

## RF EXPOSURE REPORT

### FOR

|                             |   |                                                                                                                 |
|-----------------------------|---|-----------------------------------------------------------------------------------------------------------------|
| <b>Applicant</b>            | : | SHENZHEN EPQI TECHNOLOGY CO., LTD                                                                               |
| <b>Address</b>              | : | Floor 6, Block 7, Zhongyuntai Industry Park,<br>Songbai Road, Shiyan Town, Bao'an District,<br>Shenzhen, China. |
| <b>Equipment under Test</b> | : | wireless charger                                                                                                |
| <b>Model No.</b>            | : | EC500F, EC500A, EC500B, EC500C, EC500D,<br>EC500E, EC500G, EC500H, EC500I, EC500J,<br>EC500K, EC500M            |
| <b>Trade Mark</b>           | : | EPQI                                                                                                            |
| <b>FCC ID</b>               | : | 2AOPC-EC500F                                                                                                    |
| <b>Manufacturer</b>         | : | SHENZHEN EPQI TECHNOLOGY CO., LTD                                                                               |
| <b>Address</b>              | : | Floor 6, Block 7, Zhongyuntai Industry Park,<br>Songbai Road, Shiyan Town, Bao'an District,<br>Shenzhen, China. |

**Issued By: Dongguan Dongdian Testing Service Co., Ltd.**

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# REPORT

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## TEST REPORT DECLARE

|                     |   |                                                                                                           |
|---------------------|---|-----------------------------------------------------------------------------------------------------------|
| <b>Applicant</b>    | : | SHENZHEN EPQI TECHNOLOGY CO., LTD                                                                         |
| <b>Address</b>      | : | Floor 6, Block 7, Zhongyuntai Industry Park, Songbai Road, Shiyan Town, Bao'an District, Shenzhen, China. |
| <b>Equipment</b>    | : | wireless charger                                                                                          |
| <b>Model No.</b>    | : | EC500F, EC500A, EC500B, EC500C, EC500D, EC500E, EC500G, EC500H, EC500I, EC500J, EC500K, EC500M            |
| <b>Trade Mark</b>   | : | EPQI                                                                                                      |
| <b>Manufacturer</b> | : | SHENZHEN EPQI TECHNOLOGY CO., LTD                                                                         |
| <b>Address</b>      | : | Floor 6, Block 7, Zhongyuntai Industry Park, Songbai Road, Shiyan Town, Bao'an District, Shenzhen, China. |

**Assess Standard Used:** FCC CFR 47 part1, 1.1307(b), 1.1310

**We Declare:**

The equipment described above is assessed by Dongguan Dongdian Testing Service Co., Ltd and in the configuration assessed the equipment complied with the standards specified above. The assessed results are contained in this report and Dongguan Dongdian Testing Service Co., Ltd is assumed of full responsibility for the accuracy and completeness of these assess.

**After evaluation, our opinion is that the equipment In Accordance with above standard.**

|                      |                             |                        |               |
|----------------------|-----------------------------|------------------------|---------------|
| <b>Report No:</b>    | DDT-R18040406-1E1           |                        |               |
| <b>Date of Test:</b> | Apr. 08, 2018~Apr. 19, 2018 | <b>Date of Report:</b> | Apr. 19, 2018 |

**Prepared By:**

*Sam Li*

**Sam Li/Engineer**

**Approved By:**



**Kevin Feng/EMC Manager**

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

## 1. General information

### 1.1. Description of Equipment

|                                       |   |                                                                                                        |
|---------------------------------------|---|--------------------------------------------------------------------------------------------------------|
| EUT* Name                             | : | wireless charger                                                                                       |
| Model Number                          | : | EC500F, EC500A, EC500B, EC500C, EC500D, EC500E, EC500G, EC500H, EC500I, EC500J, EC500K, EC500M         |
| Difference of model number            | : | All models are identical, except the model number and colors, all tests are performed on model EC500F. |
| EUT function description              | : | Please reference user manual of this device                                                            |
| Power supply                          | : | DC 9V from external AC Adapter                                                                         |
| Wireless charging Operation frequency | : | 120kHz-210kHz                                                                                          |
| Antenna Type                          | : | Inductive loop coil antenna                                                                            |
| Sample Type                           | : | Series production                                                                                      |

Note: EUT is the ab. of equipment under test.

### 1.2. Assistant equipment used for test

| Assistant equipment | Manufacturer | Model number | Serial No. | Other                                                                 |
|---------------------|--------------|--------------|------------|-----------------------------------------------------------------------|
| Simulation load     | /            | /            | /          | /                                                                     |
| USB cable           | /            | /            | /          | /                                                                     |
| AC adapter          | HUAWEI       | HW-050200C3W | /          | Input: AC<br>100-240V<br>50/60Hz 0.5A<br>MAX<br>Output: DC<br>5.0V 2A |

### 1.3. Assess laboratory

Dongguan Dongdian Testing Service Co., Ltd

Add: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City,  
Guangdong Province, China, 523808

Tel: +86-0769-89201699, E-mail: ddt@dgddt.com, <http://www.dgddt.com>

FCC Registration Number: 270092 Industry Canada site registration number: 10288A-1

## 2. Equipment used during test

| Equipment               | Manufacturer | Model No.                       | Serial No. | Last Cal.  | Cal. Interval |
|-------------------------|--------------|---------------------------------|------------|------------|---------------|
| Electromagnetic Analyer | narda        | ELT-400                         | N-0157     | 2017/09/17 | 1 Year        |
| Magnetic field probe    | narda        | ELT probe<br>100cm <sup>2</sup> | M0157      | 2017/09/17 | 1 Year        |

### 3. Method of measurement

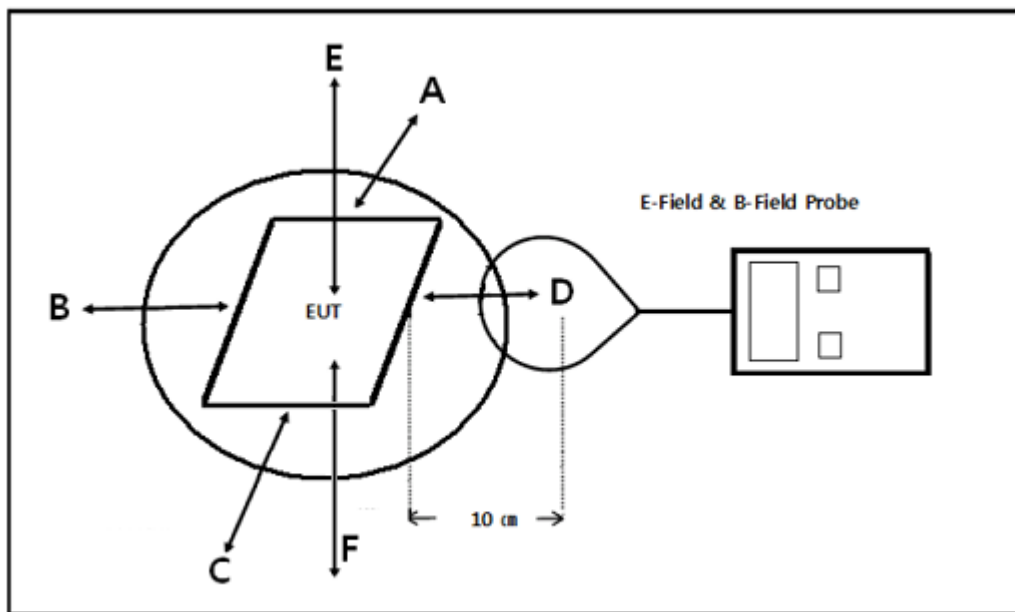
#### 3.1. Applicable Standard

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to §1.1310 and §2.1093 RF exposure is calculated.

According KDB680106 D01v02: RF Exposure Wireless Charging Apps v02.

#### 3.2. Block diagram of test setup



Note: Due to installation limitations no tests from the underside of the charging device (Test Position F) are required.

#### 3.3. Test Procedure

- The RF exposure test was performed in shielded chamber.
- The measurement probe was placed at test distance (10cm) which is between the edge of the charger and the geometric centre of probe.
- The measurement probe used to search of highest strength.
- The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.
- The EUT were measured according to the dictates of KDB 680106D01v02.

