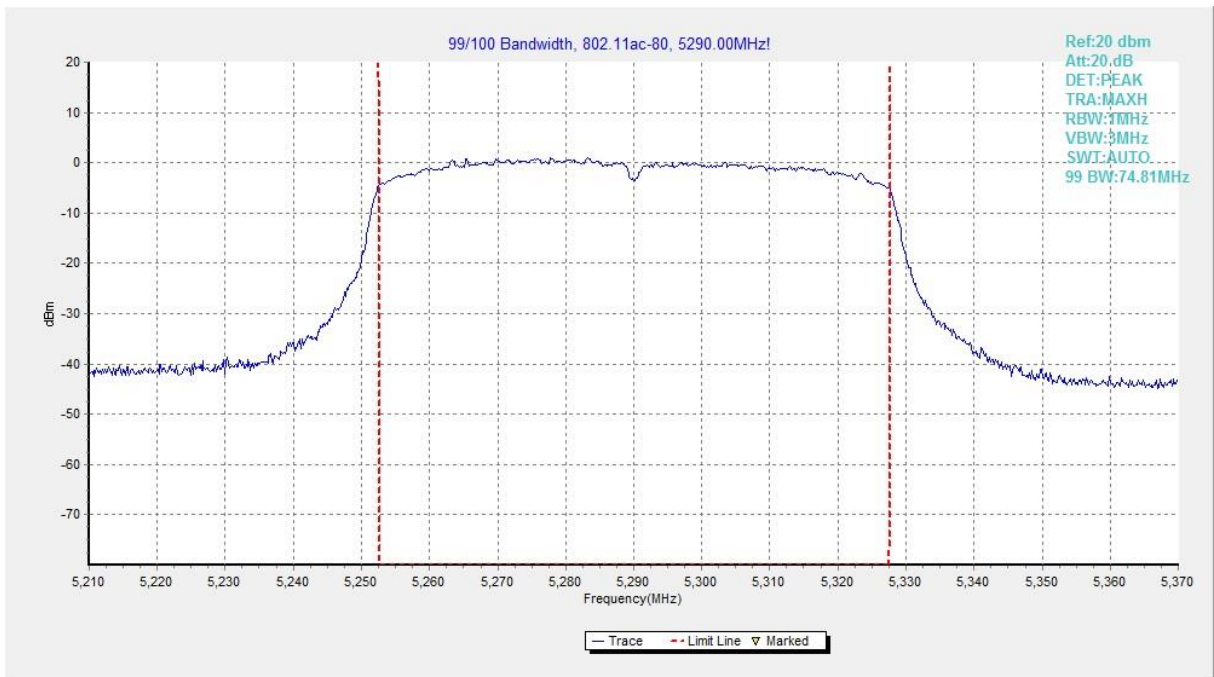
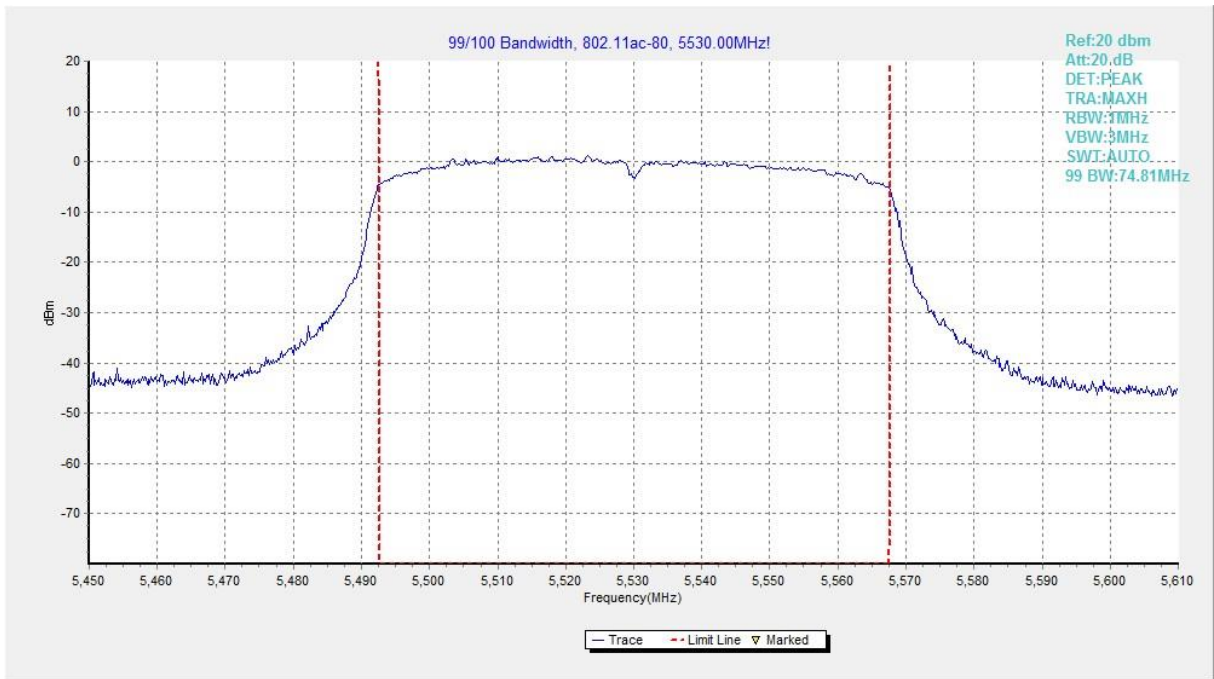


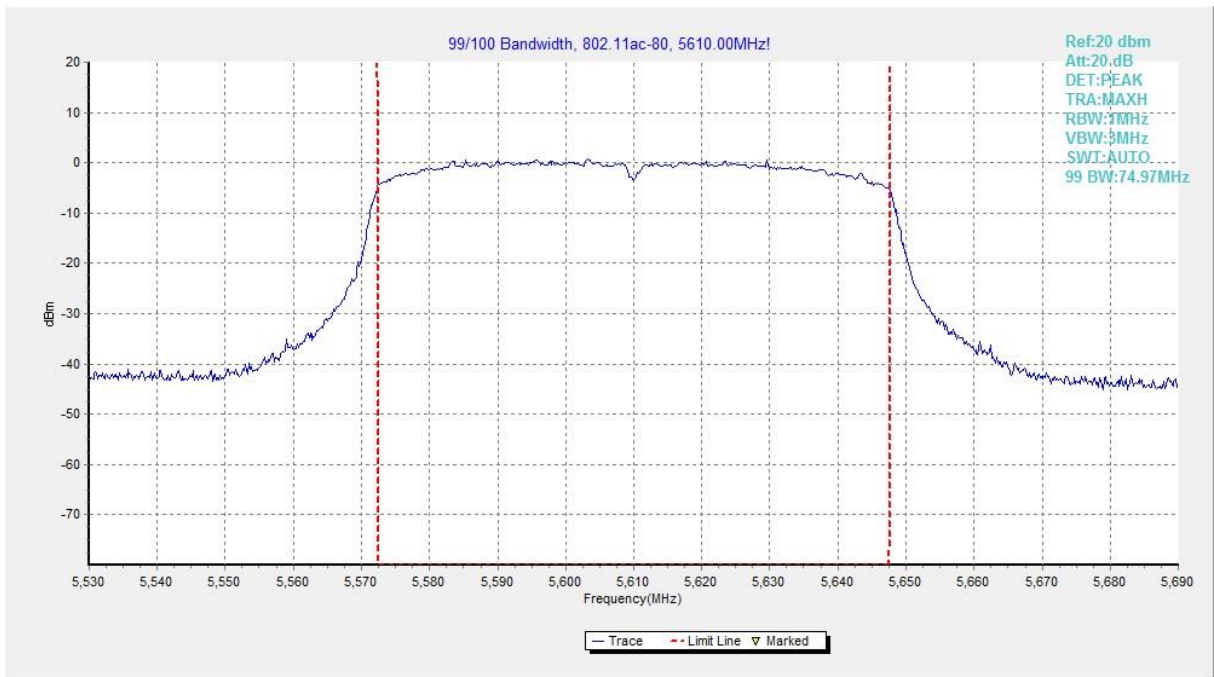
**Fig. 43 99% Occupied Bandwidth (802. 11ac-VHT80, 5210MHz)**



**Fig. 44 99% Occupied Bandwidth (802. 11ac-VHT80, 5290MHz)**



**Fig. 45 99% Occupied Bandwidth (802. 11ac-VHT80, 5530MHz)**



**Fig. 46 99% Occupied Bandwidth (802. 11ac-VHT80, 5610MHz)**

## A.7. Band Edges Compliance

### Measurement Limit:

Standard	Limit (dBuV/m)	
	FCC 47 CFR Part 15.209& RSS-247 6.2	Peak
	Average	54

The measurement is made according to KDB 789033

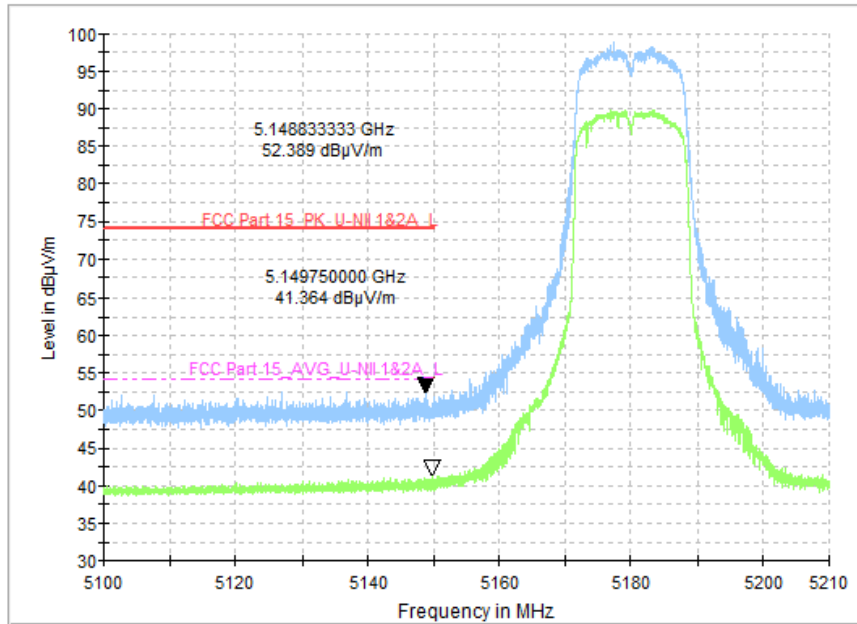
In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

### Measurement Result:

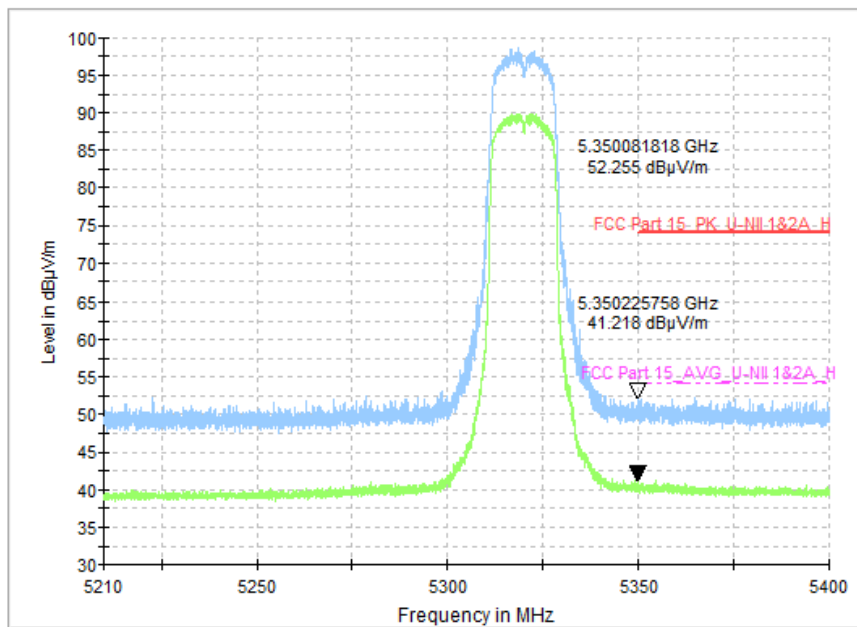
Mode	Channel	Test Results	Conclusion
802.11a	5180 MHz(CH36)	Fig.47	P
	5320 MHz(CH64)	Fig.48	P
	5500 MHz(CH100)	Fig.49	P
	5700 MHz(CH140)	Fig.50	P
	5745 MHz(CH149)	Fig.51	P
	5825 MHz(CH165)	Fig.52	P
802.11n-HT40	5190 MHz(CH38)	Fig.53	P
	5310 MHz(CH62)	Fig.54	P
	5510 MHz(CH102)	Fig.55	P
	5670 MHz(CH134)	Fig.56	P
	5755 MHz(CH151)	Fig.57	P
	5795 MHz(CH159)	Fig.58	P
802.11ac-VHT80	5210 MHz(CH42)	Fig.59	P
	5290 MHz(CH58)	Fig.60	P
	5530 MHz(CH106)	Fig.61	P
	5775 MHz(CH155)	Fig.62	P

**Conclusion: PASS**

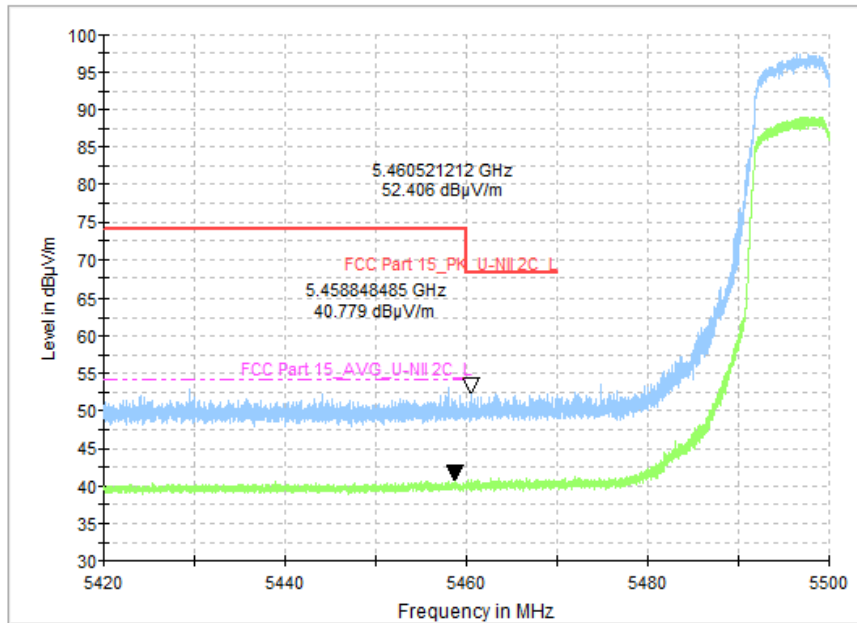
**Test graphs as below:**



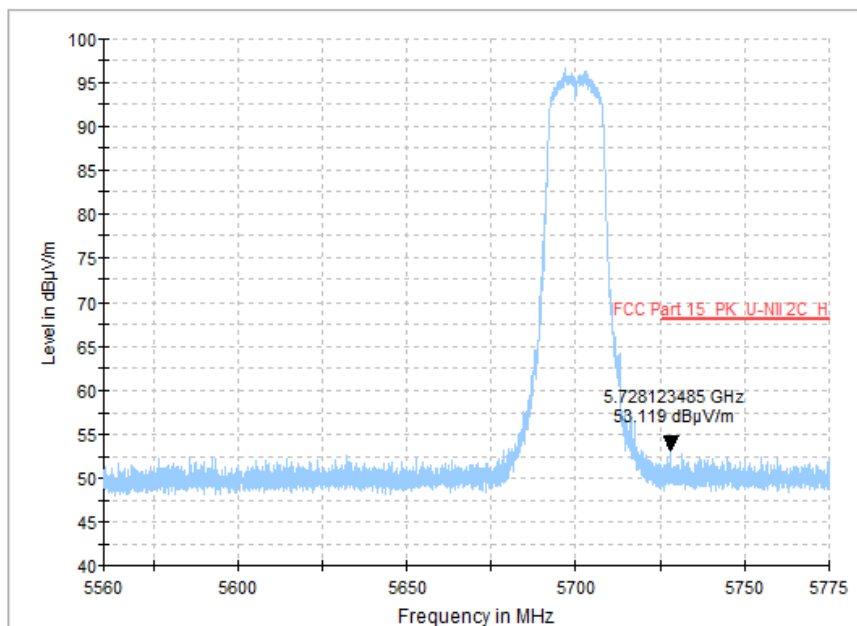
**Fig. 47 Band Edges (802.11a, CH36 5180MHz)**



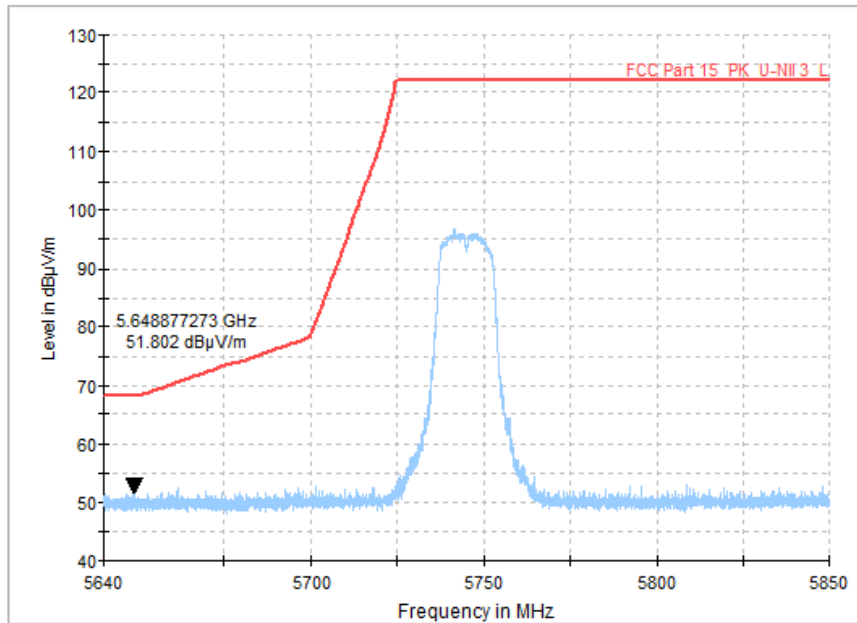
**Fig. 48 Band Edges (802.11a, CH64 5320MHz)**



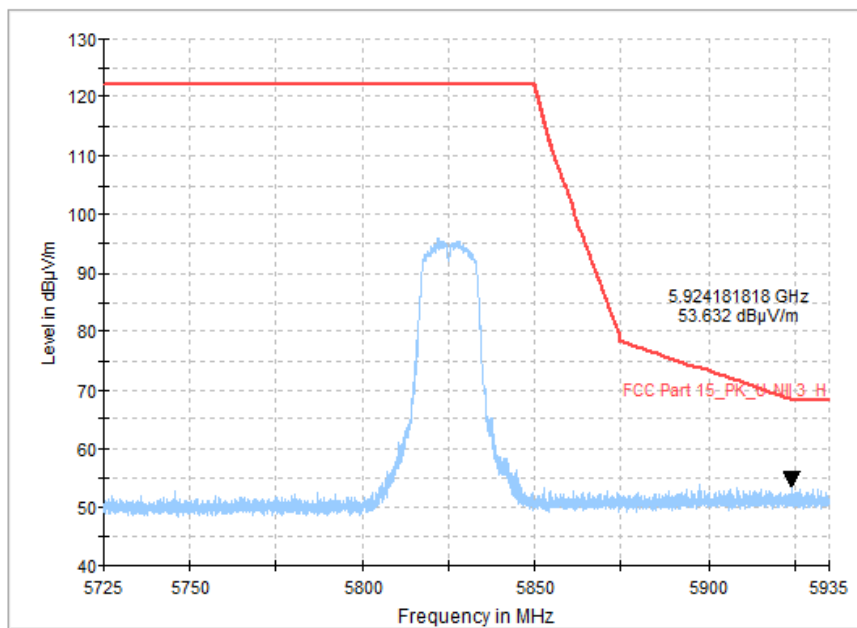
**Fig. 49 Band Edges (802.11a, CH100 5500MHz)**



