

Analysis Report

The Equipment Under Test (EUT), is a portable 2.4GHz Transceiver (Dinosaur Unit) for a controller. The EUT is powered by 1 x 6.6V 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 average field strength is 59.8 dB μ V/m at 3m

Maximum allowed field strength of production tolerance: +/- 3dB

According to the KDB 447498:

Based on the Maximum allowed average field strength of production tolerance was 62.8dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.001\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain
So;

Conducted Power = 0.001mW.

The SAR Exclusion Threshold Level:

$$\begin{aligned} &= 3.0 * (\text{min. test separation distance, mm}) / \text{sqrt}(\text{freq. in GHz}) \\ &= 3.0 * 5 / \text{sqrt}(2.475) \text{ mW} \\ &= 9.53\text{mW} \end{aligned}$$

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.