



# Maximum Permissible Exposure Evaluation

**FCC ID: 2BQF5-F8PRO**  
**IC: 26913-F8PRO**

|                                                                                                                                                                                                                                                                                                                 |   |                                                                      |            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------|------------|
| Report No.                                                                                                                                                                                                                                                                                                      | : | TBR-C-202503-0412-10                                                 |            |
| Applicant                                                                                                                                                                                                                                                                                                       | : | Shenzhen Pincun Digital Technology Co., Ltd.                         |            |
| Equipment Under Test (EUT)                                                                                                                                                                                                                                                                                      |   |                                                                      |            |
| EUT Name                                                                                                                                                                                                                                                                                                        | : | Wireless Headphone                                                   |            |
| Model No.                                                                                                                                                                                                                                                                                                       | : | picun F8 Pro                                                         |            |
| Series Model No.                                                                                                                                                                                                                                                                                                | : | picun F8,picun F8S,picun F8 Max,picun F8 Ultra,picun F5,picun F5 Pro |            |
| Brand Name                                                                                                                                                                                                                                                                                                      | : | ----                                                                 |            |
| Sample ID                                                                                                                                                                                                                                                                                                       | : | HC-C-202503-0412-02-04# & HC-C-202503-0412-02-05#                    |            |
| Receipt Date                                                                                                                                                                                                                                                                                                    | : | 2025-04-29                                                           |            |
| Test Date                                                                                                                                                                                                                                                                                                       | : | 2025-04-29 to 2025-05-16                                             |            |
| Issue Date                                                                                                                                                                                                                                                                                                      | : | 2025-05-16                                                           |            |
| Standards                                                                                                                                                                                                                                                                                                       | : | FCC Part 2.1093<br>RSS-102 Issue 6 December 15, 2023                 |            |
| Test Method                                                                                                                                                                                                                                                                                                     | : | KDB 447498 D01 General RF Exposure Guidance v06                      |            |
| Conclusions                                                                                                                                                                                                                                                                                                     | : | <b>PASS</b>                                                          |            |
| In the configuration tested, the EUT complied with the standards specified above.                                                                                                                                                                                                                               |   |                                                                      |            |
| Test By                                                                                                                                                                                                                                                                                                         | : | Gold. Zhang                                                          | Gold Zhang |
| Reviewed By                                                                                                                                                                                                                                                                                                     | : | Emily                                                                | Emily Tang |
| Approved By                                                                                                                                                                                                                                                                                                     | : | IVAN SU                                                              | Ivan Su    |
| This report details the results of the testing carried out on one sample. The results contained in this test 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 the report. |   |                                                                      |            |

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## Revision History

| Report No.           | Version | Description             | Issued Date |
|----------------------|---------|-------------------------|-------------|
| TBR-C-202503-0412-10 | Rev.01  | Initial issue of report | 2025-05-16  |
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# 1. General Information about EUT

## 1.1 Client Information

|                     |   |                                                                                                                                              |
|---------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Applicant</b>    | : | Shenzhen Pincun Digital Technology Co., Ltd.                                                                                                 |
| <b>Address</b>      | : | 1907, Building 6, Tian'an Yungu Industrial Park Phase II (Plot 02-07), Gangtou Community, Bantian Street, Longgang District, Shenzhen, China |
| <b>Manufacturer</b> | : | Shenzhen Pincun Digital Technology Co., Ltd.                                                                                                 |
| <b>Address</b>      | : | 1907, Building 6, Tian'an Yungu Industrial Park Phase II (Plot 02-07), Gangtou Community, Bantian Street, Longgang District, Shenzhen, China |

## 1.2 General Description of EUT (Equipment Under Test)

|                                                                                                                                                                                                                |   |                                                                                                                                                  |                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| EUT Name                                                                                                                                                                                                       | : | Wireless Headphone                                                                                                                               |                                         |
| Model(s) No.                                                                                                                                                                                                   | : | picun F8 Pro,picun F8,picun F8S,picun F8 Max,picun F8 Ultra,picun F5,picun F5 Pro                                                                |                                         |
| HVIN                                                                                                                                                                                                           | : | picun F8 Pro                                                                                                                                     |                                         |
| Model Different                                                                                                                                                                                                | : | All these models are identical in the same PCB, layout and electrical circuit, the only difference is different customers, different model name. |                                         |
| Product Description                                                                                                                                                                                            | : | Operation Frequency:                                                                                                                             | Bluetooth V6.0(BR+EDR): 2402MHz~2480MHz |
|                                                                                                                                                                                                                | : | Modulation Type:                                                                                                                                 | Bluetooth: GFSK, Pi/4-DQPSK, 8DPSK      |
|                                                                                                                                                                                                                | : | Antenna Gain:                                                                                                                                    | 2.7dBi Chip Antenna                     |
| Power Rating                                                                                                                                                                                                   | : | Input: DC 5V, 1A                                                                                                                                 |                                         |
| Li-ion Polymer Battery                                                                                                                                                                                         | : | 3.7V by 800mAh Rechargeable Li-ion battery                                                                                                       |                                         |
| Software Version                                                                                                                                                                                               | : | V1.0                                                                                                                                             |                                         |
| Hardware Version                                                                                                                                                                                               | : | V1.2                                                                                                                                             |                                         |
| Remark: The above antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible. |   |                                                                                                                                                  |                                         |



