F2 Labs
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CERTIFICATION TEST REPORT

Manufacturer:	**Structured Monitoring Products** **151 Innovation Way, Suite 210** **Elyria, Ohio 44035 USA** **United States of America**
Applicant:	**Same as above**
Product Description:	**Heart rate and respiratory rate measurement device for animals.**
Model:	**SMPVG02* – Version 2.5** **Denotes actual model tested where models SMPVG02 and SMPVG03 are identical except for a different label for the unit name for branding purposes.*
FCC ID:	**2ARN8-SMPVG02**
Testing Commenced:	2022-04-26
Testing Ended:	2022-04-26
Test Results:	**In Compliance** The EUT complies with the EMC requirements when manufactured identically as the unit tested in this report, including any required modifications. Any changes to the design or build of this unit subsequent to this testing may deem it non-compliant.

Standards:

- **KDB447498**
- **FCC Part 1.1310**

Evaluation Conducted by:

Julius Chiller, EMC/Wireless Engineer

Report Reviewed by:

Ken Littell, Vice President of EMC

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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 Measurement Procedure:

All measurements were performed according to KDB558074.

1.4 Document History

Document Number	Description	Issue Date	Approved By
F2P27463-02E	First Issue	2022-07-14	K. Littell

2 SUMMARY OF TEST RESULTS

Test Name	Standard(s)	Results
RF Exposure for Device >20cm from Human	KDB447498 FCC Part 1.1310	Complies

Modifications Made to the Equipment
None

3 ENGINEERING STATEMENT

This report has been prepared on behalf of Structured Monitoring Products, Inc. to provide documentation for the testing described herein. This equipment has been tested and found to comply with FCC Rule Part 1.1310 and KDB447498. The test results found in this test report relate only to the item(s) tested.

4 EUT INFORMATION AND DATA

4.1 Equipment Under Test:

Product: Heart Monitor
Model: SMPVG02* – Version 2.5
Serial No.: 1
Firmware: 2.5
Hardware: D
FCC ID: 2ARN8-SMPVG02
FCC ID of Approved WiFi module is 2ABCB-RPICM4

**Denotes actual model tested where models SMPVG02 and SMPVG03 are identical except for a different label for the unit name for branding purposes.*

4.2 Trade Name:

Structured Monitoring Products

4.3 Power Supply:

12VDC from AC Supply

4.4 Applicable Rules:

- KDB447498
- FCC Part 1.1310

4.5 Antenna:

Integral Antenna of Radar Transmitter, 0dBi Gain
WiFi Antenna for 2.4GHz transmission, 3.5dBi Gain
WiFi Antenna for 5GHz transmission, 2.3dBi Gain

4.6 Accessories:

CUI AC Adaptor ESTA120100UDC-P5P-SZ

5 RF EXPOSURE FOR DEVICE >20cm FROM HUMAN

5.1 Requirements: **Distance used is 20cm**

Limit: 1mW/cm^2

Formula used for result: $\frac{\text{E.I.R.P.}}{4\ \pi\ R^2}$

Results: E.I.R.P. of Radar transmission = 0.10165mW

0.10165mW at the 5870 MHz single channel.

$$\frac{0.10165\text{mW}}{4\ \pi\ R^2} = \frac{0.10165\text{mW}}{5026.55} = 0.00002\text{mW/cm2}$$

The highest E.I.R.P. of the WiFi as reported in the authorization for the WiFi module in the 5170 – 5825 MHz range = 112.2 mW

$$\frac{112.2\text{mW}}{4\ \pi\ R^2} = \frac{112.2\text{mW}}{5026.55} = 0.0223\text{mW/cm2}$$

$$\frac{0.00002\text{mW/cm2}}{1\text{mW/cm}^2} = \text{Ratio of } 0.00002$$

$$\frac{0.0223\text{mW/cm2}}{1\text{mW/cm}^2} = \text{Ratio of } 0.0223$$

The combined MPE of WiFi and Radar is Ratio of 0.00002 + 0.0223 = 0.02232