

RF Exposure Requirements

Product Description: SimulAlert Badge

Model No.: SA-Badge

FCC ID: 2AZJB-SARFESP001

According to the KDB 447498 D01 v06 section 4.3.1, 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:

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

- The result is rounded to one decimal place for comparison

Calculation Result:

Tx frequency range: 2402-2480MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power: 7.56dBm

Tune-Up output power: 8.0dBm

RF channel transmit frequency: 2402MHz

Result: 2.0

Limit: 3.0

The exclusion thresholds is $2.0 < 3$, so the transmitter complies with the RF exposure requirements and the SAR is not required.