

TEST REPORT

Applicant: vivo Mobile Communication Co., Ltd.
Address: No.1, vivo Road, Chang'an, Dongguan, Guangdong, China
Equipment Type: Mobile Phone
Model Name: V2434
Brand Name: vivo
FCC ID: 2AUCY-V2434
Test Standard: 47 CFR Part 15 Subpart B
ANSI C63.4-2014
Sample Arrival Date: Dec. 27, 2024
Test Date: Jan. 06, 2025 - Jan. 22, 2025
Date of Issue: Feb. 07, 2025

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Qiu Yongjing

Checked by: Liu Zhenxiang

Approved by: Tolan Tu
(Testing Director)

Qiu Yongjing

Liu Zhenxiang

Tolan Tu

Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Feb. 07, 2025</u>	<u>Initial Issue</u>

TABLE OF CONTENTS

1 GENERAL INFORMATION.....	4
1.1 Test Laboratory	4
1.2 Test Location.....	4
2 PRODUCT INFORMATION	5
2.1 Applicant Information.....	5
2.2 Manufacturer Information	5
2.3 General Description for Equipment under Test (EUT)	5
2.4 Ancillary Equipment.....	5
2.5 Technical Information	7
3 SUMMARY OF TEST RESULTS.....	8
3.1 Test Standards	8
3.2 Verdict	8
3.3 Test Uncertainty	8
4 GENERAL TEST CONFIGURATIONS	9
4.1 Test Enclosure List.....	9
4.2 Test Configurations	9
4.3 Test Setups	10
5 TEST ITEMS.....	12
5.1 Emission Tests	12
ANNEX A TEST RESULTS	17
A.1 Radiated Emission	17
A.2 Conducted Emission, AC Ports.....	32
ANNEX B TEST SETUP PHOTOS.....	39
ANNEX C EUT EXTERNAL PHOTOS.....	39

ANNEX D EUT INTERNAL PHOTOS..... 39

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	☒ Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	☐ 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.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	vivo Mobile Communication Co., Ltd.
Address	No.1, vivo Road, Chang'an, Dongguan, Guangdong, China

2.2 Manufacturer Information

Manufacturer	vivo Mobile Communication Co., Ltd.
Address	No.1, vivo Road, Chang'an, Dongguan, Guangdong, China

2.3 General Description for Equipment under Test (EUT)

EUT Name	Mobile Phone
Model Name Under Test	V2434
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	MP_0.1
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Ancillary Equipment

Ancillary Equipment 1	Battery 1	
	Brand Name	vivo
	Model No.	BA89
	Serial No.	N/A
	Capacity	6500mAh
	Rated Voltage	3.91V
	Limit Charge Voltage	4.50V
	Manufacturer	Sunwoda Electronic CO.,LTD.
Ancillary Equipment 2	Battery 2	
	Brand Name	vivo
	Model No.	BA89
	Serial No.	N/A
	Capacity	6500mAh
	Rated Voltage	3.91V
	Limit Charge Voltage	4.50V
	Manufacturer	Sunwoda Electronic CO.,LTD.
Ancillary Equipment 3	Adapter 1	

	Brand Name	vivo
	Model No.	V4440L0A0-US (US Plug)
	Serial No.	N/A
	Rated Input	100-240V~, 50/60Hz, 1.1A
	Rated Output	5.0VDC 3.0A Or 9.0VDC 2.0A Or 11.0VDC 4.0A
	Manufacturer	Dongguan Aohai Technology Co.,Ltd
Ancillary Equipment 4	Adapter 2	
	Brand Name	vivo
	Model No.	V4440L0A1-US (US Plug)
	Serial No.	N/A
	Rated Input	100-240V~, 50/60Hz, 1.1A
	Rated Output	5.0VDC 3.0A Or 9.0VDC 2.0A Or 11.0VDC 4.0A
	Manufacturer	Dongguan Aohai Technology Co.,Ltd
Ancillary Equipment 5	USB Cable	
	Model Name	BK-C-49-B
	Length (Approx.)	1.0m
Note 1: Letter in () means plug type. Note 2: All adapters are tested, only the worst data of V4440L0A0-US (US Plug) shown in this report.		

2.5 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network LTE FDD Band 2/4/5/7/13/18/19/26/66 LTE TDD Band 38/41 Bluetooth (BR+EDR+BLE) WIFI 802.11b, 802.11g, WIFI 802.11a, 802.11n(HT20/40) and 802.11ac(VHT20/40/80) GPS, GLONASS, BDS, Galileo,QZSS, SBAS
Classification of equipment	Class B
The highest internal frequency of EUT	5850 MHz

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	☒
Data connector	HBR	type-c to USB 3.0	N/A	N/A	N/A	☒
USB disk	Sandisk	CZ73-32G	N/A	N/A	32G	☒
TYPE-C Earphone	OPPO	MH156	N/A	1.12m	N/A	☒
Earphone	N/A	N/A	N/A	1.25m	N/A	☒
TF Card	Samsung	MB-MD256KA	N/A	N/A	256G	☒

4.2 Test Configurations

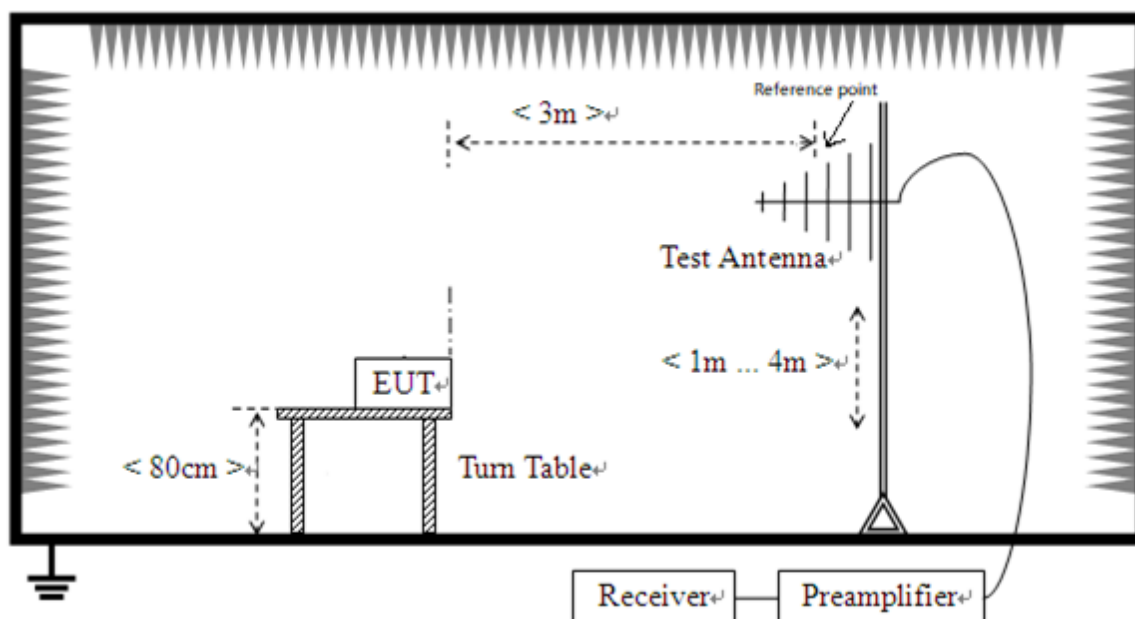
All test modes of EUT are listed in the table below.

Test Mode Configuration	Description
Mode 1	<u>The Only Charing Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card
Mode 2	<u>The Rear Camera Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card
Mode 3	<u>The Front Camera Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card
Mode 4	<u>The Video Play Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card
Mode 5	<u>The USB Test Mode</u> EUT + USB Cable + Battery + Laptop + TF Card
Mode 6	<u>The OTG Test Mode</u> EUT + Battery + Data connector + USB disk + TF Card
Mode 7	<u>The Type-C Headset Test Mode</u> EUT + Type-C Headset + Battery + TF Card

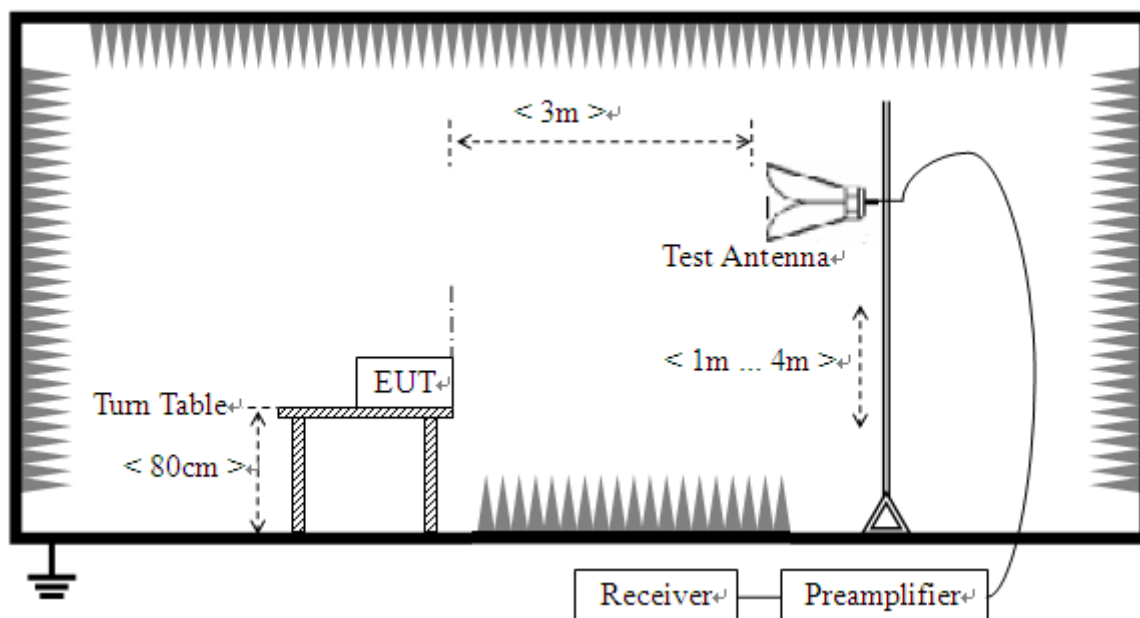
Test Case	Test Mode Configuration	Worst Mode
Radiated Emission	Mode 1~Mode 7	1, 5
Conducted Emission, AC Ports	Mode 1~Mode 5	4, 5
Note: All operation modes were tested, but only test data of the worst mode was presented in this report.		

