

# TEST REPORT

**Applicant:** Xiaomi Communications Co., Ltd.  
**Address:** #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road,  
Haidian District, Beijing, China, 100085  
**Equipment Type:** Mobile Phone  
**Model Name:** 25098RA98G  
**Brand Name:** Redmi  
**FCC ID:** 2AFZZ98GWQ  
**Test Standard:** 47 CFR Part 15 Subpart B  
ANSI C63.4-2014  
**Sample Arrival Date:** Jul. 17, 2025  
**Test Date:** Jul. 20, 2025 - Jul. 23, 2025  
**Date of Issue:** Aug. 22, 2025

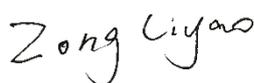
**ISSUED BY:**

Shenzhen BALUN Technology Co., Ltd.

**Tested by:** Li JunFeng



**Checked by:** Zong Liyao



**Approved by:** Tolan Tu  
(Testing Director)



<b>Revision History</b>		
Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Aug. 22, 2025</u>	<u>Initial Issue</u>

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# 1 GENERAL INFORMATION

## 1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

## 1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	<input checked="" type="checkbox"/> Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	<input type="checkbox"/> 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196. The certification body is American Association for Laboratory Accreditation (A2LA).

## 2 PRODUCT INFORMATION

### 2.1 Applicant Information

Applicant	Xiaomi Communications Co., Ltd.
Address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

### 2.2 Manufacturer Information

Manufacturer	Xiaomi Communications Co., Ltd.
Address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

### 2.3 General Description for Equipment under Test (EUT)

EUT Name	Mobile Phone
Model Name Under Test	25098RA98G
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	135300P17
Software Version	Xiaomi HyperOS 2.0
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A
EUT ID	SC-SZ2560531:S48, S49, S56, S62
IMEI Number	SC-SZ2560531-S48: IMEI1:861950070025147; IMEI2:861950070025154
	SC-SZ2560531-S49: IMEI1:861950070040005; IMEI2:861950070040013
	SC-SZ2560531-S56: IMEI1:861950070038322; IMEI2:861950070038330
	SC-SZ2560531-S62: IMEI1:861950070021369; IMEI2:861950070021377

### 2.4 Ancillary Equipment

Please refer the document "BL-SZ2570858-AW.PDF".

## 2.5 Technical Information

<p>Network and Wireless connectivity</p>	<p>2G Network GSM/GPRS/EDGE850/1900                      3G Network WCDMA/HSDPA/HSUPA Band 2/4/5                      4G Network FDD LTE Band 2/4/5/7/12/13/17/18/19/26/66                      TDD LTE Band38/41/42/48                      LTE CA Uplink (UL): CA_7C, CA_38C, CA_2A-4A, CA_2A-7A, CA_4A-5A, CA_4A-7A                      5G Network                      SA: NR n2/n5/n7/n12/n26/n38/n41/n48/n66/n77/n78                      NSA(EN-DC): DC_4A_n2A, DC_7A_n2A, DC_66A_n2A, DC_7A_n5A, DC_2A_n7A, DC_4A_n7A, DC_5A_n7A, DC_66A_n7A, DC_4A_n38A, DC_5A_n38A, DC_2A_n38A, DC_66A_n38A, DC_2A_n41A, DC_4A_n41A, DC_5A_n41A, DC_66A_n41A, DC_2A_n66A, DC_5A_n66A, DC_7A_n66A, DC_2A_n77A, DC_18A_n77A, DC_2A_n78A, DC_4A_n78A, DC_5A_n78A, DC_7A_n78A, DC_19A_78A, DC_26A_n78A, DC_38A_n78A, DC_41A_n78A, DC_66A_n78A                      Bluetooth (BR+EDR+BLE)                      2.4G WIFI 802.11b, 802.11g, 802.11n(HT20)                      5G WIFI 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80)                      GPS, GLONASS, Galileo, BDS, NFC</p>
<p>Classification of equipment</p>	<p>Class B</p>

### 3 SUMMARY OF TEST RESULTS

#### 3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15 Subpart B	Unintentional Radiators
2	ANSI C63.4-2014	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

#### 3.2 Verdict

No.	Description	FCC Rule	Test Verdict	Remark
1	Radiated Emission	15.109	Pass	--
2	Conducted Emission, AC Ports	15.107	Pass	--

#### 3.3 Test Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=2$ .

Measurement	Value
Conducted emissions (9 kHz-30 MHz)	3.2 dB
Radiated emissions (30 MHz-1 GHz)-966#2	4.4 dB
Radiated emissions (1 GHz-18 GHz)-966#2	5.0 dB

## 4 GENERAL TEST CONFIGURATIONS

### 4.1 Test Enclosure List

Description	Manufacturer	Model	Serial No.	Length	Description	Use
Laptop	Lenovo	N/A	N/A	N/A	N/A	<input checked="" type="checkbox"/>
Data connector	HBR	type-c to USB 3.0	N/A	N/A	N/A	<input checked="" type="checkbox"/>
USB disk	Sandisk	CZ73-32G	N/A	N/A	32G	<input checked="" type="checkbox"/>
Phone holder	Xiaomi	N/A	N/A	N/A	N/A	<input checked="" type="checkbox"/>
TF Card	Samsung	MB-MD256KA	N/A	N/A	256G	<input checked="" type="checkbox"/>
Type-C Earphone	Xiaomi	M2413E1	N/A	1.25m	N/A	<input checked="" type="checkbox"/>
Wireless Communications Test Set	R&S	CMW500	121551	N/A	Cal. Due 2026.03.21	<input checked="" type="checkbox"/>
5G Comprehensive Tester	Keysight	E7515B	N/A	N/A	Cal. Due 2025.08.11	<input checked="" type="checkbox"/>

### 4.2 Test Configurations

All test modes of EUT are listed in the table below.

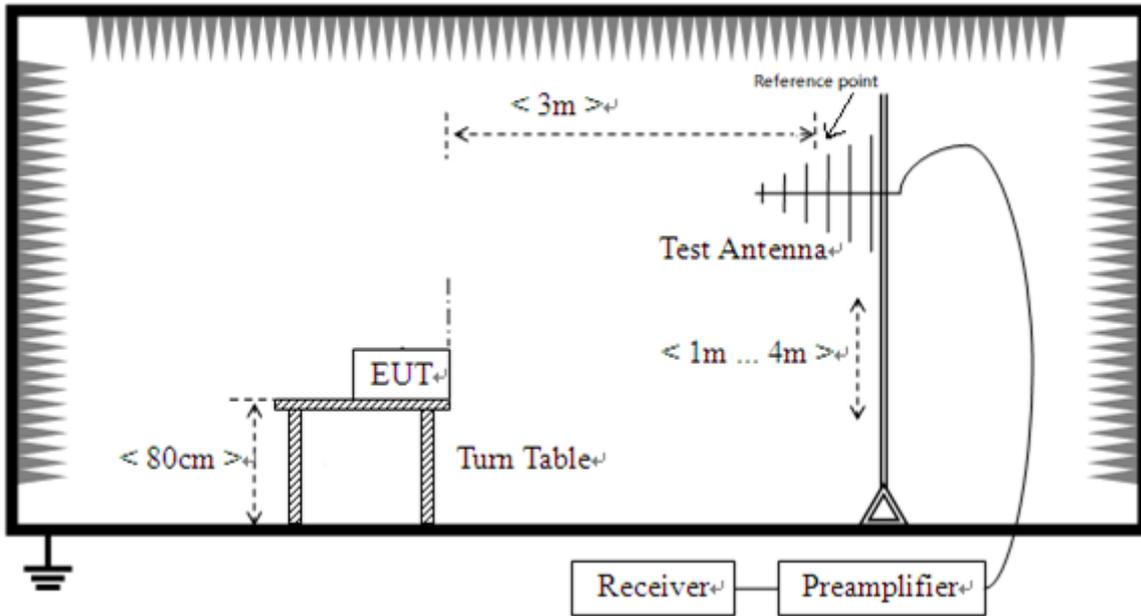
Test Mode Configuration	Description
Mode 1	<u>The Charging Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card
Mode 2	<u>The Front Camera Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card
Mode 3	<u>The Back Camera Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card
Mode 4	<u>The H-Pattern Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card
Mode 5	<u>The Phone holder Test Mode</u> EUT + Adapter + USB Cable + Battery + Phone holder + TF Card
Mode 6	<u>The GSM850 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + GSM850 RX
Mode 7	<u>The WCDMA Band5 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + WCDMA Band5 RX
Mode 8	<u>The FDD LTE Band5 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + LTE Band5 RX
Mode 9	<u>The FDD LTE Band12 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + LTE Band12 RX

