A.5. Radiated Unwanted Emission

A.5.1 Limits

Unwanted Emissions in the unrestricted bands shall not exceed the limits that shown in 15.407:

Standard	Limit (dBm/MHz)	
FCC 47 CFR Part 15.407	at the band edge	27
	at 5 MHz above or below the band edge	15.6
	at 25 MHz above or below the band edge	10
	at 75 MHz or more above or below the band edge	-27
	Note：Increasing linearly from point to point.	

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))

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

Frequency of emission (MHz)	Field strength (uV/m)	Field strength (dBuV/m)	Measurement distance (m)
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Note: When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor (as defined in KDB 789033 II.G.2.d).

A.5.2 Test setup

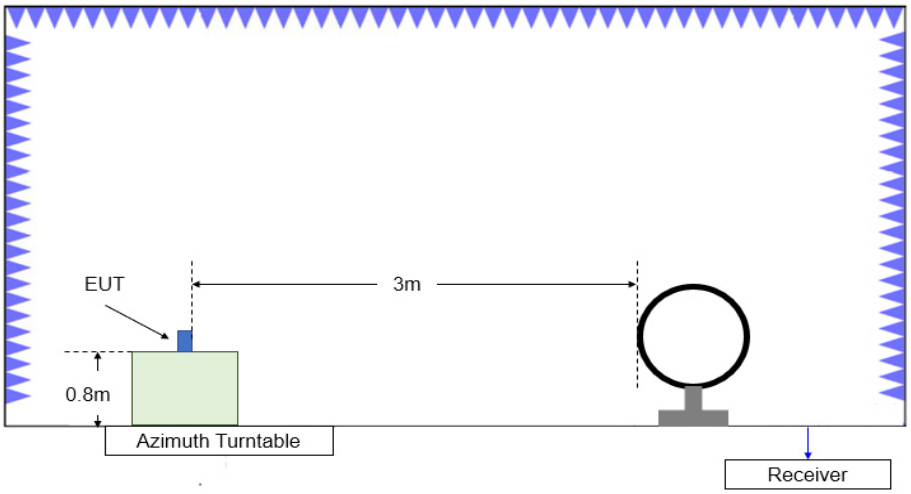


Figure A.5.1. Test Site Diagram (9kHz-30MHz)

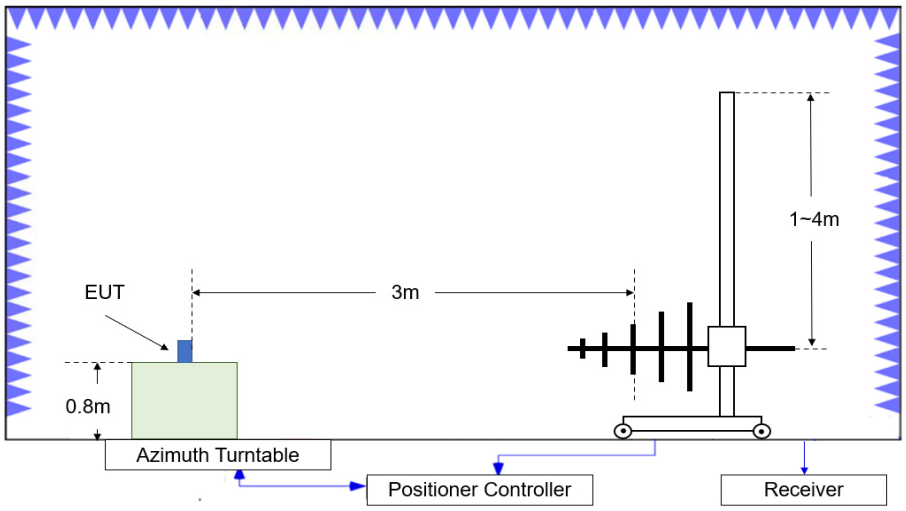


Figure A.5.2. Test Site Diagram (30MHz-1GHz)

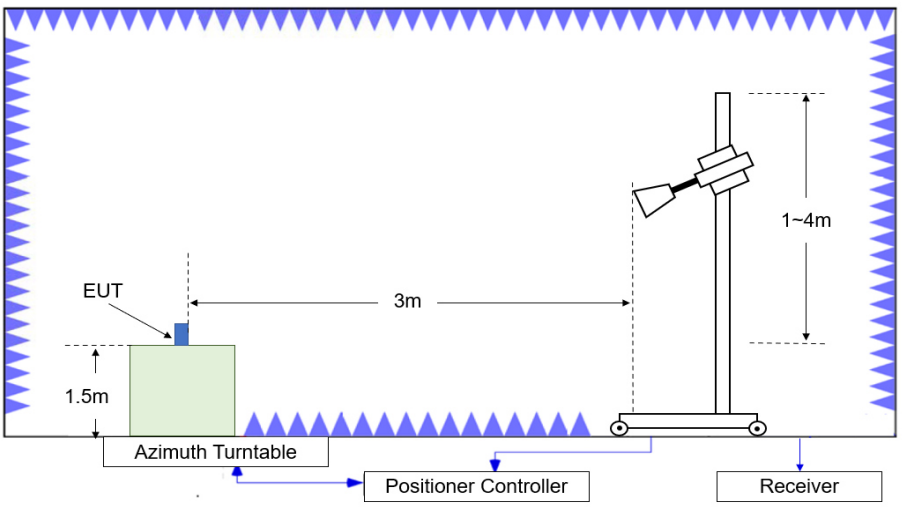


Figure A.5.3. Test Site Diagram (1GHz-40GHz)

A.5.3 Test Procedures

Radiated unwanted emissions from the EUT were measured according to ANSI C63.10and KDB 789033 D02 v02r01.

Test setting

Frequency of emission (MHz)	RBW/VBW
30-1000	100kHz/300kHz
1000-4000	1MHz/3MHz
4000-18000	1MHz/3MHz
18000-26500	1MHz/3MHz
26500-40000	1MHz/3MHz

A.5.4 Calculation

1. The measurement results reported below is calculated by:

Measurement Results (dBμV/m) = $P_{measurement}$ (dBμV) + Cable Loss(dB) + Antenna Factor (dB/m)

Where: $P_{measurement}$ is the field strength recorded from the instrument

2. Convert the resultant EIRP level to an equivalent electric field strength using the following relationship:

E=EIRP- 20log (*D)* +104.77

Where:

E is the field strength in dBμV/m

D is the measurement distance in meters

EIRP is the equivalent isotropically radiated power in dBm

Test note

1. The EUT is operating at its maximum duty cycle and its maximum power control level.
2. Investigation has been done on all modes and modulations/data rates. Only the radiated emissions of the configuration that produced the worst case emissions are reported in this section.
3. Spurious emissions for all channels were investigated and almost the same below 1GHz. According to FCC 47 CFR §15.31, emission levels are not report much lower than the limit by over 20dB
4. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept.
5. EUT in each of three orthogonal axis emissions had been tested out only the worst case (axis data) recorded in the report.
6. Measurement frequencies were performed from 9 kHz to the 10^{th} harmonic of highest fundamental frequency or 40GHz, whichever is lower.
7. No spurious emissions were detected within 20dBof the limit below 30MHz. OFS and semi-chamber comparison testing had been performed and the result came out very similar. (KDB 414788)
8. The low/mid/high channels of all working mode with different bandwidths were all tested, only the worst ones were reported.

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.

