

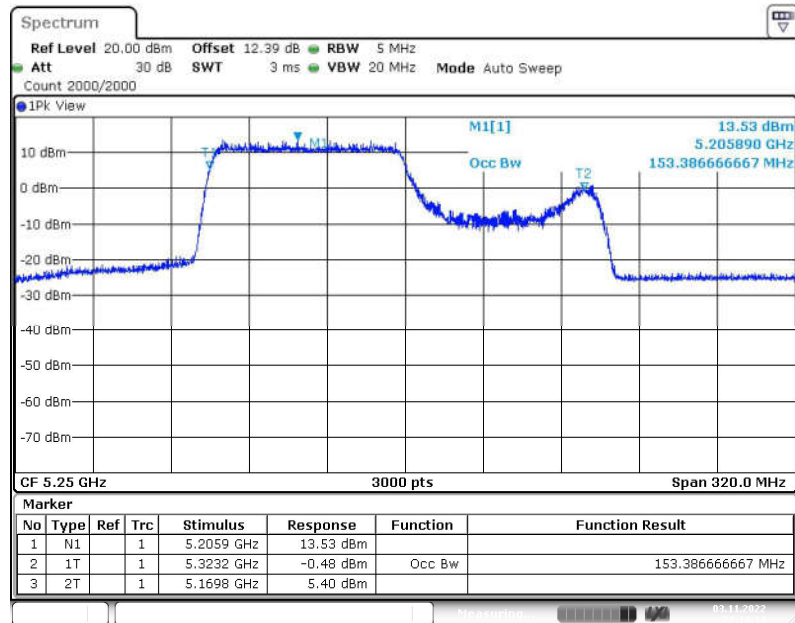


Fig. 61 99% Occupied Bandwidth (802.11ax-HE160, 5250MHz)

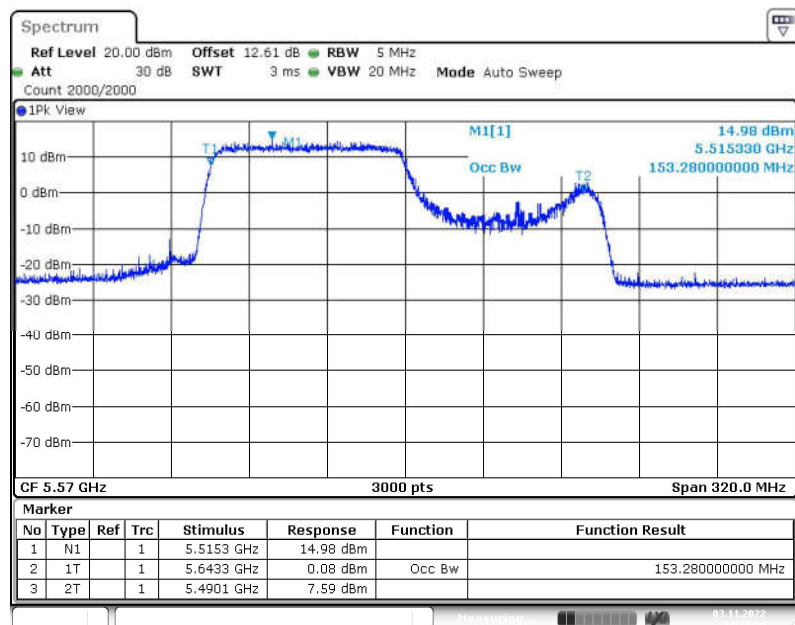


Fig. 62 99% Occupied Bandwidth (802.11ax-HE160, 5570MHz)

A.7. Dynamic Frequency Selection

The EUT is Client without radar detection (only support client mode).

Measurement of method: See KDB 905462-D02.

Measurement Limit:

Standard	Test Items	Limit
FCC 47 CFR Part 15.407 (h)	Channel Move Time	< 10 s
	Channel Closing Transmission Time	< 200 ms + 60 ms
	Non-Occupancy Period	> 1800 s

The measurement is made according to KDB 905462.

1). Parameters of DFS test signal:

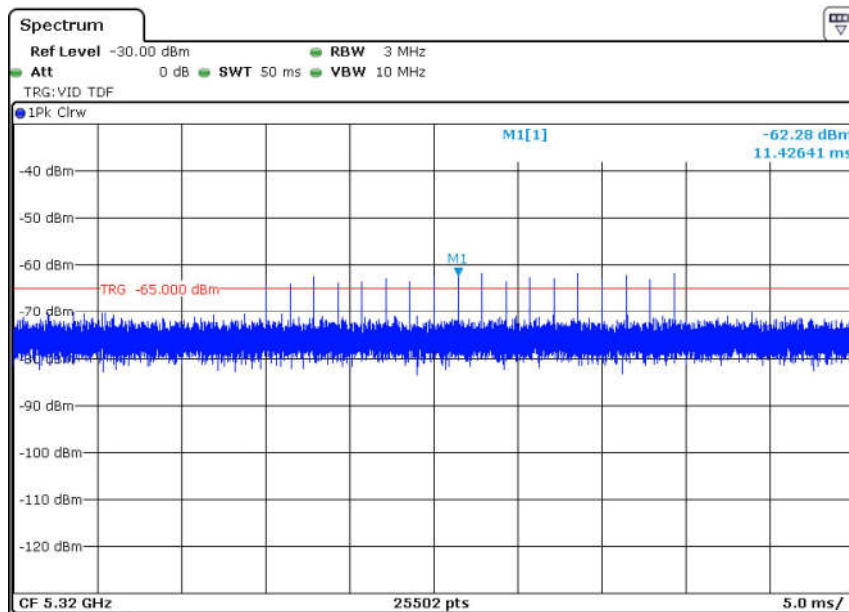
Interference threshold values, master or client incorporation in service monitoring. For device Power less than 23dBm (E.I.R.P.), the threshold level is -62 dBm at the antenna port after Correction for antenna gain and procedural adjustments.

Because of conducted measurement performed, the calibration power from radar signal generator to antenna port of DFS test equipment is -62 dBm.

Maximum Transmit Power	Value
> 200 mW	-64 dBm
< 200 mW	-62 dBm

2). Parameters of the reference DFS test signal:

Pulse width W (μs)	Pulse repetition frequency PRF (PPS)	Pulses per burst (PPB)
1	700	18



Radar Signal (Type 0)



Measurement Results:

Channel Move Time & Channel Closing Transmission Time:

Mode	Frequency (MHz)	Test Results	Conclusion
802.11a	5320MHz(Ch64)	Fig.63	P
802.11ax-HE160	5570MHz(Ch114)	Fig.64	P

Non-Occupancy Period:

Mode	Frequency (MHz)	Test Results	Conclusion
802.11a	5320MHz(Ch64)	Fig.65	P
802.11ax-HE160	5570MHz(Ch114)	Fig.66	P

See below for test graphs.

Conclusion: PASS

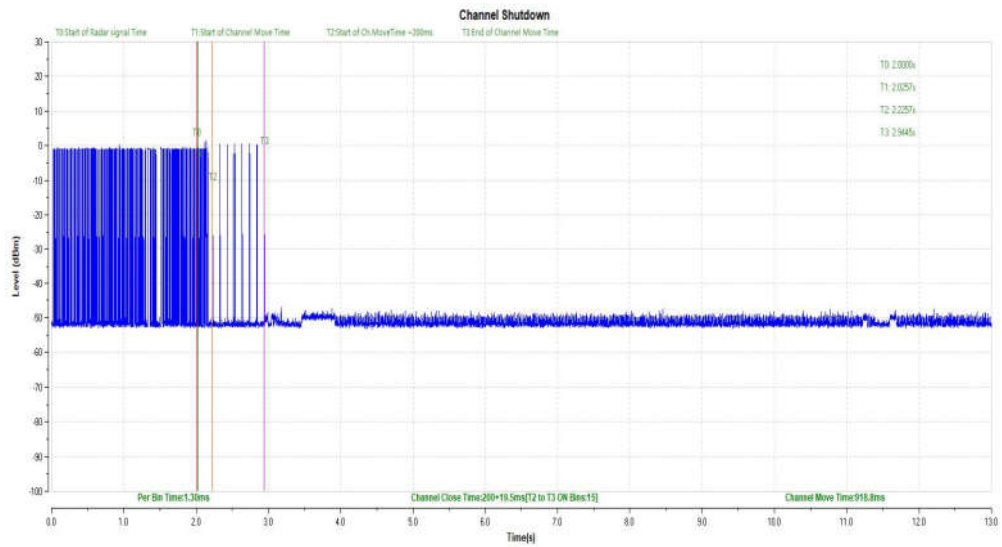


Fig. 63 Channel Move Time & Channel Closing Transmission Time (802.11a Frequency Band: 5250MHz ~ 5350MHz)

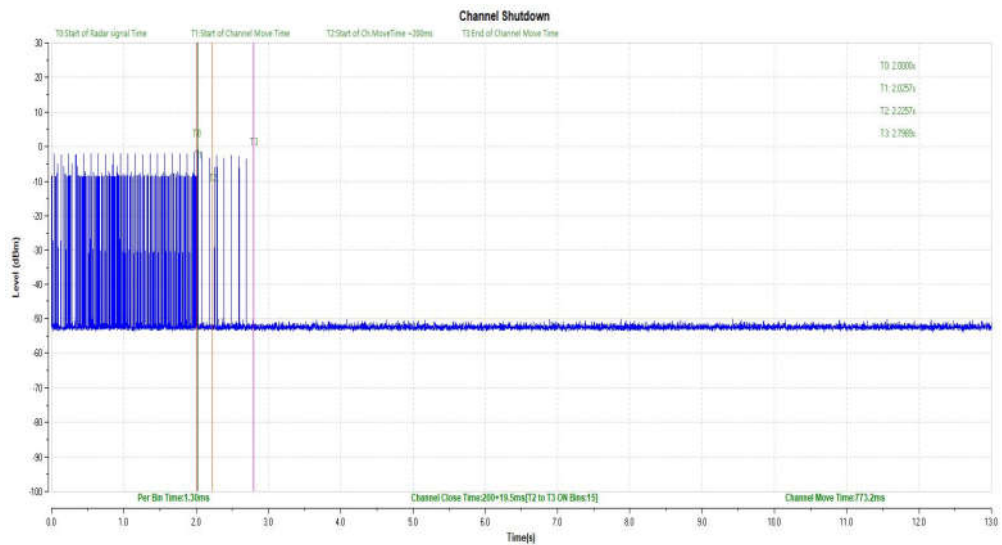


Fig. 64 Channel Move Time & Channel Closing Transmission Time (802.11ax-HE160 Frequency Band: 5470MHz~5725MHz)

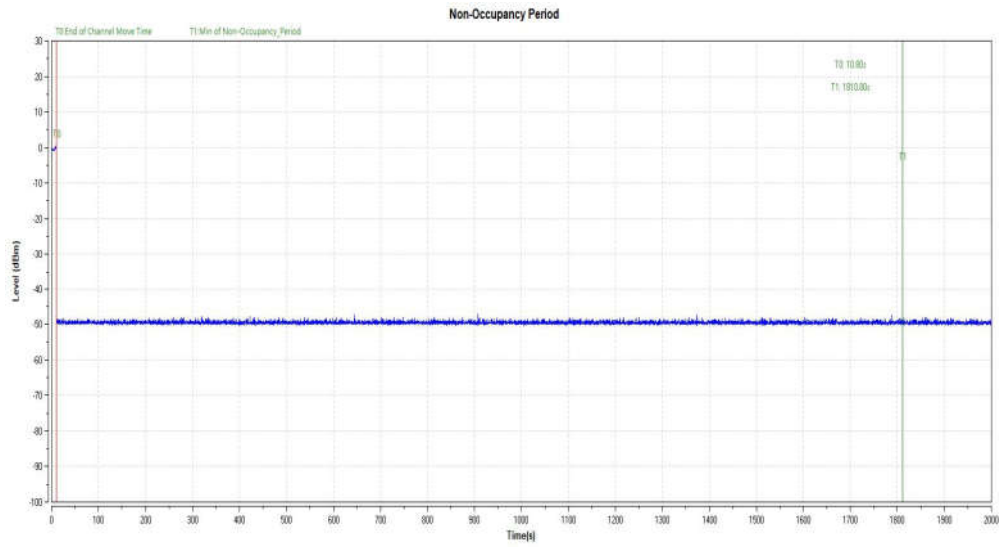


Fig. 65 Non-Occupancy Period (802.11a Frequency Band: 5250MHz ~ 5350MHz)

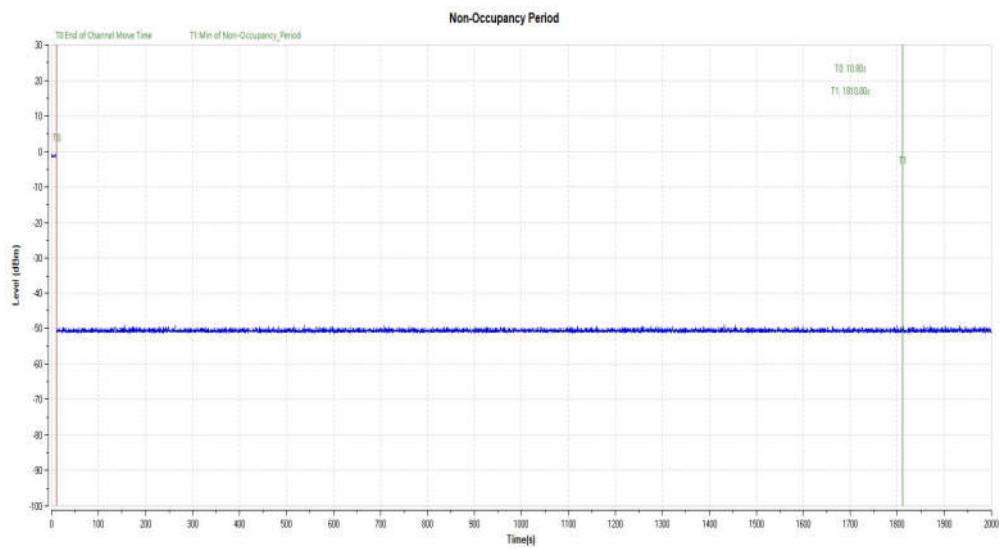


Fig. 66 Non-Occupancy Period (802.11ax-HE160 Frequency Band: 5470MHz~5725MHz)

**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.67	P
	5320MHz(CH64)	Fig.68	P
	5500MHz(CH100)	Fig.69	P
	5700MHz(CH140)	Fig.70	P
	5745MHz(CH149)	Fig.71	P
	5825MHz(CH165)	Fig.72	P
802.11ax-HE40	5190MHz(CH38)	Fig.73	P
	5310MHz(CH62)	Fig.74	P
	5510MHz(CH102)	Fig.75	P
	5670MHz(CH134)	Fig.76	P
	5755MHz(CH151)	Fig.77	P
	5795MHz(CH159)	Fig.78	P
802.11ax-HE80	5210MHz(CH42)	Fig.79	P
	5290MHz(CH58)	Fig.80	P
	5530MHz(CH106)	Fig.81	P
	5610MHz(Ch122)	Fig.82	P
	5775MHz(CH155)	Fig.83	P
802.11ax-HE160	5250MHz(CH50)	Fig.84	P
		Fig.85	P
	5570MHz(CH114)	Fig.86	P
		Fig.87	P

MIMO:

Mode	Frequency (MHz)	Test Results	Conclusion
802.11n-HT20	5180MHz(CH36)	Fig.88	P
	5320MHz(CH64)	Fig.89	P



	5500MHz(CH100)	Fig.90	P
	5700MHz(CH140)	Fig.91	P
	5745MHz(CH149)	Fig.92	P
	5825MHz(CH165)	Fig.93	P
802.11ax-HE40	5190MHz(CH38)	Fig.94	P
	5310MHz(CH62)	Fig.95	P
	5510MHz(CH102)	Fig.96	P
	5670MHz(CH134)	Fig.97	P
	5755MHz(CH151)	Fig.98	P
	5795MHz(CH159)	Fig.99	P
802.11ax-HE80	5210MHz(CH42)	Fig.100	P
	5290MHz(CH58)	Fig.101	P
	5530MHz(CH106)	Fig.102	P
	5610MHz(Ch122)	Fig.103	P
	5775MHz(CH155)	Fig.104	P
802.11ax-HE160	5250MHz(CH50)	Fig.105	P
		Fig.106	P
	5570MHz(CH114)	Fig.107	P
		Fig.108	P

See below for test graphs.

Conclusion: **PASS**

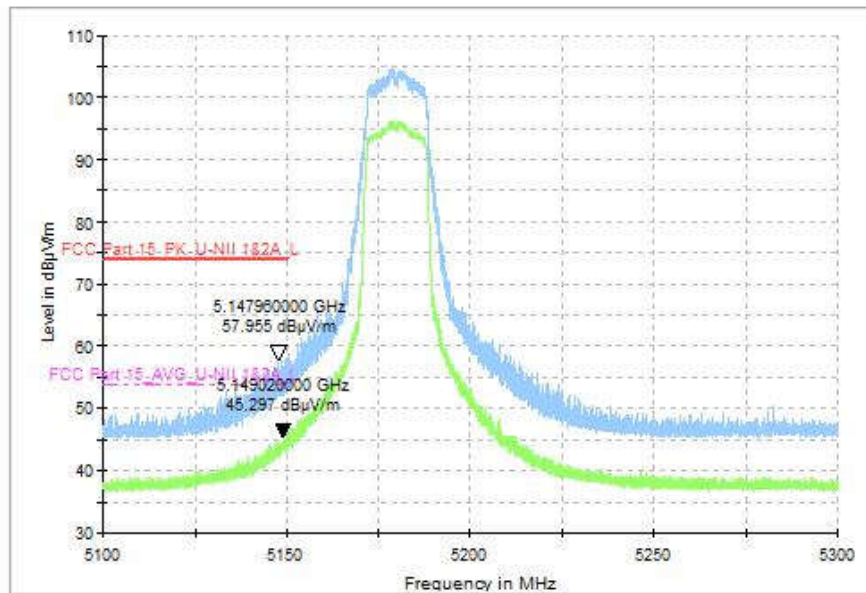


Fig. 67 Band Edges (802.11a, CH36 5180MHz)

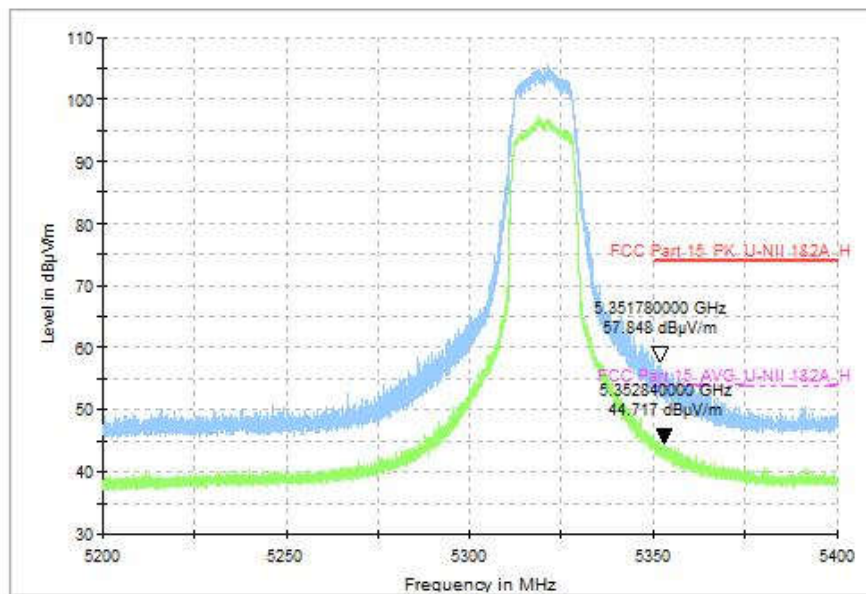


Fig. 68 Band Edges (802.11a, CH64 5320MHz)

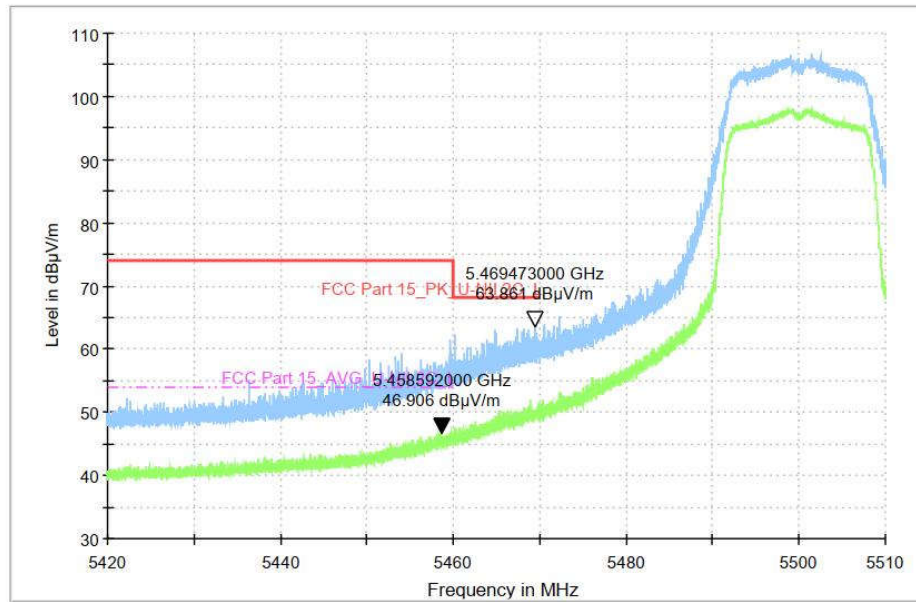


Fig. 69 Band Edges (802.11a, CH100 5500MHz)

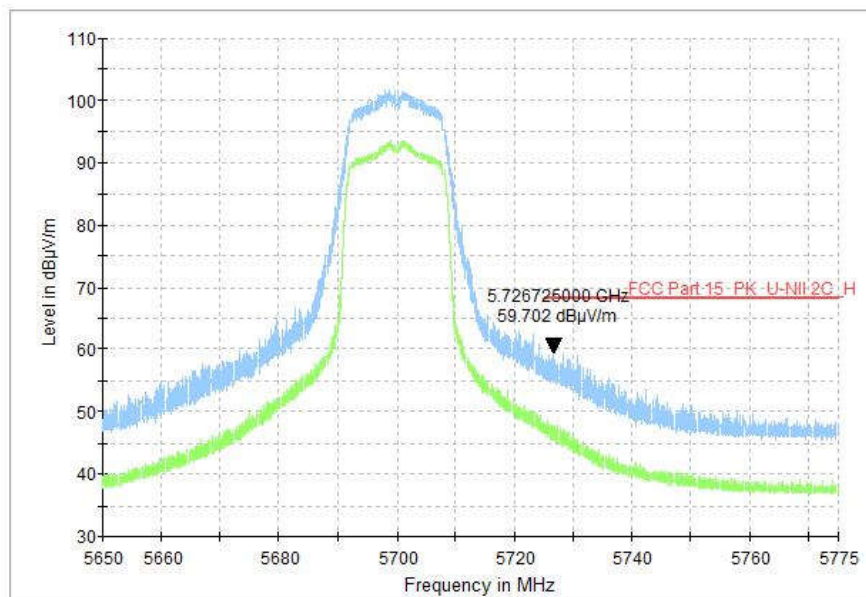


Fig. 70 Band Edges (802.11a, CH140 5700MHz)

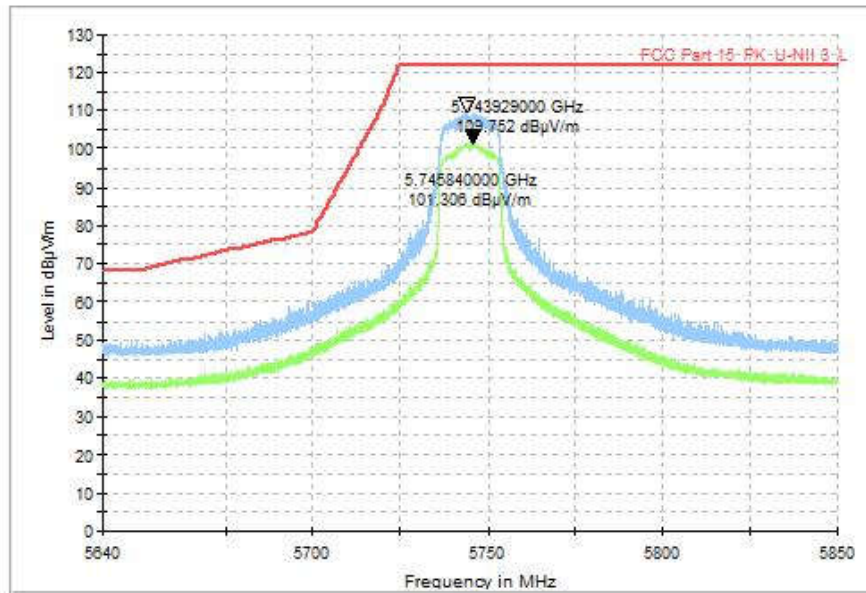


Fig. 71 Band Edges (802.11a, CH149 5745MHz)

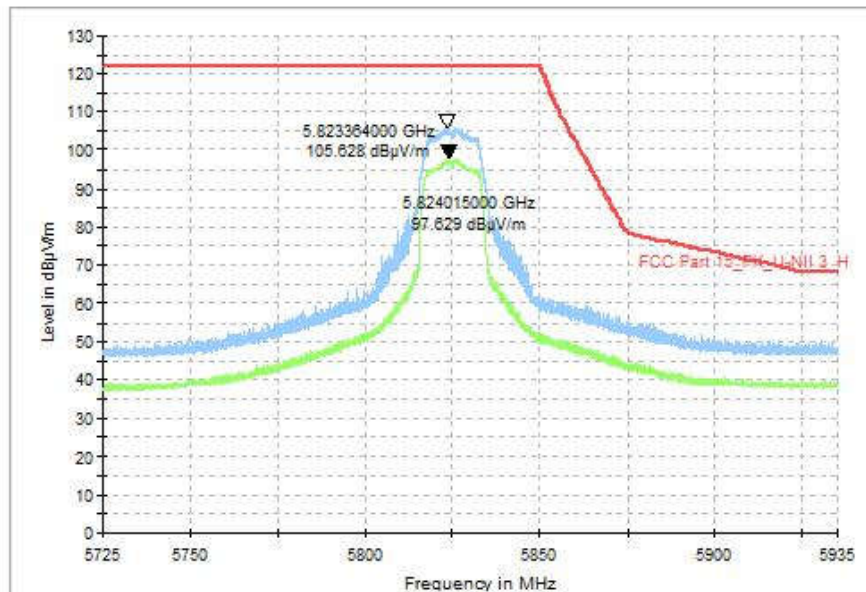


Fig. 72 Band Edges (802.11a, CH165 5825MHz)

