

# Test Report

**EN IEC 55015:2019+A11:2020**

**Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment**

**EN IEC 61547: 2023**

**Equipment for general lighting purposes - EMC immunity requirements**

**Report Reference No**.....: WUX250730003E01

Compiled by

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Supervised by

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Approved by

( position+printed name+signature)..: Manager Tony Bi

Date of issue.....: August 18, 2025

**Laboratory Name**.....: Shenzhen Wuxiang Testing (Group) Co., Ltd.

Address.....: Building B, Xinbaosheng, No.233, Xixiang Street, Bao'an District, Shenzhen, China.

Testing location/ procedure.....: Full application of Harmonised standards ☒  
Partial application of Harmonised standards ☐  
Other standard testing methods ☐



**Applicant's name**.....: FOSHAN JIN HAOTAI LIGHTING ACCESSORIES CO.,LTD

Address.....: Datong Industrial Zone,Qiaobai Road,Xiqiao Town,Nanhai District,Foshan City,Guangdong Province,China

## Test specification:

Standards.....: **EN IEC 55015:2019+A11:2020;**  
**EN IEC 61547:2023;**  
**EN IEC 61000-3-2:2019+A2:2024;**  
**EN 61000-3-3:2013+A2:2021+AC:2022-01**

**Test Report Form No**.....: CE/EMC EN55015

TRF Originator.....: Shenzhen Wuxiang Testing (Group) Co., Ltd.

Master TRF.....: Dated 2011-01

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Product Name..... Spot Light

Trade Mark..... /

Manufacturer .....: FOSHAN JIN HAOTAI LIGHTING ACCESSORIES CO.,LTD  
Datong Industrial Zone,Qiaobai Road,Xiqiao Town,Nanhai District,Foshan City,Guangdong Province,China

Model/Type reference.....: TL0380, TL0390, TL03100,TL0565, TL0575, TL0585

Ratings.....: Input: 220-240V

Result.....: **Positive**

**EMC -- TEST REPORT**

|                                                 |                                  |
|-------------------------------------------------|----------------------------------|
| <b>Test Report No. :</b> <b>WUX250730003E01</b> | August 18, 2025<br>Date of issue |
|-------------------------------------------------|----------------------------------|

Equipment under Test : Spot Light

Model / Type : /

Listed Models : TL0380, TL0390, TL03100, TL0565, TL0575, TL0585

Trade Mark : /

**Applicant** : FOSHAN JIN HAOTAI LIGHTING ACCESSORIES CO.,LTD

Address : Datong Industrial Zone,Qiaobai Road,Xiqiao Town,Nanhai District,Foshan City,Guangdong Province,China

**Manufacturer** : FOSHAN JIN HAOTAI LIGHTING ACCESSORIES CO.,LTD

Address : Datong Industrial Zone,Qiaobai Road,Xiqiao Town,Nanhai District,Foshan City,Guangdong Province,China

|                                                          |                 |
|----------------------------------------------------------|-----------------|
| <b>Test Result</b> according to the standards on page 5: | <b>Positive</b> |
|----------------------------------------------------------|-----------------|

The test report merely corresponds to the test sample.  
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

**\*\*Modified History\*\***

| Revision     | Description                                                                                                                                               | Issued Data     | Remark      |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|
| Revision 1.0 | Initial Test Report Release                                                                                                                               | August 14, 2025 | Candy Zheng |
| Revision 2.0 | All test data refer to the original report WUX250730003E (Released on August 14, 2025).<br>Report information on the applicant, manufacturer and factory. | August 18, 2025 | Candy Zheng |

# Contents

|                                                                      |           |
|----------------------------------------------------------------------|-----------|
| <b>1. TEST STANDARDS .....</b>                                       | <b>5</b>  |
| <b>2. SUMMARY .....</b>                                              | <b>6</b>  |
| 2.1. General Remarks .....                                           | 6         |
| 2.2. Equipment Under Test .....                                      | 6         |
| 2.3. Short description of the Equipment under Test (EUT) .....       | 6         |
| 2.4. EUT operation mode .....                                        | 6         |
| 2.5. EUT configuration: .....                                        | 7         |
| 2.6. Performance level .....                                         | 7         |
| <b>3. TEST ENVIRONMENT .....</b>                                     | <b>8</b>  |
| 3.1. Address of the test laboratory .....                            | 8         |
| 3.2. Test Facility .....                                             | 8         |
| 3.3. Environmental conditions .....                                  | 8         |
| 3.4. Test Description .....                                          | 8         |
| 3.5. Statement of the measurement uncertainty .....                  | 9         |
| 3.6. Equipments Used during the Test .....                           | 10        |
| <b>4. TEST CONDITIONS AND RESULTS .....</b>                          | <b>12</b> |
| 4.1. Magnetic Field Emission .....                                   | 12        |
| 4.2. Conducted disturbance .....                                     | 16        |
| 4.3. Radiation Emission .....                                        | 16        |
| 4.4. Harmonic current .....                                          | 19        |
| 4.5. Voltage Fluctuation and Flicker .....                           | 19        |
| 4.6. Electrostatic discharge .....                                   | 19        |
| 4.7. Radiated, radio-frequency, electromagnetic field .....          | 21        |
| 4.8. Electrical fast transients / Burst .....                        | 23        |
| 4.9. Surge .....                                                     | 23        |
| 4.10. Conducted disturbances induced by radio-frequency fields ..... | 23        |
| 4.11. Magnetic Field Immunity .....                                  | 23        |
| 4.12. Voltage Dips and Interruptions .....                           | 23        |
| <b>5. PHOTOS OF THE EUT .....</b>                                    | <b>24</b> |

