



FCC TEST REPORT

FCC ID : YMX-EC5623A

On Behalf of

XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO., LTD.

Massage Chair

Model No.: EC-5623A1, EC-5623A, 4D Orion Duo

Prepared for : XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO., LTD.
Address : (5/F)NO.168, QIANPU ROAD,SIMING DISTRICT,XIAMEN,Fujian CHINA

Prepared By : Shenzhen Alpha Product Testing Co., Ltd.
Address : Building i, No.2, Lixin Road, Fuyong Street, Bao'an District,
518103, Shenzhen, Guangdong, China

Report Number : A2407007-C01-R01
Date of Receipt : July 9, 2024
Date of Test : July 9, 2024 – March 18, 2025
Date of Report : March 18, 2025
Version Number : V0
Test Result : Pass

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TEST REPORT DECLARATION

Applicant : XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO., LTD.
Address : (5/F)NO.168, QIANPU ROAD, SIMING DISTRICT, XIAMEN, Fujian CHINA
Manufacturer : XIAMEN HEALTHCARE ELECTRONIC CO., LTD.
Address : 65-66#, 62-63# BUILDING, SIMING ZONE, TONGAN INDUSTRIAL DISTRICT,
XIAMEN CITY, FUJIAN PROVINCE, P.R.CHINA
EUT Description : Massage Chair
(A) Model No. : EC-5623A1, EC-5623A, 4D Orion Duo
(B) Trademark : N/A

Measurement Standard Used:

FCC CFR Title 47 Part 15 Subpart C

FCC KDB 680106 D01 Wireless Transfer v04

The device described above is tested by Shenzhen Alpha Product Testing Co., Ltd. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The test results are contained in this test report and Shenzhen Alpha Product Testing Co., Ltd. is assumed full responsibility for the accuracy and completeness test. Also, this report shows that the EUT is technically compliant with the KDB 680106 D01 requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of Shenzhen Alpha Product Testing Co., Ltd.

Tested by (name + signature).....:

Yannis Wen
Project Engineer

Yannis Wen

Approved by (name + signature).....:

Jack Xu
Project Manager

Jack Xu

Date of issue.....

March 18, 2025

Revision History

Revision	Issue Date	Revisions	Revised By
V0	March 18, 2025	Initial released Issue	Yannis Wen

1. Test Result Summary

Requirement	CFR 47 Section	Result
RF EXPOSURE	§1.1307(b)(1) & KDB680106	PASS

Note:

1. PASS: Test item meets the requirement.
2. Fail: Test item does not meet the requirement.
3. N/A: Test case does not apply to the test object.
4. The test result judgment is decided by the limit of test standard.

2. EUT Description

2.1. Description of Device (EUT)

EUT Name	:	Massage Chair
Model No.	:	EC-5623A1, EC-5623A, 4D Orion Duo
DIFF	:	There is no difference except the name of the model. All tests are made with the 4D Orion Duo model.
Power supply	:	110-120V~ 60Hz
EUT information	:	Wireless Output: 15W
Operation frequency	:	110~205KHz
Modulation	:	MSK
Antenna Type	:	Coil Antenna, Maximum Gain is 0dBi (This value is supplied by applicant).
Software version	:	1.0
Hardware version	:	1.0
Intend use environment	:	Residential, commercial and light industrial environment

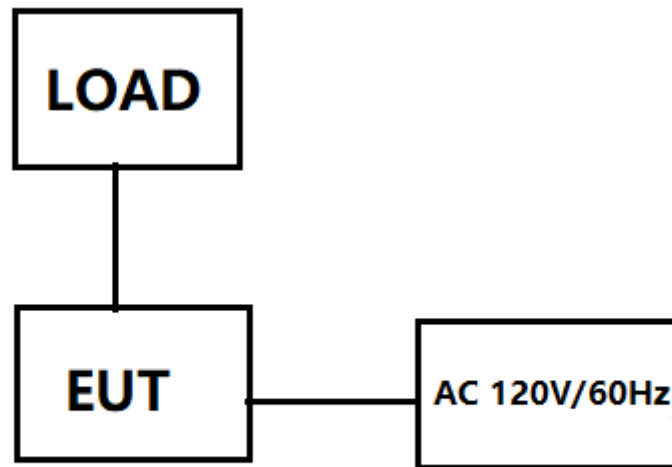
2.2. Accessories of Device (EUT)

Accessories1 : /
 Manufacturer : /
 Model : /
 Ratings : /

2.3. Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number	Certification
1	Wireless load	--	--	--	--

2.4. Block Diagram of Connection between EUT and Simulators



2.5. Description of Test Modes

Channel	Frequency (KHz)
1	135

2.6. Test Conditions

Items	Required	Actual
Temperature range:	15-35°C	24°C
Humidity range:	25-75%	56%
Pressure range:	86-106kPa	98kPa

