

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: 25057RN09G
Brand Name: Redmi
FCC ID 2AFZZRN09G
Test Standard: 47 CFR Part 15 Subpart B
ANSI C63.4-2014
Sample Arrival Date: May. 13, 2025
Test Date: May. 19, 2023 - May. 21, 2025
Date of Issue: Jun. 18, 2025

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

**Tested by:** Li JunFeng*Li JunFeng***Checked by:** Liu Zhenxiang*Liu zhen xiang***Approved by:** Tolan Tu
(Technical Director)*Tolan Tu*

Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Jun. 18, 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	6
2.5	Technical Information	6
3	SUMMARY OF TEST RESULTS	7
3.1	Test Standards	7
3.2	Verdict	7
3.3	Test Uncertainty	7
4	GENERAL TEST CONFIGURATIONS	8
4.1	Test Enclosure List	8
4.2	Test Configurations	8
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	30
ANNEX B	TEST SETUP PHOTOS	36
ANNEX C	EUT EXTERNAL PHOTOS	36

ANNEX D	EUT INTERNAL PHOTOS.....	36
---------	--------------------------	----

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. 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	25057RN09G
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	135300O19
Software Version	Xiaomi HyperOS 2.0
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A
EUT ID	S52, S38, S47, S37, S54, S49
IMEI Number	S52: IMEI1: 868392070056462; IMEI2: 868392070056470
	S38: IMEI1: 868392070052669; IMEI2: 868392070052677
	S47: IMEI1: 868392070051760; IMEI2: 868392070051778
	S37: IMEI1: 868392070084183; IMEI2: 868392070084191
	S54: IMEI1: 868392070065448; IMEI2: 868392070065455
	S49: IMEI1: 868392070081544; IMEI2: 868392070081551

2.4 Ancillary Equipment

Please refer the document “BL-SZ2550149-AW EUT external photo.pdf”.

2.5 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 3G Network WCDMA/HSDPA/HSUPA/HSPA+ Band 2/4/5 4G: LTE FDD B2/ 4/ 5/ 7/ 12/ 13/ 17/ 18/19/26/ 66/ 71 4G: LTE TDD B38/41/42/48 ULCA: CA_38C/ CA_7C/ CA_2A-4A/ CA_4A-5A/ CA_4A-7A/ CA_2A-7A 5G NR SA: n2/ 5/ 7/ 12/ 26/ 38/ 41/ 48/ 66/71/ 77/ 78 5G NR NSA: DC_2A_n78A/ DC_2A_n66A/ DC_2A_n77A/ DC_2A_n38A/ DC_2A_n41A/ DC_4A_n7A/ DC_4A_n38A/ DC_4A_n41A/ DC_4A_n78A/ DC_5A_n7A/ DC_5A_n78A/ DC_5A_n41A/ DC_5A_n66A/ DC_7A_n78A/ DC_7A_n5A/ DC_18A_n77A DC_19A_n78A/ DC_26A_n78A/ DC_66A_n38A/DC_66A_n41A/DC_66A_n78A/DC_66A_n7A DC_38A_n78A/ DC_41A_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) GNSS, NFC
Classification of equipment	Class B

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	☒
Phone holder	Xiaomi	N/A	N/A	N/A	N/A	☒
Earphone	Xiaomi	EM023	N/A	1.25m	N/A	☒
TF Card	Samsung	MB-MD256KA	N/A	N/A	256G	☒
Wireless Communication s Test Set	R&S	CMW500	121551	N/A	Cal. Due 2026.03.21	☒
5G Comprehensive Tester	Keysight	E7515B	N/A	N/A	Cal. Due 2025.08.11	☒

4.2 Test Configurations

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

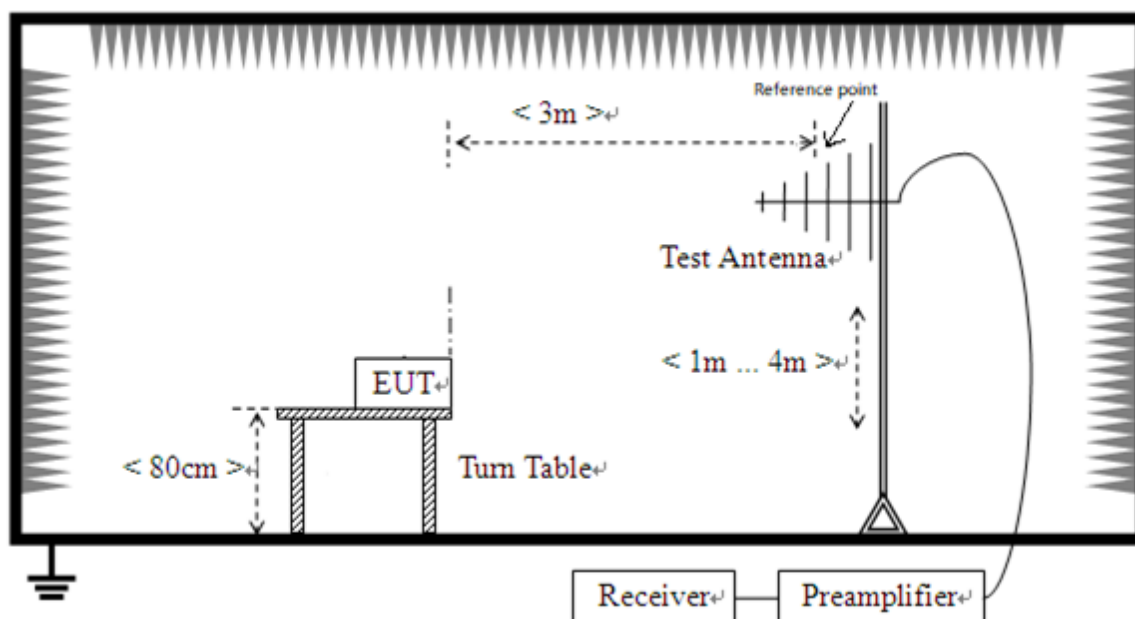
Test Mode Configuration	Description
Mode 1	<u>The Charging Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card
Mode 2	<u>The Front Camera Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card
Mode 3	<u>The Back Camera Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card
Mode 4	<u>The Video Play 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 Band26 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + LTE Band26 RX
Mode 13	<u>The FDD LTE Band71 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + LTE Band71 RX
Mode 14	<u>The n5 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + n5 RX
Mode 15	<u>The n12 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + n12 RX
Mode 16	<u>The n26 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + n26 RX
Mode 17	<u>The n71 RX Test Mode</u> EUT + Adapter + USB Cable + Battery + TF Card + n71 RX
Mode 18	<u>The Video Display Test Mode with internal speaker</u> EUT + Battery
Mode 19	<u>The USB Test Mode</u> EUT + USB Cable + Battery + Laptop + TF Card
Mode 20	<u>The OTG Test Mode</u> EUT + Battery + Data connector + USB disk + TF Card
Mode 21	<u>The Earphone Test Mode</u> EUT + Battery + Earphone

