

Shenzhen Anbotek Compliance Laboratory Limited FCC ID: 2AN8F-MSLM617Q Page 1 of 13 Report No.: SZAWW180524006-02

## FCC TEST REPORT

For

Shenzhen Mossloo Industrial Co.,Ltd Wireless powerbank Model No.: MSL-M617Q

Prepared For	Shenzhen Mossloo Industrial Co.,Ltd			
Address	Road One No.4, Science Industrial Park	k,Shangxue Vill	age, Bantian	
	Street,Longgang District, Shenzhen,Ch	ina <sub>Model</sub> k		

Prepared By
Address
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
The (80) 755 2000(440)
Free (80) 755 20014772

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

Report Number:SZAWW180524006-02Date of Test:May 24~Jun. 20, 2018Date of Report:Jun. 20, 2018



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## **TEST REPORT**

Applicant :	Shenzhen Mossloo Industrial Co.,Ltd
Manufacturer :	Shenzhen Mossloo Industrial Co.,Ltd
Product Name :	Wireless powerbank
Model No. :	MSL-M617Q
Trade Mark :	N.A. http://www.hites.
Rating(s) :	Input: DC 5V, 2A (with DC 3.7V, 5000 mAh Battery inside)
	USB Output: DC 5V, 2A
	Type-C Output: DC 5V, 2A
	Wireless 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 Test

May 24~Jun. 20, 2018

Prepared by

~otek

Reviewer



(Engineer / Oliay Yang)

(Supervisor / Calvin Liu)

Approved & Authorized Signer

(Manager / Tom Chen)

## 1. General Information

#### 1.1. Client Information

Anbote

Product Safety

Applicant	:	Shenzhen Mossloo Industrial Co.,Ltd
Address	:	Road One No.4, Science Industrial Park, Shangxue Village, Bantian Street, Longgang District, Shenzhen, China
Manufacturer	:	Shenzhen Mossloo Industrial Co.,Ltd
Address	:	Road One No.4, Science Industrial Park, Shangxue Village, Bantian Street, Longgang District, Shenzhen, China

#### **1.2. Description of Device (EUT)**

Product Name	:	Wireless powerbank	hotek Anboten Anbo tek nbotek
Model No.	:	MSL-M617Q	And Anbotek Anbotek Anbotek Anbotek
Trade Mark	:	N.A. Maden Ando	Anbotek Anboten Anbo botek Anbo
Test Power Supply	:	AC 120V, 60Hz for adapter / AC	240V, 60Hz for adapter/ DC 3.7V Battery inside
		Operation Frequency:	110-205KHz
		Number of Channel:	20 Channels
Product Description	:	Modulation Type:	MSK
Description		Antenna Type:	Loop Antenna
a		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.

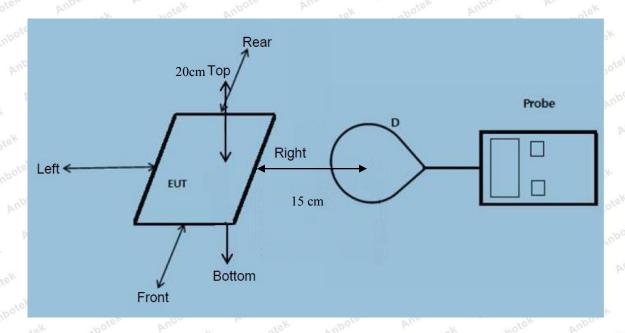
#### 1.3. Auxiliary Equipment Used During Test

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

### Anbotek Product Safety

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#### 1.6. 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

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#### 1.7. Test Equipment List

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	Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
ie.	<sup>6</sup> 1	Magnetic field meter	NARDA	ELT-400	423623	May 27, 2017	1 Year

#### 1.8. 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**

All Emissions tests were performed at Shenzhen Anbotek Compliance Laboratory Limited. at 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

Product Safety

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.

-					20
F	requency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
2		(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	I Population/Uncontrolle	d Exposure	10
	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

Limits For Maximum Permissible Exposure (MPE)

F=frequency in MHz

1500-100,000

=Plane-wave equivalent power density

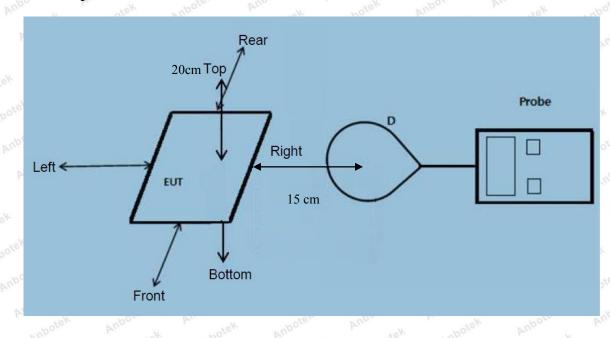
RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

1.0

30

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#### 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 from 110 KHz to 205 KHz

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

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between individual pairs of coils.

