

# **TEST REPORT**

Report No.: BCTC2306986737-2E

Applicant: ASAP Technology(Jiangxi) Co., Ltd.

Product Name: Aircharge Mag

Model/Type reference: AIR0781

Tested Date: 2023-06-09 to 2023-06-20

Issued Date: 2023-06-20

Shenzhen BCTC Testing Co., Ltd.



No.: BCTC/RF-EMC-005 Page 1 of 15 / / / | Edition; B.0



# FCC ID: 2APXN-LACC119

Product Name: Aircharge Mag

Trademark: Aircharge AIR0781

Model/Type reference: AIR0781 AIR0781B, AIR0781B-0.5M

Prepared For: ASAP Technology(Jiangxi) Co., Ltd.

Address: Ji'an Industrial Park, Ji'an, Jiangxi, 343100, China

Manufacturer: ASAP Technology(Jiangxi) Co., Ltd.

Address: Ji'an Industrial Park, Ji'an, Jiangxi, 343100, China

Prepared By: Shenzhen BCTC Testing Co., Ltd.

Address: 1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road,

Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China

Sample Received Date: 2023-06-09

Sample tested Date: 2023-06-09 to 2023-06-20

Issue Date: 2023-06-20

Report No.: BCTC2306986737-2E

Test Standards: FCC CFR 47 part1, 1.1307(b), 1.1310

Test Results: PASS

Tested by:

Lei Chen

Lei Chen/Project Handler

Approved by:

122

Zero Zhou/Reviewer

The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen BCTC Testing Co., Ltd, this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client.

No.: BCTC/RF-EMC-005

Page 2 of 15

Edition: B.C



# **Table Of Content**

Test	t Report Declaration	Page
1.	Version	∠
2.	Product Information	5
2.1	Product Information	5
2.2	Support Equipment	5
2.3	Test Mode	5
3.	Test Facility And Test Instrument Used	6
3.1	Test Facility	6
3.2	Test Instrument Used	6
4.	Method Of Measurement	
4.1	Applicable Standard	
4.2	Block Diagram Of Test Setup	
4.3	Limit	8
4.4	Test procedure	8
4.5	Equipment Approval Considerations	
4.6	E and H field Strength	10
5.	Photographs Of Test Set-Up	

(Note: N/A Means Not Applicable)



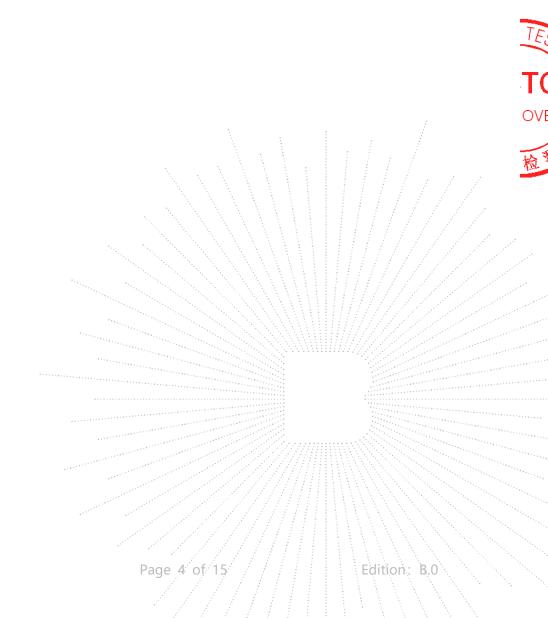






# 1. Version

Report No.	Report No. Issue Date		Approved
BCTC2306986737-2E	2023-06-20	Original	Valid



No.: BCTC/RF-EMC-005



### 2. Product Information

### 2.1 Product Information

Model/Type Ref.: AIR0781

AIR0781-0.5M, AIR0781B, AIR0781B-0.5M

Model differences:

All the model are the same circuit and RF module, except model names,

appearance color and cable length.

Product Description: Aircharge Mag

Operation Frequency: 5W: 115kHz-205kHz 15W: 350-400kHz

Antenna installation: loop coil antenna
Input: DC 9V 2.22A

Ratings: Wireless Charging Output: 5W, 15W

Hardware Version: A
Software Version: V1.0

### 2.2 Support Equipment

No.	Device Type	Brand	Model	Series No.	Note
1.	Adapter	N/A	CD122	N/A	Auxiliary

#### Notes:

- 1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
- 2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

