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:	24117RN76L
Brand Name:	Redmi
Test Standard:	47 CFR Part 15 Subpart B ANSI C63.4-2014
FCC ID:	2AFZZRN76L
Sample Arrival Date:	Sep. 10, 2024
Test Date:	Sep. 12, 2024 - Sep. 23, 2024
Date of Issue:	Oct. 17, 2024

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Li JunFeng **Checked by:** Liu Zhenxiang **Approved by:** Sunny Zou (Technical Director)

Revision History

Version	Issue Date	Revisions
Rev. 01	Oct. 17, 2024	Initial Issue

TABLE OF CONTENTS

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	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	24117RN76L
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	1351000O7
Software Version	Xiaomi HyperOS 1.0
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A
EUT ID	S13, S14, S33, S15
IMEI Number	S13: IMEI1: 862441070044881 IMEI2: 862441070044899
	S14: IMEI1: 862441070044907 IMEI2: 862441070044915
	S33: IMEI1: 862441070035723 IMEI2: 862441070035731
	S15: IMEI1: 862441070044949 IMEI2: 862441070044956

2.4 Ancillary Equipment

Please refer the document “BL-SZ2480911-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/DC-HSDPA/HSPA+ Band 1/2/4/5/8 4G Network FDD LTE Band 1/2/3/4/5/7/8/12/13/17/20/26/28/66 TDD LTE Band 38/40/41 Bluetooth (BR+EDR+BLE) WIFI 802.11a, 802.11b, 802.11g, 802.11n(HT20/40) and 802.11ac(VHT20/40/80) GPS, GLONASS, Galileo, BDS, 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	4.4 dB
Radiated emissions (1 GHz-18 GHz)-966#2	5.0 dB

4 GENERAL TEST CONFIGURATIONS

4.1 Test Enclosure List

Description	Manufacturer	Model	Serial No.	Length	Description	Use
Laptop	Lenovo	N/A	N/A	N/A	N/A	☒
Data connector	HBR	type-c to USB 3.0	N/A	N/A	N/A	☒
USB disk	Sandisk	CZ73-32G	N/A	N/A	32G	☒
TYPE-C Earphone	OPPO	MH156	N/A	1.12m	N/A	☒
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 Communications Test Set	R&S	CMW500	102318	N/A	Cal. Due 2025.05.08	☒

4.2 Test Configurations

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

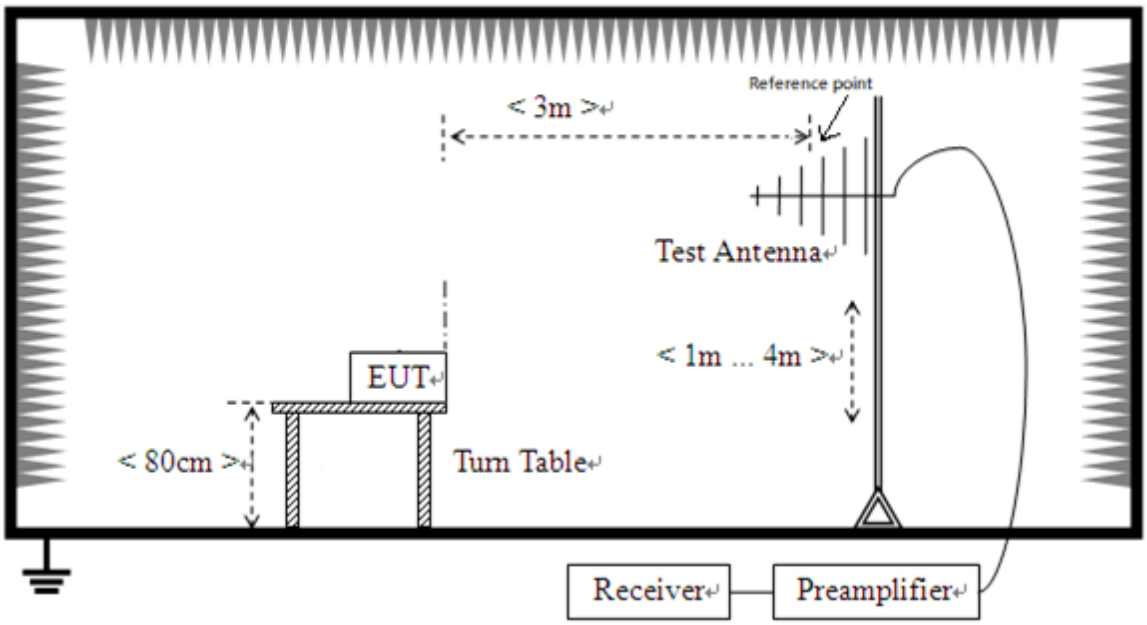
Test Mode Configuration	Description
Mode 1	The Charging Test Mode EUT + Adapter + USB Cable + Battery + Earphone + TF Card
Mode 2	The Front Camera Test Mode EUT + Adapter + USB Cable + Battery + Earphone + TF Card
Mode 3	The Back Camera Test Mode EUT + Adapter + USB Cable + Battery + Earphone + TF Card
Mode 4	The Video Play Test Mode EUT + Adapter + USB Cable + Battery + Earphone + TF Card
Mode 5	The Phone holder Test Mode EUT + Adapter + USB Cable + Battery + Earphone + Phone holder + TF Card
Mode 6	The GSM850 RX Test Mode GSM850 RX + EUT +Adapter + USB Cable + Battery + Earphone + TF Card
Mode 7	The WCDMA Band 5 RX Test Mode WCDMA Band 5 RX + EUT +Adapter + USB Cable + Battery + Earphone + TF Card
Mode 8	The LTE Band 5 RX Test Mode LTE Band 5 RX + EUT +Adapter + USB Cable + Battery + Earphone + TF Card
Mode 9	The LTE Band 12 RX Test Mode

	LTE Band 12 RX + EUT +Adapter + USB Cable + Battery + Earphone + TF Card
Mode 10	The LTE Band 13 RX Test Mode LTE Band 13 RX + EUT +Adapter + USB Cable + Battery + Earphone + TF Card
Mode 11	The LTE Band 17 RX Test Mode LTE Band 17 RX + EUT +Adapter + USB Cable + Battery + Earphone + TF Card
Mode 12	The LTE Band 26 RX Test Mode LTE Band 26 RX + EUT +Adapter + USB Cable + Battery + Earphone + TF Card
Mode 13	The FM Test Mode FM RX + EUT + Adapter + USB Cable + Battery + Earphone + TF Card
Mode 14	The Video Display Test Mode with internal speaker EUT + Battery
Mode 15	The USB Test Mode EUT + USB Cable + Battery + Laptop + Earphone + TF Card
Mode 16	The OTG Test Mode EUT + Battery + Data connector + USB disk + Earphone + TF Card
Mode 17	The Type-C Earphone Test Mode EUT + Battery + TYPE-C Earphone