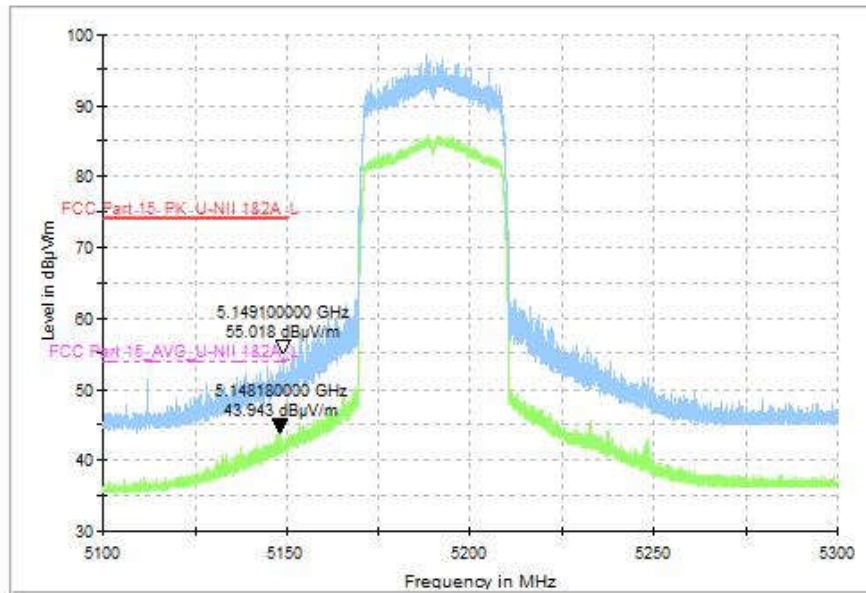


Fig. 73 Band Edges (802.11ax-HE40, CH38 5190MHz)

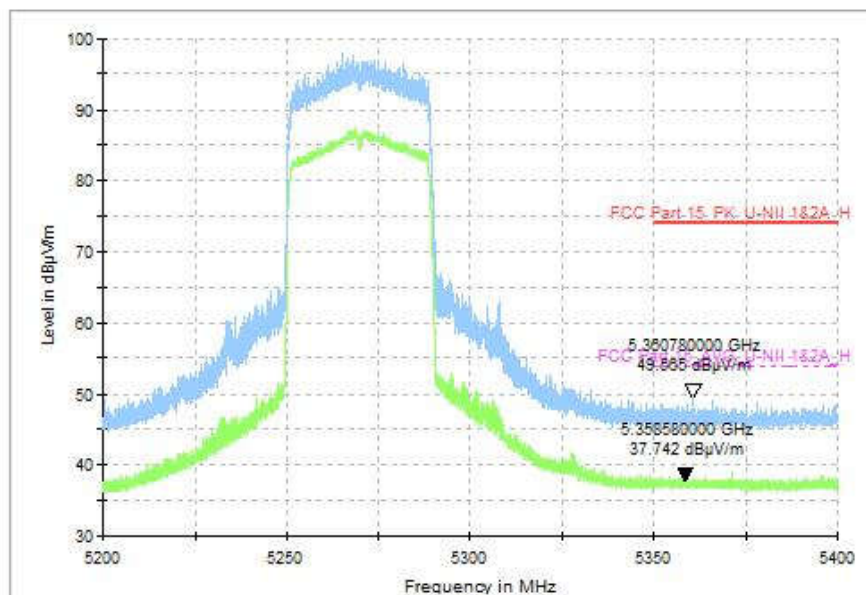


Fig. 74 Band Edges (802.11ax-HE40, CH62 5310MHz)

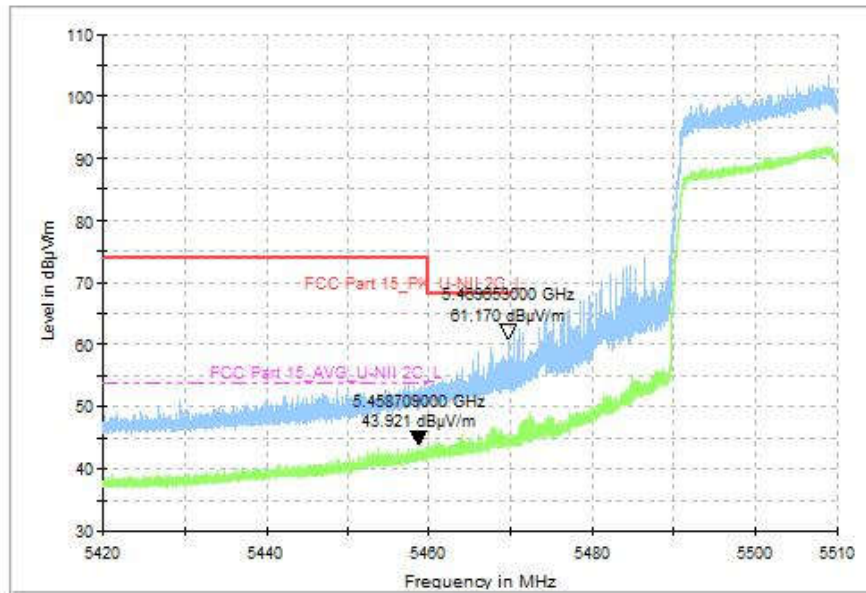


Fig. 75 Band Edges (802.11ax-HE40, CH102 5510MHz)

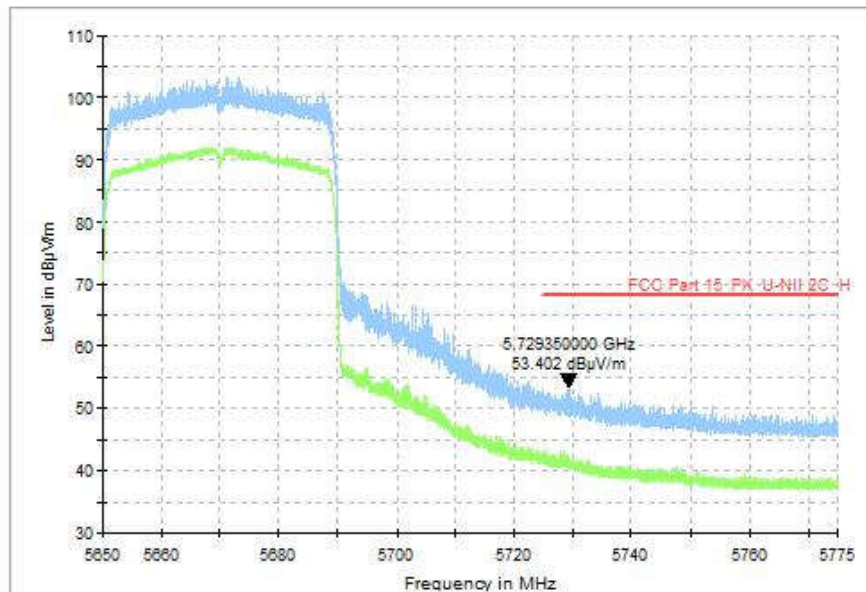


Fig. 76 Band Edges (802.11ax-HE40, CH134 5670MHz)

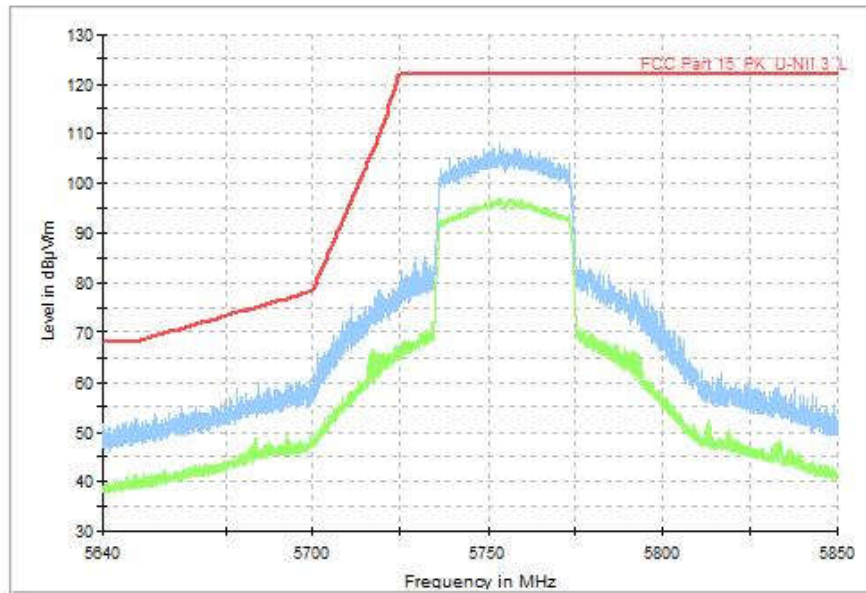


Fig. 77 Band Edges (802.11ax-HE40, CH151 5755MHz)

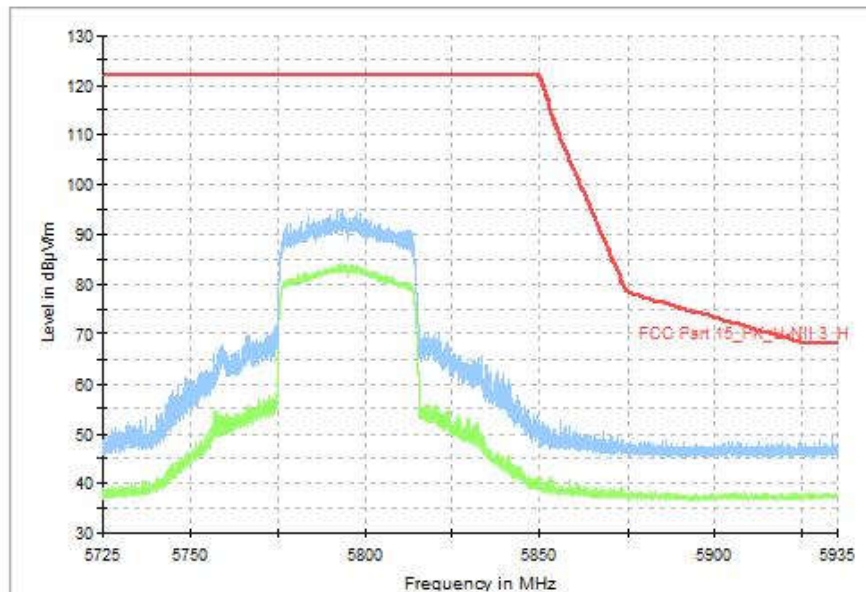


Fig. 78 Band Edges (802.11ax-HE40, CH159 5795MHz)

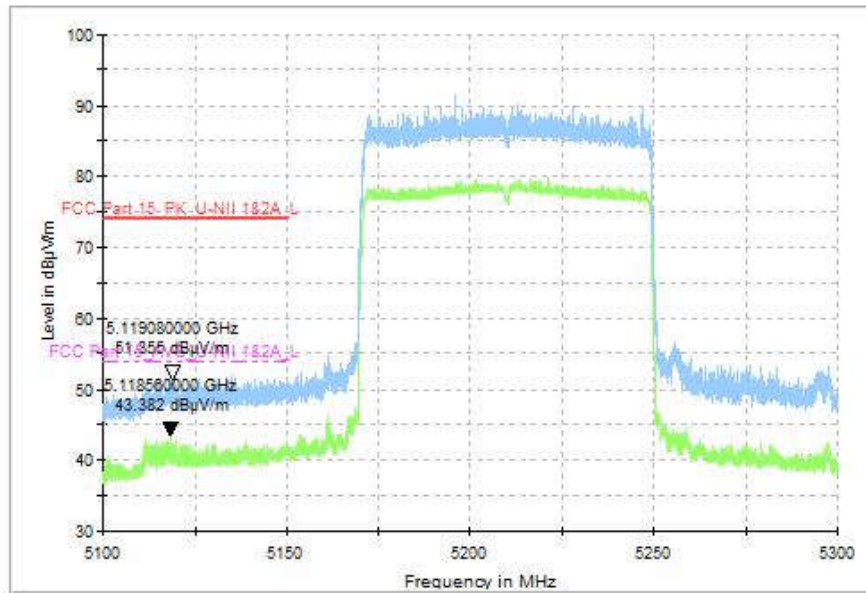


Fig. 79 Band Edges (802.11ax-HE80, CH42 5210MHz)

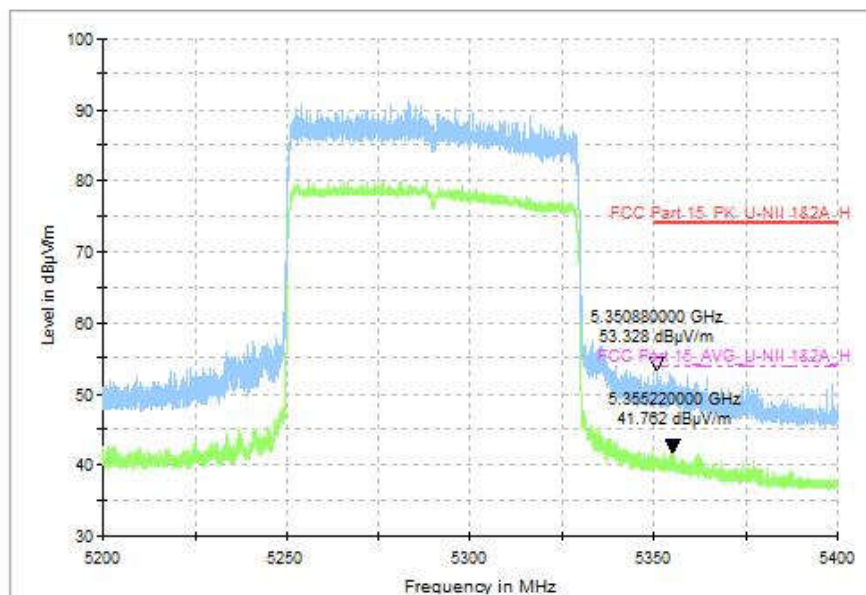


Fig. 80 Band Edges (802.11ax-HE80, CH58 5290MHz)

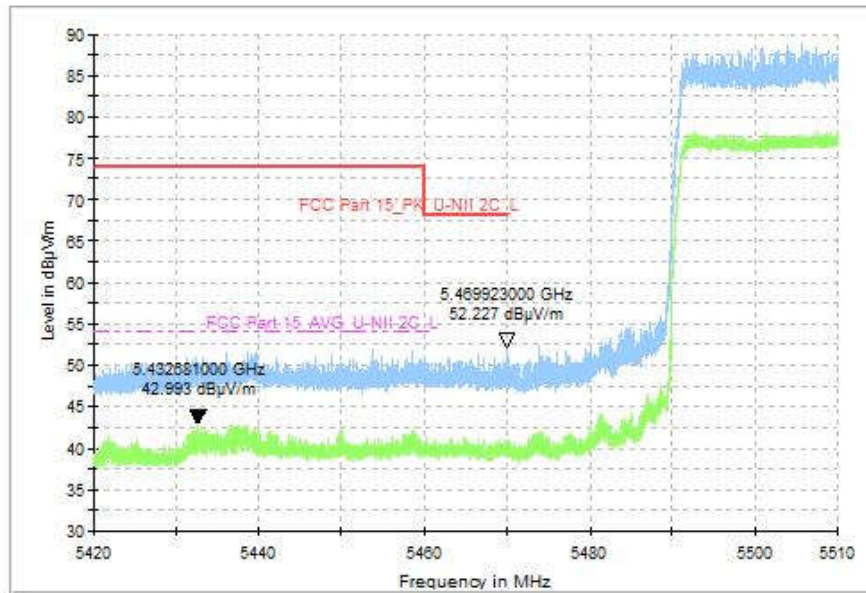


Fig. 81 Band Edges (802.11ax-HE80, CH106 5530MHz)

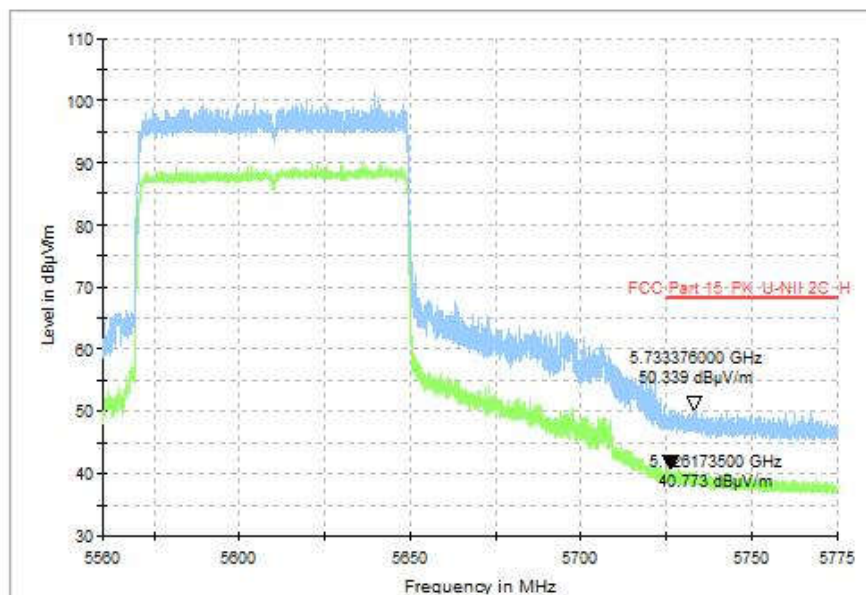


Fig. 82 Band Edges (802.11ax-HE80, CH122 5610MHz)

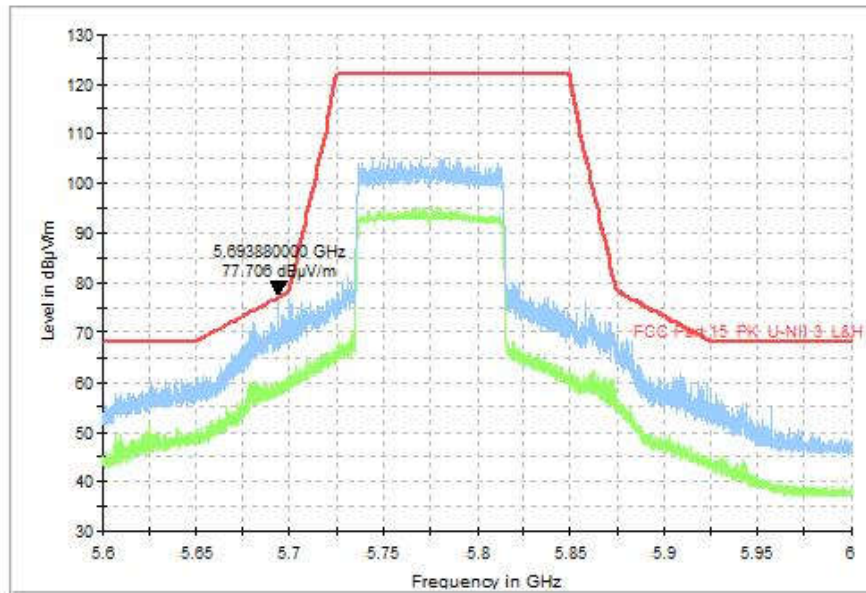


Fig. 83 Band Edges (802.11ax-HE80, CH155 5775MHz)

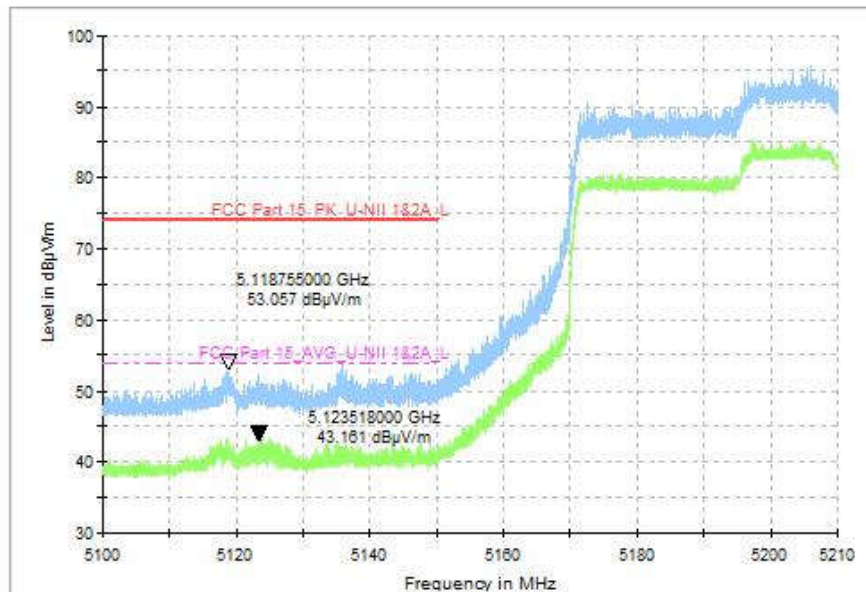


Fig. 84 Band Edges (802.11ax-HE160, CH50 5250MHz)

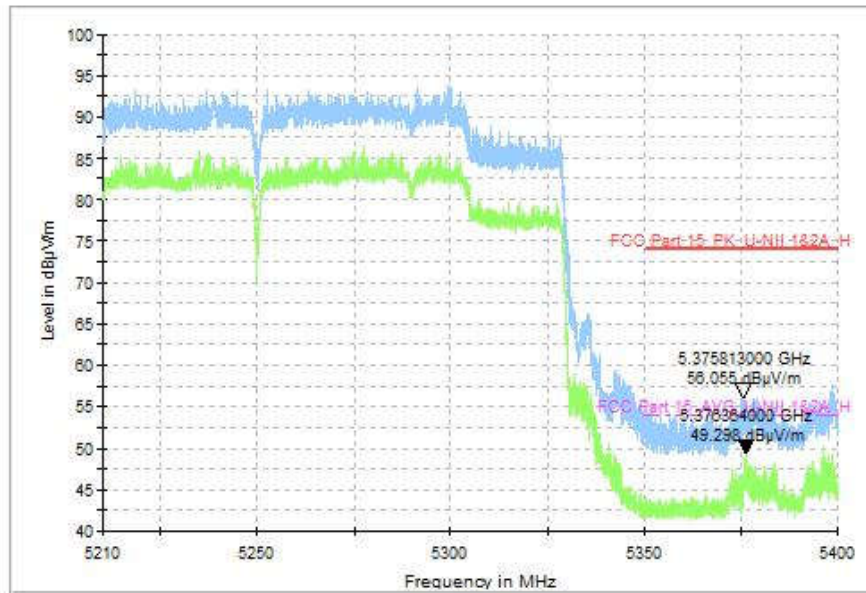


Fig. 85 Band Edges (802.11ax-HE160, CH50 5250MHz)

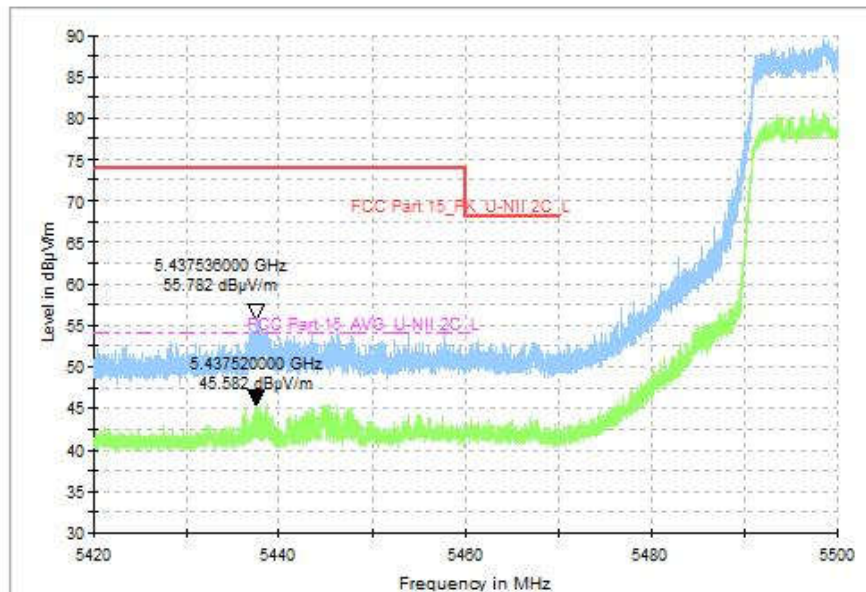


Fig. 86 Band Edges (802.11ax-HE160, CH114 5570MHz)

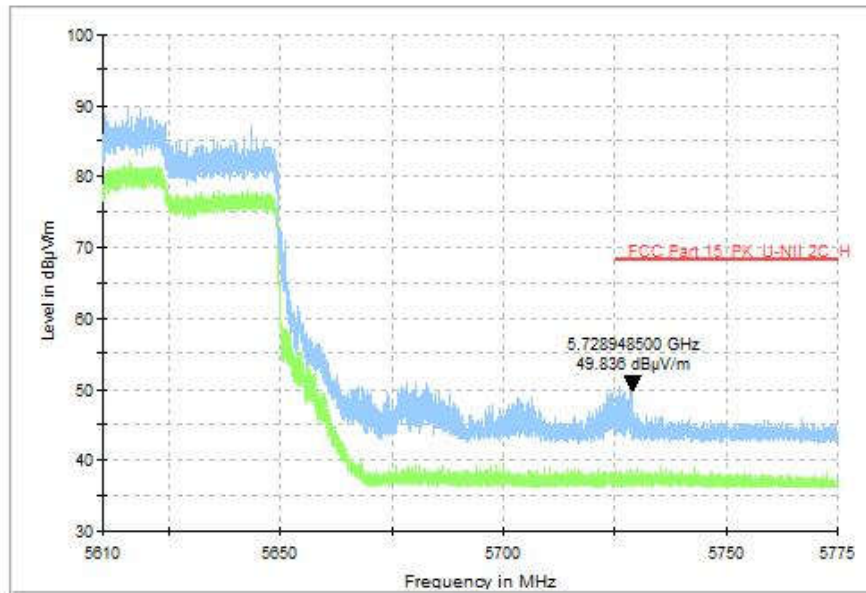


Fig. 87 Band Edges (802.11ax-HE160, CH114 5570MHz)

