

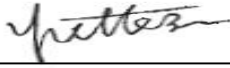




## RF Exposure Evaluation Report

<b>Report Reference No.</b> ..... :	<b>MTEB24040183-H</b>	
<b>FCC ID</b> ..... :	<b>2A2RN-ACEVCN13P2IW</b>	
Compiled by ( position+printed name+signature)..:	File administrators Alisa Luo	
Supervised by ( position+printed name+signature)..:	Test Engineer Sunny Deng	
Approved by ( position+printed name+signature)..:	Manager Yvette Zhou	
Date of issue..... :	<b>April 16,2024</b>	
<b>Representative Laboratory Name.</b> :	<b>Shenzhen Most Technology Service Co., Ltd.</b>	
Address..... :	No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China.	
<b>Applicant's name</b> ..... :	<b>Xiamen Joint Tech. Co., Ltd</b>	
Address..... :	Building #1, No.268 HouXiang Rd, Xinyang, Industrial Park, Haicang District, XIAMEN, Fujian, XIAMEN, China	
<b>Test specification/ Standard</b> ..... :	<b>47 CFR Part 1.1307;47 CFR Part 1.1310</b> <b>KDB447498D01 General RF Exposure Guidance v06</b>	
TRF Originator..... :	Shenzhen Most Technology Service Co., Ltd.	
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<b>Test item description</b> ..... :	Electric Vehicle AC Charger	
Trade Mark..... :	Joint	
Model/Type reference..... :	JNT-EVC10/80AC/01C/BK/RF/WF	
Listed Models .....	JNT-EVC10/80AC/01C/YY/RF/WF;YY stands for colour	
Modulation Type..... :	ASK	
Operation Frequency..... :	13.56MHz	
Hardware Version..... :	N1-3P2	
Software Version..... :	N1-3P2_C_1	
Rating..... :	AC 240V/60Hz	
Result..... :	<b>PASS</b>	

## TEST REPORT

Equipment under Test : Electric Vehicle AC Charger

Model /Type : JNT-EVC10/80AC/01C/BK/RF/WF

Listed Models : JNT-EVC10/80AC/01C/YY/RF/WF;YY stands for colour

Remark : Difference in Appearance colour

Applicant : **Xiamen Joint Tech. Co., Ltd**

Address : Building #1,No.268 HouXiang Rd,Xinyang, Industrial Park,Haicang District,XIAMEN,Fujian, XIAMEN, China

Manufacturer : **Xiamen Joint Tech. Co., Ltd**

Address : Building #1,No.268 HouXiang Rd,Xinyang, Industrial Park,Haicang District,XIAMEN,Fujian, XIAMEN, China

<b>Test Result:</b>	<b>PASS</b>
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The test report merely corresponds to the test sample.  
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

## 1. Revision History

Revision	Issue Date	Revisions	Revised By
00	2024-04-16	Initial Issue	Alisa Luo



## **2. SAR Evaluation**

### **2.1 RF Exposure Compliance Requirement**

#### **2.1.1 Standard Requirement**

According to KDB447498D01 General RF Exposure Guidance v06

##### 4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

#### **2.1.2 Limits**

For frequencies below 100 MHz, the following may be considered for SAR test exclusion (also illustrated in Appendix C): 33

- 1) For test separation distances  $> 50$  mm and  $< 200$  mm, the power threshold at the corresponding test separation distance at 100 MHz in step b) is multiplied by  $[1 + \log(100/f(\text{MHz}))]$
- 2) For test separation distances  $\leq 50$  mm, the power threshold determined by the equation in c) 1) for 50 mm and 100 MHz is multiplied by  $\frac{1}{2}$
- 3) SAR measurement procedures are not established below 100 MHz.

When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any SAR test results below 100 MHz to be acceptable.34

**2.1.3 EUT RF Exposure**

$EIRP = PT * GT = (E \times D)^2 / 30$

where:

PT = transmitter output power in watts,

GT = numeric gain of the transmitting antenna (unitless),

E = electric field strength in V/m,  $10^{(dB\mu V/m)/20} / 10^6$ ,

D = measurement distance in meters (m)---3m,

So  $PT = (E \times D)^2 / 30 / GT$

The worst case (refer to report **MTEB24040183-R**) is below:

Antenna polarization: Horizontal		
Frequency (MHz)	Level (dBuV/m)	Polarization
13.56	77.9	Peak

For 13.56MHz wireless:

Field strength=77.9 dBuV/m

Ant gain:3dBi;so Ant numeric gain=2

$EIRP = PT * GT = (E \times D)^2 / 30 = (10^{(dB\mu V/m)/20} / 10^6 * 3)^2 / 30 = 0.0000192$

So  $PT = EIRP / GT = 0.0000096W = 0.0096mW$

So  $(0.0096mW / 5mm) * \sqrt{0.01356GHz} = 0.00022357$

exclusion=0.00022357 < 3.0 for 1-g SAR

So the SAR report is not required.

Contains FCCID:2AC7Z-ESPWROOM32

Mode	Frequency	Antenna Gain		AV Output Power		Evaluation Distance	Power Density	MPE Limit
	(MHz)	(dBi)	(numeric)	(dBm)	(mW)	(cm)	(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )
802.11b	2412	2	1.58	17.00	50.12	20	0.0158	1
802.11g	2412	2	1.58	17.00	50.12	20	0.0158	1
802.11n HT20	2412	2	1.58	17.00	50.12	20	0.0158	1
802.11n HT40	2422	2	1.58	17.00	50.12	20	0.0158	1
BLE	2440	2	1.58	8.00	6.31	20	0.0020	1

Worst case EDR(8DPSK):

Model	Frequency (MHz)	Antenna Gain		Output Power		Distance (cm)	Power Density (mW/cm <sup>2</sup> )	MPE Limit (mW/cm <sup>2</sup> )
		(dBi)	(numeric)	(dBm)	(mW)			
EDR (8DPSK)	2441	2.0	1.58	8.00	6.31	20	0.0020	1.0

Note: The target power :6±2dBm, which declared by the Manufacturer.

Simultaneous TX (NFC+2.4G)

Mode	Power Density(mW/m <sup>2</sup> )		Conclusion
	Results	Limit	
Simultaneous TX	0.0159	1.0	PASS

$$\sum_{i=1}^a \frac{P_i}{P_{th,i}} + \sum_{j=1}^b \frac{ERP_j}{ERP_{th,j}} + \sum_{k=1}^c \frac{Evaluated_k}{Exposure Limit_k} \leq 1$$

Results(NFC+WIFI2.4g)=0.000207/3+0.0158/1=0.0159

.....THE END OF REPORT.....