Shenzhen CTL Testing Technology Co., Ltd.
Tel: +86-755-89486194 E-mail: ctl@ctl-lab.com

RF EXPOSURE REPORT

Report Reference No.....:	**CTL2012071041-MPE**	
Compiled by (position+printed name signature)	Happy Guo (File administrators)	Happy Guo
Supervised by (position+printed name+signature)	Cary Gao (Test Engineer)	Gary Gao
Approved by (position+printed name+signature)	Ivan Xie (Manager)	Ivan Xie

Applicant's name.....:	**ZCOVER INC**
Address.....:	100-13551 VERDUN PLACE RICHMOND, CANADA
Test Firm.....:	**Shenzhen CTL Testing Technology Co., Ltd.**
Address of Test Firm.....:	Floor 1-A, Baisha Technology Park, No.3011, Shahexi Road, Nanshan District, Shenzhen, China 518055
Test specification.....:	
Standard.....:	**FCC CFR 47 part1, 1.1307(b), 1.1310**
TRF Originator.....:	Shenzhen CTL Testing Technology Co., Ltd.
Master TRF.....:	Dated 2011-01
Test item description.....:	Wireless charger (transmitting)
FCC ID.....:	2AYKS-ZDUWAUBK
Trade Mark.....:	ZCOVER, ZOOL
Model/Type reference.....:	ZDUWAUBK
Transmit Frequency.....:	115~205KHz
Antenna type.....:	Loop antenna
Date of receipt of test item.....:	Dec. 18, 2020
Date of sampling.....:	Dec. 18, 2020
Date of Test Date.....:	Dec. 18, 2020–Dec. 31, 2020
Date of Issue.....:	Jan. 06, 2021
Result.....:	**Pass**

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TEST REPORT

Test Report No. :	CTL2012071041-MPE	Jan. 06, 2021 Date of issue

Equipment under Test	:	Wireless charger (transmitting)
Sample No	:	CTL201207104-1-S001
Type / Model(s)	:	ZDUWAUBK
Applicant	:	**ZCOVER INC**
Address	:	100-13551 VERDUN PLACE RICHMOND, CANADA
Manufacturer	:	**shen zhen buysent Information technology co., ltd.**
Address	:	Southeast of 4F, South Building 7, No.104 Baoli Road, Buji Street, Longgang District, Shenzhen, China

Test Result	PASS

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the issuing testing laboratory.

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1. SUMMARY

1.1. EUT configuration

Kind of Product	Wireless charger
Model Name	ZDUWAUBK
Power supply	DC 5.0V from USB
Frequency Range	115-205KHz
Antenna Type	Loop antenna
FCC ID	2AYKS-ZDUWAUBK

1.2. Power supply system utilised

Power supply voltage	:	●	120V / 60 Hz	○	115V / 60Hz
		○	12 V DC	○	24 V DC
		●	Other (specified in blank below)		

DC5V

1.3. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

● - supplied by the manufacturer
○ - supplied by the lab

●	Mobile phone	Manufacturer :	CISCO
		Model No. :	CP-8821
●	Adapter	Manufacturer :	MEIZU
		Model No. :	UP1220

2. TEST ENVIRONMENT

2.1. Address of the test laboratory

Shenzhen CTL Testing Technology Co., Ltd.
Floor 1-A, Baisha Technology Park, No.3011, Shahexi Road, Nanshan District, Shenzhen, China 518055

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 (2013) and CISPR Publication 32.

2.2. Test Facility

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

CNAS-Lab Code: L7497

Shenzhen CTL Testing Technology Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories.

A2LA-Lab Cert. No. 4343.01

Shenzhen CTL Testing Technology Co., Ltd, EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

IC Registration No.: 9618B

CAB identifier: CN0041

The 3m alternate test site of Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements with Registration No.: 9618B on Jan. 22, 2019.

FCC-Registration No.: 399832

Designation No.: CN1216

Shenzhen CTL Testing 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 399832, December 08, 2017.

