RF Exposure

The equipment under test (EUT) is an Angry Birds Squawkers operating at 2.4G Band. The EUT can be powered by DC4.5V (3 x 1.5V AG13 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: -19.0dBm (tolerance: +/- 3dB).
The normal conducted output power is -19.0dBm (tolerance: +/- 3dB).
Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 76.3 dBμV/m at 3m in the frequency 2430MHz
The EIRP = [(FS*D) ^2 / 30] mW = -18.93dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 75.1dBμV/m at 3m in the frequency 2445MHz
The EIRP = [(FS*D) ^2 / 30] mW = -20.13dBm
which is within the production variation.

The maximum conducted output power specified is -16.0dBm=0.025mW
The source- based time-averaging conducted output power
=0.025* Duty cycle mW <0.025 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 = 32.029ms
Effective period of the cycle = 289.9μs x 2 = 579.8μs = 0.5798ms
DC =0.5798ms / 32.029ms =0.0181 or 1.81%