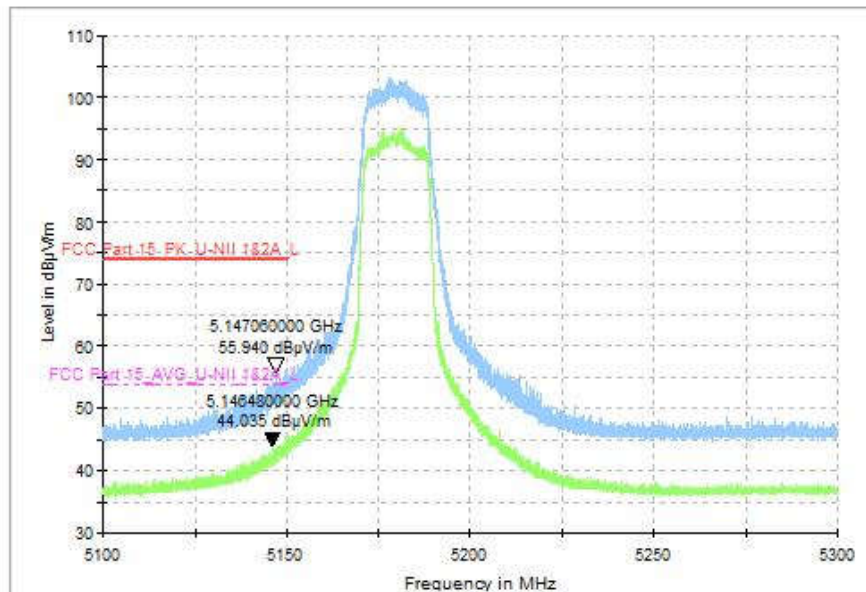


Fig. 88 Band Edges (802.11n-HT20, CH36 5180MHz), MIMO

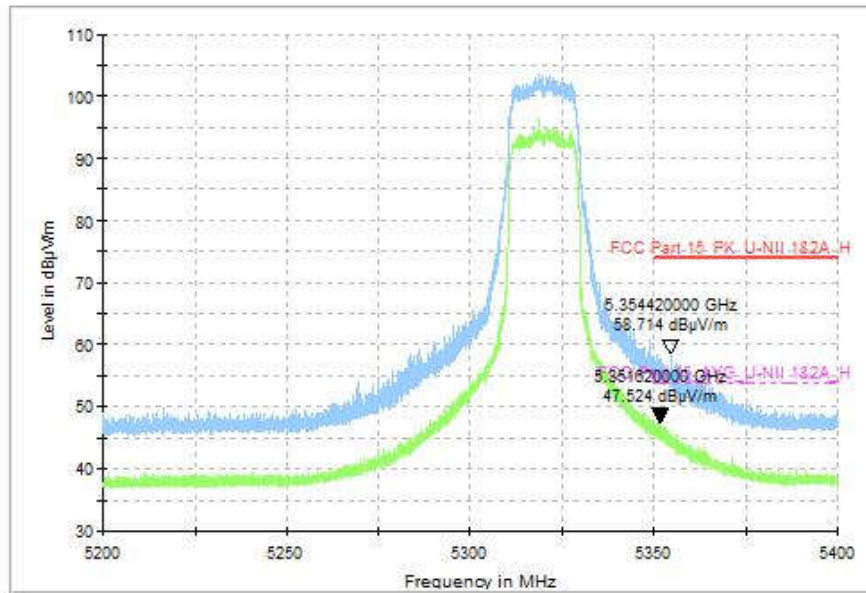


Fig. 89 Band Edges (802.11n-HT20, CH64 5320MHz), MIMO

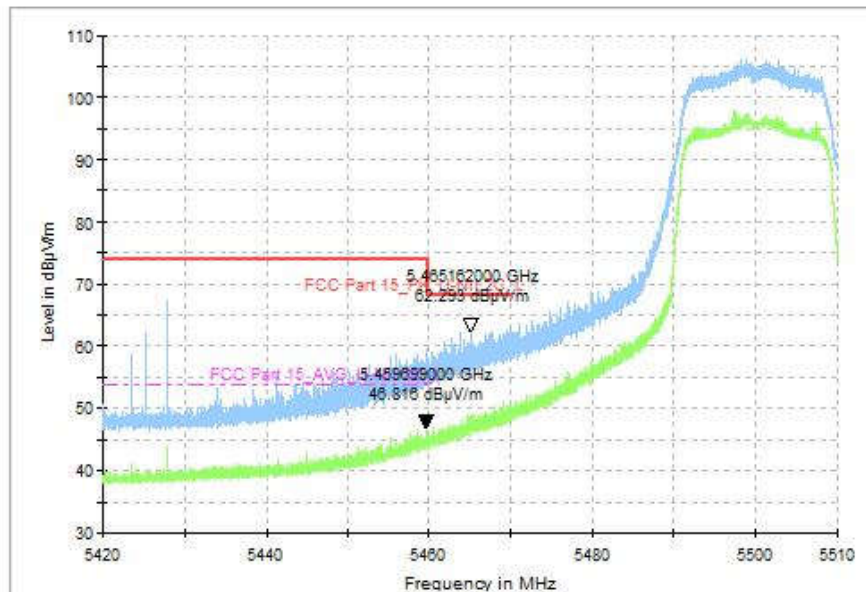


Fig. 90 Band Edges (802.11n-HT20, CH100 5500MHz), MIMO

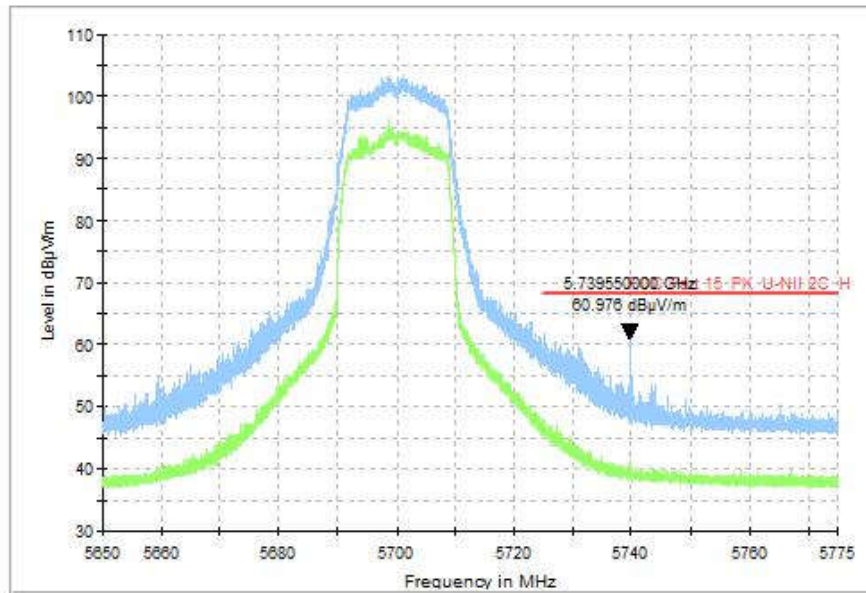


Fig. 91 Band Edges (802.11n-HT20, CH140 5700MHz), MIMO

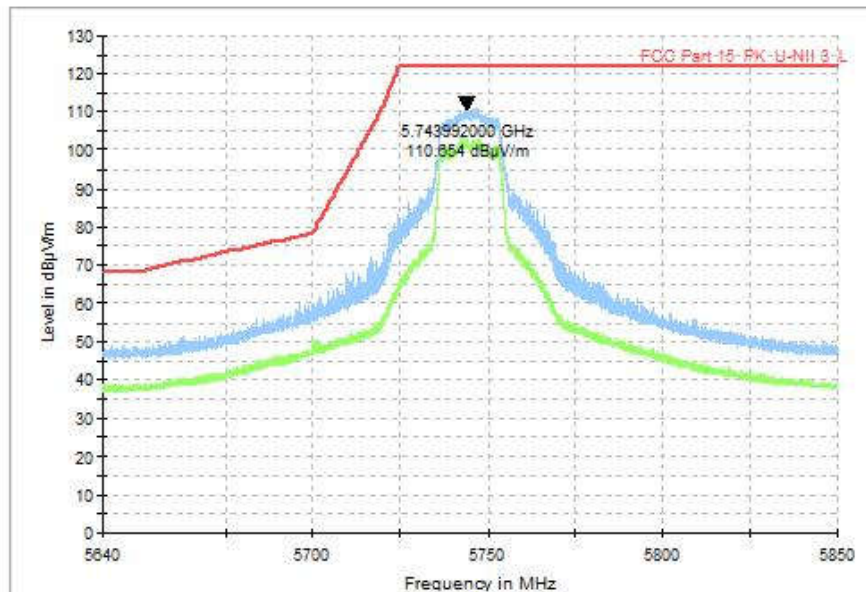


Fig. 92 Band Edges (802.11n-HT20, CH149 5745MHz), MIMO

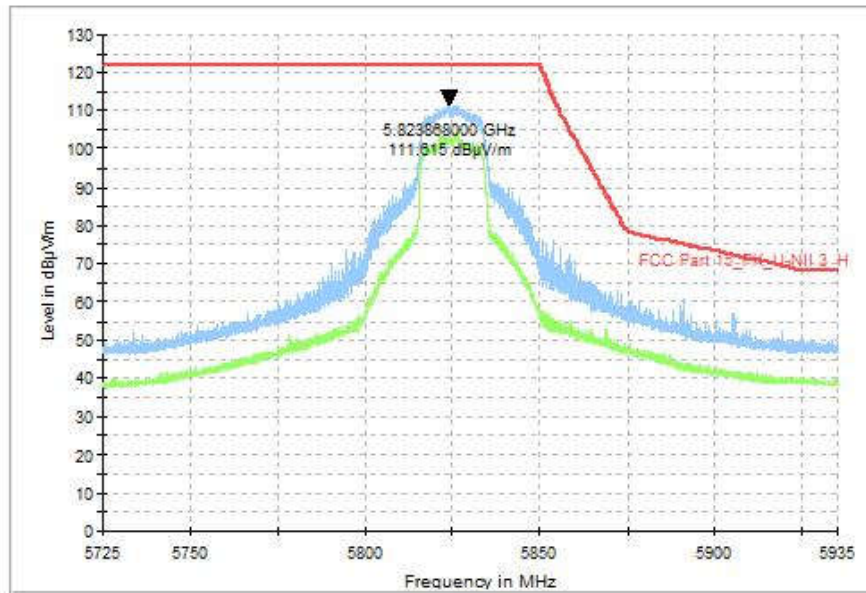


Fig. 93 Band Edges (802.11n-HT20, CH165 5825MHz), MIMO

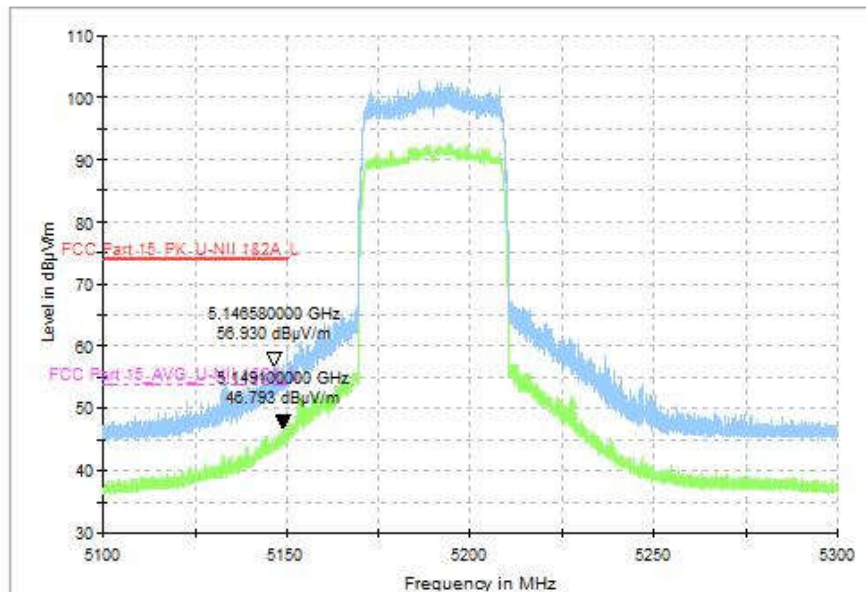


Fig. 94 Band Edges (802.11ax-HE40, CH38 5190MHz), MIMO

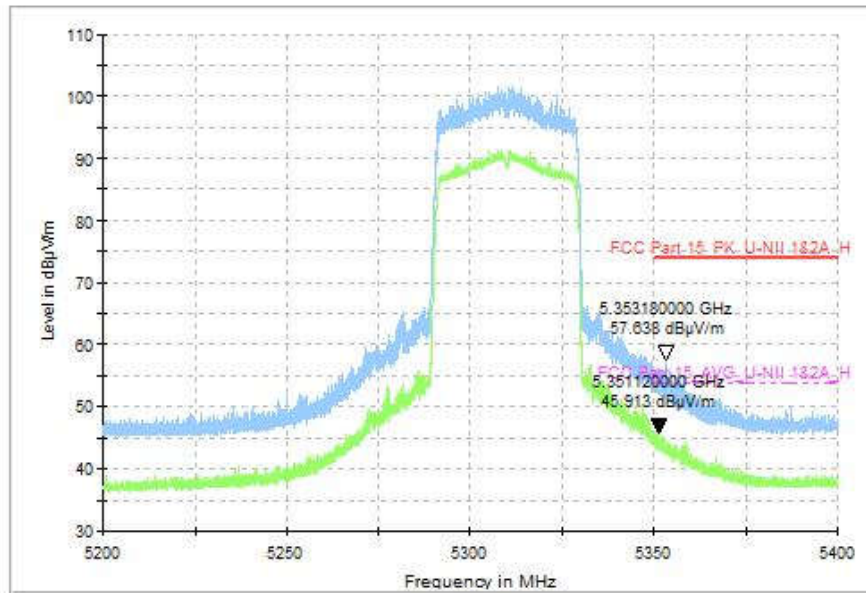


Fig. 95 Band Edges (802.11ax-HE40, CH62 5310MHz), MIMO

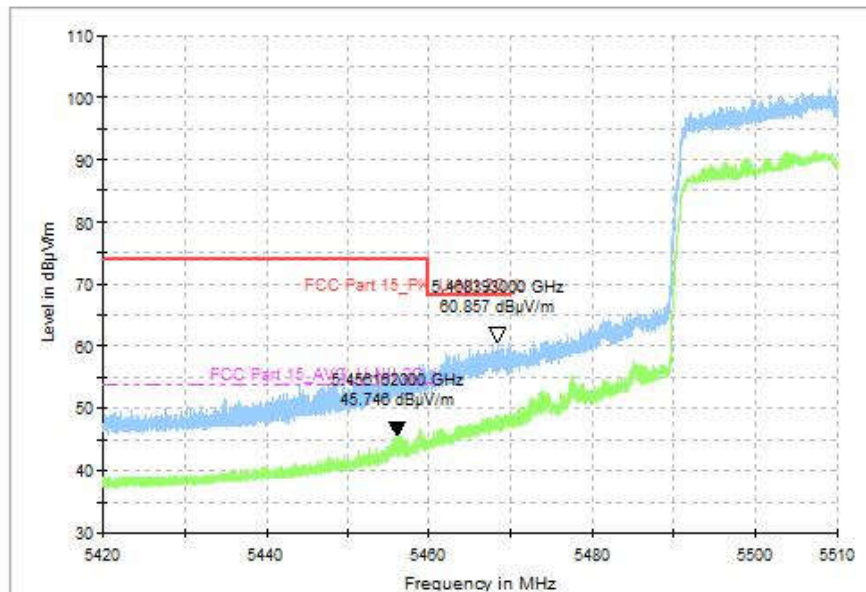


Fig. 96 Band Edges (802.11ax-HE40, CH102 5510MHz), MIMO

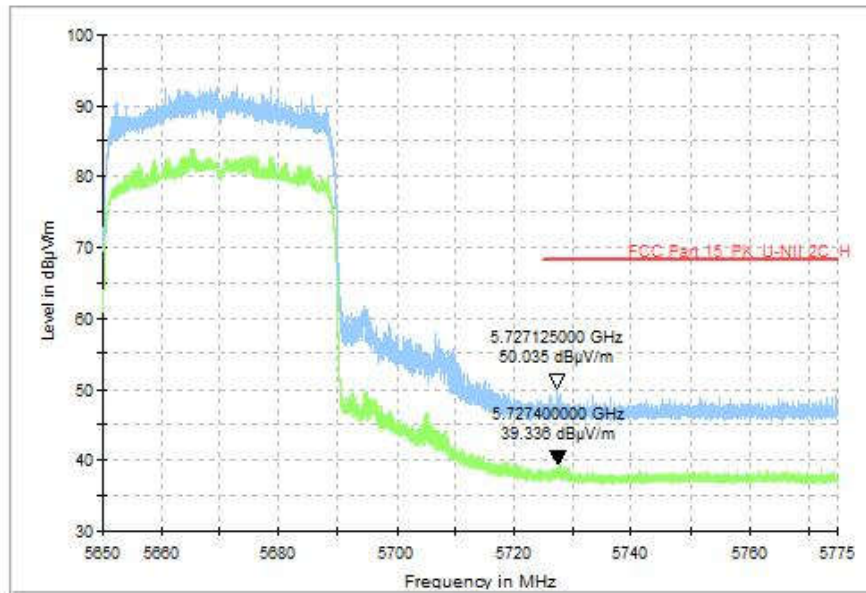


Fig. 97 Band Edges (802.11ax-HE40, CH134 5670MHz), MIMO

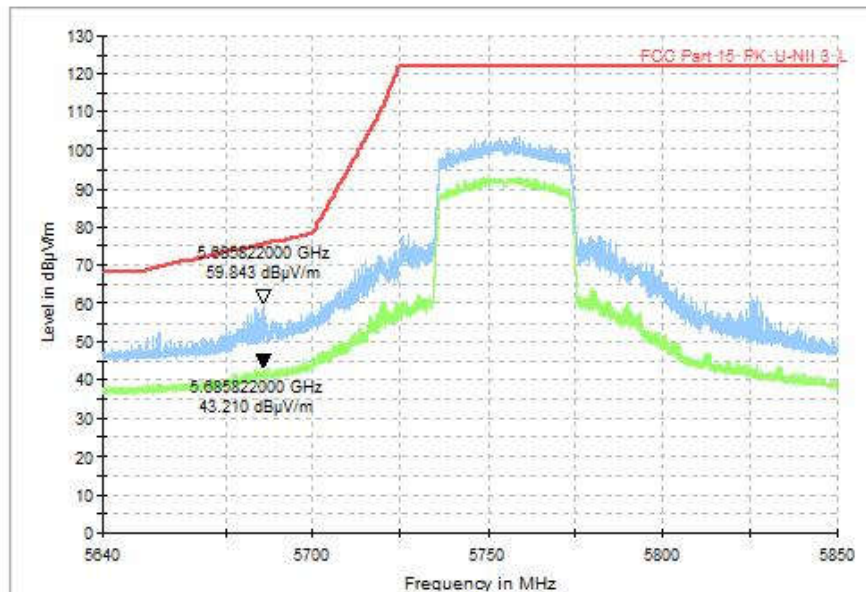


Fig. 98 Band Edges (802.11ax-HE40, CH151 5755MHz), MIMO

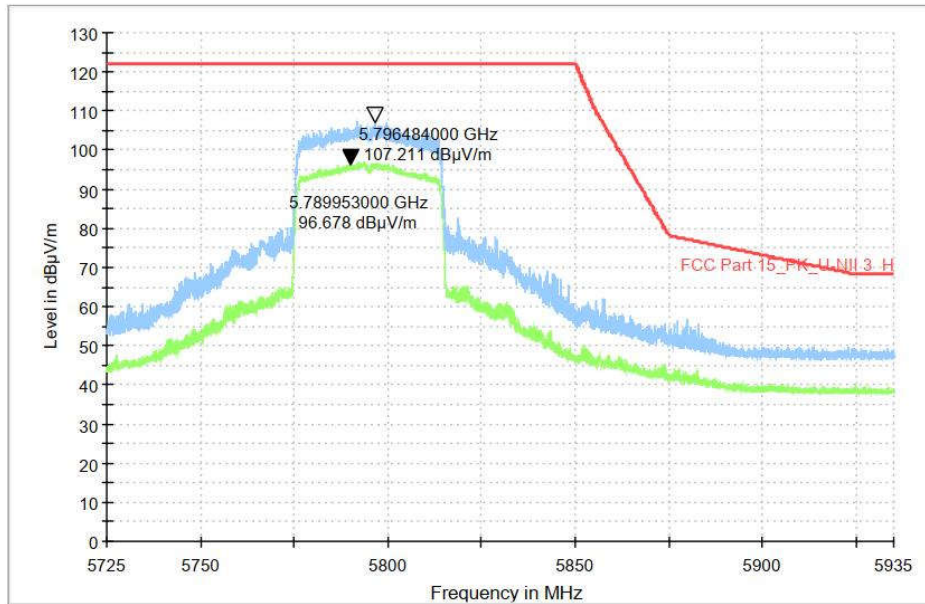


Fig. 99 Band Edges (802.11ax-HE40, CH159 5795MHz), MIMO

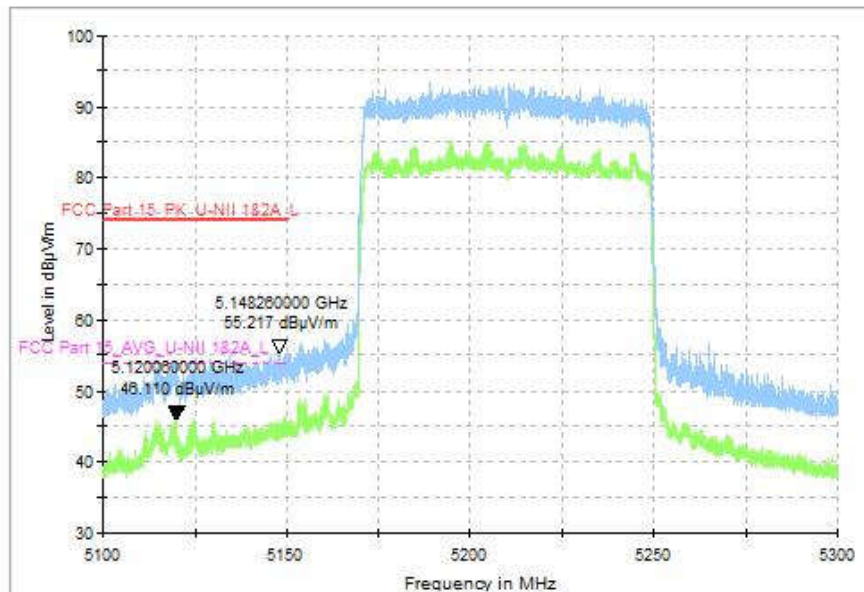


Fig. 100 Band Edges (802.11ax-HE80, CH42 5210MHz), MIMO

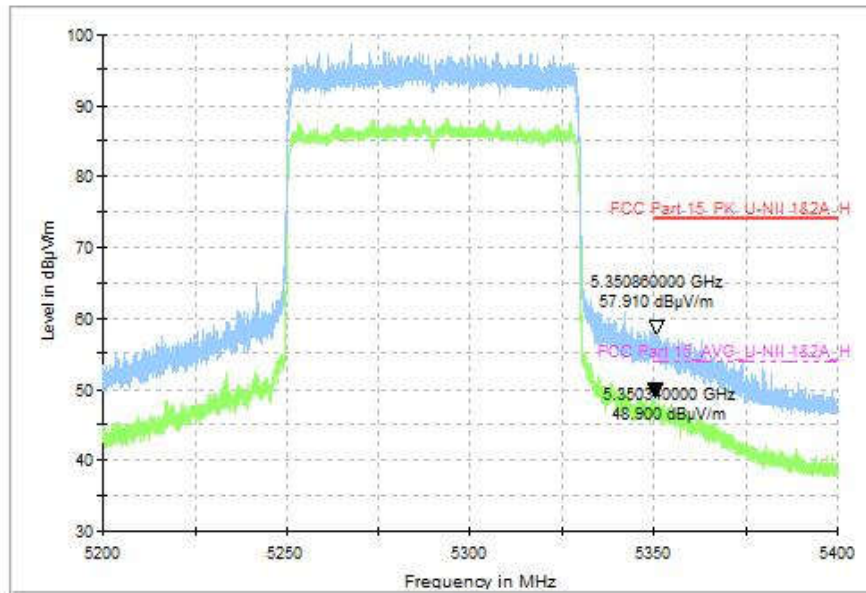


Fig. 101 Band Edges (802.11ax-HE80, CH58 5290MHz), MIMO

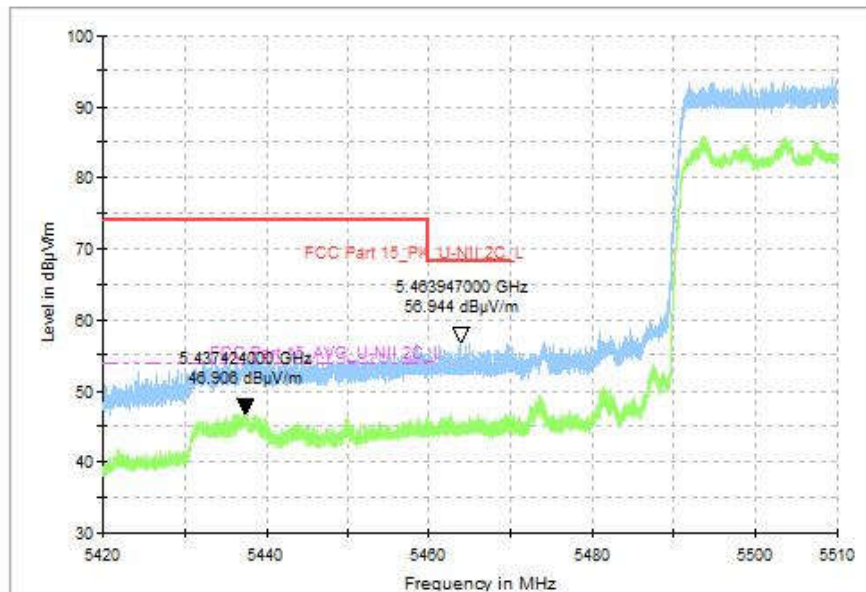


Fig. 102 Band Edges (802.11ax-HE80, CH106 5530MHz), MIMO

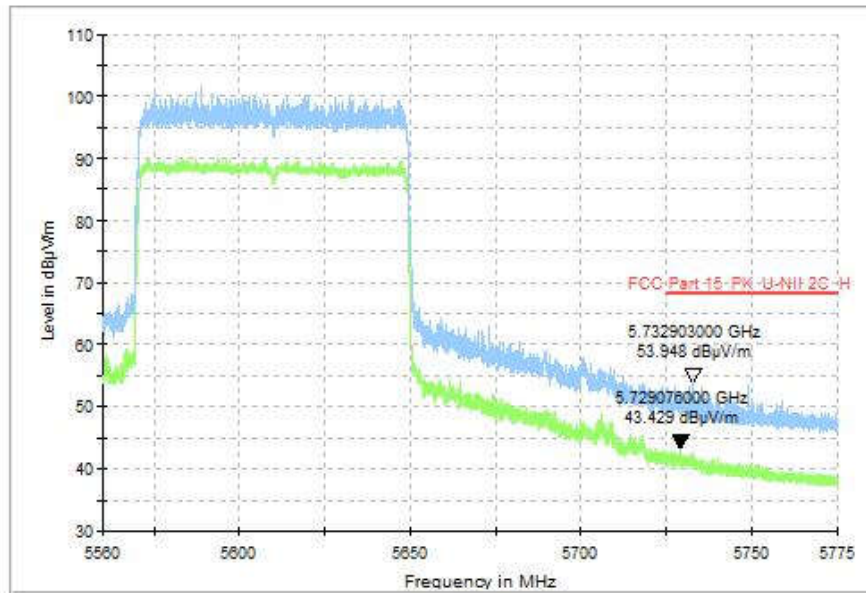


Fig. 103 Band Edges (802.11ax-HE80, CH122 5610MHz), MIMO

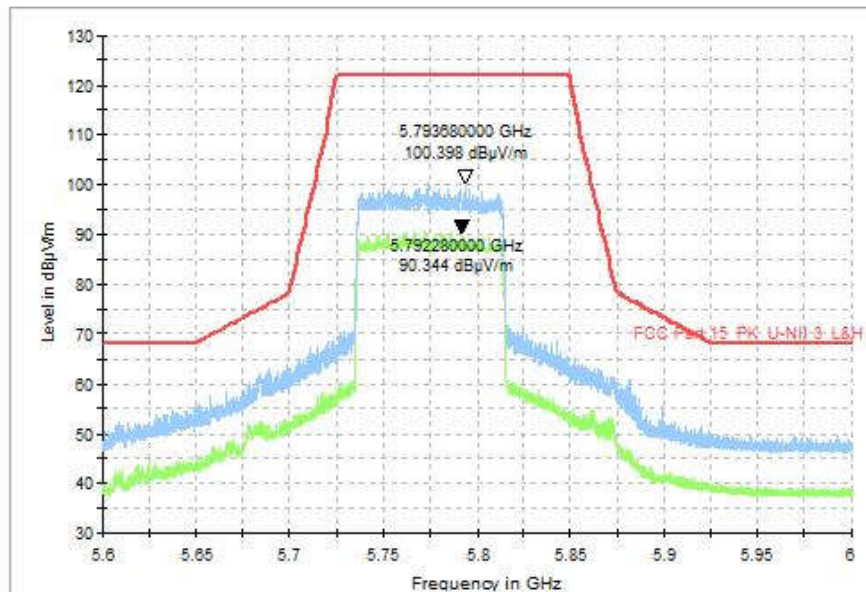


Fig. 104 Band Edges (802.11ax-HE80, CH155 5775MHz), MIMO

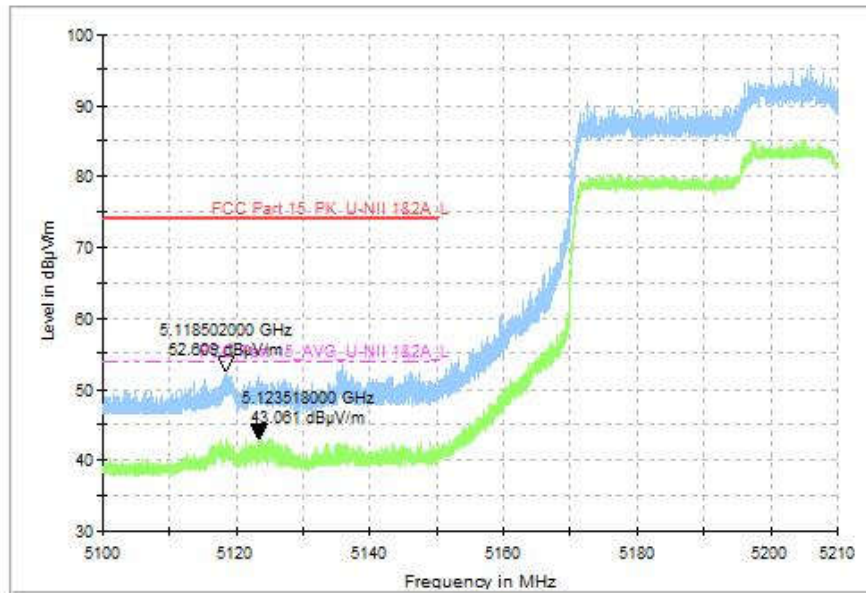


Fig. 105 Band Edges (802.11ax-HE160, CH50 5250MHz), MIMO

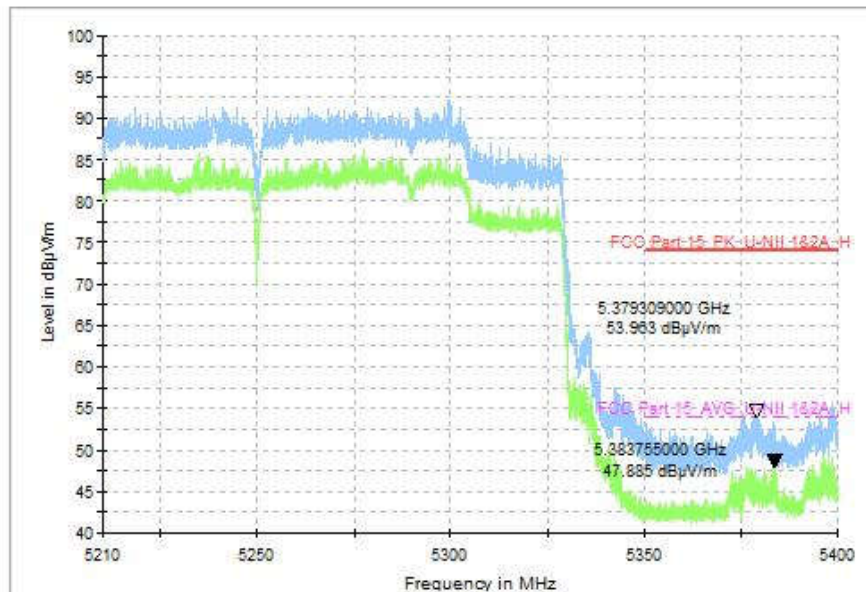


Fig. 106 Band Edges (802.11ax-HE160, CH50 5250MHz), MIMO

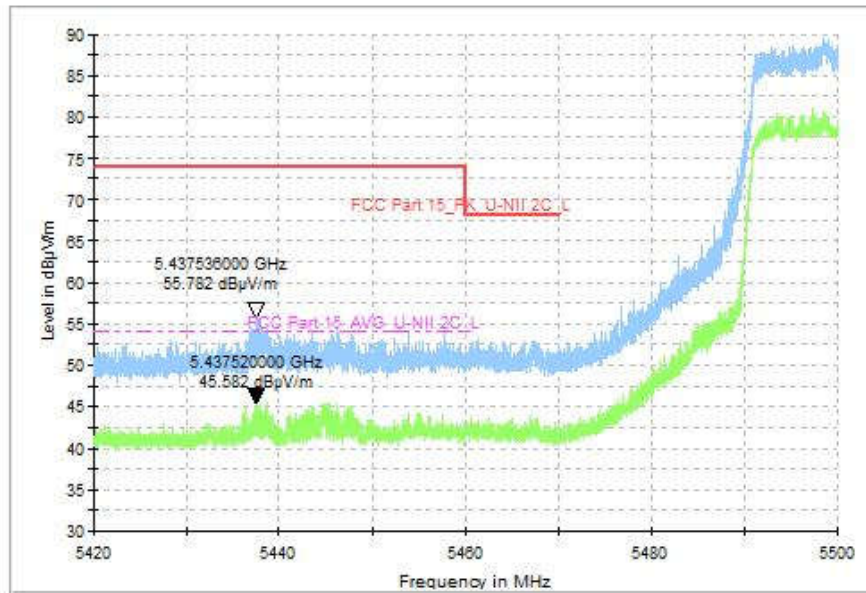


Fig. 107 Band Edges (802.11ax-HE160, CH114 5570MHz), MIMO

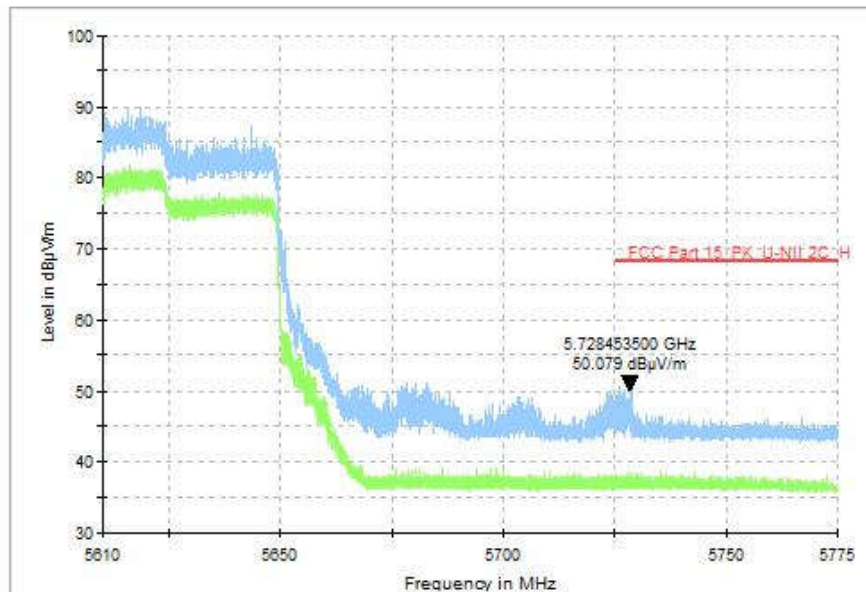


Fig. 108 Band Edges (802.11ax-HE160, CH114 5570MHz), MIMO

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 (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.

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 (Y plane) 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.109	P
	5200MHz(CH40)	1 GHz ~18 GHz	Fig.110	P
	5240MHz(CH48)	1 GHz ~18 GHz	Fig.111	P
	5260MHz(CH52)	1 GHz ~18 GHz	Fig.112	P
	5280MHz(CH56)	1 GHz ~18 GHz	Fig.113	P
	5320MHz(CH64)	1 GHz ~18 GHz	Fig.114	P
	5500MHz(CH100)	1 GHz ~18 GHz	Fig.115	P
	5600MHz(CH120)	1 GHz ~18 GHz	Fig.116	P
	5700MHz(CH140)	1 GHz ~18 GHz	Fig.117	P
	5745MHz(CH149)	1 GHz ~18 GHz	Fig.118	P
	5785MHz(CH157)	1 GHz ~18 GHz	Fig.119	P
	5825MHz(CH165)	1 GHz ~18 GHz	Fig.120	P
802.11ax -HE40	5190MHz(CH38)	1 GHz ~18 GHz	Fig.121	P
	5230MHz(CH46)	1 GHz ~18 GHz	Fig.122	P
	5270MHz(CH54)	1 GHz ~18 GHz	Fig.123	P



	5310MHz(CH62)	1 GHz ~18 GHz	Fig.124	P
	5510MHz(CH102)	1 GHz ~18 GHz	Fig.125	P
	5580MHz(CH118)	1 GHz ~18 GHz	Fig.126	P
	5670MHz(CH134)	1 GHz ~18 GHz	Fig.127	P
	5755MHz(CH151)	1 GHz ~18 GHz	Fig.128	P
	5795MHz(CH159)	1 GHz ~18 GHz	Fig.129	P
802.11ax -HE80	5210MHz(CH42)	1 GHz ~18 GHz	Fig.130	P
	5290MHz(CH58)	1 GHz ~18 GHz	Fig.131	P
	5530MHz(CH106)	1 GHz ~18 GHz	Fig.132	P
	5610MHz(CH122)	1 GHz ~18 GHz	Fig.133	P
	5775MHz(CH155)	1 GHz ~18 GHz	Fig.134	P
802.11ax -HE160	5250MHz(CH50)	1 GHz ~18 GHz	Fig.135	P
	5570MHz(CH114)	1 GHz ~18 GHz	Fig.136	P
All channels		30 MHz ~1 GHz	Fig.137	P
		18 GHz ~26.5 GHz	Fig.138	P
		26.5GHz~40GHz	Fig.139	P

MIMO:

Mode	Frequency (MHz)	Frequency Range	Test Results	Conclusion
802.11n -HT20	5180MHz(CH36)	1 GHz ~18 GHz	Fig.140	P
	5200MHz(CH40)	1 GHz ~18 GHz	Fig.141	P
	5240MHz(CH48)	1 GHz ~18 GHz	Fig.142	P
	5260MHz(CH52)	1 GHz ~18 GHz	Fig.143	P
	5280MHz(CH56)	1 GHz ~18 GHz	Fig.144	P
	5320MHz(CH64)	1 GHz ~18 GHz	Fig.145	P
	5500MHz(CH100)	1 GHz ~18 GHz	Fig.146	P
	5600MHz(CH120)	1 GHz ~18 GHz	Fig.147	P
	5700MHz(CH140)	1 GHz ~18 GHz	Fig.148	P
	5745MHz(CH149)	1 GHz ~18 GHz	Fig.149	P
	5785MHz(CH157)	1 GHz ~18 GHz	Fig.150	P
	5825MHz(CH165)	1 GHz ~18 GHz	Fig.151	P
802.11ax -HE40	5190MHz(CH38)	1 GHz ~18 GHz	Fig.152	P
	5230MHz(CH46)	1 GHz ~18 GHz	Fig.153	P
	5270MHz(CH54)	1 GHz ~18 GHz	Fig.154	P
	5310MHz(CH62)	1 GHz ~18 GHz	Fig.155	P
	5510MHz(CH102)	1 GHz ~18 GHz	Fig.156	P
	5580MHz(CH118)	1 GHz ~18 GHz	Fig.157	P
	5670MHz(CH134)	1 GHz ~18 GHz	Fig.158	P
	5755MHz(CH151)	1 GHz ~18 GHz	Fig.159	P
	5795MHz(CH159)	1 GHz ~18 GHz	Fig.160	P
802.11ax -HE80	5210MHz(CH42)	1 GHz ~18 GHz	Fig.161	P
	5290MHz(CH58)	1 GHz ~18 GHz	Fig.162	P
	5530MHz(CH106)	1 GHz ~18 GHz	Fig.163	P



	5610MHz(CH122)	1 GHz ~18 GHz	Fig.164	P
	5775MHz(CH155)	1 GHz ~18 GHz	Fig.165	P
802.11ax -HE160	5250MHz(CH50)	1 GHz ~18 GHz	Fig.166	P
	5570MHz(CH114)	1 GHz ~18 GHz	Fig.167	P
All channels		30 MHz ~1 GHz	Fig.168	P
		18 GHz ~26.5 GHz	Fig.169	P
		26.5GHz~40GHz	Fig.170	P

Worst Case Result:

SISO:

802.11a CH165

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7635.230769	44.23	74.00	29.77	V	5.7
8265.692308	44.46	74.00	29.54	V	5.9
11646.923077	53.36	74.00	20.64	V	9.9
