

Report No.: SZAWW190612004-02 FCC ID: 2AFDGJCBATTERY Page 1 of 13

FCC TEST REPORT

Client Name : SUNVALLEYTEK INTERNATIONAL, INC.

Address 46724 Lakeview Blvd, Fremont, California, United States

94538-6529

Product Name : Wireless Charging External Battery Pack

Date : Jul. 09, 2019

Shenzhen Anbotek Compliance Laboratory Limited



FCC ID: 2AFDGJCBATTERY Report No.: SZAWW190612004-02 Page 2

Contents

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



Report No.: SZAWW190612004-02 FCC ID: 2AFDGJCBATTERY Page 3 of 13

TEST REPORT

Applicant : SUNVALLEYTEK INTERNATIONAL, INC.

Manufacturer : Shenzhen NearbyExpress Technology Development Company Limited

Product Name : Wireless Charging External Battery Pack

Model No. : JCBATTERY, RP-PB167

Trade Mark : JUMPCHARG≡ RAVPOWER

Input: AC 120V, 60Hz for DC Power Supply, 2A

USB-A Output: 5Vdc, 2.4A

Rating(s) : Type-C Output: 5Vdc, 3A/ 9Vdc, 3A/ 15Vdc, 2A/ 20Vdc, 1.5A(Max)

Wireless Output: 10W Max

(with DC 5V, 24000mAh Battery inside)

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. 12, 2019	
Date of Test Jun. 12~28, 2019	
otek Anbo cak An Abar Andrew Andrew Andrew Andrew	
Anbotek 2 Oray Care	
Prepared By	stek P
Approved (Engineer / Oliay Yang)	-otek
Anbotek Anbotek Anbotek Anbotek Anbo	
Snavy Meng	
Reviewer	
(Supervisor / Snowy Meng)	P
Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek	
Approved & Authorized Signer	
(Manager Sally Zhang)	10,0

Shenzhen Anbotek Compliance Laboratory Limited



Report No.: SZAWW190612004-02

1. General Information

1.1. Client Information

Applicant	:	SUNVALLEYTEK INTERNATIONAL, INC.
Address	:	46724 Lakeview Blvd, Fremont, California, United States 94538-6529
Manufacturer	:	Shenzhen NearbyExpress Technology Development Company Limited
Address	:	333 Bulong Road, Jialianda Industrial Park, Building 1, Bantian, Longgang District, Shenzhen, China
Factory	:	Shenzhen NearbyExpress Technology Development Company Limited
Address	:	333 Bulong Road, Jialianda Industrial Park, Building 1, Bantian, Longgang District, Shenzhen, China

1.2. Description of Device (EUT)

181	_	100 401	told the state of						
Product Name	:	Wireless Charging External Ba	attery Pack						
Model No.	:	JCBATTERY, RP-PB167 (Note: All samples are the same except the model number, so we pre "JCBATTERY" for test only.)							
Trade Mark	:	: JUMPCHARGE RAVPOWER							
Test Power Supply	:	DC 5V battery inside	K Anbotek Anbotek Anbotek An						
Test Sample No.	:	1-2-1(Normal Sample), 1-2-2(Engineering Sample)						
		Operation Frequency:	111-205KHz						
Product		Modulation Type:	MSK MSK						
Description	:	Antenna Type:	Inductive loop coil Antenna						
		Antenna Gain(Peak):	0 dBi Anbotek Anbotek						
-10 Vh		- 16 PO PO DITT	18/4						

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

	4.7	6.77		- W		1,04.7	10.100		
n)	N/A		Anbotek	Anbore	Vy Yun	K Anbotel	Anbo	ek bu	obotek



Report No.: SZAWW190612004-02 FCC ID: 2AFDGJCBATTERY Page 5 of 13

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.: SZAWW190612004-02 FCC ID: 2AFDGJCBATTERY Page 6 of 13

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)

~ 111-	- K LAD DA	F 65.		47.							
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 ²)	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	l Population/Uncontrolle	ed 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).

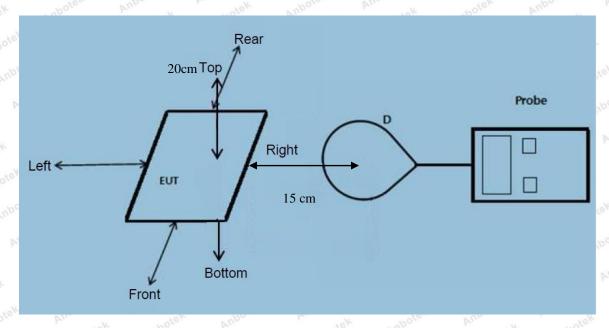
Hotline 400-003-0500

^{*=}Plane-wave equivalent power density



Report No.: SZAWW190612004-02 FCC ID: 2AFDGJCBATTERY Page 7 of 13

2.2. Test Setup



Note: Measurements should be made at 15 cm surrounding the EUT and 20cm above the top surface of the EUT.

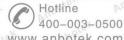
2.3. Test Procedure

- 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 111-205KHz.
- 2) Output power from each primary coil is less than 15 watts
 - The maximum output power of the primary coil is 10W.





