

# RF EXPOSURE Test Report

**Product:** Anti-Lost Wireless Powerbank

**Trade Mark:** Wisdene

**Model Number:** PB002M

**FCC ID:** 2A6W7-PB002M

**Prepared for**

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**Prepared by**

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## Table of Contents

|          |                                                                                     |           |
|----------|-------------------------------------------------------------------------------------|-----------|
| <b>1</b> | <b>GENERAL DESCRIPTION .....</b>                                                    | <b>5</b>  |
| 1.1      | DESCRIPTION OF EUT .....                                                            | 5         |
| 1.2      | TEST MODE.....                                                                      | 5         |
| 1.3      | TEST SETUP .....                                                                    | 5         |
| 1.4      | ANCILLARY EQUIPMENT .....                                                           | 6         |
| <b>2</b> | <b>TEST FACILITIES AND ACCREDITATIONS .....</b>                                     | <b>7</b>  |
| 2.1      | TEST LABORATORY .....                                                               | 7         |
| 2.2      | ENVIRONMENTAL CONDITIONS .....                                                      | 7         |
| 2.3      | MEASUREMENT UNCERTAINTY .....                                                       | 7         |
| 2.4      | TEST SOFTWARE .....                                                                 | 7         |
| <b>3</b> | <b>LIST OF TEST EQUIPMENT .....</b>                                                 | <b>8</b>  |
| <b>4</b> | <b>RF EXPOSURE.....</b>                                                             | <b>9</b>  |
| 4.1      | MAXIMUM PERMISSIBLE EXPOSURE .....                                                  | 9         |
| 4.1.1.   | <i>Limit .....</i>                                                                  | <i>9</i>  |
| 4.1.2.   | <i>Test Procedures .....</i>                                                        | <i>9</i>  |
| 4.1.3.   | <i>Test Setup.....</i>                                                              | <i>9</i>  |
| 4.1.4.   | <i>Equipment Approval Considerations item 5 b) of KDB 680106 D01 Wireless .....</i> | <i>10</i> |
| 4.1.5.   | <i>Test Result .....</i>                                                            | <i>10</i> |
| <b>5</b> | <b>PHOTOGRAPHS OF THE TEST SETUP.....</b>                                           | <b>12</b> |

## TEST RESULT CERTIFICATION

**Applicant's Name**..... : Shenzhen XinNengDa Technology Co.,Ltd  
301, Building A4, No. 11, Tianyang 4th Road, Dongfang  
**Address** ..... : Community, Songgang Street, Bao'an District, Shenzhen,  
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**Manufacturer's Name** ..... : Shenzhen XinNengDa Technology Co.,Ltd  
301, Building A4, No. 11, Tianyang 4th Road, Dongfang  
**Address** ..... : Community, Songgang Street, Bao'an District, Shenzhen,  
Guangdong, China

### Product description

**Product name** ..... : Anti-Lost Wireless Powerbank  
**Model Number** ..... : PB002M

**Standards** ..... : FCC CFR 47 PART 1 , 1.1310

**Test procedure**..... : KDB 680106 D01 Wireless Power Transfer v04

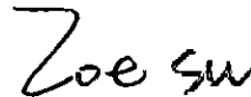
This device described above has been tested by Shenzhen HongBiao Certification& Testing Co., Ltd and the test results show that the equipment under test (EUT) is in compliance with the EMC requirements. And it is applicable only to the tested sample identified in the report.

**Date of Test**..... :

**Date (s) of performance of tests**..... : Apr. 17, 2024-Apr. 30, 2024

**Test Result**..... : **Pass**

**Testing Engineer** :



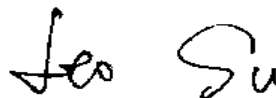
( Z o e S u )

**Technical Manager** :



( G a r y L u )

**Authorized Signatory** :



( L e o S u )

[illegible]

