TEST REPORT

Report No.:	8227EU012702W2
Applicant:	ROKFORM, LLC
Address:	16180 Scientific, Irvine, CA 92618, USA
Product Name:	Magnetic Wireless Charging Head
Model No.:	338701
Trademark:	N/A
FCC ID:	2BFSK-338701
Test Standard(s):	47 CFR Part 1 Subpart I Section 1.1310
Date of Receipt:	Mar. 27, 2024
Test Date:	Mar. 27, 2024 – Apr. 18, 2024
Date of Issue:	Jun. 06, 2024

ISSUED BY:

SHENZHEN EU TESTING LABORATORY LIMITED

SHENZHEN EU TESTING LABORATORY LIMITED APPROVED

Prepared by:	**Reviewed and Approved by:**
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Revision Record

Report Version	Issued Date	Description	Status
V0	Jun. 06, 2024	Original	Valid

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Website: www.eu-test.com
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2 General Information

2.1 Applicant Information

Applicant	ROKFORM, LLC
Address	16180 Scientific, Irvine, CA 92618, USA

2.2 Manufacturer Information

Manufacturer	Shenzhen Mofhie Technology Co., LTD
Address	Floor 12, Building 4, Bangyan Green Valley, No. 98, Zhihe Road, Yuanshan, Longgang District, Shenzhen City, GuangDong Province, China

2.3 Factory Information

Factory	Shenzhen Mofhie Technology Co., LTD
Address	Floor 12, Building 4, Bangyan Green Valley, No. 98, Zhihe Road, Yuanshan, Longgang District, Shenzhen City, GuangDong Province, China

2.4 General Description of E.U.T.

Product Name	Magnetic Wireless Charging Head
Model No. Under Test	338701
List Model No.	N/A
Description of Model differentiation	N/A
Rating(s)	USB-C Input: 5V⎓3A/9V⎓2.22A QI Wireless Charger Output: 5W/7.5W/10W/15W
Product Type	☒ Mobile ☐ Portable ☐ Fix Location
Test Sample No.	-1/1(Normal Sample)
Hardware Version	N/A
Software Version	N/A
Remark	For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

2.5 Technical Information of E.U.T.

Technology Used	Wireless Power Transfer (WPT)

The requirement for the following technical information of the EUT was tested in this report:

Technology	**WPT**
Operating Frequency	360kHz
Modulation Type	FSK
Antenna Type	Inductive Loop Antenna
Antenna Gain(Peak)	0 dBi

3 Test Summary

3.1 Test Standard

The tests were performed according to following standards:

No.	Identity	Document Title
1	47 CFR Part 1 Subpart I Section 1.1310	Radio frequency radiation exposure limits.
2	KDB 680106 D01v04	RF exposure consideration for low power consumer wireless power transfer applications.

Remark:
Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product maybe which result in lowering the emission/immunity should be checked to ensure compliance has been maintained.

3.2 Test Verdict

No.	Description	FCC Part No.	Verdict	Remark
1	RF Exposure Evaluation	FCC 1.1310 KDB 680106 Section 5.2	Pass	--

3.3 Test Laboratory

Test Laboratory	Shenzhen EU Testing Laboratory Limited
Address	101, Bldg. B1, Fuqiao Fourth Area, Qiaotou Community, Fuhai Subdistrict, Baoan District, Shenzhen, Guangdong, China
Designation Number	CN1368
Test Firm Registration Number	952583

4 Test Configuration

4.1 Test Environment

During the measurement, the normal environmental conditions were within the listed ranges:

Relative Humidity	30% to 60%	
Atmospheric Pressure	86 kPa to 106 kPa	
Temperature	NT (Normal Temperature)	+15℃ to +35℃
Working Voltage of the EUT	NV (Normal Voltage)	120VAC/60Hz for adapter

4.2 Test Equipment

Equipment	Manufacturer	Model No	Serial No	Cal Date	Cal Due Date
Electric and Magnetic Field Probe - Analyzer	Narda	EHP-200A	EE-405	2024/02/15	2025/02/14

4.3 Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base 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 bellow was evaluated respectively.

