

6 Safety Human exposure

6.1 Radio Frequency Exposure Compliance

6.1.1 Electromagnetic Fields

RESULT:

Passed

Test Specification

Test standard : FCC KDB Publication 447498 v06

Maximum transmitter power:

Frequency (MHz)	Maximum peak output power (dBm)	Average Output power(mW)
2402	-3.20	0.4786
2440	-3.30	0.4677
2480	-3.57	0.4395

According to KDB 447498 D01:

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

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

for 1-g SAR and ≤ 7.5 for 10-g extremity SAR,24 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
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

Result:

$$(0.4786/5) \cdot \sqrt{2.402} = 0.148 < 3.0$$

$$(0.4677/5) \cdot \sqrt{2.440} = 0.146 < 3.0$$

$$(0.4395/5) \cdot \sqrt{2.480} = 0.138 < 3.0$$

Conclusion:

No SAR is required.