



RF Exposure Report

**Test report
On Behalf of
Orient Link Limited
For
Wireless Charger**

Model No.: 5502267(SW0042-BK), 5502269(SW0042-WE)

FCC ID: 2AIMJ-SW0042

IC: 21538-SW0042

Prepared for : Orient Link Limited
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Table of Contents	Page
1 . TEST SUMMARY	4
2. GENERAL INFORMATION	5
2.1. PRODUCT DESCRIPTION	5
2.2 OPERATION OF EUT DURING TESTING	6
2.3 DESCRIPTION OF TEST SETUP	6
5. TEST EQUIPMENT LIST	7
6. RADIO FREQUENCY (RF) EXPOSURE TEST	8
6.1. LIMITS	8
6.2. TEST SETUP	9
APPENDIX A: PHOTOGRAPHS OF TEST SETUP	14



1. TEST SUMMARY

1.1 TEST PROCEDURES AND RESULTS

DESCRIPTION OF TEST	RESULT
E and H field strength measurements	Compliant

1.2 TEST FACILITY

Test Firm : Shenzhen HUAK Testing Technology Co., Ltd.

Address : 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road,
Heping Community, Fuhai Street, Bao'an District, Shenzhen,
Guangdong, China

IC Registration No.: 21210

FCC Registration No.: CN1229

Test Firm Registration Number : 616276

1.3 MEASUREMENT UNCERTAINTY

Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty(9kHz-30MHz) = 3.08dB, k=2

Radiated emission expanded uncertainty(30MHz-1000MHz) = 4.42dB, k=2

Radiated emission expanded uncertainty(Above 1GHz) = 4.06dB, k=2



2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

A major technical description of EUT is described as following

Operation Frequency	123.4kHz
Maximum field strength	53.54dBuV/m(Peak)@3m
Number of channels	1
Antenna Designation	Integrated Antenna (Met 15.203 Antenna requirement)
Hardware Version	sweda-v9
Software Version	V1.0
Power Supply	DC 5V or DC 9V



2.2 OPERATION OF EUT DURING TESTING

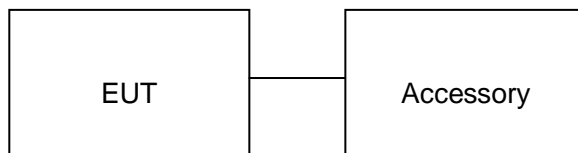
NO.	TEST MODE DESCRIPTION
1	Wireless charging Mode(Full load)
2	Wireless charging Mode(half load)
3	Wireless charging Mode(Null load)

Note:

1. The mode 1 was the worst case and only the data of the worst case record in this report.

2.3 DESCRIPTION OF TEST SETUP

Configure :



Item	Equipment	Model No.	ID or Specification	Remark
1	Adapter	RP-PC007	DC 5V3A or DC 9V/2A	Accessory
2	Wireless Load	N/A	10W	Support



3. TEST EQUIPMENT LIST

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



4. RADIO FREQUENCY (RF) EXPOSURE TEST

4.1. LIMITS

FCC:

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 and 20 cm measured from the center of the probe(s) to the top 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.

IC:

Table 2 - Limb Exposure Limit Relaxation

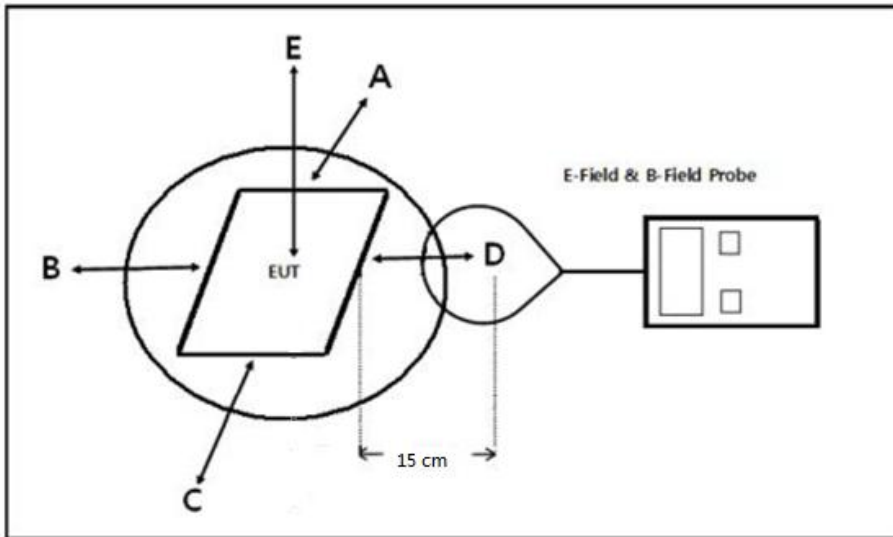
Exposure Condition	Relaxation Factor	Electric Field (V/m r.m.s.)	Magnetic Field (A/m r.m.s.)
Whole Body / Torso / Head	1.0	83	90
Leg	1.5	124.5	135
Arm	2.5	207.5	225
Hand/Foot	5.0	415	450

Note: The values of the electric field and the magnetic field in Table 2 are for indication purposes only and do not supersede the levels specified in RSS-102.

4.2. TEST SETUP

For FCC:

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);



For IC:

The compliance distance which is declared by manufacture is 10 cm away from all sides and 10cm from the top of the EUT



4.3. TEST PROCEDURE

FCC:

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.

IC:

Passively used table-top devices are those which are placed on a table top; however, the user would not be seated at the table while the device is in use (e.g. cellphone chargers).

Table-top devices shall be installed at the edge of an 80 cm tall table which is constructed of non-metallic material.

Any support equipment used to operate the device shall be placed along the edge with a minimum of 10 cm between each component.

The measurement probe shall be placed at the compliance distance away from the edge of the table.

The compliance distance which is declared by manufacture is 10 cm away from all sides and 10cm from the top of the EUT



4.4. TEST RESULT

FCC:

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)	FCC Limit (V/m)	IC Limit (V/m)
123.4kHz	0.16	0.16	0.16	0.16	2.54	614	83

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)	FCC Limit (A/m)	IC Limit (A/m)
123.4kHz	0.18	0.18	0.18	0.18	0.41	1.63	90

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)	FCC Limit (V/m)	IC Limit (V/m)
128.7kHz	0.14	0.14	0.14	0.14	1.85	614	83

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)	FCC Limit (A/m)	IC Limit (A/m)
128.7kHz	0.12	0.12	0.12	0.12	0.35	1.63	90



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)	FCC Limit (V/m)	IC Limit (V/m)
133.6kHz	0.16	0.16	0.16	0.16	1.48	614	83

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)	FCC Limit (A/m)	IC Limit (A/m)
133.6kHz	0.13	0.13	0.13	0.13	0.27	1.63	90

IC:

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)	FCC Limit (V/m)	IC Limit (V/m)
123.4kHz	0.16	0.16	0.16	0.16	4.54	614	83

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)	FCC Limit (A/m)	IC Limit (A/m)
123.4kHz	0.18	0.18	0.18	0.18	0.81	1.63	90



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)	FCC Limit (V/m)	IC Limit (V/m)
128.7kHz	0.14	0.14	0.14	0.14	3.54	614	83

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)	FCC Limit (A/m)	IC Limit (A/m)
128.7kHz	0.12	0.12	0.12	0.12	0.66	1.63	90

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)	FCC Limit (V/m)	IC Limit (V/m)
133.6kHz	0.16	0.16	0.16	0.16	2.45	614	83

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)	FCC Limit (A/m)	IC Limit (A/m)
133.6kHz	0.13	0.13	0.13	0.13	0.52	1.63	90