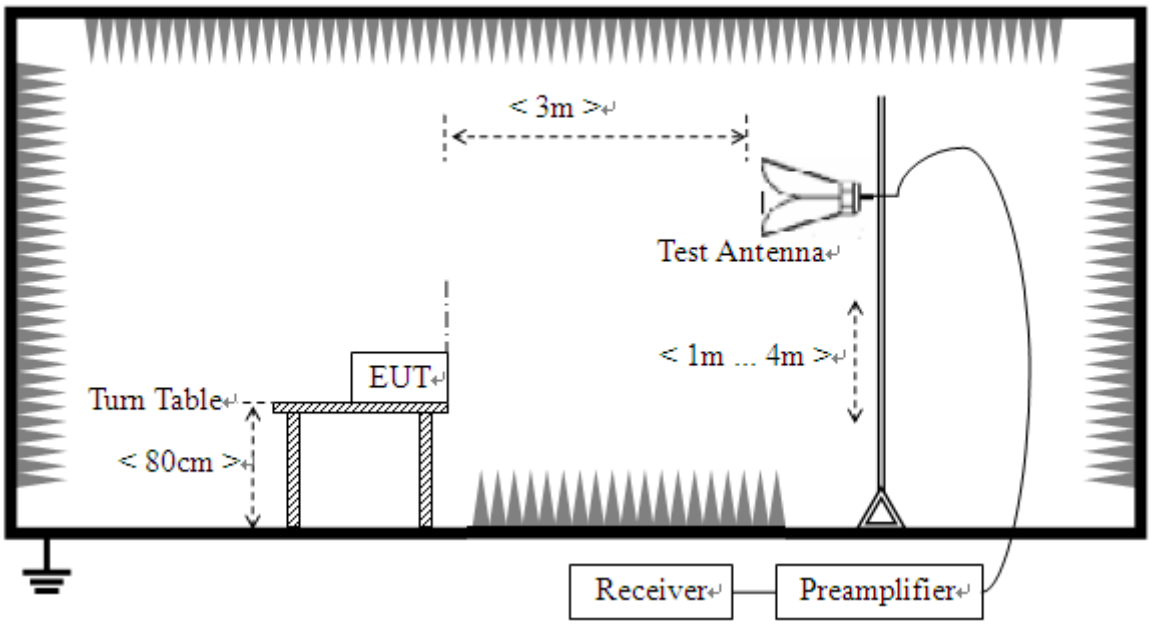
Test Case	Test Mode Configuration	Worst Mode
Radiated Emission	Mode 1~Mode 17	1, 15
Conducted Emission, AC Ports	Mode 1~Mode 13, Mode 15	2, 15
Note: All operation modes were tested, but only test data of the worst mode was presented in this report.		

4.3 Test Setups

Test Setup 1

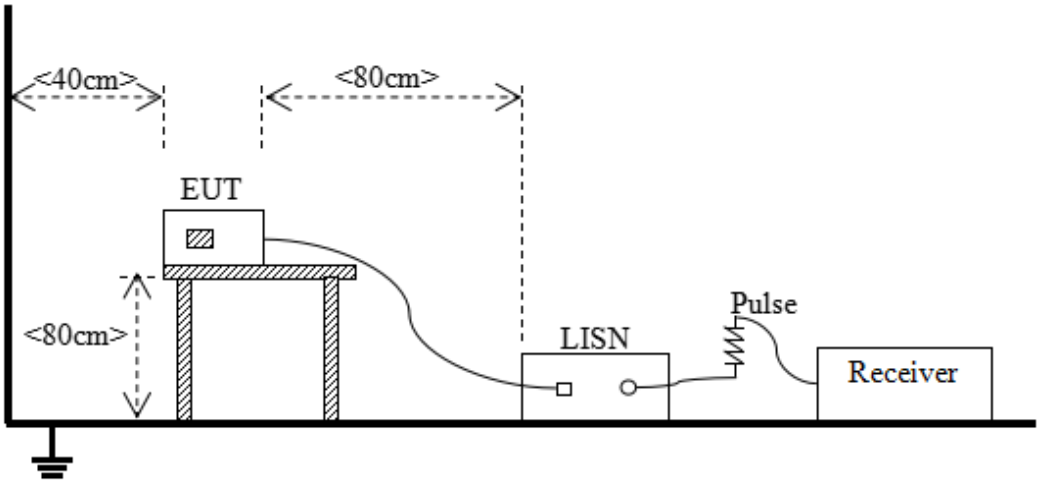


Radiated Emission (30 MHz-1 GHz)



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	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° 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 Result and Test Equipment List

Please refer to ANNEX A.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 Result and Test Equipment List

Please refer to ANNEX A.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 (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

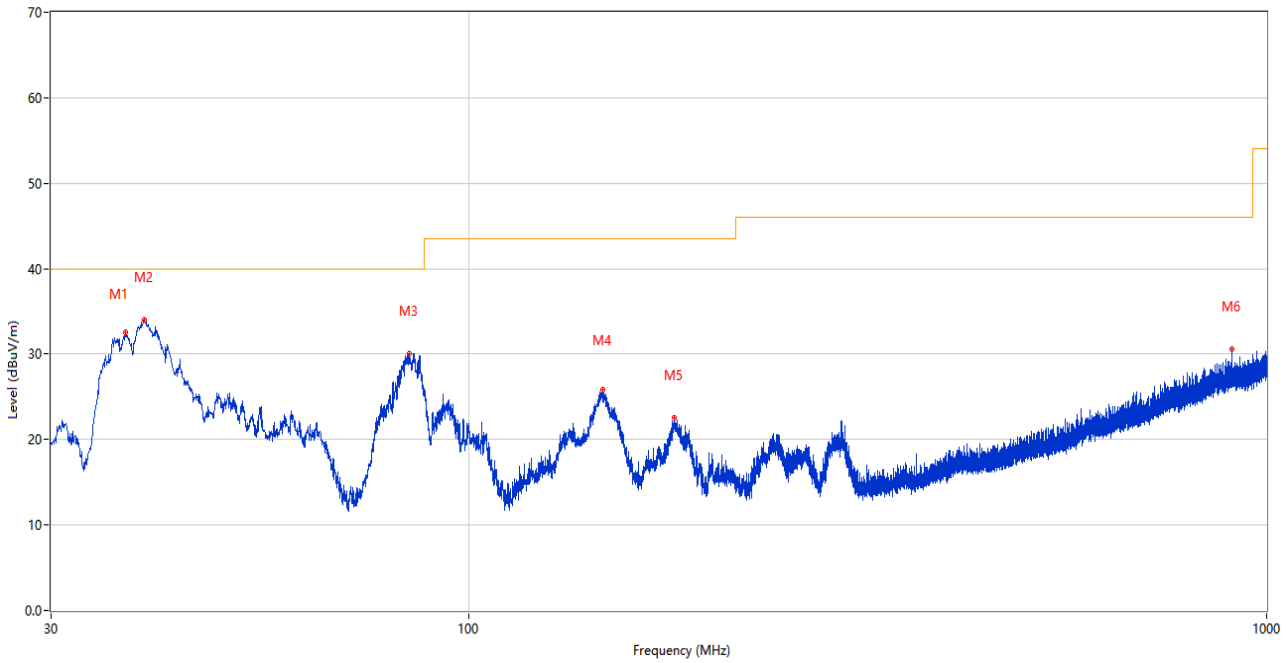
Note 3: When the EUT is on, it will automatically emit Bluetooth signal and cannot be turned off. So the marked spikes near 2400 MHz with circle should be ignored because they are Bluetooth carrier frequencies.

