



## **EMC TEST REPORT For**

**YJK Technology(SHENZHEN) Co.,Limited**

**Heating Massage Blade**

Model No. : YJK152

Prepared for : YJK Technology(SHENZHEN) Co.,Limited

Address : Room 502, No. 1, East Longxing Science and Technology Park,  
Huaning Road, Xinshi Community, Dalang Street, Longhua  
District, Shenzhen

Prepared By : Guangdong Lintek Certification Group Co., Ltd.

Address : Room 318, No.116-2, Guanlan Road, Fucheng Street, Longhua  
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## TEST REPORT DECLARATION

Applicant : YJK Technology(SHENZHEN) Co.,Limited  
Room 502, No. 1, East Longxing Science and Technology Park,  
Huaning Road, Xinshi Community, Dalang Street, Longhua  
District, Shenzhen

Manufacturer : YJK Technology(SHENZHEN) Co.,Limited  
Room 502, No. 1, East Longxing Science and Technology Park,  
Huaning Road, Xinshi Community, Dalang Street, Longhua  
District, Shenzhen

EUT Description : Heating Massage Blade

(A) Model No. : YJK152

(B) Trademark : N/A

(C) Ratings Supply : 5Vdc 1A

(D) Test Voltage : 5Vdc

Measurement Standard Used:

EN IEC 55014-1:2021,

EN IEC 55014-2:2021,

EN IEC 61000-3-2:2019+A1:2021+A2:2024,

EN 61000-3-3:2013+A2:2021+AC:2022-01

The device described above is tested by Guangdong Lintek Certification Group Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Guangdong Lintek Certification Group Co., Ltd. is assumed full responsibility for the accuracy and completeness of test. Also, this report shows that the EUT is technically compliant with the EN IEC 55014, EN IEC 61000-3-2, EN 61000-3-3 requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Guangdong Lintek Certification Group Co., Ltd.

Tested by (name + signature).....:

Sunny Yuan  
Test Engineer

Approved by (name + signature).....:

Eric Chen  
Project Manager

Date of issue.....:

Oct. 22, 2024





## 1. SUMMARY OF STANDARDS AND RESULTS

### 1.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

| EMISSION (EN IEC 55014-1:2021)                    |                                       |         |
|---------------------------------------------------|---------------------------------------|---------|
| Description of Test Item                          | Standard                              | Results |
| Conducted disturbance at mains terminals          | EN IEC 55014-1:2021                   | N/A     |
| Clicks measurement                                | EN IEC 55014-1:2021                   | N/A     |
| Disturbance Power                                 | EN IEC 55014-1:2021                   | PASS    |
| Radiated disturbance                              | EN IEC 55014-1:2021                   | N/A     |
| Harmonic current emissions                        | EN IEC 61000-3-2:2019+A1:2021+A2:2024 | N/A     |
| Voltage fluctuations & flicker                    | EN 61000-3-3:2013+A2:2021+AC:2022-01  | N/A     |
| IMMUNITY (EN IEC 55014-2:2021)                    |                                       |         |
| Description of Test Item                          | Basic Standard                        | Results |
| Electrostatic discharge (ESD)                     | EN 61000-4-2:2009                     | PASS    |
| Radio-frequency, Continuous radiated disturbance  | EN IEC 61000-4-3:2020                 | PASS    |
| Electrical fast transient (EFT)                   | EN 61000-4-4: 2012                    | N/A     |
| Surge (Input a.c. power ports)                    | EN 61000-4-5:2014+A1: 2017            | N/A     |
| Radio-frequency, Continuous conducted disturbance | EN 61000-4-6:2014+AC:2015             | N/A     |
| Voltage dips, 60% reduction                       | EN IEC 61000-4-11:2020                | N/A     |
| Voltage dips, 30% reduction                       |                                       | N/A     |
| Voltage interruptions                             |                                       | N/A     |
| N/A is an abbreviation for Not Applicable.        |                                       |         |



## 1.2.Description of Performance Criteria

### **General Performance Criteria**

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.

#### 1.2.1.Performance criterion A

The equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a performance level specified by the manufacture when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derive from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

#### 1.2.2.Performance criterion B

After the test, the equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomena below a performance level specified by the manufacture, when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance.

During the test, degradation of performance is allowed. However, no change of operation state or stored data is allowed to persist after the test.

If the minimum performance level (or the permissible performance loss) is not specified by the manufacturer, then either of these may be derive from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

#### 1.2.3.Performance criterion C

Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacture's instructions.

Functions, and/or information stored in non-volatile memory, or protected by a battery backup, shall not be loss.



## 2. GENERAL INFORMATION

### 2.1. Description of Device (EUT)

Description : Heating Massage Blade

Classification : Class III

Model Number : YJK152

DIFF. : N/A

Trademark : N/A

Applicant : YJK Technology(SHENZHEN) Co.,Limited  
Address : Room 502, No. 1, East Longxing Science and Technology  
Park, Huaning Road, Xinshi Community, Dalang Street,  
Longhua District, Shenzhen

Manufacturer : YJK Technology(SHENZHEN) Co.,Limited  
Address : Room 502, No. 1, East Longxing Science and Technology  
Park, Huaning Road, Xinshi Community, Dalang Street,  
Longhua District, Shenzhen

Sample Type : Prototype production



## 2.2. Test Facility

EMC Lab. : Guangdong Lintek Certification Group Co., Ltd.  
No.116-2, Guanlan Road, Fucheng Street, Longhua District,  
Shenzhen, Guangdong, China

## 2.3. 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 LCS 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.

## 2.4. Measurement Uncertainty

| Test Item              |   | Frequency Range | Uncertainty | Note |
|------------------------|---|-----------------|-------------|------|
| Radiation Uncertainty  | : | 30MHz~200MHz    | ±2.96dB     | (1)  |
|                        | : | 200MHz~1000MHz  | ±3.10dB     | (1)  |
| Conduction Uncertainty | : | 150kHz~30MHz    | ±1.63dB     | (1)  |
| Power disturbance      | : | 30MHz~300MHz    | ±1.60dB     | (1)  |

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

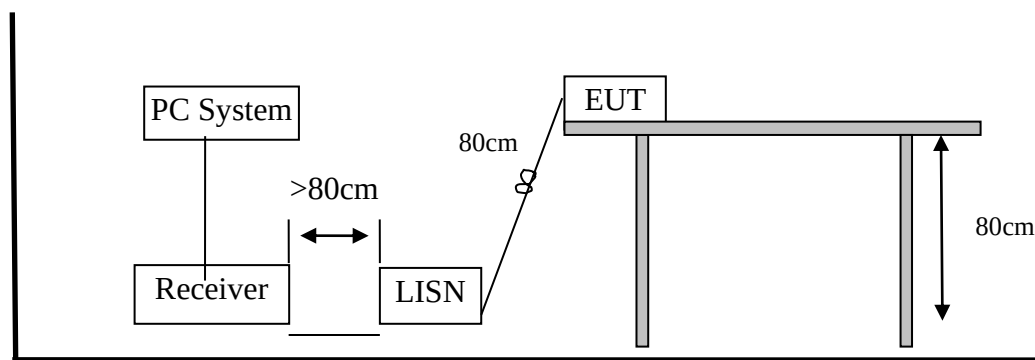


### 3.CONDUCTED DISTURBANCE AT MAINS TERMINALS TEST

#### 3.1Test Equipments

| Item | Equipment      | Manufacturer    | Model No. | Serial No. | Last Cal.  | Cal. Interval |
|------|----------------|-----------------|-----------|------------|------------|---------------|
| 1.   | Test Receiver  | Rohde & Schwarz | ESCI      | 100873     | May 06, 24 | 1 Year        |
| 2.   | L.I.S.N.#1     | Schwarzbeck     | NSLK8126  | 8126-466   | May 06, 24 | 1 Year        |
| 3.   | RF Cable       | Schwarzbeck     | Cable 2   | 2M         | May 06, 24 | 1 Year        |
| 4.   | Coaxial Switch | Schwarzbeck     | CX-210    | N/A        | May 06, 24 | 1 Year        |
| 5.   | Pulse Limiter  | Schwarzbeck     | 9516F     | 9618       | May 06, 24 | 1 Year        |

#### 3.2Block Diagram of Test Setup



#### 3.3Conducted Disturbance at Mains Terminals Test Standard and Limit

##### 1.1.1.Test Standard

EN IEC 55014-1, Class B

##### 1.1.2.Test Limit

| Frequency       | At mains terminals (dB $\mu$ V) |               |
|-----------------|---------------------------------|---------------|
|                 | Quasi-peak Level                | Average Level |
| 150kHz ~ 500kHz | 66 ~ 56 *                       | 56 ~ 46 *     |
| 500kHz ~ 5MHz   | 56                              | 46            |
| 5MHz ~ 30MHz    | 60                              | 50            |

Notes: 1. Emission level=Read level+LISN factor-Preamp factor+Cable loss

2\* Decreasing linearly with logarithm of frequency.

3. The lower limit shall apply at the transition frequencies.

#### 3.4EUT Configuration on Test

The following equipments are installed on conducted disturbance at mains



terminals to meet EN IEC 55014-1 requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

### 3.5 Operating Condition of EUT

1.1.3. Setup the EUT as shown in section 3.2.

1.1.4. Turned on the power of all equipments.

1.1.5. Let the EUT worked in test mode 15 minutes after taking the test.

### 3.6 Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power connected to the power mains through a line impedance stabilization network (L.I.S.N. #1). The power line was checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to EN IEC 55014-1 on Conducted Disturbance at Mains Terminals test.

