

FCC MPE TEST REPORT

FCC ID: 2APOWBW-WC02

Product: wireless charger pen holder

Trade Name: PRObway

Model Name: BW-WC02

Serial Model: BW-wc01 BW-wc02 BW-wc03 BW-wc05
BW-wc06

Report No.: UNIA2018111902FR-01

Prepared for

HONGKONG BWAY INDUSTRIAL CO., LTD

FLAT 13B, GOLD SHINE TOWER, NO.346-348 QUEEN'S RD CENTRAL,
SHEUNG WAN, Hong Kong, China

Prepared by

Shenzhen United Testing Technology Co., Ltd.

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TEST RESULT CERTIFICATION

Applicant's name.....: HONGKONG BWAY INDUSTRIAL CO., LTD
 Address.....: FLAT 13B, GOLD SHINE TOWER, NO.346-348 QUEEN'S RD
 CENTRAL, SHEUNG WAN, Hong Kong, China

Manufacture's Name.....: Shenzhen Bway Tech Co., Ltd.
 Address.....: Room 310, Yingchangsheng Building, 377 Shajing Section,
 Guangshen Road, Xiner Community, Shajing St., Baoan Area,
 Shenzhen, Guangdong, China (Mainland)

Product description

Product name.....: wireless charger pen holder
 Trade Mark.....: PRObway
 Model and/or type reference .. : BW-WC02, BW-wc01 BW-wc02 BW-wc03 BW-wc05 BW-wc06
Standards.....: FCC KDB 680106 D01 RF Exposure Wireless Charging Apps v03

This device described above has been tested by Shenzhen United Testing Technology Co., Ltd., 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.

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Date of Test.....:

Date (s) of performance of tests.....: Nov. 20, 2018 ~ Dec. 26, 2018
 Date of Issue.....: Dec. 26, 2018
 Test Result.....: Pass

Prepared by:

Kahn Yang
Kahn yang/Editor

Reviewer:

Sherwin Qian
Sherwin Qian/Supervisor

Approved & Authorized Signer:

Liuze
Liuze/Manager

Note: For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

| Channel List | | | |
|--------------|----------------|---------|----------------|
| Channel | Frequency(KHz) | Channel | Frequency(MHz) |
| 01 | 125 | | |
| | | | |
| | | | |
| | | | |

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

1. SUMMARY OF TEST RESULTS

1.1 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, 1.1310 KDB680106 D01 v03(3)(3) | Electric Field Strength (E) (V/m) | PASS | |
| | Magnetic Field Strength (H) (A/m) | PASS | |

1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended 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 Test Instruments

| Description | Brand | Model No. | Frequency Range | Calibrated Until |
|-----------------------|-----------|-----------|-----------------|------------------|
| Broadband Field Meter | NARDA | NBM-550 | — | Jan. 01, 2019 |
| Magnetic Field Meter | NARDA | ELT-400 | 1–400kHz | Jan. 01, 2019 |
| Magnetic Probe | NARDA | HF-3061 | 300kHz–30MHz | Jan. 01, 2019 |
| Magnetic Probe | NARDA | HF-0191 | 27–1000MHz | Jan. 01, 2019 |
| Broadband Field Meter | NARDA | NBM-550 | — | Jan. 01, 2019 |
| Electric Field Meter | COMBINOVA | EFM 200 | 5Hz–400kHz | Jan. 01, 2019 |
| E-Field Probe | NARDA | EF-0391 | 100kHz–3GHz | Jan. 01, 2019 |
| E-Field Probe | NARDA | EF-6091 | 100MHz–60GHz | Jan. 01, 2019 |

NOTE: The calibration interval of the above test instruments is 12 months.

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 ²) | Averaging Time E ² , H ² 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 ²) | Averaging Time E ² , H ² 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.

