

TEST REPORT

Reference No. : WTS18S0199492-2E
FCC ID : 2ACWB-BASE10
Applicant : mophie LLC
Address : 6244 Technology Ave. Kalamazoo, MI 49009 U.S.A.
Manufacturer : The same as above
Address : The same as above
Product : mophie charge stream pad+
Model(s) : WRLS-CHGBASE-10W
Standards : FCC Part 15 subpart C
Date of Receipt sample : 2018-01-03
Date of Test : 2018-01-04 to 2018-02-08
Date of Issue : 2018-02-08
Test Result : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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2 Contents

	Page
1 COVER PAGE.....	1
2 CONTENTS	2
3 GENERAL INFORMATION.....	3
3.1 GENERAL DESCRIPTION OF E.U.T.....	3
3.2 DETAILS OF ACCESSORIES	3
4 EQUIPMENT USED DURING TEST	4
4.1 EQUIPMENTS LIST	4
4.2 DESCRIPTION OF AUXILIARY EQUIPMENT	4
4.3 TEST EQUIPMENT CALIBRATION	4
5 RF EXPOSURE.....	5
5.1 TEST SETUP	5
5.2 THE PROCEDURES / LIMIT.....	6
5.3 TEST DATA	6
5.4 EUT COUPLING SURFACE AREA	9
6 PHOTOGRAPH – RF EXPOSURE TEST SETUP	10

3 General Information

3.1 General Description of E.U.T

Product:	mophie charge stream pad+
Model(s):	WRLS-CHGBASE-10W
Model Difference:	N/A
Type of Modulation:	ASK
Oscillator:	8MHz
Frequency Range:	0.112~0.205MHz
Antenna installation:	Coil Antenna
Antenna gain:	0dBi
Input:	12V === 1.5A

3.2 Details of accessories

Ratings:	Adapter: Input: AC100-240V, 50/60Hz, 0.5A Output: 5V === 3A / 9V === 2A / 12V === 1.5A
Adapter:	Model: A138A-120150U-US2

4 Equipment Used during Test

4.1 Equipments List

RF EXPOSURE						
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Calibration Date	Calibration Due Date
1	Protection Network	SCHWARZBECK	VDHH9502	9502-103	2017-04-12	2018-04-11
2	EMI Test Receiver	R&S	ESCI	101528	2017-04-12	2018-04-11

4.2 Description of Auxiliary Equipment

Equipment	Manufacturer	Model No.	Series No.
/	/	/	/

4.3 Test Equipment Calibration

All the test equipments used are valid and calibrated by GUANG ZHOU GRG METROLOGY & TEST CO., LTD. address is No.163, Pingyun Rd. West of Huangpu Ave, Tianhe District, Guangzhou, Guangdong, China.

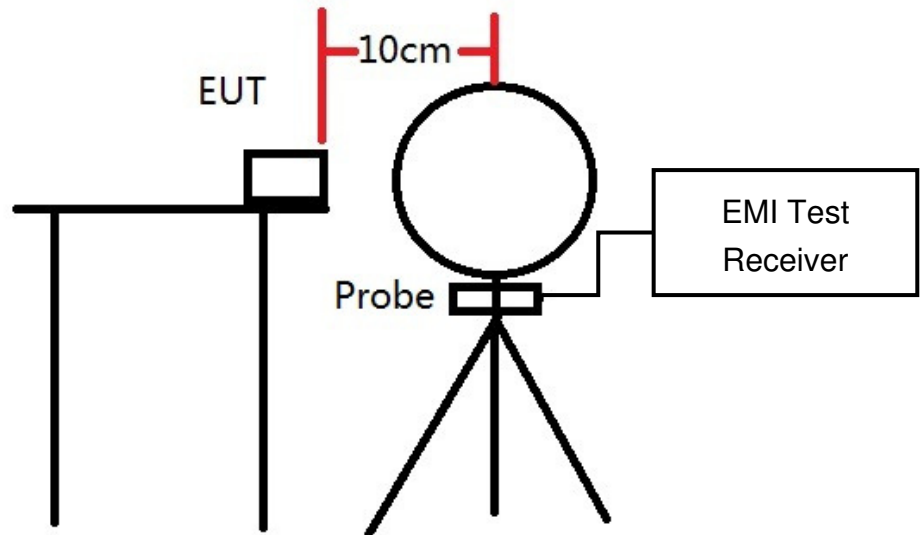
5 RF Exposure

Test Requirement:

Environmental evaluation and exposure limit according to FCC CFR 47 Part 1.1307(b), 1.1310

According KDB680106 D01v02: RF Exposure Wireless Charging Apps v02

5.1 Test Setup



These testing were performed at test configuration as above diagram.

EUT was placed on a table, and the measure probe was placed at a measurement distance of 10cm from the EUT to the center of the probe.

The EUT was put in different directions (Left, Right, Front, Rear, Top and Bottom) to obtain the maximum reading.