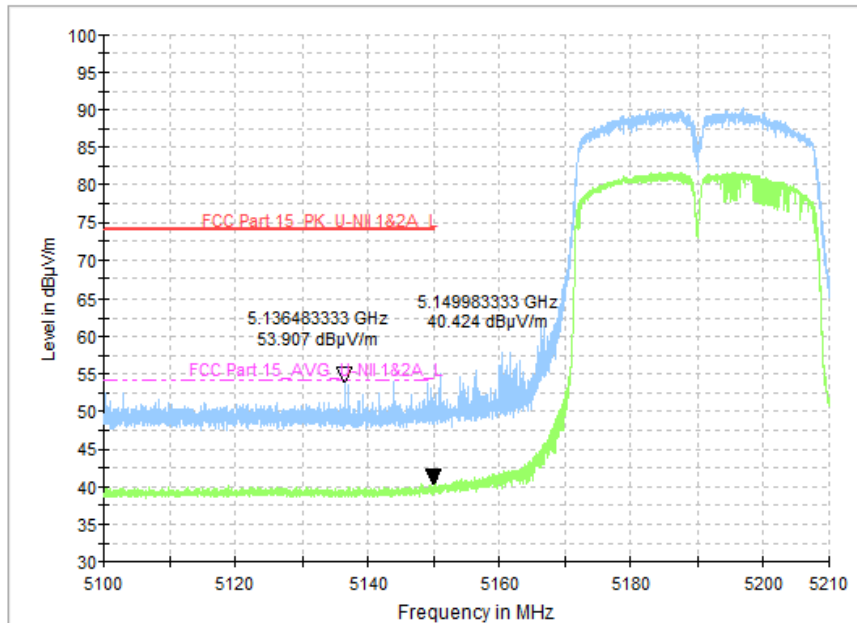
**Fig. 50 Band Edges (802.11a, CH140 5700MHz)**



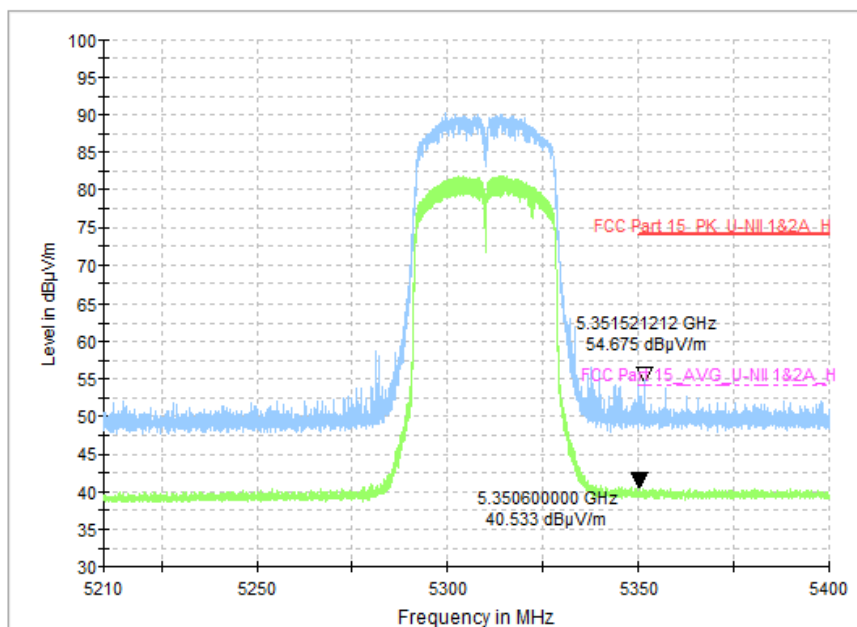
**Fig. 51 Band Edges (802.11a, CH149 5745MHz)**



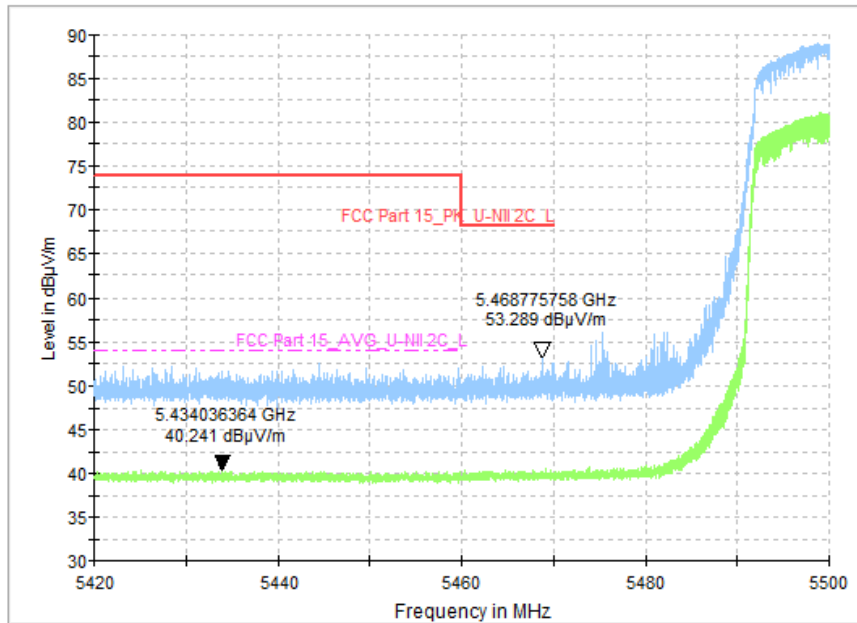
**Fig. 52 Band Edges (802.11a, CH165 5825MHz)**



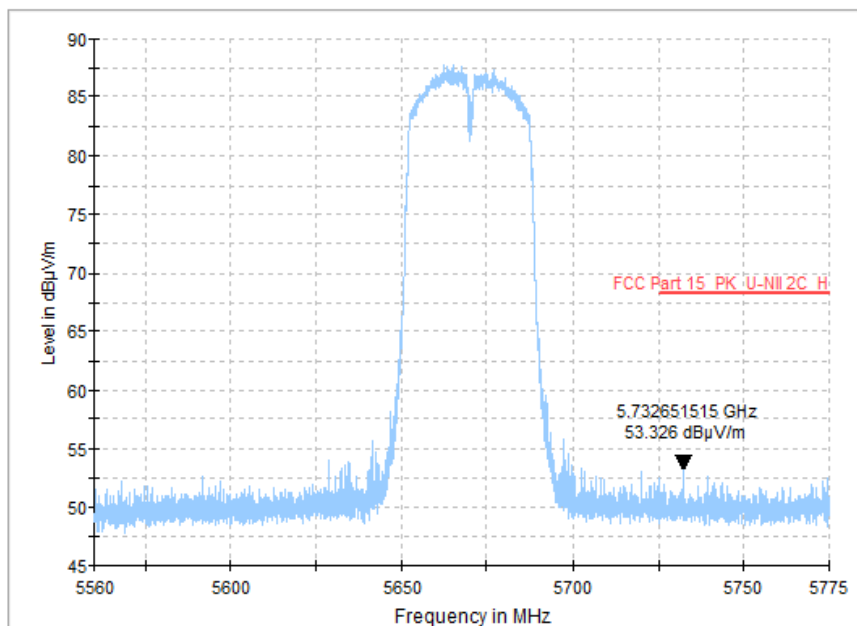
**Fig. 53 Band Edges (802.11n-HT40, CH38 5190MHz)**



**Fig. 54 Band Edges (802.11n-HT40, CH62 5310MHz)**

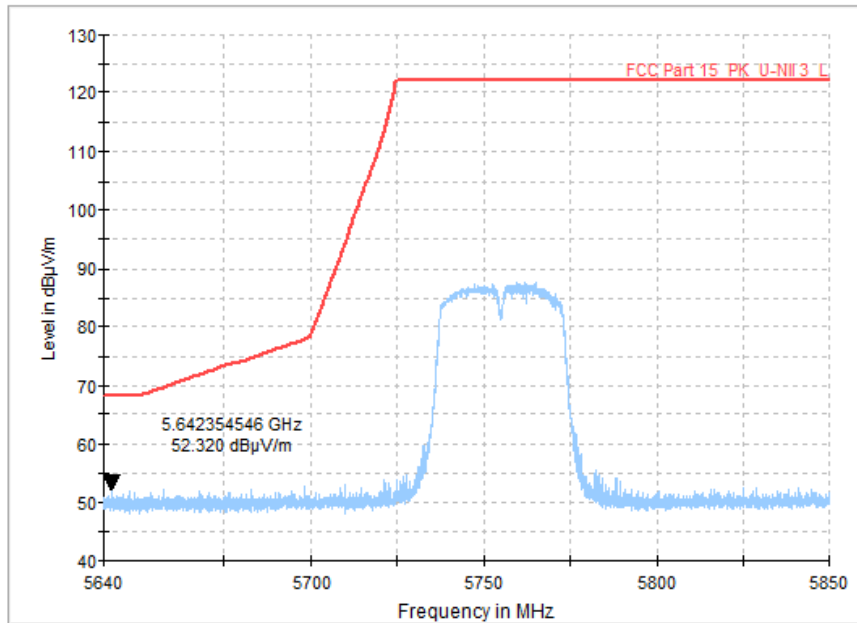


**Fig. 55 Band Edges (802.11n-HT40, CH102 5510MHz)**

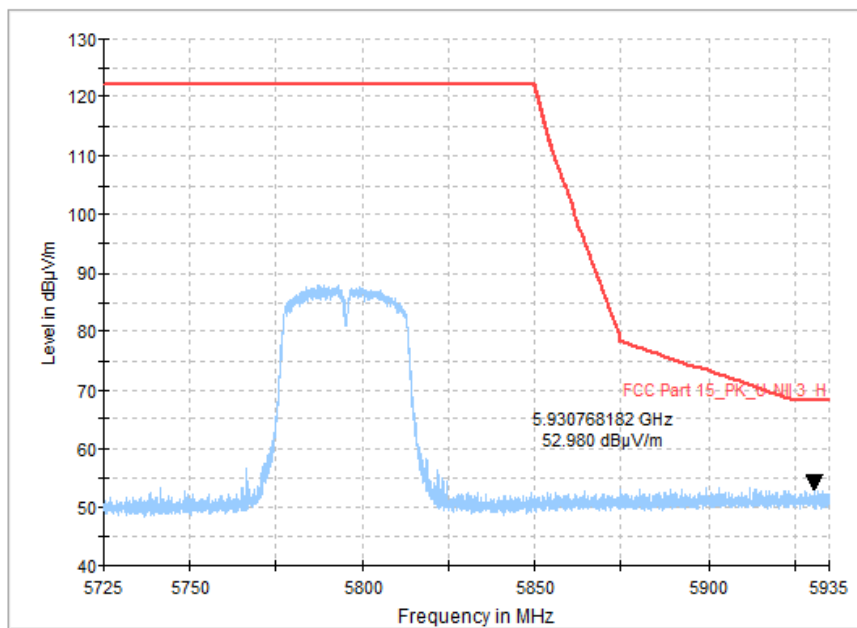


**Fig. 56 Band Edges (802.11n-HT40, CH134 5670MHz)**

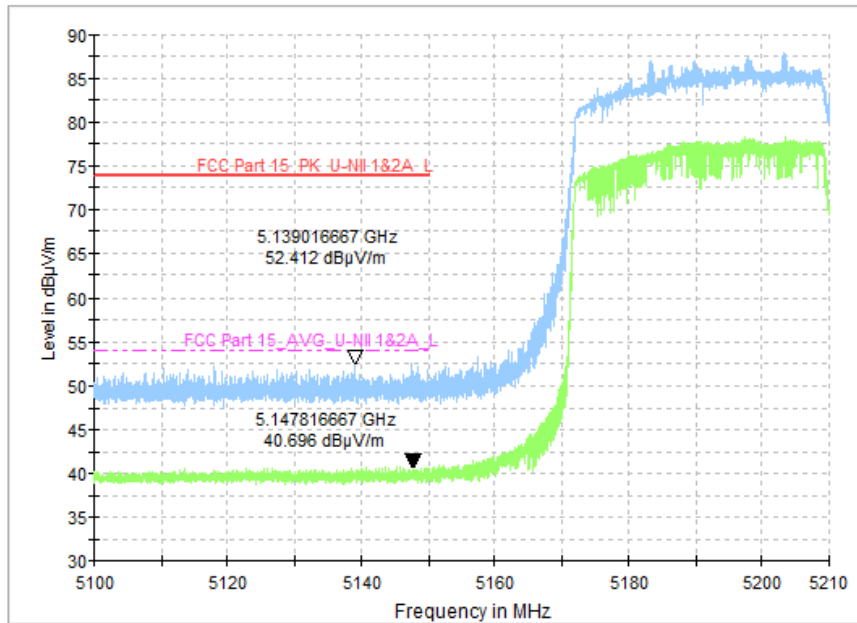




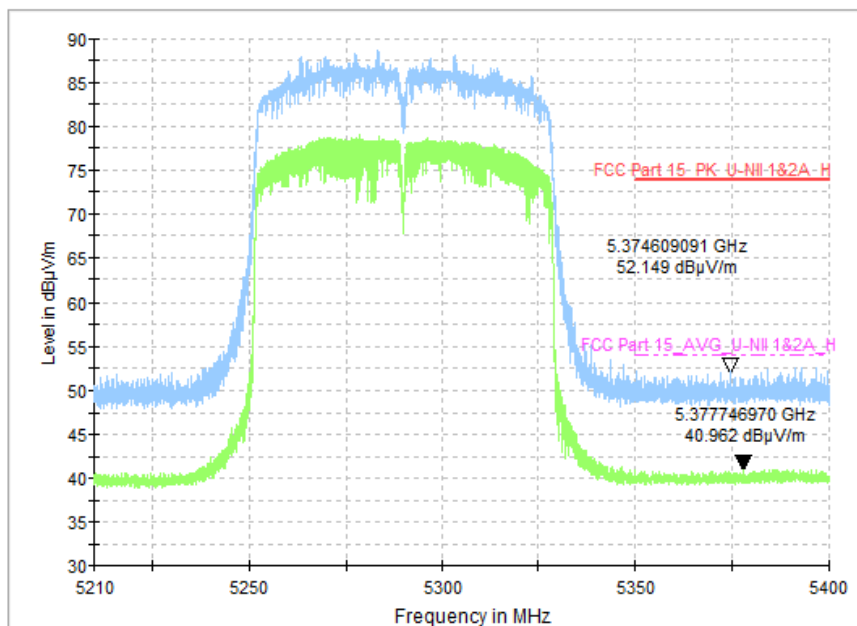
**Fig. 57 Band Edges (802.11n-HT40, CH151 5755MHz)**



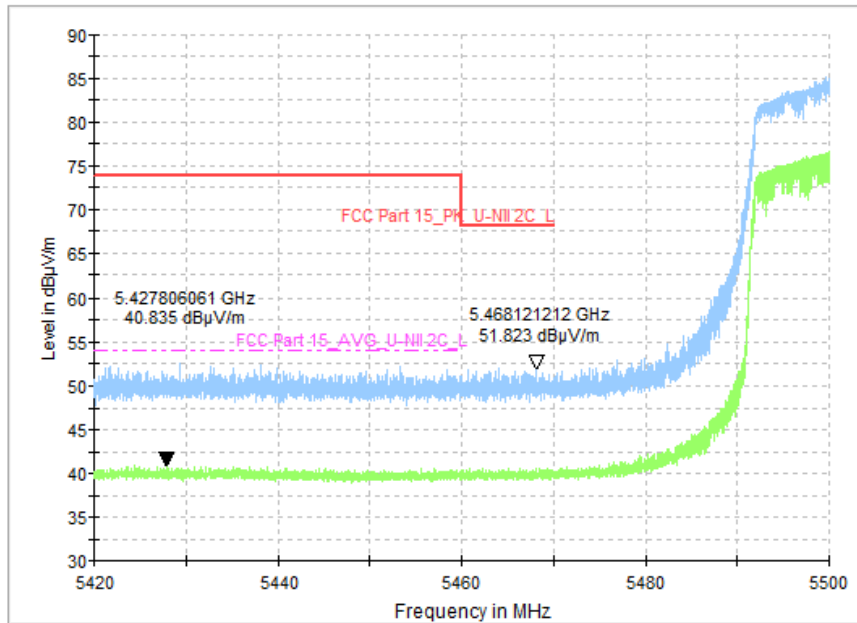
**Fig. 58 Band Edges (802.11n-HT40, CH159 5795MHz)**



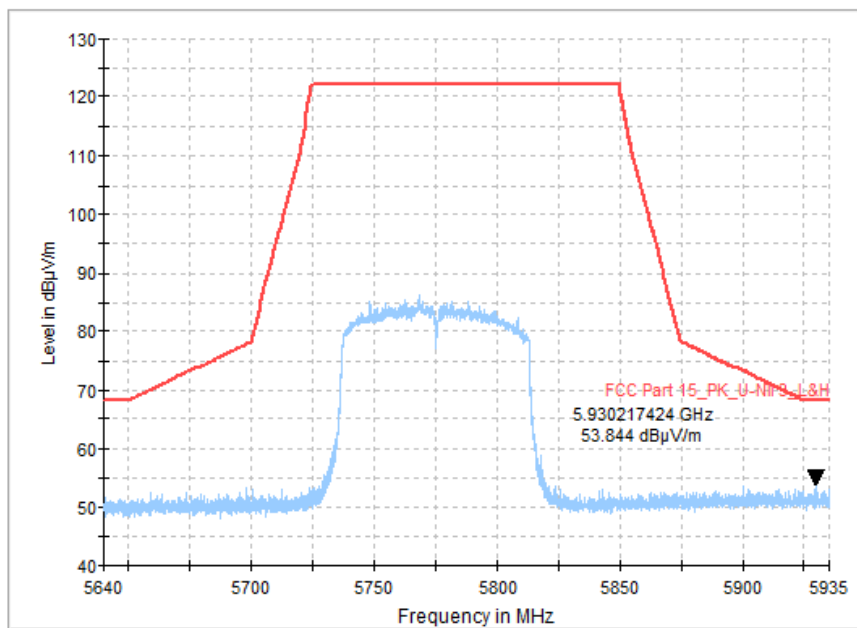
**Fig. 59 Band Edges (802.11ac-VHT80, CH42 5210MHz)**



**Fig. 60 Band Edges (802.11ac-VHT80, CH58 5290MHz)**



**Fig. 61 Band Edges (802.11ac-VHT80, CH106 5530MHz)**



**Fig. 62 Band Edges (802.11ac-VHT80, CH155 5775MHz)**

## A.8. Transmitter Spurious Emission

### Measurement Limit:

Standard	Limit (dBuV/m)	
	FCC 47 CFR Part 15.209 & RSS-GEN 8.9	Peak
	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.63	<b>P</b>
	5200MHz(Ch40)	1 GHz ~18 GHz	Fig.64	<b>P</b>
	5240MHz(Ch48)	1 GHz ~18 GHz	Fig.65	<b>P</b>
	5260MHz(Ch52)	1 GHz ~18 GHz	Fig.66	<b>P</b>
	5280MHz(Ch56)	1 GHz ~18 GHz	Fig.67	<b>P</b>
	5320MHz(Ch64)	1 GHz ~18 GHz	Fig.68	<b>P</b>
	5500MHz(Ch100)	1 GHz ~18 GHz	Fig.69	<b>P</b>
	5600MHz(Ch120)	1 GHz ~18 GHz	Fig.70	<b>P</b>
	5700MHz(Ch140)	1 GHz ~18 GHz	Fig.71	<b>P</b>
	5745MHz(Ch149)	1 GHz ~18 GHz	Fig.72	<b>P</b>
	5785MHz(Ch157)	1 GHz ~18 GHz	Fig.73	<b>P</b>
	5825MHz(Ch165)	1 GHz ~18 GHz	Fig.74	<b>P</b>
802.11n- HT40	5190MHz(Ch38)	1 GHz ~18 GHz	Fig.75	<b>P</b>
	5230MHz(Ch46)	1 GHz ~18 GHz	Fig.76	<b>P</b>
	5270MHz(Ch54)	1 GHz ~18 GHz	Fig.77	<b>P</b>
	5310MHz(Ch62)	1 GHz ~18 GHz	Fig.78	<b>P</b>
	5510MHz(Ch102)	1 GHz ~18 GHz	Fig.79	<b>P</b>
	5580MHz(Ch118)	1 GHz ~18 GHz	Fig.80	<b>P</b>
	5670MHz(Ch134)	1 GHz ~18 GHz	Fig.81	<b>P</b>
	5755MHz(Ch151)	1 GHz ~18 GHz	Fig.82	<b>P</b>

	5795MHz(Ch159)	1 GHz ~18 GHz	Fig.83	<b>P</b>
802.11a-VHT80	5210MHz(Ch42)	1 GHz ~18 GHz	Fig.84	<b>P</b>
	5290MHz(Ch58)	1 GHz ~18 GHz	Fig.85	<b>P</b>
	5530MHz(Ch106)	1 GHz ~18 GHz	Fig.86	<b>P</b>
	5610MHz(Ch122)	1 GHz ~18 GHz	Fig.87	<b>P</b>
	5775MHz(Ch155)	1 GHz ~18 GHz	Fig.88	<b>P</b>
All channels		30 MHz ~1 GHz	Fig.89	<b>P</b>
		18 GHz ~26.5 GHz	Fig.90	<b>P</b>
		26.5GHz~40GHz	Fig.91	<b>P</b>

