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## MPE TEST REPORT

Report No:STS1807162W03

Issued for

Dongguan Jin wen hua digital technology Co., LTD.

NO.1 Hua Da Road, Long Bei Ling Village, Tangxia Town,  
Dongguan City, Guangdong, China

|                       |                           |
|-----------------------|---------------------------|
| <b>Product Name:</b>  | Wireless charger          |
| <b>Brand Name:</b>    | N/A                       |
| <b>Model Name:</b>    | Q1                        |
| <b>Series Model:</b>  | N/A                       |
| <b>FCC ID:</b>        | 2AFSGQ1                   |
| <b>Test Standard:</b> | FCC CFR 47 part 1, 1.1310 |

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TEST RESULT CERTIFICATION

Applicant's name .....: Dongguan Jin wen hua digital technology Co., LTD.
Address .....: NO.1 Hua Da Road, Long Bei Ling Village, Tangxia Town, Dongguan City, Guangdong, China
Manufacture's Name .....: Dongguan Jin wen hua digital technology Co., LTD.
Address .....: NO.1 Hua Da Road, Long Bei Ling Village, Tangxia Town, Dongguan City, Guangdong, China

Product description

Product Name .....: Wireless charger
Brand Name .....: N/A
Model Name .....: Q1
Series Model .....: N/A

Standards : FCC CFR 47 part 1, 1.1310

Test Procedure : 680106 D01 RF Exposure Wireless Charging Apps v03

This device described above has been tested by STS, 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.

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Date of performance of tests: 13 July 2018 ~ 18 July 2018

Date of Issue : 20 July 2018

Test Result : Pass

Testing Engineer : Chris chen
( Chris chen )

Technical Manager : Sean she
( Sean she )

Authorized Signatory : Vita Li
(Vita Li)





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**Revision History**

| Rev. | Issue Date   | Report NO.    | Effect Page | Contents      |
|------|--------------|---------------|-------------|---------------|
| 00   | 20 July 2018 | STS1807162W03 | ALL         | Initial Issue |
|      |              |               |             |               |



### 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:  
 FCC KDB 680106 D01 RF Exposure Wireless Charging Apps v03

| FCC CFR 47                                      |                                   |          |        |
|---|-----------------------------------|----------|--------|
| Standard Section                                | Test Item                         | Judgment | Remark |
| FCC CFR 47 part1,<br>1.1310 KDB680106<br>D01v03 | Electric Field Strength (E) (V/m) | PASS     |        |
|   | Magnetic Field Strength (H) (A/m) | PASS     |        |

#### 1.1 TEST FACTORY

Shenzhen STS Test Services Co., Ltd.  
 Add. : 1/F., Building B, Zhuoke Science Park, No.190, Chongqing Road,  
 Fuyong Street, Bao'an District, Shenzhen, Guangdong, China  
 CNAS Registration No.: L7649; FCC Registration No.: 625569  
 IC Registration No.: 12108A; A2LA Certificate No.: 4338.01;

#### 1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95%.

| No. | Item                                     | Uncertainty             |
|-----|--|-------------------------|
| 1   | All emissions,radiated(<30M)(9KHz-30MHz) | $\pm 2.45\text{dB}$     |
| 2   | Temperature                              | $\pm 0.5^\circ\text{C}$ |
| 3   | Humidity                                 | $\pm 2\%$               |



## 1.3 GENERAL DESCRIPTION OF EUT

|                         |  |
|-------------------------|--|
| Product Name            | Wireless charger                           |
| Trade Name              | N/A  |
| Model Name              | Q1   |
| Series Model            | N/A  |
| Model Difference        | N/A  |
| Equipemnt Category      | Non-ISM frequency                          |
| Operating frequency     | 127.5KHz                                   |
| Modulation Type         | ASK  |
| Ratings                 | Input:12V-1.5A/5V-2A<br>Output:9V-1A/5V-1A |
| Hardware version number | V1.1                                       |
| Software version number | V1.0                                       |

## Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. Table for Filed Antenna

| Ant | Brand | Model Name | Antenna Type | Connector | NOTE    |
|-----|-------|------------|--------------|-----------|---------|
| 1   | N/A   | Q1         | Coil         | N/A       | Antenna |

The EUT antenna is Coil Antenna. No antenna other than that furnished by the responsible party shall be used with the device.