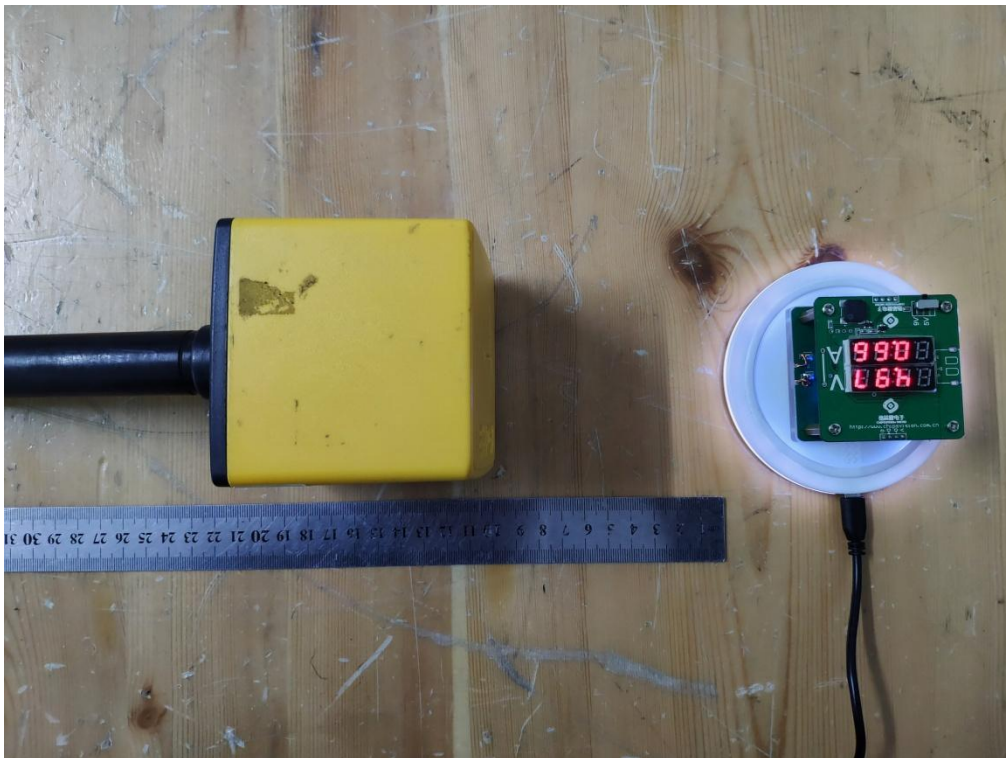
APPENDIX A: PHOTOGRAPHS OF TEST SETUP

FCC

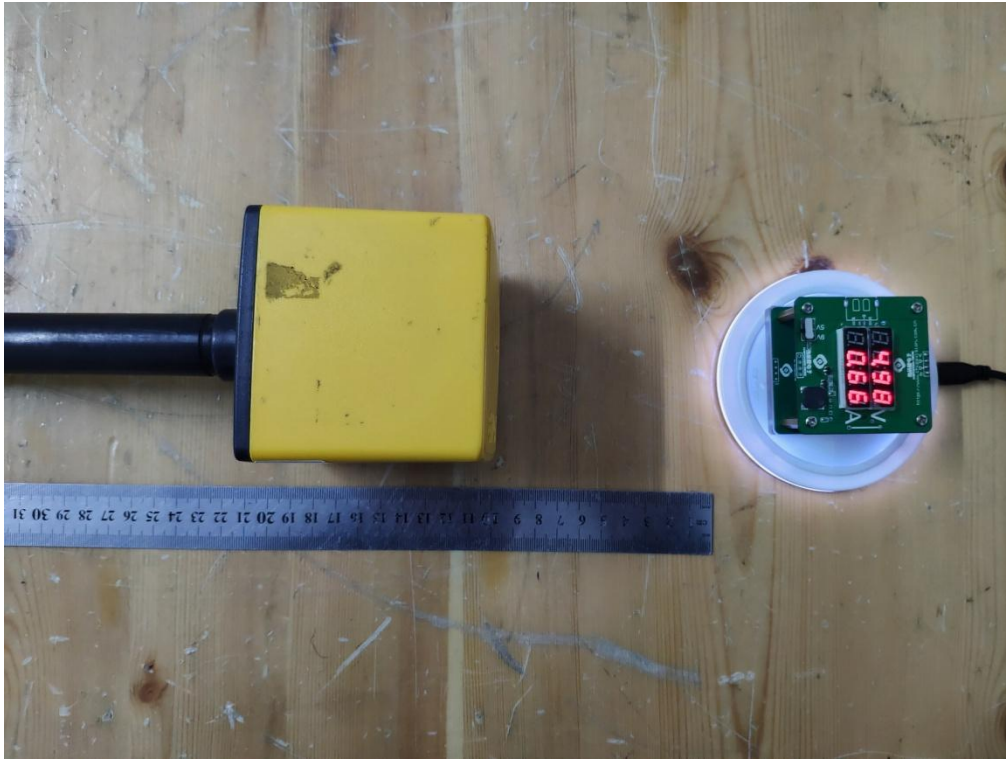