Note 4: 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.	S14	Temperature	23.2℃
Humidity	45%RH	Pressure	101kPa
Test Engineer	He Shichang	Test Date	2024.09.13

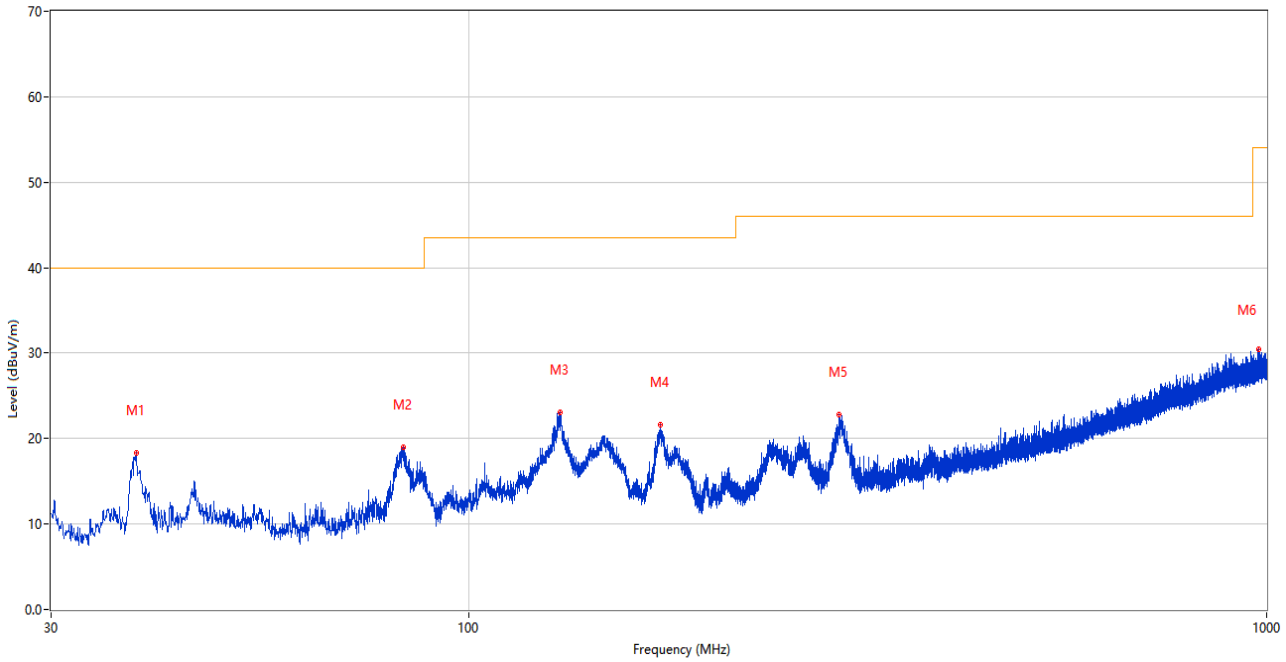
Test Mode 1

1) Test Antenna Vertical, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	37.227	32.61	-27.55	40.0	7.39	Peak	226.00	100	Vertical	Pass
2	39.215	33.99	-26.95	40.0	6.01	Peak	311.00	100	Vertical	Pass
3	84.320	30.02	-30.04	40.0	9.98	Peak	212.00	100	Vertical	Pass
4	147.224	25.77	-30.23	43.5	17.73	Peak	52.00	100	Vertical	Pass
5	181.029	22.49	-28.48	43.5	21.01	Peak	360.00	100	Vertical	Pass
6	904.310	30.64	-9.79	46.0	15.36	Peak	355.00	200	Vertical	Pass

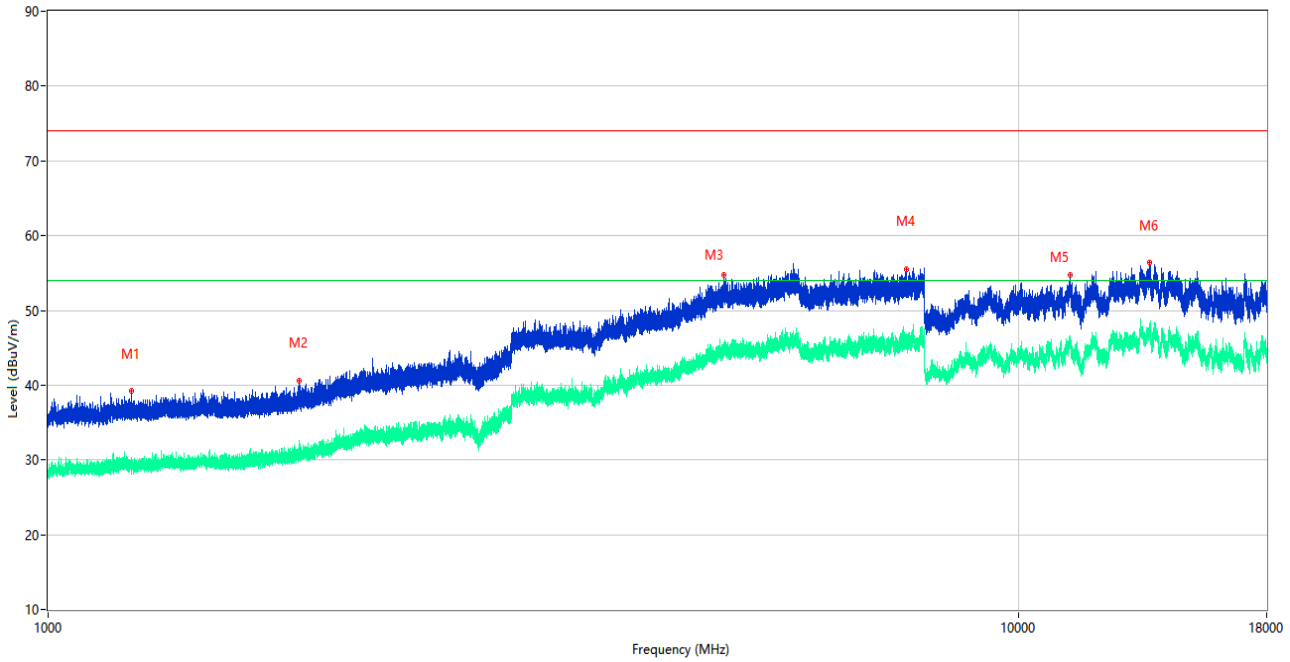
2) Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	38.342	18.29	-27.12	40.0	21.71	Peak	321.00	200	Horizontal	Pass
2	82.962	19.03	-30.46	40.0	20.97	Peak	9.00	200	Horizontal	Pass
3	130.104	23.04	-29.74	43.5	20.46	Peak	141.00	200	Horizontal	Pass
4	173.803	21.65	-28.93	43.5	21.85	Peak	205.00	200	Horizontal	Pass
5	290.930	22.77	-23.91	46.0	23.23	Peak	253.00	100	Horizontal	Pass
6	978.127	30.51	-8.74	54.0	23.49	Peak	181.00	100	Horizontal	Pass

