



# FCC TEST REPORT

## FCC ID:2BLX4-FUMAX

**Report Number.....** : ZKT-241118L15733E-1

**Date of Test.....** : Oct. 17, 2024 to Nov. 26, 2024

**Date of issue.....** : Nov. 26, 2024

**Total number of pages.....** 26

**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 .....** : Shenzhen Jufu Energy Technology Co., Ltd.

**Address .....** : Plant No. 5 Foxda Industrial Park, No. 4 Lanjing North Road, Zhukeng Community, Longtian Street, Pingshan District, Shenzhen

**Manufacturer's name .....** : Shenzhen Jufu Energy Technology Co., Ltd.

**Address .....** : Plant No. 5 Foxda Industrial Park, No. 4 Lanjing North Road, Zhukeng Community, Longtian Street, Pingshan District, Shenzhen

### Test specification:

**Standard.....** : FCC CFR 47 PART 1 , 1.1310

**Test procedure.....** : KDB 680106 D01 Wireless Power Transfer v04

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

**Test Report Form No.....** : TRF-EL-107\_V0

**Test Report Form(s) Originator.....** : ZKT Testing

**Master TRF .....** : Dated: 2020-01-06

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

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.....** : Little Fuzzy Series Magnetic Wireless Charger

**Trademark .....** : /

**Model/Type reference.....** : FU7, FU8

**Model difference.....** : FU7 is the test model, while other models are derivative models. These models are the same on the circuit, with only different model names. Therefore, the test data of FU7 can represent the remaining models.

**Ratings.....** : Battery capacity: DC 3.87 V / 5000 mAh / 19.35 Wh

Type-C Input: 5 V $\pm$ 2 A, 9 V $\pm$ 2 A

Type-C Output: 5 V $\pm$ 2 A, 9 V $\pm$ 2.22 A, 12 V $\pm$ 1.67 A

Wireless output: 5 W / 7.5 W / 10 W / 15 W (max)

Total Output: 5 V $\pm$ 2 A Max

**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****Reviewer (name + signature).....: Tom Zou****Approved (name + signature).....: Lake Xie**



## RF Exposure Evaluation

|                    |   |
|--------------------|---|
| Product Name:      | Little Fuzzy Series Magnetic Wireless Charger   |
| Product Model No.: | FU7, FU8  |
| Model Difference:  | FU7 is the test model, while other models are derivative models. These models are the same on the circuit, with only different model names. Therefore, the test data of FU7 can represent the remaining models.   |
| Test Auxiliary:    | Wireless charging load  |
| Transmitting mode: | Keep the EUT in continuously wireless charging mode   |
| Ratings:           | Battery capacity: DC 3.87 V / 5000 mAh / 19.35 Wh<br>Type-C Input: 5 V $\pm$ 2 A, 9 V $\pm$ 2 A<br>Type-C Output: 5 V $\pm$ 2 A, 9 V $\pm$ 2.22 A, 12 V $\pm$ 1.67 A<br>Wireless output: 5 W / 7.5 W / 10 W / 15 W (max)<br>Total Output: 5 V $\pm$ 2 A Max |

### Test Modes:

|        |   |
|--------|---|
| Mode 1 | AC adapter charging mode + Wireless charging mode(5W)   |
| Mode 2 | AC adapter charging mode + Wireless charging mode(7.5W) |
| Mode 3 | Wireless charging(5W)                                   |
| Mode 4 | Wireless charging(7.5W)                                 |
| Mode 5 | Wireless charging(10W)                                  |
| Mode 6 | Wireless charging(15W)                                  |

Note: 1.All modes were tested, only the AC and DC worst-case was recorded in the report. Mode 2 and Mode 6 is the worst mode.

2.EUT support charging and discharging at the same time, Charging and discharging at the same time can only reach 7.5W.

3.The EUT supports portable use.

