Shenzhen Most Technology Service Co., Ltd.
East A, 1 floor of New Aolin Factory buiding, Langshan Erlu, North District,
Hi-tech Industry Park, Nanshan,Shenzhen,Guangdong,China

RF Exposure Evaluation Report

Report Reference No..... :	**MTEB24090316-H**	
FCC ID..... :	**2A2RN-ACEVCM00280W**	
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..... :	**Sep 20,2024**	
Representative Laboratory Name. :	**Shenzhen Most Technology Service Co., Ltd.**	
Address..... :	No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China.	
Applicant's name..... :	**Xiamen Joint Tech. Co., Ltd**	
Address..... :	Building #1,No.268 HouXiang Rd,Xinyang,Industrial Park, Haicang District,XIAMEN,Fujian,China.	
Test specification/ Standard.....**:**	**47 CFR Part 1.1307;47 CFR Part 1.1310 KDB447498D01 General RF Exposure Guidance v06**	
TRF Originator..... :	Shenzhen Most Technology Service Co., Ltd.	

Test item description.....:	Electric Vehicle AC Charger
Trade Mark..... :	Joint
Model/Type reference..... :	JNT-EVM002/80AC/01C/BK/RF/WF
Listed Models ..... :	JNT-EVM002/80AC/01C/XX/RF/WF(XX stands for colour：SR,WH,BK)
Modulation Type..... :	ASK
Operation Frequency..... :	13.56MHz
Hardware Version.....	V1.4
Software Version.....	V1.1.5
Rating..... :	AC 240V/60Hz
Result..... :	**PASS**

T E S T R E P O R T

Equipment under Test	:	Electric Vehicle AC Charger
Model /Type	:	JNT-EVM002/80AC/01C/BK/RF/WF
Listed Models		JNT-EVM002/80AC/01C/XX/RF/WF(XX stands for colour：SR,WH,BK)
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,China.
Manufacturer	:	**Xiamen Joint Tech. Co., Ltd**
Address	:	Building #1,No.268 HouXiang Rd,Xinyang,Industrial Park,Haicang District,XIAMEN,Fujian,China.

Test Result:	**PASS**

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	2024-09-20	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

According to FCC Part1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in part1.1307(b)

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f^2)	6
30–300	61.4	0.163	1.0	6
300–1500	.....	.....	f/300	6
1500–100,000	.....	.....	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f^2)	30
30–300	27.5	0.073	0.2	30
300–1500	.....	.....	f/1500	30
1500–100,000	.....	.....	1.0	30

F= Frequency in MHz
Friis Formula
Friis transmission formula: Pd = (Pout*G)/(4* Pi * R 2) Where
Pd = power density in mW/cm2
Pout = output power to antenna in mW
G = gain of antenna in linear scale
Pi = 3.1416

R = distance between observation point and center of the radiator in cm
Pd id the limit of MPE, 1 mW/cm2 . If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

2.1.3 EUT RF Exposure

For 13.56MHz wireless:
Field strength=79.5dBuV/m
EIRP =79.5-95.2+6 =-9.7dBm

Channel	EIRP	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)	Maximum tune-up Power (MW)	Power Density at R = 20 cm (mW/cm2)	Limit	Result
13.56 MHz	-9.7dBm	±1	-8.7	0.14	0.000028	0.9789	Pass

Note: 1) Refer to report MTEB24050211-R for EUT test Max Conducted average Output Power value.
Note: 2) Pd = (EIRP)/(4* Pi * R^2)=(0.14)/(4*3.1416*20^2)=0.000028

Contains FCCID: XMR2023FCS960K

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310.

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm^2)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f2)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
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

The MPE was calculated at 20 cm to show compliance with the power density limit.

The following formula was used to calculate the Power Density:

$$S = \frac{PG}{4\pi R^2}$$

Where:
S = Power Density
P = Output Power at Antenna Terminals
G = Gain of Transmit Antenna (linear gain)
R = Distance from Transmitting Antenna

Band	Frequency (MHz)	Antenna Gain (dBi)	Maximum Power (dBm)	Maximum EIRP (dBm)	Average EIRP (mW)	Power Density at 20cm (mW/cm^2)	Limit (mW/cm^2)
Bluetooth	2402.0	0.73	6.00	6.730	4.710	0.001	1.000
2.4GHz WLAN	2412.0	0.73	20.00	20.730	118.304	0.024	1.000
5.2GHz WLAN	5180.0	1.14	19.00	20.140	103.276	0.021	1.000
5.3GHz WLAN	5260.0	1.00	19.00	20.000	100.000	0.020	1.000
5.5GHz WLAN	5500.0	0.60	19.00	19.600	91.201	0.018	1.000
5.8GHz WLAN	5745.0	0.95	19.00	19.950	98.855	0.020	1.000

Note:
1. For conservativeness, the lowest frequency of each band is used to determine the MPE limit of that band.
2. Chose the maximum power to do MPE analysis.
3. According to the EUT characteristic, WLAN 2.4GHz and WLAN 5GHz cannot transmit simultaneously.
4. According to the EUT characteristic, WLAN and Bluetooth cannot transmit simultaneously.

Conclusion:

According to 47 CFR §2.1091, the RF exposure analysis concludes that the RF Exposure is FCC compliant.

IMPORTANT NOTE: To comply with theFCC RF exposure compliance requirements, the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. No change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

Simultaneous TX（NFC+WIFI2.4G+WIFI5G+BT）

Mode	Power Density(mW/m^2)		Conclusion
	Reaults	Limit	
Simultaneous TX	0.025	1.0	PASS

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

Reaults（NFC+2.4G+BT）=0.000028/0.9789+0.024/1+0.001/1=0.025

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