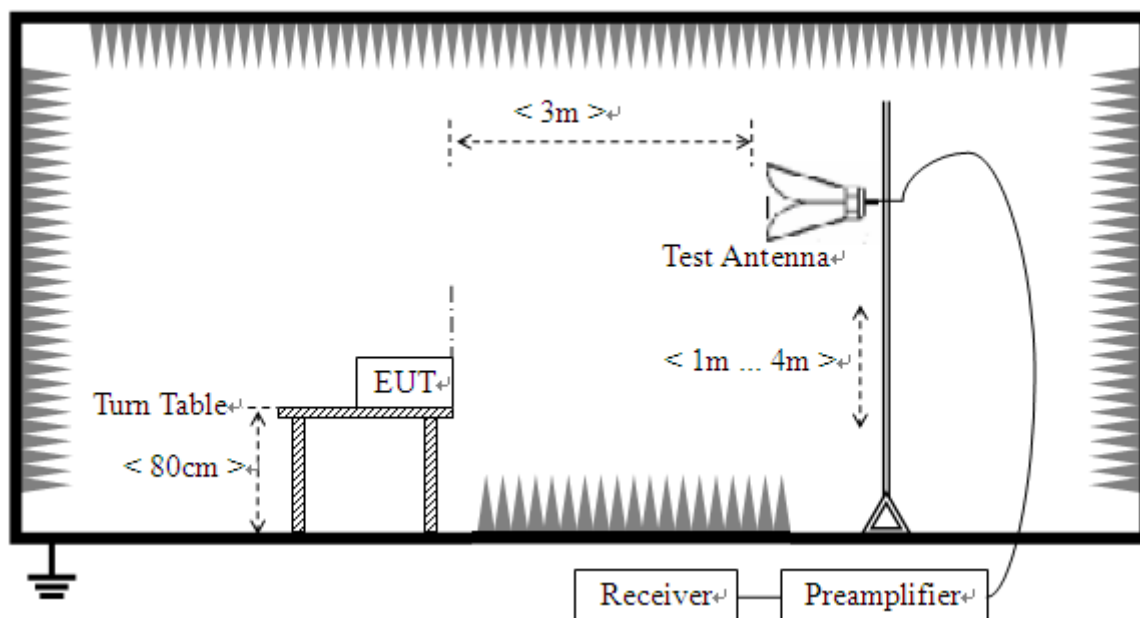
Test Case	Test Mode Configuration	Worst Mode
Radiated Emission	Mode 1~Mode 21	4, 19
Conducted Emission, AC Ports	Mode 1~Mode 17, Mode 19	4, 19
Note: All operation modes were tested, but only test data of the worst mode was presented in this report.		

4.3 Test Setups

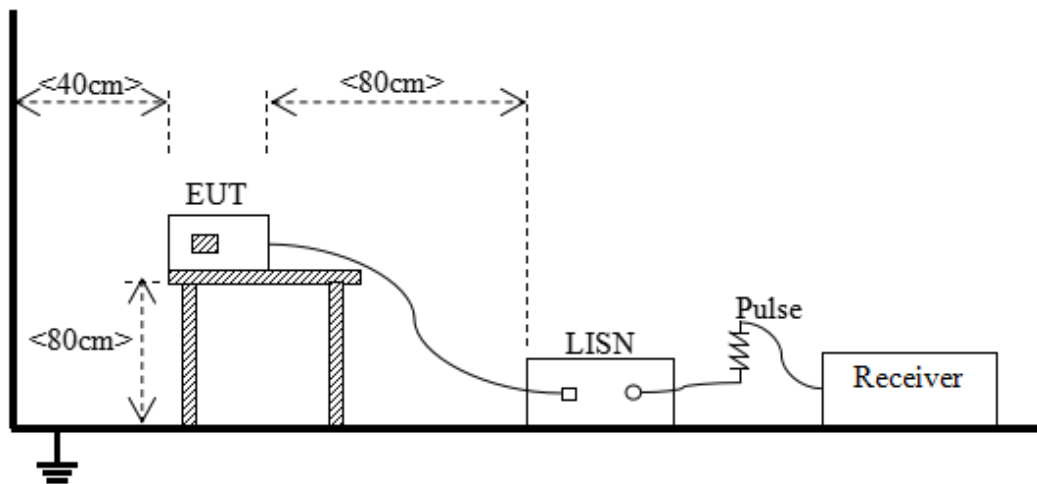
Test Setup 1



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 $\mu\text{V/m}$) = $20 \cdot \log [\text{Field Strength } (\mu\text{V/m})]$.
- 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:

$$L_{3m} = L_{10m} + 20 \cdot \log(d_{10m}/d_{3m})$$
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: $L_{3m} = 49.5 + 20 \cdot \log(10/3) = 60$ (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.

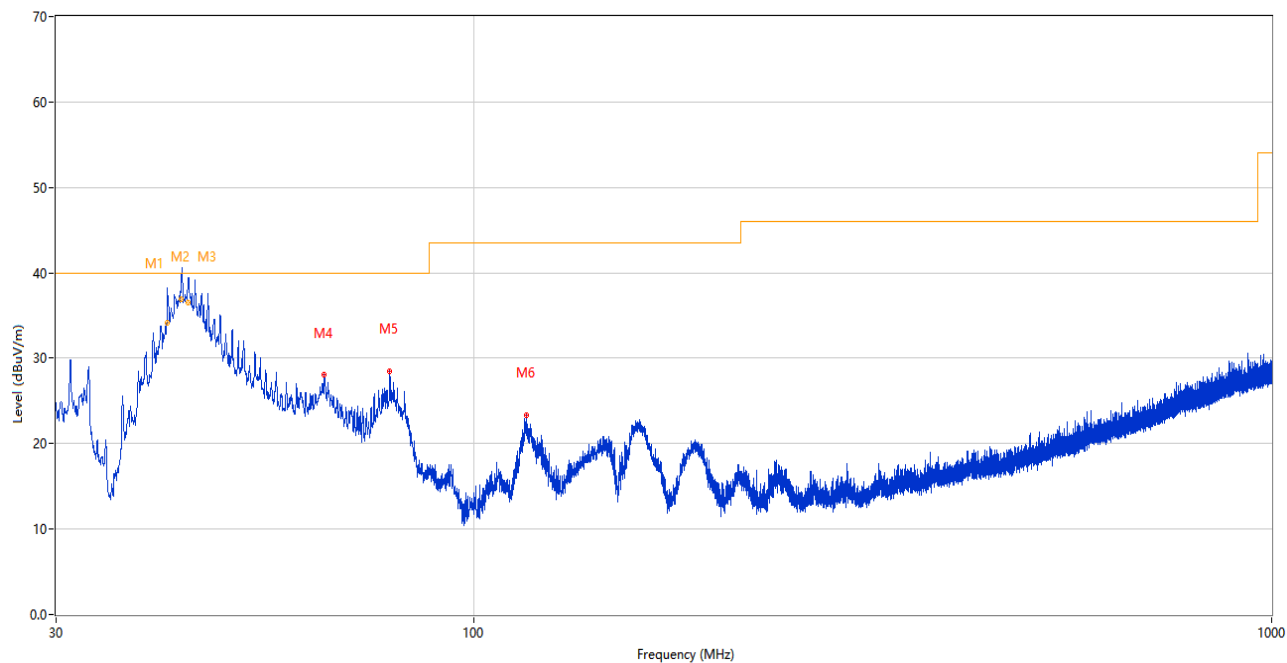
Note 2: For the test data above 1 GHz, according the ANSI C63.4-2014, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

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.

