

TEST REPORT

Applicant: Unicair Korea
Address: 803, [KSIA]182, Pangyoyeok-ro, Bundang-gu,
Seongnam-si, Gyeonggi-do, Republic of Korea
Equipment Type: PTT mobile device
Model Name: IM-530
Brand Name: iMesh
FCC ID: 2BHGN-IM-530
Test Standard: 47 CFR Part 15 Subpart B
ANSI C63.4-2014
Sample Arrival Date: May 31, 2024
Test Date: Jun. 03, 2024 - Jun. 06, 2024
Date of Issue: Jul. 19, 2024

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

**Tested by:** Li Junfeng**Checked by:** Liu Zhenxiang**Approved by:** Liao Jianming
(Technical Director)

Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Jul. 19, 2024</u>	<u>Initial Issue</u>

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1 GENERAL INFORMATION

1.1 Test Laboratory

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

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	☒ 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	Unicair Korea
Address	803, [KSIA]182, Pangyoyeok-ro, Bundang-gu, Seongnam-si, Gyeonggi-do, Republic of Korea

2.2 Manufacturer Information

Manufacturer	Shenzhen Unicair Communication Technology Co., Ltd.
Address	8-9/F, Block1, Wutong Island, Shunchang Rd., Xixiang, Bao'an District, Shenzhen China.

2.3 General Description for Equipment under Test (EUT)

EUT Name	PTT mobile device
Model Name Under Test	IM-530
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	RevA
Software Version	PMC DL01G 240514
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.4 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	N/A
	Model No.	IM-01 1ICP6/39/64
	Serial No.	N/A
	Capacity	3.8V/2180 mAh 8.3Wh
	Manufacture	Shenzhen Longtiger Technology Co., Ltd
Ancillary Equipment 2	Adapter	
	Brand Name	N/A
	Model No.	A8A-050200U-US1
	Serial No.	N/A
	Rated Input	100-240V~, 50/60Hz, 0.35A
	Rated Output	5.0V= 2.0A
Ancillary Equipment 3	USB Cable	
	Length (Approx.)	1.0m

2.5 Technical Information

Network and Wireless connectivity	4G Network FDD LTE Band 2/4/5/12/13/26 Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20) GPS
Classification of equipment	Class B
The highest internal frequency of EUT	2500 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
Wireless Communications Test Set	R&S	CMW500	127801	N/A	Cal. Due 2024.12.04	☒
Laptop	Lenovo	ThinkPad E495	N/A	N/A	N/A	☒
Headset	Xiaomi	EM023	N/A	1.25m	N/A	☒

4.2 Test Configurations

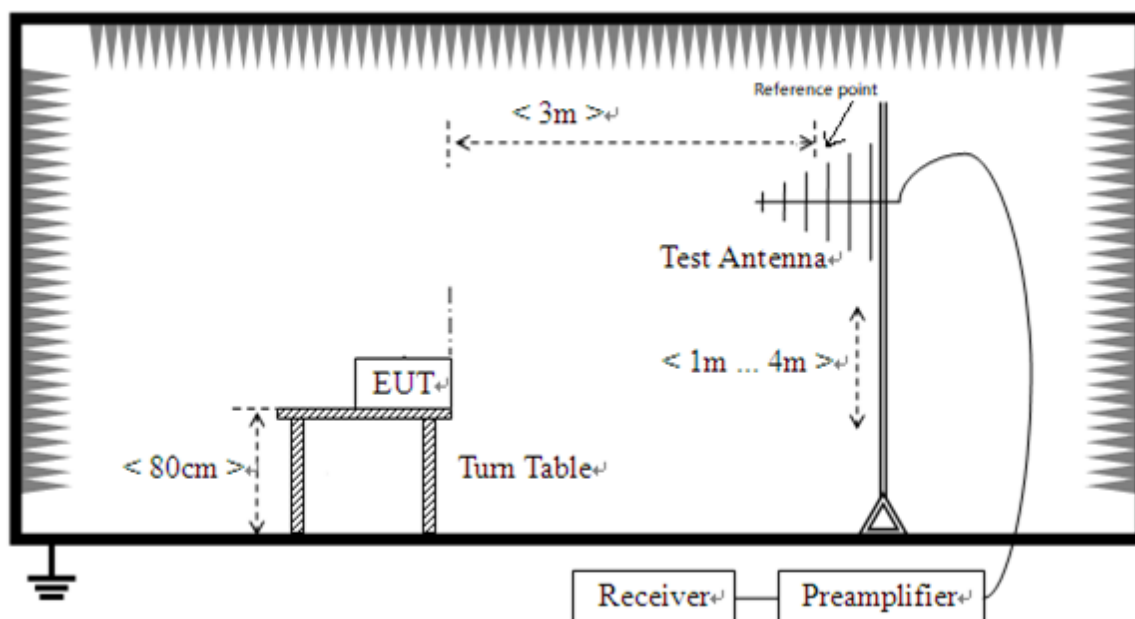
All test modes of EUT are listed in the table below.

Test Mode Configuration	Description
Mode 1	<u>The FDD LTE Band 5 RX Test Mode</u> LTE Band 5 RX + EUT +Adapter + USB Cable + Battery + Headset
Mode 2	<u>The FDD LTE Band 12 RX Test Mode</u> LTE Band 12 RX + EUT +Adapter + USB Cable + Battery + Headset
Mode 3	<u>The FDD LTE Band 13 RX Test Mode</u> LTE Band 13 RX + EUT +Adapter + USB Cable + Battery + Headset
Mode 4	<u>The FDD LTE Band 26 RX Test Mode</u> LTE Band 26 RX + EUT +Adapter + USB Cable + Battery + Headset
Mode 5	<u>The Standby Test Mode</u> EUT + Adapter + USB Cable + Battery + Headset
Mode 6	<u>The USB Test Mode</u> EUT + USB Cable + Battery + Laptop + Headset

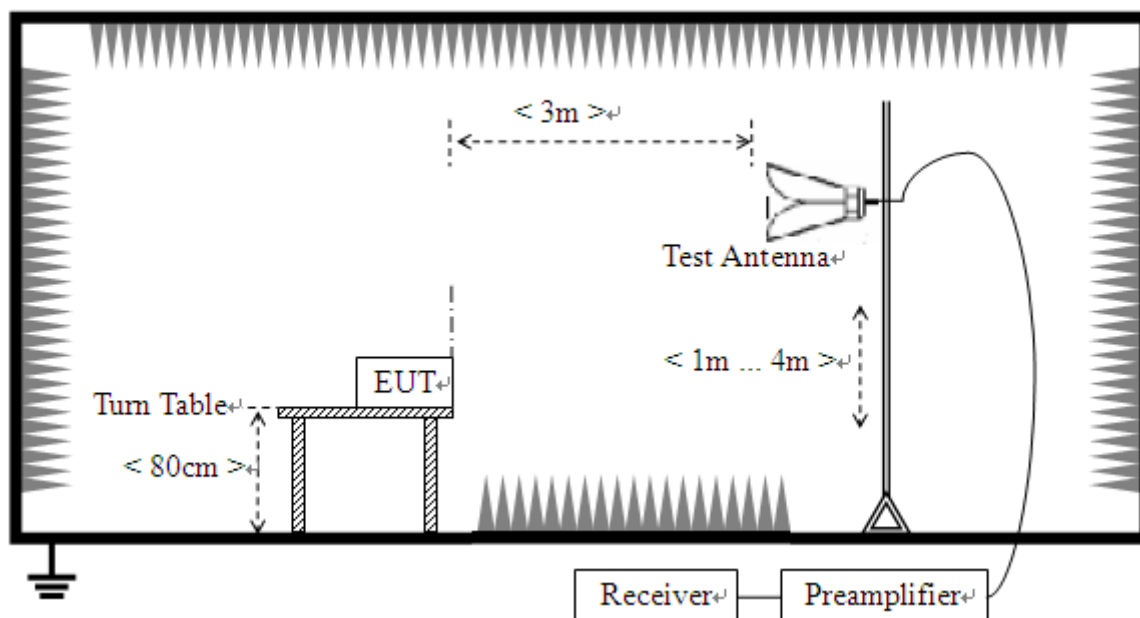
Test Case	Test Mode Configuration	Worst Mode
Radiated Emission	Mode 1~Mode 6	5, 6
Conducted Emission, AC Ports	Mode 1~Mode 6	5, 6
Note: All operation modes were tested, but only test data of the worst mode was presented in this report.		

