

Analysis Report

The Equipment Under Test (EUT), is a portable 2.4GHz Transceiver (Controller Unit) for a dinosaur. The EUT is powered by 1 x 3.7V rechargeable Li-ion battery.

After switch on the EUT, model: FLY56, the dinosaur will be moved forward or backward, turned left or right or the hand or mouth moving based on the joystick control and the pressed switches in the controller.

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal rated field strength is 97.0 dB μ V/m at 3m

Maximum allowed production tolerance: +/- 3dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 100.0dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS * D)^2 * 1000 / 30] = 3.00mW$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 3.00mW.

The SAR Exclusion Threshold Level:

= $3.0 * (\text{min. test separation distance, mm}) / \text{sqrt}(\text{freq. in GHz})$

= $3.0 * 5 / \text{sqrt}(2.475) \text{ mW}$

= 9.53mW

Since the above conducted output power is well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.