12465.692308	47.46	74.00	26.54	V	11.3
15861.230769	50.57	74.00	23.43	H	14.0
17922.000000	53.93	74.00	20.07	H	18.9

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7635.230769	33.42	54.00	20.58	V	5.7
8265.692308	33.87	54.00	20.13	V	5.9
11646.923077	41.59	54.00	12.41	V	9.9
12465.692308	36.55	54.00	17.45	V	11.3
15861.230769	40.21	54.00	13.79	H	14.0
17922.000000	43.33	54.00	10.67	H	18.9

802.11ax-HE40 CH159

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7491.230769	43.44	74.00	30.56	V	5.7
8269.384616	43.73	74.00	30.27	H	5.9
11216.307692	45.05	74.00	28.95	H	9.7
12259.384615	46.93	74.00	27.08	V	10.9
15916.153846	50.81	74.00	23.19	V	14.1
17944.615385	54.24	74.00	19.76	V	19.0



Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7491.230769	33.20	54.00	20.80	V	5.7
8269.384616	33.88	54.00	20.12	H	5.9
11216.307692	35.08	54.00	18.92	H	9.7
12259.384615	36.49	54.00	17.51	V	10.9
15916.153846	40.41	54.00	13.59	V	14.1
17944.615385	43.18	54.00	10.82	V	19.0

802.11ax-HE80 CH155

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7474.615385	43.97	74.00	30.03	H	5.7
8253.692308	44.33	74.00	29.67	V	5.9
11208.923077	45.91	74.00	28.09	H	9.7
12176.769231	46.69	74.00	27.31	V	10.8
15878.769231	50.97	74.00	23.03	H	14.0
17893.846154	52.88	74.00	21.12	V	18.8

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7474.615385	33.10	54.00	20.90	H	5.7
8253.692308	33.23	54.00	20.77	V	5.9
11208.923077	35.21	54.00	18.79	H	9.7
12176.769231	36.12	54.00	17.88	V	10.8
15878.769231	40.65	54.00	13.35	H	14.0
17893.846154	42.71	54.00	11.29	V	18.8

802.11ax-HE160 CH114

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7505.538462	43.73	74.00	30.27	V	5.7
8257.846154	44.70	74.00	29.30	H	5.9
11237.076923	45.02	74.00	28.98	V	9.7
12390.461539	47.95	74.00	26.05	H	11.3
15884.307692	51.00	74.00	23.00	H	14.0
17912.307692	53.17	74.00	20.83	H	18.9



Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7505.538462	33.07	54.00	20.93	V	5.7
8257.846154	33.81	54.00	20.19	H	5.9
11237.076923	34.88	54.00	19.12	V	9.7
12390.461539	36.67	54.00	17.33	H	11.3
15884.307692	40.50	54.00	13.50	H	14.0
17912.307692	43.09	54.00	10.91	H	18.9

MIMO:**802.11n-HT20 CH165**

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
8229.692308	43.63	74.00	30.37	V	5.9
10849.384615	45.42	74.00	28.58	H	9.2
11648.769231	54.80	74.00	19.20	H	9.9
12528.923077	47.53	74.00	26.47	H	11.3
15860.769231	50.11	74.00	23.89	V	14.0
17901.230769	53.54	74.00	20.46	V	18.8

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
8229.692308	33.36	54.00	20.64	V	5.9
10849.384615	35.26	54.00	18.74	H	9.2
11648.769231	44.18	54.00	9.82	H	9.9
12528.923077	36.91	54.00	17.09	H	11.3
15860.769231	40.63	54.00	13.37	V	14.0
17901.230769	43.01	54.00	10.99	V	18.8

802.11ax-HE40 CH159

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7400.769231	43.11	74.00	30.89	V	5.6
8192.769231	44.09	74.00	29.91	V	6.0
11587.384615	51.25	74.00	22.75	V	10.0
12459.230769	47.09	74.00	26.91	V	11.4
15868.615385	50.86	74.00	23.14	H	14.0
17918.769231	54.82	74.00	19.18	V	18.9



Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7400.769231	32.59	54.00	21.41	V	5.6
8192.769231	33.34	54.00	20.66	V	6.0
11587.384615	39.61	54.00	14.39	V	10.0
12459.230769	36.84	54.00	17.16	V	11.4
15868.615385	40.39	54.00	13.61	H	14.0
17918.769231	43.47	54.00	10.53	V	18.9

802.11ax-HE80 CH155

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7455.692308	43.44	74.00	30.56	H	5.7
8248.153846	43.64	74.00	30.36	V	5.9
11541.692308	47.09	74.00	26.91	V	10.0
12274.615385	48.38	74.00	25.62	H	11.0
15829.846154	50.21	74.00	23.79	V	14.0
17994.000000	55.07	74.00	18.93	H	19.2

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7455.692308	33.24	54.00	20.76	H	5.7
8248.153846	33.76	54.00	20.24	V	5.9
11541.692308	36.13	54.00	17.87	V	10.0
12274.615385	36.83	54.00	17.17	H	11.0
15829.846154	39.88	54.00	14.12	V	14.0
17994.000000	43.08	54.00	10.92	H	19.2

802.11ax-HE160 CH114

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
7467.230769	43.86	74.00	30.14	V	5.7
8257.384616	44.25	74.00	29.75	V	5.9
10877.538462	46.33	74.00	27.67	H	9.3
12470.769231	47.76	74.00	26.24	V	11.3
15856.153846	51.12	74.00	22.88	H	14.0
17917.384615	54.02	74.00	19.98	V	18.9



Frequency (MHz)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
7467.230769	33.59	54.00	20.41	V	5.7
8257.384616	33.74	54.00	20.26	V	5.9
10877.538462	35.41	54.00	18.59	H	9.3
12470.769231	36.61	54.00	17.39	V	11.3
15856.153846	40.24	54.00	13.76	H	14.0
17917.384615	43.27	54.00	10.73	V	18.9

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

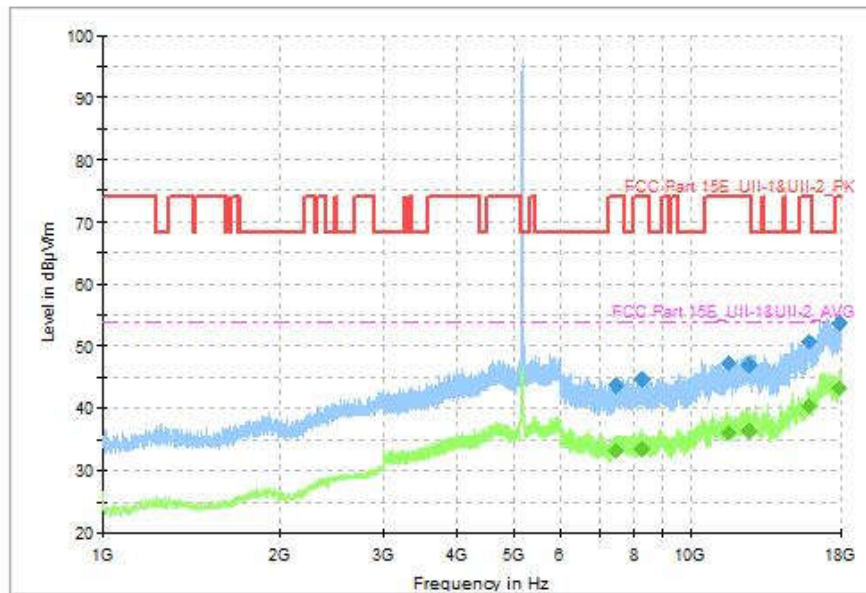


Fig. 109 Transmitter Spurious Emission (802.11a, CH36 5180MHz, 1GHz-18GHz)

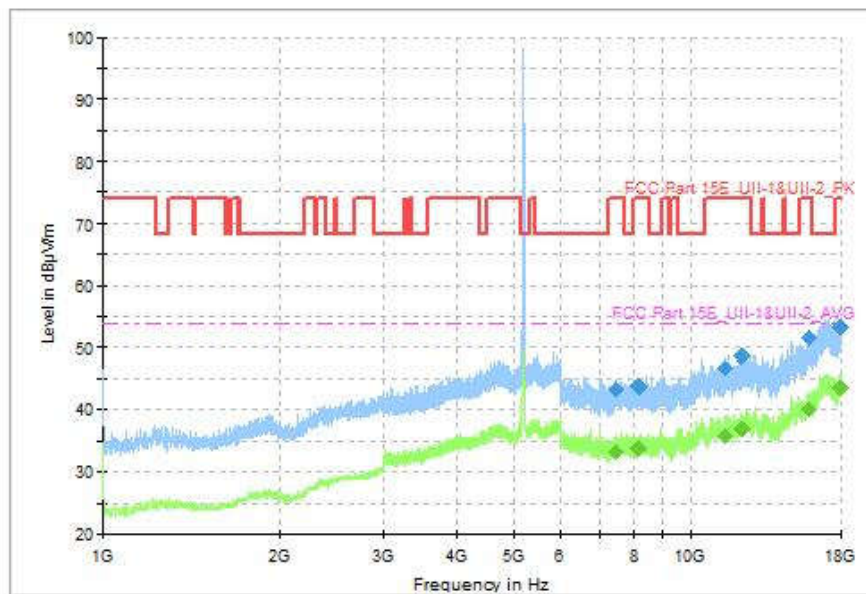


Fig. 110 Transmitter Spurious Emission (802.11a, CH40 5200MHz, 1GHz-18GHz)

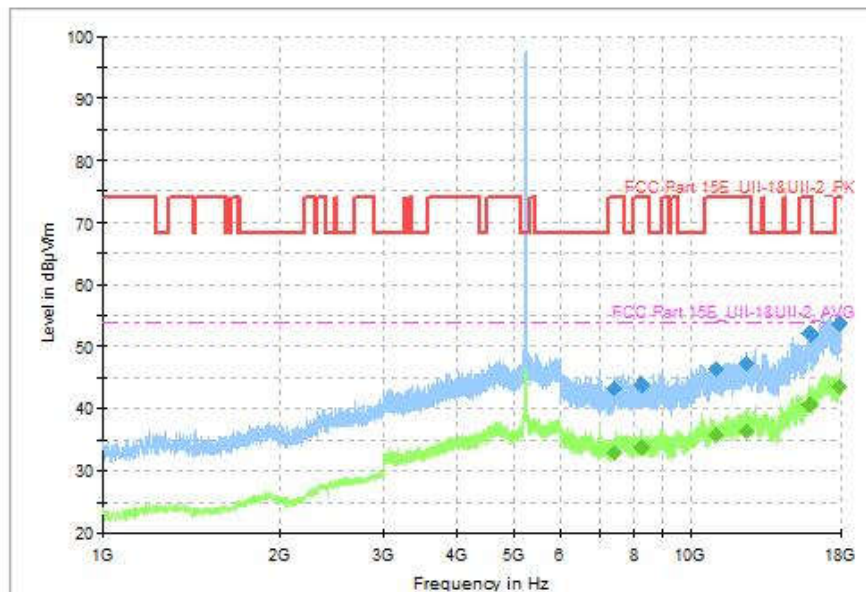


Fig. 111 Transmitter Spurious Emission (802.11a, CH48 5240MHz, 1GHz-18GHz)

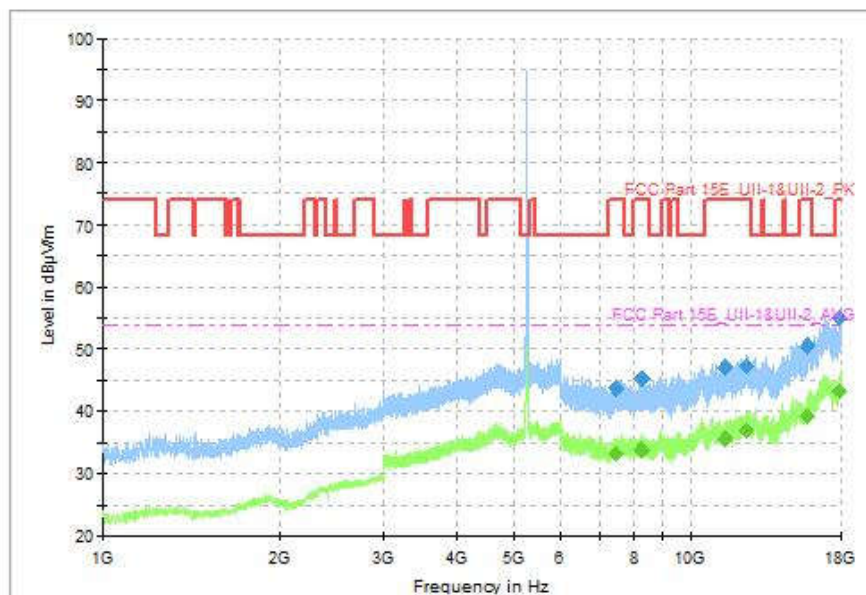


Fig. 112 Transmitter Spurious Emission (802.11a, CH52 5260MHz, 1GHz-18GHz)

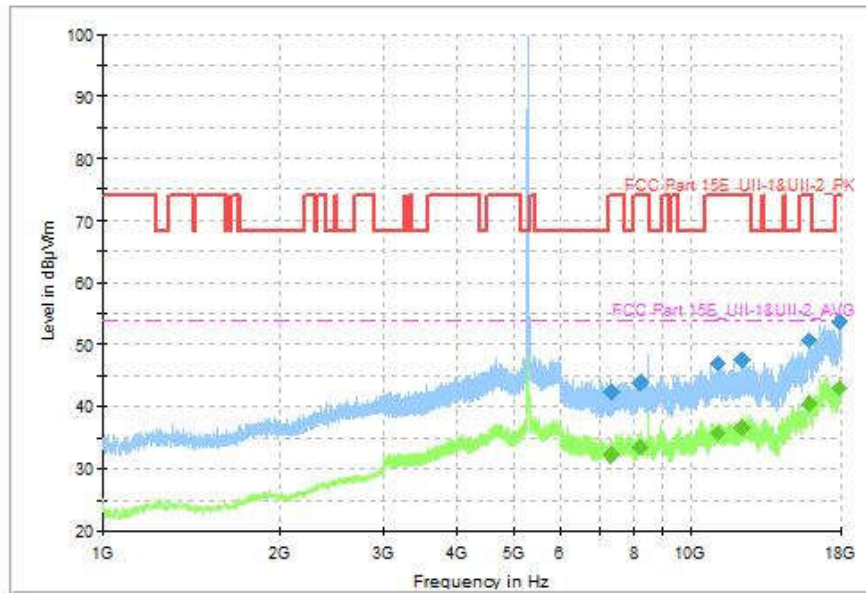


Fig. 113 Transmitter Spurious Emission (802.11a, CH56 5280MHz, 1GHz-18GHz)

