



# **FCC TEST REPORT**

**FCC ID: 2AFJVHZ-PL5**

On Behalf of

ShenZhen HuaZeng Technology Co., Ltd

UV Sterilizer Box with Wireless Charging

Model No.: HZ-PL5

Prepared for : ShenZhen HuaZeng Technology Co., Ltd  
Address : Floor 8th, Building 6, 3rd Industrial Zone, Tangwei District,  
Gongming Street, Guangming, Shenzhen, Guangdong, China

Prepared By : Shenzhen Alpha Product Testing Co., Ltd.  
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## TEST REPORT DECLARATION

Applicant : ShenZhen HuaZeng Technology Co., Ltd  
Address : Floor 8th, Building 6, 3rd Industrial Zone, Tangwei District,  
Gongming Street, Guangming, Shenzhen, Guangdong, China  
Manufacturer : ShenZhen HuaZeng Technology Co., Ltd  
Address : Floor 8th, Building 6, 3rd Industrial Zone, Tangwei District,  
Gongming Street, Guangming, Shenzhen, Guangdong, China  
EUT Description : UV Sterilizer Box with Wireless Charging  
(A) Model No. : HZ-PL5  
(B) Trademark : N/A

Measurement Standard Used:

### FCC KDB 680106 D01 RF Exposure Wireless Charging Apps v03

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).....: Lucas Pang  
Project Engineer



Approved by (name + signature).....: Simple Guan  
Project Manager



Date of issue.....: July 16, 2020

**Revision History**

Revision	Issue Date	Revisions	Revised By
V0	July 16, 2020	Initial released Issue	Lucas Pang

## 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	:	UV Sterilizer Box with Wireless Charging
Model No.	:	HZ-PL5
DIFF.	:	N/A
Power supply	:	Wireless Output: 10W(max) USB Input: 5V/2A, 9V/2A
Test voltage	:	DC 5V or DC 9V from adapter.
Operation frequency	:	125-205KHz
Modulation	:	MSK
Antenna Type	:	Coil Antenna, Maximum Gain is 4dBi
Software version	:	V1.0
Hardware version	:	V1.0
Intend use environment	:	Residential, commercial and light industrial environment

Conditions requirement	Answers
Power transfer frequency is less than 1 MHz	After measuring the product the transfer frequency is 125-205KHz
Output power from each primary coil is less than 15 watts	After measuring the product the each primary coil power is 10 watts
The transfer system includes only single primary and secondary coils. This includes charging systems that may have multiple primary coils and clients that are able to detect and allow coupling only between individual pairs of coils	The wireless charger has a primary coil. It can only detect and allow coupling between single coil pairs.
Client device is inserted in or placed directly in contact with the transmitter	Client device is placed directly in contact with the transmitter
Mobile exposure conditions only (portable exposure conditions are not covered by this exclusion).	Mobile exposure conditions only.
The aggregate H-field strengths at 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils are demonstrated to be less than 50% of the MPE limit.	After measuring the product the Max H-Field Strength is <b>0.192A/m</b> Far less than 50% of the MPE limit.

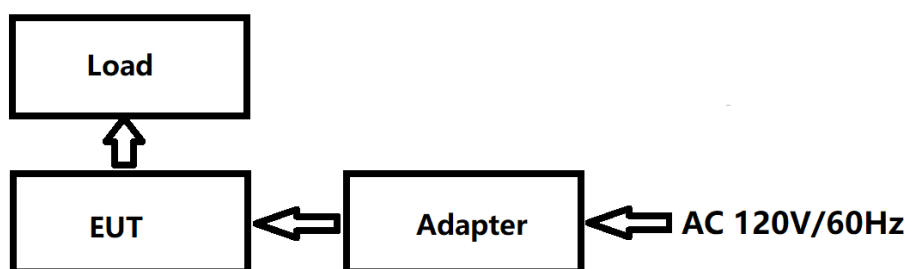
## 2.2. Accessories of Device (EUT)

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

## 2.3. Tested Supporting System Details

No.	Description	Manufacturer	Model	Serial Number	Certification or SDOC
1	Adapter	HUAWEI	HW-100400C01	YB91YCK9L00234	--
2	Load	--	--	--	--

## 2.4. Block Diagram of connection between EUT and simulators



## 2.5. Description of Test Modes

Channel	Frequency (KHz)	Channel	Frequency (KHz)	Channel	Frequency (KHz)	Channel	Frequency (KHz)
1	125	6	150	11	175	16	200
2	130	7	155	12	180	17	205
3	135	8	160	13	185	18	
4	140	9	165	14	190	19	
5	145	10	170	15	195	20	

