

## RF Exposure evaluation

According to KDB 447498 D01 General RF Exposure Guidance v05

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, 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

Worse case is as below:

Bluetooth: [2402 MHz -1.57dBm (0.7mW) output power]

$(0.7\text{mW} / 5\text{mm}) \cdot [\sqrt{2.402(\text{GHz})}] = 0.22$

WiFi: [2462 MHz 13.47dBm (22.233mW) output power]

$(22.233\text{mW} / 5\text{mm}) \cdot [\sqrt{2.462(\text{GHz})}] = 6.977$

So,  $0.22 + 6.977 = 7.197 < 7.5$  for 10-g SAR

Then SAR evaluation is not required

Remark: the Bluetooth and WIFI can transmit at the same time.