




TEST REPORT

FCC ID..... :	2A646-T1156	
Test Report No..... :	TCT230217E020	
Date of issue..... :	Mar. 06, 2023	
Testing laboratory	SHENZHEN TONGCE TESTING LAB	
Testing location/ address:	2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China	
Applicant's name..... :	Shenzhen Chuanglijiacheng Technology Co., Ltd.	
Address..... :	1616X4 Building C, Huangdu Square, No.3008, Yitian Road, Huanggang Community, Futian Street, Shenzhen, China	
Manufacturer's name ... :	Dong guan Utopia-Originality Technology Co., Ltd	
Address..... :	NO.2, moushan Road, Chan'an Town, Dongguan City, Guangdong Province, China	
Standard(s)	FCC CFR Title 47 Part 1.1310 KDB 680106 D01 RF Exposure Wireless Charging App v03r01	
Product Name..... :	Power bank	
Trade Mark	VRURC	
Model/Type reference..... :	T1156	
Rating(s)	Rechargeable Li-ion Battery DC 3.85V	
Date of receipt of test item	Feb. 17, 2023	
Date (s) of performance of test..... :	Feb. 17, 2023 ~ Mar. 06, 2023	
Tested by (+signature) ... :	Rleo LIU	
Check by (+signature).... :	Beryl ZHAO	
Approved by (+signature):	Tomsin	



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Table of Contents

1. General Product Information	3
1.1. EUT description	3
1.2. Model(s) list.....	3
2. General Information.....	4
2.1. Test environment and mode.....	4
3. Facilities and Accreditations	5
3.1. Facilities	5
3.2. Location	5
4. Technical Requirements Specification	6
4.1. Requirements.....	6
4.2. Test Setup	7
4.3. Test Procedure	8
4.4. Test Instruments List	8
4.5. Test Result	9
4.6. Test Set-up Photo.....	12

1. General Product Information

1.1. EUT description

Product Name:	Power bank
Model/Type reference:	T11568
Sample Number:	TCT230217E019-0101
Operation Frequency :	For Wireless Charging: 112.36KHz ~ 170.43KHz For Apple Watch Wireless Charging: 154.01KHz
Center frequency:	For Wireless Charging: 142.79KHz For Apple Watch Wireless Charging: 154.01KHz
Modulation Technology	Load modulation
Antenna Type:	Inductive loop coil Antenna
Rating(s):	Rechargeable Li-ion Battery DC 3.85V

1.2. Model(s) list

None.

2. General Information

2.1. Test environment and mode

Operating Environment:		
Condition	Conducted Emission	Radiated Emission
Temperature:	25.4 °C	24.8 °C
Voltage:	DC 5V	DC 5V
Humidity:	54 % RH	52 % RH
Atmospheric Pressure:	1010 mbar	1010 mbar
Test Mode:		
AC mode	Mode1	Mode2
	Charging + wireless charging1(15W) + wireless charging2(2.5W)	Charging + wireless charging1(5W) + wireless charging2(2.5W) + Full load(5W)
Internal Battery Mode	Mode3	Mode4
	Wireless charging 1(15W) + Wireless charging 2(2.5W)	Wireless charging 1(5W) + Wireless charging 2(2.5W) + Full load(5W)
Remark	1. Wireless charging 1: wireless charging for phone 2. Wireless charging 2: wireless charging for apple watch 3. All modes have been tested. Mode 1 and Mode 3 were reported only.	
The sample was placed 0.8m for the measurement below 1GHz above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case(Z axis) are shown in Test Results of the following pages.		

3. Facilities and Accreditations

3.1. Facilities

The test facility is recognized, certified, or accredited by the following organizations:

- FCC - Registration No.: 645098
SHENZHEN TONGCE TESTING LAB
Designation Number: CN1205

The testing lab has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

- IC - Registration No.: 10668A-1
SHENZHEN TONGCE TESTING LAB
CAB identifier: CN0031

The testing lab has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing.

