

RF Exposure REPORT

FCC ID: 2AIOC-1010T

Product: WIRELESS CHARGER

Model No.: HKWP1010T-05

Additional Model: HKWP1010-05, HKWP1010-10Q, 828499, VWWIRLSCHRG

Trade Mark: N/A

Report No.: TCT180418E013

Issued Date: Apr. 25, 2018

Issued for:

HANK ELECTRONICS CO., LTD.

Floor 2nd-7th, A8, Hongye Industry City, Lezhujiao, Zhoushi Road, Baoan District, Shenzhen, China

Issued By:

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1. Test Certification

Product:	WIRELESS CHARGER
Model No.:	HKWP1010T-05
Additional Model No.:	HKWP1010-05, HKWP1010-10Q, 828499, VWWIRLSCHRG
Trade Mark:	N/A
Applicant:	HANK ELECTRONICS CO., LTD.
Address:	Floor 2nd-7th, A8, Hongye Industry City, Lezhujiao, Zhoushi Road, Baoan District, Shenzhen, China
Manufacturer:	HANK ELECTRONICS CO., LTD.
Address:	Floor 2nd-7th, A8, Hongye Industry City, Lezhujiao, Zhoushi Road, Baoan District, Shenzhen, China
Date of Test:	Apr. 19, 2018 - Apr. 24, 2018
Applicable Standards:	KDB 680106 D01 RF Exposure Wireless Charging Apps v02

The above equipment has been tested by Shenzhen Tongce Testing Lab. and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Tested By:

Jin Wang

Date:

Apr. 24, 2018

Jin Wang

Reviewed By:

Beryl Zhao

Date:

Apr. 25, 2018

Beryl Zhao

Approved By:

Tomsin

Date:

Apr. 25, 2018

Tomsin

2. EUT Description

Product:	WIRELESS CHARGER
Model No.:	HKWP1010T-05
Additional Model No.:	HKWP1010-05, HKWP1010-10Q, 828499, VWWIRLSCHRG
Trade Mark:	N/A
Hardware Version:	V1.0
Software Version:	V1.0
Operation Frequency:	121-175KHz
Modulation Technology:	MSK
Antenna Type:	Coil Antenna
Power Supply:	DC 5V via adapter
Remark:	All models above are identical in interior structure, electrical circuits and components, and just model names are different for the marketing requirement.

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

The 3m Semi-anechoic chamber 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

The 3m Semi-anechoic chamber of Shenzhen TCT Testing Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing

3.2. Location

Shenzhen Tongce Testing Lab

Address: 1B/F., Building 1, Yibaolai Industrial Park, Qiaotou, Fuyong, Baoan District, Shenzhen, Guangdong, China

TEL: +86-755-27673339

4. Technical Requirements Specification

4.1. Requirements

According to the item 5.2 of KDB 680106 D01v02:

Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF exposure evaluation.

