# MPE TEST REPORT



| | | |
|---|---|---|
| **Applicant** | **:** | PETKIT Network Technology (Shanghai) Co., Ltd. |
| **Address of Applicant** | **:** | Room 4139, Building 2, 588 Zixing Road, Minhang District, Shanghai |
| **Product Name** | **:** | PETKIT EVERSWEET MAX (CORDLESS) |
| **Brand Name** | **:** | PETKIT |
| **Model Name** | **:** | P4115 |
| **Sample Acquisition Method** | **:** | Sent by Client |
| **Sample No.** | **:** | E23120008-01#04 |
| **FCC ID** | **:** | 2A72N-P4115 |
| **Standard** | **:** | FCC Part 2.1091 |
| **Date of Receipt** | **:** | 2023-12-05 |
| **Date of Test** | **:** | 2023-12-08~ 2023-12-22 |
| **Date of Issue** | **:** | 2023-12-27 |

***Remark:***

*This report details the results of the testing carried out on one sample, the results contained in this report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.*

Prepared by: Erik. Yang (Erik Yang) Reviewed by: Jennifer Zhou (Jennifer Zhou) Approved by: Echo Mu (Authorized signatory: Echo Mu)

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# 1 General Information

## 1.1 Testing Laboratory

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| **Company Name** | ICAS Testing Technology Service (Shanghai) Co., Ltd. |
| **Address** | No.1298, Pingan Road, Minhang District, Shanghai, China |
| **Telephone** | 0086 21-51682999 |
| **Fax** | 0086 21-54711112 |
| **Homepage** | www.icasiso.com |

## 1.2 Environmental conditions

| | |
|---|---|
| **Temperature (°C)** | 18-25 |
| **Humidity (%RH)** | 40-65 |
| **Barometric Pressure (mbar)** | 960-1060 |
| **Ambient noise & Reflection（W/kg）** | < 0.012 |

## 1.3 Details of Application

| | |
|---|---|
| **Applicant Company Name** | PETKIT Network Technology (Shanghai) Co., Ltd. |
| **Address** | Room 4139, Building 2, 588 Zixing Road, Minhang District, Shanghai |
| **Contact Person** | TingHe |
| **Telephone** | 13916991059 |
| **Email** | ting.he@petkit.com |
| **Manufacturer Company Name** | Dongguan Zhihang Electronic Technology Co., LTD. |
| **Address** | Room 701 ,Building 15, No.1, Pushi Road I, Qiaotou Town, Dongguan City, Guangdong Province, China. |
| **Factory Company Name** | Dongguan Zhihang Electronic Technology Co., LTD. |
| **Address** | Room 701 ,Building 15, No.1, Pushi Road I, Qiaotou Town, Dongguan City, Guangdong Province, China. |

## 1.4 Details of EUT

| | |
|---|---|
| **Product Name** | PETKIT EVERSWEET MAX (CORDLESS) |
| **Brand Name** | PETKIT |
| **Test Model Name** | P4115 |
| **FCC ID** | 2A72N-P4115 |
| **Mode of Operation** | Bluetooth BLE Version 5.0 |
| **Frequency Range** | 2402MHz ~ 2480MHz |
| **Modulation Type** | GFSK |
| **Antenna Type** | PCB Antenna |
| **Antenna Gain** | -5.45dBi |
| **Hardware Version** | V1.4 |

| Software Version | 1.63 |
|---|---|

# 2 Maximum Permissible Exposure (MPE)

## 2.1 Limits

According to FCC Part 1.1307, systems operating under the provisions of this section shall be operated in a manner the ensures that the public is not exposed to radio frequency energy level in excess of the commission's guidelines.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

| Frequency range (MHz) | Electric field strength (V/m) | Magnetic field strength (A/m) | Power density ($mW/cm^2$) | 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 | $*900/f^2$ | 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 | $*180/f^2$ | 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

## 2.2 Assessment methods

Calculation Formula from FCC OET 65:

$$S = \frac{\mathrm{P} * \mathrm{G}}{4 * \pi * R^2}$$

Where:

S = Power Density (mW/cm2)

P = Input Power of the Antenna (mW)

G = Antenna Gain Relative to an Isotropic Antenna

R = Distance from the Antenna to the Point of Investigation (cm)