3.2. Location

SHENZHEN TONGCE TESTING LAB

Address: 2101 & 2201, Zhenchang Factory, Renshan Industrial Zone, Fuhai Subdistrict,
Bao'an District, Shenzhen, Guangdong, 518103, People's Republic of China

TEL: +86-755-27673339

4. Technical Requirements Specification

4.1. Requirements

According to the item 5 of KDB 680106 D01 RF Exposure Wireless Charging App v03r01:

- (1) Power transfer frequency is less than 1 MHz.
Yes
- (2) Output power from each primary coil is less than or equal to 15 watts.
Yes
- (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
- (4) Client device is placed directly in contact with the transmitter.
Yes
- (5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
No
- (6) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.
Yes

Limits

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)

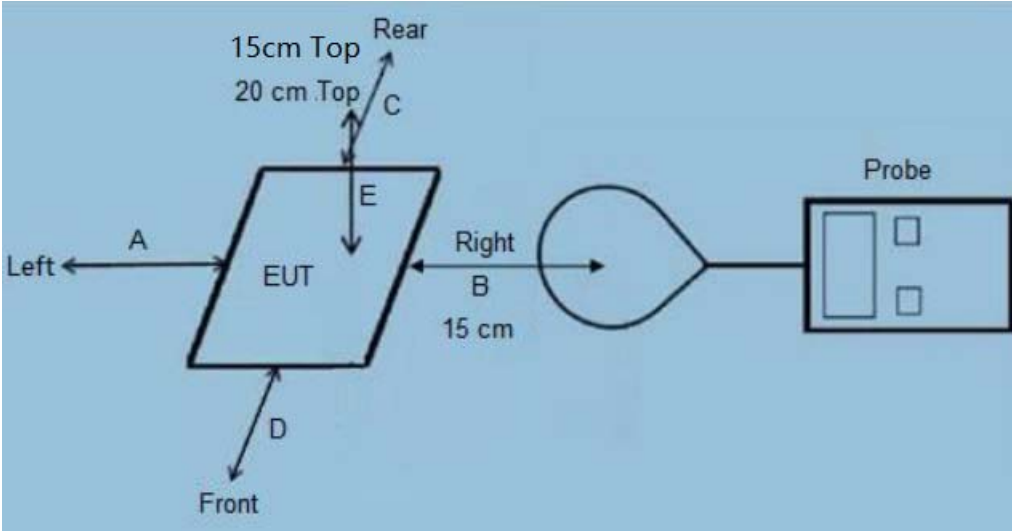
Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
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
1500-100,000	/	/	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
1500-100,000	/	/	1.0	30

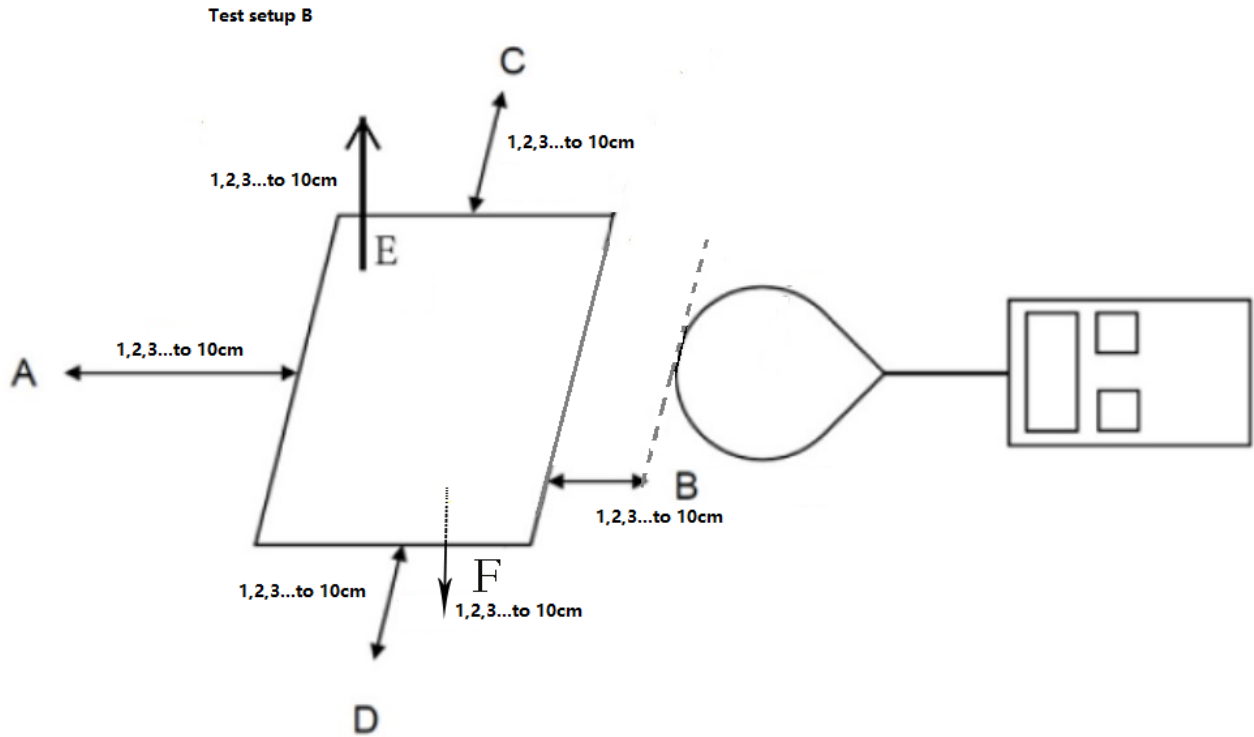
F=frequency in MHz
 * =Plane-wave equivalent power density
 RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

