

# TEST REPORT

**Applicant:** Realme Chongqing Mobile Telecommunications Corp., Ltd.  
**Address:** No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China  
**Equipment Type:** Mobile Phone  
**Model Name:** RMX3910  
**Brand Name:** realme  
**FCC ID:** 2AUYFRMX3910  
**Test Standard:** 47 CFR Part 15 Subpart B  
ANSI C63.4-2014  
**Sample Arrival Date:** Jan. 19, 2024  
**Test Date:** Jan. 22, 2024 - Feb. 02, 2024  
**Date of Issue:** Mar. 07, 2024

**ISSUED BY:**

Shenzhen BALUN Technology Co., Ltd.

**Tested by:** Zhang Guoxi    **Checked by:** Zhenxiang Liu    **Approved by:** Liao Jianming  
(Technical Director)

*Zhang Guoxi*

*Zhenxiang Liu*

*Liao Jianming*

<b>Revision History</b>		
Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Mar. 07, 2024</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 .....	37
ANNEX C EUT EXTERNAL PHOTOS .....	37

---

ANNEX D EUT INTERNAL PHOTOS ..... 37

# 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.

## 2 PRODUCT INFORMATION

### 2.1 Applicant Information

Applicant	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address	No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China

### 2.2 Manufacturer Information

Manufacturer	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address	No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China

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

EUT Name	Mobile Phone
Model Name Under Test	RMX3910
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	11
Software Version	realme UI 5.0
Dimensions (Approx.)	about 165.66mm*76.1mm*7.64mm
Weight (Approx.)	185g (with battery)
EUT ID	S11
IMEI Number	IMEI1:868562070019955, IMEI2:868562070019948

## 2.4 Ancillary Equipment

Ancillary Equipment 1	Rechargeable Li-ion Polymer Battery 1	
	Brand Name	SUPERVOOC
	Model No.	BLPA17
	Capacitance	Rated: 4880mAh /18.98 Wh Typical: 5000 mAh /19.45 Wh
	Rated Voltage	3.89V
	Limited Voltage	4.48V
	Manufacturer	SUNWODA Electronic Co., Ltd.
Ancillary Equipment 2	Power Supply Unit (alternative) 1	
	Brand Name	SUPERVOOC
	Model No.	VCB4JAUH (US Plug)
	Manufacturer	Jiangsu Chenyang Electron Co., Ltd.
	Rated Input	100-240V ~, 50/60Hz, 1.5A
	Rated Output	5VDC 2.0A or 5-11V 4.1A Max
Ancillary Equipment 3	Power Supply Unit (alternative) 2	
	Brand Name	SUPERVOOC
	Model No.	VCB4JAUH (US Plug)
	Manufacturer	Huizhou Golden Lake Industrial Co., Ltd.
	Rated Input	100-240V ~, 50/60Hz, 1.5A
	Rated Output	5VDC 2.0A or 5-11V 4.1A Max
Ancillary Equipment 4	USB Cable 1	
	Model No.	DL154
	Length (Approx.)	1.0 m
Note 1: All adapters are tested, only the worst data of VCB4JAUH (Jiangsu Chenyang Electron Co., Ltd.) shown in this report.		

## 2.5 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/1900 MHz 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network LTE FDD Band 2/4/5/7/13/66 LTE TDD Band 38/41 Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20/40), VHT20/40 5G WIFI 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80) U-NII-1/2A/2C/3, Beidou, Galileo, GLONASS, GPS, NFC, FM receiver
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	4.8 dB
Radiated emissions (1 GHz-18 GHz)-966#2	4.9 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	N/A	N/A	N/A	N/A	N/A	<input checked="" type="checkbox"/>
TF card	Samsung	N/A	N/A	N/A	256G	<input checked="" type="checkbox"/>
USB disk	Sandisk	N/A	N/A	N/A	32G	<input checked="" type="checkbox"/>
Wireless Communications Test Set	R&S	CMW500	102318	N/A	Cal. Due 2024.05.15	<input checked="" type="checkbox"/>
Headset	OPPO	N/A	N/A	N/A	1.15m	<input checked="" type="checkbox"/>
Type-C Headset	OPPO	N/A	N/A	N/A	1.15m	<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 Video Play Test Mode</u> EUT + Adapter + USB Cable + Battery + Headset + TF Card
Mode 2	<u>The Front Camera Test Mode</u> EUT + Adapter + USB Cable + Battery + Headset + TF Card
Mode 3	<u>The Rear Camera Test Mode</u> EUT + Adapter + USB Cable + Battery + Headset + TF Card
Mode 4	<u>The Standby Test Mode</u> EUT + Adapter + USB Cable + Battery + Headset + TF Card
Mode 5	<u>The GSM 850 MHz RX Test Mode</u> GSM 850 MHz RX + EUT +Adapter + USB Cable + Battery + TF Card + Headset
Mode 6	<u>The EGPRS 850 MHz RX Test Mode</u> EGPRS 850 MHz RX + EUT +Adapter + USB Cable + Battery + TF Card + Headset
Mode 7	<u>The WCDMA Band 5 RX Test Mode</u> WCDMA Band 5 RX + EUT +Adapter + USB Cable + Battery + TF Card + Headset
Mode 8	<u>The FDD LTE Band 5 RX Test Mode</u> LTE Band 5 RX + EUT +Adapter + USB Cable + Battery + TF Card + Headset
Mode 9	<u>The FDD LTE Band 13 RX Test Mode</u> LTE Band 13 RX + EUT +Adapter + USB Cable + Battery + TF Card + Headset
Mode 10	<u>The USB Test Mode</u> EUT + USB Cable + Battery + Laptop + Headset + TF Card



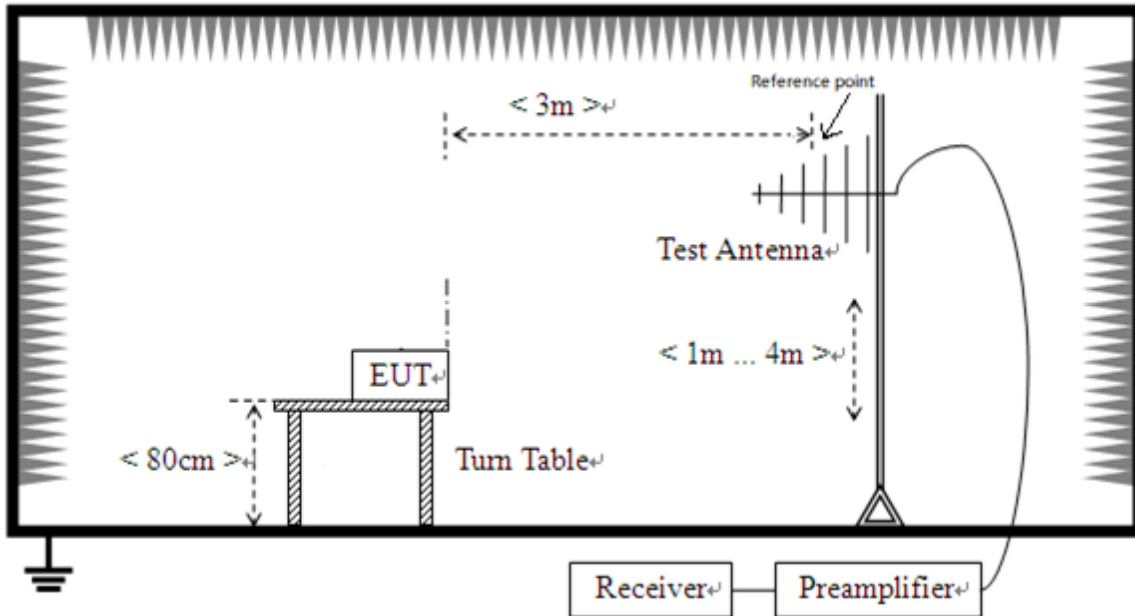
Mode 11	<u>The OTG Test Mode</u> EUT + Battery + Data connector + USB Disk + Headset + TF Card
Mode 12	<u>The Type-C Headset Test Mode</u> EUT + Battery + Type-C Headset + TF Card + Video Player

