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

No. 1 Workshop, M-10, Middle section, Science & Technology Park,
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1 Cover Page

RF MPE REPORT

Application No.:	SZEM1801000174CR (SHEM1712008305CR)
Applicant:	iHealth Labs, Inc.
FCC ID:	SLRABP100
IC:	10913A-ABP100
Equipment Under Test (EUT): **NOTE:** The following sample(s) was/were submitted and identified by the client as	
Product Name:	iHealth CardioMed
Model No.(EUT):	ABP100
Standards:	FCC Rules 47 CFR §2.1093 KDB447498 D01 General RF Exposure Guidance v06 RSS-102
Date of Receipt:	2017-12-18
Date of Test:	2017-12-27 to 2018-01-04
Date of Issue:	2018-02-06
Test Result:	**Pass***

* In the configuration tested, the EUT complied with the standards specified above.

Keny Xu
EMC Laboratory Manager

Revision Record				
Version	**Chapter**	**Date**	**Modifier**	**Remark**
00	/	2018-02-06	/	Original

Authorized for issue by:				
		Foray Chen **Foray Chen /Project Engineer**		
		Eric Fu **Eric Fu /Reviewer**		

2 Contents

3 General Information

3.1 Client Information

Applicant:	iHealth Labs, Inc.
Address of Applicant:	120 San Lucar Ct., Sunnyvale, CA 94086, USA
Manufacturer:	Andon Health Co., Ltd.
Address of Manufacturer:	No.3 JinPing Street, YaAn Road, Nankai District, Tianjin 300190, China
Factory:	Andon Medical Co., Ltd.
Address of Factory:	No.26 HangYu Road, Tianjin Airport Economic Area, Tianjin 300380, China

3.1 General Description of E.U.T.

Power supply:	Adapter Manufacturer: AQUIL STAR PRECISION INDUSTRIAL(SHENZHEN)CO.,LTD Model: ASSA81e-050200 Input: AC 100-240V, 50/60Hz 0.45A Output: DC 5V, 2A
Battery:	DC 3.7V, 950mAH rechargeable Li-ion battery
Cable:	AC Cable: 0cm DC Cable: 60cm

3.2 Technical Specifications

Operation Frequency	2402MHz to 2480MHz
BT Version	BT4.0 LE
Modulation Type	GFSK
Number of Channels	40
Channel Spacing	2MHz
Antenna Type	Ceramic Antenna
Antenna Gain	5.16 dBi

3.3 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch
No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China. 518057.
Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

3.4 Test Facility

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

• CNAS (No. CNAS L2929)

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab 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.

• A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

• VCCI

The 10m Semi-anechoic chamber and Shielded Room of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-823, R-4188, T-1153 and C-2383 respectively.

• FCC –Designation Number: CN1178

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.
Designation Number: CN1178. Test Firm Registration Number: 406779.

• Industry Canada (IC)

Two 3m Semi-anechoic chambers and the 10m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1, 4620C-2, 4620C-3.

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:
[(max power of channel)/(min test separation distance)]*[√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

- f(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.
The practical use condition for this device is as a limb-worn accessories. So the applicable limit is 10-g extremity SAR

For 2.4G band device, the limit of worse case is $P_{max} \leq 7.5 * D_{min} / \sqrt{f} = 7.5*5/\sqrt{2.480} = 23.81$mW

4.2 IC Radiofrequency radiation exposure limits:

SAR evaluation is required if the separation distance between the user and/or bystander and the antenna and/or radiating element of the device is less than or equal to 20 cm, except when the device operates at or below the applicable output power level (adjusted for tune-up tolerance) for the specified separation distance defined in Table 1.

Table 1: SAR evaluation – Exemption limits for routine evaluation based on frequency and separation distance

Frequency (MHz)	Exemption Limits (mW)				
	At separation distance of ≤5 mm	At separation distance of 10 mm	At separation distance of 15 mm	At separation distance of 20 mm	At separation distance of 25 mm
≤300	71 mW	101 mW	132 mW	162 mW	193 mW
450	52 mW	70 mW	88 mW	106 mW	123 mW
835	17 mW	30 mW	42 mW	55 mW	67 mW

1900	7 mW	10 mW	18 mW	34 mW	60 mW
2450	4 mW	7 mW	15 mW	30 mW	52 mW
3500	2 mW	6 mW	16 mW	32 mW	55 mW
5800	1 mW	6 mW	15 mW	27 mW	41 mW

Frequency (MHz)	Exemption Limits (mW)				
	At separation distance of 30 mm	**At separation distance of 35 mm**	**At separation distance of 40 mm**	**At separation distance of 45 mm**	**At separation distance of ≥50 mm**
≤300	223 mW	254 mW	284 mW	315 mW	345 mW
450	141 mW	159 mW	177 mW	195 mW	213 mW
835	80 mW	92 mW	105 mW	117 mW	130 mW
1900	99 mW	153 mW	225 mW	316 mW	431 mW
2450	83 mW	123 mW	173 mW	235 mW	309 mW
3500	86 mW	124 mW	170 mW	225 mW	290 mW
5800	56 mW	71 mW	85 mW	97 mW	106 mW

5 Measurement and Calculation

5.1 Maximum transmit power

The Power Data is based on the RF Test Report SZEM180100017403.

Test Mode	Test Frequency (MHz)	Output Power (dBm)	Reading Power (mW)
BLE	2402	-1.303	0.74
	2440	-0.823	**0.83**
	2480	-0.951	0.80

5.2 MPE Calculation

For FCC:

The Max Conducted Peak Output Power is -0.823dBm (0.83mW)＜23.81mW

For IC:

Assume the separation distance is 5 mm at the extreme condition according the Table 1, the exemption limit of max peak output power for SAR at 2450MHz is 4mw(6.02dBm)

MPE limit = 4mW

E.I.R.P.=P*G=0.83 x 3.28=2.722mW＜4mW

So the device is exclusion from SAR test.

--End of the Report--