## 2.3 Test Result

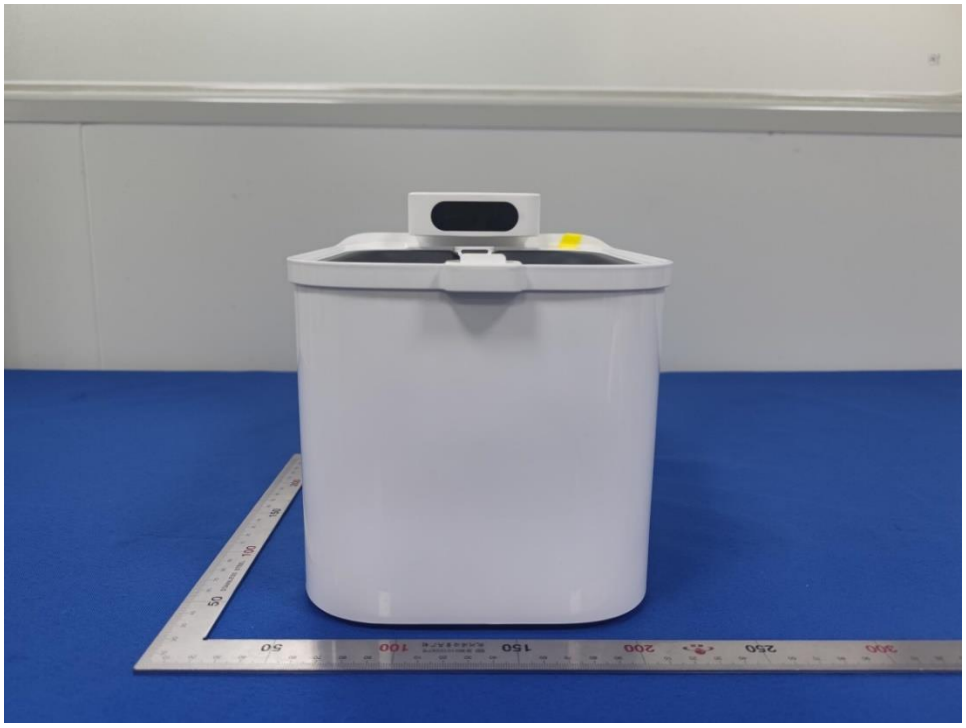
| Operation Mode | Frequency Range (MHz) | Max Conducted Power (dBm) | Antenna Gain (dBi) | Max EIRP (mW) | Power Density at R = 20 cm ($mW/cm^2$) | Limit ($mW/cm^2$) |
|---|---|---|---|---|---|---|
| BLE | 2402~2480 | -3.35 | -5.45 | 0.132 | 0.00003 | 1.0 |

## 2.4 Conclusion

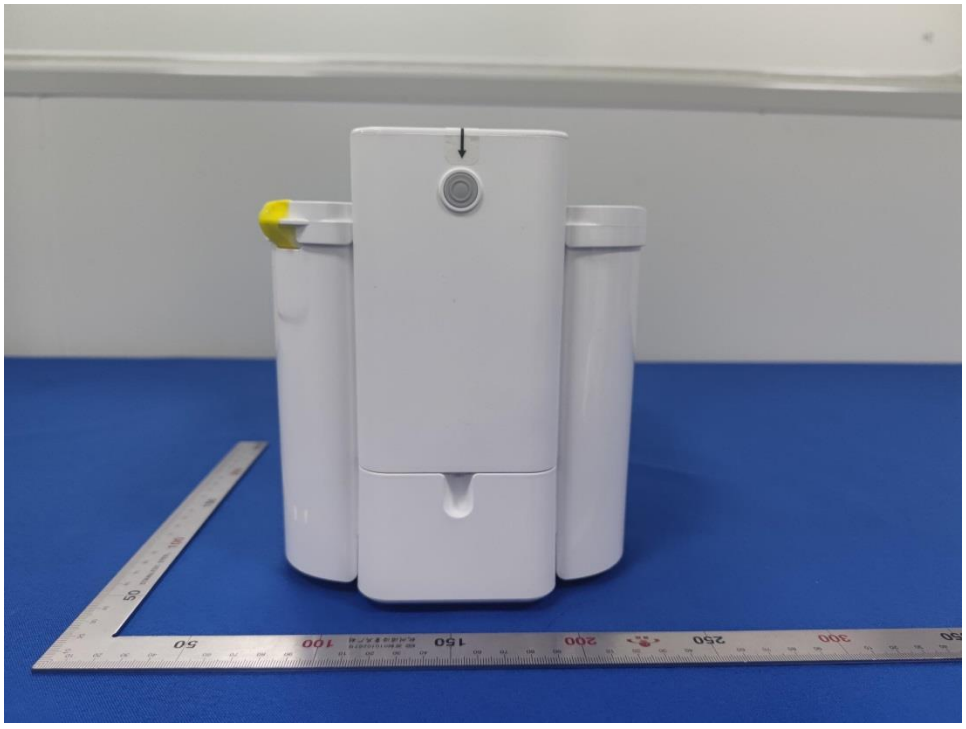
The Power Density at the position which is 20 cm far from the EUT is smaller than the General Population/Uncontrolled Exposure limit.

