

Note:

1. All antennas are tested for different bands, only the data of antenna 1+ antenna 2 in the worst mode is shown in the report
2. The factor had been edited in the “Input Correction” of the Spectrum Analyzer.
3. Only the data of band edge emission at the restricted band 4.5GHz-5.15GHz and 5.35GHz-5.46GHz record in the report. Other restricted band 7.25GHz-7.77GHz were considered as ambient noise. No recording in the test report.
4. The sideband standard of U NII-3 frequency band is not defined, the transmitted signal does not fall in the restricted band, and the edge signal is far away from the edge of other restricted bands, and it is not recorded in the report.
5. The edge signal strength of U-NII 3 is far from the edge of the limit band, so there is no need to reflect it

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## 11. AC POWER LINE CONDUCTED EMISSION TEST

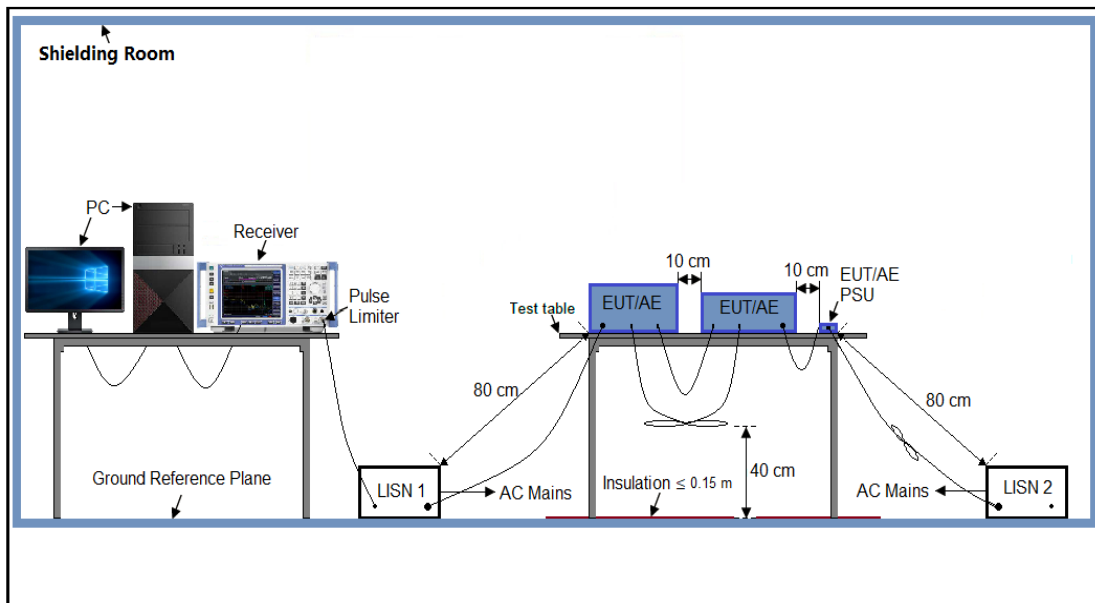
### 11.1. LIMITS OF LINE CONDUCTED EMISSION TEST

Frequency	Maximum RF Line Voltage	
	Q.P (dB $\mu$ V)	Average (dB $\mu$ V)
150kHz~500kHz	66-56	56-46
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Note:

1. The lower limit shall apply at the transition frequency.
2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50MHz.

### 11.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST



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### 11.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
2. Support equipment, if needed, was placed as per ANSI C63.10.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
4. All support equipment received AC120V/60Hz power from a LISN, if any.
5. The EUT received charging voltage by adapter which received 120V/60Hz power by a LISN.
6. The test program was started. Emissions were measured on each current carrying line of the EUT using spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 Ohm load; the second scan had Line 1 connected to a 50 Ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.
9. The test mode(s) were scanned during the preliminary test.