Conclusion: PASS

Average Results：

802.11a

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17971.950	40.24	-29.59	42.40	27.43	54.00	13.76	V
17998.900	40.19	-29.59	42.40	27.38	54.00	13.81	V
14491.000	35.36	-29.56	40.00	24.92	54.00	18.64	V
14488.250	35.35	-29.56	40.00	24.91	54.00	18.65	V
11651.350	33.78	-32.62	38.90	27.50	54.00	20.22	H
11864.750	33.74	-32.73	38.85	27.62	54.00	20.26	H

802.11n-HT20

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17996.700	40.51	-29.59	42.40	27.70	54.00	13.49	H
17996.150	40.40	-29.59	42.40	27.59	54.00	13.60	V
14493.200	35.42	-29.56	40.00	24.98	54.00	18.58	H
14484.400	35.39	-29.56	40.00	24.95	54.00	18.61	H
11905.450	33.71	-32.53	38.80	27.44	54.00	20.29	H
11860.350	33.61	-32.73	38.85	27.49	54.00	20.39	H

802.11n-HT40

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17973.600	40.29	-29.59	42.40	27.48	54.00	13.71	V
17997.250	40.28	-29.59	42.40	27.47	54.00	13.72	H
14498.150	35.64	-29.56	40.00	25.20	54.00	18.36	V
14499.800	35.48	-29.56	40.00	25.04	54.00	18.52	H
11922.500	33.83	-32.53	38.80	27.56	54.00	20.17	V
11906.550	33.68	-32.53	38.80	27.41	54.00	20.32	H

802.11ac-VHT20

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17978.000	40.45	-29.59	42.40	27.64	54.00	13.55	H
17958.200	40.21	-29.59	42.40	27.40	54.00	13.79	V
14494.300	35.77	-29.56	40.00	25.33	54.00	18.23	V
14480.000	35.50	-29.56	40.00	25.06	54.00	18.50	V
11854.300	33.97	-32.73	38.85	27.85	54.00	20.03	H
11871.350	33.85	-32.73	38.85	27.73	54.00	20.15	V

802.11ac-VHT40

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17974.150	40.42	-29.59	42.40	27.61	54.00	13.58	H
17995.600	40.34	-29.59	42.40	27.53	54.00	13.66	V
14493.200	35.89	-29.56	40.00	25.45	54.00	18.11	V
14482.750	35.79	-29.56	40.00	25.35	54.00	18.21	H
11866.400	34.07	-32.73	38.85	27.95	54.00	19.93	H
11934.050	33.85	-32.42	38.75	27.52	54.00	20.15	H

802.11ac-VHT80

Channel 155

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17993.950	40.33	-29.59	42.40	27.52	54.00	13.67	V
17978.550	40.30	-29.59	42.40	27.49	54.00	13.70	V
14481.650	35.56	-29.56	40.00	25.12	54.00	18.44	V
14488.800	35.55	-29.56	40.00	25.11	54.00	18.45	V
11871.350	33.60	-32.73	38.85	27.48	54.00	20.40	V
11823.500	33.55	-32.09	38.90	26.74	54.00	20.45	H

802.11ax-HT20 full RU

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17998.350	40.52	-29.59	42.40	27.71	54.00	13.48	V
17977.450	40.18	-29.59	42.40	27.37	54.00	13.82	H
14492.100	35.59	-29.56	40.00	25.15	54.00	18.41	V
14495.950	35.46	-29.56	40.00	25.02	54.00	18.54	V
11839.450	33.81	-32.73	38.85	27.69	54.00	20.19	H
11851.550	33.62	-32.73	38.85	27.50	54.00	20.38	H

802.11ax-HT40 full RU

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17975.250	40.35	-29.59	42.40	27.54	54.00	13.65	H
17985.150	40.18	-29.59	42.40	27.37	54.00	13.82	V
14492.100	35.75	-29.56	40.00	25.31	54.00	18.25	H
14491.000	35.69	-29.56	40.00	25.25	54.00	18.31	V
11885.100	33.97	-32.53	38.80	27.70	54.00	20.03	V
11921.950	33.87	-32.53	38.80	27.60	54.00	20.13	H

802.11ax-HT80 full RU

Channel 155

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17972.500	40.36	-29.59	42.40	27.55	54.00	13.64	H
17997.800	40.35	-29.59	42.40	27.54	54.00	13.65	V
14495.400	35.60	-29.56	40.00	25.16	54.00	18.40	V
14496.500	35.60	-29.56	40.00	25.16	54.00	18.40	V
11827.350	34.12	-32.09	38.90	27.31	54.00	19.88	V
11904.350	33.97	-32.53	38.80	27.70	54.00	20.03	V

Peak Results：

802.11a

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17997.250	51.30	-29.59	42.40	38.49	74.00	22.70	H
17485.200	51.15	-29.07	42.15	38.07	68.20	17.05	H
14186.850	49.58	-30.42	40.40	39.60	68.20	18.62	H
13648.400	48.17	-31.29	40.65	38.81	68.20	20.03	V
11847.700	45.19	-32.73	38.85	39.07	74.00	28.81	H
11888.400	44.86	-32.53	38.80	38.59	74.00	29.14	V

802.11n-HT20

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17993.400	51.64	-29.59	42.40	38.83	74.00	22.36	V
17976.350	51.47	-29.59	42.40	38.66	74.00	22.53	H
14165.400	48.41	-30.42	40.40	38.43	68.20	19.79	V
14187.950	48.08	-30.42	40.40	38.10	68.20	20.12	V
11264.700	44.80	-32.99	38.85	38.94	74.00	29.20	H
11810.850	44.78	-32.09	38.90	37.97	74.00	29.22	H

802.11n-HT40

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17508.300	51.78	-29.07	42.15	38.70	68.20	16.42	H
17404.350	51.13	-29.44	42.10	38.47	68.20	17.07	V
13777.650	48.01	-30.98	40.90	38.09	68.20	20.19	H
14082.350	47.96	-30.20	40.50	37.66	68.20	20.24	H
11759.150	45.21	-32.71	38.90	39.02	74.00	28.79	V
10963.850	45.17	-33.13	38.65	39.65	74.00	28.83	V

802.11ac-VHT20

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17579.250	51.50	-29.60	42.25	38.85	68.20	16.70	V
17593.550	51.24	-29.60	42.25	38.59	68.20	16.96	H
13729.250	49.01	-31.18	40.80	39.39	68.20	19.19	V
13653.900	48.32	-31.29	40.65	38.96	68.20	19.88	H
11803.700	45.88	-32.09	38.90	39.07	74.00	28.12	H
11903.800	45.64	-32.53	38.80	39.37	74.00	28.36	V

802.11ac-VHT40

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17995.050	51.31	-29.59	42.40	38.50	74.00	22.69	H
17990.650	51.17	-29.59	42.40	38.36	74.00	22.83	H
13813.950	47.90	-30.20	40.90	37.20	68.20	20.30	H
13727.600	47.68	-31.18	40.80	38.06	68.20	20.52	H
11852.100	45.22	-32.73	38.85	39.10	74.00	28.78	V
11891.700	45.13	-32.53	38.80	38.86	74.00	28.87	V

802.11ac-VHT80

Channel 155

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17514.900	51.49	-29.07	42.15	38.41	68.20	16.71	V
17608.950	51.38	-29.60	42.25	38.73	68.20	16.82	V
13804.600	48.03	-30.98	40.90	38.11	68.20	20.17	V
13805.150	47.99	-30.98	40.90	38.07	68.20	20.21	V
10852.750	45.00	-33.07	38.75	39.32	74.00	29.00	H
10856.600	44.93	-33.07	38.75	39.25	74.00	29.07	V

802.11ax-HT20 full RU

Channel 165

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17925.200	51.71	-29.59	42.40	38.90	74.00	22.29	H
17559.450	51.52	-29.39	42.20	38.72	68.20	16.68	H
13713.300	48.26	-31.18	40.80	38.64	68.20	19.94	H
13656.100	47.71	-31.29	40.65	38.35	68.20	20.49	V
11819.650	45.24	-32.09	38.90	38.43	74.00	28.76	V
11899.950	44.56	-32.53	38.80	38.29	74.00	29.44	V

802.11ax-HT40 full RU

Channel 159

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17958.200	51.89	-29.59	42.40	39.08	74.00	22.11	V
17993.400	51.46	-29.59	42.40	38.65	74.00	22.54	V
13716.050	47.90	-31.18	40.80	38.28	68.20	20.30	H
13707.800	47.86	-30.98	40.70	38.14	68.20	20.34	V
10456.750	44.83	-33.87	38.65	40.05	68.20	23.37	V
11906.000	44.80	-32.53	38.80	38.53	74.00	29.20	V

802.11ax-HT80 full RU

Channel 155

Frequency (MHz)	Measurement Result (dBuV/m)	Cable Loss (dB)	Antenna Factor (dB/m)	Receiver Reading (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Pol. (H/V)
17985.150	51.67	-29.59	42.40	38.86	74.00	22.33	H
17519.850	51.59	-29.07	42.15	38.51	68.20	16.61	V
13740.250	48.52	-31.18	40.80	38.90	68.20	19.68	H
14257.250	48.35	-30.75	40.35	38.75	68.20	19.85	H
11787.200	44.80	-32.09	38.90	37.99	74.00	29.20	V
10848.900	44.79	-33.07	38.75	39.11	74.00	29.21	H

