

# FCC Test Report

For

**Artika For Living Inc**

EUT Name: LED wall lamp

Model No: FM-LU

Brand Name: ARTIKA

Prepared By:

Dongguan Yaxu (AiT) Technology Limited

Date of Receipt: Aug.18, 2023

Date of Test: Aug.18, 2023 to Aug.31, 2023

Date of Issue: Aug.31, 2023

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of Dongguan Yaxu (AiT) Technology Limited

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**Client Information:**

Applicant: Artika For Living Inc  
Applicant add.: 1756 50th avenue, Lachine, Quebec, Canada H8T 2V5  
FCC ID 2AUHG-FM-LU

**EUT Information:**

EUT Name: LED wall lamp  
Model No: FM-LU  
Brand Name: ARTIKA

**Test standard used:** FCC Part 15 Subpart B

This device described above has been tested by Dongguan Yaxu (AiT) Technology Limited and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

Reviewed by:



Test director

Approved by:



Technical director

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## 2 TEST SUMMARY

| Test                                                    | Test Requirement      | Test Method                               | Criterion | Result |
|---------------------------------------------------------|-----------------------|-------------------------------------------|-----------|--------|
| Mains Terminals Disturbance<br>Voltage, 150kHz to 30MHz | FCC Part 15 Subpart B | FCC Part 15 Subpart B<br>ANSI C63.4: 2014 | Limits    | PASS   |
| Radiated Emissions<br>30MHz to 1GHz<br>1GHz to 18GHz    | FCC Part 15 Subpart B | FCC Part 15 Subpart B<br>ANSI C63.4: 2014 | Limits    | PASS   |

Note: N/A

## 2.1 MEASUREMENT UNCERTAINTY

The report uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty Multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95%.

| No. | Item                          | Frequency Range | U , Value |
|-----|-------------------------------|-----------------|-----------|
| 1   | Power Line Conducted Emission | 150KHz~30MHz    | 1.20 dB   |
| 2   | Disturbance Power Emission    | 30MHz~300MHz    | 2.96 dB   |
| 3   | Radiated Emission Test        | 30MHz~1GHz      | 3.75 dB   |
| 4   | Radiated Emission Test        | 1GHz~18GHz      | 3.88 dB   |

### 3 TEST FACILITY

**The test facility is recognized, certified or accredited by the following organizations:**

**. CNAS- Registration No: L6177**

Dongguan Yaxu (AiT) technology Limited is accredited to ISO/IEC 17025:2017 general Requirements for the competence of testing and calibration laboratories (CNAS-CL01 Accreditation Criteria for the competence of testing and calibration laboratories) on April 18, 2020

**FCC-Registration No.: 703111 Designation Number: CN1313**

Dongguan Yaxu (AiT) technology Limited has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

**IC —Registration No.: 6819A CAB identifier: CN0122**

The 3m Semi-anechoic chamber of Dongguan Yaxu (AiT) technology Limited has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 6819A

**A2LA-Lab Cert. No.: 6317.01**

Dongguan Yaxu (AiT) technology Limited has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

#### 3.1 DEVIATION FROM STANDARD

None

#### 3.2 ABNORMALITIES FROM STANDARD CONDITIONS

None

## 4 GENERAL INFORMATION

### 4.1 GENERAL DESCRIPTION OF EUT

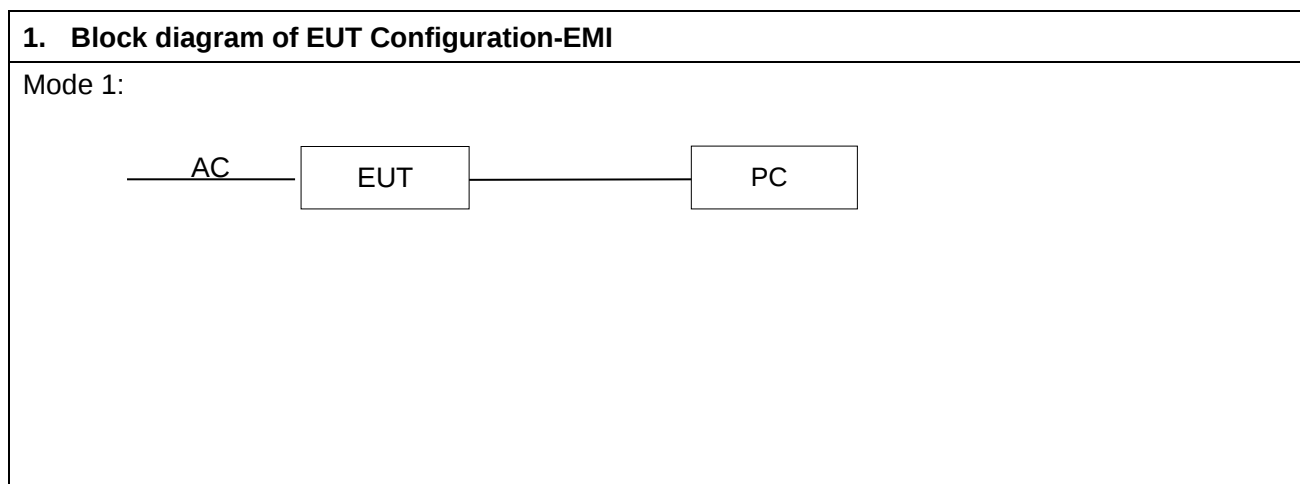
|                       |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Manufacturer:         | DongGuan City Rising Stars Lighting Co.,LTD                                     |
| Manufacturer Address: | YuanQuan No.6 Bai Hao Village HouJie Town DongGuanCity Guangdong Province China |
| EUT Name:             | LED wall lamp                                                                   |
| Model No:             | FM-LU; followed by up to ten characters                                         |
| Brand Name:           | ARTIKA                                                                          |
| Power Range:          | AC120V 60Hz 26W                                                                 |
| Test Supply:          | AC120V 60Hz                                                                     |

## 4.2 EUT TEST MODE

|        |                                 |
|--------|---------------------------------|
| Mode 1 | The EUT lights up normally mode |
|--------|---------------------------------|

## 4.3 DESCRIPTION OF TEST SETUP

EUT was tested in normal Configuration (Please See following Block diagrams)



#### 4.4 TEST PERIPHERAL LIST

| No. | Equipment | Manufacturer | EMC Compliance | Model No. | Serial No. | Power cord | signal cable |
|-----|-----------|--------------|----------------|-----------|------------|------------|--------------|
| 1   | N/A       | N/A          | N/A            | N/A       | N/A        | N/A        | N/A          |

#### 4.5 EUT PERIPHERAL LIST

| No. | Equipment | Manufacturer | EMC Compliance | Model No. | Serial No. | Power cord | signal cable |
|-----|-----------|--------------|----------------|-----------|------------|------------|--------------|
| 1   | N/A       | N/A          | N/A            | N/A       | N/A        | N/A        | N/A          |