**MIMO:**

Mode	Channel	Frequency Range	Test Results	Conclusion
802.11n-HT20	5180MHz(Ch36)	1 GHz ~18 GHz	Fig.92	<b>P</b>
	5200MHz(Ch40)	1 GHz ~18 GHz	Fig.93	<b>P</b>
	5240MHz(Ch48)	1 GHz ~18 GHz	Fig.94	<b>P</b>
	5260MHz(Ch52)	1 GHz ~18 GHz	Fig.95	<b>P</b>
	5280MHz(Ch56)	1 GHz ~18 GHz	Fig.96	<b>P</b>
	5320MHz(Ch64)	1 GHz ~18 GHz	Fig.97	<b>P</b>
	5500MHz(Ch100)	1 GHz ~18 GHz	Fig.98	<b>P</b>
	5600MHz(Ch120)	1 GHz ~18 GHz	Fig.99	<b>P</b>
	5700MHz(Ch140)	1 GHz ~18 GHz	Fig.100	<b>P</b>
	5745MHz(Ch149)	1 GHz ~18 GHz	Fig.101	<b>P</b>
	5785MHz(Ch157)	1 GHz ~18 GHz	Fig.102	<b>P</b>
	5825MHz(Ch165)	1 GHz ~18 GHz	Fig.103	<b>P</b>
802.11n-HT40	5190MHz(Ch38)	1 GHz ~18 GHz	Fig.104	<b>P</b>
	5230MHz(Ch46)	1 GHz ~18 GHz	Fig.105	<b>P</b>
	5270MHz(Ch54)	1 GHz ~18 GHz	Fig.106	<b>P</b>
	5310MHz(Ch62)	1 GHz ~18 GHz	Fig.107	<b>P</b>
	5510MHz(Ch102)	1 GHz ~18 GHz	Fig.108	<b>P</b>
	5580MHz(Ch118)	1 GHz ~18 GHz	Fig.109	<b>P</b>
	5670MHz(Ch134)	1 GHz ~18 GHz	Fig.110	<b>P</b>
	5755MHz(Ch151)	1 GHz ~18 GHz	Fig.111	<b>P</b>
	5795MHz(Ch159)	1 GHz ~18 GHz	Fig.112	<b>P</b>
802.11a-VHT80	5210MHz(Ch42)	1 GHz ~18 GHz	Fig.113	<b>P</b>
	5290MHz(Ch58)	1 GHz ~18 GHz	Fig.114	<b>P</b>
	5530MHz(Ch106)	1 GHz ~18 GHz	Fig.115	<b>P</b>
	5610MHz(Ch122)	1 GHz ~18 GHz	Fig.116	<b>P</b>
	5775MHz(Ch155)	1 GHz ~18 GHz	Fig.117	<b>P</b>
All channels		30 MHz ~1 GHz	Fig.118	<b>P</b>
		18 GHz ~26.5 GHz	Fig.119	<b>P</b>
		26.5GHz~40GHz	Fig.120	<b>P</b>

**Worst Case Result**

**SISO:**

**802.11a CH36**

Frequency (MHz)	Max Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
6245.500000	52.30	68.20	15.90	H	18.0
9799.662500	48.11	68.20	20.09	V	9.8
10360.275000	50.36	68.20	17.84	V	10.5
13586.937500	53.06	68.20	15.14	V	16.7
13908.500000	52.60	68.20	15.60	V	16.1
16938.625000	55.70	68.20	12.50	H	19.7

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
11018.712500	38.20	54.00	15.80	V	11.5
11611.575000	38.90	54.00	15.10	H	13.6
12492.537500	40.83	54.00	13.17	H	15.5
15596.375000	41.96	54.00	12.04	H	17.2
16135.375000	42.29	54.00	11.71	V	18.5
17998.687500	42.89	54.00	11.11	H	19.2

**802.11n HT40 CH38**

Frequency (MHz)	Max Peak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
6258.500000	52.84	68.20	15.36	V	17.9
10153.337500	48.19	68.20	20.01	H	9.6
13991.625000	52.91	68.20	15.29	V	16.1
15182.937500	53.54	68.20	14.66	V	16.9
16774.125000	55.14	68.20	13.06	V	19.6
17391.000000	55.08	68.20	13.12	V	19.9

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB)
11623.400000	38.66	54.00	15.34	V	13.6
11955.037500	38.33	54.00	15.67	V	13.3
12510.275000	40.39	54.00	13.61	V	15.5
15595.062500	41.83	54.00	12.17	H	17.2
16078.937500	41.90	54.00	12.10	V	18.2
17980.750000	42.98	54.00	11.02	V	19.3

**802.11ac VHT80 CH42**

Frequency (MHz)	Max Peak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB)
6130.500000	52.89	68.20	15.31	H	17.1
6946.612500	51.94	68.20	16.26	V	7.1
13597.875000	53.01	68.20	15.19	V	16.7
14726.625000	53.41	68.20	14.79	H	17.9
16938.625000	55.26	68.20	12.94	V	19.7
17424.250000	54.63	68.20	13.57	V	20.0

Frequency (MHz)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB)
11577.175000	38.94	54.00	15.06	H	13.7
11984.062500	38.25	54.00	15.75	V	13.3
12482.862500	40.72	54.00	13.28	V	15.6
15658.500000	41.70	54.00	12.30	V	17.1
16132.750000	42.27	54.00	11.73	H	18.4
17952.312500	42.88	54.00	11.12	V	19.5

**MIMO:**
**802.11a CH36**

Frequency (MHz)	Max Peak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB)
6090.500000	52.54	68.20	15.66	H	16.9
10379.625000	48.08	68.20	20.12	V	10.5
13655.187500	51.99	68.20	16.21	V	16.5
14889.812500	53.18	68.20	15.02	H	17.4
17006.437500	54.39	68.20	13.81	H	19.7
17432.125000	54.12	68.20	14.08	V	20.0

Frequency (MHz)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB)
11022.475000	37.18	54.00	16.82	V	11.5
11974.387500	37.90	54.00	16.10	V	13.3
12492.000000	39.39	54.00	14.61	V	15.5
15753.000000	40.72	54.00	13.28	V	17.0
16137.125000	42.23	54.00	11.77	V	18.5
17991.687500	42.13	54.00	11.87	V	19.3

**802.11n HT40 CH38**

Frequency (MHz)	Max Peak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB)
6184.000000	52.64	68.20	15.56	H	17.7
10331.250000	48.52	68.20	19.68	H	10.4
13914.187500	52.69	68.20	15.51	V	16.1
14926.562500	53.32	68.20	14.88	V	17.2
16962.687500	55.10	68.20	13.10	V	19.7
17316.625000	54.23	68.20	13.97	V	19.9

Frequency (MHz)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB)
11648.662500	38.78	54.00	15.22	H	13.5
11976.000000	38.47	54.00	15.53	V	13.3
12509.200000	40.38	54.00	13.62	H	15.5
15627.000000	41.63	54.00	12.37	H	17.2
16138.875000	42.05	54.00	11.95	H	18.5
17995.187500	42.61	54.00	11.39	V	19.3

**802.11ac VHT80 CH42**

Frequency (MHz)	Max Peak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB)
6254.500000	52.95	68.20	15.25	H	17.9
9816.325000	48.32	68.20	19.88	V	9.8
13694.125000	52.48	68.20	15.72	H	16.4
14961.562500	53.11	68.20	15.09	V	17.2
16999.000000	55.37	68.20	12.83	V	19.7
17396.687500	55.54	68.20	12.66	V	19.9

Frequency (MHz)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB)
11604.587500	38.79	54.00	15.21	H	13.6
11996.425000	38.42	54.00	15.58	V	13.2
12500.600000	40.61	54.00	13.39	H	15.5
15678.625000	41.42	54.00	12.58	V	17.1
16138.000000	42.15	54.00	11.85	H	18.5
17959.312500	42.76	54.00	11.24	V	19.5

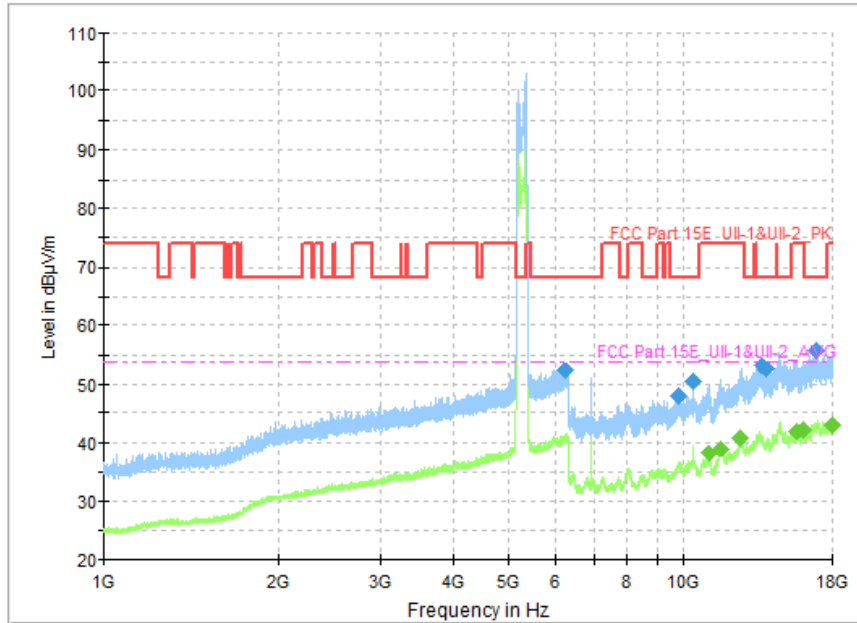
**Note:**

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:

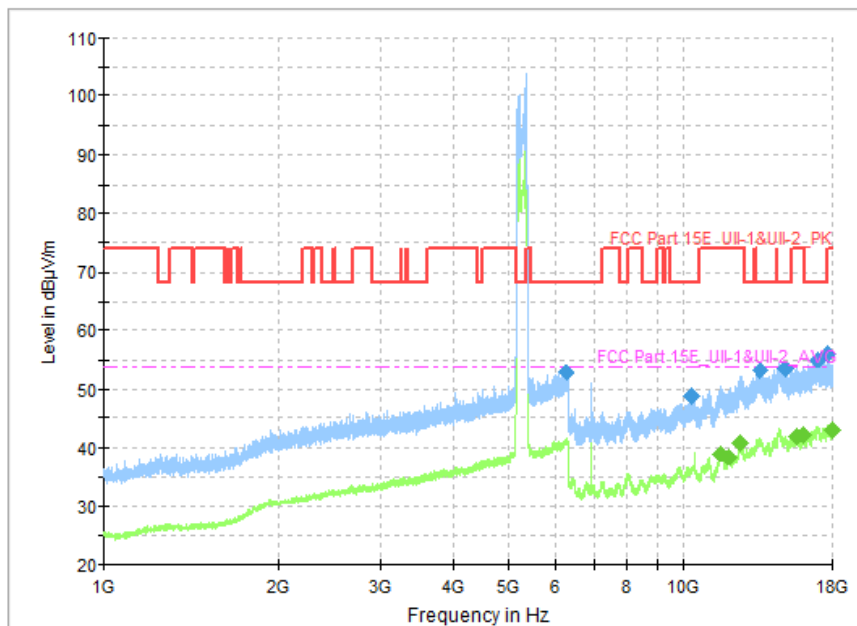
$$\text{Result} = P_{Mea} + A_{Rpl} = P_{Mea} + \text{Cable Loss} + \text{Antenna Factor}$$



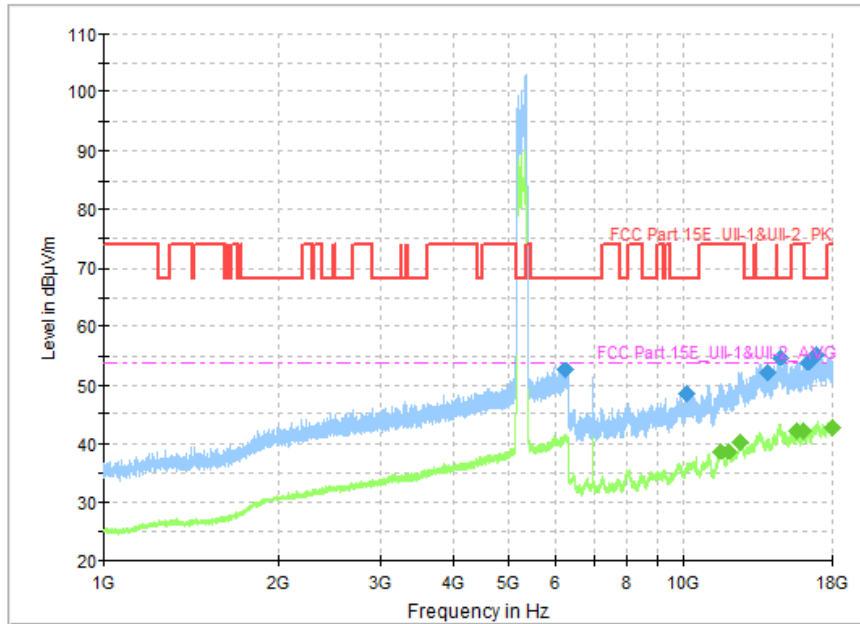
**Conclusion: PASS**  
**Test graphs as below:**



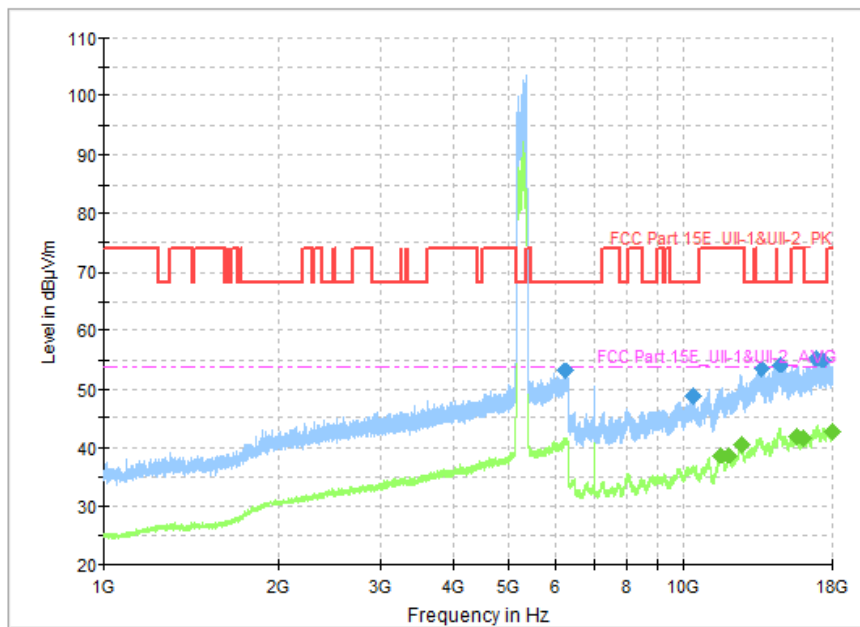
**Fig. 63 Transmitter Spurious Emission (802.11a, CH36 5180MHz, 1 GHz-18 GHz)**



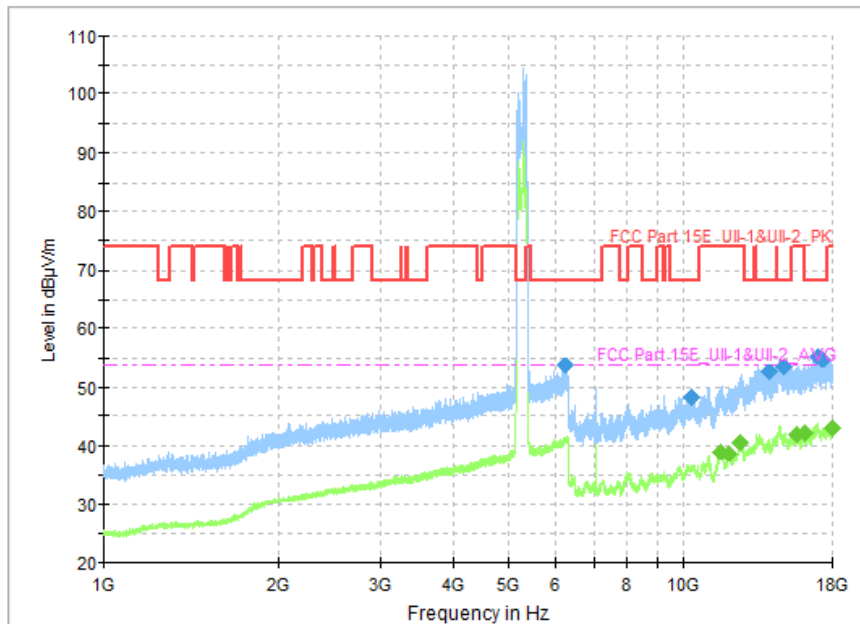
**Fig. 64 Transmitter Spurious Emission (802.11a, CH40 5200MHz, 1 GHz-18 GHz)**



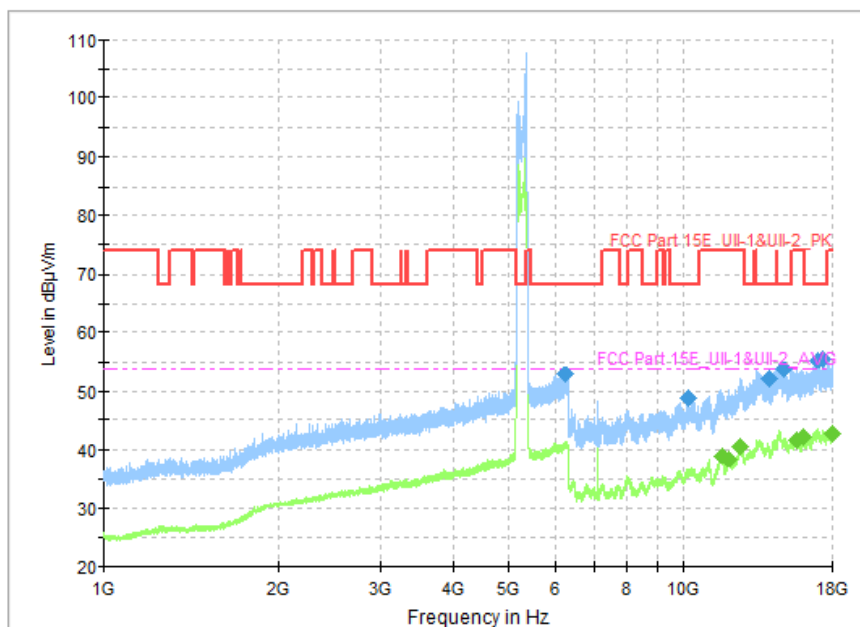
**Fig. 65 Transmitter Spurious Emission (802.11a, CH48 5240MHz, 1 GHz-18 GHz)**



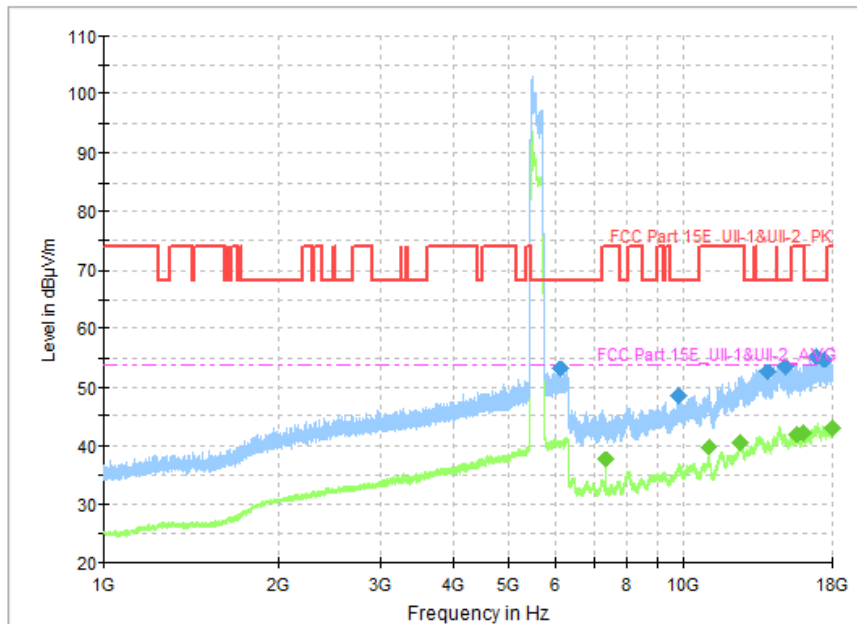
**Fig. 66 Transmitter Spurious Emission (802.11a, CH52 5260MHz, 1 GHz-18 GHz)**