4.3 Test Setups

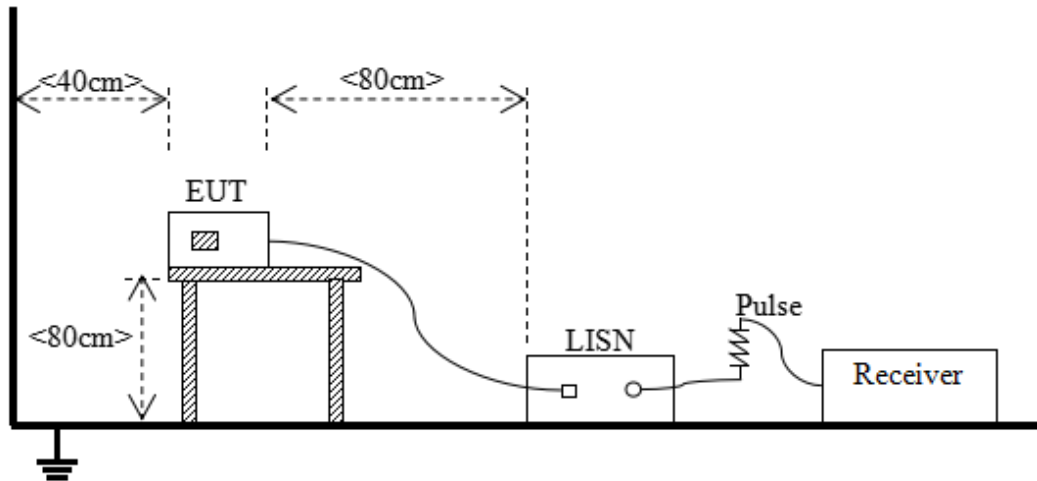
Test Setup 1



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 $\mu\text{V/m}$) = $20 \times \log [\text{Field Strength } (\mu\text{V/m})]$.
- 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_M	500	54	74	60	80

Note 1: The highest measurement frequency, F_M , in GHz, shall be determined as next Table.

Note 2: Average Class A limit at 3m L_{3m} is determined by the following conversion formula:

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

Highest internal frequency (F_X)	Highest measurement frequency (F_M)
$F_X \leq 108 \text{ MHz}$	1 GHz
$108 \text{ MHz} \leq F_X \leq 500 \text{ MHz}$	2 GHz
$500 \text{ MHz} \leq F_X \leq 1 \text{ GHz}$	5 GHz
$F_X \geq 1 \text{ GHz}$	$5 * F_X$ 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° to 360° , 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 $f \geq 1 \text{ GHz}$, 100 kHz for $f < 1 \text{ GHz}$

VBW $\geq$ RBW

Sweep = auto

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

Trace = max hold

5.1.1.4 Test Result and Test Equipment List

Please refer to ANNEX A.1.

NOTE:

1. Results (dB μ V/m) = Reading (dB μ 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 μ V)	Average (dB μ V)
0.15 - 0.50	79	66
0.50 - 30	73	60

Frequency range (MHz)	Class B	
	Quasi-peak (dB μ V)	Average (dB μ 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 Ω /50 μ 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 μ V) = Reading (dB μ 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.

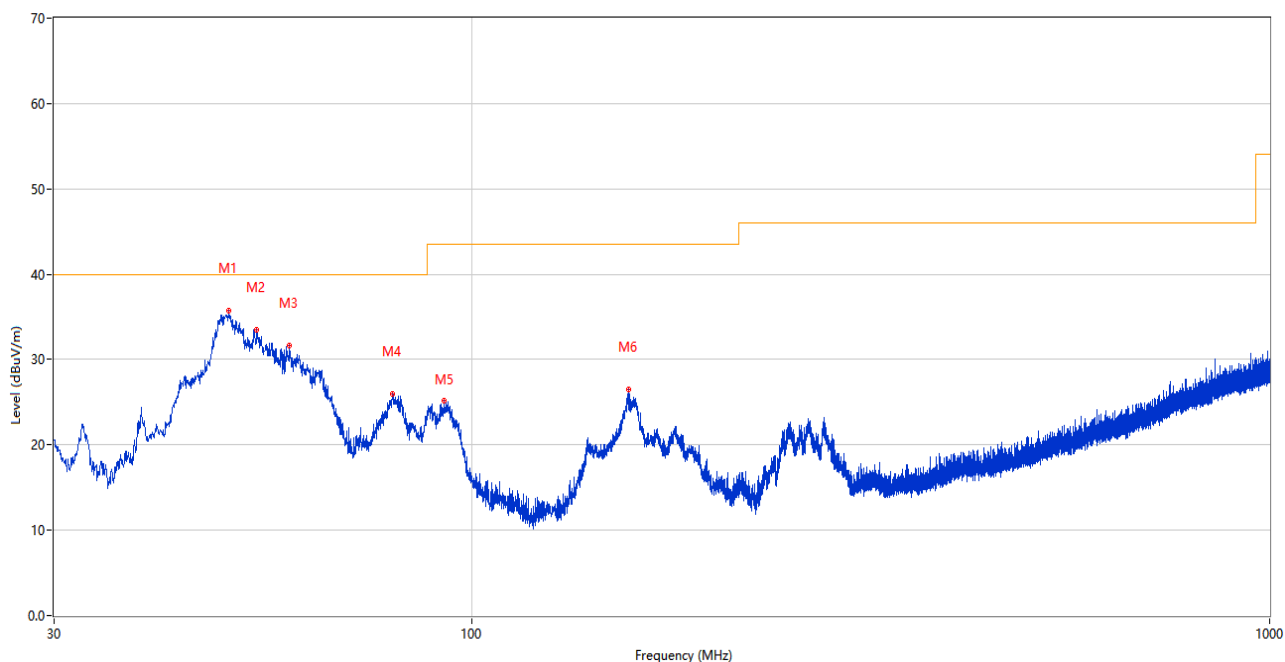
Note 3: The Radiated Emission is required to be investigated to the upper frequency of 5th harmonic of the highest internal frequency of EUT or 40 GHz, whichever is lower. The test results above 18GHz are only noise and are not recorded in the report.

Battery 1:

Sample No.	S04	Temperature	23.2℃
Humidity	41%RH	Pressure	101kPa
Test Engineer	He Shichang	Test Date	2025.01.06

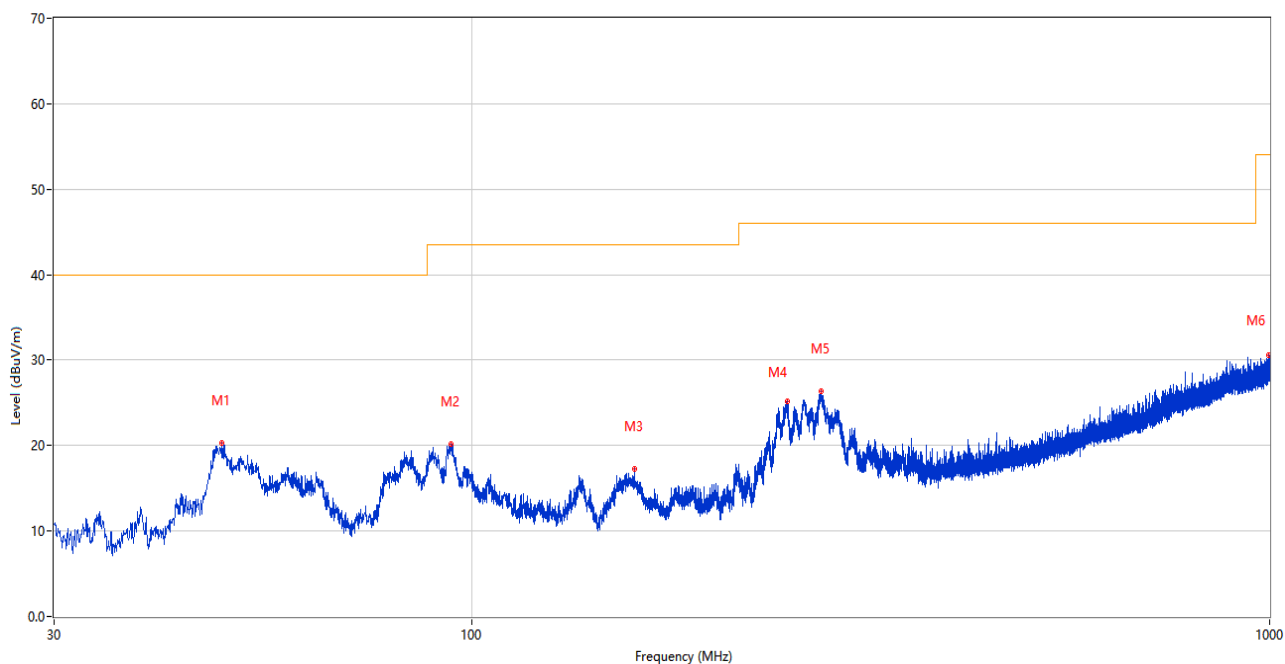
Test Mode 1

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	49.642	35.72	-25.64	40.0	4.28	Peak	0.00	100	Vertical	Pass
2	53.862	33.46	-25.07	40.0	6.54	Peak	0.00	100	Vertical	Pass
3	59.148	31.59	-26.45	40.0	8.41	Peak	31.00	100	Vertical	Pass
4	79.664	25.97	-30.93	40.0	14.03	Peak	137.00	100	Vertical	Pass
5	92.420	25.24	-28.00	43.5	18.26	Peak	162.00	100	Vertical	Pass
6	157.264	26.55	-29.76	43.5	16.95	Peak	1.00	100	Vertical	Pass