# 3 Appendixes

## 3.1 Sample Photograph



Front of the sample



Rear of the sample

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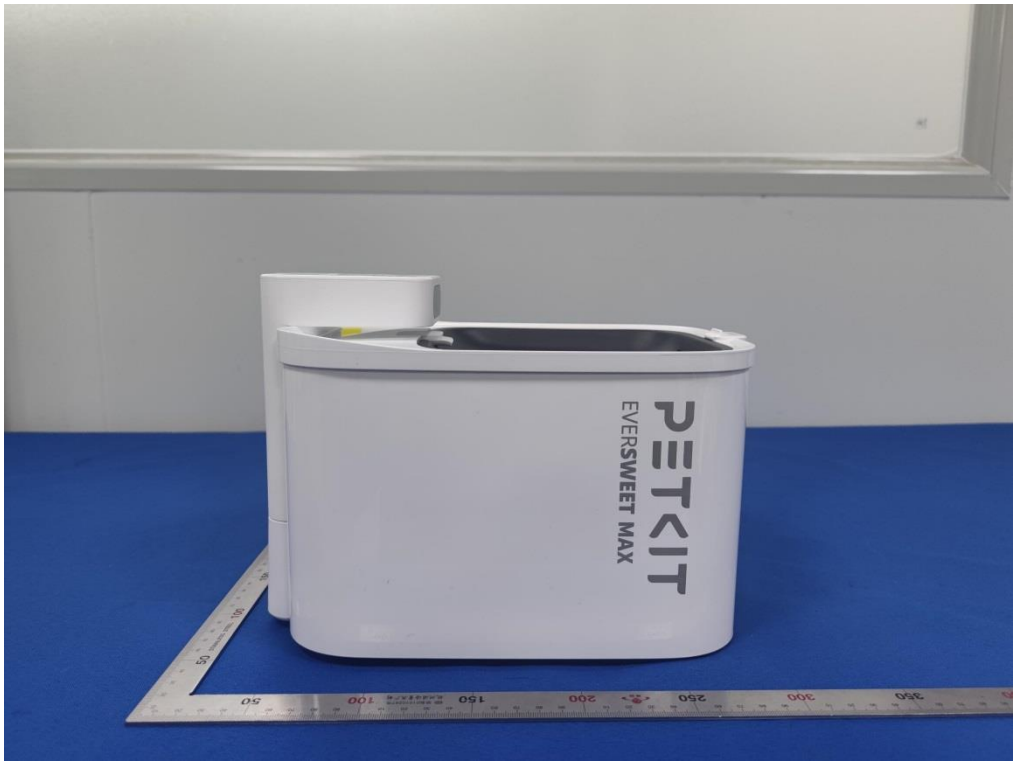
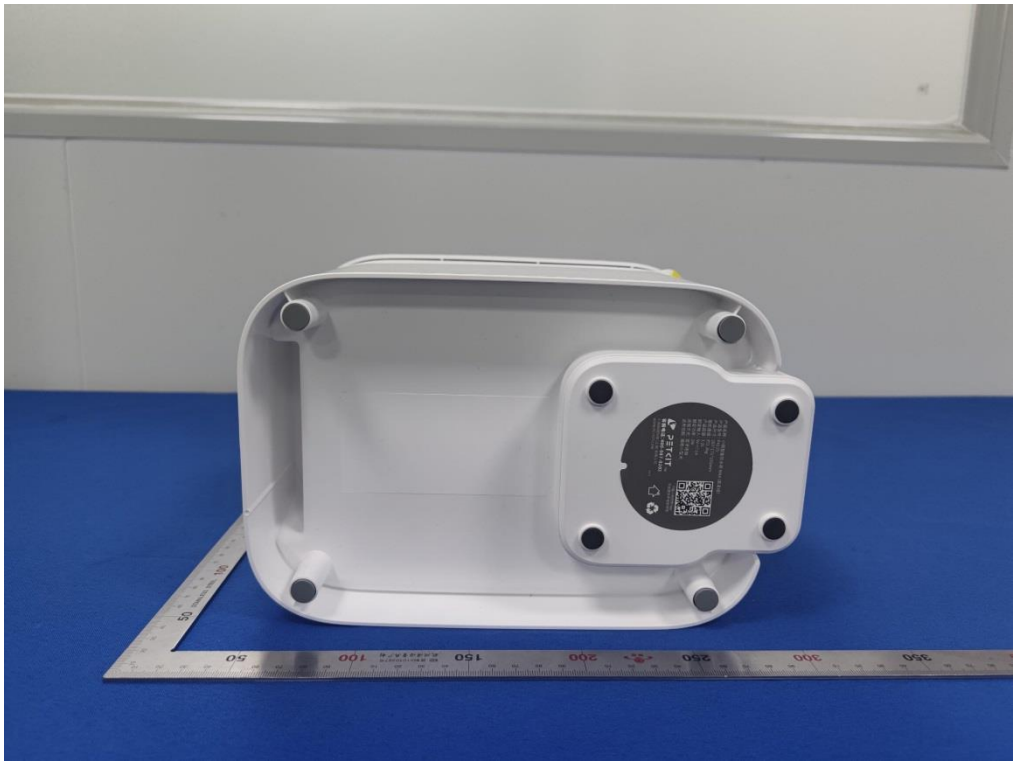



