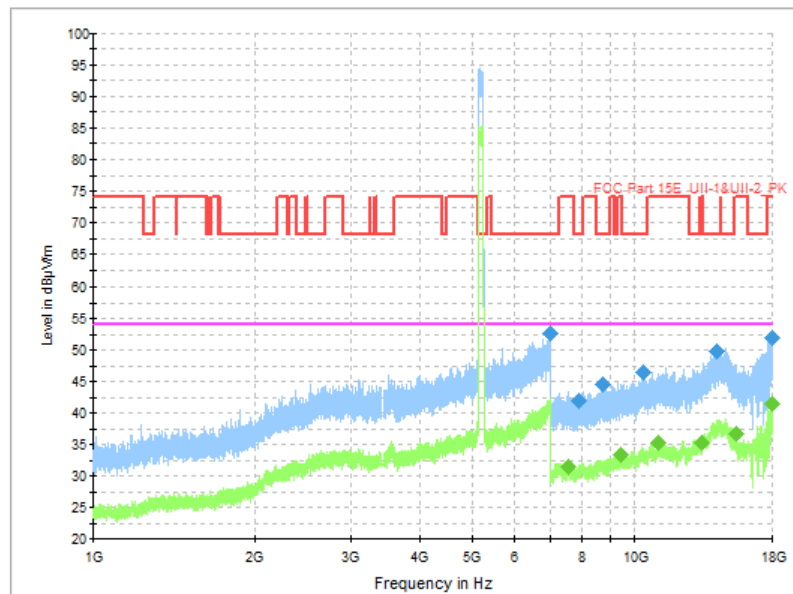


Fig. 138 Transmitter Spurious Emission (802.11ac-VHT40, CH38 5190MHz, 1 GHz-18 GHz, MIMO)

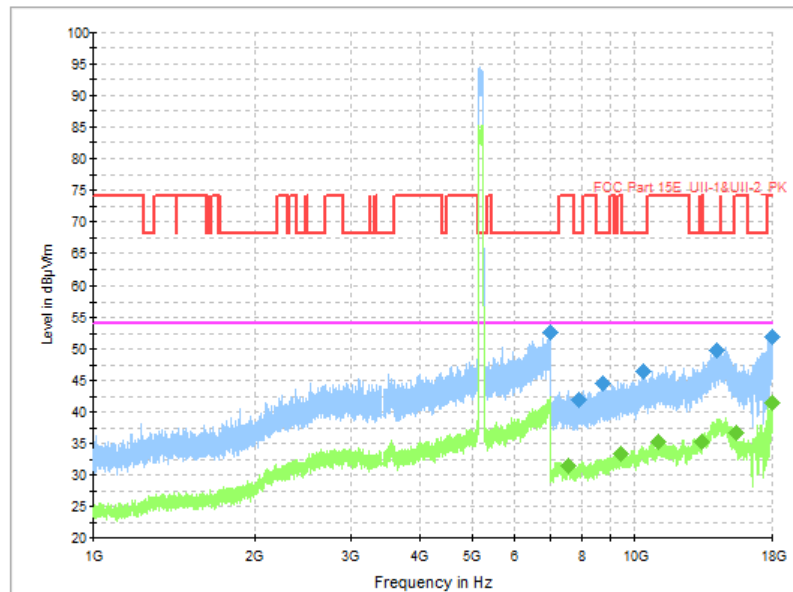


Fig. 139 Transmitter Spurious Emission (802.11ac-VHT40, CH46 5230MHz, 1 GHz-18 GHz, MIMO)

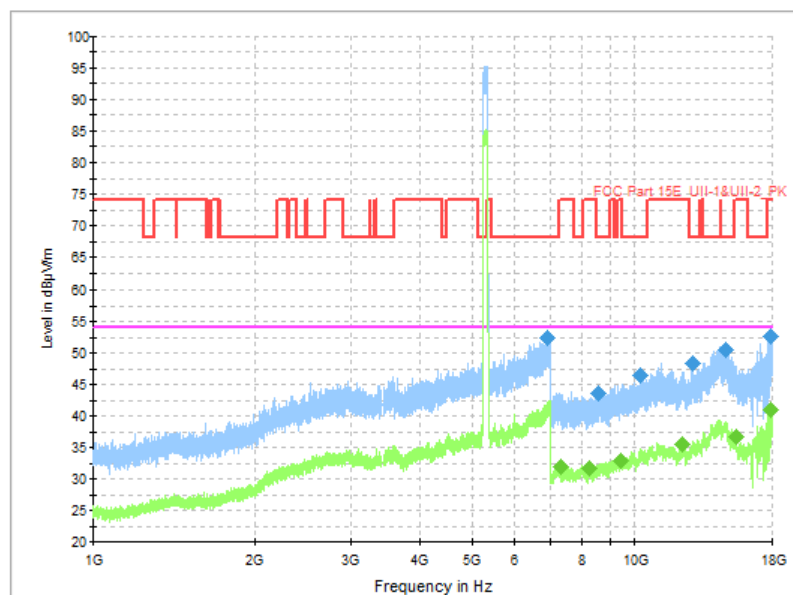


Fig. 140 Transmitter Spurious Emission (802.11ac-VHT40, CH54 5270MHz, 1 GHz-18 GHz, MIMO)

