

# Ottlite Technologies Inc.

# TEST REPORT

**SCOPE OF WORK**

SAR Assessment– HZ-X16C, HZ-X8C, HZ-X21C

**REPORT NUMBER**

241220025SZN-002

**ISSUE DATE**

21 January 2025

**[REVISED DATE]**

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**PAGES**

14

**DOCUMENT CONTROL NUMBER**

RF Exposure

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## Test Report

|                     |   |                                                                                                                                                     |
|---------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicant           | : | Ottlite Technologies Inc.<br>1715 N Westshore Blvd, Suite 950, Tampa, FL 33607,USA                                                                  |
| Manufacturer        | : | Ottlite Technologies Inc.<br>1715 N Westshore Blvd, Suite 950, Tampa, FL 33607,USA                                                                  |
| FCC ID              | : | 2AI7B-1-HZ-X16C                                                                                                                                     |
| Sample Descriptio   | : | LED table lamp with Wireless Charging                                                                                                               |
| Product Model No.   | : | HZ-X16C, HZ-X8C, HZ-X21C                                                                                                                            |
| Brand Name          | : |                                                                    |
| Electrical Rating   | : | DC 12V, 2.0A from adapter<br>Wireless charging output: 5W                                                                                           |
| Date Received       | : | 20 December 2024                                                                                                                                    |
| Date Test Conducted | : | 20 December 2024 to 09 January 2025                                                                                                                 |
| Test Requested      | : | Test for compliance with CFR 47 part 1                                                                                                              |
| Test Method         | : | Environmental evaluation and exposure limit according to FCC CFR 47 part 1, 1.1307(c) and (d), 1.1310<br>KDB 680106 D01 Wireless Power Transfer v04 |
| Test Result         | : | Pass                                                                                                                                                |
| Conclusion          | : | When determining of test conclusion, measurement uncertainty of tests have been considered.                                                         |

Prepared and Checked By:



**Tony Tang**  
Engineer

Approved By:

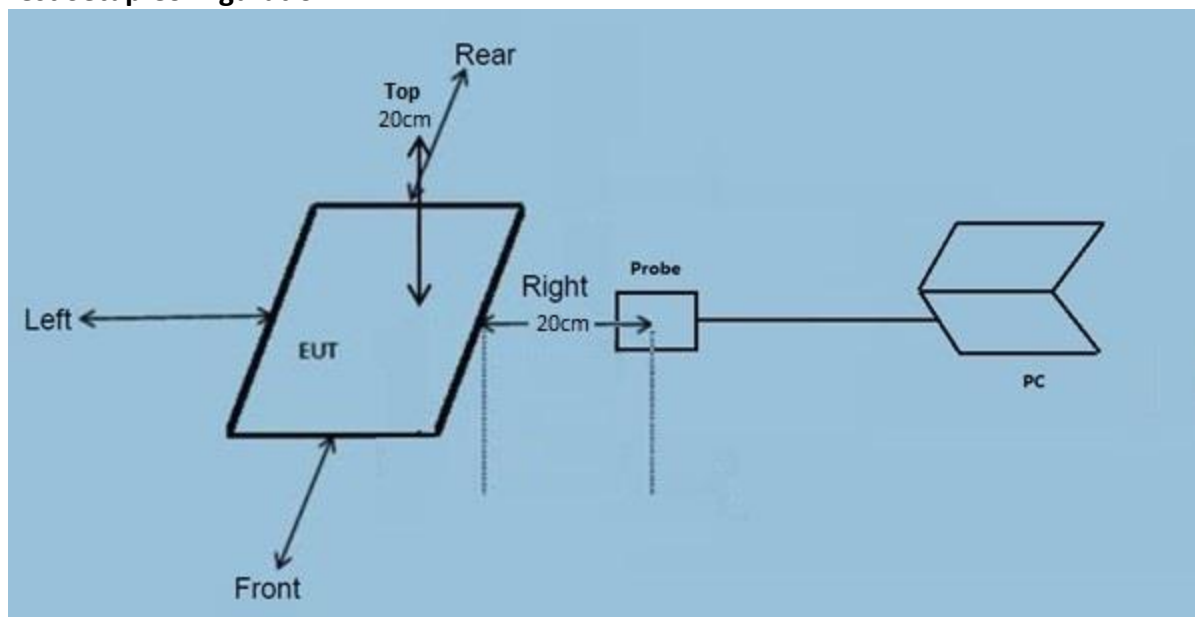


**Johnny Wang**  
Project Engineer  
Date: 21 January 2025

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## Test Report

### Test Setup Configuration



#### Note

- The RF exposure test is performed in the shield room.
- The test distance is between the edge of the charger and the geometric centre of probe.

