Report No.: DDT-R20081721-1E2

Issued Date: Nov. 04, 2020

RF EXPOSURE REPORT

FOR

Applicant	:	SHENZHEN NITO POWER SOURCE TECHNOLOGY CO.,LTD.
Address	:	201, No.8 Building, Jinfanghua Electricity Industrial park, Bantian St., Longgang Dist., Shenzhen, China
Equipment under Test	:	2-in-1 15W Wireless Charger
Model No.	:	JR-A26, JR-A23, JR-A20, JR-A15, JR-A12, JR-A16, JR-A27, JR-A28, JR-A29, JR-A30, JR-A31, JR-A32, JR-A33, JR-A35, JR-A36, JR-A37, JR-A39
Trade Mark	:	JOYROOM
FCC ID	:	2AWL2-JR-A26
Manufacturer	:	SHENZHEN NITO POWER SOURCE TECHNOLOGY CO.,LTD.
Address	:	201, No.8 Building, Jinfanghua Electricity Industrial park, Bantian St., Longgang Dist., Shenzhen, China

Issued By: Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808

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REPORT

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Test Report Declare

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Address	:	201, No.8 Building, Jinfanghua Electricity Industrial park, Bantian St., Longgang Dist., Shenzhen, China

Assess Standard Used: FCC CFR 47 part1, 1.1307(b), 1.1310; KDB680106 DR03-44118

We Declare:

The equipment described above is assessed by Dongguan Dongdian Testing Service Co., Ltd and in the configuration assessed the equipment complied with the standards specified above. The assessed results are contained in this report and Dongguan Dongdian Testing Service Co., Ltd is assumed of full responsibility for the accuracy and completeness of these assess.

After evaluation, our opinion is that the equipment In Accordance with above standard.

Report No:	DDT-R20081721-1E2		
Date of Receipt:	Aug. 19, 2020	**Date of Test:**	Aug. 19, 2020 ~ Nov. 04, 2020

Prepared By: ***Approved By:***

Sam Li

Sam Li/Engineer ***Damon Hu/EMC Manager***

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Dongguan Dongdian Testing Service Co., Ltd.

Revision History

Rev.	Revisions	Issue Date	Revised By
---	Initial issue	Nov. 04, 2020	

1. General Information

1.1. Description of equipment

EUT* Name	:	2-in-1 15W Wireless Charger
Model Number	:	JR-A26, JR-A23, JR-A20, JR-A15, JR-A12, JR-A16, JR-A27, JR-A28, JR-A29, JR-A30, JR-A31, JR-A32, JR-A33, JR-A35, JR-A36, JR-A37, JR-A39
Difference of model number	:	All models are identical except the colors and model number, therefore the test performed on the model JR-A26.
EUT function description	:	Please reference user manual of this device
Power supply	:	DC 5V/9V/12V from external adapter
Wireless charging Operation frequency	:	120 kHz - 205 kHz
Antenna Type	:	Inductive loop coil antenna
Serial Number	:	N/A

Note: EUT is the ab. of equipment under test.

1.2. Assistant equipment used for test

Description of Accessories	Manufacturer	Model number	Serial No.	Other
Mobile phone 1	/	/	/	/
Mobile phone 2	/	/	/	/

1.3. Assess laboratory

Dongguan Dongdian Testing Service Co., Ltd.

Add.: No. 17, Zongbu Road 2, Songshan Lake Sci&Tech, Industry Park, Dongguan City, Guangdong Province, China, 523808

Tel.: +86-0769-38826678, http://www.dgddt.com, Email: ddt@dgddt.com

CNAS Registration No. CNAS L6451; A2LA Certificate Number: 3870.01;

