



TEST REPORT

Applicant: Shenzhen Shi Aiker Electronic Technology Co., Ltd.

Address of Applicant: 6th Floor,Building C,No.9 East,Shangxue Technology Industrial City,Xinxue Community,Bantian Street,Longgang District,shenzhen,China

Manufacturer/Factory: Shenzhen Shi Aiker Electronic Technology Co., Ltd.

Address of Manufacturer/Factory: 6th Floor,Building C,No.9 East,Shangxue Technology Industrial City,Xinxue Community,Bantian Street,Longgang District,shenzhen,China

Product Name: 3 in 1 foldable magnetic wireless charger

Model No.: AK09, AK10,AK20,AK30,AK40,AK50

Trade Mark: N/A

FCC ID: 2AVG2-AK09

Applicable standards: FCC CFR Title 47 Part 1.1310

Date of Test: Jun.16, 2023-Jul.28, 2023

Date of report issued: Jul.28, 2023

Test Result : PASS

Remark:

* In the configuration tested, the EUT complied with the standards specified above.

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full without prior written permission of the company.

The report would be invalid without specific stamp of test institute and the signatures of compiler and approver

Prepared By

Shenzhen ETR Standard Technology Co., Ltd.

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Report Revision History

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ET-23060610E02	Original	Jul.28, 2023

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1 Test Summary

Test Item	Section in CFR 47	Result	Test by
RF EXPOSURE	KDB 680106 D01 RF Exposure Wireless Charging App v03r01	Pass	Yvan

Measurement Uncertainty

Test Item	Measurement Uncertainty	Notes
H-Field	$\pm 2.39\text{dB}$	(1)
E-Field	$\pm 2.45\text{dB}$	(1)
conducted RF Power	$\pm 0.65\text{dB}$	(1)
temperature	$\pm 0.2^\circ\text{C}$	(1)
humidity	$\pm 1\%$	(1)
DC and low frequency voltages	0.06%	

Note (1): The measurement uncertainty is for coverage factor of $k=2$ and a level of confidence of 95%.

2 General Information

2.1 General Description of EUT

Product Name:	3 in 1 foldable magnetic wireless charger
Model No.:	AK09
Sample(s) Status:	Engineer sample
Hardware Version:	V1.0
Software Version:	V1.0
Operation Frequency:	Earbuds and Phone:115~205KHz Watch:318.6KHz
Modulation type:	ASK
Antenna Type:	Induction coil Antenna
Power supply:	Input: DC 5V/9V from adapter, Output: 15W(MAX) Watch charging :3W(MAX) Earbuds charging:5W(MAX) Phone charging:5W/7.5W/10W/15W(MAX)

2.2 Test mode

Pretest mode	Description
Mode 1	ANT1-Watch charging : empty load
Mode 2	ANT1-Watch charging: half load
Mode 3	ANT1-Watch charging: full load
Mode 4	ANT2-Earbuds charging : empty load
Mode 5	ANT2-Earbuds charging :half load
Mode 6	ANT2-Earbuds charging : full load
Mode 7	ANT3-Phone charging: empty load
Mode 8	ANT3-Phone charging: half load
Mode 9	ANT3-Phone charging: full load
Mode 10	ANT1-Watch charging(full load)+ ANT2-Earbuds charging : (full load)+ ANT3-Phone charging(full load)
Final test mode	
Mode3	ANT1-Watch charging: full load
Mode 6	ANT2-Earbuds charging : full load
Mode 9	ANT3-Phone charging: full load
Mode 10	ANT1-Watch charging(full load)+ ANT2-Earbuds charging (full load)+ ANT3-Phone charging(full load)
Note: All test modes were pre-tested, but we only recorded the worst case in this report.	

2.3 Description of Support Units

Equipment	Model	S/N	Manufacturer
Adapter	YG65	/	Lenovo
Load(15W Max)	/	/	/
Load(15W Max)	/	/	/
Load(5W Max)	/	/	/

2.4 Deviation from Standards

None.

2.5 Abnormalities from Standard Conditions

None.