Left of the sample

Right of the sample


Top of the sample




Bottom of the sample

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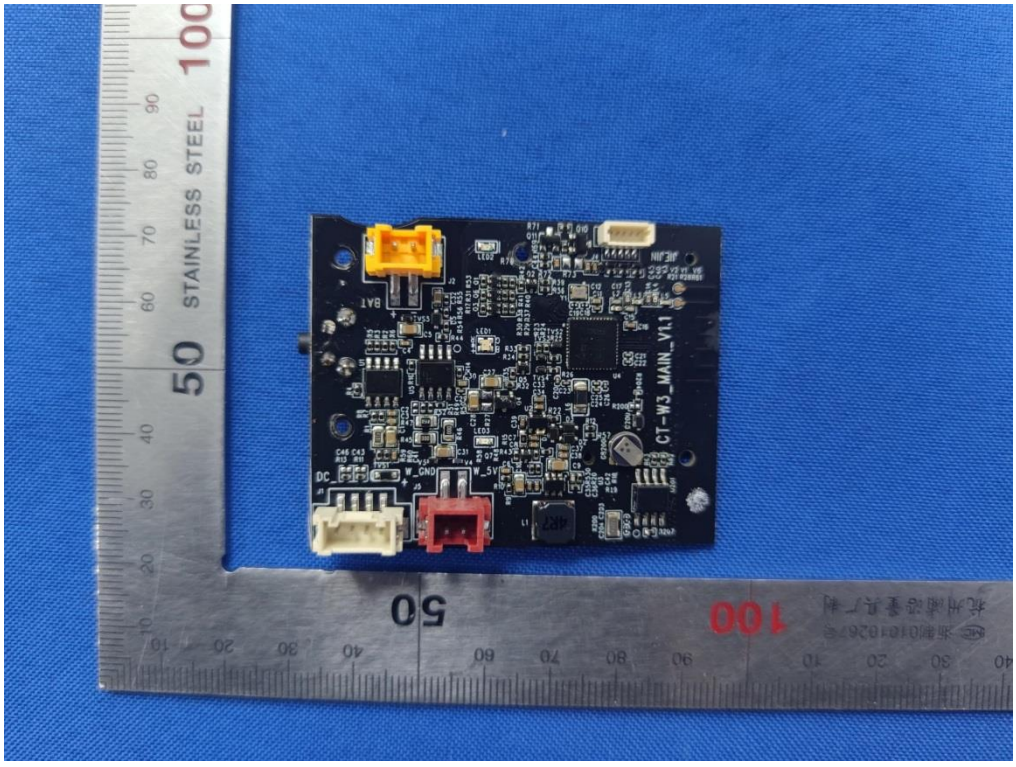
