



F2 Labs
16740 Peters Road
Middlefield, Ohio 44062
United States of America
www.f2labs.com

SAR EXEMPTION REPORT

Manufacturer: Systec Dizainas UAB
Vikpedes Str. 4
03151 Lithuania

Applicant: Zehnder America
6 Merrill Industrial Drive, Suite 7
Hampton, New Hampshire 03842 USA
United States of America

Product Name: SNS-CO2-RF67-925MHz-MTB

Product Description: Sensor for carbon dioxide

Model: Sensor CO2

FCC ID: 2A8X810019109

Standard(s):

- KDB447498 D04 Interim General RF Exposure Guidance v01
- FCC Rule Part 1.1307(b)(3)(i)(a)

Report Constructed by:

Julius Chiller, Senior Wireless Project Engineer

Report Reviewed by:

Ken Littell, Vice President of Operations

F2 Labs
26501 Ridge Road
Damascus, MD 20872
Ph 301.253.4500

F2 Labs
16740 Peters Road
Middlefield, OH 44062
Ph 440.632.5541

F2 Labs
8583 Zionsville Road
Indianapolis, IN 46268
Ph 317.610.0611

This test report may be reproduced in full; partial reproduction only may be made with the written consent of F2 Labs. The results in this report apply only to the equipment tested.



TABLE OF CONTENTS

Section	Title	Page
1	ADMINISTRATIVE INFORMATION	3
2	SUMMARY OF TEST RESULTS/MODIFICATIONS	4
3	ENGINEERING STATEMENT	5
4	EUT INFORMATION AND DATA	6



1 ADMINISTRATIVE INFORMATION

1.1 Measurement Location:

F2 Labs in Middlefield, Ohio. Site description and attenuation data are on file with the FCC's Sampling and Measurement Branch at the FCC Laboratory in Columbia, MD.

1.2 Document History

Document Number	Description	Issue Date	Approved By
F2P27923-02E	First Issue	2023-03-24	K. Littell



2 SUMMARY OF RESULTS

	Standard(s)	Results
SAR Exemption	- KDB447498 D04 Interim General RF Exposure Guidance v01 - FCC Rule Part 1.1307(b)(3)(i)(a)	Complies

Modifications Made to the Equipment
None



3 ENGINEERING STATEMENT

This report has been prepared on behalf of Zehnder America, to provide documentation for the SAR Exemption herein. This equipment has been tested and found to comply with the SAR Exemption levels listed in FCC Rule Part 1.1307(b)(3)(i)(a).

(3) Determination of exemption.

(i) For single RF sources (i.e., any single fixed RF source, mobile device, or portable device, as defined in paragraph (b)(2) of this section): A single RF source is exempt if:

(A) The available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption may not be used in conjunction with other exemption criteria other than those in paragraph (b)(3)(ii)(A) of this section. Medical implant devices may only use this exemption and that in paragraph (b)(3)(ii)(A);”

The minimum distance from the antenna of the CO2 Sensor, is 5mm. The maximum Field Strength of the transmitter was 89.9 dBμV/m at 3m which equals 0.344 mW, well below the exemption limit of 1mW.

$$P(\text{dBm}) = E(\text{dB}\mu\text{V}/\text{m}) + 20\text{LOG}(d) - G - 104.77$$
$$89.9 + 9.542425 + 0.7 - 104.77 = -4.63\text{dBm}$$

$$P(\text{dBm}) = -4.63 \text{ which is } 0.344\text{mW}$$



4 EUT INFORMATION AND DATA

4.1 Equipment Under Test:

Product: **SNS-CO2-RF67-925MHz-MTB**

Model: **Sensor CO2**

Serial No.: ZWS22310001

Firmware: CO2SensFW_RF_FCC_US_v0.04.hex

Hardware: V3.0

FCC ID: 2A8X810019109

4.2 Trade Name:

Zehnder America

4.3 Power Supply:

120V/60 Hz

4.4 Applicable Rules:

KDB447498

4.5 Antenna:

Chip Antenna, peak gain -0.7dB

4.6 Accessories: None