

SHENZHEN DNS INDUSTRIES CO.,
LTD.

TEST REPORT

SCOPE OF WORK

SAR Assessment– WD-268E, SKCHWC0110WCN

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5

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RF Exposure

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Test Report

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Sample Description
Product : Wireless charger

Model No. : WD-268E, SKCHWC0110WCN

Electrical Rating : Input: 5V/1.5A, 9V/1.67A
Wireless Output: 5W, 7.5W, 10W

Date Received : February 26, 2024
Date Test Conducted : February 26, 2024 to March 10, 2024

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 RF Exposure Wireless Charging v04

Test Result : Pass
Conclusion : When determining of test conclusion, measurement
uncertainty of tests have been considered.

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Date: 08 April 2024

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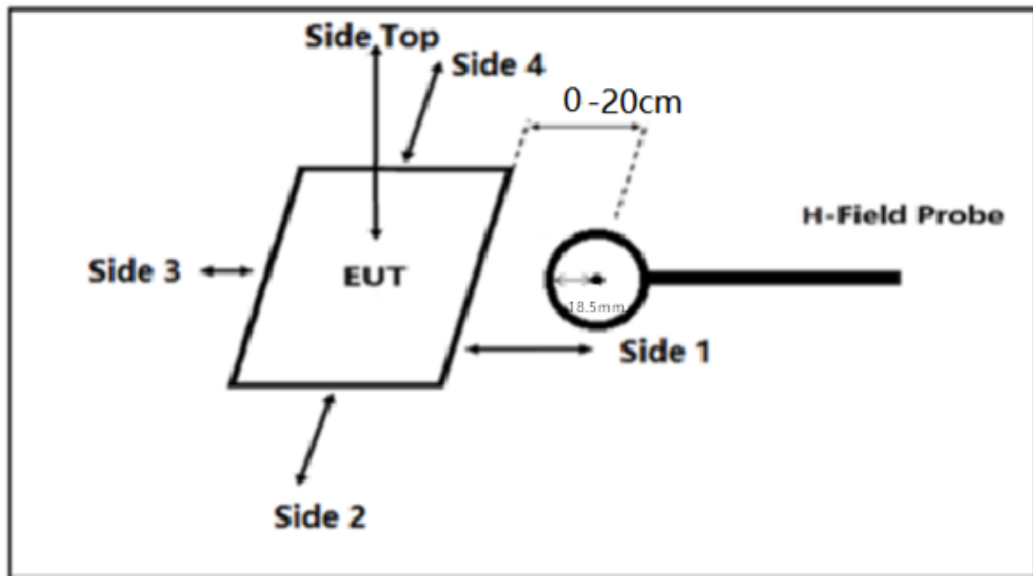
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Test Report

Test Setup Configuration



Note:

- The RF exposure test is performed in the shield room.
- The test distance is measured from the center of the test probe along all three axes of the device, from 0 cm to 20 cm, from the edge of the device coil in minimum 2 cm increments.

Test Equipment List

Equipment No.	Equipment	Manufacturer	Model No.	Cal. Date	Due Date
SZ186-06	The Magnetic Amplitude and Gradient Probe System	SPEAG	MAGPy-8D3D+E3D	2023-04-13	2024-04-13

This product was tested in the following configuration:

Description	Manufacturer	Detail
Mobile phone	Apple (Provided by Intertek)	Model: iPhone (A2884)
Adapter	NIL (Provided by Intertek)	Model: AC-250K Input: 100-240Vac 50/60Hz 0.55A Output: 5Vdc 2A, 9Vdc 2A

Justification

The Model: SKCHWC0110WCN is the same as the Model: WD-268E in hardware aspect. The difference in model number serves as marketing strategy.

The EUT was powered by an adapter with 120V/60Hz input during the test. All power input voltages (DC 5V=1.5A, 9V=1.67A) and all rated output powers have been tested. And have considered all the following EUT modes of operation to pre-scan the test system.

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
Mode 5	Continuous maximum power

Note:

- H-field data are measured in minimal increments of 2 cm from the edge of the device along all three axes of the device, from 0 cm to 20 cm, one axis is consistent with the axis of the main coil, all modes and distances have been fully tested. The worst-case testing data were recorded in this report.
- Mode 5 is a special product sample provided by the customer for this test, which allows the equipment to operate at maximum power without a client device.

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 phone is being charged.

Worst Case Operating Mode: Mode 5 for 2cm distance; Mode 2 for 4cm to 20cm distance

Center of the probe to the probe outer edge is 1.85 cm, so the test distance can only reach 2cm.

H-field strength measurement result at 2cm to 20 cm:

Test Position	Test distance(cm)										Limits (A/m)
	2	4	6	8	10	12	14	16	18	20	
Side 1	1.041	0.356	0.081	0.050	0.023	0.019	0.016	0.012	0.010	0.007	1.63
Side 2	1.034	0.347	0.080	0.048	0.024	0.018	0.015	0.011	0.009	0.008	1.63
Side 3	1.022	0.339	0.077	0.050	0.021	0.019	0.016	0.011	0.010	0.006	1.63
Side 4	1.027	0.351	0.079	0.049	0.023	0.020	0.017	0.010	0.009	0.007	1.63
Top	1.049	0.365	0.082	0.051	0.024	0.021	0.018	0.013	0.011	0.009	1.63

H-field strength at 0cm:

Validation:

To determine the H-field strength of 0mm, an extrapolation function by setting to Probe tip in the software of MAGPy handheld system has been used.

The validation for this extrapolation is as follows:

Test mode	Distance (cm)	Estimated value (A/m)	30% tolerance (A/m)		Measured value (A/m)
			Min	Max	
Mode 5	1.85	1.22 (probe tip to EUT)	0.85	1.59	1.12 (probe center to EUT)
Mode 5	3.7	0.53 (probe tip to EUT)	0.37	0.69	0.41 (probe center to EUT)
Mode 5	5.55	0.11 (probe tip to EUT)	0.08	0.14	0.09 (probe center to EUT)
Conclusion: Estimated value has 30% agreement with actual measurement, verified the probe tip function.					

Note:

1. According to KDB 680106 D01 V04, the validation is considered sufficient if a 30% agreement between the Estimated value and the (E- and/ H-field) probe measurements is demonstrated.
2. Estimated value is obtained from the tip function of the probe.

Estimated H-field Result at 0 cm:

EUT Operation mode	Side 1(A/m)	Side 2(A/m)	Side 3(A/m)	Side 4(A/m)	Top(A/m)	Limits (A/m)
Mode 5	1.29	1.33	1.34	1.28	1.36	1.63

Configuration photo of the test:

Please refer to RF Exposure setup photos. pdf.

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