Test Case	Test Mode Configuration	Worst Mode
Radiated Emission	Mode 1~Mode 12	4, 10
Conducted Emission, AC Ports	Mode 1~Mode 10	4, 10

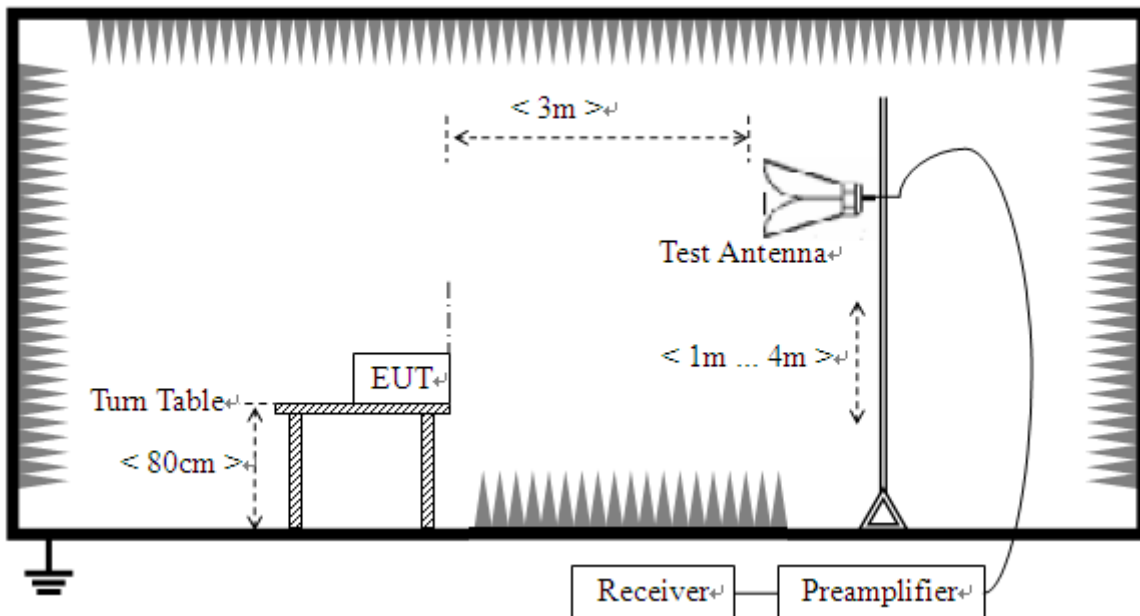
Note: All operation modes were tested, but only test data of the worst mode was presented in this report.

### 4.3 Test Setups

#### Test Setup 1

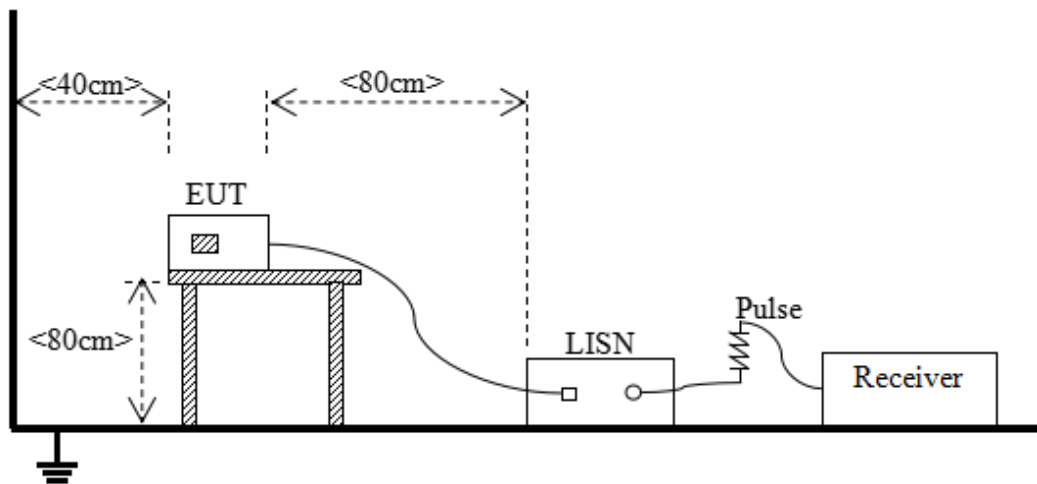


Radiated Emission (30 MHz-1 GHz)



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 ( $\text{dB}\mu\text{V/m}$ )	Field Strength ( $\text{dB}\mu\text{V/m}$ )
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 ( $\text{dB}\mu\text{V/m}$ ) =  $20 \cdot \log$  [Field Strength ( $\mu\text{V/m}$ )].
- 2) In the emission tables above, the tighter limit applies at the band edges.
- 3) The limits using ANSI C63.4.
- 4) 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 ( $\text{dB}\mu\text{V/m}$ )	Field Strength Peak ( $\text{dB}\mu\text{V/m}$ )	Field Strength Average ( $\text{dB}\mu\text{V/m}$ )	Field Strength Peak ( $\text{dB}\mu\text{V/m}$ )
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:  $L_{3m} = 49.5 + 20 \cdot \log(10/3) = 60$  ( $\text{dB}\mu\text{V/m}$ ).

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/m) + 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.

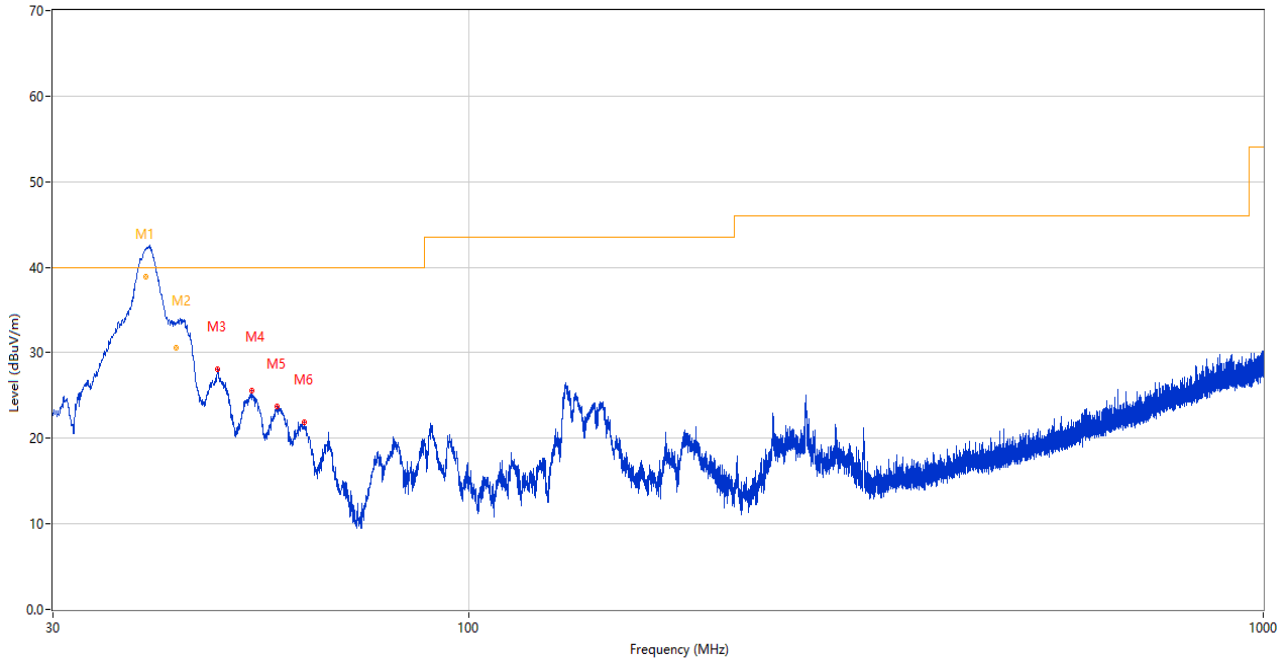
Note 2: For the test data above 1 GHz, according the ANSI C63.4-2014, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note 3: 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.	S11	Temperature	23.0°C
Humidity	38%RH	Pressure	101kPa
Test Engineer	He Shichang	Test Date	2024.01.22