Sample No.	S38	Temperature	22.7℃
Humidity	39%RH	Pressure	101kPa
Test Engineer	Chen Jingran	Test Date	2025.05.19

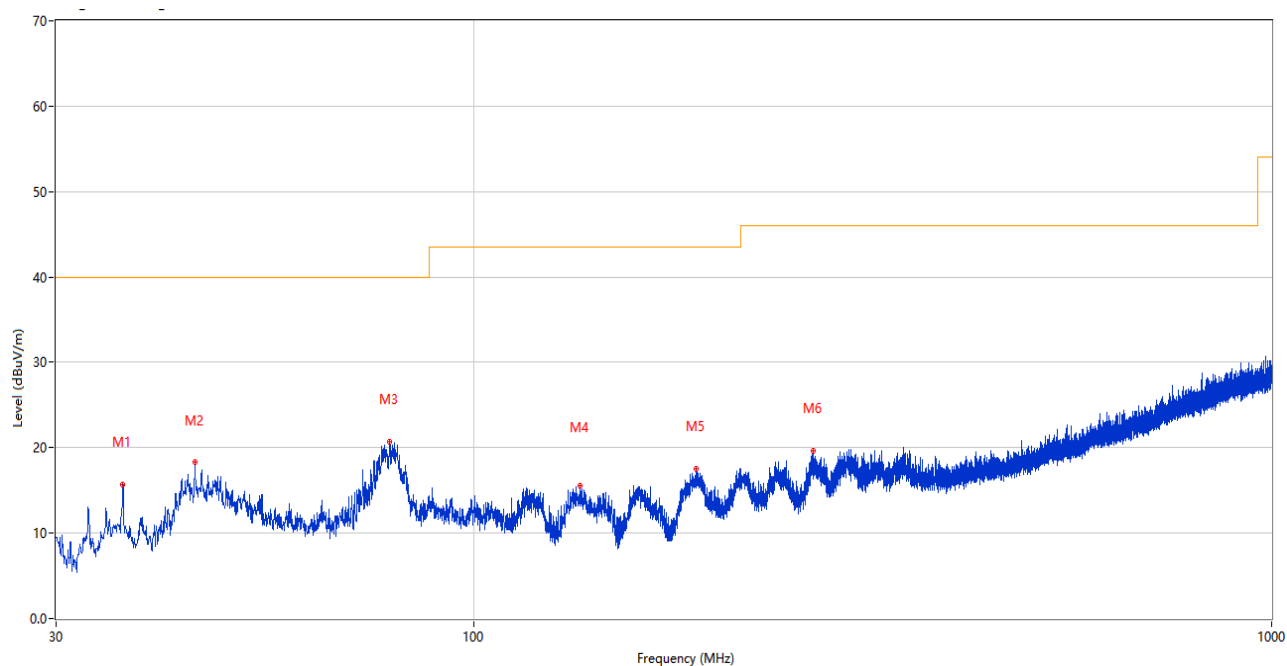
Test Mode 4

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	41.380	38.96	-26.56	40.0	1.04	Peak	235.00	101	Vertical	N/A
1*	41.380	34.19	-26.56	40.0	5.81	QP	235.00	101	Vertical	Pass
2	43.076	41.10	-25.37	40.0	-1.10	Peak	82.00	101	Vertical	N/A
2*	43.076	36.90	-25.37	40.0	3.10	QP	82.00	101	Vertical	Pass
3	43.903	40.66	-25.54	40.0	-0.66	Peak	98.00	101	Vertical	N/A
3*	43.903	36.58	-25.54	40.0	3.42	QP	98.00	101	Vertical	Pass
4	64.969	28.02	-26.68	40.0	11.98	Peak	327.00	100	Vertical	Pass
5	78.597	28.47	-31.14	40.0	11.53	Peak	133.00	100	Vertical	Pass
6	116.524	23.32	-27.52	43.5	20.18	Peak	312.00	100	Vertical	Pass

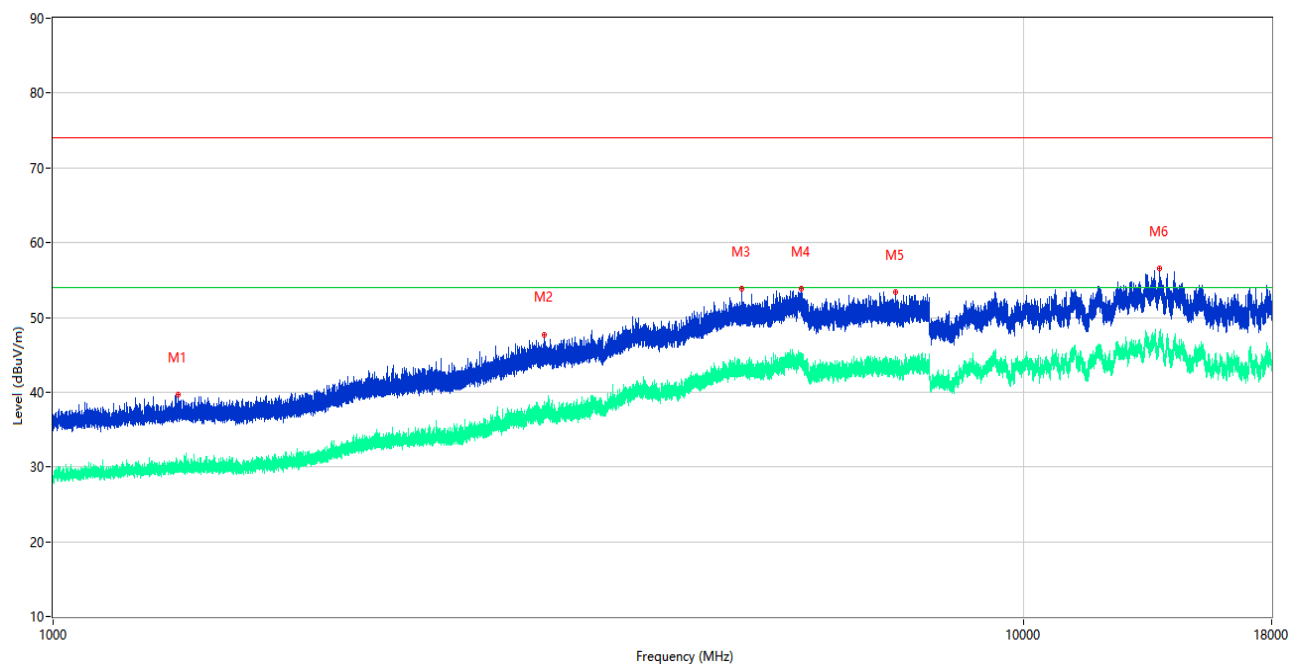
2) Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	36.353	15.66	-27.29	40.0	24.34	Peak	349.00	200	Horizontal	Pass
2	44.792	18.26	-26.17	40.0	21.74	Peak	3.00	200	Horizontal	Pass
3	78.500	20.71	-31.15	40.0	19.29	Peak	114.00	200	Horizontal	Pass
4	135.972	15.53	-30.09	43.5	27.97	Peak	110.00	200	Horizontal	Pass
5	190.244	17.53	-27.27	43.5	25.97	Peak	262.00	200	Horizontal	Pass
6	266.777	19.64	-24.63	46.0	26.36	Peak	92.00	100	Horizontal	Pass

