

RF EXPOSURE REPORT

FCC ID: 2AFZZ-WPB15PDZM

Test Report No.....: RF231016008-01-004

Product(s) Name.....: Xiaomi 10W Wireless Power Bank 10000

Model(s).....: WPB15PDZM

Trade Mark.....: **xiaomi**

Applicant.....: Xiaomi Communications Co., Ltd.

Address.....: #019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District,
Beijing, China, 100085

Receipt Date.....: 2023.10.16

Test Date.....: 2023.10.20~2023.10.29

Issued Date.....: 2023.12.18

Standards.....: FCC CFR Title 47 Part 1 §1.1307
FCC CFR Title 47 Part 1 §1.1310
FCC CFR Title 47 Part 2 §2.1093
KDB 680106 D01 Wireless Power Transfer v04

Testing Laboratory.....: Shenzhen Haiyun Standard Technical Co., Ltd.


| Prepared By: | Checked By: | Approved By: |  |
|-------------------|------------------|-----------------|---|
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Table of Contents

| | |
|---|----------|
| History of this test report..... | 3 |
| 1. General Information | 4 |
| 1.1 General Description of EUT..... | 4 |
| 1.2 Test Location | 4 |
| 1.3 Description of support units..... | 4 |
| 1.4 Equipment used during test..... | 4 |
| 1.5 Measurement Uncertainty | 4 |
| 2. RF exposure limit | 5 |
| 3. Test setup for WPC | 6 |
| 4. Test results | 7 |

1. General Information

1.1 General Description of EUT

| Items | Description |
|---------------------|---|
| Product No. | POC231016008-S001, POC231016008-S002 |
| Product Name | Xiaomi 10W Wireless Power Bank 10000 |
| Model Name | WPB15PDZM |
| Trademark | xiaomi |
| Power supply: | DC 5V/9V from adapter or DC 3.7V from battery |
| WPT Output Power: | 10W Max |
| Modulation type | ASK |
| Operating frequency | 110-148kHz |
| Antenna type | Coil Antenna |
| Antenna Gain | 0 dBi |

1.2 Test Location

| | |
|---------------------------|---|
| Company: | Shenzhen Haiyun Standard Technical CO., Ltd. |
| Address: | No. 110-113, 115, 116, Block B, Jinyuan Business Building, Bao'an District, Shenzhen, China |
| CNAS Registration Number: | CNAS L18252 |
| CAB identifier | CN0145 |
| A2LA Certificate Number | 6823.01 |
| Telephone: | 0755-26024411 |

1.3 Description of support units

The EUT has been tested with associated equipment below:

| Description | Manufacturer | Model | S/N |
|-----------------------|--------------|-------------|-----|
| Wireless charger load | EESON | SLY-YZB-A01 | / |

1.4 Equipment used during test

The antennas provided to the EUT, please refer to the following table:

| No. | Equipment | Manufacturer | Type No. | Serial No. | Calibration date | Calibration interval |
|-----|--|--------------|-----------|------------|------------------|----------------------|
| 1 | Electric and Magnetic Field Probe-Analyzer | Narda | EHP-200AC | 180ZX10204 | 2023.05.03 | 1 year |

1.5 Measurement Uncertainty

| Test Item | Frequency Range | Measurement Uncertainty | Notes |
|---|-----------------|-------------------------|-------|
| E-field | 3kHz~30MHz | ±7.5% | (1) |
| H-field | 3kHz~30MHz | ±7.5% | (1) |
| Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%. | | | |

2. RF exposure limit

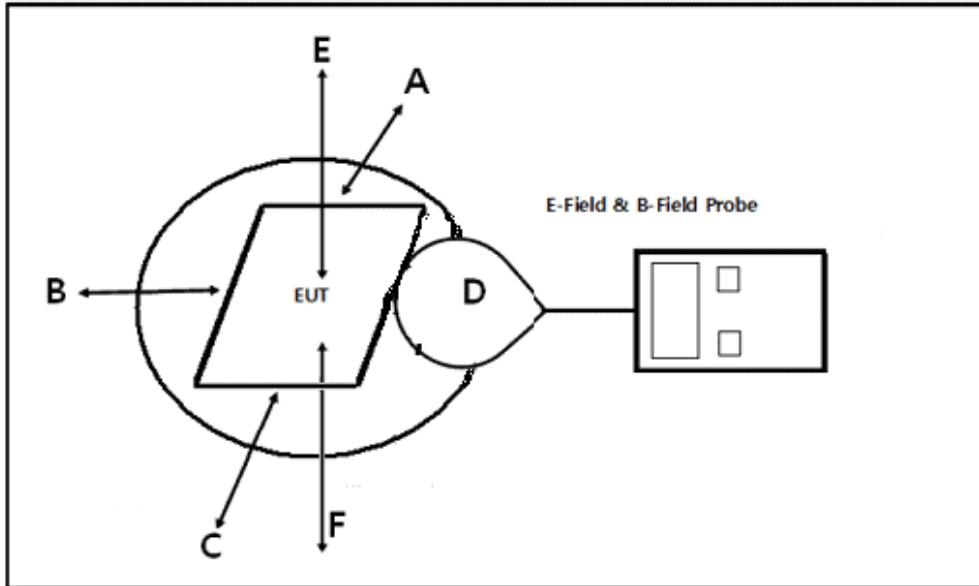
§ 1.1310 The criteria listed in table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency(RF) radiation as specified in § 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of § 2.1093 of this chapter.

