



RF Exposure Report

On Behalf of

Shenzhen Growatt New Energy Co., Ltd.

4-13/F. Building A, Sino-German(Europe) Industrial Park, Hangcheng Ave, Bao' an District,
Shenzhen, China

FCC ID: 2AAJ9-INFINITY1300P

Model: INFINITY 1300 PRO, INFINITY1200

June 4, 2024

This Report Concerns:

☒ Original Report

Equipment Type:

Portable Power Station

Test Engineer: LBi Li /

Report Number: QCT24ER-1354E-04

Test Date: March 1, 2024 ~ June 4, 2024

Reviewed By: Gordon Tan/ 

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Revision History of This Test Report

[illegible]



1. GENERAL INFORMATION

1.1 Product Description for Equipment under Test (EUT)

EUT Description	Portable Power Station
Model No.	INFINITY 1300 PRO, INFINITY 1200
Tested Model	INFINITY 1300 PRO
Sample(s) Status	Engineer sample
Operation Frequency:	110.5kHz~205kHz
Modulation type:	ASK
Antenna Type:	Inductive loop coil Antenna
Antenna gain*1:	0dBi (Max)
Power supply:	Model: INFINITY 1300 PRO Input: AC Input:100-120V~,50/60Hz, 15A, 1800W MAX Vehicle Input:12-24V ---,8A MAX Solar Input:12-60V ---,800W MAX Output: AC Output(X4):120V~,50/60Hz, 1800W MAX, TOTAL 1800W (PEAK:3600W) DC Output: USB-A Fast Charge(X4):5V ---,2.4A; 9V ---,2A; 12V ---,1.5A, 18W MAX, TOTAL 72W USB-C(X2):5V/9V/12V/15V/20V ---, 5A, 100W MAX, TOTAL 200W Car Cigarette Lighter: 13.2V ---, 10A MAX DC 5521 Port(X2):13.2V ---, 3A MAX, Car Cigarette Lighter and DC 5521 Port Total 10A Max Wireless Charging: 15W Max Battery Capacity: 1382.4Wh,51.2V, 27Ah Model: INFINITY 1200 Input: AC Input:100-120V~,50/60Hz, 15A, 1800W MAX Vehicle Input:12-24V ---,8A MAX Solar Input:12-60V ---,600W MAX Output: AC Output(X2):120V~,50/60Hz, 1800W MAX, TOTAL 1800W (PEAK:3600W) DC Output: USB-A Fast Charge(X4):5V ---,2.4A; 9V ---,2A; 12V ---,1.5A, 18W MAX, TOTAL 72W USB-C(X2):5V/9V/12V/15V/20V ---, 5A, 100W MAX, TOTAL 200W Car Cigarette Lighter: 13.2V ---, 10A MAX DC 5521 Port(X2):13.2V ---, 3A MAX, Car Cigarette Lighter and DC 5521 Port Total 10A Max Wireless Charging: 15W MAX



	Battery Capacity: 1280Wh,51.2V, 25Ah
WPT Output Power:	15W
Trade Mark:	
Applicant	Shenzhen Growatt New Energy Co., Ltd.
Address	4-13/F. Building A, Sino-German(Europe) Industrial Park, Hangcheng Ave, Bao' an District, Shenzhen, China
Manufacturer	Shenzhen Growatt New Energy Co., Ltd.
Address	4-13/F. Building A, Sino-German(Europe) Industrial Park, Hangcheng Ave, Bao' an District, Shenzhen, China
Sample No.	Y24C1354E01WC

Note: *1This information provided by Manufacturer, SZ QC Lab is not responsible for the accuracy of this information.

1.2 System Test Configuration

1.2.1 Support Equipment

Manufacturer	Description	Model	Serial Number
EESON	Wireless charger load	2S	/



1.3 Test Facility

Test Firm : Shenzhen QC Testing Laboratory Co., Ltd.

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19. The testing quality system of our laboratory meets with ISO/IEC-17025 requirements. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

CNAS – Registration No.: L8464

The EMC Laboratory has been accredited by CNAS, and in compliance with ISO/IEC 17025:2017 General Requirements for testing Laboratories.

A2LA Certificate Number: 6759.01

The EMC Laboratory has been accredited by A2LA, and in compliance with ISO/IEC 17025:2017 General Requirements for testing Laboratories.

FCC Registration Number: 561109

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission.

IC Registration Number: 29628

CAB identifier: CN0141

The EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada.