4.3 Test Setups

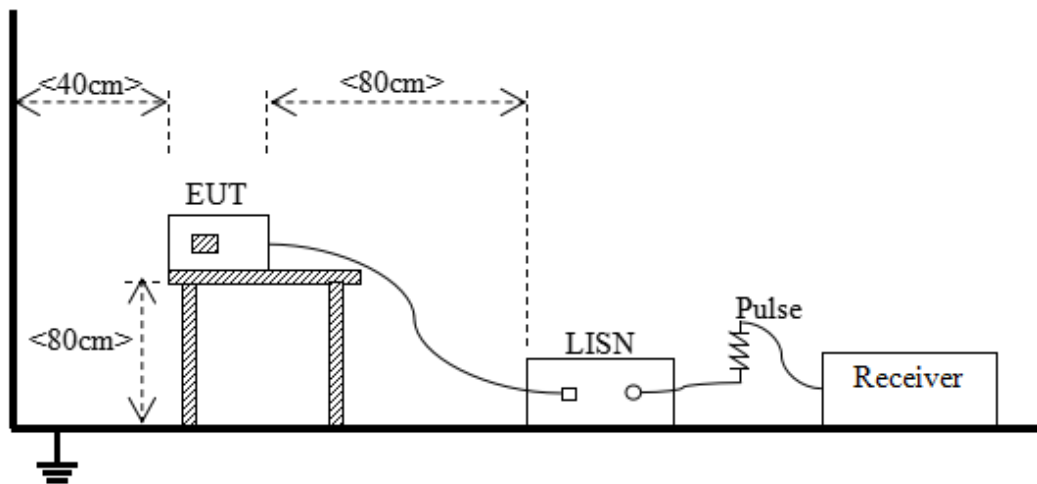
Test Setup 1



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

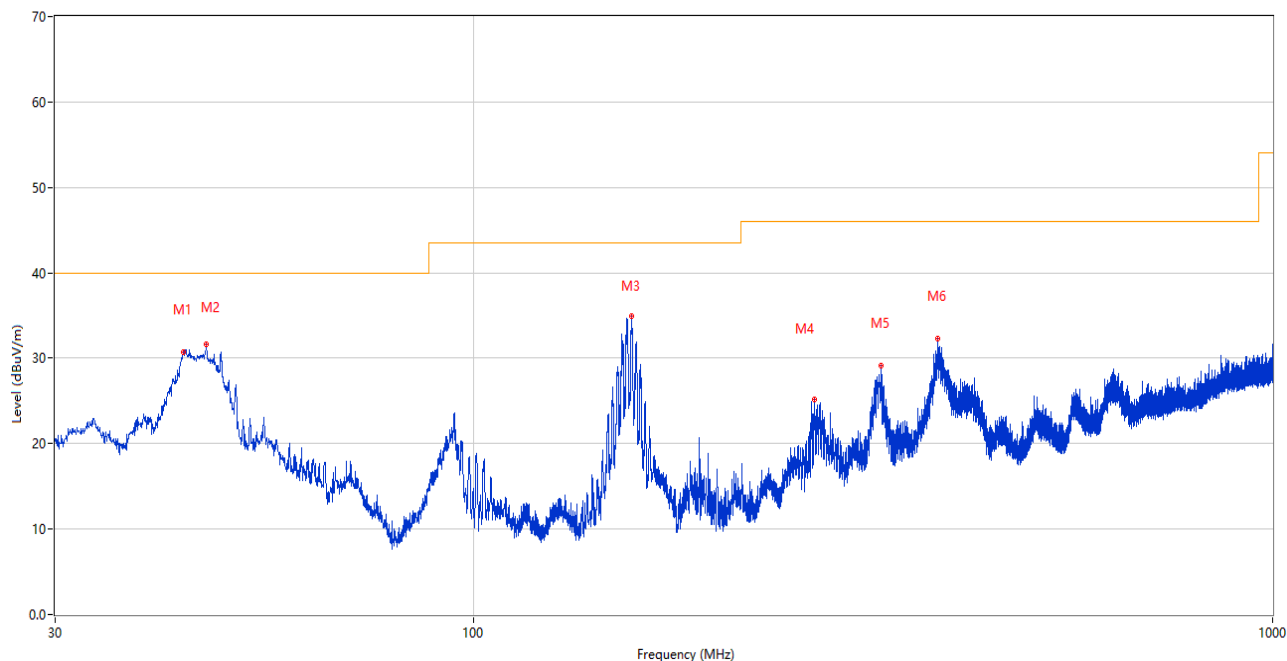
Note 1: The symbol of “--” in the table which means not application.

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.

Sample No.	S05	Temperature	20.9℃
Humidity	46%RH	Pressure	101kPa
Test Engineer	He Shichang	Test Date	2024.06.04

