



FCC TEST REPORT

FCC ID: YMX-EC8507B

On Behalf of

XIAMEN COMFORT SCIENCE & TECHNOLOGY GROUP CO., LTD.

Massage Chair

Model No.: EC-8507B, 4D Manhattan 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 | : A2406240-C01-R01 |
| Date of Receipt | : July 3, 2024 |
| Date of Test | : July 10, 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-8507B, 4D Manhattan 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



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

Jack Xu
Project Manager



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-8507B, 4D Manhattan Duo

DIFF : There is no difference except the name of the model. All tests are made with the 4D Manhattan 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

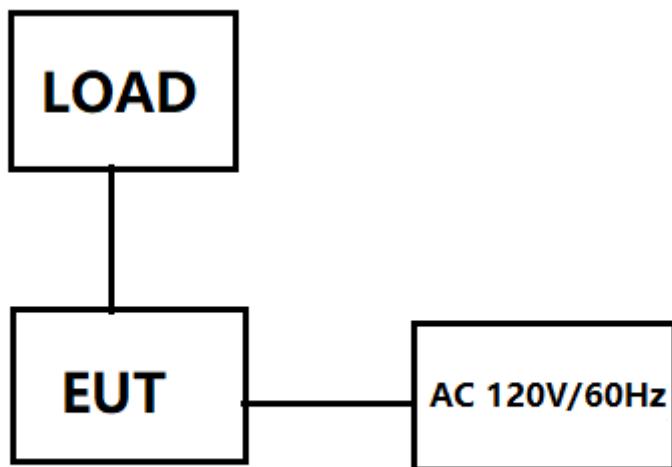
2.2. Accessories of Device (EUT)

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 | 143 |

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

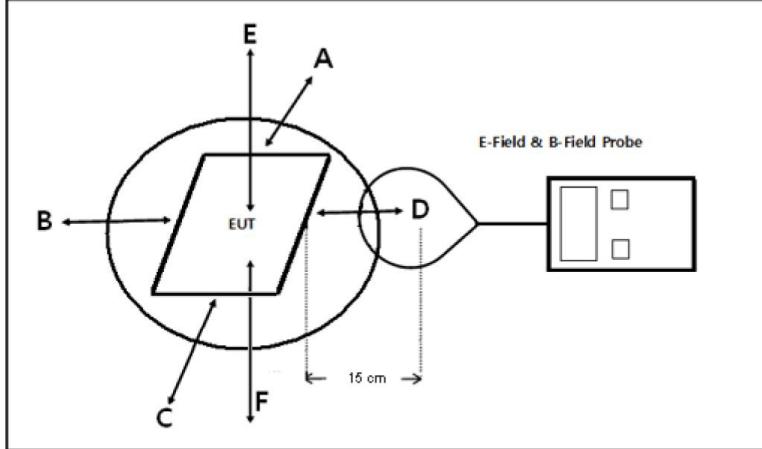
(95% confidence levels, k=2)

| 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 | 1 Year |
| 2 | Magnetic field probe 100cm2 | narda | ELT probe 100cm2 | N/A | M0675 | 2024.08.14 | 1 Year |
| 3 | Isotropic Electric Field Probe | narda | EP-601 | N/A | 511WX60706 | 2024.08.20 | 1 Year |

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 | 2.274 | / | 2.682 | / | 2.710 | 2.813 | 307 | 614 |

H-Field 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 | 0.800 | / | 0.795 | / | 0.784 | 0.806 | 0.815 | 1.63 |
| 0.110-0.205 | 1.000 | / | 0.994 | / | 0.980 | 1.008 | 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 | 2.268 | / | 2.701 | / | 2.705 | 2.814 | 307 | 614 |

H-Field 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 | 0.793 | / | 0.791 | / | 0.779 | 0.799 | 0.815 | 1.63 |
| 0.110-0.205 | 0.991 | / | 0.989 | / | 0.974 | 0.999 | 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 | 2.252 | / | 2.715 | / | 2.699 | 2.824 | 307 | 614 |