2) Test Antenna Horizontal, 30 MHz – 1 GHz



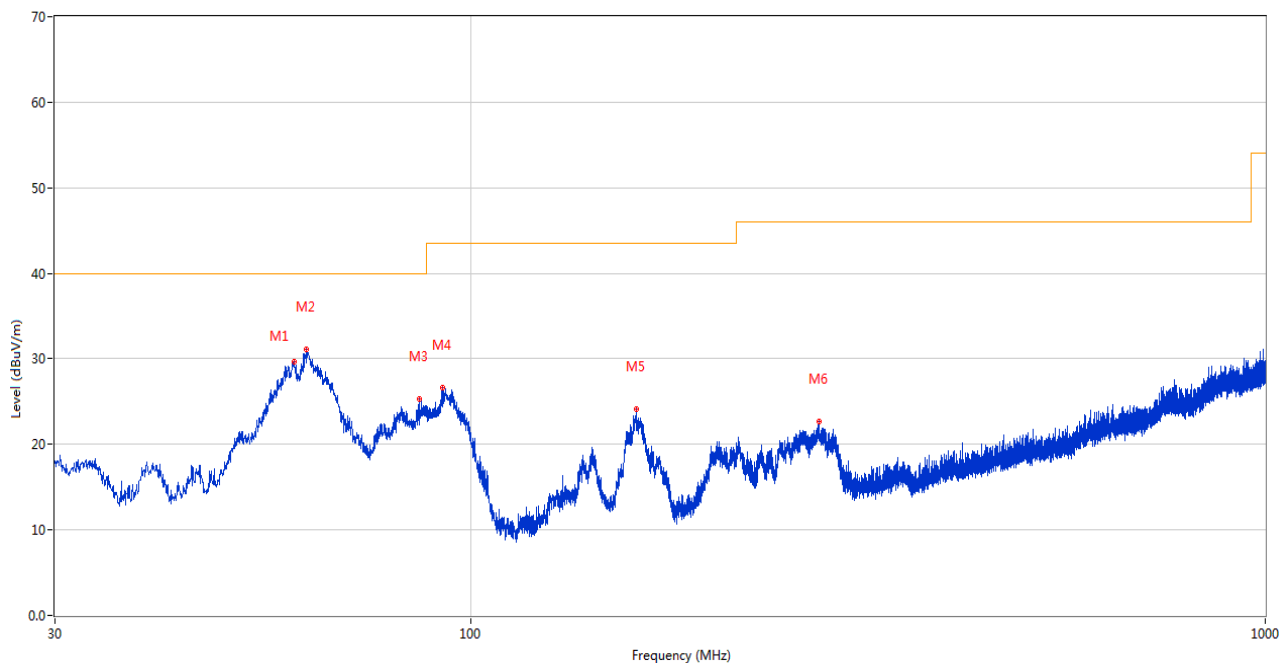
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	48.672	20.26	-25.60	40.0	19.74	Peak	50.00	100	Horizontal	Pass
2	94.214	20.21	-27.56	43.5	23.29	Peak	146.00	200	Horizontal	Pass
3	160.271	17.31	-29.57	43.5	26.19	Peak	83.00	100	Horizontal	Pass
4	248.492	25.12	-25.08	46.0	20.88	Peak	60.00	100	Horizontal	Pass
5	274.343	26.33	-24.38	46.0	19.67	Peak	249.00	100	Horizontal	Pass
6	998.302	30.59	-8.38	54.0	23.41	Peak	319.00	200	Horizontal	Pass

Battery 2:

Sample No.	S23	Temperature	24.8℃
Humidity	56%RH	Pressure	101kPa
Test Engineer	He Shichang	Test Date	2025.01.22

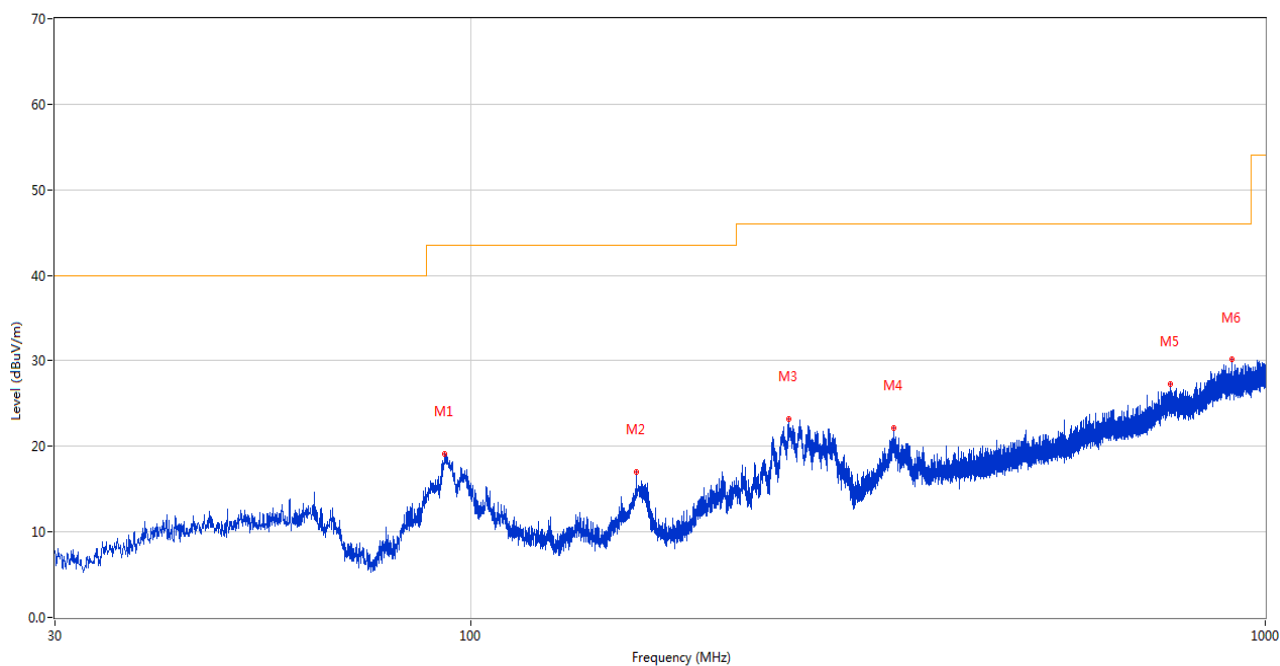
Test Mode 1

3) 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	60.070	29.65	-25.85	40.0	10.35	Peak	165.10	100	Vertical	Pass
2	62.107	31.16	-26.44	40.0	8.84	Peak	157.00	100	Vertical	Pass
3	86.163	25.27	-29.91	40.0	14.73	Peak	117.10	200	Vertical	Pass
4	92.129	26.64	-28.02	43.5	16.86	Peak	236.50	100	Vertical	Pass
5	161.484	24.07	-29.14	43.5	19.43	Peak	82.50	100	Vertical	Pass
6	274.682	22.68	-23.93	46.0	23.32	Peak	246.80	200	Vertical	Pass