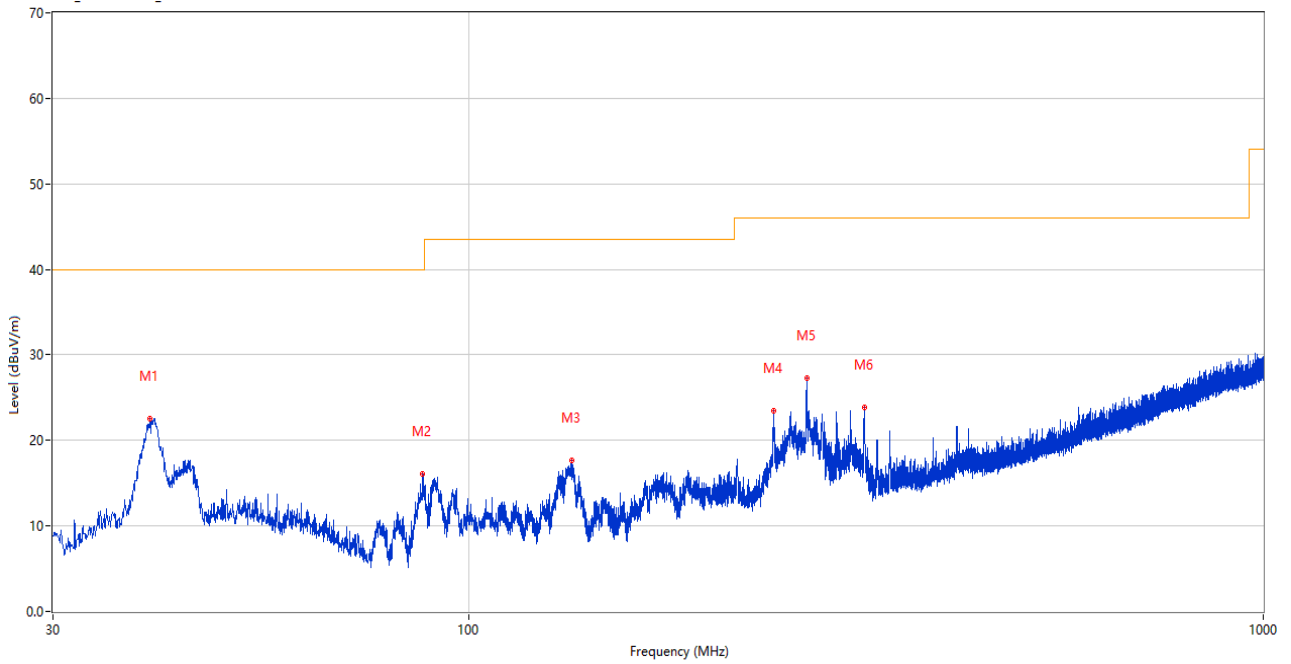
**Test Mode 4**

**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	39.310	41.11	-26.78	40.0	-1.11	Peak	222.00	101	Vertical	N/A
1*	39.310*	38.87	-26.78	40.0	1.13	QP	222.00	101	Vertical	Pass
2	42.841	33.28	-25.75	40.0	6.72	Peak	193.00	101	Vertical	N/A
2*	42.841*	30.54	-25.75	40.0	9.46	QP	193.00	101	Vertical	Pass
3	48.333	28.14	-25.37	40.0	11.86	Peak	172.00	100	Vertical	Pass
4	53.328	25.51	-25.55	40.0	14.49	Peak	166.00	100	Vertical	Pass
5	57.403	23.71	-26.43	40.0	16.29	Peak	188.00	100	Vertical	Pass
6	62.156	21.88	-27.11	40.0	18.12	Peak	113.00	100	Vertical	Pass

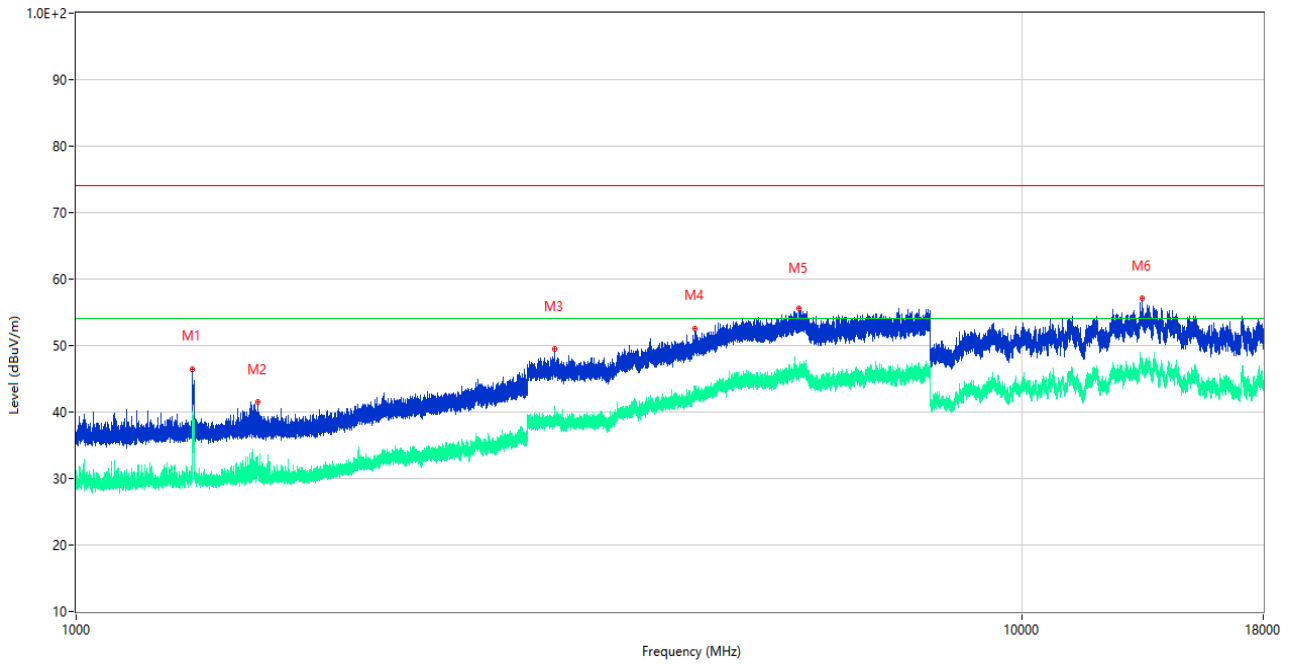
2) Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	39.748	22.55	-26.78	40.0	17.45	Peak	122.00	200	Horizontal	Pass
2	87.473	16.10	-29.28	40.0	23.90	Peak	192.00	200	Horizontal	Pass
3	134.712	17.65	-30.03	43.5	25.85	Peak	25.00	200	Horizontal	Pass
4	242.139	23.52	-25.08	46.0	22.48	Peak	69.00	100	Horizontal	Pass
5	266.389	27.26	-24.51	46.0	18.74	Peak	246.00	100	Horizontal	Pass
6	314.841	23.82	-23.27	46.0	22.18	Peak	213.00	100	Horizontal	Pass