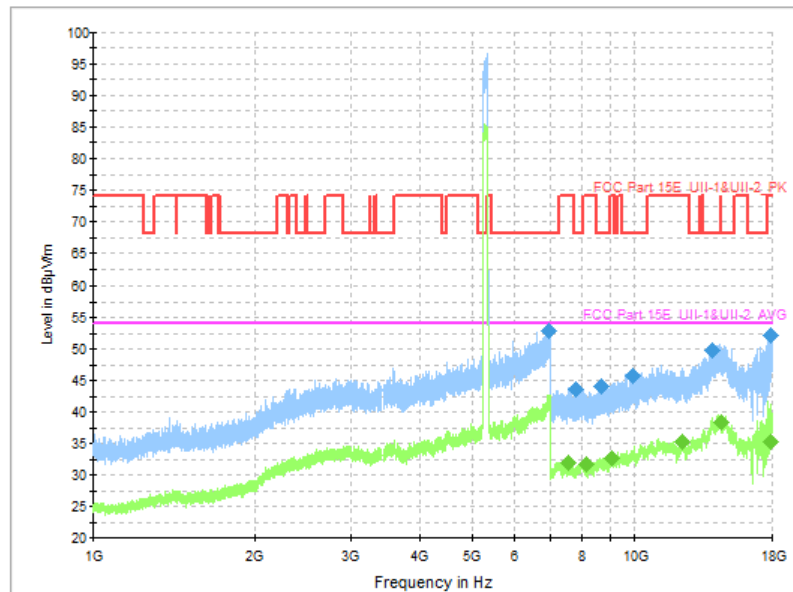


Fig. 141 Transmitter Spurious Emission (802.11ac-VHT40, CH62 5310MHz, 1 GHz-18 GHz, MIMO)

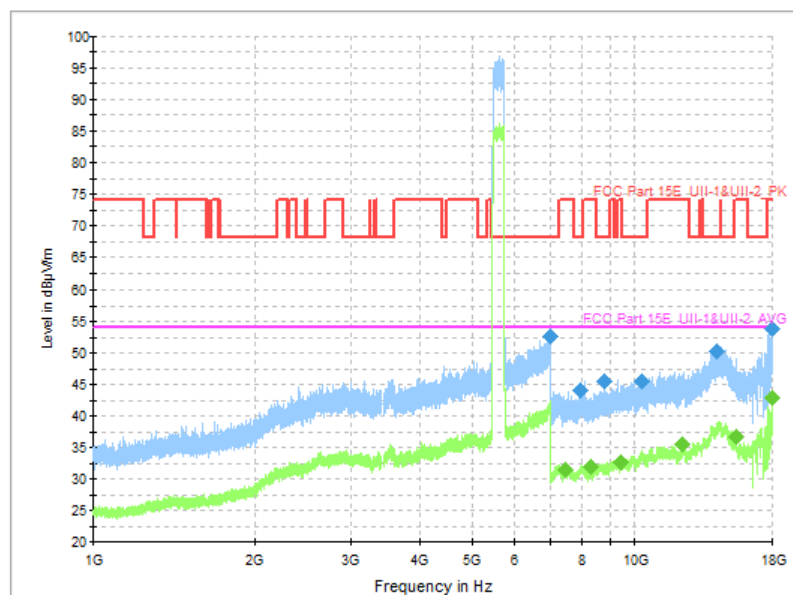


Fig. 142 Transmitter Spurious Emission (802.11ac-VHT40, CH102 5510MHz, 1 GHz-18 GHz, MIMO)