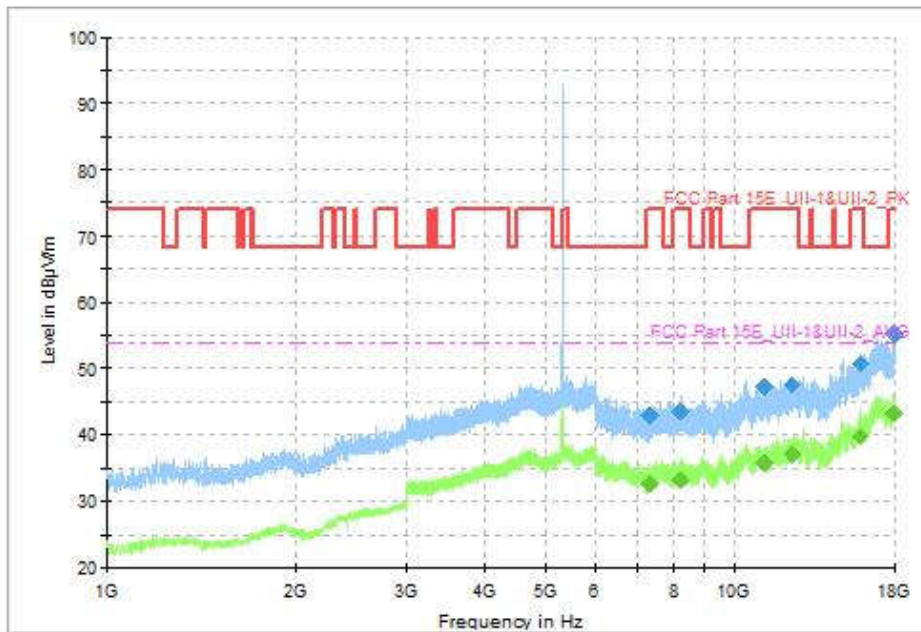


Fig. 114 Transmitter Spurious Emission (802.11a, CH64 5320MHz, 1GHz-18GHz)

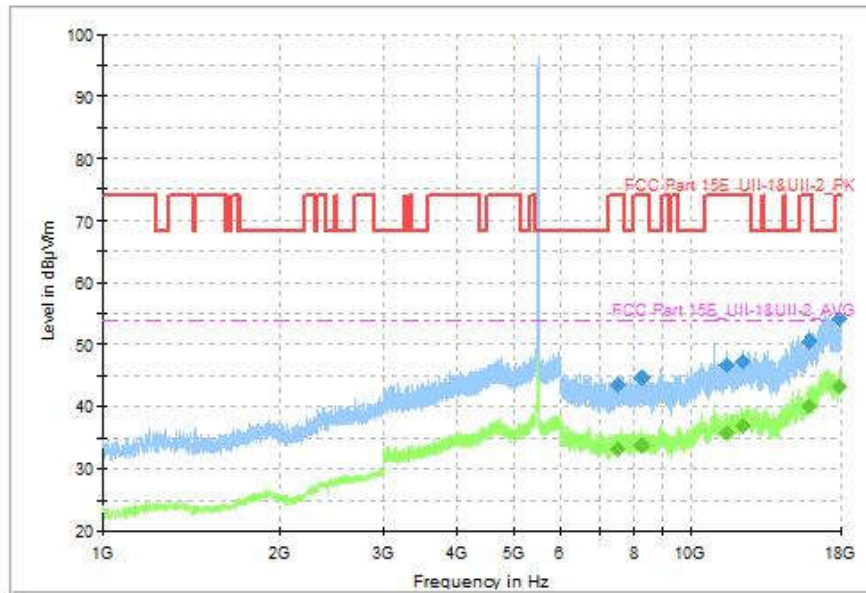


Fig. 115 Transmitter Spurious Emission (802.11a, CH100 5500MHz, 1GHz-18GHz)

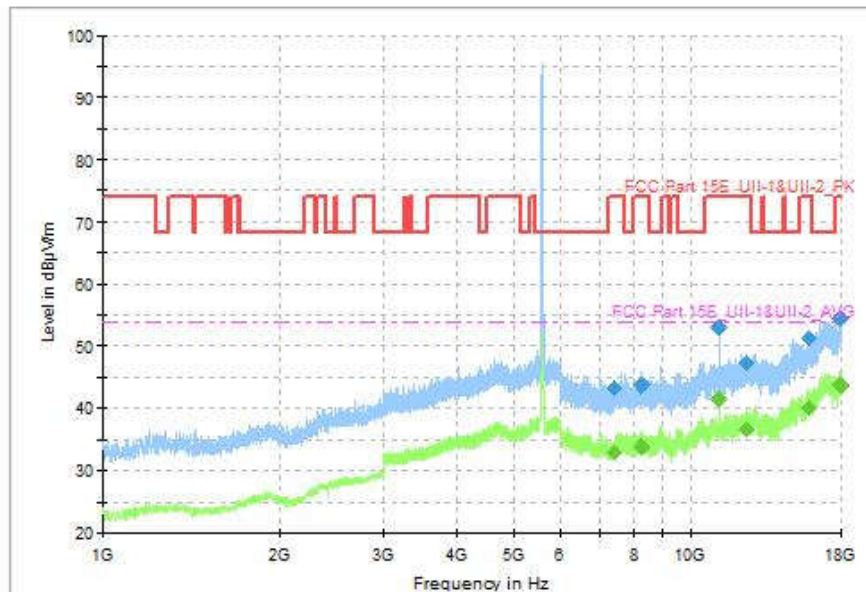


Fig. 116 Transmitter Spurious Emission (802.11a, CH120 5600MHz, 1GHz-18GHz)

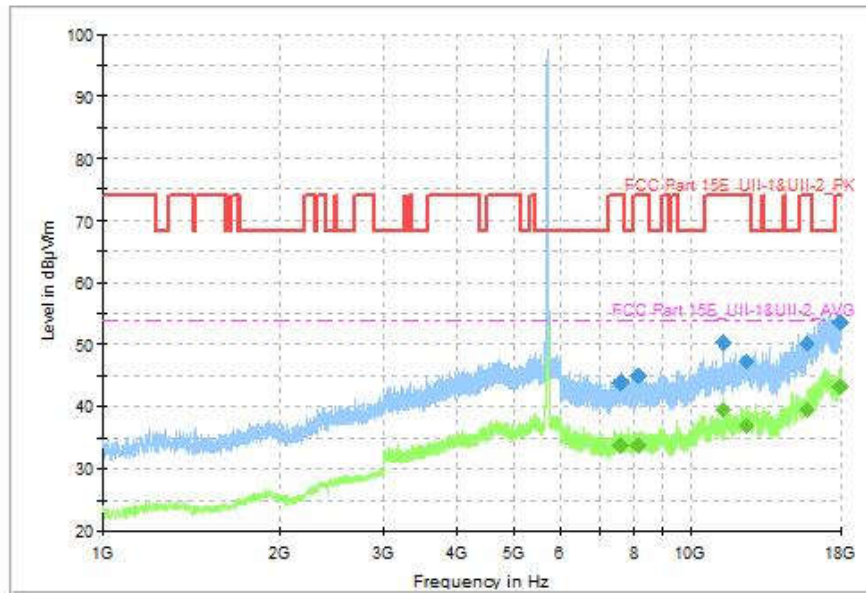


Fig. 117 Transmitter Spurious Emission (802.11a, CH140 5700MHz, 1GHz-18GHz)

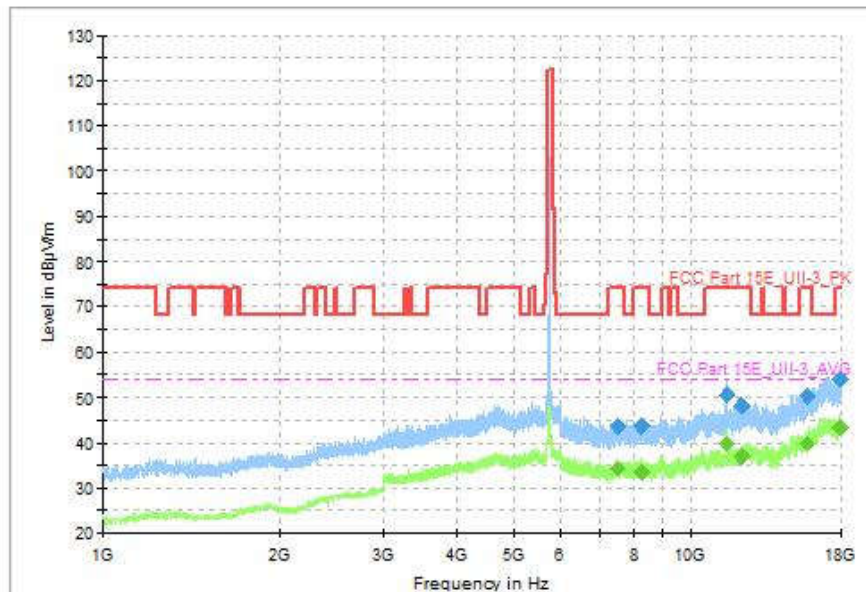


Fig. 118 Transmitter Spurious Emission (802.11a, CH149 5745MHz, 1GHz-18GHz)

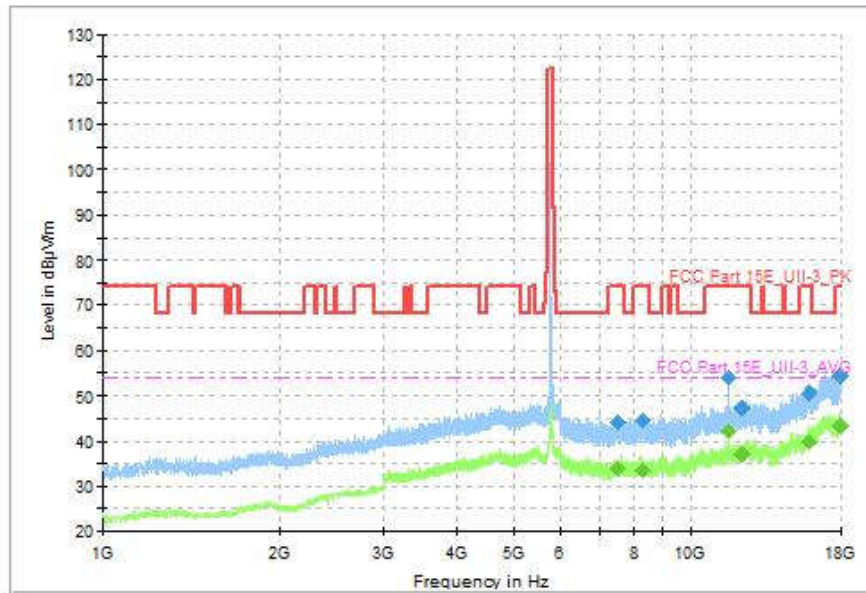


Fig. 119 Transmitter Spurious Emission (802.11a, CH157 5785MHz, 1GHz-18GHz)

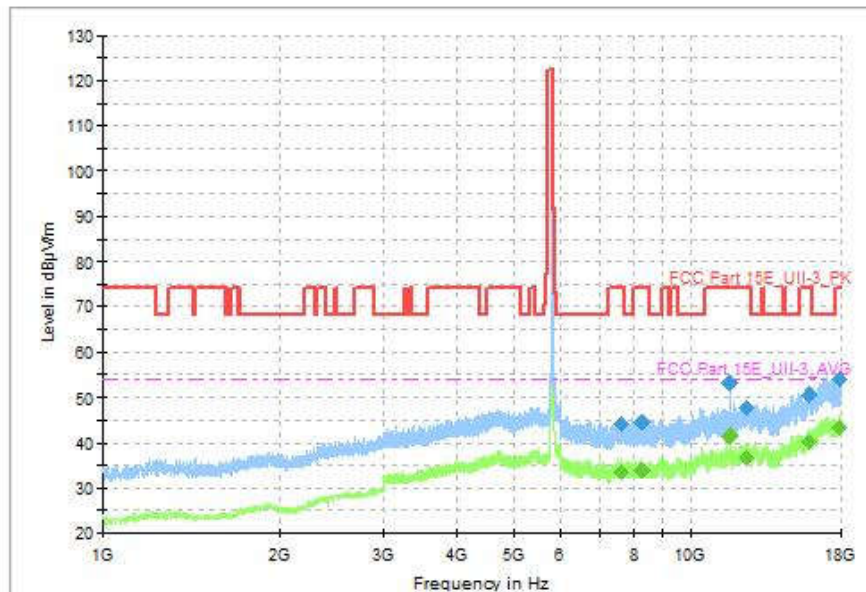


Fig. 120 Transmitter Spurious Emission (802.11a, CH165 5825MHz, 1GHz-18GHz)

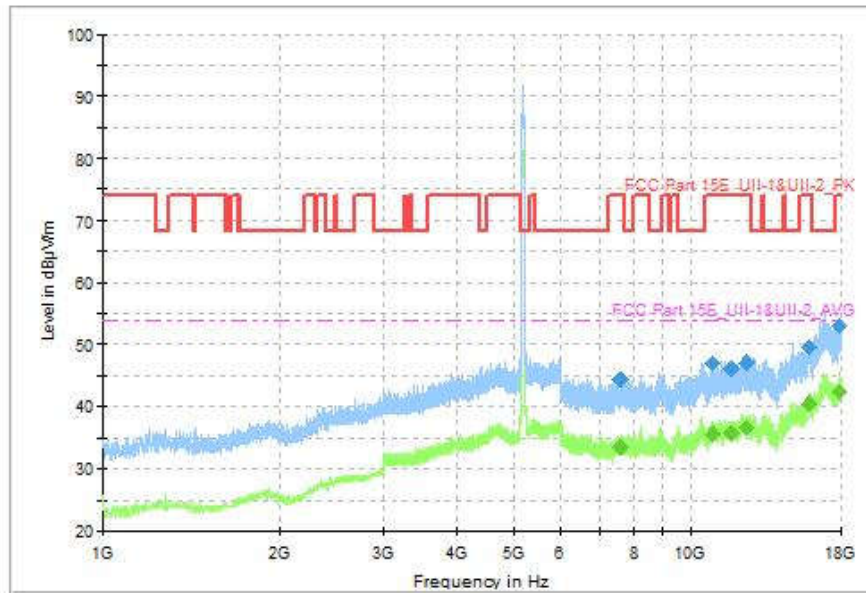


Fig. 121 Transmitter Spurious Emission (802.11ax-HE40, CH38 5190MHz, 1GHz-18GHz)

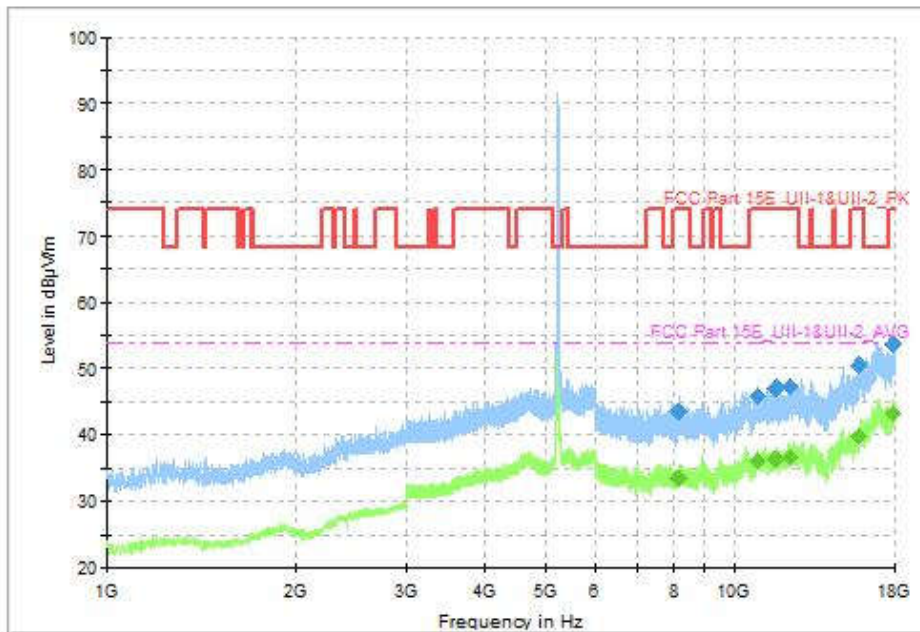


Fig. 122 Transmitter Spurious Emission (802.11ax-HE40, CH46 5230MHz, 1GHz-18GHz)

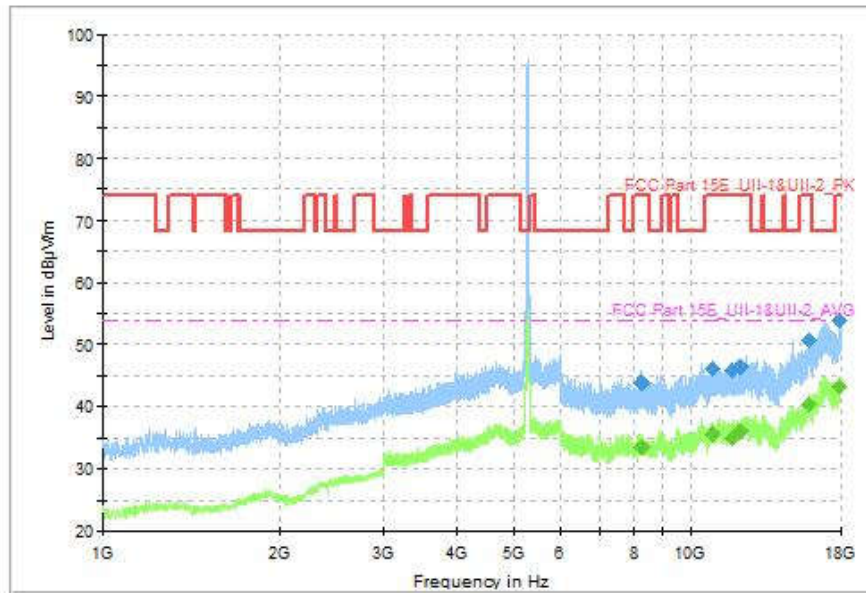


Fig. 123 Transmitter Spurious Emission (802.11ax-HE40, CH54 5270MHz, 1GHz-18GHz)

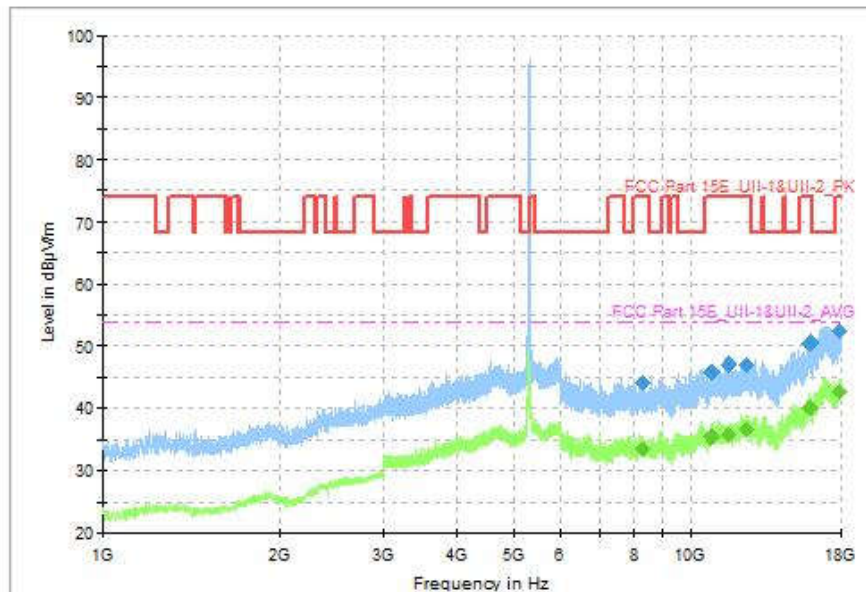


Fig. 124 Transmitter Spurious Emission (802.11ax-HE40, CH62 5310MHz, 1GHz-18GHz)

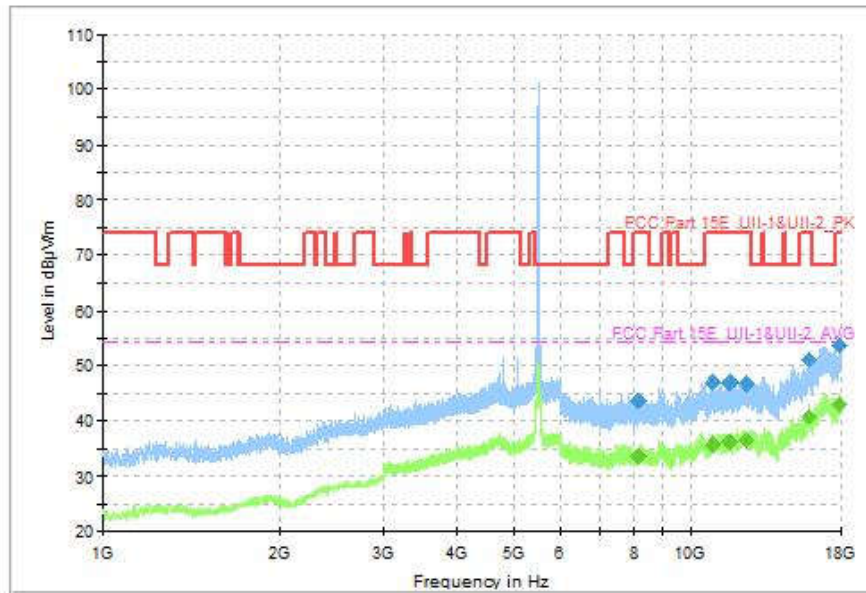


Fig. 125 Transmitter Spurious Emission (802.11ax-HE40, CH102 5510MHz, 1GHz-18GHz)

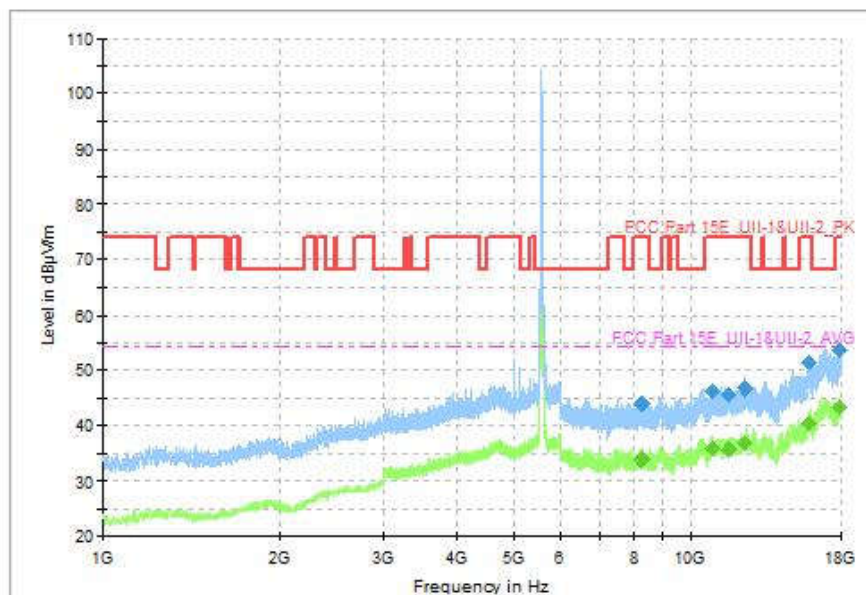


Fig. 126 Transmitter Spurious Emission (802.11ax-HE40, CH118 5580MHz, 1GHz-18GHz)

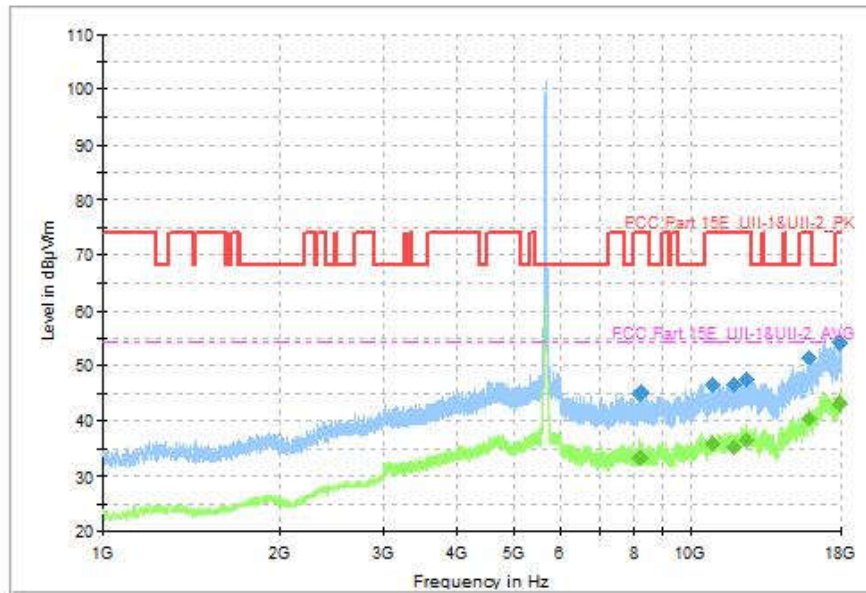


Fig. 127 Transmitter Spurious Emission (802.11ax-HE40, CH134 5670MHz, 1GHz-18GHz)

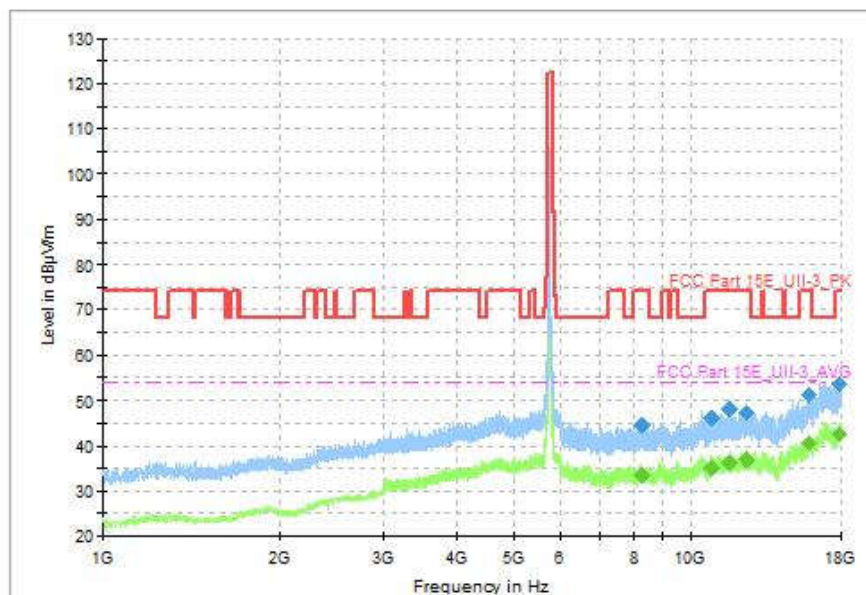


Fig. 128 Transmitter Spurious Emission (802.11ax-HE40, CH151 5755MHz, 1GHz-18GHz)