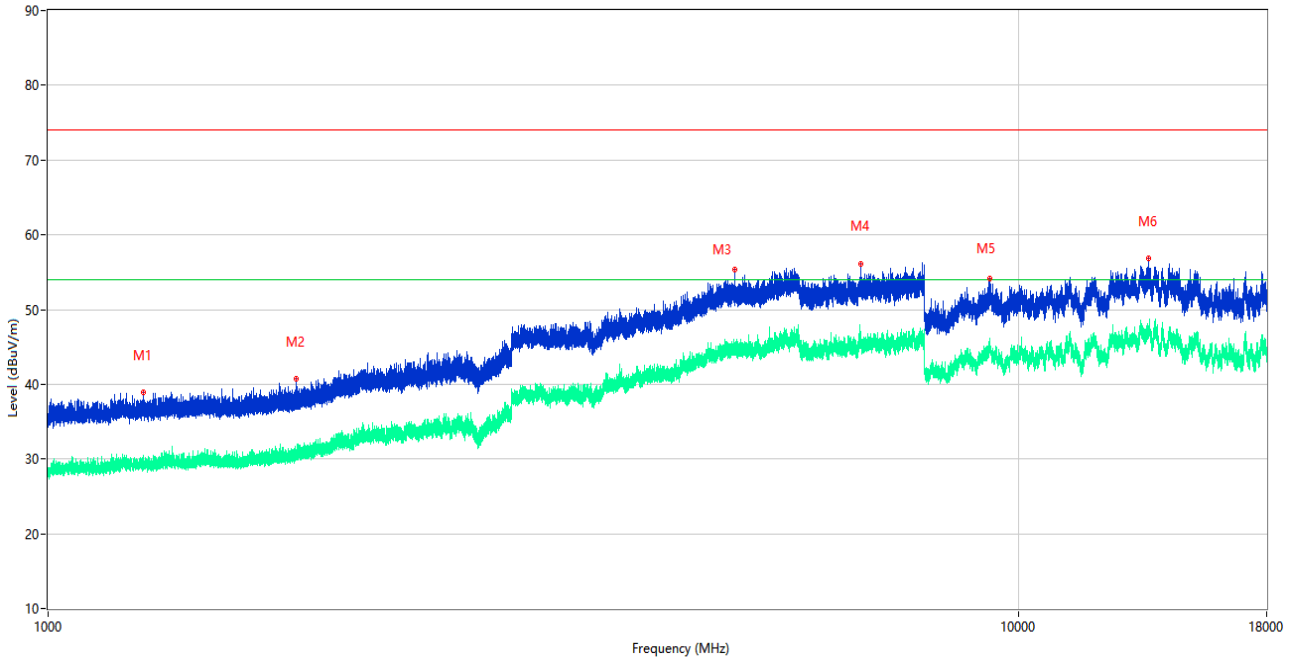
Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Below 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2024.08.01	2025.07.31	☒
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2023.12.05	2024.12.04	☒
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9168	9168-00867	2022.04.12	2025.04.11	☒
Anechoic Chamber（#2）	YiHeng	9m*6m*6m	142	2024.07.21	2027.07.20	☒
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	1217.800	39.16	-16.13	74.0	34.84	Peak	354.00	100	Vertical	Pass
1**	1217.800	29.76	-16.13	54.0	24.24	AV	354.00	100	Vertical	Pass
2	1812.800	40.65	-15.22	74.0	33.35	Peak	225.00	100	Vertical	Pass
2**	1812.800	30.78	-15.22	54.0	23.22	AV	225.00	100	Vertical	Pass
3	4967.750	54.68	2.42	74.0	19.32	Peak	325.00	100	Vertical	Pass
3**	4967.750	44.61	2.42	54.0	9.39	AV	325.00	100	Vertical	Pass
4	7659.250	55.49	2.08	74.0	18.51	Peak	169.00	100	Vertical	Pass
4**	7659.250	46.37	2.08	54.0	7.63	AV	169.00	100	Vertical	Pass
5	11303.000	54.74	2.32	74.0	19.26	Peak	185.00	100	Vertical	Pass
5**	11303.000	45.93	2.32	54.0	8.07	AV	185.00	100	Vertical	Pass
6	13647.500	56.40	5.11	74.0	17.60	Peak	65.00	100	Vertical	Pass
6**	13647.500	47.47	5.11	54.0	6.53	AV	65.00	100	Vertical	Pass