## 5 Equipments List for All Test Items

| <input checked="" type="checkbox"/> Radiation Test Equipment |                                     |              |                 |             |            |               |
|--------------------------------------------------------------|-------------------------------------|--------------|-----------------|-------------|------------|---------------|
| No                                                           | Test Equipment                      | Manufacturer | Model No        | Serial No   | Cal. Date  | Cal. Due Date |
| 1                                                            | EMI Measuring Receiver              | R&S          | ESR             | 101160      | 2022.09.02 | 2023.09.01    |
| 2                                                            | Low Noise Pre Amplifier             | HP           | HP8447E         | 1205323     | 2022.09.02 | 2023.09.01    |
| 3                                                            | TRILOG Super Broadband test Antenna | SCHWARZBECK  | VULB9160        | 9160-3206   | 2021.08.28 | 2024.08.27    |
| 4                                                            | 50Ω Coaxial Switch                  | Anritsu      | MP59B           | 6200264416  | 2022.09.02 | 2023.09.01    |
| 5                                                            | Spectrum Analyzer                   | R&S          | FSV40           | 101160      | 2022.09.02 | 2023.09.01    |
| 6                                                            | Low Noise Pre Amplifier             | Tsj          | MLA-0120-A02-34 | 2648A04738  | 2022.09.02 | 2023.09.01    |
| 7                                                            | Broadband Horn Antenna              | Schwarzbeck  | BBHA 9120D      | 452         | 2021.08.28 | 2024.08.27    |
| 8                                                            | RE Software                         | EZ           | EZ-EMC_RE       | Ver.AIT-03A | N/A        | N/A           |

| <input checked="" type="checkbox"/> Conduction Test equipment |                    |              |           |             |            |               |
|---------------------------------------------------------------|--------------------|--------------|-----------|-------------|------------|---------------|
| No                                                            | Test Equipment     | Manufacturer | Model No  | Serial No   | Cal. Date  | Cal. Due Date |
| 1                                                             | EMI Test Receiver  | R&S          | ESCI      | 100124      | 2022.09.02 | 2023.09.01    |
| 2                                                             | LISN               | Kyoritsu     | KNW-242   | 8-837-4     | 2022.09.02 | 2023.09.01    |
| 3                                                             | LISN               | R&S          | ESH3-Z5   | 892785/016  | 2022.09.02 | 2023.09.01    |
| 4                                                             | 50Ω Coaxial Switch | Anritsu      | MP59B     | 6200264417  | 2022.09.02 | 2023.09.01    |
| 5                                                             | CE Software        | EZ           | EZ-EMC_CE | Ver.AIT-03A | N/A        | N/A           |

Note:

1. ☐ is not applicable in this Test Report. ☒ is applicable in this Test Report.

## 6 EMISSION TEST RESULTS

### 6.1 MAINS TERMINALS DISTURBANCE VOLTAGE MEASUREMENT

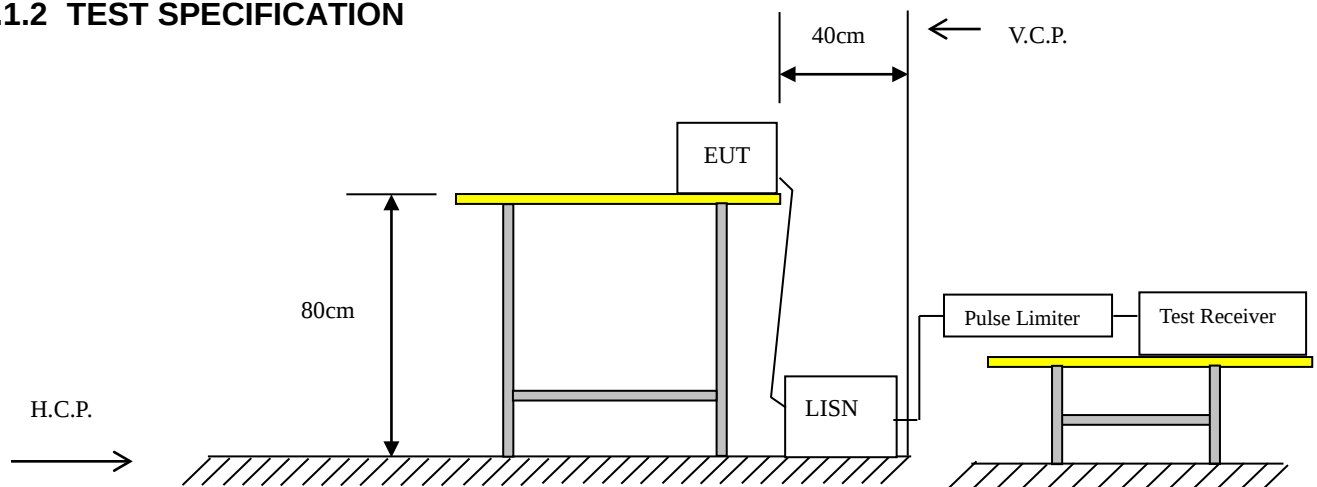
| Frequency (MHz) | <input type="checkbox"/> Class A (dBμV) |                | <input checked="" type="checkbox"/> Class B (dBμV) |                |
|-----------------|-----------------------------------------|----------------|----------------------------------------------------|----------------|
|                 | Q.P. (Quasi-Peak)                       | A.V. (Average) | Q.P. (Quasi-Peak)                                  | A.V. (Average) |
| 0.15 ~ 0.50     | 79                                      | 66             | 66 to 56                                           | 56 to 46       |
| 0.50 ~ 5.0      | 73                                      | 60             | 56                                                 | 46             |
| 5.0 ~ 30        | 73                                      | 60             | 60                                                 | 50             |

|           |                                                                                                                     |
|-----------|---------------------------------------------------------------------------------------------------------------------|
| Detector: | Peak for pre-scan (9kHz Resolution Bandwidth)<br>Quasi-Peak & Average if maximized peak within 6dB of Average Limit |
|-----------|---------------------------------------------------------------------------------------------------------------------|

#### 6.1.1 E.U.T. OPERATION

|              |          |           |                |                       |        |     |
|--------------|----------|-----------|----------------|-----------------------|--------|-----|
| Temperature: | 26       | Humidity: | 50             | Atmospheric Pressure: | 1006   | Kpa |
| Test Mode:   | Mode 1-2 |           | The worst mode |                       | Mode 1 |     |

