



# RF Exposure Report

**Client Name** : Shenzhen Jinzhi Technology Co., Ltd.

**Client Address** : 609, No. 106 Yongfu Road, Qiaotou Community,  
Fuhai Street, Bao'an District, Shenzhen, China

**Product Name** : Wireless Charger

**Report Date** : 10. 21, 2024

**Shenzhen Tian Hai Test Technology Co., Ltd.**



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## TEST REPORT

Applicant : Shenzhen Jinzhi Technology Co., Ltd.  
Manufacturer : Shenzhen Jinzhi Technology Co., Ltd.  
Product Name : Wireless Charger  
Model No. : TB-002, TB-002-W, TB-002-B, TB-002-G,  
TB-002-R, TB-002-P, TB-002-O, OT-002  
Trade Mark : TRIBONE  
Rating(s) : Input: 5.0V=3.0A, 9.0V=2.22A, 12.0V=1.67A  
Output 1: Phone 5W/7.5W/10W/15W (Max)  
Output 2: TWS 5W (Max)  
Output 3: Watch 3W (Max)  
  
Test Standard(s) : FCC Part 1.1310, 1.1307(b)  
Test Method(s) : KDB 680106 D01 Wireless Power Transfer v04

The device described above is tested by Shenzhen Tian Hai Test Technology Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Tian Hai Test Technology Co., Ltd. is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC Part 15 Subpart C requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Tian Hai Test Technology Co., Ltd.

Date of Receipt : Oct, 11, 2024  
Date of Test : Oct, 11 ~ 21, 2024

Tested by :   
(Suny Zhuo)

Reviewed by :   
(Blue Hu)

Approved & Authorized Signer :   
(Binglee)



Revision History

Report Version	Description	Issued Date
R00	Original Issue.	Oct, 21. 2024





## 1. General Information

### 1.1. Client Information

Applicant	:	Shenzhen Jinzhi Technology Co., Ltd.
Address	:	609, No. 106 Yongfu Road, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China
Manufacturer	:	Shenzhen Jinzhi Technology Co., Ltd.
Address	:	609, No. 106 Yongfu Road, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China
Factory	:	Shenzhen Jinzhi Technology Co., Ltd.
Address	:	609, No. 106 Yongfu Road, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

### 1.2. Description of Device (EUT)

Product Name	:	Wireless Charger
Model No.	:	TB-002, TB-002-W, TB-002-B, TB-002-G, TB-002-R, TB-002-P, TB-002-O, OT-002 (All models have same circuits diagram, PCB Layout, construction and rated power, only different was the model name.)
Trade Mark	:	TRIBONE
Test Power Supply	:	DC 9V/2.22A from Adapter Input AC 120V/60Hz
Test Sample No.	:	1-2-1(Normal Sample)
Adapter By Lab	:	Model: CA-15T Input: AC 100-240V, 50/60Hz 0.5A Output: DC 5V/3A, DC 9V/2.22A, DC 12V/1.67A
<b>RF Specification</b>		
Operation Mode	:	110-205kHz
Modulation Type	:	ASK
Antenna Type	:	Inductive loop coil Antenna
<b>Remark:</b> 1) All of the RF specification are provided by customer. 2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.		



### 1.3. Auxiliary Equipment Used During Test

Title	Manufacturer	Model No.	Serial No.
Phone	Apple	13 Pro	/
Apple Watch	Apple	Iwatch Ultra	/
Apple AirPods	Apple	AirPods Pro	/