## 1.4 EQUIPMENTS LIST FOR ALL TEST ITEMS

| Kind of Equipment | Manufacturer | Type No. | Serial No. | Last calibration | Calibrated until |
|-------------------|--------------|----------|------------|------------------|------------------|
| EMF Meter         | NARDA        | ELT-400  | N-0342     | 2017.10.23       | 2018.10.22       |



## 2. MAXIMUM PERMISSIBLE EXPOSURE

### 2.1 MAXIMUM PERMISSIBLE EXPOSURE

Limit of Maximum Permissible Exposure

| Limits for Occupational / Controlled Exposure |                                   |                                   |  |  |
|---|-----------------------------------|-----------------------------------|--|--|
| Frequency Range (MHz)                         | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/ cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes) |
| 0.3-3.0                                       | 614                               | 1.63                              | (100)*                                   | 6  |
| 3.0-30  | 1842 / f                          | 4.89 / f                          | (900 / f)*                               | 6  |
| 30-300  | 61.4                              | 0.163                             | 1.0                                      | 6  |
| 300-1500                                      |                                   |                                   | F/300                                    | 6  |
| 1500-100,000                                  |                                   |                                   | 5  | 6  |

| Limits for General Population / Uncontrolled Exposure |                                   |                                   |  |  |
|---|-----------------------------------|-----------------------------------|--|--|
| Frequency Range (MHz)                                 | Electric Field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/ cm <sup>2</sup> ) | Averaging Time  E  <sup>2</sup> , H  <sup>2</sup> or S (minutes) |
| 0.3-1.34  | 614                               | 1.63                              | (100)*                                   | 30   |
| 1.34-30   | 824/f                             | 2.19/f                            | (180 / f)*                               | 30   |
| 30-300  | 27.5                              | 0.073                             | 0.2                                      | 30   |
| 300-1500  |                                   |                                   | F/1500                                   | 30   |
| 1500-100,000  |                                   |                                   | 1  | 30   |

Note 1: f = frequency in MHz ; \*Plane-wave equivalent power density

Note 2: For the applicable limit, see FCC 1.1310, 680106 D01 RF Exposure Wireless Charging Apps v03

Note 3: Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m. A KDB inquiry is required to determine the applicable exposure limits below 100 kHz.

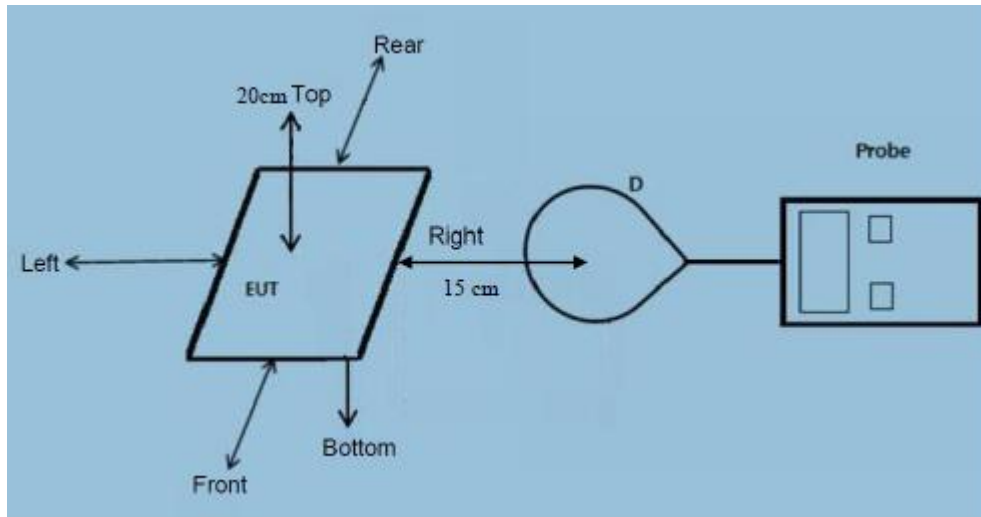
Note 4: The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit .



## 2.2 TEST PROCEDURE

- a. For devices designed for typical desktop applications, such as wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 20 cm (Top) and 15 cm (Edge). E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 20 cm (Top) and 15 cm (Edge) measured from the center of the probe(s) to the edge of the device.

## 2.3 TEST SETUP



## 2.4 Test results

The EUT does comply with item 5 KDB680106 D01 v03.

