

	TEST REPO	RT					
FCC ID::	2A4MTXDL-WA11						
Test Report No::	TCT220217E045	TCT220217E045					
Date of issue::	Feb. 28, 2022						
Testing laboratory::	SHENZHEN TONGCE TESTI	NG LAB					
Testing location/ address:	TCT Testing Industrial Park F Street, Bao'an District Shenzh Republic of China	•					
Applicant's name:	Shenzhen Zhenghaixin Techn	ology Co., Ltd.	(C)				
Address::	Area 301A, No.7 Xiongyu Roa Yanchuan Street, Baoan Distr		nmunity,				
Manufacturer's name:	Shenzhen Zhenghaixin Technology Co., Ltd.						
Address:	Area 301A, No.7 Xiongyu Road, Tangxiachong Community, Yanchuan Street, Baoan District, Shenzhen, China						
Standard(s):	FCC CFR Title 47 Part 1.1310 KDB 680106 D01 RF Exposure Wireless Charging App v03r01						
Test item description:	Wireless Charger for Watch & Earphone						
Trade Mark::	N/A						
Model/Type reference:	XDL-WA11, ZHX-WA11, XDL	-WA12					
Rating(s)::	Input: DC 5V, 2A Output 1: 2.5W Max Output 2: 5W Max						
Date of receipt of test item:	Feb. 17, 2022						
Date (s) of performance of test:	Feb. 17, 2022 ~ Feb. 28, 2022	2					
Tested by (+signature):	Rleo LIU	Reo Chy ONGO	(E)				
Check by (+signature):	Beryl ZHAO	Boyl Ming C	TIN				
Approved by (+signature):	Tomsin	Tomsing					

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1. General Product Information

1.1. EUT description

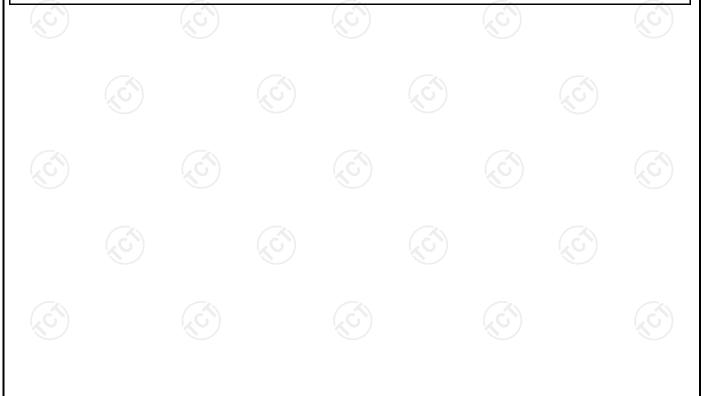
Test item description:	Wireless Charger for Watch & Earphone		
Model/Type reference:	XDL-WA11		
Sample Number:	TCT220217E023-0101		
Operation Frequency:	For 2.5W: 322.34kHz For 5W: 112.34kHz – 129.65kHz	(0)	
Modulation Type:	Load modulation		
Antenna Type:	Inductive loop coil Antenna		(0)
Rating(s):	Input: DC 5V, 2A Output 1: 2.5W Max Output 2: 5W Max		

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

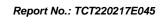
No.	Model No.	Tested with
1	XDL-WA11	
Other models	ZHX-WA11, XDL-WA12	

Note: XDL-WA11 is tested model, other models are derivative models. The models are identical in circuit and PCB layout, only different on the model names. So the test data of XDL-WA11 can represent the remaining models.



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2. General Information

2.1. Test environment and mode

Item	Normal condition						
Temperature	+25°C						
Voltage	DC 5V						
Humidity	56%						
Atmospheric Pressure:	1008 mbar						
Test Mode:							
TM1	Keep the EUT in continuous transmitting(output: 2.5W max)						
TM2	Keep the EUT in continuous transmitting(output: 5W max)						
TM3	Keep the EUT in continuous transmitting(output: 2.5W + 5W)						
REMARK	All modes had been tested, and the TM3 is the worst mode.						