## 1 General Description

### 1.1 Description of EUT

|                            |                                                                                      |
|----------------------------|--------------------------------------------------------------------------------------|
| Product name:              | Anti-Lost Wireless Powerbank                                                         |
| Model name:                | PB002M                                                                               |
| Series Model:              | AVNU-AT08                                                                            |
| Different of series model: | All the models are the same circuit and module, except the model No..                |
| Operation frequency:       | 115kHz~205kHz                                                                        |
| Operational mode:          | Wireless charging                                                                    |
| Modulation type:           | FSK                                                                                  |
| Antenna type:              | Coil Antenna                                                                         |
| Hardware version:          | V1.0                                                                                 |
| Software version:          | V1.0                                                                                 |
| Battery:                   | DC 3.87V, 4400mAh, 17.415Wh                                                          |
| Power supply:              | USB-C Input/Output: DC 5V/3A, 9V/2.4A, 12V/1.75A<br>Wireless Output: 5W/7.5W/10W/15W |
| Adapter information:       | N/A                                                                                  |

### 1.2 Test Mode

| Pretest Test Mode | Description of Mode          |
|-------------------|------------------------------|
| 1                 | Charging+Wireless Output: 5W |
| 2                 | Wireless Output: 5W          |
| 3                 | Wireless Output: 7.5W        |
| 4                 | Wireless Output: 10W         |
| 5                 | Wireless Output: 15W         |

### 1.3 Test Setup

See photographs of the test setup in the report for the actual setup and connections between EUT and support equipment.

1.4 Ancillary Equipment

| Equipment | Model        | S/N                   | Manufacturer          |
|-----------|--------------|-----------------------|-----------------------|
| Adapter   | HN-200325CP0 | JG06LEN2T0<br>4802    | Huawei Honor Co., LTD |
| Load      | YBZ1.1       | 86631yp378-<br>220519 | YBZ                   |
| Phone     | MGLH3CH/A    | DNPF9UL20<br>D9L      | Apple Inc.            |

## 2 Test Facilities and Accreditations

### 2.1 Test Laboratory

|                       |                                                                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Site             | Shenzhen HongBiao Certification& Testing Co., Ltd                                                                                                 |
| Test Site Location    | Room 102, 201, Building 2, Yuanwanggu RFID Industrial Park, Tongguan Road, Tianliao Community, Yutang Street, Guangming District, Shenzhen, China |
| Telephone:            | (86-755) 2998 9321                                                                                                                                |
| Fax:                  | (86-755) 2998 5110                                                                                                                                |
| FCC Registration No.: | CN1341                                                                                                                                            |
| A2LA Certificate No.: | 6765.01                                                                                                                                           |

### 2.2 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

|                    |              |
|--------------------|--------------|
| Temperature:       | 15°C~35°C    |
| Relative Humidity: | 20%~75%      |
| Air Pressure:      | 98kPa~101kPa |

### 2.3 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 %.

| Measurement Frequency Range | $U$ , (dB)         | Note |
|-----------------------------|--------------------|------|
| RF frequency                | $2 \times 10^{-5}$ |      |
| E-field                     | $\pm 2.5$ dB       |      |
| H-field                     | $\pm 4.2$ dB       |      |
| Temperature                 | $\pm 1$ degree     |      |
| Humidity                    | $\pm 5$ %          |      |

### 2.4 Test Software

| Software name | Manufacturer                    | Model      | Version |
|---------------|---------------------------------|------------|---------|
| MAGPy V2.0    | Schmid & Partner Engineering AG | MAGPy V2.0 | V2.0    |

3 List of Test Equipment

| Item | Equipment No. | Equipment name                               | Manufacturer                    | Model           | Serial No. | Calibration date | Due date   |
|------|---------------|----------------------------------------------|---------------------------------|-----------------|------------|------------------|------------|
| 1    | HB-E077       | Magnetic Amplitude and Gradient Probe System | Schmid & Partner Engineering AG | MAGPy -8H3D+E3D | 3107       | 2024-03-15       | 2025-03-16 |
| 2    | HB-E078       | Magnetic Amplitude and Gradient Probe System | Schmid & Partner Engineering AG | MAGPy-DAS       | 3097       | 2024-03-15       | 2025-03-16 |

