## **TEST REPORT**

of

# FCC MPE REQUIREMENT

**ECG & Respiration Box** Product:

**AULISA** Brand Name:

**GA-EB0001** Model:

N/A Model Difference:

FCC ID: 2AI5Q-EB0001

Taiwan Aulisa Medical Devices Technologies, Inc Applicant:

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Test Performed by:

International Standards Laboratory Corp. LT Lab.

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Taiwan

Report No.: ISL-24LR0164FMPE Issue Date: November 8, 2024





Test results given in this report apply only to the specific sample(s) tested and are traceable to national or international standard through calibration of the equipment and evaluating measurement uncertainty herein.

According to customer agreement, the laboratory issues test reports based on the regulations or standards specifications, the measurement uncertainty is not considered in conformity decision rules.

This test report shall not be reproduced except in full, without the written approval of International Standards Laboratory Corp.





#### **VERIFICATION OF COMPLIANCE**

**Applicant:** Taiwan Aulisa Medical Devices Technologies, Inc

**Product Description:** ECG & Respiration Box

**Brand Name:** AULISA

Model No.: GA-EB0001

**Model Difference:** N/A

FCC ID: 2AI5Q-EB0001

**Date of test:** November 4, 2024 ~ November 8, 2024

**Date of EUT Received:** November 4, 2024

### We hereby certify that:

All the tests in this report have been performed and recorded in accordance with the standards described above and performed by an independent electromagnetic compatibility consultant, International Standards Laboratory Corp.

The test results contained in this report accurately represent the measurements of the characteristics and the energy generated by sample equipment under test at the time of the test. The sample equipment tested as described in this report is in compliance with the limits of above standards.

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Approved By

Jerry Liu / Manager





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## 1. Description of Equipment under Test (EUT)

| General Information   |                |                                  |  |  |  |
|-----------------------|----------------|----------------------------------|--|--|--|
| Product Name:         | Aulisa ECG &   | Aulisa ECG & Respiration Module  |  |  |  |
| Brand Name:           | AULISA         | AULISA                           |  |  |  |
| Model Name:           | GA-EM0001      | GA-EM0001                        |  |  |  |
| Model Difference:     | N/A            | N/A                              |  |  |  |
|                       | 3.7 Vdc from l | 3.7 Vdc from Battery             |  |  |  |
| Darrag Crass 1-1      | Battery:       | Model: IP602035P1; Supplier: RPC |  |  |  |
| Power Supply:         | A 14           | Model: SINGOF-10U-050200         |  |  |  |
|                       | Adaptor:       | Supplier: FORTRON/SOURCE         |  |  |  |
| Bluetooth Information |                |                                  |  |  |  |
| BT Modular:           | TI CC2642R     | TI CC2642R1F                     |  |  |  |
| Bluetooth Version:    | V5.2           | V5.2                             |  |  |  |
| Frequency Range:      | 2402 ~ 2480N   | 2402 ~ 2480MHz                   |  |  |  |
| Max Output Power:     | 2.241dBm       | 2.241dBm                         |  |  |  |
| Channel number:       | 40 channels    | 40 channels                      |  |  |  |
| Modulation type:      | GFSK           | GFSK                             |  |  |  |
| Product HW Version:   | EM0001_MA      | EM0001_MAIN Rev.1.2 2024/05/24   |  |  |  |
| Product SW Version:   | Android 3.2.4  | Android 3.2.4                    |  |  |  |
| Product FW Version:   | V1.0.0         | V1.0.0                           |  |  |  |
| Test SW Version:      | SmartRF Stu    | SmartRF Studio 7 ver.2.17.0      |  |  |  |
| RF power setting:     | Default        | Default                          |  |  |  |

|   | Antenna<br>Type | Brand | Model               | Peak<br>Gain | Frequency Range | Connector<br>Type |
|---|-----------------|-------|---------------------|--------------|-----------------|-------------------|
| 1 | Chip<br>Antenna | TDK   | ANT016008LCS2442MA2 | 2.5dBi       | 2.4GHz          | 1                 |



### 2. Maximum Permissible Exposure (MPE)

#### 2.1 Standard Applicable

For The radiation source included into the device the output power is taken from a corresponding RF test report. If needed the output power is converted to source based, time – average out power. Finally the output power is compared to FCC and IC low power SAR evaluation exemption level.

According to §2.1093 this is a Portable device.

#### **FCC SAR test exclusion:**

According to KDB 447498 D01 General RF Exposure Guidance v06, Appendix A requirement, "The equation and threshold in section 4.3.1 must be applied to determine SAR test exclusion."

#### 4.3.1. Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition, listed below, is satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.23 The minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface of the device, according to the host form factor, exposure conditions and platform requirements, to any part of the body or extremity of a user or bystander (see 5) of section 4.1). To qualify for SAR test exclusion, the test separation distances applied must be fully explained and justified by the operating configurations and exposure conditions of the transmitter and applicable host platform requirements, typically in the SAR measurement or SAR analysis report, according to the required published RF exposure KDB procedures. When no other RF exposure testing or reporting is required, a statement of justification and compliance must be included in the equipment approval, in lieu of the SAR report, to qualify for the SAR test exclusion. When required, the device specific conditions described in the other published RF exposure KDB procedures must be satisfied before applying these SAR test exclusion provisions; for example, handheld PTT two-way radios, handsets, laptops & tablets etc.24

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

[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)]  $\cdot [\sqrt{f(GHz)}] \le 3.0$  for 1-g SAR and  $\le 7.5$  for 10-g extremity SAR,25 where



- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation26
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

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



#### **3.** Evaluation Result:

| E         | Output | Antenna | EIRP (dBm) | Tune-up   | Max   | Min      |        | Limit     |
|-----------|--------|---------|------------|-----------|-------|----------|--------|-----------|
| Frequency | Power  | Gain    |            | Tolerance | Power | Distance | Result | (3.0 @ 1g |
| (MHz)     | (dBm)  | (dBi)   |            | (dB)      | (mW)  | (mm)     |        | SAR)      |
| 2402      | 2.24   | 2.50    | 4.74       | 1         | 3.76  | 5.00     | 1.17   | 3.0       |

$$\label{eq:max_power} \begin{split} & Max\ Power(mW) = & 10^{\land}((Max\ Power(dBm) + Tune-up\ tolerance(dB)\ )/10) \\ & Result = Max\ Power\ (mW)\ /\ min.\ distance(mm)\ *\ \sqrt{f(GHz)} \end{split}$$

 $\sim$  End  $\sim$