

VELENTIUM LLC.

TEST REPORT

SCOPE OF WORK

Emissions Testing on Model M3000 Remote Control for the Medical Device (BLE)

REPORT NUMBER

104664086BOX-011_RF Exposure

ISSUE DATE

February 16, 2022

[REVISED DATE]

Original

PAGES

7

DOCUMENT CONTROL NUMBER

Non-Specific Radio Report Shell Rev. December 2017
© 2017 INTERTEK



EMISSIONS TEST REPORT (FULL COMPLIANCE)

Report Number: 104664086BOX-011_RF Exposure
Project Number: G104664086

Report Issue Date: 02/16/2022

Model(s) Tested: M3000 (BLE)
Model(s) Partially Tested: None
Model(s) Not Tested but declared equivalent by the client: None

Standards: FCC Part 1.1310:2022 Limits for Maximum Permissible Exposure (MPE)
RSS-102 Issue 5 March 2015

Tested by:
Intertek Testing Services NA, Inc.
70 Codman Hill Road
Boxborough, MA 01719
USA

Client:
Velentium LLC
22316 Grand Corner Dr
Suite 150
Katy, TX 77494
USA

Report prepared by



Vathana Ven / EMC Engineering Supervisor

Report reviewed by



Kouma Sinn / EMC Engineering Supervisor

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

Table of Contents

1 Introduction and Conclusion..... 4

2 Test Summary 4

3 Human RF exposure 5

4 Revision History..... 7

1 Introduction and Conclusion

The tests indicated in section 2.0 were performed on the product constructed as described in section 4.0. The remaining test sections are the verbatim text from the actual data sheets used during the investigation. These test sections include the test name, the specified test Method, a list of the actual Test Equipment Used, documentation Photos, Results and raw Data. No additions, deviations, or exclusions have been made from the standard(s) unless specifically noted.

Based on the results of our investigation, we have concluded the product tested **complies** with the requirements of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) tested. Intertek does not make any claims of compliance for samples or variants which were not tested.

2 Test Summary

Section	Test full name	Result
3	Client Information	--
4	Description of Equipment Under Test and Variant Models	--
5	System Setup and Method	--
6	FCC Part 1.1310:2022 Limits for Maximum Permissible Exposure (MPE), RSS-102 Issue 5 March 2015	Pass
7	Revision History	--

*The EUT is battery powered.

3 Human RF exposure

3.1 Method

Tests are performed in accordance with FCC Part 1.1310:2022 Limits for Maximum Permissible Exposure (MPE), RSS-102 Issue 5 March 2015.

TEST SITE: AMAP LAB

3.2 Test Equipment Used:

Asset	Description	Manufacturer	Model	Serial	Cal Date	Cal Due
DAV005	Weather Station	Davis	6250	MS191218083	02/07/2021	02/07/2022
DAV005'	Weather Station	Davis	6250	MS191218083	02/07/2021	02/07/2022
ROS005-1'	Signal and Spectrum Analyzer	Rohde and Shwartz	FSW43	100646	10/27/2020	10/27/2021
CEN001'	DC-40GHz attenuator 20dB	Centric RF	C411-20	CEN001	01/22/2021	01/22/2022
CBLSHF204'	Cable, SMA - SMA, 9kHz -40GHz, (Cable Kit 5)	Huber + Suhner	Sucoflex 102EA	234714001	02/03/2021	02/03/2022

Software Utilized:

Name	Manufacturer	Version
None	--	--

3.3 Results:

The sample tested was found to Comply.

US - FCC

FCC SAR Test Exclusion Thresholds (FCC KDB Publication 447498 D01 v06):

For $100 \text{ MHz} \leq f \leq 6 \text{ GHz}$ and $d_{\min} \leq 50 \text{ mm}$:

$$\frac{P_{\max}}{d_{\min}^2} \cdot [Vf_{(\text{GHz})}] \leq 3.0 \quad \text{for 1-g SAR, and}$$

$$\leq 7.5 \quad \text{for 10-g extremity SAR}$$

where P_{\max} = max. power of channel in mW
 d_{\min} = minimum test separation distance in mm
 f = RF channel transmit frequency

Calculation:

For $f = 2.480 \text{ GHz}$, $P_{\max} = 1.845 \text{ mW}$ (2.66 dBm), $d_{\min} = 5 \text{ mm}$

$$\frac{P_{\max}}{d_{\min}^2} \cdot [Vf_{(\text{GHz})}] = 0.581102 \leq 7.5 \quad \text{for 10-g extremity SAR}$$

*Data was taken from Intertek report #104664086BOX-011

Evaluation Results, FCC: Complies

Canada - ISED

ISED SAR Exemption Limits (ISED RSS-102 Issue 5, March 2015):

Frequency (MHz)	Exemption Limits (mW)				
	At separation distance of ≤5 mm	At separation distance of 10 mm	At separation distance of 15 mm	At separation distance of 20 mm	At separation distance of 25 mm
≤300	71	101	132	162	193
450	52	70	88	106	123
835	17	30	42	55	67
1900	7	10	18	34	60
2450	4	7	15	30	52
3500	2	6	16	32	55
5800	1	6	15	27	41

*Data was taken from Intertek report #104664086BOX-011

Evaluation Results: Complies

The maximum peak eirp output power of 1.845 mW is within the SAR Test Exclusion Thresholds at 10 mm test separation distance. SAR test exclusion applies.

Test Personnel: <u>Vathana Ven <i>VSV</i></u>	Test Date: <u>08/16/2021</u>
Supervising/Reviewing Engineer: <u>Kouma Sinn <i>KPS</i></u>	
(Where Applicable) <u>CFR47 FCC Part 15.247</u>	Limit Applied: <u>See report section 6.3</u>
Product Standard: <u>RSS-247, RSS-102</u>	Ambient Temperature: <u>22 °C</u>
Input Voltage: <u>Battery Powered</u>	Relative Humidity: <u>12 %</u>
Pretest Verification w/ Ambient Signals or BB Source: <u>N/A</u>	Atmospheric Pressure: <u>1017 mbars</u>

Deviations, Additions, or Exclusions: None

4 Revision History

Revision Level	Date	Report Number	Prepared By	Reviewed By	Notes
0	02/16/2022	104664086BOX-011_RF Exposure	VFV <i>VFV</i>	KPS <i>KPS</i>	Original Issue