### Auxiliary equipment

| Item | Equipment              | Mfr/Brand | Model/Type No. | Series No. | Note |
|------|------------------------|-----------|----------------|------------|------|
| E-1  | AC Adapter             | N/A       | HW-059200CHQ   | N/A        | AE   |
| E-2  | Wireless charging load | /         | EESON          | N/A        | AE   |



## 1 Measuring Standard

KDB 680106 D01 Wireless Power Transfer v04

## 2 Requirements

According to the item 5 of KDB 680106 D01 v04:

Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF exposure evaluation.

| Requirements of section 3 of KDB 680106 D01   | Yes/ No | Description   |
|---|---------|---|
| Mobile Device and Portable Device Configurations  | Yes     | Portable Device   |
| Equipment Authorization Procedures for Devices Operating at Frequencies Below 4 MHz   | Yes     | The device operate in the frequency range 110.1kHz-205kHz             |
| RF Exposure compliance may be ensured only for a minimum conditions at smaller distances can still be considered unlikely.separation distance that is greater than 20 cm, while use | No      | The EUT H-field and E-field strengths at 0 cm surrounding the device. |

## 3 Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

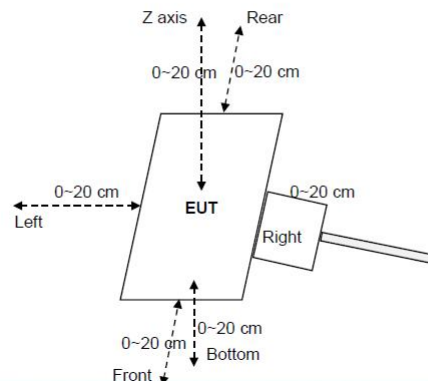
| Frequency range (MHz)                                   | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density (mW/cm <sup>2</sup> ) | Averaging time (minutes) |
|---|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| (A) Limits for Occupational/Controlled Exposures        |                               |                               |                                     |                          |
| 0.3-3.0   | 614                           | 1.63                          | *(100)                              | 6                        |
| 3.0-30  | 1842/f                        | 4.89/f                        | *(900/f <sup>2</sup> )              | 6                        |
| 30-300  | 61.4                          | 0.163                         | 1.0                                 | 6                        |
| 300-1500  | /                             | /                             | f/300                               | 6                        |
| 1500-100,000  | /                             | /                             | 5                                   | 6                        |
| (B) Limits for General Population/Uncontrolled Exposure |                               |                               |                                     |                          |
| 0.3-1.34  | 614                           | 1.63                          | *(100)                              | 30                       |
| 1.34-30   | 824/f                         | 2.19/f                        | *(180/f <sup>2</sup> )              | 30                       |
| 30-300  | 27.5                          | 0.073                         | 0.2                                 | 30                       |
| 300-1500  | /                             | /                             | f/1500                              | 30                       |
| 1500-100,000  | /                             | /                             | 1.0                                 | 30                       |

F=frequency in MHz  
\*=Plane-wave equivalent power density  
RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).



## 4 Test Setup

For portable exposure conditions:



## 5 Test Procedure

- 1) The RF exposure test was performed in anechoic chamber.
- 2) The measurement probe was placed at test distance (20 cm from all sides and 20 cm from the top) which is between the edge of the charger and the geometric center of probe.
- 3) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.
- 4) The EUT was measured according to the dictates of KDB 680106 D01 v04.

Remark: The EUT's test position A, B, C, D and E is valid for the E and H field measurements.



## 6 Test Instruments list

| Test Equipment                    | Manufacturer | Model No.        | SN.        | Cal.Date<br>(mm-dd-yy) | Cal.Due date<br>(mm-dd-yy) |
|-----------------------------------|--------------|------------------|------------|------------------------|----------------------------|
| Exposure Level Tester             | Narda        | ELT-400          | N-0231     | Sep. 29, 2024          | Sep. 28, 2025              |
| Magnetic field probe<br>100cm2    | Narda        | ELT probe 100cm2 | M0675      | Sep. 29, 2024          | Sep. 28, 2025              |
| Isotropic Electric field<br>probe | Narda        | EP-601           | 611WX70332 | Sep. 29, 2024          | Sep. 28, 2025              |

