

# TEST REPORT

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

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

**Equipment Type:** Smart Electronic Cash Register

**Model Name:** D8C

**Brand Name:** KOZEN

**FCC ID:** 2A2UU-D8C

**Test Standard:** 47 CFR Part 15 Subpart B  
ANSI C63.4-2014

**Sample Arrival Date:** Sep. 12, 2024

**Test Date:** Oct. 12, 2024

**Date of Issue:** Nov. 27, 2024

**ISSUED BY:**

Shanghai Tejet Communications Technology Co., Ltd. Testing Center

**Tested by:** Wu Dejun

Wu Dejun

**Checked by:** Huang Chengkun

Huang Chengkun

**Approved by:** Chen Zidong  
(Technical Director)

Chen Zidong



### Revision History

| Version        | Issue Date           | Revisions Content    |
|----------------|----------------------|----------------------|
| <u>Rev. 01</u> | <u>Nov. 27, 2024</u> | <u>Initial Issue</u> |

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# 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)

|                                           |                                |
|-------------------------------------------|--------------------------------|
| Equipment Type                            | Smart Electronic Cash Register |
| Model Name Under Test                     | D8C                            |
| Series Model Name                         | N/A                            |
| Description of Model Name Differentiation | N/A                            |
| Hardware Version                          | D08C1_A0_MB_V1.0               |
| Software Version                          | d08c1_kozen_combo_             |
| Dimensions (Approx.)                      | N/A                            |
| Weight (Approx.)                          | N/A                            |

## 2.4 Ancillary Equipment

|                       |                                |                           |
|-----------------------|--------------------------------|---------------------------|
| Ancillary Equipment 1 | Battery                        |                           |
|                       | Brand Name                     | P1911-Button-batteries    |
|                       | Model No.                      | N/A                       |
|                       | Serial No.                     | N/A                       |
|                       | Capacity                       | 230 mAh                   |
|                       | Rated Voltage                  | 3.0 V                     |
|                       | Limit Charge Voltage           | N/A                       |
| Ancillary Equipment 2 | D0861_EU Adapter               |                           |
|                       | Brand Name                     | FLYPOWER                  |
|                       | Model No.                      | PS36F240K1500ED           |
|                       | Serial No.                     | N/A                       |
|                       | Rated Input                    | 100-240 V~ 50/60 Hz, 1.0A |
|                       | Rated Output                   | 24 V= 1.5 A, 36.0W        |
| Ancillary Equipment 3 | Smart Electronic Cash Register |                           |
|                       | Brand Name                     | KOZEN                     |
|                       | Model No.                      | D8                        |
|                       | Serial No.                     | N/A                       |
| Ancillary Equipment 4 | A0215_Kozen_Handset_WHITE      |                           |
|                       | Model No.                      | KZA411                    |
|                       | Length (Approx.)               | 1.0 m                     |

## 2.5 Technical Information

|                                       |         |
|---------------------------------------|---------|
| Network and wireless connectivity     | NFC     |
| Classification of equipment           | Class B |
| The Highest internal frequency of EUT | 720 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 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)-AMN | 2.6 dB |
| Radiated emissions (30 MHz-1 GHz)-966#2  | 4.4 dB |
| Radiated emissions (1 GHz-18 GHz) -966#2 | 5.2 dB |

## 4 GENERAL TEST CONFIGURATIONS

### 4.1 Test Enclosure List

| Description   | Manufacturer | Model         | Serial No. | Length | Description | Use                                 |
|---------------|--------------|---------------|------------|--------|-------------|-------------------------------------|
| WiFi Router   | XIAOMI       | AC1200        | N/A        | N/A    | N/A         | <input checked="" type="checkbox"/> |
| Laptop        | DELL         | Vostro14-3400 | N/A        | N/A    | N/A         | <input checked="" type="checkbox"/> |
| Cash Register | MAJET        | 405C          | N/A        | N/A    | N/A         | <input checked="" type="checkbox"/> |
| Hard Disk     | N/A          | N/A           | N/A        | N/A    | N/A         | <input checked="" type="checkbox"/> |

### 4.2 Test Configurations

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

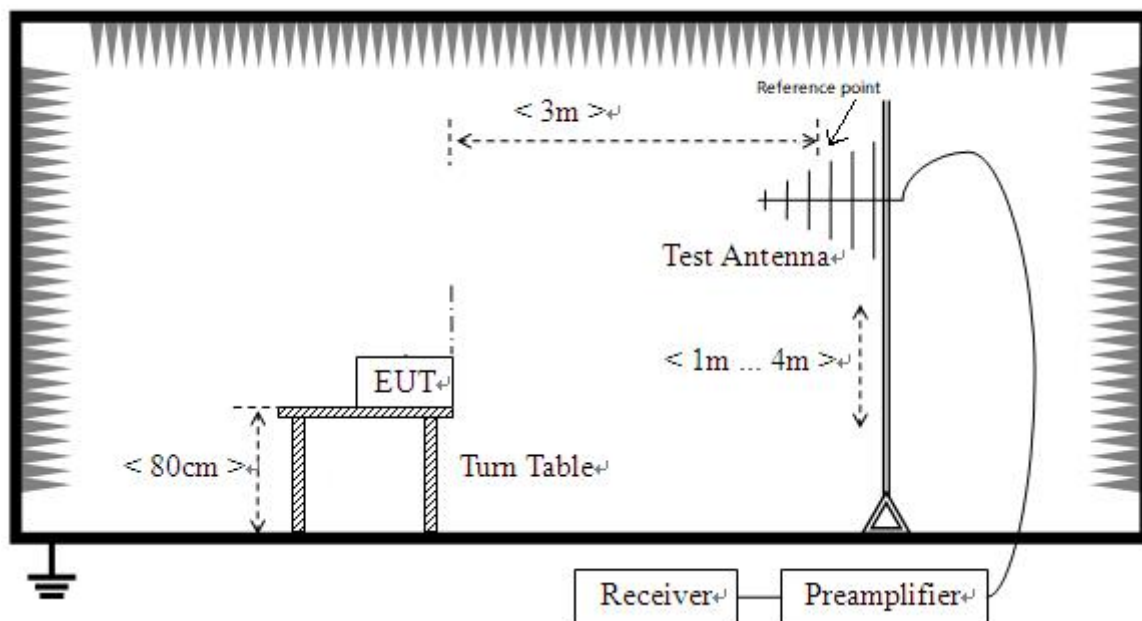
| Test Mode Configuration | Description                                                                                                                                                                |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mode 1                  | <u>The Full System Test Mode</u><br>EUT + Adapter + Battery + RJ45 Cable + Laptop + Hard Disk + Smart Electronic Cash Register + A0215_Kozen_Handset_WHITE + Cash Register |
| Mode 2                  | <u>The Camera Test Mode</u><br>EUT + Adapter + Battery + Smart Electronic Cash Register + RJ45 Cable + A0215_Kozen_Handset_WHITE + Laptop + Cash Register                  |
| Mode 3                  | <u>The Video Play Test Mode</u><br>EUT + Adapter + Battery + Smart Electronic Cash Register + RJ45 Cable + A0215_Kozen_Handset_WHITE + Laptop + Cash Register              |
| Mode 4                  | <u>The USB Test Mode</u><br>EUT + Adapter + Smart Electronic Cash Register + Battery                                                                                       |