Conclusion: PASS

Band edge compliance

Mode	Channel	Test Results	Conclusion
802.11a	5745 MHz	Fig.1	P
	5825 MHz	Fig.2	P
802.11n HT20	5745 MHz	Fig.3	P
	5825 MHz	Fig.4	P
802.11n HT40	5755 MHz	Fig.5	P
	5795 MHz	Fig.6	P
802.11ac VHT20	5745 MHz	Fig.7	P
	5825 MHz	Fig.8	P
802.11ac VHT40	5755 MHz	Fig.9	P
	5795 MHz	Fig.10	P
802.11ac VHT80	5775 MHz	Fig.11 Fig.12	P
802.11ax HT20 full RU	5745 MHz	Fig.13	P
	5825 MHz	Fig.14	P
802.11ax HT40 full RU	5755 MHz	Fig.15	P
	5795 MHz	Fig.16	P
802.11ax HT80 full RU	5775 MHz	Fig.17 Fig.18	P
802.11ax HT20 partial RU	5745 MHz	Fig.19	P
	5825 MHz	Fig.20	P
802.11ax HT40 partial RU	5755 MHz	Fig.21	P
	5795 MHz	Fig.22	P
802.11ax HT80 partial RU	5775 MHz	Fig.23 Fig.24	P

Test graphs as below:

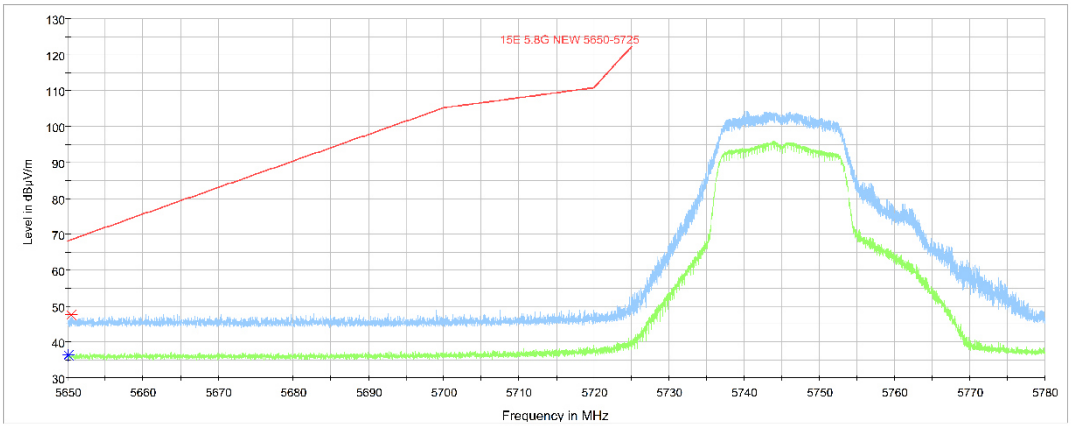


Fig. 15 Band Edges (802.11a Ch149,5745MHz)

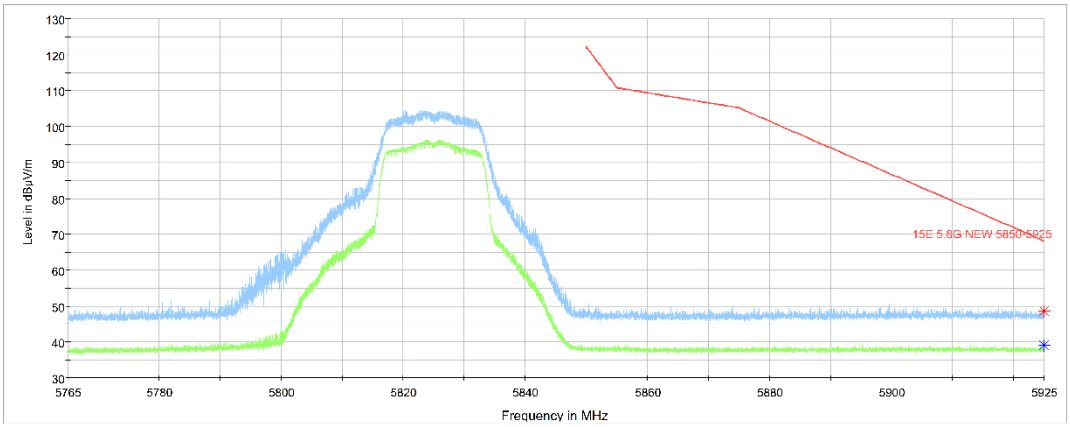


Fig. 16 Band Edges (802.11a Ch165, 5825MHz)

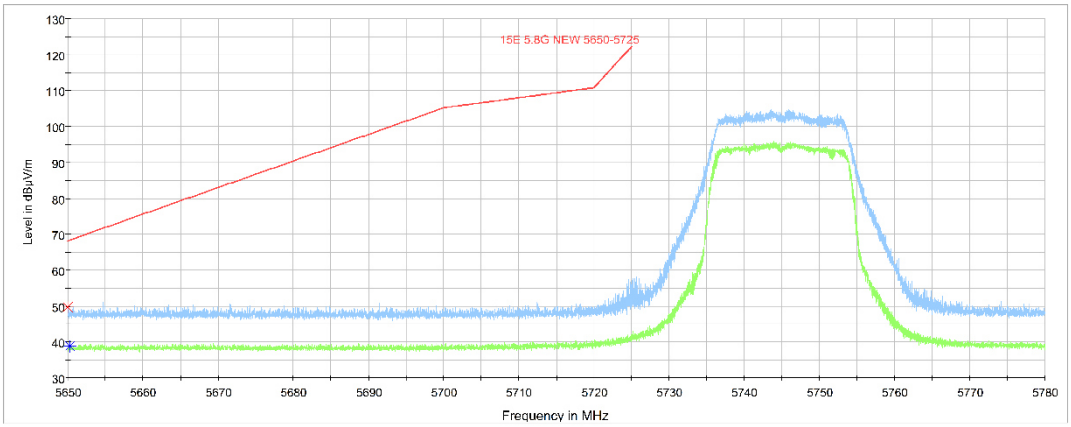


Fig. 17 Band Edges (802.11n-HT20 Ch149, 5745MHz)

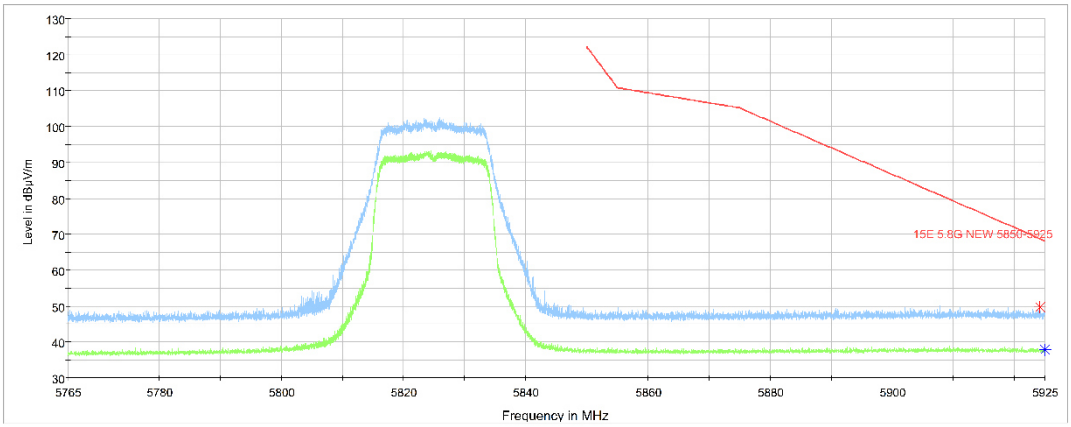


Fig. 18 Band Edges (802.11n-HT20 Ch165, 5825MHz)

