

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: RMX3851
Brand Name: realme
FCC ID: 2AUYFRMX3851
Test Standard: 47 CFR Part 15 Subpart B
ANSI C63.4-2014
Sample Arrival Date: Feb. 02, 2024
Test Date: Feb. 19, 2024 - Feb. 26, 2024
Date of Issue: Mar. 26, 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

Jm Liao

Revision History		
Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Mar. 26, 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	<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	RMX3851
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	11
Software Version	realme UI 5.0
Dimensions (Approx.)	about 162mm×75.1mm×8.6mm
Weight (Approx.)	about 199g(with battery)
EUT ID	S07, S08, S10, S11
IMEI Number	S07: IMEI1: 867848070019611, IMEI2: 867848070019603 S08: IMEI1: 867848070019637, IMEI2: 867848070019629 S10: IMEI1: 867848070019678, IMEI2: 867848070019660 S11: IMEI1: 867848070019694, IMEI2: 867848070019686

2.4 Ancillary Equipment

Ancillary Equipment 1	Battery	
	Brand Name	SUPERVOOC
	Model No.	BLPA51
	Serial No.	N/A
	Capacity	Rated: 2680mAh/20.96Wh Typical: 2750mAh/21.51Wh
	Rated Voltage	7.82 V
	Limit Charge Voltage	9.00 V
Ancillary Equipment 2	Adapter	
	Brand Name	SUPERVOOC
	Model No.	VCBBOAUH
	Serial No.	N/A

	Rated Input	Input1: 100-130V ~ 50/60Hz, 2.5A Input2: 200-240V ~ 50/60Hz, 2.5A
	Rated Output	5.0V=2.0A or 5.0- 11.0V= 7.3 A MAX(80W MAX)or 5.0 -11.0V=11.0 A MAX (120W MAX)
Ancillary Equipment 3	USB Cable	
	Length (Approx.)	1.0 m

2.5 Technical Information

Network and Wireless connectivity	<p>2G Network GSM/GPRS/EDGE 850/1900 MHz</p> <p>3G Network WCDMA/HSDPA/HSUPA Band 2/4/5</p> <p>4G Network LTE FDD Band 2/4/5/7/12/13/17/26/66 LTE TDD Band 38/41</p> <p>LTE CA Uplink (UL): CA_7C, CA_38C, CA_41C, CA_2A-4A, CA_2A-7A, CA_2A-66A, CA_4A-5A, CA_4A-7A, CA_4A-12A, CA_5A-7A, CA_5A-66A, CA_7A-12A, CA_7A-66A, CA_12A-66A</p> <p>5G Network</p> <p>SA: NR n5/n7/n38/n41/n66</p> <p>NSA(EN-DC): DC_2A_n7A, DC_2A_n66A, DC_4A_n7A, DC_4A_n38A, DC_4A_n41A, DC_5A_n7A, DC_5A_n38A, DC_5A_n66A, DC_7A_n5A, DC_7A_n66A, DC_12A_n7A, DC_12A_n38A, DC_12A_n41A, DC_12A_n66A, DC_13A_n66A, DC_26A_n41A, DC_66A_n5A, DC_66A_n7A, DC_66A_n38A, DC_66A_n41A</p> <p>Bluetooth (BR+EDR+BLE)</p> <p>2.4G WIFI 802.11b, 802.11g, 802.11n(HT20/40), VHT20/40 and 802.11ax(HE20/40)</p> <p>5G WIFI 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80/160) and 802.11ax(HE20/40/80/160)</p> <p>U-NII-1/2A/2C/3, GPS, GLONASS, BDS, Galileo, SBAS, NFC</p>
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
Wireless Communications Test Set	R&S	CMW500	127801	N/A	Cal. Due 2024.12.04	<input checked="" type="checkbox"/>
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"/>
USB disk	Sandisk	N/A	N/A	N/A	N/A	<input checked="" type="checkbox"/>
Type-C Headset	OPPO	N/A	N/A	N/A	1.12m	<input checked="" type="checkbox"/>

4.2 Test Configurations

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

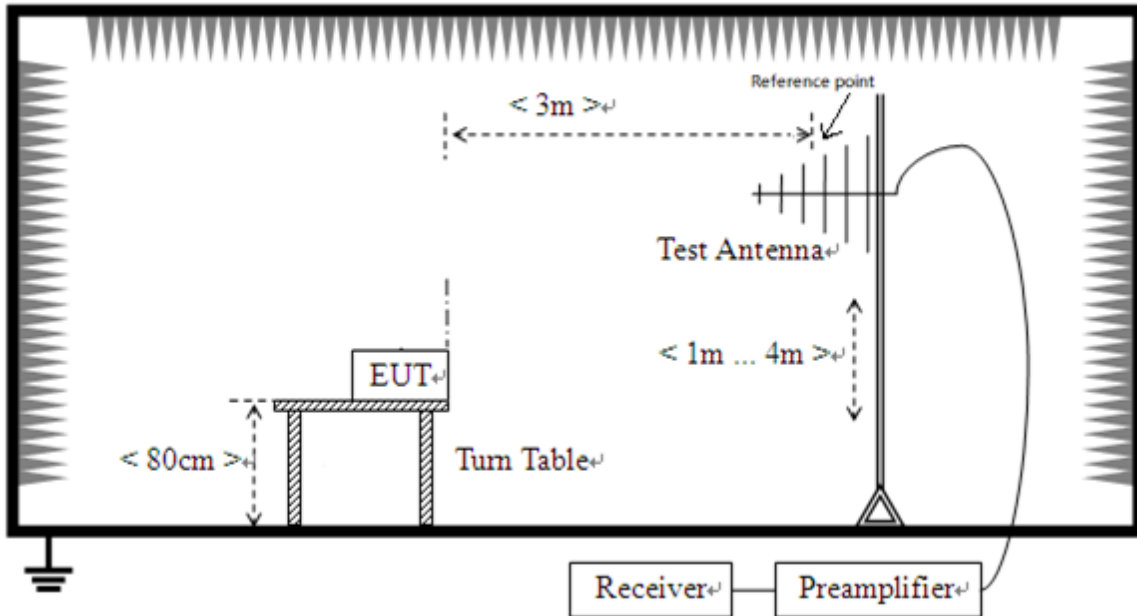
Test Mode Configuration	Description
Mode 1	<u>The WCDMA Band 5 RX Test Mode</u> WCDMA Band 5 RX + EUT +Adapter + USB Cable + Battery
Mode 2	<u>The FDD LTE Band 5 RX Test Mode</u> LTE Band 5 RX + EUT +Adapter + USB Cable + Battery
Mode 3	<u>The FDD LTE Band 12 RX Test Mode</u> LTE Band 12 RX + EUT +Adapter + USB Cable + Battery
Mode 4	<u>The FDD LTE Band 17 RX Test Mode</u> LTE Band 17 RX + EUT +Adapter + USB Cable + Battery
Mode 5	<u>The Standby Test Mode</u> EUT + Adapter + USB Cable + Battery
Mode 6	<u>The Front Camera Test Mode</u> EUT + Adapter + USB Cable + Battery
Mode 7	<u>The Rear Camera Test Mode</u> EUT + Adapter + USB Cable + Battery
Mode 8	<u>The Video Play Test Mode</u> EUT + Adapter + USB Cable + Battery
Mode 9	<u>The USB Test Mode</u> EUT + USB Cable + Battery + Laptop
Mode 10	<u>The OTG Test Mode</u> EUT + Battery + Data connector + USB Disk
Mode 11	<u>The Type-C Headset Test Mode</u> EUT + Type-C Headset + Battery

