Aixin Green Energy (Zhejiang) Technology Co.,Ltd

MPE ASSESSMENT REPORT

Report Type:
FCC MPE assessment report

MODEL:
UA-US-AC10J-6, UA-US-AC10J-14,
UA-US-AC10N-6, UA-US-AC10N-14,
UA-US-AC10J-6G, UA-US-AC10J-14G,
UA-US-AC10N-6G, UA-US-AC10N-14G,
UA-US-AC12J, UA-US-AC12N,
UA-US-AC12J-G, UA-US-AC12N-G,
UA-US-AC20J, UA-US-AC20N,
UA-US-AC20J-G, UA-US-AC20N-G

REPORT NUMBER:
2409B2200SHA-002

ISSUE DATE:
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Intertek Testing Services (Shanghai FTZ) Co., Ltd.
Building No.86, 1198 Qinzhou Road (North)
Caohejing Development Zone
Shanghai 200233, China

Telephone: 86 21 6127 8200
www.intertek.com

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TEST REPORT

Report no.: 2409B2200SHA-002

Applicant:	Aixin Green Energy (Zhejiang) Technology Co.,Ltd No.6, Zhenying Road, Juexi Street, Xiangshan County, Ningbo City, Zhejiang, P.R. China
Manufacturer:	Aixin Green Energy (Zhejiang) Technology Co.,Ltd No.6, Zhenying Road, Juexi Street, Xiangshan County, Ningbo City, Zhejiang, P.R. China
Factory:	Aixin Green Energy (Zhejiang) Technology Co.,Ltd No.6, Zhenying Road, Juexi Street, Xiangshan County, Ningbo City, Zhejiang, P.R. China
FCC ID:	2BMDX-UA20ACJN

SUMMARY:

The equipment complies with the requirements according to the following standard(s) or Specification:
KDB447498 D01 General RF Exposure Guidance v06 FCC Part2.1091, FCC Part2.1093 FCC Part1.1307(b)

PREPARED BY:	**REVIEWED BY:**
	
Project Engineer Sky Yang	Reviewer Eric Li

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Revision History

Report No.	Version	Description	Issued Date
2409B2200SHA-002	Rev. 01	Initial issue of report	April 11, 2025

TEST REPORT

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test (EUT)

Product name:	AC EV Charging Station
Type/Model:	UA-US-AC10J-6, UA-US-AC10J-14, UA-US-AC10N-6, UA-US-AC10N-14, UA-US-AC10J-6G, UA-US-AC10J-14G, UA-US-AC10N-6G, UA-US-AC10N-14G, UA-US-AC12J, UA-US-AC12N, UA-US-AC12J-G, UA-US-AC12N-G, UA-US-AC20J, UA-US-AC20N, UA-US-AC20J-G, UA-US-AC20N-G
Description of EUT:	The EUT is an electric vehicle AC charging station. EUT contains certified wireless module, the FCC ID is XMR2022FCM100D and XMR2023EG800QNA. All models are electrically identical except input cable, output connector and rated power. UA-US-AC10J-6, US-AC10J-6G, US-US-AC10N-6 and UA-US-AC10N-6G are equipped with 6-50P input cable. UA-US-AC10J-14, UA-US-AC10J-14G, UA-US-AC10N-14 and UA-US-AC10N-14G are equipped with 14-50P input cable. UA-US-AC10J-6, UA-US-AC10J-14, UA-US-AC12J, UA-US-AC20J, UA-US-AC10J-6G, UA-US-AC10J-14G, UA-US-AC12J-G and UA-US-AC20J-G are equipped with type1 output connector. UA-US-AC10N-6, UA-US-AC10N-14, UA-US-AC12N, UA-US-AC20N, UA-US-AC10N-6G, UA-US-AC10N-14G, UA-US-AC12N-G and UA-US-AC20N-G are equipped with NACS output connector.
Rating:	UA-US-AC10J-6, UA-US-AC10J-14, UA-US-AC10N-6, UA-US-AC10N-14, UA-US-AC10J-6G, UA-US-AC10J-14G, UA-US-AC10N-6G, UA-US-AC10N-14G: 208VAC/240VAC, 60Hz, 40A Max UA-US-AC12J, UA-US-AC12N, UA-US-AC12J-G, UA-US-AC12N-G: 208VAC/240VAC, 60Hz, 50A Max UA-US-AC20J, UA-US-AC20N, UA-US-AC20J-G, UA-US-AC20N-G: 208VAC/240VAC, 60Hz, 80A Max
Category of EUT:	Class B
EUT type:	☒ Table top ☐ Floor standing
Software Version:	-
Hardware Version:	-
Serial numbers:	A250225-11
Sample received date:	February 25, 2025
Date of test:	February 26, 2025 ~ March 4, 2025

