RF Exposure

The Equipment under Test (EUT) is a Control unit for R/C BOAT model: BY32342-24GT operating at 2.4GHz band. It is powered by DC 6.0V (4 x 1.5V AAA batteries). For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.
Antenna Gain: 2dBi.
The normal radiated output power (e.i.r.p) is: -4.0dBm (tolerance: +/- 3dB).
The normal conducted output power is -6.0dBm (tolerance: +/- 3dB).
Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 94.1dBμV/m at 3m in the frequency 2406MHz
The EIRP = [(FS*D) ^2 / 30] mW = -1.13dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 90.9 dBμV/m at 3m in the frequency 2414MHz
The EIRP = [(FS*D) ^2 / 30] mW = -4.33dBm
which is within the production variation.

The maximum conducted output power specified is -3.0dBm = 0.5mW
The source- based time-averaging conducted output power

= 0.5 * Duty Cycle mW < 0.5 mW (Duty Cycle< 100%)

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.414) mW
= 9.7 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.