# RF Exposure Report

Report No.: AGC01748180404FH03

| | | |
|---|---|---|
| **APPLICATION PURPOSE** | : | Original Equipment |
| **PRODUCT DESIGNATION** | : | Wireless Charger |
| **BRAND NAME** | : | N/A |
| **MODEL NAME** | : | 180001 |
| **CLIENT** | : | GREAT FOREST MANUFACTURE CO., LTD. |
| **DATE OF ISSUE** | : | May 10, 2018 |
| **STANDARD(S)** | : | KDB 680106 D01 RF Exposure Wireless Charger App v03 |
| **REPORT VERSION** | : | V1.0 |

Attestation of Global Compliance (Shenzhen) Co., Ltd

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## REPORT REVISE RECORD

| Report Version | Revise Time | Issued Date | Valid Version | Notes |
|---|---|---|---|---|
| V1.0 | / | May 10, 2018 | Valid | Initial Release |

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## 1. VERIFICATION OF CONFORMITY

| | |
|---|---|
| **Applicant** | GREAT FOREST MANUFACTURE CO, LTD., |
| **Address** | Room 1709 Building A, 95 International Mansion, No.598 Jiangnan Road, High-Tech District Ningbo China |
| **Manufacturer** | GREAT FOREST MANUFACTURE CO, LTD.,, |
| **Address** | Room 1709 Building A, 95 International Mansion, No.598 Jiangnan Road, High-Tech District Ningbo China |
| **Product Designation** | Wireless Charger |
| **Brand Name** | N/A |
| **Test Model:** | 180001 |
| **Date of test** | Apr. 28, 2018 to May 10, 2018 |
| **Deviation** | None |
| **Condition of Test Sample** | Normal |
| **Report Template** | AGCRT-US-BR/RF (2013-03-01) |

We hereby certify that:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in KDB 680106 D01.

The results of testing in this report apply to the product/system which was tested only.

Tested by Max Zhang

Max Zhang(Zhang Yi) May 10, 2018

Reviewed by Bart Xie

Bart Xie(Xie Xiaobin)) May 10, 2018

Approved By Forrest Lei

Forrest Lei(Lei Yonggang) May 10, 2018

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# 2. GENERAL INFORMATION

## 2.1. PRODUCT DESCRIPTION

A major technical description of EUT is described as following

| | |
|---|---|
| **Operation Frequency** | 174.6KHz |
| **Maximum field strength** | 52.05dBuV/m(Peak)@3m |
| **Modulation** | FSK |
| **Number of channels** | 1 |
| **Antenna Designation** | Integrated Antenna (Met 15.203 Antenna requirement) |
| **Hardware Version** | EYM-W22V0.1 |
| **Software Version** | V1.0 |
| **Power Supply** | Input: 5V/2A<br>Output: 5V/1A |

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## 3. DESCRIPTION OF TEST MODES

| NO. | TEST MODE DESCRIPTION |
|---|---|
| 1 | Wireless charging Mode (Full load) |
| 2 | Wireless charging Mode (half load) |
| 3 | Wireless charging Mode (Null load) |

Note:
1. The mode 1 was the worst case and only the data of the worst case record in this report.

## 4. SYSTEM TEST CONFIGURATION

| Item | Equipment | Model No. | ID or Specification | Remark |
|---|---|---|---|---|
| 1 | Wireless Charger | 180001 | 2APR2-180001 | EUT |
| 2 | Adapter | HW05010002 | 100-240V 50/60Hz 0.5A DC5V 1A | Support |
| 3 | Wireless electronic Load | -- | Maximum power 10.8W | Support |

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## 5. TEST FACILITY

| | |
|---|---|
| **Test Site** | Attestation of Global Compliance (Shenzhen) Co., Ltd |
| **Location** | 1-2F., Bldg.2, No.1-4, Chaxi Sanwei Technical Industrial Park, Gushu, Xixiang, Bao'an District B112-B113, Bldg.12, Baoan Bldg Materials Center, No.1 of Xixiang Inner Ring Road, Baoan District, Shenzhen 518012 |
| **NVLAP LAB CODE** | 600153-0 |
| **Designation Number** | CN5028 |
| **FCC Test Firm Registration Number** | 682566 |
| **Description** | Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by National Voluntary Laboratory Accreditation program, NVLAP Code 600153-0 |