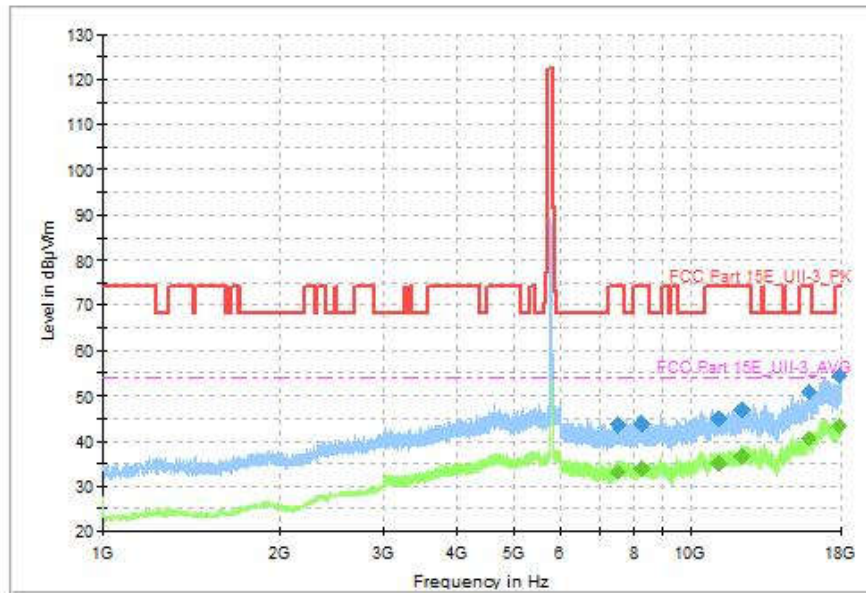


Fig. 129 Transmitter Spurious Emission (802.11ax-HE40, CH159 5795MHz, 1GHz-18GHz)

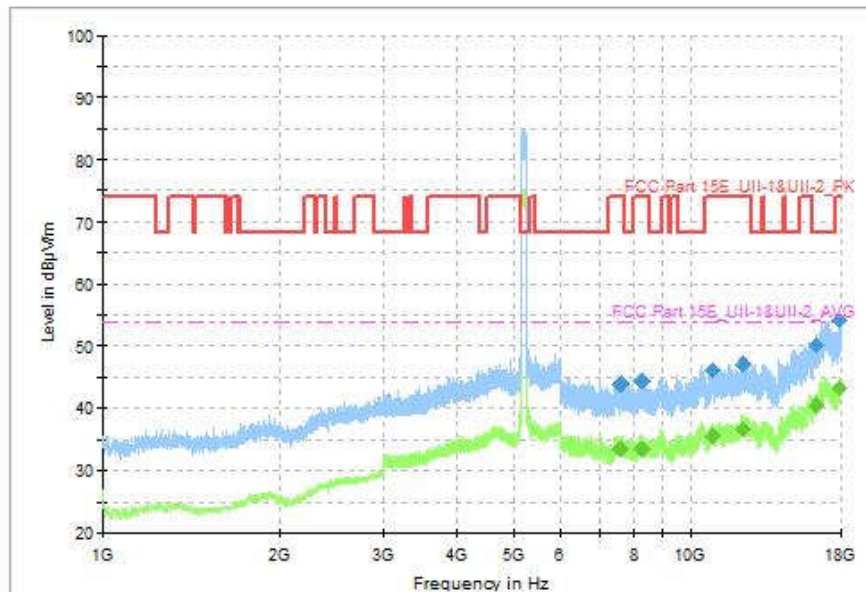


Fig. 130 Transmitter Spurious Emission (802.11ax-HE80, CH42 5210MHz, 1GHz-18GHz)

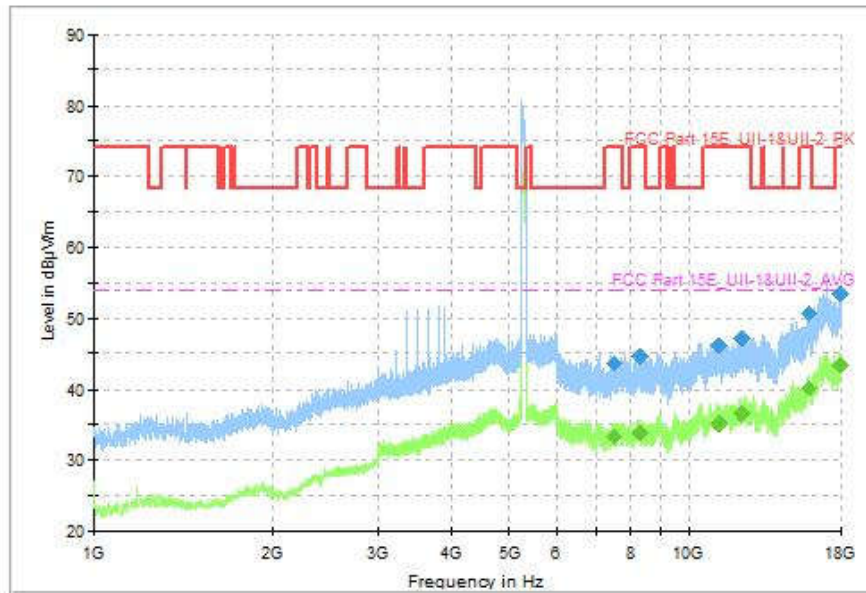


Fig. 131 Transmitter Spurious Emission (802.11ax-HE80, CH58 5290MHz, 1GHz-18GHz)

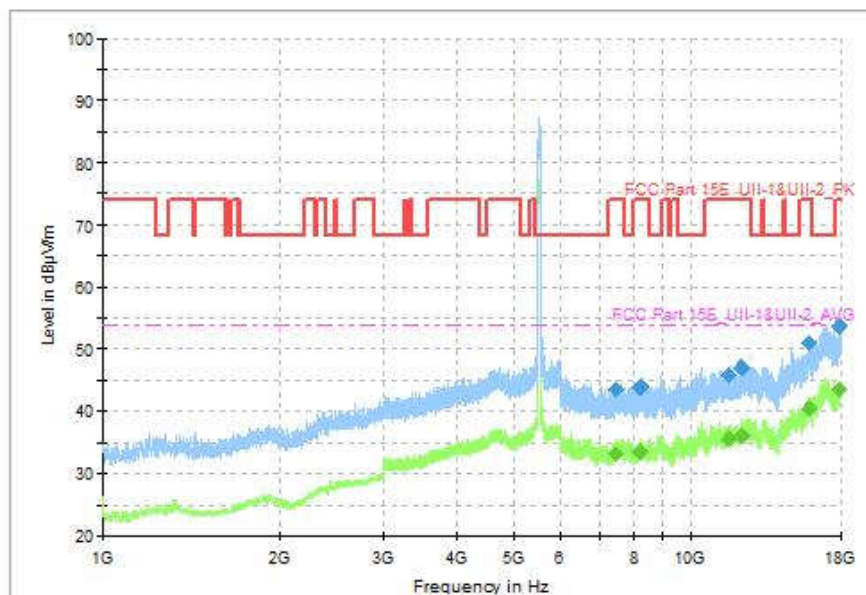


Fig. 132 Transmitter Spurious Emission (802.11ax-HE80, CH106 5530MHz, 1GHz-18GHz)

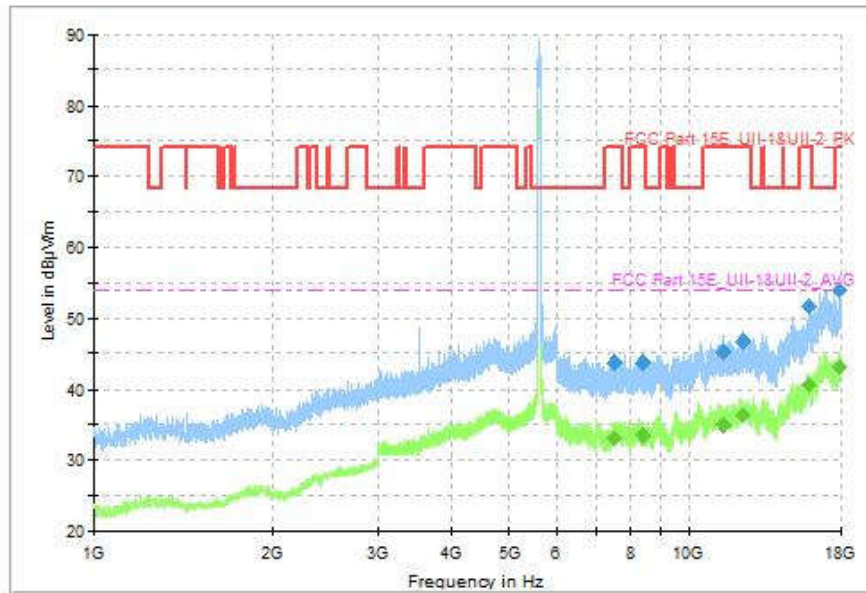


Fig. 133 Transmitter Spurious Emission (802.11ax-HE80, CH122 5610MHz, 1GHz-18GHz)

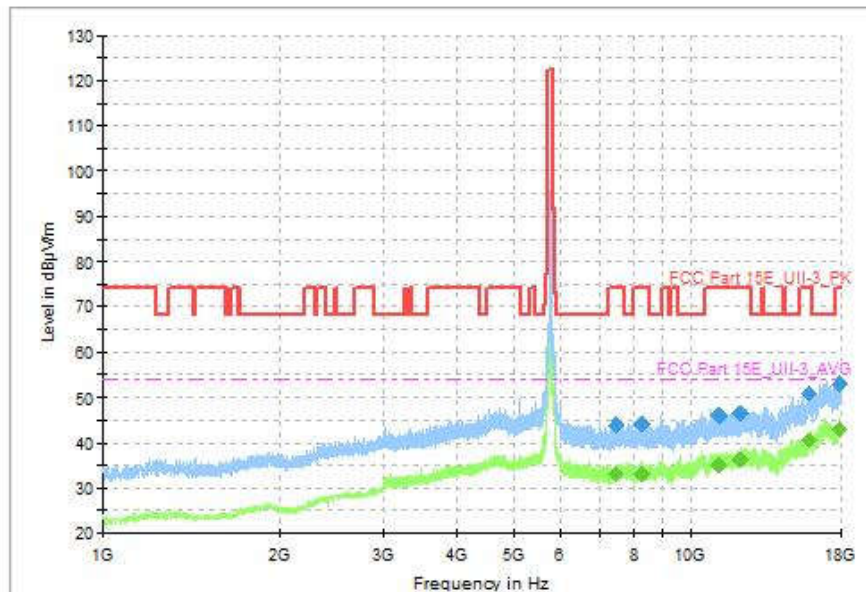


Fig. 134 Transmitter Spurious Emission (802.11ax-HE80, CH155 5775MHz, 1GHz-18GHz)

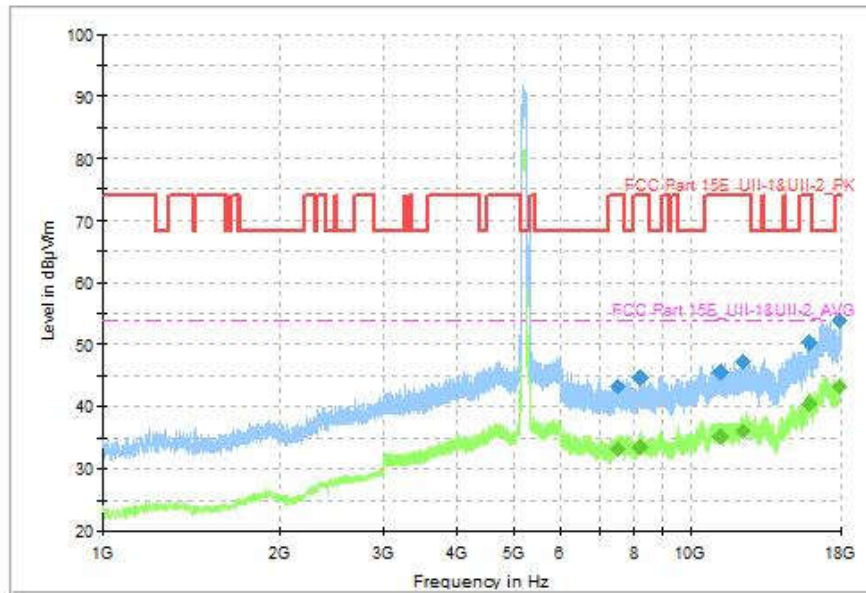


Fig. 135 Transmitter Spurious Emission (802.11ax-HE160, CH50 5250MHz, 1GHz-18GHz)

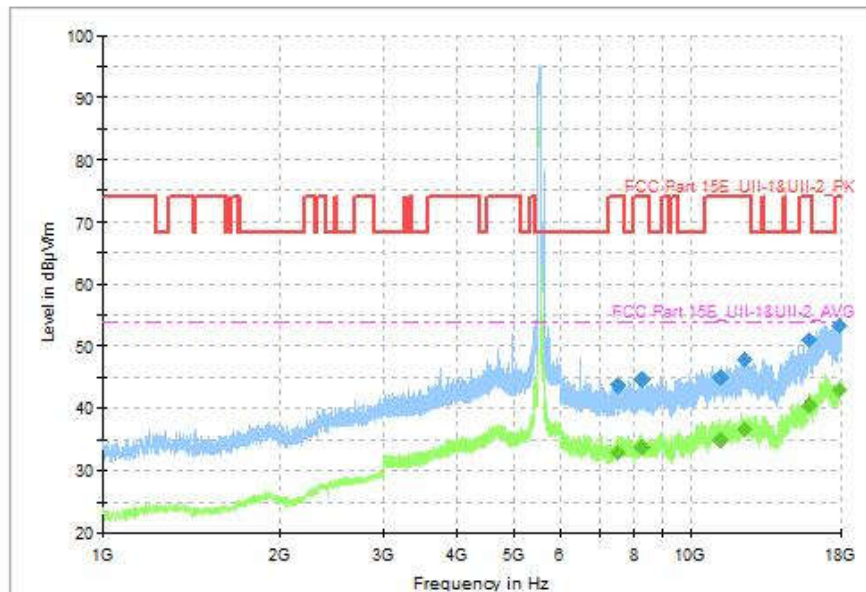


Fig. 136 Transmitter Spurious Emission (802.11ax-HE160, CH114 5570MHz, 1GHz-18GHz)

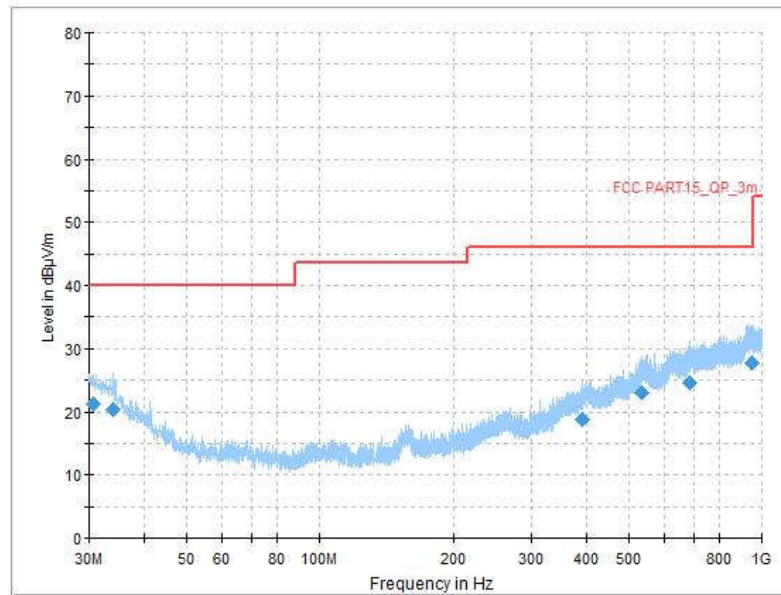


Fig. 137 Transmitter Spurious Emission (All channel, 30MHz~1GHz)

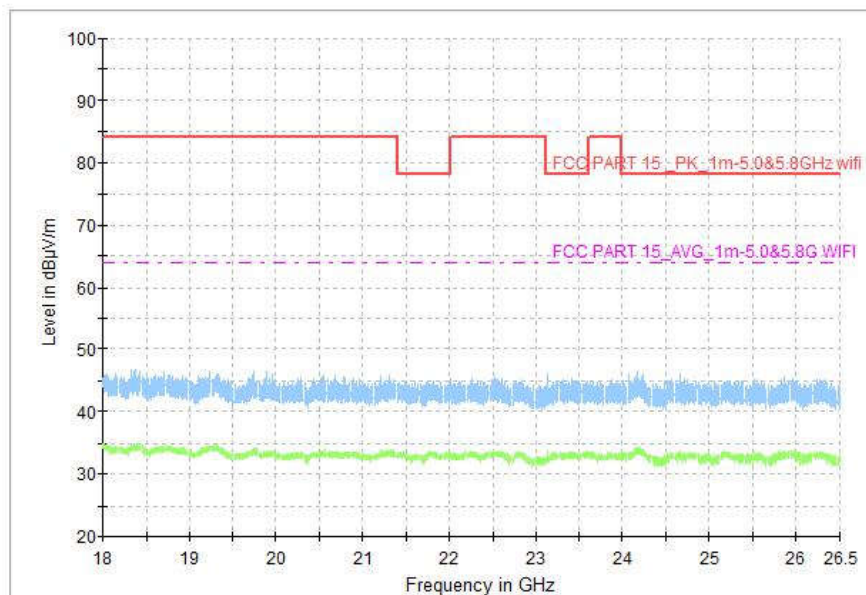


Fig. 138 Transmitter Spurious Emission (All channel, 18GHz~26.5GHz)

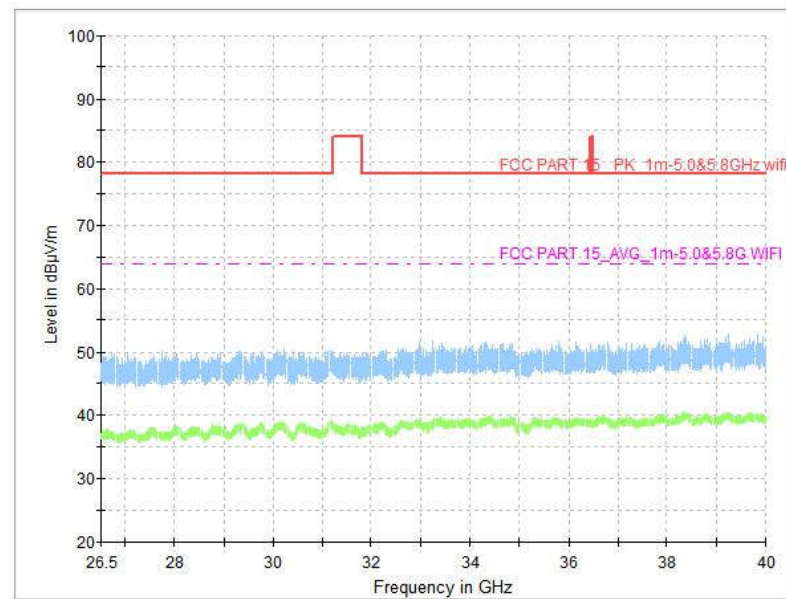


Fig. 139 Transmitter Spurious Emission (All channel, 26.5GHz~40GHz)

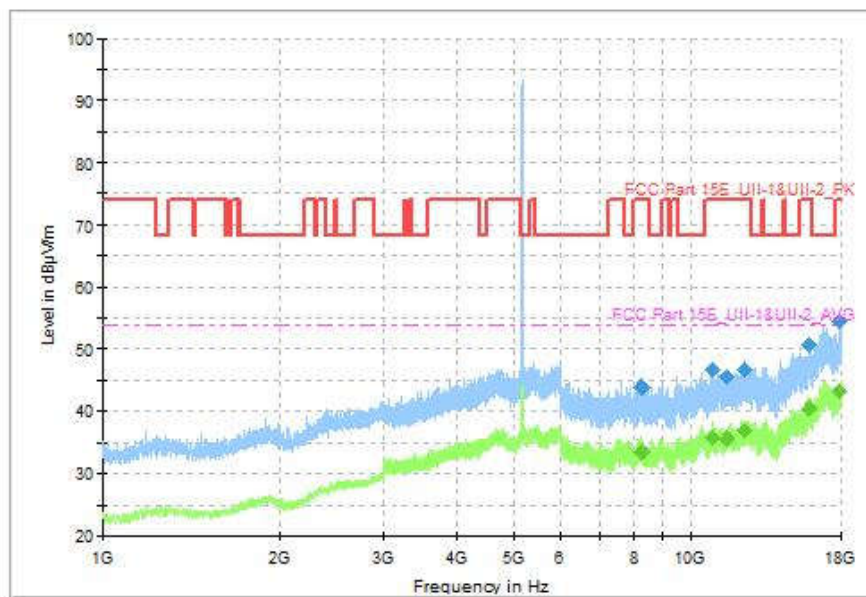


Fig. 140 Transmitter Spurious Emission (802.11n-HT20, CH36 5180MHz, 1GHz-18GHz), MIMO

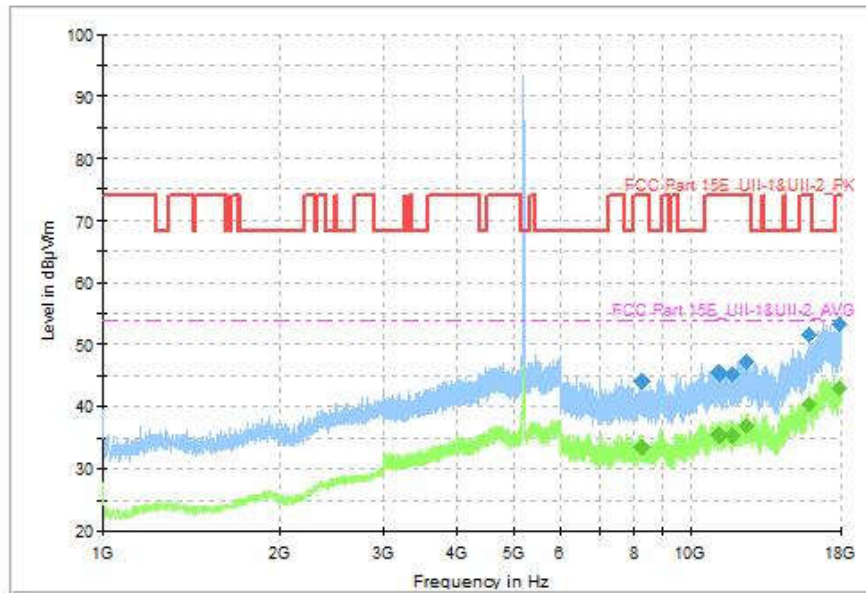


Fig. 141 Transmitter Spurious Emission (802.11n-HT20, CH40 5200MHz, 1GHz-18GHz), MIMO

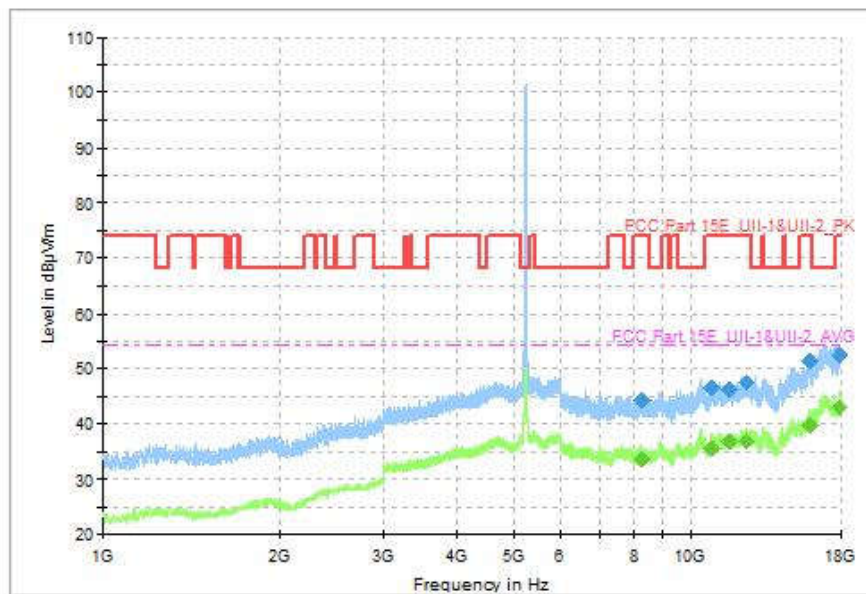


Fig. 142 Transmitter Spurious Emission (802.11n-HT20, CH48 5240MHz, 1GHz-18GHz), MIMO

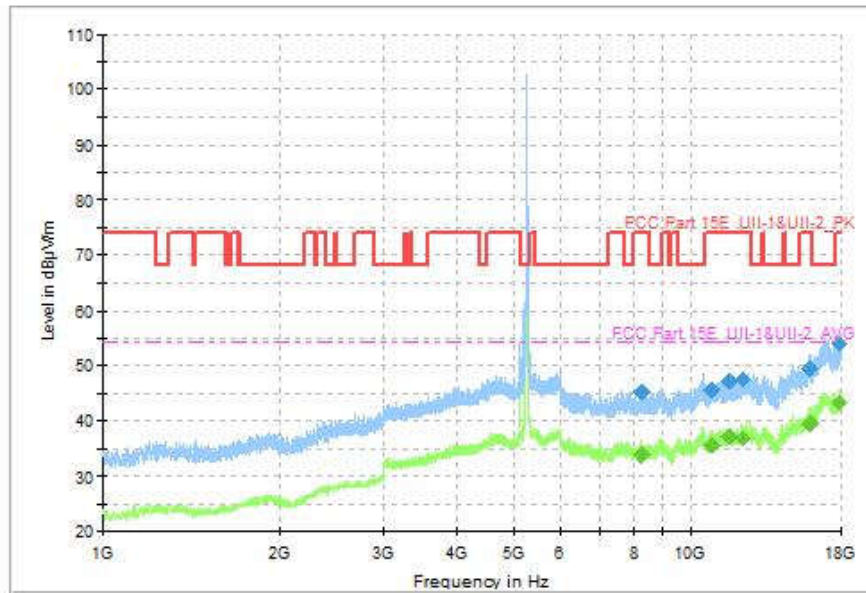


Fig. 143 Transmitter Spurious Emission (802.11n-HT20, CH52 5260MHz, 1GHz-18GHz), MIMO

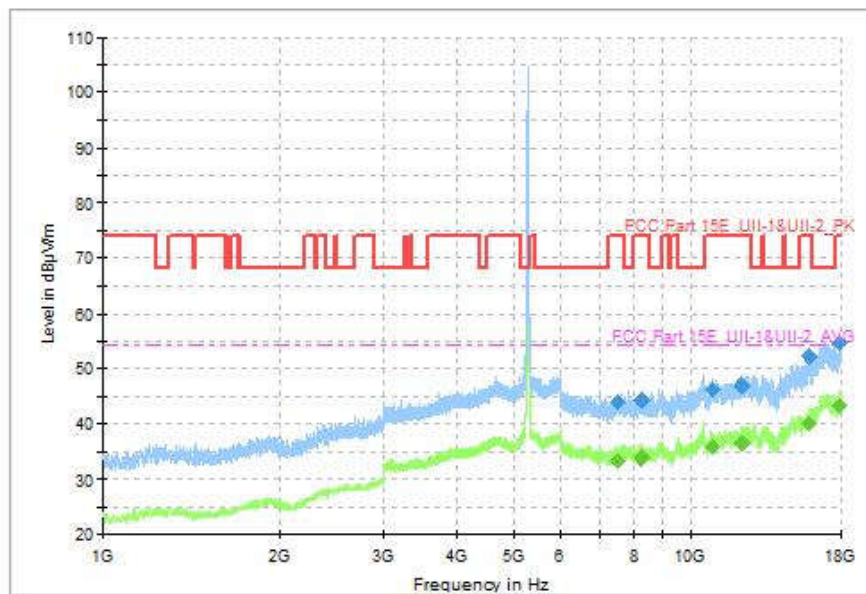


Fig. 144 Transmitter Spurious Emission (802.11n-HT20, CH56 5280MHz, 1GHz-18GHz), MIMO

