



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR230800170102

Page: 1 of 13

RF Exposure Evaluation Report

Application No.: SHCR2308001701BA
FCC ID: 2BC6W00001
Applicant: SUMEC Hardware & Tools.Co., Ltd.
Address of Applicant: No.1 Xinghuo Road, Jiangbei New Area Nanjing Jiangsu P.R.China
Manufacturer: SUMEC Hardware & Tools.Co., Ltd.
Address of Manufacturer: No.1 Xinghuo Road, Jiangbei New Area Nanjing Jiangsu P.R.China
Factory: Xuzhou Hengyuan Electrical Appliances Co.,Ltd.
Address of Factory: No.47, Zhujiang Road, National High-Tech Zone, Xuzhou City, Jiangsu Province, China

Equipment Under Test (EUT):

EUT Name: Portable Power Station
Model No.: PB-300
Standard(s) : 47 CFR PART 1, Subpart I, Section 1.1310
FCC Rules 47 CFR § 2.1091
KDB 680106 D01 RF Exposure Wireless Charging Apps v04
Date of Receipt: 2023-08-28
Date of Test: 2023-09-12 to 2024-01-29
Date of Issue: 2024-02-27

| | |
|---------------------|--------------|
| Test Result: | Pass* |
|---------------------|--------------|

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

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.




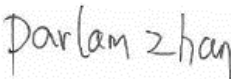
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR230800170102

Page: 2 of 13

| <i>Revision Record</i> | | | |
|------------------------|--------------------|-------------|---------------|
| <i>Version</i> | <i>Description</i> | <i>Date</i> | <i>Remark</i> |
| 00 | Original | 2024-02-27 | / |
| | | | |
| | | | |

| | | | |
|---------------------------------|---|--|--|
| Authorized for issue by: | | | |
| Tested By |  | | |
| | _____ Wade Zhang/Project Engineer | | |
| Approved By |  | | |
| | _____ Parlam Zhan / Reviewer | | |



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR230800170102

Page: 3 of 13

2 Contents

| | Page |
|--|-----------|
| 1 COVER PAGE | 1 |
| 2 Contents | 3 |
| 3 General Information | 4 |
| 3.1 Details of E.U.T. | 4 |
| 3.2 Description of Support Units | 4 |
| 3.3 Test Location | 5 |
| 3.4 Test Facility | 5 |
| 3.5 Deviation from Standards..... | 5 |
| 3.6 Abnormalities from Standard Conditions | 5 |
| 4 Equipments Used during Test | 6 |
| 5 Test Results | 7 |
| 5.1 RF Exposure test..... | 7 |
| 5.2 E.U.T. Operation | 8 |
| 6 Test Photo | 11 |

3 General Information

3.1 Details of E.U.T.

Power supply: AC 120V 60Hz 100W Max / DC 10-30V, 100W Max
Battery Capacity: 230Wh(25.6V DC) Lithium iron phosphate
Wireless Charging: 15W
Operation frequency: 110kHz to 205kHz
Modulation type: Load modulation
Antenna type: Inductive Loop Coil Antenna

3.2 Description of Support Units

| Description | Manufacturer | Model No. | Serial No. |
|---------------|--------------|-----------|------------|
| Wireless Load | N/A | N/A | N/A |
| Mobilephone | XIAOMI | MI 13 | / |

3.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab

588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China

Tel: +86 21 6191 5666 Fax: +86 21 6191 5678

No tests were sub-contracted.

Note:

1. SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc) is provided by the applicant. (if applicable).

2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).

3. Sample source: sent by customer.

3.4 Test Facility

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

- **A2LA (Certificate No. 6332.01)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the American Association for Laboratory Accreditation(A2LA).

- **FCC (Designation Number: CN1301)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

- **ISED (CAB Identifier: CN0020)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. EMC Laboratory has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory.

Company Number: 8617A

- **VCCI (Member No.: 3061)**

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.

3.5 Deviation from Standards

None

3.6 Abnormalities from Standard Conditions

None



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR230800170102

Page: 6 of 13

4 Equipments Used during Test

| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal date | Cal. Due date |
|------|-----------------------------|--------------|-----------|---------------|------------|---------------|
| 1 | Semi/Fully Anechoic | ST | 11*6*6M | SHEM078-2 | 2021-05-25 | 2024-05-24 |
| 2 | Electromagnetic Field Probe | Narda | EHP-200AC | SHEM0907 | 2023-04-10 | 2024-04-09 |
| 3 | Test software | Narda | EHP-200TS | N/A | N/A | N/A |



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR230800170102

Page: 7 of 13

5 Test Results

5.1 RF Exposure test

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

Measurement Distance: 10 cm for surrounding the device and 10 cm for above the top surface.

Limit:

| 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). | | | | |

5.2 E.U.T. Operation

5.2.1 Operating Environment

Temperature: 24.0 °C Humidity: 52% RH Atmospheric Pressure: 1015 mbar

5.2.2 EUT Operation:

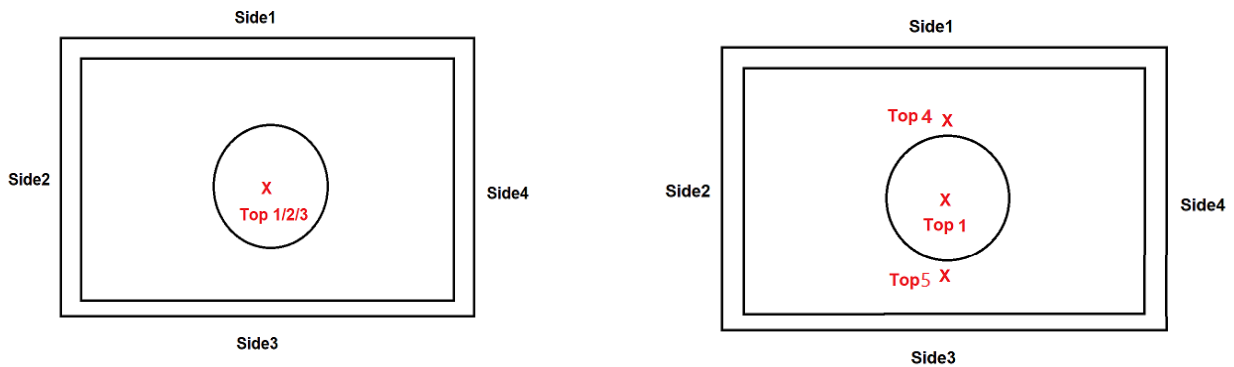
5.2.3 Simulation Load Mode

Test mode 00: Wireless Output(The load shall be set at full, half, empty load (15W/7.5W/0W)
 01: Wireless Output(The mobile phone shall be set at 85% charge state, 50% charge state, 15% charge state.

Measurement Data:

Average 1: Test 3 times at the same location, taking the average value = (Top1+Top2+Top3)/3

Average 2: Average different points on the same surface = (Top1+Top4+Top5)/3





SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR230800170102

Page: 9 of 13

Test mode 00: Load:

Electric Field

| Test Distance (cm) | Test Position | | Test Data (V/m) | | | Limit (V/m) | Result |
|--------------------|---------------|-------|-----------------|-----------|------------|-------------|--------|
| | | | Full Load | Half Load | Empty Load | | |
| 10 | Side | 1 | 0.818 | 0.632 | 0.355 | 614 | Pass |
| | | 2 | 0.411 | 0.311 | 0.347 | | Pass |
| | | 3 | 0.507 | 0.629 | 0.387 | | Pass |
| | | 4 | 0.571 | 0.327 | 0.691 | | Pass |
| | Top | 1 | 2.232 | 1.894 | 0.622 | | Pass |
| | | 2 | 2.126 | 1.637 | 0.609 | | Pass |
| | | 3 | 2.017 | 1.246 | 0.496 | | Pass |
| | | 4 | 2.142 | 0.962 | 0.475 | | Pass |
| | | 5 | 2.011 | 0.937 | 0.452 | | Pass |
| | Top Average | 1+2+3 | 2.137 | 1.592 | 0.576 | | Pass |
| | | 1+4+5 | 2.128 | 1.264 | 0.516 | | Pass |
| | Back | | | 0.762 | 0.287 | | 0.352 |
| 20 | Top1 | 1 | 1.032 | 0.893 | 0.342 | 50% Limit | Pass |

Magnetic Field

| Test Distance (cm) | Test Position | | Test Data (A/m) | | | Limit (A/m) | Result |
|--------------------|---------------|-------|-----------------|-----------|------------|-------------|--------|
| | | | Full Load | Half Load | Empty Load | | |
| 10 | Side | 1 | 0.172 | 0.113 | 0.035 | 1.63 | Pass |
| | | 2 | 0.378 | 0.343 | 0.331 | | Pass |
| | | 3 | 0.067 | 0.053 | 0.031 | | Pass |
| | | 4 | 0.132 | 0.073 | 0.097 | | Pass |
| | Top | 1 | 0.984 | 0.812 | 0.733 | | Pass |
| | | 2 | 0.952 | 0.786 | 0.548 | | Pass |
| | | 3 | 0.931 | 0.792 | 0.528 | | Pass |
| | | 4 | 0.721 | 0.614 | 0.511 | | Pass |
| | | 5 | 0.674 | 0.531 | 0.503 | | Pass |
| | Top Average | 1+2+3 | 0.956 | 0.797 | 0.603 | | Pass |
| | | 1+4+5 | 0.793 | 0.652 | 0.582 | | Pass |
| | Back | | | 0.164 | 0.125 | | 0.103 |
| 20 | Top1 | 1 | 0.412 | 0.236 | 0.021 | 50% Limit | Pass |



SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR230800170102

Page: 10 of 13

Test mode 01: Mobile Phone:

Electric Field Emissions

| Test Distance (cm) | Test Position | | Test Data (V/m) | | | Limit (V/m) | Result |
|--------------------|---------------|-------|-----------------|-------|-------|------------------|--------|
| | | | 85% | 50% | 15% | | |
| 10 | Side | 1 | 0.781 | 0.654 | 0.382 | 614 50% Limit | Pass |
| | | 2 | 0.403 | 0.325 | 0.171 | | Pass |
| | | 3 | 0.786 | 0.674 | 0.376 | | Pass |
| | | 4 | 0.517 | 0.363 | 0.178 | | Pass |
| | Top | 1 | 1.984 | 1.253 | 0.637 | | Pass |
| | | 2 | 1.763 | 1.215 | 0.542 | | Pass |
| | | 3 | 1.482 | 1.197 | 0.675 | | Pass |
| | | 4 | 1.219 | 0.986 | 0.424 | | Pass |
| | | 5 | 1.131 | 0.915 | 0.401 | | Pass |
| | Top Average | 1+2+3 | 1.743 | 1.222 | 0.618 | | Pass |
| | | 1+4+5 | 1.445 | 1.051 | 0.487 | | Pass |
| | Back | | | 0.421 | 0.293 | | 0.187 |
| 20 | Top1 | 1 | 0.922 | 0.565 | 0.284 | 50% Limit | Pass |

Magnetic Field

| Test Distance (cm) | Test Position | | Test Data (A/m) | | | Limit (A/m) | Result |
|--------------------|---------------|-------|-----------------|-------|-------|-------------|--------|
| | | | 85% | 50% | 15% | | |
| 10 | Side | 1 | 0.172 | 0.121 | 0.042 | 1.63 | Pass |
| | | 2 | 0.382 | 0.324 | 0.318 | | Pass |
| | | 3 | 0.087 | 0.061 | 0.036 | | Pass |
| | | 4 | 0.141 | 0.086 | 0.065 | | Pass |
| | Top | 1 | 0.994 | 0.803 | 0.712 | | Pass |
| | | 2 | 0.931 | 0.654 | 0.526 | | Pass |
| | | 3 | 0.893 | 0.752 | 0.531 | | Pass |
| | | 4 | 0.746 | 0.632 | 0.506 | | Pass |
| | | 5 | 0.637 | 0.518 | 0.496 | | Pass |
| | Top Average | 1+2+3 | 0.939 | 0.736 | 0.590 | | Pass |
| | | 1+4+5 | 0.792 | 0.651 | 0.571 | | Pass |
| | Back | | | 0.267 | 0.182 | | 0.116 |
| 20 | Top1 | 1 | 0.422 | 0.257 | 0.035 | 50% Limit | Pass |