## 7 Test Result

All modes were tested, only the worst-case was recorded in the report. Mode 6 is the worst mode.

| E-Filed Strength from the edges surrounding the EUT (V/m)  |                          |                                 |                                  |                                 |                                  |                                |                                   |                 |
|--|--------------------------|---------------------------------|----------------------------------|---------------------------------|----------------------------------|--------------------------------|-----------------------------------|-----------------|
| The<br>measurement<br>probe was<br>placed at test<br>distance which is<br>between the<br>edge of the<br>charger and the<br>geometric of<br>probe(cm) | Frequency<br>Range (MHz) | Test<br>Position<br>A<br>(Left) | Test<br>Position<br>B<br>(Right) | Test<br>Position<br>C<br>(Rear) | Test<br>Position<br>D<br>(Front) | Test<br>Position<br>E<br>(Top) | Test<br>Position<br>F<br>(Bottom) | Limits<br>(V/m) |
| 0  | 0.1101-0.205             | 1.91                            | 1.89                             | 1.90                            | 1.93                             | 1.91                           | 1.89                              | 614             |
| 2  | 0.1101-0.205             | 1.88                            | 1.86                             | 1.87                            | 1.88                             | 1.83                           | 1.86                              | 614             |
| 4  | 0.1101-0.205             | 1.86                            | 1.85                             | 1.84                            | 1.86                             | 1.83                           | 1.84                              | 614             |
| 6  | 0.1101-0.205             | 1.8                             | 1.83                             | 1.82                            | 1.83                             | 1.8                            | 1.82                              | 614             |
| 8  | 0.1101-0.205             | 1.82                            | 1.82                             | 1.80                            | 1.80                             | 1.85                           | 1.80                              | 614             |
| 10   | 0.1101-0.205             | 1.80                            | 1.79                             | 1.78                            | 1.79                             | 1.84                           | 1.75                              | 614             |
| 12   | 0.1101-0.205             | 1.76                            | 1.78                             | 1.76                            | 1.74                             | 1.80                           | 1.74                              | 614             |
| 14   | 0.1101-0.205             | 1.74                            | 1.73                             | 1.75                            | 1.63                             | 1.76                           | 1.72                              | 614             |
| 16   | 0.1101-0.205             | 1.73                            | 1.70                             | 1.73                            | 1.60                             | 1.72                           | 1.70                              | 614             |
| 18   | 0.1101-0.205             | 1.70                            | 1.69                             | 1.70                            | 1.56                             | 1.70                           | 1.68                              | 614             |
| 20   | 0.1101-0.205             | 1.69                            | 1.65                             | 1.68                            | 1.53                             | 1.66                           | 1.65                              | 614             |

