



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

No. 1 Workshop, M-10, Middle Section, Science & Technology Park,
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Report No.: SZEM181101020102
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Human Exposure Report

Application No.: SZEM1811010201CR
Applicant: SHENZHEN DNS INDUSTRIES CO., LTD.
Address of Applicant: 23/F Building A, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian, Shenzhen, China
Manufacturer: SHENZHEN DNS INDUSTRIES CO., LTD.
Address of Manufacturer: 23/F Building A, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian, Shenzhen, China
Factory: HUIZHOU D&S CABLE CO., LTD.
Address of Factory: Longjin Dongjiang Industry Zone Shuikou, Huicheng, Huizhou, Guangdong, China
Equipment Under Test (EUT):
EUT Name: Wireless Charger
Model No.: WD32F1
Trade Mark: DNS
FCC ID: ZBCWD32F1
Standards: 47 CFR PART 1, Subpart I, Section 1.1310
Date of Receipt: 2018-11-28
Date of Test: 2018-11-29 to 2018-12-06
Date of Issue: 2018-12-07

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

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



Keny 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.

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3 General Information

3.1 Details of E.U.T.

Power supply: Input: DC 5V/1.5A
 Output: DC 5V/1A (5W Max.)
Operation Frequency: 114.23-175.38kHz
Modulation Type: Load Modulation
Antenna Type: Inductive Loop Coil Antenna

3.2 Description of Support Units

| Description | Manufacturer | Model No. | Serial No. |
|-----------------|--------------------|----------------|-----------------|
| Adapter | Apple | A1357 W010A051 | REF. No.SEA0500 |
| E-Charging load | provided by client | N/A | 5W |
| Micro USB Cable | PHILIPS | SWR2101 | REF. No.SEA0700 |
| Mobile Phone | SAMSUNG | SM-G9500 | R28J9140LPB |



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:

- **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 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 (yyyy-mm-dd) |
|------|--------------------------------------|--------------|-----------|---------------|----------------------------|
| 1 | Shielding Room | SAEMC | MSR733 | SEM001-09 | 2020-05-09 |
| 2 | Electric and Magnetic Field Analyzer | Narda | EHP-50F | EMC092 | 2019-02-06 |



5 Test Results

5.1 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). | | | | |

5.1.1 E.U.T. Operation

Operating Environment:

Temperature: 24.5 °C Humidity: 52% 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.



5.1.2 Measurement Data

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

Magnetic Field Emissions

| Operation frequency | Test Distance (cm) | Test Position | Probe Measure Result (A/m) | 50% Limit (A/m) |
|---------------------|--------------------|---------------|----------------------------|-----------------|
| 147.2 kHz | 15 | Side 1 | 0.0240 | 0.815 |
| | | Side 2 | 0.0252 | 0.815 |
| | | Side 3 | 0.0219 | 0.815 |
| | | Side 4 | 0.0323 | 0.815 |
| | | Top | 0.0370 | 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 | |
| 147.2 kHz | 15 | Side 1 | 0.0222 | 0.0209 | 0.0198 | 0.815 |
| | | Side 2 | 0.0233 | 0.0219 | 0.0208 | 0.815 |
| | | Side 3 | 0.0203 | 0.0191 | 0.0181 | 0.815 |
| | | Side 4 | 0.0299 | 0.0281 | 0.0266 | 0.815 |
| | | Top | 0.0342 | 0.0322 | 0.0305 | 0.815 |



6 Photographs

Please refer to RF Exposure setup photo.

- End of the Report -