Microtest
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Test Report

Report No.:	MTi220224007-04E2
Date of issue:	Apr. 06, 2022
Applicant:	Shenzhen Times Innovation Technology Co., Ltd.
Product:	Power Bank
Model(s):	PPCXW10-C
FCC ID:	2AY37-PPCXW10

Shenzhen Microtest Co., Ltd.

http://www.mtitest.com

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Instructions

1. This test report shall not be partially reproduced without the written consent of the laboratory.

2. The test results in this test report are only responsible for the samples submitted

3. This test report is invalid without the seal and signature of the laboratory.

4. This test report is invalid if transferred, altered, or tampered with in any form without authorization.

5. Any objection to this test report shall be submitted to the laboratory within 15 days from the date of receipt of the report.

Contents

Test Result Certification	
Applicant:	**Shenzhen Times Innovation Technology Co., Ltd.**
Address:	5th Floor, Building B, Baseus Intelligence Park, No.2008, Xuegang Rd, Gangtou Community, Bantian Street, Longgang District, Shenzhen
Manufacturer:	**Shenzhen Times Innovation Technology Co., Ltd.**
Address:	5th Floor, Building B, Baseus Intelligence Park, No.2008, Xuegang Rd, Gangtou Community, Bantian Street, Longgang District, Shenzhen
Product description	
Product name:	Power Bank
Trademark:	Baseus
Model name:	PPCXW10-C
Serial Model:	N/A
Standards:	FCC CFR 47 PART 1, § 1.1310
Test method:	KDB 680106 v03r01
Date of Test	
Date of test:	2022-02-26 ~ 2022-04-06
Test result:	Pass

Test Engineer : Yanice Xie

(Yanice Xie)

Reviewed By: : Leon Chen

(Leon Chen)

Approved By: : Tom Xue

(Tom Xue)

1 General Description

1.1 Description of the EUT

Product name:	Power Bank
Model name:	PPCXW10-C
Series Model:	N/A
Model difference:	N/A
Electrical rating:	Input: DC 5V2.4A, 9V2A Output: USB-A: DC5V2.4A, 9V2A, 12V1.5A; Type-C: DC5V2.4A, 9V2.22A, 12V1.5A; USB-A + Type-C: DC5V2.4A; Wireless Output: 15W Total Output: DC 5V2.4A Battery: DC 3.7V 10000mAh
Accessories:	N/A
EUT serial number:	MTi220224007-04-S0001
Hardware version:	V1.3
Software version:	V1.0
RF specification:	
Operation frequency:	115 kHz – 205 kHz
Modulation type:	ASK
Antenna type:	Coil Antenna

1.2 Description of test modes

All the test modes were carried out with the EUT in normal operation, the final test mode of the EUT was the worst test mode for emission test, which was shown in this report and defined as:

No.	Emission test modes
Mode 1	Charging + Wireless Output (5W)
Mode 2	Wireless Output(5W)
Mode 3	Wireless Output7.5W)
Mode 4	Wireless Output(10W)
Mode 5	Wireless Output(15W)
Mode 6	Stand-by mode
The test data only show worst test mode: Mode 5	

1.3 Description of support units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Support equipment list			
Description	Model	Serial No.	Manufacturer
Mobile phone	A2404	F17DLCK70DYN	Apple
Mobile phone	SM-G9650/DS	R28K34V79NT	Samsung
Mobile phone	P30 PRO	/	HUAWEI
Adapter	HW-090200CH0	B98788L5F02610	HUAWEI
Support cable list			
Description	Length (m)	From	To
USB-C to USB-C cable	1.5	Adapter	EUT

2 Test facilities and accreditations

2.1 Test laboratory

Test laboratory:	Shenzhen Microtest Co., Ltd.
Test site location:	101, No. 7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Telephone:	(86-755)88850135
Fax:	(86-755)88850136
CNAS Registration No.:	CNAS L5868
FCC Registration No.:	448573

3 List of test equipment

No.	Equipment	Manufacturer	Model	Serial No.	Cal. date	Cal. Due
MTI-E115	Electric and Magnetic Field Probe – Analyzer	Narda	EHP-200A	101166	2021/06/02	2022/06/01

