

# **FCC TEST REPORT**

For S

#### **E-Power Limited**

Wireless charger Bluetooth speaker

Model No.: 7197-07, BT801, BT802, BT803, BT804, BT805, BT806, BT807, BT808

Prepared For : E-Power Limited

Address : 7th Floor, NO.A Building, Gangzai Henghongtai Industrial Park, Shajing,

Bao'an District, Shenzhen, Guangdong, China

Prepared By : 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.518102

Tel: (86) 755-26066440 Fax: (86) 755-26014772

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# **TEST REPORT**

Applicant : E-Power Limited

Manufacturer : E-Power Limited

Product Name : Wireless charger Bluetooth speaker

Model No. : 7197-07, BT801, BT802, BT803, BT804, BT805, BT806, BT807, BT808

Trade Mark : N.A.

Rating(s) : Input: DC 5V, 1A(with DC 3.7V, 4000mAh Battery inside)

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.

Prepared by

(Engineer / Tangey Tang)

Reviewer

(Supervisor / Snowy Meng)

Approved & Authorized Signer

(Manager / Sally Zhang)



# 1. General Information

# 1.1. Client Information

- 40	W.	TO TO THE TOTAL THE TABLE
Applicant	: E-1	Power Limited
Address		h Floor, NO.A Building, Gangzai Henghongtai Industrial Park, Shajing, Bao'an istrict, Shenzhen, Guangdong, China
Manufacturer	: E-J	Power Limited
Address		h Floor, NO.A Building, Gangzai Henghongtai Industrial Park, Shajing, Bao'an istrict, Shenzhen, Guangdong, China
Factory	: E-1	Power Limited
Address		h Floor, NO.A Building, Gangzai Henghongtai Industrial Park, Shajing, Bao'an istrict, Shenzhen, Guangdong, China

## 1.2. Description of Device (EUT)

Product Name	:	Wireless charger Bluetooth speak	cer Anbotek Anbotek Anbotek Anbotek
Model No.	:	ak hole Alle	BT804, BT805, BT806, BT807, BT808 except the shell, so we prepare "7197-07" for test
Trade Mark	:	N.A.	abotek Anbotek Anbotek
Test Power Supply	:	DC 3.7V Battery inside	Anbotek Anbotek Anbotek Anbotek
Test Sample No.	:	S1(Normal Sample), S2(Engineer	ring Sample)
		Operation Frequency:	111~205KHz
Product		Modulation Type:	MSK
Description	ion Antenna Type:	Antenna Type:	Inductive loop coil Antenna
		Antenna Gain(Peak):	0 dBi

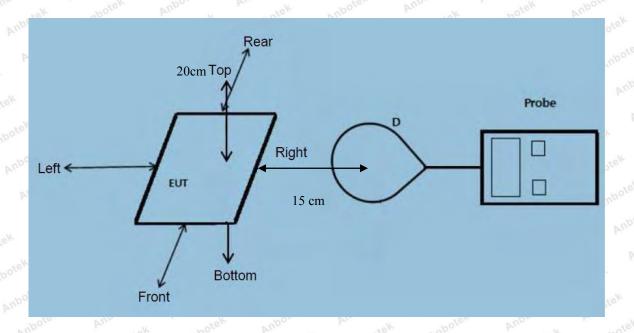
**Remark:** 1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual



## 1.3. Auxiliary Equipment Used During Test

Adapter	:	Manufacturer: ZTE
		M/N: STC-A2050I1000USBA-C
2		S/N: 201202102100876 Input: 100-240V~ 50/60Hz, 0.3A
		Output: DC 5V, 1000mA
Mobile Phone	:	Samsung

## 1.4. Description Of Test Setup



Note: Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm measured from the center of the probe(s) to the edge of the device



#### 1.5. Test Equipment List

Ite	em	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	1 an	Magnetic field meter	NARDA	ELT-400	423623	Nov.17, 2017	1 Year
e	2	E-Field Probe	Narda	EF0391	Q15221	Nov.17, 2017	1 Year
hotel	3	H-Field Probe	Narda	HF3061	Q15835	Nov.17, 2017	1 Year

