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# FCC TEST REPORT

Client Name : Dongguan Tyjin Electronics Co., Ltd.

Address Shitouling Industrial Zone, Wulian Village, Fenggang Town, Dongguan, 523690 China

Product Name : Wireless Charging Pad

Date : Jun. 12, 2019

# Shenzhen Anbotek Compliance Laboratory Limited

#### Shenzhen Anbotek Compliance Laboratory Limited

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# TEST REPORT

Applicant	:	Dongguan Tyjin Electronics Co., Ltd.
Manufacturer	:	Dongguan Tyjin Electronics Co., Ltd.
Product Name	e <sup>K</sup>	Wireless Charging Pad
Model No.	oote	C-083, IHQI1000
Trade Mark	nb	N.A. Andres Andres Andres Andres
Rating(s)	·	Input: DC 5V, 2A, 9V, 1.67A Output: 5W/7.5W/10W
		And stek subor

Test Standard(s)	FCC Part 1.1310, 1.1307(b)	
Test Method(s)	: KDB680106 D01 RF Exposure Wireless Charging Apps	v03

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with the FCC Part 1.1307 & KDB680106 D01 requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Receipt	Apr. 30, 2019
Date of Test	Apr. 30~Jun. 05, 2019
Compliance Labor	and a spotek Ambole way of the stek Ambolek Ambo
Prepared By	tek Anboten Anbo tek Anbotek Anbote A
introdent And Ale Color	
* Approved *	Snavy Meng
	(Supervisor / Snowy Meng)
	Sally zhong
Approved & Authorized Signer	mbotek Anbor Ar XK Anbor Anbor
	(Manager / Sally Zhang)
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# 1. General Information

# 1.1. Client Information

Applicant	:	Dongguan Tyjin Electronics Co., Ltd.
Address	:	Shitouling Industrial Zone, Wulian Village, Fenggang Town, Dongguan, 523690 China
Manufacturer	:	Dongguan Tyjin Electronics Co., Ltd.
Address	:	Shitouling Industrial Zone, Wulian Village, Fenggang Town, Dongguan, 523690 China
Factory	:	Dongguan Tyjin Electronics Co., Ltd.
Address	:	Shitouling Industrial Zone, Wulian Village, Fenggang Town, Dongguan, 523690 China

# 1.2. Description of Device (EUT)

Product Name	:	Wireless Charging Pad	
Model No.	:	C-083, IHQI1000 (Note: All samples are the sam "C-083" for test only.)	ne except the model name, so we prepare
Trade Mark	:	N.A. Anboutek Anbotek	Anbotek Anbotek Anbotek A
Test Power Supply	:	AC 120V, 60Hz for adapter	hotek Anbolek Anbolek Anbolek
Test Sample No.	:	1-2-1(Normal Sample), 1-2-2(B	Engineering Sample)
		Operation Frequency:	110.1~205KHz
Product		Modulation Type:	ASK protek Anbotek Anbotek Anbotek An
Description		Antenna Type:	Inductive loop coil Antenna
		Antenna Gain(Peak):	0 dBi

# 1.3. Auxiliary Equipment Used During Test

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# 1.4. Test Equipment List

	Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
10	1 Nek	Magnetic field meter	NARDA	ELT-400	423623	Dec. 24, 2018	1 Year
9	2	E-Field Probe	Narda	EF0391	Q15221	Nov.17, 2017	3 Year
	3	H-Field Probe	Narda	HF3061	Q15835	Nov.17, 2017	3 Year

# 1.5. Description of Test Facility

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

## FCC-Registration No.: 184111

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registed 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 No. 184111, July 31, 2017.

## ISED-Registration No.: 8058A-1

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A-1, June 13, 2016.

## **Test Location**

Shenzhen Anbotek Compliance Laboratory Limited. 1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China. 518102

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# 2. Measurement and Result

# 2.1. Requirements

According to the item 5.b) of KDB 680106 D01v03:

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 that 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 inserted in or 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.

Frequency range (MHz)	ge Electric field strength Magnetic field strength (V/m) (A/m)		Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
	(A) Limits for Occ	upational/Controlled Ex	posures	
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6
	(B) Limits for Genera	I Population/Uncontrolle	d Exposure	
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30-300	27.5	0.073	0.2	30
300-1500	1	1	f/1500	30
1500-100,000	/	/	1.0	30

Limits For Maximum Permissible Exposure (MPE)

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).

