RF Exposure

The equipment under test (EUT) is a Remote control with Bluetooth 5.4 BLE function operating in 2402-2480MHz. The EUT is powered by DC 3V from battery(2*AAA). For more detail information pls. refer to the user manual.

Modulation Type: GFSK Bluetooth Version: 5.4 BLE Antenna Type: Integral antenna Antenna Gain: 3.04dBi (This information is provided by applicant, and the applicant is responsible for the authenticity of the provided information.) The nominal radiated output power (e.i.r.p) specified: -8dBm (Tolerance: +/- 2dB) The nominal conducted output power specified: -11.04dBm (Tolerance: +/- 2dB)

According to the KDB 447498 D04:

The Maximum peak radiated emission for the EUT is $88.4 \, dB\mu V/m$ at 3m in the frequency 2440MHz The EIRP = [(FS*D) ^2 / 30] mW = -6.83dBm which is within the production variation.

The Minimum peak radiated emission for the EUT is	86.2	dBµV/m at 3m in
the frequency 2480MHz		
The EIRP = [(FS*D) ^2 / 30] mW = -9.03dBm		
which is within the production variation.		

The maximum conducted output power specified is	-9.04dBm=	0.125mW
The maximum radiated output power specified is	-6dBm=	0.251mW

The SAR Exclusion Threshold Level:

$$P_{\rm th}(\rm mW) = ERP_{20cm} * (d/20cm)^{x} (X = -\log_{10}\left(\frac{60}{ERP_{20} \, cm\sqrt{f}}\right))$$
$$= 3060 * (0.5/20)^{1.9} \, \rm mW$$
$$= 2.72 \, \rm mW$$

Since max. 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.