The bandwidth of test receiver (R & S ESCI) is set at 10kHz.

The frequency range from 150kHz to 30MHz is checked. The test result are reported on Section 3.7.

### 3.7 Conducted Disturbance at Mains Terminals Test Results

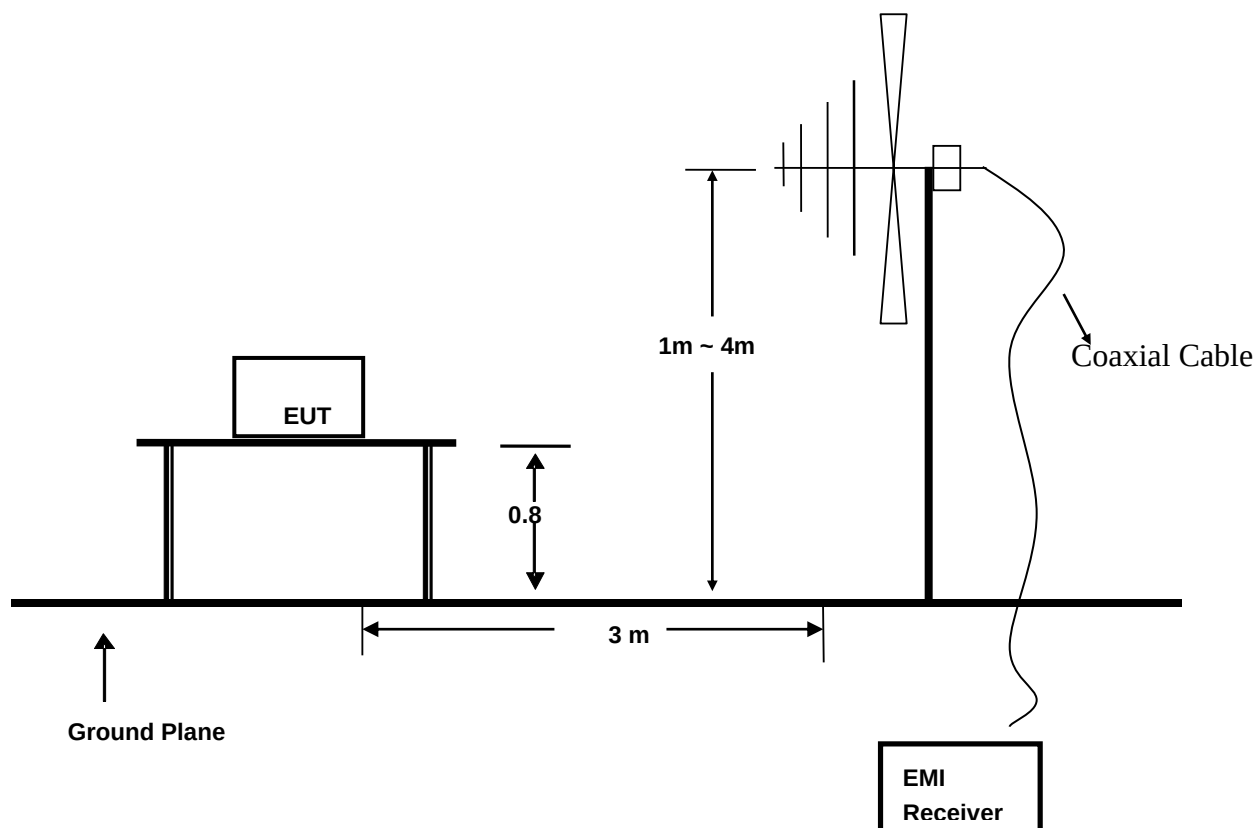
N/A

## 4. RADIATED EMISSION MEASUREMENT

### 4.1 Test Equipments

| Item | Equipment         | Manufacturer  | Model No.   | Serial No.        | Last Cal.  | Cal. Interval |
|------|-------------------|---------------|-------------|-------------------|------------|---------------|
| 1    | Test Receiver     | Rohde&Schwarz | ESCI        | 101165            | May 06, 24 | 1 Year        |
| 2    | Amplifier         | Quietek       | AP/0100A    | 0506005           | May 06, 24 | 1 Year        |
| 3    | Coaxial Switch    | ANRITSUCORP   | MP5913      | 6200615651        | N/A        | N/A           |
| 4    | Bilog Antenna     | Schwarzbeck   | VULB 9168   | 9168-438          | May 06, 24 | 1 Year        |
| 5    | Spectrum Analyzer | Agilent       | E4407B      | MY49510055        | May 06, 24 | 1 Year        |
| 6    | Horn Antenna      | Schwarzbeck   | BBHA 9120 D | BBHA 9120 D(1201) | May 06, 24 | 1 Year        |
| 7    | Amplifier         | Quietek       | AP-180C     | CHM-0602012       | May 06, 24 | 1 Year        |

### 4.2. Block Diagram of Test Setup





### 4.3. Test Standard

EN IEC 55014-1

### 4.4. Radiated Emission Limits

| FREQUENCY<br>(MHz) | DISTANCE<br>(Meters) | FIELD STRENGTHS LIMIT<br>(dB $\mu$ V/m) |
|--------------------|----------------------|-----------------------------------------|
| 30-230             | 3                    | 40                                      |
| 230-1000           | 3                    | 47                                      |

Note: (1) The smaller limit shall apply at the combination point between two frequency bands.  
(2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the EUT.

### 4.5. EUT Configuration on Test

The EN IEC 55014 regulations test method must be used to find the maximum emission during radiated emission measurement.

### 4.6. Operating Condition of EUT

4.6.1. Turn on the power.

4.6.2. After that, let the EUT work in test mode (ON) and measure it.

### 4.7. Test Procedure

The EUT is placed on a turntable, which is 0.8 meter high above the ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. By-log antenna (calibrated by Dipole Antenna) is used as a receiving antenna. Both horizontal and vertical polarization of the antenna is set on test.

The bandwidth of the Receiver is set at 120kHz.

The frequency range from 30MHz to 1000MHz is investigated.



