

Ottlite Technologies Inc.

TEST REPORT

SCOPE OF WORK

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

REPORT NUMBER

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ISSUE DATE

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RF Exposure

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Test Report

Applicant : Ottlite Technologies Inc.
1715 N Westshore Blvd, Suite 950, Tampa, FL 33607, USA

Manufacturer : Ottlite Technologies Inc.
1715 N Westshore Blvd, Suite 950, Tampa, FL 33607, USA

FCC ID : 2AI7B-1-HZ-X16C

Sample Description : 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
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
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

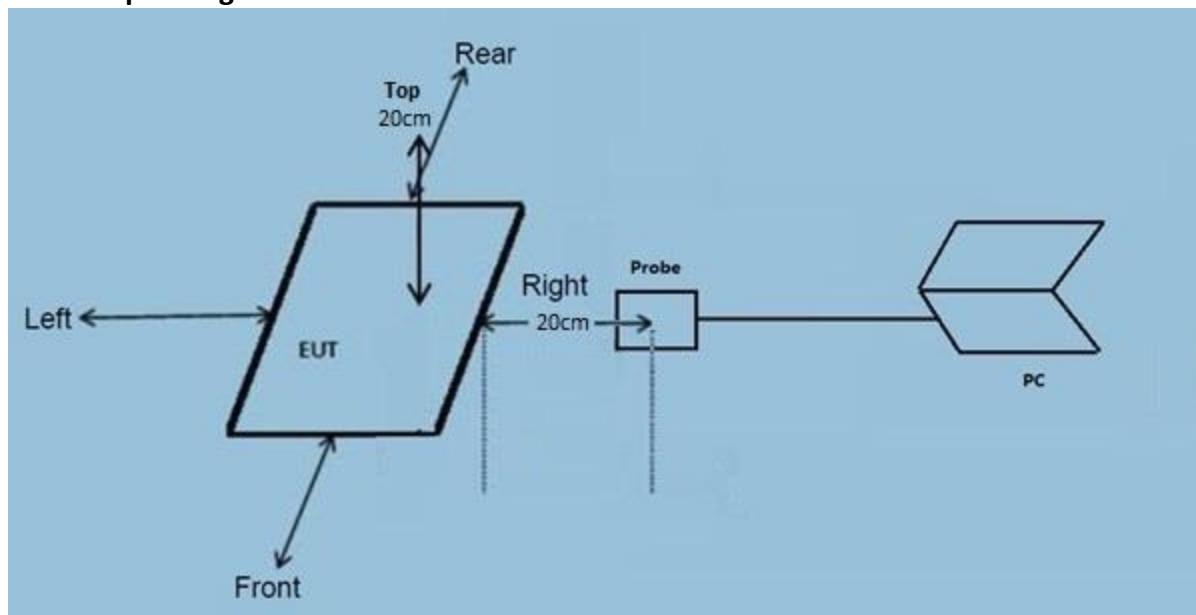
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Intertek Testing Services Shenzhen Ltd. Longhua Branch

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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 (Provided by Intertek)	iPhone 14Pro
Mobile Phone	Samsung (Provided by Intertek)	Samsung S7
Adapter	(Provided by applicant)	Model: TY1200200A1mn Input: 100-240V~, 50/60Hz, 0.8A 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

Pertest mode	Description
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 ²)	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	0.07	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	1.06	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	0.06	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	1.06	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	0.07	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	1.23	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