### Test Equipment List

| Equipment No. | Equipment                                        | Manufacturer | Model No.      | Cal. Date  | Due Date   |
|---------------|--------------------------------------------------|--------------|----------------|------------|------------|
| SZ186-06      | The Magnetic Amplitude and Gradient Probe System | SPEAG        | MAGPy-8H3D+E3D | 2024-03-07 | 2025-03-07 |

### This product was tested in the following configuration:

| Description  | Manufacturer                      | Detail                                                                           |
|--------------|-----------------------------------|----------------------------------------------------------------------------------|
| Mobile Phone | Apple<br>(Provided by Intertek)   | iPhone 14Pro                                                                     |
| Mobile Phone | Samsung<br>(Provided by Intertek) | Samsung S7                                                                       |
| Adapter      | (Provided by applicant)           | Model: TY1200200A1mn<br>Input: 100-240V~, 50/60Hz, 0.8A<br>Output: DC 12.0V/2.0A |

**Test Facility**

The Semi-Anechoic chamber and shield room used to collect the radiated data and conducted data are Intertek Testing Services Shenzhen Ltd. Longhua Branch and located at 101, 201, Building B, No. 308 Wuhe Avenue, Zhangkengjing Community, GuanHu Subdistrict, LongHua District, ShenZhen. This test facility and site measurement data have been fully placed on file with File Number: CN1188.

**Justification**

| <b>Pertest mode</b> | <b>Description</b>                            |
|---------------------|-----------------------------------------------|
| Mode 1              | Standby mode                                  |
| Mode 2              | Mobile phone is charging at 1% battery power  |
| Mode 3              | Mobile phone is charging at 50% battery power |
| Mode 4              | Mobile phone is charging at 99% battery power |

**Remark:**

1. The EUT was powered by an adapter with AC 120V, 60Hz input during the test. The test system was pre-scanning tested based on the consideration of following EUT operation mode. and only the worst-case data was shown in this report.
2. Model: HZ-X8C, HZ-X21C Wireless charging hardware and circuit are the same as model: HZ-X16C. The difference between them is that the main control circuit, LED circuit and appearance are different.

**Reference Limit:**

**Environmental evaluation and exposure limit according to FCC CFR 47 part 1, 1.1307(c) and (d), 1.1310**

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation.

**LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)**

| Frequency Range (MHz)                                   | Electric Field strength (V/m) | Magnetic Field Strength (A/m) | Power Density (mW/cm <sup>2</sup> ) | Average Time (minutes) |
|---------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------------|------------------------|
| (A) Limits for Occupational/Controlled Exposure         |                               |                               |                                     |                        |
| 0.3 – 3.0                                               | 614                           | 1.63                          | (100) *                             | 6                      |
| (B) Limits for General Population/Uncontrolled Exposure |                               |                               |                                     |                        |
| 0.3 – 1.34                                              | 614                           | 1.63                          | (100) *                             | 30                     |