Position E



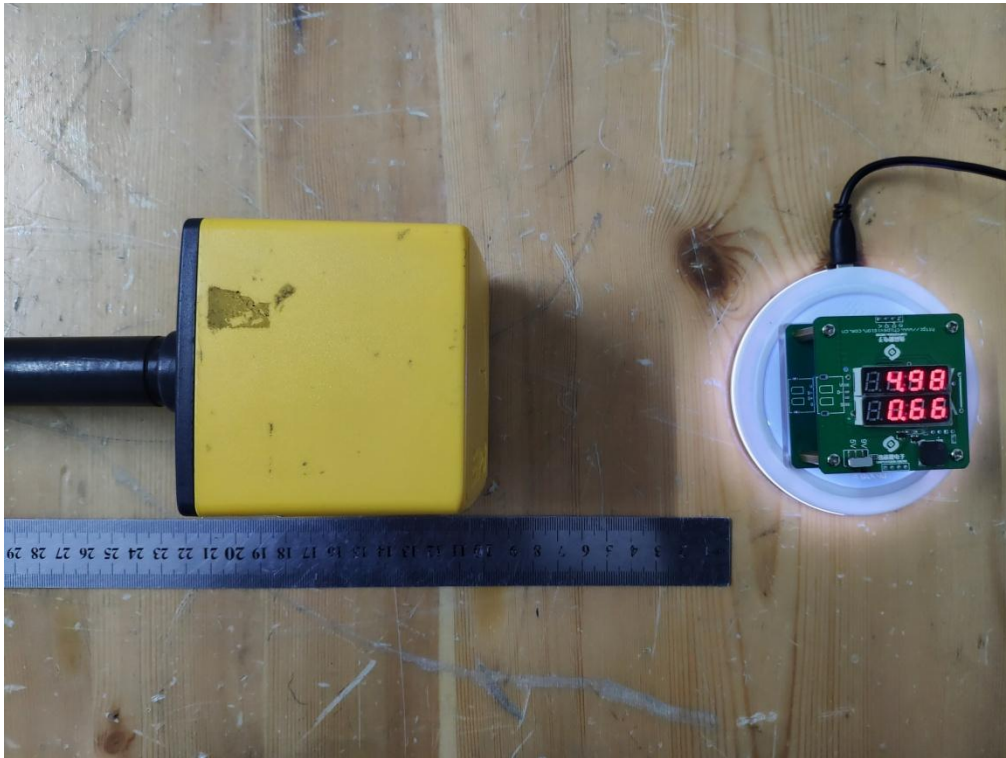
Position A



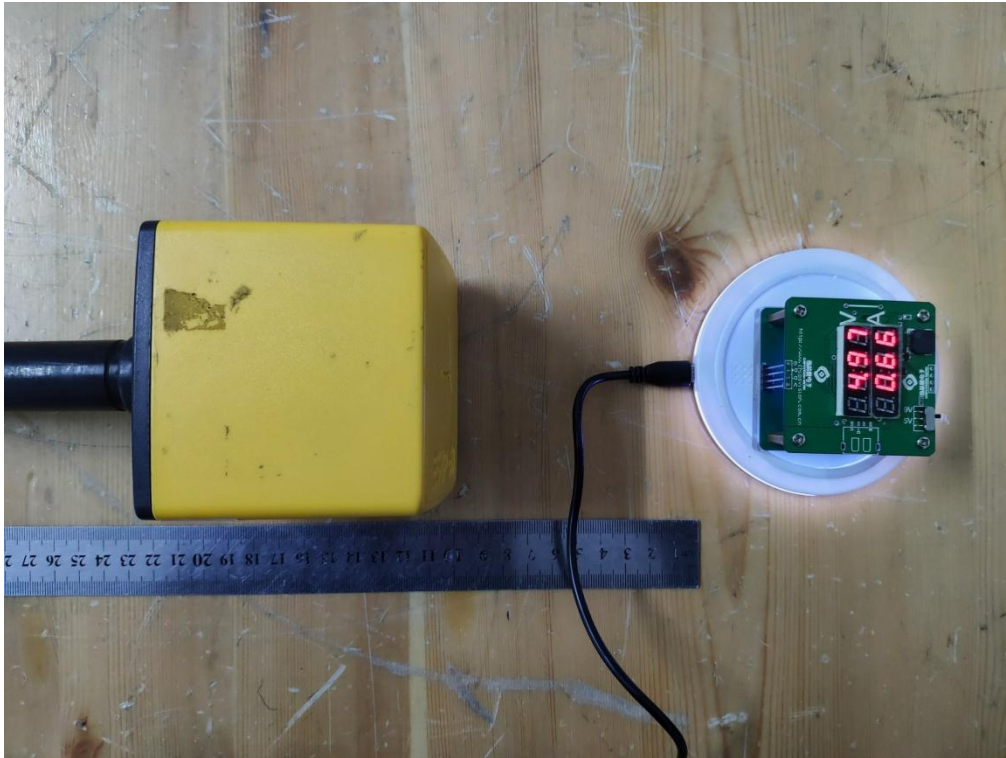