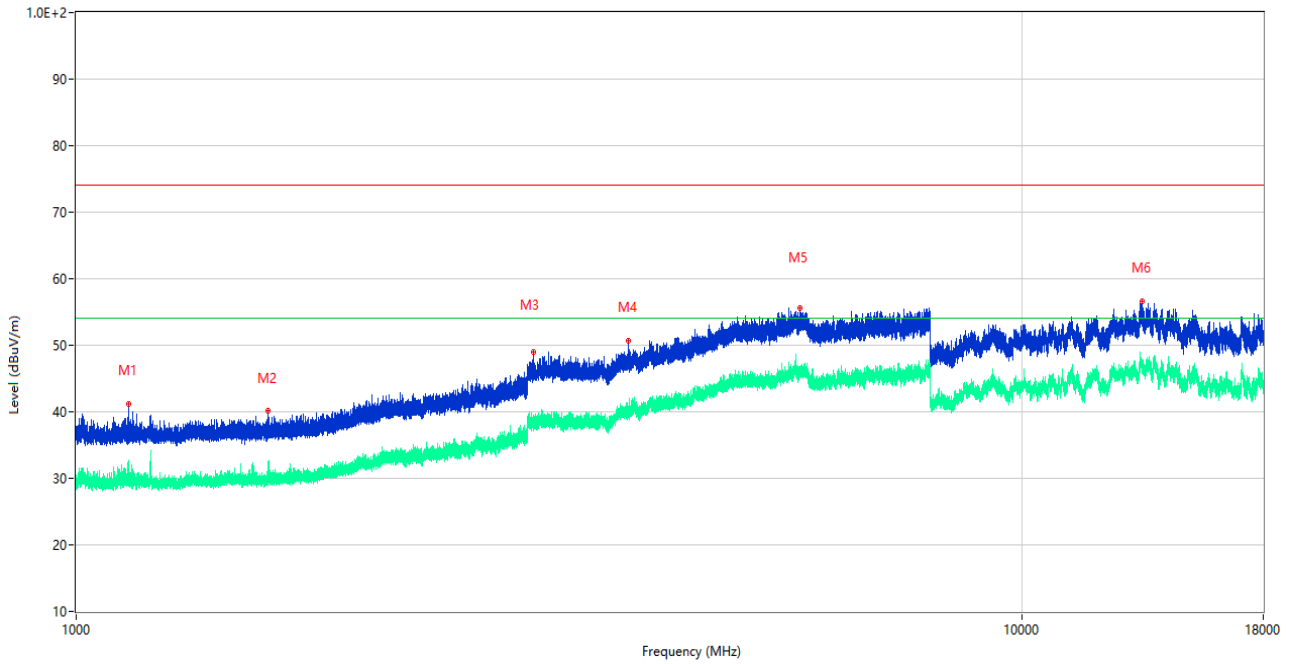
Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Below 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2023.09.05	2024.09.04	<input checked="" type="checkbox"/>
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2023.12.05	2024.12.04	<input checked="" type="checkbox"/>
Test Antenna-Bi-Log	SCHWARZB ECK	VULB 9168	9168-00867	2022.04.12	2025.04.11	<input checked="" type="checkbox"/>
Anechoic Chamber (#2)	YiHeng	9m*6m*6m	142	2021.08.19	2024.08.18	<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	1327.200	46.50	-16.04	74.0	27.50	Peak	188.00	100	Vertical	Pass
1**	1327.200	36.56	-16.04	54.0	17.44	AV	188.00	100	Vertical	Pass
2	1557.700	41.51	-16.00	74.0	32.49	Peak	276.00	100	Vertical	Pass
2**	1557.700	31.14	-16.00	54.0	22.86	AV	276.00	100	Vertical	Pass
3	3204.000	49.45	-4.75	74.0	24.55	Peak	298.00	100	Vertical	Pass
3**	3204.000	39.07	-4.75	54.0	14.93	AV	298.00	100	Vertical	Pass
4	4514.000	52.56	0.70	74.0	21.44	Peak	279.00	100	Vertical	Pass
4**	4514.000	42.76	0.70	54.0	11.24	AV	279.00	100	Vertical	Pass
5	5807.000	55.59	3.47	74.0	18.41	Peak	250.00	100	Vertical	Pass
5**	5807.000	45.07	3.47	54.0	8.93	AV	250.00	100	Vertical	Pass
6	13399.000	57.06	4.91	74.0	16.94	Peak	183.00	100	Vertical	Pass
6**	13399.000	47.45	4.91	54.0	6.55	AV	183.00	100	Vertical	Pass

