TEST REPORT

Report No.:	BCTC2209090621-2E
Applicant:	mophie LLC
Product Name:	mophie MagSafe Charger
Model/Type reference:	MAGSFE-CARMNT-A
Tested Date:	2022-09-01 to 2022-09-07
Issued Date:	2022-09-07

Shenzhen BCTC Testing Co., Ltd.

FCC ID: 2ACWB-MAGMNT

Product Name:	mophie MagSafe Charger
Trademark:	mophie
Model/Type reference:	MAGSFE-CARMNT-A
Prepared For:	mophie LLC
Address:	6244 Technology Ave. Kalamazoo,MI 49009,United States of America.
Manufacturer:	mophie LLC
Address:	6244 Technology Ave. Kalamazoo,MI 49009,United States of America.
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:	2022-09-01
Sample tested Date:	2022-09-01 to 2022-09-07
Issue Date:	2022-09-07
Report No.:	BCTC2209090621-2E
Test Standards:	FCC CFR 47 part1, 1.1307(b), 1.1310
Test Results:	PASS

Tested by:

Brave Zeng/ Project Handler

Approved by:

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.

Table Of Content

(Note: N/A Means Not Applicable)

1. Version

Report No.	Issue Date	Description	Approved
BCTC2209090621-2E	2022-09-07	Original	Valid

2. Product Information

2.1 Product Information

Model/Type reference:	MAGSFE-CARMNT-A
Model differences:	N/A
Hardware Version:	N/A
Software Version:	N/A
Product Description:	mophie MagSafe Charger
Operation Frequency:	115kHz-205kHz
Antenna installation:	loop coil antenna
Ratings:	Input(Type-C):9V DC,2.22A

2.2 Support Equipment

Device Type	Brand	Model	Series No.	Note
mophie MagSafe Charger	mophie	MAGSFE-CARMNT-A	N/A	EUT
Adapter	---	BCTC001	---	auxiliary
Mobile Phone	---	Apple 12	---	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

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
IC Registered No.: 23583

3.2 Test Instrument Used

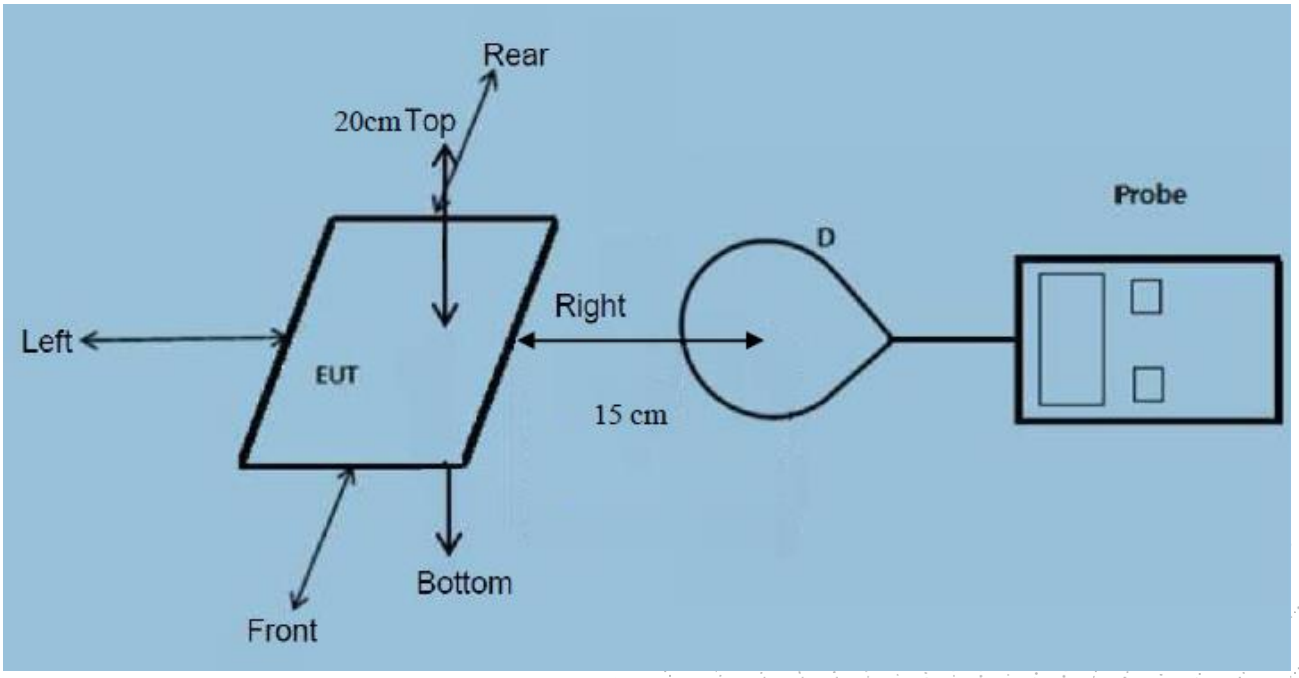
EMF Test					
Equipment	**Manufacturer**	**Model#**	**Serial#**	**Last Cal.**	**Next Cal.**
Electromagnet -ic radiation tester	Wavecontrol	SMP160	19SN0980	May 26, 2022	May 25, 2023
Electromagnet -ic field probe	Wavecontrol	WP400-3	20WP120082	Aug. 27, 2020	Aug. 26, 2023
843 Chamber	ETS	843	84301	Aug. 27, 2020	Aug. 26, 2023

