

# TEST REPORT

**Applicant:** Shanghai Xiangcheng Communication Technology Co.,Ltd

**Address:** 6th Floor, Building 10, No.3000 Longdong Avenue, Pudong New District, Shanghai

**Equipment Type:** P18 Smart Desktop Terminal

**Model Name:** P18

**Brand Name:** KOZEN

**FCC ID:** 2A2UU-P1861

**Test Standard:** 47 CFR Part 15 Subpart C  
ANSI C63.10-2013

**Sample Receipt Date:** Jul. 30, 2024

**Test Date:** Aug. 06, 2024 - Aug. 08, 2024

**Date of Issue:** Nov. 19, 2024

**ISSUED BY:**

Shanghai Tejet Communications Technology Co., Ltd. Testing Center

**Tested by:** Chai Yong

*Chai Yong*

**Checked by:** Huang Chengkun

*Huang Chengkun*

**Approved by:** Chen Zidong

(Technical Director)

*Chen Zidong*

### Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Nov. 08, 2024</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Nov. 19, 2024</u>	<u>Modify product name and brand name</u> <u>The original report is invalid.</u>

## TABLE OF CONTENTS

1 GENERAL INFORMATION .....	4
1.1 Test Laboratory .....	4
1.2 Test Location .....	4
2 PRODUCT INFORMATION .....	5
2.1 Applicant Information .....	5
2.2 Manufacturer Information .....	5
2.3 General Description for Equipment under Test (EUT) .....	5
2.4 Technical Information .....	6
3 SUMMARY OF TEST RESULTS .....	7
3.1 Test Standards .....	7
3.2 Verdict .....	7
3.3 Decision Rule .....	8
3.4 Test Uncertainty .....	8
4 GENERAL TEST CONFIGURATIONS .....	9
4.1 Test Environments .....	9
4.2 Description of Test Setup .....	10
5 TEST ITEMS .....	12
5.1 Antenna Requirements .....	12
5.2 Emission Bandwidth .....	13
5.3 Field Strength of Fundamental Emissions and Radiated Emissions .....	15
5.4 Frequency Tolerance .....	17
5.5 Conducted Emission .....	18
ANNEX A TEST RESULT .....	19
A.1 Emission Bandwidth .....	19

A.2 Field Strength of Fundamental Emissions .....	22
A.3 Radiated Emissions .....	24
A.4 Frequency Stability .....	28
A.5 Conducted Emissions .....	29
ANNEX B TEST SETUP PHOTOS .....	32
ANNEX C EUT EXTERNAL PHOTOS .....	32
ANNEX D EUT INTERNAL PHOTOS .....	32

# 1 GENERAL INFORMATION

## 1.1 Test Laboratory

Name	Shanghai Tejet Communications Technology Co., Ltd. Testing Center
Address	1st to 2nd floors, Building 1, No. 222 Xuanlan Road, Xuanqiao Town, Pudong New District, Shanghai

## 1.2 Test Location

Name	Shanghai Tejet Communications Technology Co., Ltd. Testing Center
Location	1st to 2nd floors, Building 1, No. 222 Xuanlan Road, Xuanqiao Town, Pudong New District, Shanghai
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1352.

## 2 PRODUCT INFORMATION

### 2.1 Applicant Information

Applicant	Shanghai Xiangcheng Communication Technology Co.,Ltd
Address	6th Floor, Building 10, No.3000 Longdong Avenue, Pudong New District, Shanghai

### 2.2 Manufacturer Information

Manufacturer	Shanghai Xiangcheng Communication Technology Co.,Ltd
Address	6th Floor, Building 10, No.3000 Longdong Avenue, Pudong New District, Shanghai

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

EUT Name	P18 Smart Desktop Terminal
Model Name Under Test	P18
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	P18714071110000
Software Version	P1861_tekpal_a3
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

## 2.4 Technical Information

Network and Wireless connectivity	2G Network GSM/GPRS 850/1900MHz 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network LTE FDD Band 2/4/5/7/12 LTE TDD Band 38/41(120M) Bluetooth(BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20/40) 5G WIFI 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80) 5.8G SRD, GPS, GLONASS, BDS, Galileo, NFC
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The requirement for the following technical information of the EUT was tested in this report:

Modulation Type	ASK
Product Type	<input checked="" type="checkbox"/> Mobile <input type="checkbox"/> Portable <input type="checkbox"/> Fix Location
Frequency Range	13.56 MHz
Receiver Categorization	3
Number of Channel	1
Tested Channel	1
Antenna Type	Coil Antenna

### 3 SUMMARY OF TEST RESULTS

#### 3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15 Subpart C	Intentional Radiators
2	ANSI C63.10-2013	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices

#### 3.2 Verdict

No.	Description	FCC Part No.	Test Result	Verdict
1	Antenna Requirement	15.203	--	Pass <sup>Note</sup>
2	Emissions Bandwidth	15.215	ANNEX A.1	Pass
3	Field Strength of Fundamental Emissions	15.225(a)	ANNEX A.2	Pass
4	Radiated Emissions	15.225(d) 15.209	ANNEX A.3	Pass
5	Frequency Stability	15.225(e)	ANNEX A.4	Pass
6	Conducted Emission	15.207	ANNEX A.5	Pass

Note: The EUT has a permanently and irreplaceable attached antenna, which complies with the requirement FCC 15.203.

### 3.3 Decision Rule

- ☐ No Need
- ☒ Use General conformity decision rule (Consider uncertainty or not ☒ No ☐ Yes)
- ☐ Use Special Conformity Decision Rule (Consider uncertainty or not ☐ No ☐ Yes)

### 3.4 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 (150 kHz-30 MHz)	2.6 dB
Radiated emissions (9 kHz-30 MHz)	4.3 dB
Radiated emissions (30 MHz-1 GHz)	4.4 dB



