

TEST REPORT

Report No.:	8235EU121904W1	
Applicant:	Shenzhen Aiqingsong Technology Co.,Ltd.	
Address:	602-2, F6, Bldg A, Bole Industrial Park, Xiangjiao tang Community, Bantian Street, Longgang, Shenzhen, China	
Product Name:	Wireless Charger	
Model No.:	GY-68 (refer to clause 2.4)	
Trademark:	N/A	
FCC ID:	2A76B-GY-68	
Test Standard(s):	47 CFR Part 18 Subpart C	
Date of Receipt:	Nov. 19, 2024	
Test Date:	Nov. 19, 2024 – Nov. 29, 2024	
Date of Issue:	Dec. 13, 2024	

ISSUED BY: SHENZHEN EU TESTING LABORATORY LIMITED

Prepared by:

Reviewed and Approved by:

* * *

TING LABOR

PPROVED

Mikoy zhu

Mikey Zhu/ Engineer

Sally zhang

Sally Zhang/ Manager

SHENZHEN EU TESTING LABORATORY LIMITED



Revision Record

Report Version	Issued Date	Description	Status
V0	Dec. 13, 2024	Original	Valid



SHENZHEN EU TESTING LABORATORY LIMITED

Address: 101, Building B1, Fuqiao Fourth Area, Qiaotou Community, Fuhai Subdistrict, Baoan District, Shenzhen, Guangdong, China



Table of Contents

1	COVER PAGE1			
2	GENI	ERAL INFORMATION	4	
	2.1 2.2 2.3 2.4 2.5	APPLICANT INFORMATION MANUFACTURER INFORMATION FACTORY INFORMATION GENERAL DESCRIPTION OF E.U.T TECHNICAL INFORMATION OF E.U.T.	4 4 4 5	
3	TEST	SUMMARY	6	
	3.1 3.2 3.3	TEST STANDARD TEST VERDICT TEST LABORATORY	6 6 6	
4	TEST	CONFIGURATION	7	
F	4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8	1 TEST ENVIRONMENT 7 2 TEST EQUIPMENT 7 3 DESCRIPTION OF SUPPORT UNIT 8 4 TEST MODE 8 5 DESCRIPTION OF CALCULATION 8 6 MEASUREMENT UNCERTAINTY 9 7 DEVIATION FROM STANDARDS 9 8 ABNORMALITIES FROM STANDARD CONDITION 9		
5	1551	11EMS	0	
	ວ.1	5.1.1 Test Requirement	000000000000000000000000000000000000000	
	5.2	RADIATED EMISSION	3	
		5.2.1 Test Requirement	3 3 4 4	
ANNE ANNE ANNE	EX A EX B EX C	TEST SETUP PHOTOS	21 21 21	

SHENZHEN EU TESTING LABORATORY LIMITED

Address: 101, Building B1, Fuqiao Fourth Area, Qiaotou Community, Fuhai Subdistrict, Baoan District, Shenzhen, Guangdong, China



2 General Information

2.1 Applicant Information

Applicant	Shenzhen Aiqingsong Technology Co.,Ltd.
Address	602-2, F6, Bldg A, Bole Industrial Park, Xiangjiao tang Community, Bantian Street, Longgang, Shenzhen, China

2.2 Manufacturer Information

Manufacturer	Shenzhen Aiqingsong Technology Co.,Ltd.
Address	602-2, F6, Bldg A, Bole Industrial Park, Xiangjiao tang Community, Bantian Street, Longgang, Shenzhen, China

2.3 Factory Information

Factory	Shenzhen Aiqingsong Technology Co.,Ltd.
Address	602-2, F6, Bldg A, Bole Industrial Park, Xiangjiao tang Community, Bantian Street, Longgang, Shenzhen, China