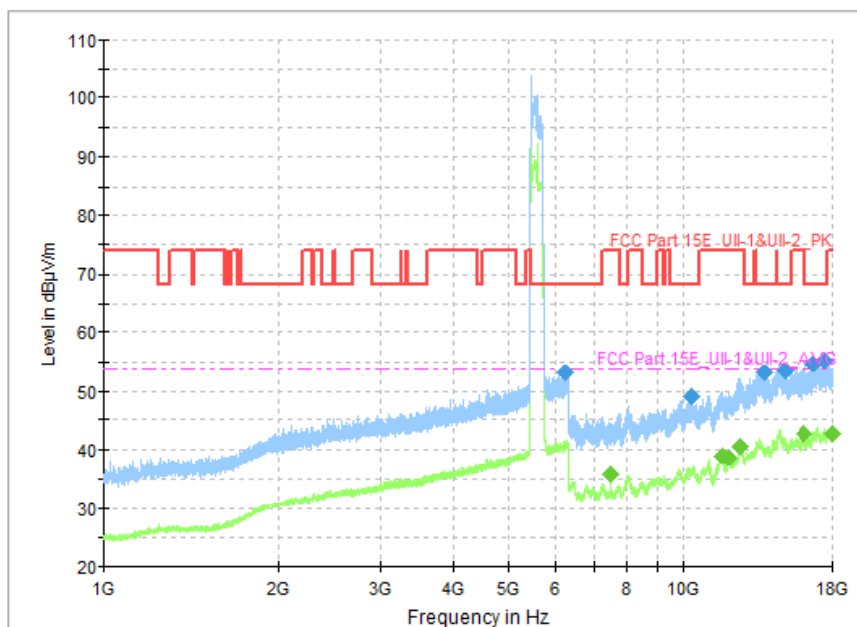
**Fig. 67 Transmitter Spurious Emission (802.11a, CH56 5280MHz, 1 GHz-18 GHz)**



**Fig. 68 Transmitter Spurious Emission (802.11a, CH64 5320MHz, 1 GHz-18 GHz)**



**Fig. 69 Transmitter Spurious Emission (802. 11a, CH100 5500MHz, 1 GHz-18 GHz)**



**Fig. 70 Transmitter Spurious Emission (802. 11a, CH120 5600MHz, 1 GHz-18 GHz)**

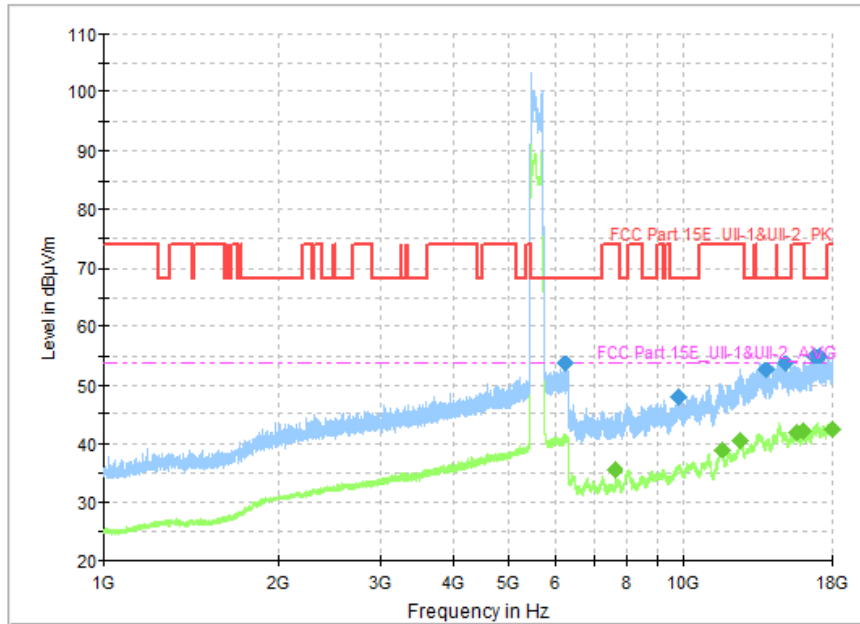


Fig. 71 Transmitter Spurious Emission (802. 11a, CH140 5700MHz, 1 GHz-18 GHz)

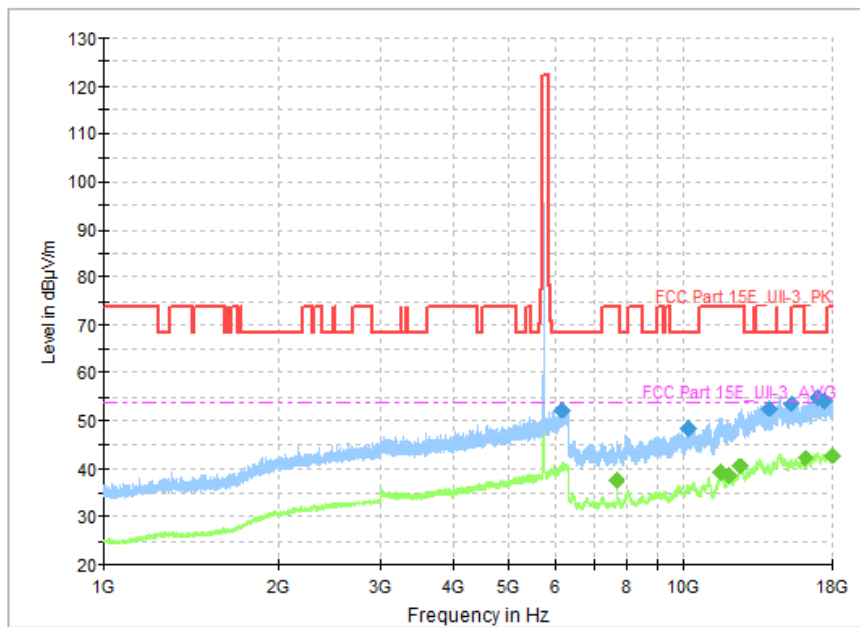


Fig. 72 Transmitter Spurious Emission (802. 11a, CH149 5745MHz, 1 GHz-18 GHz)

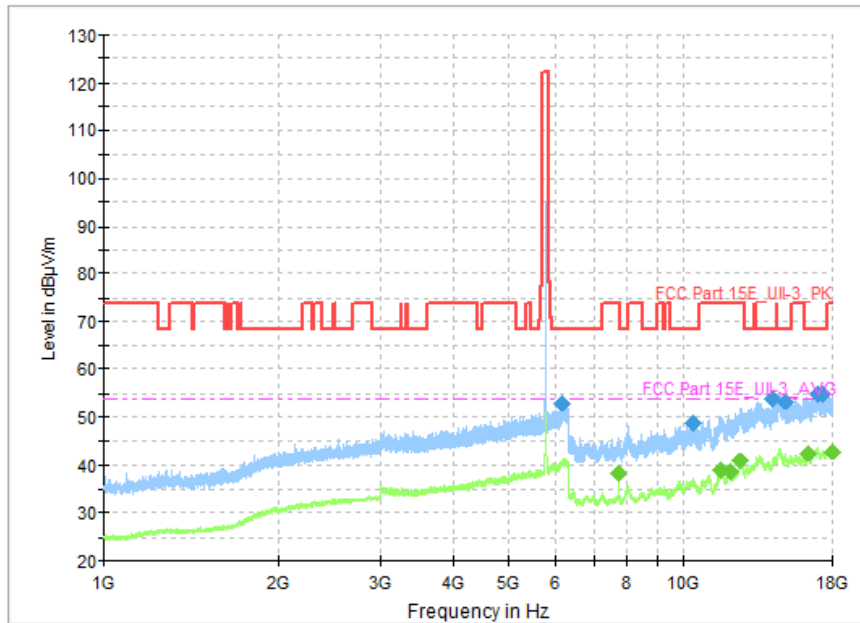


Fig. 73 Transmitter Spurious Emission (802. 11a, CH157 5785MHz, 1 GHz-18 GHz)

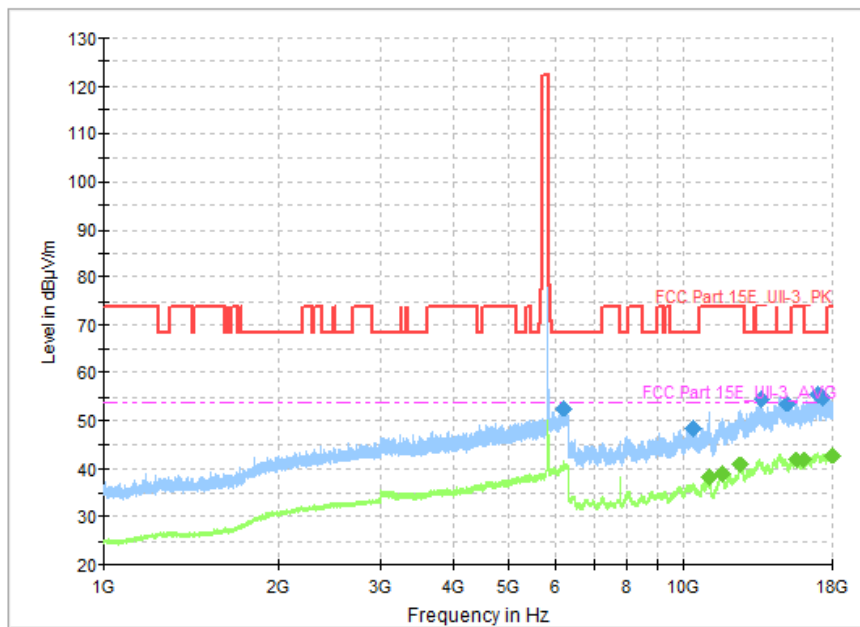
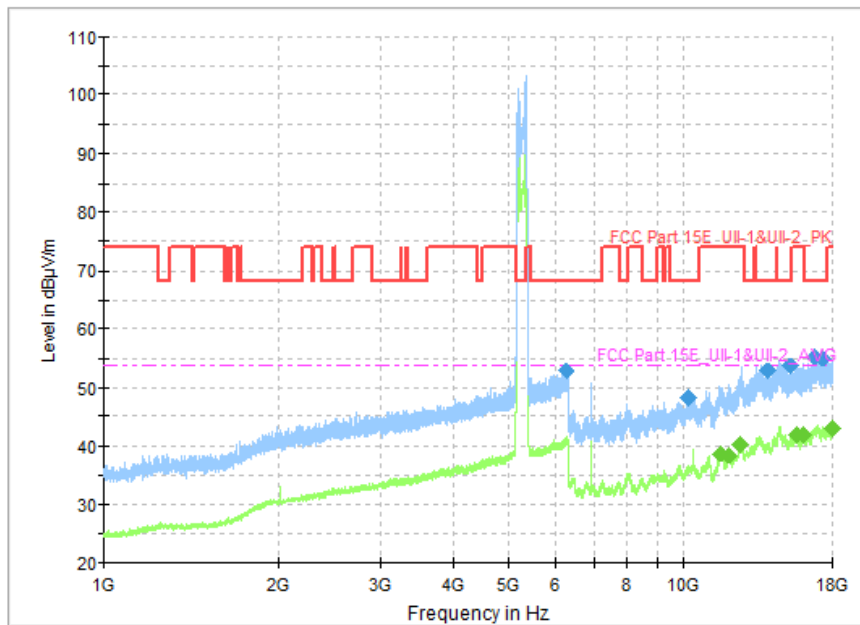
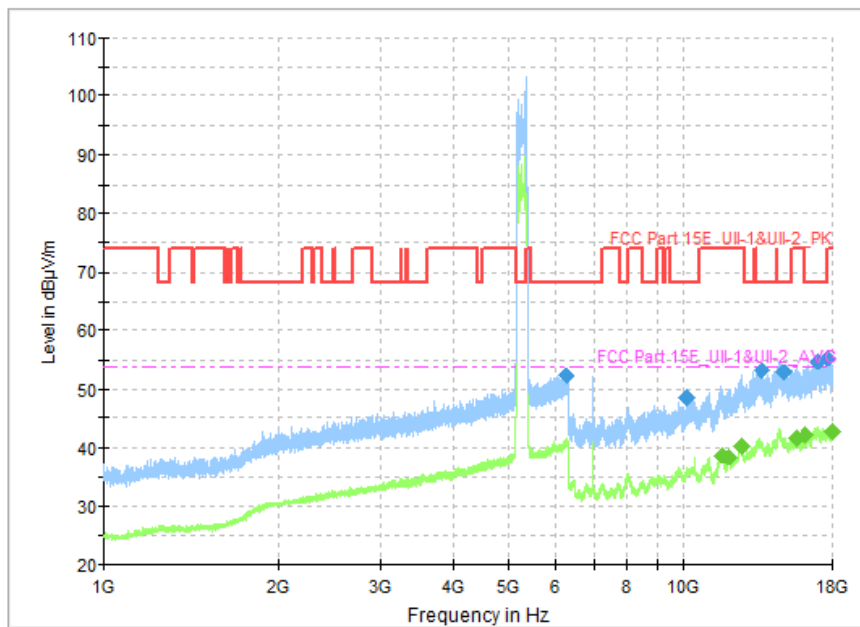


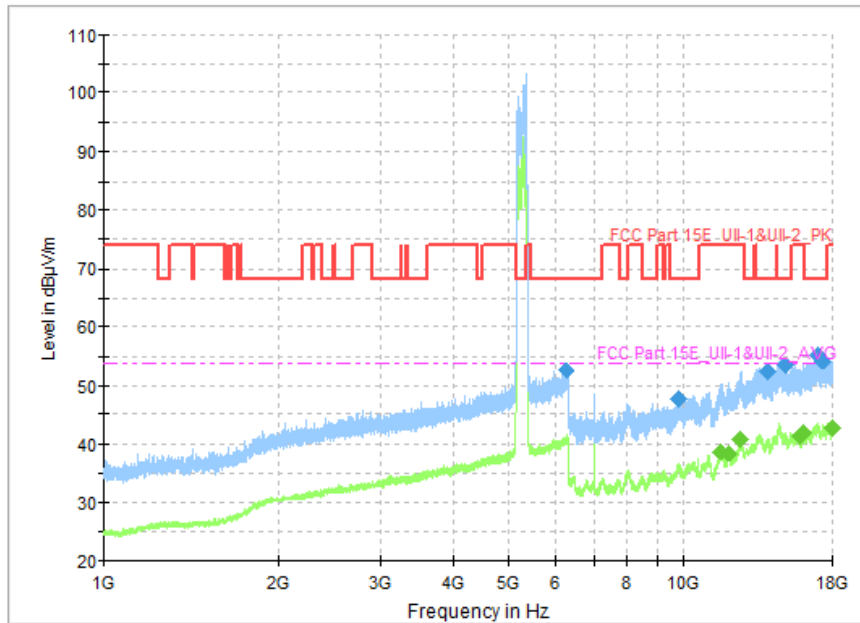
Fig. 74 Transmitter Spurious Emission (802. 11a, CH165 5825MHz, 1 GHz-18 GHz)



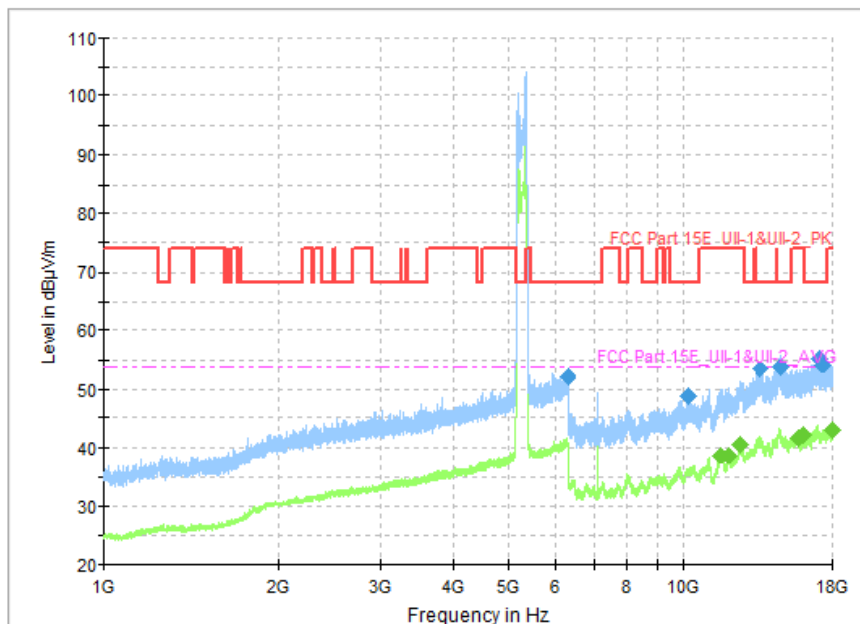
**Fig. 75 Transmitter Spurious Emission (802.11n-HT40, CH38 5190MHz, 1 GHz-18 GHz)**



**Fig. 76 Transmitter Spurious Emission (802.11n-HT40, CH46 5230MHz, 1 GHz-18 GHz)**

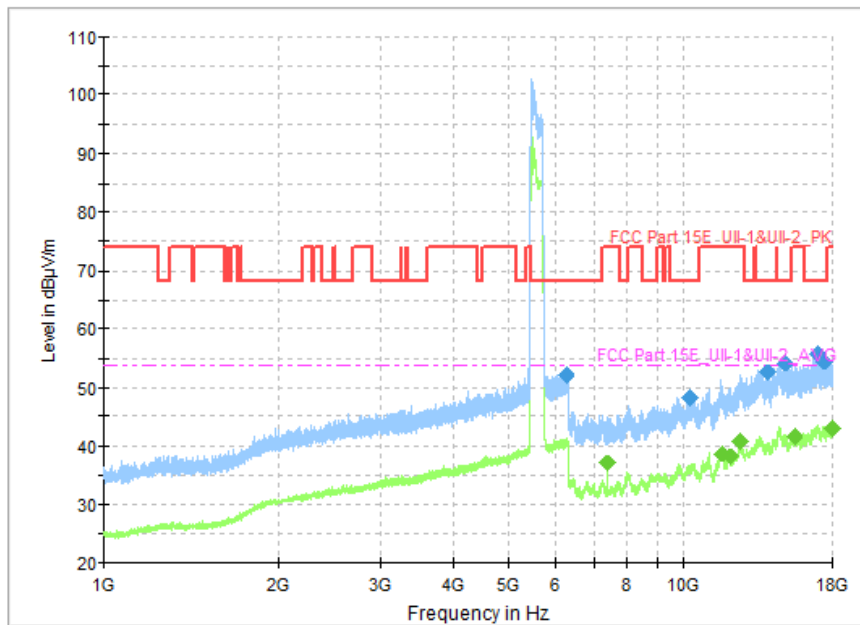


**Fig. 77 Transmitter Spurious Emission (802.11n-HT40, CH54 5270MHz, 1 GHz-18 GHz)**

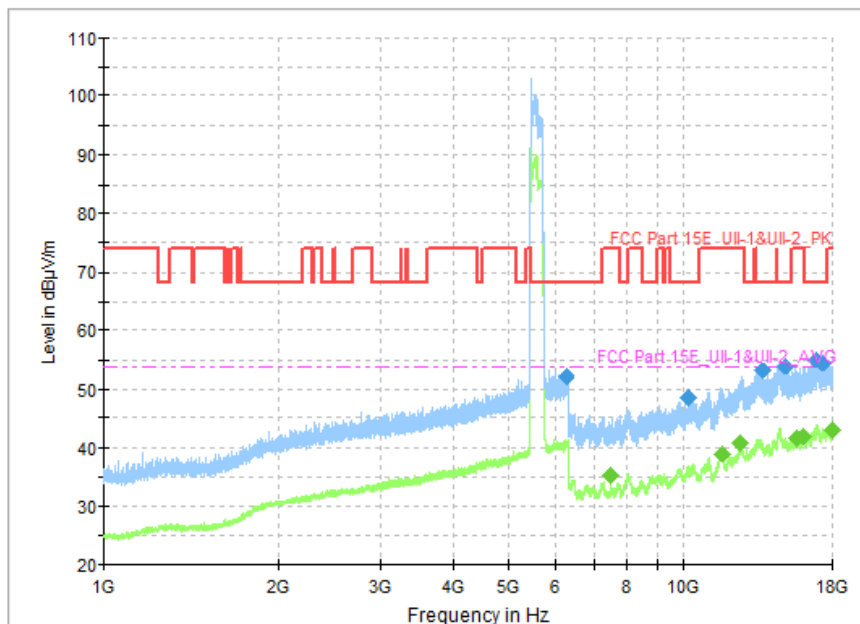


**Fig. 78 Transmitter Spurious Emission (802.11n-HT40, CH62 5310MHz, 1 GHz-18 GHz)**

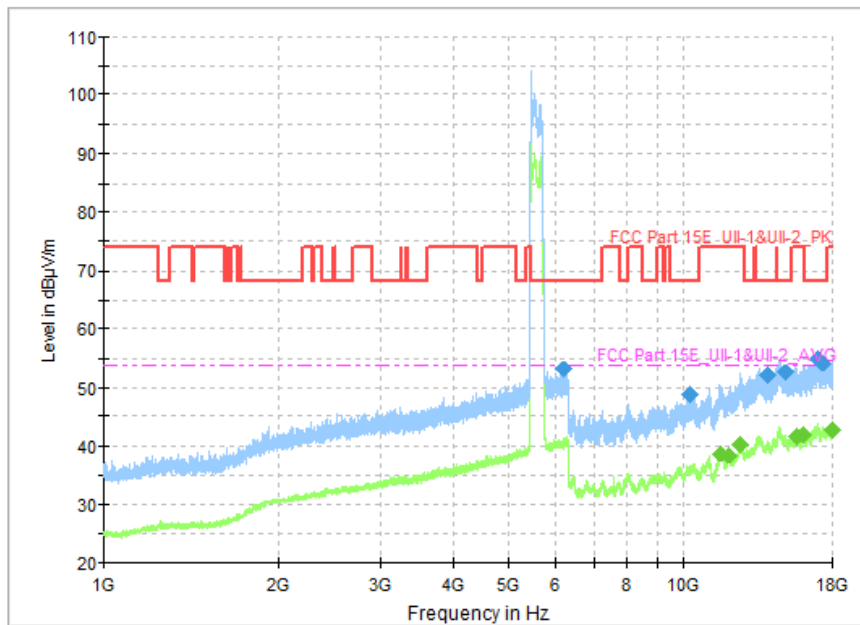




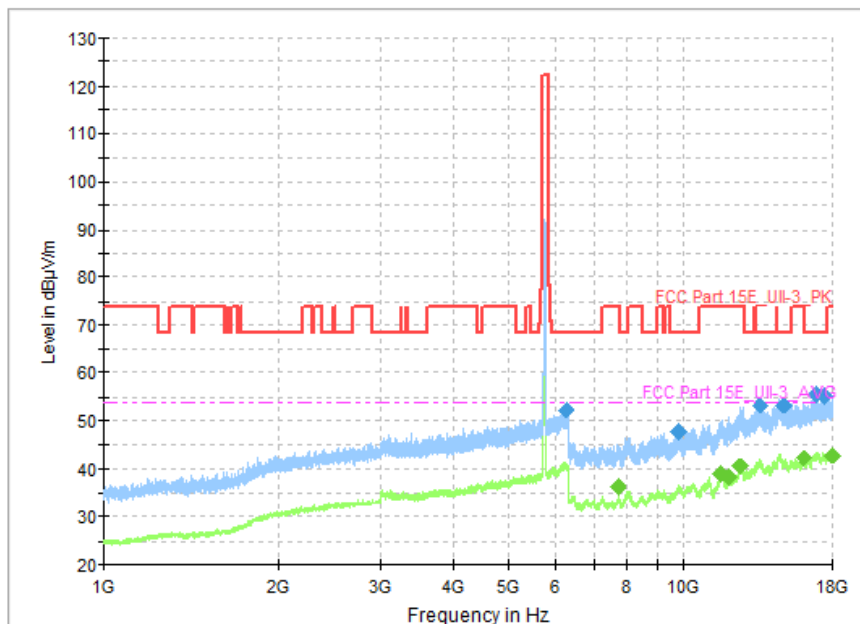
**Fig. 79 Transmitter Spurious Emission (802. 11n-HT40, CH102 5510MHz, 1 GHz-18 GHz)**