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

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.

4.5 Equipment Approval Considerations

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

1) Power transfer frequency is less than 1MHz

Yes, the device operate in the frequency range from 115-205KHz

2) Output power from each primary coil is less than or equal to 10 watts.

No, the maximum output power of the primary coil is 15W.

3) The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that able to detect and allow coupling onlybetween individual pair of coils.

No, 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 mobile condition assessment

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 levels are 10% x MPE limit.

4.6 E and H field Strength

(The worst data)

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	0.66	0.41	0.58	0.73	0.53	0.47	61.4	614
50%	0.115-0.205	0.39	0.91	0.61	0.43	0.37	0.52	61.4	614
99%	0.115-0.205	0.71	0.57	0.49	0.87	0.84	0.58	61.4	614

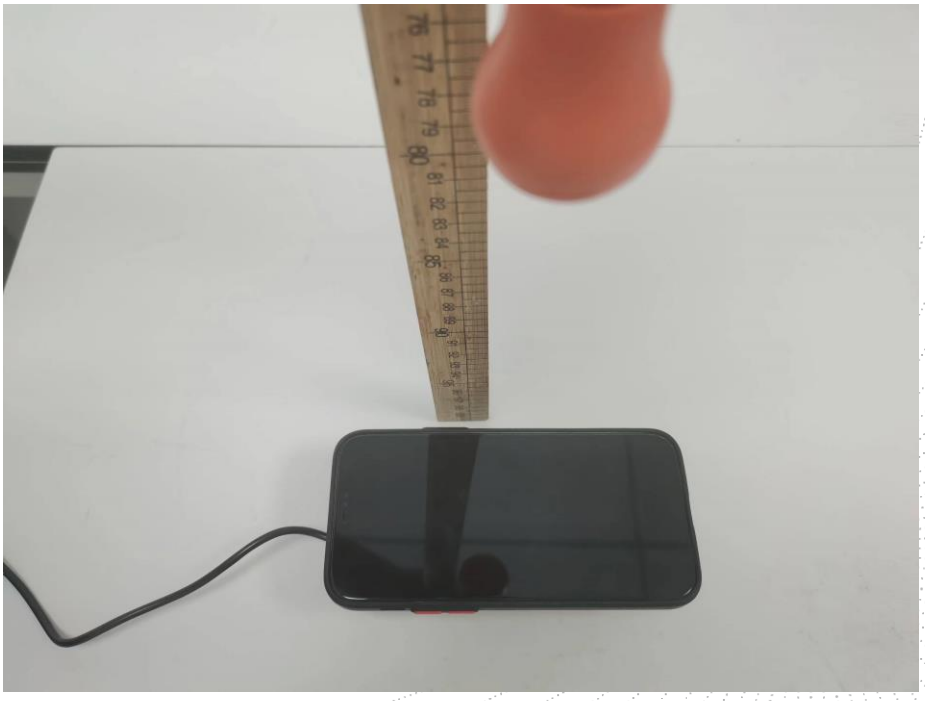
H-Field Strength at 15 cm surrounding the EUT and 20cm above the top surface of the EUT

