

RF EXPOSURE Test Report

Product: Power Bank

Trade Mark: N/A

Model Number: MAG1005

FCC ID: 2AONA-MAG1005

Prepared for

Shenzhen Pilot Technology Co., Ltd.
101 A1 Industrial Park, building a 1, No.7 Shankeng Road, Shanxia
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Prepared by

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TEST RESULT CERTIFICATION

Applicant's Name.....: Shenzhen Pilot Technology Co., Ltd.
101 A1 Industrial Park, building a 1, No.7 Shankeng Road,
Address: Shanxia community Pinghu Street, Longgang District,
Shenzhen City

Manufacturer's Name: Shenzhen Pilot Technology Co., Ltd.
101 A1 Industrial Park, building a 1, No.7 Shankeng Road,
Address: Shanxia community Pinghu Street, Longgang District,
Shenzhen City

Product description

Product name: Power Bank

Model Number: MAG1005

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.....: Feb. 10, 2025~ Mar. 15, 2025

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

Testing Engineer :

Zoe Su

(Z o e S u)

Technical Manager :

Ming Liu

(Ming Liu)

Authorized Signatory :

Leo Su

(L e o S u)

[illegible]

1 General Description

1.1 Description of EUT

Product name:	Power Bank
Model name:	MAG1005
Series Model:	MAG1105
Different of series model:	All models are the same circuitry and modules, except that the edges of the case are different.
Operation frequency:	115kHz-205kHz
Operational mode:	Wireless charging
Modulation type:	ASK
Antenna type:	Coil Antenna
Battery:	5000mAh/3.89V/19.45Wh
Power supply:	Capacity: 5000mAh/3.89V/19.45Wh USB-C Input: 5V=3A, 9V=2A USB-C Output: 5V=2.4A, 9V=2.22A Wireless Output: 5W/7.5W/10W
Adapter information:	N/A

1.2 Test Mode

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

Note: All modes have been tested, and the report only reflects the test results of the worst mode (Final Test Mode), When the prototype is powered by the adapter, it can only perform 5W wireless charging output.

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	CD289	35810	Ugreen Group Limited
Phone	iPhone 12 pro Max	FF2LDX4T60 D5H	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 %.

The data and results quoted in this document are true and accurate values, and uncertainties are not involved in the calculations.

In addition, components and mass production processes that are similar to testing equipment may introduce additional deviations, and the manufacturer is solely responsible for the continued compliance of the equipment.

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

2.4 Test Software

Software name	Manufacturer	Model	Version
MAGPy V2.6	Schmid & Partner Engineering AG	MAGPy V2.6	V2.6

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	2026-03-14
2	HB-E078	Magnetic Amplitude and Gradient Probe System	Schmid & Partner Engineering AG	MAGPy-DAS	3097	2024-03-15	2026-03-14

Note: the calibration interval of the above test instruments is 24 months and the calibrations are traceable to international system unit (SI).

4 RF Exposure

4.1 Maximum Permissible Exposure

4.1.1. Limit

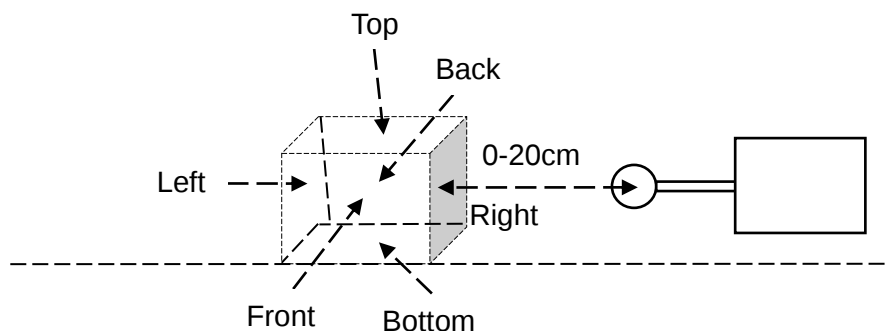
Frequency range(MHz)	Electric field strength(V/m)	Magnetic field strength(A/m)	Power density(mW/cm ²)	Averaging time(minutes)
(A) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f ²	6
30-300	61.4	0.163	1.0 6	6
300-1500			f/300	6
1500-100000			5	6
(B) 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 ²	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.
- When setting MAGPy to select compliance location as probe tip, the measured value is extrapolated to 0mm as the result.