#### 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, 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



## 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.

Limits For Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
	(A) Limits for Occ	cupational/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	1	1	f/300	6
1500-100,000	1	1	5	6
	(B) Limits for Genera	Population/Uncontrolle	ed 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	Ì	1	f/1500	30
1500-100,000	1	I	1.0	30

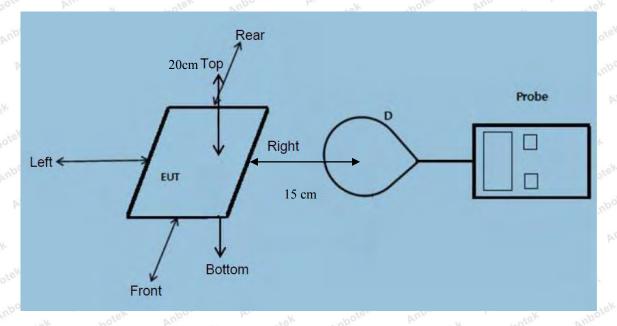
F=frequency in MHz

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).

<sup>\*=</sup>Plane-wave equivalent power density



#### 2.2. Test Setup



Note:Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm measured from the center of the probe(s) to the edge of the device

#### 2.3. Test Procedure

- 1) The RF exposure test was performed in anechoic chamber.
- 2) The measurement probe was placed at test distance (15 cm) 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 111~205KHz
  - 2) Output power from each primary coil is less than 15 watts
    - The maximum output power of the primary coil is 5W.
  - 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.
- The EUT E-Field Strength levels at 15 cm & The EUT H-Field Strength levels at 15 cm are less than 50% the MPE limit.

The test results please refer to the section 2.4.2

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

Temperature:	24.7° C	Relative Humidity:	55 %
Pressure:	1012 hPa	Test Voltage:	DC 3.7V Battery inside

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

Battery	Frequency	Test	Test	Test	Test	Test	Reference	Limits
3 - V	Range	Position	Position	Position	Position	Position	Limit	Test
power	(KHz)	ek A Ant	В	C	$\mathbf{D}_{e_{K}}$	ANE TORK	(V/m)	(V/m)
Ve Vup	notek Ar	botek 1	'upore	Andotek	Anbotek	Aupo	lek Vupc	Ick by
1%	111~205	0.26	0.35	0.43	0.33	0.62	307	614
Anbotek	Anbo	Anbotek.	Anbote.	ak Anu	otek Ar	botek Ar	por A	-nbotek
Anbotek	Anbanotek	Anbote	Anbo	tek VIII	abotek	Anbotek	Anboundek	Anbotek
50%	111~205	1.75	1.38	1.47	1.89	1.54	307	614
tek Anbo	rek Aupo	otek k.	nbotek	Anbore.	Ann	Anbotek	Anbor	ek bir
potek Ar	Poter Y	o tek	Anbotek	Anbore	And	ek Anbol	ek Anbo	otek A.
99%	111~205	2.38	2.75	2.83	2.55	2.41	307	614
Ant botek	Anbotek	Anbo.	A. nbot	Sr. Vup	oter An	potek ,	Anbotek	Anbore
Annotek	Anbotek	Aupo	150	potek P	nbote	Andotek	Anbotek	Anbore
Stand-by	111~205	0.67	0.58	0.49	0.73	0.48	307	614
Vak Vun	notek Ant	otek A	upo.	hotek	Aupoter	K Ans	k anbot	ek An



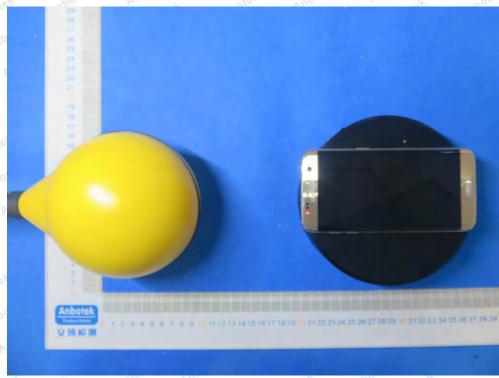
# H-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