H-Field 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 | 0.789 | / | 0.761 | / | 0.774 | 0.796 | 0.815 | 1.63 |
| 0.110-0.205 | 0.986 | / | 0.951 | / | 0.967 | 0.995 | 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 | 2.003 | / | 2.076 | / | 2.022 | 2.082 | 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 | 0.783 | / | 0.794 | / | 0.778 | 0.788 | 0.815 | 1.63 |
| 0.110-0.205 | 0.979 | / | 0.992 | / | 0.973 | 0.985 | 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 | 1.970 | / | 1.997 | / | 1.919 | 2.014 | 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 | 0.744 | / | 0.736 | / | 0.757 | 0.724 | 0.815 | 1.63 |
| 0.110-0.205 | 0.930 | / | 0.920 | / | 0.946 | 0.905 | 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 | 1.891 | / | 1.908 | / | 1.823 | 1.939 | 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 | 0.723 | / | 0.698 | / | 0.725 | 0.704 | 0.815 | 1.63 |
| 0.110-0.205 | 0.904 | / | 0.873 | / | 0.906 | 0.880 | 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)



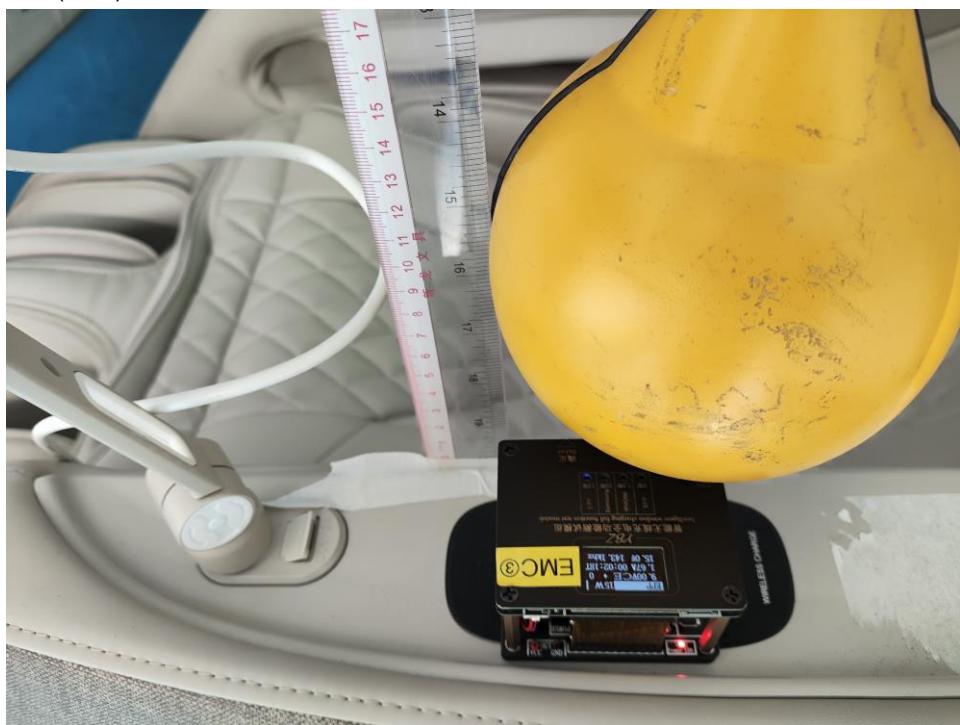
C

For Full load mode(12cm)