2.7. Test Facility

Shenzhen Alpha Product Testing Co., Ltd

Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen, Guangdong, China

June 21, 2018 File on Federal Communication Commission

Registration Number: 293961

July 15, 2019 Certificated by IC

Registration Number: 12135A

2.8. Measurement Uncertainty

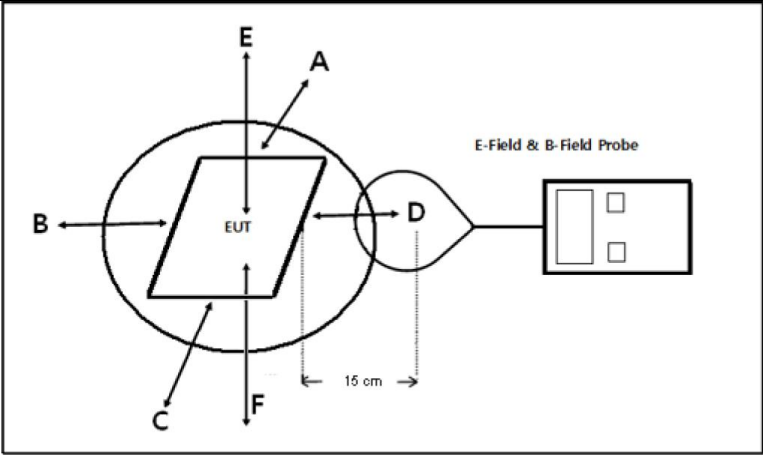
(95% confidence levels, k=2)

Item	Uncertainty
Uncertainty for H-Field	2.39dB
Uncertainty for E-Field	2.45dB
Uncertainty for conducted RF Power	0.65dB
Uncertainty for temperature	0.2°C
Uncertainty for humidity	1%
Uncertainty for DC and low frequency voltages	0.06%

3. Test Results and Measurement Data

3.1. RF Exposure Test

3.1.1. Test Specification

Test Requirement:	FCC Rules and Regulations KDB680106
Test Method:	§1.1307(b)(1) & KDB680106
Limits:	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 D01v03r01: RF Exposure Wireless Charging.
Test Setup:	
Test Mode:	Wireless charging load has been charge at no load, middle load and full load. All test modes were pre-tested, but we only recorded the worse case in this report.
Test Procedure:	<ol style="list-style-type: none"> 1. The RF exposure test was performed in shielded chamber 2. The measurement probe was placed at test distance(8/10/12cm) which is between the edge of the charger and the geometric centre of probe. 3. The measurement probe used to search of highest strength. 4. The highest emission level was recorded and compared with limit as soon as measurement of each points (A,B,C) were completed. 5. The EUT were measured according to the dictates of KDB 680106 D01 Wireless Transfer v04
Test Result:	PASS

3.1.2. Test Instruments

Item	Equipment	Manufacturer	Model No.	Firmware version	Serial No.	Last Cal.	Cal Interval
1	Exposure Level Tester	narda	ELT-400	N/A	N-0231	2024.08.14	1Year
2	Magnetic field probe 100cm2	narda	ELT probe 100cm2	N/A	M0675	2024.08.14	1Year
3	Isotropic Electric Field Probe	narda	EP-601	N/A	511WX60706	2024.08.20	1Year

3.1.3. Test data

For Full load mode:

E-Field Strength at 8cm for position A,B,C from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limit (50%) (V/m)	Limits Test (V/m)
0.110-0.205	2.265	/	2.684	/	2.702	2.678	307	614

H-Filed Strength at 8cm for position A,B,C from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limit (50%) (A/m)	Limits Test (A/m)
0.110-0.205	0.726	/	0.728	/	0.733	0.726	0.815	1.63
0.110-0.205	0.908	/	0.910	/	0.916	0.908	uT	

E-Field Strength at 10cm for position A,B,C from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limit (50%) (V/m)	Limits Test (V/m)
0.110-0.205	2.259	/	2.674	/	2.694	2.671	307	614

H-Filed Strength at 10cm for position A,B,C from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limit (50%) (A/m)	Limits Test (A/m)
0.110-0.205	0.718	/	0.728	/	0.729	0.720	0.815	1.63
0.110-0.205	0.898	/	0.910	/	0.911	0.900	uT	

E-Field Strength at 12cm for position A,B,C from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limit (50%) (V/m)	Limits Test (V/m)
0.110-0.205	2.246	/	2.629	/	2.666	2.598	307	614

