

 Report No.: 18220WC00049302
 FCC ID: 2ANP7EGG190098
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FCC TEST REPORT

Client Name : Eggtronic Engineering Srl

Address : Via Giorgio Campagna 8 41126 Modena Italy

Product Name : Triple coil embedded wireless charging system

Date : Jul. 30, 2020



Shenzhen Anbotek Compliance Laboratory Limited

Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China. Tel:(86) 755-26066440 Fax: (86) 755-26014772 Email: service@anbotek.com

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TEST REPORT

Applicant	Eggtronic Engineering Srl
Manufacturer	Shenzhen Pilot Technology Co., Ltd
Product Name	: Triple coil embedded wireless charging system
Model No.	EGG190098
Trade Mark	: Eggtronic
Rating(s)	Input: DC 12V, 1A Wireless Output: 5W
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 Date of Test May 08, 2020 May 08~Jun. 05, 2020

Prepared By

Reviewer

(Engineer / Dolly Mo)

Dold

this thank

(Supervisor / Bibo Zhang)

chen

(Manager / Tom Chen)

Shenzhen Anbotek Compliance Laboratory Limited

Approved & Authorized Signer

Address: 1/F., Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China. Tel:(86) 755–26066440 Fax: (86) 755–26014772 Email: service@anbotek.com Code:AB-RF-05-a



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1. General Information

1.1. Client Information

	U.O.1
Eggtronic Engineering Srl	Anbot
· Via Giorgio Campagna 8 41126 Modena Italy	An
Shenzhen Pilot Technology Co., Ltd	at .
101 A1 Industrial Park, building a 1, No.7, Shankeng Road, Shanxia community, Pinghu Street, Longgang District, Shenzhen City, China.	potek
Shenzhen Pilot Technology Co., Ltd	Anbot
101 A1 Industrial Park, building a 1, No.7, Shankeng Road, Shanxia community, Pinghu Street, Longgang District, Shenzhen City, China.	Ant
	 Via Giorgio Campagna 8 41126 Modena Italy Shenzhen Pilot Technology Co., Ltd 101 A1 Industrial Park, building a 1, No.7, Shankeng Road, Shanxia community, Pinghu Street, Longgang District, Shenzhen City, China. Shenzhen Pilot Technology Co., Ltd 101 A1 Industrial Park, building a 1, No.7, Shankeng Road, Shanxia

1.2. Description of Device (EUT)

Product Name	:	Triple coil embedded wire	eless charging system
Model No.	:	EGG190098	nbotek Anbotek Anbotek Anbotek Anb
Trade Mark	:	Eggtronic	Anbotek Anbotek Anbotek Anbotek
Test Power Supply	:	DC 12V	Anborek Anborek Anborek Anborek
Test Sample No.	:	1-2-1(Normal Sample), 1	-2-1(Engineering Sample)
a		Operation Frequency:	110.1-205KHz
Product	:	Modulation Type:	N QI Anborek Anborek Anborek
Description		Antenna Type:	Inductive loop coil Antenna
		Antenna Gain(Peak):	0 dBi polet prodet prodet
V NOTO		detailed features descript 's Manual.	ion, please refer to the manufacturer's specifications

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1.3. Auxiliary Equipment Used During Test

n op	100	No	NOT	Par	ACT	anp-	- Ac	hor
N/A			: }*	Anbotek	Anbo otek	Anbotek	Anboro	Ann

1.4. Test Equipment List

Ņ	Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
0	^{ren} 1	Magnetic field meter	NARDA	ELT-400	423623	Dec. 23, 2019	1 Year
~	2	E-Field Probe	Narda	EF0391	Q15221	Nov.17, 2017	3 Year
	A 3	H-Field Probe	Narda	HF3061	Q15835	Nov.17, 2017	3 Year

1.5. Measurement Uncertainty

Radiation Uncertainty	:	Ur = 3.9 dB (Horizontal)	Anbotek	Anboy stek	botek Ant
ð.		Ur = 3.8 dB (Vertical)	Anbotek	Anbor	nbotek
		Anbola Ant	Anbotek	Anboutek	Anbotek
Conduction Uncertainty	:	Uc = 3.4 dB	otek Anbo	ren Anon hotek	Anbotek

1.6. 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, September 27, 2019.

ISED-Registration No.: 8058A

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, March 07, 2019.

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)	range Electric field strength (V/m) (A/m)		Power density (mW/cm²)	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 ²)	6
30-300	61.4	0.163	1.0	6
300- 1 500	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	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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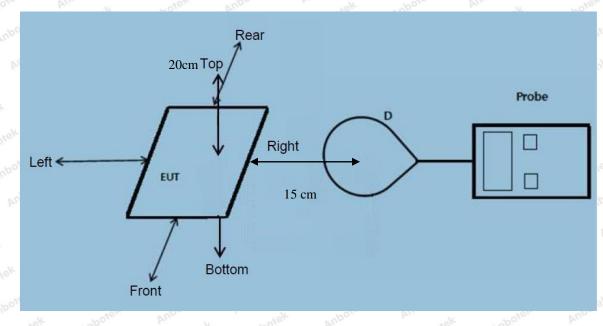
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2.2. Test Setup



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 5W.

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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 two primary coils is to detect and allow only between individual pairs of coils.Only one coil works at a time.

