

TEST REPORT

FCC ID.	2A646-T002	
Test Report No.	TCT240619E034	
Date of issue	Jun. 27, 2024	
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 Provinc, China.	
Standard(s)	FCC CFR Title 47 Part 1.1310 KDB 680106 D01 RF Exposure Wireless Charging App v04	
Product Name	Dual Port Wall Charger+WirelessCharging for Apple Watch	
Trade Mark	N/A	
Model/Type reference	T002	
Rating(s)	AC 120V/60Hz	
Date of receipt of test item	Jun. 19, 2024	
Date (s) of performance of test	Jun. 19, 2024 ~ Jun. 27, 2024	
Tested by (+signature) ...	Yannie ZHONG	
Check by (+signature)	Beryl ZHAO	
Approved by (+signature):	Tomsin	

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1. General Product Information

1.1. EUT description

Product Name.....:	Dual Port Wall Charger+WirelessCharging for Apple Watch
Model/Type reference.....:	T002
Sample Number.....:	TCT240619E033-0101
Operation Frequency	326.50kHz
Output power	2.5W
Modulation Technology	Load modulation
Antenna Type.....:	Inductive loop coil Antenna
Rating(s).....:	AC 120V/60Hz

Note: The antenna gain listed in this report is provided by applicant, and the test laboratory is not responsible for this parameter.

1.2. Model(s) list

None.

2. General Information

2.1. Test environment and mode

Operating Environment:		
Condition	Conducted Emission	Radiated Emission
Temperature:	23.6 °C	24.9 °C
Humidity:	51 % RH	51 % RH
Atmospheric Pressure:	1010 mbar	1010 mbar
Test Mode:		
AC mode:	Mode 1	Wireless Charging(Apple Watch battery status>95%)
	Mode 2	Wireless Charging(Apple Watch battery status <50%)
	Mode 3	Wireless Charging(Apple Watch battery status <1%)
	Mode 4	Wireless Charging+ Half Load
	Mode 5	Wireless Charging+ Full Load
	Mode 6	Wireless Charging+ No Load
The sample was placed 0.8m for the measurement below 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. Test Results and Measurement Data

4.1. Requirements

According to the item 5 of KDB 680106 D01 RF Exposure Wireless Charging App v04:

Inductive wireless power transfer applications with supporting field strength results and meeting all of the following requirements are not required to submit a KDB inquiry for devices approved using SDoC or a PAG for equipment approved using certification to address RF exposure compliance. However, the responsible party is required to keep a copy of the test report in accordance with KDB 865664 D02. A copy of the test report is to be submitted with the application if the device is approved using certification.

- (1) Power transfer frequency is less than 1 MHz.
- (2) Output power from each primary coil is less than or equal to 15 watts.
- (3) The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils.
- (4) Client device is placed directly in contact with the transmitter.
- (5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
- (6) 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.

Limits For Maximum Permissible Exposure (MPE)

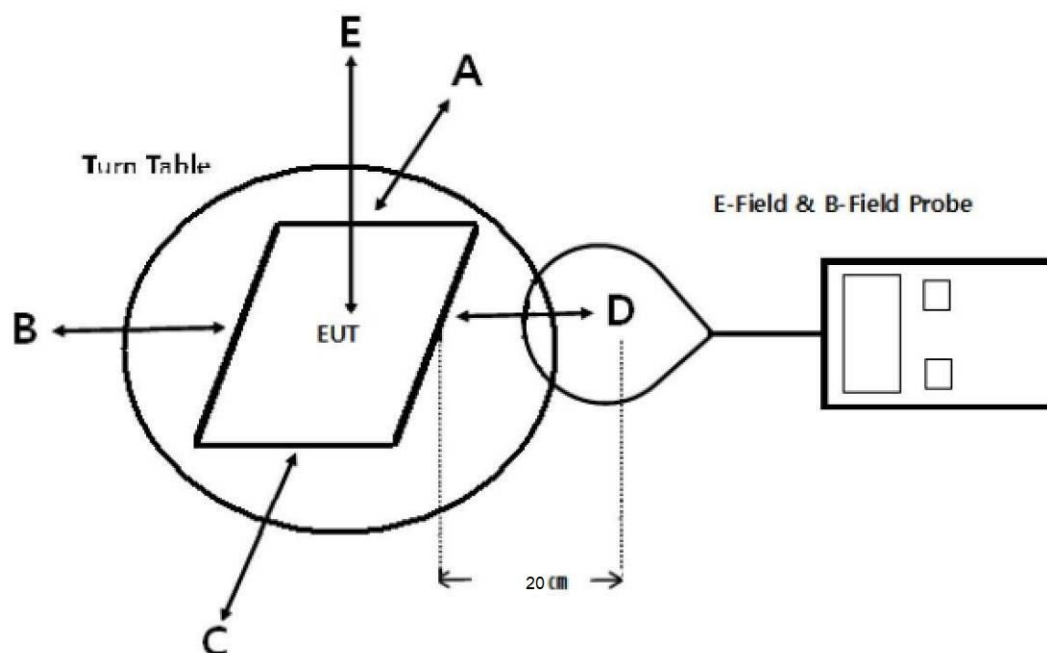
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	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



