



## **Compliance Testing, LLC**

Previously Flom Test Lab

EMI, EMC, RF Testing Experts Since 1963

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### **Test Report**

**Prepared for: Emotiv Inc**

**Model: EPOC Flex**

**Description: EEG Headset**

**Serial Number: FLEX01**

**FCC ID: 2ADIH-FLEX01**

**To**

**FCC Part 1.1310**

**Date of Issue: September 13, 2018**

**On the behalf of the applicant:**

**Emotiv Research Pty Ltd  
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**Attention of:**

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**Poona Saber  
Project Test Engineer**

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### Test Report Revision History

Revision	Date	Revised By	Reason for Revision
1.0	August 15, 2018	Poona Saber	Original Document
2.0	September 11, 2018	Poona Saber	Revised SAR exclusion calculation



## ILAC / A2LA

Compliance Testing, LLC, has been accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer joint ISO-ILAC-IAF Communiqué dated January 2009)

The tests results contained within this test report all fall within our scope of accreditation, unless below

Please refer to <http://www.compliancetesting.com/labscope.html> for current scope of accreditation.

Testing Certificate Number: **2152.01**



**FCC Site Reg. #349717**

**IC Site Reg. #2044A-2**

**Non-accredited tests contained in this report:**

**N/A**

### **EUT Description**

**Model:** Epoc Flex

**Description:** wireless EEG system

**Firmware:** NA

**Software:** emotive pro

**Serial Number:** NA

**Additional Information:** The EPOC Flex is a 32-channel flexible EEG system consist of a controller, universal USB receiver, cap with electrode sensors on. The controller has a Bluetooth low energy radio with mini chip antenna. Frequency of operation is 2400-2483.5 MHz and unit is a battery operated with recharging capability through mini USB cable



Below is Calculation for SAR exclusion per KDB 447498.

1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances*  $\leq 50$  mm are determined by:

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

- $f(\text{GHz})$  is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation<sup>26</sup>
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

The test exclusions are applicable only when the minimum *test separation distance* is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is  $< 5$  mm, a distance of 5 mm according to 5) in section 4.1 in KDB 447498 is applied to determine SAR test exclusion.

The Maximum output power per manufacturer declaration is 4 dBm.

$$\frac{2.5 \text{ mW}}{5 \text{ mm}} \cdot \sqrt{2.402 \text{ GHz}} = 1.54$$

Since the above number is below 1-g SAR limit this device is excluded for SAR measurements

END OF TEST REPORT