


# RF EXPOSURE REPORT

**FCC ID: 2BN3W-ZB-H120030-7I**

Test Report No.....: RF241216008-01-002

Product(s) Name.....: Multifunction Socket

Model(s).....: ZB-H120030-7I

Trade Mark.....:  ZBPOWER

Applicant.....: Huizhou Zhongbang Electronics Co., Ltd.

Address.....: Floor 1-4, No. 90 Songbai Ling Road, Sanhe Village, Tonghu Town,  
Zhongkai High-Tech Zone, Huizhou, 516121 Guangdong, P.R.  
China


Receipt Date.....: 2025.03.06

Test Date.....: 2025.03.18

Issued Date.....: 2025.03.21

Standards.....: FCC CFR Title 47 Part 1 §1.1307  
FCC CFR Title 47 Part 1 §1.1310  
FCC CFR Title 47 Part 2 §2.1091  
KDB 680106 D01 Wireless Power Transfer v04

Testing Laboratory.....: Shenzhen Haiyun Standard Technical Co., Ltd.

Prepared By:	Checked By:	Approved By:	
Jason Huang	Black Ding	Tim Zhang	
<i>Jason Huang</i>	<i>Black Ding</i>	<i>Tim Zhang</i>	

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## History of this test report

Original Report Issue Date: 2025.03.21


☒ No additional attachment

☐ Additional attachments were issued following record

Attachment No.	Issue Date	Description

## 1. General Information

### 1.1 General Description of EUT

Sample No.	POC241216008-S001
Product Name	Multifunction Socket
Model Name	ZB-H120030-7I
Trade mark	
Power supply:	AC 120V/60Hz
WPT Output Power:	10W Max
Modulation type	ASK
Operating frequency	110-205kHz
Antenna type	Coil Antenna
Antenna Gain	0 dBi

### 1.2 Test Location

Company:	Shenzhen Haiyun Standard Technical Co., Ltd.
Address:	No. 110-113, 115, 116, Block B, Jinyuan Business Building, Bao'an District, Shenzhen, China
CNAS Registration Number:	CNAS L18252
CAB identifier	CN0145
A2LA Certificate Number	6823.01
Telephone:	0755-26024411

### 1.3 Description of support units

The EUT has been tested with associated equipment below:

Description	Manufacturer	Model	S/N
Wireless charger load	EESON	SLY-YZB-A01	/

### 1.4 Equipment used during test

No.	Equipment	Manufacturer	Type No.	Serial No.	Calibration date	Calibration interval
1	Electric and Magnetic Field Probe-Analyzer	Narda	EHP-200AC	180ZX10204	2024.04.24	1 year

### 1.5 Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
E-field	3kHz~30MHz	$\pm 7.5\%$	(1)
H-field	3kHz~30MHz	$\pm 7.5\%$	(1)

Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

## 2. RF exposure limit

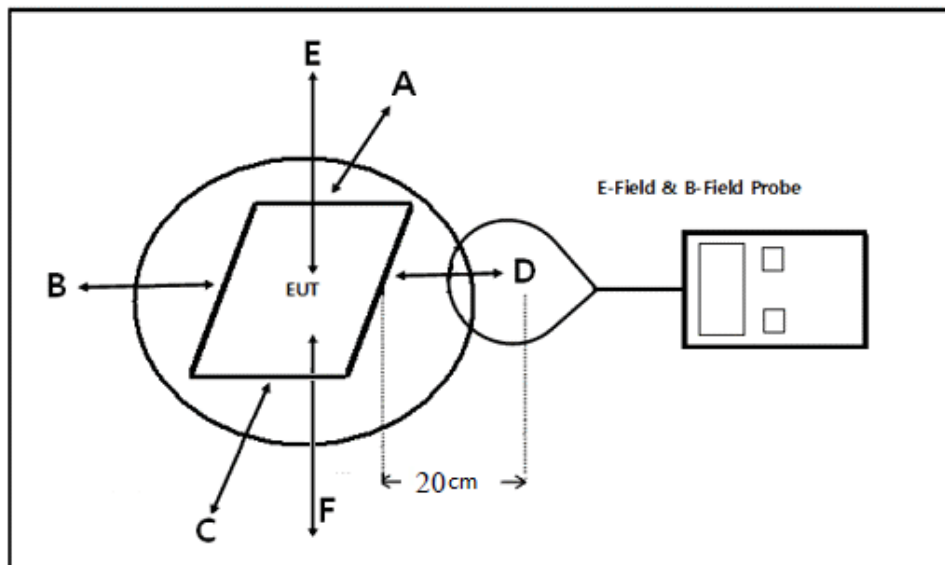
§ 1.1310 The criteria listed in table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency(RF) radiation as specified in § 1.1307(b), except in the case of portable devices which shall be evaluated according to the provisions of § 2.1093 of this chapter.

Table 1 to § 1.1310(e)(1) - Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
(i) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*(900/f <sup>2</sup> )	<6
30-300	61.4	0.163	1.0	<6
300-1,500			f/300	<6
1,500-100,000			5	<6
(ii) 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 <sup>2</sup> )	<30
30-300	27.5	0.073	0.2	<30
300-1,500			f/1500	<30
1,500-100,000			1.0	<30

f = frequency in MHz. \* = Plane-wave equivalent power density.

### 3. Test setup for WPT



Note: As bottom point is not required to test for desktop devices

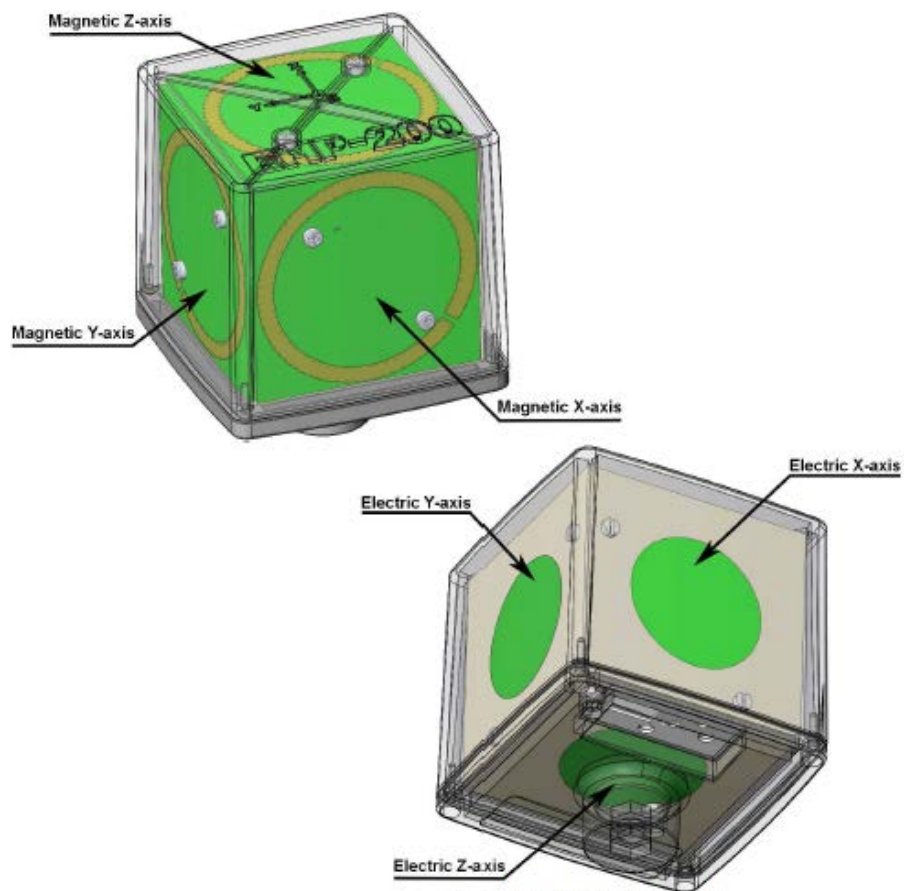


Fig. 1-4 EHP-200A/EHP-200AC axes



#### Equipment Approval Considerations:

The EUT comply with KDB 680106 D01 Wireless Power Transfer v04.

1. Power transfer frequency is less than 1 MHz.

Yes, the device operated in the frequency range from 110kHz to 205kHz.

2. The output power from each transmitting element (e.g., coil) is less than or equal to 15 watts.

Yes, The maximum output power of each primary coil is 10 watts.

3. A client device providing the maximum permitted load is placed in physical contact with the transmitter(i.e., the surfaces of the transmitter and client device enclosures need to be in physical contact)

Yes, the client device includes only single primary coil.

4. Only § 2.1091-Mobile exposure conditions apply (i.e., this provision does not cover § 2.1093-Portable exposure conditions).

Yes, The EUT is a mobile device.

5. The E-field and H-field strengths, at and beyond 20 cm surrounding the device surface, are demonstrated to be less than 50% of the applicable MPE limit, per KDB 447498, Table 1.

Yes; The EUT's field strength levels are less than 50% of the MPE limit.

6. For systems with more than one radiating structure, the conditions specified in (5) must be met when the system is fully loaded (i.e., clients absorbing maximum power available), and with all the radiating structures operating at maximum power at the same time, as per design conditions.

Yes, the EUT has only one coil, all test modes met the conditions specified in (5).

## 4. Test results

Test Mode	Description
Mode 1	Charging with 10 W wireless charging load (Full Load)
Mode 2	Charging with 10 W wireless charging load (Half Load)
Mode 3	Charging with 10 W wireless charging load (No Load)

Note: All the modes had been tested, but only the worst data was recorded in the report (Mode 1).

### H-Filed Strength at 20 cm from the EUT (A/m)

20cm					Limits(A/m)	50% Limits(A/m)
Test position A	Test position B	Test position C	Test position D	Test position E		
0.48	0.53	0.45	0.33	0.59	1.63	0.815

### E-Filed Strength at 20 cm from the EUT (V/m)

20cm					Limits(V/m)	50% Limits(V/m)
Test position A	Test position B	Test position C	Test position D	Test position E		
3.53	3.69	3.37	2.87	4.28	614	307



## Statement

1. The report is invalid without the official seal or special seal of Shenzhen Haiyun Standard Technical Co., Ltd. (hereinafter referred to as the unit).
2. The report is invalid without the signature of the approver.
3. The report is invalid if altered arbitrarily.
4. The report shall not be partially copied without the written approval of the unit.
5. The reported test results are only valid for the tested samples.
6. If there is any objection to the test report, it shall be submitted to the test unit within 15 days from the date of receiving the report, and the overdue shall not be accepted.

## Shenzhen Haiyun Standard Technical Co., Ltd.

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(END OF REPORT)