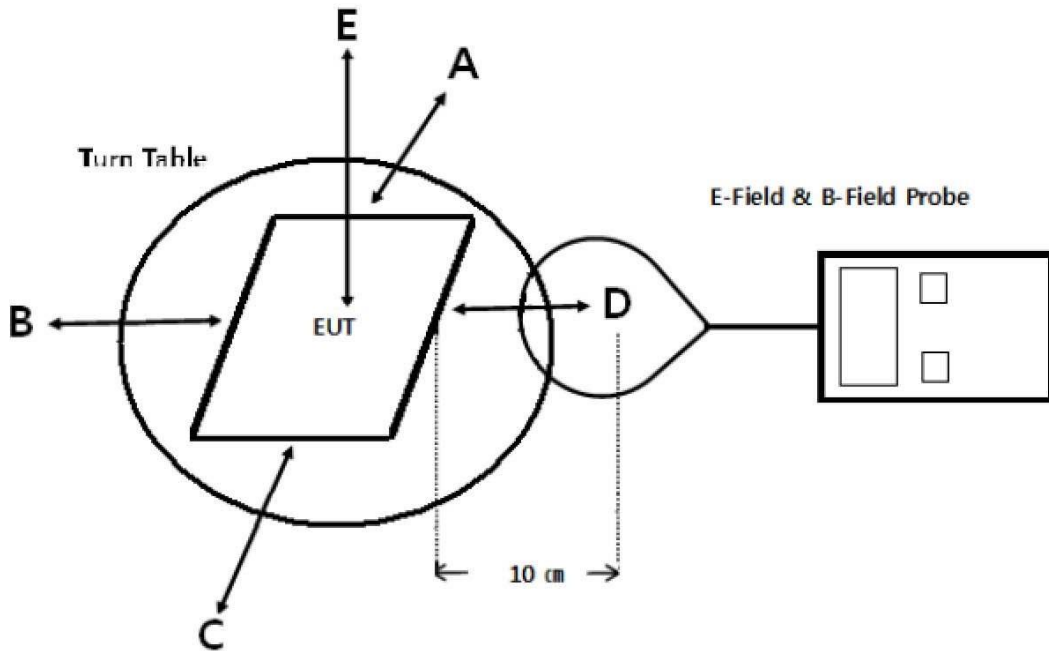
1. Power transfer frequency is less than 1 MHz
2. Output power from each primary coil is less than 5 watts
3. The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils
4. Client device is inserted in or placed directly in contact with the transmitter
5. The maximum coupling surface area of the transmit (charging) device is between 60 cm² and 400 cm²
6. Aggregate leakage fields at 10 cm surrounding the device from all simultaneous transmitting coils are demonstrated to be less than 30% of the MPE limit.

Limits For Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
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	/	/	f/300	6
1500-100,000	/	/	5	6
(B) 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 ²)	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 and the top of the primary/client pair, with the 10cm 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 test distance (10cm) which is between the edge 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 v02. 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	Sep. 27, 2018

4.5. Test Result

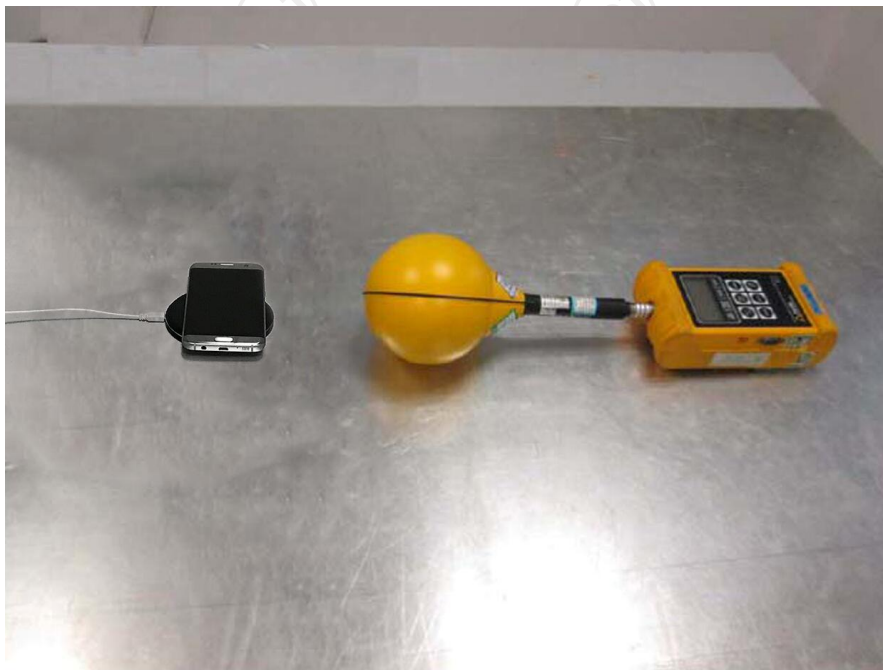
E-Filed Strength at 10 cm from the edges surrounding the EUT (V/m)

Frequency Range (KHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limits Test (V/m)
110~ 205	1.28	1.72	1.35	1.27	1.50	614

H-Filed Strength at 10 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	Limits Test (A/m)
110~ 205	0.25	0.20	0.19	0.12	0.22	1.63

4.6. Test Set-up Photo



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