FCC Designation Number: CN1182; FCC Test Firm Registration Number: 540522

Industry Canada Site Registration Number: 10288A-1

2. Equipment used during test

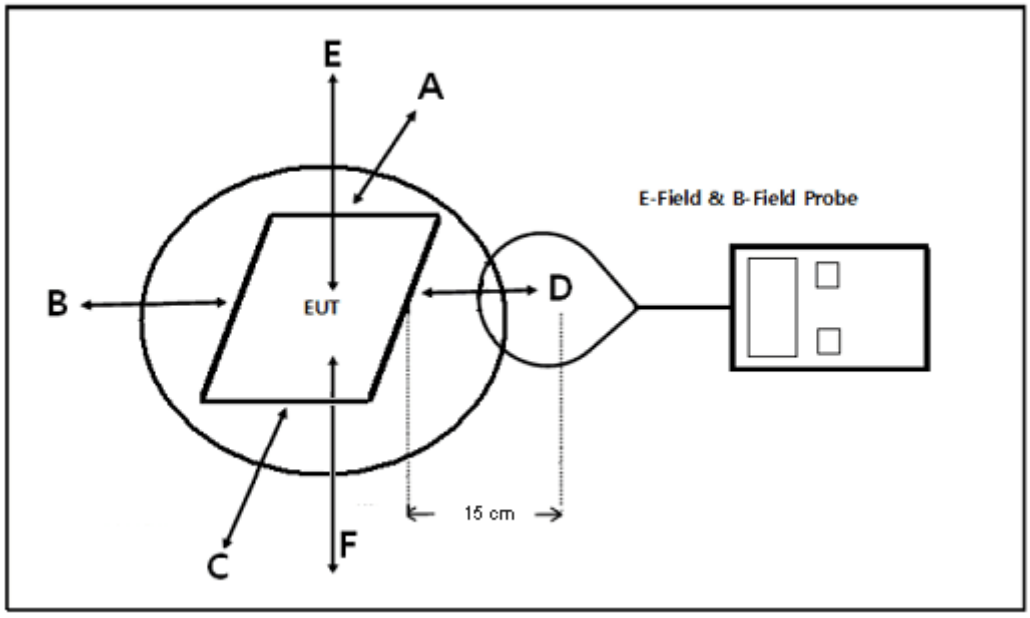
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
Electric and Magnetic Field Analyzer	narda	EHP-200A	170WX91016	Dec. 18, 2019	1 Year

3. Method of Measurement

3.1. Applicable standard

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.
According to §1.1310 and §2.1091 RF exposure is calculated.
According KDB680106 DR03-44118: RF Exposure Wireless Charging Apps v04.

3.2. Block diagram of test setup



Note: Due to installation limitations no tests from the underside of the charging device (Test Position F) are required.

3.3. Test procedure

a) The RF exposure test was performed in shielded chamber.

b) The measurement probe was placed at test distance (15 cm) which is between the edge of the charger and the geometric centre of probe.

c) The measurement probe used to search of highest strength.

d) The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.

e) The EUT were measured according to the dictates of KDB680106 DR03-44118.

3.4. Equipment approval considerations:

The EUT does comply with section 5 b) of KDB680106 DR03-44118 RF Exposure Wireless Charging Apps v04
(1) Power transfer frequency is less than 1 MHz.
Yes; the device operates in the frequency range from 120 kHz ~ 205 kHz

(2) Output power from each primary coil is less than or equal to 15 watts
Yes; the maximum output power of the primary coil is 15 W.

(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.
Yes.

(4) Client device is placed directly in contact with the transmitter.
Yes.

(5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).
Yes; the EUT is for mobile exposure conditions only.

(6) The aggregate H-field strengths anywhere at or beyond 15 cm surrounding the device, and 20 cm away from the surface from all coils that by design can simultaneously transmit, and while those coils are simultaneously energized, are demonstrated to be less than 50% of the applicable MPE limit.
Yes; the EUT H-field strengths levels are less than 50% of MPE limit.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

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 Exposure				
0.3-3.0	614	1.63	*100	6
3.0-30	1842/f	4.89/f	*900/f2	6
30-300	61.4	0.163	1.0	6
300-1,500			f/300	6
1,500-100,000			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/f2	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz * = Plane-wave equivalent power density

3.5. E and H Field Strength

Test mode for wireless charger:
Dummy load: Full Load, Zero charge and intermediate charge mode

Note: One device charging and two devices charging simultaneously both have been tested, and found two devices charging simultaneously was worse case and reported.