4.1.3. Test Setup



4.1.4. Test Result

For portable exposure condition:

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 2 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	35.8	0.85
<1%	Left	0	13.5	0.96
<1%	Right	0	6.01	0.87
<1%	Front	0	20.6	0.87
<1%	Back	0	60	0.56
<1%	Bottom	0	73.3	1.02
Limit			614	1.63
Margin Limit (%)			11.94%	62.58%

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	36.2	0.88
<1%	Left	0	14.2	0.97
<1%	Right	0	7.2	0.89
<1%	Front	0	21.4	0.88
<1%	Back	0	61.8	0.64
<1%	Bottom	0	73.9	1.04
Limit			614	1.63
Margin Limit (%)			12.04%	63.80%

Measured value (E –field(V/m))	Derived Values (E –field(V/m))	Error value	Measured value H–field(A/m)	Derived Values H–field(A/m)	Error value
35.8	36.2	1%	0.85	0.88	3.4%
13.5	14.2	4.9%	0.96	0.97	1.0%
6.01	7.2	16.5%	0.88	0.85	2.3%
20.6	21.4	3.7%	0.87	0.88	1.1%
60	61.8	2.9%	0.56	0.64	12.5%
73.3	73.9	0.8%	1.02	1.04	1.9%
Limit		30%	Limit		30%
Result		pass			ass

Note: Error value= (Derived Values-Measured value)/Derived Values

Test condition 2: Mode 2 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	2	33.6	0.82
<1%	Left	2	12.4	0.92
<1%	Right	2	5.76	0.81
<1%	Front	2	19.6	0.83
<1%	Back	2	58.5	0.52
<1%	Bottom	2	70.1	0.98
Limit			614	1.63
Margin Limit (%)			11.42%	60.12%

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	2	35.4	0.84
<1%	Left	2	13.6	0.95
<1%	Right	2	7.1	0.83
<1%	Front	2	20.6	0.84
<1%	Back	2	60.1	0.61
<1%	Bottom	2	72.5	1.01
Limit			614	1.63
Margin Limit (%)			11.81%	61.96%

Test condition 3: Mode 2 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	4	31.2	0.68
<1%	Left	4	11.0	0.77
<1%	Right	4	5.2	0.72
<1%	Front	4	17.2	0.69
<1%	Back	4	56.1	0.51
<1%	Bottom	4	67.2	0.88
Limit			614	1.63
Margin Limit (%)			10.94%	53.99%

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	4	33.1	0.72
<1%	Left	4	12.2	0.83
<1%	Right	4	6.3	0.77
<1%	Front	4	18.2	0.74
<1%	Back	4	58.1	0.58
<1%	Bottom	4	70.2	0.96
Limit			614	1.63
Margin Limit (%)			11.43%	58.90%

Test condition 4: Mode 2 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	6	29.3	0.65
<1%	Left	6	9.2	0.73
<1%	Right	6	5.8	0.69
<1%	Front	6	15.4	0.65
<1%	Back	6	46.5	0.55
<1%	Bottom	6	58.6	0.86
Limit			614	1.63
Margin Limit (%)			9.54%	52.76%

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	6	31.2	0.70
<1%	Left	6	10.4	0.76
<1%	Right	6	6.1	0.74
<1%	Front	6	17.4	0.69
<1%	Back	6	45.6	0.54
<1%	Bottom	6	64.6	0.94
Limit			614	1.63
Margin Limit (%)			10.52%	57.67%

Test condition 5: Mode 2 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	8	26.2	0.62
<1%	Left	8	8.4	0.71
<1%	Right	8	5.2	0.68
<1%	Front	8	14.5	0.64
<1%	Back	8	44.1	0.53
<1%	Bottom	8	57.6	0.84
Limit			614	1.63
Margin Limit (%)			9.38%	51.53%

