

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 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 (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 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 <i>VSV</i>	Kouma Sinn <i>KPS</i>	Battery powered	Tx Low, Mid, High Channels	24	19	1014

Deviations, Additions, or Exclusions: None

Intertek

Report Number: 105232834BOX-001.1

Issued: 12/30/2022
Revised: 01/18/2023

6 Revision History

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