

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

Telephone: +86 (0) 755 2601 2053 Report No.: SZEM181000899402

Fax: +86 (0) 755 2671 0594 Page: 1 of 9

## **Human Exposure Report**

Application No.: SZEM1810008994CR

**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.

LONGJIN DONGJIANG INDUSTRY ZONE, SHUIKOU, HUICHENG,

Address of Factory:
HUIZHOU, GUANGDONG, CHINA

**Equipment Under Test (EUT):** 

**EUT Name:** WIRELESS CHARGER

Model No.: AC75H103

**Trade Mark:** DNS, omars,novoo **FCC ID:** ZBCAC75H103

Standards: 47 CFR PART 1, SUBPART I, SECTION 1.1310

**Date of Receipt**: 2018-10-17

**Date of Test**: 2018-10-17 to 2018-10-23

**Date of Issue:** 2018-10-24

Test Result : Pass\*



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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<sup>\*</sup> In the configuration tested, the EUT complied with the standards specified above



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## 2 General Information

## 2.1 Details of E.U.T.

Power supply: Input: DC 5V, 3A

Output 1: DC 5V, 1A Output 2: DC 5V, 1A

Cable: USB to DC charging line: 100cm, unshielded

Operation frequency: 109.29-184.29kHz
Modulation type: Load modulation

Antenna type: Inductive Loop Coil Antenna

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

(5W) is reported only.

## 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



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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.

### 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.

### 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	Shielding Room	SAEMC	MSR733	SEM001-09	2020-05-09
2	Electric and Magnetic Field Analyzer	Narda	EHP-50F	EMC092	2019-02-06



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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/20cm

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: 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.

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



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#### 4.1.2 Measurement Data

# Output Voltage=DC 5V; The max output power =5W; Calculation of resistor value=5 $\Omega$ Electric Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (V/m)	50% Limit (V/m)
	15	Side 1	1.82	307
		Side 2	2.23	307
147.2 kHz		Side 3	1.29	307
		Side 4	1.65	307
	20	Тор	2.38	307

### **Magnetic Field Emissions**

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
	15	Side 1	0.0051	0.815
		Side 2	0.0044	0.815
147.2 kHz		Side 3	0.0053	0.815
		Side 4	0.0039	0.815
	20	Тор	0.0049	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 Position	Probe Measure Result(V/m)			50%Limit
frequency	Distance (cm)		zero charge	intermediate charge	full charge	(V/m)
	15 147.2 kHz	Side 1	1.88	1.84	1.73	307
		Side 2	2.20	2.26	2.05	307
147.2 kHz		Side 3	1.33	1.38	1.34	307
		Side 4	1.75	1.72	1.69	307
	20	Тор	2.28	2.17	2.21	307

## **Magnetic Field Emissions**

Operation	Test	Test	Probe	50%Limit		
frequency	Distance (cm)	Position	zero charge	intermediate charge	full charge	(A/m)
		Side 1	0.0055	0.0052	0.0043	0.815
		Side 2	0.0041	0.0043	0.0040	0.815
147.2 kHz	15	Side 3	0.0059	0.0052	0.0045	0.815
		Side 4	0.0044	0.0046	0.0042	0.815
	20	Тор	0.0048	0.0044	0.0041	0.815



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## 5 Photographs

## 5.1 Test Setup

Please refer to RF exposure setup.

- End of the Report -