## 1. TEST STANDARDS

The tests were performed according to following standards:

[EN IEC 55015:2019+A11:2020](#) Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment

[EN IEC 61547: 2023](#) Equipment for general lighting purposes - EMC immunity requirements

[EN IEC 61000-3-2:2019+A2:2024](#) Electromagnetic compatibility (EMC) -- Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)

[EN 61000-3-3:2013+A2:2021+AC:2022-01](#) Electromagnetic compatibility (EMC) -- Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current  $\leq 16$  A per phase and not subject to conditional connection

## 2. SUMMARY

### 2.1. General Remarks

Date of receipt of test sample : August 08, 2025

Testing commenced on : August 08, 2025

Testing concluded on : August 14, 2025

### 2.2. Equipment Under Test

#### Power supply system utilised

Power supply voltage : ☒ 240V / 60 Hz ☐ 230V / 60Hz  
☐ 12 V DC ☐ 24 V DC  
☐ Other (specified in blank below)

/

### 2.3. Short description of the Equipment under Test (EUT)

The EUT is Spot Light .

Serial number: TL0380, TL0390, TL03100, TL0565, TL0575, TL0585.

### 2.4. EUT operation mode

The equipment under test was operated during the measurement under the following conditions:

Test program (customer specific)

|                            |                                                                       |
|----------------------------|-----------------------------------------------------------------------|
| Emission tests.....:       | According to EN IEC 55015, searching for the highest disturbance.     |
| Immunity tests.....:       | According to EN 61547, searching for the highest susceptibility.      |
| Harmonic current..... :    | According to EN IEC 61000-3-2, searching for the highest disturbance. |
| Voltage fluctuation..... : | According to EN 61000-3-3, searching for the highest disturbance.     |

## 2.5. EUT configuration:

The following peripheral devices and interface cables were connected during the measurement:

- - supplied by the manufacturer
- o - supplied by the lab

## 2.6. Performance level

The test results shall be classified in terms of the loss of function or degradation of performance of the equipment under test relative to a performance criteria defined by its manufacturer or the requestor of the test, or agreed between the manufacturer and the purchaser of the product. Examples of functions defined by the manufacturer to be evaluated during testing include, but are not limited to, the following:

- essential operational modes and states;
- tests of all peripheral access(hard disks, floppy disks, printers, keyboard, mouse, etc.);
- quality of software execution
- quality of data display and transmission
- quality of speech transmission

### Definition related to the performance level:

- based on the used product standard
- o based on the declaration of the manufacturer, requestor or purchaser

#### **Criterion A:**

During the test no change of the luminous intensity shall be observed and the regulating control, if any, shall operate during the test as intended.

#### **Criterion B:**

During the test the luminous intensity may change to any value. After the test the luminous intensity shall be restored to its initial value within 1 min.

Regulating controls need not function during the test, but after the test the mode of the control shall be the same as before the test provided that during the test no mode changing commands were given.

#### **Criterion C:**

During and after the test any change of the luminous intensity is allowed and the lamp(s) may be extinguished . After the test , within 30 min, all functions shall return to normal if necessary by temporary interruption of the mains supply and/or operating the regulating control.

### 3. TEST ENVIRONMENT

#### 3.1. Address of the test laboratory

Shenzhen HUAK Testing Technology Co , LTD .

1-2 / F , Buildingb2 , Junfengzhongchengzhizao Innovation Park, HepingFuhai Street, Bao'an District, Shenzhen, Guangdong, China

There is one 3m semi-anechoic chamber and two line conducted labs for final test.  
The Test Sites meet the requirements in documents ANSI C63.4 and CISPR 22/EN 55032 requirements.

#### 3.2. Test Facility

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

##### IC Registration No.: 7631A

The 3m alternate test site of Shenzhen HUAK Testing Technology Co , LTD . EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration NO.: 7631A on March, 2011.

##### FCC-Registration No.: 338263

Shenzhen HUAK Testing Technology Co , LTD . EMC Laboratory 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. Registration 338263, March 24, 2008.

#### 3.3. Environmental conditions

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

|                       |                     |
|-----------------------|---------------------|
| Temperature:          | <u>15-35 ° C</u>    |
| Humidity:             | <u>30-60 %</u>      |
| Atmospheric pressure: | <u>950-1050mbar</u> |

#### 3.4. Test Description

| Emission Measurement                     |                                           |      |
|------------------------------------------|-------------------------------------------|------|
| Magnetic Field Emission<br>(0.009~30MHz) | EN IEC 55015:2019+A11:2020                | PASS |
| Conducted Disturbance                    | EN IEC 55015:2019+A11:2020                | N/A  |
| Radiation Emission(30~300MHz)            | EN IEC 55015:2019+A11:2020                | PASS |
| Harmonic Current                         | EN IEC 61000-3-2:2019+A2:2024             | N/A  |
| Voltage Fluctuation and Flicker          | EN 61000-3-3:2013+A2:2021+AC:2022-01      | N/A  |
| Immunity Measurement                     |                                           |      |
| Electrostatic Discharge                  | EN IEC 61547: 2023<br>EN 61000-4-2: 2009  | PASS |
| RF Field Strength Susceptibility         | EN IEC 61547: 2023<br>IEC 61000-4-3: 2020 | PASS |
| Electrical Fast Transient/Burst          | EN IEC 61547: 2023                        | N/A  |