### 1.4. Description of Test Configuration

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Modes	Descriptions
TM1	Charging+Wireless (Phone 15W)
TM2	Charging+Wireless (Phone 10W)
TM3	Charging+Wireless (Phone 7.5W)
TM4	Charging+Wireless (Phone 5W)
TM5	Charging+Wireless (Watch 3W)
TM6	Charging+Wireless (TWS 5W)
TM7	Charging+Wireless (Phone 5W+TWS 5W+ Watch 3W)
TM8	Charging+Wireless (Phone 7.5W+TWS 5W)
TM9	Charging+Wireless (Phone 7.5W+Watch 3W)
TM10	Charging+Wireless (Phone 10W+ TWS 5W)
TM11	Charging+Wireless (Phone 10W+ Watch 3W)
TM12	Charging+Wireless (Watch 3W+TWS 5W)
TM13	Charging+Wireless (Phone 15W+TWS 5W+ Watch 3W)
TM14	Charging+Wireless (Phone 10W+TWS 5W+ Watch 3W)
TM15	Charging+Wireless (Phone 7.5W+TWS 5W+ Watch 3W)
TM16	Charging+Wireless (Phone 5W+TWS 5W+ Watch 3W)

Note: 1. TM Indicates the Test Mode.

2. All test modes were pre-tested, but we only recorded the worst Mode 13 case in this report.



## 2.1. Test Equipment List

Equipment	Manufacturer	Model No.	S/N	Calibrate	Calibrate until
Electric and Magnetic field Analyzer	Narda	ELT-400	0-0895/M-2289	2024-10-10	2025-10-09

## 2.2. Measurement Uncertainty

Magnetic Field Reading(A/m)	:	+/-0.04282(A/m)
Electric Field Reading(V/m)	:	+/-0.03679(V/m)
The measurement uncertainty and decision risk evaluated according to AB/WI-RF-F-032. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.		

## 2.3. Description of Test Facility

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

### FCC-Registration No.: 173438

Shenzhen Tian Hai Test Technology Co.,Ltd, EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No. 173438

### Test Location

Shenzhen Tian Hai Test Technology Co., Ltd.125-126, No.66, Zhangge Road, Zhangge Community, Fucheng Street, Longhua District, Shenzhen, Guangdong, China





### 3. Measurement and Result

#### 2.1 Requirements

According to the item 5) of KDB 680106 D01 v04.

Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF exposure evaluation.

- 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 inserted in or placed directly in contact with the transmitter
- 5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion)
- 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.

Limits For Maximum Permissible Exposure (MPE)

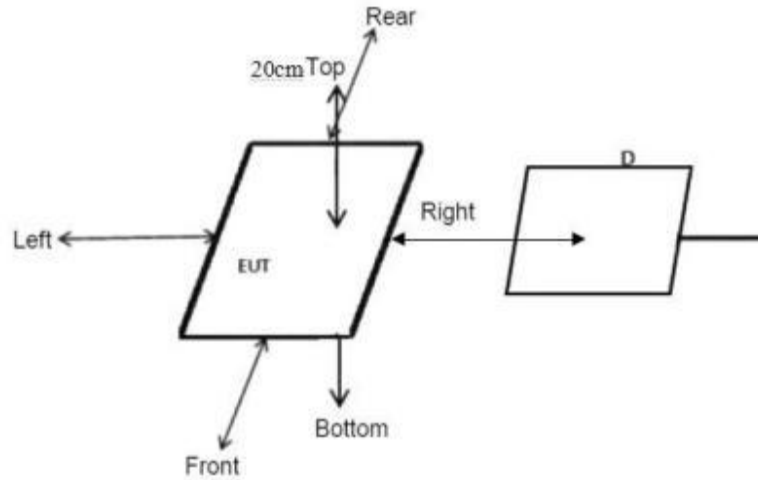
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	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).





## 2.2 Test Setup



## 2.3 Test Procedure

- 1) The RF exposure test was performed in anechoic chamber.
- 2) E and H-field measurements should be made with the center of the probe at a distance of 20cm.
- 3) The highest emission level was recorded and compared with limit as soon as measurement of each points were completed.
- 4) The EUT was measured according to the dictates of KDB 680106 D01 v04.

## 2.4 Test Result

According to the item 5 of KDB 680106 D01 Wireless Power Transfer v04r01:

The power transfer frequency is below 1 MHz.

Yes. The power transfer frequency is 110-205KHz.

The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.