Test Case	Test Mode Configuration	Worst Mode
Radiated Emission	Mode 1~Mode 11	5, 9
Conducted Emission, AC Ports	Mode 1~Mode 9	5, 9

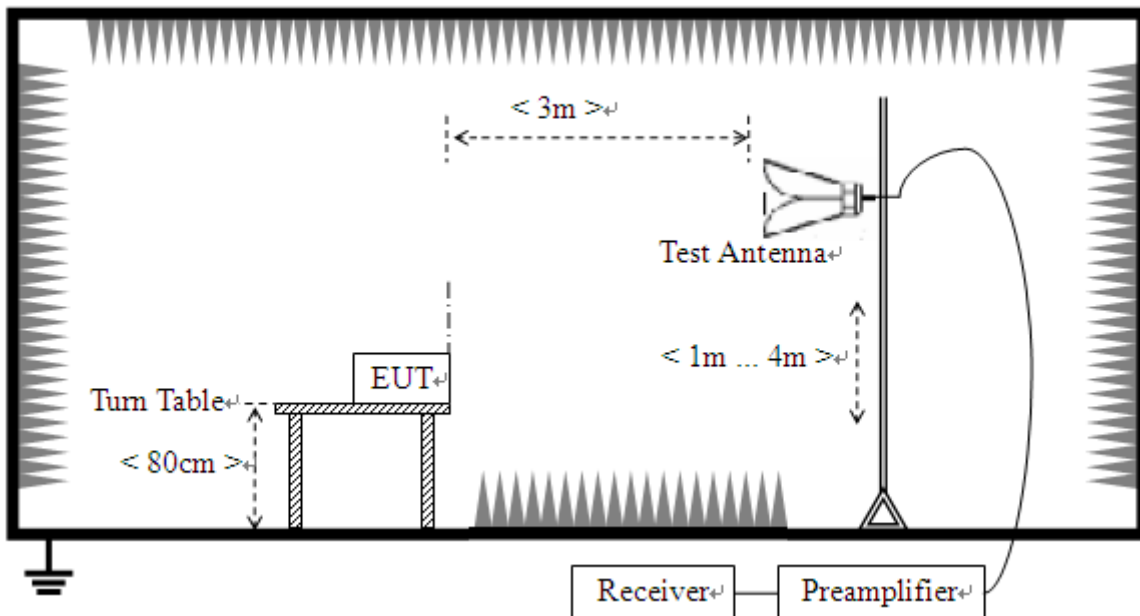
Note: All operation modes were tested, but only test data of the worst mode was presented in this report.

4.3 Test Setups

Test Setup 1

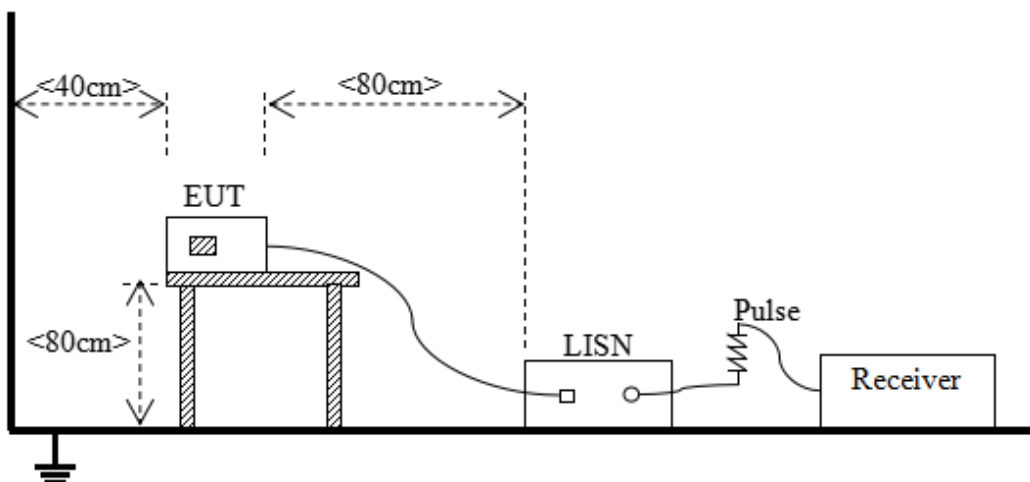


Radiated Emission (30 MHz-1 GHz)



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*log [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*log(10/3) = 60 (dB $\mu\text{V/m}$).

Highest internal frequency (F_X)	Highest measurement frequency (F_M)
$F_X \leq 108$ MHz	1GHz
108 MHz $\leq F_X \leq 500$ MHz	2GHz
500 MHz $\leq F_X \leq 1$ 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 $f \geq 1$ 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 ANNEXA.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 ANNEXA.2.

NOTE:

1. Results (dB μ V) = Reading (dB μ V) + Factor (dB)

The reading level is calculated by software which is not shown in the sheet

2. Factor = Insertion loss + Cable loss

3. Margin = Limit - Results

ANNEX A TEST RESULTS

A.1 Radiated Emission

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

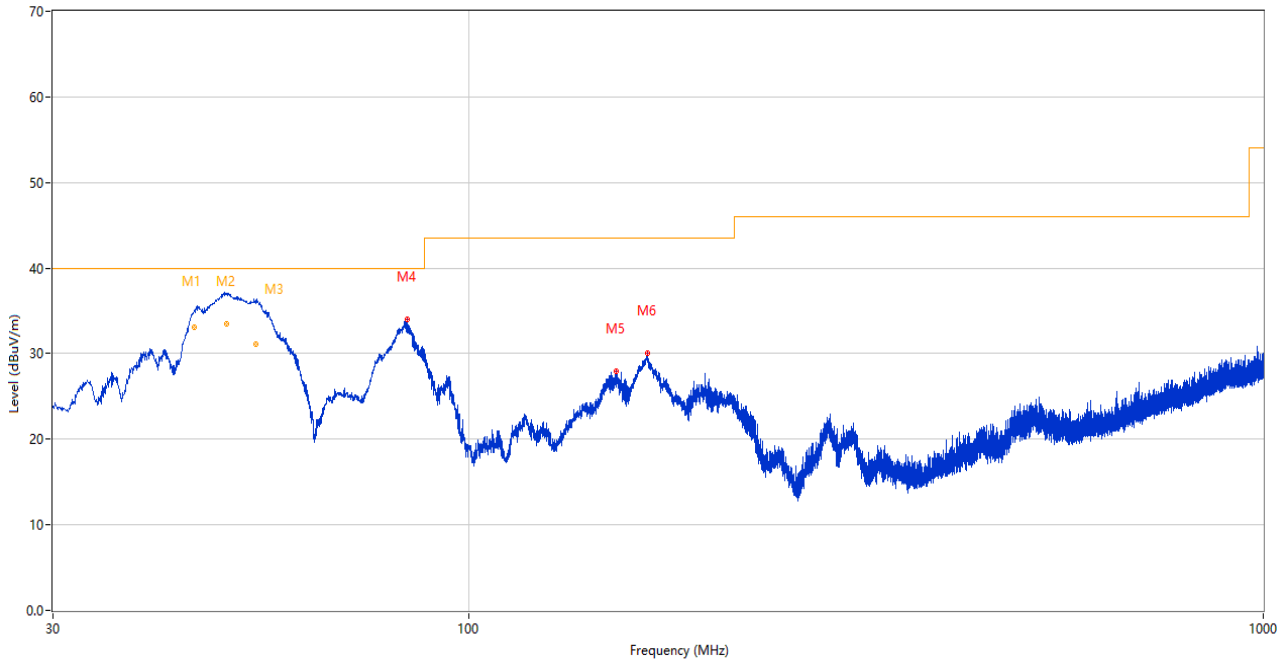
Note 2: For the test data above 1 GHz, according the ANSI C63.4-2014, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

Note 3: The Radiated Emission is required to be investigated to the upper frequency of 5th harmonic of the highest internal frequency of EUT or 40 GHz, whichever is lower. The test results above 18GHz are only noise and are not recorded in the report.