|                                                    |                                                         |     |
|----------------------------------------------------|---------------------------------------------------------|-----|
| Test                                               | IEC 61000-4-4: 2012                                     |     |
| Surge Test                                         | EN IEC 61547: 2023<br>IEC 61000-4-5:2014+A1:2017        | N/A |
| Conducted Susceptibility Test                      | EN IEC 61547: 2023<br>IEC 61000-4-6:2023                | N/A |
| Power Frequency Magnetic Field Susceptibility Test | EN IEC 61547: 2023<br>IEC 61000-4-8: 2009               | N/A |
| Voltage Dips and Interruptions Test                | EN IEC 61547: 2023<br>EN IEC 61000-4-11:2020+AC:2022-10 | N/A |

Remark: The measurement uncertainty is not included in the test result. N/A is Not Applicable.

### 3.5. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 „Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen Wuxiang Testing (Group) Co., Ltd quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for Wuxiang laboratory is reported:

| Test                    | Range         | Measurement Uncertainty | Notes |
|-------------------------|---------------|-------------------------|-------|
| Conducted Disturbance   | 0.15~30MHz    | 3.94dB                  | (1)   |
| Magnetic Field Emission | 9KHz to 30MHz | 3.48dB                  | (1)   |
| Radiation Emission      | 30~300MHz     | 4.14dB                  | (1)   |

- (1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

**3.6. Equipments Used during the Test**

| Conducted Susceptibility (CS) : |                                    |              |            |               |           |
|---------------------------------|------------------------------------|--------------|------------|---------------|-----------|
| Item                            | Test Equipment                     | Manufacturer | Model No.  | Serial No.    | Last Cal. |
| 1                               | Conducted Disturbances test system | SCHLODER     | CDG 6000   | N/A           | 2025/06   |
| 2                               | Amplifier                          | SCHLODER     | 4N100W-6DB | N/A           | 2025/06   |
| 3                               | Dual Directional Coupler           | AR           | DC2600     | 302389        | 2025/06   |
| 4                               | 6db Attenuator                     | EMTEST       | ATT6/75    | 0010230A      | 2025/06   |
| 5                               | EM CLAMP                           | LÜTHI        | EM101      | 335625        | 2025/06   |
| 6                               | CDN                                | SCHLODER     | CDN M2+M3  | A2210225/2013 | 2025/06   |

| Harmonic Current/ Voltage Fluctuation and Flicker |                               |              |           |            |           |
|---------------------------------------------------|-------------------------------|--------------|-----------|------------|-----------|
| Item                                              | Test Equipment                | Manufacturer | Model No. | Serial No. | Last Cal. |
| 1                                                 | Purified Power Source         | MToni        | PHF 5010  | N/A        | 2025/06   |
| 2                                                 | Harmonic And Flicker Analyzer | Voltech      | PM6000    | N/A        | 2025/06   |

| Radiated Emission |                         |                      |                    |              |           |
|-------------------|-------------------------|----------------------|--------------------|--------------|-----------|
| Item              | Test Equipment          | Manufacturer         | Model No.          | Serial No.   | Last Cal. |
| 1                 | ULTRA-BROADBAND ANTENNA | Sunol Sciences Corp. | JB1 Antenna        | A061713      | 2025/06   |
| 2                 | EMI TEST RECEIVER       | ROHDE & SCHWARZ      | ESPI               | 1164.6407.07 | 2025/06   |
| 3                 | RF TEST PANEL           | ROHDE & SCHWARZ      | TS / RSP           | 335015/ 0017 | 2025/06   |
| 4                 | Controller              | EM Electronics       | Controller EM 1000 | N/A          | 2025/06   |
| 5                 | EMI TEST SOFTWARE       | ROHDE & SCHWARZ      | ESK1               | N/A          | 2025/06   |

| Conducted Emission |                   |                 |           |              |           |
|--------------------|-------------------|-----------------|-----------|--------------|-----------|
| Item               | Test Equipment    | Manufacturer    | Model No. | Serial No.   | Last Cal. |
| 1                  | EMI Test Receiver | ROHDE & SCHWARZ | ESCI      | 1166.5950.03 | 2025/06   |
| 2                  | LISN              | ROHDE & SCHWARZ | ENV216    | 101034       | 2025/06   |
| 4                  | EMI Test Software | ROHDE & SCHWARZ | ESK1      | N/A          | 2025/06   |

| RF Field Strength Susceptibility |                          |              |           |            |           |
|----------------------------------|--------------------------|--------------|-----------|------------|-----------|
| Item                             | Test Equipment           | Manufacturer | Model No. | Serial No. | Last Cal. |
| 1                                | SIGNAL GENERATOR         | IFR          | 2032      | 203002/100 | 2025/06   |
| 2                                | AMPLIFIER                | AR           | 150W1000  | 301584     | 2025/06   |
| 3                                | DUAL DIRECTIONAL COUPLER | AR           | DC6080    | 301508     | 2025/06   |
| 4                                | POWER HEAD               | AR           | PH2000    | 301193     | 2025/06   |
| 5                                | POWER METER              | AR           | PM2002    | 302799     | 2025/06   |