Mode 10	<u>The FDD LTE Band13 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + LTE Band13 RX
Mode 11	<u>The FDD LTE Band17 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + LTE Band17 RX
Mode 12	<u>The FDD LTE Band18 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + LTE Band18 RX
Mode 13	<u>The FDD LTE Band19 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + LTE Band19 RX
Mode 14	<u>The FDD LTE Band26 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + LTE Band26 RX
Mode 15	<u>The n5 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + n5 RX
Mode 16	<u>The n12 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + n12 RX
Mode 17	<u>The n26 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + n26 RX
Mode 18	<u>The Video Display Test Mode with internal speaker</u> EUT + Battery
Mode 19	<u>The Type-C Earphone Test Mode</u> EUT + Battery + Type-C Earphone + TF Card
Mode 20	<u>The USB Test Mode</u> EUT + USB Cable + Battery + Laptop + TF Card
Mode 21	<u>The OTG Test Mode</u> EUT + Battery + Data connector + USB disk + TF Card
Mode 22	<u>The Reverse Charging Test Mode</u> EUT + Battery + Data connector + USB Cable + EUT(AE)

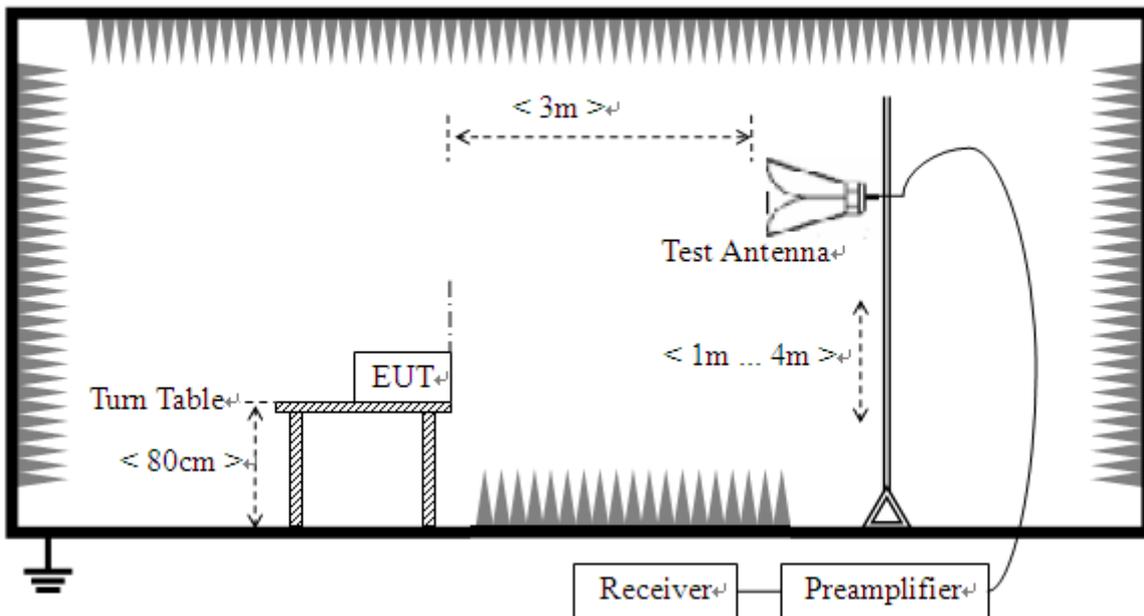
Test Case	Test Mode Configuration	Worst Mode
Radiated Emission	Mode 1~Mode 22	1, 20
Conducted Emission, AC Ports	Mode 1~Mode 17, Mode 20	1, 20
Note: All operation modes were tested, but only test data of the worst mode was presented in this report.		

### 4.3 Test Setups

#### Test Setup 1

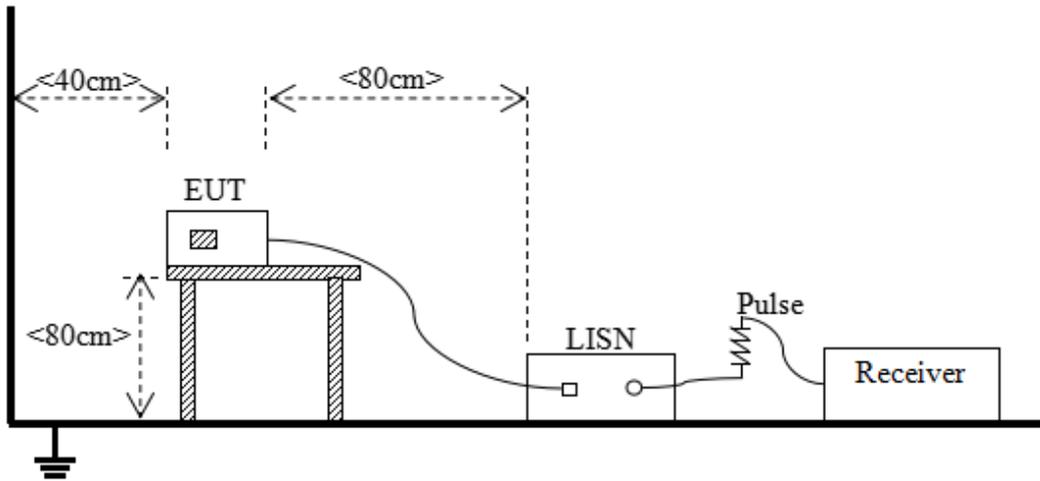


Radiated Emission (30 MHz-1 GHz)



Radiated Emission (above 1 GHz)

Test Setup 2



Conducted Emissions, AC Ports

## 5 TEST ITEMS

### 5.1 Emission Tests

#### 5.1.1 Radiated Emission

##### 5.1.1.1 Limit

Frequency range (MHz)	Class B (at 3 m)		Class A (at 3 m)
	Field Strength ( $\mu\text{V/m}$ )	Field Strength (dB $\mu\text{V/m}$ )	Field Strength (dB $\mu\text{V/m}$ )
30 - 88	100	40	49.5
88 - 216	150	43.5	54
216 - 960	200	46	56.9
Above 960	500	54	60

NOTE:

- 1) Field Strength (dB $\mu\text{V/m}$ ) = 20\*log [Field Strength ( $\mu\text{V/m}$ )].
- 2) In the emission tables above, the tighter limit applies at the band edges.
- 3) For 30 MHz to 1000 MHz, the CISPR quasi-peak is employed.