2.4 General Description of E.U.T.

Product Name	Wireless Charger	
Model No. Under Test	GY-68	
	FD-314, FD-304, FD-303, FD-301, FD-305, FD-306, FD-307, FD-308 FD-309, FD-	
List Model No	310, FD-311, FD-312, FD-313, FD-315, FD-316, FD-317, FD-318, FD-319, FD-	
	320, FD-321, FD-322, FD-323, FD-324, FD-325, Q740, K1, K8, K20, K18, X16,	
	Q12, K9, 709, Q5, N30, V8, Y9, V5	
Description of Model	All models are same with electrical parameters and internal circuit structure, but	
differentiation	only differ in appearance colors and model name.	
	(this information provided by the customer)	
	Input: 5.0V===2.0A/9.0V===2.0A	
Rating(s)	Output: 5.0V===1.0A/9.0V===1.2A	
	Wireless Charging Output: 10W	
	🖾 Mobile	
Product Type		
	Fix Location	
Test Sample No.	-1/2(Normal Sample), -2/2(Engineering Sample)	
Hardware Version	N/A	
Software Version	N/A	
	1) The above information are declared by the applicant, EU-LAB is not responsible	
Remark	for the information accuracy provided by the applicant.	
Romany	2) For a more detailed features description, please refer to the manufacturer's	
	specifications or the User's Manual.	

SHENZHEN EU TESTING LABORATORY LIMITED



2.5 Technical Information of E.U.T.

Network and	Window Dower Transfer
Wireless Connectivity	wireless Power Transier

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	Coil Antenna
Antenna Gain(Peak)	0 dBi
Demerik	The above information are declared by the applicant, EU-LAB is not responsible
Remark	for the information accuracy provided by the applicant.



SHENZHEN EU TESTING LABORATORY LIMITED



3 Test Summary

3.1 Test Standard

The tests were performed according to following standards:

No.	Identity	Document Title
1	47 CFR Part 18, Subpart C	Industrial, Scientific, and medical medical equipment
2	ANSI C63.10-2020	American National Standard for Testing Unlicensed Wireless Devices

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	Conducted Emission at AC Power Line	18.307	Pass	
2	Radiated Emissions	18.305	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

SHENZHEN EU TESTING LABORATORY LIMITED

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

Conducted Emission at AC power line					
Equipment	Manufacturer	Model No	Serial No	Cal Date	Cal Due Date
L.I.S.N. Artificial Mains Network	Rohde & Schwarz	ENV216	EE-004	2024/01/09	2025/01/08
EMI Test Receiver	Rohde & Schwarz	ESCI	EE-005	2024/01/09	2025/01/08
Test Software	Farad	EZ-EMC	EE-014	N.C.R	N.C.R

Radiated Emission and RF Test					
Equipment	Manufacturer	Model No	Serial No	Cal Date	Cal Due Date
EMI Test Receiver	ROHDE & SCHWARZ	ESPI	EE-006	2024/01/09	2025/01/08
Bilog Broadband Antenna	SCHWARZBECK	VULB 9163	EE-007	2023/01/14	2026/01/13
Double Ridged Horn Antenna	A-INFOMW	LB-10180-NF	EE-008	2023/01/12	2026/01/11
Pre-amplifier	Agilent	8447D	EE-009	2024/01/09	2025/01/08
Pre-amplifier	Agilent	8449B	EE-010	2024/01/09	2025/01/08
MXA Signal Analyzer	Agilent	N9020A	EE-011	2024/01/09	2025/01/08
MXG RF Vector Signal Generator	Agilent	N5182A	EE-012	2024/01/09	2025/01/08
Test Software	Farad	EZ-EMC	EE-015	N.C.R	N.C.R
MIMO Power Measurement Module	TSTPASS	TSPS 2023R	EE-016	2024/01/09	2025/01/08
RF Test Software	TSTPASS	TS32893 V2.0	EE-017	N.C.R	N.C.R
Wideband Radio Communication Tester	ROHDE & SCHWARZ	CMW500	EE-402	2024/02/15	2025/02/14
Loop Antenna	TESEQ	HLA6121	EE-403	2024/02/15	2025/02/14
MXG RF Analog Signal Generator	Agilent	N5181A	EE-406	2024/02/15	2025/02/14
Constant Temperature Humidity Chamber	Guangxin	GXP-401	ES-002	2024/07/30	2025/07/29

SHENZHEN EU TESTING LABORATORY LIMITED



4.3 Description of Support Unit

No.	Title	Manufacturer	Model No.	Serial No.
1	Adapter	ANKER	A2149	EMC-PJ-035
2	Wireless Charging Load	YBZ	ID-ZWX	EMC-PJ-050

4.4 Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was prescanning 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 (10W)	
TM2	Standby	
Note:		

1. All the conditions have been tested. It is found that TM1 is the worst mode, and the data in the report only reflects the worst mode.

