

# RF Exposure Requirements

Product Description: Powered speaker system  
Model No.: PR/01  
FCC ID: X3QPR01

According to the KDB-447498 D01 V05r02, the following RF exposure evaluation shall to demonstrate RF exposure compliance.

## **Limits**

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:

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

So,

Numeric Threshold =  $(\text{max. power of channel}) / (\text{Min Test separation Distance}) \times [\sqrt{f(\text{GHz})}]$

max. power of channel =  $(\text{Numeric Threshold}) \times (\text{Min Test separation Distance}) / [\sqrt{f(\text{GHz})}]$

Where,

f(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

## **Bluetooth (Classic mode)**

Tx frequency range: 2402~2480MHz

Device category: Bluetooth device

Maximum Conducted Output Power: 2.72dBm in highest channel (2.480 GHz)

2.72dBm logarithmic terms convert to numeric result is nearly 2mW.

General RF Exposure =  $(2\text{mW} / 5 \text{ mm}) \times \sqrt{2.480\text{GHz}} = 0.630$  ①

SAR requirement:

S = 3.0 ②

① < ②.

So the SAR report is not required.