Shenzhen Most Technology Service Co., Ltd.
No.5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China.

RF Exposure Evaluation Repor

Report Reference No......:	**MTEB22111700-H**	
FCC ID..... **:**	**2A87B-ACEVC**	
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.....:	**January 12,2023**	

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.....:	HeyCharge GmbH
Address .....:	Steinheilstr. 18 Munich, Bavaria, 80333 Germany
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 Charging Station
Trade Mark .....:	HeyCharge
Manufacturer .....:	Xiamen Joint Tech. Co., Ltd
Model/Type reference.....:	HW26-1811N48B001
Listed Models .....:	HW26-XX11YZZBNNN "XX"denotes length,can be 18=18ft,23=23ft,25=25ft. "Y"denotes Screen option,can be S=S- with screen,N=N - w/o screen. "ZZ"denotes Wattage,can be 32=32A, 40=40A,48=48A. "NNN"denotes Revision version
Modulation Type .....:	GFSK, π/4DQPSK, 8DPSK,ASK
Operation Frequency.....:	2402MHz to 2480MHz,13.56MHz
Hardware Version.....	N1-2P1
Software Version	N1-2P1_C
Rating .....:	AC240V/60Hz
Result.....:	PASS

TEST REPORT

Equipment under Test	:	Electric Vehicle AC Charging Station
Model /Type	:	HW26-1811N48B001
Listed Models	:	HW26-XX11YZZBNNN "XX"denotes length,can be 18=18ft,23=23ft,25=25ft. "Y"denotes Screen option,can be S=S- with screen,N=N - w/o screen. "ZZ"denotes Wattage,can be 32=32A, 40=40A,48=48A. "NNN"denotes Revision version
Remark		Only the Charging cable type length、Screen option、Current rating (A)、Revision is different.
Applicant	:	HeyCharge GmbH
Address	:	Steinheilstr. 18 Munich, Bavaria, 80333 Germany
Manufacturer	:	Xiamen Joint Tech. Co., Ltd
Address	:	Building #1,No. 268 HouXiang Rd,Xinyang Industrial Park,Haicang District,XIAMEN Fujian 361000

Test Result:	**PASS**

1. Revision History

Revision	Issue Date	Revisions	Revised By
00	2023-01-12	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

Antenna Gain: 3dBi

EDR

GFSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2402 MHz)	0.55	0.55±1	1.55
Middle(2441MHz)	0.10	0.10±1	1.10
Highest(2480MHz)	0.23	0.23±1	1.23

π/4DQPSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2402 MHz)	0.78	0.78±1	1.78
Middle(2441MHz)	0.11	0.11±1	1.11
Highest(2480MHz)	0.10	0.10±1	1.10

8DPSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2402 MHz)	0.64	0.64±1	1.64
Middle(2441MHz)	0.50	0.50±1	1.50
Highest(2480MHz)	0.24	0.24±1	1.24

EDR

Worst case: π/4DQPSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Maximum Peak Conducted Output Power (MW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm2)	Limit	Result
Highest(2402 MHz)	1.78	1.51	3	0.0006	1.0	Pass

Note: 1) Refer to report **MTEB22111700-R2** for EUT test Max Conducted average Output Power value.
Note: 2) Pd = (Pout*G)/(4* Pi * R2)=(1.51*2)/(4*3.1416*20^2)=0.0006
Note: 3)EUT's Bluetooth module is more than 20cm away from the human body.

BLE

GFSK			
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power (dBm)
Lowest(2402 MHz)	4.21	4.21±1	5.21
Middle(2441MHz)	5.54	5.54±1	6.54
Highest(2480MHz)	5.01	5.01±1	6.01

Worst case: GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Maximum Peak Conducted Output Power (MW)	Antenna Gain (dBi)	Power Density at R = 20 cm (mW/cm2)	Limit	Result
Highest(2402 MHz)	6.54	4.5	3	0.0018	1.0	Pass

Note: 1) Refer to report **MTEB22111700-R1** for EUT test Max Conducted average Output Power value.
Note: 2) Pd = (Pout*G)/(4* Pi * R2)=(4.5*2)/(4*3.1416*20^2)=0.0018
Note: 3)EUT's Bluetooth module is more than 20cm away from the human body.

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