Table 1 to § 1.1310(e)(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) |
|--|-------------------------------|-------------------------------|-------------------------------------|--------------------------|
| (i) 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 |
| (ii) 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.

3. Test setup for WPC



Note: Measurements should be made from all sides and the top of the primary/client pair, with the 0 cm measured from the probe(s) to the edge of the device.

Equipment Approval Considerations:

The EUT comply with KDB 680106 D01 Wireless Power Transfer v04.

1. Power transfer frequency is less than 1 MHz.

Yes, the device operated in the frequency range from 110kHz to 148kHz.

2. The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.

Yes, The maximum output power of each primary coil is 10 watts.

3. A client device providing the maximum permitted load is placed in physical contact with the transmitter(i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)

Yes, the client device includes only single primary coil.

4. Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).

No, The EUT has portable exposure conditions.

5. The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1.

Yes; The EUT's field strength levels are less than 50% of the MPE limit.

6. For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions.

Yes, the EUT has only one coil, all test modes met the conditions specified in (5).

4. Test results

| Test Mode | Description |
|-----------|---|
| Mode 1 | Charging with 10 W wireless charging load (Full Load) |
| Mode 2 | Charging with 10 W wireless charging load (Half Load) |
| Mode 3 | Charging with 10 W wireless charging load (No Load) |

Note: All the modes had been tested, but only the worst data was recorded in the report (Mode 1).

1. H-Field/E-Field Strength at 8 mm from the edges surrounding the EUT to antenna sensor

| EUT Test Mode | Measured H-Field Strength Values (A/m) | | | | | | 50% Limit (A/m) | Limit (A/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 0.324 | 0.447 | 0.322 | 0.445 | 0.496 | 0.548 | 0.815 | 1.63 | Pass |

| EUT Test Mode | Measured E-Field Strength Values (V/m) | | | | | | 50% Limit (V/m) | Limit (V/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 8.85 | 11.72 | 8.79 | 11.63 | 12.45 | 14.76 | 307 | 614 | Pass |

2. H-Field/E-Fiel Strength at 16 mm from the edges surrounding the EUT to antenna sensor

| EUT Test Mode | Measured H-Field Strength Values (A/m) | | | | | | 50% Limit (A/m) | Limit (A/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 0.313 | 0.430 | 0.311 | 0.431 | 0.481 | 0.529 | 0.815 | 1.63 | Pass |

| EUT Test Mode | Measured E-Field Strength Values (V/m) | | | | | | 50% Limit (V/m) | Limit (V/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 8.65 | 11.51 | 8.60 | 11.44 | 12.27 | 14.55 | 307 | 614 | Pass |

3. H-Field/E-Fiel Strength at 24 mm from the edges surrounding the EUT to antenna sensor

| EUT Test Mode | Measured H-Field Strength Values (A/m) | | | | | | 50% Limit (A/m) | Limit (A/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 0.292 | 0.401 | 0.293 | 0.408 | 0.464 | 0.511 | 0.815 | 1.63 | Pass |

| EUT Test Mode | Measured E-Field Strength Values (V/m) | | | | | | 50% Limit (V/m) | Limit (V/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 8.42 | 11.28 | 8.37 | 11.22 | 12.05 | 14.34 | 307 | 614 | Pass |

4. H-Field/E-Field Strength at 28 mm from the edges surrounding the EUT to antenna sensor

| EUT Test Mode | Measured H-Field Strength Values (A/m) | | | | | | 50% Limit (A/m) | Limit (A/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 0.279 | 0.388 | 0.277 | 0.393 | 0.453 | 0.499 | 0.815 | 1.63 | Pass |

| EUT Test Mode | Measured E-Field Strength Values (V/m) | | | | | | 50% Limit (V/m) | Limit (V/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 8.29 | 11.17 | 8.30 | 11.12 | 11.96 | 14.21 | 307 | 614 | Pass |

5. H-Field/E-Field Strength at 32 mm from the edges surrounding the EUT to antenna sensor

| EUT Test Mode | Measured H-Field Strength Values (A/m) | | | | | | 50% Limit (A/m) | Limit (A/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 0.268 | 0.373 | 0.266 | 0.378 | 0.442 | 0.489 | 0.815 | 1.63 | Pass |

| EUT Test Mode | Measured E-Field Strength Values (V/m) | | | | | | 50% Limit (V/m) | Limit (V/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 8.17 | 11.05 | 8.24 | 11.01 | 11.86 | 14.09 | 307 | 614 | Pass |