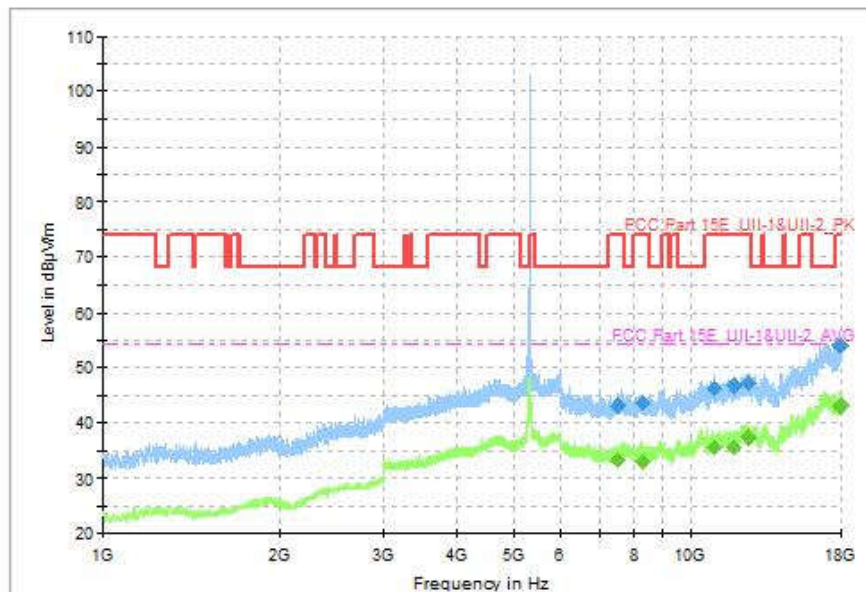


Fig. 145 Transmitter Spurious Emission (802.11n-HT20, CH64 5320MHz, 1GHz-18GHz), MIMO

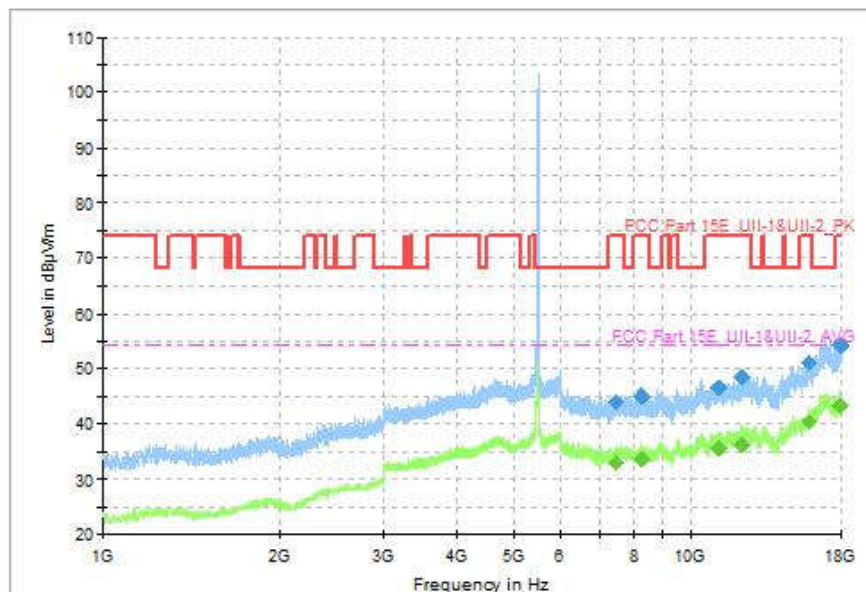


Fig. 146 Transmitter Spurious Emission (802.11n-HT20, CH100 5500MHz, 1GHz-18GHz), MIMO

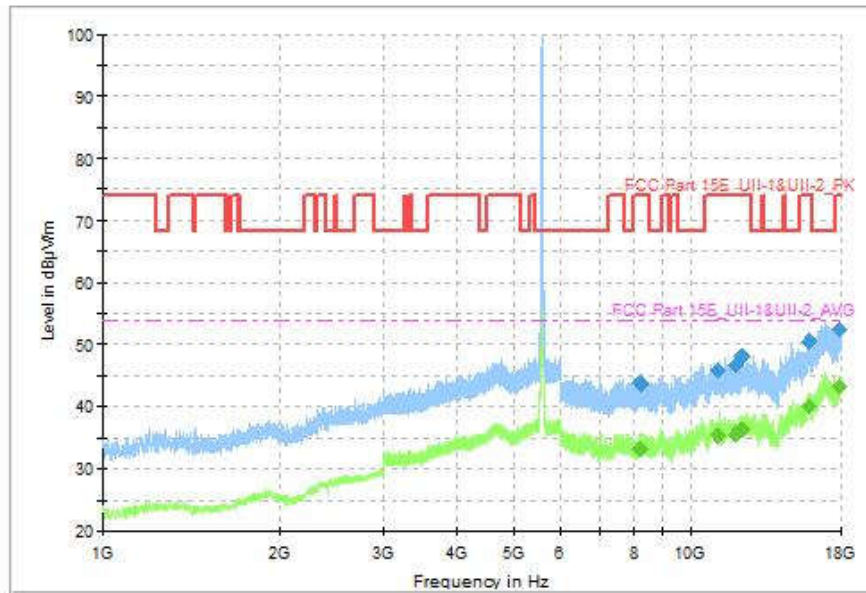


Fig. 147 Transmitter Spurious Emission (802.11n-HT20, CH120 5600MHz, 1GHz-18GHz), MIMO

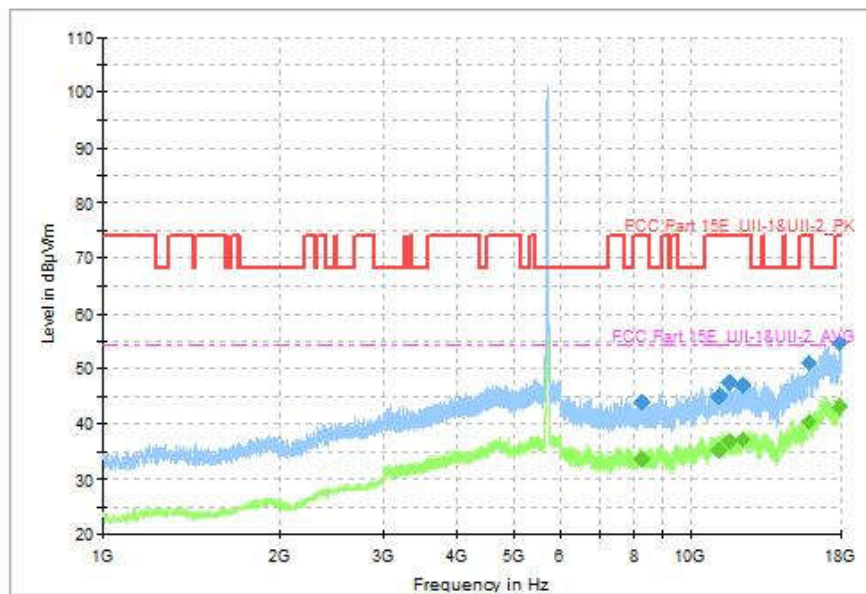


Fig. 148 Transmitter Spurious Emission (802.11n-HT20, CH140 5700MHz, 1GHz-18GHz), MIMO

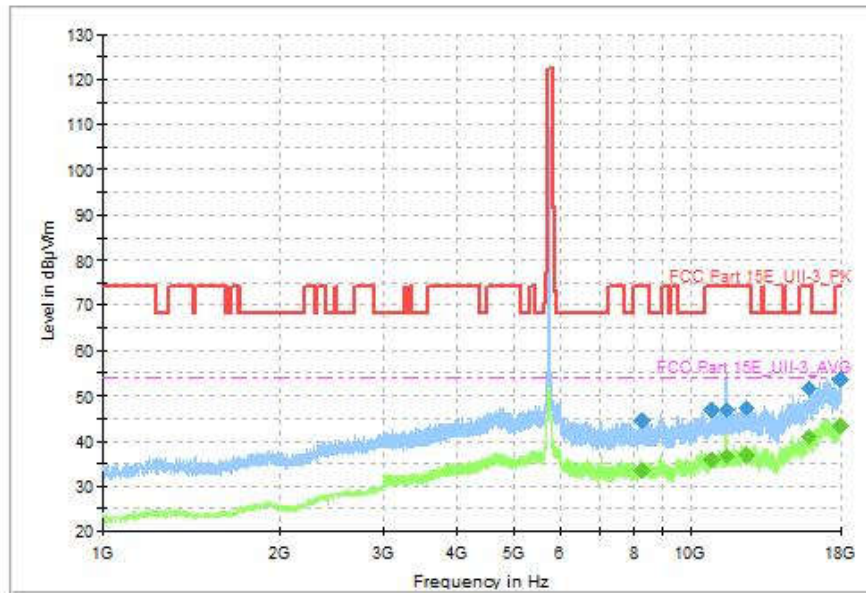


Fig. 149 Transmitter Spurious Emission (802.11n-HT20, CH149 5745MHz, 1GHz-18GHz), MIMO

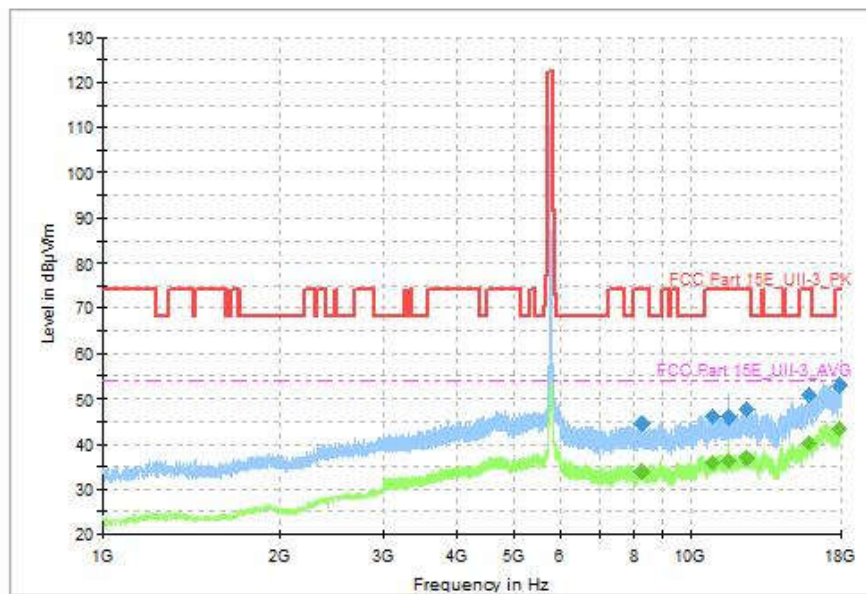


Fig. 150 Transmitter Spurious Emission (802.11n-HT20, CH157 5785MHz, 1GHz-18GHz), MIMO

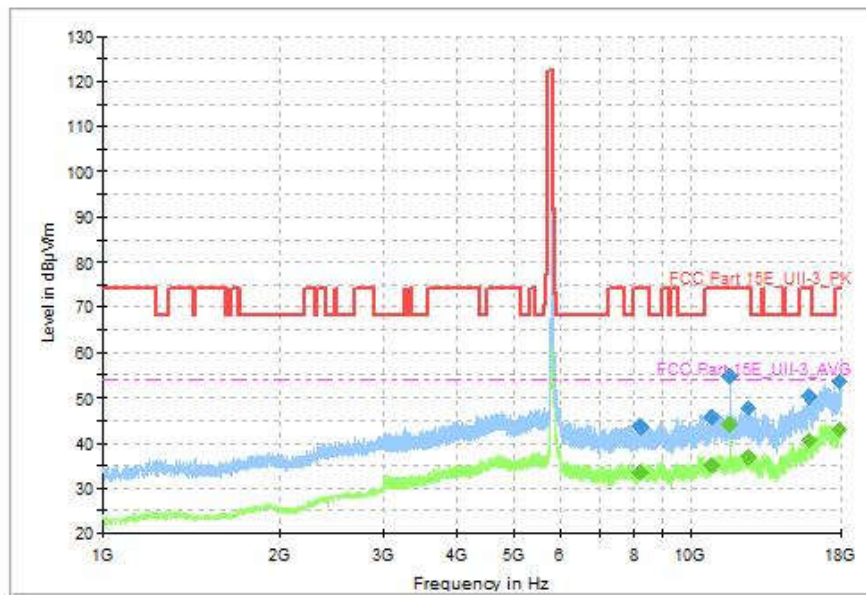


Fig. 151 Transmitter Spurious Emission (802.11n-HT20, CH165 5825MHz, 1GHz-18GHz), MIMO

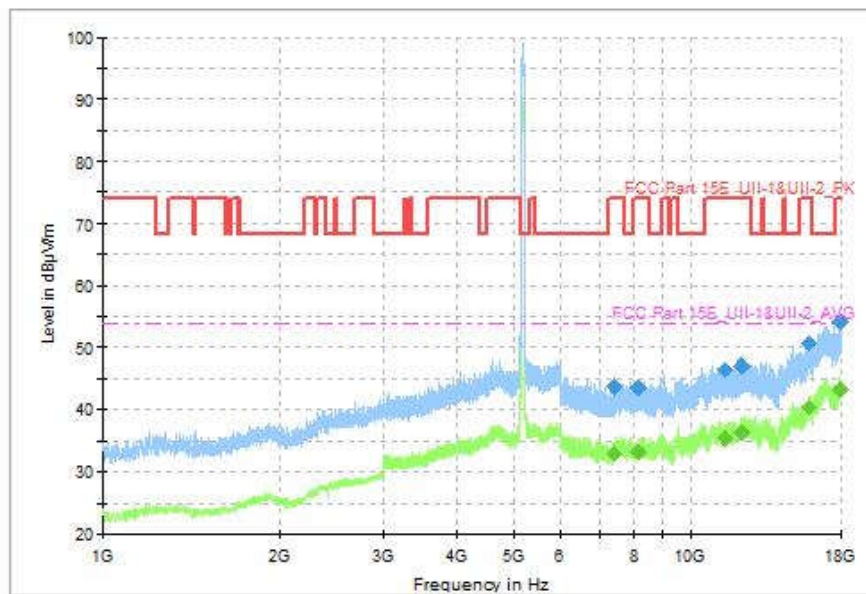


Fig. 152 Transmitter Spurious Emission (802.11ax-HE40, CH38 5190MHz, 1GHz-18GHz), MIMO

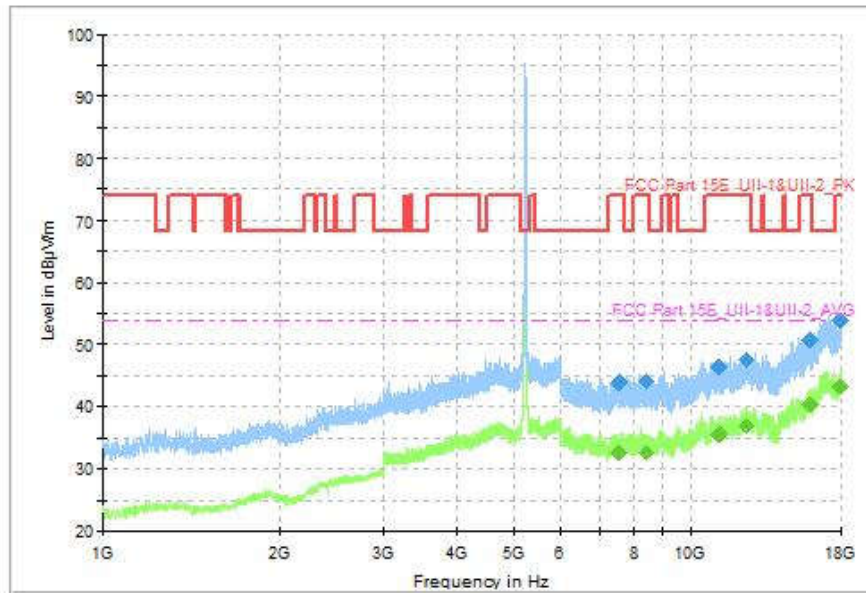


Fig. 153 Transmitter Spurious Emission (802.11ax-HE40, CH46 5230MHz, 1GHz-18GHz), MIMO

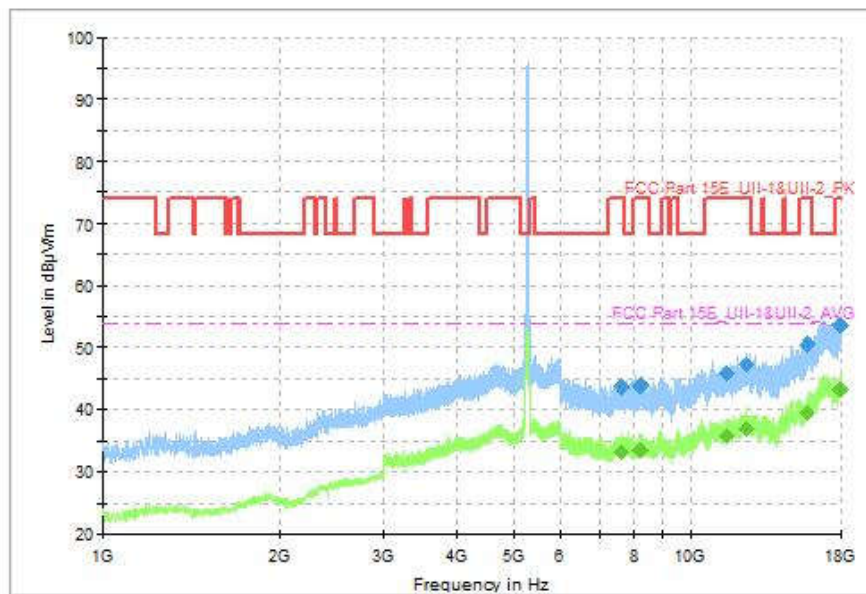


Fig. 154 Transmitter Spurious Emission (802.11ax-HE40, CH54 5270MHz, 1GHz-18GHz), MIMO

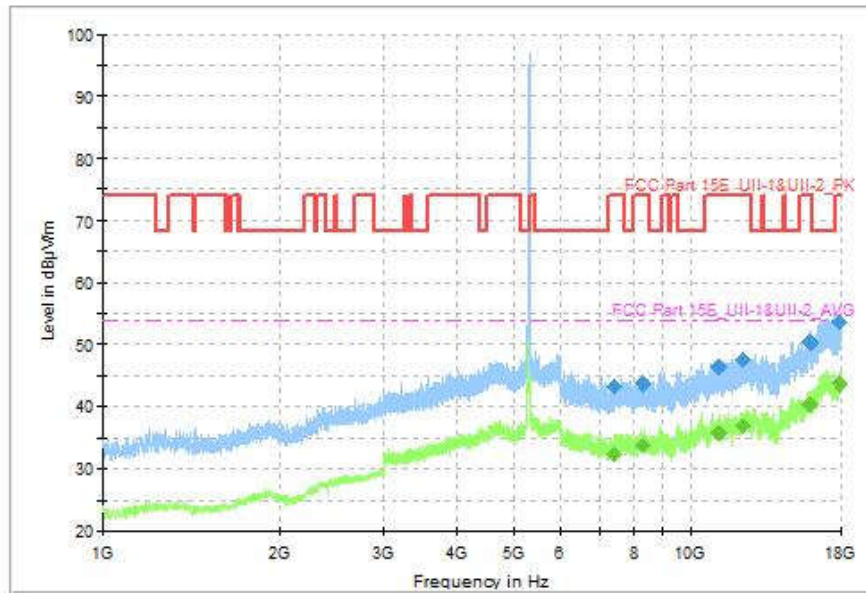


Fig. 155 Transmitter Spurious Emission (802.11ax-HE40, CH62 5310MHz, 1GHz-18GHz), MIMO

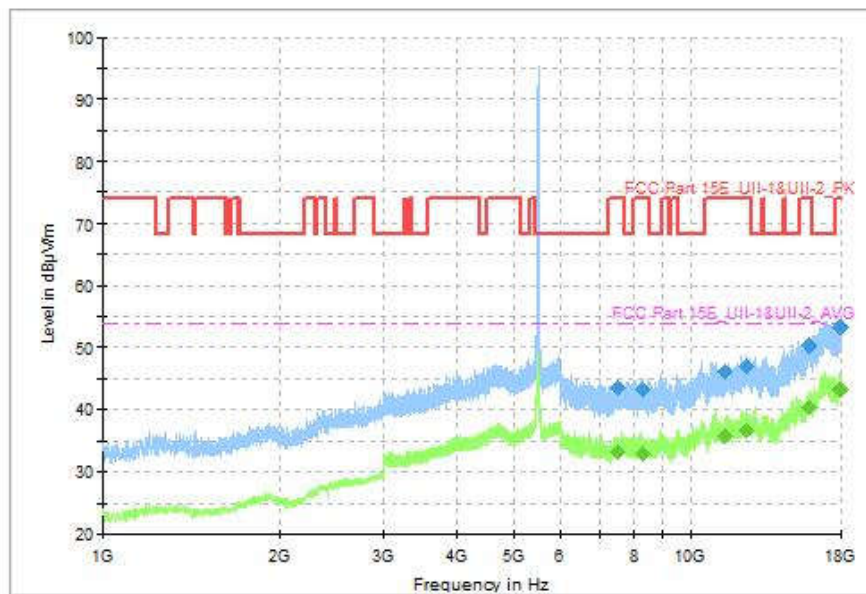


Fig. 156 Transmitter Spurious Emission (802.11ax-HE40, CH102 5510MHz, 1GHz-18GHz), MIMO

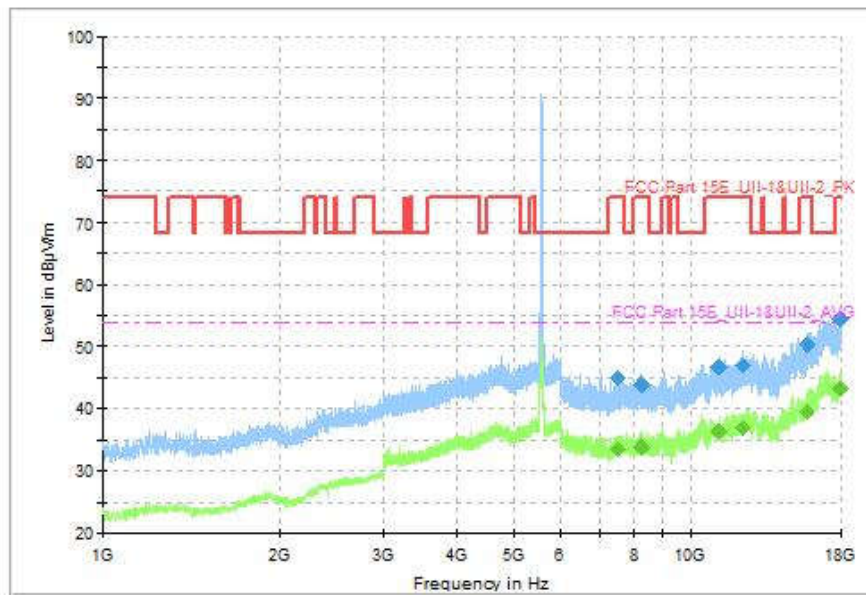


Fig. 157 Transmitter Spurious Emission (802.11ax-HE40, CH118 5580MHz, 1GHz-18GHz), MIMO

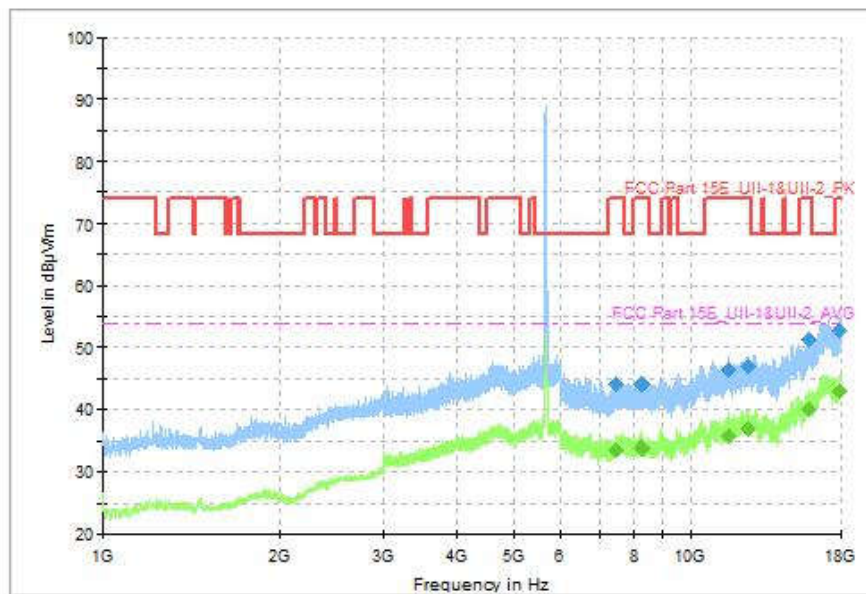


Fig. 158 Transmitter Spurious Emission (802.11ax-HE40, CH134 5670MHz, 1GHz-18GHz), MIMO

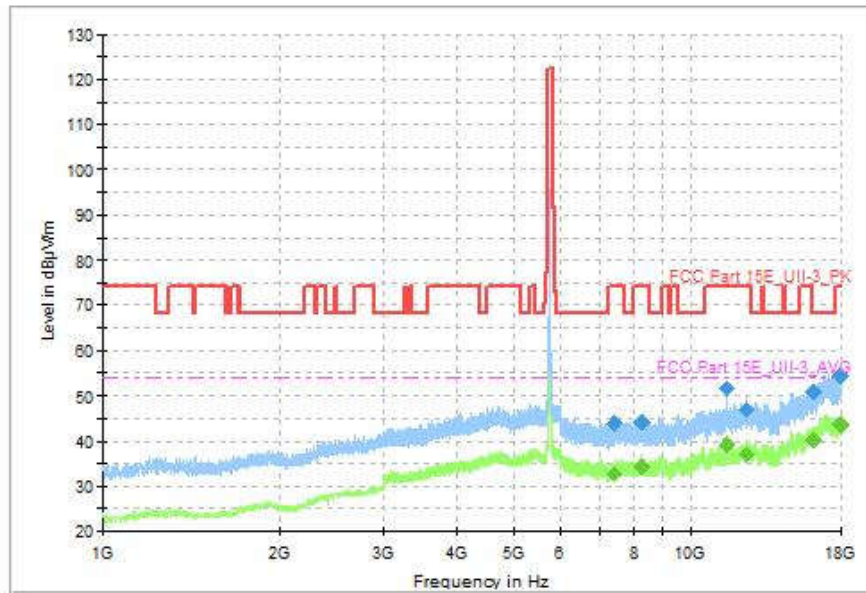


Fig. 159 Transmitter Spurious Emission (802.11ax-HE40, CH151 5755MHz, 1GHz-18GHz), MIMO

