FCC TEST REPORT

FCC ID: 2A6QM-WSC05-121

On Behalf of

Shenzhen Romoss Technology Co.,Ltd

Wireless Power Bank

Model No.: WSC05-121

Prepared for	:	Shenzhen Romoss Technology Co.,Ltd
Address	:	Room1601, BLOCK B, Building 7,Shenzhen International Innovation Valley, Dashi 1st Road Xili community, Xili Street, Nanshan , Shenzhen , Guangdong, P.R.China

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	:	A2304144-C01-R01
Date of Receipt	:	April 22, 2023
Date of Test	:	April 22, 2023–April 23, 2023
Date of Report	:	April 23, 2023
Version Number	:	V0

TABLE OF CONTENTS

Description **Page**

TEST REPORT DECLARATION

Applicant	:	Shenzhen Romoss Technology Co.,Ltd
Address	:	Room1601, BLOCK B, Building 7,Shenzhen International Innovation Valley, Dashi 1st Road Xili community, Xili Street, Nanshan , Shenzhen , Guangdong, P.R.China
Manufacturer	:	Shenzhen Vaco New Material Technology Co.,Ltd
Address	:	Room 40109, building 1,Huahan Science and Technology Industrial Park, 19 Qiyun West Road, Heping Community, Pingshan Street, Pingshan district, Shenzhen City
EUT Description	:	Wireless Power Bank
		(A) Model No. : WSC05-121
		(B) Trademark : N/A

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).....:	Yannis Wen Project Engineer	
Approved by (name + signature).....:	Reak Yang Project Manager	
Date of issue..... .....:	April 23, 2023	

Revision History

Revision	Issue Date	Revisions	Revised By
V0	April 23, 2023	Initial released Issue	Yannis Wen

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.

2. EUT Description

2.1. Description of Device (EUT)

EUT Name	:	Wireless Power Bank
Model No.	:	WSC05-121
DIFF.	:	N/A
Trademark	:	N/A
Power supply	:	Power from adapter DC 3.85V from battery
EUT information	:	Input : 5V ⎓ 2A or 9V ⎓ 2A (Type-C) Output : 5V ⎓ 2A or 9V ⎓ 2A (Type-C) Wireless Output : 10W (Max)
Operation frequency	:	110~205KHz
Modulation	:	ASK
Antenna Type	:	Coil Antenna, Maximum Gain is 0dBi (This value is supplied by applicant).
Software version	:	MCU/CMS8S6990/WSC05/MOYI
Hardware version	:	WSC05-SW6201+SC5001-V1.3/20221122
Intend use environment	:	Residential, commercial and light industrial environment

The EUT does comply with section 5 b) of KDB 680106 D01 RF Exposure Wireless charging App V03r01.

Conditions requirement	Answers
Power transfer frequency is less than 1 MHz.	After measuring the product the transfer frequency is 0.110-0.205MHz
Output power from each primary coil is less than or equal to 15 watts.	After measuring the product the each primary coil power is 10 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 only include one primary.
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).	Portable exposure conditions
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 0.794A/m Far less than 50% of the MPE limit.

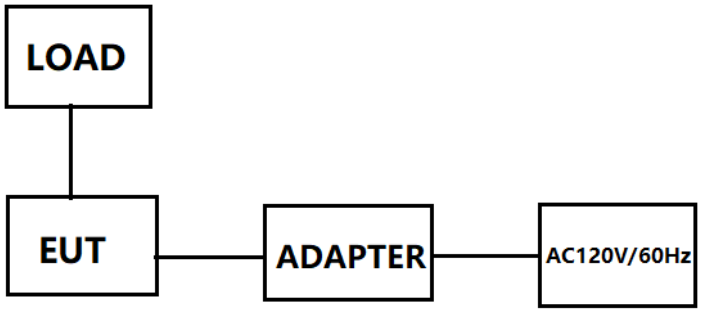
2.2. Accessories of Device (EUT)

Accessories1 : Cable
Manufacturer : Shenzhen Romoss Technology Co.,Ltd
Model : /
Ratings : /

2.3. Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number	Certification
1	Wireless load	--	--	--	--