4) Test Antenna Horizontal, 1 GHz – 18 GHz

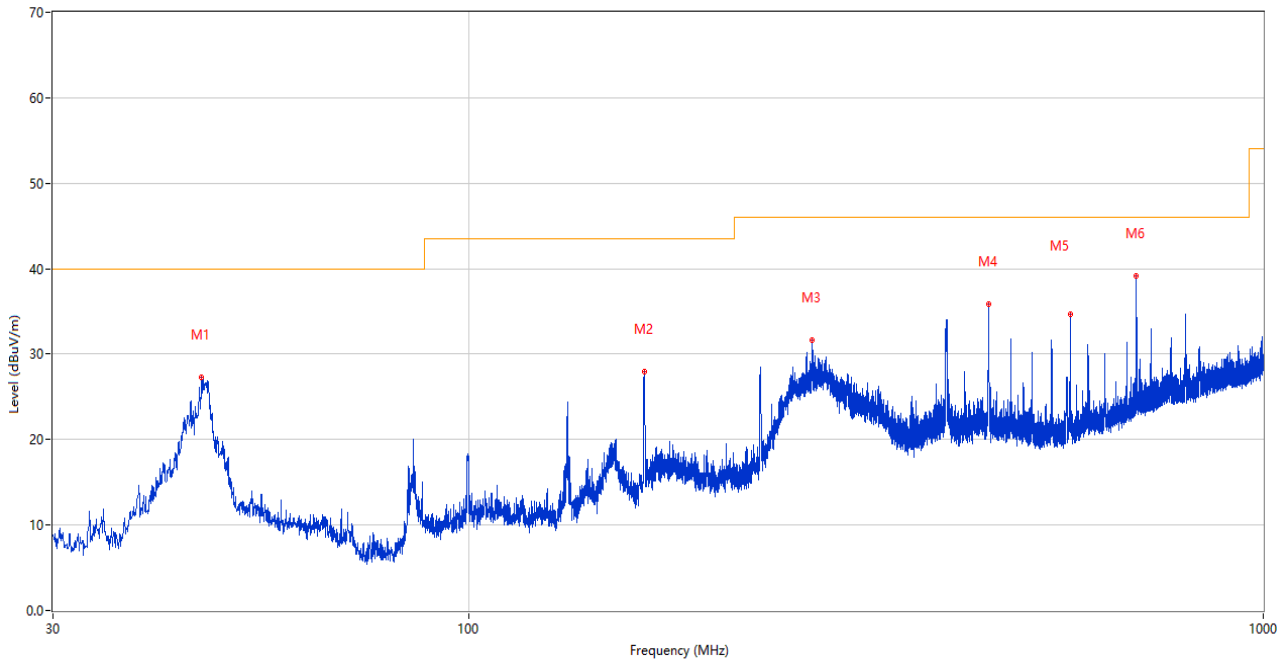


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1135.200	41.19	-16.31	74.0	32.81	Peak	300.00	100	Horizontal	Pass
1**	1135.200	31.20	-16.31	54.0	22.80	AV	300.00	100	Horizontal	Pass
2	1595.100	40.20	-16.16	74.0	33.80	Peak	314.00	100	Horizontal	Pass
2**	1595.100	30.67	-16.16	54.0	23.33	AV	314.00	100	Horizontal	Pass
3	3042.000	48.93	-4.19	74.0	25.07	Peak	186.00	100	Horizontal	Pass
3**	3042.000	37.53	-4.19	54.0	16.47	AV	186.00	100	Horizontal	Pass
4	3835.500	50.71	-2.24	74.0	23.29	Peak	335.00	100	Horizontal	Pass
4**	3835.500	40.24	-2.24	54.0	13.76	AV	335.00	100	Horizontal	Pass
5	5832.500	55.64	3.98	74.0	18.36	Peak	223.00	100	Horizontal	Pass
5**	5832.500	45.62	3.98	54.0	8.38	AV	223.00	100	Horizontal	Pass
6	13398.000	56.60	4.92	74.0	17.40	Peak	173.00	100	Horizontal	Pass
6**	13398.000	46.19	4.92	54.0	7.81	AV	173.00	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	2023.09.05	2024.09.04	<input checked="" type="checkbox"/>
Amplifier (1-12GHz)	Advanced Microwave	WLA652A	1740103	2023.12.05	2024.12.04	<input checked="" type="checkbox"/>
Amplifier (0.8-21GHz)	Mini-Circuits	ZVA-213-S+	225321316	2023.12.05	2024.12.04	<input checked="" type="checkbox"/>
Test Antenna-Horn	SCHWARZB ECK	BBHA 9120D	01917	2022.06.09	2025.06.08	<input checked="" type="checkbox"/>
Anechoic Chamber (#2)	YiHeng	9m*6m*6m	142	2021.08.19	2024.08.18	<input checked="" type="checkbox"/>
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		<input checked="" type="checkbox"/>

Test Mode 10

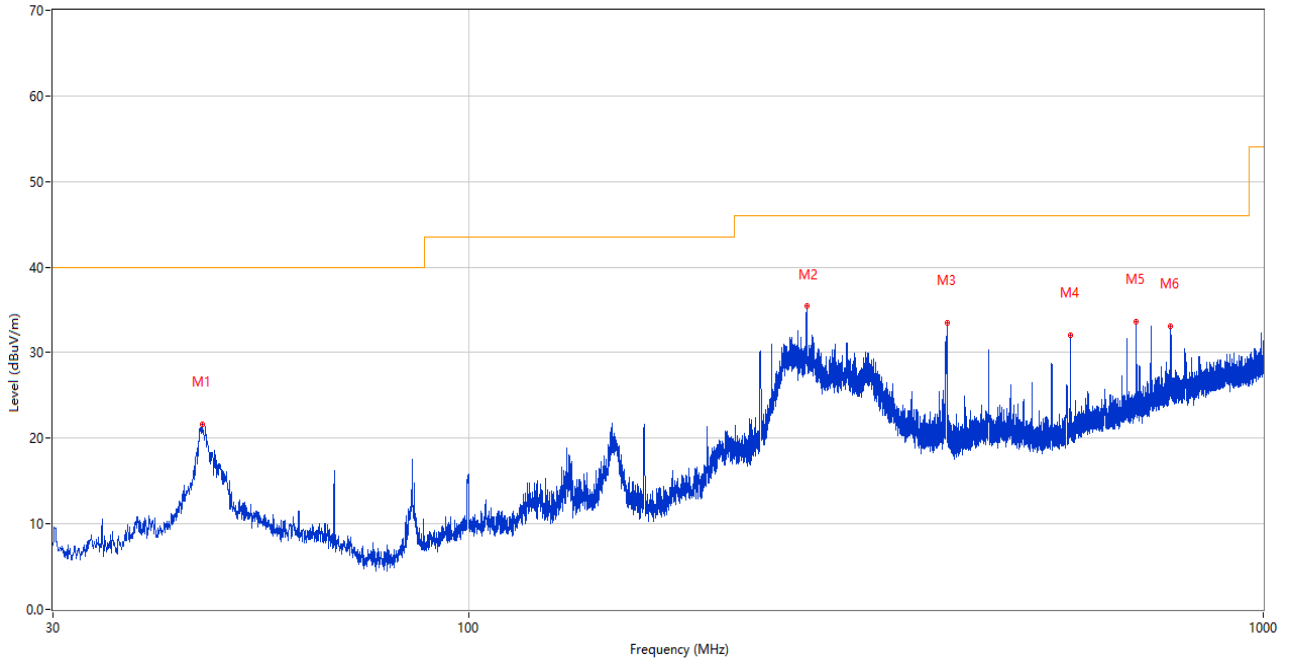
5) Test Antenna Vertical, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	46.151	27.25	-25.55	40.0	12.75	Peak	213.00	100	Vertical	Pass
2	166.576	27.89	-29.24	43.5	15.61	Peak	278.00	100	Vertical	Pass
3	270.900	31.61	-24.40	46.0	14.39	Peak	312.00	200	Vertical	Pass
4	451.514	35.87	-19.86	46.0	10.13	Peak	156.00	100	Vertical	Pass
5	571.648	34.70	-17.00	46.0	11.30	Peak	106.00	200	Vertical	Pass
6	692.413	39.10	-14.15	46.0	6.90	Peak	158.00	100	Vertical	Pass



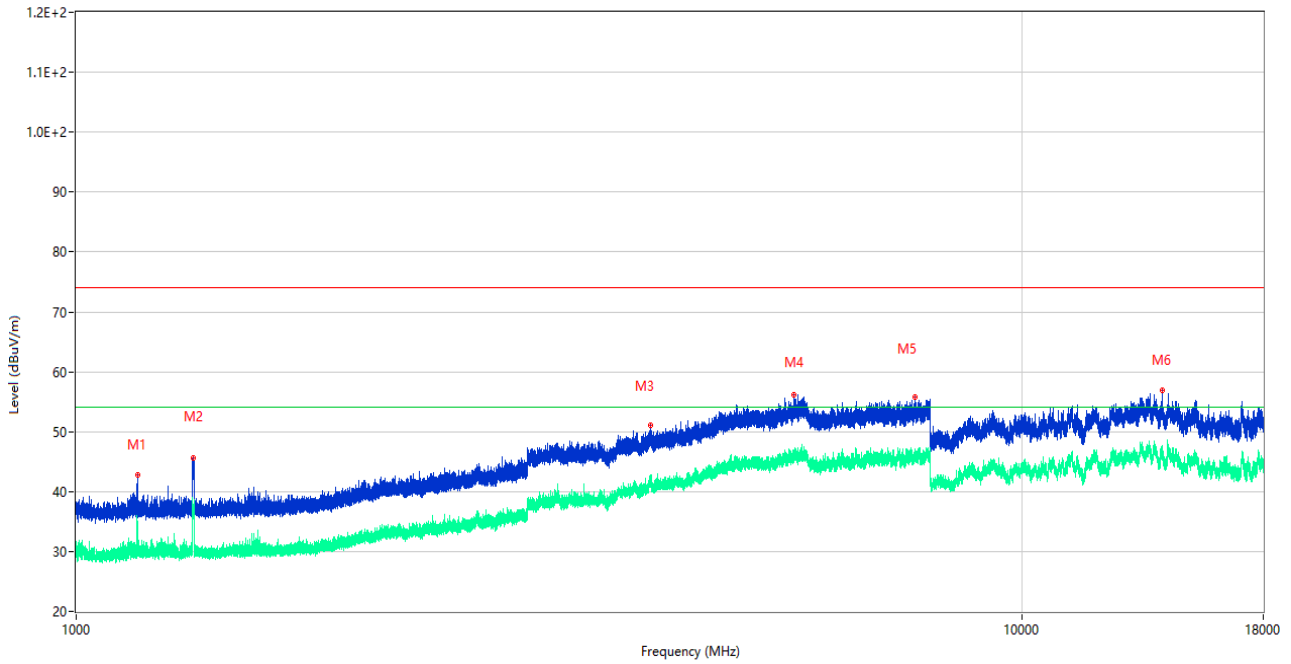
6) Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	46.199	21.68	-25.55	40.0	18.32	Peak	355.00	200	Horizontal	Pass
2	266.341	35.52	-24.51	46.0	10.48	Peak	274.00	100	Horizontal	Pass
3	399.909	33.54	-20.95	46.0	12.46	Peak	185.00	100	Horizontal	Pass
4	571.987	32.08	-16.98	46.0	13.92	Peak	307.00	200	Horizontal	Pass
5	692.219	33.61	-14.12	46.0	12.39	Peak	237.00	100	Horizontal	Pass
6	763.999	33.04	-12.46	46.0	12.96	Peak	233.00	100	Horizontal	Pass