Note: \* = Plane wave equivalent power density

**Test Result:**

**During test, the mobile is being charged.**

**Worst Case Operating Mode: Mode 2**

**HZ-X16C**

**Test Result for wireless power transmit part:**

**H-Field Strength at 20 cm surrounding the EUT and 20cm above the top surface of the EUT**

| Frequency Range (MHz) | EUT Operation mode | Probe Position Front (A/m) | Probe Position Rear (A/m) | Probe Position Left (A/m) | Probe Position Right (A/m) | Probe Position Top (A/m) | Limits (A/m) |
|-----------------------|--------------------|----------------------------|---------------------------|---------------------------|----------------------------|--------------------------|--------------|
| 0.111-0.205           | 1% Battery Level   | 0.01                       | 0.01                      | 0.01                      | 0.02                       | <b>0.07</b>              | 1.63         |
| 0.111-0.205           | 50% Battery Level  | 0.01                       | 0.01                      | 0.02                      | 0.02                       | 0.06                     | 1.63         |
| 0.111-0.205           | 99% Battery Level  | 0.02                       | 0.01                      | 0.01                      | 0.03                       | 0.06                     | 1.63         |
| 0.111-0.205           | Stand-by           | 0.01                       | 0.01                      | 0.01                      | 0.01                       | 0.04                     | 1.63         |

**E-Field Strength at 20 cm surrounding the EUT and 20cm above the top surface of the EUT**

| Frequency Range (MHz) | EUT Operation mode | Probe Position Front (V/m) | Probe Position Rear (V/m) | Probe Position Left (V/m) | Probe Position Right (V/m) | Probe Position Top (V/m) | Limits (V/m) |
|-----------------------|--------------------|----------------------------|---------------------------|---------------------------|----------------------------|--------------------------|--------------|
| 0.111-0.205           | 1% Battery Level   | <b>1.06</b>                | 0.67                      | 1.00                      | 1.02                       | 0.08                     | 614          |
| 0.111-0.205           | 50% Battery Level  | 1.03                       | 0.63                      | 1.02                      | 1.03                       | 0.08                     | 614          |
| 0.111-0.205           | 99% Battery Level  | 1.05                       | 0.61                      | 1.04                      | 1.01                       | 0.06                     | 614          |
| 0.111-0.205           | Stand-by           | 1.01                       | 0.59                      | 0.96                      | 0.93                       | 0.05                     | 614          |

**HZ-X8C**
**Test Result for wireless power transmit part:**
**H-Field Strength at 20 cm surrounding the EUT and 20cm above the top surface of the EUT**

| Frequency Range (MHz) | EUT Operation mode | Probe Position Front (A/m) | Probe Position Rear (A/m) | Probe Position Left (A/m) | Probe Position Right (A/m) | Probe Position Top (A/m) | Limits (A/m) |
|-----------------------|--------------------|----------------------------|---------------------------|---------------------------|----------------------------|--------------------------|--------------|
| 0.111-0.205           | 1% Battery Level   | 0.03                       | 0.02                      | 0.01                      | 0.04                       | <b>0.06</b>              | 1.63         |
| 0.111-0.205           | 50% Battery Level  | 0.02                       | 0.02                      | 0.02                      | 0.02                       | 0.04                     | 1.63         |
| 0.111-0.205           | 99% Battery Level  | 0.01                       | 0.01                      | 0.02                      | 0.02                       | 0.05                     | 1.63         |
| 0.111-0.205           | Stand-by           | 0.01                       | 0.01                      | 0.01                      | 0.01                       | 0.04                     | 1.63         |

**E-Field Strength at 20 cm surrounding the EUT and 20cm above the top surface of the EUT**

| Frequency Range (MHz) | EUT Operation mode | Probe Position Front (V/m) | Probe Position Rear (V/m) | Probe Position Left (V/m) | Probe Position Right (V/m) | Probe Position Top (V/m) | Limits (V/m) |
|-----------------------|--------------------|----------------------------|---------------------------|---------------------------|----------------------------|--------------------------|--------------|
| 0.111-0.205           | 1% Battery Level   | 1.02                       | 0.56                      | 1.00                      | <b>1.06</b>                | 0.06                     | 614          |
| 0.111-0.205           | 50% Battery Level  | 1.01                       | 0.53                      | 1.01                      | 0.95                       | 0.03                     | 614          |
| 0.111-0.205           | 99% Battery Level  | 1.02                       | 0.49                      | 0.93                      | 1.05                       | 0.04                     | 614          |
| 0.111-0.205           | Stand-by           | 0.89                       | 0.45                      | 0.91                      | 0.92                       | 0.02                     | 614          |