4) Test Antenna Horizontal, 30 MHz – 1 GHz



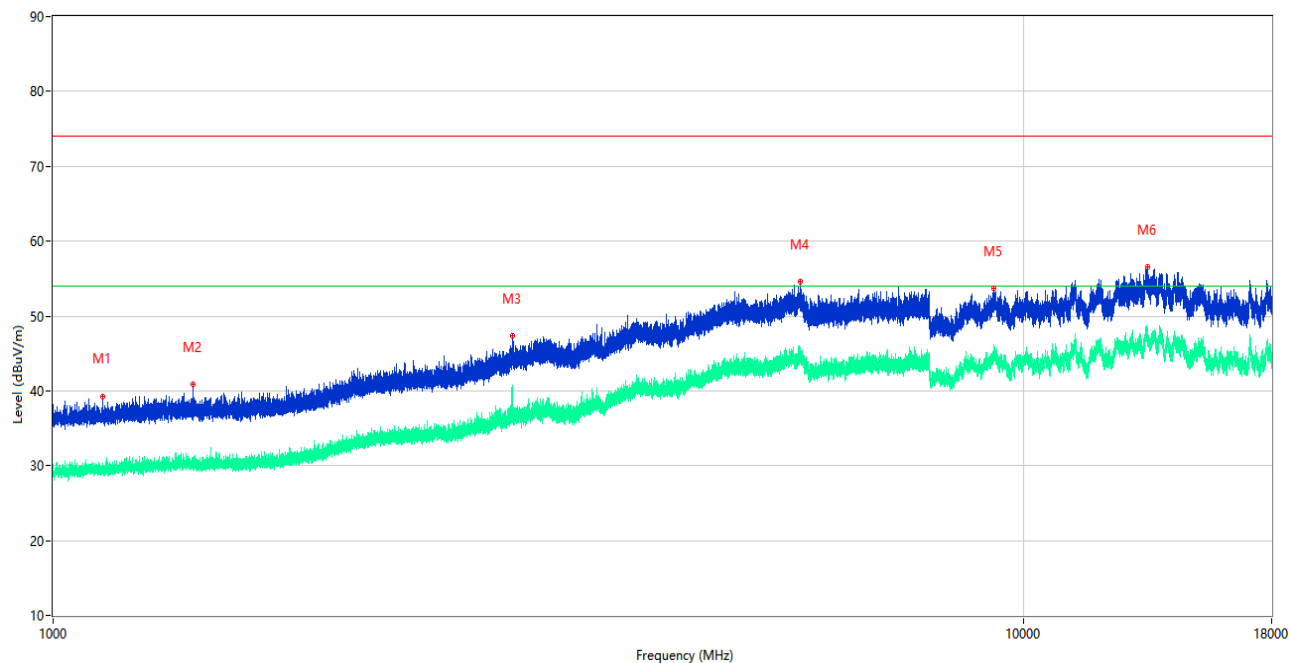
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	92.856	19.11	-27.70	43.5	24.39	Peak	24.10	200	Horizontal	Pass
2	161.823	17.01	-29.13	43.5	26.49	Peak	112.40	200	Horizontal	Pass
3	251.839	23.22	-24.21	46.0	22.78	Peak	142.90	100	Horizontal	Pass
4	340.982	22.20	-21.67	46.0	23.80	Peak	137.00	100	Horizontal	Pass
5	759.586	27.24	-11.74	46.0	18.76	Peak	186.00	200	Horizontal	Pass
6	908.771	30.13	-9.01	46.0	15.87	Peak	122.90	100	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	☒
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2024.11.28	2025.11.27	☒
Test Antenna- Bi-Log	SCHWARZB ECK	VULB 9168	9168-00867	2022.04.12	2025.04.11	☒
Anechoic Chamber (#2)	YiHeng	9m*6m*6m	142	2024.07.21	2027.07.20	☒
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		☒

Battery 1:

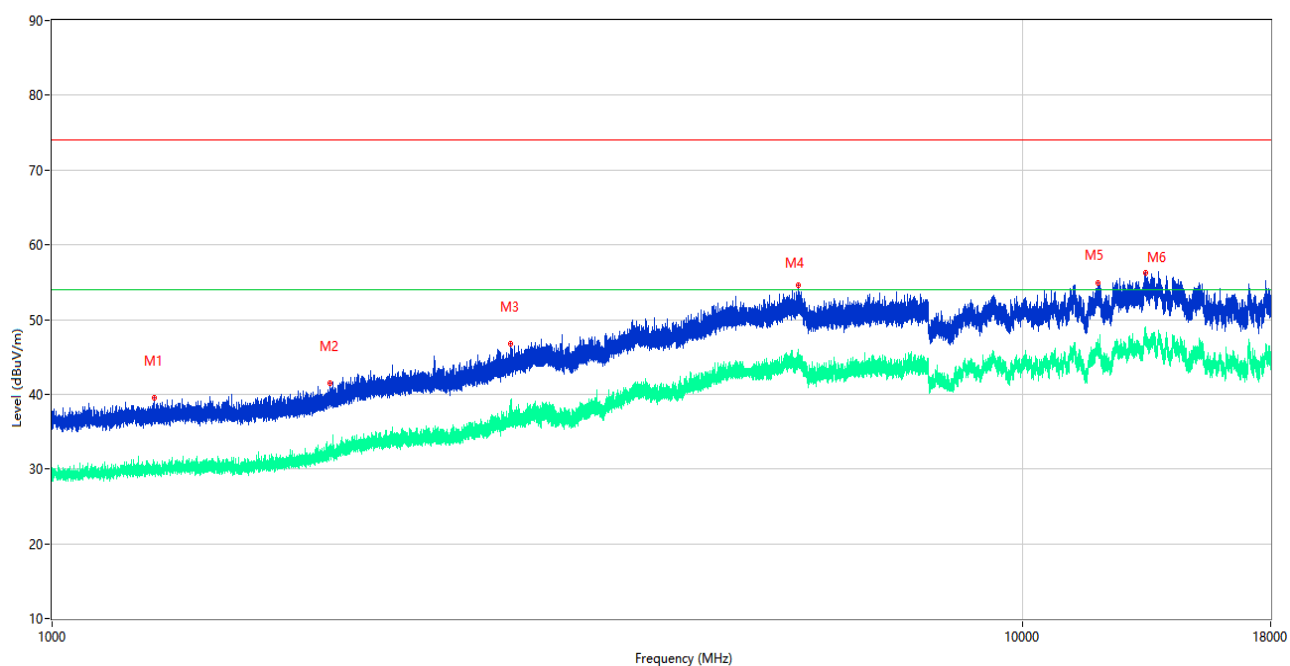
Sample No.	S04	Temperature	23.2℃
Humidity	41%RH	Pressure	101kPa
Test Engineer	He Shichang	Test Date	2025.01.06

5) Test Antenna Vertical, 1 GHz – 18 GHz



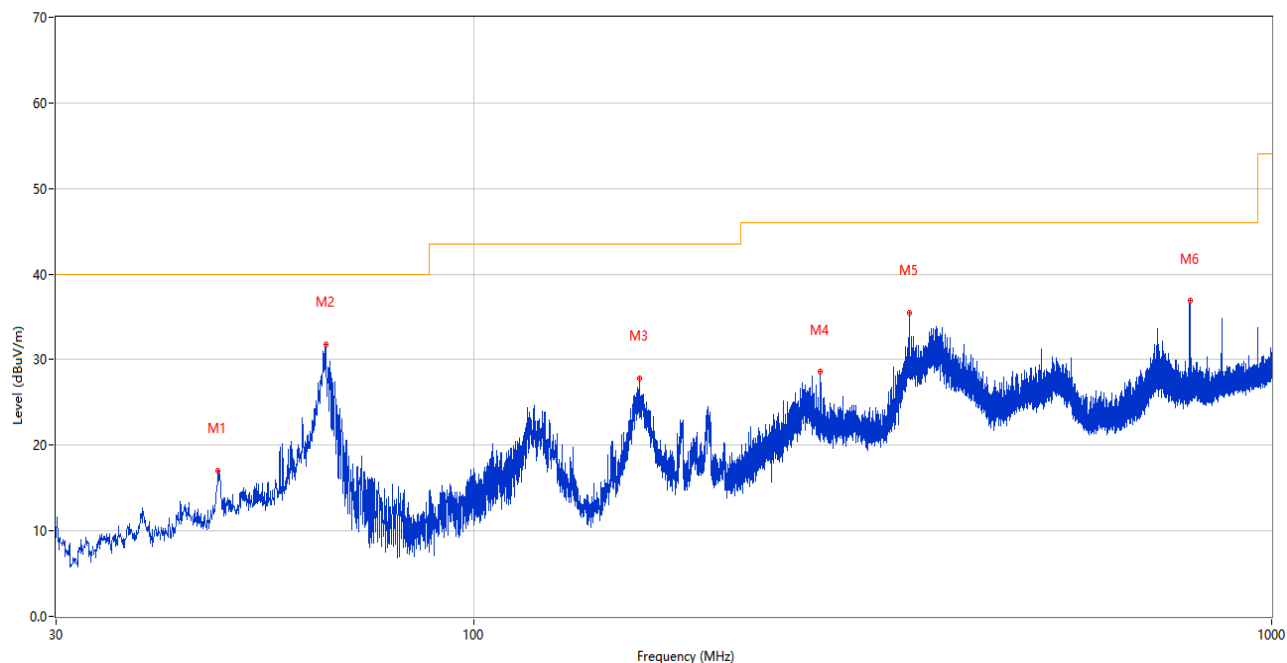
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1124.670	39.29	-15.78	74.0	34.71	Peak	75.00	100	Vertical	Pass
1**	1124.670	30.19	-15.78	54.0	23.81	AV	75.00	100	Vertical	Pass
2	1394.940	40.90	-15.33	74.0	33.10	Peak	0.00	100	Vertical	Pass
2**	1394.940	31.08	-15.33	54.0	22.92	AV	0.00	100	Vertical	Pass
3	2970.280	47.37	-6.93	74.0	26.63	Peak	12.00	100	Vertical	Pass
3**	2970.280	40.80	-6.93	54.0	13.20	AV	12.00	100	Vertical	Pass
4	5886.240	54.55	2.23	74.0	19.45	Peak	92.00	100	Vertical	Pass
4**	5886.240	44.34	2.23	54.0	9.66	AV	92.00	100	Vertical	Pass
5	9319.000	53.73	2.18	74.0	20.27	Peak	114.00	100	Vertical	Pass
5**	9319.000	45.30	2.18	54.0	8.70	AV	114.00	100	Vertical	Pass
6	13423.500	56.50	4.62	74.0	17.50	Peak	284.00	100	Vertical	Pass
6**	13423.500	47.41	4.62	54.0	6.59	AV	284.00	100	Vertical	Pass