## 4 GENERAL TEST CONFIGURATIONS

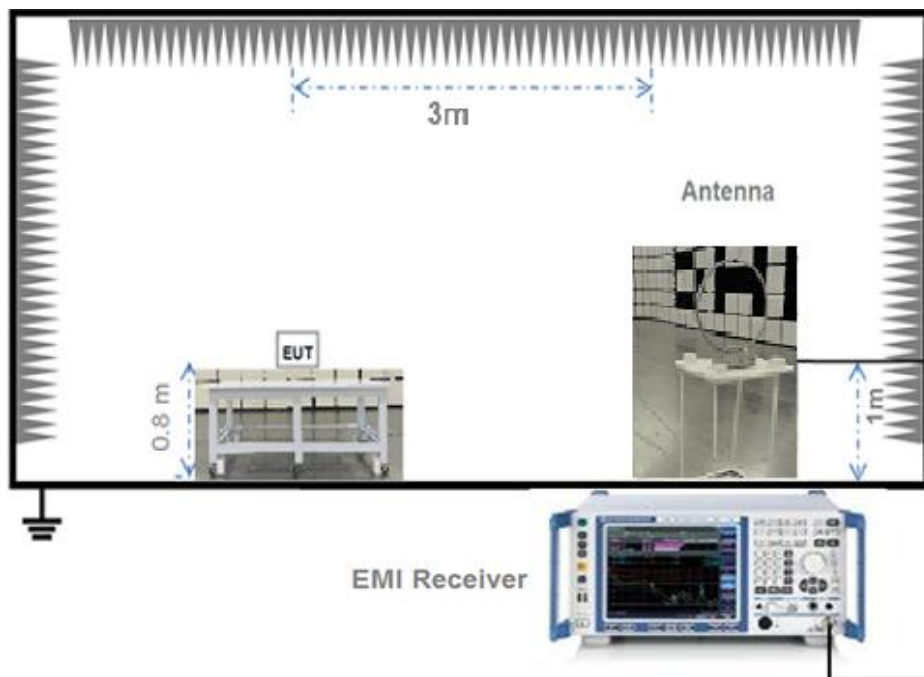
### 4.1 Test Environments

During the measurement, the normal environmental conditions were within the listed ranges:

Relative Humidity	57% to 58%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+21.7°C to +22.1°C
Working Voltage of the EUT	NV (Normal Voltage)	3.8 V

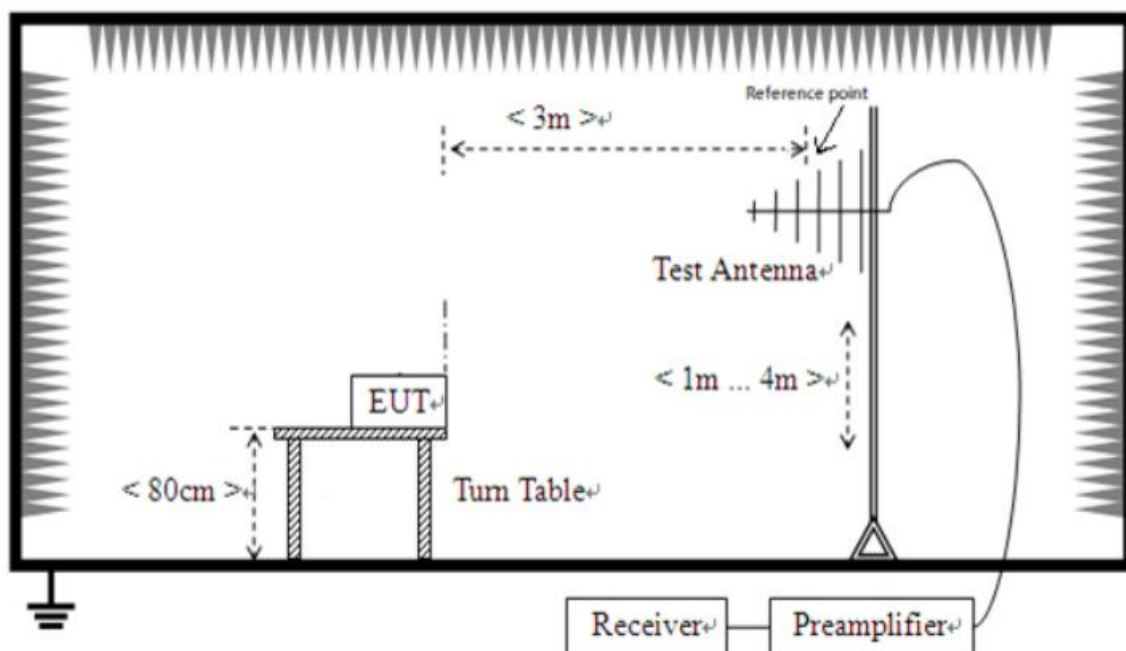
## 4.2 Description of Test Setup

### 4.2.1 For Radiated Test (Below 30 MHz)



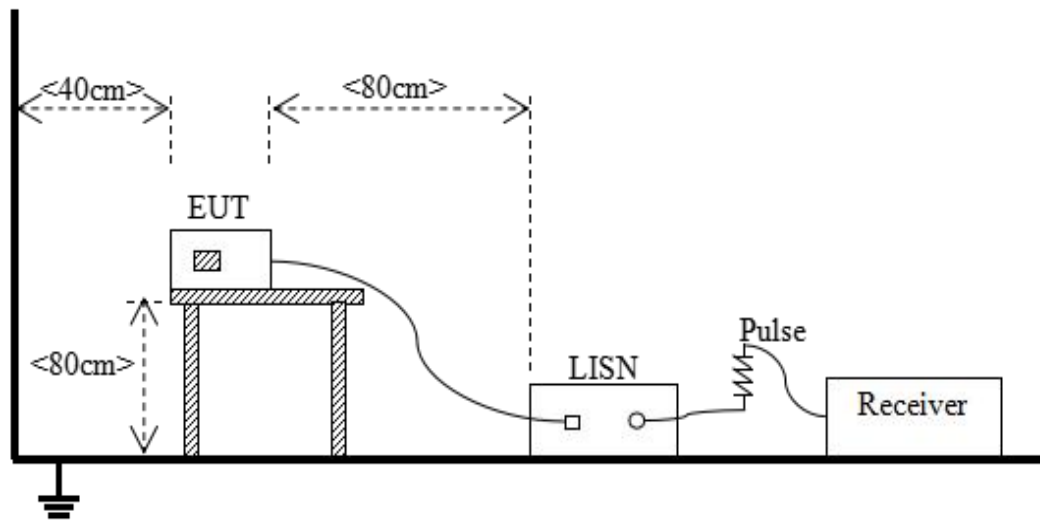
(Diagram 1)

### 4.2.2 For Radiated Test (30 MHz-1 GHz)



(Diagram 2)

## 4.2.3 For AC Power Supply Port Test



(Diagram 3)

## 5 TEST ITEMS

### 5.1 Antenna Requirements

#### 5.1.1 Relevant Standards

##### FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, § 15.213, § 15.217, § 15.219, or § 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

#### 5.1.2 Antenna Anti-Replacement Construction

The Antenna Anti-Replacement as following method:

Protected Method	Description
The antenna is embedded in the product.	An embedded-in antenna design is used.

