RF Exposure

The Equipment Under Test (EUT) is a onn.Filmmaker kit with Bluetooth functions. The EUT is powered by DC 3V by battery. For more detailed features description, please refer to the user's manual.

Bluetooth Version: 5.2 BLE
Antenna Type: PCB Layout Antenna.
Antenna Gain: 2.79 dBi max.
Modulation Type: GFSK
The nominal conducted output power specified: -3.29dBm (+/-1dB)
The nominal radiated output power (e.i.r.p) specified: -0.5dBm (+/- 1dB)

According to the KDB 447498:

The maximun peak radiated emission for the EUT is 95.7dBμV/m at 3m in the frequency 2402MHz (BLE mode)
The EIRP = [(FS*D) ^2 / 30] mW = 0.47dBm
The minimum peak radiated emission for the EUT is 94.1dBμV/m at 3m in the frequency 2480MHz (BLE mode)
The EIRP = [(FS*D) ^2 / 30] mW = -1.13dBm
which is within the production variation.

The maximum radiated output power specified is 0.5dBm = 1.12 mW
The source- based time-averaging conducted output power
= 1.12 * Duty factor mW (where Duty Factor$\leqslant$1)
= 1.12mW

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.480) mW
= 9.53 mW

Since the source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing