

RF Exposure Evaluation

FCC ID:2BVQN-PB0621

Applicant Name..... : HUNAN C-SMARTLINK TECHNOLOGY CO.,LTD

Address..... : Building 5-6-7-8, Chengnan Electronic Information Industrial Park, Chenxi Industrial Development Zone, Chenxi County, Huaihua, Hunan Province

Manufacturer Name..... : HUNAN C-SMARTLINK TECHNOLOGY CO.,LTD

Address..... : Building 5-6-7-8, Chengnan Electronic Information Industrial Park, Chenxi Industrial Development Zone, Chenxi County, Huaihua, Hunan Province

Product..... : Power Bank

Model(s)..... : PB0621

Additional Model(s)..... : MOPB0621, SEPB0621, LIPB0621, HSPB0621

Trademark..... : /

Model Difference..... : PB0621 is the test model, while other models are derivative models. These models are the same on the circuit, with only different model names. Therefore, the test data of PB0621 can represent the remaining models.

Prepared by..... : Guangdong Zhonghan Testing Technology Co., Ltd.

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Date of Receipt..... : Apr. 9, 2026

Date of Test(s)..... : Apr. 9, 2026 to Apr. 16, 2026

Date of Issue..... : Apr. 16, 2026

Test Requested..... : Select test(s) as requested by the client.

Test Standard(s)..... : KDB 680106 D01 Wireless Power Transfer v04

In the configuration tested, the EUT complied with the standards specified above.

Prepared by

Leon Li

Leon Li/ Engineer

Reviewed by:

Baret Wu

Baret Wu/ Director



Leon Li/ Manager

Note: The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report shall not be reproduced except in full, without prior written approval of ZHT. This document may be altered or revised by ZHT, personnel only, and shall be noted in the revision of the document.

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1. GENERAL INFORMATION

1.1. GENERAL DESCRIPTION OF EUT

Product Name:	Power Bank
Test Model No:	PB0621
Hardware version:	V1.0
Software version:	V1.0
Operation Frequency:	110.1-205kHz, 360kHz
Modulation type:	ASK
Antenna Type:	Inductive loop coil Antenna
Antenna gain:	0dBi
Ratings	Input: 5V---3A, 9V---3A, 12V---2.5A or DC7.7V for 3.85V*2 Rechargeable Li-ion battery Wireless output: 5W/7.5W/10W/15W/25W(MAX)
Sample Number:	260409117YP001
Remark:The antenna gain is provided by the customer, if the data provided by the customer is not accurate, Guangdong Zhonghan Testing Technology Co., Ltd. does not assume any responsibility.	



1.2. TEST MODES

Test Modes:	
Mode 1	AC Mains + WPT + phone charging port-25W(Battery Status:≤1%)
Mode 2	AC Mains + WPT + phone charging port-25W(Battery Status:≤50%)
Mode 3	AC Mains + WPT + phone charging port-25W(Battery Status:≤98%)
Mode 4	AC Mains + WPT + phone charging port-15W(Battery Status:≤1%)
Mode 5	AC Mains + WPT + phone charging port-15W(Battery Status:≤50%)
Mode 6	AC Mains + WPT + phone charging port-15W(Battery Status:≤98%)
Mode 7	AC Mains + WPT + phone charging port-10W(Battery Status:≤1%)
Mode 8	AC Mains + WPT + phone charging port-10W(Battery Status:≤50%)
Mode 9	AC Mains + WPT + phone charging port-10W(Battery Status:≤98%)
Mode 10	AC Mains + WPT + phone charging port-7.5W(Battery Status:≤1%)
Mode 11	AC Mains + WPT + phone charging port-7.5W(Battery Status:≤50%)
Mode 12	AC Mains + WPT + phone charging port-7.5W(Battery Status:≤98%)
Mode 13	AC Mains + WPT + phone charging port-5W(Battery Status:≤1%)
Mode 14	AC Mains + WPT + phone charging port-5W(Battery Status:≤50%)
Mode 15	AC Mains + WPT + phone charging port-5W(Battery Status:≤98%)
Mode 16	WPT + phone charging port-25W(Battery Status:≤1%)
Mode 17	WPT + phone charging port-25W(Battery Status:≤50%)
Mode 18	WPT + phone charging port-25W(Battery Status:≤98%)
Mode 19	WPT + phone charging port-15W(Battery Status:≤1%)
Mode 20	WPT + phone charging port-15W(Battery Status:≤50%)
Mode 21	WPT + phone charging port-15W(Battery Status:≤98%)
Mode 22	WPT + phone charging port-10W(Battery Status:≤1%)
Mode 23	WPT + phone charging port-10W(Battery Status:≤50%)
Mode 24	WPT + phone charging port-10W(Battery Status:≤98%)
Mode 25	WPT + phone charging port-7.5W(Battery Status:≤1%)
Mode 26	WPT + phone charging port-7.5W(Battery Status:≤50%)
Mode 27	WPT + phone charging port-7.5W(Battery Status:≤98%)
Mode 28	WPT + phone charging port-5W(Battery Status:≤1%)
Mode 29	WPT + phone charging port-5W(Battery Status:≤50%)
Mode 30	WPT + phone charging port-5W(Battery Status:≤98%)
Mode 31	Standby
Note: All modes were tested, only the worst-case was recorded in the report. Mode 16 is the worst mode.	