6) Test Antenna Horizontal, 1 GHz – 18 GHz



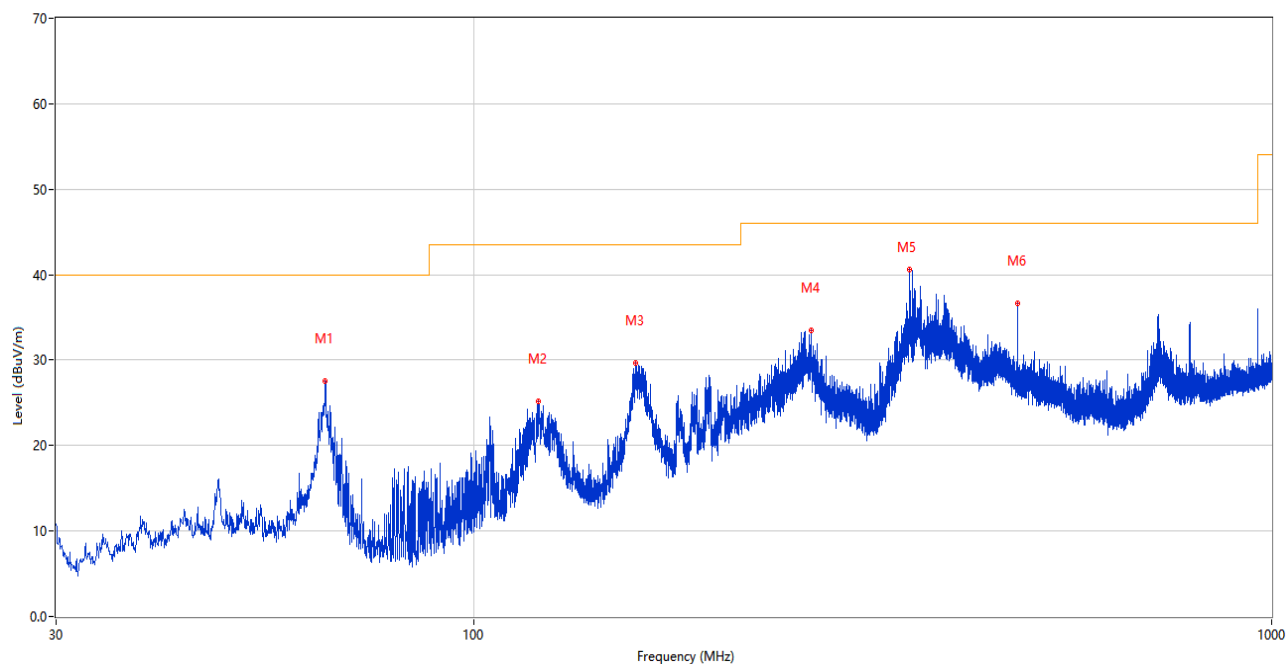
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1273.910	39.50	-15.61	74.0	34.50	Peak	172.00	100	Horizontal	Pass
1**	1273.910	30.63	-15.61	54.0	23.37	AV	172.00	100	Horizontal	Pass
2	1931.320	41.52	-13.38	74.0	32.48	Peak	249.00	100	Horizontal	Pass
2**	1931.320	32.13	-13.38	54.0	21.87	AV	249.00	100	Horizontal	Pass
3	2970.020	46.72	-6.94	74.0	27.28	Peak	86.00	100	Horizontal	Pass
3**	2970.020	39.20	-6.94	54.0	14.80	AV	86.00	100	Horizontal	Pass
4	5867.320	54.57	2.33	74.0	19.43	Peak	158.00	100	Horizontal	Pass
4**	5867.320	44.63	2.33	54.0	9.37	AV	158.00	100	Horizontal	Pass
5	11952.000	54.84	2.64	74.0	19.16	Peak	168.00	100	Horizontal	Pass
5**	11952.000	45.94	2.64	54.0	8.06	AV	168.00	100	Horizontal	Pass
6	13367.000	56.29	5.12	74.0	17.71	Peak	142.00	100	Horizontal	Pass
6**	13367.000	47.01	5.12	54.0	6.99	AV	142.00	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	☒
Amplifier (1-12GHz)	Advanced Microwave	WLA652A	1740103	2024.11.28	2025.11.27	☒
Amplifier (0.8-21GHz)	Mini-Circuits	ZVA-213-S+	225321316	2024.11.28	2025.11.27	☒
Test Antenna- Horn	SCHWARZB ECK	BBHA 9120D	01917	2022.06.09	2025.06.08	☒
Anechoic Chamber (#2)	YiHeng	9m*6m*6m	142	2024.07.21	2027.07.20	☒
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		☒

Test Mode 5**7) 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	47.897	17.06	-24.80	40.0	22.94	Peak	317.00	100	Vertical	Pass
2	65.308	31.72	-27.31	40.0	8.28	Peak	223.00	100	Vertical	Pass
3	161.290	27.87	-29.38	43.5	15.63	Peak	347.00	100	Vertical	Pass
4	272.209	28.54	-24.46	46.0	17.46	Peak	160.00	200	Vertical	Pass
5	351.749	35.42	-21.82	46.0	10.58	Peak	312.00	100	Vertical	Pass
6	790.480	36.85	-11.89	46.0	9.15	Peak	261.00	100	Vertical	Pass

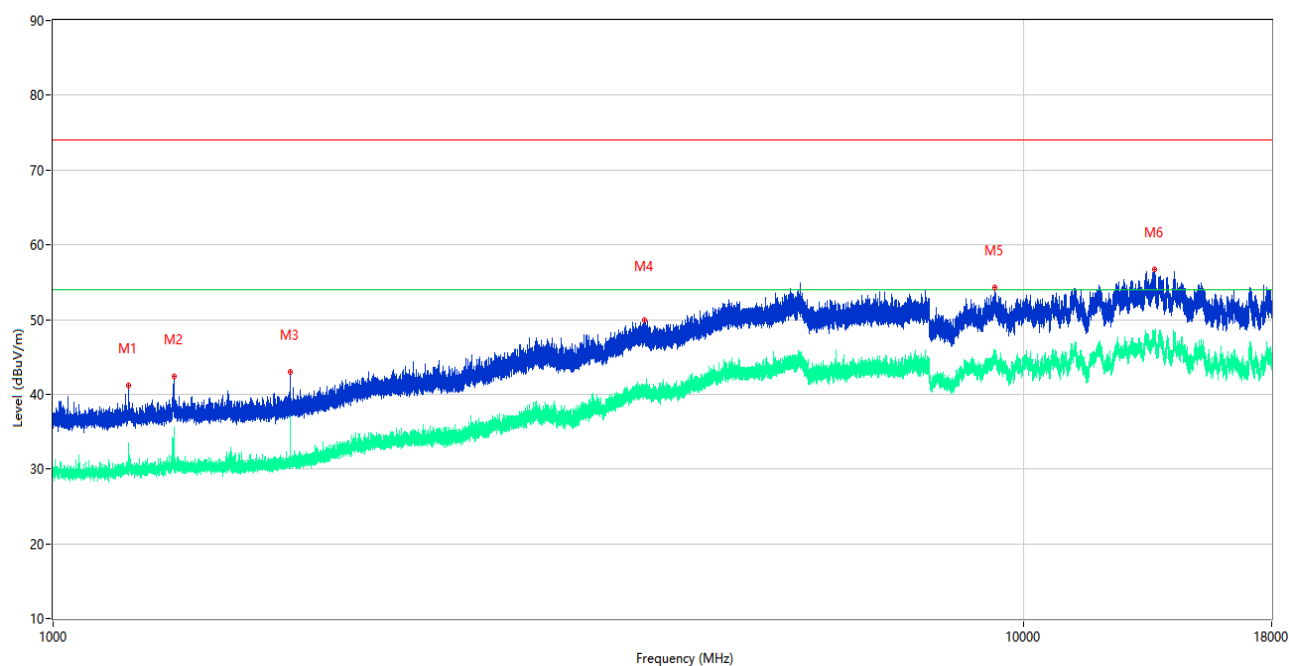
8) Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	65.211	27.52	-27.13	40.0	12.48	Peak	149.00	100	Horizontal	Pass
2	120.452	25.12	-28.65	43.5	18.38	Peak	97.00	200	Horizontal	Pass
3	159.834	29.62	-29.65	43.5	13.88	Peak	246.00	100	Horizontal	Pass
4	265.177	33.50	-24.66	46.0	12.50	Peak	255.00	100	Horizontal	Pass
5	351.991	40.58	-21.80	46.0	5.42	Peak	123.00	100	Horizontal	Pass
6	479.983	36.62	-19.17	46.0	9.38	Peak	98.00	100	Horizontal	Pass