6 Test Photo

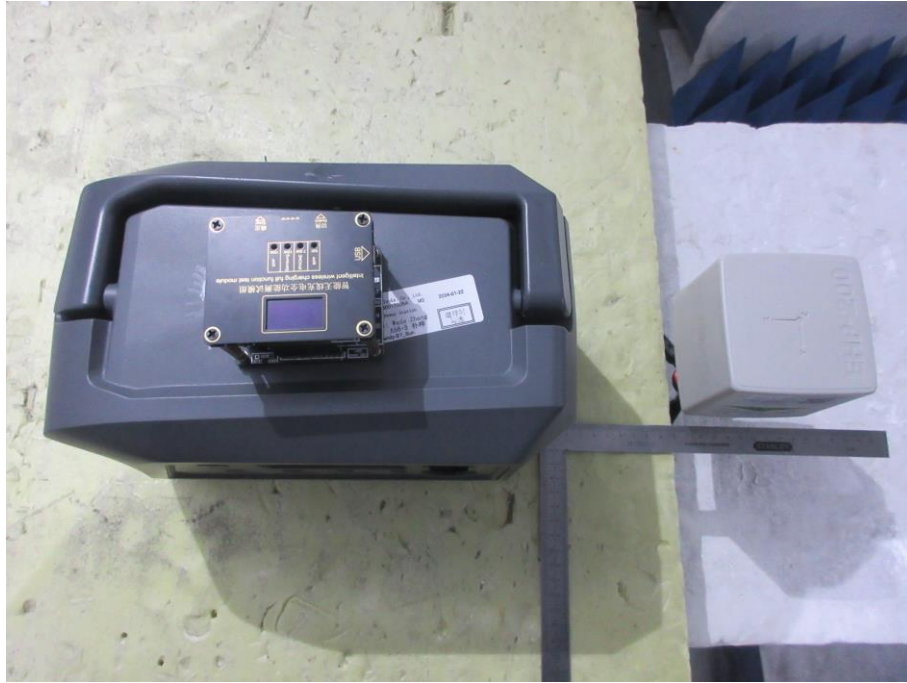
Top



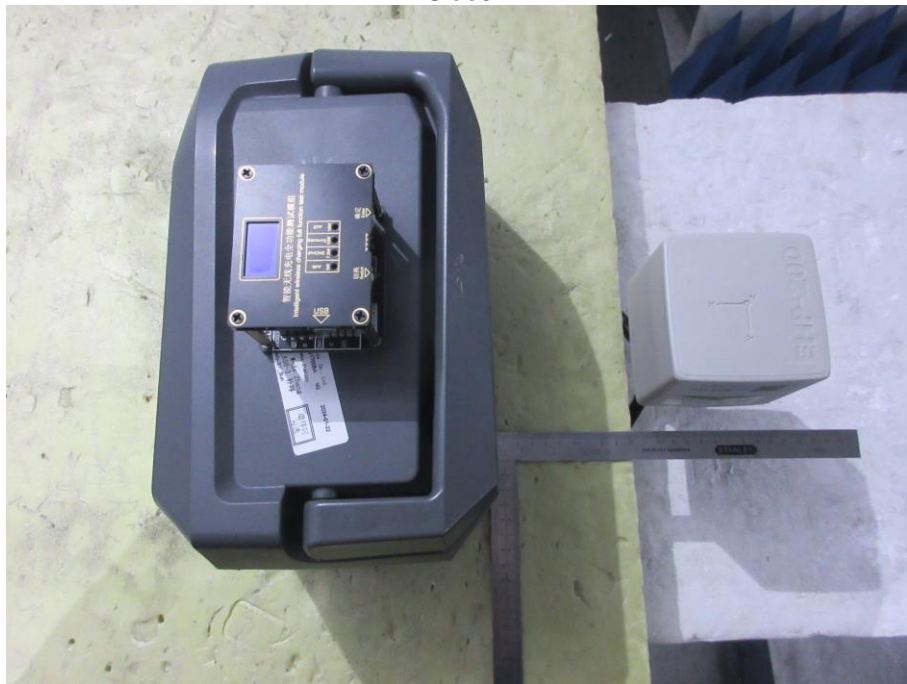
Side1



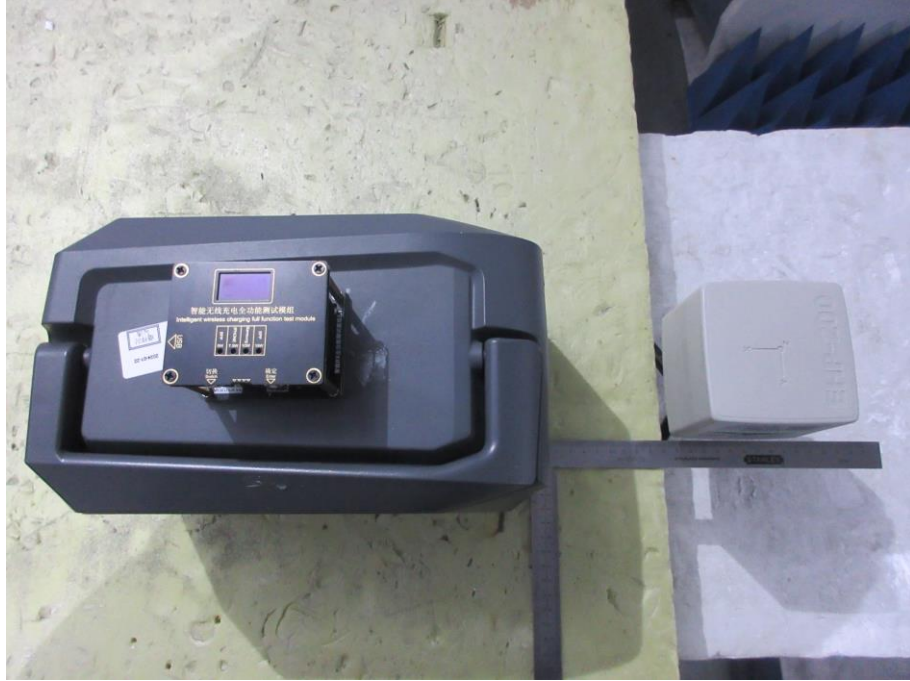
Side2



Side3



Side4



- End of the Report -