Fig. 40   Band Edges (802.11ax-HT20 , partial RU, Ch64, 5320MHz)
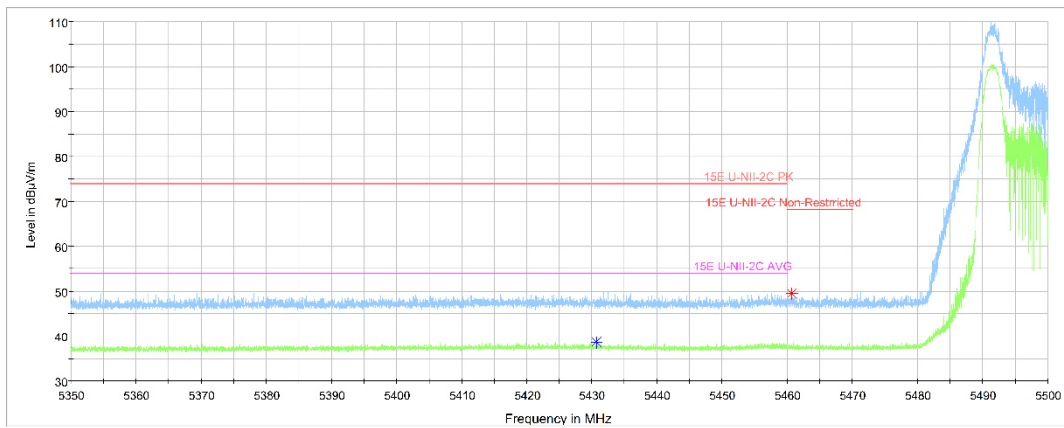

Fig. 41   Band Edges (802.11ax-HT20 , partial RU, Ch100, 5500MHz)
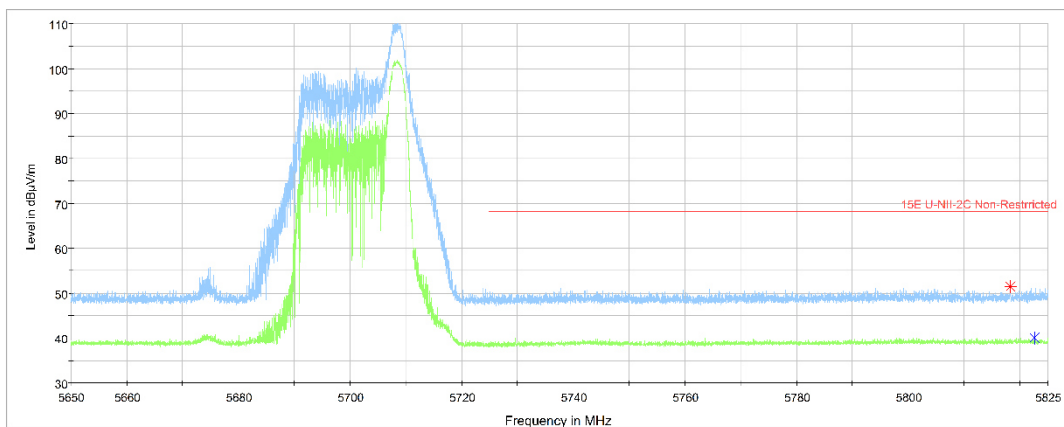