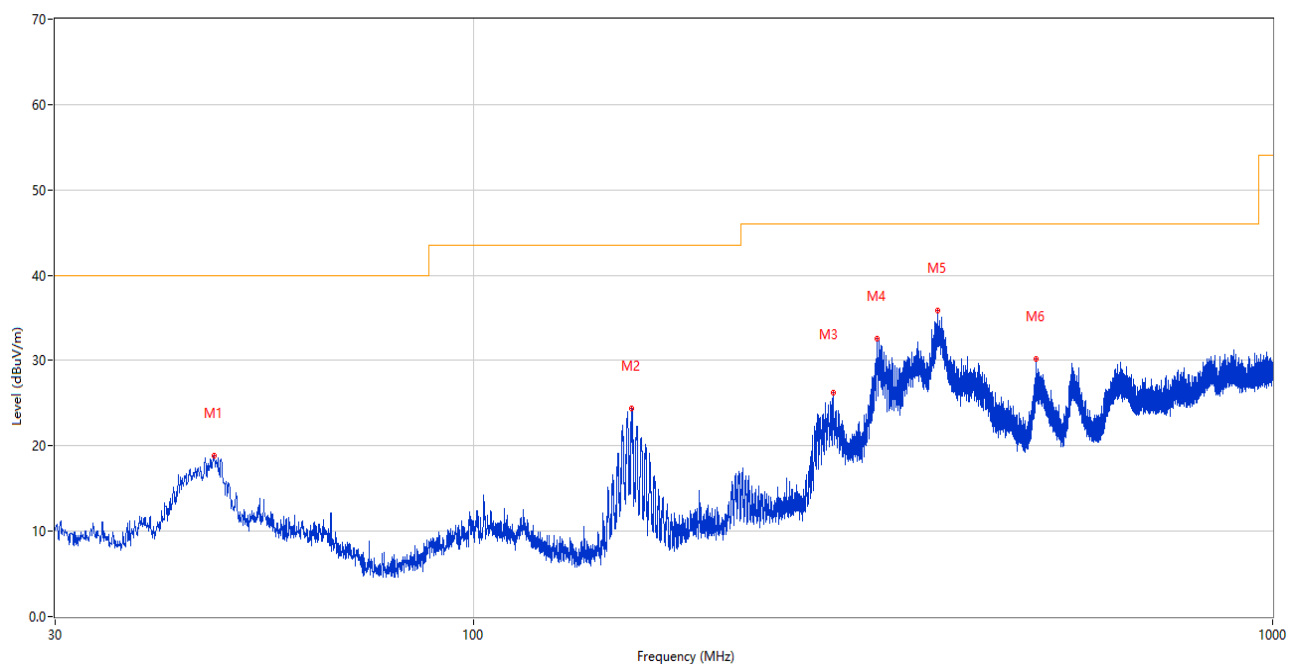
Test Mode 5

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	43.434	30.68	-25.73	40.0	9.32	Peak	220.00	100	Vertical	Pass
2	46.344	31.60	-25.56	40.0	8.40	Peak	262.00	100	Vertical	Pass
3	157.943	34.98	-29.72	43.5	8.52	Peak	240.00	100	Vertical	Pass
4	267.359	25.22	-24.46	46.0	20.78	Peak	172.00	100	Vertical	Pass
5	323.862	29.12	-22.99	46.0	16.88	Peak	167.00	100	Vertical	Pass
6	381.334	32.29	-21.50	46.0	13.71	Peak	214.00	200	Vertical	Pass

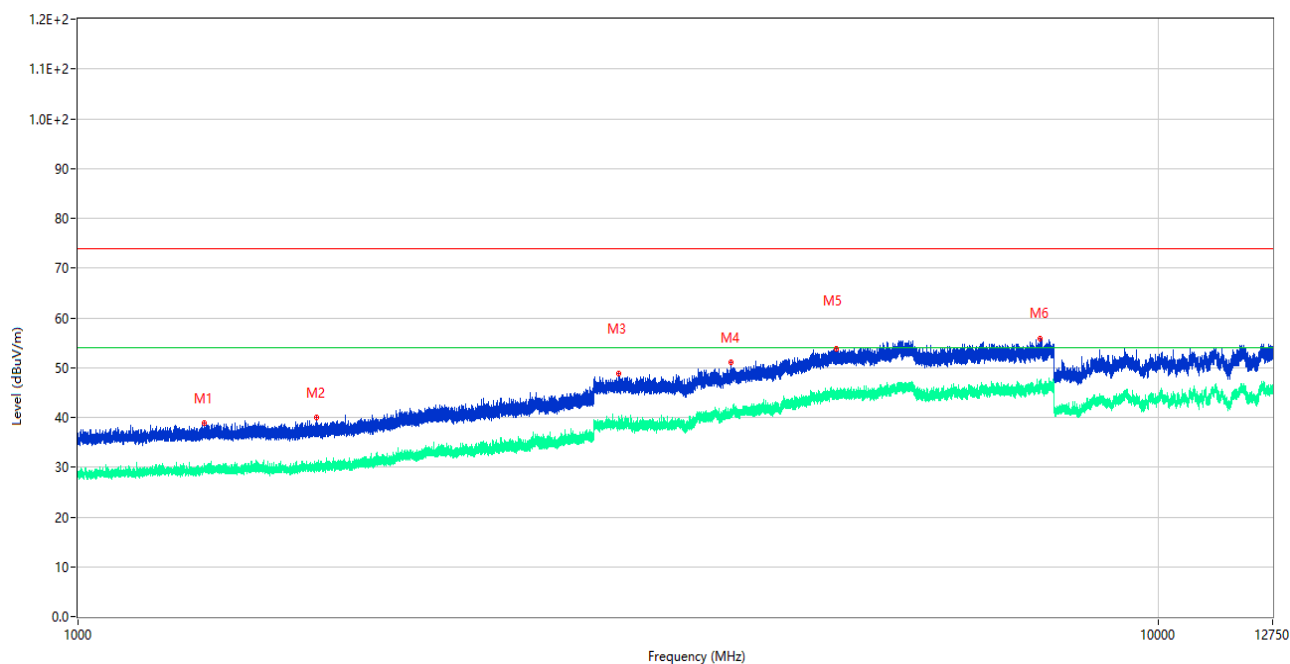
2) Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	47.363	18.89	-25.51	40.0	21.11	Peak	145.00	100	Horizontal	Pass
2	157.992	24.37	-29.72	43.5	19.13	Peak	320.00	200	Horizontal	Pass
3	281.812	26.17	-24.15	46.0	19.83	Peak	247.00	100	Horizontal	Pass
4	319.788	32.59	-23.25	46.0	13.41	Peak	221.00	100	Horizontal	Pass
5	381.382	35.80	-21.51	46.0	10.20	Peak	48.00	100	Horizontal	Pass
6	505.834	30.20	-18.62	46.0	15.80	Peak	59.00	200	Horizontal	Pass

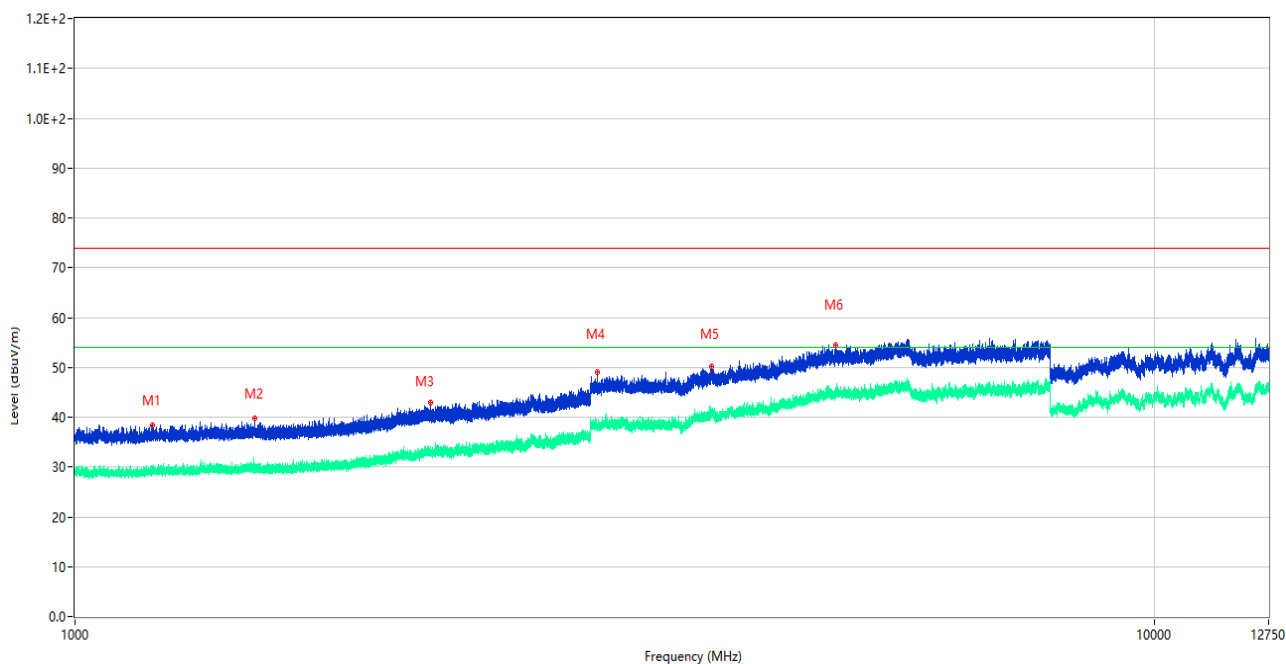
Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Below 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2023.09.05	2024.09.04	☒
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2023.12.05	2024.12.04	☒
Test Antenna- Bi-Log	SCHWARZB ECK	VULB 9168	9168-00867	2022.04.12	2025.04.11	☒
Anechoic Chamber (#2)	YiHeng	9m*6m*6m	142	2021.08.19	2024.08.18	☒
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		☒