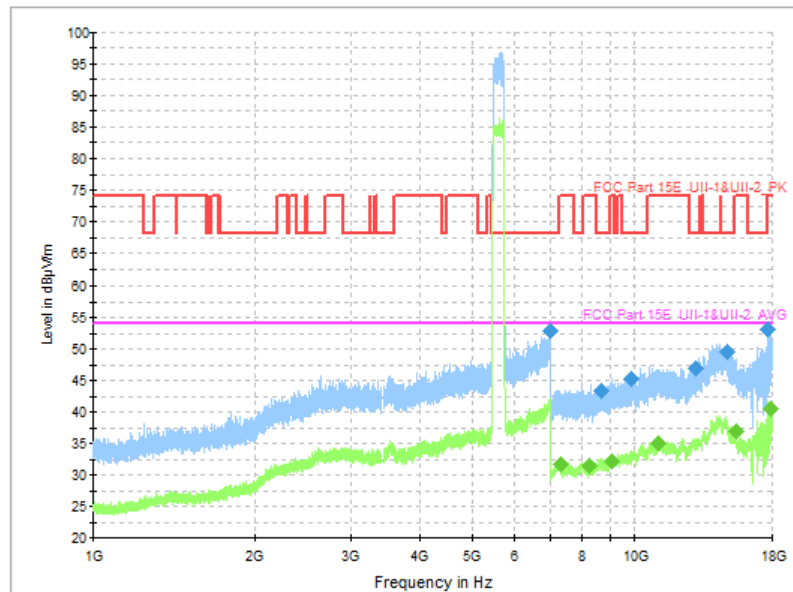


Fig. 143 Transmitter Spurious Emission (802.11ac-VHT40, CH118 5580MHz, 1 GHz-18 GHz, MIMO)

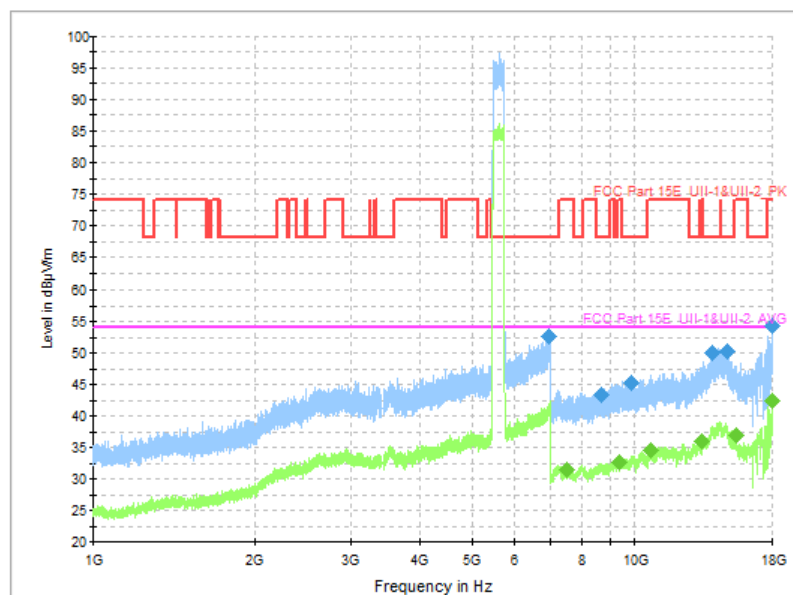


Fig. 144 Transmitter Spurious Emission (802.11ac-VHT40, CH134 5670MHz, 1 GHz-18 GHz, MIMO)

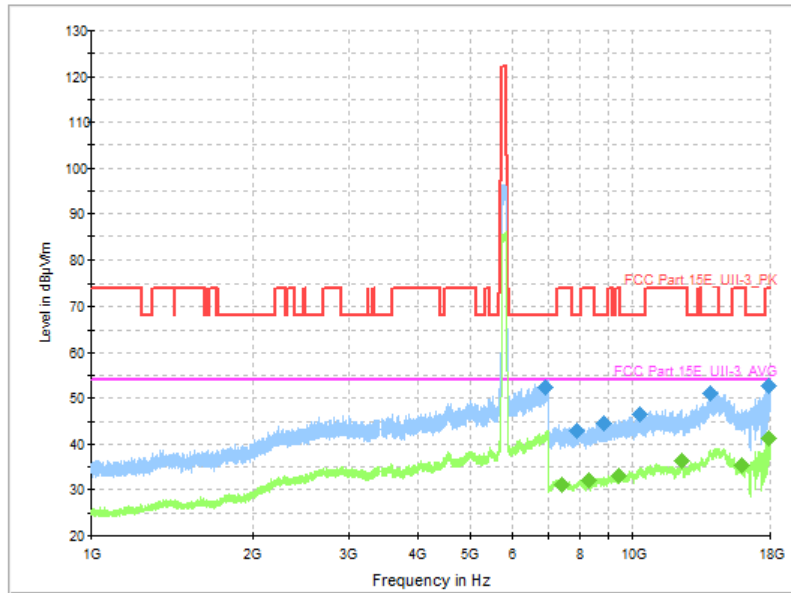


Fig. 145 Transmitter Spurious Emission (802.11ac-VHT40, CH151 5755MHz, 1 GHz-18 GHz, MIMO)

