

HEALTH TEST REPORT

EN 62311: 2008

Report Reference No. : POCE19062464RRF

Applicant's Name :

Address of Applicant :

Test Firm : Shenzhen POCE Technology Co., Ltd.

Address of Test Firm : H Building, Hongfa Science and Technology Park, Tangtou,
Shiyan, Bao'An District, Shenzhen, China

Test Specification Standard : EN 62311: 2008

Product Name : Wireless Charger

Model/ Type Reference :

Listed Models : N/A

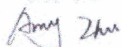
Date of Receipt : Jun. 24, 2019

Date of Test : Jun. 24, 2019 – Jun. 29, 2019

Data of Issue : Jun. 29, 2019

Result : PASS

Compiled by:



Amy Zhu/ File administrators

Supervised by:



Nick He/ Technique principal

Approved by:



Machael Mo/ Manager



Shenzhen POCE Technology Co., Ltd. All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the Shenzhen POCE Technology Co., Ltd. is acknowledged as copyright owner and source of the material. Shenzhen POCE Technology Co., Ltd. takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

Revision History Of Report

REPORT No.	Version	Description	Issue Date
POCE19062464RRF	V1.0	Initial Test Report Release	Jun. 29, 2019

Contents

1. TEST SUMMARY.....	4
1.1 Test Standards	4
1.2 Test Facility	4
2. GENERAL INFORMATION.....	5
2.2 Environmental conditions	5
2.3 Product Description	5
3. Method of measurement	6

1. TEST SUMMARY

1.1 TEST STANDARDS

EN 62311: Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz – 300 GHz)

Council Recommendation 1999/519/EC of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0Hz to 300GHz) (Official Journal L 197 of 30 July 1999).

1.2 TEST FACILITY

1.2.1 Address of the test laboratory

Shenzhen POCE Technology Co., Ltd.

Add.: H Building, Hongfa science and Technology Park, Tangtou, Shiyan, Bao'an District, Shenzhen, China

There is one 3m semi-anechoic chamber and two line conducted labs for final test. The Test Sites meet the requirements in documents ANSI C63.4 and CISPR 32/EN 55032 requirements.

1.2.2 Laboratory accreditation

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

CNAS Registration Number. is L8229

Shenzhen POCE Technology Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories, Date of Registration: Jan. 06, 2016.

VCCI Membership No.: 3941

The 3m Semi-anechoic chamber of Shenzhen POCE Technology Co., Ltd. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.:R-3941. Date of Registration: Oct. 22, 2018.

2. GENERAL INFORMATION

2.1 CLIENT INFORMATION

Applicant :

Address :

Manufacturer :

Address :

2.2 ENVIRONMENTAL CONDITIONS

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature:	15°C -35°C
Relative Humidity	35%-55 %
Air Pressure	101KPa

2.3 PRODUCT DESCRIPTION

Equipment	Wireless Charger
Model Name	WPC420-10W
Charger Information	Input: 5V $\overline{=}$ 2A; 9V $\overline{=}$ 1.67A Wireless Output: 5V $\overline{=}$ 1A(5W), 9V $\overline{=}$ 1.1A(10W) USB Output: 5V $\overline{=}$ 1A Max
Operation Frequency	114.28KHz
Modulation Type	MSK
Antenna Type	Loop coil antenna
Antenna Gain	0 dBi

Note: For more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

3. Method of measurement

Limit

Basic restriction for electric, magnetic and electromagnetic fields (0Hz to 300GHz)

Frequency range	Magnetic flux density (mT)	Current density (mA/m ²)	Whole body average SAR(W/kg)	Localised SAR (head and trunk)(W/kg)	Localised SAR (limbs) (W/kg)	Power density, S (W/m ²)
0Hz	40	--	--	--	--	--
>0-1Hz	--	8	--	--	--	--
1-4Hz	--	8/f	--	--	--	--
4-1000Hz	--	2	--	--	--	--
1000Hz-100kHz	--	f/500	--	--	--	--
100kHz-10MHz	--	f/500	0.08	2	4	--
10MHz-10GHz	--	--	0.08	2	4	--
10-300GHz	--	--	--	--	--	10

Notes:

1. f is the frequency in Hz.
2. The basic restriction on the current density is intended to protect against acute exposure effects on central nervous system tissues in the head and trunk of the body and includes a safety factor. The basic restrictions for ELF fields are based on established adverse effects on the central nervous system. Such acute effects are essentially instantaneous and there is no scientific justification to modify the basic restrictions for exposure of short duration. However, since the basic restriction refers to adverse effects on the central nervous system, this basic restriction may permit higher current densities in body tissues other than the central nervous system under the same exposure conditions.
3. Because of electrical inhomogeneity of the body, current densities should be averaged over a cross section of 1cm² perpendicular to the current direction.
4. For frequencies up to 100 kHz, peak current density values can be obtained by multiplying the rms value by $\sqrt{2}$ (=1.414). For pulses of duration t_p , the equivalent frequency to apply in the basic restrictions should be calculated as $f=1/(2t_p)$.
5. For frequencies up to 100kHz and for pulsed magnetic fields, the maximum current density associated with the pulses can be calculated from the rise/fall times and the maximum rate of change of magnetic flux density. The induced current density can then be compared with the appropriate basic restriction.
6. All SAR values are to be averaged over any six-minute period.
7. Localised SAR averaging mass is any 10g of contiguous tissue; the maximum SAR so obtained should be the value used for the estimation of exposure. These 10g of tissue are intended to be a mass of contiguous tissue with nearly homogeneous electrical properties. In specifying a contiguous mass of tissue, it is recognised that this concept can be used in computational dosimetry but may present difficulties for direct physical measurements. A simple geometry such as cubic tissue mass can be used provided that the calculated dosimetric quantities have conservation values relative to the exposure guidelines.
8. For pulses of duration t_p the equivalent frequency to apply in the basic restrictions should be calculated as $f=1/(2t_p)$. Additionally, for pulsed exposures, in the frequency range 0.3 to 10GHz and for localised exposure of the head, in order to limit and avoid auditory effects caused by thermoelastic expansion, an additional basic restriction is recommended. This is that SA should not exceed 2mJ kg⁻¹ averaged over 10g of tissue.

Reference levels for electric, magnetic and electromagnetic fields (0Hz to 300GHz, unperturbed rms values)

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (uT)	Equivalent plane wave power density $S_{eq}(W/m^2)$
0-1Hz	--	3.2×10^4	4×10^4	--
1-8Hz	10000	$3.2 \times 10^4 / f^2$	$4 \times 10^4 / f^2$	--
8-25Hz	10000	$4000/f$	$5000/f$	--
0.025-0.8KHz	$250/f$	$4/f$	$5/f$	--
0.8-3KHz	$250/f$	5	6.25	--
3-150KHz	87	5	6.25	--
0.15-1MHz	87	$0.73/f$	$0.92/f$	--
1-10MHz	$87/f^{1/2}$	$0.73/f$	$0.92/f$	--
10-400MHz	28	0.073	0.092	2
400-2000MHz	$1.375f^{1/2}$	$0.0037f^{1/2}$	$0.0046f^{1/2}$	$f/200$
2-300GHz	61	0.16	0.20	10

Notes: 1. As indicated in the frequency range column.

2. For frequencies between 100kHz and 10GHz, S_{eq} , E^2 , H^2 and B^2 are to be averaged over any six-minute period.

3. For frequencies exceeding 10GHz, S_{eq} , E^2 , H^2 and B^2 are to be averaged over any $68/f^{1.05}$ -minute period (.in GHz).

4. No E-field value is provided for frequencies <1Hz, which are effectively static electric fields. For most people the annoying perception of surface electric charges will not occur at field strengths less than 20kV/m. Spark discharges causing stress or annoyance should be avoided.

Test Result

According to the test report No.: POCE19062465PRF the power against the limit as follow:

Max Field strength dBuA/m	Field strength dBuV/m	E-field strength (V/m)	E-field strength Limit (V/m)	Results
48.24	99.74	0.097	87	Pass

Note: 1. E-field strength Limit=87

Note: 2. E electric field strength in V/m = $10^{((dBuV/m)-120)/20}$

Note: 3. $dBuV/m = dBuA/m + 51.5$

*****THE END*****