2.3. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature: 15-35 ° C

Humidity: 30-60 %

Atmospheric pressure: 950-1050mbar

2.4. Statement of the measurement uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Parameter	Uncertainty
Radio Frequency	$\pm 1 \times 10^{-5}$
total RF power, conducted	±1,5 dB
RF power density, conducted	±3 dB
spurious emissions, conducted	±3 dB
all emissions, radiated	±6 dB
temperature	±1°C
humidity	±5 %
DC and low frequency voltages	±3 %

3. Method of measurement

3.1. Applicable Standard

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.
According to §1.1310 and §2.1091 RF exposure is calculated.
According KDB 680106 D01 RF Exposure Wireless Charging App v03

3.2. Limit

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	6
3.0 – 30	1842/f	4.89/f	(900/f)*	6
30 – 300	61.4	0.163	1.0	6
300 – 1500	/	/	f/300	6
1500 – 100,000	/	/	5	6

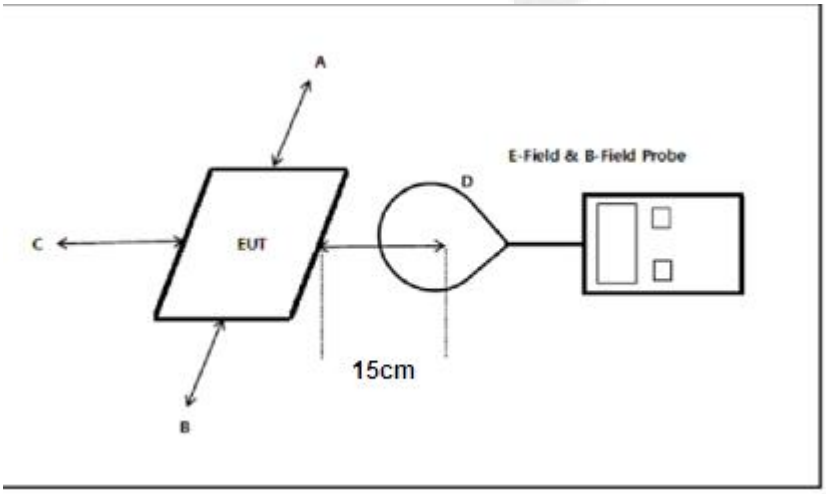
Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	30
3.0 – 30	824/f	2.19/f	(180/f)*	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

4. Test Result

4.1. Test Setup



Note: A, B, C, D, E, F for six surfaces of the product.

4.2. Test Equipment

Equipment	Manufacturer	Model	Serial no.	Calibrated date	Calibrated until
E-Field Probe	HOLADAY	HI3637	00052130	2020.5.20	2021.5.19
H-Field Probe	HOLADAY	HI3637	00052130	2020.5.20	2021.5.19

4.3. Measurement Procedure

a) The RF exposure test was performed on 360 degree turn table in anechoic chamber.
b) The measurement probe was placed at test distance (10cm) which is between the edge of the charger and the geometric centre of probe.
c) The turn table was rotated 360 degree to search of highest strength.
d) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.
e) The EUT were measured according to the dictates of KDB 680106 D01 RF Exposure Wireless Charging App v03.

4.4. Equipment Approval Considerations

The EUT does comply with KDB 680106 D01 RF Exposure Wireless Charging App v03.

(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.

Remark: Meet all the above requirements.

4.5. E and H field Strength

Test mode for wireless charger: Normal Operation (Charging mode)

E-Filed Strength at 15 cm from the edges surrounding the EUT

Frequency Range (KHz)	Test Position A	Test Position B	Test Position C	Test Position D	50%Limits (V/m)	Limits (V/m)
146.7	1.84	1.76	1.85	1.84	307.0	614

E-Filed Strength at 20 cm from the top of the EUT (V/m)

Frequency Range (KHz)	Test Position E	50%Limits (V/m)	Limits (V/m)
146.7	1.92	307.0	614

H-Filed Strength at 15 cm from the edges surrounding the EUT

Frequency Range (KHz)	Test Position A	Test Position B	Test Position C	Test Position D	10%Limits (A/m)	Limits (A/m)
146.7	0.092	0.087	0.094	0.091	0.163	1.63

H-Filed Strength at 20 cm from the top of the EUT (V/m)

Frequency Range (KHz)	Test Position E	50%Limits (A/m)	Limits (A/m)
146.7	0.187	0.815	1.63

Test mode for wireless charger: Normal Operation (No load mode)