| Test Case                                                                                                                                                                 | Test Mode Configuration | Worst Mode |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|------------|
| Radiated emission                                                                                                                                                         | Mode 1~Mode 4           | 1          |
| Conducted emission                                                                                                                                                        | Mode 1~Mode 4           | 1          |
| Note: Based on client request, all normal using modes of the normal function were tested, but only data of the worst mode (if test case has) was reported in this report. |                         |            |

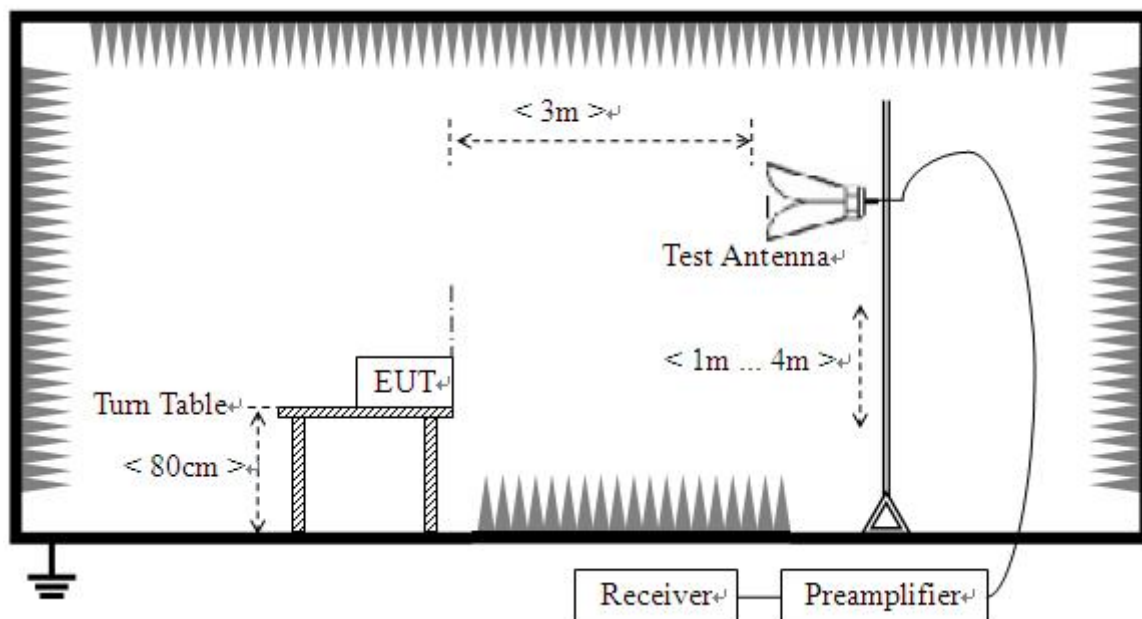


### 4.3 Test Setups

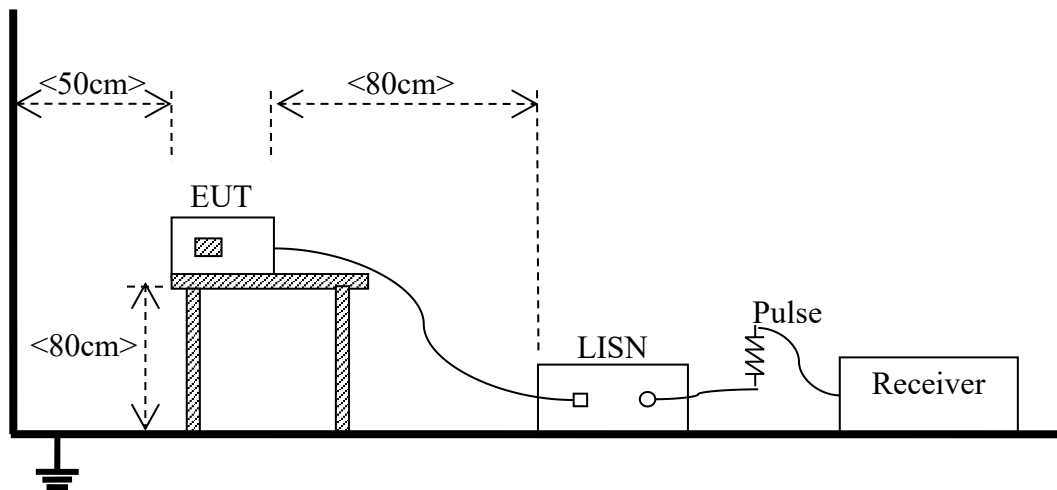
#### Test Setup 1



Radiated Emission (30 MHz-1 GHz)