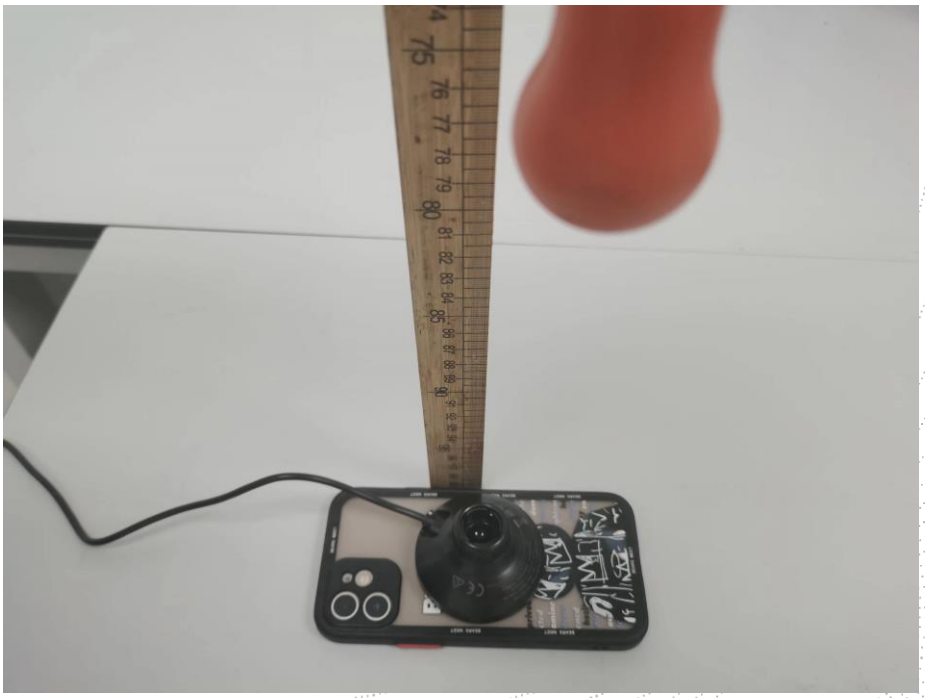
Battery level	Frequency Range (MHz)	Test Position A(uT)	Test Position B(uT)	Test Position C(uT)	Test Position D(uT)	Test Position E(uT)	Test Position Top(uT)	10% Limits Test (uT)	Limits Test (uT)
1%	0.115-0.205	0.08375	0.085	0.07875	0.08375	0.09625	0.0475	0.20375	2.0375
50%	0.115-0.205	0.08	0.0975	0.08625	0.07875	0.09125	0.085	0.20375	2.0375
99%	0.115-0.205	0.075	0.07875	0.095	0.08375	0.1	0.08	0.20375	2.0375

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	0.067	0.068	0.063	0.067	0.077	0.038	0.163	1.63
50%	0.115-0.205	0.064	0.078	0.069	0.063	0.073	0.068	0.163	1.63
99%	0.115-0.205	0.060	0.063	0.076	0.067	0.080	0.064	0.163	1.63

Note:A/m=uT÷1.25

5. Photographs Of Test Set-Up





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 test report without CMA mark is only used for scientific research, teaching, enterprise product development and internal quality control purposes.

8. The quality system of our laboratory is in accordance with ISO/IEC17025.

9. 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.

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