5.2 The procedures / limit

(A) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	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

(B) 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/ cm ²)	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			1.0	30

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

5.3 Test Data

E-Field(The level of the battery is 5%)

Test Side	Separation Distance(cm)	E-Field Measured(V/m)	E-Field Limit(V/m)
Left	10	5.30	614
Right	10	5.43	614
Front	10	5.60	614
Rear	10	5.45	614
Top	10	6.29	614
Bottom	10	6.57	614
Margin Limit (%)		1.07%	

E-Field(The level of the battery is 50%)

Test Side	Separation Distance(cm)	E-Field Measured(V/m)	E-Field Limit(V/m)
Left	10	5.28	614
Right	10	5.55	614
Front	10	5.43	614
Rear	10	5.46	614
Top	10	6.31	614
Bottom	10	6.50	614
Margin Limit (%)		1.06%	

E-Field(The level of the battery is 99%)

Test Side	Separation Distance(cm)	E-Field Measured(V/m)	E-Field Limit(V/m)
Left	10	5.45	614
Right	10	5.46	614
Front	10	5.44	614
Rear	10	5.41	614
Top	10	6.30	614
Bottom	10	6.50	614
Margin Limit (%)		1.06%	

H-Field(The level of the battery is 5%)

Test Side	Separation Distance(cm)	H-Field Measured(A/m)	H-Field Limit(A/m)
Left	10	0.16	1.63
Right	10	0.14	1.63
Front	10	0.12	1.63
Rear	10	0.17	1.63
Top	10	0.39	1.63
Bottom	10	0.30	1.63
Margin Limit (%)		23.93%	

H-Field(The level of the battery is 50%)

Test Side	Separation Distance(cm)	H-Field Measured(A/m)	H-Field Limit(A/m)
Left	10	0.13	1.63
Right	10	0.18	1.63
Front	10	0.19	1.63
Rear	10	0.21	1.63
Top	10	0.37	1.63
Bottom	10	0.34	1.63
Margin Limit (%)		22.70%	

H-Field(The level of the battery is 99%)

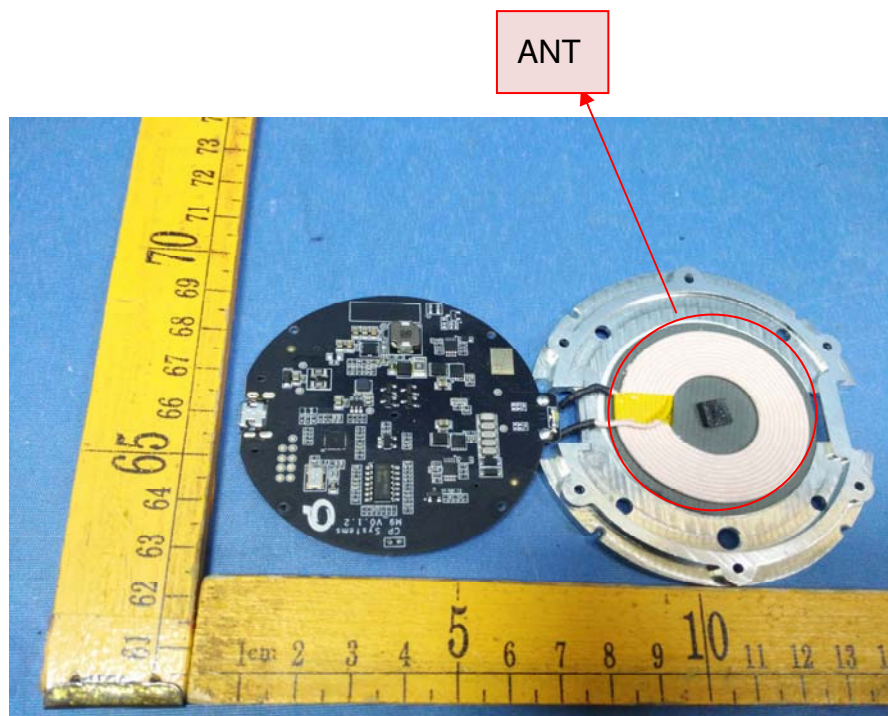
Test Side	Separation Distance(cm)	H-Field Measured(A/m)	H-Field Limit(A/m)
Left	10	0.19	1.63
Right	10	0.19	1.63
Front	10	0.17	1.63
Rear	10	0.19	1.63
Top	10	0.34	1.63
Bottom	10	0.30	1.63
Margin Limit (%)		20.86%	

Remark: The device meets the mobile RF exposure limit at a 10cm separation distance as specified in §2.1091 of the FCC Rules. The maximum leakage fields at 10 cm surrounding the device from transmitting coil is demonstrated to be less than 30% of the MPE limit.

Please refer to above E and H field Strength test results.

5.4 EUT coupling surface area

The inductive area is below (Coupling area: \varnothing 42 mm, The located at top of the equipment):



6 Photograph – RF Exposure Test Setup

Left Side



Right Side



Front Side



Rear Side



Top Side



Bottom Side



====End of Report====