1.2 Technical Specification

Frequency Range:	13.56 MHz ~ 13.56 MHz
Modulation:	ASK
Antenna gain:	PCB antenna

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1.3 Description of Test Facility

Name:	Intertek Testing Services (Shanghai FTZ) Co., Ltd.
Address:	Building 86, No. 1198 Qinzhou Road(North), Shanghai 200233, P.R. China
Telephone:	86 21 61278200
Telefax:	86 21 54262353

The test facility is recognized, certified, or accredited by these organizations:	CNAS Accreditation Lab Registration No. CNAS L21189
	FCC Accredited Lab Designation Number: CN0175
	IC Registration Lab CAB identifier.: CN0014
	VCCI Registration Lab Member No.: 3598 (Registration No.: R-14243, G-10845, C-14723, T-12252)
	A2LA Accreditation Lab Certificate Number: 3309.02

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2 MPE Assessment

Test result: Pass

2.1 MPE Assessment Limit

Mobile device exposure for standalone operations:
According to§1.1310, the limit for general population/uncontrolled exposures

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm2)	Averaging time (minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f2)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

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

Mobile device exposure for simultaneous transmission operations: **the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is ≤ 1.0**

2.2 Assessment Results

Power density (S) is calculated according to the formula:
$S = PG / (4\pi R^2)$
Where S = power density in mW/cm^2
P = Power in mW
G = numeric gain of transmit antenna
R = distance (cm)

Limit for 13.56MHz is 60.77 V/m
As we can see from the test report 2409B2200SHA-001:
56.4dBuV/m@3m, @20cm=@3m+40log(3/0.2)=103.44dBuV/m=0.149V/m<60.77.

The power for WIFI module refers to certificate of FCC ID: XMR2022FCM100D
The power for LTE module refers to certificate of FCC ID: XMR2023EG800QNA

The calculations in the table below use the highest gain of antenna for client EUT. These calculations represent worst case in terms of the exposure levels.

Wireless Module	Frequency Range (MHz)	P		G		R	S	Limits
		(dBm)	(mW)	(dBi)	(numeric)	(cm)	(mW/cm2)	(mW/cm2)
XMR2022FCM100D	2.4G WLAN	19.12	81.658	-1	0.794	20	0.0129	1.0000
	Bluetooth	6.44	4.406	-1	0.794	20	0.000696	1.0000
XMR2023EG800QNA	LTE Band 2	25	316.23	4	2.512	20	0.158	1
	LTE Band 4	25	316.23	4	2.512	20	0.158	1
	LTE Band 5	25	316.23	4	2.512	20	0.158	0.549
	LTE Band 12	25	316.23	4	2.512	20	0.158	0.466
	LTE Band 13	25	316.23	4	2.512	20	0.158	0.518
	LTE Band 66	25	316.23	4	2.512	20	0.158	1

Note: 1 mW/cm2 from 1.310 Table 1.

RFID, LTE and WIFI/Bluetooth can transmit simultaneously, so the maximum rate of MPE is, 0.149/60.77+0.0129/1+0.158/0.466=0.354 <1.0.

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Appendix I

Definition below must be outlined in the User Manual:

To satisfy FCC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.
To ensure compliance, operations at closer than this distance is not recommended.

**********END**********