Microtest
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Test Report

Report No.:	MTi210824009-19E4
Date of issue:	September; 29, 2021
Applicant:	Anker Innovations Limited
Product:	Power bank
Model(s):	A25A7
FCC ID:	2AOKB-A25A7A

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:	**Anker Innovations Limited**
Address:	Room 1318-19, Hollywood Plaza, 610 Nathan Road, Mongkok, Kowloon, Hongkong
Manufacturer:	**Same as applicant**
Address:	Same as applicant's address
Product description	
Product name:	Power bank
Trademark:	ANKER
Model name:	A25A7
Serial Model:	N/A
Standards:	FCC CFR 47 PART 1, § 1.1310
Test method:	KDB 680106 v03r01
Date of Test	
Date of test:	2021-08-30 ~ 2021-09-28
Test result:	Pass

Test Engineer : Danny Xu

(Danny Xu)

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:	A25A7
Series Model:	N/A
Model difference:	N/A
Electrical rating:	For portable charger: Input: DC 5V/2.4A, 9V/2.33A Wireless output: 5W/7.5W USB-C output: 5V/2.4A Cell Capacity: 5000mAh
Accessories:	1. AC/DC Adapter: Name: PowerPort III 25W Model: A2058 Input: 100-240VAC 1.0A 50-60Hz Output: DC 5V/3A, 9V/2.8A, PPS: 3.3-5.9V/3A, 3.3-11.0V/2.25A 2. USB-C to USB-C cable (1.6 m)
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
For mobile exposure conditions	
Mode 1	Stand-by mode
Mode 2	Operating mode (5W)
Mode 3	Operating mode (7.5W)
The test data only show worst test mode: Mode 3	
For portable exposure conditions	
Mode 1	Operating mode (load 5W)
Mode 2	Operating mode (load 7.5W)
The test data only show worst test mode: Mode 2	

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
Iphone 12	A2404	F17DLCK70DYN	Apple
Support cable list			
Description	Length (m)	From	To
/	/	/	/

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

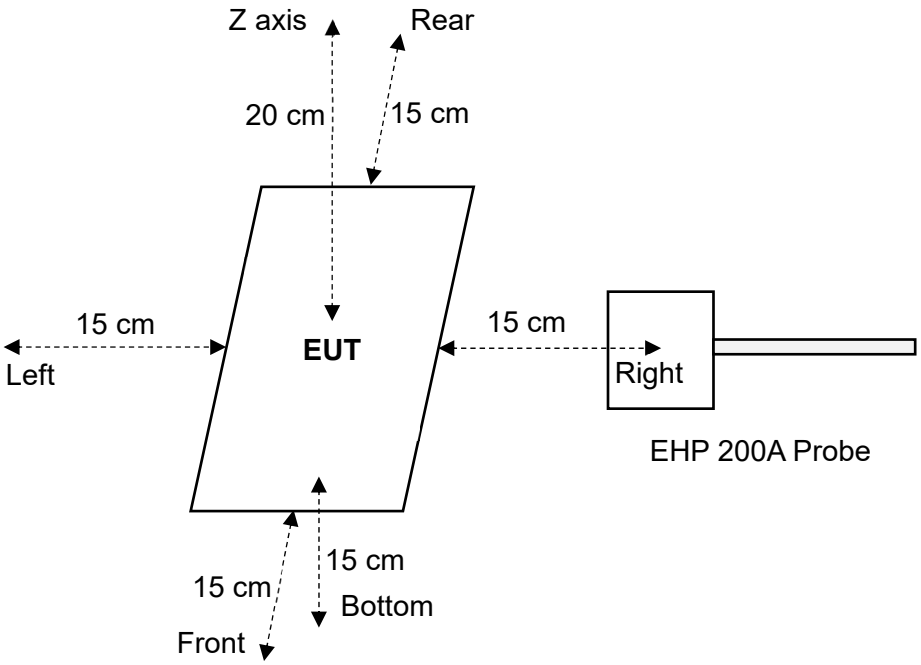
f = frequency in MHz
* = Plane-wave equivalent power density

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.

