



# Human Exposure Report

**Application No.:** SZEM2003001157CR  
**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

**Equipment Under Test (EUT):**  
**EUT Name:** Wireless Charger  
**Model No.:** WD-248C, WD-248E, WD-246C, 3S-1835 ♣  
 ♣ Please refer to section 2 of this report which indicates which model was actually tested and which were electrically identical.

**Trade mark:** DNS, 3sixT  
**FCC ID:** ZBCWD24815W  
**Standard(s) :** 47 CFR PART 1, Subpart I, Section 1.1310  
**Date of Receipt:** 2020-03-04  
**Date of Test:** 2020-03-06 to 2020-03-23  
**Date of Issue:** 2020-03-25

<b>Test Result:</b>	<b>Pass*</b>
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\* In the configuration tested, the EUT complied with the standards specified above

Kemy Xu  
 EMC Laboratory Manager





<i>Revision Record</i>				
<i>Version</i>	<i>Chapter</i>	<i>Date</i>	<i>Modifier</i>	<i>Remark</i>
01		2020-03-25		Original

<b>Authorized for issue by:</b>			
			
		_____	
		<b>Peter Geng /Project Engineer</b>	
			
		_____	
		<b>Eric Fu /Reviewer</b>	



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## 2 General Information

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

Power Supply:	USB-C input: DC 5V/2A, 9V/2A, 12V/2A Wireless Output: 5W/7.5W/10W/15W
Operation frequency	113.62kHz-145.19kHz
Modulation type	Load modulation
Antenna type:	Loop antenna
Remark:	The tests were conducted in all work load modes above and the worst case 15W is reported only.

**Remark:**

Model No.: WD-248C, WD-248E, WD-246C, 3S-1835

Only the model WD-248C, WD-246C was tested, since the electrical circuit design, layout, components used, internal wiring and functions were identical for all the above models, with only different on trade mark, model No. and enclosure shape. Details see below:

Trade Mark	Model No.	Enclosure shape code
DNS	WD-248C	A
DNS	WD-248E	B
DNS	WD-246C	C
3sixT	3S-1835	B

### 2.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Adapter	XIAOMI	MDY-10-EH	AA61904Q207433G
iPhone 8	Apple	A1863	F4GVQ656JC6D
SAMSUNG Galaxy S8	SAMSUNG	SM-G9500	R28J9140LPB
XIAOMI MI 9	XIAOMI	M1902F1A	22006/K9SH01862



## 2.3 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.

## 2.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

### • 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.





### 3 Equipments Used during Test

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Due date
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	2020-06-10
2	Electric and Magnetic Field Analyzer	Narda	EHP-50F	EMC092	2020-05-06



## 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  
 \*=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: 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**

**Magnetic Field Emissions**

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
125 kHz	15	Side 1	0.0469	0.815
		Side 2	0.0386	0.815
		Side 3	0.0525	0.815
		Side 4	0.0349	0.815
		Top	0.0272	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	
125 kHz	15	Side 1	0.0589	0.0458	0.0423	0.815
		Side 2	0.0474	0.0353	0.0319	0.815
		Side 3	0.0618	0.0494	0.0442	0.815
		Side 4	0.0477	0.0370	0.0336	0.815
		Top	0.0394	0.0252	0.0239	0.815

- End of the Report -

