

RF Exposure Report

Project Number: 5251870**Offer Number: SUW-202411007378****Report Number: 5251870EMC04****Revision Level: 1****Client: Orpyx Medical Technologies Inc.****Equipment Under Test: Orpyx® Sensory Insoles****Model Number: SI000010****FCC ID: 2AAH8-SI000011 and 2AAH8-SI000012****Applicable Standards: 47 CFR §§ 2.1093 (Portable)****FCC KDB 447498 D01 General RF Exposure Guidance v06****Report issued on: 12 June 2025****Result: Exempt from SAR evaluation**


FOR THE SCOPE OF ACCREDITATION UNDER CERTIFICATE NUMBER: 3212.01

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TABLE OF CONTENTS

1	GENERAL INFORMATION.....	3
1.1	CLIENT INFORMATION.....	3
1.2	TEST LABORATORY	3
1.3	GENERAL INFORMATION OF EUT.....	3
1.4	SEPARATION DISTANCE.....	3
2	SAR EXCLUSION CALCULATIONS	4
3	REVISION HISTORY	6

1 General Information

1.1 Client Information

Company Name: Orpyx Medical Technologies Inc.
Address: Suite 205, 1240 20th Avenue SE
City, State, Zip, Country: Calgary, Alberta T2G 1M8 Canada

1.2 Test Laboratory

Name: SGS North America, Inc.
Address: 620 Old Peachtree Road NW, Suite 100
City, State, Zip, Country: Suwanee, GA 30024, USA

Accrediting Body: A2LA
Type of lab: Testing Laboratory
Certificate Number: 3212.01

1.3 General Information of EUT

Equipment Under Test: Orpyx® Sensory Insoles
Model Number: SI000010
Serial Numbers: 2222-5017 & 2222-4021 (left & right Conducted Samples)
2222-5012 & 2222-5003 (left & right Radiated Samples)
FCC ID: 2AAH8-SI000011 (right insole)
2AAH8-SI000012 (left insole)

Frequency Range: 2402 – 2480 MHz
Data Modes: Bluetooth Low Energy (BLE) – GFSK – 1Mbps & 2Mbps
Antenna/Gain*: Chip Antenna (4.5dBi gain)
Maximum Conducted Power: 3.61dBm (right insole)
5.87dBm (left insole)

Rated Voltage: 3.7Vdc Internal Battery
Test Voltage: 3.7Vdc Internal Battery

Sample Received Date: 17 December 2024
Dates of testing: 24 - 26 December 2024 and 5 - 10 June 2025

*Data was not measured by SGS laboratory and therefore SGS is not responsible for accuracy. Data obtained via customer, specification sheet, previous filing or other.

1.4 Separation Distance

The radio antenna is located within the insole worn in the user's shoe, placing it a few mm from the user's foot. For cases where the separation distance is 0mm to 5mm, a separation distance of 5mm is used for the evaluation.

2 SAR Exclusion Calculations

The highest output power in conjunction with the upper and lower frequency boundaries have been used to demonstrate compliance for both the right and left insoles.

The EUT is considered an extremity application.

2AAH8-SI000011 (right insole) – Low Channel

447498 D01 General RF Exposure Guidance v06

SAR test exclusion calculations

Section 4.3: General SAR test exclusion guidance / Section 4.3.1: Standalone SAR test exclusion considerations

	Input	Select Units
Max Power:	3.53	dBm
Duty Cycle:	100.0%	<= Source based time average duty cycle
Min separation distance:	5	mm
Frequency, f:	2402	MHz

Value reference Number	Values used for Calculation	Reference number definition
v1	2.000 mW	[max. power of channel, including tune-up tolerance, mW] 'Rounded to nearest mW
v2	5 mm	[min. test separation distance, mm] 'Rounded to nearest mm
v3	1.550	[f(GHz)]

- 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:

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

Exclusion Calculation(1g):	0.6199	number	<= [v2 / v3] must be less than 3
Exclusion Calculation(10g):	0.6199	number	<= [v2 / v3] must be less than 7.5

Conclusions (Body):	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Body applications
Conclusions (Extremity):	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Extremity applications

2AAH8-SI000011 (right insole) – High Channel

447498 D01 General RF Exposure Guidance v06

SAR test exclusion calculations

Section 4.3: General SAR test exclusion guidance / Section 4.3.1: Standalone SAR test exclusion considerations

	Input	Select Units
Max Power:	3.61	dBm
Duty Cycle:	100.0%	<= Source based time average duty cycle
Min separation distance:	5	mm
Frequency, f:	2480	MHz

Value reference Number	Values used for Calculation	Reference number definition
v1	2.000 mW	[max. power of channel, including tune-up tolerance, mW] 'Rounded to nearest mW
v2	5 mm	[min. test separation distance, mm] 'Rounded to nearest mm
v3	1.575	[f(GHz)]

- 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:

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

Exclusion Calculation(1g):	0.6299	number	<= [v2 / v3] must be less than 3
Exclusion Calculation(10g):	0.6299	number	<= [v2 / v3] must be less than 7.5

Conclusions (Body):	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Body applications
Conclusions (Extremity):	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Extremity applications

2AAH8-SI000012 (left insole) – Low Channel

447498 D01 General RF Exposure Guidance v06

SAR test exclusion calculations

Section 4.3: General SAR test exclusion guidance / Section 4.3.1: Standalone SAR test exclusion considerations

	Input	Select Units
Max Power:	5.87	dBm
Duty Cycle:	100.0%	
Min separation distance:	5	mm
Frequency, f:	2402	MHz

← Source based time average duty cycle

Value reference Number	Values used for Calculation	Reference number definition
v1	4.000 mW	[max. power of channel, including tune-up tolerance, mW] 'Rounded to nearest mW
v2	5 mm	[min. test separation distance, mm] 'Rounded to nearest mm
v3	1.550	[f(GHz)]

- 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:

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

Exclusion Calculation(1g):	1.2399	number	← [v2 / v3] must be less than 3
Exclusion Calculation(10g):	1.2399	number	← [v2 / v3] must be less than 7.5

Conclusions (Body):	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Body applications
Conclusions (Extremity):	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Extremity applications

2AAH8-SI000012 (left insole) – High Channel

447498 D01 General RF Exposure Guidance v06

SAR test exclusion calculations

Section 4.3: General SAR test exclusion guidance / Section 4.3.1: Standalone SAR test exclusion considerations

	Input	Select Units
Max Power:	5.71	dBm
Duty Cycle:	100.0%	
Min separation distance:	5	mm
Frequency, f:	2480	MHz

← Source based time average duty cycle

Value reference Number	Values used for Calculation	Reference number definition
v1	4.000 mW	[max. power of channel, including tune-up tolerance, mW] 'Rounded to nearest mW
v2	5 mm	[min. test separation distance, mm] 'Rounded to nearest mm
v3	1.575	[f(GHz)]

- 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:

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

Exclusion Calculation(1g):	1.2598	number	← [v2 / v3] must be less than 3
Exclusion Calculation(10g):	1.2598	number	← [v2 / v3] must be less than 7.5

Conclusions (Body):	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Body applications
Conclusions (Extremity):	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Extremity applications

3 Revision History

Revision Level	Description of changes	Revision Date
0	Initial Release	28 May 2025
1	Added information and calculations on second insole.	12 June 2025