

# RF EXPOSURE REPORT

**Applicant:** Thermaltake Technology Co., Ltd.

**Address of Applicant:** 5F., No.185, Sec. 2, Tiding Blvd., Neihu Dist., Taipei City 114, Taiwan

**Equipment Under Test (EUT)**

Product Name: TX-P2 10000mAh Wireless Charging Power Bank

Model No.: PO-WPC-PCP2BK-00

FCC ID : 2AAUCPOWPCPCP2BK

**Applicable standards:** FCC CFR 47 part1, 1.1307(b), 1.1310

**Date of sample receipt:** October 22, 2014

**Date of Test:** October 22-27, 2014

**Date of report issued:** October 29, 2014

**Test Result :** PASS \*

\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



**Robinson Lo**

**Laboratory Manager**

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the GTS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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## 2 Version

Version No.	Date	Description
00	October 29, 2014	Original

Prepared By:

*Edward Pan*

Date:

October 29, 2014

Project Engineer

Check By:

*Hank Yan*

Date:

October 29, 2014

Reviewer

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## 4 General Information

### 4.1 Client Information

Applicant:	Thermaltake Technology Co., Ltd.
Address of Applicant:	5F., No.185, Sec. 2, Tiding Blvd., Neihu Dist., Taipei City 114, Taiwan
Manufacturer/Factory:	ShenZhen Yijieneng Technology Co., LTD.
Address of Manufacturer/Factory:	1304 Block A, Zhonghai Xin, GangLi Sixth Street, GanLi Technology Park, Buji, Longgang, Shenzhen, China

### 4.2 General Description of EUT

Product Name:	TX-P2 10000mAh Wireless Charging Power Bank
Model No.:	PO-WPC-PCP2BK-00
Operation Frequency:	112kHz ~ 205kHz
Antenna Type:	Inductive loop coil antenna
Power supply:	DC 3.7V Li-ion Battery Charging voltage: DC 5.0V Output voltage: DC 5.0V

### 4.3 Test Facility

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

● **CNAS —Registration No.: CNAS L5775**

CNAS has accredited Global United Technology Services Co., Ltd. To ISO/IEC 17025 General Requirements for the competence of testing and calibration laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

● **FCC —Registration No.: 600491**

Global United Technology Services Co., Ltd., Shenzhen 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 files. Registration 600491, June 28, 2013.

● **Industry Canada (IC) —Registration No.: 9079A-2**

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-2, June 26, 2013.

### 4.4 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: 2nd Floor, Block No.2, Laodong Industrial Zone, Xixiang Road Baoan District, Shenzhen, China

Tel: 0755-27798480

Fax: 0755-27798960

### 4.5 Other Information Requested by the Customer

None.

### 4.6 Description of Support Units

Manufacturer	Description	Model	Serial Number	FCC Approval
LGE	Mobile Phone	LG-D820	03100E97E0771A86	FCC ID:ZNFD820

## 5 Test Instruments list

Radiated Emission:						
Item	Test Equipment	Manufacturer	Model No.	SN.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	N/A	Mar. 29 2013	Mar. 28 2015
2	Exposure Level Tester	Narda	ELT-400	N-0231	July 01 2014	June 30 2015
3	Magnetic field probe 100cm <sup>2</sup>	Narda	ELT probe 100cm <sup>2</sup>	M0675	July 01 2014	June 30 2015

## 6 Method of measurement

### 6.1 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 §2.1093 RF exposure is calculated.

According KDB680106 D01v02: RF Exposure Wireless Charging Apps v02.

## 7 Test Result

Test setup:	<p>The diagram illustrates the test setup. It shows a rectangular anechoic chamber with four measurement points labeled A, B, C, and D. Point A is on the left side, B is on the right side, C is on the top side, and D is on the bottom side. A measurement probe is positioned 10 cm from the edge of the chamber, between the edge and the geometric center. The probe is connected to a control unit.</p>
Test Procedure:	<ol style="list-style-type: none"> <li>The RF exposure test was performed on 360 degree turn table in anechoic chamber.</li> <li>The measurement probe was placed at test distance (10cm) which is between the edge of the charger and the geometric centre of probe.</li> <li>The turn table was rotated 360d degree to search of highest strength.</li> <li>The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.</li> <li>The EUT were measured according to the dictates of KDB 680106D01v02.</li> </ol>

## 7.1 Equipment Approval Considerations:

The EUT does comply with item 5.2 of KDB 680106 D01v02
a) Power transfer frequency is less than 1MHz.
Yes; the device operate in the frequency range from 112 KHz to 205 KHz
b) Output power from each primary coil is less than 5 watts
Yes; the maximum output power of the primary coil is $4W < 5W$ .
c) The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that able to detect and allow coupling only between individual pair of coils.
Yes; the transfer system includes only single primary and secondary coils.
d) Client device is inserted in or placed directly in contact with the transmitter.
Yes; Client device is placed directly in contact with the transmitter.
e) The maximum coupling surface area of the transmit (charging) device:
Yes; The EUT coupling surface area was $14.86 \text{ cm}^2 < 60 \text{ cm}^2$
f) Aggregate leakage fields at 10cm surrounding the device from all simultaneous transmitting coils are demonstrated to be less than 30% of the MPE limit.
Yes; The EUT field strength levels are $30\% \times \text{MPE limit}$ .

## 7.2 E and H field Strength

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

Frequency Range (MHz)	E-Filed Strength at 10 cm from the edges surrounding the EUT (V/m)						Limits (V/m)
	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	
0.112-0.205	1.16	2.14	0.78	0.94	1.47	1.93	614

Frequency Range (MHz)	H-Filed Strength at 10 cm from the edges surrounding the EUT (A/m)						Limits (A/m)
	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	
0.112-0.205	0.68	1.16	0.33	0.41	1.02	1.08	1.63

## 8 Test Setup Photo



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