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	8	28.6	0.68
<1%	Left	8	10.4	0.74
<1%	Right	8	5.6	0.72
<1%	Front	8	16.2	0.68
<1%	Back	8	48.4	0.52
<1%	Bottom	8	62.1	0.92
Limit			614	1.63
Margin Limit (%)			11.43%	56.44%

Test condition 6: Mode 2 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	10	22.1	0.52
<1%	Left	10	7.2	0.61
<1%	Right	10	4.1	0.63
<1%	Front	10	12.1	0.57
<1%	Back	10	40.5	0.43
<1%	Bottom	10	52.4	0.76
Limit			614	1.63
Margin Limit (%)			8.53%	46.63%

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	10	24.2	0.58
<1%	Left	10	8.9	0.64
<1%	Right	10	4.5	0.68
<1%	Front	10	14.2	0.62
<1%	Back	10	44.6	0.47
<1%	Bottom	10	58.7	0.87
Limit			614	1.63
Margin Limit (%)			9.56%	53.37%

Test condition 7: Mode 2 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	12	18.4	0.41
<1%	Left	12	6.2	0.42
<1%	Right	12	3.1	0.47
<1%	Front	12	11.5	0.51
<1%	Back	12	25.2	0.28
<1%	Bottom	12	17.6	0.63
Limit			614	1.63
Margin Limit (%)			4.10%	38.65%

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	12	21.5	0.45
<1%	Left	12	7.8	0.52
<1%	Right	12	3.2	0.56
<1%	Front	12	12.1	0.55
<1%	Back	12	28.2	0.32
<1%	Bottom	12	18.6	0.74
Limit			614	1.63
Margin Limit (%)			4.59%	45.40%

Test condition 8: Mode 2 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	14	14.2	0.28
<1%	Left	14	4.8	0.34
<1%	Right	14	2.1	0.32
<1%	Front	14	6.2	0.31
<1%	Back	14	14.1	0.22
<1%	Bottom	14	10.2	0.45
Limit			614	1.63
Margin Limit (%)			2.31%	27.61%

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	14	17.4	0.33
<1%	Left	14	6.2	0.39
<1%	Right	14	2.5	0.41
<1%	Front	14	8.2	0.36
<1%	Back	14	16.4	0.25
<1%	Bottom	14	12.5	0.56
Limit			614	1.63
Margin Limit (%)			2.83%	34.36%

Test condition 9: Mode 2 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	16	9.5	0.25
<1%	Left	16	3.1	0.32
<1%	Right	16	1.2	0.21
<1%	Front	16	4.5	0.23
<1%	Back	16	10.4	0.18
<1%	Bottom	16	6.8	0.35
Limit			614	1.63
Margin Limit (%)			1.69%	21.47%

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	16	12.4	0.29
<1%	Left	16	5.4	0.34
<1%	Right	16	1.8	0.26
<1%	Front	16	6.5	0.32
<1%	Back	16	14.2	0.21
<1%	Bottom	16	10.2	0.42
Limit			614	1.63
Margin Limit (%)			2.31%	25.77%

Test condition 10: Mode 2 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	18	8.4	0.24
<1%	Left	18	3.1	0.31
<1%	Right	18	1.2	0.18
<1%	Front	18	4.6	0.24
<1%	Back	18	8.8	0.13
<1%	Bottom	18	7.4	0.31
Limit			614	1.63
Margin Limit (%)			1.43%	19.02%

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	18	9.8	0.25
<1%	Left	18	4.5	0.32
<1%	Right	18	1.5	0.21
<1%	Front	18	5.4	0.28
<1%	Back	18	10.2	0.16
<1%	Bottom	18	8.6	0.33
Limit			614	1.63
Margin Limit (%)			1.66%	20.25%