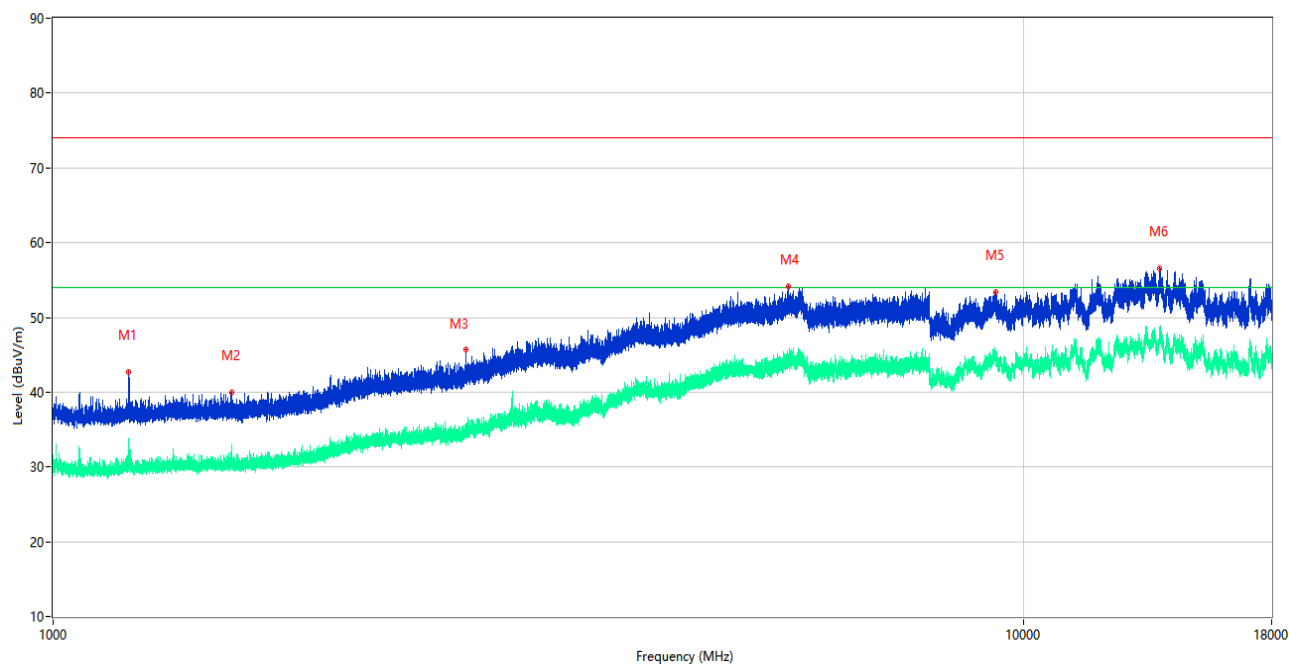
Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Below 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2024.08.01	2025.07.31	☒
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2024.11.28	2025.11.27	☒
Test Antenna- Bi-Log	SCHWARZB ECK	VULB 9168	9168-00867	2022.04.12	2025.04.11	☒
Anechoic Chamber (#2)	YiHeng	9m*6m*6m	142	2024.07.21	2027.07.20	☒
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		☒

9) 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	1195.520	41.13	-15.75	74.0	32.87	Peak	321.00	100	Vertical	Pass
1**	1195.520	29.76	-15.75	54.0	24.24	AV	321.00	100	Vertical	Pass
2	1332.150	42.42	-15.74	74.0	31.58	Peak	211.00	100	Vertical	Pass
2**	1332.150	35.45	-15.74	54.0	18.55	AV	211.00	100	Vertical	Pass
3	1755.300	42.93	-14.97	74.0	31.07	Peak	17.00	100	Vertical	Pass
3**	1755.300	31.58	-14.97	54.0	22.42	AV	17.00	100	Vertical	Pass
4	4065.300	49.85	-1.39	74.0	24.15	Peak	269.00	100	Vertical	Pass
4**	4065.300	39.65	-1.39	54.0	14.35	AV	269.00	100	Vertical	Pass
5	9335.500	54.29	2.16	74.0	19.71	Peak	285.00	100	Vertical	Pass
5**	9335.500	44.90	2.16	54.0	9.10	AV	285.00	100	Vertical	Pass
6	13628.500	56.65	4.95	74.0	17.35	Peak	11.00	100	Vertical	Pass
6**	13628.500	47.10	4.95	54.0	6.90	AV	11.00	100	Vertical	Pass

10) 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	1195.910	42.72	-15.71	74.0	31.28	Peak	149.00	100	Horizontal	Pass
1**	1195.910	30.74	-15.71	54.0	23.26	AV	149.00	100	Horizontal	Pass
2	1528.580	40.02	-15.49	74.0	33.98	Peak	140.00	100	Horizontal	Pass
2**	1528.580	30.34	-15.49	54.0	23.66	AV	140.00	100	Horizontal	Pass
3	2661.530	45.77	-9.20	74.0	28.23	Peak	86.00	100	Horizontal	Pass
3**	2661.530	34.77	-9.20	54.0	19.23	AV	86.00	100	Horizontal	Pass
4	5714.200	54.14	0.96	74.0	19.86	Peak	325.00	100	Horizontal	Pass
4**	5714.200	44.11	0.96	54.0	9.89	AV	325.00	100	Horizontal	Pass
5	9356.000	53.40	2.10	74.0	20.60	Peak	324.00	100	Horizontal	Pass
5**	9356.000	44.30	2.10	54.0	9.70	AV	324.00	100	Horizontal	Pass
6	13812.500	56.49	5.65	74.0	17.51	Peak	52.00	100	Horizontal	Pass
6**	13812.500	47.06	5.65	54.0	6.94	AV	52.00	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	☒
Amplifier (1-12GHz)	Advanced Microwave	WLA652A	1740103	2024.11.28	2025.11.27	☒
Amplifier (0.8-21GHz)	Mini-Circuits	ZVA-213-S+	225321316	2024.11.28	2025.11.27	☒
Test Antenna- Horn	SCHWARZB ECK	BBHA 9120D	01917	2022.06.09	2025.06.08	☒
Anechoic Chamber (#2)	YiHeng	9m*6m*6m	142	2024.07.21	2027.07.20	☒
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		☒

A.2 Conducted Emission, AC Ports

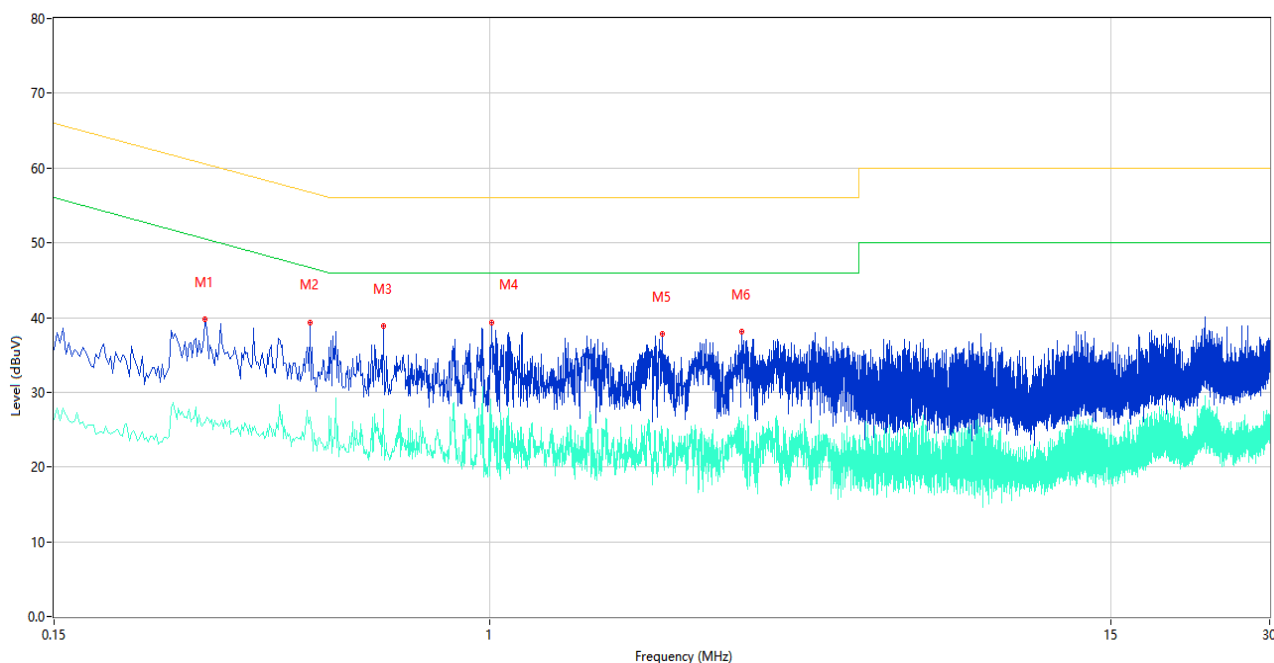
Note: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (240 VAC, 50 Hz) shown here.

Battery 1:

Sample No.	S04	Temperature	22.7°C
Humidity	43%RH	Pressure	101kPa
Test Engineer	Yang Yang	Test Date	2025.01.06

