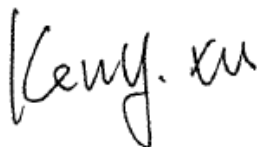


# RF EXPOSURE EVALUATION REPORT

**Application No.:** SZCR2307002202AT  
**Applicant:** Arovast Corporation  
**Address of Applicant:** 1202 N Miller St. Suite A, Anaheim, California, 92806, United States  
**Manufacturer:** Arovast Corporation  
**Address of Manufacturer:** 1202 N Miller St. Suite A, Anaheim, California, 92806, United States  
**Equipment Under Test (EUT):**  
**EUT Name:** Smart Meat Thermometer  
**Model No.:** CMT-R161S  
**Trade Mark:** COSORI  
**FCC ID:** 2ARBY-CMTB  
**Standard(s) :** 47 CFR PART 1, Subpart I, Section 1.1310  
47 CFR PART 2, Subpart J, Section 2.1093  
KDB447498D01 General RF Exposure Guidance v06  
**Date of Receipt:** 2023-07-18  
**Date of Evaluation:** 2023-07-24 to 2023-07-30  
**Date of Issue:** 2023-07-31

|                           |              |
|---------------------------|--------------|
| <b>Evaluation Result:</b> | <b>Pass*</b> |
|---------------------------|--------------|


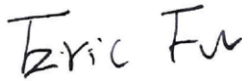
\* In the configuration evaluated, the EUT complied with the standards specified above.



Keny Xu  
EMC Laboratory Manager



| Revision Record |         |            |          |          |
|-----------------|---------|------------|----------|----------|
| Version         | Chapter | Date       | Modifier | Remark   |
| 01              |         | 2023-07-31 |          | Original |
|                 |         |            |          |          |
|                 |         |            |          |          |

|                          |  |                                                                                    |  |
|--------------------------|--|------------------------------------------------------------------------------------|--|
| Authorized for issue by: |  |                                                                                    |  |
|                          |  |   |  |
|                          |  | <hr/> <b>Charlie Dai/Project Engineer</b>                                          |  |
|                          |  |  |  |
|                          |  | <hr/> <b>Eric Fu/Reviewer</b>                                                      |  |



## 2 Evaluation Summary

### Note:

E.U.T./EUT means Equipment Under Test.

Pass means the test result passed the test standard requirement, please find the detailed decision rule in the report relative section.



### 3 Contents

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## 4 General Information

### 4.1 Details of E.U.T.

|                      |                             |
|----------------------|-----------------------------|
| Power supply:        | Battery: Alkaline AAA, 1.5V |
| Operation Frequency: | 2402MHz to 2480MHz          |
| Bluetooth Version:   | V5.0 LE                     |
| Modulation Type:     | GFSK                        |
| Data rate:           | 1Mbps, 2Mbps                |
| Number of Channels:  | 40                          |
| Channel Spacing:     | 2MHz                        |
| Antenna Type:        | PCB Antenna                 |
| Antenna Gain:        | 1.09dBi                     |

Remark: The information in this section is provided by the applicant or manufacturer, SGS is not liable to the accuracy, suitability, reliability or/and integrity of the information.

Remark: This EUT comes in different colors.





### 4.2 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, Nanshan District, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.

### 4.3 Test Facility

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

- **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 (Member No. 1937)**

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd.

Shenzhen EMC laboratory have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

- **FCC –Designation Number: CN1336**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1336. Test Firm Registration Number: 787754.

- **Innovation, Science and Economic Development Canada**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized by ISED as an accredited testing laboratory.

CAB identifier: CN0006.

IC#: 4620C.

### 4.4 Deviation from Standards

None

### 4.5 Abnormalities from Standard Conditions

None



## 5 Technical Requirements Specification

### 5.1 RF Exposure Evaluation

#### 5.1.1 Limit & Test Method

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:

$$\left[ \frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0$$
 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<sup>17</sup>
- The result is rounded to one decimal place for comparison

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  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion

#### 5.1.2 Conclusion

The Max. power (including tune-up tolerance) is 2.45 dBm on the middle channel 2.44 GHz (\*)  
2.45 dBm logarithmic terms convert to numeric result is nearly 1.76 mW

According to the formula. calculate the test exclusion thresholds:

$$\left[ \frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \right] \cdot \sqrt{f(\text{GHz})}$$

$$\text{General RF Exposure} = (1.76 \text{ mW} / 5 \text{ mm}) \times \sqrt{2.44 \text{ GHz}} = 0.55 \tag{1}$$

SAR requirement:

$$S = 3.0 \tag{2}$$

(1) < (2)

So the SAR report is not required.

(\*) Max. power refer to Report No.:SZCR230700220202

- End of the Report -

