

# TEST REPORT

**Reference No.**..... : WTK20S12093301W002  
**FCC ID** ..... : 2AYFD-W01  
**Applicant**..... : ShenZhen Waikit Electronic Technology Co.,Ltd  
**Address**..... : Room 109, 1/F, CuiHuMingYuan Business Center, No.366,North  
Xuegang Road, ShenZhen  
**Manufacturer** ..... : Shenzhen keyouwei Technology Co.,Ltd  
**Address**..... : 1F/3F, BuildingA1, GuiGuDongLi Auto mobile Creative Industry Park,  
GuanLan Town, Long Hua District, ShenZhen, China.  
**Product**..... : Magnetic Wireless Charger  
**Model(s)** ..... : W01, W02, W03, W04, W05, W06, W07, W08, W09, W10  
**Standards**..... : FCC CFR47 Part 1.1307  
FCC CFR47 Part 1.1310  
**Date of Receipt sample** .... : 2020-12-04  
**Date of Test** ..... : 2020-12-07 to 2020-12-14  
**Date of Issue**..... : 202-12-15  
**Test Result**..... : **Pass**

**Remarks:**

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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### 3 Revision History

| Test report No.        | Date of Receipt sample | Date of Test                   | Date of Issue | Purpose  | Comment | Approved |
|------------------------|------------------------|--------------------------------|---------------|----------|---------|----------|
| WTK20S12093<br>301W002 | 2020-12-04             | 2020-12-07<br>to<br>2020-12-14 | 202-12-16     | Original | -       | Valid    |

## 4 General Information

### 4.1 General Description of E.U.T

|                       |  |
|-----------------------|--|
| Product:              | Magnetic Wireless Charger  |
| Model(s):             | W01, W02, W03, W04, W05, W06, W07, W08, W09, W10   |
| Model Difference:     | All these models are same in all respects, only the model names are different. The test sample model is W01. |
| Type of Modulation:   | ASK  |
| Frequency Range:      | 110-205kHz   |
| Antenna installation: | Inductive loop coil Antenna  |
| Hardware Version:     | C85UC-V21E   |
| Software Version:     | RC20201025-153   |
| Input:                | DC 5V2A, 9V2A, 12V/1.25A   |

### 4.2 Details of accessories

|          |  |
|----------|--|
| Ratings: | Adapter: Input: 100-240V ~ 50/60Hz, 1.8A<br>Output: 5V==2A / 9V==2A / 12V==2A / 20V == 3.25A |
| Adapter: | Model: HW-200325CP0  |

#### 4.3 Test Mode

| Test Mode     | Descriptions                       |
|---------------|------------------------------------|
| Standby mode  | EUT alone powered by AC/DC adapter |
| Charging mode | Loading of 5 W                     |
|               | Loading of 10 W                    |
|               | Loading of 15 W                    |

**Note :** EUT was investigated with client device under normal charging condition as above then worst value was only report.

#### 4.4 Test Facility

The test facility has a test site registered with the following organizations:

**ISED CAB identifier: CN0013. Test Firm Registration No.: 7760A.**

Waltek Services(Shenzhen) Co., Ltd. Has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files.

Registration number 7760A, October 15, 2016.

**FCC Designation No.: CN1201. Test Firm Registration No.: 523476.**

Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory `has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration number 523476, September 10, 2019.

## 5 Test Summary

| Test Items                        | Test Requirement                                | Result |
|-----------------------------------|---|--------|
| Electric Field Strength (E) (V/m) | FCC CFR 47 part1 § 1.1310<br>KDB 680106 D01 v03 | PASS   |
| Magnetic Field Strength (H) (A/m) |   | PASS   |

Note: -

## 6 Equipment Used during Test

### 6.1 Equipments List

| RF EXPOSURE |                      |              |           |               |                       |                      |
|-------------|----------------------|--------------|-----------|---------------|-----------------------|----------------------|
| Item        | Equipment            | Manufacturer | Model No. | Serial No.    | Last Calibration Date | Calibration Due Date |
| 1           | Magnetic Field Meter | NARDA        | ELT-400   | M-0155/M-0170 | 2020-07-24            | 2020-07-23           |