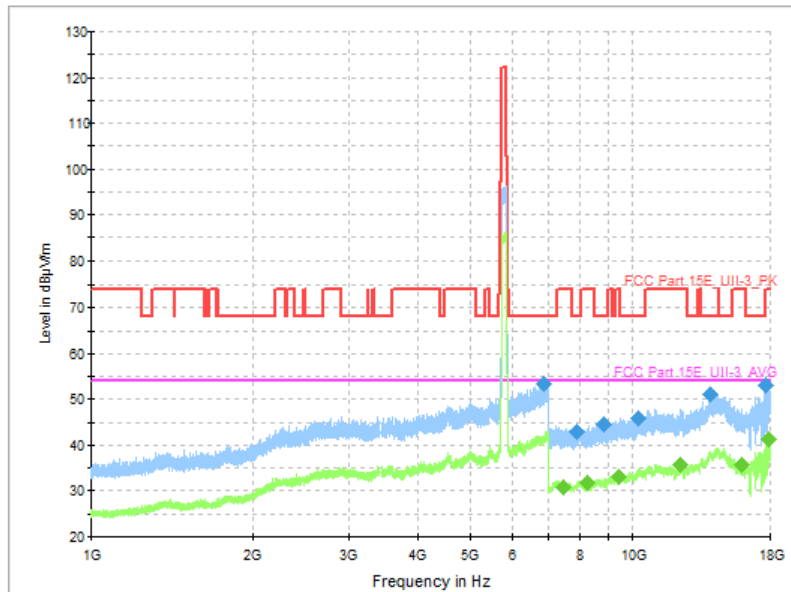


Fig. 146 Transmitter Spurious Emission (802.11ac-VHT40, CH159 5795MHz, 1 GHz-18 GHz, MIMO)

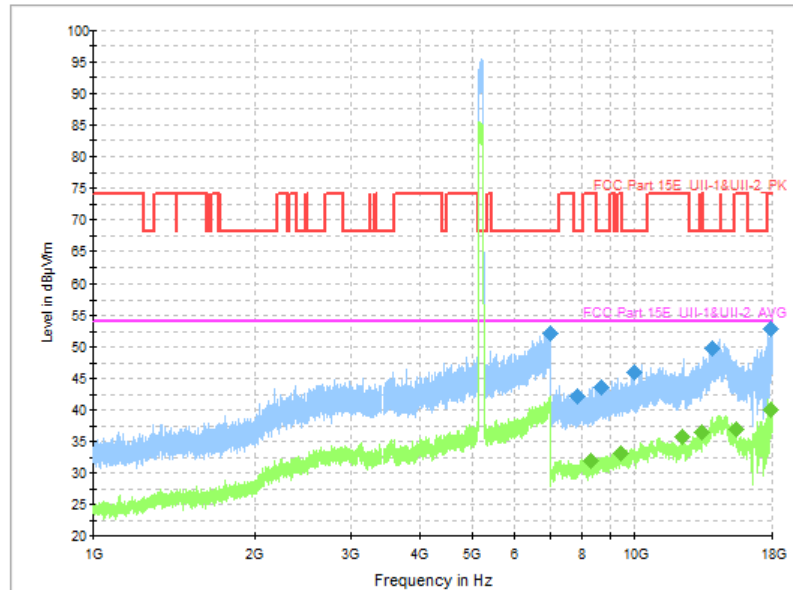


Fig. 147 Transmitter Spurious Emission (802.11ax-HE80, CH42 5210MHz, 1 GHz-18 GHz, MIMO)

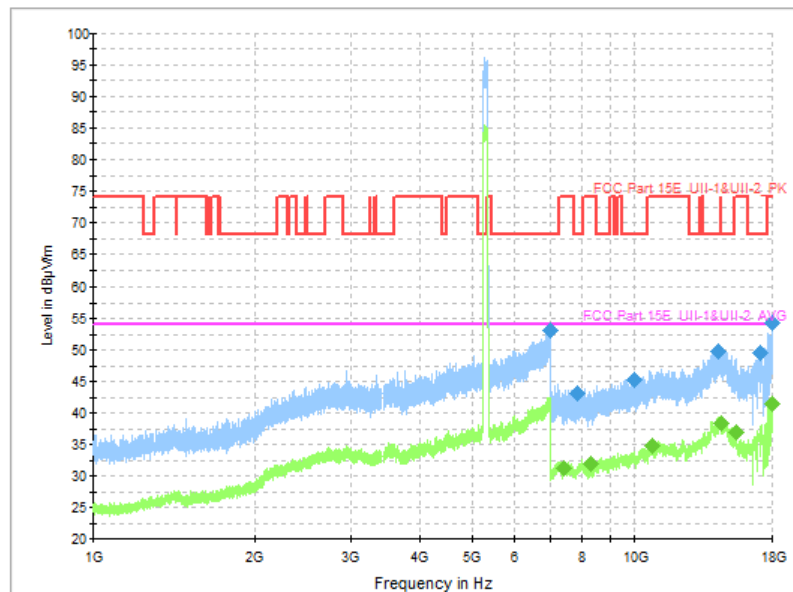


Fig. 148 Transmitter Spurious Emission (802.11ax-HE80, CH58 5290MHz, 1 GHz-18 GHz, MIMO)

