RF Exposure

The equipment under test (EUT) is an Drone Thunderbolt Jet X2 operating at 2.4G Band. The EUT can be powered by DC 6.0V (4 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: 8.0dBm (tolerance: +/- 3dB).
The normal conducted output power is 8.0dBm (tolerance: +/- 3dB).
Modulation Type: GFSK.

According to the KDB 447498 V06:

The Maximum peak radiated emission for the EUT is 105.4dBμV/m at 3m in the frequency 2429MHz
The EIRP = [(FS*D) ^2 / 30] mW = 10.17dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 102.4dBμV/m at 3m in the frequency 2453MHz
The EIRP = [(FS*D) ^2 / 30] mW = 7.17dBm
which is within the production variation.

The maximum conducted output power specified is 11.0dBm= 12.589mW
The source- based time-averaging conducted output power
=12.589* Duty cycle mW =12.589 *0.1892<2.382mW(Duty cycle <100%)

The duty cycle is simply the on-time divided by the period:
The duration of one cycle = 7.5072ms
Effective period of the cycle = 1420.3μs x1 = 1.4203ms
DC =1.4203ms / 7.5072ms =0.1892 or 18.92%

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.453) mW
= 9.58 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.