Reference Documents	Item
Photo	Please refer EUT internal photos.

## 5.2 Emission Bandwidth

### 5.2.1 Definition

15.215(c);

Intentional radiators operating under the alternative provisions to the general emission limits must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

The following conditions shall be observed for measuring the occupied bandwidth and x dB bandwidth:

- The transmitter shall be operated at its maximum carrier power measured under normal test conditions.
- The span of the spectrum analyzer shall be set large enough to capture all products of the modulation process, including the emission skirts, around the carrier frequency, but small enough to avoid having other emissions (e.g. on adjacent channels) within the span.
- The detector of the spectrum analyzer shall be set to "Sample". However, a peak, or peak hold, may be used in place of the sampling detector since this usually produces a wider bandwidth than the actual bandwidth (worst-case measurement). Use of a peak hold (or "Max Hold") may be necessary to determine the occupied / x dB bandwidth if the device is not transmitting continuously.
- The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the actual occupied / x dB bandwidth and the video bandwidth (VBW) shall not be smaller than three times the RBW value. Video averaging is not permitted.

Note: It may be necessary to repeat the measurement a few times until the RBW and VBW are in compliance with the above requirement.

For the 99% emission bandwidth, the trace data points are recovered and directly summed in linear power level terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached, and that frequency recorded. The process is repeated for the highest frequency data points (starting at the highest frequency, at the right side of the span, and going down in frequency). This frequency is then recorded. The difference between the two recorded frequencies is the occupied bandwidth (or the 99% emission bandwidth).

### 5.2.2 Test Setup

See section 4.1.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

### 5.2.3 Test Procedure

The 20dB bandwidth is measured with a spectrum analyzer connected via a receiver antenna placed near the EUT while the EUT is operating in transmission mode.

Use the following spectrum analyzer settings:

Span = between 2 to 5 times the OBW

RBW = 1% to 5% the OBW

VBW  $\geq$  3RBW

Sweep = auto

Detector function = peak

Trace = max hold

The 99% emission bandwidth is measured with a spectrum analyzer connected via a receiver antenna placed near the EUT while the EUT is operating in transmission mode.

Use the following spectrum analyzer settings:

Span = between 1.5 to 5 times the OBW

RBW = 1% to 5% OBW

VBW  $\geq$  3RBW

Sweep = auto

Detector function = peak

Trace = max hold

#### 5.2.4 Test Result

Please refer to ANNEX A.1

## 5.3 Field Strength of Fundamental Emissions and Radiated Emissions

### 5.3.1 Limit

FCC §15.225(a), (b), (c)

According to FCC section 15.225, for <30 MHz, Radiated emissions were measured according to ANSI C63.4. The EUT was set to transmit at the highest output power. The EUT was set 10 meter away from the measuring antenna. The loop antenna was positioned 1 meter above the ground from the center of the loop. The measuring bandwidth was set to 10 kHz. (Note: During testing the receive antenna was rotated about its axis to maximize the emission from the EUT)

There was no detected Restricted bands and Radiated spurious emission below 30MHz. The 30m limit was converted to 3m Limit using square factor(x) as it was found by measurements as follows; 3 m Limit(dBμV/m) = 20log(X)+40log(30/3)= 20log(15848)+40log(30/3) = 124dBμV

Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency range (MHz)	Field Strength@30m		Field Strength@10m	Field Strength@3m
	μV/m	dBμV/m	dBμV/m	dBμV/m
Below 13.110	30	29.5	48.58	69.5
13.110 ~ 13.410	106	40.5	59.58	80.5
13.410 ~ 13.553	334	50.5	69.58	90.5
13.553 ~13.567	15848	84	103.08	124
13.567 ~ 13.710	334	50.5	69.58	90.5
13.710 ~14.010	106	40.5	59.58	80.5
Above 14.010	30	29.5	48.58	69.5

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.

FCC §15.225(d)

According to FCC section 15.209 (a), except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (μV/m)	Measurement distance (meters)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

Note:

1. For Above 1000 MHz, the emission limit in this paragraph is based on measurement instrumentation employing an average detector, measurement using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit.
2. For above 1000 MHz, limit field strength of harmonics: 54dB $\mu$ V/m@3m (AV) and 74dB $\mu$ V/m@3m (PK).

### 5.3.2 Test Setup

See section 4.1.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

### 5.3.3 Test Procedure

The measurement frequency range is from 9 kHz to the 10th harmonic of the fundamental frequency. 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. The power of the EUT transmitting frequency should be ignored.

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

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

Trace = max hold

### 5.3.4 Test Result

Please refer to ANNEX A.2 and A.3

NOTE:

1. Results (dB $\mu$ V/m) = Reading (dB $\mu$ V/m) + Factor (dB/m)

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

2. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Amplifier Gain (dB)

3. Over limit = Results – Limit.



## 5.4 Frequency Tolerance

### 5.4.1 Limit

FCC §15.225(e)

The frequency tolerance of the carrier signal shall be maintained within  $\pm 0.01\%$  of the operating frequency over a temperature variation of  $-20$  degrees to  $+50$  degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

### 5.4.2 Test Setup

See section 4.1.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

### 5.4.3 Test Procedure

1. The test is performed in a Temperature Chamber.
2. The EUT is configured as MS + DC Power Supply.

### 5.4.4 Test Result

Please refer to ANNEX A.4.

## 5.5 Conducted Emission

### 5.5.1 Limit

FCC §15.207

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50μH/50Ω line impedance stabilization network (LISN).

Frequency range (MHz)	Conducted Limit (dBμV)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
0.50 - 30	60	50

### 5.5.2 Test Setup

See section 4.1.1 for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

### 5.5.3 Test Procedure

The maximum conducted interference is searched using Peak (PK), if the emission levels 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. Refer to recorded points and plots below.

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.

### 5.5.4 Test Result

Please refer to ANNEX A.5.

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. Over limit = Results – Limit.