- (1) Power transfer frequency is less than 1 MHz.  
(Conform)
- (2) Output power from each primary coil is less than or equal to 15 watts.  
(Conform)
- (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.  
(Conform)
- (4) Client device is placed directly in contact with the transmitter.  
(Conform)
- (5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).  
(Conform)
- (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.  
(Conform)



## 2.5 MAXIMUM PERMISSIBLE EXPOSURE

| E-Filed Strength |                     |                    |                        |                        |                      |                   |        |
|------------------|---------------------|--------------------|------------------------|------------------------|----------------------|-------------------|--------|
| Charging         | Probe from EUT Side | Test Distance (cm) | Calculated Value (A/m) | Calculated Value (V/m) | 50% Limits Test(V/m) | Limits Test (V/m) | Result |
| < 1% Battery     | Front               | 15                 | 0.117                  | 0.440                  | 307                  | 614               | PASS   |
| < 1% Battery     | Rear                | 15                 | 0.110                  | 0.432                  |                      |                   | PASS   |
| < 1% Battery     | Left                | 15                 | 0.109                  | 0.439                  |                      |                   | PASS   |
| < 1% Battery     | Right               | 15                 | 0.120                  | 0.443                  |                      |                   | PASS   |
| < 1% Battery     | Top                 | 20                 | 0.121                  | 0.453                  |                      |                   | PASS   |
| H-Filed Strength |                     |                    |                        |                        |                      |                   |        |
| Charging         | Test Position       | Test Distance (cm) | Measured Value(uT)     | Calculated Value (A/m) | 50% Limits Test(A/m) | Limits Test (A/m) | Result |
| < 1% Battery     | A                   | 15                 | 0.146                  | 0.117                  | 0.815                | 1.63              | PASS   |
| < 1% Battery     | B                   | 15                 | 0.138                  | 0.110                  |                      |                   | PASS   |
| < 1% Battery     | C                   | 15                 | 0.136                  | 0.109                  |                      |                   | PASS   |
| < 1% Battery     | D                   | 15                 | 0.150                  | 0.120                  |                      |                   | PASS   |
| < 1% Battery     | E                   | 20                 | 0.151                  | 0.121                  |                      |                   | PASS   |

Note: The aggregate H-filed strengths at 15cm surrounding the device and 20cm above the top surface.

$$A/m = uT / 1.25$$



| E-Filed Strength |                     |                    |                        |                        |                      |                   |        |
|------------------|---------------------|--------------------|------------------------|------------------------|----------------------|-------------------|--------|
| Charging         | Probe from EUT Side | Test Distance (cm) | Calculated Value (A/m) | Calculated Value (V/m) | 50% Limits Test(V/m) | Limits Test (V/m) | Result |
| 50% Battery      | Front               | 15                 | 0.105                  | 0.445                  | 307                  | 614               | PASS   |
| 50% Battery      | Rear                | 15                 | 0.107                  | 0.429                  |                      |                   | PASS   |
| 50% Battery      | Left                | 15                 | 0.119                  | 0.433                  |                      |                   | PASS   |
| 50% Battery      | Right               | 15                 | 0.115                  | 0.437                  |                      |                   | PASS   |
| 50% Battery      | Top                 | 20                 | 0.124                  | 0.451                  |                      |                   | PASS   |
| H-Filed Strength |                     |                    |                        |                        |                      |                   |        |
| Charging         | Test Position       | Test Distance (cm) | Measured Value(uT)     | Calculated Value (A/m) | 50% Limits Test(A/m) | Limits Test (A/m) | Result |
| 50% Battery      | A                   | 15                 | 0.131                  | 0.105                  | 0.815                | 1.63              | PASS   |
| 50% Battery      | B                   | 15                 | 0.134                  | 0.107                  |                      |                   | PASS   |
| 50% Battery      | C                   | 15                 | 0.149                  | 0.119                  |                      |                   | PASS   |
| 50% Battery      | D                   | 15                 | 0.144                  | 0.115                  |                      |                   | PASS   |
| 50% Battery      | E                   | 20                 | 0.155                  | 0.124                  |                      |                   | PASS   |

Note: The aggregate H-filed strengths at 15cm surrounding the device and 20cm above the top surface.