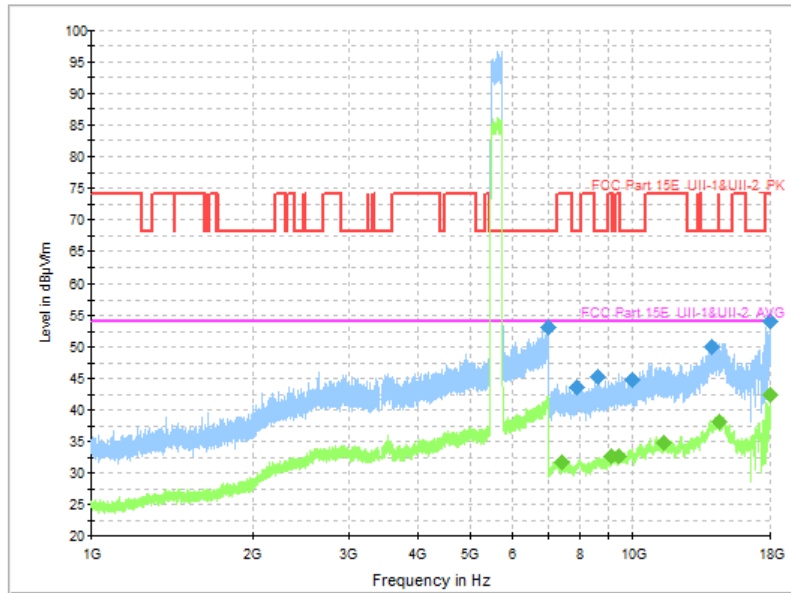


Fig. 149 Transmitter Spurious Emission (802.11ax-HE80, CH106 5530MHz, 1 GHz-18 GHz, MIMO)

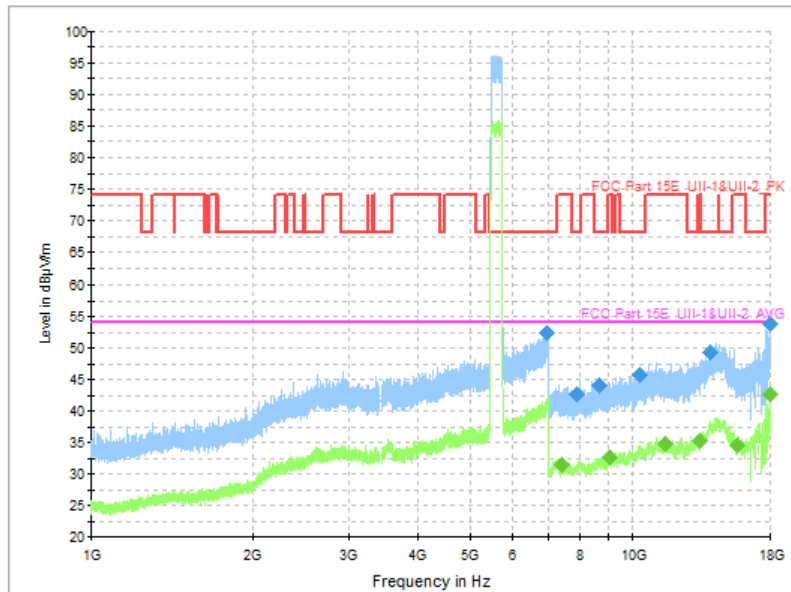


Fig. 150 Transmitter Spurious Emission (802.11ax-HE80, CH122 5610MHz, 1 GHz-18 GHz, MIMO)

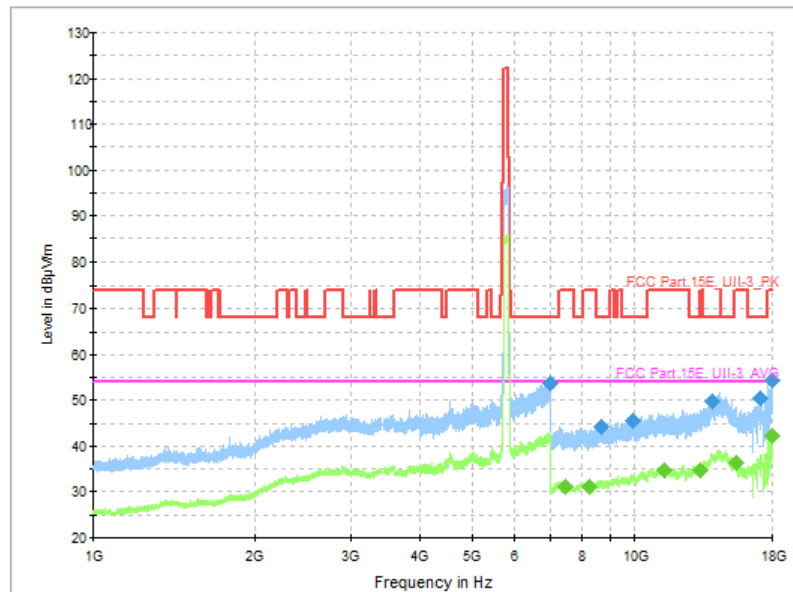


Fig. 151 Transmitter Spurious Emission (802.11ax-HE80, CH155 5775MHz, 1 GHz-18 GHz, MIMO)