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: TCT Testing Industrial Park Fuqiao 5th Industrial Zone, Fuhai Street, 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.b of KDB 680106 D01v03:

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 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)

A Y I	I I I X X Y I	1 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 17 . 11	
Frequency range (MHz)	Electric field strength (V/m)	ectric field strength (V/m) Magnetic field strength (A/m)		Averaging time (minutes)
	(A) Limits for Occ	cupational/Controlled Ex	posures	
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	1	1	f/300	6
1500-100,000	1	1	5	6
	(B) Limits for Genera	l Population/Uncontrolle	ed 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	1	1	f/1500	30
1500-100,000	/	/	1.0	30

F=frequency in MHz

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).

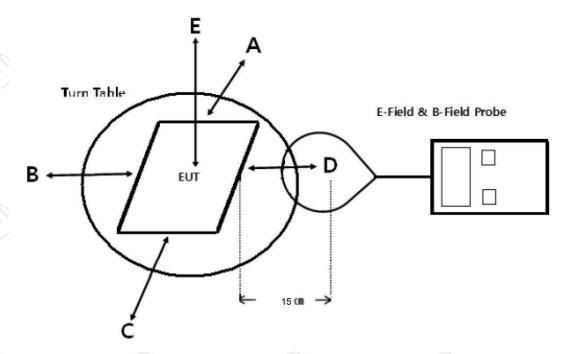
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^{*=}Plane-wave equivalent power density



4.2. Test Setup





Note: Measurements should be made from all sides and the top of the primary/client pair, with the 15cm measured from the center of the probe(s) to the edge of the device 20cm above the top surface.

4.3. Test Procedure

- 1) The RF exposure test was performed in anechoic chamber.
- 2) The measurement probe was placed at 15 cm surrounding the device and 20 cm above the top surface of the charger and the geometric center of probe.
- 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.
- 5) 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.	Calibration Due
Magnetic field meter	NARDA	ELT-400	Mar. 07, 2022
2.5W coil load			1
5W coil load	(0)	(6)	
Adapter	SAMSUNG	EP-TA200	/



4.5. Test Result

TM1+TM2

H-Filed Strength 15 cm surrounding the device and 20 cm above the top surface of 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)
322.34	Full load	0.352	0.381	0.124	0.128	0.534	0.815	1.63
322.34	Half load	0.247	0.163	0.463	0.446	0.221	0.815	1.63
322.34	No load	0.109	0.158	0.337	0.142	0.129	0.815	1.63
112.34kHz – 129.65kHz	Full load	0.185	0.130	0.371	0.397	0.397	0.815	1.63
112.34kHz – 129.65kHz	Half load	0.258	0.115	0.504	0.590	0.618	0.815	1.63
112.34kHz – 129.65kHz	No load	0.190	0.374	0.169	0.249	0.192	0.815	1.63

TM3

H-Filed Strength 15 cm surrounding the device and 20 cm above the top surface of 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)
Co	Full load	0.297	0.739	0.330	0.884	0.762	0.815	1.63
322.34, 112.34kHz – 129.65kHz	Half load	0.474	0.725	0.253	0.170	0.554	0.815	1.63
129.03KHZ	No load	0.502	0.601	0.266	0.261	0.359	0.815	1.63

Note: uT=1.25*(A/m),1mT=1000uT





According to KDB 680106 D01 v03 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 322.34KHz; 112.34kHz – 129.65kHz
Output power from each primary coil is less than or equal to 5 watts	Yes	The maximum output power of the primary coil is 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 betmeen 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 aggregate H-field strengths at 15 cm surrounding the device and 20cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.	Yes	The EUT H-filed strengths at 15 cm surrounding the device and 20cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.





4.6. Test Set-up Photo

