RF Exposure

The equipment under test (EUT) is an 1:14 Elite Race Cars (M-Sport Ford Puma #19 Loeb) operating at 2.4G Band. The EUT can be powered by DC 9.6V (1 x 9.6V rechargeable battery). And the RF function will be shut down and it can't transmit RF signals while charging. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.
Antenna Gain: 0dBi.
Modulation Type: GFSK.
The normal radiated output power (e.i.r.p) is: -23.0dBm (tolerance: +/- 3dB).
The normal conducted output power is -23.0dBm (tolerance: +/- 3dB).

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 71.9dBμV/m at 3m in the frequency 2440MHz
The EIRP = [(FS*D) ^2 / 30] mW = -23.33dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 70.1dBμV/m at 3m in the frequency 2410MHz
The EIRP = [(FS*D) ^2 / 30] mW = -25.13dBm
which is within the production variation.

The maximum conducted output power specified is -20.0dBm= 0.010mW
The source- based time-averaging conducted output power
=0.010mW

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.