| Electrical Fast Transient/Surge/Dips |                         |              |           |            |           |
|--------------------------------------|-------------------------|--------------|-----------|------------|-----------|
| Item                                 | Test Equipment          | Manufacturer | Model No. | Serial No. | Last Cal. |
| 1                                    | Ultra Compact Simulator | HAEFELY      | ECOMPACT4 | 174887     | 2025/06   |

| Electrostatic Discharge |                |              |           |            |           |
|-------------------------|----------------|--------------|-----------|------------|-----------|
| Item                    | Test Equipment | Manufacturer | Model No. | Serial No. | Last Cal. |
| 1                       | ESD Simulator  | SKYLARK      | ESD-2000  | 0220K10251 | 2025/06   |

| Magnetic Field Emission |                     |                 |           |              |           |
|-------------------------|---------------------|-----------------|-----------|--------------|-----------|
| Item                    | Test Equipment      | Manufacturer    | Model No. | Serial No.   | Last Cal. |
| 1                       | EMI Test Receiver   | ROHDE & SCHWARZ | ESCI      | 1166.5950.03 | 2025/06   |
| 2                       | Triple-Loop Antenna | EVERFINE        | LLA-2     | 1008002      | 2025/06   |
| 4                       | EMI Test Software   | ROHDE & SCHWARZ | ESK1      | N/A          | 2025/06   |

| Power Frequency Magnetic Field Susceptibility |                                  |              |           |            |           |
|-----------------------------------------------|----------------------------------|--------------|-----------|------------|-----------|
| Item                                          | Test Equipment                   | Manufacturer | Model No. | Serial No. | Last Cal. |
| 1                                             | ULTRA COMPACT SIMULATOR          | EM TEST      | UCS500M6  | 202304/060 | 2025/06   |
| 2                                             | MOTOR DRIVEN VOLTAGE TRANSFORMER | EM TEST      | MV2616    | 302205     | 2025/06   |
| 3                                             | CURRENT TRANSFORMER              | EM TEST      | MC2630    | 302389     | 2025/06   |
| 4                                             | MAGNETIC COIL                    | EM TEST      | MS100     | 0010230A   | 2025/06   |

## 4. TEST CONDITIONS AND RESULTS

### 4.1. Magnetic Field Emission

For test instruments and accessories used see section 3.6.

#### 4.1.1. Description of the test location

Test location: Shielded room No. 1

#### 4.1.2. Limits of disturbance

| Frequency (MHz) | Limit For Loop Diameter of 2m (dB $\mu$ A) |
|-----------------|--------------------------------------------|
| 9K~70K          | 88                                         |
| 70K~150K        | 88 ~58                                     |
| 150K~2.2M       | 58~26                                      |
| 2.2M~3.0M       | 58                                         |
| 3.0M~30M        | 22                                         |

Note: (1) The tighter limit shall apply at the edge between two frequency bands.

(2) Distance refers to the distance in meters between the test instrument antenna and the closest point of any part of the E.U.T.

#### 4.1.3. Description of the test set-up

##### 4.1.3.1. Operating Condition

The EUT is ON during the test, and the results of the maximum emanation are recorded.

##### 4.1.3.2. Test Configuration and Procedure

EUT is placed in the center of triple-loop antenna (Diameter is 2m). Turn on the neon sign, and then the induced current in the loop antenna can be detected by a current probe and measured by the receiver. Three field directions shall be measured in sequence.