E-Filed Strength at 15 cm from the edges surrounding the EUT

Frequency Range (KHz)	Test Position A	Test Position B	Test Position C	Test Position D	50%Limits (V/m)	Limits (V/m)
146.7	0.74	0.69	0.75	0.73	307.0	614

E-Filed Strength at 20 cm from the top of the EUT (V/m)

Frequency Range (KHz)	Test Position E	50%Limits (V/m)	Limits (V/m)
146.7	0.52	307.0	614

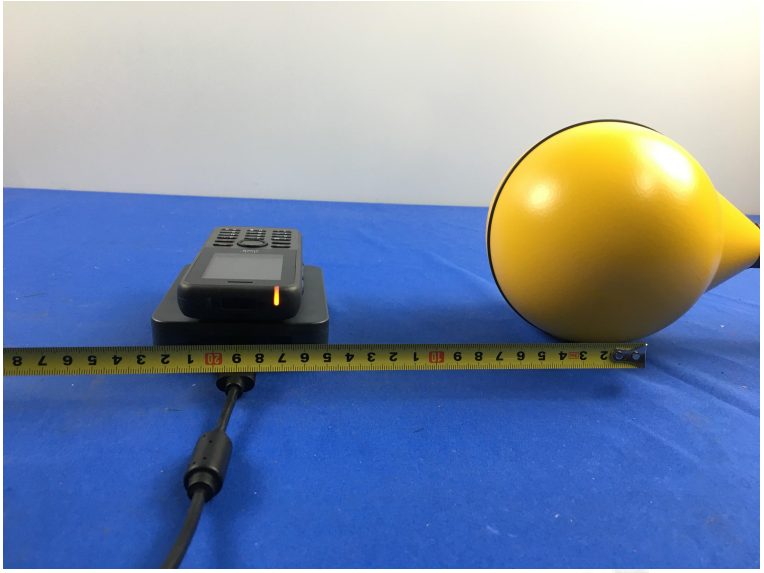
H-Filed Strength at 15 cm from the edges surrounding the EUT

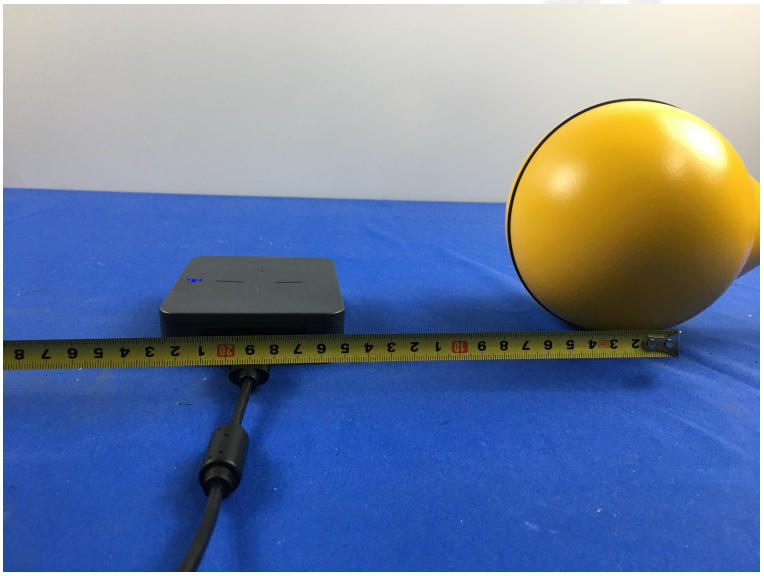
Frequency Range (KHz)	Test Position A	Test Position B	Test Position C	Test Position D	50%Limits (A/m)	Limits (A/m)
146.7	0.088	0.085	0.087	0.091	0.815	1.63

