RF Exposure

The equipment under test (EUT) is a 1:14 R/C Deluxe Version - Ferrari F14T operating at 2.4G Band. The EUT can be powered by DC 3.2V (1 x 3.2V rechargeable battery). Once use the USB cable charging to the EUT, the wireless function will be disabled. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.
Antenna Gain: 0dBi.
The normal peak radiated output power (e.i.r.p) is: 3.0dBm (tolerance: +/- 3dB).
The normal peak conducted output power is 3.0dBm (tolerance: +/- 3dB).
Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 100.8dBμV/m at 3m in the frequency 2410MHz
The EIRP = [(FS*D) ^2 / 30] mW = 5.57dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 97.1dBμV/m at 3m in the frequency 2475MHz
The EIRP = [(FS*D) ^2 / 30] mW = 1.87dBm
which is within the production variation.

The maximum conducted output power specified is 6dBm= 3.981mW
The source- based time-averaging conducted output power
=3.981* Duty cycle mW <3.981 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 = 32.1014ms
Effective period of the cycle = 0.4348ms x 2 = 0.8696ms
DC =0.8696ms / 32.1014ms =0.0271 or 2.71%