Radiated Emission (above 1 GHz)

Test Setup 2

Conducted emission, AC ports

## 5 TEST ITEMS

### 5.1 Emission Tests

#### 5.1.1 Radiated emission

##### 5.1.1.1 Limit

| Frequency range<br>(MHz) | Class B (at 3 m)                      |                                         | Class A (at 3 m)                        |
|--------------------------|---------------------------------------|-----------------------------------------|-----------------------------------------|
|                          | Field Strength<br>( $\mu\text{V/m}$ ) | Field Strength<br>(dB $\mu\text{V/m}$ ) | Field Strength<br>(dB $\mu\text{V/m}$ ) |
| 30 - 88                  | 100                                   | 40                                      | 49.5                                    |
| 88 - 216                 | 150                                   | 43.5                                    | 54                                      |
| 216 - 960                | 200                                   | 46                                      | 56.9                                    |
| Above 960                | 500                                   | 54                                      | 60                                      |

Note:

- 1) Field Strength (dB $\mu\text{V/m}$ ) =  $20 \cdot \log [\text{Field Strength } (\mu\text{V/m})]$ .
- 2) In the emission tables above, the tighter limit applies at the band edges.
- 3) The limits using ANSI C63.4-2014.
- 4) For 30-1000 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<br>(GHz) | Class B (at 3 m)                      |                                                    |                                                    | Class A (at 3 m)                                   |                                                 |
|--------------------------|---------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|-------------------------------------------------|
|                          | Field Strength<br>( $\mu\text{V/m}$ ) | Field Strength<br>Average<br>(dB $\mu\text{V/m}$ ) | Field<br>Strength<br>Peak<br>(dB $\mu\text{V/m}$ ) | Field Strength<br>Average<br>(dB $\mu\text{V/m}$ ) | Field Strength<br>Peak<br>(dB $\mu\text{V/m}$ ) |
| 1 - $F_M$                | 500                                   | 54                                                 | 74                                                 | 60                                                 | 80                                              |

Note 1: The highest measurement frequency,  $F_M$ , in GHz, shall be determined as next Table.

Note 2: Average Class A limit at 3m  $L_{3m}$  is determined by the following conversion formula:  

$$L_{3m} = L_{10m} + 20 \cdot \log(d_{10m}/d_{3m})$$
Where:  
 $L_{3m}$  is Average Class A limit at 3m;  
 $L_{10m}$  is Average Class A limit at 10m;  
 $d_{10m}$  is Measurement distance in 10m;  
 $d_{3m}$  is Measurement distance in 3m.  
For this case:  $L_{3m} = 49.5 + 20 \cdot \log(10/3) = 60$  (dB $\mu\text{V/m}$ ).

| Highest internal frequency ( $F_X$ )                                                                       | Highest measurement frequency ( $F_M$ )     |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| $F_X \leq 108 \text{ MHz}$                                                                                 | 1 GHz                                       |
| $108 \text{ MHz} \leq F_X \leq 500 \text{ MHz}$                                                            | 2 GHz                                       |
| $500 \text{ MHz} \leq F_X \leq 1 \text{ GHz}$                                                              | 5 GHz                                       |
| $F_X \geq 1 \text{ GHz}$                                                                                   | $5 * F_X$<br>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

Please refer to 4.2 section description of test setup of test setup 1. The photo of test setup please refer to ANNEX B.

#### 5.1.1.3 Test procedure

1. The test employing the methods of measurement described in the publication referenced in Section 3(b) (ANSI C63.4);
2. 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.
3. 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.
4. 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  $0^\circ$  to  $360^\circ$ , 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.
5. Use the following spectrum analyzer settings:  
 Span = wide enough to fully capture the emission being measured  
 RBW = 1 MHz for  $f \geq 1 \text{ GHz}$ , 100 kHz for  $f < 1 \text{ GHz}$   
 VBW  $\geq$  RBW  
 Sweep = auto  
 Detector function = peak for  $f < 1 \text{ GHz}$ , peak & RMS Average for  $f \geq 1 \text{ GHz}$   
 Trace = max hold

#### 5.1.1.4 Test result and test equipment list

Please refer to ANNEX A.1.

Note:

1. Results (dB $\mu$ 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. Margin = Limit – Results

## 5.1.2 Conducted emission

### 5.1.2.1 Limit

| Frequency range<br>(MHz) | Class A                    |                         | Class B                    |                         |
|--------------------------|----------------------------|-------------------------|----------------------------|-------------------------|
|                          | Quasi-peak<br>(dB $\mu$ V) | Average<br>(dB $\mu$ V) | Quasi-peak<br>(dB $\mu$ V) | Average<br>(dB $\mu$ V) |
| 0.15 - 0.50              | 79                         | 66                      | 66 to 56                   | 56 to 46                |
| 0.50 - 5                 | 73                         | 60                      | 56                         | 46                      |
| 5 - 30                   | 73                         | 60                      | 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.
- 3) The limit using ANSI C63.4.

### 5.1.2.2 Test setup

Please refer to 4.2 section description of test setup of test setup 2. The photo of test setup please refer to ANNEX B.

### 5.1.2.3 Test procedure

1. The test employing the methods of measurement described in the publication referenced in Section 3(b) (ANSI C63.4);
2. The EUT is connected to the power mains through a LISN which provides 50  $\Omega$ /50  $\mu$ 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.
3. Use the following spectrum analyzer settings:  
 RBW = 9 kHz  
 VBW  $\geq$  RBW  
 Sweep = 10ms  
 Detector function = Peak & Average  
 Trace = max hold

### 5.1.2.4 Test result and test equipment list

Please refer to ANNEX A.2.

