

TEST REPORT


Report No.: 8234EU012803W2

Applicant: Adam Elements International Co., LTD.

Address: 8F.-5, No. 148, Sec.4, Zhongxiao E. Rd., Da'an Dist.,
Taipei City, Taiwan

Product Name: Qi2 Magnetic Charging Car Mount

Model No.: CQ2

Trademark:  ADAM

FCC ID: 2ABY9CQ2

Test Standard(s): 47 CFR Part 1 Subpart I Section 1.1310
47 CFR Part 2, Subpart J, Section 2.1091

Date of Receipt: Oct. 28, 2024

Test Date: Oct. 28, 2024 – Nov. 11, 2024

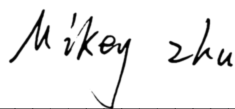
Date of Issue: Dec. 19, 2024

ISSUED BY:

SHENZHEN EU TESTING LABORATORY LIMITED



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Revision Record

Report Version	Issued Date	Description	Status
V0	Dec. 19, 2024	Original	Valid



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2 General Information

2.1 Applicant Information

Applicant	Adam Elements International Co., LTD.
Address	8F.-5, No. 148, Sec.4, Zhongxiao E. Rd., Da'an Dist., Taipei City, Taiwan

2.2 Manufacturer Information

Manufacturer	Adam Elements International Co., LTD.
Address	8F.-5, No. 148, Sec.4, Zhongxiao E. Rd., Da'an Dist., Taipei City, Taiwan

2.3 Factory Information

Factory	Dongguan Megix Technology Co.,Ltd
Address	2/F, Building 1, No.14, Mingzhu Street, Shima Community, Tangxia Town, Dongguan City, Guangdong Province

2.4 General Description of E.U.T.

Product Name	Qi2 Magnetic Charging Car Mount
Model No. Under Test	CQ2
List Model No.	N/A
Description of Model differentiation	N/A
Rating(s)	Input: 5.0V---2.0A/9.0V---2.5A Output: 5W/15W
Product Type	<input checked="" type="checkbox"/> Mobile <input type="checkbox"/> Portable <input type="checkbox"/> Fix Location
Test Sample No.	-1/2(Normal Sample), -2/2(Engineering Sample)
Hardware Version	N/A
Software Version	N/A
Remark	1) The above information are declared by the applicant, EU-LAB is not responsible for the information accuracy provided by the applicant. 2) 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.

Network and Wireless Connectivity	Wireless Power Transfer (WPT)
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The requirement for the following technical information of the EUT was tested in this report:

Technology	WPT
Operating Frequency	110.1-205KHz 360kHz
Modulation Type	FSK
Antenna Type	Inductive Loop Coil Antenna
Antenna Gain(Peak)	0 dBi
Remark	The above information are declared by the applicant, EU-LAB is not responsible for the information accuracy provided by the applicant.

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	47 CFR Part 2, Subpart J, Section 2.1091	Radiofrequency radiation exposure evaluation: mobile devices
3	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 FCC 2.1091 KDB 680106 D01 Wireless Power Transfer v04	Pass	--

3.3 Test Laboratory

Test Laboratory	Shenzhen EU Testing Laboratory Limited
Address	101, Building 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°C to +35°C
Working Voltage of the EUT	NV (Normal Voltage)	5.0 V DC, 9.0 V DC

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	2024/02/13	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	Wireless Output (5W)	
TM2	Wireless Output (15W)	
TM3	Standby	
Note: 1. All the conditions have been tested. It is found that TM2 is the worst mode, and the data in the report only reflects the worst mode.		

4.4 Measurement Uncertainty

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Test Item	Measurement Uncertainty
Magnetic field measurements(3kHz~10MHz)	±14.6%
Electric field measurements(3kHz~10MHz)	±17.3%

5 RF Exposure Evaluation

5.1 Test Requirement

§1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in §1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of FCC part 2.1093 of this chapter.

Table 1 to §1.1310(e)(1) - Limits for Maximum Permissible Exposure (MPE)

