



FCC Test Report

Test Report
On Behalf of
Shenzhen Ruilanxin Technology Co., Ltd
For
Magnetic Wireless Power bank
Model No.: 4SO015A--CFP20, 4SO016A--CFP20, VA11

FCC ID: 2BEC5-4SO015A

Prepared For: Shenzhen Ruilanxin Technology Co., Ltd
A403, Block B, Huada Industry, Fuqiao Industrial Area No.3,
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Date of Test: Dec. 20, 2023 ~ Dec. 27, 2023

Date of Report: Dec. 27, 2023

Report Number: HK2312206220-2E



Test Result Certification

Applicant's Name : Shenzhen Ruilanxin Technology Co., Ltd
Address : A403, Block B, Huada Industry, Fuqiao Industrial Area No.3,
Fuhai, Bao'an district, Shenzhen, Guangdong Sheng, 518103 China
Manufacturer's Name : Shenzhen Ruilanxin Technology Co., Ltd
Address : A403, Block B, Huada Industry, Fuqiao Industrial Area No.3,
Fuhai, Bao'an district, Shenzhen, Guangdong Sheng, 518103 China
Product Description
Trade Mark : VIDA
Product Name : Magnetic Wireless Power bank
Model and/or Type Reference : 4SO015A--CFP20, 4SO016A--CFP20, VA11
Standards : FCC CFR 47 PART 18, KDB 680106 D01

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Date of Test :
Date (s) of Performance of Tests : Dec. 20, 2023 ~ Dec. 27, 2023
Date of Issue : Dec. 27, 2023
Test Result : Pass

Testing Engineer :

(Len Liao)

Technical Manager :

(Sliver Wan)

Authorized Signatory :

(Jason Zhou)



Note:

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

- 2.

	Test Frequency
01	137KHz

The EUT antenna is Coil Antenna. No antenna other than that furnished by the responsible party shall be used with the device.

2. Summary of Test Results

2.1. Test procedures according to the technical standards:

FCC KDB 680106 D01 RF Exposure Wireless Charging Apps v03r01

FCC CFR 47			
Standard Section	Test Item	Judgment	Remark
FCC CFR 47 part1, 1.1310 KDB 680106 D01v03r01 (3)(3)	Magnetic Field Strength (H) (A/m)	PASS	

2.2. Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95 %**.

No.	Item	Uncertainty
1	All Emissions, Radiated(<30M)(9KHz-30MHz)	$\pm 3.90\text{dB}$
2	Temperature	$\pm 0.5^\circ\text{C}$
3	Humidity	$\pm 2\%$



2.3. Test Instruments

Description	Brand	Model No.	S/N	Calibrated Date	Calibrated Until
Electric and Magnetic Field Analyzer	narda	EHP-200AC	180ZX11028	Feb. 17, 2023	Feb. 16, 2024

NOTE: 1. the calibration interval of the above test instruments is 12 months.



3. Maximum Permissible Exposure

Limit of Maximum Permissible Exposure

Limits for Occupational / Controlled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6
Limits for General Population / Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180 / f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1	30

Note 1: f = frequency in MHz; *Plane-wave equivalent power density.

Note 2: For the applicable limit, see FCC 1.1310, 680106 D01 RF Exposure Wireless Charging Apps v03.

Note 3: Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63A/m. A KDB inquiry is required to determine the applicable exposure limits below 100 kHz.

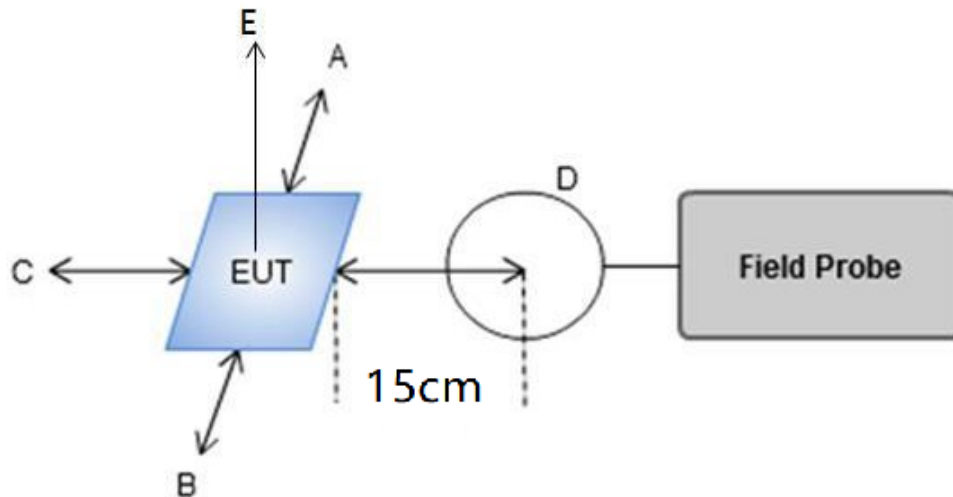


4. Test Procedure

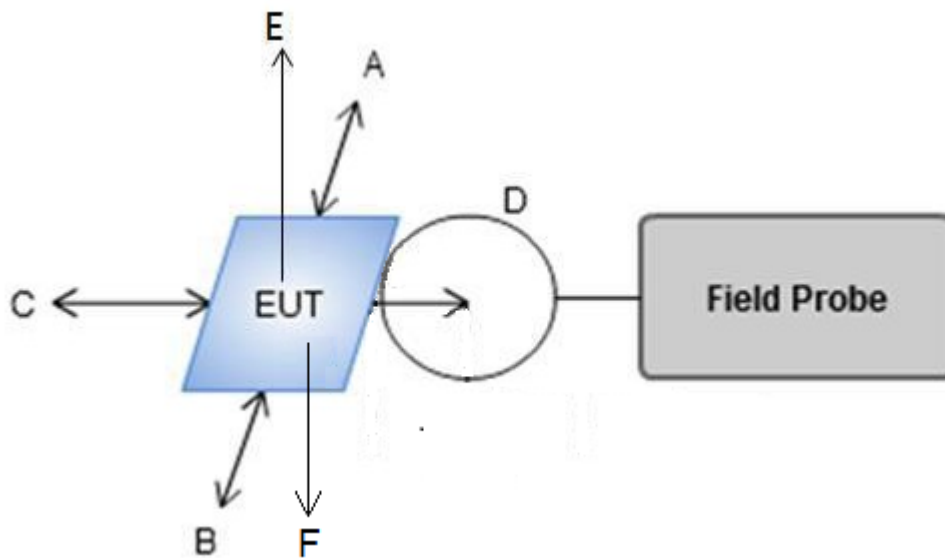
a. For devices designed for typical desktop applications, such as wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of (AC Mode: H-field & E-field strengths for all sides is 15cm, H-field strengths of top side is 20cm) and (DC Mode: H-field & E-field strengths for all sides is 0cm, H-field strengths of top side is 0cm). E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm measured from the center of the probe(s) to the edge of the device.

4.1 Test Setup

AC Mode :



DC Mode :





4.2 Result of Maximum Permissible Exposure

AC Mode:

For Full load:

H-Field Strength at 15 cm (E top side: 20cm) from the edges surrounding the EUT (A/m)

Field strength	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limits (A/m)
A/m	0.2101	0.2330	0.2251	0.2164	0.2083	1.63

For Half Load mode:

H-Field Strength at 15 cm (E top side: 20cm) from the edges surrounding the EUT (A/m)

Field strength	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limits (A/m)
A/m	0.2084	0.1973	0.2000	0.2018	0.1966	1.63

For No load mode:

H-Field Strength at 15 cm (E top side: 20cm) from the edges surrounding the EUT (A/m)

Field strength	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Limits (A/m)
A/m	0.1962	0.1847	0.1853	0.1869	0.1785	1.63



DC Mode:

For Full load mode:

H-Field Strength at 0-20 cm from the edges surrounding the EUT (A/m)

Measuring distance (cm)	Field strength	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limits (A/m)
0	A/m	0.272	0.269	0.263	0.256	0.248	0.244	1.63
2	A/m	0.257	0.253	0.250	0.250	0.244	0.240	1.63
4	A/m	0.233	0.230	0.224	0.219	0.212	0.206	1.63
6	A/m	0.218	0.208	0.213	0.209	0.203	0.196	1.63
8	A/m	0.207	0.200	0.202	0.201	0.194	0.189	1.63
10	A/m	0.185	0.178	0.183	0.173	0.172	0.171	1.63
12	A/m	0.171	0.163	0.162	0.161	0.153	0.145	1.63
14	A/m	0.151	0.149	0.148	0.148	0.141	0.136	1.63
16	A/m	0.143	0.133	0.142	0.138	0.134	0.133	1.63
18	A/m	0.131	0.121	0.128	0.120	0.120	0.119	1.63
20	A/m	0.127	0.125	0.122	0.116	0.114	0.108	1.63

For Half Load mode:

H-Field Strength at 0-20 cm from the edges surrounding the EUT (A/m)