H-Filed Strength at 12cm for position A,B,C from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limit (50%) (A/m)	Limits Test (A/m)
0.110-0.205	0.658	/	0.694	/	0.689	0.670	0.815	1.63
0.110-0.205	0.822	/	0.868	/	0.861	0.838	uT	

For Null load mode:

E-Field Strength 8cm for position A,B,C from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limit (50%) (V/m)	Limits Test (V/m)
0.110-0.205	2.011	/	2.009	/	2.011	2.010	307	614

H-Filed Strength at 8cm for position A,B,C from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limit (50%) (A/m)	Limits Test (A/m)
0.110-0.205	0.681	/	0.694	/	0.696	0.700	0.815	1.63
0.110-0.205	0.851	/	0.868	/	0.870	0.875	uT	

E-Field Strength 10cm for position A,B,C from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limit (50%) (V/m)	Limits Test (V/m)
0.110-0.205	2.009	/	2.004	/	2.008	2.006	307	614

H-Filed Strength at 10cm for position A,B,C from the edges surrounding the EUT (A/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limit (50%) (A/m)	Limits Test (A/m)
0.110-0.205	0.677	/	0.692	/	0.695	0.696	0.815	1.63
0.110-0.205	0.846	/	0.865	/	0.869	0.870	uT	

E-Field Strength 12cm for position A,B,C from the edges surrounding the EUT (V/m)

Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limit (50%) (V/m)	Limits Test (V/m)
0.110-0.205	1.973	/	1.915	/	1.946	1.919	307	614

H-Filed Strength at 12cm for position A,B,C from the edges surrounding the EUT (A/m)

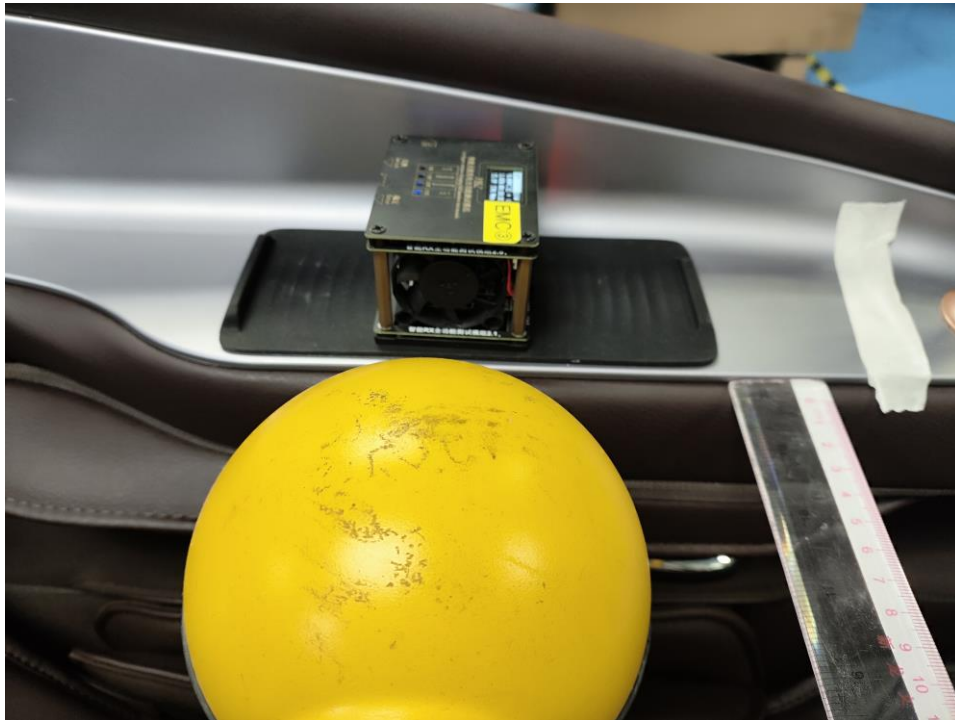
Frequency Range (MHz)	Test Position A	Test Position B	Test Position C	Test Position D	Test Position E	Test Position F	Limit (50%) (A/m)	Limits Test (A/m)
0.110-0.205	0.675	/	0.691	/	0.688	0.691	0.815	1.63
0.110-0.205	0.844	/	0.864	/	0.860	0.864	uT	

Remark:

1. uT to A/m: $A/m = uT/1.25$.
2. The manufacturer's declared separation distance obtained from the information in the user's manual is 8 cm.

4. Photos of test setup

For Full load mode(8cm)



A

For Full load mode(10cm)



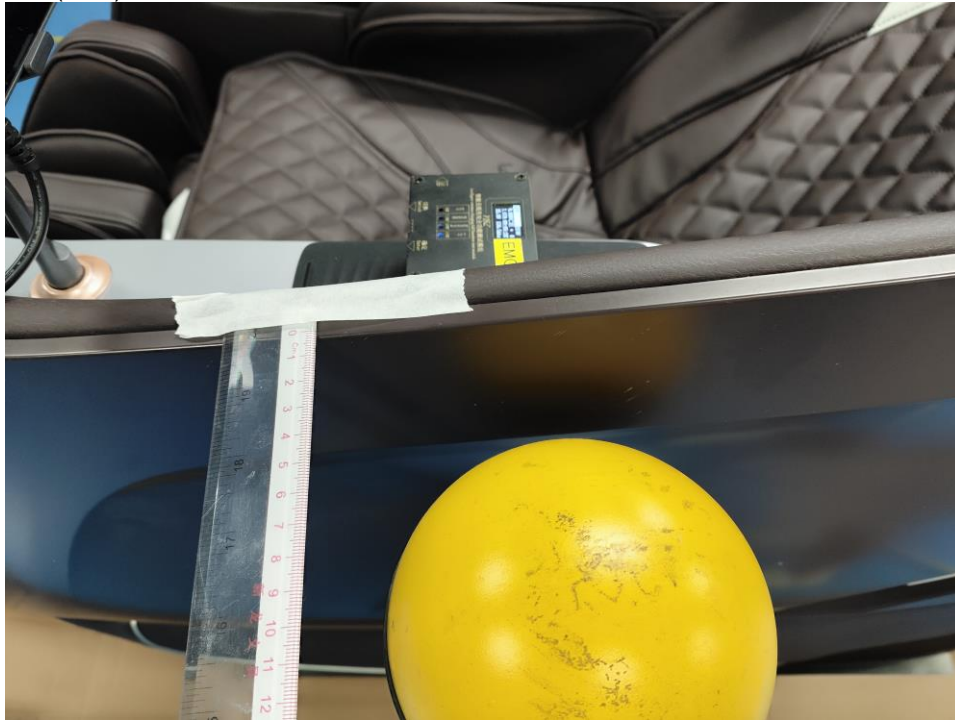
A

For Full load mode(12cm)



A

For Full load mode(8cm)



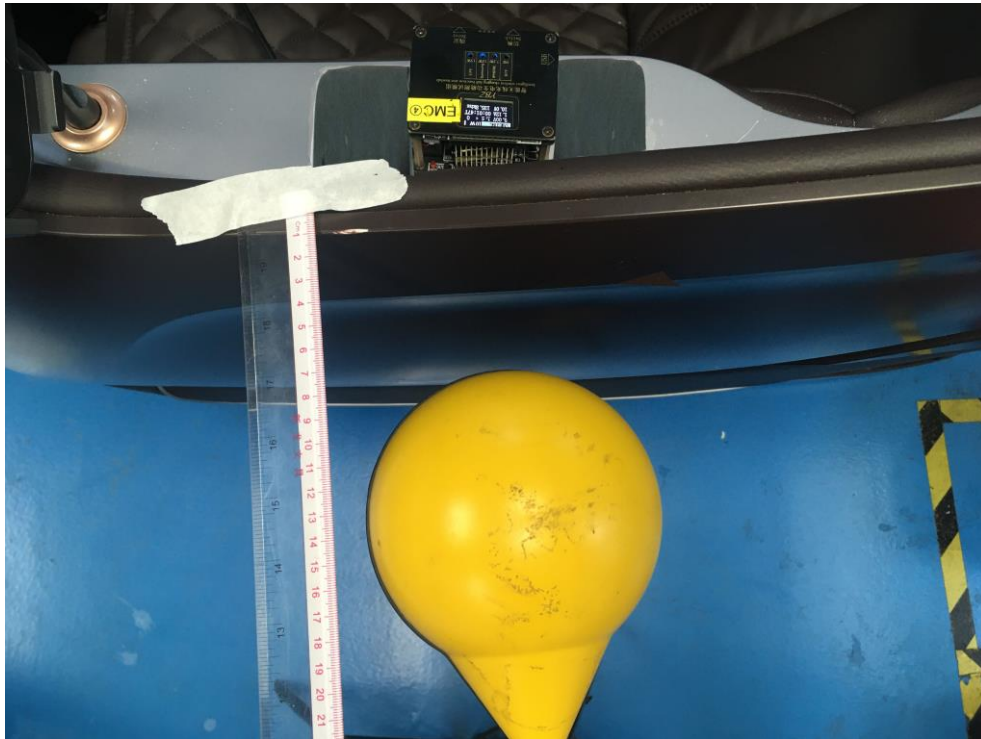
C

For Full load mode(10cm)