## 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 %.

| Test Item                        | Parameters                                            | Expanded Uncertainty ( $U_{Lab}$ ) |
|----------------------------------|-------------------------------------------------------|------------------------------------|
| Conducted Emission               | Level Accuracy:<br>9kHz~150kHz<br>150kHz to 30MHz     | $\pm 3.50$ dB<br>$\pm 3.10$ dB     |
| Radiated Emission                | Level Accuracy:<br>9kHz to 30 MHz                     | $\pm 4.60$ dB                      |
| Radiated Emission                | Level Accuracy:<br>30MHz to 1000 MHz                  | $\pm 4.50$ dB                      |
| Radiated Emission                | Level Accuracy:<br>Above 1000MHz                      | $\pm 4.20$ dB                      |
| RF Power-Conducted               | Level Accuracy:<br>Above 1000MHz                      | $\pm 0.95$ dB                      |
| Power Spectral Density-Conducted | Level Accuracy:<br>Above 1000MHz                      | $\pm 3$ dB                         |
| Occupied Bandwidth               | Level Accuracy:<br>30MHz to 1000 MHz<br>Above 1000MHz | $\pm 3.8\%$                        |
| Unwanted Emission-Conducted      | Level Accuracy:<br>30MHz to 1000 MHz<br>Above 1000MHz | $\pm 2.72$ dB                      |
| Temperature                      | /                                                     | $\pm 0.6^{\circ}\text{C}$          |
| Humidity                         | /                                                     | $\pm 4\%$                          |
| Supply voltages                  | /                                                     | $\pm 2\%$                          |
| Time                             | /                                                     | $\pm 4\%$                          |



### 3. Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1/F., Building 6, Rundongsheng Industrial Zone, Longzhu, Xixiang, Bao'an District, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

#### **CNAS (L5813)**

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

#### **A2LA Certificate No.: 4750.01**

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01.FCC Accredited Test Site Number: 854351. Designation Number: CN1223.

#### **IC Registration No.: (11950A)**

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A. CAB identifier: CN0056.



## 4. The RF Exposure Evaluation for FCC:

### SAR Test Exclusion Calculations

FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

(1) Clause 4.3: General SAR test reduction and exclusion guidance

Sub clause 4.31: Standalone SAR test exclusion considerations

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6GHz at test separation distance  $\leq 5$  mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{\text{(GHz)}}}] \leq 3.0$  for 1-g SAR

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation, mm})] * [\sqrt{f_{\text{(GHz)}}}] \leq 7.5.0$  for 10-g SAR

Calculation:

| Test separation: 5mm        |                       |                              |                                      |                                     |                   |                 |
|-----------------------------|-----------------------|------------------------------|--------------------------------------|-------------------------------------|-------------------|-----------------|
| Bluetooth Mode (GFSK)       |                       |                              |                                      |                                     |                   |                 |
| Frequency (GHz)             | Conducted Power (dBm) | Turn-up Power Tolerance (dB) | Max power of tune up tolerance (dBm) | Max power of tune up tolerance (mw) | Calculation Value | Threshold Value |
| 2.402                       | 0.951                 | $1 \pm 1$                    | 2                                    | 1.585                               | 0.491             | 3.0             |
| 2.441                       | 0.972                 | $1 \pm 1$                    | 2                                    | 1.585                               | 0.495             | 3.0             |
| 2.480                       | 0.553                 | $1 \pm 1$                    | 2                                    | 1.585                               | 0.499             | 3.0             |
| Bluetooth Mode (Pi/4-DQPSK) |                       |                              |                                      |                                     |                   |                 |
| Frequency (GHz)             | Conducted Power (dBm) | Turn-up Power Tolerance (dB) | Max power of tune up tolerance (dBm) | Max power of tune up tolerance (mw) | Calculation Value | Threshold Value |
| 2.402                       | -1.65                 | $-2 \pm 1$                   | -1                                   | 0.794                               | 0.246             | 3.0             |
| 2.441                       | -1.787                | $-2 \pm 1$                   | -1                                   | 0.794                               | 0.248             | 3.0             |
| 2.480                       | -2.257                | $-2 \pm 1$                   | -1                                   | 0.794                               | 0.250             | 3.0             |
| Bluetooth Mode (8-DPSK)     |                       |                              |                                      |                                     |                   |                 |
| Frequency (GHz)             | Conducted Power (dBm) | Turn-up Power Tolerance (dB) | Max power of tune up tolerance (dBm) | Max power of tune up tolerance (mw) | Calculation Value | Threshold Value |
| 2.402                       | -0.856                | $-1 \pm 1$                   | 0                                    | 1.000                               | 0.310             | 3.0             |
| 2.441                       | -0.929                | $-1 \pm 1$                   | 0                                    | 1.000                               | 0.312             | 3.0             |
| 2.480                       | -1.481                | $-1 \pm 1$                   | 0                                    | 1.000                               | 0.315             | 3.0             |