Fig. 42   Band Edges (802.11ax-HT20 , partial RU, Ch140, 5700MHz)
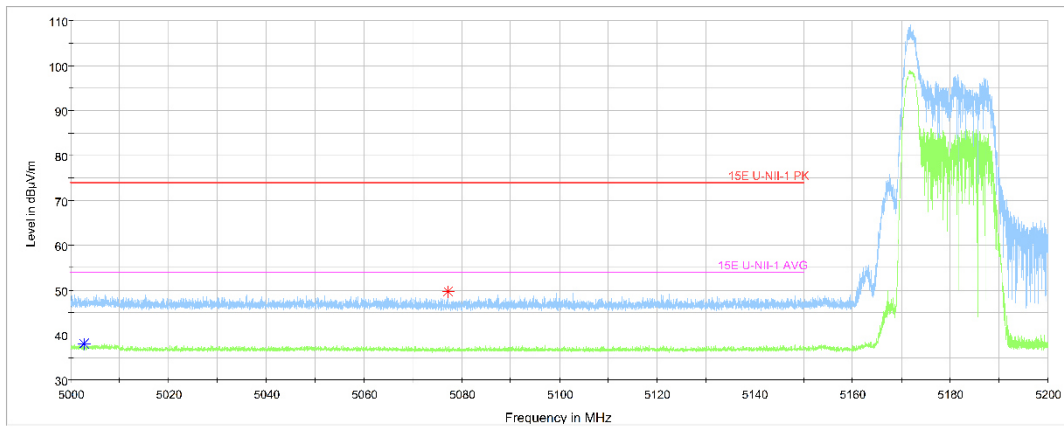
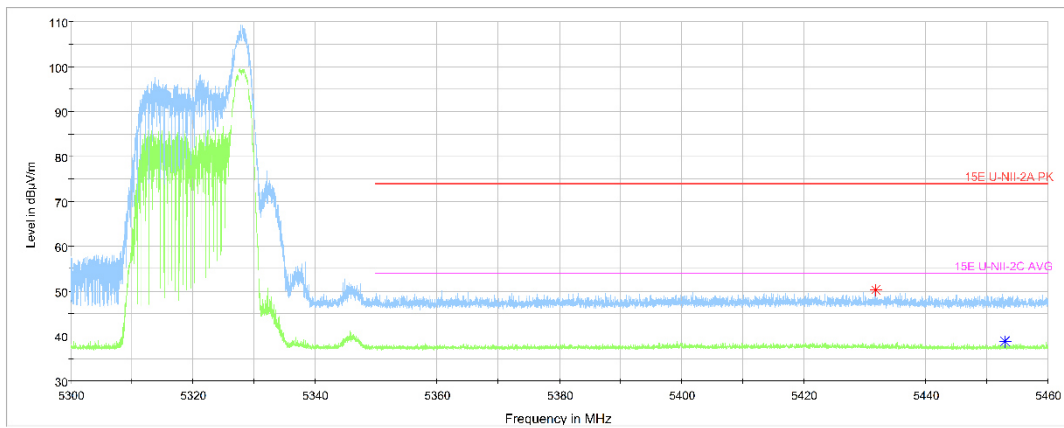**Fig. 43   Band Edges (802.11ax-HT40 , partial RU, Ch38, 5190MHz)**

Fig. 44   Band Edges (802.11ax-HT40 , partial RU, Ch62, 5310MHz)

Fig. 45   Band Edges (802.11ax-HT40 , partial RU, Ch102, 5510MHz)

Fig. 46   Band Edges (802.11ax-HT40 , partial RU, Ch134, 5670MHz)

Fig. 47   Band Edges (802.11ax-HT80 , partial RU, Ch42 , 5210MHz)

Fig. 48   Band Edges (802.11ax-HT80 , partial RU, Ch58, 5290MHz)

Fig. 49 Band Edges (802.11ax-HT80 , partial RU, Ch106, 5530MHz)
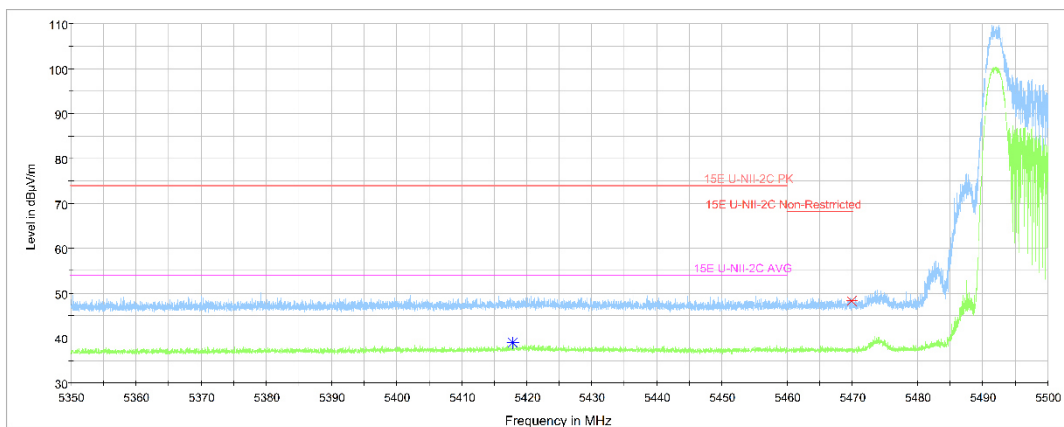