2.6 Test Facility

Test laboratory:	Shenzhen ETR Standard Technology Co., Ltd.
CNAS Registration Number:	L11864
A2LA Certificate Number:	6640.01

FCC Designation Number: CN1326

FCC Test Firm Registration: 183064

2.7 Test Location

All tests were performed at:

Laboratory location: No.103, No.10, Phase I, Zone 3, Xinxing Industrial Park, Xinhe, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Telephone: +86 755 85259392

Fax: +86 755 27219460

2.8 Additional Instructions

Test Software	/
Power level setup	Default

3 Test Instruments list

Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	Exposure level Tester	Narda	ELT-400	N-0231	2022.8.31	2023.8.30
2	Magnetic field probe	Narda	ELT Probe 100cm ²	M0675	2022.8.31	2023.8.30

Note: the calibration interval of the above test instruments is 12 or 24 months and the calibrations are traceable to international system unit (SI).

4 Maximum permissible exposure

4.1 Limit

Frequency range(MHz)	Electric field strength(V/m)	Magnetic field strength(A/m)	Power density(mW/cm ²)	Averaging time(minutes)
(A) Limits for Occupational/Controlled Exposure				
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	6
300-1500			f/300	6
1500-100000			5	6
(B) Limits for General Population/Uncontrolled 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			f/1500	30
1500-100000			1	30

f = frequency in MHz * = Plane-wave equivalent power density

4.2 Requirements

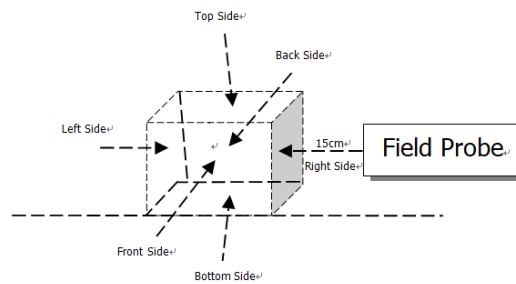
Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting and RF exposure evaluation.

Requirements of KDB 680106 D01	Yes / No	Description
Power transfer frequency is less than 1 MHz	Yes	The device operate in the frequency range 115 KHz - 205 KHz and 318.6KHz
Output power from each primary coil is less than or equal to 15 watts	Yes	The maximum output power of the primary coil is 15W Max.
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.	Yes	The transfer system includes one coil.
Client device is placed directly in contact with the transmitter.	Yes	Client device is placed directly in contact with the transmitter.
Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).	Yes	Mobile exposure conditions only
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.	Yes	The EUT 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.

4.3 Measure Procedures

E and H-field measurements should be made with the center of the probe at a distance of 15 cm surrounding the device and 20 cm above the top surface of the primary/client pair.

4.4 Measure setup



4.5 Measurement data

Mode 3: ANT1-Watch charging: full load

Maximum permissible Exposure					
Frequency range	Test sides	Separation (cm)	H-field (uT)	H-field (A/m)	50% Limit (A/m)
318.6KHz	Top	20	0.527	0.422	0.815
	Left	15	0.593	0.474	0.815
	Right	15	0.588	0.470	0.815
	Front	15	0.505	0.404	0.815
	Back	15	0.613	0.490	0.815

Mode 6: ANT2-Earbuds charging: full load

Maximum permissible Exposure					
Frequency range	Test sides	Separation (cm)	H-field (uT)	H-field (A/m)	50% Limit (A/m)
115-205kHz	Top	20	0.573	0.458	0.815
	Left	15	0.605	0.484	0.815
	Right	15	0.611	0.489	0.815
	Front	15	0.668	0.534	0.815
	Back	15	0.594	0.475	0.815

Mode 9: ANT3-Phone charging: full load

Maximum permissible Exposure					
Frequency range	Test sides	Separation (cm)	H-field (uT)	H-field (A/m)	50% Limit (A/m)
115-205kHz	Top	20	0.637	0.510	0.815
	Left	15	0.621	0.497	0.815
	Right	15	0.616	0.493	0.815
	Front	15	0.599	0.479	0.815
	Back	15	0.574	0.459	0.815