# ANNEX A TEST RESULT

## A.1 Emission Bandwidth

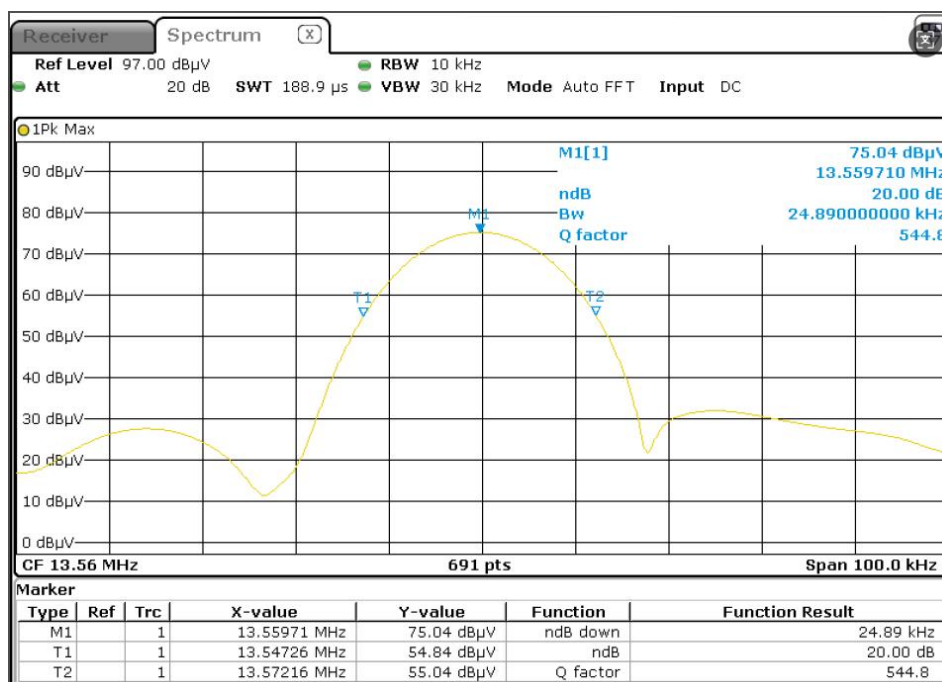
Sample No.	S04	Temperature	21.7°C
Humidity	57%RH	Test Voltage	AC 120V/60Hz
Test Engineer	Hao Longda	Test Date	2024.08.06

Test Data

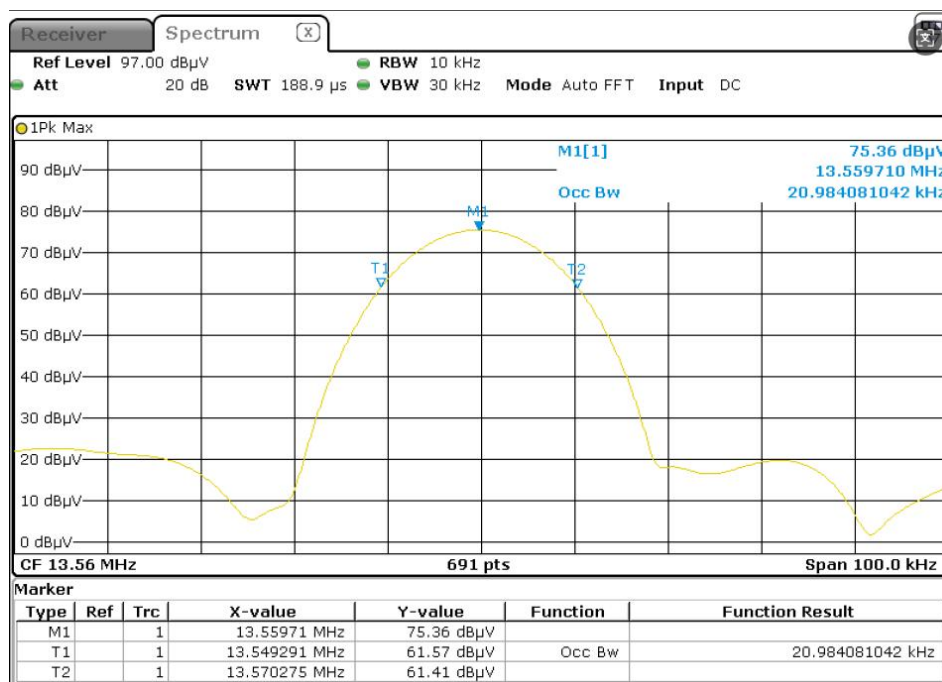
Frequency (MHz)	Emission Bandwidth(20dB down) (kHz)	Occupied Bandwidth(99%) (kHz)
13.56	24.89	20.984

## Test plots

## Emission Bandwidth



## 99% Occupied Bandwidth



Equipment Information						
Description	Manufacturer	Model	Equipment No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE&SCHWA RZ	ESRP3	BH-EMC-L010	2024.02.19	2025.02.18	<input checked="" type="checkbox"/>
Test Antenna- Loop	SCHWARZBECK	FMZB 1519B	BH-EMC-L067	2024.03.11	2027.03.10	<input checked="" type="checkbox"/>
Anechoic Chamber	YiHeng	9m*6m*6m	BH-EMC-L001	2024.04.18	2027.04.17	<input checked="" type="checkbox"/>

## A.2 Field Strength of Fundamental Emissions

Note: Field Strength of Fundamental Emissions tests were performed in X, Y, Z axis direction of EUT. And only the worst axis test condition was recorded in this test report.

Sample No.	S04	Temperature	21.7°C
Humidity	57%RH	Test Voltage	AC 120V/60Hz
Test Engineer	Hao Longda	Test Date	2024.08.06