### 3.4. Limit

TABLE 1—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 Exposure         |                               |                               |                                     |                          |
| 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                        |
| 300-1,500                                               |                               |                               | f/300                               | 6                        |
| 1,500-100,000                                           |                               |                               | 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                       |
| 300-1,500                                               |                               |                               | f/1500                              | 30                       |
| 1,500-100,000                                           |                               |                               | 1.0                                 | 30                       |

f = frequency in MHz \* = Plane-wave equivalent power density

### 3.5. E and H field Strength

Test mode for wireless charger:

Dummy load: Full Load, Zero charge and intermediate charge mode

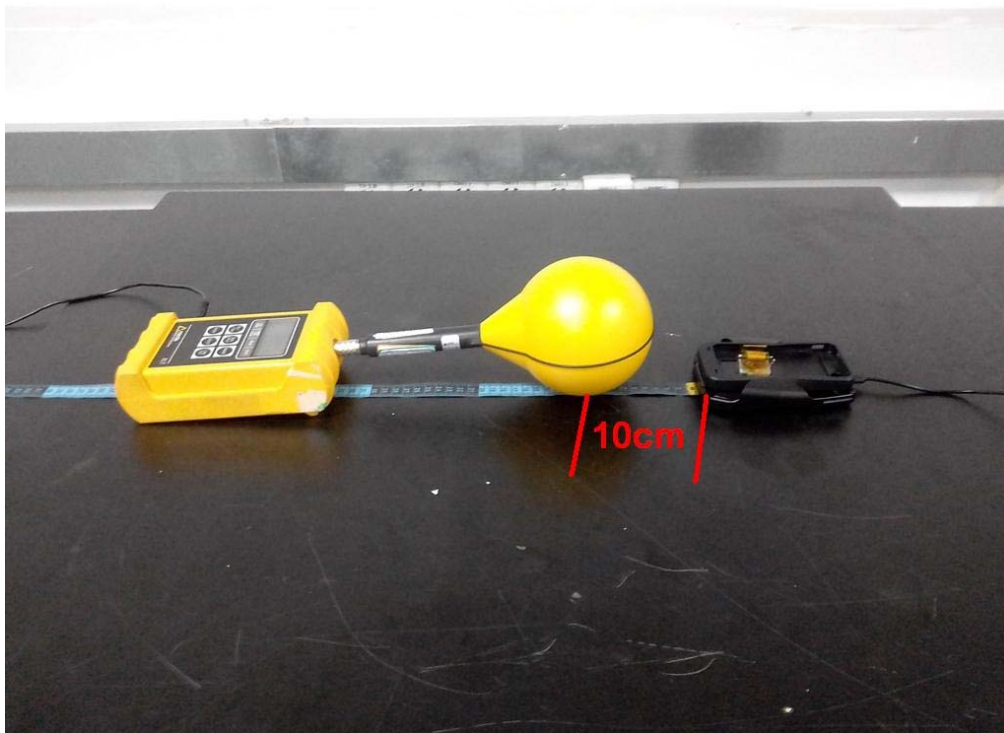
E-Filed Strength at 10 cm from the edges surrounding the EUT (V/m)

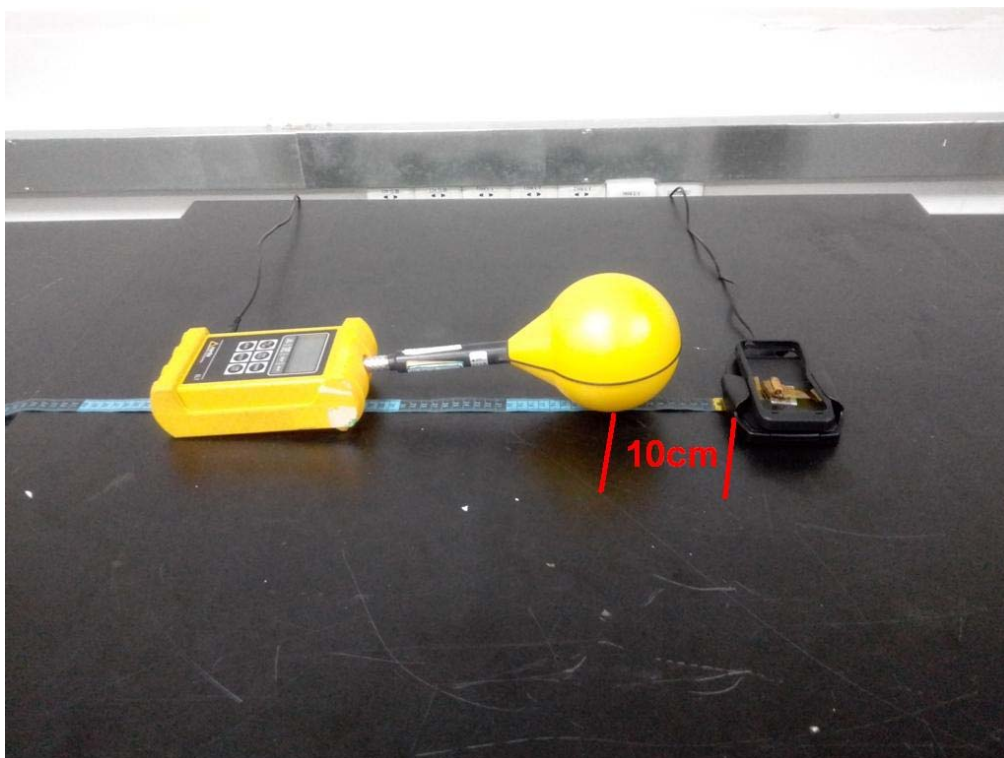
| Test Position | Probe Measure Result(V/m) |             |                     | Limits Test (V/m) |
|---------------|---------------------------|-------------|---------------------|-------------------|
|               | Full Load                 | Zero charge | intermediate charge |                   |
| A             | 4.33                      | 4.86        | 4.69                | 614               |
| B             | 3.15                      | 3.72        | 3.41                | 614               |
| C             | 3.52                      | 3.98        | 3.81                | 614               |
| D             | 3.60                      | 4.04        | 3.85                | 614               |
| E             | 12.08                     | 13.27       | 12.50               | 614               |