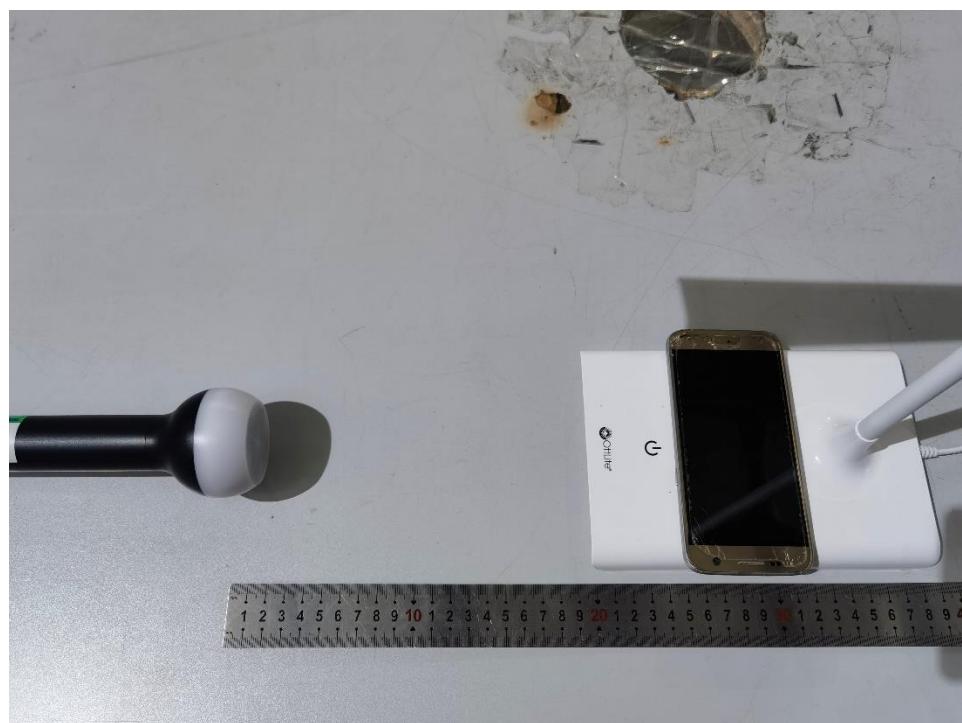


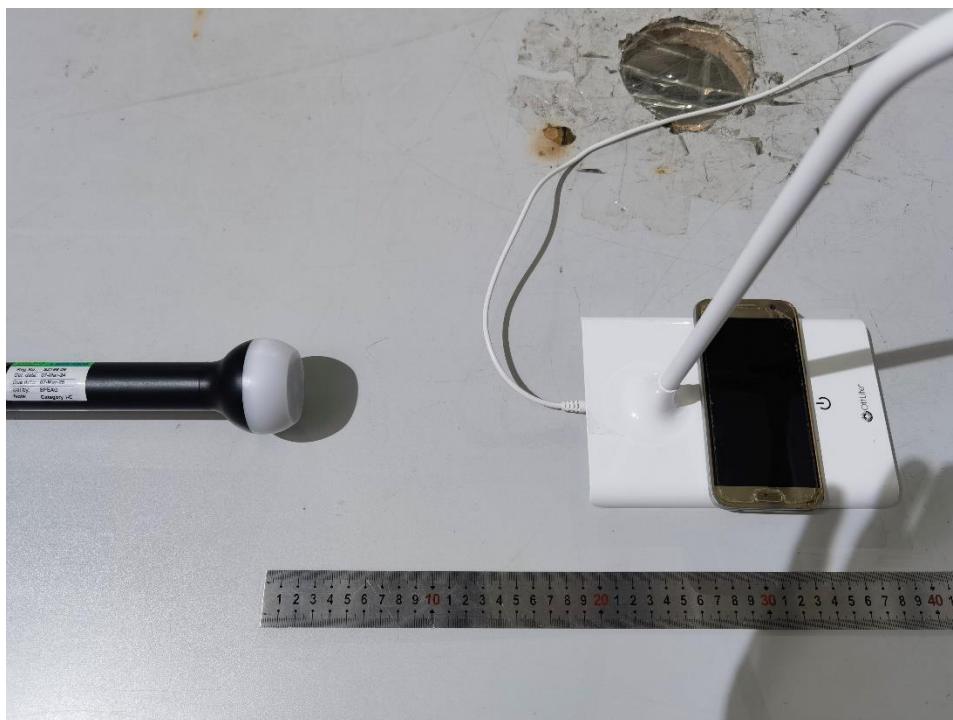
Top



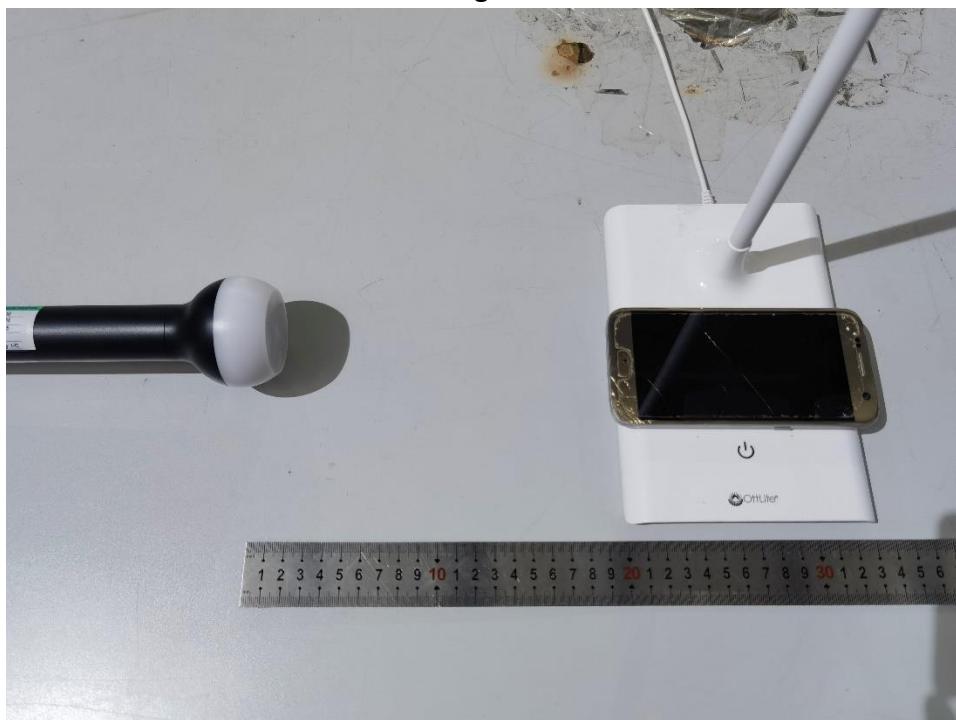
Hz-X8C

Front



Rear**Left**

Right



Top