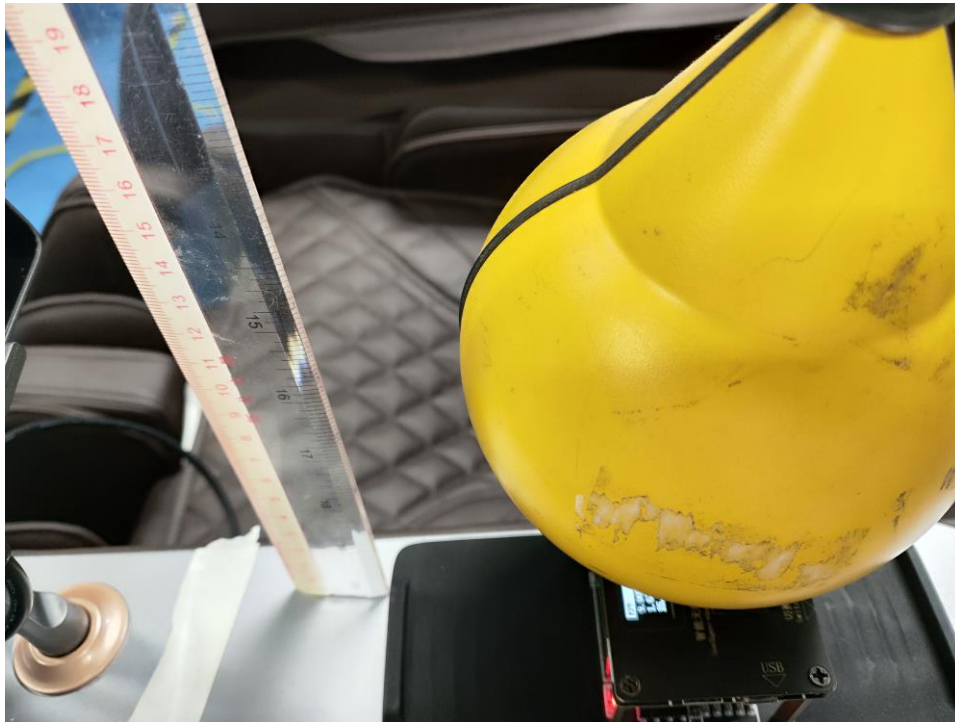
C

For Full load mode(12cm)



C

For Full load mode(8cm)



E

For Full load mode(10cm)



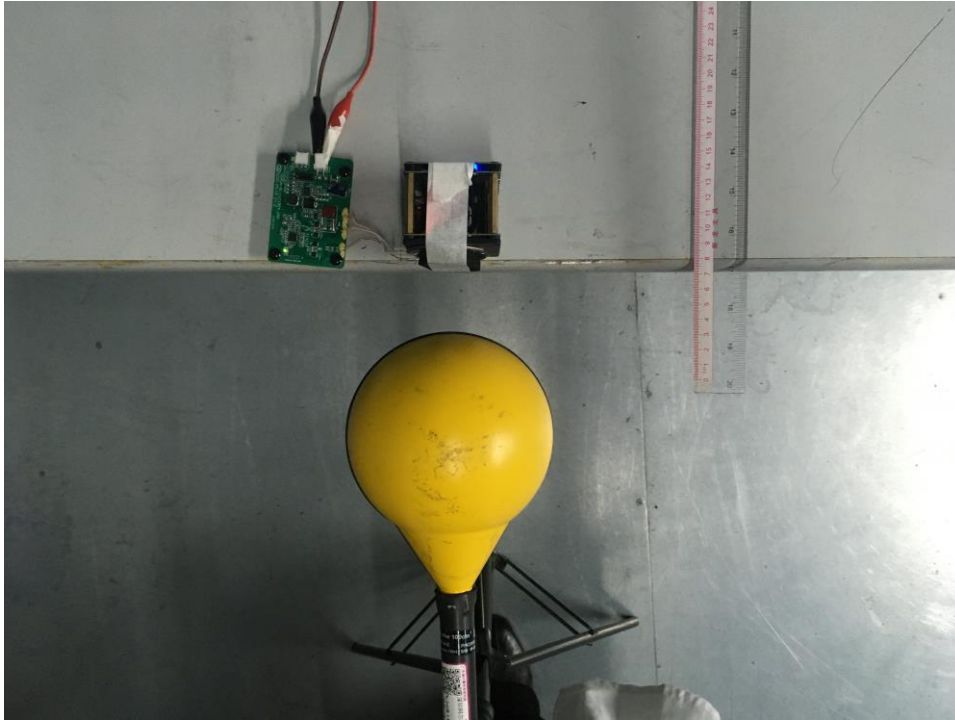
E

For Full load mode(12cm)



