

Analysis Report

The Equipment Under Test (EUT) is a 2.4GHz transceiver for a RC Plane. The EUT is powered by a 3.7V rechargeable battery pack. The operating frequency of the EUT is 2408MHz, 2424MHz, 2442MHz and 2460MHz. After pairing with the controller, the plane can be controlled to fly forward, upward/downward, turn left/right directions and any motions. Also, the corresponding controller has a charging circuitry, the EUT can be charged by the controller.

Antenna Type: Internal antenna

Antenna Gain: 0dBi

Nominal rated field strength: 91.5 dB μ V/m at 3m

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

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 94.5dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30]$ = 0.846mW

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.846mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \sqrt{2.460}$ mW

= 9.56 mW

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.