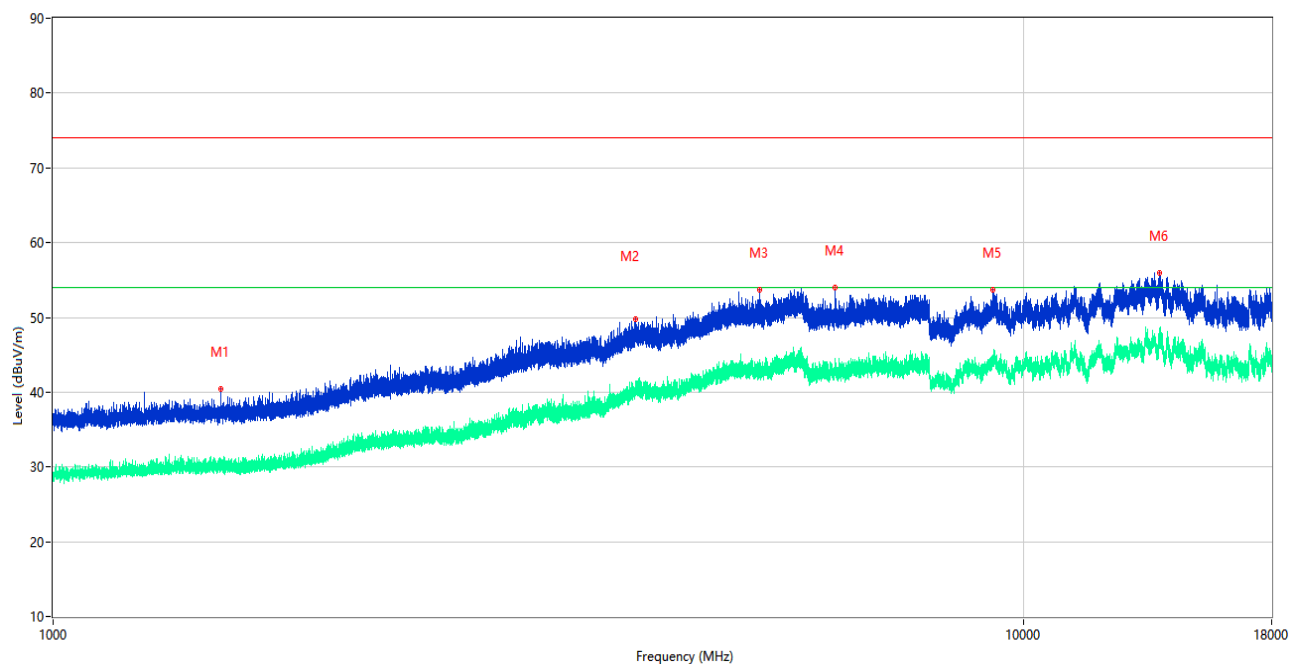
Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Below 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2024.08.01	2025.07.31	☒
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2024.11.28	2025.11.27	☒
Test Antenna- Bi-Log	SCHWARZB ECK	VULB 9168	00867	2025.04.12	2028.04.11	☒
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	/		☒

3) Test Antenna Vertical, 1 GHz – 18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1345.150	39.62	-15.51	74.0	34.38	Peak	296.00	100	Vertical	Pass
1**	1345.150	30.10	-15.51	54.0	23.90	AV	296.00	100	Vertical	Pass
2	3205.450	47.72	-6.06	74.0	26.28	Peak	360.00	100	Vertical	Pass
2**	3205.450	36.98	-6.06	54.0	17.02	AV	360.00	100	Vertical	Pass
3	5121.300	53.82	-0.05	74.0	20.18	Peak	76.00	100	Vertical	Pass
3**	5121.300	43.47	-0.05	54.0	10.53	AV	76.00	100	Vertical	Pass
4	5893.500	53.81	2.19	74.0	20.19	Peak	141.00	100	Vertical	Pass
4**	5893.500	43.96	2.19	54.0	10.04	AV	141.00	100	Vertical	Pass
5	7375.860	53.42	0.13	74.0	20.58	Peak	39.00	100	Vertical	Pass
5**	7375.860	43.43	0.13	54.0	10.57	AV	39.00	100	Vertical	Pass
6	13801.500	56.52	5.79	74.0	17.48	Peak	311.00	100	Vertical	Pass
6**	13801.500	47.19	5.79	54.0	6.81	AV	311.00	100	Vertical	Pass

4) Test Antenna Horizontal, 1 GHz – 18 GHz



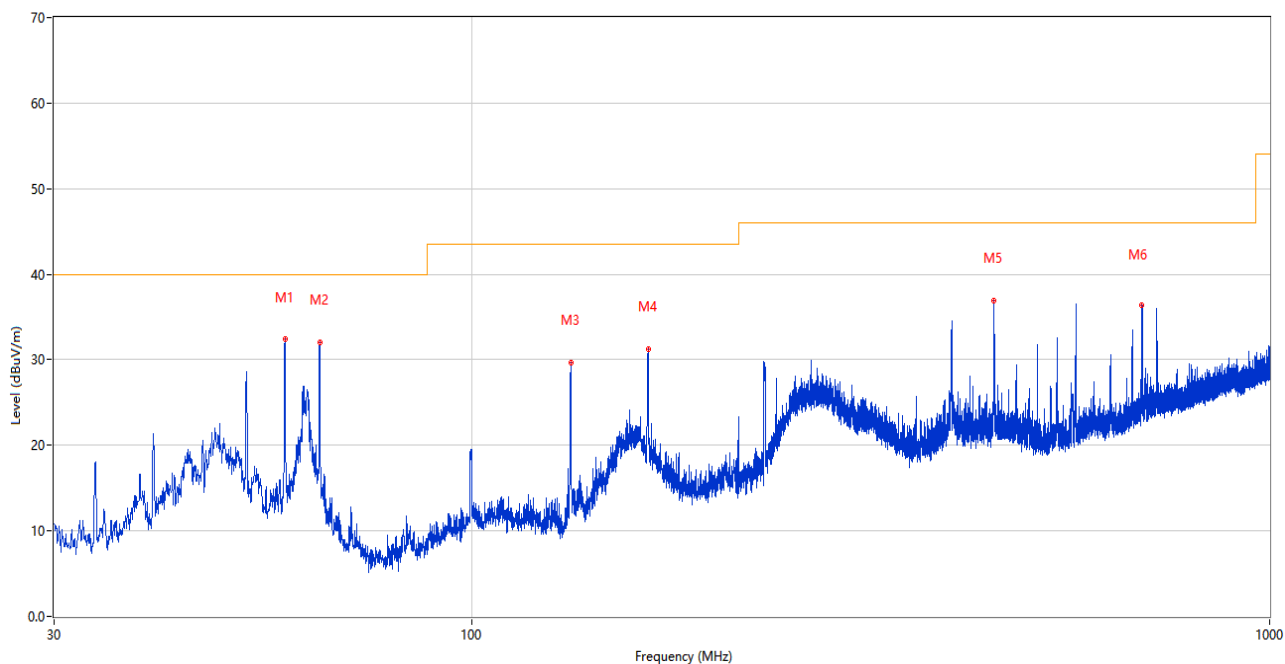
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1487.240	40.43	-15.53	74.0	33.57	Peak	135.00	100	Horizontal	Pass
1**	1487.240	30.33	-15.53	54.0	23.67	AV	135.00	100	Horizontal	Pass
2	3979.940	49.76	-1.73	74.0	24.24	Peak	269.00	100	Horizontal	Pass
2**	3979.940	40.17	-1.73	54.0	13.83	AV	269.00	100	Horizontal	Pass
3	5346.140	53.73	0.90	74.0	20.27	Peak	82.00	100	Horizontal	Pass
3**	5346.140	43.48	0.90	54.0	10.52	AV	82.00	100	Horizontal	Pass
4	6392.680	54.03	0.47	74.0	19.97	Peak	82.00	100	Horizontal	Pass
4**	6392.680	43.48	0.47	54.0	10.52	AV	82.00	100	Horizontal	Pass
5	9280.000	53.72	1.90	74.0	20.28	Peak	29.00	100	Horizontal	Pass
5**	9280.000	43.94	1.90	54.0	10.06	AV	29.00	100	Horizontal	Pass
6	13798.500	55.97	5.74	74.0	18.03	Peak	42.00	100	Horizontal	Pass
6**	13798.500	46.78	5.74	54.0	7.22	AV	42.00	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	/		☒