4.2. Test Setup

A:



B:



4.3. Test Procedure

- 1) The RF exposure test was performed in an echoic chamber;
- 2) The measurement probe was placed at test distance(15 cm from edges, 20 cm and 15cm from top) Which is between the edge of the charger and the geometric center of probe, for test setup A;
- 3) In addition to what is described in KDB 680106 D01, please measure and provide magnetic and electrical field strength at a distance 10cm to 1cm at 1cm iteration, i.e. at a distance of 10cm, 9cm, 8cm, 1cm. Which is between the edge of the charger and the edge of of probe, for test setup B;
- 4) The highest emission leve laws recorded and compared with limit as soon as measurement of each points (A,B, C,D, E, F)were completed;
- 5) The EUT was measured according to the dictates of KDB680106D01v03; And KDB Tracking Number 671578 ; TCB Workshop, October 2018, 5.2 RF Exposure Procedures

Remark: The EUT' s test position A, B,C, D, E and F is valid for the E and H field measurements.

4.4. Test Instruments List

Equipment	Manufacturer	Model No.	Serial No.	Calibration Due
Electric and Magnetic Field Analyzer	Narda	EHP-200A	180ZX20511	Dec. 19, 2023
Mobile Phone	SAMSUNG	SM-G9350	/	/
Apple watch	/	/	/	/
Adapter	JD	JD-050200	2012010907576735	/

4.5. Test Result

Test Result for Test setup A:

Note: Internal battery power mode(mode 3)

E-Filed Strength at (15 cm from edges A,B,C,D, 20 cm and 15cm from top E) surrounding the EUT (V/m)

Charging Load Worse case	Test Position A (V/m)	Test Position B (V/m)	Test Position C (V/m)	Test Position D (V/m)	Test Position E (V/m)20cm	Test Position E (V/m)15cm	Limits (V/m)
<5%	1.53	1.67	1.77	1.83	1.50	1.69	614
50%	1.39	1.65	1.64	1.75	1.52	1.66	614
>90 %	1.34	1.41	1.59	1.54	1.58	1.62	614

H-Filed Strength at (15 cm from edges A,B,C,D, 20 cm and 15cm from top E) surrounding the EUT (A/m)

Charging Load Worse case	Test Position A (A/m)	Test Position B (A/m)	Test Position C (A/m)	Test Position D (A/m)	Test Position E (A/m)20cm	Test Position E (A/m)15cm	Limits (A/m)
<5%	0.207	0.198	0.206	0.207	0.198	0.196	1.63
50%	0.191	0.195	0.193	0.195	0.184	0.189	1.63
>90 %	0.193	0.182	0.191	0.192	0.183	0.181	1.63