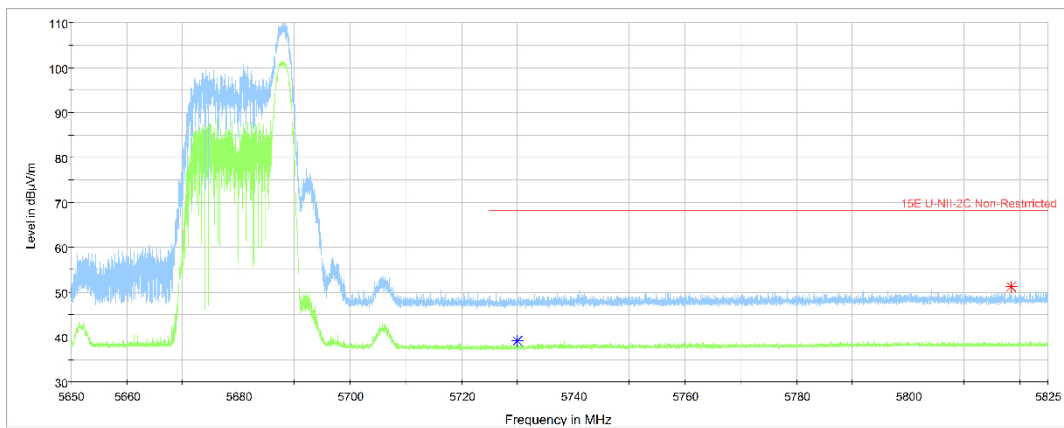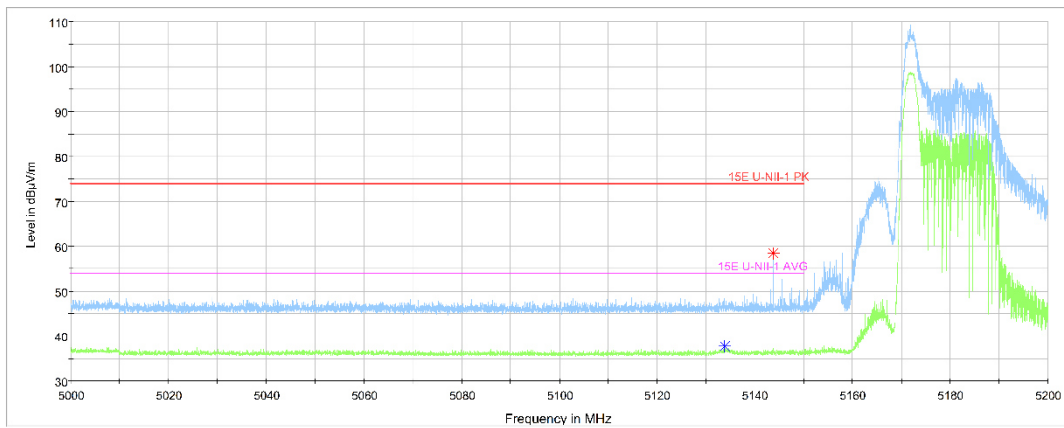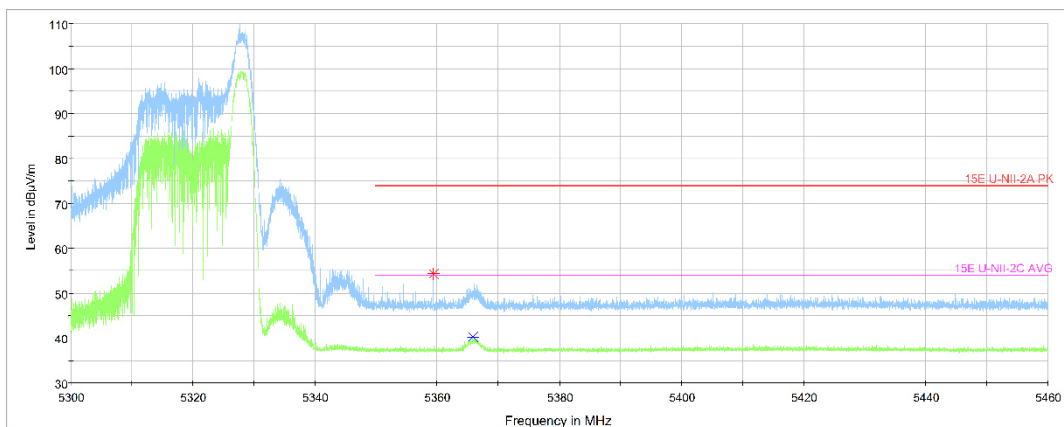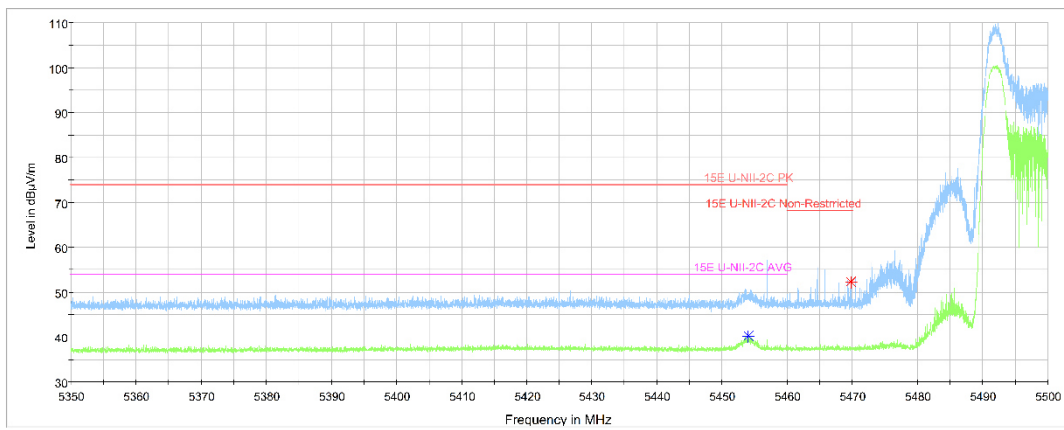