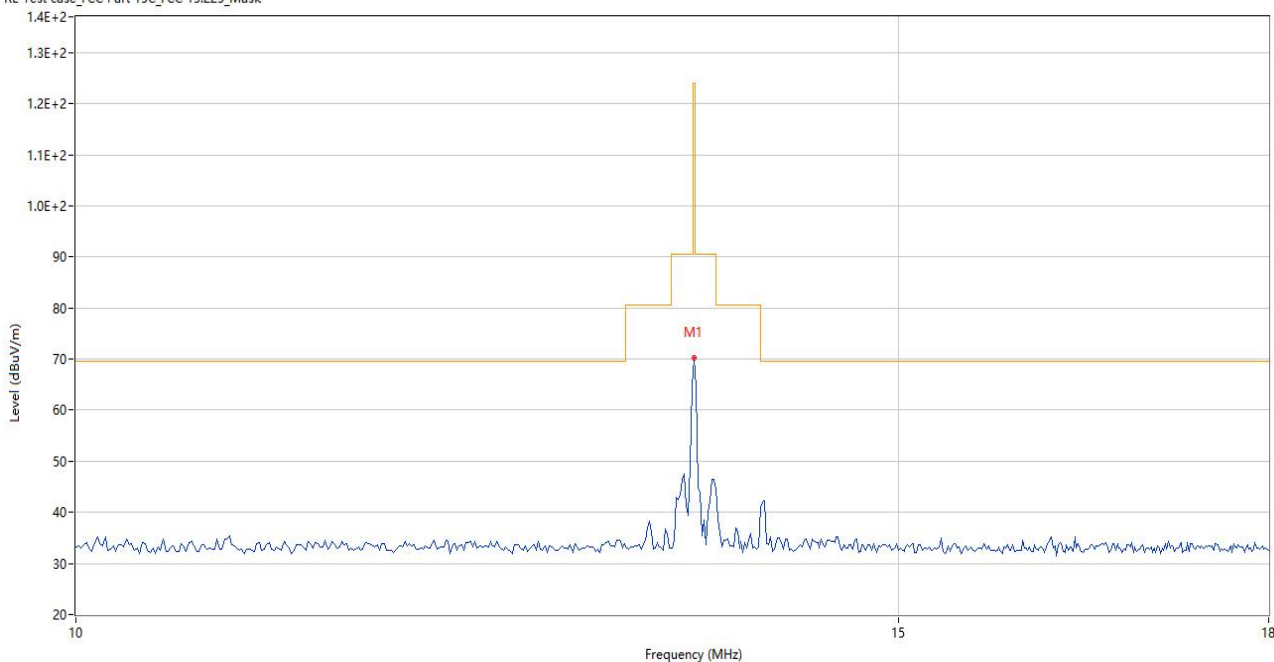
### Test Data

Field Strength of Fundamental Emissions Value					
Frequency (MHz)	Detector	Field Strength (dB $\mu$ V/m)	Limit @3m (dB $\mu$ V/m)	EUT	Margin (dB)
13.560	PEAK	70.20	124.0	X axis	53.80

### Test Plot

#### Test Antenna-LOOP, EUT X axis

RE Test case\_FCC Part 15C\_FCC 15.225\_Mask



Equipment Information						
Description	Manufacturer	Model	Equipment No.	Cal. Date	Cal. Due	Use
EMI Receiver	R&S	ESRP3	BH-EMC-L010	2024.02.19	2025.02.18	<input checked="" type="checkbox"/>
Test Antenna- Loop	SCHWARZBECK	FMZB 1519B	BH-EMC-L067	2024.03.11	2026.03.10	<input checked="" type="checkbox"/>
Anechoic Chamber	YiHeng	9m*6m*6m	BH-EMC-L001	2024.04.18	2027.04.17	<input checked="" type="checkbox"/>
Description	Manufacturer	Name	Version	/		Use
Test Software	BALUN	BL410-E	V21.919	/		<input checked="" type="checkbox"/>

### A.3 Radiated Emissions

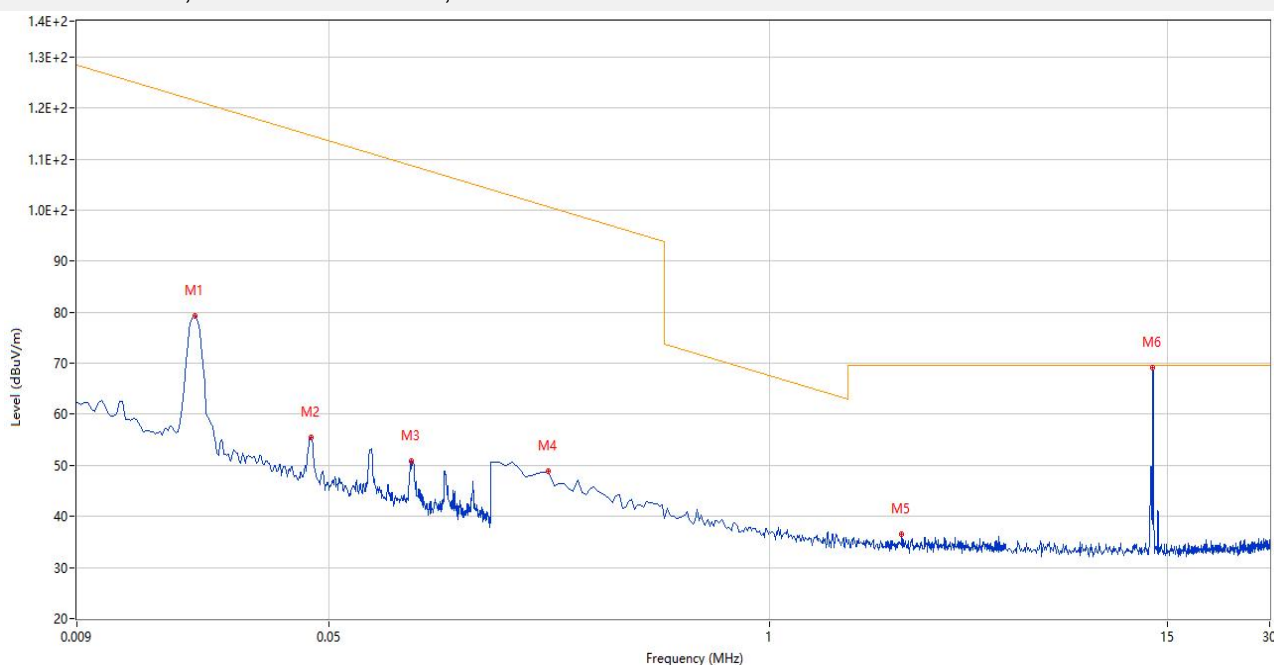
Note 1: This frequency which near 13.560 MHz with circle should be ignored because they are NFC carrier frequency.

Note 2: All Radiated Emissions tests were performed in X, Y, Z axis direction of EUT. And only the worst axis test condition was recorded in this test report.