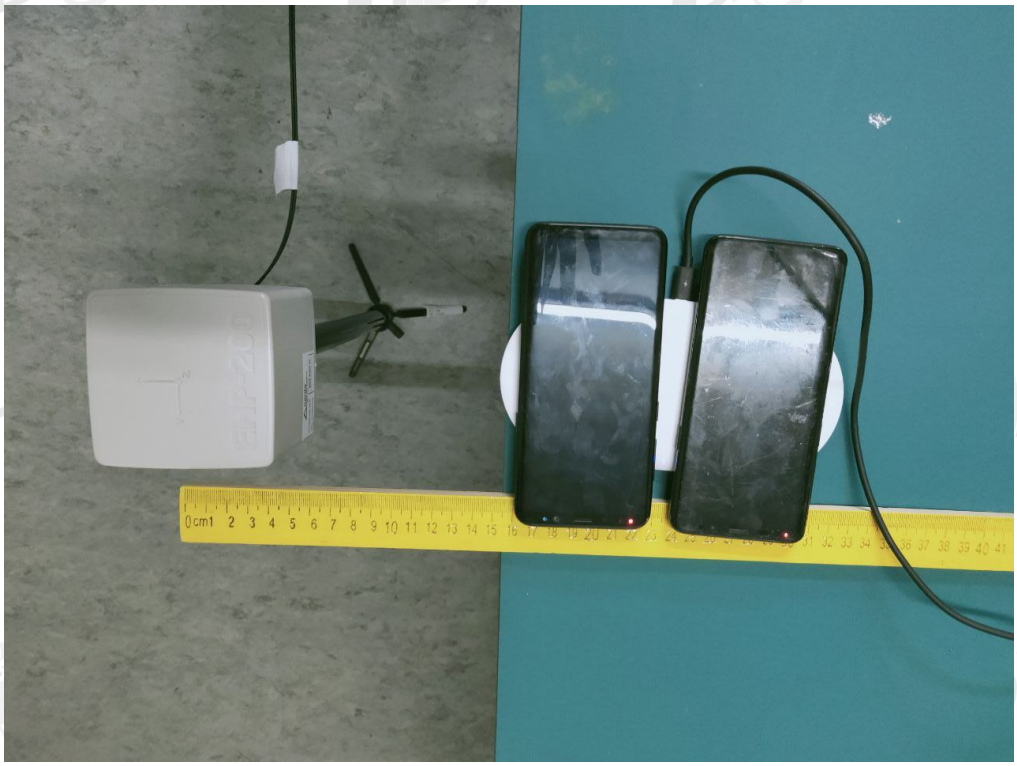
E-Filed Strength at 15 cm from the edges surrounding the EUT and 20 cm above the top surface of the EUT (V/m)

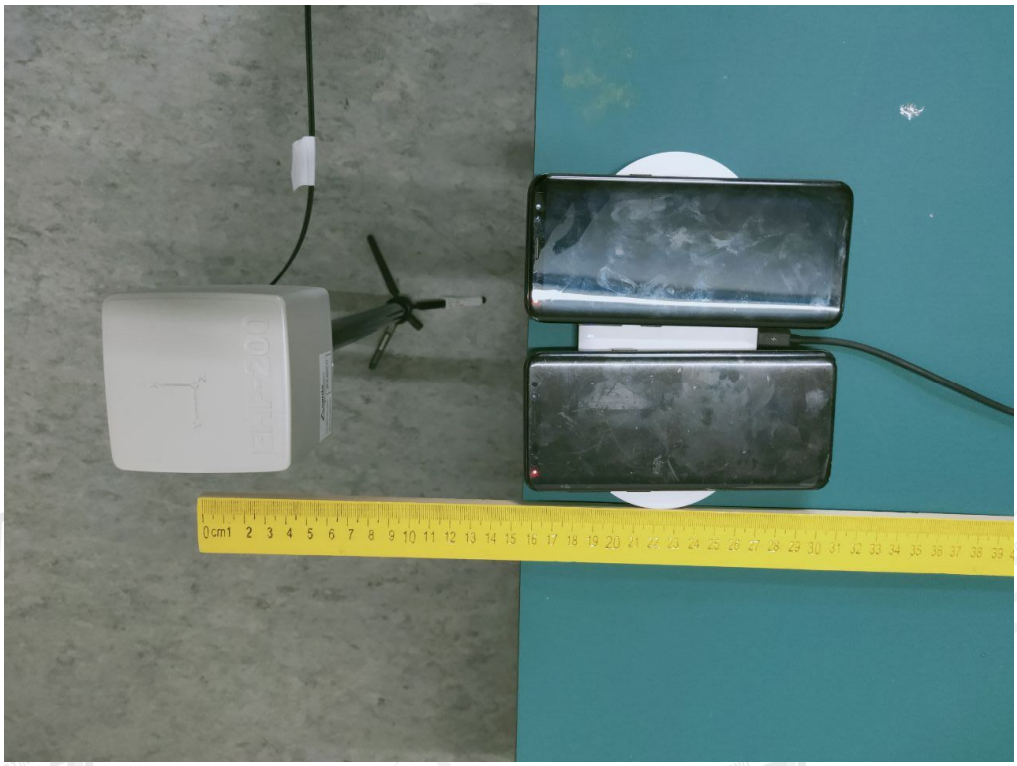
Test Position	Probe Measure Result(V/m)			Limits Test (V/m)
	Full Load	Zero charge	intermediate charge	
A	0.9158	0.8036	1.7322	614
B	1.4835	0.6150	1.1702	614
C	2.5940	0.8552	1.1495	614
D	2.4472	0.4973	2.1587	614
E	2.5442	0.6529	2.9722	614