No.	Description	Remark
TM1	PD Charger (5V/3A) + EUT (5W) + Half Load	
TM2	PD Charger (5V/3A) + EUT (7.5W) + Half Load	
TM3	PD Charger (5V/3A) + EUT (10W) + Half Load	
TM4	PD Charger (5V/3A) + EUT (15W) + Half Load	
TM5	PD Charger (9V/2.22A) + EUT (5W) + Half Load	
TM6	PD Charger (9V/2.22A) + EUT (7.5W) + Half Load	
TM7	PD Charger (9V/2.22A) + EUT (10W) + Half Load	
TM8	PD Charger (9V/2.22A) + EUT (15W) + Half Load	
TM9	PD Charger (5V/3A) + EUT (5W) + Full Load	
TM10	PD Charger (5V/3A) + EUT (7.5W) + Full Load	
TM11	PD Charger (5V/3A) + EUT (10W) + Full Load	
TM12	PD Charger (5V/3A) + EUT (15W) + Full Load	
TM13	PD Charger (9V/2.22A) + EUT (5W) + Full Load	
TM14	PD Charger (9V/2.22A) + EUT (7.5W) + Full Load	
TM15	PD Charger (9V/2.22A) + EUT (10W) + Full Load	
TM16	PD Charger (9V/2.22A) + EUT (15W) + Full Load	
TM17	PD Charger (5V/3A) + EUT (5W) + Empty Load	
TM18	PD Charger (5V/3A) + EUT (7.5W) + Empty Load	
TM19	PD Charger (5V/3A) + EUT (10W) + Empty Load	
TM20	PD Charger (5V/3A) + EUT (15W) + Empty Load	
TM21	PD Charger (9V/2.22A) + EUT (5W) + Empty Load	
TM22	PD Charger (9V/2.22A) + EUT (7.5W) + Empty Load	
TM23	PD Charger (9V/2.22A) + EUT (10W) + Empty Load	
TM24	PD Charger (9V/2.22A) + EUT (15W) + Empty Load	
Note: 1. All the conditions have been tested. It is found that TM8, TM16 and TM24 is the worst mode, and the data in the report only reflects the worst mode.		

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5 RF Exposure Evaluation

5.1 Test Requirement

KDB 680106 D01 Wireless Power Transfer v04:
According to the item 5.2 of KDB 680106 D01v04:
Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF exposure evaluation.

a) Power transfer frequency is less than 1 MHz.
YES. The device operates in the frequency range from 360kHz.

b) The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.
YES. The maximum output power of the primary coil is 15W.

c) A client device providing the maximum permitted load is placed in physical contact with the transmitter(i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)
YES. The transfer system includes only single primary and secondary coils.

d) Client device is placed directly in contact withthe transmitter.
YES. Client device is placed directly in contact with the transmitter.

e) Mobile exposure conditions only (portable exposure conditions are notcovered by this exclusion)
YES. The EUT is a Wireless Charging mobile.

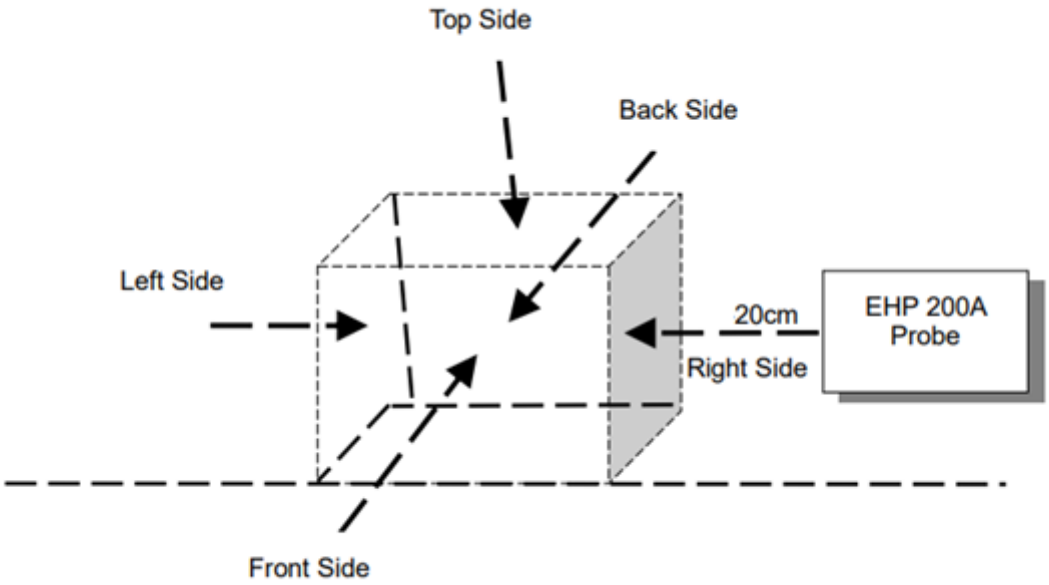
f) The aggregate H-field strengths anywhere ator beyond 20 cm surrounding the device, and 20cm away from the surface from all coils that bydesign can simultaneously transmit, and whilethose coils are simultaneously energized, aredemonstrated to be less than 50% of theapplicable MPE limit.
YES. The EUT field strength levels are 50% X MPE limit.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

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
300-1,500			f/300	6
1,500-100,000			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
300-1,500			f/1500	30
1,500-100,000			1.0	30

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

5.2 Test Setup



Note: Measurements should be made from all sides and the top of the primary/client pair, with the 20cm measured from the center of the probe(s) to the edge of the device.

