RF Exposure

The Equipment under Test (EUT) is a controller unit for the DRONE DX 14.4INCH WITH CAMERA model: LS2016B operating at 2.4GHz band. It is powered by DC 9.0V (6 x 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: -18.0dBm (tolerance: +/- 3dB).
The normal conducted output power is -18.0dBm (tolerance: +/- 3dB).
Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 77.8dBμV/m at 3m in the frequency 2445MHz
The EIRP = [(FS*D) ^2 / 30] mW = -17.43dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 75.6dBμV/m at 3m in the frequency 2475MHz
The EIRP = [(FS*D) ^2 / 30] mW = -19.63dBm
which is within the production variation.

The maximum conducted output power specified is -15dBm = 0.03mW
The source- based time-averaging conducted output power
= 0.03* Duty cycle mW <0.03 mW(Duty cycle <100%)

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.474) mW
= 9.54 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 = 2.0870ms
Effective period of the cycle = 623.2μs = 0.6232ms
DC = 0.6232ms / 2.0870ms = 0.2986 or 29.86%