Page 8 of 13 Report No.: SZAWW190612004-02 FCC ID: 2AFDGJCBATTERY

- 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.



Report No.: SZAWW190612004-02 Page 9 of 13

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:	DC 5V battery inside

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

AUR	181	upor	by	_V. 6	ofe, D.	100	*ex	20010
Battery	Frequency	Test	Test Test	Test	Test	Test	Reference	Limits
	Range	Position	Position	Position	Position	Position	Limit	Test
power	(KHz)	rek A Ant	B A	Cx	AntDiek	ÞÉ S	(V/m)	(V/m)
Dien Mu	otek N	botek	Aupore	Ant botek	Anbotek	Pupor	otek Anbo	Cek Ar
1%	111-205	0.35	0.33	0.29	0.45	0.43	307	614
Anbote	And	Anbotek	Anboro	ak ab	olek M	botek	Anbo otek A.	Anbotek
Anbole	k And hotek	Anbote	k Aupo	rek bi	nbotek	Amboten	Ando	Anbotek
50%	111-205	1.48	1.22	1.43	1.37	1.65	307	614
otek Ant	Jose And	motel ^k	mbotek	Aupor	A. botek	Anbote	Aup.	ek no
hbotek	Anbore. Ar	hotek	Anbotek	Anbor	k bi.	ek Anb	oten Anbo	otek
99%	111-205	2.24	2.52	2.41	2.33	2.63	307	614
Am		Anbo	K Anboi	ek Anb	ote. An	botek	Anbotek	Anborstek
Ctowall b	k Anbotes	-k Aug	otek An	potek P	upor	All	Anbotek	Vupo.
Stand-b y	111-205	0.37	0.48	0.53	0.41	0.48	307	614
FOK W.	abotek An	pote. P	in hotek	Anbotek	Aupore	ok No.	stek Anbot	Su Vul



Report No.: SZAWW190612004-02 Page 10 of 13 FCC ID: 2AFDGJCBATTER\

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

0.7		101		14	1-0	15.5	1.00	- 10
Battery	Frequency	Test	Test	Test	Test	Test	Reference	Limits
AK.	Range	Position	Position	Position	Position	Position	Limit noo	Test
power	(KHz)	Anb A	An B	Cambou	K D Anbo	E Ann	(A/m)	(A/m)
Anbountek	Anbotek	Aupole	K VIII	tek Ant	otek A	100° A	anbotek	Anboten
1%	111-205	0.044	0.054	0.075	0.043	0.057	0.815	1.63
Anbo	otek vupo	kek Ant	oter A	hotek	Anbotek	Anboto	Annabotek	Anbr
ten An	otek a	botek	Anbore	Annabotek	Anbotek	Anbo	lek vupot	A Ye
50%	111-205	0.26	0.47	0.56	0.36	0.42	0.815	1.63
Anbotek	Anboratek	Ai.	Anboten	Anbo K	otek Ar	potek A	Poce Vu	abotek
Anbotek	k Aupo	Anbote	k Anbo	te. And	botek	Anbotek	Anbor	Ar. abotek
99%	111-205	0.58	0.59	0.46	0.38	0.36	0.815	1.63
tek Ant	lotek Aupo	stek Air	nbotek	Anboten	Anbo	Anbotek	Anbore	K Ann
Stand-b	Anbotek Ar	loc stek	Anbotek	Anbote	And	ek Anbo	ek Anbor	Tek by
	111-205	0.43	0.23	0.32	0.47	0.32	0.815	1.63
Anbotek	Anbotek	Anbor	K Air	ek Anbi	ter An	orek Iv.	anbotek	Yupore - K

Code: AB-RF-05-a

www.anbotek.com



Report No.: SZAWW190612004-02 FCC ID: 2AFDGJCBATTERY Page 11 of 13

APPENDIX I -- TEST SETUP PHOTOGRAPH

Photo of MPE Measurement





Shenzhen Anbotek Compliance Laboratory Limited



Report No.: SZAWW190612004-02 FCC ID: 2AFDGJCBATTERY Page 12 of 13



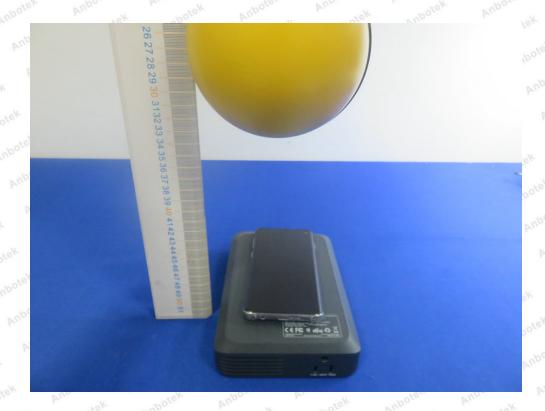


Shenzhen Anbotek Compliance Laboratory Limited

www.anbotek.com



Report No.: SZAWW190612004-02 FCC ID: 2AFDGJCBATTERY Page 13 of 13



--- End of Report -----