

SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240100003602

Page: 1 of 14

# **Human Exposure Report**

Application No.: SHCR2401000036HS FCC ID: 2AVJ8-JLDK-56

Applicant: DewertOkin Technology Group Co., Ltd.

Address of Applicant: No.1507, Taoyuan Road, Gaozhao Street, Xiuzhou District, Jiaxing, City,

Zhejiang, Province, China.

Manufacturer: DewertOkin Technology Group Co., Ltd.

Address of Manufacturer: No.1507, Taoyuan Road, Gaozhao Street, Xiuzhou District, Jiaxing, City,

Zhejiang, Province, China.

**Factory:** DewertOkin Technology Group Co., Ltd.

Address of Factory: No.1507, Taoyuan Road, Gaozhao Street, Xiuzhou District, Jiaxing, City,

Zhejiang, Province, China.

**Equipment Under Test (EUT):** 

**EUT Name:** Wireless Charger

Model No.: JLDK-56

Trade Mark:

DEWERT OKIN

47 CFR PART 1, Subpart I, Section 1.1310

Standards: FCC Rules 47 CFR §2.1091

KDB 680106 D01 RF Exposure Wireless Charging Apps v04

**Date of Receipt**: 2024-01-03

**Date of Test**: 2024-01-04 to 2024-01-12

**Date of Issue:** 2024-01-25

Test Result : Pass\*

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="http://www.sgs.com/en/Terms-and-Conditions.aspx">http://www.sgs.com/en/Terms-and-Conditions.aspx</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx">http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx</a>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

<sup>\*</sup> In the configuration tested, the EUT complied with the standards specified above.



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240100003602

Page: 2 of 14

Revision Record							
Version	Description	Date	Remark				
00	Original	2024-01-25	/				

Authorized for issue by:		
Tested By	Bhil Wu	
	Bill Wu/Project Engineer	
Approved By	Parlam Zhan	
	Parlam Zhan/Reviewer	



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240100003602

Page: 3 of 14

## 2 Contents

		Page
1	1 COVER PAGE	1
2	2 Contents	3
3	3 General Information	4
	3.1 Details of E.U.T	
	3.2 Description of Support Units	4
	3.3 Test Location	5
	3.4 Test Facility	5
	3.5 Deviation from Standards	5
	3.6 Abnormalities from Standard Conditions	5
4	4 Equipments Used during Test	6
5	5 Test Results	7
	5.1 RF Exposure test	7
	5.2 E.U.T. Operation	8
6	6 Test Photo	12



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240100003602

Page: 4 of 14

## 3 General Information

### 3.1 Details of E.U.T.

Power supply: DC 29V Wired Output: 15W Max.

Antenna Type: Inductive Loop Coil Antenna

Modulation Type: Load Modulation
Operation Frequency: 110KHz-148KHz

## 3.2 Description of Support Units

Description	Manufacturer	Model No.	Serial No.
Load	N/A	N/A	N/A
Mobilephone	Apple	Iphone 12	/
AC Adapter	/	DOT-Z-290018A	/



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240100003602

Page: 5 of 14

#### 3.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. E&E Lab 588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China

Tel: +86 21 6191 5666 Fax: +86 21 6191 5678

No tests were sub-contracted.

Note:

- 1. SGS is not responsible for wrong test results due to incorrect information (e.g. max. clock frequency, highest internal frequency, antenna gain, cable loss, etc.) is provided by the applicant. (if applicable).
- 2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (if applicable).
- 3. Sample source: sent by customer.

### 3.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

#### A2LA (Certificate No. 6332.01)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the American Association for Laboratory Accreditation(A2LA).

#### • FCC (Designation Number: CN1301)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been recognized as an accredited testing laboratory.

#### • ISED (CAB Identifier: CN0020)

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. EMC Laboratory has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 8617A

#### • VCCI (Member No.: 3061)

The 3m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-13868, C-14336, T-12221, G-10830 respectively.

#### 3.5 Deviation from Standards

None

#### 3.6 Abnormalities from Standard Conditions

None



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240100003602

Page: 6 of 14

# 4 Equipments Used during Test

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal date	Cal. Due date
1	Semi/Fully Anechoic	ST	11*6*6M	SHEM078-2	2021-05-25	2024-05-24
2	Electromagnetic Field Probe	Narda	EHP-200AC	SHEM0907	2023-04-10	2024-04-09
3	Software	Narda	EHP-200-TS	/	/	/



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240100003602

Page: 7 of 14

## 5 Test Results

## 5.1 RF Exposure test

Test Requirement: 47 CFR PART 1, Subpart I, Section 1.1310

Measurement Distance: 10 cm for surrounding the device and 10 cm for above the top surface.

