RF Exposure

The equipment under test (EUT) is a Drone Stunt Glow LED 5inch operating at 2.4G Band. The EUT can be powered by DC 4.5V (3 x 1.5V AAA batteries). For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.
Antenna Gain: 0dBi.
The normal peak radiated output power (e.i.r.p) is: -6.0dBm (tolerance: +/- 3dB).
The normal peak 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 89.0 dBμV/m at 3m in the frequency 2475MHz
The EIRP = [(FS*D) ^2 / 30] mW = -6.23dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 88.4dBμV/m at 3m in the frequency 2450MHz
The EIRP = [(FS*D) ^2 / 30] mW = -6.83dBm
which is within the production variation.

The maximum conducted output power specified is -3dBm= 0.501mW
The source- based time-averaging conducted output power
=0.501* Duty cycle mW <0.501 mW(Duty cycle <100%)

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.475) 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.

The duty cycle is simply the on-time divided by the period:

The duration of one cycle = 4.058ms
Effective period of the cycle = 0.2029ms
DC =0.2029ms / 4.058ms =0.0500 or 5.00%