



Shenzhen CTA Testing Technology Co., Ltd.

Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

## RF Exposure-WPT

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Date of issue .....: May 14, 2025



Eric Wang

Testing Laboratory Name .....: Shenzhen CTA Testing Technology Co., Ltd.

Address.....: Room 106, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

Applicant's name.....: YAGLOW CO., LTD.

Address.....: HUAXIANG Economic Zone, Tuol trabaek Village, Brasout Commune, Svayteab District. Svay Rieng Province Cambodia

Test specification .....: FCC CFR 47 PART 1, § 1.1310

Standard .....: KDB 680106 D01 Wireless Power Transfer v04

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Test item description .....: 3000L Lantern

Manufacturer .....: YAGLOW CO., LTD.

Trade Mark .....: N/A

Model/Type reference .....: 1819561

Modulation Type .....: ASK

Operation Frequency .....: From 110KHz~205KHz

DC 3.7V From battery

Rating .....: Input: DC 5V 1A  
Wireless Output: 10W(Max)

Result .....: PASS

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## TEST REPORT

Equipment under Test : 3000L Lantern

Model /Type : 1819561

Listed Models : N/A

Applicant : YAGLOW CO., LTD.

Address : HUAXIANG Economic Zone, Tuol trabaek Village, Brasout Commune, Svayteab District. Svay Rieng Province Cambodia

Manufacturer : YAGLOW CO., LTD.

Address : HUAXIANG Economic Zone, Tuol trabaek Village, Brasout Commune, Svayteab District. Svay Rieng Province Cambodia

<b>Test Result:</b>	<b>PASS</b>
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The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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## 1 TEST STANDARDS

The tests were performed according to following standards:

680106 D01 Wireless Power Transfer v04: EQUIPMENT AUTHORIZATION OF WIRELESS POWER TRANSFER DEVICES.

## 2 SUMMARY

### 2.1 General Remarks

Date of receipt of test sample	:	May 07, 2025
Testing commenced on	:	May 07, 2025
Testing concluded on	:	May 14, 2025

### 2.2 Product Description

Product Name:	3000L Lantern
Model/Type reference:	1819561
Hardware version:	V1.0
Software version:	V1.0
Test samples ID:	CTA250507018-1# (Engineer sample) CTA250507018-2# (Normal sample)
Power supply:	DC 3.7V From battery Input: DC 5V 1A Wireless Output: 10W(Max)
Operation frequency:	110KHz - 205KHz
Modulation type:	ASK
Antenna type:	Loop coil antenna
ANT Gain:	0dBi

### 2.3 Description of the test mode

Equipment under test was operated during the measurement under the following conditions:

Charging and communication mode

Test Modes:		
Mode 1	Wireless Charging	Recorded
Mode 2	Standby	Pre-tested

### 2.4 Special Accessories

The following is the EUT test of the auxiliary equipment provided by the laboratory:

Description	Manufacturer	Model	Technical Parameters	Certificate	Provided by
Adapter	/	/	Input: AC 100-240V 50/60Hz Output: DC 5V 2A	/	/
Phone	Apple	iPhone 12pro	/	/	/

### 2.5 Modifications

No modifications were implemented to meet testing criteria.

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### 3 TEST ENVIRONMENT

#### 3.1 Address of the test laboratory

**Shenzhen CTA Testing Technology Co., Ltd.**

Room 106, Building 1, Yibolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, China

#### 3.2 Test Facility

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

**FCC-Registration No.: 517856 Designation Number: CN1318**

Shenzhen CTA Testing Technology Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

#### **A2LA-Lab Cert. No.: 6534.01**

Shenzhen CTA Testing Technology Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

The 3m-Semi anechoic test site fulfills CISPR 16-1-4 according to ANSI C63.10 and CISPR 16-1-4:2010.