Measuring distance (cm)	Field strength	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limits (A/m)
0	A/m	0.235	0.229	0.228	0.219	0.213	0.214	1.63
2	A/m	0.238	0.237	0.232	0.226	0.217	0.223	1.63
4	A/m	0.205	0.203	0.201	0.194	0.193	0.193	1.63
6	A/m	0.191	0.188	0.187	0.178	0.172	0.175	1.63
8	A/m	0.187	0.177	0.183	0.175	0.175	0.165	1.63
10	A/m	0.169	0.166	0.164	0.160	0.159	0.154	1.63
12	A/m	0.143	0.135	0.135	0.130	0.126	0.127	1.63
14	A/m	0.132	0.126	0.124	0.118	0.115	0.115	1.63
16	A/m	0.131	0.127	0.128	0.120	0.115	0.116	1.63
18	A/m	0.113	0.108	0.104	0.103	0.099	0.094	1.63
20	A/m	0.104	0.095	0.100	0.092	0.085	0.086	1.63



For No load mode:

H-Field Strength at 0-20 cm from the edges surrounding the EUT (A/m)

Measuring distance (cm)	Field strength	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limits (A/m)
0	A/m	0.210	0.207	0.198	0.202	0.201	0.205	1.63
2	A/m	0.217	0.212	0.204	0.212	0.202	0.210	1.63
4	A/m	0.185	0.178	0.169	0.173	0.178	0.169	1.63
6	A/m	0.168	0.166	0.163	0.159	0.157	0.165	1.63
8	A/m	0.172	0.168	0.159	0.158	0.163	0.161	1.63
10	A/m	0.159	0.155	0.150	0.152	0.151	0.146	1.63
12	A/m	0.124	0.119	0.110	0.111	0.116	0.117	1.63
14	A/m	0.109	0.107	0.104	0.099	0.102	0.106	1.63
16	A/m	0.110	0.110	0.106	0.107	0.103	0.105	1.63
18	A/m	0.101	0.095	0.086	0.089	0.087	0.086	1.63
20	A/m	0.082	0.075	0.071	0.066	0.066	0.070	1.63



Remark: According KDB 680106 D01 RF Exposure Wireless Charging App v03r01, section 5, b). 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. The E- field evaluation conducted assuming a user separation distance of 15 cm according to the KDB 680106 D01 RF Exposure Wireless Charging App v03 section 3, c).

Result: The device comply with the RF exposure requirement according to 680106 D01 v03r01, section 5, b):

(1) Power transfer frequency is less than 1 MHz.

- The device operate in the frequency range for 112KHz~ 205KHz

(2) Output power from each primary coil is less than or equal to 15 watts.

- The maximum output power of ANT1 is 5W

(3) A 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 can be powered on at the same time

- The EUT is placed directly in contact with the transmitter

(4) Client device is placed directly in contact with the transmitter.

- The EUT meet the conditions.

(5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).

- This is a portable device.

(6) The aggregate H-field strengths anywhere at or beyond 15 cm surrounding the device, and 20 cm away from the surface from all coils that by design can simultaneously transmit, and while those coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE limit.

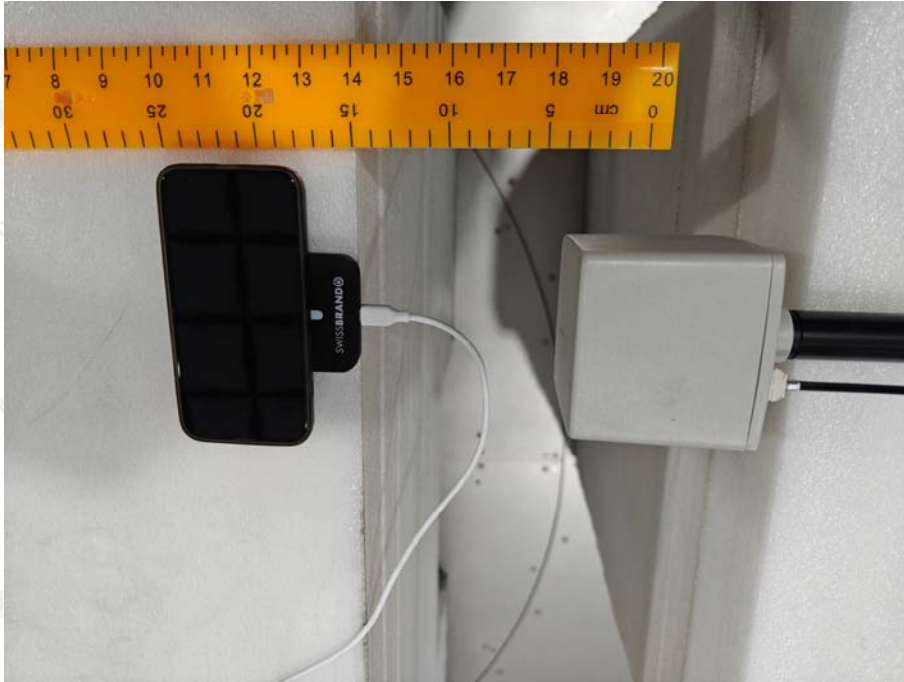
- The EUT meet the conditions.