## 2.6. Test Conditions

Items	Required	Actual
Temperature range:	15-35°C	24°C
Humidity range:	25-75%	56%
Pressure range:	86-106kPa	980kPa



## 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

September 15, 2019 Certificated by IC  
Registration Number: CN0085

## 2.8. Measurement Uncertainty

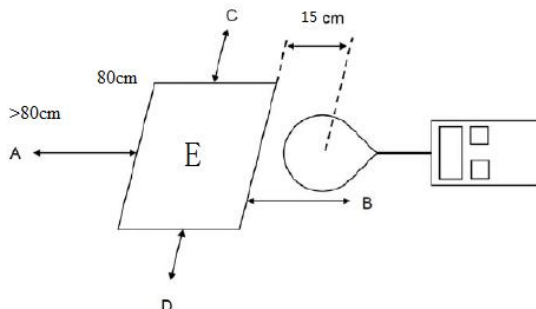
(95% confidence levels, k=2)

Item	MU	Remark
Uncertainty for Conducted Emission Test	2.74dB	
Uncertainty for Radiation Emission test in 3m chamber (30MHz to 1GHz)	3.77dB	Polarize: V
	3.80dB	Polarize: H
Uncertainty for Radiation Emission test in 3m chamber (1GHz to 25GHz)	4.13dB	Polarize: H
	4.16dB	Polarize: V
Uncertainty for radio frequency	$5.4 \times 10^{-8}$	
Uncertainty for conducted RF Power	0.37dB	

### 3. Test Results and Measurement Data

#### 3.1. RF EXPOSURE TEST

##### 3.1.1. Test Specification

<b>Test Requirement:</b>	<b>FCC Rules and Regulations KDB680106</b>
<b>Test Method:</b>	§1.1307(b)(1) & KDB680106
<b>Limits:</b>	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 D01v03: RF Exposure Wireless Charging Apps v02.
<b>Test Setup:</b>	
<b>Test Mode:</b>	Transmitting Mode
<b>Test Procedure:</b>	<ol style="list-style-type: none"> <li>1. The RF exposure test was performed on 360 degree turn table in anechoic chamber.</li> <li>2. The measurement probe was placed at test distance (15cm) which is between the edge of the charger and the geometric centre of probe.</li> <li>3. The turn table was rotated 360d degree to search of highest strength.</li> <li>4. The highest emission level was recorded and compared with limit as soon as measurement of each points (A, B, C, D, E) were completed.</li> <li>5. The EUT were measured according to the dictates of KDB 680106D01v03.</li> <li>6. E to position is 20cm.</li> </ol>
<b>Test Result:</b>	PASS

**3.1.2. Test Instruments**

<b>Item</b>	<b>Equipment</b>	<b>Manufacturer</b>	<b>Model No.</b>	<b>Serial No.</b>	<b>Last Cal.</b>	<b>Cal. Interval</b>
1.	Exposure Level Tester	narda	ELT-400	N-0231	2019.09.11	1 Year
2.	Magnetic field probe 100cm <sup>2</sup>	narda	ELT probe 100cm <sup>2</sup>	M0675	2019.09.11	1 Year

### 3.1.3. Test data

For Full load mode:

E-Field Strength at 15 cm for position A,B,C,D 20cm for position E 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	Limit (50%) (V/m)	Limits Test (V/m)
0.205	20.2	24.3	25.6	26.8	27.5	307	614

H-Field Strength at 15 cm for position A, B, C, D 20cm for position E 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	Limit (50%) (A/m)	Limits Test (A/m)
0.205	<b>0.192</b>	0.188	0.181	0.190	0.174	0.815	1.63

For Half load mode:

E-Field Strength at 15 cm for position A, B, C, D 20cm for position E 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	Limit (50%) (V/m)	Limits Test (V/m)
0.175	19.3	18.5	18.7	19.5	18.4	307	614

H-Field Strength at 15 cm for position A, B, C, D 20cm for position E 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	Limit (50%) (A/m)	Limits Test (A/m)
0.175	0.165	0.168	0.166	0.152	0.164	0.815	1.63

For No load mode:

E-Field Strength at 15 cm for position A, B, C, D 20cm for position E 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	Limit (50%) (V/m)	Limits Test (V/m)
0.125	5.8	5.36	5.12	6.5	5.3	307	614

H-Field Strength at 15 cm for position A, B, C, D 20cm for position E 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	Limit (50%) (A/m)	Limits Test (A/m)
0.125	0.110	0.112	0.108	0.105	0.104	0.815	1.63

Note: Location A of H-Field Strength test in full load mode is the worst mode.

## 4. Photos of test setup

For Full load mode



For No load mode



## **5. Photographs of EUT**

Refer to test report A2006325-C01-R11.

**-----THE END OF REPORT-----**