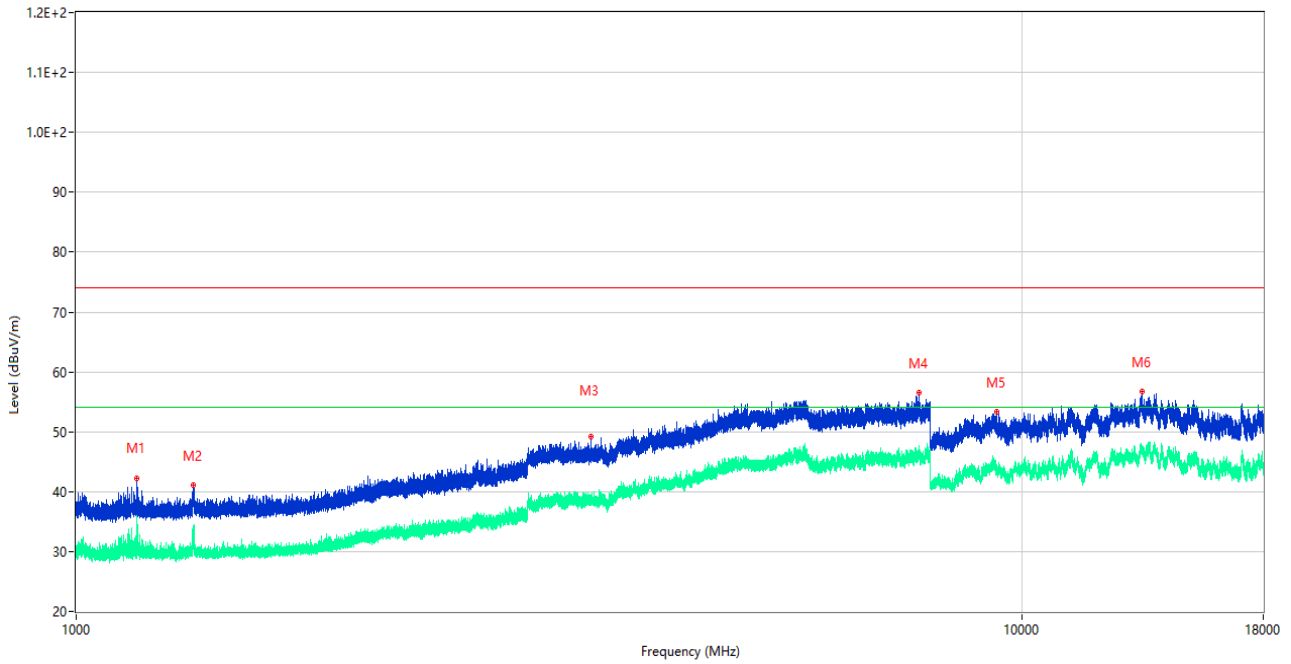
Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Below 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2023.09.05	2024.09.04	<input checked="" type="checkbox"/>
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2023.12.05	2024.12.04	<input checked="" type="checkbox"/>
Test Antenna-Bi-Log	SCHWARZB ECK	VULB 9168	9168-00867	2022.04.12	2025.04.11	<input checked="" type="checkbox"/>
Anechoic Chamber (#2)	YiHeng	9m*6m*6m	142	2021.08.19	2024.08.18	<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	1161.700	42.83	-16.05	74.0	31.17	Peak	270.00	100	Vertical	Pass
1**	1161.700	29.67	-16.05	54.0	24.33	AV	270.00	100	Vertical	Pass
2	1329.100	45.57	-16.06	74.0	28.43	Peak	213.00	100	Vertical	Pass
2**	1329.100	37.63	-16.06	54.0	16.37	AV	213.00	100	Vertical	Pass
3	4050.000	51.02	-0.54	74.0	22.98	Peak	59.00	100	Vertical	Pass
3**	4050.000	42.01	-0.54	54.0	11.99	AV	59.00	100	Vertical	Pass
4	5745.500	56.12	3.16	74.0	17.88	Peak	50.00	100	Vertical	Pass
4**	5745.500	46.54	3.16	54.0	7.46	AV	50.00	100	Vertical	Pass
5	7707.250	55.84	2.47	74.0	18.16	Peak	14.00	100	Vertical	Pass
5**	7707.250	45.46	2.47	54.0	8.54	AV	14.00	100	Vertical	Pass
6	14074.500	56.91	4.69	74.0	17.09	Peak	185.00	100	Vertical	Pass
6**	14074.500	46.12	4.69	54.0	7.88	AV	185.00	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	1159.700	42.26	-16.09	74.0	31.74	Peak	71.00	100	Horizontal	Pass
1**	1159.700	35.94	-16.09	54.0	18.06	AV	71.00	100	Horizontal	Pass
2	1329.400	41.07	-16.10	74.0	32.93	Peak	67.00	100	Horizontal	Pass
2**	1329.400	31.17	-16.10	54.0	22.83	AV	67.00	100	Horizontal	Pass
3	3499.500	49.28	-4.21	74.0	24.72	Peak	43.00	100	Horizontal	Pass
3**	3499.500	38.16	-4.21	54.0	15.84	AV	43.00	100	Horizontal	Pass
4	7783.000	56.47	3.17	74.0	17.53	Peak	126.00	100	Horizontal	Pass
4**	7783.000	47.24	3.17	54.0	6.76	AV	126.00	100	Horizontal	Pass
5	9410.000	53.25	1.77	74.0	20.75	Peak	148.00	100	Horizontal	Pass
5**	9410.000	43.65	1.77	54.0	10.35	AV	148.00	100	Horizontal	Pass
6	13388.500	56.68	4.98	74.0	17.32	Peak	360.00	100	Horizontal	Pass
6**	13388.500	47.13	4.98	54.0	6.87	AV	360.00	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	2023.09.05	2024.09.04	<input checked="" type="checkbox"/>
Amplifier (1-12GHz)	Advanced Microwave	WLA652A	1740103	2023.12.05	2024.12.04	<input checked="" type="checkbox"/>
Amplifier (0.8-21GHz)	Mini-Circuits	ZVA-213-S+	225321316	2023.12.05	2024.12.04	<input checked="" type="checkbox"/>
Test Antenna-Horn	SCHWARZB ECK	BBHA 9120D	01917	2022.06.09	2025.06.08	<input checked="" type="checkbox"/>
Anechoic Chamber (#2)	YiHeng	9m*6m*6m	142	2021.08.19	2024.08.18	<input checked="" type="checkbox"/>
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		<input checked="" type="checkbox"/>