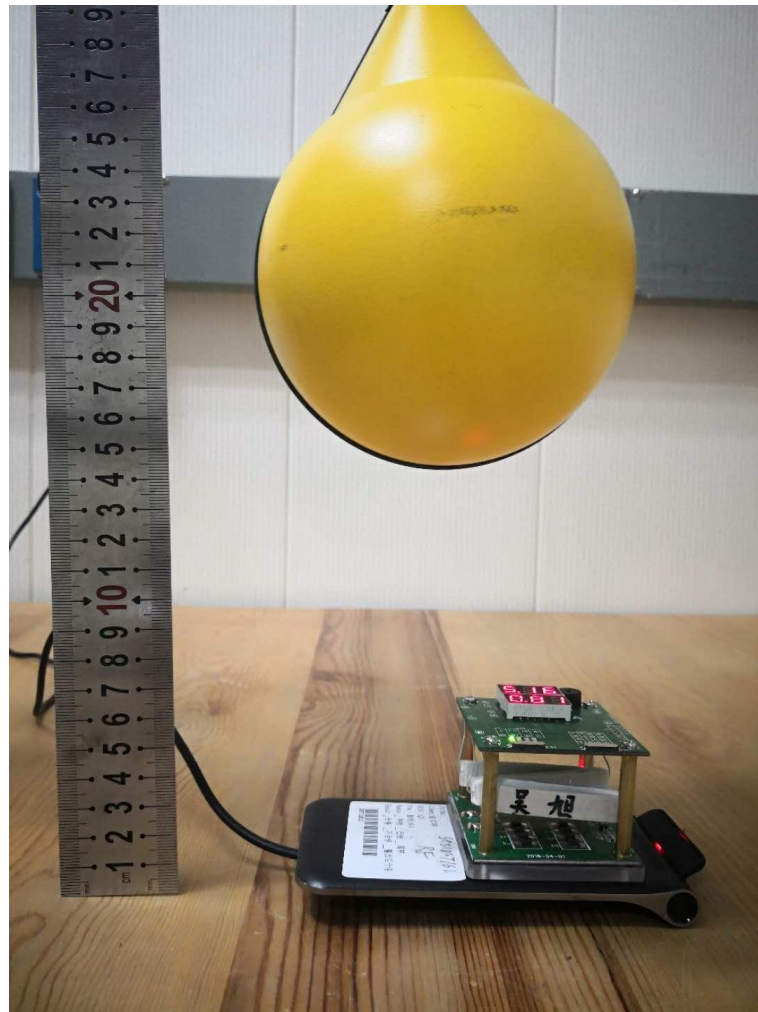
$A/m = uT / 1.25$



| E-Filed Strength |                     |                    |                        |                        |                      |                   |        |
|------------------|---------------------|--------------------|------------------------|------------------------|----------------------|-------------------|--------|
| Charging         | Probe from EUT Side | Test Distance (cm) | Calculated Value (A/m) | Calculated Value (V/m) | 50% Limits Test(V/m) | Limits Test (V/m) | Result |
| >99% Battery     | Front               | 15                 | 0.112                  | 0.443                  | 307                  | 614               | PASS   |
| >99% Battery     | Rear                | 15                 | 0.119                  | 0.448                  |                      |                   | PASS   |
| >99% Battery     | Left                | 15                 | 0.105                  | 0.435                  |                      |                   | PASS   |
| >99% Battery     | Right               | 15                 | 0.121                  | 0.439                  |                      |                   | PASS   |
| >99% Battery     | Top                 | 20                 | 0.126                  | 0.455                  |                      |                   | PASS   |
| H-Filed Strength |                     |                    |                        |                        |                      |                   |        |
| Charging         | Test Position       | Test Distance (cm) | Measured Value(uT)     | Calculated Value (A/m) | 50% Limits Test(A/m) | Limits Test (A/m) | Result |
| >99% Battery     | A                   | 15                 | 0.140                  | 0.112                  | 0.815                | 1.63              | PASS   |
| >99% Battery     | B                   | 15                 | 0.149                  | 0.119                  |                      |                   | PASS   |
| >99% Battery     | C                   | 15                 | 0.131                  | 0.105                  |                      |                   | PASS   |
| >99% Battery     | D                   | 15                 | 0.151                  | 0.121                  |                      |                   | PASS   |
| >99% Battery     | E                   | 20                 | 0.158                  | 0.126                  |                      |                   | PASS   |

Note: The aggregate H-filed strengths at 15cm surrounding the device and 20cm above the top surface.  
 $A/m = uT / 1.25$

### MPE SETUP PHOTO



※※※※※END OF THE REPORT※※※※※