### 2.3 Test Mode

Test Mode 1	Wireless charging 5W
Test Mode 2	Wireless charging 15W

No.: BCTC/RF-EMC-005 Page 5 of 15 / / Edition: B.C



### 3. Test Facility And Test Instrument Used

### 3.1 Test Facility

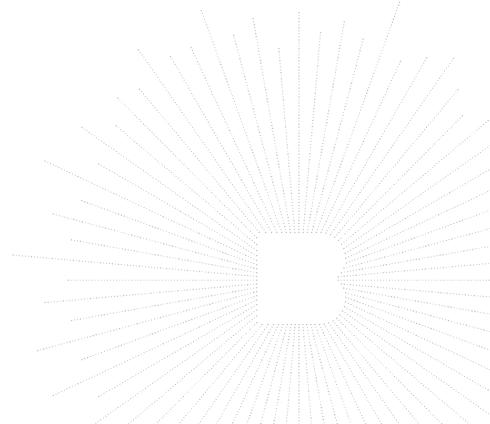
All measurement facilities used to collect the measurement data are located at Shenzhen BCTC Testing Co., Ltd. Address:1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards.

FCC Test Firm Registration Number: 712850 A2LA certificate registration number is: CN1212

ISED Registered No.: 23583 ISED CAB identifier: CN0017

### 3.2 Test Instrument Used

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Electromagnet-ic radiation tester	Wavecontrol	SMP160	19SN0980	May 15, 2023	May 14, 2024
Electromagne-tic field probe	Wavecontrol	WP400-3	20WP120082	Sept. 08, 2022	Sept. 07, 2023
843 Chamber	ETS	843	84301	Aug. 27, 2020	Aug. 26, 2023
Software	Frad	EZ-EMC	EMC-CON 3A1	\	\



No.: BCTC/RF-EMC-005

Page 6 of 15

Edition: B.0



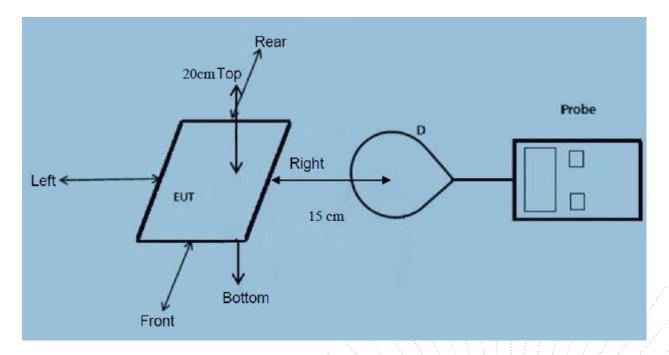


### 4. Method Of Measurement

### 4.1 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 §2.1093 RF exposure is calculated. According KDB680106 D01v03: RF Exposure Wireless Charging Apps v02.

# 4.2 Block Diagram Of Test Setup



Note: 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

No.: BCTC/RF-EMC-005 Page 7 of 15 / / / Edition: B.0



### 4.3 Limit

	Limits for Occupational / Controlled Exposure										
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm²)	Averaging Time  E ², H ² or S (minutes)							
0.3-3.0	614	1.63	(100)*	6							
3.0-30	1842 / f	4.89 / f	(900 / f)*	6							
30-300	61.4	0.163	1.0	6							
300-1500			F/300	6							
1500-100,000			5	6							

	Limits for General Population / Uncontrolled Exposure										
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm²)	Averaging Time  E ², H ² or S (minutes)							
0.3-1.34	614	1.63	(100)*	30							
1.34-30	824/f	2.19/f	(180 / f)*	30							
30-300	27.5	0.073	0.2	30							
300-1500			F/1500	30							
1500-100,000			1	30							

### 4.4 Test procedure

- a) The RF exposure test was performed on 360 degree turn table in anechoic chamber.
- b) The measurement probe was placed at test distance (15cm) which is between the edge of the charger and the geometric centre of probe.
- c) The turn table was rotated 360d degree 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 KDB 680106D01v03.

No.: BCTC/RF-EMC-005

Page 8 of 15

Edition: B.0



### 4.5 Equipment Approval Considerations

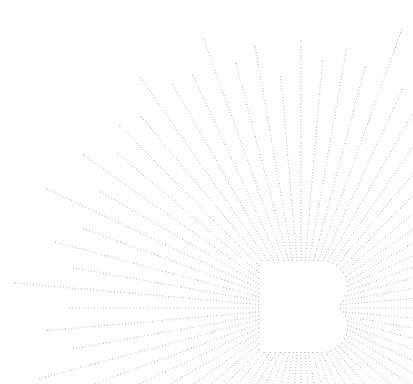
The EUT does comply with item 5(b) of KDB 680106 D01v03

- Power transfer frequency is less than 1MHz
   Yes, the device operate in the frequency range from 115-400KHz
- 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 15W.
- 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, the prototype has only a single coil.
- 4) Client device is inserted in or placed directly in contact with the transmitter. Yes, client device is placed directly in contact with the transmitter.
- 5) Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).

