RF Exposure

The equipment under test (EUT) is a Drone 7inch Flying Car 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: 6.0dBm (tolerance: +/- 3dB).
The normal 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 103.6dBμV/m at 3m in the frequency 2465MHz
The EIRP = [(FS*D) ^2 / 30] mW = 8.37dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 101.4dBμV/m at 3m in the frequency 2429MHz
The EIRP = [(FS*D) ^2 / 30] mW = 6.17dBm
which is within the production variation.

The maximum conducted output power specified is 9.0dBm= 7.943mW
The source- based time-averaging conducted output power
=7.943* Duty cycle mW <7.943 mW(Duty cycle <100%)

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.465) mW
= 9.55 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 = 20.0000ms
Effective period of the cycle = 579.7μs x1 = 0.5797ms
DC =0.5797ms / 20.0000ms =0.0290 or 2.90%