1.3. AUXILIARY EQUIPMENT

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.	Note
E-1	AC Adapter	Lanto Electronic Ltd.	191106C	/	AE
E-2	Mobile phone	Apple Inc.	iPhone 15	/	AE

2. RF EXPOSURE TEST

2.1. MEASURING STANDARD

KDB 680106 D01 Wireless Power Transfer v04

2.2. REQUIREMENTS

According to the item 3 of KDB 680106 D01 v04:

Inductive wireless power transfer applications that meet all of the following requirements are excluded from submitting an RF exposure evaluation.

Requirements of section 3 of KDB 680106 D01	Yes/ No	Description
Mobile Device and Portable Device Configurations	Yes	Mobile Device
Equipment Authorization Procedures for Devices Operating at Frequencies Below 4 MHz	Yes	The device operate in the frequency range phone: 110.1-205kHz, 360 kHz
RF Exposure compliance may be ensured only for a minimum conditions at smaller distances can still be considered unlikely.separation distance that is greater than 20 cm, while use	Yes	The EUT H-field and E-field strengths at 0-20 cm surrounding the device.
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 surfaces of the transmitter and client device enclosures are in physical contact.

2.3. LIMITS

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 1.1307(b)

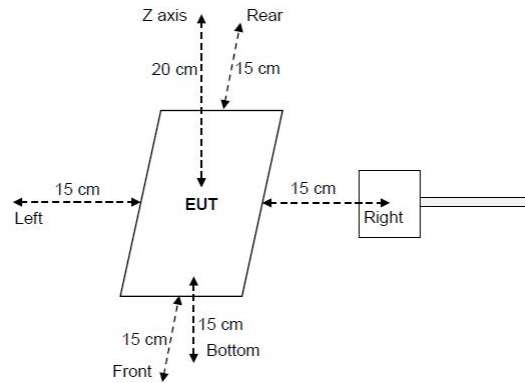
Limits for Maximum Permissible Exposure (MPE)

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

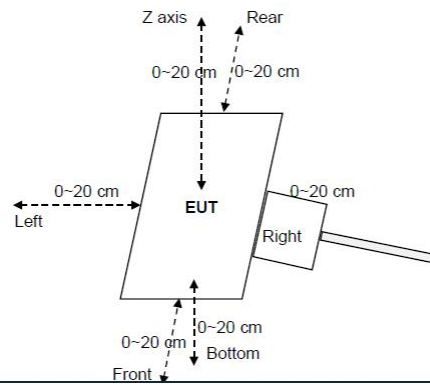
F=frequency in MHz
 * =Plane-wave equivalent power density
 RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

2.4. TEST SETUP

For mobile exposure conditions:



For portable exposure conditions:



2.5. TEST PROCEDURE

- 1) The RF exposure test was performed in anechoic chamber.
- 2) The measurement probe was placed at test distance (0-20 cm from all sides and 0-20 cm from the top) which is between the edge of the charger and the geometric center of probe.
- 3) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E, F) were completed.
- 4) The EUT was measured according to the dictates of KDB 680106 D01 v04.

