RF Exposure

The equipment under test (EUT) is a control unit operating at 2.4G Band. The EUT can be powered by DC6.0V (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: -15.0dBm (tolerance: +/- 3dB).
The normal conducted output power is -15.0dBm (tolerance: +/- 3dB).
Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 80.1dBμV/m at 3m in the frequency 2408MHz
The EIRP = [(FS*D) ^2 / 30] mW = -15.13dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 79.5dBμV/m at 3m in the frequency 2469MHz
The EIRP = [(FS*D) ^2 / 30] mW = -15.73dBm
which is within the production variation.

The maximum conducted output power specified is -12.0dBm = 0.06mW
The source- based time-averaging conducted output power
= 0.06* Duty cycle mW <0.06mW(Duty cycle <100%)

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.469) 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 = 8.8261ms
Effective period of the cycle = 1.6522ms
DC =1.6522ms / 8.8261ms =0.1872 or 18.72%