2.4. Block Diagram of Connection between EUT and Simulators



2.5. Description of Test Modes

Channel	Frequency (KHz)
1	128

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: CN0085

2.8. Measurement Uncertainty

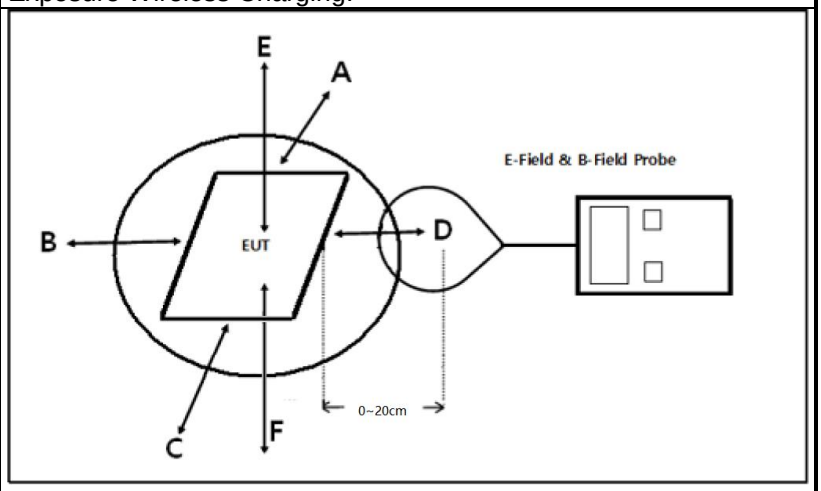
(95% confidence levels, k=2)

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℃
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:	
Test Mode:	Wireless charging load has been charge at no load, middle load and full load. All test modes were pre-tested, but we only recorded the worse case in this report.
Test Procedure:	1. The RF exposure test was performed in shielded chamber 2. The measurement probe was placed at test distance(0~20cm) , step by 2cm, which is between the edge of the charger and the geometric centre of probe. 3. The measurement probe used to search of highest strength. 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 DR03-44118.
Test Result:	PASS

3.1.2. Test Instruments

Item	Equipment	Manufacturer	Model No.	Firmware version	Serial No.	Last Cal.	Cal. Due day
1	Exposure Level Tester	narda	ELT-400	/	N-0231	2022.08.30	2023.08.29
2	Magnetic field probe 100cm2	narda	ELT probe 100cm2	/	M0675	2022.08.30	2023.08.29
3	Isotropic Electric Field Probe	narda	EP-601	/	511WX60706	2022.08.30	2023.08.29

3.1.3. Test data

For Full load mode:

H-Filed Strength

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	0	A	0.785	0.815
		B	0.794	0.815
		C	0.791	0.815
		D	0.734	0.815
		E	0.788	0.815
		F	0.781	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	2	A	0.784	0.815
		B	0.788	0.815
		C	0.798	0.815
		D	0.730	0.815
		E	0.780	0.815
		F	0.786	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	4	A	0.785	0.815
		B	0.789	0.815
		C	0.792	0.815
		D	0.730	0.815
		E	0.784	0.815
		F	0.776	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	6	A	0.783	0.815
		B	0.786	0.815
		C	0.790	0.815
		D	0.738	0.815
		E	0.779	0.815
		F	0.785	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	8	A	0.780	0.815
		B	0.790	0.815
		C	0.793	0.815
		D	0.731	0.815
		E	0.787	0.815
		F	0.783	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	10	A	0.782	0.815
		B	0.794	0.815
		C	0.790	0.815
		D	0.733	0.815
		E	0.779	0.815
		F	0.776	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	12	A	0.716	0.815
		B	0.710	0.815
		C	0.709	0.815
		D	0.700	0.815
		E	0.707	0.815
		F	0.697	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	14	A	0.709	0.815
		B	0.712	0.815
		C	0.712	0.815
		D	0.697	0.815
		E	0.707	0.815
		F	0.696	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	16	A	0.708	0.815
		B	0.713	0.815
		C	0.714	0.815
		D	0.697	0.815
		E	0.704	0.815
		F	0.700	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	18	A	0.710	0.815
		B	0.698	0.815
		C	0.708	0.815
		D	0.696	0.815
		E	0.699	0.815
		F	0.697	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	20	A	0.704	0.815
		B	0.697	0.815
		C	0.708	0.815
		D	0.696	0.815
		E	0.699	0.815
		F	0.694	0.815

For Half load mode:

H-Filed Strength

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	0	A	0.784	0.815
		B	0.790	0.815
		C	0.768	0.815
		D	0.784	0.815
		E	0.780	0.815
		F	0.779	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	2	A	0.785	0.815
		B	0.787	0.815
		C	0.771	0.815
		D	0.783	0.815
		E	0.783	0.815
		F	0.777	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	4	A	0.782	0.815
		B	0.793	0.815
		C	0.761	0.815
		D	0.782	0.815
		E	0.783	0.815
		F	0.778	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	6	A	0.785	0.815
		B	0.788	0.815
		C	0.769	0.815
		D	0.787	0.815
		E	0.787	0.815
		F	0.773	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	8	A	0.783	0.815
		B	0.793	0.815
		C	0.764	0.815
		D	0.779	0.815
		E	0.784	0.815
		F	0.778	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	10	A	0.741	0.815
		B	0.766	0.815
		C	0.731	0.815
		D	0.749	0.815
		E	0.751	0.815
		F	0.748	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	12	A	0.743	0.815
		B	0.770	0.815
		C	0.730	0.815
		D	0.750	0.815
		E	0.757	0.815
		F	0.748	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	14	A	0.741	0.815
		B	0.770	0.815
		C	0.728	0.815
		D	0.749	0.815
		E	0.751	0.815
		F	0.740	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	16	A	0.743	0.815
		B	0.773	0.815
		C	0.729	0.815
		D	0.757	0.815
		E	0.752	0.815
		F	0.747	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	18	A	0.700	0.815
		B	0.695	0.815
		C	0.694	0.815
		D	0.702	0.815
		E	0.706	0.815
		F	0.688	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	20	A	0.699	0.815
		B	0.696	0.815
		C	0.697	0.815
		D	0.707	0.815
		E	0.708	0.815
		F	0.684	0.815

For No load mode:
H-Filed Strength

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	0	A	0.779	0.815
		B	0.794	0.815
		C	0.792	0.815
		D	0.787	0.815
		E	0.710	0.815
		F	0.789	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	2	A	0.774	0.815
		B	0.795	0.815
		C	0.791	0.815
		D	0.782	0.815
		E	0.702	0.815
		F	0.790	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	4	A	0.776	0.815
		B	0.785	0.815
		C	0.793	0.815
		D	0.788	0.815
		E	0.703	0.815
		F	0.788	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	6	A	0.774	0.815
		B	0.795	0.815
		C	0.794	0.815
		D	0.784	0.815
		E	0.709	0.815
		F	0.795	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	8	A	0.777	0.815
		B	0.795	0.815
		C	0.795	0.815
		D	0.787	0.815
		E	0.704	0.815
		F	0.786	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	10	A	0.780	0.815
		B	0.791	0.815
		C	0.790	0.815
		D	0.786	0.815
		E	0.703	0.815
		F	0.787	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	12	A	0.747	0.815
		B	0.736	0.815
		C	0.737	0.815
		D	0.738	0.815
		E	0.702	0.815
		F	0.745	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	14	A	0.752	0.815
		B	0.737	0.815
		C	0.741	0.815
		D	0.743	0.815
		E	0.708	0.815
		F	0.741	0.815

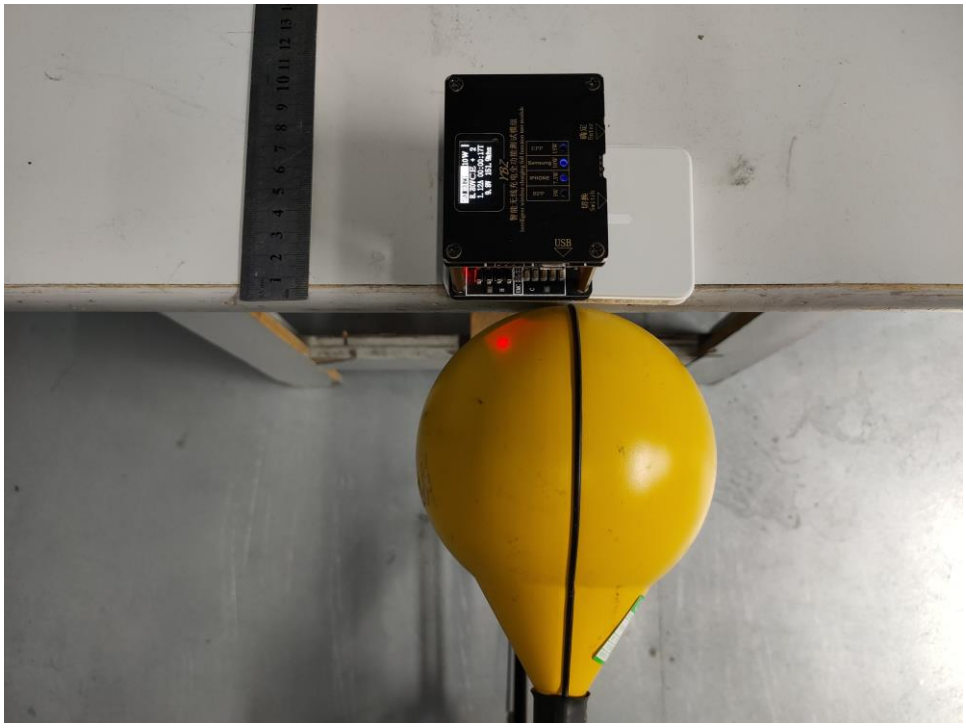
Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	16	A	0.747	0.815
		B	0.734	0.815
		C	0.745	0.815
		D	0.747	0.815
		E	0.701	0.815
		F	0.743	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	18	A	0.750	0.815
		B	0.743	0.815
		C	0.743	0.815
		D	0.738	0.815
		E	0.708	0.815
		F	0.735	0.815

