

Applicant's name : Peerless-AV
Model name : SPK-060
FCC ID : 2AAW2SPK-060

RF Exposure

Test Requirement : FCC Part 1.1307
Evaluation Method : KDB 447498 D01 General RF Exposure Guidance v05

Requirements

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

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

$f(\text{GHz}) \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR where

1. $f(\text{GHz})$ is the RF channel transmit frequency in GHz
2. Power and distance are rounded to the nearest mW and mm before calculation
3. 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.

The Result:

For BT (Normal):

$P_t = -0.44 \text{ dBm} = 0.904 \text{ mW}$

The result is rounded to one decimal place for comparison Worse case is as below: [2480 MHz – 0.904mW output power]

$(0.904 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{2.480 \text{ (GHz)}}] = 0.285 < 3.0 \text{ for 1 - g SAR}$

For BLE

$P_t = -8.36 \text{ dBm} = 0.146 \text{ mW}$

The result is rounded to one decimal place for comparison Worse case is as below: [2402 MHz – 0.146mW output power]

$(0.146 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{2.402 \text{ (GHz)}}] = 0.045 < 3.0 \text{ for 1 - g SAR}$

Then SAR evaluation is not required

Note : For the maximum power, refer to FCC test report.