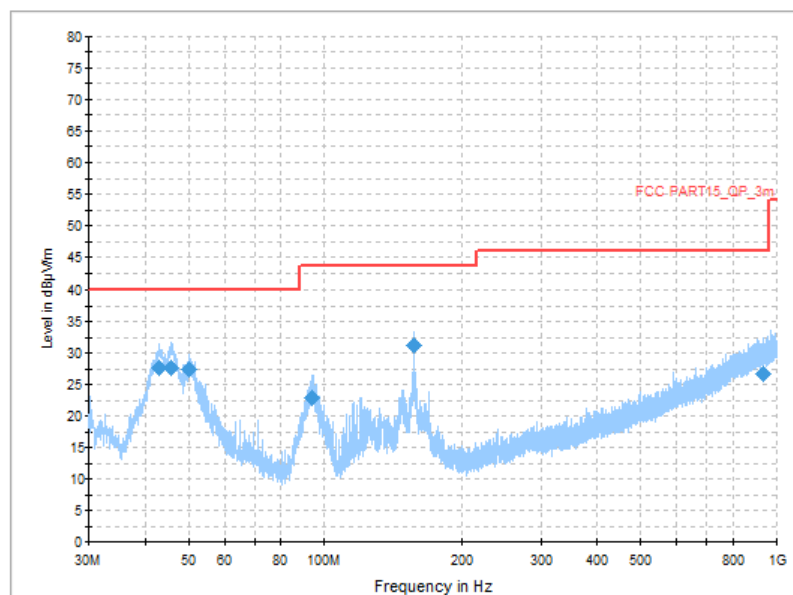


Fig. 152 Transmitter Spurious Emission (All channel, 30MHz~1GHz, MIMO)

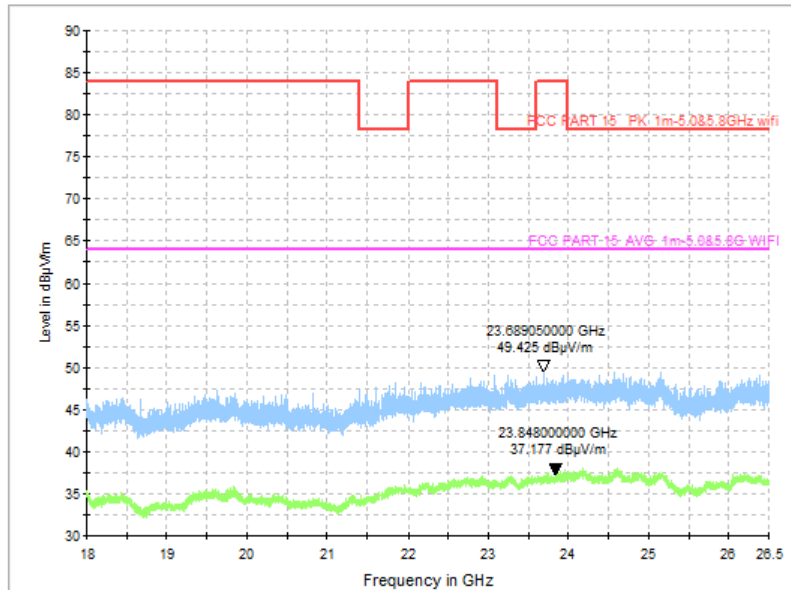


Fig. 153 Transmitter Spurious Emission (All channel, 18GHz~26.5GHz, MIMO)

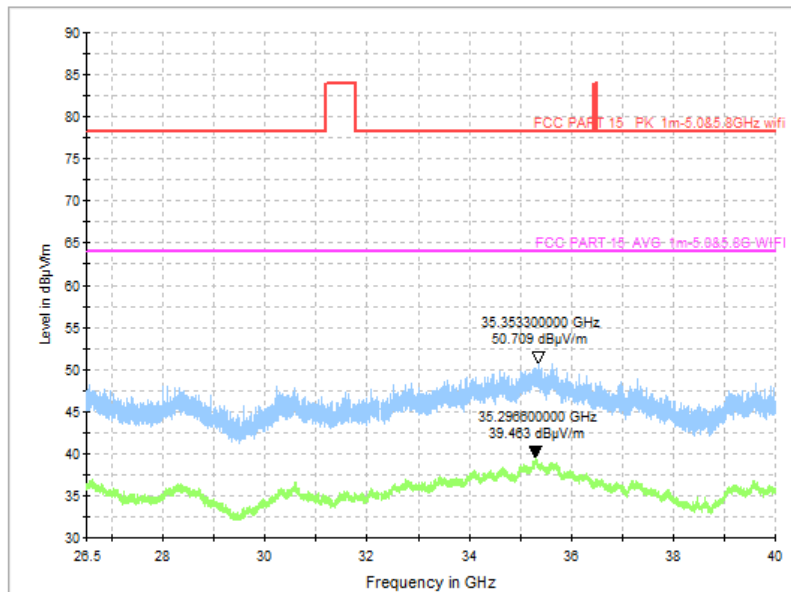


Fig. 154 Transmitter Spurious Emission (All channel, 26.5GHz~40GHz, MIMO)

