



1 Cover Page

RF Exposure REPORT

Application No.: SHEM1908016531CR
FCC ID: WWIOX200
Applicant: Beijing Choice Electronic Technology Co., Ltd.
Address of Applicant: Room 4104, No. A12 Yuquan Road, Haidian District, 100143 Beijing, PEOPLE'S REPUBLIC OF CHINA.
Manufacturer: Beijing Choice Electronic Technology Co., Ltd.
Address of Manufacturer: Room 4104, No. A12 Yuquan Road, Haidian District, 100143 Beijing, PEOPLE'S REPUBLIC OF CHINA.
Factory: Beijing Choice Electronic Technology Co., Ltd.
Address of Factory: No.9 Shuangyuan Rd., Badachu Hi-tech Zone, Shijingshan District, 100041 Beijing, P.R. China.
Equipment Under Test (EUT):
EUT Name: SMART pulse oximeter
Model No.: OX200
Trade mark: iChoice
Standard(s) : FCC Rules 47 CFR §2.1093
KDB447498 D01 General RF Exposure Guidance v06
Date of Receipt: 2019-08-22
Date of Test: 2019-08-27 to 2019-09-05
Date of Issue: 2019-09-05

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

Parlam Zhan

Parlam Zhan
E&E Section Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.



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Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.
Testing Center E&E (Shanghai)

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Revision Record			
Version	Description	Date	Remark
00	Original	2019-09-05	/

Authorized for issue by:			
			
		<hr/>	
		Bill Wu / Project Engineer	
			
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		Parlam Zhan / Reviewer	



2 Contents

	Page
1 COVER PAGE.....	1
2 CONTENTS	3
3 GENERAL INFORMATION.....	4
3.1 GENERAL DESCRIPTION OF E.U.T.....	4
3.2 DETAILS OF E.U.T.	4
3.3 TEST LOCATION.....	5
3.4 TEST FACILITY.....	5
4 TEST STANDARDS AND LIMITS	6
4.1 FCC RADIOFREQUENCY RADIATION EXPOSURE LIMITS.....	6
5 MEASUREMENT AND CALCULATION.....	7
5.1 MAXIMUM TRANSMIT POWER	7
5.2 RF EXPOSURE CALCULATION	7



3 General Information

3.1 General Description of E.U.T.

Power supply:	DC 3.7V 250mAh rechargeable lithium battery
Test voltage:	DC 3.7V
Cable:	USB Cable 20cm

3.2 Details of E.U.T.

Antenna Gain	0.5dBi
Antenna Type	Ceramic Antenna
Channel Spacing	2MHz
Modulation Type	GFSK
Number of Channels	40
Operation Frequency	2402MHz to 2480MHz



3.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd. Shanghai Branch

588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China.

Tel: +86 21 6191 5666

Fax: +86 21 6191 5678

3.4 Test Facility

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

• **CNAS (No. CNAS L0599)**

CNAS has accredited SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

• **NVLAP (Certificate No. 201034-0)**

SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. is accredited by the National Voluntary Laboratory Accreditation Program(NVLAP). Certificate No. 201034-0.

• **FCC –Designation Number: CN5033**

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

Designation Number: CN5033. Test Firm Registration Number: 479755.

• **Industry Canada (IC) – IC Assigned Code: 8617A**

The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 8617A-1.

• **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-3868,C-4336,T-12221,G-10830 respectively.

4 Test Standards and Limits

4.1 FCC Radiofrequency radiation exposure limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max power of channel})/(\text{min test separation distance})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

For 2.4G band device, the limit of worse case is

$$P_{\text{max}} \leq 3.0 \cdot D_{\text{min}} / \sqrt{f} = 3.0 \cdot 5 / \sqrt{2.480} = 9.525 \text{ mW}$$



5 Measurement and Calculation

5.1 Maximum transmit power

The Power Data is based on the RF Test Report SHEM190801653101.

Test Data:

Test Mode	Test Channel	Power[dBm]	Peak Power (mW)
BLE	2402	-0.84	0.82
BLE	2440	-0.8	0.83
BLE	2480	-1.15	0.77

5.2 RF Exposure Calculation

The Max Conducted Peak Output Power is 0.83mW. The best case gain of the antenna is 0.5dBi.

0.5dBi logarithmic terms convert to numeric result is nearly 1.12

According to the formula. calculate the EIRP test result:

$$\text{EIRP} = P \times G = 0.83 \text{ mW} \times 1.12 = 0.93\text{mW} < 9.525\text{mW}$$

So the SAR report is not required.

--End of the Report--