

RF Exposure Report

Report No.: AGC03946190501FH03

FCC ID : 2AG5APOWERVE
APPLICATION PURPOSE : Original Equipment
PRODUCT DESIGNATION : Powerwave-Wireless Charging
BRAND NAME : BrandCharger
MODEL NAME : Powerwave
CLIENT : BrandCharger Ltd
DATE OF ISSUE : June 06, 2019
STANDARD(S) : KDB 680106 D01 RF Exposure Wireless Charging Base App v03
REPORT VERSION : V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

CAUTION:

This report shall not be reproduced except in full without the written permission of the test laboratory and shall not be quoted out of context.



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	June 06, 2019	Valid	Initial Release



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

TABLE OF CONTENTS

1. VERIFICATION OF CONFORMITY	4
2. GENERAL INFORMATION.....	5
2.1. PRODUCT DESCRIPTION	5
3. DESCRIPTION OF TEST MODES.....	6
4. SYSTEM TEST CONFIGURATION	6
5. TEST FACILITY	7
6. RADIO FREQUENCY (RF) EXPOSURE TEST	8
6.1. LIMITS.....	8
6.2. TEST SETUP.....	8
APPENDIX A: PHOTOGRAPHS OF TEST SETUP	10



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

1. VERIFICATION OF CONFORMITY

Applicant	BrandCharger Ltd
Address	Flat H, 7/F, Mai Luen Industrial Building, 23 Kung Yip Street, Kwai Chung, Hong Kong
Manufacturer	Shen Zhen Loowoko Technology Limited
Address	6F,E building ,Jin Bao Bao Industry Dis, No 2 North Part, Shang Xue Industry City, Long Gang , shenzhen, guangdong, China
Factory	Shen Zhen Loowoko Technology Limited
Address	6F,E building ,Jin Bao Bao Industry Dis, No 2 North Part, Shang Xue Industry City, Long Gang , shenzhen, guangdong, China
Product Designation	Powerwave-Wireless Charging
Brand Name	N/A
Test Model:	Powerwave
Date of test	May 30, 2019~June 06, 2019
Deviation	None
Condition of Test Sample	Normal
Report Template	AGCRT-US-BR/RF

We hereby certify that:

The above equipment was tested by Attestation of Global Compliance (Shenzhen) Co., Ltd. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in KDB 680106 D01.

The results of testing in this report apply to the product/system which was tested only.

Tested By



Donjon Huang(Huang
dongyang)

June 06, 2019

Reviewed By



Max Zhang(Zhang Yi)

June 06, 2019

Approved By



Forrest Lei(Lei Yonggang)
Authorized Officer

June 06, 2019



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

A major technical description of EUT is described as following

Operation Frequency	161.1kHz
Maximum field strength	55.76dBuV/m(PK)@3m
Number of channels	1
Antenna Designation	Integrated Antenna (Met 15.203 Antenna requirement)
Hardware Version	LWC-F28-10W-C0
Software Version	V1.0
Power Supply	DC 5V by adapter.



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

3. DESCRIPTION OF TEST MODES

NO.	TEST MODE DESCRIPTION
1	Wireless charging Mode(Full load)
2	Wireless charging Mode(half load)
3	Wireless charging Mode(Null load)
Note:	
1. The mode 1 was the worst case and only the data of the worst case record in this report.	

4. SYSTEM TEST CONFIGURATION

Item	Equipment	Model No.	ID or Specification	Remark
1	Powerwave-Wireless Charging	Powerwave	FFDD	EUT
2	Adapter	U0077	DC 5V 2.0A	Accessory
3	Wireless Load	N/A	10W	Accessory



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088 E-mail: agc@agc-cert.com Service Hotline:400 089 2118

5. TEST FACILITY

Test Site	Attestation of Global Compliance (Shenzhen) Co., Ltd
Location	1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Designation Number	CN1259
FCC Test Firm Registration Number	975832
A2LA Cert. No.	5054.02
Description	Attestation of Global Compliance(Shenzhen) Co., Ltd is accredited by A2LA

TEST EQUIPMENT LIST

Description	Manufacturer	Model	S/N	Cal. Date	Cal. Due
Broadband Field Meter	Narda Safety Test Solutions GmbH	NBM-550	J-0004	Jun.12, 2018	Jun.11, 2019
Probe FHP	Narda Safety Test Solutions GmbH	EHP-50F	J-0015	Jun.12, 2018	Jun.11, 2019



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu, Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

