

Dongguan Aohai Technology Co.,Ltd.

TEST REPORT

SCOPE OF WORK
EMC TESTING—WX013

REPORT NUMBER
230619156GZU-002

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TEST REPORT

Applicant Name & : Dongguan Aohai Technology Co.,Ltd.
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Guangdong, P. R. China, 523723
Manufacturing Site : See page 4
Intertek Report No: 230619156GZU-002
FCC ID: 2AP4X-WX013

Test standards

47 CFR PART 1, Subpart I, Section 1.1310
KDB 680106 D01 RF Exposure Wireless Charging App v03r01

Sample Description

Product : Wireless Charger
Model No. : WX013
Electrical Rating : Input: 5Vdc 0.8A MAX
Output:5Vdc 0.5A 2.5W MAX
Serial No. : Not Labeled
Date Received : 19 June 2023
Date Test : 28 June 2023-03 July 2023
Conducted

Prepared and Checked By

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1.0 TEST RESULT SUMMARY

Classification of EUT: Class B

Test Item	Standard	Result
EMF	47 CFR PART 1, Subpart I, Section 1.1310	PASS

Remark:

When determining the test results, measurement uncertainty of tests has been considered.

Manufacturing Site:

1:Jiangxi Jian Aohai Technology Co.,Ltd.

Xietian, Quanjian Town, Suichuan, Jian City, Jiangxi, P. R.China, 343900

2:Dongguan Aohai Technology Co.,Ltd.

Block A & 3-5F of Block B, Zhenlong East Road No.6, Jiaoyitang, Tangxia Town,

Dongguan,Guangdong, P. R. China,523723

3:PT AOHAİ TECHNOLOGY INDONESIA

Kawasan Industri Tunas 1 No.C,Belian Batam Kota,Kota Batam Kepulauan Riau,Indonesia.

4:Dongguan Aohai Technology Co.,Ltd. Second Branch

No.2,Yinyuan Street, Jiaoyitang, Tangxia Town, Dongguan,Guangdong, P. R. China, 523723

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2.0 General Description

2.1 Product Description

Operating Frequency	298-342KHz
Type of Modulation:	ASK
Antenna Type	Inductive loop coil antenna
Power Supply:	Input: 5Vdc 0.8A MAX Output: 5Vdc 0.5A 2.5W MAX
Power cord:	1m wires unscreened cable

2.2 Test Facility

Room102/104, No 203, KeZhu Road, Science City, GETDD Guangzhou, China

A2LA Certificate Number 0078.10

Intertek Testing Services Shenzhen Ltd. Guangzhou Branch is accredited by A2LA and Listed in FCC website. FCC accredited test labs may perform both Certification testing under Parts 15 and 18 and Declaration of Conformity testing.

2.3 EUT Exercising Software

N/A

2.4 Special Accessories

N/A

2.5 Equipment Modification

Any modifications installed previous to testing by Dongguan Aohai Technology Co.,Ltd. will be incorporated in each production model sold / leased in the United States.

No modifications were installed by Intertek Testing Services Shenzhen Ltd. Guangzhou Branch.

2.6 Support Equipment List and Description

This product was tested with corresponding support equipment as below:
Support Equipment:

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Equipment	Model No.	Rating	Supplier
SmartWatch	GW23	Charging 5V/0.5A, 2.5W	client
Adaptor	GQ12060200-ZG	100-240V,50/60Hz 0.4A	Intertek

Remark: SmartWatch was one of typical client devices, it's selected such that the EUT was fully exercised at maximum power from its transmitter. It will not be sold together.

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above evaluated respectively

Pretest mode	Description	
Standby Mode	kept transmitting continuously	
Charging Mode	CH: Low	SmartWatch is charging at 1% battery power, 50% and 99% battery power respectively, keep transmitting continuously
	CH: Middle	
	CH: High	

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3.0 EMF TEST

3.1 Standard Requirement

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 limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.1m normally can be maintained between the user and the device.

(a) 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 Times 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
1500-100000	--	--	5	6

(b) 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 Times 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
1500-100000	--	--	1.0	30

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

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3.2 Test Data

Input Voltage: 120V/60Hz

Ambient Condition: 24°C, 50%RH

Test distance: 15 cm surrounding the device, and 20 cm away from the surface from the coil.

H-Filed Strength:

Test Position	Probe Measure Result (A/m)			50% Limit (A/m)	Limit (A/m)
	WPT client in 1% battery power	WPT client in 50% battery power	WPT client in 99% battery power		
Side 1	0.021	0.032	0.020	0.815	1.63
Side 2	0.023	0.031	0.022	0.815	1.63
Side 3	0.025	0.033	0.023	0.815	1.63
Side 4	0.022	0.032	0.021	0.815	1.63
Top	0.025	0.032	0.026	0.815	1.63

4.0 Test Equipment List

Equip. No.	Equipment	Model	Manufacturer	Cal. date	Due date
EM007-03	Exposure Level Tester	ELT-400	NARDA	2023/3/7	2024/3/7

*****End of the test report*****