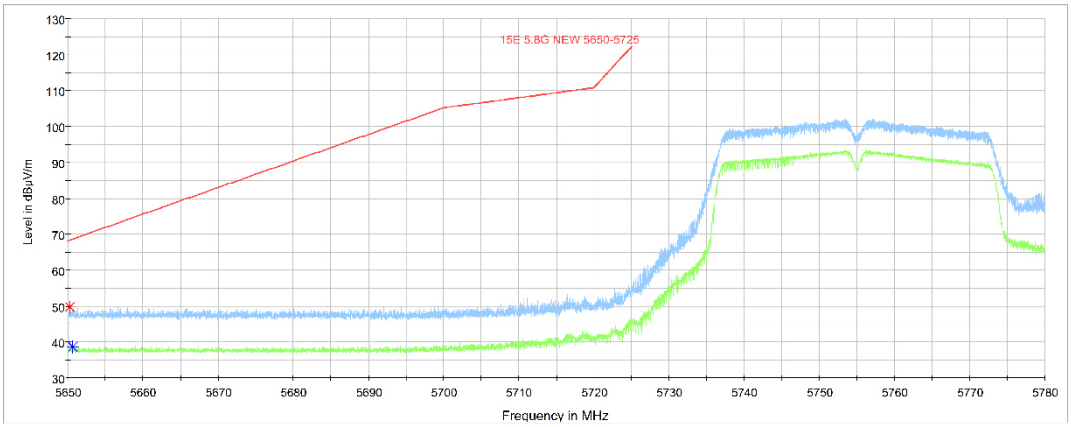


Fig. 19 Band Edges (802.11n-HT40 Ch151, 5755MHz)

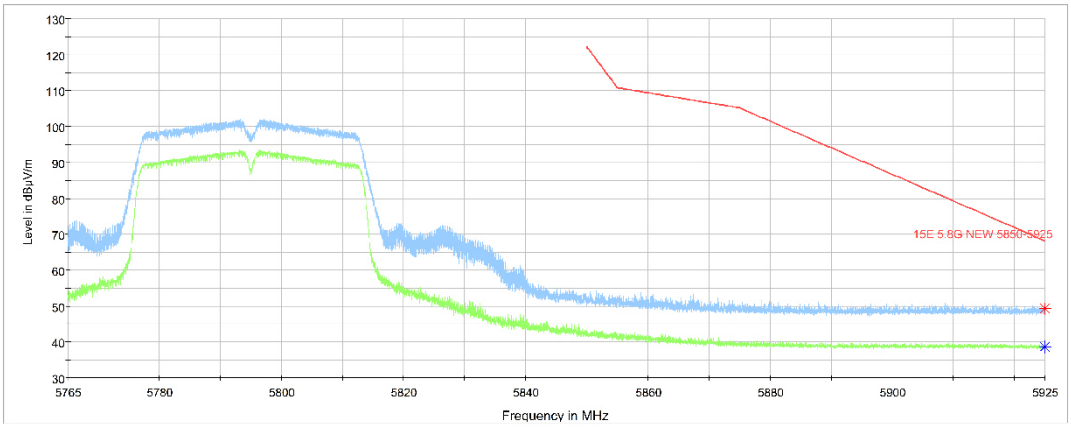


Fig. 20 Band Edges (802.11n-HT40 Ch159, 5795MHz)

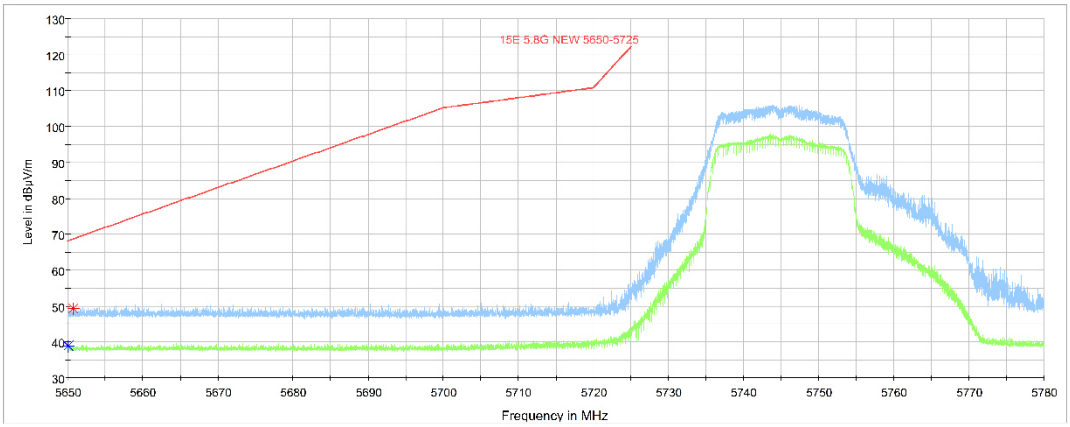


Fig. 21 Band Edges (802.11ac-HT20 Ch149, 5745MHz)

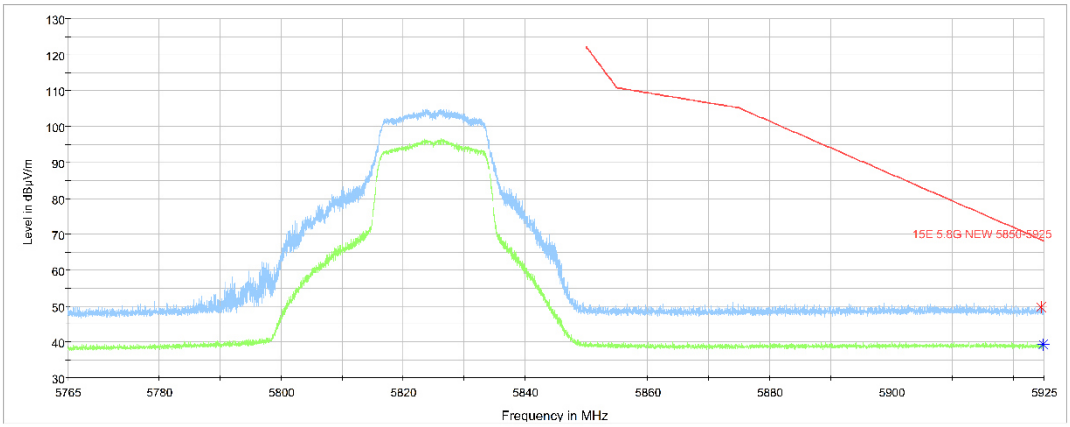


Fig. 22 Band Edges (802.11ac-HT20 Ch165, 5825MHz)

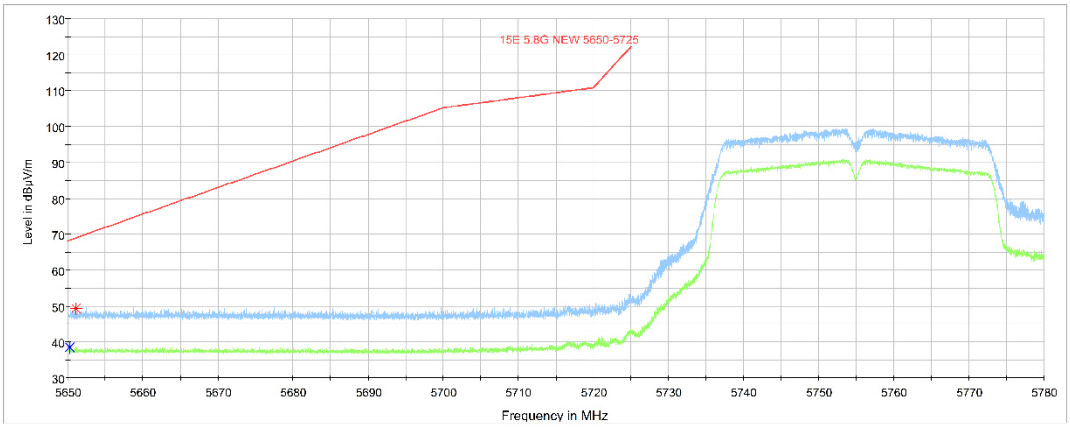


Fig. 23 Band Edges (802.11ac-HT40 Ch151, 5755MHz)

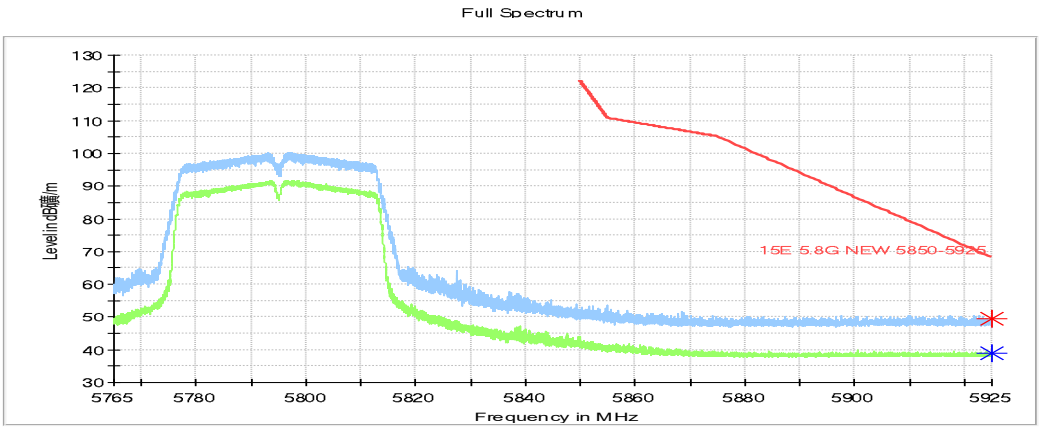


Fig. 24 Band Edges (802.11ac-HT40 Ch159, 5795MHz)

