

# RF TEST REPORT

Product Name: Label printer

Model Name: P50, P50C, P50S, S2, X2

FCC ID: 2A2AI-P50

Issued For : Shenzhen Yinxiaoqian technology Co., Ltd.

202E, building A4, Hom Industrial Zone, 41 Wuhe Avenue (South) Nankeng community, Bantian street, Longgang

District, Shenzhen, China

Issued By : Shenzhen LGT Test Service Co., Ltd.

Room 205, Building 13, Zone B, Zhenxiong Industrial Park,

No.177, Renmin West Road, Jinsha, Kengzi Street, Pingshan District, Shenzhen, Guangdong, China

Report Number: LGT24E041HA02

Sample Received Date: Apr. 10, 2024

Date of Test: Apr. 10, 2024 – Jun. 06, 2024

Date of Issue: Jun. 06, 2024

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## **TEST REPORT CERTIFICATION**

**Applicant:** Shenzhen Yinxiaoqian technology Co., Ltd.

202E, building A4, Hom Industrial Zone, 41 Wuhe Avenue (South)

Address: Nankeng community, Bantian street, Longgang District, Shenzhen.

China

**Manufacture:** Shenzhen Yinxiaoqian technology Co., Ltd.

202E, building A4, Hom Industrial Zone, 41 Wuhe Avenue (South)

Address: Nankeng community, Bantian street, Longgang District, Shenzhen.

China

Product Name: Label printer

Trademark: MARKLIFE

Model Name: P50, P50C, P50S, S2, X2

Sample Status: Normal

| APPLICABLE STANDARDS   |              |  |  |  |
|--|--------------|--|--|--|
| STANDARD   | TEST RESULTS |  |  |  |
| FCC 47 CFR §2.1093<br>KDB 447498 D01 General RF Exposure<br>Guidance v06 | PASS         |  |  |  |

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**Technical Director** 



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# **Revision History**

| Rev. | Issue Date    | Revisions     |
|------|---------------|---------------|
| 00   | Jun. 06, 2024 | Initial Issue |
|      |               |               |

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# 1. GENERAL INFORMATION

# 1.1 GENERAL DESCRIPTION OF THE EUT

| Product Name:     | Label printer  |  |  |
|-------------------|--|--|--|
| Trademark:        | MARKLIFE   |  |  |
| Model Name:       | P50  |  |  |
| Series Model:     | P50C, P50S, S2, X2   |  |  |
| Model Difference: | The product is the same, only the appearance color difference. |  |  |
| Frequency Bands:  | Bluetooth/BLE 2402-2480MHz                                     |  |  |
| Battery:          | Capacity: 1200mAh<br>Rated Voltage: 3.7V                       |  |  |
| Hardware Version: | N/A  |  |  |
| Software Version: | N/A  |  |  |

### **1.2 TEST LABORATORY**

| Company Name:             | Shenzhen LGT Test Service Co., Ltd.  |  |  |  |
|---------------------------|--|--|--|--|
| Address:                  | Room 205, Building 13, Zone B, Zhenxiong Industrial Park, No.177,<br>Renmin West Road, Jinsha, Kengzi Street, Pingshan District,<br>Shenzhen, Guangdong, China |  |  |  |
| Accreditation Certificate | A2LA Certificate No.: 6727.01  |  |  |  |
|                           | FCC Registration No.: 746540   |  |  |  |
|                           | CAB ID: CN0136   |  |  |  |

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### 2. FCC 47CFR §2.1093 REQUIREMENT

#### 2.1 TEST STANDARDS

The limit for Maximum Permissible Exposure (MPE) specified in KDB 447498 D01 General RF Exposure Guidance v06 is followed. The gain of the antennas used in the product is extracted from the Antenna data sheets provided and also the maximum total power input to the antenna is measured. Through the Friis transmission formula and the maximum gain of the antenna, we can calculate the distance, away from the product, where the limit of MPE is reached. Although the Friis Transmission formula is far field assumption, the calculated result of that is an over-prediction for near field power density. It is taken as worst case to specify the safety range.