- 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 Triple coil embedded wireless charging system

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

Temperature:	23.8°C	Relative Humidity:	54%
Pressure:	1012 hPa	Test Voltage:	DC 12V

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

100				1000		1000	100	
Anbois	Frequency	Test	Test	Test	Test	Test	Reference	Limits
Battery	Range	Position	Position	Position	Position	Position	Limit	Test
power	(KHz)	A A Anto	ote ^{lk} B pr	C	Dek	ArBoten	(V/m)	(V/m)
tek Anb	Sten And	otek p	nbotek	Anbon	Autobotek	Anbor	Ano NO	iek Ar
1%	110.1~205	0.49	0.38	0.27	0.43	0.95	307	614
nbotek	Anbote	Anu hotek	Anbotek	Anbo	tek no	potek	inboto. Ar	hotek
h. hotek	Anbore	Ansbotel	Anbot	ak Anb	otek	Anbotek	Anbore	
50%	110.1~205	1.52	1.33	1.25	1.38	1.51	307	614
ek nbc	tek Anbor	An	hotek	Anbotek	Anbo	honbote	Anbore	An
stek N	tbotek An	pore p	botek	Anbotek	Anbo	ek nab	otek Anbot	
99%	110.1~205	2.24	2.18	2.11	2.22	2.09	307	614
Anbore	Amobotek	Anboten	And	k Anbo	rek Ant	you p	abotek	
Anbo	Anbotek	Anborer	Ant	otek Al	ibotek	Anbo. stek	Anbotek	Anboro
Stand-by	110.1~205	0.46	0.30	0.74	0.47	0.52	307	614
sk Aupo	tek of	otek Ar	poter	unb hotek	Anbotek	Anbor	lek nbote	K Ant

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Battery	Frequency	Test	Test	Test	Test	Test	Reference	Limits
power	Range	Position	Position	Position	Position	Position	Limit	Test
Anbore	(KHz)	A	otek B A	C	Ant Dek	Anvoten	(A/m)	(A/m)
ek Ant	otek Anbu	dek h	nbotek	Anboto	Ansbotek	Anbote	Anbo	rek h
1%	110.1~205	0.040	0.051	0.042	0.044	0.065	0.815	1.63
hotek		Anboretek	Annobotek	Anbote	And And	hotek p	nbotek Ar	bor
Anstotek	Anbotek	Anbo	r nabo	rek Anb	oto Al	botek	Anbotek	Anbo
50%	110.1~205	0.26	0.58	0.38	0.42	0.49	0.815	1.63
Ant h	otek Anbot	ek Anb	erek p	abotek	Anboto, ak	And	Anbotek	Anb
Plue	botek An	potek P	nbo. otek	Anbotek	Anbore	ek por	rek Anbot	ew I
99%	110.1~205	0.44	0.56	0.52	0.38	0.50	0.815	1.63
Anboten		Anbotek	Aupor	ek sob	Hek An	poter Ar	hotek	Anbotek
Anbote	Ann hotek	Anbotet	Aupo	det po	nbotek	Anbore	Any botek	Anbote
Stand-by	110.1~205	0.27	0.15	0.79	0.33	0.34	0.815	1.63
6 anbo		Lok	botek	Anbois	All otek	Anboten	Anb	N-

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

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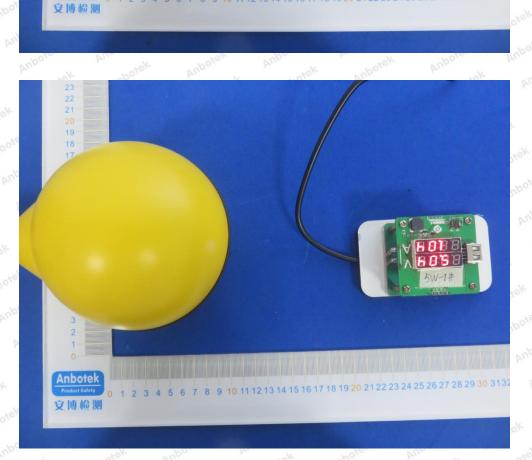
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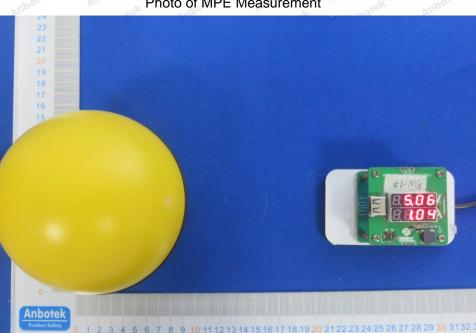


Photo of MPE Measurement

APPENDIX I -- TEST SETUP PHOTOGRAPH

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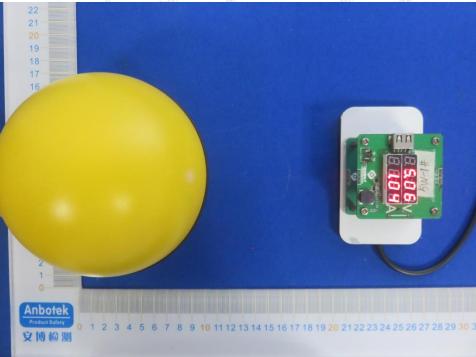
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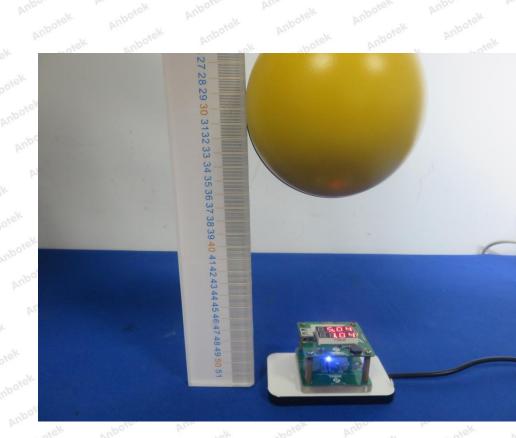
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