

RF Exposure Evaluation Report

Product : SurroSense Rx
Trade mark : SurroSense
Model/Type reference : METIMURV1
Serial Number : N/A
Report Number : EED32L00044602
FCC ID : 2AAH8-METIMURV1
Date of Issue : May 06, 2019
Test Standards : 47 CFR Part 1.1307
47 CFR Part 2.1093
KDB 447498D01 v06
Test result : PASS

Prepared for:

Orpyx Medical Technologies Inc.
Bay 2, 1440 28 Street N.E., Calgary, Alberta, Canada T2A 7W6

Prepared by:

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May 06, 2019

Check No.: 3570102508



2 Version

Version No.	Date	Description
00	May 06, 2019	Original

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4 General Information

4.1 Client Information

Applicant:	Orpyx Medical Technologies Inc.
Address of Applicant:	Bay 2, 1440 28 Street N.E., Calgary, Alberta, Canada T2A 7W6
Manufacturer:	Orpyx Medical Technologies Inc.
Address of Manufacturer:	Bay 2, 1440 28 Street N.E., Calgary, Alberta, Canada T2A 7W6
Factory:	Orpyx Medical Technologies Inc.
Address of Factory:	Bay 2, 1440 28 Street N.E., Calgary, Alberta, Canada T2A 7W6

4.2 General Description of EUT

Product Name:	SurroSense Rx
Model No.(EUT):	METIMURV1
Trade mark:	SurroSense
EUT Supports Radios application:	BT 5.0 Single mode, 2402-2480MHz

4.3 Product Specification subjective to this standard

Frequency Range:	2402-2480MHz	
Modulation Type:	GFSK	
Number of Channels:	40	
Test Power Grade:	N/A	
Test Software of EUT:	nRFgo Studio (manufacturer declare)	
Antenna Type:	PCB Antenna	
Antenna Gain:	3.3dBi	
Power Supply:	AC Adapter	Model: HDP12-MD05024U Input: 100-240Vac~ 50/60Hz Output: 5Vdc---2.4A, 12W
	Battery	Lithium-ion Battery:180mAh 3.7V
Max Conducted Peak Output Power:	-9.444dBm	
	The Max Conducted Peak Output Power data refer to the report EED32L00044601.	
Hardware Version:	N/A	
Firmware Version:	1.5(manufacturer declare)	
Sample Received Date:	Mar. 07, 2019	
Sample tested Date:	Mar. 20, 2019 to Mar. 28, 2019	
Remark:	The tested sample(s) and the sample information are provided by the client.	

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4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06
Standalone SAR test exclusion considerations

Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Exclusion Threshold condition, listed below, is satisfied.

5.1.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{(\text{min. test separation distance, mm})} \right] \cdot \sqrt{f(\text{GHz})} \leq 3.0$$
 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where $f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

The result is rounded to one decimal place for comparison

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 is applied to determine SAR test exclusion

5.1.3 EUT RF Exposure

The Max Conducted Peak Output Power is -9.444dBm in highest channel(2.480GHz);

The best case gain of the antenna is 3.3dBi.

EIRP= -9.444dBm + 3.3dBi = -6.144dBm

-6.144dBm logarithmic terms convert to numeric result is nearly 0.2430mW

According to the formula. calculate the EIRP test result:

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

General RF Exposure = $(0.2430\text{mW} / 5 \text{ mm}) \times \sqrt{2.480\text{GHz}} = 0.077$ ①

SAR requirement:

S= 3.0

② ;

① < ②.

So the SAR report is not required.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32L00044601 for EUT external and internal photos.

*** End of Report ***

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.