For above 1000 MHz, according to the requirements of FCC 15.35, unless otherwise specified, the limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test.

Frequency range (GHz)	Class B (at 3 m)			Class A (at 3 m)	
	Field Strength ( $\mu\text{V/m}$ )	Field Strength Average (dB $\mu\text{V/m}$ )	Field Strength Peak (dB $\mu\text{V/m}$ )	Field Strength Average (dB $\mu\text{V/m}$ )	Field Strength Peak (dB $\mu\text{V/m}$ )
1 - F <sub>M</sub>	500	54	74	60	80

Note 1: The highest measurement frequency, F<sub>M</sub>, in GHz, shall be determined as next Table.

Note 2: Average Class A limit at 3m L<sub>3m</sub> is determined by the following conversion formula:  

$$L_{3m} = L_{10m} + 20 \cdot \log(d_{10m}/d_{3m})$$
Where:  
L<sub>3m</sub> is Average Class A limit at 3m;  
L<sub>10m</sub> is Average Class A limit at 10m;  
d<sub>10m</sub> is Measurement distance in 10m;  
d<sub>3m</sub> is Measurement distance in 3m.  
For this case: L<sub>3m</sub> = 49.5 + 20\*log(10/3)=60 (dB $\mu\text{V/m}$ ).

Highest internal frequency ( $F_x$ )	Highest measurement frequency ( $F_M$ )
$F_x \leq 108$ MHz	1 GHz
$108$ MHz $\leq F_x \leq 500$ MHz	2 GHz
$500$ MHz $\leq F_x \leq 1$ GHz	5 GHz
$F_x \geq 1$ GHz	$5 * F_x$ or 40 GHz, whichever is lower.
Note: $F_x$ is Highest frequency generated or used in the device or on which the device operates or tunes.	

### 5.1.1.2 Test Setup

Refer to 4.3 section (test setup 1) for radiated emission test, the photo of test setup please refer to ANNEX B.

### 5.1.1.3 Test Procedure

All Radiated Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

An initial pre-scan was performed in the chamber using the EMI Receiver in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by Bi-Log antenna with 2 orthogonal polarities.

The measurement frequency range is from 30 MHz to the 5th harmonic of the maximum frequency of the EUT internal source. The Turn Table is actuated to turn from  $0^\circ$  to  $360^\circ$ , and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for  $f \geq 1$  GHz, 100 kHz for  $f < 1$  GHz

VBW  $\geq$  RBW

Sweep = auto

Detector function = peak for  $f < 1$  GHz, peak & RMS Average for  $f \geq 1$  GHz

Trace = max hold

### 5.1.1.4 Test Result and Test Equipment List

Please refer to ANNEX A.1.

NOTE:

1. Results (dB $\mu$ V/m) = Reading (dB $\mu$ V) + Factor (dB/m)

The reading level is calculated by software which is not shown in the sheet

2. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Amplifier Gain (dB)

3. Margin = Limit - Results

## 5.1.2 Conducted Emission, AC Ports

### 5.1.2.1 Test Limit

Frequency range (MHz)	Class A	
	Quasi-peak (dB $\mu$ V)	Average (dB $\mu$ V)
0.15 - 0.50	79	66
0.50 - 30	73	60

Frequency range (MHz)	Class B	
	Quasi-peak (dB $\mu$ V)	Average (dB $\mu$ V)
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

**NOTE:**

- 1) The lower limit shall apply at the band edges.
- 2) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50 MHz.

### 5.1.2.2 Test Setup

Refer to 4.3 section test (test setup 2) for conducted emission, the photo of test setup please refer to ANNEX B.

### 5.1.2.3 Test Procedure

The EUT is connected to the power mains through a LISN which provides 50  $\Omega$ /50  $\mu$ H of coupling impedance for the measuring instrument. The test frequency range is from 150 kHz to 30 MHz. The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels that are more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed.

Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. A device rated for 50/60 Hz operation need not be tested at both frequencies provided the radiated and line conducted emissions are the same at both frequencies.

Use the following spectrum analyzer settings:

RBW = 9 kHz

VBW  $\geq$  RBW

Sweep = 10ms

Detector function = peak & Average

Trace = max hold

#### 5.1.2.4 Test Result and Test Equipment List

Please refer to ANNEX A.2.

NOTE:

1. Results (dB $\mu$ V) = Reading (dB $\mu$ V) + Factor (dB)

The reading level is calculated by software which is not shown in the sheet

2. Factor = Insertion loss + Cable loss

3. Margin = Limit - Results

## ANNEX A TEST RESULTS

### A.1 Radiated Emission

Note 1: The symbol of "--" in the table which means not application.

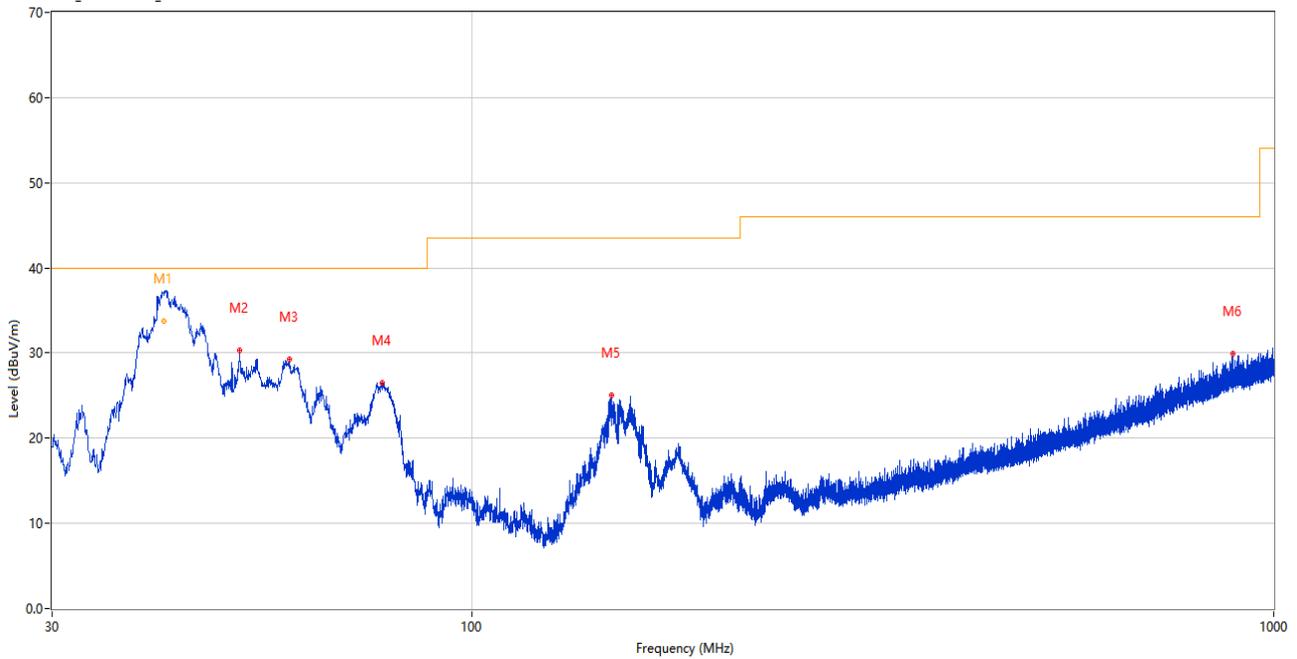
Note 2: For the test data above 1 GHz, according the ANSI C63.4-2014, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note 3: When the EUT is on, it will automatically emit Bluetooth signal and cannot be turned off. So the marked spikes near 2400 MHz with circle should be ignored because they are Bluetooth carrier frequencies.

