Human Exposure Report

Application No.:	SZEM1909018247CR
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, BLOCK A, SHENZHEN INT'L INNOVATION CENTER, 1006 SHENNAN RD, FUTIAN, SHENZHEN, CHINA
Factory:	1. HUIZHOU D&S CABLE CO., LTD. 2. HUIZHOU DNS TECHNOLOGY CO., LTD. 3. D AND S INDUSTRIES (PHILIPPINES) CORPORATION
Address of Factory:	1. Longjin Dongjiang Industry Zone Shuikou, Huicheng, Huizhou, Guangdong, China 2. 5 Dongshun South Road, Dongjiang Hi-tech Industrial Park, Zhongkai Hi-tech Zone, Huizhou City, Guangdong, China 3. 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.:	WD-233A, LBT10W, ESCS-QI10, ESCS-QI10-BK, ESCS-QI10-XX(X=A-Z for different colour), B08LL59VW4 ♣ Please refer to section 3.1 of this report which indicates which model was actually tested and which were electrically identical.
Trade mark:	DNS, LBT, Kondor, Kit, KEYMOX
FCC ID:	ZBCWD233A
Standards:	47 CFR PART 1, Subpart I, Section 1.1310 47 CFR PART 2, Subpart J, Section 2.1091
Date of Receipt:	2019-09-05
Date of Test:	2019-09-06 to 2020-04-06
Date of Issue:	2020-05-12
Test Result :	**Pass***

* In the configuration tested, the EUT complied with the standards specified above

Keny Xu
EMC Laboratory Manager

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Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
01		2020-05-12		Original

Authorized for issue by:				
		Peter Geng /Project Engineer		
		Eric Fu /Reviewer		

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2 Contents

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3 General Information

3.1 Details of E.U.T.

Power Supply:	Input: DC 5V, 2A/ 9V, 2A Output: 5W/7.5W/10W
Operation frequency:	110.25-148.56kHz
Antenna Type:	Loop Antenna
Modulation Type:	Load Modulation
Remark:	The device contains two inductive coils: Horizontal and vertical. All tests were conducted in both coils and the worst case (Vertical) is reported only.

Remark:

Model No.: WD-233A, LBT10W, ESCS-QI10, ESCS-QI10-BK, ESCS-QI10-XX(X=A-Z for different colour), B08LL59VW4

Only the model WD-233A was tested, since the electrical circuit design, layout, components used, internal wiring and functions were identical for the above models, with only difference on trade mark, model No. and details see below:

Trade Mark	Model No.
DNS	WD-233A
LBT	LBT10W
Kondor, Kit	ESCS-QI10
	ESCS-QI10-BK
	ESCS-QI10-XX (X=A-Z for different color)
KEYMOX	B08LL59VW4

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3.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Adapter	Apple	A1357 W010A051	REF. No.SEA0500
Adapter	SAMSUNG	EP-TA200	R37J8YA7W71DK3
iPhone 8	Apple	A1863	F4GVQ656JC6D
Micro USB Cable	PHILIPS	SWR2101	REF. No.SEA0700
SAMSUNG Galaxy S8	SAMSUNG	SM-G9500	R28J9140LPB

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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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4 Equipments Used during Test

Item	Equipment	Manufacturer	Model No	Inventory No	Cal Date	Cal Due Date
1	Electric and Magnetic Field Analyzer	Narda	EHP-50F	EMC092	2019-06-06	2020-06-06
2	Shielding Room	SAEMC	MSR733	SEM001-09	2019-06-09	2020-06-09

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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 for sides

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).

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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 with mobile phone at zero charge, intermediate charge, and full charge.

Pretest these	a:Charge mode_Keep the EUT charging(5W)
modes to find	b: Charge mode_Keep the EUT charging(7.5W)
the worst case:	c: Charge mode_Keep the EUT charging(10W)
The worst case	c: Charge mode_Keep the EUT charging(10W)
for final test:	

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5.1.2 Measurement Data

Magnetic Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
141 kHz	15	Side 1	0.078	0.815
		Side 2	0.051	0.815
		Side 3	0.085	0.815
		Side 4	0.044	0.815
		Top	0.035	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	
141 kHz	15	Side 1	0.0904	0.0772	0.0721	0.815
		Side 2	0.0601	0.0452	0.0418	0.815
		Side 3	0.0972	0.0811	0.0768	0.815
		Side 4	0.0558	0.0434	0.0394	0.815
		Top	0.0466	0.0320	0.0271	0.815

- End of the Report -

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