Position B



Position C



Position D

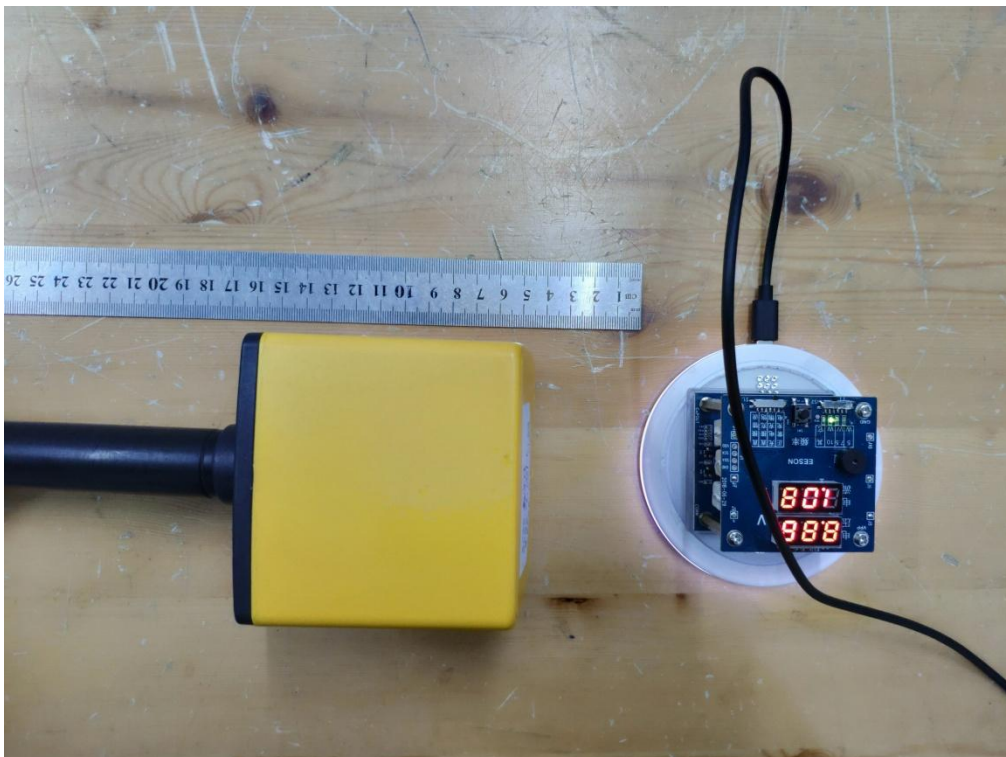




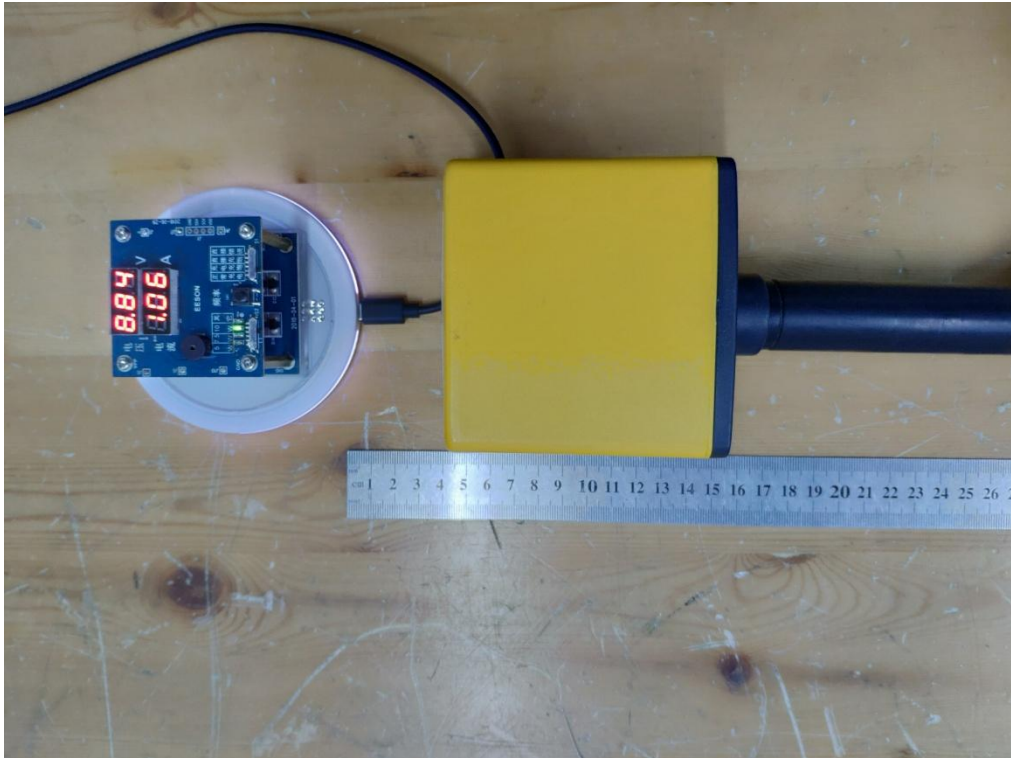