Yes. The maximum output power is:

Wireless Charging Output (Phone): 5W/7.5W/10W/15W (Max)

Wireless Charging Output (TWS): 5W

Wireless Charging Output (Watch): 3W

A client device providing the maximum permitted load is placed in physical contact with the transmitter (i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)

Yes. The EUT has three source primary coils.

Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).

Yes, This device is a mobile device.



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, per KDB 447498, Table 1. These measurements shall be taken along the principal axes of the device, with one axis oriented along the direction of the estimated maximum field strength, and for three points per axis or until a 1/d (inverse distance from the emitter structure) field strength decay is observed. Symmetry considerations may be used for test reduction purposes. The device shall be operated in documented worst-case compliance scenarios (i.e., the ones that lead to the maximum field components), and while all the radiating structures (e.g., coils or antennas) that by design can simultaneously transmit are energized at their nominal maximum power.

Yes, The EUT field strength levels are less 50% x MPE limit.

For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions. If the design allows one or more radiating structures to be powered at a higher level while other radiating structures are not powered, then those cases must be tested as well. For instance, a device may use three RF coils powered at 5 W, or one coil powered at 15 W: in this case, both scenarios shall be tested.

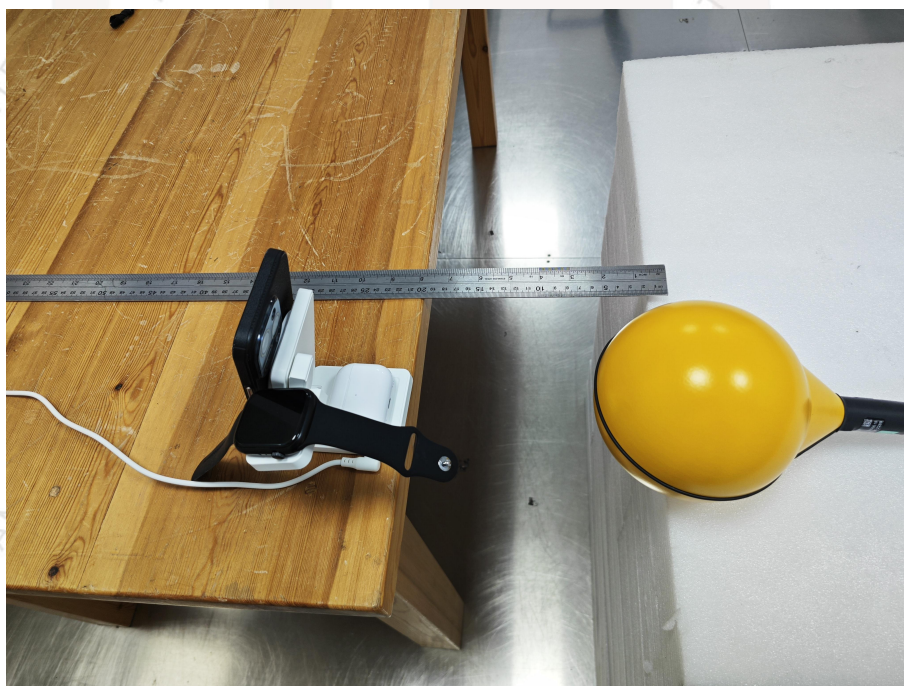
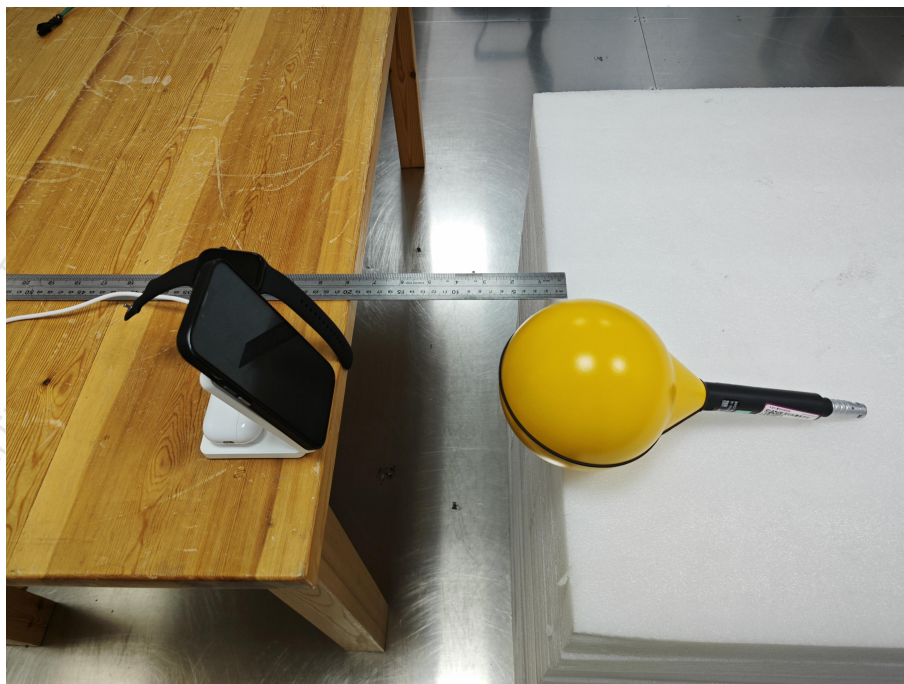
This device has three wireless charging coil. See Test Results for test modes.