#### 4.1.4. Test result

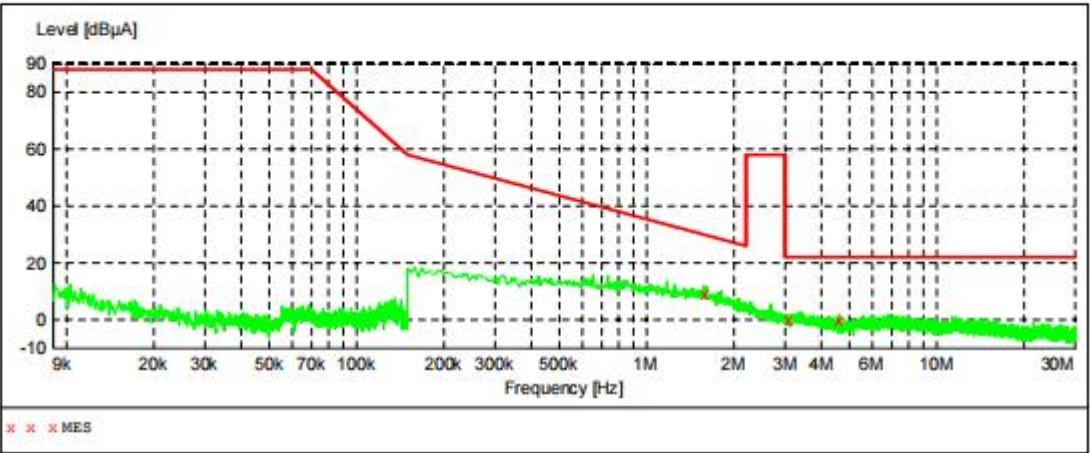
The requirements are **Fulfilled**

Band Width: 200Hz / 9KHz

Frequency Range: 9KHz to 150KHz / 150KHz to 30MHz

**Remarks:** The limits are kept. For detailed results, please see the following page(s).

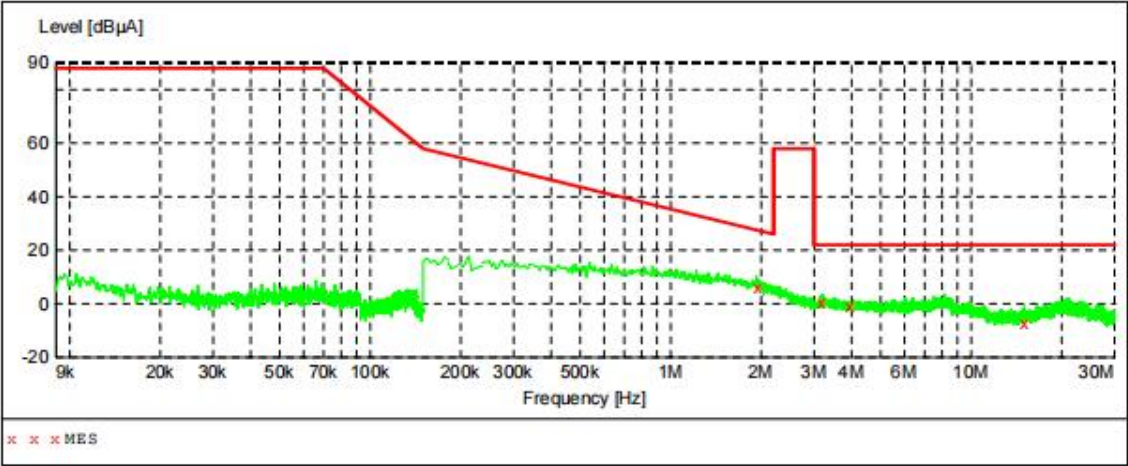
SCAN TABLE: "Magnetic test fin"  
Short Description: EN55015 Triple Loop



MEASUREMENT RESULT:

| Frequency<br>MHz | Level<br>dBµA | Transd<br>dB | Limit<br>dBµA | Margin<br>dB | Det. | Loop | Azimuth<br>deg |
|------------------|---------------|--------------|---------------|--------------|------|------|----------------|
| 1.612500         | 8.30          | 0.0          | 30            | 21.7         | QP   | X    | 0.00           |
| 3.102000         | -1.10         | 0.0          | 22            | 23.1         | QP   | X    | 0.00           |
| 4.650000         | -0.10         | 0.0          | 22            | 22.1         | QP   | X    | 0.00           |
| 14.050500        | -7.40         | 0.0          | 22            | 29.4         | QP   | X    | 0.00           |

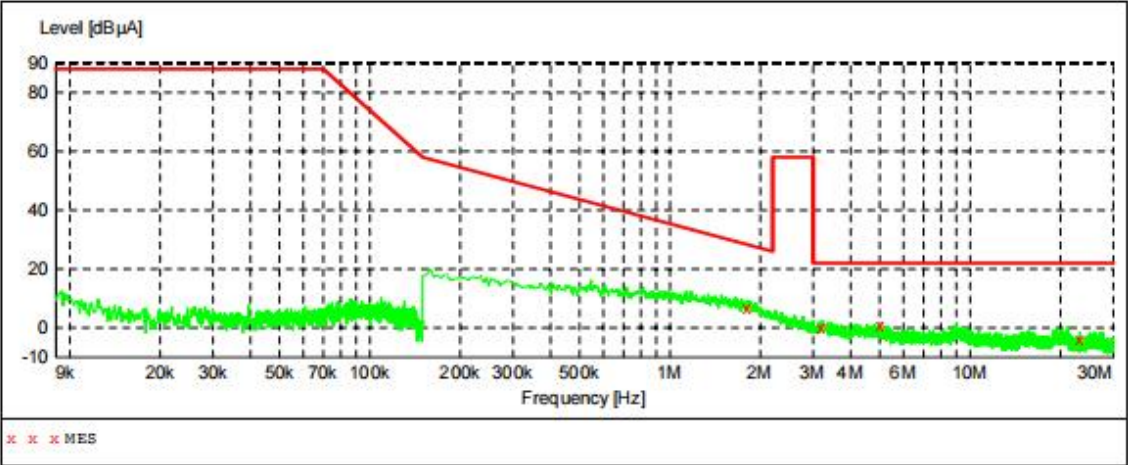
SCAN TABLE: "Magnetic test fin"  
Short Description: EN55015 Triple Loop



MEASUREMENT RESULT:

| Frequency<br>MHz | Level<br>dBμA | Transd<br>dB | Limit<br>dBμA | Margin<br>dB | Det. | Loop | Azimuth<br>deg |
|------------------|---------------|--------------|---------------|--------------|------|------|----------------|
| 1.950000         | 5.90          | 0.0          | 27            | 21.1         | QP   | Y    | 0.00           |
| 3.192000         | 2.00          | 0.0          | 22            | 20.0         | QP   | Y    | 0.00           |
| 3.957000         | -0.40         | 0.0          | 22            | 22.4         | QP   | Y    | 0.00           |
| 15.112500        | -7.40         | 0.1          | 22            | 29.4         | QP   | Y    | 0.00           |

SCAN TABLE: "Magnetic test fin"  
Short Description: EN55015 Triple Loop



MEASUREMENT RESULT:

| Frequency<br>MHz | Level<br>dBµA | Transd<br>dB | Limit<br>dBµA | Margin<br>dB | Det. | Loop | Azimuth<br>deg |
|------------------|---------------|--------------|---------------|--------------|------|------|----------------|
| 1.828500         | 5.20          | 0.0          | 28            | 22.8         | QP   | Z    | 0.00           |
| 3.214500         | 0.00          | 0.0          | 22            | 22.0         | QP   | Z    | 0.00           |
| 5.041500         | -0.10         | 0.0          | 22            | 22.1         | QP   | Z    | 0.00           |
| 23.199000        | -4.80         | 0.1          | 22            | 26.8         | QP   | Z    | 0.00           |

## 4.2. Conducted disturbance

The test is not applicable.

