

Human Exposure Report

Application No.: SZCR2105021114AT
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, 2 in 1 Wireless Charging Station
Model No.: WD-255B
FCC ID: ZBCWD255B
Trade Mark: DNS, omars, mbest, NOVOO, KEYMOX
Standards: 47 CFR PART 1, Subpart I, Section 1.1310
 47 CFR PART 2, Subpart J, Section 2.1091
Date of Receipt: 2021-05-20
Date of Test: 2021-05-29 to 2021-06-15
Date of Issue: 2021-06-22

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



Keny Xu
 EMC Laboratory Manager





<i>Revision Record</i>				
<i>Version</i>	<i>Chapter</i>	<i>Date</i>	<i>Modifier</i>	<i>Remark</i>
01		2021-06-22		Original

Authorized for issue by:			
		Leo Li/Project Engineer	
		Eric Fu/Reviewer	



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3 General Information

3.1 Details of E.U.T.

Power supply:	Input: 12V/1.5A Output 1: 5W/7.5W/10W Output 2: 2.5W Total: 12.5W
Operation frequency:	For Output 1: 112.4kHz to 148.4kHz For Output 2: 325.2kHz to 327.6kHz
Modulation type:	Load modulation
Antenna type:	Loop Antenna



3.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Adapter	XIAOMI	MDY-08	REF. No.SEA05M02F
iWatch	Apple	Apple Watch 3	N/A
Type-C Cable	SGS	N/A	REF. No.SEA07B00
iPhone 8	Apple	A1863	REF. No.SEA16J00
Mobile Phone	SAMSUNG	SM-G9500	REF. No.SEA16J00
E-loading	SGS	N/A	REF. No.SEA42A00



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.



4 Equipments Used during Test

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Due date
1	3m Fully-Anechoic Chamber	AUDIX	N/A	SEM001-02	2021-12-24
2	Electric and Magnetic Field Analyzer	Narda	EHP-50F	EMC092	2022-05-04

Test Mode Description

Pre-scan / Final test	Mode Code	Description
Pre-scan / Final test	Mode Code	Description
Pre-scan	00	Charge mode_Keep the EUT charging(Output1: 5W)
Pre-scan	01	Charge mode_Keep the EUT charging(Output1: 7.5W)
Final test	02	Charge mode_Keep the EUT charging(Output1: 10W)
Final test	03	Charge mode_Keep the EUT charging(Output 2: 2.5W)
Pre-scan	04	Charge mode_Keep the EUT chargingOutput1: 5W+Output 2: 2.5W)
Pre-scan	05	Charge mode_Keep the EUT chargingOutput1: 7.5W+Output 2: 2.5W)
Final test	06	Charge mode_Keep the EUT chargingOutput1: 10W+Output 2: 2.5W)



5 Test Results

5.1 RF Exposure test

Test Requirement: 47 CFR PART 1, Subpart I, Section 1.1310
47 CFR PART 2, Subpart J, Section 2.1091

Measurement Distance: 15/20cm

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: 22.3 °C Humidity: 52.9 % RH Atmospheric Pressure: 1015 mbar

This device has been tested the worst status of full load and the device has been tested with mobile phone/iWatch at zero charge, intermediate charge, and full charge.



5.1.2 Measurement Data

For Output 1(Mode 02):

The max output power =10W;

Magnetic Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
136.3 kHz	15	Side 1	0.0845	0.815
		Side 2	0.0823	0.815
		Side 3	0.0898	0.815
		Side 4	0.0691	0.815
		Top	0.0578	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	
136.3 kHz	15	Side 1	0.0907	0.0789	0.0667	0.815
		Side 2	0.0911	0.0737	0.0675	0.815
		Side 3	0.0937	0.0808	0.0743	0.815
		Side 4	0.0746	0.0637	0.0533	0.815
		Top	0.0627	0.0519	0.0478	0.815



For Output 1(Mode 03):

The max output power =2.5W

Magnetic Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
326.5 kHz	15	Side 1	0.0592	0.815
		Side 2	0.0576	0.815
		Side 3	0.0645	0.815
		Side 4	0.0448	0.815
		Top	0.0331	0.815

iWatch 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	
326.5 kHz	15	Side 1	0.0724	0.0645	0.0548	0.815
		Side 2	0.0766	0.0614	0.0552	0.815
		Side 3	0.0668	0.0617	0.0581	0.815
		Side 4	0.0561	0.0503	0.0448	0.815
		Top	0.0519	0.0475	0.0347	0.815



For Output 1+ Output 2(Mode 06)::

The max output power =12.5W;

Magnetic Field Emissions

Operation frequency	Test Distance (cm)	Test Position	Probe Measure Result (A/m)	50% Limit (A/m)
136.3 kHz 326.5KHz	15	Side 1	0.0989	0.815
		Side 2	0.0963	0.815
		Side 3	0.0879	0.815
		Side 4	0.0651	0.815
136.3 kHz	20	Top	0.0413	0.815
326.5KHz	20	Top	0.0325	0.815

Mobile phone and iWatch 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	
136.3 kHz 326.5KHz	15	Side 1	0.0997	0.0891	0.0734	0.815
		Side 2	0.0943	0.0880	0.0725	0.815
		Side 3	0.0895	0.0757	0.0663	0.815
		Side 4	0.0747	0.0690	0.0542	0.815
136.3 kHz	20	Top	0.0428	0.0379	0.0313	0.815
326.5KHz	20	Top	0.0334	0.0297	0.0243	0.815

- End of the Report -

