

Analysis Report

The Equipment Under Test (EUT) is a portable 2.4GHz Transceiver (Car Unit) operating at 2412MHz only for a RC controller operating at 2412, 2420, 2427, 2439, 2442, 2450, 2457 and 2468 MHz. The EUT is powered by 1 X 7.4V rechargeable battery. After switch on the EUT and paired with RC Controller, the RC Car can be controlled to fly forward, backward, turning left/ right direction by the controller.

Antenna Type: Internal integral antenna

Antenna Gain: 0dBi

Nominal rated field strength: 87.6dB 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 90.6dB μ V/m at 3m in frequency 2.4GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.344\text{mW}$

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

Conducted Power = 0.344mW.

The SAR Exclusion Threshold Level:

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

= $3.0 \cdot 5 / \text{sqrt}(2.412)$ mW

= 9.66 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.