## 4.3. Radiation Emission

For test instruments and accessories used see section 3.6.

### 4.3.1. Description of the test location

Test location: Shielded room No. 2

### 4.3.2. Limit of Radiation Emission

Test configuration and procedure see the standard EN IEC 55015:2019+A11:2020

### 4.3.3. Description of the test set-up

#### 4.3.3.1 Operating Condition

The EUT is ON during the test, and the results of the maximum emanation are recorded.

#### 4.3.3.2 Test Configuration and Procedure

Test configuration and procedure see the standard EN IEC 55015:2019+A11:2020

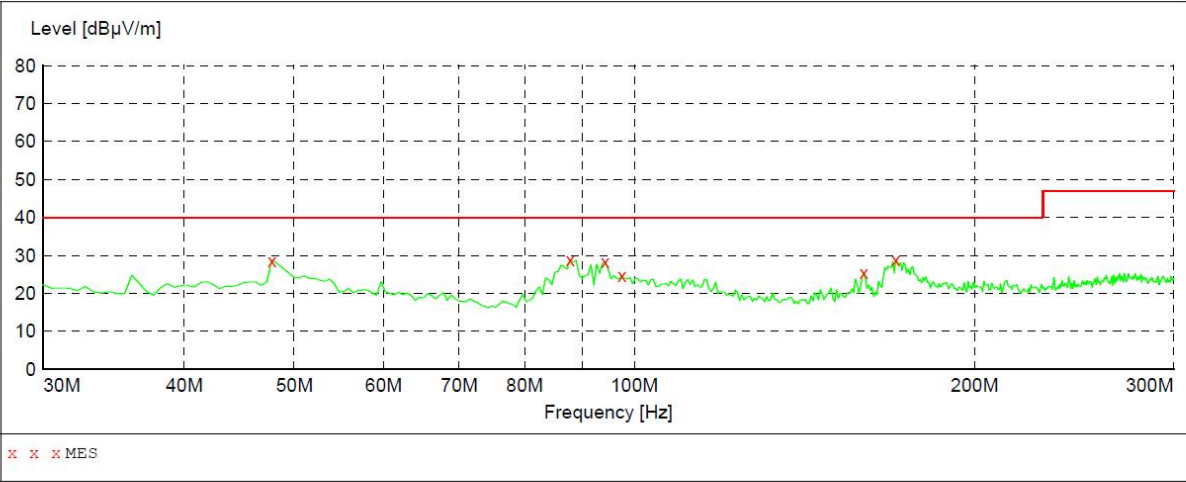
### 4.3.4. Test Result

The requirements are **Fulfilled**

**Remarks:** The limits are kept. For detailed results, please see the following page(s).

***SWEEP TABLE: "test (30M-1G)"***

|                    |           |                |         |         |              |
|--------------------|-----------|----------------|---------|---------|--------------|
| Short Description: |           | Field Strength |         |         |              |
| Start              | Stop      | Detector       | Meas.   | IF      | Transducer   |
| Frequency          | Frequency |                | Time    | Bandw.  |              |
| 30.0 MHz           | 1.0 GHz   | MaxPeak        | Coupled | 100 kHz | VULB9163 NEW |

