

Report No.: 18220WC10036702 FCC ID: 2AOKB-A2567 Page 1 of 12

# **FCC TEST REPORT**

Client Name : Anker Innovations Limited

Address Room 1318-19, Hollywood Plaza, 610 Nathan Road,

Mongkok, Kowloon, Hong Kong

Product Name : PowerWave Magnetic Pad Lite

Date : Apr. 12, 2021

Shenzhen Anbotek Compliance Laboratory Limited
\*Approved\*\*



Report No.: 18220WC10036702 FCC ID: 2AOKB-A2567 Page 2 of 12

## **Contents**

1. General Information			20,2	4
1.1. Client Information	Wpo <sub>te</sub> b		mbotek An	4
1.2. Description of Device (EUT)	botek	Pupo.	Hotek	Ant Ant
1.3. Auxiliary Equipment Used During Tes	t	anbote.	Ano	botek A
1.4. Test Equipment List		, hotek	Anbo	
1.5. Measurement Uncertainty	Aupo.		k Aupole	Ans tok
1.6. Description of Test Facility	stek Anbo	ye. Arr	Hoden Hon	Ambo
2. Measurement and Result		botek Ant		otek Anbore
2.1. Requirements	Upo	otek	rupose Vu	, dek Jobe
2.2. Test Setup	Anbore	br., rok	popoler I	
2.3. Test Procedure	poten	Anbo	, otek	
2.4. Test Result	doo!ek	Anbore	VII.	800 <sup>h@h</sup>
2.4.1. Equipment Approval Considerations	s item 5.b of	KDB 680106	D01 v03	s8
2.4.2. Environmental evaluation and exp	osure limit a	according to F	CC CFR 47 p	oart 1, 1.1307(b
1.1310	tootek Ar	po. by.	week and	1(
APPENDIX I TEST SETUP PHOTOGRAPH	etek.	adpose. b	ns you	



Report No.: 18220WC10036702 FCC ID: 2AOKB-A2567 Page 3 of 12

## TEST REPORT

Applicant : Anker Innovations Limited

Manufacturer : Anker Innovations Limited

Product Name : PowerWave Magnetic Pad Lite

Model No. : A2567

Trade Mark : ANKER

Rating(s) Input: DC 5V/3A, DC 9V/2A, DC 12V/2A

Wireless output: 5W, 7.5W, 10W

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	Mar. 03, 2021
Date of Test	Mar. 03~11, 2021
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Prepared By	tek nbotek Anbo Anbo Anbotek
	(Engineer /Ella Liang)
	Bila Chang
Reviewer	abotek Alba k All Lotek All
abotek Anbotes Anbotek Anbotek Anbo	(Supervisor / Bibo Zhang)
	King Kong Jin
Approved & Authorized Signer	hotek Anbotek
Anbotek Anbotek Anbotek	(Manager / Kingkong Jin)

**Shenzhen Anbotek Compliance Laboratory Limited** 





Report No.: 18220WC10036702 FCC ID: 2AOKB-A

## 1. General Information

## 1.1. Client Information

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Applicant	: Anker Innovations Limited	50
Address	Room 1318-19, Hollywood Plaza, 610 Nathan Road, Mongkok, Kowloon, Hongkong	An
Manufacturer	: Anker Innovations Limited	
Address	Room 1318-19, Hollywood Plaza, 610 Nathan Road, Mongkok, Kowloon, Hongkong	tek
Factory	: Gopod Group Holding Limited.	hote.
Address	4-5-6/F, Building 8 & 1F, Building 3#, LianJian Science and Technology Industrial Park, HuaRong Rd, Tongsheng Community, DaLang Street, LongHua District, Shenzhen	Ant

## 1.2. Description of Device (EUT)

Product Name	:	PowerWave Magnetic Pad L	ite Anborek Anbore
Model No.	:	A2567	Anboten Anbotek Anbotek An
Trade Mark	:	ANKER	otek Anborek Anborek Anborek
Test Power Supply	:	AC 120V, 60Hz for adapter	Anborek And Anborek Anborek Anborek
Test Sample No.		1-2-1(Normal Sample), 1-2-2	(Engineering Sample)
2		Operation Frequency:	111-205KHz
Product		Modulation Type:	FSK Anbotek Anbotek Anbotek
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.

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Report No.: 18220WC10036702 FCC ID: 2AOKB-A2567 Page 5 of 12

## 1.3. Auxiliary Equipment Used During Test

Adapter	:	M/N: A1540 Input: AC 100-240V, 0.75A, 50-60Hz Output: 14.5V=2A, 5.2V=2.4A	Anbotek Anbotek	Anbotek	Anbotek
Mobile Phone	:	iPhone 12	Anbo	k nbotek	Anbore

## 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. 24, 2018	3 Year
2	E-Field Probe	Narda	EF0391	Q15221	Nov.17, 2020	3 Year
3	H-Field Probe	Narda	HF3061	Q15835	Nov.17, 2020	3 Year

#### 1.5. Measurement Uncertainty

Radiation Uncertainty	:	Ur = 3.9 dB (Horizontal)
		Ur = 3.8 dB (Vertical)
8		hortek Anbore Anborek Anborek Anbo tek Ant
Conduction Uncertainty	:	Uc = 3.4 dB



Report No.: 18220WC10036702 FCC ID: 2AOKB-A2567 Page 6 of 12

#### 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 30, 2020.

#### 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, September 30, 2020.

#### **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

400-003-0500 www.anbotek.com



Report No.: 18220WC10036702 FCC ID: 2AOKB-A256

### 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
- 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	I	I	f/300	6
1500-100,000	1	1	5	6
	(B) Limits for Genera	l Population/Uncontrolle	ed Exposure	<b>.</b>
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	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).



