

# **TEST REPORT**

Report No.: BCTC2308677215-2E

Applicant: Mous Products Limited

Product Name: MagSafe Compatible 3-in-1 Portable Charger

Model/Type A788 reference:

Tested Date: 2023-08-29 to 2023-09-19

Issued Date: 2023-09-19

Shenzhen BCTC Testing Co., Ltd.



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# FCC ID: 2AN72-A788

Product Name: MagSafe Compatible 3-in-1 Portable Charger

Trademark: N/A

Model/Type reference: A788 1088OPQ, WM1088Q, WW-08

Prepared For: Mous Products Limited

Address: WeWork Senna Building, Gorsuch Place, London, United Kingdom, E28JF

Manufacturer: Dongguan OPAQI Electronics Technology Co.,Ltd.

Address: No.2, Xifu Street, Tangxia Town, Dongguan City, Guangdong Province, 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: 2023-08-29

Sample tested Date: 2023-08-29 to 2023-09-19

Issue Date: 2023-09-19

Report No.: BCTC2308677215-2E

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

Test Results: PASS

Tested by:

Lei Chen

Lei Chen/Project Handler

Approved by:

127

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.



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(Note: N/A Means Not Applicable)



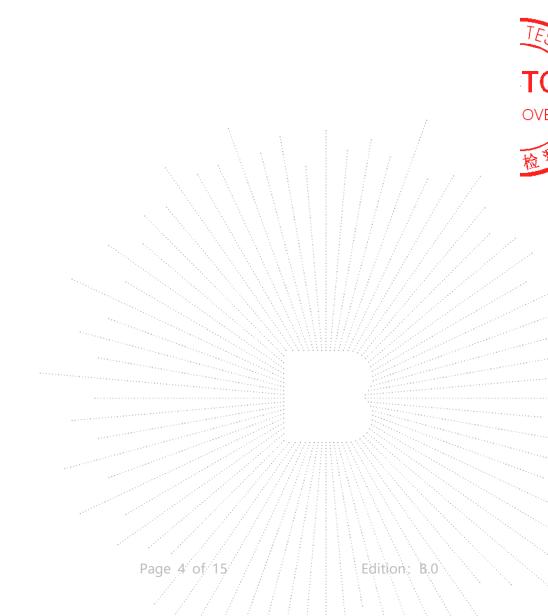






#### 1. Version

Report No.	Issue Date	Description	Approved
BCTC2308677215-2E	2023-09-19	Original	Valid



No.: BCTC/RF-EMC-005



#### 2. Product Information

#### 2.1 Product Information

Model/Type Ref.: A788

1088OPQ, WM1088Q, WW-08

Model differences: All the model are the same circuit and RF module, except model names.

Product Description: MagSafe Compatible 3-in-1 Portable Charger

Operation Frequency: Wireless charging Output (Phone/ Earphone): 115kHz-205kHz,

Wireless charging Output (Watch): 300-350kHz

Antenna installation: loop coil antenna

Input: DC 5V/3A, 9V/3A, 12V/2A

Ratings: Wireless charging Output (Phone): 5W/7.5W/10W/15W

Wireless charging Output (Earphone): 5W

Wireless charging Output (Watch): 2W

Hardware Version: IP6805U Software Version: IP6862

#### Cable of Product

No.	Cable Type	Quantity	Provider	Length (m)	Shielded	Note
1			Applicant		Yes/No	With a ferrite ring in mid  Detachable
2			встс		Yes/No	

#### 2.2 Support Equipment

No.	Device Type	Brand	Model	Series No.	Note
E-1	MagSafe Compatible 3-in-1 Portable Charger	N/A	A788	1088OPQ, WM1088Q, WW-08	EUT
E-2					

#### Notes:

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<sup>1.</sup> All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.

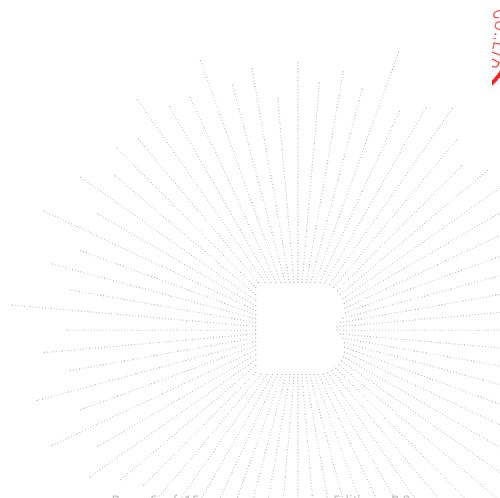
<sup>2.</sup> Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.



### 2.3 Test Mode

Test Mode 1	Wireless charging (Full load)
Test Mode 2	Wireless charging (Half load)
Test Mode 3	Wireless charging (Empty load)

Note: All test mode were tested and passed, only shows the worst case mode which were recorded in this report.