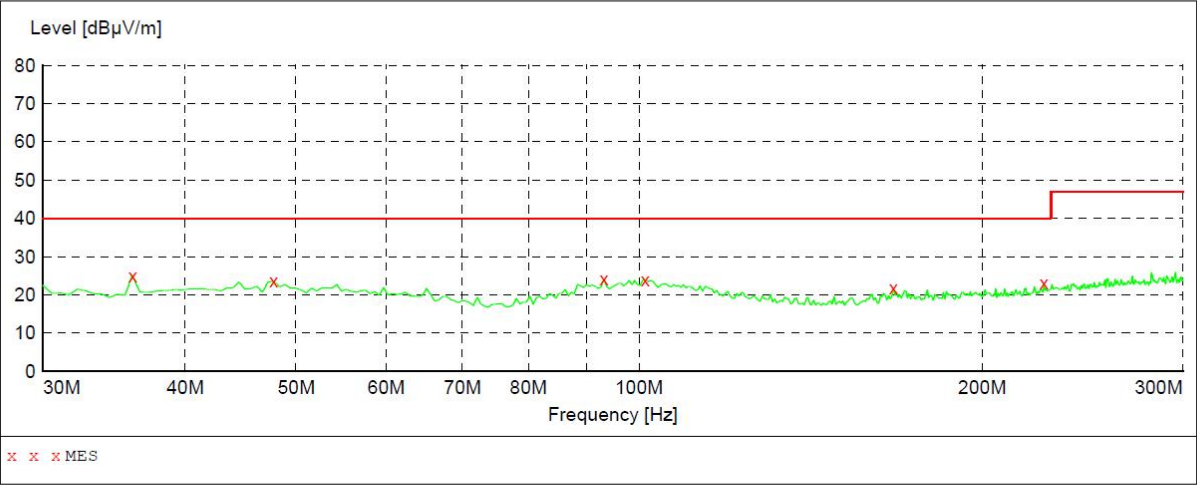


***MEASUREMENT RESULT:***

| Frequency<br>MHz | Level<br>dBµV/m | Transd<br>dB | Limit<br>dBµV/m | Margin<br>dB | Det. | Height<br>cm | Azimuth<br>deg | Polarization |
|------------------|-----------------|--------------|-----------------|--------------|------|--------------|----------------|--------------|
| 47.820000        | 28.80           | 15.8         | 40.0            | 11.2         | ---  | 100.0        | 0.00           | VERTICAL     |
| 87.780000        | 29.00           | 15.3         | 40.0            | 11.0         | ---  | 100.0        | 0.00           | VERTICAL     |
| 94.260000        | 28.30           | 16.9         | 40.0            | 11.7         | ---  | 100.0        | 0.00           | VERTICAL     |
| 97.500000        | 24.80           | 17.3         | 40.0            | 15.2         | ---  | 100.0        | 0.00           | VERTICAL     |
| 159.600000       | 25.60           | 12.7         | 40.0            | 14.4         | ---  | 100.0        | 0.00           | VERTICAL     |
| 170.400000       | 29.00           | 13.1         | 40.0            | 11.0         | ---  | 100.0        | 0.00           | VERTICAL     |

**SWEEP TABLE: "test (30M-1G)"**

|                    |           |                |         |         |              |
|--------------------|-----------|----------------|---------|---------|--------------|
| Short Description: |           | Field Strength |         |         |              |
| Start              | Stop      | Detector       | Meas.   | IF      | Transducer   |
| Frequency          | Frequency |                | Time    | Bandw.  |              |
| 30.0 MHz           | 1.0 GHz   | MaxPeak        | Coupled | 100 kHz | VULB9163 NEW |



**MEASUREMENT RESULT:**

| Frequency<br>MHz | Level<br>dBµV/m | Transd<br>dB | Limit<br>dBµV/m | Margin<br>dB | Det. | Height<br>cm | Azimuth<br>deg | Polarization |
|------------------|-----------------|--------------|-----------------|--------------|------|--------------|----------------|--------------|
| 35.940000        | 25.10           | 14.7         | 40.0            | 14.9         | ---  | 300.0        | 0.00           | HORIZONTAL   |
| 47.820000        | 23.60           | 15.8         | 40.0            | 16.4         | ---  | 100.0        | 0.00           | HORIZONTAL   |
| 93.180000        | 24.20           | 16.7         | 40.0            | 15.8         | ---  | 100.0        | 0.00           | HORIZONTAL   |
| 101.280000       | 24.00           | 17.4         | 40.0            | 16.0         | ---  | 100.0        | 0.00           | HORIZONTAL   |
| 167.160000       | 21.80           | 13.0         | 40.0            | 18.2         | ---  | 300.0        | 0.00           | HORIZONTAL   |
| 226.560000       | 23.00           | 15.9         | 40.0            | 17.0         | ---  | 300.0        | 0.00           | HORIZONTAL   |

#### 4.4. Harmonic current

The test is not applicable.

#### 4.5. Voltage Fluctuation and Flicker

The test is not applicable.

#### 4.6. Electrostatic discharge

For test instruments and accessories used see section 3.6.

##### 4.6.1. Description of the test location and date

Test location: Shielded room No. 3

Date of test: August 12, 2025

Operator: Andy

##### 4.6.2. Severity levels of electrostatic discharge

4.6.2.1. Severity level: Contact Discharge at  $\pm 4\text{KV}$  Air Discharge at  $\pm 8\text{KV}$

| Level | Test Voltage<br>Contact Discharge (KV) | Test Voltage<br>Air Discharge (KV) |
|-------|----------------------------------------|------------------------------------|
| 1     | 2                                      | 2                                  |
| 2     | 4                                      | 4                                  |
| 3     | 6                                      | 8                                  |
| 4     | 8                                      | 15                                 |
| X     | Special                                | Special                            |

4.6.2.2. Performance criterion: **B**

##### 4.6.3. Description of the test set-up

###### 4.6.3.1. Operating Condition

The EUT is ON during the test, and the results of the maximum susceptible results are recorded.

###### 4.6.3.2. Test Configuration and Procedure:

Direct Discharge:

Air Discharge:

—This test is done on a non-conductive surfaces. The round discharge tip of the Electrostatic Discharge simulator shall be approached as fast as possible then to touch the EUT. After each discharge, the simulator shall be removed from the EUT. The simulator is then re-triggered for a new single discharge and repeated 10 times for each pre-selected test point. This procedure shall be repeated until all the air discharge completed

Contact Discharge:

—All the procedure shall be same as air discharge, except using the acute discharge tip. The top end of the Electrostatic Discharge simulator is touch the EUT all the time when the simulator is re-triggered for a new single discharge and repeated 10 times for each pre-selected test point.

Indirect Discharge:

—The vertical coupling plane(VCP) is placed 0.1m away from EUT. The top end of Electrostatic Discharge simulator should aim at the center of one border of the VCP for at least 10 times discharge.