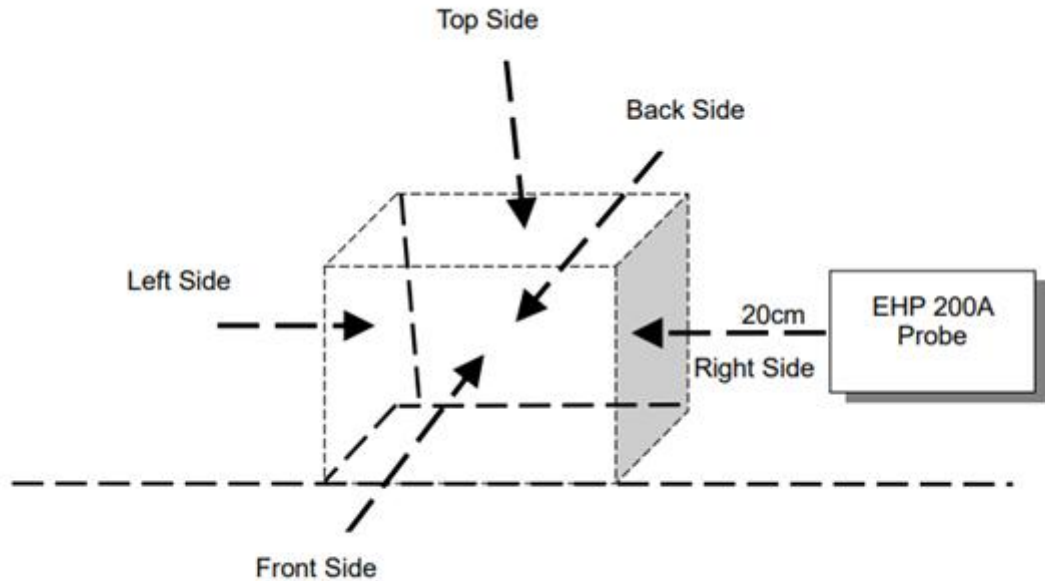
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	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
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

F=frequency in MHz

*=Plane-wave equivalent power density

RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

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 Condition: Test Mode 2 operating with client device (1% battery status of client device)

Test Position	E-field (V/m)			H-field (A/m)		
	Measurement	Limit	Max. Percentage (%)	Measurement	Limit	Max. Percentage (%)
Top	3.8202	614	0.84%	0.2134	1.63	14.10%
Bottom	4.7416			0.2393		
Front	2.9429			0.1497		
Rear	2.6437			0.0782		
Left	1.7543			0.0144		
Right	2.2918			0.0225		

Test Condition: Test Mode 2 operating with client device (50% battery status of client device)

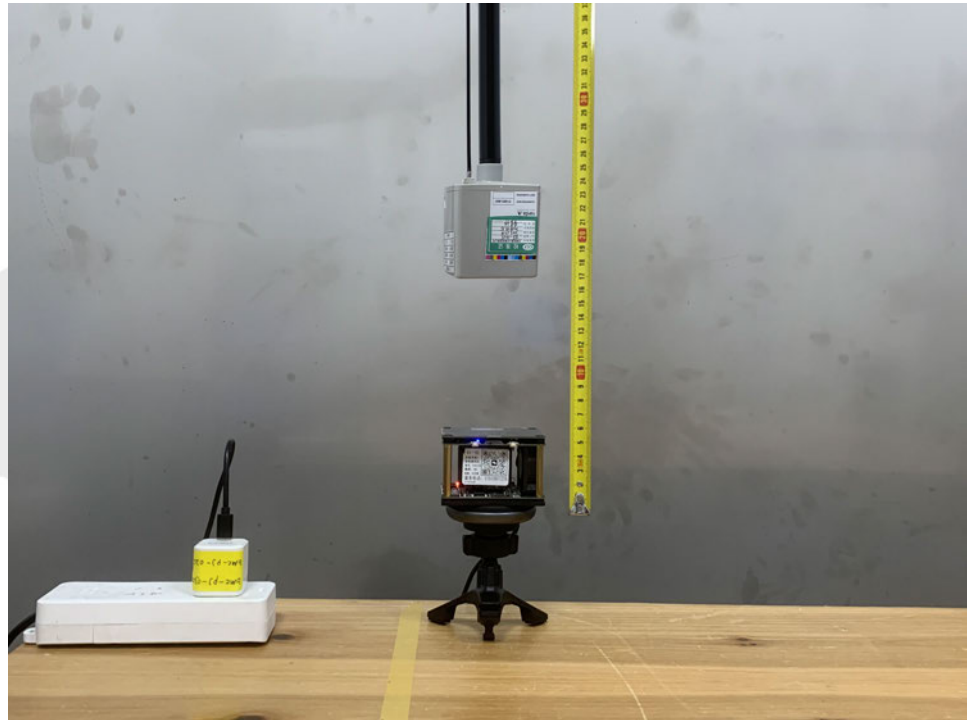
Test Position	E-field (V/m)			H-field (A/m)		
	Measurement	Limit	Max. Percentage (%)	Measurement	Limit	Max. Percentage (%)
Top	4.4389	614	0.80%	0.1709	1.63	13.84%
Bottom	2.9611			0.1918		
Front	2.5457			0.1190		
Rear	3.3084			0.0620		
Left	2.4576			0.0117		
Right	3.4235			0.0183		

Test Condition: Test Mode 2 operating with client device (99% battery status of client device)

Test Position	E-field (V/m)			H-field (A/m)		
	Measurement	Limit	Max. Percentage (%)	Measurement	Limit	Max. Percentage (%)
Top	3.9015	614	0.82%	0.1444	1.63	20.60%
Bottom	5.4621			0.2698		
Front	1.8232			0.0250		
Rear	3.7856			0.0738		
Left	2.8313			0.0020		
Right	3.7261			0.0543		

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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