4) Test Antenna Horizontal, 1 GHz – 18 GHz

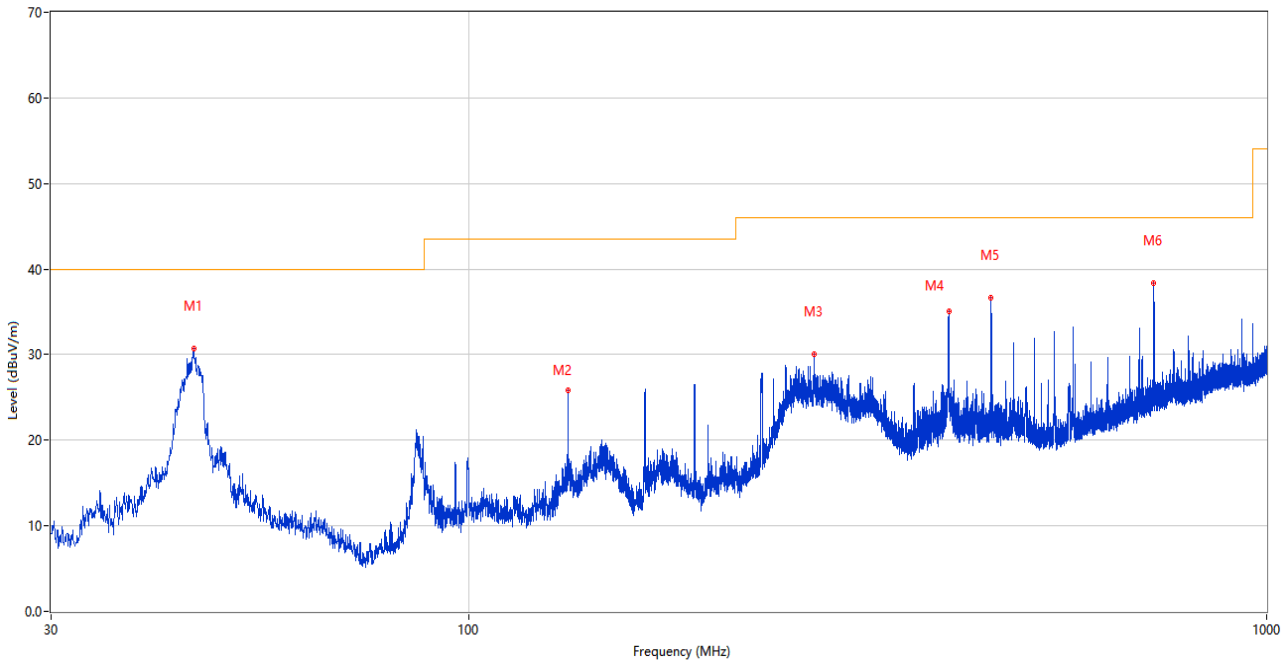


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1253.100	38.97	-16.07	74.0	35.03	Peak	12.00	100	Horizontal	Pass
1**	1253.100	28.60	-16.07	54.0	25.40	AV	12.00	100	Horizontal	Pass
2	1802.400	40.74	-15.40	74.0	33.26	Peak	298.00	100	Horizontal	Pass
2**	1802.400	30.39	-15.40	54.0	23.61	AV	298.00	100	Horizontal	Pass
3	5097.750	55.42	1.80	74.0	18.58	Peak	128.00	100	Horizontal	Pass
3**	5097.750	44.60	1.80	54.0	9.40	AV	128.00	100	Horizontal	Pass
4	6877.250	56.12	1.59	74.0	17.88	Peak	100.00	100	Horizontal	Pass
4**	6877.250	47.04	1.59	54.0	6.96	AV	100.00	100	Horizontal	Pass
5	9336.500	54.20	2.16	74.0	19.80	Peak	123.00	100	Horizontal	Pass
5**	9336.500	45.00	2.16	54.0	9.00	AV	123.00	100	Horizontal	Pass
6	13593.500	56.87	4.72	74.0	17.13	Peak	163.00	100	Horizontal	Pass
6**	13593.500	46.49	4.72	54.0	7.51	AV	163.00	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	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	SCHWARZBECK	BBHA 9120D	01917	2022.06.09	2025.06.08	☒
Anechoic Chamber（#2）	YiHeng	9m*6m*6m	142	2024.07.21	2027.07.20	☒
Description	Supplier	Name	Version	/		Use
Test Software	BALUN	BL410-E	V22.930	/		☒

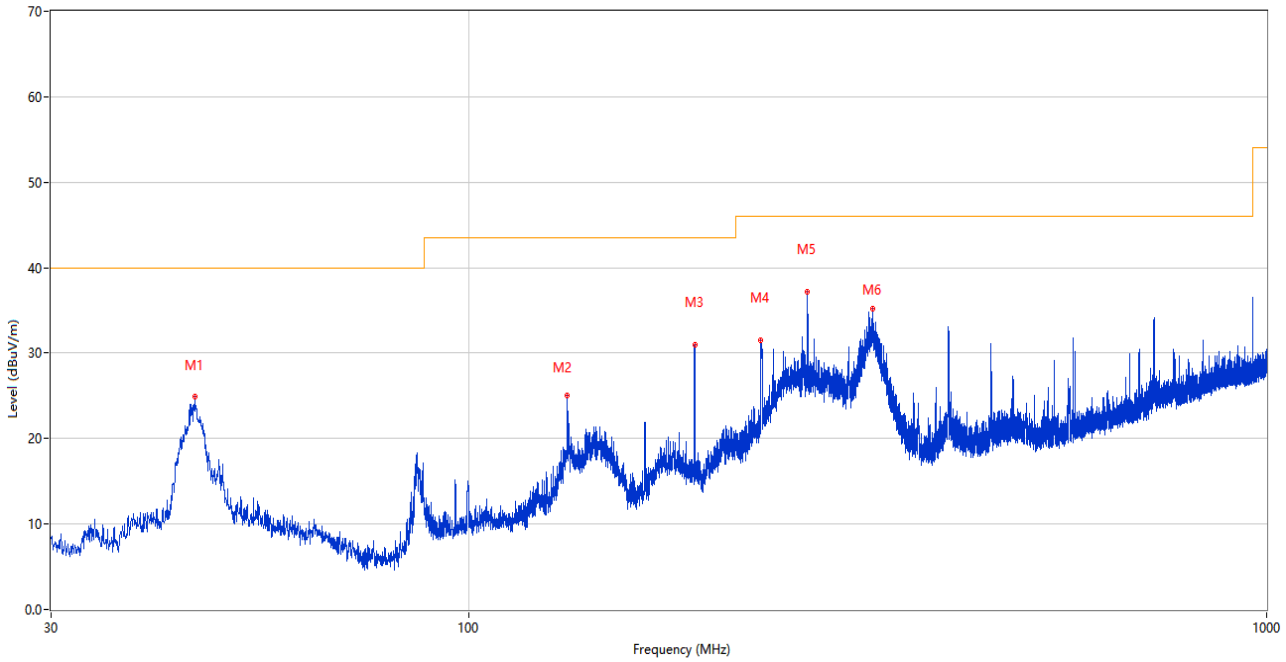
Test Mode 15

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	45.278	30.69	-25.52	40.0	9.31	Peak	244.00	100	Vertical	Pass
2	133.160	25.80	-29.98	43.5	17.70	Peak	8.00	100	Vertical	Pass
3	270.948	30.08	-24.40	46.0	15.92	Peak	1.00	200	Vertical	Pass
4	399.861	35.05	-20.95	46.0	10.95	Peak	174.00	100	Vertical	Pass
5	451.465	36.63	-19.86	46.0	9.37	Peak	146.00	100	Vertical	Pass
6	722.338	38.43	-13.53	46.0	7.57	Peak	155.00	200	Vertical	Pass

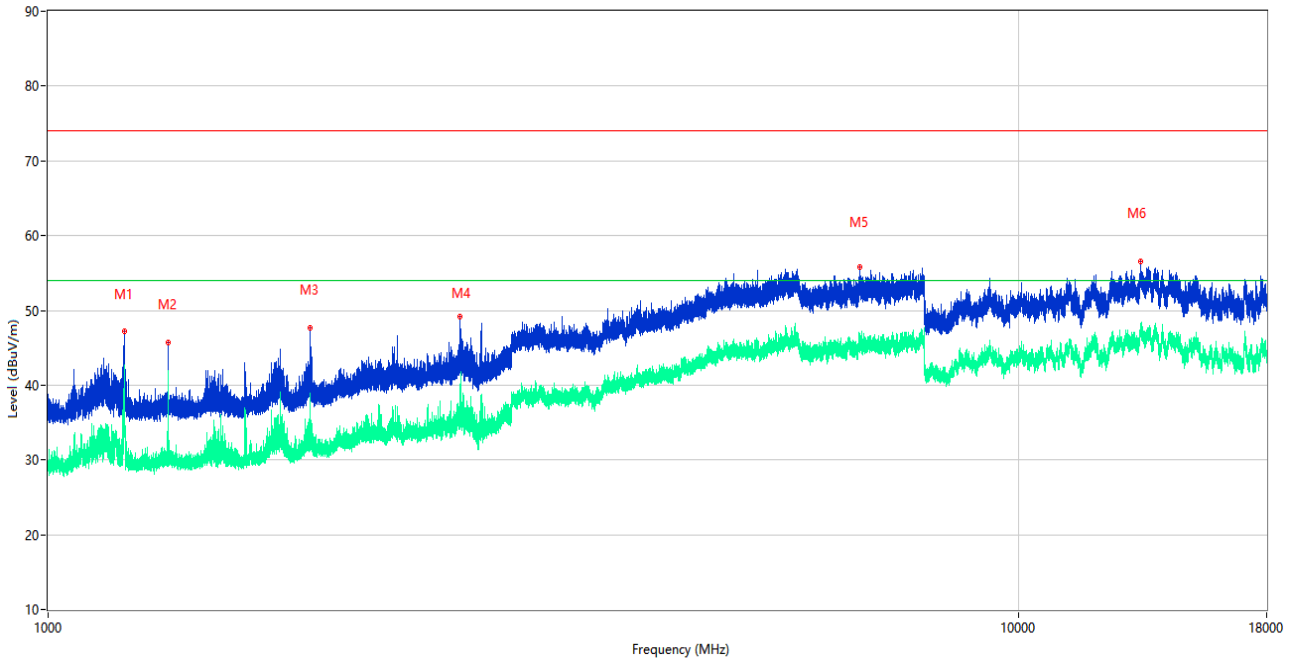
6) Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	45.423	24.96	-25.53	40.0	15.04	Peak	356.00	200	Horizontal	Pass
2	132.917	25.05	-29.94	43.5	18.45	Peak	65.00	200	Horizontal	Pass
3	192.038	31.01	-27.15	43.5	12.49	Peak	303.00	200	Horizontal	Pass
4	232.536	31.57	-25.43	46.0	14.43	Peak	218.00	100	Horizontal	Pass
5	265.807	37.23	-24.52	46.0	8.77	Peak	254.00	100	Horizontal	Pass
6	320.952	35.14	-23.11	46.0	10.86	Peak	247.00	100	Horizontal	Pass

