



Human Exposure Report

Application No.: SZEM1906015607CR
Applicant: SHENZHEN DNS INDUSTRIES CO., LTD.
Address of Applicant: 23/F Building A, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian, Shenzhen, 518026 China
Manufacturer: SHENZHEN DNS INDUSTRIES CO., LTD.
Address of Manufacturer: 23/F Building A, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian, Shenzhen, 518026 China
Factory: 1. HUIZHOU D&S CABLE CO., LTD.
2. D AND S INDUSTRIES (PHILIPPINES) CORPORATION
Address of Factory: 1. LONGJIN DONGJIANG INDUSTRY ZONE, SHUIKOU, HUICHENG, HUIZHOU, GUANGDONG, CHINA
2. 1 to 5 Orient Goldcrest Suntrust Ecotown Building 2, Lot 8 Block 8, Sahud Ulan, Suntrust Ecotown Tanza, Region IV-A, Cavite, Philippines
Equipment Under Test (EUT):
EUT Name: Wireless Charger
Model No.: WD17B, WD17D, WD17F ♣
♣ Please refer to section 3.1 of this report which indicates which model was actually tested and which were electrically identical.
Trade mark: DNS
FCC ID: ZBCWD17B
Standards: 47 CFR PART 1, Subpart I, Section 1.1310
Date of Receipt: 2019-06-25
Date of Test: 2019-06-26 to 2019-07-14
Date of Issue: 2019-07-18

Test Result :	Pass*
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* In the configuration tested, the EUT complied with the standards specified above

Kenx. Xu

Kenx Xu
EMC Laboratory Manager



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Shenzhen Branch

Report No.: SZEM190601560702
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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2019-07-18		Original

Authorized for issue by:			
			
		Powell Bao /Project Engineer	
			
		Eric Fu /Reviewer	



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3 General Information

3.1 Details of E.U.T.

Power Supply: Input: DC5V/2A; DC9V/1.67A
Output: DC5V/1A; DC9V/1.1A(10W Max)

Working Power: 5W/7.5W/10W

Cable: Micro USB Cable(Unshielded, 100cm)

Operation Frequency: 110.256KHz-147.436KHz

Modulation Type: Load Modulation

Antenna Type: Loop Antenna

Remark: Tests were conducted in all three load modes and the worst case 10W is reported only.

Remark:

Model No.: WD17B, WD17D, WD17F

Only the model WD17B was tested, since the electrical circuit design, layout, components used, internal wiring and functions were identical for all the above models, with only difference on trade mark, model No., enclosure shape, details see below:

Trade Mark	Model No.	Enclosure shape code
DNS	WD17B	A
	WD17D	B
	WD17F	C

For Enclosure shape code A & C

Top: plastic enclosure, bottom and side: Metallic enclosure

Code A with a curve face side, Code C with a flat face side

For Enclosure shape code B: Plastic enclosure

3.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
iPhone 8	Apple	A1863	F4GVQ656JC6D
Mobile Phone	SAMSUNG	SM-G9500	R28J9140LPB
Adapter (Provided by SGS)	SAMSUNG	EP-TA200	R37J8YA7W71DK3



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3.3 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.

3.4 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.

3.5 Deviation from Standards

None.

3.6 Abnormalities from Standard Conditions

None.



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Shenzhen Branch E&E Laboratory

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4 Equipments Used during Test

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Due date
1	Electric and Magnetic Field Analyzer	Narda	EHP-50F	EMC092	2020-02-05



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5 Test Results

5.1 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 ²)	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/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500	/	/	f/300	6
1500-100,000	/	/	5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	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).

5.1.1 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.



5.1.2 Measurement Data

Output Voltage=DC 9V; The max output power =10W;

Electric Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (V/m)	50% Limit (V/m)
147 kHz	15	Side 1	2.83	307
		Side 2	1.29	307
		Side 3	2.71	307
		Side 4	1.37	307
		Top	0.94	307

Magnetic Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
147 kHz	15	Side 1	0.0974	0.815
		Side 2	0.0425	0.815
		Side 3	0.0883	0.815
		Side 4	0.0442	0.815
		Top	0.0261	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	
147 kHz	15	Side 1	3.14	2.95	2.76	307
		Side 2	1.54	1.34	1.18	307
		Side 3	2.97	2.83	2.61	307
		Side 4	1.69	1.4	1.22	307
		Top	1.24	0.98	0.79	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	
147 kHz	15	Side 1	0.1067	0.0934	0.0809	0.815
		Side 2	0.0554	0.0405	0.0268	0.815
		Side 3	0.0972	0.0826	0.0715	0.815
		Side 4	0.0535	0.0395	0.0271	0.815
		Top	0.0377	0.0242	0.0216	0.815

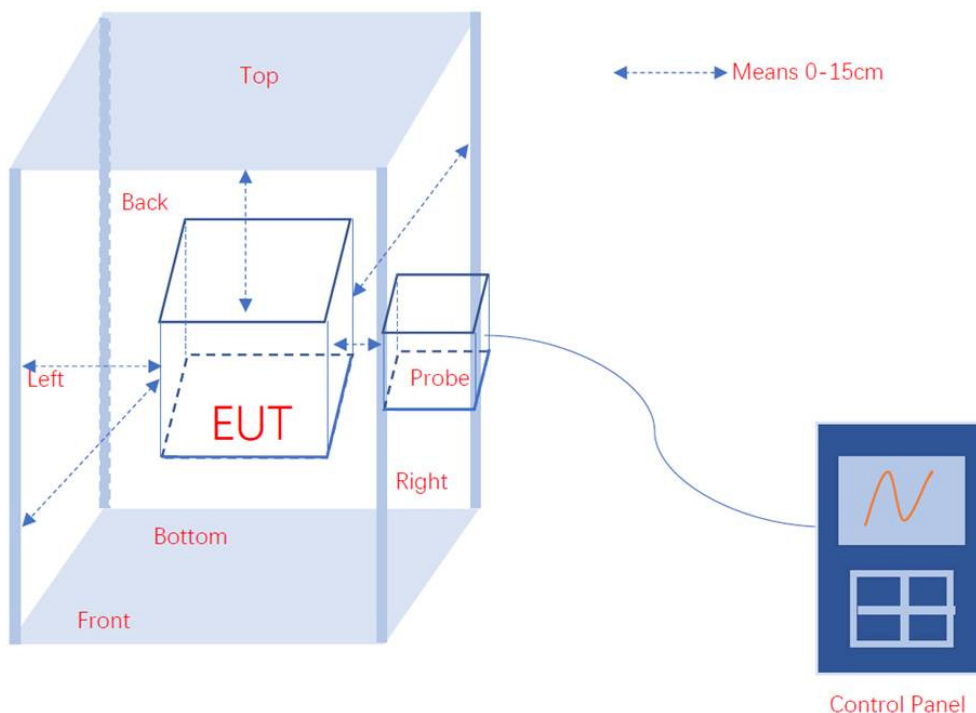


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6 Photographs



- End of the Report -



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