TEST REPORT

Report No.:	8234EU012110W2
Applicant:	Shenzhen Gaoyi Electronic Co.,Ltd
Address:	Room 701 7th Floor, Building F, Huafeng Industrial Zone, Hangcheng Road Xixiang Town, Bao An District, Shenzhen, China
Product Name:	Wireless Car Charger
Model No.:	X34 (refer to clause 2.4)
Trademark:	N/A
FCC ID:	2A6IU-X34
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. 21, 2024
Test Date:	Oct. 21, 2024 – Nov. 06, 2024
Date of Issue:	Nov. 11, 2024

ISSUED BY:

SHENZHEN EU TESTING LABORATORY LIMITED

SHENZHEN EU TESTING LABORATORY LIMITED APPROVED

Prepared by:	**Reviewed and Approved by:**
Mikey Zhu/ Engineer	Sally Zhang/ Manager

Revision Record

Report Version	Issued Date	Description	Status
V0	Nov. 11, 2024	Original	Valid

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Address: 101, Building B1, Fuqiao Fourth Area, Qiaotou Community, Fuhai Subdistrict, Baoan District, Shenzhen, Guangdong, China
Website: www.eu-test.com
Tel: (86)-755-2357-9714 Email: Service@eu-test.com

2 General Information

2.1 Applicant Information

Applicant	Shenzhen Gaoyi Electronic Co.,Ltd
Address	Room 701 7th Floor, Building F, Huafeng Industrial Zone, Hangcheng Road Xixiang Town, Bao An District, Shenzhen, China

2.2 Manufacturer Information

Manufacturer	Dongguan Gaoyi Electronic Co.,Ltd
Address	No.4, Changsheng Street, Tianmei Village, Huangjiang Town, Dongguan City, Guangdong Province, China

2.3 Factory Information

Factory	Dongguan Gaoyi Electronic Co.,Ltd
Address	No.4, Changsheng Street, Tianmei Village, Huangjiang Town, Dongguan City, Guangdong Province, China

2.4 General Description of E.U.T.

Product Name	Wireless Car Charger
Model No. Under Test	X34
List Model No.	X34C, X34-QI2, 34A, X34B, X34D, X34S
Description of Model differentiation	All models are same with electrical parameters and internal circuit structure, but only differ in appearance colors and model name. (this information provided by the customer)
Rating(s)	Input: 5.0V⎓3.0A/9.0V⎓2.22A Wireless Charger Output: 5W/7.5W/10W/15W
Product Type	☒ Mobile ☐ Portable ☐ Fix Location
Test Sample No.	-1/2(Normal Sample), -2/2(Engineering 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	110.1-205KHz
Modulation Type	FSK
Antenna Type	Inductive Loop 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℃ to +35℃
Working Voltage of the EUT	NV (Normal Voltage)	24 V

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 (7.5W)	
TM3	Wireless Output (10W)	
TM4	Wireless Output (15W)	
TM5	Standby	
Note: 1. All the conditions have been tested. It is found that TM4 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%

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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).

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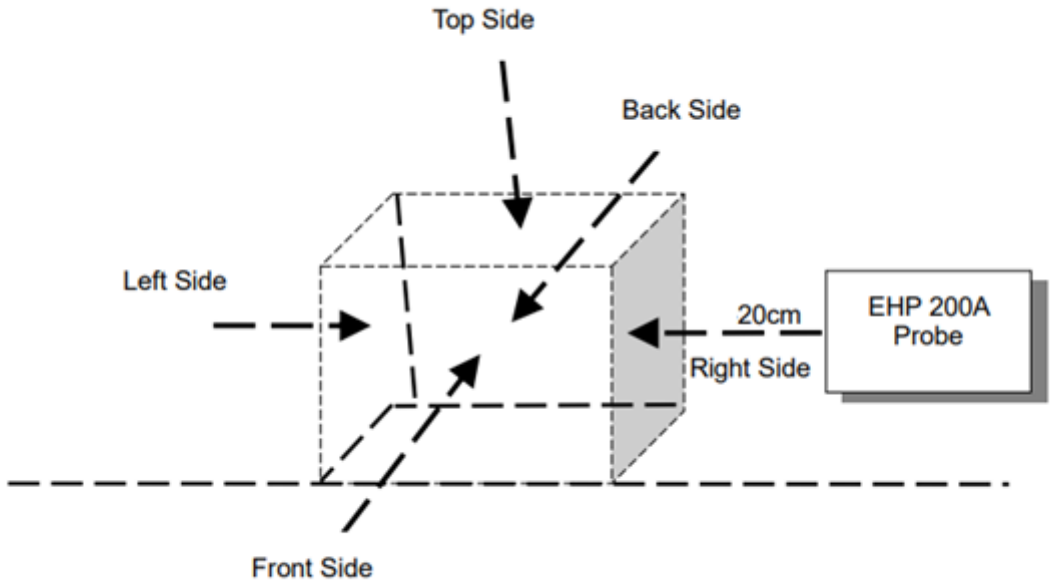
5.2 Test Setup



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: TM4 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	5.2146	614	0.84%	0.1557	1.63	14.10%
Bottom	3.8489			0.1047		
Front	3.6015			0.0515		
Rear	2.7137			0.2042		
Left	2.7612			0.2433		
Right	3.6858			0.2429		