Sample No.	S04	Temperature	21.7°C
Humidity	57%RH	Test Voltage	AC 120V/60Hz
Test Engineer	Hao Longda	Test Date	2024.08.06

The Data and Plots (9 kHz ~ 30 MHz)(at 10m chamber)

Below 30 MHz, Test Antenna LOOP, EUT X axis



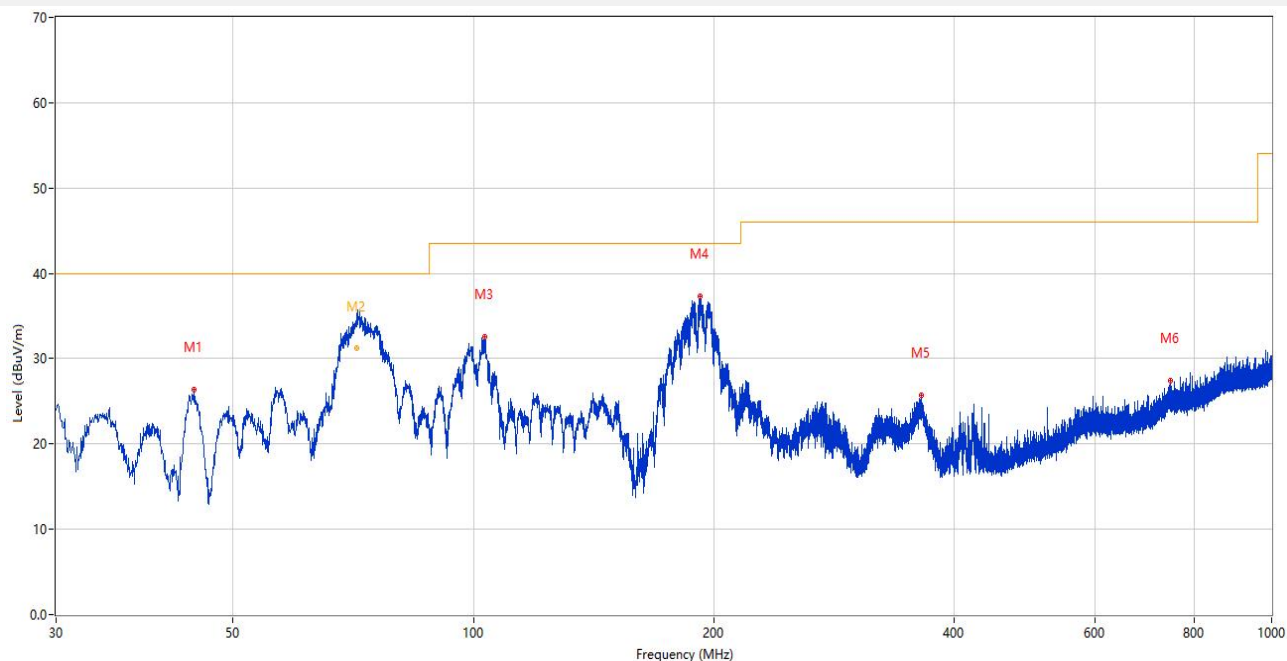
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	0.020	79.30	19.39	121.5	42.20	Peak	12.00	100	Vertical	Pass
2	0.044	55.42	19.22	114.7	59.28	Peak	102.00	100	Vertical	Pass
3	0.087	50.91	19.13	108.8	57.89	Peak	110.00	100	Vertical	Pass
4	0.223	48.94	19.01	100.6	51.66	Peak	83.00	100	Vertical	Pass
5	2.454	36.50	19.28	69.5	33.00	Peak	344.00	100	Vertical	Pass
6	13.542	69.20	19.21	69.5	0.30	Peak	266.00	100	Vertical	N/A



Equipment Information						
Description	Manufacturer	Model	Equipment No	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9038A	BH-EMC-L015	2024.07.09	2025.07.08	<input checked="" type="checkbox"/>
Test Antenna- Loop	SCHWARZBECK	FMZB 1519B	BH-EMC-L067	2024.03.11	2027.03.10	<input checked="" type="checkbox"/>
Anechoic Chamber	YiHeng	9m*6m*6m	BH-EMC-L001	2024.04.18	2027.04.17	<input checked="" type="checkbox"/>
Description	Manufacturer	Name	Version	/		Use
Test Software	BALUN	BL410-E	V21.919	/		<input checked="" type="checkbox"/>

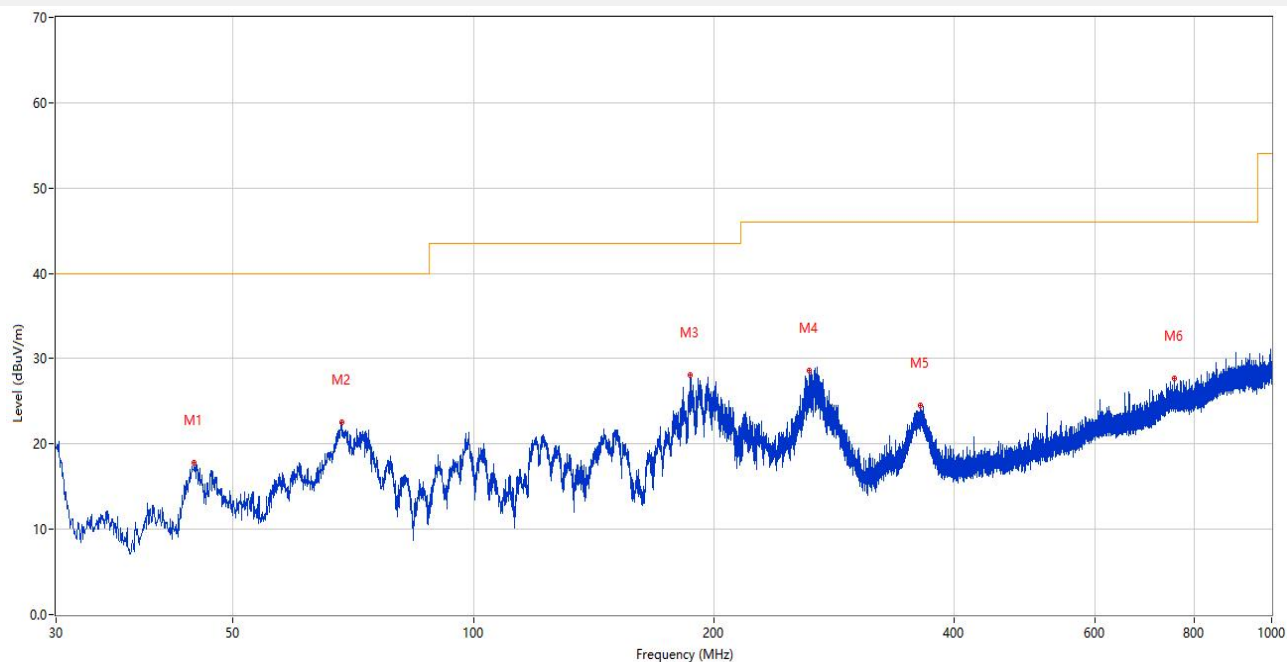
## Test Data and Plots (30 MHz ~ 10th Harmonic)