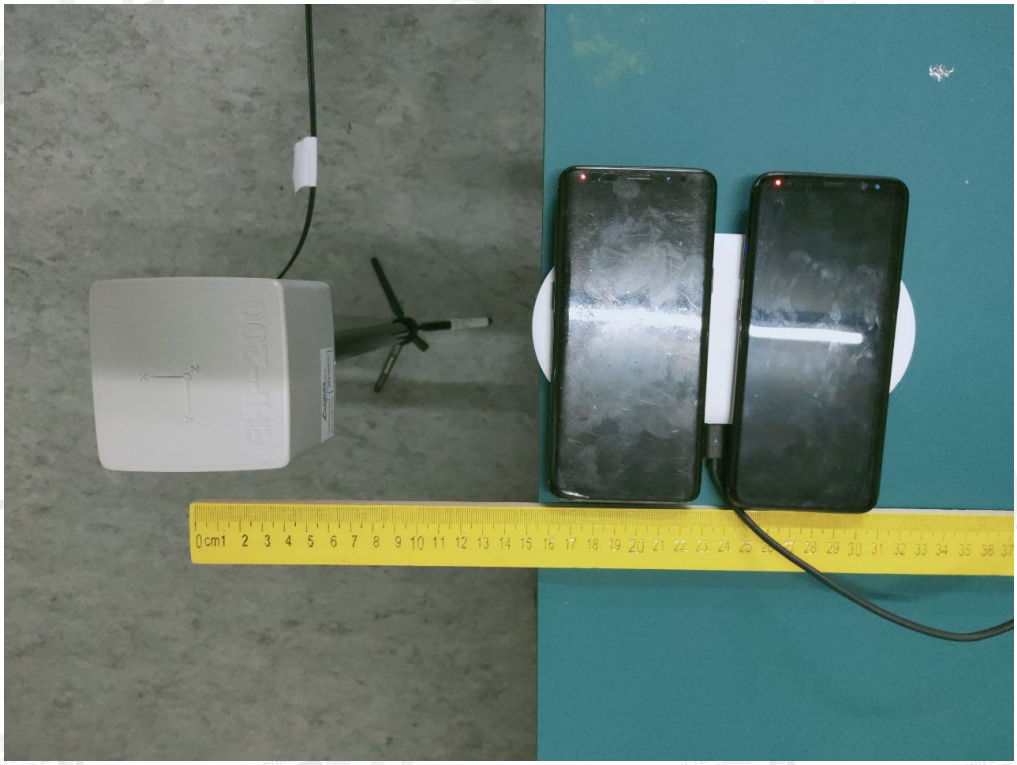
H-Filed Strength at 15 cm from the edges surrounding the EUT and 20 cm above the top surface of the EUT (A/m)

Test Position	Probe Measure Result(A/m)			Limits Test (A/m)
	Full Load	Zero charge	intermediate charge	
A	0.1191	0.2430	0.1354	1.63
B	0.1499	0.0756	0.7612	1.63
C	0.3045	0.1736	0.1373	1.63
D	0.4641	0.1624	0.1698	1.63
E	0.4641	0.4535	0.1526	1.63

