

TEST REPORT

Reference No. : WTD25D02040673W003
FCC ID : 2BNYR-PPU2
Applicant..... : SNAPWIRELESS PTY LTD
Address..... : OFFICE 9, 108-120 MARION ROAD, BROOKLYN PARK SA, Australia 5032
Manufacturer : SNAPWIRELESS PTY LTD
Address..... : OFFICE 9, 108-120 MARION ROAD, BROOKLYN PARK SA, Australia 5032
Product..... : Power bank
Model(s) : PPU2-DC, Powerpack Universal 2-DC
Brand..... : **SNAP**
Standards..... : FCC 47CFR Part 1.1307
Date of Receipt sample : 2025-03-05
Date of Test..... : 2025-03-13 to 2025-05-22
Date of Issue..... : 2025-05-22
Test Result..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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3 Revision History

Test Report No.	Date of Receipt Sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTD25D02040673W003	2025-03-05	2025-03-13 to 2025-05-22	2025-05-22	Original	-	Valid

4 General Information

4.1 General Description of E.U.T

Product:	Power bank
Model(s):	PPU2-DC, Powerpack Universal 2-DC
Model Description:	Only the model names are different. Model PPU2-DC was tested in the report.
Test Sample No.:	1-1/1
Frequency Range:	110-205kHz
Antenna installation:	Inductive loop coil Antenna
Hardware Version:	PPU2-HW-V1.0
Software Version:	PPU2-SW-V1.0

4.2 Details of accessories

Ratings:	Capacity:10000mAh(39Wh) Contact Input:5V/3A Type-C Input:5V/3A,9V/2A,12V/1.5A(18W Max) Type-C Output:5V/3A,9V/2.22A,12V/1.67A(20W Max) Type-C Cable Input:5V/3A,9V/2A,12V/1.5A(18W Max) Type-C Cable Output:5V/3A,9V/2.22A,12V/1.67A(20W Max) Lightning Cable Output:5V/3A,9V/2.22A,12V/1.67A(20W Max) Wireless Output: 5W, 7.5W, 10W, 15W
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4.3 Test Facility

The test facility has a test site registered with the following organizations:

ISED CAB identifier: CN0013. Test Firm Registration No.: 7760A.

Waltek Testing Group Co., Ltd. Has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files.

Registration number 7760A, October 15, 2016.

FCC Designation No.: CN1201. Test Firm Registration No.: 523476.

Waltek Testing Group Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration number 523476, September 10, 2019.

4.4 Subcontracted

Whether parts of tests for the product have been subcontracted to other labs:

☐ Yes ☒ No

If Yes, list the related test items and lab information:

Test Lab: N/A

Lab address: N/A

Test items: N/A

4.5 Abnormalities from Standard Conditions

None.

4.6 Test Mode

Test Mode	Descriptions
Standby mode	EUT alone powered by AC/DC adapter
Discharge mode	Wireless Output 5W
	Wireless Output 7.5W
	Wireless Output 10W
	Wireless Output 15W

Note: EUT was investigated with client device under normal charging condition as above then worst value was only report.

5 Test Summary

Test Items	Test Requirement	Result
Electric Field Strength (E) (V/m)	FCC CFR 47 part1§1.1310 KDB 680106 D01 v04	PASS
Magnetic Field Strength (H) (A/m)		PASS

6 Equipment Used during Test

6.1 Equipments List

RF EXPOSURE						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Valid
1	Electric and magnetic field analyzer	Narda	EHP-200AC	180ZX10226	2025-03-07	1Year

6.2 Description of Auxiliary Equipment

Equipment	Manufacturer	Model No.	Series No.
Intelligent wireless charging full function test module	YBZ	V3.1	/

6.3 Test Equipment Calibration

All the test equipments used are valid and calibrated by CEPREI Certification Body that address is No.110 Dongguan Zhuang RD. Guangzhou, P.R. China.

7 RF Exposure

7.1 EUT Operation

Operating Environment:

Temperature: 22.3 °C

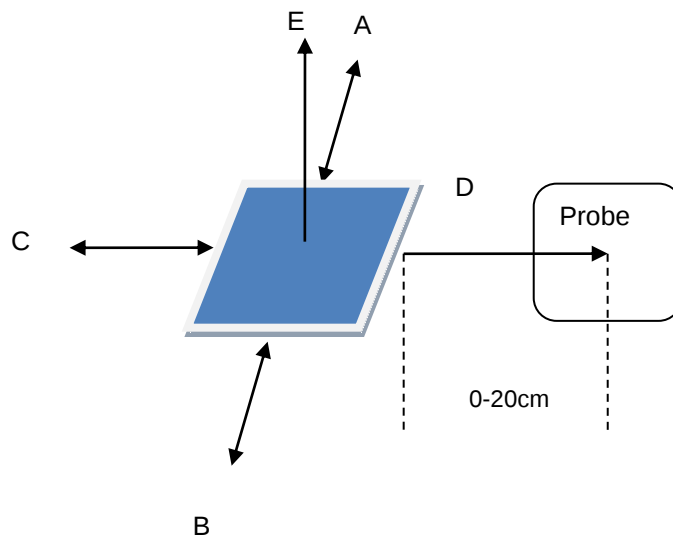
Humidity: 50.1 % RH

Atmospheric Pressure: 101.2kPa

EUT Operation: Refer to section 4.6.