#### 3.3 Statement of the measurement uncertainty

Test	Measurement Uncertainty	Notes
Magnetic field measurement (9kHz~30MHz)	± 7.8 %	(1)
Electric field measurements (9kHz~ 30MHz)	± 7.8 %	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

#### 3.4 Equipments Used during the Test

Test Equipment	Manufacturer	Model No.	Equipment No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
Exposure Level Tester	Narda	ELT-400	CTA-352	2025/5/18	2026/5/17
Magnetic field probe 100cm <sup>2</sup>	Narda	ELT probe 100cm <sup>2</sup>	CTA-353	2025/5/18	2026/5/17

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## 4 Test limit

### 4.1 Requirement

§1.1310: The criteria listed in the following table shall be used to evaluate the environmental 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 <sup>2</sup> )	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 <sup>2</sup> )	<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 <sup>2</sup> )	<30
30-300	27.5	0.073	0.2	<30
300-1500	/	/	f/1500	<30
1500-100000	/	/	1.0	<30

f = frequency in MHz

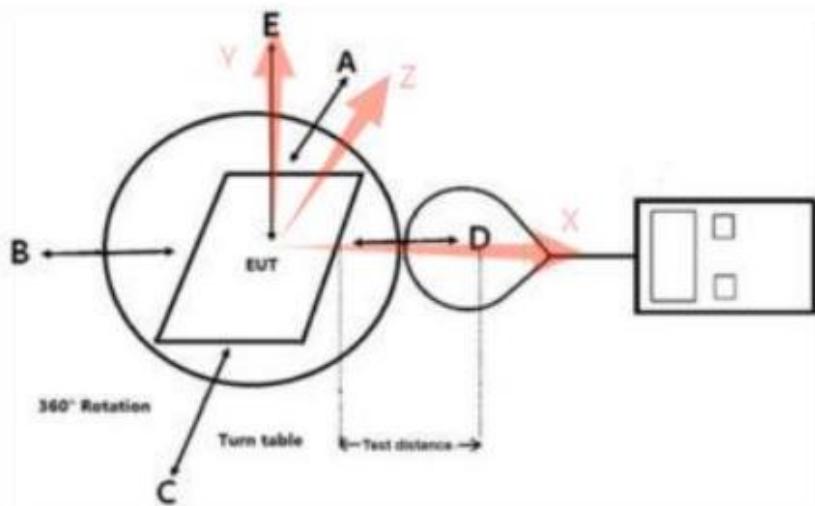
\* = Plane-wave equivalent power density

**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:



Note: The distance of the points A/B/C/D/E is 20cm.

### 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 20 cm surrounding the primary/client pair.
- c. The highest emission level was recorded and compared with limit.
- d. The EUT was measured according to the KDB 680106 D01 Wireless Power Transfer v04.

### 4.4 Equipment Approval Considerations of KDB 680106 D01v04

Requirements of KDB 680106 D01	Yes / No	Description
Mobile Device and Portable Device Configurations	Yes	Mobile Device
Equipment Authorization Procedures for Devices Operating at Frequencies Below 4 MHz	Yes	The device operate in the frequency range 110KHz - 205KHz
RF Exposure compliance may be ensured only for a minimum separation distance that is greater than 20 cm, while use conditions at smaller distances can still be considered unlikely.	Yes	The EUT H-field strengths at 20 cm surrounding the device.

### 4.5 Test results

H-Field Strength at 20 cm from the edges surrounding the EUT

Chargin g Battery Level	Unit	Frequency Range (MHz)	Measured H-Field Strength Values (A/m)					FCC H- Field Strength Limits (A/m)
			Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	
1%	uT	0.122	0.408	0.398	0.395	0.386	0.404	--
1%	A/m	0.122	0.326	0.318	0.316	0.309	0.323	1.63
50%	uT	0.122	0.349	0.345	0.354	0.343	0.340	--
50%	A/m	0.122	0.279	0.276	0.283	0.274	0.272	1.63
99%	uT	0.122	0.191	0.195	0.186	0.184	0.179	--
99%	A/m	0.122	0.153	0.156	0.149	0.147	0.143	1.63

Note:1. A/m=uT/1.25

Note: 2. During test the frequencies less than 1 MHz and E/H ratio less than 1/10 of the 377-ohm free space wave impedance, only record H-field measurements result.

### 4.6 Conclusion

A minimum safety distance of 20 cm to the antenna is required when the device is charging a smart phone for mobile exposure. The detected emissions are below the limitations according FCC KDB 680106 and confirmed by the FCC according to KDB Inquire..

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## 5 Photographs of the Test Setup



\*\*\*\*\* End of Report \*\*\*\*\*