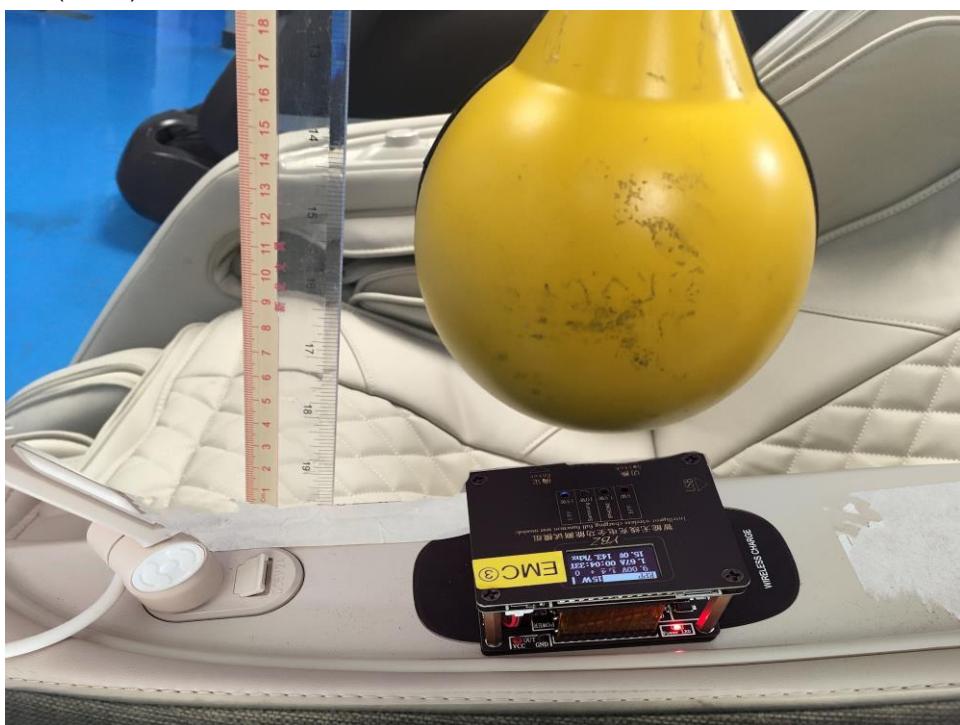
C

For Full load mode(8cm)



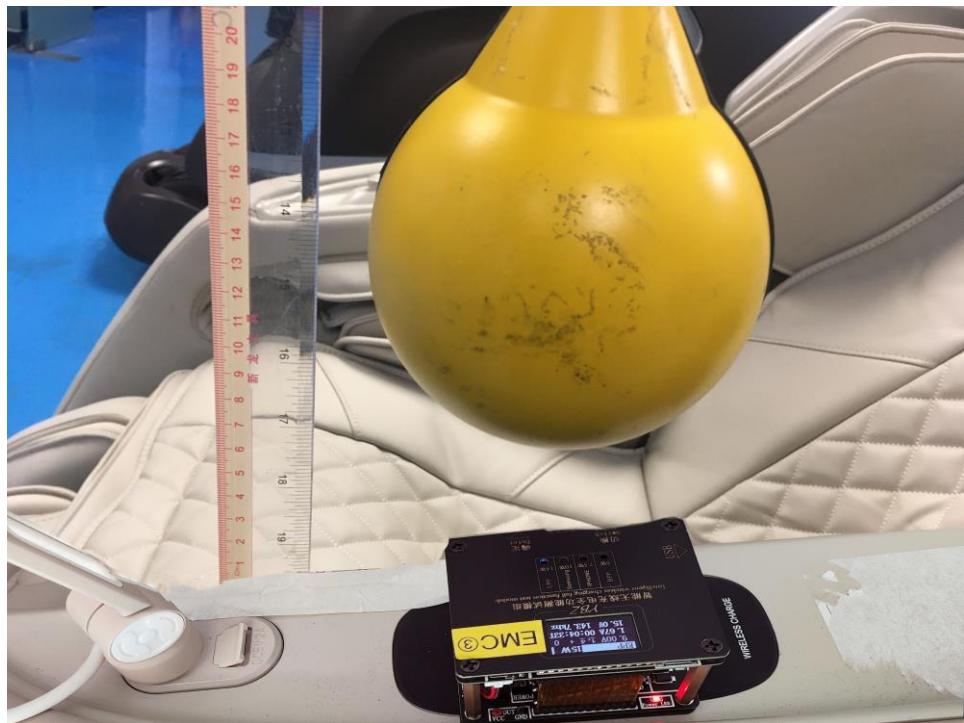
E

For Full load mode(10cm)