### 30 MHz to 1 GHz, Test Antenna Vertical, EUT X axis



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	44.599	26.36	-24.81	40.0	13.64	Peak	198.00	100	Vertical	Pass
2	71.337	35.15	-29.46	40.0	4.85	Peak	66.00	103	Vertical	N/A
2*	71.337	31.20	-29.46	40.0	8.80	QP	66.00	103	Vertical	Pass
3	103.332	32.51	-26.10	43.5	10.99	Peak	53.00	100	Vertical	Pass
4	192.232	37.34	-25.93	43.5	6.16	Peak	319.00	100	Vertical	Pass
5	363.777	25.70	-21.64	46.0	20.30	Peak	72.00	100	Vertical	Pass
6	747.315	27.43	-11.93	46.0	18.57	Peak	124.00	200	Vertical	Pass

## 30 MHz to 1 GHz, Test Antenna Horizontal, EUT X axis



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	44.647	17.86	-24.80	40.0	22.14	Peak	360.00	200	Horizontal	Pass
2	68.412	22.53	-28.46	40.0	17.47	Peak	68.00	100	Horizontal	Pass
3	186.946	28.05	-26.88	43.5	15.45	Peak	223.00	200	Horizontal	Pass
4	263.091	28.64	-24.12	46.0	17.36	Peak	136.00	100	Horizontal	Pass
5	363.001	24.47	-21.69	46.0	21.53	Peak	0.00	100	Horizontal	Pass
6	754.493	27.63	-12.00	46.0	18.37	Peak	259.00	100	Horizontal	Pass

Radiated Emissions						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9038A	BH-EMC-L015	2024.07.09	2025.07.08	<input checked="" type="checkbox"/>
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9163	BH-EMC-L008	2024.03.11	2027.03.10	<input checked="" type="checkbox"/>
Anechoic Chamber	YiHeng	9m*6m*6m	BH-EMC-L001	2024.04.18	2027.04.17	<input checked="" type="checkbox"/>
Description	Manufacturer	Name		Version		Use
Test Software	BALUN	BL410-E		V21.919		<input checked="" type="checkbox"/>

## A.4 Frequency Stability

Note 1: Because the 85%(3.23V) of the rated supply voltage value exceeds the cut-off voltage lower(3.4V) limit of the manufacturer, the cut-off voltage of EUT is test here.

Note 2: The operating temperature range of the EUT is -20°C to 50°C.

Sample No.	S04	Temperature	21.7°C
Humidity	57%RH	Test Voltage	AC 120V/60Hz
Test Engineer	Hao Longda	Test Date	2024.08.06

OPERATING FREQUENCY:	13560000 Hz
REFERENCE VOLTAGE:	3.8 V
DEVIATION LIMIT:	±0.01%

VOLTAGE (%)	Test Conditions		Frequency(Hz)	Deviation(%)	Verdict
	Power (VDC)	Temperature (°C)			
100	3.8	-20	13559792	-0.001534	Pass
100		-10	13560000	0.000000	Pass
100		0	13560000	0.000000	Pass
100		+10	13559792	-0.001534	Pass
100		+20	13559792	-0.001534	Pass
100		+25	13559792	-0.001534	Pass
100		+30	13560025	0.000184	Pass
100		+40	13560025	0.000184	Pass
100		+50	13560000	0.000000	Pass
MAX(Battery End Point, 85)	3.3	+20	13559792	-0.001534	Pass
MIN(Battery End Point, 115)	4.37	+20	13560000	0.000000	Pass

Equipment Information						
Description	Manufacturer	Model	Equipment No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9038A	BH-EMC-L015	2024.07.09	2025.07.08	<input checked="" type="checkbox"/>
Test Antenna-Loop	SCHWARZBECK	FMZB 1519B	BH-EMC-L067	2024.03.11	2027.03.10	<input checked="" type="checkbox"/>
Temperature Chamber	YOMA	DTL-0035	TJ8980-012	2024.04.12	2025.04.12	<input checked="" type="checkbox"/>
Anechoic Chamber	YiHeng	9m*6m*6m	BH-EMC-L001	2024.04.18	2027.04.17	<input checked="" type="checkbox"/>

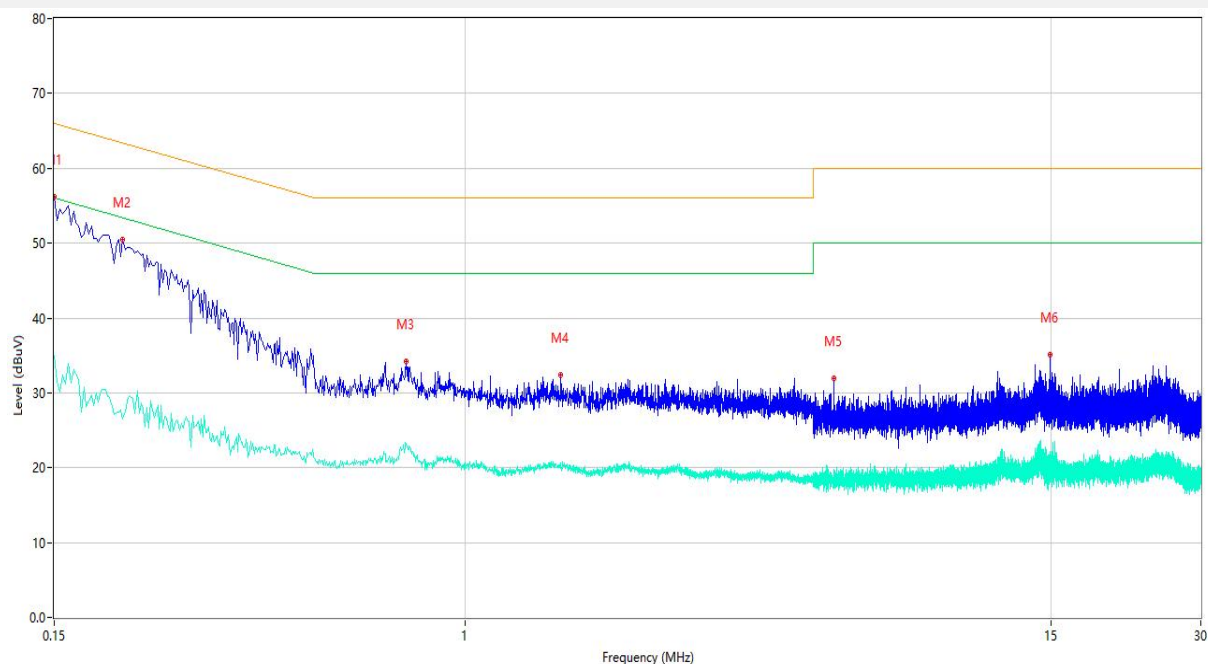
## A.5 Conducted Emissions

Note 1: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 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.	S04	Temperature	22.1°C
Humidity	58%RH	Test Voltage	AC 120V/60Hz
Test Engineer	Wu Dejun	Test Date	2024.08.08