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
110K-205K	20	A	0.698	0.815
		B	0.706	0.815
		C	0.708	0.815
		D	0.701	0.815
		E	0.711	0.815
		F	0.707	0.815

4. Photos of test setup

For Full load mode

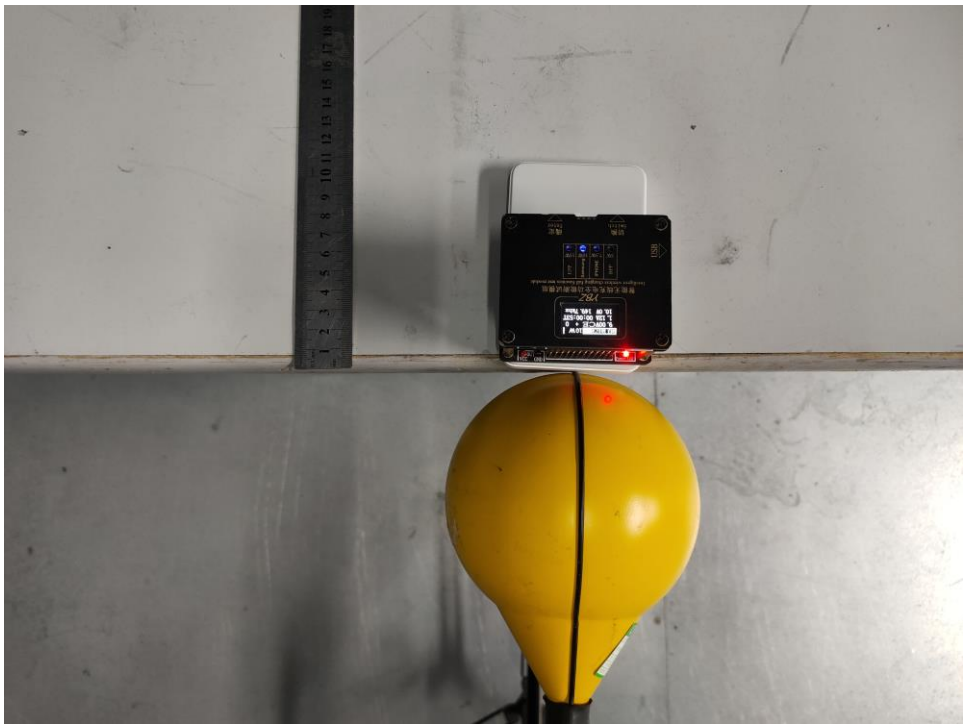


0cm A Position

For No load mode

0cm A Position

For Full load mode



0cm B Position

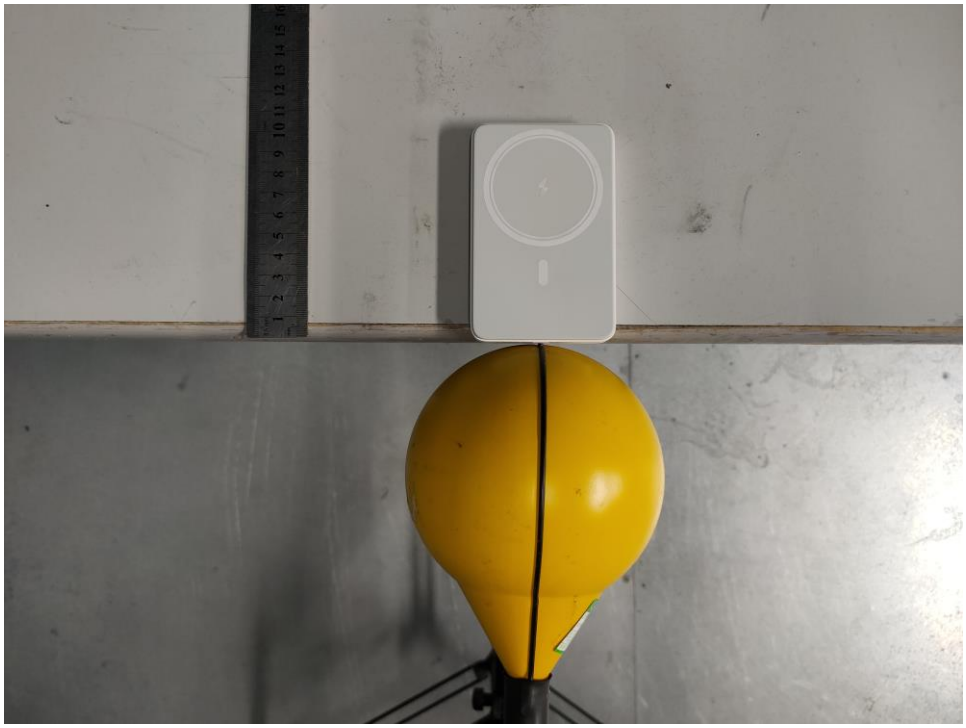
For No load mode

0cm B Position

For Full load mode

0cm C Position

For No load mode



0cm C Position

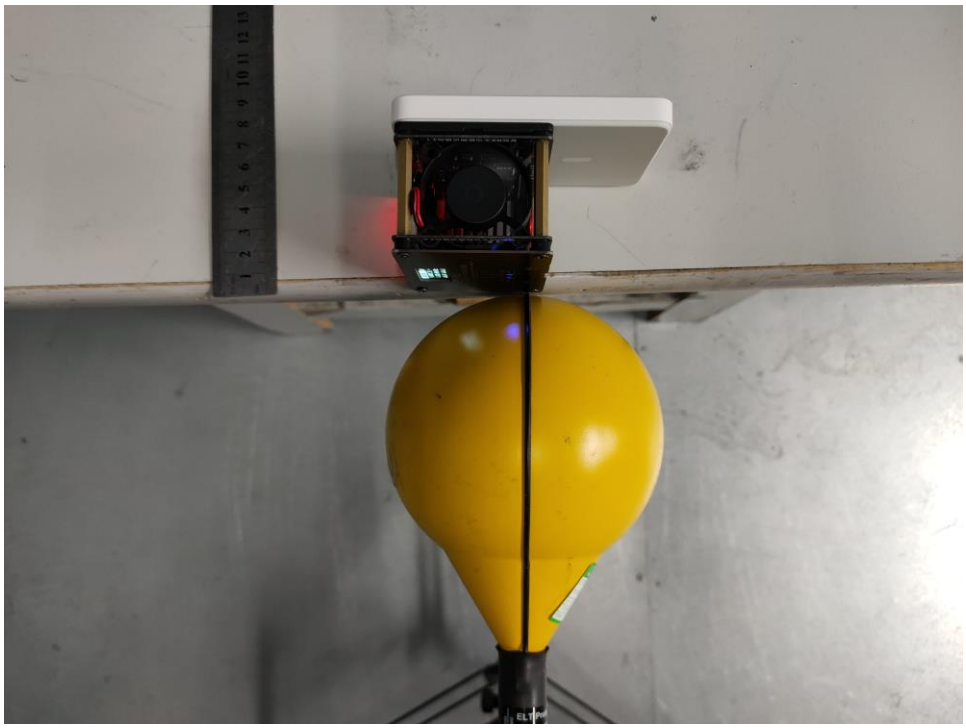
For Full load mode