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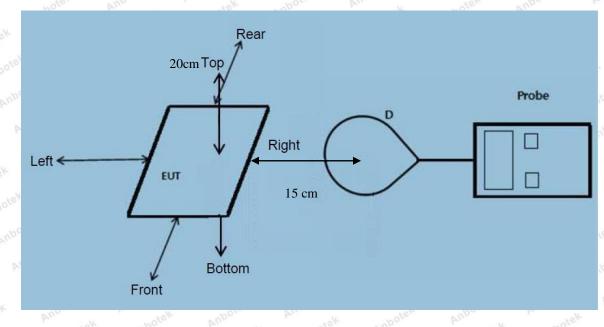
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# Anbotek Product Safety

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# 2.2. Test Setup



Note: Measurements should be made at 15 cm surrounding the EUT and 20cm above the top surface of the EUT.

# 2.3. Test Procedure

1) The RF exposure test was performed in anechoic chamber.

2) The measurement probe was placed at required test distance 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.(A is the right, B is the back, C is the left, D is the front, and E is the top.)4) The EUT was measured according to the dictates of KDB 680106 D01 v03.Remark:

The EUT's test position A, B, C, D and E is valid for the E and H field measurements.

# 2.4. Test Result

2.4.1. Equipment Approval Considerations item 5.b of KDB 680106 D01 v03.

- 1) Power transfer frequency is less that 1 MHz
- The device operate in the frequency range 110.1~205KHz
- 2) Output power from each primary coil is less than 15 watts
  - The maximum output power of the primary coil is 10W.

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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

- The transfer system including a charging system with only single primary coils is to detect and allow only between individual pairs of coils.
- 4) Client device is inserted in or placed directly in contact with the transmitter
- Client device is placed directly in contact with the transmitter.
- 5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion)The EUT is a Mobile Power Pack with Wireless Charger

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.
Conducted the measurement with the required distance and the test results please refer to the section 2.4.2

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2.4.2. Environmental evaluation and exposure limit according to FCC CFR 47 part 1, 1.1307(b), 1.1310

2	Temperature:	22.5°C	Relative Humidity:	54 %
20	Pressure:	1012 hPa	Test Voltage:	AC 120V, 60Hz for adapter
	10º	NO. P.	101	V COV

E-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

N 100	Du Pue		dek	0,00-	pro K	hoter	AND	
Battery	Frequency	Test M	Test	Test	Test	Test	Reference	Limits
oto. NO	Range	Position	Position	Position	Position	Position	Limit	Test
power	(KHz)	A	Brek	C	D	tek E An	(V/m) ••••	(V/m)
Anbotek	Anbore	Anthotek	Anbotek	Anbor	Alek Pri	botek	Anboten A	notek
1%	110.1~205	0.27	0.32	0.33	0.45	0.98	307	614
K photo	ak Anbote	Anu	otek A	potek	Anbor vek	Anobotek	Anboten	And
stek pot	otek Anbo	co. An	hotek	Anbotek	Anbor	An	anboter	Anbo
50%	110.1~205	1.53	1.34	1.66	1.07	1.59	ote <sup>4</sup> 307 pro <sup>00</sup>	614
inbo tek	nbotek	Anbote.	Anumotek	Anbote	K Anbo	rek pr	botek A	tboten
Anbo	Anbotek	Anboto	K AND NO	lek Ant	otek Ar	ibor rek	All abotek	Anboten
99%	110.1~205	2.40	2.25	2.09	2.82	2.41	307	614
Aupor	tek abo	lek Ant	oten Ar	lo-	Anbotek	Anboto	k Ant botek	Anbo
oten Anb	o tek pr	botek l	nbote	And hotek	Anbotek	Anbor	rek bi	lek Ar
Stand-by	110.1~205	0.16	0.50	0.69	0.54	0.84	307	614
Anbotek	Anbo	A. potek	Anboten	And	otek pr	potek I	inbow Ar	botek