Sample No.	S52	Temperature	22.7°C
Humidity	39%RH	Pressure	101kPa
Test Engineer	Chen Jingran	Test Date	2025.05.19

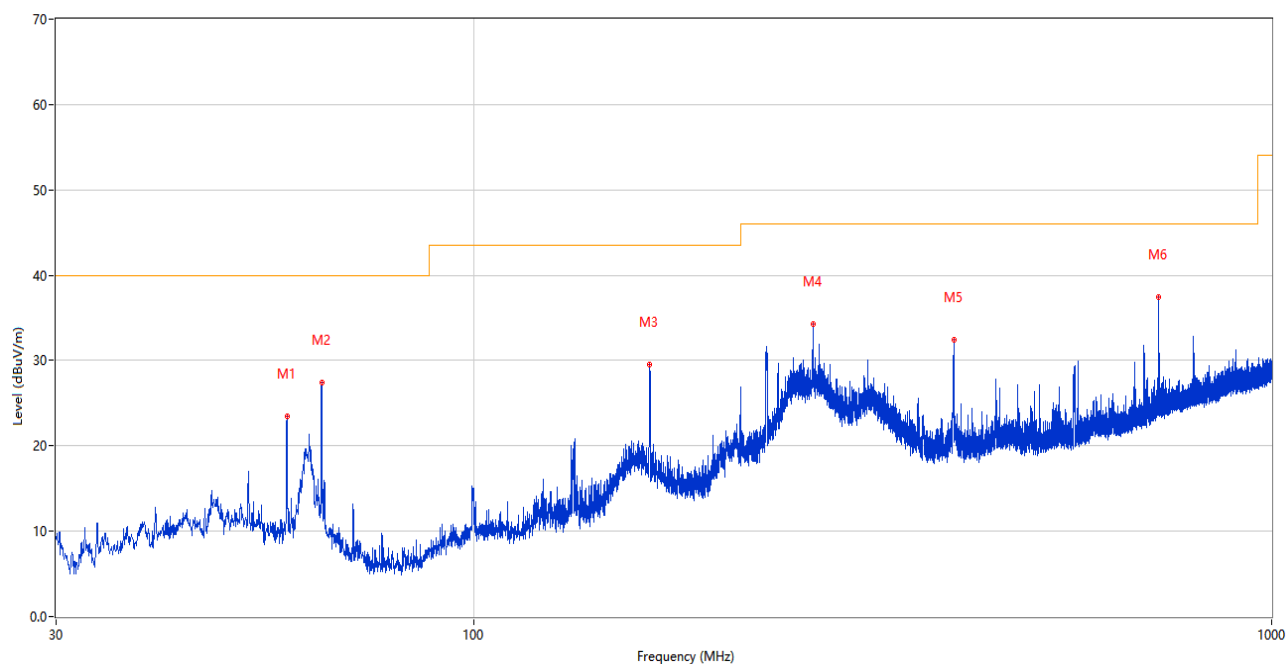
Test Mode 19

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	58.373	32.37	-26.52	40.0	7.63	Peak	250.00	100	Vertical	Pass
2	64.532	32.06	-26.64	40.0	7.94	Peak	252.00	100	Vertical	Pass
3	133.257	29.69	-30.02	43.5	13.81	Peak	360.00	100	Vertical	Pass
4	166.576	31.27	-29.04	43.5	12.23	Peak	198.00	100	Vertical	Pass
5	451.368	36.90	-19.87	46.0	9.10	Peak	177.00	100	Vertical	Pass
6	692.122	36.36	-14.20	46.0	9.64	Peak	159.00	100	Vertical	Pass

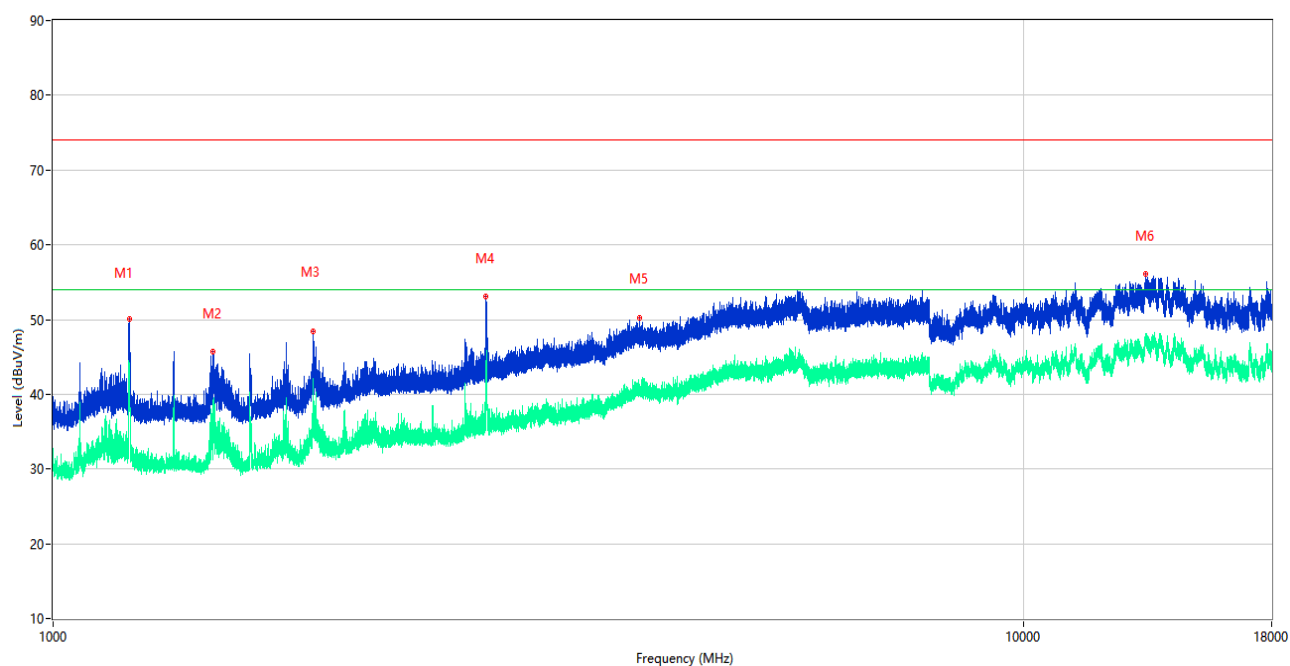
6) Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	58.373	23.45	-26.52	40.0	16.55	Peak	165.00	200	Horizontal	Pass
2	64.532	27.42	-26.64	40.0	12.58	Peak	337.00	200	Horizontal	Pass
3	166.139	29.54	-29.06	43.5	13.96	Peak	136.00	200	Horizontal	Pass
4	266.534	34.24	-24.71	46.0	11.76	Peak	263.00	100	Horizontal	Pass
5	399.861	32.44	-21.09	46.0	13.56	Peak	93.00	100	Horizontal	Pass
6	722.192	37.45	-13.49	46.0	8.55	Peak	232.00	100	Horizontal	Pass