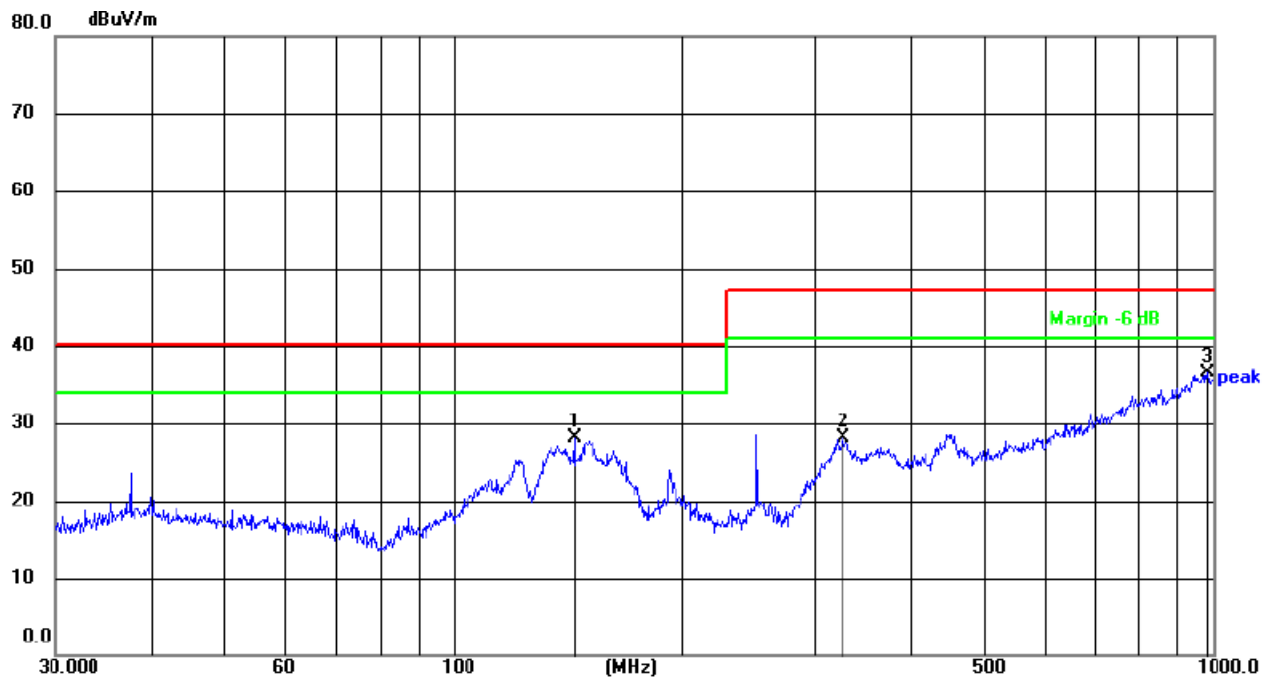
#### 4.8. Test Results

**PASS.**

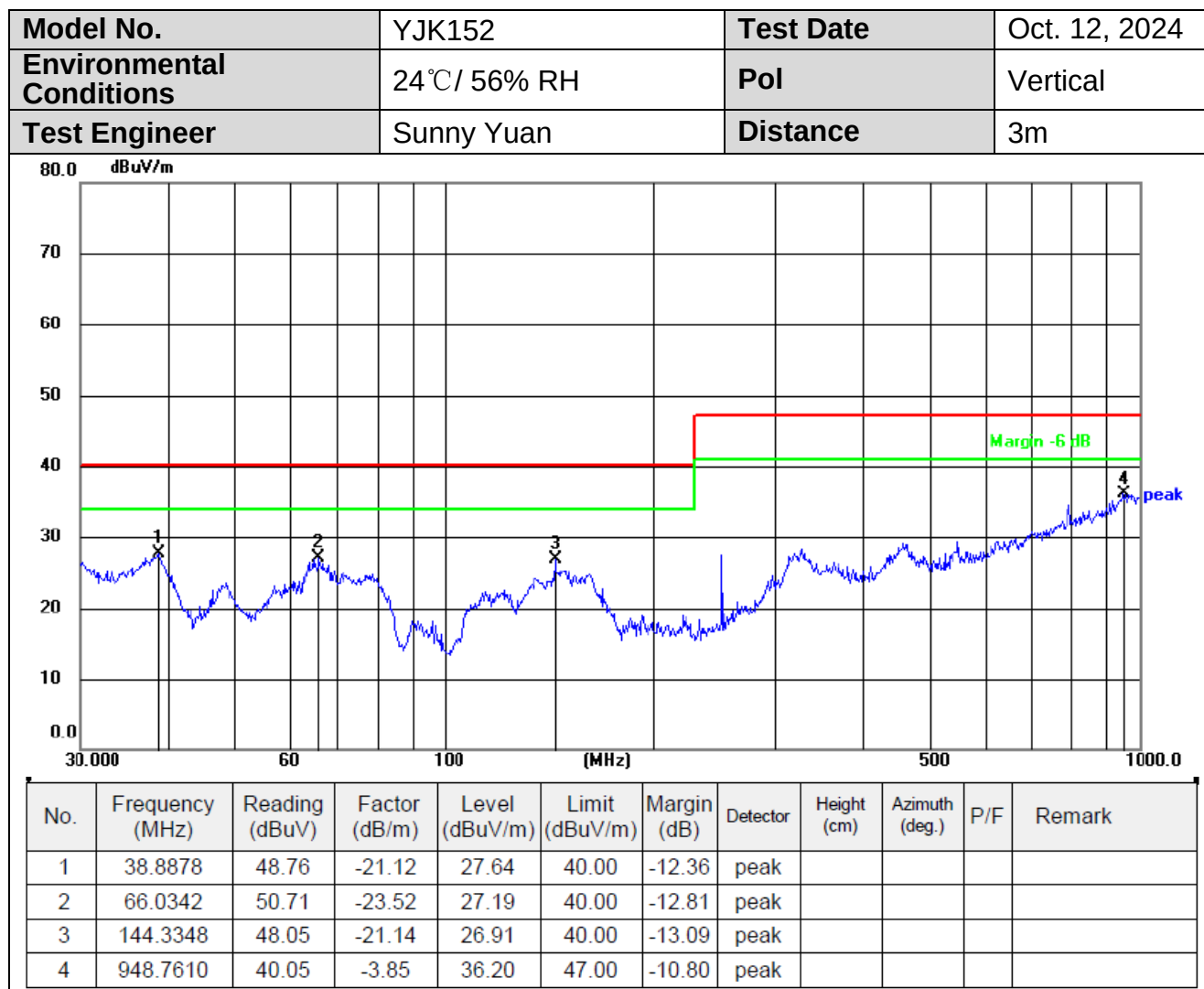
The scanning waveform please refer to the next page.



|                          |               |           |               |
|--------------------------|---------------|-----------|---------------|
| Model No.                | YJK152        | Test Date | Oct. 12, 2024 |
| Environmental Conditions | 24°C / 56% RH | Pol       | Horizontal    |
| Test Engineer            | Sunny Yuan    | Distance  | 3m            |



| No. | Frequency (MHz) | Reading (dBuV) | Factor (dB/m) | Level (dBuV/m) | Limit (dBuV/m) | Margin (dB) | Detector | Height (cm) | Azimuth (deg.) | P/F | Remark |
|-----|-----------------|----------------|---------------|----------------|----------------|-------------|----------|-------------|----------------|-----|--------|
| 1   | 144.3348        | 49.17          | -21.14        | 28.03          | 40.00          | -11.97      | peak     |             |                |     |        |
| 2   | 325.5958        | 47.39          | -19.29        | 28.10          | 47.00          | -18.90      | peak     |             |                |     |        |
| 3   | 982.6200        | 39.99          | -3.51         | 36.48          | 47.00          | -10.52      | peak     |             |                |     |        |

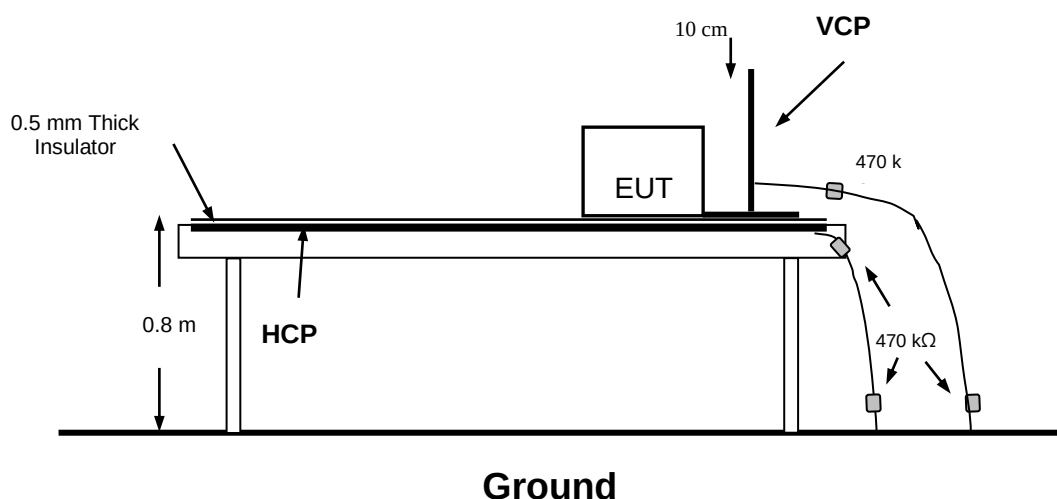


## 5. ELECTROSTATIC DISCHARGE IMMUNITY TEST

### 5.1 Test Equipments

| Item | Equipment  | Manufacturer | Model No. | Serial No. | Last Cal.  | Cal. Interval |
|------|------------|--------------|-----------|------------|------------|---------------|
| 1.   | ESD Tester | HAEFELY      | PESD1610  | H310546    | May 06, 24 | 1 Year        |

### 5.2. Block Diagram of Test Setup



### 5.3. Test Standard

EN IEC 55014 (EN 61000-4-2, Severity Level: 3 / Air Discharge:  $\pm 8\text{KV}$ , Level: 2 / Contact Discharge:  $\pm 4\text{KV}$ )

### 5.4. Severity Levels and Performance Criterion

#### 5.4.1. Severity level

| Level | Test Voltage Contact Discharge (KV) | Test Voltage Air Discharge (KV) |
|-------|-------------------------------------|---------------------------------|
| 1.    | $\pm 2$                             | $\pm 2$                         |
| 2.    | $\pm 4$                             | $\pm 4$                         |
| 3.    | $\pm 6$                             | $\pm 8$                         |
| 4.    | $\pm 8$                             | $\pm 15$                        |
| X     | Special                             | Special                         |





#### 5.4.2.Performance criterion: **B**

### 5.5.EUT Configuration on Test

The configuration of EUT are listed in Section 3.7.

### 5.6.Operating Condition of EUT

Same as conducted emission measurement, which is listed in Section 4.5 except the test set up replaced by Section 5.1.

### 5.7.Test Procedure

#### 5.7.1.Air Discharge

This test is done on a non-conductive surface. The round discharge tip of the discharge electrode shall be approached as fast as possible to touch the EUT. After each discharge, the discharge electrode shall be removed from the EUT. The generator 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.

#### 5.7.2.Contact Discharge

All the procedure shall be same as Section 5.6.1. except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

#### 5.7.3.Indirect Discharge For Horizontal Coupling Plane

At least 10 single discharges (in the most sensitive polarity) shall be applied at the front edge of each HCP opposite the center point of each unit (if applicable) of the EUT and 0.1m from the front of the EUT. The long axis of the discharge electrode shall be in the plane of the HCP and perpendicular to its front edge during the discharge.

#### 5.7.4.Indirect Discharge For Vertical Coupling Plane

At least 10 single discharges (in the most sensitive polarity) shall be applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, is placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges shall be applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.

### 5.8.Test Results

**PASS.**

Please refer to the next page.



