

RF Exposure Report

Project Number: 4347362 **Proposal Number:** 5533
Report Number: 4347362EMC03 **Revision Level:** 0

Client: Enovate Medical, LLC

Equipment Under Test: Bluetooth Low Energy Circuit
Model Number: P0000457


FCC ID: 2AQ9D-P0000457

Applicable Standards: 47 CFR §§ 2.1093
FCC KDB 447498 D01 General RF Exposure Guidance v06

Report issued on: 26 October 2020

Result: Exempt from SAR testing

Prepared by:

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Martin Taylor, RF/EMC Engineer

Reviewed by:

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Stephen Whalen, EMC Lab Manager

Remarks: This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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1 General Information

1.1 Client Information

Name: Enovate Medical, LLC
Address: 1152 Park Avenue
City, State, Zip, Country: Murfreesboro, TN 37129, USA

1.2 Test Laboratory

Name: SGS North America, Inc.
Address: 620 Old Peachtree Road NW, Suite 100
City, State, Zip, Country: Suwanee, GA 30024, USA

Accrediting Body: A2LA
Type of lab: Testing Laboratory
Certificate Number: 3212.01

1.3 General Information of EUT

Type of Product (PMN): Bluetooth Low Energy Circuit
Model Number (HVIN): P0000457
Firmware Version (FVIN): SoftDevice 5.0.0
Host Marketing Name (HMN): Medical Cart
Serial Number: 165

FCC ID: 2AQ9D-P0000457

Frequency Range: 2402-2480MHz
Data Modes: Bluetooth Low Energy
Antenna: External Antenna (0.7dB)

Rated Voltage: 13.5Vdc
Test Voltage: 13.5Vdc

Sample Received Date: 24 July 2018
Dates of testing: 06-11 September 2018

2 SAR Exclusion Calculations

The highest output power in conjunction with the upper frequency boundary has been used to demonstrate compliance.

The distance from the BLE antenna to the closest exterior point of the Medical Cart (host) has been used as the minimum separation distance to demonstrate compliance.

This exterior point of the host is considered an Extremity application.

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SAR test exclusion calculations

Section 4.3: General SAR test exclusion guidance / Section 4.3.1: Standalone SAR test exclusion considerations

	Input	Select Units
Max Power:	3.43	dBm
Min separation distance:	20	mm
Frequency, f:	2480	MHz

Value reference Number	Values used for Calculation	Reference number definition
v1	2 mW	[max. power of channel, including tune-up tolerance, mW] 'Rounded to nearest mW
v2	20 mm	[min. test separation distance, mm] 'Rounded to nearest mm
v3	1.575	[√f(GHz)]

- 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:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$$
 for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR,

1g Exclusion Threshold:	38.1	mW	$\leq 3 \cdot v2 / v3$
10g Exclusion Threshold:	95.3	mW	$\leq 7.5 \cdot v2 / v3$

Conclusions:	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Body applications
	The EUT max power is BELOW the threshold. SAR Testing is NOT required for Extremity applications

4 Revision History

Revision Level	Description of changes	Revision Date
Draft	--	26 October 2020
0	Initial Release	26 October 2020