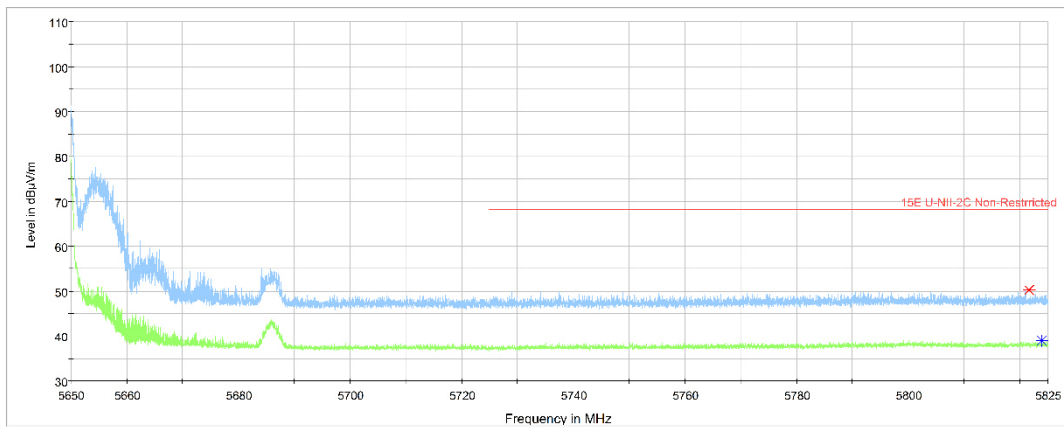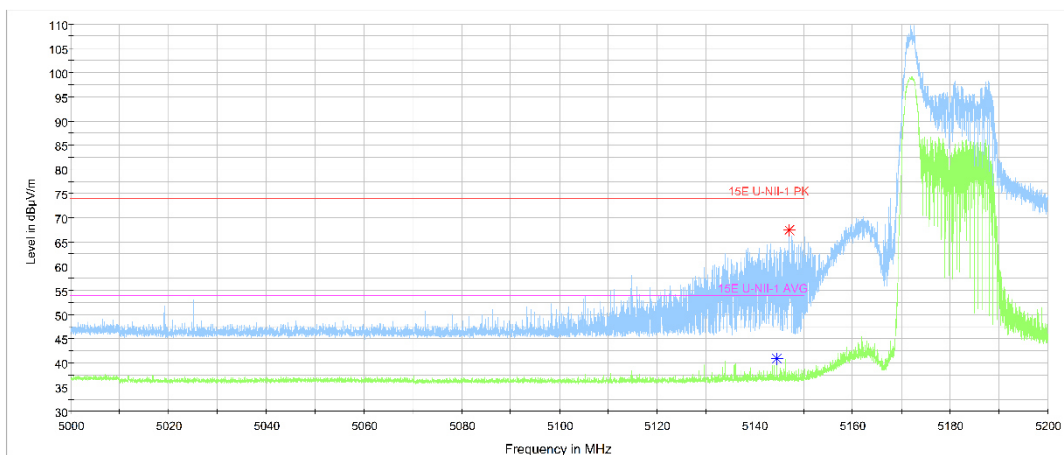**Fig. 50 Band Edges (802.11ax-HT80 , partial RU, Ch122, 5610MHz)**

