

RF EXPOSURE EVALUATION

FCC ID: 2AB7K-Z1151

According to **KDB 447498**:

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,¹⁶ 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

The test exclusions are applicable only when the minimum *test separation distance* is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum *test separation distance* is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Routine SAR evaluation refers to that specifically required by §2.1093, using measurements or computer simulation. When routine SAR evaluation is not required, transmitters with output power greater than the applicable low threshold require SAR evaluation to qualify for TCB approval.

The maximum output power for low channel is: 0.98dBm= 1.25mW

Tune up tolerance is: 0.98 ± 1 dBm

The Max. Tune up Power = 1.98dBm= 1.58mW

The calculation results= $1.58/5 \cdot \sqrt{2.402} = 0.4898 < 3$

The maximum output power for middle channel is: 1.27dBm= 1.33mW

Tune up tolerance is: 1.27 ± 1 dBm

The Max. Tune up Power = 2.27dBm= 1.69mW

The calculation results= $1.69/5 \cdot \sqrt{2.441} = 0.5279 < 3$

The maximum output power for high channel is: 1.62dBm= 1.45mW

Tune up tolerance is: 1.62 ± 1 dBm

The Max. Tune up Power = 2.62dBm= 1.83mW

The calculation results= $1.83/5 \cdot \sqrt{2.480} = 0.5755 < 3$

Test Results: **The EUT is not need to conduct SAR measurement.**