**Fig. 80 Transmitter Spurious Emission (802. 11n-HT40, CH118 5580MHz, 1 GHz-18 GHz)**



**Fig. 81 Transmitter Spurious Emission (802. 11n-HT40, CH134 5670MHz, 1 GHz-18 GHz)**



**Fig. 82 Transmitter Spurious Emission (802. 11n-HT40, CH151 5755MHz, 1 GHz-18 GHz)**

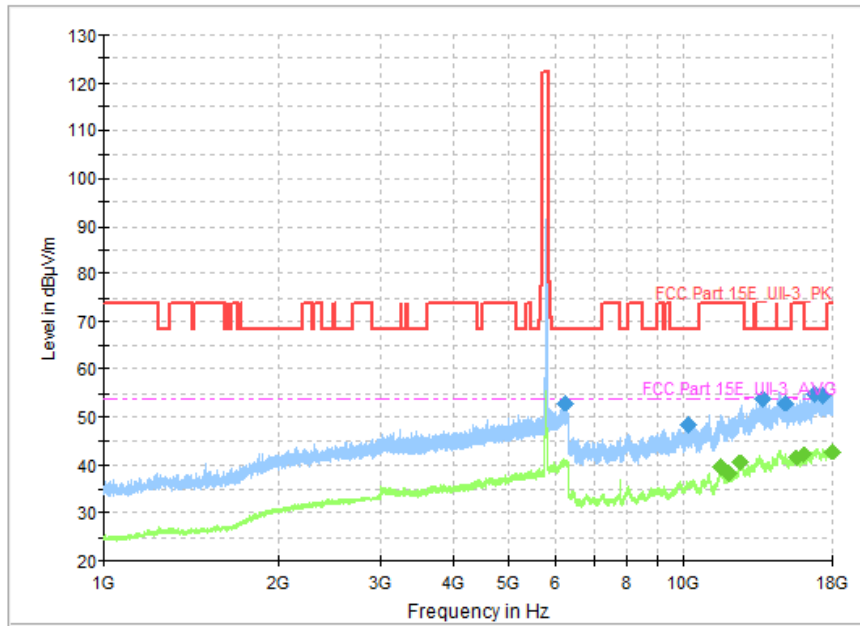


Fig. 83 Transmitter Spurious Emission (802.11n-HT40, CH159 5795MHz, 1 GHz-18 GHz)

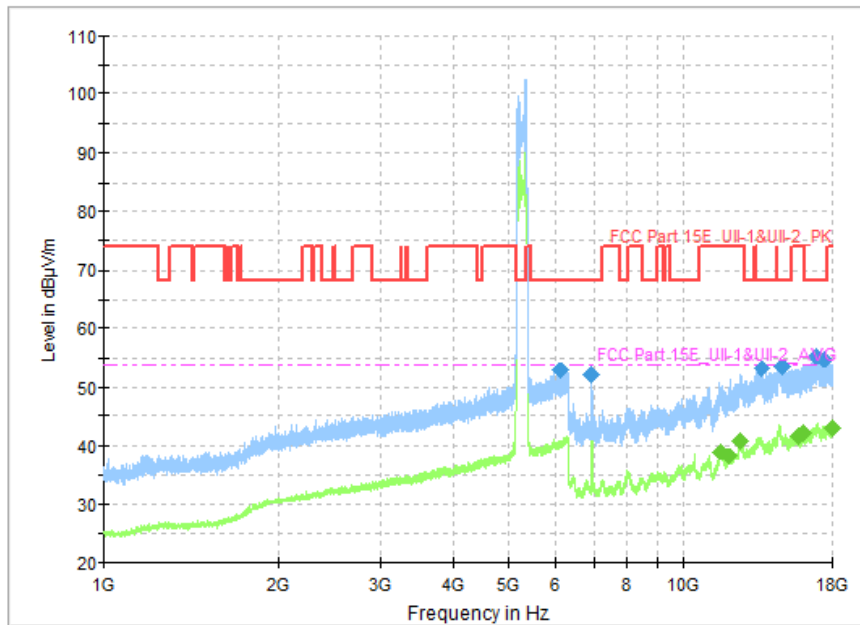


Fig. 84 Transmitter Spurious Emission (802.11ac-VHT80, CH42 5210MHz, 1 GHz-18 GHz)

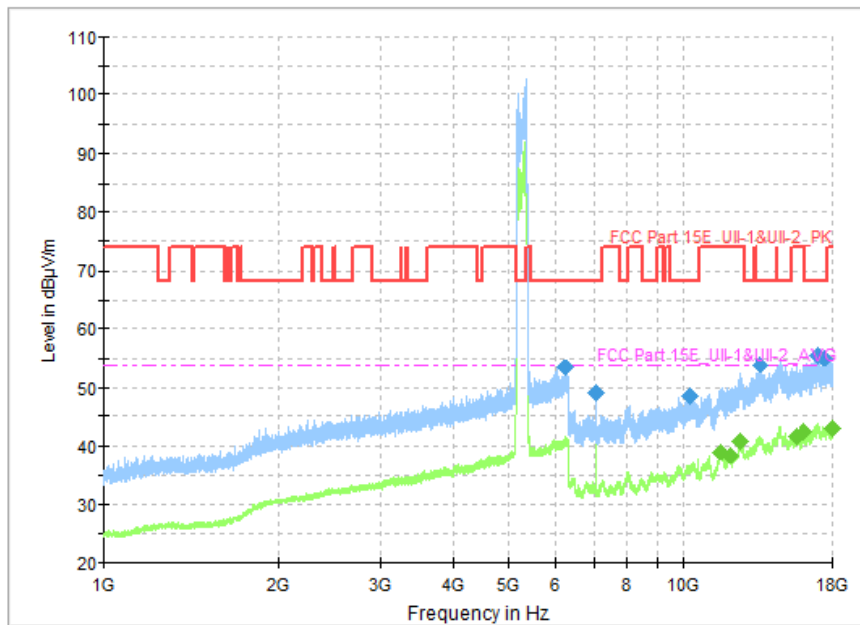


Fig. 85 Transmitter Spurious Emission (802. 11ac-VHT80, CH58 5290MHz, 1 GHz-18 GHz)

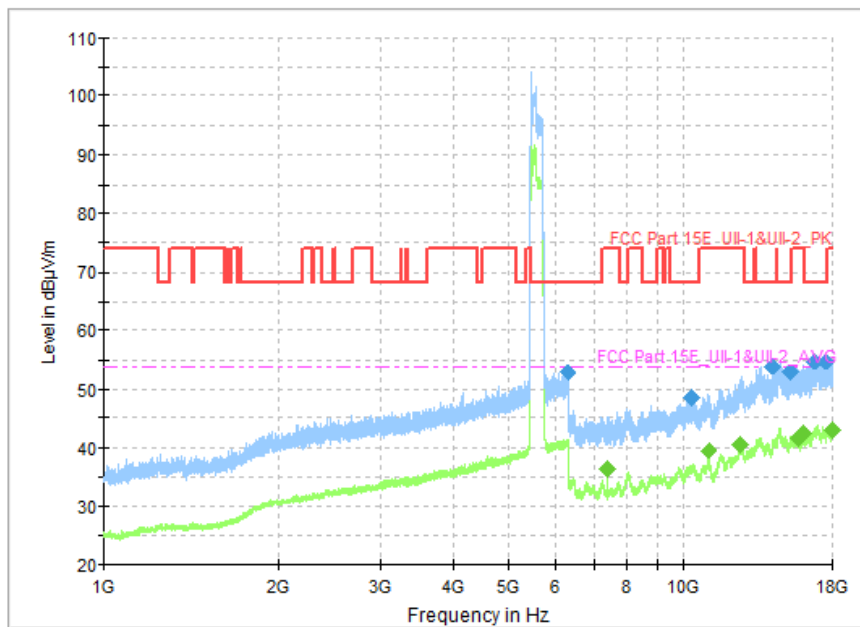
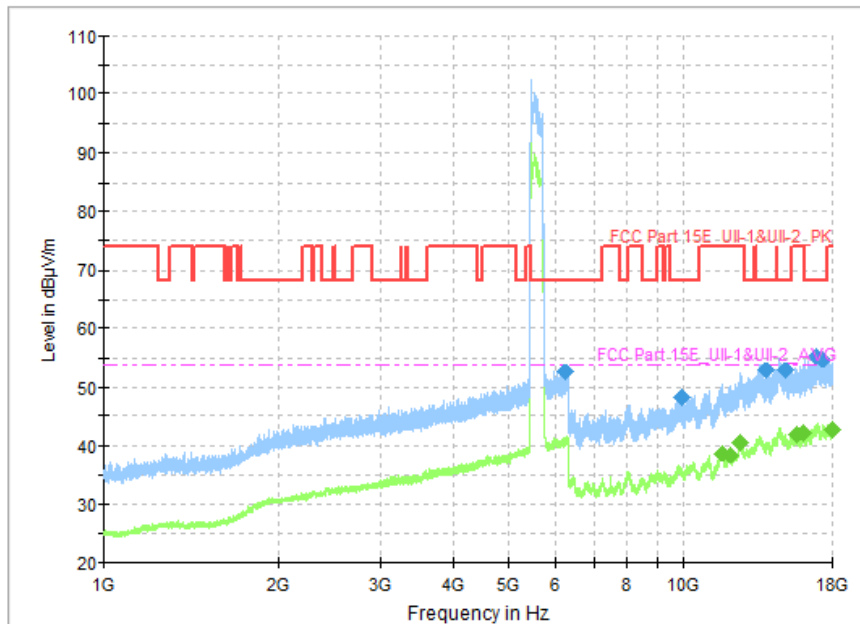
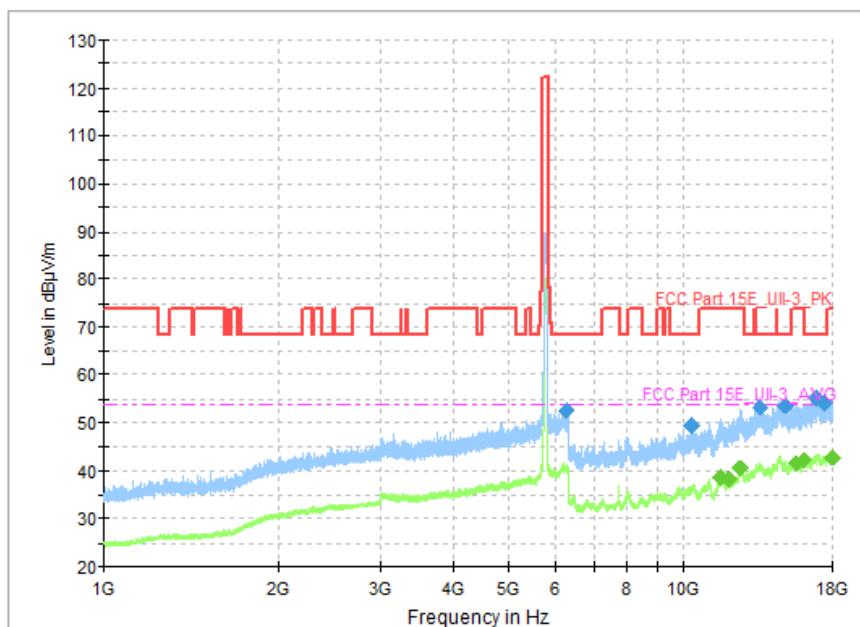


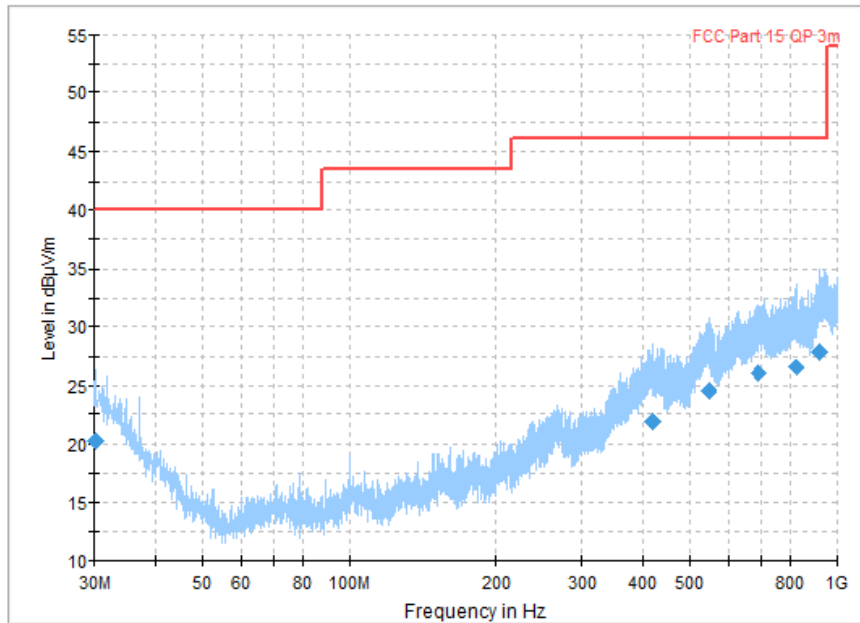
Fig. 86 Transmitter Spurious Emission (802. 11ac-VHT80, CH106 5530MHz, 1 GHz-18 GHz)



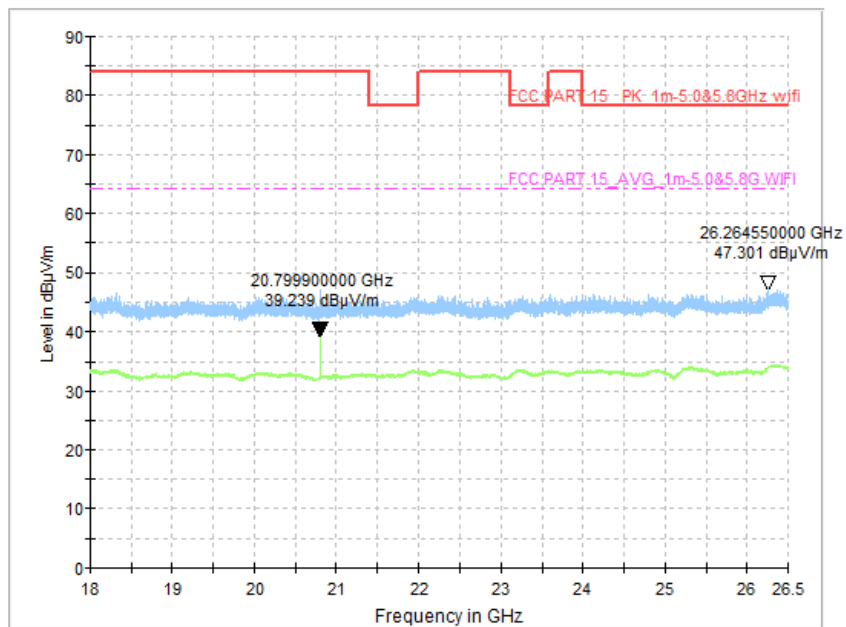
**Fig. 87 Transmitter Spurious Emission (802. 11ac-VHT80, CH122 5610MHz, 1 GHz-18 GHz)**



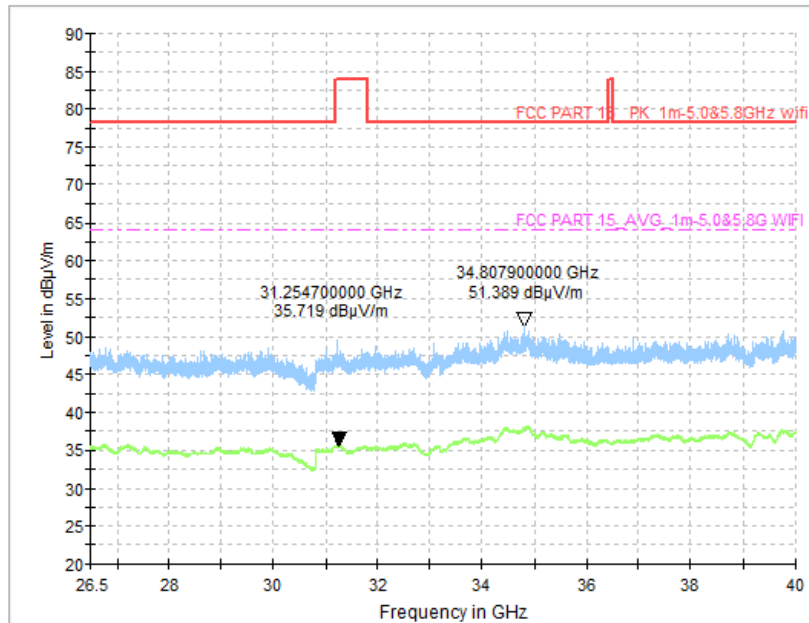
**Fig. 88 Transmitter Spurious Emission (802. 11ac-VHT80, CH155 5775MHz, 1 GHz-18 GHz)**



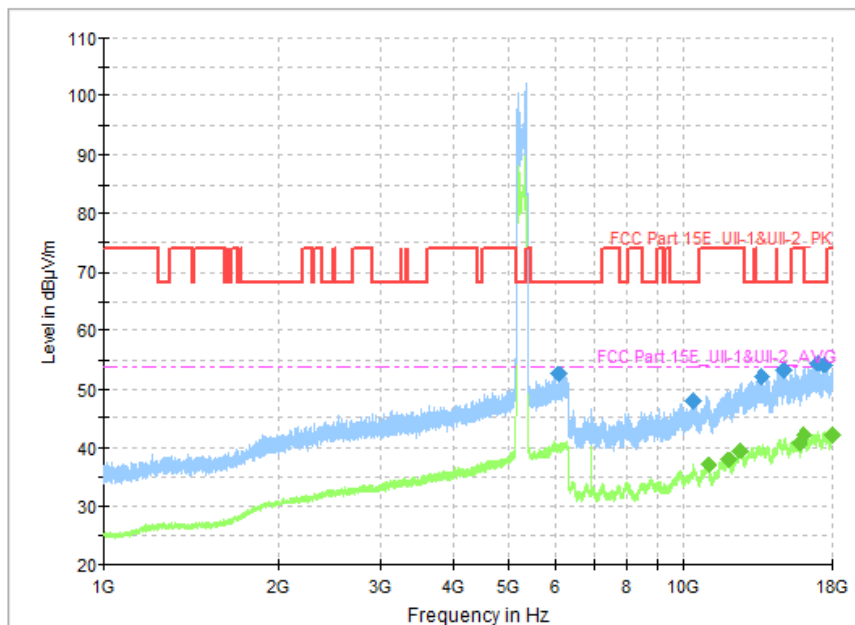
**Fig. 89 Transmitter Spurious Emission (All channel, 30MHz~1GHz)**