Sample No.	S10	Temperature	21.9°C
Humidity	52%RH	Pressure	101kPa
Test Engineer	He Shichang	Test Date	2024.02.19

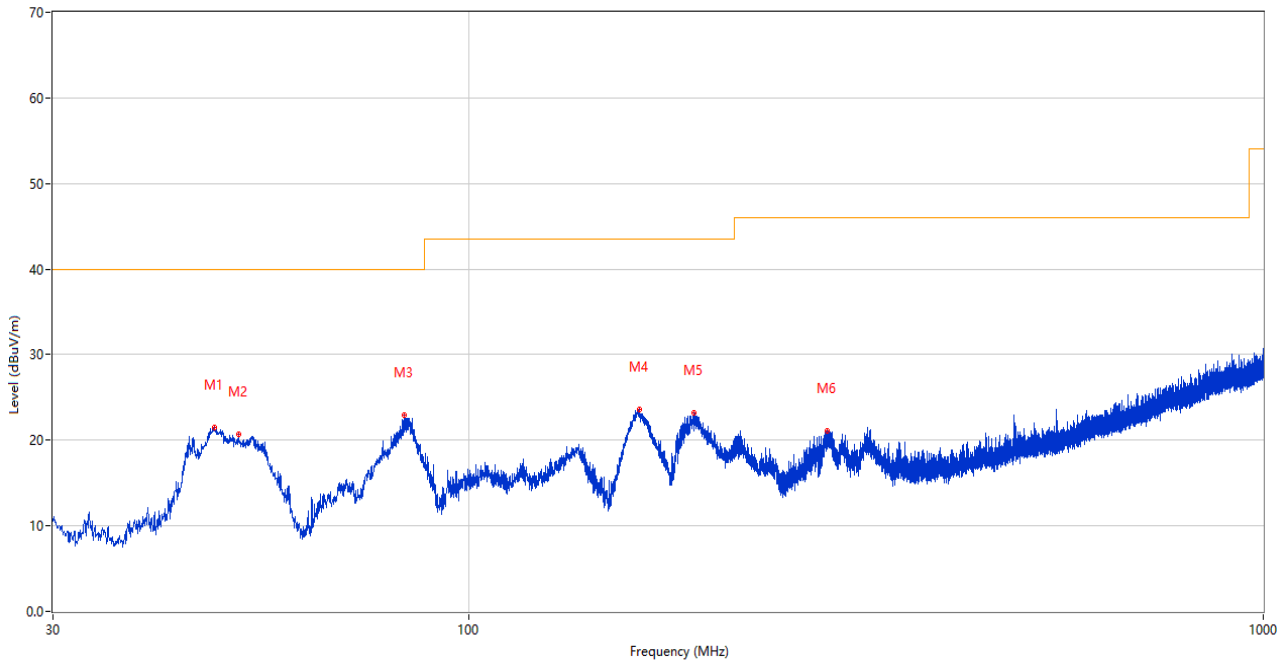
Test Mode5

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	45.231	35.01	-25.54	40.0	4.99	Peak	9.00	101	Vertical	N/A
1*	45.231	33.15	-25.54	40.0	6.85	QP	9.00	101	Vertical	Pass
2	49.549	34.91	-25.48	40.0	5.09	Peak	4.00	101	Vertical	N/A
2*	49.549	33.49	-25.48	40.0	6.51	QP	4.00	101	Vertical	Pass
3	54.076	32.97	-25.56	40.0	7.03	Peak	52.00	101	Vertical	N/A
3*	54.076	31.15	-25.56	40.0	8.85	QP	52.00	101	Vertical	Pass
4	83.738	33.97	-30.23	40.0	6.03	Peak	208.00	100	Vertical	Pass
5	153.578	27.92	-29.89	43.5	15.58	Peak	290.00	100	Vertical	Pass
6	167.934	30.04	-29.21	43.5	13.46	Peak	360.00	100	Vertical	Pass

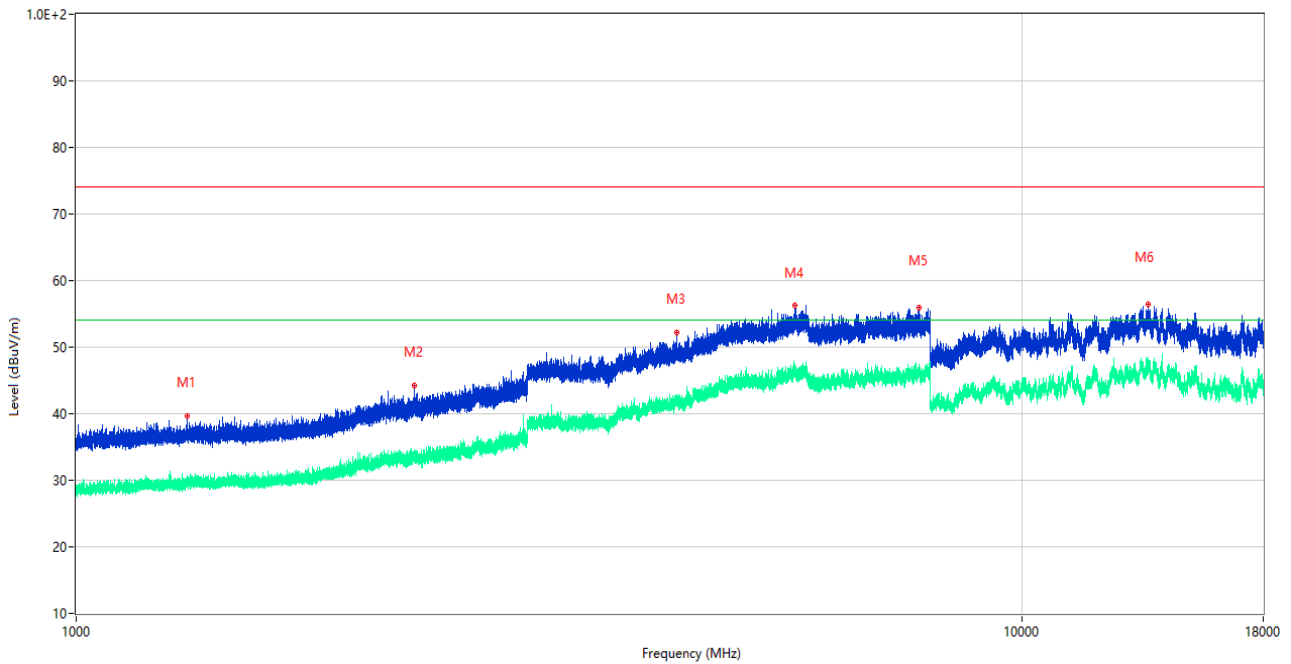
2) Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	47.848	21.43	-25.45	40.0	18.57	Peak	61.00	100	Horizontal	Pass
2	51.389	20.65	-25.45	40.0	19.35	Peak	0.00	100	Horizontal	Pass
3	83.107	22.96	-30.42	40.0	17.04	Peak	150.00	200	Horizontal	Pass
4	164.296	23.63	-29.35	43.5	19.87	Peak	85.00	200	Horizontal	Pass
5	192.184	23.20	-27.12	43.5	20.30	Peak	253.00	100	Horizontal	Pass
6	283.025	21.06	-24.08	46.0	24.94	Peak	108.00	100	Horizontal	Pass