#### 6.1.2 TEST SPECIFICATION



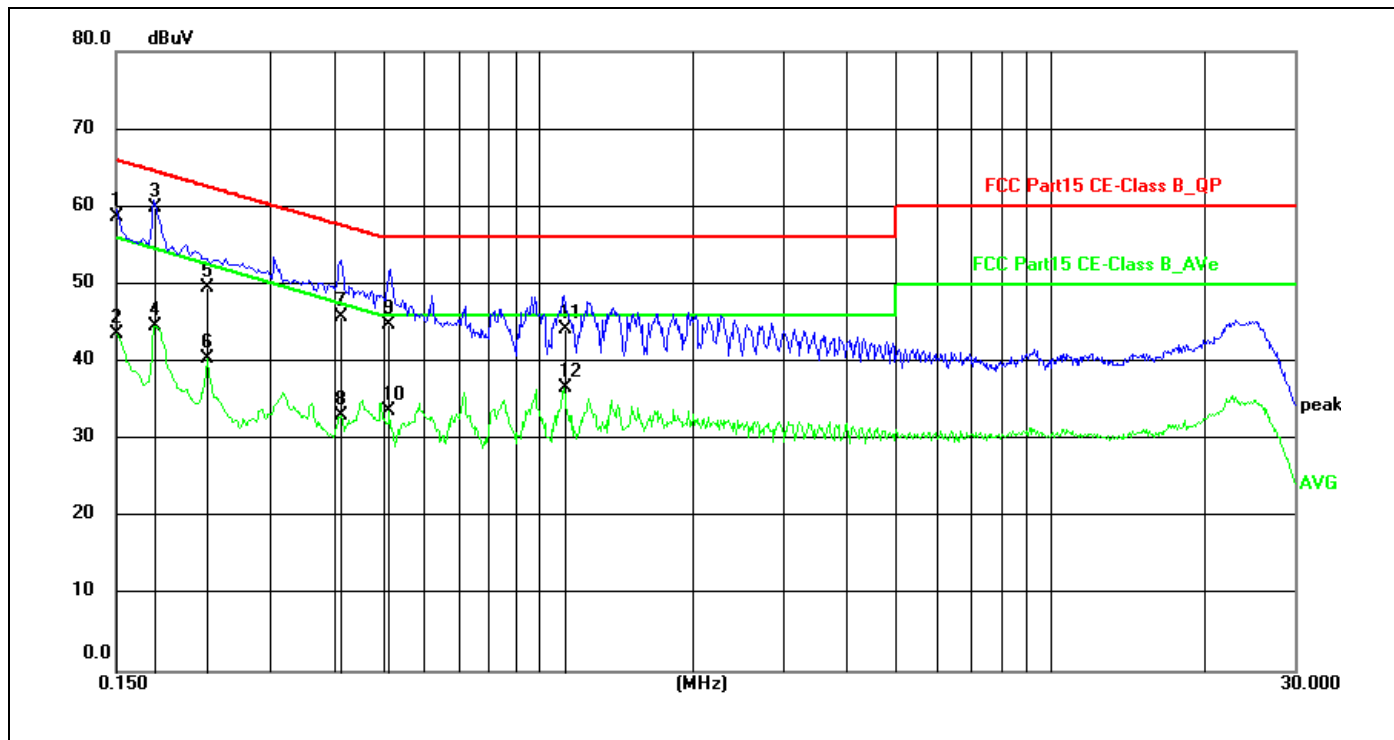
EUT was placed upon a wooden test table 0.8m above the horizontal metal reference plane and 0.4m from the vertical ground plane, and it was connected to an AMN. The closest distance between the boundary of the EUT and the surface of the AMN is 0.8m. All peripherals were connected to another AMN, and placed at a distance of 10cm from each other. A spectrum and receiver was connected to the RF output port of the AMN. Both average and quasi-peak value were detected.

### 6.1.3 MEASUREMENT DATA

An initial pre-scan was performed on the live and neutral lines.

Quasi-peak or average measurements were performed at the frequency which maximum peak emissions were detected.

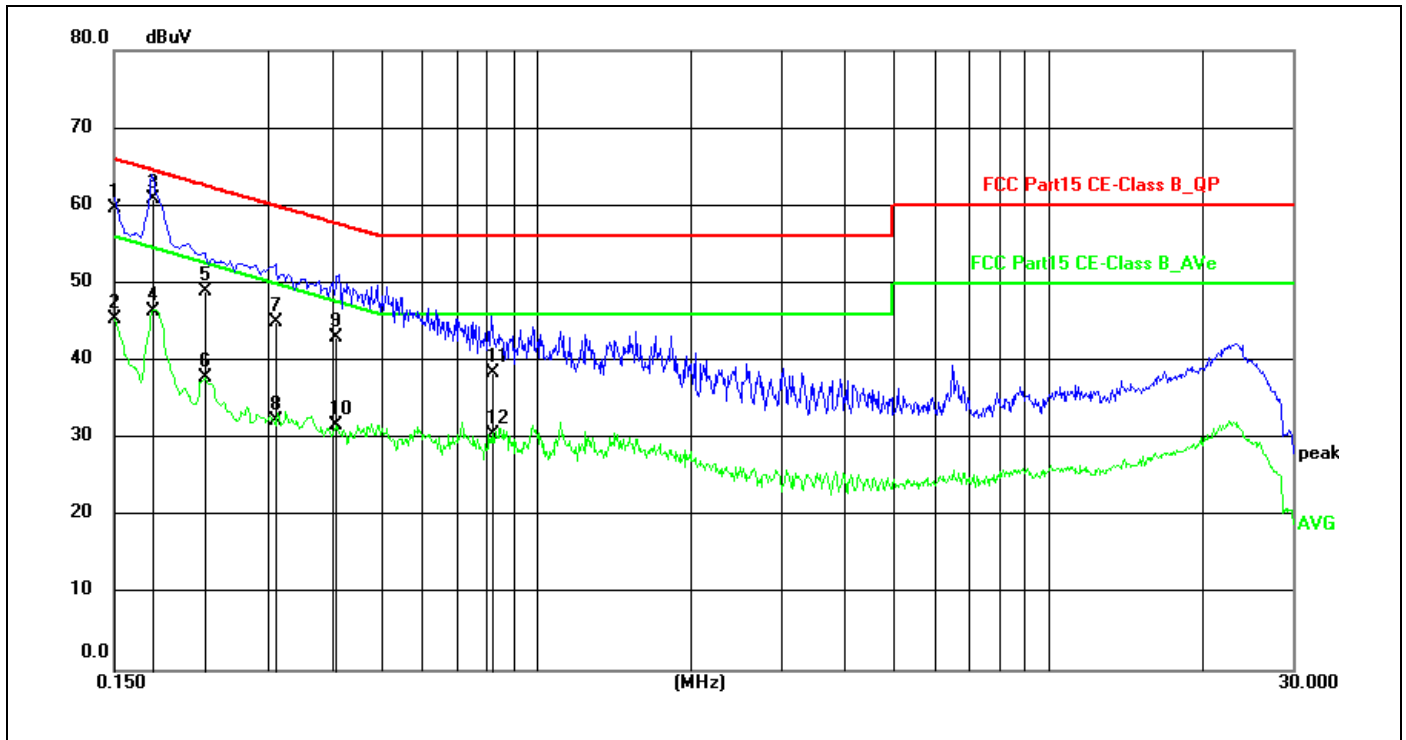
Please refer to the attached quasi-peak & average measurement data for reference.