4. Test Setup Photo



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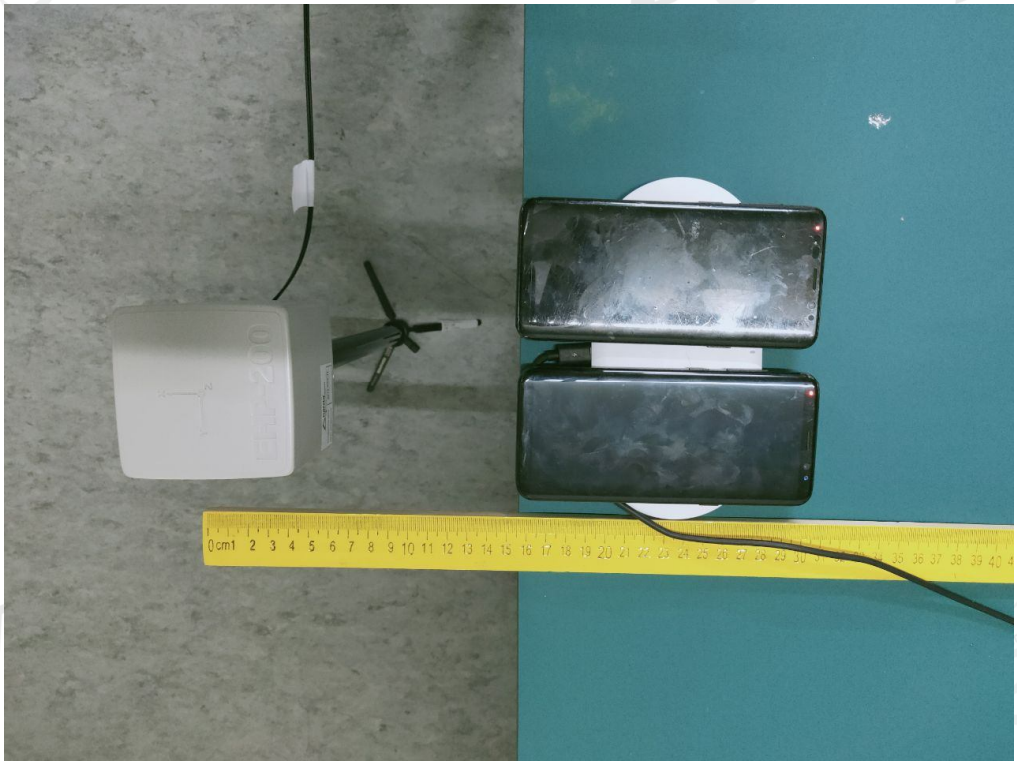
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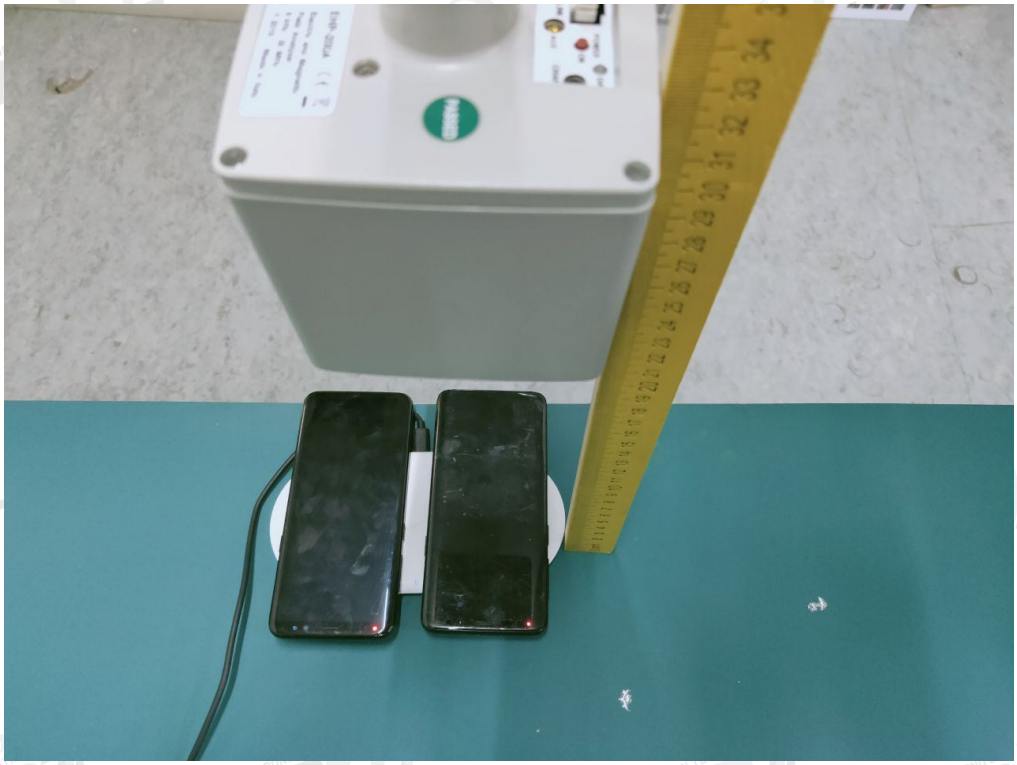

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