4 Test result

4.1.1 Requirement

§1.1310: The criteria listed in the following table shall be used to evaluate the environment 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 FCC part 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
300-1500			f/300	<6
1500-100000			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
300-1500			f/1500	<30
1500-100000			1.0	<30

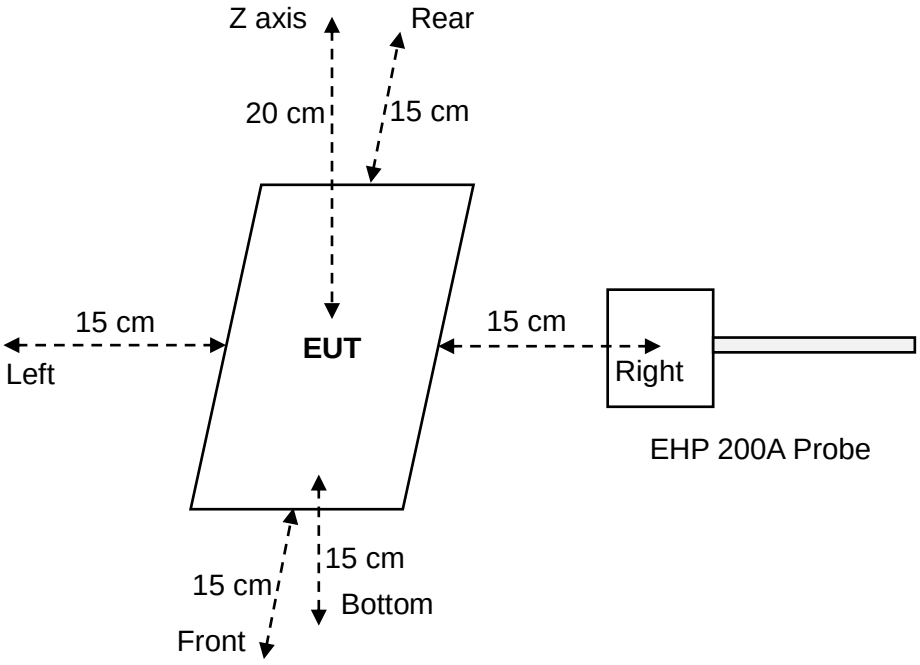
f = frequency in MHz
* = Plane-wave equivalent power density

Note 1: Occupational/controlled exposure limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.

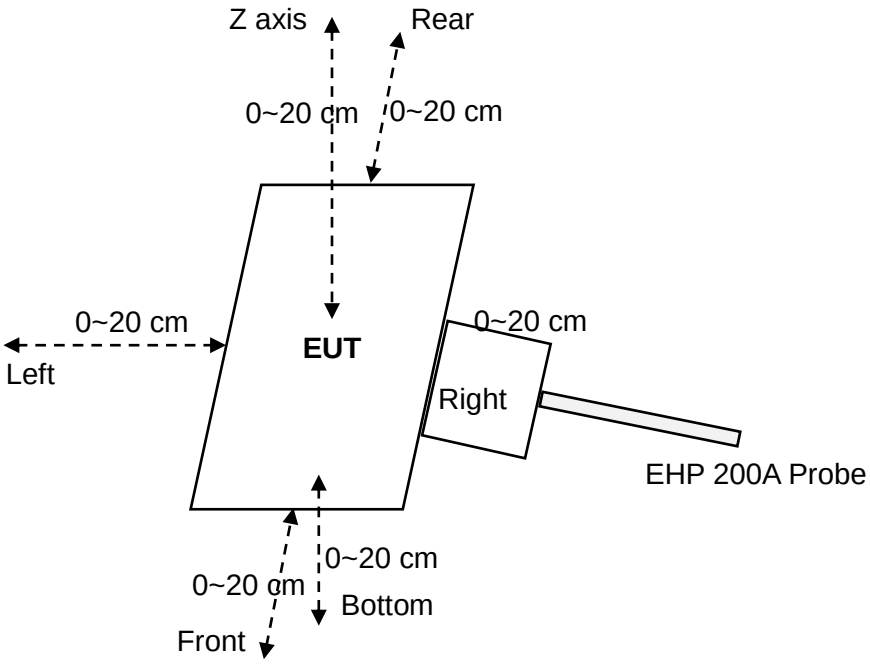
Note 2: General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

4.2 Test setup

For mobile exposure conditions:



For portable exposure conditions:



4.3 Test Procedures

For mobile exposure conditions:

a. The RF exposure test was performed in anechoic chamber.

b. H-field measurements should be made with the center of the probe at a distance of 15 cm surrounding the EUT and 20 cm above the top surface of the primary/client pair.

c. The highest emission level was recorded and compared with limit.

d. The EUT was measured according to the dictates of KDB 680106 v03r01.