Sample No.	S48	Temperature	22.6°C
Humidity	52%RH	Pressure	101kPa
Test Engineer	Chen Jingran	Test Date	2025.07.23

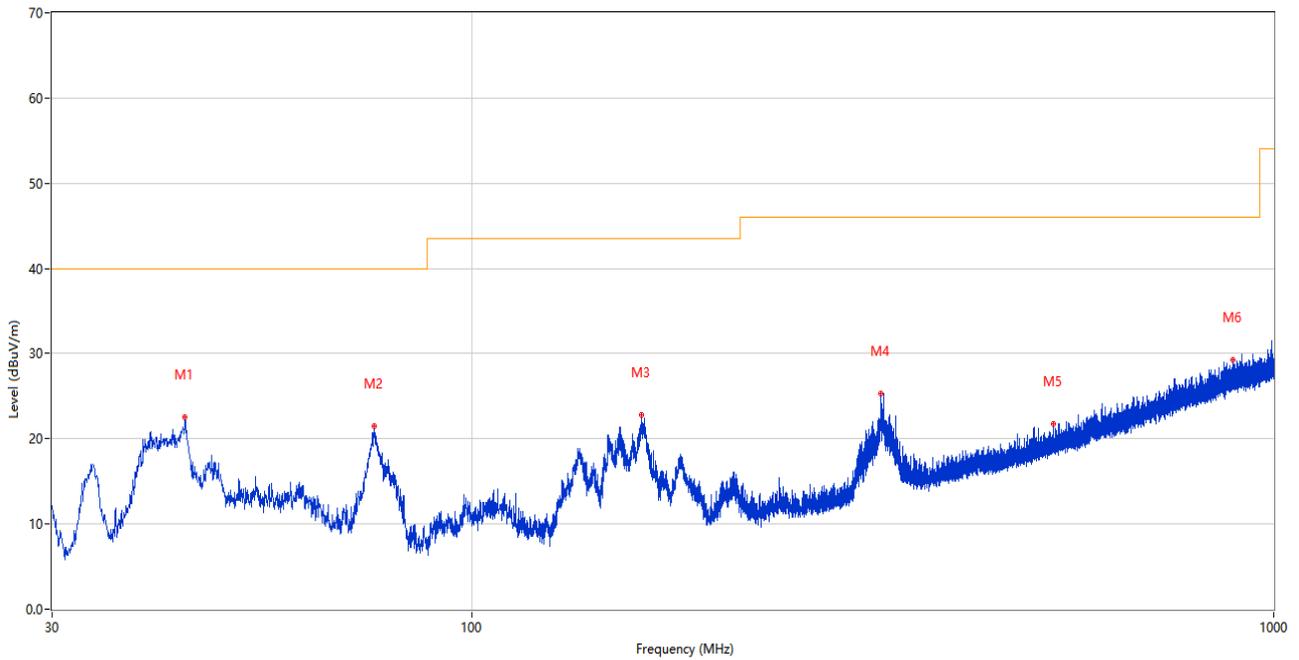
**Test Mode 1**

1) Test Antenna Vertical, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	41.388	37.40	-26.48	40.0	2.60	Peak	193.00	101	Vertical	N/A
1*	41.388	33.75	-26.48	40.0	6.25	QP	193.00	101	Vertical	Pass
2	51.389	30.27	-24.09	40.0	9.73	Peak	158.00	100	Vertical	Pass
3	59.245	29.25	-26.58	40.0	10.75	Peak	104.00	100	Vertical	Pass
4	77.433	26.53	-30.99	40.0	13.47	Peak	104.00	100	Vertical	Pass
5	149.407	25.08	-30.12	43.5	18.42	Peak	312.00	100	Vertical	Pass
6	889.177	29.95	-10.04	46.0	16.05	Peak	112.00	100	Vertical	Pass

2) Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	43.919	22.54	-25.54	40.0	17.46	Peak	353.00	200	Horizontal	Pass
2	75.541	21.45	-31.03	40.0	18.55	Peak	0.00	100	Horizontal	Pass
3	163.036	22.78	-29.35	43.5	20.72	Peak	130.00	200	Horizontal	Pass
4	323.862	25.37	-23.00	46.0	20.63	Peak	110.00	100	Horizontal	Pass
5	531.635	21.81	-17.85	46.0	24.19	Peak	357.00	100	Horizontal	Pass
6	888.790	29.21	-10.04	46.0	16.79	Peak	71.00	200	Horizontal	Pass

Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Below 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2024.08.01	2025.07.31	<input checked="" type="checkbox"/>
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2024.11.28	2025.11.27	<input checked="" type="checkbox"/>
Test Antenna- Bi-Log	SCHWARZB ECK	VULB 9168	00867	2025.04.12	2028.04.11	<input checked="" type="checkbox"/>
Anechoic Chamber (#2)	YiHeng	9m*6m*6m	142	2024.07.21	2027.07.20	<input checked="" type="checkbox"/>
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		<input checked="" type="checkbox"/>

3) Test Antenna Vertical, 1 GHz – 18 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1249.990	39.14	-15.54	74.0	34.86	Peak	262.00	100	Vertical	Pass
1**	1249.990	30.22	-15.54	54.0	23.78	AV	262.00	100	Vertical	Pass
2	1980.980	42.55	-13.02	74.0	31.45	Peak	91.00	100	Vertical	Pass
2**	1980.980	33.95	-13.02	54.0	20.05	AV	91.00	100	Vertical	Pass
3	3007.850	46.09	-7.33	74.0	27.91	Peak	191.00	100	Vertical	Pass
3**	3007.850	36.69	-7.33	54.0	17.31	AV	191.00	100	Vertical	Pass
4	5882.060	54.65	3.10	74.0	19.35	Peak	56.00	100	Vertical	Pass
4**	5882.060	44.82	3.10	54.0	9.18	AV	56.00	100	Vertical	Pass
5	10076.500	56.98	4.65	74.0	17.02	Peak	138.00	100	Vertical	Pass
5**	10076.500	46.48	4.65	54.0	7.52	AV	138.00	100	Vertical	Pass
6	13831.000	57.06	5.47	74.0	16.94	Peak	191.00	100	Vertical	Pass
6**	13831.000	47.20	5.47	54.0	6.80	AV	191.00	100	Vertical	Pass