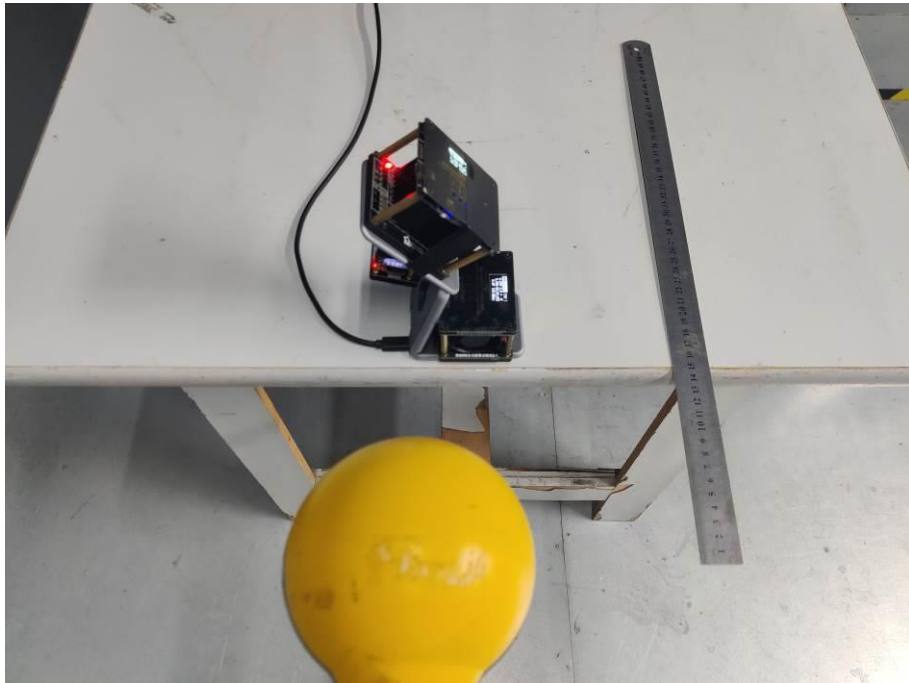
Mode 10: ANT1-Watch charging(full load)+ ANT2-Earbuds charging : (full load)+ ANT3-Phone charging(full load)

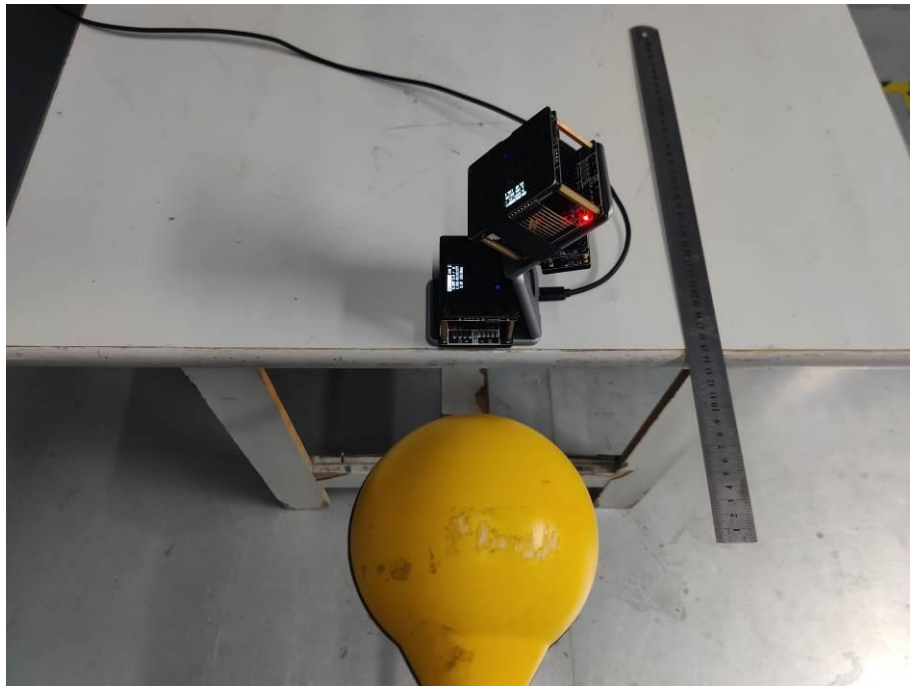
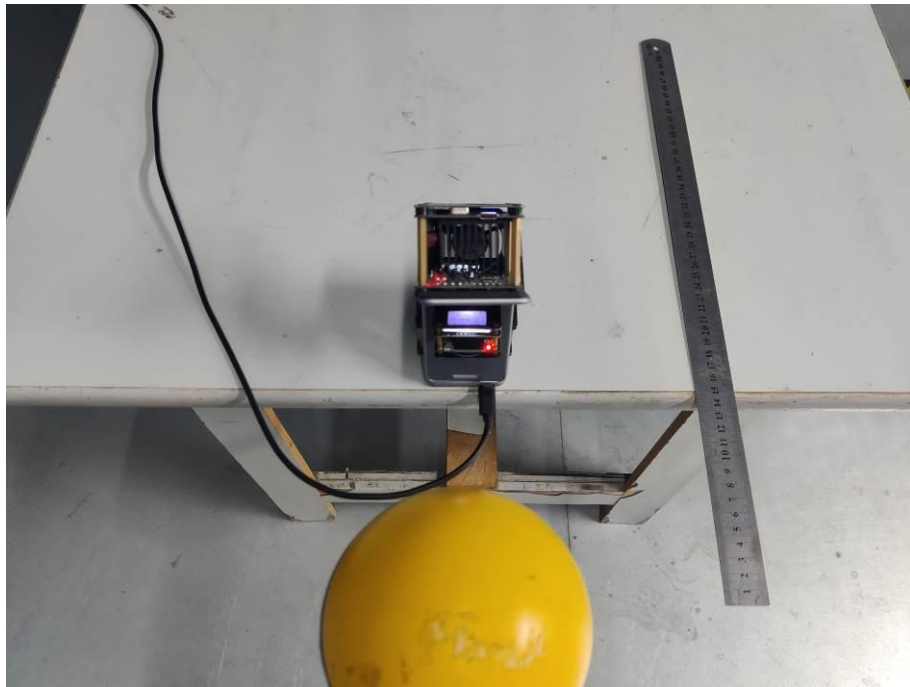
Maximum permissible Exposure					
Frequency range	Test sides	Separation (cm)	H-field (uT)	H-field (A/m)	50% Limit (A/m)
115-205kHz &318KHz	Top	20	0.608	0.487	0.815
	Left	15	0.614	0.492	0.815
	Right	15	0.655	0.524	0.815
	Front	15	0.612	0.490	0.815
	Back	15	0.621	0.497	0.815