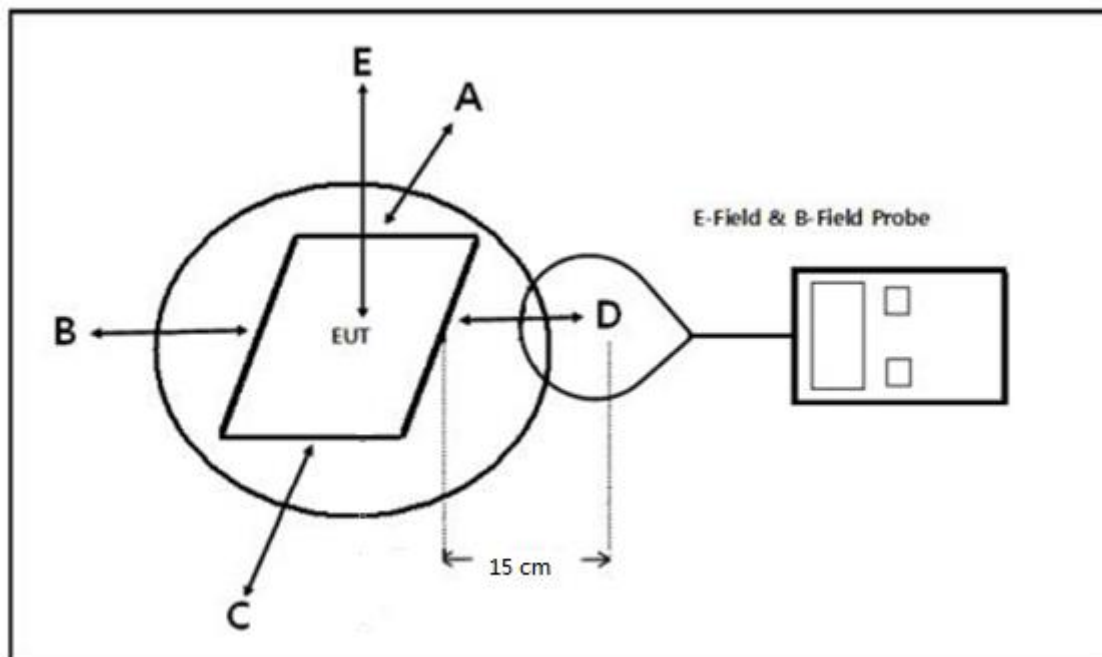
Service Hotline:400 089 2118

6. RADIO FREQUENCY (RF) EXPOSURE TEST

6.1. LIMITS

For devices designed for typical desktop applications, such as wireless charging pads, RF exposure evaluation should be conducted assuming a user separation distance of 15 cm. E and H field strength measurements or numerical modeling may be used to demonstrate compliance. 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. Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m.

6.2. TEST SETUP



Note: Position A: Front of EUT; Position B: Left of EUT; Position C: back of EUT; Position D: Right of EUT; Position E: Top of EUT (20 cm measure distance);

6.3. TEST PROCEDURE

The EUT was placed on a non-conductive table top and the ancillary equipment (e.g. mobile phone) was placed on the EUT for charging.

Maximum E-field and H-field measurements were tested 15cm from each side of the EUT. For top side the measure distance is 20cm.

Along the side of the EUT to center of E-field probe and H-field probe were positioned at the location to search maximum field strength.

6.4. TEST RESULT

Test condition: Mode 1

E-field strength test result:

Frequency Range	Probe Position A (V/m)	Probe Position B (V/m)	Probe Position C (V/m)	Probe Position D (V/m)	Probe Position E (V/m)	Limit (V/m)
161.1kHz	0.16	0.16	0.16	0.16	2.53	614

H-field strength test result:

Frequency Range	Probe Position A (A/m)	Probe Position B (A/m)	Probe Position C (A/m)	Probe Position D (A/m)	Probe Position E (A/m)	Limit (A/m)
161.1kHz	0.08	0.08	0.08	0.08	0.66	1.63

Test condition: Mode 2

E-field strength test result:

Frequency Range	Probe Position A (V/m)	Probe Position B (V/m)	Probe Position C (V/m)	Probe Position D (V/m)	Probe Position E (V/m)	Limit (V/m)
154.9kHz	0.16	0.16	0.16	0.16	1.79	614

H-field strength test result:

Frequency Range	Probe Position A (A/m)	Probe Position B (A/m)	Probe Position C (A/m)	Probe Position D (A/m)	Probe Position E (A/m)	Limit (A/m)
154.9kHz	0.08	0.08	0.08	0.08	0.53	1.63



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu, Xixiang, Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

Service Hotline:400 089 2118

Test condition: Mode 3

E-field strength test result:

Frequency Range	Probe Position A (V/m)	Probe Position B (V/m)	Probe Position C (V/m)	Probe Position D (V/m)	Probe Position E (V/m)	Limit (V/m)
135.7kHz	0.16	0.16	0.16	0.16	1.58	614

H-field strength test result:

Frequency Range	Probe Position A (A/m)	Probe Position B (A/m)	Probe Position C (A/m)	Probe Position D (A/m)	Probe Position E (A/m)	Limit (A/m)
135.7kHz	0.13	0.13	0.13	0.13	0.54	1.63



Attestation of Global Compliance(Shenzhen)Co.,Ltd.