**H-Filed Strength from the edges surrounding the EUT (A/m)**

| The measurement probe was placed at test distance which is between the edge of the charger and the geometric of probe(cm) | Frequency Range (MHz) | Test Position A (Left) uT | Test Position A (Left) A/m | Test Position B (Right) uT | Test Position B (Right) A/m | Test Position C (Rear) uT | Test Position C (Rear) A/m | Test Position D (Front) uT | Test Position D (Front) A/m | Test Position E (Top) uT | Test Position E (Top) A/m | Test Position F (Bottom) uT | Test Position F (Bottom) A/m | Limits (A/m) |
|---|-----------------------|---------------------------|----------------------------|----------------------------|-----------------------------|---------------------------|----------------------------|----------------------------|-----------------------------|--------------------------|---------------------------|-----------------------------|------------------------------|--------------|
| 0   | 0.1101-0.205          | 0.65                      | 0.52                       | 0.68                       | 0.54                        | 0.66                      | 0.53                       | 0.70                       | 0.56                        | 0.70                     | 0.56                      | 0.74                        | 0.59                         | 1.63         |
| 2   | 0.1101-0.205          | 0.63                      | 0.50                       | 0.64                       | 0.51                        | 0.65                      | 0.52                       | 0.68                       | 0.54                        | 0.66                     | 0.53                      | 0.70                        | 0.56                         | 1.63         |
| 4   | 0.1101-0.205          | 0.60                      | 0.48                       | 0.61                       | 0.49                        | 0.63                      | 0.50                       | 0.64                       | 0.51                        | 0.64                     | 0.51                      | 0.68                        | 0.54                         | 1.63         |
| 6   | 0.1101-0.205          | 0.59                      | 0.47                       | 0.58                       | 0.46                        | 0.61                      | 0.49                       | 0.60                       | 0.48                        | 0.63                     | 0.50                      | 0.60                        | 0.48                         | 1.63         |
| 8   | 0.1101-0.205          | 0.55                      | 0.44                       | 0.56                       | 0.45                        | 0.58                      | 0.46                       | 0.56                       | 0.45                        | 0.58                     | 0.46                      | 0.56                        | 0.45                         | 1.63         |
| 10  | 0.1101-0.205          | 0.53                      | 0.42                       | 0.53                       | 0.42                        | 0.54                      | 0.43                       | 0.55                       | 0.44                        | 0.54                     | 0.43                      | 0.55                        | 0.44                         | 1.63         |
| 12  | 0.1101-0.205          | 0.49                      | 0.39                       | 0.50                       | 0.40                        | 0.49                      | 0.39                       | 0.45                       | 0.36                        | 0.50                     | 0.40                      | 0.51                        | 0.41                         | 1.63         |
| 14  | 0.1101-0.205          | 0.45                      | 0.36                       | 0.49                       | 0.39                        | 0.46                      | 0.37                       | 0.44                       | 0.35                        | 0.46                     | 0.37                      | 0.49                        | 0.39                         | 1.63         |
| 16  | 0.1101-0.205          | 0.34                      | 0.27                       | 0.45                       | 0.36                        | 0.45                      | 0.36                       | 0.48                       | 0.38                        | 0.50                     | 0.40                      | 0.54                        | 0.43                         | 1.63         |
| 18  | 0.1101-0.205          | 0.31                      | 0.25                       | 0.40                       | 0.32                        | 0.41                      | 0.33                       | 0.44                       | 0.35                        | 0.45                     | 0.36                      | 0.48                        | 0.38                         | 1.63         |
| 20  | 0.1101-0.205          | 0.29                      | 0.23                       | 0.33                       | 0.26                        | 0.38                      | 0.30                       | 0.40                       | 0.32                        | 0.44                     | 0.35                      | 0.45                        | 0.36                         | 1.63         |

Note: Calculation:  $A/m = uT/1.25$





E-field (V/m):

According to the following table, when we backward derivation 0cm, it should be 1.91(V/m), with a deviation from the actual test value of 1%.

| E-field (V/m) |      |      |      |
|---------------|------|------|------|
| 0cm           | 2cm  | 4cm  | 6cm  |
| 1.93          | 1.88 | 1.86 | 1.83 |

Note:

1. Estimated value (0cm) / Measured value(4cm) = Measured value(2cm) / Measured value(6cm)
2. Deviation = [Measured value(0cm) - Estimated value (0cm)]/ Measured value(0cm)
3. Estimated value (0cm) =  $1.86 \times 1.88 / 1.83 = 1.91(\text{V/m})$
4. Deviation =  $(1.93 - 1.91) / 1.93 = 1\%$

H-field (A/m):

According to the following table, when we backward derivation 0cm, it should be 0.6(A/m), with a deviation from the actual test value of -1%.

| H-field (A/m) |      |      |      |
|---------------|------|------|------|
| 0cm           | 2cm  | 4cm  | 6cm  |
| 0.59          | 0.56 | 0.54 | 0.50 |

1. Estimated value (0cm) / Measured value(4cm) = Measured value(2cm) / Measured value(6cm)
2. Deviation = [Measured value(0cm) - Estimated value (0cm)]/ Measured value(0cm)
3. Estimated value (0cm) =  $0.56 \times 0.54 / 0.5 = 0.6(\text{V/m})$
4. Deviation =  $(0.59 - 0.60) / 0.59 = -1\%$





Test Set-up Photo