6. H-Field/E-Field Strength at 40 mm from the edges surrounding the EUT to antenna sensor

| EUT Test Mode | Measured H-Field Strength Values (A/m) | | | | | | 50% Limit (A/m) | Limit (A/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 0.249 | 0.341 | 0.247 | 0.343 | 0.429 | 0.463 | 0.815 | 1.63 | Pass |

| EUT Test Mode | Measured E-Field Strength Values (V/m) | | | | | | 50% Limit (V/m) | Limit (V/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 7.96 | 10.83 | 8.05 | 10.76 | 11.59 | 13.88 | 307 | 614 | Pass |

7. H-Field/E-Field Strength at 48 mm from the edges surrounding the EUT to antenna sensor

| EUT Test Mode | Measured H-Field Strength Values (A/m) | | | | | | 50% Limit (A/m) | Limit (A/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 0.231 | 0.312 | 0.229 | 0.315 | 0.413 | 0.448 | 0.815 | 1.63 | Pass |

| EUT Test Mode | Measured E-Field Strength Values (V/m) | | | | | | 50% Limit (V/m) | Limit (V/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 7.72 | 10.65 | 7.79 | 10.62 | 11.35 | 13.64 | 307 | 614 | Pass |

8. H-Field/E-Field Strength at 56 mm from the edges surrounding the EUT to antenna sensor

| EUT Test Mode | Measured H-Field Strength Values (A/m) | | | | | | 50% Limit (A/m) | Limit (A/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 0.214 | 0.297 | 0.211 | 0.301 | 0.396 | 0.432 | 0.815 | 1.63 | Pass |

| EUT Test Mode | Measured E-Field Strength Values (V/m) | | | | | | 50% Limit (V/m) | Limit (V/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 7.51 | 10.44 | 7.62 | 10.45 | 11.18 | 13.43 | 307 | 614 | Pass |

9. H-Field/E-Field Strength at 64 mm from the edges surrounding the EUT to antenna sensor

| EUT Test Mode | Measured H-Field Strength Values (A/m) | | | | | | 50% Limit (A/m) | Limit (A/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 0.201 | 0.285 | 0.199 | 0.283 | 0.382 | 0.417 | 0.815 | 1.63 | Pass |

| EUT Test Mode | Measured E-Field Strength Values (V/m) | | | | | | 50% Limit (V/m) | Limit (V/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 7.26 | 10.17 | 7.37 | 10.23 | 11.02 | 13.12 | 307 | 614 | Pass |

10. H-Field/E-Fiel Strength at 72 mm from the edges surrounding the EUT to antenna sensor

| EUT Test Mode | Measured H-Field Strength Values (A/m) | | | | | | 50% Limit (A/m) | Limit (A/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 0.185 | 0.270 | 0.187 | 0.265 | 0.363 | 0.402 | 0.815 | 1.63 | Pass |

| EUT Test Mode | Measured E-Field Strength Values (V/m) | | | | | | 50% Limit (V/m) | Limit (V/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 7.04 | 9.85 | 7.11 | 10.01 | 10.86 | 12.89 | 307 | 614 | Pass |

11. H-Field/E-Fiel Strength at 80 mm from the edges surrounding the EUT to antenna sensor

| EUT Test Mode | Measured H-Field Strength Values (A/m) | | | | | | 50% Limit (A/m) | Limit (A/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 0.173 | 0.254 | 0.176 | 0.251 | 0.348 | 0.387 | 0.815 | 1.63 | Pass |

| EUT Test Mode | Measured E-Field Strength Values (V/m) | | | | | | 50% Limit (V/m) | Limit (V/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 6.87 | 9.68 | 6.92 | 9.75 | 10.63 | 12.66 | 307 | 614 | Pass |

12. H-Field/E-Fiel Strength at 88 mm from the edges surrounding the EUT to antenna sensor

| EUT Test Mode | Measured H-Field Strength Values (A/m) | | | | | | 50% Limit (A/m) | Limit (A/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 0.158 | 0.241 | 0.161 | 0.235 | 0.330 | 0.366 | 0.815 | 1.63 | Pass |

| EUT Test Mode | Measured E-Field Strength Values (V/m) | | | | | | 50% Limit (V/m) | Limit (V/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 6.61 | 9.49 | 6.68 | 9.56 | 10.45 | 12.43 | 307 | 614 | Pass |

According KDB 680106 D01 Wireless Power Transfer v04

13. H-Field/E-Fiel Strength at 0 mm from the edges surrounding the EUT to antenna sensor

| EUT Test Mode | Measured H-Field Strength Values (A/m) | | | | | | 50% Limit (A/m) | Limit (A/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 0.342 | 0.471 | 0.339 | 0.469 | 0.523 | 0.578 | 0.815 | 1.63 | Pass |

| EUT Test Mode | Measured E-Field Strength Values (V/m) | | | | | | 50% Limit (V/m) | Limit (V/m) | Result |
|-------------------------------------|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------|--------|
| | Test Position A | Test Position B | Test Position C | Test Position D | Test Position E | Test Position F | | | |
| Device working at the maximum power | 9.05 | 11.99 | 8.99 | 11.90 | 12.74 | 15.10 | 307 | 614 | Pass |