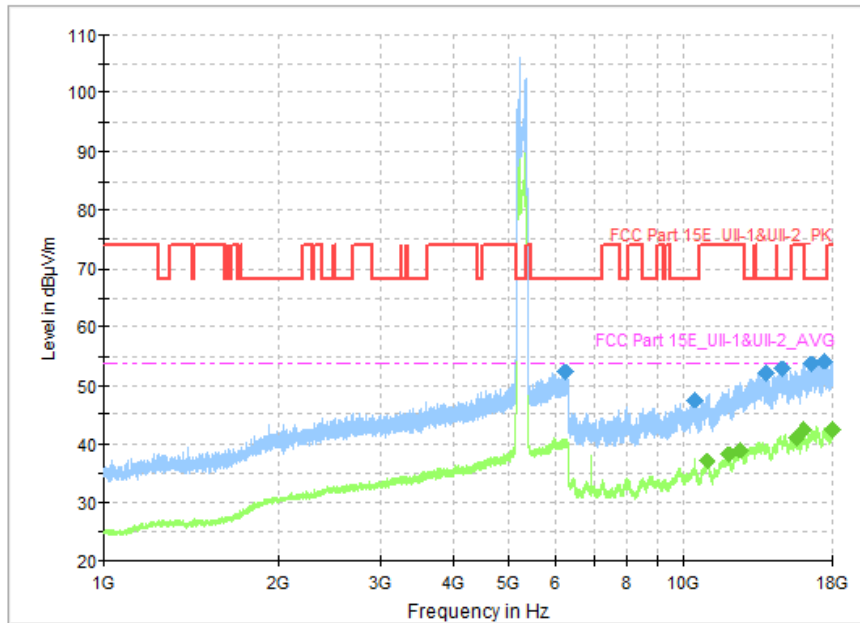
**Fig. 90 Transmitter Spurious Emission (All channel, 18GHz~26.5GHz)**



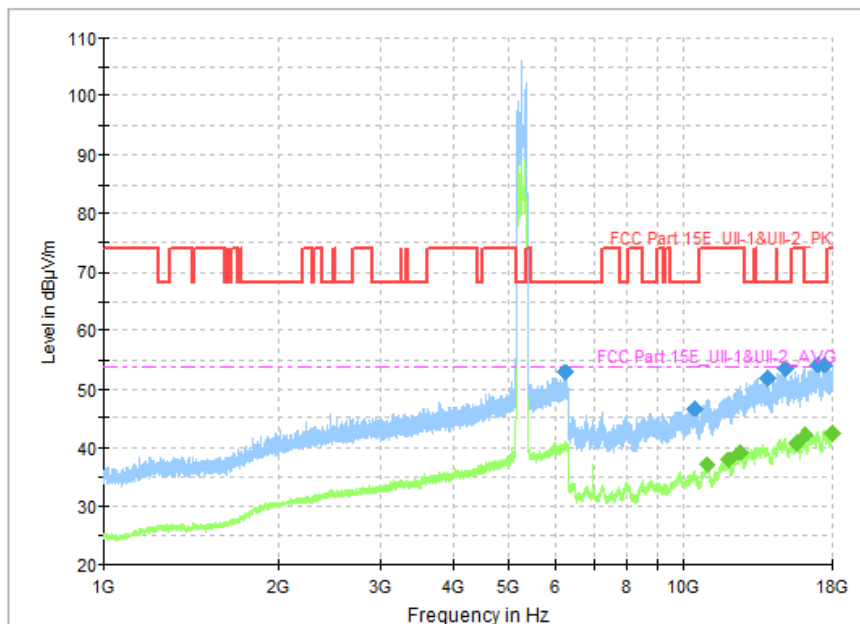
**Fig. 91 Transmitter Spurious Emission (All channel, 26.5GHz~40GHz)**



**Fig. 92 Transmitter Spurious Emission (802.11n-HT20, CH36 5180MHz, 1 GHz-18 GHz, MIMO)**

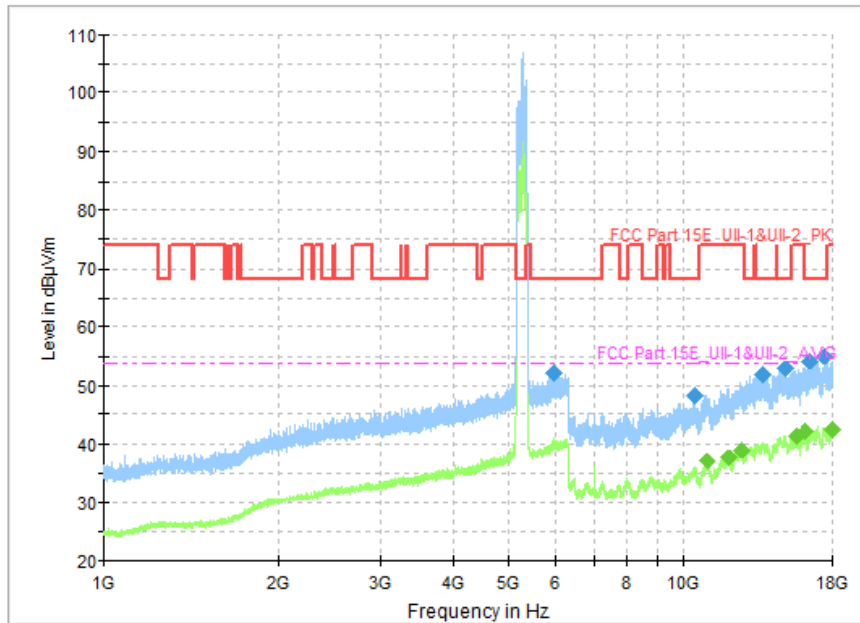


**Fig. 93 Transmitter Spurious Emission (802. 11n-HT20, CH40 5200MHz, 1 GHz-18 GHz, MIMO)**

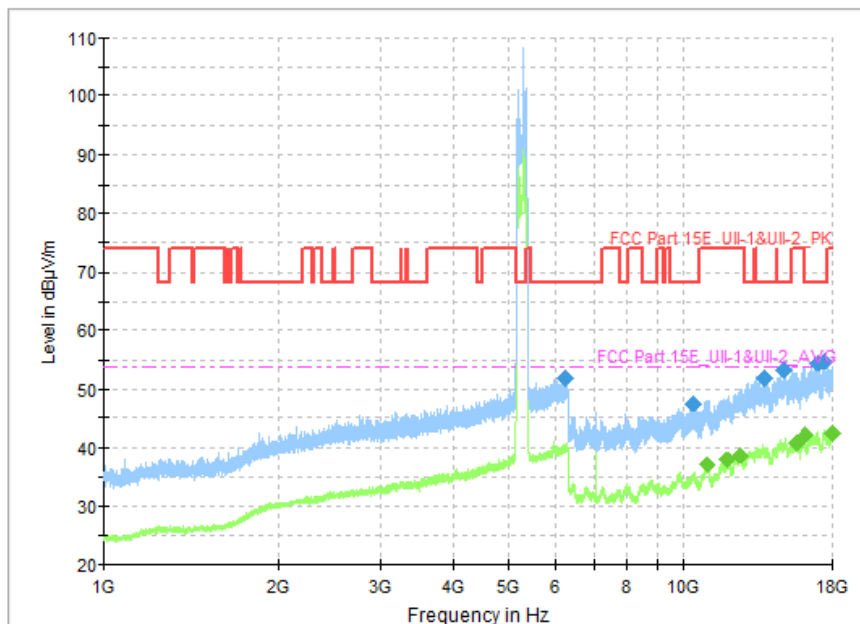


**Fig. 94 Transmitter Spurious Emission (802. 11n-HT20, CH48 5240MHz, 1 GHz-18 GHz, MIMO)**





**Fig. 95 Transmitter Spurious Emission (802. 11n-HT20, CH52 5260MHz, 1 GHz-18 GHz, MIMO)**



**Fig. 96 Transmitter Spurious Emission (802. 11n-HT20, CH56 5280MHz, 1 GHz-18 GHz, MIMO)**

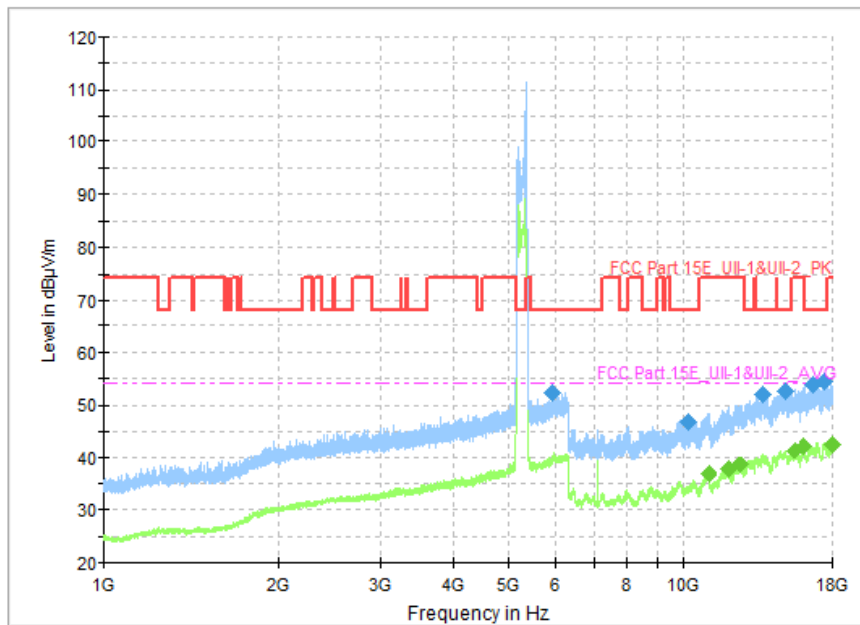


Fig. 97 Transmitter Spurious Emission (802. 11n-HT20, CH64 5320MHz, 1 GHz-18 GHz, MIMO)

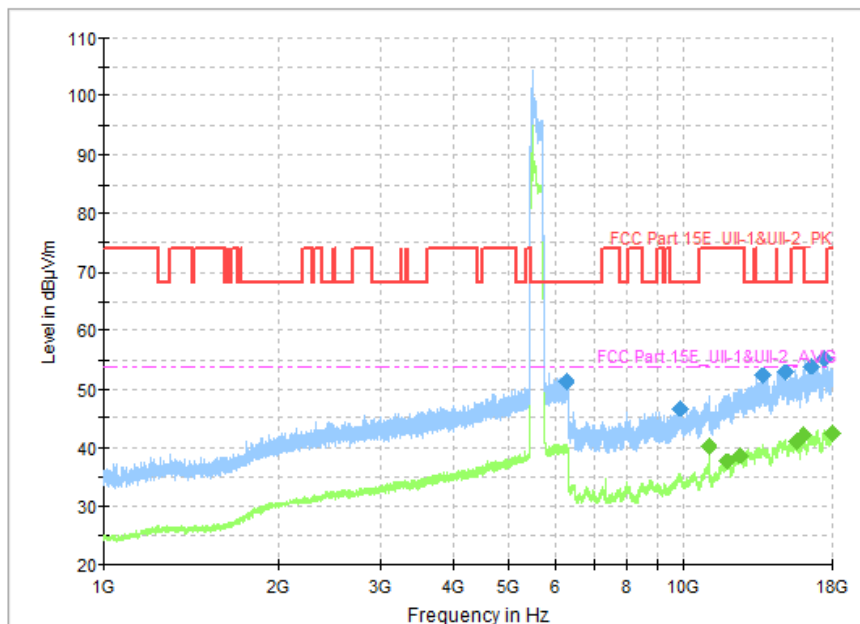
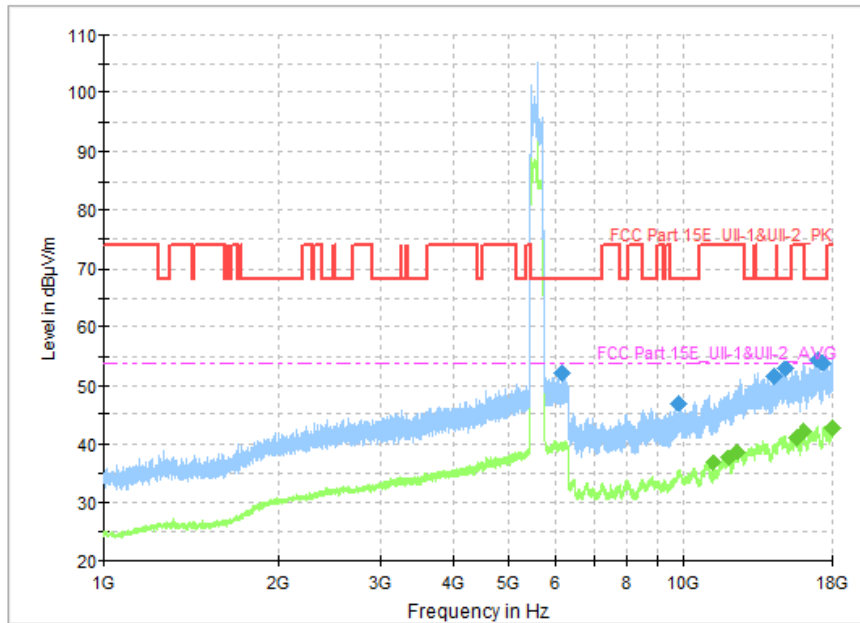
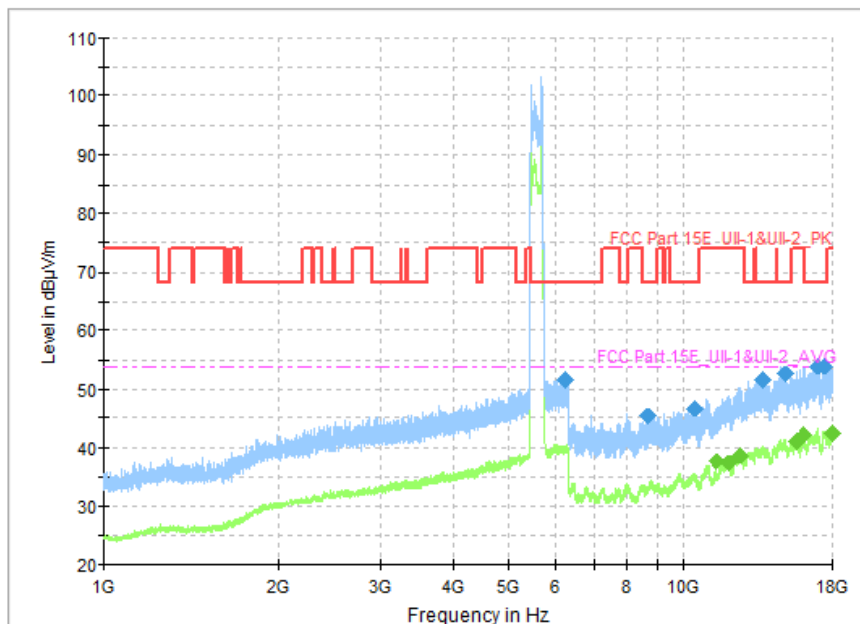


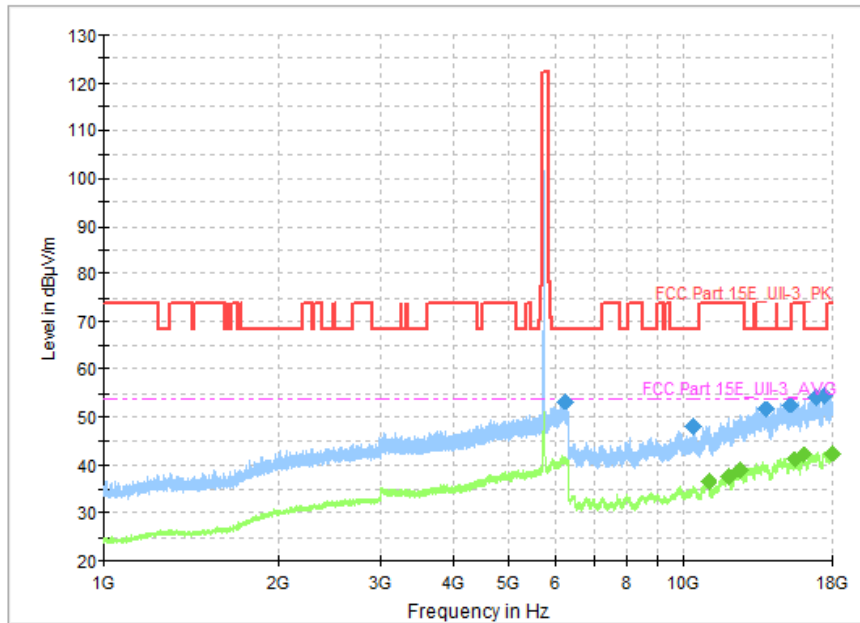
Fig. 98 Transmitter Spurious Emission (802. 11n-HT20, CH100 5500MHz, 1 GHz-18 GHz, MIMO)



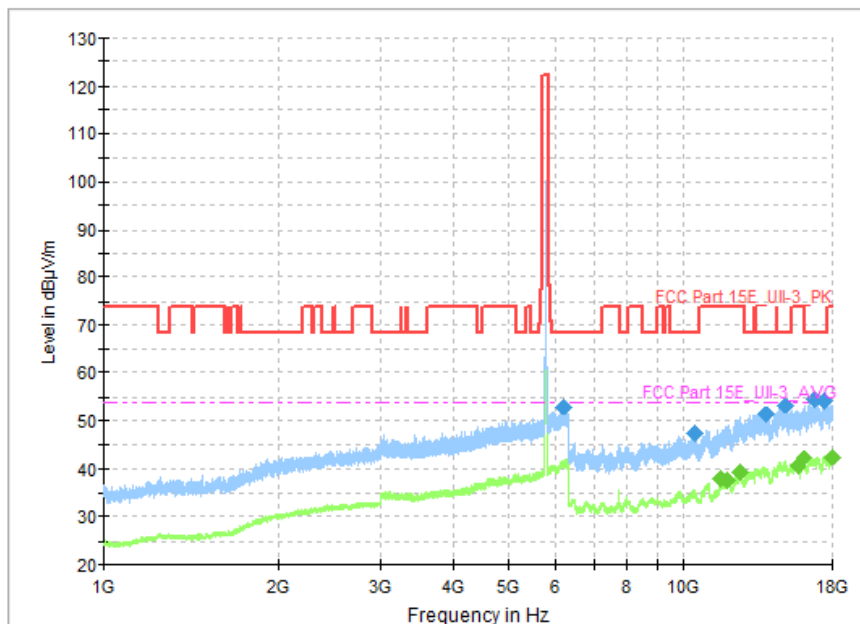
**Fig. 99 Transmitter Spurious Emission (802. 11n-HT20, CH120 5600MHz, 1 GHz-18 GHz, MIMO)**



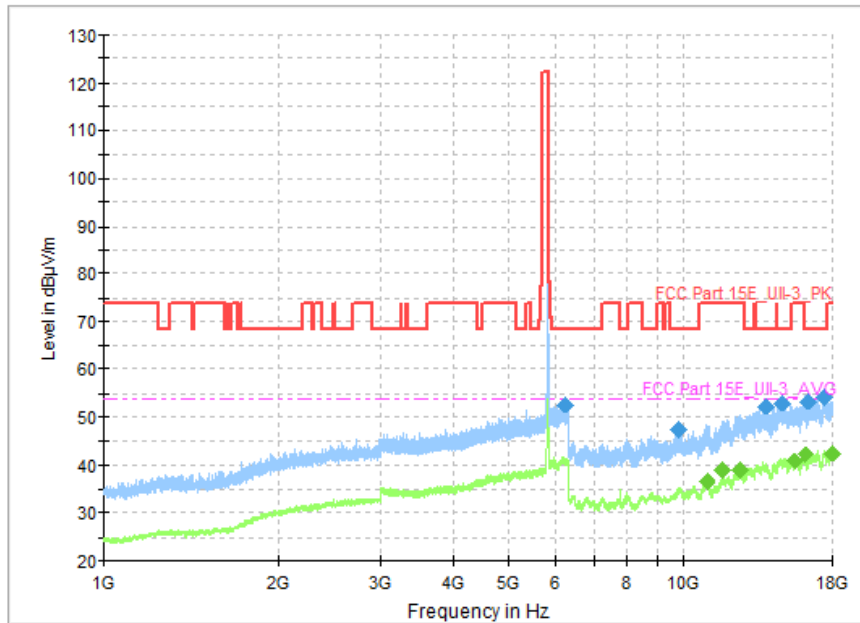
**Fig. 100 Transmitter Spurious Emission (802. 11n-HT20, CH140 5700MHz, 1 GHz-18 GHz, MIMO)**



