


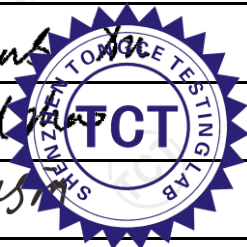


# TEST REPORT

FCC ID..... :	2AUAR393TKX11	
Test Report No..... :	TCT230425E064	
Date of issue..... :	Jul. 10, 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..... :	THINKCAR TECH CO., LTD.	
Address..... :	2606, building 4, phase II, TiananYungu, Gangtou community, Bantian, Longgang District, Shenzhen, China	
Manufacturer's name ... :	THINKCAR TECH CO., LTD.	
Address..... :	2606, building 4, phase II, TiananYungu, Gangtou community, Bantian, Longgang District, Shenzhen, China	
Standard(s) .....	FCC CFR Title 47 Part 1.1310 KDB 680106 D01 RF Exposure Wireless Charging App v03r01	
Product Name..... :	Remote Diagnostic Service	
Trade Mark .....	THINKCAR, XHINKCAR, MUCAR	
Model/Type reference..... :	TKX11, THINKTOOL Expert 393, THINKTOOL Euro 393, THINKTOOL Platinum 393, THINKTOOL X10 Pro, TKX10	
Rating(s)..... :	Adapter Information: Model: PSYB0502500 Input: AC 100-240V, 50/60Hz, 0.6A Max Output: DC 5.0V, 2.5A, 12.5W Rechargeable Li-ion Battery DC 3.8V	
Date of receipt of test item .....	Apr. 25, 2023	
Date (s) of performance of test..... :	Apr. 25, 2023 - Jul. 10, 2023	
Tested by (+signature) ... :	Brews XU	
Check by (+signature).... :	Beryl ZHAO	
Approved by (+signature):	Tomsin	



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## 1. General Product Information

### 1.1. EUT description

Product Name.....:	Remote Diagnostic Service
Model/Type reference.....:	TKX11
Sample Number.....:	TCT230425E041-0101
Operation Frequency .....	125KHz
Modulation Type.....:	FSK
Antenna Type.....:	Internal Antenna
Rating(s).....:	Adapter Information: Model: PSYB0502500 Input: AC 100-240V, 50/60Hz, 0.6A Max Output: DC 5.0V, 2.5A, 12.5W Rechargeable Li-ion Battery DC 3.8V

### 1.2. Model(s) list

No.	Model No.	Tested with
1	TKX11	<input checked="" type="checkbox"/>
Other models	THINKTOOL Expert 393, THINKTOOL Euro 393, THINKTOOL Platinum 393, THINKTOOL X10 Pro, TKX10	<input type="checkbox"/>

Note: TKX11 is tested model, other models are derivative models. The models are identical in circuit and PCB layout, different on the model names, trademarks and color. So the test data of TKX11 can represent the remaining models.

## 2. General Information

### 2.1. Test environment and mode

Item	Normal condition
Temperature	+25°C
Voltage	DC 3.8V
Humidity	56%
Atmospheric Pressure:	1010 mbar
<b>Test Mode:</b>	
<b>Engineering mode:</b>	Keep the EUT in continuous transmitting.
<p>The sample was placed 0.8m above the ground. 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 &amp; 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.</p>	

### 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

#### 3.3. Measurement Uncertainty

The reported uncertainty of measurement  $y \pm U$ , where expanded uncertainty  $U$  is based on a standard uncertainty multiplied by a coverage factor of  $k=2$ , providing a level of confidence of approximately 95 %.

No.	Item	MU
1	Electric Field	$\pm 3.89$ dB
2	Magnetic Field	$\pm 4.02$ dB
3	Temperature	$\pm 0.5^\circ\text{C}$
4	Humidity	$\pm 1.0\%$