### 6.2 Description of Auxiliary Equipment

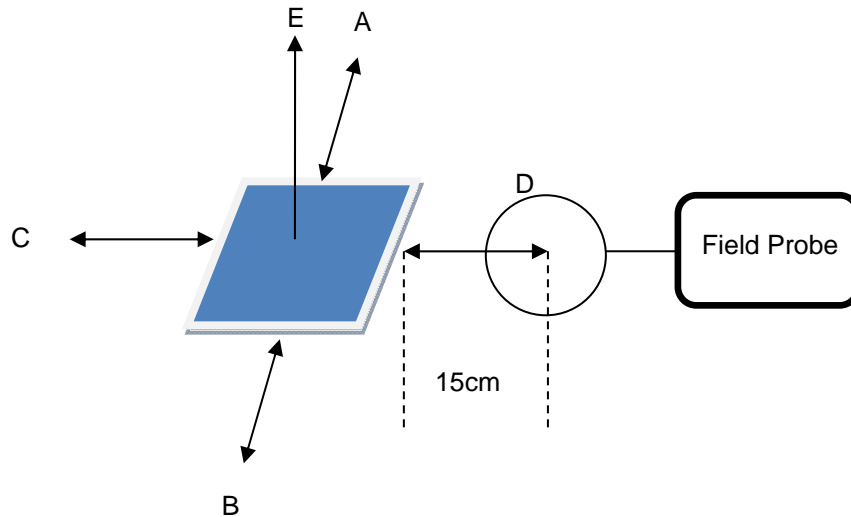
| Equipment      | Manufacturer | Model No.    | Series No. |
|----------------|--------------|--------------|------------|
| Simulated load | /            | /            | /          |
| Adapter        | HUAWEI       | HW-200325CP0 | N/A        |

### 6.3 Test Equipment Calibration

All the test equipments used are valid and calibrated by CEPREI Certification Body that address is No.110 Dongguan Zhuang RD. Guangzhou, P.R.China.

## 7 RF Exposure

### 7.1 Test Setup



The RF exposure test was performed in anechoic chamber.

The probe was placed at test distance (15cm) which is between the edge of the charger and the geometric centre of probe.

The EUT was put in different directions (Left, Right, Front, Rear, Top and Bottom) to obtain the maximum reading.

The EUT was measured according to the dictates of KDB 680106 D01 RF Exposure Wireless Charging App v03.

### 7.2 Equipment approval considerations (clause 5 b) of KDB 680106 D01 v03

- (1) Power transfer frequency is less than 1 MHz.
- (2) Output power from each primary coil is less than or equal to 15 watts.
- (3) The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils.
- (4) Client device is placed directly in contact with the transmitter.
- (5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
- (6) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.



### 7.3 FCC Rules

§1.1310: The criteria listed in the following table 1 shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in §1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of FCC part 2.1093 of this chapter.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| Frequency range<br>(MHz)                                | Electric field<br>strength<br>(V/m) | Magnetic field<br>strength<br>(A/m) | Power density<br>(mW/cm <sup>2</sup> ) | Averaging time<br>(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                          |

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)—Continued

| Frequency range<br>(MHz) | Electric field<br>strength<br>(V/m) | Magnetic field<br>strength<br>(A/m) | Power density<br>(mW/cm <sup>2</sup> ) | Averaging time<br>(minutes) |
|--------------------------|-------------------------------------|-------------------------------------|--|-----------------------------|
| 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

NOTE 1 TO TABLE 1: Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

NOTE 2 TO TABLE 1: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or can not exercise control over their exposure.

### 7.4 EUT Operation

Operating Environment :

Temperature: 23.5 °C

Humidity: 51.1 % RH

Atmospheric Pressure: 101.2kPa

EUT Operation : Charging mode: Loading of 10 W

Only the worst case transmitting mode were record in the report.

## 7.5 Test Result

Maximum RF exposure reading and percentage

| Electric Field Limit |                  |               | Magnetic Field Limit |                  |               |
|----------------------|------------------|---------------|----------------------|------------------|---------------|
| FCC                  | Maximum RMS(V/m) | Percentage(%) | FCC                  | Maximum RMS(A/m) | Percentage(%) |
| 614                  | 13.5             | 2.20          | 1.623                | 0.302            | 18.61         |

E-Filed Strength (V/m) of charging mode: Loading of 10 W

| Frequency Range | Test Position |     |      |      |      | Maximum |
|-----------------|---------------|-----|------|------|------|---------|
| MHz             | A             | B   | C    | D    | E    | (V/m)   |
| 0.118           | 13.5          | 9.2 | 7.62 | 8.57 | 7.13 | 13.5    |

H-Filed Strength (A/m) of charging mode: Loading of 10 W

| Frequency Range | Test Position |       |       |       |       | Maximum |
|-----------------|---------------|-------|-------|-------|-------|---------|
| MHz             | A             | B     | C     | D     | E     | (A/m)   |
| 0.118           | 0.302         | 0.089 | 0.095 | 0.103 | 0.097 | 0.302   |

## **8 Photographs of test setup**

Note: Please refer to appendix: Appendix-W01 Test Setup Photos.

=====End of Report=====