

# FCC SAR Exemption per KDB 447498

## KDB 447498 D01 General RF Exposure Guidance v06 (October 23, 2015)

### 1. Declaration of RF exposure compliance for exemption from routine evaluation limits

FCC ID:	2ACKV-TL1B
Model number:	Loop
Model variant:	Ring
Manufacturer:	Thalmic Labs, Inc.
4.3.1. Standalone SAR test exclusion considerations:	<p>During normal operation, user extremities can come within 20 cm of the internal antenna and therefore product is considered as “Portable”.</p> <p>The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at Test separation distances <math>\leq 50</math> mm are determined by:</p> <p><math>[(\text{max. power of channel, including tune-up tolerance, mW}) \div (\text{min. test separation distance, mm})] \times [\sqrt{F(\text{GHz})}] \leq 3.0</math> for 1-g SAR, and <math>\leq 7.5</math> for 10-g extremity SAR, where</p> <ul style="list-style-type: none"> <li>• F(GHz) is the RF channel transmit frequency in GHz</li> <li>• Power and distance are rounded to the nearest mW and mm before calculation</li> <li>• The result is rounded to one decimal place for comparison</li> </ul> <p>The test exclusions are applicable only when the minimum test separation distance is <math>\leq 50</math> mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is <math>&lt; 5</math> mm, a distance of 5 mm according to section 4.1(f) is applied to determine SAR test exclusion</p> <p>Calculation based on the above formula:            Separation Distance = 5 mm            Conducted Output Power = -1.43 dBm, antenna gain = -7 dBi, EIRP = 0.144 mW            Frequency = 2.4 GHz            Calculation = <math>(0.144 \div 5) \times \sqrt{2.4} = 0.0446 &lt; 3</math></p> <p>The calculation is below the threshold, therefore the product exempt from the SAR test requirements</p>

### 2. Attestation

ATTESTATION: I attest that the testing was performed or supervised by me; that the test measurements were made in accordance with the above-mentioned departmental standard(s), and that the radio equipment identified in this application has been subject to all applicable test conditions specified in the departmental standards and all of the requirements of the standards have been met.

Signature:	
Date:	November 21, 2018
Name:	Andrey Adelberg, Senior Wireless/EMC Specialist