Fig. 51 Band Edges (802.11ax-HT160 , partial RU, Ch50, 5250MHz)

Fig. 52   Band Edges (802.11ax-HT160 , partial RU, Ch114, 5570MHz)

A.6. AC Powerline Conducted Emission (150kHz- 30MHz)

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

Measurement Result and limit:

WLAN (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Result (dBμV)		Conclusion
		With charger		
		11a mode	Idle	
0.15 to 0.5	66 to 56	Fig. 53	Fig. 54	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		
		11a mode	Idle	
0.15 to 0.5	56 to 46	Fig. 53	Fig. 54	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.				

Conclusion: PASS

Test graphs as below:

Fig. 53   Conducted Emission(802.11a, Ch36, TX)

Final Result 1

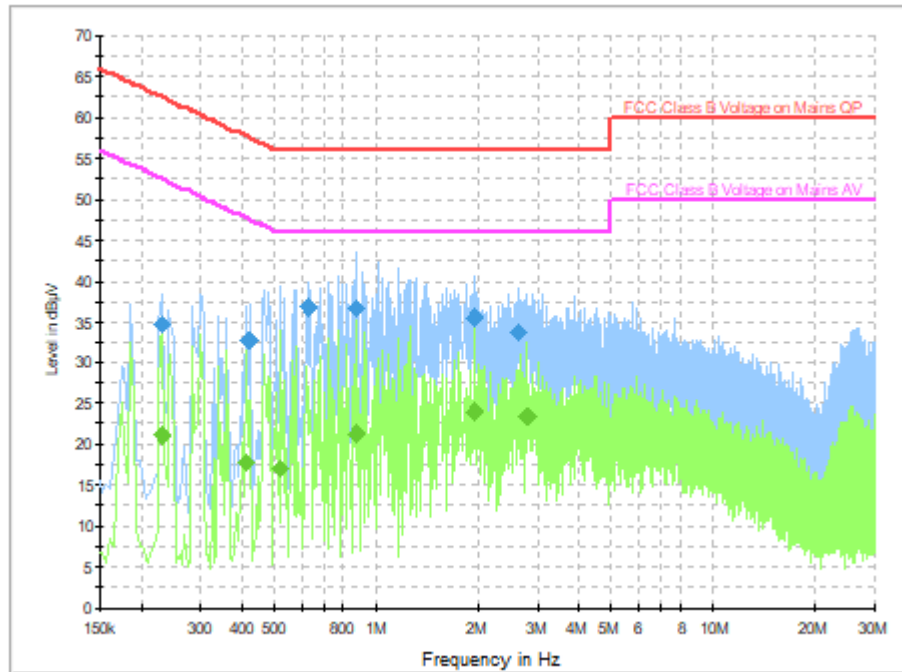| Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.230000	34.7	2000.0	9.000	On	L1	19.9	27.7	62.4	
0.418000	32.8	2000.0	9.000	On	N	19.9	24.7	57.5	
0.630000	36.8	2000.0	9.000	On	L1	20.0	19.2	56.0	
0.878000	36.6	2000.0	9.000	On	L1	19.9	19.4	56.0	
1.962000	35.6	2000.0	9.000	On	L1	19.8	20.4	56.0	
2.662000	33.7	2000.0	9.000	On	L1	19.8	22.3	56.0	

