



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

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

Telephone: +86 (0) 755 2601 2053
Fax: +86 (0) 755 2671 0594
Email: ee.shenzhen@sgs.com

Report No.: SZEM180600508402

Page: 1 of 8

Human Exposure Report

Application No.: SZEM1806005084CR
Applicant: SHENZHEN LANNENGSHITONG ELECTRONICS CO., LTD
Address of Applicant: Floor3 No.40 xinhe road shangmugu village Pinghu neighborhood Longgang District, Shenzhen 518110, China
Manufacturer: SHENZHEN LANNENGSHITONG ELECTRONICS CO., LTD
Address of Manufacturer: Floor3 No.40 xinhe road shangmugu village Pinghu neighborhood Longgang District, Shenzhen 518110, China
Factory: SHENZHEN LANNENGSHITONG ELECTRONICS CO., LTD
Address of Factory: Floor3 No.40 xinhe road shangmugu village Pinghu neighborhood Longgang District, Shenzhen 518110, China
Equipment Under Test (EUT):
EUT Name: UbioLabs Fast Charge Wireless Charging Pad
Model No.: AWC1018, AWC1019 ♣
♣ Please refer to section 2.1 of this report which indicates which model was actually tested and which were electrically identical.
Trade Mark: UbioLabs
FCC ID: 2APNH-AWC1018
Standards: 47 CFR PART 1, SUBPART I, SECTION 1.1310
Date of Receipt: 2018-06-12
Date of Test: 2018-06-14 to 2018-06-15
Date of Issue: 2018-06-21

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

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



Kenx Xu

EMC Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. 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.



1 Contents

| | Page |
|--|------|
| 1 COVER PAGE | 1 |
| 1 CONTENTS | 2 |
| 2 GENERAL INFORMATION | 3 |
| 2.1 DETAILS OF E.U.T. | 3 |
| 2.2 DESCRIPTION OF SUPPORT UNITS | 3 |
| 2.3 TEST LOCATION | 4 |
| 2.4 TEST FACILITY | 4 |
| 2.5 DEVIATION FROM STANDARDS | 4 |
| 2.6 ABNORMALITIES FROM STANDARD CONDITIONS | 4 |
| 3 EQUIPMENTS USED DURING TEST | 5 |
| 4 TEST RESULTS | 6 |
| 4.1 RF EXPOSURE TEST | 6 |
| 4.1.1 E.U.T. Operation | 6 |
| 4.1.2 Measurement Data | 7-8 |



2 General Information

2.1 Details of E.U.T.

Power supply: Input: DC 5-9V/ 2A MAX
Output: DC 5W-10W MAX
AC/DC adapter information:
Model: CHG1045
B/N: 050418HJT
Input: AC 110-240V, 50/60Hz
Output: DC 9V/2A

Cable: DC cable: 180cm, unshielded

Operation frequency: 115.2-162.4 kHz

Modulation type: Load modulation

Antenna type: Inductive Loop Coil Antenna

Remark: Tests were conducted in all three load modes(5W/7.5W/10W) and the worst case (5W) is reported only.

Remark:

Model No.: AWC1018, AWC1019

Only the model AWC1018 was tested, since the electrical circuit design, layout, components used, internal wiring and functions were identical for the above models, only different on model number, and enclosure color.

2.2 Description of Support Units

| Description | Manufacturer | Model No. | Serial No. |
|--------------|-----------------|-----------|--------------|
| E-loading | provided by SGS | N/A | DC 5V/1A |
| iPhone 8 | Apple | A1863 | F4GVQ656JC6D |
| Mobile Phone | SAMSUNG | SM-G9500 | R28J9140LPB |



2.3 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, Shenzhen, Guangdong, China.
518057.

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

No tests were sub-contracted.

2.4 Test Facility

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

- **CNAS (No. CNAS L2929)**

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

- **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 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-823, R-4188, T-1153 and C-2383 respectively.

- **FCC – Registration No.: 556682**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen 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 No.: 556682.