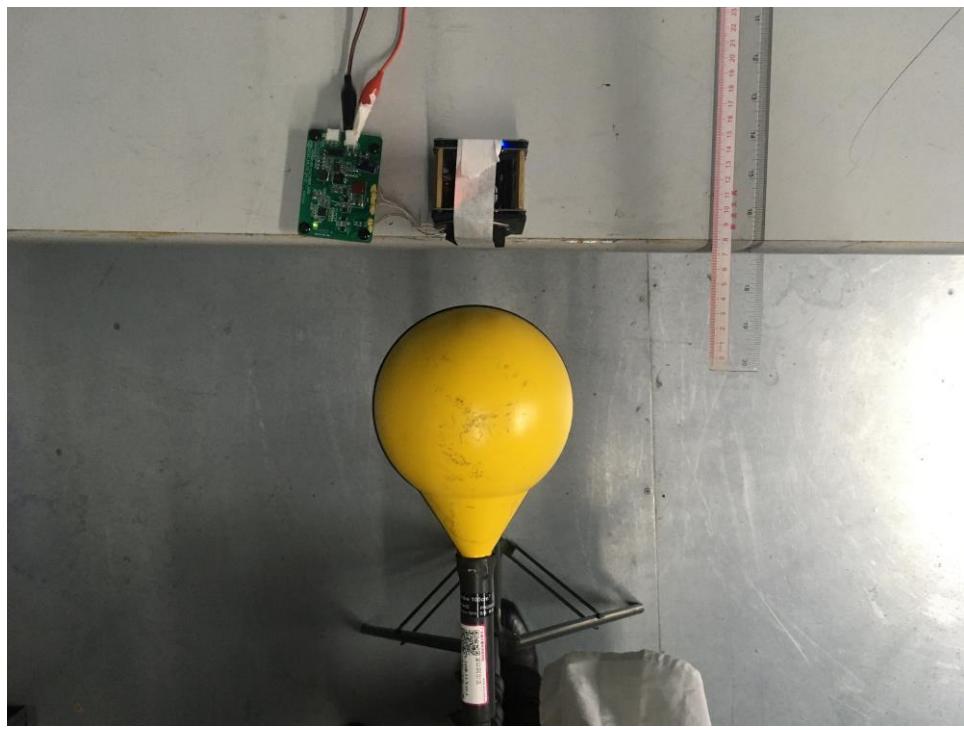
E

For Full load mode(12cm)



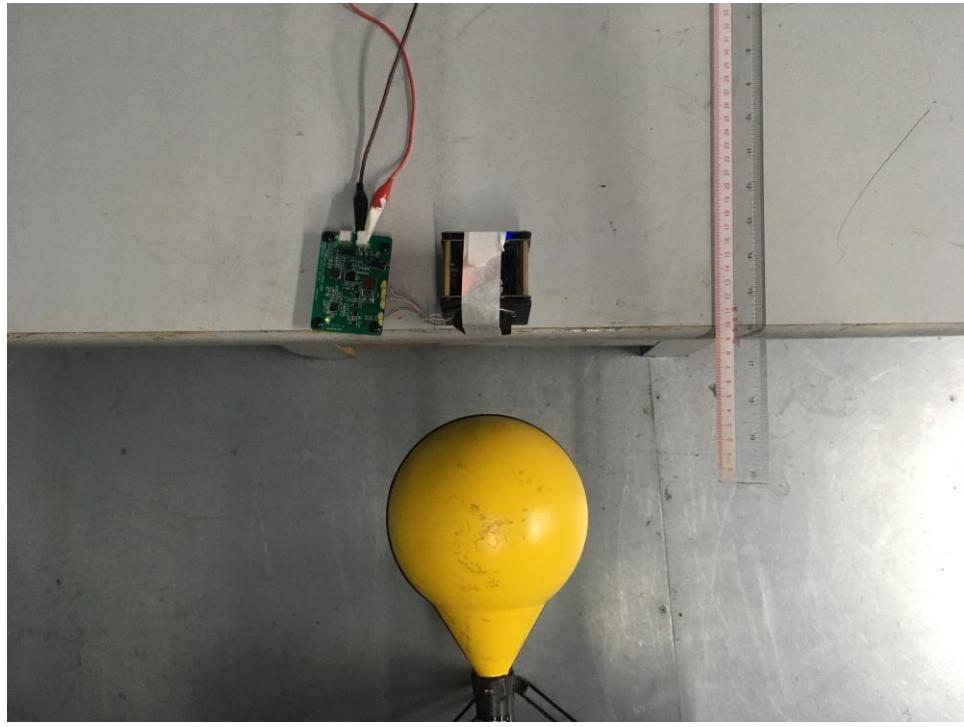
E

For Full load mode(8cm)