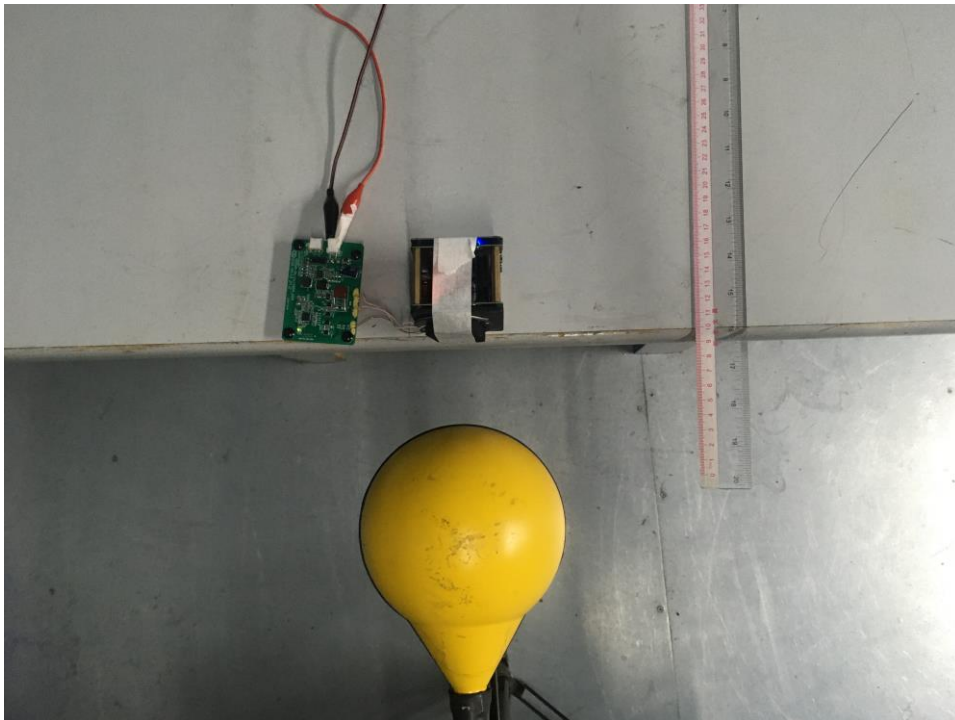
E

For Full load mode(8cm)



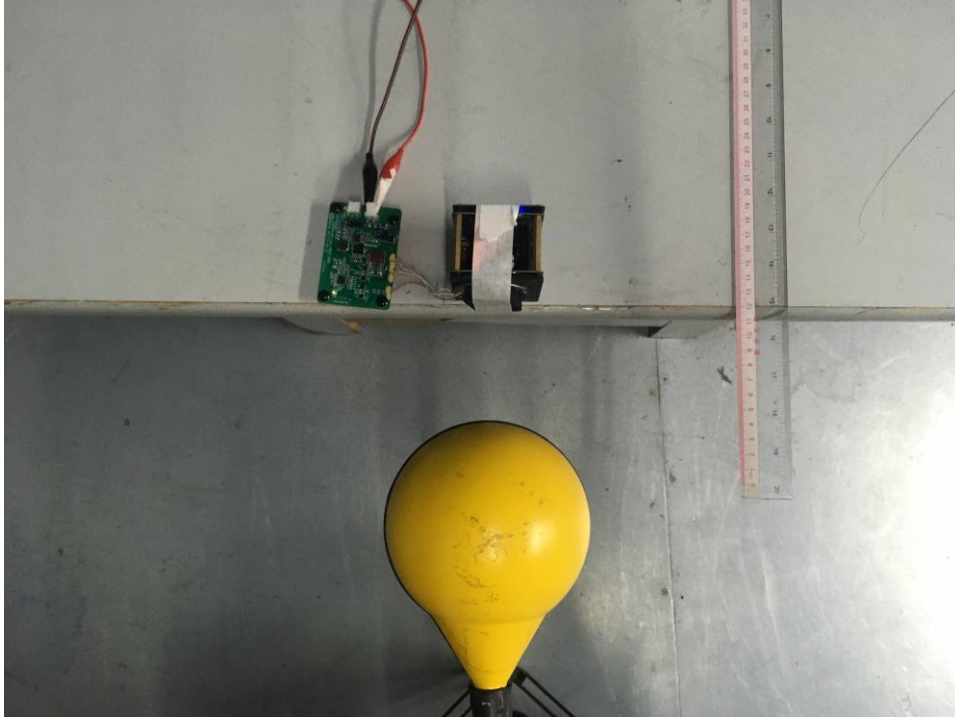
F

For Full load mode(10cm)



F

For Full load mode(12cm)



F

For Full load mode(8cm)



A

For Full load mode(10cm)



