FCC TEST REPORT

FCC ID: 2AP2N-UPTM

On Behalf of

Shenzhen Esorun Technology Co., LTD

5 in 1 Magnetic Wireless Power Bank Station

Model No.: StandUP TM10000, StandUP TM20000

Prepared for	:	Shenzhen Esorun Technology Co., LTD
Address	:	Room 226, Building A, B, C, Zone B, Yuanfen Industrial Zone, Taoyuan Community, Dalang Street, Longhua District, Shenzhen

Prepared By	:	Shenzhen Alpha Product Testing Co., Ltd.
Address	:	Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

Report Number	:	A2307239-C03-R08
Date of Receipt	:	August 2, 2023
Date of Test	:	August 2, 2023-August 18, 2023
Date of Report	:	August 18, 2023
Version Number	:	V0

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TEST REPORT DECLARATION

Applicant	:	Shenzhen Esorun Technology Co., LTD
Address	:	Room 226, Building A, B, C, Zone B, Yuanfen Industrial Zone, Taoyuan Community, Dalang Street, Longhua District, Shenzhen
Manufacturer	:	Shenzhen Esorun Technology Co., LTD
Address	:	Room 226, Building A, B, C, Zone B, Yuanfen Industrial Zone, Taoyuan Community, Dalang Street, Longhua District, Shenzhen
EUT Description	:	5 in 1 Magnetic Wireless Power Bank Station
		(A) Model No. : StandUP TM10000, StandUP TM20000
		(B) Trademark : ESORUN

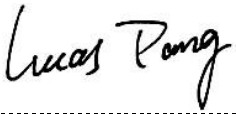
Measurement Standard Used:

FCC CFR Title 47 Part 15 Subpart C

FCC KDB 680106 D01 RF Exposure Wireless Charging Apps v03r01

The device described above is tested by Shenzhen Alpha Product Testing Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Shenzhen Alpha Product Testing Co., Ltd. is assumed full responsibility for the accuracy and completeness test. Also, this report shows that the EUT is technically compliant with the KDB 680106 D01 requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen Alpha Product Testing Co., Ltd.

Tested by (name + signature).....…..:	Lucas Pang Project Engineer	
Approved by (name + signature)…....:	Reak Yang Project Manager	
Date of issue……..:	August 18, 2023	

Revision History

Revision	Issue Date	Revisions	Revised By
V0	August 18, 2023	Initial released Issue	Lucas Pang

1. Test Result Summary

Requirement	CFR 47 Section	Result
RF EXPOSURE	§1.1307(b)(1) & KDB680106	PASS

Note:

1. PASS: Test item meets the requirement.

2. Fail: Test item does not meet the requirement.

3. N/A: Test case does not apply to the test object.

4. The test result judgment is decided by the limit of test standard.

5. Decision rules for the conclusion of this test report: decision by actual test data without considering measurement uncertainty.

2. EUT Description

2.1. Description of Device (EUT)

EUT Name	:	5 in 1 Magnetic Wireless Power Bank Station
Model No.	:	StandUP TM10000, StandUP TM20000
DIFF.	:	There is no difference except the name of the model. All tests are made with the StandUP TM10000 model.
Power supply	:	DC 5V/9V from adapter with AC 120V/60Hz, DC 3.7V from battery Type-C Input: 5V⎓2.6A, 9V⎓2A Micro USB Input: 5V⎓2A, 9V⎓2A USB-A Output: 5V⎓3A, 9V⎓2A, 12V⎓1.5A Type-C Output: 5V⎓2.4A, 9V⎓2.22A, 12V⎓1.67A Wireless Output: 5W, 7.5W, 10W, 15W Airpods Output: 5W iWatch Output: 2W Simultaneous Output: 5V⎓3A
Radio Technology	:	Wireless power transmission systems
Operation frequency(MHz)	:	115-205KHz, 325KHz
Modulation	:	MSK
Antenna Type	:	Coil Antenna, Maximum Gain is 0dBi(This value is supplied by applicant).
Connector cable loss	:	0.5dB (This value is supplied by applicant).
Software version	:	V1.0
Hardware version	:	V1.0

Conditions requirement	Answers
Power transfer frequency is less than 1MHz.	After measuring the product the transfer frequency is 115-205KHz, 325KHz
Output power from each primary coil is less than or equal to 15 watts.	After measuring the product the each primary coil power is 15 watts
The system may consist of more than one source primary coils, charging one or more clients. If more than one primary coil is present, the coil pairs may be powered on at the same time.	The transfer system includes 3 pairs of primary. and they can be powered on at the same time.
Client device is placed directly in contact with the transmitter.	Client device is placed directly in contact with the transmitter.
Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).	Mobile exposure conditions only.
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.	After measuring the product the Max H-field Strength is 0.689A/m and the Max E-field Strength is 10.84V/m Far less than 50% of the MPE limit.