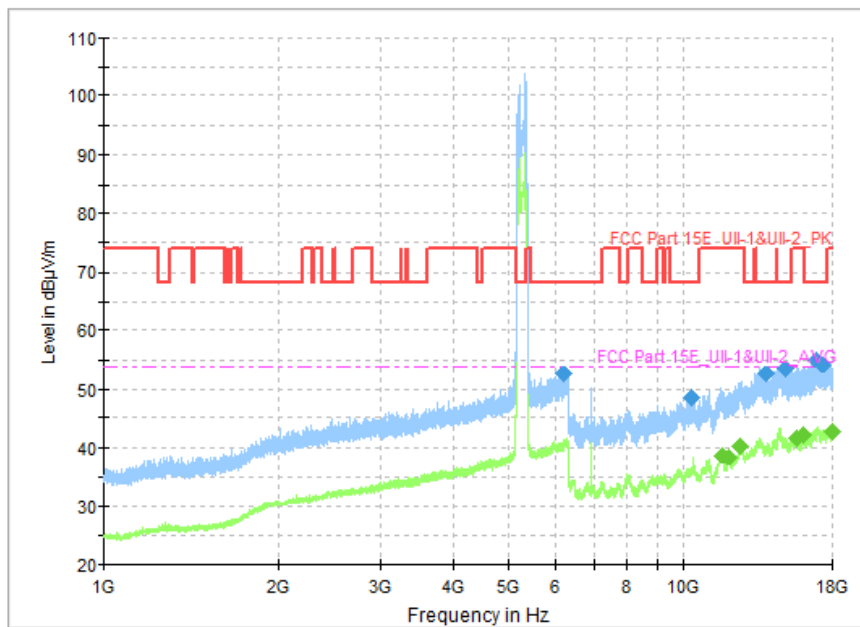
**Fig. 101 Transmitter Spurious Emission (802. 11n-HT20, CH149 5745MHz, 1 GHz-18 GHz, MIMO)**



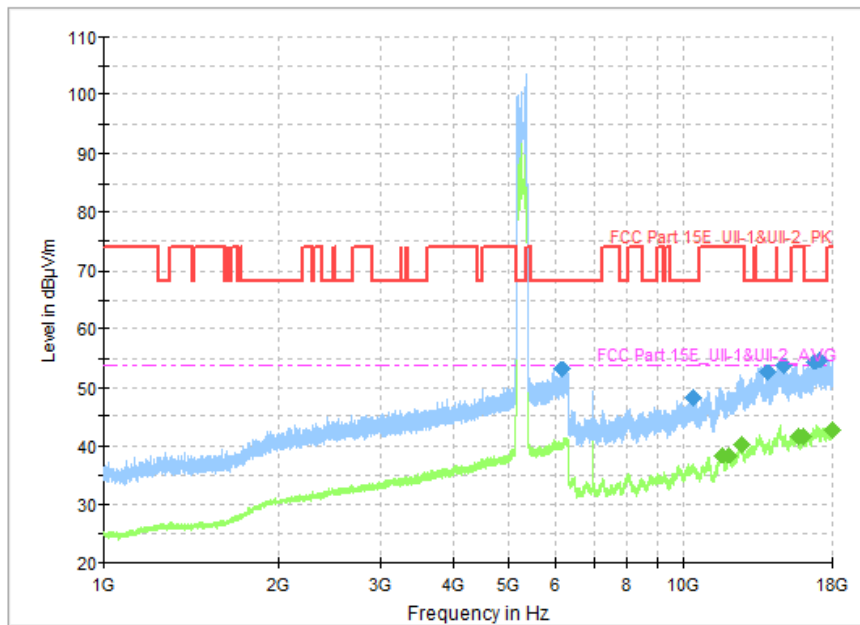
**Fig. 102 Transmitter Spurious Emission (802. 11n-HT20, CH157 5785MHz, 1 GHz-18 GHz, MIMO)**



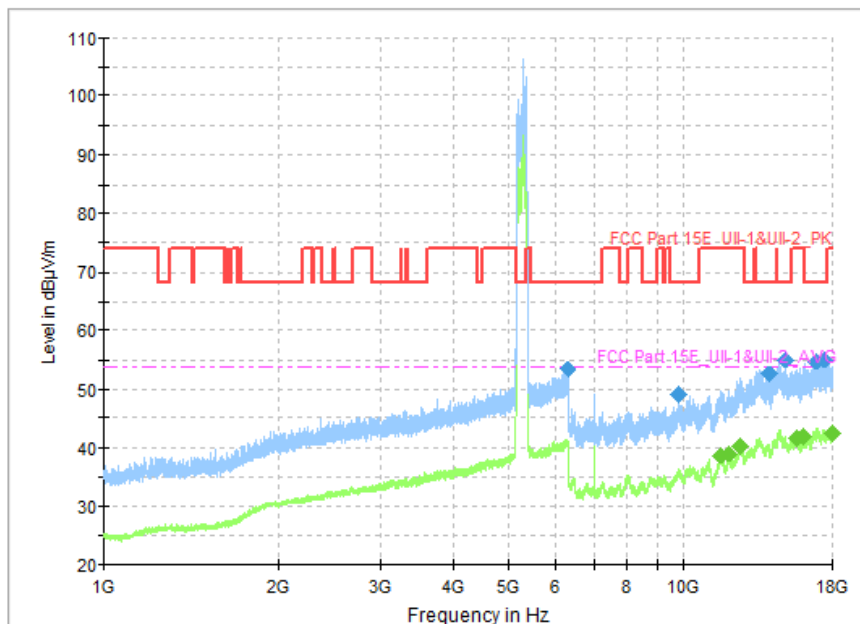
**Fig. 103 Transmitter Spurious Emission (802.11n-HT20, CH165 5825MHz, 1 GHz-18 GHz, MIMO)**



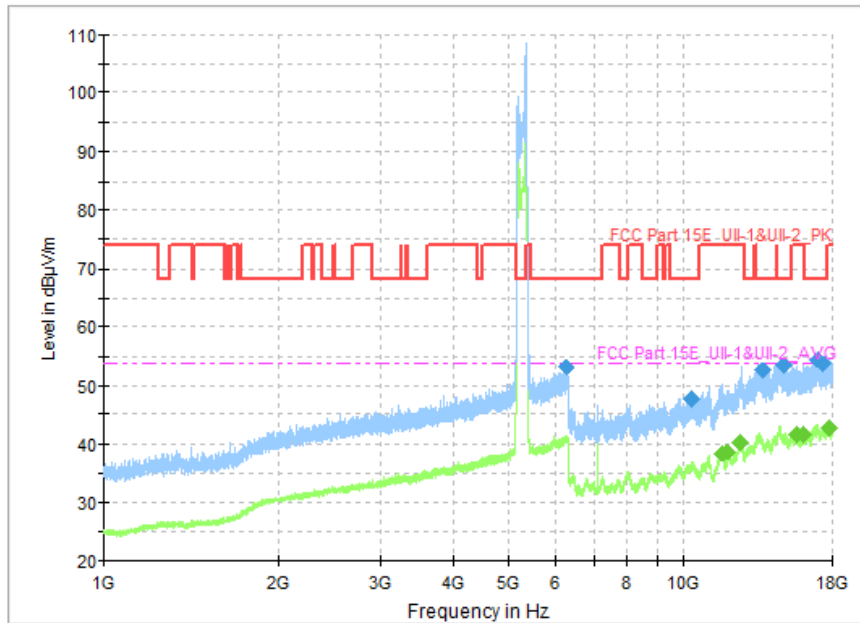
**Fig. 104 Transmitter Spurious Emission (802.11n-HT40, CH38 5190MHz, 1 GHz-18 GHz, MIMO)**



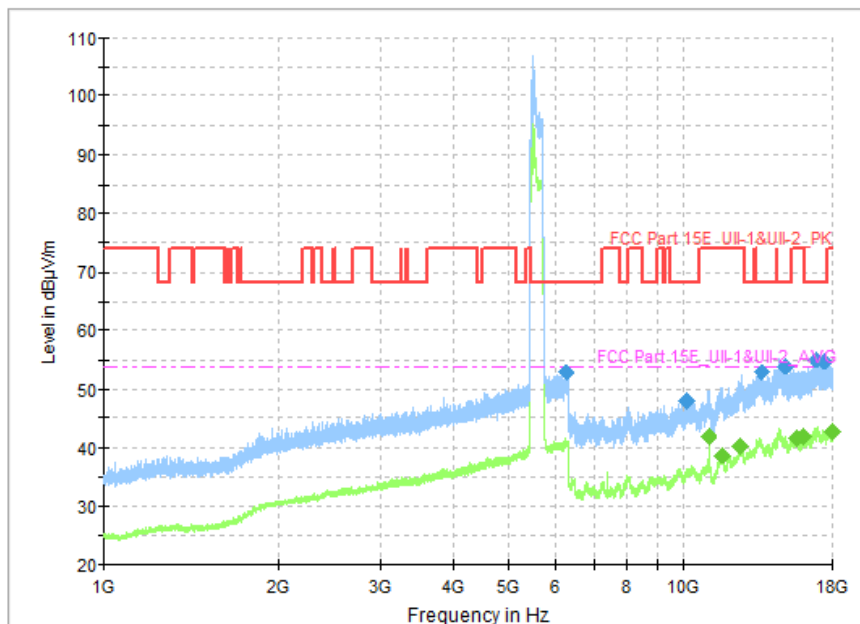
**Fig. 105 Transmitter Spurious Emission (802.11n-HT40, CH46 5230MHz, 1 GHz-18 GHz, MIMO)**



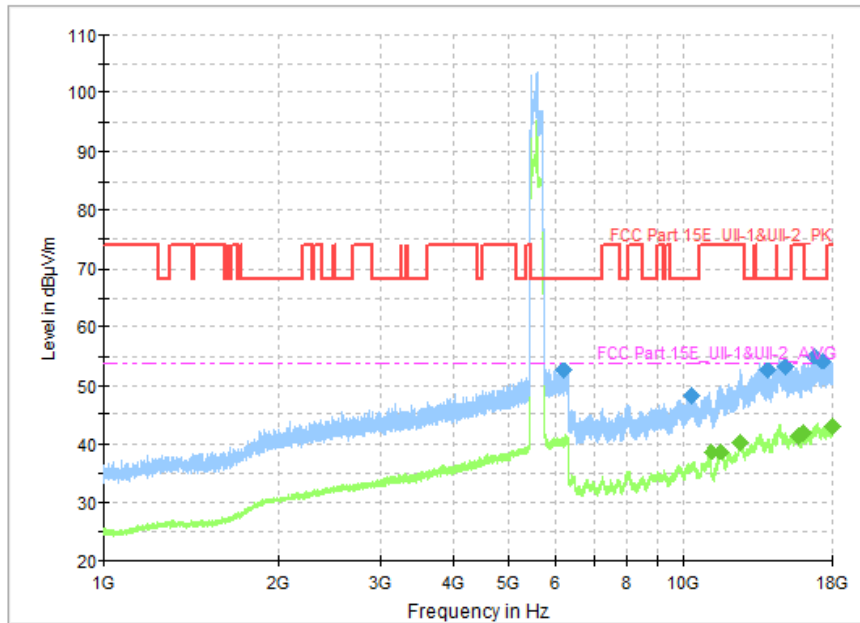
**Fig. 106 Transmitter Spurious Emission (802.11n-HT40, CH54 5270MHz, 1 GHz-18 GHz, MIMO)**



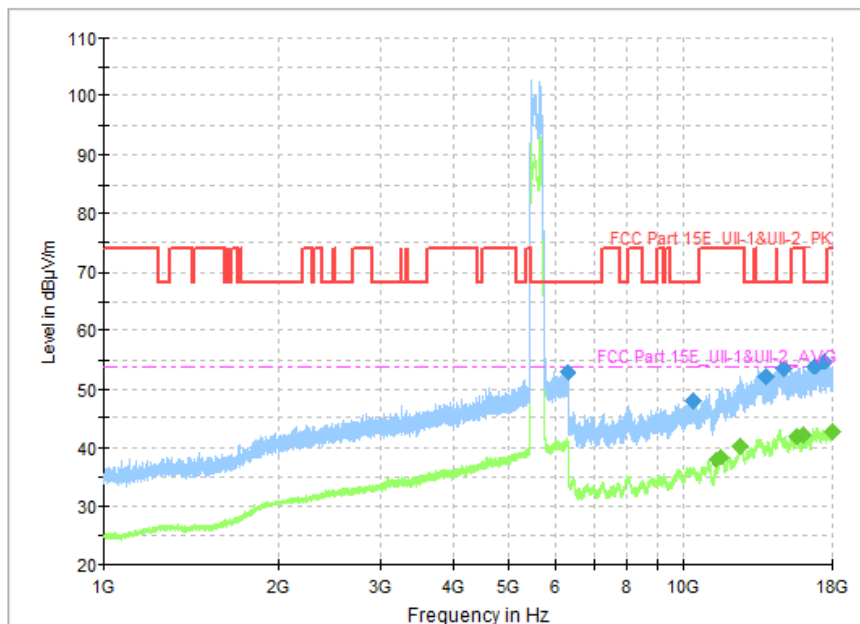
**Fig. 107 Transmitter Spurious Emission (802.11n-HT40, CH62 5310MHz, 1 GHz-18 GHz, MIMO)**



**Fig. 108 Transmitter Spurious Emission (802.11n-HT40, CH102 5510MHz, 1 GHz-18 GHz, MIMO)**

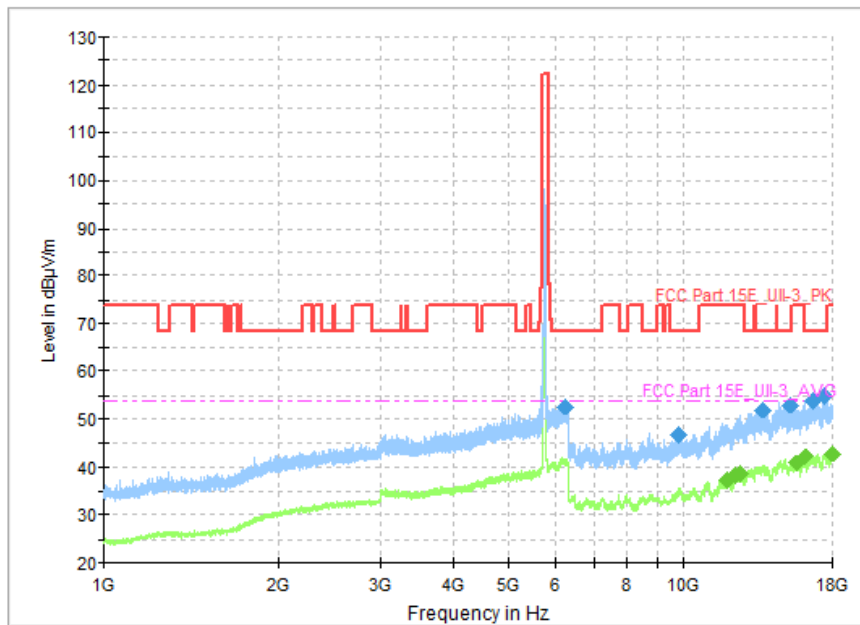


**Fig. 109 Transmitter Spurious Emission (802. 11n-HT40, CH118 5580MHz, 1 GHz-18 GHz, MIMO)**

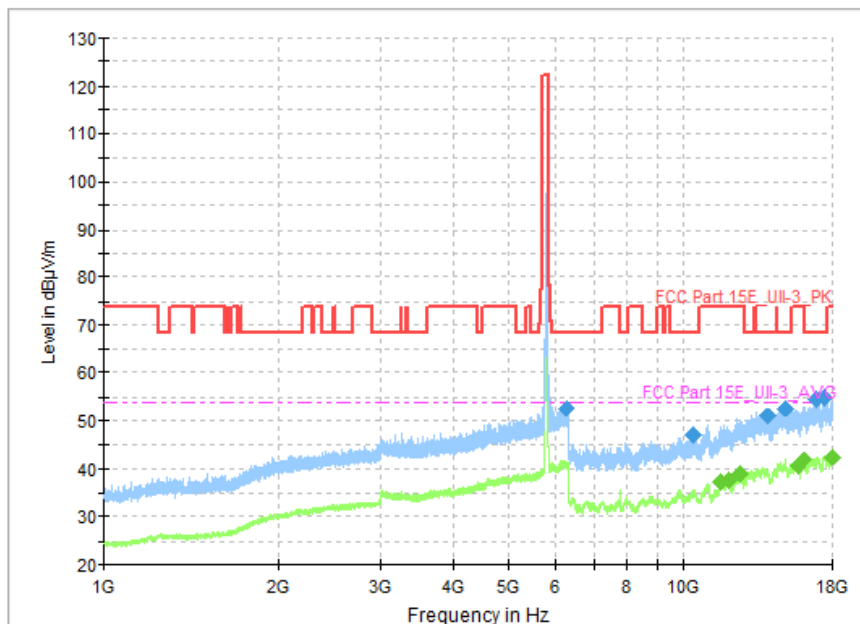


**Fig. 110 Transmitter Spurious Emission (802. 11n-HT40, CH134 5670MHz, 1 GHz-18 GHz, MIMO)**

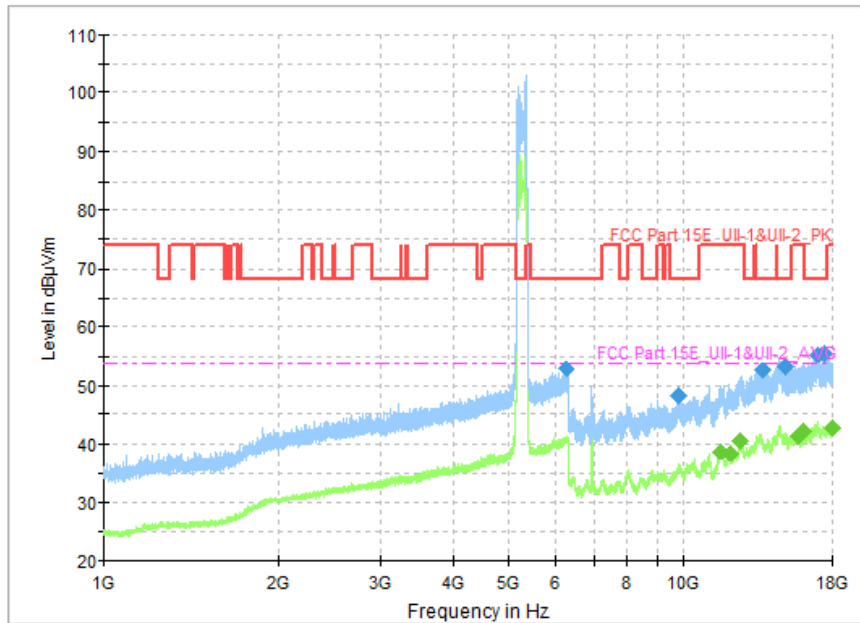




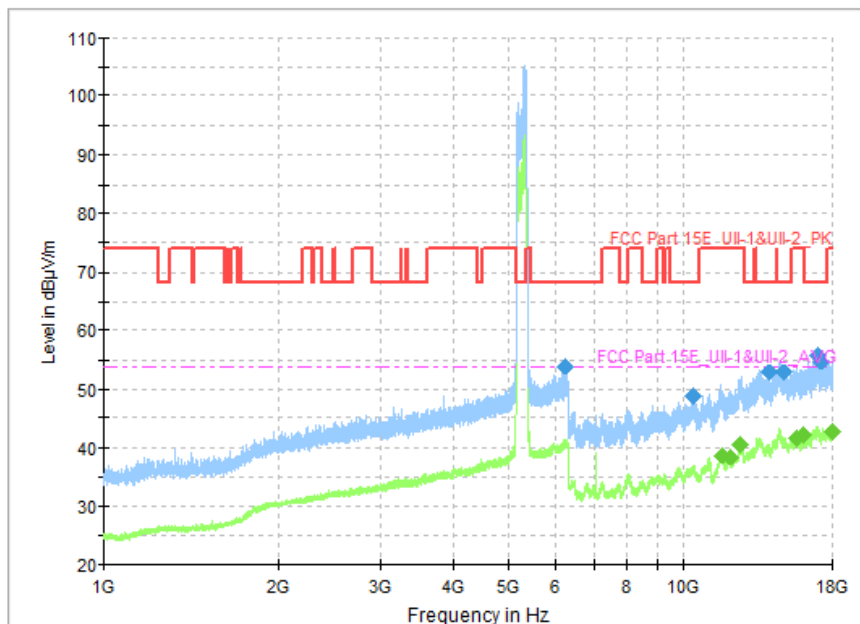
**Fig. 111 Transmitter Spurious Emission (802. 11n-HT40, CH151 5755MHz, 1 GHz-18 GHz, MIMO)**