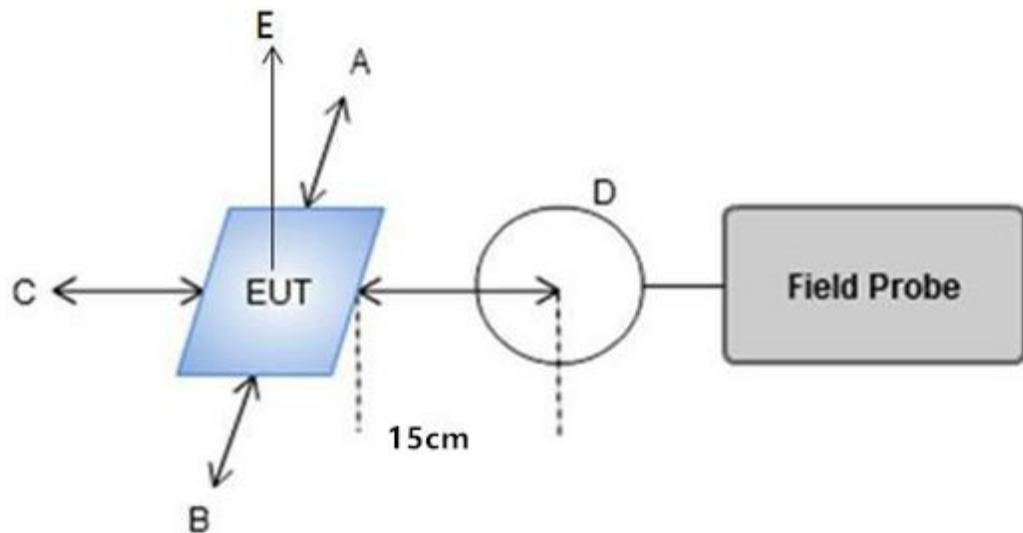
2: For the applicable limit, see FCC 1.1310, 680106 D01 RF Exposure Wireless Charging Apps v03.

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.

3. TEST PROCEDURE

a. 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.

4.1 TEST SETUP



4.2 TEST PHOTO



4.3 RESULT OF MAXIMUM PERMISSIBLE EXPOSURE

For Full load mode:

E-Filed Strength at 15 cm from the edges surrounding the EUT (V/m)

| Frequency Range (MHz) | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Reference Limit (V/m) | Limits Test (V/m) |
|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-------------------|
| 0.125 | 1.25 | 1.01 | 1.12 | 1.15 | 1.18 | 307 | 614 |

H-Filed Strength at 15 cm from the edges surrounding the EUT (A/m)

| Frequency Range (MHz) | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Reference Limit (A/m) | Limits Test (A/m) |
|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-------------------|
| 0.125 | 0.25 | 0.17 | 0.27 | 0.15 | 0.18 | 0.815 | 1.63 |

For Half Load for wrist band mode:

E-Filed Strength at 15 cm from the edges surrounding the EUT (V/m)

| Frequency Range (MHz) | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Reference Limit (V/m) | Limits Test (V/m) |
|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-------------------|
| 0.125 | 1.15 | 1.19 | 1.17 | 1.18 | 1.15 | 307 | 614 |

H-Filed Strength at 15 cm from the edges surrounding the EUT (A/m)

| Frequency Range (MHz) | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Reference Limit (A/m) | Limits Test (A/m) |
|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-------------------|
| 0.125 | 0.19 | 0.21 | 0.20 | 0.21 | 0.16 | 0.815 | 1.63 |

For Half Load for shoepod mode:

E-Filed Strength at 15 cm from the edges surrounding the EUT (V/m)

| Frequency Range (MHz) | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Reference Limit (V/m) | Limits Test (V/m) |
|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-------------------|
| 0.125 | 1.17 | 1.18 | 1.20 | 1.17 | 1.18 | 307 | 614 |

H-Filed Strength at 15 cm from the edges surrounding the EUT (A/m)

| Frequency Range (MHz) | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Reference Limit (A/m) | Limits Test (A/m) |
|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-------------------|
| 0.125 | 0.19 | 0.19 | 0.18 | 0.20 | 0.15 | 0.815 | 1.63 |

For No load mode:

E-Filed Strength at 15 cm from the edges surrounding the EUT (V/m)

| Frequency Range (MHz) | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Reference Limit (V/m) | Limits Test (V/m) |
|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-------------------|
| 0.125 | 1.21 | 1.12 | 1.20 | 1.21 | 1.18 | 307 | 614 |

H-Filed Strength at 15 cm from the edges surrounding the EUT (A/m)

| Frequency Range (MHz) | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Reference Limit (A/m) | Limits Test (A/m) |
|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------------|-------------------|
| 0.125 | 0.17 | 0.18 | 0.18 | 0.19 | 0.19 | 0.815 | 1.63 |

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