Only the worst-case transmitting mode was record in the report.

7.2 Test Setup



The RF exposure test was performed in anechoic chamber.

The probe was placed at test distance (0~20cm) which is between the edge of the charger and the geometric centre of probe.

The EUT was put in different directions (Left, Right, Front, Rear, and Top) to obtain the maximum reading.

The EUT was measured according to the dictates of KDB 680106 D01 v04.

7.3 Field Strength Measurements

According to KDB 680106 D01 v04 clause 3.2,

For “low-frequency” loop/coil emitting structures that lead to dominant H-field near-field emissions (i.e., with E/H ratio less than 1/10 of the 377-ohm free space wave impedance, typically frequencies less than 1 MHz), only H-field measurements are sufficient for demonstrating MPE limit compliance.

“Large size” probes may prevent the measurement of E- and/or H-fields near the surface of the radiating structure (e.g., a WPT source coil).

If the center of the probe sensing element is located more than 5 mm from the probe outer surface, the field strengths need to be estimated through modeling for those positions that are not reachable. The estimates may be done either via numerical calculation, or via analytic model: e.g., approximated formulas for circular coils, dipoles, etc., may be acceptable if it is shown that the model is applicable for the design parameters considered. A typical example is the use of a quasi-static approximation formula for a low-frequency magnetic field source.

The validation is considered sufficient if a 30% agreement between the model and the (E- and/or H-field) probe measurements is demonstrated. If such a level of agreement cannot be shown, a more accurate model (and/or a smaller probe) shall be used.

7.4 Mathematical model

The distance from the geometric centre of the probe (EHP-200AC) to the surface is 46mm>5mm.

Based on the measured values, a mathematical model was established using the Biot-Savart Law. Derive the magnetic field strength at distances of 0cm to 4.6cm from the equipment.

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

B is magnetic field induction strength, unit is T•m/A

$$\mu_0 = 4\pi \times 10^{-7}$$

x is distance along the axis from the coil centre, unit is m

R is the radius of coil, unit is m

N is the number of turns

I is the current of the coil, unit is A

According to the basic requirements of electromagnetism, the conversion formula between the magnetic field induction strength (B) and the H-field strength is:

$$\mathbf{B} = \mu_0 \cdot \mathbf{H}$$

H is H-field strength, unit is A/m

7.5 FCC Rules

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 ²)	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 ²)	<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 ²)	<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.

Note: According to KDB 680106 D01 v04 clause 3.2,

For § 2.1093-*Portable* devices below 4 MHz and down to 100 kHz, the MPE limits in § 1.1310 (with the 300 kHz limit applicable all the way down to 100 kHz) can be used for the purpose of equipment authorization in lieu of SAR evaluations.

7.6 Test Result

Position	Test distance (cm)								Limit (A/m)
	6	8	10	12	14	16	18	20	
A	0.05	0.03	0.02	0.01	0.01	0.01	0.01	0.01	1.63
B	0.07	0.03	0.02	0.01	0.01	0.01	0.01	0.01	1.63
C	0.06	0.04	0.02	0.02	0.01	0.01	0.01	0.01	1.63
D	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.01	1.63
E	0.05	0.02	0.01	0.01	0.01	0.01	0.01	0.01	1.63

According to clause 7.3 Mathematical model, the value of 0cm, 2cm, 4cm can be estimated through the test results of 6cm, 8cm, 10cm.

Test distance (cm)	estimated value (A/m)	Limit (A/m)
0	1.565	1.63
2	0.373	1.63
4	0.112	1.63

Agreement between the model and the (E- and/or H-field) probe measurements

Test distance (cm)	estimated value (A/m)	Measurements (A/m)	Ratio (%)	Limit (%)
6	0.083	0.07	16.99	30
8	0.036	0.04	10.53	30
10	0.019	0.02	5.13	30

V estimated value

M Measurements

$$\text{Ratio} = |(V-M)/(V+M)/2| * 100|$$

Conclusion:

RF Exposure is FCC compliant.

8 Photographs of test setup

Note: Please refer to appendix: Appendix-PPU2-DC-Photos.

=====End of Report=====