

# Sichuan Injet New Energy Co., Ltd.

# **MPE ASSESSMENT REPORT**

## **Report Type:**

IC MPE assessment report

#### Model:

iM3C-19K2A, iM3C-15K6A, iM3C-11K5A, iM3C-09K6A

### **REPORT NUMBER:**

2309A1183SHA-004

### **ISSUE DATE:**

November 1, 2023



#### **DOCUMENT CONTROL NUMBER:**

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TEST REPORT

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Report no.: 2309A1183SHA-004

**4Applicant:** Sichuan Injet New Energy Co., Ltd.

The Northeast Corner of Minshan Road and Tumenjiang Road, Economic

and Technological Development Zone, Deyang, Sichuan, China

Manufacturer: Sichuan Injet New Energy Co., Ltd.

The Northeast Corner of Minshan Road and Tumenjiang Road, Economic

and Technological Development Zone, Deyang, Sichuan, China

**Factory:** Sichuan Injet New Energy Co., Ltd.

The Northeast Corner of Minshan Road and Tumenjiang Road, Economic

and Technological Development Zone, Deyang, Sichuan, China

**IC**: 31210-IM3C2309

#### **SUMMARY:**

PREPARED BY:

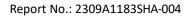
The equipment complies with the requirements according to the following standard(s) or Specification:

RSS-102: Issue 5 (March 2015)

Sky Yang	Zrie. li	
Project Engineer	Reviewer	
Sky Yang	Eric Li	

**REVIEWED BY:** 

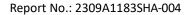
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# **Revision History**

Report No.	Version	Description	Issued Date
2309A1183SHA-004	Rev. 01	Initial issue of report	November 1, 2023





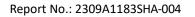
# **1 GENERAL INFORMATION**

# 1.1 Description of Equipment Under Test (EUT)

Product name:	AC EV Charger		
Type/Model:	iM3C-19K2A, iM3C-15K6A, iM3C-11K5A, iM3C-09K6A		
Description of EUT:	The EUT is an electric vehicle DC charger. It contains a certified WIFI module and LTE module. The LTE module IC is 10224A-2019EC25AFX, the WIFI module IC is 21098-ESPC3WROOM. All models are electric identical except the rated power.		
Rating:	iM3C-19K2A: 240VAC, 60Hz, 80A Max iM3C-15K6A: 240VAC, 60Hz, 65A Max iM3C-11K5A: 240VAC, 60Hz, 48A Max iM3C-09K6A: 240VAC, 60Hz, 40A Max		
EUT type:	☐ Table top ☐ Floor standing		
Software Version:	-		
Hardware Version:	-		
Sample received date:	September 11, 2023		
Date of test:	September 12, 2023 ~ September 27, 2023		

# 1.2 Technical Specification

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

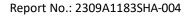




## 1.3 Description of Test Facility

Name:	Intertek Testing Services Shanghai
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 L0139
	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





### 2 MPE Assessment

Test result: Pass

### 2.1 MPE Test Exclusion Limit

Section 2.5.2: Exemption from Routine Evaluation Limits – RF Exposure Evaluation

According RSS-102 Table 1(RF Field Strength Limits for Devices Used by the General Public)

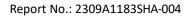
Frequency		Exemption Limits (mW)				
(MHz)	At separation	At separation	At separation	At separation	At separation	
	distance of	distance of	distance of	distance of	distance of	
	≤5 mm	10 mm	15 mm	20 mm	25 mm	
≤300	71 mW	101 mW	132 mW	162 mW	193 mW	
450	52 mW	70 mW	88 mW	106 mW	123 mW	
835	17 mW	30 mW	42 mW	55 mW	67 mW	
1900	7 mW	10 mW	18 mW	34 mW	60 mW	
2450	4 mW	7 mW	15 mW	30 mW	52 mW	
3500	2 mW	6 mW	16 mW	32 mW	55 mW	
5800	1 mW	6 mW	15 mW	27 mW	41 mW	

RF exposure evaluation is required if the separation distance between the user and the device's radiating element is >20 cm, except when the device operates as follows:

Frequency	EIRP
(MHz)	(W)
< 20	≤ 1
≥ 20 and < 48	≤ 22.48/f <sup>0.5</sup>
≥ 48 and < 300	≤ 0.6
≥ 300 and < 6000	$\leq 1.31 \times 10^{-2}  \mathrm{f}^{0.6834}$
≥ 6000	≤ 5

Calculated limit according to above table:

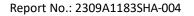
EIRP
(W)
≤ 0.668
≤ 0.831
≤ 2.675
≤ 4.507
≤ 4.567
≤ 4.697
≤ 4.845
≤ 1.288
≤ 2.239
≤ 2.239
≤ 2.122
≤ 1.288
≤ 2.239
≤ 2.122





### **TEST REPORT**

LTE Band 5	≤ 1.288
LTE Band 7	≤ 2.751
LTE Band 12	≤ 1.151
LTE Band 13	≤ 1.238
LTE Band 25	≤ 2.239
LTE Band 26(814-824)	≤ 1.278
LTE Band 26(824-849)	≤ 1.288
LTE Band 38	≤ 2.803
LTE Band 41	≤ 2.748





### **TEST REPORT**

### 2.2 Assessment Results

The fundamental emission is measured as:

Radiated Method:

Maximum EIRP

Device	Field Strength	EIRP
	(dBuV/m)	(mW)
Remote transmitter		

Conducted Method:

The Power Data please refer to the RF Test Report 2309A1183SHA-002 13.56MHz: 60.6dBuV/m@3m, @20cm=@3m+40log(3/0.2)=107.64dBuV/m

Maximum EIRP

For 13.56MHz: 107.64dBuV/m=0.000077W< 1W.

The power for WIFI module refers to certificate of IC: 21098-ESPC3WROOM The power for LTE module refers to report of IC: 10224A-2019EC25AFX

### Maximum EIRP:

Dovice	Conducted Power	Gain of Antenna	EIRP	EIRP
Device	(dBm)	(dBi)	(dBm)	(W)
Bluetooth LE	8.52	3.26	11.78	0.0151
WIFI 2.4G	17.56	3.26	20.82	0.121
WCDMA Band II	25	4	29	0.794
WCDMA Band IV	25	4	29	0.794
WCDMA Band V	25	4	29	0.794
LTE Band 2	25	4	29	0.794
LTE Band 4	25	4	29	0.794
LTE Band 5	25	4	29	0.794
LTE Band 12	25	4	29	0.794
LTE Band 13	25	4	29	0.794
LTE Band 14	25	4	29	0.794
LTE Band 66	25	4	29	0.794
LTE Band 71	25	4	29	0.794

RFID, WIFI and LTE can transmit simultaneously, so the maximum rate of MPE is, 0.000077/1+0.121/2.675+0.794/1.151=0.735<=1.0.

Therefore, the MPE requirement is deemed to be satisfied without test.