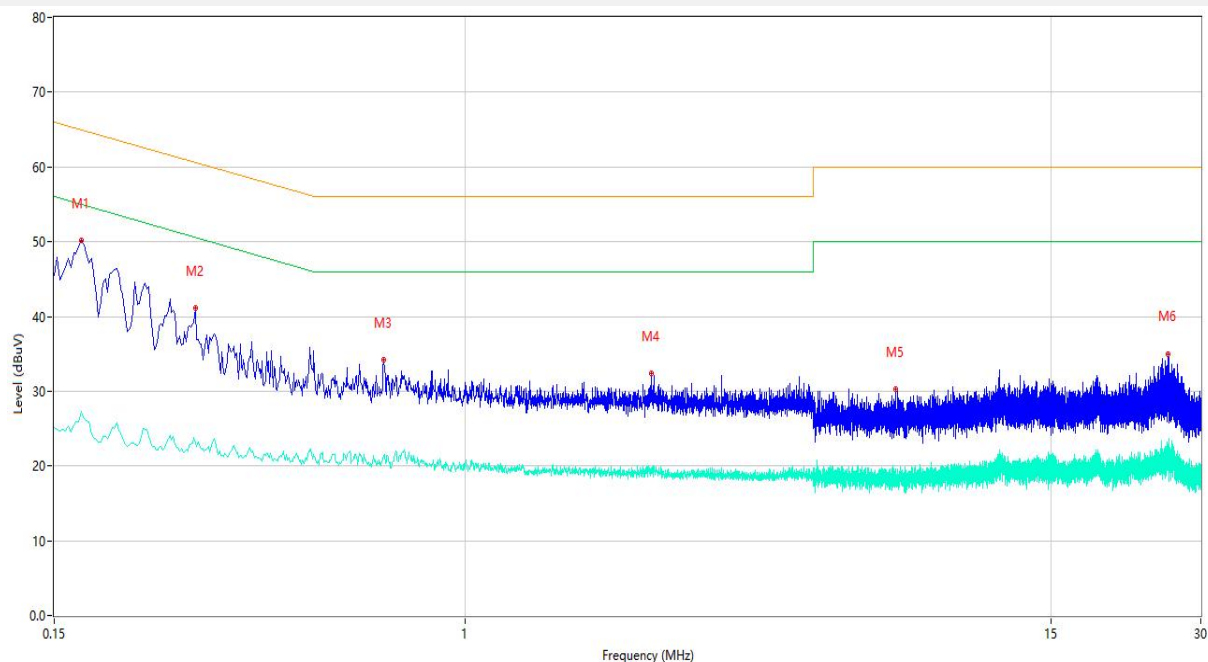
## Test Data and Plots

## PHASE L



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.150	56.24	9.75	66.00	9.76	Peak	L	Pass
1**	0.150	34.99	9.75	56.00	21.01	AV	L	Pass
2	0.206	50.51	9.75	63.37	12.86	Peak	L	Pass
2**	0.206	26.48	9.75	53.37	26.89	AV	L	Pass
3	0.764	34.17	9.72	56.00	21.83	Peak	L	Pass
3**	0.764	23.27	9.72	46.00	22.73	AV	L	Pass
4	1.560	32.37	9.69	56.00	23.63	Peak	L	Pass
4**	1.560	20.58	9.69	46.00	25.42	AV	L	Pass
5	5.498	31.98	9.62	60.00	28.02	Peak	L	Pass
5**	5.498	19.13	9.62	50.00	30.87	AV	L	Pass
6	14.972	35.07	9.26	60.00	24.93	Peak	L	Pass
6**	14.972	22.07	9.26	50.00	27.93	AV	L	Pass

## PHASE N



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.170	50.11	9.75	64.96	14.85	Peak	N	Pass
1**	0.170	27.32	9.75	54.96	27.64	AV	N	Pass
2	0.288	41.09	9.74	60.58	19.49	Peak	N	Pass
2**	0.288	23.21	9.74	50.58	27.37	AV	N	Pass
3	0.688	34.16	9.72	56.00	21.84	Peak	N	Pass
3**	0.688	21.19	9.72	46.00	24.81	AV	N	Pass
4	2.364	32.34	9.68	56.00	23.66	Peak	N	Pass
4**	2.364	19.63	9.68	46.00	26.37	AV	N	Pass
5	7.336	30.24	9.56	60.00	29.76	Peak	N	Pass
5**	7.336	18.28	9.56	50.00	31.72	AV	N	Pass
6	25.794	34.88	8.82	60.00	25.12	Peak	N	Pass
6**	25.794	22.50	8.82	50.00	27.50	AV	N	Pass

Equipment Information						
Description	Manufacturer	Model	Equipment No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9038A	BH-EMC-L127	2024.02.19	2025.02.18	<input checked="" type="checkbox"/>
LISN	SCHWARZBECK	NSLK 8127	BH-EMC-L011	2024.02.25	2025.02.24	<input checked="" type="checkbox"/>
10dB Limiter	SCHWARZBECK	VTSD 9561-F	BH-EMC-L014	2024.02.19	2025.02.18	<input checked="" type="checkbox"/>
Shielded Room	YiHeng	5m*4m*3.2m	BH-EMC-L006	2024.02.22	2027.02.21	<input checked="" type="checkbox"/>
Description	Manufacturer	Name		Version		Use
Test Software	BALUN	BL410-E		V19.618		<input checked="" type="checkbox"/>

## **ANNEX B TEST SETUP PHOTOS**

Please refer the document “BL-SH2470490-AE-1.PDF”.

## **ANNEX C EUT EXTERNAL PHOTOS**

Please refer the document “BL-SH2470490-AW.PDF”.

## **ANNEX D EUT INTERNAL PHOTOS**

Please refer the document “BL-SH2470490-AI.PDF”.



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--END OF REPORT--