Add: 2/F., Building 2, No.1-4, Chaxi Sanwei Technial Industrial Park, Gushu,
Xixiang, Bao'an District, Shenzhen, Guangdong, China

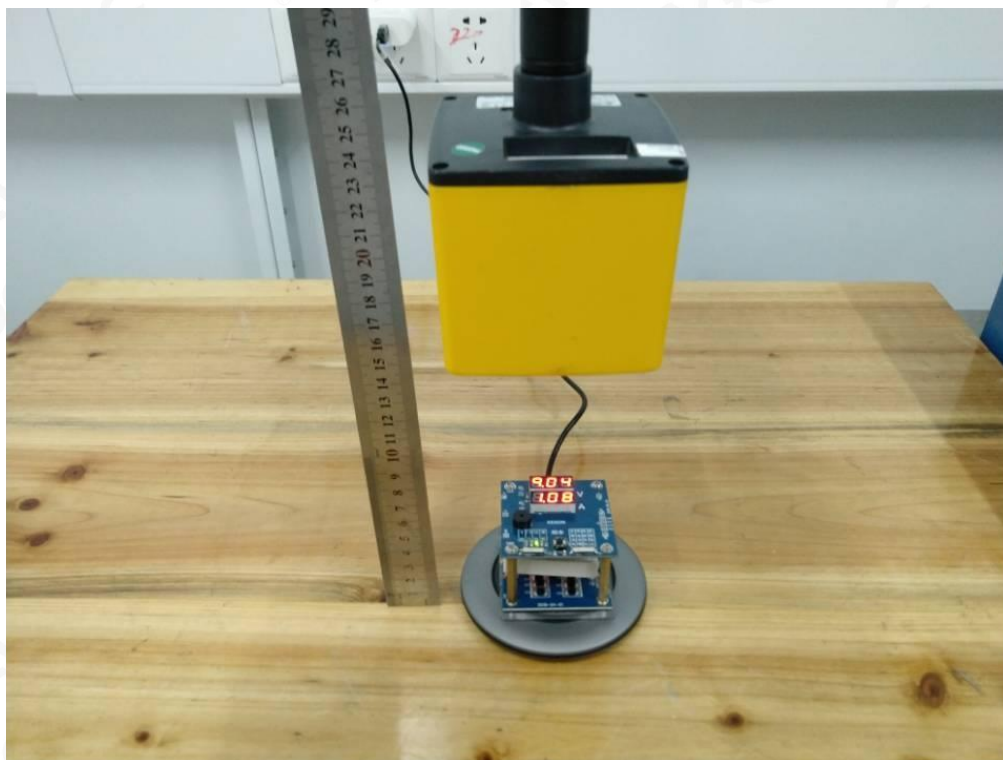