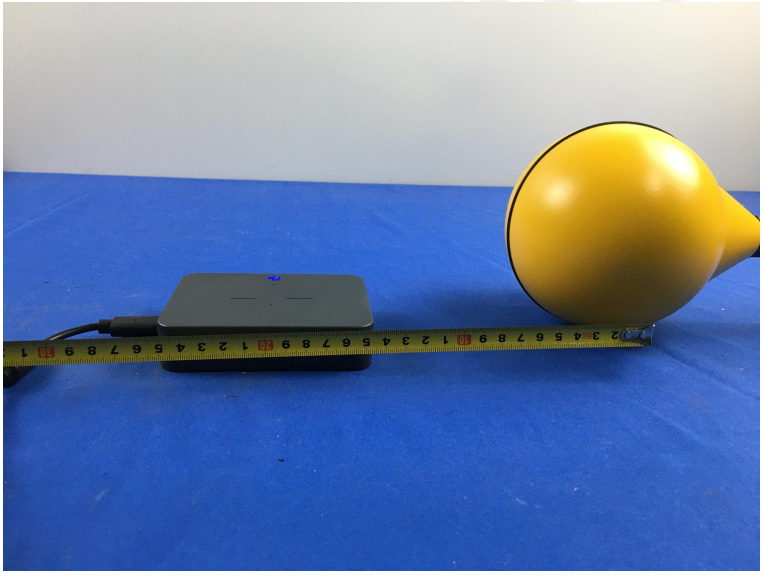
H-Filed Strength at 20 cm from the top of the EUT (V/m)

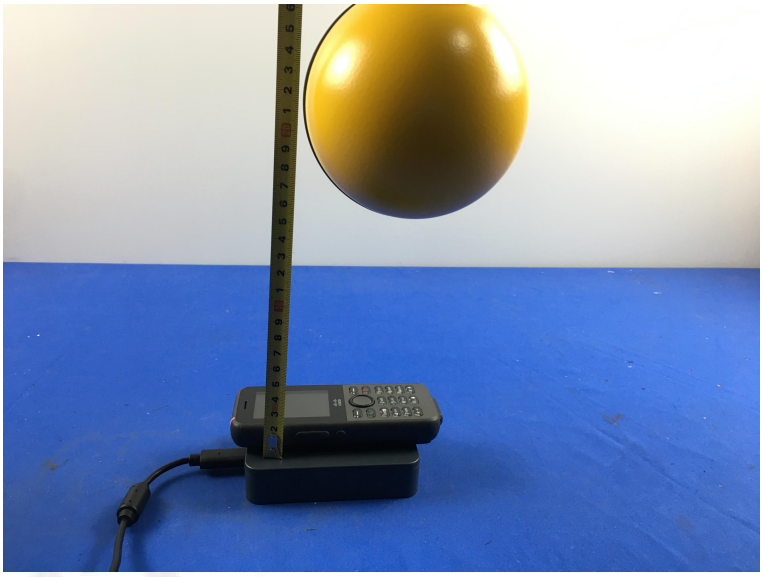
Frequency Range (KHz)	Test Position E	50%Limits (A/m)	Limits (A/m)
146.7	0.074	0.815	1.63

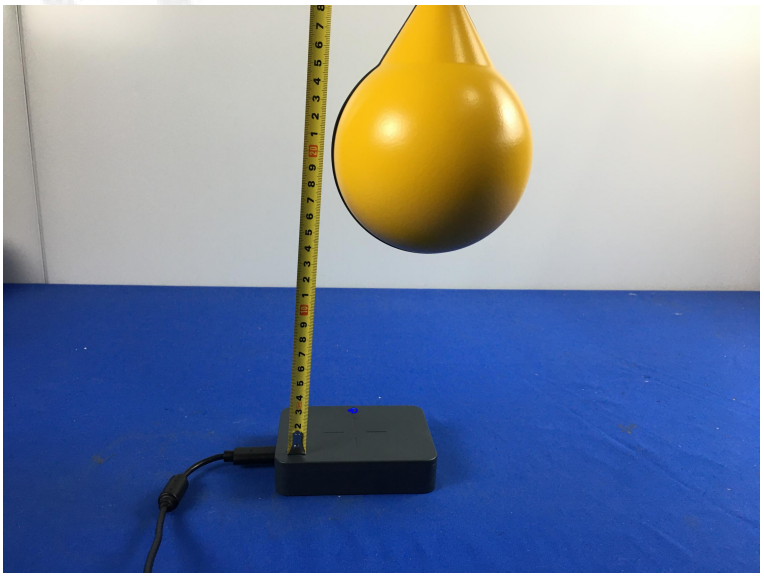
5. Test Setup Photo











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