**HZ-X21C**
**Test Result for wireless power transmit part:**
**H-Field Strength at 20 cm surrounding the EUT and 20cm above the top surface of the EUT**

| Frequency Range (MHz) | EUT Operation mode | Probe Position Front (A/m) | Probe Position Rear (A/m) | Probe Position Left (A/m) | Probe Position Right (A/m) | Probe Position Top (A/m) | Limits (A/m) |
|-----------------------|--------------------|----------------------------|---------------------------|---------------------------|----------------------------|--------------------------|--------------|
| 0.111-0.205           | 1% Battery Level   | 0.03                       | 0.02                      | 0.01                      | 0.04                       | <b>0.07</b>              | 1.63         |
| 0.111-0.205           | 50% Battery Level  | 0.03                       | 0.01                      | 0.03                      | 0.03                       | 0.07                     | 1.63         |
| 0.111-0.205           | 99% Battery Level  | 0.02                       | 0.02                      | 0.02                      | 0.04                       | 0.05                     | 1.63         |
| 0.111-0.205           | Stand-by           | 0.01                       | 0.01                      | 0.01                      | 0.02                       | 0.03                     | 1.63         |

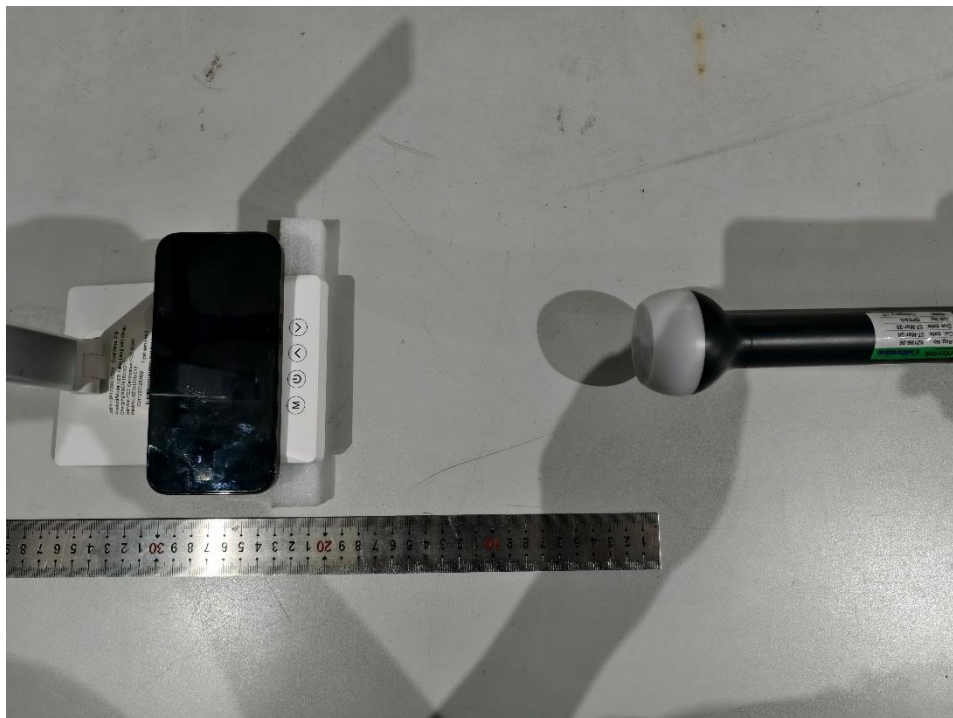
**E-Field Strength at 20 cm surrounding the EUT and 20cm above the top surface of the EUT**

| Frequency Range (MHz) | EUT Operation mode | Probe Position Front (V/m) | Probe Position Rear (V/m) | Probe Position Left (V/m) | Probe Position Right (V/m) | Probe Position Top (V/m) | Limits (V/m) |
|-----------------------|--------------------|----------------------------|---------------------------|---------------------------|----------------------------|--------------------------|--------------|
| 0.111-0.205           | 1% Battery Level   | <b>1.23</b>                | 0.65                      | 1.13                      | 1.11                       | 0.07                     | 614          |
| 0.111-0.205           | 50% Battery Level  | 1.15                       | 0.62                      | 1.02                      | 1.13                       | 0.13                     | 614          |
| 0.111-0.205           | 99% Battery Level  | 1.06                       | 0.64                      | 1.03                      | 1.03                       | 0.12                     | 614          |
| 0.111-0.205           | Stand-by           | 0.93                       | 0.53                      | 0.91                      | 0.97                       | 0.06                     | 614          |