Tel: +86-755 2523 4088

E-mail: agc@agc-cert.com

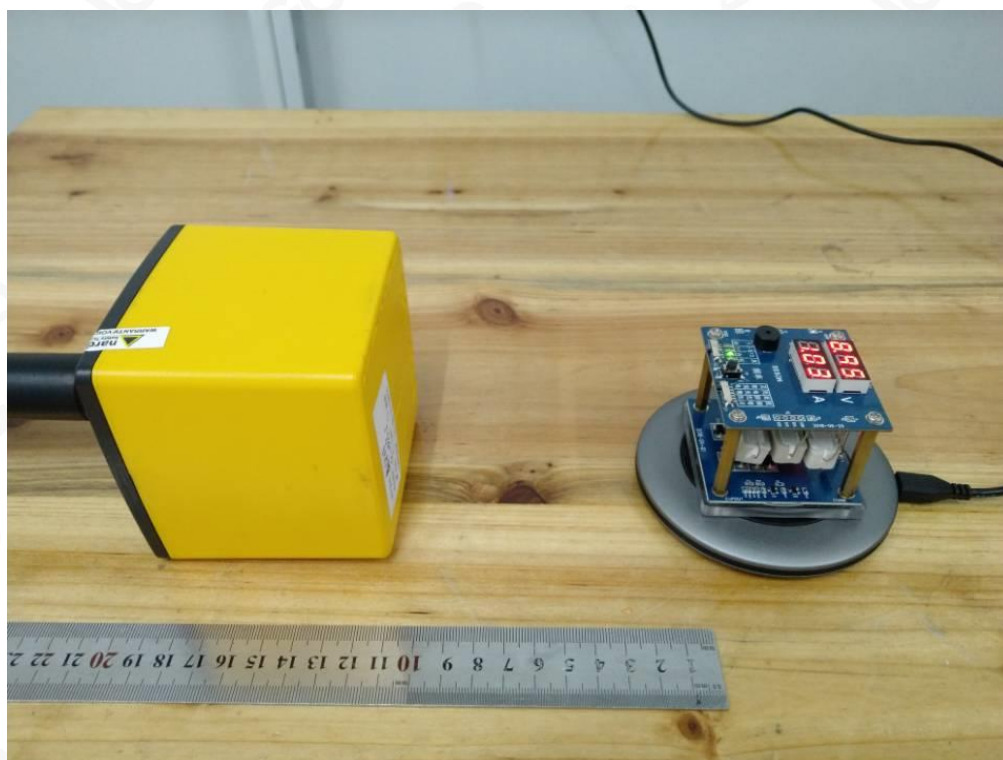
Service Hotline:400 089 2118

APPENDIX A: PHOTOGRAPHS OF TEST SETUP

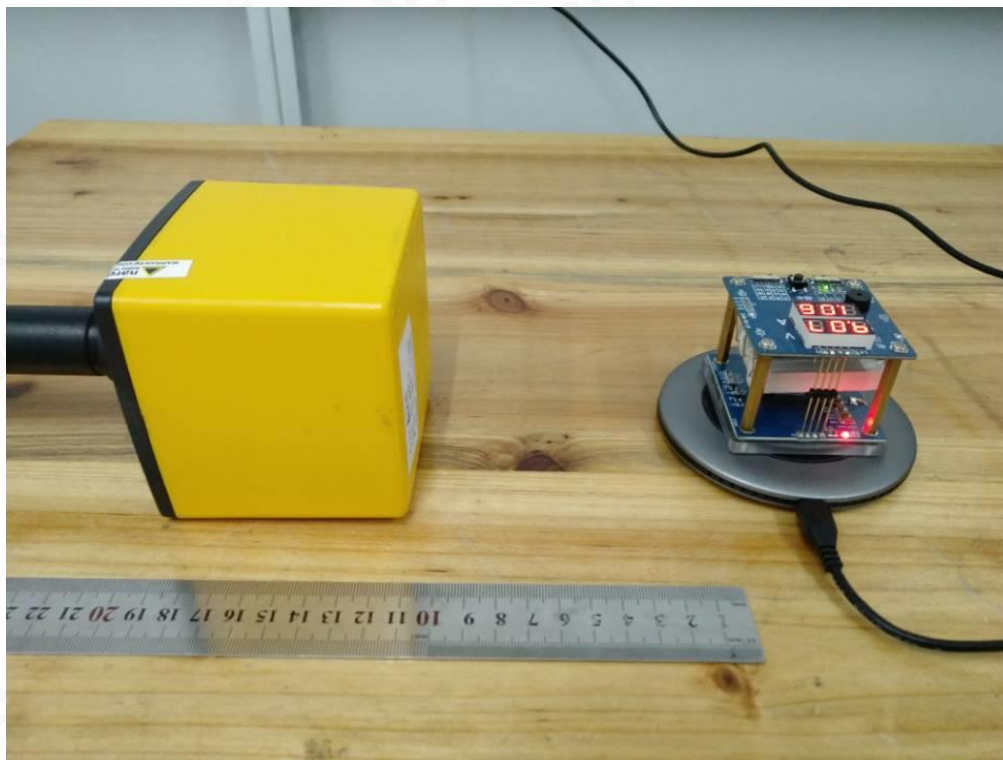
Position E



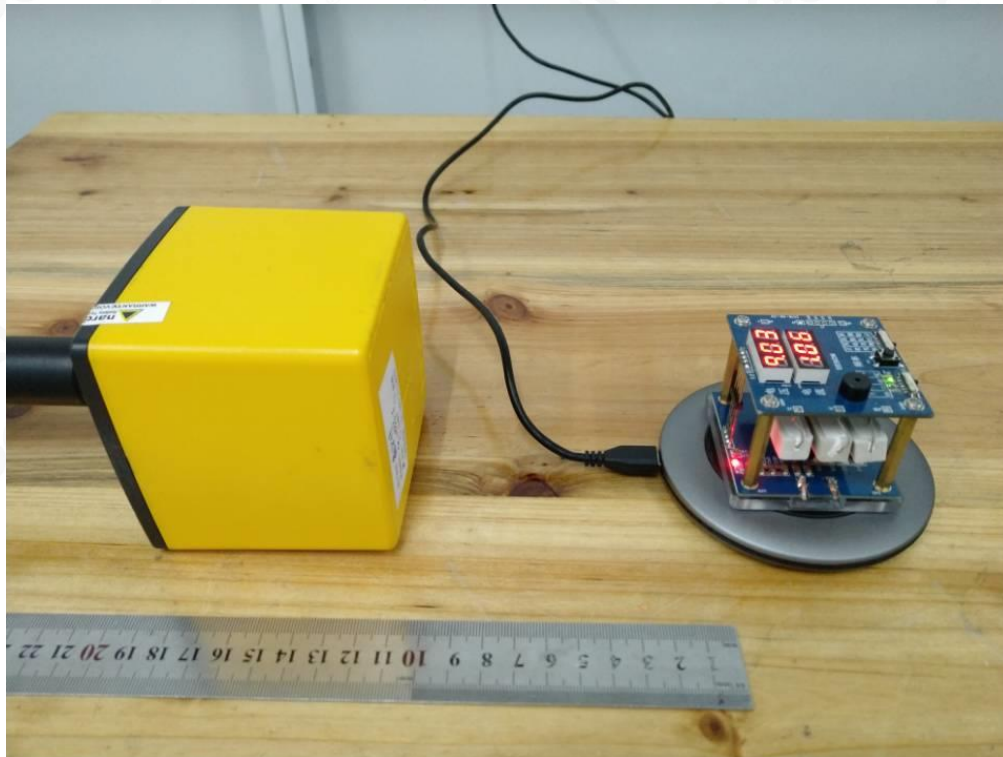
Position A



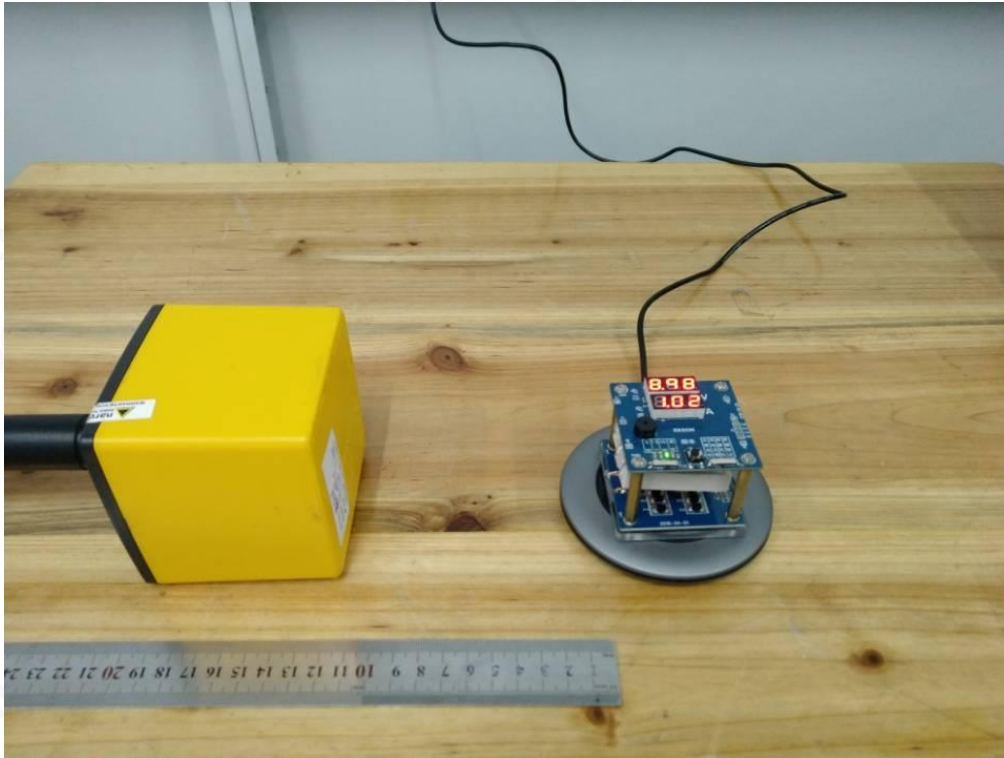
Position B



Position C



Position D



----END OF REPORT----