Note: AC power in mode(mode 1)

E-Filed Strength at (15 cm from edges A,B,C,D, 20 cm and 15cm from top E) surrounding the EUT (V/m)

Charging Load Worse case	Test Position A (V/m)	Test Position B (V/m)	Test Position C (V/m)	Test Position D (V/m)	Test Position E (V/m)20cm	Test Position E (V/m)15cm	Limits (V/m)
<5%	1.56	1.65	1.68	1.76	1.57	1.72	614
50%	1.37	1.62	1.57	1.64	1.49	1.65	614
>90 %	1.39	1.31	1.54	1.53	1.48	1.60	614

H-Filed Strength at (15 cm from edges A,B,C,D, 20 cm and 15cm from top E) surrounding the EUT (A/m)

Charging Load Worse case	Test Position A(A/m)	Test Position B(A/m)	Test Position C(A/m)	Test Position D(A/m)	Test Position E(A/m)20cm	Test Position E(A/m)15cm	Limits (A/m)
<5%	0.206	0.196	0.192	0.190	0.196	0.209	1.63
50%	0.198	0.183	0.198	0.192	0.185	0.194	1.63
>90 %	0.191	0.174	0.197	0.194	0.183	0.191	1.63

Test Result for Test setup B:

Note: internal battery power mode is worse case, and only worse case is reported. (mode 3)

<5% ,50% ,>90% load all have been tested ,only worse case Max load (<5%) is reported.

E-Filed Strength at (distance 10cm to 1cm at 1cm iteration, i.e. at a distance of 10cm, 9cm, 8cm, 1cm, Which is between the edge of the charger and the edge of of probe,) surrounding the EUT (V/m)

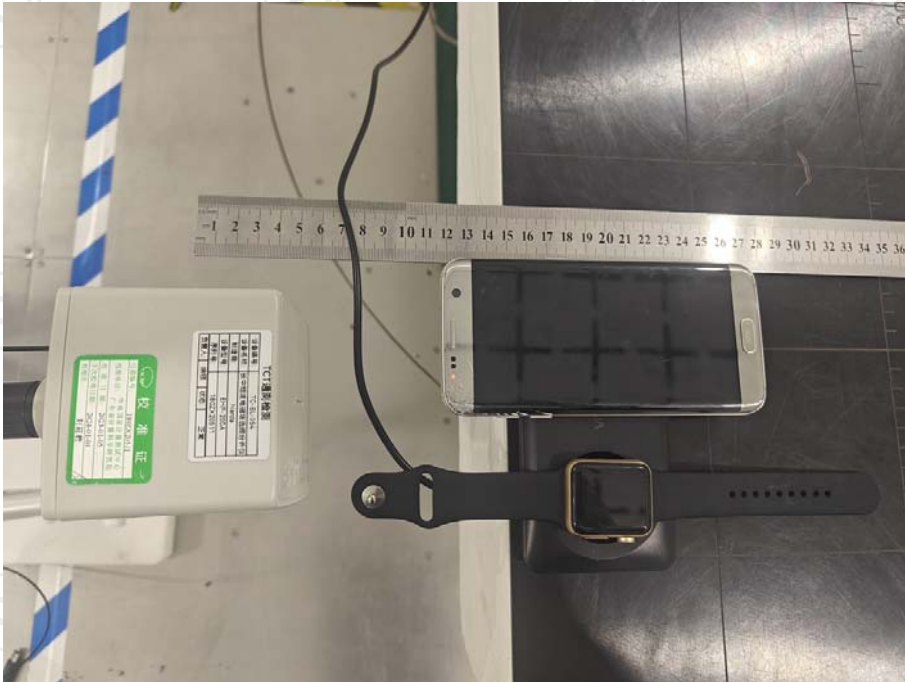
Test distance (cm)	Test Position A(V/m)	Test Position B(V/m)	Test Position C(V/m)	Test Position D(V/m)	Test Position E(V/m)	Test Position F(V/m)	Limits (V/m)
1	2.45	2.50	2.41	2.69	2.38	2.42	614
2	2.24	2.36	2.32	2.36	2.25	2.52	614
3	2.11	2.31	2.23	2.38	2.24	2.61	614
4	2.13	2.33	2.20	2.22	2.12	2.23	614
5	1.12	2.12	2.08	2.11	2.06	2.14	614
6	1.99	2.15	2.06	2.16	1.97	1.87	614
7	1.88	2.18	2.04	2.14	1.94	1.93	614
8	1.85	2.06	1.95	2.03	1.91	2.02	614
9	1.87	1.98	1.81	2.00	1.86	2.03	614
10	1.72	2.07	1.92	2.02	1.85	1.79	614