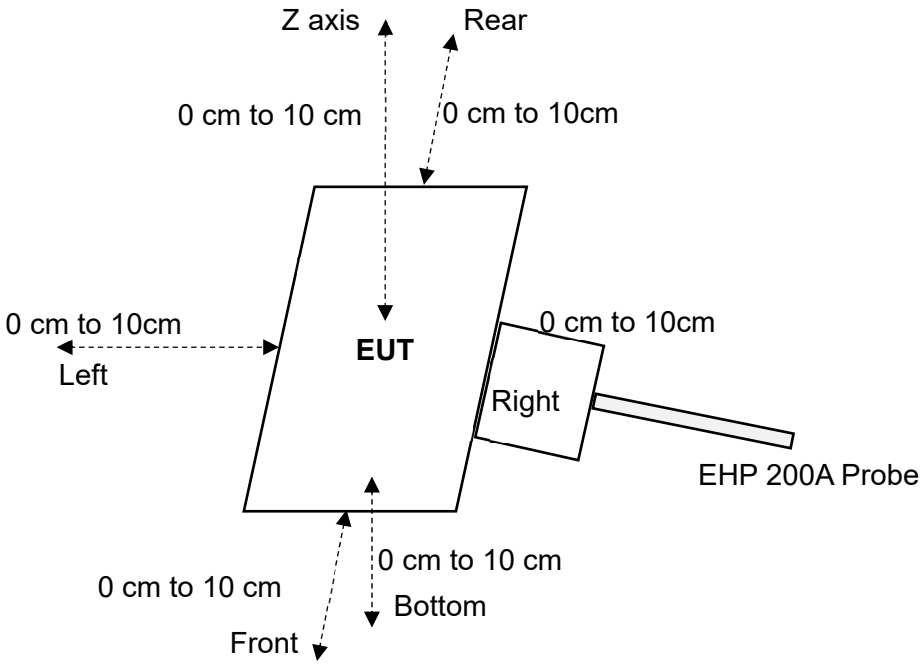
Note 2: General population/uncontrolled exposure limits apply in situations in which the general public may be exposed, or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

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. E and 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. E and H-field measurements should be made with the probe at 0 cm for all side of the EUT.

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

For portable exposure conditions:

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 10 cm

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 are: 115 kHz – 205 kHz
2. Output power from each primary coil is less than or equal to 15 watts	Yes. The maximum output power is: 7.5W
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 has portable exposure condition.
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, and 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 10 cm were also evaluated for portable use condition.

4.5 Test results

For mobile exposure condition:

Test condition 1: Mode 3 operating mode with client device (1 % battery status of client device)

Antenna	Probe Position	E –field (V/m)			H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)	Measurement	Limit	Max. Percentage (%)
1	Z axis	0.7946	614	0.13%	0.0480	1.63	3.06%
	Left	0.3539			0.0498		
	Right	0.7216			0.0487		
	Front	0.3455			0.0495		
	Rear	0.3539			0.0498		
	Bottom	0.3529			0.0482		

Test condition 2: Mode 3 operating mode with client device (50 % battery status of client device)

Antenna	Probe Position	E –field (V/m)			H–field (A/m)		
		Measurement	Limit	Percentage (%)	Measurement	Limit	Percentage (%)
1	Z axis	0.8010	614	0.13%	0.0499	1.63	3.12%
	Left	0.3488			0.0508		
	Right	0.7165			0.0488		
	Front	0.3516			0.0482		
	Rear	0.3527			0.0482		
	bottom	0.3538			0.0483		

Test condition 3: Mode 3 operating mode with client device (99 % battery status of client device)

Antenna	Probe Position	E –field (V/m)			H–field (A/m)		
		Measurement	Limit	Percentage (%)	Measurement	Limit	Percentage (%)
1	Z axis	0.7867	614	0.13%	0.0488	1.63	3.04%
	Left	0.3512			0.0495		
	Right	0.7055			0.0476		
	Front	0.3574			0.0488		
	Rear	0.3568			0.0488		
	bottom	0.3539			0.0488		

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 2 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	0.7122	1.63	43.7%
	Left	0.1591		
	Right	0.2781		
	Front	0.0604		
	Rear	0.1317		
	Bottom	0.0907		

Test condition 2: Mode 2 operating mode with client device (50 % battery status of client device)

-test distance: 2cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.3944	1.63	24.2%
	Left	0.1171		
	Right	0.1092		
	Front	0.0902		
	Rear	0.0465		
	Bottom	0.0983		

Test condition 3: Mode 2 operating mode with client device (99 % battery status of client device) - Test distance 4cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0550	1.63	3.46%
	Left	0.0460		
	Right	0.0452		
	Front	0.0482		
	Rear	0.0452		
	Bottom	0.0564		

Test condition 4: Mode 2 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	0.0495	1.63	3.13%
	Left	0.0482		
	Right	0.0453		
	Front	0.0482		
	Rear	0.0510		
	Bottom	0.0478		

Test condition 5: Mode 2 operating mode with client device (99 % battery status of client device) - Test distance 8cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0478	1.63	3.04%
	Left	0.0460		
	Right	0.0482		
	Front	0.0495		
	Rear	0.0465		
	Bottom	0.0482		

Test condition 6: Mode 2 operating mode with client device (99 % battery status of client device) - Test distance 10cm

Antenna	Probe Position	H–field (A/m)		
		Measurement	Limit	Max. Percentage (%)
1	Z axis	0.0482	1.63	3.24%
	Left	0.0460		
	Right	0.0482		
	Front	0.0478		
	Rear	0.0478		
	Bottom	0.0528		

Photographs of the test setup

See the APPENDIX - Test Setup Photos.

Photographs of the EUT

See the APPENDIX - EUT Photos.

----End of Report----