

Report No.: SZAWW190508006-02 FCC ID: 2ACE5-MOV5001 Page 1 of 12

# **FCC TEST REPORT**

Client Name : TELEPHONE EST (HK) CO., LTD

Address Room709,7F, FuLi tianhe commercial building,Linhe East

Road and tianhe district, Guangzhou, China

Product Name : QI Wireless Charger

Date : Jun. 03, 2019

# **Shenzhen Anbotek Compliance Laboratory Limited**



Report No.: SZAWW190508006-02 FCC ID: 2ACE5-MOV5001 Page 2

# **Contents**

1.	General InformationGeneral Information	4
	1.1. Client Information	4
	1.2. Description of Device (EUT)	4
	1.3. Auxiliary Equipment Used During Test	Z
	1.4. Test Equipment List	5
	1.5. Measurement Uncertainty	100
	1.6. Description of Test Facility	. 55
2.	Neasurement and Result	6
	2.1. Requirements	6
	2.2. Test Setup	7
	2.3. Test Procedure	SI
	2.4. Test Result	60
	2.4.1. Equipment Approval Considerations item 5.b of KDB 680106 D01 v03	7
	2.4.2. Environmental evaluation and exposure limit according to FCC CFR 47 part 1, 1.1307(	(b)
	1.1310	8
ΔP	PENDIX I TEST SETUP PHOTOGRAPH	10



Report No.: SZAWW190508006-02 FCC ID: 2ACE5-MOV5001 Page 3 of 12

# TEST REPORT

Applicant : TELEPHONE EST (HK) CO., LTD

Manufacturer : Telephone Est Electronics Factory(zhong shan)

Product Name : QI Wireless Charger

Model No. : MOV5001

Trade Mark : GOMOVI

Rating(s) Input: DC 5V, 2A

Output: DC 5V, 1A

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	May 08, 2019
Date of Test	May 08~24, 2019
Apparola (Apparola (Apparo	Way 00~24, 2019
WIIDOICK W	O vay larg
Prepared By	otek Anbotek Jubotek Anbotek Ar
And Anbode *Approved*	(Engineer / Oliay Yang)
Ann tek abotek	All Jotek Anbotek Anbotek Anbote
	Snavy Meng
Reviewer	Anbot An J J Anbo
	(Supervisor / Snowy Meng)
	Dotek Ambore Amb
	Sally Zhong
Approved & Authorized Signer	Aupon K Polek Note, Aug tok polek
	(Manager / Sally Zhang)

Shenzhen Anbotek Compliance Laboratory Limited



Report No.: SZAWW190508006-02

# 1. General Information

# 1.1. Client Information

100	The second secon	
Applicant	: TELEPHONE EST (HK) CO., LTD	,K
Address	Room709,7F, FuLi tianhe commercial building,Linhe East Road and tian district, Guangzhou, China	hte <sup>®</sup>
Manufacturer	: Telephone Est Electronics Factory(zhong shan)	*//.
Address	No.2, Heyuan, Lianfeng Road, Xiaolan Town, Zhongshan City, Guangdo China	ng,
Factory	: Telephone Est Electronics Factory(zhong shan)	<i>Y</i> -
Address	No.2, Heyuan, Lianfeng Road, Xiaolan Town, Zhongshan City, Guangdo China	ng,

# 1.2. Description of Device (EUT)

Product Name	:	QI Wireless Charger	stek Anbotek Anbotek Antotek
Model No.	:	MOV5001	nbotek Anbotek Anbotek Anbotek
Trade Mark	:	GOMOVI	Anbotek Anbotek Anbotek Anbotek
Test Power Supply	:	AC 120V, 60Hz for adapter	Anbotek Anbotek Anbotek Anbot
Test Sample No.	:	1-2-1(Normal Sample), 1-2-2(I	Engineering Sample)
		Operation Frequency:	110.1-205KHz
Product		Modulation Type:	MSK
Description	:	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: Samsung M/N: ETA-U90CBC S/N: RT6FB17ZS/B-E Input: 100-240V~ 50-60Hz, 0.35A Output: DC 5V, 2A	in the
Mobile Phone	:	iPhone tek Anbotek Anbotek Anbotek Anbotek	

Shenzhen Anbotek Compliance Laboratory Limited



Report No.: SZAWW190508006-02 FCC ID: 2ACE5-MOV5001 Page 5 of 12

### 1.4. Test Equipment List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1 tek	Magnetic field meter	NARDA	ELT-400	423623	Dec. 24, 2018	1 Year
1.mb2	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. Measurement Uncertainty

Radiation Uncertainty	:	Ur = 3.9 dB (Horizontal)	Auport Ar	anbotek Ar	ipotek An
P		Ur = 3.8 dB (Vertical)	Anboatek	nbotek	Anbote
		ek abotek Anbotek	k Anbo	Anbotek	Anbore
Conduction Uncertainty	:	Uc = 3.4 dB	re. Yup	ek Anbotek	Anboro

### 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

Hotline 400–003–0500 www.anbotek.com



Report No.: SZAWW190508006-02 FCC ID: 2ACE5-MOV5001

# 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/cm²)	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	/	/	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 <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

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).