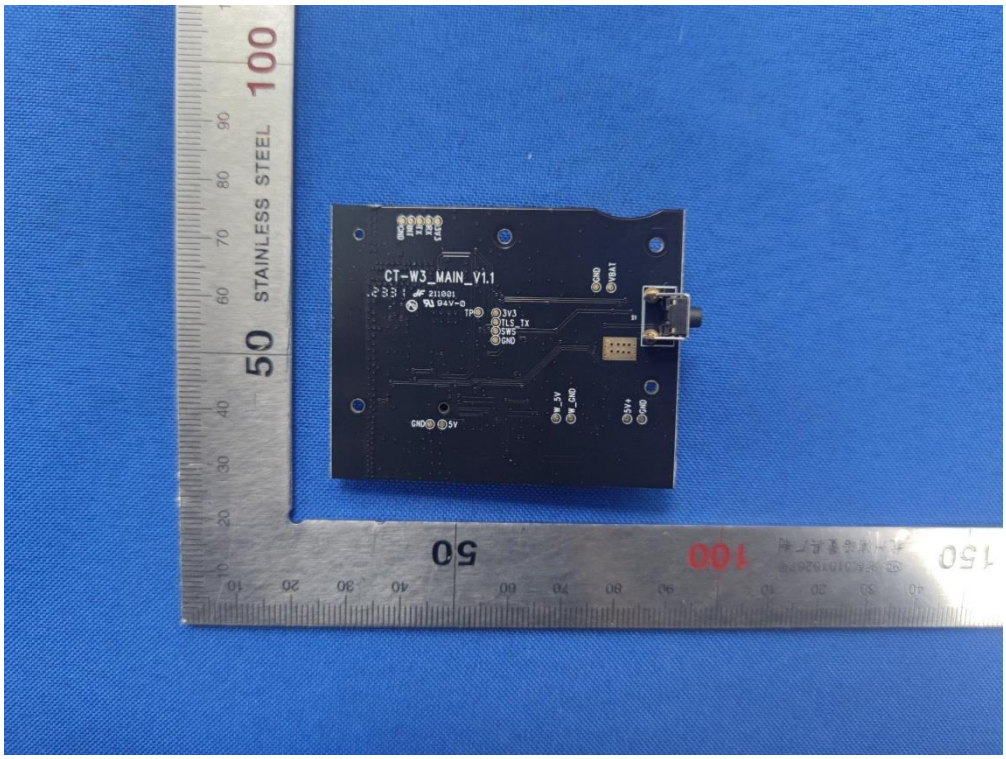
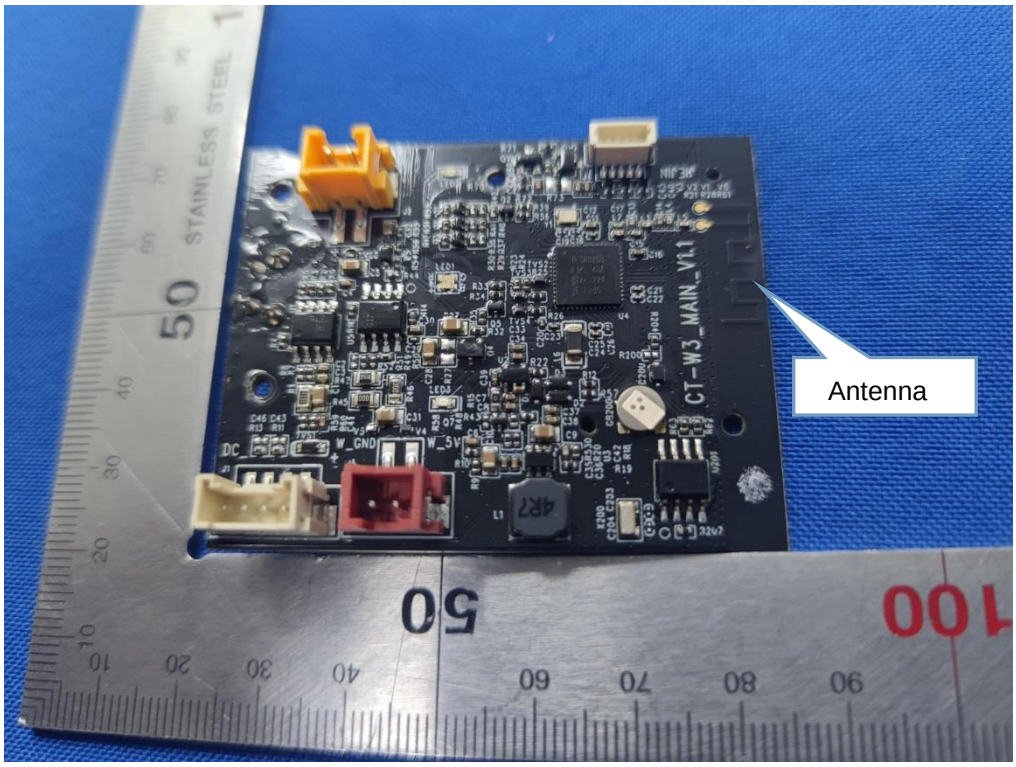
Open of the sample




Internal-1 of the sample




Internal-2 of the sample




Bluetooth Antenna position

***End of the report***