

# RF Exposure Report

Report No.: AGC05803210802FH03

**APPLICATION PURPOSE** : Original Equipment

**PRODUCT DESIGNATION**: Original Equipment

**BRAND NAME** : wireless charger

MODEL NAME : DNS

**APPLICANT** : WD-274A

**DATE OF ISSUE**: SHENZHEN DNS INDUSTRIES CO., LTD.

STANDARD(S) : KDB680106 D01 RF Exposure Wireless Charging Base

App v03r01

**REPORT VERSION**: V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd



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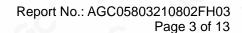


Page 2 of 13

## REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	1	Aug. 30, 2021	Valid	Initial Release

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## **TABLE OF CONTENTS**

1. VERIFICATION OF CONFORMITY		4
2. GENERAL INFORMATION		5
2.1. PRODUCT DESCRIPTION		5
3. DESCRIPTION OF TEST MODES		6
4. SYSTEM TEST CONFIGURATION	(	6
5. TEST FACILITY	<del></del>	7
6. RADIO FREQUENCY (RF) EXPOSURE TEST		8
6.1. LIMITS		3
6.2. TEST SETUP		3
APPENDIX A: PHOTOGRAPHS OF TEST SETUP	1(	ſ

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Report No.: AGC05803210802FH03 Page 4 of 13

### 1. VERIFICATION OF CONFORMITY

SHENZHEN DNS INDUSTRIES CO., LTD.					
23/F Building A, Shenzhen International Innovation Center, No. 1006 Shennan Road, Futian, Shenzhen, China					
SHENZHEN DNS INDUSTRIES CO., LTD.					
23/F Building A, Shenzhen International Innovation Center, No. 1006 Shennan Road, Futian, Shenzhen, China					
HUIZHOU D&S CABLE CO., LTD.					
Longjin Dongjiang Industry Zone Shuikou, Huicheng, Huizhou, Guangdong, China					
HUI ZHOU DNS TECHNOLOGY CO., LTD.					
5 Dongshun South Road, Dongjiang Hi-tech Industrial Park, Zhongkai Hi-tech Zone, Huizhou City, Guangdong, China					
D AND S INDUSTRIES (PHILIPPINES) CORPORATION					
1 to 5 Orient Goldcrest Suntrust Ecotown Building 2, Lot 8 Block 8, Sahud Ulan, Suntrust Ecotown Tanza, Region IV-A, Cavite, Philippines					
wireless charger					
DNS					
WD-274A					
Aug. 24, 2021 to Aug. 30, 2021					
No any deviation from the test method					
Normal					
AGCRT-US-BR/RF					

We hereby certify that:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in KDB680106 D01.

The results of testing in this report apply to the product/system which was tested only.

Reviewed By

Eder Zhan
(Project Engineer)

Max Zhang
(Reviewer)

Aug. 30, 2021

Aug. 30, 2021

Approved By

Forrest Lei
(Authorized Officer)

Aug. 30, 2021

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Page 5 of 13

#### 2. GENERAL INFORMATION

### 2.1. PRODUCT DESCRIPTION

A major technical description of EUT is described as following

Operation Frequency	110-205kHz
Test Frequency	125.2KHz
Maximum field strength	54.30dBuV/m(PK)@3m
Number of channels	1
Antenna Designation	Coil Antenna (Met 15.203 Antenna requirement)
Hardware Version	V2.0
Software Version	V1.0
Power Supply	spec 1: Input: DC 9V, 2.22A / DC12V, 1.67A Output 1: 10W for magnetic Wireless charging Output 2: 5W(Max) for AirPods
Wireless charger	15W (Max)

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Page 6 of 13

### 3. DESCRIPTION OF TEST MODES

MODE	TEST MODE DESCRIPTION
1	Two Coil wireless simultaneous charging mode(Full load)
2	Two Coil wireless simultaneous charging mode(Half load)
3	Two Coil wireless simultaneous charging mode(Null load)
4	Coil 1-Wireless charging mode(Full load)
5	Coil 1-Wireless charging mode(Half load)
6	Coil 1-Wireless charging mode(Null load)
7	Coil 2-Wireless charging mode(Full load)
8	Coil 2-Wireless charging mode(Half load)
9	Coil 2-Wireless charging mode(Null load)

<sup>1.</sup> The Mode 1 was the worst case and only the data of the worst case record in this report.