|        |                          |                |                   |                 |       |
|--------|--------------------------|----------------|-------------------|-----------------|-------|
| Site:  | 844LAB                   | Phase:         | N                 | Temperature(C): | 24(C) |
| Limit: | FCC Part15 CE-Class B_QP |                |                   | Humidity(%):    | 63%   |
| EUT:   | Led wall lamp            | Test Time:     | 2023/8/22 9:30:43 |                 |       |
| M/N.:  | FM-LU                    | Power Rating:  | AC120/60Hz        |                 |       |
| Mode:  | Lighting                 | Test Engineer: |                   |                 |       |
| Note:  |                          |                |                   |                 |       |

| No. | Frequency (MHz) | Reading Level(dBuV) | Factor (dB) | Measure-ment(dBuV) | Limit (dBuV) | Margin (dB) | Detector | Comment |
|-----|-----------------|---------------------|-------------|--------------------|--------------|-------------|----------|---------|
| 1   | 0.1504          | 47.48               | 11.15       | 58.63              | 65.98        | -7.35       | QP       |         |
| 2   | 0.1504          | 32.47               | 11.15       | 43.62              | 55.98        | -12.36      | AVG      |         |
| 3 * | 0.1778          | 48.74               | 11.16       | 59.90              | 64.59        | -4.69       | QP       |         |
| 4   | 0.1778          | 33.42               | 11.16       | 44.58              | 54.59        | -10.01      | AVG      |         |
| 5   | 0.2252          | 38.30               | 11.18       | 49.48              | 62.62        | -13.14      | QP       |         |
| 6   | 0.2252          | 29.14               | 11.18       | 40.32              | 52.62        | -12.30      | AVG      |         |
| 7   | 0.4126          | 34.55               | 11.28       | 45.83              | 57.60        | -11.77      | QP       |         |
| 8   | 0.4126          | 21.85               | 11.28       | 33.13              | 47.60        | -14.47      | AVG      |         |
| 9   | 0.5110          | 33.50               | 11.31       | 44.81              | 56.00        | -11.19      | QP       |         |
| 10  | 0.5110          | 22.28               | 11.31       | 33.59              | 46.00        | -12.41      | AVG      |         |
| 11  | 1.1260          | 33.00               | 11.23       | 44.23              | 56.00        | -11.77      | QP       |         |
| 12  | 1.1260          | 25.30               | 11.23       | 36.53              | 46.00        | -9.47       | AVG      |         |

\*:Maximum data x:Over limit !:over margin



|        |                          |                |                      |
|--------|--------------------------|----------------|----------------------|
| Site:  | 844LAB                   | Phase:L1       | Temperature(C):24(C) |
| Limit: | FCC Part15 CE-Class B_QP |                | Humidity(%):63%      |
| EUT:   | Led wall lamp            | Test Time:     | 2023/8/22 9:34:23    |
| M/N.:  | FM-LU                    | Power Rating:  | AC120/60Hz           |
| Mode:  | Lighting                 | Test Engineer: |                      |
| Note:  |                          |                |                      |

| No. | Frequency (MHz) | Reading Level(dBuV) | Factor (dB) | Measure-ment(dBuV) | Limit (dBuV) | Margin (dB) | Detector | Comment |
|-----|-----------------|---------------------|-------------|--------------------|--------------|-------------|----------|---------|
| 1   | 0.1504          | 48.51               | 11.14       | 59.65              | 65.98        | -6.33       | QP       |         |
| 2   | 0.1504          | 34.13               | 11.14       | 45.27              | 55.98        | -10.71      | AVG      |         |
| 3 * | 0.1780          | 49.71               | 11.14       | 60.85              | 64.58        | -3.73       | QP       |         |
| 4   | 0.1780          | 35.31               | 11.14       | 46.45              | 54.58        | -8.13       | AVG      |         |
| 5   | 0.2247          | 37.80               | 11.14       | 48.94              | 62.64        | -13.70      | QP       |         |
| 6   | 0.2247          | 26.61               | 11.14       | 37.75              | 52.64        | -14.89      | AVG      |         |
| 7   | 0.3102          | 33.73               | 11.17       | 44.90              | 59.97        | -15.07      | QP       |         |
| 8   | 0.3102          | 21.14               | 11.17       | 32.31              | 49.97        | -17.66      | AVG      |         |
| 9   | 0.4082          | 31.75               | 11.18       | 42.93              | 57.68        | -14.75      | QP       |         |
| 10  | 0.4082          | 20.50               | 11.18       | 31.68              | 47.68        | -16.00      | AVG      |         |
| 11  | 0.8189          | 27.14               | 11.25       | 38.39              | 56.00        | -17.61      | QP       |         |
| 12  | 0.8189          | 19.32               | 11.25       | 30.57              | 46.00        | -15.43      | AVG      |         |

\*:Maximum data x:Over limit !:over margin

#### 6.1.4 Test Setup Photograph



## 6.2 RADIATED EMISSION MEASUREMENT

### Limits of Radiated Emission Measurement

| Frequency (MHz) | <input type="checkbox"/> ICES-003 Class B (3m) | <input checked="" type="checkbox"/> FCC Part 15 Class B (3m) |
|-----------------|------------------------------------------------|--------------------------------------------------------------|
|                 | Quasi-Peak dB( $\mu$ V/m)                      | Quasi-Peak dB( $\mu$ V/m)                                    |
| 30 ~ 88         | 40.0                                           | 40.0                                                         |
| 88 ~ 216        | 43.5                                           | 43.5                                                         |
| 216 ~230        | 46.0                                           | 46.0                                                         |
| 230 ~960        | 47.0                                           | 46.0                                                         |
| Above 960       | 54.0                                           | 54.0                                                         |

Detector:

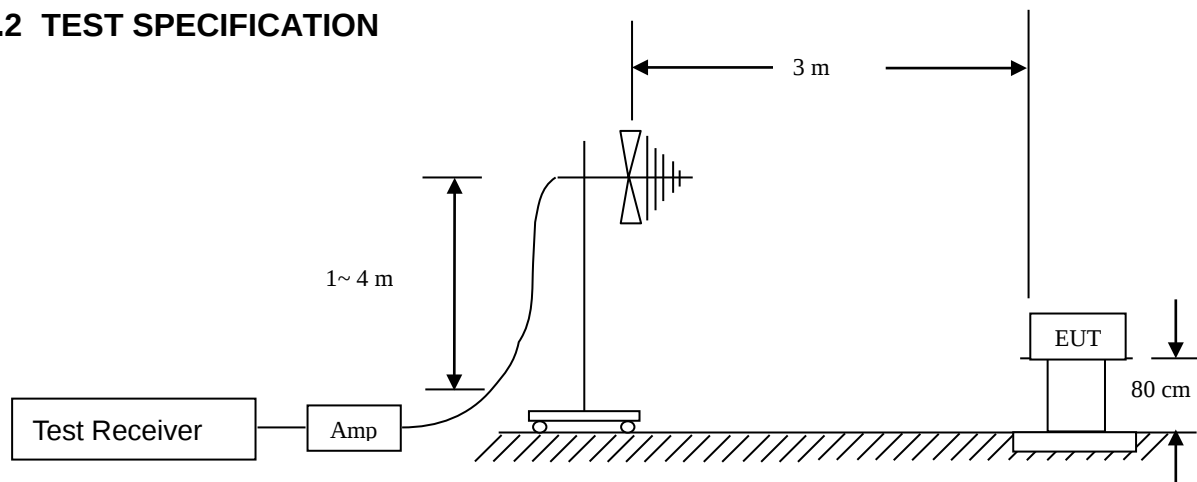
Peak for pre-scan (120kHz resolution bandwidth)

Quasi-Peak if maximum peak within 6dB of limit

### 6.2.1 E.U.T. OPERATION

|              |          |           |                |                       |        |     |
|--------------|----------|-----------|----------------|-----------------------|--------|-----|
| Temperature: | 25°C     | Humidity: | 50% RH         | Atmospheric Pressure: | 1006   | Kpa |
| Test Mode:   | Mode 1-2 |           | The worst mode |                       | Mode 1 |     |