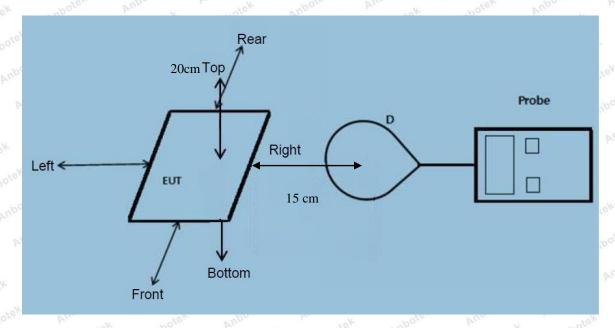
400-003-0500

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



Report No.: SZAWW190508006-02 FCC ID: 2ACE5-MOV5001 Page 7 of 12

### 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.

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.

Shenzhen Anbotek Compliance Laboratory Limited





Report No.: SZAWW190508006-02 FCC ID: 2ACE5-MOV5001

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

Temperature:	23.9°C	Relative Humidity:	54 %
Pressure:	1012 hPa	Test Voltage:	AC 120V, 60Hz for adapter

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

163		14	- 0	14.1	1.723	- 101	100	
Battery	Frequency	Test	Test	Test	Test	Test	Reference	Limits
	Range	Position	Position	Position	Position	Position	Limit	Test
power	(KHz)	Alek	Boote	C C	Nek D An	potek E P	(V/m)	(V/m)
Aupoten	Annabotek	Anbotel	Anbox	otek A	obotek	Aupoten	Anbu	Anbotek
1%	110.1-205	0.35	0.31	0.23	0.45	0.88	307	614
lek Pup	ok Ann	otek A	nbotek	Aupor tek	Al. hotek	Anbote	Aup.	ik an
botek P		abotek	Anbotek	Anbo	Anbot.	K Anb	ye. Aun	otek
50%	110.1-205	1.43	1.23	1.22	1.37	1.84	307	614
A nbotek	Anbore.	Anv	Anbote	k bupo	ASK DI.	abotek	Anboten	Anbo ntek
Anbotek		K 700	tek Ant	lotek A	ipo stek	anbotek.	Anboten	And
99%	110.1-205	2.27	2.15	2.54	2.39	2.34	307	614
atek Ai		ofer V	hotek hotek	Anbotek	Anboto	k VIII	lek Anbote	Ant
Ctond b	Anbotek	Anbole.	Andhotek	Anbotek	Anbos	rek by	botek Anb	oter I
Stand-b	110.1-205	0.32	0.48	0.52	0.35	0.66	307	614
Ant <b>y</b> tek	All	Anbotek	Anbore	otek Ar	potek 1	upote,	Ant	Anbotek

