RF Exposure

The Equipment under Test (EUT) is a Control unit for Drone DX 2inch Nano model: LS2016A operating at 2.4GHz band. It is powered by DC 3.0V (2 x 1.5V AAA 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 81.6dBμV/m at 3m in the frequency 2405MHz
The EIRP = [(FS*D) ^2 / 30] mW = -13.63dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 78.5dBμV/m at 3m in the frequency 2475MHz
The EIRP = [(FS*D) ^2 / 30] mW = -16.73dBm
which is within the production variation.

The maximum conducted output power specified is -11.0dBm = 0.08mW
The source- based time-averaging conducted output power
= 0.08* 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 (2.475) mW
= 9.5mW
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 duration of one cycle = 3.7ms
Effective period of the cycle = 0.400ms x 1=0.4ms
DC = 0.4ms / 3.7ms = 0.1081 or 10.81%