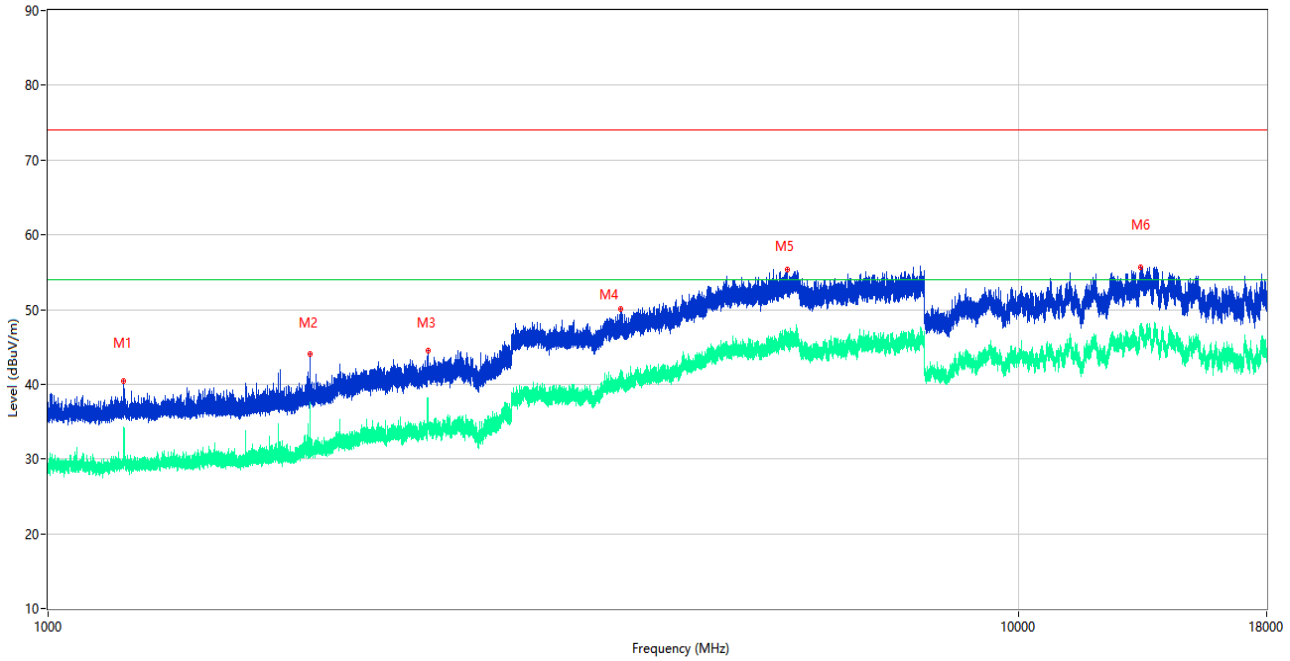
Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Below 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2024.08.01	2025.07.31	☒
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2023.12.05	2024.12.04	☒
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9168	9168-00867	2022.04.12	2025.04.11	☒
Anechoic Chamber（#2）	YiHeng	9m*6m*6m	142	2024.07.21	2027.07.20	☒
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	1197.500	47.15	-16.22	74.0	26.85	Peak	225.00	100	Vertical	Pass
1**	1197.500	39.35	-16.22	54.0	14.65	AV	225.00	100	Vertical	Pass
2	1329.000	45.76	-16.04	74.0	28.24	Peak	169.00	100	Vertical	Pass
2**	1329.000	30.39	-16.04	54.0	23.61	AV	169.00	100	Vertical	Pass
3	1859.500	47.74	-14.93	74.0	26.26	Peak	202.00	100	Vertical	Pass
3**	1859.500	37.75	-14.93	54.0	16.25	AV	202.00	100	Vertical	Pass
4	2658.700	49.10	-8.54	74.0	24.90	Peak	164.00	100	Vertical	Pass
4**	2658.700	37.11	-8.54	54.0	16.89	AV	164.00	100	Vertical	Pass
5	6850.000	55.86	1.81	74.0	18.14	Peak	238.00	100	Vertical	Pass
5**	6850.000	45.40	1.81	54.0	8.60	AV	238.00	100	Vertical	Pass
6	13348.500	56.49	5.18	74.0	17.51	Peak	4.00	100	Vertical	Pass
6**	13348.500	47.79	5.18	54.0	6.21	AV	4.00	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	1196.000	40.50	-16.28	74.0	33.50	Peak	277.00	100	Horizontal	Pass
1**	1196.000	31.51	-16.28	54.0	22.49	AV	277.00	100	Horizontal	Pass
2	1860.500	43.99	-14.90	74.0	30.01	Peak	282.00	100	Horizontal	Pass
2**	1860.500	32.12	-14.90	54.0	21.88	AV	282.00	100	Horizontal	Pass
3	2460.800	44.55	-11.05	74.0	29.45	Peak	273.00	100	Horizontal	Pass
3**	2460.800	38.04	-11.05	54.0	15.96	AV	273.00	100	Horizontal	Pass
4	3892.500	50.05	-1.12	74.0	23.95	Peak	50.00	100	Horizontal	Pass
4**	3892.500	41.28	-1.12	54.0	12.72	AV	50.00	100	Horizontal	Pass
5	5780.750	55.28	3.27	74.0	18.72	Peak	206.00	100	Horizontal	Pass
5**	5780.750	45.07	3.27	54.0	8.93	AV	206.00	100	Horizontal	Pass
6	13338.500	55.58	4.83	74.0	18.42	Peak	183.00	100	Horizontal	Pass
6**	13338.500	46.47	4.83	54.0	7.53	AV	183.00	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	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	SCHWARZBECK	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	/		☒