### 6.2.2 TEST SPECIFICATION



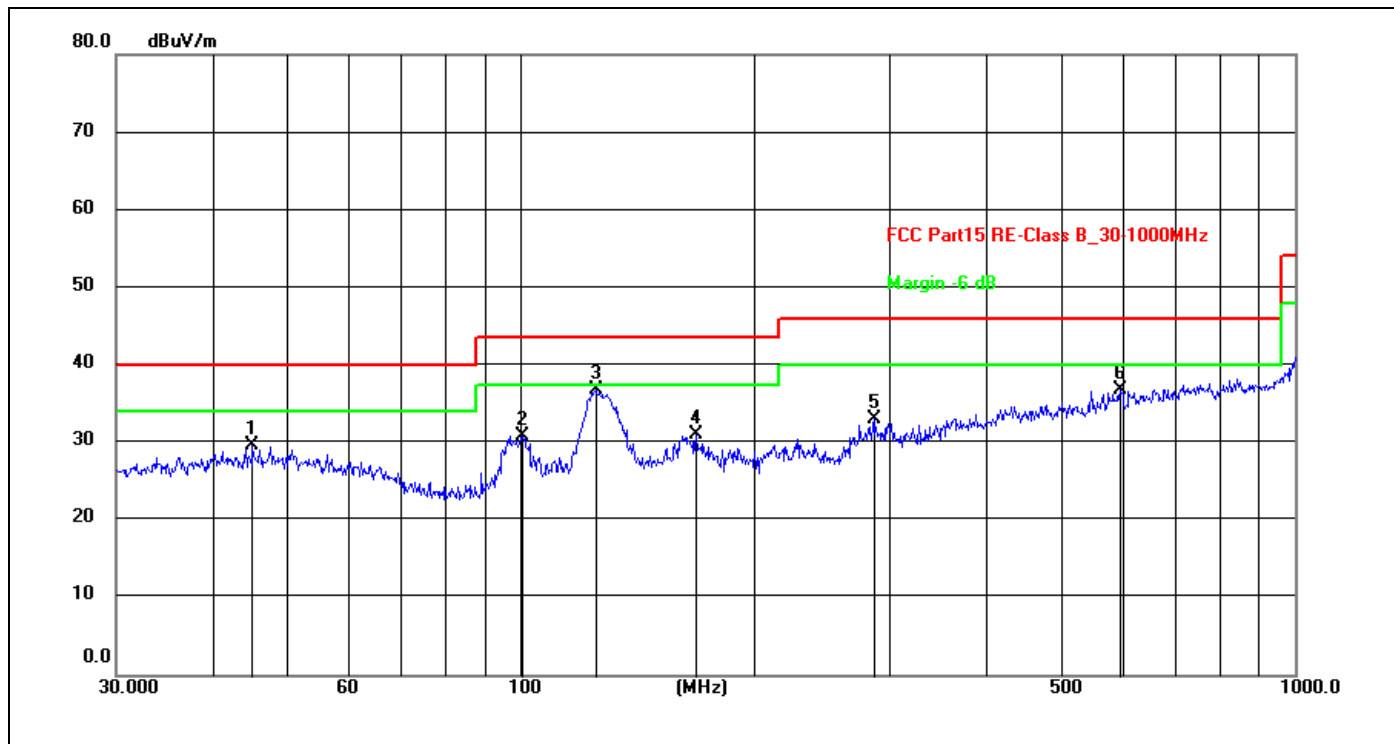
EUT was placed upon a wooden test table which was placed on the turn table 0.8m above the horizontal metal ground plane, and operating in the mode as mentioned above. A receiving antenna was placed 3m away from the EUT. During testing, turn around the turn table and move the antenna from 1m to 4m to find the maximum field-strength reading. All peripherals were placed at a distance of 10cm between each other. Both horizontal and vertical antenna polarities were tested.

### 6.2.3 MEASUREMENT DATA

An initial pre-scan was performed in the 3m chamber using the spectrum analyzers in peak detection mode. The EUT was measured by Biology antenna with 2 orthogonal polarities and peak emissions from the EUT were detected within 6dB of the class B limit line.

The following quasi-peak measurements were performed on the EUT.

