



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

SZEMC-TRF-01 Rev. A/0 Aug01,2022

Report No.: SZCR230700220203

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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

Evaluation Result:

Pass*

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

Keny Xu

Keny Xu
EMC Laboratory Manager



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

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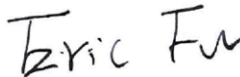
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Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2023-07-31		Original

Authorized for issue by:				
				
		Charlie Dai/Project Engineer		
				
		Eric Fu/Reviewer		



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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.



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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.



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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



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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 ≤ 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 ≤ 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 calculation¹⁷
- The result is rounded to one decimal place for comparison

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 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:

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

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

SAR requirement:

$S = 3.0$ (2)

(1) < (2)

So the SAR report is not required.

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

- End of the Report -