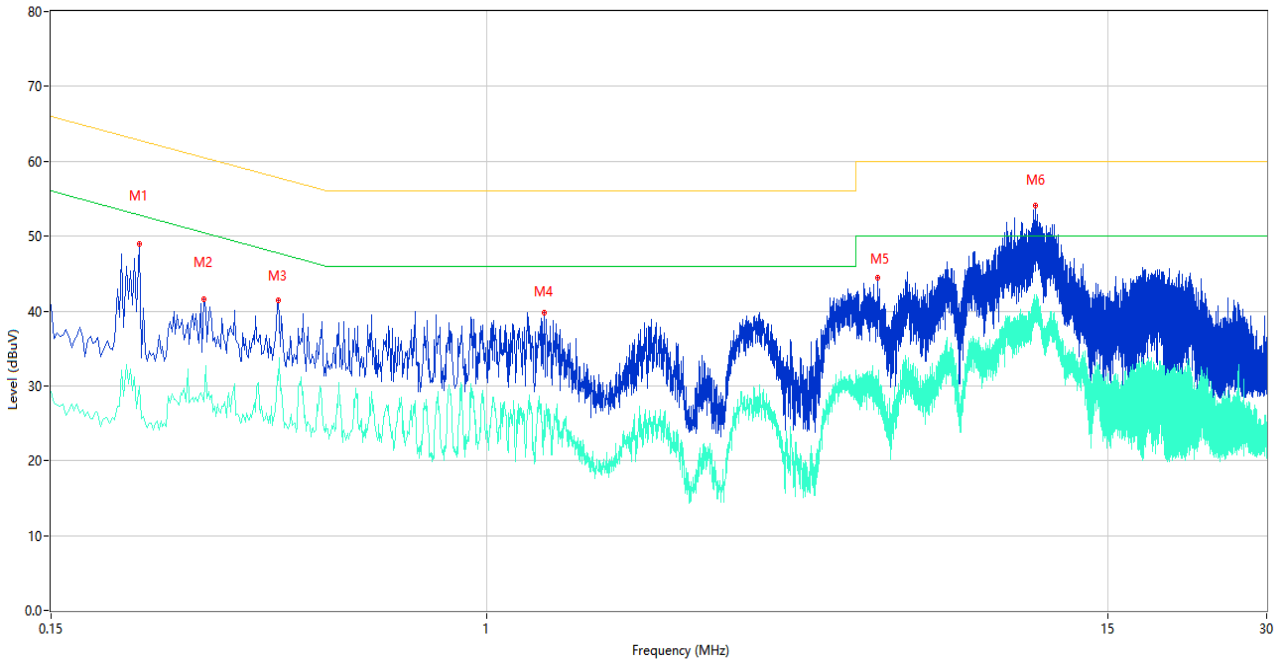
A.2 Conducted Emission, AC Ports

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.	S14	Temperature	25.2℃
Humidity	51%RH	Pressure	101kPa
Test Engineer	Yangyang	Test Date	2024.09.13

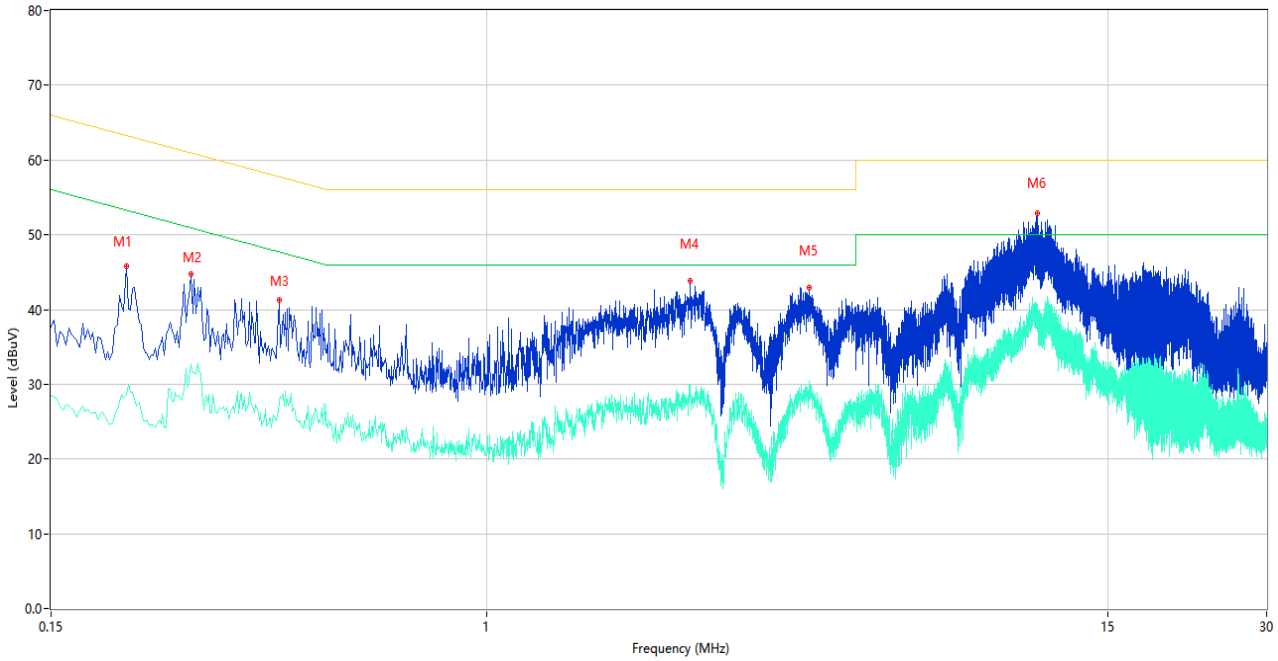
Test Mode 2

1) AC Ports - L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.220	49.01	10.06	62.82	13.81	Peak	L	Pass
1**	0.220	30.04	10.06	52.82	22.78	AV	L	Pass
2	0.292	41.58	10.09	60.47	18.89	Peak	L	Pass
2**	0.292	27.84	10.09	50.47	22.63	AV	L	Pass
3	0.404	41.38	10.67	57.77	16.39	Peak	L	Pass
3**	0.404	30.70	10.67	47.77	17.07	AV	L	Pass
4	1.290	39.74	10.45	56.00	16.26	Peak	L	Pass
4**	1.290	26.73	10.45	46.00	19.27	AV	L	Pass
5	5.512	44.42	10.89	60.00	15.58	Peak	L	Pass
5**	5.512	30.88	10.89	50.00	19.12	AV	L	Pass
6	10.928	54.07	11.84	60.00	5.93	Peak	L	Pass
6**	10.928	40.62	11.84	50.00	9.38	AV	L	Pass