## 5. The RF Exposure Evaluation for IC:

### 5.1. Applicable Standard

[Radio Standards Specification 102](#), issue 6, Radio Frequency (RF) Exposure Compliance of Radio communication Apparatus (All Frequency Bands), sets out the requirements and measurement techniques for evaluating radio frequency exposure compliance of radio communication apparatus designed to be used within the vicinity of the human body.

[ANSI C95.1–1999](#): IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

[FCC KDB publication 447498 D01 General RF Exposure Guidance v06](#): Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies.

### 5.2. Evaluation Method and Limit

According to RSS-102 §6 Table 11, RF field strength and power density limits for devices used by the general public (uncontrolled environment)

**Table 11: Power limits for exemption from routine SAR evaluation based on the separation distance**

| Frequency (MHz) | ≤ 5 mm (mW) | 10 mm (mW) | 15 mm (mW) | 20 mm (mW) | 25 mm (mW) | 30 mm (mW) | 35 mm (mW) | 40 mm (mW) | 45 mm (mW) | > 50 mm (mW) |
|-----------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|--------------|
| ≤ 300           | 45          | 116        | 139        | 163        | 189        | 216        | 246        | 280        | 319        | 362          |
| 450             | 32          | 71         | 87         | 104        | 124        | 147        | 175        | 208        | 248        | 296          |
| 835             | 21          | 32         | 41         | 54         | 72         | 96         | 129        | 172        | 228        | 298          |
| 1900            | 6           | 10         | 18         | 33         | 57         | 92         | 138        | 194        | 257        | 323          |
| 2450            | 3           | 7          | 16         | 32         | 56         | 89         | 128        | 170        | 209        | 245          |
| 3500            | 2           | 6          | 15         | 29         | 50         | 72         | 94         | 114        | 134        | 158          |
| 5800            | 1           | 5          | 13         | 23         | 32         | 41         | 54         | 74         | 102        | 128          |

The exemption limits in table 11 Table 11 are based on measurements and simulations of half-wave dipole antennas at separation distances of 5 mm to 50 mm from a flat phantom, which provides a SAR value of approximately 0.4 W/kg for 1 g of tissue.



## Calculation:

| Test separation: 5mm             |                       |            |                      |                                            |            |
|----------------------------------|-----------------------|------------|----------------------|--------------------------------------------|------------|
| Bluetooth Mode (GFSK)            |                       |            |                      |                                            |            |
| Frequency (GHz)                  | Conducted Power (dBm) | Gain (dBi) | Tolerance $\pm$ (dB) | Output power (Max. Turn-up Procedure) (mW) | Limit (mW) |
| 2402                             | 0.951                 | 2.7        | $3 \pm 1$            | 2.512                                      | 3.0        |
| 2441                             | 0.972                 | 2.7        | $3 \pm 1$            | 2.512                                      | 3.0        |
| 2480                             | 0.553                 | 2.7        | $3 \pm 1$            | 2.512                                      | 3.0        |
| Bluetooth Mode ( $\pi/4$ -DQPSK) |                       |            |                      |                                            |            |
| Frequency (GHz)                  | Conducted Power (dBm) | Gain (dBi) | Tolerance $\pm$ (dB) | Output power (Max. Turn-up Procedure) (mW) | Limit (mW) |
| 2402                             | -1.65                 | 2.7        | $1 \pm 1$            | 1.585                                      | 3.0        |
| 2441                             | -1.787                | 2.7        | $1 \pm 1$            | 1.585                                      | 3.0        |
| 2480                             | -2.257                | 2.7        | $0 \pm 1$            | 1.259                                      | 3.0        |
| Bluetooth Mode (8-DPSK)          |                       |            |                      |                                            |            |
| Frequency (GHz)                  | Conducted Power (dBm) | Gain (dBi) | Tolerance $\pm$ (dB) | Output power (Max. Turn-up Procedure) (mW) | Limit (mW) |
| 2402                             | -0.856                | 2.7        | $2 \pm 1$            | 1.995                                      | 3.0        |
| 2441                             | -0.929                | 2.7        | $2 \pm 1$            | 1.995                                      | 3.0        |
| 2480                             | -1.481                | 2.7        | $1 \pm 1$            | 1.585                                      | 3.0        |

## Conclusion:

The measurement results comply with the FCC Limit per 47 CFR 2.1093 and the RSS-102§4 Table 4 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06, No SAR is required.