Test Mode 4

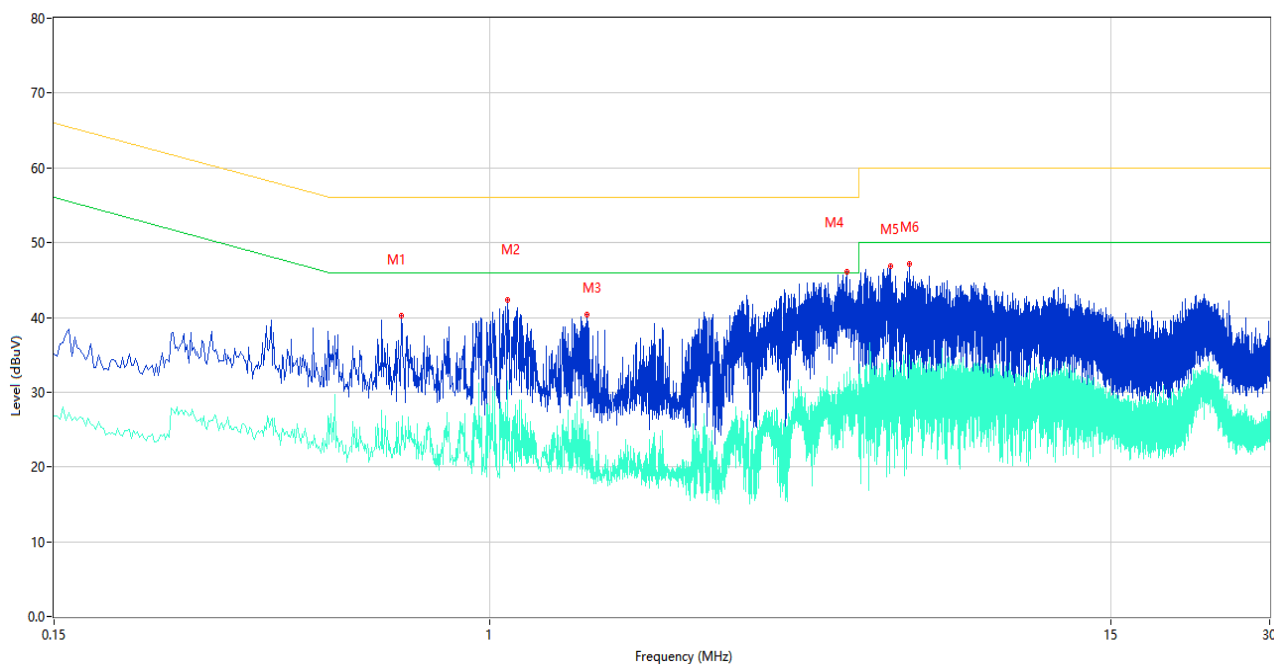
1) AC Ports - L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.290	39.73	10.04	60.52	20.79	Peak	L	Pass
1**	0.290	25.93	10.04	50.52	24.59	AV	L	Pass
2	0.458	39.39	10.51	56.73	17.34	Peak	L	Pass
2**	0.458	26.61	10.51	46.73	20.12	AV	L	Pass
3	0.630	38.82	10.44	56.00	17.18	Peak	L	Pass
3**	0.630	27.66	10.44	46.00	18.34	AV	L	Pass
4	1.012	39.37	10.29	56.00	16.63	Peak	L	Pass
4**	1.012	27.04	10.29	46.00	18.96	AV	L	Pass
5	2.126	37.77	10.71	56.00	18.23	Peak	L	Pass
5**	2.126	25.06	10.71	46.00	20.94	AV	L	Pass
6	3.010	38.05	10.81	56.00	17.95	Peak	L	Pass

6**	3.010	23.89	10.81	46.00	22.11	AV	L	Pass
-----	-------	-------	-------	-------	-------	----	---	------

2) AC Ports - N Phase



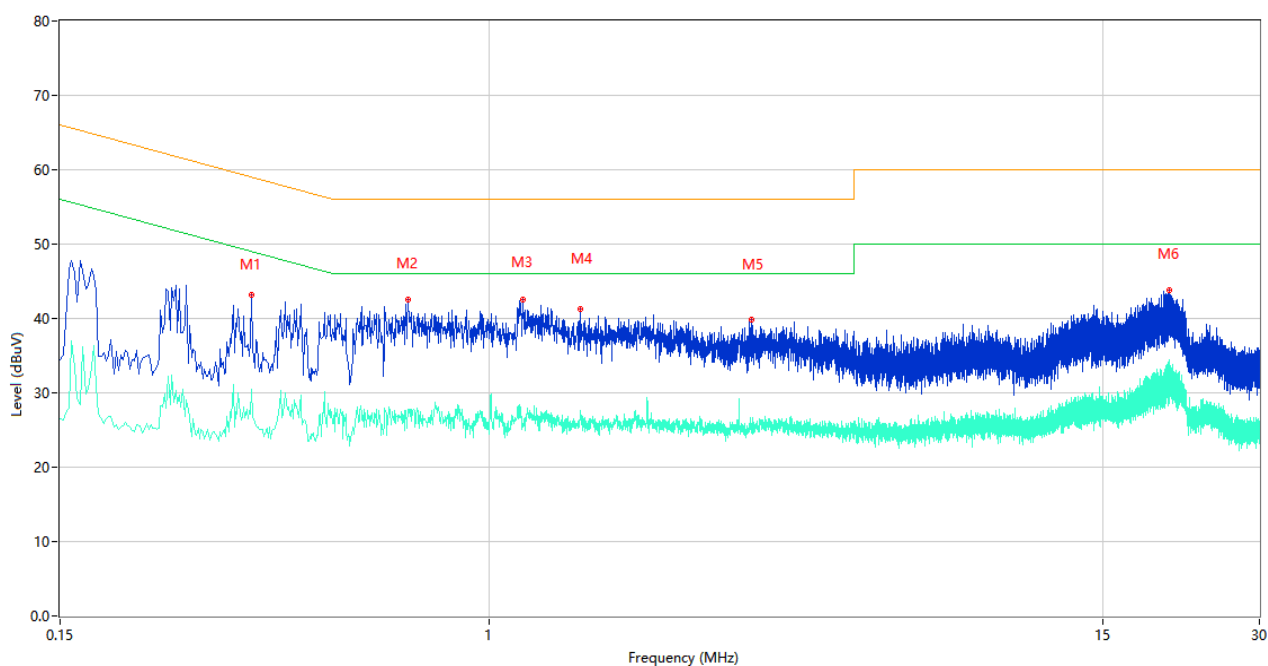
No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.682	40.19	10.59	56.00	15.81	Peak	N	Pass
1**	0.682	23.93	10.59	46.00	22.07	AV	N	Pass
2	1.082	42.26	10.40	56.00	13.74	Peak	N	Pass
2**	1.082	31.52	10.40	46.00	14.48	AV	N	Pass
3	1.530	40.36	10.51	56.00	15.64	Peak	N	Pass
3**	1.530	23.46	10.51	46.00	22.54	AV	N	Pass
4	4.748	46.08	11.09	56.00	9.92	Peak	N	Pass
4**	4.748	32.65	11.09	46.00	13.35	AV	N	Pass
5	5.738	46.85	11.38	60.00	13.15	Peak	N	Pass
5**	5.738	33.32	11.38	50.00	16.68	AV	N	Pass
6	6.248	47.12	11.41	60.00	12.88	Peak	N	Pass
6**	6.248	24.14	11.41	50.00	25.86	AV	N	Pass

Battery 1:

Sample No.	S23	Temperature	23.3℃
Humidity	49%RH	Pressure	101kPa
Test Engineer	Yang Yang	Test Date	2025.01.22

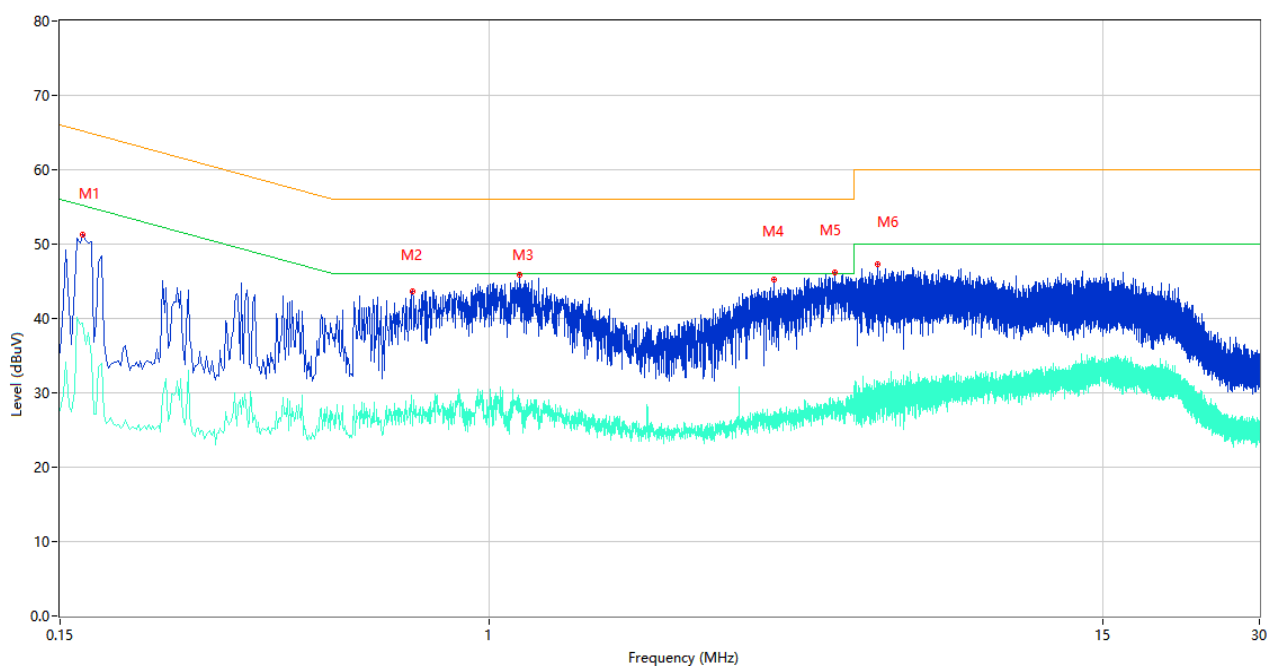
Test Mode 4

3) AC Ports - L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.350	43.14	10.76	58.96	15.82	Peak	L	Pass
1**	0.350	30.50	10.76	48.96	18.46	AV	L	Pass
2	0.698	42.53	10.64	56.00	13.47	Peak	L	Pass
2**	0.698	27.74	10.64	46.00	18.26	AV	L	Pass
3	1.160	42.58	10.29	56.00	13.42	Peak	L	Pass
3**	1.160	25.47	10.29	46.00	20.53	AV	L	Pass
4	1.492	41.24	10.24	56.00	14.76	Peak	L	Pass
4**	1.492	26.46	10.24	46.00	19.54	AV	L	Pass
5	3.178	39.78	10.18	56.00	16.22	Peak	L	Pass
5**	3.178	25.73	10.18	46.00	20.27	AV	L	Pass
6	20.196	43.75	10.86	60.00	16.25	Peak	L	Pass
6**	20.196	33.31	10.86	50.00	16.69	AV	L	Pass