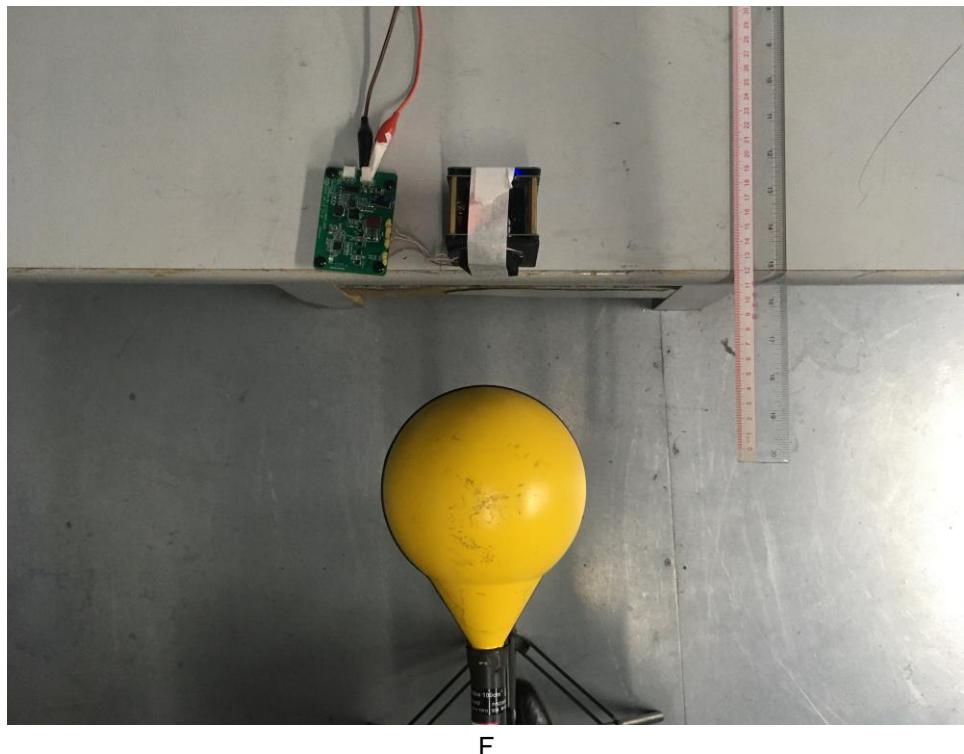
F

For Full load mode(10cm)



F

For Full load mode(12cm)



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)



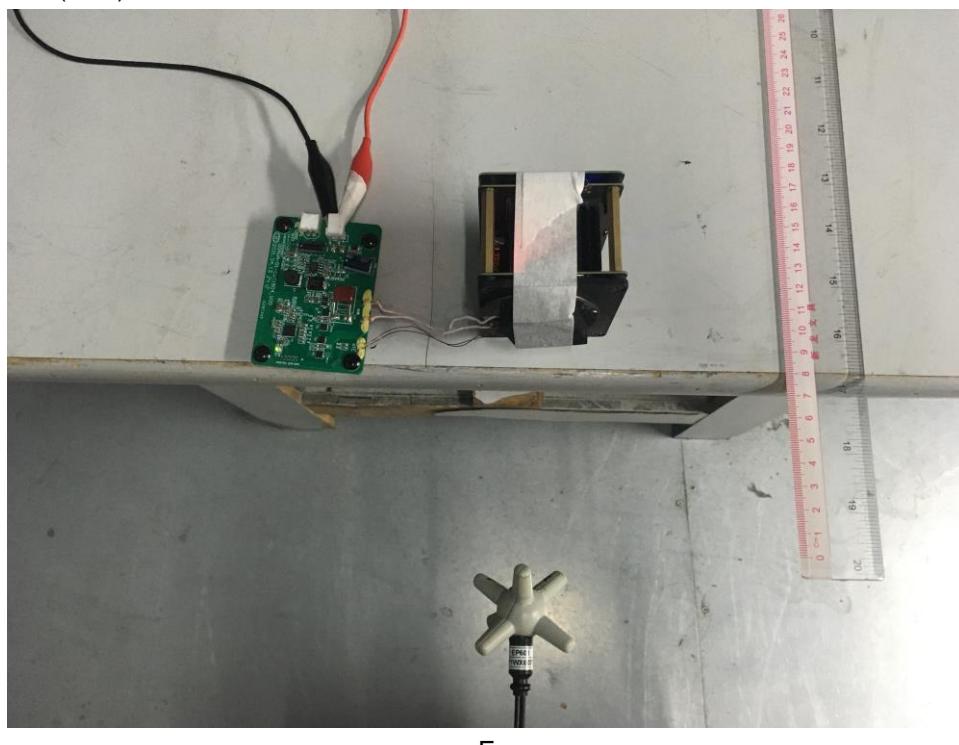
E

For Full load mode(12cm)