HZ-X21C

Front



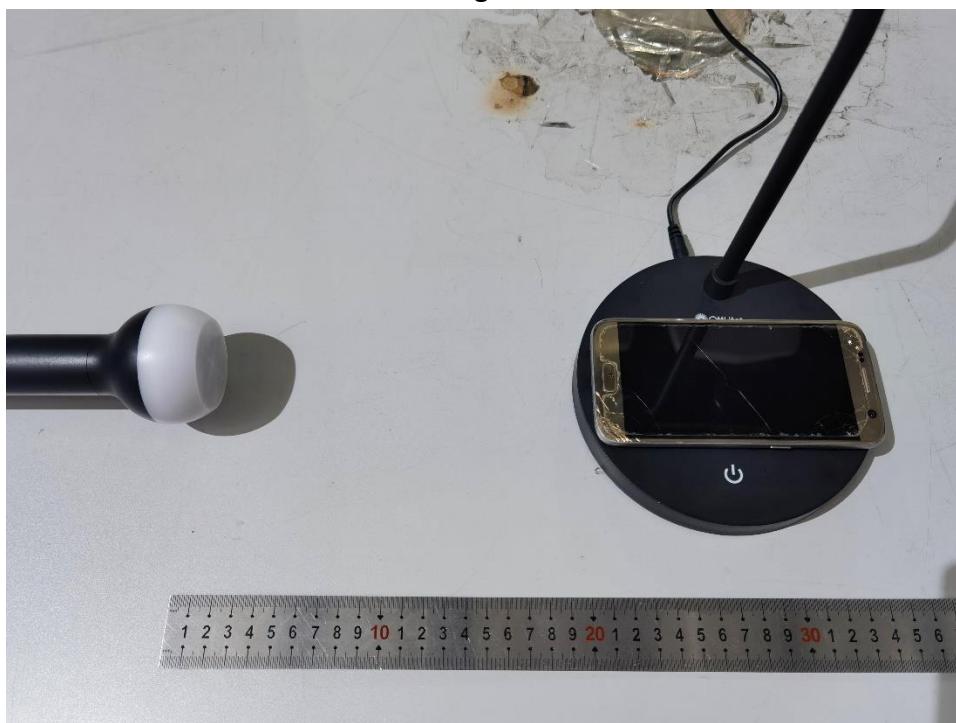
Rear



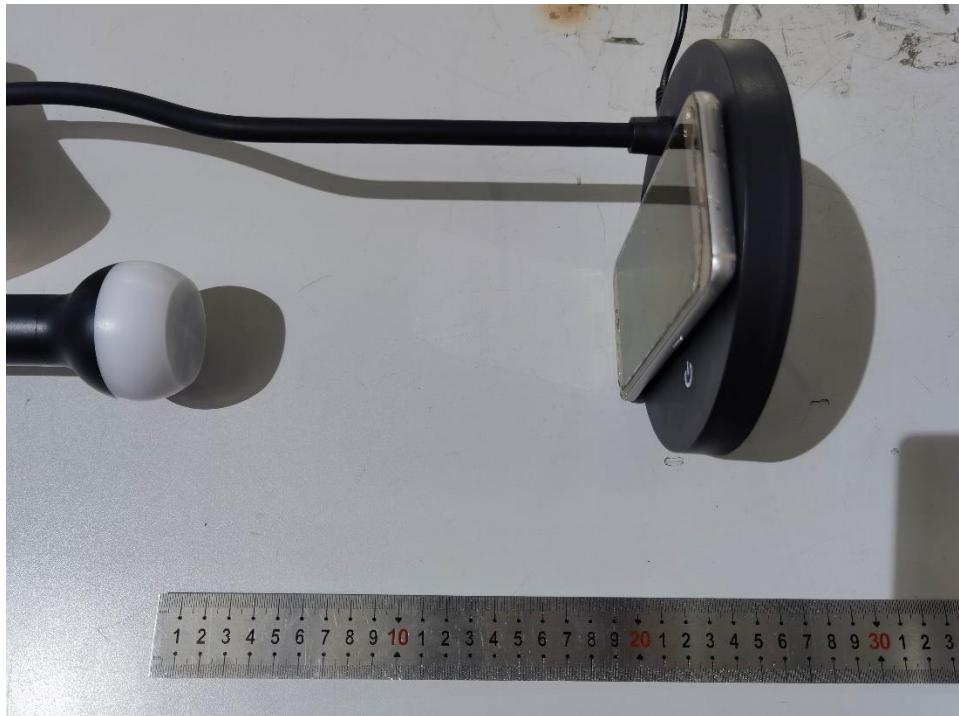
Left



Right



Top



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