Note:

1. Results (dB $\mu$ V) = Reading (dB $\mu$ 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 AND TEST EQUIPMENT LIST

### A.1 Radiated emission

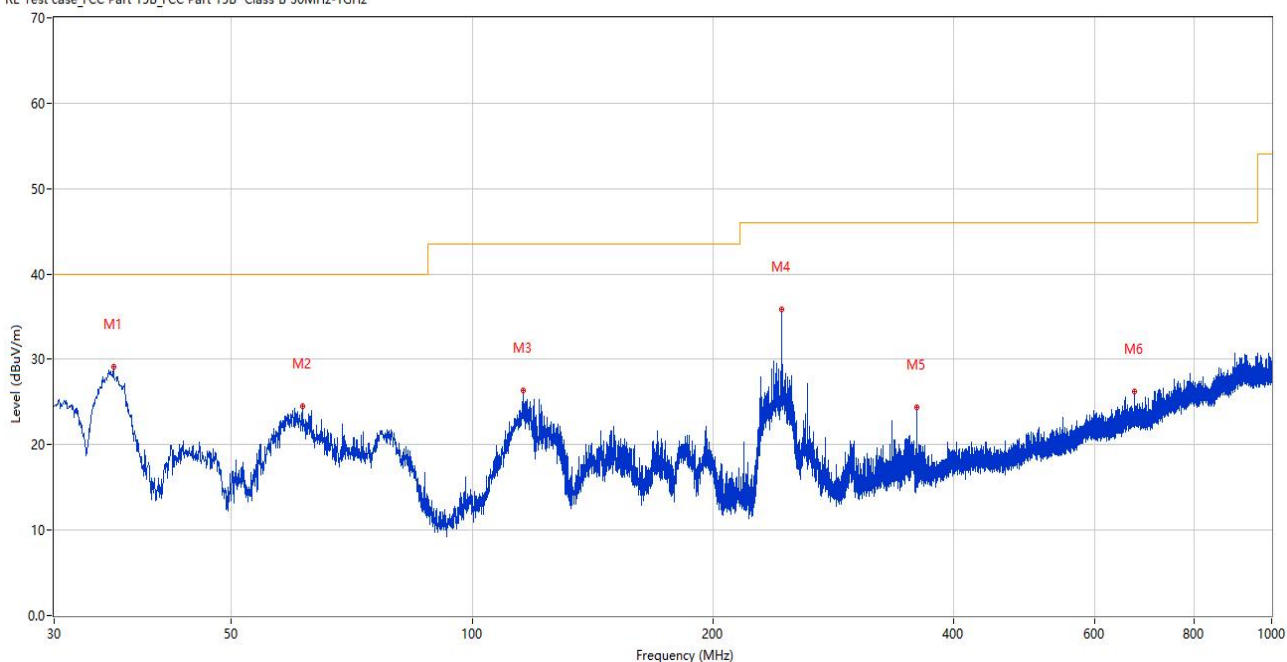
Note 1: Measurements shall be made with a quasi-peak measuring receiver in the frequency range 30 MHz to 1000 MHz. To reduce the testing time, a peak measuring receiver may be used instead of a quasi-peak measuring receiver. In case of dispute, measurement with a quasi-peak measuring receiver will take precedence.

|               |                  |              |              |
|---------------|------------------|--------------|--------------|
| Sample No.    | SC-SH2490014-A12 | Temperature  | 20.3°C       |
| Humidity      | 49%RH            | Test Voltage | AC 120V/60Hz |
| Test Engineer | Hao Longda       | Test Date    | 2024.10.12   |

## Test Mode 1

### A.1.1 Test Antenna Vertical, 30 MHz – 1 GHz

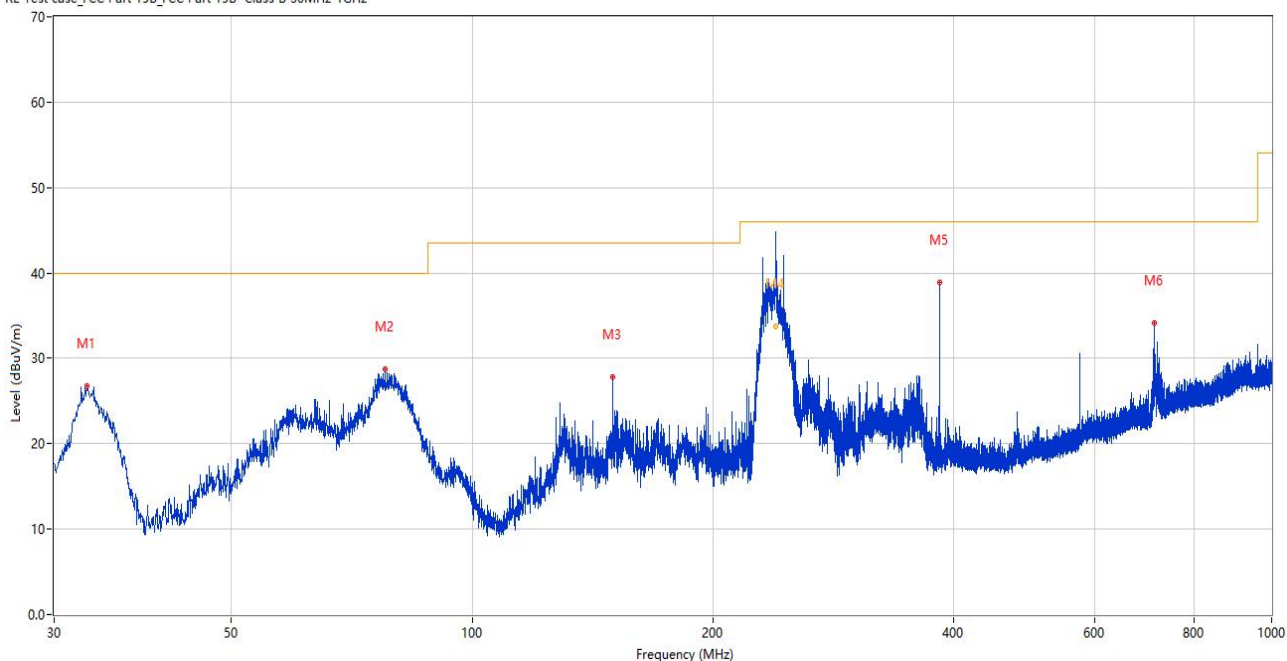
RE Test case\_FCC Part 15B\_FCC Part 15B Class B 30MHz-1GHz



| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna  | Verdict |
|-----|-----------------|------------------|-------------|----------------|-------------|----------|----------------|-------------|----------|---------|
| 1   | 35.578          | 29.10            | -28.87      | 40.0           | 10.90       | Peak     | 208.00         | 100         | Vertical | Pass    |
| 2   | 61.331          | 24.47            | -26.98      | 40.0           | 15.53       | Peak     | 264.00         | 100         | Vertical | Pass    |
| 3   | 115.942         | 26.37            | -28.19      | 43.5           | 17.13       | Peak     | 82.00          | 100         | Vertical | Pass    |
| 4   | 244.079         | 35.89            | -25.12      | 46.0           | 10.11       | Peak     | 213.00         | 200         | Vertical | Pass    |
| 5   | 359.946         | 24.39            | -22.52      | 46.0           | 21.61       | Peak     | 248.00         | 100         | Vertical | Pass    |
| 6   | 672.964         | 26.24            | -14.44      | 46.0           | 19.76       | Peak     | 141.00         | 200         | Vertical | Pass    |

## A.1.2 Test Antenna Horizontal, 30 MHz – 1 GHz

RE Test case\_FCC Part 15B\_FCC Part 15B Class B 30MHz-1GHz



| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna    | Verdict |
|-----|-----------------|------------------|-------------|----------------|-------------|----------|----------------|-------------|------------|---------|
| 1   | 33.007          | 26.72            | -29.71      | 40.0           | 13.28       | Peak     | 124.00         | 100         | Horizontal | Pass    |
| 2   | 77.821          | 28.77            | -31.77      | 40.0           | 11.23       | Peak     | 192.00         | 200         | Horizontal | Pass    |
| 3   | 149.989         | 27.88            | -30.19      | 43.5           | 15.62       | Peak     | 297.00         | 200         | Horizontal | Pass    |
| 4   | 240.002         | 45.26            | -25.34      | 46.0           | 0.74        | Peak     | 260.00         | 126         | Horizontal | N/A     |
| 4*  | 240.002         | 33.73            | -25.34      | 46.0           | 12.27       | QP       | 260.00         | 126         | Horizontal | Pass    |
| 5   | 384.002         | 38.94            | -21.50      | 46.0           | 7.06        | Peak     | 0.00           | 100         | Horizontal | Pass    |
| 6   | 713.559         | 34.18            | -14.45      | 46.0           | 11.82       | Peak     | 173.00         | 100         | Horizontal | Pass    |



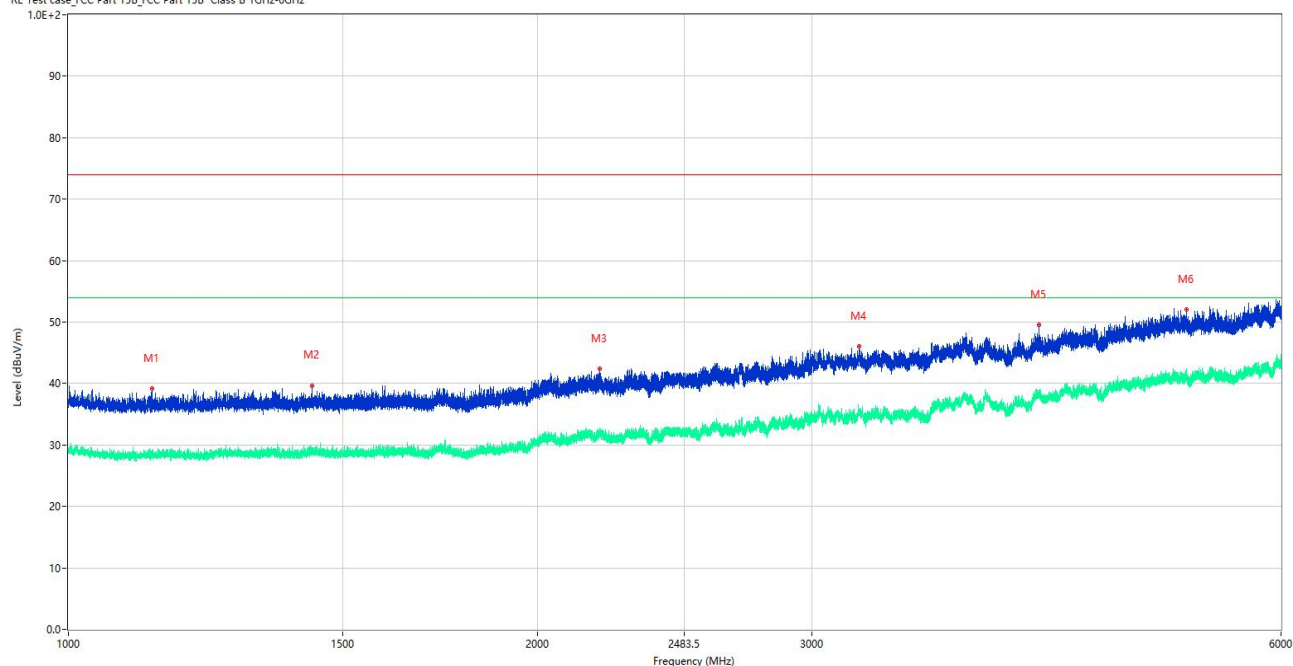
| Equipment Information |              |           |               |            |            |                                     |
|-----------------------|--------------|-----------|---------------|------------|------------|-------------------------------------|
| Equipment Name        | Manufacturer | 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-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"/> |

|               |                  |              |              |
|---------------|------------------|--------------|--------------|
| Sample No.    | SC-SH2490014-A12 | Temperature  | 20.3°C       |
| Humidity      | 49%RH            | Test Voltage | AC 120V/60Hz |
| Test Engineer | Hao Longda       | Test Date    | 2024.10.12   |

