

# EV Charging Clean Energy Technology Co., Ltd.

## MPE ASSESSMENT REPORT

**Report Type:**

FCC MPE assessment report

**MODEL:**

Atlas D80-US, Atlas D120-US, Atlas D160-US,  
Atlas D160-US-PRO

**REPORT NUMBER:**

2310A0991SHA-002

**ISSUE DATE:**

September 6, 2024

**DOCUMENT CONTROL NUMBER:**

TTRFFCCMPE-01\_V1 © 2018 Intertek



**Applicant:** EV Charging Clean Energy Technology Co., Ltd.  
3rd Floor Building C-1, No.6 Northern Industry Road, Songshan Lake Sci&Tech  
Industrial Park, Dongguan city, Guangdong Province, China.

**Manufacturer:** EV Charging Clean Energy Technology Co., Ltd.  
3rd Floor Building C-1, No.6 Northern Industry Road, Songshan Lake Sci&Tech  
Industrial Park, Dongguan city, Guangdong Province, China.

**Factory:** EV Charging Clean Energy Technology Co., Ltd.  
3rd Floor Building C-1, No.6 Northern Industry Road, Songshan Lake Sci&Tech  
Industrial Park, Dongguan city, Guangdong Province, China.

**FCC ID:** 2BETU-ATLASD160US

**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

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

## Revision History

Report No.	Version	Description	Issued Date
2310A0991SHA-002	Rev. 01	Initial issue of report	September 6, 2024

## 1 GENERAL INFORMATION

### 1.1 Description of Equipment Under Test (EUT)

Product name:	Atlas All-in-One DC charger
Type/Model:	Atlas D80-US, Atlas D120-US, Atlas D160-US, Atlas D160-US-PRO
Description of EUT:	The EUT is an electric vehicle DC charger with LTE function. The LTE module FCC ID is XMR202212EG25GL. Atlas D80-US, Atlas D120-US and Atlas D160-US are electrically identical except the rated power. The difference between Atlas D160-US and Atlas D160-US-PRO is Atlas D160-US-PRO has liquid cooling while Atlas D160-US doesn't.
Rating:	<p>Atlas D80-US: Input: 480VAC, 60Hz, 117A Max Output 1/2: 200-1000VDC, 200A Max, 80kW Max</p> <p>Atlas D120-US: Input: 480VAC, 60Hz, 174A Max Output 1/2: 200-1000VDC, 200A Max, 120kW Max</p> <p>Atlas D160-US: Input: 480VAC, 60Hz, 231A Max Output 1/2: 200-1000VDC, 200A Max, 160kW Max</p> <p>Atlas D160-US-PRO: Input: 480VAC, 60Hz, 232A Max Output 1: 200-1000VDC, 500A Max, 160kW Max Output 2: 200-1000VDC, 200A Max, 160kW Max</p>
Category of EUT:	Class A
EUT type:	<input type="checkbox"/> Table top <input checked="" type="checkbox"/> Floor standing
Software Version:	-
Hardware Version:	-
Serial numbers:	A231221-40
Sample received date:	December 21, 2023
Date of test:	December 22, 2023 ~ December 29, 2023

### 1.2 Technical Specification

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

### 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

## TEST REPORT

## 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/cm <sup>2</sup> )	Averaging time (minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f <sup>2</sup> )	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

Note: Limit for 13.56MHz is 60.77 V/m

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

## 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<sup>2</sup>

P = Transmit power in mW

G = numeric gain of transmit antenna

R = distance (cm)

As we can see from the test report 2310A0991SHA-001:

$$57.2\text{dBuV/m}@3\text{m}, @20\text{cm}=@3\text{m}+40\log(3/0.2)=104.24\text{dBuV/m}=0.163\text{V/m}<60.77.$$

The power for LTE module refers to certificate of FCC ID: XMR202212EG25GL

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.

Frequency Range (MHz)	P (dBm)	G (dBi)	PG (mW)	R (cm)	S (mW/cm <sup>2</sup> )	Limits (mW/cm <sup>2</sup> )
GSM850	26	4	1000	20	0.199	0.549
PCS1900	23	4	501.19	20	0.0997	1.0
WCDMA Band II	25	4	794.33	20	0.158	1.0
WCDMA Band IV	25	4	794.33	20	0.158	1.0
WCDMA Band V	25	4	794.33	20	0.158	0.549
LTE Band 2	25	4	794.33	20	0.158	1.0
LTE Band 4	25	4	794.33	20	0.158	1.0
LTE Band 5	25	4	794.33	20	0.158	0.549
LTE Band 7	25	4	794.33	20	0.158	1.0
LTE Band 12	25	4	794.33	20	0.158	0.466
LTE Band 13	25	4	794.33	20	0.158	0.518
LTE Band 25	25	4	794.33	20	0.158	1.0
LTE Band 26	25	4	794.33	20	0.158	0.543
LTE Band 38	25	4	794.33	20	0.158	1.0
LTE Band 41	25	4	794.33	20	0.158	1.0
LTE Band 66	25	4	794.33	20	0.158	1.0

Note: 1 mW/cm<sup>2</sup> from 1.310 Table 1.

RFID and LTE can transmit simultaneously, so the maximum rate of MPE is,  
 $0.163/60.77+0.199/0.549=0.365 < 1.0.$

## 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\*\*\*\*\*