0cm D Position

For No load mode

0cm D Position

For Full load mode



0cm E Position

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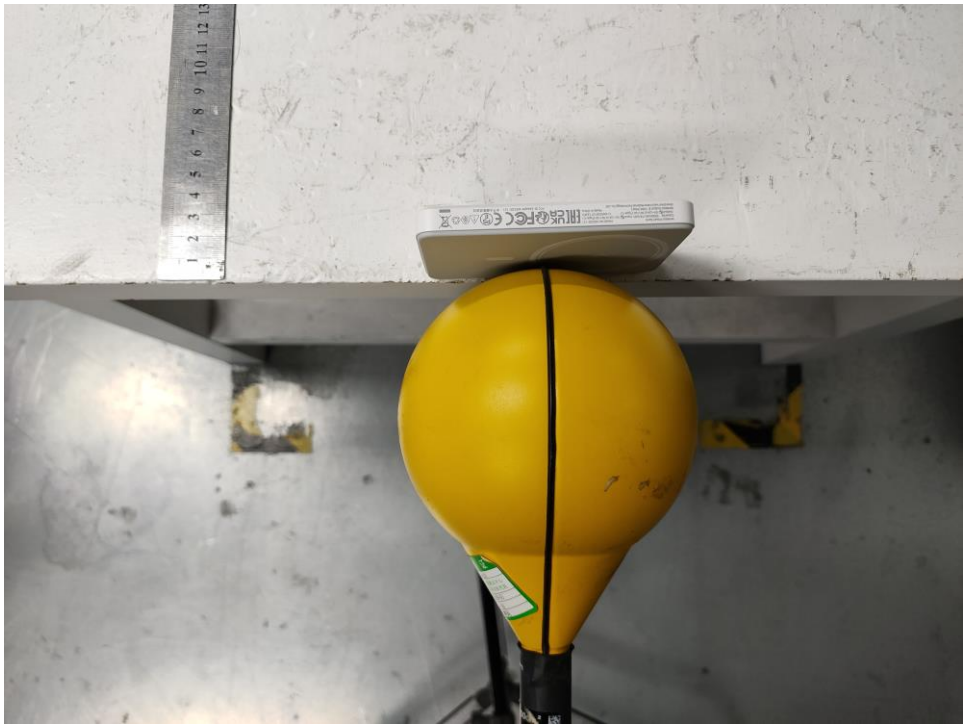

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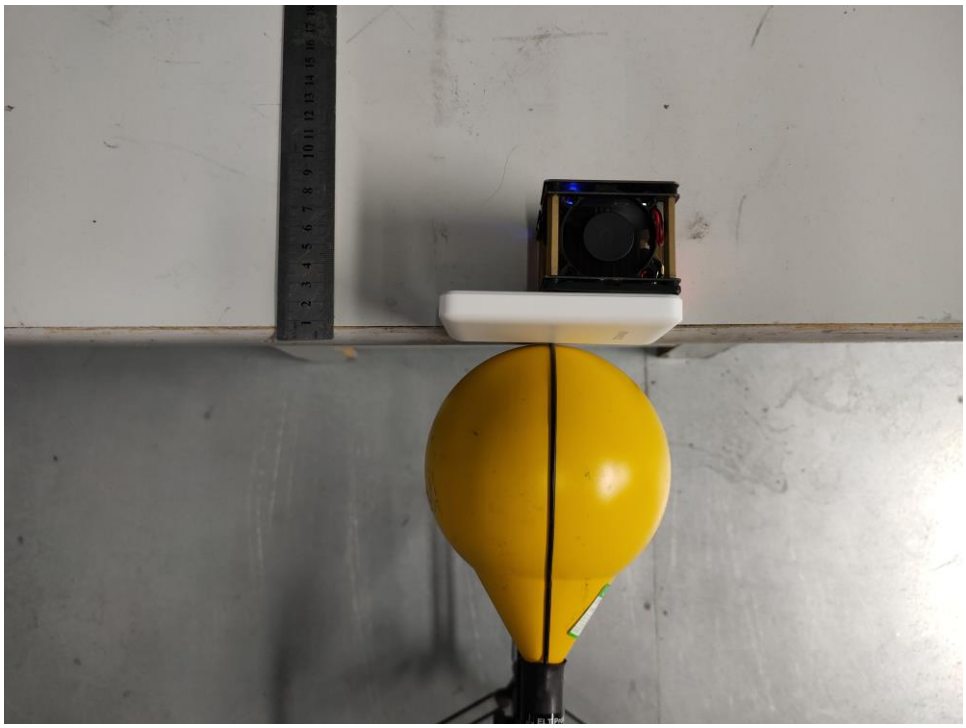

