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| Bureau Veritas Consumer Product Services, Inc.         | Test Report Number: |
| One Distribution Center Circle #1, Littleton, MA 01460 | EV1931-11 Issue 1   |



## CFR Title 47 FCC Part 2.1091

### Report Exhibit

### Prepared for Onset Computer Corporation

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

**MX2306, MX2307**

**HOBO MX Soil Moisture (MX2306) and MX Soil Moisture and Temperature (MX2307) Data Logger**

Prepared by

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EMC Engineer

Approved by

Yunus Faziloglu

Wireless Manager

Issue date: 2022-08-18

Report No: EV1931-11 Issue 1



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>                   | EV1931                                                                                                   |
| <b>Applicant Information:</b>            | Onset Computer Corporation                                                                               |
|                                          | 470 MacArthur Blvd.<br>Bourne, MA 02532                                                                  |
| <b>Test Item Description:</b>            | HOBO MX Soil Moisture Data Logger (MX2306)<br>HOBO MX Soil Moisture and Temperature Data Logger (MX2307) |
| <b>Model Number:</b>                     | MX2306, MX2307                                                                                           |
| <b>DUT Sample Number:</b>                | N/A                                                                                                      |
| <b>Hardware Version of DUT:</b>          | A                                                                                                        |
| <b>Software Version of DUT:</b>          | 169.5                                                                                                    |
| <b>Exposure Category of DUT:</b>         | Mobile                                                                                                   |
| <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>              | 2022-02-14                                                                                               |
| <b>Evaluation Date:</b>                  | 2022-08-18                                                                                               |

### 1.2 Technical Information

|                                              |            |
|----------------------------------------------|------------|
| <b>FCC ID:</b>                               | WXF-ONST12 |
| <b>Exposure Category of Transmitter:</b>     | Mobile     |
| <b>Maximum Conducted Output Power (dBm):</b> | -2.38 dBm  |
| <b>Maximum Tune-up Tolerance (dB):</b>       | N/A        |
| <b>Maximum Antenna Gain (dBi):</b>           | 2.0 dBi    |

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## 2 Test Laboratory Information

|                                   |                                                                                                                                                                                                                           |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Location of Test Lab:</b>      | One Distribution Center Circle #1<br>Littleton, MA 01460<br>(978) 486-8880                                                                                                                                                |
| <b>Key Contact:</b>               | Yunus Faziloglu<br>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                                                                                                                                                                                                                    |

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### 3 RF Exposure – Determination of Exemption – FCC Section 1.1307(b)(3)(i)

#### 3.1 Single RF Source 1 mW Exemption – 1.1307(b)(3)(i)(A)

##### 3.1.1 Definition

A single RF source is exempt if the available maximum time-averaged power is no more than 1 mW, regardless of separation distance.

##### 3.1.2 Exemption Calculation

$$P_{out} \leq 1 \text{ mW}$$

Field strength values can be converted to conducted power before comparing to the exemption threshold using the following equations.

$$EIRP \text{ (dBm)} = E \text{ (dBuV/m)} + 20 \times \log d \text{ (m)} - 104.8 \text{ (dB)}$$

AND

$$P_{out} \text{ (mW)} = 10^{\frac{(EIRP \text{ (dBm)} - G \text{ (dBi)})}{10}}$$

##### 3.1.3 Single RF Source Exemption Results

| Radio | Radio Power*<br>(dBm) | Radio Field Strength*<br>(dBuV/m) | Test Distance*<br>(m) | Radio Power<br>(mW) | Threshold Power<br>(mW) |
|-------|-----------------------|-----------------------------------|-----------------------|---------------------|-------------------------|
| A     | -2.38                 |                                   |                       | 0.58                | 1                       |
| B     |                       |                                   |                       |                     |                         |
| C     |                       |                                   |                       |                     |                         |
| D     |                       |                                   |                       |                     |                         |
| E     |                       |                                   |                       |                     |                         |

\* If applicable, otherwise leave blank.

##### 3.1.4 Conclusion

The MX2306 and MX2307 manufactured by Onset Computer Corporation 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

| Version | Date       | Modifier | Changes         |
|---------|------------|----------|-----------------|
| 1.0     | 2022-08-18 | HX       | Initial release |

End of Report