RF Exposure

The Equipment under Test (EUT) is a Universal TV Remote Control unit, model: A30-XX operating at 914.78MHz. The EUT is powered by two 1.5V "AA" batteries. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.
Antenna Gain: 0dBi.
The nominal conducted output power specified: -8.0dBm +/-3dB.
The nominal radiated output power (e.r.p) specified: -10.15dBm (+/- 3dB)

Modulation Type: GFSK

According to the KDB 447498:

The worst-case radiated emission for the EUT is 87.2dBμV/m
at 3m in the frequency 914.780MHz
The EIRP = [(FS*D) ^2 / 30] mW= -8.0dBm
The ERP = EIRP – 2.15 = -10.15 dBm
which is within the production variation.

The maximun conducted output power specified is -5.0dBm = 0.32mW
The source- based time-averaging conducted output power
= 0.32 * Duty Cycle mW= 0.22 mW

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (0.91478) mW
= 15.68 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.

Transmitter Duty Cycle Calculation
The duty cycle is simply the on-time divided by the period:
The duration of one cycle = 44.0ms
Effective period of the cycle = 29.6ms
DC = 29.6ms / 44.0ms = 0.6727 or 67.27%