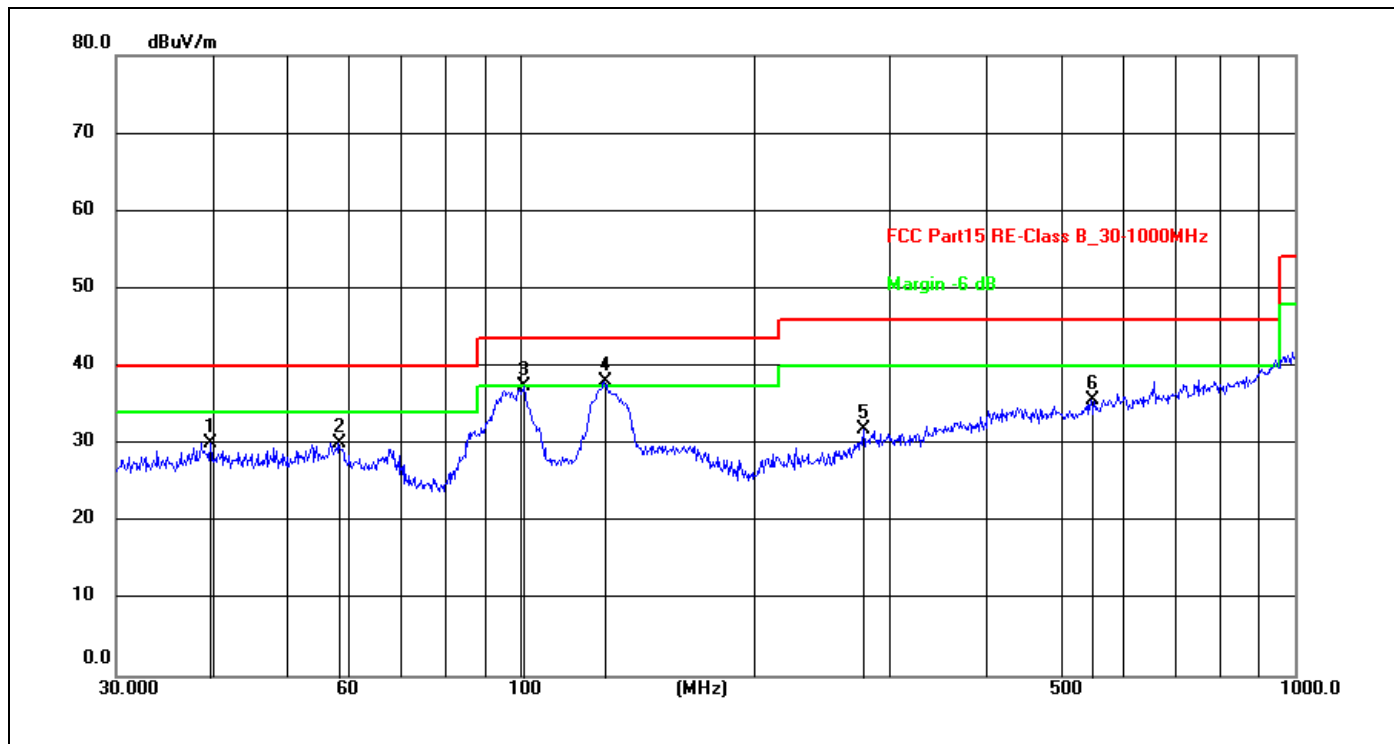
# Between 30 MHz - 1000 MHz



|        |                                     |                     |                      |
|--------|-------------------------------------|---------------------|----------------------|
| Site:  | 966LAB                              | Antenna::Horizontal | Temperature(C):24(C) |
| Limit: | FCC Part15 RE-Class<br>B_30-1000MHz |                     | Humidity(%):60%      |
| EUT:   | Led wall lamp                       | Test Time:          | 2023/8/31 9:14:48    |
| M/N.:  | FM-LU                               | Power Rating:       | AC 120V/60Hz         |
| Mode:  | Lighting                            | Test Engineer:      |                      |
| Note:  |                                     |                     |                      |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1   | 45.0583         | 15.37          | 14.35         | 29.72          | 40.00          | -10.28      | peak | 200         | 29            |        |
| 2   | 100.5806        | 19.96          | 10.95         | 30.91          | 43.50          | -12.59      | peak | 200         | 319           |        |
| 3 * | 125.0065        | 23.50          | 13.25         | 36.75          | 43.50          | -6.75       | peak | 200         | 299           |        |
| 4   | 168.4137        | 16.42          | 14.58         | 31.00          | 43.50          | -12.50      | peak | 200         | 118           |        |
| 5   | 285.9777        | 18.83          | 14.26         | 33.09          | 46.00          | -12.91      | peak | 200         | 253           |        |
| 6   | 595.1327        | 15.79          | 20.95         | 36.74          | 46.00          | -9.26       | peak | 200         | 207           |        |

\*:Maximum data x:Over limit !:over margin



|        |                                     |                   |                      |
|--------|-------------------------------------|-------------------|----------------------|
| Site:  | 966LAB                              | Antenna::Vertical | Temperature(C):24(C) |
| Limit: | FCC Part15 RE-Class<br>B_30-1000MHz |                   | Humidity(%):60%      |
| EUT:   | Led wall lamp                       | Test Time:        | 2023/8/31 9:17:24    |
| M/N.:  | FM-LU                               | Power Rating:     | AC 120V/60Hz         |
| Mode:  | Lighting                            | Test Engineer:    |                      |
| Note:  |                                     |                   |                      |

| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Det. | Height (cm) | Azimuth (deg) | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|------|-------------|---------------|--------|
| 1   | 39.7146         | 15.38          | 14.66         | 30.04          | 40.00          | -9.96       | peak | 200         | 258           |        |
| 2   | 58.2030         | 16.42          | 13.67         | 30.09          | 40.00          | -9.91       | peak | 100         | 177           |        |
| 3   | 100.9339        | 26.05          | 11.35         | 37.40          | 43.50          | -6.10       | peak | 100         | 10            |        |
| 4 * | 128.1130        | 24.05          | 13.90         | 37.95          | 43.50          | -5.55       | peak | 100         | 302           |        |
| 5   | 277.0935        | 17.93          | 13.98         | 31.91          | 46.00          | -14.09      | peak | 100         | 291           |        |
| 6   | 545.1826        | 15.92          | 19.78         | 35.70          | 46.00          | -10.30      | peak | 100         | 356           |        |

\*:Maximum data x:Over limit !:over margin

TEST SETUP PHOTOGRAPH



## 7 APPENDIX-Photographs of EUT Constructional Details

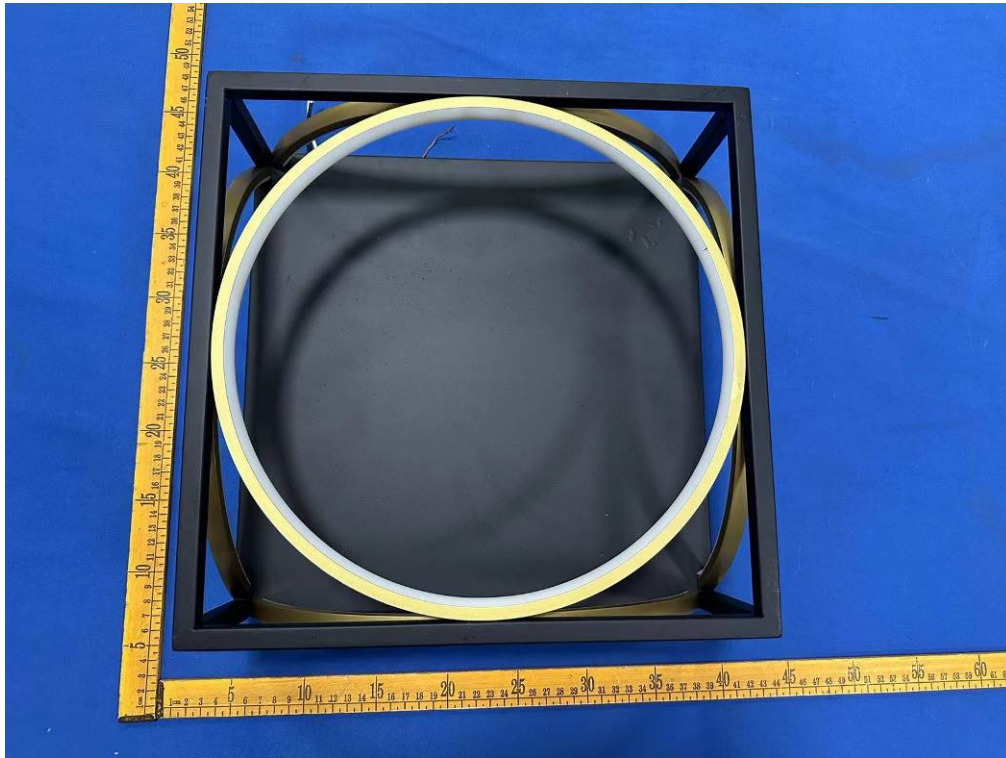


Fig.1(Model: FM-LU )

