



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

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Report No.: SZEM180600493502  
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## Human Exposure Report

**Application No.:** SZEM1806004935CR  
**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.:** AC75L4C, AC75L4N, WD19L4C, WD19L4N ♣  
♣ Please refer to section 2.1 of this report which indicates which model was actually tested and which were electrically identical.  
**FCC ID:** ZBCAC75L4C  
**Trade mark:** DNS  
**Standards:** 47 CFR PART 1, Subpart I, Section 1.1310  
**Date of Receipt:** 2018-06-08  
**Date of Test:** 2018-06-20 to 2018-06-22  
**Date of Issue:** 2018-06-22

|                      |              |
|----------------------|--------------|
| <b>Test Result :</b> | <b>Pass*</b> |
|----------------------|--------------|

\* 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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## 2 General Information

### 2.1 Details of E.U.T.

Power supply: AC/DC adapter information:  
MODEL: AC74S29  
INPUT: AC 100-240V, 50/60Hz, 1.1A  
OUTPUT: DC 12V/3.5A  
for wireless charge pad:  
Input: DC 12V/3.5A  
Output 1: DC 5V/1A, OR 9V/1.67A, OR 12V/1.25A  
Output 2: DC 5V/1A, OR 9V/1.67A, OR 12V/1.25A  
30W MAX

Cable: DC line: 150cm, unshielded

Operation frequency: 129.3-183.7kHz

Antenna type: Inductive Loop Coil Antenna

Modulation type: Load modulation

Remark: Tests were conducted in all load modes(5W/10W/15W/30W) and the worst case (30W) is reported only.

#### Declaration of EUT Family Grouping:

Model No.: AC75L4C, AC75L4N, WD19L4C, WD19L4N

Only the model AC75L4C was tested, since the electrical circuit design, PCB layout, components used and internal wiring and functions were identical for the above models, only different on model number, appearance, capacitance type, Power panel and indicator circuit.

Details see below:

| Trade mark | Model number | appearance | capacitance     |                 |
|------------|--------------|------------|-----------------|-----------------|
|            |              |            | NPO capacitance | CBB capacitance |
| DNS        | AC75L4C      | Type 1     | NO              | YES             |
| DNS        | AC75L4N      | Type 1     | YES             | NO              |
| DNS        | WD19L4C      | Type 2     | NO              | YES             |
| DNS        | WD19L4N      | Type 2     | YES             | NO              |



## 2.2 Description of Support Units

| Description | Manufacturer       | Model No. | Serial No.   |
|-------------|--------------------|-----------|--------------|
| E-loading   | Provided by client | N/A       | DC 5V/1A     |
| E-loading   | Provided by client | N/A       | DC 9V/1.67A  |
| E-loading   | Provided by client | N/A       | DC 12V/1.25A |



## 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 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.

- **Industry Canada (IC)**

Two 3m Semi-anechoic chambers and the 10m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1, 4620C-2, 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<br>(yyyy-mm-dd) |
|------|----------------------|--------------|-----------|---------------|-------------------------------|
| 1    | 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 <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<br>*=Plane-wave equivalent power density<br>RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules.<br>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: 24.0 °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.



#### 4.1.2 Measurement Data

Output Voltage=DC 9V; The max output power =30W

##### Electric Field Emissions

| Operation frequency | Test Distance (cm) | Test Position | Probe Measure Result (V/m) | 50% Limit (V/m) |
|---------------------|--------------------|---------------|----------------------------|-----------------|
| 149.8 kHz           | 15                 | Side 1        | 6.86                       | 307             |
|                     |                    | Side 2        | 6.92                       | 307             |
|                     |                    | Side 3        | 6.88                       | 307             |
|                     |                    | Side 4        | 6.84                       | 307             |
|                     |                    | Top           | 6.90                       | 307             |

##### Magnetic Field Emissions

| Operation frequency | Test Distance (cm) | Test Position | Probe Measure Result (A/m) | 50% Limit (A/m) |
|---------------------|--------------------|---------------|----------------------------|-----------------|
| 149.8 kHz           | 15                 | Side 1        | 0.0576                     | 0.815           |
|                     |                    | Side 2        | 0.0547                     | 0.815           |
|                     |                    | Side 3        | 0.0562                     | 0.815           |
|                     |                    | Side 4        | 0.0572                     | 0.815           |
|                     |                    | Top           | 0.0634                     | 0.815           |





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

**Electric Field Emissions**

| Operation frequency | Test Distance (cm) | Test Position | Probe Measure Result(V/m) |                     |             | 50%Limit (V/m) |
|---------------------|--------------------|---------------|---------------------------|---------------------|-------------|----------------|
|                     |                    |               | zero charge               | intermediate charge | full charge |                |
| 149.8 kHz           | 15                 | Side 1        | 6.82                      | 6.82                | 6.83        | 307            |
|                     |                    | Side 2        | 6.97                      | 6.94                | 6.95        | 307            |
|                     |                    | Side 3        | 6.81                      | 6.87                | 6.81        | 307            |
|                     |                    | Side 4        | 6.81                      | 6.83                | 6.86        | 307            |
|                     |                    | Top           | 6.94                      | 6.98                | 6.94        | 307            |

**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 |                |
| 144.3kHz            | 15                 | Side 1        | 0.0573                    | 0.0573              | 0.0573      | 0.815          |
|                     |                    | Side 2        | 0.0541                    | 0.0546              | 0.0545      | 0.815          |
|                     |                    | Side 3        | 0.0565                    | 0.0564              | 0.0567      | 0.815          |
|                     |                    | Side 4        | 0.0577                    | 0.0578              | 0.0578      | 0.815          |
|                     |                    | Top           | 0.0632                    | 0.0631              | 0.0630      | 0.815          |



## **5 Photographs**

Please refer to RF exposure

- End of the Report -