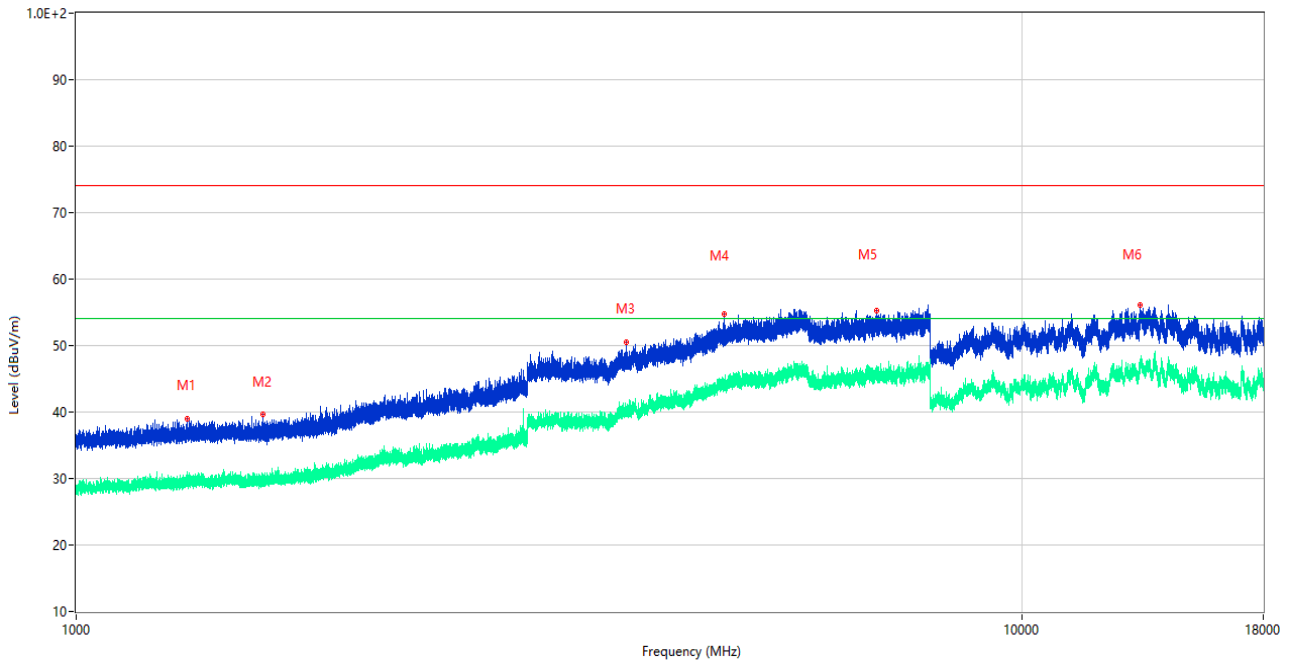
Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Below 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2023.09.05	2024.09.04	<input checked="" type="checkbox"/>
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2023.12.05	2024.12.04	<input checked="" 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	1311.200	39.69	-15.72	74.0	34.31	Peak	255.00	100	Vertical	Pass
1**	1311.200	30.19	-15.72	54.0	23.81	AV	255.00	100	Vertical	Pass
2	2278.800	44.26	-11.88	74.0	29.74	Peak	197.00	100	Vertical	Pass
2**	2278.800	34.58	-11.88	54.0	19.42	AV	197.00	100	Vertical	Pass
3	4318.750	52.14	-0.79	74.0	21.86	Peak	235.00	100	Vertical	Pass
3**	4318.750	41.73	-0.79	54.0	12.27	AV	235.00	100	Vertical	Pass
4	5747.500	56.25	3.23	74.0	17.75	Peak	344.00	100	Vertical	Pass
4**	5747.500	45.99	3.23	54.0	8.01	AV	344.00	100	Vertical	Pass
5	7792.750	55.88	2.84	74.0	18.12	Peak	208.00	100	Vertical	Pass
5**	7792.750	45.71	2.84	54.0	8.29	AV	208.00	100	Vertical	Pass
6	13593.500	56.39	4.72	74.0	17.61	Peak	37.00	100	Vertical	Pass
6**	13593.500	48.02	4.72	54.0	5.98	AV	37.00	100	Vertical	Pass

4) Test Antenna Horizontal, 1 GHz – 18 GHz



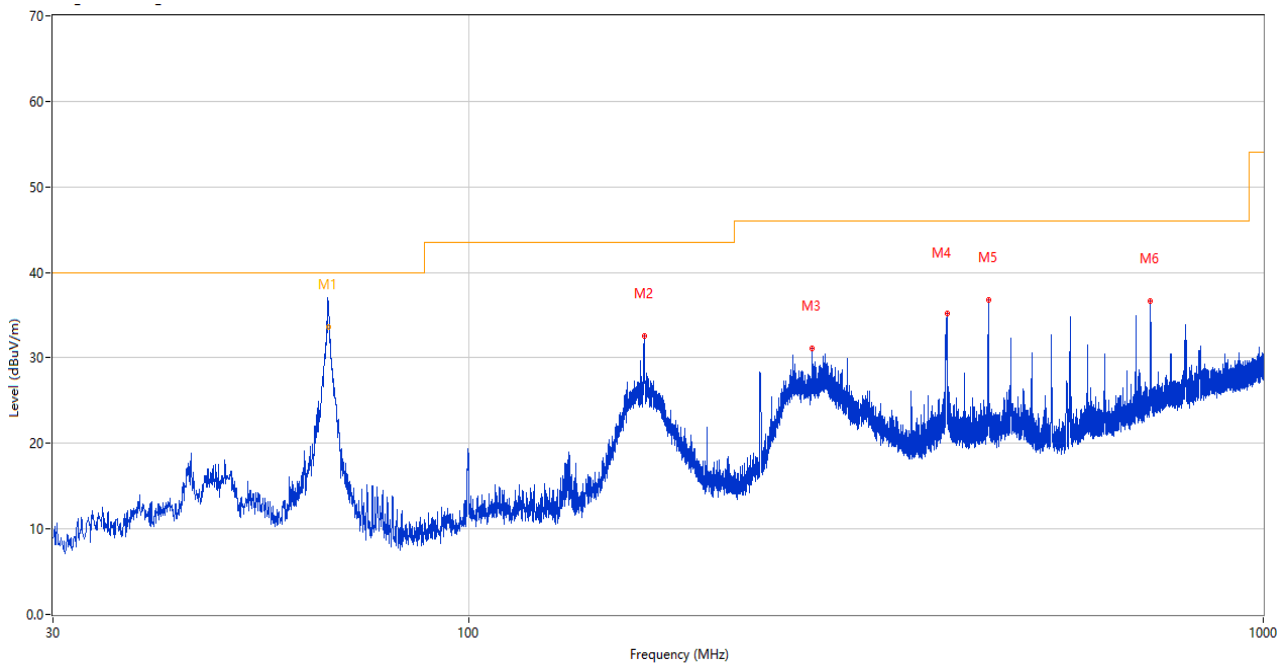
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1311.600	39.03	-15.74	74.0	34.97	Peak	252.00	100	Horizontal	Pass
1**	1311.600	29.41	-15.74	54.0	24.59	AV	252.00	100	Horizontal	Pass
2	1575.300	39.59	-15.94	74.0	34.41	Peak	63.00	100	Horizontal	Pass
2**	1575.300	29.48	-15.94	54.0	24.52	AV	63.00	100	Horizontal	Pass
3	3817.750	50.59	-2.10	74.0	23.41	Peak	272.00	100	Horizontal	Pass
3**	3817.750	40.47	-2.10	54.0	13.53	AV	272.00	100	Horizontal	Pass
4	4848.500	54.83	1.89	74.0	19.17	Peak	116.00	100	Horizontal	Pass
4**	4848.500	44.03	1.89	54.0	9.97	AV	116.00	100	Horizontal	Pass
5	7017.000	55.33	1.69	74.0	18.67	Peak	171.00	100	Horizontal	Pass
5**	7017.000	45.16	1.69	54.0	8.84	AV	171.00	100	Horizontal	Pass
6	13351.000	56.10	5.23	74.0	17.90	Peak	71.00	100	Horizontal	Pass
6**	13351.000	47.01	5.23	54.0	6.99	AV	71.00	100	Horizontal	Pass

