RF Exposure

The equipment under test (EUT) is a Toy RC Sports Car Luxury Italia 1:16 with Virtual Reality Smartphone Viewer Composite operating at 2.4G Band. The EUT can be powered by DC9.0V (1 x 9.0V 6F22 battery). 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: -13.0dBm (tolerance: +/- 3dB).
The normal conducted output power is -13.0dBm (tolerance: +/- 3dB).
Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 81.4dBμV/m at 3m in the frequency 2477MHz
The EIRP = [(FS*D) ^2 / 30] mW = -13.83dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 81.2dBμV/m at 3m in the frequency 2407MHz
The EIRP = [(FS*D) ^2 / 30] mW = -14.03dBm
which is within the production variation.

The maximum conducted output power specified is -10dBm =0.1 mW
The source- based time-averaging conducted output power
= 0.1* Duty cycle mW <0.1 mW(Duty cycle <100%)

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.477) 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 = 10.1304ms
Effective period of the cycle =1.2609ms
DC =1.2609ms / 10.1304ms =0.1245 or 12.45%