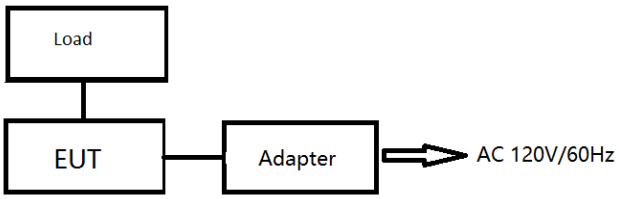
2.2. Accessories of Device (EUT)

Accessories	:	USB Cable
Manufacturer	:	Shenzhen Esorun Technology Co., LTD
Model	:	1.5m
specifications	:	1.5m

2.3. Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number	Certification or SDoC
1	Adapter	XinSPower	BS-CH905	N/A	N/A
2	Wireless Load	N/A	N/A	N/A	N/A
3	Wireless Load	N/A	N/A	N/A	N/A
4	Wireless Load	N/A	N/A	N/A	N/A

2.4. Block Diagram of connection between EUT and simulators



2.5. Description of Test Modes

Mode	Test mode description
1	Discharging(Wireless output: 15W)
2	Discharging(Wireless output: 5W)
3	Discharging(Airpods output: 5W)
4	Discharging(iWatch output: 2W)
5※	Discharging(Wireless output: 10W+Airpods output: 5W+iWatch output: 2W)
6	Discharging(Wireless output: 15W+iWatch output: 2W)
7	Charging(Type-C) and Discharging (Wireless output: 5W)
8	Charging(Type-C) and Discharging (Airpods output: 5W)
9	No Load
Note: 1.The report has conducted transmission tests on multifunctional multiple antennas and reflects the worst mode data 2. ※ is worst case mode for test.	

2.6. Test Conditions

Items	Required	Actual
Temperature range:	15-35℃	24℃
Humidity range:	25-75%	56%
Pressure range:	86-106kPa	98kPa

2.7. Test Facility

Shenzhen Alpha Product Testing Co., Ltd
Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

June 21, 2018 File on Federal Communication Commission
Registration Number: 293961

July 15, 2019 Certificated by IC
Registration Number: 12135A

2.8. Measurement Uncertainty

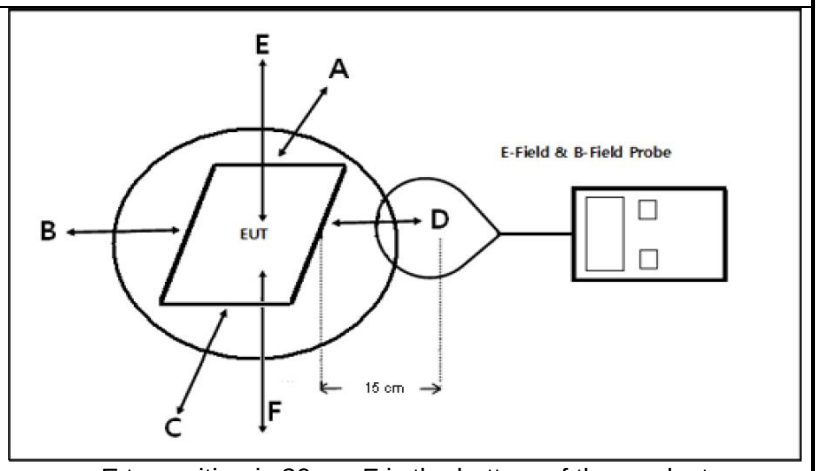
(95% confidence levels, k=2)

Item	**Uncertainty**
Uncertainty for H-Field	2.39dB
Uncertainty for E-Field	2.45dB
Uncertainty for conducted RF Power	0.65dB
Uncertainty for temperature	0.2°C
Uncertainty for humidity	1%
Uncertainty for DC and low frequency voltages	0.06%

3. Test Results and Measurement Data

3.1. RF EXPOSURE TEST

3.1.1. Test Specification

Test Requirement:	**FCC Rules and Regulations KDB680106**
Test Method:	§1.1307(b)(1) & KDB680106
Limits:	According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines. According to §1.1310 and §2.1093 RF exposure is calculated. According KDB680106 D01v03r01: RF Exposure Wireless Charging.
Test Setup:	 E to position is 20cm, F is the bottom of the product
Test Mode:	Transmitting Mode
Test Procedure:	1. The RF exposure test was carried out on a non-metallic table top 80cm high in the shielding darkroom. 2. The measurement probe was placed at test distance (0cm ,2cm, 4cm, 6cm, 8cm, 10cm,15 cm or 20 cm for Top side) which is between the edge of the charger and the geometric centre of probe. 3. The test time is maintained for more than one minute. 4. The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E, F) were completed. 5. The EUT were measured according to the dictates of KDB 680106 D01v03r01. 6. H-field strengths levels should less than 50% of MPE limit. 7. Mobile phone will been charge at zero charge, intermediate charge, and full charge.
Test Result:	PASS