### TEST EQUIPMENT LIST

| Description | Manufacturer | Model | S/N | Cal. Date | Cal. Due |
|---|---|---|---|---|---|
| Broadband Field Meter | Narda Safety Test Solutions GmbH | NBM-550 | J-0004 | June 15, 2017 | June 14, 2018 |
| Probe FHP | Narda Safety Test Solutions GmbH | EHP-50F | J-0015 | June 15, 2017 | June 14, 2018 |

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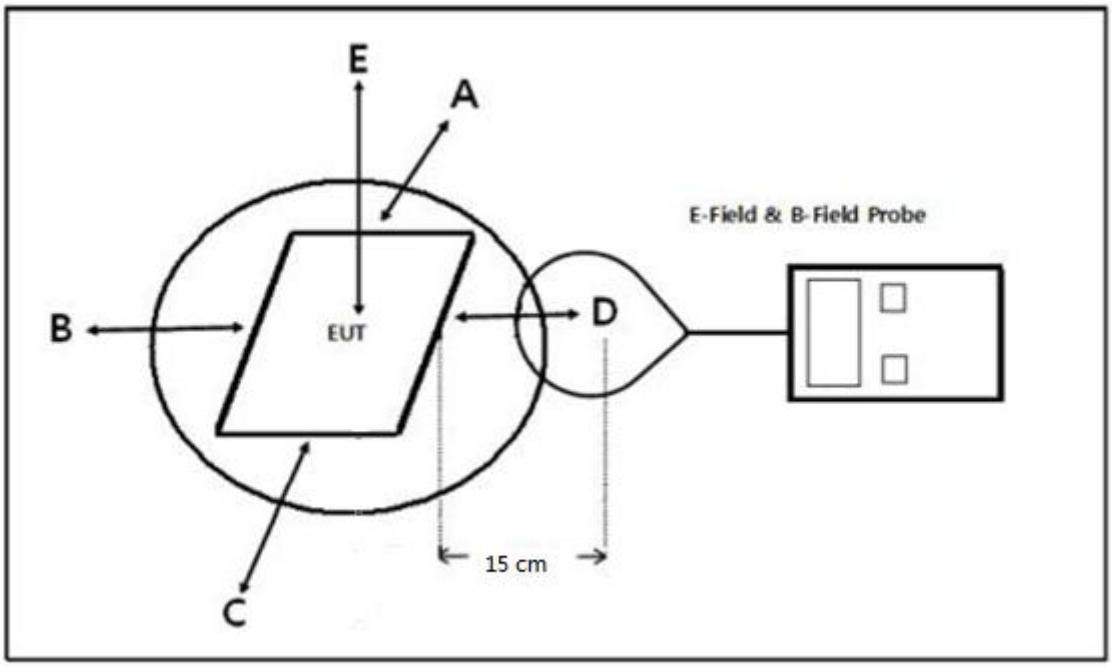
# 6. RADIO FREQUENCY (RF) EXPOSURE TEST

## 6.1. LIMITS

For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 15 cm. 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 15 cm measured from the center of the probe(s) to the edge of the device. 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.

## 6.2. TEST SETUP




Note: Position A: Front of EUT; Position B: Left of EUT; Position C: back of EUT; Position D: Right of EUT; Position E: Top of EUT(20 cm measure distance);

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### 6.3. TEST PROCEDURE

The EUT was placed on a non-conductive table top and the ancillary equipment (e.g. mobile phone) was placed on the EUT for charging.

Maximum E-field and H-field measurements were tested 15cm from each side of the EUT. For top side the measure distance is 20cm.

Along the side of the EUT to center of E-field probe and H-field probe were positioned at the location to search maximum field strength.

### 6.4. TEST RESULT

Test condition: Mode 1

E-field strength test result:

| Frequency Range | Probe Position A (V/m) | Probe Position B (V/m) | Probe Position C (V/m) | Probe Position D (V/m) | Probe Position E (V/m) | Limit (V/m) |
|---|---|---|---|---|---|---|
| 100-205kHz | 0.12 | 0.19 | 0.16 | 0.14 | 1.98 | 614 |

H-field strength test result:

| Frequency Range | Probe Position A (A/m) | Probe Position B (A/m) | Probe Position C (A/m) | Probe Position D (A/m) | Probe Position E (A/m) | Limit (A/m) |
|---|---|---|---|---|---|---|
| 100-205kHz | 0.08 | 0.07 | 0.08 | 0.08 | 0.34 | 1.63 |

