RF Exposure-WPT

Report Reference No..... :	**CTA25022100903**
FCC ID..... :	**2A3R7-POWER200X**
Compiled by (position+printed name+signature) . :	File administrators Joan Wu
Supervised by (position+printed name+signature) . :	Project Engineer Zoey Cao
Approved by (position+printed name+signature) . :	RF Manager Eric Wang
Date of issue ..... :	Mar. 06, 2025
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.....:	**SHENZHEN ISD TECHNOLOGY CO.,LTD**
Address..... :	5th Floor, Yutian Building, No. 18 Yangtian Road, Xin'an Street, Baoan District, Shenzhen, Guangdong, China
Test specification .....:	**FCC CFR 47 PART 1, § 1.1310**
Standard ..... :	**KDB 680106 D01 Wireless Power Transfer v04**

Test item description .....:	**Desktop Charger**
Manufacturer ..... :	N/A
Trade Mark	SHENZHEN ISD TECHNOLOGY CO.,LTD
Model/Type reference ..... :	POWER 200X
Modulation Type..... :	ASK
Operation Frequency..... :	From 110KHz~205KHz
Rating ..... :	Input: AC 100-240V, 50/60Hz USB-A Output: DC 5V-12V 2A 24W(Max) USB-C1, USB-C2 Output: DC 5V-20V 3.25A 65W(Max) USB-C3 Output: DC 5V-28V 5A 140W(Max) Total output power: 200W Wireless charging: 15W (Max)
Result ..... :	**PASS**

TEST REPORT

Equipment under Test	:	Desktop Charger
Model /Type	:	POWER 200X
Listed Models	:	POWER 200H, MD200X, MD200H
Model difference	:	The PCB board, circuit, structure and internal of these models are the same, Only model number and colour is different for these model.
Applicant	**:**	**SHENZHEN ISD TECHNOLOGY CO.,LTD**
Address	:	5th Floor, Yutian Building, No. 18 Yangtian Road, Xin'an Street, Baoan District, Shenzhen, Guangdong, China
Manufacturer	**:**	**SHENZHEN ISD TECHNOLOGY CO.,LTD**
Address	:	5th Floor, Yutian Building, No. 18 Yangtian Road, Xin'an Street, Baoan District, Shenzhen, Guangdong, China

Test Result:	**PASS**

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.

Contents

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	:	Feb. 21, 2025
Testing commenced on	:	Feb. 21, 2025
Testing concluded on	:	Mar. 06, 2025

2.2 Product Description

Product Name:	Desktop Charger
Model/Type reference:	POWER 200X
Hardware version:	V1.0
Software version:	V1.0
Test samples ID:	CTA250221009-1# (Engineer sample) CTA250221009-2# (Normal sample)
Power supply:	Input: AC 100-240V, 50/60Hz USB-A Output: DC 5V-12V 2A 24W(Max) USB-C1, USB-C2 Output: DC 5V-20V 3.25A 65W(Max) USB-C3 Output: DC 5V-28V 5A 140W(Max) Total output power: 200W Wireless charging: 15W (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
Intelligent wireless charging full function test module	/	/	/	/	/

2.5 Modifications

No modifications were implemented to meet testing criteria.

3 TEST ENVIRONMENT

3.1 Address of the test laboratory

Shenzhen CTA Testing Technology Co., Ltd.
Room 106, Building 1, Yibaolai 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 fulfils 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.	SN.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
Exposure Level Tester	Narda	ELT-400	N-0231	June 24 2024	June 23 2025
Magnetic field probe 100cm2	Narda	ELT probe 100cm2	M0675	June 24 2024	June 23 2025

4 Test limit

4.1 Requirement

§1.1310: 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), 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/cm2)	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/f2)	<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/f2)	<30
30-300	27.5	0.073	0.2	<30
300-1500	/	/	f/1500	<30
1500-100000	/	/	1.0	<30

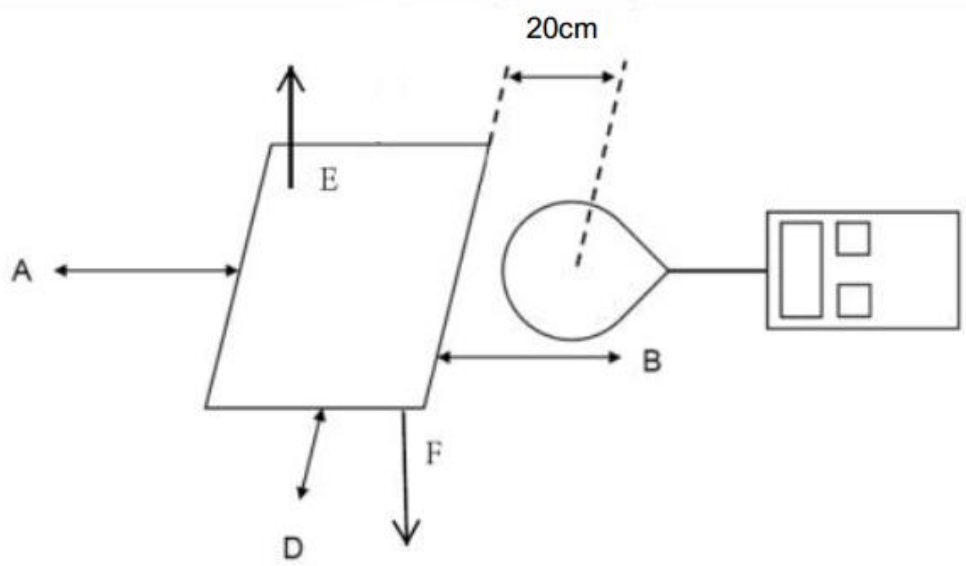
f = frequency in MHz
* = Plane-wave equivalent power density

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

Charging 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	0.132	0.486	0.489	0.491	0.484	0.490	--
1%	A/m	0.132	0.389	0.391	0.393	0.387	0.392	1.63
50%	uT	0.132	0.371	0.378	0.381	0.366	0.374	--
50%	A/m	0.132	0.297	0.302	0.305	0.293	0.299	1.63
99%	uT	0.132	0.198	0.186	0.190	0.189	0.191	--
99%	A/m	0.132	0.158	0.149	0.152	0.151	0.153	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..

5 Photographs of the Test Setup

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