Limit:

Frequency range (MHz)	range Electric field strength (V/m) Magnetic field strength (A/m)		Power density (mW/cm²)	Averaging time (minutes)			
	(A) Limits for Occ	cupational/Controlled Ex	posures				
0.3-3.0	0.3-3.0 614 1.63 *(100)						
3.0-30	1842/f	4.89/f	*(900/f²)	6			
30-300	61.4	0.163	1.0	6			
300-1500	/	1	f/300	6			
1500-100,000	1	1	5	6			
	(B) Limits for Genera	l Population/Uncontrolle	ed Exposure				
0.3-1.34	614	1.63	*(100)	30			
1.34-30	824/f	2.19/f	*(180/f²)	30			
30-300	27.5	0.073	0.2	30			
300-1500	/	1	f/1500	30			
1500-100,000	/	/	1.0	30			

F=frequency in MHz

RF exposure compliance will need to be determined with respect to 1.1307(c) and (d) of the FCC rules. The emissions should be within the limits at 300kHz in Table 1 of 1.1310(use the 300kHz limits for 150kHz:614V/m,1.63A/m).

<sup>\*=</sup>Plane-wave equivalent power density



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240100003602

Page: 8 of 14

### 5.2 E.U.T. Operation

### 5.2.1 Operating Environment

Temperature: 24.0 °C Humidity: 52% RH Atmospheric Pressure: 1015 mbar

#### 5.2.2 EUT Operation:

#### 5.2.3 Simulation Load Mode

Test mode 00: Wireless Output(The load shall be set at full, half, empty load (15W/7.5W/0W)

01: Wireless Output(The mobile phone shall be set at 85% charge state, 50%

charge state, 15% charge state.

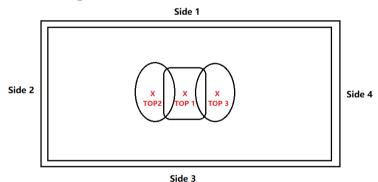
### **Measurement Data:**

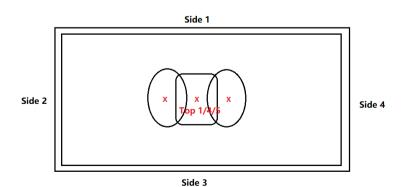
Average 1: Test 3 times at the same location, taking the average value = (Top1+Top4+Top5)/3

Average 2: Average different points on the same surface = (Top1+Top6+Top7)/3

Note 1:The charging pad has three loop antenna but can not charging same time,Only the loop antenna nearest with the charging client was working.

Note 2:Compare Top 1 Top 2 and Top 3 test data, Top 1 test data is worst case, So we select middle antenna to test Average data.



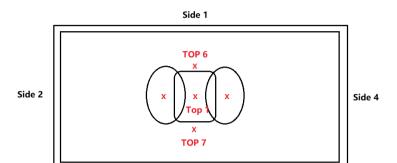




SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240100003602

Page: 9 of 14



Side 3



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240100003602

Page: 10 of 14

### Test mode 00: Load:

### Electric Field

Test Distance	Toot D	Test Position		Test Data (V/m)	)	Limit	Result
(cm)	Test F	OSITION	Full Load	Half Load	Empty Load	(V/m)	Nesuit
		1	1.9754	1.8524	1.3218		Pass
	Side	2	1.8794	1.7968	1.3124		Pass
		3	1.6798	1.6024	1.1289		Pass
		4	1.6864	1.6128	1.1308		Pass
		1	2.8149	2.7206	2.1628	614 50% Limit	Pass
		2	2.6978	2.6654	2.0797		Pass
		3	2.6896	2.6748	2.0296		Pass
10	Тор	4	2.7124	2.6896	2.1072		Pass
		5	2.7098	2.6726	2.1014		Pass
		6	2.7216	2.6804	2.1253		Pass
	Top Average	7	2.7107	2.6638	2.1178		Pass
		1+4+5	2.7457	2.6942	2.1238		Pass
		1+6+7	2.7607	2.6883	2.1353		Pass
	Ba	ck	2.2178	2.2056	1.7864		Pass

Magnetic Field

Test Distance	Test Position			Test Data (A/m	Limit	Dogult	
(cm)	Test F	TEST FOSITION		Half Load	Empty Load	(A/m)	Result
		1	0.2247	0.1434	0.0576		Pass
Side	Sido	2	0.2196	0.1426	0.0559		Pass
	3	0.1958	0.1126	0.0521		Pass	
		4	0.1964	0.1137	0.0517		Pass
		1	0.2816	0.1738	0.0697	1.63	Pass
	Тор	2	0.2706	0.1654	0.0602		Pass
		3	0.2698	0.1638	0.0598		Pass
10		4	0.2736	0.1634	0.0676		Pass
		5	0.2765	0.1659	0.0658		Pass
		6	0.2792	0.1612	0.0624		Pass
		7	0.2718	0.1654	0.0633		Pass
	Top Average	1+4+5	0.2772	0.1677	0.0677		Pass
	Top Average	1+6+7	0.2775	0.1668	0.0651		Pass
	Back		0.2264	0.1216	0.0542		Pass
20	Top1	1	0.1957	0.1712	0.0401	50% Limit	Pass



SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240100003602

Page: 11 of 14

### **Test mode 01: Mobile Phone:**

**Electric Field Emissions** 

Test Distance	Test Position		٦	Γest Data (V/m)	Limit	Result	
(cm)			85%	50%	15%	(V/m)	Result
	Side	1	1.8624	1.8319	1.8026		Pass
		2	1.8165	1.7764	1.8012		Pass
		3	1.6024	1.587	1.6056		Pass
		4	1.6131	1.5712	1.6095		Pass
		1	2.7197	2.6545	2.7132	614 50% Limit	Pass
		2	2.6547	2.5873	2.6306		Pass
		3	2.6602	2.5769	2.6198		Pass
10	Тор	4	2.7026	2.6199	2.7954		Pass
		5	2.6878	2.6002	2.6916		Pass
		6	2.7014	2.6251	2.7757		Pass
Ton Aver		7	2.6879	2.6328	2.7006		Pass
	Top Average	1+4+5	2.7034	2.6249	2.7334		Pass
	Top Average	1+6+7	2.7930	2.6375	2.7298		Pass
	Ва	ck	2.1395	2.1789	2.1066		Pass

Magnetic Field

Test Distance	Test Position		٦	Test Data (A/m)	Limit	Result	
(cm)	1651 F	1621 102111011		50%	15%	(A/m)	Resuit
		1	0.2122	0.1396	0.1383	-	Pass
	Sido	2	0.2115	0.1418	0.1326		Pass
	Side	3	0.1944	0.1175	0.1189	]	Pass
		4	0.1952	0.1097	0.1168		Pass
		1	0.2768	0.1716	0.2702	1.63	Pass
	Тор	2	0.2604	0.1614	0.2622		Pass
10		3	0.2612	0.1658	0.2617		Pass
		4	0.2706	0.1705	0.2754		Pass
		5	0.2724	0.1644	0.2798		Pass
		6	0.2718	0.1638	0.2842		Pass
		7	0.2695	0.1662	0.2737		Pass
	Top Average	1+4+5	0.2733	0.1688	0.2751		Pass
1	Top Average	1+6+7	0.2727	0.1672	0.2760		Pass
	Back		0.2193	0.1213	0.2242		Pass
20	Top1	1	0.1931	0.1679	0.1987	50% Limit	Pass

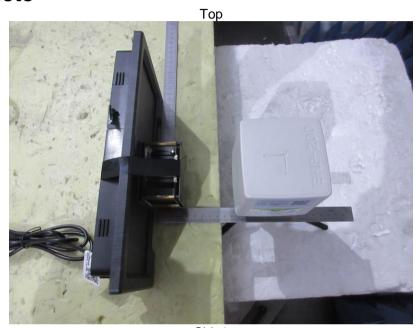


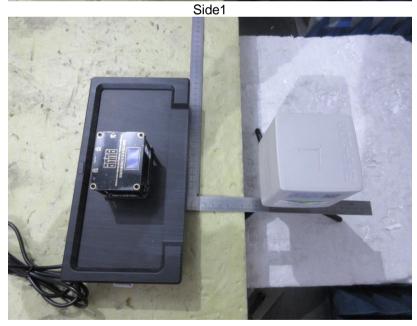
SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240100003602

Page: 12 of 14

## 6 Test Photo



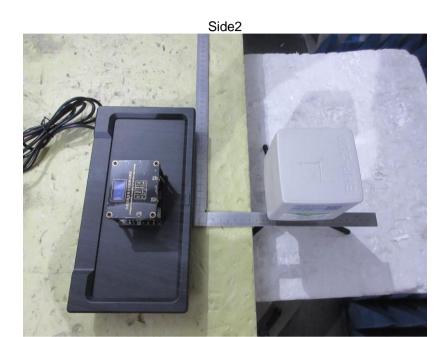


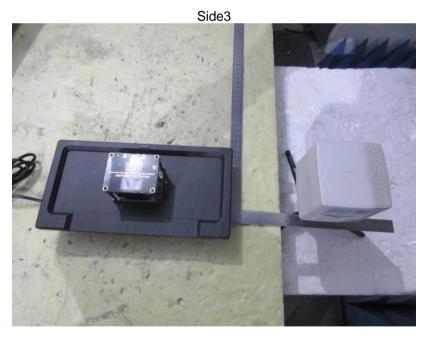


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240100003602

Page: 13 of 14





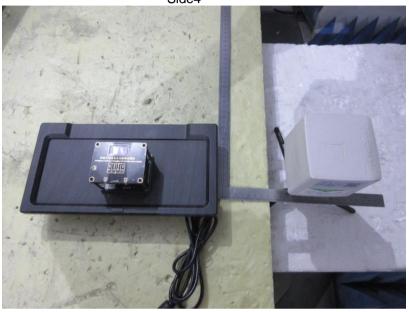


SHEM-TRF-001 Rev. 02 Sep01, 2023

Report No.: SHCR240100003602

Page: 14 of 14





- End of the Report -