Equipment Information						
EquipmentName	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-Circuit s	ZVA-213-S+	225321316	2023.12.05	2024.12.04	<input checked="" type="checkbox"/>
Test Antenna- Horn	SCHWARZ BECK	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"/>

Sample No.	S10	Temperature	21.9°C
Humidity	52%RH	Pressure	101kPa
Test Engineer	He Shichang	Test Date	2024.02.20

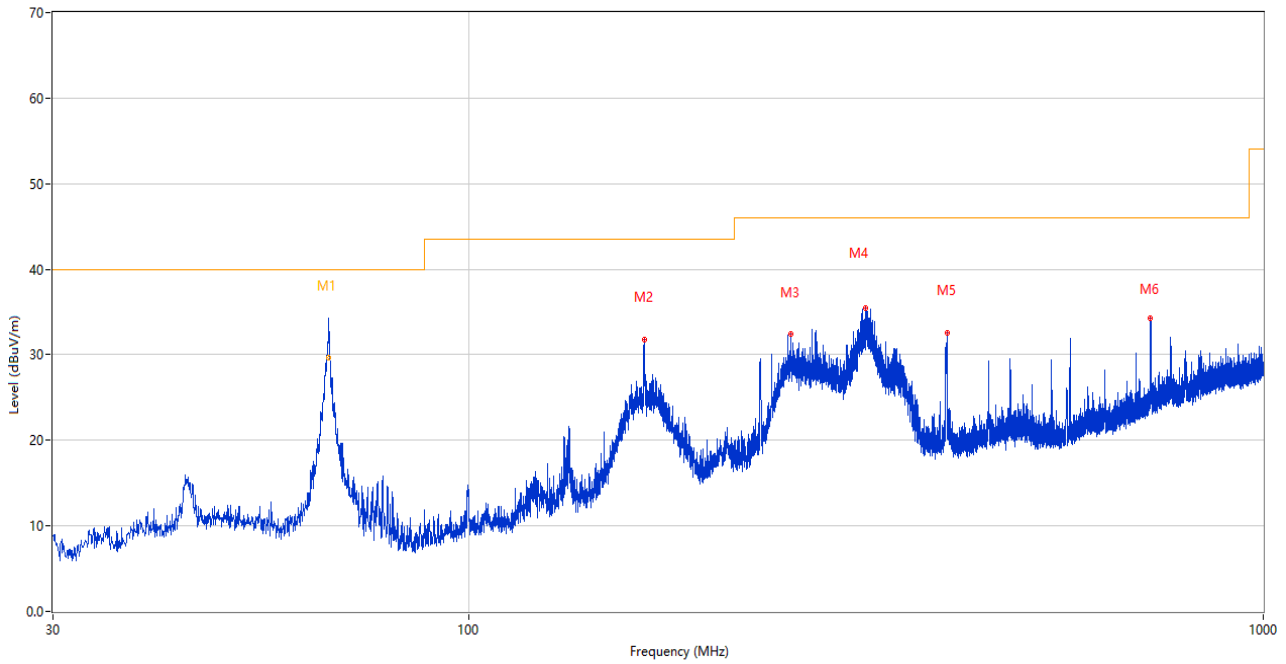
Test Mode9

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	66.649	38.83	-27.91	40.0	1.17	Peak	215.00	106	Vertical	N/A
1*	66.649	33.59	-27.91	40.0	6.41	QP	215.00	106	Vertical	Pass
2	166.430	32.53	-29.26	43.5	10.97	Peak	274.00	100	Vertical	Pass
3	270.754	31.12	-24.40	46.0	14.88	Peak	1.00	200	Vertical	Pass
4	399.909	35.19	-20.95	46.0	10.81	Peak	201.00	100	Vertical	Pass
5	451.174	36.78	-19.86	46.0	9.22	Peak	178.00	100	Vertical	Pass
6	721.562	36.61	-13.57	46.0	9.39	Peak	149.00	100	Vertical	Pass

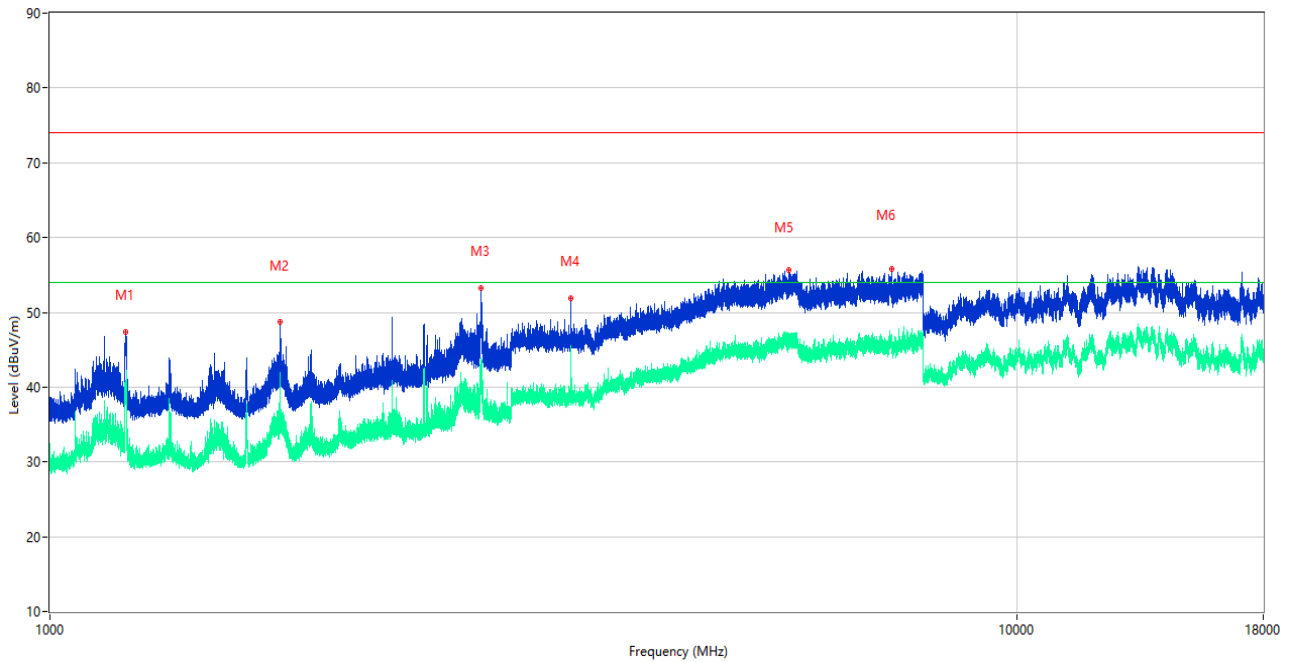
6) Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	66.674	34.46	-27.98	40.0	5.54	Peak	159.00	163	Horizontal	N/A
1*	66.674	29.65	-27.98	40.0	10.35	QP	159.00	163	Horizontal	Pass
2	166.576	31.79	-29.24	43.5	11.71	Peak	145.00	200	Horizontal	Pass
3	254.555	32.37	-24.67	46.0	13.63	Peak	264.00	100	Horizontal	Pass
4	316.102	35.46	-23.18	46.0	10.54	Peak	341.00	100	Horizontal	Pass
5	399.909	32.52	-20.95	46.0	13.48	Peak	202.00	100	Horizontal	Pass
6	721.610	34.27	-13.57	46.0	11.73	Peak	164.00	100	Horizontal	Pass