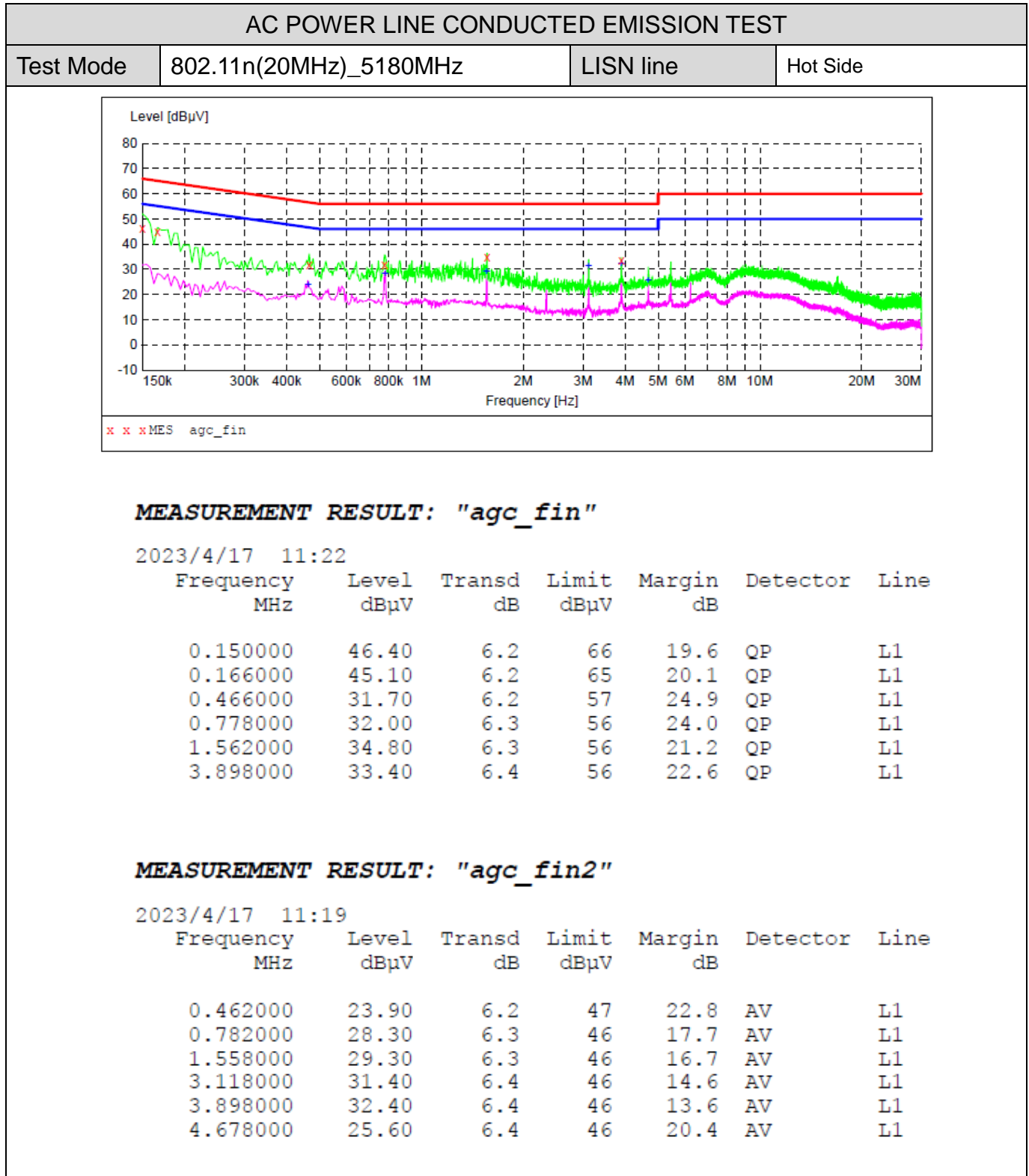
Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

### 11.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less – 2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
3. The test data of the worst case was reported on the Summary Data page.
4. The worst mode is 802.11n20 5180MHz, antenna 1 and antenna 2 work together.

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**11.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST**

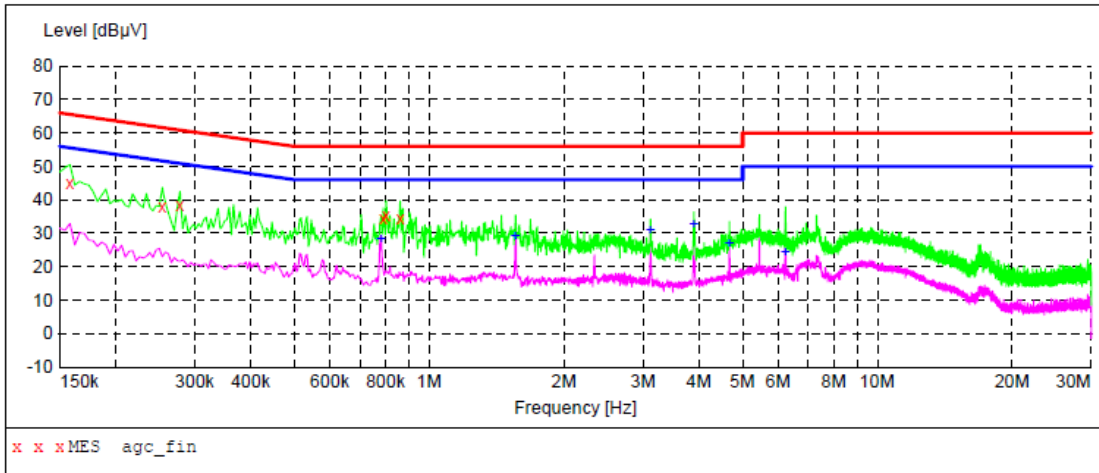


**RESULT: PASS**

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**AC POWER LINE CONDUCTED EMISSION TEST**

Test Mode	802.11n(20MHz)_5180MHz	LISN line	Neutral Side
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**MEASUREMENT RESULT: "agc\_fin"**

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Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line
0.158000	45.20	6.2	66	20.4	QP	N
0.254000	38.10	6.2	62	23.5	QP	N
0.278000	38.60	6.2	61	22.3	QP	N
0.790000	34.60	6.3	56	21.4	QP	N
0.802000	35.50	6.3	56	20.5	QP	N
0.862000	34.30	6.3	56	21.7	QP	N

**MEASUREMENT RESULT: "agc\_fin2"**

2023/4/17 11:25

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line
0.782000	28.40	6.3	46	17.6	AV	N
1.558000	29.20	6.3	46	16.8	AV	N
3.118000	30.90	6.4	46	15.1	AV	N
3.898000	32.60	6.4	46	13.4	AV	N
4.678000	26.90	6.4	46	19.1	AV	N
6.234000	24.20	6.5	50	25.8	AV	N

**RESULT: PASS**

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## **APPENDIX I: PHOTOGRAPHS OF TEST SETUP**

Refer to the Report No.: AGC00688230406AP01

## **APPENDIX II: PHOTOGRAPHS OF EUT**

Refer to the Report No.: AGC00688230406AP02

**----END OF REPORT----**

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