3.1.2. Test Instruments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Exposure Level Tester	narda	ELT-400	N-0231	2022.08.30	1 Year
2	Magnetic field probe 100cm2	narda	ELT probe 100cm2	M0675	2022.08.30	1 Year
3	Isotropic Electric Field Probe	narda	EP-601	511WX60706	2022.08.30	1 Year

3.1.3. Test data

Worst Test Mode: Discharging(Wireless output: 10W+Airpods output: 5W+iWatch output: 2W)
H-field strengths levels should less than 50% of MPE limit.

Operation frequency(MHz)	Test Distance (cm)	Test Position	Probe Measure Result(A/m)			50% Limit (A/m)
			10% charge	50% charge	90% charge	
0.115-0.205, 0.326	0	A	0.643	0.643	0.654	0.815
		B	0.653	0.653	0.616	0.815
		C	0.638	0.638	0.597	0.815
		D	0.641	0.641	0.620	0.815
		E	**0.689**	0.686	0.688	0.815
		F	0.616	0.616	0.598	0.815

Operation frequency(MHz)	Test Distance (cm)	Test Position	Probe Measure Result(A/m)			50% Limit (A/m)
			10% charge	50% charge	90% charge	
0.115-0.205, 0.326	2	A	0.635	0.626	0.616	0.815
		B	0.639	0.605	0.624	0.815
		C	0.622	0.625	0.598	0.815
		D	0.622	0.617	0.615	0.815
		E	0.665	0.645	0.665	0.815
		F	0.617	0.581	0.602	0.815

Operation frequency(MHz)	Test Distance (cm)	Test Position	Probe Measure Result(A/m)			50% Limit (A/m)
			10% charge	50% charge	90% charge	
0.115-0.205, 0.326	4	A	0.609	0.619	0.588	0.815
		B	0.603	0.612	0.612	0.815
		C	0.584	0.567	0.558	0.815
		D	0.605	0.578	0.565	0.815
		E	0.642	0.646	0.634	0.815
		F	0.581	0.574	0.561	0.815

Operation frequency(MHz)	Test Distance (cm)	Test Position	Probe Measure Result(A/m)			50% Limit (A/m)
			10% charge	50% charge	90% charge	
0.115-0.205, 0.326	6	A	0.582	0.573	0.580	0.815
		B	0.590	0.592	0.587	0.815
		C	0.576	0.580	0.556	0.815
		D	0.581	0.557	0.571	0.815
		E	0.627	0.612	0.622	0.815
		F	0.569	0.574	0.575	0.815

Operation frequency(MHz)	Test Distance (cm)	Test Position	Probe Measure Result(A/m)			50% Limit (A/m)
			10% charge	50% charge	90% charge	
0.115-0.205, 0.326	8	A	0.562	0.559	0.546	0.815
		B	0.555	0.539	0.519	0.815
		C	0.536	0.518	0.535	0.815
		D	0.539	0.558	0.517	0.815
		E	0.585	0.591	0.557	0.815
		F	0.533	0.510	0.535	0.815

Operation frequency(MHz)	Test Distance (cm)	Test Position	Probe Measure Result(A/m)			50% Limit (A/m)
			10% charge	50% charge	90% charge	
0.115-0.205, 0.326	10	A	0.515	0.498	0.504	0.815
		B	0.512	0.498	0.490	0.815
		C	0.487	0.475	0.454	0.815
		D	0.492	0.504	0.475	0.815
		E	0.546	0.533	0.539	0.815
		F	0.474	0.477	0.481	0.815

Operation frequency(MHz)	Test Distance (cm)	Test Position	Probe Measure Result(A/m)			50% Limit (A/m)
			10% charge	50% charge	90% charge	
0.115-0.205, 0.326	15	A	0.464	0.449	0.444	0.815
		B	0.446	0.436	0.461	0.815
		C	0.442	0.447	0.442	0.815
		D	0.436	0.451	0.411	0.815
		F	0.492	0.494	0.484	0.815

Operation frequency(MHz)	Test Distance (cm)	Test Position	Probe Measure Result(A/m)			50% Limit (A/m)
			10% charge	50% charge	90% charge	
0.115-0.205, 0.326	20	E	0.419	0.394	0.400	0.815

E-field strengths levels should less than 50% of MPE limit.