Electric Field Emissions			
Test Position	Measure Value (V/m)	Limit(V/m)	50% Limit(V/m)
Top	3.45	614	307
Left	3.17	614	307
Right	3.12	614	307
Rear	3.56	614	307
Front	3.78	614	307
Magnetic Field Emissions			
Test Position	Measure Value (A/m)	Limit(A/m)	50% Limit(A/m)
Top	0.79	1.63	0.815
Left	0.77	1.63	0.815
Right	0.77	1.63	0.815
Rear	0.79	1.63	0.815
Front	0.80	1.63	0.815

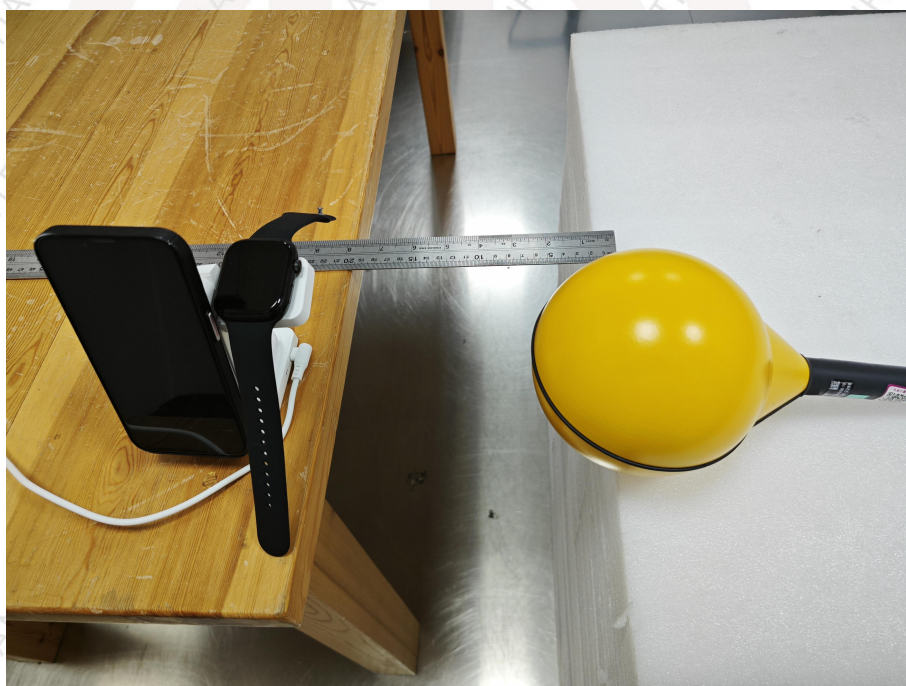




## 2.5 Test Photo







----- End of Report -----