4.5 Description of Calculation

4.5.1. Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS (dBuV/m) = RA (dBuV) + AF (dB/m) + CL (dB) - AG (dB)

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

4.5.2. Disturbance Calculation

The AC mains conducted disturbance is calculated by adding the 10dB Pulse Limiter and Cable Factor and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

CD (dBuV) = RA (dBuV) + PL (dB) + CL (dB)

Where CD = Conducted Disturbance	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	PL = 10 dB Pulse Limiter Factor

SHENZHEN EU TESTING LABORATORY LIMITED



4.6 Measurement Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2.

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

Test Item	Measurement Uncertainty
Conducted Emission	2.64 dB
Occupied Channel Bandwidth	2.8 %
RF output power, conducted	0.68 dB
Power Spectral Density, conducted	1.37 dB
Unwanted Emissions, conducted	1.84 dB
Radiated Emission (9kHz- 30MHz)	Ur = 2.50 dB
Radiated Emission	Ur = 2.70 dB (Horizontal)
(30MHz- 1GHz)	Ur = 2.70 dB (Vertical)
Radiated Emission	Ur = 3.50 dB (Horizontal)
(1GHz- 18GHz)	Ur = 3.50 dB (Vertical)
Radiated Emission	Ur = 5.15 dB (Horizontal)
(18GHz- 40GHz)	Ur = 5.24 dB (Vertical)
Temperature	0.8°C
Humidity	4%

4.7 Deviation from Standards

None.

4.8 Abnormalities from Standard Condition

None.

SHENZHEN EU TESTING LABORATORY LIMITED



5 Test Items

5.1 Conducted Emission at AC Power Line

5.1.1 Test Requirement

Test Requirement:	Except as shown in paragraphs (b)and (c)of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN).		
	Frequency of emission (MHz)	Conducted limit (dBµV)	
		Quasi-peak	Average
	0.15-0.5	66 to 56*	56 to 46*
l est Limit	0.5-5	56	46
	5-30	60	50
	*Decreases with the logarithm of the frequency.		
Test Method	Refer to ANSI C63.10-2020 section 6.2, standard test method for ac power-line conducted emissions from unlicensed wireless devices.		

5.1.2 Test Setup Diagram



5.1.3 Test Procedure

The EUT is put on the plane 0.8 m high above the ground by insulating support and connected to the AC mains through Line Impedance Stability Network (L.I.S.N). This provided a 50ohm coupling impedance for the tested equipment. Both sides of AC line are investigated to find out the maximum conducted emission according to the test standard regulations during conducted emission measurement.

The bandwidth of the field strength meter (R&S Test Receiver ESCI) is set at 9kHz in 150kHz~30MHz. The maximum conducted interference is searched using Peak (PK), if the emission levels more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed. Refer to recorded points and plots below.

Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. A device rated for 50/60 Hz operation need not be tested at both frequencies provided the radiated and line conducted emissions are the same at both frequencies.

5.1.4 Test Data

PASS.

Only the worst case data was showed in the report, please to see the following pages.

SHENZHEN EU TESTING LABORATORY LIMITED



Conducted Emission Test Data



SHENZHEN EU TESTING LABORATORY LIMITED

Address: 101, Building B1, Fuqiao Fourth Area, Qiaotou Community, Fuhai Subdistrict, Baoan District, Shenzhen, Guangdong, China



Conducted Emission Test Data



SHENZHEN EU TESTING LABORATORY LIMITED

Address: 101, Building B1, Fuqiao Fourth Area, Qiaotou Community, Fuhai Subdistrict, Baoan District, Shenzhen, Guangdong, China