## Test Mode 1

### A.1.3 Test Antenna Vertical, 1 GHz – 6 GHz

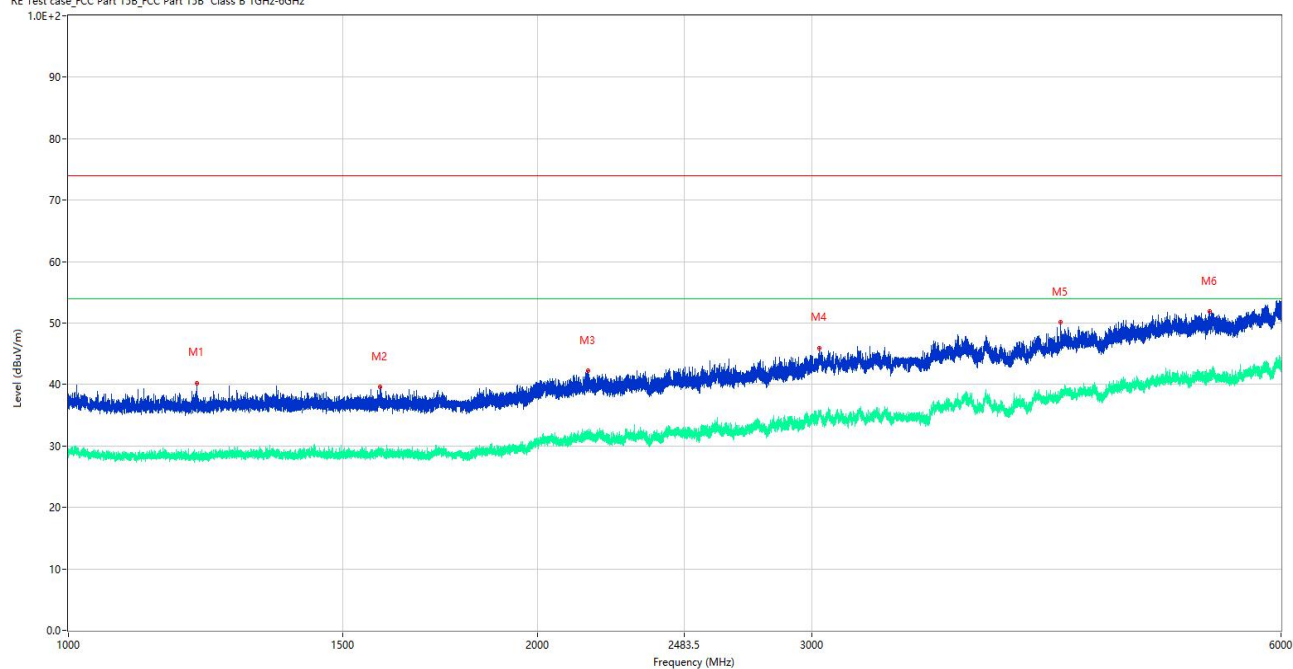
RE Test case\_FCC Part 15B\_FCC Part 15B Class B 1GHz-6GHz



| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna  | Verdict |
|-----|-----------------|------------------|-------------|----------------|-------------|----------|----------------|-------------|----------|---------|
| 1   | 1131.200        | 39.18            | -16.00      | 74.0           | 34.82       | Peak     | 175.00         | 100         | Vertical | Pass    |
| 1** | 1131.200        | 28.14            | -16.00      | 54.0           | 25.86       | AV       | 175.00         | 100         | Vertical | Pass    |
| 2   | 1433.500        | 39.69            | -15.92      | 74.0           | 34.31       | Peak     | 360.00         | 100         | Vertical | Pass    |
| 2** | 1433.500        | 28.42            | -15.92      | 54.0           | 25.58       | AV       | 360.00         | 100         | Vertical | Pass    |
| 3   | 2192.800        | 42.41            | -12.75      | 74.0           | 31.59       | Peak     | 34.00          | 100         | Vertical | Pass    |
| 3** | 2192.800        | 31.50            | -12.75      | 54.0           | 22.50       | AV       | 34.00          | 100         | Vertical | Pass    |
| 4   | 3216.250        | 46.05            | -6.77       | 74.0           | 27.95       | Peak     | 189.00         | 100         | Vertical | Pass    |
| 4** | 3216.250        | 34.99            | -6.77       | 54.0           | 19.01       | AV       | 189.00         | 100         | Vertical | Pass    |
| 5   | 4197.000        | 49.54            | -2.81       | 74.0           | 24.46       | Peak     | 167.00         | 100         | Vertical | Pass    |
| 5** | 4197.000        | 38.39            | -2.81       | 54.0           | 15.61       | AV       | 167.00         | 100         | Vertical | Pass    |
| 6   | 5220.000        | 51.98            | -0.25       | 74.0           | 22.02       | Peak     | 43.00          | 100         | Vertical | Pass    |
| 6** | 5220.000        | 41.30            | -0.25       | 54.0           | 12.70       | AV       | 43.00          | 100         | Vertical | Pass    |