0cm E Position

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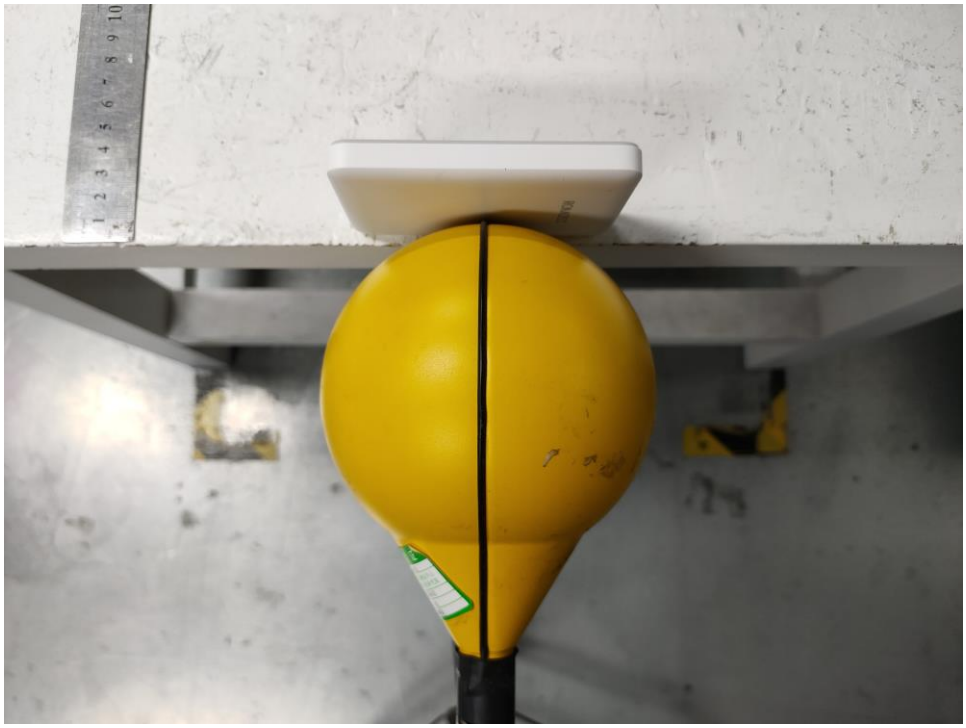