5.2 Radiated Emission

5.2.1 Test Requirement

Test Requirement	FCC §18.305				
	Limits for frequency below 30MHz:				
	Except as provided elsewhere in this Subpart 18.305(b), the field strength levels of				
	emissions which lie	outside the bands	specified in § 18.3	01, unless otherwise	
	indicated, shall not e	xceed the following ta	able:		
	Frequency Measurement		Field Stre	Field Strength Limit	
	(MHz)	distance (meters)	(dBµV/m)	Remark	
	0.009-30	3	103.5	Quasi-peak	
	Remark:				
	(1) Emission level dBuV/m = 20l0g (15) +40*l0g (300/3) =103.5 dBuV/m;				
	(2) Calculated acco	rding FCC 18.305;			
l est Limit	(3) The smaller limit	t shall apply at the cro	oss point between tw	/o frequency bands;	
	(4) Distance is the distance in meters between the measuring instrument,				
	antenna and the closest point of any part of the device or system.				
	Limits for frequency above 30MHz:				
	Frequency	Measurement	Field Stre	ength Limit	
	(MHz)	distance (meters)	(dBļ	uV/m)	
	30-1000	3	63	3.5	
	Remark:				
(1) Emission level dBuV/m = 20l0g (15) +20*l0g (300/3) =63.5 dBuV/m.				5 dBuV/m.	
	ANSI C63.10-2020 section 6.4, 6.5				
lest Method	Radiated emissions tests				

5.2.2 Test Setup Diagram



SHENZHEN EU TESTING LABORATORY LIMITED

Address: 101, Building B1, Fuqiao Fourth Area, Qiaotou Community, Fuhai Subdistrict, Baoan District, Shenzhen, Guangdong, China





5.2.3 Test Procedure

The measurement frequency range is from 9 kHz to the 10th harmonic of the fundamental frequency. The Turn Table is actuated to turn from 0° to 360°, and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power.

The power of the EUT transmitting frequency should be ignored.

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

For 9kHz to 150kHz, Set the spectrum analyzer as:

RBW = 200Hz, VBW =1kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For 150kHz to 30MHz, Set the spectrum analyzer as:

RBW = 9KHz, VBW = 30kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For 30MHz to 1000MHz, Set the spectrum analyzer as:

RBW = 100kHz, VBW =300kHz, Detector= Quasi-Peak, Trace mode= Max hold, Sweep- auto couple.

For above 1GHz, Set the spectrum analyzer as:

RBW =1MHz, VBW =1MHz, Detector= Peak, Trace mode= Max hold, Sweep- auto couple. RBW =1MHz, VBW =10Hz, Detector= Average, Trace mode= Max hold, Sweep- auto couple.

For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported, Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

5.2.4 Test Data

PASS.

Please refer to the following pages. The frequency range from 9KHz to 1000MHz is checked. Only the worst case data was showed in the report, please to see the following pages.

SHENZHEN EU TESTING LABORATORY LIMITED



Radiated Emission Test Data (9kHz -150kHz)



SHENZHEN EU TESTING LABORATORY LIMITED



Radiated Emission Test Data (9kHz -150kHz)



SHENZHEN EU TESTING LABORATORY LIMITED

Address: 101, Building B1, Fuqiao Fourth Area, Qiaotou Community, Fuhai Subdistrict, Baoan District, Shenzhen, Guangdong, China



Radiated Emission Test Data (150kHz - 30MHz)



SHENZHEN EU TESTING LABORATORY LIMITED



Radiated Emission Test Data (150kHz - 30MHz)



SHENZHEN EU TESTING LABORATORY LIMITED

Address: 101, Building B1, Fuqiao Fourth Area, Qiaotou Community, Fuhai Subdistrict, Baoan District, Shenzhen, Guangdong, China



Radiated Emission Test Data (30-1000MHz)



SHENZHEN EU TESTING LABORATORY LIMITED



Radiated Emission Test Data (30-1000MHz)



SHENZHEN EU TESTING LABORATORY LIMITED



ANNEX A TEST SETUP PHOTOS

Please refer to the document "8235EU121904W-AA.PDF"

ANNEX B EXTERNAL PHOTOS

Please refer to the document "8235EU121904W-AB.PDF"

ANNEX C INTERNAL PHOTOS

Please refer to the document "8235EU121904W-AC.PDF"



SHENZHEN EU TESTING LABORATORY LIMITED

Address: 101, Building B1, Fuqiao Fourth Area, Qiaotou Community, Fuhai Subdistrict, Baoan District, Shenzhen, Guangdong, China

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 ---

SHENZHEN EU TESTING LABORATORY LIMITED