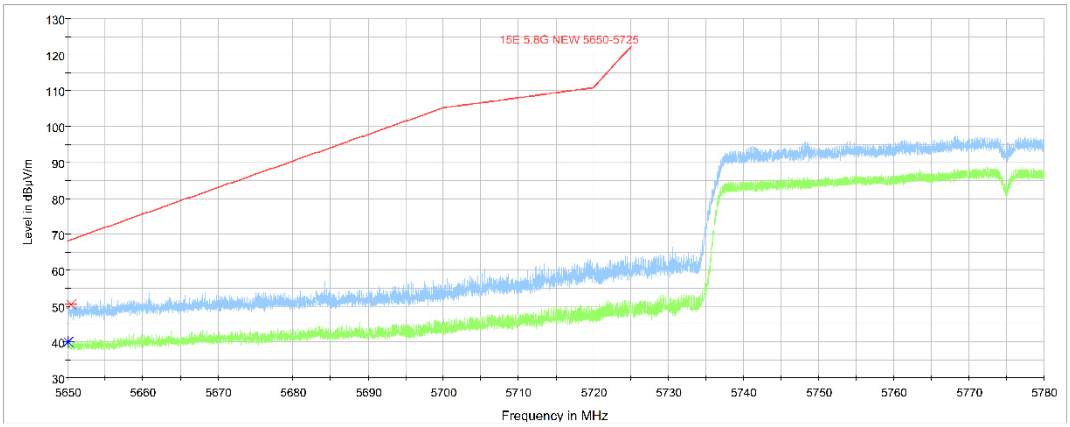


Fig. 25 Band Edges (802.11ac-HT80 Ch155-L, 5775MHz)

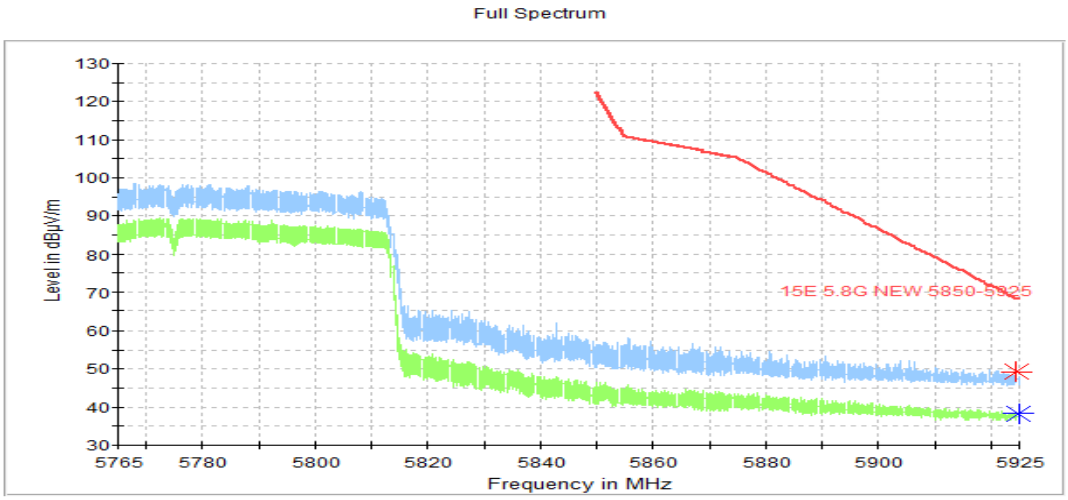


Fig. 26 Band Edges (802.11ac-HT80 Ch155-R, 5775MHz)

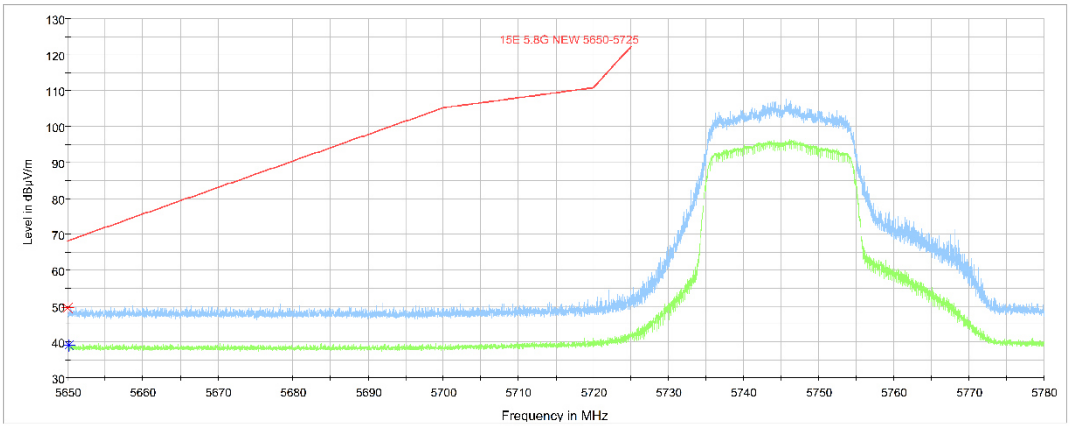


Fig. 27 Band Edges (802.11ax-HT20 Ch149 full RU, 5745MHz)

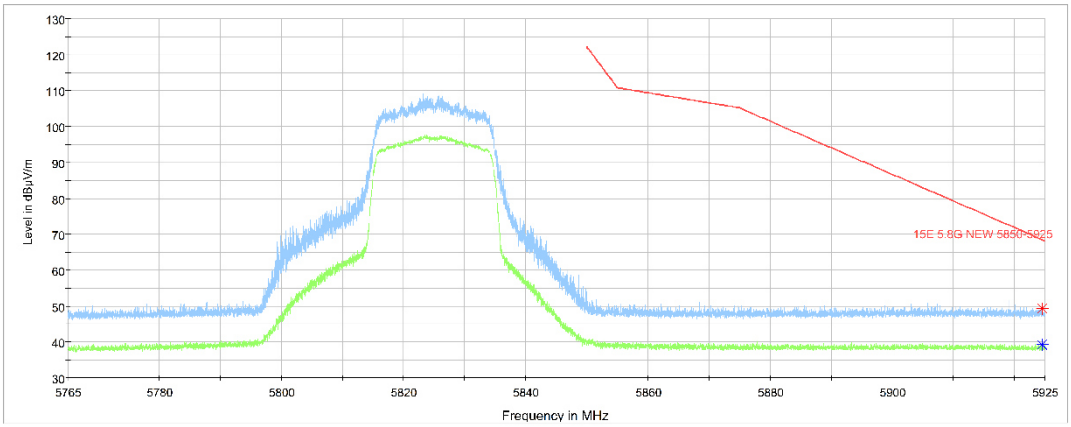


Fig. 28 Band Edges (802.11ax-HT20 Ch165 full RU, 5825MHz)

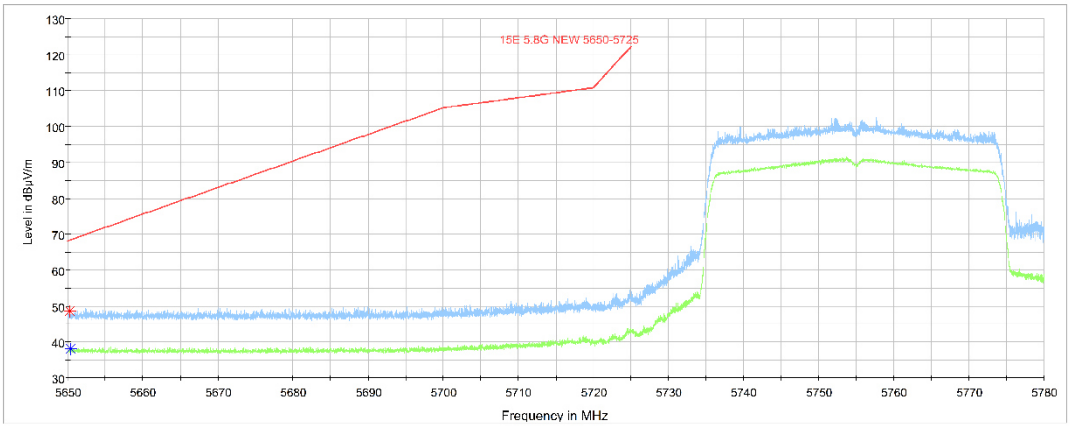


Fig. 29 Band Edges (802.11ax-HT40 Ch151 full RU, 5755MHz)