#### **2.2 LIMIT**

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table.

| MHz  | 5   | 10  | 15  | 20  | 25  |                             |  |
|------|-----|-----|-----|-----|-----|-----------------------------|--|
|      | 39  | 77  |     |     |     | mm                          |  |
| 150  | 27  |     | 116 | 155 | 194 |                             |  |
| 300  |     | 55  | 82  | 110 | 137 |                             |  |
| 450  | 22  | 45  | 67  | 89  | 112 |                             |  |
| 835  | 16  | 33  | 49  | 66  | 82  |                             |  |
| 900  | 16  | 32  | 47  | 63  | 79  | SAR Test                    |  |
| 1500 | 12  | 24  | 37  | 49  | 61  | Exclusion                   |  |
| 1900 | 11  | 22  | 33  | 44  | 54  | Threshold (mW)              |  |
| 2450 | 10  | 19  | 29  | 38  | 48  | ì                           |  |
| 3600 | 8   | 16  | 24  | 32  | 40  |                             |  |
| 5200 | 7   | 13  | 20  | 26  | 33  |                             |  |
| 5400 | 6   | 13  | 19  | 26  | 32  |                             |  |
| 5800 | 6   | 12  | 19  | 25  | 31  |                             |  |
|      |     |     |     |     |     |                             |  |
| MHz  | 30  | 35  | 40  | 45  | 50  | mm                          |  |
| 150  | 232 | 271 | 310 | 349 | 387 |                             |  |
| 300  | 164 | 192 | 219 | 246 | 274 |                             |  |
| 450  | 134 | 157 | 179 | 201 | 224 |                             |  |
| 835  | 98  | 115 | 131 | 148 | 164 |                             |  |
| 900  | 95  | 111 | 126 | 142 | 158 |                             |  |
| 1500 | 73  | 86  | 98  | 110 | 122 | SAR Test                    |  |
| 1900 | 65  | 76  | 87  | 98  | 109 | Exclusion<br>Threshold (mW) |  |
| 2450 | 57  | 67  | 77  | 86  | 96  | Threshold (IIIW)            |  |
| 3600 | 47  | 55  | 63  | 71  | 79  |                             |  |
| 5200 | 39  | 46  | 53  | 59  | 66  |                             |  |
| 5400 | 39  | 45  | 52  | 58  | 65  |                             |  |
| 5800 | 37  | 44  | 50  | 56  | 62  |                             |  |

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The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq$  50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] • [ $\sqrt{f(GHz)}$ ]  $\leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR,where f(GHz) is the RF channel transmit frequency in GHz.

Power and distance are rounded to the nearest mW and mm before calculation. The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq$  50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $\leq$  5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

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### 2.3 TEST RESULT

# Turn up Result

| Mode     | Turn up Power |  |  |
|----------|---------------|--|--|
| BT-GFSK  | 1±1dBm        |  |  |
| BLE-GFSK | 1±1dBm        |  |  |

### The MPE result of worst mode:

| RF Function | Frequency<br>(MHz) | Max Turn up<br>Power (dBm) | Max Turn<br>up Power<br>(mW) | Estimated<br>SAR | Limit | Ratio | Result |
|-------------|--------------------|----------------------------|------------------------------|------------------|-------|-------|--------|
| BT-GFSK     | 2402               | 2.00                       | 1.58                         | 0.501            | 3     | 0.167 | Pass   |
| BLE-GFSK    | 2402               | 2.00                       | 1.58                         | 0.501            | 3     | 0.167 | Pass   |

### Note:

1. The estimated SAR≤ 3.0 for 1-g SAR, Separation distance ≤ 5mm, complies with the exemption requirements.

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# **APPENDIX I - PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS**

Note: Please see the attached P50\_EUT Photos.

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

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