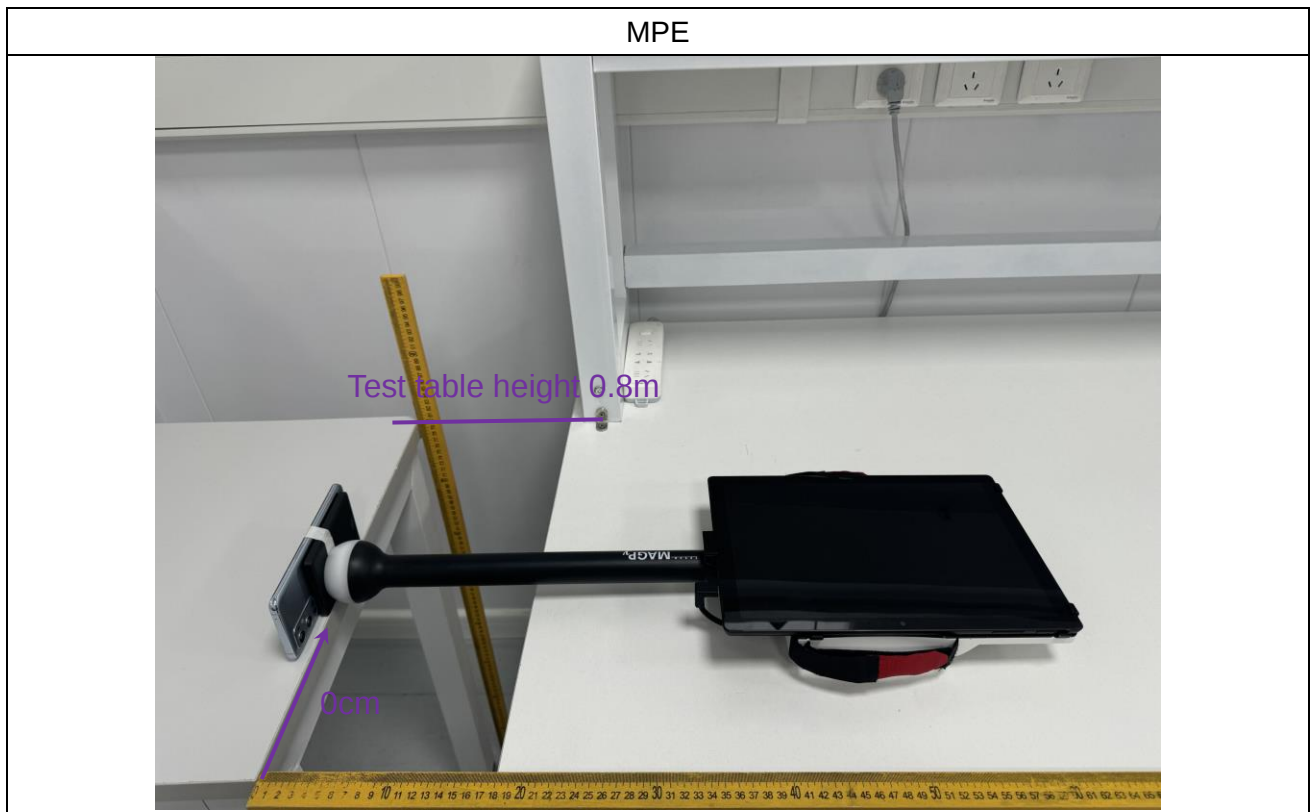
Test condition 11: Mode 2 operating mode with client device (1 % battery status of client device).
Measurement results directly tested using MAGPy.

Maximum permissible Exposure				
Battery levels	Test sides	Test distance(cm)	E -field(V/m)	H-field(A/m)
<1%	Top	20	7.2	0.21
<1%	Left	20	3.9	0.23
<1%	Right	20	1.1	0.14
<1%	Front	20	4.8	0.23
<1%	Back	20	8.5	0.18
<1%	Bottom	20	6.5	0.24
Limit			614	1.63
Margin Limit (%)			1.38%	14.72%

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	20	8.6	0.22
<1%	Left	20	4.1	0.28
<1%	Right	20	1.4	0.19
<1%	Front	20	5.2	0.22
<1%	Back	20	9.7	0.14
<1%	Bottom	20	7.4	0.26
Limit			614	1.63
Margin Limit (%)			1.58%	17.18%

5 Photographs of the Test Setup



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