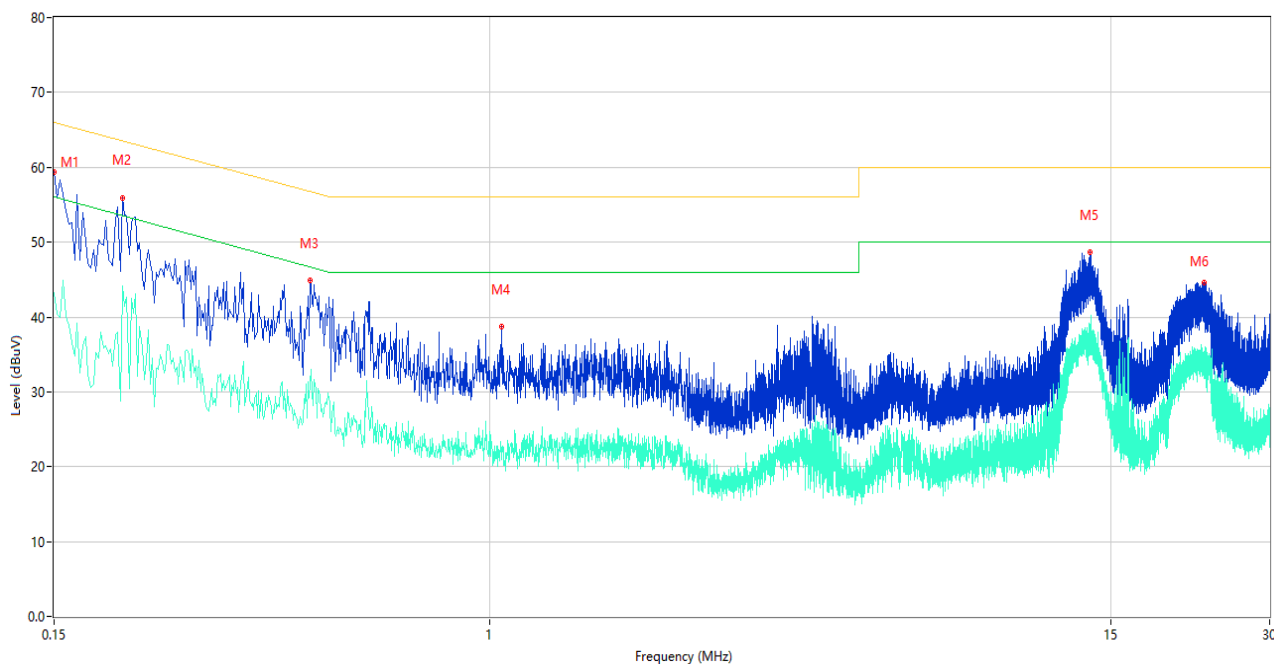
4) AC Ports - N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.166	51.22	9.78	65.16	13.94	Peak	N	Pass
1**	0.166	39.30	9.78	55.16	15.86	AV	N	Pass
2	0.712	43.63	10.53	56.00	12.37	Peak	N	Pass
2**	0.712	25.51	10.53	46.00	20.49	AV	N	Pass
3	1.140	45.86	10.33	56.00	10.14	Peak	N	Pass
3**	1.140	29.14	10.33	46.00	16.86	AV	N	Pass
4	3.508	45.30	10.10	56.00	10.70	Peak	N	Pass
4**	3.508	26.64	10.10	46.00	19.36	AV	N	Pass
5	4.590	46.24	10.57	56.00	9.76	Peak	N	Pass
5**	4.590	28.71	10.57	46.00	17.29	AV	N	Pass
6	5.544	47.31	10.52	60.00	12.69	Peak	N	Pass
6**	5.544	30.68	10.52	50.00	19.32	AV	N	Pass

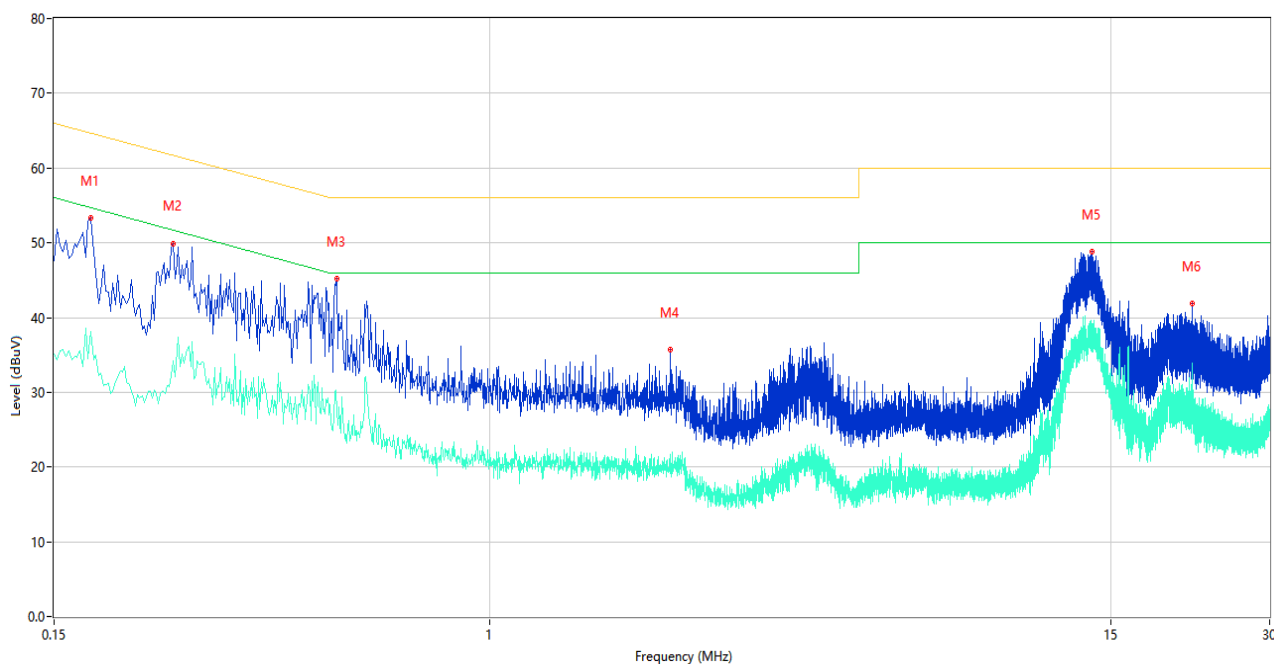
Test Mode 5

5) AC Ports - L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.150	59.31	10.13	66.00	6.69	Peak	L	Pass
1**	0.150	43.30	10.13	56.00	12.70	AV	L	Pass
2	0.202	55.94	10.03	63.53	7.59	Peak	L	Pass
2**	0.202	44.15	10.03	53.53	9.38	AV	L	Pass
3	0.458	44.90	10.51	56.73	11.83	Peak	L	Pass
3**	0.458	31.22	10.51	46.73	15.51	AV	L	Pass
4	1.054	38.73	10.18	56.00	17.27	Peak	L	Pass
4**	1.054	22.60	10.18	46.00	23.40	AV	L	Pass
5	13.686	48.64	13.28	60.00	11.36	Peak	L	Pass
5**	13.686	34.88	13.28	50.00	15.12	AV	L	Pass
6	22.526	44.66	15.59	60.00	15.34	Peak	L	Pass
6**	22.526	33.98	15.59	50.00	16.02	AV	L	Pass

6) AC Ports - N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.176	53.26	10.06	64.67	11.41	Peak	N	Pass
1**	0.176	38.16	10.06	54.67	16.51	AV	N	Pass
2	0.252	49.93	10.03	61.69	11.76	Peak	N	Pass
2**	0.252	34.26	10.03	51.69	17.43	AV	N	Pass
3	0.514	45.22	10.35	56.00	10.78	Peak	N	Pass
3**	0.514	27.60	10.35	46.00	18.40	AV	N	Pass
4	2.204	35.64	10.66	56.00	20.36	Peak	N	Pass
4**	2.204	21.64	10.66	46.00	24.36	AV	N	Pass
5	13.820	48.85	13.27	60.00	11.15	Peak	N	Pass
5**	13.820	38.17	13.27	50.00	11.83	AV	N	Pass
6	21.410	41.86	15.32	60.00	18.14	Peak	N	Pass
6**	21.410	33.77	15.32	50.00	16.23	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	☒
LISN	SCHWARZB ECK	NSLK 8127	8127-687	2024.05.09	2025.05.08	☒
ISN	TESEQ	ISN T800	34449	2024.11.06	2025.11.05	☐
ISN	TESEQ	ISN T8-Cat6	53561	2024.04.24	2025.04.23	☐
Shielded Room	YiHeng Electronic Co., Ltd	3.5m*3.1m*2. 8m	112	2022.02.19	2025.02.18	☒
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		☒

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ24C1475-AE.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ24C1475-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ24C1475-AI.PDF”.

Statement

1. The laboratory guarantees the scientificity, accuracy and impartiality of the test, and is responsible for all the information in the report, except the information provided by the customer. The customer is responsible for the impact of the information provided on the validity of the results.
2. The report without China inspection body and laboratory Mandatory Approval (CMA) mark has no effect of proving to the society.
3. For the report with CNAS mark or A2LA mark, the items marked with "☆" are not within the accredited scope.
4. This report is invalid if it is altered, without the signature of the testing and approval personnel, or without the "inspection and testing dedicated stamp" or test report stamp.
5. The test data and results are only valid for the tested samples provided by the customer.
6. This report shall not be partially reproduced without the written permission of the laboratory.
7. Any objection shall be raised to the laboratory within 30 days after receiving the report.

--END OF REPORT--