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FCC TEST REPORT

Client Name : Shenzhen Minsuo Industrial Co.,Ltd

12th floor, Block B, Tengyao Building, No. 268 Gushu 2nd

Address : road, Xixiang Town, Bao'an, Shenzhen, Guangdong,

China

Product Name : UNIVERSAL WIRELESS SQUARE CHARGING PAD

Date : Jul. 31, 2020

Shenzhen Anbotek

Shenzhen Anbotek

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Approved*

Laboratory Limited



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TEST REPORT

Applicant : Shenzhen Minsuo Industrial Co.,Ltd

Manufacturer : Shenzhen Minsuo Industrial Co.,Ltd

Product Name : UNIVERSAL WIRELESS SQUARE CHARGING PAD

Model No. : MP-132A, WC-12/1171, 16653

Trade Mark : N.A.

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

Wireless Output: 5W Max

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	Jun. 29, 2020
Date of Test	Jun. 29~Jul. 17, 2020
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Prepared By	Anbor And otek Anbores Anbo
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Reviewer	Her And Orek West Anbounds
	(Supervisor / Bibo Zhang)
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Approved & Authorized Signer	Andrek Anbore Andrew
	(Manager / Tom Chen)

Shenzhen Anbotek Compliance Laboratory Limited





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1. General Information

1.1. Client Information

Applicant	: Shenzhen Minsuo Industrial Co.,Ltd
Address	12th floor, Block B, Tengyao Building, No. 268 Gushu 2nd road, Xixiang Tow Bao'an, Shenzhen, Guangdong, China
Manufacturer	: Shenzhen Minsuo Industrial Co.,Ltd
Address	12th floor, Block B, Tengyao Building, No. 268 Gushu 2nd road, Xixiang Tow Bao'an, Shenzhen, Guangdong, China
Factory	: Shenzhen Minsuo Industrial Co.,Ltd
Address	12th floor, Block B, Tengyao Building, No. 268 Gushu 2nd road, Xixiang Tow Bao'an, Shenzhen, Guangdong, China

1.2. Description of Device (EUT)

Product Name	:	UNIVERSAL WIRELESS	SQUARE CHARGING PAD				
Model No.	:	MP-132A, WC-12/1171, (Note: All samples are the "MP-132A" for test only.)	16653 e same except the appearance color, so we prepare				
Trade Mark	:	N.A.	Anbotek Anbotek Anbotek Anbotek				
Test Power Supply	:	AC 120V, 60Hz for adapter 1-2-1(Normal Sample), 1-2-1(Engineering Sample)					
Test Sample No.	:						
		Operation Frequency:	110.1-205KHz				
Product		Modulation Type:	FSK Anborek Anborek Anborek				
Description	Ante	Antenna Type:	Inductive loop coil Antenna				
		Antenna Gain(Peak):	0 dBi Anbotek Anbotek Anbotek Anbotek				

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

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1.3. Auxiliary Equipment Used During Test

Adapter	:	Manufacturer: ZTE
		M/N: STC-A2050I1000USBA-C S/N: 201202102100876 Input: 100-240V~ 50/60Hz, 0.3A Output: DC 5V, 2000mA
Mobile Phone	:	iPhone 8

1.4. Test Equipment List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
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
3	H-Field Probe	Narda	HF3061	Q15835	Nov.17, 2017	3 Year

1.5. Measurement Uncertainty

Radiation Uncertainty	:	Ur = 3.9 dB (He	orizontal)	otek An	osek b	Anbotek Anbot
		Ur = 3.8 dB (Ve	ertical)	nboton	Anbo	Anbotek An
		Vupo, tek	nbotek	Anborer	Andhorel	Anbotek
Conduction Uncertainty	:	Uc = 3.4 dB	nbotek	Aupole	y Nun	rek 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.

Limits For Maximum Permissible Exposure (MPE)

		A. A. D.	DAY						
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm²)	Averaging time (minutes)					
(A) Limits for Occupational/Controlled Exposures									
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					
300-1500	1	1	f/300	6					
1500-100,000	/	1	5	6					
	(B) Limits for Genera	l Population/Uncontrolle	d 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					

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).