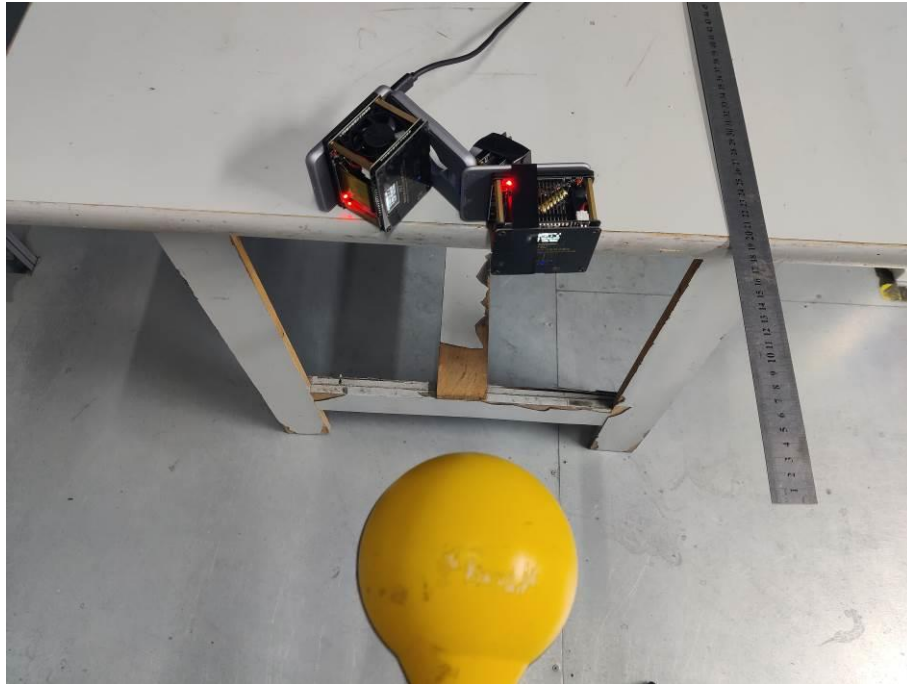
Remark:

$$A/m = uT / 1.25$$

5 Test Setup Photo







-----End-----