

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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1 Device Under Test Information

1.1 Product Information

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

1.2 Technical Information

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

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2 Test Laboratory Information

Location of Test Lab:	One Distribution Center Circle #1 Littleton, MA 01460 (978) 486-8880
Key Contact:	Yunus Faziloglu Yunus.faziloglu@bureauveritas.com
Laboratory Accreditations:	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.
ISO/IEC 17025:2017:	1627-01
FCC Test Site Number:	US1028

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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 calculation³¹
- 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