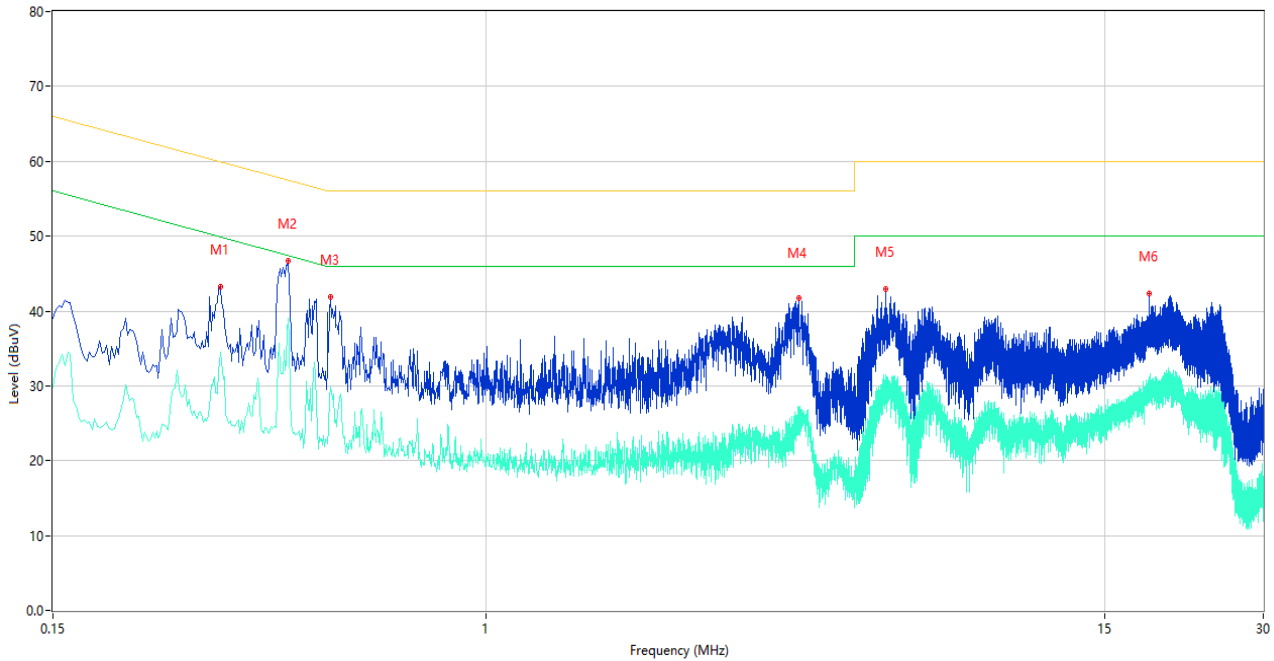
## A.2 Conducted Emission, AC Ports

Note: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 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.	S11	Temperature	23.6°C
Humidity	47%RH	Pressure	101kPa
Test Engineer	Yang Yang	Test Date	2024.01.28

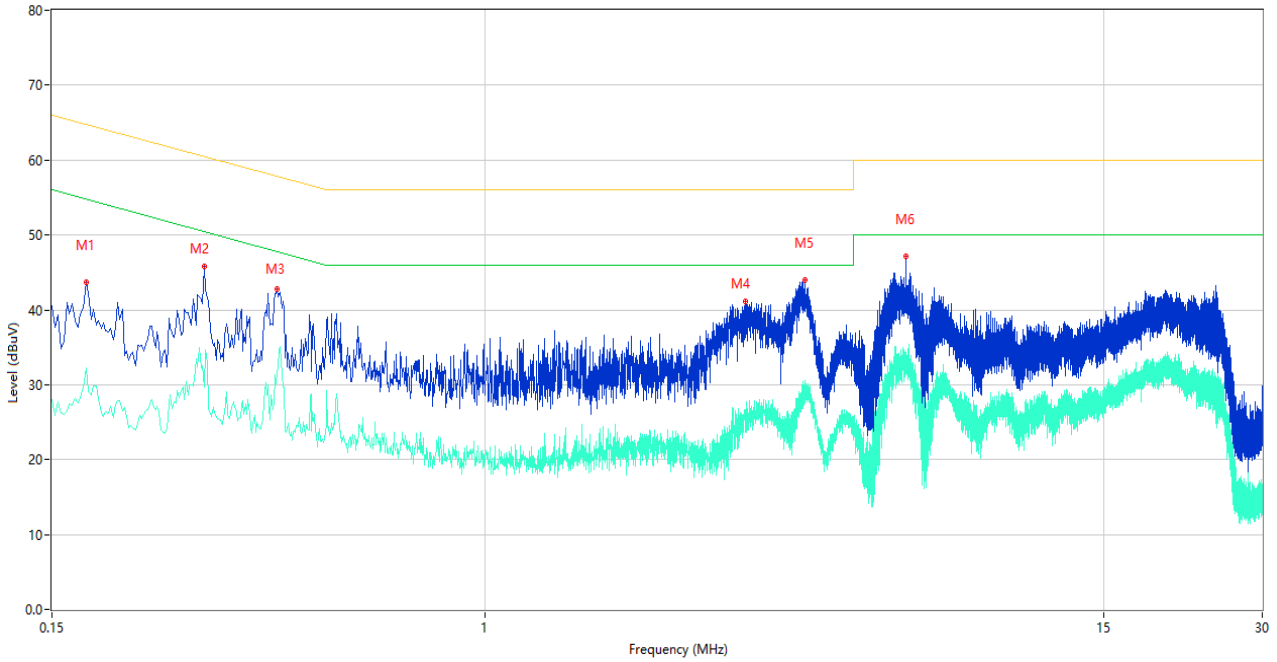
**Test Mode 4**

**1) AC Ports - L Phase**



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.312	43.23	9.41	59.92	16.69	Peak	L	Pass
1**	0.312	34.48	9.41	49.92	15.44	AV	L	Pass
2	0.420	46.73	9.98	57.45	10.72	Peak	L	Pass
2**	0.420	39.09	9.98	47.45	8.36	AV	L	Pass
3	0.506	41.82	9.70	56.00	14.18	Peak	L	Pass
3**	0.506	29.76	9.70	46.00	16.24	AV	L	Pass
4	3.930	41.75	9.44	56.00	14.25	Peak	L	Pass
4**	3.930	26.73	9.44	46.00	19.27	AV	L	Pass
5	5.748	42.97	9.48	60.00	17.03	Peak	L	Pass
5**	5.748	28.29	9.48	50.00	21.71	AV	L	Pass
6	18.244	42.31	7.33	60.00	17.69	Peak	L	Pass
6**	18.244	31.12	7.33	50.00	18.88	AV	L	Pass

2) AC Ports - N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.174	43.73	9.44	64.77	21.04	Peak	N	Pass
1**	0.174	32.19	9.44	54.77	22.58	AV	N	Pass
2	0.292	45.83	9.43	60.47	14.64	Peak	N	Pass
2**	0.292	29.67	9.43	50.47	20.80	AV	N	Pass
3	0.402	42.86	10.01	57.81	14.95	Peak	N	Pass
3**	0.402	31.66	10.01	47.81	16.15	AV	N	Pass
4	3.122	41.14	9.51	56.00	14.86	Peak	N	Pass
4**	3.122	26.63	9.51	46.00	19.37	AV	N	Pass
5	4.052	44.02	9.56	56.00	11.98	Peak	N	Pass
5**	4.052	30.57	9.56	46.00	15.43	AV	N	Pass
6	6.302	47.16	9.57	60.00	12.84	Peak	N	Pass
6**	6.302	34.33	9.57	50.00	15.67	AV	N	Pass

