## RF Exposure

The equipment under test (EUT) is a Toy RC Turnator 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: 5.0dBm (tolerance: +/- 3dB).
The normal conducted output power is 5.0dBm (tolerance: +/- 3dB).
Modulation Type: GFSK.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 101.9dBμV/m at 3m in the frequency 2440MHz
The EIRP = [(FS*D) ^2 / 30] mW = 6.67dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 101.3dBμV/m at 3m in the frequency 2405MHz
The EIRP = [(FS*D) ^2 / 30] mW = 6.07dBm
which is within the production variation.

The maximum conducted output power specified is 8dBm =6.3 mW
The source- based time-averaging conducted output power
= 6.3* Duty cycle mW <6.3 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 = 536.23μs
Effective period of the cycle = 150.72μs
DC =150.72μs / 536.23μs =0.2811 or 28.11%