Code: AB-RF-05-a

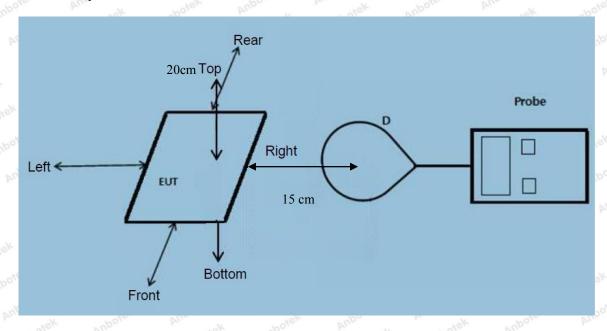
400-003-0500 www.anbotek.com

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



Report No.: 18220WC10036702 FCC ID: 2AOKB-A2567 Page 8 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. 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 10W.

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Report No.: 18220WC10036702 FCC ID: 2AOKB-A2567 Page 9 of 12

- 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 exposure conditions
- 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.



Report No.: 18220WC10036702 FCC ID: 2AOKB-A2567 Page 10 of 12

## 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:	52 %
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

	- 237		1.7	- 753	1/2/1	- 12		100
otek Anbi	Frequency	Test	Test	Test	Test	Test	Reference	Limits
Battery	Range	Position	Position	Position	Position	Position	Limit	Test
power	(KHz)	Anbor A	Botek	Cipotes	DAMB	otek E	(V/m)	(V/m)
An abotek	Anboten	Andhotek	Anbore	Anbe	rek An	nbotek	Anborer	And hotek
1%	111-205	0.32	0.41	0.36	0.37	0.49	307	614
ek Vpo	tek Anbore	Anb.	-otek	inbotek	Aupor	Ai.	Anboten	Anda
rek pr		lose. A	notek.	Anbotek	Vupo.	k Win	rek Anbore	r bu
50%	111-205	1.37	1.81	1.30	1.43	1.60	307	614
Anbore		Anbotek	Anbo	e anbo	ek Anb	ore V	abotek	upotek
Aupor	bu. upotek	Pupolei	TK PUD	otek ar	potek p	'upo,	Are abotek	Aupoter
99%	111-205	2.44	2.84	2.45	2.40	2.86	307	614
ek Aupo		otek An	potek P	inbo	anbotek	Anbore	ek Ana	e Anh
ootek An	bor bu	obořek	Aupoter	Pupp Polek	Anbotel	Aupo	sek vip	otek.
Stand-by	111-205	0.41	0.56	0.40	0.39	0.53	307	614
Anbotek	Anbore	Au	Aupoter	Anbu	otek p	nbotek	Anbore A	hotek



Report No.: 18220WC10036702 FCC ID: 2AOKB-A2567 Page 11 of 12

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

Battery	Frequency Range	Test Position	Test Position	Test Position	Test Position	Test Position	Reference Limit	Limits Test
power	(KHz)	A	otek B Ar	ootek C	D	Ant Erek	(A/m)	(A/m)
rek Anb	stek Anbo	rek A	opotek	Anboren	Anbotek	Anbotek	Aupor	K 511
1%	111-205	0.026	0.048	0.054	0.038	0.048	0.815	1.63
botek	Anbotek	Aupo, rek		Anbore.	Ant Ant	otek An	potek Ant	o.
And	Anborek	Anbo	, abot	anbo	ie Vu	hotek	Anbotek	iupo, otek
50%	111-205	0.29	0.38	0.28	0.28	0.45	0.815	1.63
ok Ann	tek Anbore	ik Anbo	-tek	abotek	Anbore	And	Anbotek	Anbo
ok An	hotek Ant	losek Ar	ipo stek	Anborek	Anbore	k Yur	k Anbote	b)
99%	111-205	0.53	0.71	0.60	0.42	0.41	0.815	1.63
Anbore	Ann	Anbotek		k who	ek Anb	Oto. Am	botek p	hbotek
Anbore	Andhotek	Anbotek	Anbo	rek no	potek p	inpose of	rus Potek	Anborek
Stand-by	111-205	0.58	0.40	0.50	0.62	0.48	0.815	1.63
K Anbo	Anu	Hek An	potek	iupo.	abotek.	Anbore	Anu	n'



Report No.: 18220WC10036702 FCC ID: 2AOKB-A2567 Page 12 of 12

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

Please refer to separated files for Test Setup Photos of the EUT.

----- End of Report -----