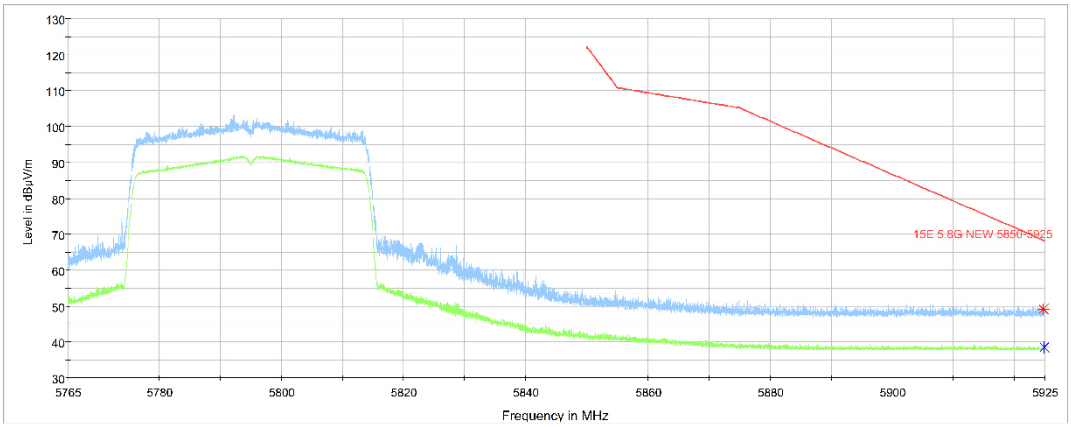


Fig. 30 Band Edges (802.11ax-HT40 Ch159 full RU, 5795MHz)

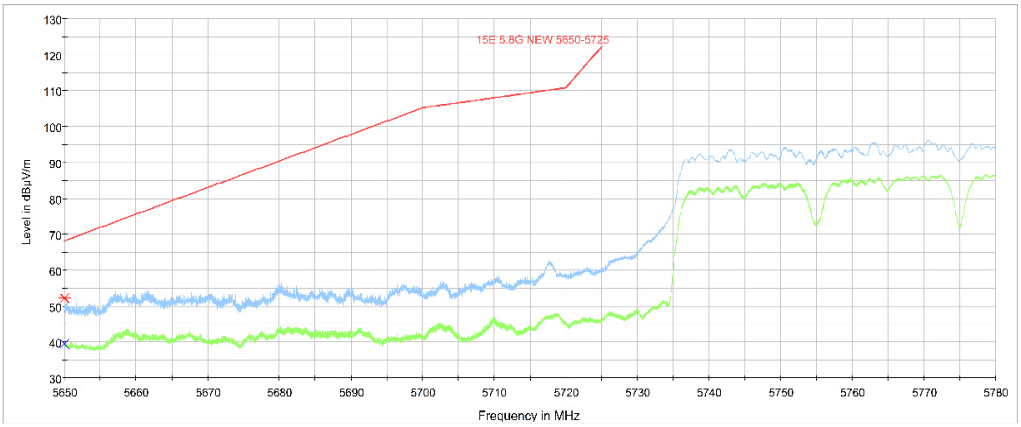


Fig. 31 Band Edges (802.11ax-HT80 Ch155-L full RU, 5775MHz)

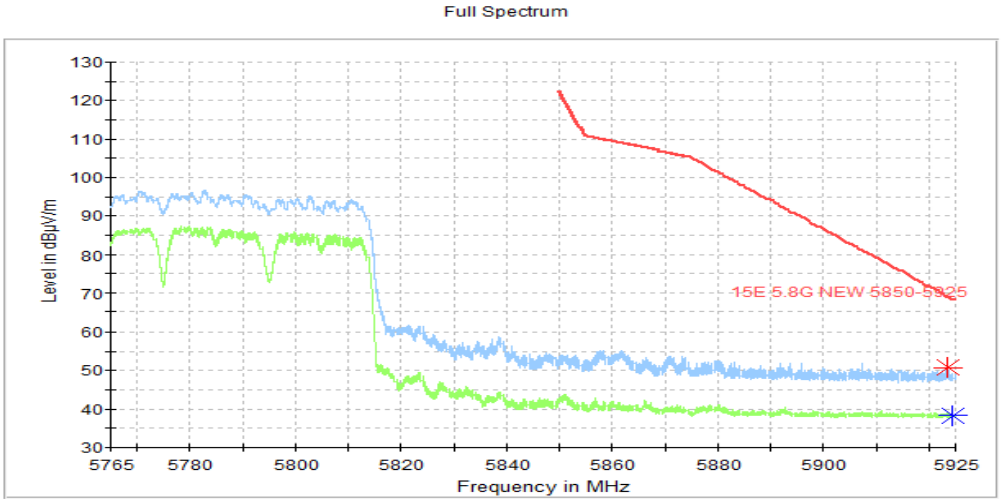


Fig. 32 Band Edges (802.11ax-HT80 Ch155-R full RU, 5775MHz)

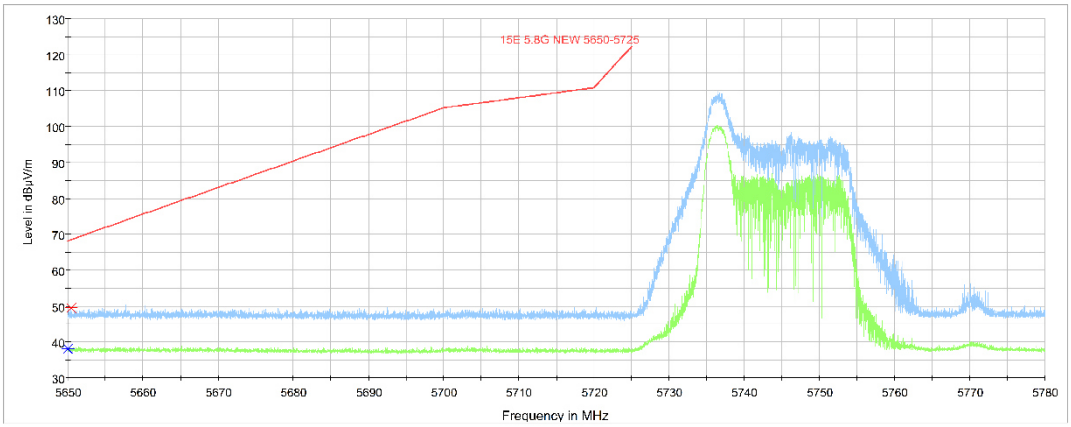


Fig. 33 Band Edges (802.11ax-HT20 Ch149 partial RU, 5745MHz)

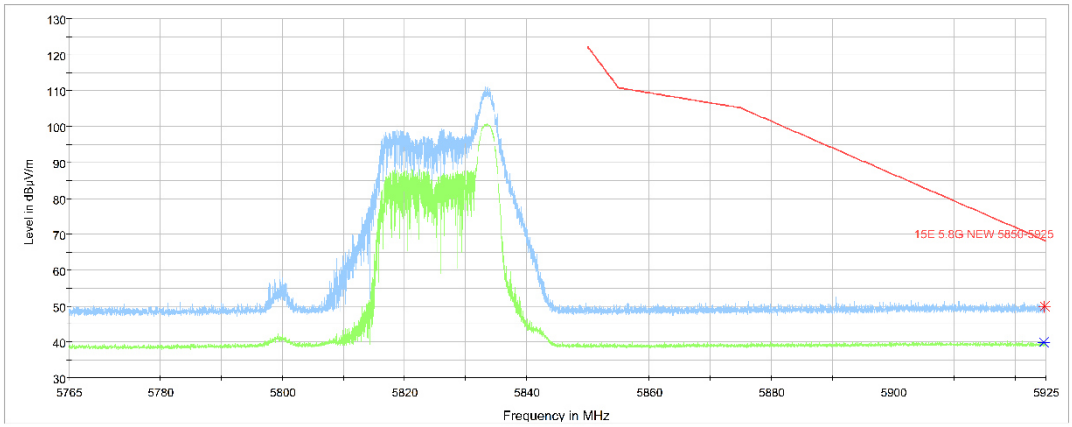


Fig. 34 Band Edges (802.11ax-HT20 Ch165 partial RU, 5825MHz)

