RF Exposure

The Equipment under Test (EUT) is a Control unit for Remote Control RC Quadcopter model: LH-X2 operating at 2.4GHz band. It is powered by six 1.5V AA batteries. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.
Antenna Gain: 0dBi.
The normal radiated output power (e.i.r.p) is: -14.0dBm (tolerance: +/- 3dB).
The normal conducted output power is -14.0dBm (tolerance: +/- 3dB).
Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 81.5dBμV/m at 3m in the frequency 2434MHz
The EIRP = [(FS*D) ^2 / 30] mW = -13.7dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 80.0dBμV/m at 3m in the frequency 2402MHz
The EIRP = [(FS*D) ^2 / 30] mW = -15.2dBm
which is within the production variation.

The maximum conducted output power specified is -11dBm = 0.079mW
The source- based time-averaging conducted output power
= 0.079* Duty Cycle mW < 0.1mW (Duty Cycle<100%)

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.454) mW
= 9.6 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.

The duty cycle is simply the on-time divided by the period:
The duration of one cycle= 7.7101ms
Effective period of the cycle = 173.9us x 1 = 0.1739ms
DC = 0.1739ms / 7.7101ms = 0.0226 or 2.26%