

RF Exposure Requirements

Product Description: Smart Node

Model No.: 75F-SN3200

FCC ID: 2AVZO-SN3200A

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:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{(\text{min. test separation distance, mm})^2} \cdot \sqrt{f(\text{GHz})} \right] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$

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

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

- The result is rounded to one decimal place for comparison

Calculation Result:

For SRD

Tx frequency range: 906MHz-922MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power: 4.672dBm

Tune-Up output power: 5dBm

RF channel transmit frequency: 914MHz

Result: 0.6

Limit: 3.0

The exclusion thresholds is $0.6 < 3$

For BLE

Tx frequency range: 2402MHz-2480MHz

Min. test separation distance: 5mm

Maximum Conducted Output Power: 3.57dBm

Tune-Up output power: 4.0dBm

RF channel transmit frequency: 2480MHz

Result: 0.8

Limit: 3.0

The exclusion thresholds is $0.8 < 3$

So the transmitter complies with the RF exposure requirements and the SAR is not required.