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Battery power	Frequency Range (KHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Reference Limit (A/m)	Limits Test (A/m)
Anbote.	Anb	Anbotok	Anbors	stek An	poter P	nboten	hotek h	Anbotok
1%	110.1~205	0.039	0.042	0.056	0.035	0.058	0.815	1.63
	stek nb	otek An	poter P	nb <sup>s</sup> botek	Anbotek	Anboto	An abotek	An
stek An	po tek	obotek	Anboto	And	Anbotel	Anbou	tek ph	Lek.
50%	110.1~205	0.25	0.54	0.43	0.37	0.40 M	0.815	1.63
Anboten	Anbo	nbotek	Anbore	Ant	otek A	nbotek p	nbo. A	potek
Anboten	Anbo	h. nbote	K Anbe	No. An	notek	Anbotek	Anbor	A. abot
99%	110.1~205	0.45	0.33	0.38	0.25	0.22	0.815	1.63
	otek Anbi	tek p.	abotek	Anboto	Anu	Anbotel	Anbor	et An
botek	Anboten A	ibo stek	anbotek	Anboto	Anu bo	lek Anbr	tek Anbo	Ne <sup>W</sup>
Stand-by	110.1~205	0.29	0.17	0.36	0.41	0.28	0.815	1.63
	Anbotek	Anbo	K	lek Ant	ote. Al	in stek	anbotek	Aupor

# H-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

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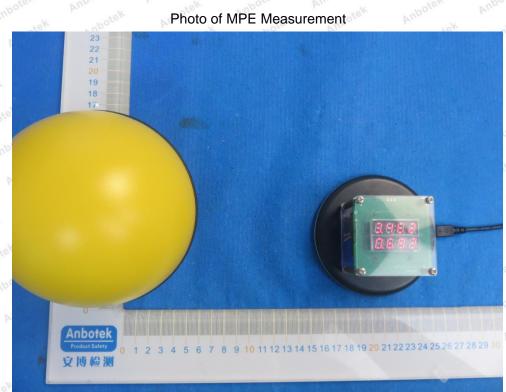






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# **APPENDIX I -- TEST SETUP PHOTOGRAPH**



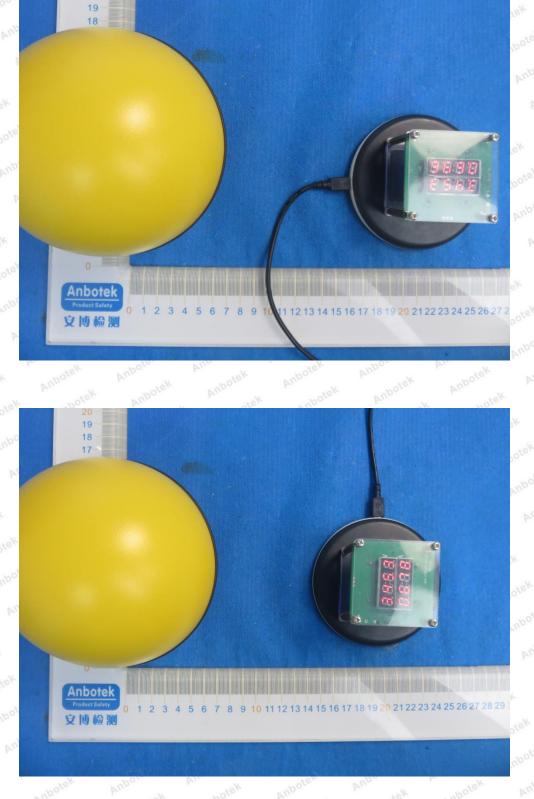


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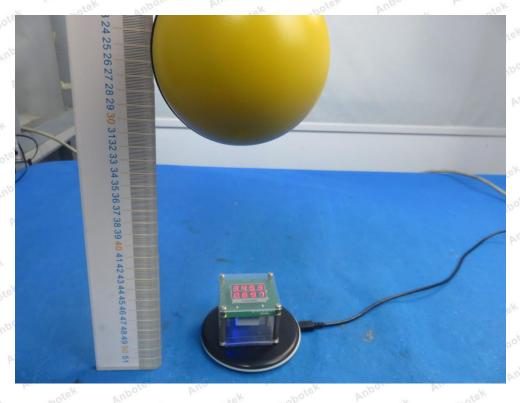
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