H-Filed Strength at (distance 10cm to 1cm at 1cm iteration, i.e. at a distance of 10cm, 9cm, 8cm, 1cm, Which is between the edge of the charger and the edge of of probe,) surrounding the EUT (A/m)

Test distance (cm)	Test Position A(A/m)	Test Position B(A/m)	Test Position C(A/m)	Test Position D(A/m)	Test Position E(A/m)	Test Position F(V/m)	Limits (A/m)
1	0.376	0.354	0.341	0.347	0.357	0.364	1.63
2	0.342	0.311	0.315	0.304	0.308	0.312	1.63
3	0.303	0.298	0.292	0.285	0.282	0.297	1.63
4	0.284	0.266	0.264	0.252	0.266	0.257	1.63
5	0.261	0.242	0.256	0.249	0.244	0.253	1.63
6	0.258	0.237	0.248	0.233	0.231	0.239	1.63
7	0.247	0.229	0.239	0.224	0.229	0.219	1.63
8	0.222	0.204	0.227	0.201	0.207	0.212	1.63
9	0.210	0.195	0.213	0.208	0.192	0.188	1.63
10	0.213	0.184	0.202	0.190	0.191	0.198	1.63

4.6. Test Set-up Photo

AC in mode



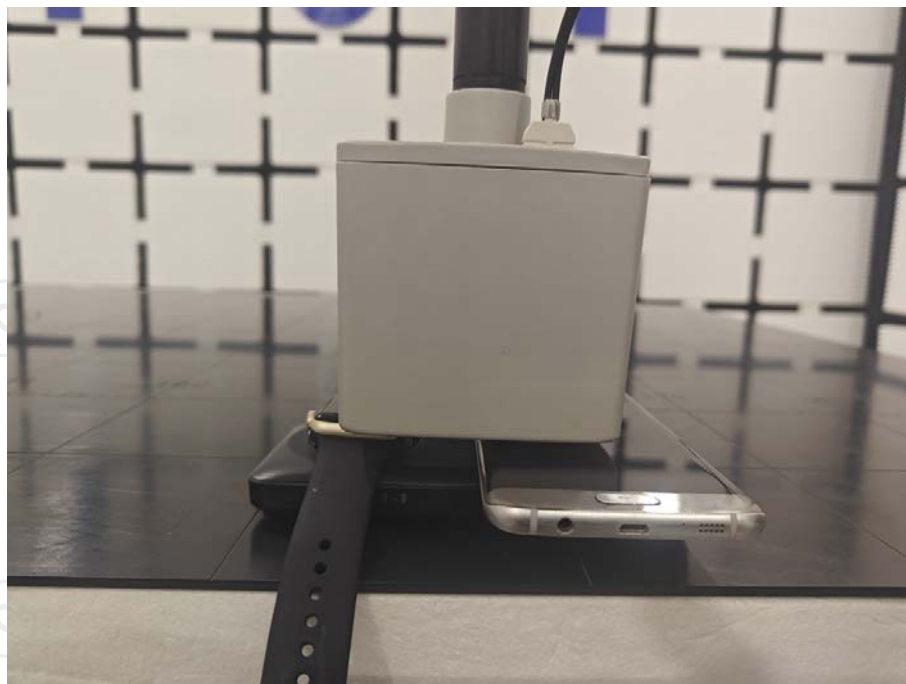




Internal battery mode







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