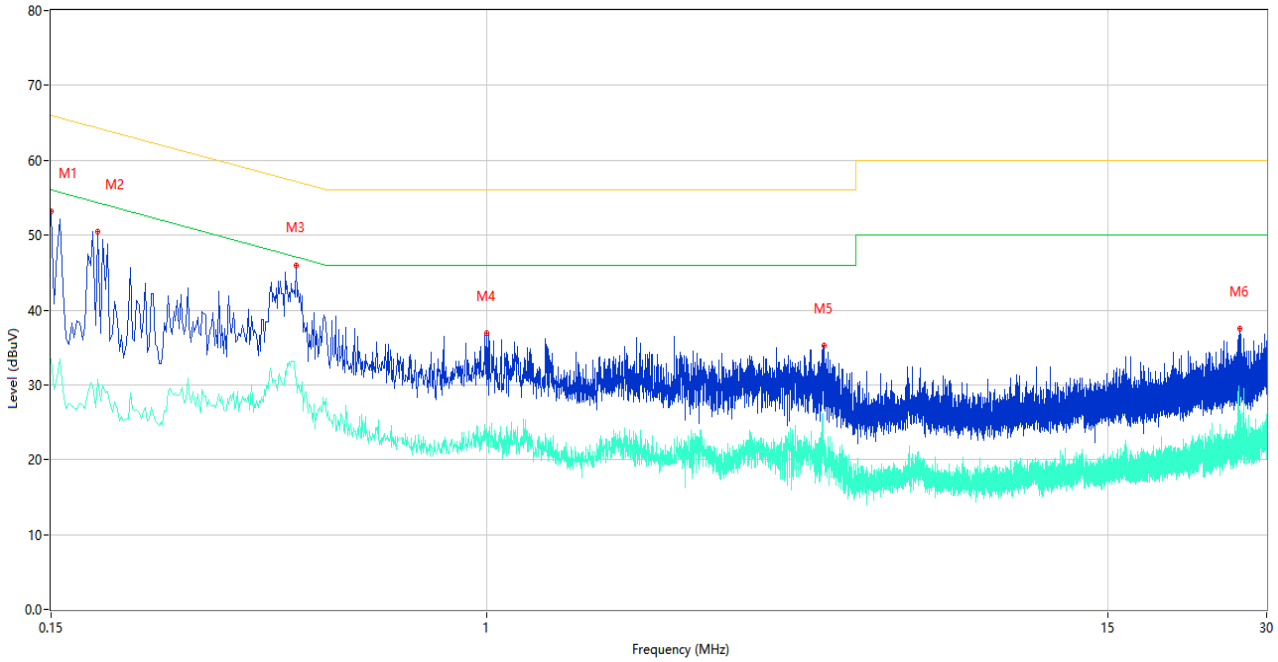
2) AC Ports - N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.208	45.77	10.06	63.28	17.51	Peak	N	Pass
1**	0.208	28.56	10.06	53.28	24.72	AV	N	Pass
2	0.276	44.71	10.08	60.94	16.23	Peak	N	Pass
2**	0.276	32.67	10.08	50.94	18.27	AV	N	Pass
3	0.406	41.26	10.67	57.73	16.47	Peak	N	Pass
3**	0.406	27.74	10.67	47.73	19.99	AV	N	Pass
4	2.430	43.80	10.50	56.00	12.20	Peak	N	Pass
4**	2.430	29.95	10.50	46.00	16.05	AV	N	Pass
5	4.082	42.97	10.85	56.00	13.03	Peak	N	Pass
5**	4.082	29.03	10.85	46.00	16.97	AV	N	Pass
6	11.044	52.87	11.81	60.00	7.13	Peak	N	Pass
6**	11.044	40.71	11.81	50.00	9.29	AV	N	Pass

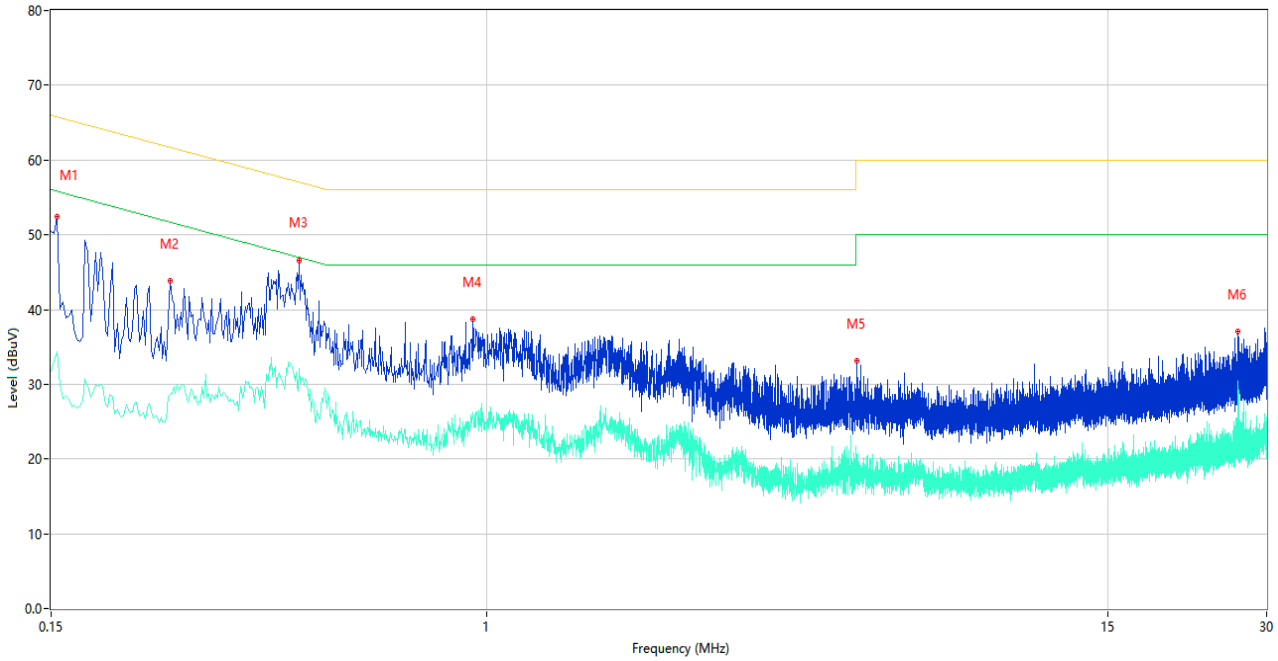
Test Mode 15

3) AC Ports - L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.150	53.12	10.12	66.00	12.88	Peak	L	Pass
1**	0.150	33.47	10.12	56.00	22.53	AV	L	Pass
2	0.184	50.44	10.08	64.30	13.86	Peak	L	Pass
2**	0.184	30.75	10.08	54.30	23.55	AV	L	Pass
3	0.436	46.01	10.63	57.14	11.13	Peak	L	Pass
3**	0.436	31.10	10.63	47.14	16.04	AV	L	Pass
4	1.002	36.94	10.35	56.00	19.06	Peak	L	Pass
4**	1.002	23.84	10.35	46.00	22.16	AV	L	Pass
5	4.354	35.28	10.91	56.00	20.72	Peak	L	Pass
5**	4.354	22.30	10.91	46.00	23.70	AV	L	Pass
6	26.726	37.46	14.01	60.00	22.54	Peak	L	Pass
6**	26.726	25.63	14.01	50.00	24.37	AV	L	Pass

4) AC Ports - N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.154	52.50	10.12	65.78	13.28	Peak	N	Pass
1**	0.154	34.40	10.12	55.78	21.38	AV	N	Pass
2	0.252	43.77	10.07	61.69	17.92	Peak	N	Pass
2**	0.252	28.59	10.07	51.69	23.10	AV	N	Pass
3	0.442	46.60	10.62	57.02	10.42	Peak	N	Pass
3**	0.442	32.02	10.62	47.02	15.00	AV	N	Pass
4	0.944	38.74	10.95	56.00	17.26	Peak	N	Pass
4**	0.944	26.16	10.95	46.00	19.84	AV	N	Pass
5	5.036	33.07	10.77	60.00	26.93	Peak	N	Pass
5**	5.036	20.61	10.77	50.00	29.39	AV	N	Pass
6	26.484	36.99	13.93	60.00	23.01	Peak	N	Pass
6**	26.484	28.20	13.93	50.00	21.80	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	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-SZ2480911-AE.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2480911-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2480911-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--