

Exposure limit according to FCC 47 CFR section 1.1307

The Gesture-detection smartband by Somatix is classified as a portable device operating in 2402 – 2480 MHz range.

Maximum measured transmitter power:

Pout conducted		Maximum antenna gain, dBi	Pout	EIRP
dBm	mW		dBm	mW
-20.76	0.0084	-2.0	-22.76	0.0053

According to KDB 447498 D01 v06 Section 4.3.1 the exemption limit for 100 MHz to 6 GHz at ≤ 50 mm distance is determined as follows:

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \times [\sqrt{f_{(GHz)}}] \leq 3.0$$

When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion. SAR test exclusion threshold for frequency 2480 MHz at minimum separation distance of 5 mm:

$$[0.0053 \text{ mW} / 5 \text{ mm}] \times (\sqrt{2.480}) = 0.00106 * 1.57 = 0.0016642 \leq 3.0$$

According to KDB 447498 D01 v06 the device is excluded from SAR evaluation.