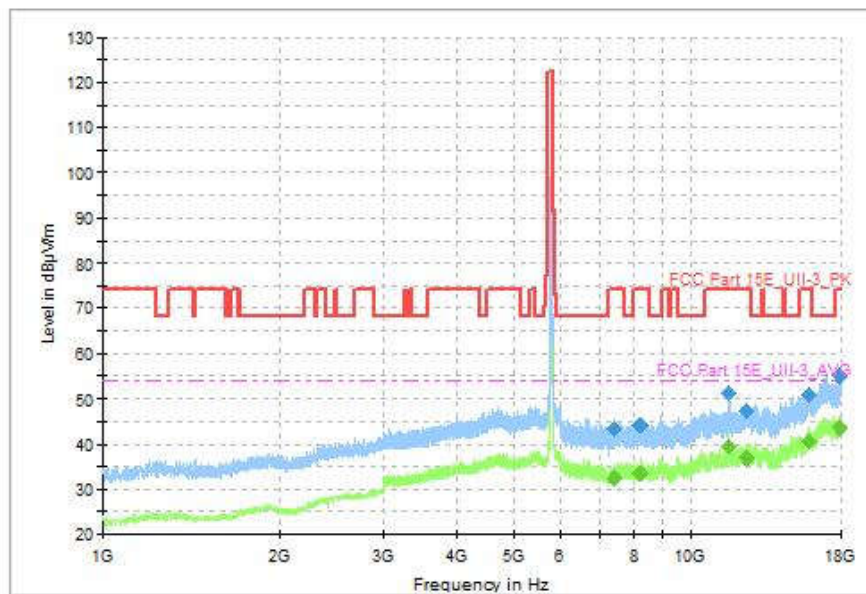


Fig. 160 Transmitter Spurious Emission (802.11ax-HE40, CH159 5795MHz, 1GHz-18GHz), MIMO

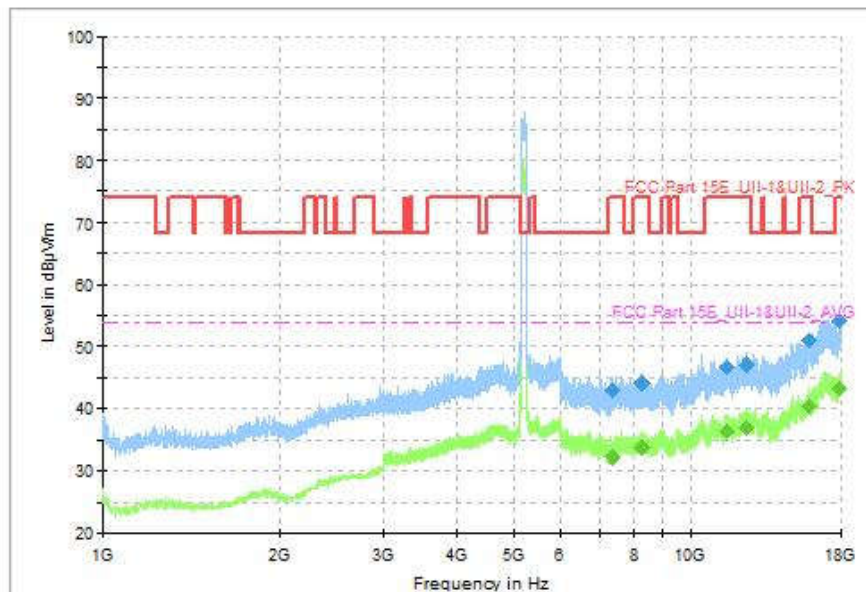


Fig. 161 Transmitter Spurious Emission (802.11ax-HE80, CH42 5210MHz, 1GHz-18GHz), MIMO

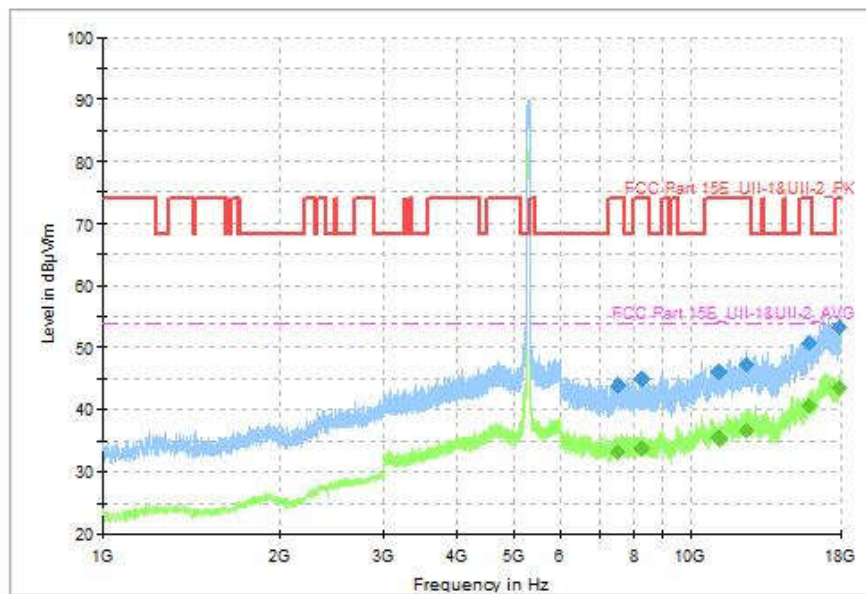


Fig. 162 Transmitter Spurious Emission (802.11ax-HE80, CH58 5290MHz, 1GHz-18GHz), MIMO

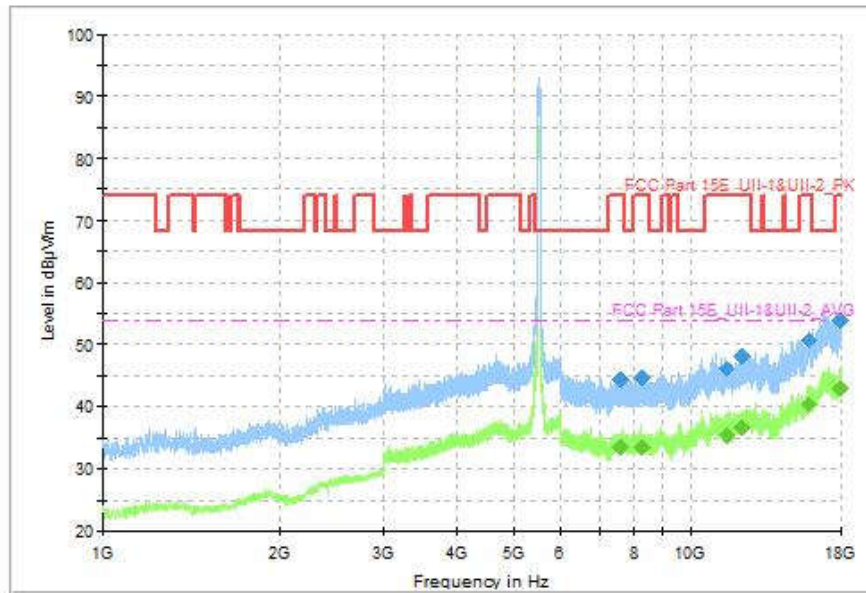


Fig. 163 Transmitter Spurious Emission (802.11ax-HE80, CH106 5530MHz, 1GHz-18GHz), MIMO

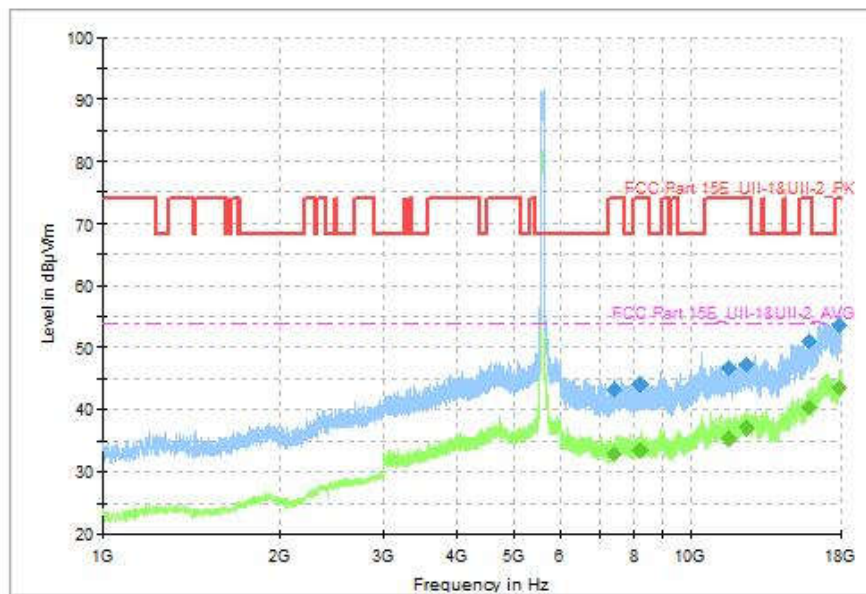


Fig. 164 Transmitter Spurious Emission (802.11ax-HE80, CH122 5610MHz, 1GHz-18GHz), MIMO

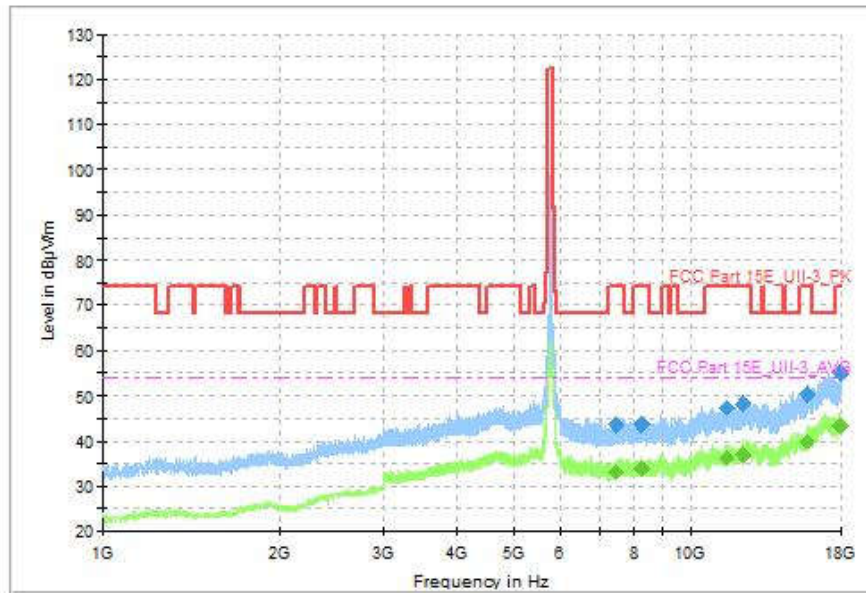


Fig. 165 Transmitter Spurious Emission (802.11ax-HE80, CH155 5775MHz, 1GHz-18GHz), MIMO

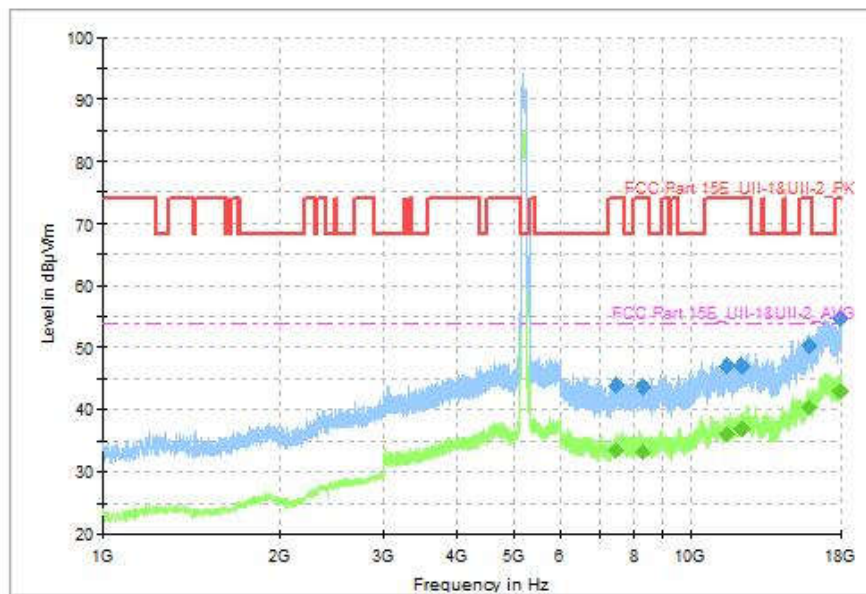


Fig. 166 Transmitter Spurious Emission (802.11ax-HE160, CH50 5250MHz, 1GHz-18GHz), MIMO

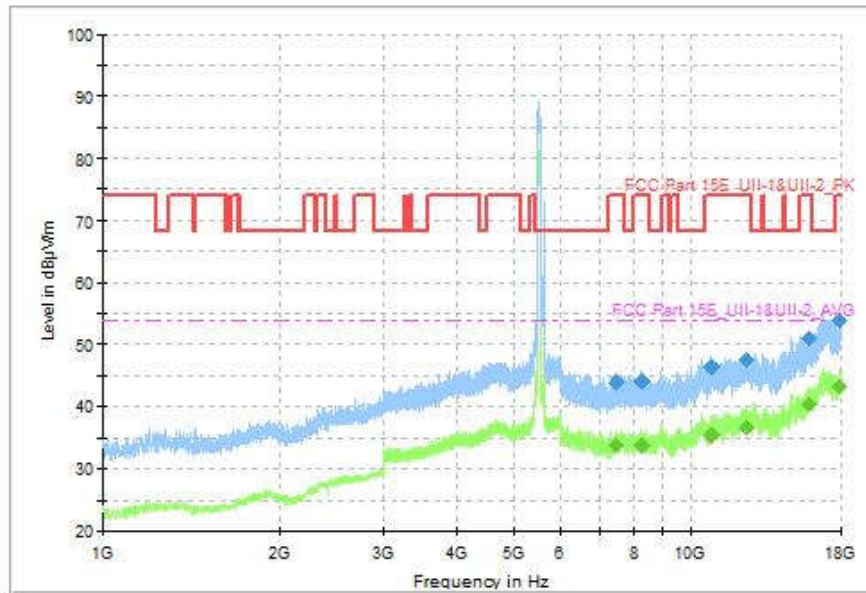


Fig. 167 Transmitter Spurious Emission (802.11ax-HE160, CH114 5570MHz, 1GHz-18GHz), MIMO

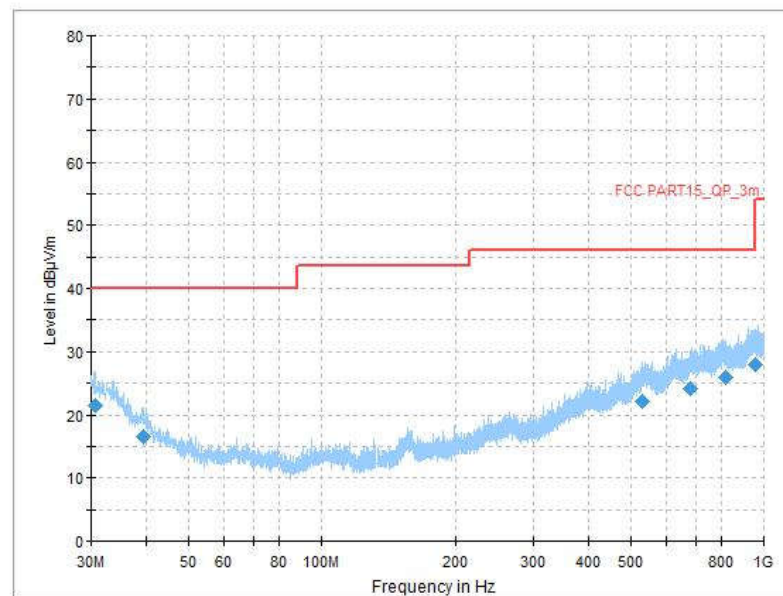


Fig. 168 Transmitter Spurious Emission (All channel, 30MHz~1GHz), MIMO

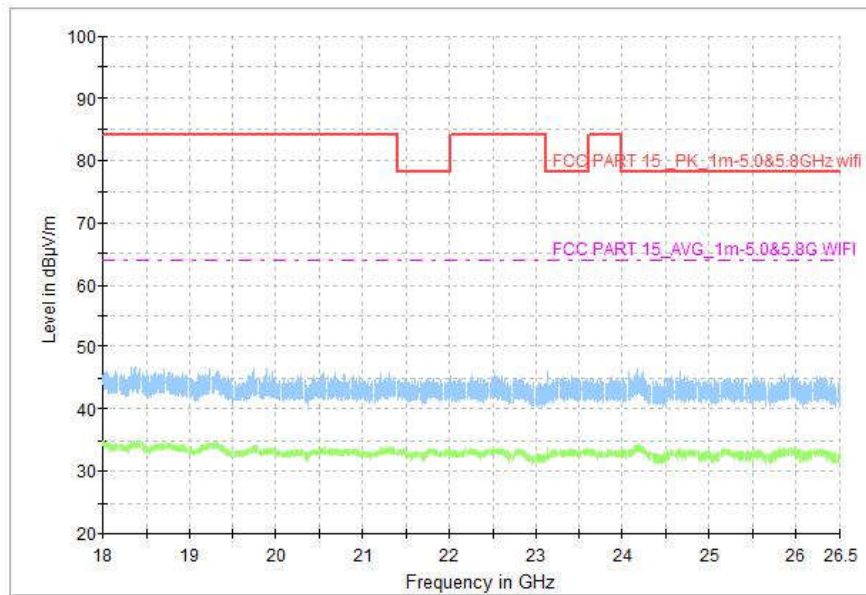


Fig. 169 Transmitter Spurious Emission (All channel, 18GHz~26.5GHz), MIMO

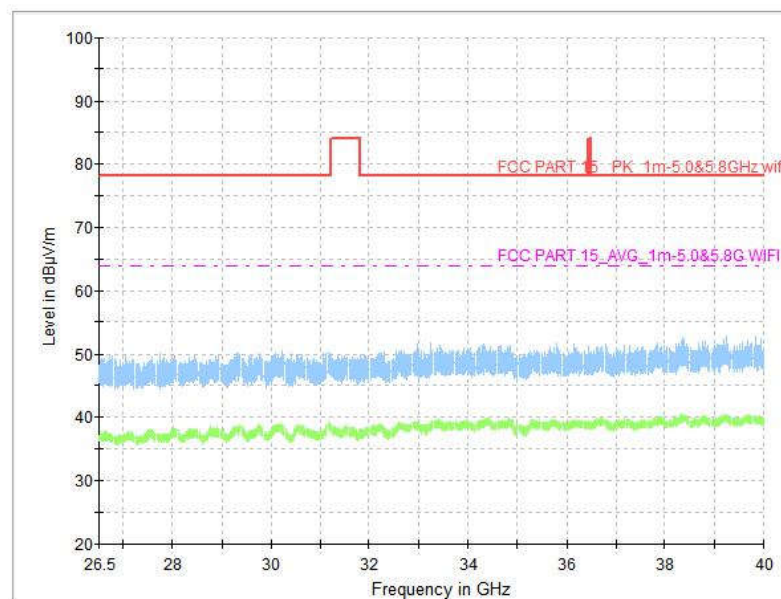


Fig. 170 Transmitter Spurious Emission (All channel, 26.5GHz~40GHz), MIMO

**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 (μV/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.171	P

MIMO:

Mode	Frequency Range	Test Results	Conclusion
All Channel	9 kHz ~30 MHz	Fig.172	P

See below for test graphs.

Conclusion: PASS

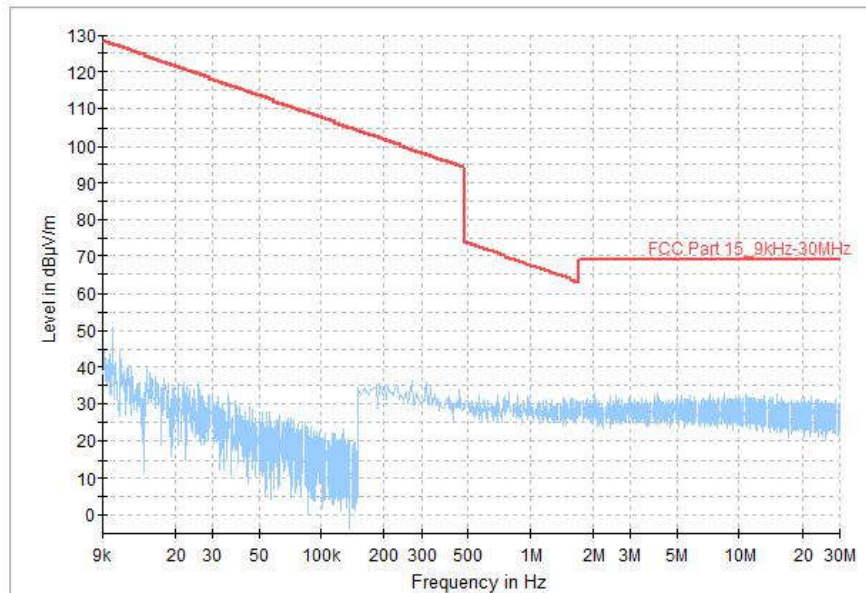


Fig. 171 Radiated Spurious Emission (All Channel, 9 kHz ~30 MHz)

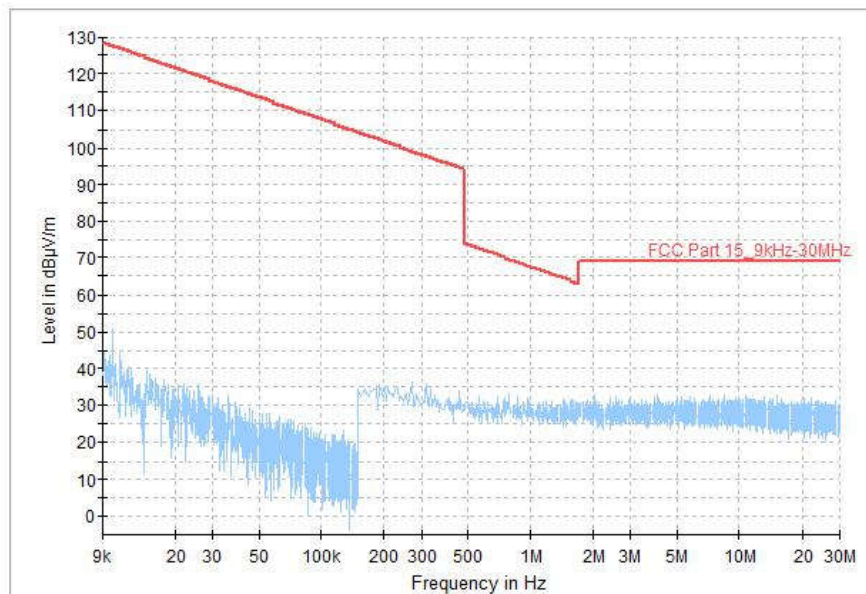


Fig. 172 Radiated Spurious Emission (All Channel, 9 kHz ~30 MHz), MIMO

**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 (dBμV)	Average-peak Limit (dBμV)	Result (dBμV)		Conclusion
			Traffic	Idle	
0.15 to 0.5	66 to 56	56 to 46	Fig.173	Fig.174	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

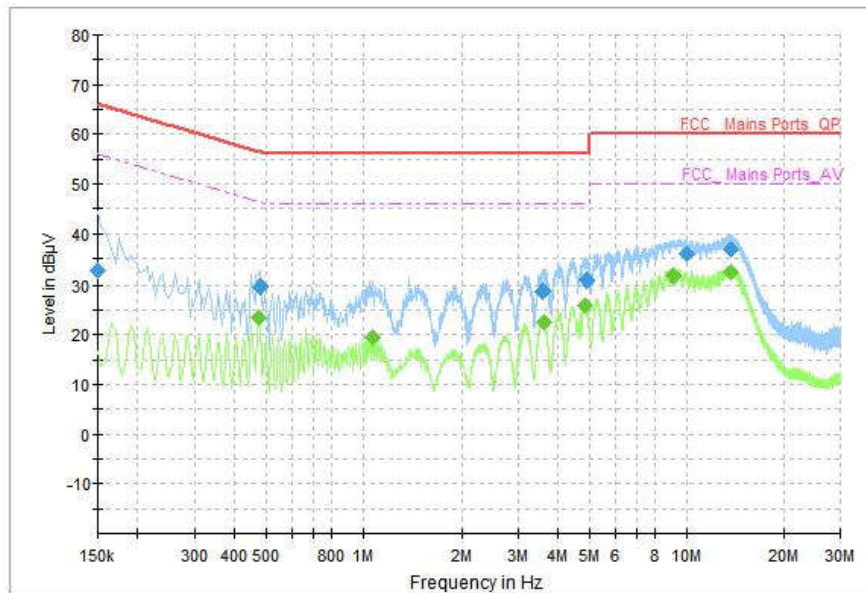


Fig. 173 AC Power line Conducted Emission (Traffic)

Measurement Result: Quasi Peak

Frequency (MHz)	Quasi Peak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	32.51	66.00	33.49	N	ON	10
0.478000	29.43	56.37	26.94	N	ON	10
3.574000	28.67	56.00	27.33	N	ON	10
4.918000	30.67	56.00	25.33	N	ON	10
9.982000	35.96	60.00	24.04	L1	ON	10
13.762000	36.86	60.00	23.14	L1	ON	11

Measurement Result: Average

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.474000	23.54	46.44	22.90	N	ON	10
1.066000	19.41	46.00	26.59	L1	ON	10
3.598000	22.45	46.00	23.55	N	ON	10
4.834000	25.93	46.00	20.07	N	ON	10
9.058000	31.76	50.00	18.24	L1	ON	10
13.726000	32.38	50.00	17.62	L1	ON	11

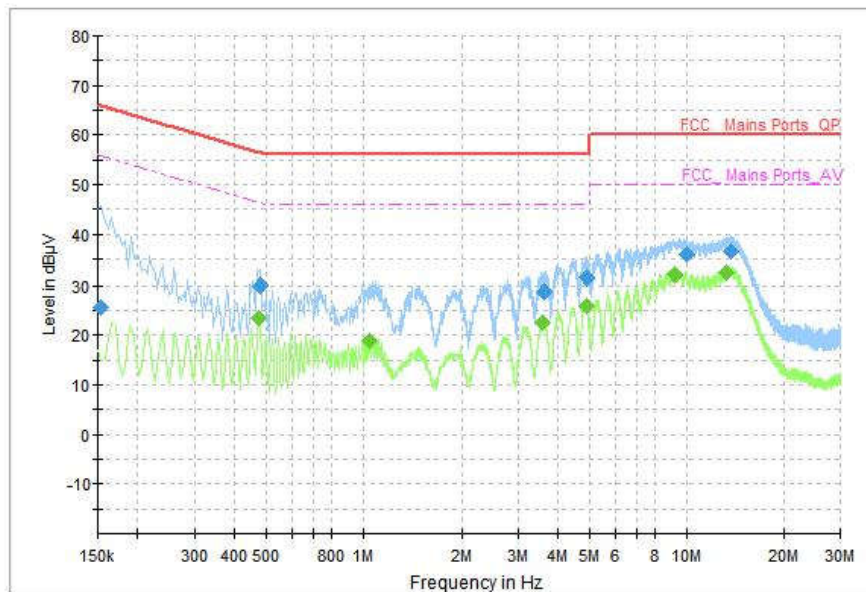


Fig. 174 AC Power line Conducted Emission (Idle)

Measurement Result: Quasi Peak

Frequency (MHz)	Quasi Peak (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.154000	25.68	65.78	40.10	N	ON	10
0.478000	29.79	56.37	26.58	N	ON	10
3.598000	28.61	56.00	27.39	N	ON	10
4.890000	31.40	56.00	24.60	N	ON	10
9.998000	35.96	60.00	24.04	L1	ON	10
13.678000	36.56	60.00	23.44	L1	ON	11

Measurement Result: Average

Frequency (MHz)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Filter	Corr. (dB)
0.474000	23.52	46.44	22.92	N	ON	10
1.046000	18.94	46.00	27.06	L1	ON	10
3.562000	22.57	46.00	23.43	N	ON	10
4.870000	25.88	46.00	20.12	N	ON	10
9.154000	31.89	50.00	18.11	N	ON	10
13.330000	32.25	50.00	17.75	L1	ON	10



No.I22N02158-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*****