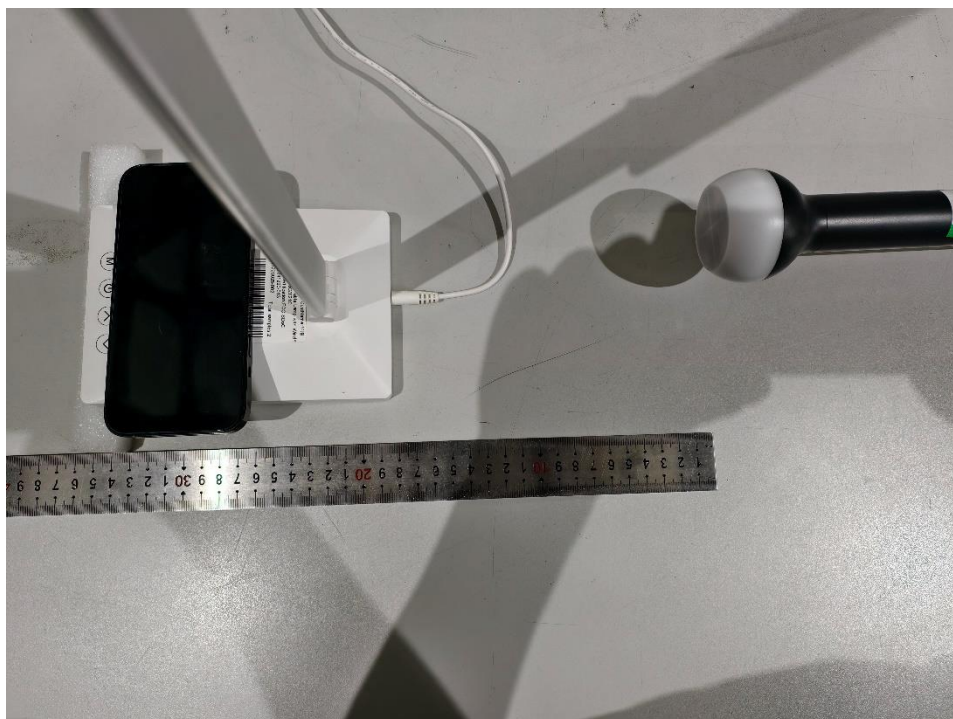
**Configuration photo of the test:**

**HZ-X16C**

**Front**



**Rear**



Left