Final Result 2

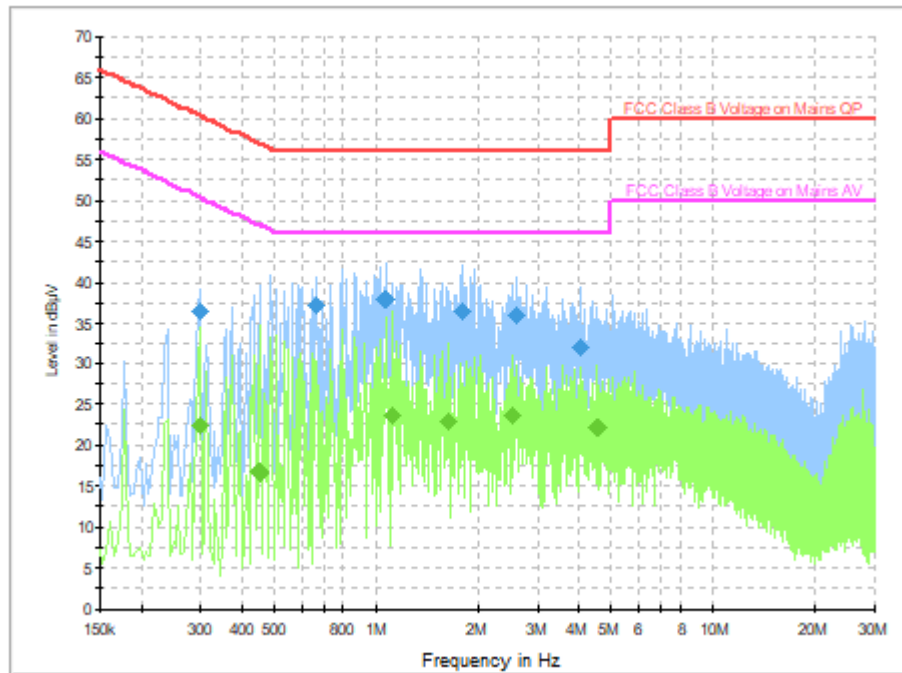| Frequency (MHz)	CAverage (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.230000	21.2	2000.0	9.000	On	L1	19.9	31.3	52.4	
0.410000	17.8	2000.0	9.000	On	L1	20.0	29.9	47.6	
0.518000	17.2	2000.0	9.000	On	N	19.9	28.8	46.0	
0.878000	21.3	2000.0	9.000	On	L1	19.9	24.7	46.0	
1.962000	24.1	2000.0	9.000	On	L1	19.8	21.9	46.0	
2.822000	23.4	2000.0	9.000	On	L1	19.8	22.6	46.0	

Fig. 54   Conducted Emission(802.11a, IDLE)

Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.298000	36.4	2000.0	9.000	On	N	19.8	23.9	60.3	
0.662000	37.3	2000.0	9.000	On	L1	20.0	18.7	56.0	
1.062000	37.8	2000.0	9.000	On	L1	19.9	18.2	56.0	
1.810000	36.3	2000.0	9.000	On	L1	19.8	19.7	56.0	
2.618000	35.9	2000.0	9.000	On	L1	19.8	20.1	56.0	
4.046000	32.0	2000.0	9.000	On	L1	19.8	24.0	56.0	

Final Result 2

Frequency (MHz)	CAverage (dBuV)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)	Comment
0.298000	22.3	2000.0	9.000	On	N	19.8	28.0	50.3	
0.450000	16.8	2000.0	9.000	On	N	19.9	30.1	46.9	
1.118000	23.5	2000.0	9.000	On	L1	19.9	22.5	46.0	
1.650000	23.1	2000.0	9.000	On	L1	19.8	22.9	46.0	
2.522000	23.6	2000.0	9.000	On	L1	19.8	22.4	46.0	
4.510000	22.3	2000.0	9.000	On	L1	19.8	23.7	46.0	

A.7. 99% Occupied bandwidth

Method of Measurement: See ANSI C63.10-2013-clause 12.4.2.

a)   The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.

b)   The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be approximately three times the RBW, unless otherwise specified by the applicable requirement.

c)   Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.5.2.

d)   Step a) through step c) might require iteration to adjust within the specified range.

e)   Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.

f)   Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth.

g)   If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% ofthe total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99% power bandwidth is the difference between these two frequencies.

h)   The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

Measurement Uncertainty:

Measurement Uncertainty	60.80Hz

EUT ID: UT05a

Test graphs as below:

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant2	5180	17.823	5171.1228	5188.9462	---	---
		5200	17.736	5191.0487	5208.7843	---	---
		5240	17.29	5231.3022	5248.5926	---	---
		5260	17.293	5251.2873	5268.5807	---	---
		5280	17.238	5271.3381	5288.5760	---	---
		5320	17.725	5311.0472	5328.7723	---	---
		5500	17.774	5491.1219	5508.8957	---	---
		5580	17.29	5571.2796	5588.5701	---	---
		5700	17.624	5691.0205	5708.6447	---	---
11N40SISO	Ant2	5190	36.306	5171.8585	5208.1649	---	---