## Electrostatic Discharger Test Results

|               |                                                                                         |             |               |
|---------------|-----------------------------------------------------------------------------------------|-------------|---------------|
| Standard      | <input type="checkbox"/> IEC 61000-4-2 <input checked="" type="checkbox"/> EN 61000-4-2 |             |               |
| Applicant     | YJK Technology(SHENZHEN) Co.,Limited                                                    |             |               |
| EUT           | Heating Massage Blade                                                                   | Temperature | 23℃           |
| M/N           | YJK152                                                                                  | Humidity    | 51%           |
| Criterion     | B                                                                                       | Pressure    | 1021mbar      |
| Test Mode     | Normal                                                                                  | Test Date   | Oct. 21, 2024 |
| Test Engineer | Sunny Yuan                                                                              |             |               |

### Air Discharge

| Test Points | Test Levels                         |                                     |                                     | Results                             |                          |                                                                  |
|-------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|------------------------------------------------------------------|
|             | ± 2KV                               | ± 4KV                               | ± 8KV                               | Pass                                | Fail                     | Performance Criterion                                            |
| Front       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |
| Back        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |
| Left        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |
| Right       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |
| Top         | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |
| Bottom      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |

### Contact Discharge

| Test Points | Test Levels                         |                                     | Results                             |                          |                                                                  |
|-------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|------------------------------------------------------------------|
|             | ± 2 KV                              | ±4 KV                               | Pass                                | Fail                     | Performance Criterion                                            |
| Front       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |
| Back        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |
| Left        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |
| Right       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |
| Top         | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |
| Bottom      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |

### Discharge To Horizontal Coupling Plane

| Side of EUT | Test Levels                         |                                     | Results                             |                          |                                                                  |
|-------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|------------------------------------------------------------------|
|             | ± 2 KV                              | ± 4 KV                              | Pass                                | Fail                     | Performance Criterion                                            |
| Front       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |
| Back        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |
| Left        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |
| Right       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |

### Discharge To Vertical Coupling Plane

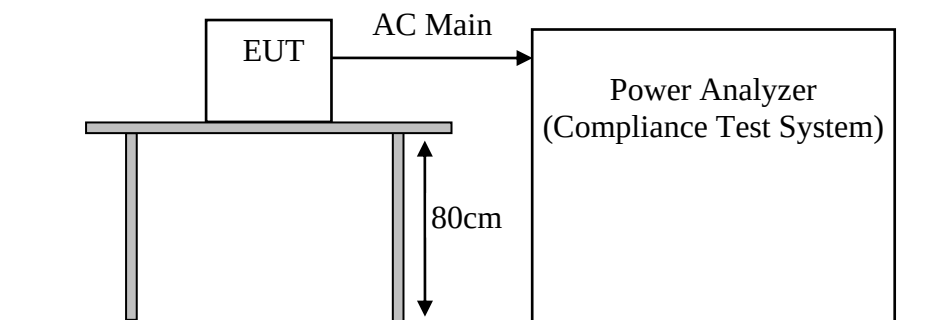
| Side of EUT | Test Levels                         |                                     | Results                             |                          |                                                                  |
|-------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|------------------------------------------------------------------|
|             | ± 2 KV                              | ± 4 KV                              | Pass                                | Fail                     | Performance Criterion                                            |
| Front       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |
| Back        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |
| Left        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |
| Right       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> A <input checked="" type="checkbox"/> B |

## 6. HARMONIC CURRENT TEST

### 6.1 Test Equipments

| Item | Equipment                  | Manufacturer | Model No. | Serial No.   | Last Cal.  | Cal. Interval |
|------|----------------------------|--------------|-----------|--------------|------------|---------------|
| 1.   | Harmonics&Flicker Analyser | Voltech      | PM6000    | 200006700495 | May 06, 24 | 1 Year        |

### 6.2 Block Diagram of Test Setup



### 6.3 Harmonics Test Standard

EN 61000-3-2, Class A

### 6.4 Limits of Harmonic Current

| Limits for Class A equipment |                                              |
|------------------------------|----------------------------------------------|
| Harmonic order<br>n          | Maximum permissible<br>Harmonic current<br>A |
| Odd harmonics                |                                              |
| 3                            | 2,30                                         |
| 5                            | 1,14                                         |
| 7                            | 0,77                                         |
| 9                            | 0,40                                         |
| 11                           | 0,33                                         |
| 13                           | 0,21                                         |
| 15 ≤ n ≤ 39                  | 0,15 $\frac{15}{n}$                          |
| Even harmonics               |                                              |
| 2                            | 1,08                                         |
| 4                            | 0,43                                         |
| 6                            | 0,30                                         |
| 8 ≤ n ≤ 40                   | 0,23 $\frac{8}{n}$                           |

### 6.5 Operating Condition of EUT

Same as section 3.6. except the test set up replaced by section 7.2..

### 6.6 Test Procedure

The EUT was placed on the top of a wooden table 0.8 meters above the ground



and operated to produce the maximum harmonic components under normal operating conditions for each successive harmonic component in turn. The correspondent test program of test instrument to measure the current harmonics emanated from EUT is chosen. The measure time shall be not less than the necessary for the EUT to be exercised.

## 6.7 Test Results

N/A

## 7. VOLTAGE FLUCTUATIONS & FLICKER TEST

### 7.1 Test Equipments

Same as Section 7.1.

### 7.2 Block Diagram of Test Setup

Same as Section 7.2.

### 7.3 Voltage Fluctuation and Flicker Test Standard

EN 61000-3-3

### 7.4 Limits of Voltage Fluctuation and Flick

| Test Item     | Limit | Note                                              |
|---------------|-------|---------------------------------------------------|
| $P_{st}$      | 1.0   | $P_{st}$ means Short-term flicker indicator       |
| $P_{lt}$      | 0.65  | $P_{lt}$ means long-term flicker indicator        |
| $T_{dt}$      | 0.2   | $T_{dt}$ means maximum time that dt exceeds 3%    |
| $d_{max}(\%)$ | 4%    | $d_{max}$ means maximum relative voltage change.  |
| $d_c(\%)$     | 3%    | $d_c$ means relative steady-state voltage change. |

### 7.5 Operating Condition of EUT

Same as Section 7.5.

### 7.6 Test Procedure

The EUT was placed on the top of a wooden table 0.8 meters above the ground and operated to produce the most unfavorable sequence of voltage changes under normal conditions. During the flick measurement, the measure time shall include that part of whole operation changes. The observation period for short-term flicker indicator is 10 minutes and the observation period for long-term flicker indicator is 2 hours.

### 7.7 Test Results

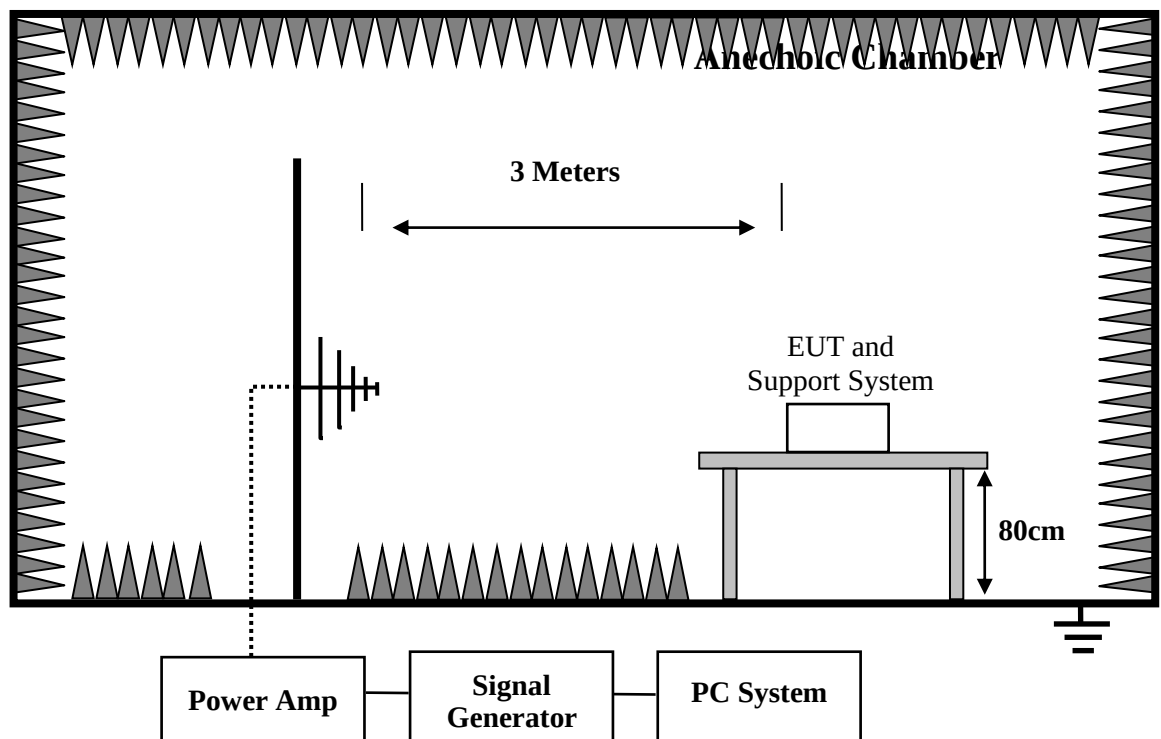
N/A

## 8 RF FIELD STRENGTH SUSCEPTIBILITY TEST

### 8.1 Test Equipments

| Item | Equipment               | Manufacturer | Model No.   | Serial No. | Last Cal.  | Cal. Interval |
|------|-------------------------|--------------|-------------|------------|------------|---------------|
| 1.   | Signal Generator        | Marconi      | 2031B       | 11606/058  | May 06, 24 | 1 Year        |
| 2.   | Amplifier               | A&R          | 100W/1000M1 | 17028      | N/A        | N/A           |
| 3.   | Isotropic Field Monitor | A&R          | FM7004      | 0325983    | N/A        | N/A           |
| 4.   | Isotropic Field Probe   | A&R          | FL7006      | 0325736    | May 06, 24 | 1 Year        |
| 5.   | Laser Probe Interface   | A&R          | FL7000      | 325430     | N/A        | N/A           |
| 6.   | Power Meter             | Anritsu      | ML2487A     | 6k00003262 | May 06, 24 | 1 Year        |
| 7.   | Power Sensor            | Anritsu      | MA2491A     | 33005      | May 06, 24 | 1 Year        |
| 8.   | Log-periodic Antenna    | A&R          | AT1080      | 16512      | N/A        | N/A           |

### 8.2 Block Diagram of Test Setup





### 8.3 Test Standard

EN IEC 55014-2 (EN 61000-4-3)  
(Severity Level: 2 at 3V / m)

### 8.4 Severity Levels and Performance Criterion

#### 1.1.6. Severity level

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

#### 1.1.7. Performance criterion : **A**

### 8.5 EUT Configuration

The configurations of EUT are listed in Section 3.5.