1.4 Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
E-field	110.5kHz~205kHz	0.5V/m	(1)
H-field	110.5kHz~205kHz	0.1A/m	(1)

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



2. Requirements

2.1 Test Methodology

The tests documented in this report were performed in accordance with FCC CFR Title 47 Part 1 §1.1307, FCC CFR Title 47 Part 1 §1.1310, FCC CFR Title 47 Part 2 §2.1091 and KDB 680106 D01 Wireless Power Transfer v04

2.2 Limit

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

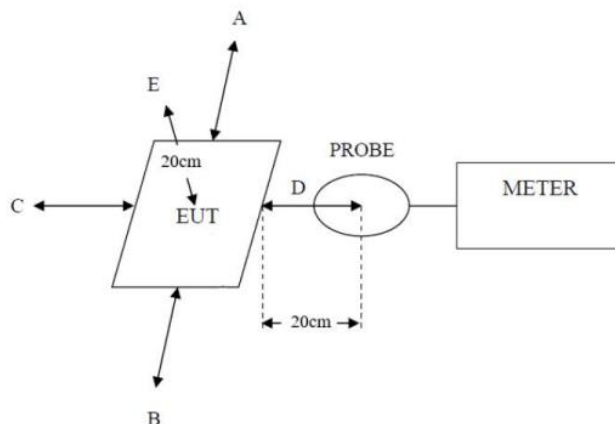
Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(i) Limits for Occupational/Controlled Exposure				
0.3-3.0	614	1.63	*(100)	≤6
3.0-30	1842/f	4.89/f	*(900/f ²)	<6
30-300	61.4	0.163	1.0	<6
300-1,500			f/300	<6
1,500-100,000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

2.3 Method Of Measurement:

- The RF exposure test was performed in shielded chamber.
- The geometric centre of probe was placed at 20 cm test distance surrounding the device and the top surface.
- The measurement probe used to search of highest strength.
- The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.
- The EUT were measured according to the dictates of KDB 680106 D01 Wireless Power Transfer v04.

2.4 Test Setup



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

2.5 Measuring Instrument Used:

Test Equipment	Manufacturer	Model No.	SN.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
Exposure Level Tester	Narda	ELT-400	N-0231	June 24, 2023	June 23, 2024
Magnetic field probe 100cm ²	Narda	ELT probe 100cm ²	M0675	June 24, 2023	June 23, 2024
Broadband field Meter	Narda	NBM-550	E-1273	June 24, 2023	June 23, 2024
Broadband field Probe	Narda	EF0391	D-0891	June 24, 2023	June 23, 2024

2.6 E Field And H Field Strength Test Result

Test Mode	Description
Mode 1	Charging with 15 W wireless charging load (99% Load)
Mode 2	Charging with 15 W wireless charging load (50% Load)
Mode 3	Charging with 15 W wireless charging load (1% Load)

Mode 1

H-Filed Strength at 20 cm from the edges surrounding and the top surface of 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		
0.19	0.22	0.26	0.18	0.29	1.63	0.815

E-Filed Strength at 20 cm from the edges surrounding and the top surface of 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		
1.61	1.37	1.25	1.23	1.65	614	307

Mode 2

H-Filed Strength at 20 cm from the edges surrounding and the top surface of the EUT (A/m)

20cm					Limits(A/m)	50%
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Test Position A	Test Position B	Test Position C	Test Position D	Test Position E		Limits(A/m)
0.17	0.20	0.18	0.19	0.27	1.63	0.815

E-Filed Strength at 20 cm from the edges surrounding and the top surface of 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		
1.56	1.42	1.26	1.22	1.54	614	307

Mode 3

H-Filed Strength at 20 cm from the edges surrounding and the top surface of 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		
0.18	0.20	0.16	0.17	0.21	1.63	0.815

E-Filed Strength at 20 cm from the edges surrounding and the top surface of 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		
1.48	1.28	1.19	1.17	1.48	614	307

2.7 Simultaneous Transmission for SAR Exclusion

The WPT and BLE or 2.4G Wi-Fi can transmit at the same, need consider simultaneous transmission. The WiFi/BLE does not support simultaneous transmission, So record worst case Maximum Simultaneous transmission SAR Ratio for 2.4G Wi-Fi and WPT

Maximum SAR Ratio 2.4G Wi-Fi	Maximum SAR Ratio WPT	SAR ratio 2.4G Wi-Fi + SAR ratio WPT	Limit	Test Results
0.0217	0.1806	0.2023	1	Pass

Remark:1. Output power including tune-up tolerance;

2.Evaluate limits for WPT at Field-Strength Limit;

3.Max. SAR Ratio=Max. Evaluation Values/Sar Limit, So:

Maximum SAR Ratio BLE=0.0014/1=0.0014

Maximum SAR Ratio 2.4G Wi-Fi=0.0217/1=0.0217

Maximum SAR Ratio WPT=0.29/1.63+1.65/614=0.1806



3. Test Setup Photo

Right (Position A)



-----End-----