

MerchSource, LLC.

TEST REPORT

SCOPE OF WORK

EMC TESTING-1017024

REPORT NUMBER

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TEST REPORT

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Intertek Report No: 230414082GZU-002
FCC ID: 2AEVM1017024

Test standards

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

Sample Description

Product : Hair Vacuum
Model No. : 1017024, 101XXXX (where XXXX can be digits 0000-9999 which
represent different customers).
Electrical Rating : Input: 5Vdc, 1A
Wireless output: 5W
Serial No. : Not Labeled
Date Received : 14 April 2023
Date Test : 27 April 2023-10 May 2023
Conducted

Prepared and Checked By



Dean Liu
Project Engineer

Approved By:



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Manager

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TEST REPORT**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.
All models are the same, except the model name, 1017024 was selected for fully testing.

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2.0 General Description

2.1 Product Description

Operating Frequency	143KHz
Type of Modulation:	ASK
Antenna Type	Inductive loop coil antenna
Power Supply:	Input: 5Vdc, 1A Wireless output: 5W
Power cord:	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 MerchSource, LLC. 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
Hair Vacuum	1017024	--	Applicant

Remark: Hair Vacuum was the only client device. It will 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

Pre-test mode	Description
Standby Mode	kept transmitting continuously
Charging Mode	Hair Vacuum is charging at low battery power, middle and high battery power respectively, keep transmitting continuously.

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 Low battery power	WPT client in middle battery power	WPT client in high battery power		
Side 1	0.041	0.041	0.043	0.815	1.63
Side 2	0.037	0.038	0.041	0.815	1.63
Side 3	0.038	0.043	0.035	0.815	1.63
Side 4	0.048	0.041	0.036	0.815	1.63
Top	0.043	0.039	0.035	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	2023/03/07	2024/03/07

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