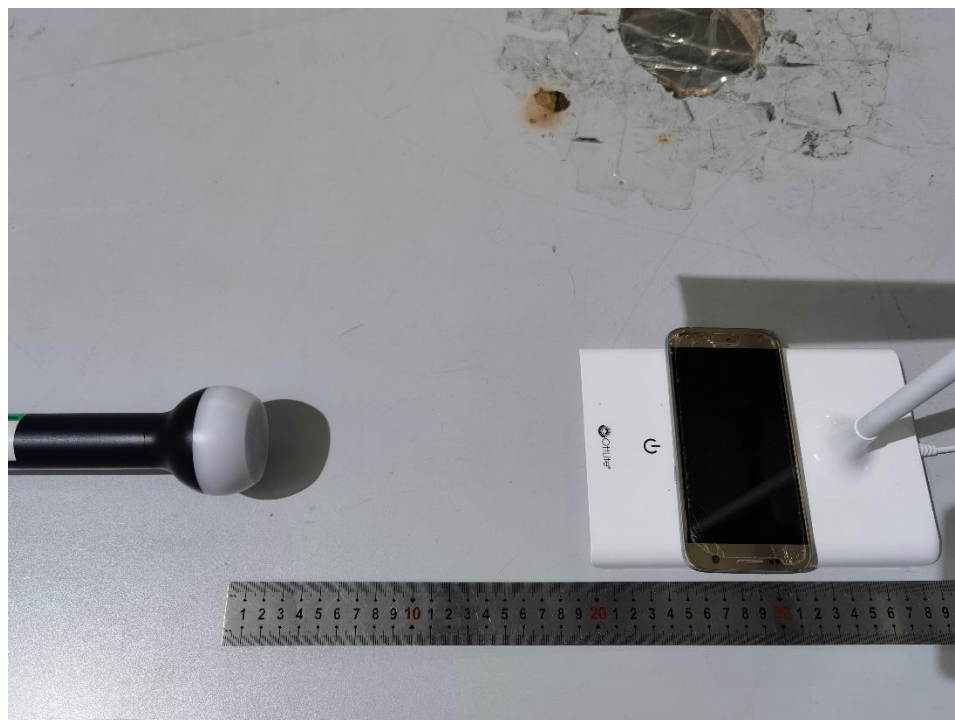
Right



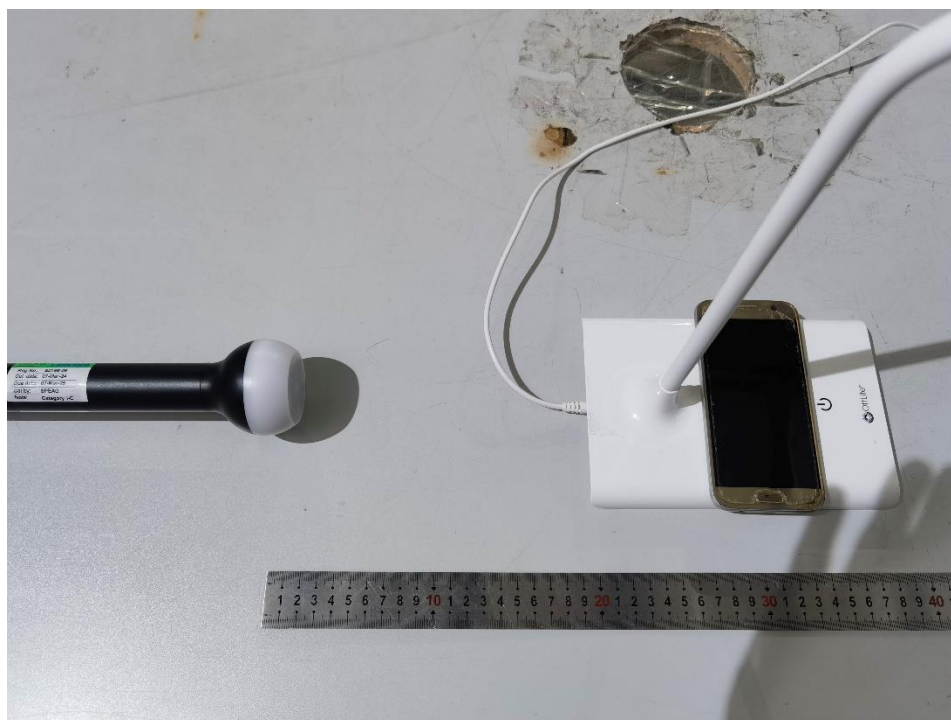
Top

**HZ-X8C**

Front



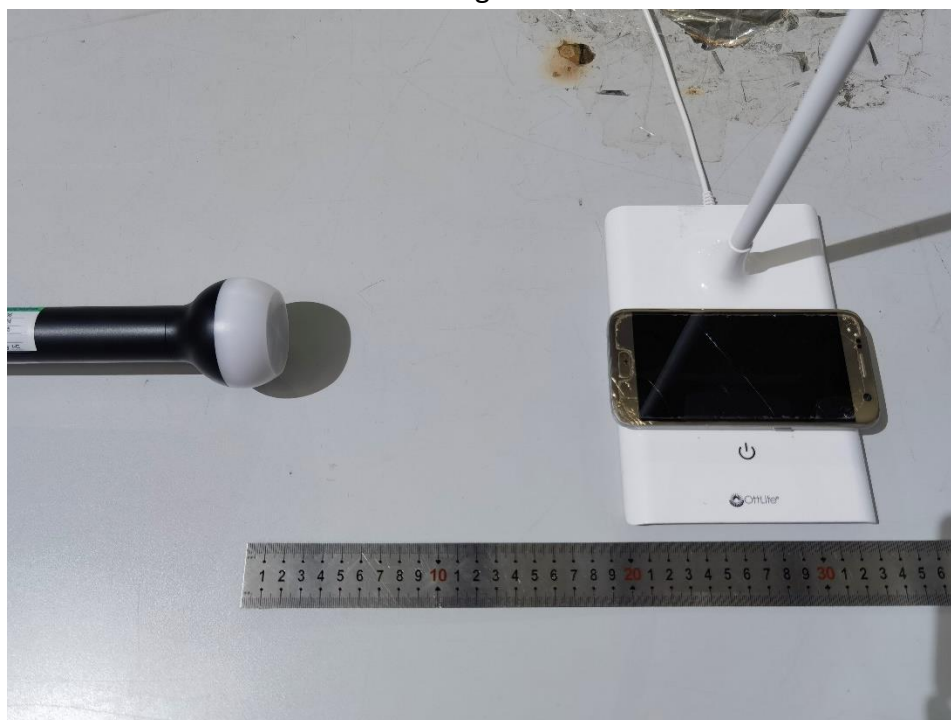