4) Test Antenna Horizontal, 1 GHz – 18 GHz



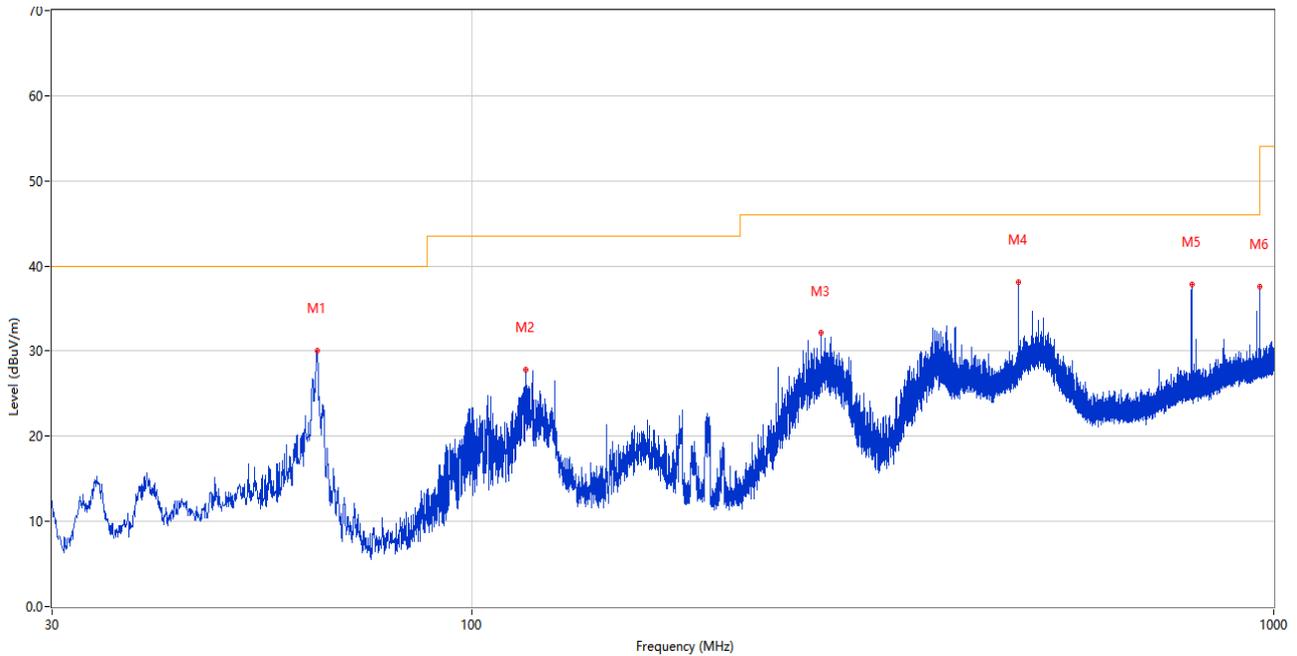
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1330.850	39.77	-15.60	74.0	34.23	Peak	259.00	100	Horizontal	Pass
1**	1330.850	31.11	-15.60	54.0	22.89	AV	259.00	100	Horizontal	Pass
2	2110.200	42.96	-12.00	74.0	31.04	Peak	284.00	100	Horizontal	Pass
2**	2110.200	33.14	-12.00	54.0	20.86	AV	284.00	100	Horizontal	Pass
3	3232.750	47.88	-5.50	74.0	26.12	Peak	325.00	100	Horizontal	Pass
3**	3232.750	38.32	-5.50	54.0	15.68	AV	325.00	100	Horizontal	Pass
4	7709.160	55.13	1.59	74.0	18.87	Peak	190.00	100	Horizontal	Pass
4**	7709.160	44.68	1.59	54.0	9.32	AV	190.00	100	Horizontal	Pass
5	9356.500	56.11	4.32	74.0	17.89	Peak	319.00	100	Horizontal	Pass
5**	9356.500	46.23	4.32	54.0	7.77	AV	319.00	100	Horizontal	Pass
6	13799.000	56.12	5.72	74.0	17.88	Peak	265.00	100	Horizontal	Pass
6**	13799.000	47.09	5.72	54.0	6.91	AV	265.00	100	Horizontal	Pass

Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Above 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2024.08.01	2025.07.31	<input checked="" type="checkbox"/>
Amplifier (1-12GHz)	Advanced Microwave	WLA652A	1740103	2024.11.28	2025.11.27	<input checked="" type="checkbox"/>
Amplifier (0.8-21GHz)	Mini-Circuits	ZVA-213-S+	225321316	2024.11.28	2025.11.27	<input checked="" type="checkbox"/>
Test Antenna- Horn	SCHWARZB ECK	BBHA 9120D	01917	2025.05.20	2028.05.19	<input checked="" type="checkbox"/>
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		<input checked="" type="checkbox"/>

Sample No.	S48	Temperature	22.6°C
Humidity	52%RH	Pressure	101kPa
Test Engineer	Chen Jingran	Test Date	2025.07.23

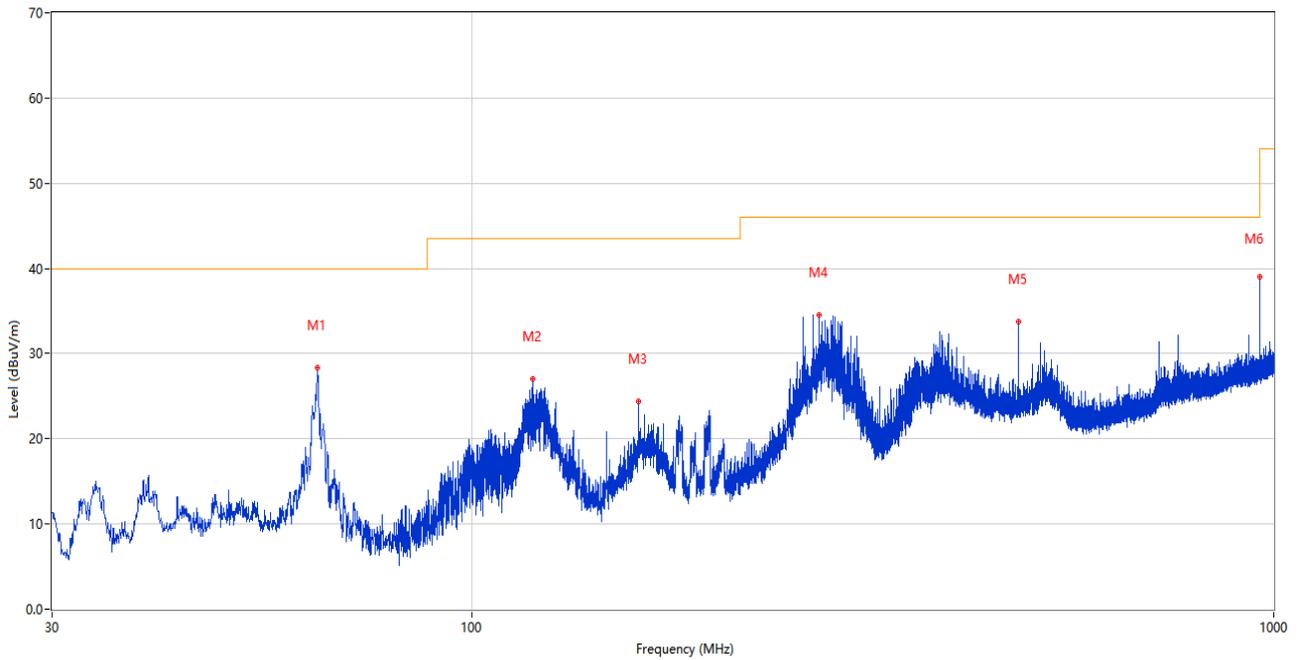
**Test Mode 20**

**5) Test Antenna Vertical, 30 MHz – 1 GHz**



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	64.192	30.06	-26.72	40.0	9.94	Peak	96.00	100	Vertical	Pass
2	116.815	27.81	-27.49	43.5	15.69	Peak	292.00	100	Vertical	Pass
3	272.403	32.11	-24.46	46.0	13.89	Peak	346.00	200	Vertical	Pass
4	480.031	38.12	-19.17	46.0	7.88	Peak	359.00	100	Vertical	Pass
5	790.334	37.85	-11.89	46.0	8.15	Peak	236.00	100	Vertical	Pass
6	960.036	37.52	-9.09	54.0	16.48	Peak	336.00	100	Vertical	Pass
1	64.192	30.06	-26.72	40.0	9.94	Peak	96.00	100	Vertical	Pass

6) Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	64.241	28.36	-26.71	40.0	11.64	Peak	144.00	200	Horizontal	Pass
2	119.046	27.00	-28.16	43.5	16.50	Peak	286.00	200	Horizontal	Pass
3	161.532	24.39	-29.35	43.5	19.11	Peak	40.00	100	Horizontal	Pass
4	270.754	34.53	-24.60	46.0	11.47	Peak	80.00	100	Horizontal	Pass
5	480.031	33.71	-19.17	46.0	12.29	Peak	213.00	200	Horizontal	Pass
6	959.987	39.02	-9.09	46.0	6.98	Peak	99.00	200	Horizontal	Pass

Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Below 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2024.08.01	2025.07.31	<input checked="" type="checkbox"/>
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2024.11.28	2025.11.27	<input checked="" type="checkbox"/>
Test Antenna- Bi-Log	SCHWARZB ECK	VULB 9168	00867	2025.04.12	2028.04.11	<input checked="" type="checkbox"/>
Anechoic Chamber (#2)	YiHeng	9m*6m*6m	142	2024.07.21	2027.07.20	<input checked="" type="checkbox"/>
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		<input checked="" type="checkbox"/>

7) Test Antenna Vertical, 1 GHz – 18 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1332.280	46.34	-15.65	74.0	27.66	Peak	22.00	100	Vertical	Pass
1**	1332.280	35.62	-15.65	54.0	18.38	AV	22.00	100	Vertical	Pass
2	1816.010	44.55	-14.67	74.0	29.45	Peak	145.00	100	Vertical	Pass
2**	1816.010	35.52	-14.67	54.0	18.48	AV	145.00	100	Vertical	Pass
3	3237.040	48.46	-5.37	74.0	25.54	Peak	309.00	100	Vertical	Pass
3**	3237.040	38.97	-5.37	54.0	15.03	AV	309.00	100	Vertical	Pass
4	6889.220	54.47	1.01	74.0	19.53	Peak	8.00	100	Vertical	Pass
4**	6889.220	45.10	1.01	54.0	8.90	AV	8.00	100	Vertical	Pass
5	10049.500	56.41	5.36	74.0	17.59	Peak	64.00	100	Vertical	Pass
5**	10049.500	46.46	5.36	54.0	7.54	AV	64.00	100	Vertical	Pass
6	13573.000	56.34	4.41	74.0	17.66	Peak	237.00	100	Vertical	Pass
6**	13573.000	47.17	4.41	54.0	6.83	AV	237.00	100	Vertical	Pass

8) Test Antenna Horizontal, 1 GHz – 18 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1160.290	41.76	-15.62	74.0	32.24	Peak	88.00	100	Horizontal	Pass
1**	1160.290	30.33	-15.62	54.0	23.67	AV	88.00	100	Horizontal	Pass
2	1806.130	44.67	-14.67	74.0	29.33	Peak	357.00	100	Horizontal	Pass
2**	1806.130	32.85	-14.67	54.0	21.15	AV	357.00	100	Horizontal	Pass
3	3164.890	47.01	-5.88	74.0	26.99	Peak	210.00	100	Horizontal	Pass
3**	3164.890	37.33	-5.88	54.0	16.67	AV	210.00	100	Horizontal	Pass
4	4001.500	50.82	-1.86	74.0	23.18	Peak	105.00	100	Horizontal	Pass
4**	4001.500	40.47	-1.86	54.0	13.53	AV	105.00	100	Horizontal	Pass
5	9320.500	56.10	4.63	74.0	17.90	Peak	99.00	100	Horizontal	Pass
5**	9320.500	47.68	4.63	54.0	6.32	AV	99.00	100	Horizontal	Pass
6	13367.000	56.59	5.09	74.0	17.41	Peak	270.00	100	Horizontal	Pass
6**	13367.000	46.65	5.09	54.0	7.35	AV	270.00	100	Horizontal	Pass

Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Above 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2024.08.01	2025.07.31	<input checked="" type="checkbox"/>
Amplifier (1-12GHz)	Advanced Microwave	WLA652A	1740103	2024.11.28	2025.11.27	<input checked="" type="checkbox"/>
Amplifier (0.8-21GHz)	Mini-Circuits	ZVA-213-S+	225321316	2024.11.28	2025.11.27	<input checked="" type="checkbox"/>
Test Antenna- Horn	SCHWARZB ECK	BBHA 9120D	01917	2025.05.20	2028.05.19	<input checked="" type="checkbox"/>
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		<input checked="" type="checkbox"/>

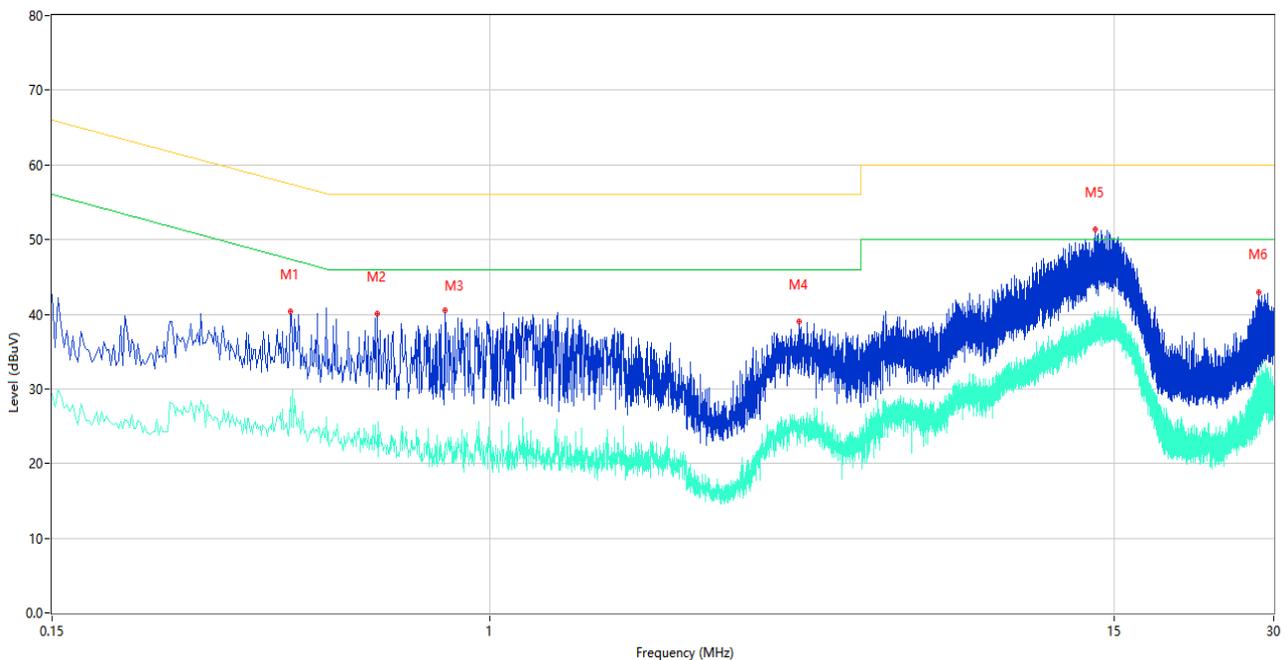
## A.2 Conducted Emission, AC Ports

Note: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 110 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. So, The configuration 110 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (110 VAC, 60 Hz) shown here.