## A.1.4 Test Antenna Horizontal, 1 GHz – 6 GHz

RE Test case\_FCC Part 15B\_FCC Part 15B Class B 1GHz-6GHz



| No. | Frequency (MHz) | Results (dBuV/m) | Factor (dB) | Limit (dBuV/m) | Margin (dB) | Detector | Table (Degree) | Height (cm) | Antenna    | Verdict |
|-----|-----------------|------------------|-------------|----------------|-------------|----------|----------------|-------------|------------|---------|
| 1   | 1208.400        | 40.28            | -16.09      | 74.0           | 33.72       | Peak     | 78.00          | 100         | Horizontal | Pass    |
| 1** | 1208.400        | 28.45            | -16.09      | 54.0           | 25.55       | AV       | 78.00          | 100         | Horizontal | Pass    |
| 2   | 1585.800        | 39.55            | -16.04      | 74.0           | 34.45       | Peak     | 54.00          | 100         | Horizontal | Pass    |
| 2** | 1585.800        | 29.00            | -16.04      | 54.0           | 25.00       | AV       | 54.00          | 100         | Horizontal | Pass    |
| 3   | 2155.800        | 42.31            | -12.92      | 74.0           | 31.69       | Peak     | 97.00          | 100         | Horizontal | Pass    |
| 3** | 2155.800        | 31.27            | -12.92      | 54.0           | 22.73       | AV       | 97.00          | 100         | Horizontal | Pass    |
| 4   | 3033.250        | 45.84            | -7.30       | 74.0           | 28.16       | Peak     | 320.00         | 100         | Horizontal | Pass    |
| 4** | 3033.250        | 35.09            | -7.30       | 54.0           | 18.91       | AV       | 320.00         | 100         | Horizontal | Pass    |
| 5   | 4334.250        | 50.09            | -2.63       | 74.0           | 23.91       | Peak     | 307.00         | 100         | Horizontal | Pass    |
| 5** | 4334.250        | 38.16            | -2.63       | 54.0           | 15.84       | AV       | 307.00         | 100         | Horizontal | Pass    |
| 6   | 5397.750        | 51.93            | -0.24       | 74.0           | 22.07       | Peak     | 93.00          | 100         | Horizontal | Pass    |
| 6** | 5397.750        | 42.03            | -0.24       | 54.0           | 11.97       | AV       | 93.00          | 100         | Horizontal | Pass    |

| Equipment Information |              |            |               |            |            |                                     |
|-----------------------|--------------|------------|---------------|------------|------------|-------------------------------------|
| Equipment Name        | 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-Horn     | SCHWARZB ECK | BBHA 9120D | BH-EMC-L044   | 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"/> |

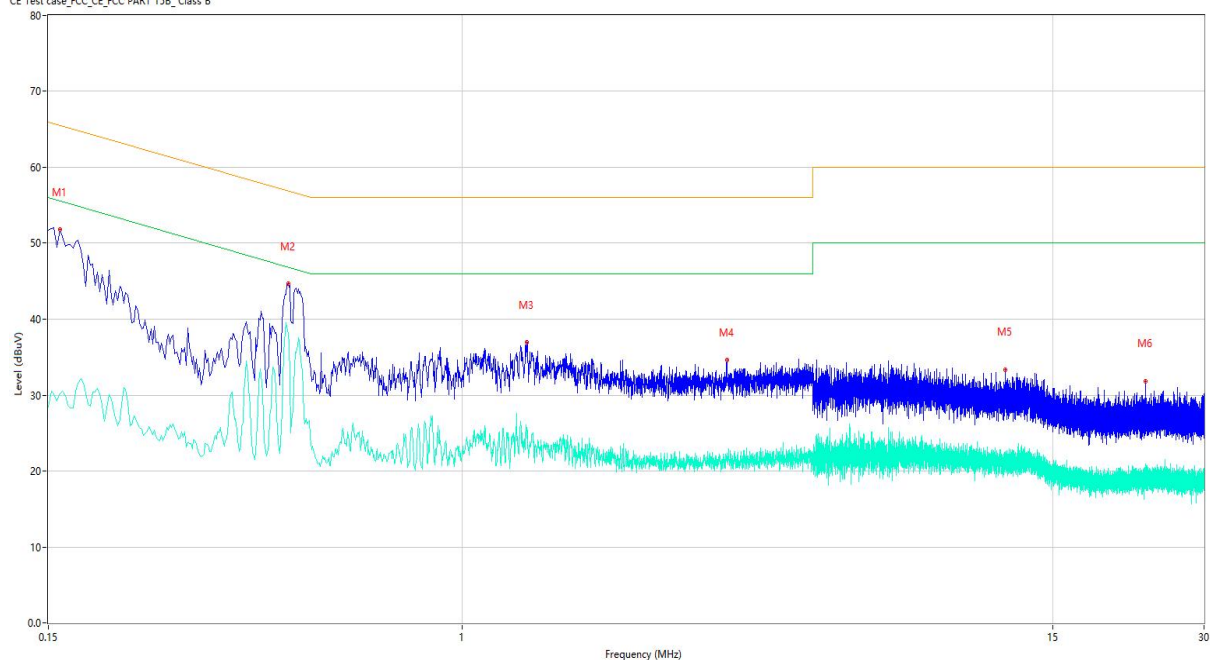
## A.2 Conducted emission

|               |                  |              |              |
|---------------|------------------|--------------|--------------|
| Sample No.    | SC-SH2490014-A12 | Temperature  | 24.4°C       |
| Humidity      | 55%RH            | Test Voltage | AC 120V/60Hz |
| Test Engineer | Wu Dejun         | Test Date    | 2024.10.12   |