Rear



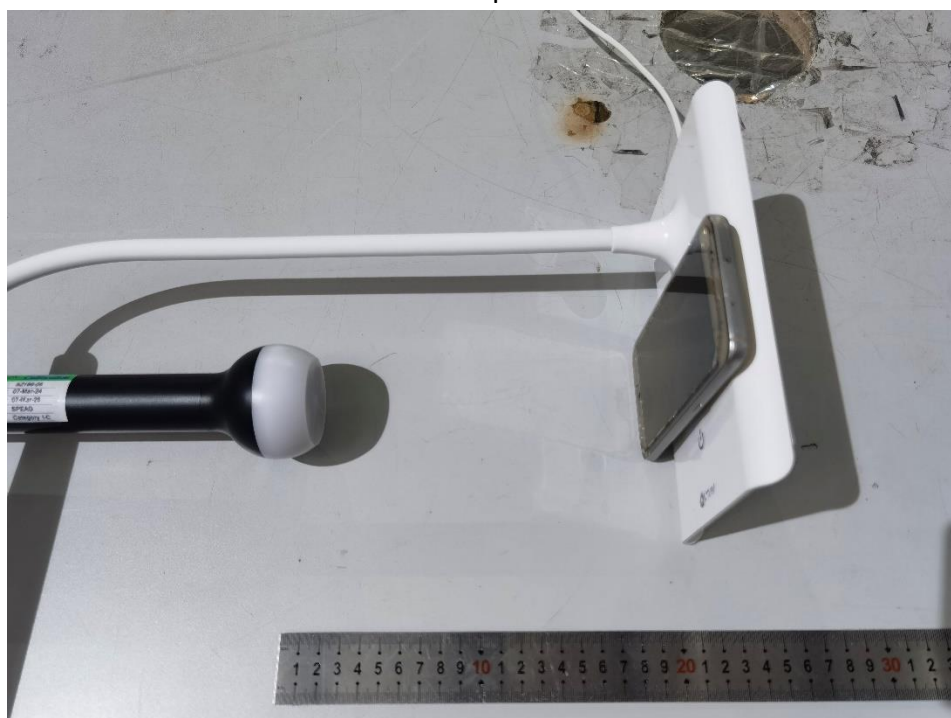
Left



Right

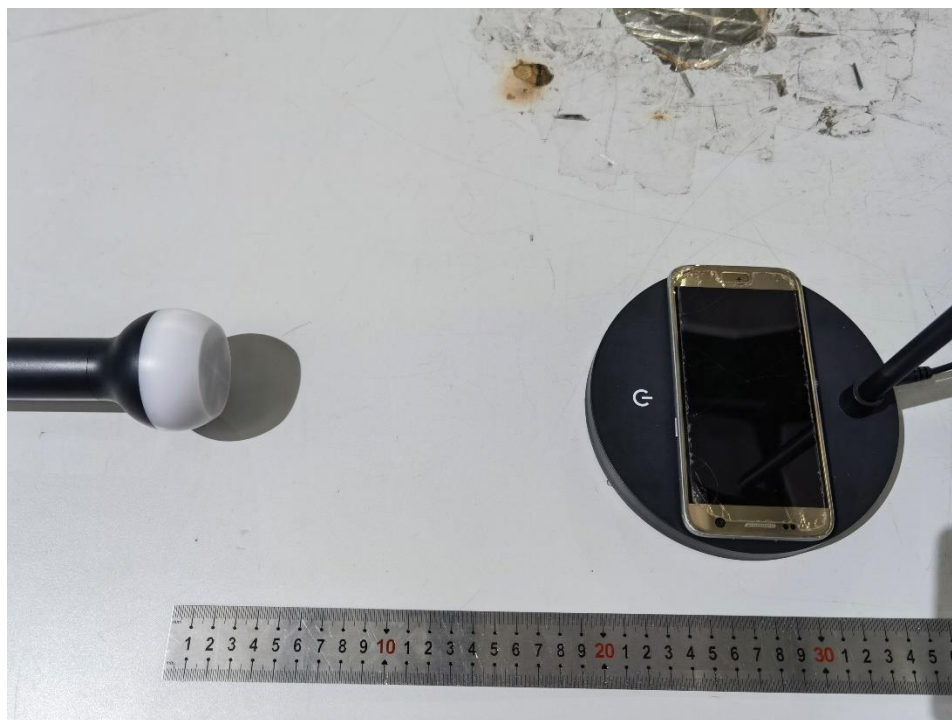


Top



