



# TEST REPORT EN 62311:2020

**Report Number**..... : **ZKT-24121918954E-4**

**Date of Test**..... : Dec. 19, 2024 to Dec. 30, 2024

**Date of issue**..... : Dec. 30, 2024

**Total number of pages**..... : 8

**Test Result** ..... : PASS

**Testing Laboratory**..... : **Shenzhen ZKT Technology Co., Ltd.**

**Address** ..... : 1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

**Applicant's name** ..... : **Dong Guan Jvin Electronic Co.,LTD.**

**Address** ..... : Room 701, No. 381 Daxing Road, Yangwu, Dalingshan, Dongguan, Guangdong province, China

**Manufacturer's name** ..... : **Dong Guan Jvin Electronic Co.,LTD.**

**Address** ..... : Room 701, No. 381 Daxing Road, Yangwu, Dalingshan, Dongguan, Guangdong province, China

## Test specification:

**Standard**..... : EN IEC 62311:2020  
EN 50663:2017

**Test procedure**..... : /

**Non-standard test method** ..... : N/A

This Attestation of Compliance is issued on a voluntary basis for electrical equipment below the voltage limits of Radio Equipment Directive (RED) 2014/53/EU. The essential requirement are fulfilled accordingly based on the technical specifications applicable at the time of issuance.

This report shall not be reproduced except in full, without the written approval of ZKT, this document may be altered or revised by ZKT, personal only, and shall be noted in the revision of the document.

**Product name**..... : **projector**

**Trademark** ..... : N/A

**Model/Type reference**..... : K6  
K7, K8, K9, K10, K11, K12, K13, K15, K16

**Ratings**..... : Input: AC100-240V, 50/60Hz



**Testing procedure and testing location:**

**Testing Laboratory.....: Shenzhen ZKT Technology Co., Ltd.**

**Address.....: 1/F, No. 101, Building B, No. 6, Tangwei Community  
Industrial Avenue, Fuhai Street, Bao'an District,  
Shenzhen, China**

**Tested by (name + signature).....: Jim Liu**

*Jim Liu*

**Reviewer (name + signature).....: Alan Zheng**

*Alan Zheng*

**Approved (name + signature).....: Lake Xie**





## Table of Contents

## Page

|                                       |   |
|---------------------------------------|---|
| 1. Version .....                      | 4 |
| 2. GENERAL INFORMATION .....          | 5 |
| 3. Maximum Permissible Exposure ..... | 6 |
| 3.1 Applicable Standard .....         | 6 |
| 3.2 Limit .....                       | 6 |
| 3.3 Test Method .....                 | 7 |
| 3.4 Calculated Result and Limit ..... | 8 |



1. Version

| Report No.         | Issue Date    | Description | Approved |
|--------------------|---------------|-------------|----------|
| ZKT-24121918954E-4 | Dec. 30, 2024 | Original    | Valid    |
|                    |               |             |          |



## 2. GENERAL INFORMATION

|                         |                                                                                                                                               |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name:           | projector                                                                                                                                     |
| Model No.:              | K6                                                                                                                                            |
| Antenna Type:           | PCB Antenna, Maximum Gain is 0dBi<br>Note: the antenna gain is provided by the customer, and the final test result has nothing to do with us. |
| Operation Frequency:    | 2402MHz-2480MHz<br>2412MHz-2472MHz                                                                                                            |
| Modulation technology:  | WIFI: DSSS, OFDM<br>BT: GFSK, $\pi/4$ -DQPSK, 8-DPSK                                                                                          |
| Power supply:           | Input: AC100-240V, 50/60Hz                                                                                                                    |
| Intend use environment: | Residential, commercial and light industrial environment                                                                                      |



### 3. Maximum Permissible Exposure

#### 3.1 Applicable Standard

EN IEC 62311 Generic standard to demonstrate the compliance of electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (0 Hz–300 GHz) is to demonstrate the compliance of apparatus with the basic restrictions or reference levels on exposure of the general public related to electric, magnetic, electromagnetic fields as well as induced and contact current.

#### 3.2 Limit

Reference levels for electric, magnetic and electromagnetic fields  
(0 Hz to 300 GHz, unperturbed rms values)

| Frequency range | E-field strength (V/m) | H-field strength (A/m) | B-field (μT)        | Equivalent plane wave power density $S_{eq}$ (W/m <sup>2</sup> ) |
|-----------------|------------------------|------------------------|---------------------|------------------------------------------------------------------|
| 0-1 Hz          | —                      | $3,2 \times 10^4$      | $4 \times 10^4$     | —                                                                |
| 1-8 Hz          | 10 000                 | $3,2 \times 10^4/f^2$  | $4 \times 10^4/f^2$ | —                                                                |
| 8-25 Hz         | 10 000                 | $4\,000/f$             | $5\,000/f$          | —                                                                |
| 0,025-0,8 kHz   | $250/f$                | $4/f$                  | $5/f$               | —                                                                |
| 0,8-3 kHz       | $250/f$                | 5                      | 6,25                | —                                                                |
| 3-150 kHz       | 87                     | 5                      | 6,25                | —                                                                |
| 0,15-1 MHz      | 87                     | $0,73/f$               | $0,92/f$            | —                                                                |
| 1-10 MHz        | $87/f^{1/2}$           | $0,73/f$               | $0,92/f$            | —                                                                |
| 10-400 MHz      | 28                     | 0,073                  | 0,092               | 2                                                                |
| 400-2 000 MHz   | $1,375\ f^{1/2}$       | $0,0037\ f^{1/2}$      | $0,0046\ f^{1/2}$   | $f/200$                                                          |
| 2-300 GHz       | 61                     | 0,16                   | 0,20                | 10                                                               |

**Notes:**

1.  $f$  as indicated in the frequency range column.



### 3.3 Test Method

$$E \text{ (V/m)} = (30 \cdot P \cdot G)^{0.5} / d$$

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained.



### 3.4 Calculated Result and Limit

| 2.4G BT Mode |                 |                    |                  |                    |                      |                              |        |
|--------------|-----------------|--------------------|------------------|--------------------|----------------------|------------------------------|--------|
| Mode         | Frequency (MHz) | Output power (dBm) | Output Power (W) | Antenna gain (dBi) | Electric Field (V/m) | Limit of Electric Field(V/m) | Result |
| π/4-DQPSK    | 2402            | 1.43               | 0.0014           | 2.0                | 1.02                 | 61                           | Pass   |

| 2.4G WIFI Mode |                 |                    |                  |                    |                      |                              |        |
|----------------|-----------------|--------------------|------------------|--------------------|----------------------|------------------------------|--------|
| Mode           | Frequency (MHz) | Output power (dBm) | Output Power (W) | Antenna gain (dBi) | Electric Field (V/m) | Limit of Electric Field(V/m) | Result |
| 802.11g        | 2472            | 15.92              | 0.0391           | 2.0                | 5.42                 | 61                           | Pass   |

\*\*\*\*\* END OF REPORT \*\*\*\*\*