### 4. SYSTEM TEST CONFIGURATION

Item	Equipment	Equipment Model No. ID or Specification		Remark	
1	wireless charger	WD-274A	ZBCWD-274A	EUT	
2	Adapter	BYX-0901000M	N/A	AE	
3	Wireless Load	N/A	15W	AE	

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Page 7 of 13

## 5. TEST FACILITY

TestSite	Attestation of Global Compliance(Shenzhen) Co., Ltd				
Location	1-2/F,Building19,JunfengIndustrialPark,ChongqingRoad,HepingCommunity,FuhaiSt reet,Bao'anDistrict,Shenzhen,Guangdong,China				
Designation Number	CN1259				
FCC Test Firm Registration Number	975832				
A2LA Cert. No.	5054.02				
Description	Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by A2LA				

### **TEST EQUIPMENT LIST**

Description	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Broadband Field Meter	Narda Safety Test Solutions GmbH	ELT-400	J-0004	Jun. 09, 2021	Jun. 08, 2022
Probe FHP	Narda Safety Test Solutions GmbH	2300/90.10	J-0015	Jun. 09, 2021	Jun. 08, 2022

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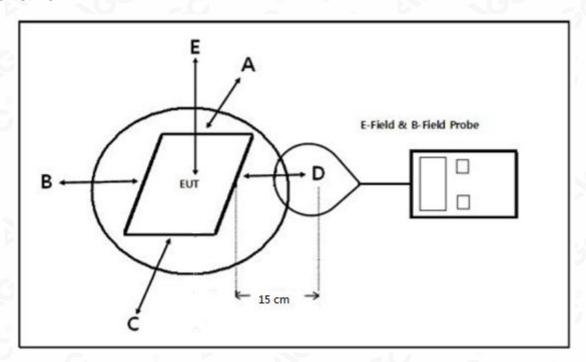


## 6. RADIO FREQUEN CY(RF) EXPOSURETEST

#### 6.1. LIMITS

For devices designed for typical desktop applications, such a wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 15 cm. E and H field strength measurements or numerical modeling may be used to demonstrate compliance. Measurements should be made from all sides and the top of the primary/client pair, with the 15 cm measured from the center of the probe(s) to the edge of the device. Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m.

#### 6.2. TEST SETUP



Note: Position A: Front of EUT; Position B: Left of EUT; Position C: back of EUT; Position D: Right of EUT; Position E: Top of EUT(20 cm measure distance);

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Report No.: AGC05803210802FH03 Page 9 of 13

#### **6.3. TEST PROCEDURE**

The EUT was placed on a non-conductive table top and the ancillary equipment (e.g.mobile phone) was placed on the EUT for charging.

Maximum E-field and H-field measurements were tested 15cm from each side of the EUT. For top side the measure distance is 20cm.

Along the side of the EUT to center of E-field probe and H-field probe were positioned at the location to search maximum field strength.

Product which is an inductive wireless power transfer applications that meet all of the following KDB 680106 requirements.

- 1) Power transfer frequency is 0.110-0.205MHz which is less than 1 MHz
- 2) Output power from each primary coil is equal to 15 watts max
- 3) The system may consist of more than one source primary coils, charging one or more clients. If more than one primary coil is present, the coil pairs may be powered on at the same time.
- 4) Client device is placed directly in contact with the transmitter
- 5) The EUT is a mobile device.
- 6) The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.

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Page 10 of 13

#### 6.4. TEST RESULT

Test condition: Mode 1(For Bottom Coil worst case)

E-field strength test result:

Frequency	Probe	Probe	Probe	Probe	Probe	Limit
Range	Position A	Position B	Position C	Position D	Position E	(V/m)
	(V/m)	(V/m)	(V/m)	(V/m)	(V/m)	
125.2kHz	0.89	0.83	0.88	0.86	0.99	614

### H-field strength test result:

Frequency	Probe	Probe	Probe	Probe	Probe	Limit
Range	Position A	Position B	Position C	Position D	Position E	(A/m)
	(A/m)	(A/m)	(A/m)	(A/m)	(A/m)	
125.2kHz	0.37	0.29	0.28	0.26	0.48	1.63

Test condition: Mode 4( For Side Coil worst case)

E-field strength test result:

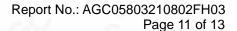
Frequency	Probe	Probe	Probe	Probe	Probe	Limit
Range	Position A	Position B	Position C	Position D	Position E	(V/m)
	(V/m)	(V/m)	(V/m)	(V/m)	(V/m)	
124.6kHz	0.83	0.80	0.83	0.80	0.86	614

## H-field strength test result:

Frequency	Probe	Probe	Probe	Probe	Probe	Limit
Range	Position A	Position B	Position C	Position D	Position E	(A/m)
	(A/m)	(A/m)	(A/m)	(A/m)	(A/m)	
124.6kHz	0.27	0.27	0.24	0.26	0.33	1.63

Conclusion: The test value is less than 50% MPE limit, which meets the requirements

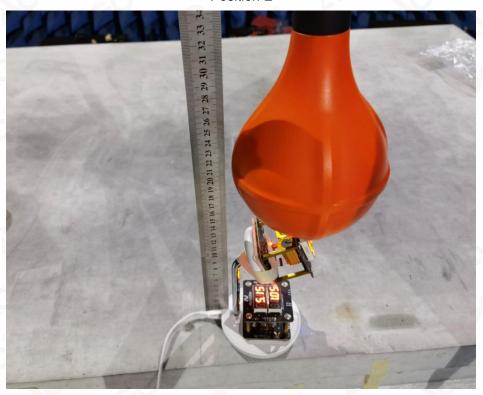
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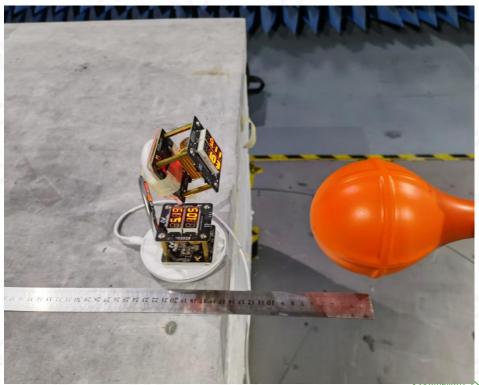


## APPENDIX A: PHOTOGRAPHS OF TEST SETUP For Mode 1

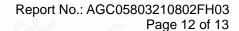
Position E



Position A

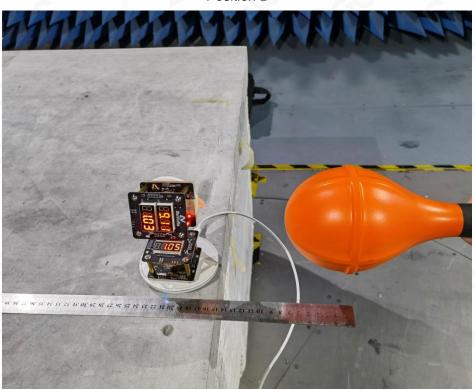


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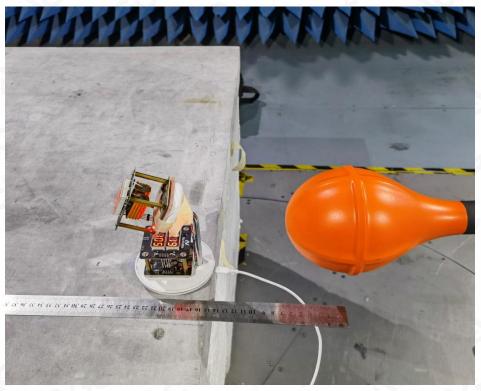




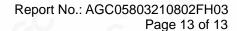




Position C

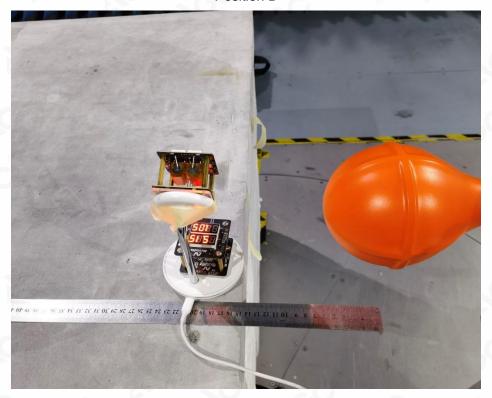


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- 2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.
- 3.The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
- 4. The non-CMA report issued by AGC is only permitted to be used by the client as internal reference use and shall not be used for public demonstration purpose.
- 5. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
- 6. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
- 7. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.
- 8. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
- 9. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.
- 10. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.

he test report.

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