### 8.6 Operating Condition of EUT

Same as Conducted Emission test that is listed in Section 3.6. except the test set up replaced by Section 11.2.

### 8.7 Test Procedure

Testing was performed in a Fully anechoic chamber as recommended by EN 61000-4-3. The EUT was placed on an 80 cm high non-conductive table located in the area of field uniformity. The radiating antenna was placed 3m in front of the EUT and Support system, and dwell time of the radiated interference was controlled by an auSunny Yuanated, computer-controlled system. The signal source was stepped through the applicable frequency range at a rate no faster than 1% of the fundamental.

The signal was amplitude modulated 80% over the frequency range 80 MHz to 1GHz at a level of 3 V/m. The dwell time was set at 3 s. Field presence was monitored during testing via a field probe placed in close proximity to the EUT. Throughout testing, the EUT was closely monitored for signs of susceptibility. The test was performed with the antennae oriented in both a horizontal and vertical polarization.

All the scanning conditions are as follows:

| Condition of Test        | Remarks                                       |
|--------------------------|-----------------------------------------------|
| 1. Test Fielded Strength | 3 V/m (Severity Level 2)                      |
| 2. Radiated Signal       | 80% amplitude modulated with a 1kHz sine wave |
| 3. Scanning Frequency    | 80 - 1000 MHz                                 |



- |                              |                 |
|------------------------------|-----------------|
| 4. Sweeping time of radiated | 0.0015 decade/s |
| 5. Dwell Time                | 1 Sec.          |

## 8.8 Test Results

**PASS.**

The EUT was tested and all the test results are listed in next page.





## RF Field Strength Susceptibility Test Results

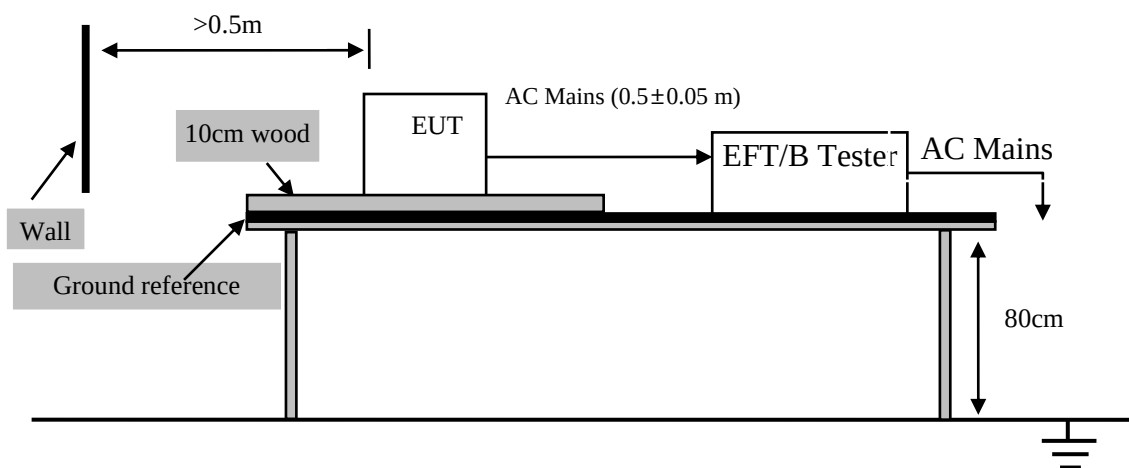
|                                                                                                                                                                               |            |                                                       |                    |             |               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------------------------------|--------------------|-------------|---------------|
| Applicant                                                                                                                                                                     | :          | YJK Technology(SHENZHEN) Co.,Limited                  | Test Date          | :           | Oct. 21, 2024 |
| EUT                                                                                                                                                                           | :          | Heating Massage Blade                                 | Temperature        | :           | 24°C          |
| M/N                                                                                                                                                                           | :          | YJK152                                                | Humidity           | :           | 56%           |
| Test Voltage                                                                                                                                                                  | :          | 5V                                                    | Pressure           | :           | 101.3KPa      |
| Test Engineer                                                                                                                                                                 | :          | Sunny Yuan                                            | Test Mode          | :           | --            |
| Frequency Range                                                                                                                                                               | :          | 80 MHz -1000MHz<br>1800MHz, 2600MHz, 3500MHz, 5000MHz | Field Strength     | :           | 3V/m          |
| Required Performance                                                                                                                                                          | :          | A                                                     | Actual Performance | :           | A             |
| Modulation: <input checked="" type="checkbox"/> AM <input type="checkbox"/> Pulse <input type="checkbox"/> none 1 kHz 80%                                                     |            |                                                       |                    |             |               |
| Frequency Range :80 MHz -1000MHz,<br>1800MHz, 2600MHz, 3500MHz, 5000MHz                                                                                                       |            |                                                       |                    |             |               |
| Steps                                                                                                                                                                         | 1%         |                                                       |                    |             |               |
|                                                                                                                                                                               | Horizontal |                                                       | Vertical           |             | Result        |
|                                                                                                                                                                               | Required   | Observation                                           | Required           | Observation | (Pass / Fail) |
| Front                                                                                                                                                                         | A          | A                                                     | A                  | A           | Pass          |
| Right                                                                                                                                                                         | A          | A                                                     | A                  | A           | Pass          |
| Rear                                                                                                                                                                          | A          | A                                                     | A                  | A           | Pass          |
| Left                                                                                                                                                                          | A          | A                                                     | A                  | A           | Pass          |
| Test Equipment :<br>1. Signal Generator : Marconi 2031B<br>2. Power Amplifier : A&R 500A/100;100W/1000M.<br>3. Power Antenna : A&R AT-1080.<br>4. Field Monitor : A&R FM7004. |            |                                                       |                    |             |               |
| Remark: Class A is no function loss.                                                                                                                                          |            |                                                       |                    |             |               |

## 9. ELECTRICAL FAST TRANSIENT/BURST TEST

### 9.1 Test Equipments

| Item | Equipment     | Manufacturer | Model No. | Serial No.      | Last Cal.  | Cal. Interval |
|------|---------------|--------------|-----------|-----------------|------------|---------------|
| 1.   | EFT Equipment | 3ctest       | EFT-4001G | 201007100461015 | May 06, 24 | 1 Year        |

### 9.2 Block Diagram of Test Setup



### 9.3 Test Standard

EN IEC 55014-2 (EN 61000-4-4)  
(Severity Level 2 at 1kV)

### 9.4 Severity Levels and Performance Criterion

#### 1.1.8. Severity level

| Open Circuit Output Test Voltage $\pm 10\%$ |                       |                                                     |
|---------------------------------------------|-----------------------|-----------------------------------------------------|
| Level                                       | On Power Supply Lines | On I/O (Input/Output) Signal data and control lines |
| 1.                                          | 0.5 kV                | 0.25 kV                                             |
| 2.                                          | 1 kV                  | 0.5 kV                                              |
| 3.                                          | 2 kV                  | 1 kV                                                |
| 4.                                          | 4 kV                  | 2 kV                                                |
| X                                           | Special               | Special                                             |

#### 1.1.9. Performance criterion : B

### 9.5 EUT Configuration

The configuration of EUT are listed in section 3.5.

### 9.6 Operating Condition of EUT

Same as conducted test which is listed in section 3.6. except the test setup replaced by section 12.2.



## 9.7 Test Procedure

The EUT and its simulators were placed on the ground reference plane and were insulated from it by a wood support  $0.1\text{m} \pm 0.01\text{m}$  thick. The ground reference plane was  $1\text{m} \times 1\text{m}$  metallic sheet with 0.65mm minimum thickness. This reference ground plane was project beyond the EUT by at least 0.1m on all sides and the minimum distance between EUT and all other conductive structure, except the ground plane was more than 0.5m. All cables to the EUT was placed on the wood support, cables not subject to EFT/B was routed as far as possible from the cable under test to minimize the coupling between the cables.

### 1.1.10. For input and output AC power ports:

The EUT was connected to the power mains by using a coupling device which couples the EFT interference signal to AC power lines. Both positive transients and negative transients of test voltage were applied during compliance test and the duration of the test can't less than 1min.

### 1.1.11. For signal lines and control lines ports:

It's not I/O ports.

It's unnecessary to measure.

### 1.1.12. For DC input and DC output power ports:

It's not DC ports.

It's unnecessary to measure.

