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Telephone: +86 (0) 755 2601 2053 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

Test Result : Pass\*

<sup>\*</sup> 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	er appearance	capacitance		
Trade mark	Woder Hamber		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	



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### 2.2 Description of Support Units

<u> </u>			
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



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### 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.

#### · VCC

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.



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# 3 Equipments Used during Test

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Due date (yyyy-mm-dd)
1	Electric Field Meter	Schaffner	EMC20	EMC068	2019-03-21



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# 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/cm²)	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/f²)	6				
30-300	61.4	0.163	1.0	6				
300-1500	/	1	f/300	6				
1500-100,000	/	/	5	6				
	(B) Limits for Genera	l Population/Uncontrolle	d Exposure					
0.3-1.34	614	1.63	*(100)	30				
1.34-30	824/f	2.19/f	*(180/f²)	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

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: 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.

<sup>\*=</sup>Plane-wave equivalent power density



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#### 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)
		Side 1	6.86	307
	15	Side 2	6.92	307
149.8 kHz		Side 3	6.88	307
		Side 4	6.84	307
		Тор	6.90	307

### **Magnetic Field Emissions**

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



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

### **Electric Field Emissions**

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

### **Magnetic Field Emissions**

Operation Test		Test	Probe Measure Result(A/m)			50%Limit
frequency	Distance (cm)	Position	zero charge	intermediate charge	full charge	(A/m)
		Side 1	0.0573	0.0573	0.0573	0.815
	Side 2 Side 3 Side 4	Side 2	0.0541	0.0546	0.0545	0.815
144.3kHz		Side 3	0.0565	0.0564	0.0567	0.815
		Side 4	0.0577	0.0578	0.0578	0.815
		Тор	0.0632	0.0631	0.0630	0.815



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# 5 Photographs

Please refer to RF exposure

- End of the Report -