—The top end of Electrostatic Discharge simulator should place at the point 0.1m away from EUT on the horizontal coupling plane(HCP). At least 10 times discharge should be done for every pre-selected point

around EUT.

Record any performance degradation of the EUT during the test and judge the test result according to nce criterion.

#### 4.6.4. Test specification:

Contact discharge voltage:

☒ 2 kV ☒ 4 kV

Air discharge voltage:

☒ 2 kV ☒ 4 kV ☒ 8 kV

Number of discharges:

☒ 10 ☐ 25

Type of discharge:

Direct discharge ☒ Air discharge  
Indirect discharge ☒ Contact discharge  
☒ Contact discharge

Polarity:

☒ Positive ☒ Negative

Discharge location:

☒ all external locations accessible by hand  
☒ horizontal coupling plane (HCP)  
☒ vertical coupling plane (VCP)

#### 4.6.5. Test result

The requirements are **Fulfilled**

Performance Criterion: **B**

**Remarks:** During the test no deviation was detected to the selected operation mode(s).

## 4.7. Radiated, radio-frequency, electromagnetic field

For test instruments and accessories used see section 3.6.

### 4.7.1. Description of the test location and date

Test location: Shielded room No. 2

Date of test: August 14, 2025

Operator: Andy

### 4.7.2. Severity levels of radiated, radio-frequency, electromagnetic field

4.7.2.1 Severity level: 3 V/m

| Level | Field Strength (V/m) |
|-------|----------------------|
| 1.    | 1                    |
| 2.    | 3                    |
| 3.    | 10                   |
| X     | Special              |

4.7.2.2 Performance criterion: A

### 4.7.3. Description of the test set-up

4.7.3.1. Operating Condition

The EUT is ON during the test, and the results of the maximum susceptible results are recorded.

4.7.3.2. Test Configuration and Procedure

EUT is placed on a table which is 0.8 meter above ground. The center of the transmitting antenna mounted on an antenna mast is set 3 meter away from the EUT. During the test, each of four sides of EUT will face the transmitting antenna with the turntable cycled. Both horizontal and vertical polarization of the antenna are set on test and measured individually.

In order to judge the performance of the EUT, a set of monitor system is used.

Record any performance degradation of the EUT during the test and judge the test result according to performance criterion.

### 4.7.4. Test specification:

Frequency range:

■ 80 MHz to 1000 MHz

Field strength:

■ 3 V/m

EUT - antenna separation:

■ 3 m

Modulation:

■ AM: 80 %  
■ sinusoidal 1000Hz

Frequency step:

■ 1 % with 3 s dwell time

Antenna polarisation:

■ horizontal                      ■ vertical

### 4.7.5. Test result

Shenzhen Wuxiang Testing (Group) Co., Ltd.

Web: www.szcttlab.com Tel: 86-755-23325012 E-mail: ctt@szcttlab.com

The requirements are **Fulfilled**

Performance Criterion: **A**

**Remarks:** During the test no deviation was detected to the selected operation mode(s).

**4.8. Electrical fast transients / Burst**

The test is not applicable.

**4.9. Surge**

The test is not applicable.

**4.10. Conducted disturbances induced by radio-frequency fields**

The test is not applicable.

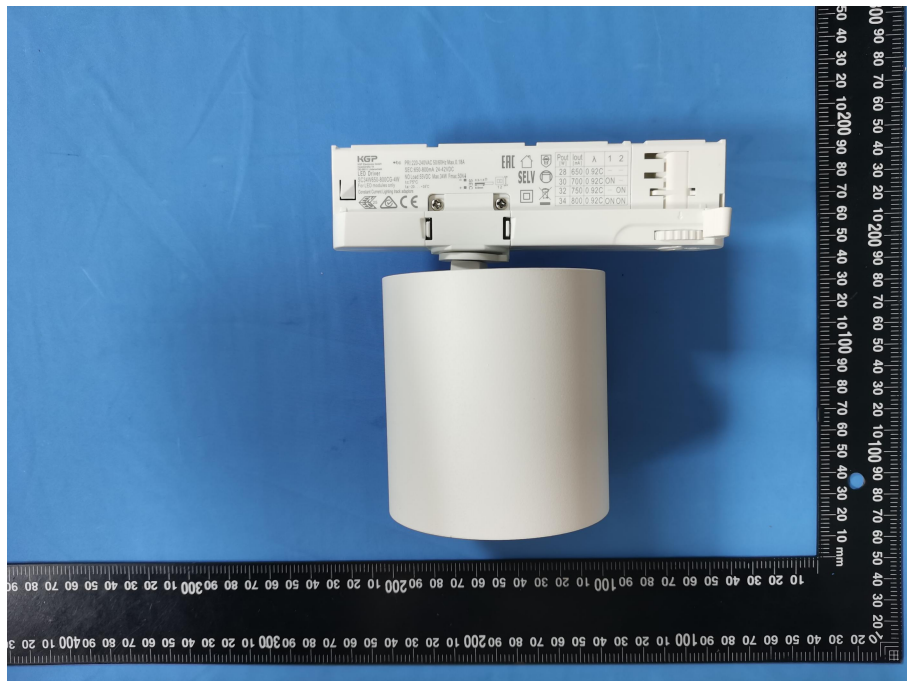
**4.11. Magnetic Field Immunity**

The test is not applicable.

**4.12. Voltage Dips and Interruptions**

The test is not applicable.

## 5. Photos of the EUT







.....End of Report.....