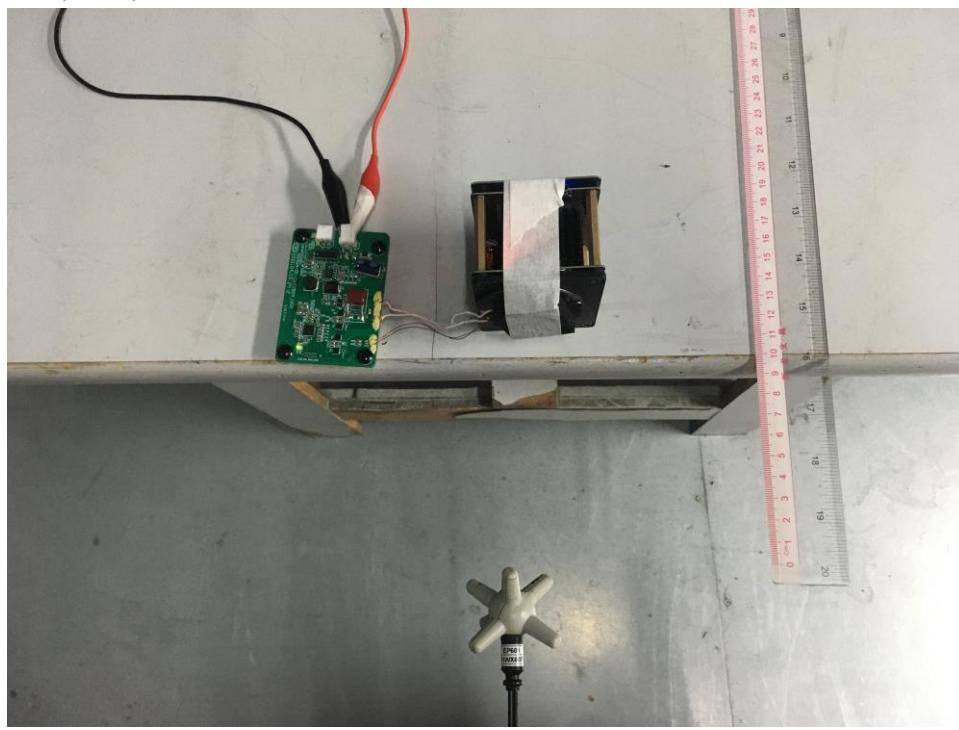
E

For Full load mode(8cm)



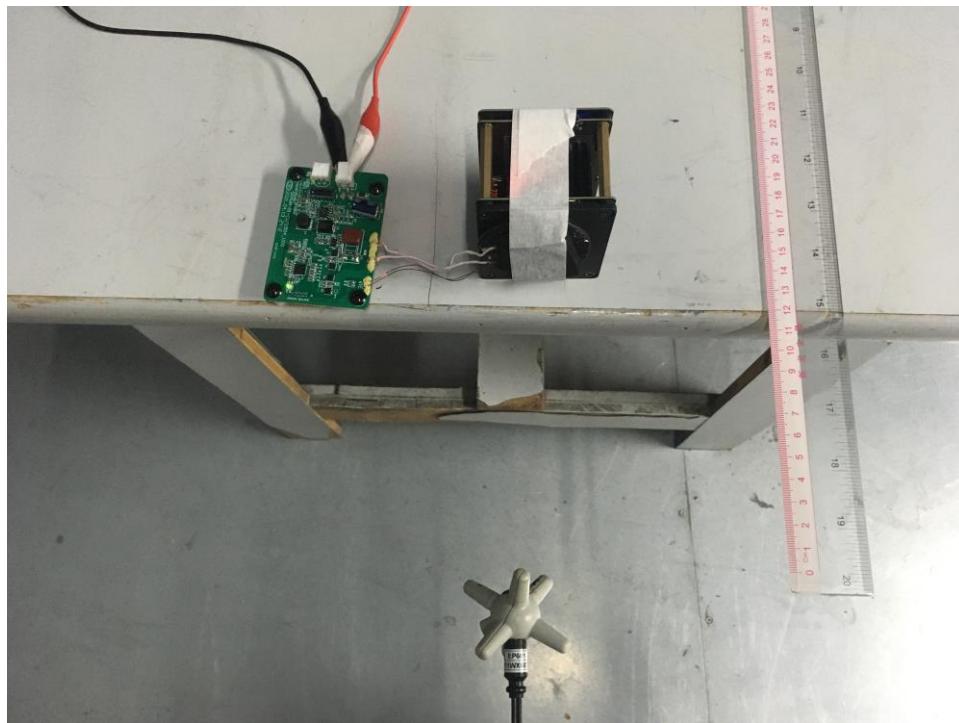
F

For Full load mode(10cm)



F

For Full load mode(12cm)



F

-----END OF REPORT-----