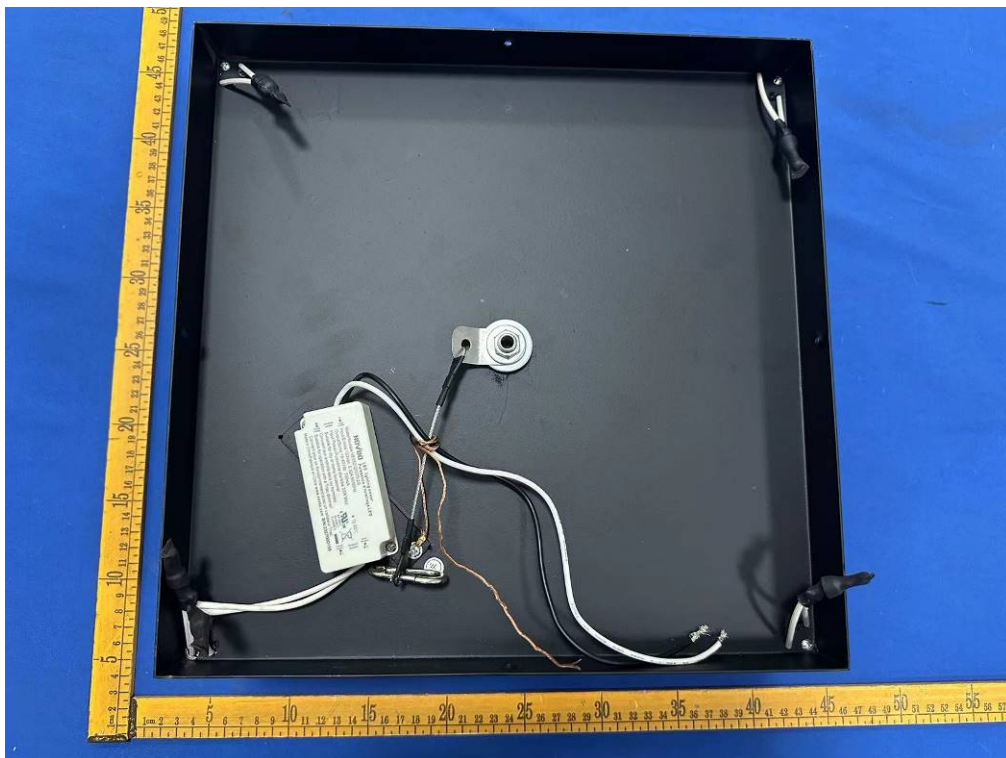


Fig.2(Model: FM-LU )

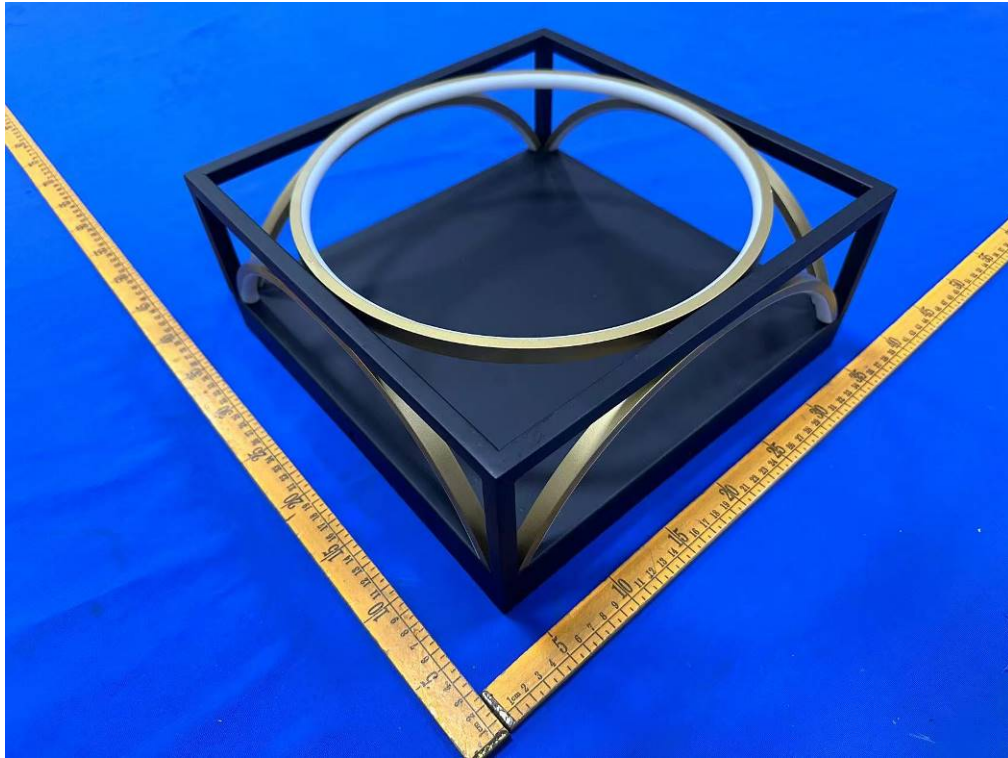


Fig.3(Model: FM-LU )

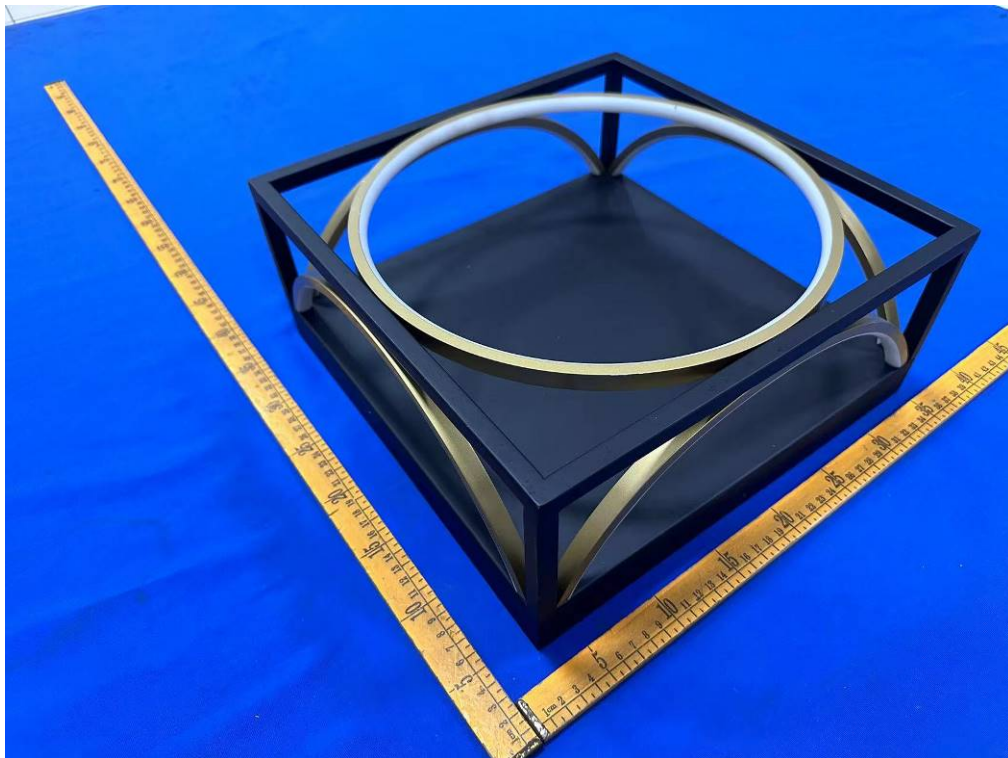


Fig.4(Model: FM-LU )



Fig.5(Model: FM-LU )