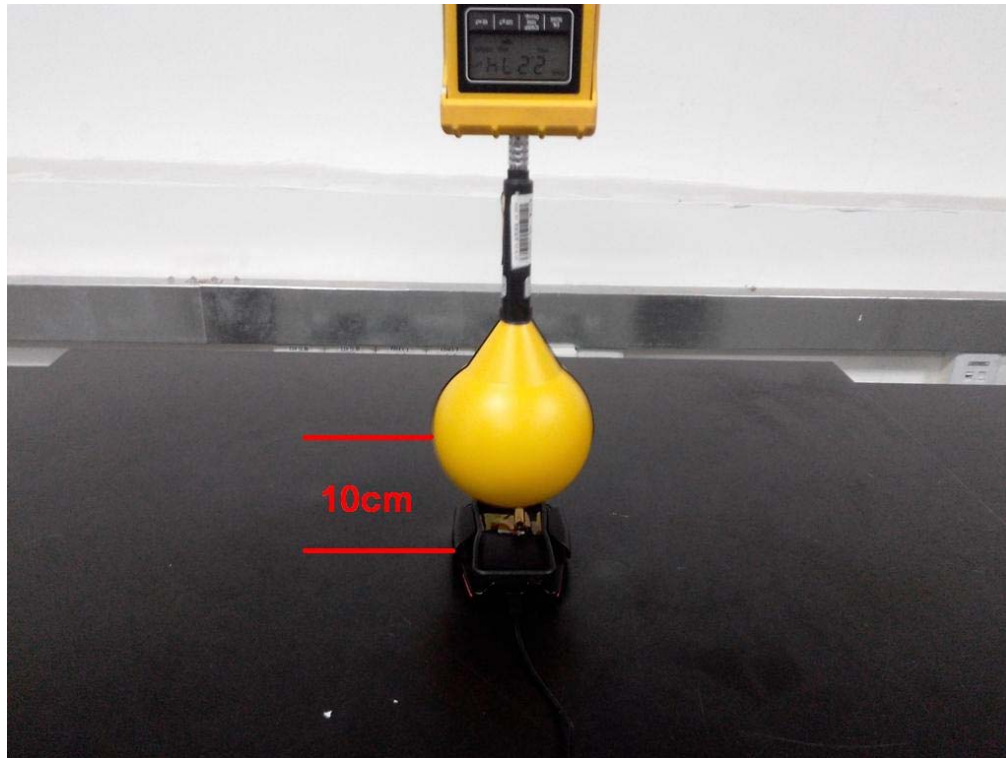
H-Filed Strength at 10 cm from the edges surrounding the EUT (A/m)

| Test Position | Probe Measure Result(A/m) |             |                     | Limits Test (A/m) |
|---------------|---------------------------|-------------|---------------------|-------------------|
|               | Full Load                 | Zero charge | intermediate charge |                   |
| A             | 0.250                     | 0.282       | 0.270               | 1.63              |
| B             | 0.483                     | 0.513       | 0.494               | 1.63              |
| C             | 0.277                     | 0.310       | 0.289               | 1.63              |
| D             | 0.398                     | 0.429       | 0.410               | 1.63              |
| E             | 1.142                     | 1.401       | 1.280               | 1.63              |

#### 4. Test Setup Photo







**END OF REPORT**