

# Human Exposure Report

**Application No.:** SZCR2310003259AT  
**Applicant:** SUMEC Hardware & Tools Co., Ltd.  
**Address of Applicant:** No.1 Xinghuo Road, Jiangbei New Area Nanjing Jiangsu P.R.China.  
**Factory:** SHENZHEN UTILITY ENERGY CO., LTD  
**Address of Factory:** Building 3A, Huiye Science and Technology Park, Guanguang Road, Guangming District, Shenzhen, China

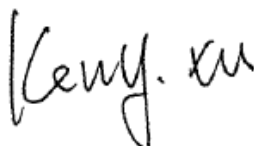
### Equipment Under Test (EUT):

**EUT Name:** Portable Power Station  
**Model No.:** PB-2400  
**FCC ID:** 2BC6W00003  
**Standards:** 47 CFR PART 1, Subpart I, Section 1.1310  
47 CFR PART 2, Subpart J, Section 2.1091

**Date of Receipt:** 2023-10-10  
**Date of Test:** 2024-03-08 to 2024-03-20  
**Date of Issue:** 2024-03-21

<b>Test Result :</b>	<b>Pass*</b>
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\* In the configuration tested, the EUT complied with the standards specified above



Keny Xu  
EMC Laboratory Manager



Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2024-03-21		Original

Authorized for issue by:			
		<i>Vincent Chen</i>	
		<b>Vincent Chen/Project Engineer</b>	
		<i>Eric Fu</i>	
		<b>Eric Fu/Reviewer</b>	



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### 3 General Information

#### 3.1 Details of E.U.T.

Power Supply:	AC Input: 120V~, 60 Hz, 15A Max.(3h),12.5 A Max. Continuous / Continue, 1500 W Max. DC Input: 12-60Vdc, 800W Max. MPPT. Battery Capacity: 51.2Vdc, 37.5Ah, 1920Wh Output 1: 1x Car cigarette: 13.6 Vdc, 10A, 120W Max.; 2x DC5521: 13.6Vdc, 10A, 120W Max. Output 2: 2x USB C-PD:100W (5Vdc / 9Vdc/ 12Vdc /15Vdc, 3A; 20Vdc, 5A) 4x USB A: 5Vdc, 3A/9Vdc, 2A;12Vdc,1.5A, 18W Max. Output 3: 4x 120V~, 60Hz; Continuous/Continue 2400W Peak/Crete 4800W; Bypass mode: 120V~, 60Hz, 1500W Max. Output 4: 2x Wireless charge 15W Output 5: 2x Bluetooth Speaker 10W Output 6: 1x LED Light 10W
Operation frequency:	114.2kHz to 144 kHz(for 2 outlet); 114.4 kHz to 143.8kHz(for 1 outlet)
Modulation type:	Load modulation
Antenna type:	Loop Antenna

Remark:The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

#### 3.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Load Resistor	SGS	N/A	REF. No.SEA06A00
Load Resistor	SGS	BX7-14	REF. No.SEA37A00
Mobile Phone	HUAWEI	NOH-AN00	REF. No.SEA16C01



### 3.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

### 3.4 Test Facility

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

- **A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

- **VCCI (Member No. 1937)**

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

- **FCC –Designation Number: CN1336**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

- **Innovation, Science and Economic Development Canada**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

### 3.5 Deviation from Standards

None.

### 3.6 Abnormalities from Standard Conditions

None.



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SGS-CSTC Standards Technical Services Co., Ltd.  
Shenzhen Branch EMC Laboratory.

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn  
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com



## 4 Equipments Used during Test

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Due date
1	3m Fully-Anechoic Chamber	AUDIX	N/A	SEM001-02	2025-04-01
2	MAGPy-8H3D+E3D	SPEAG	MAGPy	SEM060-31	2024-11-14
3	MAGPy-DAS	SPEAG	MAGPy	SEM060-32	2024-11-14



## 5 Test Results

### 5.1 RF Exposure test

Test Requirement: 47 CFR PART 1, Subpart I, Section 1.1310

47 CFR PART 2, Subpart J, Section 2.1091

Remark: According to KDB publication 680106 section 3, the separation distance shall be measured from the geometric center of the probe head to the edge of the device, so test distance as above.

The EUT is considered as a mobile device and is evaluated at a distance of 20 cm

Limit:

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>(A) Limits for Occupational/Controlled Exposures</b>				
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
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6
<b>(B) Limits for General Population/Uncontrolled Exposure</b>				
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
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