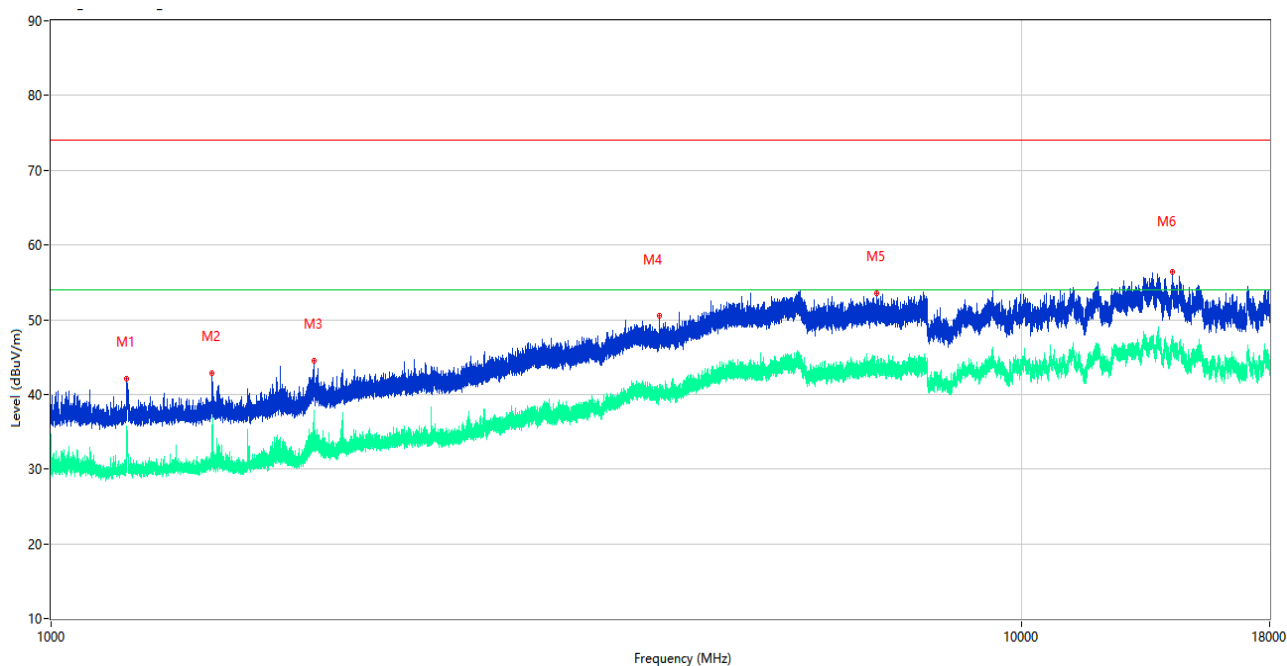
Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Below 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2024.08.01	2025.07.31	☒
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2024.11.28	2025.11.27	☒
Test Antenna- Bi-Log	SCHWARZB ECK	VULB 9168	00867	2025.04.12	2028.04.11	☒
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	/		☒

7) Test Antenna Vertical, 1 GHz – 18GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1197.990	50.08	-15.75	74.0	23.92	Peak	238.00	100	Vertical	Pass
1**	1197.990	41.91	-15.75	54.0	12.09	AV	238.00	100	Vertical	Pass
2	1461.630	45.75	-15.55	74.0	28.25	Peak	243.00	100	Vertical	Pass
2**	1461.630	39.20	-15.55	54.0	14.80	AV	243.00	100	Vertical	Pass
3	1853.060	48.48	-14.74	74.0	25.52	Peak	41.00	100	Vertical	Pass
3**	1853.060	41.36	-14.74	54.0	12.64	AV	41.00	100	Vertical	Pass
4	2790.360	53.14	-8.51	74.0	20.86	Peak	166.00	100	Vertical	Pass
4**	2790.360	38.43	-8.51	54.0	15.57	AV	166.00	100	Vertical	Pass
5	4021.080	50.25	-2.04	74.0	23.75	Peak	131.00	100	Vertical	Pass
5**	4021.080	39.80	-2.04	54.0	14.20	AV	131.00	100	Vertical	Pass
6	13349.500	56.14	5.21	74.0	17.86	Peak	360.00	100	Vertical	Pass
6**	13349.500	47.12	5.21	54.0	6.88	AV	360.00	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	1195.520	42.05	-15.75	74.0	31.95	Peak	277.00	100	Horizontal	Pass
1**	1195.520	32.56	-15.75	54.0	21.44	AV	277.00	100	Horizontal	Pass
2	1465.790	42.78	-15.57	74.0	31.22	Peak	229.00	100	Horizontal	Pass
2**	1465.790	34.98	-15.57	54.0	19.02	AV	229.00	100	Horizontal	Pass
3	1865.540	44.44	-14.40	74.0	29.56	Peak	209.00	100	Horizontal	Pass
3**	1865.540	37.90	-14.40	54.0	16.10	AV	209.00	100	Horizontal	Pass
4	4233.820	50.48	-1.75	74.0	23.52	Peak	81.00	100	Horizontal	Pass
4**	4233.820	39.85	-1.75	54.0	14.15	AV	81.00	100	Horizontal	Pass
5	7091.400	53.47	-0.43	74.0	20.53	Peak	35.00	100	Horizontal	Pass
5**	7091.400	43.13	-0.43	54.0	10.87	AV	35.00	100	Horizontal	Pass
6	14305.500	56.33	4.99	74.0	17.67	Peak	311.00	100	Horizontal	Pass
6**	14305.500	47.24	4.99	54.0	6.76	AV	311.00	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	/		☒

