

# Orthotics and Prosthetics One, Inc.

## RF EXPOSURE EXEMPTION REPORT

**SCOPE OF WORK**

RF EXPOSURE EXEMPTION EVALUATION – OPOS1

**REPORT NUMBER**

105232834BOX-001.1

**ISSUE DATE**

12/30/2022

**[REVISED DATE]**

01/18/2023

**DOCUMENT CONTROL NUMBER**

Non-Specific Radio Report Shell Rev. October 2022  
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## RF EXPOSURE EXEMPTION EVALUATION REPORT (FULL COMPLIANCE)

**Report Number:** 105232834BOX-001.1  
**Project Number:** G105232834

**Report Issue Date:** 12/30/2022  
**Report Revision Date:** 01/18/2023

**Model(s) Tested:** 053-A-2001 Rev B

**Model(s) Partially Tested:** None

**Model(s) Not Tested but declared equivalent by the client:** None

**Standards:** FCC Part 1 Subpart I, December 2022

Procedures Implementing the National Environmental Policy Act of 1969  
§1.1307 Actions that may have a significant environmental effect, for  
which Environmental Assessments (EAs) must be prepared.

Tested by:

Intertek  
70 Codman Hill Road  
Boxborough, MA 01719  
USA

Client:

Orthotics and Prosthetics One, Inc.  
527 Park Lane  
Waterloo, IA 50702  
USA

Report prepared by



Vathana Ven / Senior Staff Engineer, EMC

Report reviewed by



Kouma Sinn / Senior Staff Engineer, EMC

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## 1 Introduction and Conclusion

The tests indicated in section 2.0 were performed on the product constructed as described in section 4.0. The remaining test sections are the verbatim text from the actual data sheets used during the investigation. These test sections include the test name, the specified test Method, a list of the actual Test Equipment Used, documentation Photos, Results and raw Data. No additions, deviations, or exclusions have been made from the standard(s) unless specifically noted.

Based on the results of our investigation, we have concluded the product tested **complies** with the requirements of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) tested. Intertek does not make any claims of compliance for samples or variants which were not tested.

## 2 Test Summary

| Section | Test full name   | Result |
|---------|--|--------|
| 3       | Client Information   | --     |
| 4       | Description of Equipment Under Test and Variant Models                 | --     |
| 5       | System Setup and Method  | --     |
| 6       | FCC SAR Test Exclusion<br>FCC Part 1 Subpart I, December 2022, §1.1307 | Pass   |
| 7       | Revision History   | --     |

### 3 Client Information

**This EUT was tested at the request of:**

**Client:** Orthotics and Prosthetics One, Inc.  
527 Park Lane  
Waterloo, IA 50702  
USA

**Contact:** Clark Dennis  
**Telephone:** 1-800-408-3598  
**Fax:** None  
**Email:** clarkdennise@gmail.com

### 4 Description of Equipment Under Test and Variant Models

**Manufacturer:** Orthotics and Prosthetics One, Inc.  
527 Park Lane  
Waterloo, IA 50702  
USA

| Equipment Under Test |                                     |                  |  |
|----------------------|-------------------------------------|------------------|--|
| Description          | Manufacturer                        | Model Number     | Serial Number  |
| OPOS1                | Orthotics and Prosthetics One, Inc. | 053-A-2001 Rev B | 22K08-110<br>(Sample used for antenna port measurements) |

|                     |            |
|---------------------|------------|
| Receive Date:       | 12/07/2022 |
| Received Condition: | Good       |
| Type:               | Production |

| Description of Equipment Under Test (provided by client)   |  |
|--|--|
| The OPOS1 sensor is part of a system used by clinicians in the field of orthotics and prosthetics to track the amount of time that an orthotic or prosthetic device is worn by a patient. The sensor itself is a low power wearable device that monitors activity data and other metrics and uploads this data to a paired smart phone using the Bluetooth Low Energy (BLE) 5 protocol. Time-averaged data rate is kept low to extend battery life from a small coin cell watch battery and does not include any voice/audio data transmission capability. |  |

#### Variant Models:

The following variant models were not tested as part of this evaluation and are not eligible for certification; but have been identified by the manufacturer as being electrically identical models, depopulated models, or with reasonable similarity to the model(s) tested. Intertek does not make any claims of compliance for samples or variants which were not tested.

None

## 5 RF EXPOSURE EXEMPTION EVALUATION

### 5.1 Determination of Exemption [ FCC 1.1307(b)(3)]

Per KDB 447498 D01 General RF Exposure Guidance v06 § 4.3.1(a), the 10-g extremity SAR exclusion threshold is:

$$\left[ \frac{(\text{max. power of channel, including tune - up tolerance, mW})}{(\text{min. test separation distance, mm})} \right] \cdot \left[ \sqrt{f(\text{GHz})} \right] \leq 7.5$$

### 5.2 Exemption Evaluation

| Frequency (MHz) | Peak RF (dBm) | Antenna Gain (dBi) | EIRP (dBm) | EIRP (mW) | Note   |
|-----------------|---------------|--------------------|------------|-----------|--|
| 2402-2480       | 4.13          | -0.5               | 4.13       | 2.5882    | Conducted power measurements were taken from Report#105232834BOX-001 |

Note 1: Antenna gain was declared by the manufacturer.

Note 2: Antenna gain below 0 are considered as 0 dBi.

$$[(2.5882 \text{ mW}/5 \text{ mm})] \times \text{Sqrt}(2.480) = 0.8152$$

Minimum test separation distance of 5mm was used for calculation for RF exposure exemption. The result was calculated to be 0.8152 which is less than the limit of 7.5; hence, the device is exempted.

| Product Standard: §1.1307 |   |  |                 | Limit applied: See Report Section 6.5<br>Pretest Verification w/BB source: N/A |                  |                     |                           |
|---------------------------|---|--|-----------------|--|------------------|---------------------|---------------------------|
| Test Date                 | Test Personnel/ Initials  | Supervising Engineer/ Initials   | Input Voltage   | Mode   | Atmospheric Data |                     |                           |
|                           |   |  |                 |  | Temp C°          | Relative Humidity % | Atmospheric Pressure mbar |
| 01/18/2023                | Vathana Ven  | Kouma Sinn  | Battery powered | Tx Low, Mid, High Channels   | 24               | 19                  | 1014                      |
|                           |   |  |                 |  |                  |                     |                           |

Deviations, Additions, or Exclusions: None

**6 Revision History**

| Revision Level | Date       | Report Number      | Prepared By   | Reviewed By    | Notes  |
|----------------|------------|--------------------|---------------|----------------|--|
| 0              | 12/30/2022 | 105232834BOX-001.1 | VFV <i>VJ</i> | KPS <i>KPS</i> | Original Issue   |
| 1              | 01/18/2023 | 105232834BOX-001.1 | VFV <i>VJ</i> | KPS <i>KPS</i> | Correct typo on page 5 and recalculated data on page 6 |
|                |            |                    |               |                |  |
|                |            |                    |               |                |  |
|                |            |                    |               |                |  |
|                |            |                    |               |                |  |