## 9.8 Test Result

**N/A**



## Electrical Fast Transient/Burst Test Results

|                      |   |    |                    |   |    |
|----------------------|---|----|--------------------|---|----|
| Applicant            | : | -- | Test Date          | : | -- |
| EUT                  | : | -- | Temperature        | : | -- |
| M/N                  | : | -- | Humidity           | : | -- |
| Test Voltage         | : | -- | Pressure           | : | -- |
| Test Engineer        | : | -- | Test Mode          | : | -- |
| Required Performance | : | -- | Actual Performance | : | -- |

Repetition Frequency : 5 kHz      Burst Duration : 15ms      Burst Period: 300ms

Inject Time(s): 120s      Inject Method: Direct  
Inject Line:   ☐ AC Mains      ☐ DC Supply      ☐ Signal

| Line        | Test Voltage | Performance |                  |                  | Result      |
|-------------|--------------|-------------|------------------|------------------|-------------|
|             |              | Required    | Observation( + ) | Observation( - ) | (Pass/Fail) |
| L           | --           | --          | --               | --               | --          |
| N           | --           | --          | --               | --               | --          |
| L N         | --           | --          | --               | --               | --          |
| L-PE        | --           | --          | --               | --               | --          |
| N-PE        | --           | --          | --               | --               | --          |
| L-N-PE      | --           | --          | --               | --               | --          |
| Signal Line | --           | --          | --               | --               | --          |

Test Equipment : Burst Tester (EFT-4001G)

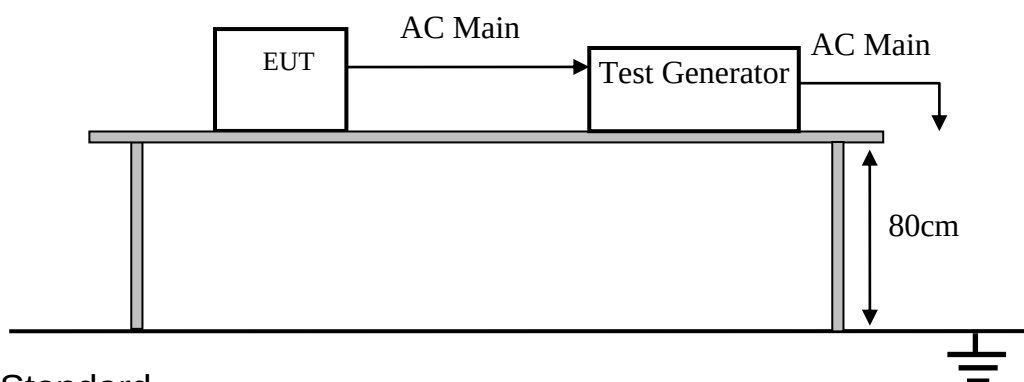
Remark:

## 10.SURGE TEST

### 10.1 Test Equipments

| Item | Equipment       | Manufacturer | Model No. | Serial No. | Last Cal.  | Cal. Interval |
|------|-----------------|--------------|-----------|------------|------------|---------------|
| 1.   | Surge CDN       | 3ctest       | SGN-5010G | EC5591004  | May 06, 24 | 1 Year        |
| 2    | Surge Generator | 3ctest       | SG-5006G  | EC5581006  | May 06, 24 | 1 Year        |

### 10.2 Block Diagram of Test Setup



### 10.3 Test Standard

EN IEC 55014-2 (EN 61000-4-5)  
 (Severity Level: Line to Line: Level 2 at 1kV  
 Line to Ground: Level 3 at 2kV)

### 10.4 Severity Levels and Performance Criterion

#### 1.1.13. Severity level

| Severity Level | Open-Circuit Test Voltage<br>kV |
|----------------|---------------------------------|
| 1              | 0.5                             |
| 2              | 1.0                             |
| 3              | 2.0                             |
| 4              | 4.0                             |
| *              | Special                         |

#### 1.1.14. Performance criterion : B

### 10.5 EUT Configuration

The configuration of EUT are listed in section 3.5.

### 10.6 Operating Condition of EUT

Same as conducted test which is listed in section 3.6. except the test setup replaced by section 13.2.



### 10.7 Test Procedure

- 1) Set up the EUT and test generator as shown on Section 13.2.
- 2) For line to line coupling mode, provide a 1kV 1.2/50us voltage surge (at open-circuit condition) and 8/20us current surge to EUT selected points, and for active line / neutral line to ground are same except test level is 2kV.
- 3) At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are applied during test.
- 4) Different phase angles are done individually.
- 5) Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

### 10.8 Test Result

**N/A**



## Surge Immunity Test Results

|                      |   |    |                    |   |    |
|----------------------|---|----|--------------------|---|----|
| Applicant            | : | -- | Test Date          | : | -- |
| EUT                  | : | -- | Temperature        | : | -- |
| M/N                  | : | -- | Humidity           | : | -- |
| Test Voltage         | : | -- | Pressure           | : | -- |
| Test Engineer        | : | -- | Test Mode          | : | -- |
| Required Performance | : | -- | Actual Performance | : | -- |

No. of pluse: 5 Times/Phase Angle

Interval: 60 Seconds

Line : ☐ AC Mains ☐ DC Supply ☐ Signal

| Location    | Volt  | 500V        |    |    | 1kV         |    |    | 2kV         |    |    | Result      |
|-------------|-------|-------------|----|----|-------------|----|----|-------------|----|----|-------------|
|             | Phase | Performance |    |    | Performance |    |    | Performance |    |    | (Pass/Fail) |
|             |       | Required    | +  | -  | Required    | +  | -  | Required    | +  | -  |             |
| L-N         | --    | --          | -- | -- | --          | -- | -- | --          | -- | -- | --          |
|             | --    | --          | -- | -- | --          | -- | -- | --          | -- | -- | --          |
|             | --    | --          | -- | -- | --          | -- | -- | --          | -- | -- | --          |
|             | --    | --          | -- | -- | --          | -- | -- | --          | -- | -- | --          |
| L-PE        | --    | --          | -- | -- | --          | -- | -- | --          | -- | -- | --          |
|             | --    | --          | -- | -- | --          | -- | -- | --          | -- | -- | --          |
|             | --    | --          | -- | -- | --          | -- | -- | --          | -- | -- | --          |
|             | --    | --          | -- | -- | --          | -- | -- | --          | -- | -- | --          |
| N-PE        | --    | --          | -- | -- | --          | -- | -- | --          | -- | -- | --          |
|             | --    | --          | -- | -- | --          | -- | -- | --          | -- | -- | --          |
|             | --    | --          | -- | -- | --          | -- | -- | --          | -- | -- | --          |
|             | --    | --          | -- | -- | --          | -- | -- | --          | -- | -- | --          |
| Signal Line | --    | --          | -- | -- | --          | -- | -- | --          | -- | -- | --          |

Test Equipment : Surge Generator (SG-5006G)

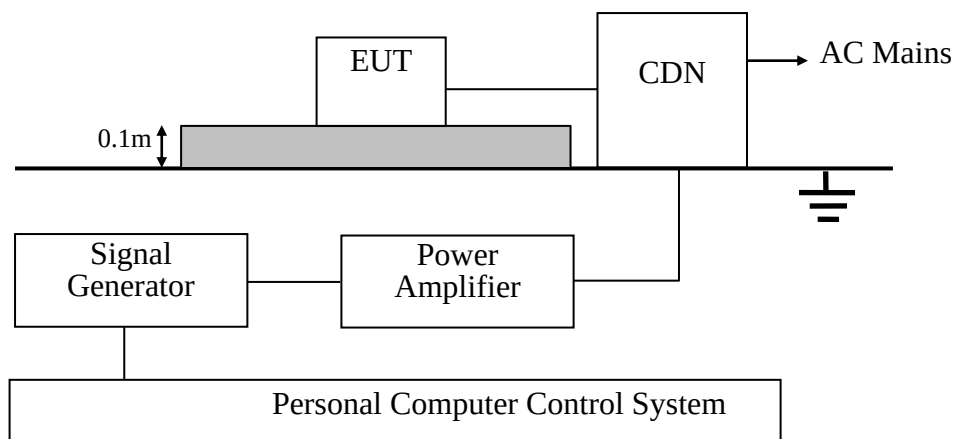
Remark:

## 11.INJECTED CURRENTS SUSCEPTIBILITY TEST

### 11.1 Test Equipments

| Item | Equipment                                   | Manufacturer | Model No. | Serial No.    | Last Cal.  | Cal. Interval |
|------|---------------------------------------------|--------------|-----------|---------------|------------|---------------|
| 1.   | Conducted Immunity Test System              | Frankonia    | CIT-10/75 | 12681247/2013 | May 06, 24 | 1 Year        |
| 2.   | Fixed Coaxial Attenuator                    | CD           | ATT-0675  | 120540086     | May 06, 24 | 1 Year        |
| 3.   | coupling-decoupling network (CDN)           | CD           | CDN M2/M3 | 2302          | May 06, 24 | 1 Year        |
| 4.   | Electromagnetic Injection Clamp (EMC-Clamp) | CD           | EM-Clamp  | 0513A031201   | May 06, 24 | 1 Year        |

### 11.2 Block Diagram of Test Setup



### 11.3 Test Standard

EN IEC 55014-2 (EN 61000-4-6)

(Severity Level 2 at 3Vrms and frequency is from 0.15MHz to 230MHz)

### 11.4 Severity Levels and Performance Criterion

#### 1.1.15. Severity level

| Level | Voltage Level (e.m.f.)<br>V |
|-------|-----------------------------|
| 1.    | 1                           |
| 2.    | 3                           |
| 3.    | 10                          |
| X     | Special                     |



**1.1.16. Performance criterion: A****11.5 EUT Configuration**

The configuration of EUT are listed in section 3.5.

**11.6 Operating Condition of EUT**

Same as conducted test which is listed in section 3.6. except the test set up replaced by section 14.2.