## Test Mode 1

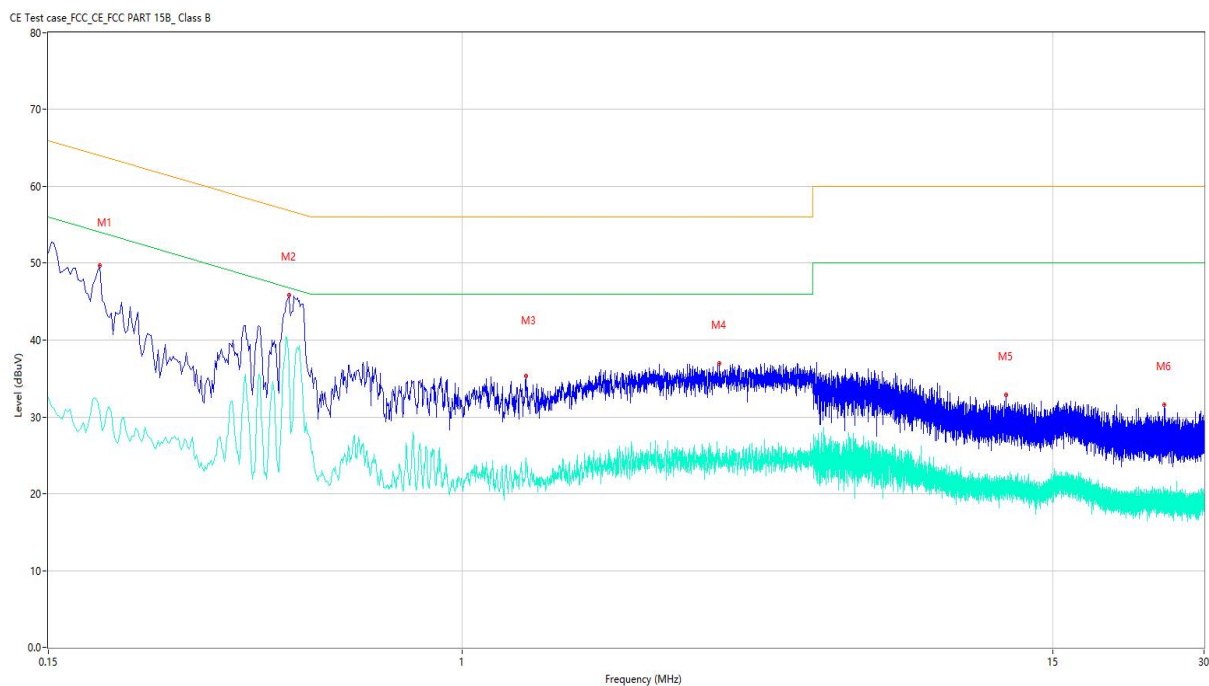
### A.2.1 AC ports - L Phase

CE Test case\_FCC\_CE\_FCC PART 15B\_Class B



| No. | Frequency (MHz) | Results (dBuV) | Factor (dB) | Limit (dBuV) | Margin (dB) | Detector | Line | Verdict |
|-----|-----------------|----------------|-------------|--------------|-------------|----------|------|---------|
| 1   | 0.158           | 51.76          | 9.75        | 65.57        | 13.81       | Peak     | L    | Pass    |
| 1** | 0.158           | 30.22          | 9.75        | 55.57        | 25.35       | AV       | L    | Pass    |
| 2   | 0.450           | 44.64          | 9.74        | 56.88        | 12.24       | Peak     | L    | Pass    |
| 2** | 0.450           | 37.98          | 9.74        | 46.88        | 8.90        | AV       | L    | Pass    |
| 3   | 1.344           | 36.90          | 9.70        | 56.00        | 19.10       | Peak     | L    | Pass    |
| 3** | 1.344           | 25.69          | 9.70        | 46.00        | 20.31       | AV       | L    | Pass    |
| 4   | 3.372           | 34.57          | 9.66        | 56.00        | 21.43       | Peak     | L    | Pass    |
| 4** | 3.372           | 22.11          | 9.66        | 46.00        | 23.89       | AV       | L    | Pass    |
| 5   | 12.046          | 33.37          | 9.39        | 60.00        | 26.63       | Peak     | L    | Pass    |
| 5** | 12.046          | 22.26          | 9.39        | 50.00        | 27.74       | AV       | L    | Pass    |
| 6   | 22.930          | 31.82          | 8.88        | 60.00        | 28.18       | Peak     | L    | Pass    |
| 6** | 22.930          | 20.06          | 8.88        | 50.00        | 29.94       | AV       | L    | Pass    |

## A.2.2 AC ports - N Phase



| No. | Frequency (MHz) | Results (dBUV) | Factor (dB) | Limit (dBUV) | Margin (dB) | Detector | Line | Verdict |
|-----|-----------------|----------------|-------------|--------------|-------------|----------|------|---------|
| 1   | 0.190           | 49.71          | 9.74        | 64.04        | 14.33       | Peak     | N    | Pass    |
| 1** | 0.190           | 30.74          | 9.74        | 54.04        | 23.30       | AV       | N    | Pass    |
| 2   | 0.452           | 45.88          | 9.79        | 56.84        | 10.96       | Peak     | N    | Pass    |
| 2** | 0.452           | 36.19          | 9.79        | 46.84        | 10.65       | AV       | N    | Pass    |
| 3   | 1.340           | 35.28          | 9.86        | 56.00        | 20.72       | Peak     | N    | Pass    |
| 3** | 1.340           | 24.25          | 9.86        | 46.00        | 21.75       | AV       | N    | Pass    |
| 4   | 3.250           | 36.97          | 9.84        | 56.00        | 19.03       | Peak     | N    | Pass    |
| 4** | 3.250           | 24.90          | 9.84        | 46.00        | 21.10       | AV       | N    | Pass    |
| 5   | 12.092          | 32.85          | 9.64        | 60.00        | 27.15       | Peak     | N    | Pass    |
| 5** | 12.092          | 21.75          | 9.64        | 50.00        | 28.25       | AV       | N    | Pass    |
| 6   | 25.042          | 31.57          | 8.98        | 60.00        | 28.43       | Peak     | N    | Pass    |
| 6** | 25.042          | 19.78          | 8.98        | 50.00        | 30.22       | AV       | N    | Pass    |

| Equipment Information |              |                |               |            |            |                                     |
|-----------------------|--------------|----------------|---------------|------------|------------|-------------------------------------|
| Equipment Name        | 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       | 4.1m*4.0m*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        | V21.919       | /          |            | <input checked="" type="checkbox"/> |



## **ANNEX B TEST SETUP PHOTOS**

Please refer the document “BL-SH2490662-AE.PDF”.

## **ANNEX C EUT EXTERNAL PHOTOS**

Please refer the document “BL-SH2490662-AW.PDF”.

## **ANNEX D EUT INTERNAL PHOTOS**

Please refer the document “BL-SH2490662-AI.PDF”.

## Statement

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--END OF REPORT--