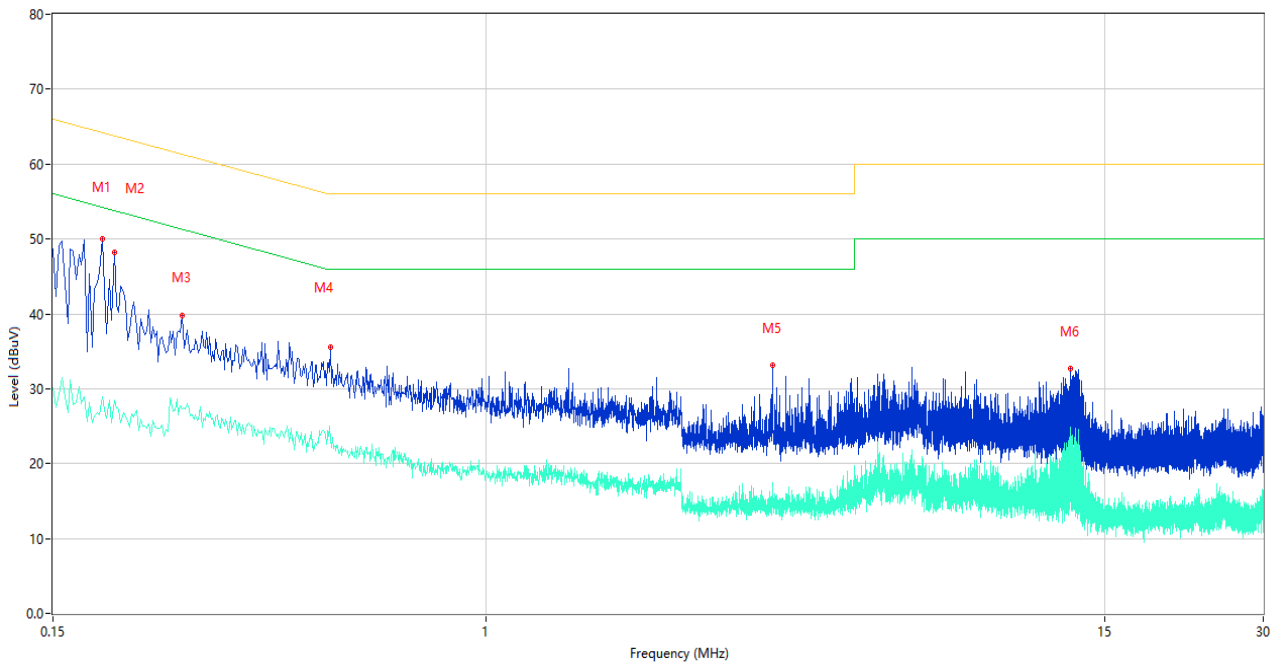


Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2023.09.05	2024.09.04	<input checked="" type="checkbox"/>
LISN	SCHWARZBECK	NSLK 8127	8127-687	2023.05.16	2024.05.15	<input checked="" type="checkbox"/>
ISN	TESEQ	ISN T800	34449	2023.11.10	2024.11.09	<input type="checkbox"/>
ISN	TESEQ	ISN T8-Cat6	53561	2023.04.23	2024.04.22	<input type="checkbox"/>
Shielded Room	YiHeng Electronic Co., Ltd	3.5m*3.1m*2.8m	112	2022.02.19	2025.02.18	<input checked="" type="checkbox"/>
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		<input checked="" type="checkbox"/>

Sample No.	S11	Temperature	23.0°C
Humidity	38%RH	Pressure	101kPa
Test Engineer	Yang Yang	Test Date	2024.01.30

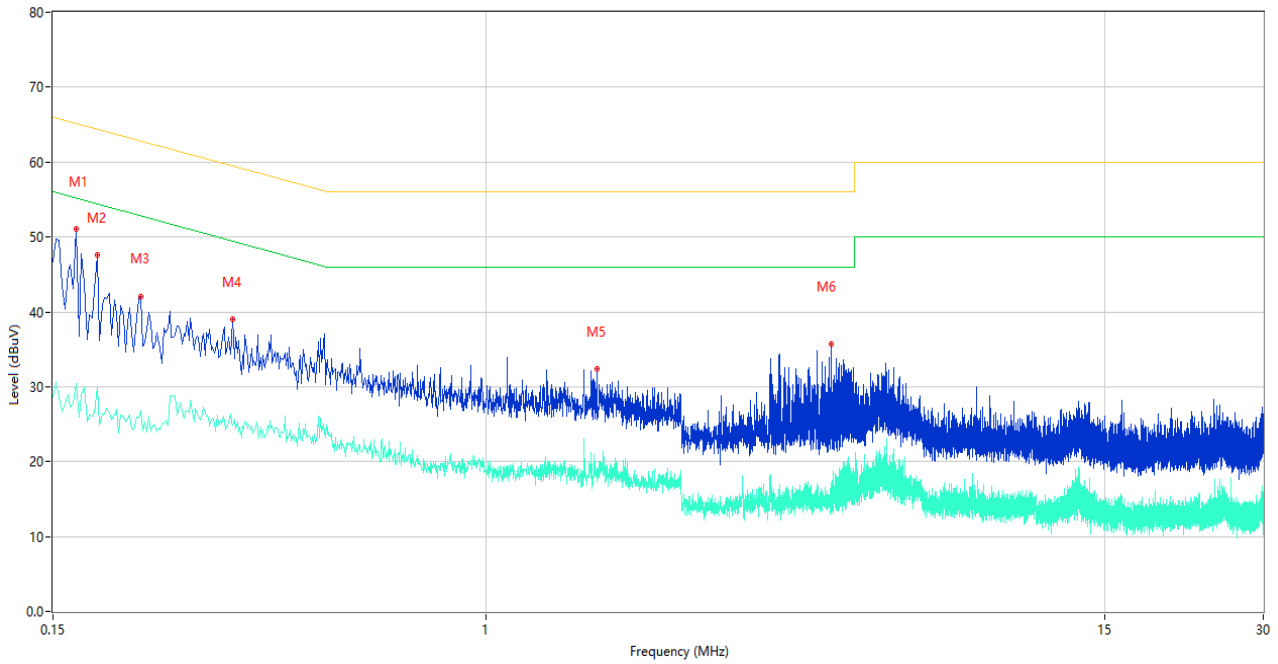
Test Mode 10

3) AC Ports - L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.186	50.07	9.43	64.21	14.14	Peak	L	Pass
1**	0.186	28.88	9.43	54.21	25.33	AV	L	Pass
2	0.196	48.20	9.42	63.78	15.58	Peak	L	Pass
2**	0.196	28.48	9.42	53.78	25.30	AV	L	Pass
3	0.264	39.85	9.43	61.30	21.45	Peak	L	Pass
3**	0.264	27.33	9.43	51.30	23.97	AV	L	Pass
4	0.506	35.60	9.70	56.00	20.40	Peak	L	Pass
4**	0.506	23.14	9.70	46.00	22.86	AV	L	Pass
5	3.506	33.13	9.84	56.00	22.87	Peak	L	Pass
5**	3.506	17.44	9.84	46.00	28.56	AV	L	Pass
6	12.916	32.68	7.79	60.00	27.32	Peak	L	Pass
6**	12.916	23.39	7.79	50.00	26.61	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	51.02	9.45	65.16	14.14	Peak	N	Pass
1**	0.166	30.51	9.45	55.16	24.65	AV	N	Pass
2	0.182	47.55	9.44	64.39	16.84	Peak	N	Pass
2**	0.182	30.02	9.44	54.39	24.37	AV	N	Pass
3	0.220	42.09	9.42	62.82	20.73	Peak	N	Pass
3**	0.220	26.78	9.42	52.82	26.04	AV	N	Pass
4	0.330	39.05	9.37	59.45	20.40	Peak	N	Pass
4**	0.330	24.87	9.37	49.45	24.58	AV	N	Pass
5	1.624	32.41	9.60	56.00	23.59	Peak	N	Pass
5**	1.624	19.08	9.60	46.00	26.92	AV	N	Pass
6	4.528	35.76	9.39	56.00	20.24	Peak	N	Pass
6**	4.528	17.23	9.39	46.00	28.77	AV	N	Pass

Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2023.09.05	2024.09.04	<input checked="" type="checkbox"/>
LISN	SCHWARZBECK	NSLK 8127	8127-687	2023.05.16	2024.05.15	<input checked="" type="checkbox"/>
ISN	TESEQ	ISN T800	34449	2023.11.10	2024.11.09	<input type="checkbox"/>
ISN	TESEQ	ISN T8-Cat6	53561	2023.04.23	2024.04.22	<input type="checkbox"/>
Shielded Room	YiHeng Electronic Co., Ltd	3.5m*3.1m*2.8m	112	2022.02.19	2025.02.18	<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-SZ2410719-AE-1.PDF”.

## **ANNEX C EUT EXTERNAL PHOTOS**

Please refer the document “BL-SZ2410719-AW.PDF”.

## **ANNEX D EUT INTERNAL PHOTOS**

Please refer the document “BL-SZ2410719-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--