Note: Measurements should be made from all sides and the top of the primary/client pair, with the 20cm measured from the center of the probe(s) to the edge of the device.

4.3. Test Procedure

- 1) The RF exposure test was performed in anechoic chamber.
- 2) The measurement probe was placed at 20 cm surrounding the device.
- 3) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.
- 4) The EUT was measured according to the dictates of KDB 680106 D01 v03. Remark;
The EUT's test position A, B, C, D and E is valid for the E and H field measurements.

4.4. Test Equipment List

Equipment	Manufacturer	Model No.	Serial No.	Calibration Due
Electric and Magnetic field probe-analyzer	Narda	EHP-200A	180ZX20511	Jul. 04, 2024
Apple Watch	Apple	Apple Watch A1757	/	/

4.5. Test Result

E-Filed Strength 20 cm surrounding the device and the EUT (V/m)

Frequency Range (KHz)	Operation condition	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Reference Limits Test (V/m)	Limits Test (V/m)
326.50	AC/DC adapter+ EUT + Mobile Phone (battery status>95%)	1.25	1.29	1.28	1.18	1.27	307	614
326.50	AC/DC adapter+ EUT + Mobile Phone (battery status<50%)	1.23	1.21	1.26	1.13	1.16	307	614
326.50	AC/DC adapter + EUT + Mobile Phone (battery status<1%)	1.22	1.14	1.22	1.11	1.15	307	614

H-Filed Strength 20 cm surrounding the device and the EUT (A/m)

Frequency Range (KHz)	Operation condition	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Reference Limits Test (A/m)	Limits Test ((A/m)
326.50	AC/DC adapter+ EUT + Mobile Phone (battery status>95%)	0.184	0.187	0.199	0.205	0.186	0.187	1.63
326.50	AC/DC adapter + EUT + Mobile Phone (battery status<50%)	0.183	0.184	0.206	0.204	0.185	0.184	1.63
326.50	AC/DC adapter + EUT + Mobile Phone (battery status<1%)	0.182	0.180	0.203	0.202	0.183	0.181	1.63

According to KDB 680106 D01 RF Exposure Wireless Charging App v04 section 5, b, satisfy the following conditions.

Requirement of KDB 680106 D01	Yes/No	Description
Power transfer frequency is less than 1MHz	Yes	The device operate in the frequency range 326.50kHz
Output power from each primary coil is less than or equal to 15 watts	Yes	The maximum output power of the primary coil is 2.5W.
The transfer system includes only single primary and secondary coils. This includes charging system that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils.	Yes	The transfer system includes two coils that is able to detect receiver device.
Client device is placed directly in contact with the transmitter.	Yes	Client device is placed directly in contact with the transmitter.
Mobile exposure conditions only(portable exposure conditions are not covered by this exclusion).	Yes	Mobile exposure conditions only
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.	Yes	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.

4.6. Test Set-up Photo

Front



Back



Left



Right



TOP



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