## 4. Test Results and Measurement Data

### 4.1. Requirements

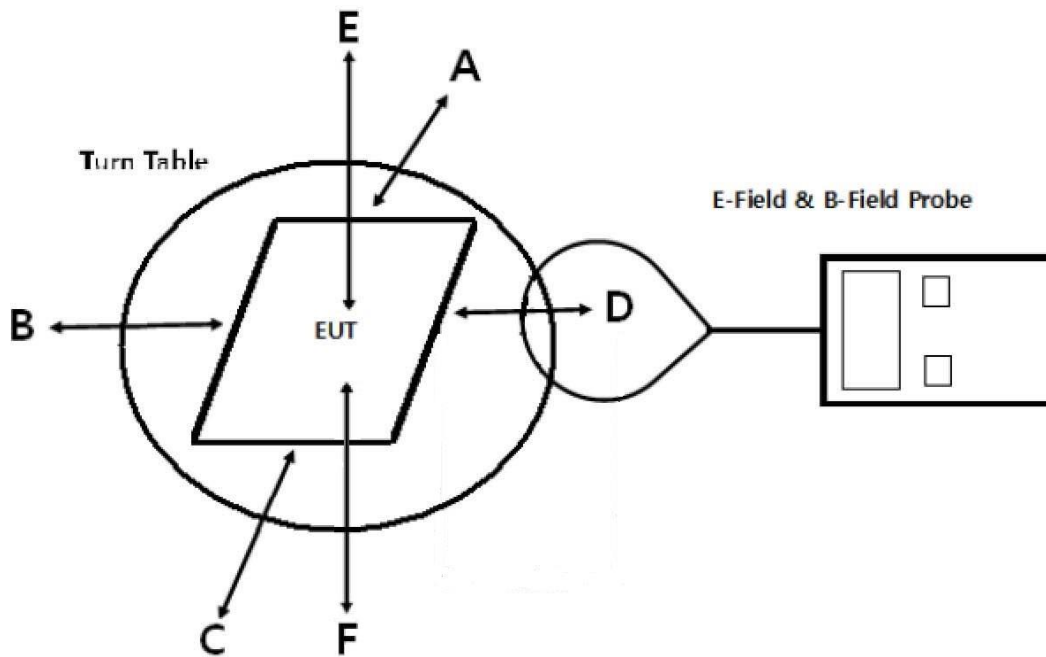
According to §1.1310(b), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline, both the electric-field and magnetic-field strength must be complied with the limits listed in tables below:

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).

## 4.2. Test Setup



Note: Measurements should be made from all sides of the primary/client pair, with the 0 cm or 10 cm 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 0 cm surrounding the device surface of the EUT.
3. The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E, F) were completed.

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 Equipment List

Equipment	Manufacturer	Model No.	Serial No.	Calibration Due
Electric and Magnetic Field Analyzer	Narda	EHP-200A	180ZX20511	Dec. 18, 2023

Note: The probe size is 92\*92\*109mm





#### 4.5. Test Result

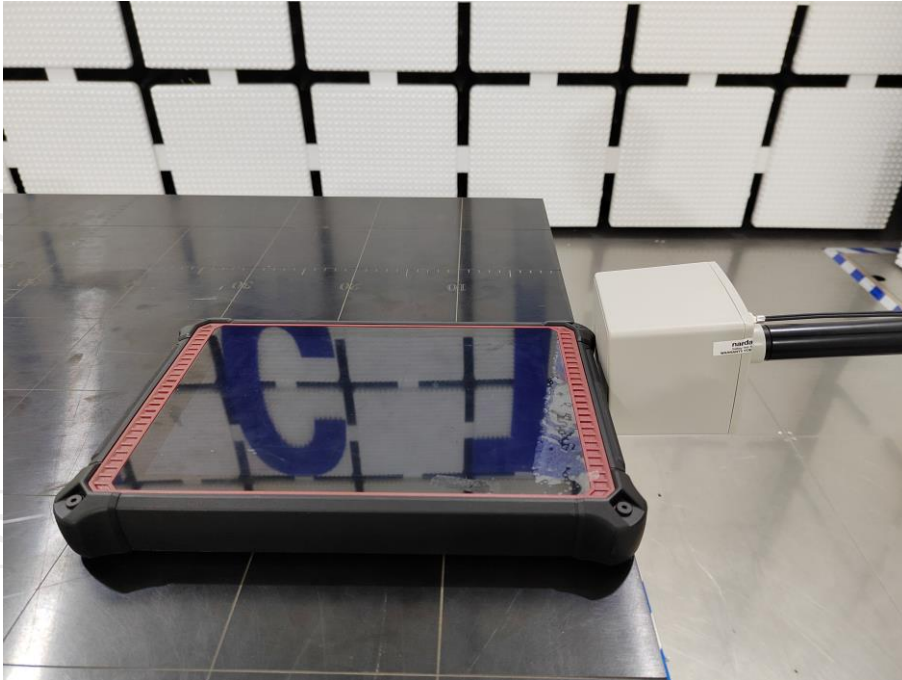
##### E-Filed Strength at 0 cm from the edges surrounding the EUT (V/m)

Frequency Range (KHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limits Test (V/m)
125	0.26	0.11	0.17	0.32	0.30	0.27	614

##### H-Filed Strength at 0 cm from the edges surrounding the EUT (A/m)

Frequency Range (KHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limits Test (A/m)
125	0.15	0.07	0.10	0.18	0.19	0.14	1.63

#### 4.6. Test Set-up Photo



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