

RF Exposure Requirements

Product Description: Lyfe Magic

Model No.: S11

FCC ID: 2AUWI-S11

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:

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

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz

- Power and distance are rounded to the nearest mW and mm before calculation¹⁷

- The result is rounded to one decimal place for comparison

Calculation Result:

Tx frequency range: 2412 MHz

Min. test separation distance: 5 mm

Maximum Conducted Output Power: 8.76 dBm (7.516 mW)

Tune-Up output power: 9.5 dBm (8.913 mW)

RF channel transmit frequency: 2412 MHz

Result: 2.768

Limit: 3.0

Tx frequency range: 2437 MHz

Min. test separation distance: 5 mm

Maximum Conducted Output Power: 8.83 dBm (7.638 mW)

Tune-Up output power: 9.5 dBm (8.913 mW)

RF channel transmit frequency: 2437 MHz

Result: 2.783

Limit: 3.0

Tx frequency range: 2462 MHz

Min. test separation distance: 5 mm

Maximum Conducted Output Power: 8.67 dBm (7.362 mW)

Tune-Up output power: 9.5 dBm (8.913 mW)

RF channel transmit frequency: 2462 MHz

Result: 2.797

Limit: 3.0

The exclusion threshold is $2.797 < 3$, so the transmitter complies with the RF exposure requirements and the SAR is not required.