

# FCC TEST REPORT

For

**Insulin Pump Controller**

**Model Number: AR-K100**

**FCC ID: 2BARWK100**

**Report Number : WT238000343**

Test Laboratory : Shenzhen Academy of Metrology and Quality  
Inspection

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## Revision History

No	Date	Remark
V1.0	2023.04.20	Initial issue

## TEST REPORT DECLARATION

Applicant : AARUY Medical Electronics Co., Ltd.  
Address : 20/F, West Block, Skyworth Semiconductor Design Building,  
Shenzhen, China  
Manufacturer : AARUY Medical Electronics Co., Ltd.  
Address : 20/F, West Block, Skyworth Semiconductor Design Building,  
Shenzhen, China  
EUT Description : Insulin Pump Controller  
Model No : AR-K100  
Trade mark : aaruy  
FCC ID : 2BARWK100

Test Standards:

**FCC Part 1 Subpart I 1.1310**  
**FCC Part 2 Subpart J 2.1091 & 2.1093**

The EUT described above is tested by Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory to determine the maximum emissions from the EUT. Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory is assumed full responsibility for the accuracy of the test results.

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

Project Engineer: 陈司林 Date: Apr.20, 2023  
(Chen Silin 陈司林)  
Checked by: 万晓婧 Date: Apr.20, 2023  
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(Lin Yixiang 林奕翔)

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## 1. TEST RESULTS SUMMARY

Table 1 Test Results Summary

Test Items	Test Results
RF Exposure	Pass

Remark: "N/A" means "Not applicable."

## 2. GENERAL INFORMATION

### 2.1. Report Information

This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that SMQ approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that SMQ in any way guarantees the later performance of the product/equipment.

The sample/s mentioned in this report is/are supplied by Applicant, SMQ therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.

Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through SMQ, unless the applicant has authorized SMQ in writing to do so.

The lab will not be liable for any loss or damage resulting for false, inaccurate, inappropriate or incomplete product information provided by the applicant/manufacturer.

### 2.2. Laboratory Accreditation and Relationship to Customer

The testing report were performed by the Shenzhen Academy of Metrology and quality Inspection EMC Laboratory (Guangdong EMC compliance testing center), in their facilities located at NETC Building, No.4 Tongfa Rd., Xili, Nanshan, Shenzhen, China. At the time of testing, Laboratory is accredited by the following organizations:

China National Accreditation Service for Conformity Assessment (CNAS) accredits the Laboratory for conformance to FCC standards, EMC international standards and EN standards. The Registration Number is CNAS L0579.

The Laboratory is Accredited Testing Laboratory of FCC with Designation number CN1165 and Site registration number 582918.

The Laboratory is registered to perform emission tests with Innovation, Science and Economic Development (ISED), and the registration number is 11177A.

The Laboratory is registered to perform emission tests with VCCI, and the registration number are C-20048, G20076, R-20077, R-20078 and T-20047.

The Laboratory is Accredited Testing Laboratory of American Association for Laboratory Accreditation (A2LA) and certificate number is 3292.01.

### 3. PRODUCT DESCRIPTION

#### 3.1. EUT Description

Table 2 Specification of the Equipment under Test

Description:	Insulin Pump Controller
Hardware Version:	A1
Software Version:	V1.0.1.02
FCC ID:	2BARWK100
Frequency:	BT:2.402GHz~2.480GHz
Type(s) of Modulation:	Bluetooth: GFSK
Antenna Type:	Internal Antenna: MAX -2.34 dBi
Operating voltage:	DC 3.7V

Remark: /

## 4. RF EXPOSURE

### 4.1. FCC RULES

According to 447498 D01 General RF Exposure Guidance v06

For minimum test separation distance  $\leq 50\text{mm}$ , Wifi standalone SAR test exclusion power threshold is determined by:  $[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  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 before calculation
- The result is rounded to one decimal place for comparison

### 4.2. SAR EXCLUSION CALCULATION

BT worse case is 2480MHz: 0.6dBm ( 1.15mW )

Then  $(1.15 \text{ mW}/5\text{mm}) \times \sqrt{2.480} = 0.36 < 3$

So SAR evaluation is not applicable

**END OF REPORT**