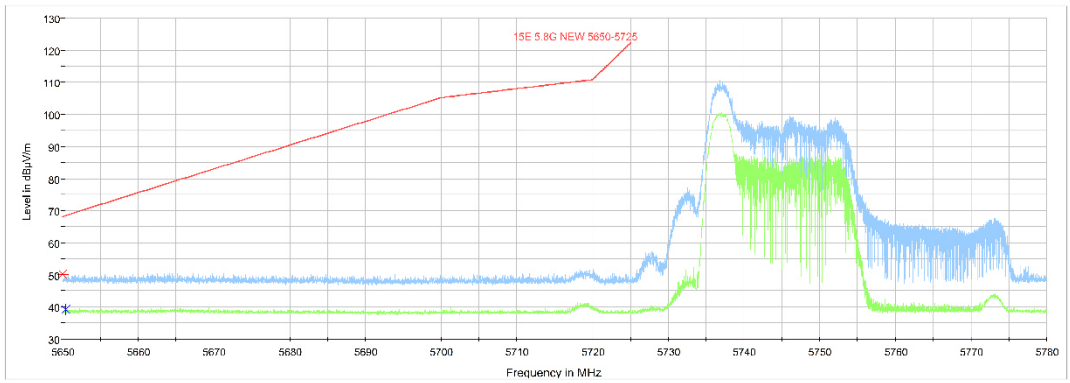


Fig. 35 Band Edges (802.11ax-HT40 Ch151 partial RU, 5755MHz)

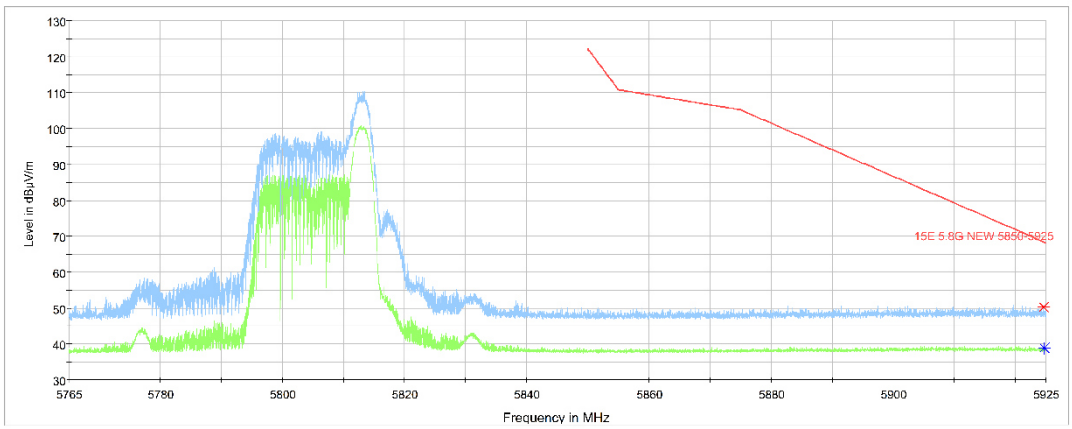


Fig. 36 Band Edges (802.11ax-HT40 Ch159 partial RU, 5795MHz)

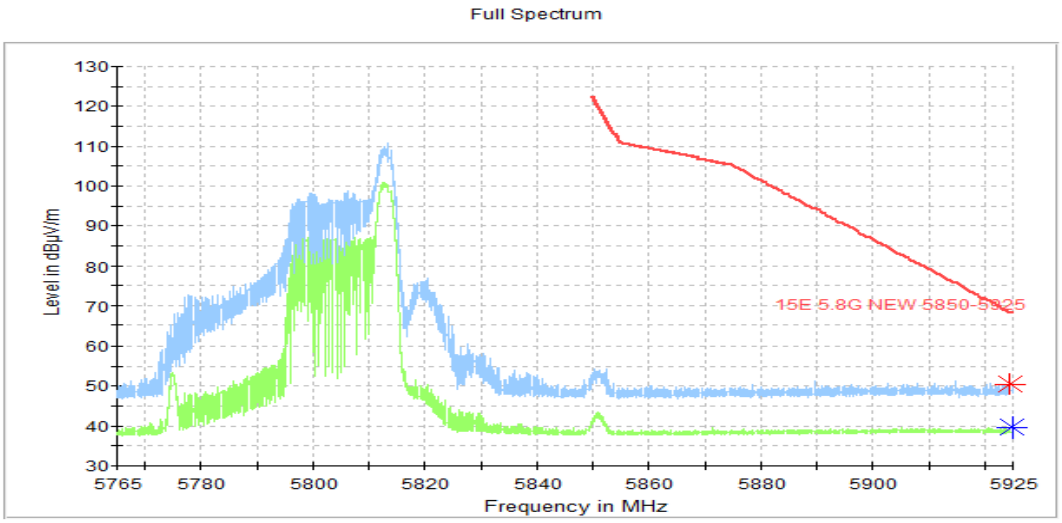


Fig. 37 Band Edges (802.11ax-HT80 Ch155-L partial RU, 5775MHz)

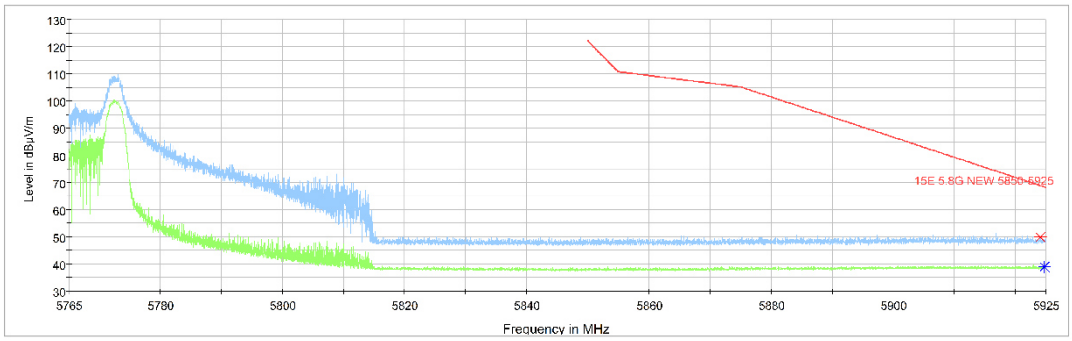


Fig. 38 Band Edges (802.11ax-HT80 Ch155-R partial RU, 5775MHz)

A.6. AC Powerline Conducted Emission

A.6.1 Summary

All AC line conducted spurious emissions are measured with a receiver connected to a grounded LISN while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates and modes were investigated for conducted spurious emissions. Only the conducted emissions of the configuration that produced the worst case emissions are reported in this section

A.6.2 Method of Measurement

See Clause 6.2 of ANSI C63.10 specifically.

See Clause 4 and Clause 5 of ANSI C63.10 generally.

The conducted emissions from the AC port of the EUT are measured in a shielding room. The EUT is connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection was performed. The measurements were performed with a quasi-peak detector and if required, an average detector.

The conducted emission measurements were made with the following detector of the test receiver: Quasi-Peak / Average Detector.