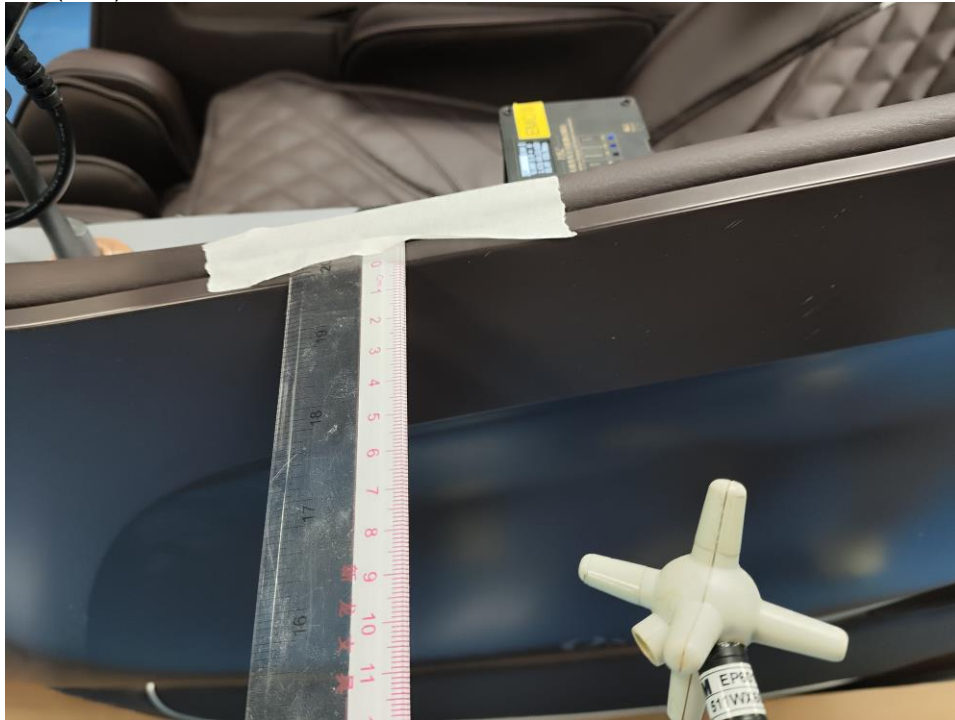
A

For Full load mode(12cm)



A

For Full load mode(8cm)



C

For Full load mode(10cm)



C

For Full load mode(12cm)



C

For Full load mode(8cm)



E

For Full load mode(10cm)



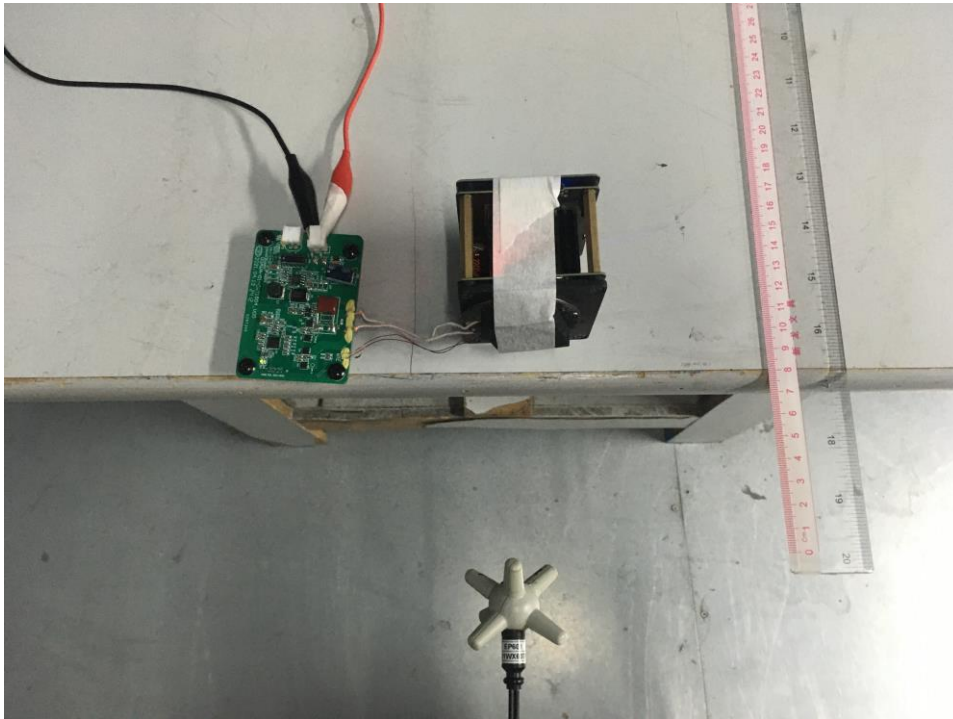
E

For Full load mode(12cm)