3) Test Antenna Vertical, 1 GHz – 12.75 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1309.600	38.95	-15.75	74.0	35.05	Peak	23.00	100	Vertical	Pass
1**	1309.600	30.02	-15.75	54.0	23.98	AV	23.00	100	Vertical	Pass
2	1663.700	39.92	-15.55	74.0	34.08	Peak	141.00	100	Vertical	Pass
2**	1663.700	30.46	-15.55	54.0	23.54	AV	141.00	100	Vertical	Pass
3	3165.750	48.79	-4.88	74.0	25.21	Peak	246.00	100	Vertical	Pass
3**	3165.750	38.00	-4.88	54.0	16.00	AV	246.00	100	Vertical	Pass
4	4024.500	51.08	-2.02	74.0	22.92	Peak	210.00	100	Vertical	Pass
4**	4024.500	40.76	-2.02	54.0	13.24	AV	210.00	100	Vertical	Pass
5	5032.500	53.83	1.47	74.0	20.17	Peak	175.00	100	Vertical	Pass
5**	5032.500	45.40	1.47	54.0	8.60	AV	175.00	100	Vertical	Pass
6	7770.250	55.92	2.76	74.0	18.08	Peak	41.00	100	Vertical	Pass
6**	7770.250	45.83	2.76	54.0	8.17	AV	41.00	100	Vertical	Pass

4) Test Antenna Horizontal, 1 GHz – 12.75 GHz



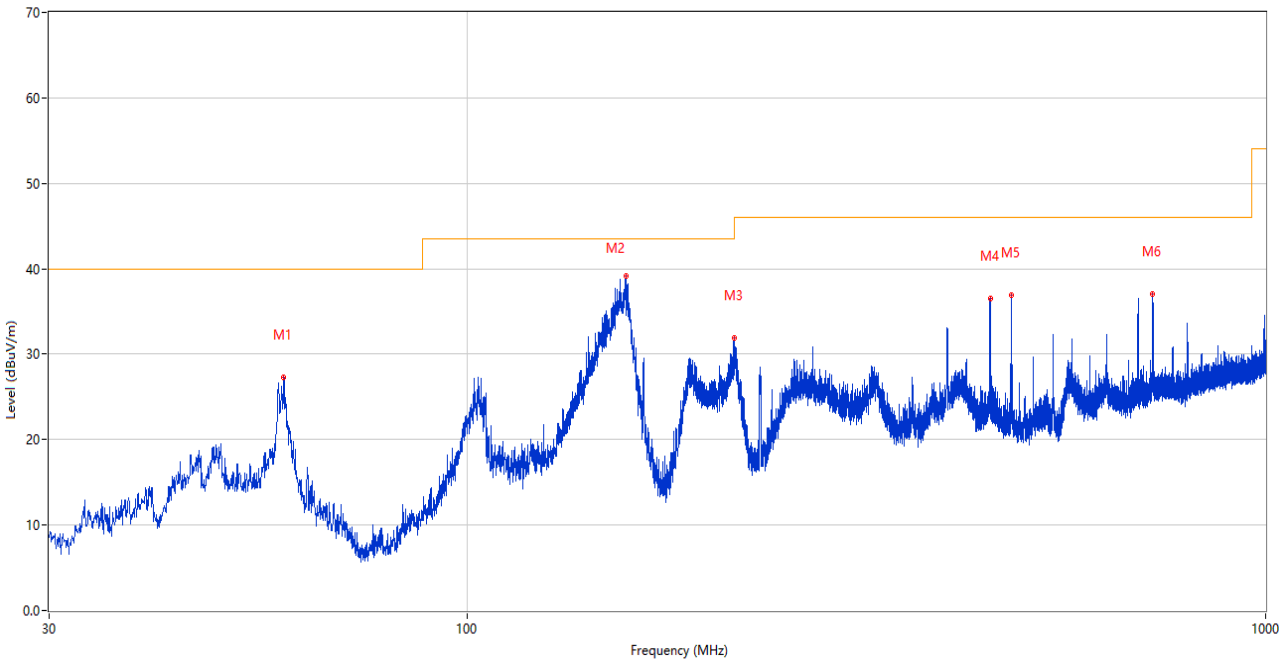
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1179.700	38.43	-16.20	74.0	35.57	Peak	242.00	100	Horizontal	Pass
1**	1179.700	29.47	-16.20	54.0	24.53	AV	242.00	100	Horizontal	Pass
2	1466.100	39.81	-15.87	74.0	34.19	Peak	307.00	100	Horizontal	Pass
2**	1466.100	29.60	-15.87	54.0	24.40	AV	307.00	100	Horizontal	Pass
3	2132.500	42.84	-12.97	74.0	31.16	Peak	69.00	100	Horizontal	Pass
3**	2132.500	32.59	-12.97	54.0	21.41	AV	69.00	100	Horizontal	Pass
4	3048.000	49.04	-4.20	74.0	24.96	Peak	179.00	100	Horizontal	Pass
4**	3048.000	38.69	-4.20	54.0	15.31	AV	179.00	100	Horizontal	Pass
5	3884.000	50.20	-1.83	74.0	23.80	Peak	170.00	100	Horizontal	Pass
5**	3884.000	41.57	-1.83	54.0	12.43	AV	170.00	100	Horizontal	Pass
6	5059.750	54.51	1.40	74.0	19.49	Peak	179.00	100	Horizontal	Pass
6**	5059.750	44.20	1.40	54.0	9.80	AV	179.00	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	☒
Amplifier (1-12GHz)	Advanced Microwave	WLA652A	1740103	2023.12.05	2024.12.04	☒
Amplifier (0.8-21GHz)	Mini-Circuits	ZVA-213-S+	225321316	2023.12.05	2024.12.04	☒
Test Antenna- Horn	SCHWARZB ECK	BBHA 9120D	01917	2022.06.09	2025.06.08	☒
Anechoic Chamber (#2)	YiHeng	9m*6m*6m	142	2021.08.19	2024.08.18	☒
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		☒

Sample No.	S05	Temperature	20.9℃
Humidity	46%RH	Pressure	101kPa
Test Engineer	He Shichang	Test Date	2024.06.06

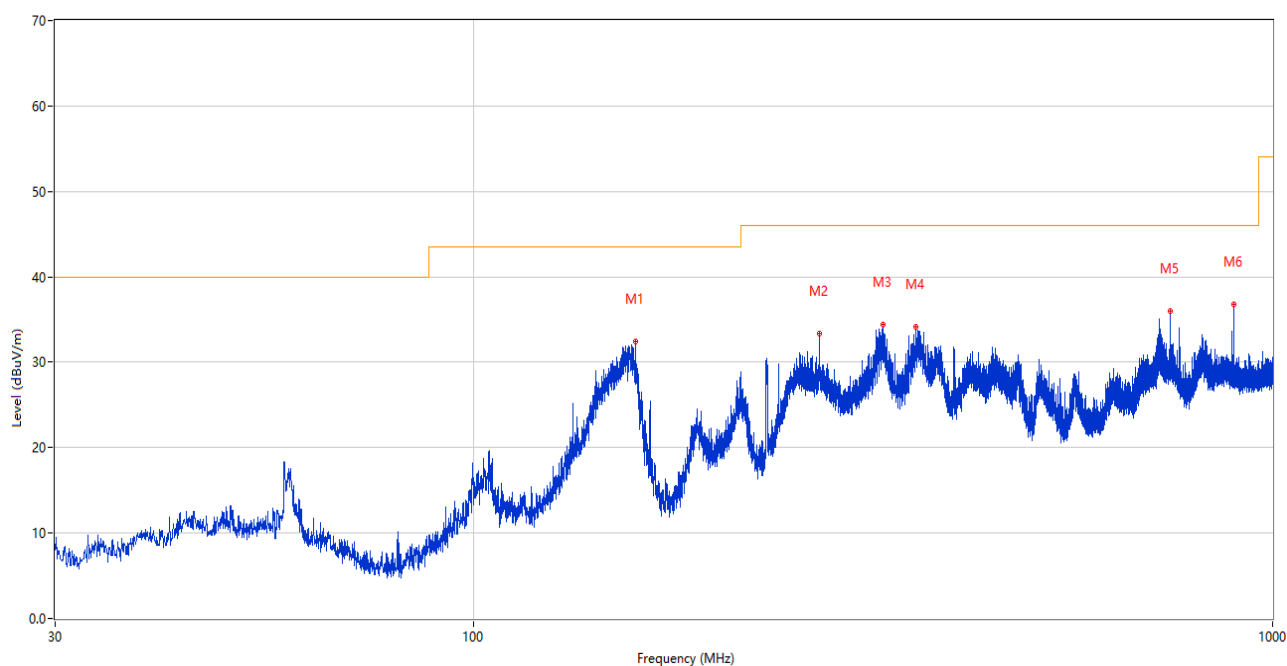
Test Mode 6

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	59.003	27.26	-26.76	40.0	12.74	Peak	286.00	100	Vertical	Pass
2	158.137	39.12	-29.71	43.5	4.38	Peak	233.00	100	Vertical	Pass
3	216.531	31.88	-26.35	46.0	14.12	Peak	218.00	100	Vertical	Pass
4	452.047	36.57	-19.82	46.0	9.43	Peak	130.00	100	Vertical	Pass
5	480.031	36.88	-19.19	46.0	9.12	Peak	251.00	200	Vertical	Pass
6	722.338	37.06	-13.53	46.0	8.94	Peak	151.00	100	Vertical	Pass

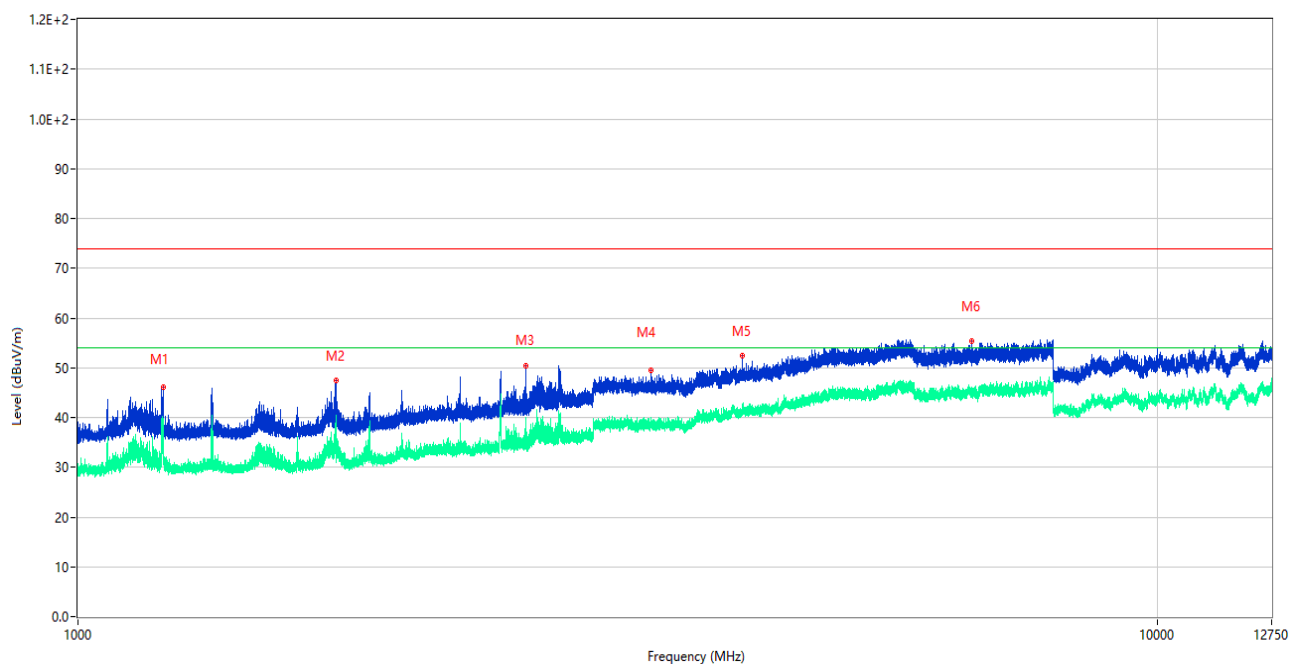
6) Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	159.544	32.37	-29.60	43.5	11.13	Peak	165.00	200	Horizontal	Pass
2	270.948	33.31	-24.40	46.0	12.69	Peak	253.00	100	Horizontal	Pass
3	325.365	34.46	-23.00	46.0	11.54	Peak	326.00	100	Horizontal	Pass
4	358.102	34.15	-21.82	46.0	11.85	Peak	302.00	100	Horizontal	Pass
5	745.181	36.00	-12.98	46.0	10.00	Peak	79.00	100	Horizontal	Pass
6	893.833	36.78	-10.01	46.0	9.22	Peak	189.00	200	Horizontal	Pass

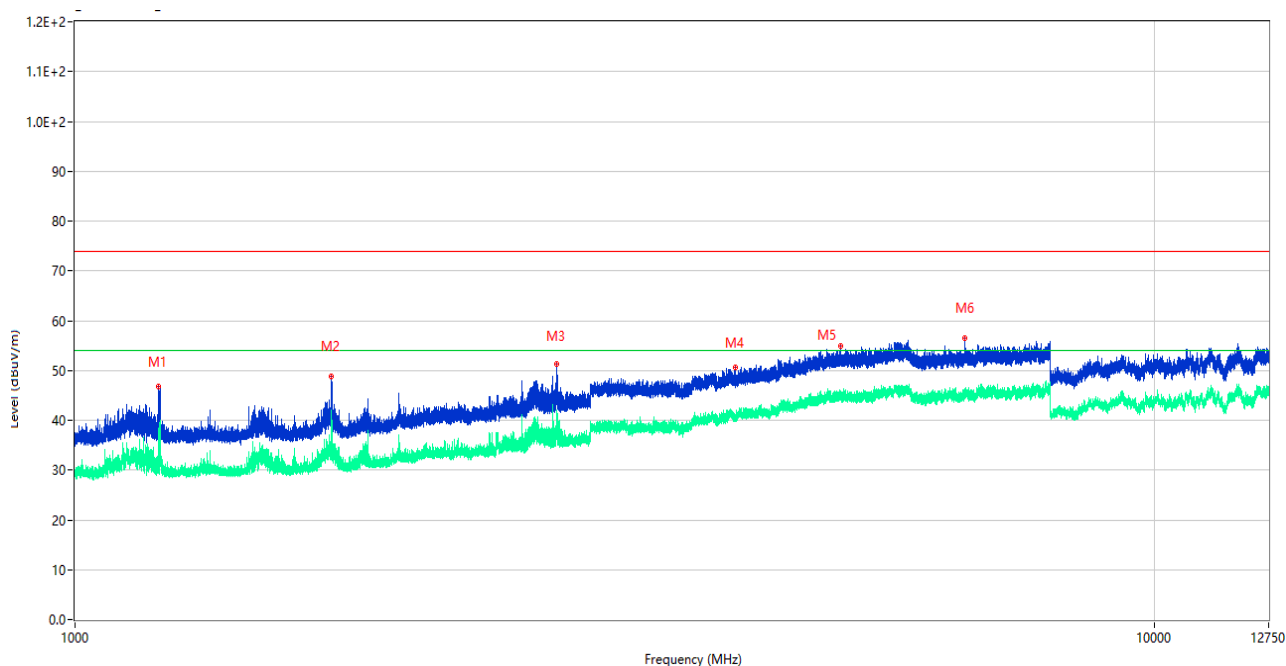
Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Below 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2023.09.05	2024.09.04	☒
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2023.12.05	2024.12.04	☒
Test Antenna- Bi-Log	SCHWARZB ECK	VULB 9168	9168-00867	2022.04.12	2025.04.11	☒
Anechoic Chamber (#2)	YiHeng	9m*6m*6m	142	2021.08.19	2024.08.18	☒
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		☒

7) Test Antenna Vertical, 1 GHz – 12.75 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1198.500	46.03	-16.25	74.0	27.97	Peak	224.00	100	Vertical	Pass
1**	1198.500	34.26	-16.25	54.0	19.74	AV	224.00	100	Vertical	Pass
2	1732.500	47.44	-15.87	74.0	26.56	Peak	139.00	100	Vertical	Pass
2**	1732.500	40.56	-15.87	54.0	13.44	AV	139.00	100	Vertical	Pass
3	2597.600	50.50	-9.92	74.0	23.50	Peak	198.00	100	Vertical	Pass
3**	2597.600	40.10	-9.92	54.0	13.90	AV	198.00	100	Vertical	Pass
4	3395.000	49.45	-4.06	74.0	24.55	Peak	140.00	100	Vertical	Pass
4**	3395.000	38.88	-4.06	54.0	15.12	AV	140.00	100	Vertical	Pass
5	4126.500	52.39	-1.62	74.0	21.61	Peak	220.00	100	Vertical	Pass
5**	4126.500	41.43	-1.62	54.0	12.57	AV	220.00	100	Vertical	Pass
6	6727.750	55.48	1.40	74.0	18.52	Peak	246.00	100	Vertical	Pass
6**	6727.750	45.28	1.40	54.0	8.72	AV	246.00	100	Vertical	Pass

8) Test Antenna Horizontal, 1 GHz – 12.75 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1195.300	46.75	-16.22	74.0	27.25	Peak	236.00	100	Horizontal	Pass
1**	1195.300	32.51	-16.22	54.0	21.49	AV	236.00	100	Horizontal	Pass
2	1728.600	48.86	-15.82	74.0	25.14	Peak	197.00	100	Horizontal	Pass
2**	1728.600	33.85	-15.82	54.0	20.15	AV	197.00	100	Horizontal	Pass
3	2794.600	51.26	-8.36	74.0	22.74	Peak	170.00	100	Horizontal	Pass
3**	2794.600	39.87	-8.36	54.0	14.13	AV	170.00	100	Horizontal	Pass
4	4092.750	50.60	-1.57	74.0	23.40	Peak	301.00	100	Horizontal	Pass
4**	4092.750	41.09	-1.57	54.0	12.91	AV	301.00	100	Horizontal	Pass
5	5117.000	54.83	1.55	74.0	19.17	Peak	213.00	100	Horizontal	Pass
5**	5117.000	45.78	1.55	54.0	8.22	AV	213.00	100	Horizontal	Pass
6	6664.250	56.39	1.10	74.0	17.61	Peak	64.00	100	Horizontal	Pass
6**	6664.250	45.57	1.10	54.0	8.43	AV	64.00	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	☒
Amplifier (1-12GHz)	Advanced Microwave	WLA652A	1740103	2023.12.05	2024.12.04	☒
Amplifier (0.8-21GHz)	Mini-Circuits	ZVA-213-S+	225321316	2023.12.05	2024.12.04	☒
Test Antenna- Horn	SCHWARZB ECK	BBHA 9120D	01917	2022.06.09	2025.06.08	☒
Anechoic Chamber (#2)	YiHeng	9m*6m*6m	142	2021.08.19	2024.08.18	☒
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		☒

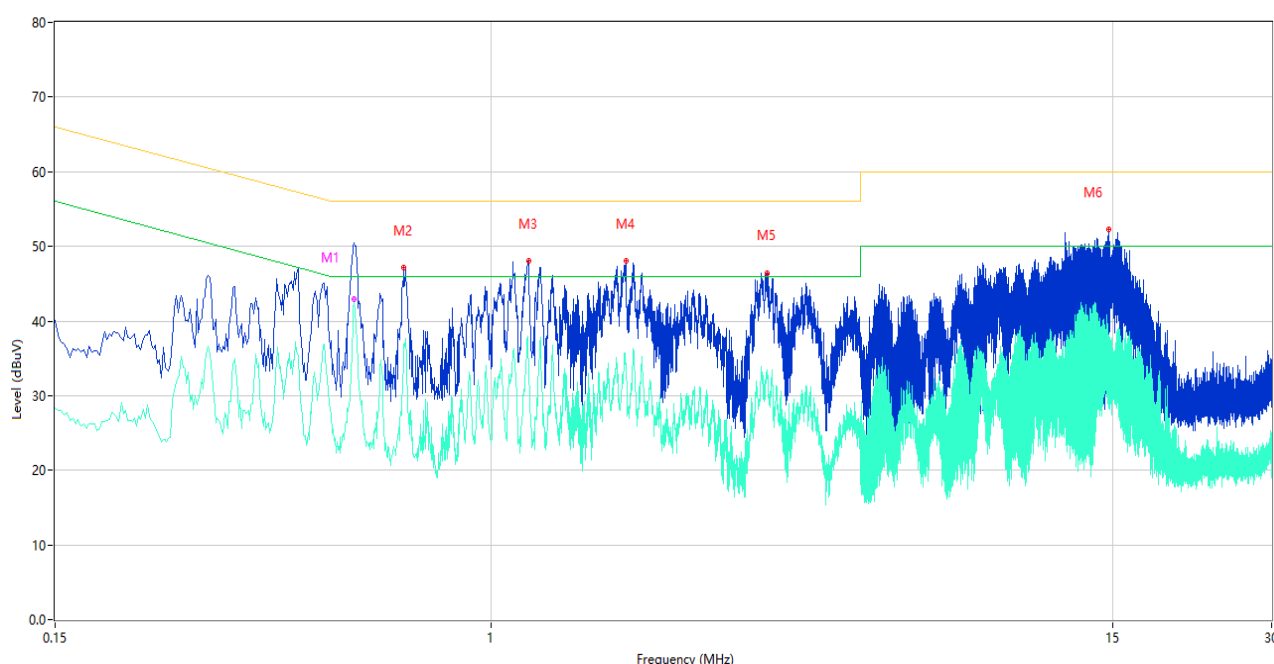
A.2 Conducted Emission, AC Ports

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 (230 VAC, 60 Hz) shown here.

Sample No.	S05	Temperature	20.9℃
Humidity	46%RH	Pressure	101kPa
Test Engineer	Yangyang	Test Date	2024.06.03

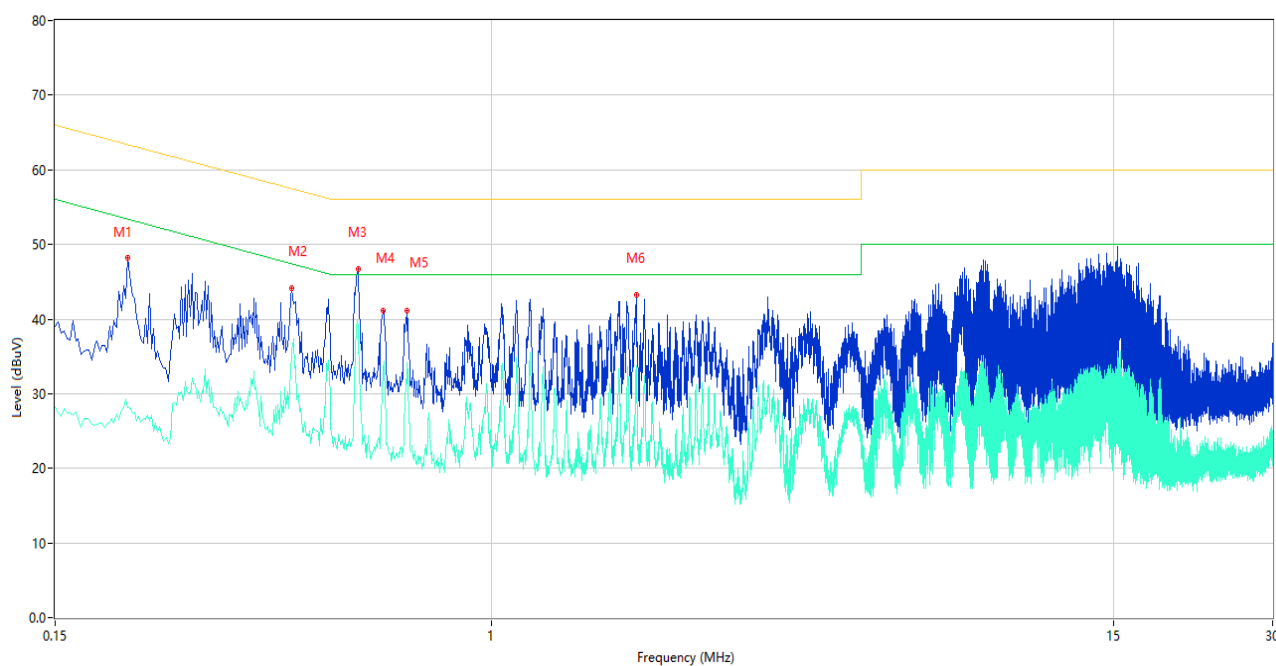
Test Mode 5

1) AC Ports - L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.552	50.47	10.49	56.00	5.53	Peak	L	Pass
1**	0.552	42.99	10.49	46.00	3.01	AV	L	Pass
2	0.686	47.17	10.64	56.00	8.83	Peak	L	Pass
2**	0.686	36.90	10.64	46.00	9.10	AV	L	Pass
3	1.178	48.03	10.57	56.00	7.97	Peak	L	Pass
3**	1.178	34.48	10.57	46.00	11.52	AV	L	Pass
4	1.802	48.05	10.35	56.00	7.95	Peak	L	Pass
4**	1.802	33.28	10.35	46.00	12.72	AV	L	Pass
5	3.330	46.43	10.56	56.00	9.57	Peak	L	Pass
5**	3.330	32.96	10.56	46.00	13.04	AV	L	Pass
6	14.758	52.28	12.90	60.00	7.72	Peak	L	Pass
6**	14.758	30.85	12.90	50.00	19.15	AV	L	Pass