IC
Position E



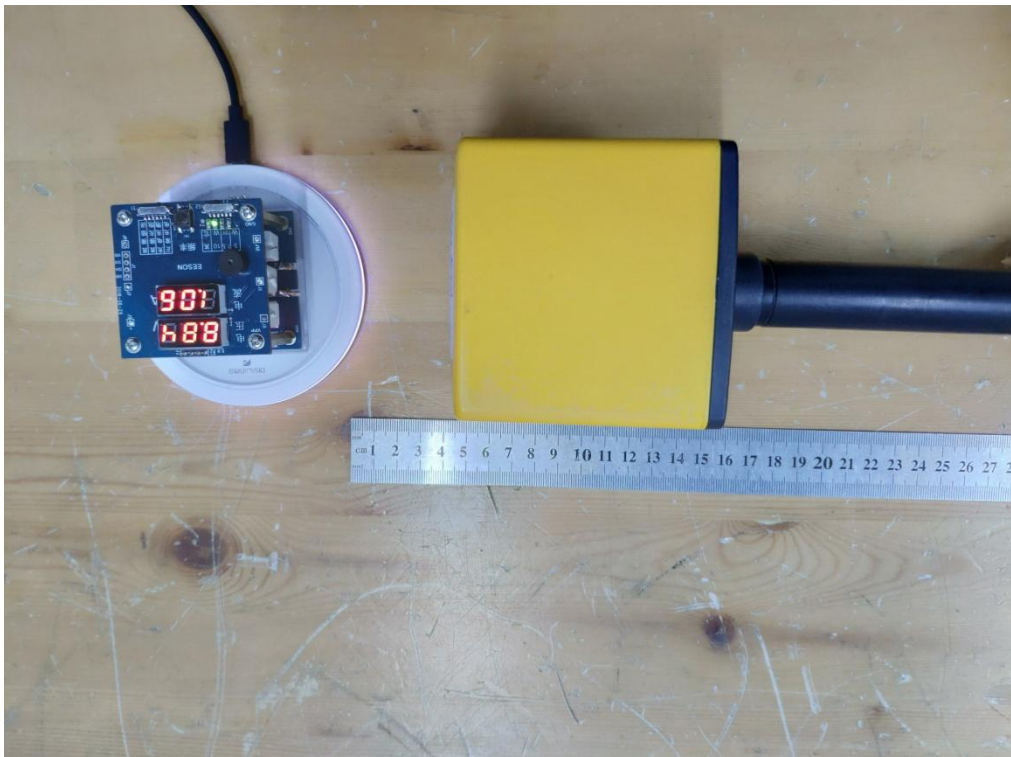
Position A



Position B