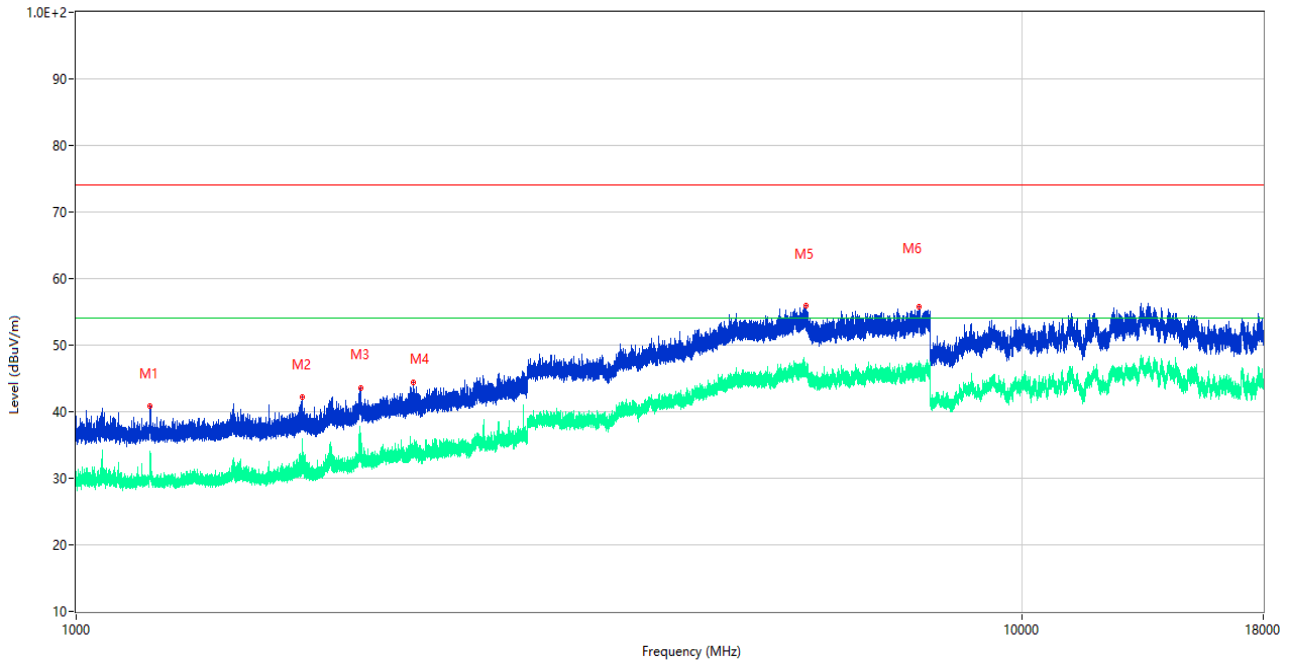
Equipment Information						
Equipment Name	Supplier	Model	Serial No.	Cal. Date	Cal. Due	Use
Frequency Below 1 GHz						
EMI Receiver	Keysight	N9038A	MY55330120	2023.09.05	2024.09.04	<input checked="" type="checkbox"/>
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2023.12.05	2024.12.04	<input checked="" 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	1197.300	47.32	-16.26	74.0	26.68	Peak	221.00	100	Vertical	Pass
1**	1197.300	38.87	-16.26	54.0	15.13	AV	221.00	100	Vertical	Pass
2	1730.200	48.69	-15.86	74.0	25.31	Peak	212.00	100	Vertical	Pass
2**	1730.200	39.75	-15.86	54.0	14.25	AV	212.00	100	Vertical	Pass
3	2790.500	53.23	-8.57	74.0	20.77	Peak	163.00	100	Vertical	Pass
3**	2790.500	41.72	-8.57	54.0	12.28	AV	163.00	100	Vertical	Pass
4	3459.750	51.88	-4.37	74.0	22.12	Peak	0.00	100	Vertical	Pass
4**	3459.750	42.53	-4.37	54.0	11.47	AV	0.00	100	Vertical	Pass
5	5820.500	55.68	3.84	74.0	18.32	Peak	262.00	100	Vertical	Pass
5**	5820.500	46.82	3.84	54.0	7.18	AV	262.00	100	Vertical	Pass
6	7430.250	55.78	2.39	74.0	18.22	Peak	207.00	100	Vertical	Pass
6**	7430.250	46.04	2.39	54.0	7.96	AV	207.00	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	1197.900	40.85	-16.20	74.0	33.15	Peak	278.00	100	Horizontal	Pass
1**	1197.900	31.77	-16.20	54.0	22.23	AV	278.00	100	Horizontal	Pass
2	1732.200	42.21	-15.87	74.0	31.79	Peak	252.00	100	Horizontal	Pass
2**	1732.200	31.77	-15.87	54.0	22.23	AV	252.00	100	Horizontal	Pass
3	1997.600	43.64	-13.87	74.0	30.36	Peak	134.00	100	Horizontal	Pass
3**	1997.600	33.04	-13.87	54.0	20.96	AV	134.00	100	Horizontal	Pass
4	2272.600	44.38	-12.10	74.0	29.62	Peak	108.00	100	Horizontal	Pass
4**	2272.600	33.85	-12.10	54.0	20.15	AV	108.00	100	Horizontal	Pass
5	5919.250	55.95	3.50	74.0	18.05	Peak	360.00	100	Horizontal	Pass
5**	5919.250	46.10	3.50	54.0	7.90	AV	360.00	100	Horizontal	Pass
6	7784.000	55.75	3.20	74.0	18.25	Peak	71.00	100	Horizontal	Pass
6**	7784.000	47.42	3.20	54.0	6.58	AV	71.00	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-Circuit s	ZVA-213-S+	225321316	2023.12.05	2024.12.04	<input checked="" type="checkbox"/>
Test Antenna- Horn	SCHWARZ BECK	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"/>