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#### 3. Test Facility And Test Instrument Used

#### 3.1 Test Facility

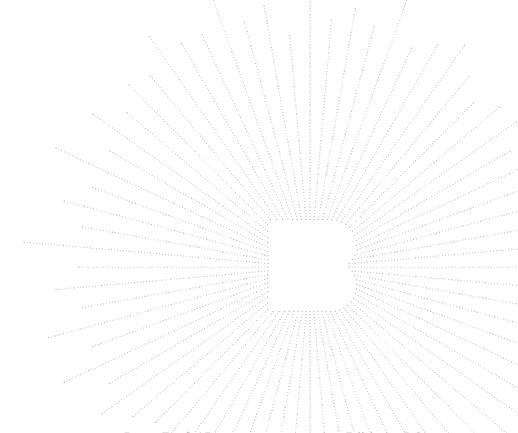
All measurement facilities used to collect the measurement data are located at Shenzhen BCTC Testing Co., Ltd. Address:1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed 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, 2023	Sept. 07, 2024
Software	Frad	EZ-EMC	EMC-CON 3A1	/	1



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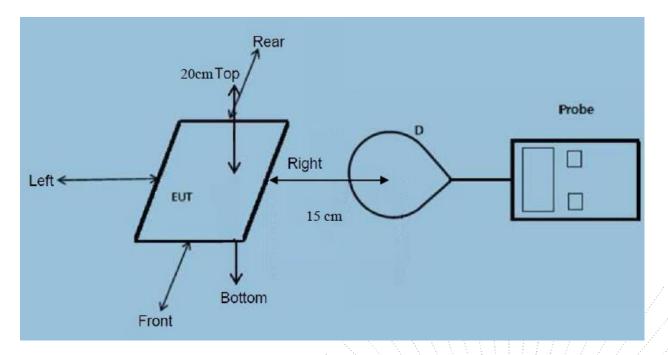


#### 4. Method Of Measurement

#### 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

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#### 4.3 Limit

	Limits for Occupational / Controlled Exposure									
Frequency Range (MHz)			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	-30 1842 / f		(900 / f)*	6						
30-300	30-300 61.4		1.0	6						
300-1500			F/300	6						
1500-100,000			5	6						

Limits for General Population / Uncontrolled Exposure								
Frequency Range Electric Field  (MHz) 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

- Power transfer frequency is less than 1MHz
   Yes, the device operate in the frequency range from 115-350KHz
- 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 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.

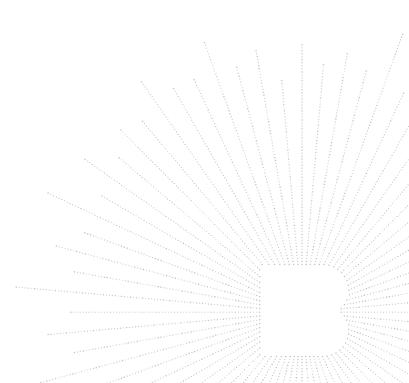
No, the transfer system has three coils working at the same time.

- 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 levels are 10% x MPE limit.



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### 4.6 E and H field Strength

Test Mode 1 (the worst mode)

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%	0.115-0.35	0.088	0.089	0.088	0.126	0.048	0.109
50%	0.115-0.35	0.094	0.086	0.116	0.131	0.056	0.090
99%	0.115-0.35	0.099	0.078	0.120	0.135	0.039	0.085

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%	0.115-0.35	0.070	0.071	0.071	0.101	0.038	0.087	0.163	1.63
50%	0.115-0.35	0.075	0.069	0.093	0.105	0.044	0.072	0.163	1.63
99%	0.115-0.35	0.079	0.063	0.096	0.108	0.031	0.068	0.163	1.63

Note:A/m=uT÷1.25

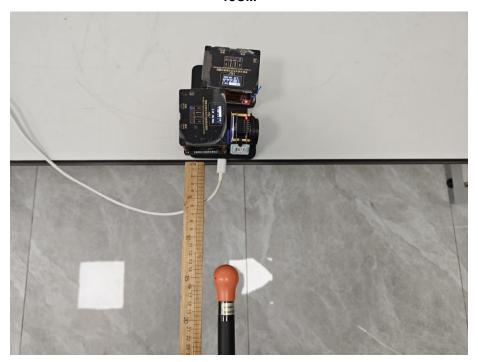


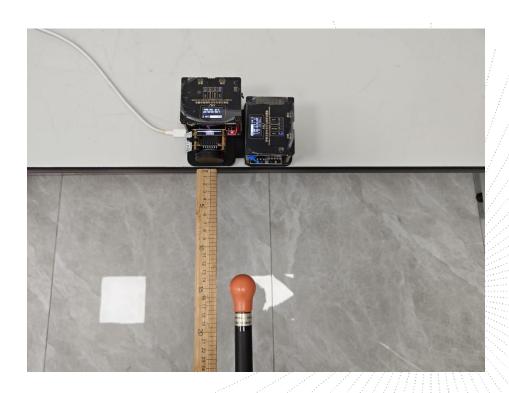
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# 5. Photographs Of Test Set-Up

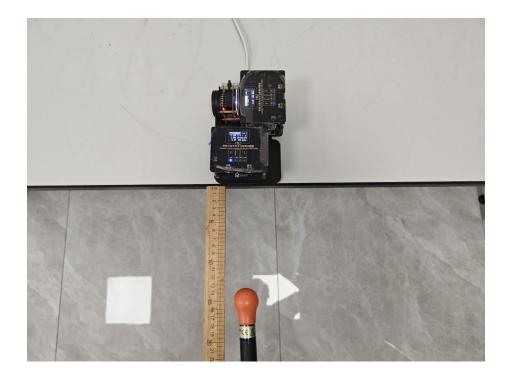
#### 15CM





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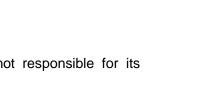


20CM





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#### 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

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