0cm E Position

For Full load mode

20cm A Position

For No load mode

20cm A Position

For Full load mode

20cm B Position

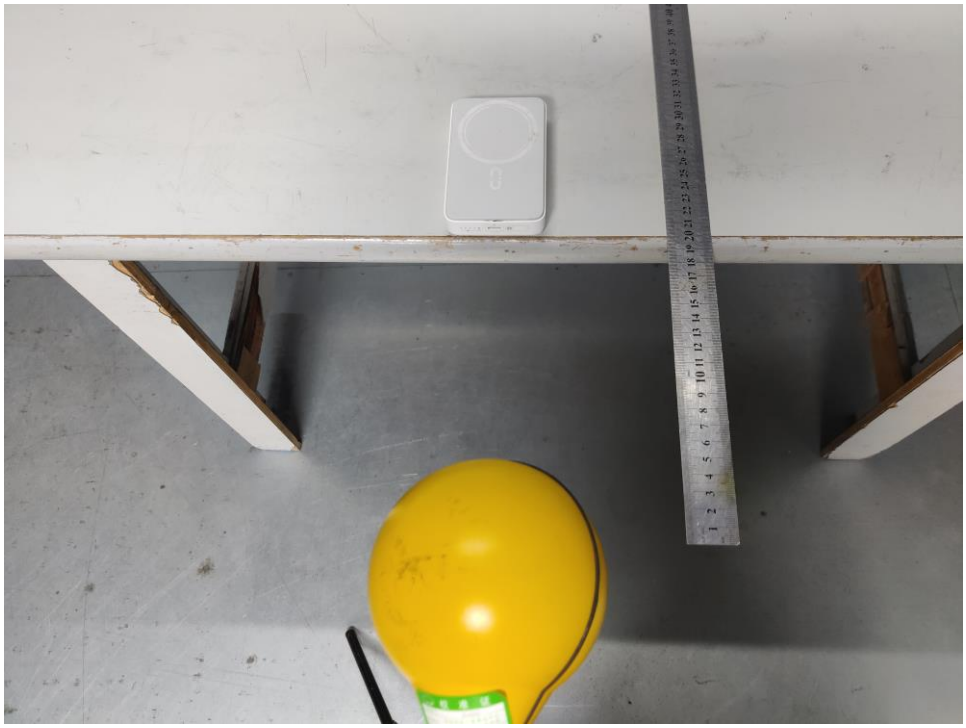
For No load mode

20cm B Position

For Full load mode

20cm C Position

For No load mode



20cm C Position

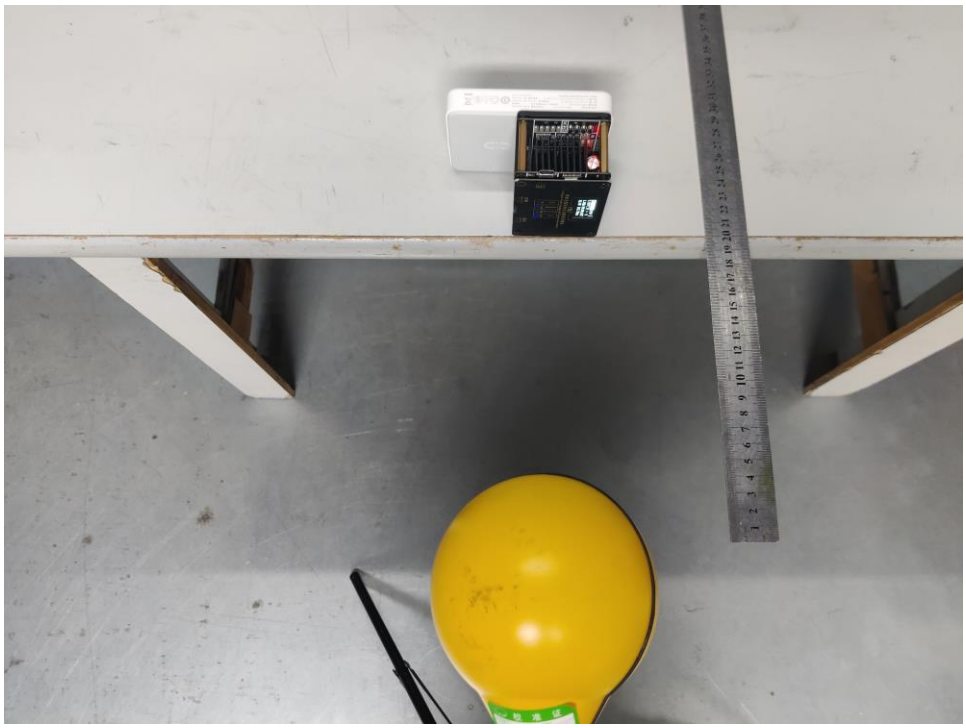
For Full load mode

20cm D Position

For No load mode

20cm D Position

For Full load mode

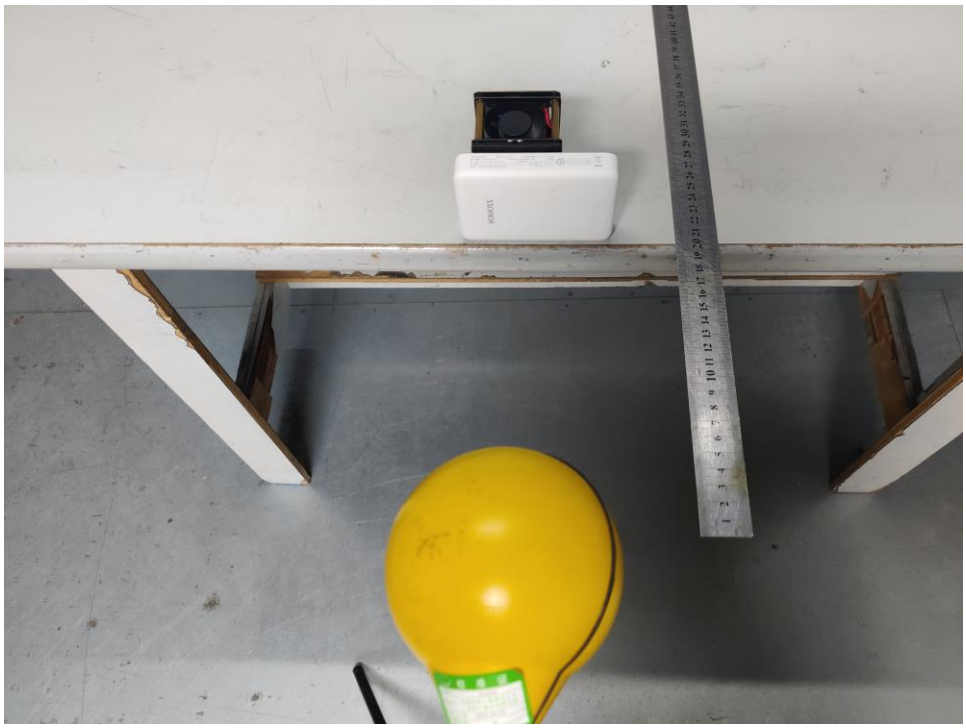


20cm E Position

For No load mode

20cm E Position

For Full load mode



20cm F Position

For No load mode

20cm F Position

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