**A.10. Radiated Spurious Emissions < 30MHz**

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

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

Frequency (MHz)	Field strength ($\mu\text{V/m}$)	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.155	P

MIMO:

Mode	Frequency Range	Test Results	Conclusion
All Channel	9 kHz ~30 MHz	Fig.156	P

See below for test graphs.

Conclusion: PASS

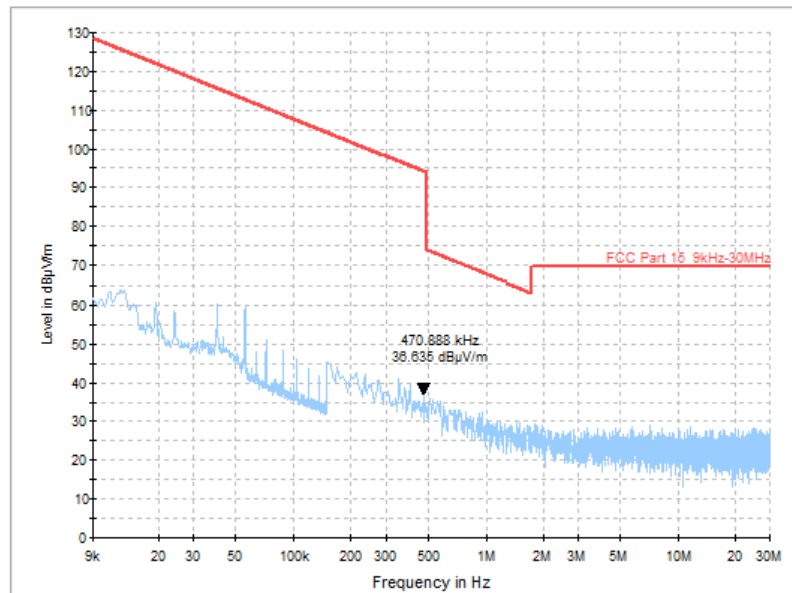


Fig. 155 Radiated Spurious Emission (All Channel, 9 kHz ~30 MHz)

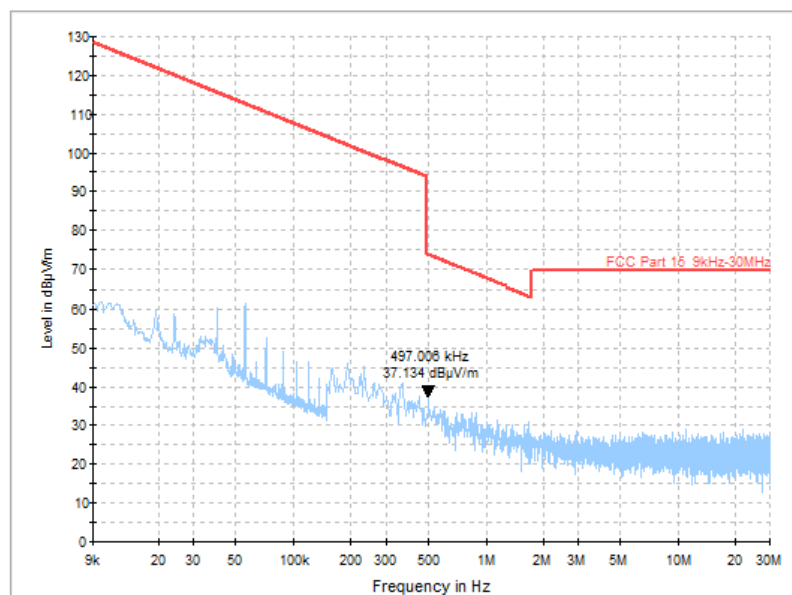


Fig. 156 Radiated Spurious Emission (All Channel, 9 kHz ~30 MHz, MIMO)

**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:**RLAN- A2, A3, AE4**

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.157	Fig.158	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**