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Code: AB-RF-05-a

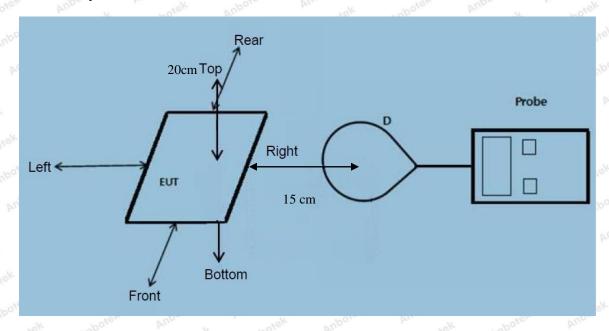
Hotline 400-003-0500 www.anbotek.com

^{*=}Plane-wave equivalent power density



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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 UNIVERSAL WIRELESS SQUARE CHARGING PAD
- 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:	23.6°C	Relative Humidity:	55%
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

Battery	Frequency	Test	Test	Test	Test	Test	Reference	Limits
power	Range	Position	Position	Position	Position	Position	Limit	Test
Anbore	(KHz)	ek A anb	oten B M	C	Dek	PIE OLO	(V/m)	(V/m)
tek Anb	ok And	notek p	nbotek	Aupo,	anbotek	Anbore	Vr Pur	ek A
1%	110.1~205	0.35	0.37	0.26	0.49	0.94	307	614
nbotek	Anboten	Andhorek	Anbotek	Pupo,	sek bi.	potek	rupoter AL	hotek
k. vapotek	Anbore	Ann	Anbot	Sk VUP	otok h.	anbotek	Anbore	Andhorek
50%	110.1~205	1.40	1.52	1.18	1.43	1.51	307	614
ek upc	tek Anboti	K And	worek.	Anbotek	Anbo.	Ar. nbotel	Anbore	K VUD
rek h	ibotek Ant	Joseph P	hotek	Anbotek	Vupo.	k vip	otek Anbot	W. D.
99%	110.1~205	2.35	2.54	2.40	2.46	2.58	307	614
Anbore	An	Anbotek	Anbo	k Anbo	lek Vul	or p	abotek	Anborek
Anbo. rek	anbotek	Anborer	Pur Pur	otek A	porsk	Aupo.	Aupotek	Anbore
Stand-by	110.1~205	0.44	0.36	0.72	0.48	0.52	307	614
ak Aupo,	Pir.	otek Ar	poter	inp. otek	anbotek	Anboro	ek whote	k Pu



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H-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	Reference Limit (A/m)	Limits Test (A/m)
ek Ant	lotek Yupe	rek b	nbotek	Anbore	Ann	Anbote	Aupo.	rek P
1%	110.1~205	0.041	0.052	0.045	0.043	0.066	0.815	1.63
Lotek	Anbotek	Aupor	Air	Anbore	K And	work p	abotek Ar	por
Anna	Anborek	Aupor	k 2000	lek but	Ole b	hotek	Anborek	Vupo.
50%	110.1~205	0.28	0.56	0.34	0.49	0.47	0.815	1.63
K Ano	otek Anbo	ek Aup	o, b	abotek	Aupote, -K	Andhorek	Anbotek	An
Y And	hotek Ar	potek p	upo.	hotek	Anbore	Y Vun	rek Anbol	SIC
99%	110.1~205	0.42	0.58	0.56	0.33	0.55	0.815	1.63
	Anbachek	Anbotek	Anboy	ek vp.	otek Ar	poter A	no rotek	Anbotek
Anboren	And	Anbotel	Aupo	*8/r	botek	Anboren	Aug	Anboy
Stand-by	110.1~205	0.27	0.24	0.78	0.32	0.33	0.815	1.63
Anbo	yen Anbo	tek	botek	Aupor	bu, potek	Anboten	And	J.



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APPENDIX I -- TEST SETUP PHOTOGRAPH

Photo of MPE Measurement





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