Test condition: Mode 2

E-field strength test result:

| Frequency Range | Probe Position A (V/m) | Probe Position B (V/m) | Probe Position C (V/m) | Probe Position D (V/m) | Probe Position E (V/m) | Limit (V/m) |
|---|---|---|---|---|---|---|
| 100-205kHz | 0.07 | 0.13 | 0.10 | 0.12 | 0.94 | 614 |

H-field strength test result:

| Frequency Range | Probe Position A (A/m) | Probe Position B (A/m) | Probe Position C (A/m) | Probe Position D (A/m) | Probe Position E (A/m) | Limit (A/m) |
|---|---|---|---|---|---|---|
| 100-205kHz | 0.16 | 0.17 | 0.11 | 0.15 | 0.21 | 1.63 |

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Test condition: Mode 3

E-field strength test result:

| Frequency Range | Probe Position A (V/m) | Probe Position B (V/m) | Probe Position C (V/m) | Probe Position D (V/m) | Probe Position E (V/m) | Limit (V/m) |
|---|---|---|---|---|---|---|
| 100-205kHz | 0.06 | 0.09 | 0.03 | 0.08 | 0.81 | 614 |

H-field strength test result:

| Frequency Range | Probe Position A (A/m) | Probe Position B (A/m) | Probe Position C (A/m) | Probe Position D (A/m) | Probe Position E (A/m) | Limit (A/m) |
|---|---|---|---|---|---|---|
| 100-205kHz | 0.13 | 0.17 | 0.19 | 0.15 | 0.18 | 1.63 |

Note: Broadband Field Meter was set as Measurement Frequency Range 100-205kHz.

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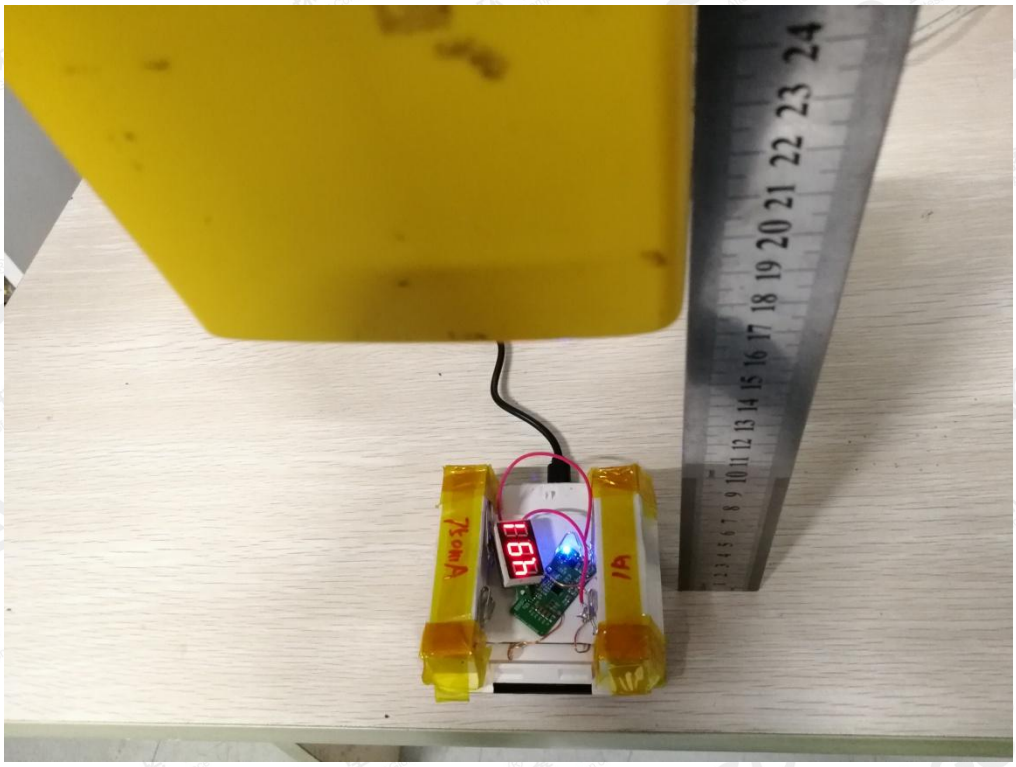
# APPENDIX A: PHOTOGRAPHS OF TEST SETUP

Position E




Position A

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Position B

Position C

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Position D

**----END OF REPORT----**

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