Sample No.	S48	Temperature	22.1°C
Humidity	58%RH	Pressure	101kPa
Test Engineer	Yangyang	Test Date	2025.07.22

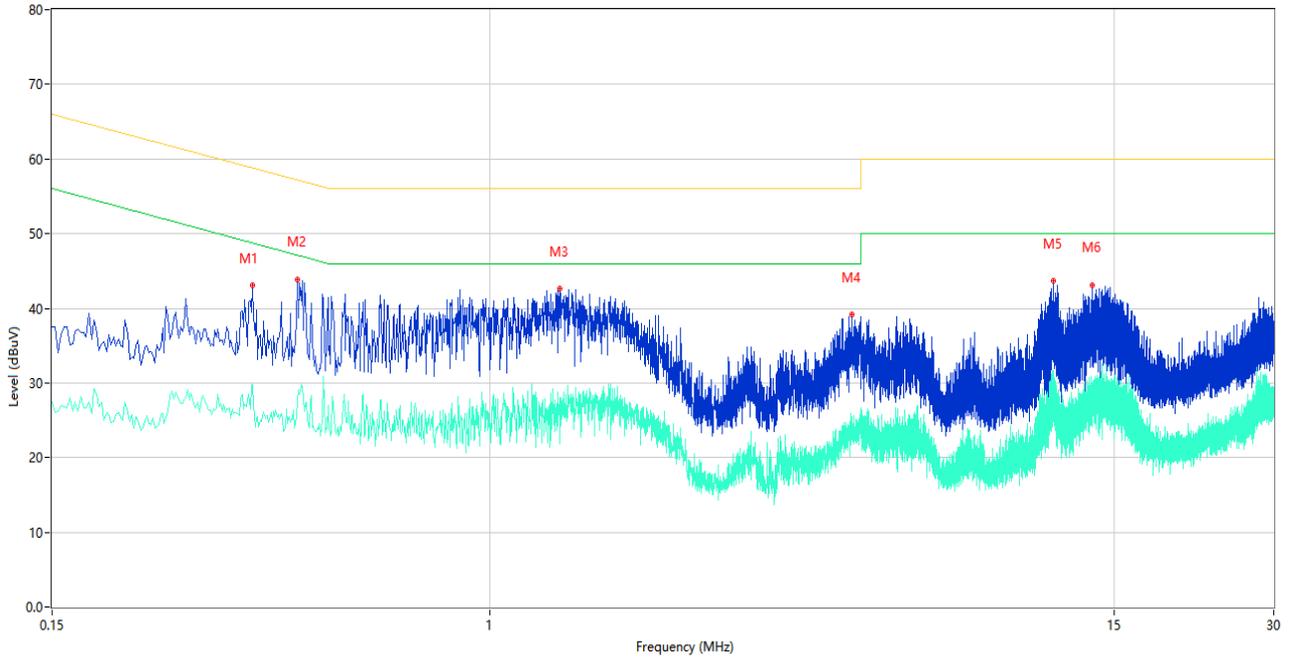
### Test Mode 1

#### 1) AC Ports - L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.422	40.33	10.59	57.41	17.08	Peak	L	Pass
1**	0.422	28.94	10.59	47.41	18.47	AV	L	Pass
2	0.614	40.02	10.56	56.00	15.98	Peak	L	Pass
2**	0.614	22.15	10.56	46.00	23.85	AV	L	Pass
3	0.824	40.54	10.22	56.00	15.46	Peak	L	Pass
3**	0.824	20.86	10.22	46.00	25.14	AV	L	Pass
4	3.822	39.04	10.67	56.00	16.96	Peak	L	Pass
4**	3.822	24.87	10.67	46.00	21.13	AV	L	Pass
5	13.842	51.39	13.20	60.00	8.61	Peak	L	Pass
5**	13.842	39.99	13.20	50.00	10.01	AV	L	Pass
6	28.152	43.00	16.92	60.00	17.00	Peak	L	Pass
6**	28.152	30.16	16.92	50.00	19.84	AV	L	Pass

2) AC Ports - N Phase



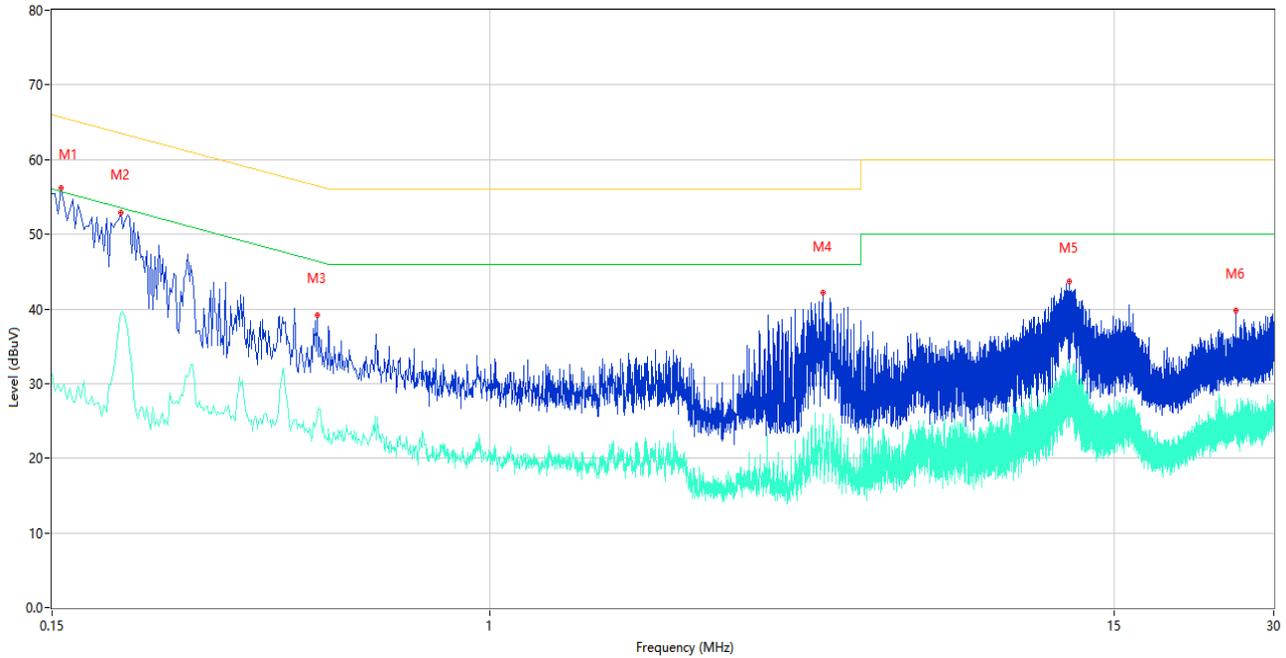
No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.358	43.02	10.05	58.77	15.75	Peak	N	Pass
1**	0.358	29.82	10.05	48.77	18.95	AV	N	Pass
2	0.434	43.91	10.57	57.18	13.27	Peak	N	Pass
2**	0.434	27.56	10.57	47.18	19.62	AV	N	Pass
3	1.358	42.60	10.62	56.00	13.40	Peak	N	Pass
3**	1.358	27.99	10.62	46.00	18.01	AV	N	Pass
4	4.812	39.20	11.08	56.00	16.80	Peak	N	Pass
4**	4.812	24.06	11.08	46.00	21.94	AV	N	Pass
5	11.528	43.72	12.74	60.00	16.28	Peak	N	Pass
5**	11.528	31.66	12.74	50.00	18.34	AV	N	Pass
6	13.676	43.15	13.27	60.00	16.85	Peak	N	Pass
6**	13.676	29.94	13.27	50.00	20.06	AV	N	Pass

Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2024.08.01	2025.07.31	<input checked="" type="checkbox"/>
LISN	SCHWARZB ECK	NSLK 8127	8127-687	2025.04.29	2026.04.28	<input checked="" type="checkbox"/>
Shielded Room	YiHeng Electronic Co., Ltd	3.5m*3.1m*2. 8m	112	2025.02.14	2028.02.13	<input checked="" type="checkbox"/>
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		<input checked="" type="checkbox"/>

Sample No.	S48	Temperature	22.1°C
Humidity	58%RH	Pressure	101kPa
Test Engineer	Yangyang	Test Date	2025.07.23

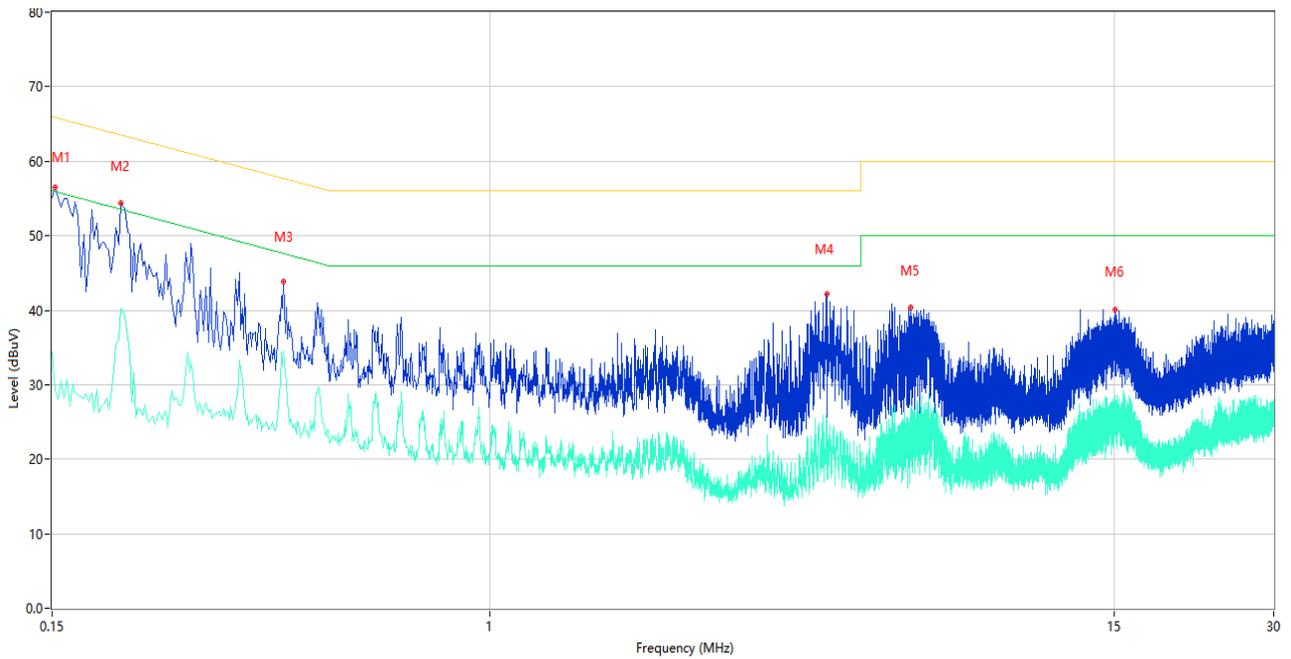
**Test Mode 20**

**3) AC Ports - L Phase**



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.156	56.20	10.11	65.67	9.47	Peak	L	Pass
1**	0.156	28.87	10.11	55.67	26.80	AV	L	Pass
2	0.202	52.95	10.03	63.53	10.58	Peak	L	Pass
2**	0.202	39.46	10.03	53.53	14.07	AV	L	Pass
3	0.474	39.22	10.43	56.44	17.22	Peak	L	Pass
3**	0.474	25.99	10.43	46.44	20.45	AV	L	Pass
4	4.238	42.17	10.98	56.00	13.83	Peak	L	Pass
4**	4.238	22.17	10.98	46.00	23.83	AV	L	Pass
5	12.336	43.72	13.02	60.00	16.28	Peak	L	Pass
5**	12.336	32.75	13.02	50.00	17.25	AV	L	Pass
6	25.410	39.72	16.26	60.00	20.28	Peak	L	Pass
6**	25.410	26.20	16.26	50.00	23.80	AV	L	Pass

4) AC Ports - N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.152	56.45	10.12	65.89	9.44	Peak	N	Pass
1**	0.152	29.34	10.12	55.89	26.55	AV	N	Pass
2	0.202	54.35	10.03	63.53	9.18	Peak	N	Pass
2**	0.202	40.29	10.03	53.53	13.24	AV	N	Pass
3	0.410	43.79	10.61	57.65	13.86	Peak	N	Pass
3**	0.410	34.56	10.61	47.65	13.09	AV	N	Pass
4	4.314	42.11	10.93	56.00	13.89	Peak	N	Pass
4**	4.314	24.16	10.93	46.00	21.84	AV	N	Pass
5	6.222	40.40	11.40	60.00	19.60	Peak	N	Pass
5**	6.222	21.29	11.40	50.00	28.71	AV	N	Pass
6	15.056	40.13	13.64	60.00	19.87	Peak	N	Pass
6**	15.056	28.26	13.64	50.00	21.74	AV	N	Pass

Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2024.08.01	2025.07.31	<input checked="" type="checkbox"/>
LISN	SCHWARZB ECK	NSLK 8127	8127-687	2025.04.29	2026.04.28	<input checked="" type="checkbox"/>
Shielded Room	YiHeng Electronic Co., Ltd	3.5m*3.1m*2. 8m	112	2025.02.14	2028.02.13	<input checked="" type="checkbox"/>
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		<input checked="" type="checkbox"/>

## **ANNEX B TEST SETUP PHOTOS**

Please refer the document “BL-SZ2570858-AE-2.PDF”.

## **ANNEX C EUT EXTERNAL PHOTOS**

Please refer the document “BL-SZ2570858-AW.PDF”.

## **ANNEX D EUT INTERNAL PHOTOS**

Please refer the document “BL-SZ2570858-AI.PDF”.

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