RF Exposure

The equipment under test (EUT) is a PRJLB Glow Wand with Bluetooth 5.4 BLE function operating in 2402-2480MHz. The EUT is powered by DC 4.5V (3 x 1.5V AA batteries). For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.
Antenna Gain: -2.66dBi.
Bluetooth Version: 5.4 BLE (Single Mode)
The normal radiated output power (e.i.r.p) is: -2.0dBm (tolerance: +/- 3dB).
The normal conducted output power is 0.66dBm (tolerance: +/- 3dB).
Modulation Type: GFSK.

According to the KDB 447498 D01 V06 section 4.3:

The Maximum peak radiated emission for the EUT is 93.9dBμV/m at 3m in the frequency 2402MHz
The EIRP = [(FS*D) ^2 / 30] mW = -1.33dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 93.2dBμV/m at 3m in the frequency 2440MHz
The EIRP = [(FS*D) ^2 / 30] mW = -2.03dBm
which is within the production variation.

The maximum conducted output power specified is 3.66dBm= 2.323mW
The source- based time-averaging conducted output power
=2.323mW

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.