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:	24044RN32L
Brand Name:	Redmi
FCC ID:	2AFZZN32L
Test Standard:	47 CFR Part 15 Subpart B ANSI C63.4-2014
Sample Arrival Date:	Jan. 29, 2024
Test Date:	Feb. 22, 2024 - Feb. 26, 2024
Date of Issue:	Mar. 20, 2024

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

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

Revision History

Version	Issue Date	Revisions
Rev. 01	Mar. 20, 2024	Initial Issue

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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 ApplicantInformation

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

2.2 ManufacturerInformation

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	24044RN32L
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	1351C3Y2
Software Version	Android14
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A
EUT ID	S07, S09, S18
IMEI Number	S07:IMEI1:867400070011527, IMEI2: 867400070011535 S09:IMEI1:867400070011626, IMEI2: 867400070011634 S18:IMEI1:867400070008606, IMEI2: 867400070008614

2.4 Ancillary Equipment

Please refer the document “BL-SZ2410652-AW EUT external photo.pdf”.

2.5 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS/EDGE 850/ 900/ 1800/ 1900 3G Network WCDMA/HSDPA/HSUPA Band 1/2/4/5/8 4G Network FDD LTE Band 1/2/3/4/5/7/8/13/26/28/66 TDD LTE Band 38/40/41 Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20) GPS, GLONASS, BDS, Galileo, FM receiver
Classification of equipment	Class B
The highest internalfrequency of EUT	2690MHz

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
Wireless Communications Test Set	R&S	CMW500	102318	N/A	Cal. Due 2024.05.15	☒
Laptop	Lenovo	N/A	N/A	N/A	N/A	☒
Earphone	N/A	N/A	N/A	N/A	N/A	☒
SD Card	N/A	N/A	N/A	N/A	N/A	☒
USB Flash Disk	N/A	N/A	N/A	N/A	N/A	☒

4.2 Test Configurations

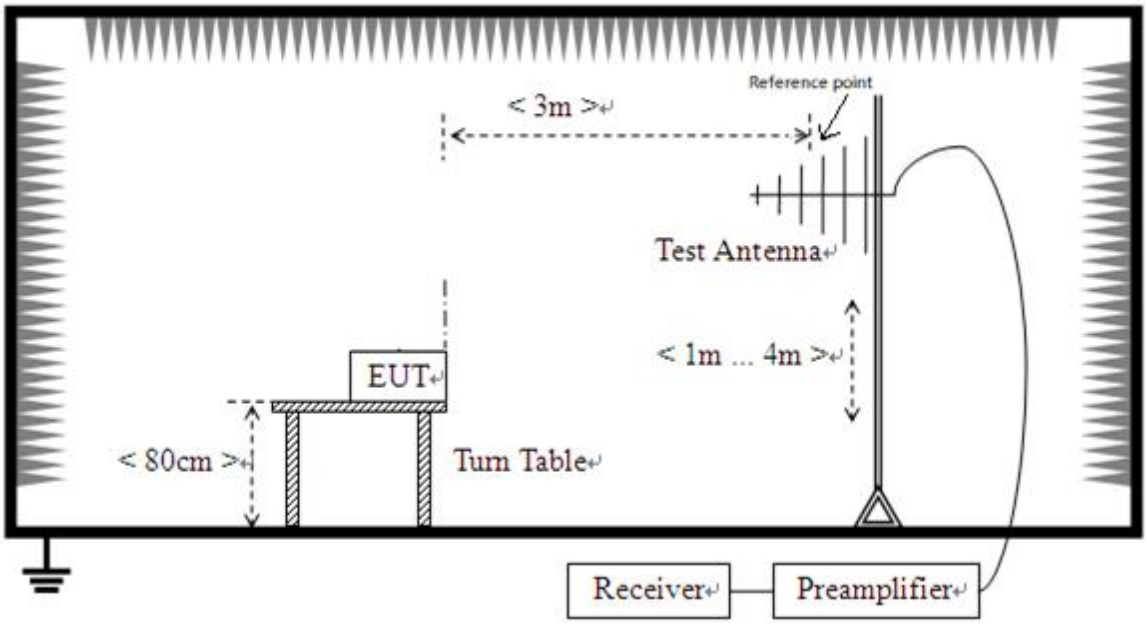
All test modes of EUT are listed in the table below.

Test Mode Configuration	Description
Mode 1	The Idle Test Mode GSM 850(Idle) + Adapter + USB Cable + Battery + Earphone + SD Card
Mode 2	The Front Camera Test Mode EUT + Adapter + USB Cable + Battery + Earphone + SD Card
Mode 3	The Back Camera Test Mode EUT + Adapter + USB Cable + Battery + Earphone + SD Card
Mode 4	The Video Play Test Mode EUT + Adapter + USB Cable + Battery + Earphone + SD Card
Mode 5	The Standby Test Mode EUT + Adapter + USB Cable + Battery + Earphone + SD Card
Mode 6	The FM Test Mode EUT + Adapter + USB Cable + Battery + Earphone + SD Card
Mode 7	The WCDMA Band 5 RX Test Mode EUT + Adapter + USB Cable + Battery + Earphone + WCDMA Band 5 RX
Mode 8	The FDD LTE Band 5 Test Mode EUT + Adapter + USB Cable + Battery + Earphone + LTE Band 5 RX
Mode 9	The FDD LTE Band 13 Test Mode EUT + Adapter + USB Cable + Battery + Earphone + LTE Band 13 RX
Mode 10	The FDD LTE Band 26 Test Mode EUT + Adapter + USB Cable + Battery + Earphone + LTE Band 26 RX
Mode 11	The USB Test Mode EUT + USB Cable + Battery + Earphone + Laptop + SD Card
Mode 12	The OTG Test Mode EUT + Battery + Earphone + SD Card + USB Flash Disk

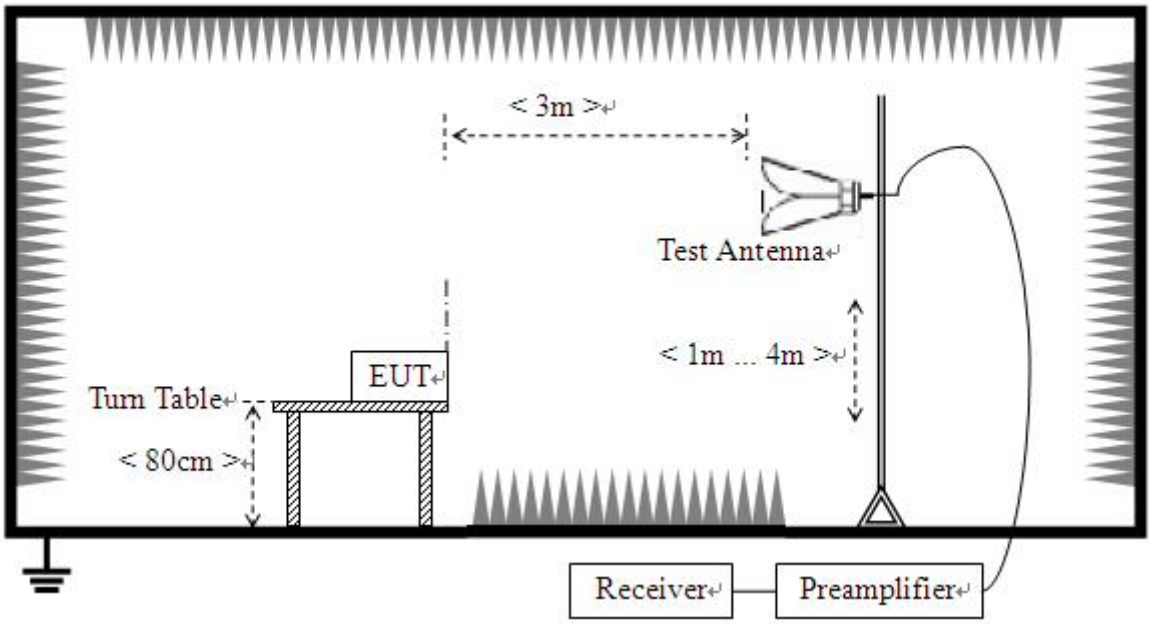
Test Case	Test Mode Configuration	Worst Mode
Radiated Emission	Mode 1~Mode 12	5, 7
Conducted Emission, AC Ports	Mode 1~Mode 11	5, 7
Note: All operation modes were tested, but only test data of the worst mode was presented in this report.		

4.3 Test Setups

Test Setup 1

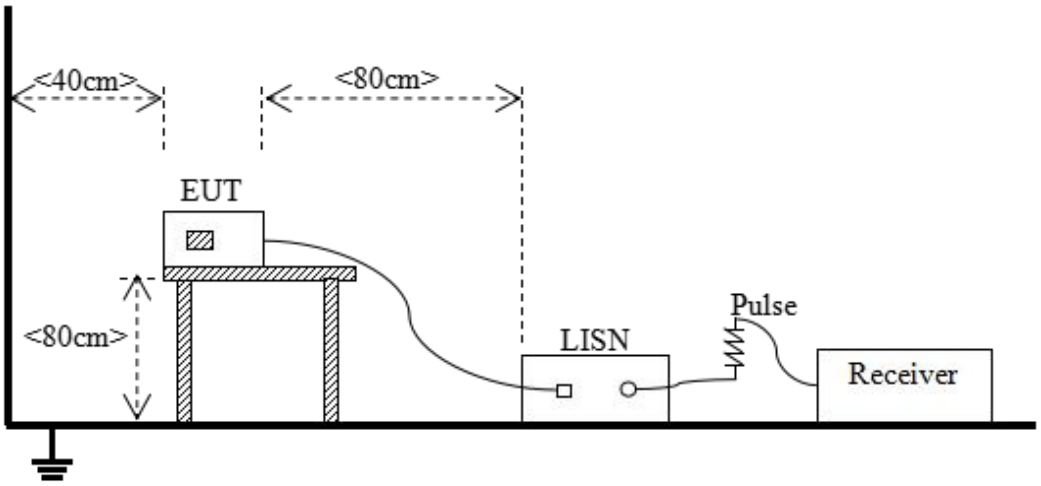


Radiated Emission (30 MHz-1 GHz)



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 (μV/m)	Field Strength (dBμV/m)	Field Strength (dBμV/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 (dBμV/m) = 20*log [Field Strength (μV/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 (μV/m)	Field Strength Average (dBμV/m)	Field Strength Peak (dBμV/m)	Field Strength Average (dBμV/m)	Field Strength Peak (dBμV/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:
$L_{3m} = L_{10m} + 20*\log(d_{10m}/d_{3m})$
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*log(10/3)=60 (dBμV/m).

Highest internal frequency (F_X)	Highest measurement frequency (F_M)
$F_X \leq 108$ MHz	1GHz
108 MHz ≤ $F_X \leq 500$ MHz	2GHz
500 MHz ≤ $F_X \leq 1$ GHz	5GHz
$F_X \geq 1$ 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° 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 ≥ 1 GHz, 100 kHz for f < 1 GHz

VBW ≥ RBW

Sweep = auto

Detector function = peak for f <1 GHz, peak & RMS Average for f ≥ 1 GHz

Trace = max hold

5.1.1.4 Test Resultand Test Equipment List

Please refer to ANNEXA.1.

NOTE:

1. Results (dBμV/m) = Reading (dBμV) + 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 (dBμV)	Average (dBμV)
0.15 - 0.50	79	66
0.50 - 30	73	60

Frequency range (MHz)	Class B	
	Quasi-peak (dBμV)	Average (dBμV)
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 μH 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 ≥ RBW

Sweep = 10ms

Detector function =peak & Average

Trace = max hold

5.1.2.4 Test Resultand Test Equipment List

Please refer to ANNEXA.2.

NOTE:

1. Results (dBμV) = Reading (dBμV) + 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

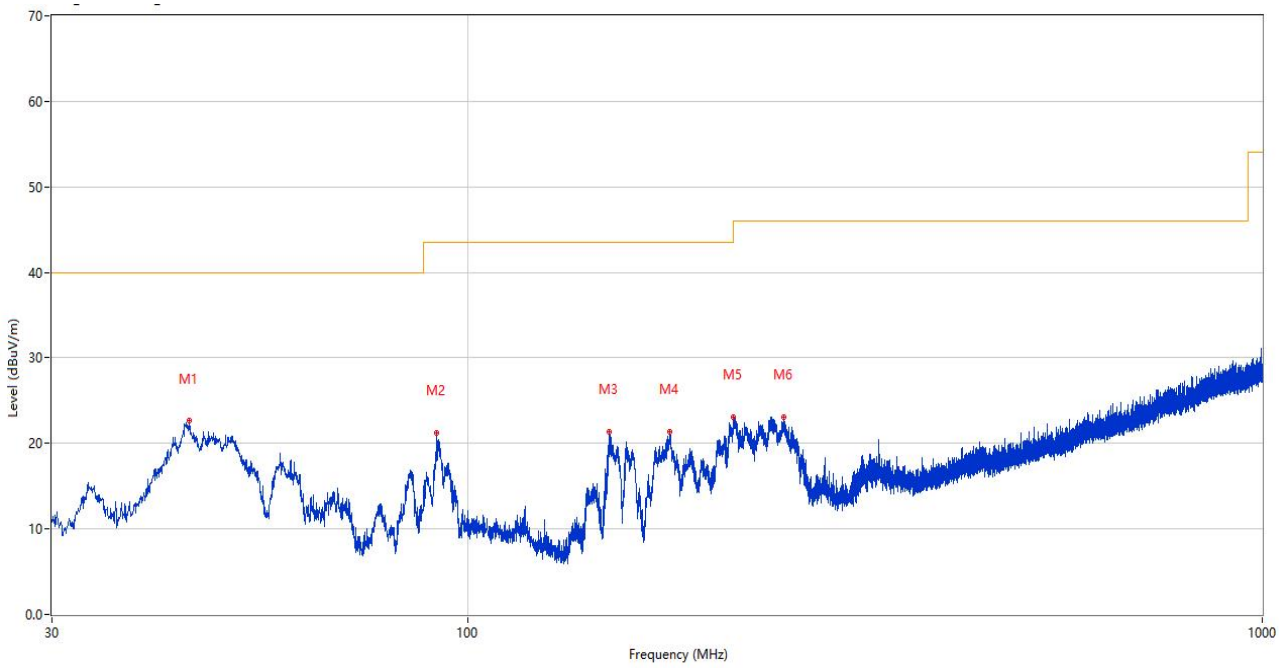
Note 1: The symbol of “--” in the table which means not application.

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 (orquasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Sample No.	S18	Temperature	21.4℃
Humidity	52%RH	Pressure	101kPa
Test Engineer	He Shichang	Test Date	2024.02.22

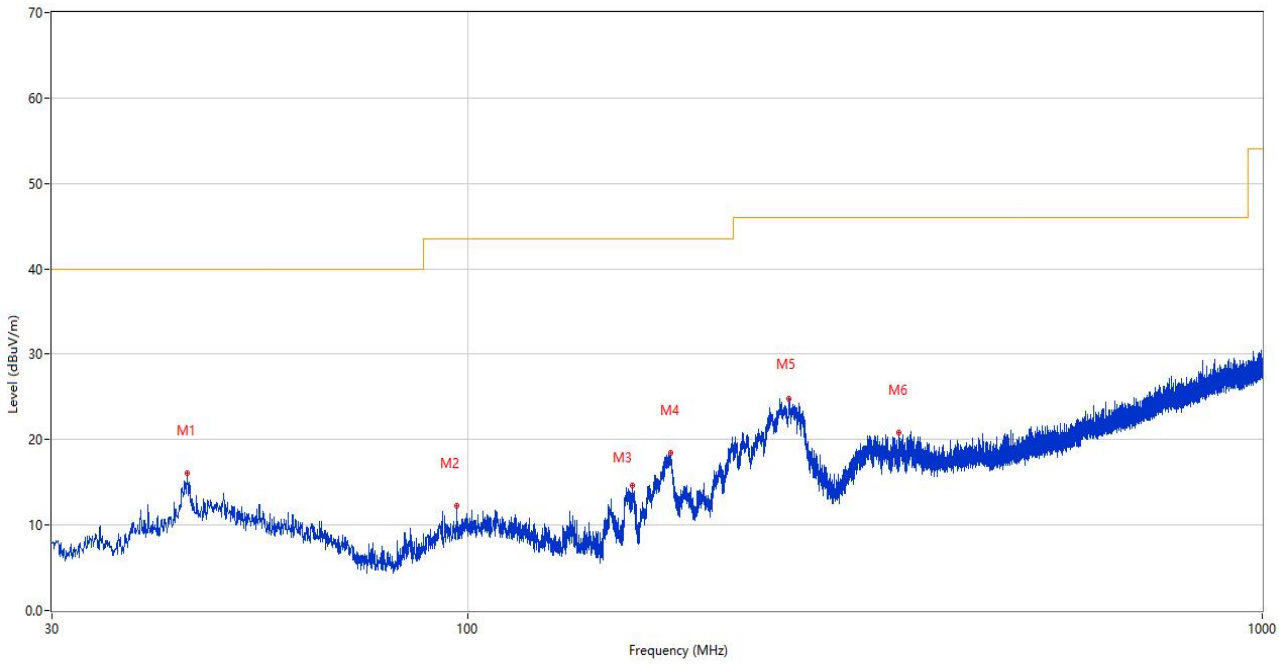
Test Mode5

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	44.647	22.61	-25.64	40.0	17.39	Peak	297.00	100	Vertical	Pass
2	91.547	21.23	-28.19	43.5	22.27	Peak	208.00	100	Vertical	Pass
3	150.959	21.39	-30.10	43.5	22.11	Peak	31.00	100	Vertical	Pass
4	179.720	21.35	-28.50	43.5	22.15	Peak	244.00	100	Vertical	Pass
5	216.288	23.08	-26.38	46.0	22.92	Peak	347.00	100	Vertical	Pass
6	250.141	23.04	-24.87	46.0	22.96	Peak	325.00	100	Vertical	Pass

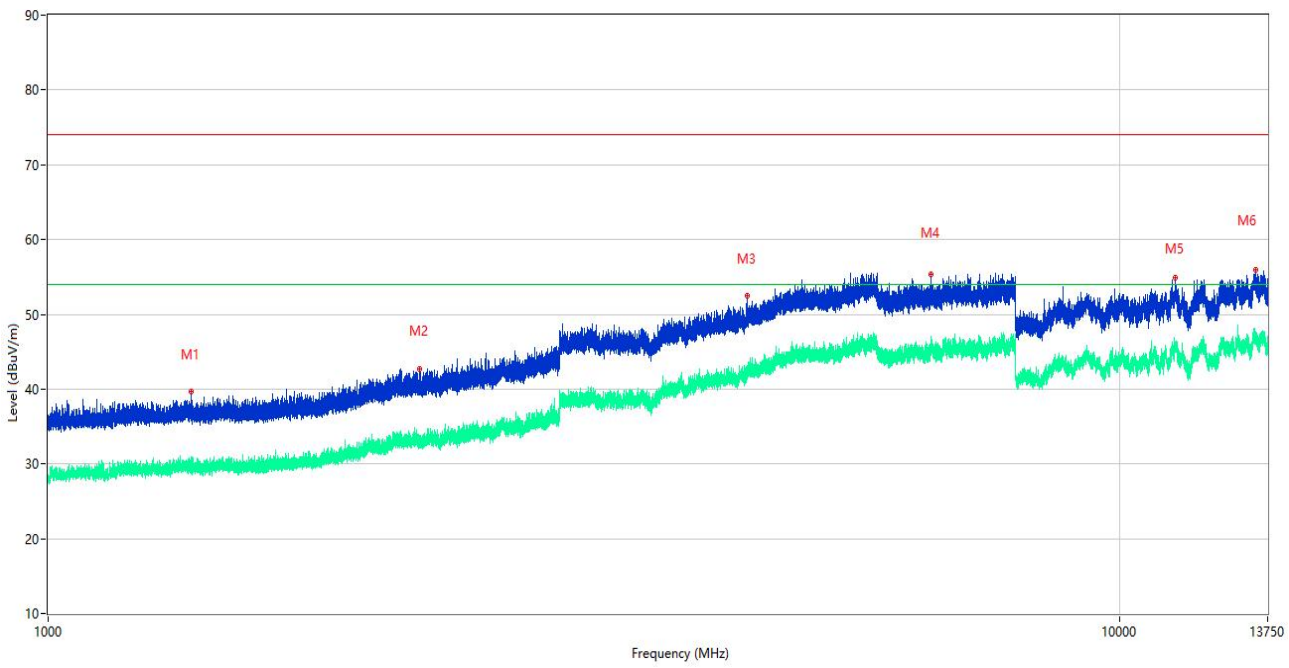
2) Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	44.404	16.06	-25.71	40.0	23.94	Peak	143.00	100	Horizontal	Pass
2	97.027	12.26	-27.20	43.5	31.24	Peak	312.00	100	Horizontal	Pass
3	161.290	14.61	-29.53	43.5	28.89	Peak	45.00	200	Horizontal	Pass
4	180.156	18.45	-28.52	43.5	25.05	Peak	243.00	200	Horizontal	Pass
5	253.924	24.80	-24.73	46.0	21.20	Peak	76.00	100	Horizontal	Pass
6	348.839	20.81	-21.89	46.0	25.19	Peak	101.00	100	Horizontal	Pass

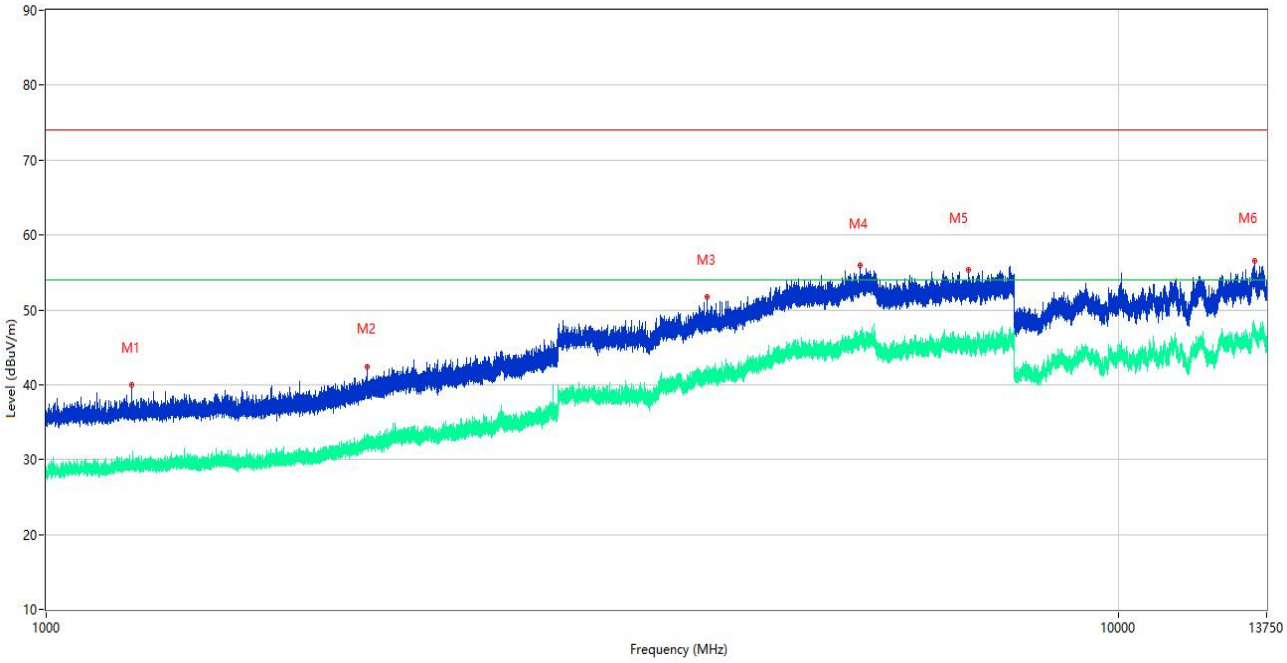
Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Below 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2023.09.05	2024.09.04	☒
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2023.12.05	2024.12.04	☒
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9168	9168-00867	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 – 18 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1359.000	39.62	-16.10	74.0	34.38	Peak	1.00	100	Vertical	Pass
1**	1359.000	29.16	-16.10	54.0	24.84	AV	1.00	100	Vertical	Pass
2	2221.500	42.76	-12.27	74.0	31.24	Peak	323.00	100	Vertical	Pass
2**	2221.500	33.46	-12.27	54.0	20.54	AV	323.00	100	Vertical	Pass
3	4494.250	52.47	-0.11	74.0	21.53	Peak	268.00	100	Vertical	Pass
3**	4494.250	42.41	-0.11	54.0	11.59	AV	268.00	100	Vertical	Pass
4	6669.500	55.41	1.26	74.0	18.59	Peak	323.00	100	Vertical	Pass
4**	6669.500	44.95	1.26	54.0	9.05	AV	323.00	100	Vertical	Pass
5	11277.500	54.88	2.12	74.0	19.12	Peak	72.00	100	Vertical	Pass
5**	11277.500	45.93	2.12	54.0	8.07	AV	72.00	100	Vertical	Pass
6	13399.000	55.97	4.91	74.0	18.03	Peak	125.00	100	Vertical	Pass
6**	13399.000	46.87	4.91	54.0	7.13	AV	125.00	100	Vertical	Pass

4) Test Antenna Horizontal, 1 GHz –18 GHz



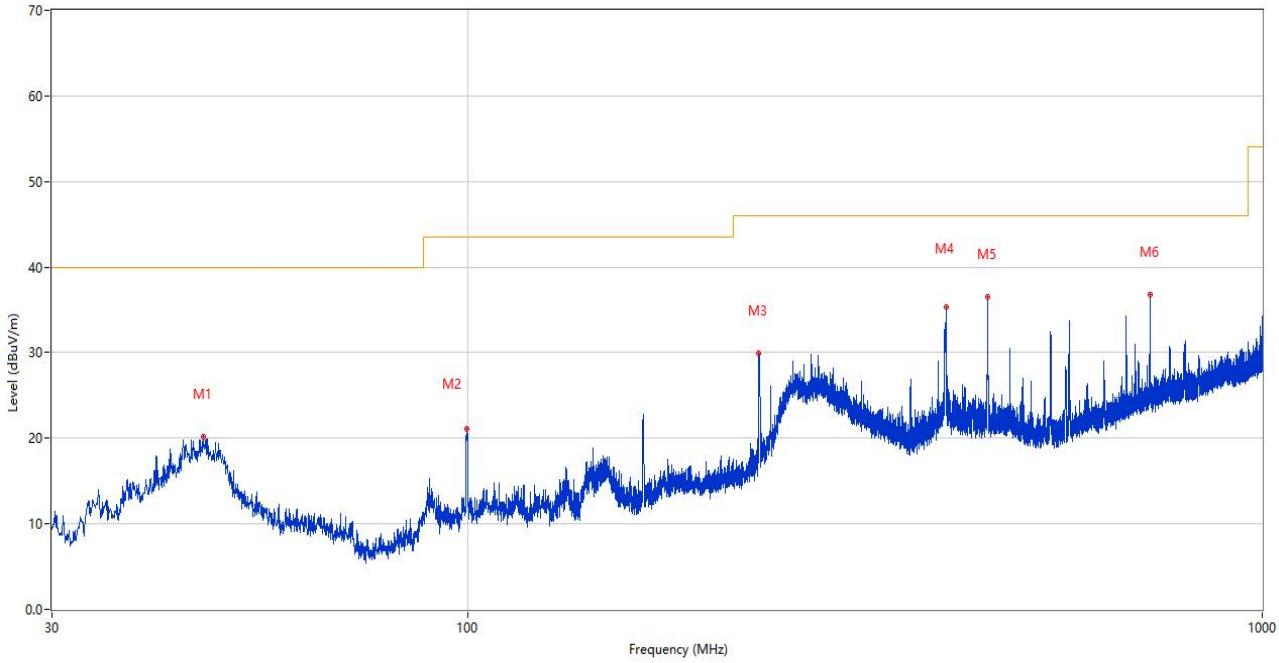
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1201.200	39.92	-16.19	74.0	34.08	Peak	302.00	100	Horizontal	Pass
1**	1201.200	29.72	-16.19	54.0	24.28	AV	302.00	100	Horizontal	Pass
2	1990.500	42.47	-13.56	74.0	31.53	Peak	118.00	100	Horizontal	Pass
2**	1990.500	31.83	-13.56	54.0	22.17	AV	118.00	100	Horizontal	Pass
3	4133.750	51.77	-1.73	74.0	22.23	Peak	111.00	100	Horizontal	Pass
3**	4133.750	41.25	-1.73	54.0	12.75	AV	111.00	100	Horizontal	Pass
4	5748.500	55.92	3.24	74.0	18.08	Peak	39.00	100	Horizontal	Pass
4**	5748.500	46.03	3.24	54.0	7.97	AV	39.00	100	Horizontal	Pass
5	7245.750	55.40	2.32	74.0	18.60	Peak	30.00	100	Horizontal	Pass
5**	7245.750	45.24	2.32	54.0	8.76	AV	30.00	100	Horizontal	Pass
6	13397.000	56.59	4.92	74.0	17.41	Peak	38.00	100	Horizontal	Pass
6**	13397.000	47.22	4.92	54.0	6.78	AV	38.00	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	☒
Amplifier (18-40GHz)	COM-MV	KA LNA18-40G-01	18050001	2023.12.05	2024.12.04	☒
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	01917	2022.06.09	2025.06.08	☒
Test Antenna-Horn	A-INFOMW	LB-180400KF	J211060273	2021.07.02	2024.07.01	☒
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.	S18	Temperature	21.2℃
Humidity	52%RH	Pressure	101kPa
Test Engineer	He Shichang	Test Date	2024.02.22

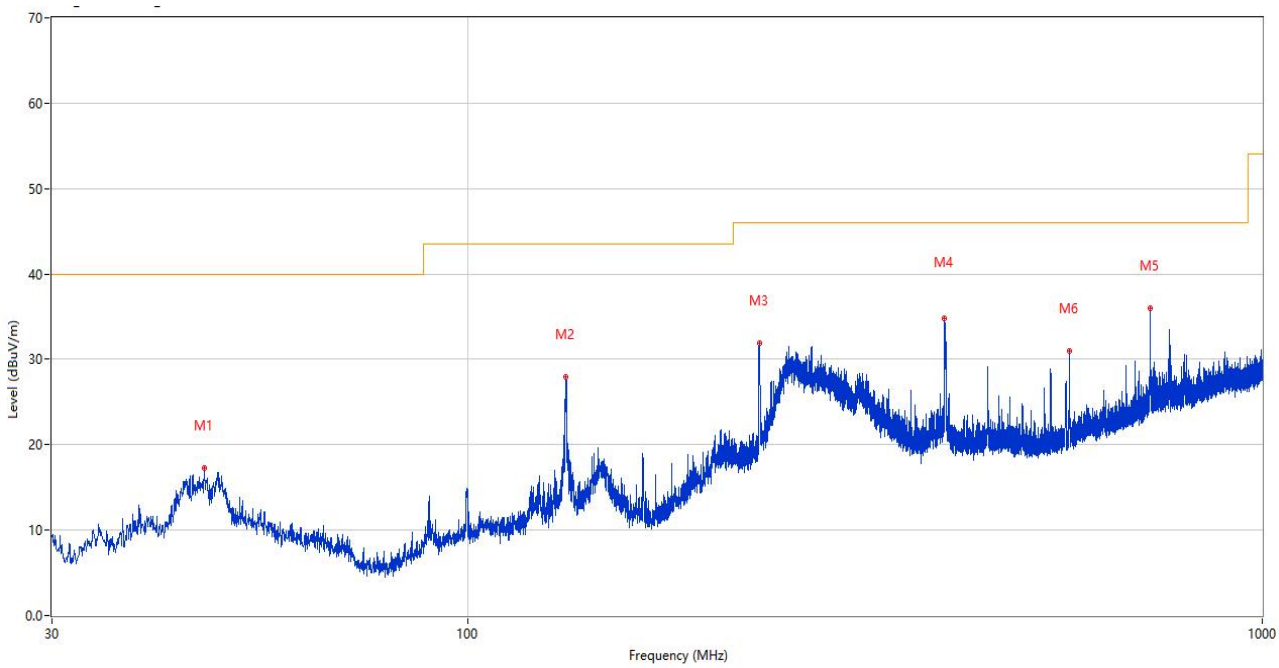
Test Mode7

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	46.490	20.21	-25.56	40.0	19.79	Peak	92.00	100	Vertical	Pass
2	99.743	21.11	-26.74	43.5	22.39	Peak	275.00	100	Vertical	Pass
3	232.536	29.99	-25.43	46.0	16.01	Peak	290.00	200	Vertical	Pass
4	399.861	35.27	-20.95	46.0	10.73	Peak	127.00	100	Vertical	Pass
5	451.562	36.53	-19.85	46.0	9.47	Peak	141.00	100	Vertical	Pass
6	722.289	36.79	-13.54	46.0	9.21	Peak	164.00	200	Vertical	Pass

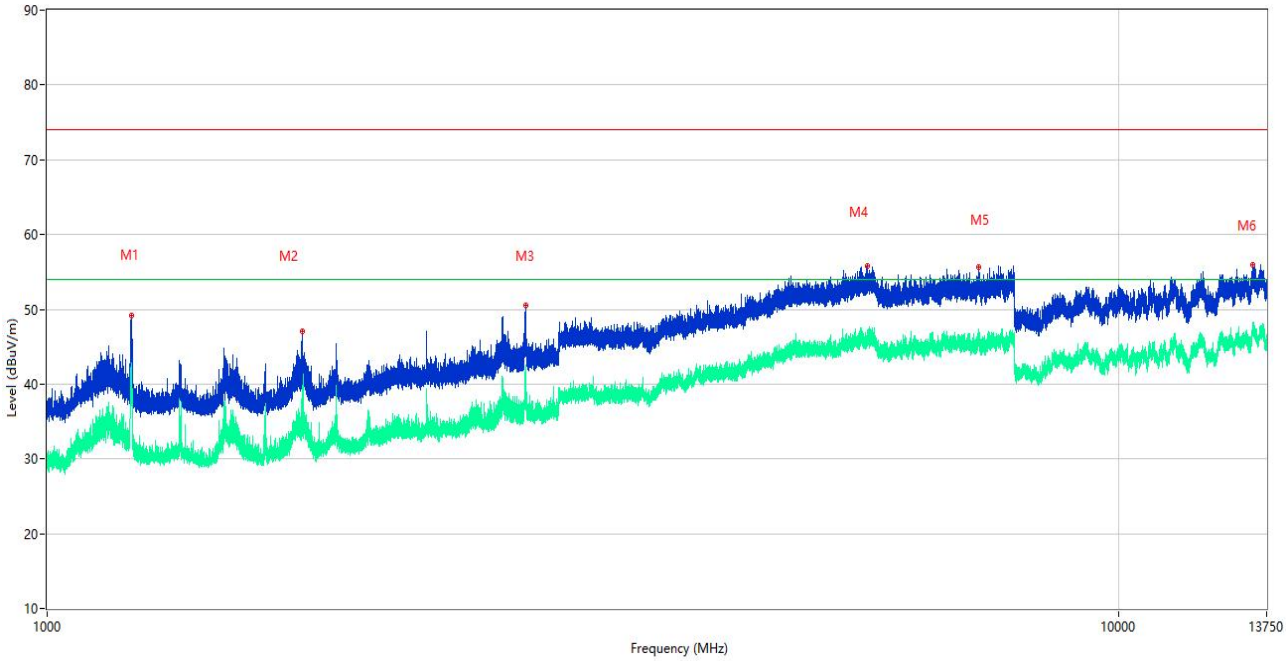
6) Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	46.636	17.25	-25.56	40.0	22.75	Peak	180.00	200	Horizontal	Pass
2	132.820	27.91	-29.93	43.5	15.59	Peak	257.00	200	Horizontal	Pass
3	233.264	31.92	-25.44	46.0	14.08	Peak	69.00	100	Horizontal	Pass
4	398.600	34.81	-21.01	46.0	11.19	Peak	275.00	100	Horizontal	Pass
5	722.628	36.01	-13.50	46.0	9.99	Peak	243.00	100	Horizontal	Pass
6	571.939	31.00	-16.99	46.0	15.00	Peak	312.00	200	Horizontal	Pass

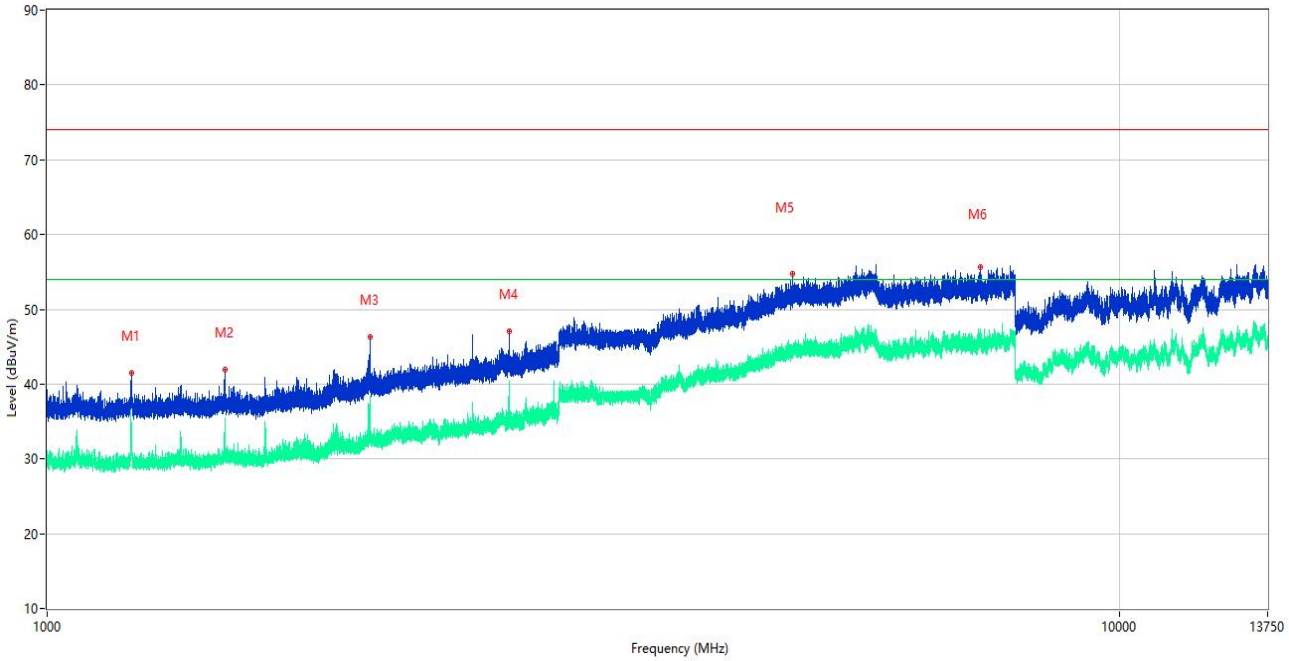
Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Below 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2023.09.05	2024.09.04	☒
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2023.12.05	2024.12.04	☒
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9168	9168-00867	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 – 18 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1198.700	49.13	-16.25	74.0	24.87	Peak	229.00	100	Vertical	Pass
1**	1198.700	42.03	-16.25	54.0	11.97	AV	229.00	100	Vertical	Pass
2	1732.500	47.08	-15.87	74.0	26.92	Peak	212.00	100	Vertical	Pass
2**	1732.500	38.36	-15.87	54.0	15.64	AV	212.00	100	Vertical	Pass
3	2795.200	50.54	-8.34	74.0	23.46	Peak	165.00	100	Vertical	Pass
3**	2795.200	39.03	-8.34	54.0	14.97	AV	165.00	100	Vertical	Pass
4	5833.250	55.81	4.01	74.0	18.19	Peak	308.00	100	Vertical	Pass
4**	5833.250	45.69	4.01	54.0	8.31	AV	308.00	100	Vertical	Pass
5	7402.250	55.65	2.53	74.0	18.35	Peak	144.00	100	Vertical	Pass
5**	7402.250	46.40	2.53	54.0	7.60	AV	144.00	100	Vertical	Pass
6	13340.000	55.93	4.88	74.0	18.07	Peak	139.00	100	Vertical	Pass
6**	13340.000	47.30	4.88	54.0	6.70	AV	139.00	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	1198.300	41.47	-16.23	74.0	32.53	Peak	266.00	100	Horizontal	Pass
1**	1198.300	32.05	-16.23	54.0	21.95	AV	266.00	100	Horizontal	Pass
2	1463.800	41.97	-15.76	74.0	32.03	Peak	279.00	100	Horizontal	Pass
2**	1463.800	31.22	-15.76	54.0	22.78	AV	279.00	100	Horizontal	Pass
3	1999.500	46.25	-13.85	74.0	27.75	Peak	146.00	100	Horizontal	Pass
3**	1999.500	32.88	-13.85	54.0	21.12	AV	146.00	100	Horizontal	Pass
4	2696.800	47.07	-9.14	74.0	26.93	Peak	349.00	100	Horizontal	Pass
4**	2696.800	38.24	-9.14	54.0	15.76	AV	349.00	100	Horizontal	Pass
5	4956.750	54.76	1.88	74.0	19.24	Peak	26.00	100	Horizontal	Pass
5**	4956.750	43.83	1.88	54.0	10.17	AV	26.00	100	Horizontal	Pass
6	7419.250	55.68	3.07	74.0	18.32	Peak	335.00	100	Horizontal	Pass
6**	7419.250	45.79	3.07	54.0	8.21	AV	335.00	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	☒
Amplifier (18-40GHz)	COM-MV	KA LNA18-40G-01	18050001	2023.12.05	2024.12.04	☒
Test Antenna-Horn	SCHWARZBECK	BBHA 9120D	01917	2022.06.09	2025.06.08	☒
Test Antenna-Horn	A-INFOMW	LB-180400KF	J211060273	2021.07.02	2024.07.01	☒
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	/		☒

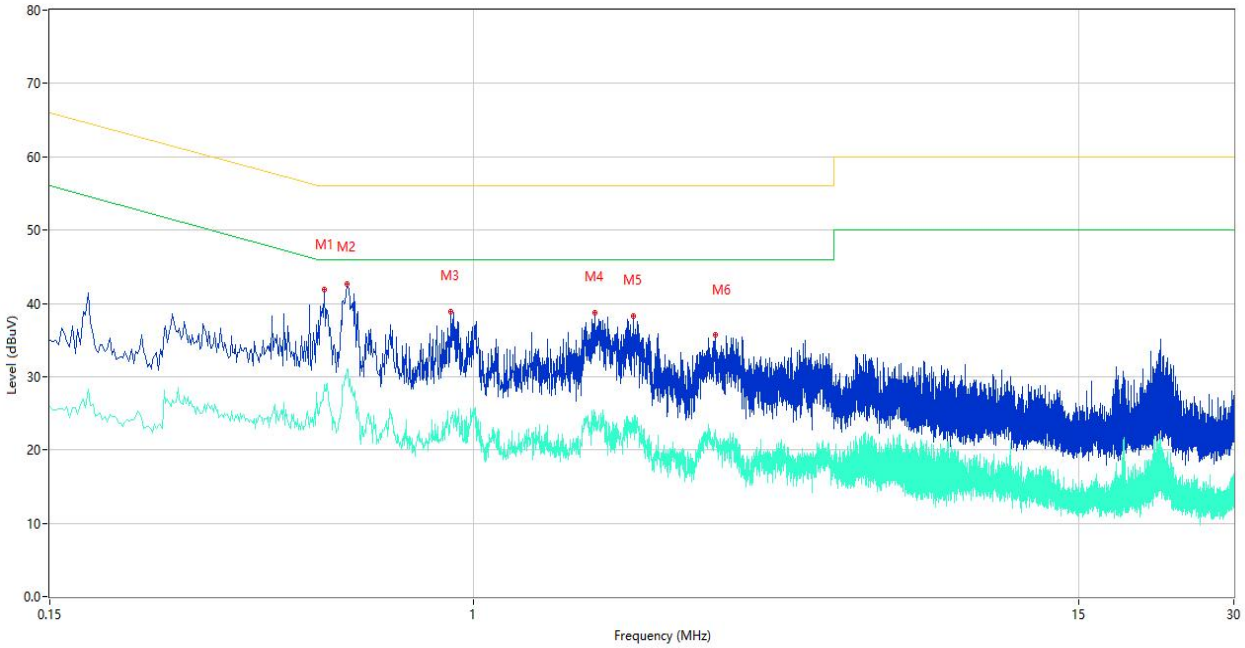
A.2 Conducted Emission, AC Ports

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 (240 VAC, 50 Hz) shown here.

Sample No.	S18	Temperature	23.2℃
Humidity	54%RH	Pressure	101kPa
Test Engineer	Yang Yang	Test Date	2024.02.25

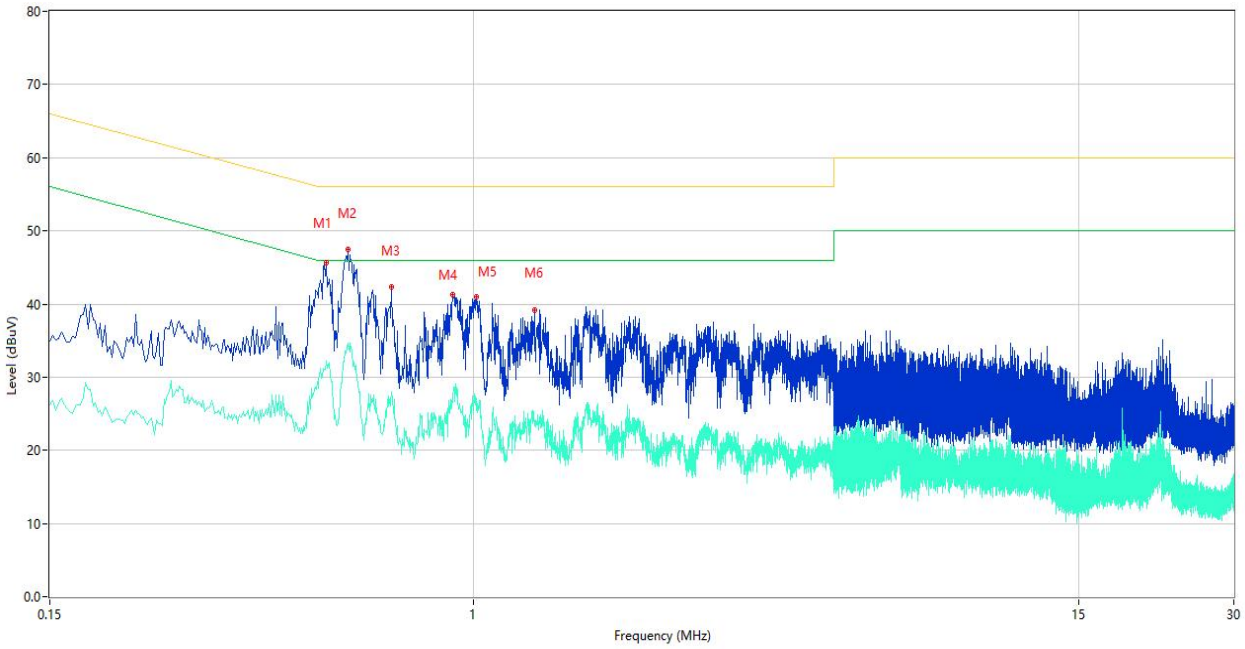
Test Mode5

1) AC Ports - L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.512	41.86	9.71	56.00	14.14	Peak	L	Pass
1**	0.512	28.90	9.71	46.00	17.10	AV	L	Pass
2	0.568	42.71	9.88	56.00	13.29	Peak	L	Pass
2**	0.568	31.11	9.88	46.00	14.89	AV	L	Pass
3	0.902	38.91	9.38	56.00	17.09	Peak	L	Pass
3**	0.902	23.69	9.38	46.00	22.31	AV	L	Pass
4	1.722	38.72	9.69	56.00	17.28	Peak	L	Pass
4**	1.722	24.39	9.69	46.00	21.61	AV	L	Pass
5	2.040	38.29	9.79	56.00	17.71	Peak	L	Pass
5**	2.040	23.91	9.79	46.00	22.09	AV	L	Pass
6	2.944	35.66	9.93	56.00	20.34	Peak	L	Pass
6**	2.944	22.09	9.93	46.00	23.91	AV	L	Pass

2) AC Ports - N Phase



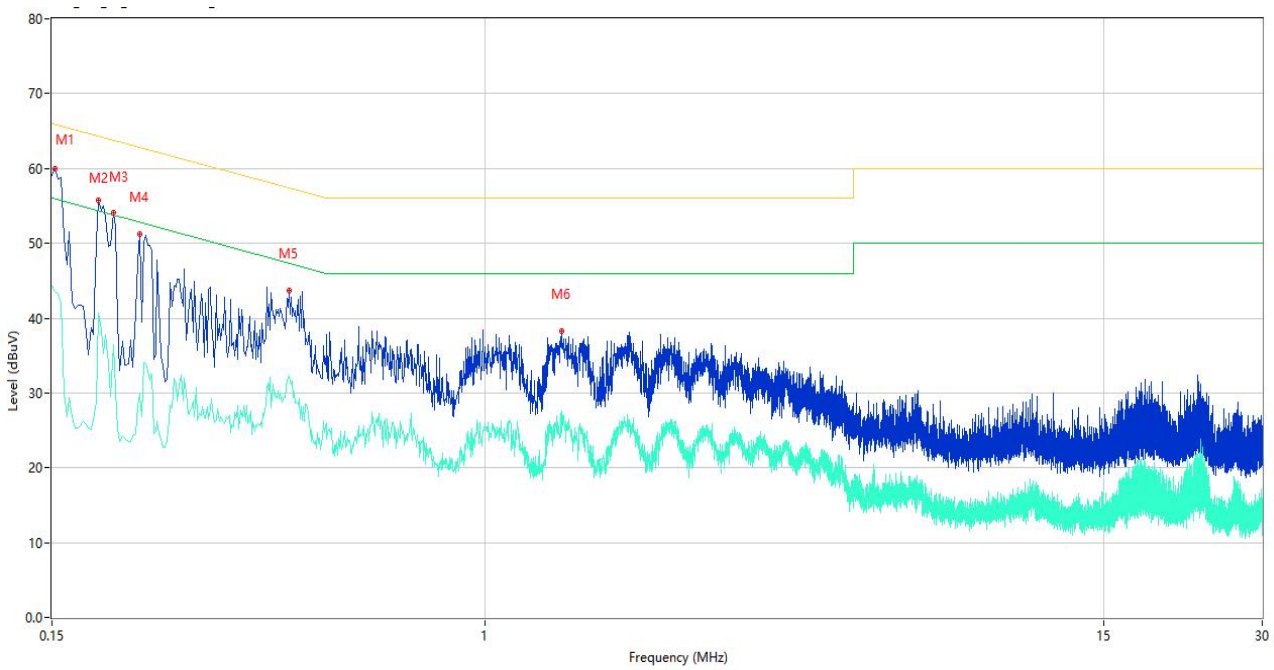
No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.516	45.69	9.72	56.00	10.31	Peak	N	Pass
1**	0.516	32.03	9.72	46.00	13.97	AV	N	Pass
2	0.570	47.46	9.89	56.00	8.54	Peak	N	Pass
2**	0.570	34.71	9.89	46.00	11.29	AV	N	Pass
3	0.692	42.30	10.02	56.00	13.70	Peak	N	Pass
3**	0.692	28.06	10.02	46.00	17.94	AV	N	Pass
4	0.912	41.21	9.58	56.00	14.79	Peak	N	Pass
4**	0.912	27.25	9.58	46.00	18.75	AV	N	Pass
5	1.014	41.02	9.55	56.00	14.98	Peak	N	Pass
5**	1.014	25.86	9.55	46.00	20.14	AV	N	Pass
6	1.312	39.23	9.77	56.00	16.77	Peak	N	Pass
6**	1.312	23.51	9.77	46.00	22.49	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	SCHWARZBECK	NSLK 8127	8127-687	2023.05.16	2024.05.15	☒
ISN	TESEQ	ISN T800	34449	2023.11.10	2024.11.09	☐
ISN	TESEQ	ISN T8-Cat6	53561	2023.04.23	2024.04.22	☐
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	/		☒

Sample No.	S18	Temperature	22.6℃
Humidity	46%RH	Pressure	101kPa
Test Engineer	Yang Yang	Test Date	2024.02.26

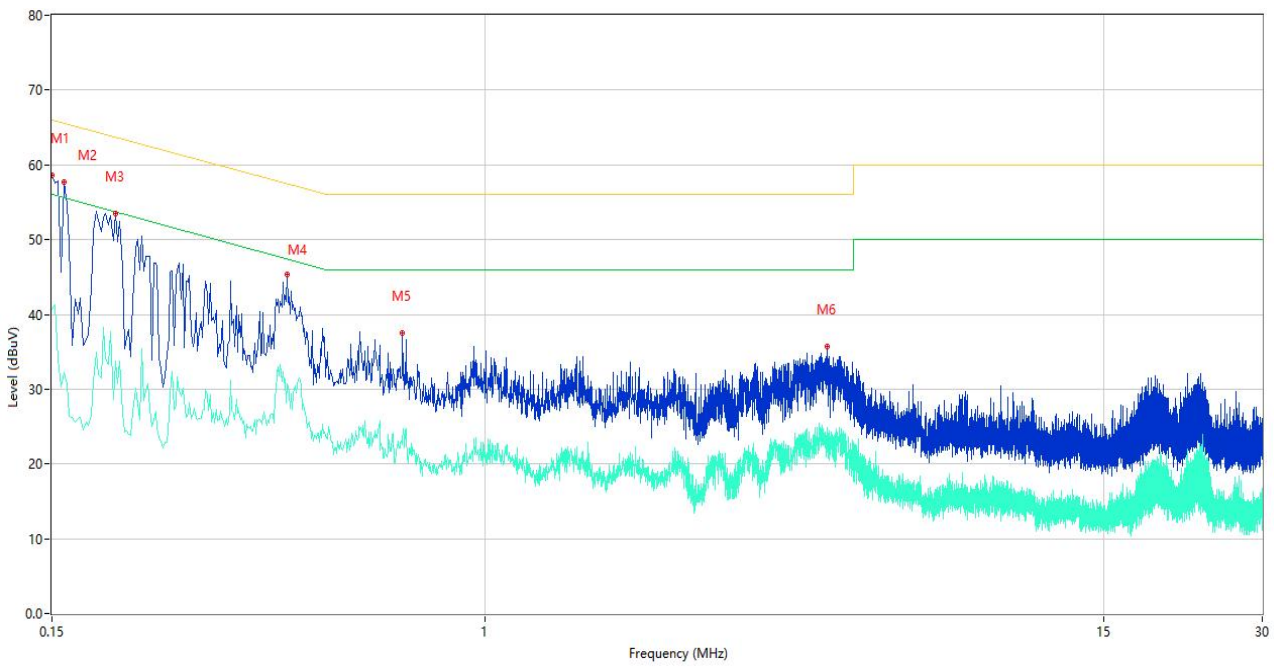
Test Mode7

3) AC Ports - L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.152	60.03	9.47	65.89	5.86	Peak	L	Pass
1**	0.152	43.60	9.47	55.89	12.29	AV	L	Pass
2	0.184	55.81	9.43	64.30	8.49	Peak	L	Pass
2**	0.184	40.73	9.43	54.30	13.57	AV	L	Pass
3	0.196	54.11	9.42	63.78	9.67	Peak	L	Pass
3**	0.196	36.46	9.42	53.78	17.32	AV	L	Pass
4	0.220	51.19	9.42	62.82	11.63	Peak	L	Pass
4**	0.220	29.82	9.42	52.82	23.00	AV	L	Pass
5	0.424	43.71	9.97	57.37	13.66	Peak	L	Pass
5**	0.424	32.22	9.97	47.37	15.15	AV	L	Pass
6	1.398	38.27	10.12	56.00	17.73	Peak	L	Pass
6**	1.398	24.69	10.12	46.00	21.31	AV	L	Pass

4) AC Ports - N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.150	58.63	9.47	66.00	7.37	Peak	N	Pass
1**	0.150	40.75	9.47	56.00	15.25	AV	N	Pass
2	0.158	57.65	9.46	65.57	7.92	Peak	N	Pass
2**	0.158	32.25	9.46	55.57	23.32	AV	N	Pass
3	0.198	53.48	9.42	63.69	10.21	Peak	N	Pass
3**	0.198	33.81	9.42	53.69	19.88	AV	N	Pass
4	0.420	45.37	9.98	57.45	12.08	Peak	N	Pass
4**	0.420	30.75	9.98	47.45	16.70	AV	N	Pass
5	0.696	37.47	10.05	56.00	18.53	Peak	N	Pass
5**	0.696	23.06	10.05	46.00	22.94	AV	N	Pass
6	4.472	35.71	9.27	56.00	20.29	Peak	N	Pass
6**	4.472	24.11	9.27	46.00	21.89	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	SCHWARZBECK	NSLK 8127	8127-687	2023.05.16	2024.05.15	☒
ISN	TESEQ	ISN T800	34449	2023.11.10	2024.11.09	☐
ISN	TESEQ	ISN T8-Cat6	53561	2023.04.23	2024.04.22	☐
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-SZ2410652-AE-1.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2410652-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2410652-AI.PDF”.

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--END OF REPORT--