Note: the calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

## 4 RF Exposure

### 4.1 Maximum Permissible Exposure

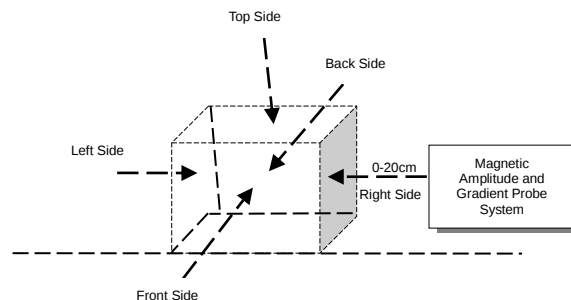
#### 4.1.1. Limit

| Frequency range(MHz)                                         | Electric field strength(V/m) | Magnetic field strength(A/m) | Power density(mW/cm2) | 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                 | 6                       |
| 300-1500                                                     | /                            | /                            | f/300                 | 6                       |
| 1500-100000                                                  | /                            | /                            | 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                      |
| 300-1500                                                     | /                            | /                            | f/1500                | 30                      |
| 1500-100000                                                  | /                            | /                            | 1                     | 30                      |
| f = frequency in MHz * = Plane-wave equivalent power density |                              |                              |                       |                         |

#### 4.1.2. Test Procedures

- The RF exposure test was performed in anechoic chamber.
- Perform H-field measurements for each edge/top surface of the host/client pair at every 2 cm, starting from as close as possible out to 20 cm.
- The highest emission level was recorded and compared with limit.
- The EUT was measured according to the dictates of TCB Workshop "42-New KDB 680106 on Part 18 Wireless Power Transfer Devices - October 25, 2023"

#### 4.1.3. Test Setup



**4.1.4. Equipment Approval Considerations item 5 b) of KDB 680106 D01 Wireless Power Transfer v04**

| Requirement                                                                                                                                                                                                                                                                                             | Device                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| 1. Power transfer frequency is less than 4 MHz.                                                                                                                                                                                                                                                         | Yes. The operating frequencies are:<br>Operating Frequency: 115 kHz – 205 kHz |
| 2. Output power from each primary coil is less than or equal to 15 watts                                                                                                                                                                                                                                | Yes. The maximum output power is:<br>Wireless Output: 15W                     |
| 3. The system may consist of more than one source primary coils, charging one or more clients. If more than one primary coil is present, the coil pairs may be powered on at the same time.                                                                                                             | Yes. EUT has a source primary coil.                                           |
| 4. Client device is placed directly in contact with the transmitter.                                                                                                                                                                                                                                    | Yes. The client device is placed directly in contact with the transmitter.    |
| 5. Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).                                                                                                                                                                                                    | No, EUT includes portable conditions.                                         |
| 6. The aggregate H-field strengths anywhere at or beyond 20 cm surrounding the device, and 20 cm away from the surface from all coils that by design can simultaneously transmit, and while those coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE limit. | No. See the test result in item 4.1.5                                         |

**4.1.5. Test Result**

For portable exposure condition:

Note: operating modes with client device (1 %, 50%, 99% battery status of client device) have been test, only show the data of worst case of 1% battery status of client device.

H-field measurements taken every 2 cm (starting as close to 20 cm as possible) on each edge/top surface of the host/client pair were also evaluated for portable use conditions. The report reflects data for the worst 0 cm test distance mode only.

Test condition 1: Mode 3 operating mode with client device (1 % battery status of client device)

