

# Bone Health Technologies Inc.

## RF Exposure Exhibit

**SCOPE OF WORK**

EMC TESTING – Vibration Pack, Models: MSP-09-2007

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**RF Exposure Exhibit  
(Portable devices)**

**Report Number: 106028948MPK-002  
Project Number: G106028948**

**Report Issue Date: December 30, 2024**

**Product Designation: Vibration Pack  
Model Tested: MSP-09-2007**

to

**47CFR 2.1093  
FCC KDB 447498 D01 v06  
RSS-102 Issue 6**

for

**Bone Health Technologies Inc.**

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<b>Report No. 106028948MPK-002</b>	
<b>Equipment Under Test:</b>	Vibration Pack
<b>Model(s) Tested:</b>	MSP-09-2007
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<b>Applicable Regulation:</b>	47CFR 2.1093 RSS-102 Issue 6

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## 1.0 RF Exposure Summary

Test	Reference FCC	Reference Industry Canada	Result
Radio frequency Radiation Exposure Evaluation	47 CFR§2.1093 FCC KDB 447498 D01 v06	RSS-102 Issue 6	Complies

## 2.0 RF Exposure Limits

### 2.1 FCC Limits

According to FCC KDB 447498 D01 v06, at frequency 2450 MHz and separation distance of  $\leq 5$  mm the equation and threshold in section 4.3.1 must be applied to determine the SAR exclusion.

The SAR exclusion threshold is determined by the following formula (KDB 447498 D01 Section 4.3.1(a))

$$\left[ \frac{\text{Max. tune up Power (mW)}}{\text{Min. Test Separation Distance(mm)}} \right] * \sqrt{F(\text{GHz})} \leq 3$$

### 2.2 Industry Canada Limits

According to RSS-102 sec. 2.5.1, at frequency 2450 MHz and separation distance of  $\leq 5$  mm SAR Exemption limit is  $\leq 4$  mW.

### 3.0 Test Results (Portable Configuration)

#### 3.1 Classification

For purposes of this section, a portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user.

#### 3.2 EIRP calculations

The Vibration Pack consists of Bluetooth Low Energy.

#### 3.3 Maximum RF Power

Frequency Range (MHz)	RF Output (dBm)	Antenna Gain <sup>1</sup> (dBi)	Note
2402-2480	0.46	+7.29	Conducted power measurements were taken from Report #106028948MPK-001.

<sup>1</sup> Antenna gain was provided by Bone Health Technologies, Inc. Intertek takes no responsibility for the accuracy of the antenna gain.

### 3.4 RF Exposure Calculation

#### 3.4.1 RF Exposure calculation for FCC KDB 447498 D01 v07

Max Peak Power measured = 0.46 dBm or 1.1117 mW

No duty cycle was considered.

Therefore, the Maximum EIRP calculated is 0.46 dBm (RF Conducted Power) + 7.29dBi (Antenna Gain) = 7.75 dBm or 5.956 mW.

According to KDB 447498 D01 Section 4.3.1 the SAR test exclusion condition is based on source-based time-averaged maximum conducted output power, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The SAR exclusion threshold is determined by the following formula (KDB 447498 D01 Section 4.3.1(a))

$$\left[ \frac{\text{Max. tune up Power (mW)}}{\text{Min. Test Separation Distance (mm)}} \right] * \sqrt{F(\text{GHz})} \leq 3$$

$$[5.956\text{mW}/5\text{mm}] * [\sqrt{2.45\text{GHz}}] = 1.864$$

Which is less than 3.

#### 3.4.2 RF Exposure calculation for RSS-102 Issue 6

According to RSS-102 sec. 2.5.1, at frequency 2450 MHz and separation distance of  $\leq 15$  mm SAR Exemption limit is  $\leq 15$  mW.

Max Peak Radiated Power measured = 0.46 dBm or 1.1117 mW

No duty cycle was considered.

Therefore, the Maximum EIRP calculated is 0.46 dBm (RF Conducted Power) + 7.29 dBi (Antenna Gain) = 7.75 dBm or 5.956 mW.

Evaluation Results: The EUT meet the SAR exemption since the EIRP power is less than 15 mW at a separation distance of 15 mm. The separation distance of the radio's antenna structure to the human body is more than 15 mm.

Note: Antenna gains below 0 are considered as 0dBi.

**4.0 Document History**

Revision/ Job Number	Writer Initials	Reviewers Initials	Date	Change
1.0/G106028948	KT	ML	December 30, 2024	Original document