1) The RF exposure test was performed in anechoic chamber.
2) The measurement probe was placed at test distance (20cm) which is between the edge of the charger and the geometric center of probe.
3) 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.
4) The EUT was measured according to the dictates of KDB 680106 D01 v04.

5.1 Evaluation Result

Test Mode: TM8

Magnetic Field Emissions						
Test Position	Test Distance	Measure Value (A/m)				Limit(A/m)
		X	Y	Z	Max. Value	
Top	20	0.257	0.649	0.532	0.649	1.63
Bottom	20	0.315	0.287	0.443	0.443	1.63
Front	20	0.199	0.247	0.360	0.360	1.63
Rear	20	0.484	0.567	0.499	0.567	1.63
Left	20	0.381	0.292	0.405	0.405	1.63
Right	20	0.370	0.469	0.521	0.521	1.63
Note: The device test frequency range from 360kHz.						

Test Mode: TM16

Magnetic Field Emissions						
Test Position	Test Distance	Measure Value (A/m)				Limit(A/m)
		X	Y	Z	Max. Value	
Top	20	0.278	0.294	0.310	0.310	1.63
Bottom	20	0.190	0.144	0.099	0.190	1.63
Front	20	0.154	0.263	0.078	0.263	1.63
Rear	20	0.163	0.294	0.179	0.294	1.63
Left	20	0.237	0.380	0.471	0.471	1.63
Right	20	0.108	0.211	0.225	0.225	1.63
Note: The device test frequency range from 360kHz.						

Test Mode: TM24

Magnetic Field Emissions						
Test Position	Test Distance	Measure Value (A/m)				Limit(A/m)
		X	Y	Z	Max. Value	
Top	20	0.149	0.167	0.087	0.167	1.63
Bottom	20	0.234	0.190	0.111	0.234	1.63
Front	20	0.188	0.097	0.159	0.188	1.63
Rear	20	0.276	0.348	0.299	0.348	1.63
Left	20	0.372	0.295	0.471	0.471	1.63
Right	20	0.166	0.358	0.290	0.358	1.63
Note: The device test frequency range from 360kHz.						

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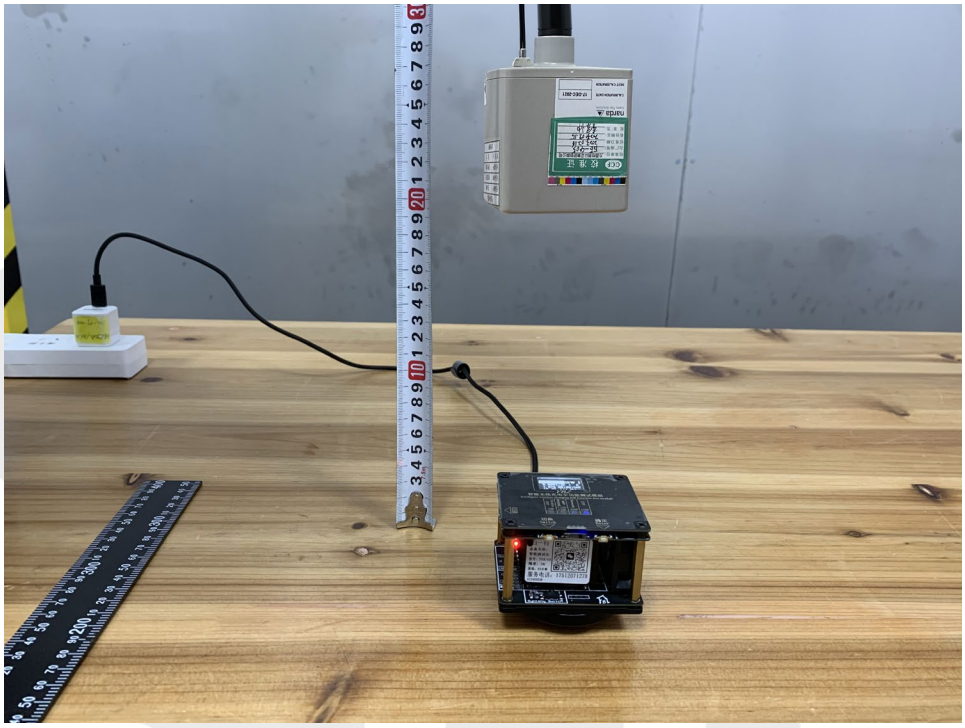
ANNEX A TEST SETUP PHOTOS

PHOTO 1	

STATEMENT

1. The laboratory guarantees the scientificity, accuracy and impartiality of the test, and is responsible for all the information in the report, except the information provided by the customer. The customer is responsible for the impact of the information provided on the validity of the results.
2. The report without China inspection body and laboratory Mandatory Approval (CMA) mark has no effect of proving to the society.
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4. This report is invalid if it is altered, without the signature of the testing and approval personnel, or without the “inspection and testing dedicated stamp” or test report stamp.
5. The test data and results are only valid for the tested samples provided by the customer.
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