Product

- 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

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

Battery power	Frequency Range (KHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Referenc e Limit (V/m)	Limits Test (V/m)
K Anbotel	Anboten	12.1	otek A	botek	Anbore	Anbotek	Anbotek	Anbo
tex 1%	110~ 205	0.35	0.38	0.32	0.36	0.29	307	614
-otek	abotek Ar	100	botek	Anboten	Anbo	ek nbo	to bu	12
hotek	Anbotek	Anboto	Anobotek	Anbote	Anb.	botek Al	p-	Anbotek
50%	110~ 205	1.25	1.29	e* 1.33 prit	1.37	1 30	307	614
Ann	Anbotek	Anbor	Pri-	potek 1	1100	Anboten	h pabotek	Anbore
Any No	tek Anbol	ek Anb	Nex PI	abotek	Anbotek	Anboutek	Anbote	k Aupor
99%	110~ 205	2.55	2.46	2.32	2.41	2.37	307	614 M
nbotek Ar	10 hotek	anbotek	Anbou	An	6 Aupo	ek Anbo	tek n	nboten
Anboten	Andrek	Anbotek	Anboten	ek po	otek Ar	botek Ar	po stek	Anbotek
Stand-by	110~ 205	0.44	0.35	0.24	0.30	0.27	307	614
Anboten	And	an Ma	stek An	por p	notek	Anboten	Anbo	k wole



H-Field	Strength at	15 cm sur	rounding th	ne EUT and	1 20cm abo	ove the top s	urface of the	ne EUT
Dattami	Frequency	Test	Test	Test	Test	Test	Referenc	Limits
Battery	Range	Position	Position	Position	Position	Position	e	Test
power	(KHz)	Apoten	Binber	otek C	pote <sup>K</sup> D	E Sotek	Limit (A/m)	(A/m)
Annote		Anbo	otek n	nbotek	Anbote	Anupotek	Anbotek	Anbor
1%	110~205	0.087	0.094	0.085	0.086	0.092	0.815	1.63
the Ann	notek p	nbotek	Anbor	Aupotek	Anbote	Anb	otek ar	potek
hborn b		Anbotek	Anbo	k Anbot	ek Anb	ote. And	botek	Anbotek
50%	110~ 205	0.17	0.14	0.18	0.15	0.16	0.815	1.63
Anboten	Anotel	Anbot	ek Anb	Pro Pri	abotek	Anbotek	Anbo	Anbotel
Anbore		tek An	potek P	nbor	Anbotek	Anboten	Anus	ek Anb
<sup>6</sup> 99% m <sup>6</sup>	110~ 205	0.26	0.25	0.37	0.41	0.35	0.815	1.63
botek A		nbo notek	Anbotek	Anbote	An-	ptek Anbr	tek Ani	pot p
Anbotek	Anbotek	Anthotek	Anbotel	Anbor	atek Air	abotek A	nboten	Anbo
Stand-by	110~205	0.18	0.15	0.12 pm	0.16	0.17	0.815	1.63
Allabotek	Anboten	Anbo	otek	nbotek	Anboto	Anthotek	Anbotek	Anbor

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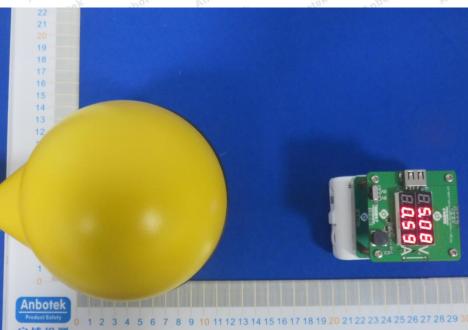
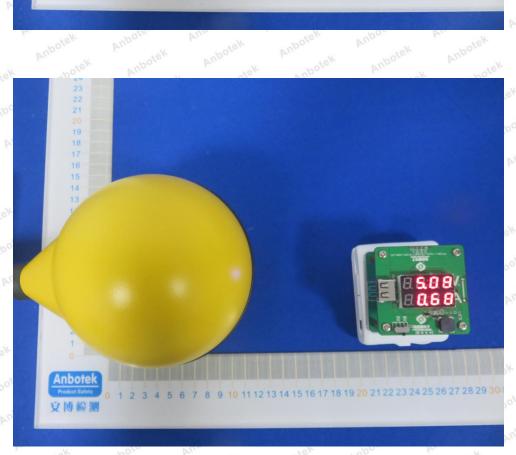


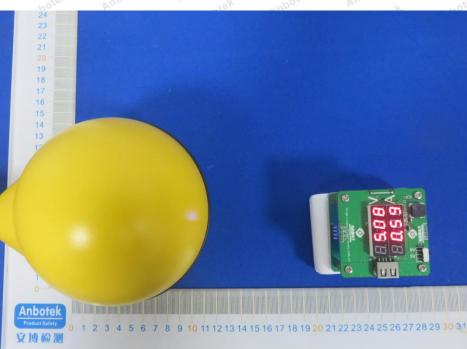
Photo of MPE Measurement

**APPENDIX I -- TEST SETUP PHOTOGRAPH** 

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Shenzhen Anbotek Compliance Laboratory Limited Tel:(86)755-26066440 Fax:(86)755-26014772 www.anb www.anbotek.com Anbo

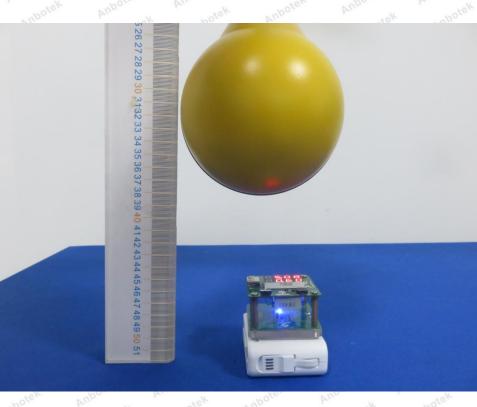




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Anbote





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