**11.7 Test Procedure**

- 1) Set up the EUT, CDN and test generators as shown on section 14.2.
- 2) Let EUT work in test mode and measure.
- 3) The EUT and supporting equipments are placed on an insulating support 0.1m high above a ground reference plane. CDN (coupling and decoupling device) is placed on the ground plane at above 0.1-0.3m from EUT. Cables between CDN and EUT are as short as possible, and their height above the ground reference plane shall be between 30 and 50 mm (where possible).
- 4) The disturbance signal described below is injected to EUT through CDN.
- 5) The EUT operates within its operational mode(s) under intended climatic conditions after power on.
- 6) The frequency range is swept from 150kHz to 230MHz using 3V signal level, and with the disturbance signal 80% amplitude modulated with a 1kHz sine wave.
- 7) The rate of sweep shall not exceed  $1.5 \times 10^{-3}$  decades/s. Where the frequency is swept incrementally, the step size shall not exceed 1% of the start and thereafter 1% of the preceding frequency value.
- 8) Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion.

**11.8 Test Results**

**N/A**



## Injected Currents Susceptibility Test Results

|                      |   |    |                    |                    |    |    |
|----------------------|---|----|--------------------|--------------------|----|----|
| Applicant            | : | -- | Test Date          | :                  | -- |    |
| EUT                  | : | -- | Temperature        | :                  | -- |    |
| M/N                  | : | -- | Humidity           | :                  | -- |    |
| Test Voltage         | : | -- | Pressure           | :                  | -- |    |
| Test Engineer        | : | -- | Test Mode          | :                  | -- |    |
| Required Performance | : | -- | Actual Performance | :                  | -- |    |
| Required Performance | : | -- |                    | Actual Performance | :  | -- |

| Frequency Range (MHz) | Injected Position | Voltage Level (e.m.f.) | Required | Observation | Result<br>(Pass / Fail) |
|-----------------------|-------------------|------------------------|----------|-------------|-------------------------|
| 0.15 ~ 10             | AC Mains          | 3V                     | --       | --          | --                      |
| 10 ~ 30               | AC Mains          | 3V ~ 1V                | --       | --          | --                      |
| 30 ~ 80               | AC Mains          | 1V                     | --       | --          | --                      |

Modulation Signal: 1kHz 80% AM

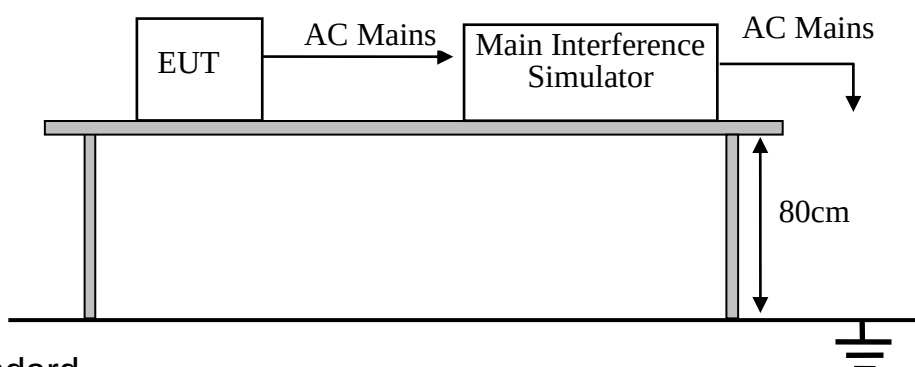
Remark:

## 12. VOLTAGE DIPS AND INTERRUPTIONS TEST

### 12.1 Test Equipments

| Item | Equipment                     | Manufacturer | Model No. | Serial No.      | Last Cal.  | Cal. Interval |
|------|-------------------------------|--------------|-----------|-----------------|------------|---------------|
| 1.   | Voltage Dips and Up Generator | 3ctest       | VDG-1105G | 201004290171002 | May 06, 24 | 1 Year        |

### 12.2 Block Diagram of Test Setup



### 12.3 Test Standard

EN IEC 55014-2 (EN 61000-4-11)

### 12.4 Severity Levels and Performance Criterion

#### 1.1.17. Severity level

| Test Level<br>$\%U_T$ | Voltage dip and short interruptions<br>$\%U_T$ | Performance Criterion | Duration (in period) |
|-----------------------|------------------------------------------------|-----------------------|----------------------|
| 0                     | 100                                            | C                     | 250                  |
| 0                     | 100                                            | B                     | 0.5                  |
| 30                    | 70                                             | C                     | 25                   |

#### 1.1.18. Performance criterion : C

### 12.5 EUT Configuration

The configuration of EUT are listed in section 3.5.

### 12.6 Operating Condition of EUT

Same as conducted test which is listed in section 3.6. except the test set up replaced by section 15.2.

### 12.7 Test Procedure

- 1) Set up the EUT and test generator as shown on section 15.2.



- 2) The interruptions is introduced at selected phase angles with specified duration. There is a 3mins minimum interval between each test event.
- 3) After each test a full functional check is performed before the next test.
- 4) Repeat procedures 2 & 3 for voltage dips, only the test level and duration is changed.
- 5) Record any degradation of performance.

## 12.8 Test Result

**N/A**

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### 13. EXTERNAL AND INTERNAL PHOTOS OF THE EUT