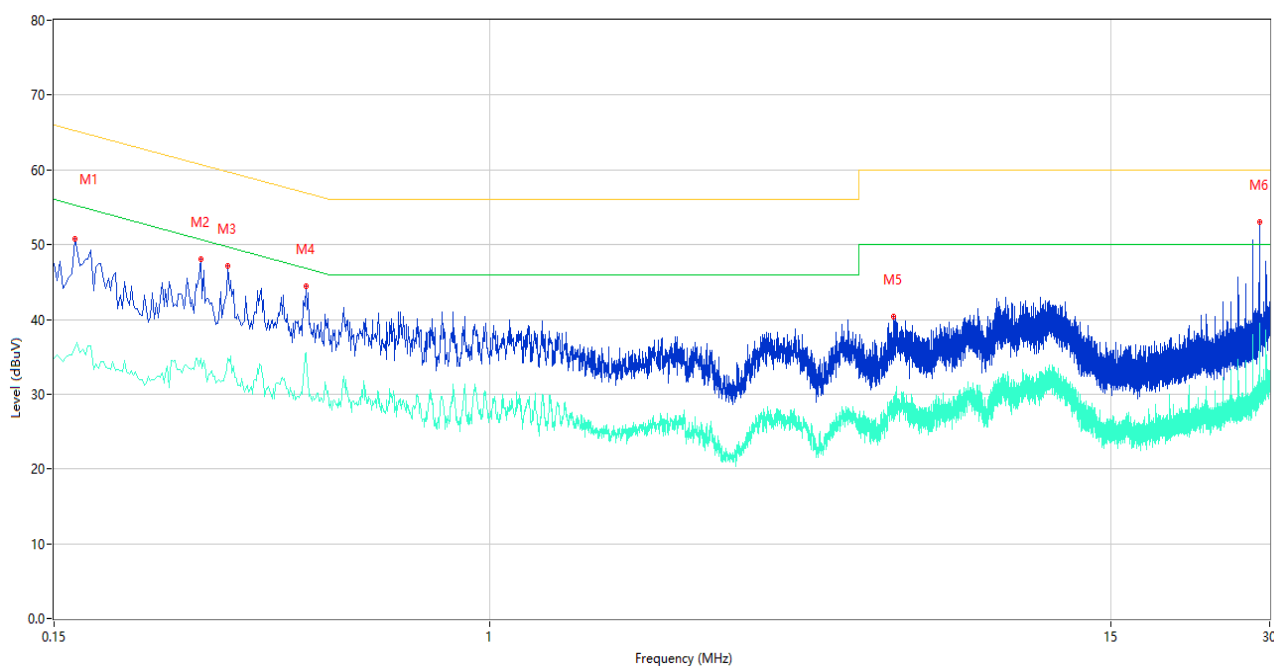
A.2 Conducted Emission, AC Ports

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 (120 VAC, 60 Hz) shown here.

Sample No.	S52	Temperature	22.7℃
Humidity	39%RH	Pressure	101kPa
Test Engineer	Yang yang	Test Date	2025.05.20

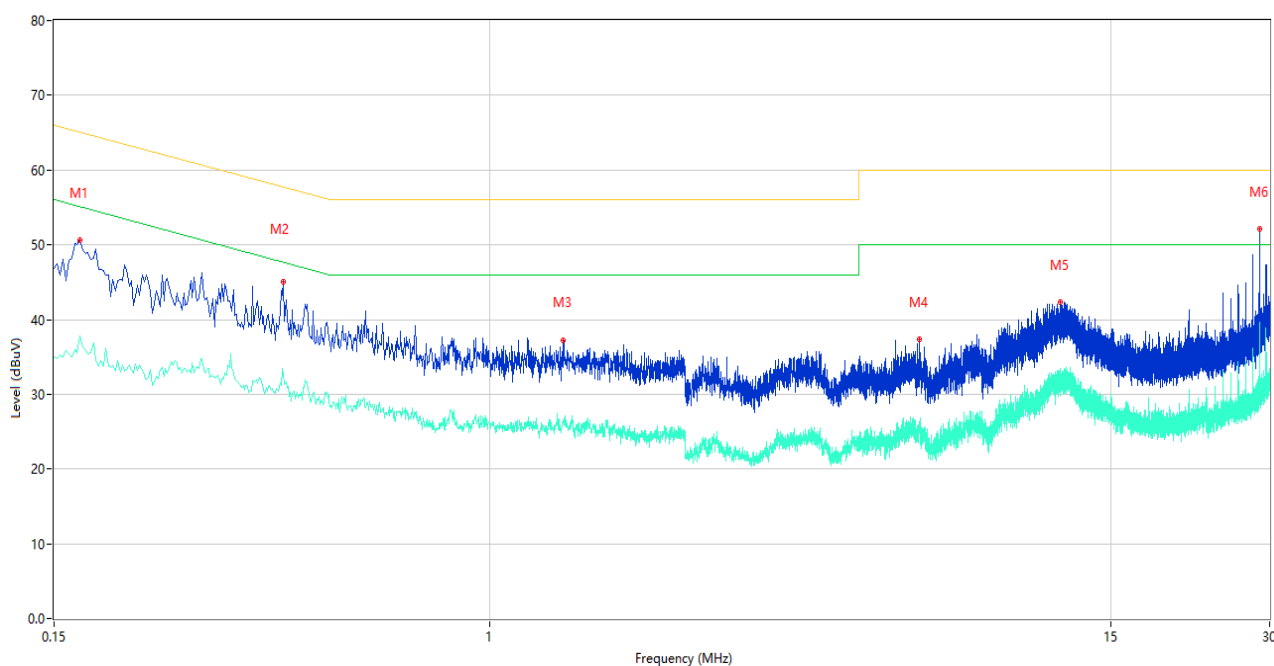
Test Mode 4

1) AC Ports - L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.164	50.70	10.09	65.26	14.56	Peak	L	Pass
1**	0.164	36.23	10.09	55.26	19.03	AV	L	Pass
2	0.284	48.02	10.04	60.70	12.68	Peak	L	Pass
2**	0.284	34.77	10.04	50.70	15.93	AV	L	Pass
3	0.320	47.18	10.00	59.71	12.53	Peak	L	Pass
3**	0.320	34.85	10.00	49.71	14.86	AV	L	Pass
4	0.450	44.48	10.55	56.88	12.40	Peak	L	Pass
4**	0.450	35.52	10.55	46.88	11.36	AV	L	Pass
5	5.834	40.42	11.10	60.00	19.58	Peak	L	Pass
5**	5.834	29.60	11.10	50.00	20.40	AV	L	Pass
6	28.694	53.05	16.89	60.00	6.95	Peak	L	Pass
6**	28.694	39.55	16.89	50.00	10.45	AV	L	Pass