- **Industry Canada (IC)**

The 10m Semi-anechoic chambers of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-3.

2.5 Deviation from Standards

None.

2.6 Abnormalities from Standard Conditions

None.



3 Equipments Used during Test

| Item | Test Equipment | Manufacturer | Model No. | Inventory No. | Cal. Due date (yyyy-mm-dd) |
|-------------|--------------------------|---------------------|------------------|----------------------|---------------------------------------|
| 1 | 3m Semi-Anechoic Chamber | ETS-LINDGREN | N/A | SEL0017 | 2018-06-19 |
| 2 | Electric Field Meter | Schaffner | EMC20 | EMC068 | 2019-03-21 |



4 Test Results

4.1 RF Exposure test

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

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).

4.1.1 E.U.T. Operation

Operating Environment:

Temperature: 25.0 °C

Humidity: 51 % RH

Atmospheric Pressure: 1015 mbar

EUT Operation:

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.



4.1.2 Measurement Data

1: Output Voltage=DC 5V; The max output current =1A;Calculation of resistor value=5.0Ω

Electric Field Emissions

| Test frequency | Test Distance(cm) | Test Position | Probe Measure Result(V/m) | 50% Limit (V/m) | Result |
|----------------|-------------------|---------------|---------------------------|-----------------|--------|
| 145.8 kHz | 15 | Side 1 | 1.23 | 307 | Pass |
| | | Side 2 | 1.54 | 307 | Pass |
| | | Side 3 | 1.15 | 307 | Pass |
| | | Side 4 | 1.37 | 307 | Pass |
| | | Top | 1.33 | 307 | Pass |

Magnetic Field Emissions

| Test frequency | Test Distance (cm) | Test Position | Probe Measure Result (A/m) | 50%Limit (A/m) | Result |
|----------------|--------------------|---------------|----------------------------|----------------|--------|
| 145.8 kHz | 15 | Side 1 | 0.0045 | 0.815 | Pass |
| | | Side 2 | 0.0031 | 0.815 | Pass |
| | | Side 3 | 0.0049 | 0.815 | Pass |
| | | Side 4 | 0.0025 | 0.815 | Pass |
| | | Top | 0.0037 | 0.815 | Pass |



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

Report No.: SZEM180600508402

Page: 8 of 8

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

Electric Field Emissions

| Test frequency | Test Distance (cm) | Test Position | Probe Measure Result (V/m) | | | 50% Limit (V/m) | Result |
|----------------|--------------------|---------------|----------------------------|---------------------|-------------|-----------------|--------|
| | | | zero charge | intermediate charge | full charge | | |
| 145.8 kHz | 15 | Side 1 | 1.26 | 1.21 | 1.26 | 307 | Pass |
| | | Side 2 | 1.58 | 1.56 | 1.51 | 307 | Pass |
| | | Side 3 | 1.19 | 1.11 | 1.18 | 307 | Pass |
| | | Side 4 | 1.33 | 1.31 | 1.36 | 307 | Pass |
| | | Top | 1.32 | 1.33 | 1.36 | 307 | Pass |

Magnetic Field Emissions

| Test frequency | Test Distance (cm) | Test Position | Probe Measure Result (A/m) | | | 50%Limit (A/m) | Result |
|----------------|--------------------|---------------|----------------------------|---------------------|-------------|----------------|--------|
| | | | zero charge | intermediate charge | full charge | | |
| 145.8 kHz | 15 | Side 1 | 0.0040 | 0.0049 | 0.0046 | 0.815 | Pass |
| | | Side 2 | 0.0030 | 0.0037 | 0.0034 | 0.815 | Pass |
| | | Side 3 | 0.0047 | 0.0042 | 0.0044 | 0.815 | Pass |
| | | Side 4 | 0.0024 | 0.0020 | 0.0025 | 0.815 | Pass |
| | | Top | 0.0032 | 0.0036 | 0.0036 | 0.815 | Pass |

- End of the Report -