For portable exposure conditions:

a. The RF exposure test was performed in anechoic chamber.

b. H-field measurements should be made with the probe at 0~20 cm for all side of the EUT.

c. The highest emission level was recorded and compared with limit.

4.4 Equipment Approval Considerations item 5 b) of KDB 680106 D01 v03r01

Requirement	Device
1. Power transfer frequency is less than 1 MHz.	Yes. The operating frequencies: 115 kHz – 205 kHz
2. Output power from each primary coil is less than or equal to 15 watts	Yes. The maximum output power: 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. The EUT have one source primary coils.
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. The EUT can be used as potable exposure conditions
6. The aggregate H-field strengths anywhere at or beyond 15 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.	Yes. For the portable exposure conditions, the measurement was taken based on the KDB inquiry. See the test result in item 4.5.

4.5 Test results

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.

Test condition 1: Mode 5 operating mode with client device (1 % battery status of client device) -test distance: 0cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.8082	1.63	49.58%
	Left	0.6848		
	Right	0.2984		
	Front	0.1085		
	Rear	0.2278		
	Bottom	0.1422		

Test condition 2: Mode 5 operating mode with client device (1 % battery status of client device) -test distance: 2cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.2256	1.63	17.23%
	Left	0.1554		
	Right	0.2809		
	Front	0.093		
	Rear	0.1321		
	Bottom	0.1111		

Test condition 3: Mode 5 operating mode with client device (1 % battery status of client device) - Test distance 4cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.1014	1.63	6.42%
	Left	0.0563		
	Right	0.0915		
	Front	0.1046		
	Rear	0.0806		
	Bottom	0.1037		

Test condition 4: Mode 5 operating mode with client device (99 % battery status of client device) - Test distance 6cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0587	1.63	4.31%
	Left	0.0505		
	Right	0.0604		
	Front	0.0703		
	Rear	0.0501		
	Bottom	0.0689		

Test condition 5: Mode 5 operating mode with client device (1 % battery status of client device) - Test distance 8cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0488	1.63	3.42%
	Left	0.046		
	Right	0.042		
	Front	0.0557		
	Rear	0.0524		
	Bottom	0.0513		

Test condition 6: Mode 5 operating mode with client device (1 % battery status of client device) - Test distance 10cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0499	1.63	3.33%
	Left	0.042		
	Right	0.0418		
	Front	0.0505		
	Rear	0.0397		
	Bottom	0.0543		

Test condition 7: Mode 5 operating mode with client device (1 % battery status of client device) - Test distance 12cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0484	1.63	2.97%
	Left	0.0461		
	Right	0.0422		
	Front	0.0417		
	Rear	0.0405		
	Bottom	0.0433		

Test condition 8: Mode 5 operating mode with client device (1 % battery status of client device) - Test distance 14cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0461	1.63	3.50%
	Left	0.0411		
	Right	0.0395		
	Front	0.0519		
	Rear	0.039		
	Bottom	0.0571		

Test condition 9: Mode 5 operating mode with client device (1 % battery status of client device) - Test distance 16cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0372	1.63	2.73%
	Left	0.0442		
	Right	0.0349		
	Front	0.0445		
	Rear	0.0426		
	Bottom	0.0437		

Test condition 10: Mode 5 operating mode with client device (1 % battery status of client device) - Test distance 18cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0367	1.63	2.88%
	Left	0.0389		
	Right	0.034		
	Front	0.047		
	Rear	0.0378		
	Bottom	0.0429		

Test condition 11: Mode 5 operating mode with client device (1 % battery status of client device) - Test distance 20cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0325	1.63	2.83%
	Left	0.0372		
	Right	0.033		
	Front	0.0424		
	Rear	0.0316		
	Bottom	0.0461		

Photographs of the test setup

See the APPENDIX – Test Setup Photos.

Photographs of the EUT

See the APPENDIX - EUT Photos.

----End of Report----