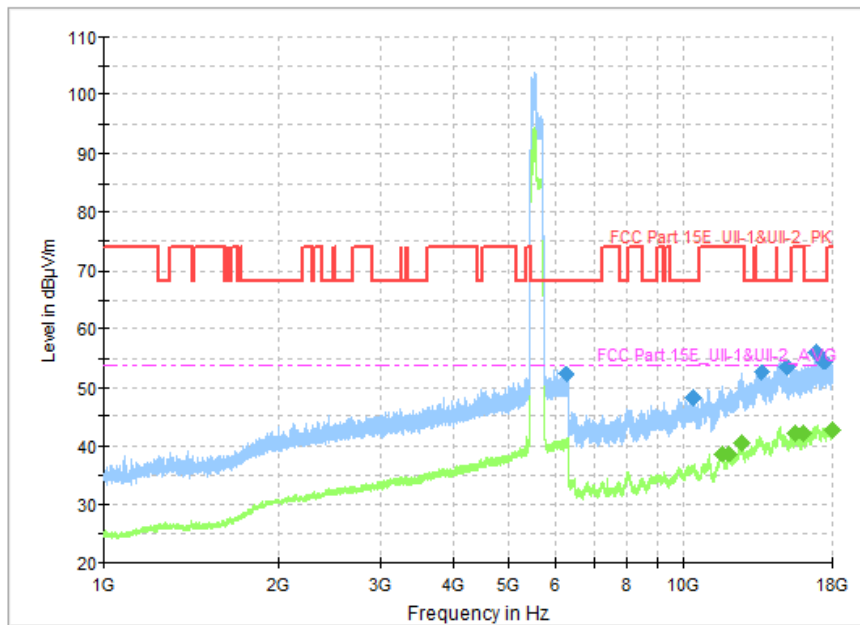
**Fig. 112 Transmitter Spurious Emission (802. 11n-HT40, CH159 5795MHz, 1 GHz-18 GHz, MIMO)**



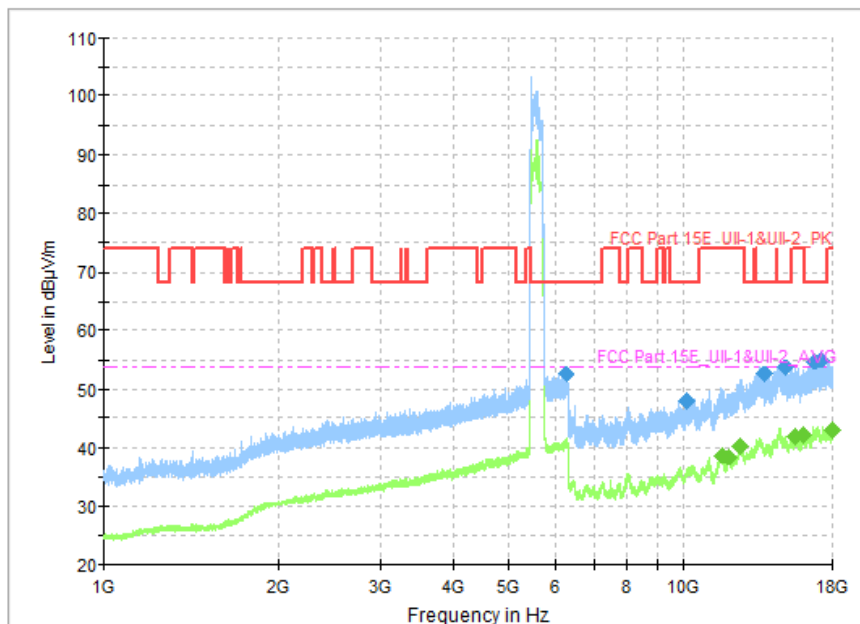
**Fig. 113 Transmitter Spurious Emission (802.11ac-VHT80, CH42 5210MHz, 1 GHz-18 GHz, MIMO)**



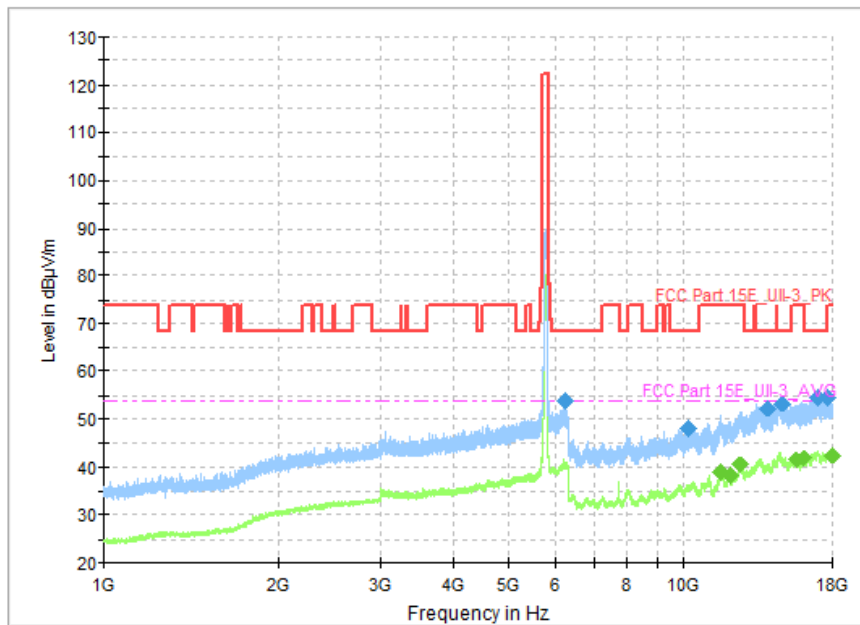
**Fig. 114 Transmitter Spurious Emission (802.11ac-VHT80, CH58 5290MHz, 1 GHz-18 GHz, MIMO)**



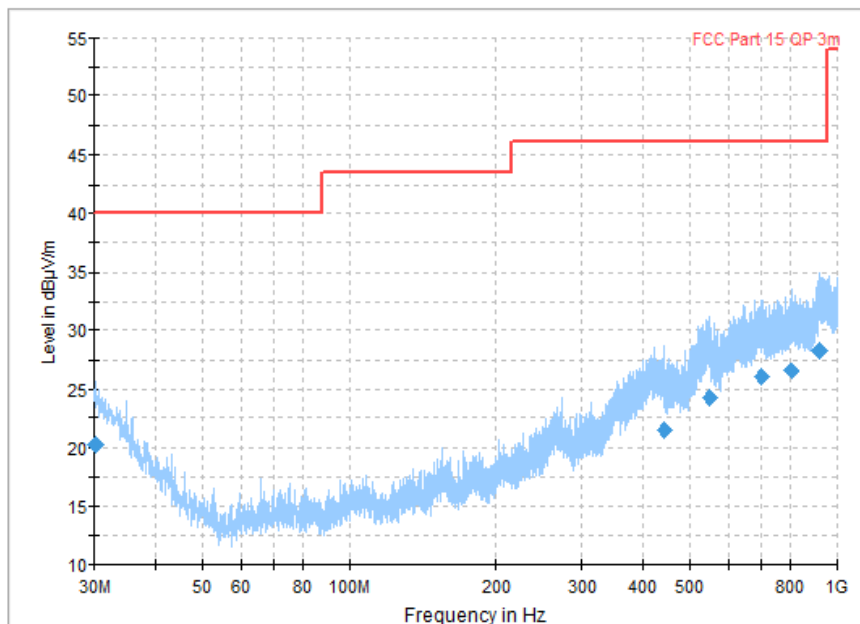
**Fig. 115 Transmitter Spurious Emission (802. 11ac-VHT80, CH106 5530MHz, 1 GHz-18 GHz, MIMO)**



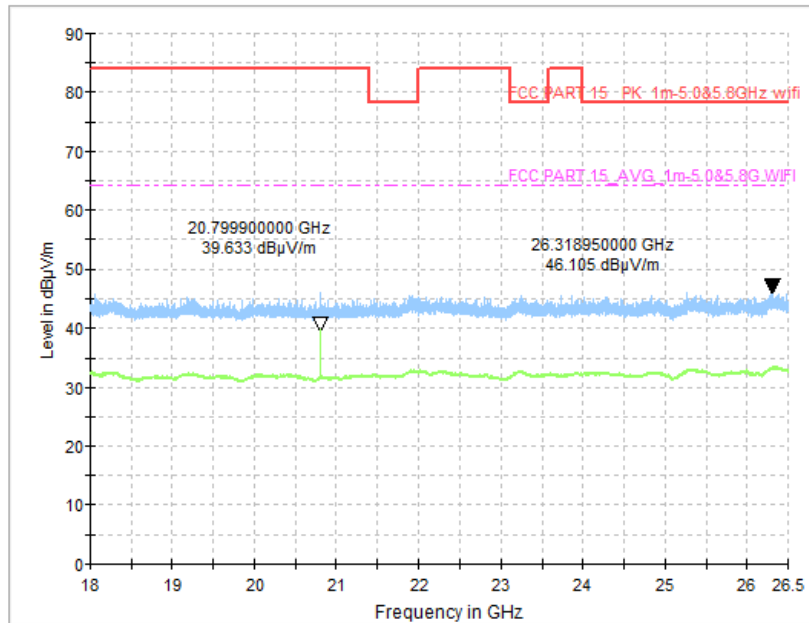
**Fig. 116 Transmitter Spurious Emission (802. 11ac-VHT80, CH122 5610MHz, 1 GHz-18 GHz, MIMO)**



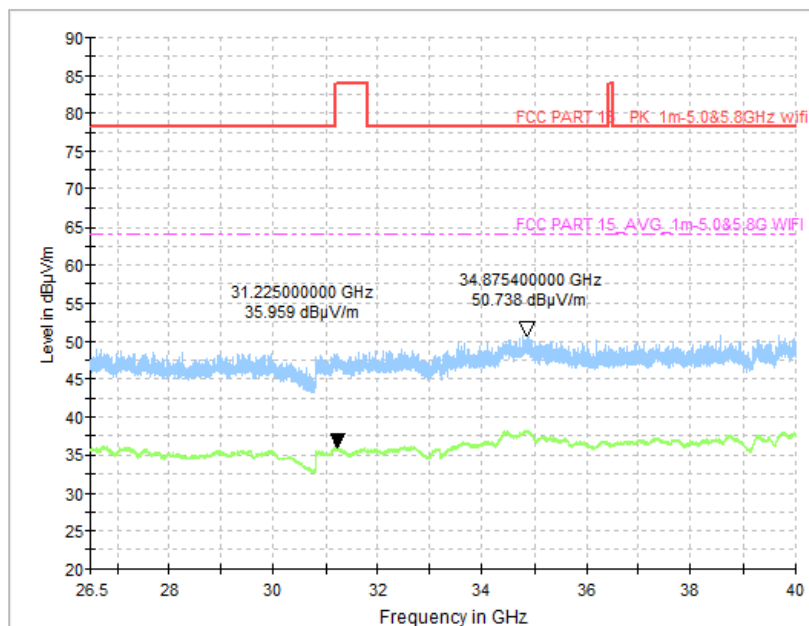
**Fig. 117 Transmitter Spurious Emission (802. 11ac-VHT80, CH155 5775MHz, 1 GHz-18 GHz, MIMO)**



**Fig. 118 Transmitter Spurious Emission (All channel, 30MHz~1GHz, MIMO)**



**Fig. 119 Transmitter Spurious Emission (All channel, 18GHz~26.5GHz, MIMO)**



**Fig. 120 Transmitter Spurious Emission (All channel, 26.5GHz~40GHz, MIMO)**

### A.9. Radiated Spurious Emissions < 30MHz

#### 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:

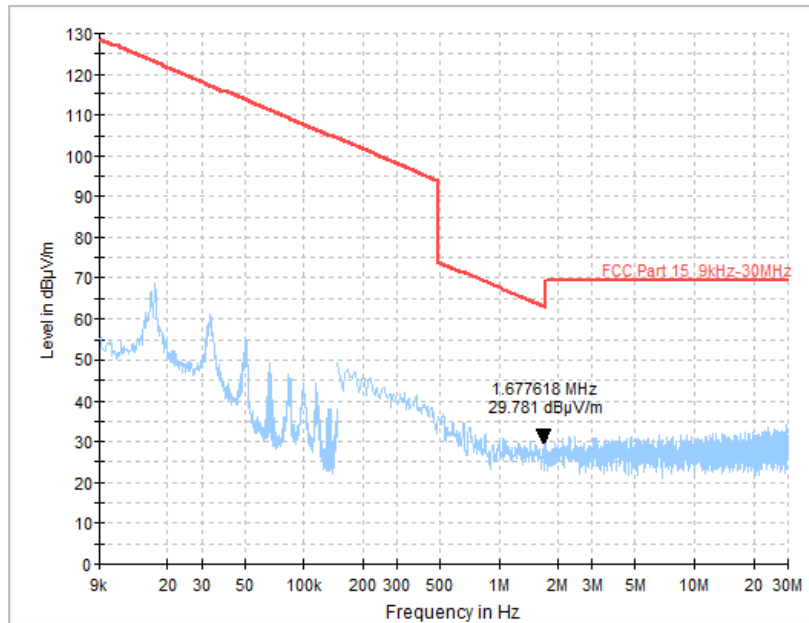
Mode	Frequency Range	Test Results	Conclusion
All Channel	9 kHz ~30 MHz	Fig.121	P

##### MIMO:

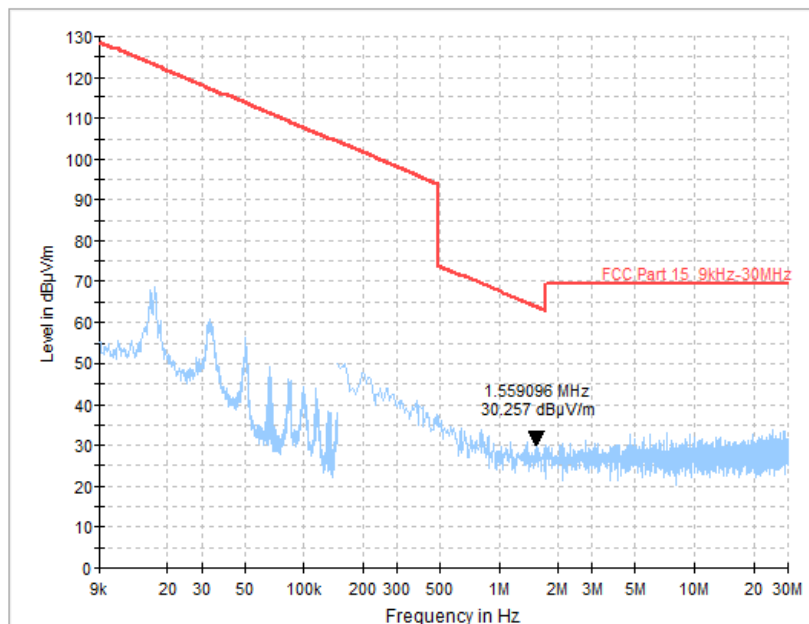
Mode	Frequency Range	Test Results	Conclusion
All Channel	9 kHz ~30 MHz	Fig.122	P

**Conclusion: PASS**

Test graphs as below:



**Fig. 121 Radiated Spurious Emission (All Channel, 9 kHz ~30 MHz)**



**Fig. 122 Radiated Spurious Emission (All Channel, 9 kHz ~30 MHz, MIMO)**

### A.10. AC Power Line Conducted Emission

**Test Condition:**

Voltage (V)	Frequency (Hz)
120	60

**Measurement Result and limit:**

RLAN (Quasi-peak Limit)-AE1

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion
		Traffic	Idle	
0.15 to 0.5	66 to 56	Fig.123	Fig.124	<b>P</b>
0.5 to 5	56			
5 to 30	60			

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

RLAN (Average Limit)-AE1

Frequency range (MHz)	Average-peak Limit (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion
		Traffic	Idle	
0.15 to 0.5	56 to 46	Fig.123	Fig.124	<b>P</b>
0.5 to 5	46			
5 to 30	50			

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

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

**Conclusion: PASS**

**Test graphs as below:**



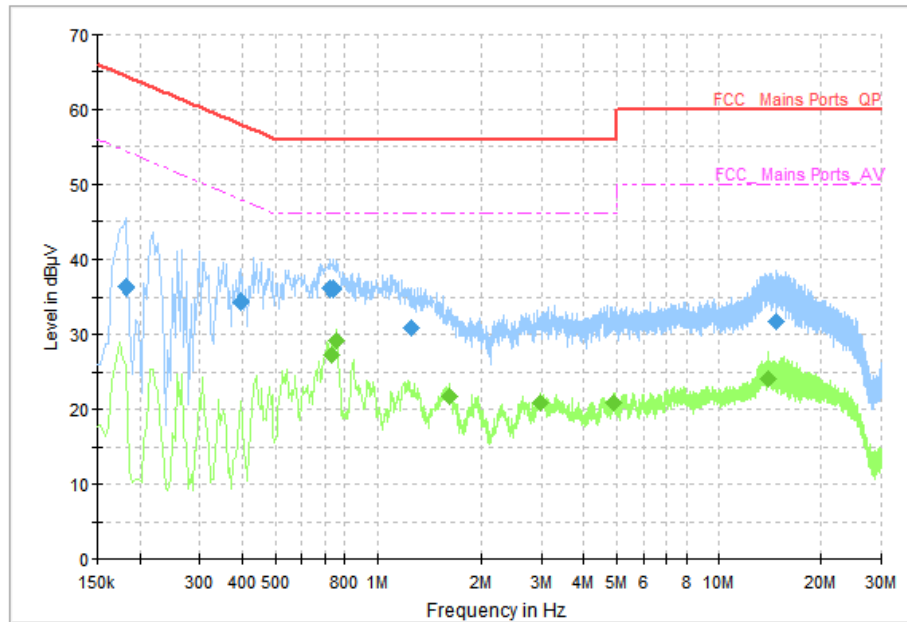


Fig. 123 AC Power line Conducted Emission (802.11a, 120V)

**Measurement Result: Quasi Peak**

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.182000	36.18	64.39	28.21	L1	ON	10
0.398000	34.37	57.90	23.52	N	ON	10
0.722000	36.09	56.00	19.91	L1	ON	10
0.742000	36.09	56.00	19.91	L1	ON	10
1.254000	30.86	56.00	25.14	L1	ON	10
14.654000	31.87	60.00	28.13	L1	ON	10

**Measurement Result: Average**

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.734000	27.32	46.00	18.68	L1	ON	10
0.758000	29.30	46.00	16.70	L1	ON	10
1.606000	21.86	46.00	24.14	L1	ON	10
2.994000	20.82	46.00	25.18	L1	ON	10
4.906000	21.01	46.00	24.99	L1	ON	10
13.966000	24.05	50.00	25.95	L1	ON	10

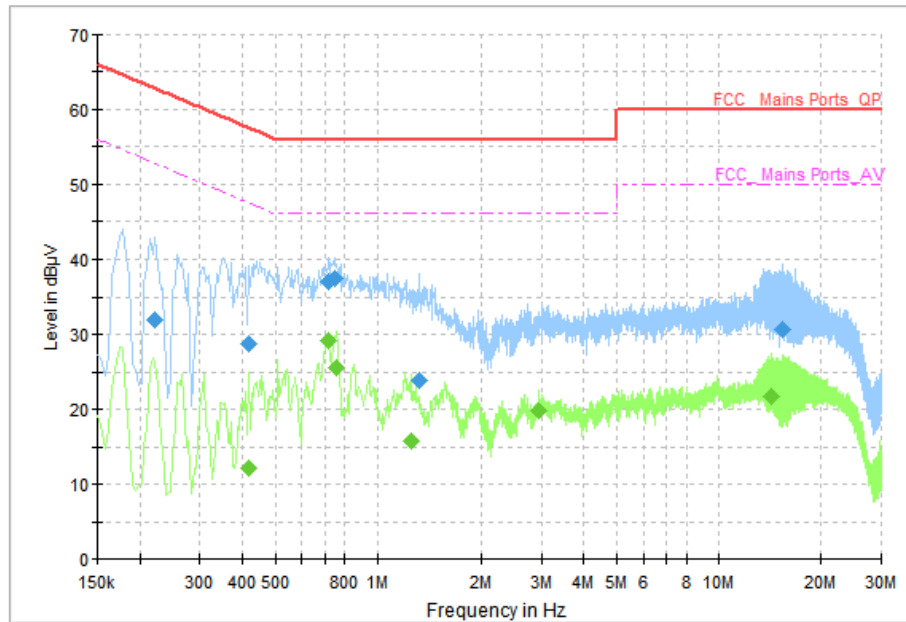


Fig. 124 AC Power line Conducted Emission (Idle, 120V)

Measurement Result: Quasi Peak

Frequency (MHz)	QuasiPeak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.222000	31.91	62.74	30.83	N	ON	10
0.418000	28.77	57.49	28.72	L1	ON	10
0.718000	36.95	56.00	19.05	L1	ON	10
0.746000	37.40	56.00	18.60	L1	ON	10
1.322000	23.91	56.00	32.09	L1	ON	10
15.438000	30.82	60.00	29.18	N	ON	10

Measurement Result: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.418000	12.15	47.49	35.34	L1	ON	10
0.718000	29.28	46.00	16.72	L1	ON	10
0.758000	25.54	46.00	20.46	N	ON	10
1.254000	15.84	46.00	30.16	L1	ON	10
2.954000	19.80	46.00	26.20	L1	ON	10
14.246000	21.82	50.00	28.18	N	ON	10



### **A.11. 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\*\*\***