

Bureau Veritas Consumer Product Services, Inc.	Test Report Number:
One Distribution Center Circle #1, Littleton, MA 01460	EW0409-3 Issue 3



## CFR Title 47 FCC Part 2.1093

### Report Exhibit

### Prepared for Idion Inc.

This report presents the environmental impact of human exposure to radiofrequency radiation for

**DWF-01824**

**iTempShield Wearable Thermometer**

Prepared by

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Approved by

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Wireless Manager

Issue date: Jan 26, 2023

Report No: EW0409-3 Issue 3



This test result relates only to the described test object.

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Customer must not use this test report as the product certification of each accreditation body or each national organization.

The test is traceable to national standard or related international standard

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# 1 Device Under Test Information

## 1.1 Product Information

<b>Project Number:</b>	W0409
<b>Applicant Information:</b>	Idion Inc. 12 Plymouth Rd. Darien, Connecticut 06820 USA
<b>Test Item Description:</b>	iTempShield Wearable Thermometer
<b>Model Number:</b>	DWF-01824
<b>DUT Sample Number:</b>	N/A
<b>Hardware Version of DUT:</b>	N/A
<b>Software Version of DUT:</b>	N/A
<b>Separation Distance:</b>	0mm
<b>Exposure Category of DUT:</b>	Portable
<b>Multiple Simultaneous RF Sources:</b>	No
<b>Type of Test:</b>	FCC RF Exposure Exemption Evaluation
<b>Test Method:</b>	CFR Title 47 FCC Part 1.1307(b)(3)
<b>Deviations from Standard:</b>	None
<b>Sample Receipt Date:</b>	2022-10-04
<b>Evaluation Date:</b>	2022-11-21

## 1.2 Technical Information

<b>FCC ID:</b>	2A8QA-ITEMPS
<b>Exposure Category of Transmitter:</b>	Portable
<b>Maximum Conducted Output Power (dBm):</b>	0.2 dBm
<b>Maximum Tune-up Tolerance (dB):</b>	N/A
<b>Maximum Antenna Gain (dBi):</b>	5.3 dBi

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## 2 Test Laboratory Information

<b>Location of Test Lab:</b>	One Distribution Center Circle #1 Littleton, MA 01460 (978) 486-8880
<b>Key Contact:</b>	Yunus Faziloglu Yunus.faziloglu@bureauveritas.com
<b>Laboratory Accreditations:</b>	BUREAU VERITAS CONSUMER PRODUCTS SERVICES, INC is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories.
<b>ISO/IEC 17025:2017:</b>	1627-01
<b>FCC Test Site Number:</b>	US1028

### 3 RF Exposure – Determination of Exemption

#### 3.1 SAR-based Exemption

##### SAR Test Exclusion Thresholds for Portable Devices, 100 MHz < f < 6 GHz

Equation from page 12 of KDB 447498 D01 v06

a) For 100 MHz to 6 GHz and *test separation distances* ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] \leq 3.0 \text{ for 1-g SAR, and } \leq 7.5 \text{ for 10-g extremity SAR,}^{30} \text{ where}$$

- $f_{(\text{GHz})}$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation<sup>31</sup>
- The result is rounded to one decimal place for comparison
- The values 3.0 and 7.5 are referred to as *numeric thresholds* in step b) below

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.

Max power of channel, including tune-up tolerance: 1.05 (mW)  
 Min test separation distance: 5 (mm)  
 Prediction frequency: 2.402 (GHz)

Result of calculation: 0.325466

Threshold for 1-g SAR: 3

Threshold for 3-g SAR: 7.5

#### 3.1.1 Conclusion

The DWF-01824 manufactured by Idion Inc. meets the exemption criteria for the environmental impact of human exposure to radiofrequency radiation using the calculations performed herein.

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## Document Revisions

Issue No.	Summary of Changes	Date Issued	Prepared by	Approved by
1	Original Release	Nov 21, 2022	HX	YF
2	Add separation distance in section 1.1 (p3); Correct antenna gain from 0dBi to 5.3dBi	Jan 9, 2023	HX	YF
3	Corrected conducted output power used in the calculation	Jan 26, 2023	RB	YF

End of Report