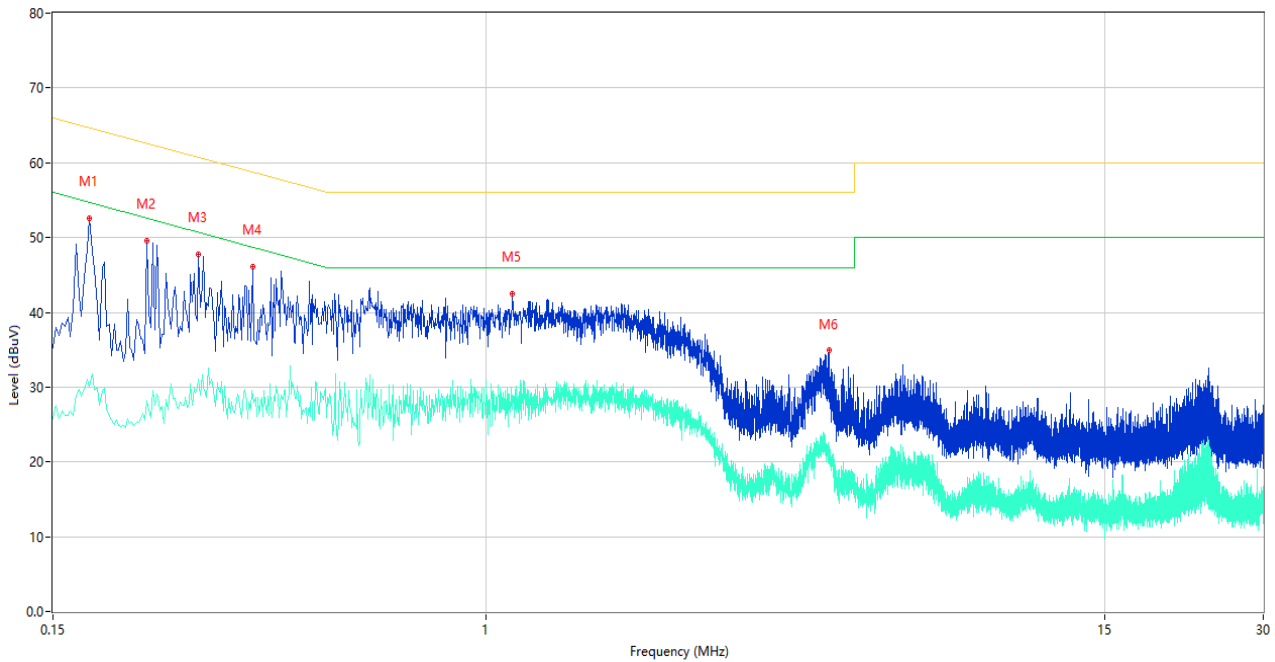
A.2 Conducted Emission, AC Ports

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.	S07	Temperature	21.9°C
Humidity	52%RH	Pressure	101kPa
Test Engineer	Yang Yang	Test Date	2024.02.26

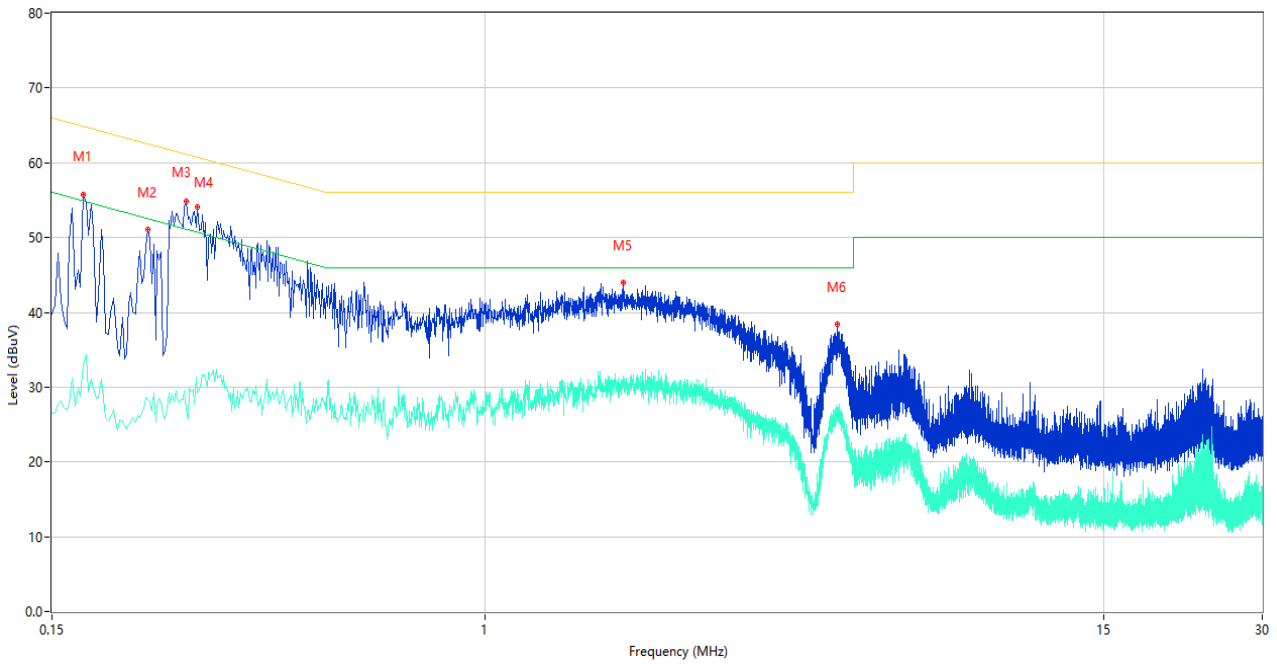
Test Mode5

1) AC Ports - L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.176	52.61	9.44	64.67	12.06	Peak	L	Pass
1**	0.176	29.96	9.44	54.67	24.71	AV	L	Pass
2	0.226	49.58	9.43	62.60	13.02	Peak	L	Pass
2**	0.226	28.20	9.43	52.60	24.40	AV	L	Pass
3	0.284	47.78	9.43	60.70	12.92	Peak	L	Pass
3**	0.284	31.05	9.43	50.70	19.65	AV	L	Pass
4	0.360	46.06	9.47	58.73	12.67	Peak	L	Pass
4**	0.360	28.91	9.47	48.73	19.82	AV	L	Pass
5	1.122	42.42	9.69	56.00	13.58	Peak	L	Pass
5**	1.122	27.00	9.69	46.00	19.00	AV	L	Pass
6	4.488	35.01	9.31	56.00	20.99	Peak	L	Pass
6**	4.488	21.66	9.31	46.00	24.34	AV	L	Pass

