

# ASAP Technology (jiangxi) Co., Ltd

# **TEST REPORT**

#### **SCOPE OF WORK**

SAR Assessment - 080-08-3787

#### REPORT NUMBER

240430021SZN-002

#### **ISSUE DATE**

05 June 2024

#### [REVISED DATE]

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#### **DOCUMENT CONTROL NUMBER**

RF Exposure © 2017 INTERTEK





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Intertek No.: 240430021SZN-002

### **Test Report**

ASAP Technology (jiangxi) Co., Ltd **Applicant** :

Ji'an Industrial Park, Ji'an, Jiangxi 343100 China

Sample Description

**Product** Wireless charger

Model No. 080-08-3787

**Electrical Rating** Input: 5V/3A, 9V/2.22A :

Wireless Output: 15W

Date Received April 30, 2024

**Date Test Conducted** April 30, 2024 to April 30, 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.

**Prepared and Checked By: Approved By:** 

**Tenet Cao Ryan Chen** 

**Assistant Engineer** Sr. Project Engineer

Date: 05 June 2024

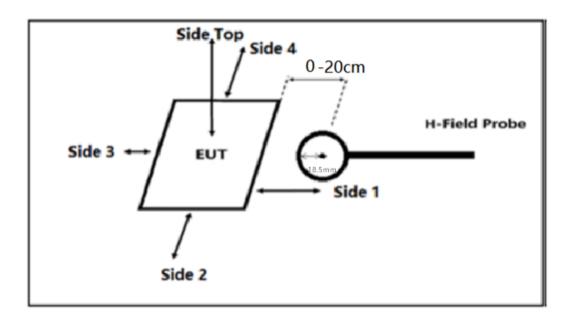
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## **Test Report**

#### **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 Ampli tude and Gradient Probe System	SPEAG	MAGPy- 8D3D+E3D	2024-03-07	2025-03-07

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

	<u> </u>			
Description	Manufacturer	Detail		
Mobile phone	Samsung (Provided by Intertek)	Model: Samsung (SM-G9300)		
Adapter	dealworthy <sup>™</sup> (Provided by Client)	Model: 080-08-3787 Input: 100-240Vac 50/60Hz 0.5A Output: 5Vdc 3A, 9Vdc 2.22A		

#### Justification

The EUT was powered by an adapter with 120V/60Hz input during the test. All power input voltages (DC 5V=3A, 9V=2.22A) 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:

- 1. 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.
- 2. 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.



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#### 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/cm²)	Average Time (minutes)					
	(A) Limits for Occupational/Controlled Exposure								
0.3 – 3.0	0.3 – 3.0 614 1.63 (100) *								
(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 2 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	Test distance(cm)								Limits		
Position	2	4	6	8	10	12	14	16	18	20	(A/m)
Side 1	1.041	0.353	0.051	0.032	0.052	0.029	0.016	0.012	0.010	0.007	1.63
Side 2	1.013	0.392	0.303	0.024	0.043	0.021	0.015	0.011	0.009	0.008	1.63
Side 3	0.933	0.271	0.060	0.051	0.039	0.021	0.016	0.011	0.010	0.006	1.63
Side 4	1.011	0.356	0.133	0.034	0.041	0.020	0.017	0.010	0.009	0.007	1.63
Тор	0.823	0.195	0.042	0.031	0.024	0.021	0.018	0.013	0.011	0.009	1.63



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#### 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	1.29 (probe tip to EUT)	0.90	1.68	1.29 (probe center to EUT)
Mode 5	3.7	0.59 (probe tip to EUT)	0.41	0.77	0.57 (probe center to EUT)
Mode 5	5.55	0.12 (probe tip to EUT)	0.08	0.16	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	Node 5 1.29 1.22		1.28	1.24	1.16	1.63

#### Configuration photo of the test:

Please refer to RF Exposure setup photos. pdf.