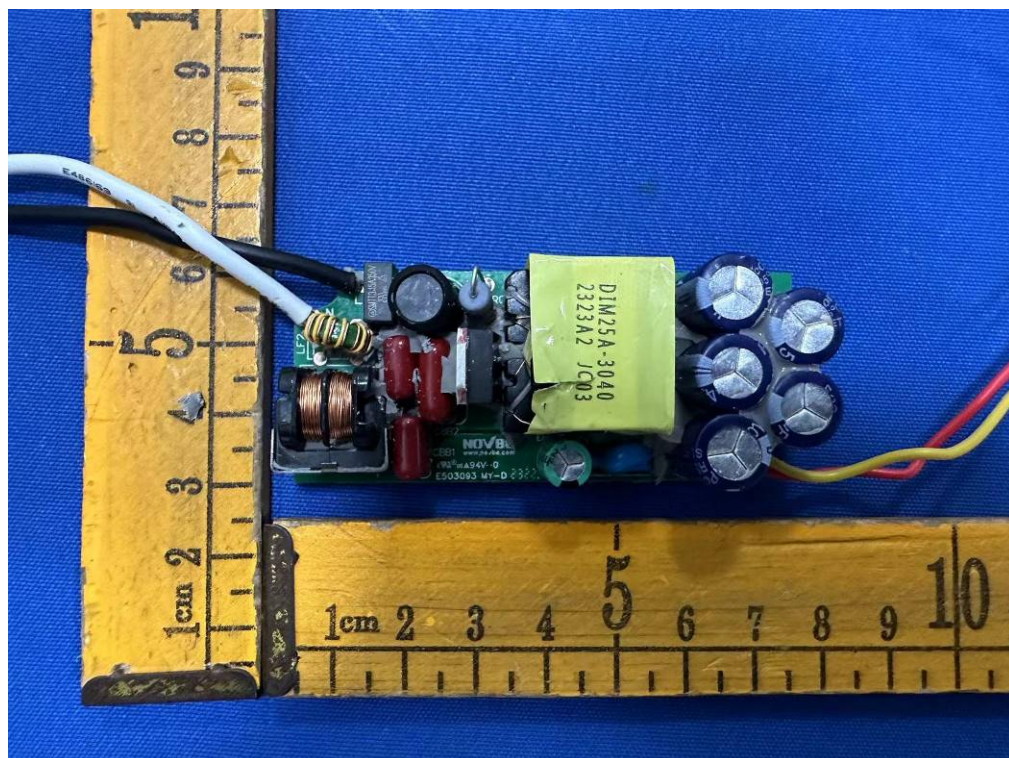


Fig.6(Model: FM-LU )

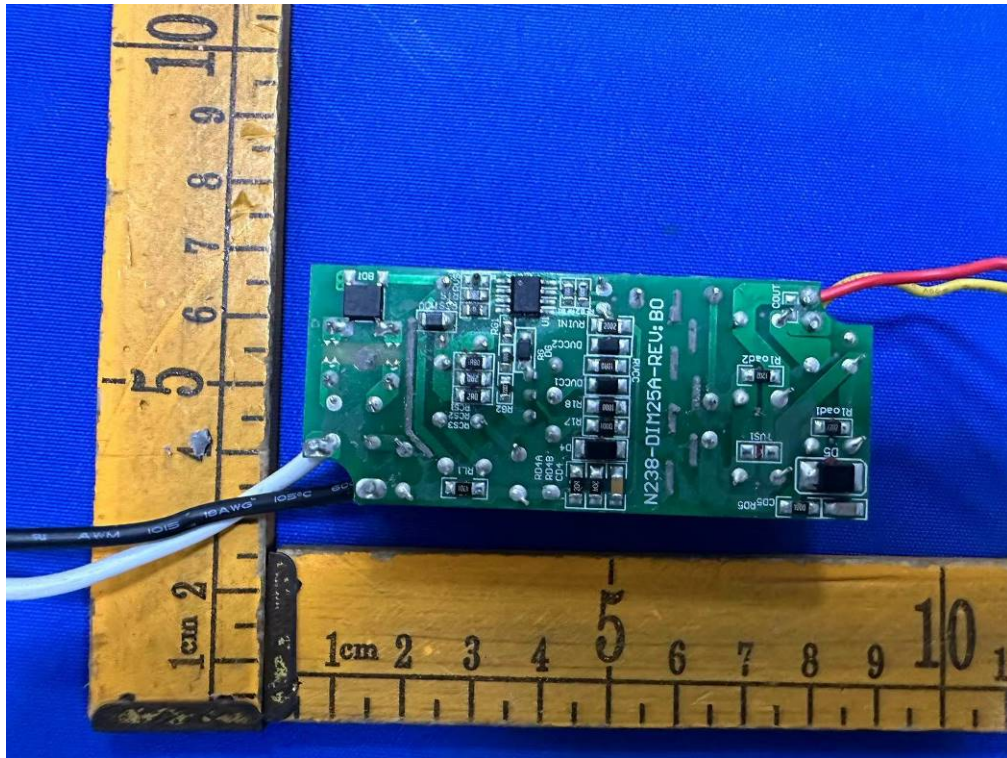


Fig.7(Model: FM-LU )

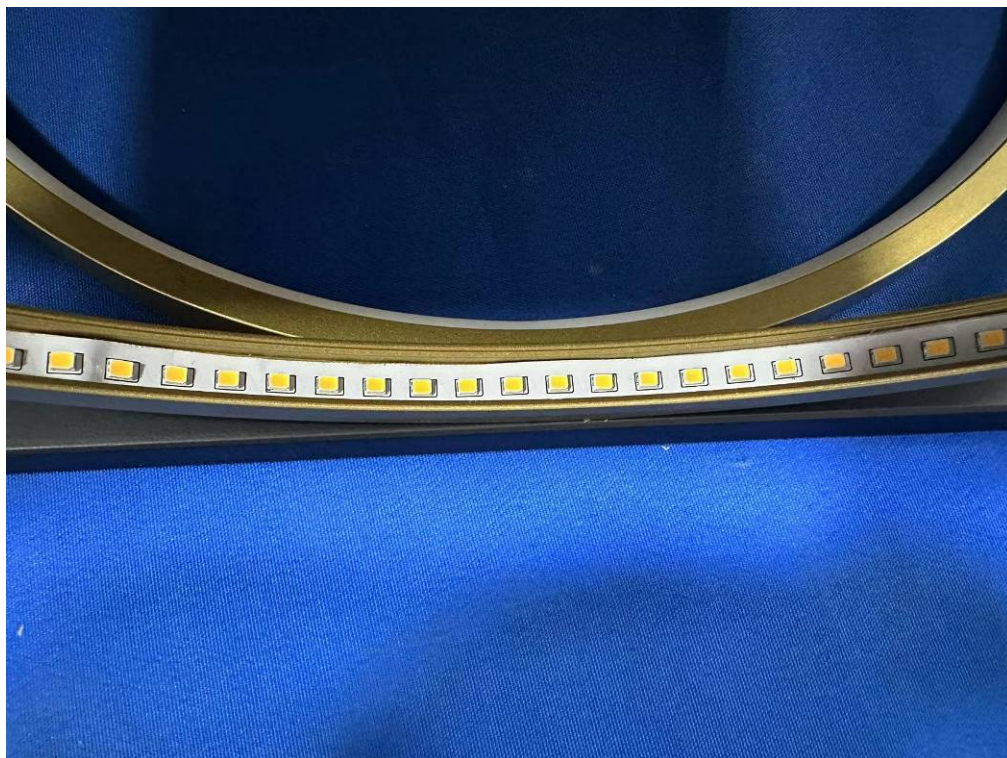


Fig.8(Model: FM-LU )

**\*\* End of report \*\***