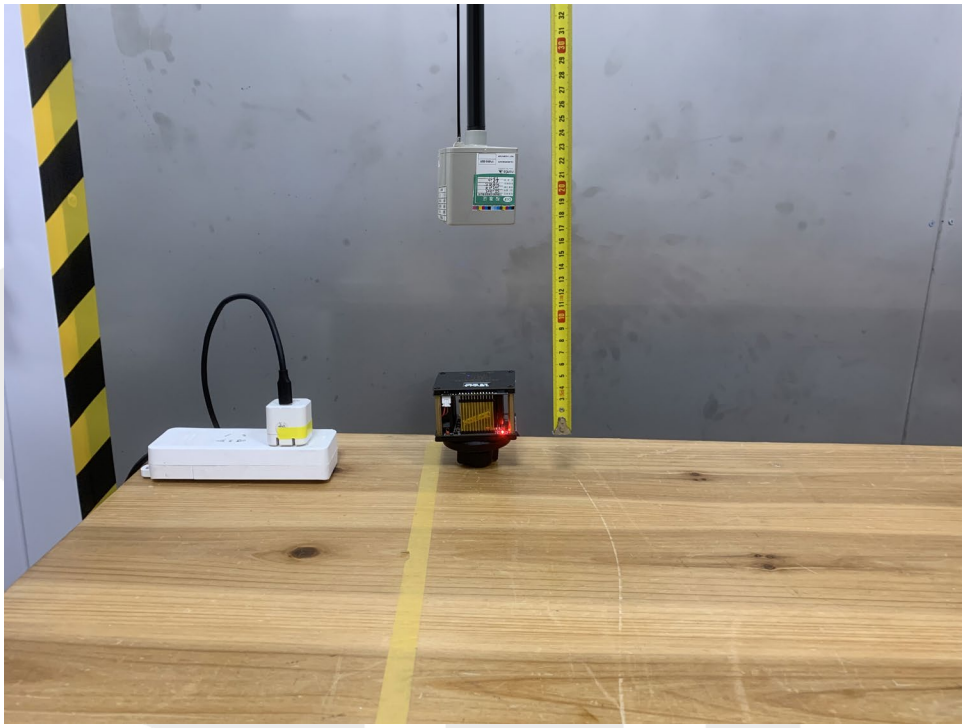
Test Condition: TM4 operating with client device (50% battery status of client device)

Test Position	E-field (V/m)			H-field (A/m)		
	Measurement	Limit	Max. Percentage (%)	Measurement	Limit	Max. Percentage (%)
Top	5.7640	614	0.80%	0.1243	1.63	13.84%
Bottom	5.7242			0.0836		
Front	1.1687			0.0411		
Rear	1.4123			0.1630		
Left	2.7330			0.1942		
Right	2.8539			0.1945		

Test Condition: TM4 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	4.0721	614	0.82%	0.1154	1.63	20.60%
Bottom	5.4598			0.1899		
Front	2.9554			0.0795		
Rear	4.4193			0.1068		
Left	4.7790			0.1670		
Right	3.2828			0.1472		

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.
3. For the report with CNAS mark or A2LA mark, the items marked with "☆" are not within the accredited scope.
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.
6. This report shall not be partially reproduced without the written permission of the laboratory.
7. Any objection shall be raised to the laboratory within 30 days after receiving the report.

--- End of Report ---

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Shenzhen Gaoyi Electronic Co.,Ltd
Room 701 7th Floor, Building F, Huafeng Industrial Zone, Hangcheng Road
Xixiang Town, Bao An District, Shenzhen, China

Date: November 14, 2024

FCC ID: 2A6IU-X34

Model Number: X34, X34C, X34-QI2, 34A, X34B, X34D, X34S

To: Federal Communication Commission
Authorization and Evaluation Division 7435 Oakland Mills Road
Columbia, MD 21048

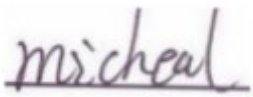
To Whom It May Concern,
We, **Shenzhen Gaoyi Electronic Co.,Ltd** hereby declare that our product (**Wireless Car Charger**) Model Number: **X34** meet item 5.2 of KDB 680106v03r01 as follow;

Requirements of KDB 680106 D01	Yes / No	Description
Power transfer frequency is less than 1 MHz	Yes	The device operates in the frequency range 110.1 KHz - 205 KHz
The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.	Yes	The device contains three transmitter coils, the maximum output power of the primary coil is 15W.
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	Client device is placed directly in contact with the transmitter.
Only § 2.1091- Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).	Yes	Mobile exposure conditions only
The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1. These measurements shall be taken along the principal axes of the device, with one axis oriented along the direction of the estimated maximum field strength, and for three points per axis or until a 1/d (inverse distance from the emitter structure) field strength decay is observed. Symmetry considerations may be used for	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.

test reduction purposes. The device shall be operated in documented worst-case compliance scenarios (i.e., the ones that lead to the maximum field components), and while all the radiating structures (e.g., coils or antennas) that by design can simultaneously transmit are energized at their nominal maximum power.		
For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions. If the design allows one or more radiating structures to be powered at a higher level while other radiating structures are not powered, then those cases must be tested as well. For instance, a device may use three RF coils powered at 5 W, or one coil powered at 15 W: in this case, both scenarios shall be tested	Yes	Only one radiating structure and tested at maximum Output Power

Please contact me if you have any question.

Sincerely,



(Signed)
Printed Name of Signee / Title: Micheal Lee / Manager
Company: Shenzhen Gaoyi Electronic Co.,Ltd
Address: Room 701 7th Floor, Building F, Huafeng Industrial Zone, Hangcheng Road Xixiang Town, Bao An District, Shenzhen, China
Phone: 13923746812
Fax: 13923746812
Email: michealluck143@gaoyitech.com