Shenzhen Anbotek Compliance Laboratory Limited



FCC ID: 2ACE5-MOV5001 Report No.: SZAWW190508006-02 Page 9

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

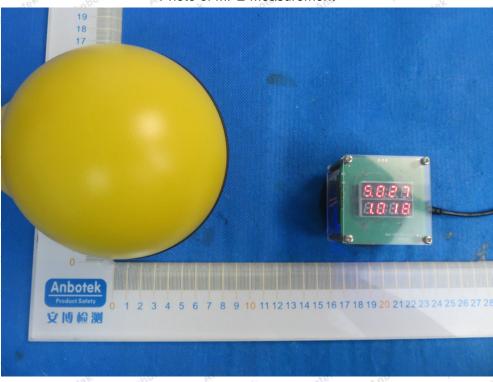
10.7		405	77			W. K. L.	· · · · · · · · · · · · · · · · · · ·	1.0
Battery	Frequency	Test	Test	Test	Test	Test	Reference	Limits
A.C.	Range	Position	Position	Position	Position	Position	Limit 1000	Test
power	(KHz)	AnbAen	An B motel	Canbot	K D Anbe	E Am	(A/m)	(A/m)
Anbo	Anbotek	Anbole	K PUL	kek Ant	otek A	100 P	anbotek	Anbote
1%	110.1-205	0.065	0.054	0.055	0.055	0.059	0.815	1.63
Aupo		kek Aul	oter A	no botek	Anbotek	Anboro	All. abotek	Anbo
ter Au	otek k	botek	Anboro	Ann	Anbotek	Anbot	ek abot	SK P
50%	110.1-205	0.26	0.45	0.53	0.37	0.49	0.815	1.63
Anbotek		Ai. abotek	Anboter	K Anbo	otek ar	botek A	pore An	botek
Anbotek	Anbo	Anbote	k Pupo	ie. Vur	hotek	Anbotek	Anbore	anbotek
99%	110.1-205	0.53	0.52	0.44	0.33	0.35	0.815	1.63
cek Ant	otek Anbo	ick bi	nbotek	Anboten	Anbasotek	Anbotek	Anboto	K An
vote <sup>k</sup>	Anbotek Ar	lpo otek	anbotek	Anbote	And	ek Anbo	ek Aupor	orek by
Stand-b	110.1-205	0.47	0.21	0.32	0.57	0.39	0.815	1.63
Anbotek		Anbor	k 200	ek Anb	ster An	orek k	Anbotek	anborek

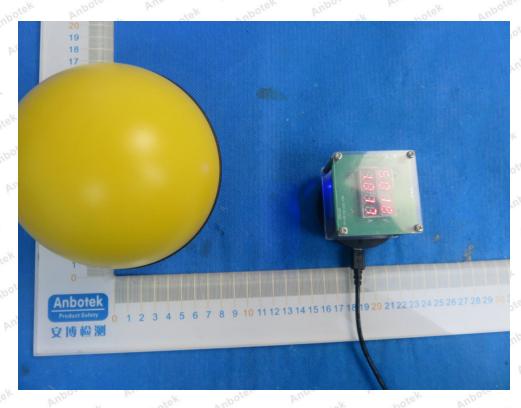


Report No.: SZAWW190508006-02 FCC ID: 2ACE5-MOV5001 Page 10 of 12

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

Photo of MPE Measurement

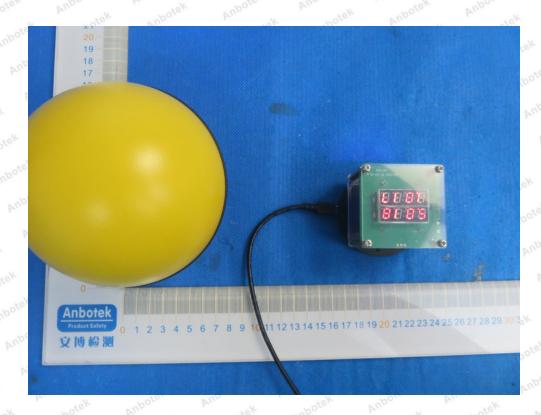


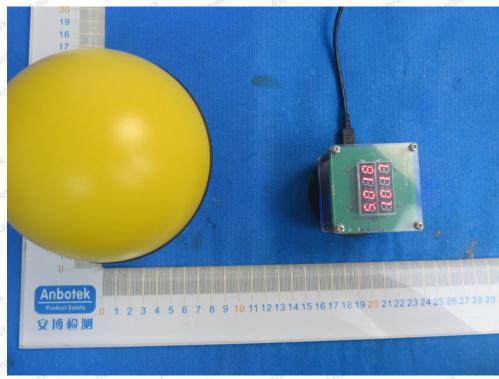


#### Shenzhen Anbotek Compliance Laboratory Limited



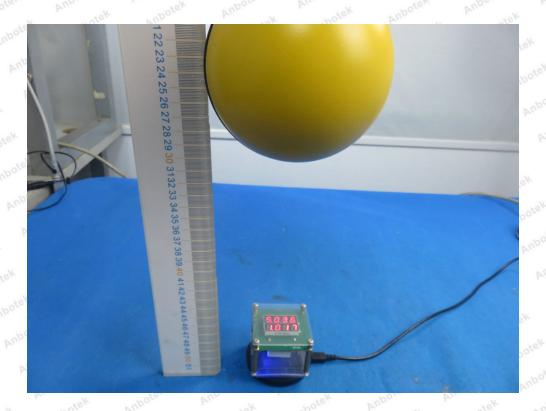
Report No.: SZAWW190508006-02 FCC ID: 2ACE5-MOV5001 Page 11 of 12







Report No.: SZAWW190508006-02 FCC ID: 2ACE5-MOV5001 Page 12 of 12



--- End of Report -----