Remark: The EUT's test position A, B, C, D, E and F is valid for the E and H field measurements.

2.6. MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	E-field	14.72%
2	H-field	15.48%
3	Temperature	$\pm 0.5^{\circ}\text{C}$
4	Humidity	$\pm 2\%$

Decision Rule

☒ Uncertainty is not included

☐ Uncertainty is included

2.7. TEST INSTRUMENTS LIST

Test Equipment	Manufacturer	Model	Serial No.	Last Cal.	Next Cal.
Near-field Electric and Electric Field Sensor System	Schmid & Partner Engineering AG	MAGPy-8H3D+E3D V2	3127	September 09, 2025	September 08, 2026
Near-field Electric and Electric Field Sensor System	Schmid & Partner Engineering AG	MAGPy-DASV2	3121	September 09, 2025	September 08, 2026



2.8. TEST RESULT

According to the formula:

Assessed Distance (cm)	Test Mode	Test Position A (A/m)	Test Position B (A/m)	Test Position C (A/m)	Test Position D (A/m)	Test Position E (A/m)	Test Position F (A/m)	50% Limits (A/m)	Limits (A/m)	test result
0	Mode 16	0.48	0.47	0.41	0.38	0.43	0.46	0.815	1.63	PASS
Measured Distance (cm)	Test Mode	Test Position A (A/m)	Test Position B (A/m)	Test Position C (A/m)	Test Position D (A/m)	Test Position E (A/m)	Test Position F (A/m)	50% Limits (A/m)	Limits (A/m)	test result
2	Mode 16	0.34	0.39	0.36	0.41	0.35	0.35	0.815	1.63	PASS
4	Mode 16	0.27	0.29	0.28	0.24	0.27	0.27	0.815	1.63	PASS
6	Mode 16	0.26	0.21	0.24	0.19	0.23	0.21	0.815	1.63	PASS
8	Mode 16	0.17	0.18	0.20	0.15	0.19	0.19	0.815	1.63	PASS
10	Mode 16	0.14	0.16	0.17	0.14	0.17	0.16	0.815	1.63	PASS
12	Mode 16	0.14	0.15	0.17	0.13	0.16	0.15	0.815	1.63	PASS
14	Mode 16	0.13	0.11	0.16	0.13	0.14	0.17	0.815	1.63	PASS
16	Mode 16	0.07	0.9	0.08	0.11	0.11	0.12	0.815	1.63	PASS
18	Mode 16	0.04	0.04	0.04	0.09	0.08	0.09	0.815	1.63	PASS
20	Mode 16	0.03	0.02	0.02	0.02	0.03	0.03	0.815	1.63	PASS

The formula for the magnetic field strength at a distance r from the coil is

$$H = I / (2\pi r) * \mu$$

H is A/m

I is the current intensity

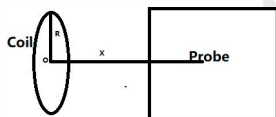
μ is the permeability, and its value depends on the medium.

The other parameters are fixed, so H is inversely proportional to r.

X is the distance from the test point to the center of the coil circle.

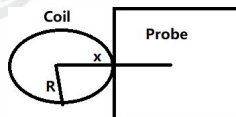
$$B = \frac{\mu_0 I R^2}{2(R^2 + X^2)^{3/2}}$$

Top & Bottom Side:



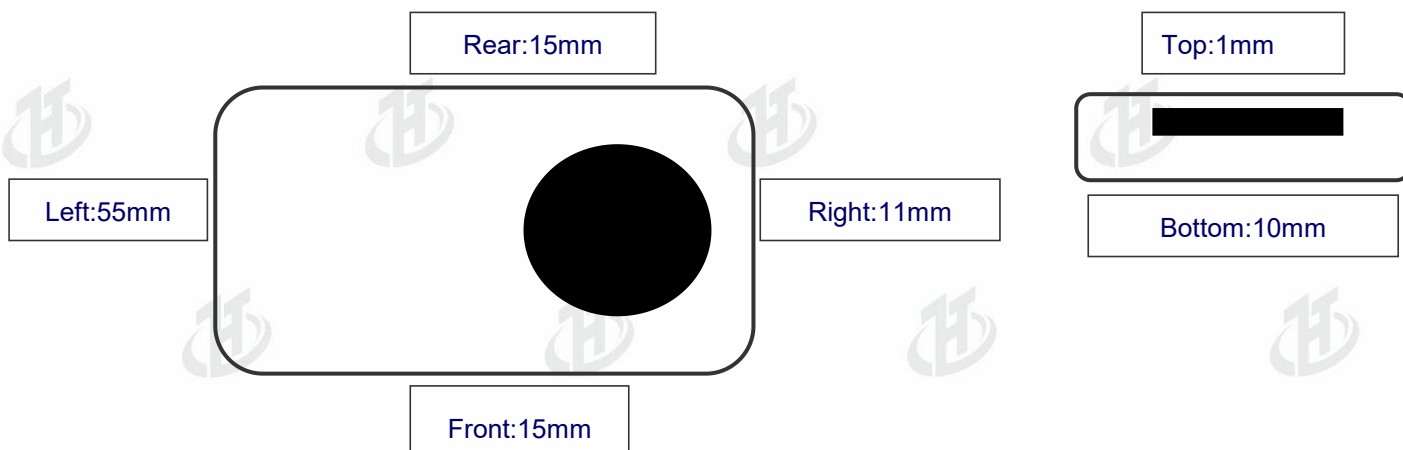
$$B = \frac{\mu_0 * I * N * R^2}{2 * (R^2 + x^2)^{3/2}}$$

Front, Left, Right & Rear Side:



$$B = \frac{\mu_0 * I * N}{2 * x}$$

Symbol	Definition
B	means H-field value. (Unit: A/m)
μ_0	is space permeability, $\mu_0=4\pi*10^{-7}$.
I	a current element passing through a coil. (Unit: A)
R	the distance from the center point of the wireless charging device to other edges. $R=42.3/2=22.15\text{mm}=0.02215\text{m}$
X	means the evaluated point to the coil center. (For top & bottom side: $x=\text{test distance}$; For other side: $x=\text{test distance}+R$)
N	Number of turns, according to provided "Antenna specification" files: $N=11$



2.9 Test Photos

Test Position A



Test Position B



Test Position C



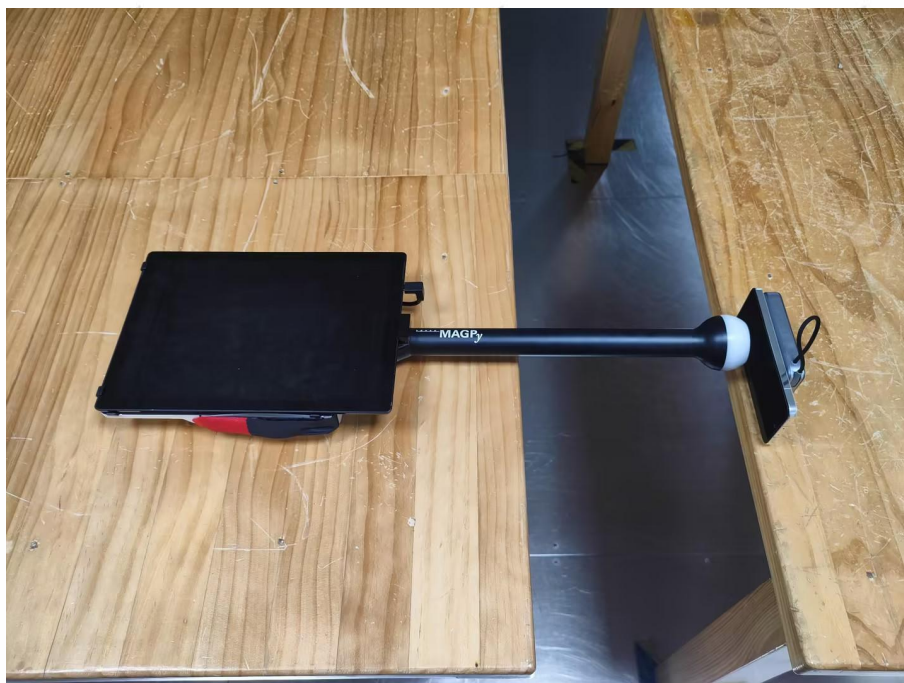
Test Position D



Test Position E



Test Position F



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