

TEST REPORT

Product Name : 3 in 1 Wireless Charger
Brand Mark : Digital Ant
Model No. : DA-WC-001
FCC ID : 2A5J9-DA-WC-001
Report Number : BLA-EMC-202401-A2403
Date of Sample Receipt : 2024/1/11
Date of Test : 2024/1/11 to 2024/2/1
Date of Issue : 2024/2/1
Test Standard : KDB 680106 D01 RF Exposure Wireless Charging App v03r01
Test Result : Pass

Prepared for:

Digital Ant Inc

5543 EDMONDSON PIKE # 66, NASHVILLE TENNESSEE 37211

Prepared by:

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2024/2/1



REPORT REVISE RECORD

Version No.	Date	Description
00	2024/2/1	Original

TABLE OF CONTENTS

1	GENERAL INFORMATION	4
2	GENERAL DESCRIPTION OF E.U.T.	4
3	TEST FACILITY	5
4	LABORATORY LOCATION	5
5	RF EXPOSURE COMPLIANCE REQUIREMENT	6
5.1	WIRELESS CHARGING	6
5.1.1	Measuring Standard	6
5.1.2	Requirements	6
5.1.3	Limits	6
5.1.4	Test Setup	8
5.1.5	Test Procedure	9
5.1.6	Test Instruments list	9
5.1.7	Test Result	10
5.1.8	Test Set-up Photo	11

1 GENERAL INFORMATION

Applicant	Digital Ant Inc
Address	5543 EDMONDSON PIKE # 66, NASHVILLE TENNESSEE 37211
Manufacturer	Digital Ant Inc
Address	5543 EDMONDSON PIKE # 66, NASHVILLE TENNESSEE 37211
Factory	Shenzhen Laini Information Technology Co., Ltd.
Address	10/F, Venture Park, University Town, No.10 Lishan Road, Taoyuan Subdistrict, Nanshan District, Shenzhen, China
Product Name	3 in 1 Wireless Charger
Test Model No.	DA-WC-001

2 GENERAL DESCRIPTION OF E.U.T.

Hardware Version	V1.0
Software Version	1.0
Operation Frequency:	110KHz-220KHz
Modulation type:	ASK
Antenna Type:	Inductive loop coil Antenna
Antenna Gain:	0dBi (Max)
Power Supply	Input: 9V/2A, 9V/2.7A Output for smart phone: 15W/10W/7.5W/5W Output for earbuds: 5W Output for smart watch: 2.5W

3 TEST FACILITY

The test facility is recognized, certified, or accredited by the following organizations:

- FCC — Designation No.: CN1252

BlueAsia of Technical Services(Shenzhen) Co., Ltd has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Designation CN1252.

- ISED — CAB identifier No.: CN0028

BlueAsia of Technical Services(Shenzhen) Co., Ltd has been registered by Certification and Engineering Bureau of ISED for radio equipment testing with CAB identifier CN0028.

4 LABORATORY LOCATION

All tests were performed at:

BlueAsia of Technical Services(Shenzhen) Co., Ltd.

Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province, China

Telephone: TEL: +86-755-28682673 FAX: +86-755-28682673

No tests were sub-contracted.

5 RF EXPOSURE COMPLIANCE REQUIREMENT

5.1 WIRELESS CHARGING

5.1.1 Measuring Standard

KDB 680106 D01 RF Exposure Wireless Charging App v03r01

5.1.2 Requirements

According to the item 5 of KDB 680106 D01 RF Exposure Wireless Charging App v03:

(1) Power transfer frequency is less than 1 MHz.

Yes

(2) Output power from each primary coil is less than or equal to 15 watts.

Yes · Output 1: 15W Max (Magnetic suction end)

Output 2: 5W Max (base)

(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

(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.

Yes

5.1.3 Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

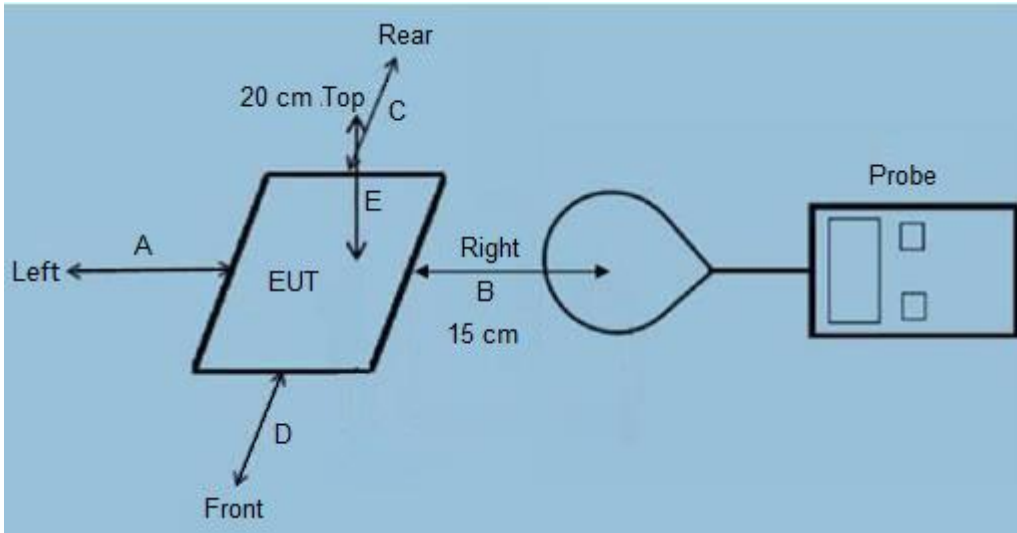
Limits for Maximum Permissible Exposure (MPE)

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 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).

5.1.4 Test Setup

A:



5.1.5 Test Procedure

- 1) The RF exposure test was performed in an echoic chamber;
- 2) **The measurement probe was placed at test distance(15 cm from edges, 20 cm from top) Which is between the edge of the charger and the geometric center of probe, for test setup A;**
- 3) The highest emission levels recorded and compared with limit as soon as measurement of each points (A,B, C,D, E)were completed;

Remark: The EUT' s test position A, B,C, D and E is valid for the E and H field measurements.

5.1.6 Test Instruments list

Test Equipment	Manufacturer	Model No.	SN.	Cal.Date (mm-dd-yy)	Cal.Duedate (mm-dd-yy)
Electric and Magnetic Field Analyzer	Narda	EHP-200A	180ZX11016	04-24-2023	04-23-2024

5.1.7 Test Result

Test Result for Test setup A:

Connect AC power in mode:

E-Filed Strength at (15 cm from edges A,B,C,D,15cm and 20 cm from top E) surrounding the EUT (V/m)

Charging Load Worse case	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E 15cm	Test Position E 20cm	Limits (V/m)
<5%	0.58	0.54	0.73	0.22	0.09	0.35	614
50%	0.16	0.25	0.94	0.31	0.56	0.76	614
>90 %	0.22	0.16	0.31	0.55	0.62	0.39	614

H-Filed Strength at (15 cm from edges A,B,C,D, 15cm and 20 cm from top E) surrounding the EUT (A/m)

Charging Load Worse case	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E 15cm	Test Position E 20cm	Limits (A/m)
<5%	0.0112	0.0573	0.0594	0.0235	0.0497	0.0811	1.63
50%	0.0924	0.0336	0.0027	0.0854	0.0751	0.0596	1.63
>90 %	0.0537	0.0852	0.0337	0.0351	0.0955	0.0247	1.63

5.1.8 Test Set-up Photo

Test setup of A side



Test setup of B side



Test setup of C side



Test setup of D side



Test setup of E side