Yes, the EUT is a mophie device charging mat.

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, the EUT field strength level is less than the 10% x MPE limit.



No.: BCTC/RF-EMC-005 Page 9 of 15 / Edition: B.C



# 4.6 E and H field Strength

5W

### E-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

Battery level	Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position Top	10% Limits Test (V/m)	Limits Test (V/m)
1%	0.115-0.205	0.076	0.071	0.066	0.098	0.032	0.095	61.4	614
50%	0.115-0.205	0.064	0.062	0.089	0.090	0.039	0.063	61.4	614
99%	0.115-0.205	0.070	0.081	0.100	0.101	0.049	0.076	61.4	614

### H-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

Battery level	Frequency Range (MHz)	Test Position A(uT)	Test Position B(uT)	Test Position C(uT)	Test Position D(uT)	Test Position E(uT)	Test Position Top(uT)
1%	0.115-0.205	0.100	0.097	0.115	0.113	0.042	0.118
50%	0.115-0.205	0.088	0.097	0.083	0.124	0.046	0.122
99%	0.115-0.205	0.078	0.096	0.095	0.134	0.057	0.094

Battery level	Frequency Range (MHz)	Test Position A(A/m)	Test Position B(A/m)	Test Position C(A/m)	Test Position D(A/m)	Test Position E(A/m)	Test Position Top(A/m)	10% Limits Test (A/m)	Limits Test (A/m)
1%	0.115-0.205	0.080	0.078	0.092	0.090	0.034	0.094	0.163	1.63
50%	0.115-0.205	0.071	0.078	0.066	0.099	0.037	0.098	0.163	1.63
99%	0.115-0.205	0.062	0.076	0.076	0.108	0.046	0.075	0.163	1.63

Note:A/m=uT÷1.25

No.: BCTC/RF-EMC-005 Page 10 of 15 / / Edition: B.C



15W

### E-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

Battery level	Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position Top	10% Limits Test (V/m)	Limits Test (V/m)
1%	0.35-0.4	0.075	0.087	0.074	0.105	0.044	0.093	61.4	614
50%	0.35-0.4	0.077	0.071	0.093	0.095	0.038	0.078	61.4	614
99%	0.35-0.4	0.072	0.072	0.090	0.100	0.039	0.091	61.4	614

### H-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

Battery level	Frequency Range (MHz)	Test Position A(uT)	Test Position B(uT)	Test Position C(uT)	Test Position D(uT)	Test Position E(uT)	Test Position Top(uT)
1%	0.35-0.4	0.091	0.093	0.077	0.121	0.053	0.086
50%	0.35-0.4	0.095	0.094	0.085	0.135	0.056	0.118
99%	0.35-0.4	0.079	0.107	0.099	0.136	0.053	0.102

					,					
Battery level	Frequency Range (MHz)	Test Position A(A/m)	Test Position B(A/m)	Test Position C(A/m)	Test Position D(A/m)	Test Position E(A/m)	Test Position Top(A/m)	10% Limits Test (A/m)	Limits Test (A/m)	
1%	0.35-0.4	0.073	0.074	0.062	0.097	0.042	0.069	0.163	1.63	
50%	0.35-0.4	0.076	0.075	0.068	0.108	0.045	0.095	0.163	1.63	
99%	0.35-0.4	0.063	0.085	0.079	0.109	0.042	0.082	0.163	1.63	

Note:A/m=uT÷1.25

No.: BCTC/RF-EMC-005 Page 11 of 15 / / Edition:\B.0



# 5. Photographs Of Test Set-Up

### 20CM





No.: BCTC/RF-EMC-005 Page 12 of 15 / Edition: B.0











No.: BCTC/RF-EMC-005 Page 13 of 15 / / Edition: B.







No.: BCTC/RF-EMC-005 Page 14 of 15 / Edition: B.0





#### STATEMENT

- 1. The equipment lists are traceable to the national reference standards.
- 2. The test report can not be partially copied unless prior written approval is issued from our lab.
- 3. The test report is invalid without the "special seal for inspection and testing".
- 4. The test report is invalid without the signature of the approver.
- 5. The test process and test result is only related to the Unit Under Test.
- 6. Sample information is provided by the client and the laboratory is not responsible for its authenticity.
- 7. The quality system of our laboratory is in accordance with ISO/IEC17025.
- 8. If there is any objection to this test report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

#### Address:

1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China

TEL: 400-788-9558

P.C.: 518103

FAX: 0755-33229357

Website: http://www.chnbctc.com

E-Mail: bctc@bctc-lab.com.cn

\*\*\*\* END \*\*\*\*

No.: BCTC/RF-EMC-005 Page 15 of 15 / / / Edition: B.C