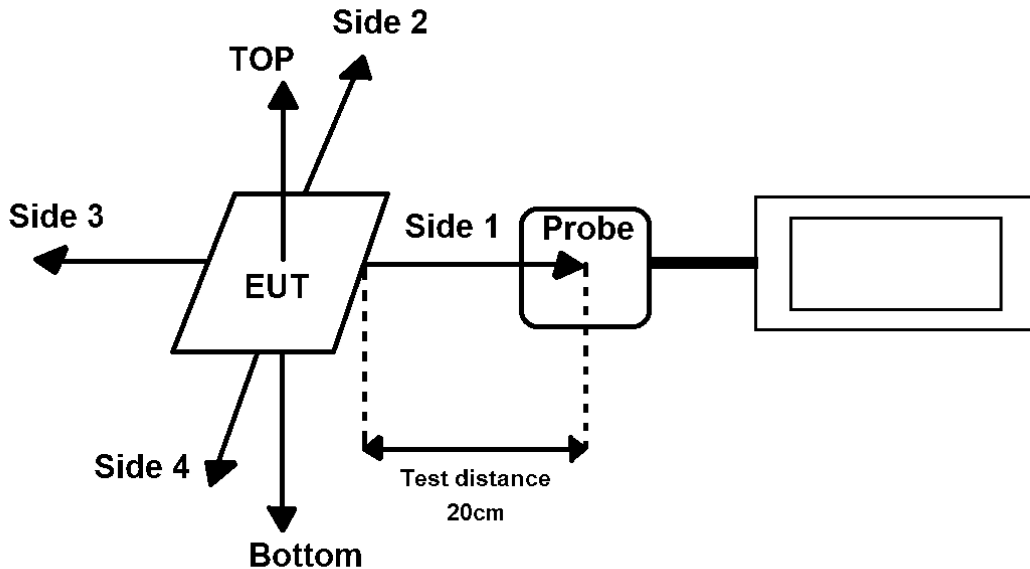
F=frequency in MHz

\*=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).



### 5.1.1 E.U.T. Operation



### 5.1.2 E.U.T. Operation

#### Operating Environment:

Temperature: 21.6 °C      Humidity: 53.4 % RH      Atmospheric Pressure: 1003 Mbar

### 5.1.3 Test Mode Description

Pre-scan / Final test	Mode Code	Description
Final test	00	Charge mode_Keep the EUT charging(15W) /2 outlet
Pre-scan	01	Charge mode_Keep the EUT charging(10W) /2 outlet
Pre-scan	02	Charge mode_Keep the EUT charging(5W) /2 outlet
Pre-scan	03	Charge mode_Keep the EUT charging(15W) /1 outlet
Pre-scan	04	Charge mode_Keep the EUT charging(10W) /1 outlet
Pre-scan	05	Charge mode_Keep the EUT charging(5W) /1 outlet

This device has been tested the worst status of full load and the device has been tested with mobile phone at zero charge, intermediate charge, and full charge.





**5.1.4 Measurement Data**

**Magnetic Field Emissions**

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)			50 % Limit (A/m)	10 % Limit (A/m)
			unload	Half load	full load		
127 kHz which is the worst case within the operation frequency range	20	Side 1	0.032	0.033	0.035	0.815	0.163
		Side 2	0.044	0.039	0.043		
		Side 3	0.049	0.049	0.054		
		Side 4	0.042	0.046	0.052		
		Top	0.048	0.092	0.101		

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result(A/m)			50 % Limit (A/m)	10 % Limit (A/m)
			zero charge	intermediate charge	full charge		
118 kHz which is the worst case within the operation frequency range	20	Side 1	0.037	0.031	0.016	0.815	0.163
		Side 2	0.049	0.041	0.022		
		Side 3	0.067	0.056	0.028		
		Side 4	0.053	0.044	0.024		
		Top	0.122	0.102	0.053		

**Electric Field Emissions**

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (V/m)			50 % Limit (V/m)	10 % Limit (V/m)
			unload	Half load	full load		
127 kHz which is the worst case within the operation frequency range	20	Side 1	0.039	0.121	0.160	307	61.4
		Side 2	0.044	0.175	0.230		
		Side 3	0.048	0.229	0.301		
		Side 4	0.043	0.168	0.226		
		Top	0.046	0.324	0.429		



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Shenzhen Branch

No.1 Workshop, M-10, Middle Section, Science & Technology Park, Nanshan District, Shenzhen, Guangdong, China 518057 t (86-755) 26012053 f (86-755) 26710594 www.sgs.com.cn  
中国·广东·深圳市南山区科技园中区M-10栋1号厂房 邮编: 518057 t (86-755) 26012053 f (86-755) 26710594 sgs.china@sgs.com

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result(V/m)			50 % Limit (V/m)	10 % Limit (V/m)
			zero charge	intermediate charge	full charge		
118 kHz which is the worst case within the operation frequency range	20	Side 1	0.141	0.115	0.072	307	61.4
		Side 2	0.202	0.168	0.094		
		Side 3	0.265	0.221	0.131		
		Side 4	0.199	0.162	0.090		
		Top	0.378	0.313	0.181		

**Simultaneous transmitting**

∑ rations of simultaneous transmitting: BT + 2.4GHz WiFi+ WPC as the following table:

Ratio of EIRP power of 2.4GHz WiFi	Ratio of EIRP power of BT	Ratio of Magnetic Field Emissions of WPC	Total ratios of simultaneous transmitting	Limit	Result
0.024	0.0006	0.15	0.1746	1.0	PASS

Note: For BT EIRP Data is based on the RF Test Report BTL-FCCP-1-2006H014.

For 2.4GHz WiFi EIRP Data is based on the RF Test Report R2106A0492-R1.

So, the device is to qualify for SAR test exemption, the exemption report is in lieu of the SAR report.

**6 Photographs- RF exposure Setup photos**

Refer to Appendix\_RF Exposure Setup Photos for SZCR2310003259AT

- End of the Report -



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