## HZ-X21C

### Front



### Rear



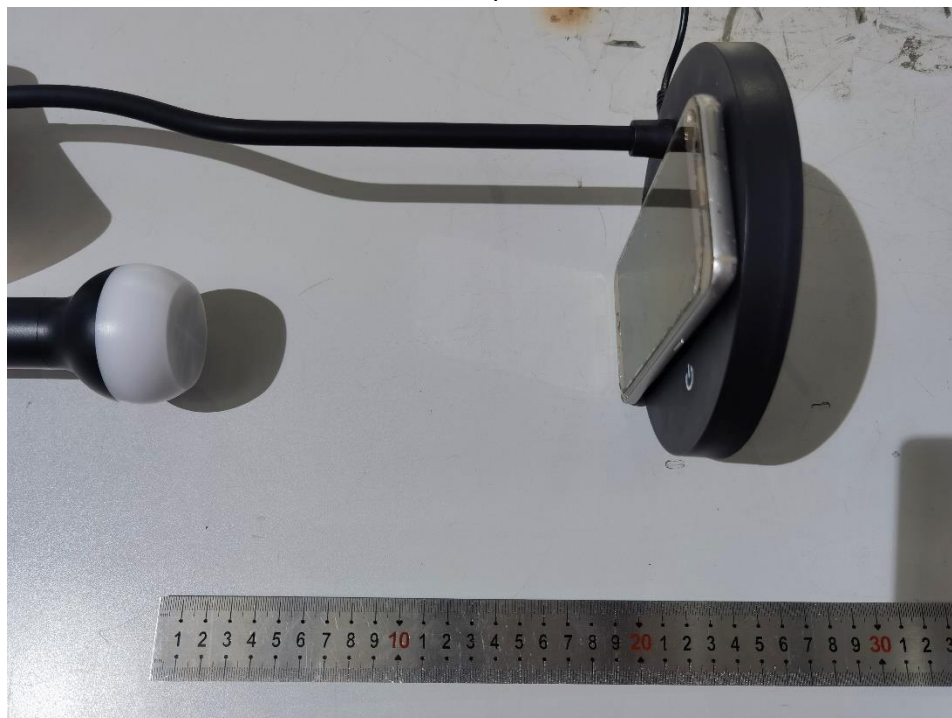
Left



Right



Top



\*\*\*\*\* End of Report\*\*\*\*\*