2) AC Ports - N Phase

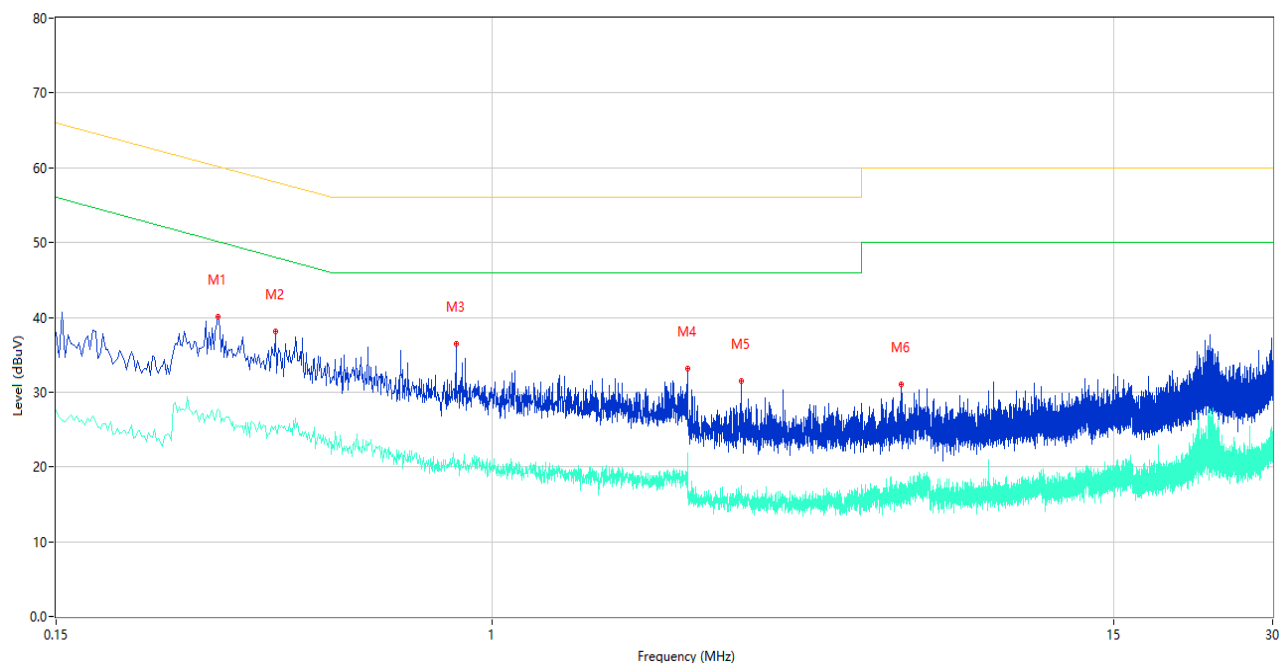


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.206	48.16	10.04	63.37	15.21	Peak	N	Pass
1**	0.206	28.13	10.04	53.37	25.24	AV	N	Pass
2	0.420	44.16	10.62	57.45	13.29	Peak	N	Pass
2**	0.420	36.09	10.62	47.45	11.36	AV	N	Pass
3	0.560	46.73	10.52	56.00	9.27	Peak	N	Pass
3**	0.560	39.20	10.52	46.00	6.80	AV	N	Pass
4	0.624	41.11	10.51	56.00	14.89	Peak	N	Pass
4**	0.624	33.69	10.51	46.00	12.31	AV	N	Pass
5	0.694	41.07	10.72	56.00	14.93	Peak	N	Pass
5**	0.694	34.21	10.72	46.00	11.79	AV	N	Pass
6	1.882	43.23	10.32	56.00	12.77	Peak	N	Pass
6**	1.882	32.73	10.32	46.00	13.27	AV	N	Pass

Sample No.	S05	Temperature	20.9℃
Humidity	46%RH	Pressure	101kPa
Test Engineer	Yangyang	Test Date	2024.06.03

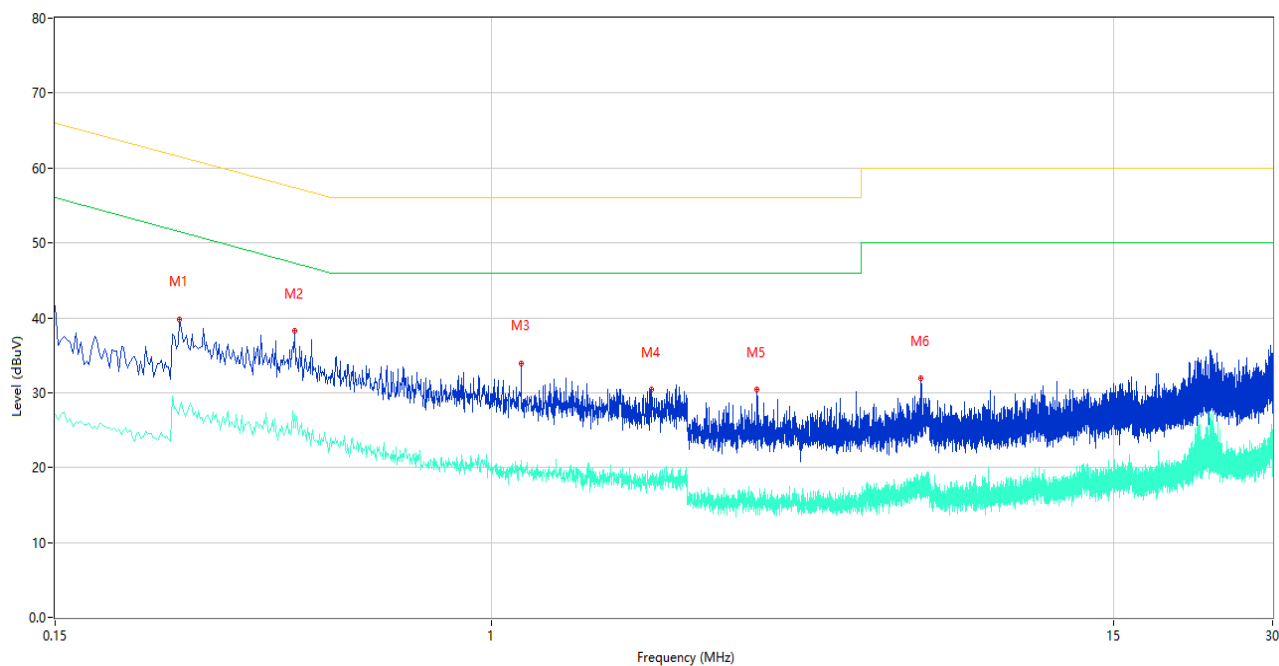
Test Mode 6

3) AC Ports - L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.304	40.06	10.06	60.13	20.07	Peak	L	Pass
1**	0.304	27.70	10.06	50.13	22.43	AV	L	Pass
2	0.390	38.12	10.52	58.06	19.94	Peak	L	Pass
2**	0.390	25.53	10.52	48.06	22.53	AV	L	Pass
3	0.856	36.42	10.58	56.00	19.58	Peak	L	Pass
3**	0.856	20.17	10.58	46.00	25.83	AV	L	Pass
4	2.346	33.07	10.56	56.00	22.93	Peak	L	Pass
4**	2.346	21.84	10.56	46.00	24.16	AV	L	Pass
5	2.960	31.51	10.83	56.00	24.49	Peak	L	Pass
5**	2.960	15.80	10.83	46.00	30.20	AV	L	Pass
6	5.952	31.03	10.89	60.00	28.97	Peak	L	Pass
6**	5.952	16.88	10.89	50.00	33.12	AV	L	Pass

4) AC Ports - N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.258	39.82	10.05	61.50	21.68	Peak	N	Pass
1**	0.258	27.84	10.05	51.50	23.66	AV	N	Pass
2	0.426	38.29	10.61	57.33	19.04	Peak	N	Pass
2**	0.426	27.11	10.61	47.33	20.22	AV	N	Pass
3	1.140	33.95	10.35	56.00	22.05	Peak	N	Pass
3**	1.140	20.87	10.35	46.00	25.13	AV	N	Pass
4	2.014	30.45	10.44	56.00	25.55	Peak	N	Pass
4**	2.014	18.76	10.44	46.00	27.24	AV	N	Pass
5	3.184	30.48	10.46	56.00	25.52	Peak	N	Pass
5**	3.184	15.74	10.46	46.00	30.26	AV	N	Pass
6	6.476	31.90	10.97	60.00	28.10	Peak	N	Pass
6**	6.476	17.33	10.97	50.00	32.67	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	☒
LISN	SCHWARZB ECK	NSLK 8127	8127-687	2024.05.09	2025.05.08	☒
ISN	TESEQ	ISN T800	34449	2023.11.10	2024.11.09	☐
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-SZ2460026-AE.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2460026-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2460026-AI.PDF”.

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