RF Exposure

The equipment under test (EUT) is a Controller V2 with Bluetooth 4.2 BLE function operating in 2402-2480MHz. The EUT is powered by DC 3.7V by rechargeable battery and charged by DC 5V through adapter. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna
Modulation Type: GFSK
Antenna Gain: 0dBi
Bluetooth Version: 4.2 BLE (Single Mode)
The nominal conducted output power specified: -1.0 dBm (±3dB)
The nominal radiated output power (e.i.r.p) specified: -1.0 dBm (±3dB)

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 92.4 dBμV/m at 3m in the frequency 2402MHz
The EIRP = [(FS*D) ^2 / 30] mW = -2.83dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 92.1 dBμV/m at 3m in the frequency 2480MHz
The EIRP = [(FS*D) ^2 / 30] mW = -3.13dBm
which is within the production variation.

The maximum conducted output power specified is 2dBm= 1.585mW
The source- based time-averaging conducted output power
=1.585* Duty cycle mW <1.585 mW(Duty cycle <100%)

The SAR Exclusion Threshold Level:

P_{th}(mW) = ERP_{20cm} * (d/20cm) ^{x} (X= $-\log_{10}\left(\frac{60}{ERP_{20\ cm}\sqrt{f}}\right)$)

= 3060 * (0.5/20)$^{1.9}$ mW

= 2.72 mW

Since max. power of the source-based time-averaging conducted output power and effective radiated power (ERP) is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.