SLOVENSKA AKREDITACIJA
SIST EN ISO/IEC 17025
LP-009

Test report

Number	**T251-0779/24 M1**	Project file:	C20240185
		Date:	2024-11-22
		Pages:	5

Product:	**Symbios Tank Pod**
Type reference:	**O2S002**
Ratings:	3 V d.c. (battery powered) Class III
Trademark:	Oxygen Scientific
Applicant:	**Halcyon Manufacturing** **24587 NW 178th Pl, 32643 High Springs, Florida, USA**
Manufacturer:	Oxygen Scientific GmbH Eichbachgasse 151, 8041 Graz, Austria
Place of manufacture:	Oxygen Scientific GmbH Eichbachgasse 151, 8041 Graz, Austria

Summary of testing

Testing method:	KDB 447498 D01 General RF Exposure Guidance v06
Testing location:	SIQ Ljubljana Mašera-Spasićeva ulica 10, SI-1000 Ljubljana, Slovenia
Remarks:	Date of receipt of test items: 2024-01-31 Number of items tested: 1 Date of performance of tests: 2024-09-16 The test results presented in this report relate only to the items tested. The test items were tested in the condition as received. The product complies with the requirements of the testing methods.

Tested by: Nik Vončina

Approved by: Marjan Mak

SIQ Ljubljana, Mašera-Spasićeva ulica 10, SI-1000 Ljubljana, Slovenia
T +386 1 4778 100, F +386 1 4778 444, info@siq.si, www.siq.si

CONTENTS Page

1 GENERAL 3

1.1 EQUIPMENT UNDER TEST 3

2 ASSESSMENT PROCEDURE 4

3 MEASUREMENTS / CALCULATIONS 5

1 GENERAL

History sheet			
Date	Report No.	Change	Revision
2024-11-13	T251-0779/24	Initial Test Report issued.	--
2024-11-22	T251-0779/24 M1	This report substitutes previously issued test report T251-0779/24, dated 2024-11-13, due to amendment of the test report. The applicant was changed. No additional testing was performed.	1.0

1.1 Equipment under test

Symbios Tank Pod

Type: **O2S002**

Environment: Uncontrolled / General Public
Assessment distance: less than 50 mm

FCC ID: **2BFZG-O2S002**

Reviewed test report T251-0209/24 from SIQ Ljubljana.

2 ASSESSMENT PROCEDURE

KDB 447498 D01 General RF Exposure Guidance v06 Clause 4.3.1. Standalone SAR test exclusion considerations

SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition(s), listed below, is (are) satisfied. These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions.

For frequencies between 100 MHz and 6 GHz, the following may be considered for SAR test exclusion:

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: [(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR, 30 where

- f(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.

b) 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 (also illustrated in Appendix B):

1) {[Power allowed at numeric threshold for 50 mm in step a)] + [(test separation distance – 50 mm)·(f(MHz)/150)]} mW, for 100 MHz to 1500 MHz
2) {[Power allowed at numeric threshold for 50 mm in step a)] + [(test separation distance – 50 mm)·10]} mW, for > 1500 MHz and ≤ 6 GHz

c) For frequencies below 100 MHz, the following may be considered for SAR test exclusion (also illustrated in Appendix C):

1) For test separation distances > 50 mm and < 200 mm, the power threshold at the corresponding test separation distance at 100 MHz in step b) is multiplied by [1 + log(100/f(MHz))]
2) For test separation distances ≤ 50 mm, the power threshold determined by the equation in c) 1) for 50 mm and 100 MHz is multiplied by ½
3) SAR measurement procedures are not established below 100 MHz.

3 MEASUREMENTS / CALCULATIONS

Antenna type and gain: Built-in antenna

KDB 447498 D01 General RF Exposure Guidance v06 Clause 4.3.1:

Frequency (kHz)	Maximum* power without tune-up (dBuV/m @ 10 m)	Maximum* power with tune-up (mW)	SAR Test Exclusion Threshold (mW)
125	56.73	0.0025	948

Calculation from field strength to output power:
$E(V/m) = 10^{(dBuV/m-120)/20} = 10^{(58,73-120) / 20} = 0.00086$ V/m
$P(max) = (E \times d)^2 / 30 = 0,0025$ mW

* Gated power with Duty Cycle calculated in
** maximum tolerance provided from manufacturer is ±2dB

Conclusion: PASS; SAR Evaluation is not required due to SAR Test Exclusion Thresholds are met.

There is no simultaneous transmission between any other transmitter.