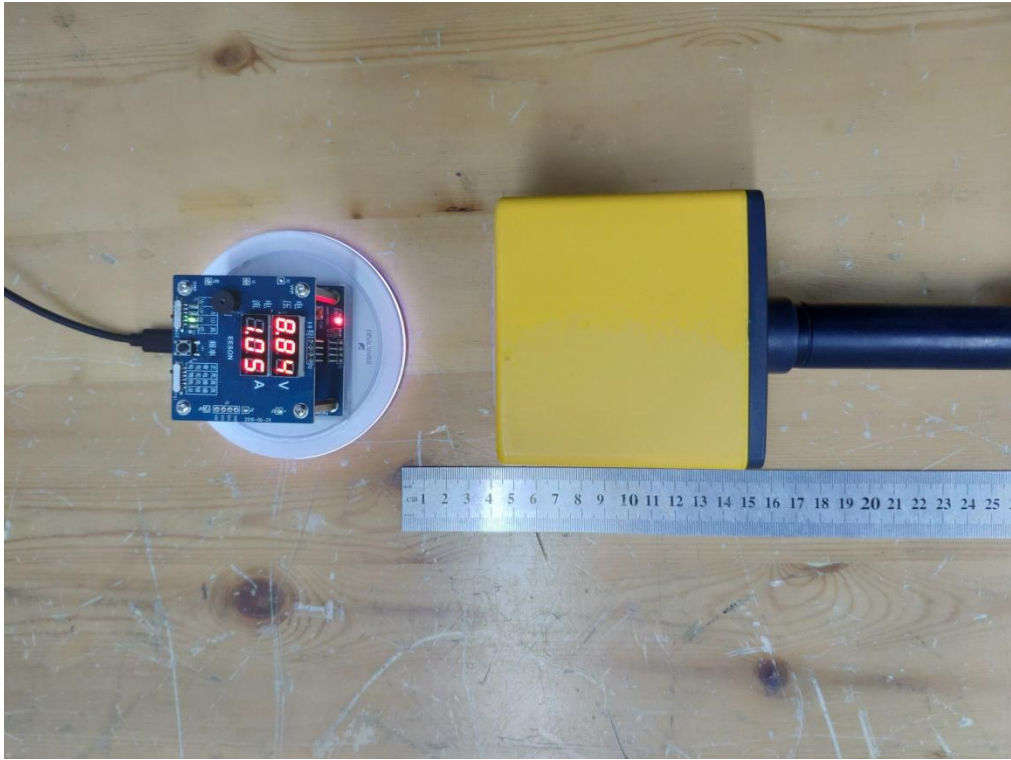


Position C





Position D



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