RF exposure evaluation

According to 447498 D01 V06 General RF Exposure Guidance v05r02 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies

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:

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

for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, 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

Worse case for BLE as below:

[2442MHz: 5.51dBm (3.56 mW) output power]

(3.56 mW /5mm) •[√ 2.442(GHz)]=1.113 <3.0 for 1-g SAR

So, SAR evaluation for BLE is not required

Worse case for Bluetooth as below:

[2402MHz: 7.22dBm (5.27 mW) output power]

(5.27 mW /5mm) •[√ 2.402(GHz)]=1.634 <3.0 for 1-g SAR

So, SAR evaluation for Bluetooth is not required

Worse case for 2.4G Wi-Fi as below:

[2462MHz: 8.07dBm (6.41 mW) output power]

(6.41 mW /5mm) •[√ 2.462(GHz)]=2.012 <3.0 for 1-g SAR

So, SAR evaluation for 2.4G Wi-Fi is not required