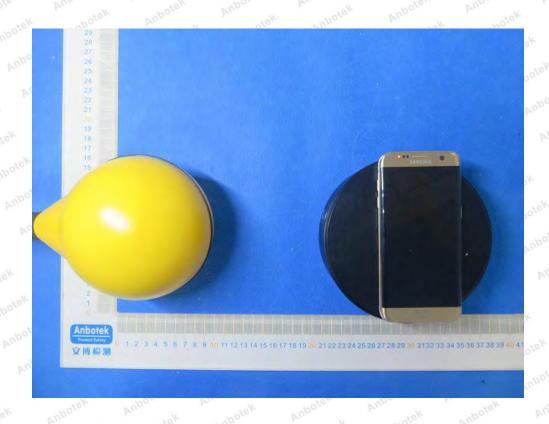
10.33		10.10	D. O		12.507		3.6	
Battery	Frequency	Test	Test M	Test	Test	Test	Reference	Limits
- 100	Range	Position	Position	Position	Position	Position	Limit	Test
power	(KHz)	oten A M	В	C	Dogg	E	(A/m)	(A/m)
orek by	nbotek P	upole	And	Anbotek	Anbot	rek nb	otek Anb	Oten
1%	111~205	0.057	0.059	0.047	0.038	0.046	0.815	1.63
Anbore	Annabotek	Anbotek	Anbo	vek v.	potek	rupo, K	hotek ,	Anbotek
Anbore	k anbotel	Anbo'	Sr. Vur	hotek	Anbotek	Anboten	An	Anbot
50%	111~205	0.27	0.39	0.51	0.37	0.53	0.815	1.63
otek Anb	Die Vur	botek	Anbotek	Anbore	Anbote	Anbote	And And	tek
hbotek P	upo tek	nbotek	Anbotek	Anbe	ak Anb	otek Anbr	tek Vu	obotek
99%	111~205	0.50	0.44	0.35	0.29	0.40	0.815	1.63
anbotek	Anbore	An	ek Anb	otek An	ocek b	anbotek	Anboter	Ann hote
Anbotel	Anbo	rek an	otek p	nbotek	Anbe	Anbotek	Aupore	Yu.
Stand-by	111~205	0.39	0.42	0.37	0.46	0.47	0.815	1.63
rek h.	botek A	pore	Yun Stek	anbotek	Anbor	br.	tek Anbo	161



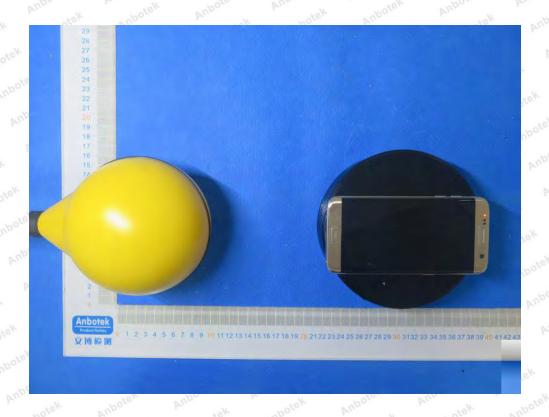
# APPENDIX I -- TEST SETUP PHOTOGRAPH





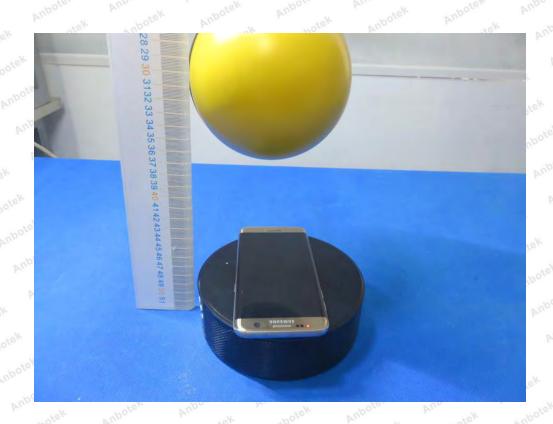












Shenzhen Anbotek Compliance Laboratory Limited
Tel:(86)755-26066440 Fax:(86)755-26014772 <u>www.anbotek.com</u> Code:AB-RF-05-a

--- End of Report -