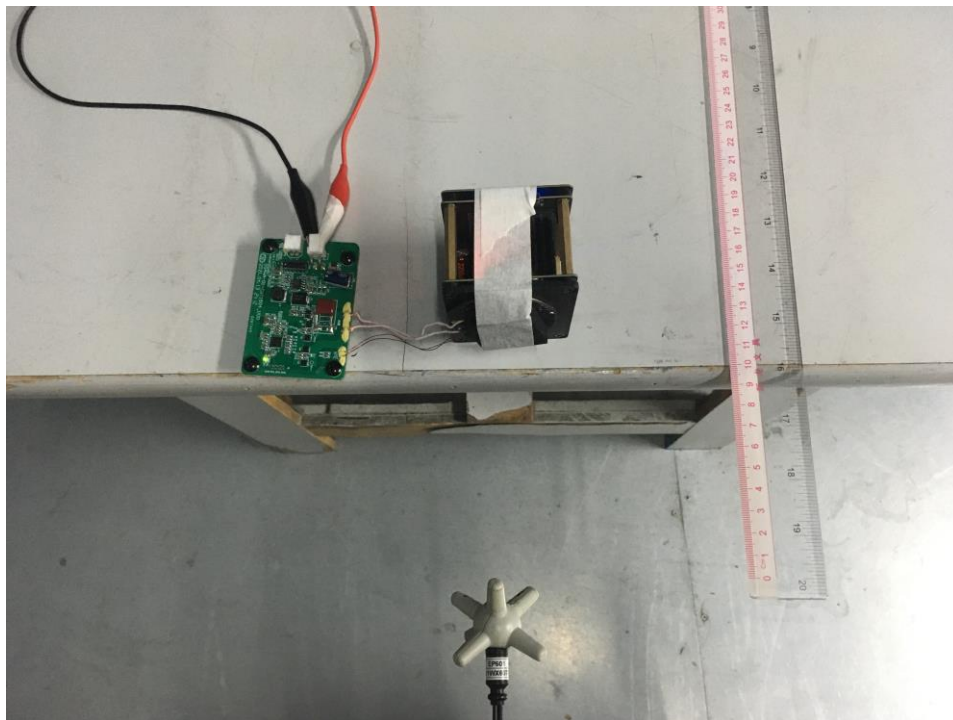
E

For Full load mode(8cm)



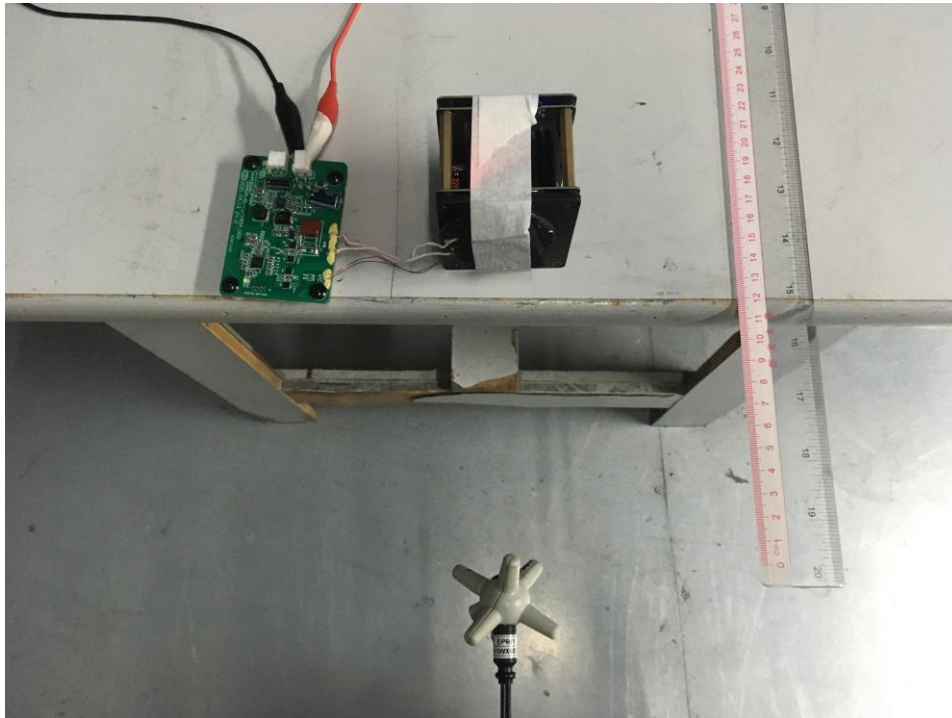
F

For Full load mode(10cm)



F

For Full load mode(12cm)



F

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