2) AC Ports - N Phase

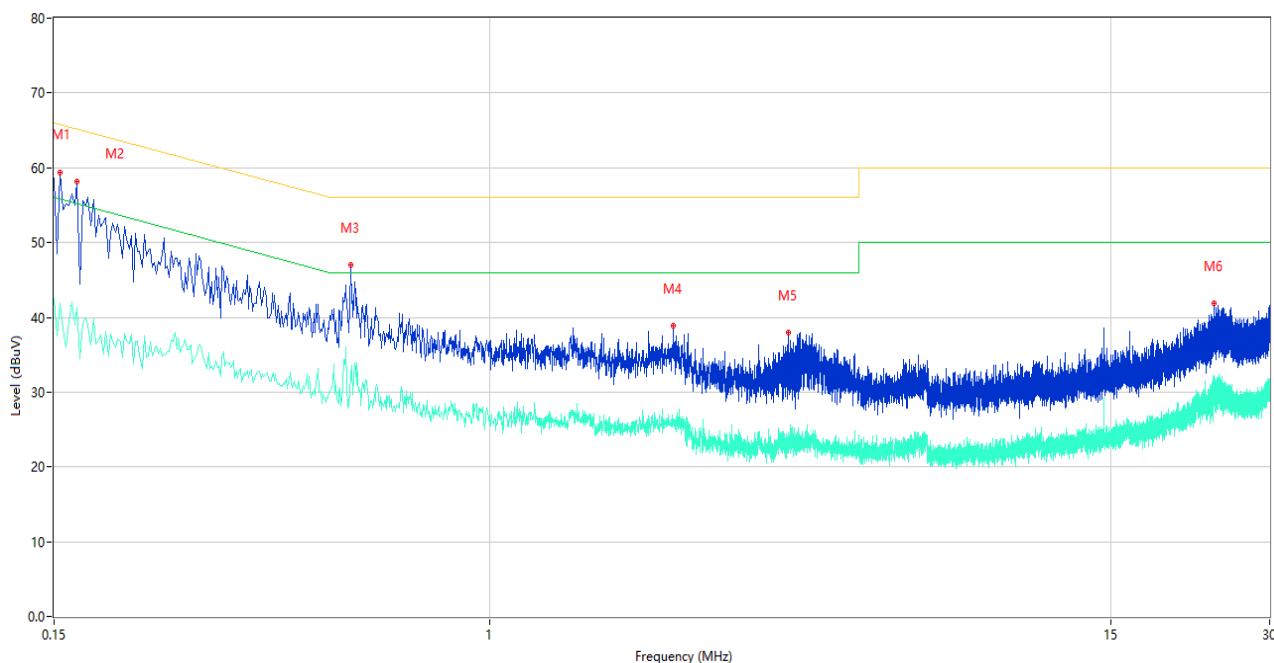


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.168	50.67	10.07	65.06	14.39	Peak	N	Pass
1**	0.168	37.87	10.07	55.06	17.19	AV	N	Pass
2	0.408	45.06	10.61	57.69	12.63	Peak	N	Pass
2**	0.408	32.88	10.61	47.69	14.81	AV	N	Pass
3	1.382	37.28	10.80	56.00	18.72	Peak	N	Pass
3**	1.382	26.26	10.80	46.00	19.74	AV	N	Pass
4	6.520	37.41	11.56	60.00	22.59	Peak	N	Pass
4**	6.520	26.39	11.56	50.00	23.61	AV	N	Pass
5	12.070	42.31	12.89	60.00	17.69	Peak	N	Pass
5**	12.070	33.41	12.89	50.00	16.59	AV	N	Pass
6	28.692	52.11	16.88	60.00	7.89	Peak	N	Pass
6**	28.692	37.58	16.88	50.00	12.42	AV	N	Pass

Sample No.	S52	Temperature	22.7°C
Humidity	39%RH	Pressure	101kPa
Test Engineer	Yang yang	Test Date	2025.05.20

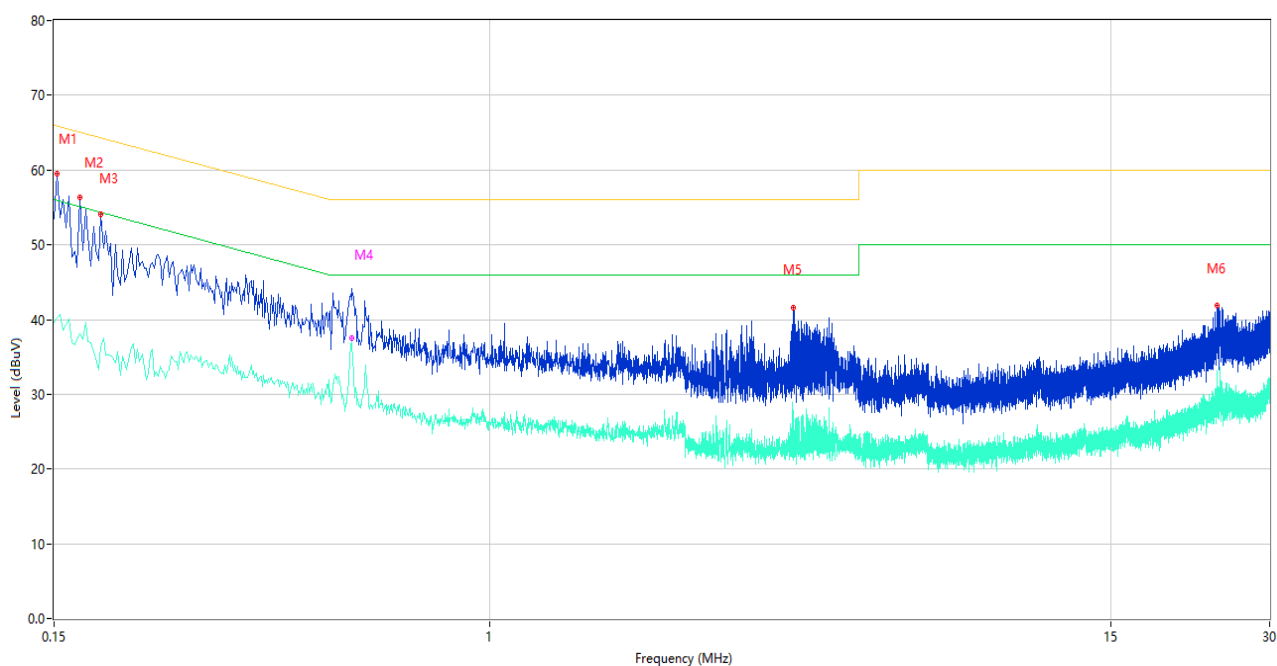
Test Mode 19

3) AC Ports - L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.154	59.37	10.12	65.78	6.41	Peak	L	Pass
1**	0.154	41.85	10.12	55.78	13.93	AV	L	Pass
2	0.166	58.11	10.08	65.16	7.05	Peak	L	Pass
2**	0.166	41.25	10.08	55.16	13.91	AV	L	Pass
3	0.546	47.04	10.44	56.00	8.96	Peak	L	Pass
3**	0.546	32.09	10.44	46.00	13.91	AV	L	Pass
4	2.234	38.81	10.63	56.00	17.19	Peak	L	Pass
4**	2.234	26.24	10.63	46.00	19.76	AV	L	Pass
5	3.688	37.96	10.69	56.00	18.04	Peak	L	Pass
5**	3.688	23.96	10.69	46.00	22.04	AV	L	Pass
6	23.528	41.92	15.72	60.00	18.08	Peak	L	Pass
6**	23.528	31.90	15.72	50.00	18.10	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	59.46	10.12	65.89	6.43	Peak	N	Pass
1**	0.152	40.17	10.12	55.89	15.72	AV	N	Pass
2	0.168	56.42	10.07	65.06	8.64	Peak	N	Pass
2**	0.168	38.11	10.07	55.06	16.95	AV	N	Pass
3	0.184	54.13	10.05	64.30	10.17	Peak	N	Pass
3**	0.184	36.33	10.05	54.30	17.97	AV	N	Pass
4	0.548	42.62	10.44	56.00	13.38	Peak	N	Pass
4**	0.548	37.56	10.44	46.00	8.44	AV	N	Pass
5	3.758	41.64	11.15	56.00	14.36	Peak	N	Pass
5**	3.758	27.70	11.15	46.00	18.30	AV	N	Pass
6	23.862	41.89	15.91	60.00	18.11	Peak	N	Pass
6**	23.862	33.22	15.91	50.00	16.78	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	SCHWARZBECK	NSLK 8127	8127-687	2025.04.29	2026.04.28	☒
Shielded Room	YiHeng Electronic Co., Ltd	3.5m*3.1m*2.8m	112	2025.02.14	2028.02.13	☒
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		☒

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL- SZ2550149-AE-1.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL- SZ2550149-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL- SZ2550149-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--