Operation frequency(MHz)	Test Distance (cm)	Test Position	Probe Measure Result(V/m)			50% Limit (V/m)
			10% charge	50% charge	90% charge	
0.115-0.205, 0.326	0	A	10.17	10.17	9.96	307
		B	10.26	10.26	10.11	307
		C	10.04	10.04	9.81	307
		D	10.13	10.13	10.23	307
		E	**10.84**	10.83	10.83	307
		F	9.94	9.94	9.93	307

Operation frequency(MHz)	Test Distance (cm)	Test Position	Probe Measure Result(V/m)			50% Limit (V/m)
			10% charge	50% charge	90% charge	
0.115-0.205, 0.326	2	A	10.04	10.05	10.05	307
		B	10.17	10.15	10.17	307
		C	9.99	10.00	9.97	307
		D	10.09	10.07	10.07	307
		E	10.85	10.82	10.84	307
		F	9.92	9.90	9.91	307

Operation frequency(MHz)	Test Distance (cm)	Test Position	Probe Measure Result(V/m)			50% Limit (V/m)
			10% charge	50% charge	90% charge	
0.115-0.205, 0.326	4	A	9.79	9.79	9.76	307
		B	9.93	9.92	9.91	307
		C	9.75	9.73	9.74	307
		D	9.83	9.83	9.84	307
		E	10.58	10.59	10.58	307
		F	9.68	9.66	9.68	307

Operation frequency(MHz)	Test Distance (cm)	Test Position	Probe Measure Result(V/m)			50% Limit (V/m)
			10% charge	50% charge	90% charge	
0.115-0.205, 0.326	6	A	9.45	9.44	9.45	307
		B	9.57	9.57	9.55	307
		C	9.41	9.39	9.38	307
		D	9.49	9.49	9.48	307
		E	10.25	10.23	10.24	307
		F	9.32	9.33	9.33	307

Operation frequency(MHz)	Test Distance (cm)	Test Position	Probe Measure Result(V/m)			50% Limit (V/m)
			10% charge	50% charge	90% charge	
0.115-0.205, 0.326	8	A	8.95	8.92	8.92	307
		B	9.09	9.08	9.08	307
		C	8.91	8.90	8.89	307
		D	8.99	8.99	8.99	307
		E	9.73	9.74	9.70	307
		F	8.81	8.82	8.80	307

Operation frequency(MHz)	Test Distance (cm)	Test Position	Probe Measure Result(V/m)			50% Limit (V/m)
			10% charge	50% charge	90% charge	
0.115-0.205, 0.326	10	A	8.34	8.34	8.33	307
		B	8.48	8.45	8.46	307
		C	8.30	8.30	8.29	307
		D	8.39	8.38	8.38	307
		E	9.13	9.13	9.15	307
		F	8.22	8.21	8.21	307

Operation frequency(MHz)	Test Distance (cm)	Test Position	Probe Measure Result(V/m)			50% Limit (V/m)
			10% charge	50% charge	90% charge	
0.115-0.205, 0.326	15	A	7.65	7.65	7.62	307
		B	7.77	7.78	7.74	307
		C	7.59	7.58	7.56	307
		D	7.69	7.69	7.65	307
		F	8.44	8.42	8.45	307

Operation frequency(MHz)	Test Distance (cm)	Test Position	Probe Measure Result(V/m)			50% Limit (V/m)
			10% charge	50% charge	90% charge	
0.115-0.205, 0.326	20	E	6.86	6.86	6.84	307

4. Photos of test setup

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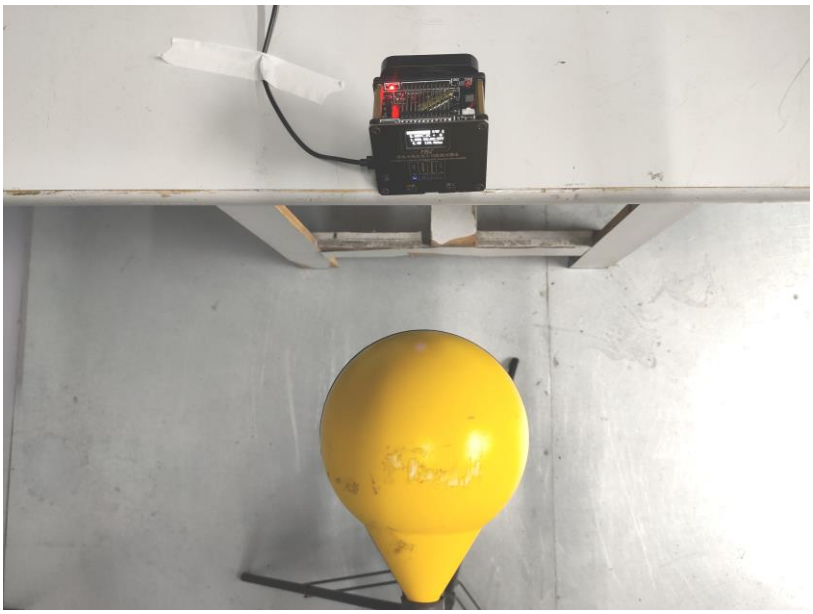

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