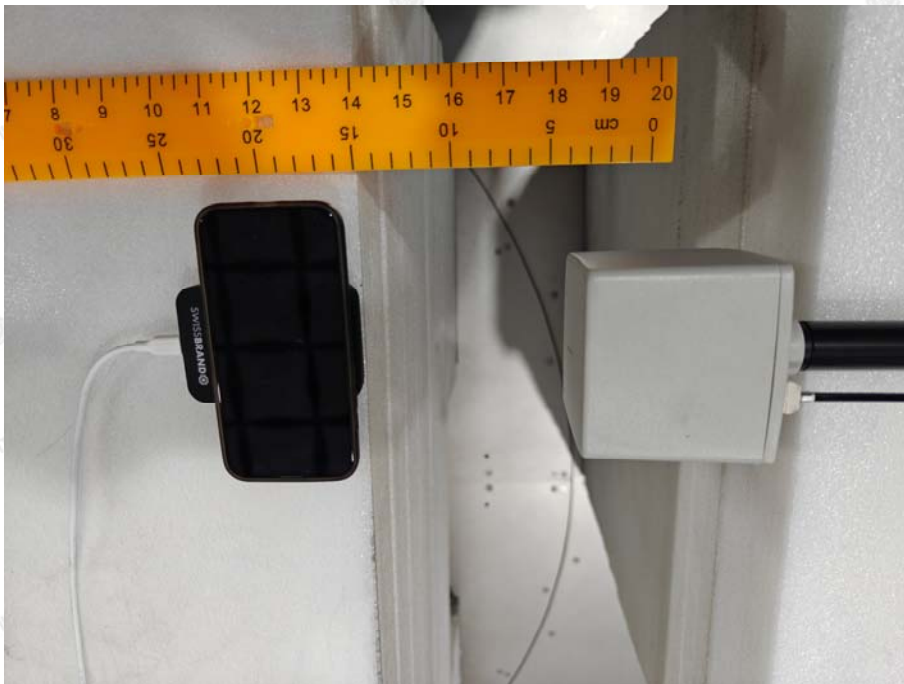
Photograph of Test

AC Mode:

A



B

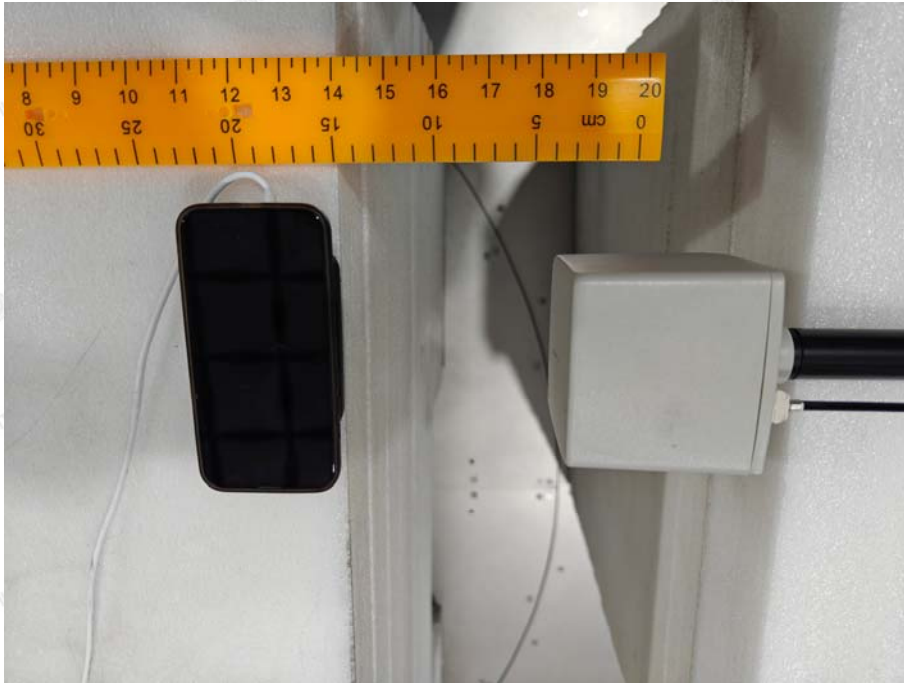


C

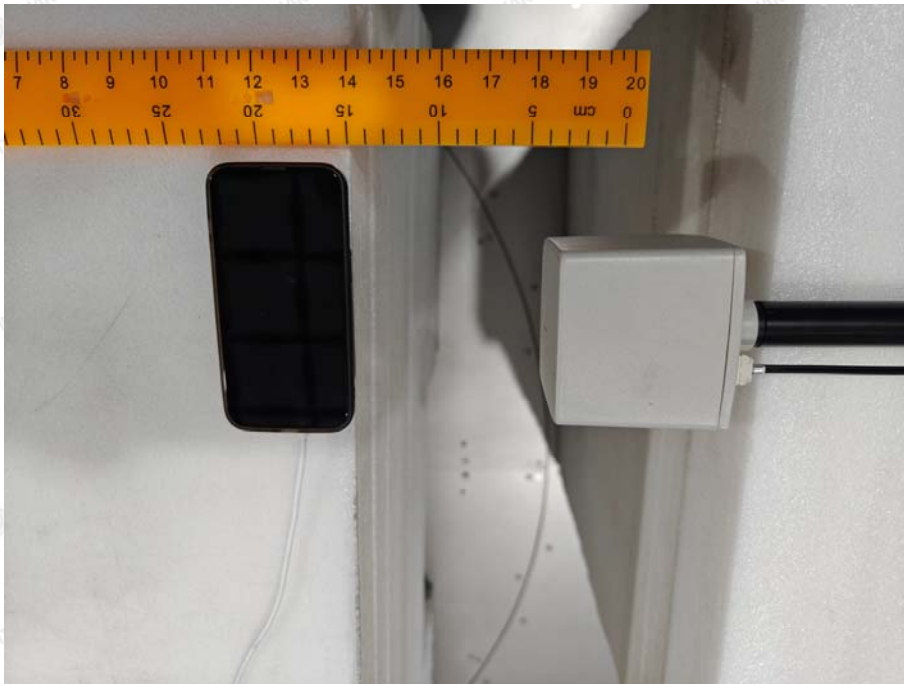
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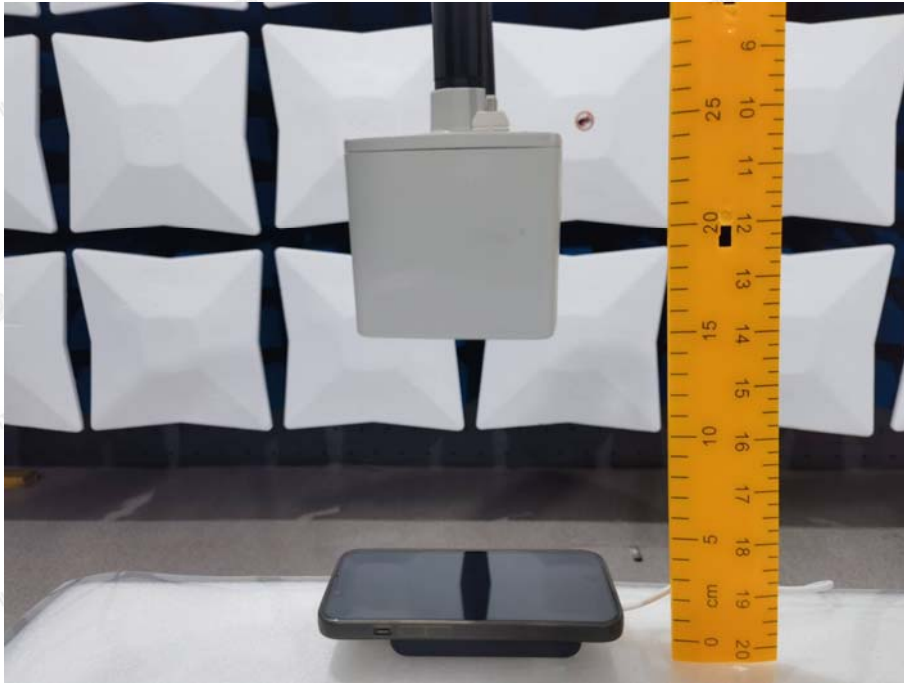
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D



E



DC Mode:

A



B

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C



D



E





F



※※※※※THE END※※※※※

