



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

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Report No.: SZEM180500378402  
Page: 1 of 11

## Human Exposure Report

**Application No.:** SZEM1805003784CR  
**Applicant/ Manufacturer:** SHENZHEN DNS INDUSTRIES CO., LTD.  
**Address of Applicant/ 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 CAR CHARGER  
**Model No.:** AC67F1  
**Trade Mark:** DNS, omars, novoo  
**FCC ID:** ZBCAC67F1  
**Standards:** 47 CFR PART 1, SUBPART I, SECTION 1.1310  
**Date of Receipt:** 2018-05-14  
**Date of Test:** 2018-05-16 TO 2018-05-17  
**Date of Issue:** 2018-05-22

<b>Test Result :</b>	<b>Pass*</b>
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\* 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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# 1 Contents

	Page
<b>1 COVER PAGE .....</b>	<b>1</b>
<b>1 CONTENTS .....</b>	<b>2</b>
<b>2 GENERAL INFORMATION.....</b>	<b>3</b>
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
<b>3 EQUIPMENTS USED DURING TEST .....</b>	<b>5</b>
<b>4 TEST RESULTS .....</b>	<b>6</b>
4.1 RF EXPOSURE TEST .....	6
4.1.1 <i>E.U.T. Operation</i> .....	6
4.1.2 <i>Measurement Data</i> .....	7
<b>5 PHOTOGRAPHS.....</b>	<b>11</b>



## 2 General Information

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

Power supply: Input: DC 5V/2A  
Output: DC 5V/1A Max 5W

Operation frequency: 110.58-180.29 kHz

Modulation type: Load modulation

Antenna type: Inductive Loop Coil Antenna

### 2.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Adapter	Apple	A1357 W010A051	REF. No.SEA0500
Type-C Cable	SGS	N/A	REF. No.SEA0705
E-loading	Provided by client	N/A	DC 5V/1A



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



## 4 Test Results

### 4.1 RF Exposure test

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

Measurement Distance: 15cm/10cm/4cm/0cm

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 *=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
165.8kHz	0	Side 1	6.70	307	Pass
		Side 2	8.34	307	Pass
		Side 3	8.03	307	Pass
		Side 4	6.72	307	Pass
		Top	12.33	307	Pass
	4	Side 1	4.36	307	Pass
		Side 2	5.42	307	Pass
		Side 3	5.25	307	Pass
		Side 4	4.32	307	Pass
		Top	8.01	307	Pass
	10	Side 1	2.04	307	Pass
		Side 2	2.53	307	Pass
		Side 3	2.41	307	Pass
		Side 4	2.02	307	Pass
		Top	3.70	307	Pass
	15	Side 1	1.33	307	Pass
		Side 2	1.65	307	Pass
		Side 3	1.59	307	Pass
		Side 4	1.33	307	Pass
		Top	2.44	307	Pass



Magnetic Field Emissions

Test frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50%Limit (A/m)	Result
165.8kHz	0	Side 1	0.0079	0.815	Pass
		Side 2	0.0114	0.815	Pass
		Side 3	0.0215	0.815	Pass
		Side 4	0.0211	0.815	Pass
		Top	0.1134	0.815	Pass
	4	Side 1	0.0075	0.815	Pass
		Side 2	0.0101	0.815	Pass
		Side 3	0.0206	0.815	Pass
		Side 4	0.0201	0.815	Pass
		Top	0.1077	0.815	Pass
	10	Side 1	0.0067	0.815	Pass
		Side 2	0.0091	0.815	Pass
		Side 3	0.0185	0.815	Pass
		Side 4	0.0174	0.815	Pass
		Top	0.0963	0.815	Pass
	15	Side 1	0.0067	0.815	Pass
		Side 2	0.0091	0.815	Pass
		Side 3	0.0173	0.815	Pass
		Side 4	0.0163	0.815	Pass
		Top	0.0907	0.815	Pass





**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		
165.8kHz	0	Side 1	6.90	6.57	6.37	307	Pass
		Side 2	8.59	8.17	7.92	307	Pass
		Side 3	8.25	7.86	7.63	307	Pass
		Side 4	6.92	6.59	6.34	307	Pass
		Top	12.70	12.08	11.71	307	Pass
	4	Side 1	4.44	4.27	4.18	307	Pass
		Side 2	5.53	5.37	5.11	307	Pass
		Side 3	5.42	5.14	4.99	307	Pass
		Side 4	4.45	4.23	4.15	307	Pass
		Top	8.25	7.85	7.61	307	Pass
	10	Side 1	2.12	2.00	1.94	307	Pass
		Side 2	2.67	2.48	2.43	307	Pass
		Side 3	2.42	2.33	2.24	307	Pass
		Side 4	2.08	1.95	1.92	307	Pass
		Top	3.81	3.63	3.58	307	Pass
	15	Side 1	1.33	1.30	1.26	307	Pass
		Side 2	1.73	1.61	1.52	307	Pass
		Side 3	1.66	1.52	1.51	307	Pass
		Side 4	1.37	1.35	1.28	307	Pass
		Top	2.51	2.39	2.32	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		
165.8kHz	0	Side 1	0.0080	0.0075	0.0071	0.815	Pass
		Side 2	0.0111	0.0104	0.0105	0.815	Pass
		Side 3	0.0214	0.0204	0.0194	0.815	Pass
		Side 4	0.0213	0.0203	0.0196	0.815	Pass
		Top	0.1145	0.1077	0.1022	0.815	Pass
	4	Side 1	0.0076	0.0075	0.0068	0.815	Pass
		Side 2	0.0102	0.0096	0.0094	0.815	Pass
		Side 3	0.0204	0.0196	0.0185	0.815	Pass
		Side 4	0.0206	0.0194	0.0186	0.815	Pass
		Top	0.1081	0.1023	0.0969	0.815	Pass
	10	Side 1	0.0063	0.0064	0.0063	0.815	Pass
		Side 2	0.0096	0.0082	0.0087	0.815	Pass
		Side 3	0.0187	0.0176	0.0167	0.815	Pass
		Side 4	0.0173	0.0165	0.0153	0.815	Pass
		Top	0.0973	0.0915	0.0867	0.815	Pass
	15	Side 1	0.0068	0.0064	0.0064	0.815	Pass
		Side 2	0.0094	0.0086	0.0082	0.815	Pass
		Side 3	0.0171	0.0165	0.0156	0.815	Pass
		Side 4	0.0165	0.0155	0.0146	0.815	Pass
		Top	0.0913	0.0864	0.0816	0.815	Pass



## **5 Photographs**

Please refer to RF exposure Setup.

- End of the Report -