2) AC Ports - N Phase

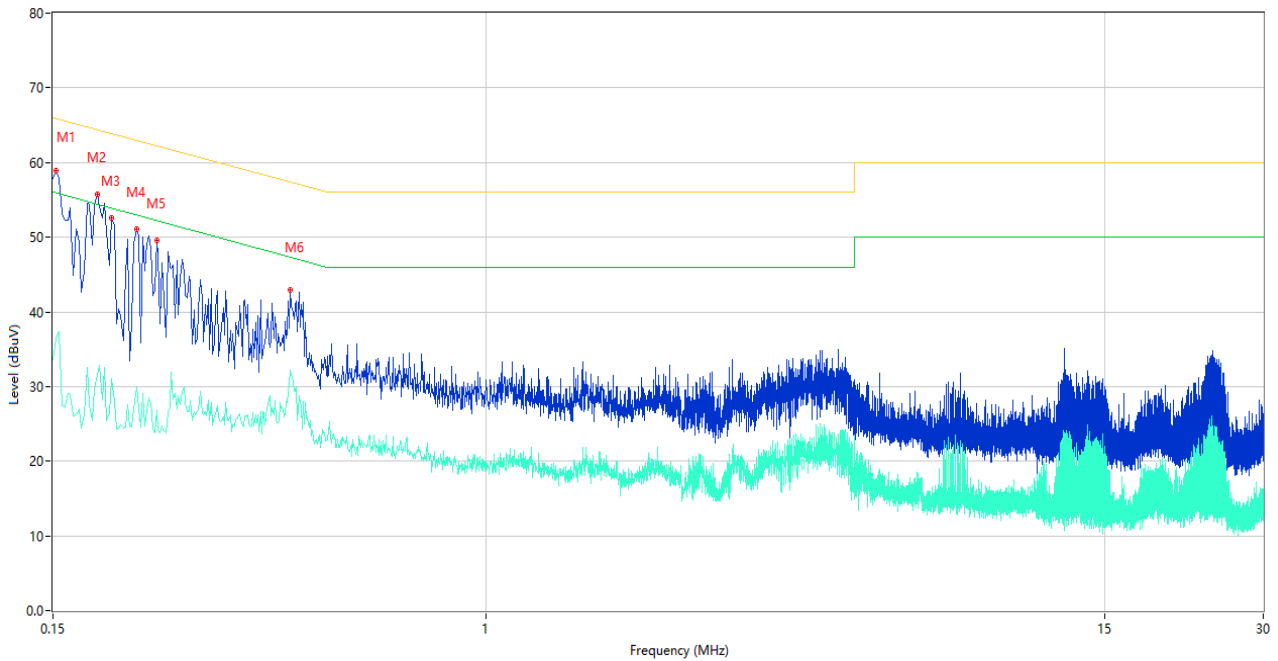


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.172	55.80	9.44	64.86	9.06	Peak	N	Pass
1**	0.172	33.06	9.44	54.86	21.80	AV	N	Pass
2	0.228	51.02	9.43	62.52	11.50	Peak	N	Pass
2**	0.228	28.37	9.43	52.52	24.15	AV	N	Pass
3	0.270	54.80	9.43	61.12	6.32	Peak	N	Pass
3**	0.270	26.94	9.43	51.12	24.18	AV	N	Pass
4	0.284	54.04	9.43	60.70	6.66	Peak	N	Pass
4**	0.284	29.18	9.43	50.70	21.52	AV	N	Pass
5	1.830	43.96	9.48	56.00	12.04	Peak	N	Pass
5**	1.830	31.02	9.48	46.00	14.98	AV	N	Pass
6	4.672	38.44	9.39	56.00	17.56	Peak	N	Pass
6**	4.672	26.95	9.39	46.00	19.05	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	SCHWARZB ECK	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"/>

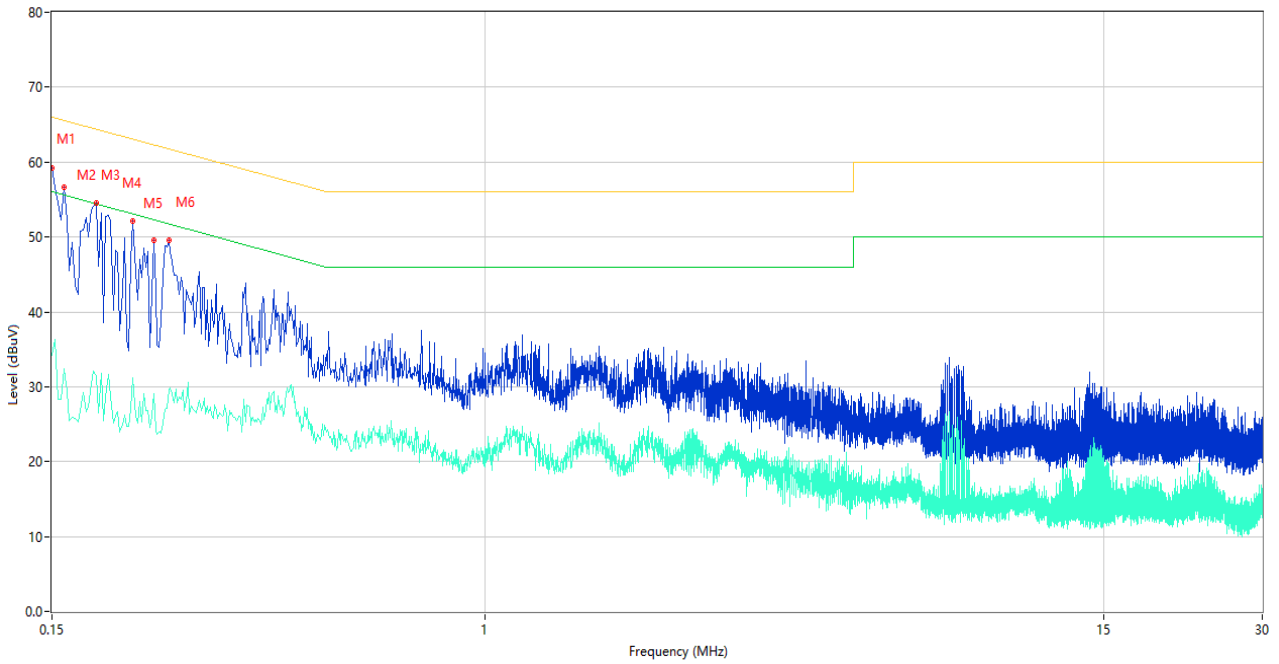
Test Mode9

3) AC Ports - L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.152	58.89	9.47	65.89	7.00	Peak	L	Pass
1**	0.152	36.43	9.47	55.89	19.46	AV	L	Pass
2	0.182	55.75	9.44	64.39	8.64	Peak	L	Pass
2**	0.182	31.44	9.44	54.39	22.95	AV	L	Pass
3	0.194	52.57	9.43	63.86	11.29	Peak	L	Pass
3**	0.194	31.09	9.43	53.86	22.77	AV	L	Pass
4	0.216	51.06	9.42	62.97	11.91	Peak	L	Pass
4**	0.216	29.93	9.42	52.97	23.04	AV	L	Pass
5	0.236	49.53	9.43	62.24	12.71	Peak	L	Pass
5**	0.236	26.81	9.43	52.24	25.43	AV	L	Pass
6	0.424	42.92	9.97	57.37	14.45	Peak	L	Pass
6**	0.424	32.19	9.97	47.37	15.18	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	59.22	9.47	66.00	6.78	Peak	N	Pass
1**	0.150	34.24	9.47	56.00	21.76	AV	N	Pass
2	0.158	56.72	9.46	65.57	8.85	Peak	N	Pass
2**	0.158	32.37	9.46	55.57	23.20	AV	N	Pass
3	0.182	54.50	9.44	64.39	9.89	Peak	N	Pass
3**	0.182	31.45	9.44	54.39	22.94	AV	N	Pass
4	0.214	52.19	9.42	63.05	10.86	Peak	N	Pass
4**	0.214	31.15	9.42	53.05	21.90	AV	N	Pass
5	0.234	49.60	9.43	62.31	12.71	Peak	N	Pass
5**	0.234	29.10	9.43	52.31	23.21	AV	N	Pass
6	0.250	49.55	9.43	61.76	12.21	Peak	N	Pass
6**	0.250	29.55	9.43	51.76	22.21	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	SCHWARZB ECK	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-SZ2410450-AE-1.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2410450-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2410450-AI.PDF”.

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--END OF REPORT--