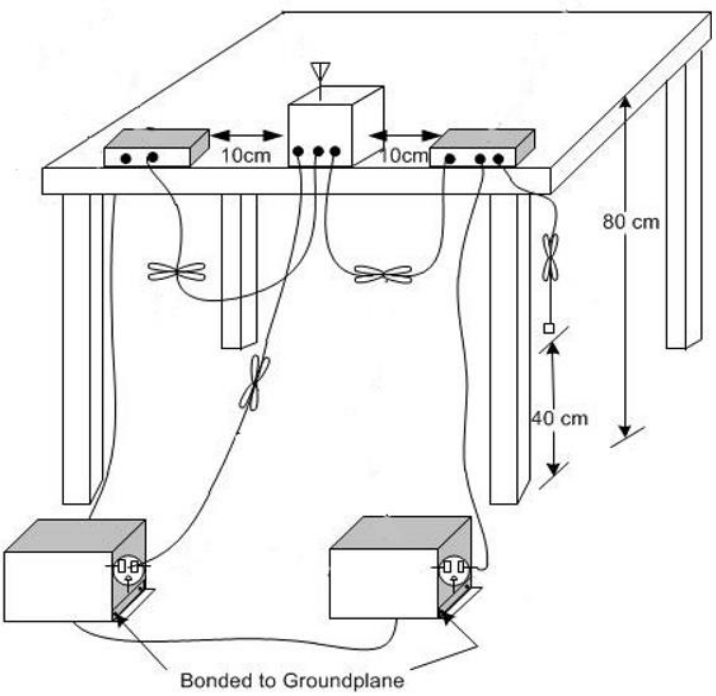
The measurement bandwidth is:

Frequency of Emission (MHz)	RBW/IF bandwidth
0.15-30	9kHz

A.6.3 Test Condition

Voltage（V）	Frequency（Hz）
120	60

A.6.4 Test setup



A.6.5 Measurement Result and limit

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11a	Idle	
0.15 to 0.5	66 to 56	Fig.39	Fig.40	P
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.				

WLAN (Average Limit)

Frequency range (MHz)	Average Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		802.11a	Idle	
0.15 to 0.5	56 to 46	Fig.39	Fig.40	P
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.				

The measurement is made according to ANSI C63.10 .

Conclusion: PASS

Test graphs as below:

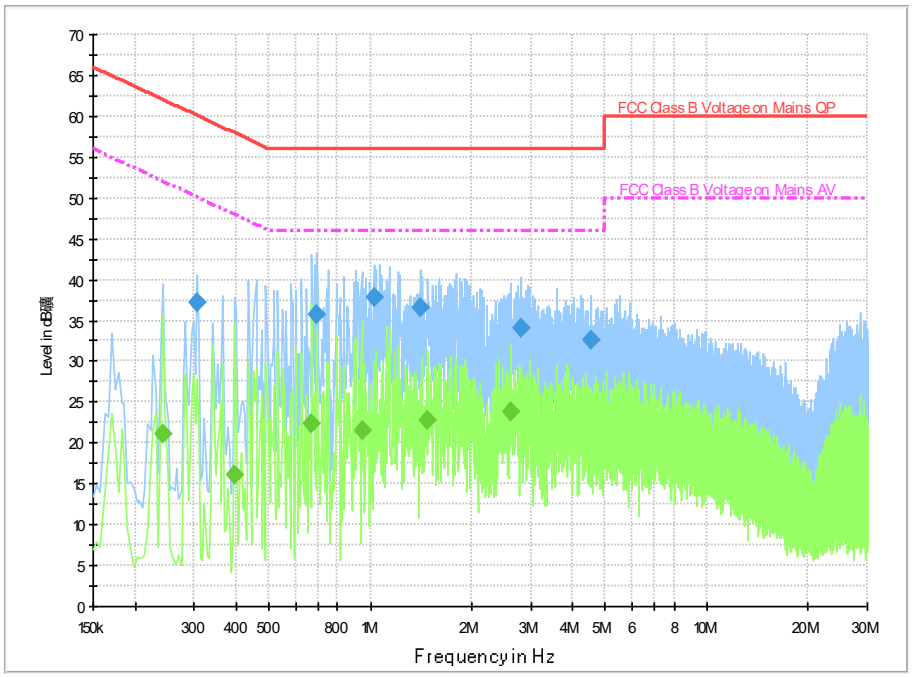


Fig. 39 AC Powerline Conducted Emission-802.11a

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.306000	37.1	2000.0	9.000	On	N	19.8	22.9	60.1	
0.694000	35.7	2000.0	9.000	On	L1	20.0	20.3	56.0	
1.026000	37.8	2000.0	9.000	On	L1	19.9	18.2	56.0	
1.406000	36.5	2000.0	9.000	On	L1	19.9	19.5	56.0	
2.794000	34.1	2000.0	9.000	On	L1	19.8	21.9	56.0	
4.514000	32.6	2000.0	9.000	On	L1	19.8	23.4	56.0	

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.242000	21.0	2000.0	9.000	On	L1	19.9	31.0	52.0	
0.394000	16.2	2000.0	9.000	On	L1	20.0	31.8	48.0	
0.670000	22.5	2000.0	9.000	On	L1	20.0	23.5	46.0	
0.946000	21.4	2000.0	9.000	On	L1	19.9	24.6	46.0	
1.486000	22.8	2000.0	9.000	On	L1	19.9	23.2	46.0	
2.626000	23.8	2000.0	9.000	On	L1	19.8	22.2	46.0	

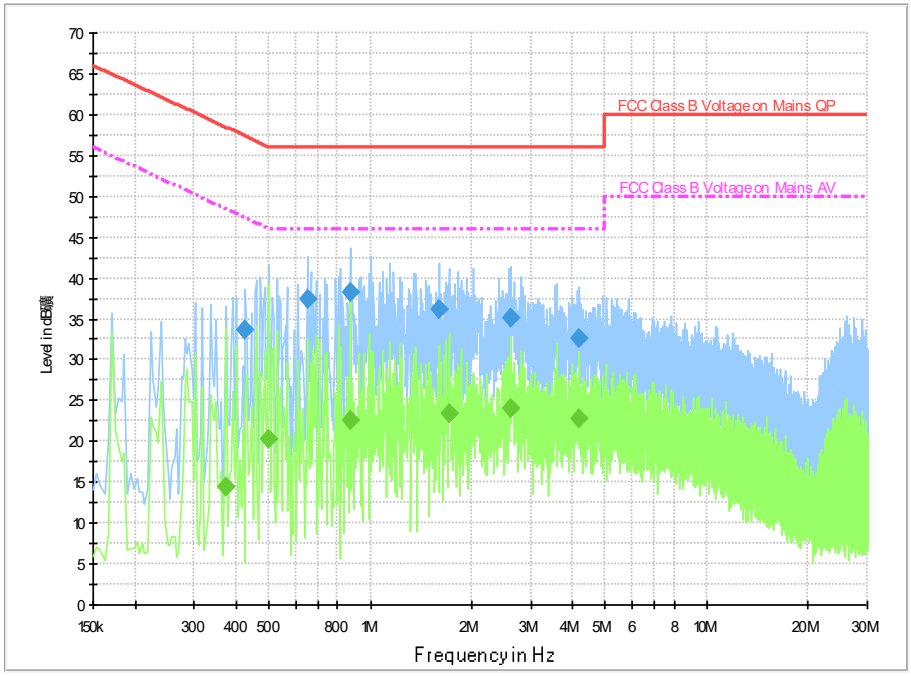


Fig. 40 AC Powerline Conducted Emission-Idle

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.426000	33.6	2000.0	9.000	On	N	19.9	23.8	57.3	
0.650000	37.3	2000.0	9.000	On	L1	20.0	18.7	56.0	
0.870000	38.3	2000.0	9.000	On	L1	19.9	17.7	56.0	
1.602000	36.1	2000.0	9.000	On	L1	19.8	19.9	56.0	
2.614000	35.2	2000.0	9.000	On	L1	19.8	20.8	56.0	
4.174000	32.6	2000.0	9.000	On	L1	19.8	23.4	56.0	

Final Result 2

Frequency (MHz)	CAverage (dBµV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.426000	33.6	2000.0	9.000	On	N	19.9	23.8	57.3	
0.650000	37.3	2000.0	9.000	On	L1	20.0	18.7	56.0	
0.870000	38.3	2000.0	9.000	On	L1	19.9	17.7	56.0	
1.602000	36.1	2000.0	9.000	On	L1	19.8	19.9	56.0	
2.614000	35.2	2000.0	9.000	On	L1	19.8	20.8	56.0	
4.174000	32.6	2000.0	9.000	On	L1	19.8	23.4	56.0	

A.7. Antenna Requirement

The antenna of the device is permanently attached. There are no provisions for connection to an external antenna.

The unit complies with the requirement of FCC Part 15.203.

ANNEX B: EUT parameters

Disclaimer: The antenna gain and worse case provided by the client may affect the validity of the measurement results in this report, and the client shall bear the impact and consequences arising therefrom.

ANNEX C: Accreditation Certificate

Accredited Laboratory

A2LA has accredited

TELECOMMUNICATION TECHNOLOGY LABS, CAICT

Beijing, People's Republic of China

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).

Presented this 23rd day of July 2024.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 7049.01
Valid to July 31, 2026

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

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