Fig 1



Fig 2



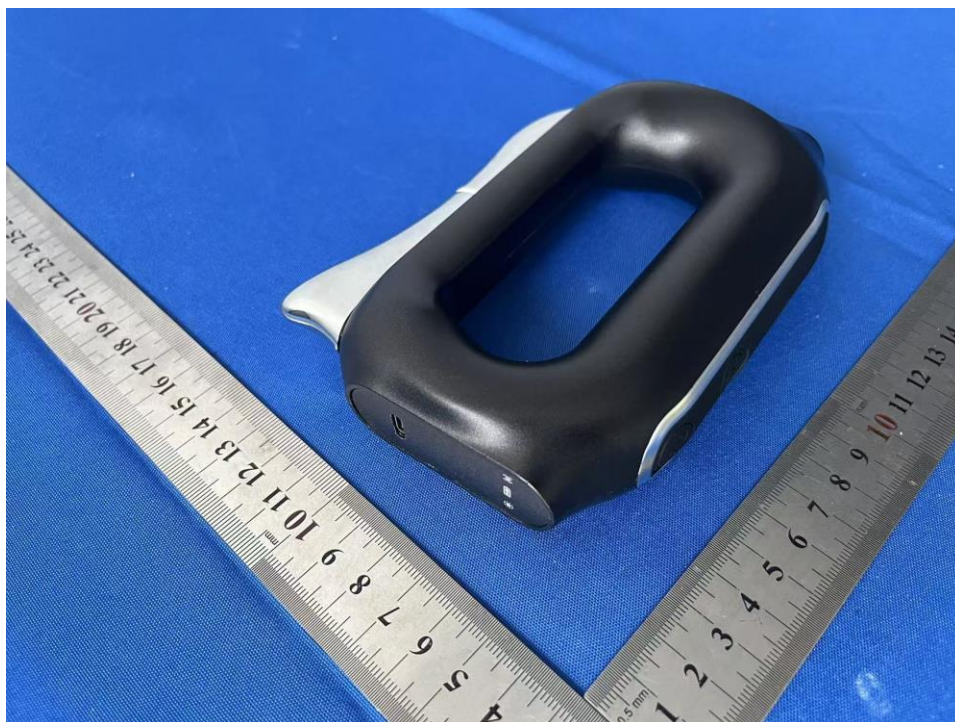


Fig 3



Fig 4



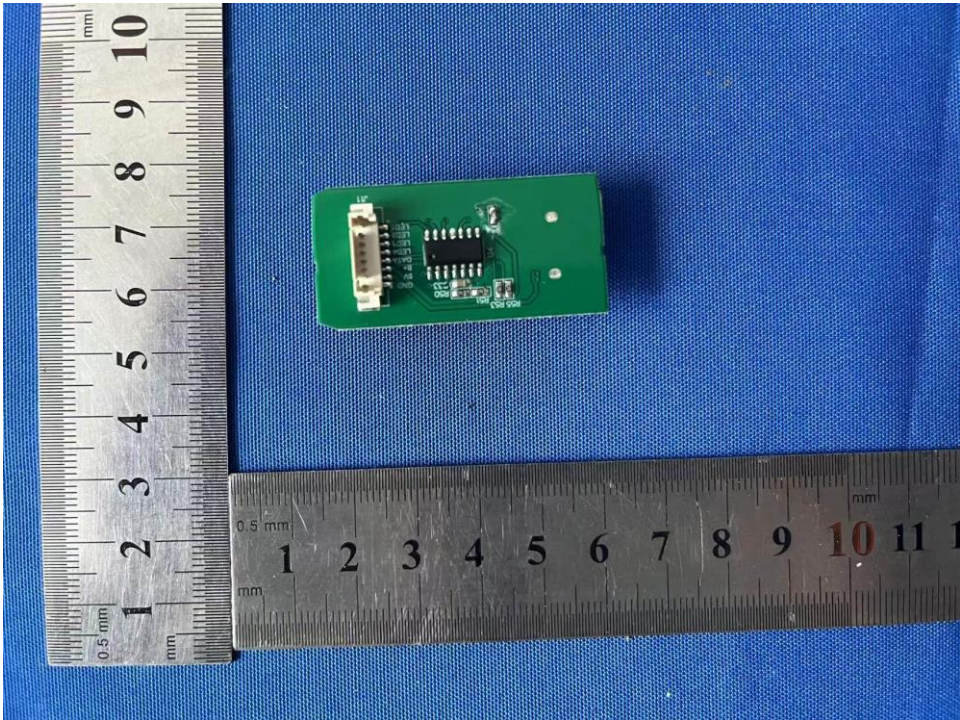


Fig 5

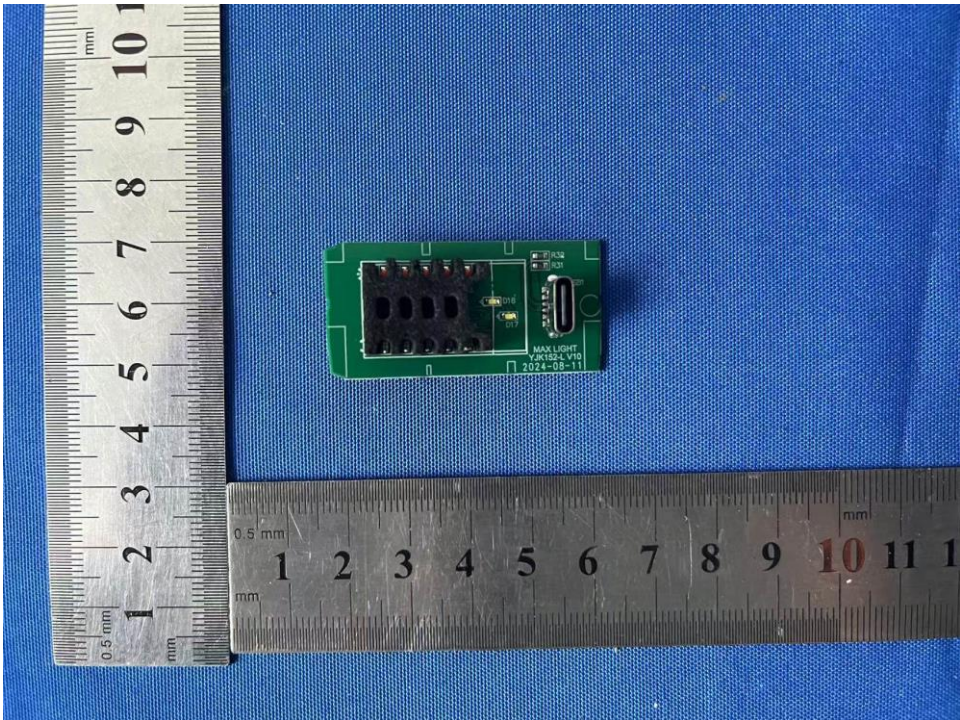


Fig 6



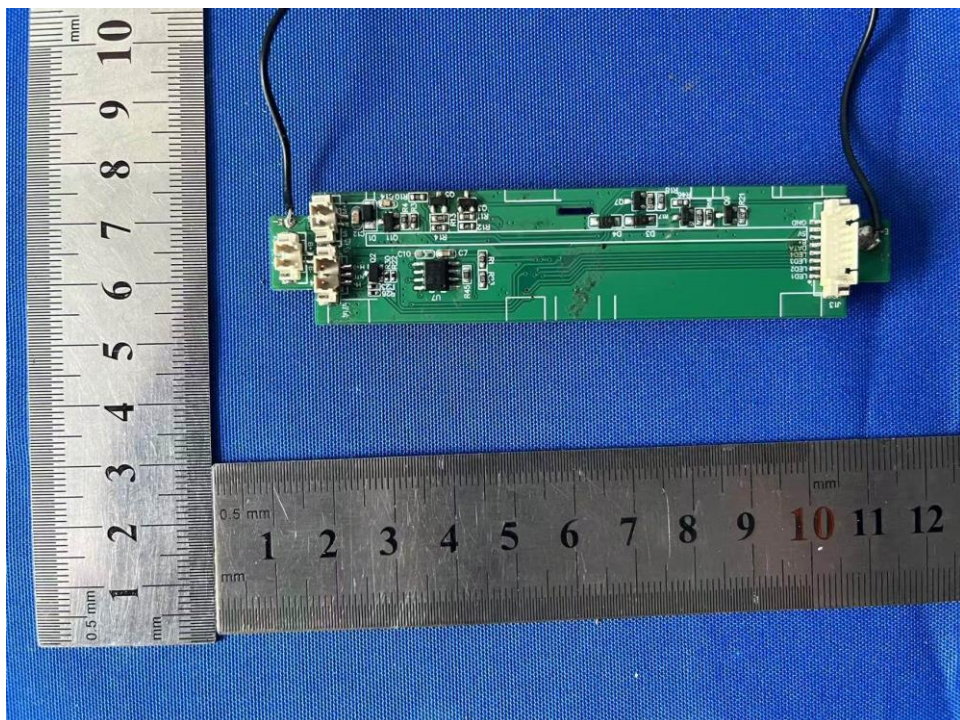


Fig 7

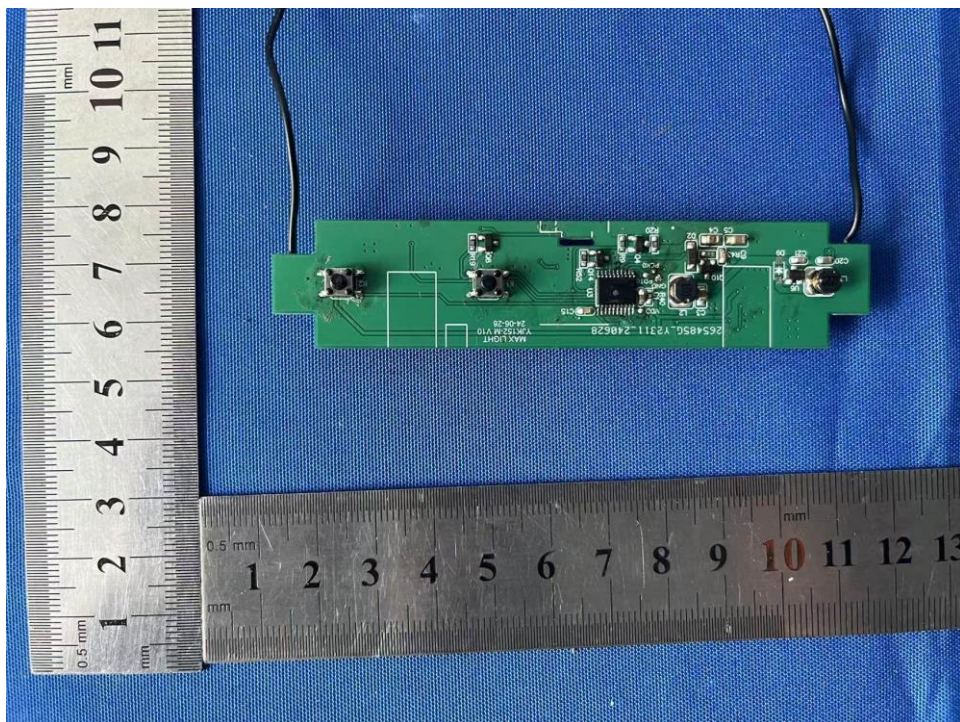


Fig 8





Fig 9

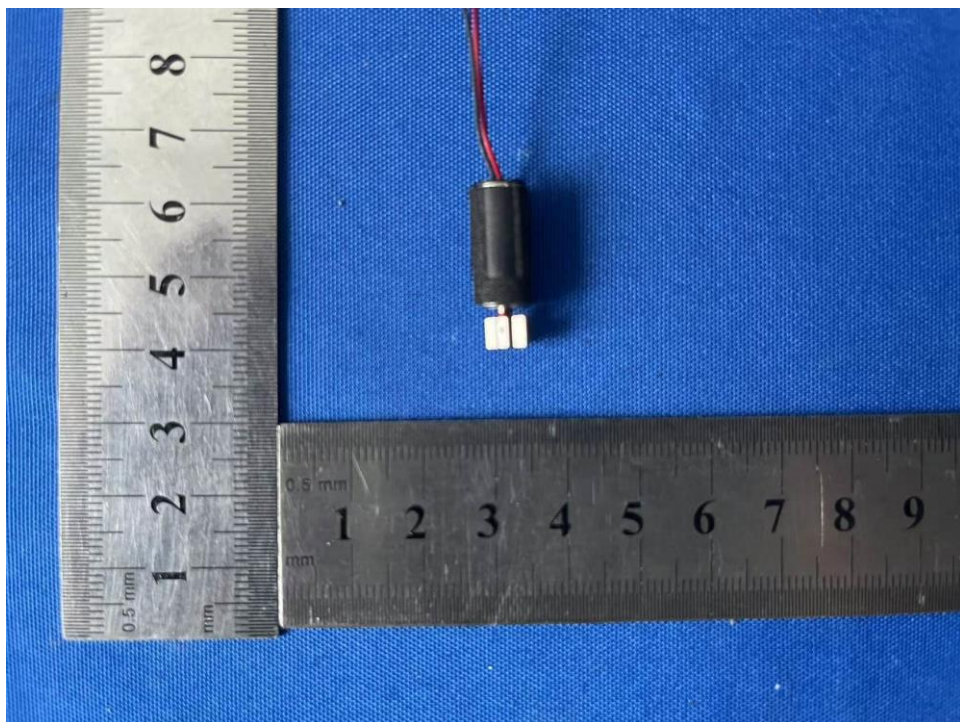


Fig 10

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