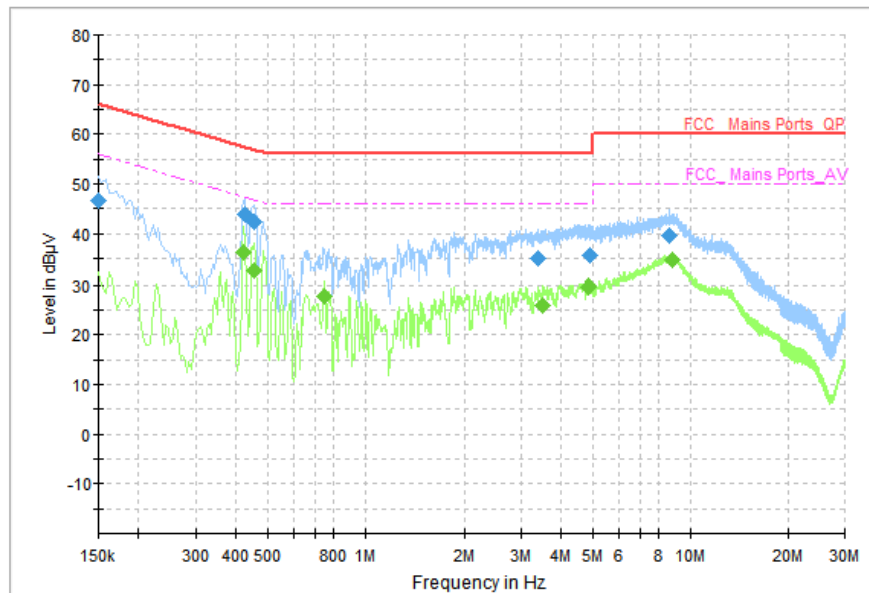


Fig. 157 AC Power line Conducted Emission (Traffic)

Measurement Result: Quasi Peak

Frequency (MHz)	Quasi Peak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	46.70	66.00	19.30	L1	ON	10
0.426000	43.86	57.33	13.47	L1	ON	10
0.454000	42.25	56.80	14.55	L1	ON	10
3.378000	35.12	56.00	20.88	N	ON	10
4.910000	35.77	56.00	20.23	N	ON	10
8.574000	39.54	60.00	20.46	N	ON	10

Measurement Result: Average

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.422000	36.42	47.41	10.99	L1	ON	10
0.454000	32.70	46.80	14.10	L1	ON	10
0.746000	27.77	46.00	18.23	N	ON	10
3.510000	25.87	46.00	20.13	N	ON	10
4.850000	29.59	46.00	16.41	N	ON	10
8.790000	34.88	50.00	15.12	N	ON	10

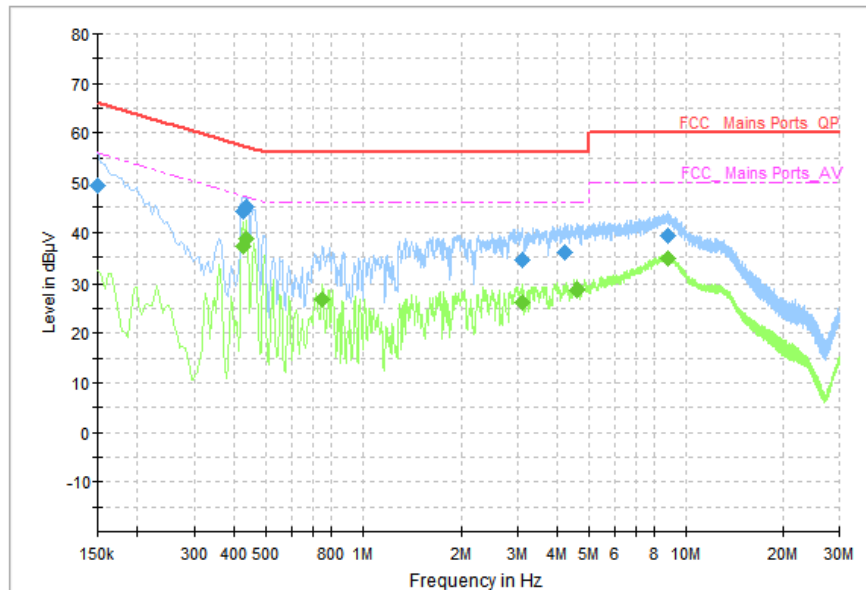


Fig. 158 AC Power line Conducted Emission (Idle)

Measurement Result: Quasi Peak

Frequency (MHz)	Quasi Peak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	49.39	66.00	16.61	L1	ON	10
0.426000	44.37	57.33	12.96	L1	ON	10
0.434000	45.13	57.18	12.04	N	ON	10
3.094000	34.48	56.00	21.52	L1	ON	10
4.194000	36.04	56.00	19.96	L1	ON	10
8.814000	39.45	60.00	20.55	N	ON	10

Measurement Result: Average

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.426000	37.10	47.33	10.23	L1	ON	10
0.434000	38.84	47.18	8.34	N	ON	10
0.750000	26.92	46.00	19.08	N	ON	10
3.094000	26.23	46.00	19.77	L1	ON	10
4.590000	28.51	46.00	17.49	N	ON	10
8.798000	34.80	50.00	15.20	N	ON	10



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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*****