


Human Exposure Report

Application No.: SZEM2011012049CR
Applicant: Harman International Industries, Inc.
Address of Applicant: 8500 Balboa Boulevard, Northridge, California, 91329, United States
Manufacturer: Harman International Industries, Inc.
Address of Manufacturer: 8500 Balboa Boulevard, Northridge, California, 91329, United States
Equipment Under Test (EUT):
EUT Name: Power bank
Model No.: ILING1000W
Trade mark: 
FCC ID: APIILING10000W
Standards: 47 CFR PART 1, Subpart I, Section 1.1310
 47 CFR PART 2, Subpart J, Section 2.1091
Date of Receipt: 2020-11-26
Date of Test: 2020-12-02 to 2021-01-07
Date of Issue: 2021-01-11

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

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




Keny Xu
 EMC Laboratory Manager



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| <i>Revision Record</i> | | | | |
|------------------------|----------------|-------------|-----------------|---------------|
| <i>Version</i> | <i>Chapter</i> | <i>Date</i> | <i>Modifier</i> | <i>Remark</i> |
| 01 | | 2021-01-11 | | Original |
| | | | | |
| | | | | |

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|---------------------------------|--|---|--|
| Authorized for issue by: | | | |
| | |  | |
| | | <hr/> Benson Wang/Project Engineer | |
| | |  | |
| | | <hr/> Eric Fu/Reviewer | |



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3 General Information

3.1 Details of E.U.T.

| | |
|----------------------|--|
| Power adapter: | Lithium-ion rechargeable battery (DC 7.7V 5000mAh) which can be charged from Type-C port. |
| Operation Frequency: | 124.359KHz o 155.929KHz |
| Modulation Type: | Load modulation |
| Antenna Type: | Loop antenna |
| Remark: | This device has been tested the worst status of full load and the device has been tested with load at 5W, 7.5W and 10W, the worst case 10W is reported only. |

3.2 Description of Support Units

| Description | Manufacturer | Model No. | Serial No. |
|---------------|--------------|--------------|------------------|
| Adapter | HUAWEI | HW-200325BPO | N/A |
| Type-C Cable | SGS | N/A | REF. No.SEA07B00 |
| Load Resistor | SGS | N/A | REF. No.SEA06A00 |
| Mobile Phone | SAMSUNG | SM-G9810 | REF. No.SEA16K00 |



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3.3 Test Location

All tests were performed at:

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

No. 1 Workshop, M-10, Middle section, Science & Technology Park, 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**

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. 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: CN1178**

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

Designation Number: CN1178. Test Firm Registration Number: 406779.

• **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.



4 Equipments Used during Test

| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal. Due date |
|------|--------------------------------------|--------------|-----------|---------------|---------------|
| 1 | Electric and Magnetic Field Analyzer | Narda | EHP-50F | EMC092 | 2021-11-26 |



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

Measurement Distance: 15cm

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).

5.1.1 E.U.T. Operation

Operating Environment:

Temperature: 22.3 °C Humidity: 52.9 % RH Atmospheric Pressure: 1015 mbar

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.



5.1.2 Measurement Data

Output Voltage=DC 5V; The max output power =10W;Calculation of resistor value=2.5Ω

Magnetic Field Emissions

| Operation frequency | Test Distance (cm) | Test Position | Probe Measure Result (A/m) | 50% Limit (A/m) |
|---------------------|--------------------|---------------|----------------------------|-----------------|
| 135 kHz | 15 | Side 1 | 0.0399 | 0.815 |
| | | Side 2 | 0.0398 | 0.815 |
| | | Side 3 | 0.0429 | 0.815 |
| | | Side 4 | 0.0341 | 0.815 |
| | | Top | 0.0271 | 0.815 |

Mobile phone has been charge at zero charge, intermediate charge, and full charge.

Magnetic Field Emissions

| Operation frequency | Test Distance (cm) | Test Position | Probe Measure Result(A/m) | | | 50%Limit (A/m) |
|---------------------|--------------------|---------------|---------------------------|---------------------|-------------|----------------|
| | | | zero charge | intermediate charge | full charge | |
| 135 kHz | 15 | Side 1 | 0.0431 | 0.0371 | 0.0314 | 0.815 |
| | | Side 2 | 0.0442 | 0.0360 | 0.0323 | 0.815 |
| | | Side 3 | 0.0455 | 0.0384 | 0.0353 | 0.815 |
| | | Side 4 | 0.0368 | 0.0310 | 0.0262 | 0.815 |
| | | Top | 0.0210 | 0.0239 | 0.0215 | 0.815 |

- End of the Report -