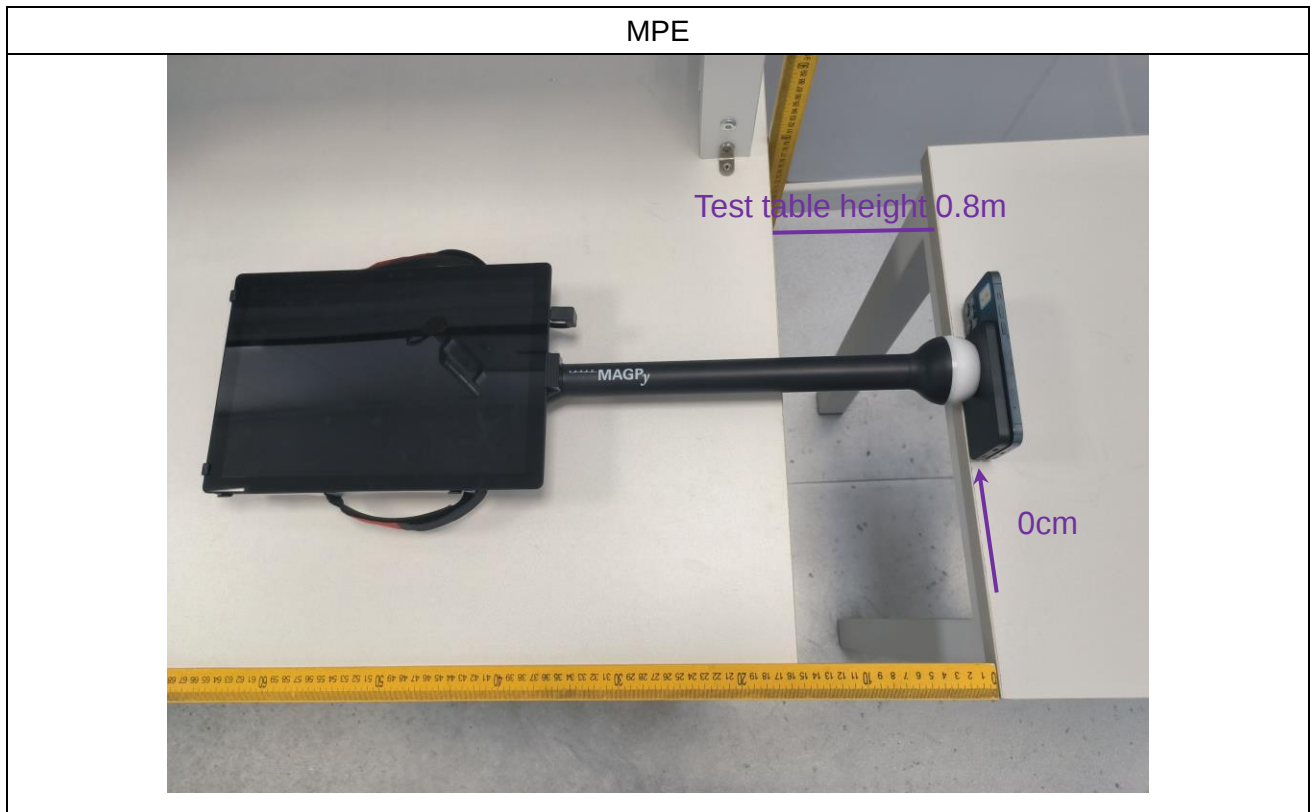
Measurement results directly tested using MAGPy.

| Maximum permissible Exposure |            |                   |               |              |
|------------------------------|------------|-------------------|---------------|--------------|
| Battery levels               | Test sides | Test distance(cm) | E -field(V/m) | H-field(A/m) |
| <1%                          | Top        | 0                 | 48.6          | 0.54         |
| <1%                          | Left       | 0                 | 44.8          | 0.14         |
| <1%                          | Right      | 0                 | 14.2          | 0.21         |
| <1%                          | Front      | 0                 | 13.7          | 0.23         |
| <1%                          | Back       | 0                 | 66.4          | 0.26         |
| <1%                          | Bottom     | 0                 | 5.16          | 0.46         |
| Limit                        |            |                   | 614           | 1.63         |
| Margin Limit (%)             |            |                   | 10.81%        | 33.13%       |

When setting MAGPy to select compliance location as probe tip, the measured value is extrapolated to 0mm as the result.

| Maximum permissible Exposure |            |                   |               |              |
|------------------------------|------------|-------------------|---------------|--------------|
| Battery levels               | Test sides | Test distance(cm) | E -field(V/m) | H-field(A/m) |
| <1%                          | Top        | 0                 | 61.9          | 0.74         |
| <1%                          | Left       | 0                 | 57.5          | 0.15         |
| <1%                          | Right      | 0                 | 19.2          | 0.36         |
| <1%                          | Front      | 0                 | 15.6          | 0.33         |
| <1%                          | Back       | 0                 | 74.5          | 0.33         |
| <1%                          | Bottom     | 0                 | 7.05          | 0.66         |
| Limit                        |            |                   | 614           | 1.63         |
| Margin Limit (%)             |            |                   | 12.13%        | 45.40%       |

## 5 Photographs of the Test Setup



\*\*\*\*\* END OF REPORT \*\*\*\*\*